Friday, January 22, 2010

REQUEST NUMBER: 10-1393

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1393
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/22/2010
TURNAROUND/REPORT DUE: 2/21/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	EPA:906.0	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:AM-241	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:ISOPU	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:ISOU	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	

Final Page of REQUEST NUMBER 10-1393

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1393C

REQUEST NUMBER: 10-1393

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/21/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7869	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7869	1	POLY	H3	Ice	R
RE15-10-7874	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7874	1	POLY	H3	Ice	R
RE15-10-7871	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7871	1	POLY	H3	Ice	R
RE15-10-7872	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7872	1	POLY	H3	Ice	R
RE15-10-7870	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7870	1	POLY	H3	Ice	R
RE15-10-7873	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7873	1	POLY	H3	Ice	R
RE15-10-7911	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7911	1	POLY	H3	Ice	R
RE15-10-7908	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7908	1	POLY	H3	Ice	R
RE15-10-7912	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7912	1	POLY	H3	Ice	R
RE15-10-7906	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7906	1	POLY	H3	Ice	R
RE15-10-7905	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7905	1	POLY	H3	Ice	R
RE15-10-7907	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7907	1	POLY	H3	Ice	R
RE15-10-7913	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7913	1	POLY	H3	Ice	R
RE15-10-7909	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1393C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7909	1	POLY	H3	Ice	R
RE15-10-7910	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7910	1	POLY	H3	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		1/22/10	3:00				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7869 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1042	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610704	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark brown silty sand, some clay, wood

FR RE15-10-8074

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-58, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha 16 dpm
Beta/Gamma 3000 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10 0942	(Printed Name) Sherri Sherwood	1/20/10 942
(Signature) Jay R. Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7870 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		17m ~~1056~~ 1111	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	1/19/10 ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610704	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01.11.10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray Tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-58 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 dpm
Beta/Gamma ≤ 2250 dpm

PID Ambient 0.0 Reading ≤ 0.0 ppm

COLLECTED BY (PRINT) THMcFarland

REVIEWED BY (PRINT) Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10 9:42	(Printed Name)	1/20/10 1020
(Signature) Jim R. Marin		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7871 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	OBT3	Anh
TIME COLLECTED (HH:MM)		1300	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610705	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-75, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha = 27 **dpm**
Beta/Gamma = 3210 **dpm**

PID Ambient Reading 0.0 = 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARK	1/20/10 9:42	(Printed Name) Sherri Sherwood	1/20/10 9:42
(Signature) Jan R. Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7872 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		7am 1/19/10 ~~0120~~ 1320	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610705	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY LL RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: greyish brown tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 86-75 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha < 27 dpm
Beta/Gamma < 238 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R. Marin	1/20/10 09:42	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/20/10 9:42
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7873 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1538	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610706	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-45, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 33 dpm
Beta/Gamma ≤ 3520 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R. Marin	1/20/10 09:42	(Printed Name) (Signature)	1/20/10 1010
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7874 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		73m 1/19/10 ~~1515~~ 1550	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610706	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-45 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 33 dpm
Beta/Gamma ≤ 2680 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10 09:42	(Printed Name)	1/20/10 1010
(Signature) Jack R. Marin		(Signature) Joe Valez	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7905 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		0859	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610722	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~TOAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt, rocks

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-73, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha 16 dpm
Beta/Gamma 3840 dpm

PID ~~Ambient Reading~~ 0.0 ppm

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) Nicholas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	01/20/10 09:42	(Printed Name)	1/20/10 1010
(Signature) Jan R. Marin		(Signature)	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7906 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0923	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610722	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.8	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brownish gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-73, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 28 dpm
Beta/Gamma = 2590 dpm

PID ~~Ambient Reading~~ 0.0 = 0.0 ppm

COLLECTED BY (PRINT) TLMcFarlane **REVIEWED BY (PRINT)** Nicholas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10	(Printed Name)	1/20/10
(Signature) Jan R Marin	0 9:42	(Signature)	10:40
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7907 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	OBT3	Alh
TIME COLLECTED (HH:MM)		0945	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610723	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1GAL~~ POLY 1Liter RS 01.11.10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some clay, roots

FD RE15-10-8053

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-72, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha 44 dpm
Beta/Gamma 3760 dpm

PID ~~Ambient~~ ~~Binding~~ 0.0 / 0.0 ppm

COLLECTED BY (PRINT) **REVIEWED BY (PRINT)** Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10 09:43	(Printed Name)	1/20/10 1010
(Signature) Jen R. Marin		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7908 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0958	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	↓
LOCATION ID:	15-610723	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1/19/10 ~~2~~ 2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1 Liter RS 01.11.10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-72, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 6710 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) T L McFarlang

REVIEWED BY (PRINT) Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10 09:43	(Printed Name) Sherri Sherwood	1/20/10 9:43
(Signature) Jan R. Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7909 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	OBT3	AHH
TIME COLLECTED (HH:MM)		1020	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610724	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1 Liter RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark brown wet silty sand, wood

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-71, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha < 38 **dpm**
Beta/Gamma < 5730 **dpm**

PID ~~Ambient Reading~~ 0.0 / 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** JLMcFarlane

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10 09:47	(Printed Name) Sherri Sherwood	1/20/10 942
(Signature) Jack Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7910 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1030	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610724	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1 Liter RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8 b-71, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 dpm
Beta/Gamma ≤ 3730 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) Nicholas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R. Marin	1/20/10 9:43	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/20/10 943
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7911 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	OBT3	[illegible]
TIME COLLECTED (HH:MM)		1120	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610725	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	6	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1 Liter RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand, some rocks, sticks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-59 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha 55 dpm
Beta/Gamma 8130 dpm

PID Ambient 0.0 Reading 0.0 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10 9:43	(Printed Name)	1/20/10 1010
(Signature) Jan R. Marin		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7912 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1130	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610725	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1 Liter RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff and orange clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b - 59

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 16 dpm
Beta/Gamma = 4810 dpm

PID Ambient 0.0 / Reading 0.0 = ppm

COLLECTED BY (PRINT) TLM c Forland

REVIEWED BY (PRINT) Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10 9:43	(Printed Name)	1/20/10 1010
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7913 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/19/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1142	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610726	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1 Liter RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Orange clay, wood

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-60, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 2030 **dpm**

PID Ambient 0.0 / Reading 0.0 = **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Nicholas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/20/10	(Printed Name) Sherri Sherwood	1/20/10
(Signature) Jer R Marin	9:44	(Signature) Sherri Sherwood	944
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1393 VALIDATION DATE: 03/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: John A. Bailey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec results that were rejected by the laboratory due to high counting uncertainty, interference, or low abundance were qualified R,R5a.
2. The DUP RERs were >1.0 for U-233/234 and U-238. All associated sample results were detects and, thus, were qualified J,R10.
3. An MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria and, thus, no sample results were qualified.
4. It should be noted that the parent samples for the QC analyses for Am-241, Isotopic U, and Isotopic Pu were LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 3/4/10

VALIDATOR'S SIGNATURE: John Bailey DATE: 03/03/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☒	☐	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7869
Sample ID: 245395001
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 24.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0107		0.0213	+/-0.00782	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00711		0.0196	+/-0.00293	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.0201		0.0224	+/-0.00499	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		7.18	J,R10	0.173	+/-0.567	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.933		0.108	+/-0.106	0.100	pCi/g						
Uranium-238		43.7	J,R10	0.100	+/-3.26	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0635		0.334	+/-0.107	0.200	pCi/g		MXR1	02/02/10	0710	944966	4
Bismuth-211	UI	3.83	R,R5a	0.286	+/-0.301		pCi/g						
Bismuth-214		1.01		0.107	+/-0.0879	0.200	pCi/g						
Cadmium-109	UI	4.86	R,R5a	1.53	+/-0.714		pCi/g						
Cerium-139	U	0.0223		0.0495	+/-0.0154	0.050	pCi/g						
Cesium-134	UI	0.127	R,R5a	0.0894	+/-0.0308	0.100	pCi/g						
Cesium-137	U	0.00459		0.0596	+/-0.0178	0.100	pCi/g						
Cobalt-60	U	-0.0111		0.0512	+/-0.0165	0.100	pCi/g						
Europium-152	U	-0.0273		0.145	+/-0.0419	0.200	pCi/g						
Lanthanum-140	U	-0.037		0.0994	+/-0.0327		pCi/g						
Lead-212		1.69		0.0883	+/-0.113	0.100	pCi/g						
Lead-214		1.33		0.0998	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0604		0.0605	+/-0.0264	0.100	pCi/g						
Potassium-40		28.3		0.424	+/-1.47	1.00	pCi/g						
Radium-223	U	-0.602		1.02	+/-0.375		pCi/g						
Radium-224	UI	3.92	R,R5a	1.01	+/-0.503		pCi/g						
Radium-226		1.01		0.107	+/-0.0879		pCi/g						
Radium-228		1.68		0.192	+/-0.171	0.500	pCi/g						
Ruthenium-106	U	0.0265		0.454	+/-0.135	0.800	pCi/g						
Sodium-22	U	-0.0228		0.0599	+/-0.0194	0.080	pCi/g						
Strontium-85	U	0.0212		0.0564	+/-0.018		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7869
Sample ID: 245395001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.578	0.0494	+/-0.047	0.080	pCi/g						
Thorium-227	U	0.303	0.626	+/-0.202		pCi/g						
Thorium-231	U	-0.602	1.02	+/-0.375		pCi/g						
Thorium-234		39.6	2.53	+/-3.79	2.00	pCi/g						
Tin-113	U	0.00794	0.0711	+/-0.0202	0.100	pCi/g						
Uranium-235		0.820	0.337	+/-0.176	0.500	pCi/g						
Yttrium-88	U	0.00634	0.0451	+/-0.0131	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		8070	462	+/-660	250	pCi/L		KXK2	02/08/10	1352	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	79.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	61.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7874
Sample ID: 245395002
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 4.12%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00182		0.0264	+/-0.00557	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0106		0.0195	+/-0.00359	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.0106		0.0223	+/-0.00358	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.76	J,R10	0.125	+/-0.151	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.150		0.0776	+/-0.031	0.100	pCi/g						
Uranium-238		7.18	J,R10	0.0725	+/-0.539	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.109		0.314	+/-0.0947	0.200	pCi/g		MXR1	02/02/10	0720	944966	4
Bismuth-211	UI	3.53	R,R5a	0.260	+/-0.194		pCi/g						
Bismuth-214		1.04		0.0889	+/-0.0742	0.200	pCi/g						
Cadmium-109	UI	2.89	R,R5a	1.62	+/-0.524		pCi/g						
Cerium-139	U	0.00647		0.0425	+/-0.0118	0.050	pCi/g						
Cesium-134	UI	0.097	R,R5a	0.0731	+/-0.029	0.100	pCi/g						
Cesium-137	U	0.049		0.0567	+/-0.0154	0.100	pCi/g						
Cobalt-60	U	0.00409		0.0512	+/-0.0154	0.100	pCi/g						
Europium-152	U	0.0203		0.124	+/-0.0452	0.200	pCi/g						
Lanthanum-140	U	-0.0202		0.0898	+/-0.0281		pCi/g						
Lead-212		1.45		0.0761	+/-0.0677	0.100	pCi/g						
Lead-214		1.23		0.092	+/-0.0747	0.100	pCi/g						
Mercury-203	U	0.00679		0.0563	+/-0.0164	0.100	pCi/g						
Potassium-40		34.7		0.355	+/-1.50	1.00	pCi/g						
Radium-223	U	-0.692		0.849	+/-0.276		pCi/g						
Radium-224	UI	4.07	R,R5a	0.864	+/-0.460		pCi/g						
Radium-226		1.04		0.0889	+/-0.0742		pCi/g						
Radium-228		1.58		0.143	+/-0.144	0.500	pCi/g						
Ruthenium-106	U	0.0545		0.391	+/-0.117	0.800	pCi/g						
Sodium-22	U	-0.0219		0.055	+/-0.0174	0.080	pCi/g						
Strontium-85	UI	0.0872	R,R5a	0.0554	+/-0.0163		pCi/g						
Thallium-208		0.471		0.0438	+/-0.0383	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7874
Sample ID: 245395002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.252	0.481	+/-0.147		pCi/g						
Thorium-231	U	-0.692	0.849	+/-0.276		pCi/g						
Thorium-234		8.63	2.31	+/-1.30	2.00	pCi/g						
Tin-113	U	0.0143	0.0554	+/-0.0156	0.100	pCi/g						
Uranium-235	U	0.190	0.303	+/-0.106	0.500	pCi/g						
Yttrium-88	U	-0.0153	0.0321	+/-0.0111	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		31500	462	+/-2280	250	pCi/L		KXK2	02/08/10	1408	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	68.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	81.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7871
Sample ID: 245395003
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 10.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241		0.0314		0.0226	+/-0.00955	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00266		0.022	+/-0.00189	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240	U	0.0173		0.0252	+/-0.00488	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		6.10	J,R10	0.171	+/-0.486	0.100	pCi/g		JXD2	02/08/10	1204	944996	4
Uranium-235/236		0.799		0.106	+/-0.0946	0.100	pCi/g						
Uranium-238		42.1	J,R10	0.0994	+/-3.14	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.357		0.383	+/-0.114	0.200	pCi/g		MXR1	02/02/10	0721	944966	5
Bismuth-211	UI	2.55	R,R5a	0.301	+/-0.216		pCi/g						
Bismuth-214		0.683		0.0996	+/-0.0688	0.200	pCi/g						
Cadmium-109	U	0.228		2.17	+/-0.940		pCi/g						
Cerium-139	U	-0.0165		0.0542	+/-0.0157	0.050	pCi/g						
Cesium-134	U	0.0712		0.0798	+/-0.0303	0.100	pCi/g						
Cesium-137		0.0645		0.0534	+/-0.0228	0.100	pCi/g						
Cobalt-60	U	-0.00374		0.047	+/-0.0142	0.100	pCi/g						
Europium-152	U	-0.00775		0.155	+/-0.0751	0.200	pCi/g						
Lanthanum-140	U	0.0253		0.0964	+/-0.0309		pCi/g						
Lead-212		1.11		0.0908	+/-0.0595	0.100	pCi/g						
Lead-214		0.885		0.105	+/-0.0786	0.100	pCi/g						
Mercury-203	U	0.00913		0.0661	+/-0.0182	0.100	pCi/g						
Potassium-40		24.5		0.397	+/-1.14	1.00	pCi/g						
Radium-223	U	-0.525		1.01	+/-0.296		pCi/g						
Radium-224	UI	2.70	R,R5a	1.03	+/-0.538		pCi/g						
Radium-226		0.683		0.0996	+/-0.0688		pCi/g						
Radium-228		0.985		0.186	+/-0.140	0.500	pCi/g						
Ruthenium-106	U	-0.102		0.451	+/-0.136	0.800	pCi/g						
Sodium-22	U	-0.0286		0.058	+/-0.0185	0.080	pCi/g						
Strontium-85	UI	0.0772	R,R5a	0.0631	+/-0.0164		pCi/g						
Thallium-208		0.411		0.0498	+/-0.0353	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7871 Project: LANL01004
Sample ID: 245395003 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.285	0.660	+/-0.188		pCi/g						
Thorium-231	U	-0.525	1.01	+/-0.296		pCi/g						
Thorium-234		44.0	2.94	+/-4.23	2.00	pCi/g						
Tin-113	U	-0.01	0.0706	+/-0.0203	0.100	pCi/g						
Uranium-235		0.550	0.393	+/-0.139	0.500	pCi/g						
Yttrium-88	U	0.00809	0.0417	+/-0.0119	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		27100	461	+/-1980	250	pCi/L		KXK2	02/08/10	1425	948398	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	75.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	70.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	64.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7872
Sample ID: 245395004
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 11.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00276		0.026	+/-0.00206	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0152		0.0193	+/-0.00427	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.00117		0.022	+/-0.00202	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.43	J,R10	0.122	+/-0.126	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.117		0.076	+/-0.0253	0.100	pCi/g						
Uranium-238		5.04	J,R10	0.071	+/-0.385	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.122		0.198	+/-0.0605	0.200	pCi/g		MXR1	02/02/10	0823	944966	4
Bismuth-211	UI	3.62	R,R5a	0.303	+/-0.271		pCi/g						
Bismuth-214		1.13		0.105	+/-0.0958	0.200	pCi/g						
Cadmium-109	U	1.43		1.50	+/-0.482		pCi/g						
Cerium-139	U	-0.015		0.046	+/-0.0142	0.050	pCi/g						
Cesium-134	UI	0.111	R,R5a	0.0856	+/-0.0265	0.100	pCi/g						
Cesium-137	U	-0.0176		0.0566	+/-0.0171	0.100	pCi/g						
Cobalt-60	U	0.00592		0.0651	+/-0.0198	0.100	pCi/g						
Europium-152	U	-0.0787		0.135	+/-0.0421	0.200	pCi/g						
Lanthanum-140	U	0.0301		0.0946	+/-0.029		pCi/g						
Lead-212		1.66		0.0811	+/-0.103	0.100	pCi/g						
Lead-214		1.26		0.103	+/-0.0999	0.100	pCi/g						
Mercury-203	U	0.0135		0.0658	+/-0.0187	0.100	pCi/g						
Potassium-40		37.6		0.437	+/-1.88	1.00	pCi/g						
Radium-223	U	-0.00291		0.926	+/-0.308		pCi/g						
Radium-224	UI	4.14	R,R5a	0.923	+/-0.680		pCi/g						
Radium-226		1.13		0.105	+/-0.0958		pCi/g						
Radium-228		1.63		0.193	+/-0.178	0.500	pCi/g						
Ruthenium-106	U	0.0679		0.472	+/-0.142	0.800	pCi/g						
Sodium-22	U	-0.00276		0.067	+/-0.0208	0.080	pCi/g						
Strontium-85	UI	0.085	R,R5a	0.0662	+/-0.0179		pCi/g						
Thallium-208		0.560		0.0503	+/-0.0463	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7872
Sample ID: 245395004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0809	0.544	+/-0.158		pCi/g						
Thorium-231	U	-0.00291	0.926	+/-0.308		pCi/g						
Thorium-234		6.17	1.68	+/-1.01	2.00	pCi/g						
Tin-113	U	0.0217	0.0704	+/-0.0202	0.100	pCi/g						
Uranium-235	U	0.289	0.336	+/-0.115	0.500	pCi/g						
Yttrium-88	U	0.0253	0.0532	+/-0.0139	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		8610	462	+/-697	250	pCi/L		KXK2	02/08/10	1441	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	73.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	86.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7870
Sample ID: 245395005
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 13.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00249		0.0244	+/-0.004	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0078		0.0184	+/-0.00461	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.0111		0.0211	+/-0.00357	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.11	J,R10	0.119	+/-0.103	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.0952		0.0741	+/-0.0223	0.100	pCi/g						
Uranium-238		3.80	J,R10	0.0692	+/-0.295	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.00153		0.0808	+/-0.0245	0.200	pCi/g		MXR1	02/02/10	0824	944966	4
Bismuth-211	UI	3.78	R,R5a	0.309	+/-0.286		pCi/g						
Bismuth-214		1.21		0.119	+/-0.115	0.200	pCi/g						
Cadmium-109	UI	2.83	R,R5a	0.817	+/-0.327		pCi/g						
Cerium-139	U	-0.00804		0.0395	+/-0.0112	0.050	pCi/g						
Cesium-134	UI	0.131	R,R5a	0.120	+/-0.0563	0.100	pCi/g						
Cesium-137	U	-0.0107		0.0693	+/-0.0214	0.100	pCi/g						
Cobalt-60	U	0.020		0.0799	+/-0.0223	0.100	pCi/g						
Europium-152	U	0.0193		0.165	+/-0.0488	0.200	pCi/g						
Lanthanum-140	U	-0.0994		0.165	+/-0.0584		pCi/g						
Lead-212		1.71		0.0795	+/-0.100	0.100	pCi/g						
Lead-214		1.32		0.108	+/-0.105	0.100	pCi/g						
Mercury-203	U	0.0224		0.0572	+/-0.0178	0.100	pCi/g						
Potassium-40		34.7		0.746	+/-1.88	1.00	pCi/g						
Radium-223	U	-0.252		0.990	+/-0.345		pCi/g						
Radium-224	UI	4.80	R,R5a	0.907	+/-0.736		pCi/g						
Radium-226		1.21		0.119	+/-0.115		pCi/g						
Radium-228		2.01		0.216	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	0.184		0.642	+/-0.184	0.800	pCi/g						
Sodium-22	U	0.00553		0.0925	+/-0.0282	0.080	pCi/g						
Strontium-85	U	0.021		0.0571	+/-0.0177		pCi/g						
Thallium-208		0.550		0.0591	+/-0.0542	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7870
Sample ID: 245395005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0115	0.586	+/-0.170		pCi/g						
Thorium-231	U	-0.252	0.990	+/-0.345		pCi/g						
Thorium-234		3.08	0.750	+/-0.560	2.00	pCi/g						
Tin-113	U	-0.0237	0.0706	+/-0.0226	0.100	pCi/g						
Uranium-235	U	0.0585	0.280	+/-0.0839	0.500	pCi/g						
Yttrium-88	U	0.0187	0.0749	+/-0.0208	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		7540	461	+/-623	250	pCi/L		KXK2	02/08/10	1457	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	75.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	89.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7873
Sample ID: 245395006
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 12.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00412		0.0253	+/-0.00441	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00142		0.0234	+/-0.00142	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240	U	0.0156		0.0268	+/-0.00518	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		5.39	J,R10	0.801	+/-0.642	0.100	pCi/g		AXD2	02/19/10	0756	954840	4
Uranium-235/236		1.11		0.521	+/-0.245	0.100	pCi/g						
Uranium-238		36.8	J,R10	0.552	+/-3.34	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.271		0.476	+/-0.144	0.200	pCi/g		MXR1	02/02/10	0824	944966	9
Bismuth-211	UI	3.09	R,R5a	0.361	+/-0.228		pCi/g						
Bismuth-214		1.05		0.124	+/-0.0838	0.200	pCi/g						
Cadmium-109	UI	2.91	R,R5a	1.94	+/-0.602		pCi/g						
Cerium-139	U	-0.0293		0.0561	+/-0.0167	0.050	pCi/g						
Cesium-134	U	0.0578		0.0958	+/-0.0276	0.100	pCi/g						
Cesium-137		0.118		0.070	+/-0.0461	0.100	pCi/g						
Cobalt-60	U	-0.019		0.0595	+/-0.0193	0.100	pCi/g						
Europium-152	U	-0.103		0.166	+/-0.0583	0.200	pCi/g						
Lanthanum-140	U	-0.00147		0.143	+/-0.0427		pCi/g						
Lead-212		1.42		0.106	+/-0.0734	0.100	pCi/g						
Lead-214		1.08		0.118	+/-0.0842	0.100	pCi/g						
Mercury-203	U	0.0266		0.0753	+/-0.0236	0.100	pCi/g						
Potassium-40		27.1		0.550	+/-1.34	1.00	pCi/g						
Radium-223	U	0.0279		1.15	+/-0.375		pCi/g						
Radium-224	UI	3.62	R,R5a	1.20	+/-0.572		pCi/g						
Radium-226		1.05		0.124	+/-0.0838		pCi/g						
Radium-228		1.45		0.200	+/-0.156	0.500	pCi/g						
Ruthenium-106	U	0.00399		0.594	+/-0.177	0.800	pCi/g						
Sodium-22	U	-0.0427		0.0726	+/-0.0242	0.080	pCi/g						
Strontium-85	U	0.047		0.0708	+/-0.0222		pCi/g						
Thallium-208		0.455		0.0632	+/-0.0459	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7873
Sample ID: 245395006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.216	0.741	+/-0.216		pCi/g						
Thorium-231	U	0.0279	1.15	+/-0.375		pCi/g						
Thorium-234		33.7	3.61	+/-3.54	2.00	pCi/g						
Tin-113	U	-0.0289	0.0763	+/-0.0228	0.100	pCi/g						
Uranium-235		0.634	0.416	+/-0.177	0.500	pCi/g						
Yttrium-88	U	-0.00653	0.0436	+/-0.0139	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		19800	462	+/-1470	250	pCi/L		KXK2	02/08/10	1513	948398	10

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE EML HASL-300, U-02-RC Modified
9	DOE HASL 300, 4.5.2.3/Ga-01-R
10	GL-RAD-A-002
11	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	73.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	67.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7911
Sample ID: 245395007
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 12%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241		0.0611		0.0243	+/-0.0101	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00603		0.0199	+/-0.00321	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240		0.268		0.0228	+/-0.0225	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		35.2	J,R10	0.998	+/-3.43	0.100	pCi/g		AXD2	02/19/10	0756	954840	3
Uranium-235/236		4.89		0.649	+/-0.690	0.100	pCi/g						
Uranium-238		245	J,R10	0.688	+/-22.3	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	UI	0.929	R,R5a	0.752	+/-0.210	0.200	pCi/g		MXR1	02/02/10	0913	944966	8
Bismuth-211	UI	1.75	R,R5a	0.374	+/-0.223		pCi/g						
Bismuth-214		0.526		0.125	+/-0.0909	0.200	pCi/g						
Cadmium-109	U	0.506		3.41	+/-1.10		pCi/g						
Cerium-139	U	-0.0228		0.0702	+/-0.0226	0.050	pCi/g						
Cesium-134	U	0.0322		0.0889	+/-0.0252	0.100	pCi/g						
Cesium-137	U	0.0469		0.0795	+/-0.0217	0.100	pCi/g						
Cobalt-60	U	0.0148		0.0573	+/-0.0163	0.100	pCi/g						
Europium-152	U	0.0209		0.185	+/-0.0586	0.200	pCi/g						
Lanthanum-140	U	-0.00169		0.104	+/-0.0308		pCi/g						
Lead-212	UI	0.669	R,R5a	0.183	+/-0.0671	0.100	pCi/g						
Lead-214	UI	0.610	R,R5a	0.202	+/-0.0791	0.100	pCi/g						
Mercury-203	U	-0.0292		0.0763	+/-0.0216	0.100	pCi/g						
Potassium-40		17.8		0.399	+/-1.04	1.00	pCi/g						
Radium-223	U	-0.194		1.25	+/-0.354		pCi/g						
Radium-224	UI	2.12	R,R5a	1.48	+/-0.432		pCi/g						
Radium-226		0.526		0.125	+/-0.0909		pCi/g						
Radium-228		0.653		0.192	+/-0.111	0.500	pCi/g						
Ruthenium-106	U	0.0959		0.585	+/-0.164	0.800	pCi/g						
Sodium-22	U	-0.0199		0.0603	+/-0.019	0.080	pCi/g						
Strontium-85	U	0.0202		0.0694	+/-0.0227		pCi/g						
Thallium-208		0.243		0.0649	+/-0.0433	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7911
Sample ID: 245395007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	UI	1.13	R,R5a	0.901	+/-0.279		pCi/g						
Thorium-231	U	-0.194		1.25	+/-0.354		pCi/g						
Thorium-234		175		5.23	+/-15.9	2.00	pCi/g						
Tin-113	U	-0.00956		0.0812	+/-0.0234	0.100	pCi/g						
Uranium-235		3.07		0.529	+/-0.363	0.500	pCi/g						
Yttrium-88	U	-0.0612		0.0378	+/-0.0171	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		1.97E+05		537	+/-13900	250	pCi/L		KXK2	02/08/10	1530	948398	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R
9	GL-RAD-A-002
10	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	74.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	78.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	61.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7908
Sample ID: 245395008
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 8.11%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00759		0.0228	+/-0.00375	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0133		0.020	+/-0.00443	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.0097		0.0229	+/-0.00346	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		18.4	J,R10	1.01	+/-1.86	0.100	pCi/g		AXD2	02/19/10	0756	954840	3
Uranium-235/236		3.25		0.660	+/-0.524	0.100	pCi/g						
Uranium-238		188	J,R10	0.700	+/-16.8	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.611		0.818	+/-0.249	0.200	pCi/g		MXR1	02/02/10	0914	944966	8
Bismuth-211	UI	3.33	R,R5a	0.373	+/-0.274		pCi/g						
Bismuth-214		1.07		0.117	+/-0.0925	0.200	pCi/g						
Cadmium-109	U	2.28		3.43	+/-1.03		pCi/g						
Cerium-139	U	-0.00759		0.0679	+/-0.0228	0.050	pCi/g						
Cesium-134	U	0.0466		0.0949	+/-0.0269	0.100	pCi/g						
Cesium-137	U	0.0376		0.0806	+/-0.0226	0.100	pCi/g						
Cobalt-60	U	0.019		0.0663	+/-0.0189	0.100	pCi/g						
Europium-152	U	-0.132		0.164	+/-0.0558	0.200	pCi/g						
Lanthanum-140	U	-0.0597		0.102	+/-0.0363		pCi/g						
Lead-212		1.46		0.109	+/-0.0783	0.100	pCi/g						
Lead-214		1.16		0.130	+/-0.100	0.100	pCi/g						
Mercury-203	U	-0.0166		0.0775	+/-0.0225	0.100	pCi/g						
Potassium-40		34.5		0.496	+/-1.74	1.00	pCi/g						
Radium-223	U	-1.16		1.18	+/-0.380		pCi/g						
Radium-224	UI	4.42	R,R5a	1.25	+/-0.593		pCi/g						
Radium-226		1.07		0.117	+/-0.0925		pCi/g						
Radium-228		1.25		0.220	+/-0.167	0.500	pCi/g						
Ruthenium-106	U	-0.09		0.560	+/-0.165	0.800	pCi/g						
Sodium-22	U	0.0249		0.0804	+/-0.0229	0.080	pCi/g						
Strontium-85	U	0.022		0.0669	+/-0.0223		pCi/g						
Thallium-208		0.485		0.0671	+/-0.0483	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7908 Project: LANL01004
Sample ID: 245395008 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.874	0.877	+/-0.274		pCi/g						
Thorium-231	U	-1.16	1.18	+/-0.380		pCi/g						
Thorium-234		120	5.69	+/-12.4	2.00	pCi/g						
Tin-113	U	-0.00409	0.0812	+/-0.024	0.100	pCi/g						
Uranium-235		1.93	0.494	+/-0.287	0.500	pCi/g						
Yttrium-88	U	-0.00438	0.0417	+/-0.0134	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.08E+05	460	+/-7590	250	pCi/L		KXK2	02/08/10	1540	948398	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R
9	GL-RAD-A-002
10	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	79.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7912
Sample ID: 245395009
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 13.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0067		0.0241	+/-0.00421	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00733		0.0202	+/-0.00302	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.022		0.0231	+/-0.00558	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		9.61	J,R10	0.867	+/-1.03	0.100	pCi/g		AXD2	02/19/10	0756	954840	3
Uranium-235/236		1.23		0.564	+/-0.272	0.100	pCi/g						
Uranium-238		80.0	J,R10	0.598	+/-7.01	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.140		0.471	+/-0.143	0.200	pCi/g		MXR1	02/02/10	0914	944966	8
Bismuth-211	UI	3.08	R,R5a	0.348	+/-0.237		pCi/g						
Bismuth-214		0.905		0.109	+/-0.102	0.200	pCi/g						
Cadmium-109	U	-0.584		2.45	+/-0.782		pCi/g						
Cerium-139	U	0.0168		0.0573	+/-0.0187	0.050	pCi/g						
Cesium-134	U	0.0861		0.0926	+/-0.0334	0.100	pCi/g						
Cesium-137	U	0.0141		0.0727	+/-0.0212	0.100	pCi/g						
Cobalt-60	U	0.0123		0.0655	+/-0.0192	0.100	pCi/g						
Europium-152	U	-0.0642		0.161	+/-0.0533	0.200	pCi/g						
Lanthanum-140	U	-0.0362		0.104	+/-0.034		pCi/g						
Lead-212		1.22		0.0952	+/-0.0647	0.100	pCi/g						
Lead-214		1.07		0.112	+/-0.0871	0.100	pCi/g						
Mercury-203	U	0.0102		0.0689	+/-0.0196	0.100	pCi/g						
Potassium-40		29.5		0.424	+/-1.36	1.00	pCi/g						
Radium-223	U	-0.718		1.09	+/-0.342		pCi/g						
Radium-224	UI	3.31	R,R5a	1.08	+/-0.510		pCi/g						
Radium-226		0.905		0.109	+/-0.102		pCi/g						
Radium-228		1.52		0.207	+/-0.158	0.500	pCi/g						
Ruthenium-106	U	-0.155		0.526	+/-0.160	0.800	pCi/g						
Sodium-22	U	0.0291		0.0722	+/-0.0204	0.080	pCi/g						
Strontium-85	U	0.0468		0.0663	+/-0.0187		pCi/g						
Thallium-208		0.384		0.0588	+/-0.0372	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7912
Sample ID: 245395009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.141	0.701	+/-0.224		pCi/g						
Thorium-231	U	-0.718	1.09	+/-0.342		pCi/g						
Thorium-234		69.6	3.52	+/-6.33	2.00	pCi/g						
Tin-113	U	-0.0206	0.0729	+/-0.0223	0.100	pCi/g						
Uranium-235		0.995	0.408	+/-0.189	0.500	pCi/g						
Yttrium-88	U	0.0145	0.057	+/-0.0159	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		81400	462	+/-5760	250	pCi/L		KXK2	02/08/10	1557	948398	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R
9	GL-RAD-A-002
10	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	75.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	78.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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A The TIC is a suspected aldol-condensation product

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7906
Sample ID: 245395010
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 9.98%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00921		0.0234	+/-0.00454	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0167		0.0184	+/-0.00468	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.00781		0.0211	+/-0.00372	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.08	J,R10	0.120	+/-0.100	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.114		0.0742	+/-0.0247	0.100	pCi/g						
Uranium-238		3.35	J,R10	0.0693	+/-0.263	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0784		0.117	+/-0.0347	0.200	pCi/g		MXR1	02/02/10	0915	944966	4
Bismuth-211	UI	3.41	R,R5a	0.387	+/-0.285		pCi/g						
Bismuth-214		1.28		0.142	+/-0.118	0.200	pCi/g						
Cadmium-109	UI	3.55	R,R5a	1.07	+/-0.467		pCi/g						
Cerium-139	U	-0.0265		0.0514	+/-0.016	0.050	pCi/g						
Cesium-134	U	0.0387		0.105	+/-0.0298	0.100	pCi/g						
Cesium-137	U	0.00333		0.0826	+/-0.0248	0.100	pCi/g						
Cobalt-60	U	-0.0305		0.0908	+/-0.0286	0.100	pCi/g						
Europium-152	U	0.0449		0.195	+/-0.0648	0.200	pCi/g						
Lanthanum-140	U	-0.0257		0.116	+/-0.0409		pCi/g						
Lead-212		1.70		0.104	+/-0.0994	0.100	pCi/g						
Lead-214		1.19		0.135	+/-0.104	0.100	pCi/g						
Mercury-203	U	0.00539		0.0735	+/-0.0243	0.100	pCi/g						
Potassium-40		36.1		0.589	+/-1.50	1.00	pCi/g						
Radium-223	U	0.0321		1.25	+/-0.422		pCi/g						
Radium-224	UI	4.36	R,R5a	1.18	+/-0.664		pCi/g						
Radium-226		1.28		0.142	+/-0.118		pCi/g						
Radium-228		1.76		0.318	+/-0.219	0.500	pCi/g						
Ruthenium-106	U	-0.315		0.666	+/-0.211	0.800	pCi/g						
Sodium-22	U	0.0335		0.107	+/-0.0309	0.080	pCi/g						
Strontium-85	U	0.0566		0.085	+/-0.0268		pCi/g						
Thallium-208		0.491		0.0775	+/-0.0558	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7906
Sample ID: 245395010
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0276	0.689	+/-0.199		pCi/g						
Thorium-231	U	0.0321	1.25	+/-0.422		pCi/g						
Thorium-234		3.95	1.15	+/-0.700	2.00	pCi/g						
Tin-113	U	-0.0338	0.0893	+/-0.028	0.100	pCi/g						
Uranium-235	U	0.0243	0.397	+/-0.118	0.500	pCi/g						
Yttrium-88	U	0.036	0.0759	+/-0.0209	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		4900	462	+/-442	250	pCi/L		KXK2	02/08/10	1613	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	82.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7905
Sample ID: 245395011
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 21.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00947		0.024	+/-0.00579	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0215	+/-0.0013	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240	U	0.0195		0.0246	+/-0.00576	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.60	J,R10	0.140	+/-0.216	0.100	pCi/g		JXD2	02/08/10	1204	944996	4
Uranium-235/236		0.391		0.0869	+/-0.0545	0.100	pCi/g						
Uranium-238		16.9	J,R10	0.0812	+/-1.25	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0397		0.256	+/-0.0816	0.200	pCi/g		MXR1	02/02/10	0918	944966	5
Bismuth-211	UI	2.87	R,R5a	0.266	+/-0.233		pCi/g						
Bismuth-214		0.918		0.093	+/-0.0875	0.200	pCi/g						
Cadmium-109	UI	2.19	R,R5a	1.48	+/-0.468		pCi/g						
Cerium-139	U	-0.0102		0.0419	+/-0.0122	0.050	pCi/g						
Cesium-134	U	0.0541		0.0778	+/-0.0304	0.100	pCi/g						
Cesium-137		0.221		0.0514	+/-0.0276	0.100	pCi/g						
Cobalt-60	U	0.00269		0.0541	+/-0.0164	0.100	pCi/g						
Europium-152	U	0.0165		0.140	+/-0.0406	0.200	pCi/g						
Lanthanum-140	U	0.000832		0.110	+/-0.0329		pCi/g						
Lead-212		1.22		0.0748	+/-0.0851	0.100	pCi/g						
Lead-214		0.998		0.0997	+/-0.085	0.100	pCi/g						
Mercury-203	U	0.0344		0.0479	+/-0.0221	0.100	pCi/g						
Potassium-40		26.6		0.443	+/-1.41	1.00	pCi/g						
Radium-223	U	0.125		0.882	+/-0.296		pCi/g						
Radium-224	UI	2.67	R,R5a	0.851	+/-0.478		pCi/g						
Radium-226		0.918		0.093	+/-0.0875		pCi/g						
Radium-228		1.08		0.192	+/-0.135	0.500	pCi/g						
Ruthenium-106	U	-0.0651		0.430	+/-0.132	0.800	pCi/g						
Sodium-22	U	-0.00409		0.0588	+/-0.0181	0.080	pCi/g						
Strontium-85	UI	0.0632	R,R5a	0.0576	+/-0.0167		pCi/g						
Thallium-208		0.313		0.0462	+/-0.0334	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7905
Sample ID: 245395011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0912	0.543	+/-0.164		pCi/g						
Thorium-231	U	0.125	0.882	+/-0.296		pCi/g						
Thorium-234		15.6	2.03	+/-1.77	2.00	pCi/g						
Tin-113	U	0.0186	0.0646	+/-0.018	0.100	pCi/g						
Uranium-235		0.540	0.290	+/-0.140	0.500	pCi/g						
Yttrium-88	U	0.0089	0.0477	+/-0.0137	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		11300	461	+/-880	250	pCi/L		KXK2	02/08/10	1629	948398	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	73.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	71.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	80.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7907
Sample ID: 245395012
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 19.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0169		0.0289	+/-0.0108	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0072		0.0238	+/-0.00324	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240		0.0921		0.0272	+/-0.0125	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		18.1	J,R10	0.808	+/-1.75	0.100	pCi/g		AXD2	02/19/10	0756	954840	3
Uranium-235/236		1.91		0.526	+/-0.340	0.100	pCi/g						
Uranium-238		108	J,R10	0.557	+/-9.41	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0841		0.230	+/-0.0688	0.200	pCi/g		MXR1	02/02/10	0918	944966	8
Bismuth-211	UI	3.47	R,R5a	0.382	+/-0.302		pCi/g						
Bismuth-214		1.06		0.153	+/-0.109	0.200	pCi/g						
Cadmium-109	U	1.41		2.34	+/-0.722		pCi/g						
Cerium-139	U	-0.0123		0.0649	+/-0.0214	0.050	pCi/g						
Cesium-134	U	0.104		0.130	+/-0.0351	0.100	pCi/g						
Cesium-137	U	-0.0195		0.0843	+/-0.0265	0.100	pCi/g						
Cobalt-60	U	0.0149		0.0797	+/-0.0228	0.100	pCi/g						
Europium-152	U	-0.0179		0.189	+/-0.0547	0.200	pCi/g						
Lanthanum-140	U	-0.0545		0.138	+/-0.0465		pCi/g						
Lead-212		1.42		0.110	+/-0.0919	0.100	pCi/g						
Lead-214		1.21		0.133	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0206		0.0773	+/-0.024	0.100	pCi/g						
Potassium-40		26.0		0.526	+/-1.49	1.00	pCi/g						
Radium-223	U	-0.675		1.31	+/-0.396		pCi/g						
Radium-224	UI	1.57	R,R5a	1.25	+/-0.530		pCi/g						
Radium-226		1.06		0.153	+/-0.109		pCi/g						
Radium-228		1.71		0.250	+/-0.203	0.500	pCi/g						
Ruthenium-106	U	-0.0345		0.712	+/-0.217	0.800	pCi/g						
Sodium-22	U	-0.0281		0.0782	+/-0.026	0.080	pCi/g						
Strontium-85	U	0.0311		0.0826	+/-0.0267		pCi/g						
Thallium-208		0.455		0.0857	+/-0.0582	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7907
Sample ID: 245395012
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.075	0.822	+/-0.276		pCi/g						
Thorium-231	U	-0.675	1.31	+/-0.396		pCi/g						
Thorium-234		87.0	2.01	+/-8.25	2.00	pCi/g						
Tin-113	U	-0.0315	0.0829	+/-0.0251	0.100	pCi/g						
Uranium-235		1.66	0.468	+/-0.274	0.500	pCi/g						
Yttrium-88	U	0.019	0.069	+/-0.0191	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		75000	461	+/-5310	250	pCi/L		KXK2	02/08/10	1646	948398	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R
9	GL-RAD-A-002
10	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	66.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	66.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7913
Sample ID: 245395013
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 21.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0021		0.0332	+/-0.00808	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0141		0.0212	+/-0.00431	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.00128		0.0242	+/-0.00287	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.18	J,R10	0.154	+/-0.115	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236	U	0.0858		0.0953	+/-0.0238	0.100	pCi/g						
Uranium-238		2.50	J,R10	0.0891	+/-0.214	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0561		0.277	+/-0.0843	0.200	pCi/g		MXR1	02/02/10	0926	944966	4
Bismuth-211	UI	3.45	R,R5a	0.235	+/-0.194		pCi/g						
Bismuth-214		0.966		0.0803	+/-0.0704	0.200	pCi/g						
Cadmium-109	UI	3.57	R,R5a	1.11	+/-0.458		pCi/g						
Cerium-139	U	-0.0117		0.039	+/-0.0111	0.050	pCi/g						
Cesium-134	UI	0.116	R,R5a	0.0741	+/-0.0254	0.100	pCi/g						
Cesium-137	U	-0.0069		0.0417	+/-0.0144	0.100	pCi/g						
Cobalt-60	U	-0.00664		0.0437	+/-0.0136	0.100	pCi/g						
Europium-152	U	0.00795		0.126	+/-0.0464	0.200	pCi/g						
Lanthanum-140	U	-0.0547		0.0824	+/-0.028		pCi/g						
Lead-212		1.67		0.0697	+/-0.0741	0.100	pCi/g						
Lead-214		1.20		0.082	+/-0.0743	0.100	pCi/g						
Mercury-203	U	0.0372		0.0551	+/-0.0155	0.100	pCi/g						
Potassium-40		22.6		0.364	+/-1.04	1.00	pCi/g						
Radium-223	U	0.302		0.826	+/-0.273		pCi/g						
Radium-224	UI	3.92	R,R5a	0.792	+/-0.587		pCi/g						
Radium-226		0.966		0.0803	+/-0.0704		pCi/g						
Radium-228		1.58		0.160	+/-0.149	0.500	pCi/g						
Ruthenium-106	U	-0.0308		0.366	+/-0.112	0.800	pCi/g						
Sodium-22	U	-0.0245		0.0473	+/-0.0153	0.080	pCi/g						
Strontium-85	UI	0.0759	R,R5a	0.051	+/-0.0149		pCi/g						
Thallium-208		0.452		0.0463	+/-0.0336	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7913
Sample ID: 245395013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0068	0.501	+/-0.146		pCi/g						
Thorium-231	U	0.302	0.826	+/-0.273		pCi/g						
Thorium-234		3.09	2.21	+/-0.871	2.00	pCi/g						
Tin-113	U	-0.0192	0.0527	+/-0.0157	0.100	pCi/g						
Uranium-235	U	0.173	0.313	+/-0.0909	0.500	pCi/g						
Yttrium-88	U	-0.00128	0.0394	+/-0.0121	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3420	461	+/-342	250	pCi/L		KXK2	02/08/10	1702	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	59.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	72.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	71.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7909
Sample ID: 245395014
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 15.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00963		0.0278	+/-0.00835	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00258		0.0213	+/-0.00183	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240		0.0426		0.0244	+/-0.00818	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		15.2	J,R10	0.893	+/-1.53	0.100	pCi/g		AXD2	02/19/10	0756	954840	4
Uranium-235/236		2.16		0.580	+/-0.382	0.100	pCi/g						
Uranium-238		112	J,R10	0.615	+/-9.85	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.459		0.486	+/-0.146	0.200	pCi/g		MXR1	02/02/10	0927	944966	9
Bismuth-211	UI	2.33	R,R5a	0.328	+/-0.189		pCi/g						
Bismuth-214		0.853		0.103	+/-0.0726	0.200	pCi/g						
Cadmium-109	U	0.924		2.74	+/-1.18		pCi/g						
Cerium-139	U	0.0311		0.0635	+/-0.0201	0.050	pCi/g						
Cesium-134	UI	0.104	R,R5a	0.0899	+/-0.0257	0.100	pCi/g						
Cesium-137	UI	0.0602	R,R5a	0.0555	+/-0.0365	0.100	pCi/g						
Cobalt-60	U	-0.0119		0.0494	+/-0.0154	0.100	pCi/g						
Europium-152	U	-0.0187		0.162	+/-0.0606	0.200	pCi/g						
Lanthanum-140	U	-0.0252		0.0981	+/-0.0315		pCi/g						
Lead-212		1.14		0.0972	+/-0.0623	0.100	pCi/g						
Lead-214		0.812		0.109	+/-0.0692	0.100	pCi/g						
Mercury-203	U	-0.0154		0.0663	+/-0.0187	0.100	pCi/g						
Potassium-40		21.0		0.447	+/-1.01	1.00	pCi/g						
Radium-223	U	-0.708		0.961	+/-0.338		pCi/g						
Radium-224	UI	2.56	R,R5a	1.11	+/-0.549		pCi/g						
Radium-226		0.853		0.103	+/-0.0726		pCi/g						
Radium-228		1.22		0.182	+/-0.137	0.500	pCi/g						
Ruthenium-106	U	0.148		0.524	+/-0.149	0.800	pCi/g						
Sodium-22	U	0.00624		0.0599	+/-0.0174	0.080	pCi/g						
Strontium-85	UI	0.0722	R,R5a	0.0633	+/-0.0185		pCi/g						
Thallium-208		0.336		0.0574	+/-0.0358	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7909
Sample ID: 245395014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.270	0.731	+/-0.239		pCi/g						
Thorium-231	U	-0.708	0.961	+/-0.338		pCi/g						
Thorium-234		73.3	3.74	+/-6.77	2.00	pCi/g						
Tin-113	U	-0.0298	0.0708	+/-0.0208	0.100	pCi/g						
Uranium-235		1.12	0.456	+/-0.212	0.500	pCi/g						
Yttrium-88	U	-0.0125	0.0399	+/-0.0134	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.06E+05	461	+/-7490	250	pCi/L		KXK2	02/08/10	1718	948398	10

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE EML HASL-300, U-02-RC Modified
9	DOE HASL 300, 4.5.2.3/Ga-01-R
10	GL-RAD-A-002
11	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	70.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	73.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID:	RE15-10-7910	Project:	LANL01004
Sample ID:	245395015	Client ID:	LANL010
Matrix:	R		
Collect Date:	19-JAN-10		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	9.89%		

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00497		0.0289	+/-0.00814	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00134		0.0221	+/-0.00232	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240	U	0.0241		0.0253	+/-0.00612	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		4.55	J,R10	0.131	+/-0.354	0.100	pCi/g		JXD2	02/08/10	1156	944996	4
Uranium-235/236		0.741		0.0812	+/-0.0827	0.100	pCi/g						
Uranium-238		32.6	J,R10	0.0759	+/-2.37	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.224		0.391	+/-0.119	0.200	pCi/g		MXR1	02/02/10	0947	944966	5
Bismuth-211	UI	3.40	R,R5a	0.327	+/-0.288		pCi/g						
Bismuth-214		1.04		0.114	+/-0.0997	0.200	pCi/g						
Cadmium-109	UI	3.71	R,R5a	1.94	+/-0.599		pCi/g						
Cerium-139	U	0.0352		0.0617	+/-0.0166	0.050	pCi/g						
Cesium-134	UI	0.111	R,R5a	0.0934	+/-0.0304	0.100	pCi/g						
Cesium-137	U	0.0388		0.0753	+/-0.0207	0.100	pCi/g						
Cobalt-60	U	-0.0316		0.0504	+/-0.0172	0.100	pCi/g						
Europium-152	U	0.0703		0.169	+/-0.0535	0.200	pCi/g						
Lanthanum-140	U	-0.0401		0.140	+/-0.0476		pCi/g						
Lead-212		1.47		0.101	+/-0.0918	0.100	pCi/g						
Lead-214		1.18		0.114	+/-0.105	0.100	pCi/g						
Mercury-203	U	0.032		0.0776	+/-0.0216	0.100	pCi/g						
Potassium-40		33.0		0.490	+/-1.74	1.00	pCi/g						
Radium-223	U	0.665		1.26	+/-0.354		pCi/g						
Radium-224	UI	4.77	R,R5a	1.15	+/-0.702		pCi/g						
Radium-226		1.04		0.114	+/-0.0997		pCi/g						
Radium-228		1.43		0.230	+/-0.163	0.500	pCi/g						
Ruthenium-106	U	-0.256		0.508	+/-0.157	0.800	pCi/g						
Sodium-22	U	0.0305		0.0788	+/-0.0241	0.080	pCi/g						
Strontium-85	UI	0.079	R,R5a	0.076	+/-0.0232		pCi/g						
Thallium-208		0.408		0.0635	+/-0.0466	0.080	pCi/g						

JAB
03/03/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7910
Sample ID: 245395015
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.137	0.731	+/-0.212		pCi/g						
Thorium-231	U	0.665	1.26	+/-0.354		pCi/g						
Thorium-234		32.3	2.99	+/-3.35	2.00	pCi/g						
Tin-113	U	-0.0132	0.0768	+/-0.023	0.100	pCi/g						
Uranium-235	U	0.359	0.402	+/-0.162	0.500	pCi/g						
Yttrium-88	U	0.0219	0.0547	+/-0.0144	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.20E+05	462	+/-8460	250	pCi/L		KXK2	02/08/10	1735	948398	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	65.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	72.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	71.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis

JAB
03/03/10

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1393C

REQUEST NUMBER: 10-1393

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/21/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 246395 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7869	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7869	1	POLY	H3	Ice	R
RE15-10-7874	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7874	1	POLY	H3	Ice	R
RE15-10-7871	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7871	1	POLY	H3	Ice	R
RE15-10-7872	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7872	1	POLY	H3	Ice	R
RE15-10-7870	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7870	1	POLY	H3	Ice	R
RE15-10-7873	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7873	1	POLY	H3	Ice	R
RE15-10-7911	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7911	1	POLY	H3	Ice	R
RE15-10-7908	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7908	1	POLY	H3	Ice	R
RE15-10-7912	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7912	1	POLY	H3	Ice	R
RE15-10-7906	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7906	1	POLY	H3	Ice	R
RE15-10-7905	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7905	1	POLY	H3	Ice	R
RE15-10-7907	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7907	1	POLY	H3	Ice	R
RE15-10-7913	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7913	1	POLY	H3	Ice	R
RE15-10-7909	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1393C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7909	1	POLY	H3	Ice	R
RE15-10-7910	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7910	1	POLY	H3	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		1/22/10	3:00	Patricia Dover-Dept Pick-Up Unit		1-23-10	09:20
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1393
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/22/2010
TURNAROUND/REPORT DUE: 2/21/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	EPA:906.0	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:AM-241	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:ISOPU	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:ISOU	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	

Final Page of REQUEST NUMBER 10-1393

GEL Laboratories
a member of The GEL Group

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

January 27, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245395
SDG: 10-1393

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 23, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1393
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245395
SDG: 10-1393

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 18

Radiological Analysis..... 20
- Sample Data Summary.....35
- Quality Control Data.....82
- Raw Data..... 90
- Background and Efficiency Data.....1013
- Standards Data.....1213
- Runlogs.....1248

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245395
SDG # : 10-1393

January 27, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 23, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The original chain of custody was received on 1/26/10. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 12,13,15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245395001	RE15-10-7869
245395002	RE15-10-7874
245395003	RE15-10-7871
245395004	RE15-10-7872
245395005	RE15-10-7870
245395006	RE15-10-7873
245395007	RE15-10-7911
245395008	RE15-10-7908
245395009	RE15-10-7912
245395010	RE15-10-7906
245395011	RE15-10-7905
245395012	RE15-10-7907
245395013	RE15-10-7913
245395014	RE15-10-7909
245395015	RE15-10-7910

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for D Francis

Valerie Davis

Project Manager

List of current GEL Certifications as of 27 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1393C

REQUEST NUMBER: 10-1393

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/21/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245395 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7869	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7869	1	POLY	H3	Ice	R
RE15-10-7874	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7874	1	POLY	H3	Ice	R
RE15-10-7871	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7871	1	POLY	H3	Ice	R
RE15-10-7872	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7872	1	POLY	H3	Ice	R
RE15-10-7870	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7870	1	POLY	H3	Ice	R
RE15-10-7873	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7873	1	POLY	H3	Ice	R
RE15-10-7911	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7911	1	POLY	H3	Ice	R
RE15-10-7908	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7908	1	POLY	H3	Ice	R
RE15-10-7912	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7912	1	POLY	H3	Ice	R
RE15-10-7906	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7906	1	POLY	H3	Ice	R
RE15-10-7905	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7905	1	POLY	H3	Ice	R
RE15-10-7907	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7907	1	POLY	H3	Ice	R
RE15-10-7913	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7913	1	POLY	H3	Ice	R
RE15-10-7909	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1393C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7909	1	POLY	H3	Ice	R
RE15-10-7910	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7910	1	POLY	H3	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		1/22/10	3:00	Patricia Dover-Dent Field-Unit		1-23-10	09:20
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1393
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/22/2010
TURNAROUND/REPORT DUE: 2/21/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	EPA:906.0	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:AM-241	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:ISOPU	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	
		1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	
	HASL-300:ISOU	1	RE15-10-7869	R	1/19/2010	
		1	RE15-10-7870	R	1/19/2010	
		1	RE15-10-7871	R	1/19/2010	
		1	RE15-10-7872	R	1/19/2010	
		1	RE15-10-7873	R	1/19/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1393

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7874	R	1/19/2010	
		1	RE15-10-7905	R	1/19/2010	
		1	RE15-10-7906	R	1/19/2010	
		1	RE15-10-7907	R	1/19/2010	
		1	RE15-10-7908	R	1/19/2010	
		1	RE15-10-7909	R	1/19/2010	
		1	RE15-10-7910	R	1/19/2010	
		1	RE15-10-7911	R	1/19/2010	
		1	RE15-10-7912	R	1/19/2010	
		1	RE15-10-7913	R	1/19/2010	

Final Page of REQUEST NUMBER 10-1393

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1393**
Received By: Patricia Dover-Dent	**Date Received: January 23, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-4** **12,13,15C**
3	Chain of custody documents included with shipment?			X	**Original COC was received 01/26/10**
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 6695 1C	**7209 7849 6560 4C**
7209 7849 6776 1C	**7209 7849 6559 4C**
7209 7849 6526 2C	**7209 7849 6684 4C**
7209 7849 6700 2C	**7209 7849 6732 12C**
7209 7849 6710 2C	**7209 7849 6504 13C**
7209 7849 6548 2C	**7209 7849 6743 13C**
7209 7849 6537 3C	**7209 7849 6765 13C**
7209 7849 6570 3C	**7209 7849 6754 15C**
7209 7849 6515 4C	

PM (or PMA) review: Initials VSO Date 1/26/10

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

1°

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2 of 2
SATURDAY ### A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 6695
Mstr# 7209 7849 6684 0201

29407
SC-US
CHS

X0 CHSA

Part # 158148-434 NAIT V3 04-0

ORIGIN ID: [illegible]
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: [illegible]

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GENERAL ENGINEERING LAB
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4 of 4
SATURDAY ### A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 6526
Mstr# 7209 7849 6490 0201

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

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SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 6776

29407
SC-US
CHS

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Part # 158148-434 NAIT V3 04-0

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449

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SATURDAY ### A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 6200
MASTER

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SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

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Mstr# 7209 7849 6700 0201

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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MPS# 0263 7209 7849 6548
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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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REF: 6B010AMR2A0515BYD0

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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UNITED STATES US

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SATURDAY ### A1
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SATURDAY ### A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2449

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Matr# 7209 7849 6537 0201

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PRIORITY OVERNIGHT

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AD: SAFA (505) 665-9960
VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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KN 01 7209 7849 6684
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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

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Part # 156148-494 NAIT V304-0

Ref# 133998 22JAN10 SAFA

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449

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REF: 6B010AMR2A05158YD0

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MPS# 0263 7209 7849 6504
Mstr# 7209 7849 6490 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
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(843) 556-8171
REF: 6B010AMR3A0352VA00

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MPS# 0263 7209 7849 6743
Mstr# 7209 7849 6732 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR2A05158YD0

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2 of 2
MPS# 0263 7209 7849 6765
Mstr# 7209 7849 6754 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

X0 CHSA

29407
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ORIGIN ID: SAFA (505) 665-8968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 22.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B010AMR2A0515BYD0

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1 of 2

SATURDAY ### A1 2

TRK# 0201 7209 7849 6754

PRIORITY OVERNIGH

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Page 17 of 1254

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1393

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	944985
Prep Batch Number:	944895

Sample ID	Client ID
245395001	RE15-10-7869
245395002	RE15-10-7874
245395003	RE15-10-7871
245395004	RE15-10-7872
245395005	RE15-10-7870
245395006	RE15-10-7873
245395007	RE15-10-7911
245395008	RE15-10-7908
245395009	RE15-10-7912
245395010	RE15-10-7906
245395011	RE15-10-7905
245395012	RE15-10-7907
245395013	RE15-10-7913
245395014	RE15-10-7909
245395015	RE15-10-7910
1202023804	Method Blank (MB)
1202023805	245371001(RE16-10-957) Sample Duplicate (DUP)
1202023806	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202023804 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245371001 (RE16-10-957). The QC was from LANL work order 245371.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep

Analytical Batch Number: 944994

Prep Batch Number: 944895

Sample ID	Client ID
245395001	RE15-10-7869
245395002	RE15-10-7874
245395003	RE15-10-7871
245395004	RE15-10-7872
245395005	RE15-10-7870
245395006	RE15-10-7873
245395007	RE15-10-7911
245395008	RE15-10-7908
245395009	RE15-10-7912
245395010	RE15-10-7906
245395011	RE15-10-7905
245395012	RE15-10-7907
245395013	RE15-10-7913
245395014	RE15-10-7909
245395015	RE15-10-7910
1202023807	Method Blank (MB)
1202023808	245371001(RE16-10-957) Sample Duplicate (DUP)
1202023809	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202023807 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245371001 (RE16-10-957). The QC was from LANL work order 245371.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 245395003 (RE15-10-7871), 245395006 (RE15-10-7873), 245395011 (RE15-10-7905), 245395014 (RE15-10-7909) and 245395015 (RE15-10-7910) were given additional clean-up steps and recounted in order to remove suspected interferences.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	944996
Prep Batch Number:	944895

Sample ID	Client ID
245395001	RE15-10-7869
245395002	RE15-10-7874
245395003	RE15-10-7871
245395004	RE15-10-7872
245395005	RE15-10-7870

245395010	RE15-10-7906
245395011	RE15-10-7905
245395013	RE15-10-7913
245395015	RE15-10-7910
1202023820	Method Blank (MB)
1202023821	245371001(RE16-10-957) Sample Duplicate (DUP)
1202023822	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202023820 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245371001 (RE16-10-957). The QC was from LANL work order 245371.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-235/236 and U-238 blank, 1202023820 (MB), result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced

SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-238 blank, 1202023820 (MB), result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	954840
Prep Batch Number:	944895

Sample ID	Client ID
245395006	RE15-10-7873
245395007	RE15-10-7911
245395008	RE15-10-7908
245395009	RE15-10-7912
245395012	RE15-10-7907
245395014	RE15-10-7909
1202047013	Method Blank (MB)
1202047014	245395008(RE15-10-7908) Sample Duplicate (DUP)
1202047015	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202047013 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245395008 (RE15-10-7908). The QC was from LANL work order 245395.

QC Information
Refer to Data Exception Report (DER).

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to high relative percent difference/relative error ratio. Samples were reprepped with smaller aliquots to reduce tailing from high levels of U-233/234 and U-238 present in the samples.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 793390 was generated due to Failed RPD for DUP and Other. 1. The Quality Control Sample 245395008 and Duplicate Sample 1202047014 do not meet the relative error ratio requirements for U-233/234 and U-238. 2. Samples 245395007, 245395008, and 245395014 do not have 400 tracer counts. 1. Significant reduction in aliquot size due to elevated activity is suspected to be contributing to duplication issues. Samples were prepped three times, twice with similar results. The results for the original analysis were not as comparable due to significant tailing outside of the regions of interest. Project Manager and Group Leader notified. Reporting results. 2. Count times were shortened to reduce tailing from high levels of U-233/234 and U-238 activity. Client tracer yield requirements and detection limits were met. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	944966
Prep Batch Number:	944895

Sample ID	Client ID
245395001	RE15-10-7869
245395002	RE15-10-7874
245395003	RE15-10-7871
245395004	RE15-10-7872
245395005	RE15-10-7870
245395006	RE15-10-7873
245395007	RE15-10-7911
245395008	RE15-10-7908
245395009	RE15-10-7912
245395010	RE15-10-7906
245395011	RE15-10-7905
245395012	RE15-10-7907
245395013	RE15-10-7913
245395014	RE15-10-7909
245395015	RE15-10-7910
1202023719	Method Blank (MB)
1202023720	245395011(RE15-10-7905) Sample Duplicate (DUP)
1202023721	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, April 2009, May 2009, June 2009, July 2009, August 2009, October 2009, November 2009 and January 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245395011 (RE15-10-7905). The QC was from LANL work order 245395.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202023719 (MB) result for Pb-214 is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202023719 (MB) result for Pb-214 is greater than the decision level but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high counting uncertainty.	Cesium-137	245395014	RE15-10-7909
UI	Data rejected due to interference.	Bismuth-211	245395001	RE15-10-7869
			245395002	RE15-10-7874
			245395003	RE15-10-7871
			245395004	RE15-10-7872
			245395005	RE15-10-7870
			245395006	RE15-10-7873
			245395007	RE15-10-7911

	245395008	RE15-10-7908
	245395009	RE15-10-7912
	245395010	RE15-10-7906
	245395011	RE15-10-7905
	245395012	RE15-10-7907
	245395013	RE15-10-7913
	245395014	RE15-10-7909
	245395015	RE15-10-7910
	1202023720	RE15-10-7905(245395011DUP)
Cadmium-109	245395001	RE15-10-7869
	245395002	RE15-10-7874
	245395005	RE15-10-7870
	245395006	RE15-10-7873
	245395010	RE15-10-7906
	245395011	RE15-10-7905
	245395013	RE15-10-7913
	245395015	RE15-10-7910
	1202023720	RE15-10-7905(245395011DUP)
Radium-224	245395001	RE15-10-7869
	245395002	RE15-10-7874
	245395003	RE15-10-7871
	245395004	RE15-10-7872
	245395005	RE15-10-7870
	245395006	RE15-10-7873
	245395008	RE15-10-7908
	245395009	RE15-10-7912
	245395010	RE15-10-7906
	245395011	RE15-10-7905
	245395012	RE15-10-7907
	245395013	RE15-10-7913
	245395014	RE15-10-7909
	245395015	RE15-10-7910

			1202023720	RE15-10-7905(245395011DUP)
UI	Data rejected due to low abundance.	Americium-241	245395007	RE15-10-7911
		Cesium-134	245395001	RE15-10-7869
			245395002	RE15-10-7874
			245395004	RE15-10-7872
			245395005	RE15-10-7870
			245395013	RE15-10-7913
			245395014	RE15-10-7909
			245395015	RE15-10-7910
			1202023720	RE15-10-7905(245395011DUP)
		Lead-212	245395007	RE15-10-7911
		Lead-214	245395007	RE15-10-7911
		Radium-224	245395007	RE15-10-7911
		Strontium-85	245395002	RE15-10-7874
			245395003	RE15-10-7871
			245395004	RE15-10-7872
			245395011	RE15-10-7905
			245395013	RE15-10-7913
			245395014	RE15-10-7909
			245395015	RE15-10-7910
		Thorium-227	245395007	RE15-10-7911

Method/Analysis Information

Product: **H3**

Analytical Method: GL-RAD-A-002

Analytical Batch Number: 948398

Sample ID	Client ID
245395001	RE15-10-7869
245395002	RE15-10-7874
245395003	RE15-10-7871

245395004	RE15-10-7872
245395005	RE15-10-7870
245395006	RE15-10-7873
245395007	RE15-10-7911
245395008	RE15-10-7908
245395009	RE15-10-7912
245395010	RE15-10-7906
245395011	RE15-10-7905
245395012	RE15-10-7907
245395013	RE15-10-7913
245395014	RE15-10-7909
245395015	RE15-10-7910
1202031673	Method Blank (MB)
1202031674	245395001(RE15-10-7869) Sample Duplicate (DUP)
1202031675	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in August 2009 and September 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volumes in this batch.

Designated QC
The following sample was used for QC: 245395001 (RE15-10-7869). The QC was from LANL work order 245395.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to a detector lock out condition. Recount is being reported.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
The blank, 1202031673 (MB), did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots. All other samples met the detection limits.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Paula Welch 2/19/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-FEB-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, U-02-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
954840	See Below		

Potentially affected work order(s)(SDG): 245395(10-1393)

Application Issues:

Failed RPD for DUP

Other

Specification and Requirements Exception Description:	DER Disposition:
1. The Quality Control Sample 245395008 and Duplicate Sample 1202047014 do not meet the relative error ratio requirements for U-233/234 and U-238.	1. Significant reduction in aliquot size due to elevated activity is suspected to be contributing to duplication issues. Samples were prepped three times, twice with similar results. The results for the original analysis were not as comparable due to significant tailing outside of the regions of interest. Project Manager and Group Leader notified. Reporting results.
2. Samples 245395007, 245395008, and 245395014 do not have 400 tracer counts.	2. Count times were shortened to reduce tailing from high levels of U-233/234 and U-238 activity. Client tracer yield requirements and detection limits were met. Reporting results.

Originator's Name:

Jessica Downey 19-FEB-10

Data Validator/Group Leader:

Scott Moreland 19-FEB-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1393 GEL Work Order: 245395

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7869
Sample ID: 245395001
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 24.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0107	0.0213	+/-0.00782	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00711	0.0196	+/-0.00293	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.0201	0.0224	+/-0.00499	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		7.18	0.173	+/-0.567	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.933	0.108	+/-0.106	0.100	pCi/g						
Uranium-238		43.7	0.100	+/-3.26	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0635	0.334	+/-0.107	0.200	pCi/g		MXR1	02/02/10	0710	944966	4
Bismuth-211	UI	3.83	0.286	+/-0.301		pCi/g						
Bismuth-214		1.01	0.107	+/-0.0879	0.200	pCi/g						
Cadmium-109	UI	4.86	1.53	+/-0.714		pCi/g						
Cerium-139	U	0.0223	0.0495	+/-0.0154	0.050	pCi/g						
Cesium-134	UI	0.127	0.0894	+/-0.0308	0.100	pCi/g						
Cesium-137	U	0.00459	0.0596	+/-0.0178	0.100	pCi/g						
Cobalt-60	U	-0.0111	0.0512	+/-0.0165	0.100	pCi/g						
Europium-152	U	-0.0273	0.145	+/-0.0419	0.200	pCi/g						
Lanthanum-140	U	-0.037	0.0994	+/-0.0327		pCi/g						
Lead-212		1.69	0.0883	+/-0.113	0.100	pCi/g						
Lead-214		1.33	0.0998	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0604	0.0605	+/-0.0264	0.100	pCi/g						
Potassium-40		28.3	0.424	+/-1.47	1.00	pCi/g						
Radium-223	U	-0.602	1.02	+/-0.375		pCi/g						
Radium-224	UI	3.92	1.01	+/-0.503		pCi/g						
Radium-226		1.01	0.107	+/-0.0879		pCi/g						
Radium-228		1.68	0.192	+/-0.171	0.500	pCi/g						
Ruthenium-106	U	0.0265	0.454	+/-0.135	0.800	pCi/g						
Sodium-22	U	-0.0228	0.0599	+/-0.0194	0.080	pCi/g						
Strontium-85	U	0.0212	0.0564	+/-0.018		pCi/g						

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7869
Sample ID: 245395001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.578	0.0494	+/-0.047	0.080	pCi/g						
Thorium-227	U	0.303	0.626	+/-0.202		pCi/g						
Thorium-231	U	-0.602	1.02	+/-0.375		pCi/g						
Thorium-234		39.6	2.53	+/-3.79	2.00	pCi/g						
Tin-113	U	0.00794	0.0711	+/-0.0202	0.100	pCi/g						
Uranium-235		0.820	0.337	+/-0.176	0.500	pCi/g						
Yttrium-88	U	0.00634	0.0451	+/-0.0131	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		8070	462	+/-660	250	pCi/L		KXK2	02/08/10	1352	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	79.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	61.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7869
Sample ID: 245395001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7874
Sample ID: 245395002
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 4.12%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00182	0.0264	+/-0.00557	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0106	0.0195	+/-0.00359	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.0106	0.0223	+/-0.00358	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.76	0.125	+/-0.151	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.150	0.0776	+/-0.031	0.100	pCi/g						
Uranium-238		7.18	0.0725	+/-0.539	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.109	0.314	+/-0.0947	0.200	pCi/g		MXR1	02/02/10	0720	944966	4
Bismuth-211	UI	3.53	0.260	+/-0.194		pCi/g						
Bismuth-214		1.04	0.0889	+/-0.0742	0.200	pCi/g						
Cadmium-109	UI	2.89	1.62	+/-0.524		pCi/g						
Cerium-139	U	0.00647	0.0425	+/-0.0118	0.050	pCi/g						
Cesium-134	UI	0.097	0.0731	+/-0.029	0.100	pCi/g						
Cesium-137	U	0.049	0.0567	+/-0.0154	0.100	pCi/g						
Cobalt-60	U	0.00409	0.0512	+/-0.0154	0.100	pCi/g						
Europium-152	U	0.0203	0.124	+/-0.0452	0.200	pCi/g						
Lanthanum-140	U	-0.0202	0.0898	+/-0.0281		pCi/g						
Lead-212		1.45	0.0761	+/-0.0677	0.100	pCi/g						
Lead-214		1.23	0.092	+/-0.0747	0.100	pCi/g						
Mercury-203	U	0.00679	0.0563	+/-0.0164	0.100	pCi/g						
Potassium-40		34.7	0.355	+/-1.50	1.00	pCi/g						
Radium-223	U	-0.692	0.849	+/-0.276		pCi/g						
Radium-224	UI	4.07	0.864	+/-0.460		pCi/g						
Radium-226		1.04	0.0889	+/-0.0742		pCi/g						
Radium-228		1.58	0.143	+/-0.144	0.500	pCi/g						
Ruthenium-106	U	0.0545	0.391	+/-0.117	0.800	pCi/g						
Sodium-22	U	-0.0219	0.055	+/-0.0174	0.080	pCi/g						
Strontium-85	UI	0.0872	0.0554	+/-0.0163		pCi/g						
Thallium-208		0.471	0.0438	+/-0.0383	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7874
Sample ID: 245395002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.252	0.481	+/-0.147		pCi/g						
Thorium-231	U	-0.692	0.849	+/-0.276		pCi/g						
Thorium-234		8.63	2.31	+/-1.30	2.00	pCi/g						
Tin-113	U	0.0143	0.0554	+/-0.0156	0.100	pCi/g						
Uranium-235	U	0.190	0.303	+/-0.106	0.500	pCi/g						
Yttrium-88	U	-0.0153	0.0321	+/-0.0111	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		31500	462	+/-2280	250	pCi/L		KXK2	02/08/10	1408	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	68.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	81.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Report Date: February 19, 2010

Client Sample ID: RE15-10-7874
Sample ID: 245395002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7871
Sample ID: 245395003
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 10.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.0314	0.0226	+/-0.00955	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00266	0.022	+/-0.00189	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240	U	0.0173	0.0252	+/-0.00488	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		6.10	0.171	+/-0.486	0.100	pCi/g		JXD2	02/08/10	1204	944996	4
Uranium-235/236		0.799	0.106	+/-0.0946	0.100	pCi/g						
Uranium-238		42.1	0.0994	+/-3.14	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.357	0.383	+/-0.114	0.200	pCi/g		MXR1	02/02/10	0721	944966	5
Bismuth-211	UI	2.55	0.301	+/-0.216		pCi/g						
Bismuth-214		0.683	0.0996	+/-0.0688	0.200	pCi/g						
Cadmium-109	U	0.228	2.17	+/-0.940		pCi/g						
Cerium-139	U	-0.0165	0.0542	+/-0.0157	0.050	pCi/g						
Cesium-134	U	0.0712	0.0798	+/-0.0303	0.100	pCi/g						
Cesium-137		0.0645	0.0534	+/-0.0228	0.100	pCi/g						
Cobalt-60	U	-0.00374	0.047	+/-0.0142	0.100	pCi/g						
Europium-152	U	-0.00775	0.155	+/-0.0751	0.200	pCi/g						
Lanthanum-140	U	0.0253	0.0964	+/-0.0309		pCi/g						
Lead-212		1.11	0.0908	+/-0.0595	0.100	pCi/g						
Lead-214		0.885	0.105	+/-0.0786	0.100	pCi/g						
Mercury-203	U	0.00913	0.0661	+/-0.0182	0.100	pCi/g						
Potassium-40		24.5	0.397	+/-1.14	1.00	pCi/g						
Radium-223	U	-0.525	1.01	+/-0.296		pCi/g						
Radium-224	UI	2.70	1.03	+/-0.538		pCi/g						
Radium-226		0.683	0.0996	+/-0.0688		pCi/g						
Radium-228		0.985	0.186	+/-0.140	0.500	pCi/g						
Ruthenium-106	U	-0.102	0.451	+/-0.136	0.800	pCi/g						
Sodium-22	U	-0.0286	0.058	+/-0.0185	0.080	pCi/g						
Strontium-85	UI	0.0772	0.0631	+/-0.0164		pCi/g						
Thallium-208		0.411	0.0498	+/-0.0353	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7871
Sample ID: 245395003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.285	0.660	+/-0.188		pCi/g						
Thorium-231	U	-0.525	1.01	+/-0.296		pCi/g						
Thorium-234		44.0	2.94	+/-4.23	2.00	pCi/g						
Tin-113	U	-0.01	0.0706	+/-0.0203	0.100	pCi/g						
Uranium-235		0.550	0.393	+/-0.139	0.500	pCi/g						
Yttrium-88	U	0.00809	0.0417	+/-0.0119	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		27100	461	+/-1980	250	pCi/L		KXK2	02/08/10	1425	948398	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	75.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	70.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	64.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7871 Project: LANL01004
Sample ID: 245395003 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
Ul Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7872
Sample ID: 245395004
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 11.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00276	0.026	+/-0.00206	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0152	0.0193	+/-0.00427	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.00117	0.022	+/-0.00202	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.43	0.122	+/-0.126	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.117	0.076	+/-0.0253	0.100	pCi/g						
Uranium-238		5.04	0.071	+/-0.385	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.122	0.198	+/-0.0605	0.200	pCi/g		MXR1	02/02/10	0823	944966	4
Bismuth-211	UI	3.62	0.303	+/-0.271		pCi/g						
Bismuth-214		1.13	0.105	+/-0.0958	0.200	pCi/g						
Cadmium-109	U	1.43	1.50	+/-0.482		pCi/g						
Cerium-139	U	-0.015	0.046	+/-0.0142	0.050	pCi/g						
Cesium-134	UI	0.111	0.0856	+/-0.0265	0.100	pCi/g						
Cesium-137	U	-0.0176	0.0566	+/-0.0171	0.100	pCi/g						
Cobalt-60	U	0.00592	0.0651	+/-0.0198	0.100	pCi/g						
Europium-152	U	-0.0787	0.135	+/-0.0421	0.200	pCi/g						
Lanthanum-140	U	0.0301	0.0946	+/-0.029		pCi/g						
Lead-212		1.66	0.0811	+/-0.103	0.100	pCi/g						
Lead-214		1.26	0.103	+/-0.0999	0.100	pCi/g						
Mercury-203	U	0.0135	0.0658	+/-0.0187	0.100	pCi/g						
Potassium-40		37.6	0.437	+/-1.88	1.00	pCi/g						
Radium-223	U	-0.00291	0.926	+/-0.308		pCi/g						
Radium-224	UI	4.14	0.923	+/-0.680		pCi/g						
Radium-226		1.13	0.105	+/-0.0958		pCi/g						
Radium-228		1.63	0.193	+/-0.178	0.500	pCi/g						
Ruthenium-106	U	0.0679	0.472	+/-0.142	0.800	pCi/g						
Sodium-22	U	-0.00276	0.067	+/-0.0208	0.080	pCi/g						
Strontium-85	UI	0.085	0.0662	+/-0.0179		pCi/g						
Thallium-208		0.560	0.0503	+/-0.0463	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7872
Sample ID: 245395004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0809	0.544	+/-0.158		pCi/g						
Thorium-231	U	-0.00291	0.926	+/-0.308		pCi/g						
Thorium-234		6.17	1.68	+/-1.01	2.00	pCi/g						
Tin-113	U	0.0217	0.0704	+/-0.0202	0.100	pCi/g						
Uranium-235	U	0.289	0.336	+/-0.115	0.500	pCi/g						
Yttrium-88	U	0.0253	0.0532	+/-0.0139	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		8610	462	+/-697	250	pCi/L		KXK2	02/08/10	1441	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	73.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	86.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Client Sample ID: RE15-10-7872
Sample ID: 245395004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7870
Sample ID: 245395005
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 13.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00249	0.0244	+/-0.004	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0078	0.0184	+/-0.00461	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.0111	0.0211	+/-0.00357	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.11	0.119	+/-0.103	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.0952	0.0741	+/-0.0223	0.100	pCi/g						
Uranium-238		3.80	0.0692	+/-0.295	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.00153	0.0808	+/-0.0245	0.200	pCi/g		MXR1	02/02/10	0824	944966	4
Bismuth-211	UI	3.78	0.309	+/-0.286		pCi/g						
Bismuth-214		1.21	0.119	+/-0.115	0.200	pCi/g						
Cadmium-109	UI	2.83	0.817	+/-0.327		pCi/g						
Cerium-139	U	-0.00804	0.0395	+/-0.0112	0.050	pCi/g						
Cesium-134	UI	0.131	0.120	+/-0.0563	0.100	pCi/g						
Cesium-137	U	-0.0107	0.0693	+/-0.0214	0.100	pCi/g						
Cobalt-60	U	0.020	0.0799	+/-0.0223	0.100	pCi/g						
Europium-152	U	0.0193	0.165	+/-0.0488	0.200	pCi/g						
Lanthanum-140	U	-0.0994	0.165	+/-0.0584		pCi/g						
Lead-212		1.71	0.0795	+/-0.100	0.100	pCi/g						
Lead-214		1.32	0.108	+/-0.105	0.100	pCi/g						
Mercury-203	U	0.0224	0.0572	+/-0.0178	0.100	pCi/g						
Potassium-40		34.7	0.746	+/-1.88	1.00	pCi/g						
Radium-223	U	-0.252	0.990	+/-0.345		pCi/g						
Radium-224	UI	4.80	0.907	+/-0.736		pCi/g						
Radium-226		1.21	0.119	+/-0.115		pCi/g						
Radium-228		2.01	0.216	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	0.184	0.642	+/-0.184	0.800	pCi/g						
Sodium-22	U	0.00553	0.0925	+/-0.0282	0.080	pCi/g						
Strontium-85	U	0.021	0.0571	+/-0.0177		pCi/g						
Thallium-208		0.550	0.0591	+/-0.0542	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7870 Project: LANL01004
Sample ID: 245395005 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0115	0.586	+/-0.170		pCi/g						
Thorium-231	U	-0.252	0.990	+/-0.345		pCi/g						
Thorium-234		3.08	0.750	+/-0.560	2.00	pCi/g						
Tin-113	U	-0.0237	0.0706	+/-0.0226	0.100	pCi/g						
Uranium-235	U	0.0585	0.280	+/-0.0839	0.500	pCi/g						
Yttrium-88	U	0.0187	0.0749	+/-0.0208	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		7540	461	+/-623	250	pCi/L		KXK2	02/08/10	1457	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	75.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	89.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7870
Sample ID: 245395005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7873
Sample ID: 245395006
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 12.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00412	0.0253	+/-0.00441	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00142	0.0234	+/-0.00142	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240	U	0.0156	0.0268	+/-0.00518	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		5.39	0.801	+/-0.642	0.100	pCi/g		AXD2	02/19/10	0756	954840	4
Uranium-235/236		1.11	0.521	+/-0.245	0.100	pCi/g						
Uranium-238		36.8	0.552	+/-3.34	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.271	0.476	+/-0.144	0.200	pCi/g		MXR1	02/02/10	0824	944966	9
Bismuth-211	UI	3.09	0.361	+/-0.228		pCi/g						
Bismuth-214		1.05	0.124	+/-0.0838	0.200	pCi/g						
Cadmium-109	UI	2.91	1.94	+/-0.602		pCi/g						
Cerium-139	U	-0.0293	0.0561	+/-0.0167	0.050	pCi/g						
Cesium-134	U	0.0578	0.0958	+/-0.0276	0.100	pCi/g						
Cesium-137		0.118	0.070	+/-0.0461	0.100	pCi/g						
Cobalt-60	U	-0.019	0.0595	+/-0.0193	0.100	pCi/g						
Europium-152	U	-0.103	0.166	+/-0.0583	0.200	pCi/g						
Lanthanum-140	U	-0.00147	0.143	+/-0.0427		pCi/g						
Lead-212		1.42	0.106	+/-0.0734	0.100	pCi/g						
Lead-214		1.08	0.118	+/-0.0842	0.100	pCi/g						
Mercury-203	U	0.0266	0.0753	+/-0.0236	0.100	pCi/g						
Potassium-40		27.1	0.550	+/-1.34	1.00	pCi/g						
Radium-223	U	0.0279	1.15	+/-0.375		pCi/g						
Radium-224	UI	3.62	1.20	+/-0.572		pCi/g						
Radium-226		1.05	0.124	+/-0.0838		pCi/g						
Radium-228		1.45	0.200	+/-0.156	0.500	pCi/g						
Ruthenium-106	U	0.00399	0.594	+/-0.177	0.800	pCi/g						
Sodium-22	U	-0.0427	0.0726	+/-0.0242	0.080	pCi/g						
Strontium-85	U	0.047	0.0708	+/-0.0222		pCi/g						
Thallium-208		0.455	0.0632	+/-0.0459	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7873
Sample ID: 245395006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.216	0.741	+/-0.216		pCi/g						
Thorium-231	U	0.0279	1.15	+/-0.375		pCi/g						
Thorium-234		33.7	3.61	+/-3.54	2.00	pCi/g						
Tin-113	U	-0.0289	0.0763	+/-0.0228	0.100	pCi/g						
Uranium-235		0.634	0.416	+/-0.177	0.500	pCi/g						
Yttrium-88	U	-0.00653	0.0436	+/-0.0139	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		19800	462	+/-1470	250	pCi/L		KXK2	02/08/10	1513	948398	10

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE EML HASL-300, U-02-RC Modified
9	DOE HASL 300, 4.5.2.3/Ga-01-R
10	GL-RAD-A-002
11	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	73.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	67.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported

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Report Date: February 19, 2010

Client Sample ID: RE15-10-7873
Sample ID: 245395006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7911
Sample ID: 245395007
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 12%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.0611	0.0243	+/-0.0101	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00603	0.0199	+/-0.00321	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240		0.268	0.0228	+/-0.0225	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		35.2	0.998	+/-3.43	0.100	pCi/g		AXD2	02/19/10	0756	954840	3
Uranium-235/236		4.89	0.649	+/-0.690	0.100	pCi/g						
Uranium-238		245	0.688	+/-22.3	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	UI	0.929	0.752	+/-0.210	0.200	pCi/g		MXR1	02/02/10	0913	944966	8
Bismuth-211	UI	1.75	0.374	+/-0.223		pCi/g						
Bismuth-214		0.526	0.125	+/-0.0909	0.200	pCi/g						
Cadmium-109	U	0.506	3.41	+/-1.10		pCi/g						
Cerium-139	U	-0.0228	0.0702	+/-0.0226	0.050	pCi/g						
Cesium-134	U	0.0322	0.0889	+/-0.0252	0.100	pCi/g						
Cesium-137	U	0.0469	0.0795	+/-0.0217	0.100	pCi/g						
Cobalt-60	U	0.0148	0.0573	+/-0.0163	0.100	pCi/g						
Europium-152	U	0.0209	0.185	+/-0.0586	0.200	pCi/g						
Lanthanum-140	U	-0.00169	0.104	+/-0.0308		pCi/g						
Lead-212	UI	0.669	0.183	+/-0.0671	0.100	pCi/g						
Lead-214	UI	0.610	0.202	+/-0.0791	0.100	pCi/g						
Mercury-203	U	-0.0292	0.0763	+/-0.0216	0.100	pCi/g						
Potassium-40		17.8	0.399	+/-1.04	1.00	pCi/g						
Radium-223	U	-0.194	1.25	+/-0.354		pCi/g						
Radium-224	UI	2.12	1.48	+/-0.432		pCi/g						
Radium-226		0.526	0.125	+/-0.0909		pCi/g						
Radium-228		0.653	0.192	+/-0.111	0.500	pCi/g						
Ruthenium-106	U	0.0959	0.585	+/-0.164	0.800	pCi/g						
Sodium-22	U	-0.0199	0.0603	+/-0.019	0.080	pCi/g						
Strontium-85	U	0.0202	0.0694	+/-0.0227		pCi/g						
Thallium-208		0.243	0.0649	+/-0.0433	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7911
Sample ID: 245395007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U1	1.13	0.901	+/-0.279		pCi/g						
Thorium-231	U	-0.194	1.25	+/-0.354		pCi/g						
Thorium-234		175	5.23	+/-15.9	2.00	pCi/g						
Tin-113	U	-0.00956	0.0812	+/-0.0234	0.100	pCi/g						
Uranium-235		3.07	0.529	+/-0.363	0.500	pCi/g						
Yttrium-88	U	-0.0612	0.0378	+/-0.0171	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.97E+05	537	+/-13900	250	pCi/L		KXK2	02/08/10	1530	948398	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R
9	GL-RAD-A-002
10	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	74.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	78.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	61.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Client Sample ID: RE15-10-7911
Sample ID: 245395007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7908
Sample ID: 245395008
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 8.11%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00759	0.0228	+/-0.00375	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0133	0.020	+/-0.00443	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.0097	0.0229	+/-0.00346	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		18.4	1.01	+/-1.86	0.100	pCi/g		AXD2	02/19/10	0756	954840	3
Uranium-235/236		3.25	0.660	+/-0.524	0.100	pCi/g						
Uranium-238		188	0.700	+/-16.8	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.611	0.818	+/-0.249	0.200	pCi/g		MXR1	02/02/10	0914	944966	8
Bismuth-211	UI	3.33	0.373	+/-0.274		pCi/g						
Bismuth-214		1.07	0.117	+/-0.0925	0.200	pCi/g						
Cadmium-109	U	2.28	3.43	+/-1.03		pCi/g						
Cerium-139	U	-0.00759	0.0679	+/-0.0228	0.050	pCi/g						
Cesium-134	U	0.0466	0.0949	+/-0.0269	0.100	pCi/g						
Cesium-137	U	0.0376	0.0806	+/-0.0226	0.100	pCi/g						
Cobalt-60	U	0.019	0.0663	+/-0.0189	0.100	pCi/g						
Europium-152	U	-0.132	0.164	+/-0.0558	0.200	pCi/g						
Lanthanum-140	U	-0.0597	0.102	+/-0.0363		pCi/g						
Lead-212		1.46	0.109	+/-0.0783	0.100	pCi/g						
Lead-214		1.16	0.130	+/-0.100	0.100	pCi/g						
Mercury-203	U	-0.0166	0.0775	+/-0.0225	0.100	pCi/g						
Potassium-40		34.5	0.496	+/-1.74	1.00	pCi/g						
Radium-223	U	-1.16	1.18	+/-0.380		pCi/g						
Radium-224	UI	4.42	1.25	+/-0.593		pCi/g						
Radium-226		1.07	0.117	+/-0.0925		pCi/g						
Radium-228		1.25	0.220	+/-0.167	0.500	pCi/g						
Ruthenium-106	U	-0.09	0.560	+/-0.165	0.800	pCi/g						
Sodium-22	U	0.0249	0.0804	+/-0.0229	0.080	pCi/g						
Strontium-85	U	0.022	0.0669	+/-0.0223		pCi/g						
Thallium-208		0.485	0.0671	+/-0.0483	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7908
Sample ID: 245395008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.874	0.877	+/-0.274		pCi/g						
Thorium-231	U	-1.16	1.18	+/-0.380		pCi/g						
Thorium-234		120	5.69	+/-12.4	2.00	pCi/g						
Tin-113	U	-0.00409	0.0812	+/-0.024	0.100	pCi/g						
Uranium-235		1.93	0.494	+/-0.287	0.500	pCi/g						
Yttrium-88	U	-0.00438	0.0417	+/-0.0134	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.08E+05	460	+/-7590	250	pCi/L		KXK2	02/08/10	1540	948398	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R
9	GL-RAD-A-002
10	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	79.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7908
Sample ID: 245395008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7912
Sample ID: 245395009
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 13.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0067	0.0241	+/-0.00421	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00733	0.0202	+/-0.00302	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.022	0.0231	+/-0.00558	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		9.61	0.867	+/-1.03	0.100	pCi/g		AXD2	02/19/10	0756	954840	3
Uranium-235/236		1.23	0.564	+/-0.272	0.100	pCi/g						
Uranium-238		80.0	0.598	+/-7.01	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.140	0.471	+/-0.143	0.200	pCi/g		MXR1	02/02/10	0914	944966	8
Bismuth-211	UI	3.08	0.348	+/-0.237		pCi/g						
Bismuth-214		0.905	0.109	+/-0.102	0.200	pCi/g						
Cadmium-109	U	-0.584	2.45	+/-0.782		pCi/g						
Cerium-139	U	0.0168	0.0573	+/-0.0187	0.050	pCi/g						
Cesium-134	U	0.0861	0.0926	+/-0.0334	0.100	pCi/g						
Cesium-137	U	0.0141	0.0727	+/-0.0212	0.100	pCi/g						
Cobalt-60	U	0.0123	0.0655	+/-0.0192	0.100	pCi/g						
Europium-152	U	-0.0642	0.161	+/-0.0533	0.200	pCi/g						
Lanthanum-140	U	-0.0362	0.104	+/-0.034		pCi/g						
Lead-212		1.22	0.0952	+/-0.0647	0.100	pCi/g						
Lead-214		1.07	0.112	+/-0.0871	0.100	pCi/g						
Mercury-203	U	0.0102	0.0689	+/-0.0196	0.100	pCi/g						
Potassium-40		29.5	0.424	+/-1.36	1.00	pCi/g						
Radium-223	U	-0.718	1.09	+/-0.342		pCi/g						
Radium-224	UI	3.31	1.08	+/-0.510		pCi/g						
Radium-226		0.905	0.109	+/-0.102		pCi/g						
Radium-228		1.52	0.207	+/-0.158	0.500	pCi/g						
Ruthenium-106	U	-0.155	0.526	+/-0.160	0.800	pCi/g						
Sodium-22	U	0.0291	0.0722	+/-0.0204	0.080	pCi/g						
Strontium-85	U	0.0468	0.0663	+/-0.0187		pCi/g						
Thallium-208		0.384	0.0588	+/-0.0372	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7912
Sample ID: 245395009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.141	0.701	+/-0.224		pCi/g						
Thorium-231	U	-0.718	1.09	+/-0.342		pCi/g						
Thorium-234		69.6	3.52	+/-6.33	2.00	pCi/g						
Tin-113	U	-0.0206	0.0729	+/-0.0223	0.100	pCi/g						
Uranium-235		0.995	0.408	+/-0.189	0.500	pCi/g						
Yttrium-88	U	0.0145	0.057	+/-0.0159	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		81400	462	+/-5760	250	pCi/L		KXK2	02/08/10	1557	948398	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R
9	GL-RAD-A-002
10	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	75.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	78.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7912
Sample ID: 245395009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID:	RE15-10-7906	Project:	LANL01004
Sample ID:	245395010	Client ID:	LANL010
Matrix:	R		
Collect Date:	19-JAN-10		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	9.98%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00921	0.0234	+/-0.00454	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0167	0.0184	+/-0.00468	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.00781	0.0211	+/-0.00372	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.08	0.120	+/-0.100	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236		0.114	0.0742	+/-0.0247	0.100	pCi/g						
Uranium-238		3.35	0.0693	+/-0.263	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0784	0.117	+/-0.0347	0.200	pCi/g		MXR1	02/02/10	0915	944966	4
Bismuth-211	UI	3.41	0.387	+/-0.285		pCi/g						
Bismuth-214		1.28	0.142	+/-0.118	0.200	pCi/g						
Cadmium-109	UI	3.55	1.07	+/-0.467		pCi/g						
Cerium-139	U	-0.0265	0.0514	+/-0.016	0.050	pCi/g						
Cesium-134	U	0.0387	0.105	+/-0.0298	0.100	pCi/g						
Cesium-137	U	0.00333	0.0826	+/-0.0248	0.100	pCi/g						
Cobalt-60	U	-0.0305	0.0908	+/-0.0286	0.100	pCi/g						
Europium-152	U	0.0449	0.195	+/-0.0648	0.200	pCi/g						
Lanthanum-140	U	-0.0257	0.116	+/-0.0409		pCi/g						
Lead-212		1.70	0.104	+/-0.0994	0.100	pCi/g						
Lead-214		1.19	0.135	+/-0.104	0.100	pCi/g						
Mercury-203	U	0.00539	0.0735	+/-0.0243	0.100	pCi/g						
Potassium-40		36.1	0.589	+/-1.50	1.00	pCi/g						
Radium-223	U	0.0321	1.25	+/-0.422		pCi/g						
Radium-224	UI	4.36	1.18	+/-0.664		pCi/g						
Radium-226		1.28	0.142	+/-0.118		pCi/g						
Radium-228		1.76	0.318	+/-0.219	0.500	pCi/g						
Ruthenium-106	U	-0.315	0.666	+/-0.211	0.800	pCi/g						
Sodium-22	U	0.0335	0.107	+/-0.0309	0.080	pCi/g						
Strontium-85	U	0.0566	0.085	+/-0.0268		pCi/g						
Thallium-208		0.491	0.0775	+/-0.0558	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7906
Sample ID: 245395010
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0276	0.689	+/-0.199		pCi/g						
Thorium-231	U	0.0321	1.25	+/-0.422		pCi/g						
Thorium-234		3.95	1.15	+/-0.700	2.00	pCi/g						
Tin-113	U	-0.0338	0.0893	+/-0.028	0.100	pCi/g						
Uranium-235	U	0.0243	0.397	+/-0.118	0.500	pCi/g						
Yttrium-88	U	0.036	0.0759	+/-0.0209	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		4900	462	+/-442	250	pCi/L		KXK2	02/08/10	1613	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	82.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7906
Sample ID: 245395010
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7905
Sample ID: 245395011
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 21.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00947	0.024	+/-0.00579	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0215	+/-0.0013	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240	U	0.0195	0.0246	+/-0.00576	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.60	0.140	+/-0.216	0.100	pCi/g		JXD2	02/08/10	1204	944996	4
Uranium-235/236		0.391	0.0869	+/-0.0545	0.100	pCi/g						
Uranium-238		16.9	0.0812	+/-1.25	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0397	0.256	+/-0.0816	0.200	pCi/g		MXR1	02/02/10	0918	944966	5
Bismuth-211	UI	2.87	0.266	+/-0.233		pCi/g						
Bismuth-214		0.918	0.093	+/-0.0875	0.200	pCi/g						
Cadmium-109	UI	2.19	1.48	+/-0.468		pCi/g						
Cerium-139	U	-0.0102	0.0419	+/-0.0122	0.050	pCi/g						
Cesium-134	U	0.0541	0.0778	+/-0.0304	0.100	pCi/g						
Cesium-137		0.221	0.0514	+/-0.0276	0.100	pCi/g						
Cobalt-60	U	0.00269	0.0541	+/-0.0164	0.100	pCi/g						
Europium-152	U	0.0165	0.140	+/-0.0406	0.200	pCi/g						
Lanthanum-140	U	0.000832	0.110	+/-0.0329		pCi/g						
Lead-212		1.22	0.0748	+/-0.0851	0.100	pCi/g						
Lead-214		0.998	0.0997	+/-0.085	0.100	pCi/g						
Mercury-203	U	0.0344	0.0479	+/-0.0221	0.100	pCi/g						
Potassium-40		26.6	0.443	+/-1.41	1.00	pCi/g						
Radium-223	U	0.125	0.882	+/-0.296		pCi/g						
Radium-224	UI	2.67	0.851	+/-0.478		pCi/g						
Radium-226		0.918	0.093	+/-0.0875		pCi/g						
Radium-228		1.08	0.192	+/-0.135	0.500	pCi/g						
Ruthenium-106	U	-0.0651	0.430	+/-0.132	0.800	pCi/g						
Sodium-22	U	-0.00409	0.0588	+/-0.0181	0.080	pCi/g						
Strontium-85	UI	0.0632	0.0576	+/-0.0167		pCi/g						
Thallium-208		0.313	0.0462	+/-0.0334	0.080	pCi/g						

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Report Date: February 19, 2010

Client Sample ID: RE15-10-7905
Sample ID: 245395011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0912	0.543	+/-0.164		pCi/g						
Thorium-231	U	0.125	0.882	+/-0.296		pCi/g						
Thorium-234		15.6	2.03	+/-1.77	2.00	pCi/g						
Tin-113	U	0.0186	0.0646	+/-0.018	0.100	pCi/g						
Uranium-235		0.540	0.290	+/-0.140	0.500	pCi/g						
Yttrium-88	U	0.0089	0.0477	+/-0.0137	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		11300	461	+/-880	250	pCi/L		KXK2	02/08/10	1629	948398	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	73.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	71.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	80.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis

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Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7905
Sample ID: 245395011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7907
Sample ID: 245395012
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 19.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0169	0.0289	+/-0.0108	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0072	0.0238	+/-0.00324	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240		0.0921	0.0272	+/-0.0125	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		18.1	0.808	+/-1.75	0.100	pCi/g		AXD2	02/19/10	0756	954840	3
Uranium-235/236		1.91	0.526	+/-0.340	0.100	pCi/g						
Uranium-238		108	0.557	+/-9.41	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0841	0.230	+/-0.0688	0.200	pCi/g		MXR1	02/02/10	0918	944966	8
Bismuth-211	UI	3.47	0.382	+/-0.302		pCi/g						
Bismuth-214		1.06	0.153	+/-0.109	0.200	pCi/g						
Cadmium-109	U	1.41	2.34	+/-0.722		pCi/g						
Cerium-139	U	-0.0123	0.0649	+/-0.0214	0.050	pCi/g						
Cesium-134	U	0.104	0.130	+/-0.0351	0.100	pCi/g						
Cesium-137	U	-0.0195	0.0843	+/-0.0265	0.100	pCi/g						
Cobalt-60	U	0.0149	0.0797	+/-0.0228	0.100	pCi/g						
Europium-152	U	-0.0179	0.189	+/-0.0547	0.200	pCi/g						
Lanthanum-140	U	-0.0545	0.138	+/-0.0465		pCi/g						
Lead-212		1.42	0.110	+/-0.0919	0.100	pCi/g						
Lead-214		1.21	0.133	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0206	0.0773	+/-0.024	0.100	pCi/g						
Potassium-40		26.0	0.526	+/-1.49	1.00	pCi/g						
Radium-223	U	-0.675	1.31	+/-0.396		pCi/g						
Radium-224	UI	1.57	1.25	+/-0.530		pCi/g						
Radium-226		1.06	0.153	+/-0.109		pCi/g						
Radium-228		1.71	0.250	+/-0.203	0.500	pCi/g						
Ruthenium-106	U	-0.0345	0.712	+/-0.217	0.800	pCi/g						
Sodium-22	U	-0.0281	0.0782	+/-0.026	0.080	pCi/g						
Strontium-85	U	0.0311	0.0826	+/-0.0267		pCi/g						
Thallium-208		0.455	0.0857	+/-0.0582	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7907
Sample ID: 245395012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.075	0.822	+/-0.276		pCi/g						
Thorium-231	U	-0.675	1.31	+/-0.396		pCi/g						
Thorium-234		87.0	2.01	+/-8.25	2.00	pCi/g						
Tin-113	U	-0.0315	0.0829	+/-0.0251	0.100	pCi/g						
Uranium-235		1.66	0.468	+/-0.274	0.500	pCi/g						
Yttrium-88	U	0.019	0.069	+/-0.0191	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		75000	461	+/-5310	250	pCi/L		KXK2	02/08/10	1646	948398	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE HASL 300, 4.5.2.3/Ga-01-R
9	GL-RAD-A-002
10	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	66.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	66.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Client Sample ID: RE15-10-7907
Sample ID: 245395012
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7913
Sample ID: 245395013
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 21.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0021	0.0332	+/-0.00808	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0141	0.0212	+/-0.00431	0.050	pCi/g		JXD2	02/05/10	1817	944994	2
Plutonium-239/240	U	0.00128	0.0242	+/-0.00287	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.18	0.154	+/-0.115	0.100	pCi/g		JXD2	02/08/10	1204	944996	3
Uranium-235/236	U	0.0858	0.0953	+/-0.0238	0.100	pCi/g						
Uranium-238		2.50	0.0891	+/-0.214	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0561	0.277	+/-0.0843	0.200	pCi/g		MXR1	02/02/10	0926	944966	4
Bismuth-211	UI	3.45	0.235	+/-0.194		pCi/g						
Bismuth-214		0.966	0.0803	+/-0.0704	0.200	pCi/g						
Cadmium-109	UI	3.57	1.11	+/-0.458		pCi/g						
Cerium-139	U	-0.0117	0.039	+/-0.0111	0.050	pCi/g						
Cesium-134	UI	0.116	0.0741	+/-0.0254	0.100	pCi/g						
Cesium-137	U	-0.0069	0.0417	+/-0.0144	0.100	pCi/g						
Cobalt-60	U	-0.00664	0.0437	+/-0.0136	0.100	pCi/g						
Europium-152	U	0.00795	0.126	+/-0.0464	0.200	pCi/g						
Lanthanum-140	U	-0.0547	0.0824	+/-0.028		pCi/g						
Lead-212		1.67	0.0697	+/-0.0741	0.100	pCi/g						
Lead-214		1.20	0.082	+/-0.0743	0.100	pCi/g						
Mercury-203	U	0.0372	0.0551	+/-0.0155	0.100	pCi/g						
Potassium-40		22.6	0.364	+/-1.04	1.00	pCi/g						
Radium-223	U	0.302	0.826	+/-0.273		pCi/g						
Radium-224	UI	3.92	0.792	+/-0.587		pCi/g						
Radium-226		0.966	0.0803	+/-0.0704		pCi/g						
Radium-228		1.58	0.160	+/-0.149	0.500	pCi/g						
Ruthenium-106	U	-0.0308	0.366	+/-0.112	0.800	pCi/g						
Sodium-22	U	-0.0245	0.0473	+/-0.0153	0.080	pCi/g						
Strontium-85	UI	0.0759	0.051	+/-0.0149		pCi/g						
Thallium-208		0.452	0.0463	+/-0.0336	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7913 Project: LANL01004
Sample ID: 245395013 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0068	0.501	+/-0.146		pCi/g						
Thorium-231	U	0.302	0.826	+/-0.273		pCi/g						
Thorium-234		3.09	2.21	+/-0.871	2.00	pCi/g						
Tin-113	U	-0.0192	0.0527	+/-0.0157	0.100	pCi/g						
Uranium-235	U	0.173	0.313	+/-0.0909	0.500	pCi/g						
Yttrium-88	U	-0.00128	0.0394	+/-0.0121	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3420	461	+/-342	250	pCi/L		KXK2	02/08/10	1702	948398	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	59.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	72.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	71.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Report Date: February 19, 2010

Client Sample ID: RE15-10-7913
Sample ID: 245395013
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7909
Sample ID: 245395014
Matrix: R
Collect Date: 19-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 15.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00963	0.0278	+/-0.00835	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00258	0.0213	+/-0.00183	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240		0.0426	0.0244	+/-0.00818	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		15.2	0.893	+/-1.53	0.100	pCi/g		AXD2	02/19/10	0756	954840	4
Uranium-235/236		2.16	0.580	+/-0.382	0.100	pCi/g						
Uranium-238		112	0.615	+/-9.85	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.459	0.486	+/-0.146	0.200	pCi/g		MXR1	02/02/10	0927	944966	9
Bismuth-211	UI	2.33	0.328	+/-0.189		pCi/g						
Bismuth-214		0.853	0.103	+/-0.0726	0.200	pCi/g						
Cadmium-109	U	0.924	2.74	+/-1.18		pCi/g						
Cerium-139	U	0.0311	0.0635	+/-0.0201	0.050	pCi/g						
Cesium-134	UI	0.104	0.0899	+/-0.0257	0.100	pCi/g						
Cesium-137	UI	0.0602	0.0555	+/-0.0365	0.100	pCi/g						
Cobalt-60	U	-0.0119	0.0494	+/-0.0154	0.100	pCi/g						
Europium-152	U	-0.0187	0.162	+/-0.0606	0.200	pCi/g						
Lanthanum-140	U	-0.0252	0.0981	+/-0.0315		pCi/g						
Lead-212		1.14	0.0972	+/-0.0623	0.100	pCi/g						
Lead-214		0.812	0.109	+/-0.0692	0.100	pCi/g						
Mercury-203	U	-0.0154	0.0663	+/-0.0187	0.100	pCi/g						
Potassium-40		21.0	0.447	+/-1.01	1.00	pCi/g						
Radium-223	U	-0.708	0.961	+/-0.338		pCi/g						
Radium-224	UI	2.56	1.11	+/-0.549		pCi/g						
Radium-226		0.853	0.103	+/-0.0726		pCi/g						
Radium-228		1.22	0.182	+/-0.137	0.500	pCi/g						
Ruthenium-106	U	0.148	0.524	+/-0.149	0.800	pCi/g						
Sodium-22	U	0.00624	0.0599	+/-0.0174	0.080	pCi/g						
Strontium-85	UI	0.0722	0.0633	+/-0.0185		pCi/g						
Thallium-208		0.336	0.0574	+/-0.0358	0.080	pCi/g						

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Report Date: February 19, 2010

Client Sample ID: RE15-10-7909
Sample ID: 245395014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.270	0.731	+/-0.239		pCi/g						
Thorium-231	U	-0.708	0.961	+/-0.338		pCi/g						
Thorium-234		73.3	3.74	+/-6.77	2.00	pCi/g						
Tin-113	U	-0.0298	0.0708	+/-0.0208	0.100	pCi/g						
Uranium-235		1.12	0.456	+/-0.212	0.500	pCi/g						
Yttrium-88	U	-0.0125	0.0399	+/-0.0134	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.06E+05	461	+/-7490	250	pCi/L		KXK2	02/08/10	1718	948398	10

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE EML HASL-300, U-02-RC Modified
9	DOE HASL 300, 4.5.2.3/Ga-01-R
10	GL-RAD-A-002
11	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	70.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	73.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported

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Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7909
Sample ID: 245395014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID:	RE15-10-7910	Project:	LANL01004
Sample ID:	245395015	Client ID:	LANL010
Matrix:	R		
Collect Date:	19-JAN-10		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	9.89%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00497	0.0289	+/-0.00814	0.050	pCi/g		JXD2	02/08/10	1021	944985	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00134	0.0221	+/-0.00232	0.050	pCi/g		JXD2	02/08/10	2042	944994	2
Plutonium-239/240	U	0.0241	0.0253	+/-0.00612	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		4.55	0.131	+/-0.354	0.100	pCi/g		JXD2	02/08/10	1156	944996	4
Uranium-235/236		0.741	0.0812	+/-0.0827	0.100	pCi/g						
Uranium-238		32.6	0.0759	+/-2.37	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.224	0.391	+/-0.119	0.200	pCi/g		MXR1	02/02/10	0947	944966	5
Bismuth-211	UI	3.40	0.327	+/-0.288		pCi/g						
Bismuth-214		1.04	0.114	+/-0.0997	0.200	pCi/g						
Cadmium-109	UI	3.71	1.94	+/-0.599		pCi/g						
Cerium-139	U	0.0352	0.0617	+/-0.0166	0.050	pCi/g						
Cesium-134	UI	0.111	0.0934	+/-0.0304	0.100	pCi/g						
Cesium-137	U	0.0388	0.0753	+/-0.0207	0.100	pCi/g						
Cobalt-60	U	-0.0316	0.0504	+/-0.0172	0.100	pCi/g						
Europium-152	U	0.0703	0.169	+/-0.0535	0.200	pCi/g						
Lanthanum-140	U	-0.0401	0.140	+/-0.0476		pCi/g						
Lead-212		1.47	0.101	+/-0.0918	0.100	pCi/g						
Lead-214		1.18	0.114	+/-0.105	0.100	pCi/g						
Mercury-203	U	0.032	0.0776	+/-0.0216	0.100	pCi/g						
Potassium-40		33.0	0.490	+/-1.74	1.00	pCi/g						
Radium-223	U	0.665	1.26	+/-0.354		pCi/g						
Radium-224	UI	4.77	1.15	+/-0.702		pCi/g						
Radium-226		1.04	0.114	+/-0.0997		pCi/g						
Radium-228		1.43	0.230	+/-0.163	0.500	pCi/g						
Ruthenium-106	U	-0.256	0.508	+/-0.157	0.800	pCi/g						
Sodium-22	U	0.0305	0.0788	+/-0.0241	0.080	pCi/g						
Strontium-85	UI	0.079	0.076	+/-0.0232		pCi/g						
Thallium-208		0.408	0.0635	+/-0.0466	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

Client Sample ID: RE15-10-7910
Sample ID: 245395015

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.137	0.731	+/-0.212		pCi/g						
Thorium-231	U	0.665	1.26	+/-0.354		pCi/g						
Thorium-234		32.3	2.99	+/-3.35	2.00	pCi/g						
Tin-113	U	-0.0132	0.0768	+/-0.023	0.100	pCi/g						
Uranium-235	U	0.359	0.402	+/-0.162	0.500	pCi/g						
Yttrium-88	U	0.0219	0.0547	+/-0.0144	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.20E+05	462	+/-8460	250	pCi/L		KXK2	02/08/10	1735	948398	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	65.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	72.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	71.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 19, 2010

	Client Sample ID:	RE15-10-7910			Project:	LANL01004					
	Sample ID:	245395015			Client ID:	LANL010					
Parameter	**Qualifier Result**	**DL**	**TPU**	**RL**	**Units**	**DF**	**Analyst**	**Date**	**Time**	**Batch**	**Mtd.**

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: February 19, 2010
Page 1 of 7

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245395

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 944985										
QC1202023805 245371001 DUP										
Americium-241	U	-0.000424	U	0.00737	pCi/g	0.529		(0-1)	JXD2	02/08/1010:21
	TPU:	+/-0.00334		+/-0.00403						
	Yield:	75.9		73.9						
QC1202023806 LCS										
Americium-241	33.2			31.4	pCi/g		94.6	(75%-125%)		
	TPU:			+/-2.20						
	Yield:			86.4						
QC1202023804 MB										
Americium-241			U	-0.000167	pCi/g					
	TPU:			+/-0.00419						
	Yield:			71.8						
Batch 944994										
QC1202023808 245371001 DUP										
Plutonium-238	U	0.00338	U	-0.0124	pCi/g	0.946		(0-1)	JXD2	02/05/1018:18
	TPU:	+/-0.00253		+/-0.00583						
	Yield:	83.0		73.7						
Plutonium-239/240	U	0.00451	U	-0.00124	pCi/g	0.379		(0-1)		
	TPU:	+/-0.00277		+/-0.00481						
	Yield:	83.0		73.7						
QC1202023809 LCS										
Plutonium-238				6.75	pCi/g			(75%-125%)		02/05/1018:18
	TPU:			+/-0.546						
	Yield:			63.7						
Plutonium-239/240	41.8			38.3	pCi/g		91.6	(75%-125%)		
	TPU:			+/-2.53						
	Yield:			63.7						
QC1202023807 MB										
Plutonium-238			U	-0.00728	pCi/g					02/05/1018:18
	TPU:			+/-0.00357						
	Yield:			78.6						
Plutonium-239/240			U	0.00146	pCi/g					
	TPU:			+/-0.00146						
	Yield:			78.6						
Batch 944996										
QC1202023821 245371001 DUP										
Uranium-233/234		0.662		0.773	pCi/g	0.356		(0-1)	JXD2	02/08/1012:05
	TPU:	+/-0.0715		+/-0.0845						
	Yield:	81.2		72.5						
Uranium-235/236	U	0.0365	U	0.0426	pCi/g	0.0885		(0-1)		
	TPU:	+/-0.0159		+/-0.0185						
	Yield:	81.2		72.5						
Uranium-238		0.772		0.758	pCi/g	0.0431		(0-1)		
	TPU:	+/-0.0794		+/-0.0833						

QC Summary

Workorder: 245395

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 944996										
	Yield:	81.2		72.5						
QC1202023822 LCS										
Uranium-233/234				5.92	pCi/g			(75%-125%)		02/08/1012:05
	TPU:			+/-0.572						
	Yield:			88.5						
Uranium-235/236			U	0.218	pCi/g			(75%-125%)		
	TPU:			+/-0.0821						
	Yield:			88.5						
Uranium-238	5.75			5.47	pCi/g		95.1	(75%-125%)		
	TPU:			+/-0.536						
	Yield:			88.5						
QC1202023820 MB										
Uranium-233/234			U	0.00718	pCi/g					02/08/1011:56
	TPU:			+/-0.00456						
	Yield:			92.1						
Uranium-235/236			U	0.00571	pCi/g					
	TPU:			+/-0.00332						
	Yield:			92.1						
Uranium-238			U	0.0139	pCi/g					
	TPU:			+/-0.0052						
	Yield:			92.1						
Batch 954840										
QC1202047014 245395008 DUP										
Uranium-233/234		18.4		8.58	pCi/g	1.78		(0-1)	AXD2	02/19/1007:56
	TPU:	+/-1.86		+/-0.890						
	Yield:	87.6		102						
Uranium-235/236		3.25		1.89	pCi/g	0.811		(0-1)		
	TPU:	+/-0.524		+/-0.316						
	Yield:	87.6		102						
Uranium-238		188		94.0	pCi/g	1.89		(0-1)		
	TPU:	+/-16.8		+/-8.07						
	Yield:	87.6		102						
QC1202047015 LCS										
Uranium-233/234				4.64	pCi/g			(75%-125%)		02/19/1007:56
	TPU:			+/-0.606						
	Yield:			99.6						
Uranium-235/236			U	0.112	pCi/g			(75%-125%)		
	TPU:			+/-0.0796						
	Yield:			99.6						
Uranium-238	5.75			5.45	pCi/g		94.8	(75%-125%)		
	TPU:			+/-0.682						
	Yield:			99.6						
QC1202047013 MB										
Uranium-233/234			U	0.00706	pCi/g					02/19/1007:56
	TPU:			+/-0.00857						
	Yield:			94.2						
Uranium-235/236			U	-0.00465	pCi/g					
	TPU:			+/-0.00693						
	Yield:			94.2						
Uranium-238			U	0.00795	pCi/g					

QC Summary

Workorder: 245395

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 954840										
	TPU:			+/-0.00723						
	Yield:			94.2						
Rad Gamma Spec										
Batch 944966										
QC1202023720 245395011 DUP										
Americium-241	U	0.0397	U	0.289	pCi/g	0.600		(0-1)	MXR1	02/02/1009:49
	TPU:	+/-0.0816		+/-0.127						
Bismuth-211	UI	2.87	UI	2.89	pCi/g	0.0255		(0-1)		
	TPU:	+/-0.233		+/-0.257						
Bismuth-214		0.918		0.830	pCi/g	0.243		(0-1)		
	TPU:	+/-0.0875		+/-0.0933						
Cadmium-109	UI	2.19	UI	2.87	pCi/g	0.303		(0-1)		
	TPU:	+/-0.468		+/-0.662						
Cerium-139	U	-0.0102	U	-0.0332	pCi/g	0.390		(0-1)		
	TPU:	+/-0.0122		+/-0.0173						
Cesium-134	U	0.0541	UI	0.102	pCi/g	0.356		(0-1)		
	TPU:	+/-0.0304		+/-0.0365						
Cesium-137		0.221		0.209	pCi/g	0.0989		(0-1)		
	TPU:	+/-0.0276		+/-0.030						
Cobalt-60	U	0.00269	U	-0.0137	pCi/g	0.236		(0-1)		
	TPU:	+/-0.0164		+/-0.0183						
Europium-152	U	0.0165	U	0.0174	pCi/g	0.00405		(0-1)		
	TPU:	+/-0.0406		+/-0.0731						
Lanthanum-140	U	0.000832	U	-0.0203	pCi/g	0.144		(0-1)		
	TPU:	+/-0.0329		+/-0.0405						
Lead-212		1.22		1.13	pCi/g	0.300		(0-1)		
	TPU:	+/-0.0851		+/-0.0648						
Lead-214		0.998		1.01	pCi/g	0.0253		(0-1)		
	TPU:	+/-0.085		+/-0.0931						
Mercury-203	U	0.0344	U	-0.0266	pCi/g	0.694		(0-1)		
	TPU:	+/-0.0221		+/-0.0219						
Potassium-40		26.6		26.2	pCi/g	0.0672		(0-1)		
	TPU:	+/-1.41		+/-1.20						
Radium-223	U	0.125	U	-0.0533	pCi/g	0.127		(0-1)		
	TPU:	+/-0.296		+/-0.407						
Radium-224	UI	2.67	UI	3.13	pCi/g	0.241		(0-1)		
	TPU:	+/-0.478		+/-0.468						
Radium-226		0.918		0.830	pCi/g	0.243		(0-1)		
	TPU:	+/-0.0875		+/-0.0933						
Radium-228		1.08		1.01	pCi/g	0.120		(0-1)		
	TPU:	+/-0.135		+/-0.165						
Ruthenium-106	U	-0.0651	U	0.0886	pCi/g	0.254		(0-1)		
	TPU:	+/-0.132		+/-0.171						
Sodium-22	U	-0.00409	U	-0.0602	pCi/g	0.689		(0-1)		
	TPU:	+/-0.0181		+/-0.0227						
Strontium-85	UI	0.0632	U	0.0576	pCi/g	0.0765		(0-1)		
	TPU:	+/-0.0167		+/-0.020						
Thallium-208		0.313		0.309	pCi/g	0.0322		(0-1)		
	TPU:	+/-0.0334		+/-0.0365						
Thorium-227	U	-0.0912	U	0.298	pCi/g	0.503		(0-1)		

QC Summary

Workorder: 245395

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 944966										
	TPU:	+/-0.164		+/-0.223						
Thorium-231	U	0.125	U	-0.0533	pCi/g	0.127		(0-1)		
	TPU:	+/-0.296		+/-0.407						
Thorium-234		15.6		20.0	pCi/g	0.521		(0-1)		
	TPU:	+/-1.77		+/-2.46						
Tin-113	U	0.0186	U	-0.0111	pCi/g	0.358		(0-1)		
	TPU:	+/-0.018		+/-0.0236						
Uranium-235		0.540		0.504	pCi/g	0.0627		(0-1)		
	TPU:	+/-0.140		+/-0.145						
Yttrium-88	U	0.0089	U	0.00666	pCi/g	0.0386		(0-1)		
	TPU:	+/-0.0137		+/-0.0154						
QC1202023721 LCS										
Americium-241	15.9			13.3	pCi/g		83.7	(75%-125%)		02/02/1009:50
	TPU:			+/-0.580						
Bismuth-211				2.08	pCi/g					
	TPU:			+/-0.302						
Bismuth-214				0.655	pCi/g					
	TPU:			+/-0.107						
Cadmium-109				30.0	pCi/g					
	TPU:			+/-1.69						
Cerium-139			U	-0.00631	pCi/g					
	TPU:			+/-0.0221						
Cesium-134			U	0.187	pCi/g					
	TPU:			+/-0.0509						
Cesium-137	5.56			5.85	pCi/g		105	(75%-125%)		
	TPU:			+/-0.294						
Cobalt-60	6.43			6.31	pCi/g		98.2	(75%-125%)		
	TPU:			+/-0.305						
Europium-152			U	0.0198	pCi/g					
	TPU:			+/-0.0916						
Lanthanum-140			U	-0.0108	pCi/g					
	TPU:			+/-0.0399						
Lead-212				1.16	pCi/g					
	TPU:			+/-0.0926						
Lead-214				0.724	pCi/g					
	TPU:			+/-0.107						
Mercury-203			U	0.0304	pCi/g					
	TPU:			+/-0.0303						
Potassium-40			U	0.878	pCi/g					
	TPU:			+/-0.275						
Radium-223			U	-0.249	pCi/g					
	TPU:			+/-0.605						
Radium-224				2.22	pCi/g					
	TPU:			+/-0.834						
Radium-226				0.655	pCi/g					
	TPU:			+/-0.107						
Radium-228				0.565	pCi/g					
	TPU:			+/-0.234						
Ruthenium-106			U	0.189	pCi/g					
	TPU:			+/-0.300						
Sodium-22			U	-0.0114	pCi/g					

QC Summary

Workorder: 245395

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 944966										
	TPU:			+/-0.0265						
Strontium-85			U	0.00719	pCi/g					
	TPU:			+/-0.0361						
Thallium-208				0.420	pCi/g					
	TPU:			+/-0.0633						
Thorium-227			U	0.143	pCi/g					
	TPU:			+/-0.322						
Thorium-231			U	-0.249	pCi/g					
	TPU:			+/-0.605						
Thorium-234			U	0.108	pCi/g					
	TPU:			+/-0.766						
Tin-113			U	-0.00854	pCi/g					
	TPU:			+/-0.0425						
Uranium-235			U	-0.129	pCi/g					
	TPU:			+/-0.152						
Yttrium-88			U	0.0164	pCi/g					
	TPU:			+/-0.0187						
QC1202023719 MB										
Americium-241			U	-0.0839	pCi/g					02/02/1009:48
	TPU:			+/-0.0366						
Bismuth-211			U	0.0273	pCi/g					
	TPU:			+/-0.042						
Bismuth-214			U	0.0114	pCi/g					
	TPU:			+/-0.0164						
Cadmium-109			U	-0.0238	pCi/g					
	TPU:			+/-0.112						
Cerium-139			U	-0.00161	pCi/g					
	TPU:			+/-0.00505						
Cesium-134			U	0.00884	pCi/g					
	TPU:			+/-0.00751						
Cesium-137			U	-0.00483	pCi/g					
	TPU:			+/-0.0084						
Cobalt-60			U	-0.00249	pCi/g					
	TPU:			+/-0.00778						
Europium-152			U	0.00866	pCi/g					
	TPU:			+/-0.0169						
Lanthanum-140			U	0.00313	pCi/g					
	TPU:			+/-0.0117						
Lead-212			U	-0.0227	pCi/g					
	TPU:			+/-0.0123						
Lead-214			U	0.0298	pCi/g					
	TPU:			+/-0.0147						
Mercury-203			U	-0.00172	pCi/g					
	TPU:			+/-0.00678						
Potassium-40			U	0.021	pCi/g					
	TPU:			+/-0.0764						
Radium-223			U	0.0643	pCi/g					
	TPU:			+/-0.132						
Radium-224			U	-0.347	pCi/g					
	TPU:			+/-0.148						
Radium-226			U	0.0114	pCi/g					

QC Summary

Workorder: 245395

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 944966										
	TPU:			+/-0.0164						
Radium-228			U	-0.00766	pCi/g					
	TPU:			+/-0.029						
Ruthenium-106			U	-0.0128	pCi/g					
	TPU:			+/-0.0573						
Sodium-22			U	0.00652	pCi/g					
	TPU:			+/-0.0084						
Strontium-85			U	-0.0539	pCi/g					
	TPU:			+/-0.0108						
Thallium-208			U	-0.0123	pCi/g					
	TPU:			+/-0.00738						
Thorium-227			U	0.0875	pCi/g					
	TPU:			+/-0.0647						
Thorium-231			U	0.0643	pCi/g					
	TPU:			+/-0.132						
Thorium-234			U	0.010	pCi/g					
	TPU:			+/-0.312						
Tin-113			U	0.00405	pCi/g					
	TPU:			+/-0.00737						
Uranium-235			U	-0.00235	pCi/g					
	TPU:			+/-0.0376						
Yttrium-88			U	-0.000456	pCi/g					
	TPU:			+/-0.00837						
Rad Liquid Scintillation										
Batch 948398										
QC1202031674 245395001 DUP										
Tritium		8070		8300	pCi/L	0.0878		(0-1)	KXK2	02/08/1018:07
	TPU:	+/-660		+/-676						
QC1202031675 LCS										
Tritium	5570			6210	pCi/L		112	(75%-125%)		02/08/1018:23
	TPU:			+/-532						
QC1202031673 MB										
Tritium			U	76.1	pCi/L					02/08/1017:51
	TPU:			+/-132						

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value

QC Summary

Workorder: 245395

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 044985 Product: Am Date: 2/9/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Louise Green 2/9/10

Secondary Review Performed By: [illegible] 2/9/10

2/13
LANL

P

Am/Cm Que Sheet

25-JAN-10

Batch #: 944985 | Analyst: JXD2 | First Client Due Date: 13-FEB-10 | Internal Due Date03-FEB-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-53 | Expiration Date: 05/01/10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): — | Expiration Date: — | Vol(s): —

Spike Isotope(s): Am241/Cm244 | Spike Code(s): — | Expiration Date: — | Vol(s): —

Prep Date: 02/04/10 | Initials: JMD | Pipet ID: 2576058 | Balance ID: 50410272 | Witness: JMD 2/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g 1/f)	Am/Cm Det #
245371001-1	RE16-10-957	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	1	1	1.252	31
245371002-1	RE16-10-979	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	2	2	1.250	33
245393010-1	RE15-10-8053	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	3	3	1.251	35
245393011-1	RE15-10-8054	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	4	4	1.256	36
245395001-1	RE15-10-7869	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	5	5	1.255	37
245395002-1	RE15-10-7874	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	6	6	1.254	38
245395003-1	RE15-10-7871	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	7	7	1.253	39
245395004-1	RE15-10-7872	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	8	8	1.254	40
245395005-1	RE15-10-7870	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	9	9	1.258	41
245395006-1	RE15-10-7873	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	10	10	1.250	42
245395007-1	RE15-10-7911	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	11	11	1.254	43
245395008-1	RE15-10-7908	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	12	12	1.256	44
245395009-1	RE15-10-7912	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	13	13	1.254	45
245395010-1	RE15-10-7906	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	14	14	1.255	46
245395011-1	RE15-10-7905	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	15	15	1.257	47
245395012-1	RE15-10-7907	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	16	16	1.252	48
245395013-1	RE15-10-7913	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	17	17	1.258	65
245395014-1	RE15-10-7909	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	18	18	1.257	66
245395015-1	RE15-10-7910	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	19	19	1.254	67
1202023804-1	MB for batch 944985	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1	68
1202023805-1	RE16-10-957(245371001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	15-JAN-10	21	21	1.251	69
1202023806-1	LCS for batch 944985	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.106	70

* SRM 0244-B exp 04/30/20 0.106g

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/9/10

Blank Correction Report

Batch ID 944985

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202023805	DUP	Americium-241	1.25 g	0.00737	0.00403	0.0261	-.0001336	pCi/g	NO
1202023806	LCS	Americium-241	0.106 g	31.4	2.20	0.239	-.00157547	pCi/g	NO
1202023804	MB	Americium-241	1.00 g	-0.000167	0.00419	0.036	-.000167	pCi/g	NO
245371001	RE16-10-957	Americium-241	1.25 g	-0.000424	0.00334	0.0238	-.0001336	pCi/g	NO
245371002	RE16-10-979	Americium-241	1.25 g	0.00612	0.00387	0.027	-.0001336	pCi/g	NO
245393010	RE15-10-8053	Americium-241	1.25 g	0.00299	0.00389	0.0273	-.0001336	pCi/g	NO
245393011	RE15-10-8054	Americium-241	1.26 g	-0.00334	0.00305	0.0259	-.00013254	pCi/g	YES
245395001	RE15-10-7869	Americium-241	1.26 g	0.0107	0.00782	0.0213	-.00013254	pCi/g	NO
245395002	RE15-10-7874	Americium-241	1.25 g	-0.00182	0.00557	0.0264	-.0001336	pCi/g	YES
245395003	RE15-10-7871	Americium-241	1.25 g	0.0314	0.00955	0.0226	-.0001336	pCi/g	NO
245395004	RE15-10-7872	Americium-241	1.25 g	0.00276	0.00206	0.026	-.0001336	pCi/g	NO
245395005	RE15-10-7870	Americium-241	1.26 g	0.00249	0.004	0.0244	-.00013254	pCi/g	NO
245395006	RE15-10-7873	Americium-241	1.25 g	0.00412	0.00441	0.0253	-.0001336	pCi/g	NO
245395007	RE15-10-7911	Americium-241	1.25 g	0.0611	0.0101	0.0243	-.0001336	pCi/g	NO
245395008	RE15-10-7908	Americium-241	1.26 g	0.00759	0.00375	0.0228	-.00013254	pCi/g	NO
245395009	RE15-10-7912	Americium-241	1.25 g	0.0067	0.00421	0.0241	-.0001336	pCi/g	NO
245395010	RE15-10-7906	Americium-241	1.26 g	0.00921	0.00454	0.0234	-.00013254	pCi/g	NO
245395011	RE15-10-7905	Americium-241	1.26 g	0.00947	0.00579	0.024	-.00013254	pCi/g	NO
245395012	RE15-10-7907	Americium-241	1.25 g	0.0169	0.0108	0.0289	-.0001336	pCi/g	NO
245395013	RE15-10-7913	Americium-241	1.26 g	0.0021	0.00808	0.0332	-.00013254	pCi/g	NO
245395014	RE15-10-7909	Americium-241	1.26 g	0.00963	0.00835	0.0278	-.00013254	pCi/g	NO
245395015	RE15-10-7910	Americium-241	1.25 g	0.00497	0.00814	0.0289	-.0001336	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985	CHAMBER : 031	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245371001_AM	DETECTOR S/N : 79988	BKG FILE : B031.CNF;1107
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 33.8909	BKG DATE : 7-FEB-2010
SAMPLE DATE : 15-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 10:21:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W031.CNF;345
% YIELD : 75.942		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3158E+01 pCi/G	NOMINAL : 3.3158E+01 pCi/G
RESULTS : 2.2149E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5507.854	156.680	4.000	-0.303	3.000	3.0704	99.94000	-4.24E-04	3.34E-03	9.99E-03	2.38E-02	3.34E-03
AM243	5270.000	5277.010	55.876	754.000	749.000	5.000	2.2361	99.78000	1.05E+00	7.52E-02	7.29E-03	1.84E-02	3.86E-02
CM-242	6102.000	6099.946	141.991	6.000	5.000	1.000	4.3186	100.0000	7.77E-03	4.14E-03	1.40E-02	3.19E-02	4.11E-03
CM-3/4	5795.020	5802.236	105.116	14.000	9.000	5.000	5.2338	100.0000	1.26E-02	6.16E-03	1.70E-02	3.78E-02	6.11E-03
CM-5/6	5386.000	5377.883	7.191	7.000	7.000	0.000	19.8463	86.09000	1.14E-02	4.35E-03	7.50E-02	1.54E-01	4.30E-03
CM-247	4946.000	4906.142	161.576	7.000	2.000	5.000	15.3366	79.30000	3.53E-03	6.11E-03	6.29E-02	1.31E-01	6.11E-03
CM-248	5078.600	5048.526	0.000	14.000	11.000	3.000	22.1555	91.00000	1.69E-02	6.42E-03	7.92E-02	1.63E-01	6.33E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

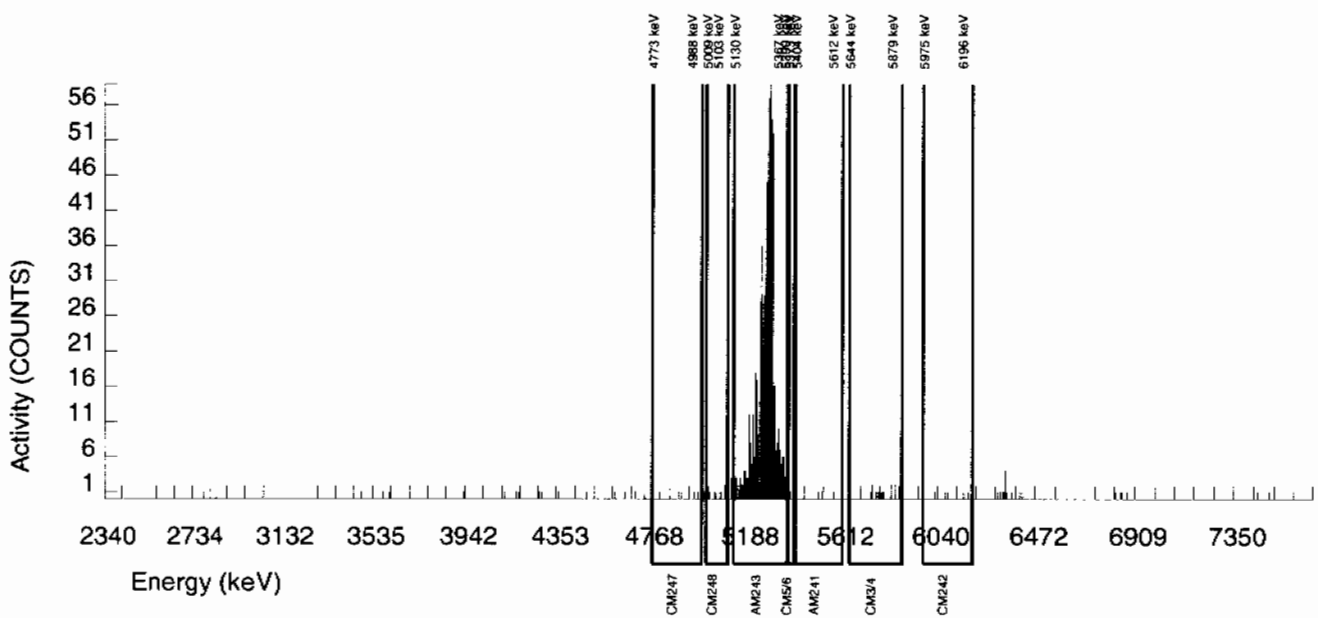

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395001_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 79.691

CHAMBER : 037
DETECTOR S/N : 45-149BB5
AVERAGE %EFFICIENCY : 35.9189
COUNT DATE : 8-FEB-2010 10:21:09
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B037.CNF;1114
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W037.CNF;307
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.3242E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.750	15.827	25.000	8.550	15.000	3.0704	99.94000	1.07E-02	7.82E-03	8.96E-03	2.13E-02	7.79E-03
AM243	5270.000	5276.687	51.510	837.000	833.000	4.000	2.0000	99.78000	1.05E+00	7.29E-02	5.85E-03	1.51E-02	3.64E-02
CM-242	6102.000	6081.951	7.245	11.000	7.000	4.000	4.3186	100.0000	9.59E-03	5.34E-03	1.26E-02	2.86E-02	5.31E-03
CM-3/4	5795.020	5752.411	34.223	16.000	1.000	15.000	5.2338	100.0000	1.26E-03	7.00E-03	1.53E-02	3.39E-02	7.00E-03
CM-5/6	5386.000	5379.336	0.000	15.000	13.000	2.000	19.8463	86.09000	1.89E-02	6.11E-03	6.72E-02	1.38E-01	6.01E-03
CM-247	4946.000	4890.479	126.973	14.000	11.000	3.000	15.3366	79.30000	1.74E-02	6.60E-03	5.64E-02	1.17E-01	6.52E-03
CM-248	5078.600	5062.763	24.665	15.000	13.000	2.000	22.1555	91.00000	1.79E-02	5.78E-03	7.10E-02	1.46E-01	5.68E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

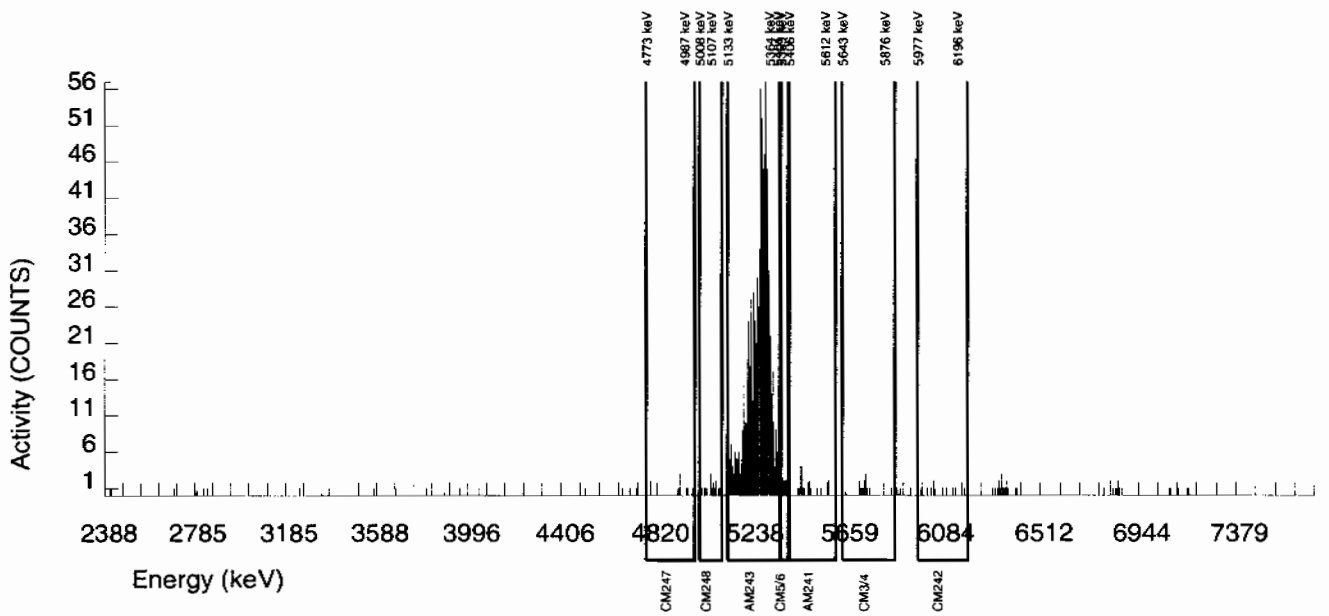

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395002_AM
SAMPLE QTY : 1.254 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 68.747

CHAMBER : 038
DETECTOR S/N : 72532
AVERAGE %EFFICIENCY : 33.6391
COUNT DATE : 8-FEB-2010 10:21:09
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B038.CNF;1111
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W038.CNF;321
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.0051E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5484.721	4.934	7.000	-1.171	7.000	3.0704	99.94000	-1.82E-03	5.57E-03	1.11E-02	2.64E-02	5.57E-03
AM243	5270.000	5273.536	39.477	676.000	673.000	3.000	1.7321	99.78000	1.05E+00	7.72E-02	6.27E-03	1.68E-02	4.06E-02
CM-242	6102.000	6031.877	4.934	6.000	3.000	3.000	4.3186	100.0000	5.09E-03	5.10E-03	1.56E-02	3.54E-02	5.09E-03
CM-3/4	5795.020	5802.399	7.247	8.000	-1.000	9.000	5.2338	100.0000	-1.56E-03	6.42E-03	1.89E-02	4.20E-02	6.42E-03
CM-5/6	5386.000	5379.879	0.000	5.000	3.000	2.000	19.8463	86.09000	5.41E-03	4.79E-03	8.33E-02	1.71E-01	4.77E-03
CM-247	4946.000	4893.342	4.934	9.000	8.000	1.000	15.3366	79.30000	1.57E-02	6.27E-03	6.99E-02	1.45E-01	6.19E-03
CM-248	5078.600	5068.140	0.000	13.000	13.000	0.000	22.1555	91.00000	2.22E-02	6.31E-03	8.80E-02	1.81E-01	6.15E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

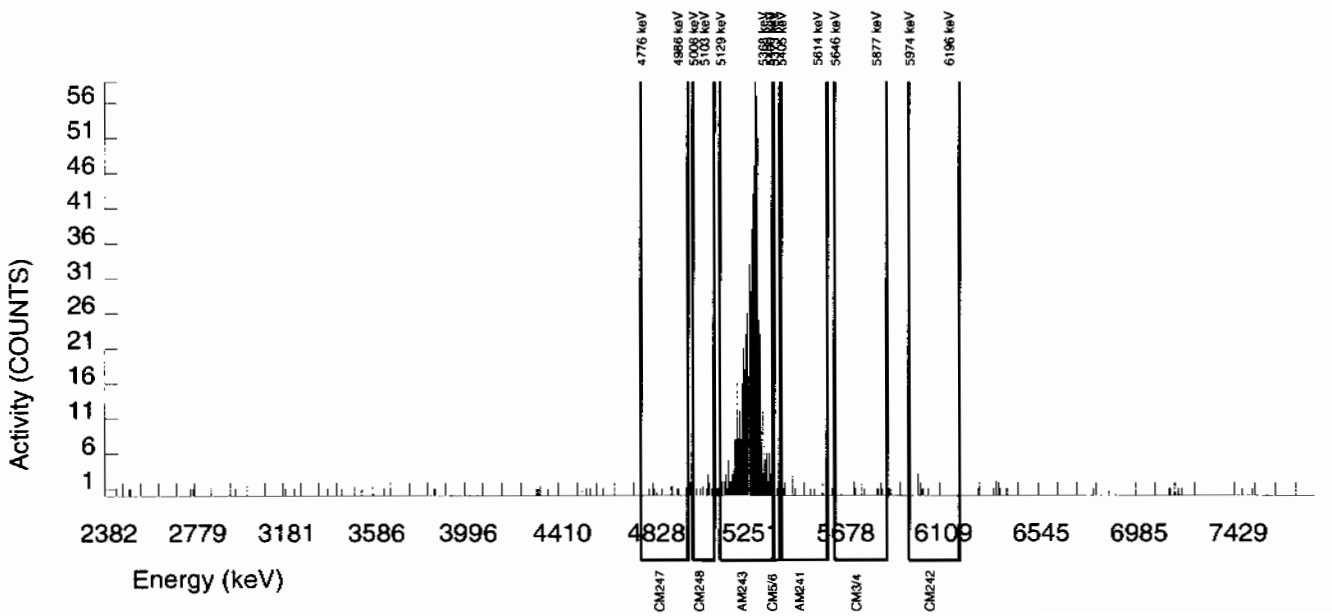

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985	CHAMBER : 039	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245395003_AM	DETECTOR S/N : 45-149BB2	BKG FILE : B039.CNF;1111
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 35.7920	BKG DATE : 7-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 10:21:09	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W039.CNF;298
% YIELD : 75.653		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3157E+01 pCi/G	NOMINAL : 3.3157E+01 pCi/G
RESULTS : 2.2065E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5479.534	120.905	38.000	23.629	13.000	3.0704	99.94000	3.14E-02	9.55E-03	9.49E-03	2.26E-02	9.36E-03
AM243	5270.000	5271.373	64.508	795.000	788.000	7.000	2.6458	99.78000	1.05E+00	7.42E-02	8.19E-03	2.00E-02	3.77E-02
CM-242	6102.000	6040.590	6.079	11.000	7.000	4.000	4.3186	100.0000	1.02E-02	5.65E-03	1.33E-02	3.03E-02	5.62E-03
CM-3/4	5795.020	5769.130	57.464	18.000	2.000	16.000	5.2338	100.0000	2.66E-03	7.76E-03	1.62E-02	3.59E-02	7.76E-03
CM-5/6	5386.000	5375.049	0.000	13.000	11.000	2.000	19.8463	86.09000	1.70E-02	6.06E-03	7.12E-02	1.47E-01	5.97E-03
CM-247	4946.000	4925.374	0.000	10.000	8.000	2.000	15.3366	79.30000	1.34E-02	5.86E-03	5.97E-02	1.24E-01	5.80E-03
CM-248	5078.600	5069.535	0.000	23.000	23.000	0.000	22.1555	91.00000	3.36E-02	7.29E-03	7.52E-02	1.54E-01	7.00E-03

NOTES:

* Sg calculated via blank population. (Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

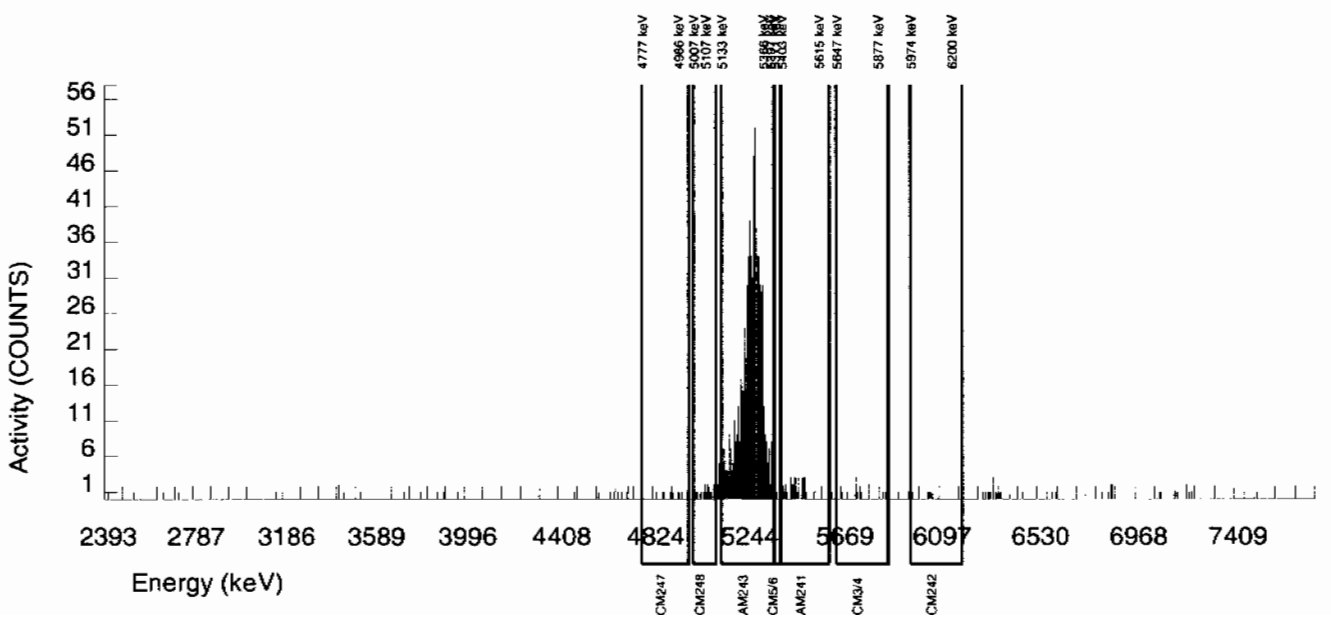

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395004_AM
SAMPLE QTY : 1.254 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 73.278

CHAMBER : 040
DETECTOR S/N : 78773
AVERAGE %EFFICIENCY : 32.1221
COUNT DATE : 8-FEB-2010 10:21:09
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B040.CNF;1114
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W040.CNF;317
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1372E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5503.989	68.447	3.000	1.808	0.000	3.0704	99.94000	2.76E-03	2.06E-03	1.09E-02	2.60E-02	2.05E-03
AM243	5270.000	5269.542	41.377	685.000	685.000	0.000	0.0000	99.78000	1.05E+00	7.67E-02	0.00E+00	4.14E-03	4.00E-02
CM-242	6102.000	6012.845	0.000	5.000	4.000	1.000	4.3186	100.0000	6.67E-03	4.10E-03	1.53E-02	3.48E-02	4.08E-03
CM-3/4	5795.020	5757.652	0.000	9.000	0.000	9.000	5.2338	100.0000	0.00E+00	6.49E-03	1.86E-02	4.13E-02	6.49E-03
CM-5/6	5386.000	5378.612	4.889	1.000	1.000	0.000	19.8463	86.09000	1.77E-03	1.78E-03	8.18E-02	1.68E-01	1.77E-03
CM-247	4946.000	4900.625	0.000	9.000	8.000	1.000	15.3366	79.30000	1.54E-02	6.16E-03	6.87E-02	1.43E-01	6.09E-03
CM-248	5078.600	5070.560	0.000	11.000	10.000	1.000	22.1555	91.00000	1.68E-02	5.90E-03	8.64E-02	1.77E-01	5.81E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

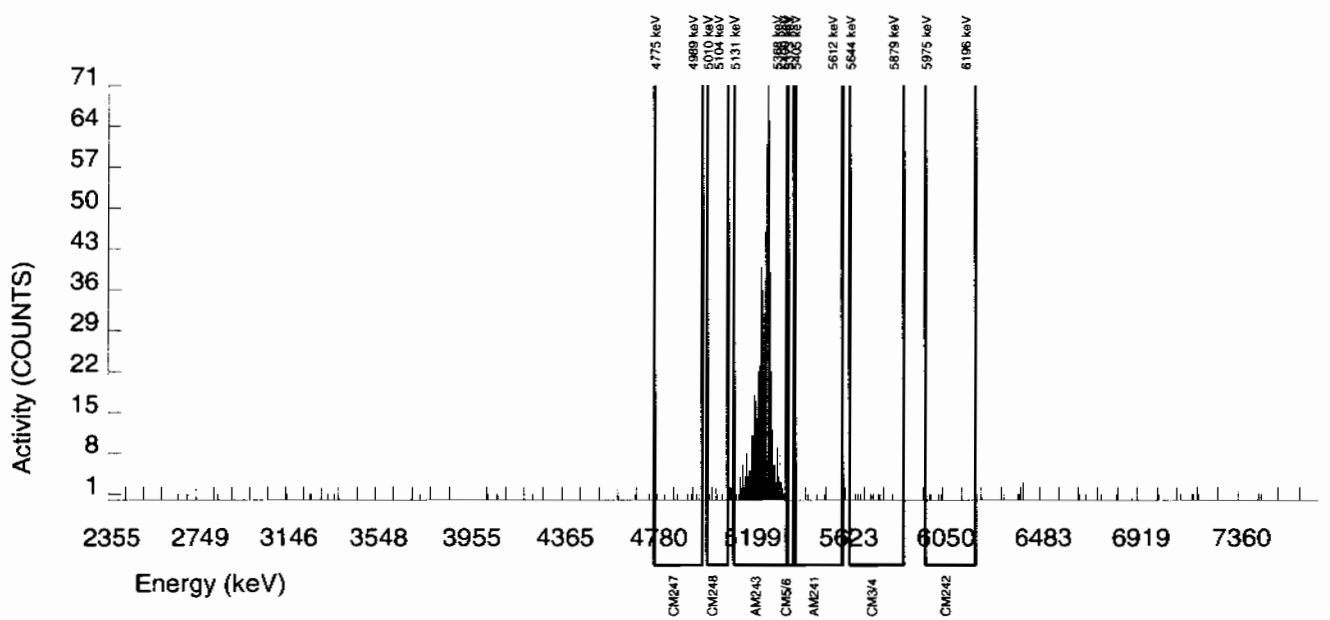

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395005_AM
SAMPLE QTY : 1.258 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 75.373

CHAMBER : 041
DETECTOR S/N : 78205
AVERAGE %EFFICIENCY : 33.0982
COUNT DATE : 8-FEB-2010 10:21:09
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B041.CNF;1107
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W041.CNF;321
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1983E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5535.736	142.931	6.000	1.737	3.000	3.0704	99.94000	2.49E-03	4.00E-03	1.03E-02	2.44E-02	4.00E-03
AM243	5270.000	5272.279	39.889	732.000	726.000	6.000	2.4495	99.78000	1.04E+00	7.55E-02	8.20E-03	2.03E-02	3.91E-02
CM-242	6102.000	6081.575	4.950	8.000	6.000	2.000	4.3186	100.0000	9.41E-03	4.99E-03	1.44E-02	3.27E-02	4.96E-03
CM-3/4	5795.020	5811.984	68.062	10.000	-3.000	13.000	5.2338	100.0000	-4.32E-03	6.90E-03	1.75E-02	3.88E-02	6.90E-03
CM-5/6	5386.000	5378.991	0.000	5.000	5.000	0.000	19.8463	86.09000	8.34E-03	3.76E-03	7.70E-02	1.58E-01	3.73E-03
CM-247	4946.000	4911.034	143.549	8.000	7.000	1.000	15.3366	79.30000	1.27E-02	5.49E-03	6.46E-02	1.34E-01	5.43E-03
CM-248	5078.600	5076.336	44.467	11.000	10.000	1.000	22.1555	91.00000	1.58E-02	5.55E-03	8.13E-02	1.67E-01	5.46E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

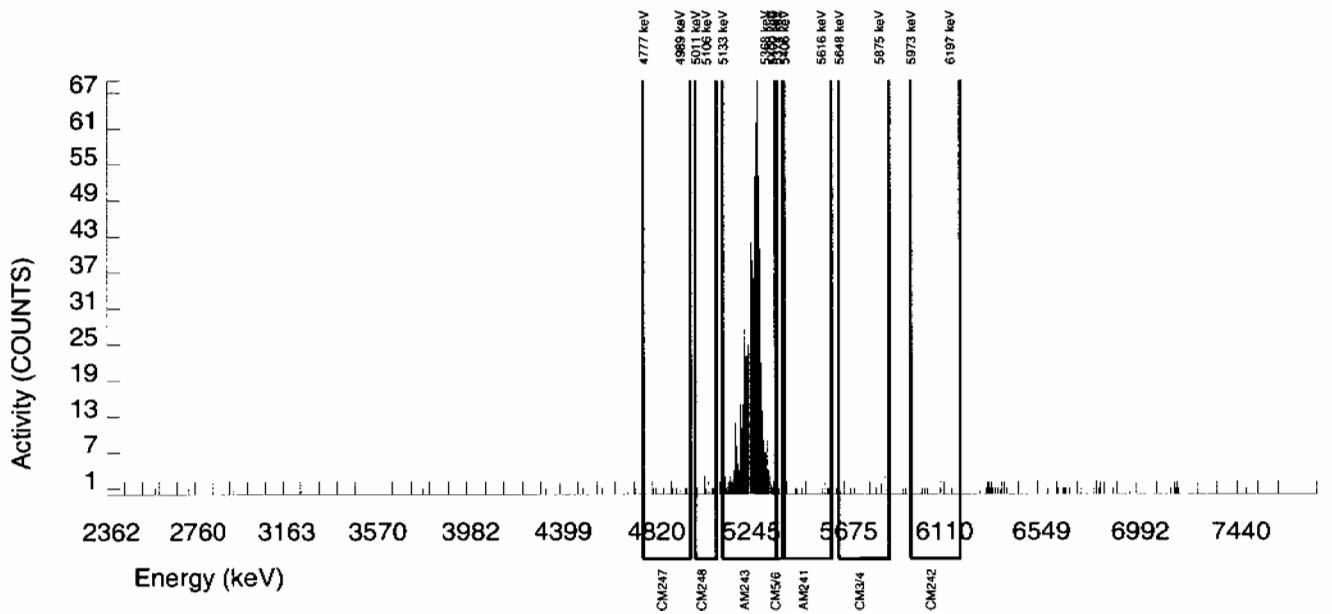

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395006_AM
SAMPLE QTY : 1.250 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 73.052

CHAMBER : 042
DETECTOR S/N : 78793
AVERAGE %EFFICIENCY : 33.2094
COUNT DATE : 8-FEB-2010 10:21:09
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B042.CNF;1106
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W042.CNF;294
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1306E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5479.248	112.493	7.000	2.771	3.000	3.0704	99.94000	4.12E-03	4.41E-03	1.06E-02	2.53E-02	4.40E-03
AM243	5270.000	5271.854	35.172	709.000	706.000	3.000	1.7321	99.78000	1.05E+00	7.64E-02	6.00E-03	1.60E-02	3.97E-02
CM-242	6102.000	6089.347	87.427	8.000	5.000	3.000	4.3186	100.0000	8.11E-03	5.41E-03	1.49E-02	3.39E-02	5.38E-03
CM-3/4	5795.020	5787.943	117.282	13.000	7.000	6.000	5.2338	100.0000	1.04E-02	6.52E-03	1.81E-02	4.02E-02	6.49E-03
CM-5/6	5386.000	5378.238	0.000	4.000	3.000	1.000	19.8463	86.09000	5.18E-03	3.87E-03	7.97E-02	1.64E-01	3.86E-03
CM-247	4946.000	4913.757	185.858	3.000	1.000	2.000	15.3366	79.30000	1.87E-03	4.19E-03	6.68E-02	1.39E-01	4.19E-03
CM-248	5078.600	5077.411	51.356	8.000	8.000	0.000	22.1555	91.00000	1.31E-02	4.69E-03	8.41E-02	1.73E-01	4.62E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

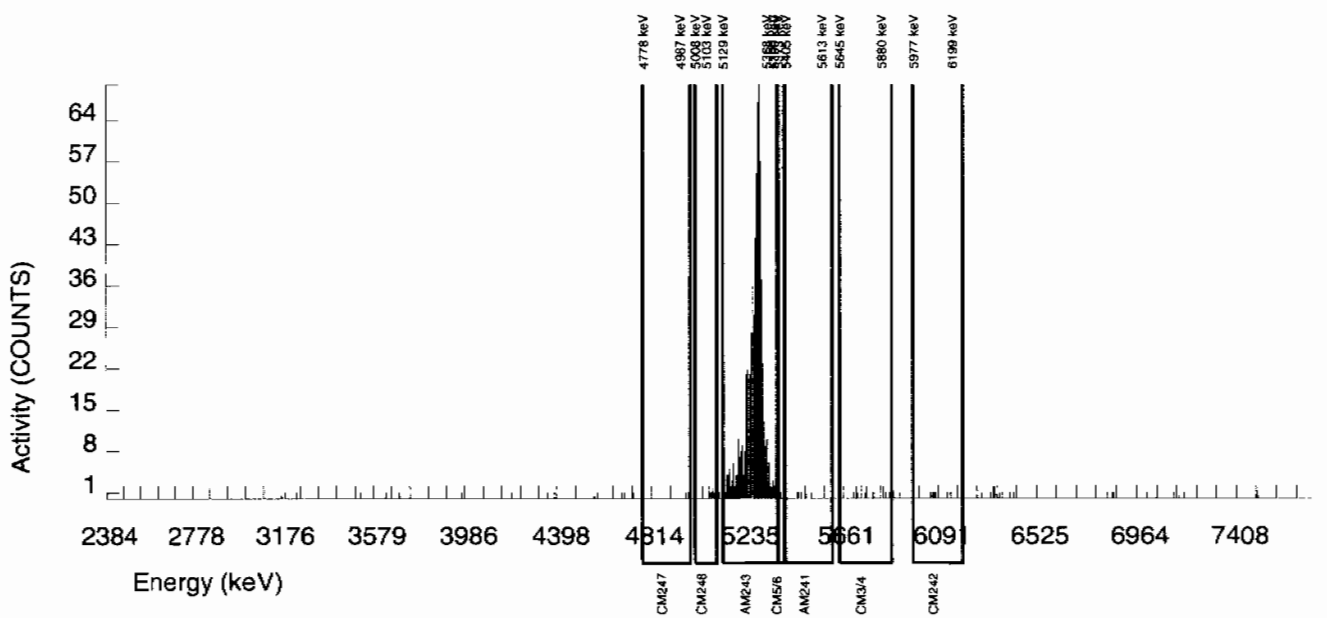

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395007_AM
SAMPLE QTY : 1.254 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 74.756

CHAMBER : 043
DETECTOR S/N : 76543
AVERAGE %EFFICIENCY : 33.6471
COUNT DATE : 8-FEB-2010 10:21:10
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B043.CNF;1104
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W043.CNF;286
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1803E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5503.979	7.190	44.000	42.726	0.000	3.0704	99.94000	6.11E-02	1.01E-02	1.02E-02	2.43E-02	9.34E-03
AM243	5270.000	5272.975	43.016	734.000	732.000	2.000	1.4142	99.78000	1.05E+00	7.54E-02	4.71E-03	1.33E-02	3.88E-02
CM-242	6102.000	6099.430	9.277	9.000	9.000	0.000	4.3186	100.0000	1.40E-02	4.76E-03	1.43E-02	3.26E-02	4.68E-03
CM-3/4	5795.020	5786.577	0.000	7.000	3.000	4.000	5.2338	100.0000	4.29E-03	4.75E-03	1.74E-02	3.86E-02	4.75E-03
CM-5/6	5386.000	5377.457	0.000	6.000	5.000	1.000	19.8463	86.09000	8.29E-03	4.42E-03	7.66E-02	1.58E-01	4.39E-03
CM-247	4946.000	4872.957	158.333	8.000	8.000	0.000	15.3366	79.30000	1.44E-02	5.17E-03	6.43E-02	1.33E-01	5.09E-03
CM-248	5078.600	5056.309	39.480	12.000	11.000	1.000	22.1555	91.00000	1.73E-02	5.76E-03	8.09E-02	1.66E-01	5.66E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

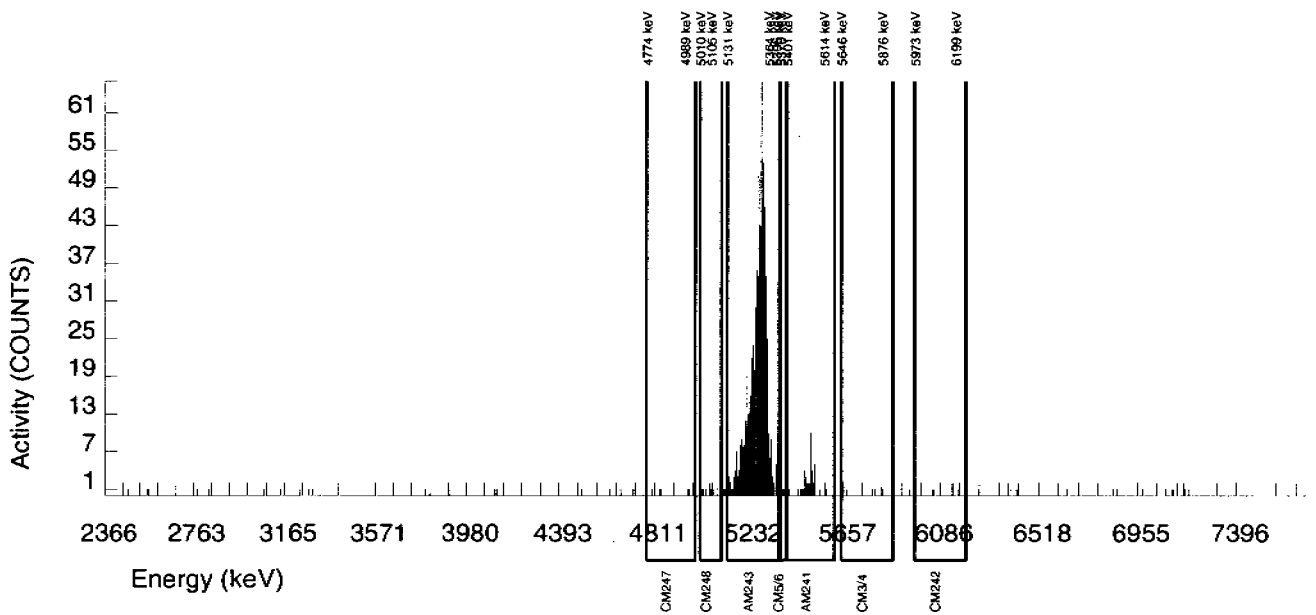

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395008_AM
SAMPLE QTY : 1.256 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 77.882

CHAMBER : 044
DETECTOR S/N : 79459
AVERAGE %EFFICIENCY : 34.2824
COUNT DATE : 8-FEB-2010 10:21:10
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B044.CNF;1114
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W044.CNF;307
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.2715E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5476.072	7.230	8.000	5.648	1.000	3.0704	99.94000	7.59E-03	3.75E-03	9.60E-03	2.28E-02	3.72E-03
AM243	5270.000	5270.946	32.003	779.000	777.000	2.000	1.4142	99.78000	1.05E+00	7.41E-02	4.43E-03	1.25E-02	3.76E-02
CM-242	6102.000	6081.954	113.225	4.000	2.000	2.000	4.3186	100.0000	2.93E-03	3.60E-03	1.35E-02	3.06E-02	3.59E-03
CM-3/4	5795.020	5795.222	9.230	7.000	-1.000	8.000	5.2338	100.0000	-1.35E-03	5.21E-03	1.64E-02	3.64E-02	5.21E-03
CM-5/6	5386.000	5386.619	0.000	0.000	0.000	0.000	19.8463	86.09000	0.00E+00	1.56E-03	7.20E-02	1.48E-01	1.56E-03
CM-247	4946.000	4918.119	157.531	6.000	5.000	1.000	15.3366	79.30000	8.47E-03	4.51E-03	6.04E-02	1.25E-01	4.48E-03
CM-248	5078.600	5055.452	0.000	6.000	6.000	0.000	22.1555	91.00000	8.86E-03	3.66E-03	7.61E-02	1.56E-01	3.62E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

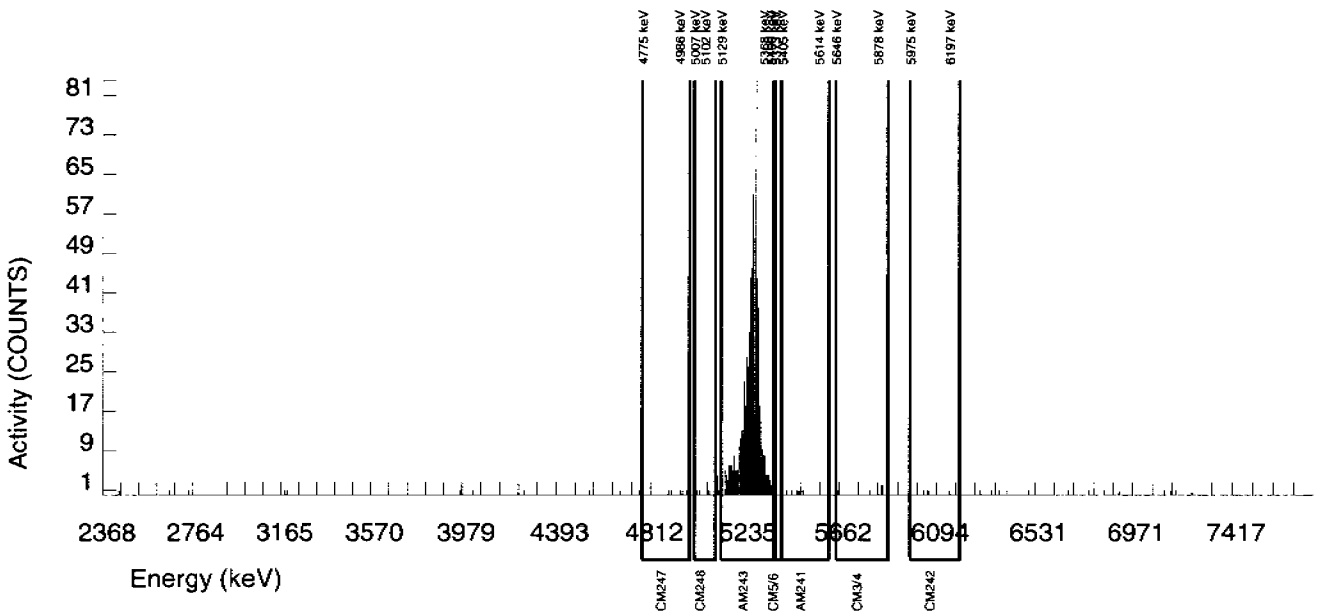

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395009_AM
SAMPLE QTY : 1.254 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 75.246

CHAMBER : 045
DETECTOR S/N : 78783
AVERAGE %EFFICIENCY : 33.6564
COUNT DATE : 8-FEB-2010 10:21:10
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B045.CNF;1103
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W045.CNF;298
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1946E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5494.586	4.942	8.000	4.717	2.000	3.0704	99.94000	6.70E-03	4.21E-03	1.01E-02	2.41E-02	4.19E-03
AM243	5270.000	5266.126	44.681	738.000	737.000	1.000	1.0000	99.78000	1.05E+00	7.52E-02	3.31E-03	1.05E-02	3.86E-02
CM-242	6102.000	6051.084	7.258	11.000	10.000	1.000	4.3186	100.0000	1.55E-02	5.45E-03	1.43E-02	3.23E-02	5.37E-03
CM-3/4	5795.020	5815.173	29.548	10.000	0.000	10.000	5.2338	100.0000	0.00E+00	6.36E-03	1.73E-02	3.84E-02	6.36E-03
CM-5/6	5386.000	5386.813	0.000	2.000	2.000	0.000	19.8463	86.09000	3.30E-03	2.34E-03	7.61E-02	1.57E-01	2.33E-03
CM-247	4946.000	4903.078	0.000	2.000	0.000	2.000	15.3366	79.30000	0.00E+00	3.58E-03	6.38E-02	1.32E-01	3.58E-03
CM-248	5078.600	5068.234	5.740	17.000	17.000	0.000	22.1555	91.00000	2.65E-02	6.63E-03	8.03E-02	1.65E-01	6.43E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

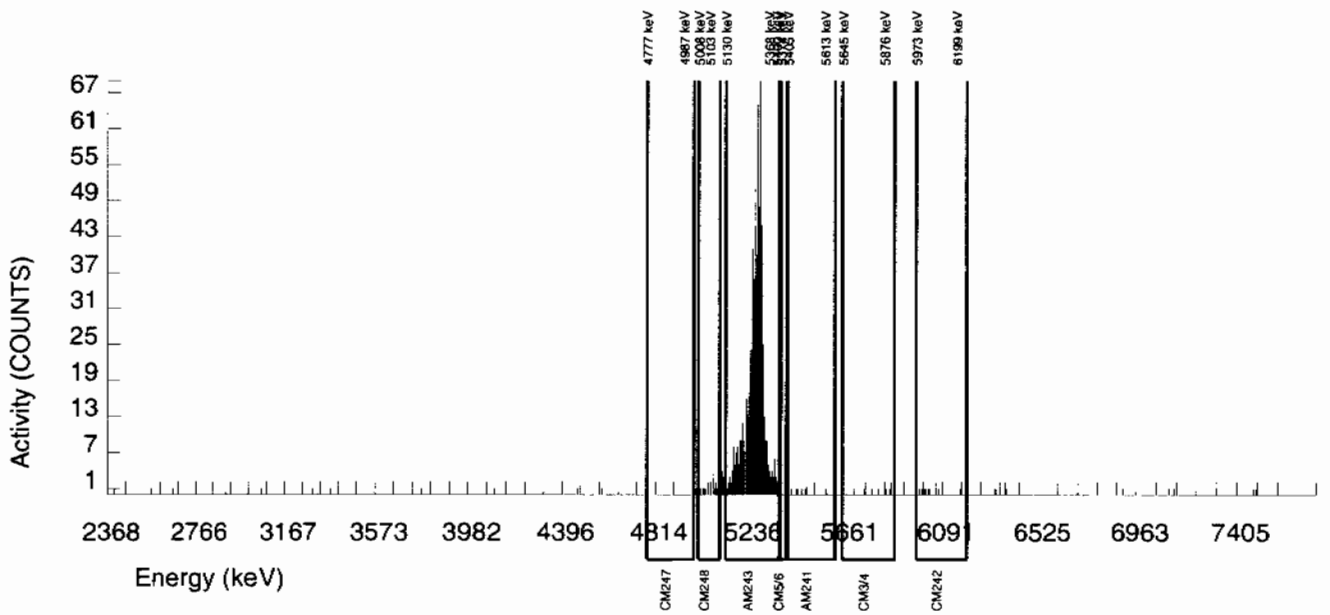

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395010_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 77.944

CHAMBER : 046
DETECTOR S/N : 76544
AVERAGE %EFFICIENCY : 33.4175
COUNT DATE : 8-FEB-2010 10:21:10
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B046.CNF;1114
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W046.CNF;289
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.2733E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5478.357	6.066	10.000	6.681	2.000	3.0704	99.94000	9.21E-03	4.54E-03	9.85E-03	2.34E-02	4.51E-03
AM243	5270.000	5270.380	57.921	760.000	758.000	2.000	1.4142	99.78000	1.05E+00	7.46E-02	4.54E-03	1.28E-02	3.81E-02
CM-242	6102.000	6077.599	156.594	8.000	3.000	5.000	4.3186	100.0000	4.52E-03	5.43E-03	1.38E-02	3.14E-02	5.43E-03
CM-3/4	5795.020	5803.412	127.232	7.000	0.000	7.000	5.2338	100.0000	0.00E+00	5.17E-03	1.68E-02	3.73E-02	5.17E-03
CM-5/6	5386.000	5372.962	0.000	4.000	4.000	0.000	19.8463	86.09000	6.40E-03	3.23E-03	7.39E-02	1.52E-01	3.20E-03
CM-247	4946.000	4855.311	117.445	4.000	2.000	2.000	15.3366	79.30000	3.48E-03	4.26E-03	6.20E-02	1.29E-01	4.26E-03
CM-248	5078.600	5056.133	52.555	15.000	15.000	0.000	22.1555	91.00000	2.27E-02	6.03E-03	7.80E-02	1.60E-01	5.86E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

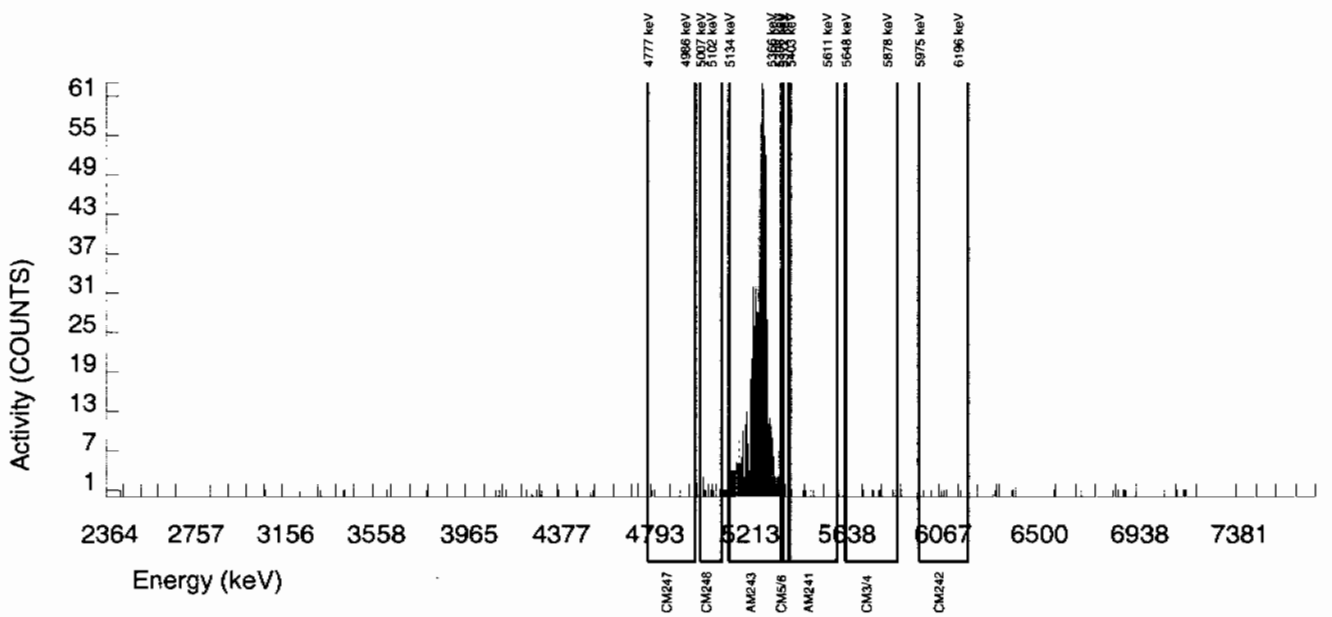

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395011_AM
SAMPLE QTY : 1.257 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 73.921

CHAMBER : 047
DETECTOR S/N : 46-089B1
AVERAGE %EFFICIENCY : 34.3991
COUNT DATE : 8-FEB-2010 10:21:10
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B047.CNF;1109
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W047.CNF;303
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1560E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5468.908	76.851	13.000	6.712	5.000	3.0704	99.94000	9.47E-03	5.79E-03	1.01E-02	2.40E-02	5.77E-03
AM243	5270.000	5271.996	45.931	742.000	740.000	2.000	1.4142	99.78000	1.05E+00	7.50E-02	4.65E-03	1.31E-02	3.85E-02
CM-242	6102.000	6057.062	7.297	8.000	6.000	2.000	4.3186	100.0000	9.24E-03	4.90E-03	1.42E-02	3.21E-02	4.87E-03
CM-3/4	5795.020	5745.894	181.026	27.000	20.000	7.000	5.2338	100.0000	2.82E-02	8.42E-03	1.72E-02	3.81E-02	8.24E-03
CM-5/6	5386.000	5374.925	0.000	2.000	1.000	1.000	19.8463	86.09000	1.64E-03	2.84E-03	7.56E-02	1.56E-01	2.84E-03
CM-247	4946.000	4890.621	7.452	12.000	8.000	4.000	15.3366	79.30000	1.42E-02	7.16E-03	6.34E-02	1.32E-01	7.11E-03
CM-248	5078.600	5065.419	24.634	17.000	16.000	1.000	22.1555	91.00000	2.48E-02	6.75E-03	7.98E-02	1.64E-01	6.57E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

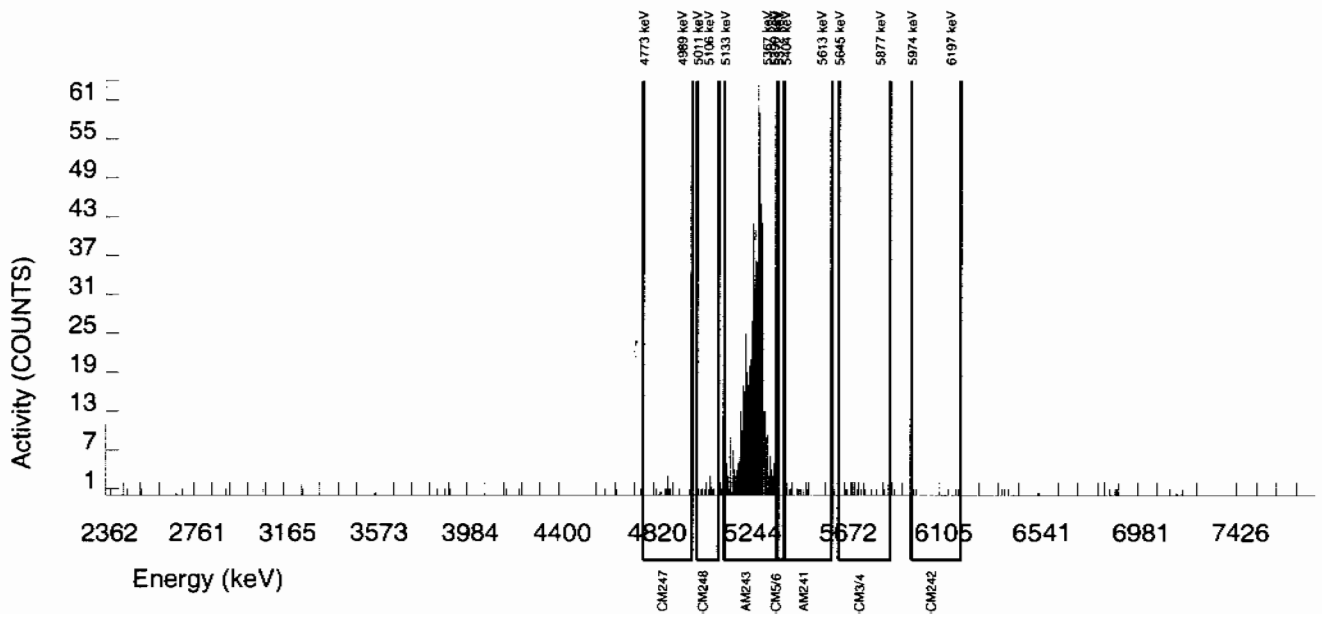

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395012_AM
SAMPLE QTY : 1.252 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 66.051

CHAMBER : 048
DETECTOR S/N : 42483
AVERAGE %EFFICIENCY : 32.0990
COUNT DATE : 8-FEB-2010 10:21:10
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B048.CNF;1110
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W048.CNF;316
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 1.9264E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5470.924	19.735	26.000	9.926	15.000	3.0704	99.94000	1.69E-02	1.08E-02	1.21E-02	2.89E-02	1.07E-02
AM243	5270.000	5269.374	56.630	622.000	617.000	5.000	2.2361	99.78000	1.05E+00	7.94E-02	8.85E-03	2.23E-02	4.26E-02
CM-242	6102.000	6055.372	187.487	5.000	2.000	3.000	4.3186	100.0000	3.71E-03	5.25E-03	1.70E-02	3.87E-02	5.24E-03
CM-3/4	5795.020	5768.779	146.783	21.000	1.000	20.000	5.2338	100.0000	1.70E-03	1.09E-02	2.07E-02	4.59E-02	1.09E-02
CM-5/6	5386.000	5380.583	0.000	5.000	5.000	0.000	19.8463	86.09000	9.86E-03	4.45E-03	9.10E-02	1.87E-01	4.41E-03
CM-247	4946.000	4889.392	0.000	5.000	4.000	1.000	15.3366	79.30000	8.56E-03	5.27E-03	7.63E-02	1.58E-01	5.24E-03
CM-248	5078.600	5076.979	6.116	7.000	5.000	2.000	22.1555	91.00000	9.32E-03	5.63E-03	9.61E-02	1.97E-01	5.59E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

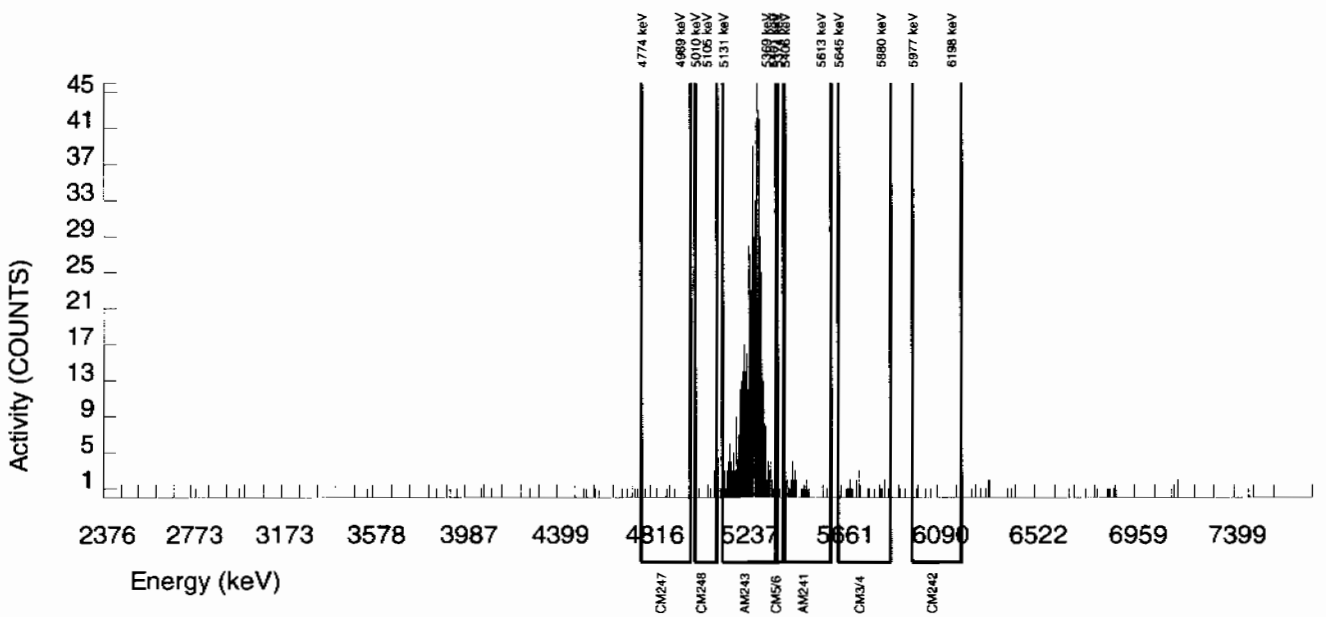

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395013_AM
SAMPLE QTY : 1.258 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 58.959

CHAMBER : 065
DETECTOR S/N : 68551
AVERAGE %EFFICIENCY : 31.0643
COUNT DATE : 8-FEB-2010 10:21:11
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B065.CNF;1942
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W065.CNF;305
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 1.7196E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5496.219	4.877	10.000	1.072	8.000	3.0704	99.94000	2.10E-03	8.08E-03	1.40E-02	3.32E-02	8.08E-03
AM243	5270.000	5244.586	56.096	538.000	533.000	5.000	2.2361	99.78000	1.04E+00	8.26E-02	1.02E-02	2.57E-02	4.57E-02
CM-242	6102.000	6070.614	121.924	8.000	6.000	2.000	4.3186	100.0000	1.28E-02	6.81E-03	1.96E-02	4.46E-02	6.75E-03
CM-3/4	5795.020	5704.187	57.304	15.000	4.000	11.000	5.2338	100.0000	7.84E-03	1.00E-02	2.38E-02	5.29E-02	9.99E-03
CM-5/6	5386.000	5386.815	0.000	1.000	-2.000	3.000	19.8463	86.09000	-4.54E-03	4.54E-03	1.05E-01	2.16E-01	4.54E-03
CM-247	4946.000	4894.670	7.163	10.000	8.000	2.000	15.3366	79.30000	1.97E-02	8.64E-03	8.80E-02	1.83E-01	8.54E-03
CM-248	5078.600	5072.312	34.078	16.000	14.000	2.000	22.1555	91.00000	3.01E-02	9.33E-03	1.11E-01	2.27E-01	9.11E-03

NOTES:

* Sg calculated via blank population. (Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

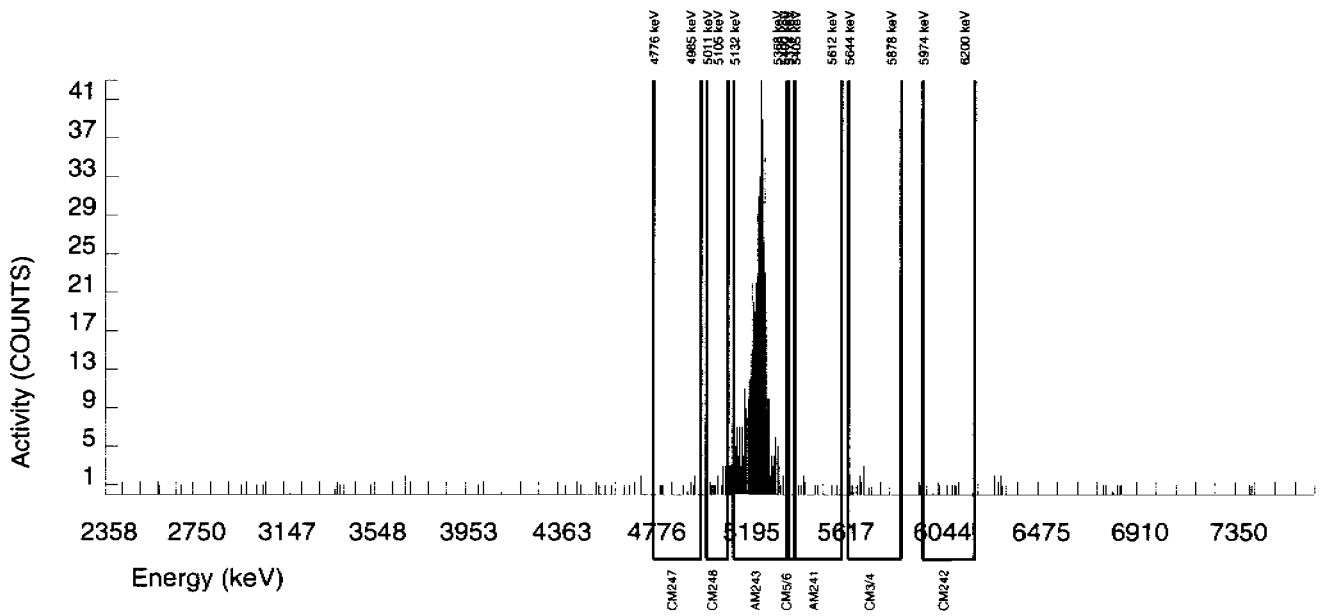

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S0245395014_AM
SAMPLE QTY : 1.257 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 70.348

CHAMBER : 066
DETECTOR S/N : 46-089C1
AVERAGE %EFFICIENCY : 31.1641
COUNT DATE : 8-FEB-2010 10:21:11
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B066.CNF;1103
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W066.CNF;306
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.0518E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.983	19.967	17.000	5.890	10.000	3.0704	99.94000	9.63E-03	8.35E-03	1.17E-02	2.78E-02	8.32E-03
AM243	5270.000	5269.161	47.718	641.000	638.000	3.000	1.7321	99.78000	1.05E+00	7.82E-02	6.60E-03	1.76E-02	4.16E-02
CM-242	6102.000	6083.732	164.729	7.000	6.000	1.000	4.3186	100.0000	1.07E-02	5.10E-03	1.64E-02	3.73E-02	5.05E-03
CM-3/4	5795.020	5727.711	6.656	15.000	2.000	13.000	5.2338	100.0000	3.28E-03	8.67E-03	1.99E-02	4.42E-02	8.67E-03
CM-5/6	5386.000	5373.049	0.000	4.000	1.000	3.000	19.8463	86.09000	1.90E-03	5.02E-03	8.77E-02	1.80E-01	5.02E-03
CM-247	4946.000	4906.955	0.000	14.000	9.000	5.000	15.3366	79.30000	1.86E-02	9.06E-03	7.35E-02	1.53E-01	8.98E-03
CM-248	5078.600	5065.065	0.000	14.000	13.000	1.000	22.1555	91.00000	2.34E-02	7.11E-03	9.26E-02	1.90E-01	6.96E-03

NOTES:

* Sg calculated via blank population. (Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

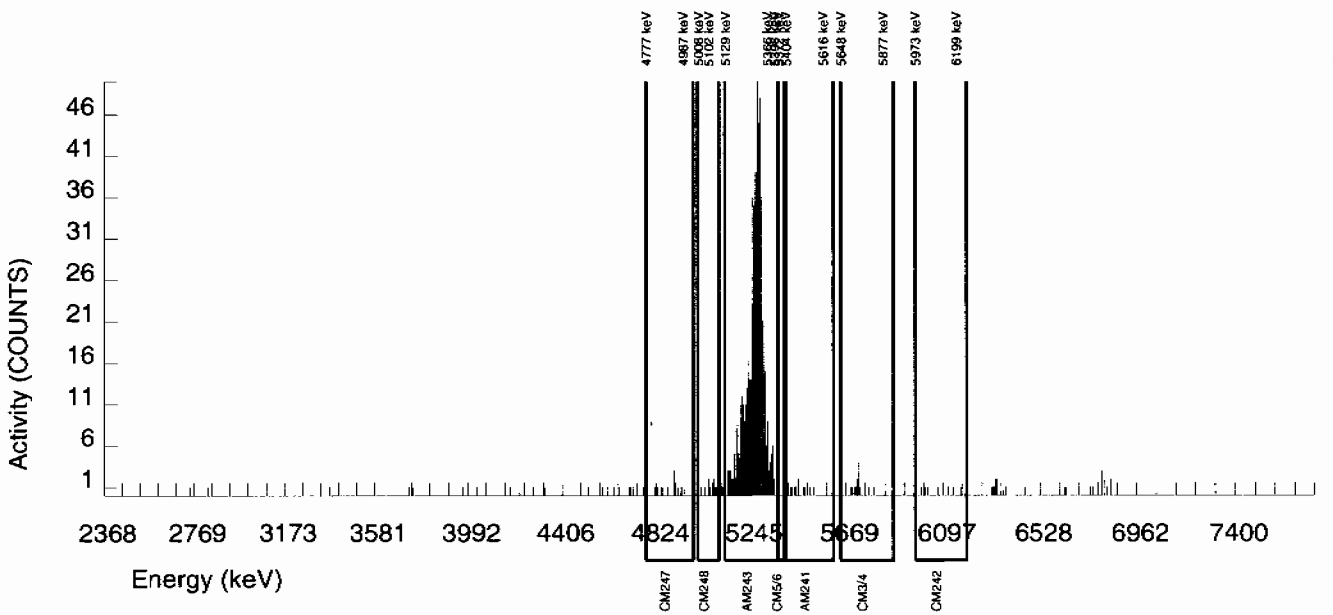

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985	CHAMBER : 067	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245395015_AM	DETECTOR S/N : 46-089B4	BKG FILE : B067.CNF;1101
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 32.5269	BKG DATE : 7-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 10:21:11	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W067.CNF;287
% YIELD : 65.076		CAL DATE : 11-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3157E+01 pCi/G	NOMINAL : 3.3157E+01 pCi/G
RESULTS : 1.8980E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5464.171	23.705	14.000	2.928	10.000	3.0704	99.94000	4.97E-03	8.14E-03	1.21E-02	2.89E-02	8.13E-03
AM243	5270.000	5283.630	67.943	618.000	616.000	2.000	1.4142	99.78000	1.05E+00	7.91E-02	5.60E-03	1.58E-02	4.23E-02
CM-242	6102.000	6060.241	4.990	5.000	4.000	1.000	4.3186	100.0000	7.42E-03	4.57E-03	1.70E-02	3.87E-02	4.54E-03
CM-3/4	5795.020	5751.811	164.686	8.000	4.000	4.000	5.2338	100.0000	6.80E-03	5.91E-03	2.07E-02	4.59E-02	5.89E-03
CM-5/6	5386.000	5379.302	0.000	12.000	12.000	0.000	19.8463	86.09000	2.37E-02	6.99E-03	9.10E-02	1.87E-01	6.83E-03
CM-247	4946.000	4867.691	112.286	9.000	7.000	2.000	15.3366	79.30000	1.50E-02	7.16E-03	7.64E-02	1.59E-01	7.10E-03
CM-248	5078.600	5065.148	44.914	13.000	13.000	0.000	22.1555	91.00000	2.42E-02	6.90E-03	9.61E-02	1.97E-01	6.72E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

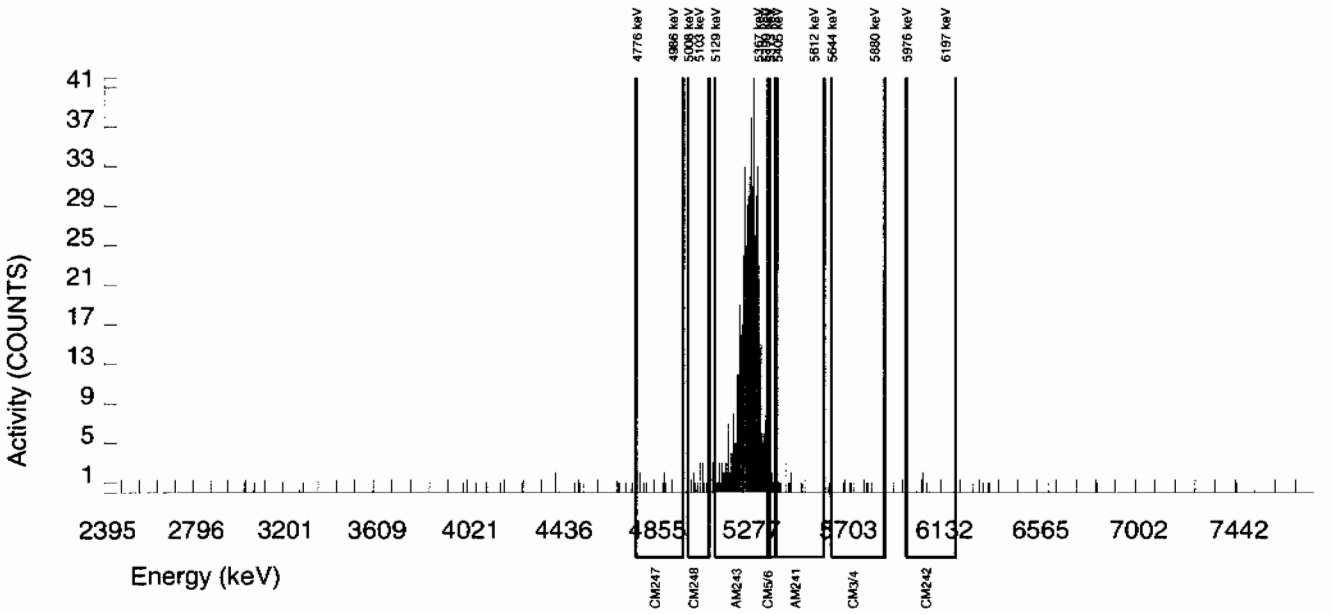

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S1202023804_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : JXD2
% YIELD : 71.814

CHAMBER : 068
DETECTOR S/N : 78794
AVERAGE %EFFICIENCY : 29.6665
COUNT DATE : 8-FEB-2010 10:21:11
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B068.CNF;1094
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W068.CNF;278
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.0945E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.338	84.618	3.000	-0.079	2.000	3.0704	99.94000	-1.67E-04	4.19E-03	1.51E-02	3.60E-02	4.19E-03
AM243	5270.000	5273.006	31.251	624.000	620.000	4.000	2.0000	99.78000	1.31E+00	9.92E-02	9.86E-03	2.55E-02	5.31E-02
CM-242	6102.000	6012.500	49.776	4.000	2.000	2.000	4.3186	100.0000	4.32E-03	5.29E-03	2.12E-02	4.82E-02	5.29E-03
CM-3/4	5795.020	5753.261	7.311	5.000	1.000	4.000	5.2338	100.0000	2.12E-03	6.35E-03	2.57E-02	5.72E-02	6.35E-03
CM-5/6	5386.000	5385.070	0.000	0.000	0.000	0.000	19.8463	86.09000	0.00E+00	2.46E-03	1.13E-01	2.33E-01	2.46E-03
CM-247	4946.000	4887.559	7.311	10.000	8.000	2.000	15.3366	79.30000	2.13E-02	9.34E-03	9.51E-02	1.97E-01	9.24E-03
CM-248	5078.600	5061.235	0.000	8.000	8.000	0.000	22.1555	91.00000	1.86E-02	6.68E-03	1.20E-01	2.46E-01	6.57E-03

NOTES:

* Sg calculated via blank population. (Sg updated 5-JAN-2010)
* Sg of AM243 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  AM-241

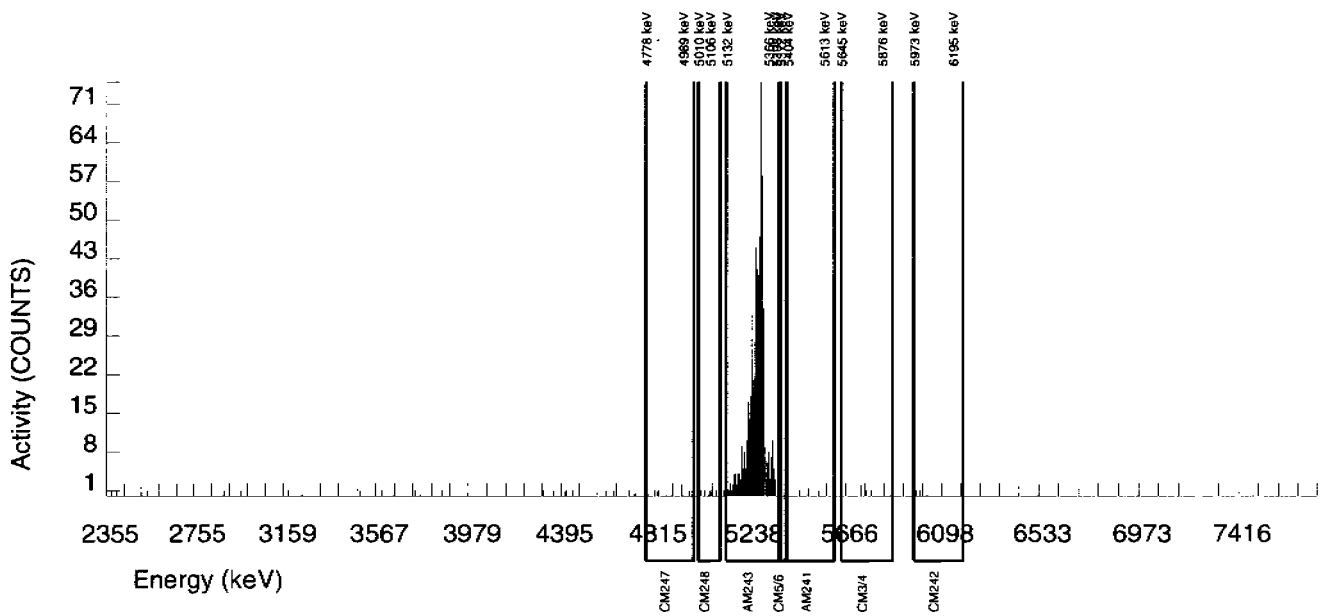

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S1202023805_AM
SAMPLE QTY : 1.251 G
SAMPLE DATE : 15-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 73.881

CHAMBER : 069
DETECTOR S/N : 78795
AVERAGE %EFFICIENCY : 31.8131
COUNT DATE : 8-FEB-2010 10:21:11
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B069.CNF;1096
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W069.CNF;285
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1548E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3158E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3158E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5520.913	4.929	7.000	4.810	1.000	3.0704	99.94000	7.37E-03	4.03E-03	1.09E-02	2.61E-02	4.00E-03
AM243	5270.000	5268.920	36.713	685.000	684.000	1.000	1.0000	99.78000	1.05E+00	7.69E-02	3.57E-03	1.13E-02	4.02E-02
CM-242	6102.000	6057.411	4.929	5.000	5.000	0.000	4.3186	100.0000	8.51E-03	3.84E-03	1.54E-02	3.49E-02	3.81E-03
CM-3/4	5795.020	5741.873	157.727	6.000	3.000	3.000	5.2338	100.0000	4.61E-03	4.62E-03	1.87E-02	4.15E-02	4.61E-03
CM-5/6	5386.000	5385.153	0.000	1.000	1.000	0.000	19.8463	86.09000	1.78E-03	1.78E-03	8.22E-02	1.69E-01	1.78E-03
CM-247	4946.000	4882.744	0.000	7.000	5.000	2.000	15.3366	79.30000	9.66E-03	5.83E-03	6.89E-02	1.43E-01	5.80E-03
CM-248	5078.600	5057.971	4.929	7.000	6.000	1.000	22.1555	91.00000	1.01E-02	4.80E-03	8.68E-02	1.78E-01	4.76E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

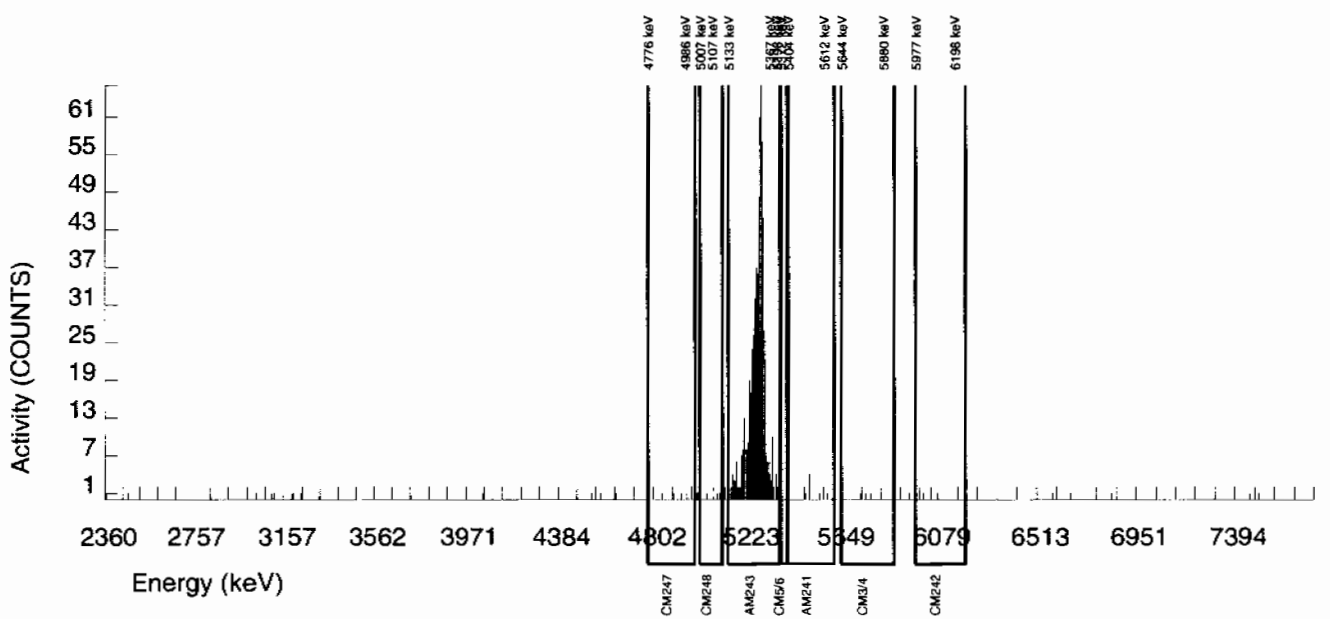

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944985
SAMPLE ID : S1202023806_AM
SAMPLE QTY : 0.106 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : JXD2
% YIELD : 86.419

CHAMBER : 070
DETECTOR S/N : 46-089B2
AVERAGE %EFFICIENCY : 34.9911
COUNT DATE : 8-FEB-2010 10:21:11
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B070.CNF;1106
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W070.CNF;290
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5205E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5496.127	55.437	2239.000	2229.469	8.000	3.0704	99.94000	3.14E+01	2.20E+00	1.00E-01	2.39E-01	6.66E-01
AM243	5270.000	5275.726	61.658	882.000	880.000	2.000	1.4142	99.78000	1.24E+01	9.30E-01	4.63E-02	1.31E-01	4.19E-01
CM-242	6102.000	6046.397	7.266	7.000	3.000	4.000	4.3186	100.0000	4.30E-02	4.77E-02	1.41E-01	3.20E-01	4.76E-02
CM-3/4	5795.020	5743.858	4.947	7.000	-3.000	10.000	5.2338	100.0000	-4.22E-02	5.80E-02	1.71E-01	3.80E-01	5.80E-02
CM-5/6	5386.000	5388.115	0.000	73.000	71.000	2.000	19.8463	86.09000	1.16E+00	1.61E-01	7.54E-01	1.55E+00	1.41E-01
CM-247	4946.000	4910.198	192.933	16.000	8.000	8.000	15.3366	79.30000	1.42E-01	8.73E-02	6.32E-01	1.31E+00	8.68E-02
CM-248	5078.600	5075.236	6.596	14.000	13.000	1.000	22.1555	91.00000	2.01E-01	6.13E-02	7.96E-01	1.63E+00	5.98E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

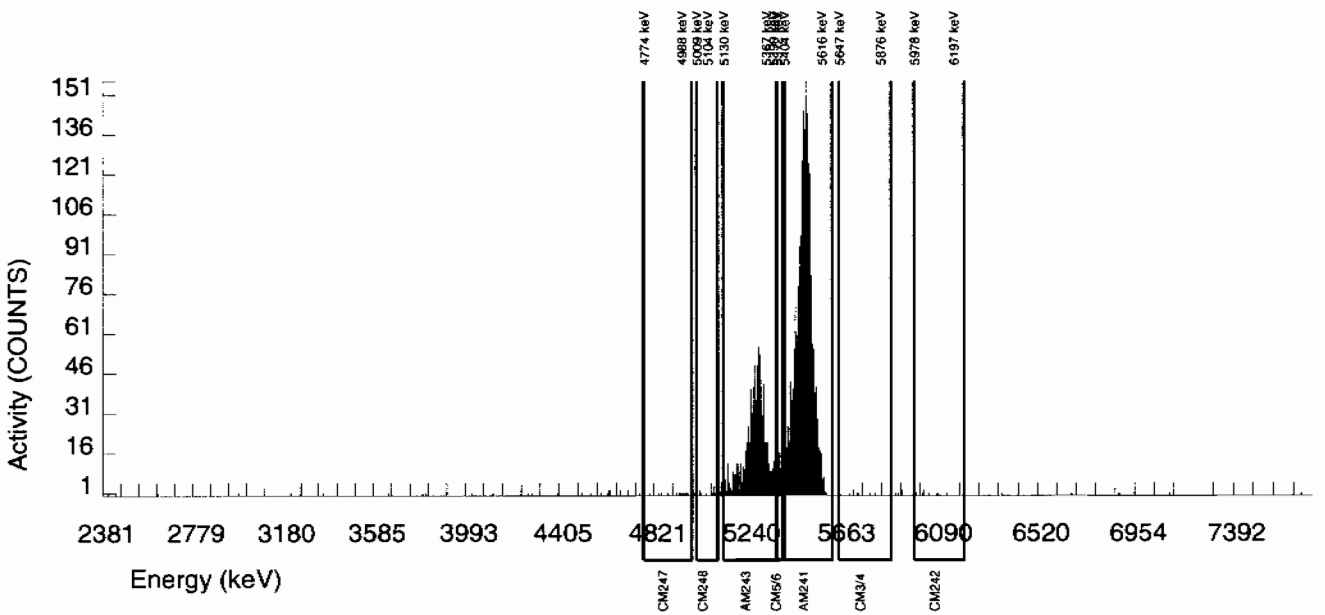

Radiochemistry Batch Checklist, Rev10

Batch# 944994 Product: RU Date: 2/9/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or reanalysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/9/10

Secondary Review Performed By: [illegible] 2/9/10

2/13

LANL

P ✓

Plutonium Que Sheet

25-JAN-10

Batch #: 944994 Analyst: JXD2 First Client Due Date:13-FEB-10 Internal Due Date:03-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 01/09/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: — Expiration Date: — Vol: —

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 02/04/10 Initials: JWD Pipet ID: 25710058 Balance ID: 50410272 Witness: [illegible] 2/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g / l / f)	Pu Det #
245371001-1	RE16-10-957	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	1	1	1.252	210
245371002-1	RE16-10-979	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	2	2	1.250	211
245393010-1	RE15-10-8053	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	3	3	1.251	~~212~~ 233
245393011-1	RE15-10-8054	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	4	4	1.256	213
245395001-1	RE15-10-7869	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	5	5	1.255	214
245395002-1	RE15-10-7874	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	6	6	1.254	215
245395003-1	RE15-10-7871	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	7	7	1.253	~~216~~ 234
245395004-1	RE15-10-7872	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	8	8	1.254	217
245395005-1	RE15-10-7870	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	9	9	1.258	218
245395006-1	RE15-10-7873	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	10	10	1.250	~~219~~ 235
245395007-1	RE15-10-7911	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	11	11	1.254	220
245395008-1	RE15-10-7908	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	12	12	1.256	229
245395009-1	RE15-10-7912	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	13	13	1.254	230
245395010-1	RE15-10-7906	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	14	14	1.255	231
245395011-1	RE15-10-7905	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	15	15	1.257	~~232~~ 232
245395012-1	RE15-10-7907	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	16	16	1.252	233
245395013-1	RE15-10-7913	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	17	17	1.258	234
245395014-1	RE15-10-7909	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	18	18	1.257	~~235~~ 239
245395015-1	RE15-10-7910	SAMPLE		.05 pCi/g	SOIL	LANL010	19-JAN-10	19	19	1.254	~~236~~ 240
1202023807-1	MB for batch 944994	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1	237
1202023808-1	RE16-10-957(245371001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	15-JAN-10	21	21	1.251	238
1202023809-1	LCS for batch 944994	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.106	239

* SRM 0244-B exp 04/30/20 0.106 g

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION Circle One

Data Reviewed By: [illegible] 2/9/10

Blank Correction Report

Batch ID 944994

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202023808	DUP	Plutonium-238	1.25 g	-0.0124	0.00583	0.0205	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00124	0.00481	0.0235	.001168	pCi/g	YES
1202023809	LCS	Plutonium-238	0.106 g	6.75	0.546	0.292	-.06867925	pCi/g	NO
		Plutonium-239/240	0.106 g	38.3	2.53	0.334	.013773585	pCi/g	NO
1202023807	MB	Plutonium-238	1.00 g	-0.00728	0.00357	0.0241	-.00728	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00146	0.00146	0.0275	.00146	pCi/g	YES
245371001	RE16-10-957	Plutonium-238	1.25 g	0.00338	0.00253	0.0186	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00451	0.00277	0.0213	.001168	pCi/g	YES
245371002	RE16-10-979	Plutonium-238	1.25 g	0.00	0.00388	0.0185	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00896	0.00419	0.0212	.001168	pCi/g	YES
245393010	RE15-10-8053	Plutonium-238	1.25 g	0.00	0.00185	0.0216	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0274	0.00642	0.0247	.001168	pCi/g	NO
245393011	RE15-10-8054	Plutonium-238	1.26 g	0.0172	0.00468	0.0203	-.00577778	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00369	0.00214	0.0232	.001158730	pCi/g	YES
245395001	RE15-10-7869	Plutonium-238	1.26 g	0.00711	0.00293	0.0196	-.00577778	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0201	0.00499	0.0224	.001158730	pCi/g	NO
245395002	RE15-10-7874	Plutonium-238	1.25 g	0.0106	0.00359	0.0195	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0106	0.00358	0.0223	.001168	pCi/g	NO
245395003	RE15-10-7871	Plutonium-238	1.25 g	0.00266	0.00189	0.022	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0173	0.00488	0.0252	.001168	pCi/g	NO
245395004	RE15-10-7872	Plutonium-238	1.25 g	0.0152	0.00427	0.0193	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00117	0.00202	0.022	.001168	pCi/g	YES
245395005	RE15-10-7870	Plutonium-238	1.26 g	0.0078	0.00461	0.0184	-.00577778	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0111	0.00357	0.0211	.001158730	pCi/g	NO
245395006	RE15-10-7873	Plutonium-238	1.25 g	0.00142	0.00142	0.0234	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0156	0.00518	0.0268	.001168	pCi/g	NO
245395007	RE15-10-7911	Plutonium-238	1.25 g	0.00603	0.00321	0.0199	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.268	0.0225	0.0228	.001168	pCi/g	NO
245395008	RE15-10-7908	Plutonium-238	1.26 g	0.0133	0.00443	0.020	-.00577778	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0097	0.00346	0.0229	.001158730	pCi/g	NO
245395009	RE15-10-7912	Plutonium-238	1.25 g	0.00733	0.00302	0.0202	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.022	0.00558	0.0231	.001168	pCi/g	NO
245395010	RE15-10-7906	Plutonium-238	1.26 g	0.0167	0.00468	0.0184	-.00577778	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00781	0.00372	0.0211	.001158730	pCi/g	NO
245395011	RE15-10-7905	Plutonium-238	1.26 g	0.00	0.0013	0.0215	-.00577778	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0195	0.00576	0.0246	.001158730	pCi/g	NO
245395012	RE15-10-7907	Plutonium-238	1.25 g	0.0072	0.00324	0.0236	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0921	0.0125	0.0272	.001168	pCi/g	NO
245395013	RE15-10-7913	Plutonium-238	1.26 g	0.0141	0.00431	0.0212	-.00577778	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245395013	RE15-10-7913	Plutonium-239/240	1.26 g	0.00128	0.00287	0.0242	.001158730	pCi/g	YES
245395014	RE15-10-7909	Plutonium-238	1.26 g	0.00258	0.00183	0.0213	-.00577778	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0426	0.00818	0.0244	.001158730	pCi/g	NO
245395015	RE15-10-7910	Plutonium-238	1.25 g	-0.00134	0.00232	0.0221	-.005824	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0241	0.00612	0.0253	.001168	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245371001_PU
SAMPLE QTY : 1.252 G
SAMPLE DATE : 15-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 83.003

CHAMBER : 210
DETECTOR S/N : 79189
AVERAGE %EFFICIENCY : 38.5227
COUNT DATE : 5-FEB-2010 18:17:16
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B210.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W210.CNF;29
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.8061E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5792.699	29.630	2.000	1.000	1.000	2.1286	100.0000	1.14E-03	1.98E-03	5.57E-03	1.42E-02	1.98E-03
PU-238	5499.000	5432.913	0.000	4.000	3.000	1.000	2.9680	99.90000	3.38E-03	2.53E-03	7.78E-03	1.86E-02	2.52E-03
PU-9/0	5155.000	5115.478	0.000	5.000	4.000	1.000	3.4797	99.90000	4.51E-03	2.77E-03	9.12E-03	2.13E-02	2.76E-03
PU242	4890.000	4883.939	42.265	1081.000	1081.000	0.000	0.0000	100.0000	1.22E+00	7.11E-02	0.00E+00	3.05E-03	3.70E-02
PU-244	4589.000	4536.721	7.253	24.000	24.000	0.000	5.2050	99.90000	2.70E-02	5.68E-03	1.36E-02	3.03E-02	5.52E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

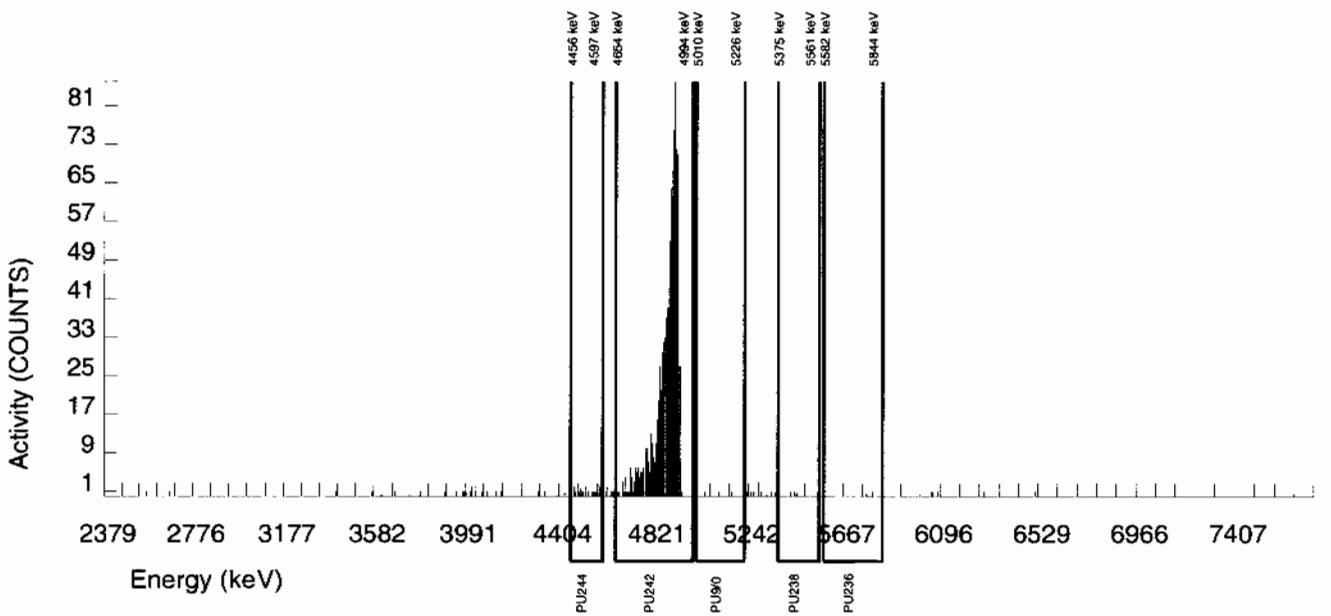

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395001_PU
SAMPLE QTY : 1.255 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 78.953

CHAMBER : 214
DETECTOR S/N : 79193
AVERAGE %EFFICIENCY : 38.4008
COUNT DATE : 5-FEB-2010 18:17:27
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B214.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W214.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.6692E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5701.080	22.032	11.000	11.000	0.000	2.1286	100.0000	1.32E-02	4.03E-03	5.86E-03	1.49E-02	3.97E-03
PU-238	5499.000	5405.234	4.930	6.000	6.000	0.000	2.9680	99.90000	7.11E-03	2.93E-03	8.18E-03	1.96E-02	2.90E-03
PU-9/0	5155.000	5138.585	9.757	17.000	17.000	0.000	3.4797	99.90000	2.01E-02	4.99E-03	9.59E-03	2.24E-02	4.89E-03
PU242	4890.000	4866.562	66.590	1026.000	1025.000	1.000	1.0000	100.0000	1.21E+00	7.20E-02	2.75E-03	8.72E-03	3.79E-02
PU-244	4589.000	4530.666	91.207	15.000	15.000	0.000	5.2050	99.90000	1.78E-02	4.68E-03	1.43E-02	3.19E-02	4.59E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

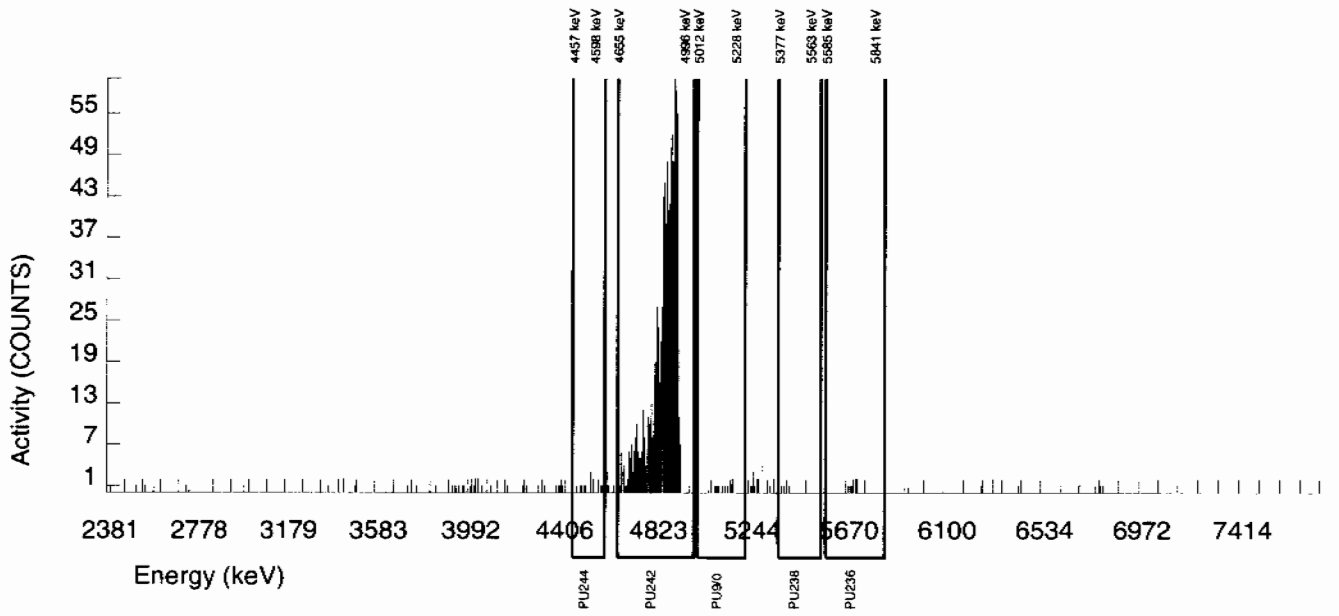

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395002_PU
SAMPLE QTY : 1.254 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 81.048

CHAMBER : 215
DETECTOR S/N : 79468
AVERAGE %EFFICIENCY : 37.5541
COUNT DATE : 5-FEB-2010 18:17:29
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B215.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W215.CNF;33
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.7400E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5730.987	7.236	10.000	10.000	0.000	2.1286	100.0000	1.19E-02	3.82E-03	5.84E-03	1.49E-02	3.78E-03
PU-238	5499.000	5443.699	4.927	9.000	9.000	0.000	2.9680	99.90000	1.06E-02	3.59E-03	8.16E-03	1.95E-02	3.55E-03
PU-9/0	5155.000	5172.819	4.927	9.000	9.000	0.000	3.4797	99.90000	1.06E-02	3.58E-03	9.56E-03	2.23E-02	3.54E-03
PU242	4890.000	4884.681	51.269	1029.000	1029.000	0.000	0.0000	100.0000	1.21E+00	7.19E-02	0.00E+00	3.20E-03	3.79E-02
PU-244	4589.000	4531.056	7.236	8.000	8.000	0.000	5.2050	99.90000	9.45E-03	3.38E-03	1.43E-02	3.18E-02	3.34E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

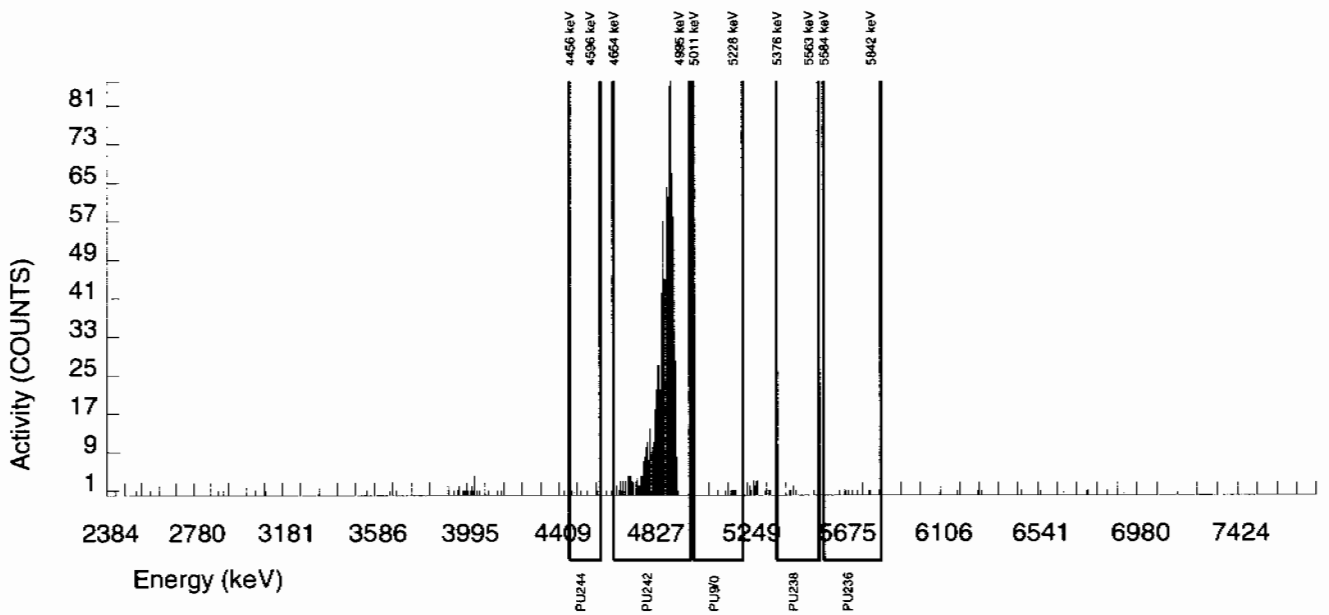

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395003_PU
SAMPLE QTY : 1.253 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 70.419

CHAMBER : 234
DETECTOR S/N : 79427
AVERAGE %EFFICIENCY : 38.3923
COUNT DATE : 8-FEB-2010 20:42:18
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B234.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W234.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.3807E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.502	0.000	0.000	-1.000	1.000	2.1286	100.0000	-1.35E-03	1.91E-03	6.58E-03	1.68E-02	1.91E-03
PU-238	5499.000	5527.480	14.742	2.000	2.000	0.000	2.9680	99.90000	2.66E-03	1.89E-03	9.19E-03	2.20E-02	1.88E-03
PU-9/0	5155.000	5133.801	15.879	13.000	13.000	0.000	3.4797	99.90000	1.73E-02	4.88E-03	1.08E-02	2.52E-02	4.80E-03
PU242	4890.000	4882.796	57.772	915.000	914.000	1.000	1.0000	100.0000	1.22E+00	7.45E-02	3.09E-03	9.79E-03	4.02E-02
PU-244	4589.000	4538.537	4.914	14.000	14.000	0.000	5.2050	99.90000	1.86E-02	5.07E-03	1.61E-02	3.58E-02	4.98E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

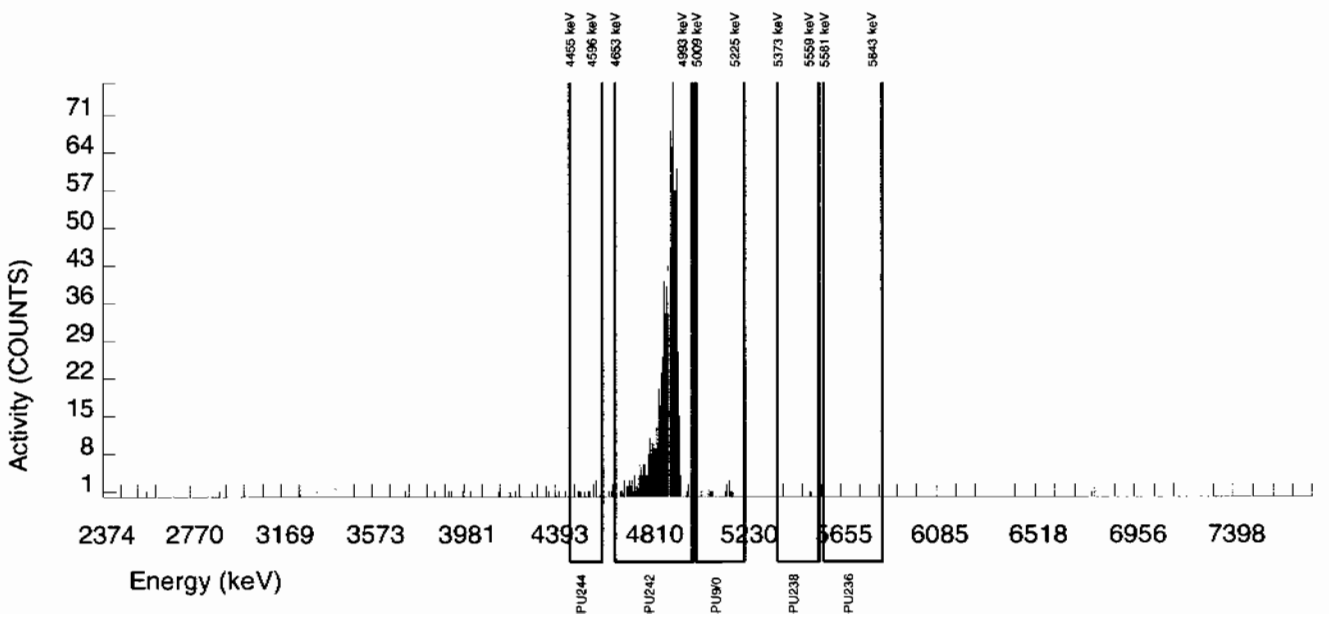

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994	CHAMBER : 217	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245395004_PU	DETECTOR S/N : 79410	BKG FILE : B217.CNF;78
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 36.8046	BKG DATE : 31-JAN-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 5-FEB-2010 18:17:35	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W217.CNF;30
% YIELD : 83.824		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8339E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5659.345	78.850	2.000	2.000	0.000	2.1286	100.0000	2.36E-03	1.67E-03	5.77E-03	1.47E-02	1.67E-03
PU-238	5499.000	5434.317	27.105	13.000	13.000	0.000	2.9680	99.90000	1.52E-02	4.27E-03	8.05E-03	1.93E-02	4.20E-03
PU-9/0	5155.000	5165.755	98.562	2.000	1.000	1.000	3.4797	99.90000	1.17E-03	2.02E-03	9.43E-03	2.20E-02	2.02E-03
PU242	4890.000	4881.024	43.318	1044.000	1043.000	1.000	1.0000	100.0000	1.21E+00	7.17E-02	2.71E-03	8.57E-03	3.76E-02
PU-244	4589.000	4534.925	83.778	22.000	22.000	0.000	5.2050	99.90000	2.56E-02	5.62E-03	1.41E-02	3.14E-02	5.47E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

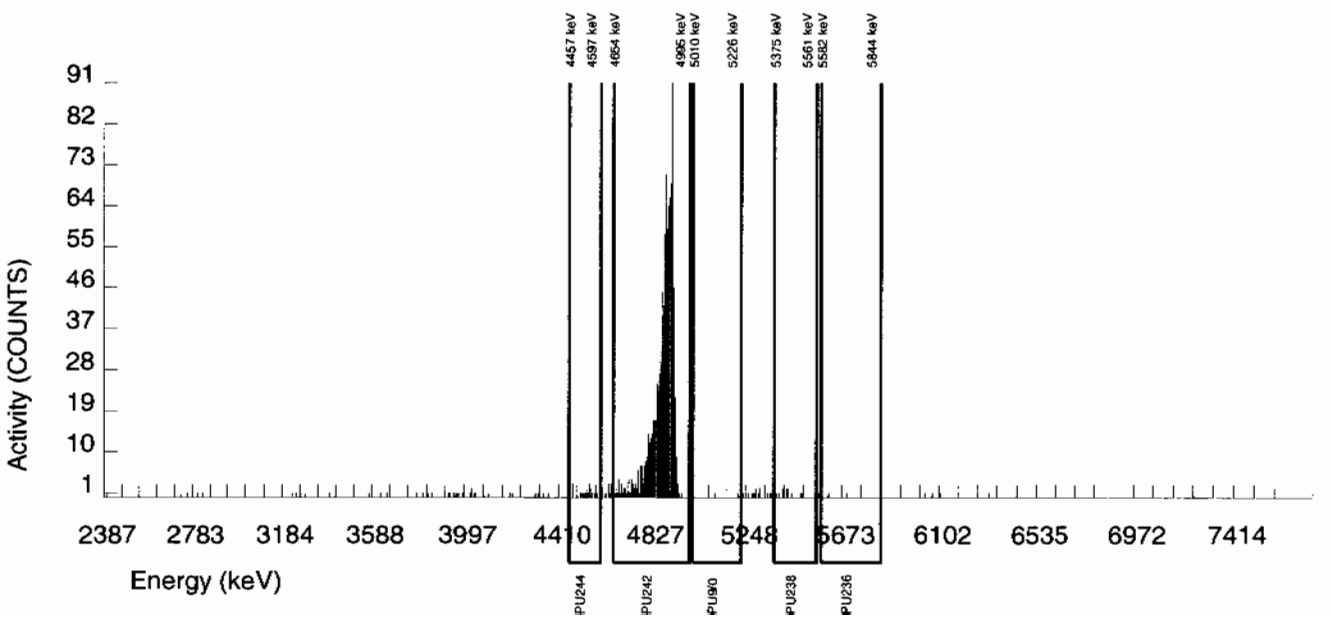

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395005_PU
SAMPLE QTY : 1.258 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 85.767

CHAMBER : 218
DETECTOR S/N : 79411
AVERAGE %EFFICIENCY : 37.5225
COUNT DATE : 5-FEB-2010 18:17:37
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B218.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W218.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.8996E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5691.695	133.486	8.000	8.000	0.000	2.1286	100.0000	9.01E-03	3.22E-03	5.51E-03	1.40E-02	3.19E-03
PU-238	5499.000	5436.307	34.607	12.000	7.000	5.000	2.9680	99.90000	7.80E-03	4.61E-03	7.69E-03	1.84E-02	4.59E-03
PU-9/0	5155.000	5179.354	0.000	10.000	10.000	0.000	3.4797	99.90000	1.11E-02	3.57E-03	9.02E-03	2.11E-02	3.52E-03
PU242	4890.000	4880.357	60.246	1089.000	1088.000	1.000	1.0000	100.0000	1.21E+00	7.06E-02	2.59E-03	8.19E-03	3.67E-02
PU-244	4589.000	4531.356	77.867	12.000	11.000	1.000	5.2050	99.90000	1.23E-02	4.06E-03	1.35E-02	3.00E-02	4.02E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

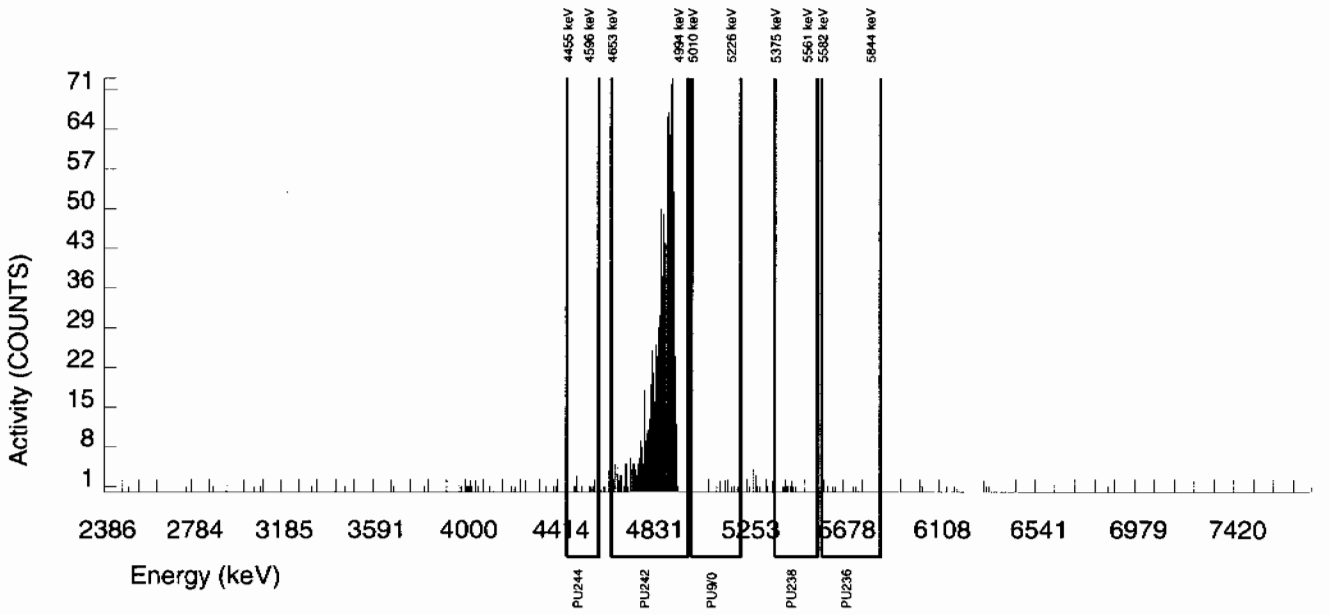

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994	CHAMBER : 235	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245395006_PU	DETECTOR S/N : 79428	BKG FILE : B235.CNF;78
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 37.6823	BKG DATE : 7-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 20:42:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W235.CNF;28
% YIELD : 67.507		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.2822E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.262	0.000	0.000	-1.000	1.000	2.1286	100.0000	-1.44E-03	2.03E-03	7.02E-03	1.79E-02	2.03E-03
PU-238	5499.000	5483.478	4.897	1.000	1.000	0.000	2.9680	99.90000	1.42E-03	1.42E-03	9.79E-03	2.34E-02	1.42E-03
PU-9/0	5155.000	5138.120	26.935	12.000	11.000	1.000	3.4797	99.90000	1.56E-02	5.18E-03	1.15E-02	2.68E-02	5.11E-03
PU242	4890.000	4875.979	53.256	863.000	860.000	3.000	1.7321	100.0000	1.22E+00	7.81E-02	5.71E-03	1.53E-02	4.17E-02
PU-244	4589.000	4531.768	90.601	12.000	12.000	0.000	5.2050	99.90000	1.70E-02	5.00E-03	1.72E-02	3.82E-02	4.91E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

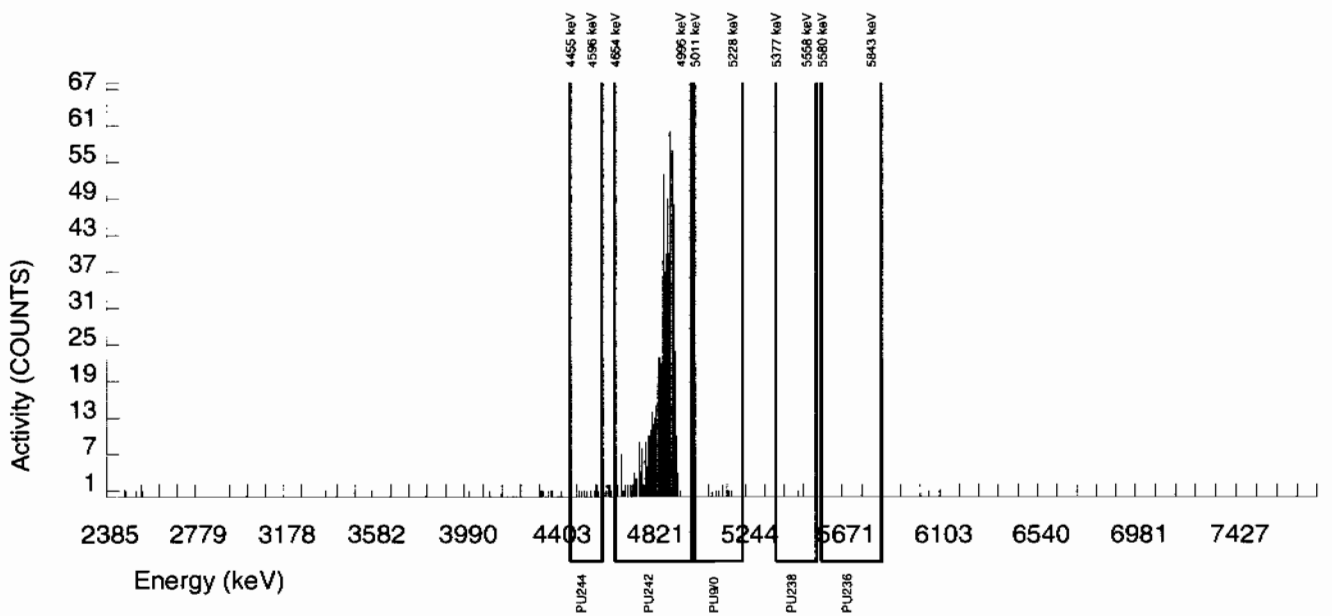

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395007_PU
SAMPLE QTY : 1.254 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 78.697

CHAMBER : 220
DETECTOR S/N : 79413
AVERAGE %EFFICIENCY : 37.8868
COUNT DATE : 5-FEB-2010 18:17:43
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B220.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W220.CNF;30
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.6606E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5640.600	0.000	3.000	2.000	1.000	2.1286	100.0000	2.44E-03	2.44E-03	5.97E-03	1.52E-02	2.44E-03
PU-238	5499.000	5421.221	0.000	6.000	5.000	1.000	2.9680	99.90000	6.03E-03	3.21E-03	8.33E-03	1.99E-02	3.19E-03
PU-9/0	5155.000	5147.519	53.562	222.000	222.000	0.000	3.4797	99.90000	2.68E-01	2.25E-02	9.76E-03	2.28E-02	1.80E-02
PU242	4890.000	4874.058	62.044	1008.000	1008.000	0.000	0.0000	100.0000	1.21E+00	7.23E-02	0.00E+00	3.26E-03	3.83E-02
PU-244	4589.000	4554.896	41.843	12.000	12.000	0.000	5.2050	99.90000	1.45E-02	4.24E-03	1.46E-02	3.25E-02	4.18E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

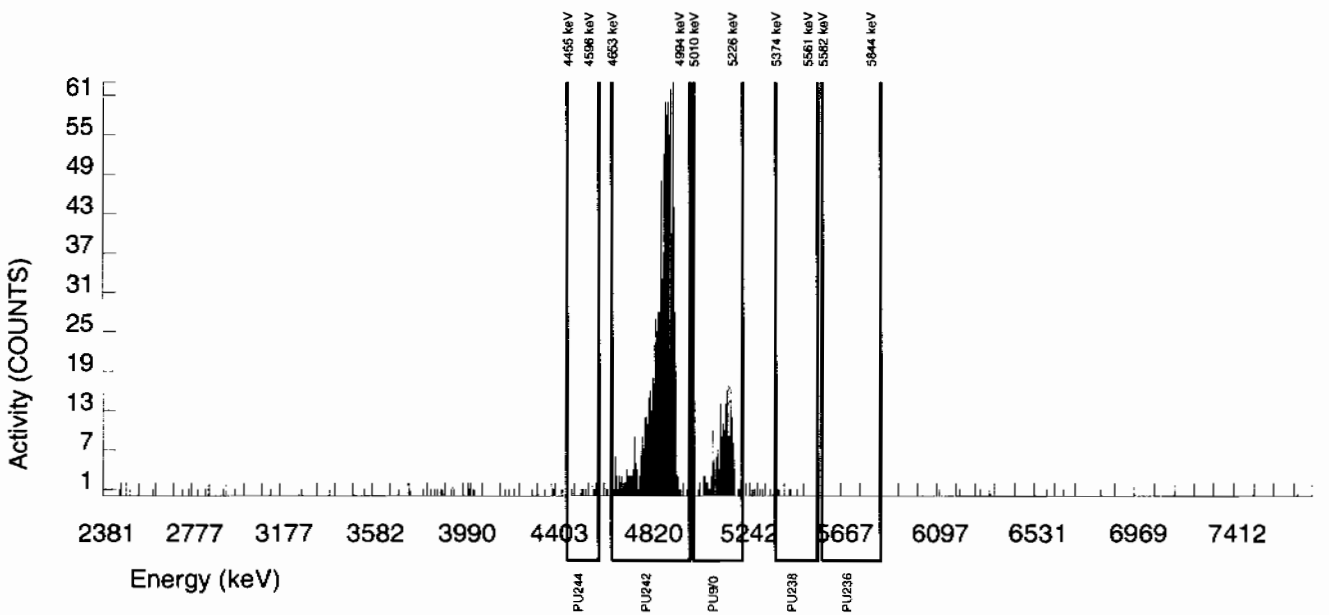

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395008_PU
SAMPLE QTY : 1.256 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 79.484

CHAMBER : 229
DETECTOR S/N : 79422
AVERAGE %EFFICIENCY : 37.2509
COUNT DATE : 5-FEB-2010 18:17:46
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B229.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W229.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.6872E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5649.376	93.993	4.000	3.000	1.000	2.1286	100.0000	3.68E-03	2.75E-03	6.00E-03	1.53E-02	2.74E-03
PU-238	5499.000	5441.902	9.476	12.000	11.000	1.000	2.9680	99.90000	1.33E-02	4.43E-03	8.37E-03	2.00E-02	4.37E-03
PU-9/0	5155.000	5154.790	0.000	8.000	8.000	0.000	3.4797	99.90000	9.70E-03	3.46E-03	9.82E-03	2.29E-02	3.43E-03
PU242	4890.000	4881.419	57.310	1002.000	1001.000	1.000	1.0000	100.0000	1.21E+00	7.24E-02	2.82E-03	8.92E-03	3.84E-02
PU-244	4589.000	4511.584	0.000	3.000	3.000	0.000	5.2050	99.90000	3.64E-03	2.11E-03	1.47E-02	3.26E-02	2.10E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

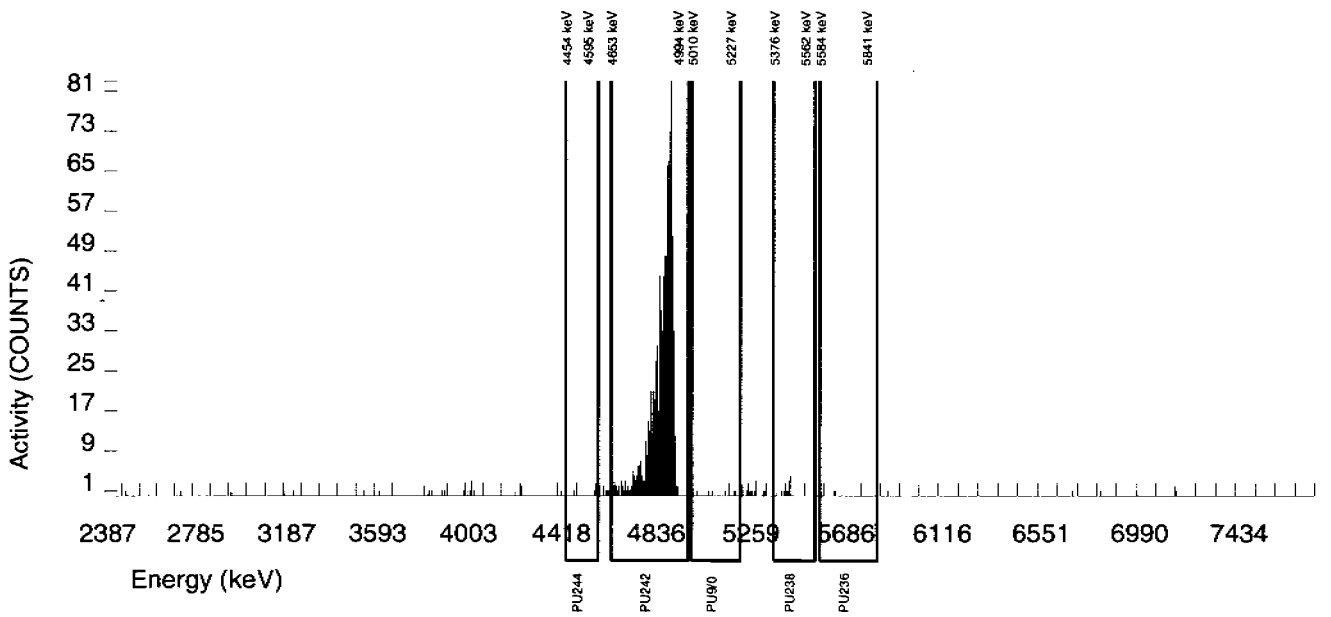

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395009_PU
SAMPLE QTY : 1.254 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 78.458

CHAMBER : 230
DETECTOR S/N : 79423
AVERAGE %EFFICIENCY : 37.5123
COUNT DATE : 5-FEB-2010 18:17:48
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B230.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W230.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.6525E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5692.777	44.452	5.000	5.000	0.000	2.1286	100.0000	6.18E-03	2.78E-03	6.04E-03	1.54E-02	2.76E-03
PU-238	5499.000	5444.459	9.878	6.000	6.000	0.000	2.9680	99.90000	7.33E-03	3.02E-03	8.44E-03	2.02E-02	2.99E-03
PU-9/0	5155.000	5148.925	33.247	19.000	18.000	1.000	3.4797	99.90000	2.20E-02	5.58E-03	9.89E-03	2.31E-02	5.46E-03
PU242	4890.000	4871.548	67.253	995.000	995.000	0.000	0.0000	100.0000	1.21E+00	7.26E-02	0.00E+00	3.31E-03	3.85E-02
PU-244	4589.000	4527.528	93.844	17.000	17.000	0.000	5.2050	99.90000	2.08E-02	5.15E-03	1.48E-02	3.29E-02	5.04E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

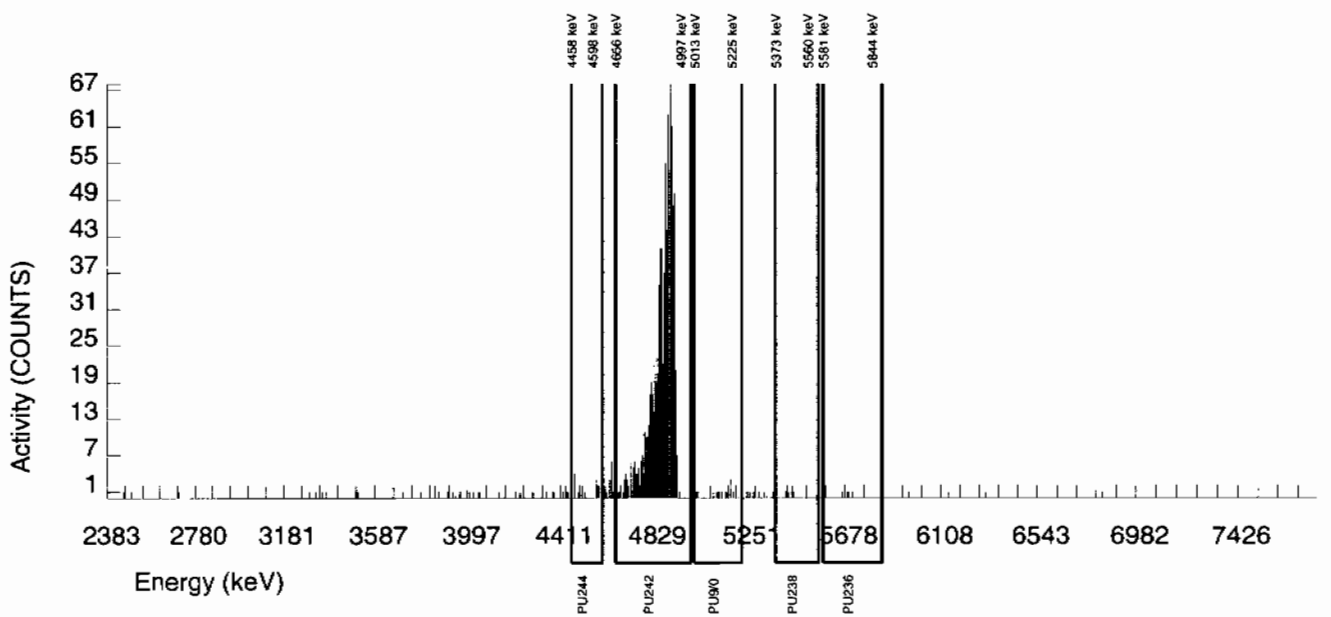

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395010_PU
SAMPLE QTY : 1.255 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 82.928

CHAMBER : 231
DETECTOR S/N : 79424
AVERAGE %EFFICIENCY : 38.8428
COUNT DATE : 5-FEB-2010 18:17:51
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B231.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W231.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.8036E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5675.496	93.751	6.000	6.000	0.000	2.1286	100.0000	6.77E-03	2.78E-03	5.52E-03	1.41E-02	2.76E-03
PU-238	5499.000	5447.922	44.408	16.000	15.000	1.000	2.9680	99.90000	1.67E-02	4.68E-03	7.70E-03	1.84E-02	4.60E-03
PU-9/0	5155.000	5145.685	4.934	9.000	7.000	2.000	3.4797	99.90000	7.81E-03	3.72E-03	9.03E-03	2.11E-02	3.70E-03
PU242	4890.000	4882.633	56.699	1094.000	1089.000	5.000	2.2361	100.0000	1.21E+00	7.09E-02	5.80E-03	1.46E-02	3.69E-02
PU-244	4589.000	4521.218	0.000	6.000	6.000	0.000	5.2050	99.90000	6.69E-03	2.75E-03	1.35E-02	3.00E-02	2.73E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

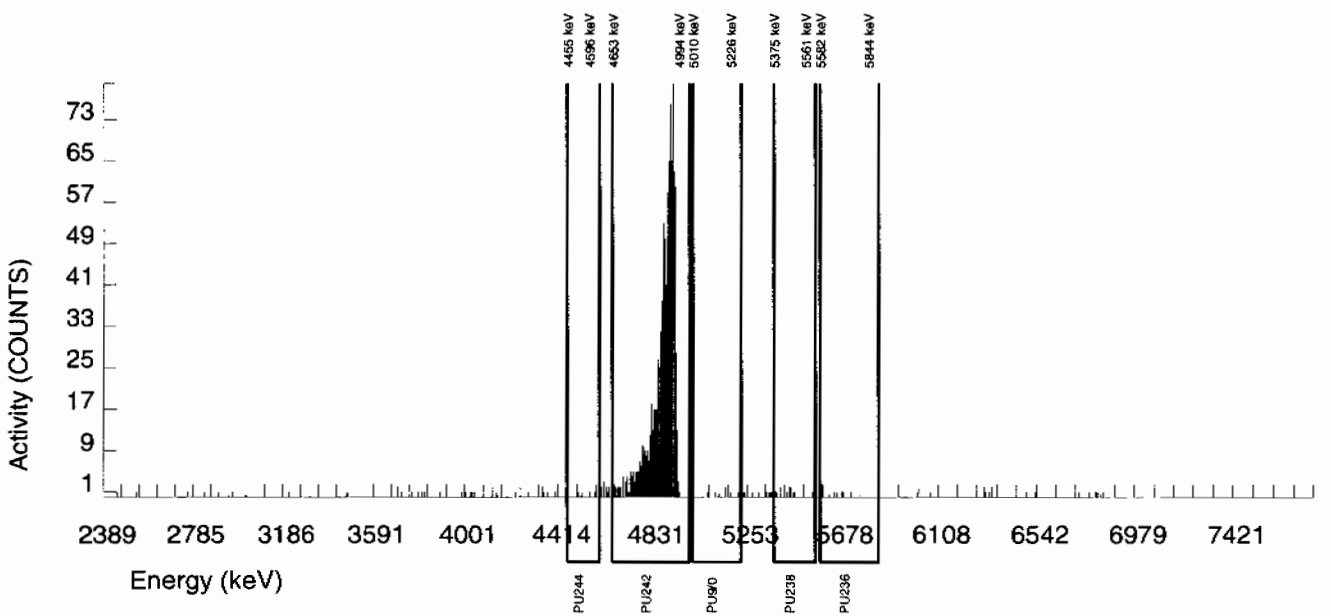

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395011_PU
SAMPLE QTY : 1.257 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 71.243

CHAMBER : 236
DETECTOR S/N : 79429
AVERAGE %EFFICIENCY : 38.6953
COUNT DATE : 8-FEB-2010 20:42:24
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B236.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W236.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.4086E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5654.944	4.900	1.000	1.000	0.000	2.1286	100.0000	1.32E-03	1.32E-03	6.44E-03	1.64E-02	1.32E-03
PU-238	5499.000	5467.705	0.000	0.000	0.000	0.000	2.9680	99.90000	0.00E+00	1.30E-03	8.98E-03	2.15E-02	1.30E-03
PU-9/0	5155.000	5156.257	34.302	17.000	15.000	2.000	3.4797	99.90000	1.95E-02	5.76E-03	1.05E-02	2.46E-02	5.67E-03
PU242	4890.000	4876.933	49.704	932.000	932.000	0.000	0.0000	100.0000	1.21E+00	7.38E-02	0.00E+00	3.52E-03	3.97E-02
PU-244	4589.000	4544.794	105.356	17.000	16.000	1.000	5.2050	99.90000	2.08E-02	5.62E-03	1.58E-02	3.50E-02	5.52E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

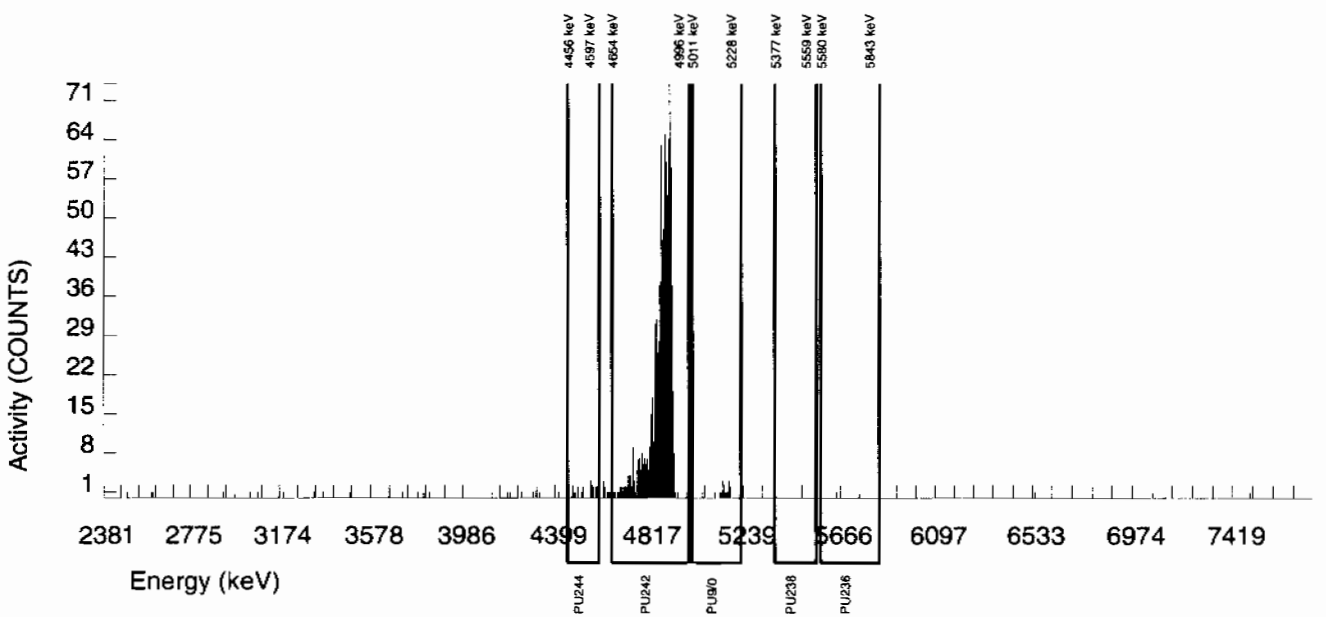

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395012_PU
SAMPLE QTY : 1.252 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 66.368

CHAMBER : 233
DETECTOR S/N : 79426
AVERAGE %EFFICIENCY : 37.7051
COUNT DATE : 5-FEB-2010 18:17:55
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B233.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W233.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.2437E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5667.650	44.183	3.000	2.000	1.000	2.1286	100.0000	2.91E-03	2.91E-03	7.12E-03	1.81E-02	2.91E-03
PU-238	5499.000	5427.677	98.183	5.000	5.000	0.000	2.9680	99.90000	7.20E-03	3.24E-03	9.94E-03	2.38E-02	3.22E-03
PU-9/0	5155.000	5131.182	58.296	64.000	64.000	0.000	3.4797	99.90000	9.21E-02	1.25E-02	1.17E-02	2.72E-02	1.15E-02
PU242	4890.000	4865.125	63.832	846.000	846.000	0.000	0.0000	100.0000	1.22E+00	7.63E-02	0.00E+00	3.90E-03	4.18E-02
PU-244	4589.000	4540.296	0.000	29.000	29.000	0.000	5.2050	99.90000	4.17E-02	8.05E-03	1.74E-02	3.88E-02	7.75E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

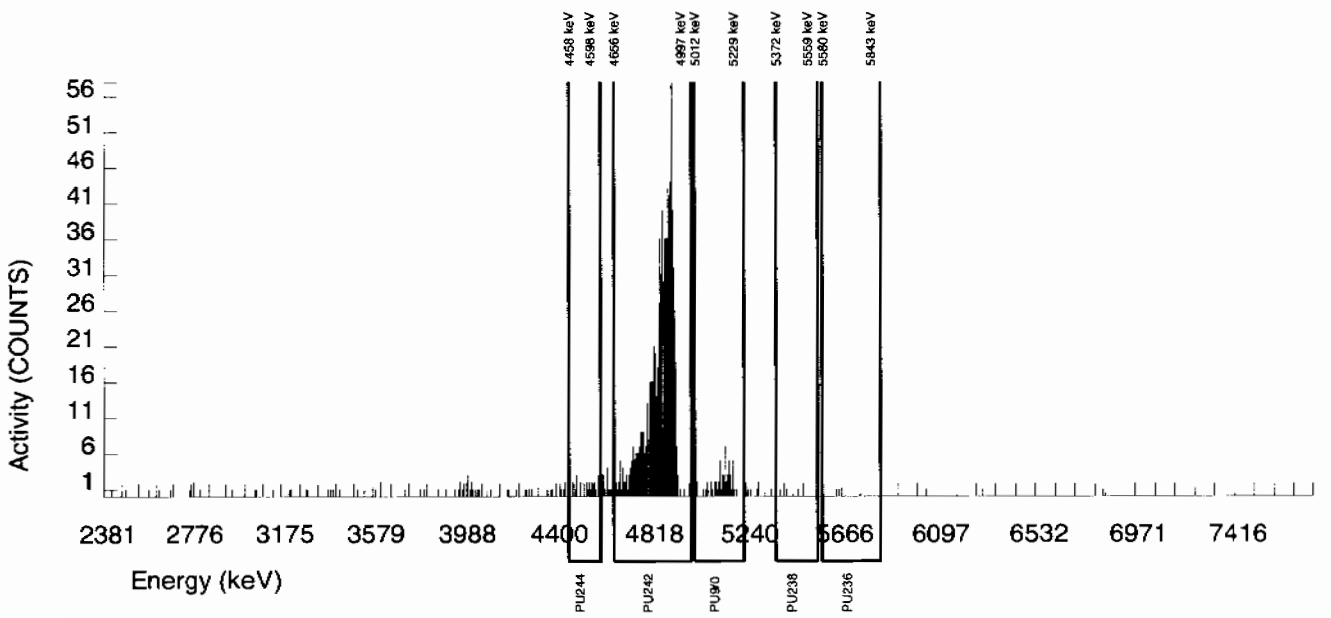

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395013_PU
SAMPLE QTY : 1.258 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 72.884

CHAMBER : 234
DETECTOR S/N : 79427
AVERAGE %EFFICIENCY : 38.3923
COUNT DATE : 5-FEB-2010 18:17:57
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B234.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W234.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.4640E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5706.157	4.914	6.000	6.000	0.000	2.1286	100.0000	7.77E-03	3.20E-03	6.34E-03	1.61E-02	3.17E-03
PU-238	5499.000	5455.927	0.000	11.000	11.000	0.000	2.9680	99.90000	1.41E-02	4.31E-03	8.84E-03	2.12E-02	4.25E-03
PU-9/0	5155.000	5154.764	122.854	3.000	1.000	2.000	3.4797	99.90000	1.28E-03	2.86E-03	1.04E-02	2.42E-02	2.86E-03
PU242	4890.000	4864.075	51.966	946.000	946.000	0.000	0.0000	100.0000	1.21E+00	7.35E-02	0.00E+00	3.47E-03	3.94E-02
PU-244	4589.000	4527.103	90.850	25.000	25.000	0.000	5.2050	99.90000	3.20E-02	6.61E-03	1.55E-02	3.45E-02	6.40E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

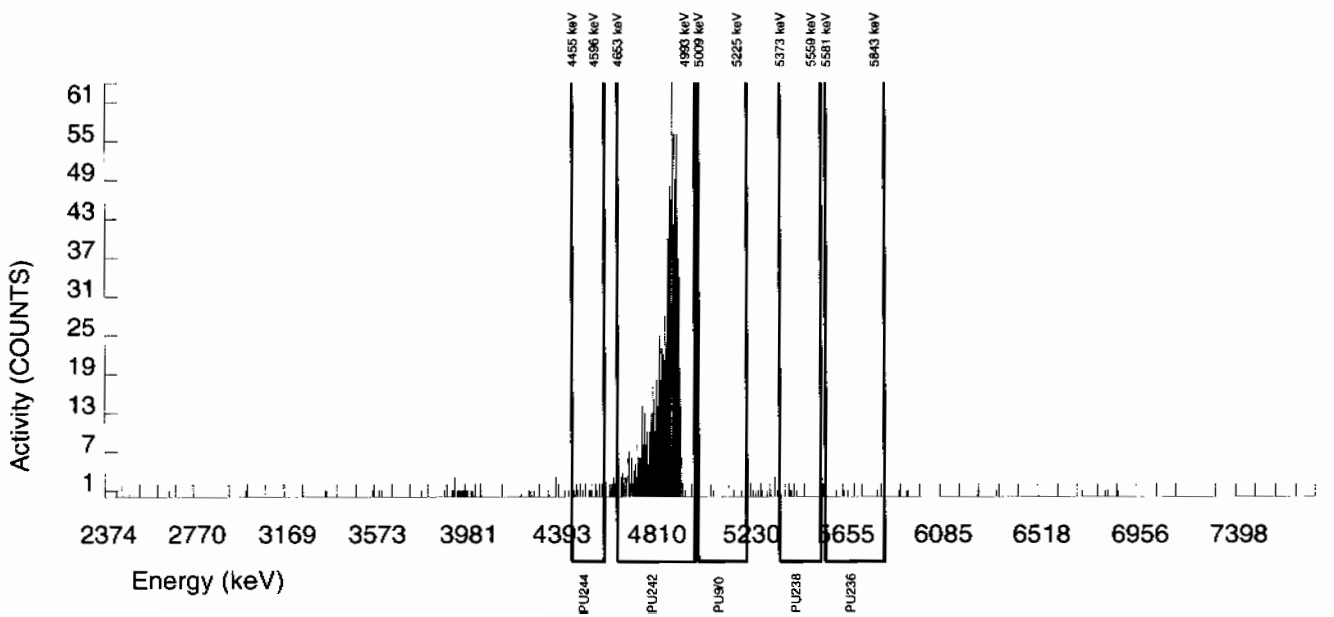

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395014_PU
SAMPLE QTY : 1.257 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 73.441

CHAMBER : 239
DETECTOR S/N : 79432
AVERAGE %EFFICIENCY : 37.8194
COUNT DATE : 8-FEB-2010 20:42:26
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B239.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W239.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.4829E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5773.542	93.248	2.000	1.000	1.000	2.1286	100.0000	1.31E-03	2.27E-03	6.39E-03	1.63E-02	2.27E-03
PU-238	5499.000	5462.382	0.000	2.000	2.000	0.000	2.9680	99.90000	2.58E-03	1.83E-03	8.92E-03	2.13E-02	1.83E-03
PU-9/0	5155.000	5164.272	25.357	35.000	33.000	2.000	3.4797	99.90000	4.26E-02	8.18E-03	1.05E-02	2.44E-02	7.86E-03
PU242	4890.000	4880.667	49.636	941.000	939.000	2.000	1.4142	100.0000	1.21E+00	7.57E-02	4.24E-03	1.20E-02	3.96E-02
PU-244	4589.000	4560.386	13.445	9.000	9.000	0.000	5.2050	99.90000	1.16E-02	3.92E-03	1.56E-02	3.48E-02	3.87E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

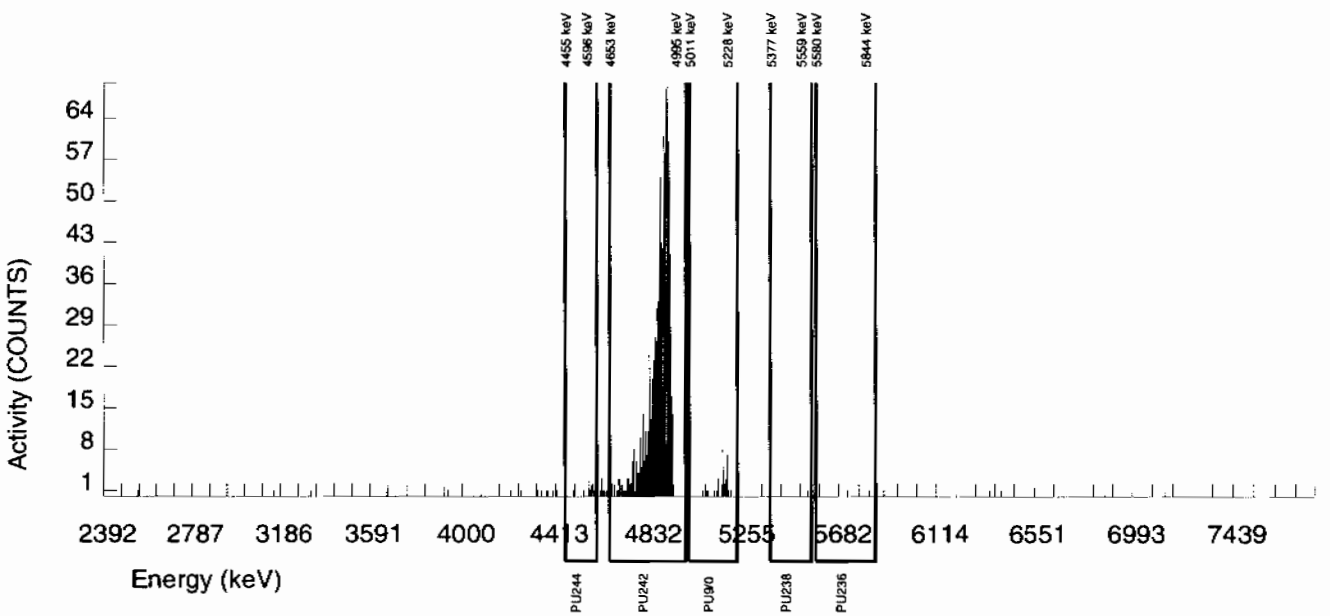

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S0245395015_PU
SAMPLE QTY : 1.254 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 72.821

CHAMBER : 240
DETECTOR S/N : 79433
AVERAGE %EFFICIENCY : 36.8412
COUNT DATE : 8-FEB-2010 20:42:28
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B240.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W240.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.4619E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.306	0.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.36E-03	6.63E-03	1.69E-02	1.36E-03
PU-238	5499.000	5519.617	4.914	1.000	-1.000	2.000	2.9680	99.90000	-1.34E-03	2.32E-03	9.25E-03	2.21E-02	2.32E-03
PU-9/0	5155.000	5135.833	6.552	19.000	18.000	1.000	3.4797	99.90000	2.41E-02	6.12E-03	1.08E-02	2.53E-02	5.99E-03
PU242	4890.000	4884.220	54.453	908.000	907.000	1.000	1.0000	100.0000	1.21E+00	7.47E-02	3.11E-03	9.86E-03	4.04E-02
PU-244	4589.000	4527.579	29.483	12.000	11.000	1.000	5.2050	99.90000	1.47E-02	4.89E-03	1.62E-02	3.61E-02	4.83E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

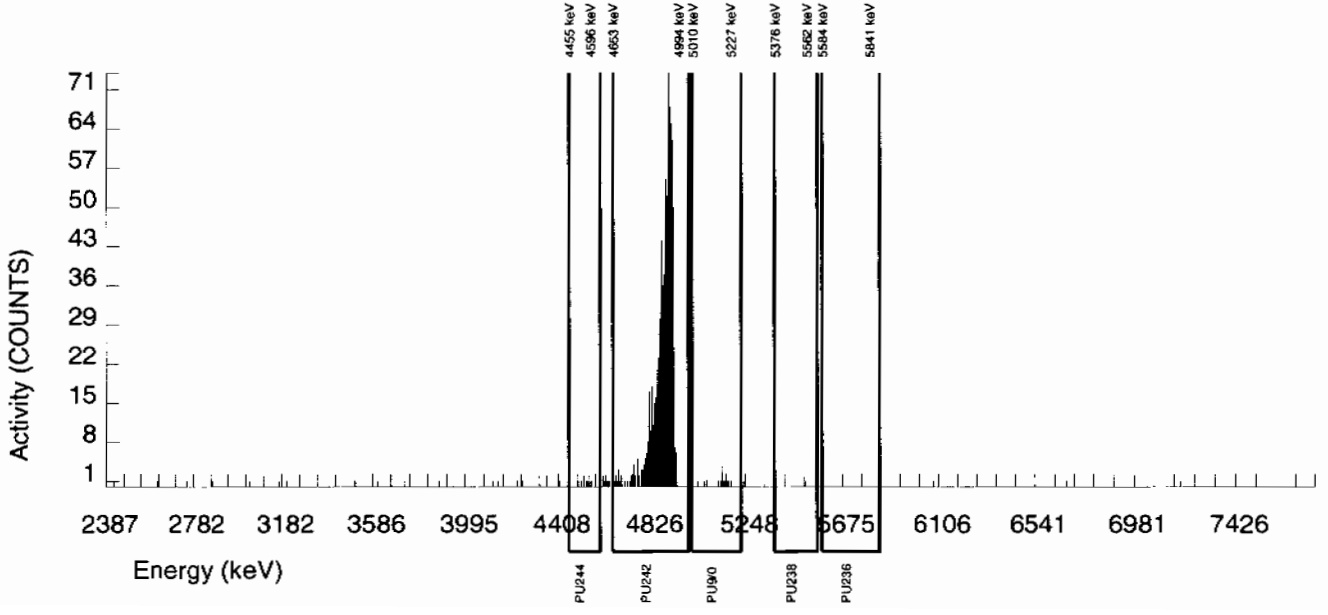

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S1202023807_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : JXD2
% YIELD : 78.604

CHAMBER : 237
DETECTOR S/N : 79430
AVERAGE %EFFICIENCY : 39.3990
COUNT DATE : 5-FEB-2010 18:18:05
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B237.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W237.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.6574E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.295	0.000	0.000	0.000	0.000	2.1286	100.0000	0.00E+00	1.46E-03	7.20E-03	1.83E-02	1.46E-03
PU-238	5499.000	5467.771	0.000	0.000	-5.000	5.000	2.9680	99.90000	-7.28E-03	3.57E-03	1.01E-02	2.41E-02	3.57E-03
PU-9/0	5155.000	5162.077	4.920	1.000	1.000	0.000	3.4797	99.90000	1.46E-03	1.46E-03	1.18E-02	2.75E-02	1.46E-03
PU242	4890.000	4889.881	59.401	1048.000	1047.000	1.000	1.0000	100.0000	1.52E+00	9.24E-02	3.38E-03	1.07E-02	4.71E-02
PU-244	4589.000	4525.123	39.358	9.000	8.000	1.000	5.2050	99.90000	1.16E-02	4.64E-03	1.76E-02	3.92E-02	4.60E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

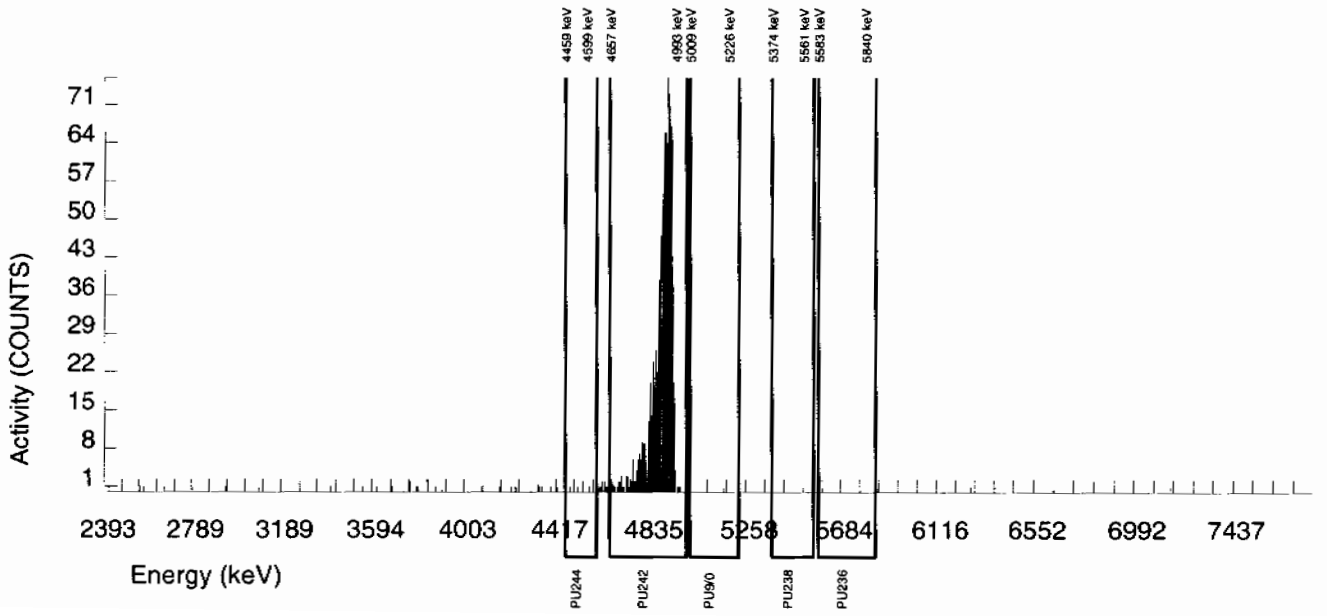

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S1202023808_PU
SAMPLE QTY : 1.251 G
SAMPLE DATE : 15-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 73.745

CHAMBER : 238
DETECTOR S/N : 79431
AVERAGE %EFFICIENCY : 39.3479
COUNT DATE : 5-FEB-2010 18:18:07
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B238.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W238.CNF;30
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.4931E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5715.833	78.618	5.000	3.000	2.000	2.1286	100.0000	3.78E-03	3.34E-03	6.14E-03	1.57E-02	3.33E-03
PU-238	5499.000	5425.170	71.247	6.000	-10.000	16.000	2.9680	99.90000	-1.24E-02	5.83E-03	8.58E-03	2.05E-02	5.83E-03
PU-9/0	5155.000	5171.908	7.217	7.000	-1.000	8.000	3.4797	99.90000	-1.24E-03	4.81E-03	1.01E-02	2.35E-02	4.81E-03
PU242	4890.000	4866.311	65.122	982.000	981.000	1.000	1.0000	100.0000	1.22E+00	7.31E-02	2.89E-03	9.14E-03	3.89E-02
PU-244	4589.000	4541.855	116.606	18.000	17.000	1.000	5.2050	99.90000	2.11E-02	5.52E-03	1.50E-02	3.34E-02	5.41E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

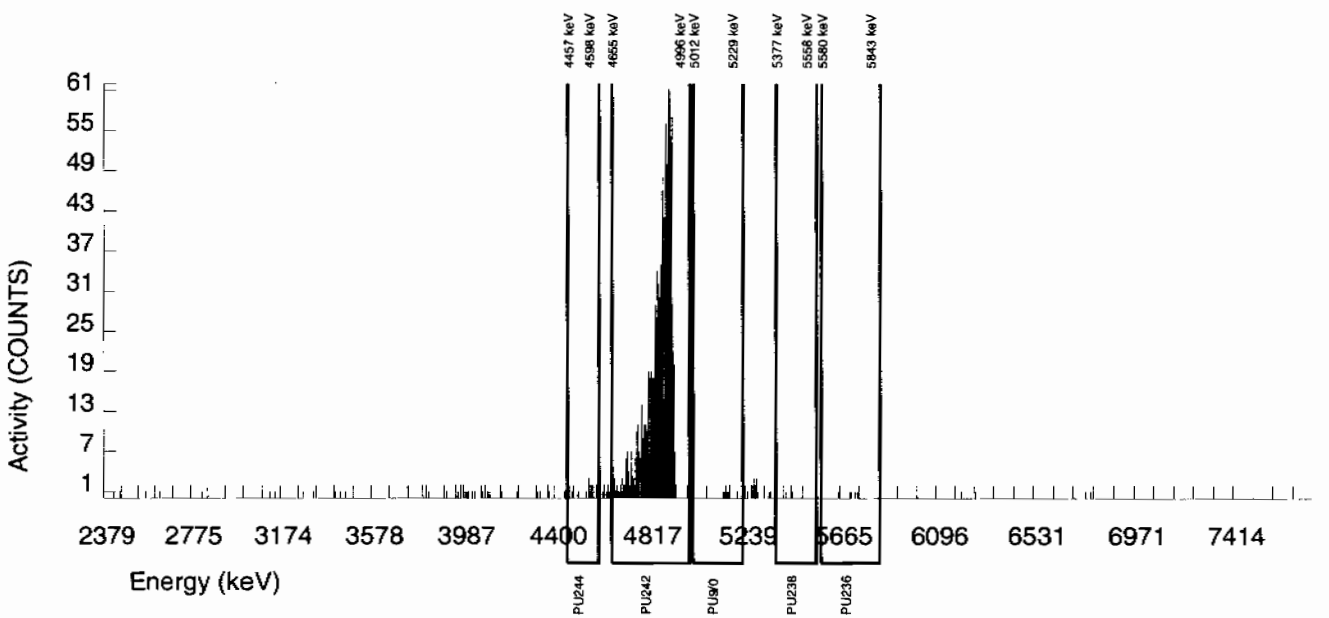

Alpha Spectroscopy Software Version 2.1
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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944994
SAMPLE ID : S1202023809_PU
SAMPLE QTY : 0.106 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : JXD2
% YIELD : 63.664

CHAMBER : 239
DETECTOR S/N : 79432
AVERAGE %EFFICIENCY : 37.8194
COUNT DATE : 5-FEB-2010 18:18:10
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B239.CNF;76
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W239.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.1523E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5730.478	24.539	2.000	1.000	1.000	2.1286	100.0000	1.77E-02	3.06E-02	8.74E-02	2.23E-01	3.06E-02
PU-238	5499.000	5496.110	54.125	382.000	382.000	0.000	2.9680	99.90000	6.75E+00	5.46E-01	1.22E-01	2.92E-01	3.45E-01
PU-9/0	5155.000	5149.468	50.540	2166.000	2166.000	0.000	3.4797	99.90000	3.83E+01	2.53E+00	1.43E-01	3.34E-01	8.22E-01
PU242	4890.000	4885.271	58.904	815.000	814.000	1.000	1.0000	100.0000	1.44E+01	1.03E+00	4.11E-02	1.30E-01	5.04E-01
PU-244	4589.000	4513.583	98.156	8.000	7.000	1.000	5.2050	99.90000	1.24E-01	5.36E-02	2.14E-01	4.76E-01	5.30E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

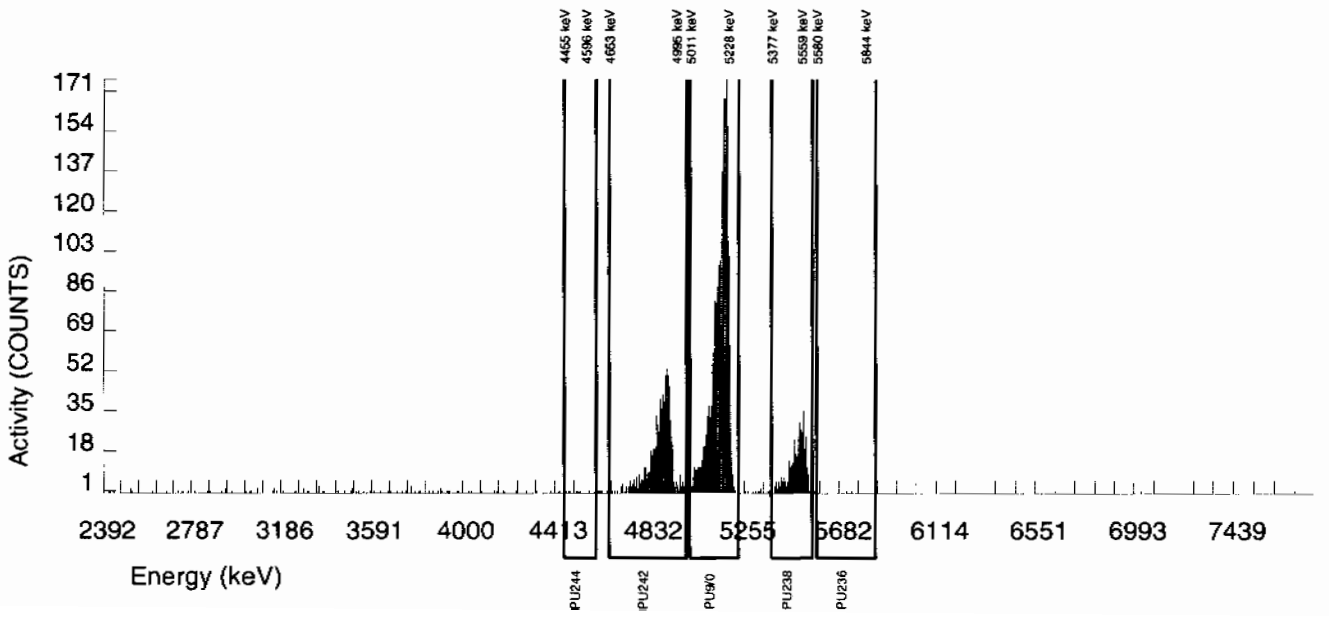

Radiochemistry Batch Checklist, Rev10

Batch# 944996 Product: U Date: 2/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument blg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/9/10

Secondary Review Performed By: [illegible] 2/9/10

2/13
LANL

Uranium Que Sheet

25-JAN-10

Batch #: 944996 **Analyst:** JXD2 **First Client Due Date:** 13-FEB-10 **Internal Due Date:** 03-FEB-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/09/10 **Vol:** 0.1
LCS Isotope: U-238 **LCS Code:** — **Expiration Date:** — **Vol:** —
Spike Isotope: U-238 **Spike Code:** — **Expiration Date:** — **Vol:** —
Prep Date: 02/04/10 **Initials:** JXD **Pipet ID:** 2974058 **Balance ID:** 50410272 **Witness:** DHKB 2/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/ml)	U Det #
245371001-1	RE16-10-957	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	1	1	0.507	115
245371002-1	RE16-10-979	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	2	2	0.506	117
245393010-1	RE15-10-8053	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	3	3	0.501	118
245393011-1	RE15-10-8054	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	4	4	0.511	119
245395001-1	RE15-10-7869	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	5	5	0.505	120
245395002-1	RE15-10-7874	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	6	6	0.500	121
245395003-1	RE15-10-7871	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	7	7	0.505	122
245395004-1	RE15-10-7872	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	8	8	0.506	123
245395005-1	RE15-10-7870	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	9	9	0.504	124
~~245395006-1~~	~~RE15-10-7873~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~19-JAN-10~~	~~10~~	~~10~~	~~0.507~~	~~125~~
~~245395007-1~~	~~RE15-10-7911~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~19-JAN-10~~	~~11~~	~~11~~	~~0.504~~	~~126~~
~~245395008-1~~	~~RE15-10-7908~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~19-JAN-10~~	~~12~~	~~12~~	~~0.503~~	~~127~~
~~245395009-1~~	~~RE15-10-7912~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~19-JAN-10~~	~~13~~	~~13~~	~~0.501~~	~~128~~
245395010-1	RE15-10-7906	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	14	14	0.505	129
245395011-1	RE15-10-7905	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	15	15	0.502	130
~~245395012-1~~	~~RE15-10-7907~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~19-JAN-10~~	~~16~~	~~16~~	~~0.508~~	~~131~~
245395013-1	RE15-10-7913	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	17	17	0.508	132
~~245395014-1~~	~~RE15-10-7909~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~19-JAN-10~~	~~18~~	~~18~~	~~0.507~~	~~133~~
245395015-1	RE15-10-7910	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	19	19	0.503	7
1202023820-1	MB for batch 944996	MB		.1 pCi/g	SOIL	QC ACCOUNT		20	20	1	8
1202023821-1	RE16-10-957(245371001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	15-JAN-10	21	21	0.506	139
1202023822-1	LCS for batch 944996	LCS		.1 pCi/g	SOIL	QC ACCOUNT		22	22	0.102	140

* SRM 0244-A exp 10/31/20 0.102g

2/4/10

Choose SOP used: GL-RAD-A-011 **Solid Sample Dissolution by:** LEACH or DIGESTION (Circle One) **Data Reviewed By:** 2/9/10

Blank Correction Report

Batch ID 944996

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202023821	DUP	Uranium-233/234	0.506 g	0.773	0.0845	0.152	.014189723	pCi/g	NO
		Uranium-235/236	0.506 g	0.0426	0.0185	0.0947	.011284585	pCi/g	YES
		Uranium-238	0.506 g	0.758	0.0833	0.0884	.027470356	pCi/g	NO
1202023822	LCS	Uranium-233/234	0.102 g	5.92	0.572	0.607	.070392157	pCi/g	NO
		Uranium-235/236	0.102 g	0.218	0.0821	0.377	.055980392	pCi/g	YES
		Uranium-238	0.102 g	5.47	0.536	0.352	.136274510	pCi/g	NO
1202023820	MB	Uranium-233/234	1.00 g	0.00718	0.00456	0.0477	.00718	pCi/g	YES
		Uranium-235/236	1.00 g	0.00571	0.00332	0.0296	.00571	pCi/g	YES
		Uranium-238	1.00 g	0.0139	0.0052	0.0277	.0139	pCi/g	YES
245371001	RE16-10-957	Uranium-233/234	0.507 g	0.662	0.0715	0.131	.014161736	pCi/g	NO
		Uranium-235/236	0.507 g	0.0365	0.0159	0.0811	.011262327	pCi/g	YES
		Uranium-238	0.507 g	0.772	0.0794	0.0758	.027416174	pCi/g	NO
245371002	RE16-10-979	Uranium-233/234	0.506 g	1.06	0.103	0.136	.014189723	pCi/g	NO
		Uranium-235/236	0.506 g	0.0652	0.0194	0.0846	.011284585	pCi/g	NO
		Uranium-238	0.506 g	1.08	0.104	0.079	.027470356	pCi/g	NO
245393010	RE15-10-8053	Uranium-233/234	0.501 g	9.90	0.799	0.216	.014331337	pCi/g	NO
		Uranium-235/236	0.501 g	1.47	0.159	0.134	.011397206	pCi/g	NO
		Uranium-238	0.501 g	68.8	5.29	0.126	.027744511	pCi/g	NO
245393011	RE15-10-8054	Uranium-233/234	0.511 g	0.866	0.0864	0.128	.014050881	pCi/g	NO
		Uranium-235/236	0.511 g	0.041	0.0148	0.0797	.011174168	pCi/g	YES
		Uranium-238	0.511 g	1.03	0.0989	0.0745	.027201566	pCi/g	NO
245395001	RE15-10-7869	Uranium-233/234	0.505 g	7.18	0.567	0.173	.014217822	pCi/g	NO
		Uranium-235/236	0.505 g	0.933	0.106	0.108	.011306931	pCi/g	NO
		Uranium-238	0.505 g	43.7	3.26	0.100	.027524752	pCi/g	NO
245395002	RE15-10-7874	Uranium-233/234	0.500 g	1.76	0.151	0.125	.01436	pCi/g	NO
		Uranium-235/236	0.500 g	0.150	0.031	0.0776	.01142	pCi/g	NO
		Uranium-238	0.500 g	7.18	0.539	0.0725	.0278	pCi/g	NO
245395003	RE15-10-7871	Uranium-233/234	0.505 g	6.10	0.486	0.171	.014217822	pCi/g	NO
		Uranium-235/236	0.505 g	0.799	0.0946	0.106	.011306931	pCi/g	NO
		Uranium-238	0.505 g	42.1	3.14	0.0994	.027524752	pCi/g	NO
245395004	RE15-10-7872	Uranium-233/234	0.506 g	1.43	0.126	0.122	.014189723	pCi/g	NO
		Uranium-235/236	0.506 g	0.117	0.0253	0.076	.011284585	pCi/g	NO
		Uranium-238	0.506 g	5.04	0.385	0.071	.027470356	pCi/g	NO
245395005	RE15-10-7870	Uranium-233/234	0.504 g	1.11	0.103	0.119	.014246032	pCi/g	NO
		Uranium-235/236	0.504 g	0.0952	0.0223	0.0741	.011329365	pCi/g	NO
		Uranium-238	0.504 g	3.80	0.295	0.0692	.027579365	pCi/g	NO
245395010	RE15-10-7906	Uranium-233/234	0.505 g	1.08	0.100	0.120	.014217822	pCi/g	NO
		Uranium-235/236	0.505 g	0.114	0.0247	0.0742	.011306931	pCi/g	NO
		Uranium-238	0.505 g	3.35	0.263	0.0693	.027524752	pCi/g	NO
245395011	RE15-10-7905	Uranium-233/234	0.502 g	2.60	0.216	0.140	.014302789	pCi/g	NO
		Uranium-235/236	0.502 g	0.391	0.0545	0.0869	.011374502	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245395011	RE15-10-7905	Uranium-238	0.502 g	16.9	1.25	0.0812	.027689243	pCi/g	NO
245395013	RE15-10-7913	Uranium-233/234	0.508 g	1.18	0.115	0.154	.014133858	pCi/g	NO
		Uranium-235/236	0.508 g	0.0858	0.0238	0.0953	.011240157	pCi/g	NO
		Uranium-238	0.508 g	2.50	0.214	0.0891	.027362205	pCi/g	NO
245395015	RE15-10-7910	Uranium-233/234	0.503 g	4.55	0.354	0.131	.014274354	pCi/g	NO
		Uranium-235/236	0.503 g	0.741	0.0827	0.0812	.011351889	pCi/g	NO
		Uranium-238	0.503 g	32.6	2.37	0.0759	.027634195	pCi/g	NO

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ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996	CHAMBER : 115	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245371001_UU	DETECTOR S/N : 79995	BKG FILE : B115.CNF;452
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.9560	BKG DATE : 7-FEB-2010
SAMPLE DATE : 15-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 12:04:14	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W115.CNF;147
% YIELD : 81.164		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5078E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6587E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.110	35.874	953.000	949.000	4.000	2.0000	100.0000	4.00E+00	3.15E-01	1.96E-02	5.07E-02	1.31E-01
U-3/4	4763.020	4760.403	16.193	160.000	157.040	2.000	6.0782	100.0000	6.62E-01	7.15E-02	5.96E-02	1.31E-01	5.35E-02
U-235	4391.000	4399.089	4.982	8.000	7.000	1.000	2.7628	80.90000	3.65E-02	1.59E-02	3.35E-02	8.11E-02	1.56E-02
U-238	4184.730	4187.144	59.706	183.000	183.000	0.000	3.2810	100.0000	7.72E-01	7.94E-02	3.22E-02	7.58E-02	5.71E-02

NOTES:

* Sg calculated via blank population. (Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

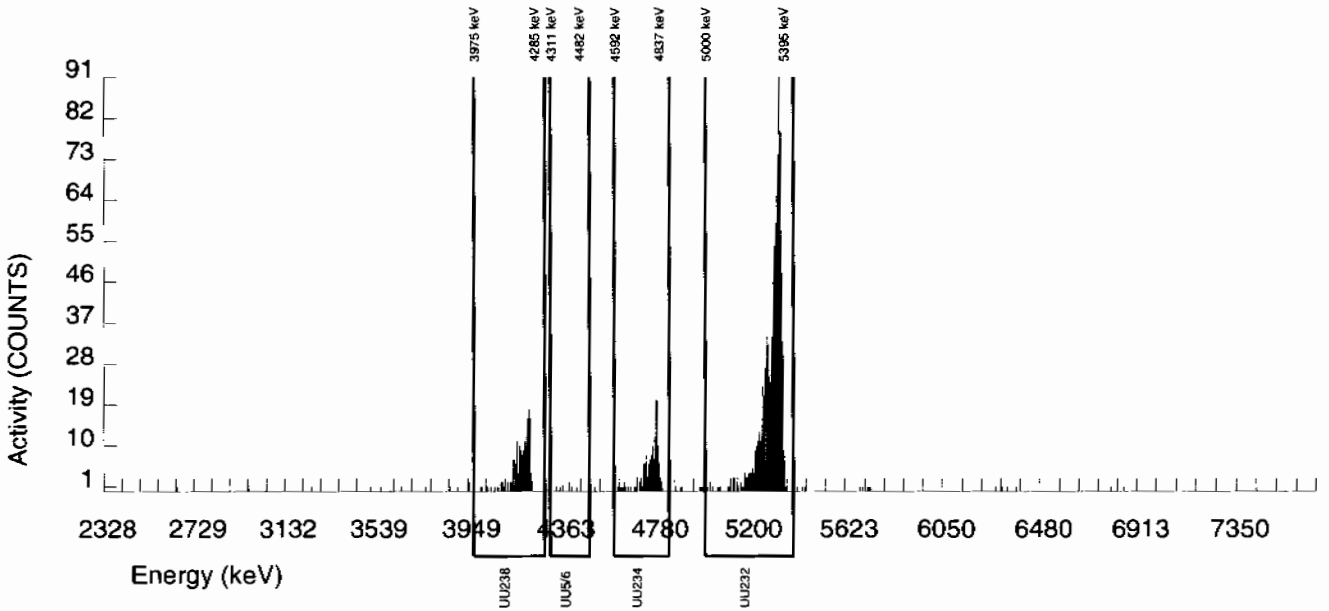

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996	CHAMBER : 120	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245395001_UU	DETECTOR S/N : 74430	BKG FILE : B120.CNF;462
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 25.9820	BKG DATE : 7-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 12:04:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W120.CNF;126
% YIELD : 61.431		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5073E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.7689E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5286.259	69.461	720.000	719.000	1.000	1.0000	100.0000	4.02E+00	3.33E-01	1.30E-02	4.11E-02	1.50E-01
U-3/4	4763.020	4747.826	66.075	1285.000	1284.272	0.000	6.0782	100.0000	7.18E+00	5.67E-01	7.90E-02	1.73E-01	2.00E-01
U-235	4391.000	4402.363	59.201	135.000	135.000	0.000	2.7628	80.90000	9.33E-01	1.06E-01	4.44E-02	1.08E-01	8.03E-02
U-238	4184.730	4174.697	66.078	7820.000	7819.000	1.000	3.2810	100.0000	4.37E+01	3.26E+00	4.27E-02	1.00E-01	4.94E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

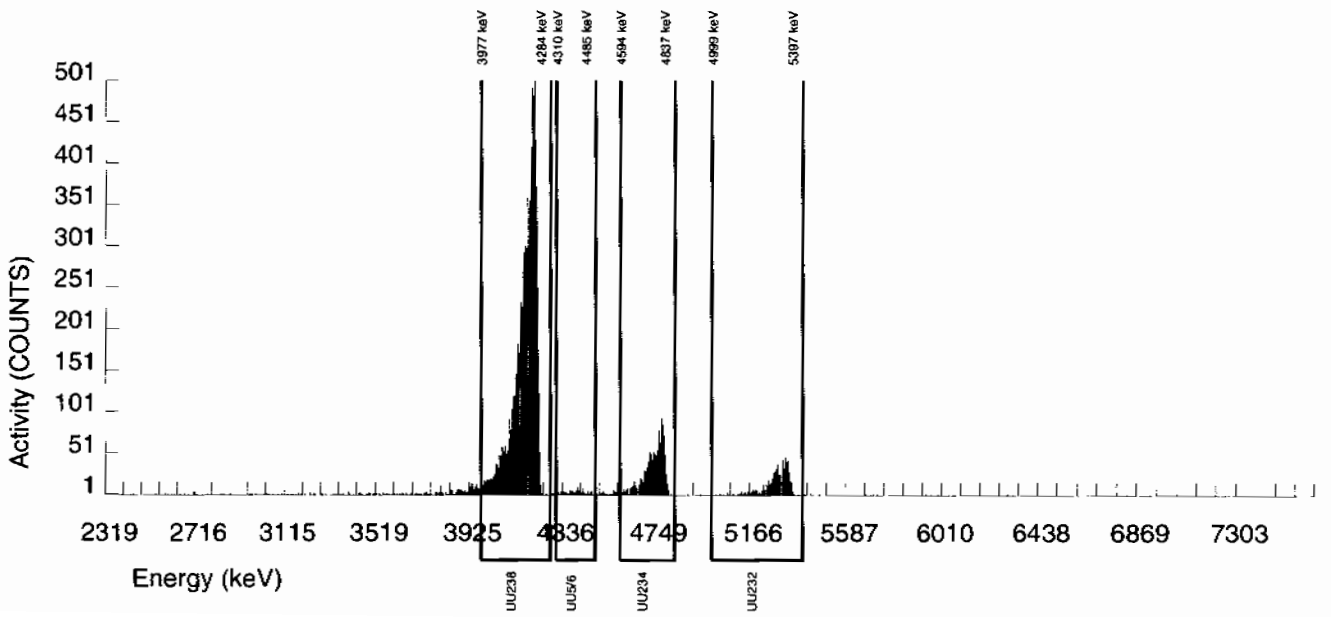

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996	CHAMBER : 121	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245395002_UU	DETECTOR S/N : 75545	BKG FILE : B121.CNF;444
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 24.4776	BKG DATE : 7-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 12:04:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W121.CNF;117
% YIELD : 91.235		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5073E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1122E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5295.296	70.310	1011.000	1006.000	5.000	2.2361	100.0000	4.06E+00	3.16E-01	2.10E-02	5.29E-02	1.29E-01
U-3/4	4763.020	4755.306	47.898	438.000	436.982	0.000	6.0782	100.0000	1.76E+00	1.51E-01	5.70E-02	1.25E-01	8.43E-02
U-235	4391.000	4410.073	24.718	32.000	30.000	2.000	2.7628	80.90000	1.50E-01	3.10E-02	3.20E-02	7.76E-02	2.91E-02
U-238	4184.730	4182.369	39.808	1782.000	1781.000	1.000	3.2810	100.0000	7.18E+00	5.39E-01	3.08E-02	7.25E-02	1.70E-01

NOTES:

* Sg calculated via blank population. (Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

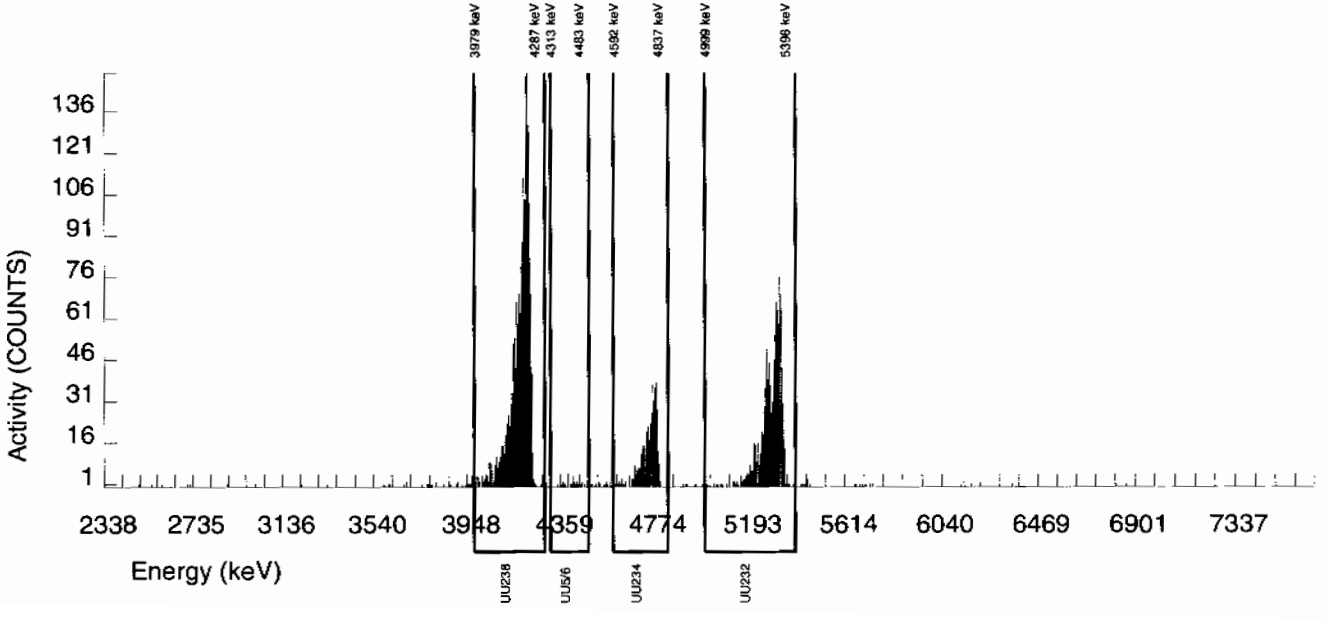

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER :	944996	CHAMBER :	122	LIB FILE :	ENV_ALPHA_UU
SAMPLE ID :	S0245395003_UU	DETECTOR S/N :	75546	BKG FILE :	B122.CNF;446
SAMPLE QTY :	0.505 G	AVERAGE %EFFICIENCY :	24.9662	BKG DATE :	7-FEB-2010
SAMPLE DATE :	19-JAN-2010 00:00:00	COUNT DATE :	8-FEB-2010 12:04:32	BKG LIVE TIME(SEC) :	60000.00
ANALYST :	JXD2	ELAPSED LIVE TIME(SEC) :	60000.00	EFF FILE :	W122.CNF;120
% YIELD :	64.642			CAL DATE :	18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5073E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.9136E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5289.026	73.893	730.000	727.000	3.000	1.7321	100.0000	4.02E+00	3.32E-01	2.23E-02	5.95E-02	1.50E-01
U-3/4	4763.020	4748.799	46.743	1104.000	1103.264	0.000	6.0782	100.0000	6.10E+00	4.86E-01	7.82E-02	1.71E-01	1.84E-01
U-235	4391.000	4411.953	0.000	117.000	117.000	0.000	2.7628	80.90000	7.99E-01	9.46E-02	4.39E-02	1.06E-01	7.39E-02
U-238	4184.730	4178.526	66.800	7619.000	7619.000	0.000	3.2810	100.0000	4.21E+01	3.14E+00	4.22E-02	9.94E-02	4.82E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

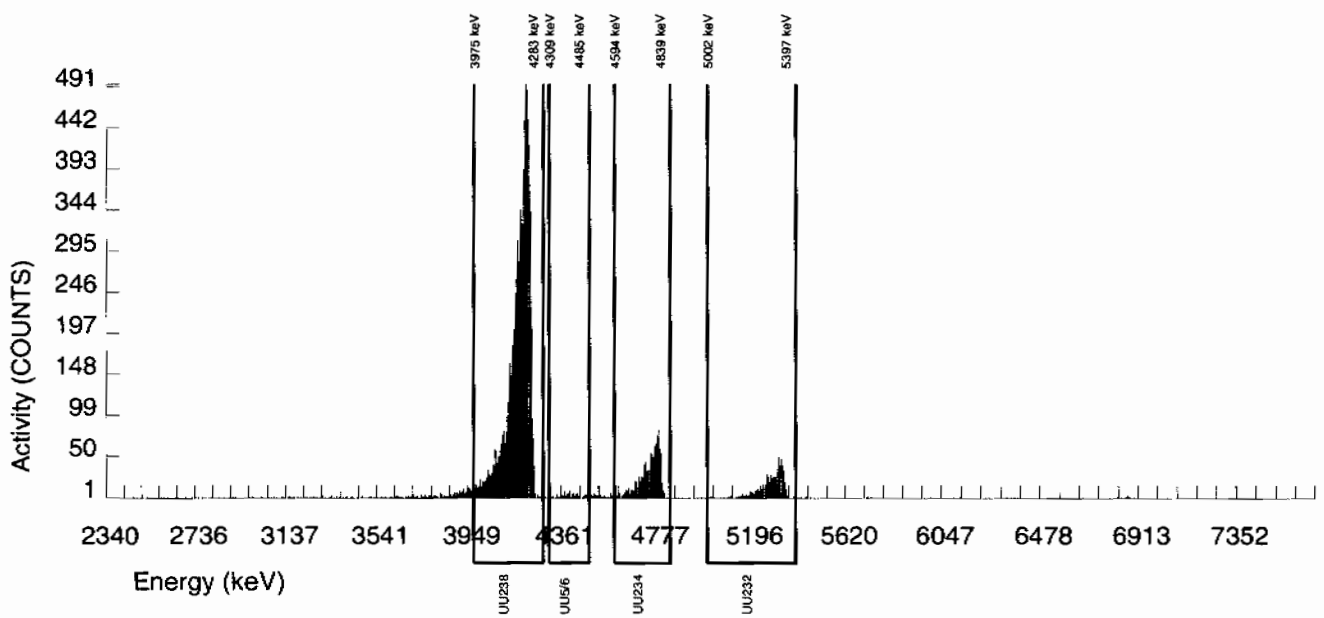

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996	CHAMBER : 123	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245395004_UU	DETECTOR S/N : 45-142V3	BKG FILE : B123.CNF;444
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 25.9975	BKG DATE : 7-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 12:04:34	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W123.CNF;116
% YIELD : 86.670		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5073E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9065E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.124	78.738	1020.000	1015.000	5.000	2.2361	100.0000	4.01E+00	3.12E-01	2.06E-02	5.18E-02	1.27E-01
U-3/4	4763.020	4761.815	66.496	362.000	360.973	0.000	6.0782	100.0000	1.43E+00	1.26E-01	5.59E-02	1.22E-01	7.51E-02
U-235	4391.000	4403.383	92.709	24.000	24.000	0.000	2.7628	80.90000	1.17E-01	2.53E-02	3.14E-02	7.60E-02	2.39E-02
U-238	4184.730	4189.081	53.189	1277.000	1276.000	1.000	3.2810	100.0000	5.04E+00	3.85E-01	3.02E-02	7.10E-02	1.41E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

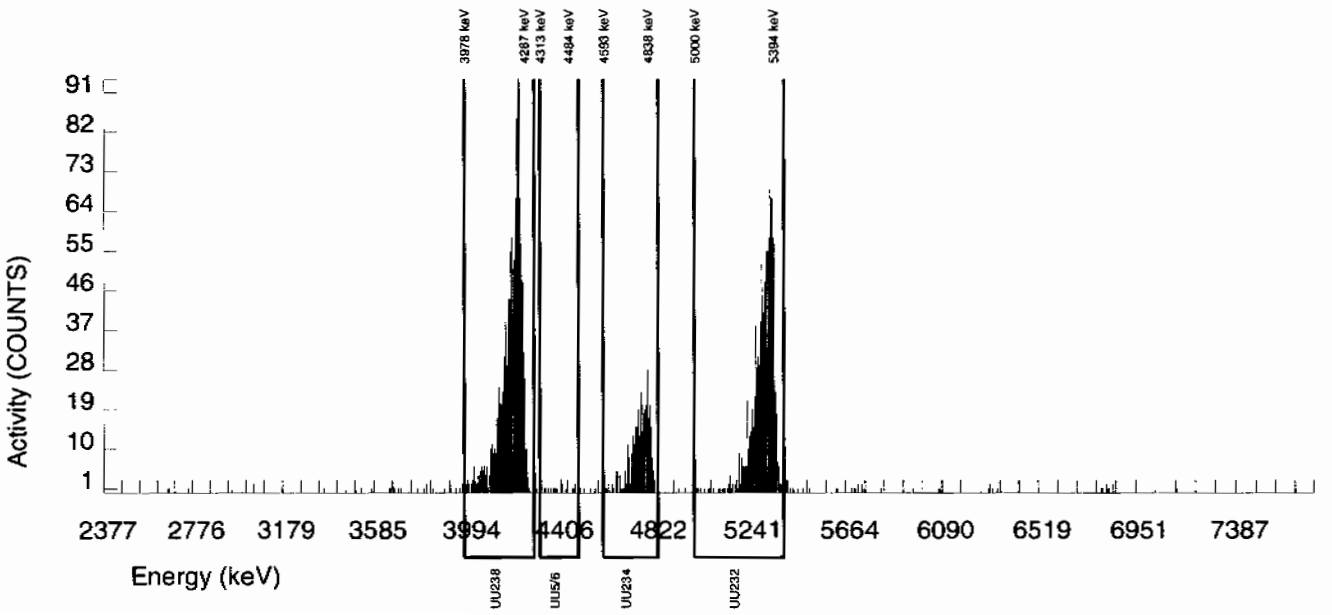

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996
SAMPLE ID : S0245395005_UU
SAMPLE QTY : 0.504 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 89.910

CHAMBER : 124
DETECTOR S/N : 45-142V2
AVERAGE %EFFICIENCY : 25.8260
COUNT DATE : 8-FEB-2010 12:04:37
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B124.CNF;440
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W124.CNF;112
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5073E+00 dpm
RESULTS : 4.0525E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.276	88.521	1051.000	1046.000	5.000	2.2361	100.0000	4.03E+00	3.12E-01	2.00E-02	5.05E-02	1.25E-01
U-3/4	4763.020	4759.614	92.332	291.000	288.942	1.000	6.0782	100.0000	1.11E+00	1.03E-01	5.44E-02	1.19E-01	6.57E-02
U-235	4391.000	4428.671	0.000	20.000	20.000	0.000	2.7628	80.90000	9.52E-02	2.23E-02	3.06E-02	7.41E-02	2.13E-02
U-238	4184.730	4188.896	63.358	987.000	987.000	0.000	3.2810	100.0000	3.80E+00	2.95E-01	2.94E-02	6.92E-02	1.21E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

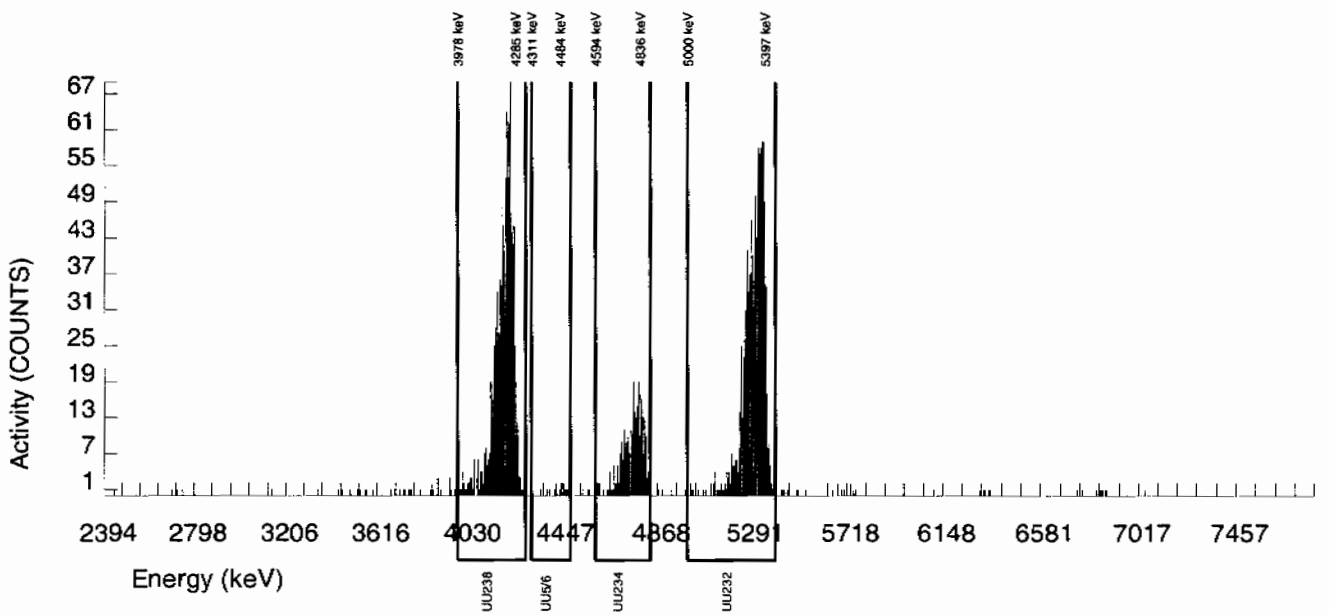

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996	CHAMBER : 129	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245395010_UU	DETECTOR S/N : 76227	BKG FILE : B129.CNF;448
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 26.4183	BKG DATE : 7-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 12:04:48	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W129.CNF;128
% YIELD : 87.558		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5073E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9465E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.825	54.906	1045.000	1042.000	3.000	1.7321	100.0000	4.02E+00	3.11E-01	1.55E-02	4.15E-02	1.25E-01
U-3/4	4763.020	4752.934	32.037	283.000	279.946	2.000	6.0782	100.0000	1.08E+00	1.00E-01	5.45E-02	1.20E-01	6.50E-02
U-235	4391.000	4406.084	98.512	24.000	24.000	0.000	2.7628	80.90000	1.14E-01	2.47E-02	3.06E-02	7.42E-02	2.34E-02
U-238	4184.730	4184.686	49.825	868.000	868.000	0.000	3.2810	100.0000	3.35E+00	2.63E-01	2.94E-02	6.93E-02	1.14E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

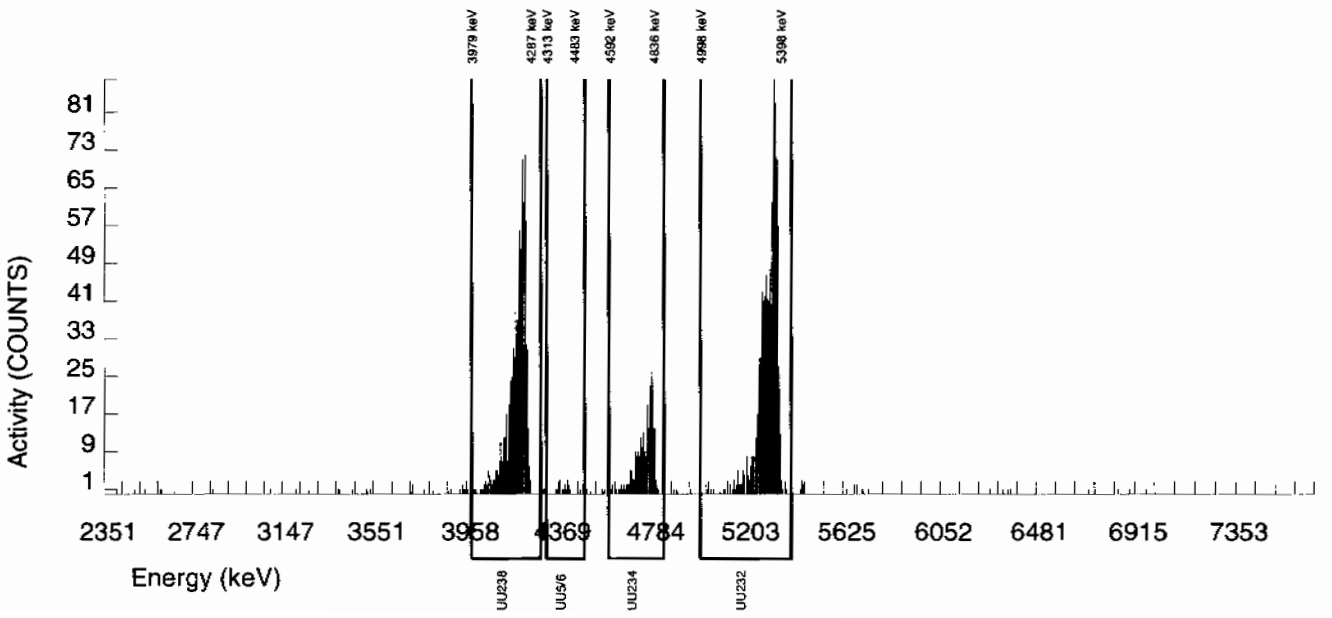

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996
SAMPLE ID : S0245395011_UU
SAMPLE QTY : 0.502 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 80.315

CHAMBER : 130
DETECTOR S/N : 76228
AVERAGE %EFFICIENCY : 24.7378
COUNT DATE : 8-FEB-2010 12:04:51
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B130.CNF;448
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W130.CNF;130
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5073E+00 dpm
RESULTS : 3.6200E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5295.869	67.928	897.000	895.000	2.000	1.4142	100.0000	4.04E+00	3.21E-01	1.49E-02	4.20E-02	1.35E-01
U-3/4	4763.020	4751.437	37.816	577.000	575.094	1.000	6.0782	100.0000	2.60E+00	2.16E-01	6.39E-02	1.40E-01	1.08E-01
U-235	4391.000	4403.224	48.624	70.000	70.000	0.000	2.7628	80.90000	3.91E-01	5.45E-02	3.59E-02	8.69E-02	4.67E-02
U-238	4184.730	4180.042	59.942	3745.000	3745.000	0.000	3.2810	100.0000	1.69E+01	1.25E+00	3.45E-02	8.12E-02	2.76E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

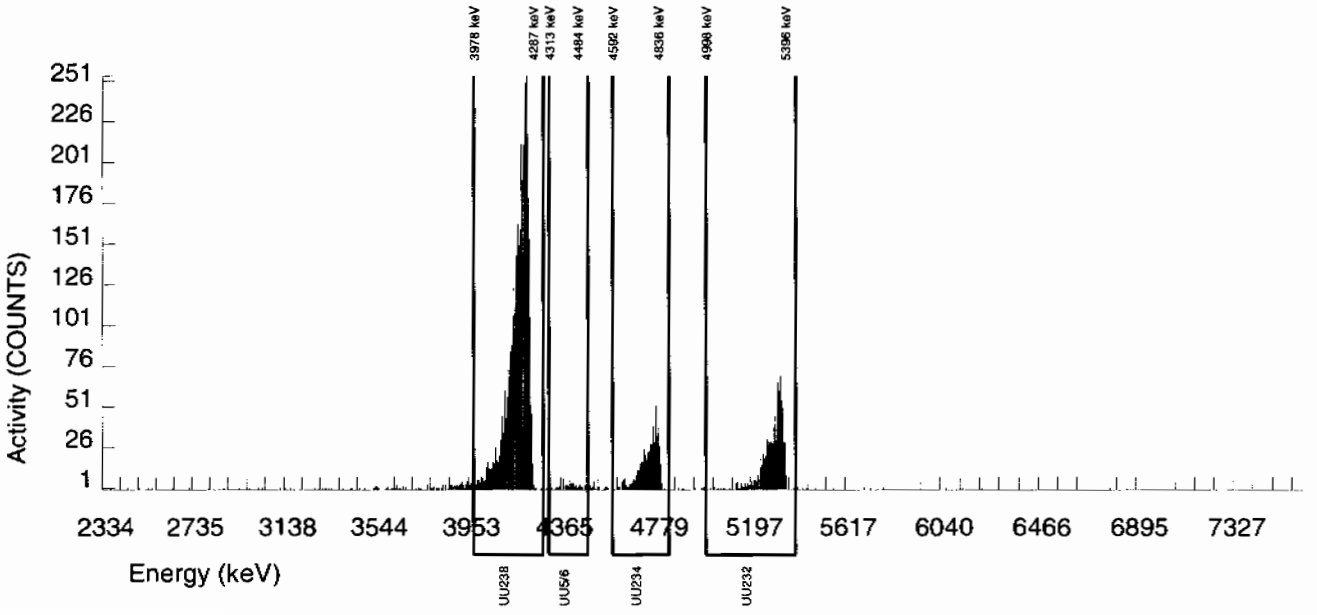

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996	CHAMBER : 132	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245395013_UU	DETECTOR S/N : 67579	BKG FILE : B132.CNF;440
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 24.9091	BKG DATE : 7-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 8-FEB-2010 12:04:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W132.CNF;130
% YIELD : 71.831		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5073E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.2376E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5296.752	53.739	806.000	806.000	0.000	0.0000	100.0000	4.00E+00	3.23E-01	0.00E+00	1.34E-02	1.41E-01
U-3/4	4763.020	4757.911	45.174	238.000	237.184	0.000	6.0782	100.0000	1.18E+00	1.15E-01	7.01E-02	1.54E-01	7.63E-02
U-235	4391.000	4403.577	35.176	14.000	14.000	0.000	2.7628	80.90000	8.58E-02	2.38E-02	3.94E-02	9.53E-02	2.29E-02
U-238	4184.730	4182.045	48.240	505.000	505.000	0.000	3.2810	100.0000	2.50E+00	2.14E-01	3.78E-02	8.91E-02	1.11E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

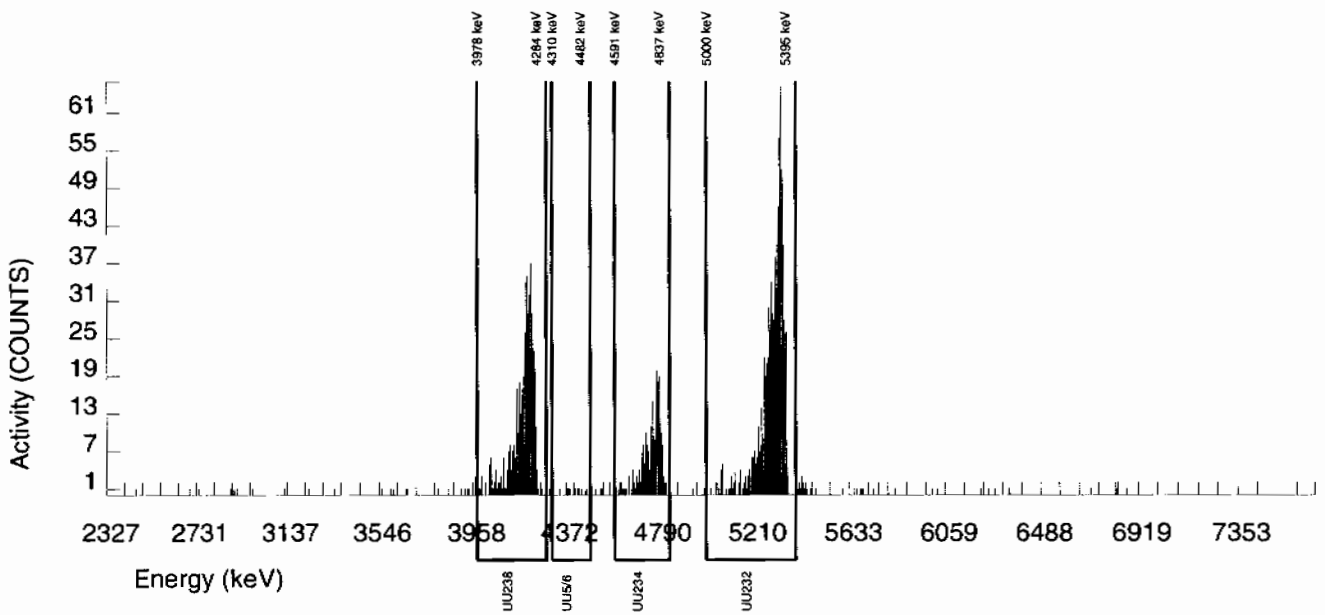

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996
SAMPLE ID : S0245395015_UU
SAMPLE QTY : 0.503 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 71.841

CHAMBER : 007
DETECTOR S/N : 67607
AVERAGE %EFFICIENCY : 29.5407
COUNT DATE : 8-FEB-2010 11:56:00
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B007.CNF;1111
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W007.CNF;312
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5073E+00 dpm
RESULTS : 3.2381E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5292.442	60.884	969.000	956.000	13.000	3.6056	100.0000	4.04E+00	3.18E-01	3.54E-02	8.22E-02	1.32E-01
U-3/4	4763.020	4747.516	66.214	1079.000	1078.033	0.000	6.0782	100.0000	4.55E+00	3.54E-01	5.97E-02	1.31E-01	1.39E-01
U-235	4391.000	4407.186	0.000	145.000	142.000	3.000	2.7628	80.90000	7.41E-01	8.27E-02	3.35E-02	8.12E-02	6.35E-02
U-238	4184.730	4178.347	64.719	7729.000	7726.000	3.000	3.2810	100.0000	3.26E+01	2.37E+00	3.22E-02	7.59E-02	3.71E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

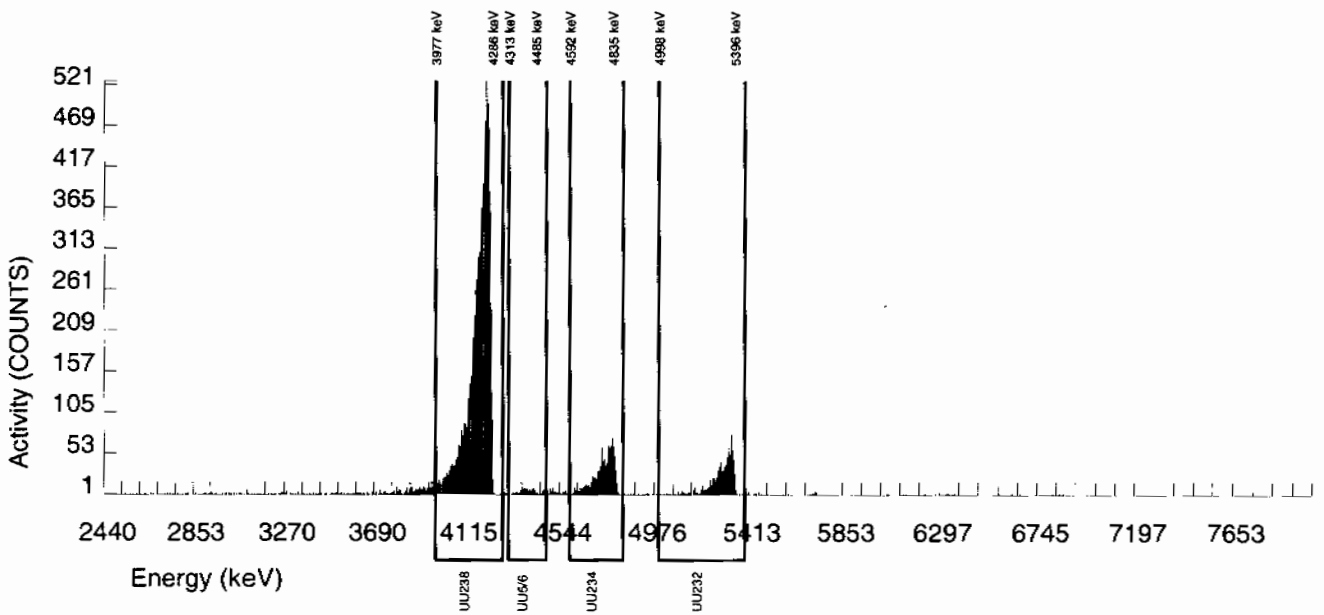

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996	CHAMBER : 008	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202023820_UU	DETECTOR S/N : 78788	BKG FILE : B008.CNF;1113
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 31.7753	BKG DATE : 7-FEB-2010
SAMPLE DATE : 4-FEB-2010 00:00:00.	COUNT DATE : 8-FEB-2010 11:56:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W008.CNF;343
% YIELD : 92.079		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5053E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1484E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.233	41.152	1321.000	1318.000	3.000	1.7321	100.0000	2.03E+00	1.51E-01	6.20E-03	1.66E-02	5.60E-02
U-3/4	4763.020	4749.725	134.555	8.000	4.666	2.000	6.0782	100.0000	7.18E-03	4.56E-03	2.18E-02	4.77E-02	4.53E-03
U-235	4391.000	4436.636	79.736	3.000	3.000	0.000	2.7628	80.90000	5.71E-03	3.32E-03	1.22E-02	2.96E-02	3.30E-03
U-238	4184.730	4131.631	4.984	10.000	9.000	1.000	3.2810	100.0000	1.39E-02	5.20E-03	1.18E-02	2.77E-02	5.11E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

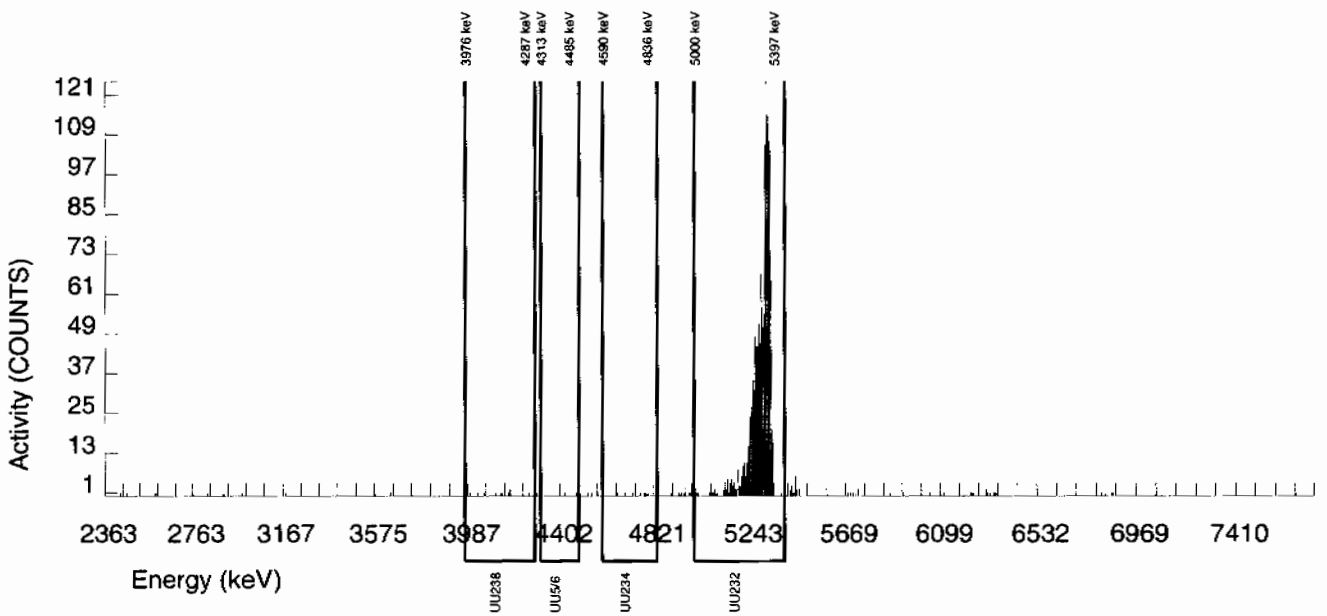

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996
SAMPLE ID : S1202023821_UU
SAMPLE QTY : 0.506 G
SAMPLE DATE : 15-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 72.463

CHAMBER : 139
DETECTOR S/N : 76231
AVERAGE %EFFICIENCY : 24.9676
COUNT DATE : 8-FEB-2010 12:05:00
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B139.CNF;394
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W139.CNF;102
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5078E+00 dpm
RESULTS : 3.2665E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5296.817	49.641	818.000	815.000	3.000	1.7321	100.0000	4.01E+00	3.29E-01	1.98E-02	5.30E-02	1.41E-01
U-3/4	4763.020	4748.512	27.146	159.000	157.175	1.000	6.0782	100.0000	7.73E-01	8.45E-02	6.96E-02	1.52E-01	6.21E-02
U-235	4391.000	4373.441	7.263	8.000	7.000	1.000	2.7628	80.90000	4.26E-02	1.85E-02	3.91E-02	9.47E-02	1.82E-02
U-238	4184.730	4184.684	48.269	155.000	154.000	1.000	3.2810	100.0000	7.58E-01	8.33E-02	3.76E-02	8.84E-02	6.15E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

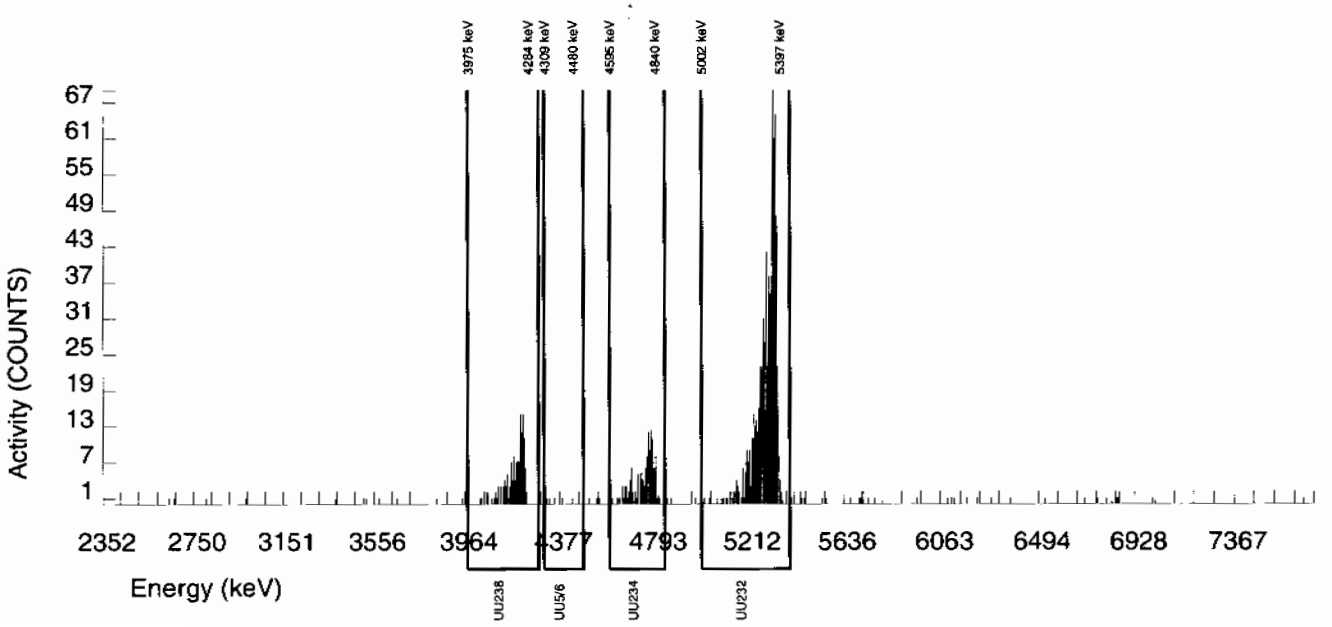

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944996	CHAMBER : 140	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202023822_UU	DETECTOR S/N : 78771	BKG FILE : B140.CNF;394
SAMPLE QTY : 0.102 G	AVERAGE %EFFICIENCY : 25.4652	BKG DATE : 7-FEB-2010
SAMPLE DATE : 4-FEB-2010 00:00:00.	COUNT DATE : 8-FEB-2010 12:05:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W140.CNF;107
% YIELD : 88.481		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5053E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9864E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.629	29.455	1016.000	1015.000	1.000	1.0000	100.0000	1.99E+01	1.66E+00	4.56E-02	1.44E-01	6.25E-01
U-3/4	4763.020	4758.880	52.285	303.000	301.973	0.000	6.0782	100.0000	5.92E+00	5.72E-01	2.77E-01	6.07E-01	3.41E-01
U-235	4391.000	4401.227	44.600	10.000	9.000	1.000	2.7628	80.90000	2.18E-01	8.21E-02	1.56E-01	3.77E-01	8.04E-02
U-238	4184.730	4188.436	34.099	280.000	279.000	1.000	3.2810	100.0000	5.47E+00	5.36E-01	1.50E-01	3.52E-01	3.29E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

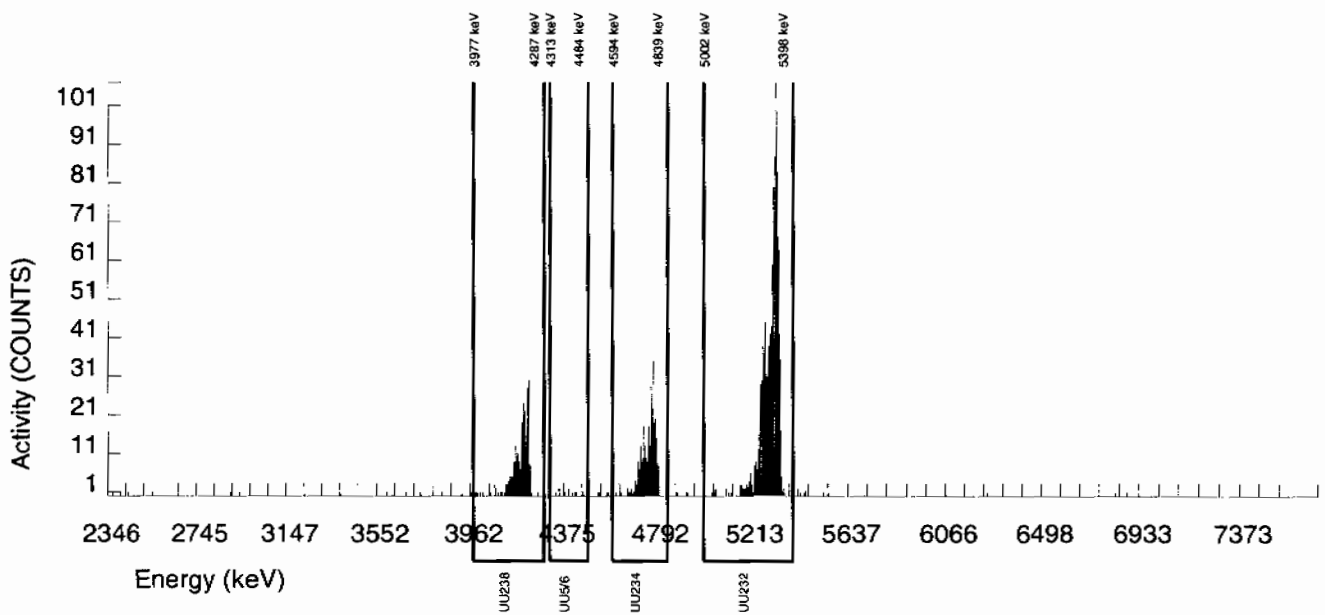

Radiochemistry Batch Checklist, Rev10

Batch# 954840 Product: U Date: 2/19/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.		✓	DER# 793390
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER# 793390
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		DER# 793390
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/19/10

Secondary Review Performed By: [signature] 2/19/10

2/14 - 2/20

NA

PV

Uranium Que Sheet

18-FEB-10

Batch #: 954840 Analyst: AXD2 First Client Due Date:20-FEB-10 Internal Due Date:14-FEB-10

Tracer Isotope: U-232 U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: / Expiration Date: / Vol: /

Spike Isotope: U-238 Spike Code: / Expiration Date: / Vol: /

Prep Date: 2/18/10 Initials: AWD Pipet ID: 2971058 Balance ID: 10750207 Witness: ~~TAKB~~ 2/18/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/l)	U Det #
245395006-5	RE15-10-7873	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	1	1	0.129	141
245395007-5	RE15-10-7911	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	2	2	0.159	142
245395008-5	RE15-10-7908	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	3	3	0.117	143
245395009-5	RE15-10-7912	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	4	4	0.122	144
245395012-5	RE15-10-7907	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	5	5	0.132	145
245395014-5	RE15-10-7909	SAMPLE		.1 pCi/g	SOIL	LANL010	19-JAN-10	6	6	0.136 2/18/10	146
1202047013-1	MB for batch 954840	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		7	7	~~0.15~~ 0.138	
1202047014-5	RE15-10-7908(245395008DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	19-JAN-10	8	8	0.146	139
1202047015-1	LCS for batch 954840	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		9	9	0.102	140

* SRM 0244-A exp. 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 2/19/10

Blank Correction Report

Batch ID 954840

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202047014	DUP	Uranium-233/234	0.146 g	8.58	0.890	0.684	.048356164	pCi/g	NO
		Uranium-235/236	0.146 g	1.89	0.316	0.445	-.03184932	pCi/g	NO
		Uranium-238	0.146 g	94.0	8.07	0.472	.054452055	pCi/g	NO
1202047015	LCS	Uranium-233/234	0.102 g	4.64	0.606	0.969	.069215686	pCi/g	NO
		Uranium-235/236	0.102 g	0.112	0.0796	0.630	-.04558824	pCi/g	NO
		Uranium-238	0.102 g	5.45	0.682	0.688	.077941176	pCi/g	NO
1202047013	MB	Uranium-233/234	1.00 g	0.00706	0.00857	0.105	.00706	pCi/g	YES
		Uranium-235/236	1.00 g	-0.00465	0.00693	0.0686	-.00465	pCi/g	NO
		Uranium-238	1.00 g	0.00795	0.00723	0.0727	.00795	pCi/g	YES
245395006	RE15-10-7873	Uranium-233/234	0.129 g	5.39	0.642	0.801	.054728682	pCi/g	NO
		Uranium-235/236	0.129 g	1.11	0.245	0.521	-.03604651	pCi/g	NO
		Uranium-238	0.129 g	36.8	3.34	0.552	.061627907	pCi/g	NO
245395007	RE15-10-7911	Uranium-233/234	0.159 g	35.2	3.43	0.998	.044402516	pCi/g	NO
		Uranium-235/236	0.159 g	4.89	0.690	0.649	-.02924528	pCi/g	NO
		Uranium-238	0.159 g	245	22.3	0.688	.05	pCi/g	NO
245395008	RE15-10-7908	Uranium-233/234	0.117 g	18.4	1.86	1.01	.060341880	pCi/g	NO
		Uranium-235/236	0.117 g	3.25	0.524	0.660	-.03974359	pCi/g	NO
		Uranium-238	0.117 g	188	16.8	0.700	.067948718	pCi/g	NO
245395009	RE15-10-7912	Uranium-233/234	0.122 g	9.61	1.03	0.867	.057868852	pCi/g	NO
		Uranium-235/236	0.122 g	1.23	0.272	0.564	-.03811475	pCi/g	NO
		Uranium-238	0.122 g	80.0	7.01	0.598	.065163934	pCi/g	NO
245395012	RE15-10-7907	Uranium-233/234	0.132 g	18.1	1.75	0.808	.053484848	pCi/g	NO
		Uranium-235/236	0.132 g	1.91	0.340	0.526	-.03522727	pCi/g	NO
		Uranium-238	0.132 g	108	9.41	0.557	.060227273	pCi/g	NO
245395014	RE15-10-7909	Uranium-233/234	0.136 g	15.2	1.53	0.893	.051911765	pCi/g	NO
		Uranium-235/236	0.136 g	2.16	0.382	0.580	-.03419118	pCi/g	NO
		Uranium-238	0.136 g	112	9.85	0.615	.058455882	pCi/g	NO

2/19/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954840	CHAMBER : 141	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245395006_UU	DETECTOR S/N : 76232	BKG FILE : B141.CNF;400
SAMPLE QTY : 0.129 G	AVERAGE %EFFICIENCY : 25.8088	BKG DATE : 14-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 19-FEB-2010 07:56:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AXD2	ELAPSED LIVE TIME(SEC) : 22924.14	EFF FILE : W141.CNF;107
% YIELD : 94.772		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5073E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2717E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.713	65.584	422.000	420.854	1.146	1.0706	100.0000	1.57E+01	1.54E+00	7.74E-02	2.56E-01	7.69E-01
U-3/4	4763.020	4767.024	53.132	145.000	144.192	0.382	4.8416	100.0000	5.39E+00	6.42E-01	3.50E-01	8.01E-01	4.50E-01
U-235	4391.000	4411.652	4.939	24.000	24.000	0.000	2.2152	80.90000	1.11E+00	2.45E-01	1.98E-01	5.21E-01	2.26E-01
U-238	4184.730	4192.134	51.163	985.000	984.236	0.764	3.1208	100.0000	3.68E+01	3.34E+00	2.26E-01	5.52E-01	1.17E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

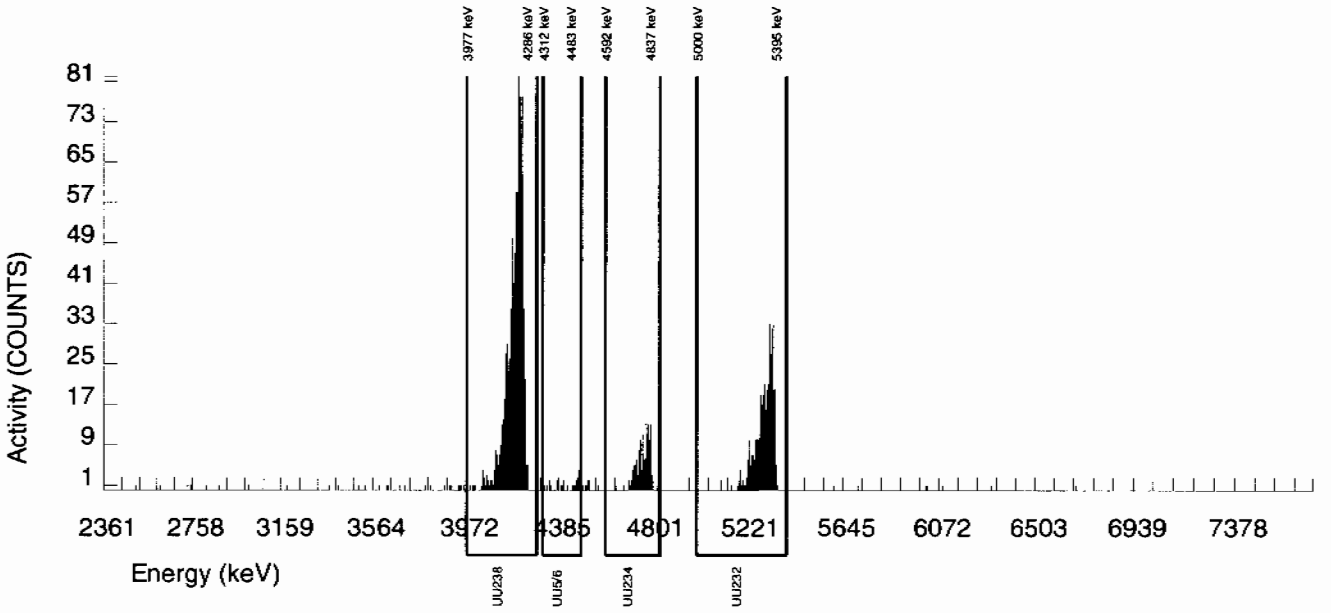

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954840	CHAMBER : 142	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245395007_UU	DETECTOR S/N : 64261	BKG FILE : B142.CNF;394
SAMPLE QTY : 0.159 G	AVERAGE %EFFICIENCY : 25.7599	BKG DATE : 14-FEB-2010
SAMPLE DATE : 19-JAN-2010 00:00:00	COUNT DATE : 19-FEB-2010 07:56:23	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AXD2	ELAPSED LIVE TIME(SEC) : 22926.96	EFF FILE : W142.CNF;111
% YIELD : 61.799		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5073E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.7855E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5282.192	72.377	277.000	273.943	3.057	1.7484	100.0000	1.28E+01	1.39E+00	1.57E-01	4.41E-01	7.77E-01
U-3/4	4763.020	4735.032	85.364	756.000	755.723	0.000	4.8416	100.0000	3.52E+01	3.43E+00	4.36E-01	9.98E-01	1.28E+00
U-235	4391.000	4407.673	107.807	85.000	85.000	0.000	2.2152	80.90000	4.89E+00	6.90E-01	2.47E-01	6.49E-01	5.31E-01
U-238	4184.730	4160.015	78.171	5254.000	5253.618	0.382	3.1208	100.0000	2.45E+02	2.23E+01	2.81E-01	6.88E-01	3.38E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

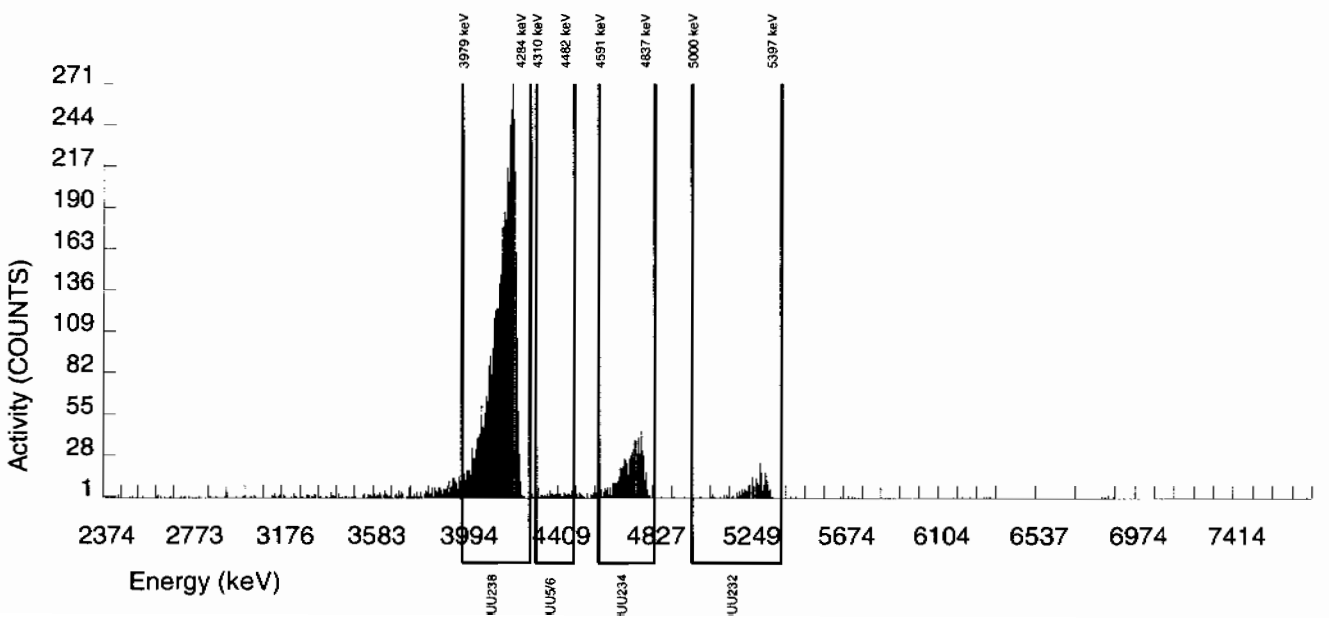

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954840
SAMPLE ID : S0245395008_UU
SAMPLE QTY : 0.117 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : AXD2
% YIELD : 87.619

CHAMBER : 143
DETECTOR S/N : 65882
AVERAGE %EFFICIENCY : 24.2868
COUNT DATE : 19-FEB-2010 07:56:25
ELAPSED LIVE TIME(SEC) : 22930.04

LIB FILE : ENV_ALPHA_UU
BKG FILE : B143.CNF;396
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W143.CNF;114
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5073E+00 dpm
RESULTS : 3.9492E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5280.281	91.376	367.000	366.236	0.764	0.8743	100.0000	1.74E+01	1.78E+00	8.00E-02	2.88E-01	9.08E-01
U-3/4	4763.020	4734.038	63.067	388.000	387.629	0.000	4.8416	100.0000	1.84E+01	1.86E+00	4.43E-01	1.01E+00	9.32E-01
U-235	4391.000	4400.993	130.008	56.000	55.618	0.382	2.2152	80.90000	3.25E+00	5.24E-01	2.51E-01	6.60E-01	4.38E-01
U-238	4184.730	4162.522	73.191	3970.000	3970.000	0.000	3.1208	100.0000	1.88E+02	1.68E+01	2.86E-01	7.00E-01	2.98E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

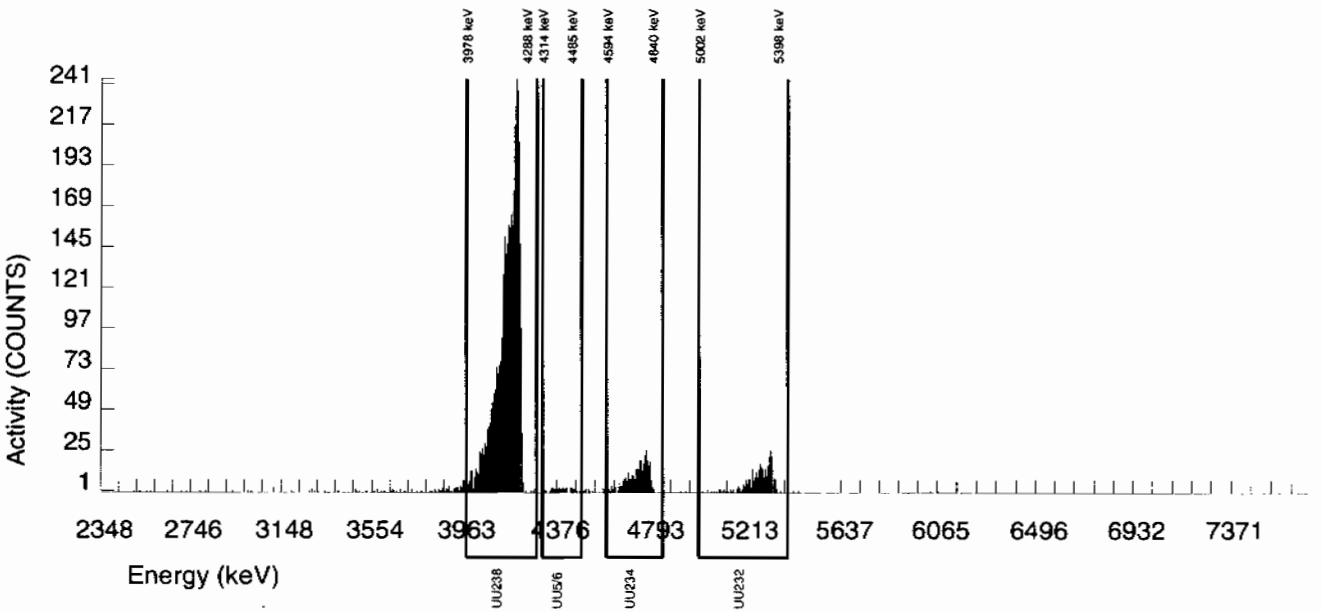

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954840
SAMPLE ID : S0245395009_UU
SAMPLE QTY : 0.122 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : AXD2
% YIELD : 95.004

CHAMBER : 144
DETECTOR S/N : 75551
AVERAGE %EFFICIENCY : 25.1386
COUNT DATE : 19-FEB-2010 07:56:28
ELAPSED LIVE TIME(SEC) : 22933.29

LIB FILE : ENV_ALPHA_UU
BKG FILE : B144.CNF;395
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W144.CNF;108
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5073E+00 dpm
RESULTS : 4.2821E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5286.746	70.475	413.000	411.089	1.911	1.3824	100.0000	1.66E+01	1.63E+00	1.08E-01	3.26E-01	8.23E-01
U-3/4	4763.020	4750.153	54.073	238.000	237.584	0.000	4.8416	100.0000	9.61E+00	1.03E+00	3.79E-01	8.67E-01	6.23E-01
U-235	4391.000	4408.329	20.260	25.000	24.618	0.382	2.2152	80.90000	1.23E+00	2.72E-01	2.14E-01	5.64E-01	2.51E-01
U-238	4184.730	4175.414	54.387	1977.000	1977.000	0.000	3.1208	100.0000	8.00E+01	7.01E+00	2.44E-01	5.98E-01	1.80E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

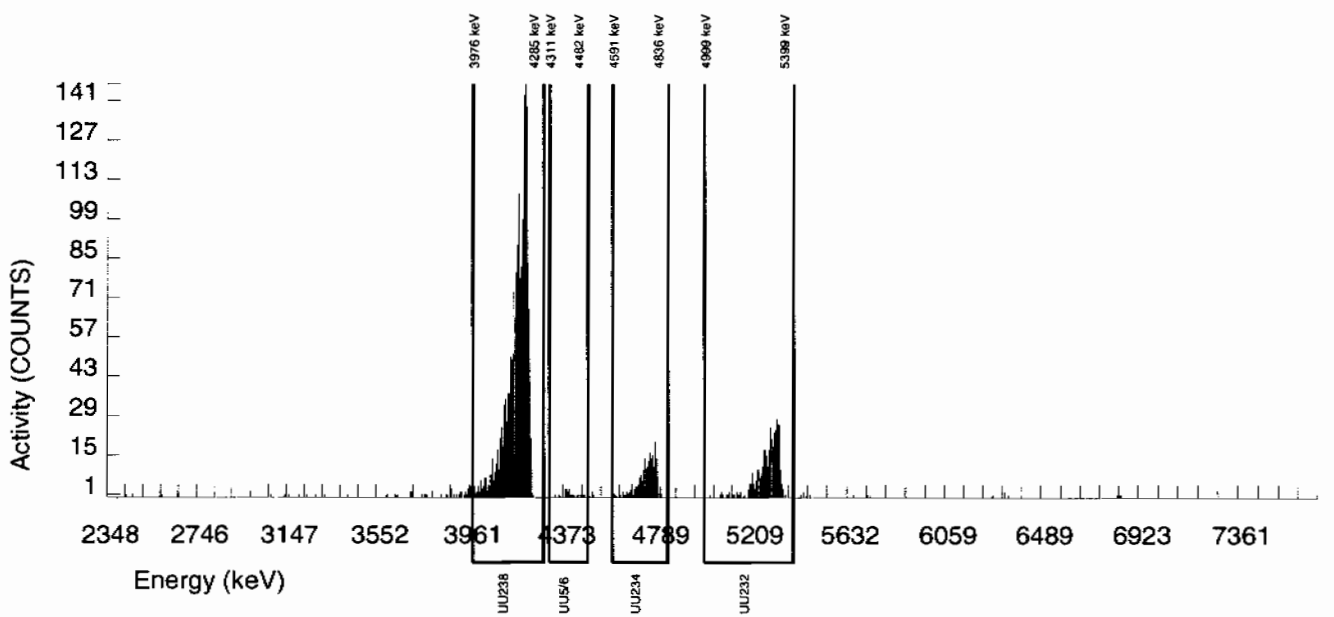

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954840
SAMPLE ID : S0245395012_UU
SAMPLE QTY : 0.132 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : AXD2
% YIELD : 94.993

CHAMBER : 145
DETECTOR S/N : 72526
AVERAGE %EFFICIENCY : 24.9308
COUNT DATE : 19-FEB-2010 07:56:29
ELAPSED LIVE TIME(SEC) : 22936.58

LIB FILE : ENV_ALPHA_UU
BKG FILE : B145.CNF;393
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W145.CNF;113
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5073E+00 dpm
RESULTS : 4.2816E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5285.144	70.087	410.000	407.706	2.294	1.5145	100.0000	1.54E+01	1.52E+00	1.10E-01	3.23E-01	7.65E-01
U-3/4	4763.020	4737.516	59.745	481.000	480.205	0.382	4.8416	100.0000	1.81E+01	1.75E+00	3.53E-01	8.08E-01	8.26E-01
U-235	4391.000	4397.692	70.226	41.000	41.000	0.000	2.2152	80.90000	1.91E+00	3.40E-01	2.00E-01	5.25E-01	2.98E-01
U-238	4184.730	4168.314	63.892	2854.000	2853.618	0.382	3.1208	100.0000	1.08E+02	9.41E+00	2.28E-01	5.57E-01	2.01E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

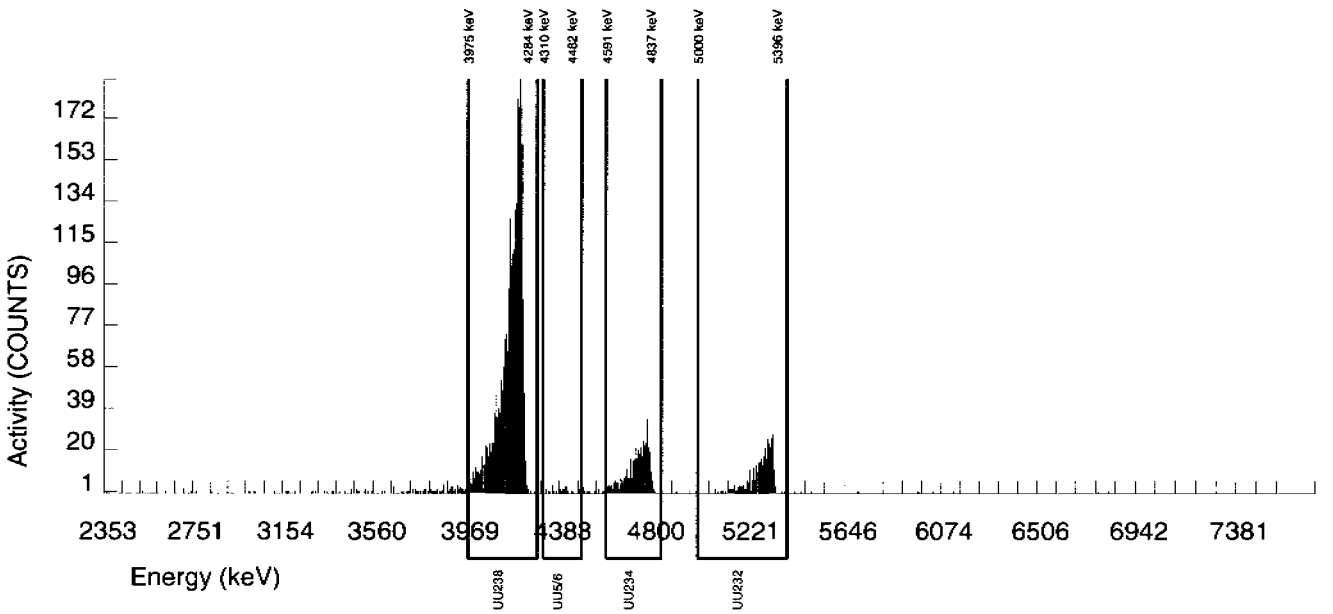

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954840
SAMPLE ID : S0245395014_UU
SAMPLE QTY : 0.136 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : AXD2
% YIELD : 84.109

CHAMBER : 146
DETECTOR S/N : 72527
AVERAGE %EFFICIENCY : 24.7373
COUNT DATE : 19-FEB-2010 07:56:32
ELAPSED LIVE TIME(SEC) : 22939.51

LIB FILE : ENV_ALPHA_UU
BKG FILE : B146.CNF;398
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W146.CNF;115
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5073E+00 dpm
RESULTS : 3.7910E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5287.065	63.434	359.000	358.235	0.765	0.8744	100.0000	1.49E+01	1.51E+00	7.04E-02	2.54E-01	7.90E-01
U-3/4	4763.020	4749.771	77.867	366.000	364.490	1.147	4.8416	100.0000	1.52E+01	1.53E+00	3.90E-01	8.93E-01	7.97E-01
U-235	4391.000	4402.572	43.210	42.000	42.000	0.000	2.2152	80.90000	2.16E+00	3.82E-01	2.21E-01	5.80E-01	3.34E-01
U-238	4184.730	4173.017	66.677	2685.000	2685.000	0.000	3.1208	100.0000	1.12E+02	9.85E+00	2.51E-01	6.15E-01	2.16E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

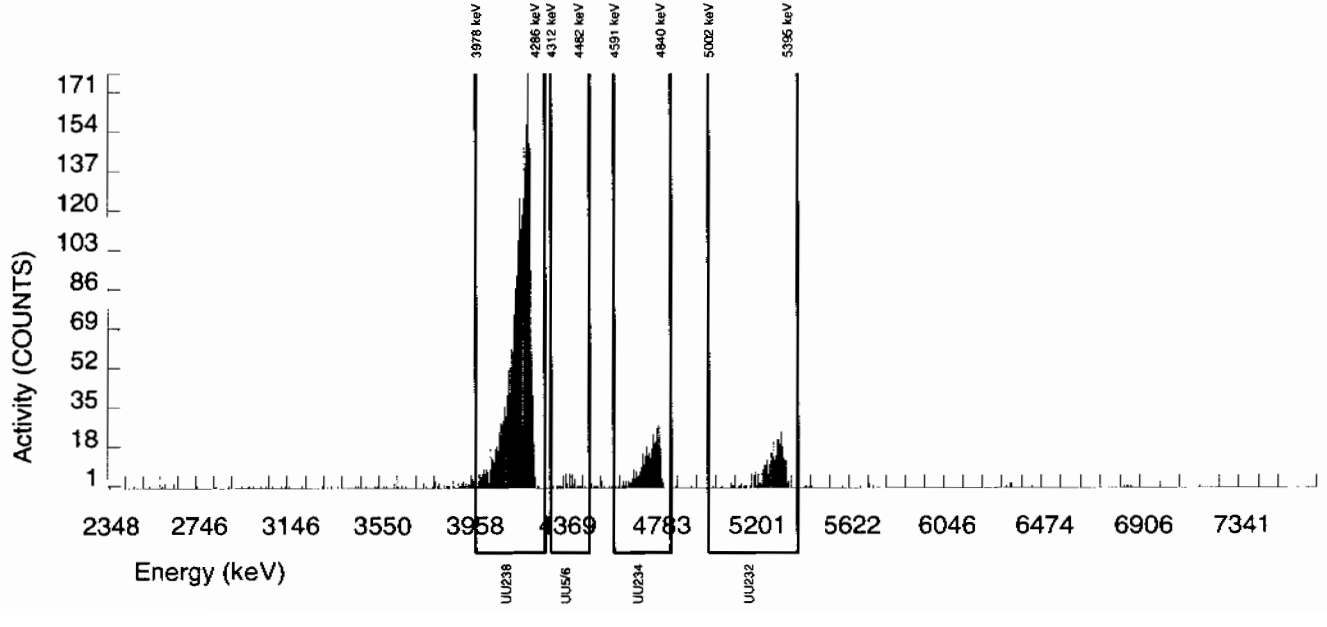

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954840
SAMPLE ID : S1202047013_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 18-FEB-2010 00:00:00
ANALYST : AXD2
% YIELD : 94.236

CHAMBER : 138
DETECTOR S/N : 65877
AVERAGE %EFFICIENCY : 25.4229
COUNT DATE : 19-FEB-2010 07:56:13
ELAPSED LIVE TIME(SEC) : 22943.21

LIB FILE : ENV_ALPHA_UU
BKG FILE : B138.CNF;399
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W138.CNF;104
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5036E+00 dpm
RESULTS : 4.2440E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5310.254	42.982	416.000	412.559	3.441	1.8551	100.0000	2.03E+00	1.92E-01	1.76E-02	4.86E-02	1.00E-01
U-3/4	4763.020	4722.330	109.834	3.000	1.435	1.147	4.8416	100.0000	7.06E-03	8.57E-03	4.60E-02	1.05E-01	8.55E-03
U-235	4391.000	4398.603	0.000	0.000	-0.765	0.765	2.2152	80.90000	-4.65E-03	6.93E-03	2.60E-02	6.86E-02	6.91E-03
U-238	4184.730	4179.953	109.834	2.000	1.618	0.382	3.1208	100.0000	7.95E-03	7.23E-03	2.97E-02	7.27E-02	7.20E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

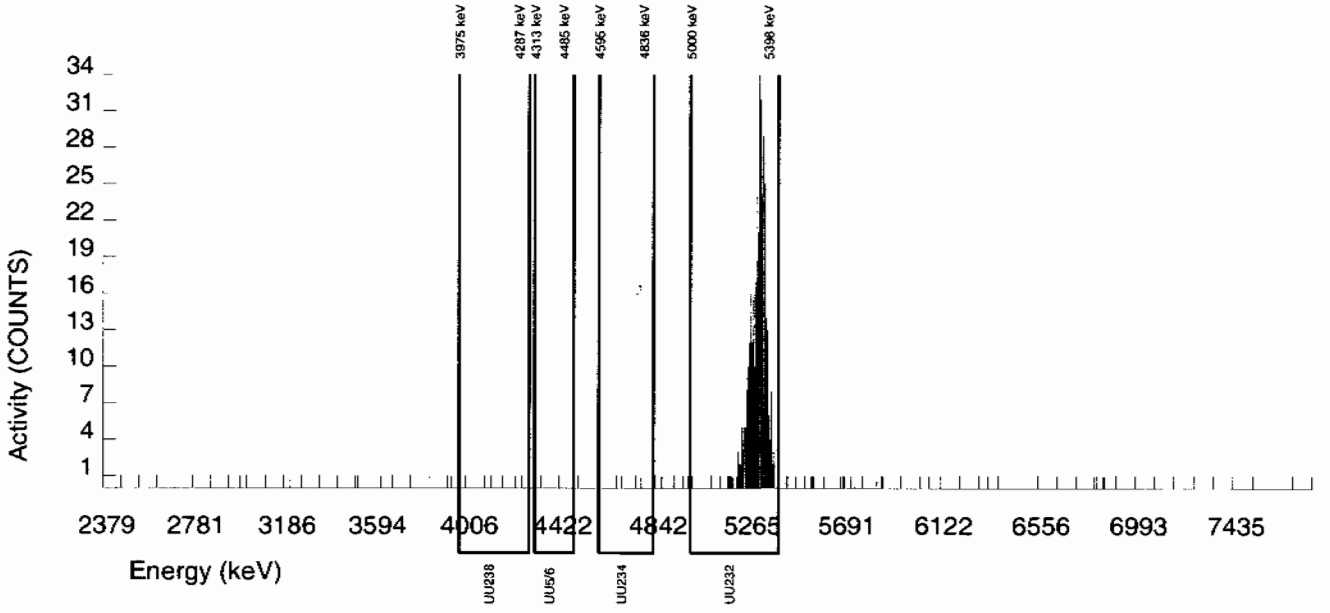

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954840
SAMPLE ID : S1202047014_UU
SAMPLE QTY : 0.146 G
SAMPLE DATE : 19-JAN-2010 00:00:00
ANALYST : AXD2
% YIELD : 101.818

CHAMBER : 139
DETECTOR S/N : 76231
AVERAGE %EFFICIENCY : 24.8328
COUNT DATE : 19-FEB-2010 07:56:15
ELAPSED LIVE TIME(SEC) : 22946.59

LIB FILE : ENV_ALPHA_UU
BKG FILE : B139.CNF;396
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W139.CNF;104
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5073E+00 dpm
RESULTS : 4.5892E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5284.233	69.635	437.000	435.470	1.530	1.2368	100.0000	1.39E+01	1.34E+00	7.63E-02	2.39E-01	6.68E-01
U-3/4	4763.020	4743.472	61.399	270.000	268.794	0.765	4.8416	100.0000	8.58E+00	8.90E-01	2.99E-01	6.84E-01	5.24E-01
U-235	4391.000	4398.024	0.000	48.000	48.000	0.000	2.2152	80.90000	1.89E+00	3.16E-01	1.69E-01	4.45E-01	2.73E-01
U-238	4184.730	4168.244	62.272	2948.000	2947.618	0.382	3.1208	100.0000	9.40E+01	8.07E+00	1.93E-01	4.72E-01	1.73E+00

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

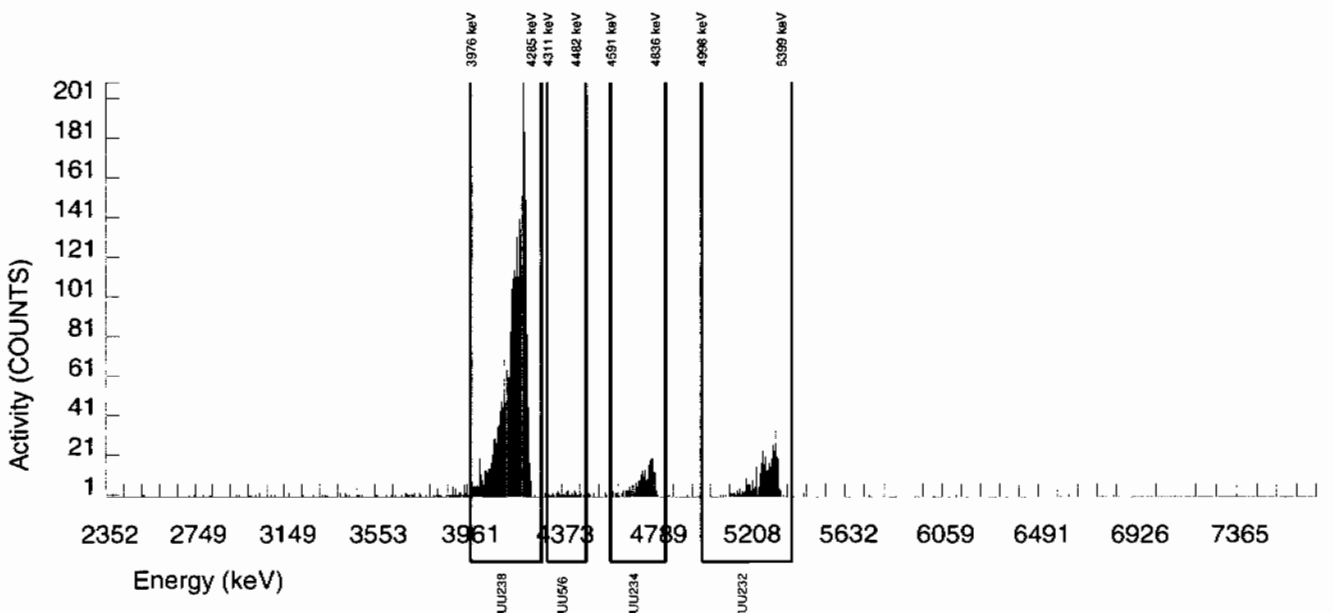

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	: 954840	CHAMBER	: 140	LIB FILE	: ENV_ALPHA_UU
SAMPLE ID	: S1202047015_UU	DETECTOR S/N	: 78771	BKG FILE	: B140.CNF;396
SAMPLE QTY	: 0.102 G	AVERAGE %EFFICIENCY	: 25.6501	BKG DATE	: 14-FEB-2010
SAMPLE DATE	: 18-FEB-2010 00:00:00	COUNT DATE	: 19-FEB-2010 07:56:18	BKG LIVE TIME(SEC)	: 60000.00
ANALYST	: AXD2	ELAPSED LIVE TIME(SEC)	: 22950.70	EFF FILE	: W140.CNF;109
% YIELD	: 99.568			CAL DATE	: 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5036E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4841E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.348	26.075	443.000	439.940	3.060	1.7493	100.0000	1.99E+01	1.95E+00	1.53E-01	4.28E-01	9.53E-01
U-3/4	4763.020	4762.605	24.146	103.000	102.555	0.000	4.8416	100.0000	4.64E+00	6.06E-01	4.23E-01	9.69E-01	4.58E-01
U-235	4391.000	4382.378	74.295	2.000	2.000	0.000	2.2152	80.90000	1.12E-01	7.96E-02	2.39E-01	6.30E-01	7.90E-02
U-238	4184.730	4195.879	43.829	121.000	120.617	0.383	3.1208	100.0000	5.45E+00	6.82E-01	2.73E-01	6.68E-01	4.98E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

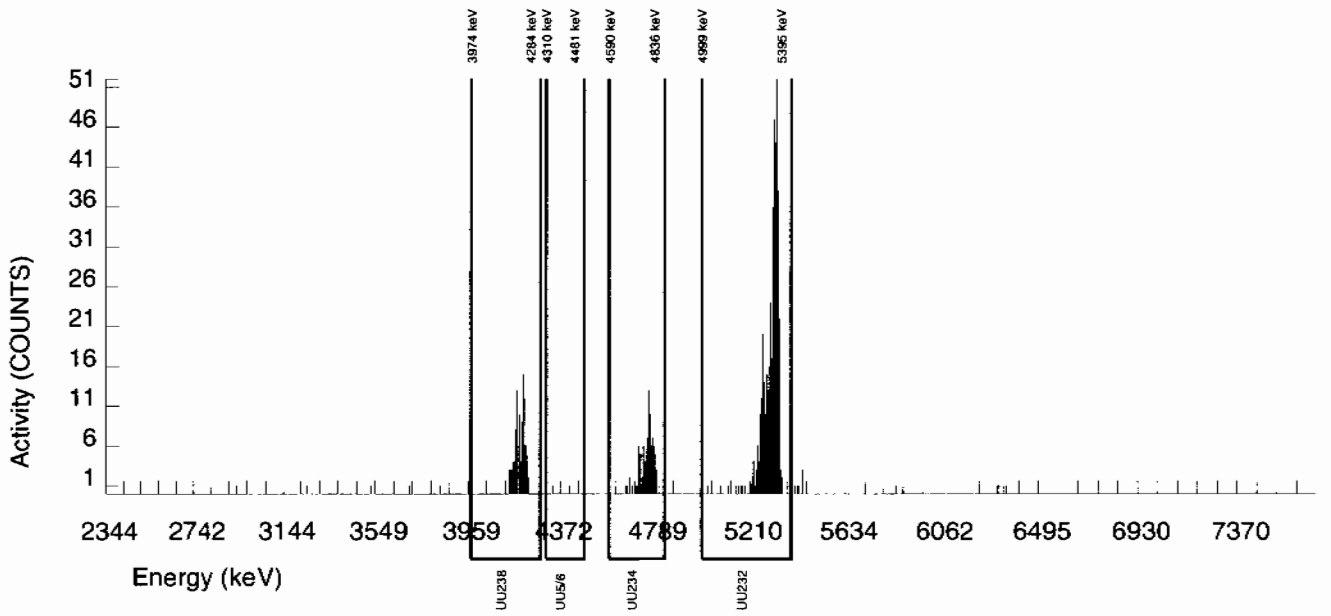

Radiochemistry Batch Checklist, Rev10

Batch# 944966 Product: 8S Date: 2/3/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/3/10

Secondary Review Performed By: [signature] 2/4/10

2/13

Gamma Spec Que Sheet

1.G.- 2/2/10

01/26/2010

Batch #:944966 **Analyst:** MXR1 **First Client DueDate**02/13/2010 **Internal Due Date:** 02/03/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0mL **Nominal Concentration:** Am^{241} 15.91; Cs^{137} 5.564; Co^{60} 6.42

Initials: MS **Prep Date:** 1/26/10 **Library:** SOLID **Witness:** Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1 g/F)	Detector	Sealing Date/Time (if Applicable)
245371001-1	RE16-10-957	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	RF	can	126.74	2	1/26/10
245371002-1	RE16-10-979	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	RF		126.52	10	
245393010-1	RE15-10-8053	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		141.98	12	
245393011-1	RE15-10-8054	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		152.71	13	
245395001-1	RE15-10-7869	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		144.70	16	
245395002-1	RE15-10-7874	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		145.27	18	
245395003-1	RE15-10-7871	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		170.47	19	
245395004-1	RE15-10-7872	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		139.17	20	
245395005-1	RE15-10-7870	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		141.12	21	
245395006-1	RE15-10-7873	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		152.52	23	
245395007-1	RE15-10-7911	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		181.03	2	
245395008-1	RE15-10-7908	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		146.43	10	
245395009-1	RE15-10-7912	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		137.08	12	
245395010-1	RE15-10-7906	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		137.08	13	
245395011-1	RE15-10-7905	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		147.64	16	
245395012-1	RE15-10-7907	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		145.52	17	
245395013-1	RE15-10-7913	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		145.34	18	
245395014-1	RE15-10-7909	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		169.81	19	
245395015-1	RE15-10-7910	SAMPLE		LANL010	SOIL	19-JAN-10 12:00:00	RF		157.39	1	
1202023719-1	MB	MB		QC ACCOUNT	SOIL	1/26/10	RF		181.03	4	
1202023720-1	DUP RE15-10-7905(245395011)	DUP		QC ACCOUNT	SOIL	19-JAN-10 12:00:00	RF		143.58	6	
1202023721-1	LCS	LCS		QC ACCOUNT	SOIL	1/26/10	RF		155.44	7	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 2/3/10

✓ no history
✓ dailies

KO 2/4/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
944966	245371001	SAMPLE	02-FEB-10		Americium-241	-0.03438	0.2954	0.200
					Sodium-22	-0.01398	0.08779	0.080
					Thorium-234	1.363	2.326	2.00
944966	245371002	SAMPLE	02-FEB-10		Americium-241	0.00853	0.3809	0.200
					Thorium-234	-0.6454	2.885	2.00
944966	245393010	SAMPLE	02-FEB-10		Americium-241	-0.0357	0.4264	0.200
					Cerium-139	0.03425	0.05488	0.050
944966	245393011	SAMPLE	02-FEB-10		Cerium-139	-0.00144	0.05149	0.050
					Sodium-22	-0.04255	0.0837	0.080
944966	245395001	SAMPLE	02-FEB-10		Americium-241	0.06347	0.3341	0.200
944966	245395002	SAMPLE	02-FEB-10		Americium-241	0.1088	0.314	0.200
944966	245395003	SAMPLE	02-FEB-10		Americium-241	0.3565	0.3827	0.200
					Cerium-139	-0.01654	0.05419	0.050
944966	245395004	SAMPLE	02-FEB-10					
944966	245395005	SAMPLE	02-FEB-10		Sodium-22	0.00553	0.09252	0.080
944966	245395006	SAMPLE	02-FEB-10		Americium-241	0.271	0.4757	0.200
					Cerium-139	-0.02934	0.05613	0.050
944966	245395007	SAMPLE	02-FEB-10		Cerium-139	-0.02284	0.07017	0.050
944966	245395008	SAMPLE	02-FEB-10		Americium-241	0.6105	0.8184	0.200
					Cerium-139	-0.00759	0.06787	0.050
					Sodium-22	0.02488	0.08042	0.080
944966	245395009	SAMPLE	02-FEB-10		Americium-241	0.14	0.4706	0.200
					Cerium-139	0.01684	0.05731	0.050
944966	245395010	SAMPLE	02-FEB-10		Cerium-139	-0.02653	0.05139	0.050
					Cesium-134	0.03865	0.1053	0.100
					Sodium-22	0.03354	0.1073	0.080
944966	245395011	SAMPLE	02-FEB-10		Americium-241	0.03966	0.2564	0.200
944966	245395012	SAMPLE	02-FEB-10		Americium-241	0.08414	0.2303	0.200
					Cerium-139	-0.01234	0.06485	0.050
					Cesium-134	0.104	0.13	0.100
944966	245395013	SAMPLE	02-FEB-10		Americium-241	0.05611	0.2773	0.200
944966	245395014	SAMPLE	02-FEB-10		Americium-241	0.459	0.4858	0.200
					Cerium-139	0.03114	0.06353	0.050
944966	245395015	SAMPLE	02-FEB-10		Americium-241	0.2243	0.3913	0.200
					Cerium-139	0.03518	0.06165	0.050
944966	1202023719	MB	02-FEB-10					
944966	1202023720	DUP	02-FEB-10		Americium-241	0.2894	0.4168	0.200
					Cerium-139	-0.03316	0.05711	0.050
944966	1202023721	LCS	02-FEB-10		Cerium-139	-0.00631	0.07429	0.050
					Cesium-134	0.1872	0.1884	0.100
					Europium-152	0.0198	0.3058	0.200
					Mercury-203	0.03042	0.1086	0.100

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
944966	1202023721	LCS	02-FEB-10		Potassium-40	0.8777	1.125	1.00
					Ruthenium-106	0.1891	1.054	0.800
					Sodium-22	-0.01137	0.08583	0.080
					Thorium-234	0.1083	2.522	2.00
					Tin-113	-0.00854	0.1425	0.100
					Uranium-235	-0.1286	0.5077	0.500

Gamma Review Report based on Result > MDA for Batch:944966

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245371001	15-JAN-10 12:00	02-FEB-10 06:51	17.8	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.498	0.179	pCi/g	0.2584	N	910.6	3	1.494	IDENTIFIED	10.2	☐	
Americium-243	INT	0.2992	0.03918	pCi/g	0.0935	N	74.56	1	1.034	IDENTIFIED	12.34	☐	
Annihilation Rad.	—	0.1247	0.03497	pCi/g	0.05034	N	510.6	1	1.725	IDENTIFIED	27.6	☐	
Bismuth-211	INT	2.952	0.2809	pCi/g	0.3556	Y	351.6	4	1.235	IDENTIFIED	7.573	☑ UF	
Bismuth-214	✓	0.9452	0.107	pCi/g	0.1144	0.200	609.2	4	1.49	IDENTIFIED	10.02	☐	
Cadmium-109	INT	2.561	0.5957	pCi/g	1.276	Y	86.85	3	1.313	IDENTIFIED	22.73	☑ UF	
Cerium-143	—	2642	458.7	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.853	1.552	pCi/g	2.443	N		0				☐	
Iodine-133	HE	38620	29550	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135	—	8.29E+17	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.503	0.1107	pCi/g	0.09769	0.100	238.3	4	1.063	IDENTIFIED	3.831	☐	
Lead-214	✓	1.027	0.1013	pCi/g	0.124	0.100	351.6	4	1.235	IDENTIFIED	7.573	☐	
Lutetium-177	HE	3.439	0.9307	pCi/g	2.718	N	0	7	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.7362	0.1873	pCi/g	0.374	N	86.85	3	1.313	IDENTIFIED	22.73	☐	
Niobium-97	HE	1.02E+05	7.40E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.503	0.1107	pCi/g	0.09769	N	238.3	4	1.063	IDENTIFIED	3.831	☐	
Polonium-214	NR	1.027	0.1013	pCi/g	0.124	N	351.6	4	1.235	IDENTIFIED	7.573	☐	
Polonium-216	NR	1.503	0.1107	pCi/g	0.09769	N	238.3	4	1.063	IDENTIFIED	3.831	☐	
Polonium-218	NR	1.027	0.1013	pCi/g	0.124	N	351.6	4	1.235	IDENTIFIED	7.573	☐	
Potassium-40	✓	38.74	2.167	pCi/g	0.5606	1.00	1460	1	2.291	IDENTIFIED	2.947	☐	
Radium-224	INT	3.716	0.7977	pCi/g	1.112	Y	241.3	1	1.861	IDENTIFIED	20.64	☑ UF	
Radium-226	✓	0.9452	0.107	pCi/g	0.1144	Y	609.2	4	1.49	IDENTIFIED	10.02	☐	
Radium-228	✓	1.498	0.179	pCi/g	0.2584	0.500	910.6	3	1.494	IDENTIFIED	10.2	☐	
Thallium-208	✓	0.4196	0.05056	pCi/g	0.06233	0.080	582.9	1	1.765	IDENTIFIED	10.96	☐	
Thorium-228	NR	1.529	0.1126	pCi/g	0.09944	N	238.3	4	1.063	IDENTIFIED	3.831	☐	
Thorium-230	NR	0.9452	0.107	pCi/g	0.1144	N	609.2	4	1.49	IDENTIFIED	10.02	☐	
Thorium-232	NR	1.498	0.179	pCi/g	0.2584	N	910.6	3	1.494	IDENTIFIED	10.2	☐	
Tin-126	INT	0.2507	0.05832	pCi/g	0.1256	N	86.85	3	1.313	IDENTIFIED	22.73	☐	
Titanium-44	HE	0.07681	0.0194	pCi/g	0.06589	N	0	7	0	NOT_IDENTI	0	☐	
Total Uranium	—	4.0283	3.02E-06	ug/g	3.4638	N		0				☐	
Uranium-234	NR	0.9452	0.107	pCi/g	0.1144	N	609.2	4	1.49	IDENTIFIED	10.02	☐	
Zirconium-97	HE	3.05E+07	1.54E+07	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245371002	15-JAN-10 12:00	02-FEB-10 07:08	17.8	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.315	0.1601	pCi/g	0.2047	N	910.6	3	1.572	IDENTIFIED	10.49	☐	
Americium-243	INT	0.3207	0.04403	pCi/g	0.09362	N	74.45	1	1.182	IDENTIFIED	12.59	☐	
Annihilation Rad.	HE	0.115	0.04085	pCi/g	0.04061	N	510.6	1	2.312	IDENTIFIED	35.37	☐	
Bismuth-211	INT	2.543	0.2108	pCi/g	0.3025	Y	351.6	4	1.41	IDENTIFIED	7.447	☑ UF	
Bismuth-212	HE	0.8637	0.2715	pCi/g	0.6587	N	0	6	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9047	0.07872	pCi/g	0.09886	0.200	608.9	4	1.708	IDENTIFIED	7.824	☐	
Cadmium-109	INT	3.333	0.4977	pCi/g	1.288	Y	86.87	3	1.35	IDENTIFIED	13.83	☑ UF	
Cerium-143	—	2218	379.5	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.558	1.313	pCi/g	2.272	N		0				☐	
Lead-212	✓	1.371	0.07316	pCi/g	0.09146	0.100	238.3	4	1.146	IDENTIFIED	3.754	☐	
Lead-214	✓	0.8845	0.07688	pCi/g	0.1054	0.100	351.6	4	1.41	IDENTIFIED	7.447	☐	
Neptunium-237	INT	0.9583	0.1739	pCi/g	0.4187	N	86.87	3	1.35	IDENTIFIED	13.83	☐	
Niobium-95m	HE	0.2294	0.0665	pCi/g	0.2215	N	0	6	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.371	0.07316	pCi/g	0.09146	N	238.3	4	1.146	IDENTIFIED	3.754	☐	
Polonium-214	NR	0.8845	0.07688	pCi/g	0.1054	N	351.6	4	1.41	IDENTIFIED	7.447	☐	

Polonium-216	NR	1.371	0.07316	pCi/g	0.09146	N	238.3	4	1.146	IDENTIFIED	3.754	☐
Polonium-218	NR	0.8845	0.07688	pCi/g	0.1054	N	351.6	4	1.41	IDENTIFIED	7.447	☐
Potassium-40	✓	38.56	1.978	pCi/g	0.5589	1.00	1460	1	2.103	IDENTIFIED	2.787	☐
Radium-224	INT	3.383	0.5965	pCi/g	1.04	Y	241.4	1	1.711	IDENTIFIED	17.36	☑ UE
Radium-226	✓	0.9047	0.07872	pCi/g	0.09886	Y	608.9	4	1.708	IDENTIFIED	7.824	☐
Radium-228	✓	1.315	0.1601	pCi/g	0.2047	0.500	910.6	3	1.572	IDENTIFIED	10.49	☐
Sodium-24	HE	2.75E+06	6.94E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.4218	0.03504	pCi/g	0.06113	0.080	582.9	1	1.432	IDENTIFIED	7.597	☐
Thorium-228	NR	1.396	0.07447	pCi/g	0.09309	N	238.3	4	1.146	IDENTIFIED	3.754	☐
Thorium-230	NR	0.9047	0.07872	pCi/g	0.09886	N	608.9	4	1.708	IDENTIFIED	7.824	☐
Thorium-232	NR	1.315	0.1601	pCi/g	0.2047	N	910.6	3	1.572	IDENTIFIED	10.49	☐
Tin-126	INT	0.3263	0.04872	pCi/g	0.127	N	86.87	3	1.35	IDENTIFIED	13.83	☐
Titanium-44	LA	0.1183	0.0215	pCi/g	0.07181	N	0	6	0	NOT_IDENTI	0	☐
Uranium-234	NR	0.9047	0.07872	pCi/g	0.09886	N	608.9	4	1.708	IDENTIFIED	7.824	☐
Zirconium-97	—	4.69E+07	1.37E+07	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245393010	19-JAN-10 12:00	02-FEB-10 07:09	13.8	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-227	HE	1.374	0.4019	pCi/g	0.6981	N	0	13	0	FAIL_ABUND	0	☐	
Actinium-228	NR	1.548	0.161	pCi/g	0.2131	N	911.1	3	1.643	IDENTIFIED	8.829	☐	
Americium-243	INT	0.3395	0.05802	pCi/g	0.1433	N	74.76	1	1.104	IDENTIFIED	16.75	☐	
Annihilation Rad.	HE	0.07001	0.03685	pCi/g	0.05062	N	510.7	1	2.249	IDENTIFIED	52.55	☐	
Bismuth-211	INT	3.186	0.2106	pCi/g	0.3307	Y	351.7	4	1.369	IDENTIFIED	5.814	☑ UF	
Bismuth-212	LA	1.17	0.2472	pCi/g	0.6741	N	0	13	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.006	0.07926	pCi/g	0.1132	0.200	609.1	4	1.579	IDENTIFIED	6.72	☐	
Cadmium-109	INT	3.904	0.616	pCi/g	1.869	Y	87.22	3	1.163	IDENTIFIED	15.31	☑ UE	
Cerium-143	--	229.5	47.3	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Gadolinium-153	LA	0.7111	0.0766	pCi/g	0.2146	N	0	13	0	FAIL_ABUND	0	☐	
Gold-195	LA	2.068	0.2228	pCi/g	0.6407	N	0	13	0	FAIL_ABUND	0	☐	
Gross Gamma	—	16.1	1.804	pCi/g	5.427	N		0				☐	
Iodine-133	HE	1219	1075	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.346	0.06936	pCi/g	0.09304	0.100	238.5	4	1.011	IDENTIFIED	3.736	☐	
Lead-214	✓	1.108	0.07876	pCi/g	0.1088	0.100	351.7	4	1.369	IDENTIFIED	5.814	☐	
Neptunium-237	INT	1.129	0.2128	pCi/g	0.5964	N	87.22	3	1.163	IDENTIFIED	15.31	☐	
Niobium-95	NR	0.2674	0.0458	pCi/g	0.0612	N	766.3	1	1.135	IDENTIFIED	16.73	☐	
Niobium-97	HE	6191	13770	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.346	0.06936	pCi/g	0.09304	N	238.5	4	1.011	IDENTIFIED	3.736	☐	
Polonium-214	NR	1.108	0.07876	pCi/g	0.1088	N	351.7	4	1.369	IDENTIFIED	5.814	☐	
Polonium-216	NR	1.346	0.06936	pCi/g	0.09304	N	238.5	4	1.011	IDENTIFIED	3.736	☐	
Polonium-218	NR	1.108	0.07876	pCi/g	0.1088	N	351.7	4	1.369	IDENTIFIED	5.814	☐	
Potassium-40	✓	26.95	1.24	pCi/g	0.4041	1.00	1461	1	2.041	IDENTIFIED	2.906	☐	
Protactinium-234m	NR	73.55	6.721	pCi/g	7.009	N	1001	1	1.814	IDENTIFIED	7.939	☐	
Radium-224	INT	4.154	0.7241	pCi/g	1.059	Y	241.3	1	1.922	IDENTIFIED	17.21	☑ UF	
Radium-226	✓	1.006	0.07926	pCi/g	0.1132	Y	609.1	4	1.579	IDENTIFIED	6.72	☐	
Radium-228	✓	1.548	0.161	pCi/g	0.2131	0.500	911.1	3	1.643	IDENTIFIED	8.829	☐	
Rhenium-183	HE	0.3128	0.06595	pCi/g	0.2339	N	0	13	0	FAIL_ABUND	0	☐	
Tellurium-125m	HE	25.75	6.589	pCi/g	21.81	N	0	13	0	NOT_IDENTI	0	☐	
Thallium-200	HE	15.15	101.6	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5208	0.04604	pCi/g	0.05911	0.080	583	1	1.501	IDENTIFIED	8.085	☐	
Thorium-227	INT	1.374	0.4072	pCi/g	0.6981	Y	0	13	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Thorium-228	NR	1.364	0.07032	pCi/g	0.09433	N	238.5	4	1.011	IDENTIFIED	3.736	☐	
Thorium-230	NR	1.006	0.07926	pCi/g	0.1132	N	609.1	4	1.579	IDENTIFIED	6.72	☐	
Thorium-232	NR	1.548	0.161	pCi/g	0.2131	N	911.1	3	1.643	IDENTIFIED	8.829	☐	
Thorium-234	✓	61.21	5.591	pCi/g	3.261	2.00	63.11	2	0.9414	IDENTIFIED	3.313	☐	
Tin-126	INT	0.3845	0.06066	pCi/g	0.1849	N	87.22	3	1.163	IDENTIFIED	15.31	☐	
Titanium-44	LA	0.3352	0.03537	pCi/g	0.1011	N	0	13	0	FAIL_ABUND	0	☐	
Total Uranium		182.58	1.66E-05	ug/g	4.8537	N		0				☐	

Uranium-231	NR	4.925	1.231	pCi/g	1.815	N	94.54	1	1.165	IDENTIFIED	24.73	☐
Uranium-234	NR	1.006	0.07926	pCi/g	0.1132	N	609.1	4	1.579	IDENTIFIED	6.72	☐
Uranium-235	✓	1.064	0.2119	pCi/g	0.3802	0.500	143.8	1	1.008	IDENTIFIED	18.2	☐
Uranium-238	NR	61.21	5.591	pCi/g	3.261	N	63.11	2	0.9414	IDENTIFIED	3.313	☐
Zirconium-97		7.52E+05	2.85E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245393011	19-JAN-10 12:00	02-FEB-10 07:09	13.8	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	2.058	0.1987	pCi/g	0.2686	N	910.8	3	1.76	IDENTIFIED	8.142	☐	
Americium-243	INT	0.3981	0.0316	pCi/g	0.06247	N	74.64	1	1.219	IDENTIFIED	6.661	☐	
Annihilation Rad.	HE	0.09711	0.03458	pCi/g	0.0583	N	510.7	1	1.955	IDENTIFIED	35.44	☐	
Bismuth-210	HE	1.096	0.436	pCi/g	0.7896	N	46.32	3	1.087	IDENTIFIED	39.56	☐	
Bismuth-211	INT	3.343	0.2625	pCi/g	0.3762	Y	351.8	4	1.338	IDENTIFIED	6.959	☑ UI	
Bismuth-212	HE	1.301	0.2908	pCi/g	0.7906	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.237	0.1035	pCi/g	0.1369	0.200	609	4	1.794	IDENTIFIED	6.94	☐	
Cadmium-109	INT	2.861	0.4373	pCi/g	1.226	Y	86.89	3	1.11	IDENTIFIED	14.76	☑ UI	
Cerium-141	HE	0.1305	0.06577	pCi/g	0.1034	N	144.6	2	1.453	IDENTIFIED	50.13	☐	
Cerium-143	—	319.2	56.07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1144	0.02932	pCi/g	0.1104	0.100	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	9.189	1.62	pCi/g	3.554	N		0				☐	
Iodine-133	HE	1320	1237	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	7.25E+12	1.30E+14	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-210	HE	1.096	0.436	pCi/g	0.7896	N	46.32	3	1.087	IDENTIFIED	39.56	☐	
Lead-212	✓	1.83	0.1013	pCi/g	0.09742	0.100	238.4	4	1.382	IDENTIFIED	3.168	☐	
Lead-214	✓	1.163	0.09623	pCi/g	0.1312	0.100	351.8	4	1.338	IDENTIFIED	6.959	☐	
Lutetium-177	HE	3.026	0.7574	pCi/g	1.816	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	0.8273	0.1526	pCi/g	0.2794	N	86.89	3	1.11	IDENTIFIED	14.76	☐	
Niobium-97	HE	19040	15490	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-210	HE	1.096	0.4354	pCi/g	0.7896	N	46.32	3	1.087	IDENTIFIED	39.56	☐	
Polonium-212	NR	1.83	0.1013	pCi/g	0.09742	N	238.4	4	1.382	IDENTIFIED	3.168	☐	
Polonium-214	NR	1.163	0.09623	pCi/g	0.1312	N	351.8	4	1.338	IDENTIFIED	6.959	☐	
Polonium-216	NR	1.83	0.1013	pCi/g	0.09742	N	238.4	4	1.382	IDENTIFIED	3.168	☐	
Polonium-218	NR	1.163	0.09623	pCi/g	0.1312	N	351.8	4	1.338	IDENTIFIED	6.959	☐	
Potassium-40	✓	30.09	1.283	pCi/g	0.6667	1.00	1460	1	2.449	IDENTIFIED	2.971	☐	
Radium-224	INT	3.977	0.6901	pCi/g	1.109	Y	241.3	1	1.801	IDENTIFIED	16.9	☑ UI	
Radium-226	✓	1.237	0.1035	pCi/g	0.1369	Y	609	4	1.794	IDENTIFIED	6.94	☐	
Radium-228	✓	2.058	0.1987	pCi/g	0.2686	0.500	910.8	3	1.76	IDENTIFIED	8.142	☐	
Thallium-200	HE	88.62	105.4	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5319	0.05001	pCi/g	0.07195	0.080	583.1	1	1.746	IDENTIFIED	8.443	☐	
Thorium-228	NR	1.855	0.1028	pCi/g	0.09877	N	238.4	4	1.382	IDENTIFIED	3.168	☐	
Thorium-230	NR	1.237	0.1035	pCi/g	0.1369	N	609	4	1.794	IDENTIFIED	6.94	☐	
Thorium-232	NR	2.058	0.1987	pCi/g	0.2686	N	910.8	3	1.76	IDENTIFIED	8.142	☐	
Thorium-234	✓	1.449	0.5242	pCi/g	1.016	2.00	63.1	2	1.295	IDENTIFIED	35.01	☐	
Tin-126	INT	0.2817	0.04306	pCi/g	0.1278	N	86.89	3	1.11	IDENTIFIED	14.76	☐	
Titanium-44	LA	0.384	0.02559	pCi/g	0.05573	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium	—	4.5166	1.56E-06	ug/g	1.5139	N		0				☐	
Uranium-234	NR	1.237	0.1035	pCi/g	0.1369	N	609	4	1.794	IDENTIFIED	6.94	☐	
Uranium-235	UNR	0.4477	0.2282	pCi/g	0.3526	0.500	144.6	2	1.453	IDENTIFIED	50.13	☑ UI	
Uranium-238	HE	1.449	0.5242	pCi/g	1.016	N	63.1	2	1.295	IDENTIFIED	35.01	☐	
Zirconium-97	—	1.09E+06	3.32E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395001	19-JAN-10 12:00	02-FEB-10 07:10	13.8	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.684	0.1709	pCi/g	0.1915	N	911.5	3	1.447	IDENTIFIED	8.233	☐	
Americium-243	INT	0.2857	0.03818	pCi/g	0.1108	N	74.98	1	0.9162	IDENTIFIED	12.7	☐	

Annihilation Rad.	—	0.1592	0.03122	pCi/g	0.04289	N	510.9	1	1.595	IDENTIFIED	19.02	☐		
Bismuth-211	INT	3.834	0.3013	pCi/g	0.2862	Y	351.9	4	1.058	IDENTIFIED	5.657	☑ UI		
Bismuth-212	HE	0.9841	0.2025	pCi/g	0.6205	N	0	12	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.01	0.08793	pCi/g	0.1069	0.200	609.4	4	1.213	IDENTIFIED	6.916	☐		
Cadmium-109	INT	4.862	0.7141	pCi/g	1.529	Y	87.23	3	1.337	IDENTIFIED	13.89	☑ UF		
Cerium-143	—	198.1	43.6	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1266	0.03075	pCi/g	0.08936	0.100	0	12	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.	
Gadolinium-153	LA	0.4647	0.07014	pCi/g	0.1708	N	0	12	0	FAIL_ABUND	0	☐		
Gold-195	LA	1.351	0.204	pCi/g	0.5219	N	0	12	0	FAIL_ABUND	0	☐		
Gross Gamma	—	14.24	1.721	pCi/g	5.197	N		0				☐		
Iodine-135	HE	1.21E+14	9.92E+13	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.694	0.1133	pCi/g	0.08834	0.100	238.6	4	0.9762	IDENTIFIED	3.106	☐		
Lead-214	✓	1.334	0.1104	pCi/g	0.09975	0.100	351.9	4	1.058	IDENTIFIED	5.657	☐		
Lutetium-177	HE	2.719	0.7231	pCi/g	1.582	N	209.3	1	1.016	IDENTIFIED	26.1	☐		
Neptunium-237	INT	1.406	0.2524	pCi/g	0.4491	N	87.23	3	1.337	IDENTIFIED	13.89	☐		
Niobium-95	NR	0.2188	0.03369	pCi/g	0.06044	N	767.1	1	1.198	IDENTIFIED	14.69	☐		
Polonium-212	NR	1.694	0.1133	pCi/g	0.08834	N	238.6	4	0.9762	IDENTIFIED	3.106	☐		
Polonium-214	NR	1.334	0.1104	pCi/g	0.09975	N	351.9	4	1.058	IDENTIFIED	5.657	☐		
Polonium-216	NR	1.694	0.1133	pCi/g	0.08834	N	238.6	4	0.9762	IDENTIFIED	3.106	☐		
Polonium-218	NR	1.334	0.1104	pCi/g	0.09975	N	351.9	4	1.058	IDENTIFIED	5.657	☐		
Potassium-40	✓	28.3	1.473	pCi/g	0.4239	1.00	1461	1	1.847	IDENTIFIED	2.79	☐		
Protactinium-234m	NR	46.83	5.329	pCi/g	6.354	N	1001	1	1.643	IDENTIFIED	10.12	☐		
Radium-224	INT	3.918	0.5026	pCi/g	1.005	Y	241.6	1	1.586	IDENTIFIED	11.58	☑ UI		
Radium-226	✓	1.01	0.08793	pCi/g	0.1069	Y	609.4	4	1.213	IDENTIFIED	6.916	☐		
Radium-228	✓	1.684	0.1709	pCi/g	0.1915	0.500	911.5	3	1.447	IDENTIFIED	8.233	☐		
Rhenium-183	HE	0.2636	0.08357	pCi/g	0.1964	N	0	12	0	FAIL_ABUND	0	☐		
Sodium-24	HE	1.12E+05	67210	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Technetium-99m	HE	8.67E+13	5.16E+14	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5777	0.04699	pCi/g	0.04935	0.080	583.2	1	1.444	IDENTIFIED	6.449	☐		
Thorium-228	NR	1.718	0.1148	pCi/g	0.08957	N	238.6	4	0.9762	IDENTIFIED	3.106	☐		
Thorium-230	NR	1.01	0.08793	pCi/g	0.1069	N	609.4	4	1.213	IDENTIFIED	6.916	☐		
Thorium-232	NR	1.684	0.1709	pCi/g	0.1915	N	911.5	3	1.447	IDENTIFIED	8.233	☐		
Thorium-234	✓	39.56	3.794	pCi/g	2.526	2.00	63.34	2	0.8958	IDENTIFIED	3.991	☐		
Tin-126	INT	0.4788	0.07033	pCi/g	0.1512	N	87.23	3	1.337	IDENTIFIED	13.89	☐		
Titanium-44	LA	0.345	0.03162	pCi/g	0.08348	N	0	12	0	FAIL_ABUND	0	☐		
Total Uranium	—	118.07	1.13E-05	ug/g	3.7603	N		0				☐		
Tungsten-181	HE	0.7357	0.2148	pCi/g	0.6994	N	0	12	0	NOT_IDENTI	0	☐		
Uranium-231	HE	2.55	0.9365	pCi/g	1.668	N	94.61	1	1.174	IDENTIFIED	36.45	☐		
Uranium-234	NR	1.01	0.08793	pCi/g	0.1069	N	609.4	4	1.213	IDENTIFIED	6.916	☐		
Uranium-235	✓	0.8198	0.1758	pCi/g	0.3373	0.500	143.7	1	0.9587	IDENTIFIED	19.59	☐		
Uranium-238	NR	39.56	3.794	pCi/g	2.526	N	63.34	2	0.8958	IDENTIFIED	3.991	☐		
Zirconium-97	HE	3.79E+05	2.29E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395002	19-JAN-10 12:00	02-FEB-10 07:20	13.8	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.582	0.1437	pCi/g	0.1432	N	911	3	1.917	IDENTIFIED	6.215	☐	
Americium-243	INT	0.3302	0.037	pCi/g	0.09705	N	74.96	1	0.9339	IDENTIFIED	10.4	☐	
Annihilation Rad.	—	0.1051	0.02755	pCi/g	0.03536	N	510.7	1	1.704	IDENTIFIED	26	☐	
Bismuth-211	INT	3.525	0.1941	pCi/g	0.26	Y	351.9	4	1.327	IDENTIFIED	4.474	☑ UF	
Bismuth-212	LA	1.141	0.2601	pCi/g	0.5137	N	0	15	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.044	0.07422	pCi/g	0.08891	0.200	609.3	4	1.441	IDENTIFIED	5.529	☐	
Cadmium-109	INT	2.888	0.5237	pCi/g	1.62	Y	87.13	3	1.237	IDENTIFIED	17.55	☑ UF	
Cerium-143	—	339.8	50.78	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.09697	0.02899	pCi/g	0.0731	0.100	0	15	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gold-195	HE	0.7306	0.1585	pCi/g	0.416	N	0	15	0	FAIL_ABUND	0	☐	
Gross Gamma	—	10.03	1.172	pCi/g	2.023	N		0				☐	
Iodine-133	HE	1121	825.2	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	

Iodine-135	HE	2.90E+13	8.77E+13	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Krypton-85	HE	17.24	3.217	pCi/g	10.96	N	0	15	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.451	0.06767	pCi/g	0.07605	0.100	238.7	4	1.209	IDENTIFIED	2.999	☐	
Lead-214	✓	1.226	0.07471	pCi/g	0.09199	0.100	351.9	4	1.327	IDENTIFIED	4.474	☐	
Lutetium-177	LA	2.611	0.5544	pCi/g	1.48	N	0	15	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	0.8351	0.1743	pCi/g	0.4139	N	87.13	3	1.237	IDENTIFIED	17.55	☐	
Niobium-95	HE	0.0727	0.01898	pCi/g	0.06893	N	0	15	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.451	0.06767	pCi/g	0.07605	N	238.7	4	1.209	IDENTIFIED	2.999	☐	
Polonium-214	NR	1.226	0.07471	pCi/g	0.09199	N	351.9	4	1.327	IDENTIFIED	4.474	☐	
Polonium-216	NR	1.451	0.06767	pCi/g	0.07605	N	238.7	4	1.209	IDENTIFIED	2.999	☐	
Polonium-218	NR	1.226	0.07471	pCi/g	0.09199	N	351.9	4	1.327	IDENTIFIED	4.474	☐	
Potassium-40	✓	34.68	1.503	pCi/g	0.355	1.00	1460	1	2.348	IDENTIFIED	2.091	☐	
Protactinium-234m	LA	22.23	3.404	pCi/g	8.919	N	0	15	0	FAIL_ABUND	0	☐	
Radium-224	INT	4.071	0.4598	pCi/g	0.8642	Y	241.7	1	1.619	IDENTIFIED	10.94	☑ UI	
Radium-226	✓	1.044	0.07422	pCi/g	0.08891	Y	609.3	4	1.441	IDENTIFIED	5.529	☐	
Radium-228	✓	1.582	0.1437	pCi/g	0.1432	0.500	911	3	1.917	IDENTIFIED	6.215	☐	
Strontium-85	LA	0.08718	0.01627	pCi/g	0.05542	Y	0	15	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	HE	1.51E+14	5.10E+14	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Thallium-200	HE	46.63	71.84	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4713	0.03831	pCi/g	0.04384	0.080	583.1	1	1.626	IDENTIFIED	7.12	☐	
Thorium-228	NR	1.471	0.06861	pCi/g	0.07711	N	238.7	4	1.209	IDENTIFIED	2.999	☐	
Thorium-230	NR	1.044	0.07422	pCi/g	0.08891	N	609.3	4	1.441	IDENTIFIED	5.529	☐	
Thorium-232	NR	1.582	0.1437	pCi/g	0.1432	N	911	3	1.917	IDENTIFIED	6.215	☐	
Thorium-234	✓	8.632	1.296	pCi/g	2.309	2.00	63.44	2	1.11	IDENTIFIED	12.16	☐	
Tin-126	INT	0.2844	0.05158	pCi/g	0.1489	N	87.13	3	1.237	IDENTIFIED	17.55	☐	
Titanium-44	LA	0.3162	0.02654	pCi/g	0.07909	N	0	15	0	FAIL_ABUND	0	☐	
Total Uranium	—	25.769	3.86E-06	ug/g	3.4379	N		0				☐	
Uranium-234	NR	1.044	0.07422	pCi/g	0.08891	N	609.3	4	1.441	IDENTIFIED	5.529	☐	
Uranium-238	NR	8.632	1.296	pCi/g	2.309	N	63.44	2	1.11	IDENTIFIED	12.16	☐	
Zirconium-97	—	7.94E+05	2.13E+05	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395003	19-JAN-10 12:00	02-FEB-10 07:21	13.8	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	0.9847	0.1396	pCi/g	0.1855	N	911.5	3	1.411	IDENTIFIED	13	☐	
Americium-243	INT	0.3099	0.05165	pCi/g	0.1302	N	74.67	1	1.47	IDENTIFIED	16.19	☐	
Annihilation Rad.	HE	0.09107	0.03467	pCi/g	0.04091	N	511.3	1	2.013	IDENTIFIED	37.96	☐	
Barium-137m	HE	0.06103	0.02156	pCi/g	0.05051	N	661.6	2	1.479	IDENTIFIED	35.21	☐	
Bismuth-211	INT	2.545	0.2159	pCi/g	0.3011	Y	351.8	4	1.49	IDENTIFIED	7.86	☑ UE	
Bismuth-212	HE	0.6556	0.2092	pCi/g	0.5435	N	0	13	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.6828	0.06879	pCi/g	0.09959	0.200	609.4	4	1.382	IDENTIFIED	9.276	☐	
Cerium-143	—	265	48.44	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.06451	0.02279	pCi/g	0.0534	0.100	661.6	2	1.479	IDENTIFIED	35.21	☐	
Gadolinium-153	LA	0.6126	0.07786	pCi/g	0.2169	N	0	13	0	FAIL_ABUND	0	☐	
Gold-195	LA	1.782	0.2264	pCi/g	0.6104	N	0	13	0	FAIL_ABUND	0	☐	
Gross Gamma	—	12.05	1.571	pCi/g	5.283	N		0				☐	
Krypton-85	HE	15.26	3.234	pCi/g	12.47	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.112	0.05953	pCi/g	0.0908	0.100	238.5	4	1.323	IDENTIFIED	3.954	☐	
Lead-214	✓	0.8852	0.07856	pCi/g	0.1049	0.100	351.8	4	1.49	IDENTIFIED	7.86	☐	
Lutetium-177	HE	2.078	0.608	pCi/g	1.533	N	209.3	1	1.609	IDENTIFIED	29.13	☐	
Niobium-95	HE	0.1459	0.02525	pCi/g	0.09541	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-95m	HE	0.2856	0.06757	pCi/g	0.2223	N	0	13	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.112	0.05953	pCi/g	0.0908	N	238.5	4	1.323	IDENTIFIED	3.954	☐	
Polonium-214	NR	0.8852	0.07856	pCi/g	0.1049	N	351.8	4	1.49	IDENTIFIED	7.86	☐	
Polonium-216	NR	1.112	0.05953	pCi/g	0.0908	N	238.5	4	1.323	IDENTIFIED	3.954	☐	
Polonium-218	NR	0.8852	0.07856	pCi/g	0.1049	N	351.8	4	1.49	IDENTIFIED	7.86	☐	
Potassium-40	✓	24.47	1.142	pCi/g	0.3966	1.00	1461	1	2.019	IDENTIFIED	2.812	☐	
Protactinium-234m	NR	58.88	5.008	pCi/g	6.584	N	1001	1	1.788	IDENTIFIED	7.12	☐	

Radium-224	INT	2.704	0.5382	pCi/g	1.032	Y	241.5	1	1.798	IDENTIFIED	19.7	☑	UI	
Radium-226	✓	0.6828	0.06879	pCi/g	0.09959	Y	609.4	4	1.382	IDENTIFIED	9.276	☐		
Radium-228	✓	0.9847	0.1396	pCi/g	0.1855	0.500	911.5	3	1.411	IDENTIFIED	13	☐		
Sodium-24	HE	12410	63370	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Strontium-85	LA	0.07716	0.01635	pCi/g	0.06306	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	—	206.9	89.49	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.411	0.03527	pCi/g	0.04982	0.080	583	1	1.447	IDENTIFIED	7.877	☐		
Thorium-228	NR	1.127	0.06036	pCi/g	0.09206	N	238.5	4	1.323	IDENTIFIED	3.954	☐		
Thorium-230	NR	0.6828	0.06879	pCi/g	0.09959	N	609.4	4	1.382	IDENTIFIED	9.276	☐		
Thorium-232	NR	0.9847	0.1396	pCi/g	0.1855	N	911.5	3	1.411	IDENTIFIED	13	☐		
Thorium-234	✓	43.97	4.228	pCi/g	2.942	2.00	63.23	2	1.287	IDENTIFIED	3.991	☐		
Titanium-44	LA	0.247	0.03169	pCi/g	0.09549	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium	—	131.05	1.26E-05	ug/g	4.3795	N		0				☐		
Tungsten-181	LA	6.142	0.3813	pCi/g	1.185	N	0	13	0	NOT_IDENTI	0	☐		
Uranium-234	NR	0.6828	0.06879	pCi/g	0.09959	N	609.4	4	1.382	IDENTIFIED	9.276	☐		
Uranium-235	✓	0.5498	0.1385	pCi/g	0.3934	0.500	143.7	1	1.243	IDENTIFIED	23.85	☐		
Uranium-238	NR	43.97	4.228	pCi/g	2.942	N	63.23	2	1.287	IDENTIFIED	3.991	☐		
Zirconium-97	—	8.91E+05	2.33E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395004	19-JAN-10 12:00	02-FEB-10 08:23	13.8	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	NR	1.629	0.1783	pCi/g	0.1929	N	911.7	3	1.714	IDENTIFIED	9.073	☐		
Americium-243	INT	0.4745	0.04003	pCi/g	0.07923	N	74.92	1	1.312	IDENTIFIED	7.41	☐		
Annihilation Rad.	—	0.1891	0.03554	pCi/g	0.04122	N	511.1	1	1.989	IDENTIFIED	18.21	☐		
Bismuth-211	INT	3.62	0.2711	pCi/g	0.3034	Y	352	4	1.348	IDENTIFIED	5.763	☑	UI	
Bismuth-212	NR	1.154	0.2899	pCi/g	0.4704	N	727.5	1	1.413	IDENTIFIED	24.47	☐		
Bismuth-214	✓	1.134	0.09575	pCi/g	0.1047	0.200	609.6	4	1.322	IDENTIFIED	6.355	☐		
Cerium-143	—	217.2	45.54	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1109	0.02651	pCi/g	0.08561	0.100	0	9	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	11.04	1.472	pCi/g	3.972	N		0				☐		
Iodine-123	HE	1.45E+05	5.37E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Krypton-85	HE	16.8	3.532	pCi/g	13.09	N	0	9	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.656	0.1027	pCi/g	0.08109	0.100	238.7	4	1.142	IDENTIFIED	3.195	☐		
Lead-214	✓	1.259	0.09987	pCi/g	0.1028	0.100	352	4	1.348	IDENTIFIED	5.763	☐		
Lutetium-177	HE	3.064	0.7193	pCi/g	1.71	N	0	9	0	FAIL_ABUND	0	☐		
Neptunium-237	HE	0.4128	0.1458	pCi/g	0.3502	N	87.11	1	1.18	IDENTIFIED	33.45	☐		
Polonium-212	NR	1.656	0.1027	pCi/g	0.08109	N	238.7	4	1.142	IDENTIFIED	3.195	☐		
Polonium-214	NR	1.259	0.09987	pCi/g	0.1028	N	352	4	1.348	IDENTIFIED	5.763	☐		
Polonium-216	NR	1.656	0.1027	pCi/g	0.08109	N	238.7	4	1.142	IDENTIFIED	3.195	☐		
Polonium-218	NR	1.259	0.09987	pCi/g	0.1028	N	352	4	1.348	IDENTIFIED	5.763	☐		
Potassium-40	✓	37.55	1.875	pCi/g	0.4371	1.00	1461	1	1.818	IDENTIFIED	2.433	☐		
Radium-224	INT	4.135	0.6801	pCi/g	0.9225	Y	241.6	1	1.806	IDENTIFIED	15.72	☑	UI	
Radium-226	✓	1.134	0.09575	pCi/g	0.1047	Y	609.6	4	1.322	IDENTIFIED	6.355	☐		
Radium-228	✓	1.629	0.1783	pCi/g	0.1929	0.500	911.7	3	1.714	IDENTIFIED	9.073	☐		
Strontium-85	LA	0.08498	0.01787	pCi/g	0.06624	Y	0	9	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	84.16	86.54	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5596	0.04627	pCi/g	0.05034	0.080	583.6	1	1.35	IDENTIFIED	6.477	☐		
Thorium-228	NR	1.679	0.1042	pCi/g	0.08222	N	238.7	4	1.142	IDENTIFIED	3.195	☐		
Thorium-230	NR	1.134	0.09574	pCi/g	0.1047	N	609.6	4	1.322	IDENTIFIED	6.355	☐		
Thorium-232	NR	1.629	0.1783	pCi/g	0.1929	N	911.7	3	1.714	IDENTIFIED	9.073	☐		
Thorium-234	✓	6.172	1.01	pCi/g	1.678	2.00	63.23	2	1.144	IDENTIFIED	13.87	☐		
Titanium-44	LA	0.3806	0.02621	pCi/g	0.07527	N	0	9	0	FAIL_ABUND	0	☐		
Total Uranium	—	18.497	3.01E-06	ug/g	2.499	N		0				☐		
Uranium-234	NR	1.134	0.09574	pCi/g	0.1047	N	609.6	4	1.322	IDENTIFIED	6.355	☐		
Uranium-238	NR	6.172	1.01	pCi/g	1.678	N	63.23	2	1.144	IDENTIFIED	13.87	☐		
Zirconium-97	—	8.71E+05	2.46E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395005	19-JAN-10 12:00	02-FEB-10 08:24	13.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	2.006	0.197	pCi/g	0.2161	N	910.9	3	1.469	IDENTIFIED	8.014		
Americium-243	WT	0.2819	0.02133	pCi/g	0.04486	N	74.96	1	0.7464	IDENTIFIED	6.264		
Annihilation Rad.	—	0.1188	0.03175	pCi/g	0.04619	N	510.5	1	1.075	IDENTIFIED	26.29		
Bismuth-210	HE	1.082	0.3519	pCi/g	0.6482	N	46.32	3	0.6183	IDENTIFIED	32.18		
Bismuth-211	INT	3.784	0.2864	pCi/g	0.3089	Y	351.8	4	1.018	IDENTIFIED	6.08	✓ UI	
Bismuth-214	✓	1.207	0.1151	pCi/g	0.1189	0.200	609.1	4	1.086	IDENTIFIED	7.49		
Cadmium-109	INT	2.826	0.3274	pCi/g	0.8166	Y	87.25	3	0.9091	IDENTIFIED	10.6	✓ UI	
Cerium-143	—	136.2	39.94	pCi/g	0	N	0	7	0	SHORT_HLIF	0		
Cesium-134	LA	0.1306	0.05631	pCi/g	0.1204	0.100	0	7	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.02	1.304	pCi/g	3.518	N		0					
Lead-210	HE	1.082	0.3519	pCi/g	0.6482	N	46.32	3	0.6183	IDENTIFIED	32.18		
Lead-212	✓	1.707	0.1003	pCi/g	0.07951	0.100	238.5	4	0.8673	IDENTIFIED	3.135		
Lead-214	✓	1.316	0.1054	pCi/g	0.1078	0.100	351.8	4	1.018	IDENTIFIED	6.08		
Lutetium-177	LA	3.165	0.6219	pCi/g	1.69	N	0	7	0	FAIL_ABUND	0		
Neptunium-237	INT	0.8172	0.1268	pCi/g	0.2348	N	87.25	3	0.9091	IDENTIFIED	10.6		
Niobium-97	HE	24050	17330	pCi/g	0	N	0	7	0	SHORT_HLIF	0		
Polonium-210	HE	1.082	0.3513	pCi/g	0.6482	N	46.32	3	0.6183	IDENTIFIED	32.18		
Polonium-212	NR	1.707	0.1003	pCi/g	0.07951	N	238.5	4	0.8673	IDENTIFIED	3.135		
Polonium-214	NR	1.316	0.1054	pCi/g	0.1078	N	351.8	4	1.018	IDENTIFIED	6.08		
Polonium-216	NR	1.707	0.1003	pCi/g	0.07951	N	238.5	4	0.8673	IDENTIFIED	3.135		
Polonium-218	NR	1.316	0.1054	pCi/g	0.1078	N	351.8	4	1.018	IDENTIFIED	6.08		
Potassium-40	✓	34.74	1.876	pCi/g	0.7464	1.00	1460	1	2.12	IDENTIFIED	3.307		
Radium-224	INT	4.798	0.7355	pCi/g	0.9072	Y	241.6	1	1.847	IDENTIFIED	14.67	✓ UI	
Radium-226	✓	1.207	0.1151	pCi/g	0.1189	Y	609.1	4	1.086	IDENTIFIED	7.49		
Radium-228	✓	2.006	0.197	pCi/g	0.2161	0.500	910.9	3	1.469	IDENTIFIED	8.014		
Sodium-24	HE	19300	1.11E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0		
Thallium-208	✓	0.5502	0.05423	pCi/g	0.05908	0.080	583	1	1.418	IDENTIFIED	8.215		
Thorium-228	NR	1.731	0.1017	pCi/g	0.08061	N	238.5	4	0.8673	IDENTIFIED	3.135		
Thorium-230	NR	1.207	0.1151	pCi/g	0.1189	N	609.1	4	1.086	IDENTIFIED	7.49		
Thorium-232	NR	2.006	0.197	pCi/g	0.2161	N	910.9	3	1.469	IDENTIFIED	8.014		
Thorium-234	✓	3.082	0.56	pCi/g	0.7504	2.00	63.33	2	0.8837	IDENTIFIED	15.88		
Tin-126	INT	0.2783	0.03224	pCi/g	0.08028	N	87.25	3	0.9091	IDENTIFIED	10.6		
Titanium-44	LA	0.3747	0.02203	pCi/g	0.03983	N	0	7	0	FAIL_ABUND	0		
Total Uranium	—	9.1952	1.67E-06	ug/g	1.1188	N		0					
Uranium-234	NR	1.207	0.1151	pCi/g	0.1189	N	609.1	4	1.086	IDENTIFIED	7.49		
Uranium-238	NR	3.082	0.56	pCi/g	0.7504	N	63.33	2	0.8837	IDENTIFIED	15.88		
Zirconium-97	—	6.72E+05	2.71E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395006	19-JAN-10 12:00	02-FEB-10 08:24	13.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.454	0.1561	pCi/g	0.1998	N	910.7	3	1.277	IDENTIFIED	9.057		
Americium-243	INT	0.3953	0.05268	pCi/g	0.1458	N	74.65	1	1.225	IDENTIFIED	12.57		
Annihilation Rad.	HE	0.121	0.03575	pCi/g	0.05454	N	510.3	1	2.415	IDENTIFIED	29.39		
Barium-137m	HE	0.1112	0.04357	pCi/g	0.06619	N	662.7	2	1.537	IDENTIFIED	39.1		
Bismuth-211	INT	3.094	0.2281	pCi/g	0.3614	Y	351.6	4	1.354	IDENTIFIED	6.613	✓ UI	
Bismuth-212	HE	0.9587	0.2867	pCi/g	0.6803	N	0	12	0	FAIL_ABUND	0		
Bismuth-214	✓	1.048	0.08383	pCi/g	0.1237	0.200	608.6	4	1.663	IDENTIFIED	7.063		
Cadmium-109	INT	2.908	0.6023	pCi/g	1.936	Y	87.13	3	1.408	IDENTIFIED	20.14	✓ UI	
Cerium-143	—	531.6	75.28	pCi/g	0	N	0	12	0	SHORT_HLIF	0		
Cesium-137	✓	0.1175	0.04606	pCi/g	0.06997	0.100	662.7	2	1.537	IDENTIFIED	39.1		
Gadolinium-153	LA	0.3918	0.0703	pCi/g	0.2224	N	0	12	0	FAIL_ABUND	0		
Gold-195	LA	1.139	0.2045	pCi/g	0.6251	N	0	12	0	FAIL_ABUND	0		
Gross Gamma	—	12.38	1.737	pCi/g	4.555	N		0					

Iodine-133	HE	1043	1205	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.35E+13	1.36E+14	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.422	0.07336	pCi/g	0.1056	0.100	238.3	4	1.126	IDENTIFIED	3.703	☐	
Lead-214	✓	1.076	0.08417	pCi/g	0.1181	0.100	351.6	4	1.354	IDENTIFIED	6.613	☐	
Lutetium-177	HE	2.875	0.6918	pCi/g	1.79	N	208.9	1	1.577	IDENTIFIED	23.91	☐	
Neptunium-237	HE	0.8408	0.1946	pCi/g	0.6126	N	87.13	3	1.408	IDENTIFIED	20.14	☐	
Niobium-95	NR	0.1939	0.04389	pCi/g	0.07834	N	766	1	1.193	IDENTIFIED	22.38	☐	
Niobium-95m	LA	0.5802	0.08684	pCi/g	0.2896	N	0	12	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.422	0.07336	pCi/g	0.1056	N	238.3	4	1.126	IDENTIFIED	3.703	☐	
Polonium-214	NR	1.076	0.08417	pCi/g	0.1181	N	351.6	4	1.354	IDENTIFIED	6.613	☐	
Polonium-216	NR	1.422	0.07336	pCi/g	0.1056	N	238.3	4	1.126	IDENTIFIED	3.703	☐	
Polonium-218	NR	1.076	0.08417	pCi/g	0.1181	N	351.6	4	1.354	IDENTIFIED	6.613	☐	
Potassium-40	✓	27.05	1.34	pCi/g	0.5504	1.00	1460	1	2.442	IDENTIFIED	3.248	☐	
Protactinium-234m	NR	47.94	5.279	pCi/g	7.84	N	1000	1	1.652	IDENTIFIED	9.923	☐	
Radium-224	INT	3.619	0.5723	pCi/g	1.201	Y	241.3	1	1.644	IDENTIFIED	15.56	☑ UI	
Radium-226	✓	1.048	0.08383	pCi/g	0.1237	Y	608.6	4	1.663	IDENTIFIED	7.063	☐	
Radium-228	✓	1.454	0.1561	pCi/g	0.1998	0.500	910.7	3	1.277	IDENTIFIED	9.057	☐	
Technetium-99m	HE	1.06E+15	7.67E+14	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4552	0.04587	pCi/g	0.06323	0.080	582.6	1	1.498	IDENTIFIED	9.539	☐	
Thorium-228	NR	1.441	0.07438	pCi/g	0.107	N	238.3	4	1.126	IDENTIFIED	3.703	☐	
Thorium-230	NR	1.048	0.08383	pCi/g	0.1237	N	608.6	4	1.663	IDENTIFIED	7.063	☐	
Thorium-232	NR	1.454	0.1561	pCi/g	0.1998	N	910.7	3	1.277	IDENTIFIED	9.057	☐	
Thorium-234	✓	33.69	3.538	pCi/g	3.607	2.00	63.05	2	0.9986	IDENTIFIED	5.393	☐	
Tin-126	HE	0.2863	0.05931	pCi/g	0.1918	N	87.13	3	1.408	IDENTIFIED	20.14	☐	
Titanium-44	LA	0.3374	0.03307	pCi/g	0.1067	N	0	12	0	FAIL_ABUND	0	☐	
Total Uranium	—	100.54	1.05E-05	ug/g	5.3702	N		0				☐	
Tungsten-181	LA	2.202	0.349	pCi/g	1.178	N	0	12	0	NOT_IDENTI	0	☐	
Uranium-231	HE	3.403	0.9548	pCi/g	2.372	N	0	12	0	FAIL_ABUND	0	☐	
Uranium-234	NR	1.048	0.08383	pCi/g	0.1237	N	608.6	4	1.663	IDENTIFIED	7.063	☐	
Uranium-235	✓	0.6343	0.1768	pCi/g	0.416	0.500	143.4	1	1.196	IDENTIFIED	26.68	☐	
Uranium-238	NR	33.69	3.538	pCi/g	3.607	N	63.05	2	0.9986	IDENTIFIED	5.393	☐	
Zirconium-97	—	1.65E+06	3.14E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395007	19-JAN-10 12:00	02-FEB-10 09:13	13.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-227	HE	1.127	0.2739	pCi/g	0.9014	N	0	23	0	NOT_IDENTI	0	☐	
Actinium-228	NR	0.653	0.1113	pCi/g	0.1924	N	910.9	3	2.044	IDENTIFIED	15.87	☐	
Americium-241	LA	0.9287	0.2104	pCi/g	0.7516	0.200	0	23	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Bismuth-211	INT	1.754	0.2227	pCi/g	0.3735	Y	351.7	1	1.124	IDENTIFIED	11.32	☑ UI	
Bismuth-214	✓	0.5255	0.0909	pCi/g	0.1254	0.200	608.8	4	1.787	IDENTIFIED	16.47	☐	
Cerium-141	LA	0.3185	0.04972	pCi/g	0.1679	N	0	23	0	NOT_IDENTI	0	☐	
Cerium-143	—	269.6	54.52	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐	
Gadolinium-153	LA	2.461	0.153	pCi/g	0.3562	N	0	23	0	FAIL_ABUND	0	☐	
Gold-195	LA	7.157	0.4451	pCi/g	1.026	N	0	23	0	FAIL_ABUND	0	☐	
Gross Gamma	—	27.82	2.345	pCi/g	5.897	N		0				☐	
Iodine-123	HE	4.05E+05	9.46E+05	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐	
Iodine-135	HE	7.26E+13	9.83E+13	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐	
Lead-212	LA	0.6688	0.06707	pCi/g	0.1833	0.100	0	23	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Lead-214	LA	0.61	0.0791	pCi/g	0.202	0.100	0	23	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Lutetium-177	HE	2.416	0.6516	pCi/g	2	N	209.4	1	1.246	IDENTIFIED	26.39	☐	
Niobium-95	NR	0.8765	0.07	pCi/g	0.07869	N	766	1	1.525	IDENTIFIED	6.47	☐	
Polonium-212	NR	0.6688	0.06707	pCi/g	0.1833	N	0	23	0	FAIL_ABUND	0	☐	
Polonium-214	NR	0.61	0.0791	pCi/g	0.202	N	0	23	0	FAIL_ABUND	0	☐	
Polonium-216	NR	0.6688	0.06707	pCi/g	0.1833	N	0	23	0	FAIL_ABUND	0	☐	
Polonium-218	NR	0.61	0.0791	pCi/g	0.202	N	0	23	0	FAIL_ABUND	0	☐	
Potassium-40	✓	17.79	1.044	pCi/g	0.399	1.00	1460	1	2.284	IDENTIFIED	3.439	☐	
Protactinium-234m	NR	259.2	16.07	pCi/g	7.417	N	1001	1	1.87	IDENTIFIED	2.973	☐	

Radium-224	LA	2.117	0.4319	pCi/g	1.478	Y	0	23	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Radium-226	✓	0.5255	0.0909	pCi/g	0.1254	Y	608.8	4	1.787	IDENTIFIED	16.47	☐		
Radium-228	✓	0.653	0.1113	pCi/g	0.1924	0.500	910.9	3	2.044	IDENTIFIED	15.87	☐		
Rhenium-183	LA	0.8902	0.1227	pCi/g	0.3247	N	0	23	0	FAIL_ABUND	0	☐		
Sodium-24	HE	4288	77120	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Technetium-99m	HE	1.66E+15	1.01E+15	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Tellurium-125m	LA	51.9	9.436	pCi/g	31.86	N	0	23	0	NOT_IDENTI	0	☐		
Thallium-200	HE	150.7	111.9	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.2428	0.04331	pCi/g	0.06488	0.080	583.1	1	1.355	IDENTIFIED	17.12	☐		
Thorium-227	LA	1.127	0.2791	pCi/g	0.9014	Y	0	23	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Thorium-228	LA	0.6781	0.068	pCi/g	0.1859	N	0	23	0	FAIL_ABUND	0	☐		
Thorium-230	NR	0.5255	0.0909	pCi/g	0.1254	N	608.8	4	1.787	IDENTIFIED	16.47	☐		
Thorium-232	NR	0.653	0.1113	pCi/g	0.1924	N	910.9	3	2.044	IDENTIFIED	15.87	☐		
Thorium-234	✓	175.2	15.85	pCi/g	5.225	2.00	63	2	0.9982	IDENTIFIED	1.991	☐		
Total Uranium		522.73	4.71E-05	ug/g	7.7778	N		0				☐		
Uranium-231	NR	11.21	1.642	pCi/g	2.615	N	94.46	1	1.057	IDENTIFIED	13.88	☐		
Uranium-234	NR	0.5255	0.0909	pCi/g	0.1254	N	608.8	4	1.787	IDENTIFIED	16.47	☐		
Uranium-235	✓	3.066	0.3634	pCi/g	0.5285	0.500	143.6	1	1.071	IDENTIFIED	7.852	☐		
Uranium-238	NR	175.2	15.85	pCi/g	5.225	N	63	2	0.9982	IDENTIFIED	1.991	☐		
Zirconium-97	HE	4.11E+05	3.31E+05	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395008	19-JAN-10 12:00	02-FEB-10 09:14	13.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.253	0.1669	pCi/g	0.2196	N	910.7	3	1.684	IDENTIFIED	11.8	☐	
Americium-243	INT	0.4659	0.08493	pCi/g	0.2137	N	74.55	1	1.182	IDENTIFIED	17.39	☐	
Annihilation Rad.	HE	0.0841	0.03834	pCi/g	0.05335	N	510.4	1	1.993	IDENTIFIED	45.47	☐	
Bismuth-211	INT	3.333	0.2743	pCi/g	0.3733	Y	351.6	4	1.277	IDENTIFIED	7.377	☑ UI	
Bismuth-212	HE	0.8745	0.2401	pCi/g	0.5452	N	726.4	1	1.618	IDENTIFIED	27.16	☐	
Bismuth-214	✓	1.066	0.09247	pCi/g	0.1171	0.200	608.8	4	1.451	IDENTIFIED	7.798	☐	
Cerium-143	—	429.6	67.4	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Gadolinium-153	LA	1.64	0.1332	pCi/g	0.3251	N	0	13	0	FAIL_ABUND	0	☐	
Gold-195	LA	4.771	0.3874	pCi/g	0.9334	N	0	13	0	FAIL_ABUND	0	☐	
Gross Gamma		24.62	2.384	pCi/g	6.564	N		0				☐	
Iodine-123	HE	7.14E+05	9.23E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.459	0.07834	pCi/g	0.1094	0.100	238.3	4	1.087	IDENTIFIED	3.8	☐	
Lead-214	✓	1.16	0.1001	pCi/g	0.1301	0.100	351.6	4	1.277	IDENTIFIED	7.377	☐	
Niobium-95	NR	0.5989	0.05771	pCi/g	0.07677	N	765.9	1	1.459	IDENTIFIED	8.982	☐	
Niobium-95m	HE	0.2642	0.07761	pCi/g	0.2572	N	0	13	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.459	0.07834	pCi/g	0.1094	N	238.3	4	1.087	IDENTIFIED	3.8	☐	
Polonium-214	NR	1.16	0.1001	pCi/g	0.1301	N	351.6	4	1.277	IDENTIFIED	7.377	☐	
Polonium-216	NR	1.459	0.07834	pCi/g	0.1094	N	238.3	4	1.087	IDENTIFIED	3.8	☐	
Polonium-218	NR	1.16	0.1001	pCi/g	0.1301	N	351.6	4	1.277	IDENTIFIED	7.377	☐	
Potassium-40	✓	34.45	1.741	pCi/g	0.4963	1.00	1460	1	2.071	IDENTIFIED	2.641	☐	
Protactinium-234m	NR	165.9	11.28	pCi/g	7.664	N	1000	1	1.685	IDENTIFIED	4.423	☐	
Radium-224	INT	4.423	0.5934	pCi/g	1.245	Y	241.3	1	1.775	IDENTIFIED	13.06	☑ UI	
Radium-226	✓	1.066	0.09247	pCi/g	0.1171	Y	608.8	4	1.451	IDENTIFIED	7.798	☐	
Radium-228	✓	1.253	0.1669	pCi/g	0.2196	0.500	910.7	3	1.684	IDENTIFIED	11.8	☐	
Rhenium-183	HE	0.4128	0.08787	pCi/g	0.2777	N	0	13	0	FAIL_ABUND	0	☐	
Sodium-24	HE	28580	94380	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.19E+15	9.74E+14	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Tellurium-125m	HE	40.24	9.247	pCi/g	29.77	N	0	13	0	NOT_IDENTI	0	☐	
Thallium-200	HE	2.779	114.9	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4846	0.04825	pCi/g	0.06708	0.080	582.8	1	1.623	IDENTIFIED	9.373	☐	
Thorium-228	NR	1.48	0.07944	pCi/g	0.111	N	238.3	4	1.087	IDENTIFIED	3.8	☐	
Thorium-230	NR	1.066	0.09247	pCi/g	0.1171	N	608.8	4	1.451	IDENTIFIED	7.798	☐	
Thorium-232	NR	1.253	0.1669	pCi/g	0.2196	N	910.7	3	1.684	IDENTIFIED	11.8	☐	
Thorium-234	✓	120.3	12.44	pCi/g	5.693	2.00	62.96	2	0.9247	IDENTIFIED	3.088	☐	

Titanium-44	LA	0.3572	0.05472	pCi/g	0.1395	N	0	13	0	FAIL_ABUND	0	☐
Total Uranium	—	358.79	3.70E-05	ug/g	8.4748	N		0				☐
Uranium-231	LA	8.466	1.139	pCi/g	3.058	N	0	13	0	FAIL_ABUND	0	☐
Uranium-234	NR	1.066	0.09247	pCi/g	0.1171	N	608.8	4	1.451	IDENTIFIED	7.798	☐
Uranium-235	✓	1.931	0.287	pCi/g	0.4937	0.500	143.5	1	1.019	IDENTIFIED	12.41	☐
Uranium-238	NR	120.3	12.44	pCi/g	5.693	N	62.96	2	0.9247	IDENTIFIED	3.088	☐
Zirconium-97	—	1.19E+06	3.41E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395009	19-JAN-10 12:00	02-FEB-10 09:14	13.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.521	0.1576	pCi/g	0.2071	N	910.9	3	1.958	IDENTIFIED	8.787	☐	
Americium-243	INT	0.2544	0.04756	pCi/g	0.1515	N	74.67	1	0.8636	IDENTIFIED	18.39	☐	
Annihilation Rad.	—	0.1466	0.03943	pCi/g	0.04789	N	510.9	1	2.195	IDENTIFIED	26.72	☐	
Bismuth-211	INT	3.082	0.2372	pCi/g	0.3477	Y	351.7	4	1.332	IDENTIFIED	7.026	☑ UI	
Bismuth-212	HE	0.7541	0.2474	pCi/g	0.4584	N	727.2	1	1.882	IDENTIFIED	32.52	☐	
Bismuth-214	✓	0.9046	0.102	pCi/g	0.1085	0.200	608.9	4	1.615	IDENTIFIED	10.49	☐	
Cerium-141	HE	0.1449	0.03878	pCi/g	0.127	N	0	9	0	NOT_IDENTI	0	☐	
Cerium-143	—	309.5	54.22	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Gadolinium-153	LA	0.6842	0.08261	pCi/g	0.2307	N	0	9	0	FAIL_ABUND	0	☐	
Gold-195	LA	1.99	0.2403	pCi/g	0.6717	N	0	9	0	FAIL_ABUND	0	☐	
Gross Gamma	—	16.49	1.785	pCi/g	5.9	N		0				☐	
Iodine-123	HE	1.24E+06	7.17E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	HE	7.38E+13	1.20E+14	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.221	0.06467	pCi/g	0.0952	0.100	238.4	4	1.05	IDENTIFIED	3.929	☐	
Lead-214	✓	1.072	0.08712	pCi/g	0.1122	0.100	351.7	4	1.332	IDENTIFIED	7.026	☐	
Lutetium-177	HE	2.376	0.6927	pCi/g	1.521	N	209.3	1	1.182	IDENTIFIED	29.03	☐	
Niobium-95	NR	0.4194	0.0433	pCi/g	0.07654	N	766.3	1	1.396	IDENTIFIED	9.655	☐	
Polonium-212	NR	1.221	0.06467	pCi/g	0.0952	N	238.4	4	1.05	IDENTIFIED	3.929	☐	
Polonium-214	NR	1.072	0.08712	pCi/g	0.1122	N	351.7	4	1.332	IDENTIFIED	7.026	☐	
Polonium-216	NR	1.221	0.06467	pCi/g	0.0952	N	238.4	4	1.05	IDENTIFIED	3.929	☐	
Polonium-218	NR	1.072	0.08712	pCi/g	0.1122	N	351.7	4	1.332	IDENTIFIED	7.026	☐	
Potassium-40	✓	29.5	1.357	pCi/g	0.4238	1.00	1460	1	1.987	IDENTIFIED	2.909	☐	
Protactinium-234m	NR	84.74	6.765	pCi/g	5.475	N	1001	1	1.71	IDENTIFIED	6.577	☐	
Radium-224	INT	3.31	0.5097	pCi/g	1.083	Y	241.4	1	1.576	IDENTIFIED	15.15	☑ UI	
Radium-226	✓	0.9046	0.102	pCi/g	0.1085	Y	608.9	4	1.615	IDENTIFIED	10.49	☐	
Radium-228	✓	1.521	0.1576	pCi/g	0.2071	0.500	910.9	3	1.958	IDENTIFIED	8.787	☐	
Rhenium-183	HE	0.2963	0.09207	pCi/g	0.2316	N	0	9	0	FAIL_ABUND	0	☐	
Thallium-208	✓	0.3835	0.03721	pCi/g	0.05876	0.080	582.9	1	1.218	IDENTIFIED	9.019	☐	
Thorium-228	NR	1.238	0.06557	pCi/g	0.09653	N	238.4	4	1.05	IDENTIFIED	3.929	☐	
Thorium-230	NR	0.9046	0.102	pCi/g	0.1085	N	608.9	4	1.615	IDENTIFIED	10.49	☐	
Thorium-232	NR	1.521	0.1576	pCi/g	0.2071	N	910.9	3	1.958	IDENTIFIED	8.787	☐	
Thorium-234	✓	69.62	6.327	pCi/g	3.518	2.00	63.16	2	0.852	IDENTIFIED	3.184	☐	
Titanium-44	LA	0.2448	0.03189	pCi/g	0.1049	N	0	9	0	FAIL_ABUND	0	☐	
Total Uranium	—	207.57	1.88E-05	ug/g	5.2372	N		0				☐	
Uranium-231	HE	4.308	1.371	pCi/g	1.935	N	94.65	1	1.204	IDENTIFIED	31.63	☐	
Uranium-234	NR	0.9046	0.102	pCi/g	0.1085	N	608.9	4	1.615	IDENTIFIED	10.49	☐	
Uranium-235	✓	0.9946	0.1887	pCi/g	0.4079	0.500	143.7	1	0.8172	IDENTIFIED	17.15	☐	
Uranium-238	NR	69.62	6.327	pCi/g	3.518	N	63.16	2	0.852	IDENTIFIED	3.184	☐	
Zirconium-97	—	7.85E+05	3.19E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395010	19-JAN-10 12:00	02-FEB-10 09:15	13.9	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.764	0.219	pCi/g	0.3175	N	910.9	3	1.732	IDENTIFIED	11.28	☐	
Americium-243	INT	0.3303	0.03267	pCi/g	0.06659	N	74.73	1	1.108	IDENTIFIED	8.899	☐	
Annihilation Rad.	—	0.144	0.03771	pCi/g	0.06095	N	510.9	1	1.927	IDENTIFIED	25.96	☐	

Bismuth-210	HE	1.442	0.3816	pCi/g	0.84	N	46.29	3	1.246	IDENTIFIED	26.14	☐
Bismuth-211	INT	3.414	0.285	pCi/g	0.3866	Y	351.8	4	1.632	IDENTIFIED	7.514	☑ VI
Bismuth-212	LA	1.487	0.2956	pCi/g	0.8605	N	0	11	0	FAIL_ABUND	0	☐
Bismuth-214	✓	1.279	0.1175	pCi/g	0.1422	0.200	609.3	4	1.586	IDENTIFIED	7.909	☐
Cadmium-109	INT	3.548	0.4669	pCi/g	1.073	Y	87.04	3	1.248	IDENTIFIED	12.55	☑ VI
Cerium-143	—	348.8	61.58	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Gross Gamma	—	10.59	1.585	pCi/g	4.005	N		0				☐
Iodine-123	HE	73310	6.56E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Iodine-133	HE	2756	1454	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Lead-210	HE	1.442	0.3816	pCi/g	0.84	N	46.29	3	1.246	IDENTIFIED	26.14	☐
Lead-212	✓	1.703	0.09936	pCi/g	0.1038	0.100	238.5	4	1.303	IDENTIFIED	3.664	☐
Lead-214	✓	1.188	0.1039	pCi/g	0.1348	0.100	351.8	4	1.632	IDENTIFIED	7.514	☐
Lutetium-177	HE	2.777	0.7049	pCi/g	1.949	N	0	11	0	FAIL_ABUND	0	☐
Neptunium-237	INT	1.026	0.1715	pCi/g	0.3091	N	87.04	3	1.248	IDENTIFIED	12.55	☐
Niobium-95m	HE	0.2836	0.07566	pCi/g	0.2503	N	0	11	0	NOT_IDENTI	0	☐
Polonium-210	HE	1.442	0.3805	pCi/g	0.84	N	46.29	3	1.246	IDENTIFIED	26.14	☐
Polonium-212	NR	1.703	0.09936	pCi/g	0.1038	N	238.5	4	1.303	IDENTIFIED	3.664	☐
Polonium-214	NR	1.188	0.1039	pCi/g	0.1348	N	351.8	4	1.632	IDENTIFIED	7.514	☐
Polonium-216	NR	1.703	0.09936	pCi/g	0.1038	N	238.5	4	1.303	IDENTIFIED	3.664	☐
Polonium-218	NR	1.188	0.1039	pCi/g	0.1348	N	351.8	4	1.632	IDENTIFIED	7.514	☐
Potassium-40	✓	36.05	1.499	pCi/g	0.5886	1.00	1461	1	2.261	IDENTIFIED	2.818	☐
Protactinium-234m	HE	13.46	5.269	pCi/g	11.79	N	0	11	0	FAIL_ABUND	0	☐
Radium-224	INT	4.358	0.6635	pCi/g	1.181	Y	241.5	1	1.664	IDENTIFIED	14.7	☑ VI
Radium-226	✓	1.279	0.1175	pCi/g	0.1422	Y	609.3	4	1.586	IDENTIFIED	7.909	☐
Radium-228	✓	1.764	0.219	pCi/g	0.3175	0.500	910.9	3	1.732	IDENTIFIED	11.28	☐
Sodium-24	HE	75950	1.26E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Technetium-99m	HE	3.07E+14	6.87E+14	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.4909	0.05576	pCi/g	0.07748	0.080	583	1	1.559	IDENTIFIED	10.58	☐
Thorium-228	NR	1.726	0.1007	pCi/g	0.1052	N	238.5	4	1.303	IDENTIFIED	3.664	☐
Thorium-230	NR	1.279	0.1175	pCi/g	0.1422	N	609.3	4	1.586	IDENTIFIED	7.909	☐
Thorium-232	NR	1.764	0.219	pCi/g	0.3175	N	910.9	3	1.732	IDENTIFIED	11.28	☐
Thorium-234	✓	3.945	0.6999	pCi/g	1.148	2.00	63.13	2	1.255	IDENTIFIED	15.18	☐
Tin-126	INT	0.3494	0.04597	pCi/g	0.1056	N	87.04	3	1.248	IDENTIFIED	12.55	☐
Titanium-44	LA	0.3622	0.02665	pCi/g	0.06019	N	0	11	0	FAIL_ABUND	0	☐
Total Uranium	—	11.747	2.08E-06	ug/g	1.7114	N		0				☐
Uranium-234	NR	1.279	0.1175	pCi/g	0.1422	N	609.3	4	1.586	IDENTIFIED	7.909	☐
Uranium-238	NR	3.945	0.6999	pCi/g	1.148	N	63.13	2	1.255	IDENTIFIED	15.18	☐
Zirconium-97	HE	4.09E+05	3.90E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395011	19-JAN-10 12:00	02-FEB-10 09:18	13.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.083	0.1354	pCi/g	0.1922	N	911.3	3	1.244	IDENTIFIED	11	☐	
Americium-243	INT	0.1987	0.03011	pCi/g	0.08755	N	74.96	1	0.779	IDENTIFIED	14.57	☐	
Annihilation Rad.	HE	0.08316	0.03216	pCi/g	0.0366	N	511	1	1.894	IDENTIFIED	38.38	☐	
Barium-137m	NR	0.2088	0.02612	pCi/g	0.0486	N	661.7	2	1.35	IDENTIFIED	11.69	☐	
Bismuth-211	INT	2.869	0.2327	pCi/g	0.2661	Y	351.9	4	1.129	IDENTIFIED	6.003	☑ VI	
Bismuth-212	HE	0.7247	0.2143	pCi/g	0.5504	N	0	14	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9181	0.0875	pCi/g	0.09301	0.200	609.5	4	1.385	IDENTIFIED	7.93	☐	
Cadmium-109	INT	2.188	0.4683	pCi/g	1.484	Y	87.18	3	1.048	IDENTIFIED	20.86	☑ VI	
Cerium-143	—	177.1	40.13	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.2207	0.02762	pCi/g	0.05138	0.100	661.7	2	1.35	IDENTIFIED	11.69	☐	
Gadolinium-153	LA	0.2925	0.05743	pCi/g	0.1378	N	0	14	0	FAIL_ABUND	0	☐	
Gold-195	LA	0.8507	0.167	pCi/g	0.4133	N	0	14	0	FAIL_ABUND	0	☐	
Gross Gamma	—	9.114	1.456	pCi/g	3.109	N		0				☐	
Iodine-123	HE	5.71E+05	5.01E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Iodine-135	HE	5.92E+13	1.09E+14	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Krypton-85	HE	12.49	3.308	pCi/g	11.38	N	0	14	0	NOT_IDENTI	0	☐	

Lead-212	✓	1.224	0.08511	pCi/g	0.07476	0.100	238.6	4	0.9696	IDENTIFIED	3.647	☐	
Lead-214	✓	0.998	0.08504	pCi/g	0.09974	0.100	351.9	4	1.129	IDENTIFIED	6.003	☐	
Neptunium-237	HE	0.6327	0.1503	pCi/g	0.4064	N	87.18	3	1.048	IDENTIFIED	20.86	☐	
Niobium-95	HE	0.1019	0.02306	pCi/g	0.07866	N	0	14	0	NOT_IDENTI	0	☐	
Niobium-97	HE	15270	14150	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.224	0.08511	pCi/g	0.07476	N	238.6	4	0.9696	IDENTIFIED	3.647	☐	
Polonium-214	NR	0.998	0.08504	pCi/g	0.09974	N	351.9	4	1.129	IDENTIFIED	6.003	☐	
Polonium-216	NR	1.224	0.08511	pCi/g	0.07476	N	238.6	4	0.9696	IDENTIFIED	3.647	☐	
Polonium-218	NR	0.998	0.08504	pCi/g	0.09974	N	351.9	4	1.129	IDENTIFIED	6.003	☐	
Potassium-40	✓	26.59	1.409	pCi/g	0.4432	1.00	1461	1	1.879	IDENTIFIED	2.961	☐	
Protactinium-234m	NR	20.85	3.496	pCi/g	6.349	N	1001	1	1.005	IDENTIFIED	15.94	☐	
Radium-224	INT	2.673	0.478	pCi/g	0.8507	Y	241.7	1	1.675	IDENTIFIED	17.01	☑ UI	
Radium-226	✓	0.9181	0.0875	pCi/g	0.09301	Y	609.5	4	1.385	IDENTIFIED	7.93	☐	
Radium-228	✓	1.083	0.1354	pCi/g	0.1922	0.500	911.3	3	1.244	IDENTIFIED	11	☐	
Sodium-24	HE	50850	75460	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.0632	0.01674	pCi/g	0.05759	Y	0	14	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	4.431	81.33	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.313	0.0334	pCi/g	0.04624	0.080	583.2	1	1.338	IDENTIFIED	9.451	☐	
Thorium-228	NR	1.241	0.0863	pCi/g	0.0758	N	238.6	4	0.9696	IDENTIFIED	3.647	☐	
Thorium-230	NR	0.9181	0.0875	pCi/g	0.09301	N	609.5	4	1.385	IDENTIFIED	7.93	☐	
Thorium-232	NR	1.083	0.1354	pCi/g	0.1922	N	911.3	3	1.244	IDENTIFIED	11	☐	
Thorium-234	✓	15.62	1.765	pCi/g	2.03	2.00	63.26	2	0.7911	IDENTIFIED	7.184	☐	
Tin-126	HE	0.2155	0.04612	pCi/g	0.1455	N	87.18	3	1.048	IDENTIFIED	20.86	☐	
Titanium-44	LA	0.2352	0.02197	pCi/g	0.06367	N	0	14	0	FAIL_ABUND	0	☐	
Total Uranium		46.729	5.25E-06	ug/g	3.0229	N		0				☐	
Uranium-234	NR	0.9181	0.0875	pCi/g	0.09301	N	609.5	4	1.385	IDENTIFIED	7.93	☐	
Uranium-235	✓	0.5402	0.1404	pCi/g	0.2897	0.500	143.6	1	1.457	IDENTIFIED	24.48	☐	
Uranium-238	NR	15.62	1.765	pCi/g	2.03	N	63.26	2	0.7911	IDENTIFIED	7.184	☐	
Zirconium-97	—	4.51E+05	2.17E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395012	19-JAN-10 12:00	02-FEB-10 09:18	13.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.714	0.2026	pCi/g	0.2503	N	910.5	3	1.517	IDENTIFIED	10.38	☐
Americium-243	INT	0.4124	0.04613	pCi/g	0.1166	N	74.86	1	0.947	IDENTIFIED	10.07	☐
Annihilation Rad.	—	0.184	0.04361	pCi/g	0.06657	N	510.9	1	0.7932	IDENTIFIED	23.28	☐
Bismuth-211	INT	3.472	0.3015	pCi/g	0.3815	Y	351.8	4	1.161	IDENTIFIED	7.324	☑ UI
Bismuth-212	HE	1.113	0.3244	pCi/g	0.6379	N	726.4	1	1.579	IDENTIFIED	28.72	☐
Bismuth-214	✓	1.062	0.1089	pCi/g	0.1529	0.200	609	4	1.416	IDENTIFIED	8.909	☐
Cerium-141	HE	0.1902	0.04593	pCi/g	0.1517	N	0	11	0	NOT_IDENTI	0	☐
Cerium-143	—	243.9	53.72	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Gadolinium-153	LA	1.116	0.1022	pCi/g	0.2522	N	0	11	0	FAIL_ABUND	0	☐
Gold-195	LA	3.245	0.2972	pCi/g	0.7662	N	0	11	0	FAIL_ABUND	0	☐
Gross Gamma	—	19.95	1.821	pCi/g	8.706	N		0				☐
Iodine-135	HE	2.96E+13	1.48E+14	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Lead-212	✓	1.417	0.09192	pCi/g	0.1097	0.100	238.5	4	0.9697	IDENTIFIED	4.081	☐
Lead-214	✓	1.208	0.1095	pCi/g	0.133	0.100	351.8	4	1.161	IDENTIFIED	7.324	☐
Lutetium-177	HE	2.993	0.729	pCi/g	1.75	N	209.4	1	1.019	IDENTIFIED	23.96	☐
Niobium-95	NR	0.4019	0.06116	pCi/g	0.09312	N	765.7	1	1.341	IDENTIFIED	14.58	☐
Polonium-212	NR	1.417	0.09192	pCi/g	0.1097	N	238.5	4	0.9697	IDENTIFIED	4.081	☐
Polonium-214	NR	1.208	0.1095	pCi/g	0.133	N	351.8	4	1.161	IDENTIFIED	7.324	☐
Polonium-216	NR	1.417	0.09192	pCi/g	0.1097	N	238.5	4	0.9697	IDENTIFIED	4.081	☐
Polonium-218	NR	1.208	0.1095	pCi/g	0.133	N	351.8	4	1.161	IDENTIFIED	7.324	☐
Potassium-40	✓	26.03	1.486	pCi/g	0.526	1.00	1460	1	1.755	IDENTIFIED	3.591	☐
Protactinium-234m	NR	121	9.198	pCi/g	9.193	N	1000	1	1.681	IDENTIFIED	5.712	☐
Radium-224	INT	1.565	0.5303	pCi/g	1.249	Y	240.9	1	1.115	IDENTIFIED	33.57	☑ UI
Radium-226	✓	1.062	0.1089	pCi/g	0.1529	Y	609	4	1.416	IDENTIFIED	8.909	☐
Radium-228	✓	1.714	0.2026	pCi/g	0.2503	0.500	910.5	3	1.517	IDENTIFIED	10.38	☐

Rhenium-183	HE	0.4589	0.09658	pCi/g	0.2696	N	0	11	0	FAIL_ABUND	0	☐
Sodium-24	HE	38060	1.17E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Thallium-200	HE	79.18	122.3	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.4553	0.05822	pCi/g	0.08566	0.080	582.6	1	1.128	IDENTIFIED	11.88	☐
Thorium-228	NR	1.437	0.0932	pCi/g	0.1112	N	238.5	4	0.9697	IDENTIFIED	4.081	☐
Thorium-230	NR	1.062	0.1089	pCi/g	0.1529	N	609	4	1.416	IDENTIFIED	8.909	☐
Thorium-232	NR	1.714	0.2026	pCi/g	0.2503	N	910.5	3	1.517	IDENTIFIED	10.38	☐
Thorium-234	✓	86.98	8.248	pCi/g	2.006	2.00	63.27	2	0.9124	IDENTIFIED	1.683	☐
Titanium-44	LA	0.3188	0.03252	pCi/g	0.08854	N	0	11	0	FAIL_ABUND	0	☐
Total Uranium	—	259.53	2.45E-05	ug/g	2.9872	N		0				☐
Tungsten-181	LA	1.09	0.1856	pCi/g	0.6232	N	0	11	0	NOT_IDENTI	0	☐
Uranium-231	NR	9.431	1.646	pCi/g	1.801	N	94.7	1	1.24	IDENTIFIED	16.71	☐
Uranium-234	NR	1.062	0.1089	pCi/g	0.1529	N	609	4	1.416	IDENTIFIED	8.909	☐
Uranium-235	✓	1.66	0.2737	pCi/g	0.468	0.500	143.8	1	1.046	IDENTIFIED	13.71	☐
Uranium-238	NR	86.98	8.248	pCi/g	2.006	N	63.27	2	0.9124	IDENTIFIED	1.683	☐
Zirconium-97		1.07E+06	4.05E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395013	19-JAN-10 12:00	02-FEB-10 09:26	13.9	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.58	0.1493	pCi/g	0.1604	N	910.8	3	1.875	IDENTIFIED	6.737	☐	
Americium-243	INT	0.4033	0.04201	pCi/g	0.0859	N	74.98	1	1.303	IDENTIFIED	9.542	☐	
Annihilation Rad.	—	0.09611	0.02379	pCi/g	0.03592	N	510.7	1	2.092	IDENTIFIED	24.53	☐	
Bismuth-211	INT	3.446	0.1938	pCi/g	0.2353	Y	351.9	4	1.36	IDENTIFIED	4.619	☑ VF	
Bismuth-212	LA	1.345	0.1842	pCi/g	0.515	N	0	16	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9658	0.07037	pCi/g	0.08032	0.200	609	4	1.551	IDENTIFIED	5.757	☐	
Cadmium-109	INT	3.573	0.4583	pCi/g	1.108	Y	87.46	3	1.147	IDENTIFIED	11.97	☑ VF	
Cerium-143	—	342.3	50.69	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1157	0.02537	pCi/g	0.07406	0.100	0	16	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2877	0.06638	pCi/g	0.2214	N	0	16	0	NOT_IDENTI	0	☐	
Gold-195	HE	0.3919	0.1007	pCi/g	0.3561	N	0	16	0	FAIL_ABUND	0	☐	
Gross Gamma	—	8.886	1.112	pCi/g	2.434	N		0				☐	
Iodine-123	—	1.31E+06	4.65E+05	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Iodine-126	HE	0.3063	0.1284	pCi/g	0.2139	N	0	16	0	FAIL_ABUND	0	☐	
Iodine-133	HE	164.6	787.8	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Iodine-135	HE	6.41E+13	8.98E+13	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Krypton-85	HE	15	2.938	pCi/g	10.08	N	0	16	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.673	0.07407	pCi/g	0.06968	0.100	238.7	4	1.214	IDENTIFIED	2.615	☐	
Lead-214	✓	1.199	0.07433	pCi/g	0.08199	0.100	351.9	4	1.36	IDENTIFIED	4.619	☐	
Lutetium-177	HE	2.117	0.4958	pCi/g	1.549	N	0	16	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	1.033	0.1701	pCi/g	0.3277	N	87.46	3	1.147	IDENTIFIED	11.97	☐	
Niobium-95	HE	0.07038	0.01828	pCi/g	0.06057	N	0	16	0	NOT_IDENTI	0	☐	
Niobium-97	HE	8661	10610	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.673	0.07407	pCi/g	0.06968	N	238.7	4	1.214	IDENTIFIED	2.615	☐	
Polonium-214	NR	1.199	0.07433	pCi/g	0.08199	N	351.9	4	1.36	IDENTIFIED	4.619	☐	
Polonium-216	NR	1.673	0.07407	pCi/g	0.06968	N	238.7	4	1.214	IDENTIFIED	2.615	☐	
Polonium-218	NR	1.199	0.07433	pCi/g	0.08199	N	351.9	4	1.36	IDENTIFIED	4.619	☐	
Potassium-40	✓	22.58	1.036	pCi/g	0.364	1.00	1460	1	2.321	IDENTIFIED	2.581	☐	
Radium-224	INT	3.917	0.5873	pCi/g	0.7919	Y	241.6	1	1.944	IDENTIFIED	14.73	☑ VF	
Radium-226	✓	0.9658	0.07037	pCi/g	0.08032	Y	609	4	1.551	IDENTIFIED	5.757	☐	
Radium-228	✓	1.58	0.1493	pCi/g	0.1604	0.500	910.8	3	1.875	IDENTIFIED	6.737	☐	
Strontium-85	LA	0.07591	0.01487	pCi/g	0.05103	Y	0	16	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.4523	0.03363	pCi/g	0.04626	0.080	583	1	1.544	IDENTIFIED	6.319	☐	
Thorium-228	NR	1.697	0.07511	pCi/g	0.07066	N	238.7	4	1.214	IDENTIFIED	2.615	☐	
Thorium-230	NR	0.9658	0.07037	pCi/g	0.08032	N	609	4	1.551	IDENTIFIED	5.757	☐	
Thorium-232	NR	1.58	0.1493	pCi/g	0.1604	N	910.8	3	1.875	IDENTIFIED	6.737	☐	
Thorium-234	✓	3.085	0.8714	pCi/g	2.214	2.00	63.54	2	0.9132	IDENTIFIED	26.83	☐	
Tin-126	INT	0.3519	0.04513	pCi/g	0.1098	N	87.46	3	1.147	IDENTIFIED	11.97	☐	

Titanium-44	LA	0.3661	0.02684	pCi/g	0.07824	N	0	16	0	FAIL_ABUND	0		☐
Total Uranium	—	9.2591	2.59E-06	ug/g	3.2963	N		0					☐
Uranium-234	NR	0.9658	0.07037	pCi/g	0.08032	N	609	4	1.551	IDENTIFIED	5.757		☐
Uranium-238	HE	3.085	0.8714	pCi/g	2.214	N	63.54	2	0.9132	IDENTIFIED	26.83		☐
Zirconium-97	—	1.09E+06	2.40E+05	pCi/g	0	N	0	16	0	SHORT_HLIF	0		☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395014	19-JAN-10 12:00	02-FEB-10 09:27	13.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.219	0.1365	pCi/g	0.182	N	911.6	3	1.612	IDENTIFIED	9.669	☐	
Americium-243	INT	0.3307	0.06947	pCi/g	0.1635	N	74.86	1	1.617	IDENTIFIED	20.63	☐	
Annihilation Rad.	—	0.115	0.03076	pCi/g	0.04654	N	510.6	1	2.125	IDENTIFIED	26.57	☐	
Antimony-122	HE	2.854	0.7566	pCi/g	2.611	N	0	19	0	NOT_IDENTI	0	☐	
Barium-137m	HE	0.05697	0.03452	pCi/g	0.05254	N	661.9	2	1.445	IDENTIFIED	60.52	☐	
Bismuth-211	INT	2.334	0.1893	pCi/g	0.3277	Y	351.8	4	1.171	IDENTIFIED	7.455	☑ UI	
Bismuth-212	LA	1.072	0.214	pCi/g	0.5846	N	0	19	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.8533	0.07258	pCi/g	0.1026	0.200	609.4	4	1.622	IDENTIFIED	7.542	☐	
Cerium-141	LA	0.2792	0.04537	pCi/g	0.152	N	0	19	0	NOT_IDENTI	0	☐	
Cerium-143	—	334.4	55.82	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1038	0.02567	pCi/g	0.08986	0.100	0	19	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	↑UNC	0.06023	0.03649	pCi/g	0.05554	0.100	661.9	2	1.445	IDENTIFIED	60.52	☑ UI	Data rejected due to high counting unc
Gadolinium-153	LA	0.9561	0.08752	pCi/g	0.2652	N	0	19	0	FAIL_ABUND	0	☐	
Gold-195	LA	2.781	0.2546	pCi/g	0.7457	N	0	19	0	FAIL_ABUND	0	☐	
Gross Gamma	—	16.55	1.688	pCi/g	6.739	N		0				☐	
Iodine-123	HE	4.63E+05	8.30E+05	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	
Krypton-85	HE	14.25	3.651	pCi/g	12.51	N	0	19	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.143	0.06229	pCi/g	0.09715	0.100	238.6	4	1.385	IDENTIFIED	4.083	☐	
Lead-214	✓	0.8121	0.06918	pCi/g	0.1093	0.100	351.8	4	1.171	IDENTIFIED	7.455	☐	
Niobium-95	NR	0.4629	0.04783	pCi/g	0.06611	N	766.5	1	1.841	IDENTIFIED	9.71	☐	
Niobium-95m	HE	0.3084	0.07366	pCi/g	0.2402	N	0	19	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.143	0.06229	pCi/g	0.09715	N	238.6	4	1.385	IDENTIFIED	4.083	☐	
Polonium-214	NR	0.8121	0.06918	pCi/g	0.1093	N	351.8	4	1.171	IDENTIFIED	7.455	☐	
Polonium-216	NR	1.143	0.06229	pCi/g	0.09715	N	238.6	4	1.385	IDENTIFIED	4.083	☐	
Polonium-218	NR	0.8121	0.06918	pCi/g	0.1093	N	351.8	4	1.171	IDENTIFIED	7.455	☐	
Potassium-40	✓	20.96	1.01	pCi/g	0.447	1.00	1461	1	1.924	IDENTIFIED	3.057	☐	
Protactinium-234m	NR	107.5	7.413	pCi/g	6.48	N	1001	1	1.7	IDENTIFIED	5.085	☐	
Radium-224	INT	2.562	0.5486	pCi/g	1.105	Y	241.4	1	1.684	IDENTIFIED	21.23	☑ UI	
Radium-226	✓	0.8533	0.07258	pCi/g	0.1026	Y	609.4	4	1.622	IDENTIFIED	7.542	☐	
Radium-228	✓	1.219	0.1365	pCi/g	0.182	0.500	911.6	3	1.612	IDENTIFIED	9.669	☐	
Rhenium-183	HE	0.3526	0.09176	pCi/g	0.2534	N	0	19	0	FAIL_ABUND	0	☐	
Strontium-85	LA	0.07215	0.01848	pCi/g	0.06334	Y	0	19	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	HE	7.38E+14	9.31E+14	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	
Tellurium-125m	HE	26.88	7.843	pCi/g	25.55	N	0	19	0	NOT_IDENTI	0	☐	
Thallium-200	HE	27.83	103.2	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.3361	0.03579	pCi/g	0.05743	0.080	583.3	1	1.498	IDENTIFIED	10.09	☐	
Thorium-228	NR	1.159	0.06316	pCi/g	0.0985	N	238.6	4	1.385	IDENTIFIED	4.083	☐	
Thorium-230	NR	0.8533	0.07258	pCi/g	0.1026	N	609.4	4	1.622	IDENTIFIED	7.542	☐	
Thorium-232	NR	1.219	0.1365	pCi/g	0.182	N	911.6	3	1.612	IDENTIFIED	9.669	☐	
Thorium-234	✓	73.29	6.774	pCi/g	3.737	2.00	63.32	2	1.241	IDENTIFIED	2.982	☐	
Titanium-44	LA	0.2215	0.04126	pCi/g	0.112	N	0	19	0	FAIL_ABUND	0	☐	
Total Uranium	—	218.56	2.02E-05	ug/g	5.5629	N		0				☐	
Tungsten-181	LA	11.38	0.5786	pCi/g	1.548	N	0	19	0	NOT_IDENTI	0	☐	
Uranium-231	LA	9.085	1.113	pCi/g	2.843	N	0	19	0	FAIL_ABUND	0	☐	
Uranium-234	NR	0.8533	0.07258	pCi/g	0.1026	N	609.4	4	1.622	IDENTIFIED	7.542	☐	
Uranium-235	✓	1.119	0.2115	pCi/g	0.4561	0.500	143.5	1	1.353	IDENTIFIED	17.09	☐	
Uranium-238	NR	73.29	6.774	pCi/g	3.737	N	63.32	2	1.241	IDENTIFIED	2.982	☐	
Zirconium-97	—	8.77E+05	2.95E+05	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245395015	19-JAN-10 12:00	02-FEB-10 09:47	13.9	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.43	0.1629	pCi/g	0.2302	N	911.4	3	1.548	IDENTIFIED	9.812	☐	
Americium-243	INT	0.3258	0.05355	pCi/g	0.1267	N	74.92	1	1.296	IDENTIFIED	15.9	☐	
Annihilation Rad.	HE	0.08722	0.0363	pCi/g	0.0532	N	511	1	2.156	IDENTIFIED	41.41	☐	
Bismuth-211	INT	3.403	0.2875	pCi/g	0.3274	Y	352.2	4	1.141	IDENTIFIED	7.126	☑ UI	
Bismuth-212	NR	0.8904	0.1621	pCi/g	0.4665	N	727.1	1	1.262	IDENTIFIED	17.52	☐	
Bismuth-214	✓	1.035	0.0997	pCi/g	0.1135	0.200	609.5	4	1.474	IDENTIFIED	8.271	☐	
Cadmium-109	INT	3.711	0.5989	pCi/g	1.941	Y	87.26	3	1.305	IDENTIFIED	15.44	☑ UI	
Cerium-143	—	219.9	50.13	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1113	0.03043	pCi/g	0.0934	0.100	0	13	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gadolinium-153	LA	0.3925	0.06768	pCi/g	0.1989	N	0	13	0	FAIL_ABUND	0	☐	
Gold-195	LA	1.142	0.1968	pCi/g	0.577	N	0	13	0	FAIL_ABUND	0	☐	
Gross Gamma	—	12.68	1.721	pCi/g	5.147	N		0				☐	
Iodine-123	HE	1.83E+05	6.52E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Krypton-85	HE	15.61	4.574	pCi/g	15.02	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.469	0.09175	pCi/g	0.1006	0.100	239	4	1.203	IDENTIFIED	3.658	☐	
Lead-214	✓	1.184	0.1047	pCi/g	0.1141	0.100	352.2	4	1.141	IDENTIFIED	7.126	☐	
Neptunium-237	INT	1.073	0.2055	pCi/g	0.5994	N	87.26	3	1.305	IDENTIFIED	15.44	☐	
Niobium-95	HE	0.1482	0.0316	pCi/g	0.1083	N	0	13	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.469	0.09175	pCi/g	0.1006	N	239	4	1.203	IDENTIFIED	3.658	☐	
Polonium-214	NR	1.184	0.1047	pCi/g	0.1141	N	352.2	4	1.141	IDENTIFIED	7.126	☐	
Polonium-216	NR	1.469	0.09175	pCi/g	0.1006	N	239	4	1.203	IDENTIFIED	3.658	☐	
Polonium-218	NR	1.184	0.1047	pCi/g	0.1141	N	352.2	4	1.141	IDENTIFIED	7.126	☐	
Potassium-40	✓	33.01	1.736	pCi/g	0.4903	1.00	1461	1	2.085	IDENTIFIED	2.808	☐	
Protactinium-234m	NR	52.75	5.365	pCi/g	7.24	N	1001	1	1.79	IDENTIFIED	8.8	☐	
Radium-224	INT	4.766	0.7015	pCi/g	1.145	Y	242.1	1	1.894	IDENTIFIED	14	☑ UI	
Radium-226	✓	1.035	0.0997	pCi/g	0.1135	Y	609.5	4	1.474	IDENTIFIED	8.271	☐	
Radium-228	✓	1.43	0.1629	pCi/g	0.2302	0.500	911.4	3	1.548	IDENTIFIED	9.812	☐	
Strontium-85	LA	0.07903	0.02315	pCi/g	0.07602	Y	0	13	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	75.27	103.8	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4076	0.04658	pCi/g	0.06352	0.080	583.6	1	1.415	IDENTIFIED	10.49	☐	
Thorium-228	NR	1.489	0.09304	pCi/g	0.102	N	239	4	1.203	IDENTIFIED	3.658	☐	
Thorium-230	NR	1.035	0.0997	pCi/g	0.1135	N	609.5	4	1.474	IDENTIFIED	8.271	☐	
Thorium-232	NR	1.43	0.1629	pCi/g	0.2302	N	911.4	3	1.548	IDENTIFIED	9.812	☐	
Thorium-234	✓	32.28	3.351	pCi/g	2.994	2.00	63.22	2	1.132	IDENTIFIED	5.526	☐	
Tin-126	INT	0.3654	0.05898	pCi/g	0.1921	N	87.26	3	1.305	IDENTIFIED	15.44	☐	
Titanium-44	LA	0.2971	0.0332	pCi/g	0.09704	N	0	13	0	FAIL_ABUND	0	☐	
Total Uranium	—	96.202	9.97E-06	ug/g	4.4576	N		0				☐	
Tungsten-181	LA	2.157	0.2983	pCi/g	1.018	N	0	13	0	NOT_IDENTI	0	☐	
Uranium-231	HE	2.913	0.7948	pCi/g	2.117	N	0	13	0	FAIL_ABUND	0	☐	
Uranium-234	NR	1.035	0.0997	pCi/g	0.1135	N	609.5	4	1.474	IDENTIFIED	8.271	☐	
Uranium-238	NR	32.28	3.351	pCi/g	2.994	N	63.22	2	1.132	IDENTIFIED	5.526	☐	
Zirconium-97	HE	3.80E+05	3.36E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202023719		02-FEB-10 09:48	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Iodine-123	HE	62.11	57.1	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Iodine-135	—	1.11E+07	3.44E+06	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Sodium-24	HE	8.754	23.03	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202023720	19-JAN-10 12:00	02-FEB-10 09:49	13.9	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NR	1.011	0.1647	pCi/g	0.2084	N	910.9	3	1.39	IDENTIFIED	15.48	☐	
Americium-243	INT	0.3135	0.05155	pCi/g	0.1295	N	74.64	1	1.348	IDENTIFIED	15.81	☐	
Annihilation Rad.	HE	0.1018	0.03885	pCi/g	0.04548	N	510.4	1	2.445	IDENTIFIED	38.04	☐	
Barium-137m	NR	0.198	0.02838	pCi/g	0.07417	N	661	2	1.495	IDENTIFIED	14.12	☐	
Bismuth-211	INT	2.894	0.2568	pCi/g	0.3535	Y	351.6	4	1.186	IDENTIFIED	8.266	☑ UI	
Bismuth-212	HE	1.003	0.3136	pCi/g	0.6573	N	0	15	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.8301	0.09329	pCi/g	0.1226	0.200	609	4	1.508	IDENTIFIED	10.61	☐	
Cadmium-109	INT	2.873	0.6624	pCi/g	1.791	Y	86.97	3	1.408	IDENTIFIED	22.53	☑ UI	
Cerium-143		528.2	75.91	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1017	0.03652	pCi/g	0.09596	0.100	0	15	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.2093	0.03	pCi/g	0.07841	0.100	661	2	1.495	IDENTIFIED	14.12	☐	
Gadolinium-153	LA	0.4121	0.07078	pCi/g	0.1928	N	0	15	0	FAIL_ABUND	0	☐	
Gold-195	LA	1.199	0.2059	pCi/g	0.5597	N	0	15	0	FAIL_ABUND	0	☐	
Gross Gamma		9.246	1.474	pCi/g	4.179	N		0				☐	
Iodine-123	HE	29220	7.04E+05	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Iodine-133	HE	1621	1207	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Lead-212	LA	1.134	0.06478	pCi/g	0.1065	0.100	238.4	4	1.067	IDENTIFIED	4.366	☐	
Lead-214	LA	1.007	0.09312	pCi/g	0.1232	0.100	351.6	4	1.186	IDENTIFIED	8.266	☐	
Neptunium-237	HE	0.8308	0.2098	pCi/g	0.5275	N	86.97	3	1.408	IDENTIFIED	22.53	☐	
Niobium-95m	HE	0.3578	0.08532	pCi/g	0.2755	N	0	15	0	NOT_IDENTI	0	☐	
Niobium-97	HE	12790	18290	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.134	0.06478	pCi/g	0.1065	N	238.4	4	1.067	IDENTIFIED	4.366	☐	
Polonium-214	NR	1.007	0.09312	pCi/g	0.1232	N	351.6	4	1.186	IDENTIFIED	8.266	☐	
Polonium-216	NR	1.134	0.06478	pCi/g	0.1065	N	238.4	4	1.067	IDENTIFIED	4.366	☐	
Polonium-218	NR	1.007	0.09312	pCi/g	0.1232	N	351.6	4	1.186	IDENTIFIED	8.266	☐	
Potassium-40	✓	26.24	1.197	pCi/g	0.4565	1.00	1460	1	2.217	IDENTIFIED	3.142	☐	
Protactinium-234m	HE	20.97	4.578	pCi/g	13.24	N	0	15	0	FAIL_ABUND	0	☐	
Radium-224	INT	3.129	0.4676	pCi/g	1.211	Y	241.3	1	1.682	IDENTIFIED	14.65	☑ UI	
Radium-226	✓	0.8301	0.09329	pCi/g	0.1226	Y	609	4	1.508	IDENTIFIED	10.61	☐	
Radium-228	✓	1.011	0.1647	pCi/g	0.2084	0.500	910.9	3	1.39	IDENTIFIED	15.48	☐	
Technetium-99m	HE	1.22E+14	8.57E+14	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.3085	0.03651	pCi/g	0.06311	0.080	582.8	1	1.37	IDENTIFIED	11.4	☐	
Thorium-228	NR	1.15	0.06569	pCi/g	0.1079	N	238.4	4	1.067	IDENTIFIED	4.366	☐	
Thorium-230	NR	0.8301	0.09329	pCi/g	0.1226	N	609	4	1.508	IDENTIFIED	10.61	☐	
Thorium-232	NR	1.011	0.1647	pCi/g	0.2084	N	910.9	3	1.39	IDENTIFIED	15.48	☐	
Thorium-234	✓	20.02	2.46	pCi/g	3.2	2.00	62.92	2	1.021	IDENTIFIED	8.264	☐	
Tin-126	HE	0.2829	0.06522	pCi/g	0.1773	N	86.97	3	1.408	IDENTIFIED	22.53	☐	
Titanium-44	HE	0.1572	0.0386	pCi/g	0.09628	N	0	15	0	NOT_IDENTI	0	☐	
Total Uranium		59.795	7.32E-06	ug/g	4.763	N		0				☐	
Tungsten-181	HE	1.334	0.2955	pCi/g	0.9874	N	0	15	0	NOT_IDENTI	0	☐	
Uranium-231	HE	3.132	0.7778	pCi/g	1.993	N	0	15	0	FAIL_ABUND	0	☐	
Uranium-234	NR	0.8301	0.09329	pCi/g	0.1226	N	609	4	1.508	IDENTIFIED	10.61	☐	
Uranium-235	✓	0.5044	0.1453	pCi/g	0.398	0.500	143.4	1	1.005	IDENTIFIED	27.64	☐	
Uranium-238	NR	20.02	2.46	pCi/g	3.2	N	62.92	2	1.021	IDENTIFIED	8.264	☐	
Zirconium-97		1.67E+06	3.33E+05	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202023721		02-FEB-10 09:50	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	HE	0.5652	0.2342	pCi/g	0.5052	N	911.6	3	1.245	IDENTIFIED	41.02	☐	
Americium-241	✓	13.32	0.5804	pCi/g	0.4	0.200	59.55	1	0.97	IDENTIFIED	1.809	☐	
Americium-243		0.2301	0.04782	pCi/g	0.1174	N	74.63	1	1.339	IDENTIFIED	20.39	☐	
Barium-137m		5.537	0.2776	pCi/g	0.1241	N	661.6	2	1.524	IDENTIFIED	2.358	☐	
Bismuth-211		2.082	0.3023	pCi/g	0.6243	Y	352	4	1.223	IDENTIFIED	13.81	☐	
Bismuth-214		0.6546	0.1071	pCi/g	0.3355	0.200	0	10	0	FAIL_ABUND	0	☐	
Cadmium-109		29.96	1.686	pCi/g	1.891	Y	88.03	2	1.07	IDENTIFIED	3.08	☐	
Cesium-137	✓	5.853	0.2939	pCi/g	0.1312	0.100	661.6	2	1.524	IDENTIFIED	2.358	☐	

Cobalt-57		0.2025	0.03277	pCi/g	0.06138	N	122.2	1	0.9895	IDENTIFIED	15.6	☐
Cobalt-60	✓	6.31	0.3053	pCi/g	0.08336	0.100	1332	1	1.898	IDENTIFIED	2.575	☐
Gross Gamma		26.7	3.197	pCi/g	4.26	N		0				☐
Iodine-123	HE	318.4	236.7	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Lead-212		1.163	0.09255	pCi/g	0.1619	0.100	238.7	4	1.17	IDENTIFIED	6.357	☐
Lead-214		0.7242	0.1068	pCi/g	0.2198	0.100	352	4	1.223	IDENTIFIED	13.81	☐
Neptunium-237		3.943	0.5097	pCi/g	0.9779	N	0	10	0	NOT_IDENTI	0	☐
Niobium-97		252.2	60.34	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Polonium-212		1.163	0.09255	pCi/g	0.1619	N	238.7	4	1.17	IDENTIFIED	6.357	☐
Polonium-214		0.7242	0.1068	pCi/g	0.2198	N	352	4	1.223	IDENTIFIED	13.81	☐
Polonium-216		1.163	0.09255	pCi/g	0.1619	N	238.7	4	1.17	IDENTIFIED	6.357	☐
Polonium-218		0.7242	0.1068	pCi/g	0.2198	N	352	4	1.223	IDENTIFIED	13.81	☐
Radium-224		2.222	0.8335	pCi/g	1.843	Y	241.5	1	1.512	IDENTIFIED	37.28	☐
Radium-226		0.6546	0.1071	pCi/g	0.3355	Y	0	10	0	FAIL_ABUND	0	☐
Radium-228		0.5652	0.2342	pCi/g	0.5052	0.500	911.6	3	1.245	IDENTIFIED	41.02	☐
Sodium-24	HE	42.23	73.52	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Thallium-208		0.4199	0.06334	pCi/g	0.1133	0.080	583.4	1	1.489	IDENTIFIED	14.31	☐
Thorium-228		1.172	0.09323	pCi/g	0.1631	N	238.7	4	1.17	IDENTIFIED	6.357	☐
Thorium-230		0.6545	0.1071	pCi/g	0.3355	N	0	10	0	FAIL_ABUND	0	☐
Thorium-232	HE	0.5652	0.2342	pCi/g	0.5052	N	911.6	3	1.245	IDENTIFIED	41.02	☐
Tin-126		2.979	0.1676	pCi/g	0.1884	N	88.03	2	1.07	IDENTIFIED	3.08	☐
Titanium-44		0.2411	0.03046	pCi/g	0.09096	N	0	10	0	FAIL_ABUND	0	☐
Uranium-234		0.6545	0.1071	pCi/g	0.3355	N	0	10	0	FAIL_ABUND	0	☐
Zirconium-97	HE	592.9	895.4	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

GEL QUALS

Batch ID: 944966

Report run on: February 3, 2010 3:04 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245371001-1 02-FEB-2010 06:51	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.952			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.561			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.716			
245371002-1 02-FEB-2010 07:08	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.543			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.333			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.383			
245393010-1 02-FEB-2010 07:09	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.186			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.904			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.154			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		1.374			
245393011-1 02-FEB-2010 07:09	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.343			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.861			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1144		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.977			
	Uranium-235	UI	UI	UI	Data rejected due to high counting uncertainty.		.4477		.5	.5
245395001-1 02-FEB-2010 07:10	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.834			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.862			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1266		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.918			

GEL QUALS

Batch ID: 944966

Report run on: February 3, 2010 3:04 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245395002-1 02-FEB-2010 07:20	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.525			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.888			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09697		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.071			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08718			
245395003-1 02-FEB-2010 07:21	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.545			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.704			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07716			
245395004-1 02-FEB-2010 08:23	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.62			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1109		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.135			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08498			
245395005-1 02-FEB-2010 08:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.784			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.826			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1306		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.798			
245395006-1 02-FEB-2010 08:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.094			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.908			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.619			

GEL QUALS

Batch ID: 944966

Report run on: February 3, 2010 3:04 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245395007-1 02-FEB-2010 09:13	Americium-241	UI	UI	UI	Data rejected due to low abundance.		.9287		.2	.2
	Bismuth-211	UI	UI	UI	Data rejected due to interference.		1.754			
	Lead-212	UI	UI	UI	Data rejected due to low abundance.		.6688		.1	.1
	Lead-214	UI	UI	UI	Data rejected due to low abundance.		.61		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to low abundance.		2.117			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		1.127			
245395008-1 02-FEB-2010 09:14	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.333			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.423			
245395009-1 02-FEB-2010 09:14	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.082			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.31			
245395010-1 02-FEB-2010 09:15	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.414			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.548			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.358			
245395011-1 02-FEB-2010 09:18	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.869			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.188			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.673			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0632			
245395012-1 02-FEB-2010 09:18	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.472			
	Radium-224	UI	UI	UI	Data rejected due to interference.		1.565			

GEL QUALS

Batch ID: 944966

Report run on: February 3, 2010 3:04 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245395013-1 02-FEB-2010 09:26	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.446			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.573			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1157		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.917			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07591			
245395014-1 02-FEB-2010 09:27	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.334			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1038		.1	.1
	Cesium-137	UI	UI	UI	Data rejected due to high counting uncertainty.		.06023		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.562			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07215			
245395015-1 02-FEB-2010 09:47	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.403			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.711			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1113		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.766			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07903			
1202023720-1 DUP 02-FEB-2010 09:49	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.894			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.873			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1017		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.129			

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
944966	245395015	SAMPLE	02-FEB-10	Thallium-208	0.4076	0.04658	pCi/g	0.03178	0.080
				Thorium-231	0.6646	0.3544	pCi/g	0.6315	Y
				Thorium-234	32.28	3.351	pCi/g	1.498	2.00
				Uranium-235	0.3587	0.1619	pCi/g	0.2012	0.500
				Uranium-238	32.28	3.351	pCi/g	1.498	N
				Zirconium-97	3.80E+05	3.36E+05	pCi/g	0	N
944966	1202023719	MB	02-FEB-10	Iodine-123	62.11	57.1	pCi/g	0	N
				Iodine-135	1.11E+07	3.44E+06	pCi/g	0	N
				Lead-214	0.02981	0.0147	pCi/g	0.02728	0.100
				Radon-220	11.08	4.071	pCi/g	8.552	N
				Sodium-24	8.754	23.03	pCi/g	0	N
944966	1202023720	DUP	02-FEB-10	Americium-241	0.2894	0.1265	pCi/g	0.2085	0.200
				Bismuth-211	2.894	0.2568	pCi/g	0.1768	Y
				Bismuth-214	0.8301	0.09329	pCi/g	0.06136	0.200
				Cadmium-109	2.873	0.6624	pCi/g	0.896	Y
				Cadmium-115	8.3	3.742	pCi/g	6.832	N
				Cerium-143	528.2	75.91	pCi/g	0	N
				Cesium-134	0.1017	0.03652	pCi/g	0.04801	0.100
				Cesium-137	0.2093	0.03	pCi/g	0.03923	0.100
				Gross Gamma	9.246	1.474	pCi/g	2.042	N
				Iodine-123	29220	7.04E+05	pCi/g	0	N
				Iodine-133	1621	1207	pCi/g	0	N
				Krypton-85	11.37	3.946	pCi/g	6.585	N
				Lead-212	1.134	0.06478	pCi/g	0.05326	0.100
				Lead-214	1.007	0.09312	pCi/g	0.06164	0.100
				Niobium-97	12790	18290	pCi/g	0	N
				Potassium-40	26.24	1.197	pCi/g	0.2284	1.00
				Protactinium-234m	20.97	4.578	pCi/g	6.624	N
				Radium-224	3.129	0.4676	pCi/g	0.6061	Y
				Radium-226	0.8301	0.09329	pCi/g	0.06136	Y
				Radium-228	1.011	0.1647	pCi/g	0.1043	0.500
				Strontium-85	0.05758	0.01998	pCi/g	0.03333	Y
				Technetium-99m	1.22E+14	8.57E+14	pCi/g	0	N
				Thallium-208	0.3085	0.03651	pCi/g	0.03157	0.080
				Thorium-234	20.02	2.46	pCi/g	1.601	2.00
				Uranium-235	0.5044	0.1453	pCi/g	0.1981	0.500
				Uranium-238	20.02	2.46	pCi/g	1.601	N

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:12:15.63

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395001.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:10:18.
Sample ID         : G245395001           Sample quantity  : 1.44700E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.34*	2051	1283	0.90	126.88	122	10	2.85E-01	4.0	
2	4	74.98*	373	850	0.92	150.15	146	12	5.17E-02	12.7	3.82E+00
3	4	77.15*	696	974	0.99	154.48	146	12	9.67E-02	8.1	
4	5	84.07*	261	1115	1.39	168.33	163	30	3.63E-02	22.4	1.51E+00
5	5	87.23*	427	1072	1.34	174.66	163	30	5.93E-02	13.9	
6	5	89.95	394	1039	1.35	180.10	163	30	5.47E-02	15.1	
7	5	92.60*	5069	707	1.04	185.38	163	30	7.04E-01	1.7	
8	5	94.61	187	730	1.17	189.42	163	30	2.60E-02	36.4	
9	0	98.78*	369	741	0.92	197.75	194	9	5.13E-02	14.4	
10	0	112.86	200	690	0.75	225.92	223	7	2.78E-02	23.3	
11	0	143.74*	230	534	0.96	287.67	283	9	3.20E-02	19.6	
12	0	163.57*	137	512	1.03	327.33	323	9	1.90E-02	31.4	
13	0	185.78*	1115	599	1.08	371.75	366	12	1.55E-01	5.4	
14	0	209.28	158	433	1.02	418.75	415	10	2.19E-02	26.1	
15	5	238.63*	1522	258	0.98	477.45	472	16	2.11E-01	3.1	2.13E+00
16	5	241.55	309	292	1.59	483.30	472	16	4.29E-02	11.6	
17	0	258.12	150	366	1.70	516.43	510	13	2.08E-02	27.6	
18	0	269.95	124	281	1.16	540.09	535	10	1.72E-02	26.8	
19	0	277.70	69	248	1.50	555.60	551	9	9.54E-03	43.3	
20	0	295.20	425	238	1.09	590.59	586	10	5.90E-02	8.4	
21	0	300.15	92	241	1.12	600.50	597	10	1.27E-02	33.4	
22	0	328.65	51	225	0.87	657.49	653	9	7.02E-03	55.9	
23	0	338.32*	338	171	1.10	676.83	672	9	4.69E-02	9.0	
24	0	351.87*	754	259	1.06	703.92	698	12	1.05E-01	5.7	
25	0	409.93	86	134	0.95	820.04	816	10	1.19E-02	27.5	
26	0	463.28	81	147	0.90	926.73	922	10	1.13E-02	30.3	
27	0	510.91*	182	160	1.60	1021.98	1015	16	2.53E-02	19.0	
28	0	583.19*	500	112	1.44	1166.52	1159	14	6.95E-02	6.4	
29	0	609.41*	464	135	1.21	1218.96	1213	12	6.45E-02	6.9	
30	0	727.39*	99	78	1.55	1454.86	1451	10	1.38E-02	19.9	
31	0	756.26	38	92	0.95	1512.59	1508	11	5.22E-03	52.4	
32	0	767.08	154	86	1.20	1534.23	1529	12	2.14E-02	14.7	
33	0	795.72	76	64	1.68	1591.50	1586	11	1.06E-02	23.8	
34	0	860.53*	65	61	1.59	1721.09	1716	11	9.01E-03	26.9	
35	0	911.46*	328	86	1.45	1822.92	1815	14	4.55E-02	8.2	
36	4	964.78	82	41	2.21	1929.53	1925	19	1.14E-02	17.8	1.23E+00
37	4	969.14*	217	45	1.60	1938.25	1925	19	3.01E-02	9.0	
38	0	1001.26*	254	81	1.64	2002.47	1996	15	3.53E-02	10.1	

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1120.70*	100	64	1.58	2241.28	2237	13	1.38E-02	19.6	
40	0	1378.46*	29	30	1.12	2756.60	2751	12	4.08E-03	43.3	
41	0	1461.09*	1406	19	1.85	2921.78	2912	19	1.95E-01	2.8	
42	0	1510.55	18	14	0.73	3020.65	3016	11	2.46E-03	47.2	
43	0	1631.70	11	21	1.34	3262.82	3255	12	1.53E-03	88.2	
44	0	1730.76	22	20	1.72	3460.84	3451	16	3.09E-03	49.6	
45	0	1764.84*	84	18	2.27	3528.96	3523	12	1.17E-02	15.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 09:12:19

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:10:18
Sample ID : G245395001 Sample quantity : 144.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.69 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.830E+01	2.946E+00	4.217E-01	3.706E-02	67.108
NB-95	+	765.79	*	2.188E-01	6.738E-02	5.924E-02	5.476E-03	3.693
CD-109	+	88.03	*	4.862E+00	1.428E+00	1.429E+00	1.377E-01	3.401
SN-126	+	64.28		1.566E+01	2.596E+00	8.917E-01	1.299E-01	17.561
	+	86.94		1.990E+00	9.951E-01	5.916E-01	2.458E-01	3.364
	+	87.57	*	4.788E-01	1.407E-01	1.414E-01	1.356E-02	3.386
LU-177	+	112.95		4.732E+00	2.239E+00	2.572E+00	2.153E-01	1.840
	+	208.36	*	2.719E+00	1.446E+00	1.507E+00	1.529E-01	1.805
HG-203		70.83		3.047E-01	1.179E+00	1.839E+00	2.427E-01	0.166
		72.87		1.428E-01	6.936E-01	1.078E+00	1.390E-01	0.132
	+	82.60		3.894E+00	1.830E+00	1.919E+00	2.688E-01	2.029
	+	279.20	*	6.041E-02	5.279E-02	5.797E-02	7.065E-03	1.042
TL-208	+	277.35		5.590E-01	4.908E-01	5.097E-01	7.576E-02	1.097
	+	510.84		7.372E-01	2.956E-01	1.928E-01	2.438E-02	3.824
	+	583.14	*	5.777E-01	9.398E-02	4.807E-02	4.764E-03	12.020
	+	860.37		7.040E-01	3.851E-01	4.091E-01	4.096E-02	1.721
BI-211		72.87		7.321E-01	3.556E+00	5.529E+00	4.494E-01	0.132
	+	351.07	*	3.834E+00	6.027E-01	2.756E-01	3.013E-02	13.912
PB-212	+	74.81		1.763E+00	4.990E-01	6.351E-01	7.934E-02	2.775
	+	77.11		1.870E+00	3.427E-01	3.603E-01	3.060E-02	5.189
	+	87.30		2.214E+00	6.872E-01	6.557E-01	9.070E-02	3.377
	+	238.63	*	1.694E+00	2.265E-01	8.437E-02	9.990E-03	20.082
	+	300.09		1.575E+00	1.072E+00	1.089E+00	1.427E-01	1.446
PO-212	+	74.81		1.763E+00	4.990E-01	6.351E-01	7.934E-02	2.775
	+	77.11		1.870E+00	3.427E-01	3.603E-01	3.060E-02	5.189
	+	87.30		2.214E+00	6.872E-01	6.557E-01	9.070E-02	3.377
		115.19		1.696E-02	3.849E+00	5.810E+00	4.848E-01	0.003
	+	238.63	*	1.694E+00	2.265E-01	8.437E-02	9.990E-03	20.082
	+	300.09		1.575E+00	1.072E+00	1.089E+00	1.427E-01	1.446
BI-214	+	609.31	*	1.010E+00	1.759E-01	1.043E-01	1.102E-02	9.688
	+	1120.29		1.130E+00	4.585E-01	3.746E-01	4.021E-02	3.016
	+	1764.49		1.314E+00	4.193E-01	2.872E-01	2.377E-02	4.574
PB-214	+	74.81		3.037E+00	8.423E-01	1.094E+00	1.217E-01	2.775
	+	77.11		3.205E+00	6.362E-01	6.177E-01	7.048E-02	5.189

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		3.793E+00	1.152E+00	1.123E+00	1.379E-01	3.377
	+	241.98		2.066E+00	5.427E-01	5.082E-01	6.296E-02	4.066
	+	295.21		1.280E+00	2.739E-01	1.854E-01	2.474E-02	6.905
	+	351.92	*	1.334E+00	2.209E-01	9.608E-02	1.162E-02	13.882
PO-214	+	74.81		3.037E+00	8.423E-01	1.094E+00	1.217E-01	2.775
	+	77.11		3.205E+00	6.362E-01	6.177E-01	7.048E-02	5.189
	+	87.30		3.793E+00	1.152E+00	1.123E+00	1.379E-01	3.377
	+	241.98		2.066E+00	5.427E-01	5.082E-01	6.296E-02	4.066
	+	295.21		1.280E+00	2.739E-01	1.854E-01	2.474E-02	6.905
	+	351.92	*	1.334E+00	2.209E-01	9.608E-02	1.162E-02	13.882
PO-216	+	74.81		1.763E+00	4.990E-01	6.351E-01	7.934E-02	2.775
	+	77.11		1.870E+00	3.427E-01	3.603E-01	3.060E-02	5.189
	+	87.30		2.214E+00	6.872E-01	6.557E-01	9.070E-02	3.377
	+	238.63	*	1.694E+00	2.265E-01	8.437E-02	9.990E-03	20.082
	+	300.09		1.575E+00	1.072E+00	1.089E+00	1.427E-01	1.446
PO-218	+	74.81		3.037E+00	8.423E-01	1.094E+00	1.217E-01	2.775
	+	77.11		3.205E+00	6.362E-01	6.177E-01	7.048E-02	5.189
	+	87.30		3.793E+00	1.152E+00	1.123E+00	1.379E-01	3.377
	+	241.98		2.066E+00	5.427E-01	5.082E-01	6.296E-02	4.066
	+	295.21		1.280E+00	2.739E-01	1.854E-01	2.474E-02	6.905
	+	351.92	*	1.334E+00	2.209E-01	9.608E-02	1.162E-02	13.882
RA-224	+	240.98	*	3.918E+00	1.005E+00	9.603E-01	1.058E-01	4.080
RA-226	+	609.31	*	1.010E+00	1.759E-01	1.043E-01	1.102E-02	9.688
	+	1120.29		1.130E+00	4.585E-01	3.746E-01	4.021E-02	3.016
	+	1764.49		1.314E+00	4.193E-01	2.872E-01	2.377E-02	4.574
AC-228	+	338.32		1.894E+00	8.621E-01	3.220E-01	1.346E-01	5.880
	+	911.07	*	1.684E+00	3.418E-01	1.884E-01	2.238E-02	8.937
	+	969.11		1.961E+00	5.818E-01	3.226E-01	7.608E-02	6.078
RA-228	+	338.32		1.894E+00	8.621E-01	3.220E-01	1.346E-01	5.880
	+	911.07	*	1.684E+00	3.418E-01	1.884E-01	2.238E-02	8.937
	+	969.11		1.961E+00	5.818E-01	3.226E-01	7.608E-02	6.078
TH-228	+	74.81		1.787E+00	4.780E-01	6.439E-01	5.387E-02	2.775
	+	77.11		1.895E+00	3.474E-01	3.653E-01	3.103E-02	5.189
	+	87.30		2.245E+00	6.596E-01	6.648E-01	6.353E-02	3.377
	+	238.63	*	1.718E+00	2.297E-01	8.554E-02	1.013E-02	20.082
	+	300.09		1.596E+00	1.432E+00	1.104E+00	6.603E-01	1.446
TH-229	+	85.43		6.819E-01	3.121E-01	3.244E-01	3.030E-02	2.102
	+	88.47		6.537E-01	1.920E-01	1.914E-01	1.835E-02	3.415
	+	100.00		1.127E+00	3.403E-01	2.852E-01	2.496E-02	3.953
		193.63	*	-8.171E-02	4.635E-01	7.519E-01	7.337E-02	-0.109
		210.97		7.793E-01	7.505E-01	1.148E+00	1.173E-01	0.679
TH-230	+	609.31	*	1.010E+00	1.759E-01	1.043E-01	1.102E-02	9.688
	+	1120.29		1.130E+00	4.584E-01	3.746E-01	4.021E-02	3.016
	+	1764.49		1.314E+00	4.193E-01	2.872E-01	2.377E-02	4.574
U-231	+	84.21		1.578E+01	7.221E+00	7.616E+00	7.011E-01	2.072
	+	92.29		1.133E+02	1.109E+01	2.852E+00	2.634E-01	39.725
	+	95.87	*	2.550E+00	1.873E+00	1.563E+00	1.403E-01	1.631
		108.00		-1.787E+00	1.791E+00	2.922E+00	2.475E-01	-0.612
TH-232	+	338.32		1.894E+00	3.993E-01	3.220E-01	3.515E-02	5.880

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.07	*	1.684E+00	3.418E-01	1.884E-01	2.238E-02	8.937
	+	969.11		1.961E+00	5.818E-01	3.226E-01	7.608E-02	6.078
PA-234M	+	766.42		5.874E+01	3.449E+01	1.728E+01	8.784E+00	3.400
	+	1001.03	*	4.683E+01	1.066E+01	6.266E+00	6.523E-01	7.474
TH-234	+	63.29	*	3.956E+01	7.589E+00	2.346E+00	4.092E-01	16.863
	+	92.38		3.691E+01	6.890E+00	9.285E-01	1.707E-01	39.750
U-234	+	609.31	*	1.010E+00	1.759E-01	1.043E-01	1.102E-02	9.688
	+	1120.29		1.130E+00	4.584E-01	3.746E-01	4.021E-02	3.016
	+	1764.49		1.314E+00	4.193E-01	2.872E-01	2.377E-02	4.574
U-235	+	89.95		5.882E+00	2.548E+00	1.896E+00	5.896E-01	3.102
	+	93.35		4.437E+01	1.260E+01	1.109E+00	3.126E-01	40.016
		105.00		5.085E-01	1.065E+00	1.803E+00	5.378E-01	0.282
	+	143.76	*	8.198E-01	3.517E-01	3.187E-01	5.570E-02	2.572
	+	163.35		1.144E+00	7.512E-01	7.519E-01	1.448E-01	1.522
	+	185.71		8.717E-01	1.258E-01	6.483E-02	6.193E-03	13.447
		205.31		6.126E-02	5.734E-01	8.296E-01	1.641E-01	0.074
NP-237	+	86.50	*	1.406E+00	5.048E-01	4.198E-01	9.530E-02	3.349
	+	95.87		2.797E+00	2.153E+00	1.714E+00	4.245E-01	1.631
U-238	+	63.29	*	3.956E+01	7.589E+00	2.346E+00	4.092E-01	16.863
	+	92.38		3.691E+01	3.613E+00	9.285E-01	8.568E-02	39.750
AM-243	+	74.67	*	2.857E-01	7.637E-02	1.033E-01	8.550E-03	2.767
	+	86.72		5.272E+01	1.549E+01	1.571E+01	1.490E+00	3.357
		117.66		-1.816E-01	3.640E+00	6.098E+00	5.074E-01	-0.030
		142.18		1.642E+01	1.910E+01	2.946E+01	2.512E+00	0.557
ANH-511	+	511.00	*	1.592E-01	6.245E-02	4.165E-02	3.962E-03	3.823

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.950E-01	2.853E-01	4.921E-01	4.978E-02	0.396
NA-22		1274.54	*	-2.284E-02	3.885E-02	5.937E-02	4.940E-03	-0.385
NA-24		1368.53	*	1.122E-01	3.885E-02	Half-Life too short		
AL-26		1129.67		6.174E-01	1.580E+00	2.612E+00	2.190E-01	0.236
		1808.65	*	1.222E-02	2.771E-02	4.906E-02	4.012E-03	0.249
TI-44		67.85		-4.258E-02	5.605E-02	7.725E-02	5.983E-03	-0.551
	+	78.38	*	3.450E-01	6.323E-02	7.788E-02	6.706E-03	4.430
SC-46		889.25	*	-2.358E-02	3.414E-02	5.342E-02	5.050E-03	-0.441
	+	1120.51		1.913E-01	7.659E-02	1.099E-01	9.288E-03	1.740
V-48		944.10		-2.381E-01	7.481E-01	1.200E+00	1.121E-01	-0.199
		983.50	*	4.680E-02	5.263E-02	9.454E-02	8.702E-03	0.495
		1312.09		6.739E-03	6.348E-02	1.040E-01	8.730E-03	0.065
CR-51		320.08	*	1.204E-02	3.390E-01	5.376E-01	6.286E-02	0.022
MN-52		744.21		4.996E-02	1.933E-01	3.162E-01	2.903E-02	0.158
		848.13		6.225E-01	4.931E+00	8.355E+00	7.863E-01	0.075
		935.52		2.673E-01	1.995E-01	3.642E-01	3.412E-02	0.734
		1246.25		1.692E+00	5.455E+00	9.119E+00	7.516E-01	0.186
		1333.61		1.202E-01	3.464E+00	5.621E+00	4.742E-01	0.021
		1434.06	*	7.469E-02	1.851E-01	3.132E-01	2.672E-02	0.238

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MN-54		834.83	*	-1.498E-02	3.075E-02	4.950E-02	4.649E-03	-0.303
CO-56		846.75	*	1.089E-02	3.285E-02	5.659E-02	5.325E-03	0.192
		977.42		-3.310E-01	2.289E+00	3.739E+00	3.451E-01	-0.089
		1037.82		4.707E-02	2.464E-01	4.144E-01	3.895E-02	0.114
		1175.09		-1.088E+00	1.997E+00	3.092E+00	2.488E-01	-0.352
		1238.25		1.333E-01	8.562E-02	1.539E-01	1.305E-02	0.866
		1360.21		2.875E-01	8.333E-01	1.402E+00	1.188E-01	0.205
		1771.40		-6.562E-01	2.685E-01	2.481E-01	2.050E-02	-2.644
CO-57		122.06	*	3.192E-03	2.420E-02	4.072E-02	3.384E-03	0.078
		136.48		-3.199E-02	1.968E-01	3.260E-01	2.963E-02	-0.098
CO-58		810.76	*	-1.881E-02	3.393E-02	5.444E-02	5.100E-03	-0.346
FE-59	+	142.65		1.036E+01	4.155E+00	4.899E+00	4.182E-01	2.115
		192.34		-3.683E-01	8.435E-01	1.351E+00	1.913E-01	-0.273
		1099.22	*	-3.241E-02	7.386E-02	1.157E-01	1.076E-02	-0.280
		1291.56		-6.413E-02	1.150E-01	1.750E-01	1.671E-02	-0.366
CO-60		1173.22		1.684E-02	3.990E-02	6.761E-02	5.436E-03	0.249
		1332.49	*	-1.110E-02	3.296E-02	5.083E-02	4.287E-03	-0.218
ZN-65		1115.52	*	-5.048E-02	9.603E-02	1.271E-01	1.080E-02	-0.397
GE-68		1077.35	*	-2.637E-01	1.082E+00	1.737E+00	1.517E-01	-0.152
AS-73		53.44	*	4.416E-01	1.003E+00	1.595E+00	1.217E-01	0.277
AS-74		595.88	*	5.425E-02	7.688E-02	1.317E-01	1.222E-02	0.412
		634.78		-2.345E-02	3.018E-01	4.866E-01	4.411E-02	-0.048
SE-75		66.05		-1.737E+00	5.415E+00	7.615E+00	7.326E-01	-0.228
		96.73		-9.740E-01	1.147E+00	1.316E+00	1.819E-01	-0.740
		121.11		-1.042E-02	1.279E-01	2.138E-01	2.347E-02	-0.049
		136.00		4.757E-03	3.651E-02	6.110E-02	5.185E-03	0.078
		198.60		7.018E-01	1.622E+00	2.691E+00	2.885E-01	0.261
		264.65	*	2.636E-02	4.550E-02	6.738E-02	7.863E-03	0.391
		279.53		1.855E-02	1.075E-01	1.547E-01	1.894E-02	0.120
		303.91		8.635E-02	2.074E+00	2.937E+00	4.082E-01	0.029
		400.65		1.702E-01	2.213E-01	3.857E-01	4.490E-02	0.441
BR-77	+	87.88		7.165E+02	2.105E+02	2.571E+02	2.474E+01	2.787
		200.40		-1.370E+02	1.042E+02	1.590E+02	1.580E+01	-0.862
	+	239.00		1.853E+02	2.333E+01	2.441E+01	2.677E+00	7.591
		249.79		4.821E+00	4.070E+01	6.590E+01	7.415E+00	0.073
		281.68		3.489E+01	5.957E+01	8.817E+01	1.056E+01	0.396
		297.23		8.380E+01	4.406E+01	5.806E+01	6.829E+00	1.444
		303.76		4.855E+00	1.212E+02	1.716E+02	2.000E+01	0.028
		439.47		1.815E+01	8.319E+01	1.405E+02	1.326E+01	0.129
		484.57		-4.175E+01	1.398E+02	2.266E+02	2.156E+01	-0.184
		520.65	*	6.281E-01	6.761E+00	1.120E+01	1.064E+00	0.056
		574.64		-2.045E+01	1.153E+02	1.858E+02	1.741E+01	-0.110
		578.91		4.179E+01	5.358E+01	8.298E+01	7.762E+00	0.504
		585.48		7.366E+02	1.512E+02	2.681E+02	2.501E+01	2.747
	+	755.35		1.538E+02	1.618E+02	2.057E+02	1.896E+01	0.748
		817.79		5.243E+01	7.709E+01	1.365E+02	1.278E+01	0.384
SR-82		698.33		-2.762E+00	3.042E+01	4.863E+01	4.388E+00	-0.057
		776.49	*	-1.904E-01	3.422E-01	5.181E-01	4.804E-02	-0.367
		1395.20		-1.744E-01	8.404E+00	1.347E+01	1.146E+00	-0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-83		520.41	*	-1.776E-04	6.453E-02	1.063E-01	1.010E-02	-0.002
		529.64		-4.628E-02	9.060E-02	1.431E-01	1.358E-02	-0.323
		552.65		4.426E-02	1.644E-01	2.750E-01	2.597E-02	0.161
RB-84		881.50	*	4.937E-02	6.540E-02	1.153E-01	1.090E-02	0.428
KR-85		513.99	*	4.197E+00	7.129E+00	1.083E+01	1.030E+00	0.388
SR-85		513.99	*	2.122E-02	3.605E-02	5.477E-02	5.208E-03	0.388
RB-86		1076.63	*	-1.886E-01	6.403E-01	1.022E+00	8.931E-02	-0.185
Y-88		898.02		1.633E-02	3.512E-02	6.093E-02	5.786E-03	0.268
		1836.01	*	6.340E-03	2.615E-02	4.514E-02	3.664E-03	0.140
ZR-88		392.90	*	5.053E-03	2.719E-02	4.611E-02	4.265E-03	0.110
Y-91		1204.90	*	2.804E+00	1.715E+01	2.834E+01	2.304E+00	0.099
NB-94		702.63	*	-8.755E-03	3.271E-02	5.155E-02	4.661E-03	-0.170
		871.10		-1.294E-02	2.761E-02	4.412E-02	4.164E-03	-0.293
NB-95M		235.69	*	3.504E-02	1.267E-01	1.852E-01	2.202E-02	0.189
ZR-95		724.18		-1.136E-02	9.452E-02	1.305E-01	1.282E-02	-0.087
	+	756.15	*	9.529E-02	1.003E-01	1.260E-01	1.265E-02	0.756
NB-97		657.90	*	-6.922E-03	1.003E-01	Half-Life too short		
		1024.50		-2.128E-01	1.003E-01	Half-Life too short		
ZR-97		254.15		-8.796E-01	1.003E-01	Half-Life too short		
		355.39		-3.989E-01	1.003E-01	Half-Life too short		
		507.63	*	3.794E-01	1.003E-01	Half-Life too short		
		602.52		1.259E-01	1.003E-01	Half-Life too short		
		1021.30		-4.967E-01	1.003E-01	Half-Life too short		
		1147.95		2.715E-01	1.003E-01	Half-Life too short		
		1362.66		-1.118E+00	1.003E-01	Half-Life too short		
		1750.46		1.011E+00	1.003E-01	Half-Life too short		
MO-99		140.51		1.635E+00	1.944E+01	2.899E+01	8.018E+00	0.056
		181.06		1.235E+01	1.260E+01	1.911E+01	3.571E+00	0.646
		366.43		1.096E+01	5.259E+01	8.970E+01	9.073E+00	0.122
		739.58	*	-7.591E+00	8.451E+00	1.240E+01	1.922E+00	-0.612
		778.00		-2.074E+01	2.448E+01	3.611E+01	3.350E+00	-0.574
TC-99M		140.51	*	8.674E+07	2.448E+01	Half-Life too short		
RH-101		127.23		-2.657E-02	3.249E-02	5.278E-02	4.395E-03	-0.503
		198.01	*	3.879E-03	3.017E-02	4.950E-02	4.887E-03	0.078
		325.23		-1.626E-01	2.459E-01	3.265E-01	3.665E-02	-0.498
RH-102		418.52		-2.738E-01	2.529E-01	3.924E-01	3.675E-02	-0.698
		475.06	*	4.349E-03	2.549E-02	4.273E-02	4.061E-03	0.102
		631.29		4.248E-02	5.065E-02	8.717E-02	7.921E-03	0.487
		697.49		-1.396E-02	7.110E-02	1.127E-01	1.016E-02	-0.124
	+	766.84		5.578E-01	1.718E-01	2.449E-01	2.264E-02	2.278
		1046.59		1.313E-02	1.041E-01	1.736E-01	1.547E-02	0.076
		1112.84		-1.363E-02	2.140E-01	3.491E-01	2.968E-02	-0.039
RU-103		497.08	*	1.112E-02	3.488E-02	5.882E-02	8.661E-03	0.189
	+	610.33		1.066E+01	2.336E+00	2.539E+00	4.315E-01	4.198
RH-106	+	511.85		7.934E-01	3.111E-01	3.868E-01	3.678E-02	2.051
		621.84	*	2.654E-02	2.706E-01	4.433E-01	6.074E-02	0.060
		1050.47		4.354E-01	2.088E+00	3.506E+00	3.117E-01	0.124
RU-106	+	511.85		7.934E-01	3.111E-01	3.868E-01	3.678E-02	2.051
		621.84	*	2.654E-02	2.706E-01	4.433E-01	4.054E-02	0.060

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1050.47		4.354E-01	2.088E+00	3.506E+00	3.117E-01	0.124
AG-108M		433.93	*	-1.422E-02	2.818E-02	4.542E-02	4.422E-03	-0.313
		614.37		1.305E-03	3.987E-02	5.693E-02	5.412E-03	0.023
		722.95		-3.474E-02	4.584E-02	5.852E-02	5.520E-03	-0.594
AG-110M		657.75	*	-1.010E-02	3.138E-02	4.942E-02	4.523E-03	-0.204
		677.61		-8.179E-03	2.976E-01	4.794E-01	4.399E-02	-0.017
		706.67		-2.342E-02	1.993E-01	3.176E-01	2.948E-02	-0.074
		763.93		1.502E-01	1.873E-01	2.820E-01	2.669E-02	0.533
		884.67		-6.087E-03	4.660E-02	7.706E-02	7.478E-03	-0.079
		937.48		-2.275E-02	9.990E-02	1.629E-01	1.572E-02	-0.140
		1384.27		8.856E-02	1.377E-01	2.173E-01	1.900E-02	0.408
IN-111		171.28		-3.113E-01	6.602E-01	1.065E+00	9.791E-02	-0.292
		245.39	*	2.953E-01	7.451E-01	1.098E+00	1.222E-01	0.269
IN-113M		391.69	*	7.943E-03	4.043E-02	6.860E-02	6.511E-03	0.116
SN-113		391.69	*	7.943E-03	4.043E-02	6.860E-02	6.511E-03	0.116
IN-114M		190.27	*	-2.075E-02	1.769E-01	2.569E-01	2.484E-02	-0.081
CD-115		260.90		-1.548E+01	9.049E+01	1.277E+02	1.474E+01	-0.121
		492.35		-1.473E+01	2.157E+01	3.390E+01	3.226E+00	-0.435
		527.90	*	7.562E-01	6.290E+00	1.044E+01	9.907E-01	0.072
SN-117M		156.02		-4.467E-01	1.983E+00	3.253E+00	2.870E-01	-0.137
		158.56	*	-2.092E-02	4.966E-02	7.680E-02	6.821E-03	-0.272
SB-122		563.90	*	8.417E-01	1.405E+00	2.360E+00	2.220E-01	0.357
		692.80		4.060E+01	3.019E+01	5.305E+01	4.776E+00	0.765
I-123		159.00	*	-3.988E-01	3.019E+01	Half-Life too short		
		528.96		-2.132E+01	3.019E+01	Half-Life too short		
TE-123M		159.00	*	-1.039E-02	2.959E-02	4.299E-02	3.845E-03	-0.242
I-124		602.71	*	-5.658E-02	5.283E-01	7.881E-01	7.289E-02	-0.072
		722.78		-3.144E+00	3.905E+00	4.962E+00	4.521E-01	-0.634
		1325.50		1.126E+01	2.355E+01	4.027E+01	3.392E+00	0.280
		1376.25		6.682E+01	2.558E+01	4.862E+01	4.126E+00	1.374
	+	1509.49		1.330E+01	1.262E+01	2.012E+01	1.721E+00	0.661
		1691.02		-6.048E-01	2.404E+00	3.785E+00	3.183E-01	-0.160
SB-124		602.71		-4.030E-03	3.763E-02	5.614E-02	5.193E-03	-0.072
		645.85		5.088E-02	4.201E-01	6.877E-01	6.524E-02	0.074
		709.31		-1.355E-01	2.540E+00	4.067E+00	3.686E-01	-0.033
		713.82		-4.145E-01	1.521E+00	2.389E+00	2.955E-01	-0.174
		722.78		-3.246E-01	4.033E-01	5.123E-01	4.759E-02	-0.634
	+	968.20		1.988E+01	4.026E+00	6.987E+00	6.472E-01	2.846
		1045.16		3.120E+00	2.194E+00	4.034E+00	3.598E-01	0.773
		1325.50		1.242E+00	2.597E+00	4.442E+00	3.740E-01	0.280
		1368.21		1.131E+00	1.356E+00	2.434E+00	3.259E-01	0.465
		1436.60		3.909E+00	3.247E+00	6.182E+00	5.276E-01	0.632
		1691.02	*	-1.473E-02	5.856E-02	9.219E-02	8.074E-03	-0.160
SB-125		427.89	*	-3.572E-02	7.887E-02	1.278E-01	1.221E-02	-0.280
	+	463.38		6.420E-01	3.939E-01	5.171E-01	5.226E-02	1.242
		600.56		9.311E-02	1.650E-01	2.790E-01	2.749E-02	0.334
		635.90		-1.082E-01	2.416E-01	3.770E-01	3.665E-02	-0.287
TE-125M		109.28	*	3.235E+00	1.099E+01	1.681E+01	1.711E+00	0.192
I-126		388.63		-3.910E-02	1.707E-01	2.831E-01	2.649E-02	-0.138

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.33	*	2.146E-02	1.552E-01	2.535E-01	2.255E-02	0.085
		753.82		1.085E+00	1.614E+00	2.407E+00	2.217E-01	0.451
SB-126		223.80		-4.364E-02	3.574E+00	5.787E+00	6.113E-01	-0.008
	+	278.60		3.433E+00	2.999E+00	3.617E+00	4.339E-01	0.949
	+	296.50		1.184E+01	2.423E+00	2.874E+00	3.383E-01	4.120
		414.70		5.589E-02	6.815E-02	1.069E-01	9.996E-03	0.523
		415.30		6.450E+00	5.631E+00	9.029E+00	8.446E-01	0.714
		555.20		-2.242E+00	3.304E+00	5.127E+00	4.836E-01	-0.437
		573.80		-6.737E-01	8.184E-01	1.245E+00	1.167E-01	-0.541
		593.00		-1.262E-01	6.998E-01	1.124E+00	1.044E-01	-0.112
		656.30		-4.544E-01	2.687E+00	4.285E+00	3.821E-01	-0.106
		666.33		8.941E-03	6.466E-02	1.056E-01	9.394E-03	0.085
		675.00		-1.002E-01	1.760E+00	2.829E+00	2.527E-01	-0.035
		695.00		-5.929E-02	7.155E-02	1.076E-01	9.696E-03	-0.551
		697.00		-1.619E-01	2.386E-01	3.630E-01	3.274E-02	-0.446
		720.50	*	-4.904E-02	1.301E-01	2.025E-01	1.843E-02	-0.242
		856.80		-2.592E-02	4.338E-01	6.280E-01	5.917E-02	-0.041
		989.30		7.537E-02	9.708E-01	1.620E+00	1.488E-01	0.047
		1034.80		-3.746E+00	7.132E+00	1.115E+01	1.001E+00	-0.336
		1213.00		-1.409E+00	3.997E+00	6.305E+00	5.141E-01	-0.223
SB-127		61.10		3.146E+01	6.164E+01	8.983E+01	8.722E+00	0.350
		252.40		1.838E+00	3.564E+00	5.160E+00	2.197E+00	0.356
		290.80		4.329E+00	1.652E+01	2.386E+01	3.223E+00	0.181
		411.60		-9.856E-01	9.627E+00	1.407E+01	2.233E+00	-0.070
		444.90		2.296E+00	6.993E+00	1.187E+01	1.518E+00	0.193
		473.00		-1.532E+00	1.209E+00	1.804E+00	2.374E-01	-0.849
		543.00		1.724E+00	1.127E+01	1.871E+01	2.737E+00	0.092
		603.60		-4.119E+00	9.628E+00	1.312E+01	1.655E+00	-0.314
		685.20	*	-2.356E-01	9.893E-01	1.563E+00	1.765E-01	-0.151
		698.50		9.370E-02	1.110E+01	1.788E+01	2.821E+00	0.005
		722.20		-2.104E+01	2.637E+01	3.350E+01	3.743E+00	-0.628
		783.80		-2.947E-01	2.932E+00	4.640E+00	5.828E-01	-0.064
XE-127		57.60		7.386E-01	7.518E+00	1.178E+01	8.518E-01	0.063
	+	145.22		2.642E+00	1.060E+00	1.146E+00	9.839E-02	2.306
		172.10		-7.227E-02	1.074E-01	1.716E-01	1.581E-02	-0.421
		202.84	*	-1.454E-02	4.385E-02	7.048E-02	7.049E-03	-0.206
		374.96		-7.407E-02	1.695E-01	2.782E-01	2.737E-02	-0.266
I-131		80.18		1.071E+00	6.063E+00	7.527E+00	6.646E-01	0.142
		284.30		1.515E-02	1.184E+00	1.890E+00	2.319E-01	0.008
		364.48	*	9.390E-02	8.636E-02	1.536E-01	1.623E-02	0.611
		636.97		-9.306E-01	1.205E+00	1.819E+00	1.729E-01	-0.511
		722.89		-5.864E+00	6.981E+00	8.825E+00	8.079E-01	-0.665
TE-132		49.72		-1.501E+01	1.710E+01	2.591E+01	2.613E+00	-0.579
	+	111.76		7.444E+01	3.550E+01	4.888E+01	5.050E+00	1.523
		116.30		1.796E+01	2.188E+01	3.407E+01	3.503E+00	0.527
		228.16	*	3.238E-01	4.744E-01	7.870E-01	1.316E-01	0.411
BA-133		53.15		1.581E+00	4.379E+00	6.947E+00	5.323E-01	0.228
		79.62		5.614E-01	1.922E+00	2.398E+00	3.666E-01	0.234
		81.00		-7.830E-02	1.293E-01	1.775E-01	2.842E-02	-0.441

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	276.40		5.522E-01	4.866E-01	5.852E-01	9.740E-02	0.944
		302.84		5.456E-02	1.436E-01	2.085E-01	3.219E-02	0.262
		356.01	*	-3.136E-02	4.493E-02	6.328E-02	9.145E-03	-0.496
		383.85		2.244E-01	2.737E-01	4.775E-01	6.323E-02	0.470
I-133	+	510.53		5.645E-01	2.737E-01	Half-Life too short		
		529.87	*	-1.323E-03	2.737E-01	Half-Life too short		
		706.58		-1.442E-02	2.737E-01	Half-Life too short		
		856.28		-6.060E-02	2.737E-01	Half-Life too short		
		875.33		-1.366E-02	2.737E-01	Half-Life too short		
		1236.41		2.776E-01	2.737E-01	Half-Life too short		
		1298.22		1.246E-02	2.737E-01	Half-Life too short		
CS-134		475.35		9.815E-01	1.671E+00	2.872E+00	2.730E-01	0.342
		563.23		2.619E-01	3.454E-01	5.855E-01	5.553E-02	0.447
		569.32		1.638E-01	1.765E-01	3.065E-01	2.910E-02	0.535
		604.70		-1.916E-02	3.496E-02	4.699E-02	4.350E-03	-0.408
	+	795.84	*	1.266E-01	6.149E-02	8.765E-02	8.218E-03	1.444
		801.93		-7.511E-02	3.992E-01	6.061E-01	5.682E-02	-0.124
		1038.57		1.640E-01	3.252E+00	5.392E+00	4.827E-01	0.030
		1167.94		-9.842E-01	2.291E+00	3.594E+00	2.905E-01	-0.274
		1365.15		1.650E-02	1.058E+00	1.708E+00	1.516E-01	0.010
CS-135		268.24	*	4.187E-02	1.634E-01	2.368E-01	3.020E-02	0.177
I-135		288.45		-1.071E+08	1.634E-01	Half-Life too short		
		417.63		-8.358E+08	1.634E-01	Half-Life too short		
		546.56		-3.956E+08	1.634E-01	Half-Life too short		
		836.80		-3.655E+08	1.634E-01	Half-Life too short		
		1038.76		-7.971E+06	1.634E-01	Half-Life too short		
		1124.00		1.028E+08	1.634E-01	Half-Life too short		
		1131.51		-3.771E+07	1.634E-01	Half-Life too short		
		1260.41	*	1.205E+08	1.634E-01	Half-Life too short		
		1457.56		8.210E+09	1.634E-01	Half-Life too short		
		1678.03		-2.207E+07	1.634E-01	Half-Life too short		
		1706.46		-1.575E+08	1.634E-01	Half-Life too short		
		1791.20		1.151E+08	1.634E-01	Half-Life too short		
CS-136		66.91		-4.706E-01	8.477E-01	1.176E+00	1.756E-01	-0.400
	+	86.29		5.829E+00	1.800E+00	2.064E+00	2.769E-01	2.824
		153.22		6.557E-01	5.915E-01	1.011E+00	9.864E-02	0.648
	+	163.89		2.419E+00	1.537E+00	1.794E+00	1.796E-01	1.348
		176.55		1.721E-01	3.253E-01	5.446E-01	5.328E-02	0.316
		273.65		-1.258E-01	5.500E-01	5.983E-01	7.352E-02	-0.210
		340.57		1.971E-01	1.132E-01	1.858E-01	2.054E-02	1.061
		818.51		2.445E-02	5.828E-02	1.013E-01	9.494E-03	0.241
		1048.07	*	-1.181E-01	9.886E-02	1.446E-01	1.339E-02	-0.817
		1235.34		-4.317E-02	5.227E-01	8.443E-01	9.758E-02	-0.051
BA-137M		661.65	*	4.345E-03	3.374E-02	5.509E-02	4.889E-03	0.079
CS-137		661.65	*	4.593E-03	3.567E-02	5.823E-02	5.177E-03	0.079
CE-139		165.85	*	2.230E-02	3.070E-02	4.686E-02	4.250E-03	0.476
BA-140	+	162.64		1.700E+00	1.079E+00	1.229E+00	1.164E-01	1.383
		304.84		-1.762E-01	1.235E+00	1.716E+00	4.992E-01	-0.103
		423.70		-1.775E-02	1.538E+00	2.567E+00	8.377E-01	-0.007

---- Non-Identified Nuclides ----

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		537.32	*	-3.611E-03	2.105E-01	3.454E-01	1.153E-01	-0.010
LA-140	+	328.77		3.265E-01	3.670E-01	4.558E-01	5.253E-02	0.716
		432.53		9.347E-01	1.618E+00	2.795E+00	2.739E-01	0.334
		487.03		9.493E-02	1.184E-01	2.052E-01	2.052E-02	0.463
		751.79		-7.038E-01	1.734E+00	2.298E+00	2.315E-01	-0.306
		815.85		5.489E-02	2.543E-01	4.352E-01	4.474E-02	0.126
		867.82		1.136E-01	1.111E+00	1.829E+00	1.803E-01	0.062
		919.63		-1.745E-01	2.292E+00	3.793E+00	4.285E-01	-0.046
		925.24		6.353E-01	9.458E-01	1.661E+00	1.643E-01	0.383
		1596.49	*	-3.702E-02	6.535E-02	9.905E-02	8.436E-03	-0.374
CE-141		145.44	*	4.393E-02	6.382E-02	9.782E-02	8.557E-03	0.449
CE-143		57.37		5.213E-04	6.382E-02	Half-Life too short		
		231.56		-2.937E-04	6.382E-02	Half-Life too short		
		293.26	*	1.981E-04	6.382E-02	Half-Life too short		
	+	350.59		1.564E-02	6.382E-02	Half-Life too short		
		490.36		-2.306E-04	6.382E-02	Half-Life too short		
		664.57		3.236E-04	6.382E-02	Half-Life too short		
		721.93		-8.164E-04	6.382E-02	Half-Life too short		
CE-144		80.11		6.791E-01	3.120E+00	3.881E+00	3.407E-01	0.175
		133.54	*	-1.088E-01	2.009E-01	3.277E-01	5.061E-02	-0.332
PM-144		476.78		3.221E-02	6.099E-02	1.043E-01	1.068E-02	0.309
		618.01		1.289E-02	2.808E-02	4.724E-02	4.436E-03	0.273
		696.49	*	-2.616E-02	3.286E-02	4.944E-02	4.459E-03	-0.529
		778.57		-1.402E+00	2.210E+00	3.323E+00	3.083E-01	-0.422
PR-144		696.49	*	-1.771E+00	2.225E+00	3.348E+00	3.019E-01	-0.529
		1489.15		-6.579E+00	9.264E+00	1.372E+01	1.173E+00	-0.480
PM-146		453.90	*	4.918E-02	4.080E-02	7.197E-02	8.219E-03	0.683
		633.02		6.032E-01	1.313E+00	2.174E+00	8.147E-01	0.277
		735.90		-9.217E-02	1.451E-01	2.161E-01	6.218E-02	-0.426
		747.13		-7.368E-02	8.543E-02	1.251E-01	1.800E-02	-0.589
ND-147	+	91.11		1.359E+00	4.322E-01	8.368E-01	8.364E-02	1.624
		319.41		-3.361E+00	2.895E+00	4.209E+00	4.780E-01	-0.798
		439.89		1.479E+00	4.496E+00	7.648E+00	7.219E-01	0.193
		531.02	*	-2.591E-01	4.519E-01	7.083E-01	1.095E-01	-0.366
PM-149		285.90	*	-5.506E+00	5.288E+01	8.380E+01	1.474E+01	-0.066
EU-152		121.78		2.203E-02	7.027E-02	1.189E-01	1.148E-02	0.185
		244.69		3.945E-02	3.221E-01	4.663E-01	5.184E-02	0.085
		344.27	*	-2.725E-02	8.385E-02	1.395E-01	1.559E-02	-0.195
		443.98		5.429E-01	8.475E-01	1.465E+00	1.384E-01	0.371
		778.89		-1.247E-01	2.583E-01	3.946E-01	3.661E-02	-0.316
		867.32		1.209E-01	7.381E-01	1.187E+00	1.120E-01	0.102
	+	964.01		8.576E-01	3.149E-01	5.431E-01	5.039E-02	1.579
		1085.78		-3.489E-01	3.399E-01	4.968E-01	4.313E-02	-0.702
		1112.02		3.321E-02	2.944E-01	4.878E-01	4.150E-02	0.068
		1407.95		2.505E-01	1.709E-01	3.206E-01	2.730E-02	0.781
GD-153		69.67		5.860E-01	1.704E+00	2.947E+00	2.322E-01	0.199
	+	83.37		5.322E+01	2.435E+01	2.991E+01	2.726E+00	1.779
	+	97.43	*	4.647E-01	1.403E-01	1.600E-01	1.422E-02	2.903
		103.18		-1.459E-01	1.153E-01	1.647E-01	1.420E-02	-0.886

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154		123.07		1.087E-02	5.058E-02	8.526E-02	9.487E-03	0.127
		247.94		-1.893E-01	3.277E-01	5.100E-01	6.898E-02	-0.371
		591.81		-3.325E-01	4.940E-01	7.552E-01	9.200E-02	-0.440
		723.30		-1.065E-01	1.867E-01	2.439E-01	2.433E-02	-0.437
	+	756.87		1.051E+00	1.109E+00	1.376E+00	1.708E-01	0.764
		873.19		7.979E-03	2.426E-01	4.071E-01	5.225E-02	0.020
		996.32		5.715E-02	3.207E-01	4.727E-01	8.522E-02	0.121
		1004.76		1.960E-01	2.116E-01	3.375E-01	4.053E-02	0.581
		1274.45	*	-5.336E-02	1.073E-01	1.656E-01	1.834E-02	-0.322
EU-155		48.70		-3.096E-01	2.791E+00	4.374E+00	3.593E-01	-0.071
		60.01		1.230E+00	6.866E+00	9.907E+00	7.076E-01	0.124
	+	86.54		5.763E-01	1.695E-01	2.068E-01	1.975E-02	2.787
		105.31	*	2.732E-02	1.081E-01	1.836E-01	1.588E-02	0.149
TB-160	+	86.79		1.521E+00	4.468E-01	5.504E-01	5.226E-02	2.764
		197.04		2.304E-01	5.108E-01	8.486E-01	8.356E-02	0.272
		215.65		4.595E-01	6.841E-01	1.141E+00	1.180E-01	0.403
		298.57		1.701E-01	1.317E-01	1.665E-01	1.955E-02	1.021
		879.36	*	1.120E-01	1.282E-01	2.283E-01	2.156E-02	0.491
		962.29		7.908E-01	4.770E-01	8.239E-01	7.648E-02	0.960
	+	966.15		5.816E-01	2.136E-01	4.125E-01	3.824E-02	1.410
		1177.93		5.251E-02	3.114E-01	5.164E-01	4.159E-02	0.102
		1271.85		7.102E-03	6.105E-01	9.914E-01	8.233E-02	0.007
HO-166M		80.57		-1.337E-01	4.069E-01	4.926E-01	4.346E-02	-0.271
	+	184.41		6.538E-01	9.432E-02	8.974E-02	8.543E-03	7.286
		280.46		-2.920E-03	8.428E-02	1.194E-01	1.432E-02	-0.024
	+	410.95		5.653E-01	3.159E-01	3.959E-01	3.696E-02	1.428
		711.68	*	-3.463E-03	5.630E-02	9.005E-02	8.170E-03	-0.038
		752.31		-1.105E-01	2.987E-01	3.979E-01	3.662E-02	-0.278
		810.29		-1.627E-02	5.139E-02	8.422E-02	7.873E-03	-0.193
TM-171		51.35		4.008E-01	3.641E+01	5.719E+01	4.506E+00	0.007
		52.39		4.730E+00	1.914E+01	3.027E+01	2.347E+00	0.156
		59.40		1.840E+01	3.643E+01	5.321E+01	3.779E+00	0.346
		66.72	*	-1.569E+01	3.271E+01	4.567E+01	3.499E+00	-0.344
LU-176	+	88.36		1.136E+00	3.336E-01	3.990E-01	3.831E-02	2.846
		201.83		-8.584E-03	2.652E-02	4.264E-02	4.253E-03	-0.201
		306.84	*	-1.255E-02	2.327E-02	3.529E-02	4.093E-03	-0.356
		401.10		2.022E+00	5.894E+00	1.007E+01	9.355E-01	0.201
LU-177M		52.97		6.111E-01	1.970E+00	3.121E+00	2.398E-01	0.196
		54.07		1.470E-02	1.049E+00	1.645E+00	1.243E-01	0.009
		61.30		1.204E+00	2.009E+00	2.937E+00	2.130E-01	0.410
		121.62		6.994E-02	3.588E-01	6.050E-01	5.021E-02	0.116
		147.16		1.903E-01	6.510E-01	9.816E-01	8.465E-02	0.194
		171.86		-3.389E-01	4.398E-01	6.993E-01	6.439E-02	-0.485
		218.09		-7.480E-01	7.947E-01	1.229E+00	1.279E-01	-0.609
	+	268.79		2.097E+00	1.152E+00	1.299E+00	1.525E-01	1.614
		319.02		-1.923E-01	2.417E-01	3.622E-01	4.115E-02	-0.531
		367.43		-2.621E-01	7.938E-01	1.314E+00	1.324E-01	-0.200
		413.65	*	9.355E-02	1.683E-01	2.592E-01	2.423E-02	0.361
HF-181		56.28		-4.928E-01	1.169E+00	1.802E+00	1.323E-01	-0.274

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		57.53		6.018E-02	6.351E-01	9.952E-01	7.200E-02	0.060
		65.20		1.867E+00	1.090E+00	1.649E+00	1.246E-01	1.132
		133.02		-2.076E-03	6.303E-02	1.050E-01	8.807E-03	-0.020
		136.25		-5.800E-02	4.237E-01	7.025E-01	5.922E-02	-0.083
		345.85		1.086E-01	1.684E-01	2.756E-01	2.954E-02	0.394
		482.03	*	-3.864E-02	3.561E-02	5.402E-02	5.138E-03	-0.715
W-181		56.28		-1.950E-01	4.639E-01	7.153E-01	5.250E-02	-0.273
		57.53		2.388E-02	2.523E-01	3.954E-01	2.860E-02	0.060
		65.20	*	7.357E-01	4.295E-01	6.500E-01	4.909E-02	1.132
TA-182		67.75		-1.031E-01	1.327E-01	1.828E-01	1.414E-02	-0.564
	+	100.10		1.078E+00	3.254E-01	3.147E-01	2.753E-02	3.425
		152.43		2.654E-01	3.183E-01	5.411E-01	4.728E-02	0.490
		222.10		1.159E-01	3.192E-01	5.255E-01	5.526E-02	0.220
	+	1001.68		2.046E+01	4.544E+00	6.649E+00	6.071E-01	3.077
	+	1121.28		5.298E-01	2.122E-01	3.123E-01	2.636E-02	1.697
		1189.05		2.980E-02	3.099E-01	5.095E-01	4.120E-02	0.058
		1221.42	*	4.107E-02	1.915E-01	3.170E-01	2.592E-02	0.130
		1230.97		-1.617E-01	4.100E-01	6.425E-01	5.271E-02	-0.252
RE-183		57.98		-1.312E-01	2.534E-01	3.891E-01	2.802E-02	-0.337
		59.32		6.579E-02	1.481E-01	2.159E-01	1.534E-02	0.305
		67.20		-2.169E-01	2.364E-01	3.235E-01	2.490E-02	-0.671
	+	162.32	*	2.636E-01	1.671E-01	1.860E-01	1.670E-02	1.417
	+	208.81		2.765E+00	1.470E+00	1.686E+00	1.713E-01	1.640
		291.72		3.508E-01	8.909E-01	1.299E+00	1.539E-01	0.270
RE-184		57.98		-4.873E-01	9.409E-01	1.445E+00	1.040E-01	-0.337
		59.32		2.441E-01	5.495E-01	8.010E-01	5.692E-02	0.305
		67.20		-8.053E-01	8.777E-01	1.201E+00	9.242E-02	-0.671
		161.27		1.826E-01	3.678E-01	5.566E-01	4.981E-02	0.328
		216.55		2.415E-01	2.410E-01	4.064E-01	4.213E-02	0.594
		252.85	*	9.133E-03	2.364E-01	3.394E-01	3.846E-02	0.027
		318.01		-2.116E-01	4.075E-01	6.229E-01	7.090E-02	-0.340
		792.07		2.446E-01	9.675E-01	1.460E+00	1.359E-01	0.168
		903.28		-4.135E-01	8.577E-01	1.278E+00	1.208E-01	-0.324
		920.93		-2.820E-01	4.099E-01	6.404E-01	6.024E-02	-0.440
OS-185		59.72		1.340E-01	4.015E-01	5.827E-01	4.147E-02	0.230
		61.14		1.163E-01	2.201E-01	3.210E-01	2.325E-02	0.362
		69.30		1.506E-01	3.002E-01	5.209E-01	4.090E-02	0.289
		592.07		-1.301E+00	1.998E+00	3.066E+00	2.852E-01	-0.424
		646.12	*	7.731E-03	3.518E-02	5.807E-02	5.220E-03	0.133
		717.42		2.620E-01	8.682E-01	1.427E+00	1.298E-01	0.184
		874.81		-1.392E-01	4.818E-01	7.844E-01	7.406E-02	-0.177
		880.27		3.691E-01	7.222E-01	1.254E+00	1.185E-01	0.294
RE-188		155.03	*	1.403E-01	1.606E-01	2.732E-01	2.403E-02	0.514
		477.96		2.350E+00	2.732E+00	4.759E+00	4.525E-01	0.494
		633.10		1.295E+00	2.576E+00	4.336E+00	3.935E-01	0.299
W-188	+	63.58		1.569E+03	1.710E+02	1.816E+02	1.349E+01	8.643
		227.08		3.806E+00	1.196E+01	1.963E+01	2.090E+00	0.194
		290.67	*	1.575E+00	7.141E+00	1.028E+01	1.220E+00	0.153
IR-192	+	295.96		9.641E-01	1.975E-01	2.528E-01	2.990E-02	3.814

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		308.46		-1.356E-02	8.525E-02	1.339E-01	1.554E-02	-0.101
		316.51	*	-8.544E-03	3.054E-02	4.749E-02	5.427E-03	-0.180
		468.07		5.068E-02	6.302E-02	9.830E-02	9.891E-03	0.516
		604.41		-2.237E-01	4.698E-01	6.360E-01	8.546E-02	-0.352
		612.46		5.712E-01	7.187E-01	1.098E+00	1.143E-01	0.520
AU-195		65.12		4.690E-01	2.041E-01	3.131E-01	2.363E-02	1.498
		66.83		-4.893E-02	1.078E-01	1.506E-01	1.155E-02	-0.325
	+	75.70		9.201E-01	2.459E-01	4.269E-01	3.572E-02	2.155
	+	98.88	*	1.351E+00	4.080E-01	4.892E-01	4.307E-02	2.763
		129.76		3.849E+00	2.894E+00	4.997E+00	4.172E-01	0.770
TL-200		367.94	*	-8.203E-05	2.894E+00	Half-Life too short		
		579.30		9.079E-04	2.894E+00	Half-Life too short		
		828.27		7.835E-04	2.894E+00	Half-Life too short		
		1205.75		3.607E-04	2.894E+00	Half-Life too short		
TL-201		68.90		1.356E+00	3.579E+00	6.198E+00	4.848E-01	0.219
		70.82		6.052E-01	2.291E+00	3.575E+00	2.848E-01	0.169
		80.30		5.811E-01	5.474E+00	6.772E+00	5.958E-01	0.086
		135.34		6.308E+00	1.784E+01	3.008E+01	2.532E+00	0.210
		167.43	*	-2.751E-02	5.274E+00	7.775E+00	7.078E-01	-0.004
TL-202		68.90		1.528E-01	4.033E-01	6.983E-01	5.462E-02	0.219
		70.82		6.801E-02	2.575E-01	4.017E-01	3.200E-02	0.169
		80.30		6.532E-02	6.153E-01	7.612E-01	6.697E-02	0.086
		439.56	*	1.670E-02	5.476E-02	9.299E-02	8.776E-03	0.180
BI-207		72.80		4.310E-02	2.076E-01	3.229E-01	2.623E-02	0.133
	+	74.97		5.129E-01	1.371E-01	2.257E-01	1.874E-02	2.272
	+	84.90		6.908E-01	3.161E-01	3.739E-01	3.470E-02	1.848
		569.67		1.536E-02	2.790E-02	4.734E-02	4.445E-03	0.325
		1063.62	*	6.214E-03	4.695E-02	7.826E-02	6.899E-03	0.079
		1770.23		-1.829E-01	4.322E-01	5.338E-01	4.412E-02	-0.343
TL-207		81.07		-1.728E-01	2.844E-01	3.917E-01	3.476E-02	-0.441
	+	83.78		4.555E-01	2.085E-01	2.550E-01	2.336E-02	1.786
	+	94.90		6.493E-01	4.769E-01	4.472E-01	4.043E-02	1.452
		122.32		4.489E-01	1.676E+00	2.832E+00	2.536E-01	0.159
	+	144.24		2.657E+00	1.072E+00	1.285E+00	1.232E-01	2.068
		154.21		1.408E-02	3.868E-01	6.410E-01	6.168E-02	0.022
	+	269.46		4.937E-01	2.713E-01	3.245E-01	3.859E-02	1.521
		323.87	*	-6.020E-01	7.507E-01	9.761E-01	1.867E-01	-0.617
	+	338.28		7.907E+00	1.807E+00	2.381E+00	3.337E-01	3.321
		445.03		5.732E-01	2.058E+00	3.483E+00	4.422E-01	0.165
PO-209		260.50		4.157E+00	1.002E+01	1.471E+01	1.696E+00	0.283
		262.80		-4.547E-01	2.817E+01	4.018E+01	4.658E+00	-0.011
		896.60	*	2.472E+00	6.372E+00	1.099E+01	1.039E+00	0.225
BI-210		46.50	*	-2.091E+00	4.087E+00	6.275E+00	5.852E-01	-0.333
PB-210		46.50	*	-2.091E+00	4.087E+00	6.275E+00	5.852E-01	-0.333
PO-210		46.50	*	-2.091E+00	4.086E+00	6.275E+00	5.301E-01	-0.333
PB-211		404.84	*	-1.895E-01	9.245E-01	1.331E+00	8.351E-01	-0.142
		427.08		-7.908E-01	1.819E+00	2.840E+00	1.768E+00	-0.278
		831.96		-4.986E-01	1.096E+00	1.697E+00	1.065E+00	-0.294
BI-212	+	727.18	*	9.841E-01	4.051E-01	6.074E-01	6.346E-02	1.620

---- Non-Identified Nuclides ----

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		785.46		1.321E+00	1.671E+00	2.960E+00	2.751E-01	0.446
		1620.62		7.368E-01	1.000E+00	1.847E+00	1.569E-01	0.399
PO-215		81.07		-1.728E-01	2.844E-01	3.917E-01	3.476E-02	-0.441
	+	83.78		4.555E-01	2.085E-01	2.550E-01	2.336E-02	1.786
	+	94.90		6.493E-01	4.769E-01	4.472E-01	4.043E-02	1.452
		122.32		4.489E-01	1.676E+00	2.832E+00	2.536E-01	0.159
	+	144.24		2.657E+00	1.072E+00	1.285E+00	1.232E-01	2.068
		154.21		1.408E-02	3.868E-01	6.410E-01	6.168E-02	0.022
	+	269.46		4.937E-01	2.713E-01	3.245E-01	3.859E-02	1.521
		323.87	*	-6.020E-01	7.507E-01	9.761E-01	1.867E-01	-0.617
	+	338.28		7.907E+00	1.807E+00	2.381E+00	3.337E-01	3.321
		445.03		5.732E-01	2.058E+00	3.483E+00	4.422E-01	0.165
RN-219	+	271.23		6.334E-01	3.498E-01	4.148E-01	5.431E-02	1.527
		401.81	*	7.066E-02	3.550E-01	6.017E-01	9.280E-02	0.117
RN-220		549.76	*	4.428E+00	2.248E+01	3.741E+01	3.534E+00	0.118
RA-223		81.07		-1.728E-01	2.844E-01	3.917E-01	3.476E-02	-0.441
	+	83.78		4.555E-01	2.085E-01	2.550E-01	2.336E-02	1.786
	+	94.90		6.493E-01	4.769E-01	4.472E-01	4.043E-02	1.452
		122.32		4.489E-01	1.676E+00	2.832E+00	2.536E-01	0.159
	+	144.24		2.657E+00	1.072E+00	1.285E+00	1.232E-01	2.068
		154.21		1.408E-02	3.868E-01	6.410E-01	6.168E-02	0.022
	+	269.46		4.937E-01	2.713E-01	3.245E-01	3.859E-02	1.521
		323.87	*	-6.020E-01	7.507E-01	9.761E-01	1.867E-01	-0.617
	+	338.28		7.907E+00	1.807E+00	2.381E+00	3.337E-01	3.321
		445.03		5.732E-01	2.058E+00	3.483E+00	4.422E-01	0.165
AC-227		79.80		7.035E-01	2.440E+00	3.041E+00	6.554E-01	0.231
		236.00		7.969E-02	2.380E-01	3.488E-01	4.861E-02	0.228
		256.20	*	3.030E-01	4.019E-01	5.990E-01	1.023E-01	0.506
		286.10		-6.953E-02	1.334E+00	2.121E+00	3.301E-01	-0.033
	+	299.80		2.918E+00	2.029E+00	2.383E+00	4.577E-01	1.225
		304.40		-8.673E-02	1.902E+00	2.665E+00	5.338E-01	-0.033
		334.20		-4.241E-01	2.203E+00	3.030E+00	6.238E-01	-0.140
TH-227		79.80		7.035E-01	2.440E+00	3.041E+00	6.637E-01	0.231
	+	94.00		5.194E+00	3.954E+00	6.983E+00	1.535E+00	0.744
		236.00		7.969E-02	2.380E-01	3.488E-01	4.507E-02	0.228
		256.20	*	3.030E-01	4.029E-01	5.990E-01	1.171E-01	0.506
		286.10		-6.953E-02	1.336E+00	2.121E+00	2.136E+00	-0.033
	+	299.80		2.918E+00	2.029E+00	2.383E+00	4.577E-01	1.225
		304.40		-8.673E-02	1.902E+00	2.665E+00	5.338E-01	-0.033
		334.20		-4.241E-01	2.203E+00	3.030E+00	6.238E-01	-0.140
PA-231		283.67	*	1.667E-01	1.363E+00	2.189E+00	3.787E-01	0.076
	+	301.29		1.167E+00	7.983E-01	9.396E-01	1.369E-01	1.242
TH-231		81.07		-1.728E-01	2.844E-01	3.917E-01	3.476E-02	-0.441
	+	83.78		4.555E-01	2.085E-01	2.550E-01	2.336E-02	1.786
	+	94.90		6.493E-01	4.769E-01	4.472E-01	4.043E-02	1.452
		122.32		4.489E-01	1.676E+00	2.832E+00	2.536E-01	0.159
	+	144.24		2.657E+00	1.072E+00	1.285E+00	1.232E-01	2.068
		154.21		1.408E-02	3.868E-01	6.410E-01	6.168E-02	0.022
	+	269.46		4.937E-01	2.713E-01	3.245E-01	3.859E-02	1.521

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-6.020E-01	7.507E-01	9.761E-01	1.867E-01	-0.617
	+	338.28		7.907E+00	1.807E+00	2.381E+00	3.337E-01	3.321
		445.03		5.732E-01	2.058E+00	3.483E+00	4.422E-01	0.165
PA-233	+	75.28		1.497E+01	4.429E+00	6.668E+00	1.013E+00	2.245
	+	86.59		9.373E+00	3.640E+00	3.369E+00	9.133E-01	2.782
	+	300.12		8.135E-01	5.606E-01	6.672E-01	1.125E-01	1.219
		311.98	*	1.389E-02	5.632E-02	9.065E-02	1.060E-02	0.153
		340.50		1.182E+00	6.543E-01	9.906E-01	2.450E-01	1.194
		398.62		-4.191E-01	1.876E+00	3.102E+00	8.328E-01	-0.135
		415.76		1.403E+00	1.545E+00	2.511E+00	5.488E-01	0.559
PA-234	+	63.00		4.611E+01	7.780E+00	5.516E+00	8.192E-01	8.360
	+	94.67		4.632E-01	3.427E-01	3.590E-01	4.562E-02	1.290
	+	98.44		5.503E-01	3.458E-01	1.983E-01	1.107E-01	2.775
	+	99.86		2.853E+00	8.612E-01	8.884E-01	7.780E-02	3.211
		111.00		2.217E-01	2.369E-01	3.678E-01	4.390E-02	0.603
		131.20		-5.548E-02	1.086E-01	1.781E-01	1.490E-02	-0.311
		152.70		4.504E-01	3.157E-01	5.330E-01	9.119E-02	0.845
	+	186.00		2.354E+01	7.835E+00	3.735E+00	1.176E+00	6.302
		226.40		1.832E-01	3.792E-01	6.256E-01	9.131E-02	0.293
		227.20		1.140E-01	4.087E-01	6.696E-01	7.133E-02	0.170
		248.90		-5.750E-01	7.568E-01	1.150E+00	2.707E-01	-0.500
	+	293.70		6.144E+00	1.559E+00	1.434E+00	2.738E-01	4.286
		369.80		-6.756E-02	7.582E-01	1.272E+00	2.844E-01	-0.053
		568.70		9.217E-01	8.977E-01	1.567E+00	1.472E-01	0.588
		569.50		2.176E-01	2.437E-01	4.225E-01	3.967E-02	0.515
		574.00		-9.648E-01	1.270E+00	1.946E+00	1.824E-01	-0.496
		699.00		2.351E-01	6.654E-01	1.098E+00	2.116E-01	0.214
		706.10		-3.624E-01	1.011E+00	1.560E+00	6.971E-01	-0.232
		733.00		2.134E-01	4.166E-01	6.120E-01	1.371E-01	0.349
		742.81		1.620E+00	1.711E+00	2.319E+00	1.560E+00	0.699
	+	796.30		2.463E+00	1.353E+00	1.660E+00	4.528E-01	1.484
		805.60		-4.548E-02	9.066E-01	1.520E+00	4.691E-01	-0.030
		819.60		-4.579E-02	1.071E+00	1.795E+00	6.856E-01	-0.026
		826.30		7.600E-01	7.991E-01	1.313E+00	5.894E-01	0.579
		831.60		-1.499E-01	5.480E-01	8.972E-01	2.698E-01	-0.167
		876.40		-5.749E-01	9.464E-01	1.152E+00	1.185E+00	-0.499
		880.51		1.922E-01	2.584E-01	4.565E-01	4.312E-02	0.421
		883.24		9.017E-02	2.775E-01	4.645E-01	3.128E-01	0.194
		899.00		-7.906E-03	6.991E-01	1.166E+00	5.117E-01	-0.007
		925.00		2.404E-01	1.075E+00	1.824E+00	1.714E-01	0.132
		926.50		7.323E-02	1.585E-01	2.724E-01	6.959E-02	0.269
		946.00	*	1.488E-01	2.767E-01	4.782E-01	9.135E-02	0.311
		949.00		1.763E-01	4.087E-01	7.032E-01	6.558E-02	0.251
		980.50		-3.157E-01	5.721E-01	8.918E-01	8.219E-02	-0.354
		1394.10		1.705E-01	9.096E-01	1.496E+00	9.733E-01	0.114
NP-236	+	94.67		3.513E-01	2.581E-01	2.729E-01	2.472E-02	1.287
	+	98.44		4.160E-01	1.256E-01	1.499E-01	1.324E-02	2.775
		111.00		1.677E-01	1.786E-01	2.782E-01	2.338E-02	0.603
		160.31	*	3.225E-02	8.155E-02	1.229E-01	1.097E-02	0.262

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		9.509E-01	2.871E-01	3.235E-01	2.838E-02	2.940
		117.00	*	2.128E-01	1.996E-01	3.139E-01	2.613E-02	0.678
	+	209.75		2.210E+00	1.175E+00	1.354E+00	1.379E-01	1.632
		228.18		1.409E-01	2.046E-01	3.408E-01	3.640E-02	0.413
	+	277.60		2.696E-01	2.355E-01	2.903E-01	3.474E-02	0.929
		334.30		-2.590E-01	1.247E+00	1.713E+00	1.887E-01	-0.151
AM-241		59.54	*	6.347E-02	2.138E-01	3.099E-01	2.432E-02	0.205
CM-243	+	99.55		9.784E-01	2.954E-01	3.328E-01	2.920E-02	2.940
		103.76	*	-3.483E-02	9.863E-02	1.571E-01	1.350E-02	-0.222
		117.00		2.190E-01	2.053E-01	3.229E-01	2.688E-02	0.678
	+	209.75		2.178E+00	1.158E+00	1.335E+00	1.359E-01	1.632
		228.18		1.424E-01	2.068E-01	3.444E-01	3.677E-02	0.413
	+	277.60		2.717E-01	2.374E-01	2.926E-01	3.502E-02	0.929
AM-246		798.80		-5.802E-02	1.392E-01	1.945E-01	1.813E-02	-0.298
		1036.00		-1.285E-01	2.529E-01	3.957E-01	3.548E-02	-0.325
		1062.04		-5.786E-02	2.025E-01	3.244E-01	2.863E-02	-0.178
		1078.86	*	2.240E-02	1.257E-01	2.101E-01	1.833E-02	0.107
CM-247	+	278.00		1.118E+00	9.766E-01	1.197E+00	1.435E-01	0.934
		287.40		-3.361E-01	1.076E+00	1.682E+00	2.002E-01	-0.200
		402.60	*	-8.969E-03	3.255E-02	5.369E-02	4.992E-03	-0.167
CF-249		252.85		3.445E-02	8.917E-01	1.280E+00	1.451E-01	0.027
		333.44		-3.607E-03	1.825E-01	2.316E-01	2.556E-02	-0.016
		387.95	*	-2.082E-02	3.608E-02	5.860E-02	5.498E-03	-0.355
CF-251		176.60	*	6.315E-02	1.202E-01	2.012E-01	1.876E-02	0.314
		227.00		1.464E-01	3.630E-01	5.976E-01	6.363E-02	0.245
		285.00		-3.741E-01	1.555E+00	2.445E+00	2.918E-01	-0.153

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395001       *
* Acquisition date :  2-FEB-2010 07:10:18 Detector SN#    :                 *
* Detector ID       : GAM16               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.69     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395001           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.4470E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.830E+01	2.887E+00	4.239E-01	0.000E+00
NB-95	2.188E-01	6.603E-02	6.044E-02	0.000E+00
CD-109	4.862E+00	1.400E+00	1.529E+00	0.000E+00
SN-126	4.788E-01	1.378E-01	1.512E-01	0.000E+00
LU-177	2.719E+00	1.417E+00	1.582E+00	0.000E+00
HG-203	6.041E-02	5.173E-02	6.049E-02	0.000E+00
TL-208	5.777E-01	9.210E-02	4.935E-02	0.000E+00
BI-211	3.834E+00	5.906E-01	2.862E-01	0.000E+00
PB-212	1.694E+00	2.220E-01	8.834E-02	0.000E+00
PO-212	1.694E+00	2.220E-01	8.834E-02	0.000E+00
BI-214	1.010E+00	1.723E-01	1.069E-01	0.000E+00
PB-214	1.334E+00	2.165E-01	9.975E-02	0.000E+00
PO-214	1.334E+00	2.165E-01	9.975E-02	0.000E+00
PO-216	1.694E+00	2.220E-01	8.834E-02	0.000E+00
PO-218	1.334E+00	2.165E-01	9.975E-02	0.000E+00
RA-224	3.918E+00	9.852E-01	1.005E+00	0.000E+00
RA-226	1.010E+00	1.723E-01	1.069E-01	0.000E+00
AC-228	1.684E+00	3.350E-01	1.915E-01	0.000E+00
RA-228	1.684E+00	3.350E-01	1.915E-01	0.000E+00
TH-228	1.718E+00	2.251E-01	8.957E-02	0.000E+00
TH-229	-8.171E-02	4.542E-01	7.908E-01	0.000E+00
TH-230	1.010E+00	1.723E-01	1.069E-01	0.000E+00
U-231	2.550E+00	1.835E+00	1.668E+00	0.000E+00
TH-232	1.684E+00	3.350E-01	1.915E-01	0.000E+00
PA-234M	4.683E+01	1.045E+01	6.354E+00	0.000E+00
TH-234	3.956E+01	7.437E+00	2.526E+00	0.000E+00
U-234	1.010E+00	1.723E-01	1.069E-01	0.000E+00
U-235	8.198E-01	3.446E-01	3.373E-01	0.000E+00
NP-237	1.406E+00	4.947E-01	4.491E-01	0.000E+00
U-238	3.956E+01	7.437E+00	2.526E+00	0.000E+00
AM-243	2.857E-01	7.484E-02	1.108E-01	0.000E+00
ANH-511	1.592E-01	6.120E-02	4.289E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	1.950E-01	2.796E-01	5.074E-01	0.000E+00	NOT IDENT.
NA-22	-2.284E-02	3.807E-02	5.987E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.317E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.222E-02	2.716E-02	4.907E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.197E-02	8.348E-02	0.000E+00	FAIL ABUN
SC-46	-2.358E-02	3.346E-02	5.432E-02	0.000E+00	FAIL ABUN
V-48	4.680E-02	5.157E-02	9.591E-02	0.000E+00	NOT IDENT.
CR-51	1.204E-02	3.322E-01	5.594E-01	0.000E+00	NOT IDENT.
MN-52	7.469E-02	1.814E-01	3.149E-01	0.000E+00	NOT IDENT.
MN-54	-1.498E-02	3.014E-02	5.040E-02	0.000E+00	NOT IDENT.
CO-56	1.089E-02	3.220E-02	5.761E-02	0.000E+00	NOT IDENT.
CO-57	3.192E-03	2.372E-02	4.325E-02	0.000E+00	NOT IDENT.
CO-58	-1.881E-02	3.325E-02	5.547E-02	0.000E+00	NOT IDENT.
FE-59	-3.241E-02	7.238E-02	1.171E-01	0.000E+00	FAIL ABUN
CO-60	-1.110E-02	3.230E-02	5.120E-02	0.000E+00	NOT IDENT.
ZN-65	-5.048E-02	9.411E-02	1.286E-01	0.000E+00	NOT IDENT.
GE-68	-2.637E-01	1.060E+00	1.759E+00	0.000E+00	NOT IDENT.
AS-73	4.416E-01	9.830E-01	1.723E+00	0.000E+00	NOT IDENT.
AS-74	5.425E-02	7.534E-02	1.351E-01	0.000E+00	NOT IDENT.
SE-75	2.636E-02	4.459E-02	7.039E-02	0.000E+00	NOT IDENT.
BR-77	6.281E-01	6.625E+00	1.153E+01	0.000E+00	FAIL ABUN
SR-82	-1.904E-01	3.354E-01	5.285E-01	0.000E+00	NOT IDENT.
RB-83	-1.776E-04	6.324E-02	1.094E-01	0.000E+00	NOT IDENT.
RB-84	4.937E-02	6.409E-02	1.173E-01	0.000E+00	NOT IDENT.
KR-85	4.197E+00	6.986E+00	1.115E+01	0.000E+00	NOT IDENT.
SR-85	2.122E-02	3.533E-02	5.639E-02	0.000E+00	NOT IDENT.
RB-86	-1.886E-01	6.275E-01	1.035E+00	0.000E+00	NOT IDENT.
Y-88	6.340E-03	2.563E-02	4.513E-02	0.000E+00	NOT IDENT.
ZR-88	5.053E-03	2.664E-02	4.776E-02	0.000E+00	NOT IDENT.
Y-91	2.804E+00	1.681E+01	2.861E+01	0.000E+00	NOT IDENT.
NB-94	-8.755E-03	3.206E-02	5.271E-02	0.000E+00	NOT IDENT.
NB-95M	3.504E-02	1.242E-01	1.940E-01	0.000E+00	NOT IDENT.
ZR-95	9.529E-02	9.829E-02	1.286E-01	0.000E+00	FAIL ABUN
NB-97	0.000E+00	2.342E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.495E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-7.591E+00	8.282E+00	1.266E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.011E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.879E-03	2.956E-02	5.204E-02	0.000E+00	NOT IDENT.
RH-102	4.349E-03	2.498E-02	4.407E-02	0.000E+00	FAIL ABUN
RU-103	1.112E-02	3.418E-02	6.061E-02	0.000E+00	FAIL ABUN
RH-106	2.654E-02	2.652E-01	4.544E-01	0.000E+00	FAIL ABUN
RU-106	2.654E-02	2.652E-01	4.544E-01	0.000E+00	FAIL ABUN
AG-108M	-1.422E-02	2.762E-02	4.694E-02	0.000E+00	NOT IDENT.
AG-110M	-1.010E-02	3.075E-02	5.060E-02	0.000E+00	NOT IDENT.
IN-111	2.953E-01	7.302E-01	1.149E+00	0.000E+00	NOT IDENT.
IN-113M	7.943E-03	3.962E-02	7.105E-02	0.000E+00	NOT IDENT.
SN-113	7.943E-03	3.962E-02	7.105E-02	0.000E+00	NOT IDENT.
IN-114M	-2.075E-02	1.733E-01	2.703E-01	0.000E+00	NOT IDENT.
CD-115	7.562E-01	6.164E+00	1.074E+01	0.000E+00	NOT IDENT.
SN-117M	-2.092E-02	4.866E-02	8.113E-02	0.000E+00	NOT IDENT.
SB-122	8.417E-01	1.377E+00	2.424E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.114E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.039E-02	2.900E-02	4.541E-02	0.000E+00	NOT IDENT.
I-124	-5.658E-02	5.177E-01	8.085E-01	0.000E+00	FAIL ABUN
SB-124	-1.473E-02	5.739E-02	9.235E-02	0.000E+00	FAIL ABUN
SB-125	-3.572E-02	7.729E-02	1.321E-01	0.000E+00	FAIL ABUN
TE-125M	3.235E+00	1.077E+01	1.790E+01	0.000E+00	NOT IDENT.
I-126	2.146E-02	1.521E-01	2.595E-01	0.000E+00	NOT IDENT.
SB-126	-4.904E-02	1.275E-01	2.069E-01	0.000E+00	FAIL ABUN
SB-127	-2.356E-01	9.695E-01	1.599E+00	0.000E+00	NOT IDENT.
XE-127	-1.454E-02	4.298E-02	7.406E-02	0.000E+00	FAIL ABUN
I-131	9.390E-02	8.463E-02	1.593E-01	0.000E+00	NOT IDENT.
TE-132	3.238E-01	4.649E-01	8.248E-01	0.000E+00	FAIL ABUN
BA-133	-3.136E-02	4.404E-02	6.569E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.818E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.026E-02	8.936E-02	0.000E+00	FAIL ABUN
CS-135	4.187E-02	1.601E-01	2.474E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.944E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.181E-01	9.688E-02	1.465E-01	0.000E+00	FAIL ABUN
BA-137M	4.345E-03	3.306E-02	5.640E-02	0.000E+00	NOT IDENT.
CS-137	4.593E-03	3.495E-02	5.962E-02	0.000E+00	NOT IDENT.
CE-139	2.230E-02	3.009E-02	4.945E-02	0.000E+00	NOT IDENT.
BA-140	-3.611E-03	2.063E-01	3.553E-01	0.000E+00	FAIL ABUN

LA-140	-3.702E-02	6.404E-02	9.936E-02	0.000E+00	FAIL ABUN
CE-141	4.393E-02	6.254E-02	1.035E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.546E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.088E-01	1.968E-01	3.474E-01	0.000E+00	NOT IDENT.
PM-144	-2.616E-02	3.220E-02	5.055E-02	0.000E+00	NOT IDENT.
PR-144	-1.771E+00	2.180E+00	3.423E+00	0.000E+00	NOT IDENT.
PM-146	4.918E-02	3.998E-02	7.430E-02	0.000E+00	NOT IDENT.
ND-147	-2.591E-01	4.429E-01	7.287E-01	0.000E+00	FAIL ABUN
PM-149	-5.506E+00	5.182E+01	8.740E+01	0.000E+00	NOT IDENT.
EU-152	-2.725E-02	8.217E-02	1.449E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.375E-01	1.708E-01	0.000E+00	FAIL ABUN
EU-154	-5.336E-02	1.052E-01	1.670E-01	0.000E+00	FAIL ABUN
EU-155	2.732E-02	1.059E-01	1.956E-01	0.000E+00	FAIL ABUN
TB-160	1.120E-01	1.257E-01	2.322E-01	0.000E+00	FAIL ABUN
HO-166M	-3.463E-03	5.517E-02	9.204E-02	0.000E+00	FAIL ABUN
TM-171	-1.569E+01	3.206E+01	4.912E+01	0.000E+00	NOT IDENT.
LU-176	-1.255E-02	2.281E-02	3.675E-02	0.000E+00	FAIL ABUN
LU-177M	9.355E-02	1.650E-01	2.682E-01	0.000E+00	FAIL ABUN
HF-181	-3.864E-02	3.490E-02	5.570E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	4.209E-01	6.994E-01	0.000E+00	NOT IDENT.
TA-182	4.107E-02	1.877E-01	3.200E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.638E-01	1.964E-01	0.000E+00	FAIL ABUN
RE-184	9.133E-03	2.316E-01	3.549E-01	0.000E+00	NOT IDENT.
OS-185	7.731E-03	3.447E-02	5.948E-02	0.000E+00	NOT IDENT.
RE-188	1.403E-01	1.574E-01	2.887E-01	0.000E+00	NOT IDENT.
W-188	1.575E+00	6.998E+00	1.072E+01	0.000E+00	FAIL ABUN
IR-192	-8.544E-03	2.993E-02	4.942E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.998E-01	5.219E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.679E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.751E-02	5.168E+00	8.203E+00	0.000E+00	NOT IDENT.
TL-202	1.670E-02	5.366E-02	9.607E-02	0.000E+00	NOT IDENT.
BI-207	6.214E-03	4.602E-02	7.925E-02	0.000E+00	FAIL ABUN
TL-207	-6.020E-01	7.357E-01	1.015E+00	0.000E+00	FAIL ABUN
PO-209	2.472E+00	6.245E+00	1.117E+01	0.000E+00	NOT IDENT.
BI-210	-2.091E+00	4.005E+00	6.799E+00	0.000E+00	NOT IDENT.
PB-210	-2.091E+00	4.005E+00	6.799E+00	0.000E+00	NOT IDENT.
PO-210	-2.091E+00	4.004E+00	6.799E+00	0.000E+00	NOT IDENT.
PB-211	-1.895E-01	9.060E-01	1.377E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.970E-01	6.205E-01	0.000E+00	FAIL ABUN
PO-215	-6.020E-01	7.357E-01	1.015E+00	0.000E+00	FAIL ABUN
RN-219	7.066E-02	3.479E-01	6.229E-01	0.000E+00	FAIL ABUN
RN-220	4.428E+00	2.203E+01	3.846E+01	0.000E+00	NOT IDENT.
RA-223	-6.020E-01	7.357E-01	1.015E+00	0.000E+00	FAIL ABUN
AC-227	3.030E-01	3.939E-01	6.263E-01	0.000E+00	FAIL ABUN
TH-227	3.030E-01	3.949E-01	6.263E-01	0.000E+00	FAIL ABUN
PA-231	1.667E-01	1.335E+00	2.284E+00	0.000E+00	FAIL ABUN
TH-231	-6.020E-01	7.357E-01	1.015E+00	0.000E+00	FAIL ABUN
PA-233	1.389E-02	5.519E-02	9.436E-02	0.000E+00	FAIL ABUN
PA-234	1.488E-01	2.712E-01	4.856E-01	0.000E+00	FAIL ABUN
NP-236	3.225E-02	7.992E-02	1.298E-01	0.000E+00	FAIL ABUN
NP-239	2.128E-01	1.956E-01	3.337E-01	0.000E+00	FAIL ABUN
AM-241	6.347E-02	2.095E-01	3.341E-01	0.000E+00	NOT IDENT.
CM-243	-3.483E-02	9.666E-02	1.674E-01	0.000E+00	FAIL ABUN
AM-246	2.240E-02	1.231E-01	2.127E-01	0.000E+00	NOT IDENT.
CM-247	-8.969E-03	3.190E-02	5.557E-02	0.000E+00	FAIL ABUN
CF-249	-2.082E-02	3.536E-02	6.071E-02	0.000E+00	NOT IDENT.
CF-251	6.315E-02	1.178E-01	2.121E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:12:16.75

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395001.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:10:18.
Sample ID         : G245395001           Sample quantity  : 1.44700E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1406	10.67*	1.208E+00	2.830E+01	2.830E+01	10.41
NB-95	765.79	154	99.81*	2.122E+00	1.883E-01	2.188E-01	30.80
CD-109	88.03	427	3.72*	6.258E+00	4.762E+00	4.862E+00	29.38
SN-126	64.28	2051	9.60	3.539E+00	1.566E+01	1.566E+01	16.58
	86.94	427	8.90	6.258E+00	1.990E+00	1.990E+00	49.99
	87.57	427	37.00*	6.258E+00	4.788E-01	4.788E-01	29.38
LU-177	112.95	200	6.40	7.150E+00	1.133E+00	4.732E+00	47.31
	208.36	158	11.00*	5.708E+00	6.509E-01	2.719E+00	53.18
HG-203	70.83	------	4.75	4.611E+00	------ Line Not Found		------
	72.87	------	8.00	4.872E+00	------ Line Not Found		------
	82.60	261	3.55	6.019E+00	3.169E+00	3.894E+00	47.00
	279.20	69	77.30*	4.690E+00	4.917E-02	6.041E-02	87.38
TL-208	277.35	69	6.80	4.690E+00	5.590E-01	5.590E-01	87.80
	510.84	182	21.60	2.964E+00	7.372E-01	7.372E-01	40.09
	583.14	500	84.20*	2.668E+00	5.777E-01	5.777E-01	16.27
	860.37	65	12.46	1.919E+00	7.040E-01	7.040E-01	54.71
BI-211	72.87	------	1.27	4.872E+00	------ Line Not Found		------
	351.07	754	12.94*	3.940E+00	3.834E+00	3.834E+00	15.72
PB-212	74.81	373	10.70	5.125E+00	1.763E+00	1.763E+00	28.31
	77.11	696	18.00	5.367E+00	1.870E+00	1.870E+00	18.33
	87.30	427	8.00	6.258E+00	2.214E+00	2.214E+00	31.03
	238.63	1522	44.60*	5.224E+00	1.694E+00	1.694E+00	13.37
	300.09	92	3.41	4.432E+00	1.575E+00	1.575E+00	68.10
PO-212	74.81	373	10.70	5.125E+00	1.763E+00	1.763E+00	28.31
	77.11	696	18.00	5.367E+00	1.870E+00	1.870E+00	18.33
	87.30	427	8.00	6.258E+00	2.214E+00	2.214E+00	31.03
	115.19	------	0.60	7.166E+00	------ Line Not Found		------
	238.63	1522	44.60*	5.224E+00	1.694E+00	1.694E+00	13.37
	300.09	92	3.41	4.432E+00	1.575E+00	1.575E+00	68.10
BI-214	609.31	464	46.30*	2.574E+00	1.010E+00	1.010E+00	17.41
	1120.29	100	15.10	1.516E+00	1.130E+00	1.130E+00	40.59
	1764.49	84	15.80	1.056E+00	1.314E+00	1.314E+00	31.92

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	373	6.21	5.125E+00	3.037E+00	3.037E+00	27.73
	77.11	696	10.50	5.367E+00	3.205E+00	3.205E+00	19.85
	87.30	427	4.67	6.258E+00	3.793E+00	3.793E+00	30.37
	241.98	309	7.49	5.180E+00	2.066E+00	2.066E+00	26.26
	295.21	425	19.20	4.486E+00	1.280E+00	1.280E+00	21.40
	351.92	754	37.20*	3.940E+00	1.334E+00	1.334E+00	16.56
PO-214	74.81	373	6.21	5.125E+00	3.037E+00	3.037E+00	27.73
	77.11	696	10.50	5.367E+00	3.205E+00	3.205E+00	19.85
	87.30	427	4.67	6.258E+00	3.793E+00	3.793E+00	30.37
	241.98	309	7.49	5.180E+00	2.066E+00	2.066E+00	26.26
	295.21	425	19.20	4.486E+00	1.280E+00	1.280E+00	21.40
	351.92	754	37.20*	3.940E+00	1.334E+00	1.334E+00	16.56
PO-216	74.81	373	10.70	5.125E+00	1.763E+00	1.763E+00	28.31
	77.11	696	18.00	5.367E+00	1.870E+00	1.870E+00	18.33
	87.30	427	8.00	6.258E+00	2.214E+00	2.214E+00	31.03
	238.63	1522	44.60*	5.224E+00	1.694E+00	1.694E+00	13.37
	300.09	92	3.41	4.432E+00	1.575E+00	1.575E+00	68.10
PO-218	74.81	373	6.21	5.125E+00	3.037E+00	3.037E+00	27.73
	77.11	696	10.50	5.367E+00	3.205E+00	3.205E+00	19.85
	87.30	427	4.67	6.258E+00	3.793E+00	3.793E+00	30.37
	241.98	309	7.49	5.180E+00	2.066E+00	2.066E+00	26.26
	295.21	425	19.20	4.486E+00	1.280E+00	1.280E+00	21.40
	351.92	754	37.20*	3.940E+00	1.334E+00	1.334E+00	16.56
RA-224	240.98	309	3.95*	5.180E+00	3.918E+00	3.918E+00	25.66
RA-226	609.31	464	46.30*	2.574E+00	1.010E+00	1.010E+00	17.41
	1120.29	100	15.10	1.516E+00	1.130E+00	1.130E+00	40.59
	1764.49	84	15.80	1.056E+00	1.314E+00	1.314E+00	31.92
AC-228	338.32	338	11.40	4.057E+00	1.894E+00	1.894E+00	45.53
	911.07	328	27.70*	1.824E+00	1.684E+00	1.684E+00	20.30
	969.11	217	16.60	1.727E+00	1.961E+00	1.961E+00	29.67
RA-228	338.32	338	11.40	4.057E+00	1.894E+00	1.894E+00	45.53
	911.07	328	27.70*	1.824E+00	1.684E+00	1.684E+00	20.30
	969.11	217	16.60	1.727E+00	1.961E+00	1.961E+00	29.67
TH-228	74.81	373	10.70	5.125E+00	1.763E+00	1.787E+00	26.75
	77.11	696	18.00	5.367E+00	1.870E+00	1.895E+00	18.33
	87.30	427	8.00	6.258E+00	2.214E+00	2.245E+00	29.38
	238.63	1522	44.60*	5.224E+00	1.694E+00	1.718E+00	13.37
	300.09	92	3.41	4.432E+00	1.575E+00	1.596E+00	89.68
TH-229	85.43	261	16.50	6.019E+00	6.819E-01	6.819E-01	45.76
	88.47	427	27.10	6.258E+00	6.537E-01	6.537E-01	29.38
	100.00	369	12.40	6.857E+00	1.127E+00	1.127E+00	30.19
	193.63	------	4.59*	5.996E+00	------ Line Not Found		------
	210.97	------	3.26	5.679E+00	------ Line Not Found		------
TH-230	609.31	464	46.30*	2.574E+00	1.010E+00	1.010E+00	17.41
	1120.29	100	15.10	1.516E+00	1.130E+00	1.130E+00	40.59
	1764.49	84	15.80	1.056E+00	1.314E+00	1.314E+00	31.92
U-231	84.21	261	7.00	6.019E+00	1.607E+00	1.578E+01	45.76
	92.29	5069	17.30	6.585E+00	1.154E+01	1.133E+02	9.79
	95.87	187	28.00*	6.686E+00	2.597E-01	2.550E+00	73.46

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	108.00	------	13.10	7.091E+00	------ Line Not Found		------
TH-232	338.32	338	11.40	4.057E+00	1.894E+00	1.894E+00	21.09
	911.07	328	27.70*	1.824E+00	1.684E+00	1.684E+00	20.30
	969.11	217	16.60	1.727E+00	1.961E+00	1.961E+00	29.67
PA-234M	766.42	154	0.32	2.122E+00	5.874E+01	5.874E+01	58.73
	1001.03	254	0.84*	1.677E+00	4.683E+01	4.683E+01	22.76
TH-234	63.29	2051	3.80*	3.539E+00	3.956E+01	3.956E+01	19.18
	92.38	5069	5.41	6.585E+00	3.691E+01	3.691E+01	18.67
U-234	609.31	464	46.30*	2.574E+00	1.010E+00	1.010E+00	17.41
	1120.29	100	15.10	1.516E+00	1.130E+00	1.130E+00	40.59
	1764.49	84	15.80	1.056E+00	1.314E+00	1.314E+00	31.92
U-235	89.95	394	2.70	6.435E+00	5.882E+00	5.882E+00	43.32
	93.35	5069	4.50	6.585E+00	4.437E+01	4.437E+01	28.41
	105.00	------	2.10	7.034E+00	------ Line Not Found		------
	143.76	230	10.50*	6.943E+00	8.198E-01	8.198E-01	42.90
	163.35	137	4.70	6.583E+00	1.144E+00	1.144E+00	65.64
	185.71	1115	54.00	6.147E+00	8.717E-01	8.717E-01	14.43
	205.31	------	4.70	5.780E+00	------ Line Not Found		------
NP-237	86.50	427	12.60*	6.258E+00	1.406E+00	1.406E+00	35.90
	95.87	187	2.60	6.686E+00	2.797E+00	2.797E+00	77.00
U-238	63.29	2051	3.80*	3.539E+00	3.956E+01	3.956E+01	19.18
	92.38	5069	5.41	6.585E+00	3.691E+01	3.691E+01	9.79
AM-243	74.67	373	66.00*	5.125E+00	2.857E-01	2.857E-01	26.73
	86.72	427	0.34	6.258E+00	5.272E+01	5.272E+01	29.38
	117.66	------	0.55	7.175E+00	------ Line Not Found		------
	142.18	------	0.13	6.968E+00	------ Line Not Found		------
ANH-511	511.00	182	100.00*	2.964E+00	1.592E-01	1.592E-01	39.22

Flag: "*" = Keyline

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

Total number of lines in spectrum 45
Number of unidentified lines 4
Number of lines tentatively identified by NID 41 91.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.830E+01	2.830E+01	0.295E+01	10.41	
NB-95	64.02D	1.16	1.883E-01	2.188E-01	0.674E-01	30.80	
CD-109	464.00D	1.02	4.762E+00	4.862E+00	1.428E+00	29.38	
SN-126	1.00E+05Y	1.00	4.788E-01	4.788E-01	1.407E-01	29.38	
LU-177	6.71D	4.18	6.509E-01	2.719E+00	1.446E+00	53.18	
HG-203	46.60D	1.23	4.917E-02	6.041E-02	5.279E-02	87.38	
TL-208	1.41E+10Y	1.00	5.777E-01	5.777E-01	0.940E-01	16.27	
BI-211	7.04E+08Y	1.00	3.834E+00	3.834E+00	0.603E+00	15.72	
PB-212	1.41E+10Y	1.00	1.694E+00	1.694E+00	0.227E+00	13.37	
PO-212	1.41E+10Y	1.00	1.694E+00	1.694E+00	0.227E+00	13.37	
BI-214	1600.00Y	1.00	1.010E+00	1.010E+00	0.176E+00	17.41	
PB-214	1600.00Y	1.00	1.334E+00	1.334E+00	0.221E+00	16.56	
PO-214	1600.00Y	1.00	1.334E+00	1.334E+00	0.221E+00	16.56	
PO-216	1.41E+10Y	1.00	1.694E+00	1.694E+00	0.227E+00	13.37	
PO-218	1600.00Y	1.00	1.334E+00	1.334E+00	0.221E+00	16.56	
RA-224	1.41E+10Y	1.00	3.918E+00	3.918E+00	1.005E+00	25.66	
RA-226	1600.00Y	1.00	1.010E+00	1.010E+00	0.176E+00	17.41	
AC-228	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.342E+00	20.30	
RA-228	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.342E+00	20.30	
TH-228	1.91Y	1.01	1.694E+00	1.718E+00	0.230E+00	13.37	
TH-229	7340.00Y	1.00	6.537E-01	6.537E-01	1.920E-01	29.38	K
TH-230	4.47E+09Y	1.00	1.010E+00	1.010E+00	0.176E+00	17.41	
U-231	4.20D	9.82	2.597E-01	2.550E+00	1.873E+00	73.46	
TH-232	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.342E+00	20.30	
PA-234M	4.47E+09Y	1.00	4.683E+01	4.683E+01	1.066E+01	22.76	
TH-234	4.47E+09Y	1.00	3.956E+01	3.956E+01	0.759E+01	19.18	
U-234	4.47E+09Y	1.00	1.010E+00	1.010E+00	0.176E+00	17.41	
U-235	7.04E+08Y	1.00	8.198E-01	8.198E-01	3.517E-01	42.90	
NP-237	2.14E+06Y	1.00	1.406E+00	1.406E+00	0.505E+00	35.90	
U-238	4.47E+09Y	1.00	3.956E+01	3.956E+01	0.759E+01	19.18	
AM-243	7380.00Y	1.00	2.857E-01	2.857E-01	0.764E-01	26.73	
ANH-511	1.00E+09Y	1.00	1.592E-01	1.592E-01	0.624E-01	39.22	
	Total Activity :		1.922E+02	1.967E+02			

Grand Total Activity : 1.922E+02 1.967E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	258.12	150	366	1.70	516.43	510	13	2.08E-02	55.2	4.94E+00	
0	269.95	124	281	1.16	540.09	535	10	1.72E-02	53.7	4.79E+00	T
0	328.65	51	225	0.87	657.49	653	9	7.02E-03	****	4.15E+00	T
0	409.93	86	134	0.95	820.04	816	10	1.19E-02	55.1	3.51E+00	T
0	463.28	81	147	0.90	926.73	922	10	1.13E-02	60.5	3.20E+00	T
0	727.39	99	78	1.55	1454.86	1451	10	1.38E-02	39.8	2.22E+00	T
0	756.26	38	92	0.95	1512.59	1508	11	5.22E-03	****	2.15E+00	T
0	795.72	76	64	1.68	1591.50	1586	11	1.06E-02	47.7	2.06E+00	T
4	964.78	82	41	2.21	1929.53	1925	19	1.14E-02	35.5	1.73E+00	T
0	1378.46	29	30	1.12	2756.60	2751	12	4.08E-03	86.6	1.27E+00	
0	1510.55	18	14	0.73	3020.65	3016	11	2.46E-03	94.5	1.18E+00	T
0	1631.70	11	21	1.34	3262.82	3255	12	1.53E-03	****	1.11E+00	
0	1730.76	22	20	1.72	3460.84	3451	16	3.09E-03	99.3	1.07E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:12:22.27

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395001.CNF;1 *
* Acquisition date  : 2-FEB-2010 07:10:18.  Detector SN#     :             *
* Detector ID       : GAM16                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:02.69          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245395001            Analyst initials: MXR1         *
* Batch Number      : 944966                Sample Quantity : 1.44700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.830E+01	2.946E+00	4.217E-01	3.706E-02	67.108
NB-95	2.188E-01	6.738E-02	5.924E-02	5.476E-03	3.693
CD-109	4.862E+00	1.428E+00	1.429E+00	1.377E-01	3.401
SN-126	4.788E-01	1.407E-01	1.414E-01	1.356E-02	3.386
LU-177	2.719E+00	1.446E+00	1.507E+00	1.529E-01	1.805
HG-203	6.041E-02	5.279E-02	5.797E-02	7.065E-03	1.042
TL-208	5.777E-01	9.398E-02	4.807E-02	4.764E-03	12.020
BI-211	3.834E+00	6.027E-01	2.756E-01	3.013E-02	13.912
PB-212	1.694E+00	2.265E-01	8.437E-02	9.990E-03	20.082
PO-212	1.694E+00	2.265E-01	8.437E-02	9.990E-03	20.082
BI-214	1.010E+00	1.759E-01	1.043E-01	1.102E-02	9.688
PB-214	1.334E+00	2.209E-01	9.608E-02	1.162E-02	13.882
PO-214	1.334E+00	2.209E-01	9.608E-02	1.162E-02	13.882
PO-216	1.694E+00	2.265E-01	8.437E-02	9.990E-03	20.082
PO-218	1.334E+00	2.209E-01	9.608E-02	1.162E-02	13.882
RA-224	3.918E+00	1.005E+00	9.603E-01	1.058E-01	4.080
RA-226	1.010E+00	1.759E-01	1.043E-01	1.102E-02	9.688
AC-228	1.684E+00	3.418E-01	1.884E-01	2.238E-02	8.937

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.684E+00	3.418E-01	1.884E-01	2.238E-02	8.937
TH-228	1.718E+00	2.297E-01	8.554E-02	1.013E-02	20.082
TH-229	6.537E-01	1.920E-01	7.519E-01	7.337E-02	0.869
TH-230	1.010E+00	1.759E-01	1.043E-01	1.102E-02	9.688
U-231	2.550E+00	1.873E+00	1.563E+00	1.403E-01	1.631
TH-232	1.684E+00	3.418E-01	1.884E-01	2.238E-02	8.937
PA-234M	4.683E+01	1.066E+01	6.266E+00	6.523E-01	7.474
TH-234	3.956E+01	7.589E+00	2.346E+00	4.092E-01	16.863
U-234	1.010E+00	1.759E-01	1.043E-01	1.102E-02	9.688
U-235	8.198E-01	3.517E-01	3.187E-01	5.570E-02	2.572
NP-237	1.406E+00	5.048E-01	4.198E-01	9.530E-02	3.349
U-238	3.956E+01	7.589E+00	2.346E+00	4.092E-01	16.863
AM-243	2.857E-01	7.637E-02	1.033E-01	8.550E-03	2.767
ANH-511	1.592E-01	6.245E-02	4.165E-02	3.962E-03	3.823

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.950E-01		2.853E-01	4.921E-01	4.978E-02	0.396
NA-22	-2.284E-02		3.885E-02	5.937E-02	4.940E-03	-0.385
NA-24	1.122E-01		6.721E-02	Half-Life too short		
AL-26	1.222E-02		2.771E-02	4.906E-02	4.012E-03	0.249
TI-44	3.450E-01	+	6.323E-02	7.788E-02	6.706E-03	4.430
SC-46	-2.358E-02		3.414E-02	5.342E-02	5.050E-03	-0.441
V-48	4.680E-02		5.263E-02	9.454E-02	8.702E-03	0.495
CR-51	1.204E-02		3.390E-01	5.376E-01	6.286E-02	0.022
MN-52	7.469E-02		1.851E-01	3.132E-01	2.672E-02	0.238
MN-54	-1.498E-02		3.075E-02	4.950E-02	4.649E-03	-0.303
CO-56	1.089E-02		3.285E-02	5.659E-02	5.325E-03	0.192
CO-57	3.192E-03		2.420E-02	4.072E-02	3.384E-03	0.078
CO-58	-1.881E-02		3.393E-02	5.444E-02	5.100E-03	-0.346
FE-59	-3.241E-02		7.386E-02	1.157E-01	1.076E-02	-0.280
CO-60	-1.110E-02		3.296E-02	5.083E-02	4.287E-03	-0.218
ZN-65	-5.048E-02		9.603E-02	1.271E-01	1.080E-02	-0.397
GE-68	-2.637E-01		1.082E+00	1.737E+00	1.517E-01	-0.152
AS-73	4.416E-01		1.003E+00	1.595E+00	1.217E-01	0.277
AS-74	5.425E-02		7.688E-02	1.317E-01	1.222E-02	0.412
SE-75	2.636E-02		4.550E-02	6.738E-02	7.863E-03	0.391
BR-77	6.281E-01		6.761E+00	1.120E+01	1.064E+00	0.056
SR-82	-1.904E-01		3.422E-01	5.181E-01	4.804E-02	-0.367
RB-83	-1.776E-04		6.453E-02	1.063E-01	1.010E-02	-0.002
RB-84	4.937E-02		6.540E-02	1.153E-01	1.090E-02	0.428
KR-85	4.197E+00		7.129E+00	1.083E+01	1.030E+00	0.388
SR-85	2.122E-02		3.605E-02	5.477E-02	5.208E-03	0.388
RB-86	-1.886E-01		6.403E-01	1.022E+00	8.931E-02	-0.185
Y-88	6.340E-03		2.615E-02	4.514E-02	3.664E-03	0.140
ZR-88	5.053E-03		2.719E-02	4.611E-02	4.265E-03	0.110

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	2.804E+00		1.715E+01	2.834E+01	2.304E+00	0.099
NB-94	-8.755E-03		3.271E-02	5.155E-02	4.661E-03	-0.170
NB-95M	3.504E-02		1.267E-01	1.852E-01	2.202E-02	0.189
ZR-95	9.529E-02	+	1.003E-01	1.260E-01	1.265E-02	0.756
NB-97	-6.922E-03		1.195E-02	Half-Life too short		
ZR-97	3.794E-01		2.293E-01	Half-Life too short		
MO-99	-7.591E+00		8.451E+00	1.240E+01	1.922E+00	-0.612
TC-99M	8.674E+07		5.157E+08	Half-Life too short		
RH-101	3.879E-03		3.017E-02	4.950E-02	4.887E-03	0.078
RH-102	4.349E-03		2.549E-02	4.273E-02	4.061E-03	0.102
RU-103	1.112E-02		3.488E-02	5.882E-02	8.661E-03	0.189
RH-106	2.654E-02		2.706E-01	4.433E-01	6.074E-02	0.060
RU-106	2.654E-02		2.706E-01	4.433E-01	4.054E-02	0.060
AG-108M	-1.422E-02		2.818E-02	4.542E-02	4.422E-03	-0.313
AG-110M	-1.010E-02		3.138E-02	4.942E-02	4.523E-03	-0.204
IN-111	2.953E-01		7.451E-01	1.098E+00	1.222E-01	0.269
IN-113M	7.943E-03		4.043E-02	6.860E-02	6.511E-03	0.116
SN-113	7.943E-03		4.043E-02	6.860E-02	6.511E-03	0.116
IN-114M	-2.075E-02		1.769E-01	2.569E-01	2.484E-02	-0.081
CD-115	7.562E-01		6.290E+00	1.044E+01	9.907E-01	0.072
SN-117M	-2.092E-02		4.966E-02	7.680E-02	6.821E-03	-0.272
SB-122	8.417E-01		1.405E+00	2.360E+00	2.220E-01	0.357
I-123	-3.988E-01		5.681E-01	Half-Life too short		
TE-123M	-1.039E-02		2.959E-02	4.299E-02	3.845E-03	-0.242
I-124	-5.658E-02		5.283E-01	7.881E-01	7.289E-02	-0.072
SB-124	-1.473E-02		5.856E-02	9.219E-02	8.074E-03	-0.160
SB-125	-3.572E-02		7.887E-02	1.278E-01	1.221E-02	-0.280
TE-125M	3.235E+00		1.099E+01	1.681E+01	1.711E+00	0.192
I-126	2.146E-02		1.552E-01	2.535E-01	2.255E-02	0.085
SB-126	-4.904E-02		1.301E-01	2.025E-01	1.843E-02	-0.242
SB-127	-2.356E-01		9.893E-01	1.563E+00	1.765E-01	-0.151
XE-127	-1.454E-02		4.385E-02	7.048E-02	7.049E-03	-0.206
I-131	9.390E-02		8.636E-02	1.536E-01	1.623E-02	0.611
TE-132	3.238E-01		4.744E-01	7.870E-01	1.316E-01	0.411
BA-133	-3.136E-02		4.493E-02	6.328E-02	9.145E-03	-0.496
I-133	-1.323E-03		9.274E-04	Half-Life too short		
CS-134	1.266E-01	+	6.149E-02	8.765E-02	8.218E-03	1.444
CS-135	4.187E-02		1.634E-01	2.368E-01	3.020E-02	0.177
I-135	1.205E+08		9.919E+07	Half-Life too short		
CS-136	-1.181E-01		9.886E-02	1.446E-01	1.339E-02	-0.817
BA-137M	4.345E-03		3.374E-02	5.509E-02	4.889E-03	0.079
CS-137	4.593E-03		3.567E-02	5.823E-02	5.177E-03	0.079
CE-139	2.230E-02		3.070E-02	4.686E-02	4.250E-03	0.476
BA-140	-3.611E-03		2.105E-01	3.454E-01	1.153E-01	-0.010
LA-140	-3.702E-02		6.535E-02	9.905E-02	8.436E-03	-0.374
CE-141	4.393E-02		6.382E-02	9.782E-02	8.557E-03	0.449
CE-143	1.981E-04		4.360E-05	Half-Life too short		
CE-144	-1.088E-01		2.009E-01	3.277E-01	5.061E-02	-0.332

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144	-2.616E-02		3.286E-02	4.944E-02	4.459E-03	-0.529
PR-144	-1.771E+00		2.225E+00	3.348E+00	3.019E-01	-0.529
PM-146	4.918E-02		4.080E-02	7.197E-02	8.219E-03	0.683
ND-147	-2.591E-01		4.519E-01	7.083E-01	1.095E-01	-0.366
PM-149	-5.506E+00		5.288E+01	8.380E+01	1.474E+01	-0.066
EU-152	-2.725E-02		8.385E-02	1.395E-01	1.559E-02	-0.195
GD-153	4.647E-01	+	1.403E-01	1.600E-01	1.422E-02	2.903
EU-154	-5.336E-02		1.073E-01	1.656E-01	1.834E-02	-0.322
EU-155	2.732E-02		1.081E-01	1.836E-01	1.588E-02	0.149
TB-160	1.120E-01		1.282E-01	2.283E-01	2.156E-02	0.491
HO-166M	-3.463E-03		5.630E-02	9.005E-02	8.170E-03	-0.038
TM-171	-1.569E+01		3.271E+01	4.567E+01	3.499E+00	-0.344
LU-176	-1.255E-02		2.327E-02	3.529E-02	4.093E-03	-0.356
LU-177M	9.355E-02		1.683E-01	2.592E-01	2.423E-02	0.361
HF-181	-3.864E-02		3.561E-02	5.402E-02	5.138E-03	-0.715
W-181	7.357E-01		4.295E-01	6.500E-01	4.909E-02	1.132
TA-182	4.107E-02		1.915E-01	3.170E-01	2.592E-02	0.130
RE-183	2.636E-01	+	1.671E-01	1.860E-01	1.670E-02	1.417
RE-184	9.133E-03		2.364E-01	3.394E-01	3.846E-02	0.027
OS-185	7.731E-03		3.518E-02	5.807E-02	5.220E-03	0.133
RE-188	1.403E-01		1.606E-01	2.732E-01	2.403E-02	0.514
W-188	1.575E+00		7.141E+00	1.028E+01	1.220E+00	0.153
IR-192	-8.544E-03		3.054E-02	4.749E-02	5.427E-03	-0.180
AU-195	1.351E+00	+	4.080E-01	4.892E-01	4.307E-02	2.763
TL-200	-8.203E-05		8.566E-05	Half-Life too short		
TL-201	-2.751E-02		5.274E+00	7.775E+00	7.078E-01	-0.004
TL-202	1.670E-02		5.476E-02	9.299E-02	8.776E-03	0.180
BI-207	6.214E-03		4.695E-02	7.826E-02	6.899E-03	0.079
TL-207	-6.020E-01		7.507E-01	9.761E-01	1.867E-01	-0.617
PO-209	2.472E+00		6.372E+00	1.099E+01	1.039E+00	0.225
BI-210	-2.091E+00		4.087E+00	6.275E+00	5.852E-01	-0.333
PB-210	-2.091E+00		4.087E+00	6.275E+00	5.852E-01	-0.333
PO-210	-2.091E+00		4.086E+00	6.275E+00	5.301E-01	-0.333
PB-211	-1.895E-01		9.245E-01	1.331E+00	8.351E-01	-0.142
BI-212	9.841E-01	+	4.051E-01	6.074E-01	6.346E-02	1.620
PO-215	-6.020E-01		7.507E-01	9.761E-01	1.867E-01	-0.617
RN-219	7.066E-02		3.550E-01	6.017E-01	9.280E-02	0.117
RN-220	4.428E+00		2.248E+01	3.741E+01	3.534E+00	0.118
RA-223	-6.020E-01		7.507E-01	9.761E-01	1.867E-01	-0.617
AC-227	3.030E-01		4.019E-01	5.990E-01	1.023E-01	0.506
TH-227	3.030E-01		4.029E-01	5.990E-01	1.171E-01	0.506
PA-231	1.667E-01		1.363E+00	2.189E+00	3.787E-01	0.076
TH-231	-6.020E-01		7.507E-01	9.761E-01	1.867E-01	-0.617
PA-233	1.389E-02		5.632E-02	9.065E-02	1.060E-02	0.153
PA-234	1.488E-01		2.767E-01	4.782E-01	9.135E-02	0.311
NP-236	3.225E-02		8.155E-02	1.229E-01	1.097E-02	0.262
NP-239	2.128E-01		1.996E-01	3.139E-01	2.613E-02	0.678
AM-241	6.347E-02		2.138E-01	3.099E-01	2.432E-02	0.205

Sample ID : G245395001 Acquisition date : 2-FEB-2010 07:10:18

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.483E-02		9.863E-02	1.571E-01	1.350E-02	-0.222
AM-246	2.240E-02		1.257E-01	2.101E-01	1.833E-02	0.107
CM-247	-8.969E-03		3.255E-02	5.369E-02	4.992E-03	-0.167
CF-249	-2.082E-02		3.608E-02	5.860E-02	5.498E-03	-0.355
CF-251	6.315E-02		1.202E-01	2.012E-01	1.876E-02	0.314

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395001           *
* Acquisition date  :  2-FEB-2010 07:10:18 Detector SN#     :               *
* Detector ID       : GAM16                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.69      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395001           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.4470E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.830E+01	2.887E+00	2.121E-01	1.473E+00
NB-95	2.188E-01	6.603E-02	3.024E-02	3.369E-02
CD-109	4.862E+00	1.400E+00	7.647E-01	7.141E-01
SN-126	4.788E-01	1.378E-01	7.566E-02	7.033E-02
LU-177	2.719E+00	1.417E+00	7.916E-01	7.231E-01
HG-203	6.041E-02	5.173E-02	3.026E-02	2.639E-02
TL-208	5.777E-01	9.210E-02	2.469E-02	4.699E-02
BI-211	3.834E+00	5.906E-01	1.432E-01	3.013E-01
PB-212	1.694E+00	2.220E-01	4.420E-02	1.133E-01
PO-212	1.694E+00	2.220E-01	4.420E-02	1.133E-01
BI-214	1.010E+00	1.723E-01	5.350E-02	8.793E-02
PB-214	1.334E+00	2.165E-01	4.990E-02	1.104E-01
PO-214	1.334E+00	2.165E-01	4.990E-02	1.104E-01
PO-216	1.694E+00	2.220E-01	4.420E-02	1.133E-01
PO-218	1.334E+00	2.165E-01	4.990E-02	1.104E-01
RA-224	3.918E+00	9.852E-01	5.030E-01	5.026E-01
RA-226	1.010E+00	1.723E-01	5.350E-02	8.793E-02
AC-228	1.684E+00	3.350E-01	9.580E-02	1.709E-01
RA-228	1.684E+00	3.350E-01	9.580E-02	1.709E-01
TH-228	1.718E+00	2.251E-01	4.481E-02	1.148E-01
TH-229	-8.171E-02	4.542E-01	3.957E-01	2.318E-01
TH-230	1.010E+00	1.723E-01	5.350E-02	8.793E-02
U-231	2.550E+00	1.835E+00	8.347E-01	9.365E-01
TH-232	1.684E+00	3.350E-01	9.580E-02	1.709E-01
PA-234M	4.683E+01	1.045E+01	3.179E+00	5.329E+00
TH-234	3.956E+01	7.437E+00	1.264E+00	3.794E+00
U-234	1.010E+00	1.723E-01	5.350E-02	8.793E-02
U-235	8.198E-01	3.446E-01	1.688E-01	1.758E-01
NP-237	1.406E+00	4.947E-01	2.247E-01	2.524E-01
U-238	3.956E+01	7.437E+00	1.264E+00	3.794E+00
AM-243	2.857E-01	7.484E-02	5.544E-02	3.818E-02
ANH-511	1.592E-01	6.120E-02	2.146E-02	3.122E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.950E-01	2.796E-01	2.539E-01	1.426E-01	NOT IDENT.
NA-22	-2.284E-02	3.807E-02	2.995E-02	1.942E-02	NOT IDENT.
NA-24	1.122E+05	1.317E+05	0.000E+00	6.721E+04	SHORT HLIF
AL-26	1.222E-02	2.716E-02	2.455E-02	1.386E-02	NOT IDENT.
TI-44	3.450E-01	6.197E-02	4.176E-02	3.162E-02	FAIL ABUN
SC-46	-2.358E-02	3.346E-02	2.718E-02	1.707E-02	FAIL ABUN
V-48	4.680E-02	5.157E-02	4.799E-02	2.631E-02	NOT IDENT.
CR-51	1.204E-02	3.322E-01	2.798E-01	1.695E-01	NOT IDENT.
MN-52	7.469E-02	1.814E-01	1.576E-01	9.256E-02	NOT IDENT.
MN-54	-1.498E-02	3.014E-02	2.522E-02	1.538E-02	NOT IDENT.
CO-56	1.089E-02	3.220E-02	2.882E-02	1.643E-02	NOT IDENT.
CO-57	3.192E-03	2.372E-02	2.164E-02	1.210E-02	NOT IDENT.
CO-58	-1.881E-02	3.325E-02	2.775E-02	1.696E-02	NOT IDENT.
FE-59	-3.241E-02	7.238E-02	5.858E-02	3.693E-02	FAIL ABUN
CO-60	-1.110E-02	3.230E-02	2.562E-02	1.648E-02	NOT IDENT.
ZN-65	-5.048E-02	9.411E-02	6.433E-02	4.801E-02	NOT IDENT.
GE-68	-2.637E-01	1.060E+00	8.799E-01	5.410E-01	NOT IDENT.
AS-73	4.416E-01	9.830E-01	8.620E-01	5.015E-01	NOT IDENT.
AS-74	5.425E-02	7.534E-02	6.759E-02	3.844E-02	NOT IDENT.
SE-75	2.636E-02	4.459E-02	3.522E-02	2.275E-02	NOT IDENT.
BR-77	6.281E-01	6.625E+00	5.768E+00	3.380E+00	FAIL ABUN
SR-82	-1.904E-01	3.354E-01	2.644E-01	1.711E-01	NOT IDENT.
RB-83	-1.776E-04	6.324E-02	5.471E-02	3.227E-02	NOT IDENT.
RB-84	4.937E-02	6.409E-02	5.868E-02	3.270E-02	NOT IDENT.
KR-85	4.197E+00	6.986E+00	5.579E+00	3.564E+00	NOT IDENT.
SR-85	2.122E-02	3.533E-02	2.821E-02	1.802E-02	NOT IDENT.
RB-86	-1.886E-01	6.275E-01	5.177E-01	3.201E-01	NOT IDENT.
Y-88	6.340E-03	2.563E-02	2.258E-02	1.308E-02	NOT IDENT.
ZR-88	5.053E-03	2.664E-02	2.389E-02	1.359E-02	NOT IDENT.
Y-91	2.804E+00	1.681E+01	1.432E+01	8.575E+00	NOT IDENT.
NB-94	-8.755E-03	3.206E-02	2.637E-02	1.635E-02	NOT IDENT.
NB-95M	3.504E-02	1.242E-01	9.705E-02	6.335E-02	NOT IDENT.
ZR-95	9.529E-02	9.829E-02	6.434E-02	5.015E-02	FAIL ABUN
NB-97	-6.922E+03	2.342E+04	0.000E+00	1.195E+04	SHORT HLIF
ZR-97	3.794E+05	4.495E+05	0.000E+00	2.293E+05	SHORT HLIF
MO-99	-7.591E+00	8.282E+00	6.336E+00	4.225E+00	NOT IDENT.
TC-99M	8.674E+13	1.011E+15	0.000E+00	5.157E+14	SHORT HLIF
RH-101	3.879E-03	2.956E-02	2.604E-02	1.508E-02	NOT IDENT.
RH-102	4.349E-03	2.498E-02	2.205E-02	1.275E-02	FAIL ABUN
RU-103	1.112E-02	3.418E-02	3.032E-02	1.744E-02	FAIL ABUN
RH-106	2.654E-02	2.652E-01	2.273E-01	1.353E-01	FAIL ABUN
RU-106	2.654E-02	2.652E-01	2.273E-01	1.353E-01	FAIL ABUN
AG-108M	-1.422E-02	2.762E-02	2.349E-02	1.409E-02	NOT IDENT.
AG-110M	-1.010E-02	3.075E-02	2.531E-02	1.569E-02	NOT IDENT.
IN-111	2.953E-01	7.302E-01	5.746E-01	3.726E-01	NOT IDENT.
IN-113M	7.943E-03	3.962E-02	3.555E-02	2.021E-02	NOT IDENT.
SN-113	7.943E-03	3.962E-02	3.555E-02	2.021E-02	NOT IDENT.
IN-114M	-2.075E-02	1.733E-01	1.352E-01	8.844E-02	NOT IDENT.
CD-115	7.562E-01	6.164E+00	5.373E+00	3.145E+00	NOT IDENT.
SN-117M	-2.092E-02	4.866E-02	4.059E-02	2.483E-02	NOT IDENT.
SB-122	8.417E-01	1.377E+00	1.213E+00	7.023E-01	NOT IDENT.
I-123	-3.988E+05	1.114E+06	0.000E+00	5.681E+05	SHORT HLIF
TE-123M	-1.039E-02	2.900E-02	2.272E-02	1.480E-02	NOT IDENT.
I-124	-5.658E-02	5.177E-01	4.045E-01	2.641E-01	FAIL ABUN
SB-124	-1.473E-02	5.739E-02	4.620E-02	2.928E-02	FAIL ABUN
SB-125	-3.572E-02	7.729E-02	6.608E-02	3.944E-02	FAIL ABUN
TE-125M	3.235E+00	1.077E+01	8.956E+00	5.497E+00	NOT IDENT.
I-126	2.146E-02	1.521E-01	1.298E-01	7.760E-02	NOT IDENT.
SB-126	-4.904E-02	1.275E-01	1.035E-01	6.503E-02	FAIL ABUN
SB-127	-2.356E-01	9.695E-01	8.001E-01	4.947E-01	NOT IDENT.
XE-127	-1.454E-02	4.298E-02	3.705E-02	2.193E-02	FAIL ABUN
I-131	9.390E-02	8.463E-02	7.972E-02	4.318E-02	NOT IDENT.
TE-132	3.238E-01	4.649E-01	4.126E-01	2.372E-01	FAIL ABUN
BA-133	-3.136E-02	4.404E-02	3.286E-02	2.247E-02	FAIL ABUN
I-133	-1.323E+03	1.818E+03	0.000E+00	9.274E+02	SHORT HLIF
CS-134	1.266E-01	6.026E-02	4.470E-02	3.075E-02	FAIL ABUN
CS-135	4.187E-02	1.601E-01	1.238E-01	8.170E-02	NOT IDENT.
I-135	1.205E+14	1.944E+14	0.000E+00	9.919E+13	SHORT HLIF
CS-136	-1.181E-01	9.688E-02	7.330E-02	4.943E-02	FAIL ABUN
BA-137M	4.345E-03	3.306E-02	2.821E-02	1.687E-02	NOT IDENT.
CS-137	4.593E-03	3.495E-02	2.983E-02	1.783E-02	NOT IDENT.
CE-139	2.230E-02	3.009E-02	2.474E-02	1.535E-02	NOT IDENT.
BA-140	-3.611E-03	2.063E-01	1.777E-01	1.053E-01	FAIL ABUN

LA-140	-3.702E-02	6.404E-02	4.971E-02	3.268E-02	FAIL ABUN
CE-141	4.393E-02	6.254E-02	5.179E-02	3.191E-02	NOT IDENT.
CE-143	1.981E+02	8.546E+01	0.000E+00	4.360E+01	SHORT HLIF
CE-144	-1.088E-01	1.968E-01	1.738E-01	1.004E-01	NOT IDENT.
PM-144	-2.616E-02	3.220E-02	2.529E-02	1.643E-02	NOT IDENT.
PR-144	-1.771E+00	2.180E+00	1.713E+00	1.112E+00	NOT IDENT.
PM-146	4.918E-02	3.998E-02	3.717E-02	2.040E-02	NOT IDENT.
ND-147	-2.591E-01	4.429E-01	3.646E-01	2.260E-01	FAIL ABUN
PM-149	-5.506E+00	5.182E+01	4.373E+01	2.644E+01	NOT IDENT.
EU-152	-2.725E-02	8.217E-02	7.248E-02	4.192E-02	FAIL ABUN
GD-153	4.647E-01	1.375E-01	8.545E-02	7.014E-02	FAIL ABUN
EU-154	-5.336E-02	1.052E-01	8.354E-02	5.365E-02	FAIL ABUN
EU-155	2.732E-02	1.059E-01	9.786E-02	5.403E-02	FAIL ABUN
TB-160	1.120E-01	1.257E-01	1.162E-01	6.411E-02	FAIL ABUN
HO-166M	-3.463E-03	5.517E-02	4.605E-02	2.815E-02	FAIL ABUN
TM-171	-1.569E+01	3.206E+01	2.457E+01	1.636E+01	NOT IDENT.
LU-176	-1.255E-02	2.281E-02	1.838E-02	1.164E-02	FAIL ABUN
LU-177M	9.355E-02	1.650E-01	1.342E-01	8.416E-02	FAIL ABUN
HF-181	-3.864E-02	3.490E-02	2.786E-02	1.780E-02	NOT IDENT.
W-181	7.357E-01	4.209E-01	3.499E-01	2.148E-01	NOT IDENT.
TA-182	4.107E-02	1.877E-01	1.601E-01	9.576E-02	FAIL ABUN
RE-183	2.636E-01	1.638E-01	9.825E-02	8.357E-02	FAIL ABUN
RE-184	9.133E-03	2.316E-01	1.776E-01	1.182E-01	NOT IDENT.
OS-185	7.731E-03	3.447E-02	2.976E-02	1.759E-02	NOT IDENT.
RE-188	1.403E-01	1.574E-01	1.444E-01	8.031E-02	NOT IDENT.
W-188	1.575E+00	6.998E+00	5.364E+00	3.571E+00	FAIL ABUN
IR-192	-8.544E-03	2.993E-02	2.472E-02	1.527E-02	FAIL ABUN
AU-195	1.351E+00	3.998E-01	2.611E-01	2.040E-01	FAIL ABUN
TL-200	-8.203E+01	1.679E+02	0.000E+00	8.566E+01	SHORT HLIF
TL-201	-2.751E-02	5.168E+00	4.104E+00	2.637E+00	NOT IDENT.
TL-202	1.670E-02	5.366E-02	4.807E-02	2.738E-02	NOT IDENT.
BI-207	6.214E-03	4.602E-02	3.965E-02	2.348E-02	FAIL ABUN
TL-207	-6.020E-01	7.357E-01	5.079E-01	3.753E-01	FAIL ABUN
PO-209	2.472E+00	6.245E+00	5.590E+00	3.186E+00	NOT IDENT.
BI-210	-2.091E+00	4.005E+00	3.402E+00	2.043E+00	NOT IDENT.
PB-210	-2.091E+00	4.005E+00	3.402E+00	2.043E+00	NOT IDENT.
PO-210	-2.091E+00	4.004E+00	3.402E+00	2.043E+00	NOT IDENT.
PB-211	-1.895E-01	9.060E-01	6.890E-01	4.622E-01	NOT IDENT.
BI-212	9.841E-01	3.970E-01	3.104E-01	2.025E-01	FAIL ABUN
PO-215	-6.020E-01	7.357E-01	5.079E-01	3.753E-01	FAIL ABUN
RN-219	7.066E-02	3.479E-01	3.116E-01	1.775E-01	FAIL ABUN
RN-220	4.428E+00	2.203E+01	1.924E+01	1.124E+01	NOT IDENT.
RA-223	-6.020E-01	7.357E-01	5.079E-01	3.753E-01	FAIL ABUN
AC-227	3.030E-01	3.939E-01	3.133E-01	2.010E-01	FAIL ABUN
TH-227	3.030E-01	3.949E-01	3.133E-01	2.015E-01	FAIL ABUN
PA-231	1.667E-01	1.335E+00	1.143E+00	6.813E-01	FAIL ABUN
TH-231	-6.020E-01	7.357E-01	5.079E-01	3.753E-01	FAIL ABUN
PA-233	1.389E-02	5.519E-02	4.721E-02	2.816E-02	FAIL ABUN
PA-234	1.488E-01	2.712E-01	2.429E-01	1.384E-01	FAIL ABUN
NP-236	3.225E-02	7.992E-02	6.495E-02	4.078E-02	FAIL ABUN
NP-239	2.128E-01	1.956E-01	1.669E-01	9.979E-02	FAIL ABUN
AM-241	6.347E-02	2.095E-01	1.671E-01	1.069E-01	NOT IDENT.
CM-243	-3.483E-02	9.666E-02	8.374E-02	4.932E-02	FAIL ABUN
AM-246	2.240E-02	1.231E-01	1.064E-01	6.283E-02	NOT IDENT.
CM-247	-8.969E-03	3.190E-02	2.780E-02	1.628E-02	FAIL ABUN
CF-249	-2.082E-02	3.536E-02	3.038E-02	1.804E-02	NOT IDENT.
CF-251	6.315E-02	1.178E-01	1.061E-01	6.011E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	460.7866
46.50	460.7866
46.50	460.7866
48.70	473.4238
49.72	512.8912
51.35	514.2097
52.39	536.1306
52.97	544.2314
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53.44	544.9735
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56.28	649.8248
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57.53	664.2274
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57.98	713.6776
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59.40	689.9920
59.54	711.4164
59.72	711.7598
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61.10	734.0007
61.14	734.0771
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66.83	607.1816
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67.20	667.5178
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68.90	660.3142
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77.11	831.2761

77.11	831.2761
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81.07	833.4932
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86.50	740.4398
86.54	740.5005
86.59	740.5787
86.72	740.7783
86.79	740.8825
86.94	741.1213
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94.67	752.8250
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94.90	508.2861
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97.43	622.5373
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98.44	451.8172
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99.55	452.7755
99.55	452.7755
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105.31	471.6181
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109.28	543.9087

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111.00	586.4865
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117.00	363.8379
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121.62	388.8901
121.78	384.3617
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122.32	386.5598
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136.48	388.7001
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143.76	370.9183
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144.24	369.7395
144.24	369.7395
145.22	365.9505
145.44	366.0668
147.16	343.8645
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152.70	335.9161
153.22	356.5654
154.21	399.8662
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156.02	369.6661
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161.27	334.5146
162.32	361.5522
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163.35	372.3975
163.89	372.6667
165.85	320.2657
167.43	322.4206
171.28	321.5576
171.86	333.7561
172.10	333.8584
176.55	321.7347
176.60	321.7576
181.06	294.8387
184.41	317.8266
185.71	318.3313
186.00	318.4463
190.27	292.0637
192.34	307.6077
193.63	302.9616
197.04	298.0152
198.01	302.4697
198.60	289.2924
200.40	339.4185
201.83	312.0796
202.84	334.1682
205.31	336.1487

208.36	354.4866
208.81	280.1919
209.75	280.4874
209.75	280.4874
210.97	255.2894
215.65	263.4346
216.55	243.7341
218.09	300.9715
222.10	262.1150
223.80	282.7097
226.40	261.1948
227.00	265.6097
227.08	268.8202
227.20	268.8537
228.16	234.0230
228.18	234.0275
228.18	234.0275
231.56	0.0000
235.69	287.8569
236.00	287.9498
236.00	287.9498
238.63	265.6059
238.63	265.6059
238.63	265.6059
238.63	265.6059
239.00	265.7039
240.98	266.2391
241.98	266.5079
241.98	266.5079
241.98	266.5079
244.69	214.2180
245.39	199.7530
247.94	224.6796
248.90	229.2380
249.79	206.6045
252.40	197.8676
252.85	209.4063
252.85	209.4063
254.15	0.0000
256.20	205.1630
256.20	205.1630
260.50	204.3646
260.90	215.9813
262.80	214.7214
264.65	196.8940
268.24	215.8203
268.79	189.3552
269.46	188.3655
269.46	188.3655
269.46	188.3655
269.46	188.3655
271.23	199.7717
273.65	220.2404
276.40	197.3785
277.35	181.9225
277.60	181.9656
277.60	181.9656
278.00	180.9152
278.60	187.7183
279.20	199.5560
279.53	186.1980
280.46	184.6750
281.68	163.0274
283.67	175.1064
284.30	175.2048
285.00	179.8079
285.90	170.9567
286.10	168.7347
286.10	168.7347
287.40	174.5611
288.45	0.0000
290.67	171.1125
290.80	171.1310
291.72	164.4868
293.26	0.0000
293.70	183.4563
295.21	175.1924
295.21	175.1924

295.21	175.1924
295.96	170.2026
296.50	143.0369
297.23	143.1266
298.57	143.2906
299.80	150.2725
299.80	150.2725
300.09	186.1795
300.09	186.1795
300.09	186.1795
300.09	186.1795
300.12	186.1862
301.29	186.3724
302.84	166.0734
303.76	167.9171
303.91	167.9380
304.40	164.5781
304.40	164.5781
304.84	173.2146
306.84	175.2253
308.46	163.9967
311.98	147.2266
316.51	159.3239
318.01	168.7679
319.02	182.7904
319.41	190.9491
320.08	170.2110
323.87	210.8084
323.87	210.8084
323.87	210.8084
323.87	210.8084
325.23	205.8086
328.77	173.7424
333.44	149.8125
334.20	147.5588
334.20	147.5588
334.30	147.5717
338.28	152.4388
338.28	152.4388
338.28	152.4388
338.28	152.4388
338.32	152.4441
338.32	152.4441
338.32	152.4441
340.50	139.8157
340.57	139.8230
344.27	161.1162
345.85	133.5415
350.59	0.0000
351.07	136.1512
351.92	136.2399
351.92	136.2399
351.92	136.2399
355.39	0.0000
356.01	178.6423
364.48	110.5604
366.43	135.0243
367.43	148.6349
367.94	0.0000
369.80	147.0895
374.96	148.5474
383.85	133.0878
387.95	157.2450
388.63	149.0867
391.69	145.7411
391.69	145.7411
392.90	138.5257
398.62	144.6026
400.65	119.9013
401.10	131.0103
401.81	127.3809
402.60	141.3037
404.84	136.1537
410.95	130.7754
411.60	138.2648
413.65	114.6353
414.70	111.7365
415.30	104.3284

415.76	106.8456
417.63	0.0000
418.52	143.7593
423.70	121.7719
427.08	122.0416
427.89	123.0464
432.53	100.8072
433.93	121.6422
439.47	107.8822
439.56	105.9946
439.89	102.2305
443.98	107.2428
444.90	117.7504
445.03	117.7618
445.03	117.7618
445.03	117.7618
445.03	117.7618
453.90	107.9135
463.38	115.2722
468.07	89.3987
473.00	133.3401
475.06	104.4833
475.35	98.6958
476.78	106.5273
477.59	102.7037
477.96	98.8499
482.03	114.6330
484.57	113.8329
487.03	102.3067
490.36	0.0000
492.35	116.3108
497.08	97.0302
507.63	0.0000
510.53	0.0000
510.84	104.7141
511.00	104.7238
511.85	104.7732
511.85	104.7732
513.99	110.8379
513.99	110.8379
520.41	112.2310
520.65	112.2482
527.90	92.7531
528.96	0.0000
529.64	99.8322
529.87	0.0000
531.02	100.9075
537.32	93.2356
543.00	87.4885
546.56	0.0000
549.76	85.7912
552.65	79.8583
555.20	103.2482
563.23	90.4721
563.90	91.5189
568.70	83.5941
569.32	84.6414
569.50	84.6490
569.67	92.8162
573.80	96.0826
574.00	96.0912
574.64	80.7841
578.91	70.5091
579.30	0.0000
583.14	80.1114
585.48	59.2295
591.81	79.4344
592.07	79.4438
593.00	76.3848
595.88	80.6303
600.56	96.3632
602.52	0.0000
602.71	105.1092
602.71	105.1092
603.60	112.9039
604.41	112.9504
604.70	112.9670
609.31	106.1462

609.31	106.1462
609.31	106.1462
609.31	106.1462
610.33	103.2839
612.46	93.3871
614.37	96.8130
618.01	79.4280
621.84	76.4352
621.84	76.4352
631.29	77.8369
633.02	84.2188
633.10	83.1684
634.78	83.2359
635.90	87.4960
636.97	87.5416
645.85	72.0217
646.12	67.7949
656.30	79.8248
657.75	89.4653
657.90	0.0000
661.65	93.8948
661.65	93.8948
664.57	0.0000
666.33	88.7498
666.33	88.7498
675.00	91.2489
677.61	93.5075
685.20	86.2793
692.80	77.9150
695.00	113.7383
696.49	106.2245
696.49	106.2245
697.00	105.1642
697.49	93.2594
698.33	92.2087
698.50	91.1316
699.00	86.8115
702.63	103.2539
706.10	99.0564
706.58	0.0000
706.67	95.8149
709.31	87.2046
711.68	85.1125
713.82	89.5599
717.42	87.5122
720.50	97.4877
721.93	0.0000
722.20	106.9853
722.78	107.0121
722.78	107.0121
722.89	107.0181
722.95	103.5122
723.30	96.5078
724.18	86.0132
727.18	93.1537
733.00	81.0525
735.90	91.5158
739.58	102.7007
742.81	68.5618
744.21	78.5598
747.13	87.5177
751.79	85.2469
752.31	85.2656
753.82	87.0970
755.35	78.2590
756.15	83.4000
756.87	83.4251
763.93	87.4607
765.79	80.3826
766.42	94.6987
766.84	100.5222
776.49	82.9767
778.00	97.6148
778.57	88.6580
778.89	88.6701
783.80	97.8431
785.46	80.1282
792.07	72.2148

795.84	75.0364
796.30	66.3097
798.80	78.4422
801.93	75.0873
805.60	77.1412
810.29	71.8291
810.76	75.4802
815.85	60.1396
817.79	54.7134
818.51	56.5523
819.60	65.7018
826.30	54.8936
828.27	0.0000
831.60	74.2586
831.96	76.1022
834.83	72.5137
836.80	0.0000
846.75	58.0904
848.13	61.8114
856.28	0.0000
856.80	67.8745
860.37	65.8033
867.32	56.9135
867.82	56.7948
871.10	57.6906
873.19	53.0785
874.81	58.7010
875.33	0.0000
876.40	71.7871
879.36	58.7995
880.27	64.4213
880.51	58.8241
881.50	64.4500
883.24	67.2943
884.67	72.9403
889.25	69.3154
896.60	54.4727
898.02	53.5614
899.00	56.4009
903.28	60.0178
911.07	62.3084
911.07	62.3084
911.07	62.3084
919.63	61.5516
920.93	72.0015
925.00	61.6675
925.24	54.0818
926.50	56.9546
935.52	52.3722
937.48	67.6545
944.10	58.2598
946.00	58.2970
949.00	60.2714
962.29	38.4414
964.01	60.9011
966.15	58.7006
968.20	58.7408
969.11	58.7602
969.11	58.7602
969.11	58.7602
977.42	47.3324
980.50	50.2823
983.50	36.7819
989.30	49.4610
996.32	42.1230
1001.03	53.5471
1001.68	53.5592
1004.76	47.1144
1021.30	0.0000
1024.50	0.0000
1034.80	59.0596
1036.00	56.1289
1037.82	44.3364
1038.57	50.2604
1038.76	0.0000
1045.16	42.4667
1046.59	58.2942
1048.07	83.0320

1050.47	57.3770
1050.47	57.3770
1062.04	59.5723
1063.62	56.6215
1076.63	54.8550
1077.35	56.8636
1078.86	53.8945
1085.78	62.0121
1099.22	54.2320
1112.02	64.5250
1112.84	70.5947
1115.52	75.6958
1120.29	50.5371
1120.29	50.5371
1120.29	50.5371
1120.29	50.5371
1120.51	64.0168
1121.28	65.7173
1124.00	0.0000
1129.67	57.4359
1131.51	0.0000
1147.95	0.0000
1167.94	69.7000
1173.22	56.4609
1175.09	68.8189
1177.93	57.5668
1189.05	80.4375
1204.90	68.3687
1205.75	0.0000
1213.00	74.7562
1221.42	79.0949
1230.97	70.9551
1235.34	87.7570
1236.41	0.0000
1238.25	67.9612
1246.25	55.5387
1260.41	0.0000
1271.85	46.4277
1274.45	49.6300
1274.54	51.7419
1291.56	57.2827
1298.22	0.0000
1312.09	35.1962
1325.50	29.9688
1325.50	29.9688
1332.49	35.3832
1333.61	30.0316
1360.21	24.8373
1362.66	0.0000
1365.15	29.1938
1368.21	18.3954
1368.53	0.0000
1376.25	16.2642
1384.27	18.1079
1394.10	20.6940
1395.20	23.9680
1407.95	21.8584
1434.06	26.3988
1436.60	19.2611
1457.56	0.0000
1460.81	20.2965
1489.15	24.1486
1509.49	9.5989
1596.49	24.7495
1620.62	13.3979
1678.03	0.0000
1691.02	14.5740
1691.02	14.5740
1706.46	0.0000
1750.46	0.0000
1764.49	15.7845
1764.49	15.7845
1764.49	15.7845
1764.49	15.7845
1770.23	15.2384
1771.40	45.4441
1791.20	0.0000
1808.65	12.9397

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395001

Total Uranium Activity	1.1807E+02	ug/g
Total Uranium Counting Unc.	2.2126E+01	ug/g
Total Uranium Tpu	1.1289E-05	ug/g
Total Uranium Mda	3.7603E+00	ug/g

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*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 944966                    SAMPLE ID   : G245395001        *
*   ANALYST       : MXR1                      DETECTOR    : GAM16             *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  2-FEB-2010 07:10:18.40    SAMPLE ALQT:  144.700 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.424E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.721E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 5.197E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.541E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:21:02.12

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395002.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:20:31.
Sample ID         : G245395002           Sample quantity  : 1.45270E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.98  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.44*	394	603	1.11	126.01	122	8	5.48E-02	12.2	
2	3	74.96	416	571	0.93	149.05	142	16	5.78E-02	10.4	1.94E+00
3	3	77.26*	627	553	0.97	153.63	142	16	8.71E-02	7.2	
4	0	87.13	262	679	1.24	173.37	171	7	3.64E-02	17.5	
5	0	93.01*	1303	1217	1.18	185.12	180	11	1.81E-01	6.0	
6	0	98.97	216	585	1.06	197.04	193	9	3.00E-02	21.4	
7	0	143.53	63	422	1.14	286.14	284	7	8.82E-03	55.3	
8	0	185.98*	523	491	1.40	370.99	366	11	7.27E-02	9.6	
9	0	209.36	193	414	1.67	417.73	413	10	2.68E-02	21.1	
10	3	238.72*	1701	306	1.21	476.44	472	17	2.36E-01	3.0	9.84E-01
11	3	241.69*	420	365	1.62	482.38	472	17	5.83E-02	10.9	
12	0	270.48	112	338	1.15	539.94	535	10	1.55E-02	32.4	
13	0	295.27*	522	363	1.15	589.50	582	12	7.24E-02	8.6	
14	0	300.47	143	272	1.54	599.89	595	10	1.98E-02	23.4	
15	0	338.28*	281	440	1.31	675.49	667	16	3.90E-02	17.9	
16	0	351.88*	962	216	1.33	702.70	696	11	1.34E-01	4.5	
17	0	463.51	93	210	1.09	925.88	921	12	1.29E-02	33.0	
18	0	510.70*	175	277	1.70	1020.24	1012	18	2.44E-02	26.0	
19	0	583.12*	604	215	1.63	1165.03	1156	18	8.39E-02	7.1	
20	0	609.27*	713	187	1.44	1217.33	1212	13	9.91E-02	5.5	
21	0	727.62	174	202	2.14	1453.96	1443	22	2.41E-02	22.3	
22	0	795.50	89	128	2.16	1589.69	1584	14	1.23E-02	29.5	
23	0	838.70	139	143	6.16	1676.07	1665	24	1.93E-02	24.3	
24	0	860.54*	45	115	1.53	1719.75	1715	11	6.21E-03	50.3	
25	0	910.97*	471	84	1.92	1820.58	1812	15	6.55E-02	6.2	
26	0	968.82*	265	91	1.66	1936.27	1931	13	3.68E-02	9.9	
27	0	1000.80*	186	91	1.91	2000.21	1992	18	2.58E-02	14.3	
28	0	1119.90*	188	146	1.10	2238.36	2227	18	2.62E-02	16.8	
29	0	1377.69	69	47	1.45	2753.89	2746	16	9.65E-03	25.3	
30	0	1460.36*	2711	82	2.35	2919.20	2908	20	3.77E-01	2.1	
31	0	1763.82*	151	23	1.80	3526.09	3516	18	2.10E-02	11.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 09:21:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:20:31
Sample ID : G245395002 Sample quantity : 145.27 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.98 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.468E+01	3.005E+00	3.531E-01	2.679E-02	98.215
CD-109	+	88.03	*	2.888E+00	1.047E+00	1.514E+00	1.399E-01	1.908
SN-126	+	64.28		3.417E+00	9.718E-01	8.170E-01	1.208E-01	4.183
	+	86.94		1.182E+00	6.424E-01	5.560E-01	2.306E-01	2.126
	+	87.57	*	2.844E-01	1.032E-01	1.391E-01	1.282E-02	2.044
TL-208		277.35		3.327E-01	3.046E-01	5.150E-01	5.408E-02	0.646
	+	510.84		4.866E-01	2.583E-01	1.589E-01	1.689E-02	3.063
	+	583.14	*	4.713E-01	7.661E-02	4.268E-02	3.346E-03	11.042
	+	860.37		3.181E-01	3.221E-01	3.425E-01	3.832E-02	0.929
BI-211		72.87		3.834E+00	3.119E+00	5.309E+00	4.384E-01	0.722
	+	351.07	*	3.525E+00	3.882E-01	2.503E-01	1.606E-02	14.085
PB-212	+	74.81		2.036E+00	4.946E-01	5.552E-01	6.959E-02	3.668
	+	77.11		1.713E+00	2.876E-01	3.106E-01	2.633E-02	5.517
	+	87.30		1.315E+00	4.949E-01	6.459E-01	8.772E-02	2.037
	+	238.63	*	1.451E+00	1.353E-01	7.259E-02	5.186E-03	19.988
	+	300.09		1.807E+00	8.592E-01	9.180E-01	7.537E-02	1.969
PO-212	+	74.81		2.036E+00	4.946E-01	5.552E-01	6.959E-02	3.668
	+	77.11		1.713E+00	2.876E-01	3.106E-01	2.633E-02	5.517
	+	87.30		1.315E+00	4.949E-01	6.459E-01	8.772E-02	2.037
		115.19		-3.598E+00	3.407E+00	5.276E+00	3.324E-01	-0.682
	+	238.63	*	1.451E+00	1.353E-01	7.259E-02	5.186E-03	19.988
	+	300.09		1.807E+00	8.592E-01	9.180E-01	7.537E-02	1.969
BI-214	+	609.31	*	1.044E+00	1.484E-01	8.666E-02	7.741E-03	12.049
	+	1120.29		1.381E+00	4.817E-01	3.638E-01	3.483E-02	3.796
	+	1764.49		1.461E+00	3.458E-01	2.237E-01	1.360E-02	6.530
PB-214	+	74.81		3.509E+00	8.284E-01	9.566E-01	1.068E-01	3.668
	+	77.11		2.937E+00	5.415E-01	5.325E-01	6.068E-02	5.517
	+	87.30		2.253E+00	8.356E-01	1.106E+00	1.327E-01	2.037
	+	241.98		2.147E+00	4.997E-01	4.363E-01	3.450E-02	4.921
	+	295.21		1.162E+00	2.232E-01	1.757E-01	1.490E-02	6.617
	+	351.92	*	1.226E+00	1.494E-01	8.856E-02	7.326E-03	13.847
PO-214	+	74.81		3.509E+00	8.284E-01	9.566E-01	1.068E-01	3.668
	+	77.11		2.937E+00	5.415E-01	5.325E-01	6.068E-02	5.517
	+	87.30		2.253E+00	8.356E-01	1.106E+00	1.327E-01	2.037

Sample ID : G245395002 Acquisition date : 2-FEB-2010 07:20:31

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.147E+00	4.997E-01	4.363E-01	3.450E-02	4.921
	+	295.21		1.162E+00	2.232E-01	1.757E-01	1.490E-02	6.617
	+	351.92	*	1.226E+00	1.494E-01	8.856E-02	7.326E-03	13.847
PO-216	+	74.81		2.036E+00	4.946E-01	5.552E-01	6.959E-02	3.668
	+	77.11		1.713E+00	2.876E-01	3.106E-01	2.633E-02	5.517
	+	87.30		1.315E+00	4.949E-01	6.459E-01	8.772E-02	2.037
	+	238.63	*	1.451E+00	1.353E-01	7.259E-02	5.186E-03	19.988
	+	300.09		1.807E+00	8.592E-01	9.180E-01	7.537E-02	1.969
PO-218	+	74.81		3.509E+00	8.284E-01	9.566E-01	1.068E-01	3.668
	+	77.11		2.937E+00	5.415E-01	5.325E-01	6.068E-02	5.517
	+	87.30		2.253E+00	8.356E-01	1.106E+00	1.327E-01	2.037
	+	241.98		2.147E+00	4.997E-01	4.363E-01	3.450E-02	4.921
	+	295.21		1.162E+00	2.232E-01	1.757E-01	1.490E-02	6.617
	+	351.92	*	1.226E+00	1.494E-01	8.856E-02	7.326E-03	13.847
RA-224	+	240.98	*	4.071E+00	9.195E-01	8.251E-01	4.596E-02	4.935
RA-226	+	609.31	*	1.044E+00	1.484E-01	8.666E-02	7.741E-03	12.049
	+	1120.29		1.381E+00	4.817E-01	3.638E-01	3.483E-02	3.796
	+	1764.49		1.461E+00	3.458E-01	2.237E-01	1.360E-02	6.530
AC-228	+	338.32		1.142E+00	6.196E-01	2.854E-01	1.163E-01	4.001
	+	911.07	*	1.582E+00	2.874E-01	1.409E-01	1.866E-02	11.230
	+	969.11		1.564E+00	4.869E-01	3.477E-01	8.326E-02	4.498
RA-228	+	338.32		1.142E+00	6.196E-01	2.854E-01	1.163E-01	4.001
	+	911.07	*	1.582E+00	2.874E-01	1.409E-01	1.866E-02	11.230
	+	969.11		1.564E+00	4.869E-01	3.477E-01	8.326E-02	4.498
TH-228	+	74.81		2.065E+00	4.634E-01	5.629E-01	4.743E-02	3.668
	+	77.11		1.737E+00	2.916E-01	3.149E-01	2.669E-02	5.517
	+	87.30		1.334E+00	4.837E-01	6.548E-01	6.019E-02	2.037
	+	238.63	*	1.471E+00	1.372E-01	7.359E-02	5.258E-03	19.988
	+	300.09		1.832E+00	1.379E+00	9.307E-01	5.485E-01	1.969
TH-230	+	609.31	*	1.044E+00	1.484E-01	8.666E-02	7.741E-03	12.049
	+	1120.29		1.381E+00	4.817E-01	3.637E-01	3.483E-02	3.796
	+	1764.49		1.461E+00	3.458E-01	2.237E-01	1.360E-02	6.530
TH-232	+	338.32		1.142E+00	4.143E-01	2.854E-01	1.651E-02	4.001
	+	911.07	*	1.582E+00	2.874E-01	1.409E-01	1.866E-02	11.230
	+	969.11		1.564E+00	4.869E-01	3.477E-01	8.326E-02	4.498
TH-234	+	63.29	*	8.632E+00	2.593E+00	2.143E+00	3.778E-01	4.028
	+	92.38		8.939E+00	1.936E+00	8.394E-01	1.513E-01	10.649
U-234	+	609.31	*	1.044E+00	1.484E-01	8.666E-02	7.741E-03	12.049
	+	1120.29		1.381E+00	4.817E-01	3.637E-01	3.483E-02	3.796
	+	1764.49		1.461E+00	3.458E-01	2.237E-01	1.360E-02	6.530
U-235		89.95		-2.411E+00	1.844E+00	1.796E+00	5.556E-01	-1.343
	+	93.35		1.075E+01	3.273E+00	9.991E-01	2.792E-01	10.757
		105.00		9.329E-01	1.012E+00	1.630E+00	4.796E-01	0.572
	+	143.76	*	1.899E-01	2.123E-01	2.860E-01	4.631E-02	0.664
		163.35		2.516E-01	3.756E-01	6.443E-01	1.148E-01	0.390
	+	185.71		3.274E-01	6.500E-02	5.675E-02	3.019E-03	5.769
		205.31		1.911E-01	4.558E-01	6.751E-01	1.206E-01	0.283
NP-237	+	86.50	*	8.351E-01	3.485E-01	3.866E-01	8.723E-02	2.160
		95.87		9.424E-01	1.250E+00	1.483E+00	3.624E-01	0.635

Sample ID : G245395002 Acquisition date : 2-FEB-2010 07:20:31

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	+	63.29	*	8.632E+00	2.593E+00	2.143E+00	3.778E-01	4.028
	+	92.38		8.939E+00	1.315E+00	8.394E-01	7.135E-02	10.649
AM-243	+	74.67	*	3.302E-01	7.401E-02	9.036E-02	7.541E-03	3.654
	+	86.72		3.132E+01	1.136E+01	1.478E+01	1.351E+00	2.120
		117.66		-3.585E+00	3.379E+00	5.204E+00	3.201E-01	-0.689
	+	142.18		1.595E+01	1.767E+01	2.471E+01	1.361E+00	0.646
ANH-511	+	511.00	*	1.051E-01	5.510E-02	3.432E-02	2.267E-03	3.062

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.498E-02	2.420E-01	4.005E-01	2.902E-02	0.037
NA-22		1274.54	*	-2.192E-02	3.487E-02	5.456E-02	3.713E-03	-0.402
NA-24		1368.53	*	-2.820E-02	3.487E-02	Half-Life too short		
AL-26		1129.67		-3.467E-02	1.378E+00	2.243E+00	1.498E-01	-0.015
		1808.65	*	-7.983E-04	1.852E-02	3.016E-02	1.761E-03	-0.026
TI-44		67.85		-6.062E-02	4.927E-02	7.397E-02	5.949E-03	-0.820
	+	78.38	*	3.162E-01	5.307E-02	7.372E-02	6.303E-03	4.289
SC-46		889.25	*	-2.456E-03	2.865E-02	4.652E-02	5.189E-03	-0.053
	+	1120.51		2.338E-01	8.008E-02	9.637E-02	6.658E-03	2.426
V-48		944.10		-4.550E-01	6.256E-01	9.562E-01	1.012E-01	-0.476
		983.50	*	8.725E-03	5.281E-02	8.650E-02	8.556E-03	0.101
		1312.09		2.336E-02	6.031E-02	1.017E-01	7.409E-03	0.230
CR-51		320.08	*	1.045E-01	2.790E-01	4.576E-01	2.946E-02	0.228
MN-52		744.21		-4.027E-02	1.426E-01	2.323E-01	2.049E-02	-0.173
		848.13		1.075E+00	5.118E+00	7.356E+00	7.695E-01	0.146
		935.52		2.605E-01	1.789E-01	3.142E-01	3.370E-02	0.829
		1246.25		2.877E+00	4.861E+00	8.299E+00	5.336E-01	0.347
		1333.61		-2.760E+00	3.483E+00	5.300E+00	4.004E-01	-0.521
		1434.06	*	5.557E-02	1.453E-01	2.453E-01	1.808E-02	0.227
MN-54		834.83	*	5.460E-03	3.429E-02	4.906E-02	5.025E-03	0.111
CO-56		846.75	*	-5.482E-03	3.555E-02	4.933E-02	5.149E-03	-0.111
		977.42		-3.942E-01	2.469E+00	3.641E+00	3.642E-01	-0.108
		1037.82		-6.401E-02	2.366E-01	3.888E-01	3.602E-02	-0.165
		1175.09		-6.306E-01	1.765E+00	2.854E+00	1.584E-01	-0.221
		1238.25		1.095E-01	7.458E-02	1.306E-01	8.703E-03	0.838
		1360.21		-1.076E+00	7.869E-01	1.108E+00	8.330E-02	-0.971
		1771.40		3.776E-03	1.584E-01	2.357E-01	1.424E-02	0.016
CO-57		122.06	*	3.093E-02	2.244E-02	3.770E-02	2.233E-03	0.820
		136.48		-3.842E-02	1.805E-01	2.851E-01	1.866E-02	-0.135
CO-58		810.76	*	7.042E-03	2.899E-02	4.854E-02	4.791E-03	0.145
FE-59	+	142.65		2.401E+00	2.659E+00	3.946E+00	2.171E-01	0.608
		192.34		5.675E-01	7.627E-01	1.264E+00	1.466E-01	0.449
		1099.22	*	-8.217E-02	7.173E-02	1.099E-01	9.043E-03	-0.748
		1291.56		-4.881E-02	1.015E-01	1.605E-01	1.349E-02	-0.304
CO-60		1173.22		-1.473E-02	3.489E-02	5.613E-02	3.102E-03	-0.262
		1332.49	*	4.089E-03	3.073E-02	5.081E-02	3.839E-03	0.080
ZN-65		1115.52	*	5.260E-02	8.723E-02	1.303E-01	9.178E-03	0.404

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GE-68		1077.35	*	-5.800E-01	1.010E+00	1.621E+00	1.287E-01	-0.358
AS-73		53.44	*	4.449E-01	1.023E+00	1.745E+00	1.383E-01	0.255
AS-74		595.88	*	1.530E-02	6.841E-02	1.121E-01	8.057E-03	0.136
		634.78		-3.605E-02	2.603E-01	4.149E-01	3.089E-02	-0.087
SE-75		66.05		-6.966E+00	5.377E+00	7.502E+00	7.430E-01	-0.929
		96.73		3.519E-01	1.000E+00	1.173E+00	1.547E-01	0.300
		121.11		3.114E-02	1.232E-01	1.996E-01	1.863E-02	0.156
		136.00		-2.690E-03	3.364E-02	5.342E-02	3.042E-03	-0.050
		198.60		-5.616E-01	1.403E+00	2.308E+00	1.566E-01	-0.243
		264.65	*	1.648E-02	3.588E-02	5.561E-02	3.181E-03	0.296
		279.53		-3.090E-02	8.932E-02	1.433E-01	8.852E-03	-0.216
		303.91		2.734E-01	1.754E+00	2.505E+00	2.383E-01	0.109
		400.65		7.153E-02	1.901E-01	3.235E-01	2.947E-02	0.221
BR-77	+	87.88		4.265E+02	1.547E+02	2.187E+02	2.021E+01	1.950
		200.40		9.195E+00	8.700E+01	1.457E+02	7.847E+00	0.063
	+	239.00		1.590E+02	1.300E+01	2.017E+01	1.122E+00	7.882
		249.79		-1.523E+01	3.487E+01	5.616E+01	3.148E+00	-0.271
		281.68		-1.047E+01	5.094E+01	8.215E+01	4.688E+00	-0.127
		297.23		1.706E+02	5.066E+01	6.556E+01	3.764E+00	2.602
		303.76		2.543E+01	1.031E+02	1.482E+02	8.524E+00	0.172
		439.47		1.575E+00	6.870E+01	1.142E+02	6.964E+00	0.014
		484.57		7.933E+01	1.144E+02	1.956E+02	1.256E+01	0.405
		520.65	*	4.973E+00	5.365E+00	9.231E+00	6.158E-01	0.539
		574.64		6.417E+01	1.194E+02	1.826E+02	1.285E+01	0.352
		578.91		2.793E+01	5.281E+01	7.710E+01	5.451E+00	0.362
		585.48		9.494E+02	1.465E+02	2.534E+02	1.803E+01	3.746
		755.35		8.291E+01	8.773E+01	1.530E+02	1.375E+01	0.542
		817.79		-3.262E+01	6.498E+01	1.030E+02	1.027E+01	-0.317
SR-82		698.33		-6.552E+00	2.345E+01	3.850E+01	3.135E+00	-0.170
		776.49	*	-1.987E-01	2.941E-01	4.659E-01	4.339E-02	-0.427
		1395.20		-3.758E+00	7.943E+00	1.230E+01	9.163E-01	-0.306
RB-83		520.41	*	4.202E-02	5.109E-02	8.748E-02	5.834E-03	0.480
		529.64		6.156E-02	8.024E-02	1.367E-01	9.205E-03	0.450
		552.65		2.439E-02	1.383E-01	2.278E-01	1.570E-02	0.107
RB-84		881.50	*	-1.584E-02	5.002E-02	7.985E-02	8.800E-03	-0.198
KR-85		513.99	*	1.724E+01	6.433E+00	1.064E+01	7.048E-01	1.620
SR-85		513.99	*	8.718E-02	3.253E-02	5.380E-02	3.564E-03	1.620
RB-86		1076.63	*	1.180E-02	6.128E-01	1.024E+00	8.148E-02	0.012
Y-88		898.02		-1.422E-02	3.227E-02	5.101E-02	5.783E-03	-0.279
		1836.01	*	-1.533E-02	2.216E-02	3.211E-02	1.829E-03	-0.477
ZR-88		392.90	*	-9.251E-03	2.179E-02	3.573E-02	2.055E-03	-0.259
Y-91		1204.90	*	-2.044E+01	1.597E+01	2.429E+01	1.436E+00	-0.842
NB-94		702.63	*	-6.013E-03	2.458E-02	4.044E-02	3.318E-03	-0.149
		871.10		-1.925E-02	2.629E-02	4.067E-02	4.410E-03	-0.473
NB-95		765.79	*	7.270E-02	3.796E-02	6.753E-02	6.178E-03	1.076
NB-95M		235.69	*	3.761E-02	1.095E-01	1.612E-01	1.183E-02	0.233
ZR-95		724.18		9.539E-02	8.490E-02	1.315E-01	1.219E-02	0.726
		756.15	*	3.711E-02	5.394E-02	9.288E-02	9.139E-03	0.400
NB-97		657.90	*	-1.628E-02	5.394E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1024.50		-2.605E+00	5.394E-02	Half-Life too short		
ZR-97		254.15		7.273E-01	5.394E-02	Half-Life too short		
		355.39		7.967E-01	5.394E-02	Half-Life too short		
		507.63	*	7.943E-01	5.394E-02	Half-Life too short		
		602.52		9.599E-01	5.394E-02	Half-Life too short		
		1021.30		1.255E+00	5.394E-02	Half-Life too short		
		1147.95		-5.474E-01	5.394E-02	Half-Life too short		
		1362.66		4.285E-01	5.394E-02	Half-Life too short		
		1750.46		2.670E-01	5.394E-02	Half-Life too short		
MO-99		140.51		2.803E+00	1.887E+01	2.652E+01	7.132E+00	0.106
		181.06		-2.463E+00	1.086E+01	1.589E+01	2.698E+00	-0.155
		366.43		9.550E+00	4.354E+01	7.411E+01	4.281E+00	0.129
		739.58	*	2.009E+00	5.939E+00	1.007E+01	1.536E+00	0.199
		778.00		-3.658E+00	1.931E+01	3.157E+01	2.948E+00	-0.116
TC-99M		140.51	*	1.514E+08	1.931E+01	Half-Life too short		
RH-101		127.23		-1.975E-02	2.904E-02	4.530E-02	2.617E-03	-0.436
		198.01	*	-1.036E-02	2.584E-02	4.253E-02	2.286E-03	-0.244
		325.23		-2.785E-01	1.845E-01	2.743E-01	1.585E-02	-1.015
RH-102		418.52		-5.366E-02	2.121E-01	3.442E-01	2.046E-02	-0.156
		475.06	*	1.191E-03	2.246E-02	3.717E-02	2.361E-03	0.032
		631.29		9.247E-04	4.225E-02	6.811E-02	5.055E-03	0.014
		697.49		-3.446E-02	5.530E-02	8.882E-02	7.221E-03	-0.388
		766.84		2.291E-01	9.761E-02	1.754E-01	1.608E-02	1.306
		1046.59		1.659E-02	9.008E-02	1.524E-01	1.315E-02	0.109
		1112.84		1.155E-01	2.216E-01	3.293E-01	2.337E-02	0.351
RU-103		497.08	*	-1.606E-02	2.869E-02	4.545E-02	5.902E-03	-0.353
	+	610.33		1.102E+01	2.146E+00	2.151E+00	3.449E-01	5.122
RH-106	+	511.85		5.237E-01	2.745E-01	3.327E-01	2.199E-02	1.574
		621.84	*	5.450E-02	2.332E-01	3.815E-01	4.800E-02	0.143
		1050.47		-5.495E-01	1.794E+00	2.939E+00	2.511E-01	-0.187
RU-106	+	511.85		5.237E-01	2.745E-01	3.327E-01	2.199E-02	1.574
		621.84	*	5.450E-02	2.331E-01	3.815E-01	2.808E-02	0.143
		1050.47		-5.495E-01	1.794E+00	2.939E+00	2.511E-01	-0.187
AG-108M		433.93	*	1.164E-02	2.369E-02	4.039E-02	2.639E-03	0.288
		614.37		3.484E-03	3.390E-02	4.758E-02	3.666E-03	0.073
		722.95		-1.998E-02	3.671E-02	5.014E-02	4.434E-03	-0.398
AG-110M		657.75	*	-2.186E-02	2.748E-02	4.406E-02	3.475E-03	-0.496
		677.61		1.191E-02	2.306E-01	3.873E-01	3.142E-02	0.031
		706.67		3.463E-02	1.569E-01	2.649E-01	2.255E-02	0.131
		763.93		-3.645E-02	1.459E-01	2.387E-01	2.232E-02	-0.153
		884.67		-1.161E-02	3.537E-02	5.635E-02	6.364E-03	-0.206
		937.48		-4.612E-02	9.254E-02	1.419E-01	1.553E-02	-0.325
		1384.27		2.503E-02	1.318E-01	1.879E-01	1.457E-02	0.133
IN-111		171.28		-3.360E-01	5.685E-01	9.383E-01	4.937E-02	-0.358
		245.39	*	1.426E-01	6.655E-01	9.716E-01	5.430E-02	0.147
IN-113M		391.69	*	1.425E-02	3.120E-02	5.346E-02	3.279E-03	0.267
SN-113		391.69	*	1.425E-02	3.120E-02	5.346E-02	3.279E-03	0.267
IN-114M		190.27	*	4.084E-02	1.577E-01	2.355E-01	1.257E-02	0.173
CD-115		260.90		1.236E+01	6.585E+01	1.087E+02	6.134E+00	0.114

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		492.35		7.272E+00	1.686E+01	2.845E+01	1.842E+00	0.256
		527.90	*	1.285E+00	5.513E+00	9.136E+00	6.141E-01	0.141
SN-117M		156.02		-6.080E-02	1.686E+00	2.856E+00	1.525E-01	-0.021
		158.56	*	2.578E-02	4.085E-02	7.058E-02	3.751E-03	0.365
SB-122		563.90	*	1.465E+00	1.186E+00	2.050E+00	1.429E-01	0.715
		692.80		9.963E+00	2.293E+01	3.925E+01	3.164E+00	0.254
I-123		159.00	*	-1.393E-01	2.293E+01	Half-Life too short		
		528.96		5.543E+01	2.293E+01	Half-Life too short		
TE-123M		159.00	*	-3.597E-03	2.249E-02	3.791E-02	2.045E-03	-0.095
I-124		602.71	*	2.682E-01	4.861E-01	7.076E-01	5.116E-02	0.379
		722.78		-1.921E+00	3.073E+00	4.165E+00	3.539E-01	-0.461
		1325.50		-8.503E+00	2.188E+01	3.459E+01	2.581E+00	-0.246
	+	1376.25		5.574E+01	2.847E+01	3.887E+01	2.911E+00	1.434
		1509.49		1.009E+01	1.004E+01	1.800E+01	1.290E+00	0.561
		1691.02		5.538E-01	2.206E+00	3.761E+00	2.426E-01	0.147
SB-124		602.71		1.908E-02	3.459E-02	5.035E-02	3.641E-03	0.379
		645.85		-4.340E-02	3.814E-01	6.080E-01	4.929E-02	-0.071
		709.31		5.561E-01	2.016E+00	3.416E+00	2.836E-01	0.163
		713.82		-9.533E-01	1.222E+00	1.933E+00	2.292E-01	-0.493
		722.78		-1.981E-01	3.170E-01	4.296E-01	3.732E-02	-0.461
	+	968.20		1.586E+01	3.543E+00	5.421E+00	5.513E-01	2.925
		1045.16		2.130E-01	1.917E+00	3.230E+00	2.797E-01	0.066
		1325.50		-9.367E-01	2.410E+00	3.810E+00	2.843E-01	-0.246
		1368.21		-2.531E-01	1.514E+00	2.206E+00	2.822E-01	-0.115
		1436.60		6.560E-01	2.777E+00	4.514E+00	3.323E-01	0.145
		1691.02	*	1.347E-02	5.368E-02	9.151E-02	6.313E-03	0.147
SB-125		427.89	*	1.243E-03	6.620E-02	1.103E-01	6.891E-03	0.011
	+	463.38		5.098E-01	3.387E-01	4.108E-01	2.945E-02	1.241
		600.56		5.666E-02	1.434E-01	2.369E-01	1.887E-02	0.239
		635.90		6.010E-02	2.055E-01	3.368E-01	2.778E-02	0.178
TE-125M		109.28	*	-1.662E+01	8.845E+00	1.317E+01	1.157E+00	-1.262
I-126		388.63		7.438E-02	1.381E-01	2.375E-01	1.365E-02	0.313
		666.33	*	-9.326E-02	1.321E-01	2.127E-01	1.635E-02	-0.439
		753.82		5.938E-01	1.045E+00	1.790E+00	1.604E-01	0.332
SB-126		223.80		-1.137E+00	2.967E+00	4.838E+00	2.659E-01	-0.235
		278.60		1.975E+00	1.860E+00	3.155E+00	1.798E-01	0.626
	+	296.50		1.075E+01	1.953E+00	2.662E+00	1.528E-01	4.040
		414.70		-5.463E-03	5.097E-02	8.458E-02	5.002E-03	-0.065
		415.30		1.932E+00	4.179E+00	7.133E+00	4.222E-01	0.271
		555.20		-1.510E+00	2.644E+00	4.142E+00	2.862E-01	-0.364
		573.80		4.104E-02	7.881E-01	1.209E+00	8.506E-02	0.034
		593.00		2.071E-01	6.564E-01	1.083E+00	7.760E-02	0.191
		656.30		-3.930E+00	2.438E+00	3.691E+00	2.800E-01	-1.065
		666.33		-3.885E-02	5.502E-02	8.860E-02	6.811E-03	-0.439
		675.00		-2.603E-01	1.387E+00	2.298E+00	1.794E-01	-0.113
		695.00		1.927E-02	5.200E-02	8.871E-02	7.180E-03	0.217
		697.00		-1.878E-02	1.820E-01	3.021E-01	2.454E-02	-0.062
		720.50	*	9.442E-05	1.153E-01	1.654E-01	1.400E-02	0.001
		856.80		-1.541E-01	4.130E-01	5.605E-01	5.944E-02	-0.275

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		989.30		-2.312E-01	9.271E-01	1.472E+00	1.440E-01	-0.157
		1034.80		-7.283E+00	6.661E+00	9.781E+00	8.684E-01	-0.745
		1213.00		2.182E+00	3.586E+00	6.122E+00	3.681E-01	0.356
SB-127		61.10		-4.572E+01	5.441E+01	7.835E+01	7.891E+00	-0.583
		252.40		5.241E-01	2.630E+00	4.337E+00	1.796E+00	0.121
		290.80		1.196E+00	1.496E+01	2.135E+01	1.845E+00	0.056
		411.60		1.183E+00	7.260E+00	1.221E+01	1.724E+00	0.097
		444.90		3.488E-01	5.601E+00	9.323E+00	9.870E-01	0.037
		473.00		2.171E-01	9.991E-01	1.668E+00	1.850E-01	0.130
		543.00		3.850E+00	1.014E+01	1.689E+01	2.210E+00	0.228
		603.60		9.908E-01	8.410E+00	1.183E+01	1.329E+00	0.084
		685.20	*	4.718E-02	8.183E-01	1.373E+00	1.442E-01	0.034
		698.50		-1.297E+00	8.621E+00	1.427E+01	2.182E+00	-0.091
		722.20		-7.784E+00	2.027E+01	2.808E+01	2.998E+00	-0.277
		783.80		5.051E+00	2.475E+00	4.391E+00	5.561E-01	1.150
XE-127		57.60		-4.425E-01	6.848E+00	1.145E+01	8.825E-01	-0.039
		145.22		1.253E-01	6.740E-01	9.579E-01	5.236E-02	0.131
		172.10		-4.425E-02	9.097E-02	1.507E-01	7.932E-03	-0.294
		202.84	*	-1.029E-02	3.601E-02	5.941E-02	3.207E-03	-0.173
		374.96		-5.881E-02	1.372E-01	2.258E-01	1.302E-02	-0.260
I-131		80.18		1.031E-01	4.355E+00	6.422E+00	5.593E-01	0.016
		284.30		-5.373E-01	1.091E+00	1.735E+00	1.103E-01	-0.310
		364.48	*	5.872E-03	7.419E-02	1.255E-01	8.086E-03	0.047
		636.97		-2.763E-01	1.071E+00	1.693E+00	1.354E-01	-0.163
		722.89		-3.158E+00	5.514E+00	7.511E+00	6.419E-01	-0.420
TE-132		49.72		-1.279E+01	1.917E+01	3.154E+01	3.105E+00	-0.406
		111.76		5.898E+01	2.231E+01	3.802E+01	3.377E+00	1.551
		116.30		-2.011E+01	1.925E+01	2.969E+01	2.574E+00	-0.677
		228.16	*	-1.900E-03	3.985E-01	6.587E-01	9.219E-02	-0.003
BA-133		53.15		2.410E+00	4.466E+00	7.641E+00	6.063E-01	0.315
		79.62		5.861E-01	1.379E+00	2.061E+00	3.139E-01	0.284
		81.00		-2.480E-02	1.057E-01	1.540E-01	2.454E-02	-0.161
		276.40		2.885E-01	3.131E-01	5.093E-01	6.579E-02	0.567
		302.84		1.150E-01	1.237E-01	1.845E-01	2.147E-02	0.623
		356.01	*	1.692E-02	3.821E-02	5.482E-02	6.332E-03	0.309
		383.85		-2.088E-02	2.296E-01	3.794E-01	4.116E-02	-0.055
I-133	+	510.53		3.747E-01	2.296E-01	Half-Life too short		
		529.87	*	1.121E-03	2.296E-01	Half-Life too short		
		706.58		2.467E-02	2.296E-01	Half-Life too short		
		856.28		-1.193E-01	2.296E-01	Half-Life too short		
		875.33		2.351E-02	2.296E-01	Half-Life too short		
		1236.41		3.093E-01	2.296E-01	Half-Life too short		
		1298.22		3.441E-02	2.296E-01	Half-Life too short		
CS-134		475.35		-7.531E-02	1.472E+00	2.422E+00	1.539E-01	-0.031
		563.23		1.864E-01	2.922E-01	4.912E-01	3.470E-02	0.379
		569.32		-1.014E-01	1.585E-01	2.426E-01	1.734E-02	-0.418
		604.70		-1.659E-02	3.123E-02	4.161E-02	3.025E-03	-0.399
	+	795.84	*	9.697E-02	5.797E-02	7.168E-02	6.933E-03	1.353
		801.93		8.446E-03	3.317E-01	4.714E-01	4.599E-02	0.018

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1038.57		-9.923E-01	2.979E+00	4.874E+00	4.289E-01	-0.204
		1167.94		1.030E+00	1.910E+00	3.272E+00	1.855E-01	0.315
		1365.15		5.498E-01	9.723E-01	1.665E+00	1.324E-01	0.330
CS-135		268.24	*	1.252E-01	1.417E-01	2.124E-01	1.606E-02	0.589
I-135		288.45		1.628E+08	1.417E-01	Half-Life too short		
		417.63		-1.433E+08	1.417E-01	Half-Life too short		
		546.56		2.205E+08	1.417E-01	Half-Life too short		
		836.80		8.123E+08	1.417E-01	Half-Life too short		
		1038.76		-1.782E+07	1.417E-01	Half-Life too short		
		1124.00		1.402E+09	1.417E-01	Half-Life too short		
		1131.51		2.135E+07	1.417E-01	Half-Life too short		
		1260.41	*	2.898E+07	1.417E-01	Half-Life too short		
		1457.56		4.680E+10	1.417E-01	Half-Life too short		
		1678.03		3.464E+07	1.417E-01	Half-Life too short		
		1706.46		9.457E+07	1.417E-01	Half-Life too short		
		1791.20		-1.324E+08	1.417E-01	Half-Life too short		
CS-136		66.91		-6.378E-01	7.967E-01	1.137E+00	1.717E-01	-0.561
	+	86.29		3.464E+00	1.299E+00	1.776E+00	2.341E-01	1.950
		153.22		2.516E-01	4.946E-01	8.525E-01	5.866E-02	0.295
		163.89		2.535E-01	7.912E-01	1.351E+00	9.229E-02	0.188
		176.55		1.452E-01	2.732E-01	4.676E-01	2.833E-02	0.311
		273.65		-6.905E-01	4.025E-01	5.134E-01	3.344E-02	-1.345
		340.57		2.721E-01	1.156E-01	1.820E-01	1.119E-02	1.495
		818.51		-1.840E-02	4.902E-02	7.847E-02	7.834E-03	-0.234
		1048.07	*	-8.256E-03	7.829E-02	1.300E-01	1.165E-02	-0.064
		1235.34		6.304E-01	4.724E-01	8.245E-01	8.475E-02	0.765
BA-137M		661.65	*	4.635E-02	2.917E-02	5.239E-02	3.994E-03	0.885
CS-137		661.65	*	4.900E-02	3.084E-02	5.538E-02	4.232E-03	0.885
CE-139		165.85	*	6.471E-03	2.359E-02	4.021E-02	2.111E-03	0.161
BA-140		162.64		2.249E-01	5.551E-01	9.510E-01	5.765E-02	0.236
		304.84		2.996E-01	1.010E+00	1.451E+00	3.958E-01	0.207
		423.70		-2.014E-01	1.255E+00	2.069E+00	6.584E-01	-0.097
		537.32	*	2.302E-02	1.823E-01	2.996E-01	9.801E-02	0.077
LA-140		328.77		4.128E-01	2.294E-01	3.950E-01	2.559E-02	1.045
		432.53		9.761E-01	1.401E+00	2.411E+00	1.598E-01	0.405
		487.03		1.104E-03	9.139E-02	1.506E-01	1.074E-02	0.007
		751.79		8.712E-02	1.177E+00	1.963E+00	1.928E-01	0.044
		815.85		-3.345E-02	2.202E-01	3.588E-01	3.878E-02	-0.093
		867.82		1.250E-01	1.085E+00	1.606E+00	1.792E-01	0.078
		919.63		4.205E-01	1.944E+00	3.149E+00	3.978E-01	0.134
		925.24		1.073E-01	8.141E-01	1.338E+00	1.515E-01	0.080
		1596.49	*	-2.019E-02	5.614E-02	8.946E-02	6.138E-03	-0.226
CE-141		145.44	*	1.946E-04	6.065E-02	8.543E-02	4.877E-03	0.002
CE-143		57.37		-2.712E-04	6.065E-02	Half-Life too short		
		231.56		-3.841E-04	6.065E-02	Half-Life too short		
		293.26	*	3.398E-04	6.065E-02	Half-Life too short		
	+	350.59		1.443E-02	6.065E-02	Half-Life too short		
		490.36		-1.341E-03	6.065E-02	Half-Life too short		
		664.57		6.675E-05	6.065E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		721.93		-2.130E-04	6.065E-02	Half-Life too short		
CE-144		80.11		9.040E-02	2.240E+00	3.305E+00	2.862E-01	0.027
		133.54	*	-1.297E-01	1.851E-01	2.861E-01	4.045E-02	-0.453
PM-144		476.78		1.194E-02	5.118E-02	8.547E-02	6.341E-03	0.140
		618.01		5.428E-03	2.514E-02	3.999E-02	3.044E-03	0.136
		696.49	*	-2.220E-03	2.529E-02	4.203E-02	3.412E-03	-0.053
		778.57		-8.702E-01	1.820E+00	2.920E+00	2.730E-01	-0.298
PR-144		696.49	*	-1.503E-01	1.713E+00	2.846E+00	2.310E-01	-0.053
		1489.15		3.125E-01	8.299E+00	1.348E+01	9.740E-01	0.023
PM-146		453.90	*	7.965E-03	3.324E-02	5.573E-02	4.958E-03	0.143
		633.02		-6.073E-01	1.098E+00	1.666E+00	6.183E-01	-0.365
		735.90		6.104E-02	1.200E-01	1.783E-01	5.104E-02	0.342
		747.13		-6.277E-02	6.510E-02	1.000E-01	1.419E-02	-0.628
ND-147		91.11		1.805E+00	4.422E-01	5.631E-01	5.296E-02	3.205
		319.41		1.374E-01	2.361E+00	3.815E+00	2.203E-01	0.036
		439.89		9.659E-02	3.788E+00	6.299E+00	3.843E-01	0.015
		531.02	*	1.224E-02	4.028E-01	6.596E-01	9.203E-02	0.019
PM-149		285.90	*	-5.184E+01	4.975E+01	7.616E+01	1.077E+01	-0.681
EU-152		121.78		5.009E-02	6.665E-02	1.097E-01	8.454E-03	0.457
		244.69		4.463E-02	2.889E-01	4.204E-01	2.348E-02	0.106
		344.27	*	2.028E-02	9.047E-02	1.195E-01	7.799E-03	0.170
		443.98		-1.979E-01	7.009E-01	1.145E+00	7.018E-02	-0.173
		778.89		-1.327E-01	2.110E-01	3.352E-01	3.134E-02	-0.396
		867.32		5.494E-02	7.299E-01	1.033E+00	1.114E-01	0.053
		964.01		4.938E-01	2.667E-01	4.226E-01	4.329E-02	1.169
		1085.78		5.456E-02	3.139E-01	5.291E-01	4.100E-02	0.103
		1112.02		1.717E-01	3.046E-01	4.548E-01	3.238E-02	0.378
		1407.95		1.259E-01	1.521E-01	2.643E-01	1.963E-02	0.476
GD-153		69.67		2.230E+00	1.779E+00	2.766E+00	2.245E-01	0.806
		83.37		1.858E+01	1.598E+01	2.418E+01	2.147E+00	0.769
		97.43	*	6.482E-02	1.098E-01	1.305E-01	1.020E-02	0.497
		103.18		-6.587E-02	1.109E-01	1.560E-01	1.125E-02	-0.422
EU-154		123.07		2.179E-02	4.709E-02	7.671E-02	7.255E-03	0.284
		247.94		-4.066E-02	3.035E-01	4.583E-01	4.318E-02	-0.089
		591.81		6.252E-02	5.001E-01	7.690E-01	8.180E-02	0.081
		723.30		7.102E-03	1.536E-01	2.211E-01	2.084E-02	0.032
		756.87		5.058E-01	5.922E-01	1.026E+00	1.258E-01	0.493
		873.19		-1.096E-01	2.282E-01	3.600E-01	5.015E-02	-0.304
		996.32		2.453E-01	3.410E-01	5.017E-01	9.175E-02	0.489
		1004.76		1.915E-01	2.006E-01	3.013E-01	3.705E-02	0.636
		1274.45	*	-1.024E-01	1.004E-01	1.518E-01	1.517E-02	-0.674
EU-155		48.70		-4.347E-01	3.232E+00	5.434E+00	4.122E-01	-0.080
		60.01		3.828E+00	5.952E+00	9.169E+00	6.997E-01	0.417
	+	86.54		3.424E-01	1.242E-01	1.763E-01	1.624E-02	1.942
		105.31	*	6.217E-02	9.973E-02	1.648E-01	1.179E-02	0.377
TB-160	+	86.79		9.035E-01	3.277E-01	4.661E-01	4.265E-02	1.938
		197.04		-3.226E-01	4.414E-01	7.180E-01	3.856E-02	-0.449
		215.65		-4.133E-01	6.087E-01	9.489E-01	5.180E-02	-0.436
		298.57		1.214E-01	1.444E-01	1.590E-01	9.135E-03	0.763

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	2.787E-02	1.053E-01	1.753E-01	1.926E-02	0.159
		962.29		7.005E-01	4.716E-01	7.340E-01	7.541E-02	0.954
		966.15		1.158E+00	2.518E-01	4.117E-01	4.202E-02	2.814
		1177.93		3.771E-01	2.808E-01	5.014E-01	2.799E-02	0.752
		1271.85		-4.954E-01	5.634E-01	8.634E-01	5.835E-02	-0.574
HO-166M		80.57		9.109E-02	2.868E-01	4.274E-01	3.714E-02	0.213
		184.41		1.749E-01	3.515E-02	5.972E-02	3.173E-03	2.929
		280.46		-6.720E-02	6.980E-02	1.087E-01	6.201E-03	-0.618
		410.95		5.203E-02	1.855E-01	3.137E-01	1.847E-02	0.166
		711.68	*	-2.602E-02	4.534E-02	7.292E-02	6.078E-03	-0.357
		752.31		4.483E-02	2.066E-01	3.473E-01	3.106E-02	0.129
		810.29		-3.644E-03	4.440E-02	7.278E-02	7.166E-03	-0.050
TM-171		51.35		-2.580E+01	3.903E+01	6.418E+01	5.087E+00	-0.402
		52.39		-7.034E+00	2.001E+01	3.327E+01	2.643E+00	-0.211
		59.40		1.721E+01	3.259E+01	5.001E+01	3.797E+00	0.344
		66.72	*	-3.161E+01	3.116E+01	4.424E+01	3.537E+00	-0.714
LU-176	+	88.36		6.745E-01	2.447E-01	3.436E-01	3.155E-02	1.963
		201.83		-3.892E-05	2.269E-02	3.783E-02	2.040E-03	-0.001
		306.84	*	-4.936E-03	1.976E-02	3.040E-02	1.750E-03	-0.162
		401.10		1.158E+00	5.084E+00	8.594E+00	4.996E-01	0.135
LU-177		112.95		2.661E+00	1.399E+00	2.376E+00	1.531E-01	1.120
	+	208.36	*	2.611E+00	1.109E+00	1.408E+00	7.639E-02	1.854
LU-177M		52.97		8.600E-01	2.009E+00	3.427E+00	2.720E-01	0.251
		54.07		6.879E-01	1.049E+00	1.798E+00	1.422E-01	0.382
		61.30		-1.334E+00	1.765E+00	2.556E+00	1.975E-01	-0.522
		121.62		2.192E-01	3.385E-01	5.557E-01	3.296E-02	0.394
		147.16		-6.680E-02	6.233E-01	8.720E-01	4.745E-02	-0.077
		171.86		-2.158E-01	3.748E-01	6.189E-01	3.258E-02	-0.349
		218.09		5.520E-01	6.844E-01	1.167E+00	6.382E-02	0.473
		268.79		1.178E+00	7.376E-01	1.142E+00	6.475E-02	1.032
		319.02		2.871E-02	1.977E-01	3.208E-01	1.852E-02	0.089
		367.43		1.048E-01	6.549E-01	1.111E+00	6.418E-02	0.094
		413.65	*	-1.780E-01	1.316E-01	2.040E-01	1.205E-02	-0.873
HF-181		56.28		-5.141E-01	1.108E+00	1.830E+00	1.425E-01	-0.281
		57.53		-1.935E-01	5.831E-01	9.665E-01	7.453E-02	-0.200
		65.20		1.074E+00	1.059E+00	1.639E+00	1.300E-01	0.655
		133.02		8.036E-03	5.823E-02	9.216E-02	5.213E-03	0.087
		136.25		-1.116E-01	3.902E-01	6.146E-01	3.441E-02	-0.182
		345.85		2.196E-02	1.783E-01	2.333E-01	1.350E-02	0.094
		482.03	*	-1.705E-02	3.201E-02	5.119E-02	3.276E-03	-0.333
W-181		56.28		-2.037E-01	4.398E-01	7.262E-01	5.657E-02	-0.281
		57.53		-7.712E-02	2.316E-01	3.839E-01	2.960E-02	-0.201
		65.20	*	4.231E-01	4.174E-01	6.459E-01	5.123E-02	0.655
TA-182		67.75		-1.246E-01	1.158E-01	1.751E-01	1.407E-02	-0.711
	+	100.10		5.827E-01	2.528E-01	2.851E-01	2.143E-02	2.044
		152.43		1.962E-01	2.854E-01	4.627E-01	2.489E-02	0.424
		222.10		-2.034E-01	2.791E-01	4.495E-01	2.467E-02	-0.452
	+	1001.68		9.715E+00	2.935E+00	3.845E+00	3.671E-01	2.527
	+	1121.28		6.476E-01	2.218E-01	2.699E-01	1.859E-02	2.400

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		-1.365E-01	2.434E-01	3.878E-01	2.218E-02	-0.352
		1221.42	*	-7.418E-02	1.590E-01	2.547E-01	1.558E-02	-0.291
		1230.97		-3.116E-01	4.165E-01	6.571E-01	4.099E-02	-0.474
RE-183		57.98		9.493E-02	2.241E-01	3.803E-01	2.922E-02	0.250
		59.32		6.646E-02	1.325E-01	2.032E-01	1.544E-02	0.327
		67.20		-2.603E-01	2.199E-01	3.096E-01	2.481E-02	-0.841
		162.32	*	4.203E-03	8.562E-02	1.451E-01	7.658E-03	0.029
	+	208.81		2.653E+00	1.127E+00	1.437E+00	7.800E-02	1.846
		291.72		-3.790E-01	8.518E-01	1.175E+00	6.733E-02	-0.323
RE-184		57.98		3.525E-01	8.320E-01	1.412E+00	1.085E-01	0.250
		59.32		2.466E-01	4.917E-01	7.539E-01	5.728E-02	0.327
		67.20		-9.662E-01	8.163E-01	1.149E+00	9.209E-02	-0.841
		161.27		-2.056E-01	2.816E-01	4.647E-01	2.458E-02	-0.443
		216.55		-3.041E-02	2.132E-01	3.519E-01	1.922E-02	-0.086
		252.85	*	1.309E-01	1.747E-01	2.956E-01	1.660E-02	0.443
		318.01		-3.544E-01	3.558E-01	5.439E-01	3.139E-02	-0.652
		792.07		-4.287E-01	9.888E-01	1.353E+00	1.293E-01	-0.317
		903.28		2.271E-01	8.960E-01	1.284E+00	1.441E-01	0.177
		920.93		-4.207E-02	3.414E-01	5.510E-01	6.038E-02	-0.076
OS-185		59.72		2.946E-01	3.515E-01	5.456E-01	4.150E-02	0.540
		61.14		-1.615E-01	1.937E-01	2.794E-01	2.156E-02	-0.578
		69.30		2.824E-01	3.170E-01	4.874E-01	3.949E-02	0.579
		592.07		5.242E-01	1.957E+00	3.135E+00	2.245E-01	0.167
		646.12	*	-6.503E-03	3.287E-02	5.210E-02	3.918E-03	-0.125
		717.42		4.358E-01	7.160E-01	1.154E+00	9.713E-02	0.378
		874.81		6.578E-03	4.433E-01	7.264E-01	7.923E-02	0.009
		880.27		-6.884E-02	5.757E-01	9.337E-01	1.027E-01	-0.074
RE-188		155.03	*	-2.231E-02	1.352E-01	2.282E-01	1.221E-02	-0.098
		477.96		6.428E-01	2.329E+00	3.897E+00	2.483E-01	0.165
		633.10		-2.032E+00	2.195E+00	3.312E+00	2.462E-01	-0.614
W-188	+	63.58		3.424E+02	8.748E+01	1.183E+02	9.298E+00	2.894
		227.08		4.464E-01	9.918E+00	1.611E+01	8.880E-01	0.028
		290.67	*	8.361E-01	6.488E+00	9.284E+00	5.318E-01	0.090
IR-192	+	295.96		8.754E-01	1.592E-01	2.193E-01	1.279E-02	3.993
		308.46		3.261E-02	7.246E-02	1.196E-01	6.969E-03	0.273
		316.51	*	-1.087E-02	2.666E-02	4.208E-02	2.441E-03	-0.258
		468.07		1.462E-02	5.434E-02	7.950E-02	5.665E-03	0.184
		604.41		-2.879E-02	4.072E-01	5.641E-01	6.855E-02	-0.051
		612.46		2.414E+00	7.424E-01	1.211E+00	1.062E-01	1.994
AU-195		65.12		2.079E-01	1.958E-01	3.056E-01	2.423E-02	0.680
		66.83		-8.398E-02	1.016E-01	1.456E-01	1.165E-02	-0.577
	+	75.70		1.063E+00	2.383E-01	4.054E-01	3.404E-02	2.623
	+	98.88	*	7.306E-01	3.170E-01	3.896E-01	2.981E-02	1.875
		129.76		3.266E+00	2.587E+00	4.304E+00	2.462E-01	0.759
TL-200		367.94	*	4.663E-05	2.587E+00	Half-Life too short		
		579.30		1.345E-03	2.587E+00	Half-Life too short		
		828.27		1.421E-03	2.587E+00	Half-Life too short		
		1205.75		-1.169E-03	2.587E+00	Half-Life too short		
TL-201		68.90		5.404E-01	3.820E+00	5.717E+00	4.622E-01	0.095

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		70.82		1.651E+00	2.207E+00	3.368E+00	2.750E-01	0.490
		80.30		7.450E-01	3.926E+00	5.826E+00	5.051E-01	0.128
		135.34		-2.283E+00	1.639E+01	2.598E+01	1.459E+00	-0.088
		167.43	*	-2.370E-01	4.136E+00	6.970E+00	3.659E-01	-0.034
TL-202		68.90		6.082E-02	4.299E-01	6.434E-01	5.201E-02	0.095
		70.82		1.852E-01	2.477E-01	3.780E-01	3.086E-02	0.490
		80.30		8.364E-02	4.408E-01	6.541E-01	5.671E-02	0.128
		439.56	*	1.036E-03	4.525E-02	7.524E-02	4.587E-03	0.014
HG-203		70.83		8.557E-01	1.138E+00	1.731E+00	2.306E-01	0.494
		72.87		7.478E-01	6.130E-01	1.036E+00	1.343E-01	0.722
		82.60		-8.100E-01	1.082E+00	1.709E+00	2.371E-01	-0.474
		279.20	*	6.793E-03	3.282E-02	5.389E-02	3.268E-03	0.126
BI-207		72.80		1.922E-01	1.811E-01	3.074E-01	2.537E-02	0.625
	+	74.97		5.926E-01	1.328E-01	2.098E-01	1.754E-02	2.825
		84.90		2.739E-01	2.028E-01	3.078E-01	2.770E-02	0.890
		569.67		-2.117E-02	2.494E-02	3.765E-02	2.638E-03	-0.562
		1063.62	*	-1.083E-03	4.244E-02	7.077E-02	5.842E-03	-0.015
		1770.23		2.394E-01	3.170E-01	5.188E-01	3.139E-02	0.462
TL-207		81.07		-5.813E-02	2.329E-01	3.395E-01	2.961E-02	-0.171
		83.78		1.314E-01	1.374E-01	2.066E-01	1.841E-02	0.636
		94.90		1.152E+00	3.091E-01	4.189E-01	3.409E-02	2.751
		122.32		2.187E+00	1.559E+00	2.619E+00	1.778E-01	0.835
	+	144.24		6.155E-01	6.822E-01	9.909E-01	6.915E-02	0.621
		154.21		-3.509E-02	3.198E-01	5.409E-01	3.599E-02	-0.065
	+	269.46		3.341E-01	2.173E-01	2.779E-01	1.651E-02	1.202
		323.87	*	-6.919E-01	5.526E-01	8.162E-01	1.347E-01	-0.848
	+	338.28		4.768E+00	1.780E+00	1.856E+00	1.953E-01	2.569
		445.03		3.714E-01	1.638E+00	2.750E+00	2.877E-01	0.135
PO-209		260.50		3.503E+00	7.299E+00	1.220E+01	6.883E-01	0.287
		262.80		-1.258E+01	2.080E+01	3.309E+01	1.870E+00	-0.380
		896.60	*	-1.909E+00	5.812E+00	9.267E+00	1.045E+00	-0.206
BI-210		46.50	*	2.574E+00	4.954E+00	8.526E+00	6.596E-01	0.302
PB-210		46.50	*	2.574E+00	4.954E+00	8.526E+00	6.596E-01	0.302
PO-210		46.50	*	2.574E+00	4.953E+00	8.526E+00	5.671E-01	0.302
PB-211		404.84	*	-9.012E-01	9.280E-01	1.153E+00	7.190E-01	-0.781
		427.08		1.774E-01	1.477E+00	2.467E+00	1.525E+00	0.072
		831.96		1.258E+00	1.264E+00	1.564E+00	9.837E-01	0.804
BI-212	+	727.18	*	1.141E+00	5.203E-01	5.027E-01	5.006E-02	2.270
		785.46		3.386E+00	1.509E+00	2.730E+00	2.581E-01	1.240
		1620.62		5.340E-01	9.518E-01	1.670E+00	1.129E-01	0.320
PO-215		81.07		-5.813E-02	2.329E-01	3.395E-01	2.961E-02	-0.171
		83.78		1.314E-01	1.374E-01	2.066E-01	1.841E-02	0.636
		94.90		1.152E+00	3.091E-01	4.189E-01	3.409E-02	2.751
		122.32		2.187E+00	1.559E+00	2.619E+00	1.778E-01	0.835
	+	144.24		6.155E-01	6.822E-01	9.909E-01	6.915E-02	0.621
		154.21		-3.509E-02	3.198E-01	5.409E-01	3.599E-02	-0.065
	+	269.46		3.341E-01	2.173E-01	2.779E-01	1.651E-02	1.202
		323.87	*	-6.919E-01	5.526E-01	8.162E-01	1.347E-01	-0.848
	+	338.28		4.768E+00	1.780E+00	1.856E+00	1.953E-01	2.569

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		445.03		3.714E-01	1.638E+00	2.750E+00	2.877E-01	0.135
RN-219	+	271.23		4.286E-01	2.797E-01	3.589E-01	2.878E-02	1.194
		401.81	*	4.598E-02	3.106E-01	5.231E-01	7.121E-02	0.088
RN-220		549.76	*	-1.158E+01	2.001E+01	3.144E+01	2.161E+00	-0.368
RA-223		81.07		-5.813E-02	2.329E-01	3.395E-01	2.961E-02	-0.171
		83.78		1.314E-01	1.374E-01	2.066E-01	1.841E-02	0.636
		94.90		1.152E+00	3.091E-01	4.189E-01	3.409E-02	2.751
		122.32		2.187E+00	1.559E+00	2.619E+00	1.778E-01	0.835
	+	144.24		6.155E-01	6.822E-01	9.909E-01	6.915E-02	0.621
		154.21		-3.509E-02	3.198E-01	5.409E-01	3.599E-02	-0.065
	+	269.46		3.341E-01	2.173E-01	2.779E-01	1.651E-02	1.202
		323.87	*	-6.919E-01	5.526E-01	8.162E-01	1.347E-01	-0.848
	+	338.28		4.768E+00	1.780E+00	1.856E+00	1.953E-01	2.569
		445.03		3.714E-01	1.638E+00	2.750E+00	2.877E-01	0.135
AC-227		79.80		1.995E-01	1.747E+00	2.586E+00	5.562E-01	0.077
		236.00		5.306E-01	2.233E-01	3.482E-01	3.592E-02	1.524
		256.20	*	-2.524E-01	2.937E-01	4.596E-01	6.383E-02	-0.549
		286.10		-1.142E+00	1.258E+00	1.949E+00	2.246E-01	-0.586
	+	299.80		3.350E+00	1.660E+00	2.130E+00	3.465E-01	1.572
		304.40		3.918E-01	1.556E+00	2.235E+00	3.862E-01	0.175
		334.20		-1.873E+00	2.207E+00	2.878E+00	5.274E-01	-0.651
TH-227		79.80		1.995E-01	1.747E+00	2.586E+00	5.633E-01	0.077
	+	94.00		3.454E+01	8.575E+00	4.953E+00	1.072E+00	6.975
		236.00		5.306E-01	2.216E-01	3.482E-01	3.099E-02	1.524
		256.20	*	-2.524E-01	2.947E-01	4.596E-01	7.740E-02	-0.549
		286.10		-1.142E+00	1.695E+00	1.949E+00	1.953E+00	-0.586
	+	299.80		3.350E+00	1.660E+00	2.130E+00	3.465E-01	1.572
		304.40		3.918E-01	1.556E+00	2.235E+00	3.862E-01	0.175
		334.20		-1.873E+00	2.207E+00	2.878E+00	5.274E-01	-0.651
TH-229		85.43		4.025E-01	2.023E-01	3.111E-01	2.813E-02	1.294
	+	88.47		3.883E-01	1.408E-01	1.975E-01	1.809E-02	1.966
	+	100.00		6.094E-01	2.644E-01	3.040E-01	2.289E-02	2.005
		193.63	*	-8.674E-02	4.061E-01	6.740E-01	3.609E-02	-0.129
		210.97		1.454E+00	6.615E-01	1.063E+00	5.778E-02	1.368
PA-231		283.67	*	3.129E-02	1.223E+00	1.991E+00	2.737E-01	0.016
	+	301.29		1.340E+00	6.427E-01	8.337E-01	8.691E-02	1.607
TH-231		81.07		-5.813E-02	2.329E-01	3.395E-01	2.961E-02	-0.171
		83.78		1.314E-01	1.374E-01	2.066E-01	1.841E-02	0.636
		94.90		1.152E+00	3.091E-01	4.189E-01	3.409E-02	2.751
		122.32		2.187E+00	1.559E+00	2.619E+00	1.778E-01	0.835
	+	144.24		6.155E-01	6.822E-01	9.909E-01	6.915E-02	0.621
		154.21		-3.509E-02	3.198E-01	5.409E-01	3.599E-02	-0.065
	+	269.46		3.341E-01	2.173E-01	2.779E-01	1.651E-02	1.202
		323.87	*	-6.919E-01	5.526E-01	8.162E-01	1.347E-01	-0.848
	+	338.28		4.768E+00	1.780E+00	1.856E+00	1.953E-01	2.569
		445.03		3.714E-01	1.638E+00	2.750E+00	2.877E-01	0.135
U-231		84.21		6.556E+00	4.650E+00	7.077E+00	6.331E-01	0.926
	+	92.29		2.748E+01	4.040E+00	4.487E+00	3.820E-01	6.124
		95.87	*	8.601E-01	1.124E+00	1.354E+00	1.085E-01	0.635

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.880E+00	1.526E+00	2.352E+00	1.599E-01	-0.800
PA-233	+	75.28		1.729E+01	4.455E+00	6.143E+00	9.345E-01	2.815
	+	86.59		5.568E+00	2.465E+00	2.869E+00	7.743E-01	1.941
	+	300.12		9.338E-01	4.548E-01	5.924E-01	7.947E-02	1.576
		311.98	*	-1.158E-02	4.982E-02	7.947E-02	4.868E-03	-0.146
		340.50		1.588E+00	7.025E-01	9.662E-01	2.219E-01	1.644
		398.62		2.909E-01	1.539E+00	2.596E+00	6.711E-01	0.112
		415.76		9.486E-01	1.196E+00	2.048E+00	4.223E-01	0.463
PA-234	+	63.00		1.006E+01	2.879E+00	3.593E+00	5.417E-01	2.800
		94.67		1.179E+00	2.606E-01	3.279E-01	3.965E-02	3.595
	+	98.44		2.975E-01	2.087E-01	1.580E-01	8.794E-02	1.883
	+	99.86		1.542E+00	6.690E-01	7.887E-01	5.950E-02	1.955
		111.00		6.812E-02	1.808E-01	2.953E-01	3.168E-02	0.231
		131.20		4.868E-02	9.842E-02	1.579E-01	8.989E-03	0.308
		152.70		1.875E-01	2.798E-01	4.511E-01	7.063E-02	0.416
	+	186.00		8.840E+00	3.180E+00	2.385E+00	7.265E-01	3.707
		226.40		1.140E-01	3.211E-01	5.278E-01	6.026E-02	0.216
		227.20		-3.258E-02	3.401E-01	5.494E-01	3.028E-02	-0.059
		248.90		-3.497E-01	6.411E-01	1.021E+00	2.189E-01	-0.342
		293.70		4.781E+00	1.059E+00	1.327E+00	2.132E-01	3.601
		369.80		7.717E-02	6.132E-01	1.038E+00	2.161E-01	0.074
		568.70		-3.427E-01	8.227E-01	1.279E+00	8.957E-02	-0.268
		569.50		-1.879E-01	2.213E-01	3.341E-01	2.341E-02	-0.562
		574.00		1.840E-01	1.219E+00	1.883E+00	1.325E-01	0.098
		699.00		-8.635E-02	5.139E-01	8.493E-01	1.603E-01	-0.102
		706.10		2.854E-01	7.848E-01	1.319E+00	5.874E-01	0.216
		733.00		-5.247E-02	3.093E-01	4.355E-01	9.671E-02	-0.120
		742.81		5.011E-01	1.022E+00	1.656E+00	1.114E+00	0.303
	+	796.30		1.887E+00	1.227E+00	1.369E+00	3.748E-01	1.379
		805.60		-4.538E-02	7.394E-01	1.214E+00	3.763E-01	-0.037
		819.60		-3.014E-01	8.964E-01	1.428E+00	5.479E-01	-0.211
		826.30		-5.571E-01	6.589E-01	9.377E-01	4.224E-01	-0.594
		831.60		5.961E-01	5.381E-01	7.982E-01	2.421E-01	0.747
		876.40		5.200E-01	8.182E-01	1.072E+00	1.104E+00	0.485
		880.51		-6.254E-02	2.098E-01	3.356E-01	3.693E-02	-0.186
		883.24		-1.412E-01	2.319E-01	3.284E-01	2.219E-01	-0.430
		899.00		1.518E-02	6.670E-01	1.091E+00	4.833E-01	0.014
		925.00		-1.480E-02	9.079E-01	1.477E+00	1.609E-01	-0.010
		926.50		-8.346E-03	1.367E-01	2.216E-01	5.790E-02	-0.038
		946.00	*	-1.483E-02	2.161E-01	3.493E-01	6.890E-02	-0.042
		949.00		2.002E-01	3.266E-01	5.535E-01	5.813E-02	0.362
		980.50		5.177E-01	5.756E-01	9.878E-01	9.825E-02	0.524
		1394.10		-1.209E-01	8.688E-01	1.388E+00	9.016E-01	-0.087
PA-234M		766.42		2.463E+01	1.609E+01	1.861E+01	9.460E+00	1.323
	+	1001.03	*	2.223E+01	6.807E+00	8.793E+00	9.486E-01	2.528
NP-236		94.67		9.032E-01	1.814E-01	2.494E-01	2.038E-02	3.622
	+	98.44		2.249E-01	9.757E-02	1.195E-01	9.199E-03	1.883
		111.00		5.153E-02	1.367E-01	2.234E-01	1.469E-02	0.231
		160.31	*	-3.696E-02	6.333E-02	1.051E-01	5.569E-03	-0.352

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		5.140E-01	2.230E-01	2.708E-01	2.052E-02	1.898
		117.00	*	1.707E-02	1.663E-01	2.687E-01	1.663E-02	0.064
	+	209.75		2.120E+00	9.005E-01	1.140E+00	6.193E-02	1.859
		228.18		-1.925E-03	1.722E-01	2.846E-01	1.570E-02	-0.007
		277.60		1.576E-01	1.462E-01	2.481E-01	1.413E-02	0.635
		334.30		-1.043E+00	1.237E+00	1.633E+00	9.446E-02	-0.639
AM-241		59.54	*	1.088E-01	1.894E-01	2.910E-01	2.414E-02	0.374
CM-243	+	99.55		5.289E-01	2.295E-01	2.787E-01	2.112E-02	1.898
		103.76	*	2.441E-02	1.003E-01	1.466E-01	1.049E-02	0.167
		117.00		1.756E-02	1.711E-01	2.764E-01	1.711E-02	0.064
	+	209.75		2.090E+00	8.876E-01	1.124E+00	6.104E-02	1.859
		228.18		-1.945E-03	1.740E-01	2.875E-01	1.586E-02	-0.007
		277.60		1.589E-01	1.474E-01	2.501E-01	1.425E-02	0.635
AM-246		798.80		4.355E-02	1.198E-01	1.756E-01	1.697E-02	0.248
		1036.00		-2.194E-01	2.268E-01	3.527E-01	3.123E-02	-0.622
		1062.04		1.622E-01	1.851E-01	3.249E-01	2.693E-02	0.499
		1078.86	*	-6.442E-02	1.140E-01	1.830E-01	1.447E-02	-0.352
CM-247		278.00		7.361E-01	6.043E-01	1.031E+00	5.873E-02	0.714
		287.40		5.206E-01	1.020E+00	1.639E+00	9.374E-02	0.318
		402.60	*	-2.268E-03	2.837E-02	4.726E-02	2.753E-03	-0.048
CF-249		252.85		4.939E-01	6.589E-01	1.115E+00	6.263E-02	0.443
		333.44		-1.737E-01	1.677E-01	2.188E-01	1.265E-02	-0.794
		387.95	*	1.159E-02	2.866E-02	4.900E-02	2.817E-03	0.237
CF-251		176.60	*	5.611E-02	1.010E-01	1.731E-01	9.140E-03	0.324
		227.00		2.321E-02	3.019E-01	4.911E-01	2.707E-02	0.047
		285.00		-9.244E-01	1.415E+00	2.231E+00	1.275E-01	-0.414

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395002      *
* Acquisition date :  2-FEB-2010 07:20:31 Detector SN#     :               *
* Detector ID        : GAM18               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.98     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395002           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.4527E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.468E+01	2.945E+00	3.550E-01	0.000E+00
CD-109	2.888E+00	1.027E+00	1.620E+00	0.000E+00
SN-126	2.844E-01	1.011E-01	1.489E-01	0.000E+00
TL-208	4.713E-01	7.508E-02	4.384E-02	0.000E+00
BI-211	3.525E+00	3.804E-01	2.600E-01	0.000E+00
PB-212	1.451E+00	1.326E-01	7.605E-02	0.000E+00
PO-212	1.451E+00	1.326E-01	7.605E-02	0.000E+00
BI-214	1.044E+00	1.455E-01	8.891E-02	0.000E+00
PB-214	1.226E+00	1.464E-01	9.199E-02	0.000E+00
PO-214	1.226E+00	1.464E-01	9.199E-02	0.000E+00
PO-216	1.451E+00	1.326E-01	7.605E-02	0.000E+00
PO-218	1.226E+00	1.464E-01	9.199E-02	0.000E+00
RA-224	4.071E+00	9.011E-01	8.642E-01	0.000E+00
RA-226	1.044E+00	1.455E-01	8.891E-02	0.000E+00
AC-228	1.582E+00	2.816E-01	1.432E-01	0.000E+00
RA-228	1.582E+00	2.816E-01	1.432E-01	0.000E+00
TH-228	1.471E+00	1.345E-01	7.711E-02	0.000E+00
TH-230	1.044E+00	1.455E-01	8.891E-02	0.000E+00
TH-232	1.582E+00	2.816E-01	1.432E-01	0.000E+00
TH-234	8.632E+00	2.541E+00	2.309E+00	0.000E+00
U-234	1.044E+00	1.455E-01	8.891E-02	0.000E+00
U-235	1.899E-01	2.081E-01	3.029E-01	0.000E+00
NP-237	8.351E-01	3.415E-01	4.139E-01	0.000E+00
U-238	8.632E+00	2.541E+00	2.309E+00	0.000E+00
AM-243	3.302E-01	7.253E-02	9.705E-02	0.000E+00
ANH-511	1.051E-01	5.400E-02	3.536E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.498E-02	2.372E-01	4.132E-01	0.000E+00	NOT IDENT.

NA-22	-2.192E-02	3.417E-02	5.503E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.521E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-7.983E-04	1.815E-02	3.017E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.201E-02	7.909E-02	0.000E+00	FAIL ABUN
SC-46	-2.456E-03	2.807E-02	4.732E-02	0.000E+00	FAIL ABUN
V-48	8.725E-03	5.175E-02	8.778E-02	0.000E+00	NOT IDENT.
CR-51	1.045E-01	2.734E-01	4.764E-01	0.000E+00	NOT IDENT.
MN-52	5.557E-02	1.424E-01	2.467E-01	0.000E+00	NOT IDENT.
MN-54	5.460E-03	3.360E-02	4.997E-02	0.000E+00	NOT IDENT.
CO-56	-5.482E-03	3.484E-02	5.023E-02	0.000E+00	NOT IDENT.
CO-57	3.093E-02	2.199E-02	4.007E-02	0.000E+00	NOT IDENT.
CO-58	7.042E-03	2.841E-02	4.947E-02	0.000E+00	NOT IDENT.
FE-59	-8.217E-02	7.030E-02	1.112E-01	0.000E+00	FAIL ABUN
CO-60	4.089E-03	3.012E-02	5.120E-02	0.000E+00	NOT IDENT.
ZN-65	5.260E-02	8.548E-02	1.318E-01	0.000E+00	NOT IDENT.
GE-68	-5.800E-01	9.895E-01	1.641E+00	0.000E+00	NOT IDENT.
AS-73	4.449E-01	1.003E+00	1.887E+00	0.000E+00	NOT IDENT.
AS-74	1.530E-02	6.704E-02	1.151E-01	0.000E+00	NOT IDENT.
SE-75	1.648E-02	3.516E-02	5.814E-02	0.000E+00	NOT IDENT.
BR-77	4.973E+00	5.258E+00	9.505E+00	0.000E+00	FAIL ABUN
SR-82	-1.987E-01	2.882E-01	4.754E-01	0.000E+00	NOT IDENT.
RB-83	4.202E-02	5.007E-02	9.008E-02	0.000E+00	NOT IDENT.
RB-84	-1.584E-02	4.902E-02	8.123E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.304E+00	1.096E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.188E-02	5.542E-02	0.000E+00	NOT IDENT.
RB-86	1.180E-02	6.005E-01	1.036E+00	0.000E+00	NOT IDENT.
Y-88	-1.533E-02	2.172E-02	3.211E-02	0.000E+00	NOT IDENT.
ZR-88	-9.251E-03	2.136E-02	3.702E-02	0.000E+00	NOT IDENT.
Y-91	-2.044E+01	1.565E+01	2.453E+01	0.000E+00	NOT IDENT.
NB-94	-6.013E-03	2.409E-02	4.136E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.721E-02	6.893E-02	0.000E+00	NOT IDENT.
NB-95M	3.761E-02	1.073E-01	1.689E-01	0.000E+00	NOT IDENT.
ZR-95	3.711E-02	5.286E-02	9.483E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.076E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.167E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.009E+00	5.820E+00	1.029E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.988E+14	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.036E-02	2.532E-02	4.474E-02	0.000E+00	NOT IDENT.
RH-102	1.191E-03	2.201E-02	3.835E-02	0.000E+00	NOT IDENT.
RU-103	-1.606E-02	2.812E-02	4.685E-02	0.000E+00	FAIL ABUN
RH-106	5.450E-02	2.285E-01	3.913E-01	0.000E+00	FAIL ABUN
RU-106	5.450E-02	2.285E-01	3.913E-01	0.000E+00	FAIL ABUN
AG-108M	1.164E-02	2.322E-02	4.176E-02	0.000E+00	NOT IDENT.
AG-110M	-2.186E-02	2.693E-02	4.513E-02	0.000E+00	NOT IDENT.
IN-111	1.426E-01	6.521E-01	1.017E+00	0.000E+00	NOT IDENT.
IN-113M	1.425E-02	3.058E-02	5.540E-02	0.000E+00	NOT IDENT.
SN-113	1.425E-02	3.058E-02	5.540E-02	0.000E+00	NOT IDENT.
IN-114M	4.084E-02	1.546E-01	2.480E-01	0.000E+00	NOT IDENT.
CD-115	1.285E+00	5.403E+00	9.405E+00	0.000E+00	NOT IDENT.
SN-117M	2.578E-02	4.003E-02	7.460E-02	0.000E+00	NOT IDENT.
SB-122	1.465E+00	1.162E+00	2.107E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.541E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.597E-03	2.205E-02	4.006E-02	0.000E+00	NOT IDENT.
I-124	2.682E-01	4.764E-01	7.262E-01	0.000E+00	FAIL ABUN
SB-124	1.347E-02	5.261E-02	9.168E-02	0.000E+00	FAIL ABUN
SB-125	1.243E-03	6.488E-02	1.141E-01	0.000E+00	FAIL ABUN
TE-125M	-1.662E+01	8.668E+00	1.403E+01	0.000E+00	NOT IDENT.
I-126	-9.326E-02	1.294E-01	2.177E-01	0.000E+00	NOT IDENT.
SB-126	9.442E-05	1.130E-01	1.690E-01	0.000E+00	FAIL ABUN
SB-127	4.718E-02	8.020E-01	1.405E+00	0.000E+00	NOT IDENT.
XE-127	-1.029E-02	3.529E-02	6.246E-02	0.000E+00	NOT IDENT.
I-131	5.872E-03	7.270E-02	1.303E-01	0.000E+00	NOT IDENT.
TE-132	-1.900E-03	3.906E-01	6.908E-01	0.000E+00	NOT IDENT.
BA-133	1.692E-02	3.744E-02	5.693E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.617E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.681E-02	7.310E-02	0.000E+00	FAIL ABUN
CS-135	1.252E-01	1.388E-01	2.220E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.719E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.256E-03	7.672E-02	1.317E-01	0.000E+00	FAIL ABUN
BA-137M	4.635E-02	2.859E-02	5.365E-02	0.000E+00	NOT IDENT.
CS-137	4.900E-02	3.022E-02	5.672E-02	0.000E+00	NOT IDENT.
CE-139	6.471E-03	2.312E-02	4.246E-02	0.000E+00	NOT IDENT.
BA-140	2.302E-02	1.786E-01	3.083E-01	0.000E+00	NOT IDENT.
LA-140	-2.019E-02	5.502E-02	8.975E-02	0.000E+00	NOT IDENT.
CE-141	1.946E-04	5.944E-02	9.046E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.952E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.297E-01	1.814E-01	3.035E-01	0.000E+00	NOT IDENT.
PM-144	-2.220E-03	2.478E-02	4.299E-02	0.000E+00	NOT IDENT.

PR-144	-1.503E-01	1.678E+00	2.911E+00	0.000E+00	NOT IDENT.
PM-146	7.965E-03	3.258E-02	5.756E-02	0.000E+00	NOT IDENT.
ND-147	1.224E-02	3.948E-01	6.789E-01	0.000E+00	NOT IDENT.
PM-149	-5.184E+01	4.876E+01	7.948E+01	0.000E+00	NOT IDENT.
EU-152	2.028E-02	8.866E-02	1.242E-01	0.000E+00	NOT IDENT.
GD-153	6.482E-02	1.076E-01	1.394E-01	0.000E+00	NOT IDENT.
EU-154	-1.024E-01	9.843E-02	1.532E-01	0.000E+00	NOT IDENT.
EU-155	6.217E-02	9.774E-02	1.758E-01	0.000E+00	FAIL ABUN
TB-160	2.787E-02	1.032E-01	1.784E-01	0.000E+00	FAIL ABUN
HO-166M	-2.602E-02	4.443E-02	7.455E-02	0.000E+00	NOT IDENT.
TM-171	-3.161E+01	3.054E+01	4.762E+01	0.000E+00	NOT IDENT.
LU-176	-4.936E-03	1.937E-02	3.167E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.087E+00	1.480E+00	0.000E+00	FAIL ABUN
LU-177M	-1.780E-01	1.290E-01	2.111E-01	0.000E+00	NOT IDENT.
HF-181	-1.705E-02	3.137E-02	5.280E-02	0.000E+00	NOT IDENT.
W-181	4.231E-01	4.091E-01	6.956E-01	0.000E+00	NOT IDENT.
TA-182	-7.418E-02	1.558E-01	2.572E-01	0.000E+00	FAIL ABUN
RE-183	4.203E-03	8.391E-02	1.533E-01	0.000E+00	FAIL ABUN
RE-184	1.309E-01	1.712E-01	3.093E-01	0.000E+00	NOT IDENT.
OS-185	-6.503E-03	3.221E-02	5.339E-02	0.000E+00	NOT IDENT.
RE-188	-2.231E-02	1.325E-01	2.413E-01	0.000E+00	NOT IDENT.
W-188	8.361E-01	6.359E+00	9.685E+00	0.000E+00	FAIL ABUN
IR-192	-1.087E-02	2.612E-02	4.382E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.106E-01	4.160E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.408E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.370E-01	4.053E+00	7.359E+00	0.000E+00	NOT IDENT.
TL-202	1.036E-03	4.435E-02	7.778E-02	0.000E+00	NOT IDENT.
HG-203	6.793E-03	3.217E-02	5.627E-02	0.000E+00	NOT IDENT.
BI-207	-1.083E-03	4.159E-02	7.168E-02	0.000E+00	FAIL ABUN
TL-207	-6.919E-01	5.415E-01	8.494E-01	0.000E+00	FAIL ABUN
PO-209	-1.909E+00	5.696E+00	9.424E+00	0.000E+00	NOT IDENT.
BI-210	2.574E+00	4.855E+00	9.246E+00	0.000E+00	NOT IDENT.
PB-210	2.574E+00	4.855E+00	9.246E+00	0.000E+00	NOT IDENT.
PO-210	2.574E+00	4.854E+00	9.246E+00	0.000E+00	NOT IDENT.
PB-211	-9.012E-01	9.094E-01	1.194E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.099E-01	5.137E-01	0.000E+00	FAIL ABUN
PO-215	-6.919E-01	5.415E-01	8.494E-01	0.000E+00	FAIL ABUN
RN-219	4.598E-02	3.044E-01	5.418E-01	0.000E+00	FAIL ABUN
RN-220	-1.158E+01	1.961E+01	3.234E+01	0.000E+00	NOT IDENT.
RA-223	-6.919E-01	5.415E-01	8.494E-01	0.000E+00	FAIL ABUN
AC-227	-2.524E-01	2.878E-01	4.807E-01	0.000E+00	FAIL ABUN
TH-227	-2.524E-01	2.888E-01	4.807E-01	0.000E+00	FAIL ABUN
TH-229	-8.674E-02	3.980E-01	7.093E-01	0.000E+00	FAIL ABUN
PA-231	3.129E-02	1.199E+00	2.078E+00	0.000E+00	FAIL ABUN
TH-231	-6.919E-01	5.415E-01	8.494E-01	0.000E+00	FAIL ABUN
U-231	8.601E-01	1.101E+00	1.446E+00	0.000E+00	FAIL ABUN
PA-233	-1.158E-02	4.882E-02	8.277E-02	0.000E+00	FAIL ABUN
PA-234	-1.483E-02	2.118E-01	3.547E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	6.671E+00	8.919E+00	0.000E+00	FAIL ABUN
NP-236	-3.696E-02	6.207E-02	1.111E-01	0.000E+00	FAIL ABUN
NP-239	1.707E-02	1.630E-01	2.858E-01	0.000E+00	FAIL ABUN
AM-241	1.088E-01	1.856E-01	3.140E-01	0.000E+00	NOT IDENT.
CM-243	2.441E-02	9.825E-02	1.564E-01	0.000E+00	FAIL ABUN
AM-246	-6.442E-02	1.117E-01	1.853E-01	0.000E+00	NOT IDENT.
CM-247	-2.268E-03	2.780E-02	4.895E-02	0.000E+00	NOT IDENT.
CF-249	1.159E-02	2.809E-02	5.079E-02	0.000E+00	NOT IDENT.
CF-251	5.611E-02	9.901E-02	1.825E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:21:03.32

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395002.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:20:31.
Sample ID         : G245395002           Sample quantity  : 1.45270E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.98  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2711	10.67*	1.893E+00	3.468E+01	3.468E+01	8.67
CD-109	88.03	262	3.72*	6.430E+00	2.829E+00	2.888E+00	36.27
SN-126	64.28	394	9.60	3.106E+00	3.417E+00	3.417E+00	28.44
	86.94	262	8.90	6.430E+00	1.182E+00	1.182E+00	54.33
	87.57	262	37.00*	6.430E+00	2.844E-01	2.844E-01	36.27
TL-208	277.35	------	6.80	6.258E+00	------ Line Not Found		------
	510.84	175	21.60	4.311E+00	4.866E-01	4.866E-01	53.08
	583.14	604	84.20*	3.934E+00	4.713E-01	4.713E-01	16.26
	860.37	45	12.46	2.914E+00	3.181E-01	3.181E-01	101.27
BI-211	72.87	------	1.27	4.622E+00	------ Line Not Found		------
	351.07	962	12.94*	5.451E+00	3.525E+00	3.525E+00	11.01
PB-212	74.81	416	10.70	4.931E+00	2.036E+00	2.036E+00	24.29
	77.11	627	18.00	5.254E+00	1.713E+00	1.713E+00	16.78
	87.30	262	8.00	6.430E+00	1.315E+00	1.315E+00	37.62
	238.63	1701	44.60*	6.792E+00	1.451E+00	1.451E+00	9.33
	300.09	143	3.41	5.980E+00	1.807E+00	1.807E+00	47.54
PO-212	74.81	416	10.70	4.931E+00	2.036E+00	2.036E+00	24.29
	77.11	627	18.00	5.254E+00	1.713E+00	1.713E+00	16.78
	87.30	262	8.00	6.430E+00	1.315E+00	1.315E+00	37.62
	115.19	------	0.60	8.058E+00	------ Line Not Found		------
	238.63	1701	44.60*	6.792E+00	1.451E+00	1.451E+00	9.33
	300.09	143	3.41	5.980E+00	1.807E+00	1.807E+00	47.54
BI-214	609.31	713	46.30*	3.812E+00	1.044E+00	1.044E+00	14.22
	1120.29	188	15.10	2.335E+00	1.381E+00	1.381E+00	34.89
	1764.49	151	15.80	1.695E+00	1.461E+00	1.461E+00	23.66
PB-214	74.81	416	6.21	4.931E+00	3.509E+00	3.509E+00	23.61
	77.11	627	10.50	5.254E+00	2.937E+00	2.937E+00	18.43
	87.30	262	4.67	6.430E+00	2.253E+00	2.253E+00	37.08
	241.98	420	7.49	6.748E+00	2.147E+00	2.147E+00	23.27
	295.21	522	19.20	6.040E+00	1.162E+00	1.162E+00	19.20
	351.92	962	37.20*	5.451E+00	1.226E+00	1.226E+00	12.19
PO-214	74.81	416	6.21	4.931E+00	3.509E+00	3.509E+00	23.61

Sample ID : G245395002 Acquisition date : 2-FEB-2010 07:20:31

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	627	10.50	5.254E+00	2.937E+00	2.937E+00	18.43
	87.30	262	4.67	6.430E+00	2.253E+00	2.253E+00	37.08
	241.98	420	7.49	6.748E+00	2.147E+00	2.147E+00	23.27
	295.21	522	19.20	6.040E+00	1.162E+00	1.162E+00	19.20
	351.92	962	37.20*	5.451E+00	1.226E+00	1.226E+00	12.19
PO-216	74.81	416	10.70	4.931E+00	2.036E+00	2.036E+00	24.29
	77.11	627	18.00	5.254E+00	1.713E+00	1.713E+00	16.78
	87.30	262	8.00	6.430E+00	1.315E+00	1.315E+00	37.62
	238.63	1701	44.60*	6.792E+00	1.451E+00	1.451E+00	9.33
	300.09	143	3.41	5.980E+00	1.807E+00	1.807E+00	47.54
PO-218	74.81	416	6.21	4.931E+00	3.509E+00	3.509E+00	23.61
	77.11	627	10.50	5.254E+00	2.937E+00	2.937E+00	18.43
	87.30	262	4.67	6.430E+00	2.253E+00	2.253E+00	37.08
	241.98	420	7.49	6.748E+00	2.147E+00	2.147E+00	23.27
	295.21	522	19.20	6.040E+00	1.162E+00	1.162E+00	19.20
	351.92	962	37.20*	5.451E+00	1.226E+00	1.226E+00	12.19
RA-224	240.98	420	3.95*	6.748E+00	4.071E+00	4.071E+00	22.59
RA-226	609.31	713	46.30*	3.812E+00	1.044E+00	1.044E+00	14.22
	1120.29	188	15.10	2.335E+00	1.381E+00	1.381E+00	34.89
	1764.49	151	15.80	1.695E+00	1.461E+00	1.461E+00	23.66
AC-228	338.32	281	11.40	5.581E+00	1.142E+00	1.142E+00	54.27
	911.07	471	27.70*	2.780E+00	1.582E+00	1.582E+00	18.17
	969.11	265	16.60	2.639E+00	1.564E+00	1.564E+00	31.14
RA-228	338.32	281	11.40	5.581E+00	1.142E+00	1.142E+00	54.27
	911.07	471	27.70*	2.780E+00	1.582E+00	1.582E+00	18.17
	969.11	265	16.60	2.639E+00	1.564E+00	1.564E+00	31.14
TH-228	74.81	416	10.70	4.931E+00	2.036E+00	2.065E+00	22.44
	77.11	627	18.00	5.254E+00	1.713E+00	1.737E+00	16.78
	87.30	262	8.00	6.430E+00	1.315E+00	1.334E+00	36.27
	238.63	1701	44.60*	6.792E+00	1.451E+00	1.471E+00	9.33
	300.09	143	3.41	5.980E+00	1.807E+00	1.832E+00	75.27
TH-230	609.31	713	46.30*	3.812E+00	1.044E+00	1.044E+00	14.22
	1120.29	188	15.10	2.335E+00	1.381E+00	1.381E+00	34.89
	1764.49	151	15.80	1.695E+00	1.461E+00	1.461E+00	23.66
TH-232	338.32	281	11.40	5.581E+00	1.142E+00	1.142E+00	36.29
	911.07	471	27.70*	2.780E+00	1.582E+00	1.582E+00	18.17
	969.11	265	16.60	2.639E+00	1.564E+00	1.564E+00	31.14
TH-234	63.29	394	3.80*	3.106E+00	8.632E+00	8.632E+00	30.03
	92.38	1303	5.41	6.963E+00	8.939E+00	8.939E+00	21.65
U-234	609.31	713	46.30*	3.812E+00	1.044E+00	1.044E+00	14.22
	1120.29	188	15.10	2.335E+00	1.381E+00	1.381E+00	34.89
	1764.49	151	15.80	1.695E+00	1.461E+00	1.461E+00	23.66
U-235	89.95	------	2.70	6.701E+00	------ Line Not Found		------
	93.35	1303	4.50	6.963E+00	1.075E+01	1.075E+01	30.45
	105.00	------	2.10	7.709E+00	------ Line Not Found		------
	143.76	63	10.50*	8.223E+00	1.899E-01	1.899E-01	111.80
	163.35	------	4.70	8.004E+00	------ Line Not Found		------
	185.71	523	54.00	7.648E+00	3.274E-01	3.274E-01	19.85
	205.31	------	4.70	7.323E+00	------ Line Not Found		------

Sample ID : G245395002 Acquisition date : 2-FEB-2010 07:20:31

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
NP-237	86.50	262	12.60*	6.430E+00	8.351E-01	8.351E-01	41.73
	95.87	------	2.60	7.180E+00	------ Line Not Found		------
U-238	63.29	394	3.80*	3.106E+00	8.632E+00	8.632E+00	30.03
	92.38	1303	5.41	6.963E+00	8.939E+00	8.939E+00	14.70
AM-243	74.67	416	66.00*	4.931E+00	3.301E-01	3.302E-01	22.42
	86.72	262	0.34	6.430E+00	3.132E+01	3.132E+01	36.27
	117.66	------	0.55	8.112E+00	------ Line Not Found		------
	142.18	63	0.13	8.223E+00	1.595E+01	1.595E+01	110.75
ANH-511	511.00	175	100.00*	4.311E+00	1.051E-01	1.051E-01	52.42

Flag: "*" = Keyline

Sample ID : G245395002 Acquisition date : 2-FEB-2010 07:20:31

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.468E+01	3.468E+01	0.301E+01	8.67	
CD-109	464.00D	1.02	2.829E+00	2.888E+00	1.047E+00	36.27	
SN-126	1.00E+05Y	1.00	2.844E-01	2.844E-01	1.032E-01	36.27	
TL-208	1.41E+10Y	1.00	4.713E-01	4.713E-01	0.766E-01	16.26	
BI-211	7.04E+08Y	1.00	3.525E+00	3.525E+00	0.388E+00	11.01	
PB-212	1.41E+10Y	1.00	1.451E+00	1.451E+00	0.135E+00	9.33	
PO-212	1.41E+10Y	1.00	1.451E+00	1.451E+00	0.135E+00	9.33	
BI-214	1600.00Y	1.00	1.044E+00	1.044E+00	0.148E+00	14.22	
PB-214	1600.00Y	1.00	1.226E+00	1.226E+00	0.149E+00	12.19	
PO-214	1600.00Y	1.00	1.226E+00	1.226E+00	0.149E+00	12.19	
PO-216	1.41E+10Y	1.00	1.451E+00	1.451E+00	0.135E+00	9.33	
PO-218	1600.00Y	1.00	1.226E+00	1.226E+00	0.149E+00	12.19	
RA-224	1.41E+10Y	1.00	4.071E+00	4.071E+00	0.920E+00	22.59	
RA-226	1600.00Y	1.00	1.044E+00	1.044E+00	0.148E+00	14.22	
AC-228	1.41E+10Y	1.00	1.582E+00	1.582E+00	0.287E+00	18.17	
RA-228	1.41E+10Y	1.00	1.582E+00	1.582E+00	0.287E+00	18.17	
TH-228	1.91Y	1.01	1.451E+00	1.471E+00	0.137E+00	9.33	
TH-230	4.47E+09Y	1.00	1.044E+00	1.044E+00	0.148E+00	14.22	
TH-232	1.41E+10Y	1.00	1.582E+00	1.582E+00	0.287E+00	18.17	
TH-234	4.47E+09Y	1.00	8.632E+00	8.632E+00	2.593E+00	30.03	
U-234	4.47E+09Y	1.00	1.044E+00	1.044E+00	0.148E+00	14.22	
U-235	7.04E+08Y	1.00	1.899E-01	1.899E-01	2.123E-01	111.80	
NP-237	2.14E+06Y	1.00	8.351E-01	8.351E-01	3.485E-01	41.73	
U-238	4.47E+09Y	1.00	8.632E+00	8.632E+00	2.593E+00	30.03	
AM-243	7380.00Y	1.00	3.301E-01	3.302E-01	0.740E-01	22.42	
ANH-511	1.00E+09Y	1.00	1.051E-01	1.051E-01	0.551E-01	52.42	
	Total Activity :		8.299E+01	8.307E+01			

Grand Total Activity : 8.299E+01 8.307E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395002 Acquisition date : 2-FEB-2010 07:20:31

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.97	216	585	1.06	197.04	193	9	3.00E-02	42.7	7.39E+00	T
0	209.36	193	414	1.67	417.73	413	10	2.68E-02	42.1	7.26E+00	T
0	270.48	112	338	1.15	539.94	535	10	1.55E-02	64.8	6.35E+00	T
0	463.51	93	210	1.09	925.88	921	12	1.29E-02	66.1	4.59E+00	T
0	727.62	174	202	2.14	1453.96	1443	22	2.41E-02	44.5	3.34E+00	T
0	795.50	89	128	2.16	1589.69	1584	14	1.23E-02	59.0	3.11E+00	T
0	838.70	139	143	6.16	1676.07	1665	24	1.93E-02	48.7	2.98E+00	
0	1000.80	186	91	1.91	2000.21	1992	18	2.58E-02	28.7	2.57E+00	T
0	1377.69	69	47	1.45	2753.89	2746	16	9.65E-03	50.5	1.98E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:21:08.75

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395002.CNF;1 *
* Acquisition date  : 2-FEB-2010 07:20:31.  Detector SN#     :             *
* Detector ID       : GAM18                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.98          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245395002            Analyst initials: MXR1         *
* Batch Number      : 944966                Sample Quantity : 1.45270E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.468E+01	3.005E+00	3.531E-01	2.679E-02	98.215
CD-109	2.888E+00	1.047E+00	1.514E+00	1.399E-01	1.908
SN-126	2.844E-01	1.032E-01	1.391E-01	1.282E-02	2.044
TL-208	4.713E-01	7.661E-02	4.268E-02	3.346E-03	11.042
BI-211	3.525E+00	3.882E-01	2.503E-01	1.606E-02	14.085
PB-212	1.451E+00	1.353E-01	7.259E-02	5.186E-03	19.988
PO-212	1.451E+00	1.353E-01	7.259E-02	5.186E-03	19.988
BI-214	1.044E+00	1.484E-01	8.666E-02	7.741E-03	12.049
PB-214	1.226E+00	1.494E-01	8.856E-02	7.326E-03	13.847
PO-214	1.226E+00	1.494E-01	8.856E-02	7.326E-03	13.847
PO-216	1.451E+00	1.353E-01	7.259E-02	5.186E-03	19.988
PO-218	1.226E+00	1.494E-01	8.856E-02	7.326E-03	13.847
RA-224	4.071E+00	9.195E-01	8.251E-01	4.596E-02	4.935
RA-226	1.044E+00	1.484E-01	8.666E-02	7.741E-03	12.049
AC-228	1.582E+00	2.874E-01	1.409E-01	1.866E-02	11.230
RA-228	1.582E+00	2.874E-01	1.409E-01	1.866E-02	11.230
TH-228	1.471E+00	1.372E-01	7.359E-02	5.258E-03	19.988
TH-230	1.044E+00	1.484E-01	8.666E-02	7.741E-03	12.049

Sample ID : G245395002 Acquisition date : 2-FEB-2010 07:20:31

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.582E+00	2.874E-01	1.409E-01	1.866E-02	11.230
TH-234	8.632E+00	2.593E+00	2.143E+00	3.778E-01	4.028
U-234	1.044E+00	1.484E-01	8.666E-02	7.741E-03	12.049
U-235	1.899E-01	2.123E-01	2.860E-01	4.631E-02	0.664
NP-237	8.351E-01	3.485E-01	3.866E-01	8.723E-02	2.160
U-238	8.632E+00	2.593E+00	2.143E+00	3.778E-01	4.028
AM-243	3.302E-01	7.401E-02	9.036E-02	7.541E-03	3.654
ANH-511	1.051E-01	5.510E-02	3.432E-02	2.267E-03	3.062

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.498E-02		2.420E-01	4.005E-01	2.902E-02	0.037
NA-22	-2.192E-02		3.487E-02	5.456E-02	3.713E-03	-0.402
NA-24	-2.820E-02		7.762E-02	Half-Life too short		
AL-26	-7.983E-04		1.852E-02	3.016E-02	1.761E-03	-0.026
TI-44	3.162E-01	+	5.307E-02	7.372E-02	6.303E-03	4.289
SC-46	-2.456E-03		2.865E-02	4.652E-02	5.189E-03	-0.053
V-48	8.725E-03		5.281E-02	8.650E-02	8.556E-03	0.101
CR-51	1.045E-01		2.790E-01	4.576E-01	2.946E-02	0.228
MN-52	5.557E-02		1.453E-01	2.453E-01	1.808E-02	0.227
MN-54	5.460E-03		3.429E-02	4.906E-02	5.025E-03	0.111
CO-56	-5.482E-03		3.555E-02	4.933E-02	5.149E-03	-0.111
CO-57	3.093E-02		2.244E-02	3.770E-02	2.233E-03	0.820
CO-58	7.042E-03		2.899E-02	4.854E-02	4.791E-03	0.145
FE-59	-8.217E-02		7.173E-02	1.099E-01	9.043E-03	-0.748
CO-60	4.089E-03		3.073E-02	5.081E-02	3.839E-03	0.080
ZN-65	5.260E-02		8.723E-02	1.303E-01	9.178E-03	0.404
GE-68	-5.800E-01		1.010E+00	1.621E+00	1.287E-01	-0.358
AS-73	4.449E-01		1.023E+00	1.745E+00	1.383E-01	0.255
AS-74	1.530E-02		6.841E-02	1.121E-01	8.057E-03	0.136
SE-75	1.648E-02		3.588E-02	5.561E-02	3.181E-03	0.296
BR-77	4.973E+00		5.365E+00	9.231E+00	6.158E-01	0.539
SR-82	-1.987E-01		2.941E-01	4.659E-01	4.339E-02	-0.427
RB-83	4.202E-02		5.109E-02	8.748E-02	5.834E-03	0.480
RB-84	-1.584E-02		5.002E-02	7.985E-02	8.800E-03	-0.198
KR-85	1.724E+01		6.433E+00	1.064E+01	7.048E-01	1.620
SR-85	8.718E-02		3.253E-02	5.380E-02	3.564E-03	1.620
RB-86	1.180E-02		6.128E-01	1.024E+00	8.148E-02	0.012
Y-88	-1.533E-02		2.216E-02	3.211E-02	1.829E-03	-0.477
ZR-88	-9.251E-03		2.179E-02	3.573E-02	2.055E-03	-0.259
Y-91	-2.044E+01		1.597E+01	2.429E+01	1.436E+00	-0.842
NB-94	-6.013E-03		2.458E-02	4.044E-02	3.318E-03	-0.149
NB-95	7.270E-02		3.796E-02	6.753E-02	6.178E-03	1.076
NB-95M	3.761E-02		1.095E-01	1.612E-01	1.183E-02	0.233
ZR-95	3.711E-02		5.394E-02	9.288E-02	9.139E-03	0.400
NB-97	-1.628E-02		1.059E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	7.943E-01		2.126E-01	Half-Life too short		
MO-99	2.009E+00		5.939E+00	1.007E+01	1.536E+00	0.199
TC-99M	1.514E+08		5.096E+08	Half-Life too short		
RH-101	-1.036E-02		2.584E-02	4.253E-02	2.286E-03	-0.244
RH-102	1.191E-03		2.246E-02	3.717E-02	2.361E-03	0.032
RU-103	-1.606E-02		2.869E-02	4.545E-02	5.902E-03	-0.353
RH-106	5.450E-02		2.332E-01	3.815E-01	4.800E-02	0.143
RU-106	5.450E-02		2.331E-01	3.815E-01	2.808E-02	0.143
AG-108M	1.164E-02		2.369E-02	4.039E-02	2.639E-03	0.288
AG-110M	-2.186E-02		2.748E-02	4.406E-02	3.475E-03	-0.496
IN-111	1.426E-01		6.655E-01	9.716E-01	5.430E-02	0.147
IN-113M	1.425E-02		3.120E-02	5.346E-02	3.279E-03	0.267
SN-113	1.425E-02		3.120E-02	5.346E-02	3.279E-03	0.267
IN-114M	4.084E-02		1.577E-01	2.355E-01	1.257E-02	0.173
CD-115	1.285E+00		5.513E+00	9.136E+00	6.141E-01	0.141
SN-117M	2.578E-02		4.085E-02	7.058E-02	3.751E-03	0.365
SB-122	1.465E+00		1.186E+00	2.050E+00	1.429E-01	0.715
I-123	-1.393E-01		4.357E-01	Half-Life too short		
TE-123M	-3.597E-03		2.249E-02	3.791E-02	2.045E-03	-0.095
I-124	2.682E-01		4.861E-01	7.076E-01	5.116E-02	0.379
SB-124	1.347E-02		5.368E-02	9.151E-02	6.313E-03	0.147
SB-125	1.243E-03		6.620E-02	1.103E-01	6.891E-03	0.011
TE-125M	-1.662E+01		8.845E+00	1.317E+01	1.157E+00	-1.262
I-126	-9.326E-02		1.321E-01	2.127E-01	1.635E-02	-0.439
SB-126	9.442E-05		1.153E-01	1.654E-01	1.400E-02	0.001
SB-127	4.718E-02		8.183E-01	1.373E+00	1.442E-01	0.034
XE-127	-1.029E-02		3.601E-02	5.941E-02	3.207E-03	-0.173
I-131	5.872E-03		7.419E-02	1.255E-01	8.086E-03	0.047
TE-132	-1.900E-03		3.985E-01	6.587E-01	9.219E-02	-0.003
BA-133	1.692E-02		3.821E-02	5.482E-02	6.332E-03	0.309
I-133	1.121E-03		8.252E-04	Half-Life too short		
CS-134	9.697E-02	+	5.797E-02	7.168E-02	6.933E-03	1.353
CS-135	1.252E-01		1.417E-01	2.124E-01	1.606E-02	0.589
I-135	2.898E+07		8.770E+07	Half-Life too short		
CS-136	-8.256E-03		7.829E-02	1.300E-01	1.165E-02	-0.064
BA-137M	4.635E-02		2.917E-02	5.239E-02	3.994E-03	0.885
CS-137	4.900E-02		3.084E-02	5.538E-02	4.232E-03	0.885
CE-139	6.471E-03		2.359E-02	4.021E-02	2.111E-03	0.161
BA-140	2.302E-02		1.823E-01	2.996E-01	9.801E-02	0.077
LA-140	-2.019E-02		5.614E-02	8.946E-02	6.138E-03	-0.226
CE-141	1.946E-04		6.065E-02	8.543E-02	4.877E-03	0.002
CE-143	3.398E-04		5.078E-05	Half-Life too short		
CE-144	-1.297E-01		1.851E-01	2.861E-01	4.045E-02	-0.453
PM-144	-2.220E-03		2.529E-02	4.203E-02	3.412E-03	-0.053
PR-144	-1.503E-01		1.713E+00	2.846E+00	2.310E-01	-0.053
PM-146	7.965E-03		3.324E-02	5.573E-02	4.958E-03	0.143
ND-147	1.224E-02		4.028E-01	6.596E-01	9.203E-02	0.019
PM-149	-5.184E+01		4.975E+01	7.616E+01	1.077E+01	-0.681

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	2.028E-02		9.047E-02	1.195E-01	7.799E-03	0.170
GD-153	6.482E-02		1.098E-01	1.305E-01	1.020E-02	0.497
EU-154	-1.024E-01		1.004E-01	1.518E-01	1.517E-02	-0.674
EU-155	6.217E-02		9.973E-02	1.648E-01	1.179E-02	0.377
TB-160	2.787E-02		1.053E-01	1.753E-01	1.926E-02	0.159
HO-166M	-2.602E-02		4.534E-02	7.292E-02	6.078E-03	-0.357
TM-171	-3.161E+01		3.116E+01	4.424E+01	3.537E+00	-0.714
LU-176	-4.936E-03		1.976E-02	3.040E-02	1.750E-03	-0.162
LU-177	2.611E+00	+	1.109E+00	1.408E+00	7.639E-02	1.854
LU-177M	-1.780E-01		1.316E-01	2.040E-01	1.205E-02	-0.873
HF-181	-1.705E-02		3.201E-02	5.119E-02	3.276E-03	-0.333
W-181	4.231E-01		4.174E-01	6.459E-01	5.123E-02	0.655
TA-182	-7.418E-02		1.590E-01	2.547E-01	1.558E-02	-0.291
RE-183	4.203E-03		8.562E-02	1.451E-01	7.658E-03	0.029
RE-184	1.309E-01		1.747E-01	2.956E-01	1.660E-02	0.443
OS-185	-6.503E-03		3.287E-02	5.210E-02	3.918E-03	-0.125
RE-188	-2.231E-02		1.352E-01	2.282E-01	1.221E-02	-0.098
W-188	8.361E-01		6.488E+00	9.284E+00	5.318E-01	0.090
IR-192	-1.087E-02		2.666E-02	4.208E-02	2.441E-03	-0.258
AU-195	7.306E-01	+	3.170E-01	3.896E-01	2.981E-02	1.875
TL-200	4.663E-05		7.184E-05	Half-Life too short		
TL-201	-2.370E-01		4.136E+00	6.970E+00	3.659E-01	-0.034
TL-202	1.036E-03		4.525E-02	7.524E-02	4.587E-03	0.014
HG-203	6.793E-03		3.282E-02	5.389E-02	3.268E-03	0.126
BI-207	-1.083E-03		4.244E-02	7.077E-02	5.842E-03	-0.015
TL-207	-6.919E-01		5.526E-01	8.162E-01	1.347E-01	-0.848
PO-209	-1.909E+00		5.812E+00	9.267E+00	1.045E+00	-0.206
BI-210	2.574E+00		4.954E+00	8.526E+00	6.596E-01	0.302
PB-210	2.574E+00		4.954E+00	8.526E+00	6.596E-01	0.302
PO-210	2.574E+00		4.953E+00	8.526E+00	5.671E-01	0.302
PB-211	-9.012E-01		9.280E-01	1.153E+00	7.190E-01	-0.781
BI-212	1.141E+00	+	5.203E-01	5.027E-01	5.006E-02	2.270
PO-215	-6.919E-01		5.526E-01	8.162E-01	1.347E-01	-0.848
RN-219	4.598E-02		3.106E-01	5.231E-01	7.121E-02	0.088
RN-220	-1.158E+01		2.001E+01	3.144E+01	2.161E+00	-0.368
RA-223	-6.919E-01		5.526E-01	8.162E-01	1.347E-01	-0.848
AC-227	-2.524E-01		2.937E-01	4.596E-01	6.383E-02	-0.549
TH-227	-2.524E-01		2.947E-01	4.596E-01	7.740E-02	-0.549
TH-229	-8.674E-02		4.061E-01	6.740E-01	3.609E-02	-0.129
PA-231	3.129E-02		1.223E+00	1.991E+00	2.737E-01	0.016
TH-231	-6.919E-01		5.526E-01	8.162E-01	1.347E-01	-0.848
U-231	8.601E-01		1.124E+00	1.354E+00	1.085E-01	0.635
PA-233	-1.158E-02		4.982E-02	7.947E-02	4.868E-03	-0.146
PA-234	-1.483E-02		2.161E-01	3.493E-01	6.890E-02	-0.042
PA-234M	2.223E+01	+	6.807E+00	8.793E+00	9.486E-01	2.528
NP-236	-3.696E-02		6.333E-02	1.051E-01	5.569E-03	-0.352
NP-239	1.707E-02		1.663E-01	2.687E-01	1.663E-02	0.064
AM-241	1.088E-01		1.894E-01	2.910E-01	2.414E-02	0.374

Sample ID : G245395002 Acquisition date : 2-FEB-2010 07:20:31

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.441E-02		1.003E-01	1.466E-01	1.049E-02	0.167
AM-246	-6.442E-02		1.140E-01	1.830E-01	1.447E-02	-0.352
CM-247	-2.268E-03		2.837E-02	4.726E-02	2.753E-03	-0.048
CF-249	1.159E-02		2.866E-02	4.900E-02	2.817E-03	0.237
CF-251	5.611E-02		1.010E-01	1.731E-01	9.140E-03	0.324

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395002           *
* Acquisition date  :  2-FEB-2010 07:20:31 Detector SN#    :               *
* Detector ID       : GAM18                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.98      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395002           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.4527E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.468E+01	2.945E+00	1.776E-01	1.503E+00
CD-109	2.888E+00	1.027E+00	8.105E-01	5.237E-01
SN-126	2.844E-01	1.011E-01	7.450E-02	5.158E-02
TL-208	4.713E-01	7.508E-02	2.193E-02	3.831E-02
BI-211	3.525E+00	3.804E-01	1.301E-01	1.941E-01
PB-212	1.451E+00	1.326E-01	3.805E-02	6.767E-02
PO-212	1.451E+00	1.326E-01	3.805E-02	6.767E-02
BI-214	1.044E+00	1.455E-01	4.448E-02	7.422E-02
PB-214	1.226E+00	1.464E-01	4.602E-02	7.471E-02
PO-214	1.226E+00	1.464E-01	4.602E-02	7.471E-02
PO-216	1.451E+00	1.326E-01	3.805E-02	6.767E-02
PO-218	1.226E+00	1.464E-01	4.602E-02	7.471E-02
RA-224	4.071E+00	9.011E-01	4.324E-01	4.598E-01
RA-226	1.044E+00	1.455E-01	4.448E-02	7.422E-02
AC-228	1.582E+00	2.816E-01	7.164E-02	1.437E-01
RA-228	1.582E+00	2.816E-01	7.164E-02	1.437E-01
TH-228	1.471E+00	1.345E-01	3.858E-02	6.861E-02
TH-230	1.044E+00	1.455E-01	4.448E-02	7.422E-02
TH-232	1.582E+00	2.816E-01	7.164E-02	1.437E-01
TH-234	8.632E+00	2.541E+00	1.155E+00	1.296E+00
U-234	1.044E+00	1.455E-01	4.448E-02	7.422E-02
U-235	1.899E-01	2.081E-01	1.515E-01	1.062E-01
NP-237	8.351E-01	3.415E-01	2.071E-01	1.743E-01
U-238	8.632E+00	2.541E+00	1.155E+00	1.296E+00
AM-243	3.302E-01	7.253E-02	4.855E-02	3.700E-02
ANH-511	1.051E-01	5.400E-02	1.769E-02	2.755E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	1.498E-02	2.372E-01	2.067E-01	1.210E-01 NOT IDENT.

NA-22	-2.192E-02	3.417E-02	2.753E-02	1.744E-02	NOT IDENT.
NA-24	-2.820E+04	1.521E+05	0.000E+00	7.762E+04	SHORT HLIF
AL-26	-7.983E-04	1.815E-02	1.509E-02	9.260E-03	NOT IDENT.
TI-44	3.162E-01	5.201E-02	3.957E-02	2.654E-02	FAIL ABUN
SC-46	-2.456E-03	2.807E-02	2.367E-02	1.432E-02	FAIL ABUN
V-48	8.725E-03	5.175E-02	4.391E-02	2.640E-02	NOT IDENT.
CR-51	1.045E-01	2.734E-01	2.383E-01	1.395E-01	NOT IDENT.
MN-52	5.557E-02	1.424E-01	1.234E-01	7.263E-02	NOT IDENT.
MN-54	5.460E-03	3.360E-02	2.500E-02	1.714E-02	NOT IDENT.
CO-56	-5.482E-03	3.484E-02	2.513E-02	1.777E-02	NOT IDENT.
CO-57	3.093E-02	2.199E-02	2.005E-02	1.122E-02	NOT IDENT.
CO-58	7.042E-03	2.841E-02	2.475E-02	1.450E-02	NOT IDENT.
FE-59	-8.217E-02	7.030E-02	5.564E-02	3.587E-02	FAIL ABUN
CO-60	4.089E-03	3.012E-02	2.561E-02	1.537E-02	NOT IDENT.
ZN-65	5.260E-02	8.548E-02	6.596E-02	4.361E-02	NOT IDENT.
GE-68	-5.800E-01	9.895E-01	8.210E-01	5.048E-01	NOT IDENT.
AS-73	4.449E-01	1.003E+00	9.440E-01	5.117E-01	NOT IDENT.
AS-74	1.530E-02	6.704E-02	5.759E-02	3.420E-02	NOT IDENT.
SE-75	1.648E-02	3.516E-02	2.909E-02	1.794E-02	NOT IDENT.
BR-77	4.973E+00	5.258E+00	4.755E+00	2.682E+00	FAIL ABUN
SR-82	-1.987E-01	2.882E-01	2.378E-01	1.470E-01	NOT IDENT.
RB-83	4.202E-02	5.007E-02	4.507E-02	2.554E-02	NOT IDENT.
RB-84	-1.584E-02	4.902E-02	4.064E-02	2.501E-02	NOT IDENT.
KR-85	1.724E+01	6.304E+00	5.482E+00	3.217E+00	NOT IDENT.
SR-85	8.718E-02	3.188E-02	2.772E-02	1.627E-02	NOT IDENT.
RB-86	1.180E-02	6.005E-01	5.186E-01	3.064E-01	NOT IDENT.
Y-88	-1.533E-02	2.172E-02	1.606E-02	1.108E-02	NOT IDENT.
ZR-88	-9.251E-03	2.136E-02	1.852E-02	1.090E-02	NOT IDENT.
Y-91	-2.044E+01	1.565E+01	1.227E+01	7.986E+00	NOT IDENT.
NB-94	-6.013E-03	2.409E-02	2.069E-02	1.229E-02	NOT IDENT.
NB-95	7.270E-02	3.721E-02	3.449E-02	1.898E-02	NOT IDENT.
NB-95M	3.761E-02	1.073E-01	8.451E-02	5.475E-02	NOT IDENT.
ZR-95	3.711E-02	5.286E-02	4.744E-02	2.697E-02	NOT IDENT.
NB-97	-1.628E+04	2.076E+04	0.000E+00	1.059E+04	SHORT HLIF
ZR-97	7.943E+05	4.167E+05	0.000E+00	2.126E+05	SHORT HLIF
MO-99	2.009E+00	5.820E+00	5.146E+00	2.969E+00	NOT IDENT.
TC-99M	1.514E+14	9.988E+14	0.000E+00	5.096E+14	SHORT HLIF
RH-101	-1.036E-02	2.532E-02	2.238E-02	1.292E-02	NOT IDENT.
RH-102	1.191E-03	2.201E-02	1.919E-02	1.123E-02	NOT IDENT.
RU-103	-1.606E-02	2.812E-02	2.344E-02	1.435E-02	FAIL ABUN
RH-106	5.450E-02	2.285E-01	1.958E-01	1.166E-01	FAIL ABUN
RU-106	5.450E-02	2.285E-01	1.958E-01	1.166E-01	FAIL ABUN
AG-108M	1.164E-02	2.322E-02	2.089E-02	1.185E-02	NOT IDENT.
AG-110M	-2.186E-02	2.693E-02	2.258E-02	1.374E-02	NOT IDENT.
IN-111	1.426E-01	6.521E-01	5.090E-01	3.327E-01	NOT IDENT.
IN-113M	1.425E-02	3.058E-02	2.772E-02	1.560E-02	NOT IDENT.
SN-113	1.425E-02	3.058E-02	2.772E-02	1.560E-02	NOT IDENT.
IN-114M	4.084E-02	1.546E-01	1.241E-01	7.886E-02	NOT IDENT.
CD-115	1.285E+00	5.403E+00	4.705E+00	2.757E+00	NOT IDENT.
SN-117M	2.578E-02	4.003E-02	3.732E-02	2.042E-02	NOT IDENT.
SB-122	1.465E+00	1.162E+00	1.054E+00	5.928E-01	NOT IDENT.
I-123	-1.393E+05	8.541E+05	0.000E+00	4.357E+05	SHORT HLIF
TE-123M	-3.597E-03	2.205E-02	2.004E-02	1.125E-02	NOT IDENT.
I-124	2.682E-01	4.764E-01	3.633E-01	2.431E-01	FAIL ABUN
SB-124	1.347E-02	5.261E-02	4.587E-02	2.684E-02	FAIL ABUN
SB-125	1.243E-03	6.488E-02	5.707E-02	3.310E-02	FAIL ABUN
TE-125M	-1.662E+01	8.668E+00	7.018E+00	4.422E+00	NOT IDENT.
I-126	-9.326E-02	1.294E-01	1.089E-01	6.603E-02	NOT IDENT.
SB-126	9.442E-05	1.130E-01	8.457E-02	5.763E-02	FAIL ABUN
SB-127	4.718E-02	8.020E-01	7.031E-01	4.092E-01	NOT IDENT.
XE-127	-1.029E-02	3.529E-02	3.125E-02	1.801E-02	NOT IDENT.
I-131	5.872E-03	7.270E-02	6.517E-02	3.709E-02	NOT IDENT.
TE-132	-1.900E-03	3.906E-01	3.456E-01	1.993E-01	NOT IDENT.
BA-133	1.692E-02	3.744E-02	2.848E-02	1.910E-02	NOT IDENT.
I-133	1.121E+03	1.617E+03	0.000E+00	8.252E+02	SHORT HLIF
CS-134	9.697E-02	5.681E-02	3.657E-02	2.899E-02	FAIL ABUN
CS-135	1.252E-01	1.388E-01	1.111E-01	7.083E-02	NOT IDENT.
I-135	2.898E+13	1.719E+14	0.000E+00	8.770E+13	SHORT HLIF
CS-136	-8.256E-03	7.672E-02	6.591E-02	3.914E-02	FAIL ABUN
BA-137M	4.635E-02	2.859E-02	2.684E-02	1.458E-02	NOT IDENT.
CS-137	4.900E-02	3.022E-02	2.838E-02	1.542E-02	NOT IDENT.
CE-139	6.471E-03	2.312E-02	2.124E-02	1.180E-02	NOT IDENT.
BA-140	2.302E-02	1.786E-01	1.542E-01	9.114E-02	NOT IDENT.
LA-140	-2.019E-02	5.502E-02	4.490E-02	2.807E-02	NOT IDENT.
CE-141	1.946E-04	5.944E-02	4.526E-02	3.033E-02	NOT IDENT.
CE-143	3.398E+02	9.952E+01	0.000E+00	5.078E+01	SHORT HLIF
CE-144	-1.297E-01	1.814E-01	1.518E-01	9.255E-02	NOT IDENT.
PM-144	-2.220E-03	2.478E-02	2.151E-02	1.264E-02	NOT IDENT.

PR-144	-1.503E-01	1.678E+00	1.457E+00	8.563E-01	NOT IDENT.
PM-146	7.965E-03	3.258E-02	2.880E-02	1.662E-02	NOT IDENT.
ND-147	1.224E-02	3.948E-01	3.396E-01	2.014E-01	NOT IDENT.
PM-149	-5.184E+01	4.876E+01	3.976E+01	2.488E+01	NOT IDENT.
EU-152	2.028E-02	8.866E-02	6.214E-02	4.524E-02	NOT IDENT.
GD-153	6.482E-02	1.076E-01	6.972E-02	5.489E-02	NOT IDENT.
EU-154	-1.024E-01	9.843E-02	7.662E-02	5.022E-02	NOT IDENT.
EU-155	6.217E-02	9.774E-02	8.794E-02	4.987E-02	FAIL ABUN
TB-160	2.787E-02	1.032E-01	8.923E-02	5.263E-02	FAIL ABUN
HO-166M	-2.602E-02	4.443E-02	3.730E-02	2.267E-02	NOT IDENT.
TM-171	-3.161E+01	3.054E+01	2.382E+01	1.558E+01	NOT IDENT.
LU-176	-4.936E-03	1.937E-02	1.585E-02	9.881E-03	FAIL ABUN
LU-177	2.611E+00	1.087E+00	7.404E-01	5.544E-01	FAIL ABUN
LU-177M	-1.780E-01	1.290E-01	1.056E-01	6.580E-02	NOT IDENT.
HF-181	-1.705E-02	3.137E-02	2.642E-02	1.601E-02	NOT IDENT.
W-181	4.231E-01	4.091E-01	3.480E-01	2.087E-01	NOT IDENT.
TA-182	-7.418E-02	1.558E-01	1.287E-01	7.951E-02	FAIL ABUN
RE-183	4.203E-03	8.391E-02	7.668E-02	4.281E-02	FAIL ABUN
RE-184	1.309E-01	1.712E-01	1.547E-01	8.733E-02	NOT IDENT.
OS-185	-6.503E-03	3.221E-02	2.671E-02	1.643E-02	NOT IDENT.
RE-188	-2.231E-02	1.325E-01	1.207E-01	6.761E-02	NOT IDENT.
W-188	8.361E-01	6.359E+00	4.845E+00	3.244E+00	FAIL ABUN
IR-192	-1.087E-02	2.612E-02	2.192E-02	1.333E-02	FAIL ABUN
AU-195	7.306E-01	3.106E-01	2.081E-01	1.585E-01	FAIL ABUN
TL-200	4.663E+01	1.408E+02	0.000E+00	7.184E+01	SHORT HLIF
TL-201	-2.370E-01	4.053E+00	3.682E+00	2.068E+00	NOT IDENT.
TL-202	1.036E-03	4.435E-02	3.891E-02	2.263E-02	NOT IDENT.
HG-203	6.793E-03	3.217E-02	2.815E-02	1.641E-02	NOT IDENT.
BI-207	-1.083E-03	4.159E-02	3.586E-02	2.122E-02	FAIL ABUN
TL-207	-6.919E-01	5.415E-01	4.249E-01	2.763E-01	FAIL ABUN
PO-209	-1.909E+00	5.696E+00	4.715E+00	2.906E+00	NOT IDENT.
BI-210	2.574E+00	4.855E+00	4.626E+00	2.477E+00	NOT IDENT.
PB-210	2.574E+00	4.855E+00	4.626E+00	2.477E+00	NOT IDENT.
PO-210	2.574E+00	4.854E+00	4.626E+00	2.477E+00	NOT IDENT.
PB-211	-9.012E-01	9.094E-01	5.975E-01	4.640E-01	NOT IDENT.
BI-212	1.141E+00	5.099E-01	2.570E-01	2.601E-01	FAIL ABUN
PO-215	-6.919E-01	5.415E-01	4.249E-01	2.763E-01	FAIL ABUN
RN-219	4.598E-02	3.044E-01	2.711E-01	1.553E-01	FAIL ABUN
RN-220	-1.158E+01	1.961E+01	1.618E+01	1.000E+01	NOT IDENT.
RA-223	-6.919E-01	5.415E-01	4.249E-01	2.763E-01	FAIL ABUN
AC-227	-2.524E-01	2.878E-01	2.405E-01	1.469E-01	FAIL ABUN
TH-227	-2.524E-01	2.888E-01	2.405E-01	1.473E-01	FAIL ABUN
TH-229	-8.674E-02	3.980E-01	3.549E-01	2.030E-01	FAIL ABUN
PA-231	3.129E-02	1.199E+00	1.040E+00	6.116E-01	FAIL ABUN
TH-231	-6.919E-01	5.415E-01	4.249E-01	2.763E-01	FAIL ABUN
U-231	8.601E-01	1.101E+00	7.237E-01	5.619E-01	FAIL ABUN
PA-233	-1.158E-02	4.882E-02	4.141E-02	2.491E-02	FAIL ABUN
PA-234	-1.483E-02	2.118E-01	1.775E-01	1.081E-01	FAIL ABUN
PA-234M	2.223E+01	6.671E+00	4.462E+00	3.404E+00	FAIL ABUN
NP-236	-3.696E-02	6.207E-02	5.557E-02	3.167E-02	FAIL ABUN
NP-239	1.707E-02	1.630E-01	1.430E-01	8.317E-02	FAIL ABUN
AM-241	1.088E-01	1.856E-01	1.571E-01	9.468E-02	NOT IDENT.
CM-243	2.441E-02	9.825E-02	7.823E-02	5.013E-02	FAIL ABUN
AM-246	-6.442E-02	1.117E-01	9.268E-02	5.700E-02	NOT IDENT.
CM-247	-2.268E-03	2.780E-02	2.449E-02	1.418E-02	NOT IDENT.
CF-249	1.159E-02	2.809E-02	2.541E-02	1.433E-02	NOT IDENT.
CF-251	5.611E-02	9.901E-02	9.131E-02	5.052E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	351.7588
46.50	351.7588
46.50	351.7588
48.70	361.2139
49.72	380.6528
51.35	390.3354
52.39	399.1685
52.97	372.7793
53.15	373.0348
53.44	382.5551
54.07	380.7271
56.28	437.2455
56.28	437.2504
57.37	0.0000
57.53	442.0117
57.53	442.0141
57.60	428.2481
57.98	410.3093
57.98	410.3093
59.32	420.1765
59.32	420.1765
59.40	420.2947
59.54	420.5014
59.72	405.3898
60.01	415.5965
61.10	488.8082
61.14	488.8759
61.30	489.1454
63.00	435.4373
63.29	435.8626
63.29	435.8626
63.58	436.2867
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65.12	441.3743
65.20	441.4908
65.20	441.4908
66.05	492.7079
66.72	478.0355
66.83	465.3229
66.91	465.4419
67.20	501.7151
67.20	501.7151
67.75	510.0689
67.85	522.8751
68.90	487.1515
68.90	487.1515
69.30	470.4506
69.67	462.3340
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83.78	581.2588
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85.43	546.0637
86.29	665.5938
86.50	665.9689
86.54	666.0393
86.59	666.1297
86.72	696.7189
86.79	696.8450
86.94	697.1287
87.30	768.6453
87.30	768.6453
87.30	768.6453
87.30	768.6453
87.30	768.6453
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87.57	769.1970
87.88	895.2923
88.03	895.6512
88.36	737.8792
88.47	738.0934
89.95	900.1821
91.11	832.2615
92.29	682.3116
92.38	682.4705
92.38	682.4705
93.35	684.1570
94.00	685.2859
94.67	415.2679
94.67	415.2740
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95.87	463.1468
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96.73	464.1404
97.43	511.7443
98.44	432.9308
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98.88	433.3954
99.55	434.1007
99.55	434.1007
99.86	415.9064
100.00	416.0479
100.10	416.1510
103.18	487.2374
103.76	443.5477
105.00	423.6511
105.31	437.7370
108.00	493.7743
109.28	550.8285

111.00	505.7175
111.00	505.7175
111.76	423.7572
112.95	460.4593
115.19	521.2374
116.30	479.0409
117.00	398.1698
117.00	398.1698
117.66	441.2219
121.11	422.5017
121.62	403.1777
121.78	403.3121
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122.32	368.5583
122.32	368.5583
122.32	368.5583
122.32	368.5583
123.07	418.7174
127.23	481.1819
129.76	435.5950
131.20	446.9186
133.02	423.7837
133.54	464.7174
135.34	416.6565
136.00	407.0068
136.25	419.6432
136.48	414.1700
140.51	417.3347
140.51	0.0000
142.18	447.8012
142.65	463.6464
143.76	422.1496
144.24	417.9276
144.24	417.9276
144.24	417.9276
144.24	417.9276
145.22	441.6797
145.44	441.8594
147.16	413.8008
152.43	386.8234
152.70	391.6685
153.22	402.5281
154.21	422.5075
154.21	422.5075
154.21	422.5075
154.21	422.5075
155.03	414.3324
156.02	404.4899
158.56	374.4613
159.00	0.0000
159.00	398.6026
160.31	409.2305
161.27	415.2165
162.32	387.5075
162.64	380.5997
163.35	370.3667
163.89	382.2843
165.85	384.4188
167.43	390.7940
171.28	380.6088
171.86	380.9629
172.10	376.5923
176.55	365.6129
176.60	365.6405
181.06	388.3292
184.41	380.0083
185.71	380.9392
186.00	381.1062
190.27	362.5539
192.34	354.5035
193.63	386.3720
197.04	382.6556
198.01	362.5258
198.60	363.7721
200.40	360.9385
201.83	374.8893
202.84	378.2593
205.31	343.1299

208.36	368.9791
208.81	352.8059
209.75	353.2603
209.75	353.2603
210.97	302.9724
215.65	373.9680
216.55	367.1230
218.09	337.9463
222.10	378.5653
223.80	348.2738
226.40	309.4276
227.00	307.7133
227.08	307.7446
227.20	312.6782
228.16	311.1073
228.18	311.1146
228.18	311.1146
231.56	0.0000
235.69	368.2094
236.00	357.2852
236.00	357.2852
238.63	335.0602
238.63	335.0602
238.63	335.0602
238.63	335.0602
239.00	335.2124
240.98	336.0298
241.98	336.4424
241.98	336.4424
241.98	336.4424
244.69	298.8051
245.39	281.4668
247.94	286.0757
248.90	294.0998
249.79	285.3694
252.40	263.0729
252.85	244.0513
252.85	244.0513
254.15	0.0000
256.20	288.5497
256.20	288.5497
260.50	248.2742
260.90	254.4975
262.80	283.6206
264.65	246.7318
268.24	275.9326
268.79	282.6788
269.46	279.5994
269.46	279.5994
269.46	279.5994
269.46	279.5994
271.23	280.1555
273.65	373.4463
276.40	286.5014
277.35	277.9126
277.60	277.9862
277.60	277.9862
278.00	271.8826
278.60	276.2161
279.20	299.2544
279.53	315.9910
280.46	320.4777
281.68	303.1887
283.67	267.2969
284.30	290.4628
285.00	287.5465
285.90	298.2898
286.10	298.3507
286.10	298.3507
287.40	255.1884
288.45	0.0000
290.67	260.8813
290.80	260.9192
291.72	294.8724
293.26	0.0000
293.70	268.4678
295.21	287.4976
295.21	287.4976

295.21	287.4976
295.96	287.7217
296.50	287.8835
297.23	288.0994
298.57	288.5020
299.80	237.8906
299.80	237.8906
300.09	243.0616
300.09	243.0616
300.09	243.0616
300.09	243.0616
300.12	243.0686
301.29	239.9547
302.84	216.4736
303.76	220.0905
303.91	220.1220
304.40	209.9889
304.40	209.9889
304.84	216.9170
306.84	234.7132
308.46	214.2822
311.98	233.3174
316.51	236.5271
318.01	257.4290
319.02	217.6232
319.41	222.0385
320.08	216.7633
323.87	287.1870
323.87	287.1870
323.87	287.1870
323.87	287.1870
325.23	304.9896
328.77	238.2645
333.44	310.9038
334.20	286.5155
334.20	286.5155
334.30	286.5433
338.28	228.2824
338.28	228.2824
338.28	228.2824
338.28	228.2824
338.32	228.2919
338.32	228.2919
338.32	228.2919
340.50	229.8613
340.57	229.8772
344.27	199.6133
345.85	208.7863
350.59	0.0000
351.07	216.4768
351.92	223.3459
351.92	223.3459
351.92	223.3459
355.39	0.0000
356.01	197.2668
364.48	185.2032
366.43	180.0911
367.43	186.5894
367.94	0.0000
369.80	183.3436
374.96	189.6324
383.85	196.5811
387.95	176.0571
388.63	177.0797
391.69	167.3587
391.69	167.3587
392.90	188.8145
398.62	185.0540
400.65	189.0834
401.10	198.4733
401.81	196.7217
402.60	208.9746
404.84	237.3933
410.95	199.1097
411.60	197.3339
413.65	220.2434
414.70	181.8045
415.30	164.9277

415.76	155.5596
417.63	0.0000
418.52	173.8477
423.70	166.0150
427.08	162.6441
427.89	165.6016
432.53	153.7735
433.93	154.8947
439.47	153.6250
439.56	153.6348
439.89	154.6343
443.98	169.5590
444.90	160.0344
445.03	154.2656
445.03	154.2656
445.03	154.2656
445.03	154.2656
453.90	172.7482
463.38	158.3060
468.07	151.9764
473.00	161.3654
475.06	171.4533
475.35	174.4461
476.78	163.7690
477.59	168.7978
477.96	164.8921
482.03	178.2356
484.57	139.8640
487.03	143.0842
490.36	0.0000
492.35	128.6488
497.08	153.0766
507.63	0.0000
510.53	0.0000
510.84	151.4685
511.00	151.4841
511.85	151.5701
511.85	151.5701
513.99	146.7240
513.99	146.7240
520.41	134.1334
520.65	134.1560
527.90	149.0833
528.96	0.0000
529.64	141.0727
529.87	0.0000
531.02	157.5680
537.32	145.8793
543.00	147.4338
546.56	0.0000
549.76	159.4517
552.65	123.4334
555.20	138.1726
563.23	161.8267
563.90	146.2241
568.70	172.8431
569.32	168.7159
569.50	175.0198
569.67	175.0401
573.80	151.0463
574.00	149.7502
574.64	139.6719
578.91	152.8270
579.30	0.0000
583.14	138.4199
585.48	125.2091
591.81	139.3954
592.07	136.9098
593.00	136.0375
595.88	151.1731
600.56	164.3920
602.52	0.0000
602.71	156.7607
602.71	156.7607
603.60	171.0977
604.41	171.1797
604.70	187.2577
609.31	162.0043

609.31	162.0043
609.31	162.0043
609.31	162.0043
610.33	139.5564
612.46	155.8467
614.37	147.0501
618.01	137.7698
621.84	122.0985
621.84	122.0985
631.29	135.7819
633.02	145.6956
633.10	157.6627
634.78	136.0443
635.90	125.2366
636.97	139.4781
645.85	134.6814
646.12	137.9878
656.30	180.7757
657.75	171.7324
657.90	0.0000
661.65	139.8838
661.65	139.8838
664.57	0.0000
666.33	170.6749
666.33	170.6749
675.00	139.0198
677.61	134.5687
685.20	136.9661
692.80	129.0830
695.00	125.4832
696.49	139.6360
696.49	139.6360
697.00	137.7975
697.49	143.4593
698.33	136.0142
698.50	136.0260
699.00	136.0614
702.63	141.0126
706.10	131.8425
706.58	0.0000
706.67	138.4764
709.31	128.2830
711.68	142.6009
713.82	147.4814
717.42	121.2292
720.50	131.7126
721.93	0.0000
722.20	143.2148
722.78	153.0254
722.78	153.0254
722.89	153.0320
722.95	153.0352
723.30	144.9230
724.18	143.3560
727.18	126.5735
733.00	117.8011
735.90	98.3057
739.58	106.2779
742.81	102.6092
744.21	113.2322
747.13	123.9636
751.79	119.4237
752.31	122.3439
753.82	119.5397
755.35	116.7338
756.15	119.6734
756.87	114.8866
763.93	196.6397
765.79	161.9104
766.42	154.1995
766.84	152.2886
776.49	150.0554
778.00	136.5080
778.57	143.3723
778.89	146.3196
783.80	120.2548
785.46	116.4337
792.07	174.9704

795.84	111.0895
796.30	111.1125
798.80	113.0672
801.93	108.1585
805.60	113.5564
810.29	113.7951
810.76	107.8823
815.85	106.1423
817.79	105.2430
818.51	101.3027
819.60	104.3335
826.30	119.5923
828.27	0.0000
831.60	85.6219
831.96	85.6358
834.83	133.7578
836.80	0.0000
846.75	120.6616
848.13	108.6614
856.28	0.0000
856.80	136.7649
860.37	107.2098
867.32	104.3366
867.82	101.9681
871.10	116.8413
873.19	111.8597
874.81	104.8126
875.33	0.0000
876.40	86.5529
879.36	100.9336
880.27	101.9918
880.51	104.0420
881.50	101.0242
883.24	106.2026
884.67	96.0482
889.25	98.2793
896.60	113.9787
898.02	117.1288
899.00	114.0916
903.28	107.6712
911.07	81.4530
911.07	81.4530
911.07	81.4530
919.63	90.4563
920.93	101.6287
925.00	102.8329
925.24	100.7654
926.50	106.0134
935.52	99.0917
937.48	124.2222
944.10	103.6144
946.00	90.0750
949.00	84.9386
962.29	106.6083
964.01	106.6803
966.15	117.6266
968.20	193.7808
969.11	160.6372
969.11	160.6372
969.11	160.6372
977.42	104.6045
980.50	89.1594
983.50	100.9491
989.30	106.4962
996.32	97.0145
1001.03	105.8965
1001.68	105.9207
1004.76	97.3213
1021.30	0.0000
1024.50	0.0000
1034.80	120.2139
1036.00	113.3027
1037.82	107.7992
1038.57	108.7571
1038.76	0.0000
1045.16	108.0865
1046.59	106.2786
1048.07	108.1998

1050.47	112.0271
1050.47	112.0271
1062.04	101.2387
1063.62	116.3019
1076.63	115.8959
1077.35	124.4037
1078.86	120.7009
1085.78	105.8672
1099.22	131.9996
1112.02	118.5081
1112.84	126.8909
1115.52	130.3491
1120.29	113.8203
1120.29	113.8203
1120.29	113.8203
1120.29	113.8203
1120.51	113.8286
1121.28	112.1833
1124.00	0.0000
1129.67	117.7980
1131.51	0.0000
1147.95	0.0000
1167.94	103.0017
1173.22	121.6736
1175.09	126.6176
1177.93	97.4888
1189.05	133.0592
1204.90	172.0825
1205.75	0.0000
1213.00	130.1355
1221.42	147.2799
1230.97	183.4127
1235.34	146.9315
1236.41	0.0000
1238.25	134.1431
1246.25	106.5858
1260.41	0.0000
1271.85	110.4335
1274.45	117.5509
1274.54	106.5028
1291.56	107.0462
1298.22	0.0000
1312.09	76.2033
1325.50	77.5215
1325.50	77.5215
1332.49	69.5036
1333.61	85.8838
1360.21	80.3613
1362.66	0.0000
1365.15	55.7139
1368.21	65.0544
1368.53	0.0000
1376.25	59.7702
1384.27	47.1980
1394.10	52.0089
1395.20	58.2676
1407.95	58.4727
1434.06	42.0661
1436.60	42.0954
1457.56	0.0000
1460.81	35.2203
1489.15	36.2863
1509.49	40.3689
1596.49	42.2275
1620.62	35.7207
1678.03	0.0000
1691.02	26.5089
1691.02	26.5089
1706.46	0.0000
1750.46	0.0000
1764.49	24.8524
1764.49	24.8524
1764.49	24.8524
1764.49	24.8524
1770.23	14.2196
1771.40	16.0015
1791.20	0.0000
1808.65	18.1516

1836.01 25.3624

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395002

Total Uranium Activity	2.5769E+01	ug/g
Total Uranium Counting Unc.	7.5592E+00	ug/g
Total Uranium Tpu	3.8567E-06	ug/g
Total Uranium Mda	3.4379E+00	ug/g

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*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 944966                    SAMPLE ID  : G245395002         *
*   ANALYST       : MXR1                      DETECTOR   : GAM18              *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  2-FEB-2010 07:20:31.92    SAMPLE ALQT:  145.270 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.003E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.172E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.023E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 9.834E-01
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:22:46.41

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395003.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:21:05.
Sample ID         : G245395003           Sample quantity  : 1.70470E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.98  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.23*	2743	2039	1.29	126.32	119	14	3.81E-01	4.0	
2	1	74.67	469	1548	1.47	149.19	144	15	6.52E-02	16.2	2.93E+00
3	1	77.12	580	1406	1.27	154.08	144	15	8.05E-02	12.2	
4	0	83.45*	107	1597	1.23	166.74	165	8	1.49E-02	65.2	
5	1	92.65*	6272	1229	1.41	185.12	177	25	8.71E-01	1.6	8.00E+00
6	1	98.51	553	835	1.50	196.82	177	25	7.68E-02	12.1	
7	0	112.94*	596	1499	1.43	225.66	218	16	8.27E-02	15.2	
8	0	143.68*	174	507	1.24	287.09	284	8	2.42E-02	23.9	
9	0	178.32*	47	485	1.35	356.32	349	10	6.57E-03	88.9	
10	0	185.85*	1194	623	1.32	371.37	365	14	1.66E-01	5.4	
11	1	205.53	128	295	1.57	410.71	407	17	1.78E-02	23.8	1.21E+00
12	1	209.27	136	405	1.61	418.18	407	17	1.89E-02	29.1	
13	2	238.52*	1130	270	1.32	476.63	471	18	1.57E-01	4.0	6.98E-01
14	2	241.47	241	369	1.80	482.55	471	18	3.35E-02	19.7	
15	0	295.39*	287	352	1.14	590.30	583	14	3.99E-02	15.2	
16	0	300.19	68	165	1.62	599.90	597	8	9.49E-03	34.7	
17	0	338.35	221	380	1.50	676.18	668	16	3.07E-02	20.9	
18	0	351.80*	566	292	1.49	703.06	695	15	7.87E-02	7.9	
19	0	409.53	56	154	1.02	818.46	813	10	7.77E-03	43.9	
20	0	462.80	66	142	1.60	924.96	920	11	9.20E-03	37.0	
21	0	511.35*	117	258	2.01	1022.00	1012	21	1.63E-02	38.0	
22	0	568.42*	136	179	2.49	1136.10	1130	18	1.89E-02	25.0	
23	0	583.01*	402	130	1.45	1165.27	1159	14	5.58E-02	7.9	
24	0	609.43*	354	155	1.38	1218.09	1213	13	4.91E-02	9.3	
25	0	661.65*	57	99	1.48	1322.50	1319	10	7.96E-03	35.2	
26	0	727.81	75	112	0.62	1454.80	1447	13	1.04E-02	31.6	
27	0	767.31	186	129	2.07	1533.77	1525	17	2.59E-02	15.9	
28	0	795.55	48	91	1.93	1590.24	1584	12	6.70E-03	42.4	
29	0	860.85	73	60	1.92	1720.83	1714	12	1.01E-02	24.2	
30	0	911.46*	216	112	1.41	1822.04	1814	16	3.00E-02	13.0	
31	0	966.20	24	77	0.75	1931.51	1922	11	3.31E-03	74.2	
32	0	969.37	166	50	1.76	1937.87	1933	13	2.31E-02	11.8	
33	0	1001.29*	361	68	1.79	2001.70	1995	13	5.01E-02	7.1	
34	0	1120.72	109	59	1.37	2240.59	2233	16	1.51E-02	18.5	
35	0	1461.19*	1385	24	2.02	2921.73	2914	16	1.92E-01	2.8	
36	0	1590.46	18	41	0.77	3180.41	3172	20	2.44E-03	91.6	
37	0	1631.09	10	6	1.19	3261.72	3257	8	1.36E-03	53.9	
38	0	1764.67*	97	8	1.81	3529.07	3522	15	1.34E-02	12.3	

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 09:22:49

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:21:05
Sample ID : G245395003 Sample quantity : 170.47 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.98 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.447E+01	2.283E+00	3.915E-01	2.916E-02	62.502
BA-137M	+	661.65	*	6.103E-02	4.312E-02	4.853E-02	2.826E-03	1.257
CS-137	+	661.65	*	6.451E-02	4.559E-02	5.130E-02	3.000E-03	1.257
LU-177	+	112.95		1.250E+01	3.893E+00	2.707E+00	1.763E-01	4.617
	+	208.36	*	2.078E+00	1.216E+00	1.420E+00	7.795E-02	1.464
TL-208		277.35		-1.661E-01	3.375E-01	5.568E-01	5.875E-02	-0.298
	+	510.84		4.216E-01	3.230E-01	1.804E-01	1.842E-02	2.338
	+	583.14	*	4.110E-01	7.053E-02	4.766E-02	3.241E-03	8.624
	+	860.37		7.025E-01	3.464E-01	3.433E-01	3.074E-02	2.046
BI-211		72.87		9.882E+00	4.560E+00	6.832E+00	5.353E-01	1.446
	+	351.07	*	2.545E+00	4.317E-01	2.834E-01	1.810E-02	8.978
PB-212	+	74.81		1.912E+00	6.617E-01	7.194E-01	8.821E-02	2.657
	+	77.11		1.338E+00	3.435E-01	4.094E-01	3.307E-02	3.269
		87.30		-2.415E-01	8.587E-01	8.770E-01	1.174E-01	-0.275
	+	238.63	*	1.112E+00	1.191E-01	8.444E-02	6.094E-03	13.171
	+	300.09		1.036E+00	7.232E-01	1.040E+00	8.591E-02	0.996
PO-212	+	74.81		1.912E+00	6.617E-01	7.194E-01	8.821E-02	2.657
	+	77.11		1.338E+00	3.435E-01	4.094E-01	3.307E-02	3.269
		87.30		-2.415E-01	8.587E-01	8.770E-01	1.174E-01	-0.275
		115.19		1.646E+01	4.779E+00	7.487E+00	4.767E-01	2.198
	+	238.63	*	1.112E+00	1.191E-01	8.444E-02	6.094E-03	13.171
	+	300.09		1.036E+00	7.232E-01	1.040E+00	8.591E-02	0.996
BI-214	+	609.31	*	6.828E-01	1.376E-01	9.543E-02	7.503E-03	7.155
	+	1120.29		1.093E+00	4.170E-01	3.550E-01	3.248E-02	3.078
	+	1764.49		1.307E+00	3.300E-01	2.212E-01	1.340E-02	5.910
PB-214	+	74.81		3.294E+00	1.125E+00	1.240E+00	1.346E-01	2.657
	+	77.11		2.294E+00	6.142E-01	7.018E-01	7.793E-02	3.269
		87.30		-4.136E-01	1.471E+00	1.502E+00	1.768E-01	-0.275
	+	241.98		1.426E+00	5.733E-01	5.080E-01	4.052E-02	2.806
	+	295.21		7.646E-01	2.419E-01	1.849E-01	1.578E-02	4.135
	+	351.92	*	8.852E-01	1.571E-01	9.878E-02	8.144E-03	8.960
PO-214	+	74.81		3.294E+00	1.125E+00	1.240E+00	1.346E-01	2.657
	+	77.11		2.294E+00	6.142E-01	7.018E-01	7.793E-02	3.269
		87.30		-4.136E-01	1.471E+00	1.502E+00	1.768E-01	-0.275

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		1.426E+00	5.733E-01	5.080E-01	4.052E-02	2.806
	+	295.21		7.646E-01	2.419E-01	1.849E-01	1.578E-02	4.135
	+	351.92	*	8.852E-01	1.571E-01	9.878E-02	8.144E-03	8.960
PO-216	+	74.81		1.912E+00	6.617E-01	7.194E-01	8.821E-02	2.657
	+	77.11		1.338E+00	3.435E-01	4.094E-01	3.307E-02	3.269
		87.30		-2.415E-01	8.587E-01	8.770E-01	1.174E-01	-0.275
	+	238.63	*	1.112E+00	1.191E-01	8.444E-02	6.094E-03	13.171
	+	300.09		1.036E+00	7.232E-01	1.040E+00	8.591E-02	0.996
PO-218	+	74.81		3.294E+00	1.125E+00	1.240E+00	1.346E-01	2.657
	+	77.11		2.294E+00	6.142E-01	7.018E-01	7.793E-02	3.269
		87.30		-4.136E-01	1.471E+00	1.502E+00	1.768E-01	-0.275
	+	241.98		1.426E+00	5.733E-01	5.080E-01	4.052E-02	2.806
	+	295.21		7.646E-01	2.419E-01	1.849E-01	1.578E-02	4.135
	+	351.92	*	8.852E-01	1.571E-01	9.878E-02	8.144E-03	8.960
RA-224	+	240.98	*	2.704E+00	1.076E+00	9.604E-01	5.442E-02	2.815
RA-226	+	609.31	*	6.828E-01	1.376E-01	9.543E-02	7.503E-03	7.155
	+	1120.29		1.093E+00	4.170E-01	3.550E-01	3.248E-02	3.078
	+	1764.49		1.307E+00	3.300E-01	2.212E-01	1.340E-02	5.910
AC-228	+	338.32		1.093E+00	6.378E-01	3.365E-01	1.372E-01	3.249
	+	911.07	*	9.847E-01	2.792E-01	1.802E-01	2.038E-02	5.465
	+	969.11		1.332E+00	4.409E-01	3.145E-01	7.290E-02	4.235
RA-228	+	338.32		1.093E+00	6.378E-01	3.365E-01	1.372E-01	3.249
	+	911.07	*	9.847E-01	2.792E-01	1.802E-01	2.038E-02	5.465
	+	969.11		1.332E+00	4.409E-01	3.145E-01	7.290E-02	4.235
TH-228	+	74.81		1.938E+00	6.463E-01	7.293E-01	5.848E-02	2.657
	+	77.11		1.357E+00	3.482E-01	4.150E-01	3.353E-02	3.269
		87.30		-2.448E-01	8.702E-01	8.891E-01	7.908E-02	-0.275
	+	238.63	*	1.127E+00	1.207E-01	8.561E-02	6.179E-03	13.171
	+	300.09		1.050E+00	9.557E-01	1.055E+00	6.215E-01	0.996
TH-230	+	609.31	*	6.828E-01	1.376E-01	9.543E-02	7.503E-03	7.155
	+	1120.29		1.093E+00	4.170E-01	3.550E-01	3.248E-02	3.078
	+	1764.49		1.307E+00	3.300E-01	2.212E-01	1.340E-02	5.910
TH-232	+	338.32		1.093E+00	4.606E-01	3.365E-01	1.945E-02	3.249
	+	911.07	*	9.847E-01	2.792E-01	1.802E-01	2.038E-02	5.465
	+	969.11		1.332E+00	4.409E-01	3.145E-01	7.290E-02	4.235
PA-234M	+	766.42		6.321E+01	3.770E+01	1.804E+01	9.109E+00	3.504
	+	1001.03	*	5.888E+01	1.002E+01	6.415E+00	5.971E-01	9.179
TH-234	+	63.29	*	4.397E+01	8.455E+00	2.629E+00	4.601E-01	16.721
	+	92.38		4.000E+01	7.290E+00	1.085E+00	1.948E-01	36.879
U-234	+	609.31	*	6.828E-01	1.376E-01	9.543E-02	7.503E-03	7.155
	+	1120.29		1.093E+00	4.170E-01	3.550E-01	3.248E-02	3.078
	+	1764.49		1.307E+00	3.300E-01	2.212E-01	1.340E-02	5.910
U-235		89.95		1.023E+01	3.788E+00	3.123E+00	9.641E-01	3.275
	+	93.35		4.809E+01	1.352E+01	1.296E+00	3.616E-01	37.117
		105.00		-1.136E+00	1.361E+00	2.029E+00	5.974E-01	-0.560
	+	143.76	*	5.498E-01	2.770E-01	3.602E-01	5.841E-02	1.526
		163.35		8.004E-01	5.178E-01	8.450E-01	1.505E-01	0.947
	+	185.71		8.273E-01	9.949E-02	6.592E-02	3.523E-03	12.550
	+	205.31		1.086E+00	5.518E-01	8.532E-01	1.525E-01	1.273

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	+	63.29	*	4.397E+01	8.455E+00	2.629E+00	4.601E-01	16.721
	+	92.38		4.000E+01	3.564E+00	1.085E+00	9.059E-02	36.879
AM-243	+	74.67	*	3.099E-01	1.033E-01	1.170E-01	9.276E-03	2.650
		86.72		-5.361E+00	2.055E+01	2.102E+01	1.858E+00	-0.255
		117.66		1.054E+00	4.740E+00	6.817E+00	4.235E-01	0.155
	+	142.18		4.618E+01	2.218E+01	2.929E+01	1.631E+00	1.577
ANH-511	+	511.00	*	9.107E-02	6.935E-02	3.897E-02	2.300E-03	2.337

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.745E-01	2.864E-01	4.900E-01	3.326E-02	0.356
NA-22		1274.54	*	-2.858E-02	3.700E-02	5.697E-02	3.800E-03	-0.502
NA-24		1368.53	*	1.241E-02	3.700E-02	Half-Life too short		
AL-26		1129.67		8.579E-01	1.411E+00	2.378E+00	1.467E-01	0.361
		1808.65	*	-1.240E-02	2.300E-02	3.328E-02	1.943E-03	-0.373
TI-44		67.85		-8.225E-02	7.130E-02	9.196E-02	7.020E-03	-0.894
	+	78.38	*	2.470E-01	6.338E-02	8.588E-02	7.010E-03	2.876
SC-46		889.25	*	2.513E-02	3.373E-02	5.779E-02	5.021E-03	0.435
	+	1120.51		1.851E-01	6.955E-02	9.511E-02	5.999E-03	1.946
V-48		944.10		4.892E-01	7.098E-01	1.212E+00	1.021E-01	0.404
		983.50	*	1.952E-02	5.250E-02	8.742E-02	7.029E-03	0.223
		1312.09		-3.448E-03	5.884E-02	9.694E-02	6.899E-03	-0.036
CR-51		320.08	*	-1.029E-01	3.025E-01	4.990E-01	3.229E-02	-0.206
MN-52		744.21		3.103E-01	1.943E-01	3.479E-01	2.365E-02	0.892
		848.13		2.150E+00	5.209E+00	8.697E+00	7.072E-01	0.247
		935.52		1.450E-01	1.897E-01	3.180E-01	2.704E-02	0.456
		1246.25		1.725E+00	5.062E+00	8.647E+00	5.466E-01	0.199
		1333.61		8.864E-01	3.077E+00	5.272E+00	3.885E-01	0.168
		1434.06	*	-9.443E-02	1.368E-01	2.009E-01	1.449E-02	-0.470
MN-54		834.83	*	-2.770E-03	3.213E-02	5.164E-02	4.107E-03	-0.054
CO-56		846.75	*	7.856E-03	3.430E-02	5.651E-02	4.584E-03	0.139
		977.42		-4.114E-01	2.495E+00	3.541E+00	2.869E-01	-0.116
		1037.82		-1.206E-01	2.505E-01	4.024E-01	3.201E-02	-0.300
		1175.09		-2.596E-01	1.813E+00	2.986E+00	1.643E-01	-0.087
		1238.25		1.132E-01	7.740E-02	1.405E-01	9.227E-03	0.806
		1360.21		1.424E-01	6.451E-01	1.100E+00	8.073E-02	0.129
		1771.40		1.404E-02	1.786E-01	2.559E-01	1.542E-02	0.055
CO-57		122.06	*	3.411E-03	2.842E-02	4.629E-02	2.762E-03	0.074
		136.48		5.197E-02	2.217E-01	3.624E-01	2.392E-02	0.143
CO-58		810.76	*	2.381E-04	3.172E-02	5.144E-02	3.942E-03	0.005
FE-59	+	142.65		6.950E+00	3.338E+00	4.989E+00	2.774E-01	1.393
		192.34		-1.533E-01	1.001E+00	1.394E+00	1.619E-01	-0.110
		1099.22	*	-1.789E-02	7.286E-02	1.193E-01	8.952E-03	-0.150
		1291.56		-3.876E-03	1.032E-01	1.707E-01	1.413E-02	-0.023
CO-60		1173.22		-2.138E-02	3.662E-02	5.750E-02	3.151E-03	-0.372
		1332.49	*	-3.741E-03	2.834E-02	4.619E-02	3.404E-03	-0.081
ZN-65		1115.52	*	1.087E-02	7.665E-02	1.124E-01	7.189E-03	0.097

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GE-68		1077.35	*	4.501E-01	1.033E+00	1.790E+00	1.239E-01	0.251
AS-73		53.44	*	2.967E-02	1.036E+00	1.712E+00	1.267E-01	0.017
AS-74		595.88	*	5.223E-02	7.405E-02	1.272E-01	7.534E-03	0.411
		634.78		-2.014E-01	2.729E-01	4.203E-01	2.470E-02	-0.479
SE-75		66.05		5.425E+00	6.913E+00	1.016E+01	9.755E-01	0.534
		96.73		8.426E-01	1.133E+00	1.870E+00	2.460E-01	0.451
		121.11		-1.632E-03	1.506E-01	2.444E-01	2.290E-02	-0.007
		136.00		4.419E-03	4.108E-02	6.691E-02	3.853E-03	0.066
		198.60		-7.198E-01	1.783E+00	2.825E+00	1.929E-01	-0.255
		264.65	*	-1.681E-02	3.886E-02	6.438E-02	3.744E-03	-0.261
		279.53		4.808E-02	9.679E-02	1.661E-01	1.040E-02	0.289
		303.91		2.134E-01	1.984E+00	2.923E+00	2.792E-01	0.073
		400.65		1.449E-01	2.196E-01	3.777E-01	3.391E-02	0.384
BR-77		87.88		9.329E+00	2.777E+02	2.877E+02	2.574E+01	0.032
		200.40		1.216E+02	1.247E+02	1.833E+02	9.970E+00	0.663
	+	239.00		1.219E+02	1.185E+01	1.967E+01	1.113E+00	6.194
		249.79		-1.169E+01	4.252E+01	6.707E+01	3.825E+00	-0.174
		281.68		2.652E+01	5.571E+01	9.551E+01	5.535E+00	0.278
		297.23		1.532E+02	5.001E+01	6.522E+01	3.792E+00	2.349
		303.76		1.516E+01	1.163E+02	1.716E+02	9.982E+00	0.088
		439.47		-2.794E+01	8.028E+01	1.304E+02	7.490E+00	-0.214
		484.57		-7.884E+01	1.387E+02	2.215E+02	1.297E+01	-0.356
		520.65	*	-1.975E-02	6.474E+00	1.007E+01	5.956E-01	-0.002
		574.64		2.730E+01	1.451E+02	1.988E+02	1.180E+01	0.137
		578.91		2.380E+01	5.780E+01	8.107E+01	4.810E+00	0.294
		585.48		6.622E+02	1.491E+02	2.643E+02	1.567E+01	2.506
		755.35		4.335E+01	1.079E+02	1.802E+02	1.250E+01	0.241
		817.79		-5.436E+01	7.700E+01	1.167E+02	9.020E+00	-0.466
SR-82		698.33		-6.715E+00	2.807E+01	4.498E+01	2.810E+00	-0.149
		776.49	*	-3.713E-01	3.231E-01	4.735E-01	3.409E-02	-0.784
		1395.20		5.184E+00	8.004E+00	1.427E+01	1.040E+00	0.363
RB-83		520.41	*	-4.543E-03	6.498E-02	9.680E-02	5.722E-03	-0.047
		529.64		-6.582E-02	8.720E-02	1.362E-01	8.065E-03	-0.483
		552.65		-7.505E-02	1.687E-01	2.692E-01	1.598E-02	-0.279
RB-84		881.50	*	6.418E-02	5.717E-02	1.009E-01	8.659E-03	0.636
KR-85		513.99	*	1.526E+01	6.467E+00	1.188E+01	7.016E-01	1.284
SR-85		513.99	*	7.716E-02	3.270E-02	6.009E-02	3.548E-03	1.284
RB-86		1076.63	*	1.073E-01	6.463E-01	1.096E+00	7.594E-02	0.098
Y-88		898.02		-2.747E-02	3.409E-02	5.057E-02	4.476E-03	-0.543
		1836.01	*	8.094E-03	2.383E-02	4.147E-02	2.367E-03	0.195
ZR-88		392.90	*	4.790E-03	2.730E-02	4.590E-02	2.556E-03	0.104
Y-91		1204.90	*	2.922E+00	1.487E+01	2.514E+01	1.468E+00	0.116
NB-94		702.63	*	2.948E-03	2.835E-02	4.658E-02	2.933E-03	0.063
		871.10		1.305E-02	2.775E-02	4.671E-02	3.943E-03	0.279
NB-95		765.79	*	1.459E-01	5.050E-02	9.212E-02	6.510E-03	1.584
NB-95M		235.69	*	2.856E-01	1.351E-01	2.066E-01	1.530E-02	1.383
ZR-95		724.18		-3.213E-02	1.010E-01	1.377E-01	1.034E-02	-0.233
		756.15	*	-8.676E-03	6.790E-02	1.094E-01	8.755E-03	-0.079
NB-97		657.90	*	-4.812E-05	6.790E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1024.50		-1.290E+00	6.790E-02	Half-Life too short		
ZR-97		254.15		-1.510E+00	6.790E-02	Half-Life too short		
		355.39		8.069E-01	6.790E-02	Half-Life too short		
		507.63	*	8.913E-01	6.790E-02	Half-Life too short		
		602.52		-1.249E+00	6.790E-02	Half-Life too short		
		1021.30		-3.345E-01	6.790E-02	Half-Life too short		
		1147.95		-5.586E-02	6.790E-02	Half-Life too short		
		1362.66		-1.091E+00	6.790E-02	Half-Life too short		
		1750.46		1.077E+00	6.790E-02	Half-Life too short		
MO-99		140.51		-4.419E+00	2.221E+01	3.119E+01	8.392E+00	-0.142
		181.06		4.148E+00	1.859E+01	1.910E+01	3.244E+00	0.217
		366.43		3.322E+01	5.438E+01	9.348E+01	5.321E+00	0.355
		739.58	*	-4.666E+00	8.333E+00	1.299E+01	1.845E+00	-0.359
		778.00		-3.649E+01	2.154E+01	2.968E+01	2.143E+00	-1.229
TC-99M		140.51	*	-2.389E+08	2.154E+01	Half-Life too short		
RH-101		127.23		-6.999E-03	3.573E-02	5.777E-02	3.371E-03	-0.121
		198.01	*	-1.031E-02	3.262E-02	5.185E-02	2.813E-03	-0.199
		325.23		6.161E-02	1.972E-01	3.350E-01	1.945E-02	0.184
RH-102		418.52		-1.359E-01	2.414E-01	3.882E-01	2.202E-02	-0.350
		475.06	*	1.014E-02	2.653E-02	4.485E-02	2.618E-03	0.226
		631.29		1.103E-03	4.483E-02	7.356E-02	4.327E-03	0.015
		697.49		-4.455E-02	6.926E-02	1.040E-01	6.485E-03	-0.429
	+	766.84		6.004E-01	1.952E-01	2.431E-01	1.721E-02	2.470
		1046.59		-3.029E-02	8.886E-02	1.443E-01	1.056E-02	-0.210
		1112.84		3.300E-02	1.973E-01	3.015E-01	1.936E-02	0.109
RU-103		497.08	*	1.088E-02	3.388E-02	5.708E-02	7.238E-03	0.191
	+	610.33		7.205E+00	1.740E+00	2.088E+00	3.228E-01	3.451
RH-106	+	511.85		4.538E-01	3.455E-01	3.611E-01	2.131E-02	1.257
		621.84	*	-1.020E-01	2.717E-01	4.328E-01	5.100E-02	-0.236
		1050.47		1.731E-02	1.756E+00	2.944E+00	2.140E-01	0.006
RU-106	+	511.85		4.538E-01	3.455E-01	3.611E-01	2.131E-02	1.257
		621.84	*	-1.020E-01	2.715E-01	4.328E-01	2.552E-02	-0.236
		1050.47		1.731E-02	1.756E+00	2.944E+00	2.140E-01	0.006
AG-108M		433.93	*	-1.919E-02	2.930E-02	4.684E-02	2.917E-03	-0.410
		614.37		-1.250E-02	3.750E-02	5.141E-02	3.285E-03	-0.243
		722.95		-9.567E-03	4.281E-02	5.884E-02	4.107E-03	-0.163
CD-109		88.03	*	2.282E-01	1.880E+00	1.954E+00	1.750E-01	0.117
AG-110M		657.75	*	-1.320E-03	3.267E-02	4.598E-02	2.853E-03	-0.029
		677.61		-5.199E-03	2.710E-01	4.419E-01	2.806E-02	-0.012
		706.67		1.125E-01	1.750E-01	2.984E-01	1.989E-02	0.377
		763.93		2.919E-01	1.951E-01	3.070E-01	2.253E-02	0.951
		884.67		1.100E-02	4.392E-02	7.237E-02	6.444E-03	0.152
		937.48		-8.650E-02	9.222E-02	1.343E-01	1.182E-02	-0.644
		1384.27		1.032E-01	1.160E-01	2.125E-01	1.612E-02	0.486
IN-111		171.28		-2.231E-02	8.397E-01	1.183E+00	6.208E-02	-0.019
		245.39	*	-9.697E-02	8.290E-01	1.147E+00	6.520E-02	-0.085
IN-113M		391.69	*	-1.002E-02	4.052E-02	6.669E-02	3.979E-03	-0.150
SN-113		391.69	*	-1.002E-02	4.052E-02	6.669E-02	3.979E-03	-0.150
IN-114M		190.27	*	-8.129E-02	1.912E-01	2.625E-01	1.411E-02	-0.310

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CD-115		260.90		-7.871E+01	8.471E+01	1.292E+02	7.420E+00	-0.609
		492.35		-9.533E+00	2.209E+01	3.558E+01	2.089E+00	-0.268
		527.90	*	3.032E+00	5.772E+00	9.857E+00	5.835E-01	0.308
SN-117M		156.02		-2.044E+00	2.182E+00	3.419E+00	1.833E-01	-0.598
		158.56	*	-1.747E-02	5.295E-02	8.471E-02	4.509E-03	-0.206
SB-122		563.90	*	8.068E-01	1.426E+00	2.139E+00	1.270E-01	0.377
		692.80		2.026E+01	2.729E+01	4.676E+01	2.891E+00	0.433
I-123		159.00	*	-9.615E-01	2.729E+01	Half-Life too short		
		528.96		-3.611E+01	2.729E+01	Half-Life too short		
TE-123M		159.00	*	-2.481E-02	2.974E-02	4.676E-02	2.526E-03	-0.530
I-124		602.71	*	-2.870E-01	4.765E-01	6.691E-01	3.960E-02	-0.429
		722.78		-5.530E-01	3.613E+00	5.004E+00	3.272E-01	-0.111
		1325.50		5.104E+00	2.324E+01	3.938E+01	2.868E+00	0.130
		1376.25		2.088E+01	1.866E+01	3.453E+01	2.525E+00	0.605
		1509.49		7.978E+00	8.348E+00	1.564E+01	1.100E+00	0.510
		1691.02		6.241E-01	2.162E+00	3.730E+00	2.385E-01	0.167
SB-124		602.71		-2.042E-02	3.390E-02	4.761E-02	2.819E-03	-0.429
		645.85		-9.914E-02	4.255E-01	6.842E-01	4.512E-02	-0.145
		709.31		-1.189E-01	2.363E+00	3.836E+00	2.446E-01	-0.031
		713.82		6.640E-01	1.389E+00	2.340E+00	2.477E-01	0.284
		722.78		-5.703E-02	3.726E-01	5.161E-01	3.500E-02	-0.111
	+	968.20		1.350E+01	3.379E+00	5.586E+00	4.578E-01	2.418
		1045.16		9.520E-01	1.871E+00	3.272E+00	2.400E-01	0.291
		1325.50		5.623E-01	2.560E+00	4.338E+00	3.159E-01	0.130
		1368.21		-3.669E-02	1.245E+00	2.052E+00	2.604E-01	-0.018
		1436.60		-7.096E-01	2.459E+00	3.874E+00	2.792E-01	-0.183
		1691.02	*	1.518E-02	5.260E-02	9.073E-02	6.214E-03	0.167
SB-125		427.89	*	1.687E-02	8.116E-02	1.364E-01	8.120E-03	0.124
	+	463.38		4.632E-01	3.443E-01	4.438E-01	3.005E-02	1.044
		600.56		-1.493E-01	1.444E-01	2.185E-01	1.489E-02	-0.683
		635.90		-1.193E-01	2.193E-01	3.435E-01	2.355E-02	-0.347
TE-125M		109.28	*	2.060E+01	1.316E+01	1.959E+01	1.731E+00	1.051
I-126		388.63		1.061E-01	1.752E-01	3.005E-01	1.677E-02	0.353
		666.33	*	2.861E-02	1.636E-01	2.354E-01	1.383E-02	0.122
		753.82		5.223E-01	1.279E+00	2.139E+00	1.479E-01	0.244
SB-126		223.80		2.081E+00	3.599E+00	5.898E+00	3.291E-01	0.353
		278.60		6.740E-01	2.044E+00	3.485E+00	2.018E-01	0.193
	+	296.50		7.074E+00	2.194E+00	2.547E+00	1.480E-01	2.778
		414.70		-1.217E-03	6.556E-02	9.458E-02	5.350E-03	-0.013
		415.30		-5.900E-01	5.200E+00	7.798E+00	4.413E-01	-0.076
		555.20		8.617E-01	3.085E+00	5.174E+00	3.071E-01	0.167
		573.80		4.549E-01	9.199E-01	1.372E+00	8.144E-02	0.331
		593.00		-2.126E-01	7.622E-01	1.228E+00	7.276E-02	-0.173
		656.30		-4.804E+00	3.315E+00	3.957E+00	2.309E-01	-1.214
		666.33		1.192E-02	6.817E-02	9.807E-02	5.763E-03	0.122
		675.00		1.094E+00	1.648E+00	2.814E+00	1.681E-01	0.389
		695.00		5.019E-03	6.588E-02	1.046E-01	6.495E-03	0.048
		697.00		-2.198E-01	2.261E-01	3.300E-01	2.057E-02	-0.666
		720.50	*	-5.264E-02	1.467E-01	1.990E-01	1.296E-02	-0.264

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		856.80		-2.661E-02	4.075E-01	5.632E-01	4.645E-02	-0.047
		989.30		-3.016E-01	9.823E-01	1.529E+00	1.220E-01	-0.197
		1034.80		1.694E+00	6.578E+00	1.127E+01	8.410E-01	0.150
		1213.00		1.370E+00	3.651E+00	6.248E+00	3.707E-01	0.219
SN-126	+	64.28		1.740E+01	2.895E+00	1.714E+00	2.503E-01	10.153
		86.94		-2.236E-01	7.794E-01	7.907E-01	3.274E-01	-0.283
		87.57	*	-2.628E-02	1.854E-01	1.906E-01	1.700E-02	-0.138
SB-127		61.10		5.102E+02	8.973E+01	1.238E+02	1.229E+01	4.121
		252.40		-3.498E+00	3.562E+00	4.938E+00	2.046E+00	-0.708
		290.80		-3.277E+00	1.663E+01	2.407E+01	2.094E+00	-0.136
		411.60		5.632E+00	9.393E+00	1.415E+01	1.984E+00	0.398
		444.90		-2.004E+00	6.404E+00	1.042E+01	1.081E+00	-0.192
		473.00		-2.561E-01	1.186E+00	1.938E+00	2.095E-01	-0.132
		543.00		3.588E-01	1.155E+01	1.907E+01	2.410E+00	0.019
		603.60		-2.893E+00	8.539E+00	1.170E+01	1.221E+00	-0.247
		685.20	*	4.279E-01	9.273E-01	1.563E+00	1.433E-01	0.274
		698.50		-2.328E+00	1.025E+01	1.643E+01	2.362E+00	-0.142
		722.20		1.254E+01	2.356E+01	3.490E+01	3.210E+00	0.359
		783.80		3.467E+00	2.789E+00	4.857E+00	5.425E-01	0.714
XE-127		57.60		1.160E+01	8.632E+00	1.292E+01	9.679E-01	0.898
		145.22		9.571E-01	8.705E-01	1.278E+00	7.051E-02	0.749
		172.10		-1.016E-02	1.340E-01	1.883E-01	9.892E-03	-0.054
		202.84	*	5.404E-02	5.159E-02	7.602E-02	4.148E-03	0.711
		374.96		6.370E-03	1.549E-01	2.591E-01	1.464E-02	0.025
I-131		80.18		1.539E+00	8.529E+00	8.919E+00	7.438E-01	0.173
		284.30		-5.287E-01	1.202E+00	1.986E+00	1.278E-01	-0.266
		364.48	*	-8.195E-02	9.130E-02	1.453E-01	9.258E-03	-0.564
		636.97		-3.116E-01	1.128E+00	1.808E+00	1.184E-01	-0.172
		722.89		-1.281E+00	6.449E+00	8.888E+00	5.867E-01	-0.144
TE-132		49.72		-1.279E+01	1.733E+01	2.812E+01	2.629E+00	-0.455
	+	111.76		1.968E+02	6.242E+01	5.549E+01	4.956E+00	3.547
		116.30		4.104E+01	2.666E+01	3.992E+01	3.480E+00	1.028
		228.16	*	-9.894E-02	4.939E-01	7.843E-01	1.100E-01	-0.126
BA-133		53.15		1.994E+00	4.481E+00	7.471E+00	5.518E-01	0.267
		79.62		1.256E+00	2.736E+00	2.891E+00	4.342E-01	0.434
		81.00		-1.059E-02	2.056E-01	2.126E-01	3.345E-02	-0.050
		276.40		-2.615E-02	3.322E-01	5.579E-01	7.229E-02	-0.047
		302.84		1.601E-01	1.330E-01	2.080E-01	2.427E-02	0.770
		356.01	*	2.582E-03	4.151E-02	6.063E-02	6.988E-03	0.043
		383.85		1.291E-01	2.631E-01	4.491E-01	4.837E-02	0.287
I-133	+	510.53		3.248E-01	2.631E-01	Half-Life too short		
		529.87	*	-1.472E-03	2.631E-01	Half-Life too short		
		706.58		8.138E-02	2.631E-01	Half-Life too short		
		856.28		-1.050E-01	2.631E-01	Half-Life too short		
		875.33		-1.144E-02	2.631E-01	Half-Life too short		
		1236.41		2.363E-01	2.631E-01	Half-Life too short		
		1298.22		1.447E-02	2.631E-01	Half-Life too short		
CS-134		475.35		9.155E-01	1.726E+00	2.941E+00	1.717E-01	0.311
		563.23		1.595E-01	3.477E-01	5.169E-01	3.129E-02	0.309

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Kcy	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	569.32		7.549E-01	3.796E-01	3.992E-01	2.437E-02	1.891
		604.70		9.761E-03	3.163E-02	4.624E-02	2.751E-03	0.211
	+	795.84	*	7.118E-02	6.057E-02	7.713E-02	5.800E-03	0.923
		801.93		7.298E-02	3.838E-01	5.704E-01	4.324E-02	0.128
		1038.57		-5.409E-01	3.171E+00	5.240E+00	3.886E-01	-0.103
		1167.94		1.385E+00	1.967E+00	3.468E+00	1.930E-01	0.399
		1365.15		7.409E-01	8.518E-01	1.565E+00	1.219E-01	0.474
CS-135		268.24	*	7.608E-02	1.437E-01	2.469E-01	1.884E-02	0.308
I-135		288.45		-3.076E+08	1.437E-01	Half-Life too short		
		417.63		-4.154E+08	1.437E-01	Half-Life too short		
		546.56		3.283E+08	1.437E-01	Half-Life too short		
		836.80		2.219E+08	1.437E-01	Half-Life too short		
		1038.76		-8.297E+07	1.437E-01	Half-Life too short		
		1124.00		3.965E+08	1.437E-01	Half-Life too short		
		1131.51		2.945E+07	1.437E-01	Half-Life too short		
		1260.41	*	-5.001E+07	1.437E-01	Half-Life too short		
		1457.56		9.002E+09	1.437E-01	Half-Life too short		
		1678.03		2.013E+08	1.437E-01	Half-Life too short		
		1706.46		-1.498E+08	1.437E-01	Half-Life too short		
		1791.20		-5.603E+07	1.437E-01	Half-Life too short		
CS-136		66.91		-1.290E+00	1.046E+00	1.433E+00	2.134E-01	-0.900
		86.29		-1.437E-01	2.277E+00	2.349E+00	3.048E-01	-0.061
		153.22		8.837E-02	6.235E-01	1.014E+00	7.001E-02	0.087
		163.89		1.720E+00	1.067E+00	1.800E+00	1.227E-01	0.956
		176.55		2.077E-01	3.872E-01	5.595E-01	3.390E-02	0.371
		273.65		-5.927E-01	3.942E-01	6.235E-01	4.111E-02	-0.951
		340.57		3.116E-01	1.291E-01	2.110E-01	1.296E-02	1.477
		818.51		-4.338E-02	5.945E-02	8.994E-02	6.968E-03	-0.482
		1048.07	*	-5.470E-02	7.806E-02	1.223E-01	9.447E-03	-0.447
		1235.34		3.458E-02	4.664E-01	7.796E-01	7.966E-02	0.044
CE-139		165.85	*	-1.654E-02	3.139E-02	4.984E-02	2.602E-03	-0.332
BA-140		162.64		6.069E-01	7.527E-01	1.246E+00	7.538E-02	0.487
		304.84		-1.705E-01	1.145E+00	1.657E+00	4.523E-01	-0.103
		423.70		7.353E-02	1.538E+00	2.563E+00	8.140E-01	0.029
		537.32	*	2.393E-03	2.130E-01	3.512E-01	1.143E-01	0.007
LA-140		328.77		4.239E-01	2.466E-01	4.403E-01	2.860E-02	0.963
		432.53		-1.053E+00	1.709E+00	2.739E+00	1.735E-01	-0.385
		487.03		8.580E-02	1.138E-01	1.962E-01	1.299E-02	0.437
		751.79		2.311E-01	1.449E+00	2.382E+00	1.909E-01	0.097
		815.85		1.232E-02	2.469E-01	4.016E-01	3.535E-02	0.031
		867.82		3.159E-02	1.118E+00	1.704E+00	1.510E-01	0.019
		919.63		5.238E-01	2.332E+00	3.618E+00	3.857E-01	0.145
		925.24		5.251E-02	8.638E-01	1.399E+00	1.278E-01	0.038
		1596.49	*	2.529E-02	6.179E-02	9.543E-02	6.457E-03	0.265
CE-141		145.44	*	1.076E-01	7.757E-02	1.150E-01	6.621E-03	0.936
CE-143		57.37		1.054E-03	7.757E-02	Half-Life too short		
		231.56		2.699E-04	7.757E-02	Half-Life too short		
		293.26	*	2.650E-04	7.757E-02	Half-Life too short		
	+	350.59		1.042E-02	7.757E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		490.36		-5.416E-05	7.757E-02	Half-Life too short		
		664.57		1.032E-03	7.757E-02	Half-Life too short		
		721.93		4.644E-04	7.757E-02	Half-Life too short		
CE-144		80.11		9.800E-01	4.385E+00	4.594E+00	3.807E-01	0.213
		133.54	*	-1.033E-01	2.221E-01	3.550E-01	5.029E-02	-0.291
PM-144		476.78		5.697E-02	6.029E-02	1.049E-01	7.320E-03	0.543
		618.01		2.733E-02	2.737E-02	4.684E-02	2.925E-03	0.584
		696.49	*	-1.502E-02	3.116E-02	4.740E-02	2.953E-03	-0.317
		778.57		-3.337E+00	2.006E+00	2.773E+00	2.005E-01	-1.204
PR-144		696.49	*	-1.017E+00	2.110E+00	3.210E+00	1.998E-01	-0.317
		1489.15		1.079E+00	9.235E+00	1.546E+01	1.096E+00	0.070
PM-146		453.90	*	-7.187E-03	3.916E-02	6.426E-02	5.534E-03	-0.112
		633.02		-3.356E-03	1.124E+00	1.840E+00	6.779E-01	-0.002
		735.90		9.346E-02	1.336E-01	2.244E-01	6.301E-02	0.417
		747.13		-1.840E-01	9.150E-02	1.209E-01	1.574E-02	-1.522
ND-147		91.11		1.574E+01	1.549E+00	1.129E+00	1.043E-01	13.946
		319.41		-1.014E+00	2.554E+00	4.201E+00	2.442E-01	-0.241
		439.89		-1.853E+00	4.424E+00	7.156E+00	4.112E-01	-0.259
		531.02	*	-4.881E-01	4.351E-01	6.527E-01	8.860E-02	-0.748
PM-149		285.90	*	-2.212E+01	5.368E+01	8.862E+01	1.256E+01	-0.250
EU-152		121.78		2.077E-02	8.231E-02	1.345E-01	1.042E-02	0.154
		244.69		3.451E-01	3.434E-01	5.067E-01	2.879E-02	0.681
		344.27	*	-7.746E-03	1.502E-01	1.459E-01	9.494E-03	-0.053
		443.98		2.491E-01	7.739E-01	1.309E+00	7.537E-02	0.190
		778.89		-3.533E-01	2.301E-01	3.224E-01	2.331E-02	-1.096
		867.32		-1.519E-01	7.479E-01	1.066E+00	8.944E-02	-0.142
		964.01		3.020E-01	2.764E-01	4.291E-01	3.534E-02	0.704
		1085.78		2.011E-01	3.107E-01	5.483E-01	3.731E-02	0.367
		1112.02		-1.376E-02	2.669E-01	4.117E-01	2.648E-02	-0.033
		1407.95		-1.985E-02	1.459E-01	2.370E-01	1.722E-02	-0.084
GD-153		69.67		4.826E+00	2.661E+00	3.431E+00	2.641E-01	1.407
	+	83.37		1.916E+01	2.503E+01	3.460E+01	2.956E+00	0.554
	+	97.43	*	6.126E-01	1.557E-01	1.963E-01	1.527E-02	3.120
		103.18		4.378E-02	1.394E-01	2.016E-01	1.460E-02	0.217
EU-154		123.07		5.119E-03	5.824E-02	9.475E-02	8.989E-03	0.054
		247.94		2.622E-01	3.619E-01	5.535E-01	5.246E-02	0.474
		591.81		-1.713E-01	5.453E-01	8.759E-01	8.628E-02	-0.196
		723.30		-1.344E-01	1.852E-01	2.409E-01	1.856E-02	-0.558
		756.87		-1.598E-02	7.440E-01	1.207E+00	1.309E-01	-0.013
		873.19		7.601E-02	2.350E-01	3.909E-01	4.745E-02	0.194
		996.32		1.697E-01	3.814E-01	5.546E-01	9.666E-02	0.306
		1004.76		5.244E-01	2.154E-01	3.793E-01	4.193E-02	1.383
		1274.45	*	-5.884E-02	1.020E-01	1.601E-01	1.585E-02	-0.367
EU-155		48.70		-7.578E-01	2.790E+00	4.586E+00	3.217E-01	-0.165
		60.01		1.085E+01	7.361E+00	1.101E+01	8.286E-01	0.985
		86.54		-5.019E-02	2.251E-01	2.307E-01	2.055E-02	-0.218
		105.31	*	-1.095E-01	1.410E-01	2.074E-01	1.492E-02	-0.528
TB-160		86.79		-1.630E-01	5.925E-01	6.056E-01	5.357E-02	-0.269
		197.04		3.044E-01	5.374E-01	8.818E-01	4.778E-02	0.345

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		215.65		-9.141E-02	6.981E-01	1.074E+00	5.944E-02	-0.085
		298.57		2.097E-01	1.453E-01	1.686E-01	9.805E-03	1.243
		879.36	*	-2.067E-02	1.115E-01	1.768E-01	1.512E-02	-0.117
		962.29		2.371E-01	5.037E-01	7.356E-01	6.071E-02	0.322
	+	966.15		1.495E-01	2.220E-01	3.599E-01	2.956E-02	0.415
		1177.93		9.791E-02	2.930E-01	5.013E-01	2.774E-02	0.195
		1271.85		6.422E-01	5.585E-01	1.021E+00	6.765E-02	0.629
HO-166M		80.57		-8.099E-02	5.682E-01	5.852E-01	4.869E-02	-0.138
	+	184.41		6.205E-01	7.462E-02	9.333E-02	4.979E-03	6.649
		280.46		2.433E-02	7.714E-02	1.315E-01	7.616E-03	0.185
	+	410.95		3.258E-01	2.868E-01	3.782E-01	2.134E-02	0.861
		711.68	*	-3.815E-02	5.478E-02	8.463E-02	5.421E-03	-0.451
		752.31		6.154E-02	2.504E-01	4.144E-01	2.859E-02	0.149
		810.29		-2.471E-02	4.991E-02	7.734E-02	5.903E-03	-0.319
TM-171		51.35		1.972E+01	3.703E+01	6.190E+01	4.515E+00	0.318
		52.39		1.175E+01	1.951E+01	3.264E+01	2.400E+00	0.360
		59.40		6.056E+01	3.914E+01	5.869E+01	4.415E+00	1.032
		66.72	*	-4.475E+01	3.999E+01	5.572E+01	4.235E+00	-0.803
LU-176		88.36		1.358E-01	4.388E-01	4.595E-01	4.092E-02	0.295
		201.83		-1.603E-02	3.367E-02	4.611E-02	2.512E-03	-0.348
		306.84	*	-7.228E-03	2.174E-02	3.499E-02	2.035E-03	-0.207
		401.10		2.561E+00	5.771E+00	9.831E+00	5.508E-01	0.261
LU-177M		52.97		8.108E-01	2.015E+00	3.357E+00	2.477E-01	0.242
		54.07		-5.738E-01	1.089E+00	1.777E+00	1.318E-01	-0.323
		61.30		2.374E+01	2.885E+00	4.320E+00	3.250E-01	5.496
		121.62		8.928E-02	4.193E-01	6.847E-01	4.094E-02	0.130
		147.16		3.628E-01	7.681E-01	1.110E+00	6.094E-02	0.327
		171.86		-1.193E-01	5.566E-01	7.767E-01	4.080E-02	-0.154
		218.09		-3.879E-01	8.017E-01	1.260E+00	6.993E-02	-0.308
		268.79		9.568E-01	7.287E-01	1.283E+00	7.400E-02	0.746
		319.02		-1.386E-01	2.175E-01	3.534E-01	2.054E-02	-0.392
		367.43		1.009E+00	8.110E-01	1.432E+00	8.142E-02	0.705
		413.65	*	5.895E-02	1.595E-01	2.376E-01	1.343E-02	0.248
HF-181		56.28		-1.537E-01	1.292E+00	1.971E+00	1.472E-01	-0.078
		57.53		9.732E-01	7.289E-01	1.091E+00	8.170E-02	0.892
		65.20		1.559E+01	1.935E+00	2.691E+00	2.036E-01	5.792
		133.02		-4.026E-03	6.967E-02	1.130E-01	6.465E-03	-0.036
		136.25		1.126E-01	4.744E-01	7.757E-01	4.394E-02	0.145
		345.85		-8.658E-03	2.156E-01	2.739E-01	1.578E-02	-0.032
		482.03	*	-2.544E-02	3.685E-02	5.837E-02	3.416E-03	-0.436
W-181		56.28		-2.093E-01	5.169E-01	7.822E-01	5.842E-02	-0.268
		57.53		3.865E-01	2.895E-01	4.333E-01	3.245E-02	0.892
		65.20	*	6.142E+00	7.626E-01	1.060E+00	8.025E-02	5.792
TA-182		67.75		-2.208E-01	1.577E-01	2.175E-01	1.660E-02	-1.015
		100.10		1.057E+00	2.663E-01	4.107E-01	3.086E-02	2.573
		152.43		-1.155E-02	3.446E-01	5.573E-01	3.016E-02	-0.021
		222.10		8.268E-02	3.286E-01	5.321E-01	2.964E-02	0.155
	+	1001.68		2.573E+01	4.183E+00	6.799E+00	5.334E-01	3.784
	+	1121.28		5.126E-01	1.926E-01	2.632E-01	1.657E-02	1.947

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		-1.029E-01	2.595E-01	4.187E-01	2.369E-02	-0.246
		1221.42	*	-3.552E-02	1.606E-01	2.626E-01	1.584E-02	-0.135
		1230.97		1.140E-02	3.775E-01	6.293E-01	3.865E-02	0.018
RE-183		57.98		4.259E-01	2.872E-01	4.309E-01	3.231E-02	0.988
		59.32		2.454E-01	1.591E-01	2.386E-01	1.794E-02	1.028
		67.20		-3.327E-01	2.800E-01	3.891E-01	2.963E-02	-0.855
		162.32	*	8.310E-02	1.163E-01	1.921E-01	1.012E-02	0.433
	+	208.81		2.112E+00	1.236E+00	1.585E+00	8.708E-02	1.332
		291.72		-1.116E-01	9.268E-01	1.348E+00	7.831E-02	-0.083
RE-184		57.98		1.581E+00	1.066E+00	1.600E+00	1.200E-01	0.988
		59.32		9.104E-01	5.904E-01	8.852E-01	6.658E-02	1.028
		67.20		-1.235E+00	1.039E+00	1.444E+00	1.100E-01	-0.855
		161.27		1.823E-01	3.746E-01	6.149E-01	3.249E-02	0.297
		216.55		-2.541E-02	2.414E-01	3.856E-01	2.136E-02	-0.066
		252.85	*	-2.272E-01	2.185E-01	3.313E-01	1.894E-02	-0.686
		318.01		-1.241E-01	3.763E-01	6.212E-01	3.610E-02	-0.200
		792.07		-9.542E-01	1.145E+00	1.466E+00	1.085E-01	-0.651
		903.28		5.762E-01	8.725E-01	1.369E+00	1.201E-01	0.421
		920.93		-8.503E-02	3.800E-01	5.992E-01	5.169E-02	-0.142
OS-185		59.72		6.804E-01	4.278E-01	6.419E-01	4.829E-02	1.060
		61.14		1.955E+00	3.042E-01	4.482E-01	3.372E-02	4.362
		69.30		2.397E-01	5.712E-01	6.068E-01	4.661E-02	0.395
		592.07		-9.593E-01	2.187E+00	3.482E+00	2.064E-01	-0.276
		646.12	*	-2.011E-02	3.747E-02	5.891E-02	3.450E-03	-0.341
		717.42		2.563E-01	8.224E-01	1.368E+00	8.859E-02	0.187
		874.81		6.930E-02	4.414E-01	7.238E-01	6.146E-02	0.096
		880.27		2.278E-01	6.269E-01	1.045E+00	8.956E-02	0.218
RE-188		155.03	*	-8.861E-02	1.724E-01	2.743E-01	1.474E-02	-0.323
		477.96		1.357E+00	2.735E+00	4.653E+00	2.719E-01	0.292
		633.10		4.701E-02	2.247E+00	3.686E+00	2.167E-01	0.013
W-188	+	63.58		1.744E+03	1.915E+02	1.794E+02	1.353E+01	9.721
		227.08		6.130E+00	1.175E+01	1.923E+01	1.077E+00	0.319
		290.67	*	1.155E+00	7.074E+00	1.047E+01	6.081E-01	0.110
IR-192	+	295.96		5.759E-01	1.787E-01	2.133E-01	1.259E-02	2.701
		308.46		2.334E-02	8.093E-02	1.377E-01	8.098E-03	0.170
		316.51	*	2.321E-02	2.819E-02	4.910E-02	2.868E-03	0.473
		468.07		9.075E-04	6.304E-02	9.071E-02	6.082E-03	0.010
		604.41		1.611E-01	4.153E-01	6.116E-01	6.978E-02	0.263
		612.46		1.076E+00	7.252E-01	1.151E+00	8.812E-02	0.935
AU-195		65.12		3.131E+00	3.705E-01	5.050E-01	3.821E-02	6.201
		66.83		-1.477E-01	1.317E-01	1.834E-01	1.395E-02	-0.805
	+	75.70		9.979E-01	3.326E-01	4.681E-01	3.741E-02	2.132
	+	98.88	*	1.782E+00	4.529E-01	5.527E-01	4.218E-02	3.224
		129.76		2.973E+00	3.108E+00	5.179E+00	2.996E-01	0.574
TL-200		367.94	*	2.069E-04	3.108E+00	Half-Life too short		
		579.30		6.299E-04	3.108E+00	Half-Life too short		
		828.27		5.191E-04	3.108E+00	Half-Life too short		
		1205.75		-6.175E-04	3.108E+00	Half-Life too short		
TL-201		68.90		1.800E+00	6.887E+00	7.264E+00	5.570E-01	0.248

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		70.82		4.113E+00	2.820E+00	4.202E+00	3.253E-01	0.979
		80.30		8.226E-01	7.713E+00	8.038E+00	6.672E-01	0.102
		135.34		-1.142E+01	2.026E+01	3.232E+01	1.836E+00	-0.353
		167.43	*	-7.606E+00	5.534E+00	8.513E+00	4.448E-01	-0.893
TL-202		68.90		2.026E-01	7.751E-01	8.175E-01	6.268E-02	0.248
		70.82		4.615E-01	3.165E-01	4.716E-01	3.651E-02	0.979
		80.30		9.235E-02	8.658E-01	9.023E-01	7.490E-02	0.102
		439.56	*	-1.870E-02	5.286E-02	8.585E-02	4.930E-03	-0.218
HG-203		70.83		1.455E+00	1.470E+00	2.159E+00	2.822E-01	0.674
		72.87		1.928E+00	9.101E-01	1.333E+00	1.693E-01	1.446
	+	82.60		1.402E+00	1.838E+00	2.521E+00	3.442E-01	0.556
		279.20	*	9.130E-03	3.630E-02	6.172E-02	3.795E-03	0.148
BI-207		72.80		5.926E-01	2.644E-01	3.966E-01	3.106E-02	1.494
	+	74.97		5.563E-01	1.854E-01	2.511E-01	1.996E-02	2.215
	+	84.90		2.487E-01	3.250E-01	4.475E-01	3.882E-02	0.556
	+	569.67		1.178E-01	5.920E-02	6.162E-02	3.657E-03	1.911
		1063.62	*	-3.331E-02	4.052E-02	6.261E-02	4.446E-03	-0.532
		1770.23		8.874E-02	3.691E-01	5.524E-01	3.332E-02	0.161
TL-207		81.07		-1.057E-02	4.539E-01	4.700E-01	3.929E-02	-0.022
	+	83.78		1.640E-01	2.143E-01	2.940E-01	2.522E-02	0.558
		94.90		6.397E+00	6.650E-01	8.281E-01	6.667E-02	7.724
		122.32		2.166E-01	1.976E+00	3.217E+00	2.197E-01	0.067
	+	144.24		1.782E+00	8.592E-01	1.289E+00	9.054E-02	1.382
		154.21		2.932E-01	3.994E-01	6.611E-01	4.412E-02	0.443
		269.46		2.601E-01	1.745E-01	3.086E-01	1.861E-02	0.843
		323.87	*	-5.247E-01	5.927E-01	9.432E-01	1.558E-01	-0.556
	+	338.28		4.565E+00	1.965E+00	2.027E+00	2.133E-01	2.252
		445.03		-6.441E-01	1.886E+00	3.062E+00	3.138E-01	-0.210
PO-209		260.50		4.688E-01	9.230E+00	1.476E+01	8.475E-01	0.032
		262.80		-1.478E+01	2.486E+01	3.850E+01	2.214E+00	-0.384
		896.60	*	-1.685E+00	6.145E+00	9.653E+00	8.486E-01	-0.175
BI-210		46.50	*	-4.116E-01	3.854E+00	6.332E+00	4.826E-01	-0.065
PB-210		46.50	*	-4.116E-01	3.854E+00	6.332E+00	4.826E-01	-0.065
PO-210		46.50	*	-4.116E-01	3.854E+00	6.332E+00	4.127E-01	-0.065
PB-211		404.84	*	-5.554E-01	1.003E+00	1.300E+00	8.102E-01	-0.427
		427.08		-7.274E-01	1.890E+00	2.985E+00	1.845E+00	-0.244
		831.96		-2.308E-01	1.070E+00	1.685E+00	1.054E+00	-0.137
BI-212	+	727.18	*	6.556E-01	4.183E-01	5.238E-01	4.361E-02	1.251
		785.46		9.268E-01	1.802E+00	3.019E+00	2.208E-01	0.307
		1620.62		5.344E-01	9.998E-01	1.764E+00	1.178E-01	0.303
PO-215		81.07		-1.057E-02	4.539E-01	4.700E-01	3.929E-02	-0.022
	+	83.78		1.640E-01	2.143E-01	2.940E-01	2.522E-02	0.558
		94.90		6.397E+00	6.650E-01	8.281E-01	6.667E-02	7.724
		122.32		2.166E-01	1.976E+00	3.217E+00	2.197E-01	0.067
	+	144.24		1.782E+00	8.592E-01	1.289E+00	9.054E-02	1.382
		154.21		2.932E-01	3.994E-01	6.611E-01	4.412E-02	0.443
		269.46		2.601E-01	1.745E-01	3.086E-01	1.861E-02	0.843
		323.87	*	-5.247E-01	5.927E-01	9.432E-01	1.558E-01	-0.556
	+	338.28		4.565E+00	1.965E+00	2.027E+00	2.133E-01	2.252

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		445.03		-6.441E-01	1.886E+00	3.062E+00	3.138E-01	-0.210
RN-219		271.23		4.264E-01	2.273E-01	4.040E-01	3.267E-02	1.055
		401.81	*	4.295E-02	3.684E-01	6.014E-01	8.134E-02	0.071
RN-220		549.76	*	-9.042E+00	2.293E+01	3.678E+01	2.182E+00	-0.246
RA-223		81.07		-1.057E-02	4.539E-01	4.700E-01	3.929E-02	-0.022
	+	83.78		1.640E-01	2.143E-01	2.940E-01	2.522E-02	0.558
		94.90		6.397E+00	6.650E-01	8.281E-01	6.667E-02	7.724
		122.32		2.166E-01	1.976E+00	3.217E+00	2.197E-01	0.067
	+	144.24		1.782E+00	8.592E-01	1.289E+00	9.054E-02	1.382
		154.21		2.932E-01	3.994E-01	6.611E-01	4.412E-02	0.443
		269.46		2.601E-01	1.745E-01	3.086E-01	1.861E-02	0.843
		323.87	*	-5.247E-01	5.927E-01	9.432E-01	1.558E-01	-0.556
	+	338.28		4.565E+00	1.965E+00	2.027E+00	2.133E-01	2.252
		445.03		-6.441E-01	1.886E+00	3.062E+00	3.138E-01	-0.210
AC-227		79.80		7.452E-01	3.456E+00	3.617E+00	7.726E-01	0.206
		236.00		1.268E+00	3.015E-01	4.580E-01	4.748E-02	2.768
		256.20	*	2.851E-01	3.748E-01	6.147E-01	8.563E-02	0.464
		286.10		-5.463E-01	1.356E+00	2.241E+00	2.591E-01	-0.244
	+	299.80		1.920E+00	1.367E+00	2.109E+00	3.435E-01	0.911
		304.40		-4.152E-01	1.819E+00	2.620E+00	4.533E-01	-0.158
		334.20		-9.409E-01	2.265E+00	3.199E+00	5.864E-01	-0.294
TH-227		79.80		7.452E-01	3.456E+00	3.617E+00	7.827E-01	0.206
	+	94.00		1.546E+02	3.385E+01	9.325E+00	2.014E+00	16.577
		236.00		1.268E+00	2.941E-01	4.580E-01	4.103E-02	2.768
		256.20	*	2.851E-01	3.758E-01	6.147E-01	1.037E-01	0.464
		286.10		-5.463E-01	1.461E+00	2.241E+00	2.245E+00	-0.244
	+	299.80		1.920E+00	1.367E+00	2.109E+00	3.435E-01	0.911
		304.40		-4.152E-01	1.819E+00	2.620E+00	4.533E-01	-0.158
		334.20		-9.409E-01	2.265E+00	3.199E+00	5.864E-01	-0.294
TH-229		85.43		1.037E-02	4.259E-01	4.419E-01	3.854E-02	0.023
		88.47		2.895E-01	2.446E-01	2.644E-01	2.350E-02	1.095
	+	100.00		1.486E+00	3.778E-01	4.349E-01	3.273E-02	3.417
		193.63	*	-4.257E-02	4.822E-01	7.700E-01	4.155E-02	-0.055
		210.97		1.223E+00	8.008E-01	1.207E+00	6.649E-02	1.013
PA-231		283.67	*	-9.171E-03	1.375E+00	2.314E+00	3.188E-01	-0.004
	+	301.29		7.681E-01	5.384E-01	8.561E-01	8.956E-02	0.897
TH-231		81.07		-1.057E-02	4.539E-01	4.700E-01	3.929E-02	-0.022
	+	83.78		1.640E-01	2.143E-01	2.940E-01	2.522E-02	0.558
		94.90		6.397E+00	6.650E-01	8.281E-01	6.667E-02	7.724
		122.32		2.166E-01	1.976E+00	3.217E+00	2.197E-01	0.067
	+	144.24		1.782E+00	8.592E-01	1.289E+00	9.054E-02	1.382
		154.21		2.932E-01	3.994E-01	6.611E-01	4.412E-02	0.443
		269.46		2.601E-01	1.745E-01	3.086E-01	1.861E-02	0.843
		323.87	*	-5.247E-01	5.927E-01	9.432E-01	1.558E-01	-0.556
	+	338.28		4.565E+00	1.965E+00	2.027E+00	2.133E-01	2.252
		445.03		-6.441E-01	1.886E+00	3.062E+00	3.138E-01	-0.210
U-231	+	84.21		5.688E+00	7.433E+00	1.015E+01	8.742E-01	0.561
	+	92.29		1.230E+02	1.096E+01	8.001E+00	6.691E-01	15.370
		95.87	*	9.620E-01	1.254E+00	2.077E+00	1.650E-01	0.463

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		1.474E+00	2.298E+00	3.353E+00	2.300E-01	0.440
PA-233	+	75.28		1.623E+01	5.790E+00	7.477E+00	1.121E+00	2.171
		86.59		-8.543E-01	3.666E+00	3.748E+00	1.008E+00	-0.228
	+	300.12		5.353E-01	3.779E-01	5.884E-01	7.910E-02	0.910
		311.98	*	-2.170E-02	5.488E-02	9.040E-02	5.582E-03	-0.240
		340.50		1.746E+00	7.793E-01	1.112E+00	2.553E-01	1.570
		398.62		-1.034E+00	1.854E+00	2.965E+00	7.652E-01	-0.349
		415.76		-3.051E-01	1.451E+00	2.244E+00	4.611E-01	-0.136
PA-234	+	63.00		5.125E+01	8.675E+00	5.411E+00	8.076E-01	9.471
		94.67		6.663E+00	8.667E-01	6.694E-01	8.054E-02	9.954
	+	98.44		7.255E-01	4.404E-01	2.287E-01	1.273E-01	3.172
	+	99.86		3.761E+00	9.559E-01	1.117E+00	8.421E-02	3.366
		111.00		1.202E+00	2.764E-01	4.411E-01	4.750E-02	2.725
		131.20		3.128E-02	1.162E-01	1.902E-01	1.095E-02	0.164
		152.70		1.102E-01	3.310E-01	5.409E-01	8.475E-02	0.204
	+	186.00		2.234E+01	7.220E+00	3.496E+00	1.065E+00	6.390
		226.40		-3.066E-02	3.849E-01	6.147E-01	7.043E-02	-0.050
		227.20		1.910E-01	4.036E-01	6.589E-01	3.689E-02	0.290
		248.90		-3.146E-01	7.783E-01	1.216E+00	2.610E-01	-0.259
		293.70		3.234E+00	9.238E-01	1.336E+00	2.149E-01	2.421
		369.80		7.128E-01	7.714E-01	1.322E+00	2.749E-01	0.539
	+	568.70		3.833E+00	1.927E+00	2.071E+00	1.229E-01	1.851
	+	569.50		1.045E+00	5.255E-01	5.505E-01	3.268E-02	1.899
		574.00		8.390E-01	1.430E+00	2.150E+00	1.276E-01	0.390
		699.00		-1.204E-01	6.129E-01	9.847E-01	1.786E-01	-0.122
		706.10		4.586E-01	9.199E-01	1.516E+00	6.703E-01	0.302
		733.00		4.834E-03	3.692E-01	5.198E-01	1.118E-01	0.009
		742.81		2.204E+00	1.976E+00	2.373E+00	1.590E+00	0.929
	+	796.30		1.385E+00	1.231E+00	1.496E+00	3.995E-01	0.926
		805.60		-1.560E-01	8.456E-01	1.347E+00	4.091E-01	-0.116
		819.60		1.537E-01	1.022E+00	1.674E+00	6.333E-01	0.092
		826.30		-2.190E-01	7.788E-01	1.223E+00	5.454E-01	-0.179
		831.60		-2.916E-01	5.697E-01	8.735E-01	2.590E-01	-0.334
		876.40		-6.473E-01	9.449E-01	9.788E-01	1.006E+00	-0.661
		880.51		1.610E-01	2.263E-01	3.885E-01	3.329E-02	0.415
		883.24		1.383E-01	2.669E-01	4.229E-01	2.843E-01	0.327
		899.00		-2.230E-01	6.932E-01	1.073E+00	4.693E-01	-0.208
		925.00		-2.740E-03	9.582E-01	1.543E+00	1.326E-01	-0.002
		926.50		2.703E-02	1.561E-01	2.353E-01	5.944E-02	0.115
		946.00	*	3.316E-01	2.661E-01	4.626E-01	8.635E-02	0.717
		949.00		3.517E-01	3.897E-01	6.740E-01	5.648E-02	0.522
		980.50		-6.154E-01	5.905E-01	8.401E-01	6.780E-02	-0.733
		1394.10		-9.588E-02	8.679E-01	1.410E+00	9.153E-01	-0.068
NP-236		94.67		5.089E+00	4.813E-01	5.090E-01	4.111E-02	9.999
	+	98.44		5.484E-01	1.394E-01	1.729E-01	1.327E-02	3.172
		111.00		9.092E-01	1.943E-01	3.337E-01	2.217E-02	2.725
		160.31	*	-6.183E-02	8.530E-02	1.347E-01	7.133E-03	-0.459
NP-237		86.50	*	-1.179E-01	5.500E-01	5.632E-01	1.264E-01	-0.209
		95.87		1.054E+00	1.395E+00	2.276E+00	5.554E-01	0.463

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		1.254E+00	3.186E-01	3.792E-01	2.869E-02	3.306
		117.00	*	1.805E-01	2.407E-01	3.530E-01	2.207E-02	0.511
	+	209.75		1.688E+00	9.875E-01	1.264E+00	6.948E-02	1.336
		228.18		-4.436E-02	2.134E-01	3.388E-01	1.899E-02	-0.131
		277.60		-8.711E-02	1.625E-01	2.678E-01	1.550E-02	-0.325
		334.30		-4.670E-01	1.283E+00	1.824E+00	1.056E-01	-0.256
AM-241		59.54	*	3.565E-01	2.280E-01	3.415E-01	2.811E-02	1.044
CM-243	+	99.55		1.290E+00	3.279E-01	3.901E-01	2.952E-02	3.306
		103.76	*	-3.435E-02	1.312E-01	1.859E-01	1.337E-02	-0.185
		117.00		1.857E-01	2.477E-01	3.631E-01	2.271E-02	0.511
	+	209.75		1.663E+00	9.734E-01	1.245E+00	6.849E-02	1.336
		228.18		-4.482E-02	2.156E-01	3.423E-01	1.918E-02	-0.131
		277.60		-8.781E-02	1.638E-01	2.699E-01	1.562E-02	-0.325
AM-246		798.80		1.306E-01	1.282E-01	2.004E-01	1.500E-02	0.652
		1036.00		9.042E-02	2.382E-01	4.121E-01	3.069E-02	0.219
		1062.04		-1.107E-01	1.844E-01	2.924E-01	2.083E-02	-0.379
		1078.86	*	-4.974E-02	1.195E-01	1.930E-01	1.332E-02	-0.258
CM-247		278.00		-3.593E-02	6.679E-01	1.123E+00	6.497E-02	-0.032
		287.40		-7.426E-01	1.155E+00	1.777E+00	1.031E-01	-0.418
		402.60	*	8.127E-03	3.388E-02	5.405E-02	3.032E-03	0.150
CF-249		252.85		-8.570E-01	8.241E-01	1.250E+00	7.144E-02	-0.686
		333.44		-4.544E-02	1.683E-01	2.409E-01	1.395E-02	-0.189
		387.95	*	4.125E-03	3.685E-02	6.177E-02	3.449E-03	0.067
CF-251		176.60	*	3.034E-02	1.271E-01	2.067E-01	1.092E-02	0.147
		227.00		1.841E-01	3.573E-01	5.844E-01	3.271E-02	0.315
		285.00		-1.538E+00	1.578E+00	2.543E+00	1.475E-01	-0.605

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395003      *
* Acquisition date :  2-FEB-2010 07:21:05 Detector SN#    :                 *
* Detector ID        : GAM19               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.98      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395003           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.7047E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.447E+01	2.238E+00	3.966E-01	0.000E+00
BA-137M	6.103E-02	4.226E-02	5.051E-02	0.000E+00
CS-137	6.451E-02	4.468E-02	5.340E-02	0.000E+00
LU-177	2.078E+00	1.192E+00	1.533E+00	0.000E+00
TL-208	4.110E-01	6.912E-02	4.982E-02	0.000E+00
BI-211	2.545E+00	4.231E-01	3.011E-01	0.000E+00
PB-212	1.112E+00	1.167E-01	9.080E-02	0.000E+00
PO-212	1.112E+00	1.167E-01	9.080E-02	0.000E+00
BI-214	6.828E-01	1.348E-01	9.959E-02	0.000E+00
PB-214	8.852E-01	1.540E-01	1.049E-01	0.000E+00
PO-214	8.852E-01	1.540E-01	1.049E-01	0.000E+00
PO-216	1.112E+00	1.167E-01	9.080E-02	0.000E+00
PO-218	8.852E-01	1.540E-01	1.049E-01	0.000E+00
RA-224	2.704E+00	1.055E+00	1.032E+00	0.000E+00
RA-226	6.828E-01	1.348E-01	9.959E-02	0.000E+00
AC-228	9.847E-01	2.737E-01	1.855E-01	0.000E+00
RA-228	9.847E-01	2.737E-01	1.855E-01	0.000E+00
TH-228	1.127E+00	1.183E-01	9.206E-02	0.000E+00
TH-230	6.828E-01	1.348E-01	9.959E-02	0.000E+00
TH-232	9.847E-01	2.737E-01	1.855E-01	0.000E+00
PA-234M	5.888E+01	9.815E+00	6.584E+00	0.000E+00
TH-234	4.397E+01	8.286E+00	2.942E+00	0.000E+00
U-234	6.828E-01	1.348E-01	9.959E-02	0.000E+00
U-235	5.498E-01	2.715E-01	3.934E-01	0.000E+00
U-238	4.397E+01	8.286E+00	2.942E+00	0.000E+00
AM-243	3.099E-01	1.012E-01	1.302E-01	0.000E+00
ANH-511	9.107E-02	6.796E-02	4.091E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	1.745E-01	2.807E-01	5.154E-01	0.000E+00	NOT IDENT.
NA-22	-2.858E-02	3.626E-02	5.800E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.242E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.240E-02	2.254E-02	3.347E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.211E-02	9.549E-02	0.000E+00	FAIL ABUN
SC-46	2.513E-02	3.306E-02	5.955E-02	0.000E+00	FAIL ABUN
V-48	1.952E-02	5.145E-02	8.979E-02	0.000E+00	NOT IDENT.
CR-51	-1.029E-01	2.965E-01	5.317E-01	0.000E+00	NOT IDENT.
MN-52	-9.443E-02	1.340E-01	2.037E-01	0.000E+00	NOT IDENT.
MN-54	-2.770E-03	3.149E-02	5.333E-02	0.000E+00	NOT IDENT.
CO-56	7.856E-03	3.362E-02	5.833E-02	0.000E+00	NOT IDENT.
CO-57	3.411E-03	2.785E-02	5.080E-02	0.000E+00	NOT IDENT.
CO-58	2.381E-04	3.109E-02	5.317E-02	0.000E+00	NOT IDENT.
FE-59	-1.789E-02	7.140E-02	1.221E-01	0.000E+00	FAIL ABUN
CO-60	-3.741E-03	2.777E-02	4.695E-02	0.000E+00	NOT IDENT.
ZN-65	1.087E-02	7.512E-02	1.150E-01	0.000E+00	NOT IDENT.
GE-68	4.501E-01	1.013E+00	1.833E+00	0.000E+00	NOT IDENT.
AS-73	2.967E-02	1.015E+00	1.925E+00	0.000E+00	NOT IDENT.
AS-74	5.223E-02	7.257E-02	1.328E-01	0.000E+00	NOT IDENT.
SE-75	-1.681E-02	3.808E-02	6.901E-02	0.000E+00	NOT IDENT.
BR-77	-1.975E-02	6.345E+00	1.057E+01	0.000E+00	FAIL ABUN
SR-82	-3.713E-01	3.166E-01	4.902E-01	0.000E+00	NOT IDENT.
RB-83	-4.543E-03	6.368E-02	1.015E-01	0.000E+00	NOT IDENT.
RB-84	6.418E-02	5.603E-02	1.040E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.338E+00	1.247E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.205E-02	6.306E-02	0.000E+00	NOT IDENT.
RB-86	1.073E-01	6.334E-01	1.122E+00	0.000E+00	NOT IDENT.
Y-88	8.094E-03	2.335E-02	4.168E-02	0.000E+00	NOT IDENT.
ZR-88	4.790E-03	2.676E-02	4.859E-02	0.000E+00	NOT IDENT.
Y-91	2.922E+00	1.457E+01	2.565E+01	0.000E+00	NOT IDENT.
NB-94	2.948E-03	2.778E-02	4.838E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.949E-02	9.541E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.324E-01	2.223E-01	0.000E+00	NOT IDENT.
ZR-95	-8.676E-03	6.654E-02	1.133E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.472E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.571E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.666E+00	8.167E+00	1.347E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.177E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.031E-02	3.196E-02	5.609E-02	0.000E+00	NOT IDENT.
RH-102	1.014E-02	2.599E-02	4.719E-02	0.000E+00	FAIL ABUN
RU-103	1.088E-02	3.321E-02	5.997E-02	0.000E+00	FAIL ABUN
RH-106	-1.020E-01	2.663E-01	4.514E-01	0.000E+00	FAIL ABUN
RU-106	-1.020E-01	2.661E-01	4.514E-01	0.000E+00	FAIL ABUN
AG-108M	-1.919E-02	2.871E-02	4.943E-02	0.000E+00	NOT IDENT.
CD-109	2.282E-01	1.842E+00	2.165E+00	0.000E+00	NOT IDENT.
AG-110M	-1.320E-03	3.201E-02	4.787E-02	0.000E+00	NOT IDENT.
IN-111	-9.697E-02	8.124E-01	1.232E+00	0.000E+00	NOT IDENT.
IN-113M	-1.002E-02	3.971E-02	7.061E-02	0.000E+00	NOT IDENT.
SN-113	-1.002E-02	3.971E-02	7.061E-02	0.000E+00	NOT IDENT.
IN-114M	-8.129E-02	1.873E-01	2.843E-01	0.000E+00	NOT IDENT.
CD-115	3.032E+00	5.657E+00	1.034E+01	0.000E+00	NOT IDENT.
SN-117M	-1.747E-02	5.189E-02	9.225E-02	0.000E+00	NOT IDENT.
SB-122	8.068E-01	1.397E+00	2.238E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.130E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.481E-02	2.915E-02	5.092E-02	0.000E+00	NOT IDENT.
I-124	-2.870E-01	4.669E-01	6.986E-01	0.000E+00	NOT IDENT.
SB-124	1.518E-02	5.155E-02	9.145E-02	0.000E+00	FAIL ABUN
SB-125	1.687E-02	7.954E-02	1.440E-01	0.000E+00	FAIL ABUN
TE-125M	2.060E+01	1.290E+01	2.158E+01	0.000E+00	NOT IDENT.
I-126	2.861E-02	1.604E-01	2.450E-01	0.000E+00	NOT IDENT.
SB-126	-5.264E-02	1.438E-01	2.066E-01	0.000E+00	FAIL ABUN
SN-126	-2.628E-02	1.817E-01	2.112E-01	0.000E+00	FAIL ABUN
SB-127	4.279E-01	9.087E-01	1.625E+00	0.000E+00	NOT IDENT.
XE-127	5.404E-02	5.056E-02	8.217E-02	0.000E+00	NOT IDENT.
I-131	-8.195E-02	8.947E-02	1.542E-01	0.000E+00	NOT IDENT.
TE-132	-9.894E-02	4.840E-01	8.446E-01	0.000E+00	FAIL ABUN
BA-133	2.582E-03	4.068E-02	6.439E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.732E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.118E-02	5.936E-02	7.979E-02	0.000E+00	FAIL ABUN
CS-135	7.608E-02	1.408E-01	2.645E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.602E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.470E-02	7.649E-02	1.253E-01	0.000E+00	NOT IDENT.
CE-139	-1.654E-02	3.076E-02	5.419E-02	0.000E+00	NOT IDENT.
BA-140	2.393E-03	2.087E-01	3.681E-01	0.000E+00	NOT IDENT.
LA-140	2.529E-02	6.055E-02	9.639E-02	0.000E+00	NOT IDENT.
CE-141	1.076E-01	7.601E-02	1.255E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.494E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.033E-01	2.177E-01	3.886E-01	0.000E+00	NOT IDENT.

PM-144	-1.502E-02	3.053E-02	4.925E-02	0.000E+00	NOT IDENT.
PR-144	-1.017E+00	2.068E+00	3.335E+00	0.000E+00	NOT IDENT.
PM-146	-7.187E-03	3.837E-02	6.771E-02	0.000E+00	NOT IDENT.
ND-147	-4.881E-01	4.264E-01	6.842E-01	0.000E+00	NOT IDENT.
PM-149	-2.212E+01	5.261E+01	9.476E+01	0.000E+00	NOT IDENT.
EU-152	-7.746E-03	1.472E-01	1.551E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.526E-01	2.169E-01	0.000E+00	FAIL ABUN
EU-154	-5.884E-02	1.000E-01	1.630E-01	0.000E+00	NOT IDENT.
EU-155	-1.095E-01	1.381E-01	2.286E-01	0.000E+00	NOT IDENT.
TB-160	-2.067E-02	1.092E-01	1.822E-01	0.000E+00	FAIL ABUN
HO-166M	-3.815E-02	5.368E-02	8.787E-02	0.000E+00	FAIL ABUN
TM-171	-4.475E+01	3.919E+01	6.224E+01	0.000E+00	NOT IDENT.
LU-176	-7.228E-03	2.131E-02	3.733E-02	0.000E+00	NOT IDENT.
LU-177M	5.895E-02	1.563E-01	2.511E-01	0.000E+00	NOT IDENT.
HF-181	-2.544E-02	3.611E-02	6.139E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	7.474E-01	1.185E+00	0.000E+00	NOT IDENT.
TA-182	-3.552E-02	1.574E-01	2.677E-01	0.000E+00	FAIL ABUN
RE-183	8.310E-02	1.140E-01	2.090E-01	0.000E+00	FAIL ABUN
RE-184	-2.272E-01	2.141E-01	3.557E-01	0.000E+00	NOT IDENT.
OS-185	-2.011E-02	3.672E-02	6.136E-02	0.000E+00	NOT IDENT.
RE-188	-8.861E-02	1.690E-01	2.990E-01	0.000E+00	NOT IDENT.
W-188	1.155E+00	6.933E+00	1.119E+01	0.000E+00	FAIL ABUN
IR-192	2.321E-02	2.763E-02	5.233E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.438E-01	6.104E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.754E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-7.606E+00	5.424E+00	9.255E+00	0.000E+00	NOT IDENT.
TL-202	-1.870E-02	5.180E-02	9.055E-02	0.000E+00	NOT IDENT.
HG-203	9.130E-03	3.557E-02	6.605E-02	0.000E+00	FAIL ABUN
BI-207	-3.331E-02	3.971E-02	6.414E-02	0.000E+00	FAIL ABUN
TL-207	-5.247E-01	5.808E-01	1.005E+00	0.000E+00	FAIL ABUN
PO-209	-1.685E+00	6.022E+00	9.945E+00	0.000E+00	NOT IDENT.
BI-210	-4.116E-01	3.777E+00	7.147E+00	0.000E+00	NOT IDENT.
PB-210	-4.116E-01	3.777E+00	7.147E+00	0.000E+00	NOT IDENT.
PO-210	-4.116E-01	3.777E+00	7.147E+00	0.000E+00	NOT IDENT.
PB-211	-5.554E-01	9.830E-01	1.375E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.100E-01	5.435E-01	0.000E+00	FAIL ABUN
PO-215	-5.247E-01	5.808E-01	1.005E+00	0.000E+00	FAIL ABUN
RN-219	4.295E-02	3.611E-01	6.362E-01	0.000E+00	NOT IDENT.
RN-220	-9.042E+00	2.247E+01	3.851E+01	0.000E+00	NOT IDENT.
RA-223	-5.247E-01	5.808E-01	1.005E+00	0.000E+00	FAIL ABUN
AC-227	2.851E-01	3.673E-01	6.596E-01	0.000E+00	FAIL ABUN
TH-227	2.851E-01	3.683E-01	6.596E-01	0.000E+00	FAIL ABUN
TH-229	-4.257E-02	4.725E-01	8.335E-01	0.000E+00	FAIL ABUN
PA-231	-9.171E-03	1.347E+00	2.475E+00	0.000E+00	FAIL ABUN
TH-231	-5.247E-01	5.808E-01	1.005E+00	0.000E+00	FAIL ABUN
U-231	9.620E-01	1.229E+00	2.296E+00	0.000E+00	FAIL ABUN
PA-233	-2.170E-02	5.378E-02	9.641E-02	0.000E+00	FAIL ABUN
PA-234	3.316E-01	2.608E-01	4.757E-01	0.000E+00	FAIL ABUN
NP-236	-6.183E-02	8.359E-02	1.466E-01	0.000E+00	FAIL ABUN
NP-237	-1.179E-01	5.390E-01	6.245E-01	0.000E+00	NOT IDENT.
NP-239	1.805E-01	2.359E-01	3.879E-01	0.000E+00	FAIL ABUN
AM-241	3.565E-01	2.234E-01	3.827E-01	0.000E+00	NOT IDENT.
CM-243	-3.435E-02	1.286E-01	2.050E-01	0.000E+00	FAIL ABUN
AM-246	-4.974E-02	1.171E-01	1.976E-01	0.000E+00	NOT IDENT.
CM-247	8.127E-03	3.320E-02	5.717E-02	0.000E+00	NOT IDENT.
CF-249	4.125E-03	3.611E-02	6.541E-02	0.000E+00	NOT IDENT.
CF-251	3.034E-02	1.246E-01	2.244E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:22:47.49

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395003.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 07:21:05.
Sample ID         : G245395003           Sample quantity  : 1.70470E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.98  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1385	10.67*	1.168E+00	2.447E+01	2.447E+01	9.33
BA-137M	661.65	57	89.98*	2.302E+00	6.097E-02	6.103E-02	70.67
CS-137	661.65	57	85.12*	2.302E+00	6.445E-02	6.451E-02	70.67
LU-177	112.95	596	6.40	6.856E+00	2.990E+00	1.250E+01	31.14
	208.36	136	11.00*	5.473E+00	4.971E-01	2.078E+00	58.52
TL-208	277.35	------	6.80	4.511E+00	------ Line Not Found		------
	510.84	117	21.60	2.840E+00	4.216E-01	4.216E-01	76.60
	583.14	402	84.20*	2.555E+00	4.110E-01	4.110E-01	17.16
	860.37	73	12.46	1.836E+00	7.025E-01	7.025E-01	49.31
BI-211	72.87	------	1.27	4.857E+00	------ Line Not Found		------
	351.07	566	12.94*	3.788E+00	2.545E+00	2.545E+00	16.97
PB-212	74.81	469	10.70	5.053E+00	1.912E+00	1.912E+00	34.62
	77.11	580	18.00	5.300E+00	1.338E+00	1.338E+00	25.66
	87.30	------	8.00	6.097E+00	------ Line Not Found		------
	238.63	1130	44.60*	5.017E+00	1.112E+00	1.112E+00	10.71
	300.09	68	3.41	4.260E+00	1.036E+00	1.036E+00	69.80
PO-212	74.81	469	10.70	5.053E+00	1.912E+00	1.912E+00	34.62
	77.11	580	18.00	5.300E+00	1.338E+00	1.338E+00	25.66
	87.30	------	8.00	6.097E+00	------ Line Not Found		------
	115.19	------	0.60	6.866E+00	------ Line Not Found		------
	238.63	1130	44.60*	5.017E+00	1.112E+00	1.112E+00	10.71
	300.09	68	3.41	4.260E+00	1.036E+00	1.036E+00	69.80
BI-214	609.31	354	46.30*	2.464E+00	6.828E-01	6.828E-01	20.15
	1120.29	109	15.10	1.455E+00	1.093E+00	1.093E+00	38.16
	1764.49	97	15.80	1.030E+00	1.307E+00	1.307E+00	25.24
PB-214	74.81	469	6.21	5.053E+00	3.294E+00	3.294E+00	34.14
	77.11	580	10.50	5.300E+00	2.294E+00	2.294E+00	26.77
	87.30	------	4.67	6.097E+00	------ Line Not Found		------
	241.98	241	7.49	4.975E+00	1.426E+00	1.426E+00	40.21
	295.21	287	19.20	4.310E+00	7.646E-01	7.646E-01	31.63
	351.92	566	37.20*	3.788E+00	8.851E-01	8.852E-01	17.75
PO-214	74.81	469	6.21	5.053E+00	3.294E+00	3.294E+00	34.14

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	580	10.50	5.300E+00	2.294E+00	2.294E+00	26.77
	87.30	------	4.67	6.097E+00	------	Line Not Found	------
	241.98	241	7.49	4.975E+00	1.426E+00	1.426E+00	40.21
	295.21	287	19.20	4.310E+00	7.646E-01	7.646E-01	31.63
	351.92	566	37.20*	3.788E+00	8.851E-01	8.852E-01	17.75
PO-216	74.81	469	10.70	5.053E+00	1.912E+00	1.912E+00	34.62
	77.11	580	18.00	5.300E+00	1.338E+00	1.338E+00	25.66
	87.30	------	8.00	6.097E+00	------	Line Not Found	------
	238.63	1130	44.60*	5.017E+00	1.112E+00	1.112E+00	10.71
	300.09	68	3.41	4.260E+00	1.036E+00	1.036E+00	69.80
PO-218	74.81	469	6.21	5.053E+00	3.294E+00	3.294E+00	34.14
	77.11	580	10.50	5.300E+00	2.294E+00	2.294E+00	26.77
	87.30	------	4.67	6.097E+00	------	Line Not Found	------
	241.98	241	7.49	4.975E+00	1.426E+00	1.426E+00	40.21
	295.21	287	19.20	4.310E+00	7.646E-01	7.646E-01	31.63
	351.92	566	37.20*	3.788E+00	8.851E-01	8.852E-01	17.75
RA-224	240.98	241	3.95*	4.975E+00	2.704E+00	2.704E+00	39.81
RA-226	609.31	354	46.30*	2.464E+00	6.828E-01	6.828E-01	20.15
	1120.29	109	15.10	1.455E+00	1.093E+00	1.093E+00	38.16
	1764.49	97	15.80	1.030E+00	1.307E+00	1.307E+00	25.24
AC-228	338.32	221	11.40	3.899E+00	1.093E+00	1.093E+00	58.34
	911.07	216	27.70*	1.746E+00	9.847E-01	9.847E-01	28.36
	969.11	166	16.60	1.653E+00	1.332E+00	1.332E+00	33.11
RA-228	338.32	221	11.40	3.899E+00	1.093E+00	1.093E+00	58.34
	911.07	216	27.70*	1.746E+00	9.847E-01	9.847E-01	28.36
	969.11	166	16.60	1.653E+00	1.332E+00	1.332E+00	33.11
TH-228	74.81	469	10.70	5.053E+00	1.912E+00	1.938E+00	33.35
	77.11	580	18.00	5.300E+00	1.338E+00	1.357E+00	25.66
	87.30	------	8.00	6.097E+00	------	Line Not Found	------
	238.63	1130	44.60*	5.017E+00	1.112E+00	1.127E+00	10.71
	300.09	68	3.41	4.260E+00	1.036E+00	1.050E+00	90.98
TH-230	609.31	354	46.30*	2.464E+00	6.828E-01	6.828E-01	20.15
	1120.29	109	15.10	1.455E+00	1.093E+00	1.093E+00	38.16
	1764.49	97	15.80	1.030E+00	1.307E+00	1.307E+00	25.24
TH-232	338.32	221	11.40	3.899E+00	1.093E+00	1.093E+00	42.13
	911.07	216	27.70*	1.746E+00	9.847E-01	9.847E-01	28.36
	969.11	166	16.60	1.653E+00	1.332E+00	1.332E+00	33.11
PA-234M	766.42	186	0.32	2.029E+00	6.321E+01	6.321E+01	59.65
	1001.03	361	0.84*	1.607E+00	5.888E+01	5.888E+01	17.01
TH-234	63.29	2743	3.80*	3.615E+00	4.397E+01	4.397E+01	19.23
	92.38	6272	5.41	6.382E+00	4.000E+01	4.000E+01	18.22
U-234	609.31	354	46.30*	2.464E+00	6.828E-01	6.828E-01	20.15
	1120.29	109	15.10	1.455E+00	1.093E+00	1.093E+00	38.16
	1764.49	97	15.80	1.030E+00	1.307E+00	1.307E+00	25.24
U-235	89.95	------	2.70	6.249E+00	------	Line Not Found	------
	93.35	6272	4.50	6.382E+00	4.809E+01	4.809E+01	28.12
	105.00	------	2.10	6.763E+00	------	Line Not Found	------
	143.76	174	10.50*	6.637E+00	5.498E-01	5.498E-01	50.39
	163.35	------	4.70	6.300E+00	------	Line Not Found	------

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	185.71	1194	54.00	5.884E+00	8.273E-01	8.273E-01	12.03
	205.31	128	4.70	5.536E+00	1.086E+00	1.086E+00	50.82
U-238	63.29	2743	3.80*	3.615E+00	4.397E+01	4.397E+01	19.23
	92.38	6272	5.41	6.382E+00	4.000E+01	4.000E+01	8.91
AM-243	74.67	469	66.00*	5.053E+00	3.099E-01	3.099E-01	33.33
	86.72	------	0.34	6.061E+00	------ Line Not Found		------
	117.66	------	0.55	6.871E+00	------ Line Not Found		------
	142.18	174	0.13	6.637E+00	4.618E+01	4.618E+01	48.03
ANH-511	511.00	117	100.00*	2.840E+00	9.107E-02	9.107E-02	76.15

Flag: "*" = Keyline

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

Total number of lines in spectrum 38
Number of unidentified lines 3
Number of lines tentatively identified by NID 35 92.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.447E+01	2.447E+01	0.228E+01	9.33	
BA-137M	30.17Y	1.00	6.097E-02	6.103E-02	4.312E-02	70.67	
CS-137	30.17Y	1.00	6.445E-02	6.451E-02	4.559E-02	70.67	
LU-177	6.71D	4.18	4.971E-01	2.078E+00	1.216E+00	58.52	
TL-208	1.41E+10Y	1.00	4.110E-01	4.110E-01	0.705E-01	17.16	
BI-211	7.04E+08Y	1.00	2.545E+00	2.545E+00	0.432E+00	16.97	
PB-212	1.41E+10Y	1.00	1.112E+00	1.112E+00	0.119E+00	10.71	
PO-212	1.41E+10Y	1.00	1.112E+00	1.112E+00	0.119E+00	10.71	
BI-214	1600.00Y	1.00	6.828E-01	6.828E-01	1.376E-01	20.15	
PB-214	1600.00Y	1.00	8.851E-01	8.852E-01	1.571E-01	17.75	
PO-214	1600.00Y	1.00	8.851E-01	8.852E-01	1.571E-01	17.75	
PO-216	1.41E+10Y	1.00	1.112E+00	1.112E+00	0.119E+00	10.71	
PO-218	1600.00Y	1.00	8.851E-01	8.852E-01	1.571E-01	17.75	
RA-224	1.41E+10Y	1.00	2.704E+00	2.704E+00	1.076E+00	39.81	
RA-226	1600.00Y	1.00	6.828E-01	6.828E-01	1.376E-01	20.15	
AC-228	1.41E+10Y	1.00	9.847E-01	9.847E-01	2.792E-01	28.36	
RA-228	1.41E+10Y	1.00	9.847E-01	9.847E-01	2.792E-01	28.36	
TH-228	1.91Y	1.01	1.112E+00	1.127E+00	0.121E+00	10.71	
TH-230	4.47E+09Y	1.00	6.828E-01	6.828E-01	1.376E-01	20.15	
TH-232	1.41E+10Y	1.00	9.847E-01	9.847E-01	2.792E-01	28.36	
PA-234M	4.47E+09Y	1.00	5.888E+01	5.888E+01	1.002E+01	17.01	
TH-234	4.47E+09Y	1.00	4.397E+01	4.397E+01	0.846E+01	19.23	
U-234	4.47E+09Y	1.00	6.828E-01	6.828E-01	1.376E-01	20.15	
U-235	7.04E+08Y	1.00	5.498E-01	5.498E-01	2.770E-01	50.39	
U-238	4.47E+09Y	1.00	4.397E+01	4.397E+01	0.846E+01	19.23	
AM-243	7380.00Y	1.00	3.099E-01	3.099E-01	1.033E-01	33.33	
ANH-511	1.00E+09Y	1.00	9.107E-02	9.107E-02	6.935E-02	76.15	
	Total Activity :		1.913E+02	1.929E+02			

Grand Total Activity : 1.913E+02 1.929E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.45	107	1597	1.23	166.74	165	8	1.49E-02	****	5.84E+00	T
1	98.51	553	835	1.50	196.82	177	25	7.68E-02	24.2	6.60E+00	T
0	178.32	47	485	1.35	356.32	349	10	6.57E-03	****	6.02E+00	
0	409.53	56	154	1.02	818.46	813	10	7.77E-03	87.9	3.38E+00	T
0	462.80	66	142	1.60	924.96	920	11	9.20E-03	74.0	3.07E+00	T
0	568.42	136	179	2.49	1136.10	1130	18	1.89E-02	49.9	2.61E+00	T
0	727.81	75	112	0.62	1454.80	1447	13	1.04E-02	63.3	2.12E+00	T
0	795.55	48	91	1.93	1590.24	1584	12	6.70E-03	84.8	1.97E+00	T
0	966.20	24	77	0.75	1931.51	1922	11	3.31E-03	****	1.66E+00	T
0	1590.46	18	41	0.77	3180.41	3172	20	2.44E-03	****	1.10E+00	
0	1631.09	10	6	1.19	3261.72	3257	8	1.36E-03	****	1.08E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 09:22:52.87

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395003.CNF;1 *
* Acquisition date  : 2-FEB-2010 07:21:05.  Detector SN#     :             *
* Detector ID       : GAM19                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.98          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245395003            Analyst initials: MXR1         *
* Batch Number      : 944966                Sample Quantity : 1.70470E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.447E+01	2.283E+00	3.915E-01	2.916E-02	62.502
BA-137M	6.103E-02	4.312E-02	4.853E-02	2.826E-03	1.257
CS-137	6.451E-02	4.559E-02	5.130E-02	3.000E-03	1.257
LU-177	2.078E+00	1.216E+00	1.420E+00	7.795E-02	1.464
TL-208	4.110E-01	7.053E-02	4.766E-02	3.241E-03	8.624
BI-211	2.545E+00	4.317E-01	2.834E-01	1.810E-02	8.978
PB-212	1.112E+00	1.191E-01	8.444E-02	6.094E-03	13.171
PO-212	1.112E+00	1.191E-01	8.444E-02	6.094E-03	13.171
BI-214	6.828E-01	1.376E-01	9.543E-02	7.503E-03	7.155
PB-214	8.852E-01	1.571E-01	9.878E-02	8.144E-03	8.960
PO-214	8.852E-01	1.571E-01	9.878E-02	8.144E-03	8.960
PO-216	1.112E+00	1.191E-01	8.444E-02	6.094E-03	13.171
PO-218	8.852E-01	1.571E-01	9.878E-02	8.144E-03	8.960
RA-224	2.704E+00	1.076E+00	9.604E-01	5.442E-02	2.815
RA-226	6.828E-01	1.376E-01	9.543E-02	7.503E-03	7.155
AC-228	9.847E-01	2.792E-01	1.802E-01	2.038E-02	5.465
RA-228	9.847E-01	2.792E-01	1.802E-01	2.038E-02	5.465
TH-228	1.127E+00	1.207E-01	8.561E-02	6.179E-03	13.171

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	6.828E-01	1.376E-01	9.543E-02	7.503E-03	7.155
TH-232	9.847E-01	2.792E-01	1.802E-01	2.038E-02	5.465
PA-234M	5.888E+01	1.002E+01	6.415E+00	5.971E-01	9.179
TH-234	4.397E+01	8.455E+00	2.629E+00	4.601E-01	16.721
U-234	6.828E-01	1.376E-01	9.543E-02	7.503E-03	7.155
U-235	5.498E-01	2.770E-01	3.602E-01	5.841E-02	1.526
U-238	4.397E+01	8.455E+00	2.629E+00	4.601E-01	16.721
AM-243	3.099E-01	1.033E-01	1.170E-01	9.276E-03	2.650
ANH-511	9.107E-02	6.935E-02	3.897E-02	2.300E-03	2.337

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.745E-01		2.864E-01	4.900E-01	3.326E-02	0.356
NA-22	-2.858E-02		3.700E-02	5.697E-02	3.800E-03	-0.502
NA-24	1.241E-02		6.337E-02	Half-Life too short		
AL-26	-1.240E-02		2.300E-02	3.328E-02	1.943E-03	-0.373
TI-44	2.470E-01	+	6.338E-02	8.588E-02	7.010E-03	2.876
SC-46	2.513E-02		3.373E-02	5.779E-02	5.021E-03	0.435
V-48	1.952E-02		5.250E-02	8.742E-02	7.029E-03	0.223
CR-51	-1.029E-01		3.025E-01	4.990E-01	3.229E-02	-0.206
MN-52	-9.443E-02		1.368E-01	2.009E-01	1.449E-02	-0.470
MN-54	-2.770E-03		3.213E-02	5.164E-02	4.107E-03	-0.054
CO-56	7.856E-03		3.430E-02	5.651E-02	4.584E-03	0.139
CO-57	3.411E-03		2.842E-02	4.629E-02	2.762E-03	0.074
CO-58	2.381E-04		3.172E-02	5.144E-02	3.942E-03	0.005
FE-59	-1.789E-02		7.286E-02	1.193E-01	8.952E-03	-0.150
CO-60	-3.741E-03		2.834E-02	4.619E-02	3.404E-03	-0.081
ZN-65	1.087E-02		7.665E-02	1.124E-01	7.189E-03	0.097
GE-68	4.501E-01		1.033E+00	1.790E+00	1.239E-01	0.251
AS-73	2.967E-02		1.036E+00	1.712E+00	1.267E-01	0.017
AS-74	5.223E-02		7.405E-02	1.272E-01	7.534E-03	0.411
SE-75	-1.681E-02		3.886E-02	6.438E-02	3.744E-03	-0.261
BR-77	-1.975E-02		6.474E+00	1.007E+01	5.956E-01	-0.002
SR-82	-3.713E-01		3.231E-01	4.735E-01	3.409E-02	-0.784
RB-83	-4.543E-03		6.498E-02	9.680E-02	5.722E-03	-0.047
RB-84	6.418E-02		5.717E-02	1.009E-01	8.659E-03	0.636
KR-85	1.526E+01		6.467E+00	1.188E+01	7.016E-01	1.284
SR-85	7.716E-02		3.270E-02	6.009E-02	3.548E-03	1.284
RB-86	1.073E-01		6.463E-01	1.096E+00	7.594E-02	0.098
Y-88	8.094E-03		2.383E-02	4.147E-02	2.367E-03	0.195
ZR-88	4.790E-03		2.730E-02	4.590E-02	2.556E-03	0.104
Y-91	2.922E+00		1.487E+01	2.514E+01	1.468E+00	0.116
NB-94	2.948E-03		2.835E-02	4.658E-02	2.933E-03	0.063
NB-95	1.459E-01		5.050E-02	9.212E-02	6.510E-03	1.584
NB-95M	2.856E-01		1.351E-01	2.066E-01	1.530E-02	1.383
ZR-95	-8.676E-03		6.790E-02	1.094E-01	8.755E-03	-0.079

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	-4.812E-05		1.261E-02	Half-Life too short		
ZR-97	8.913E-01		2.332E-01	Half-Life too short		
MO-99	-4.666E+00		8.333E+00	1.299E+01	1.845E+00	-0.359
TC-99M	-2.389E+08		6.004E+08	Half-Life too short		
RH-101	-1.031E-02		3.262E-02	5.185E-02	2.813E-03	-0.199
RH-102	1.014E-02		2.653E-02	4.485E-02	2.618E-03	0.226
RU-103	1.088E-02		3.388E-02	5.708E-02	7.238E-03	0.191
RH-106	-1.020E-01		2.717E-01	4.328E-01	5.100E-02	-0.236
RU-106	-1.020E-01		2.715E-01	4.328E-01	2.552E-02	-0.236
AG-108M	-1.919E-02		2.930E-02	4.684E-02	2.917E-03	-0.410
CD-109	2.282E-01		1.880E+00	1.954E+00	1.750E-01	0.117
AG-110M	-1.320E-03		3.267E-02	4.598E-02	2.853E-03	-0.029
IN-111	-9.697E-02		8.290E-01	1.147E+00	6.520E-02	-0.085
IN-113M	-1.002E-02		4.052E-02	6.669E-02	3.979E-03	-0.150
SN-113	-1.002E-02		4.052E-02	6.669E-02	3.979E-03	-0.150
IN-114M	-8.129E-02		1.912E-01	2.625E-01	1.411E-02	-0.310
CD-115	3.032E+00		5.772E+00	9.857E+00	5.835E-01	0.308
SN-117M	-1.747E-02		5.295E-02	8.471E-02	4.509E-03	-0.206
SB-122	8.068E-01		1.426E+00	2.139E+00	1.270E-01	0.377
I-123	-9.615E-01		5.764E-01	Half-Life too short		
TE-123M	-2.481E-02		2.974E-02	4.676E-02	2.526E-03	-0.530
I-124	-2.870E-01		4.765E-01	6.691E-01	3.960E-02	-0.429
SB-124	1.518E-02		5.260E-02	9.073E-02	6.214E-03	0.167
SB-125	1.687E-02		8.116E-02	1.364E-01	8.120E-03	0.124
TE-125M	2.060E+01		1.316E+01	1.959E+01	1.731E+00	1.051
I-126	2.861E-02		1.636E-01	2.354E-01	1.383E-02	0.122
SB-126	-5.264E-02		1.467E-01	1.990E-01	1.296E-02	-0.264
SN-126	-2.628E-02		1.854E-01	1.906E-01	1.700E-02	-0.138
SB-127	4.279E-01		9.273E-01	1.563E+00	1.433E-01	0.274
XE-127	5.404E-02		5.159E-02	7.602E-02	4.148E-03	0.711
I-131	-8.195E-02		9.130E-02	1.453E-01	9.258E-03	-0.564
TE-132	-9.894E-02		4.939E-01	7.843E-01	1.100E-01	-0.126
BA-133	2.582E-03		4.151E-02	6.063E-02	6.988E-03	0.043
I-133	-1.472E-03		8.835E-04	Half-Life too short		
CS-134	7.118E-02	+	6.057E-02	7.713E-02	5.800E-03	0.923
CS-135	7.608E-02		1.437E-01	2.469E-01	1.884E-02	0.308
I-135	-5.001E+07		8.172E+07	Half-Life too short		
CS-136	-5.470E-02		7.806E-02	1.223E-01	9.447E-03	-0.447
CE-139	-1.654E-02		3.139E-02	4.984E-02	2.602E-03	-0.332
BA-140	2.393E-03		2.130E-01	3.512E-01	1.143E-01	0.007
LA-140	2.529E-02		6.179E-02	9.543E-02	6.457E-03	0.265
CE-141	1.076E-01		7.757E-02	1.150E-01	6.621E-03	0.936
CE-143	2.650E-04		4.844E-05	Half-Life too short		
CE-144	-1.033E-01		2.221E-01	3.550E-01	5.029E-02	-0.291
PM-144	-1.502E-02		3.116E-02	4.740E-02	2.953E-03	-0.317
PR-144	-1.017E+00		2.110E+00	3.210E+00	1.998E-01	-0.317
PM-146	-7.187E-03		3.916E-02	6.426E-02	5.534E-03	-0.112
ND-147	-4.881E-01		4.351E-01	6.527E-01	8.860E-02	-0.748

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-2.212E+01		5.368E+01	8.862E+01	1.256E+01	-0.250
EU-152	-7.746E-03		1.502E-01	1.459E-01	9.494E-03	-0.053
GD-153	6.126E-01	+	1.557E-01	1.963E-01	1.527E-02	3.120
EU-154	-5.884E-02		1.020E-01	1.601E-01	1.585E-02	-0.367
EU-155	-1.095E-01		1.410E-01	2.074E-01	1.492E-02	-0.528
TB-160	-2.067E-02		1.115E-01	1.768E-01	1.512E-02	-0.117
HO-166M	-3.815E-02		5.478E-02	8.463E-02	5.421E-03	-0.451
TM-171	-4.475E+01		3.999E+01	5.572E+01	4.235E+00	-0.803
LU-176	-7.228E-03		2.174E-02	3.499E-02	2.035E-03	-0.207
LU-177M	5.895E-02		1.595E-01	2.376E-01	1.343E-02	0.248
HF-181	-2.544E-02		3.685E-02	5.837E-02	3.416E-03	-0.436
W-181	6.142E+00		7.626E-01	1.060E+00	8.025E-02	5.792
TA-182	-3.552E-02		1.606E-01	2.626E-01	1.584E-02	-0.135
RE-183	8.310E-02		1.163E-01	1.921E-01	1.012E-02	0.433
RE-184	-2.272E-01		2.185E-01	3.313E-01	1.894E-02	-0.686
OS-185	-2.011E-02		3.747E-02	5.891E-02	3.450E-03	-0.341
RE-188	-8.861E-02		1.724E-01	2.743E-01	1.474E-02	-0.323
W-188	1.155E+00		7.074E+00	1.047E+01	6.081E-01	0.110
IR-192	2.321E-02		2.819E-02	4.910E-02	2.868E-03	0.473
AU-195	1.782E+00	+	4.529E-01	5.527E-01	4.218E-02	3.224
TL-200	2.069E-04		8.949E-05	Half-Life too short		
TL-201	-7.606E+00		5.534E+00	8.513E+00	4.448E-01	-0.893
TL-202	-1.870E-02		5.286E-02	8.585E-02	4.930E-03	-0.218
HG-203	9.130E-03		3.630E-02	6.172E-02	3.795E-03	0.148
BI-207	-3.331E-02		4.052E-02	6.261E-02	4.446E-03	-0.532
TL-207	-5.247E-01		5.927E-01	9.432E-01	1.558E-01	-0.556
PO-209	-1.685E+00		6.145E+00	9.653E+00	8.486E-01	-0.175
BI-210	-4.116E-01		3.854E+00	6.332E+00	4.826E-01	-0.065
PB-210	-4.116E-01		3.854E+00	6.332E+00	4.826E-01	-0.065
PO-210	-4.116E-01		3.854E+00	6.332E+00	4.127E-01	-0.065
PB-211	-5.554E-01		1.003E+00	1.300E+00	8.102E-01	-0.427
BI-212	6.556E-01	+	4.183E-01	5.238E-01	4.361E-02	1.251
PO-215	-5.247E-01		5.927E-01	9.432E-01	1.558E-01	-0.556
RN-219	4.295E-02		3.684E-01	6.014E-01	8.134E-02	0.071
RN-220	-9.042E+00		2.293E+01	3.678E+01	2.182E+00	-0.246
RA-223	-5.247E-01		5.927E-01	9.432E-01	1.558E-01	-0.556
AC-227	2.851E-01		3.748E-01	6.147E-01	8.563E-02	0.464
TH-227	2.851E-01		3.758E-01	6.147E-01	1.037E-01	0.464
TH-229	-4.257E-02		4.822E-01	7.700E-01	4.155E-02	-0.055
PA-231	-9.171E-03		1.375E+00	2.314E+00	3.188E-01	-0.004
TH-231	-5.247E-01		5.927E-01	9.432E-01	1.558E-01	-0.556
U-231	9.620E-01		1.254E+00	2.077E+00	1.650E-01	0.463
PA-233	-2.170E-02		5.488E-02	9.040E-02	5.582E-03	-0.240
PA-234	3.316E-01		2.661E-01	4.626E-01	8.635E-02	0.717
NP-236	-6.183E-02		8.530E-02	1.347E-01	7.133E-03	-0.459
NP-237	-1.179E-01		5.500E-01	5.632E-01	1.264E-01	-0.209
NP-239	1.805E-01		2.407E-01	3.530E-01	2.207E-02	0.511
AM-241	3.565E-01		2.280E-01	3.415E-01	2.811E-02	1.044

Sample ID : G245395003 Acquisition date : 2-FEB-2010 07:21:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.435E-02		1.312E-01	1.859E-01	1.337E-02	-0.185
AM-246	-4.974E-02		1.195E-01	1.930E-01	1.332E-02	-0.258
CM-247	8.127E-03		3.388E-02	5.405E-02	3.032E-03	0.150
CF-249	4.125E-03		3.685E-02	6.177E-02	3.449E-03	0.067
CF-251	3.034E-02		1.271E-01	2.067E-01	1.092E-02	0.147

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395003           *
* Acquisition date  :  2-FEB-2010 07:21:05 Detector SN#     :               *
* Detector ID       : GAM19                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.98      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395003           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.7047E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.447E+01	2.238E+00	1.984E-01	1.142E+00
BA-137M	6.103E-02	4.226E-02	2.527E-02	2.156E-02
CS-137	6.451E-02	4.468E-02	2.672E-02	2.279E-02
LU-177	2.078E+00	1.192E+00	7.671E-01	6.080E-01
TL-208	4.110E-01	6.912E-02	2.492E-02	3.527E-02
BI-211	2.545E+00	4.231E-01	1.507E-01	2.159E-01
PB-212	1.112E+00	1.167E-01	4.543E-02	5.953E-02
PO-212	1.112E+00	1.167E-01	4.543E-02	5.953E-02
BI-214	6.828E-01	1.348E-01	4.983E-02	6.879E-02
PB-214	8.852E-01	1.540E-01	5.250E-02	7.856E-02
PO-214	8.852E-01	1.540E-01	5.250E-02	7.856E-02
PO-216	1.112E+00	1.167E-01	4.543E-02	5.953E-02
PO-218	8.852E-01	1.540E-01	5.250E-02	7.856E-02
RA-224	2.704E+00	1.055E+00	5.165E-01	5.382E-01
RA-226	6.828E-01	1.348E-01	4.983E-02	6.879E-02
AC-228	9.847E-01	2.737E-01	9.282E-02	1.396E-01
RA-228	9.847E-01	2.737E-01	9.282E-02	1.396E-01
TH-228	1.127E+00	1.183E-01	4.606E-02	6.036E-02
TH-230	6.828E-01	1.348E-01	4.983E-02	6.879E-02
TH-232	9.847E-01	2.737E-01	9.282E-02	1.396E-01
PA-234M	5.888E+01	9.815E+00	3.294E+00	5.008E+00
TH-234	4.397E+01	8.286E+00	1.472E+00	4.228E+00
U-234	6.828E-01	1.348E-01	4.983E-02	6.879E-02
U-235	5.498E-01	2.715E-01	1.968E-01	1.385E-01
U-238	4.397E+01	8.286E+00	1.472E+00	4.228E+00
AM-243	3.099E-01	1.012E-01	6.515E-02	5.165E-02
ANH-511	9.107E-02	6.796E-02	2.047E-02	3.467E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	1.745E-01	2.807E-01	2.579E-01	1.432E-01	NOT IDENT.
NA-22	-2.858E-02	3.626E-02	2.902E-02	1.850E-02	NOT IDENT.
NA-24	1.241E+04	1.242E+05	0.000E+00	6.337E+04	SHORT HLIF
AL-26	-1.240E-02	2.254E-02	1.674E-02	1.150E-02	NOT IDENT.
TI-44	2.470E-01	6.211E-02	4.777E-02	3.169E-02	FAIL ABUN
SC-46	2.513E-02	3.306E-02	2.979E-02	1.686E-02	FAIL ABUN
V-48	1.952E-02	5.145E-02	4.492E-02	2.625E-02	NOT IDENT.
CR-51	-1.029E-01	2.965E-01	2.660E-01	1.513E-01	NOT IDENT.
MN-52	-9.443E-02	1.340E-01	1.019E-01	6.838E-02	NOT IDENT.
MN-54	-2.770E-03	3.149E-02	2.668E-02	1.607E-02	NOT IDENT.
CO-56	7.856E-03	3.362E-02	2.918E-02	1.715E-02	NOT IDENT.
CO-57	3.411E-03	2.785E-02	2.542E-02	1.421E-02	NOT IDENT.
CO-58	2.381E-04	3.109E-02	2.660E-02	1.586E-02	NOT IDENT.
FE-59	-1.789E-02	7.140E-02	6.106E-02	3.643E-02	FAIL ABUN
CO-60	-3.741E-03	2.777E-02	2.349E-02	1.417E-02	NOT IDENT.
ZN-65	1.087E-02	7.512E-02	5.753E-02	3.833E-02	NOT IDENT.
GE-68	4.501E-01	1.013E+00	9.170E-01	5.167E-01	NOT IDENT.
AS-73	2.967E-02	1.015E+00	9.631E-01	5.178E-01	NOT IDENT.
AS-74	5.223E-02	7.257E-02	6.645E-02	3.702E-02	NOT IDENT.
SE-75	-1.681E-02	3.808E-02	3.453E-02	1.943E-02	NOT IDENT.
BR-77	-1.975E-02	6.345E+00	5.287E+00	3.237E+00	FAIL ABUN
SR-82	-3.713E-01	3.166E-01	2.452E-01	1.615E-01	NOT IDENT.
RB-83	-4.543E-03	6.368E-02	5.080E-02	3.249E-02	NOT IDENT.
RB-84	6.418E-02	5.603E-02	5.203E-02	2.859E-02	NOT IDENT.
KR-85	1.526E+01	6.338E+00	6.239E+00	3.234E+00	NOT IDENT.
SR-85	7.716E-02	3.205E-02	3.155E-02	1.635E-02	NOT IDENT.
RB-86	1.073E-01	6.334E-01	5.615E-01	3.232E-01	NOT IDENT.
Y-88	8.094E-03	2.335E-02	2.085E-02	1.191E-02	NOT IDENT.
ZR-88	4.790E-03	2.676E-02	2.431E-02	1.365E-02	NOT IDENT.
Y-91	2.922E+00	1.457E+01	1.283E+01	7.434E+00	NOT IDENT.
NB-94	2.948E-03	2.778E-02	2.420E-02	1.418E-02	NOT IDENT.
NB-95	1.459E-01	4.949E-02	4.774E-02	2.525E-02	NOT IDENT.
NB-95M	2.856E-01	1.324E-01	1.112E-01	6.757E-02	NOT IDENT.
ZR-95	-8.676E-03	6.654E-02	5.670E-02	3.395E-02	NOT IDENT.
NB-97	-4.812E+01	2.472E+04	0.000E+00	1.261E+04	SHORT HLIF
ZR-97	8.913E+05	4.571E+05	0.000E+00	2.332E+05	SHORT HLIF
MO-99	-4.666E+00	8.167E+00	6.740E+00	4.167E+00	NOT IDENT.
TC-99M	-2.389E+14	1.177E+15	0.000E+00	6.004E+14	SHORT HLIF
RH-101	-1.031E-02	3.196E-02	2.806E-02	1.631E-02	NOT IDENT.
RH-102	1.014E-02	2.599E-02	2.361E-02	1.326E-02	FAIL ABUN
RU-103	1.088E-02	3.321E-02	3.000E-02	1.694E-02	FAIL ABUN
RH-106	-1.020E-01	2.663E-01	2.258E-01	1.359E-01	FAIL ABUN
RU-106	-1.020E-01	2.661E-01	2.258E-01	1.358E-01	FAIL ABUN
AG-108M	-1.919E-02	2.871E-02	2.473E-02	1.465E-02	NOT IDENT.
CD-109	2.282E-01	1.842E+00	1.083E+00	9.398E-01	NOT IDENT.
AG-110M	-1.320E-03	3.201E-02	2.395E-02	1.633E-02	NOT IDENT.
IN-111	-9.697E-02	8.124E-01	6.164E-01	4.145E-01	NOT IDENT.
IN-113M	-1.002E-02	3.971E-02	3.532E-02	2.026E-02	NOT IDENT.
SN-113	-1.002E-02	3.971E-02	3.532E-02	2.026E-02	NOT IDENT.
IN-114M	-8.129E-02	1.873E-01	1.422E-01	9.558E-02	NOT IDENT.
CD-115	3.032E+00	5.657E+00	5.171E+00	2.886E+00	NOT IDENT.
SN-117M	-1.747E-02	5.189E-02	4.615E-02	2.647E-02	NOT IDENT.
SB-122	8.068E-01	1.397E+00	1.120E+00	7.130E-01	NOT IDENT.
I-123	-9.615E+05	1.130E+06	0.000E+00	5.764E+05	SHORT HLIF
TE-123M	-2.481E-02	2.915E-02	2.547E-02	1.487E-02	NOT IDENT.
I-124	-2.870E-01	4.669E-01	3.495E-01	2.382E-01	NOT IDENT.
SB-124	1.518E-02	5.155E-02	4.575E-02	2.630E-02	FAIL ABUN
SB-125	1.687E-02	7.954E-02	7.203E-02	4.058E-02	FAIL ABUN
TE-125M	2.060E+01	1.290E+01	1.079E+01	6.580E+00	NOT IDENT.
I-126	2.861E-02	1.604E-01	1.225E-01	8.181E-02	NOT IDENT.
SB-126	-5.264E-02	1.438E-01	1.033E-01	7.336E-02	FAIL ABUN
SN-126	-2.628E-02	1.817E-01	1.057E-01	9.268E-02	FAIL ABUN
SB-127	4.279E-01	9.087E-01	8.130E-01	4.636E-01	NOT IDENT.
XE-127	5.404E-02	5.056E-02	4.111E-02	2.580E-02	NOT IDENT.
I-131	-8.195E-02	8.947E-02	7.713E-02	4.565E-02	NOT IDENT.
TE-132	-9.894E-02	4.840E-01	4.226E-01	2.469E-01	FAIL ABUN
BA-133	2.582E-03	4.068E-02	3.221E-02	2.076E-02	NOT IDENT.
I-133	-1.472E+03	1.732E+03	0.000E+00	8.835E+02	SHORT HLIF
CS-134	7.118E-02	5.936E-02	3.992E-02	3.029E-02	FAIL ABUN
CS-135	7.608E-02	1.408E-01	1.323E-01	7.186E-02	NOT IDENT.
I-135	-5.001E+13	1.602E+14	0.000E+00	8.172E+13	SHORT HLIF
CS-136	-5.470E-02	7.649E-02	6.269E-02	3.903E-02	NOT IDENT.
CE-139	-1.654E-02	3.076E-02	2.711E-02	1.569E-02	NOT IDENT.
BA-140	2.393E-03	2.087E-01	1.841E-01	1.065E-01	NOT IDENT.
LA-140	2.529E-02	6.055E-02	4.822E-02	3.089E-02	NOT IDENT.
CE-141	1.076E-01	7.601E-02	6.280E-02	3.878E-02	NOT IDENT.
CE-143	2.650E+02	9.494E+01	0.000E+00	4.844E+01	SHORT HLIF
CE-144	-1.033E-01	2.177E-01	1.944E-01	1.111E-01	NOT IDENT.

PM-144	-1.502E-02	3.053E-02	2.464E-02	1.558E-02	NOT IDENT.
PR-144	-1.017E+00	2.068E+00	1.669E+00	1.055E+00	NOT IDENT.
PM-146	-7.187E-03	3.837E-02	3.388E-02	1.958E-02	NOT IDENT.
ND-147	-4.881E-01	4.264E-01	3.423E-01	2.175E-01	NOT IDENT.
PM-149	-2.212E+01	5.261E+01	4.741E+01	2.684E+01	NOT IDENT.
EU-152	-7.746E-03	1.472E-01	7.758E-02	7.508E-02	NOT IDENT.
GD-153	6.126E-01	1.526E-01	1.085E-01	7.786E-02	FAIL ABUN
EU-154	-5.884E-02	1.000E-01	8.155E-02	5.102E-02	NOT IDENT.
EU-155	-1.095E-01	1.381E-01	1.144E-01	7.048E-02	NOT IDENT.
TB-160	-2.067E-02	1.092E-01	9.117E-02	5.574E-02	FAIL ABUN
HO-166M	-3.815E-02	5.368E-02	4.396E-02	2.739E-02	FAIL ABUN
TM-171	-4.475E+01	3.919E+01	3.114E+01	1.999E+01	NOT IDENT.
LU-176	-7.228E-03	2.131E-02	1.868E-02	1.087E-02	NOT IDENT.
LU-177M	5.895E-02	1.563E-01	1.256E-01	7.975E-02	NOT IDENT.
HF-181	-2.544E-02	3.611E-02	3.071E-02	1.842E-02	NOT IDENT.
W-181	6.142E+00	7.474E-01	5.930E-01	3.813E-01	NOT IDENT.
TA-182	-3.552E-02	1.574E-01	1.339E-01	8.032E-02	FAIL ABUN
RE-183	8.310E-02	1.140E-01	1.046E-01	5.816E-02	FAIL ABUN
RE-184	-2.272E-01	2.141E-01	1.779E-01	1.092E-01	NOT IDENT.
OS-185	-2.011E-02	3.672E-02	3.070E-02	1.874E-02	NOT IDENT.
RE-188	-8.861E-02	1.690E-01	1.496E-01	8.622E-02	NOT IDENT.
W-188	1.155E+00	6.933E+00	5.599E+00	3.537E+00	FAIL ABUN
IR-192	2.321E-02	2.763E-02	2.618E-02	1.410E-02	FAIL ABUN
AU-195	1.782E+00	4.438E-01	3.054E-01	2.264E-01	FAIL ABUN
TL-200	2.069E+02	1.754E+02	0.000E+00	8.949E+01	SHORT HLIF
TL-201	-7.606E+00	5.424E+00	4.630E+00	2.767E+00	NOT IDENT.
TL-202	-1.870E-02	5.180E-02	4.530E-02	2.643E-02	NOT IDENT.
HG-203	9.130E-03	3.557E-02	3.304E-02	1.815E-02	FAIL ABUN
BI-207	-3.331E-02	3.971E-02	3.209E-02	2.026E-02	FAIL ABUN
TL-207	-5.247E-01	5.808E-01	5.026E-01	2.963E-01	FAIL ABUN
PO-209	-1.685E+00	6.022E+00	4.976E+00	3.073E+00	NOT IDENT.
BI-210	-4.116E-01	3.777E+00	3.575E+00	1.927E+00	NOT IDENT.
PB-210	-4.116E-01	3.777E+00	3.575E+00	1.927E+00	NOT IDENT.
PO-210	-4.116E-01	3.777E+00	3.575E+00	1.927E+00	NOT IDENT.
PB-211	-5.554E-01	9.830E-01	6.879E-01	5.015E-01	NOT IDENT.
BI-212	6.556E-01	4.100E-01	2.719E-01	2.092E-01	FAIL ABUN
PO-215	-5.247E-01	5.808E-01	5.026E-01	2.963E-01	FAIL ABUN
RN-219	4.295E-02	3.611E-01	3.183E-01	1.842E-01	NOT IDENT.
RN-220	-9.042E+00	2.247E+01	1.927E+01	1.147E+01	NOT IDENT.
RA-223	-5.247E-01	5.808E-01	5.026E-01	2.963E-01	FAIL ABUN
AC-227	2.851E-01	3.673E-01	3.300E-01	1.874E-01	FAIL ABUN
TH-227	2.851E-01	3.683E-01	3.300E-01	1.879E-01	FAIL ABUN
TH-229	-4.257E-02	4.725E-01	4.170E-01	2.411E-01	FAIL ABUN
PA-231	-9.171E-03	1.347E+00	1.238E+00	6.874E-01	FAIL ABUN
TH-231	-5.247E-01	5.808E-01	5.026E-01	2.963E-01	FAIL ABUN
U-231	9.620E-01	1.229E+00	1.149E+00	6.269E-01	FAIL ABUN
PA-233	-2.170E-02	5.378E-02	4.823E-02	2.744E-02	FAIL ABUN
PA-234	3.316E-01	2.608E-01	2.380E-01	1.331E-01	FAIL ABUN
NP-236	-6.183E-02	8.359E-02	7.334E-02	4.265E-02	FAIL ABUN
NP-237	-1.179E-01	5.390E-01	3.124E-01	2.750E-01	NOT IDENT.
NP-239	1.805E-01	2.359E-01	1.941E-01	1.204E-01	FAIL ABUN
AM-241	3.565E-01	2.234E-01	1.915E-01	1.140E-01	NOT IDENT.
CM-243	-3.435E-02	1.286E-01	1.026E-01	6.562E-02	FAIL ABUN
AM-246	-4.974E-02	1.171E-01	9.887E-02	5.977E-02	NOT IDENT.
CM-247	8.127E-03	3.320E-02	2.860E-02	1.694E-02	NOT IDENT.
CF-249	4.125E-03	3.611E-02	3.273E-02	1.842E-02	NOT IDENT.
CF-251	3.034E-02	1.246E-01	1.123E-01	6.355E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	852.2852
46.50	852.2852
46.50	852.2852
48.70	919.8422
49.72	982.4208
51.35	961.8159
52.39	1004.0725
52.97	1032.1576
53.15	1032.3707
53.44	1073.8621
54.07	1137.3792
56.28	1169.0123
56.28	1199.1597
57.37	0.0000
57.53	1097.6505
57.53	1097.6537
57.60	1097.7345
57.98	1102.9144
57.98	1102.9144
59.32	1173.9320
59.32	1173.9320
59.40	1174.0320
59.54	1174.2090
59.72	1174.4338
60.01	1222.1680
61.10	1301.0398
61.14	1301.0925
61.30	1248.1438
63.00	1250.3589
63.29	1250.7335
63.29	1250.7335
63.58	1251.1068
64.28	1252.0054
65.12	1241.3689
65.20	1241.4691
65.20	1241.4691
66.05	1294.9716
66.72	1322.8718
66.83	1323.0190
66.91	1340.6190
67.20	1341.0050
67.20	1341.0050
67.75	1375.1595
67.85	1358.9862
68.90	1282.7133
68.90	1282.7133
69.30	1283.2194
69.67	1132.1952
70.82	1246.8019
70.82	1246.8019
70.83	1301.0950
72.80	1389.9280
72.87	1417.2161
72.87	1417.2161
74.67	1451.0728
74.81	1451.2662
74.81	1451.2662
74.81	1451.2662
74.81	1451.2662
74.81	1451.2662
74.81	1451.2662
74.81	1451.2662
74.97	1451.4818
75.28	1451.9020
75.70	1452.4713
77.11	1454.3727
77.11	1454.3727

77.11	1454.3727
77.11	1454.3727
77.11	1454.3727
77.11	1454.3727
77.11	1454.3727
78.38	1525.4064
79.62	1496.9458
79.80	1497.1899
79.80	1497.1899
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80.18	1457.4399
80.30	1457.6002
80.30	1457.6002
80.57	1498.2286
81.00	1498.8076
81.07	1498.8984
81.07	1498.8984
81.07	1498.8984
81.07	1498.8984
82.60	1471.3590
83.37	1466.4333
83.78	1466.9653
83.78	1466.9653
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83.78	1466.9653
84.21	1675.8087
84.90	1846.2891
85.43	1795.9047
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86.50	1797.5713
86.54	1797.6323
86.59	1797.7136
86.72	1797.9169
86.79	1798.0184
86.94	1798.2556
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87.30	1798.8112
87.30	1798.8112
87.30	1798.8112
87.30	1798.8112
87.30	1798.8112
87.30	1798.8112
87.57	1799.2312
87.88	1799.7054
88.03	1799.9358
88.36	1800.4438
88.47	1642.4513
89.95	1863.7841
91.11	1331.1184
92.29	1332.4326
92.38	1332.5326
92.38	1332.5326
93.35	1333.6021
94.00	1334.3167
94.67	1335.0463
94.67	1335.0513
94.90	1335.3062
94.90	1335.3062
94.90	1335.3062
94.90	1335.3062
95.87	1336.3605
95.87	1336.3605
96.73	1337.2950
97.43	1338.0496
98.44	1339.1340
98.44	1339.1390
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99.55	784.1403
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100.10	782.8475
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111.00	769.0031
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115.19	604.6872
116.30	615.1231
117.00	628.7065
117.00	628.7065
117.66	624.0283
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121.78	628.3656
122.06	639.9360
122.32	643.1755
122.32	643.1755
122.32	643.1755
122.32	643.1755
123.07	643.5174
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129.76	630.8136
131.20	643.9971
133.02	622.7728
133.54	634.5272
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136.00	572.5344
136.25	572.6301
136.48	579.0225
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142.65	545.2754
143.76	600.7814
144.24	592.5186
144.24	592.5186
144.24	592.5186
144.24	592.5186
145.22	622.2713
145.44	591.9153
147.16	548.5417
152.43	545.6858
152.70	521.3541
153.22	523.6470
154.21	494.2079
154.21	494.2079
154.21	494.2079
154.21	494.2079
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156.02	562.8536
158.56	529.6248
159.00	0.0000
159.00	567.0724
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162.32	536.1632
162.64	535.1984
163.35	489.4693
163.89	494.9718
165.85	555.4803
167.43	580.6387
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171.86	477.7378
172.10	464.0526
176.55	430.7739
176.60	453.4024
181.06	423.2351
184.41	455.1775
185.71	418.9144
186.00	418.9823
190.27	408.0256
192.34	398.0524
193.63	392.4586
197.04	407.3333
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198.60	461.0814
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202.84	398.5296
205.31	470.7993

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208.81	401.0776
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209.75	335.0497
210.97	340.5254
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216.55	339.9467
218.09	369.9379
222.10	351.9217
223.80	342.2791
226.40	354.8751
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227.08	320.7121
227.20	324.0476
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228.18	346.3317
228.18	346.3317
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236.00	341.1961
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238.63	340.2882
238.63	340.2882
238.63	340.2882
239.00	340.3466
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241.98	340.8252
241.98	340.8252
241.98	340.8252
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252.85	308.9607
254.15	0.0000
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256.20	287.0098
260.50	286.4431
260.90	317.9518
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264.65	281.7955
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268.79	278.7035
269.46	282.3954
269.46	282.3954
269.46	282.3954
269.46	282.3954
271.23	273.5840
273.65	361.5479
276.40	291.3958
277.35	301.4723
277.60	301.5048
277.60	301.5048
278.00	284.3517
278.60	271.7432
279.20	278.1551
279.53	263.6957
280.46	270.1461
281.68	260.3110
283.67	257.8083
284.30	267.8659
285.00	279.7529
285.90	256.2338
286.10	256.2579
286.10	256.2579
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291.72	256.5601
293.26	0.0000
293.70	246.1344
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295.21	223.4847

295.21	223.4847
295.96	223.5535
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297.23	182.5903
298.57	182.6904
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299.80	217.8167
300.09	217.8428
300.09	217.8428
300.09	217.8428
300.09	217.8428
300.12	217.8457
301.29	207.2816
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303.76	210.5404
303.91	210.5544
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304.40	222.8051
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306.84	218.9514
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319.02	210.9137
319.41	201.7342
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323.87	244.5363
323.87	244.5363
323.87	244.5363
325.23	223.4305
328.77	200.6243
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334.20	219.2662
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334.30	219.2749
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338.28	213.4238
338.28	213.4238
338.28	213.4238
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338.32	213.4266
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344.27	213.9067
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351.92	184.6751
351.92	184.6751
351.92	184.6751
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356.01	174.3688
364.48	199.5835
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374.96	147.6666
383.85	164.1743
387.95	191.8117
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391.69	193.9542
391.69	193.9542
392.90	176.9971
398.62	181.1399
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401.10	157.5642
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404.84	182.1605
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411.60	149.2369
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415.30	141.7014

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427.89	152.2805
432.53	165.9402
433.93	167.9355
439.47	136.5121
439.56	136.5173
439.89	138.4541
443.98	119.3818
444.90	135.7882
445.03	135.7934
445.03	135.7934
445.03	135.7934
445.03	135.7934
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468.07	129.3441
473.00	146.7052
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475.35	137.0895
476.78	126.4501
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511.00	116.9416
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511.85	116.9699
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513.99	117.0440
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552.65	119.3320
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569.32	114.8877
569.50	114.8933
569.67	114.8989
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574.00	98.3621
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578.91	98.1579
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592.07	117.6027
593.00	117.6313
595.88	97.5991
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602.71	112.3182
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609.31	113.0910
609.31	113.0910
609.31	113.0910
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621.84	106.3663
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661.65	96.1848
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666.33	95.6120
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696.49	109.3850
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699.00	104.2869
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722.78	109.0247
722.89	109.0272
722.95	109.0298
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727.18	86.2706
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739.58	125.0859
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744.21	83.4785
747.13	139.9214
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752.31	95.1323
753.82	97.2572
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756.15	113.0019
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763.93	113.5490
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766.84	131.1035
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881.50	53.7402
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884.67	72.0593
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911.07	72.4421
911.07	72.4421
911.07	72.4421
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920.93	68.2510
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937.48	76.0823
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949.00	59.9132
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969.11	71.0811
969.11	71.0811
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1038.76	0.0000
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1046.59	61.0183
1048.07	64.7335

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1063.62	65.8431
1076.63	67.8523
1077.35	60.4244
1078.86	71.6016
1085.78	50.2756
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1112.84	61.7380
1115.52	57.7567
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1120.29	58.0720
1120.29	58.0720
1120.29	58.0720
1120.51	58.0745
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1175.09	70.9045
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1205.75	0.0000
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1274.54	68.2179
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1298.22	0.0000
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1325.50	42.6125
1332.49	33.9319
1333.61	30.0590
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1365.15	19.4865
1368.21	28.2684
1368.53	0.0000
1376.25	26.3507
1384.27	21.4960
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1395.20	24.4670
1407.95	35.2998
1434.06	26.5759
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1457.56	0.0000
1460.81	22.7267
1489.15	23.8105
1509.49	13.9294
1596.49	15.5353
1620.62	19.1933
1678.03	0.0000
1691.02	12.2344
1691.02	12.2344
1706.46	0.0000
1750.46	0.0000
1764.49	12.3496
1764.49	12.3496
1764.49	12.3496
1764.49	12.3496
1770.23	10.5929
1771.40	10.5942
1791.20	0.0000
1808.65	16.5566

1836.01 10.3825

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395003

Total Uranium Activity	1.3105E+02	ug/g
Total Uranium Counting Unc.	2.4651E+01	ug/g
Total Uranium Tpu	1.2577E-05	ug/g
Total Uranium Mda	4.3795E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID  : G245395003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 07:21:05.23    SAMPLE ALQT:  170.470 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.205E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.571E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 5.283E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.599E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:24:38.77

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395004.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:23:35.
Sample ID         : G245395004           Sample quantity  : 1.39170E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:33.47  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.23*	402	747	1.14	126.44	121	10	5.59E-02	13.9	
2	4	74.92	703	633	1.31	149.78	144	15	9.76E-02	7.4	4.97E+00
3	4	77.26*	862	479	1.01	154.45	144	15	1.20E-01	5.5	
4	0	84.20*	79	486	1.37	168.32	166	6	1.10E-02	46.1	
5	0	87.11*	134	673	1.18	174.14	172	7	1.86E-02	33.5	
6	0	92.91*	796	629	1.24	185.71	182	9	1.11E-01	7.0	
7	0	129.08	57	296	0.68	257.94	255	6	7.90E-03	49.6	
8	0	143.71*	79	300	1.05	287.17	284	7	1.10E-02	38.9	
9	0	185.80*	348	419	1.22	371.22	366	12	4.83E-02	13.3	
10	0	209.43	170	363	1.07	418.43	413	11	2.37E-02	23.0	
11	6	238.68*	1437	215	1.14	476.84	470	19	2.00E-01	3.2	1.97E+00
12	6	241.58	315	303	1.81	482.64	470	19	4.38E-02	15.7	
13	0	269.96	147	237	1.12	539.34	533	12	2.05E-02	22.5	
14	0	295.36	414	240	1.31	590.08	586	11	5.75E-02	8.8	
15	0	300.52	120	185	1.54	600.37	596	11	1.67E-02	23.9	
16	0	327.66	104	225	1.49	654.60	648	14	1.44E-02	32.1	
17	0	338.26	282	135	1.13	675.78	672	8	3.92E-02	9.3	
18	0	352.03*	689	217	1.35	703.30	698	12	9.57E-02	5.8	
19	0	463.18	118	85	1.36	925.39	920	12	1.64E-02	18.0	
20	0	511.10*	210	175	1.99	1021.16	1013	19	2.91E-02	18.2	
21	0	583.55*	471	93	1.35	1165.97	1159	14	6.54E-02	6.5	
22	0	609.62*	506	121	1.32	1218.08	1211	13	7.03E-02	6.4	
23	0	727.54	114	132	1.41	1453.82	1446	16	1.58E-02	24.5	
24	0	769.17	59	131	1.46	1537.04	1529	17	8.23E-03	45.6	
25	0	795.41	65	48	1.26	1589.51	1585	10	9.05E-03	23.4	
26	0	860.62*	59	63	1.28	1719.91	1713	14	8.22E-03	31.7	
27	0	911.65*	311	87	1.71	1821.98	1812	18	4.32E-02	9.1	
28	1	965.11	86	83	1.84	1928.90	1921	23	1.20E-02	21.1	2.69E+00
29	1	969.33*	190	64	1.63	1937.33	1921	23	2.64E-02	10.9	
30	0	1120.67	132	53	1.24	2240.10	2235	11	1.83E-02	13.7	
31	0	1239.02	33	51	1.69	2476.93	2473	8	4.58E-03	42.0	
32	0	1377.57	42	23	0.79	2754.25	2746	13	5.84E-03	28.1	
33	0	1461.32*	1861	31	1.82	2921.90	2915	17	2.58E-01	2.4	
34	0	1589.96	55	4	5.35	3179.50	3172	18	7.69E-03	16.1	
35	0	1621.24	22	16	0.76	3242.13	3234	16	3.03E-03	46.2	
36	0	1729.92	42	0	1.86	3459.81	3453	14	5.83E-03	15.4	
37	0	1764.88	94	6	2.31	3529.85	3524	12	1.31E-02	11.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 10:24:42

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:23:35
Sample ID : G245395004 Sample quantity : 139.17 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:33.47 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.755E+01	3.750E+00	4.356E-01	3.798E-02	86.216
CD-109	+	88.03	*	1.427E+00	9.644E-01	1.413E+00	1.337E-01	1.010
SN-126	+	64.28		2.443E+00	7.640E-01	6.011E-01	8.703E-02	4.065
	+	86.94		5.844E-01	4.602E-01	4.658E-01	1.933E-01	1.255
	+	87.57	*	1.406E-01	9.497E-02	1.340E-01	1.261E-02	1.049
TL-208		277.35		5.706E-01	3.528E-01	6.172E-01	8.206E-02	0.925
	+	510.84		8.753E-01	3.371E-01	1.861E-01	2.326E-02	4.704
	+	583.14	*	5.596E-01	9.255E-02	4.922E-02	5.061E-03	11.368
	+	860.37		6.556E-01	4.220E-01	3.833E-01	4.063E-02	1.710
BI-211		72.87		1.394E+00	2.869E+00	4.267E+00	3.369E-01	0.327
	+	351.07	*	3.620E+00	5.422E-01	2.937E-01	2.814E-02	12.326
BI-212	+	727.18	*	1.154E+00	5.799E-01	4.621E-01	5.244E-02	2.498
		785.46		1.885E+00	1.606E+00	2.888E+00	2.933E-01	0.653
	+	1620.62		1.844E+00	1.712E+00	1.544E+00	1.300E-01	1.195
PB-212	+	74.81		2.927E+00	5.646E-01	4.582E-01	5.656E-02	6.387
	+	77.11		2.062E+00	2.840E-01	2.637E-01	2.181E-02	7.821
	+	87.30		6.501E-01	4.440E-01	6.165E-01	8.449E-02	1.055
	+	238.63	*	1.656E+00	2.055E-01	7.791E-02	8.285E-03	21.260
	+	300.09		2.138E+00	1.050E+00	9.510E-01	1.087E-01	2.248
PO-212	+	74.81		2.927E+00	5.646E-01	4.582E-01	5.656E-02	6.387
	+	77.11		2.062E+00	2.840E-01	2.637E-01	2.181E-02	7.821
	+	87.30		6.501E-01	4.440E-01	6.165E-01	8.449E-02	1.055
		115.19		-2.188E+00	3.413E+00	5.350E+00	4.494E-01	-0.409
	+	238.63	*	1.656E+00	2.055E-01	7.791E-02	8.285E-03	21.260
	+	300.09		2.138E+00	1.050E+00	9.510E-01	1.087E-01	2.248
BI-214	+	609.31	*	1.134E+00	1.915E-01	1.025E-01	1.140E-02	11.064
	+	1120.29		1.513E+00	4.470E-01	4.872E-01	5.271E-02	3.106
	+	1764.49		1.464E+00	3.580E-01	1.760E-01	1.446E-02	8.317
PB-214	+	74.81		5.043E+00	9.293E-01	7.896E-01	8.644E-02	6.387
	+	77.11		3.536E+00	5.565E-01	4.520E-01	5.083E-02	7.822
	+	87.30		1.114E+00	7.573E-01	1.056E+00	1.282E-01	1.055
	+	241.98		2.181E+00	7.277E-01	4.690E-01	5.245E-02	4.650
	+	295.21		1.290E+00	2.717E-01	1.874E-01	2.187E-02	6.882
	+	351.92	*	1.259E+00	1.997E-01	9.948E-02	1.084E-02	12.659

Sample ID : G245395004 Acquisition date : 2-FEB-2010 08:23:35

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		5.043E+00	9.293E-01	7.896E-01	8.644E-02	6.387
	+	77.11		3.536E+00	5.565E-01	4.520E-01	5.083E-02	7.822
	+	87.30		1.114E+00	7.573E-01	1.056E+00	1.282E-01	1.055
	+	241.98		2.181E+00	7.277E-01	4.690E-01	5.245E-02	4.650
	+	295.21		1.290E+00	2.717E-01	1.874E-01	2.187E-02	6.882
	+	351.92	*	1.259E+00	1.997E-01	9.948E-02	1.084E-02	12.659
PO-216	+	74.81		2.927E+00	5.646E-01	4.582E-01	5.656E-02	6.387
	+	77.11		2.062E+00	2.840E-01	2.637E-01	2.181E-02	7.821
	+	87.30		6.501E-01	4.440E-01	6.165E-01	8.449E-02	1.055
	+	238.63	*	1.656E+00	2.055E-01	7.791E-02	8.285E-03	21.260
	+	300.09		2.138E+00	1.050E+00	9.510E-01	1.087E-01	2.248
PO-218	+	74.81		5.043E+00	9.293E-01	7.896E-01	8.644E-02	6.387
	+	77.11		3.536E+00	5.565E-01	4.520E-01	5.083E-02	7.822
	+	87.30		1.114E+00	7.573E-01	1.056E+00	1.282E-01	1.055
	+	241.98		2.181E+00	7.277E-01	4.690E-01	5.245E-02	4.650
	+	295.21		1.290E+00	2.717E-01	1.874E-01	2.187E-02	6.882
	+	351.92	*	1.259E+00	1.997E-01	9.948E-02	1.084E-02	12.659
RA-224	+	240.98	*	4.135E+00	1.360E+00	8.864E-01	8.568E-02	4.665
RA-226	+	609.31	*	1.134E+00	1.915E-01	1.025E-01	1.140E-02	11.064
	+	1120.29		1.513E+00	4.470E-01	4.872E-01	5.271E-02	3.106
	+	1764.49		1.464E+00	3.580E-01	1.760E-01	1.446E-02	8.317
AC-228	+	338.32		1.634E+00	7.418E-01	3.380E-01	1.400E-01	4.836
	+	911.07	*	1.629E+00	3.566E-01	1.903E-01	2.331E-02	8.560
	+	969.11		1.750E+00	5.628E-01	3.404E-01	8.077E-02	5.141
RA-228	+	338.32		1.634E+00	7.418E-01	3.380E-01	1.400E-01	4.836
	+	911.07	*	1.629E+00	3.566E-01	1.903E-01	2.331E-02	8.560
	+	969.11		1.750E+00	5.628E-01	3.404E-01	8.077E-02	5.141
TH-228	+	74.81		2.967E+00	5.018E-01	4.646E-01	3.781E-02	6.387
	+	77.11		2.091E+00	2.880E-01	2.674E-01	2.211E-02	7.821
	+	87.30		6.592E-01	4.453E-01	6.251E-01	5.859E-02	1.055
	+	238.63	*	1.679E+00	2.083E-01	7.899E-02	8.400E-03	21.260
	+	300.09		2.168E+00	1.653E+00	9.642E-01	5.734E-01	2.248
TH-230	+	609.31	*	1.134E+00	1.915E-01	1.025E-01	1.140E-02	11.064
	+	1120.29		1.513E+00	4.470E-01	4.872E-01	5.271E-02	3.106
	+	1764.49		1.464E+00	3.580E-01	1.760E-01	1.446E-02	8.317
TH-232	+	338.32		1.634E+00	3.395E-01	3.380E-01	3.167E-02	4.836
	+	911.07	*	1.629E+00	3.566E-01	1.903E-01	2.331E-02	8.560
	+	969.11		1.750E+00	5.628E-01	3.404E-01	8.077E-02	5.141
TH-234	+	63.29	*	6.172E+00	2.020E+00	1.572E+00	2.732E-01	3.926
	+	92.38		5.535E+00	1.273E+00	9.311E-01	1.707E-01	5.945
U-234	+	609.31	*	1.134E+00	1.915E-01	1.025E-01	1.140E-02	11.064
	+	1120.29		1.513E+00	4.470E-01	4.872E-01	5.271E-02	3.106
	+	1764.49		1.464E+00	3.580E-01	1.760E-01	1.446E-02	8.317
U-235		89.95		-5.719E-01	1.523E+00	1.688E+00	5.243E-01	-0.339
	+	93.35		6.654E+00	2.091E+00	9.491E-01	2.674E-01	7.011
		105.00		6.310E-01	1.036E+00	1.676E+00	5.000E-01	0.377
	+	143.76	*	2.886E-01	2.301E-01	3.195E-01	5.568E-02	0.903
		163.35		3.483E-01	4.514E-01	7.249E-01	1.386E-01	0.480
	+	185.71		2.810E-01	7.900E-02	6.245E-02	5.620E-03	4.500

Sample ID : G245395004 Acquisition date : 2-FEB-2010 08:23:35

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		1.625E-02	5.083E-01	7.567E-01	1.466E-01	0.021
NP-237	+	86.50	*	4.128E-01	2.916E-01	3.300E-01	7.465E-02	1.251
		95.87		-5.264E-01	9.551E-01	1.331E+00	3.294E-01	-0.396
U-238	+	63.29	*	6.172E+00	2.020E+00	1.572E+00	2.732E-01	3.926
	+	92.38		5.535E+00	9.202E-01	9.311E-01	8.511E-02	5.945
AM-243	+	74.67	*	4.745E-01	8.007E-02	7.445E-02	5.992E-03	6.373
	+	86.72		1.548E+01	1.046E+01	1.236E+01	1.149E+00	1.253
		117.66		-2.708E-01	3.514E+00	5.636E+00	4.718E-01	-0.048
		142.18		1.174E+01	1.837E+01	2.697E+01	2.276E+00	0.435
ANH-511	+	511.00	*	1.891E-01	7.108E-02	4.020E-02	3.746E-03	4.703

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.780E-01	2.728E-01	4.191E-01	4.074E-02	-0.425
NA-22		1274.54	*	-2.761E-03	4.156E-02	6.652E-02	5.510E-03	-0.042
NA-24		1368.53	*	-8.260E-02	4.156E-02	Half-Life too short		
AL-26		1129.67		-1.216E+00	1.708E+00	2.598E+00	2.200E-01	-0.468
		1808.65	*	1.230E-02	2.389E-02	4.327E-02	3.515E-03	0.284
TI-44		67.85		-4.522E-02	3.860E-02	5.753E-02	4.328E-03	-0.786
	+	78.38	*	3.806E-01	5.241E-02	7.079E-02	5.941E-03	5.376
SC-46		889.25	*	-2.521E-02	3.499E-02	5.381E-02	5.364E-03	-0.469
	+	1120.51		2.563E-01	7.380E-02	1.217E-01	1.041E-02	2.106
V-48		944.10		4.036E-01	8.358E-01	1.429E+00	1.394E-01	0.282
		983.50	*	4.232E-02	5.725E-02	1.004E-01	9.598E-03	0.421
		1312.09		-2.394E-02	7.269E-02	1.125E-01	9.385E-03	-0.213
CR-51		320.08	*	5.961E-02	3.090E-01	5.177E-01	5.190E-02	0.115
MN-52		744.21		-3.781E-02	1.866E-01	3.068E-01	3.117E-02	-0.123
		848.13		-5.073E-01	5.226E+00	8.590E+00	8.655E-01	-0.059
		935.52		2.646E-01	2.131E-01	3.826E-01	3.748E-02	0.692
		1246.25		-3.988E+00	6.343E+00	9.659E+00	7.936E-01	-0.413
		1333.61		6.712E-01	4.412E+00	7.203E+00	6.034E-01	0.093
		1434.06	*	6.199E-02	1.623E-01	2.852E-01	2.414E-02	0.217
MN-54		834.83	*	-1.697E-02	3.324E-02	5.275E-02	5.328E-03	-0.322
CO-56		846.75	*	3.402E-02	3.484E-02	6.212E-02	6.261E-03	0.548
		977.42		2.081E-01	2.630E+00	4.238E+00	4.065E-01	0.049
		1037.82		-5.687E-02	2.756E-01	4.416E-01	4.260E-02	-0.129
		1175.09		1.366E-01	2.324E+00	3.785E+00	3.045E-01	0.036
	+	1238.25		1.048E-01	8.860E-02	1.555E-01	1.316E-02	0.674
		1360.21		8.033E-02	7.905E-01	1.344E+00	1.130E-01	0.060
		1771.40		-4.809E-01	2.198E-01	1.846E-01	1.514E-02	-2.605
CO-57		122.06	*	-9.342E-03	2.308E-02	3.642E-02	3.040E-03	-0.257
		136.48		7.046E-02	1.878E-01	3.051E-01	2.762E-02	0.231
CO-58		810.76	*	-3.563E-02	3.467E-02	5.211E-02	5.291E-03	-0.684
FE-59	+	142.65		3.651E+00	2.856E+00	4.152E+00	3.507E-01	0.879
		192.34		2.341E-01	8.031E-01	1.334E+00	1.831E-01	0.176
		1099.22	*	-3.022E-02	8.990E-02	1.420E-01	1.340E-02	-0.213
		1291.56		-2.942E-02	1.128E-01	1.764E-01	1.677E-02	-0.167

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.22		-2.829E-02	4.621E-02	7.093E-02	5.703E-03	-0.399
		1332.49	*	5.922E-03	3.965E-02	6.472E-02	5.422E-03	0.091
ZN-65		1115.52	*	2.244E-02	9.167E-02	1.330E-01	1.145E-02	0.169
GE-68		1077.35	*	4.199E-01	1.265E+00	2.120E+00	1.892E-01	0.198
AS-73		53.44	*	6.203E-02	5.485E-01	9.006E-01	6.685E-02	0.069
AS-74		595.88	*	-2.656E-02	7.211E-02	1.115E-01	1.091E-02	-0.238
		634.78		1.243E-01	2.971E-01	5.156E-01	5.129E-02	0.241
SE-75		66.05		-3.517E+00	4.053E+00	5.712E+00	5.404E-01	-0.616
		96.73		-2.550E-01	7.562E-01	1.072E+00	1.480E-01	-0.238
		121.11		-4.800E-02	1.224E-01	1.932E-01	2.127E-02	-0.248
		136.00		-1.410E-02	3.568E-02	5.607E-02	4.738E-03	-0.252
		198.60		6.389E-01	1.502E+00	2.529E+00	2.545E-01	0.253
		264.65	*	2.113E-02	4.248E-02	6.464E-02	6.400E-03	0.327
		279.53		-4.327E-02	1.012E-01	1.652E-01	1.691E-02	-0.262
		303.91		-1.351E-01	1.834E+00	2.663E+00	3.295E-01	-0.051
		400.65		1.011E-01	2.230E-01	3.754E-01	4.120E-02	0.269
BR-77	+	87.88		2.135E+02	1.443E+02	2.062E+02	1.947E+01	1.036
		200.40		-8.343E+01	9.397E+01	1.526E+02	1.403E+01	-0.547
	+	239.00		1.838E+02	2.126E+01	2.488E+01	2.400E+00	7.389
		249.79		1.461E+00	3.815E+01	6.408E+01	6.246E+00	0.023
		281.68		-3.749E+01	5.690E+01	9.162E+01	9.111E+00	-0.409
		297.23		1.939E+02	5.413E+01	7.508E+01	7.387E+00	2.583
		303.76		-4.459E+00	1.090E+02	1.587E+02	1.552E+01	-0.028
		439.47		5.621E+01	8.638E+01	1.469E+02	1.291E+01	0.383
		484.57		-1.296E+02	1.449E+02	2.183E+02	1.994E+01	-0.594
		520.65	*	4.546E+00	6.831E+00	1.154E+01	1.082E+00	0.394
		574.64		-2.701E+01	1.411E+02	2.231E+02	2.161E+01	-0.121
		578.91		-5.538E+01	6.459E+01	8.146E+01	7.908E+00	-0.680
		585.48		9.837E+02	1.842E+02	3.134E+02	3.053E+01	3.139
		755.35		6.098E+01	1.035E+02	1.802E+02	1.831E+01	0.338
		817.79		3.266E+01	8.064E+01	1.385E+02	1.403E+01	0.236
SR-82		698.33		-3.884E+01	3.493E+01	4.682E+01	4.734E+00	-0.830
		776.49	*	-1.544E-01	3.656E-01	5.017E-01	5.098E-02	-0.308
		1395.20		8.701E-01	9.011E+00	1.528E+01	1.289E+00	0.057
RB-83		520.41	*	4.951E-02	6.678E-02	1.099E-01	1.031E-02	0.450
		529.64		-1.729E-02	9.812E-02	1.561E-01	1.473E-02	-0.111
		552.65		9.051E-02	1.617E-01	2.723E-01	2.606E-02	0.332
RB-84		881.50	*	-1.458E-02	6.222E-02	1.007E-01	1.006E-02	-0.145
KR-85		513.99	*	1.680E+01	7.063E+00	1.277E+01	1.192E+00	1.315
SR-85		513.99	*	8.498E-02	3.574E-02	6.461E-02	6.033E-03	1.315
RB-86		1076.63	*	4.095E-01	7.752E-01	1.319E+00	1.177E-01	0.311
Y-88		898.02		-6.375E-03	4.031E-02	6.569E-02	6.554E-03	-0.097
		1836.01	*	2.527E-02	2.784E-02	5.325E-02	4.296E-03	0.475
ZR-88		392.90	*	1.905E-02	2.841E-02	4.838E-02	4.046E-03	0.394
Y-91		1204.90	*	7.921E+00	1.860E+01	3.112E+01	2.527E+00	0.255
NB-94		702.63	*	2.347E-02	3.100E-02	5.449E-02	5.513E-03	0.431
		871.10		-1.606E-03	3.082E-02	5.076E-02	5.087E-03	-0.032
NB-95		765.79	*	2.965E-02	3.853E-02	6.060E-02	6.158E-03	0.489
NB-95M		235.69	*	1.139E-01	1.186E-01	1.845E-01	1.982E-02	0.618

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95		724.18		8.481E-02	9.467E-02	1.495E-01	1.613E-02	0.567
		756.15	*	-2.234E-03	6.342E-02	1.056E-01	1.152E-02	-0.021
NB-97		657.90	*	-1.681E-02	6.342E-02	Half-Life too short		
		1024.50		-9.516E-02	6.342E-02	Half-Life too short		
ZR-97		254.15		-9.900E-01	6.342E-02	Half-Life too short		
		355.39		1.980E-01	6.342E-02	Half-Life too short		
		507.63	*	8.706E-01	6.342E-02	Half-Life too short		
		602.52		4.241E-01	6.342E-02	Half-Life too short		
		1021.30		-1.377E+00	6.342E-02	Half-Life too short		
		1147.95		4.495E-01	6.342E-02	Half-Life too short		
		1362.66		1.626E+00	6.342E-02	Half-Life too short		
		1750.46		-5.543E-01	6.342E-02	Half-Life too short		
MO-99		140.51		-6.263E+00	1.977E+01	2.733E+01	7.553E+00	-0.229
		181.06		-8.780E-01	1.308E+01	1.828E+01	3.371E+00	-0.048
		366.43		3.960E+01	5.011E+01	8.656E+01	7.696E+00	0.458
		739.58	*	1.964E+00	7.399E+00	1.261E+01	2.032E+00	0.156
		778.00		6.330E+00	2.213E+01	3.681E+01	3.740E+00	0.172
TC-99M		140.51	*	-3.778E+08	2.213E+01	Half-Life too short		
RH-101		127.23		3.406E-03	3.262E-02	4.684E-02	3.907E-03	0.073
		198.01	*	1.182E-02	2.777E-02	4.680E-02	4.290E-03	0.252
		325.23		3.533E-02	2.031E-01	2.998E-01	2.862E-02	0.118
RH-102		418.52		7.740E-02	2.502E-01	4.173E-01	3.590E-02	0.185
		475.06	*	-2.251E-02	2.482E-02	3.722E-02	3.375E-03	-0.605
		631.29		-1.056E-02	4.993E-02	7.816E-02	7.764E-03	-0.135
		697.49		-1.096E-01	8.129E-02	1.058E-01	1.069E-02	-1.036
		766.84		2.294E-01	1.075E-01	1.854E-01	1.885E-02	1.237
		1046.59		-2.708E-02	1.029E-01	1.638E-01	1.499E-02	-0.165
		1112.84		-1.906E-01	2.219E-01	3.201E-01	2.760E-02	-0.595
RU-103		497.08	*	5.049E-03	3.633E-02	5.940E-02	8.635E-03	0.085
	+	610.33		1.197E+01	2.575E+00	2.656E+00	4.609E-01	4.506
RH-106	+	511.85		9.421E-01	3.542E-01	4.208E-01	3.923E-02	2.239
		621.84	*	6.793E-02	2.837E-01	4.622E-01	6.571E-02	0.147
		1050.47		8.326E-01	2.227E+00	3.757E+00	3.429E-01	0.222
RU-106	+	511.85		9.421E-01	3.542E-01	4.208E-01	3.923E-02	2.239
		621.84	*	6.793E-02	2.837E-01	4.622E-01	4.575E-02	0.147
		1050.47		8.326E-01	2.227E+00	3.757E+00	3.429E-01	0.222
AG-108M		433.93	*	-1.591E-02	2.801E-02	4.373E-02	3.969E-03	-0.364
		614.37		-8.409E-03	3.962E-02	5.381E-02	5.470E-03	-0.156
		722.95		2.662E-02	4.157E-02	6.446E-02	6.724E-03	0.413
AG-110M		657.75	*	-2.200E-02	3.131E-02	4.988E-02	5.110E-03	-0.441
		677.61		1.291E-02	2.786E-01	4.696E-01	4.828E-02	0.028
		706.67		-2.047E-01	1.928E-01	2.960E-01	3.057E-02	-0.692
		763.93		-7.828E-02	1.512E-01	2.048E-01	2.124E-02	-0.382
		884.67		1.221E-02	4.258E-02	7.221E-02	7.382E-03	0.169
		937.48		-7.661E-02	1.092E-01	1.686E-01	1.697E-02	-0.454
		1384.27		2.181E-02	1.340E-01	2.140E-01	1.857E-02	0.102
IN-111		171.28		-1.449E-01	6.785E-01	1.064E+00	9.366E-02	-0.136
		245.39	*	-1.980E-01	7.050E-01	1.021E+00	9.916E-02	-0.194
IN-113M		391.69	*	2.172E-02	4.033E-02	6.825E-02	5.887E-03	0.318

---- Non-Identified Nuclides ----

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SN-113		391.69	*	2.172E-02	4.033E-02	6.825E-02	5.887E-03	0.318
IN-114M		190.27	*	2.883E-02	1.684E-01	2.547E-01	2.308E-02	0.113
CD-115		260.90		-3.244E+01	7.670E+01	1.256E+02	1.235E+01	-0.258
		492.35		-1.405E+01	2.143E+01	3.284E+01	3.019E+00	-0.428
		527.90	*	2.834E+00	6.816E+00	1.133E+01	1.068E+00	0.250
SN-117M		156.02		-2.002E+00	2.021E+00	3.064E+00	2.634E-01	-0.653
		158.56	*	1.097E-02	4.750E-02	7.629E-02	6.584E-03	0.144
SB-122		563.90	*	5.958E-01	1.374E+00	2.279E+00	2.195E-01	0.261
		692.80		1.464E+01	2.692E+01	4.692E+01	4.739E+00	0.312
I-123		159.00	*	1.451E-01	2.692E+01	Half-Life too short		
		528.96		-4.015E+00	2.692E+01	Half-Life too short		
TE-123M		159.00	*	3.543E-03	2.624E-02	4.197E-02	3.646E-03	0.084
I-124		602.71	*	-3.758E-02	5.508E-01	7.624E-01	7.485E-02	-0.049
		722.78		2.003E+00	3.500E+00	5.396E+00	5.473E-01	0.371
		1325.50		-1.219E+00	2.646E+01	4.229E+01	3.538E+00	-0.029
	+	1376.25		5.338E+01	3.029E+01	4.621E+01	3.892E+00	1.155
		1509.49		5.719E+00	1.053E+01	1.879E+01	1.593E+00	0.304
		1691.02		-1.287E+00	2.207E+00	3.164E+00	2.638E-01	-0.407
SB-124		602.71		-2.656E-03	3.893E-02	5.388E-02	5.291E-03	-0.049
		645.85		-4.401E-01	4.157E-01	6.365E-01	6.642E-02	-0.691
		709.31		1.874E+00	2.405E+00	4.245E+00	4.299E-01	0.441
		713.82		-1.206E+00	1.444E+00	2.248E+00	2.959E-01	-0.537
		722.78		2.052E-01	3.585E-01	5.528E-01	5.695E-02	0.371
	+	968.20		1.775E+01	4.216E+00	6.926E+00	6.677E-01	2.563
		1045.16		-7.348E-01	2.248E+00	3.559E+00	3.262E-01	-0.206
		1325.50		-1.334E-01	2.895E+00	4.627E+00	3.871E-01	-0.029
		1368.21		-1.026E+00	1.558E+00	2.253E+00	3.007E-01	-0.456
		1436.60		-1.638E+00	3.103E+00	4.810E+00	4.071E-01	-0.341
		1691.02	*	-3.109E-02	5.333E-02	7.646E-02	6.645E-03	-0.407
SB-125		427.89	*	2.819E-02	8.130E-02	1.358E-01	1.202E-02	0.208
	+	463.38		9.647E-01	3.599E-01	4.991E-01	4.805E-02	1.933
		600.56		-5.637E-02	1.540E-01	2.386E-01	2.474E-02	-0.236
		635.90		3.644E-03	2.377E-01	4.014E-01	4.238E-02	0.009
TE-125M		109.28	*	-1.112E+00	8.702E+00	1.397E+01	1.428E+00	-0.080
I-126		388.63		4.788E-02	1.694E-01	2.828E-01	2.382E-02	0.169
		666.33	*	3.137E-02	1.518E-01	2.589E-01	2.601E-02	0.121
		753.82		3.091E-01	1.248E+00	2.123E+00	2.157E-01	0.146
SB-126		223.80		2.051E+00	3.284E+00	5.668E+00	5.376E-01	0.362
		278.60		2.724E+00	2.150E+00	3.761E+00	3.744E-01	0.724
	+	296.50		1.196E+01	2.406E+00	3.185E+00	3.136E-01	3.755
		414.70		1.294E-02	6.315E-02	1.046E-01	8.964E-03	0.124
		415.30		-9.133E-01	5.228E+00	8.450E+00	7.245E-01	-0.108
		555.20		-2.607E-01	2.944E+00	4.695E+00	4.500E-01	-0.056
		573.80		-7.910E-02	9.227E-01	1.471E+00	1.424E-01	-0.054
		593.00		2.912E-01	7.312E-01	1.211E+00	1.184E-01	0.240
		656.30		5.903E-01	2.714E+00	4.640E+00	4.649E-01	0.127
		666.33		1.307E-02	6.324E-02	1.079E-01	1.084E-02	0.121
		675.00		7.414E-01	1.711E+00	2.959E+00	2.979E-01	0.251
		695.00		1.814E-02	6.140E-02	1.052E-01	1.064E-02	0.172

---- Non-Identified Nuclides ----

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		697.00		-4.038E-01	2.642E-01	3.350E-01	3.386E-02	-1.205
		720.50	*	8.570E-03	1.368E-01	2.006E-01	2.034E-02	0.043
		856.80		-2.903E-02	3.930E-01	5.589E-01	5.621E-02	-0.052
		989.30		-4.787E-01	1.082E+00	1.698E+00	1.618E-01	-0.282
		1034.80		4.482E+00	7.377E+00	1.274E+01	1.177E+00	0.352
		1213.00		-3.415E-01	4.449E+00	7.151E+00	5.821E-01	-0.048
SB-127		61.10		2.485E+01	3.753E+01	5.661E+01	5.466E+00	0.439
		252.40		2.527E+00	3.079E+00	5.047E+00	2.129E+00	0.501
		290.80		1.118E+01	1.589E+01	2.441E+01	2.887E+00	0.458
		411.60		4.490E-01	8.742E+00	1.435E+01	2.213E+00	0.031
		444.90		-1.584E+00	6.539E+00	1.045E+01	1.292E+00	-0.152
		473.00		8.155E-01	1.114E+00	1.901E+00	2.443E-01	0.429
		543.00		-1.034E+01	1.188E+01	1.759E+01	2.581E+00	-0.588
		603.60		1.806E-01	9.563E+00	1.336E+01	1.745E+00	0.014
		685.20	*	4.376E-01	9.558E-01	1.657E+00	2.022E-01	0.264
		698.50		-1.398E+01	1.297E+01	1.727E+01	2.838E+00	-0.810
		722.20		1.361E+00	2.341E+01	3.431E+01	4.132E+00	0.040
		783.80		1.533E+00	2.657E+00	4.602E+00	6.088E-01	0.333
XE-127		57.60		-3.037E+00	4.420E+00	6.742E+00	4.818E-01	-0.450
		145.22		9.432E-01	7.079E-01	1.074E+00	9.099E-02	0.878
		172.10		-1.707E-02	1.072E-01	1.685E-01	1.485E-02	-0.101
		202.84	*	-1.664E-02	4.019E-02	6.452E-02	5.955E-03	-0.258
		374.96		-1.271E-01	1.749E-01	2.661E-01	2.320E-02	-0.478
I-131		80.18		1.154E-02	4.162E+00	5.525E+00	4.763E-01	0.002
		284.30		3.385E-01	1.152E+00	1.949E+00	2.010E-01	0.174
		364.48	*	-2.246E-02	8.365E-02	1.352E-01	1.267E-02	-0.166
		636.97		-8.378E-01	1.213E+00	1.935E+00	2.006E-01	-0.433
		722.89		3.861E+00	6.264E+00	9.695E+00	9.871E-01	0.398
TE-132		49.72		-5.778E+00	8.631E+00	1.387E+01	1.374E+00	-0.417
		111.76		1.499E+01	2.158E+01	3.559E+01	3.698E+00	0.421
		116.30		-7.381E+00	1.977E+01	3.133E+01	3.239E+00	-0.236
		228.16	*	-1.245E-01	4.462E-01	7.409E-01	1.187E-01	-0.168
BA-133		53.15		1.520E-01	2.361E+00	3.870E+00	2.883E-01	0.039
		79.62		1.096E-01	1.207E+00	1.764E+00	2.675E-01	0.062
		81.00		8.661E-02	1.103E-01	1.324E-01	2.105E-02	0.654
		276.40		5.249E-01	3.532E-01	5.974E-01	9.124E-02	0.879
		302.84		7.713E-02	1.291E-01	1.970E-01	2.773E-02	0.392
		356.01	*	2.212E-02	4.347E-02	6.536E-02	8.830E-03	0.339
		383.85		-4.638E-02	2.523E-01	4.092E-01	5.132E-02	-0.113
I-133	+	510.53		6.982E-01	2.523E-01	Half-Life too short		
		529.87	*	-2.970E-04	2.523E-01	Half-Life too short		
		706.58		-1.436E-01	2.523E-01	Half-Life too short		
		856.28		-8.589E-02	2.523E-01	Half-Life too short		
		875.33		-8.085E-03	2.523E-01	Half-Life too short		
		1236.41		2.075E-02	2.523E-01	Half-Life too short		
		1298.22		2.271E-02	2.523E-01	Half-Life too short		
CS-134		475.35		-1.571E+00	1.624E+00	2.422E+00	2.197E-01	-0.649
		563.23		2.613E-01	3.168E-01	5.405E-01	5.244E-02	0.483
		569.32		9.984E-02	1.822E-01	3.043E-01	2.972E-02	0.328

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		604.70		2.196E-02	3.340E-02	4.985E-02	4.908E-03	0.441
	+	795.84	*	1.109E-01	5.302E-02	8.425E-02	8.597E-03	1.316
		801.93		-2.636E-01	4.009E-01	5.932E-01	6.042E-02	-0.444
		1038.57		1.032E+00	3.409E+00	5.737E+00	5.285E-01	0.180
		1167.94		1.723E+00	2.577E+00	4.399E+00	3.560E-01	0.392
		1365.15		2.142E-01	1.050E+00	1.805E+00	1.591E-01	0.119
CS-135		268.24	*	1.494E-01	1.566E-01	2.434E-01	2.697E-02	0.614
I-135		288.45		-1.385E+08	1.566E-01	Half-Life too short		
		417.63		-2.321E+08	1.566E-01	Half-Life too short		
		546.56		3.835E+08	1.566E-01	Half-Life too short		
		836.80		-3.264E+08	1.566E-01	Half-Life too short		
		1038.76		2.441E+08	1.566E-01	Half-Life too short		
		1124.00		1.885E+09	1.566E-01	Half-Life too short		
		1131.51		1.140E+08	1.566E-01	Half-Life too short		
		1260.41	*	-3.682E+07	1.566E-01	Half-Life too short		
		1457.56		8.765E+09	1.566E-01	Half-Life too short		
		1678.03		2.837E+08	1.566E-01	Half-Life too short		
		1706.46		-4.928E+07	1.566E-01	Half-Life too short		
		1791.20		2.485E+08	1.566E-01	Half-Life too short		
CS-136		66.91		-3.771E-01	6.230E-01	8.878E-01	1.316E-01	-0.425
	+	86.29		1.716E+00	1.171E+00	1.610E+00	2.139E-01	1.066
		153.22		5.085E-01	5.709E-01	9.404E-01	9.012E-02	0.541
		163.89		3.737E-01	9.591E-01	1.530E+00	1.488E-01	0.244
		176.55		1.051E-01	3.227E-01	5.182E-01	4.849E-02	0.203
		273.65		-4.579E-01	4.272E-01	5.780E-01	6.023E-02	-0.792
		340.57		2.476E-01	1.196E-01	1.955E-01	1.871E-02	1.266
		818.51		2.246E-02	6.021E-02	1.032E-01	1.045E-02	0.218
		1048.07	*	2.159E-03	9.466E-02	1.550E-01	1.471E-02	0.014
		1235.34		-2.321E-01	6.553E-01	8.763E-01	1.011E-01	-0.265
BA-137M		661.65	*	-1.662E-02	3.239E-02	5.245E-02	5.264E-03	-0.317
CS-137		661.65	*	-1.757E-02	3.424E-02	5.545E-02	5.572E-03	-0.317
CE-139		165.85	*	-1.503E-02	2.836E-02	4.389E-02	3.832E-03	-0.342
BA-140		162.64		3.839E-01	6.675E-01	1.073E+00	9.853E-02	0.358
		304.84		-1.753E-01	1.071E+00	1.541E+00	4.378E-01	-0.114
		423.70		-1.111E+00	1.605E+00	2.429E+00	7.875E-01	-0.457
		537.32	*	-5.482E-02	2.223E-01	3.501E-01	1.168E-01	-0.157
LA-140	+	328.77		6.945E-01	4.508E-01	4.630E-01	4.604E-02	1.500
		432.53		5.679E-01	1.588E+00	2.657E+00	2.429E-01	0.214
		487.03		3.059E-02	1.119E-01	1.850E-01	1.787E-02	0.165
		751.79		-6.625E-01	1.478E+00	2.381E+00	2.608E-01	-0.278
		815.85		1.649E-02	2.627E-01	4.389E-01	4.822E-02	0.038
		867.82		-6.940E-01	1.271E+00	1.784E+00	1.860E-01	-0.389
		919.63		-3.922E-01	2.395E+00	3.654E+00	4.266E-01	-0.107
		925.24		4.146E-01	9.560E-01	1.635E+00	1.687E-01	0.254
		1596.49	*	3.014E-02	5.795E-02	9.440E-02	7.969E-03	0.319
CE-141		145.44	*	8.831E-02	6.291E-02	9.557E-02	8.251E-03	0.924
CE-143		57.37		-3.997E-04	6.291E-02	Half-Life too short		
		231.56		-2.070E-04	6.291E-02	Half-Life too short		
		293.26	*	2.172E-04	6.291E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	350.59		1.515E-02	6.291E-02	Half-Life too short		
		490.36		-1.766E-03	6.291E-02	Half-Life too short		
		664.57		4.567E-04	6.291E-02	Half-Life too short		
		721.93		8.224E-05	6.291E-02	Half-Life too short		
CE-144		80.11		-5.043E-02	2.129E+00	2.822E+00	2.417E-01	-0.018
		133.54	*	-4.063E-02	1.845E-01	2.925E-01	4.513E-02	-0.139
PM-144		476.78		-5.184E-02	5.930E-02	8.938E-02	8.803E-03	-0.580
		618.01		-1.383E-02	2.944E-02	4.511E-02	4.552E-03	-0.307
		696.49	*	-6.036E-02	3.666E-02	4.598E-02	4.649E-03	-1.313
		778.57		5.763E-02	2.019E+00	3.373E+00	3.427E-01	0.017
PR-144		696.49	*	-4.087E+00	2.483E+00	3.114E+00	3.147E-01	-1.313
		1489.15		7.099E+00	8.939E+00	1.666E+01	1.412E+00	0.426
PM-146		453.90	*	1.776E-02	3.856E-02	6.470E-02	7.086E-03	0.275
		633.02		6.784E-01	1.277E+00	2.089E+00	7.875E-01	0.325
		735.90		-8.271E-02	1.402E-01	2.134E-01	6.211E-02	-0.388
		747.13		1.149E-02	8.263E-02	1.395E-01	2.097E-02	0.082
ND-147		91.11		1.296E+00	3.705E-01	4.760E-01	4.709E-02	2.723
		319.41		-1.420E+00	2.681E+00	4.304E+00	4.141E-01	-0.330
		439.89		8.230E-01	4.816E+00	7.942E+00	6.981E-01	0.104
		531.02	*	-9.891E-02	4.937E-01	7.836E-01	1.210E-01	-0.126
PM-149		285.90	*	-4.870E+01	5.495E+01	8.637E+01	1.407E+01	-0.564
EU-152		121.78		-3.438E-02	6.691E-02	1.050E-01	1.017E-02	-0.327
		244.69		-6.040E-02	3.049E-01	4.448E-01	4.315E-02	-0.136
		344.27	*	-7.869E-02	8.412E-02	1.304E-01	1.272E-02	-0.603
		443.98		1.866E-01	8.087E-01	1.340E+00	1.182E-01	0.139
		778.89		2.187E-02	2.334E-01	3.918E-01	3.980E-02	0.056
		867.32		-2.821E-01	8.521E-01	1.170E+00	1.173E-01	-0.241
	+	964.01		9.146E-01	3.964E-01	5.396E-01	5.213E-02	1.695
		1085.78		-1.391E-02	4.029E-01	6.548E-01	5.798E-02	-0.021
		1112.02		-2.470E-01	2.984E-01	4.465E-01	3.853E-02	-0.553
		1407.95		6.410E-03	1.516E-01	2.552E-01	2.156E-02	0.025
GD-153		69.67		8.540E-01	1.438E+00	2.154E+00	1.648E-01	0.396
	+	83.37		1.487E+01	1.379E+01	2.130E+01	1.898E+00	0.698
		97.43	*	4.672E-02	7.830E-02	1.162E-01	1.030E-02	0.402
		103.18		-8.688E-02	9.832E-02	1.532E-01	1.325E-02	-0.567
EU-154		123.07		-5.248E-02	4.824E-02	7.332E-02	8.177E-03	-0.716
		247.94		-1.867E-01	3.158E-01	4.945E-01	6.098E-02	-0.378
		591.81		1.321E-02	5.414E-01	8.733E-01	1.095E-01	0.015
		723.30		1.460E-01	1.749E-01	2.756E-01	3.011E-02	0.530
		756.87		3.252E-01	6.952E-01	1.200E+00	1.575E-01	0.271
		873.19		1.872E-01	2.801E-01	4.873E-01	6.463E-02	0.384
		996.32		-2.530E-01	3.582E-01	5.454E-01	9.926E-02	-0.464
		1004.76		-3.424E-01	2.181E-01	3.003E-01	3.680E-02	-1.140
		1274.45	*	7.564E-04	1.158E-01	1.867E-01	2.063E-02	0.004
EU-155		48.70		-6.102E-01	1.372E+00	2.229E+00	1.784E-01	-0.274
		60.01		4.815E+00	3.929E+00	6.069E+00	4.306E-01	0.793
	+	86.54		1.692E-01	1.143E-01	1.609E-01	1.506E-02	1.052
		105.31	*	6.428E-02	1.045E-01	1.715E-01	1.491E-02	0.375
TB-160	+	86.79		4.468E-01	3.018E-01	4.297E-01	4.001E-02	1.040

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		1.122E-02	4.592E-01	7.784E-01	7.124E-02	0.014
		215.65		1.246E+00	6.904E-01	1.198E+00	1.125E-01	1.040
		298.57		1.970E-01	1.429E-01	1.762E-01	1.732E-02	1.118
		879.36	*	4.720E-02	1.228E-01	2.098E-01	2.098E-02	0.225
		962.29		6.130E-02	5.442E-01	7.849E-01	7.590E-02	0.078
	+	966.15		6.206E-01	2.689E-01	4.110E-01	3.967E-02	1.510
		1177.93		1.836E-01	3.901E-01	6.545E-01	5.271E-02	0.281
		1271.85		6.879E-01	6.193E-01	1.109E+00	9.174E-02	0.620
HO-166M		80.57		-3.995E-02	3.213E-01	3.657E-01	3.150E-02	-0.109
	+	184.41		2.108E-01	5.925E-02	6.520E-02	5.856E-03	3.233
		280.46		-8.464E-02	7.948E-02	1.250E-01	1.244E-02	-0.677
		410.95		1.573E-01	2.226E-01	3.793E-01	3.237E-02	0.415
		711.68	*	2.300E-02	5.388E-02	9.302E-02	9.422E-03	0.247
		752.31		-2.706E-01	2.568E-01	3.911E-01	3.974E-02	-0.692
		810.29		-5.215E-02	5.263E-02	7.939E-02	8.048E-03	-0.657
TM-171		51.35		-2.639E+00	1.862E+01	3.059E+01	2.337E+00	-0.086
		52.39		-8.545E-02	1.030E+01	1.684E+01	1.267E+00	-0.005
		59.40		2.082E+01	2.077E+01	3.186E+01	2.254E+00	0.654
		66.72	*	-7.596E+00	2.382E+01	3.451E+01	2.571E+00	-0.220
LU-176	+	88.36		3.334E-01	2.252E-01	3.265E-01	3.078E-02	1.021
		201.83		-1.419E-02	2.382E-02	3.923E-02	3.615E-03	-0.362
		306.84	*	-1.202E-02	2.238E-02	3.308E-02	3.227E-03	-0.363
		401.10		4.051E-01	5.986E+00	9.849E+00	8.315E-01	0.041
LU-177		112.95		1.606E+00	1.364E+00	2.283E+00	1.924E-01	0.704
	+	208.36	*	3.064E+00	1.439E+00	1.639E+00	1.524E-01	1.870
LU-177M		52.97		7.538E-02	1.061E+00	1.739E+00	1.299E-01	0.043
		54.07		5.317E-01	5.729E-01	9.649E-01	7.111E-02	0.551
		61.30		1.121E+00	1.226E+00	1.867E+00	1.336E-01	0.600
		121.62		-1.454E-01	3.393E-01	5.348E-01	4.460E-02	-0.272
		147.16		5.273E-01	6.614E-01	9.785E-01	8.310E-02	0.539
		171.86		-4.846E-02	4.408E-01	6.947E-01	6.119E-02	-0.070
		218.09		-6.440E-01	7.703E-01	1.251E+00	1.178E-01	-0.515
	+	268.79		2.579E+00	1.186E+00	1.329E+00	1.315E-01	1.940
		319.02		3.890E-02	2.240E-01	3.749E-01	3.608E-02	0.104
		367.43		2.146E-01	7.683E-01	1.287E+00	1.141E-01	0.167
		413.65	*	-3.570E-02	1.604E-01	2.586E-01	2.214E-02	-0.138
HF-181		56.28		-2.068E-01	6.430E-01	1.047E+00	7.554E-02	-0.198
		57.53		-2.858E-01	3.721E-01	5.655E-01	4.043E-02	-0.505
		65.20		6.570E-01	8.025E-01	1.217E+00	8.953E-02	0.540
		133.02		-2.446E-02	6.567E-02	9.153E-02	7.659E-03	-0.267
		136.25		8.617E-02	4.014E-01	6.481E-01	5.437E-02	0.133
		345.85		-4.889E-02	1.736E-01	2.598E-01	2.404E-02	-0.188
		482.03	*	2.815E-02	3.657E-02	6.252E-02	5.700E-03	0.450
W-181		56.28		-8.211E-02	2.551E-01	4.155E-01	2.997E-02	-0.198
		57.53		-1.138E-01	1.477E-01	2.245E-01	1.605E-02	-0.507
		65.20	*	2.588E-01	3.161E-01	4.793E-01	3.527E-02	0.540
TA-182		67.75		-1.440E-01	9.948E-02	1.364E-01	1.025E-02	-1.056
		100.10		-7.814E-03	1.593E-01	2.573E-01	2.253E-02	-0.030
		152.43		1.164E-01	3.072E-01	4.970E-01	4.251E-02	0.234

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		222.10		2.683E-01	3.042E-01	5.293E-01	5.010E-02	0.507
		1001.68		2.679E+00	1.977E+00	3.590E+00	3.394E-01	0.746
	+	1121.28		7.099E-01	2.044E-01	3.390E-01	2.897E-02	2.094
		1189.05		-2.789E-01	3.047E-01	4.522E-01	3.654E-02	-0.617
		1221.42	*	-2.751E-02	1.968E-01	3.145E-01	2.566E-02	-0.087
		1230.97		4.180E-01	4.843E-01	8.319E-01	6.807E-02	0.502
RE-183		57.98		-4.842E-02	1.568E-01	2.276E-01	1.622E-02	-0.213
		59.32		8.420E-02	8.439E-02	1.294E-01	9.162E-03	0.651
		67.20		-1.240E-01	1.677E-01	2.381E-01	1.781E-02	-0.521
		162.32	*	5.476E-02	1.021E-01	1.658E-01	1.439E-02	0.330
	+	208.81		3.100E+00	1.456E+00	1.666E+00	1.550E-01	1.861
		291.72		-3.654E-01	9.265E-01	1.317E+00	1.302E-01	-0.277
RE-184		57.98		-1.797E-01	5.820E-01	8.448E-01	6.022E-02	-0.213
		59.32		3.123E-01	3.130E-01	4.801E-01	3.398E-02	0.651
		67.20		-4.603E-01	6.224E-01	8.835E-01	6.610E-02	-0.521
		161.27		-3.237E-01	3.409E-01	5.170E-01	4.480E-02	-0.626
		216.55		1.371E-01	2.407E-01	4.145E-01	3.897E-02	0.331
		252.85	*	5.560E-02	1.932E-01	3.283E-01	3.208E-02	0.169
		318.01		-4.165E-02	3.986E-01	6.569E-01	6.330E-02	-0.063
		792.07		4.170E-01	8.641E-01	1.326E+00	1.346E-01	0.315
		903.28		-2.067E-01	1.099E+00	1.536E+00	1.524E-01	-0.135
		920.93		-3.652E-02	4.089E-01	6.686E-01	6.590E-02	-0.055
OS-185		59.72		2.326E-01	2.276E-01	3.494E-01	2.475E-02	0.666
		61.14		9.288E-02	1.329E-01	2.009E-01	1.436E-02	0.462
		69.30		9.651E-02	2.542E-01	3.778E-01	2.880E-02	0.255
		592.07		6.690E-01	2.162E+00	3.570E+00	3.488E-01	0.187
		646.12	*	-3.168E-02	3.488E-02	5.420E-02	5.413E-03	-0.585
		717.42		1.854E-01	7.611E-01	1.298E+00	1.316E-01	0.143
		874.81		-1.010E-01	5.426E-01	8.830E-01	8.840E-02	-0.114
		880.27		1.970E-01	6.860E-01	1.163E+00	1.162E-01	0.169
RE-188		155.03	*	5.055E-02	1.568E-01	2.530E-01	2.172E-02	0.200
		477.96		-1.074E+00	2.593E+00	4.067E+00	3.696E-01	-0.264
		633.10		1.060E+00	2.514E+00	4.152E+00	4.127E-01	0.255
W-188	+	63.58		2.450E+02	7.022E+01	8.294E+01	6.028E+00	2.954
		227.08		-1.269E+01	1.104E+01	1.754E+01	1.670E+00	-0.724
		290.67	*	5.424E+00	6.854E+00	1.059E+01	1.047E+00	0.512
IR-192	+	295.96		9.717E-01	1.957E-01	2.645E-01	2.619E-02	3.674
		308.46		1.693E-02	7.821E-02	1.315E-01	1.285E-02	0.129
		316.51	*	8.731E-03	3.044E-02	5.125E-02	4.956E-03	0.170
		468.07		1.989E-02	6.454E-02	9.455E-02	9.084E-03	0.210
		604.41		8.957E-02	4.643E-01	6.608E-01	9.150E-02	0.136
		612.46		1.991E+00	7.725E-01	1.295E+00	1.424E-01	1.537
AU-195		65.12		1.760E-01	1.485E-01	2.278E-01	1.675E-02	0.772
		66.83		-4.534E-02	7.945E-02	1.138E-01	8.483E-03	-0.399
	+	75.70		1.528E+00	2.579E-01	3.901E-01	3.175E-02	3.917
		98.88	*	1.856E-01	2.022E-01	3.360E-01	2.959E-02	0.552
	+	129.76		2.738E+00	2.727E+00	4.399E+00	3.674E-01	0.622
TL-200		367.94	*	8.416E-05	2.727E+00	Half-Life too short		
		579.30		-1.207E-03	2.727E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		828.27		-2.797E-04	2.727E+00	Half-Life too short		
		1205.75		8.721E-04	2.727E+00	Half-Life too short		
TL-201		68.90		-3.297E-01	2.922E+00	4.543E+00	3.451E-01	-0.073
		70.82		4.434E-01	1.786E+00	2.638E+00	2.041E-01	0.168
		80.30		-7.521E-01	4.443E+00	5.042E+00	4.329E-01	-0.149
		135.34		-4.160E+00	1.733E+01	2.743E+01	2.300E+00	-0.152
		167.43	*	8.905E-01	4.880E+00	7.804E+00	6.828E-01	0.114
TL-202		68.90		-3.683E-02	3.264E-01	5.075E-01	3.854E-02	-0.073
		70.82		4.939E-02	1.989E-01	2.939E-01	2.273E-02	0.168
		80.30		-8.381E-02	4.951E-01	5.618E-01	4.824E-02	-0.149
		439.56	*	3.491E-02	5.619E-02	9.541E-02	8.382E-03	0.366
HG-203		70.83		2.334E-01	9.096E-01	1.344E+00	1.755E-01	0.174
		72.87		2.722E-01	5.607E-01	8.328E-01	1.061E-01	0.327
		82.60		5.270E-01	1.034E+00	1.531E+00	2.125E-01	0.344
		279.20	*	1.354E-02	3.742E-02	6.341E-02	6.449E-03	0.214
BI-207		72.80		1.519E-01	1.620E-01	2.447E-01	1.931E-02	0.621
	+	74.97		8.516E-01	1.437E-01	1.946E-01	1.571E-02	4.377
	+	84.90		1.930E-01	1.789E-01	2.786E-01	2.532E-02	0.693
		569.67		2.516E-02	2.820E-02	4.818E-02	4.655E-03	0.522
		1063.62	*	4.633E-02	4.846E-02	8.565E-02	7.734E-03	0.541
		1770.23		-1.621E-01	3.093E-01	3.343E-01	2.742E-02	-0.485
TL-207		81.07		1.854E-01	2.420E-01	2.917E-01	2.528E-02	0.636
	+	83.78		1.273E-01	1.180E-01	1.825E-01	1.635E-02	0.697
		94.90		6.287E-01	2.352E-01	3.699E-01	3.327E-02	1.700
		122.32		-1.077E+00	1.624E+00	2.532E+00	2.276E-01	-0.425
	+	144.24		9.354E-01	7.329E-01	1.074E+00	1.020E-01	0.871
		154.21		3.677E-01	3.658E-01	6.048E-01	5.709E-02	0.608
	+	269.46		6.071E-01	2.794E-01	3.210E-01	3.228E-02	1.891
		323.87	*	-2.912E-03	6.151E-01	8.948E-01	1.627E-01	-0.003
	+	338.28		6.825E+00	1.540E+00	2.293E+00	2.946E-01	2.976
		445.03		-6.253E-01	1.903E+00	3.020E+00	3.696E-01	-0.207
PO-209		260.50		-5.097E+00	8.423E+00	1.365E+01	1.343E+00	-0.373
		262.80		1.088E+01	2.400E+01	3.974E+01	3.915E+00	0.274
		896.60	*	2.232E+00	7.147E+00	1.210E+01	1.204E+00	0.184
BI-210		46.50	*	-4.235E-01	1.925E+00	3.140E+00	2.912E-01	-0.135
PB-210		46.50	*	-4.235E-01	1.925E+00	3.140E+00	2.912E-01	-0.135
PO-210		46.50	*	-4.235E-01	1.925E+00	3.140E+00	2.634E-01	-0.135
PB-211		404.84	*	3.106E-01	8.413E-01	1.373E+00	8.599E-01	0.226
		427.08		8.199E-01	1.895E+00	3.070E+00	1.908E+00	0.267
		831.96		1.473E-01	1.043E+00	1.744E+00	1.097E+00	0.084
PO-215		81.07		1.854E-01	2.420E-01	2.917E-01	2.528E-02	0.636
	+	83.78		1.273E-01	1.180E-01	1.825E-01	1.635E-02	0.697
		94.90		6.287E-01	2.352E-01	3.699E-01	3.327E-02	1.700
		122.32		-1.077E+00	1.624E+00	2.532E+00	2.276E-01	-0.425
	+	144.24		9.354E-01	7.329E-01	1.074E+00	1.020E-01	0.871
		154.21		3.677E-01	3.658E-01	6.048E-01	5.709E-02	0.608
	+	269.46		6.071E-01	2.794E-01	3.210E-01	3.228E-02	1.891
		323.87	*	-2.912E-03	6.151E-01	8.948E-01	1.627E-01	-0.003
	+	338.28		6.825E+00	1.540E+00	2.293E+00	2.946E-01	2.976

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-6.253E-01	1.903E+00	3.020E+00	3.696E-01	-0.207
RN-219	+	271.23		7.789E-01	3.610E-01	4.004E-01	4.569E-02	1.946
		401.81	*	1.582E-01	3.707E-01	6.222E-01	9.288E-02	0.254
RN-220		549.76	*	4.575E+00	2.300E+01	3.761E+01	3.593E+00	0.122
RA-223		81.07		1.854E-01	2.420E-01	2.917E-01	2.528E-02	0.636
	+	83.78		1.273E-01	1.180E-01	1.825E-01	1.635E-02	0.697
		94.90		6.287E-01	2.352E-01	3.699E-01	3.327E-02	1.700
		122.32		-1.077E+00	1.624E+00	2.532E+00	2.276E-01	-0.425
	+	144.24		9.354E-01	7.329E-01	1.074E+00	1.020E-01	0.871
		154.21		3.677E-01	3.658E-01	6.048E-01	5.709E-02	0.608
	+	269.46		6.071E-01	2.794E-01	3.210E-01	3.228E-02	1.891
		323.87	*	-2.912E-03	6.151E-01	8.948E-01	1.627E-01	-0.003
	+	338.28		6.825E+00	1.540E+00	2.293E+00	2.946E-01	2.976
		445.03		-6.253E-01	1.903E+00	3.020E+00	3.696E-01	-0.207
AC-227		79.80		-1.109E-01	1.650E+00	2.182E+00	4.686E-01	-0.051
		236.00		3.677E-01	2.397E-01	3.770E-01	4.888E-02	0.975
		256.20	*	-8.085E-02	3.168E-01	5.232E-01	8.392E-02	-0.155
		286.10		-7.913E-01	1.339E+00	2.155E+00	3.035E-01	-0.367
	+	299.80		3.962E+00	2.023E+00	2.379E+00	4.309E-01	1.665
		304.40		5.104E-01	1.608E+00	2.407E+00	4.575E-01	0.212
		334.20		1.391E+00	2.590E+00	3.344E+00	6.615E-01	0.416
TH-227		79.80		-1.109E-01	1.650E+00	2.182E+00	4.746E-01	-0.051
	+	94.00		2.139E+01	5.563E+00	4.213E+00	9.247E-01	5.077
		236.00		3.677E-01	2.390E-01	3.770E-01	4.475E-02	0.975
		256.20	*	-8.085E-02	3.168E-01	5.232E-01	9.760E-02	-0.155
		286.10		-7.913E-01	1.554E+00	2.155E+00	2.165E+00	-0.367
	+	299.80		3.962E+00	2.023E+00	2.379E+00	4.309E-01	1.665
		304.40		5.104E-01	1.608E+00	2.407E+00	4.575E-01	0.212
		334.20		1.391E+00	2.590E+00	3.344E+00	6.615E-01	0.416
TH-229	+	85.43		1.906E-01	1.766E-01	2.783E-01	2.547E-02	0.685
	+	88.47		1.919E-01	1.297E-01	1.883E-01	1.774E-02	1.019
		100.00		1.456E-02	1.674E-01	2.718E-01	2.381E-02	0.054
		193.63	*	-1.129E-01	4.261E-01	7.142E-01	6.504E-02	-0.158
		210.97		1.194E+00	7.630E-01	1.219E+00	1.138E-01	0.979
PA-231		283.67	*	7.803E-01	1.318E+00	2.254E+00	3.598E-01	0.346
	+	301.29		1.585E+00	7.847E-01	9.424E-01	1.235E-01	1.682
TH-231		81.07		1.854E-01	2.420E-01	2.917E-01	2.528E-02	0.636
	+	83.78		1.273E-01	1.180E-01	1.825E-01	1.635E-02	0.697
		94.90		6.287E-01	2.352E-01	3.699E-01	3.327E-02	1.700
		122.32		-1.077E+00	1.624E+00	2.532E+00	2.276E-01	-0.425
	+	144.24		9.354E-01	7.329E-01	1.074E+00	1.020E-01	0.871
		154.21		3.677E-01	3.658E-01	6.048E-01	5.709E-02	0.608
	+	269.46		6.071E-01	2.794E-01	3.210E-01	3.228E-02	1.891
		323.87	*	-2.912E-03	6.151E-01	8.948E-01	1.627E-01	-0.003
	+	338.28		6.825E+00	1.540E+00	2.293E+00	2.946E-01	2.976
		445.03		-6.253E-01	1.903E+00	3.020E+00	3.696E-01	-0.207
U-231	+	84.21		4.447E+00	4.122E+00	6.409E+00	5.774E-01	0.694
	+	92.29		1.714E+01	2.849E+00	3.682E+00	3.368E-01	4.654
		95.87	*	-4.839E-01	8.709E-01	1.223E+00	1.094E-01	-0.396

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.537E+00	1.606E+00	2.491E+00	2.123E-01	-0.617
PA-233	+	75.28		2.485E+01	5.249E+00	5.816E+00	8.761E-01	4.273
	+	86.59		2.752E+00	1.986E+00	2.625E+00	7.097E-01	1.049
	+	300.12		1.105E+00	5.548E-01	6.655E-01	1.038E-01	1.660
		311.98	*	-1.063E-02	5.597E-02	9.188E-02	9.116E-03	-0.116
		340.50		1.537E+00	7.223E-01	1.053E+00	2.538E-01	1.460
		398.62		1.863E-01	1.818E+00	2.999E+00	7.966E-01	0.062
		415.76		-4.099E-01	1.504E+00	2.411E+00	5.192E-01	-0.170
PA-234	+	63.00		7.195E+00	2.261E+00	2.503E+00	3.699E-01	2.874
		94.67		8.066E-01	1.997E-01	2.949E-01	3.737E-02	2.735
		98.44		9.508E-02	9.799E-02	1.384E-01	7.728E-02	0.687
		99.86		1.462E-01	4.243E-01	6.952E-01	6.094E-02	0.210
		111.00		-9.940E-02	1.779E-01	2.801E-01	3.354E-02	-0.355
		131.20		2.436E-03	1.069E-01	1.526E-01	1.276E-02	0.016
		152.70		1.790E-01	3.005E-01	4.883E-01	8.308E-02	0.367
	+	186.00		7.588E+00	3.119E+00	2.587E+00	8.102E-01	2.933
		226.40		-2.842E-01	3.458E-01	5.573E-01	7.692E-02	-0.510
		227.20		-4.001E-01	3.769E-01	6.016E-01	5.729E-02	-0.665
		248.90		-3.559E-02	6.871E-01	1.149E+00	2.628E-01	-0.031
		293.70		4.082E+00	1.090E+00	1.479E+00	2.656E-01	2.759
		369.80		-6.573E-02	7.579E-01	1.240E+00	2.711E-01	-0.053
		568.70		3.515E-01	9.179E-01	1.516E+00	1.464E-01	0.232
		569.50		1.608E-01	2.541E-01	4.267E-01	4.122E-02	0.377
		574.00		-4.278E-02	1.428E+00	2.286E+00	2.214E-01	-0.019
		699.00		-7.361E-01	7.752E-01	1.045E+00	2.070E-01	-0.704
		706.10		-6.234E-01	9.963E-01	1.527E+00	6.858E-01	-0.408
		733.00		3.041E-01	3.751E-01	5.851E-01	1.336E-01	0.520
		742.81		1.197E-01	1.212E+00	2.037E+00	1.374E+00	0.059
	+	796.30		2.157E+00	1.170E+00	1.642E+00	4.529E-01	1.314
		805.60		3.907E-01	9.134E-01	1.557E+00	4.844E-01	0.251
		819.60		-5.700E-02	1.088E+00	1.798E+00	6.905E-01	-0.032
		826.30		3.031E-01	7.050E-01	1.193E+00	5.374E-01	0.254
		831.60		-1.376E-02	5.417E-01	8.970E-01	2.719E-01	-0.015
		876.40		1.923E-02	7.796E-01	1.292E+00	1.330E+00	0.015
		880.51		1.483E-02	2.532E-01	4.208E-01	4.206E-02	0.035
		883.24		1.254E-02	2.527E-01	4.194E-01	2.827E-01	0.030
		899.00		-5.586E-02	8.097E-01	1.329E+00	5.845E-01	-0.042
		925.00		6.260E-01	1.080E+00	1.867E+00	1.837E-01	0.335
		926.50		2.707E-02	1.571E-01	2.627E-01	6.755E-02	0.103
		946.00	*	5.914E-02	3.058E-01	5.107E-01	9.860E-02	0.116
		949.00		-1.055E-01	4.707E-01	7.606E-01	7.404E-02	-0.139
		980.50		-1.618E-01	6.473E-01	1.037E+00	9.925E-02	-0.156
		1394.10		3.449E-01	9.863E-01	1.682E+00	1.095E+00	0.205
PA-234M		766.42		1.697E+01	1.372E+01	1.804E+01	9.204E+00	0.941
		1001.03	*	6.013E+00	4.582E+00	8.274E+00	8.850E-01	0.727
NP-236		94.67		6.173E-01	1.416E-01	2.241E-01	2.019E-02	2.754
		98.44		7.190E-02	6.259E-02	1.047E-01	9.235E-03	0.687
		111.00		-7.519E-02	1.344E-01	2.118E-01	1.793E-02	-0.355
		160.31	*	-2.379E-02	7.523E-02	1.178E-01	1.020E-02	-0.202

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		9.498E-02	1.422E-01	2.344E-01	2.058E-02	0.405
		117.00	*	-3.453E-02	1.761E-01	2.811E-01	2.355E-02	-0.123
	+	209.75		2.477E+00	1.163E+00	1.328E+00	1.237E-01	1.865
		228.18		-8.280E-02	1.924E-01	3.173E-01	3.025E-02	-0.261
		277.60		2.616E-01	1.694E-01	2.986E-01	2.971E-02	0.876
		334.30		7.558E-01	1.459E+00	1.889E+00	1.781E-01	0.400
AM-241		59.54	*	1.222E-01	1.210E-01	1.855E-01	1.452E-02	0.659
CM-243		99.55		9.772E-02	1.463E-01	2.412E-01	2.117E-02	0.405
		103.76	*	6.273E-02	8.925E-02	1.471E-01	1.270E-02	0.426
		117.00		-3.552E-02	1.811E-01	2.891E-01	2.422E-02	-0.123
	+	209.75		2.441E+00	1.146E+00	1.309E+00	1.219E-01	1.865
		228.18		-8.366E-02	1.944E-01	3.206E-01	3.057E-02	-0.261
		277.60		2.637E-01	1.708E-01	3.010E-01	2.995E-02	0.876
AM-246		798.80		-7.682E-02	1.430E-01	1.931E-01	1.959E-02	-0.398
		1036.00		-1.666E-01	2.834E-01	4.370E-01	4.033E-02	-0.381
		1062.04		-2.684E-02	2.176E-01	3.512E-01	3.175E-02	-0.076
		1078.86	*	7.711E-02	1.475E-01	2.507E-01	2.234E-02	0.308
CM-247		278.00		1.098E+00	7.072E-01	1.246E+00	1.240E-01	0.881
		287.40		2.259E-01	1.072E+00	1.805E+00	1.789E-01	0.125
		402.60	*	-2.529E-03	3.332E-02	5.432E-02	4.594E-03	-0.047
CF-249		252.85		2.097E-01	7.289E-01	1.238E+00	1.210E-01	0.169
		333.44		1.597E-01	2.154E-01	2.500E-01	2.360E-02	0.639
		387.95	*	9.312E-03	3.536E-02	5.898E-02	4.977E-03	0.158
CF-251		176.60	*	4.044E-02	1.190E-01	1.913E-01	1.697E-02	0.211
		227.00		-3.909E-01	3.354E-01	5.322E-01	5.067E-02	-0.735
		285.00		-9.229E-01	1.547E+00	2.494E+00	2.475E-01	-0.370

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395004      *
* Acquisition date :  2-FEB-2010 08:23:35 Detector SN#    :                 *
* Detector ID        : GAM20                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:33.47      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395004           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.3917E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.755E+01	3.675E+00	4.371E-01	0.000E+00
CD-109	1.427E+00	9.451E-01	1.499E+00	0.000E+00
SN-126	1.406E-01	9.307E-02	1.422E-01	0.000E+00
TL-208	5.596E-01	9.070E-02	5.034E-02	0.000E+00
BI-211	3.620E+00	5.314E-01	3.034E-01	0.000E+00
BI-212	1.154E+00	5.683E-01	4.704E-01	0.000E+00
PB-212	1.656E+00	2.014E-01	8.109E-02	0.000E+00
PO-212	1.656E+00	2.014E-01	8.109E-02	0.000E+00
BI-214	1.134E+00	1.877E-01	1.047E-01	0.000E+00
PB-214	1.259E+00	1.957E-01	1.028E-01	0.000E+00
PO-214	1.259E+00	1.957E-01	1.028E-01	0.000E+00
PO-216	1.656E+00	2.014E-01	8.109E-02	0.000E+00
PO-218	1.259E+00	1.957E-01	1.028E-01	0.000E+00
RA-224	4.135E+00	1.333E+00	9.225E-01	0.000E+00
RA-226	1.134E+00	1.877E-01	1.047E-01	0.000E+00
AC-228	1.629E+00	3.495E-01	1.929E-01	0.000E+00
RA-228	1.629E+00	3.495E-01	1.929E-01	0.000E+00
TH-228	1.679E+00	2.042E-01	8.222E-02	0.000E+00
TH-230	1.134E+00	1.877E-01	1.047E-01	0.000E+00
TH-232	1.629E+00	3.495E-01	1.929E-01	0.000E+00
TH-234	6.172E+00	1.980E+00	1.678E+00	0.000E+00
U-234	1.134E+00	1.877E-01	1.047E-01	0.000E+00
U-235	2.886E-01	2.255E-01	3.358E-01	0.000E+00
NP-237	4.128E-01	2.858E-01	3.502E-01	0.000E+00
U-238	6.172E+00	1.980E+00	1.678E+00	0.000E+00
AM-243	4.745E-01	7.847E-02	7.923E-02	0.000E+00
ANH-511	1.891E-01	6.966E-02	4.122E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-1.780E-01	2.673E-01	4.303E-01	0.000E+00	NOT IDENT.
NA-22	-2.761E-03	4.073E-02	6.695E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.659E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.230E-02	2.342E-02	4.323E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.136E-02	7.527E-02	0.000E+00	FAIL ABUN
SC-46	-2.521E-02	3.429E-02	5.456E-02	0.000E+00	FAIL ABUN
V-48	4.232E-02	5.610E-02	1.016E-01	0.000E+00	NOT IDENT.
CR-51	5.961E-02	3.029E-01	5.358E-01	0.000E+00	NOT IDENT.
MN-52	6.199E-02	1.591E-01	2.863E-01	0.000E+00	NOT IDENT.
MN-54	-1.697E-02	3.257E-02	5.355E-02	0.000E+00	NOT IDENT.
CO-56	3.402E-02	3.414E-02	6.304E-02	0.000E+00	FAIL ABUN
CO-57	-9.342E-03	2.261E-02	3.840E-02	0.000E+00	NOT IDENT.
CO-58	-3.563E-02	3.398E-02	5.293E-02	0.000E+00	NOT IDENT.
FE-59	-3.022E-02	8.810E-02	1.434E-01	0.000E+00	FAIL ABUN
CO-60	5.922E-03	3.885E-02	6.508E-02	0.000E+00	NOT IDENT.
ZN-65	2.244E-02	8.984E-02	1.342E-01	0.000E+00	NOT IDENT.
GE-68	4.199E-01	1.240E+00	2.141E+00	0.000E+00	NOT IDENT.
AS-73	6.203E-02	5.375E-01	9.643E-01	0.000E+00	NOT IDENT.
AS-74	-2.656E-02	7.067E-02	1.140E-01	0.000E+00	NOT IDENT.
SE-75	2.113E-02	4.164E-02	6.715E-02	0.000E+00	NOT IDENT.
BR-77	4.546E+00	6.695E+00	1.182E+01	0.000E+00	FAIL ABUN
SR-82	-1.544E-01	3.583E-01	5.101E-01	0.000E+00	NOT IDENT.
RB-83	4.951E-02	6.544E-02	1.127E-01	0.000E+00	NOT IDENT.
RB-84	-1.458E-02	6.098E-02	1.021E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.922E+00	1.309E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.502E-02	6.624E-02	0.000E+00	NOT IDENT.
RB-86	4.095E-01	7.597E-01	1.332E+00	0.000E+00	NOT IDENT.
Y-88	2.527E-02	2.728E-02	5.318E-02	0.000E+00	NOT IDENT.
ZR-88	1.905E-02	2.785E-02	4.987E-02	0.000E+00	NOT IDENT.
Y-91	7.921E+00	1.822E+01	3.135E+01	0.000E+00	NOT IDENT.
NB-94	2.347E-02	3.038E-02	5.551E-02	0.000E+00	NOT IDENT.
NB-95	2.965E-02	3.776E-02	6.163E-02	0.000E+00	NOT IDENT.
NB-95M	1.139E-01	1.162E-01	1.920E-01	0.000E+00	NOT IDENT.
ZR-95	-2.234E-03	6.215E-02	1.074E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.473E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.815E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.964E+00	7.251E+00	1.284E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.169E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.182E-02	2.722E-02	4.889E-02	0.000E+00	NOT IDENT.
RH-102	-2.251E-02	2.432E-02	3.822E-02	0.000E+00	NOT IDENT.
RU-103	5.049E-03	3.560E-02	6.093E-02	0.000E+00	FAIL ABUN
RH-106	6.793E-02	2.781E-01	4.720E-01	0.000E+00	FAIL ABUN
RU-106	6.793E-02	2.780E-01	4.720E-01	0.000E+00	FAIL ABUN
AG-108M	-1.591E-02	2.745E-02	4.499E-02	0.000E+00	NOT IDENT.
AG-110M	-2.200E-02	3.068E-02	5.089E-02	0.000E+00	NOT IDENT.
IN-111	-1.980E-01	6.909E-01	1.063E+00	0.000E+00	NOT IDENT.
IN-113M	2.172E-02	3.952E-02	7.035E-02	0.000E+00	NOT IDENT.
SN-113	2.172E-02	3.952E-02	7.035E-02	0.000E+00	NOT IDENT.
IN-114M	2.883E-02	1.650E-01	2.662E-01	0.000E+00	NOT IDENT.
CD-115	2.834E+00	6.680E+00	1.161E+01	0.000E+00	NOT IDENT.
SN-117M	1.097E-02	4.655E-02	8.003E-02	0.000E+00	NOT IDENT.
SB-122	5.958E-01	1.347E+00	2.332E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.053E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	3.543E-03	2.572E-02	4.403E-02	0.000E+00	NOT IDENT.
I-124	-3.758E-02	5.398E-01	7.791E-01	0.000E+00	FAIL ABUN
SB-124	-3.109E-02	5.226E-02	7.649E-02	0.000E+00	FAIL ABUN
SB-125	2.819E-02	7.967E-02	1.397E-01	0.000E+00	FAIL ABUN
TE-125M	-1.112E+00	8.528E+00	1.476E+01	0.000E+00	NOT IDENT.
I-126	3.137E-02	1.487E-01	2.640E-01	0.000E+00	NOT IDENT.
SB-126	8.570E-03	1.341E-01	2.043E-01	0.000E+00	FAIL ABUN
SB-127	4.376E-01	9.367E-01	1.688E+00	0.000E+00	NOT IDENT.
XE-127	-1.664E-02	3.938E-02	6.737E-02	0.000E+00	NOT IDENT.
I-131	-2.246E-02	8.198E-02	1.395E-01	0.000E+00	NOT IDENT.
TE-132	-1.245E-01	4.372E-01	7.718E-01	0.000E+00	NOT IDENT.
BA-133	2.212E-02	4.260E-02	6.750E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.024E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.196E-02	8.561E-02	0.000E+00	FAIL ABUN
CS-135	1.494E-01	1.535E-01	2.528E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.361E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.159E-03	9.277E-02	1.566E-01	0.000E+00	FAIL ABUN
BA-137M	-1.662E-02	3.174E-02	5.350E-02	0.000E+00	NOT IDENT.
CS-137	-1.757E-02	3.355E-02	5.656E-02	0.000E+00	NOT IDENT.
CE-139	-1.503E-02	2.780E-02	4.601E-02	0.000E+00	NOT IDENT.
BA-140	-5.482E-02	2.179E-01	3.586E-01	0.000E+00	NOT IDENT.
LA-140	3.014E-02	5.679E-02	9.455E-02	0.000E+00	FAIL ABUN
CE-141	8.831E-02	6.165E-02	1.004E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.925E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.063E-02	1.808E-01	3.078E-01	0.000E+00	NOT IDENT.

PM-144	-6.036E-02	3.593E-02	4.685E-02	0.000E+00	NOT IDENT.
PR-144	-4.087E+00	2.433E+00	3.173E+00	0.000E+00	NOT IDENT.
PM-146	1.776E-02	3.779E-02	6.650E-02	0.000E+00	NOT IDENT.
ND-147	-9.891E-02	4.838E-01	8.029E-01	0.000E+00	NOT IDENT.
PM-149	-4.870E+01	5.385E+01	8.958E+01	0.000E+00	NOT IDENT.
EU-152	-7.869E-02	8.244E-02	1.348E-01	0.000E+00	FAIL ABUN
GD-153	4.672E-02	7.674E-02	1.230E-01	0.000E+00	FAIL ABUN
EU-154	7.564E-04	1.135E-01	1.879E-01	0.000E+00	NOT IDENT.
EU-155	6.428E-02	1.024E-01	1.814E-01	0.000E+00	FAIL ABUN
TB-160	4.720E-02	1.204E-01	2.128E-01	0.000E+00	FAIL ABUN
HO-166M	2.300E-02	5.280E-02	9.474E-02	0.000E+00	FAIL ABUN
TM-171	-7.596E+00	2.335E+01	3.680E+01	0.000E+00	NOT IDENT.
LU-176	-1.202E-02	2.193E-02	3.426E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.410E+00	1.710E+00	0.000E+00	FAIL ABUN
LU-177M	-3.570E-02	1.572E-01	2.663E-01	0.000E+00	FAIL ABUN
HF-181	2.815E-02	3.584E-02	6.418E-02	0.000E+00	NOT IDENT.
W-181	2.588E-01	3.098E-01	5.113E-01	0.000E+00	NOT IDENT.
TA-182	-2.751E-02	1.929E-01	3.168E-01	0.000E+00	FAIL ABUN
RE-183	5.476E-02	1.001E-01	1.739E-01	0.000E+00	FAIL ABUN
RE-184	5.560E-02	1.894E-01	3.413E-01	0.000E+00	NOT IDENT.
OS-185	-3.168E-02	3.419E-02	5.531E-02	0.000E+00	NOT IDENT.
RE-188	5.055E-02	1.537E-01	2.656E-01	0.000E+00	NOT IDENT.
W-188	5.424E+00	6.717E+00	1.098E+01	0.000E+00	FAIL ABUN
IR-192	8.731E-03	2.983E-02	5.305E-02	0.000E+00	FAIL ABUN
AU-195	1.856E-01	1.982E-01	3.557E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.696E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	8.905E-01	4.782E+00	8.179E+00	0.000E+00	NOT IDENT.
TL-202	3.491E-02	5.506E-02	9.813E-02	0.000E+00	NOT IDENT.
HG-203	1.354E-02	3.667E-02	6.580E-02	0.000E+00	NOT IDENT.
BI-207	4.633E-02	4.749E-02	8.652E-02	0.000E+00	FAIL ABUN
TL-207	-2.912E-03	6.028E-01	9.258E-01	0.000E+00	FAIL ABUN
PO-209	2.232E+00	7.004E+00	1.227E+01	0.000E+00	NOT IDENT.
BI-210	-4.235E-01	1.886E+00	3.371E+00	0.000E+00	NOT IDENT.
PB-210	-4.235E-01	1.886E+00	3.371E+00	0.000E+00	NOT IDENT.
PO-210	-4.235E-01	1.886E+00	3.371E+00	0.000E+00	NOT IDENT.
PB-211	3.106E-01	8.245E-01	1.414E+00	0.000E+00	NOT IDENT.
PO-215	-2.912E-03	6.028E-01	9.258E-01	0.000E+00	FAIL ABUN
RN-219	1.582E-01	3.633E-01	6.410E-01	0.000E+00	FAIL ABUN
RN-220	4.575E+00	2.254E+01	3.850E+01	0.000E+00	NOT IDENT.
RA-223	-2.912E-03	6.028E-01	9.258E-01	0.000E+00	FAIL ABUN
AC-227	-8.085E-02	3.104E-01	5.438E-01	0.000E+00	FAIL ABUN
TH-227	-8.085E-02	3.105E-01	5.438E-01	0.000E+00	FAIL ABUN
TH-229	-1.129E-01	4.176E-01	7.464E-01	0.000E+00	FAIL ABUN
PA-231	7.803E-01	1.291E+00	2.338E+00	0.000E+00	FAIL ABUN
TH-231	-2.912E-03	6.028E-01	9.258E-01	0.000E+00	FAIL ABUN
U-231	-4.839E-01	8.535E-01	1.296E+00	0.000E+00	FAIL ABUN
PA-233	-1.063E-02	5.485E-02	9.514E-02	0.000E+00	FAIL ABUN
PA-234	5.914E-02	2.997E-01	5.171E-01	0.000E+00	FAIL ABUN
PA-234M	6.013E+00	4.490E+00	8.368E+00	0.000E+00	NOT IDENT.
NP-236	-2.379E-02	7.372E-02	1.236E-01	0.000E+00	NOT IDENT.
NP-239	-3.453E-02	1.726E-01	2.966E-01	0.000E+00	FAIL ABUN
AM-241	1.222E-01	1.186E-01	1.983E-01	0.000E+00	NOT IDENT.
CM-243	6.273E-02	8.746E-02	1.556E-01	0.000E+00	FAIL ABUN
AM-246	7.711E-02	1.445E-01	2.532E-01	0.000E+00	NOT IDENT.
CM-247	-2.529E-03	3.266E-02	5.596E-02	0.000E+00	NOT IDENT.
CF-249	9.312E-03	3.466E-02	6.081E-02	0.000E+00	NOT IDENT.
CF-251	4.044E-02	1.167E-01	2.002E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:24:40.08

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*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395004.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:23:35.
Sample ID         : G245395004           Sample quantity  : 1.39170E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:33.47  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1861	10.67*	1.253E+00	3.755E+01	3.755E+01	9.99
CD-109	88.03	134	3.72*	6.930E+00	1.398E+00	1.427E+00	67.56
SN-126	64.28	402	9.60	4.627E+00	2.443E+00	2.443E+00	31.27
	86.94	134	8.90	6.930E+00	5.844E-01	5.844E-01	78.74
	87.57	134	37.00*	6.930E+00	1.406E-01	1.406E-01	67.56
TL-208	277.35	------	6.80	4.722E+00	------ Line Not Found		------
	510.84	210	21.60	2.992E+00	8.753E-01	8.753E-01	38.51
	583.14	471	84.20*	2.695E+00	5.596E-01	5.596E-01	16.54
	860.37	59	12.46	1.954E+00	6.556E-01	6.556E-01	64.36
BI-211	72.87	------	1.27	5.845E+00	------ Line Not Found		------
	351.07	689	12.94*	3.968E+00	3.620E+00	3.620E+00	14.98
BI-212	727.18	114	11.80*	2.251E+00	1.154E+00	1.154E+00	50.23
	785.46	------	1.97	2.111E+00	------ Line Not Found		------
	1620.62	22	2.75	1.162E+00	1.844E+00	1.844E+00	92.86
PB-212	74.81	703	10.70	6.051E+00	2.927E+00	2.927E+00	19.29
	77.11	862	18.00	6.264E+00	2.062E+00	2.062E+00	13.77
	87.30	134	8.00	6.930E+00	6.501E-01	6.501E-01	68.29
	238.63	1437	44.60*	5.248E+00	1.656E+00	1.656E+00	12.41
	300.09	120	3.41	4.456E+00	2.138E+00	2.138E+00	49.09
PO-212	74.81	703	10.70	6.051E+00	2.927E+00	2.927E+00	19.29
	77.11	862	18.00	6.264E+00	2.062E+00	2.062E+00	13.77
	87.30	134	8.00	6.930E+00	6.501E-01	6.501E-01	68.29
	115.19	------	0.60	7.430E+00	------ Line Not Found		------
	238.63	1437	44.60*	5.248E+00	1.656E+00	1.656E+00	12.41
	300.09	120	3.41	4.456E+00	2.138E+00	2.138E+00	49.09
BI-214	609.31	506	46.30*	2.602E+00	1.134E+00	1.134E+00	16.89
	1120.29	132	15.10	1.557E+00	1.513E+00	1.513E+00	29.55
	1764.49	94	15.80	1.100E+00	1.464E+00	1.464E+00	24.45
PB-214	74.81	703	6.21	6.051E+00	5.043E+00	5.043E+00	18.43
	77.11	862	10.50	6.264E+00	3.536E+00	3.536E+00	15.74
	87.30	134	4.67	6.930E+00	1.114E+00	1.114E+00	68.00
	241.98	315	7.49	5.204E+00	2.181E+00	2.181E+00	33.37

Sample ID : G245395004 Acquisition date : 2-FEB-2010 08:23:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	414	19.20	4.513E+00	1.290E+00	1.290E+00	21.07
	351.92	689	37.20*	3.968E+00	1.259E+00	1.259E+00	15.86
PO-214	74.81	703	6.21	6.051E+00	5.043E+00	5.043E+00	18.43
	77.11	862	10.50	6.264E+00	3.536E+00	3.536E+00	15.74
	87.30	134	4.67	6.930E+00	1.114E+00	1.114E+00	68.00
	241.98	315	7.49	5.204E+00	2.181E+00	2.181E+00	33.37
	295.21	414	19.20	4.513E+00	1.290E+00	1.290E+00	21.07
	351.92	689	37.20*	3.968E+00	1.259E+00	1.259E+00	15.86
PO-216	74.81	703	10.70	6.051E+00	2.927E+00	2.927E+00	19.29
	77.11	862	18.00	6.264E+00	2.062E+00	2.062E+00	13.77
	87.30	134	8.00	6.930E+00	6.501E-01	6.501E-01	68.29
	238.63	1437	44.60*	5.248E+00	1.656E+00	1.656E+00	12.41
	300.09	120	3.41	4.456E+00	2.138E+00	2.138E+00	49.09
PO-218	74.81	703	6.21	6.051E+00	5.043E+00	5.043E+00	18.43
	77.11	862	10.50	6.264E+00	3.536E+00	3.536E+00	15.74
	87.30	134	4.67	6.930E+00	1.114E+00	1.114E+00	68.00
	241.98	315	7.49	5.204E+00	2.181E+00	2.181E+00	33.37
	295.21	414	19.20	4.513E+00	1.290E+00	1.290E+00	21.07
	351.92	689	37.20*	3.968E+00	1.259E+00	1.259E+00	15.86
RA-224	240.98	315	3.95*	5.204E+00	4.135E+00	4.135E+00	32.89
RA-226	609.31	506	46.30*	2.602E+00	1.134E+00	1.134E+00	16.89
	1120.29	132	15.10	1.557E+00	1.513E+00	1.513E+00	29.55
	1764.49	94	15.80	1.100E+00	1.464E+00	1.464E+00	24.45
AC-228	338.32	282	11.40	4.087E+00	1.634E+00	1.634E+00	45.38
	911.07	311	27.70*	1.860E+00	1.629E+00	1.629E+00	21.89
	969.11	190	16.60	1.764E+00	1.750E+00	1.750E+00	32.16
RA-228	338.32	282	11.40	4.087E+00	1.634E+00	1.634E+00	45.38
	911.07	311	27.70*	1.860E+00	1.629E+00	1.629E+00	21.89
	969.11	190	16.60	1.764E+00	1.750E+00	1.750E+00	32.16
TH-228	74.81	703	10.70	6.051E+00	2.927E+00	2.967E+00	16.91
	77.11	862	18.00	6.264E+00	2.062E+00	2.091E+00	13.77
	87.30	134	8.00	6.930E+00	6.501E-01	6.592E-01	67.56
	238.63	1437	44.60*	5.248E+00	1.656E+00	1.679E+00	12.41
	300.09	120	3.41	4.456E+00	2.138E+00	2.168E+00	76.26
TH-230	609.31	506	46.30*	2.602E+00	1.134E+00	1.134E+00	16.89
	1120.29	132	15.10	1.557E+00	1.513E+00	1.513E+00	29.55
	1764.49	94	15.80	1.100E+00	1.464E+00	1.464E+00	24.45
TH-232	338.32	282	11.40	4.087E+00	1.634E+00	1.634E+00	20.77
	911.07	311	27.70*	1.860E+00	1.629E+00	1.629E+00	21.89
	969.11	190	16.60	1.764E+00	1.750E+00	1.750E+00	32.16
TH-234	63.29	402	3.80*	4.627E+00	6.172E+00	6.172E+00	32.73
	92.38	796	5.41	7.172E+00	5.535E+00	5.535E+00	23.00
U-234	609.31	506	46.30*	2.602E+00	1.134E+00	1.134E+00	16.89
	1120.29	132	15.10	1.557E+00	1.513E+00	1.513E+00	29.55
	1764.49	94	15.80	1.100E+00	1.464E+00	1.464E+00	24.45
U-235	89.95	------	2.70	7.060E+00	------ Line Not Found		------
	93.35	796	4.50	7.172E+00	6.654E+00	6.654E+00	31.42
	105.00	------	2.10	7.414E+00	------ Line Not Found		------
	143.76	79	10.50*	7.038E+00	2.886E-01	2.886E-01	79.71

Sample ID : G245395004 Acquisition date : 2-FEB-2010 08:23:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	163.35	------	4.70	6.638E+00	------	Line Not Found	------
	185.71	348	54.00	6.177E+00	2.810E-01	2.810E-01	28.11
	205.31	------	4.70	5.804E+00	------	Line Not Found	------
NP-237	86.50	134	12.60*	6.930E+00	4.128E-01	4.128E-01	70.64
	95.87	------	2.60	7.260E+00	------	Line Not Found	------
U-238	63.29	402	3.80*	4.627E+00	6.172E+00	6.172E+00	32.73
	92.38	796	5.41	7.172E+00	5.535E+00	5.535E+00	16.62
AM-243	74.67	703	66.00*	6.051E+00	4.745E-01	4.745E-01	16.87
	86.72	134	0.34	6.930E+00	1.548E+01	1.548E+01	67.56
	117.66	------	0.55	7.416E+00	------	Line Not Found	------
	142.18	------	0.13	7.067E+00	------	Line Not Found	------
ANH-511	511.00	210	100.00*	2.992E+00	1.891E-01	1.891E-01	37.60

Flag: "*" = Keyline

Sample ID : G245395004 Acquisition date : 2-FEB-2010 08:23:35

Total number of lines in spectrum 37
Number of unidentified lines 3
Number of lines tentatively identified by NID 34 91.89%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.755E+01	3.755E+01	0.375E+01	9.99	
CD-109	464.00D	1.02	1.398E+00	1.427E+00	0.964E+00	67.56	
SN-126	1.00E+05Y	1.00	1.406E-01	1.406E-01	0.950E-01	67.56	
TL-208	1.41E+10Y	1.00	5.596E-01	5.596E-01	0.925E-01	16.54	
BI-211	7.04E+08Y	1.00	3.620E+00	3.620E+00	0.542E+00	14.98	
BI-212	1.41E+10Y	1.00	1.154E+00	1.154E+00	0.580E+00	50.23	
PB-212	1.41E+10Y	1.00	1.656E+00	1.656E+00	0.205E+00	12.41	
PO-212	1.41E+10Y	1.00	1.656E+00	1.656E+00	0.205E+00	12.41	
BI-214	1600.00Y	1.00	1.134E+00	1.134E+00	0.191E+00	16.89	
PB-214	1600.00Y	1.00	1.259E+00	1.259E+00	0.200E+00	15.86	
PO-214	1600.00Y	1.00	1.259E+00	1.259E+00	0.200E+00	15.86	
PO-216	1.41E+10Y	1.00	1.656E+00	1.656E+00	0.205E+00	12.41	
PO-218	1600.00Y	1.00	1.259E+00	1.259E+00	0.200E+00	15.86	
RA-224	1.41E+10Y	1.00	4.135E+00	4.135E+00	1.360E+00	32.89	
RA-226	1600.00Y	1.00	1.134E+00	1.134E+00	0.191E+00	16.89	
AC-228	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.357E+00	21.89	
RA-228	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.357E+00	21.89	
TH-228	1.91Y	1.01	1.656E+00	1.679E+00	0.208E+00	12.41	
TH-230	4.47E+09Y	1.00	1.134E+00	1.134E+00	0.191E+00	16.89	
TH-232	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.357E+00	21.89	
TH-234	4.47E+09Y	1.00	6.172E+00	6.172E+00	2.020E+00	32.73	
U-234	4.47E+09Y	1.00	1.134E+00	1.134E+00	0.191E+00	16.89	
U-235	7.04E+08Y	1.00	2.886E-01	2.886E-01	2.301E-01	79.71	
NP-237	2.14E+06Y	1.00	4.128E-01	4.128E-01	2.916E-01	70.64	
U-238	4.47E+09Y	1.00	6.172E+00	6.172E+00	2.020E+00	32.73	
AM-243	7380.00Y	1.00	4.745E-01	4.745E-01	0.801E-01	16.87	
ANH-511	1.00E+09Y	1.00	1.891E-01	1.891E-01	0.711E-01	37.60	
	Total Activity :		8.209E+01	8.215E+01			

Grand Total Activity : 8.209E+01 8.215E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395004 Acquisition date : 2-FEB-2010 08:23:35

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.20	79	486	1.37	168.32	166	6	1.10E-02	92.3	6.77E+00	T
0	129.08	57	296	0.68	257.94	255	6	7.90E-03	99.2	7.29E+00	T
0	209.43	170	363	1.07	418.43	413	11	2.37E-02	46.0	5.73E+00	T
0	269.96	147	237	1.12	539.34	533	12	2.05E-02	44.9	4.81E+00	T
0	327.66	104	225	1.49	654.60	648	14	1.44E-02	64.1	4.18E+00	T
0	463.18	118	85	1.36	925.39	920	12	1.64E-02	36.0	3.23E+00	T
0	769.17	59	131	1.46	1537.04	1529	17	8.23E-03	91.3	2.15E+00	
0	795.41	65	48	1.26	1589.51	1585	10	9.05E-03	46.7	2.09E+00	T
1	965.11	86	83	1.84	1928.90	1921	23	1.20E-02	42.2	1.77E+00	T
0	1239.02	33	51	1.69	2476.93	2473	8	4.58E-03	84.1	1.43E+00	T
0	1377.57	42	23	0.79	2754.25	2746	13	5.84E-03	56.1	1.31E+00	T
0	1589.96	55	4	5.35	3179.50	3172	18	7.69E-03	32.2	1.18E+00	
0	1729.92	42	0	1.86	3459.81	3453	14	5.83E-03	30.9	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:24:46.93

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395004.CNF;1   *
* Acquisition date  : 2-FEB-2010 08:23:35.  Detector SN#     :               *
* Detector ID       : GAM20                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:33.47          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G245395004            Analyst initials: MXR1           *
* Batch Number      : 944966                Sample Quantity : 1.39170E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope       :                 *
* MSD ID           :                      MSD Isotope      :                 *
* LCS ID           : 1032-A               LCS Isotope      :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.755E+01	3.750E+00	4.356E-01	3.798E-02	86.216
CD-109	1.427E+00	9.644E-01	1.413E+00	1.337E-01	1.010
SN-126	1.406E-01	9.497E-02	1.340E-01	1.261E-02	1.049
TL-208	5.596E-01	9.255E-02	4.922E-02	5.061E-03	11.368
BI-211	3.620E+00	5.422E-01	2.937E-01	2.814E-02	12.326
BI-212	1.154E+00	5.799E-01	4.621E-01	5.244E-02	2.498
PB-212	1.656E+00	2.055E-01	7.791E-02	8.285E-03	21.260
PO-212	1.656E+00	2.055E-01	7.791E-02	8.285E-03	21.260
BI-214	1.134E+00	1.915E-01	1.025E-01	1.140E-02	11.064
PB-214	1.259E+00	1.997E-01	9.948E-02	1.084E-02	12.659
PO-214	1.259E+00	1.997E-01	9.948E-02	1.084E-02	12.659
PO-216	1.656E+00	2.055E-01	7.791E-02	8.285E-03	21.260
PO-218	1.259E+00	1.997E-01	9.948E-02	1.084E-02	12.659
RA-224	4.135E+00	1.360E+00	8.864E-01	8.568E-02	4.665
RA-226	1.134E+00	1.915E-01	1.025E-01	1.140E-02	11.064
AC-228	1.629E+00	3.566E-01	1.903E-01	2.331E-02	8.560
RA-228	1.629E+00	3.566E-01	1.903E-01	2.331E-02	8.560
TH-228	1.679E+00	2.083E-01	7.899E-02	8.400E-03	21.260

Sample ID : G245395004 Acquisition date : 2-FEB-2010 08:23:35

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.134E+00	1.915E-01	1.025E-01	1.140E-02	11.064
TH-232	1.629E+00	3.566E-01	1.903E-01	2.331E-02	8.560
TH-234	6.172E+00	2.020E+00	1.572E+00	2.732E-01	3.926
U-234	1.134E+00	1.915E-01	1.025E-01	1.140E-02	11.064
U-235	2.886E-01	2.301E-01	3.195E-01	5.568E-02	0.903
NP-237	4.128E-01	2.916E-01	3.300E-01	7.465E-02	1.251
U-238	6.172E+00	2.020E+00	1.572E+00	2.732E-01	3.926
AM-243	4.745E-01	8.007E-02	7.445E-02	5.992E-03	6.373
ANH-511	1.891E-01	7.108E-02	4.020E-02	3.746E-03	4.703

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.780E-01		2.728E-01	4.191E-01	4.074E-02	-0.425
NA-22	-2.761E-03		4.156E-02	6.652E-02	5.510E-03	-0.042
NA-24	-8.260E-02		8.466E-02	Half-Life too short		
AL-26	1.230E-02		2.389E-02	4.327E-02	3.515E-03	0.284
TI-44	3.806E-01	+	5.241E-02	7.079E-02	5.941E-03	5.376
SC-46	-2.521E-02		3.499E-02	5.381E-02	5.364E-03	-0.469
V-48	4.232E-02		5.725E-02	1.004E-01	9.598E-03	0.421
CR-51	5.961E-02		3.090E-01	5.177E-01	5.190E-02	0.115
MN-52	6.199E-02		1.623E-01	2.852E-01	2.414E-02	0.217
MN-54	-1.697E-02		3.324E-02	5.275E-02	5.328E-03	-0.322
CO-56	3.402E-02		3.484E-02	6.212E-02	6.261E-03	0.548
CO-57	-9.342E-03		2.308E-02	3.642E-02	3.040E-03	-0.257
CO-58	-3.563E-02		3.467E-02	5.211E-02	5.291E-03	-0.684
FE-59	-3.022E-02		8.990E-02	1.420E-01	1.340E-02	-0.213
CO-60	5.922E-03		3.965E-02	6.472E-02	5.422E-03	0.091
ZN-65	2.244E-02		9.167E-02	1.330E-01	1.145E-02	0.169
GE-68	4.199E-01		1.265E+00	2.120E+00	1.892E-01	0.198
AS-73	6.203E-02		5.485E-01	9.006E-01	6.685E-02	0.069
AS-74	-2.656E-02		7.211E-02	1.115E-01	1.091E-02	-0.238
SE-75	2.113E-02		4.248E-02	6.464E-02	6.400E-03	0.327
BR-77	4.546E+00		6.831E+00	1.154E+01	1.082E+00	0.394
SR-82	-1.544E-01		3.656E-01	5.017E-01	5.098E-02	-0.308
RB-83	4.951E-02		6.678E-02	1.099E-01	1.031E-02	0.450
RB-84	-1.458E-02		6.222E-02	1.007E-01	1.006E-02	-0.145
KR-85	1.680E+01		7.063E+00	1.277E+01	1.192E+00	1.315
SR-85	8.498E-02		3.574E-02	6.461E-02	6.033E-03	1.315
RB-86	4.095E-01		7.752E-01	1.319E+00	1.177E-01	0.311
Y-88	2.527E-02		2.784E-02	5.325E-02	4.296E-03	0.475
ZR-88	1.905E-02		2.841E-02	4.838E-02	4.046E-03	0.394
Y-91	7.921E+00		1.860E+01	3.112E+01	2.527E+00	0.255
NB-94	2.347E-02		3.100E-02	5.449E-02	5.513E-03	0.431
NB-95	2.965E-02		3.853E-02	6.060E-02	6.158E-03	0.489
NB-95M	1.139E-01		1.186E-01	1.845E-01	1.982E-02	0.618
ZR-95	-2.234E-03		6.342E-02	1.056E-01	1.152E-02	-0.021

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	-1.681E-02		1.261E-02	Half-Life too short		
ZR-97	8.706E-01		2.457E-01	Half-Life too short		
MO-99	1.964E+00		7.399E+00	1.261E+01	2.032E+00	0.156
TC-99M	-3.778E+08		5.962E+08	Half-Life too short		
RH-101	1.182E-02		2.777E-02	4.680E-02	4.290E-03	0.252
RH-102	-2.251E-02		2.482E-02	3.722E-02	3.375E-03	-0.605
RU-103	5.049E-03		3.633E-02	5.940E-02	8.635E-03	0.085
RH-106	6.793E-02		2.837E-01	4.622E-01	6.571E-02	0.147
RU-106	6.793E-02		2.837E-01	4.622E-01	4.575E-02	0.147
AG-108M	-1.591E-02		2.801E-02	4.373E-02	3.969E-03	-0.364
AG-110M	-2.200E-02		3.131E-02	4.988E-02	5.110E-03	-0.441
IN-111	-1.980E-01		7.050E-01	1.021E+00	9.916E-02	-0.194
IN-113M	2.172E-02		4.033E-02	6.825E-02	5.887E-03	0.318
SN-113	2.172E-02		4.033E-02	6.825E-02	5.887E-03	0.318
IN-114M	2.883E-02		1.684E-01	2.547E-01	2.308E-02	0.113
CD-115	2.834E+00		6.816E+00	1.133E+01	1.068E+00	0.250
SN-117M	1.097E-02		4.750E-02	7.629E-02	6.584E-03	0.144
SB-122	5.958E-01		1.374E+00	2.279E+00	2.195E-01	0.261
I-123	1.451E-01		5.373E-01	Half-Life too short		
TE-123M	3.543E-03		2.624E-02	4.197E-02	3.646E-03	0.084
I-124	-3.758E-02		5.508E-01	7.624E-01	7.485E-02	-0.049
SB-124	-3.109E-02		5.333E-02	7.646E-02	6.645E-03	-0.407
SB-125	2.819E-02		8.130E-02	1.358E-01	1.202E-02	0.208
TE-125M	-1.112E+00		8.702E+00	1.397E+01	1.428E+00	-0.080
I-126	3.137E-02		1.518E-01	2.589E-01	2.601E-02	0.121
SB-126	8.570E-03		1.368E-01	2.006E-01	2.034E-02	0.043
SB-127	4.376E-01		9.558E-01	1.657E+00	2.022E-01	0.264
XE-127	-1.664E-02		4.019E-02	6.452E-02	5.955E-03	-0.258
I-131	-2.246E-02		8.365E-02	1.352E-01	1.267E-02	-0.166
TE-132	-1.245E-01		4.462E-01	7.409E-01	1.187E-01	-0.168
BA-133	2.212E-02		4.347E-02	6.536E-02	8.830E-03	0.339
I-133	-2.970E-04		1.032E-03	Half-Life too short		
CS-134	1.109E-01	+	5.302E-02	8.425E-02	8.597E-03	1.316
CS-135	1.494E-01		1.566E-01	2.434E-01	2.697E-02	0.614
I-135	-3.682E+07		1.204E+08	Half-Life too short		
CS-136	2.159E-03		9.466E-02	1.550E-01	1.471E-02	0.014
BA-137M	-1.662E-02		3.239E-02	5.245E-02	5.264E-03	-0.317
CS-137	-1.757E-02		3.424E-02	5.545E-02	5.572E-03	-0.317
CE-139	-1.503E-02		2.836E-02	4.389E-02	3.832E-03	-0.342
BA-140	-5.482E-02		2.223E-01	3.501E-01	1.168E-01	-0.157
LA-140	3.014E-02		5.795E-02	9.440E-02	7.969E-03	0.319
CE-141	8.831E-02		6.291E-02	9.557E-02	8.251E-03	0.924
CE-143	2.172E-04		4.554E-05	Half-Life too short		
CE-144	-4.063E-02		1.845E-01	2.925E-01	4.513E-02	-0.139
PM-144	-6.036E-02		3.666E-02	4.598E-02	4.649E-03	-1.313
PR-144	-4.087E+00		2.483E+00	3.114E+00	3.147E-01	-1.313
PM-146	1.776E-02		3.856E-02	6.470E-02	7.086E-03	0.275
ND-147	-9.891E-02		4.937E-01	7.836E-01	1.210E-01	-0.126

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-4.870E+01		5.495E+01	8.637E+01	1.407E+01	-0.564
EU-152	-7.869E-02		8.412E-02	1.304E-01	1.272E-02	-0.603
GD-153	4.672E-02		7.830E-02	1.162E-01	1.030E-02	0.402
EU-154	7.564E-04		1.158E-01	1.867E-01	2.063E-02	0.004
EU-155	6.428E-02		1.045E-01	1.715E-01	1.491E-02	0.375
TB-160	4.720E-02		1.228E-01	2.098E-01	2.098E-02	0.225
HO-166M	2.300E-02		5.388E-02	9.302E-02	9.422E-03	0.247
TM-171	-7.596E+00		2.382E+01	3.451E+01	2.571E+00	-0.220
LU-176	-1.202E-02		2.238E-02	3.308E-02	3.227E-03	-0.363
LU-177	3.064E+00	+	1.439E+00	1.639E+00	1.524E-01	1.870
LU-177M	-3.570E-02		1.604E-01	2.586E-01	2.214E-02	-0.138
HF-181	2.815E-02		3.657E-02	6.252E-02	5.700E-03	0.450
W-181	2.588E-01		3.161E-01	4.793E-01	3.527E-02	0.540
TA-182	-2.751E-02		1.968E-01	3.145E-01	2.566E-02	-0.087
RE-183	5.476E-02		1.021E-01	1.658E-01	1.439E-02	0.330
RE-184	5.560E-02		1.932E-01	3.283E-01	3.208E-02	0.169
OS-185	-3.168E-02		3.488E-02	5.420E-02	5.413E-03	-0.585
RE-188	5.055E-02		1.568E-01	2.530E-01	2.172E-02	0.200
W-188	5.424E+00		6.854E+00	1.059E+01	1.047E+00	0.512
IR-192	8.731E-03		3.044E-02	5.125E-02	4.956E-03	0.170
AU-195	1.856E-01		2.022E-01	3.360E-01	2.959E-02	0.552
TL-200	8.416E-05		8.654E-05	Half-Life too short		
TL-201	8.905E-01		4.880E+00	7.804E+00	6.828E-01	0.114
TL-202	3.491E-02		5.619E-02	9.541E-02	8.382E-03	0.366
HG-203	1.354E-02		3.742E-02	6.341E-02	6.449E-03	0.214
BI-207	4.633E-02		4.846E-02	8.565E-02	7.734E-03	0.541
TL-207	-2.912E-03		6.151E-01	8.948E-01	1.627E-01	-0.003
PO-209	2.232E+00		7.147E+00	1.210E+01	1.204E+00	0.184
BI-210	-4.235E-01		1.925E+00	3.140E+00	2.912E-01	-0.135
PB-210	-4.235E-01		1.925E+00	3.140E+00	2.912E-01	-0.135
PO-210	-4.235E-01		1.925E+00	3.140E+00	2.634E-01	-0.135
PB-211	3.106E-01		8.413E-01	1.373E+00	8.599E-01	0.226
PO-215	-2.912E-03		6.151E-01	8.948E-01	1.627E-01	-0.003
RN-219	1.582E-01		3.707E-01	6.222E-01	9.288E-02	0.254
RN-220	4.575E+00		2.300E+01	3.761E+01	3.593E+00	0.122
RA-223	-2.912E-03		6.151E-01	8.948E-01	1.627E-01	-0.003
AC-227	-8.085E-02		3.168E-01	5.232E-01	8.392E-02	-0.155
TH-227	-8.085E-02		3.168E-01	5.232E-01	9.760E-02	-0.155
TH-229	-1.129E-01		4.261E-01	7.142E-01	6.504E-02	-0.158
PA-231	7.803E-01		1.318E+00	2.254E+00	3.598E-01	0.346
TH-231	-2.912E-03		6.151E-01	8.948E-01	1.627E-01	-0.003
U-231	-4.839E-01		8.709E-01	1.223E+00	1.094E-01	-0.396
PA-233	-1.063E-02		5.597E-02	9.188E-02	9.116E-03	-0.116
PA-234	5.914E-02		3.058E-01	5.107E-01	9.860E-02	0.116
PA-234M	6.013E+00		4.582E+00	8.274E+00	8.850E-01	0.727
NP-236	-2.379E-02		7.523E-02	1.178E-01	1.020E-02	-0.202
NP-239	-3.453E-02		1.761E-01	2.811E-01	2.355E-02	-0.123
AM-241	1.222E-01		1.210E-01	1.855E-01	1.452E-02	0.659

Sample ID : G245395004 Acquisition date : 2-FEB-2010 08:23:35

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	6.273E-02		8.925E-02	1.471E-01	1.270E-02	0.426
AM-246	7.711E-02		1.475E-01	2.507E-01	2.234E-02	0.308
CM-247	-2.529E-03		3.332E-02	5.432E-02	4.594E-03	-0.047
CF-249	9.312E-03		3.536E-02	5.898E-02	4.977E-03	0.158
CF-251	4.044E-02		1.190E-01	1.913E-01	1.697E-02	0.211

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                              DETECTOR DATA                                  *
*                                                                             *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395004             *
* Acquisition date  :  2-FEB-2010 08:23:35 Detector SN#     :                 *
* Detector ID       : GAM20                Sensitivity     : 5.000            *
* Geometry          : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000           *
* Elapsed real time:     0 02:00:33.47     Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                               SAMPLE DATA                                   *
*                                                                             *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID         : G245395004           Analyst initials: MXR1             *
* Batch Number      : 944966               Sample Quantity : 1.3917E+02 GRAM  *
* Recovery          :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
*                                                                             *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.755E+01	3.675E+00	2.187E-01	1.875E+00
CD-109	1.427E+00	9.451E-01	7.502E-01	4.822E-01
SN-126	1.406E-01	9.307E-02	7.115E-02	4.748E-02
TL-208	5.596E-01	9.070E-02	2.518E-02	4.627E-02
BI-211	3.620E+00	5.314E-01	1.518E-01	2.711E-01
BI-212	1.154E+00	5.683E-01	2.353E-01	2.899E-01
PB-212	1.656E+00	2.014E-01	4.057E-02	1.027E-01
PO-212	1.656E+00	2.014E-01	4.057E-02	1.027E-01
BI-214	1.134E+00	1.877E-01	5.237E-02	9.575E-02
PB-214	1.259E+00	1.957E-01	5.141E-02	9.987E-02
PO-214	1.259E+00	1.957E-01	5.141E-02	9.987E-02
PO-216	1.656E+00	2.014E-01	4.057E-02	1.027E-01
PO-218	1.259E+00	1.957E-01	5.141E-02	9.987E-02
RA-224	4.135E+00	1.333E+00	4.615E-01	6.801E-01
RA-226	1.134E+00	1.877E-01	5.237E-02	9.575E-02
AC-228	1.629E+00	3.495E-01	9.648E-02	1.783E-01
RA-228	1.629E+00	3.495E-01	9.648E-02	1.783E-01
TH-228	1.679E+00	2.042E-01	4.113E-02	1.042E-01
TH-230	1.134E+00	1.877E-01	5.237E-02	9.574E-02
TH-232	1.629E+00	3.495E-01	9.648E-02	1.783E-01
TH-234	6.172E+00	1.980E+00	8.396E-01	1.010E+00
U-234	1.134E+00	1.877E-01	5.237E-02	9.574E-02
U-235	2.886E-01	2.255E-01	1.680E-01	1.150E-01
NP-237	4.128E-01	2.858E-01	1.752E-01	1.458E-01
U-238	6.172E+00	1.980E+00	8.396E-01	1.010E+00
AM-243	4.745E-01	7.847E-02	3.964E-02	4.003E-02
ANH-511	1.891E-01	6.966E-02	2.062E-02	3.554E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-1.780E-01	2.673E-01	2.153E-01	1.364E-01	NOT IDENT.
NA-22	-2.761E-03	4.073E-02	3.349E-02	2.078E-02	NOT IDENT.
NA-24	-8.260E+04	1.659E+05	0.000E+00	8.466E+04	SHORT HLIF
AL-26	1.230E-02	2.342E-02	2.163E-02	1.195E-02	NOT IDENT.
TI-44	3.806E-01	5.136E-02	3.766E-02	2.621E-02	FAIL ABUN
SC-46	-2.521E-02	3.429E-02	2.729E-02	1.750E-02	FAIL ABUN
V-48	4.232E-02	5.610E-02	5.083E-02	2.862E-02	NOT IDENT.
CR-51	5.961E-02	3.029E-01	2.681E-01	1.545E-01	NOT IDENT.
MN-52	6.199E-02	1.591E-01	1.432E-01	8.117E-02	NOT IDENT.
MN-54	-1.697E-02	3.257E-02	2.679E-02	1.662E-02	NOT IDENT.
CO-56	3.402E-02	3.414E-02	3.154E-02	1.742E-02	FAIL ABUN
CO-57	-9.342E-03	2.261E-02	1.921E-02	1.154E-02	NOT IDENT.
CO-58	-3.563E-02	3.398E-02	2.648E-02	1.734E-02	NOT IDENT.
FE-59	-3.022E-02	8.810E-02	7.173E-02	4.495E-02	FAIL ABUN
CO-60	5.922E-03	3.885E-02	3.256E-02	1.982E-02	NOT IDENT.
ZN-65	2.244E-02	8.984E-02	6.714E-02	4.584E-02	NOT IDENT.
GE-68	4.199E-01	1.240E+00	1.071E+00	6.325E-01	NOT IDENT.
AS-73	6.203E-02	5.375E-01	4.824E-01	2.742E-01	NOT IDENT.
AS-74	-2.656E-02	7.067E-02	5.702E-02	3.605E-02	NOT IDENT.
SE-75	2.113E-02	4.164E-02	3.359E-02	2.124E-02	NOT IDENT.
BR-77	4.546E+00	6.695E+00	5.916E+00	3.416E+00	FAIL ABUN
SR-82	-1.544E-01	3.583E-01	2.552E-01	1.828E-01	NOT IDENT.
RB-83	4.951E-02	6.544E-02	5.636E-02	3.339E-02	NOT IDENT.
RB-84	-1.458E-02	6.098E-02	5.109E-02	3.111E-02	NOT IDENT.
KR-85	1.680E+01	6.922E+00	6.550E+00	3.532E+00	NOT IDENT.
SR-85	8.498E-02	3.502E-02	3.314E-02	1.787E-02	NOT IDENT.
RB-86	4.095E-01	7.597E-01	6.663E-01	3.876E-01	NOT IDENT.
Y-88	2.527E-02	2.728E-02	2.660E-02	1.392E-02	NOT IDENT.
ZR-88	1.905E-02	2.785E-02	2.495E-02	1.421E-02	NOT IDENT.
Y-91	7.921E+00	1.822E+01	1.569E+01	9.298E+00	NOT IDENT.
NB-94	2.347E-02	3.038E-02	2.777E-02	1.550E-02	NOT IDENT.
NB-95	2.965E-02	3.776E-02	3.083E-02	1.926E-02	NOT IDENT.
NB-95M	1.139E-01	1.162E-01	9.608E-02	5.930E-02	NOT IDENT.
ZR-95	-2.234E-03	6.215E-02	5.373E-02	3.171E-02	NOT IDENT.
NB-97	-1.681E+04	2.473E+04	0.000E+00	1.261E+04	SHORT HLIF
ZR-97	8.706E+05	4.815E+05	0.000E+00	2.457E+05	SHORT HLIF
MO-99	1.964E+00	7.251E+00	6.423E+00	3.699E+00	NOT IDENT.
TC-99M	-3.778E+14	1.169E+15	0.000E+00	5.962E+14	SHORT HLIF
RH-101	1.182E-02	2.722E-02	2.446E-02	1.389E-02	NOT IDENT.
RH-102	-2.251E-02	2.432E-02	1.912E-02	1.241E-02	NOT IDENT.
RU-103	5.049E-03	3.560E-02	3.049E-02	1.816E-02	FAIL ABUN
RH-106	6.793E-02	2.781E-01	2.362E-01	1.419E-01	FAIL ABUN
RU-106	6.793E-02	2.780E-01	2.362E-01	1.418E-01	FAIL ABUN
AG-108M	-1.591E-02	2.745E-02	2.251E-02	1.401E-02	NOT IDENT.
AG-110M	-2.200E-02	3.068E-02	2.546E-02	1.566E-02	NOT IDENT.
IN-111	-1.980E-01	6.909E-01	5.316E-01	3.525E-01	NOT IDENT.
IN-113M	2.172E-02	3.952E-02	3.519E-02	2.016E-02	NOT IDENT.
SN-113	2.172E-02	3.952E-02	3.519E-02	2.016E-02	NOT IDENT.
IN-114M	2.883E-02	1.650E-01	1.332E-01	8.418E-02	NOT IDENT.
CD-115	2.834E+00	6.680E+00	5.807E+00	3.408E+00	NOT IDENT.
SN-117M	1.097E-02	4.655E-02	4.004E-02	2.375E-02	NOT IDENT.
SB-122	5.958E-01	1.347E+00	1.167E+00	6.871E-01	NOT IDENT.
I-123	1.451E+05	1.053E+06	0.000E+00	5.373E+05	SHORT HLIF
TE-123M	3.543E-03	2.572E-02	2.203E-02	1.312E-02	NOT IDENT.
I-124	-3.758E-02	5.398E-01	3.898E-01	2.754E-01	FAIL ABUN
SB-124	-3.109E-02	5.226E-02	3.827E-02	2.666E-02	FAIL ABUN
SB-125	2.819E-02	7.967E-02	6.990E-02	4.065E-02	FAIL ABUN
TE-125M	-1.112E+00	8.528E+00	7.385E+00	4.351E+00	NOT IDENT.
I-126	3.137E-02	1.487E-01	1.321E-01	7.589E-02	NOT IDENT.
SB-126	8.570E-03	1.341E-01	1.022E-01	6.840E-02	FAIL ABUN
SB-127	4.376E-01	9.367E-01	8.447E-01	4.779E-01	NOT IDENT.
XE-127	-1.664E-02	3.938E-02	3.371E-02	2.009E-02	NOT IDENT.
I-131	-2.246E-02	8.198E-02	6.981E-02	4.183E-02	NOT IDENT.
TE-132	-1.245E-01	4.372E-01	3.862E-01	2.231E-01	NOT IDENT.
BA-133	2.212E-02	4.260E-02	3.377E-02	2.173E-02	NOT IDENT.
I-133	-2.970E+02	2.024E+03	0.000E+00	1.032E+03	SHORT HLIF
CS-134	1.109E-01	5.196E-02	4.283E-02	2.651E-02	FAIL ABUN
CS-135	1.494E-01	1.535E-01	1.265E-01	7.829E-02	NOT IDENT.
I-135	-3.682E+13	2.361E+14	0.000E+00	1.204E+14	SHORT HLIF
CS-136	2.159E-03	9.277E-02	7.837E-02	4.733E-02	FAIL ABUN
BA-137M	-1.662E-02	3.174E-02	2.677E-02	1.619E-02	NOT IDENT.
CS-137	-1.757E-02	3.355E-02	2.829E-02	1.712E-02	NOT IDENT.
CE-139	-1.503E-02	2.780E-02	2.302E-02	1.418E-02	NOT IDENT.
BA-140	-5.482E-02	2.179E-01	1.794E-01	1.112E-01	NOT IDENT.
LA-140	3.014E-02	5.679E-02	4.730E-02	2.898E-02	FAIL ABUN
CE-141	8.831E-02	6.165E-02	5.024E-02	3.145E-02	NOT IDENT.
CE-143	2.172E+02	8.925E+01	0.000E+00	4.554E+01	SHORT HLIF
CE-144	-4.063E-02	1.808E-01	1.540E-01	9.226E-02	NOT IDENT.

PM-144	-6.036E-02	3.593E-02	2.344E-02	1.833E-02	NOT IDENT.
PR-144	-4.087E+00	2.433E+00	1.587E+00	1.241E+00	NOT IDENT.
PM-146	1.776E-02	3.779E-02	3.327E-02	1.928E-02	NOT IDENT.
ND-147	-9.891E-02	4.838E-01	4.017E-01	2.468E-01	NOT IDENT.
PM-149	-4.870E+01	5.385E+01	4.482E+01	2.748E+01	NOT IDENT.
EU-152	-7.869E-02	8.244E-02	6.742E-02	4.206E-02	FAIL ABUN
GD-153	4.672E-02	7.674E-02	6.154E-02	3.915E-02	FAIL ABUN
EU-154	7.564E-04	1.135E-01	9.402E-02	5.790E-02	NOT IDENT.
EU-155	6.428E-02	1.024E-01	9.073E-02	5.224E-02	FAIL ABUN
TB-160	4.720E-02	1.204E-01	1.065E-01	6.141E-02	FAIL ABUN
HO-166M	2.300E-02	5.280E-02	4.740E-02	2.694E-02	FAIL ABUN
TM-171	-7.596E+00	2.335E+01	1.841E+01	1.191E+01	NOT IDENT.
LU-176	-1.202E-02	2.193E-02	1.714E-02	1.119E-02	FAIL ABUN
LU-177	3.064E+00	1.410E+00	8.556E-01	7.193E-01	FAIL ABUN
LU-177M	-3.570E-02	1.572E-01	1.332E-01	8.022E-02	FAIL ABUN
HF-181	2.815E-02	3.584E-02	3.211E-02	1.829E-02	NOT IDENT.
W-181	2.588E-01	3.098E-01	2.558E-01	1.580E-01	NOT IDENT.
TA-182	-2.751E-02	1.929E-01	1.585E-01	9.841E-02	FAIL ABUN
RE-183	5.476E-02	1.001E-01	8.700E-02	5.105E-02	FAIL ABUN
RE-184	5.560E-02	1.894E-01	1.708E-01	9.662E-02	NOT IDENT.
OS-185	-3.168E-02	3.419E-02	2.767E-02	1.744E-02	NOT IDENT.
RE-188	5.055E-02	1.537E-01	1.329E-01	7.842E-02	NOT IDENT.
W-188	5.424E+00	6.717E+00	5.495E+00	3.427E+00	FAIL ABUN
IR-192	8.731E-03	2.983E-02	2.654E-02	1.522E-02	FAIL ABUN
AU-195	1.856E-01	1.982E-01	1.779E-01	1.011E-01	FAIL ABUN
TL-200	8.416E+01	1.696E+02	0.000E+00	8.654E+01	SHORT HLIF
TL-201	8.905E-01	4.782E+00	4.092E+00	2.440E+00	NOT IDENT.
TL-202	3.491E-02	5.506E-02	4.909E-02	2.809E-02	NOT IDENT.
HG-203	1.354E-02	3.667E-02	3.292E-02	1.871E-02	NOT IDENT.
BI-207	4.633E-02	4.749E-02	4.329E-02	2.423E-02	FAIL ABUN
TL-207	-2.912E-03	6.028E-01	4.632E-01	3.076E-01	FAIL ABUN
PO-209	2.232E+00	7.004E+00	6.137E+00	3.574E+00	NOT IDENT.
BI-210	-4.235E-01	1.886E+00	1.686E+00	9.624E-01	NOT IDENT.
PB-210	-4.235E-01	1.886E+00	1.686E+00	9.624E-01	NOT IDENT.
PO-210	-4.235E-01	1.886E+00	1.686E+00	9.624E-01	NOT IDENT.
PB-211	3.106E-01	8.245E-01	7.074E-01	4.206E-01	NOT IDENT.
PO-215	-2.912E-03	6.028E-01	4.632E-01	3.076E-01	FAIL ABUN
RN-219	1.582E-01	3.633E-01	3.207E-01	1.853E-01	FAIL ABUN
RN-220	4.575E+00	2.254E+01	1.926E+01	1.150E+01	NOT IDENT.
RA-223	-2.912E-03	6.028E-01	4.632E-01	3.076E-01	FAIL ABUN
AC-227	-8.085E-02	3.104E-01	2.721E-01	1.584E-01	FAIL ABUN
TH-227	-8.085E-02	3.105E-01	2.721E-01	1.584E-01	FAIL ABUN
TH-229	-1.129E-01	4.176E-01	3.734E-01	2.131E-01	FAIL ABUN
PA-231	7.803E-01	1.291E+00	1.170E+00	6.589E-01	FAIL ABUN
TH-231	-2.912E-03	6.028E-01	4.632E-01	3.076E-01	FAIL ABUN
U-231	-4.839E-01	8.535E-01	6.483E-01	4.355E-01	FAIL ABUN
PA-233	-1.063E-02	5.485E-02	4.760E-02	2.799E-02	FAIL ABUN
PA-234	5.914E-02	2.997E-01	2.587E-01	1.529E-01	FAIL ABUN
PA-234M	6.013E+00	4.490E+00	4.187E+00	2.291E+00	NOT IDENT.
NP-236	-2.379E-02	7.372E-02	6.183E-02	3.761E-02	NOT IDENT.
NP-239	-3.453E-02	1.726E-01	1.484E-01	8.804E-02	FAIL ABUN
AM-241	1.222E-01	1.186E-01	9.920E-02	6.050E-02	NOT IDENT.
CM-243	6.273E-02	8.746E-02	7.783E-02	4.462E-02	FAIL ABUN
AM-246	7.711E-02	1.445E-01	1.267E-01	7.374E-02	NOT IDENT.
CM-247	-2.529E-03	3.266E-02	2.800E-02	1.666E-02	NOT IDENT.
CF-249	9.312E-03	3.466E-02	3.042E-02	1.768E-02	NOT IDENT.
CF-251	4.044E-02	1.167E-01	1.002E-01	5.952E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.50	336.4924
46.50	336.4924
46.50	336.4924
48.70	345.8940
49.72	358.3834
51.35	353.6948
52.39	381.0240
52.97	377.5260
53.15	377.6614
53.44	384.7870
54.07	362.5471
56.28	423.6423
56.28	423.6445
57.37	0.0000
57.53	451.1152
57.53	451.1164
57.60	451.1752
57.98	443.4380
57.98	443.4380
59.32	398.1568
59.32	398.1568
59.40	398.2156
59.54	398.3202
59.72	398.4541
60.01	406.1620
61.10	465.5499
61.14	465.5830
61.30	468.7248
63.00	487.2541
63.29	487.5076
63.29	487.5076
63.58	487.7610
64.28	483.3374
65.12	493.1331
65.20	493.2027
65.20	493.2027
66.05	507.5759
66.72	485.4150
66.83	503.7144
66.91	503.7853
67.20	504.0386
67.20	504.0386
67.75	583.5381
67.85	554.4558
68.90	520.1300
68.90	520.1300
69.30	498.2389
69.67	498.5533
70.82	522.4324
70.82	522.4324
70.83	522.4403
72.80	544.0786
72.87	599.3214
72.87	599.3214
74.67	557.5303
74.81	557.6575
74.81	557.6575
74.81	557.6575
74.81	557.6575
74.81	557.6575
74.81	557.6575
74.81	557.6575
74.97	557.8014
75.28	558.0809
75.70	558.4572
77.11	559.7189
77.11	559.7189

77.11	559.7189
77.11	559.7189
77.11	559.7189
77.11	559.7189
77.11	559.7189
78.38	539.7103
79.62	526.8143
79.80	512.4965
79.80	512.4965
80.11	512.7437
80.18	512.7992
80.30	530.4742
80.30	530.4742
80.57	530.6960
81.00	450.3040
81.07	450.3527
81.07	450.3527
81.07	450.3527
81.07	450.3527
82.60	515.2303
83.37	520.5041
83.78	519.2709
83.78	519.2709
83.78	519.2709
83.78	519.2709
84.21	518.0458
84.90	521.7068
85.43	522.1222
86.29	522.7898
86.50	522.9529
86.54	522.9835
86.59	523.0217
86.72	523.1211
86.79	523.1746
86.94	523.2918
87.30	744.5974
87.30	744.5974
87.30	744.5974
87.30	744.5974
87.30	744.5974
87.30	744.5974
87.30	744.5974
87.57	755.8683
87.88	820.0163
88.03	820.1957
88.36	697.0833
88.47	697.1951
89.95	698.6957
91.11	589.5225
92.29	825.2481
92.38	825.3558
92.38	825.3558
93.35	598.7822
94.00	386.1888
94.67	372.2901
94.67	372.2937
94.90	381.9204
94.90	381.9204
94.90	381.9204
94.90	381.9204
95.87	437.9778
95.87	437.9778
96.73	395.6032
97.43	365.7676
98.44	346.1014
98.44	346.1014
98.88	350.5579
99.55	359.3829
99.55	359.3829
99.86	378.6809
100.00	385.1368
100.10	385.1902
103.18	422.0361
103.76	347.5110
105.00	385.5634
105.31	388.9333
108.00	437.6004
109.28	401.7024

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111.00	416.6108
111.76	373.7968
112.95	358.1254
115.19	400.3506
116.30	371.5646
117.00	351.2227
117.00	351.2227
117.66	344.9758
121.11	327.8366
121.62	328.0350
121.78	333.5658
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122.32	349.1010
122.32	349.1010
122.32	349.1010
122.32	349.1010
123.07	360.3658
127.23	333.5053
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131.20	323.4151
133.02	329.0674
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135.34	323.2574
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136.48	299.1963
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140.51	0.0000
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143.76	354.2624
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144.24	331.4515
144.24	331.4515
144.24	331.4515
145.22	286.3225
145.44	286.3899
147.16	293.6622
152.43	302.0644
152.70	298.7523
153.22	293.2509
154.21	285.6149
154.21	285.6149
154.21	285.6149
154.21	285.6149
155.03	305.1370
156.02	349.7271
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161.27	344.7237
162.32	294.8035
162.64	288.0399
163.35	280.2332
163.89	296.4046
165.85	325.6362
167.43	288.2399
171.28	282.3915
171.86	277.9330
172.10	277.9968
176.55	278.0054
176.60	278.0200
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184.41	281.4245
185.71	275.9735
186.00	276.0456
190.27	253.3491
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193.63	259.3966
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198.01	224.9611
198.60	223.3012
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201.83	259.4655
202.84	266.2971
205.31	263.7989

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208.81	255.6352
209.75	255.8359
209.75	255.8359
210.97	244.9922
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216.55	256.3722
218.09	284.6126
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223.80	224.3943
226.40	244.8049
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227.20	257.6610
228.16	226.0761
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228.18	232.4355
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235.69	232.3356
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236.00	251.3904
238.63	211.4392
238.63	211.4392
238.63	211.4392
238.63	211.4392
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241.98	211.9768
241.98	211.9768
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245.39	184.0012
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248.90	185.4042
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252.85	173.9178
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256.20	181.7619
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268.79	181.5316
269.46	181.6175
269.46	181.6175
269.46	181.6175
269.46	181.6175
271.23	191.9656
273.65	228.3451
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277.35	181.6737
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277.60	186.4135
278.00	188.3484
278.60	190.3089
279.20	208.2936
279.53	224.3670
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281.68	210.5359
283.67	156.9320
284.30	162.6751
285.00	188.2994
285.90	194.0956
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286.10	182.7575
287.40	167.7524
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290.80	147.4277
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293.26	0.0000
293.70	182.7334
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295.21	167.6721

295.21	167.6721
295.96	167.7554
296.50	167.8145
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298.57	145.1278
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299.80	145.2438
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300.09	133.0382
300.09	133.0382
300.12	133.0403
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302.84	130.2123
303.76	133.3547
303.91	133.3674
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304.40	119.6089
304.84	138.0498
306.84	153.5864
308.46	135.4879
311.98	156.9785
316.51	152.5996
318.01	159.5089
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319.41	160.6149
320.08	142.2919
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323.87	136.6105
323.87	136.6105
323.87	136.6105
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334.30	135.3997
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338.28	157.5828
338.28	157.5828
338.28	157.5828
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338.32	157.5877
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340.57	131.7278
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351.92	137.1505
351.92	137.1505
351.92	137.1505
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367.43	115.4778
367.94	0.0000
369.80	131.5811
374.96	135.9606
383.85	116.5363
387.95	122.8396
388.63	122.8842
391.69	124.0979
391.69	124.0979
392.90	127.2074
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401.10	125.7369
401.81	120.7123
402.60	129.8965
404.84	116.8425
410.95	120.2741
411.60	127.4529
413.65	132.6918
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427.89	105.9044
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433.93	109.3206
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439.56	95.1487
439.89	107.5769
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445.03	98.5181
445.03	98.5181
445.03	98.5181
453.90	97.9042
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468.07	93.9586
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475.35	104.1739
476.78	109.5082
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477.96	96.9260
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511.85	92.0173
513.99	92.1046
513.99	92.1046
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520.65	92.3749
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529.87	0.0000
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537.32	96.2926
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546.56	0.0000
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569.50	87.7344
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592.07	67.5136
593.00	68.6450
595.88	76.4837
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602.71	90.6968
602.71	90.6968
603.60	94.2846
604.41	92.5361
604.70	80.0881
609.31	96.9484

609.31	96.9484
609.31	96.9484
609.31	96.9484
610.33	96.3193
612.46	67.8359
614.37	89.3262
618.01	91.6870
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621.84	75.0274
631.29	82.0426
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633.10	73.1012
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661.65	97.3031
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666.33	85.6304
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692.80	70.8171
695.00	73.6348
696.49	99.4597
696.49	99.4597
697.00	95.7912
697.49	94.8877
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698.50	93.0773
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722.78	72.8045
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727.18	95.8760
733.00	62.1794
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747.13	74.0355
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756.87	69.5755
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765.79	59.7244
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766.84	53.4556
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778.57	70.0760
778.89	69.1361
783.80	73.0410
785.46	62.6404
792.07	50.7266

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796.30	69.8439
798.80	77.8425
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805.60	65.9122
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810.76	78.4585
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818.51	56.5902
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836.80	0.0000
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880.51	60.6044
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883.24	57.7195
884.67	52.8504
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896.60	65.8043
898.02	74.6733
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903.28	73.8043
911.07	61.1508
911.07	61.1508
911.07	61.1508
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920.93	61.3249
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925.24	54.4683
926.50	56.4684
935.52	57.6078
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944.10	64.7175
946.00	72.7202
949.00	84.7468
962.29	73.3870
964.01	63.0754
966.15	63.1123
968.20	63.1492
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969.11	63.1646
969.11	63.1646
977.42	53.5951
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983.50	43.2835
989.30	63.5153
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1001.68	47.5427
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1037.82	57.1922
1038.57	50.0551
1038.76	0.0000
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1046.59	58.3471
1048.07	60.4203

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1050.47	60.4577
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1063.62	48.3242
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1078.86	67.0916
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1112.84	77.4978
1115.52	59.0324
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1120.29	83.4375
1120.29	83.4375
1120.29	83.4375
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1124.00	0.0000
1129.67	81.5382
1131.51	0.0000
1147.95	0.0000
1167.94	70.6902
1173.22	86.6285
1175.09	81.3801
1177.93	83.5518
1189.05	86.9528
1204.90	74.5049
1205.75	0.0000
1213.00	85.3086
1221.42	85.4766
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1235.34	101.8281
1236.41	0.0000
1238.25	90.0949
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1271.85	35.6651
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1291.56	51.0184
1298.22	0.0000
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1325.50	41.5569
1325.50	41.5569
1332.49	44.9038
1333.61	46.0113
1360.21	27.5439
1362.66	0.0000
1365.15	29.4102
1368.21	36.4192
1368.53	0.0000
1376.25	30.4004
1384.27	24.6072
1394.10	24.0417
1395.20	28.6715
1407.95	28.7472
1434.06	21.4436
1436.60	29.8490
1457.56	0.0000
1460.81	21.5597
1489.15	13.1973
1509.49	20.8219
1596.49	9.8977
1620.62	15.4661
1678.03	0.0000
1691.02	13.7066
1691.02	13.7066
1706.46	0.0000
1750.46	0.0000
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1764.49	5.9504
1764.49	5.9504
1764.49	5.9504
1770.23	8.5090
1771.40	31.7734
1791.20	0.0000
1808.65	8.9934

1836.01 8.0309

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395004

Total Uranium Activity	1.8497E+01	ug/g
Total Uranium Counting Unc.	5.8901E+00	ug/g
Total Uranium Tpu	3.0052E-06	ug/g
Total Uranium Mda	2.4990E+00	ug/g

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*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 944966                    SAMPLE ID  : G245395004         *
*   ANALYST       : MXR1                      DETECTOR   : GAM20              *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  2-FEB-2010 08:23:35.30    SAMPLE ALQT:  139.170 GRAM      *
*                                                                             *
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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.104E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.472E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.972E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.933E+00
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VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:26:33.08

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395005.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:24:01.
Sample ID         : G245395005           Sample quantity  : 1.41120E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.57  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.32*	121	459	0.62	92.61	89	8	1.68E-02	32.2	
2	0	63.33*	360	828	0.88	126.63	122	10	5.00E-02	15.9	
3	1	74.96*	579	305	0.75	149.86	144	17	8.04E-02	6.3	9.57E+00
4	1	77.09*	1136	363	0.75	154.12	144	17	1.58E-01	4.0	
5	6	83.97	197	330	1.21	167.88	165	14	2.73E-02	15.8	5.10E+00
6	6	87.25	315	378	0.91	174.43	165	14	4.37E-02	10.6	
7	5	90.07	195	293	0.85	180.07	178	14	2.71E-02	14.7	2.74E+00
8	5	92.75*	685	376	1.16	185.44	178	14	9.52E-02	6.1	
9	0	128.71	103	234	0.75	257.33	254	6	1.43E-02	25.6	
10	0	185.85*	197	251	0.96	371.55	368	7	2.74E-02	15.4	
11	0	208.99	154	220	0.79	417.82	413	9	2.14E-02	19.2	
12	8	238.48*	1256	126	0.87	476.77	472	17	1.74E-01	3.1	1.40E+00
13	8	241.57	309	212	1.85	482.95	472	17	4.29E-02	14.7	
14	0	269.84	104	172	1.11	539.48	534	10	1.44E-02	25.7	
15	0	277.39	55	158	1.25	554.56	550	9	7.63E-03	43.6	
16	3	295.10*	332	104	1.19	589.97	584	27	4.61E-02	7.4	2.44E+00
17	3	299.96	77	96	1.38	599.69	584	27	1.07E-02	26.5	
18	0	328.16	38	97	0.90	656.09	653	6	5.24E-03	44.6	
19	0	338.15	176	156	0.83	676.05	672	8	2.45E-02	14.4	
20	0	351.80*	552	142	1.02	703.36	698	11	7.66E-02	6.1	
21	0	463.23	92	46	1.28	926.16	921	11	1.28E-02	18.0	
22	0	510.48*	91	86	1.07	1020.65	1015	12	1.27E-02	26.3	
23	0	582.95*	310	74	1.42	1165.60	1159	13	4.30E-02	8.2	
24	0	609.10*	357	84	1.09	1217.90	1212	12	4.96E-02	7.5	
25	0	727.17*	42	87	1.13	1454.04	1449	12	5.81E-03	48.2	
26	0	796.12	48	76	0.70	1591.97	1584	16	6.71E-03	42.8	
27	0	860.74	26	72	0.88	1721.23	1716	12	3.61E-03	68.2	
28	0	910.90	237	26	1.47	1821.57	1815	15	3.29E-02	8.0	
29	0	968.76	129	29	1.38	1937.33	1932	13	1.80E-02	12.3	
30	0	1120.00	87	38	1.53	2239.94	2233	13	1.21E-02	18.2	
31	0	1460.25*	1004	18	2.12	2920.87	2911	17	1.39E-01	3.3	
32	0	1728.74	16	7	1.08	3458.34	3449	14	2.22E-03	43.1	
33	0	1764.10	46	10	0.87	3529.13	3521	12	6.44E-03	19.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 10:26:36

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:24:01
Sample ID : G245395005 Sample quantity : 141.12 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:25.57 0.4%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.474E+01	3.752E+00	7.433E-01	6.346E-02	46.735
CD-109	+	88.03	*	2.826E+00	6.548E-01	7.675E-01	7.222E-02	3.682
SN-126	+	64.28		1.220E+00	4.275E-01	2.773E-01	4.109E-02	4.399
	+	86.94		1.157E+00	5.393E-01	3.129E-01	1.299E-01	3.697
	+	87.57	*	2.783E-01	6.448E-02	7.545E-02	7.072E-03	3.688
TL-208	+	277.35		5.652E-01	4.975E-01	4.886E-01	6.131E-02	1.157
	+	510.84		5.502E-01	2.975E-01	2.082E-01	2.644E-02	2.643
	+	583.14	*	5.502E-01	1.085E-01	5.770E-02	6.285E-03	9.535
	+	860.37		4.623E-01	6.318E-01	5.622E-01	5.582E-02	0.822
BI-210	+	46.50	*	1.082E+00	7.039E-01	6.018E-01	5.739E-02	1.798
PB-210	+	46.50	*	1.082E+00	7.039E-01	6.018E-01	5.739E-02	1.798
PO-210	+	46.50	*	1.082E+00	7.026E-01	6.018E-01	5.223E-02	1.798
BI-211		72.87		1.734E+00	1.399E+00	2.384E+00	1.996E-01	0.727
	+	351.07	*	3.784E+00	5.728E-01	2.985E-01	2.694E-02	12.674
PB-212	+	74.81		1.739E+00	3.093E-01	2.593E-01	3.273E-02	6.705
	+	77.11		2.030E+00	2.387E-01	1.550E-01	1.337E-02	13.102
	+	87.30		1.287E+00	3.248E-01	3.486E-01	4.773E-02	3.692
	+	238.63	*	1.707E+00	2.007E-01	7.623E-02	7.580E-03	22.399
	+	300.09		1.706E+00	9.212E-01	9.977E-01	1.065E-01	1.710
PO-212	+	74.81		1.739E+00	3.093E-01	2.593E-01	3.273E-02	6.705
	+	77.11		2.030E+00	2.387E-01	1.550E-01	1.337E-02	13.102
	+	87.30		1.287E+00	3.248E-01	3.486E-01	4.773E-02	3.692
		115.19		1.812E+00	2.619E+00	4.292E+00	4.715E-01	0.422
	+	238.63	*	1.707E+00	2.007E-01	7.623E-02	7.580E-03	22.399
	+	300.09		1.706E+00	9.212E-01	9.977E-01	1.065E-01	1.710
BI-214	+	609.31	*	1.207E+00	2.303E-01	1.162E-01	1.373E-02	10.387
	+	1120.29		1.648E+00	6.268E-01	5.998E-01	6.440E-02	2.747
	+	1764.49		1.304E+00	5.240E-01	3.900E-01	3.243E-02	3.344
PB-214	+	74.81		2.996E+00	5.048E-01	4.468E-01	5.032E-02	6.705
	+	77.11		3.481E+00	4.877E-01	2.657E-01	3.058E-02	13.102
	+	87.30		2.205E+00	5.384E-01	5.972E-01	7.238E-02	3.692
	+	241.98		2.531E+00	7.887E-01	4.609E-01	4.844E-02	5.491
	+	295.21		1.284E+00	2.359E-01	1.738E-01	1.894E-02	7.388
	+	351.92	*	1.316E+00	2.108E-01	1.041E-01	1.085E-02	12.638

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		2.996E+00	5.048E-01	4.468E-01	5.032E-02	6.705
	+	77.11		3.481E+00	4.877E-01	2.657E-01	3.058E-02	13.102
	+	87.30		2.205E+00	5.384E-01	5.972E-01	7.238E-02	3.692
	+	241.98		2.531E+00	7.887E-01	4.609E-01	4.844E-02	5.491
	+	295.21		1.284E+00	2.359E-01	1.738E-01	1.894E-02	7.388
	+	351.92	*	1.316E+00	2.108E-01	1.041E-01	1.085E-02	12.638
PO-216	+	74.81		1.739E+00	3.093E-01	2.593E-01	3.273E-02	6.705
	+	77.11		2.030E+00	2.387E-01	1.550E-01	1.337E-02	13.102
	+	87.30		1.287E+00	3.248E-01	3.486E-01	4.773E-02	3.692
	+	238.63	*	1.707E+00	2.007E-01	7.623E-02	7.580E-03	22.399
	+	300.09		1.706E+00	9.212E-01	9.977E-01	1.065E-01	1.710
PO-218	+	74.81		2.996E+00	5.048E-01	4.468E-01	5.032E-02	6.705
	+	77.11		3.481E+00	4.877E-01	2.657E-01	3.058E-02	13.102
	+	87.30		2.205E+00	5.384E-01	5.972E-01	7.238E-02	3.692
	+	241.98		2.531E+00	7.887E-01	4.609E-01	4.844E-02	5.491
	+	295.21		1.284E+00	2.359E-01	1.738E-01	1.894E-02	7.388
	+	351.92	*	1.316E+00	2.108E-01	1.041E-01	1.085E-02	12.638
RA-224	+	240.98	*	4.798E+00	1.471E+00	8.700E-01	7.730E-02	5.516
RA-226	+	609.31	*	1.207E+00	2.303E-01	1.162E-01	1.373E-02	10.387
	+	1120.29		1.648E+00	6.268E-01	5.998E-01	6.440E-02	2.747
	+	1764.49		1.304E+00	5.240E-01	3.900E-01	3.243E-02	3.344
AC-228	+	338.32		1.318E+00	6.634E-01	3.844E-01	1.587E-01	3.428
	+	911.07	*	2.006E+00	3.939E-01	2.131E-01	2.418E-02	9.415
	+	969.11		1.937E+00	6.576E-01	5.662E-01	1.324E-01	3.421
RA-228	+	338.32		1.318E+00	6.634E-01	3.844E-01	1.587E-01	3.428
	+	911.07	*	2.006E+00	3.939E-01	2.131E-01	2.418E-02	9.415
	+	969.11		1.937E+00	6.576E-01	5.662E-01	1.324E-01	3.421
TH-228	+	74.81		1.763E+00	2.675E-01	2.629E-01	2.250E-02	6.705
	+	77.11		2.059E+00	2.420E-01	1.571E-01	1.355E-02	13.102
	+	87.30		1.305E+00	3.024E-01	3.534E-01	3.305E-02	3.692
	+	238.63	*	1.731E+00	2.035E-01	7.729E-02	7.685E-03	22.399
	+	300.09		1.730E+00	1.375E+00	1.012E+00	6.001E-01	1.710
TH-230	+	609.31	*	1.207E+00	2.303E-01	1.162E-01	1.373E-02	10.387
	+	1120.29		1.648E+00	6.268E-01	5.998E-01	6.440E-02	2.747
	+	1764.49		1.304E+00	5.240E-01	3.900E-01	3.242E-02	3.344
TH-232	+	338.32		1.318E+00	3.966E-01	3.844E-01	3.351E-02	3.428
	+	911.07	*	2.006E+00	3.939E-01	2.131E-01	2.418E-02	9.415
	+	969.11		1.937E+00	6.576E-01	5.662E-01	1.324E-01	3.421
TH-234	+	63.29	*	3.082E+00	1.120E+00	7.009E-01	1.238E-01	4.397
	+	92.38		4.199E+00	9.354E-01	4.447E-01	8.261E-02	9.444
U-234	+	609.31	*	1.207E+00	2.303E-01	1.162E-01	1.373E-02	10.387
	+	1120.29		1.648E+00	6.268E-01	5.998E-01	6.440E-02	2.747
	+	1764.49		1.304E+00	5.240E-01	3.900E-01	3.242E-02	3.344
NP-237	+	86.50	*	8.172E-01	2.535E-01	2.207E-01	4.994E-02	3.703
		95.87		-2.772E-01	6.250E-01	8.974E-01	2.250E-01	-0.309
U-238	+	63.29	*	3.082E+00	1.120E+00	7.009E-01	1.238E-01	4.397
	+	92.38		4.199E+00	6.553E-01	4.447E-01	4.275E-02	9.444
AM-243	+	74.67	*	2.819E-01	4.266E-02	4.203E-02	3.562E-03	6.707
	+	86.72		3.064E+01	7.100E+00	8.282E+00	7.708E-01	3.700

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		1.101E-01	2.770E+00	4.397E+00	4.907E-01	0.025
		142.18		6.645E+00	1.354E+01	2.169E+01	2.198E+00	0.306
ANH-511	+	511.00	*	1.188E-01	6.350E-02	4.498E-02	4.312E-03	2.642

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	7.996E-02	3.275E-01	5.596E-01	5.482E-02	0.143
NA-22		1274.54	*	5.532E-03	5.637E-02	9.187E-02	7.537E-03	0.060
NA-24		1368.53	*	1.930E-02	5.637E-02	Half-Life too short		
AL-26		1129.67		-1.247E+00	2.242E+00	3.429E+00	2.887E-01	-0.364
		1808.65	*	1.295E-02	3.623E-02	6.416E-02	5.310E-03	0.202
TI-44		67.85		1.010E-02	1.836E-02	3.086E-02	2.502E-03	0.327
	+	78.38	*	3.747E-01	4.405E-02	3.736E-02	3.253E-03	10.030
SC-46		889.25	*	2.277E-02	4.842E-02	8.450E-02	7.514E-03	0.269
	+	1120.51		2.792E-01	1.046E-01	1.576E-01	1.332E-02	1.772
V-48		944.10		-1.170E+00	1.023E+00	1.465E+00	1.284E-01	-0.799
		983.50	*	-4.300E-02	8.994E-02	1.413E-01	1.236E-02	-0.304
		1312.09		-1.454E-02	1.047E-01	1.667E-01	1.358E-02	-0.087
CR-51		320.08	*	-2.622E-01	3.288E-01	4.976E-01	4.626E-02	-0.527
MN-52		744.21		-7.552E-02	2.372E-01	3.675E-01	3.906E-02	-0.205
		848.13		4.575E+00	6.936E+00	1.234E+01	1.174E+00	0.371
		935.52		-1.164E-01	2.720E-01	4.318E-01	3.785E-02	-0.270
		1246.25		-8.085E-01	8.553E+00	1.366E+01	1.123E+00	-0.059
		1333.61		2.481E+00	4.532E+00	8.202E+00	6.659E-01	0.303
		1434.06	*	5.477E-02	2.102E-01	3.662E-01	3.024E-02	0.150
MN-54		834.83	*	-2.205E-02	4.448E-02	7.120E-02	6.900E-03	-0.310
CO-56		846.75	*	2.475E-02	4.576E-02	8.070E-02	7.692E-03	0.307
		977.42		1.087E+00	3.790E+00	6.452E+00	5.647E-01	0.168
		1037.82		-4.284E-02	3.628E-01	5.884E-01	5.373E-02	-0.073
		1175.09		-2.601E+00	2.893E+00	4.204E+00	3.464E-01	-0.619
		1238.25		7.036E-02	1.259E-01	2.131E-01	1.808E-02	0.330
		1360.21		1.466E+00	1.269E+00	2.421E+00	1.976E-01	0.605
		1771.40		4.037E-02	2.236E-01	3.835E-01	3.187E-02	0.105
CO-57		122.06	*	3.597E-03	1.781E-02	2.846E-02	3.269E-03	0.126
		136.48		-9.695E-02	1.657E-01	2.501E-01	2.771E-02	-0.388
CO-58		810.76	*	-1.930E-02	4.016E-02	6.397E-02	6.401E-03	-0.302
FE-59		142.65		5.940E-01	2.086E+00	3.303E+00	3.337E-01	0.180
		192.34		1.046E-01	7.294E-01	1.240E+00	1.653E-01	0.084
		1099.22	*	9.518E-02	1.186E-01	2.093E-01	1.932E-02	0.455
		1291.56		2.978E-02	1.490E-01	2.460E-01	2.311E-02	0.121
CO-60		1173.22		-3.791E-02	5.996E-02	9.054E-02	7.461E-03	-0.419
		1332.49	*	2.004E-02	4.462E-02	7.937E-02	6.442E-03	0.252
ZN-65		1115.52	*	-4.370E-02	1.389E-01	1.869E-01	1.584E-02	-0.234
GE-68		1077.35	*	2.066E-01	1.717E+00	2.848E+00	2.445E-01	0.073
AS-73		53.44	*	1.019E-01	1.733E-01	2.963E-01	2.399E-02	0.344
AS-74		595.88	*	9.169E-02	9.231E-02	1.647E-01	1.728E-02	0.557
		634.78		-9.285E-02	3.821E-01	6.033E-01	6.538E-02	-0.154

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		-8.848E-01	1.928E+00	2.882E+00	2.868E-01	-0.307
		96.73		-1.755E-01	5.201E-01	7.552E-01	1.090E-01	-0.232
		121.11		-5.951E-03	9.657E-02	1.521E-01	2.051E-02	-0.039
		136.00		7.518E-03	2.984E-02	4.737E-02	5.034E-03	0.159
		198.60		-4.994E-01	1.473E+00	2.440E+00	2.317E-01	-0.205
		264.65	*	-3.758E-03	4.138E-02	6.042E-02	5.424E-03	-0.062
		279.53		9.364E-03	9.715E-02	1.435E-01	1.324E-02	0.065
		303.91		1.058E+00	1.928E+00	2.944E+00	3.444E-01	0.359
		400.65		-5.759E-02	2.661E-01	4.138E-01	4.430E-02	-0.139
BR-77	+	87.88		4.228E+02	9.796E+01	1.481E+02	1.392E+01	2.854
		200.40		1.050E+02	9.131E+01	1.614E+02	1.383E+01	0.650
	+	239.00		1.895E+02	2.059E+01	2.634E+01	2.338E+00	7.194
		249.79		-1.196E+01	3.958E+01	6.423E+01	5.728E+00	-0.186
		281.68		-1.062E+00	5.769E+01	8.424E+01	7.515E+00	-0.013
		297.23		5.717E+01	3.282E+01	5.866E+01	5.235E+00	0.975
		303.76		2.786E+01	1.054E+02	1.747E+02	1.557E+01	0.159
		439.47		2.903E+01	9.773E+01	1.687E+02	1.459E+01	0.172
		484.57		-5.672E+01	1.630E+02	2.650E+02	2.454E+01	-0.214
		520.65	*	-1.065E+00	7.591E+00	1.248E+01	1.210E+00	-0.085
		574.64		-2.068E+00	1.669E+02	2.749E+02	2.829E+01	-0.008
		578.91		-2.285E+01	7.494E+01	1.042E+02	1.076E+01	-0.219
		585.48		2.897E+02	1.389E+02	2.439E+02	2.536E+01	1.188
		755.35		9.902E+01	1.360E+02	2.342E+02	2.469E+01	0.423
		817.79		-1.109E+01	9.550E+01	1.587E+02	1.572E+01	-0.070
SR-82		698.33		-2.806E+00	4.193E+01	6.742E+01	7.357E+00	-0.042
		776.49	*	-1.016E-01	4.477E-01	6.984E-01	7.230E-02	-0.145
		1395.20		-4.942E+00	1.209E+01	1.882E+01	1.545E+00	-0.263
RB-83		520.41	*	-9.229E-04	7.160E-02	1.190E-01	1.154E-02	-0.008
		529.64		-8.690E-02	1.098E-01	1.687E-01	1.654E-02	-0.515
		552.65		-2.536E-02	2.103E-01	3.442E-01	3.463E-02	-0.074
RB-84		881.50	*	-1.801E-02	7.422E-02	1.206E-01	1.087E-02	-0.149
KR-85		513.99	*	4.148E+00	6.985E+00	1.099E+01	1.058E+00	0.377
SR-85		513.99	*	2.099E-02	3.534E-02	5.562E-02	5.352E-03	0.377
RB-86		1076.63	*	4.060E-01	1.038E+00	1.767E+00	1.517E-01	0.230
Y-88		898.02		7.852E-04	4.695E-02	7.849E-02	6.899E-03	0.010
		1836.01	*	1.874E-02	4.165E-02	7.496E-02	6.189E-03	0.250
ZR-88		392.90	*	-9.772E-03	3.206E-02	4.960E-02	3.951E-03	-0.197
Y-91		1204.90	*	7.977E+00	2.497E+01	4.174E+01	3.439E+00	0.191
NB-94		702.63	*	-6.301E-03	4.319E-02	6.890E-02	7.503E-03	-0.091
		871.10		1.475E-02	4.062E-02	7.042E-02	6.464E-03	0.209
NB-95		765.79	*	-6.527E-03	4.742E-02	7.486E-02	7.823E-03	-0.087
NB-95M		235.69	*	-1.851E-02	1.110E-01	1.633E-01	1.645E-02	-0.113
ZR-95		724.18		1.531E-01	1.242E-01	2.009E-01	2.285E-02	0.762
		756.15	*	7.090E-02	8.431E-02	1.464E-01	1.648E-02	0.484
NB-97		657.90	*	2.405E-02	8.431E-02	Half-Life too short		
		1024.50		2.731E+00	8.431E-02	Half-Life too short		
ZR-97		254.15		9.539E-01	8.431E-02	Half-Life too short		
		355.39		-1.650E-01	8.431E-02	Half-Life too short		
		507.63	*	6.720E-01	8.431E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		602.52		1.712E+00	8.431E-02	Half-Life too short		
		1021.30		1.652E+00	8.431E-02	Half-Life too short		
		1147.95		1.663E+00	8.431E-02	Half-Life too short		
		1362.66		3.833E+00	8.431E-02	Half-Life too short		
		1750.46		-1.949E+00	8.431E-02	Half-Life too short		
MO-99		140.51		-8.710E+00	1.506E+01	2.241E+01	6.330E+00	-0.389
		181.06		-6.847E+00	1.016E+01	1.575E+01	2.858E+00	-0.435
		366.43		4.107E+01	5.757E+01	9.738E+01	8.166E+00	0.422
		739.58	*	-4.835E+00	9.294E+00	1.396E+01	2.294E+00	-0.346
		778.00		1.556E+01	2.917E+01	4.933E+01	5.100E+00	0.315
TC-99M		140.51	*	-5.257E+08	2.917E+01	Half-Life too short		
RH-101	+	127.23		5.789E-02	3.027E-02	3.892E-02	4.344E-03	1.488
		198.01	*	-1.834E-03	2.653E-02	4.455E-02	3.805E-03	-0.041
		325.23		-1.234E-01	2.445E-01	3.351E-01	2.956E-02	-0.368
RH-102		418.52		-2.366E-01	2.837E-01	4.508E-01	3.764E-02	-0.525
		475.06	*	-1.261E-03	2.891E-02	4.833E-02	4.415E-03	-0.026
		631.29		4.673E-03	6.517E-02	1.072E-01	1.158E-02	0.044
		697.49		4.884E-02	9.434E-02	1.596E-01	1.742E-02	0.306
		766.84		-3.395E-02	1.285E-01	2.002E-01	2.090E-02	-0.170
		1046.59		-1.647E-03	1.423E-01	2.335E-01	2.021E-02	-0.007
		1112.84		1.684E-02	3.457E-01	4.917E-01	4.168E-02	0.034
RU-103		497.08	*	3.314E-02	4.220E-02	7.440E-02	1.091E-02	0.445
	+	610.33		1.275E+01	2.965E+00	3.314E+00	5.902E-01	3.845
RH-106	+	511.85		5.922E-01	3.164E-01	4.335E-01	4.160E-02	1.366
		621.84	*	1.843E-01	3.680E-01	6.278E-01	9.296E-02	0.294
		1050.47		-1.775E+00	2.986E+00	4.576E+00	3.957E-01	-0.388
RU-106	+	511.85		5.922E-01	3.164E-01	4.335E-01	4.160E-02	1.366
		621.84	*	1.843E-01	3.675E-01	6.278E-01	6.736E-02	0.294
		1050.47		-1.775E+00	2.986E+00	4.576E+00	3.957E-01	-0.388
AG-108M		433.93	*	8.936E-03	3.364E-02	5.794E-02	5.167E-03	0.154
		614.37		6.052E-03	4.187E-02	6.138E-02	6.715E-03	0.099
		722.95		5.480E-02	5.262E-02	8.436E-02	9.320E-03	0.650
AG-110M		657.75	*	3.274E-02	4.269E-02	7.392E-02	8.292E-03	0.443
		677.61		5.758E-01	3.613E-01	6.642E-01	7.431E-02	0.867
		706.67		-8.806E-03	2.630E-01	4.237E-01	4.685E-02	-0.021
		763.93		-8.256E-02	1.923E-01	2.936E-01	3.133E-02	-0.281
		884.67		3.305E-03	6.049E-02	1.016E-01	9.384E-03	0.033
		937.48		-1.512E-01	1.366E-01	1.983E-01	1.799E-02	-0.763
		1384.27		6.257E-02	1.731E-01	3.056E-01	2.582E-02	0.205
IN-111		171.28		-9.206E-02	5.557E-01	9.389E-01	7.698E-02	-0.098
		245.39	*	-2.958E-01	6.938E-01	9.911E-01	8.824E-02	-0.298
IN-113M		391.69	*	-2.374E-02	4.513E-02	6.834E-02	5.628E-03	-0.347
SN-113		391.69	*	-2.374E-02	4.513E-02	6.834E-02	5.628E-03	-0.347
IN-114M		190.27	*	-4.829E-02	1.414E-01	2.349E-01	1.985E-02	-0.206
CD-115		260.90		-5.586E+01	7.641E+01	1.197E+02	1.070E+01	-0.467
		492.35		1.624E-01	2.420E+01	4.020E+01	3.761E+00	0.004
		527.90	*	-7.905E+00	7.762E+00	1.164E+01	1.139E+00	-0.679
SN-117M		156.02		-9.258E-01	1.636E+00	2.733E+00	2.467E-01	-0.339
		158.56	*	-5.658E-03	3.830E-02	6.516E-02	5.735E-03	-0.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-122		563.90	*	-4.926E-01	1.650E+00	2.652E+00	2.700E-01	-0.186
		692.80		-3.113E+01	3.751E+01	5.537E+01	6.056E+00	-0.562
I-123		159.00	*	-2.446E-01	3.751E+01	Half-Life too short		
		528.96		-9.353E+01	3.751E+01	Half-Life too short		
TE-123M		159.00	*	-5.970E-03	2.101E-02	3.550E-02	3.129E-03	-0.168
I-124		602.71	*	4.753E-01	5.516E-01	9.225E-01	9.741E-02	0.515
		722.78		3.986E+00	4.389E+00	6.950E+00	7.489E-01	0.574
		1325.50		2.380E+01	3.653E+01	6.588E+01	5.355E+00	0.361
		1376.25		4.042E+01	2.936E+01	5.735E+01	4.694E+00	0.705
		1509.49		2.183E-01	1.361E+01	2.261E+01	1.882E+00	0.010
		1691.02		-1.188E+00	3.345E+00	4.948E+00	4.133E-01	-0.240
SB-124		602.71		3.359E-02	3.898E-02	6.519E-02	6.884E-03	0.515
		645.85		-1.345E-01	5.864E-01	9.346E-01	1.060E-01	-0.144
		709.31		-7.265E-01	3.273E+00	5.167E+00	5.609E-01	-0.141
		713.82		-6.337E-01	1.989E+00	3.106E+00	4.258E-01	-0.204
		722.78		4.083E-01	4.497E-01	7.119E-01	7.779E-02	0.574
	+	968.20		1.965E+01	5.133E+00	8.484E+00	7.431E-01	2.317
		1045.16		1.482E+00	2.925E+00	5.077E+00	4.396E-01	0.292
		1325.50		2.604E+00	3.997E+00	7.208E+00	5.859E-01	0.361
		1368.21		4.226E-02	2.137E+00	3.584E+00	4.729E-01	0.012
		1436.60		-2.408E+00	3.888E+00	5.682E+00	4.694E-01	-0.424
		1691.02	*	-2.872E-02	8.084E-02	1.196E-01	1.041E-02	-0.240
SB-125		427.89	*	6.304E-02	9.087E-02	1.612E-01	1.395E-02	0.391
	+	463.38		1.061E+00	3.944E-01	5.817E-01	5.602E-02	1.824
		600.56		-3.018E-02	1.780E-01	2.872E-01	3.179E-02	-0.105
		635.90		-2.452E-01	3.168E-01	4.711E-01	5.374E-02	-0.521
TE-125M		109.28	*	2.875E+00	6.373E+00	1.037E+01	1.247E+00	0.277
I-126		388.63		-4.987E-03	1.972E-01	3.128E-01	2.505E-02	-0.016
		666.33	*	1.275E-01	1.984E-01	3.408E-01	3.759E-02	0.374
		753.82		9.484E-02	1.642E+00	2.653E+00	2.799E-01	0.036
SB-126		223.80		-6.083E-02	2.930E+00	4.884E+00	4.290E-01	-0.012
	+	278.60		3.481E+00	3.049E+00	3.421E+00	3.051E-01	1.018
	+	296.50		1.191E+01	2.058E+00	2.940E+00	2.624E-01	4.052
		414.70		5.591E-02	6.958E-02	1.243E-01	1.031E-02	0.450
		415.30		6.356E+00	5.802E+00	1.053E+01	8.743E-01	0.604
		555.20		-1.956E+00	4.055E+00	6.407E+00	6.463E-01	-0.305
		573.80		-1.759E-01	1.145E+00	1.864E+00	1.916E-01	-0.094
		593.00		2.288E-01	9.399E-01	1.579E+00	1.654E-01	0.145
		656.30		2.178E+00	3.796E+00	6.484E+00	7.136E-01	0.336
		666.33		5.313E-02	8.267E-02	1.420E-01	1.566E-02	0.374
		675.00		-7.496E-01	2.218E+00	3.478E+00	3.828E-01	-0.216
		695.00		4.313E-02	8.601E-02	1.456E-01	1.591E-02	0.296
		697.00		4.455E-02	3.156E-01	5.170E-01	5.645E-02	0.086
		720.50	*	-1.519E-01	1.671E-01	2.310E-01	2.492E-02	-0.658
		856.80		-1.588E-01	6.332E-01	8.922E-01	8.378E-02	-0.178
		989.30		5.243E-01	1.399E+00	2.408E+00	2.105E-01	0.218
		1034.80		-9.098E+00	1.006E+01	1.469E+01	1.275E+00	-0.619
		1213.00		3.603E+00	6.605E+00	1.120E+01	9.221E-01	0.322
SB-127		61.10		1.758E+00	1.524E+01	2.356E+01	2.400E+00	0.075

---- Non-Identified Nuclides ----

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		252.40		-1.149E+00	3.162E+00	5.051E+00	2.121E+00	-0.228
		290.80		-1.465E+01	1.763E+01	2.368E+01	2.615E+00	-0.618
		411.60		-1.156E+01	1.079E+01	1.526E+01	2.330E+00	-0.757
		444.90		-1.768E+00	7.358E+00	1.217E+01	1.495E+00	-0.145
		473.00		4.565E-01	1.293E+00	2.231E+00	2.876E-01	0.205
		543.00		-2.082E+00	1.422E+01	2.326E+01	3.481E+00	-0.090
		603.60		6.280E+00	1.010E+01	1.571E+01	2.141E+00	0.400
		685.20	*	-4.315E-01	1.136E+00	1.759E+00	2.277E-01	-0.245
		698.50		-1.031E+00	1.540E+01	2.476E+01	4.194E+00	-0.042
		722.20		1.026E+00	3.092E+01	4.373E+01	5.505E+00	0.023
		783.80		3.904E+00	3.598E+00	6.313E+00	8.411E-01	0.618
XE-127		57.60		-9.446E-01	1.595E+00	2.591E+00	2.040E-01	-0.365
		145.22		-4.242E-01	5.608E-01	8.335E-01	8.256E-02	-0.509
		172.10		2.146E-02	8.934E-02	1.538E-01	1.263E-02	0.140
		202.84	*	-1.863E-02	3.642E-02	5.960E-02	5.121E-03	-0.313
		374.96		7.661E-02	1.934E-01	3.181E-01	2.625E-02	0.241
I-131		80.18		4.492E-01	2.213E+00	3.368E+00	2.988E-01	0.133
		284.30		5.805E-01	1.163E+00	1.964E+00	1.837E-01	0.296
		364.48	*	3.498E-02	9.850E-02	1.621E-01	1.440E-02	0.216
		636.97		-2.416E-02	1.512E+00	2.442E+00	2.743E-01	-0.010
		722.89		7.863E+00	7.903E+00	1.262E+01	1.364E+00	0.623
TE-132		49.72		-3.590E-02	2.409E+00	3.754E+00	3.877E-01	-0.010
		111.76		3.757E+00	1.640E+01	2.637E+01	3.254E+00	0.142
		116.30		8.534E+00	1.560E+01	2.537E+01	3.199E+00	0.336
		228.16	*	6.908E-02	4.327E-01	7.270E-01	1.134E-01	0.095
BA-133		53.15		2.975E-01	7.472E-01	1.269E+00	1.030E-01	0.234
		79.62		-5.382E-01	7.135E-01	1.028E+00	1.574E-01	-0.524
		81.00		5.334E-03	6.099E-02	8.130E-02	1.303E-02	0.066
	+	276.40		5.584E-01	4.933E-01	5.960E-01	8.720E-02	0.937
		302.84		3.480E-02	1.217E-01	2.018E-01	2.721E-02	0.172
		356.01	*	-4.614E-03	4.558E-02	6.427E-02	8.447E-03	-0.072
		383.85		4.426E-02	2.949E-01	4.751E-01	5.821E-02	0.093
I-133	+	510.53		4.389E-01	2.949E-01	Half-Life too short		
		529.87	*	-9.491E-04	2.949E-01	Half-Life too short		
		706.58		1.007E-03	2.949E-01	Half-Life too short		
		856.28		2.298E-02	2.949E-01	Half-Life too short		
		875.33		-3.142E-02	2.949E-01	Half-Life too short		
		1236.41		1.250E-01	2.949E-01	Half-Life too short		
		1298.22		1.163E-01	2.949E-01	Half-Life too short		
CS-134		475.35		-1.584E-01	1.909E+00	3.181E+00	2.907E-01	-0.050
		563.23		9.640E-02	3.891E-01	6.563E-01	6.722E-02	0.147
		569.32		-4.930E-02	2.185E-01	3.534E-01	3.652E-02	-0.140
		604.70		-2.037E-02	4.033E-02	5.401E-02	5.722E-03	-0.377
	+	795.84	*	1.306E-01	1.126E-01	1.184E-01	1.209E-02	1.104
		801.93		-1.741E-01	5.177E-01	7.243E-01	7.338E-02	-0.240
		1038.57		7.790E-03	4.568E+00	7.514E+00	6.517E-01	0.001
		1167.94		3.457E+00	3.605E+00	6.365E+00	5.260E-01	0.543
		1365.15		-1.713E+00	1.691E+00	2.427E+00	2.083E-01	-0.706
CS-135		268.24	*	1.524E-01	1.499E-01	2.376E-01	2.433E-02	0.642

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I-135		288.45		1.926E+08	1.499E-01	Half-Life too short		
		417.63		-5.934E+08	1.499E-01	Half-Life too short		
		546.56		-5.228E+08	1.499E-01	Half-Life too short		
		836.80		2.410E+08	1.499E-01	Half-Life too short		
		1038.76		1.403E+06	1.499E-01	Half-Life too short		
		1124.00		4.656E+08	1.499E-01	Half-Life too short		
		1131.51		1.337E+08	1.499E-01	Half-Life too short		
		1260.41	*	-4.136E+07	1.499E-01	Half-Life too short		
		1457.56		3.833E+10	1.499E-01	Half-Life too short		
		1678.03		-3.933E+07	1.499E-01	Half-Life too short		
		1706.46		-4.633E+08	1.499E-01	Half-Life too short		
		1791.20		1.348E+08	1.499E-01	Half-Life too short		
CS-136		66.91		-3.448E-03	2.973E-01	4.540E-01	6.871E-02	-0.008
	+	86.29		3.397E+00	8.511E-01	1.086E+00	1.445E-01	3.127
		153.22		2.808E-01	4.690E-01	8.238E-01	8.414E-02	0.341
		163.89		-3.873E-02	7.672E-01	1.308E+00	1.227E-01	-0.030
		176.55		-3.005E-02	2.612E-01	4.414E-01	3.879E-02	-0.068
		273.65		5.856E-02	4.839E-01	5.704E-01	5.406E-02	0.103
		340.57		4.843E-02	1.240E-01	1.843E-01	1.648E-02	0.263
		818.51		-3.257E-02	7.565E-02	1.213E-01	1.201E-02	-0.268
		1048.07	*	-3.466E-02	1.233E-01	1.959E-01	1.766E-02	-0.177
		1235.34		7.203E-01	7.998E-01	1.385E+00	1.602E-01	0.520
BA-137M		661.65	*	-1.008E-02	4.049E-02	6.420E-02	7.091E-03	-0.157
CS-137		661.65	*	-1.065E-02	4.280E-02	6.787E-02	7.504E-03	-0.157
CE-139		165.85	*	-8.037E-03	2.242E-02	3.763E-02	3.059E-03	-0.214
BA-140		162.64		5.316E-01	5.367E-01	9.535E-01	8.528E-02	0.558
		304.84		-4.902E-01	1.196E+00	1.654E+00	4.649E-01	-0.296
		423.70		-1.415E+00	1.766E+00	2.708E+00	8.765E-01	-0.522
		537.32	*	1.748E-02	2.628E-01	4.384E-01	1.468E-01	0.040
LA-140	+	328.77		3.233E-01	2.900E-01	4.900E-01	4.542E-02	0.660
		432.53		1.172E+00	1.962E+00	3.454E+00	3.100E-01	0.339
		487.03		1.489E-01	1.254E-01	2.290E-01	2.241E-02	0.650
		751.79		-1.790E+00	1.884E+00	2.675E+00	3.032E-01	-0.669
		815.85		-2.014E-01	3.197E-01	4.992E-01	5.393E-02	-0.403
		867.82		8.607E-02	1.632E+00	2.597E+00	2.508E-01	0.033
		919.63		-6.455E-01	2.584E+00	4.036E+00	4.344E-01	-0.160
		925.24		-9.166E-02	1.138E+00	1.875E+00	1.743E-01	-0.049
		1596.49	*	-9.939E-02	1.168E-01	1.651E-01	1.380E-02	-0.602
CE-141		145.44	*	-3.893E-02	5.077E-02	7.538E-02	7.558E-03	-0.516
CE-143		57.37		-1.127E-04	5.077E-02	Half-Life too short		
		231.56		-3.612E-04	5.077E-02	Half-Life too short		
		293.26	*	1.362E-04	5.077E-02	Half-Life too short		
	+	350.59		1.584E-02	5.077E-02	Half-Life too short		
		490.36		-1.707E-03	5.077E-02	Half-Life too short		
		664.57		2.551E-04	5.077E-02	Half-Life too short		
		721.93		4.444E-05	5.077E-02	Half-Life too short		
CE-144		80.11		2.148E-01	1.131E+00	1.720E+00	1.518E-01	0.125
		133.54	*	-2.257E-02	1.546E-01	2.403E-01	4.046E-02	-0.094
PM-144		476.78		1.584E-02	6.853E-02	1.170E-01	1.161E-02	0.135

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		618.01		-2.440E-02	3.354E-02	5.057E-02	5.506E-03	-0.482
		696.49	*	8.925E-03	4.153E-02	6.854E-02	7.486E-03	0.130
		778.57		9.389E-01	2.741E+00	4.546E+00	4.698E-01	0.207
PR-144		696.49	*	6.044E-01	2.812E+00	4.641E+00	5.068E-01	0.130
		1489.15		-6.985E-01	1.274E+01	2.090E+01	1.737E+00	-0.033
PM-146		453.90	*	2.341E-02	4.364E-02	7.636E-02	8.332E-03	0.307
		633.02		-2.287E-02	1.573E+00	2.566E+00	9.737E-01	-0.009
		735.90		6.518E-02	1.606E-01	2.686E-01	7.869E-02	0.243
		747.13		6.599E-02	1.048E-01	1.792E-01	2.748E-02	0.368
ND-147	+	91.11		5.504E-01	1.714E-01	2.698E-01	2.752E-02	2.040
		319.41		-1.969E+00	2.778E+00	4.239E+00	3.753E-01	-0.464
		439.89		-4.027E-01	5.374E+00	9.026E+00	7.815E-01	-0.045
		531.02	*	-9.019E-02	5.303E-01	8.668E-01	1.359E-01	-0.104
PM-149		285.90	*	-9.934E+00	5.614E+01	9.066E+01	1.424E+01	-0.110
EU-152		121.78		1.177E-02	5.234E-02	8.372E-02	1.044E-02	0.141
		244.69		-2.921E-02	2.878E-01	4.234E-01	3.769E-02	-0.069
		344.27	*	1.929E-02	9.753E-02	1.590E-01	1.458E-02	0.121
		443.98		3.187E-01	8.898E-01	1.544E+00	1.346E-01	0.206
		778.89		2.270E-02	3.268E-01	5.266E-01	5.439E-02	0.043
		867.32		-3.499E-01	1.116E+00	1.631E+00	1.506E-01	-0.215
		964.01		2.899E-01	4.143E-01	6.478E-01	5.675E-02	0.448
		1085.78		-1.637E-01	4.856E-01	7.629E-01	6.531E-02	-0.215
		1112.02		1.746E-01	4.738E-01	7.593E-01	6.439E-02	0.230
		1407.95		1.971E-01	2.107E-01	3.980E-01	3.275E-02	0.495
GD-153		69.67		1.212E-02	6.846E-01	1.127E+00	9.240E-02	0.011
	+	83.37		3.022E+01	9.917E+00	1.458E+01	1.320E+00	2.073
		97.43	*	-4.295E-02	5.678E-02	8.023E-02	7.926E-03	-0.535
		103.18		-3.484E-02	6.977E-02	1.086E-01	1.109E-02	-0.321
EU-154		123.07		-2.594E-02	3.823E-02	5.773E-02	7.860E-03	-0.449
		247.94		1.088E-02	2.994E-01	4.964E-01	5.807E-02	0.022
		591.81		-4.935E-02	6.869E-01	1.122E+00	1.468E-01	-0.044
		723.30		3.169E-01	2.214E-01	3.683E-01	4.241E-02	0.860
		756.87		5.844E-01	9.505E-01	1.615E+00	2.167E-01	0.362
		873.19		1.679E-01	3.237E-01	5.712E-01	7.209E-02	0.294
		996.32		-6.686E-02	4.690E-01	7.628E-01	1.359E-01	-0.088
		1004.76		-3.189E-01	2.634E-01	3.684E-01	4.317E-02	-0.866
		1274.45	*	-2.111E-03	1.579E-01	2.538E-01	2.789E-02	-0.008
EU-155		48.70		1.582E-01	3.550E-01	5.671E-01	4.797E-02	0.279
		60.01		-2.844E-01	1.600E+00	2.443E+00	1.908E-01	-0.116
	+	86.54		3.350E-01	7.773E-02	1.156E-01	1.084E-02	2.897
		105.31	*	1.113E-01	7.074E-02	1.207E-01	1.258E-02	0.923
TB-160	+	86.79		8.844E-01	2.049E-01	3.211E-01	2.990E-02	2.755
		197.04		-2.671E-01	4.333E-01	7.066E-01	6.027E-02	-0.378
		215.65		5.264E-02	6.039E-01	1.015E+00	8.850E-02	0.052
	+	298.57		2.453E-01	1.316E-01	1.802E-01	1.608E-02	1.361
		879.36	*	5.921E-03	1.449E-01	2.435E-01	2.204E-02	0.024
		962.29		5.382E-01	7.279E-01	1.184E+00	1.038E-01	0.454
		966.15		6.703E-01	3.267E-01	5.641E-01	4.942E-02	1.188
		1177.93		1.565E-01	4.483E-01	7.555E-01	6.226E-02	0.207

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		-1.001E+00	1.002E+00	1.411E+00	1.156E-01	-0.709
HO-166M		80.57		2.686E-02	1.661E-01	2.227E-01	1.972E-02	0.121
	+	184.41		1.337E-01	4.264E-02	5.564E-02	4.660E-03	2.402
		280.46		-8.860E-03	7.741E-02	1.120E-01	9.991E-03	-0.079
		410.95		9.190E-02	2.689E-01	4.364E-01	3.595E-02	0.211
		711.68	*	-1.705E-03	7.063E-02	1.137E-01	1.233E-02	-0.015
		752.31		-2.685E-01	3.189E-01	4.598E-01	4.858E-02	-0.584
		810.29		-3.645E-02	6.038E-02	9.456E-02	9.451E-03	-0.385
TM-171		51.35		-5.046E+00	5.396E+00	8.661E+00	7.138E-01	-0.583
		52.39		3.788E-02	2.986E+00	5.003E+00	4.086E-01	0.008
		59.40		-4.803E-01	8.364E+00	1.285E+01	1.002E+00	-0.037
		66.72	*	-6.156E+00	1.169E+01	1.741E+01	1.403E+00	-0.354
LU-176	+	88.36		6.600E-01	1.529E-01	2.044E-01	1.927E-02	3.229
		201.83		-1.132E-02	2.363E-02	3.879E-02	3.329E-03	-0.292
		306.84	*	2.850E-03	2.447E-02	3.588E-02	3.195E-03	0.079
		401.10		-2.268E+00	7.000E+00	1.078E+01	8.723E-01	-0.210
LU-177		112.95		-7.244E-01	1.057E+00	1.615E+00	1.750E-01	-0.448
	+	208.36	*	3.165E+00	1.244E+00	1.616E+00	1.398E-01	1.959
LU-177M		52.97		9.429E-02	3.306E-01	5.594E-01	4.547E-02	0.169
		54.07		8.827E-02	1.882E-01	3.202E-01	2.580E-02	0.276
		61.30		2.020E-01	4.925E-01	7.716E-01	6.056E-02	0.262
		121.62		1.960E-02	2.705E-01	4.291E-01	4.912E-02	0.046
		147.16		2.862E-01	5.163E-01	8.272E-01	8.069E-02	0.346
		171.86		1.416E-01	3.618E-01	6.271E-01	5.146E-02	0.226
		218.09		7.164E-02	7.096E-01	1.193E+00	1.042E-01	0.060
	+	268.79		2.204E+00	1.149E+00	1.359E+00	1.214E-01	1.622
		319.02		-1.347E-01	2.313E-01	3.569E-01	3.161E-02	-0.377
		367.43		4.603E-01	8.400E-01	1.404E+00	1.175E-01	0.328
		413.65	*	3.815E-02	1.885E-01	3.028E-01	2.507E-02	0.126
HF-181		56.28		-1.377E-01	2.298E-01	3.734E-01	2.964E-02	-0.369
		57.53		-8.587E-02	1.340E-01	2.171E-01	1.710E-02	-0.395
		65.20		1.498E-01	3.548E-01	5.536E-01	4.425E-02	0.271
		133.02		-1.412E-02	4.926E-02	7.596E-02	8.191E-03	-0.186
		136.25		-1.781E-01	3.575E-01	5.430E-01	5.735E-02	-0.328
		345.85		2.981E-02	1.902E-01	2.947E-01	2.548E-02	0.101
		482.03	*	-3.944E-03	4.127E-02	6.859E-02	6.328E-03	-0.058
W-181		56.28		-5.482E-02	9.118E-02	1.481E-01	1.176E-02	-0.370
		57.53		-3.417E-02	5.319E-02	8.619E-02	6.790E-03	-0.396
		65.20	*	5.900E-02	1.398E-01	2.181E-01	1.743E-02	0.271
TA-182		67.75		2.862E-02	4.650E-02	7.292E-02	5.910E-03	0.393
		100.10		-1.969E-02	1.188E-01	1.889E-01	1.894E-02	-0.104
		152.43		-1.482E-01	2.783E-01	4.176E-01	3.896E-02	-0.355
		222.10		-9.533E-02	2.765E-01	4.526E-01	3.969E-02	-0.211
		1001.68		1.632E+00	2.516E+00	4.420E+00	3.859E-01	0.369
	+	1121.28		7.732E-01	2.896E-01	4.185E-01	3.535E-02	1.848
		1189.05		-2.128E-01	4.424E-01	6.829E-01	5.627E-02	-0.312
		1221.42	*	5.874E-02	2.751E-01	4.540E-01	3.738E-02	0.129
		1230.97		5.205E-01	6.783E-01	1.170E+00	9.626E-02	0.445
RE-183		57.98		1.700E-02	5.304E-02	8.936E-02	7.022E-03	0.190

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		59.32		-2.452E-03	3.387E-02	5.202E-02	4.059E-03	-0.047
		67.20		1.012E-02	8.154E-02	1.253E-01	1.012E-02	0.081
		162.32	*	8.999E-02	8.228E-02	1.468E-01	1.242E-02	0.613
	+	208.81		3.203E+00	1.259E+00	1.633E+00	1.413E-01	1.962
		291.72		1.577E-01	8.675E-01	1.286E+00	1.148E-01	0.123
RE-184		57.98		6.310E-02	1.969E-01	3.317E-01	2.607E-02	0.190
		59.32		-9.094E-03	1.256E-01	1.929E-01	1.505E-02	-0.047
		67.20		3.756E-02	3.026E-01	4.648E-01	3.755E-02	0.081
		161.27		-1.035E-01	2.665E-01	4.476E-01	3.831E-02	-0.231
		216.55		4.129E-02	2.173E-01	3.671E-01	3.203E-02	0.112
		252.85	*	-4.855E-02	2.110E-01	3.437E-01	3.068E-02	-0.141
		318.01		1.557E-01	3.900E-01	6.506E-01	5.764E-02	0.239
		792.07		-1.036E-01	1.298E+00	1.783E+00	1.818E-01	-0.058
		903.28		8.881E-01	1.230E+00	2.099E+00	1.837E-01	0.423
		920.93		-4.606E-01	4.581E-01	6.560E-01	5.748E-02	-0.702
OS-185		59.72		2.012E-04	9.293E-02	1.432E-01	1.117E-02	0.001
		61.14		7.110E-03	5.406E-02	8.365E-02	6.561E-03	0.085
		69.30		-6.525E-03	1.205E-01	1.979E-01	1.618E-02	-0.033
		592.07		5.117E-01	2.703E+00	4.521E+00	4.729E-01	0.113
		646.12	*	-6.763E-03	4.834E-02	7.770E-02	8.490E-03	-0.087
		717.42		2.093E-01	1.050E+00	1.728E+00	1.868E-01	0.121
		874.81		-1.476E-01	6.544E-01	1.067E+00	9.735E-02	-0.138
		880.27		3.677E-02	8.337E-01	1.401E+00	1.266E-01	0.026
RE-188		155.03	*	1.360E-01	1.278E-01	2.279E-01	2.077E-02	0.597
		477.96		1.254E+00	3.092E+00	5.347E+00	4.905E-01	0.235
		633.10		7.296E-02	3.153E+00	5.161E+00	5.586E-01	0.014
W-188	+	63.58		1.223E+02	4.004E+01	4.027E+01	3.193E+00	3.037
		227.08		4.730E-01	1.026E+01	1.714E+01	1.509E+00	0.028
		290.67	*	-6.400E+00	7.557E+00	1.015E+01	9.060E-01	-0.631
IR-192	+	295.96		9.678E-01	1.675E-01	2.748E-01	2.470E-02	3.521
		308.46		4.932E-02	8.794E-02	1.482E-01	1.325E-02	0.333
		316.51	*	-1.476E-02	3.207E-02	5.014E-02	4.456E-03	-0.294
		468.07		3.460E-02	6.301E-02	9.969E-02	9.606E-03	0.347
		604.41		-6.768E-03	4.924E-01	7.069E-01	1.017E-01	-0.010
		612.46		6.336E-01	7.672E-01	1.219E+00	1.428E-01	0.520
AU-195		65.12		2.995E-02	6.484E-02	1.013E-01	8.096E-03	0.296
		66.83		-1.868E-03	3.787E-02	5.772E-02	4.654E-03	-0.032
	+	75.70		9.078E-01	1.374E-01	2.196E-01	1.875E-02	4.133
		98.88	*	1.980E-01	1.467E-01	2.486E-01	2.476E-02	0.796
	+	129.76		5.082E+00	2.657E+00	3.689E+00	4.058E-01	1.377
TL-200		367.94	*	-2.914E-05	2.657E+00	Half-Life too short		
		579.30		-8.924E-04	2.657E+00	Half-Life too short		
		828.27		2.264E-03	2.657E+00	Half-Life too short		
		1205.75		1.694E-04	2.657E+00	Half-Life too short		
TL-201		68.90		-3.295E-01	1.473E+00	2.404E+00	1.961E-01	-0.137
		70.82		5.686E-01	9.055E-01	1.417E+00	1.170E-01	0.401
		80.30		3.456E-01	2.290E+00	3.068E+00	2.712E-01	0.113
		135.34		1.391E+00	1.468E+01	2.311E+01	2.456E+00	0.060
		167.43	*	7.889E-01	3.834E+00	6.604E+00	5.378E-01	0.119

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TL-202		68.90		-3.681E-02	1.645E-01	2.685E-01	2.191E-02	-0.137
		70.82		6.333E-02	1.009E-01	1.578E-01	1.303E-02	0.401
		80.30		3.851E-02	2.552E-01	3.419E-01	3.021E-02	0.113
		439.56	*	1.362E-02	6.326E-02	1.086E-01	9.394E-03	0.125
HG-203		70.83		2.890E-01	4.619E-01	7.212E-01	9.649E-02	0.401
		72.87		3.384E-01	2.752E-01	4.654E-01	6.069E-02	0.727
	+	82.60		2.212E+00	7.637E-01	9.280E-01	1.298E-01	2.384
		279.20	*	2.242E-02	3.551E-02	5.496E-02	5.031E-03	0.408
BI-207		72.80		9.673E-02	8.136E-02	1.385E-01	1.159E-02	0.698
	+	74.97		5.059E-01	7.657E-02	1.295E-01	1.100E-02	3.905
	+	84.90		3.922E-01	1.287E-01	1.842E-01	1.689E-02	2.129
		569.67		-1.440E-02	3.407E-02	5.406E-02	5.535E-03	-0.266
		1063.62	*	-1.660E-02	7.077E-02	1.132E-01	9.760E-03	-0.147
		1770.23		-1.485E+00	7.749E-01	6.969E-01	5.791E-02	-2.130
TL-207		81.07		1.387E-02	1.348E-01	1.799E-01	1.599E-02	0.077
	+	83.78		2.586E-01	8.487E-02	1.313E-01	1.193E-02	1.970
		94.90		7.301E-02	1.454E-01	2.222E-01	2.165E-02	0.329
		122.32		5.680E-01	1.223E+00	1.981E+00	2.368E-01	0.287
		144.24		4.557E-01	5.317E-01	8.651E-01	9.408E-02	0.527
		154.21		3.817E-01	3.065E-01	5.487E-01	5.482E-02	0.696
	+	269.46		5.189E-01	2.706E-01	3.330E-01	3.033E-02	1.558
		323.87	*	-2.518E-01	6.895E-01	9.554E-01	1.701E-01	-0.264
	+	338.28		5.503E+00	1.725E+00	2.545E+00	3.151E-01	2.162
		445.03		-6.682E-01	2.140E+00	3.517E+00	4.279E-01	-0.190
PO-209		260.50		-2.869E+00	8.363E+00	1.348E+01	1.204E+00	-0.213
		262.80		1.031E+01	2.251E+01	3.812E+01	3.407E+00	0.270
		896.60	*	-1.964E+00	8.371E+00	1.360E+01	1.193E+00	-0.144
PB-211		404.84	*	3.111E-01	9.389E-01	1.497E+00	9.372E-01	0.208
		427.08		3.815E-01	1.997E+00	3.406E+00	2.116E+00	0.112
		831.96		-1.278E+00	1.691E+00	2.299E+00	1.445E+00	-0.556
BI-212	+	727.18	*	6.647E-01	6.462E-01	7.605E-01	9.042E-02	0.874
		785.46		1.374E-02	2.234E+00	3.572E+00	3.666E-01	0.004
		1620.62		8.007E-01	1.439E+00	2.621E+00	2.192E-01	0.306
PO-215		81.07		1.387E-02	1.348E-01	1.799E-01	1.599E-02	0.077
	+	83.78		2.586E-01	8.487E-02	1.313E-01	1.193E-02	1.970
		94.90		7.301E-02	1.454E-01	2.222E-01	2.165E-02	0.329
		122.32		5.680E-01	1.223E+00	1.981E+00	2.368E-01	0.287
		144.24		4.557E-01	5.317E-01	8.651E-01	9.408E-02	0.527
		154.21		3.817E-01	3.065E-01	5.487E-01	5.482E-02	0.696
	+	269.46		5.189E-01	2.706E-01	3.330E-01	3.033E-02	1.558
		323.87	*	-2.518E-01	6.895E-01	9.554E-01	1.701E-01	-0.264
	+	338.28		5.503E+00	1.725E+00	2.545E+00	3.151E-01	2.162
		445.03		-6.682E-01	2.140E+00	3.517E+00	4.279E-01	-0.190
RN-219	+	271.23		6.658E-01	3.491E-01	3.891E-01	4.115E-02	1.711
		401.81	*	-1.314E-01	4.125E-01	6.341E-01	9.344E-02	-0.207
RN-220		549.76	*	-6.738E+00	2.822E+01	4.570E+01	4.584E+00	-0.147
RA-223		81.07		1.387E-02	1.348E-01	1.799E-01	1.599E-02	0.077
	+	83.78		2.586E-01	8.487E-02	1.313E-01	1.193E-02	1.970
		94.90		7.301E-02	1.454E-01	2.222E-01	2.165E-02	0.329

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		5.680E-01	1.223E+00	1.981E+00	2.368E-01	0.287
		144.24		4.557E-01	5.317E-01	8.651E-01	9.408E-02	0.527
		154.21		3.817E-01	3.065E-01	5.487E-01	5.482E-02	0.696
	+	269.46		5.189E-01	2.706E-01	3.330E-01	3.033E-02	1.558
		323.87	*	-2.518E-01	6.895E-01	9.554E-01	1.701E-01	-0.264
	+	338.28		5.503E+00	1.725E+00	2.545E+00	3.151E-01	2.162
		445.03		-6.682E-01	2.140E+00	3.517E+00	4.279E-01	-0.190
AC-227		79.80		1.091E-01	8.714E-01	1.321E+00	2.851E-01	0.083
		236.00		3.459E-02	2.087E-01	3.144E-01	3.903E-02	0.110
		256.20	*	1.148E-02	3.401E-01	5.623E-01	8.730E-02	0.020
		286.10		-1.755E-01	1.404E+00	2.276E+00	3.051E-01	-0.077
	+	299.80		3.162E+00	1.764E+00	2.470E+00	4.356E-01	1.280
		304.40		3.689E-03	1.767E+00	2.563E+00	4.761E-01	0.001
		334.20		-8.338E-01	2.408E+00	3.330E+00	6.484E-01	-0.250
TH-227		79.80		1.091E-01	8.714E-01	1.321E+00	2.888E-01	0.083
	+	94.00		1.623E+01	4.116E+00	2.497E+00	5.550E-01	6.498
		236.00		3.459E-02	2.087E-01	3.144E-01	3.542E-02	0.110
		256.20	*	1.148E-02	3.401E-01	5.623E-01	1.024E-01	0.020
		286.10		-1.755E-01	1.415E+00	2.276E+00	2.285E+00	-0.077
	+	299.80		3.162E+00	1.764E+00	2.470E+00	4.356E-01	1.280
		304.40		3.689E-03	1.767E+00	2.563E+00	4.761E-01	0.001
		334.20		-8.338E-01	2.408E+00	3.330E+00	6.484E-01	-0.250
TH-229	+	85.43		3.871E-01	1.271E-01	1.673E-01	1.541E-02	2.314
	+	88.47		3.799E-01	8.803E-02	1.144E-01	1.078E-02	3.322
		100.00		-6.908E-03	1.247E-01	1.994E-01	1.999E-02	-0.035
		193.63	*	-6.013E-02	4.070E-01	6.818E-01	5.789E-02	-0.088
		210.97		2.462E-01	6.389E-01	9.878E-01	8.569E-02	0.249
PA-231		283.67	*	-3.338E-01	1.344E+00	2.159E+00	3.315E-01	-0.155
	+	301.29		1.265E+00	6.877E-01	9.434E-01	1.175E-01	1.341
TH-231		81.07		1.387E-02	1.348E-01	1.799E-01	1.599E-02	0.077
	+	83.78		2.586E-01	8.487E-02	1.313E-01	1.193E-02	1.970
		94.90		7.301E-02	1.454E-01	2.222E-01	2.165E-02	0.329
		122.32		5.680E-01	1.223E+00	1.981E+00	2.368E-01	0.287
		144.24		4.557E-01	5.317E-01	8.651E-01	9.408E-02	0.527
		154.21		3.817E-01	3.065E-01	5.487E-01	5.482E-02	0.696
	+	269.46		5.189E-01	2.706E-01	3.330E-01	3.033E-02	1.558
		323.87	*	-2.518E-01	6.895E-01	9.554E-01	1.701E-01	-0.264
	+	338.28		5.503E+00	1.725E+00	2.545E+00	3.151E-01	2.162
		445.03		-6.682E-01	2.140E+00	3.517E+00	4.279E-01	-0.190
U-231	+	84.21		9.035E+00	2.965E+00	4.487E+00	4.091E-01	2.013
	+	92.29		1.300E+01	2.029E+00	2.567E+00	2.467E-01	5.065
		95.87	*	-2.549E-01	5.716E-01	8.251E-01	8.081E-02	-0.309
		108.00		-9.484E-01	1.148E+00	1.744E+00	1.832E-01	-0.544
PA-233	+	75.28		1.476E+01	2.917E+00	3.794E+00	5.800E-01	3.891
	+	86.59		5.448E+00	1.873E+00	1.907E+00	5.156E-01	2.857
	+	300.12		8.815E-01	4.850E-01	6.985E-01	1.051E-01	1.262
		311.98	*	-6.752E-03	5.919E-02	9.520E-02	8.688E-03	-0.071
		340.50		2.566E-01	6.459E-01	9.565E-01	2.283E-01	0.268
		398.62		1.928E+00	2.264E+00	3.742E+00	9.898E-01	0.515

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.490E+00	1.657E+00	2.932E+00	6.284E-01	0.508
PA-234	+	63.00		3.592E+00	1.264E+00	1.189E+00	1.797E-01	3.022
		94.67		9.720E-02	1.087E-01	1.685E-01	2.225E-02	0.577
		98.44		3.863E-02	6.370E-02	9.918E-02	5.555E-02	0.390
		99.86		3.595E-02	3.169E-01	5.111E-01	5.118E-02	0.070
		111.00		2.887E-02	1.319E-01	2.121E-01	2.896E-02	0.136
		131.20		3.300E-02	8.507E-02	1.261E-01	1.375E-02	0.262
		152.70		8.016E-02	2.654E-01	4.180E-01	7.276E-02	0.192
	+	186.00		4.812E+00	2.107E+00	2.268E+00	7.065E-01	2.122
		226.40		-7.596E-02	3.210E-01	5.276E-01	7.028E-02	-0.144
		227.20		1.613E-02	3.510E-01	5.864E-01	5.165E-02	0.028
		248.90		2.261E-01	6.837E-01	1.151E+00	2.593E-01	0.196
	+	293.70		6.165E+00	1.410E+00	1.483E+00	2.589E-01	4.156
		369.80		-5.124E-01	7.996E-01	1.190E+00	2.579E-01	-0.430
		568.70		-4.564E-01	1.073E+00	1.701E+00	1.740E-01	-0.268
		569.50		-1.052E-01	3.042E-01	4.864E-01	4.979E-02	-0.216
		574.00		-3.755E-01	1.769E+00	2.865E+00	2.946E-01	-0.131
		699.00		1.299E-01	8.851E-01	1.450E+00	2.932E-01	0.090
		706.10		3.943E-01	1.335E+00	2.196E+00	9.898E-01	0.180
		733.00		-1.373E-01	4.933E-01	6.619E-01	1.528E-01	-0.208
		742.81		-1.088E-01	1.534E+00	2.443E+00	1.649E+00	-0.045
	+	796.30		2.542E+00	2.286E+00	2.240E+00	6.177E-01	1.135
		805.60		8.926E-01	1.102E+00	1.947E+00	6.053E-01	0.458
		819.60		6.581E-02	1.310E+00	2.216E+00	8.495E-01	0.030
		826.30		1.111E-01	1.019E+00	1.729E+00	7.778E-01	0.064
		831.60		-4.892E-01	7.752E-01	1.201E+00	3.626E-01	-0.407
		876.40		-6.642E-01	1.122E+00	1.354E+00	1.392E+00	-0.491
		880.51		3.115E-02	3.065E-01	5.182E-01	4.680E-02	0.060
		883.24		-2.210E-01	3.781E-01	5.421E-01	3.646E-01	-0.408
		899.00		1.495E-02	1.001E+00	1.672E+00	7.313E-01	0.009
		925.00		-2.678E-02	1.257E+00	2.086E+00	1.828E-01	-0.013
		926.50		-6.021E-02	1.970E-01	3.150E-01	7.978E-02	-0.191
		946.00	*	-1.905E-01	3.402E-01	5.240E-01	9.868E-02	-0.364
		949.00		2.130E-01	5.311E-01	9.183E-01	8.050E-02	0.232
		980.50		1.863E-01	9.672E-01	1.631E+00	1.427E-01	0.114
		1394.10		-6.277E-01	1.365E+00	1.995E+00	1.298E+00	-0.315
PA-234M		766.42		-8.751E-01	1.283E+01	2.040E+01	1.042E+01	-0.043
		1001.03	*	4.201E+00	5.682E+00	1.006E+01	1.012E+00	0.417
U-235	+	89.95		2.375E+00	1.017E+00	1.193E+00	3.712E-01	1.990
	+	93.35		5.048E+00	1.560E+00	9.966E-01	2.827E-01	5.066
		105.00		1.157E+00	7.677E-01	1.186E+00	3.602E-01	0.976
		143.76	*	5.849E-02	1.678E-01	2.660E-01	4.851E-02	0.220
		163.35		7.437E-02	3.559E-01	6.135E-01	1.164E-01	0.121
	+	185.71		1.782E-01	5.685E-02	8.507E-02	7.140E-03	2.095
		205.31		1.938E-02	4.509E-01	6.826E-01	1.302E-01	0.028
NP-236		94.67		7.529E-02	8.228E-02	1.280E-01	1.246E-02	0.588
		98.44		2.916E-02	4.538E-02	7.497E-02	7.448E-03	0.389
		111.00		2.183E-02	9.975E-02	1.605E-01	1.717E-02	0.136
		160.31	*	-1.496E-02	5.896E-02	9.972E-02	8.621E-03	-0.150

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		7.585E-02	1.046E-01	1.731E-01	1.731E-02	0.438
		117.00	*	-5.367E-03	1.424E-01	2.253E-01	2.504E-02	-0.024
	+	209.75		2.559E+00	1.005E+00	1.265E+00	1.096E-01	2.022
		228.18		2.893E-02	1.852E-01	3.112E-01	2.743E-02	0.093
	+	277.60		2.726E-01	2.387E-01	2.931E-01	2.614E-02	0.930
		334.30		-4.144E-01	1.366E+00	1.901E+00	1.664E-01	-0.218
AM-241		59.54	*	-1.534E-03	4.899E-02	7.537E-02	6.393E-03	-0.020
CM-243		99.55		7.805E-02	1.076E-01	1.782E-01	1.781E-02	0.438
		103.76	*	-8.267E-02	6.636E-02	9.837E-02	1.008E-02	-0.840
		117.00		-5.521E-03	1.465E-01	2.317E-01	2.576E-02	-0.024
	+	209.75		2.522E+00	9.911E-01	1.247E+00	1.081E-01	2.022
		228.18		2.923E-02	1.871E-01	3.144E-01	2.772E-02	0.093
	+	277.60		2.748E-01	2.407E-01	2.954E-01	2.635E-02	0.930
AM-246		798.80		1.201E-01	1.933E-01	2.928E-01	2.965E-02	0.410
		1036.00		-1.766E-02	3.616E-01	5.915E-01	5.133E-02	-0.030
		1062.04		1.840E-01	3.028E-01	5.272E-01	4.546E-02	0.349
		1078.86	*	-1.182E-01	1.972E-01	3.021E-01	2.592E-02	-0.391
CM-247	+	278.00		1.130E+00	9.901E-01	1.194E+00	1.065E-01	0.946
		287.40		5.241E-01	1.135E+00	1.907E+00	1.703E-01	0.275
		402.60	*	-3.193E-02	3.714E-02	5.407E-02	4.387E-03	-0.591
CF-249		252.85		-1.831E-01	7.957E-01	1.297E+00	1.157E-01	-0.141
		333.44		-2.523E-01	1.896E-01	2.342E-01	2.051E-02	-1.077
		387.95	*	1.166E-03	4.110E-02	6.549E-02	5.253E-03	0.018
CF-251		176.60	*	-1.028E-02	9.634E-02	1.629E-01	1.347E-02	-0.063
		227.00		1.440E-02	3.117E-01	5.208E-01	4.586E-02	0.028
		285.00		-4.098E-01	1.591E+00	2.556E+00	2.281E-01	-0.160

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395005      *
* Acquisition date :  2-FEB-2010 08:24:01 Detector SN#    :                 *
* Detector ID        : GAM21                Sensitivity     : 5.000         *
* Geometry           : CAN                  Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:25.57       Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395005           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.4112E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.474E+01	3.677E+00	7.464E-01	0.000E+00
CD-109	2.826E+00	6.417E-01	8.166E-01	0.000E+00
SN-126	2.783E-01	6.319E-02	8.028E-02	0.000E+00
TL-208	5.502E-01	1.063E-01	5.908E-02	0.000E+00
BI-210	1.082E+00	6.898E-01	6.482E-01	0.000E+00
PB-210	1.082E+00	6.898E-01	6.482E-01	0.000E+00
PO-210	1.082E+00	6.885E-01	6.482E-01	0.000E+00
BI-211	3.784E+00	5.613E-01	3.089E-01	0.000E+00
PB-212	1.707E+00	1.967E-01	7.951E-02	0.000E+00
PO-212	1.707E+00	1.967E-01	7.951E-02	0.000E+00
BI-214	1.207E+00	2.257E-01	1.189E-01	0.000E+00
PB-214	1.316E+00	2.065E-01	1.078E-01	0.000E+00
PO-214	1.316E+00	2.065E-01	1.078E-01	0.000E+00
PO-216	1.707E+00	1.967E-01	7.951E-02	0.000E+00
PO-218	1.316E+00	2.065E-01	1.078E-01	0.000E+00
RA-224	4.798E+00	1.442E+00	9.072E-01	0.000E+00
RA-226	1.207E+00	2.257E-01	1.189E-01	0.000E+00
AC-228	2.006E+00	3.861E-01	2.161E-01	0.000E+00
RA-228	2.006E+00	3.861E-01	2.161E-01	0.000E+00
TH-228	1.731E+00	1.994E-01	8.061E-02	0.000E+00
TH-230	1.207E+00	2.257E-01	1.189E-01	0.000E+00
TH-232	2.006E+00	3.861E-01	2.161E-01	0.000E+00
TH-234	3.082E+00	1.098E+00	7.504E-01	0.000E+00
U-234	1.207E+00	2.257E-01	1.189E-01	0.000E+00
NP-237	8.172E-01	2.485E-01	2.348E-01	0.000E+00
U-238	3.082E+00	1.098E+00	7.504E-01	0.000E+00
AM-243	2.819E-01	4.181E-02	4.486E-02	0.000E+00
ANH-511	1.188E-01	6.223E-02	4.619E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	7.996E-02	3.210E-01	5.754E-01	0.000E+00	NOT IDENT.
NA-22	5.532E-03	5.524E-02	9.252E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.175E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.295E-02	3.550E-02	6.412E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.317E-02	3.983E-02	0.000E+00	FAIL ABUN
SC-46	2.277E-02	4.745E-02	8.576E-02	0.000E+00	FAIL ABUN
V-48	-4.300E-02	8.814E-02	1.431E-01	0.000E+00	NOT IDENT.
CR-51	-2.622E-01	3.222E-01	5.160E-01	0.000E+00	NOT IDENT.
MN-52	5.477E-02	2.060E-01	3.679E-01	0.000E+00	NOT IDENT.
MN-54	-2.205E-02	4.359E-02	7.236E-02	0.000E+00	NOT IDENT.
CO-56	2.475E-02	4.484E-02	8.199E-02	0.000E+00	NOT IDENT.
CO-57	3.597E-03	1.746E-02	3.008E-02	0.000E+00	NOT IDENT.
CO-58	-1.930E-02	3.936E-02	6.505E-02	0.000E+00	NOT IDENT.
FE-59	9.518E-02	1.162E-01	2.115E-01	0.000E+00	NOT IDENT.
CO-60	2.004E-02	4.372E-02	7.985E-02	0.000E+00	NOT IDENT.
ZN-65	-4.370E-02	1.361E-01	1.887E-01	0.000E+00	NOT IDENT.
GE-68	2.066E-01	1.683E+00	2.879E+00	0.000E+00	NOT IDENT.
AS-73	1.019E-01	1.698E-01	3.183E-01	0.000E+00	NOT IDENT.
AS-74	9.169E-02	9.046E-02	1.685E-01	0.000E+00	NOT IDENT.
SE-75	-3.758E-03	4.055E-02	6.289E-02	0.000E+00	NOT IDENT.
BR-77	-1.065E+00	7.440E+00	1.281E+01	0.000E+00	FAIL ABUN
SR-82	-1.016E-01	4.387E-01	7.109E-01	0.000E+00	NOT IDENT.
RB-83	-9.229E-04	7.017E-02	1.222E-01	0.000E+00	NOT IDENT.
RB-84	-1.801E-02	7.273E-02	1.224E-01	0.000E+00	NOT IDENT.
KR-85	4.148E+00	6.846E+00	1.129E+01	0.000E+00	NOT IDENT.
SR-85	2.099E-02	3.464E-02	5.711E-02	0.000E+00	NOT IDENT.
RB-86	4.060E-01	1.017E+00	1.786E+00	0.000E+00	NOT IDENT.
Y-88	1.874E-02	4.081E-02	7.489E-02	0.000E+00	NOT IDENT.
ZR-88	-9.772E-03	3.142E-02	5.121E-02	0.000E+00	NOT IDENT.
Y-91	7.977E+00	2.448E+01	4.209E+01	0.000E+00	NOT IDENT.
NB-94	-6.301E-03	4.233E-02	7.028E-02	0.000E+00	NOT IDENT.
NB-95	-6.527E-03	4.647E-02	7.622E-02	0.000E+00	NOT IDENT.
NB-95M	-1.851E-02	1.088E-01	1.704E-01	0.000E+00	NOT IDENT.
ZR-95	7.090E-02	8.262E-02	1.491E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.397E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	5.312E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.835E+00	9.108E+00	1.423E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.903E+14	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.834E-03	2.600E-02	4.664E-02	0.000E+00	FAIL ABUN
RH-102	-1.261E-03	2.833E-02	4.970E-02	0.000E+00	NOT IDENT.
RU-103	3.314E-02	4.135E-02	7.645E-02	0.000E+00	FAIL ABUN
RH-106	1.843E-01	3.606E-01	6.421E-01	0.000E+00	FAIL ABUN
RU-106	1.843E-01	3.601E-01	6.421E-01	0.000E+00	FAIL ABUN
AG-108M	8.936E-03	3.297E-02	5.970E-02	0.000E+00	NOT IDENT.
AG-110M	3.274E-02	4.184E-02	7.551E-02	0.000E+00	NOT IDENT.
IN-111	-2.958E-01	6.799E-01	1.033E+00	0.000E+00	NOT IDENT.
IN-113M	-2.374E-02	4.422E-02	7.057E-02	0.000E+00	NOT IDENT.
SN-113	-2.374E-02	4.422E-02	7.057E-02	0.000E+00	NOT IDENT.
IN-114M	-4.829E-02	1.386E-01	2.461E-01	0.000E+00	NOT IDENT.
CD-115	-7.905E+00	7.607E+00	1.194E+01	0.000E+00	NOT IDENT.
SN-117M	-5.658E-03	3.753E-02	6.852E-02	0.000E+00	NOT IDENT.
SB-122	-4.926E-01	1.617E+00	2.718E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.433E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-5.970E-03	2.059E-02	3.733E-02	0.000E+00	NOT IDENT.
I-124	4.753E-01	5.405E-01	9.440E-01	0.000E+00	NOT IDENT.
SB-124	-2.872E-02	7.922E-02	1.197E-01	0.000E+00	FAIL ABUN
SB-125	6.304E-02	8.905E-02	1.661E-01	0.000E+00	FAIL ABUN
TE-125M	2.875E+00	6.246E+00	1.099E+01	0.000E+00	NOT IDENT.
I-126	1.275E-01	1.944E-01	3.480E-01	0.000E+00	NOT IDENT.
SB-126	-1.519E-01	1.638E-01	2.355E-01	0.000E+00	FAIL ABUN
SB-127	-4.315E-01	1.114E+00	1.795E+00	0.000E+00	NOT IDENT.
XE-127	-1.863E-02	3.570E-02	6.237E-02	0.000E+00	NOT IDENT.
I-131	3.498E-02	9.653E-02	1.676E-01	0.000E+00	NOT IDENT.
TE-132	6.908E-02	4.240E-01	7.590E-01	0.000E+00	NOT IDENT.
BA-133	-4.614E-03	4.467E-02	6.650E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.193E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	1.104E-01	1.204E-01	0.000E+00	FAIL ABUN
CS-135	1.524E-01	1.469E-01	2.472E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.249E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.466E-02	1.208E-01	1.981E-01	0.000E+00	FAIL ABUN
BA-137M	-1.008E-02	3.968E-02	6.557E-02	0.000E+00	NOT IDENT.
CS-137	-1.065E-02	4.194E-02	6.932E-02	0.000E+00	NOT IDENT.
CE-139	-8.037E-03	2.197E-02	3.954E-02	0.000E+00	NOT IDENT.
BA-140	1.748E-02	2.575E-01	4.497E-01	0.000E+00	NOT IDENT.
LA-140	-9.939E-02	1.145E-01	1.654E-01	0.000E+00	FAIL ABUN
CE-141	-3.893E-02	4.975E-02	7.941E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.829E+01	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-2.257E-02	1.515E-01	2.535E-01	0.000E+00	NOT IDENT.
PM-144	8.925E-03	4.070E-02	6.992E-02	0.000E+00	NOT IDENT.
PR-144	6.044E-01	2.756E+00	4.735E+00	0.000E+00	NOT IDENT.
PM-146	2.341E-02	4.277E-02	7.860E-02	0.000E+00	NOT IDENT.
ND-147	-9.019E-02	5.197E-01	8.894E-01	0.000E+00	FAIL ABUN
PM-149	-9.934E+00	5.502E+01	9.422E+01	0.000E+00	NOT IDENT.
EU-152	1.929E-02	9.558E-02	1.646E-01	0.000E+00	NOT IDENT.
GD-153	-4.295E-02	5.565E-02	8.519E-02	0.000E+00	FAIL ABUN
EU-154	-2.111E-03	1.548E-01	2.556E-01	0.000E+00	NOT IDENT.
EU-155	1.113E-01	6.932E-02	1.279E-01	0.000E+00	FAIL ABUN
TB-160	5.921E-03	1.420E-01	2.472E-01	0.000E+00	FAIL ABUN
HO-166M	-1.705E-03	6.921E-02	1.160E-01	0.000E+00	FAIL ABUN
TM-171	-6.156E+00	1.146E+01	1.862E+01	0.000E+00	NOT IDENT.
LU-176	2.850E-03	2.398E-02	3.723E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.219E+00	1.690E+00	0.000E+00	FAIL ABUN
LU-177M	3.815E-02	1.848E-01	3.123E-01	0.000E+00	FAIL ABUN
HF-181	-3.944E-03	4.044E-02	7.052E-02	0.000E+00	NOT IDENT.
W-181	5.900E-02	1.370E-01	2.334E-01	0.000E+00	NOT IDENT.
TA-182	5.874E-02	2.696E-01	4.577E-01	0.000E+00	FAIL ABUN
RE-183	8.999E-02	8.063E-02	1.543E-01	0.000E+00	FAIL ABUN
RE-184	-4.855E-02	2.067E-01	3.581E-01	0.000E+00	NOT IDENT.
OS-185	-6.763E-03	4.737E-02	7.940E-02	0.000E+00	NOT IDENT.
RE-188	1.360E-01	1.252E-01	2.398E-01	0.000E+00	NOT IDENT.
W-188	-6.400E+00	7.406E+00	1.054E+01	0.000E+00	FAIL ABUN
IR-192	-1.476E-02	3.143E-02	5.200E-02	0.000E+00	FAIL ABUN
AU-195	1.980E-01	1.438E-01	2.639E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.873E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	7.889E-01	3.757E+00	6.937E+00	0.000E+00	NOT IDENT.
TL-202	1.362E-02	6.199E-02	1.118E-01	0.000E+00	NOT IDENT.
HG-203	2.242E-02	3.480E-02	5.715E-02	0.000E+00	FAIL ABUN
BI-207	-1.660E-02	6.936E-02	1.145E-01	0.000E+00	FAIL ABUN
TL-207	-2.518E-01	6.757E-01	9.903E-01	0.000E+00	FAIL ABUN
PO-209	-1.964E+00	8.203E+00	1.380E+01	0.000E+00	NOT IDENT.
PB-211	3.111E-01	9.201E-01	1.545E+00	0.000E+00	NOT IDENT.
BI-212	6.647E-01	6.333E-01	7.751E-01	0.000E+00	FAIL ABUN
PO-215	-2.518E-01	6.757E-01	9.903E-01	0.000E+00	FAIL ABUN
RN-219	-1.314E-01	4.042E-01	6.545E-01	0.000E+00	FAIL ABUN
RN-220	-6.738E+00	2.765E+01	4.686E+01	0.000E+00	NOT IDENT.
RA-223	-2.518E-01	6.757E-01	9.903E-01	0.000E+00	FAIL ABUN
AC-227	1.148E-02	3.333E-01	5.857E-01	0.000E+00	FAIL ABUN
TH-227	1.148E-02	3.333E-01	5.857E-01	0.000E+00	FAIL ABUN
TH-229	-6.013E-02	3.988E-01	7.142E-01	0.000E+00	FAIL ABUN
PA-231	-3.338E-01	1.317E+00	2.244E+00	0.000E+00	FAIL ABUN
TH-231	-2.518E-01	6.757E-01	9.903E-01	0.000E+00	FAIL ABUN
U-231	-2.549E-01	5.602E-01	8.763E-01	0.000E+00	FAIL ABUN
PA-233	-6.752E-03	5.800E-02	9.876E-02	0.000E+00	FAIL ABUN
PA-234	-1.905E-01	3.334E-01	5.311E-01	0.000E+00	FAIL ABUN
PA-234M	4.201E+00	5.568E+00	1.019E+01	0.000E+00	NOT IDENT.
U-235	5.849E-02	1.644E-01	2.803E-01	0.000E+00	FAIL ABUN
NP-236	-1.496E-02	5.778E-02	1.048E-01	0.000E+00	NOT IDENT.
NP-239	-5.367E-03	1.396E-01	2.383E-01	0.000E+00	FAIL ABUN
AM-241	-1.534E-03	4.801E-02	8.079E-02	0.000E+00	NOT IDENT.
CM-243	-8.267E-02	6.504E-02	1.043E-01	0.000E+00	FAIL ABUN
AM-246	-1.182E-01	1.932E-01	3.054E-01	0.000E+00	NOT IDENT.
CM-247	-3.193E-02	3.640E-02	5.579E-02	0.000E+00	FAIL ABUN
CF-249	1.166E-03	4.028E-02	6.763E-02	0.000E+00	NOT IDENT.
CF-251	-1.028E-02	9.441E-02	1.709E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:26:34.10

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395005.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:24:01.
Sample ID         : G245395005           Sample quantity  : 1.41120E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.57  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1004	10.67*	7.205E-01	3.474E+01	3.474E+01	10.80
CD-109	88.03	315	3.72*	8.136E+00	2.768E+00	2.826E+00	23.17
SN-126	64.28	360	9.60	8.182E+00	1.220E+00	1.220E+00	35.04
	86.94	315	8.90	8.136E+00	1.157E+00	1.157E+00	46.62
	87.57	315	37.00*	8.136E+00	2.783E-01	2.783E-01	23.17
TL-208	277.35	55	6.80	3.801E+00	5.652E-01	5.652E-01	88.03
	510.84	91	21.60	2.039E+00	5.502E-01	5.502E-01	54.08
	583.14	310	84.20*	1.778E+00	5.502E-01	5.502E-01	19.71
	860.37	26	12.46	1.201E+00	4.623E-01	4.623E-01	136.67
BI-210	46.50	121	4.05*	7.332E+00	1.081E+00	1.082E+00	65.06
PB-210	46.50	121	4.05*	7.332E+00	1.081E+00	1.082E+00	65.06
PO-210	46.50	121	4.05*	7.332E+00	1.081E+00	1.082E+00	64.94
BI-211	72.87	------	1.27	8.278E+00	------ Line Not Found		------
	351.07	552	12.94*	2.997E+00	3.784E+00	3.784E+00	15.14
PB-212	74.81	579	10.70	8.275E+00	1.739E+00	1.739E+00	17.79
	77.11	1136	18.00	8.264E+00	2.030E+00	2.030E+00	11.76
	87.30	315	8.00	8.136E+00	1.287E+00	1.287E+00	25.24
	238.63	1256	44.60*	4.387E+00	1.707E+00	1.707E+00	11.75
	300.09	77	3.41	3.520E+00	1.706E+00	1.706E+00	53.99
PO-212	74.81	579	10.70	8.275E+00	1.739E+00	1.739E+00	17.79
	77.11	1136	18.00	8.264E+00	2.030E+00	2.030E+00	11.76
	87.30	315	8.00	8.136E+00	1.287E+00	1.287E+00	25.24
	115.19	------	0.60	7.423E+00	------ Line Not Found		------
	238.63	1256	44.60*	4.387E+00	1.707E+00	1.707E+00	11.75
	300.09	77	3.41	3.520E+00	1.706E+00	1.706E+00	53.99
BI-214	609.31	357	46.30*	1.700E+00	1.207E+00	1.207E+00	19.08
	1120.29	87	15.10	9.297E-01	1.648E+00	1.648E+00	38.03
	1764.49	46	15.80	5.984E-01	1.304E+00	1.304E+00	40.18
PB-214	74.81	579	6.21	8.275E+00	2.996E+00	2.996E+00	16.85
	77.11	1136	10.50	8.264E+00	3.481E+00	3.481E+00	14.01
	87.30	315	4.67	8.136E+00	2.205E+00	2.205E+00	24.42
	241.98	309	7.49	4.335E+00	2.531E+00	2.531E+00	31.17

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	332	19.20	3.577E+00	1.284E+00	1.284E+00	18.37
	351.92	552	37.20*	2.997E+00	1.316E+00	1.316E+00	16.01
PO-214	74.81	579	6.21	8.275E+00	2.996E+00	2.996E+00	16.85
	77.11	1136	10.50	8.264E+00	3.481E+00	3.481E+00	14.01
	87.30	315	4.67	8.136E+00	2.205E+00	2.205E+00	24.42
	241.98	309	7.49	4.335E+00	2.531E+00	2.531E+00	31.17
	295.21	332	19.20	3.577E+00	1.284E+00	1.284E+00	18.37
	351.92	552	37.20*	2.997E+00	1.316E+00	1.316E+00	16.01
PO-216	74.81	579	10.70	8.275E+00	1.739E+00	1.739E+00	17.79
	77.11	1136	18.00	8.264E+00	2.030E+00	2.030E+00	11.76
	87.30	315	8.00	8.136E+00	1.287E+00	1.287E+00	25.24
	238.63	1256	44.60*	4.387E+00	1.707E+00	1.707E+00	11.75
	300.09	77	3.41	3.520E+00	1.706E+00	1.706E+00	53.99
PO-218	74.81	579	6.21	8.275E+00	2.996E+00	2.996E+00	16.85
	77.11	1136	10.50	8.264E+00	3.481E+00	3.481E+00	14.01
	87.30	315	4.67	8.136E+00	2.205E+00	2.205E+00	24.42
	241.98	309	7.49	4.335E+00	2.531E+00	2.531E+00	31.17
	295.21	332	19.20	3.577E+00	1.284E+00	1.284E+00	18.37
	351.92	552	37.20*	2.997E+00	1.316E+00	1.316E+00	16.01
RA-224	240.98	309	3.95*	4.335E+00	4.798E+00	4.798E+00	30.66
RA-226	609.31	357	46.30*	1.700E+00	1.207E+00	1.207E+00	19.08
	1120.29	87	15.10	9.297E-01	1.648E+00	1.648E+00	38.03
	1764.49	46	15.80	5.984E-01	1.304E+00	1.304E+00	40.18
AC-228	338.32	176	11.40	3.120E+00	1.318E+00	1.318E+00	50.34
	911.07	237	27.70*	1.136E+00	2.006E+00	2.006E+00	19.64
	969.11	129	16.60	1.070E+00	1.937E+00	1.937E+00	33.95
RA-228	338.32	176	11.40	3.120E+00	1.318E+00	1.318E+00	50.34
	911.07	237	27.70*	1.136E+00	2.006E+00	2.006E+00	19.64
	969.11	129	16.60	1.070E+00	1.937E+00	1.937E+00	33.95
TH-228	74.81	579	10.70	8.275E+00	1.739E+00	1.763E+00	15.18
	77.11	1136	18.00	8.264E+00	2.030E+00	2.059E+00	11.76
	87.30	315	8.00	8.136E+00	1.287E+00	1.305E+00	23.17
	238.63	1256	44.60*	4.387E+00	1.707E+00	1.731E+00	11.75
	300.09	77	3.41	3.520E+00	1.706E+00	1.730E+00	79.50
TH-230	609.31	357	46.30*	1.700E+00	1.207E+00	1.207E+00	19.08
	1120.29	87	15.10	9.297E-01	1.648E+00	1.648E+00	38.03
	1764.49	46	15.80	5.984E-01	1.304E+00	1.304E+00	40.18
TH-232	338.32	176	11.40	3.120E+00	1.318E+00	1.318E+00	30.09
	911.07	237	27.70*	1.136E+00	2.006E+00	2.006E+00	19.64
	969.11	129	16.60	1.070E+00	1.937E+00	1.937E+00	33.95
TH-234	63.29	360	3.80*	8.182E+00	3.082E+00	3.082E+00	36.34
	92.38	685	5.41	8.025E+00	4.199E+00	4.199E+00	22.28
U-234	609.31	357	46.30*	1.700E+00	1.207E+00	1.207E+00	19.08
	1120.29	87	15.10	9.297E-01	1.648E+00	1.648E+00	38.03
	1764.49	46	15.80	5.984E-01	1.304E+00	1.304E+00	40.18
NP-237	86.50	315	12.60*	8.136E+00	8.172E-01	8.172E-01	31.03
	95.87	------	2.60	7.953E+00	------ Line Not Found		------
U-238	63.29	360	3.80*	8.182E+00	3.082E+00	3.082E+00	36.34
	92.38	685	5.41	8.025E+00	4.199E+00	4.199E+00	15.61

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	579	66.00*	8.275E+00	2.819E-01	2.819E-01	15.13
	86.72	315	0.34	8.136E+00	3.064E+01	3.064E+01	23.17
	117.66	------	0.55	7.349E+00	------	Line Not Found	------
	142.18	------	0.13	6.613E+00	------	Line Not Found	------
ANH-511	511.00	91	100.00*	2.039E+00	1.188E-01	1.188E-01	53.44

Flag: "*" = Keyline

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

Total number of lines in spectrum 33
Number of unidentified lines 1
Number of lines tentatively identified by NID 32 96.97%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.474E+01	3.474E+01	0.375E+01	10.80	
CD-109	464.00D	1.02	2.768E+00	2.826E+00	0.655E+00	23.17	
SN-126	1.00E+05Y	1.00	2.783E-01	2.783E-01	0.645E-01	23.17	
TL-208	1.41E+10Y	1.00	5.502E-01	5.502E-01	1.085E-01	19.71	
BI-210	22.26Y	1.00	1.081E+00	1.082E+00	0.704E+00	65.06	
PB-210	22.26Y	1.00	1.081E+00	1.082E+00	0.704E+00	65.06	
PO-210	22.26Y	1.00	1.081E+00	1.082E+00	0.703E+00	64.94	
BI-211	7.04E+08Y	1.00	3.784E+00	3.784E+00	0.573E+00	15.14	
PB-212	1.41E+10Y	1.00	1.707E+00	1.707E+00	0.201E+00	11.75	
PO-212	1.41E+10Y	1.00	1.707E+00	1.707E+00	0.201E+00	11.75	
BI-214	1600.00Y	1.00	1.207E+00	1.207E+00	0.230E+00	19.08	
PB-214	1600.00Y	1.00	1.316E+00	1.316E+00	0.211E+00	16.01	
PO-214	1600.00Y	1.00	1.316E+00	1.316E+00	0.211E+00	16.01	
PO-216	1.41E+10Y	1.00	1.707E+00	1.707E+00	0.201E+00	11.75	
PO-218	1600.00Y	1.00	1.316E+00	1.316E+00	0.211E+00	16.01	
RA-224	1.41E+10Y	1.00	4.798E+00	4.798E+00	1.471E+00	30.66	
RA-226	1600.00Y	1.00	1.207E+00	1.207E+00	0.230E+00	19.08	
AC-228	1.41E+10Y	1.00	2.006E+00	2.006E+00	0.394E+00	19.64	
RA-228	1.41E+10Y	1.00	2.006E+00	2.006E+00	0.394E+00	19.64	
TH-228	1.91Y	1.01	1.707E+00	1.731E+00	0.203E+00	11.75	
TH-230	4.47E+09Y	1.00	1.207E+00	1.207E+00	0.230E+00	19.08	
TH-232	1.41E+10Y	1.00	2.006E+00	2.006E+00	0.394E+00	19.64	
TH-234	4.47E+09Y	1.00	3.082E+00	3.082E+00	1.120E+00	36.34	
U-234	4.47E+09Y	1.00	1.207E+00	1.207E+00	0.230E+00	19.08	
NP-237	2.14E+06Y	1.00	8.172E-01	8.172E-01	2.535E-01	31.03	
U-238	4.47E+09Y	1.00	3.082E+00	3.082E+00	1.120E+00	36.34	
AM-243	7380.00Y	1.00	2.819E-01	2.819E-01	0.427E-01	15.13	
ANH-511	1.00E+09Y	1.00	1.188E-01	1.188E-01	0.635E-01	53.44	
	Total Activity :		7.916E+01	7.925E+01			

Grand Total Activity : 7.916E+01 7.925E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
6	83.97	197	330	1.21	167.88	165	14	2.73E-02	31.5	8.19E+00	T
5	90.07	195	293	0.85	180.07	178	14	2.71E-02	29.4	8.08E+00	T
0	128.71	103	234	0.75	257.33	254	6	1.43E-02	51.1	7.02E+00	T
0	185.85	197	251	0.96	371.55	368	7	2.74E-02	30.8	5.45E+00	T
0	208.99	154	220	0.79	417.82	413	9	2.14E-02	38.3	4.94E+00	T
0	269.84	104	172	1.11	539.48	534	10	1.44E-02	51.4	3.90E+00	T
0	328.16	38	97	0.90	656.09	653	6	5.24E-03	89.2	3.22E+00	T
0	463.23	92	46	1.28	926.16	921	11	1.28E-02	35.9	2.26E+00	T
0	727.17	42	87	1.13	1454.04	1449	12	5.81E-03	96.5	1.42E+00	T
0	796.12	48	76	0.70	1591.97	1584	16	6.71E-03	85.6	1.30E+00	T
0	1728.74	16	7	1.08	3458.34	3449	14	2.22E-03	86.2	6.11E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:26:39.37

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395005.CNF;1 *
* Acquisition date  : 2-FEB-2010 08:24:01.  Detector SN#     :             *
* Detector ID       : GAM21                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:25.57          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245395005            Analyst initials: MXR1         *
* Batch Number      : 944966                Sample Quantity : 1.41120E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.474E+01	3.752E+00	7.433E-01	6.346E-02	46.735
CD-109	2.826E+00	6.548E-01	7.675E-01	7.222E-02	3.682
SN-126	2.783E-01	6.448E-02	7.545E-02	7.072E-03	3.688
TL-208	5.502E-01	1.085E-01	5.770E-02	6.285E-03	9.535
BI-210	1.082E+00	7.039E-01	6.018E-01	5.739E-02	1.798
PB-210	1.082E+00	7.039E-01	6.018E-01	5.739E-02	1.798
PO-210	1.082E+00	7.026E-01	6.018E-01	5.223E-02	1.798
BI-211	3.784E+00	5.728E-01	2.985E-01	2.694E-02	12.674
PB-212	1.707E+00	2.007E-01	7.623E-02	7.580E-03	22.399
PO-212	1.707E+00	2.007E-01	7.623E-02	7.580E-03	22.399
BI-214	1.207E+00	2.303E-01	1.162E-01	1.373E-02	10.387
PB-214	1.316E+00	2.108E-01	1.041E-01	1.085E-02	12.638
PO-214	1.316E+00	2.108E-01	1.041E-01	1.085E-02	12.638
PO-216	1.707E+00	2.007E-01	7.623E-02	7.580E-03	22.399
PO-218	1.316E+00	2.108E-01	1.041E-01	1.085E-02	12.638
RA-224	4.798E+00	1.471E+00	8.700E-01	7.730E-02	5.516
RA-226	1.207E+00	2.303E-01	1.162E-01	1.373E-02	10.387
AC-228	2.006E+00	3.939E-01	2.131E-01	2.418E-02	9.415

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	2.006E+00	3.939E-01	2.131E-01	2.418E-02	9.415
TH-228	1.731E+00	2.035E-01	7.729E-02	7.685E-03	22.399
TH-230	1.207E+00	2.303E-01	1.162E-01	1.373E-02	10.387
TH-232	2.006E+00	3.939E-01	2.131E-01	2.418E-02	9.415
TH-234	3.082E+00	1.120E+00	7.009E-01	1.238E-01	4.397
U-234	1.207E+00	2.303E-01	1.162E-01	1.373E-02	10.387
NP-237	8.172E-01	2.535E-01	2.207E-01	4.994E-02	3.703
U-238	3.082E+00	1.120E+00	7.009E-01	1.238E-01	4.397
AM-243	2.819E-01	4.266E-02	4.203E-02	3.562E-03	6.707
ANH-511	1.188E-01	6.350E-02	4.498E-02	4.312E-03	2.642

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.996E-02		3.275E-01	5.596E-01	5.482E-02	0.143
NA-22	5.532E-03		5.637E-02	9.187E-02	7.537E-03	0.060
NA-24	1.930E-02		1.110E-01	Half-Life too short		
AL-26	1.295E-02		3.623E-02	6.416E-02	5.310E-03	0.202
TI-44	3.747E-01	+	4.405E-02	3.736E-02	3.253E-03	10.030
SC-46	2.277E-02		4.842E-02	8.450E-02	7.514E-03	0.269
V-48	-4.300E-02		8.994E-02	1.413E-01	1.236E-02	-0.304
CR-51	-2.622E-01		3.288E-01	4.976E-01	4.626E-02	-0.527
MN-52	5.477E-02		2.102E-01	3.662E-01	3.024E-02	0.150
MN-54	-2.205E-02		4.448E-02	7.120E-02	6.900E-03	-0.310
CO-56	2.475E-02		4.576E-02	8.070E-02	7.692E-03	0.307
CO-57	3.597E-03		1.781E-02	2.846E-02	3.269E-03	0.126
CO-58	-1.930E-02		4.016E-02	6.397E-02	6.401E-03	-0.302
FE-59	9.518E-02		1.186E-01	2.093E-01	1.932E-02	0.455
CO-60	2.004E-02		4.462E-02	7.937E-02	6.442E-03	0.252
ZN-65	-4.370E-02		1.389E-01	1.869E-01	1.584E-02	-0.234
GE-68	2.066E-01		1.717E+00	2.848E+00	2.445E-01	0.073
AS-73	1.019E-01		1.733E-01	2.963E-01	2.399E-02	0.344
AS-74	9.169E-02		9.231E-02	1.647E-01	1.728E-02	0.557
SE-75	-3.758E-03		4.138E-02	6.042E-02	5.424E-03	-0.062
BR-77	-1.065E+00		7.591E+00	1.248E+01	1.210E+00	-0.085
SR-82	-1.016E-01		4.477E-01	6.984E-01	7.230E-02	-0.145
RB-83	-9.229E-04		7.160E-02	1.190E-01	1.154E-02	-0.008
RB-84	-1.801E-02		7.422E-02	1.206E-01	1.087E-02	-0.149
KR-85	4.148E+00		6.985E+00	1.099E+01	1.058E+00	0.377
SR-85	2.099E-02		3.534E-02	5.562E-02	5.352E-03	0.377
RB-86	4.060E-01		1.038E+00	1.767E+00	1.517E-01	0.230
Y-88	1.874E-02		4.165E-02	7.496E-02	6.189E-03	0.250
ZR-88	-9.772E-03		3.206E-02	4.960E-02	3.951E-03	-0.197
Y-91	7.977E+00		2.497E+01	4.174E+01	3.439E+00	0.191
NB-94	-6.301E-03		4.319E-02	6.890E-02	7.503E-03	-0.091
NB-95	-6.527E-03		4.742E-02	7.486E-02	7.823E-03	-0.087
NB-95M	-1.851E-02		1.110E-01	1.633E-01	1.645E-02	-0.113

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	7.090E-02		8.431E-02	1.464E-01	1.648E-02	0.484
NB-97	2.405E-02		1.733E-02	Half-Life too short		
ZR-97	6.720E-01		2.710E-01	Half-Life too short		
MO-99	-4.835E+00		9.294E+00	1.396E+01	2.294E+00	-0.346
TC-99M	-5.257E+08		4.542E+08	Half-Life too short		
RH-101	-1.834E-03		2.653E-02	4.455E-02	3.805E-03	-0.041
RH-102	-1.261E-03		2.891E-02	4.833E-02	4.415E-03	-0.026
RU-103	3.314E-02		4.220E-02	7.440E-02	1.091E-02	0.445
RH-106	1.843E-01		3.680E-01	6.278E-01	9.296E-02	0.294
RU-106	1.843E-01		3.675E-01	6.278E-01	6.736E-02	0.294
AG-108M	8.936E-03		3.364E-02	5.794E-02	5.167E-03	0.154
AG-110M	3.274E-02		4.269E-02	7.392E-02	8.292E-03	0.443
IN-111	-2.958E-01		6.938E-01	9.911E-01	8.824E-02	-0.298
IN-113M	-2.374E-02		4.513E-02	6.834E-02	5.628E-03	-0.347
SN-113	-2.374E-02		4.513E-02	6.834E-02	5.628E-03	-0.347
IN-114M	-4.829E-02		1.414E-01	2.349E-01	1.985E-02	-0.206
CD-115	-7.905E+00		7.762E+00	1.164E+01	1.139E+00	-0.679
SN-117M	-5.658E-03		3.830E-02	6.516E-02	5.735E-03	-0.087
SB-122	-4.926E-01		1.650E+00	2.652E+00	2.700E-01	-0.186
I-123	-2.446E-01		4.302E-01	Half-Life too short		
TE-123M	-5.970E-03		2.101E-02	3.550E-02	3.129E-03	-0.168
I-124	4.753E-01		5.516E-01	9.225E-01	9.741E-02	0.515
SB-124	-2.872E-02		8.084E-02	1.196E-01	1.041E-02	-0.240
SB-125	6.304E-02		9.087E-02	1.612E-01	1.395E-02	0.391
TE-125M	2.875E+00		6.373E+00	1.037E+01	1.247E+00	0.277
I-126	1.275E-01		1.984E-01	3.408E-01	3.759E-02	0.374
SB-126	-1.519E-01		1.671E-01	2.310E-01	2.492E-02	-0.658
SB-127	-4.315E-01		1.136E+00	1.759E+00	2.277E-01	-0.245
XE-127	-1.863E-02		3.642E-02	5.960E-02	5.121E-03	-0.313
I-131	3.498E-02		9.850E-02	1.621E-01	1.440E-02	0.216
TE-132	6.908E-02		4.327E-01	7.270E-01	1.134E-01	0.095
BA-133	-4.614E-03		4.558E-02	6.427E-02	8.447E-03	-0.072
I-133	-9.491E-04		1.119E-03	Half-Life too short		
CS-134	1.306E-01	+	1.126E-01	1.184E-01	1.209E-02	1.104
CS-135	1.524E-01		1.499E-01	2.376E-01	2.433E-02	0.642
I-135	-4.136E+07		1.658E+08	Half-Life too short		
CS-136	-3.466E-02		1.233E-01	1.959E-01	1.766E-02	-0.177
BA-137M	-1.008E-02		4.049E-02	6.420E-02	7.091E-03	-0.157
CS-137	-1.065E-02		4.280E-02	6.787E-02	7.504E-03	-0.157
CE-139	-8.037E-03		2.242E-02	3.763E-02	3.059E-03	-0.214
BA-140	1.748E-02		2.628E-01	4.384E-01	1.468E-01	0.040
LA-140	-9.939E-02		1.168E-01	1.651E-01	1.380E-02	-0.602
CE-141	-3.893E-02		5.077E-02	7.538E-02	7.558E-03	-0.516
CE-143	1.362E-04		3.994E-05	Half-Life too short		
CE-144	-2.257E-02		1.546E-01	2.403E-01	4.046E-02	-0.094
PM-144	8.925E-03		4.153E-02	6.854E-02	7.486E-03	0.130
PR-144	6.044E-01		2.812E+00	4.641E+00	5.068E-01	0.130
PM-146	2.341E-02		4.364E-02	7.636E-02	8.332E-03	0.307

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	-9.019E-02		5.303E-01	8.668E-01	1.359E-01	-0.104
PM-149	-9.934E+00		5.614E+01	9.066E+01	1.424E+01	-0.110
EU-152	1.929E-02		9.753E-02	1.590E-01	1.458E-02	0.121
GD-153	-4.295E-02		5.678E-02	8.023E-02	7.926E-03	-0.535
EU-154	-2.111E-03		1.579E-01	2.538E-01	2.789E-02	-0.008
EU-155	1.113E-01		7.074E-02	1.207E-01	1.258E-02	0.923
TB-160	5.921E-03		1.449E-01	2.435E-01	2.204E-02	0.024
HO-166M	-1.705E-03		7.063E-02	1.137E-01	1.233E-02	-0.015
TM-171	-6.156E+00		1.169E+01	1.741E+01	1.403E+00	-0.354
LU-176	2.850E-03		2.447E-02	3.588E-02	3.195E-03	0.079
LU-177	3.165E+00	+	1.244E+00	1.616E+00	1.398E-01	1.959
LU-177M	3.815E-02		1.885E-01	3.028E-01	2.507E-02	0.126
HF-181	-3.944E-03		4.127E-02	6.859E-02	6.328E-03	-0.058
W-181	5.900E-02		1.398E-01	2.181E-01	1.743E-02	0.271
TA-182	5.874E-02		2.751E-01	4.540E-01	3.738E-02	0.129
RE-183	8.999E-02		8.228E-02	1.468E-01	1.242E-02	0.613
RE-184	-4.855E-02		2.110E-01	3.437E-01	3.068E-02	-0.141
OS-185	-6.763E-03		4.834E-02	7.770E-02	8.490E-03	-0.087
RE-188	1.360E-01		1.278E-01	2.279E-01	2.077E-02	0.597
W-188	-6.400E+00		7.557E+00	1.015E+01	9.060E-01	-0.631
IR-192	-1.476E-02		3.207E-02	5.014E-02	4.456E-03	-0.294
AU-195	1.980E-01		1.467E-01	2.486E-01	2.476E-02	0.796
TL-200	-2.914E-05		9.556E-05	Half-Life too short		
TL-201	7.889E-01		3.834E+00	6.604E+00	5.378E-01	0.119
TL-202	1.362E-02		6.326E-02	1.086E-01	9.394E-03	0.125
HG-203	2.242E-02		3.551E-02	5.496E-02	5.031E-03	0.408
BI-207	-1.660E-02		7.077E-02	1.132E-01	9.760E-03	-0.147
TL-207	-2.518E-01		6.895E-01	9.554E-01	1.701E-01	-0.264
PO-209	-1.964E+00		8.371E+00	1.360E+01	1.193E+00	-0.144
PB-211	3.111E-01		9.389E-01	1.497E+00	9.372E-01	0.208
BI-212	6.647E-01	+	6.462E-01	7.605E-01	9.042E-02	0.874
PO-215	-2.518E-01		6.895E-01	9.554E-01	1.701E-01	-0.264
RN-219	-1.314E-01		4.125E-01	6.341E-01	9.344E-02	-0.207
RN-220	-6.738E+00		2.822E+01	4.570E+01	4.584E+00	-0.147
RA-223	-2.518E-01		6.895E-01	9.554E-01	1.701E-01	-0.264
AC-227	1.148E-02		3.401E-01	5.623E-01	8.730E-02	0.020
TH-227	1.148E-02		3.401E-01	5.623E-01	1.024E-01	0.020
TH-229	-6.013E-02		4.070E-01	6.818E-01	5.789E-02	-0.088
PA-231	-3.338E-01		1.344E+00	2.159E+00	3.315E-01	-0.155
TH-231	-2.518E-01		6.895E-01	9.554E-01	1.701E-01	-0.264
U-231	-2.549E-01		5.716E-01	8.251E-01	8.081E-02	-0.309
PA-233	-6.752E-03		5.919E-02	9.520E-02	8.688E-03	-0.071
PA-234	-1.905E-01		3.402E-01	5.240E-01	9.868E-02	-0.364
PA-234M	4.201E+00		5.682E+00	1.006E+01	1.012E+00	0.417
U-235	5.849E-02		1.678E-01	2.660E-01	4.851E-02	0.220
NP-236	-1.496E-02		5.896E-02	9.972E-02	8.621E-03	-0.150
NP-239	-5.367E-03		1.424E-01	2.253E-01	2.504E-02	-0.024
AM-241	-1.534E-03		4.899E-02	7.537E-02	6.393E-03	-0.020

Sample ID : G245395005 Acquisition date : 2-FEB-2010 08:24:01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-8.267E-02		6.636E-02	9.837E-02	1.008E-02	-0.840
AM-246	-1.182E-01		1.972E-01	3.021E-01	2.592E-02	-0.391
CM-247	-3.193E-02		3.714E-02	5.407E-02	4.387E-03	-0.591
CF-249	1.166E-03		4.110E-02	6.549E-02	5.253E-03	0.018
CF-251	-1.028E-02		9.634E-02	1.629E-01	1.347E-02	-0.063

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395005            *
* Acquisition date :  2-FEB-2010 08:24:01 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:25.57     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 19-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245395005           Analyst initials: MXR1            *
* Batch Number     : 944966               Sample Quantity : 1.4112E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.474E+01	3.677E+00	3.734E-01	1.876E+00
CD-109	2.826E+00	6.417E-01	4.085E-01	3.274E-01
SN-126	2.783E-01	6.319E-02	4.016E-02	3.224E-02
TL-208	5.502E-01	1.063E-01	2.956E-02	5.423E-02
BI-210	1.082E+00	6.898E-01	3.243E-01	3.519E-01
PB-210	1.082E+00	6.898E-01	3.243E-01	3.519E-01
PO-210	1.082E+00	6.885E-01	3.243E-01	3.513E-01
BI-211	3.784E+00	5.613E-01	1.546E-01	2.864E-01
PB-212	1.707E+00	1.967E-01	3.978E-02	1.003E-01
PO-212	1.707E+00	1.967E-01	3.978E-02	1.003E-01
BI-214	1.207E+00	2.257E-01	5.948E-02	1.151E-01
PB-214	1.316E+00	2.065E-01	5.392E-02	1.054E-01
PO-214	1.316E+00	2.065E-01	5.392E-02	1.054E-01
PO-216	1.707E+00	1.967E-01	3.978E-02	1.003E-01
PO-218	1.316E+00	2.065E-01	5.392E-02	1.054E-01
RA-224	4.798E+00	1.442E+00	4.539E-01	7.355E-01
RA-226	1.207E+00	2.257E-01	5.948E-02	1.151E-01
AC-228	2.006E+00	3.861E-01	1.081E-01	1.970E-01
RA-228	2.006E+00	3.861E-01	1.081E-01	1.970E-01
TH-228	1.731E+00	1.994E-01	4.033E-02	1.017E-01
TH-230	1.207E+00	2.257E-01	5.947E-02	1.151E-01
TH-232	2.006E+00	3.861E-01	1.081E-01	1.970E-01
TH-234	3.082E+00	1.098E+00	3.754E-01	5.600E-01
U-234	1.207E+00	2.257E-01	5.947E-02	1.151E-01
NP-237	8.172E-01	2.485E-01	1.175E-01	1.268E-01
U-238	3.082E+00	1.098E+00	3.754E-01	5.600E-01
AM-243	2.819E-01	4.181E-02	2.244E-02	2.133E-02
ANH-511	1.188E-01	6.223E-02	2.311E-02	3.175E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	7.996E-02	3.210E-01	2.879E-01	1.638E-01	NOT IDENT.
NA-22	5.532E-03	5.524E-02	4.629E-02	2.819E-02	NOT IDENT.
NA-24	1.930E+04	2.175E+05	0.000E+00	1.110E+05	SHORT HLIF
AL-26	1.295E-02	3.550E-02	3.208E-02	1.811E-02	NOT IDENT.
TI-44	3.747E-01	4.317E-02	1.993E-02	2.203E-02	FAIL ABUN
SC-46	2.277E-02	4.745E-02	4.291E-02	2.421E-02	FAIL ABUN
V-48	-4.300E-02	8.814E-02	7.159E-02	4.497E-02	NOT IDENT.
CR-51	-2.622E-01	3.222E-01	2.581E-01	1.644E-01	NOT IDENT.
MN-52	5.477E-02	2.060E-01	1.840E-01	1.051E-01	NOT IDENT.
MN-54	-2.205E-02	4.359E-02	3.620E-02	2.224E-02	NOT IDENT.
CO-56	2.475E-02	4.484E-02	4.102E-02	2.288E-02	NOT IDENT.
CO-57	3.597E-03	1.746E-02	1.505E-02	8.907E-03	NOT IDENT.
CO-58	-1.930E-02	3.936E-02	3.254E-02	2.008E-02	NOT IDENT.
FE-59	9.518E-02	1.162E-01	1.058E-01	5.930E-02	NOT IDENT.
CO-60	2.004E-02	4.372E-02	3.995E-02	2.231E-02	NOT IDENT.
ZN-65	-4.370E-02	1.361E-01	9.443E-02	6.944E-02	NOT IDENT.
GE-68	2.066E-01	1.683E+00	1.440E+00	8.586E-01	NOT IDENT.
AS-73	1.019E-01	1.698E-01	1.592E-01	8.665E-02	NOT IDENT.
AS-74	9.169E-02	9.046E-02	8.432E-02	4.615E-02	NOT IDENT.
SE-75	-3.758E-03	4.055E-02	3.146E-02	2.069E-02	NOT IDENT.
BR-77	-1.065E+00	7.440E+00	6.407E+00	3.796E+00	FAIL ABUN
SR-82	-1.016E-01	4.387E-01	3.557E-01	2.238E-01	NOT IDENT.
RB-83	-9.229E-04	7.017E-02	6.111E-02	3.580E-02	NOT IDENT.
RB-84	-1.801E-02	7.273E-02	6.124E-02	3.711E-02	NOT IDENT.
KR-85	4.148E+00	6.846E+00	5.647E+00	3.493E+00	NOT IDENT.
SR-85	2.099E-02	3.464E-02	2.857E-02	1.767E-02	NOT IDENT.
RB-86	4.060E-01	1.017E+00	8.937E-01	5.191E-01	NOT IDENT.
Y-88	1.874E-02	4.081E-02	3.747E-02	2.082E-02	NOT IDENT.
ZR-88	-9.772E-03	3.142E-02	2.562E-02	1.603E-02	NOT IDENT.
Y-91	7.977E+00	2.448E+01	2.106E+01	1.249E+01	NOT IDENT.
NB-94	-6.301E-03	4.233E-02	3.516E-02	2.160E-02	NOT IDENT.
NB-95	-6.527E-03	4.647E-02	3.813E-02	2.371E-02	NOT IDENT.
NB-95M	-1.851E-02	1.088E-01	8.523E-02	5.550E-02	NOT IDENT.
ZR-95	7.090E-02	8.262E-02	7.458E-02	4.215E-02	NOT IDENT.
NB-97	2.405E+04	3.397E+04	0.000E+00	1.733E+04	SHORT HLIF
ZR-97	6.720E+05	5.312E+05	0.000E+00	2.710E+05	SHORT HLIF
MO-99	-4.835E+00	9.108E+00	7.117E+00	4.647E+00	NOT IDENT.
TC-99M	-5.257E+14	8.903E+14	0.000E+00	4.542E+14	SHORT HLIF
RH-101	-1.834E-03	2.600E-02	2.333E-02	1.327E-02	FAIL ABUN
RH-102	-1.261E-03	2.833E-02	2.487E-02	1.446E-02	NOT IDENT.
RU-103	3.314E-02	4.135E-02	3.825E-02	2.110E-02	FAIL ABUN
RH-106	1.843E-01	3.606E-01	3.212E-01	1.840E-01	FAIL ABUN
RU-106	1.843E-01	3.601E-01	3.212E-01	1.837E-01	FAIL ABUN
AG-108M	8.936E-03	3.297E-02	2.987E-02	1.682E-02	NOT IDENT.
AG-110M	3.274E-02	4.184E-02	3.778E-02	2.135E-02	NOT IDENT.
IN-111	-2.958E-01	6.799E-01	5.169E-01	3.469E-01	NOT IDENT.
IN-113M	-2.374E-02	4.422E-02	3.530E-02	2.256E-02	NOT IDENT.
SN-113	-2.374E-02	4.422E-02	3.530E-02	2.256E-02	NOT IDENT.
IN-114M	-4.829E-02	1.386E-01	1.231E-01	7.070E-02	NOT IDENT.
CD-115	-7.905E+00	7.607E+00	5.975E+00	3.881E+00	NOT IDENT.
SN-117M	-5.658E-03	3.753E-02	3.428E-02	1.915E-02	NOT IDENT.
SB-122	-4.926E-01	1.617E+00	1.360E+00	8.248E-01	NOT IDENT.
I-123	-2.446E+05	8.433E+05	0.000E+00	4.302E+05	SHORT HLIF
TE-123M	-5.970E-03	2.059E-02	1.868E-02	1.050E-02	NOT IDENT.
I-124	4.753E-01	5.405E-01	4.723E-01	2.758E-01	NOT IDENT.
SB-124	-2.872E-02	7.922E-02	5.987E-02	4.042E-02	FAIL ABUN
SB-125	6.304E-02	8.905E-02	8.311E-02	4.544E-02	FAIL ABUN
TE-125M	2.875E+00	6.246E+00	5.498E+00	3.187E+00	NOT IDENT.
I-126	1.275E-01	1.944E-01	1.741E-01	9.920E-02	NOT IDENT.
SB-126	-1.519E-01	1.638E-01	1.178E-01	8.355E-02	FAIL ABUN
SB-127	-4.315E-01	1.114E+00	8.981E-01	5.681E-01	NOT IDENT.
XE-127	-1.863E-02	3.570E-02	3.120E-02	1.821E-02	NOT IDENT.
I-131	3.498E-02	9.653E-02	8.386E-02	4.925E-02	NOT IDENT.
TE-132	6.908E-02	4.240E-01	3.797E-01	2.163E-01	NOT IDENT.
BA-133	-4.614E-03	4.467E-02	3.327E-02	2.279E-02	FAIL ABUN
I-133	-9.491E+02	2.193E+03	0.000E+00	1.119E+03	SHORT HLIF
CS-134	1.306E-01	1.104E-01	6.026E-02	5.631E-02	FAIL ABUN
CS-135	1.524E-01	1.469E-01	1.237E-01	7.497E-02	NOT IDENT.
I-135	-4.136E+13	3.249E+14	0.000E+00	1.658E+14	SHORT HLIF
CS-136	-3.466E-02	1.208E-01	9.912E-02	6.163E-02	FAIL ABUN
BA-137M	-1.008E-02	3.968E-02	3.281E-02	2.024E-02	NOT IDENT.
CS-137	-1.065E-02	4.194E-02	3.468E-02	2.140E-02	NOT IDENT.
CE-139	-8.037E-03	2.197E-02	1.978E-02	1.121E-02	NOT IDENT.
BA-140	1.748E-02	2.575E-01	2.250E-01	1.314E-01	NOT IDENT.
LA-140	-9.939E-02	1.145E-01	8.276E-02	5.842E-02	FAIL ABUN
CE-141	-3.893E-02	4.975E-02	3.973E-02	2.538E-02	NOT IDENT.
CE-143	1.362E+02	7.829E+01	0.000E+00	3.994E+01	SHORT HLIF

CE-144	-2.257E-02	1.515E-01	1.268E-01	7.729E-02	NOT IDENT.
PM-144	8.925E-03	4.070E-02	3.498E-02	2.077E-02	NOT IDENT.
PR-144	6.044E-01	2.756E+00	2.369E+00	1.406E+00	NOT IDENT.
PM-146	2.341E-02	4.277E-02	3.933E-02	2.182E-02	NOT IDENT.
ND-147	-9.019E-02	5.197E-01	4.449E-01	2.651E-01	FAIL ABUN
PM-149	-9.934E+00	5.502E+01	4.714E+01	2.807E+01	NOT IDENT.
EU-152	1.929E-02	9.558E-02	8.236E-02	4.876E-02	NOT IDENT.
GD-153	-4.295E-02	5.565E-02	4.262E-02	2.839E-02	FAIL ABUN
EU-154	-2.111E-03	1.548E-01	1.279E-01	7.896E-02	NOT IDENT.
EU-155	1.113E-01	6.932E-02	6.400E-02	3.537E-02	FAIL ABUN
TB-160	5.921E-03	1.420E-01	1.237E-01	7.247E-02	FAIL ABUN
HO-166M	-1.705E-03	6.921E-02	5.803E-02	3.531E-02	FAIL ABUN
TM-171	-6.156E+00	1.146E+01	9.316E+00	5.847E+00	NOT IDENT.
LU-176	2.850E-03	2.398E-02	1.863E-02	1.224E-02	FAIL ABUN
LU-177	3.165E+00	1.219E+00	8.455E-01	6.219E-01	FAIL ABUN
LU-177M	3.815E-02	1.848E-01	1.562E-01	9.427E-02	FAIL ABUN
HF-181	-3.944E-03	4.044E-02	3.528E-02	2.063E-02	NOT IDENT.
W-181	5.900E-02	1.370E-01	1.167E-01	6.989E-02	NOT IDENT.
TA-182	5.874E-02	2.696E-01	2.290E-01	1.376E-01	FAIL ABUN
RE-183	8.999E-02	8.063E-02	7.720E-02	4.114E-02	FAIL ABUN
RE-184	-4.855E-02	2.067E-01	1.792E-01	1.055E-01	NOT IDENT.
OS-185	-6.763E-03	4.737E-02	3.972E-02	2.417E-02	NOT IDENT.
RE-188	1.360E-01	1.252E-01	1.200E-01	6.388E-02	NOT IDENT.
W-188	-6.400E+00	7.406E+00	5.274E+00	3.779E+00	FAIL ABUN
IR-192	-1.476E-02	3.143E-02	2.602E-02	1.604E-02	FAIL ABUN
AU-195	1.980E-01	1.438E-01	1.320E-01	7.336E-02	FAIL ABUN
TL-200	-2.914E+01	1.873E+02	0.000E+00	9.556E+01	SHORT HLIF
TL-201	7.889E-01	3.757E+00	3.471E+00	1.917E+00	NOT IDENT.
TL-202	1.362E-02	6.199E-02	5.595E-02	3.163E-02	NOT IDENT.
HG-203	2.242E-02	3.480E-02	2.859E-02	1.775E-02	FAIL ABUN
BI-207	-1.660E-02	6.936E-02	5.728E-02	3.539E-02	FAIL ABUN
TL-207	-2.518E-01	6.757E-01	4.955E-01	3.448E-01	FAIL ABUN
PO-209	-1.964E+00	8.203E+00	6.905E+00	4.185E+00	NOT IDENT.
PB-211	3.111E-01	9.201E-01	7.729E-01	4.694E-01	NOT IDENT.
BI-212	6.647E-01	6.333E-01	3.878E-01	3.231E-01	FAIL ABUN
PO-215	-2.518E-01	6.757E-01	4.955E-01	3.448E-01	FAIL ABUN
RN-219	-1.314E-01	4.042E-01	3.274E-01	2.062E-01	FAIL ABUN
RN-220	-6.738E+00	2.765E+01	2.344E+01	1.411E+01	NOT IDENT.
RA-223	-2.518E-01	6.757E-01	4.955E-01	3.448E-01	FAIL ABUN
AC-227	1.148E-02	3.333E-01	2.930E-01	1.701E-01	FAIL ABUN
TH-227	1.148E-02	3.333E-01	2.930E-01	1.701E-01	FAIL ABUN
TH-229	-6.013E-02	3.988E-01	3.573E-01	2.035E-01	FAIL ABUN
PA-231	-3.338E-01	1.317E+00	1.123E+00	6.718E-01	FAIL ABUN
TH-231	-2.518E-01	6.757E-01	4.955E-01	3.448E-01	FAIL ABUN
U-231	-2.549E-01	5.602E-01	4.384E-01	2.858E-01	FAIL ABUN
PA-233	-6.752E-03	5.800E-02	4.941E-02	2.959E-02	FAIL ABUN
PA-234	-1.905E-01	3.334E-01	2.657E-01	1.701E-01	FAIL ABUN
PA-234M	4.201E+00	5.568E+00	5.097E+00	2.841E+00	NOT IDENT.
U-235	5.849E-02	1.644E-01	1.402E-01	8.389E-02	FAIL ABUN
NP-236	-1.496E-02	5.778E-02	5.245E-02	2.948E-02	NOT IDENT.
NP-239	-5.367E-03	1.396E-01	1.192E-01	7.122E-02	FAIL ABUN
AM-241	-1.534E-03	4.801E-02	4.042E-02	2.450E-02	NOT IDENT.
CM-243	-8.267E-02	6.504E-02	5.219E-02	3.318E-02	FAIL ABUN
AM-246	-1.182E-01	1.932E-01	1.528E-01	9.858E-02	NOT IDENT.
CM-247	-3.193E-02	3.640E-02	2.791E-02	1.857E-02	FAIL ABUN
CF-249	1.166E-03	4.028E-02	3.384E-02	2.055E-02	NOT IDENT.
CF-251	-1.028E-02	9.441E-02	8.551E-02	4.817E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	209.1853
46.50	209.1853
46.50	209.1853
48.70	228.5235
49.72	247.9917
51.35	279.7951
52.39	258.8964
52.97	273.5524
53.15	273.7801
53.44	265.7546
54.07	274.9398
56.28	299.4029
56.28	299.4065
57.37	0.0000
57.53	313.3995
57.53	313.4033
57.60	313.4952
57.98	283.5629
57.98	283.5629
59.32	313.9100
59.32	313.9100
59.40	314.0164
59.54	314.2040
59.72	314.4430
60.01	321.2274
61.10	318.8411
61.14	318.8941
61.30	307.5255
63.00	310.0048
63.29	310.3704
63.29	310.3704
63.58	310.7343
64.28	311.6111
65.12	317.5557
65.20	317.6570
65.20	317.6570
66.05	351.5128
66.72	356.3767
66.83	331.5370
66.91	331.6395
67.20	332.0112
67.20	332.0112
67.75	323.4741
67.85	328.8845
68.90	358.0554
68.90	358.0554
69.30	344.6537
69.67	345.1368
70.82	312.5618
70.82	312.5618
70.83	312.5737
72.80	342.0959
72.87	342.1812
72.87	342.1812
74.67	344.4107
74.81	344.5840
74.81	344.5840
74.81	344.5840
74.81	344.5840
74.81	344.5840
74.81	344.5840
74.81	344.5840
74.97	344.7805
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75.70	345.6728
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77.11	347.3876

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77.11	347.3876
77.11	347.3876
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79.62	345.9242
79.80	303.3862
79.80	303.3862
80.11	303.7063
80.18	303.7779
80.30	304.5916
80.30	304.5916
80.57	304.8698
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81.07	311.6135
81.07	311.6135
81.07	311.6135
81.07	311.6135
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83.37	332.1381
83.78	332.5884
83.78	332.5884
83.78	332.5884
83.78	332.5884
84.21	333.0557
84.90	333.8038
85.43	334.3752
86.29	335.2976
86.50	335.5228
86.54	335.5663
86.59	335.6196
86.72	335.7576
86.79	335.8303
86.94	335.9949
87.30	336.3774
87.30	336.3774
87.30	336.3774
87.30	336.3774
87.30	336.3774
87.30	336.3774
87.30	336.3774
87.57	336.6655
87.88	336.9948
88.03	337.1546
88.36	246.7460
88.47	246.8310
89.95	300.7003
91.11	243.1385
92.29	244.0136
92.38	244.0810
92.38	244.0810
93.35	244.7952
94.00	245.2743
94.67	245.7602
94.67	245.7637
94.90	232.9115
94.90	232.9115
94.90	232.9115
94.90	232.9115
95.87	246.6387
95.87	246.6387
96.73	248.7175
97.43	276.9152
98.44	229.1231
98.44	229.1239
98.88	207.4614
99.55	228.7552
99.55	228.7552
99.86	247.6713
100.00	248.8704
100.10	248.9445
103.18	233.3292
103.76	255.9634
105.00	170.8538
105.31	173.2338
108.00	238.6714
109.28	213.5060

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111.00	223.5564
111.76	228.5495
112.95	253.2086
115.19	209.9295
116.30	210.5229
117.00	223.5710
117.00	223.5710
117.66	207.7803
121.11	190.9363
121.62	191.1740
121.78	183.0854
122.06	179.7097
122.32	170.4811
122.32	170.4811
122.32	170.4811
122.32	170.4811
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136.48	222.0404
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140.51	0.0000
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142.65	201.8138
143.76	204.7467
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144.24	184.0919
144.24	184.0919
144.24	184.0919
145.22	238.5896
145.44	238.6991
147.16	191.4062
152.43	220.9637
152.70	197.3529
153.22	202.5618
154.21	190.4384
154.21	190.4384
154.21	190.4384
154.21	190.4384
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156.02	226.3403
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162.64	177.4961
163.35	188.7939
163.89	200.0574
165.85	197.3900
167.43	170.5561
171.28	181.2827
171.86	169.3786
172.10	177.2333
176.55	178.6785
176.60	178.6952
181.06	202.4414
184.41	202.8413
185.71	203.7418
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190.27	189.2719
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193.63	183.1630
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198.01	184.4994
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201.83	194.7517
202.84	181.3964
205.31	167.4726

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208.81	161.0415
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209.75	158.9761
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215.65	160.9011
216.55	159.2584
218.09	164.3000
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227.20	146.6748
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228.18	145.9384
228.18	145.9384
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236.00	161.0085
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238.63	145.2552
238.63	145.2552
238.63	145.2552
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241.98	145.9372
241.98	145.9372
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245.39	129.6337
247.94	123.7534
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252.85	149.1008
252.85	149.1008
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256.20	136.9582
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260.90	136.8180
262.80	109.3264
264.65	118.0564
268.24	109.5936
268.79	123.1927
269.46	123.2978
269.46	123.2978
269.46	123.2978
269.46	123.2978
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273.65	111.8582
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277.60	104.3097
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278.60	97.3398
279.20	91.3239
279.53	100.4965
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284.30	101.0847
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286.10	121.7721
286.10	121.7721
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295.21	93.1018

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297.23	93.3234
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300.09	93.6346
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323.87	107.3885
323.87	107.3885
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334.30	106.9761
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338.28	122.0741
338.28	122.0741
338.32	122.0787
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351.92	88.0371
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391.69	92.6312
391.69	92.6312
392.90	95.0248
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401.10	92.2786
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404.84	74.0716
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423.70	86.4917
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427.89	69.0879
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511.85	51.4927
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513.99	47.0222
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569.32	67.9872
569.50	69.9665
569.67	69.9751
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602.71	38.9357
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609.31	54.6031

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609.31	54.6031
609.31	54.6031
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612.46	42.1472
614.37	43.8209
618.01	57.9498
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621.84	54.0109
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661.65	58.4490
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698.50	69.2827
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722.78	39.7502
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756.15	41.7782
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792.07	46.5791

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911.07	29.3546
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969.11	66.0062
969.11	66.0062
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1120.29	46.3228
1120.29	46.3228
1120.29	46.3228
1120.51	46.3271
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1124.00	0.0000
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1147.95	0.0000
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1175.09	54.5848
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1260.41	0.0000
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1274.54	34.7313
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1298.22	0.0000
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1362.66	0.0000
1365.15	35.3606
1368.21	22.3535
1368.53	0.0000
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1395.20	20.6581
1407.95	13.1956
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1436.60	17.1094
1457.56	0.0000
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1489.15	12.5435
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1596.49	26.8231
1620.62	8.9978
1678.03	0.0000
1691.02	9.1604
1691.02	9.1604
1706.46	0.0000
1750.46	0.0000
1764.49	8.8825
1764.49	8.8825
1764.49	8.8825
1764.49	8.8825
1770.23	28.0184
1771.40	5.1900
1791.20	0.0000
1808.65	6.2834

1836.01 6.3235

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395005

Total Uranium Activity	9.1952E+00	ug/g
Total Uranium Counting Unc.	3.2664E+00	ug/g
Total Uranium Tpu	1.6665E-06	ug/g
Total Uranium Mda	1.1188E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 944966                    SAMPLE ID   : G245395005        *
*   ANALYST       : MXR1                      DETECTOR    : GAM21             *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  2-FEB-2010 08:24:01.40    SAMPLE ALQT:  141.120 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.002E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.304E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.518E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.702E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:25:38.21

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395006.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:24:26.
Sample ID         : G245395006           Sample quantity  : 1.52520E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944966                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.05*	1330	1066	1.00	126.09	121	10	1.85E-01	5.4	
2	2	74.65*	428	895	1.22	149.31	146	11	5.94E-02	12.6	2.52E+00
3	2	76.90	573	748	1.02	153.79	146	11	7.96E-02	8.7	
4	0	83.98*	106	949	1.54	167.97	164	7	1.47E-02	49.5	
5	1	87.13	225	796	1.41	174.26	171	22	3.12E-02	20.1	1.02E+01
6	1	92.41*	4300	799	1.22	184.83	171	22	5.97E-01	1.9	
7	0	98.30*	281	694	1.14	196.60	193	8	3.90E-02	17.5	
8	0	112.40	232	1027	0.95	224.80	219	12	3.22E-02	28.4	
9	0	127.77	50	596	0.70	255.55	254	8	6.88E-03	86.1	
10	0	143.44*	168	550	1.20	286.89	283	9	2.33E-02	26.7	
11	0	185.63*	852	612	0.97	371.26	365	12	1.18E-01	6.8	
12	1	204.86	108	311	1.57	409.71	406	17	1.49E-02	28.2	1.89E+00
13	1	208.92	156	381	1.58	417.85	406	17	2.16E-02	23.9	
14	3	238.32*	1195	256	1.13	476.64	468	20	1.66E-01	3.7	9.25E-01
15	3	241.32	267	361	1.64	482.63	468	20	3.71E-02	15.6	
16	0	270.08	137	248	1.85	540.15	535	11	1.90E-02	24.0	
17	0	277.18	68	257	1.08	554.37	549	10	9.41E-03	46.4	
18	0	294.87	402	292	1.21	589.73	583	13	5.59E-02	10.1	
19	0	299.95	110	216	1.21	599.90	596	10	1.52E-02	26.8	
20	0	327.68	89	277	1.64	655.36	648	14	1.24E-02	40.9	
21	0	337.84	267	235	1.30	675.68	670	12	3.71E-02	13.0	
22	0	351.56	560	213	1.35	703.12	698	11	7.78E-02	6.6	
23	0	462.69	60	161	2.03	925.39	918	13	8.35E-03	45.5	
24	0	510.33*	125	203	2.41	1020.65	1013	18	1.74E-02	29.4	
25	0	582.57*	355	168	1.50	1165.15	1157	14	4.93E-02	9.5	
26	0	608.59*	432	106	1.66	1217.19	1209	14	6.01E-02	7.1	
27	0	662.73	83	174	1.54	1325.46	1316	18	1.15E-02	39.1	
28	0	726.65	86	118	1.64	1453.30	1446	15	1.20E-02	29.6	
29	0	766.03	121	136	1.19	1532.06	1525	14	1.68E-02	22.4	
30	0	794.41	31	61	1.32	1588.82	1585	8	4.29E-03	47.6	
31	0	910.67	250	61	1.28	1821.34	1815	13	3.47E-02	9.1	
32	0	933.42	43	53	1.52	1866.85	1860	14	5.99E-03	38.8	
33	0	968.51*	126	70	2.06	1937.01	1931	13	1.74E-02	16.8	
34	0	1000.48	229	61	1.65	2000.97	1995	15	3.18E-02	9.9	
35	0	1119.33	84	78	2.01	2238.67	2231	17	1.17E-02	26.2	
36	0	1459.96	1170	48	2.44	2919.92	2909	19	1.62E-01	3.2	
37	0	1763.82*	64	8	3.63	3527.65	3520	16	8.90E-03	16.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 10:25:41

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:24:26
Sample ID : G245395006 Sample quantity : 152.52 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.31 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.705E+01	2.680E+00	5.462E-01	4.086E-02	49.531
NB-95	+	765.79	*	1.939E-01	8.778E-02	7.642E-02	5.135E-03	2.537
CD-109	+	88.03	*	2.908E+00	1.205E+00	1.790E+00	1.748E-01	1.624
SN-126	+	64.28		1.334E+01	2.488E+00	1.251E+00	1.905E-01	10.658
	+	86.94		1.190E+00	6.892E-01	7.969E-01	3.314E-01	1.494
	+	87.57	*	2.863E-01	1.186E-01	1.773E-01	1.726E-02	1.615
BA-137M	+	661.65	*	1.112E-01	8.714E-02	6.433E-02	3.286E-03	1.728
CS-137	+	661.65	*	1.175E-01	9.211E-02	6.800E-02	3.493E-03	1.728
LU-177	+	112.95		5.991E+00	3.422E+00	3.032E+00	1.988E-01	1.976
	+	208.36	*	2.875E+00	1.384E+00	1.690E+00	9.143E-02	1.701
TL-208	+	277.35		5.921E-01	5.528E-01	6.360E-01	6.720E-02	0.931
	+	510.84		5.603E-01	3.343E-01	2.437E-01	2.475E-02	2.299
	+	583.14	*	4.552E-01	9.174E-02	6.125E-02	3.976E-03	7.431
		860.37		5.774E-01	3.219E-01	5.962E-01	5.389E-02	0.969
BI-211		72.87		1.598E+01	5.378E+00	8.260E+00	7.286E-01	1.934
	+	351.07	*	3.094E+00	4.562E-01	3.456E-01	2.252E-02	8.953
PB-212	+	74.81		2.438E+00	6.887E-01	8.254E-01	1.065E-01	2.954
	+	77.11		1.829E+00	3.584E-01	4.606E-01	4.145E-02	3.969
	+	87.30		1.324E+00	5.644E-01	8.232E-01	1.147E-01	1.609
	+	238.63	*	1.422E+00	1.467E-01	9.998E-02	7.188E-03	14.218
	+	300.09		2.032E+00	1.101E+00	1.270E+00	1.055E-01	1.600
PO-212	+	74.81		2.438E+00	6.887E-01	8.254E-01	1.065E-01	2.954
	+	77.11		1.829E+00	3.584E-01	4.606E-01	4.145E-02	3.969
	+	87.30		1.324E+00	5.644E-01	8.232E-01	1.147E-01	1.609
		115.19		7.528E+00	5.087E+00	7.752E+00	4.945E-01	0.971
	+	238.63	*	1.422E+00	1.467E-01	9.998E-02	7.188E-03	14.218
	+	300.09		2.032E+00	1.101E+00	1.270E+00	1.055E-01	1.600
BI-214	+	609.31	*	1.048E+00	1.677E-01	1.199E-01	9.017E-03	8.735
	+	1120.29		1.090E+00	5.805E-01	4.826E-01	4.484E-02	2.258
	+	1764.49		1.142E+00	3.846E-01	2.643E-01	1.643E-02	4.320
PB-214	+	74.81		4.201E+00	1.162E+00	1.422E+00	1.646E-01	2.954
	+	77.11		3.135E+00	6.592E-01	7.897E-01	9.310E-02	3.970
	+	87.30		2.269E+00	9.560E-01	1.410E+00	1.748E-01	1.609
	+	241.98		1.909E+00	6.131E-01	5.555E-01	4.418E-02	3.436

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.306E+00	2.861E-01	2.193E-01	1.880E-02	5.954
	+	351.92	*	1.076E+00	1.683E-01	1.130E-01	9.430E-03	9.528
PO-214	+	74.81		4.201E+00	1.162E+00	1.422E+00	1.646E-01	2.954
	+	77.11		3.135E+00	6.592E-01	7.897E-01	9.310E-02	3.970
	+	87.30		2.269E+00	9.560E-01	1.410E+00	1.748E-01	1.609
	+	241.98		1.909E+00	6.131E-01	5.555E-01	4.418E-02	3.436
	+	295.21		1.306E+00	2.861E-01	2.193E-01	1.880E-02	5.954
	+	351.92	*	1.076E+00	1.683E-01	1.130E-01	9.430E-03	9.528
PO-216	+	74.81		2.438E+00	6.887E-01	8.254E-01	1.065E-01	2.954
	+	77.11		1.829E+00	3.584E-01	4.606E-01	4.145E-02	3.969
	+	87.30		1.324E+00	5.644E-01	8.232E-01	1.147E-01	1.609
	+	238.63	*	1.422E+00	1.467E-01	9.998E-02	7.188E-03	14.218
	+	300.09		2.032E+00	1.101E+00	1.270E+00	1.055E-01	1.600
PO-218	+	74.81		4.201E+00	1.162E+00	1.422E+00	1.646E-01	2.954
	+	77.11		3.135E+00	6.592E-01	7.897E-01	9.310E-02	3.970
	+	87.30		2.269E+00	9.560E-01	1.410E+00	1.748E-01	1.609
	+	241.98		1.909E+00	6.131E-01	5.555E-01	4.418E-02	3.436
	+	295.21		1.306E+00	2.861E-01	2.193E-01	1.880E-02	5.954
	+	351.92	*	1.076E+00	1.683E-01	1.130E-01	9.430E-03	9.528
RA-224	+	240.98	*	3.619E+00	1.145E+00	1.138E+00	6.411E-02	3.181
RA-226	+	609.31	*	1.048E+00	1.677E-01	1.199E-01	9.017E-03	8.735
	+	1120.29		1.090E+00	5.805E-01	4.826E-01	4.484E-02	2.258
	+	1764.49		1.142E+00	3.846E-01	2.643E-01	1.643E-02	4.320
AC-228	+	338.32		1.625E+00	7.857E-01	3.882E-01	1.583E-01	4.187
	+	911.07	*	1.454E+00	3.123E-01	1.958E-01	2.259E-02	7.426
	+	969.11		1.293E+00	5.292E-01	3.376E-01	7.860E-02	3.829
RA-228	+	338.32		1.625E+00	7.857E-01	3.882E-01	1.583E-01	4.187
	+	911.07	*	1.454E+00	3.123E-01	1.958E-01	2.259E-02	7.426
	+	969.11		1.293E+00	5.292E-01	3.376E-01	7.860E-02	3.829
TH-228	+	74.81		2.472E+00	6.595E-01	8.369E-01	7.501E-02	2.954
	+	77.11		1.854E+00	3.634E-01	4.670E-01	4.202E-02	3.969
	+	87.30		1.343E+00	5.563E-01	8.346E-01	8.102E-02	1.609
	+	238.63	*	1.441E+00	1.488E-01	1.014E-01	7.288E-03	14.218
	+	300.09		2.060E+00	1.641E+00	1.288E+00	7.590E-01	1.600
TH-230	+	609.31	*	1.048E+00	1.677E-01	1.199E-01	9.017E-03	8.735
	+	1120.29		1.090E+00	5.805E-01	4.826E-01	4.484E-02	2.258
	+	1764.49		1.142E+00	3.846E-01	2.643E-01	1.643E-02	4.320
TH-232	+	338.32		1.625E+00	4.327E-01	3.882E-01	2.293E-02	4.187
	+	911.07	*	1.454E+00	3.123E-01	1.958E-01	2.259E-02	7.426
	+	969.11		1.293E+00	5.292E-01	3.376E-01	7.860E-02	3.829
PA-234M	+	766.42		5.203E+01	3.509E+01	2.052E+01	1.036E+01	2.535
	+	1001.03	*	4.794E+01	1.056E+01	7.702E+00	7.349E-01	6.224
TH-234	+	63.29	*	3.369E+01	7.076E+00	3.311E+00	5.966E-01	10.178
	+	92.38		3.511E+01	6.538E+00	1.147E+00	2.092E-01	30.608
U-234	+	609.31	*	1.048E+00	1.677E-01	1.199E-01	9.017E-03	8.735
	+	1120.29		1.090E+00	5.805E-01	4.826E-01	4.484E-02	2.258
	+	1764.49		1.142E+00	3.846E-01	2.643E-01	1.643E-02	4.320
U-235		89.95		1.611E+01	5.582E+00	3.381E+00	1.051E+00	4.766
	+	93.35		4.221E+01	1.198E+01	1.366E+00	3.836E-01	30.896

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.00		6.161E-01	1.391E+00	2.307E+00	6.801E-01	0.267
	+	143.76	*	6.343E-01	3.537E-01	3.892E-01	6.295E-02	1.630
		163.35		6.816E-01	5.471E-01	9.065E-01	1.612E-01	0.752
	+	185.71		7.074E-01	1.037E-01	7.896E-02	4.135E-03	8.958
	+	205.31		1.092E+00	6.453E-01	9.315E-01	1.663E-01	1.173
NP-237	+	86.50	*	8.408E-01	3.892E-01	5.663E-01	1.290E-01	1.485
		95.87		3.701E+00	2.246E+00	2.391E+00	5.871E-01	1.548
U-238	+	63.29	*	3.369E+01	7.076E+00	3.311E+00	5.966E-01	10.178
	+	92.38		3.511E+01	3.404E+00	1.147E+00	1.025E-01	30.608
AM-243	+	74.67	*	3.953E-01	1.054E-01	1.343E-01	1.194E-02	2.942
	+	86.72		3.153E+01	1.306E+01	2.117E+01	2.044E+00	1.489
		117.66		-3.116E+00	5.402E+00	7.610E+00	4.712E-01	-0.409
	+	142.18		5.328E+01	2.858E+01	3.501E+01	1.906E+00	1.522
ANH-511	+	511.00	*	1.210E-01	7.149E-02	5.265E-02	3.058E-03	2.299

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	9.239E-02	3.458E-01	5.784E-01	3.931E-02	0.160
NA-22		1274.54	*	-4.265E-02	4.837E-02	7.174E-02	4.818E-03	-0.594
NA-24		1368.53	*	-1.892E-01	4.837E-02	Half-Life too short		
AL-26		1129.67		5.413E-02	1.917E+00	3.086E+00	1.966E-01	0.018
		1808.65	*	-3.577E-02	2.704E-02	2.992E-02	1.798E-03	-1.196
TI-44		67.85		-8.307E-02	7.965E-02	1.128E-01	9.822E-03	-0.736
	+	78.38	*	3.374E-01	6.613E-02	9.844E-02	8.923E-03	3.428
SC-46		889.25	*	2.608E-02	3.822E-02	6.727E-02	6.010E-03	0.388
	+	1120.51		1.846E-01	9.757E-02	1.171E-01	7.630E-03	1.576
V-48		944.10		2.760E-01	9.324E-01	1.584E+00	1.380E-01	0.174
		983.50	*	-1.798E-02	6.557E-02	1.058E-01	8.798E-03	-0.170
		1312.09		-5.508E-02	7.714E-02	1.146E-01	8.152E-03	-0.481
CR-51		320.08	*	1.474E-01	3.957E-01	6.184E-01	4.055E-02	0.238
MN-52		744.21		3.077E-01	2.385E-01	4.182E-01	2.663E-02	0.736
		848.13		-4.795E-01	6.207E+00	1.031E+01	8.411E-01	-0.047
		935.52		1.222E-01	2.580E-01	3.899E-01	3.428E-02	0.313
		1246.25		-6.284E+00	6.566E+00	9.728E+00	6.226E-01	-0.646
		1333.61		-3.810E+00	4.130E+00	5.845E+00	4.290E-01	-0.652
		1434.06	*	-1.023E-01	1.651E-01	2.356E-01	1.705E-02	-0.434
MN-54		834.83	*	-2.255E-03	4.064E-02	6.769E-02	5.360E-03	-0.033
CO-56		846.75	*	2.950E-03	4.103E-02	6.894E-02	5.608E-03	0.043
		977.42		1.765E+00	2.973E+00	5.085E+00	4.263E-01	0.347
		1037.82		-9.316E-02	3.473E-01	5.603E-01	4.593E-02	-0.166
		1175.09		-5.233E-01	2.326E+00	3.734E+00	2.114E-01	-0.140
		1238.25		9.865E-02	1.042E-01	1.809E-01	1.203E-02	0.545
		1360.21		3.301E-01	1.044E+00	1.759E+00	1.288E-01	0.188
		1771.40		-5.209E-01	2.729E-01	2.959E-01	1.830E-02	-1.761
CO-57		122.06	*	-3.004E-03	3.059E-02	5.016E-02	2.957E-03	-0.060
		136.48		-8.234E-02	2.474E-01	4.010E-01	2.608E-02	-0.205
CO-58		810.76	*	-3.708E-02	3.811E-02	5.838E-02	4.386E-03	-0.635

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59	+	142.65		8.023E+00	4.303E+00	5.808E+00	3.158E-01	1.381
		192.34		7.736E-01	1.075E+00	1.723E+00	1.994E-01	0.449
		1099.22	*	-3.766E-02	9.044E-02	1.428E-01	1.100E-02	-0.264
		1291.56		4.811E-02	1.350E-01	2.273E-01	1.887E-02	0.212
CO-60		1173.22		3.962E-03	4.762E-02	7.858E-02	4.433E-03	0.050
		1332.49	*	-1.902E-02	3.864E-02	5.887E-02	4.321E-03	-0.323
ZN-65		1115.52	*	5.866E-02	1.134E-01	1.696E-01	1.120E-02	0.346
GE-68		1077.35	*	-3.208E-01	1.337E+00	2.155E+00	1.542E-01	-0.149
AS-73		53.44	*	1.740E-01	1.435E+00	2.418E+00	2.135E-01	0.072
AS-74		595.88	*	3.092E-02	9.097E-02	1.517E-01	8.365E-03	0.204
		634.78		-2.926E-01	3.657E-01	5.482E-01	2.902E-02	-0.534
SE-75		66.05		-8.189E+00	8.152E+00	1.153E+01	1.210E+00	-0.710
		96.73		3.636E+00	1.765E+00	2.006E+00	2.690E-01	1.812
		121.11		6.592E-02	1.641E-01	2.730E-01	2.547E-02	0.241
		136.00		-9.458E-03	4.636E-02	7.549E-02	4.262E-03	-0.125
		198.60		-1.165E+00	2.072E+00	3.212E+00	2.168E-01	-0.363
		264.65	*	1.236E-02	5.336E-02	7.552E-02	4.396E-03	0.164
		279.53		2.695E-03	1.270E-01	1.869E-01	1.176E-02	0.014
		303.91		1.133E+00	2.420E+00	3.647E+00	3.499E-01	0.311
		400.65		-1.068E-01	2.657E-01	4.311E-01	3.923E-02	-0.248
BR-77	+	87.88		4.350E+02	1.802E+02	3.264E+02	3.185E+01	1.333
		200.40		-4.513E+01	1.510E+02	2.074E+02	1.109E+01	-0.218
	+	239.00		1.578E+02	1.467E+01	2.490E+01	1.400E+00	6.336
		249.79		9.010E+00	5.211E+01	8.414E+01	4.784E+00	0.107
		281.68		2.661E+01	7.360E+01	1.105E+02	6.442E+00	0.241
		297.23		1.891E+02	6.238E+01	8.108E+01	4.762E+00	2.333
		303.76		7.841E+01	1.440E+02	2.180E+02	1.283E+01	0.360
		439.47		7.386E+01	1.045E+02	1.797E+02	1.052E+01	0.411
		484.57		-1.407E+02	1.758E+02	2.746E+02	1.605E+01	-0.512
		520.65	*	-7.960E+00	7.708E+00	1.172E+01	6.783E-01	-0.679
		574.64		-9.794E+01	1.782E+02	2.507E+02	1.407E+01	-0.391
		578.91		5.855E+01	7.403E+01	1.120E+02	6.264E+00	0.523
		585.48		5.252E+02	1.740E+02	2.949E+02	1.641E+01	1.781
		755.35		1.159E+02	1.306E+02	2.235E+02	1.463E+01	0.518
		817.79		9.393E+01	9.127E+01	1.648E+02	1.254E+01	0.570
SR-82		698.33		-3.799E+01	3.661E+01	5.431E+01	3.068E+00	-0.699
		776.49	*	-3.119E-02	4.138E-01	6.911E-01	4.768E-02	-0.045
		1395.20		-7.867E+00	1.125E+01	1.647E+01	1.200E+00	-0.478
RB-83		520.41	*	-7.193E-02	7.319E-02	1.117E-01	6.469E-03	-0.644
		529.64		5.242E-02	1.133E-01	1.911E-01	1.102E-02	0.274
		552.65		6.634E-02	2.141E-01	3.572E-01	2.035E-02	0.186
RB-84		881.50	*	6.570E-02	6.719E-02	1.208E-01	1.061E-02	0.544
KR-85		513.99	*	9.292E+00	8.762E+00	1.351E+01	7.840E-01	0.688
SR-85		513.99	*	4.701E-02	4.433E-02	6.836E-02	3.967E-03	0.688
RB-86		1076.63	*	-8.626E-02	7.954E-01	1.297E+00	9.298E-02	-0.066
Y-88		898.02		3.567E-03	4.426E-02	7.417E-02	6.782E-03	0.048
		1836.01	*	-6.531E-03	2.782E-02	4.349E-02	2.561E-03	-0.150
ZR-88		392.90	*	-2.111E-02	3.155E-02	5.045E-02	2.913E-03	-0.418
Y-91		1204.90	*	-2.352E+00	2.094E+01	3.393E+01	2.024E+00	-0.069

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.63	*	1.490E-02	3.734E-02	6.197E-02	3.541E-03	0.240
		871.10		2.866E-02	3.565E-02	6.312E-02	5.421E-03	0.454
NB-95M		235.69	*	5.802E-01	1.737E-01	2.742E-01	2.023E-02	2.116
ZR-95		724.18		1.491E-01	1.309E-01	2.000E-01	1.414E-02	0.745
		756.15	*	4.783E-02	8.045E-02	1.349E-01	1.035E-02	0.354
NB-97		657.90	*	-1.117E-02	8.045E-02	Half-Life too short		
		1024.50		-6.456E-01	8.045E-02	Half-Life too short		
ZR-97		254.15		-1.525E+00	8.045E-02	Half-Life too short		
		355.39		6.623E-01	8.045E-02	Half-Life too short		
		507.63	*	1.654E+00	8.045E-02	Half-Life too short		
		602.52		7.528E-01	8.045E-02	Half-Life too short		
		1021.30		-1.577E+00	8.045E-02	Half-Life too short		
		1147.95		-1.381E+00	8.045E-02	Half-Life too short		
		1362.66		-3.879E-01	8.045E-02	Half-Life too short		
		1750.46		9.619E-01	8.045E-02	Half-Life too short		
MO-99		140.51		1.761E+01	2.544E+01	3.697E+01	9.937E+00	0.476
		181.06		1.372E+01	1.625E+01	2.377E+01	4.028E+00	0.577
		366.43		-4.149E+01	6.272E+01	1.007E+02	5.902E+00	-0.412
		739.58	*	-4.381E+00	1.002E+01	1.555E+01	2.176E+00	-0.282
		778.00		9.272E+00	2.741E+01	4.706E+01	3.259E+00	0.197
TC-99M		140.51	*	1.063E+09	2.741E+01	Half-Life too short		
RH-101	+	127.23		2.855E-02	4.919E-02	6.681E-02	3.837E-03	0.427
		198.01	*	-3.481E-02	3.872E-02	5.926E-02	3.159E-03	-0.587
		325.23		1.770E-01	2.624E-01	3.994E-01	2.360E-02	0.443
RH-102		418.52		1.807E-03	3.140E-01	5.205E-01	3.033E-02	0.003
		475.06	*	-1.306E-02	3.189E-02	5.119E-02	2.997E-03	-0.255
		631.29		3.061E-03	5.439E-02	8.868E-02	4.714E-03	0.035
		697.49		-3.867E-02	8.311E-02	1.293E-01	7.288E-03	-0.299
	+	766.84		4.942E-01	2.237E-01	2.818E-01	1.899E-02	1.754
		1046.59		-9.364E-02	1.166E-01	1.771E-01	1.341E-02	-0.529
		1112.84		-8.258E-02	2.830E-01	3.843E-01	2.550E-02	-0.215
RU-103		497.08	*	-3.073E-02	4.394E-02	6.871E-02	8.699E-03	-0.447
		610.33		9.234E+00	1.921E+00	2.574E+00	3.934E-01	3.588
RH-106		511.85		3.181E-01	2.203E-01	4.034E-01	2.342E-02	0.789
		621.84	*	3.991E-03	3.547E-01	5.766E-01	6.650E-02	0.007
		1050.47		-9.550E-01	2.363E+00	3.750E+00	2.821E-01	-0.255
RU-106		511.85		3.181E-01	2.203E-01	4.034E-01	2.342E-02	0.789
		621.84	*	3.991E-03	3.547E-01	5.766E-01	3.098E-02	0.007
		1050.47		-9.550E-01	2.363E+00	3.750E+00	2.821E-01	-0.255
AG-108M		433.93	*	4.029E-03	3.446E-02	5.739E-02	3.639E-03	0.070
		614.37		1.621E-02	4.413E-02	6.437E-02	3.824E-03	0.252
		722.95		3.793E-02	5.539E-02	8.208E-02	5.337E-03	0.462
AG-110M		657.75	*	-2.103E-02	4.598E-02	6.116E-02	3.398E-03	-0.344
		677.61		4.055E-02	2.951E-01	4.827E-01	2.762E-02	0.084
		706.67		2.127E-02	2.376E-01	3.856E-01	2.362E-02	0.055
		763.93		6.508E-01	2.539E-01	4.212E-01	2.949E-02	1.545
		884.67		-2.289E-02	4.938E-02	7.887E-02	7.191E-03	-0.290
		937.48		-1.023E-01	1.216E-01	1.520E-01	1.381E-02	-0.673
		1384.27		5.830E-02	1.733E-01	2.923E-01	2.217E-02	0.199

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-111		171.28		1.604E-01	8.360E-01	1.369E+00	7.020E-02	0.117
		245.39	*	-2.697E-01	1.000E+00	1.375E+00	7.784E-02	-0.196
IN-113M		391.69	*	-2.891E-02	4.566E-02	7.316E-02	4.507E-03	-0.395
SN-113		391.69	*	-2.891E-02	4.566E-02	7.316E-02	4.507E-03	-0.395
IN-114M		190.27	*	-1.825E-01	2.298E-01	3.116E-01	1.642E-02	-0.586
CD-115		260.90		-1.104E+02	9.820E+01	1.482E+02	8.509E+00	-0.745
		492.35		2.036E-02	2.844E+01	4.676E+01	2.730E+00	0.000
		527.90	*	1.426E+00	7.850E+00	1.302E+01	7.511E-01	0.110
SN-117M		156.02		1.183E-01	2.420E+00	3.955E+00	2.070E-01	0.030
		158.56	*	-4.396E-02	5.806E-02	9.208E-02	4.785E-03	-0.477
SB-122		563.90	*	-2.159E-01	1.624E+00	2.628E+00	1.486E-01	-0.082
		692.80		3.728E+01	3.213E+01	5.640E+01	3.139E+00	0.661
I-123		159.00	*	-1.292E+00	3.213E+01	Half-Life too short		
		528.96		4.562E+00	3.213E+01	Half-Life too short		
TE-123M		159.00	*	-3.153E-02	3.222E-02	5.067E-02	2.674E-03	-0.622
I-124		602.71	*	1.997E-01	6.171E-01	8.965E-01	4.913E-02	0.223
		722.78		2.708E+00	4.659E+00	6.843E+00	4.124E-01	0.396
		1325.50		-2.431E+00	2.870E+01	4.618E+01	3.354E+00	-0.053
		1376.25		3.518E+01	2.825E+01	5.146E+01	3.761E+00	0.684
		1509.49		8.505E+00	1.152E+01	2.067E+01	1.465E+00	0.412
		1691.02		3.164E+00	3.096E+00	5.955E+00	3.887E-01	0.531
SB-124		602.71		1.411E-02	4.361E-02	6.335E-02	3.473E-03	0.223
		645.85		3.923E-01	5.564E-01	9.320E-01	5.626E-02	0.421
		709.31		-7.419E-01	3.012E+00	4.764E+00	2.771E-01	-0.156
		713.82		-3.813E-01	1.689E+00	2.671E+00	2.741E-01	-0.143
		722.78		2.774E-01	4.773E-01	7.010E-01	4.409E-02	0.396
	+	968.20		1.311E+01	4.554E+00	6.808E+00	5.772E-01	1.926
		1045.16		-6.093E-01	2.472E+00	3.984E+00	3.025E-01	-0.153
		1325.50		-2.659E-01	3.141E+00	5.053E+00	3.670E-01	-0.053
		1368.21		-1.718E+00	1.884E+00	2.669E+00	3.385E-01	-0.644
		1436.60		-1.542E+00	3.096E+00	4.550E+00	3.290E-01	-0.339
		1691.02	*	7.645E-02	7.484E-02	1.439E-01	1.003E-02	0.531
SB-125		427.89	*	-1.142E-02	9.437E-02	1.551E-01	9.435E-03	-0.074
	+	463.38		5.227E-01	4.774E-01	5.398E-01	3.677E-02	0.968
		600.56		3.287E-02	1.987E-01	2.974E-01	1.916E-02	0.111
		635.90		7.939E-02	2.744E-01	4.553E-01	2.895E-02	0.174
TE-125M		109.28	*	6.648E+00	1.387E+01	2.044E+01	1.822E+00	0.325
I-126		388.63		6.968E-03	1.941E-01	3.235E-01	1.871E-02	0.022
		666.33	*	1.020E-01	2.060E-01	3.026E-01	1.566E-02	0.337
		753.82		9.057E-01	1.526E+00	2.565E+00	1.673E-01	0.353
SB-126		223.80		1.719E-01	4.205E+00	6.780E+00	3.744E-01	0.025
	+	278.60		3.647E+00	3.390E+00	4.232E+00	2.462E-01	0.862
		296.50		1.101E+01	2.353E+00	3.300E+00	1.937E-01	3.338
		414.70		-8.443E-03	7.676E-02	1.265E-01	7.363E-03	-0.067
		415.30		8.693E-01	6.302E+00	1.053E+01	6.128E-01	0.083
		555.20		7.988E-01	3.935E+00	6.520E+00	3.709E-01	0.123
		573.80		-1.076E+00	1.187E+00	1.693E+00	9.509E-02	-0.636
		593.00		-7.604E-01	9.107E-01	1.389E+00	7.679E-02	-0.548
		656.30		-2.184E+00	4.017E+00	5.282E+00	2.719E-01	-0.414

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.33		4.249E-02	8.583E-02	1.261E-01	6.525E-03	0.337
		675.00		-2.614E-01	1.823E+00	2.912E+00	1.544E-01	-0.090
		695.00		4.244E-02	7.703E-02	1.294E-01	7.247E-03	0.328
		697.00		6.661E-02	2.701E-01	4.439E-01	2.499E-02	0.150
		720.50	*	5.492E-02	1.691E-01	2.431E-01	1.456E-02	0.226
		856.80		-6.193E-01	5.027E-01	7.583E-01	6.310E-02	-0.817
		989.30		1.854E-01	1.162E+00	1.952E+00	1.612E-01	0.095
		1034.80		2.011E+00	9.136E+00	1.536E+01	1.187E+00	0.131
		1213.00		-1.288E-02	4.767E+00	7.792E+00	4.714E-01	-0.002
SB-127		61.10		5.301E+02	1.078E+02	1.563E+02	1.695E+01	3.392
		252.40		5.407E-01	3.901E+00	6.277E+00	2.601E+00	0.086
		290.80		7.330E+00	1.938E+01	2.910E+01	2.545E+00	0.252
		411.60		4.101E+00	1.051E+01	1.776E+01	2.504E+00	0.231
		444.90		-1.527E+00	8.003E+00	1.307E+01	1.364E+00	-0.117
		473.00		-4.436E-01	1.436E+00	2.319E+00	2.513E-01	-0.191
		543.00		9.680E-01	1.402E+01	2.305E+01	2.895E+00	0.042
		603.60		1.787E+00	1.054E+01	1.507E+01	1.538E+00	0.119
		685.20	*	7.269E-01	1.111E+00	1.885E+00	1.654E-01	0.386
		698.50		-1.307E+01	1.347E+01	1.992E+01	2.816E+00	-0.656
		722.20		1.997E+01	2.993E+01	4.441E+01	3.932E+00	0.450
		783.80		2.443E+00	3.271E+00	5.733E+00	6.310E-01	0.426
XE-127		57.60		5.016E+00	1.125E+01	1.687E+01	1.478E+00	0.297
		145.22		1.557E+00	9.380E-01	1.431E+00	7.719E-02	1.088
		172.10		-3.010E-02	1.355E-01	2.186E-01	1.122E-02	-0.138
		202.84	*	5.844E-02	5.974E-02	8.840E-02	4.746E-03	0.661
		374.96		-9.019E-02	2.036E-01	3.310E-01	1.931E-02	-0.273
I-131		80.18		-4.736E-01	9.365E+00	9.905E+00	9.126E-01	-0.048
		284.30		4.807E-02	1.421E+00	2.399E+00	1.552E-01	0.020
		364.48	*	9.200E-02	1.029E-01	1.796E-01	1.172E-02	0.512
		636.97		6.386E-01	1.424E+00	2.390E+00	1.439E-01	0.267
		722.89		5.411E+00	8.344E+00	1.233E+01	7.512E-01	0.439
TE-132		49.72		-2.524E+01	2.760E+01	4.507E+01	4.663E+00	-0.560
	+	111.76		9.478E+01	5.444E+01	5.701E+01	5.126E+00	1.663
		116.30		9.618E+00	3.012E+01	4.408E+01	3.847E+00	0.218
		228.16	*	2.712E-02	5.993E-01	9.656E-01	1.354E-01	0.028
BA-133		53.15		-1.548E+00	6.327E+00	1.056E+01	9.315E-01	-0.147
		79.62		7.702E-01	2.888E+00	3.107E+00	4.822E-01	0.248
		81.00		-1.458E-02	2.223E-01	2.348E-01	3.807E-02	-0.062
	+	276.40		5.850E-01	5.479E-01	6.978E-01	9.050E-02	0.838
		302.84		1.004E-01	1.667E-01	2.530E-01	2.960E-02	0.397
		356.01	*	1.081E-02	4.749E-02	7.014E-02	8.138E-03	0.154
		383.85		-3.712E-02	3.123E-01	5.162E-01	5.612E-02	-0.072
I-133	+	510.53		4.471E-01	3.123E-01	Half-Life too short		
		529.87	*	1.043E-03	3.123E-01	Half-Life too short		
		706.58		2.254E-02	3.123E-01	Half-Life too short		
		856.28		-3.290E-01	3.123E-01	Half-Life too short		
		875.33		-1.428E-02	3.123E-01	Half-Life too short		
		1236.41		2.916E-01	3.123E-01	Half-Life too short		
		1298.22		-4.908E-02	3.123E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134		475.35		-1.637E-01	2.057E+00	3.371E+00	1.973E-01	-0.049
		563.23		1.752E-01	3.783E-01	6.370E-01	3.684E-02	0.275
		569.32		2.966E-01	2.173E-01	3.843E-01	2.234E-02	0.772
		604.70		2.751E-02	4.136E-02	6.173E-02	3.398E-03	0.446
	+	795.84	*	5.784E-02	5.521E-02	9.351E-02	6.829E-03	0.619
		801.93		5.151E-03	4.416E-01	7.159E-01	5.291E-02	0.007
		1038.57		1.765E-01	4.238E+00	7.022E+00	5.390E-01	0.025
		1167.94		-1.346E-01	2.799E+00	4.569E+00	2.619E-01	-0.029
		1365.15		6.923E-01	1.237E+00	2.148E+00	1.671E-01	0.322
CS-135		268.24	*	1.781E-01	2.012E-01	2.951E-01	2.254E-02	0.604
I-135		288.45		-4.260E+08	2.012E-01	Half-Life too short		
		417.63		6.028E+08	2.012E-01	Half-Life too short		
		546.56		-2.852E+07	2.012E-01	Half-Life too short		
		836.80		5.444E+08	2.012E-01	Half-Life too short		
		1038.76		1.663E+08	2.012E-01	Half-Life too short		
		1124.00		-1.512E+09	2.012E-01	Half-Life too short		
		1131.51		1.756E+08	2.012E-01	Half-Life too short		
		1260.41	*	1.354E+07	2.012E-01	Half-Life too short		
		1457.56		3.820E+10	2.012E-01	Half-Life too short		
		1678.03		-2.083E+08	2.012E-01	Half-Life too short		
		1706.46		-5.759E+08	2.012E-01	Half-Life too short		
		1791.20		4.258E+08	2.012E-01	Half-Life too short		
CS-136		66.91		-8.797E-01	1.234E+00	1.761E+00	2.726E-01	-0.500
	+	86.29		3.496E+00	1.486E+00	2.589E+00	3.506E-01	1.350
		153.22		1.568E-01	7.131E-01	1.172E+00	7.978E-02	0.134
		163.89		1.551E+00	1.133E+00	1.923E+00	1.292E-01	0.807
		176.55		-6.191E-02	4.032E-01	6.514E-01	3.882E-02	-0.095
		273.65		-4.423E-02	7.102E-01	6.994E-01	4.624E-02	-0.063
		340.57		2.267E-01	1.402E-01	2.238E-01	1.402E-02	1.013
		818.51		3.002E-02	7.274E-02	1.256E-01	9.583E-03	0.239
		1048.07	*	-5.201E-02	1.028E-01	1.614E-01	1.286E-02	-0.322
		1235.34		4.568E-01	6.588E-01	1.125E+00	1.155E-01	0.406
CE-139		165.85	*	-2.934E-02	3.345E-02	5.270E-02	2.687E-03	-0.557
BA-140		162.64		9.498E-01	8.054E-01	1.361E+00	8.087E-02	0.698
		304.84		-1.245E-01	1.405E+00	2.044E+00	5.582E-01	-0.061
		423.70		-3.046E-01	1.875E+00	3.073E+00	9.768E-01	-0.099
		537.32	*	-4.028E-02	2.492E-01	4.026E-01	1.309E-01	-0.100
LA-140	+	328.77		6.263E-01	5.135E-01	5.312E-01	3.503E-02	1.179
		432.53		8.733E-02	1.977E+00	3.281E+00	2.115E-01	0.027
		487.03		1.001E-01	1.433E-01	2.452E-01	1.620E-02	0.408
		751.79		-1.234E+00	1.776E+00	2.686E+00	2.060E-01	-0.459
		815.85		2.082E-01	2.969E-01	5.241E-01	4.555E-02	0.397
		867.82		4.002E-01	1.369E+00	2.337E+00	2.100E-01	0.171
		919.63		-3.240E-01	2.674E+00	4.400E+00	4.796E-01	-0.074
		925.24		3.030E-01	1.194E+00	1.888E+00	1.777E-01	0.160
		1596.49	*	-1.469E-03	8.535E-02	1.421E-01	9.746E-03	-0.010
CE-141		145.44	*	1.028E-01	8.373E-02	1.259E-01	7.099E-03	0.816
CE-143		57.37		3.100E-04	8.373E-02	Half-Life too short		
		231.56		1.342E-04	8.373E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		293.26	*	5.316E-04	8.373E-02	Half-Life too short		
	+	350.59		1.295E-02	8.373E-02	Half-Life too short		
		490.36		3.787E-04	8.373E-02	Half-Life too short		
		664.57		4.547E-04	8.373E-02	Half-Life too short		
		721.93		8.911E-04	8.373E-02	Half-Life too short		
CE-144		80.11		-5.300E-01	4.810E+00	5.071E+00	4.648E-01	-0.105
		133.54	*	-1.867E-01	2.810E-01	3.904E-01	5.513E-02	-0.478
PM-144		476.78		1.171E-02	7.349E-02	1.222E-01	8.536E-03	0.096
		618.01		-3.676E-02	3.378E-02	5.019E-02	2.895E-03	-0.733
		696.49	*	1.188E-02	3.653E-02	6.041E-02	3.398E-03	0.197
		778.57		8.657E-01	2.522E+00	4.332E+00	3.005E-01	0.200
PR-144		696.49	*	8.047E-01	2.474E+00	4.091E+00	2.299E-01	0.197
		1489.15		-6.019E-01	1.206E+01	1.929E+01	1.377E+00	-0.031
PM-146		453.90	*	3.277E-02	4.881E-02	8.158E-02	7.065E-03	0.402
		633.02		-6.319E-01	1.459E+00	2.223E+00	8.170E-01	-0.284
		735.90		7.481E-02	1.661E-01	2.746E-01	7.681E-02	0.272
		747.13		-4.606E-02	1.048E-01	1.623E-01	2.078E-02	-0.284
ND-147	+	91.11		1.631E+01	1.685E+00	1.252E+00	1.231E-01	13.026
		319.41		-8.307E-01	3.178E+00	5.121E+00	3.026E-01	-0.162
		439.89		2.544E+00	5.755E+00	9.753E+00	5.709E-01	0.261
		531.02	*	5.723E-01	5.730E-01	9.895E-01	1.336E-01	0.578
PM-149		285.90	*	1.275E+00	6.492E+01	1.095E+02	1.553E+01	0.012
EU-152		121.78		-9.515E-03	8.904E-02	1.460E-01	1.122E-02	-0.065
		244.69		-3.739E-02	4.177E-01	5.810E-01	3.286E-02	-0.064
		344.27	*	-1.030E-01	1.166E-01	1.582E-01	1.049E-02	-0.651
		443.98		-5.196E-01	1.011E+00	1.618E+00	9.469E-02	-0.321
		778.89		5.802E-02	2.886E-01	4.911E-01	3.408E-02	0.118
		867.32		5.877E-02	8.801E-01	1.476E+00	1.257E-01	0.040
		964.01		5.297E-01	3.254E-01	5.440E-01	4.635E-02	0.974
		1085.78		5.130E-02	4.369E-01	7.266E-01	5.113E-02	0.071
		1112.02		1.902E-02	3.959E-01	5.621E-01	3.736E-02	0.034
		1407.95		1.198E-01	1.777E-01	3.132E-01	2.277E-02	0.382
GD-153		69.67		8.635E-01	2.596E+00	4.059E+00	3.546E-01	0.213
	+	83.37		2.483E+01	2.468E+01	3.740E+01	3.511E+00	0.664
	+	97.43	*	3.918E-01	1.406E-01	2.062E-01	1.684E-02	1.900
		103.18		-3.057E-02	1.542E-01	2.221E-01	1.660E-02	-0.138
EU-154		123.07		-1.778E-02	6.469E-02	1.018E-01	9.605E-03	-0.175
		247.94		8.498E-02	4.252E-01	6.636E-01	6.281E-02	0.128
		591.81		-2.382E-01	6.385E-01	1.010E+00	9.716E-02	-0.236
		723.30		2.421E-01	2.290E-01	3.505E-01	2.549E-02	0.691
		756.87		2.519E-01	9.083E-01	1.489E+00	1.578E-01	0.169
		873.19		-4.920E-02	3.065E-01	5.042E-01	6.176E-02	-0.098
		996.32		5.757E-01	4.590E-01	7.341E-01	1.289E-01	0.784
		1004.76		2.105E-01	2.372E-01	3.753E-01	4.222E-02	0.561
		1274.45	*	-1.192E-01	1.355E-01	2.005E-01	1.991E-02	-0.594
EU-155		48.70		-1.359E+00	4.540E+00	7.578E+00	6.112E-01	-0.179
		60.01		1.358E+01	9.057E+00	1.393E+01	1.210E+00	0.975
	+	86.54		3.447E-01	1.429E-01	2.540E-01	2.469E-02	1.357
		105.31	*	1.703E-02	1.458E-01	2.336E-01	1.723E-02	0.073

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160	+	86.79		9.101E-01	3.770E-01	6.677E-01	6.451E-02	1.363
		197.04		-3.767E-01	6.304E-01	9.966E-01	5.305E-02	-0.378
		215.65		1.820E-01	7.960E-01	1.295E+00	7.076E-02	0.141
	+	298.57		2.921E-01	1.574E-01	2.138E-01	1.256E-02	1.366
		879.36	*	5.900E-02	1.359E-01	2.349E-01	2.054E-02	0.251
		962.29		1.487E-01	6.033E-01	8.854E-01	7.560E-02	0.168
		966.15		1.069E+00	2.912E-01	5.213E-01	4.431E-02	2.051
		1177.93		-2.740E-01	3.802E-01	5.820E-01	3.311E-02	-0.471
		1271.85		1.464E-01	7.278E-01	1.210E+00	8.077E-02	0.121
HO-166M		80.57		-2.925E-02	6.142E-01	6.496E-01	5.973E-02	-0.045
	+	184.41		5.305E-01	7.775E-02	1.052E-01	5.496E-03	5.045
		280.46		-1.533E-02	9.956E-02	1.449E-01	8.441E-03	-0.106
		410.95		2.605E-01	2.578E-01	4.497E-01	2.614E-02	0.579
		711.68	*	1.633E-02	6.301E-02	1.037E-01	6.068E-03	0.157
		752.31		-6.462E-02	3.054E-01	4.823E-01	3.134E-02	-0.134
		810.29		-4.534E-02	5.740E-02	8.950E-02	6.695E-03	-0.507
TM-171		51.35		-2.376E+01	5.475E+01	9.092E+01	7.903E+00	-0.261
		52.39		-1.274E+01	2.826E+01	4.690E+01	4.120E+00	-0.272
		59.40		4.215E+01	4.935E+01	7.478E+01	6.497E+00	0.564
		66.72	*	-4.971E+01	4.810E+01	6.806E+01	5.918E+00	-0.730
LU-176	+	88.36		6.791E-01	2.814E-01	5.135E-01	4.977E-02	1.323
		201.83		2.901E-02	3.661E-02	5.377E-02	2.882E-03	0.539
		306.84	*	1.516E-02	2.708E-02	4.426E-02	2.607E-03	0.342
		401.10		-4.014E-01	6.806E+00	1.126E+01	6.525E-01	-0.036
LU-177M		52.97		-6.448E-01	2.851E+00	4.761E+00	4.197E-01	-0.135
		54.07		1.012E+00	1.496E+00	2.553E+00	2.256E-01	0.397
		61.30		2.297E+01	3.713E+00	5.488E+00	4.767E-01	4.185
		121.62		7.324E-02	4.524E-01	7.478E-01	4.420E-02	0.098
		147.16		-2.330E-01	8.596E-01	1.216E+00	6.521E-02	-0.192
		171.86		-1.815E-01	5.544E-01	8.908E-01	4.574E-02	-0.204
		218.09		3.162E-01	8.983E-01	1.469E+00	8.051E-02	0.215
	+	268.79		2.487E+00	1.201E+00	1.513E+00	8.745E-02	1.643
		319.02		-1.153E-01	2.661E-01	4.247E-01	2.508E-02	-0.272
		367.43		-3.767E-01	9.057E-01	1.475E+00	8.637E-02	-0.255
		413.65	*	-1.072E-01	1.925E-01	3.095E-01	1.801E-02	-0.346
HF-181		56.28		-4.012E-01	1.608E+00	2.682E+00	2.361E-01	-0.150
		57.53		5.116E-01	9.483E-01	1.427E+00	1.250E-01	0.359
		65.20		5.591E+00	1.772E+00	2.746E+00	2.385E-01	2.036
		133.02		5.171E-03	8.633E-02	1.244E-01	6.986E-03	0.042
		136.25		-8.420E-02	5.291E-01	8.627E-01	4.788E-02	-0.098
		345.85		-1.009E-01	2.236E-01	3.142E-01	1.854E-02	-0.321
		482.03	*	-5.041E-02	4.634E-02	7.095E-02	4.150E-03	-0.710
W-181		56.28		-1.580E-01	6.380E-01	1.064E+00	9.368E-02	-0.148
		57.53		2.032E-01	3.765E-01	5.666E-01	4.964E-02	0.359
		65.20	*	2.202E+00	6.981E-01	1.082E+00	9.396E-02	2.036
TA-182		67.75		-2.233E-01	1.898E-01	2.671E-01	2.325E-02	-0.836
		100.10		5.628E-01	2.694E-01	4.157E-01	3.253E-02	1.354
		152.43		1.185E-01	3.919E-01	6.460E-01	3.414E-02	0.184
		222.10		-4.680E-02	3.725E-01	5.965E-01	3.287E-02	-0.078

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1001.68		2.095E+01	4.494E+00	6.994E+00	5.679E-01	2.996
		1121.28		3.747E-01	1.881E-01	3.161E-01	2.056E-02	1.185
		1189.05		-1.556E-01	3.365E-01	5.290E-01	3.070E-02	-0.294
		1221.42	*	-1.737E-01	2.138E-01	3.251E-01	1.995E-02	-0.534
		1230.97		-2.551E-01	5.788E-01	9.147E-01	5.706E-02	-0.279
RE-183		57.98		1.404E-01	3.715E-01	5.560E-01	4.862E-02	0.252
		59.32		1.669E-01	2.008E-01	3.042E-01	2.644E-02	0.549
		67.20		-8.781E-02	3.291E-01	4.796E-01	4.173E-02	-0.183
		162.32	*	1.300E-01	1.242E-01	2.092E-01	1.076E-02	0.621
	+	208.81		2.909E+00	1.400E+00	1.927E+00	1.043E-01	1.510
		291.72		4.584E-01	1.084E+00	1.631E+00	9.557E-02	0.281
RE-184		57.98		5.210E-01	1.379E+00	2.064E+00	1.805E-01	0.252
		59.32		6.189E-01	7.449E-01	1.128E+00	9.805E-02	0.549
		67.20		-3.259E-01	1.221E+00	1.780E+00	1.548E-01	-0.183
		161.27		1.250E-01	4.010E-01	6.603E-01	3.406E-02	0.189
		216.55		9.839E-02	2.840E-01	4.642E-01	2.539E-02	0.212
		252.85	*	-5.634E-02	2.615E-01	4.146E-01	2.364E-02	-0.136
		318.01		-3.701E-01	4.516E-01	7.259E-01	4.286E-02	-0.510
		792.07		5.978E-01	1.343E+00	2.022E+00	1.448E-01	0.296
		903.28		9.456E-02	1.191E+00	1.805E+00	1.636E-01	0.052
		920.93		-9.557E-02	4.703E-01	7.684E-01	6.853E-02	-0.124
OS-185		59.72		7.258E-01	5.347E-01	8.202E-01	7.123E-02	0.885
		61.14		1.955E+00	3.697E-01	5.633E-01	4.893E-02	3.470
		69.30		-3.105E-01	4.495E-01	7.122E-01	6.218E-02	-0.436
		592.07		-1.078E+00	2.587E+00	4.081E+00	2.258E-01	-0.264
		646.12	*	2.328E-02	4.783E-02	7.897E-02	4.121E-03	0.295
		717.42		-4.325E-01	9.722E-01	1.510E+00	8.974E-02	-0.286
		874.81		-8.250E-02	5.979E-01	9.855E-01	8.533E-02	-0.084
		880.27		6.538E-01	7.501E-01	1.340E+00	1.174E-01	0.488
RE-188		155.03	*	1.045E-01	1.944E-01	3.226E-01	1.693E-02	0.324
		477.96		1.457E+00	3.300E+00	5.577E+00	3.263E-01	0.261
		633.10		-1.228E+00	2.879E+00	4.448E+00	2.359E-01	-0.276
W-188	+	63.58		1.337E+03	1.852E+02	2.097E+02	1.821E+01	6.378
		227.08		3.517E+00	1.437E+01	2.334E+01	1.294E+00	0.151
		290.67	*	2.682E+00	8.300E+00	1.243E+01	7.277E-01	0.216
IR-192	+	295.96		9.838E-01	2.069E-01	2.734E-01	1.629E-02	3.599
		308.46		-2.095E-02	9.762E-02	1.623E-01	9.671E-03	-0.129
		316.51	*	2.821E-03	3.478E-02	5.857E-02	3.475E-03	0.048
		468.07		1.402E-02	7.534E-02	1.095E-01	7.374E-03	0.128
		604.41		1.560E-01	5.412E-01	7.816E-01	8.743E-02	0.200
		612.46		1.480E+00	7.794E-01	1.290E+00	9.404E-02	1.147
AU-195		65.12		1.240E+00	3.343E-01	5.173E-01	4.494E-02	2.397
		66.83		-1.536E-01	1.584E-01	2.247E-01	1.954E-02	-0.684
	+	75.70		1.273E+00	3.393E-01	5.822E-01	5.200E-02	2.186
	+	98.88	*	1.139E+00	4.089E-01	5.796E-01	4.625E-02	1.966
		129.76		6.043E+00	3.997E+00	6.077E+00	3.454E-01	0.995
TL-200		367.94	*	-6.811E-05	3.997E+00	Half-Life too short		
		579.30		3.178E-03	3.997E+00	Half-Life too short		
		828.27		4.497E-04	3.997E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1205.75		-2.725E-04	3.997E+00	Half-Life too short		
TL-201		68.90		-5.636E+00	5.774E+00	8.673E+00	7.566E-01	-0.650
		70.82		3.806E+00	3.331E+00	5.044E+00	4.420E-01	0.755
		80.30		-3.727E-01	8.525E+00	9.019E+00	8.278E-01	-0.041
		135.34		5.212E-01	2.259E+01	3.705E+01	2.063E+00	0.014
		167.43	*	-6.196E+00	5.872E+00	9.176E+00	4.683E-01	-0.675
TL-202		68.90		-6.295E-01	6.448E-01	9.687E-01	8.451E-02	-0.650
		70.82		4.240E-01	3.710E-01	5.619E-01	4.923E-02	0.755
		80.30		-4.152E-02	9.498E-01	1.005E+00	9.223E-02	-0.041
		439.56	*	4.741E-02	6.810E-02	1.170E-01	6.847E-03	0.405
HG-203		70.83		1.935E+00	1.707E+00	2.567E+00	3.516E-01	0.754
		72.87		3.118E+00	1.095E+00	1.612E+00	2.150E-01	1.934
	+	82.60		1.818E+00	1.817E+00	2.763E+00	3.924E-01	0.658
		279.20	*	2.655E-02	4.712E-02	7.156E-02	4.420E-03	0.371
BI-207		72.80		8.583E-01	3.111E-01	4.776E-01	4.212E-02	1.797
	+	74.97		7.095E-01	1.891E-01	3.069E-01	2.731E-02	2.311
	+	84.90		3.223E-01	3.203E-01	4.849E-01	4.609E-02	0.665
		569.67		5.646E-02	3.291E-02	5.941E-02	3.347E-03	0.950
		1063.62	*	3.299E-02	5.270E-02	9.173E-02	6.740E-03	0.360
		1770.23		-3.072E-01	4.799E-01	5.370E-01	3.325E-02	-0.572
TL-207		81.07		-1.444E-02	4.907E-01	5.193E-01	4.792E-02	-0.028
	+	83.78		2.125E-01	2.112E-01	3.164E-01	2.980E-02	0.672
		94.90		3.267E+00	5.877E-01	7.162E-01	6.110E-02	4.562
		122.32		1.752E-01	2.110E+00	3.478E+00	2.353E-01	0.050
	+	144.24		2.056E+00	1.106E+00	1.501E+00	1.039E-01	1.370
		154.21		2.669E-01	4.613E-01	7.664E-01	5.037E-02	0.348
	+	269.46		5.855E-01	2.829E-01	3.635E-01	2.197E-02	1.611
		323.87	*	2.794E-02	7.501E-01	1.097E+00	1.816E-01	0.025
	+	338.28		6.787E+00	1.903E+00	2.495E+00	2.642E-01	2.721
		445.03		-3.125E-01	2.350E+00	3.851E+00	3.967E-01	-0.081
PO-209		260.50		-8.372E+00	1.068E+01	1.642E+01	9.429E-01	-0.510
		262.80		-1.861E+01	2.901E+01	4.487E+01	2.581E+00	-0.415
		896.60	*	8.707E-01	7.829E+00	1.316E+01	1.194E+00	0.066
BI-210		46.50	*	2.177E+00	6.877E+00	1.158E+01	9.014E-01	0.188
PB-210		46.50	*	2.177E+00	6.877E+00	1.158E+01	9.014E-01	0.188
PO-210		46.50	*	2.177E+00	6.876E+00	1.158E+01	7.767E-01	0.188
PB-211		404.84	*	-1.125E+00	1.221E+00	1.521E+00	9.481E-01	-0.740
		427.08		5.293E-02	2.094E+00	3.472E+00	2.146E+00	0.015
		831.96		-6.082E-01	1.303E+00	2.005E+00	1.254E+00	-0.303
BI-212	+	727.18	*	9.587E-01	5.733E-01	6.628E-01	5.261E-02	1.446
		785.46		1.112E+00	1.982E+00	3.444E+00	2.428E-01	0.323
		1620.62		1.141E+00	1.248E+00	2.340E+00	1.587E-01	0.488
PO-215		81.07		-1.444E-02	4.907E-01	5.193E-01	4.792E-02	-0.028
	+	83.78		2.125E-01	2.112E-01	3.164E-01	2.980E-02	0.672
		94.90		3.267E+00	5.877E-01	7.162E-01	6.110E-02	4.562
		122.32		1.752E-01	2.110E+00	3.478E+00	2.353E-01	0.050
	+	144.24		2.056E+00	1.106E+00	1.501E+00	1.039E-01	1.370
		154.21		2.669E-01	4.613E-01	7.664E-01	5.037E-02	0.348
	+	269.46		5.855E-01	2.829E-01	3.635E-01	2.197E-02	1.611

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	2.794E-02	7.501E-01	1.097E+00	1.816E-01	0.025
	+	338.28		6.787E+00	1.903E+00	2.495E+00	2.642E-01	2.721
		445.03		-3.125E-01	2.350E+00	3.851E+00	3.967E-01	-0.081
RN-219	+	271.23		7.511E-01	3.652E-01	4.560E-01	3.692E-02	1.647
		401.81	*	3.617E-01	4.221E-01	7.290E-01	9.916E-02	0.496
RN-220		549.76	*	5.277E+00	2.893E+01	4.786E+01	2.731E+00	0.110
RA-223		81.07		-1.444E-02	4.907E-01	5.193E-01	4.792E-02	-0.028
	+	83.78		2.125E-01	2.112E-01	3.164E-01	2.980E-02	0.672
		94.90		3.267E+00	5.877E-01	7.162E-01	6.110E-02	4.562
		122.32		1.752E-01	2.110E+00	3.478E+00	2.353E-01	0.050
	+	144.24		2.056E+00	1.106E+00	1.501E+00	1.039E-01	1.370
		154.21		2.669E-01	4.613E-01	7.664E-01	5.037E-02	0.348
	+	269.46		5.855E-01	2.829E-01	3.635E-01	2.197E-02	1.611
		323.87	*	2.794E-02	7.501E-01	1.097E+00	1.816E-01	0.025
	+	338.28		6.787E+00	1.903E+00	2.495E+00	2.642E-01	2.721
		445.03		-3.125E-01	2.350E+00	3.851E+00	3.967E-01	-0.081
AC-227		79.80		9.809E-01	3.663E+00	3.936E+00	8.550E-01	0.249
		236.00		2.283E+00	3.935E-01	6.114E-01	6.325E-02	3.733
		256.20	*	2.155E-01	4.306E-01	7.032E-01	9.793E-02	0.306
		286.10		2.503E-01	1.601E+00	2.715E+00	3.145E-01	0.092
	+	299.80		3.766E+00	2.109E+00	2.791E+00	4.553E-01	1.349
		304.40		-4.176E-01	2.218E+00	3.204E+00	5.552E-01	-0.130
		334.20		1.619E+00	3.260E+00	3.935E+00	7.228E-01	0.411
TH-227		79.80		9.809E-01	3.663E+00	3.936E+00	8.657E-01	0.249
		94.00		1.002E+02	2.250E+01	9.291E+00	2.025E+00	10.781
		236.00		2.283E+00	3.750E-01	6.114E-01	5.461E-02	3.733
		256.20	*	2.155E-01	4.311E-01	7.032E-01	1.186E-01	0.306
		286.10		2.503E-01	1.620E+00	2.715E+00	2.720E+00	0.092
	+	299.80		3.766E+00	2.109E+00	2.791E+00	4.553E-01	1.349
		304.40		-4.176E-01	2.218E+00	3.204E+00	5.552E-01	-0.130
		334.20		1.619E+00	3.260E+00	3.935E+00	7.228E-01	0.411
TH-229	+	85.43		3.182E-01	3.162E-01	4.819E-01	4.602E-02	0.660
	+	88.47		3.909E-01	1.620E-01	2.946E-01	2.849E-02	1.327
		100.00		6.777E-01	2.851E-01	4.422E-01	3.467E-02	1.532
		193.63	*	8.700E-02	5.763E-01	9.381E-01	4.969E-02	0.093
		210.97		1.207E+00	9.666E-01	1.442E+00	7.831E-02	0.837
PA-231		283.67	*	1.438E-01	1.668E+00	2.750E+00	3.793E-01	0.052
	+	301.29		1.506E+00	8.222E-01	1.120E+00	1.176E-01	1.345
TH-231		81.07		-1.444E-02	4.907E-01	5.193E-01	4.792E-02	-0.028
	+	83.78		2.125E-01	2.112E-01	3.164E-01	2.980E-02	0.672
		94.90		3.267E+00	5.877E-01	7.162E-01	6.110E-02	4.562
		122.32		1.752E-01	2.110E+00	3.478E+00	2.353E-01	0.050
	+	144.24		2.056E+00	1.106E+00	1.501E+00	1.039E-01	1.370
		154.21		2.669E-01	4.613E-01	7.664E-01	5.037E-02	0.348
	+	269.46		5.855E-01	2.829E-01	3.635E-01	2.197E-02	1.611
		323.87	*	2.794E-02	7.501E-01	1.097E+00	1.816E-01	0.025
	+	338.28		6.787E+00	1.903E+00	2.495E+00	2.642E-01	2.721
		445.03		-3.125E-01	2.350E+00	3.851E+00	3.967E-01	-0.081
U-231	+	84.21		7.425E+00	7.380E+00	1.108E+01	1.047E+00	0.670

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		1.087E+02	1.054E+01	8.517E+00	7.623E-01	12.766
		95.87	*	3.403E+00	1.910E+00	2.198E+00	1.844E-01	1.548
		108.00		-2.673E+00	2.564E+00	3.559E+00	2.487E-01	-0.751
PA-233	+	75.28		2.070E+01	6.113E+00	9.279E+00	1.439E+00	2.231
	+	86.59		5.606E+00	2.724E+00	4.126E+00	1.121E+00	1.359
	+	300.12		1.050E+00	5.799E-01	7.808E-01	1.052E-01	1.345
		311.98	*	-3.716E-02	6.576E-02	1.073E-01	6.712E-03	-0.346
		340.50		1.388E+00	7.985E-01	1.190E+00	2.737E-01	1.166
		398.62		9.791E-01	2.176E+00	3.679E+00	9.510E-01	0.266
		415.76		-1.143E-01	1.809E+00	2.988E+00	6.154E-01	-0.038
PA-234	+	63.00		3.928E+01	7.429E+00	6.385E+00	9.921E-01	6.151
		94.67		3.516E+00	5.821E-01	5.765E-01	7.129E-02	6.099
	+	98.44		4.639E-01	3.051E-01	2.379E-01	1.325E-01	1.950
		99.86		1.931E+00	7.368E-01	1.145E+00	8.991E-02	1.687
	+	111.00		7.737E-01	4.468E-01	4.571E-01	4.944E-02	1.693
		131.20		-6.859E-02	1.484E-01	2.092E-01	1.183E-02	-0.328
		152.70		2.123E-02	3.812E-01	6.235E-01	9.742E-02	0.034
	+	186.00		1.910E+01	6.377E+00	3.799E+00	1.157E+00	5.028
		226.40		1.068E-01	4.545E-01	7.379E-01	8.435E-02	0.145
		227.20		1.246E-01	4.917E-01	7.990E-01	4.431E-02	0.156
		248.90		4.380E-01	9.285E-01	1.512E+00	3.243E-01	0.290
	+	293.70		6.267E+00	1.617E+00	1.753E+00	2.823E-01	3.575
		369.80		-3.320E-01	8.646E-01	1.406E+00	2.930E-01	-0.236
		568.70		1.022E+00	1.093E+00	1.890E+00	1.065E-01	0.541
		569.50		5.141E-01	2.930E-01	5.298E-01	2.985E-02	0.970
		574.00		-1.350E+00	1.792E+00	2.587E+00	1.453E-01	-0.522
		699.00		-6.320E-01	7.951E-01	1.192E+00	2.139E-01	-0.530
		706.10		5.742E-01	1.189E+00	1.941E+00	8.565E-01	0.296
		733.00		2.046E-01	4.701E-01	6.811E-01	1.456E-01	0.300
		742.81		2.452E+00	2.292E+00	2.855E+00	1.912E+00	0.859
		796.30		6.953E-01	1.165E+00	1.762E+00	4.695E-01	0.395
		805.60		2.238E-01	1.038E+00	1.764E+00	5.350E-01	0.127
		819.60		-4.339E-01	1.296E+00	2.094E+00	7.920E-01	-0.207
		826.30		5.456E-01	9.135E-01	1.541E+00	6.870E-01	0.354
		831.60		-4.378E-01	6.785E-01	1.058E+00	3.136E-01	-0.414
		876.40		-6.457E-01	1.075E+00	1.317E+00	1.354E+00	-0.490
		880.51		2.829E-01	2.672E-01	4.844E-01	4.247E-02	0.584
		883.24		-2.285E-01	3.253E-01	4.439E-01	2.985E-01	-0.515
		899.00		4.987E-01	9.152E-01	1.546E+00	6.772E-01	0.323
		925.00		2.809E-01	1.337E+00	2.105E+00	1.870E-01	0.133
		926.50		7.593E-02	2.094E-01	3.120E-01	7.913E-02	0.243
		946.00	*	2.281E-01	3.562E-01	5.968E-01	1.122E-01	0.382
		949.00		8.804E-02	4.798E-01	8.083E-01	7.005E-02	0.109
		980.50		-1.843E-01	7.289E-01	1.179E+00	9.845E-02	-0.156
		1394.10		-8.773E-01	1.380E+00	1.843E+00	1.197E+00	-0.476
NP-236		94.67		2.702E+00	3.742E-01	4.391E-01	3.762E-02	6.154
	+	98.44		3.507E-01	1.259E-01	1.798E-01	1.445E-02	1.950
	+	111.00		5.852E-01	3.343E-01	3.458E-01	2.324E-02	1.693
		160.31	*	-1.148E-01	9.189E-02	1.430E-01	7.395E-03	-0.803

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		8.016E-01	2.877E-01	3.953E-01	3.121E-02	2.028
		117.00	*	-7.373E-02	2.717E-01	3.881E-01	2.422E-02	-0.190
	+	209.75		2.324E+00	1.119E+00	1.547E+00	8.385E-02	1.502
		228.18		9.888E-03	2.566E-01	4.133E-01	2.295E-02	0.024
	+	277.60		2.856E-01	2.654E-01	3.285E-01	1.910E-02	0.869
		334.30		9.244E-01	1.840E+00	2.231E+00	1.318E-01	0.414
AM-241		59.54	*	2.710E-01	2.872E-01	4.359E-01	4.056E-02	0.622
CM-243	+	99.55		8.247E-01	2.960E-01	4.067E-01	3.211E-02	2.028
		103.76	*	1.333E-01	1.289E-01	2.117E-01	1.569E-02	0.630
		117.00		-7.585E-02	2.795E-01	3.992E-01	2.492E-02	-0.190
	+	209.75		2.291E+00	1.103E+00	1.525E+00	8.265E-02	1.502
		228.18		9.990E-03	2.592E-01	4.176E-01	2.319E-02	0.024
	+	277.60		2.879E-01	2.676E-01	3.312E-01	1.926E-02	0.869
AM-246		798.80		-2.793E-02	1.678E-01	2.382E-01	1.734E-02	-0.117
		1036.00		1.950E-02	3.339E-01	5.540E-01	4.270E-02	0.035
		1062.04		1.229E-01	2.362E-01	4.072E-01	3.000E-02	0.302
		1078.86	*	-1.772E-01	1.544E-01	2.265E-01	1.616E-02	-0.783
CM-247	+	278.00		1.184E+00	1.101E+00	1.387E+00	8.068E-02	0.854
		287.40		-2.471E-01	1.364E+00	2.152E+00	1.258E-01	-0.115
		402.60	*	3.486E-02	3.820E-02	6.511E-02	3.774E-03	0.535
CF-249		252.85		-2.125E-01	9.863E-01	1.564E+00	8.917E-02	-0.136
		333.44		9.316E-02	2.860E-01	2.926E-01	1.729E-02	0.318
		387.95	*	1.496E-02	4.112E-02	6.970E-02	4.033E-03	0.215
CF-251		176.60	*	-2.922E-02	1.484E-01	2.394E-01	1.237E-02	-0.122
		227.00		5.475E-02	4.374E-01	7.072E-01	3.921E-02	0.077
		285.00		-2.552E-01	1.861E+00	3.118E+00	1.821E-01	-0.082

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395006     *
* Acquisition date :  2-FEB-2010 08:24:26 Detector SN#     :               *
* Detector ID        : GAM23              Sensitivity      : 5.000         *
* Geometry           : CAN                Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.31     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245395006          Analyst initials: MXR1          *
* Batch Number       : 944966              Sample Quantity : 1.5252E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.705E+01	2.627E+00	5.504E-01	0.000E+00
NB-95	1.939E-01	8.602E-02	7.834E-02	0.000E+00
CD-109	2.908E+00	1.181E+00	1.936E+00	0.000E+00
SN-126	2.863E-01	1.163E-01	1.918E-01	0.000E+00
BA-137M	1.112E-01	8.539E-02	6.619E-02	0.000E+00
CS-137	1.175E-01	9.027E-02	6.997E-02	0.000E+00
LU-177	2.875E+00	1.356E+00	1.790E+00	0.000E+00
TL-208	4.552E-01	8.990E-02	6.323E-02	0.000E+00
BI-211	3.094E+00	4.471E-01	3.614E-01	0.000E+00
PB-212	1.422E+00	1.438E-01	1.056E-01	0.000E+00
PO-212	1.422E+00	1.438E-01	1.056E-01	0.000E+00
BI-214	1.048E+00	1.643E-01	1.237E-01	0.000E+00
PB-214	1.076E+00	1.650E-01	1.181E-01	0.000E+00
PO-214	1.076E+00	1.650E-01	1.181E-01	0.000E+00
PO-216	1.422E+00	1.438E-01	1.056E-01	0.000E+00
PO-218	1.076E+00	1.650E-01	1.181E-01	0.000E+00
RA-224	3.619E+00	1.122E+00	1.201E+00	0.000E+00
RA-226	1.048E+00	1.643E-01	1.237E-01	0.000E+00
AC-228	1.454E+00	3.060E-01	1.998E-01	0.000E+00
RA-228	1.454E+00	3.060E-01	1.998E-01	0.000E+00
TH-228	1.441E+00	1.458E-01	1.070E-01	0.000E+00
TH-230	1.048E+00	1.643E-01	1.237E-01	0.000E+00
TH-232	1.454E+00	3.060E-01	1.998E-01	0.000E+00
PA-234M	4.794E+01	1.035E+01	7.840E+00	0.000E+00
TH-234	3.369E+01	6.935E+00	3.607E+00	0.000E+00
U-234	1.048E+00	1.643E-01	1.237E-01	0.000E+00
U-235	6.343E-01	3.466E-01	4.160E-01	0.000E+00
NP-237	8.408E-01	3.814E-01	6.126E-01	0.000E+00
U-238	3.369E+01	6.935E+00	3.607E+00	0.000E+00
AM-243	3.953E-01	1.033E-01	1.458E-01	0.000E+00
ANH-511	1.210E-01	7.006E-02	5.454E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	9.239E-02	3.388E-01	6.001E-01	0.000E+00	NOT IDENT.
NA-22	-4.265E-02	4.740E-02	7.256E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.926E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-3.577E-02	2.650E-02	2.997E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.481E-02	1.067E-01	0.000E+00	FAIL ABUN
SC-46	2.608E-02	3.745E-02	6.868E-02	0.000E+00	FAIL ABUN
V-48	-1.798E-02	6.426E-02	1.077E-01	0.000E+00	NOT IDENT.
CR-51	1.474E-01	3.878E-01	6.482E-01	0.000E+00	NOT IDENT.
MN-52	-1.023E-01	1.618E-01	2.375E-01	0.000E+00	NOT IDENT.
MN-54	-2.255E-03	3.983E-02	6.923E-02	0.000E+00	NOT IDENT.
CO-56	2.950E-03	4.021E-02	7.048E-02	0.000E+00	NOT IDENT.
CO-57	-3.004E-03	2.998E-02	5.382E-02	0.000E+00	NOT IDENT.
CO-58	-3.708E-02	3.735E-02	5.975E-02	0.000E+00	NOT IDENT.
FE-59	-3.766E-02	8.863E-02	1.450E-01	0.000E+00	FAIL ABUN
CO-60	-1.902E-02	3.786E-02	5.946E-02	0.000E+00	NOT IDENT.
ZN-65	5.866E-02	1.111E-01	1.721E-01	0.000E+00	NOT IDENT.
GE-68	-3.208E-01	1.310E+00	2.189E+00	0.000E+00	NOT IDENT.
AS-73	1.740E-01	1.406E+00	2.645E+00	0.000E+00	NOT IDENT.
AS-74	3.092E-02	8.915E-02	1.565E-01	0.000E+00	NOT IDENT.
SE-75	1.236E-02	5.230E-02	7.953E-02	0.000E+00	NOT IDENT.
BR-77	-7.960E+00	7.553E+00	1.213E+01	0.000E+00	FAIL ABUN
SR-82	-3.119E-02	4.055E-01	7.082E-01	0.000E+00	NOT IDENT.
RB-83	-7.193E-02	7.172E-02	1.157E-01	0.000E+00	NOT IDENT.
RB-84	6.570E-02	6.585E-02	1.234E-01	0.000E+00	NOT IDENT.
KR-85	9.292E+00	8.587E+00	1.399E+01	0.000E+00	NOT IDENT.
SR-85	4.701E-02	4.345E-02	7.080E-02	0.000E+00	NOT IDENT.
RB-86	-8.626E-02	7.795E-01	1.318E+00	0.000E+00	NOT IDENT.
Y-88	-6.531E-03	2.726E-02	4.355E-02	0.000E+00	NOT IDENT.
ZR-88	-2.111E-02	3.092E-02	5.261E-02	0.000E+00	NOT IDENT.
Y-91	-2.352E+00	2.052E+01	3.437E+01	0.000E+00	NOT IDENT.
NB-94	1.490E-02	3.660E-02	6.366E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.702E-01	2.896E-01	0.000E+00	NOT IDENT.
ZR-95	4.783E-02	7.884E-02	1.384E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.655E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.155E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.381E+00	9.819E+00	1.595E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.504E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.481E-02	3.794E-02	6.285E-02	0.000E+00	FAIL ABUN
RH-102	-1.306E-02	3.125E-02	5.312E-02	0.000E+00	FAIL ABUN
RU-103	-3.073E-02	4.306E-02	7.122E-02	0.000E+00	NOT IDENT.
RH-106	3.991E-03	3.476E-01	5.942E-01	0.000E+00	NOT IDENT.
RU-106	3.991E-03	3.476E-01	5.942E-01	0.000E+00	NOT IDENT.
AG-108M	4.029E-03	3.377E-02	5.970E-02	0.000E+00	NOT IDENT.
AG-110M	-2.103E-02	4.506E-02	6.294E-02	0.000E+00	NOT IDENT.
IN-111	-2.697E-01	9.801E-01	1.451E+00	0.000E+00	NOT IDENT.
IN-113M	-2.891E-02	4.475E-02	7.630E-02	0.000E+00	NOT IDENT.
SN-113	-2.891E-02	4.475E-02	7.630E-02	0.000E+00	NOT IDENT.
IN-114M	-1.825E-01	2.252E-01	3.308E-01	0.000E+00	NOT IDENT.
CD-115	1.426E+00	7.693E+00	1.347E+01	0.000E+00	NOT IDENT.
SN-117M	-4.396E-02	5.689E-02	9.818E-02	0.000E+00	NOT IDENT.
SB-122	-2.159E-01	1.591E+00	2.715E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.294E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.153E-02	3.158E-02	5.403E-02	0.000E+00	NOT IDENT.
I-124	1.997E-01	6.047E-01	9.247E-01	0.000E+00	NOT IDENT.
SB-124	7.645E-02	7.334E-02	1.444E-01	0.000E+00	FAIL ABUN
SB-125	-1.142E-02	9.248E-02	1.614E-01	0.000E+00	FAIL ABUN
TE-125M	6.648E+00	1.359E+01	2.198E+01	0.000E+00	NOT IDENT.
I-126	1.020E-01	2.019E-01	3.113E-01	0.000E+00	NOT IDENT.
SB-126	5.492E-02	1.657E-01	2.496E-01	0.000E+00	FAIL ABUN
SB-127	7.269E-01	1.088E+00	1.938E+00	0.000E+00	NOT IDENT.
XE-127	5.844E-02	5.854E-02	9.370E-02	0.000E+00	NOT IDENT.
I-131	9.200E-02	1.009E-01	1.877E-01	0.000E+00	NOT IDENT.
TE-132	2.712E-02	5.873E-01	1.021E+00	0.000E+00	FAIL ABUN
BA-133	1.081E-02	4.654E-02	7.332E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.361E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.784E-02	5.411E-02	9.576E-02	0.000E+00	FAIL ABUN
CS-135	1.781E-01	1.972E-01	3.106E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.670E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.201E-02	1.008E-01	1.641E-01	0.000E+00	FAIL ABUN
CE-139	-2.934E-02	3.278E-02	5.613E-02	0.000E+00	NOT IDENT.
BA-140	-4.028E-02	2.442E-01	4.165E-01	0.000E+00	NOT IDENT.
LA-140	-1.469E-03	8.364E-02	1.428E-01	0.000E+00	FAIL ABUN
CE-141	1.028E-01	8.206E-02	1.345E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.475E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-1.867E-01	2.754E-01	4.180E-01	0.000E+00	NOT IDENT.
PM-144	1.188E-02	3.580E-02	6.207E-02	0.000E+00	NOT IDENT.
PR-144	8.047E-01	2.424E+00	4.203E+00	0.000E+00	NOT IDENT.
PM-146	3.277E-02	4.784E-02	8.475E-02	0.000E+00	NOT IDENT.
ND-147	5.723E-01	5.615E-01	1.024E+00	0.000E+00	FAIL ABUN
PM-149	1.275E+00	6.362E+01	1.151E+02	0.000E+00	NOT IDENT.
EU-152	-1.030E-01	1.143E-01	1.655E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.378E-01	2.224E-01	0.000E+00	FAIL ABUN
EU-154	-1.192E-01	1.327E-01	2.028E-01	0.000E+00	NOT IDENT.
EU-155	1.703E-02	1.429E-01	2.515E-01	0.000E+00	FAIL ABUN
TB-160	5.900E-02	1.332E-01	2.399E-01	0.000E+00	FAIL ABUN
HO-166M	1.633E-02	6.175E-02	1.065E-01	0.000E+00	FAIL ABUN
TM-171	-4.971E+01	4.714E+01	7.407E+01	0.000E+00	NOT IDENT.
LU-176	1.516E-02	2.653E-02	4.643E-02	0.000E+00	FAIL ABUN
LU-177M	-1.072E-01	1.887E-01	3.223E-01	0.000E+00	FAIL ABUN
HF-181	-5.041E-02	4.541E-02	7.360E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	6.841E-01	1.178E+00	0.000E+00	NOT IDENT.
TA-182	-1.737E-01	2.096E-01	3.291E-01	0.000E+00	FAIL ABUN
RE-183	1.300E-01	1.218E-01	2.230E-01	0.000E+00	FAIL ABUN
RE-184	-5.634E-02	2.563E-01	4.371E-01	0.000E+00	NOT IDENT.
OS-185	2.328E-02	4.688E-02	8.130E-02	0.000E+00	NOT IDENT.
RE-188	1.045E-01	1.905E-01	3.442E-01	0.000E+00	NOT IDENT.
W-188	2.682E+00	8.134E+00	1.305E+01	0.000E+00	FAIL ABUN
IR-192	2.821E-03	3.408E-02	6.141E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.008E-01	6.251E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.993E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-6.196E+00	5.754E+00	9.772E+00	0.000E+00	NOT IDENT.
TL-202	4.741E-02	6.673E-02	1.217E-01	0.000E+00	NOT IDENT.
HG-203	2.655E-02	4.618E-02	7.526E-02	0.000E+00	FAIL ABUN
BI-207	3.299E-02	5.165E-02	9.322E-02	0.000E+00	FAIL ABUN
TL-207	2.794E-02	7.351E-01	1.150E+00	0.000E+00	FAIL ABUN
PO-209	8.707E-01	7.672E+00	1.343E+01	0.000E+00	NOT IDENT.
BI-210	2.177E+00	6.739E+00	1.270E+01	0.000E+00	NOT IDENT.
PB-210	2.177E+00	6.739E+00	1.270E+01	0.000E+00	NOT IDENT.
PO-210	2.177E+00	6.739E+00	1.270E+01	0.000E+00	NOT IDENT.
PB-211	-1.125E+00	1.197E+00	1.585E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.618E-01	6.803E-01	0.000E+00	FAIL ABUN
PO-215	2.794E-02	7.351E-01	1.150E+00	0.000E+00	FAIL ABUN
RN-219	3.617E-01	4.136E-01	7.597E-01	0.000E+00	FAIL ABUN
RN-220	5.277E+00	2.835E+01	4.948E+01	0.000E+00	NOT IDENT.
RA-223	2.794E-02	7.351E-01	1.150E+00	0.000E+00	FAIL ABUN
AC-227	2.155E-01	4.220E-01	7.411E-01	0.000E+00	FAIL ABUN
TH-227	2.155E-01	4.225E-01	7.411E-01	0.000E+00	FAIL ABUN
TH-229	8.700E-02	5.648E-01	9.954E-01	0.000E+00	FAIL ABUN
PA-231	1.438E-01	1.634E+00	2.891E+00	0.000E+00	FAIL ABUN
TH-231	2.794E-02	7.351E-01	1.150E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	1.871E+00	2.372E+00	0.000E+00	FAIL ABUN
PA-233	-3.716E-02	6.444E-02	1.126E-01	0.000E+00	FAIL ABUN
PA-234	2.281E-01	3.491E-01	6.083E-01	0.000E+00	FAIL ABUN
NP-236	-1.148E-01	9.006E-02	1.524E-01	0.000E+00	FAIL ABUN
NP-239	-7.373E-02	2.662E-01	4.168E-01	0.000E+00	FAIL ABUN
AM-241	2.710E-01	2.814E-01	4.757E-01	0.000E+00	NOT IDENT.
CM-243	1.333E-01	1.263E-01	2.280E-01	0.000E+00	FAIL ABUN
AM-246	-1.772E-01	1.513E-01	2.301E-01	0.000E+00	NOT IDENT.
CM-247	3.486E-02	3.743E-02	6.785E-02	0.000E+00	FAIL ABUN
CF-249	1.496E-02	4.029E-02	7.270E-02	0.000E+00	NOT IDENT.
CF-251	-2.922E-02	1.455E-01	2.546E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:25:39.40

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395006.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 08:24:26.
Sample ID         : G245395006           Sample quantity  : 1.52520E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1170	10.67*	9.971E-01	2.705E+01	2.705E+01	9.91
NB-95	765.79	121	99.81*	1.790E+00	1.668E-01	1.939E-01	45.27
CD-109	88.03	225	3.72*	5.219E+00	2.848E+00	2.908E+00	41.43
SN-126	64.28	1330	9.60	2.556E+00	1.334E+01	1.334E+01	18.65
	86.94	225	8.90	5.219E+00	1.190E+00	1.190E+00	57.90
	87.57	225	37.00*	5.219E+00	2.863E-01	2.863E-01	41.43
BA-137M	661.65	83	89.98*	2.037E+00	1.111E-01	1.112E-01	78.38
CS-137	661.65	83	85.12*	2.037E+00	1.174E-01	1.175E-01	78.38
LU-177	112.95	232	6.40	6.258E+00	1.427E+00	5.991E+00	57.12
	208.36	156	11.00*	5.090E+00	6.845E-01	2.875E+00	48.13
TL-208	277.35	68	6.80	4.141E+00	5.921E-01	5.921E-01	93.36
	510.84	125	21.60	2.546E+00	5.603E-01	5.603E-01	59.66
	583.14	355	84.20*	2.278E+00	4.552E-01	4.552E-01	20.15
	860.37	------	12.46	1.609E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	560	12.94*	3.441E+00	3.094E+00	3.094E+00	14.74
PB-212	74.81	428	10.70	4.038E+00	2.438E+00	2.438E+00	28.25
	77.11	573	18.00	4.287E+00	1.829E+00	1.829E+00	19.60
	87.30	225	8.00	5.219E+00	1.324E+00	1.324E+00	42.62
	238.63	1195	44.60*	4.638E+00	1.422E+00	1.422E+00	10.32
	300.09	110	3.41	3.897E+00	2.032E+00	2.032E+00	54.21
PO-212	74.81	428	10.70	4.038E+00	2.438E+00	2.438E+00	28.25
	77.11	573	18.00	4.287E+00	1.829E+00	1.829E+00	19.60
	87.30	225	8.00	5.219E+00	1.324E+00	1.324E+00	42.62
	115.19	------	0.60	6.293E+00	------ Line Not Found		------
	238.63	1195	44.60*	4.638E+00	1.422E+00	1.422E+00	10.32
	300.09	110	3.41	3.897E+00	2.032E+00	2.032E+00	54.21
BI-214	609.31	432	46.30*	2.194E+00	1.048E+00	1.048E+00	16.00
	1120.29	84	15.10	1.259E+00	1.090E+00	1.090E+00	53.28
	1764.49	64	15.80	8.742E-01	1.142E+00	1.142E+00	33.68
PB-214	74.81	428	6.21	4.038E+00	4.201E+00	4.201E+00	27.67
	77.11	573	10.50	4.287E+00	3.135E+00	3.135E+00	21.03

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	225	4.67	5.219E+00	2.269E+00	2.269E+00	42.14
	241.98	267	7.49	4.596E+00	1.909E+00	1.909E+00	32.12
	295.21	402	19.20	3.949E+00	1.306E+00	1.306E+00	21.91
	351.92	560	37.20*	3.441E+00	1.076E+00	1.076E+00	15.64
PO-214	74.81	428	6.21	4.038E+00	4.201E+00	4.201E+00	27.67
	77.11	573	10.50	4.287E+00	3.135E+00	3.135E+00	21.03
	87.30	225	4.67	5.219E+00	2.269E+00	2.269E+00	42.14
	241.98	267	7.49	4.596E+00	1.909E+00	1.909E+00	32.12
	295.21	402	19.20	3.949E+00	1.306E+00	1.306E+00	21.91
	351.92	560	37.20*	3.441E+00	1.076E+00	1.076E+00	15.64
PO-216	74.81	428	10.70	4.038E+00	2.438E+00	2.438E+00	28.25
	77.11	573	18.00	4.287E+00	1.829E+00	1.829E+00	19.60
	87.30	225	8.00	5.219E+00	1.324E+00	1.324E+00	42.62
	238.63	1195	44.60*	4.638E+00	1.422E+00	1.422E+00	10.32
	300.09	110	3.41	3.897E+00	2.032E+00	2.032E+00	54.21
PO-218	74.81	428	6.21	4.038E+00	4.201E+00	4.201E+00	27.67
	77.11	573	10.50	4.287E+00	3.135E+00	3.135E+00	21.03
	87.30	225	4.67	5.219E+00	2.269E+00	2.269E+00	42.14
	241.98	267	7.49	4.596E+00	1.909E+00	1.909E+00	32.12
	295.21	402	19.20	3.949E+00	1.306E+00	1.306E+00	21.91
	351.92	560	37.20*	3.441E+00	1.076E+00	1.076E+00	15.64
RA-224	240.98	267	3.95*	4.596E+00	3.619E+00	3.619E+00	31.63
RA-226	609.31	432	46.30*	2.194E+00	1.048E+00	1.048E+00	16.00
	1120.29	84	15.10	1.259E+00	1.090E+00	1.090E+00	53.28
	1764.49	64	15.80	8.742E-01	1.142E+00	1.142E+00	33.68
AC-228	338.32	267	11.40	3.551E+00	1.625E+00	1.625E+00	48.34
	911.07	250	27.70*	1.526E+00	1.454E+00	1.454E+00	21.48
	969.11	126	16.60	1.441E+00	1.293E+00	1.293E+00	40.94
RA-228	338.32	267	11.40	3.551E+00	1.625E+00	1.625E+00	48.34
	911.07	250	27.70*	1.526E+00	1.454E+00	1.454E+00	21.48
	969.11	126	16.60	1.441E+00	1.293E+00	1.293E+00	40.94
TH-228	74.81	428	10.70	4.038E+00	2.438E+00	2.472E+00	26.68
	77.11	573	18.00	4.287E+00	1.829E+00	1.854E+00	19.60
	87.30	225	8.00	5.219E+00	1.324E+00	1.343E+00	41.43
	238.63	1195	44.60*	4.638E+00	1.422E+00	1.441E+00	10.32
	300.09	110	3.41	3.897E+00	2.032E+00	2.060E+00	79.65
TH-230	609.31	432	46.30*	2.194E+00	1.048E+00	1.048E+00	16.00
	1120.29	84	15.10	1.259E+00	1.090E+00	1.090E+00	53.28
	1764.49	64	15.80	8.742E-01	1.142E+00	1.142E+00	33.68
TH-232	338.32	267	11.40	3.551E+00	1.625E+00	1.625E+00	26.62
	911.07	250	27.70*	1.526E+00	1.454E+00	1.454E+00	21.48
	969.11	126	16.60	1.441E+00	1.293E+00	1.293E+00	40.94
PA-234M	766.42	121	0.32	1.790E+00	5.203E+01	5.203E+01	67.45
	1001.03	229	0.84*	1.398E+00	4.794E+01	4.794E+01	22.02
TH-234	63.29	1330	3.80*	2.556E+00	3.369E+01	3.369E+01	21.00
	92.38	4300	5.41	5.571E+00	3.511E+01	3.511E+01	18.62
U-234	609.31	432	46.30*	2.194E+00	1.048E+00	1.048E+00	16.00
	1120.29	84	15.10	1.259E+00	1.090E+00	1.090E+00	53.28
	1764.49	64	15.80	8.742E-01	1.142E+00	1.142E+00	33.68

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-235	89.55	------	2.70	5.418E+00	------ Line Not Found		------
	93.35	4300	4.50	5.571E+00	4.221E+01	4.221E+01	28.37
	105.00	------	2.10	6.104E+00	------ Line Not Found		------
	143.76	168	10.50*	6.193E+00	6.343E-01	6.343E-01	55.76
	163.35	------	4.70	5.886E+00	------ Line Not Found		------
	185.71	852	54.00	5.492E+00	7.074E-01	7.074E-01	14.65
	205.31	108	4.70	5.158E+00	1.092E+00	1.092E+00	59.07
NP-237	86.50	225	12.60*	5.219E+00	8.408E-01	8.408E-01	46.28
	95.87	------	2.60	5.757E+00	------ Line Not Found		------
U-238	63.29	1330	3.80*	2.556E+00	3.369E+01	3.369E+01	21.00
	92.38	4300	5.41	5.571E+00	3.511E+01	3.511E+01	9.69
AM-243	74.67	428	66.00*	4.038E+00	3.953E-01	3.953E-01	26.66
	86.72	225	0.34	5.219E+00	3.153E+01	3.153E+01	41.43
	117.66	------	0.55	6.314E+00	------ Line Not Found		------
	142.18	168	0.13	6.193E+00	5.328E+01	5.328E+01	53.64
ANH-511	511.00	125	100.00*	2.546E+00	1.210E-01	1.210E-01	59.07

Flag: "*" = Keyline

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

Total number of lines in spectrum 37
Number of unidentified lines 1
Number of lines tentatively identified by NID 36 97.30%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.705E+01	2.705E+01	0.268E+01	9.91	
NB-95	64.02D	1.16	1.668E-01	1.939E-01	0.878E-01	45.27	
CD-109	464.00D	1.02	2.848E+00	2.908E+00	1.205E+00	41.43	
SN-126	1.00E+05Y	1.00	2.863E-01	2.863E-01	1.186E-01	41.43	
BA-137M	30.17Y	1.00	1.111E-01	1.112E-01	0.871E-01	78.38	
CS-137	30.17Y	1.00	1.174E-01	1.175E-01	0.921E-01	78.38	
LU-177	6.71D	4.20	6.845E-01	2.875E+00	1.384E+00	48.13	
TL-208	1.41E+10Y	1.00	4.552E-01	4.552E-01	0.917E-01	20.15	
BI-211	7.04E+08Y	1.00	3.094E+00	3.094E+00	0.456E+00	14.74	
PB-212	1.41E+10Y	1.00	1.422E+00	1.422E+00	0.147E+00	10.32	
PO-212	1.41E+10Y	1.00	1.422E+00	1.422E+00	0.147E+00	10.32	
BI-214	1600.00Y	1.00	1.048E+00	1.048E+00	0.168E+00	16.00	
PB-214	1600.00Y	1.00	1.076E+00	1.076E+00	0.168E+00	15.64	
PO-214	1600.00Y	1.00	1.076E+00	1.076E+00	0.168E+00	15.64	
PO-216	1.41E+10Y	1.00	1.422E+00	1.422E+00	0.147E+00	10.32	
PO-218	1600.00Y	1.00	1.076E+00	1.076E+00	0.168E+00	15.64	
RA-224	1.41E+10Y	1.00	3.619E+00	3.619E+00	1.145E+00	31.63	
RA-226	1600.00Y	1.00	1.048E+00	1.048E+00	0.168E+00	16.00	
AC-228	1.41E+10Y	1.00	1.454E+00	1.454E+00	0.312E+00	21.48	
RA-228	1.41E+10Y	1.00	1.454E+00	1.454E+00	0.312E+00	21.48	
TH-228	1.91Y	1.01	1.422E+00	1.441E+00	0.149E+00	10.32	
TH-230	4.47E+09Y	1.00	1.048E+00	1.048E+00	0.168E+00	16.00	
TH-232	1.41E+10Y	1.00	1.454E+00	1.454E+00	0.312E+00	21.48	
PA-234M	4.47E+09Y	1.00	4.794E+01	4.794E+01	1.056E+01	22.02	
TH-234	4.47E+09Y	1.00	3.369E+01	3.369E+01	0.708E+01	21.00	
U-234	4.47E+09Y	1.00	1.048E+00	1.048E+00	0.168E+00	16.00	
U-235	7.04E+08Y	1.00	6.343E-01	6.343E-01	3.537E-01	55.76	
NP-237	2.14E+06Y	1.00	8.408E-01	8.408E-01	3.892E-01	46.28	
U-238	4.47E+09Y	1.00	3.369E+01	3.369E+01	0.708E+01	21.00	
AM-243	7380.00Y	1.00	3.953E-01	3.953E-01	1.054E-01	26.66	
ANH-511	1.00E+09Y	1.00	1.210E-01	1.210E-01	0.715E-01	59.07	
	Total Activity :		1.732E+02	1.755E+02			

Grand Total Activity : 1.732E+02 1.755E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.98	106	949	1.54	167.97	164	7	1.47E-02	98.9	4.97E+00	T
0	98.30	281	694	1.14	196.60	193	8	3.90E-02	35.0	5.87E+00	T
0	127.77	50	596	0.70	255.55	254	8	6.88E-03	****	6.33E+00	T
0	270.08	137	248	1.85	540.15	535	11	1.90E-02	47.9	4.22E+00	T
0	327.68	89	277	1.64	655.36	648	14	1.24E-02	81.7	3.64E+00	T
0	462.69	60	161	2.03	925.39	918	13	8.35E-03	91.1	2.76E+00	T
0	726.65	86	118	1.64	1453.30	1446	15	1.20E-02	59.3	1.88E+00	T
0	794.41	31	61	1.32	1588.82	1585	8	4.29E-03	95.2	1.73E+00	T
0	933.42	43	53	1.52	1866.85	1860	14	5.99E-03	77.5	1.49E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:25:45.73

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395006.CNF;1  *
* Acquisition date : 2-FEB-2010 08:24:26.  Detector SN#    :                *
* Detector ID      : GAM23                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.31         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 19-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245395006            Analyst initials: MXR1           *
* Batch Number     : 944966                Sample Quantity : 1.52520E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.705E+01	2.680E+00	5.462E-01	4.086E-02	49.531
NB-95	1.939E-01	8.778E-02	7.642E-02	5.135E-03	2.537
CD-109	2.908E+00	1.205E+00	1.790E+00	1.748E-01	1.624
SN-126	2.863E-01	1.186E-01	1.773E-01	1.726E-02	1.615
BA-137M	1.112E-01	8.714E-02	6.433E-02	3.286E-03	1.728
CS-137	1.175E-01	9.211E-02	6.800E-02	3.493E-03	1.728
LU-177	2.875E+00	1.384E+00	1.690E+00	9.143E-02	1.701
TL-208	4.552E-01	9.174E-02	6.125E-02	3.976E-03	7.431
BI-211	3.094E+00	4.562E-01	3.456E-01	2.252E-02	8.953
PB-212	1.422E+00	1.467E-01	9.998E-02	7.188E-03	14.218
PO-212	1.422E+00	1.467E-01	9.998E-02	7.188E-03	14.218
BI-214	1.048E+00	1.677E-01	1.199E-01	9.017E-03	8.735
PB-214	1.076E+00	1.683E-01	1.130E-01	9.430E-03	9.528
PO-214	1.076E+00	1.683E-01	1.130E-01	9.430E-03	9.528
PO-216	1.422E+00	1.467E-01	9.998E-02	7.188E-03	14.218
PO-218	1.076E+00	1.683E-01	1.130E-01	9.430E-03	9.528
RA-224	3.619E+00	1.145E+00	1.138E+00	6.411E-02	3.181
RA-226	1.048E+00	1.677E-01	1.199E-01	9.017E-03	8.735

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.454E+00	3.123E-01	1.958E-01	2.259E-02	7.426
RA-228	1.454E+00	3.123E-01	1.958E-01	2.259E-02	7.426
TH-228	1.441E+00	1.488E-01	1.014E-01	7.288E-03	14.218
TH-230	1.048E+00	1.677E-01	1.199E-01	9.017E-03	8.735
TH-232	1.454E+00	3.123E-01	1.958E-01	2.259E-02	7.426
PA-234M	4.794E+01	1.056E+01	7.702E+00	7.349E-01	6.224
TH-234	3.369E+01	7.076E+00	3.311E+00	5.966E-01	10.178
U-234	1.048E+00	1.677E-01	1.199E-01	9.017E-03	8.735
U-235	6.343E-01	3.537E-01	3.892E-01	6.295E-02	1.630
NP-237	8.408E-01	3.892E-01	5.663E-01	1.290E-01	1.485
U-238	3.369E+01	7.076E+00	3.311E+00	5.966E-01	10.178
AM-243	3.953E-01	1.054E-01	1.343E-01	1.194E-02	2.942
ANH-511	1.210E-01	7.149E-02	5.265E-02	3.058E-03	2.299

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.239E-02		3.458E-01	5.784E-01	3.931E-02	0.160
NA-22	-4.265E-02		4.837E-02	7.174E-02	4.818E-03	-0.594
NA-24	-1.892E-01		9.828E-02	Half-Life too short		
AL-26	-3.577E-02		2.704E-02	2.992E-02	1.798E-03	-1.196
TI-44	3.374E-01	+	6.613E-02	9.844E-02	8.923E-03	3.428
SC-46	2.608E-02		3.822E-02	6.727E-02	6.010E-03	0.388
V-48	-1.798E-02		6.557E-02	1.058E-01	8.798E-03	-0.170
CR-51	1.474E-01		3.957E-01	6.184E-01	4.055E-02	0.238
MN-52	-1.023E-01		1.651E-01	2.356E-01	1.705E-02	-0.434
MN-54	-2.255E-03		4.064E-02	6.769E-02	5.360E-03	-0.033
CO-56	2.950E-03		4.103E-02	6.894E-02	5.608E-03	0.043
CO-57	-3.004E-03		3.059E-02	5.016E-02	2.957E-03	-0.060
CO-58	-3.708E-02		3.811E-02	5.838E-02	4.386E-03	-0.635
FE-59	-3.766E-02		9.044E-02	1.428E-01	1.100E-02	-0.264
CO-60	-1.902E-02		3.864E-02	5.887E-02	4.321E-03	-0.323
ZN-65	5.866E-02		1.134E-01	1.696E-01	1.120E-02	0.346
GE-68	-3.208E-01		1.337E+00	2.155E+00	1.542E-01	-0.149
AS-73	1.740E-01		1.435E+00	2.418E+00	2.135E-01	0.072
AS-74	3.092E-02		9.097E-02	1.517E-01	8.365E-03	0.204
SE-75	1.236E-02		5.336E-02	7.552E-02	4.396E-03	0.164
BR-77	-7.960E+00		7.708E+00	1.172E+01	6.783E-01	-0.679
SR-82	-3.119E-02		4.138E-01	6.911E-01	4.768E-02	-0.045
RB-83	-7.193E-02		7.319E-02	1.117E-01	6.469E-03	-0.644
RB-84	6.570E-02		6.719E-02	1.208E-01	1.061E-02	0.544
KR-85	9.292E+00		8.762E+00	1.351E+01	7.840E-01	0.688
SR-85	4.701E-02		4.433E-02	6.836E-02	3.967E-03	0.688
RB-86	-8.626E-02		7.954E-01	1.297E+00	9.298E-02	-0.066
Y-88	-6.531E-03		2.782E-02	4.349E-02	2.561E-03	-0.150
ZR-88	-2.111E-02		3.155E-02	5.045E-02	2.913E-03	-0.418
Y-91	-2.352E+00		2.094E+01	3.393E+01	2.024E+00	-0.069

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	1.490E-02		3.734E-02	6.197E-02	3.541E-03	0.240
NB-95M	5.802E-01		1.737E-01	2.742E-01	2.023E-02	2.116
ZR-95	4.783E-02		8.045E-02	1.349E-01	1.035E-02	0.354
NB-97	-1.117E-02		1.865E-02	Half-Life too short		
ZR-97	1.654E+00		3.140E-01	Half-Life too short		
MO-99	-4.381E+00		1.002E+01	1.555E+01	2.176E+00	-0.282
TC-99M	1.063E+09		7.673E+08	Half-Life too short		
RH-101	-3.481E-02		3.872E-02	5.926E-02	3.159E-03	-0.587
RH-102	-1.306E-02		3.189E-02	5.119E-02	2.997E-03	-0.255
RU-103	-3.073E-02		4.394E-02	6.871E-02	8.699E-03	-0.447
RH-106	3.991E-03		3.547E-01	5.766E-01	6.650E-02	0.007
RU-106	3.991E-03		3.547E-01	5.766E-01	3.098E-02	0.007
AG-108M	4.029E-03		3.446E-02	5.739E-02	3.639E-03	0.070
AG-110M	-2.103E-02		4.598E-02	6.116E-02	3.398E-03	-0.344
IN-111	-2.697E-01		1.000E+00	1.375E+00	7.784E-02	-0.196
IN-113M	-2.891E-02		4.566E-02	7.316E-02	4.507E-03	-0.395
SN-113	-2.891E-02		4.566E-02	7.316E-02	4.507E-03	-0.395
IN-114M	-1.825E-01		2.298E-01	3.116E-01	1.642E-02	-0.586
CD-115	1.426E+00		7.850E+00	1.302E+01	7.511E-01	0.110
SN-117M	-4.396E-02		5.806E-02	9.208E-02	4.785E-03	-0.477
SB-122	-2.159E-01		1.624E+00	2.628E+00	1.486E-01	-0.082
I-123	-1.292E+00		6.601E-01	Half-Life too short		
TE-123M	-3.153E-02		3.222E-02	5.067E-02	2.674E-03	-0.622
I-124	1.997E-01		6.171E-01	8.965E-01	4.913E-02	0.223
SB-124	7.645E-02		7.484E-02	1.439E-01	1.003E-02	0.531
SB-125	-1.142E-02		9.437E-02	1.551E-01	9.435E-03	-0.074
TE-125M	6.648E+00		1.387E+01	2.044E+01	1.822E+00	0.325
I-126	1.020E-01		2.060E-01	3.026E-01	1.566E-02	0.337
SB-126	5.492E-02		1.691E-01	2.431E-01	1.456E-02	0.226
SB-127	7.269E-01		1.111E+00	1.885E+00	1.654E-01	0.386
XE-127	5.844E-02		5.974E-02	8.840E-02	4.746E-03	0.661
I-131	9.200E-02		1.029E-01	1.796E-01	1.172E-02	0.512
TE-132	2.712E-02		5.993E-01	9.656E-01	1.354E-01	0.028
BA-133	1.081E-02		4.749E-02	7.014E-02	8.138E-03	0.154
I-133	1.043E-03		1.205E-03	Half-Life too short		
CS-134	5.784E-02	+	5.521E-02	9.351E-02	6.829E-03	0.619
CS-135	1.781E-01		2.012E-01	2.951E-01	2.254E-02	0.604
I-135	1.354E+07		1.362E+08	Half-Life too short		
CS-136	-5.201E-02		1.028E-01	1.614E-01	1.286E-02	-0.322
CE-139	-2.934E-02		3.345E-02	5.270E-02	2.687E-03	-0.557
BA-140	-4.028E-02		2.492E-01	4.026E-01	1.309E-01	-0.100
LA-140	-1.469E-03		8.535E-02	1.421E-01	9.746E-03	-0.010
CE-141	1.028E-01		8.373E-02	1.259E-01	7.099E-03	0.816
CE-143	5.316E-04		7.528E-05	Half-Life too short		
CE-144	-1.867E-01		2.810E-01	3.904E-01	5.513E-02	-0.478
PM-144	1.188E-02		3.653E-02	6.041E-02	3.398E-03	0.197
PR-144	8.047E-01		2.474E+00	4.091E+00	2.299E-01	0.197
PM-146	3.277E-02		4.881E-02	8.158E-02	7.065E-03	0.402

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	5.723E-01		5.730E-01	9.895E-01	1.336E-01	0.578
PM-149	1.275E+00		6.492E+01	1.095E+02	1.553E+01	0.012
EU-152	-1.030E-01		1.166E-01	1.582E-01	1.049E-02	-0.651
GD-153	3.918E-01	+	1.406E-01	2.062E-01	1.684E-02	1.900
EU-154	-1.192E-01		1.355E-01	2.005E-01	1.991E-02	-0.594
EU-155	1.703E-02		1.458E-01	2.336E-01	1.723E-02	0.073
TB-160	5.900E-02		1.359E-01	2.349E-01	2.054E-02	0.251
HO-166M	1.633E-02		6.301E-02	1.037E-01	6.068E-03	0.157
TM-171	-4.971E+01		4.810E+01	6.806E+01	5.918E+00	-0.730
LU-176	1.516E-02		2.708E-02	4.426E-02	2.607E-03	0.342
LU-177M	-1.072E-01		1.925E-01	3.095E-01	1.801E-02	-0.346
HF-181	-5.041E-02		4.634E-02	7.095E-02	4.150E-03	-0.710
W-181	2.202E+00		6.981E-01	1.082E+00	9.396E-02	2.036
TA-182	-1.737E-01		2.138E-01	3.251E-01	1.995E-02	-0.534
RE-183	1.300E-01		1.242E-01	2.092E-01	1.076E-02	0.621
RE-184	-5.634E-02		2.615E-01	4.146E-01	2.364E-02	-0.136
OS-185	2.328E-02		4.783E-02	7.897E-02	4.121E-03	0.295
RE-188	1.045E-01		1.944E-01	3.226E-01	1.693E-02	0.324
W-188	2.682E+00		8.300E+00	1.243E+01	7.277E-01	0.216
IR-192	2.821E-03		3.478E-02	5.857E-02	3.475E-03	0.048
AU-195	1.139E+00	+	4.089E-01	5.796E-01	4.625E-02	1.966
TL-200	-6.811E-05		1.017E-04	Half-Life too short		
TL-201	-6.196E+00		5.872E+00	9.176E+00	4.683E-01	-0.675
TL-202	4.741E-02		6.810E-02	1.170E-01	6.847E-03	0.405
HG-203	2.655E-02		4.712E-02	7.156E-02	4.420E-03	0.371
BI-207	3.299E-02		5.270E-02	9.173E-02	6.740E-03	0.360
TL-207	2.794E-02		7.501E-01	1.097E+00	1.816E-01	0.025
PO-209	8.707E-01		7.829E+00	1.316E+01	1.194E+00	0.066
BI-210	2.177E+00		6.877E+00	1.158E+01	9.014E-01	0.188
PB-210	2.177E+00		6.877E+00	1.158E+01	9.014E-01	0.188
PO-210	2.177E+00		6.876E+00	1.158E+01	7.767E-01	0.188
PB-211	-1.125E+00		1.221E+00	1.521E+00	9.481E-01	-0.740
BI-212	9.587E-01	+	5.733E-01	6.628E-01	5.261E-02	1.446
PO-215	2.794E-02		7.501E-01	1.097E+00	1.816E-01	0.025
RN-219	3.617E-01		4.221E-01	7.290E-01	9.916E-02	0.496
RN-220	5.277E+00		2.893E+01	4.786E+01	2.731E+00	0.110
RA-223	2.794E-02		7.501E-01	1.097E+00	1.816E-01	0.025
AC-227	2.155E-01		4.306E-01	7.032E-01	9.793E-02	0.306
TH-227	2.155E-01		4.311E-01	7.032E-01	1.186E-01	0.306
TH-229	8.700E-02		5.763E-01	9.381E-01	4.969E-02	0.093
PA-231	1.438E-01		1.668E+00	2.750E+00	3.793E-01	0.052
TH-231	2.794E-02		7.501E-01	1.097E+00	1.816E-01	0.025
U-231	3.403E+00		1.910E+00	2.198E+00	1.844E-01	1.548
PA-233	-3.716E-02		6.576E-02	1.073E-01	6.712E-03	-0.346
PA-234	2.281E-01		3.562E-01	5.968E-01	1.122E-01	0.382
NP-236	-1.148E-01		9.189E-02	1.430E-01	7.395E-03	-0.803
NP-239	-7.373E-02		2.717E-01	3.881E-01	2.422E-02	-0.190
AM-241	2.710E-01		2.872E-01	4.359E-01	4.056E-02	0.622

Sample ID : G245395006 Acquisition date : 2-FEB-2010 08:24:26

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.333E-01		1.289E-01	2.117E-01	1.569E-02	0.630
AM-246	-1.772E-01		1.544E-01	2.265E-01	1.616E-02	-0.783
CM-247	3.486E-02		3.820E-02	6.511E-02	3.774E-03	0.535
CF-249	1.496E-02		4.112E-02	6.970E-02	4.033E-03	0.215
CF-251	-2.922E-02		1.484E-01	2.394E-01	1.237E-02	-0.122

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395006           *
* Acquisition date  :  2-FEB-2010 08:24:26 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.31      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395006           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.5252E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.705E+01	2.627E+00	2.753E-01	1.340E+00
NB-95	1.939E-01	8.602E-02	3.919E-02	4.389E-02
CD-109	2.908E+00	1.181E+00	9.684E-01	6.023E-01
SN-126	2.863E-01	1.163E-01	9.595E-02	5.931E-02
BA-137M	1.112E-01	8.539E-02	3.312E-02	4.357E-02
CS-137	1.175E-01	9.027E-02	3.501E-02	4.606E-02
LU-177	2.875E+00	1.356E+00	8.957E-01	6.918E-01
TL-208	4.552E-01	8.990E-02	3.163E-02	4.587E-02
BI-211	3.094E+00	4.471E-01	1.808E-01	2.281E-01
PB-212	1.422E+00	1.438E-01	5.281E-02	7.336E-02
PO-212	1.422E+00	1.438E-01	5.281E-02	7.336E-02
BI-214	1.048E+00	1.643E-01	6.188E-02	8.383E-02
PB-214	1.076E+00	1.650E-01	5.910E-02	8.417E-02
PO-214	1.076E+00	1.650E-01	5.910E-02	8.417E-02
PO-216	1.422E+00	1.438E-01	5.281E-02	7.336E-02
PO-218	1.076E+00	1.650E-01	5.910E-02	8.417E-02
RA-224	3.619E+00	1.122E+00	6.009E-01	5.723E-01
RA-226	1.048E+00	1.643E-01	6.188E-02	8.383E-02
AC-228	1.454E+00	3.060E-01	9.994E-02	1.561E-01
RA-228	1.454E+00	3.060E-01	9.994E-02	1.561E-01
TH-228	1.441E+00	1.458E-01	5.354E-02	7.438E-02
TH-230	1.048E+00	1.643E-01	6.188E-02	8.383E-02
TH-232	1.454E+00	3.060E-01	9.994E-02	1.561E-01
PA-234M	4.794E+01	1.035E+01	3.922E+00	5.279E+00
TH-234	3.369E+01	6.935E+00	1.805E+00	3.538E+00
U-234	1.048E+00	1.643E-01	6.188E-02	8.383E-02
U-235	6.343E-01	3.466E-01	2.081E-01	1.768E-01
NP-237	8.408E-01	3.814E-01	3.065E-01	1.946E-01
U-238	3.369E+01	6.935E+00	1.805E+00	3.538E+00
AM-243	3.953E-01	1.033E-01	7.295E-02	5.268E-02
ANH-511	1.210E-01	7.006E-02	2.728E-02	3.575E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	9.239E-02	3.388E-01	3.002E-01	1.729E-01	NOT IDENT.
NA-22	-4.265E-02	4.740E-02	3.630E-02	2.418E-02	NOT IDENT.
NA-24	-1.892E+05	1.926E+05	0.000E+00	9.828E+04	SHORT HLIF
AL-26	-3.577E-02	2.650E-02	1.499E-02	1.352E-02	NOT IDENT.
TI-44	3.374E-01	6.481E-02	5.340E-02	3.307E-02	FAIL ABUN
SC-46	2.608E-02	3.745E-02	3.436E-02	1.911E-02	FAIL ABUN
V-48	-1.798E-02	6.426E-02	5.388E-02	3.279E-02	NOT IDENT.
CR-51	1.474E-01	3.878E-01	3.243E-01	1.979E-01	NOT IDENT.
MN-52	-1.023E-01	1.618E-01	1.188E-01	8.253E-02	NOT IDENT.
MN-54	-2.255E-03	3.983E-02	3.464E-02	2.032E-02	NOT IDENT.
CO-56	2.950E-03	4.021E-02	3.526E-02	2.052E-02	NOT IDENT.
CO-57	-3.004E-03	2.998E-02	2.693E-02	1.530E-02	NOT IDENT.
CO-58	-3.708E-02	3.735E-02	2.989E-02	1.905E-02	NOT IDENT.
FE-59	-3.766E-02	8.863E-02	7.255E-02	4.522E-02	FAIL ABUN
CO-60	-1.902E-02	3.786E-02	2.975E-02	1.932E-02	NOT IDENT.
ZN-65	5.866E-02	1.111E-01	8.610E-02	5.668E-02	NOT IDENT.
GE-68	-3.208E-01	1.310E+00	1.095E+00	6.686E-01	NOT IDENT.
AS-73	1.740E-01	1.406E+00	1.323E+00	7.173E-01	NOT IDENT.
AS-74	3.092E-02	8.915E-02	7.829E-02	4.549E-02	NOT IDENT.
SE-75	1.236E-02	5.230E-02	3.979E-02	2.668E-02	NOT IDENT.
BR-77	-7.960E+00	7.553E+00	6.070E+00	3.854E+00	FAIL ABUN
SR-82	-3.119E-02	4.055E-01	3.543E-01	2.069E-01	NOT IDENT.
RB-83	-7.193E-02	7.172E-02	5.788E-02	3.659E-02	NOT IDENT.
RB-84	6.570E-02	6.585E-02	6.172E-02	3.360E-02	NOT IDENT.
KR-85	9.292E+00	8.587E+00	7.001E+00	4.381E+00	NOT IDENT.
SR-85	4.701E-02	4.345E-02	3.542E-02	2.217E-02	NOT IDENT.
RB-86	-8.626E-02	7.795E-01	6.593E-01	3.977E-01	NOT IDENT.
Y-88	-6.531E-03	2.726E-02	2.179E-02	1.391E-02	NOT IDENT.
ZR-88	-2.111E-02	3.092E-02	2.632E-02	1.578E-02	NOT IDENT.
Y-91	-2.352E+00	2.052E+01	1.719E+01	1.047E+01	NOT IDENT.
NB-94	1.490E-02	3.660E-02	3.185E-02	1.867E-02	NOT IDENT.
NB-95M	5.802E-01	1.702E-01	1.449E-01	8.684E-02	NOT IDENT.
ZR-95	4.783E-02	7.884E-02	6.923E-02	4.023E-02	NOT IDENT.
NB-97	-1.117E+04	3.655E+04	0.000E+00	1.865E+04	SHORT HLIF
ZR-97	1.654E+06	6.155E+05	0.000E+00	3.140E+05	SHORT HLIF
MO-99	-4.381E+00	9.819E+00	7.980E+00	5.010E+00	NOT IDENT.
TC-99M	1.063E+15	1.504E+15	0.000E+00	7.673E+14	SHORT HLIF
RH-101	-3.481E-02	3.794E-02	3.144E-02	1.936E-02	FAIL ABUN
RH-102	-1.306E-02	3.125E-02	2.658E-02	1.594E-02	FAIL ABUN
RU-103	-3.073E-02	4.306E-02	3.563E-02	2.197E-02	NOT IDENT.
RH-106	3.991E-03	3.476E-01	2.973E-01	1.773E-01	NOT IDENT.
RU-106	3.991E-03	3.476E-01	2.973E-01	1.773E-01	NOT IDENT.
AG-108M	4.029E-03	3.377E-02	2.987E-02	1.723E-02	NOT IDENT.
AG-110M	-2.103E-02	4.506E-02	3.149E-02	2.299E-02	NOT IDENT.
IN-111	-2.697E-01	9.801E-01	7.258E-01	5.000E-01	NOT IDENT.
IN-113M	-2.891E-02	4.475E-02	3.817E-02	2.283E-02	NOT IDENT.
SN-113	-2.891E-02	4.475E-02	3.817E-02	2.283E-02	NOT IDENT.
IN-114M	-1.825E-01	2.252E-01	1.655E-01	1.149E-01	NOT IDENT.
CD-115	1.426E+00	7.693E+00	6.739E+00	3.925E+00	NOT IDENT.
SN-117M	-4.396E-02	5.689E-02	4.912E-02	2.903E-02	NOT IDENT.
SB-122	-2.159E-01	1.591E+00	1.358E+00	8.119E-01	NOT IDENT.
I-123	-1.292E+06	1.294E+06	0.000E+00	6.601E+05	SHORT HLIF
TE-123M	-3.153E-02	3.158E-02	2.703E-02	1.611E-02	NOT IDENT.
I-124	1.997E-01	6.047E-01	4.626E-01	3.085E-01	NOT IDENT.
SB-124	7.645E-02	7.334E-02	7.225E-02	3.742E-02	FAIL ABUN
SB-125	-1.142E-02	9.248E-02	8.074E-02	4.719E-02	FAIL ABUN
TE-125M	6.648E+00	1.359E+01	1.100E+01	6.936E+00	NOT IDENT.
I-126	1.020E-01	2.019E-01	1.558E-01	1.030E-01	NOT IDENT.
SB-126	5.492E-02	1.657E-01	1.249E-01	8.456E-02	FAIL ABUN
SB-127	7.269E-01	1.088E+00	9.697E-01	5.553E-01	NOT IDENT.
XE-127	5.844E-02	5.854E-02	4.688E-02	2.987E-02	NOT IDENT.
I-131	9.200E-02	1.009E-01	9.389E-02	5.147E-02	NOT IDENT.
TE-132	2.712E-02	5.873E-01	5.106E-01	2.997E-01	FAIL ABUN
BA-133	1.081E-02	4.654E-02	3.668E-02	2.374E-02	FAIL ABUN
I-133	1.043E+03	2.361E+03	0.000E+00	1.205E+03	SHORT HLIF
CS-134	5.784E-02	5.411E-02	4.791E-02	2.761E-02	FAIL ABUN
CS-135	1.781E-01	1.972E-01	1.554E-01	1.006E-01	NOT IDENT.
I-135	1.354E+13	2.670E+14	0.000E+00	1.362E+14	SHORT HLIF
CS-136	-5.201E-02	1.008E-01	8.210E-02	5.141E-02	FAIL ABUN
CE-139	-2.934E-02	3.278E-02	2.808E-02	1.672E-02	NOT IDENT.
BA-140	-4.028E-02	2.442E-01	2.084E-01	1.246E-01	NOT IDENT.
LA-140	-1.469E-03	8.364E-02	7.144E-02	4.267E-02	FAIL ABUN
CE-141	1.028E-01	8.206E-02	6.729E-02	4.187E-02	NOT IDENT.
CE-143	5.316E+02	1.475E+02	0.000E+00	7.528E+01	SHORT HLIF

CE-144	-1.867E-01	2.754E-01	2.091E-01	1.405E-01	NOT IDENT.
PM-144	1.188E-02	3.580E-02	3.105E-02	1.827E-02	NOT IDENT.
PR-144	8.047E-01	2.424E+00	2.103E+00	1.237E+00	NOT IDENT.
PM-146	3.277E-02	4.784E-02	4.240E-02	2.441E-02	NOT IDENT.
ND-147	5.723E-01	5.615E-01	5.122E-01	2.865E-01	FAIL ABUN
PM-149	1.275E+00	6.362E+01	5.757E+01	3.246E+01	NOT IDENT.
EU-152	-1.030E-01	1.143E-01	8.282E-02	5.829E-02	NOT IDENT.
GD-153	3.918E-01	1.378E-01	1.113E-01	7.030E-02	FAIL ABUN
EU-154	-1.192E-01	1.327E-01	1.015E-01	6.773E-02	NOT IDENT.
EU-155	1.703E-02	1.429E-01	1.258E-01	7.291E-02	FAIL ABUN
TB-160	5.900E-02	1.332E-01	1.200E-01	6.797E-02	FAIL ABUN
HO-166M	1.633E-02	6.175E-02	5.327E-02	3.150E-02	FAIL ABUN
TM-171	-4.971E+01	4.714E+01	3.705E+01	2.405E+01	NOT IDENT.
LU-176	1.516E-02	2.653E-02	2.323E-02	1.354E-02	FAIL ABUN
LU-177M	-1.072E-01	1.887E-01	1.613E-01	9.627E-02	FAIL ABUN
HF-181	-5.041E-02	4.541E-02	3.682E-02	2.317E-02	NOT IDENT.
W-181	2.202E+00	6.841E-01	5.892E-01	3.490E-01	NOT IDENT.
TA-182	-1.737E-01	2.096E-01	1.647E-01	1.069E-01	FAIL ABUN
RE-183	1.300E-01	1.218E-01	1.116E-01	6.212E-02	FAIL ABUN
RE-184	-5.634E-02	2.563E-01	2.187E-01	1.307E-01	NOT IDENT.
OS-185	2.328E-02	4.688E-02	4.068E-02	2.392E-02	NOT IDENT.
RE-188	1.045E-01	1.905E-01	1.722E-01	9.718E-02	NOT IDENT.
W-188	2.682E+00	8.134E+00	6.531E+00	4.150E+00	FAIL ABUN
IR-192	2.821E-03	3.408E-02	3.072E-02	1.739E-02	FAIL ABUN
AU-195	1.139E+00	4.008E-01	3.127E-01	2.045E-01	FAIL ABUN
TL-200	-6.811E+01	1.993E+02	0.000E+00	1.017E+02	SHORT HLIF
TL-201	-6.196E+00	5.754E+00	4.889E+00	2.936E+00	NOT IDENT.
TL-202	4.741E-02	6.673E-02	6.088E-02	3.405E-02	NOT IDENT.
HG-203	2.655E-02	4.618E-02	3.765E-02	2.356E-02	FAIL ABUN
BI-207	3.299E-02	5.165E-02	4.664E-02	2.635E-02	FAIL ABUN
TL-207	2.794E-02	7.351E-01	5.751E-01	3.750E-01	FAIL ABUN
PO-209	8.707E-01	7.672E+00	6.719E+00	3.914E+00	NOT IDENT.
BI-210	2.177E+00	6.739E+00	6.356E+00	3.438E+00	NOT IDENT.
PB-210	2.177E+00	6.739E+00	6.356E+00	3.438E+00	NOT IDENT.
PO-210	2.177E+00	6.739E+00	6.356E+00	3.438E+00	NOT IDENT.
PB-211	-1.125E+00	1.197E+00	7.928E-01	6.105E-01	NOT IDENT.
BI-212	9.587E-01	5.618E-01	3.404E-01	2.867E-01	FAIL ABUN
PO-215	2.794E-02	7.351E-01	5.751E-01	3.750E-01	FAIL ABUN
RN-219	3.617E-01	4.136E-01	3.801E-01	2.110E-01	FAIL ABUN
RN-220	5.277E+00	2.835E+01	2.475E+01	1.446E+01	NOT IDENT.
RA-223	2.794E-02	7.351E-01	5.751E-01	3.750E-01	FAIL ABUN
AC-227	2.155E-01	4.220E-01	3.708E-01	2.153E-01	FAIL ABUN
TH-227	2.155E-01	4.225E-01	3.708E-01	2.155E-01	FAIL ABUN
TH-229	8.700E-02	5.648E-01	4.980E-01	2.882E-01	FAIL ABUN
PA-231	1.438E-01	1.634E+00	1.446E+00	8.338E-01	FAIL ABUN
TH-231	2.794E-02	7.351E-01	5.751E-01	3.750E-01	FAIL ABUN
U-231	3.403E+00	1.871E+00	1.187E+00	9.548E-01	FAIL ABUN
PA-233	-3.716E-02	6.444E-02	5.632E-02	3.288E-02	FAIL ABUN
PA-234	2.281E-01	3.491E-01	3.043E-01	1.781E-01	FAIL ABUN
NP-236	-1.148E-01	9.006E-02	7.625E-02	4.595E-02	FAIL ABUN
NP-239	-7.373E-02	2.662E-01	2.085E-01	1.358E-01	FAIL ABUN
AM-241	2.710E-01	2.814E-01	2.380E-01	1.436E-01	NOT IDENT.
CM-243	1.333E-01	1.263E-01	1.141E-01	6.445E-02	FAIL ABUN
AM-246	-1.772E-01	1.513E-01	1.151E-01	7.722E-02	NOT IDENT.
CM-247	3.486E-02	3.743E-02	3.395E-02	1.910E-02	FAIL ABUN
CF-249	1.496E-02	4.029E-02	3.637E-02	2.056E-02	NOT IDENT.
CF-251	-2.922E-02	1.455E-01	1.274E-01	7.422E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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46.50	543.8643
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52.97	631.4050
53.15	636.1676
53.44	619.1031
54.07	626.1659
56.28	720.3320
56.28	720.3350
57.37	0.0000
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57.53	684.9725
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57.98	703.1558
57.98	703.1558
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59.32	726.8171
59.40	726.9087
59.54	727.0693
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61.30	779.4585
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63.29	810.0862
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65.20	840.7469
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66.83	884.6252
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67.20	841.7476
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67.85	938.3264
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68.90	946.7559
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70.82	853.6779
70.83	853.6918
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72.87	911.9238
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77.11	974.8687

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79.80	958.6005
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80.30	1008.7194
80.57	1009.0792
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81.07	1017.3630
81.07	1017.3630
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83.78	1061.4803
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88.47	907.7804
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92.38	912.1485
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94.90	752.0905
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98.44	629.1023
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109.28	665.2115

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111.00	650.6653
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117.00	584.8985
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152.70	500.6545
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209.75	337.3894
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228.18	340.0408
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236.00	325.4080
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238.63	325.9790
238.63	325.9790
238.63	325.9790
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241.98	278.0815
241.98	278.0815
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256.20	265.3230
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269.46	259.6866
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295.21	210.6464

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338.28	188.0755
338.28	188.0755
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351.92	159.4041
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391.69	167.3416
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445.03	132.2628
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511.85	136.9845
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513.99	126.0101
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609.31	113.1337
609.31	113.1337
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697.00	94.6193
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722.78	99.3585
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756.87	95.2837
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778.89	87.2689
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876.40	72.6919
879.36	55.7434
880.27	49.1425
880.51	44.4201
881.50	49.1584
883.24	70.9335
884.67	67.1764
889.25	52.1018
896.60	67.3902
898.02	71.2128
899.00	63.6331
903.28	69.8857
911.07	52.2656
911.07	52.2656
911.07	52.2656
919.63	64.9315
920.93	67.8192
925.00	63.7465
925.24	62.4755
926.50	59.0349
935.52	60.8154
937.48	62.4895
944.10	68.2237
946.00	63.4501
949.00	67.3468
962.29	71.1573
964.01	52.9766
966.15	61.2877
968.20	84.1060
969.11	49.7294
969.11	49.7294
969.11	49.7294
977.42	50.7379
980.50	59.1508
983.50	57.2547
989.30	53.4491
996.32	51.7330
1001.03	62.3737
1001.68	62.3828
1004.76	45.1500
1021.30	0.0000
1024.50	0.0000
1034.80	64.8479
1036.00	67.8124
1037.82	73.7427
1038.57	65.8877
1038.76	0.0000
1045.16	60.0816
1046.59	66.0131
1048.07	63.0781

1050.47	63.1146
1050.47	63.1146
1062.04	53.3979
1063.62	49.4609
1076.63	62.5078
1077.35	66.4875
1078.86	77.4287
1085.78	64.6271
1099.22	61.8335
1112.02	66.8708
1112.84	72.0293
1115.52	68.6384
1120.29	64.1328
1120.29	64.1328
1120.29	64.1328
1120.29	64.1328
1120.51	64.1354
1121.28	61.8549
1124.00	0.0000
1129.67	70.1080
1131.51	0.0000
1147.95	0.0000
1167.94	74.9334
1173.22	65.8966
1175.09	67.9515
1177.93	76.1108
1189.05	79.3457
1204.90	81.6536
1205.75	0.0000
1213.00	76.6815
1221.42	88.0856
1230.97	107.7600
1235.34	94.5044
1236.41	0.0000
1238.25	88.3936
1246.25	75.1565
1260.41	0.0000
1271.85	48.6428
1274.45	67.3063
1274.54	67.3090
1291.56	50.9141
1298.22	0.0000
1312.09	46.9501
1325.50	38.7058
1325.50	38.7058
1332.49	35.6173
1333.61	39.8153
1360.21	32.6499
1362.66	0.0000
1365.15	26.3550
1368.21	43.2489
1368.53	0.0000
1376.25	33.8073
1384.27	32.8013
1394.10	38.1621
1395.20	38.1709
1407.95	23.3822
1434.06	21.3607
1436.60	21.3704
1457.56	0.0000
1460.81	25.7598
1489.15	23.7349
1509.49	16.2415
1596.49	27.3261
1620.62	15.1384
1678.03	0.0000
1691.02	10.5300
1691.02	10.5300
1706.46	0.0000
1750.46	0.0000
1764.49	10.1708
1764.49	10.1708
1764.49	10.1708
1764.49	10.1708
1770.23	15.2699
1771.40	34.9089
1791.20	0.0000
1808.65	17.5568

1836.01 10.7744

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395006

Total Uranium Activity	1.0054E+02	ug/g
Total Uranium Counting Unc.	2.0632E+01	ug/g
Total Uranium Tpu	1.0527E-05	ug/g
Total Uranium Mda	5.3702E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID  : G245395006       *
*   ANALYST       : MXR1                      DETECTOR   : GAM23            *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 08:24:26.96    SAMPLE ALQT:  152.520 GRAM    *
*                                                                           *
*****************************************************************************
```

GROSS GAMMA ACTIVITY (pCi/GRAM) : 1.238E+01
GROSS GAMMA ERROR (pCi/GRAM) : 1.737E+00
GROSS GAMMA MDA (pCi/GRAM) : 4.555E+00
GROSS GAMMA DLC (pCi/GRAM) : 2.231E+00

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:14:19.54

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395007.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:13:37.
Sample ID         : G245395007           Sample quantity  : 1.81030E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:06.26  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.00*	8148	4752	1.00	125.19	120	11	1.13E+00	2.0	
2	0	83.58*	634	4556	1.69	166.38	163	8	8.81E-02	18.9	
3	4	92.36*	25264	3207	1.07	183.94	180	14	3.51E+00	0.7	6.88E+00
4	4	94.46	865	2209	1.06	188.16	180	14	1.20E-01	13.9	
5	0	98.28*	2091	1908	1.08	195.80	193	8	2.90E-01	4.3	
6	1	110.83*	320	1836	0.98	220.91	218	11	4.44E-02	22.1	1.08E+01
7	1	112.48*	1310	1760	1.02	224.20	218	11	1.82E-01	5.9	
8	0	131.12	158	1213	0.83	261.50	259	7	2.19E-02	37.6	
9	0	143.63*	937	1341	1.07	286.53	283	9	1.30E-01	7.9	
10	0	163.16*	499	1081	1.19	325.61	321	9	6.93E-02	12.8	
11	0	185.50*	4545	1136	1.11	370.33	365	11	6.31E-01	2.1	
12	1	205.22*	428	553	1.24	409.77	406	19	5.94E-02	10.2	1.71E+00
13	1	209.38	149	482	1.25	418.11	406	19	2.06E-02	26.4	
14	0	238.36*	641	599	0.96	476.09	472	8	8.91E-02	7.8	
15	0	257.86	327	537	1.05	515.12	510	11	4.54E-02	14.8	
16	0	294.99	263	493	1.41	589.42	584	12	3.65E-02	18.0	
17	0	338.80	265	434	1.82	677.09	670	17	3.67E-02	19.1	
18	0	351.70*	367	327	1.12	702.91	697	12	5.09E-02	11.3	
19	0	510.88*	10	292	1.42	1021.44	1016	12	1.44E-03	361.3	
20	0	583.07*	226	257	1.36	1165.90	1158	15	3.14E-02	17.1	
21	0	608.79*	260	299	1.79	1217.38	1211	17	3.61E-02	16.5	
22	0	648.06	25	128	1.20	1295.97	1291	10	3.44E-03	87.6	
23	0	727.12	58	157	1.29	1454.18	1449	11	8.01E-03	44.1	
24	0	742.36	206	177	1.31	1484.68	1477	14	2.86E-02	15.4	
25	0	766.05	664	223	1.52	1532.09	1524	17	9.22E-02	6.5	
26	0	785.84	136	146	1.48	1571.70	1565	12	1.89E-02	19.7	
27	0	910.91*	137	62	2.04	1822.00	1816	17	1.90E-02	15.9	
28	0	945.98	43	57	0.92	1892.19	1888	9	5.97E-03	35.4	
29	0	968.69	91	50	1.89	1937.65	1931	11	1.26E-02	18.3	
30	0	1000.53*	1512	86	1.87	2001.36	1992	19	2.10E-01	3.0	
31	0	1119.78	49	29	0.84	2240.04	2236	8	6.86E-03	23.4	
32	0	1460.22*	941	14	2.28	2921.43	2913	19	1.31E-01	3.4	
33	0	1763.89*	56	15	1.75	3529.30	3522	16	7.76E-03	22.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:14:22

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:13:37
Sample ID : G245395007 Sample quantity : 181.03 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA2 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:06.26 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.779E+01	2.087E+00	3.926E-01	3.732E-02	45.304
NB-95	+	765.79	*	8.765E-01	1.400E-01	7.551E-02	7.070E-03	11.607
LU-177	+	112.95		2.886E+01	4.187E+00	4.093E+00	3.457E-01	7.051
	+	208.36	*	2.416E+00	1.303E+00	1.832E+00	2.044E-01	1.319
TL-208		277.35		1.698E-01	4.017E-01	6.831E-01	1.038E-01	0.249
	+	510.84		3.923E-02	2.835E-01	2.526E-01	3.271E-02	0.155
	+	583.14	*	2.428E-01	8.663E-02	6.163E-02	6.174E-03	3.939
		860.37		2.466E-01	2.809E-01	4.842E-01	5.104E-02	0.509
BI-211		72.87		1.905E+00	6.200E+00	1.051E+01	9.049E-01	0.181
	+	351.07	*	1.754E+00	4.455E-01	3.483E-01	4.018E-02	5.035
BI-212	+	727.18	*	5.300E-01	4.703E-01	5.210E-01	5.427E-02	1.017
	+	785.46		8.012E+00	3.254E+00	3.122E+00	2.965E-01	2.566
		1620.62		2.110E-01	9.175E-01	1.589E+00	1.427E-01	0.133
BI-214	+	609.31	*	5.255E-01	1.818E-01	1.193E-01	1.261E-02	4.404
	+	1120.29		5.226E-01	2.514E-01	3.961E-01	4.312E-02	1.320
	+	1764.49		8.140E-01	3.685E-01	2.746E-01	2.327E-02	2.964
RA-226	+	609.31	*	5.255E-01	1.818E-01	1.193E-01	1.261E-02	4.404
	+	1120.29		5.226E-01	2.514E-01	3.961E-01	4.312E-02	1.320
	+	1764.49		8.140E-01	3.685E-01	2.746E-01	2.327E-02	2.964
AC-228	+	338.32		1.397E+00	7.917E-01	3.842E-01	1.612E-01	3.635
	+	911.07	*	6.530E-01	2.227E-01	1.859E-01	2.318E-02	3.513
	+	969.11		7.644E-01	3.343E-01	3.073E-01	7.322E-02	2.487
RA-228	+	338.32		1.397E+00	7.917E-01	3.842E-01	1.612E-01	3.635
	+	911.07	*	6.530E-01	2.227E-01	1.859E-01	2.318E-02	3.513
	+	969.11		7.644E-01	3.343E-01	3.073E-01	7.322E-02	2.487
TH-230	+	609.31	*	5.255E-01	1.818E-01	1.193E-01	1.261E-02	4.404
	+	1120.29		5.226E-01	2.514E-01	3.961E-01	4.312E-02	1.320
	+	1764.49		8.140E-01	3.685E-01	2.746E-01	2.327E-02	2.964
U-231	+	84.21		3.773E+01	1.468E+01	1.545E+01	1.486E+00	2.442
	+	92.29		5.407E+02	5.209E+01	6.090E+00	5.804E-01	88.790
	+	95.87	*	1.121E+01	3.284E+00	2.333E+00	2.148E-01	4.806
		108.00		1.061E+00	3.257E+00	4.871E+00	4.174E-01	0.218
TH-232	+	338.32		1.397E+00	5.560E-01	3.842E-01	4.417E-02	3.635
	+	911.07	*	6.530E-01	2.227E-01	1.859E-01	2.318E-02	3.513

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	969.11		7.644E-01	3.343E-01	3.073E-01	7.322E-02	2.487
PA-234M	+	766.42		2.351E+02	1.234E+02	2.027E+01	1.031E+01	11.597
	+	1001.03	*	2.592E+02	3.214E+01	7.190E+00	7.824E-01	36.044
TH-234	+	63.29	*	1.752E+02	3.169E+01	4.601E+00	8.123E-01	38.085
	+	92.38		1.737E+02	3.228E+01	1.954E+00	3.621E-01	88.862
U-234	+	609.31	*	5.255E-01	1.818E-01	1.193E-01	1.261E-02	4.404
	+	1120.29		5.226E-01	2.514E-01	3.961E-01	4.312E-02	1.320
	+	1764.49		8.140E-01	3.685E-01	2.746E-01	2.327E-02	2.964
U-235		89.95		9.491E+00	4.069E+00	4.387E+00	1.369E+00	2.163
	+	93.35		2.088E+02	5.919E+01	2.330E+00	6.590E-01	89.609
		105.00		6.208E-01	1.734E+00	2.880E+00	8.601E-01	0.216
	+	143.76	*	3.066E+00	7.269E-01	4.780E-01	8.488E-02	6.416
	+	163.35		3.861E+00	1.251E+00	1.040E+00	2.059E-01	3.714
	+	185.71		3.297E+00	3.779E-01	8.955E-02	9.557E-03	36.823
	+	205.31		3.812E+00	1.099E+00	1.005E+00	2.042E-01	3.792
U-238	+	63.29	*	1.752E+02	3.169E+01	4.601E+00	8.123E-01	38.085
	+	92.38		1.737E+02	1.673E+01	1.954E+00	1.861E-01	88.862
ANH-511	+	511.00	*	8.474E-03	6.124E-02	5.458E-02	5.410E-03	0.155

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.426E-02	3.758E-01	6.093E-01	6.462E-02	0.056
NA-22		1274.54	*	-1.993E-02	3.790E-02	5.905E-02	5.235E-03	-0.338
NA-24		1368.53	*	4.288E-03	3.790E-02	Half-Life too short		
AL-26		1129.67		-1.222E+00	1.308E+00	1.967E+00	1.681E-01	-0.621
		1808.65	*	1.178E-02	2.016E-02	3.747E-02	3.102E-03	0.314
TI-44		67.85		-1.131E-01	1.042E-01	1.553E-01	1.281E-02	-0.728
		78.38	*	-1.338E-02	7.117E-02	1.196E-01	1.083E-02	-0.112
SC-46		889.25	*	1.841E-03	3.929E-02	6.396E-02	6.503E-03	0.029
	+	1120.51		8.856E-02	4.220E-02	8.086E-02	6.986E-03	1.095
V-48		944.10		1.289E+00	9.968E-01	1.570E+00	1.572E-01	0.821
		983.50	*	-1.828E-02	5.866E-02	9.137E-02	8.936E-03	-0.200
		1312.09		-8.180E-03	6.521E-02	1.055E-01	9.661E-03	-0.078
CR-51		320.08	*	7.034E-02	3.808E-01	6.380E-01	7.784E-02	0.110
MN-52		744.21		1.179E+00	3.076E-01	5.276E-01	4.860E-02	2.234
		848.13		-4.254E+00	5.521E+00	8.401E+00	8.325E-01	-0.506
		935.52		1.789E-01	2.074E-01	3.570E-01	3.589E-02	0.501
		1246.25		2.809E+00	4.629E+00	8.071E+00	6.967E-01	0.348
		1333.61		4.385E+00	3.547E+00	6.573E+00	6.125E-01	0.667
		1434.06	*	1.379E-01	1.784E-01	3.175E-01	2.954E-02	0.434
MN-54		834.83	*	-2.394E-02	3.766E-02	5.853E-02	5.750E-03	-0.409
CO-56		846.75	*	-5.849E-02	3.928E-02	5.572E-02	5.516E-03	-1.050
		977.42		-8.911E-01	2.591E+00	4.028E+00	3.955E-01	-0.221
		1037.82		-9.236E-02	2.501E-01	4.045E-01	3.971E-02	-0.228
		1175.09		3.404E-01	1.744E+00	2.941E+00	2.373E-01	0.116
		1238.25		1.078E-01	7.305E-02	1.330E-01	1.173E-02	0.811
		1360.21		8.908E-02	8.505E-01	1.408E+00	1.313E-01	0.063

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1771.40		-1.929E-01	2.277E-01	3.276E-01	2.766E-02	-0.589
CO-57		122.06	*	3.963E-02	3.836E-02	6.426E-02	5.372E-03	0.617
		136.48		-1.695E-01	2.974E-01	4.795E-01	4.527E-02	-0.354
CO-58		810.76	*	-1.507E-02	3.843E-02	6.098E-02	5.905E-03	-0.247
FE-59	+	142.65		3.881E+01	7.046E+00	8.196E+00	7.433E-01	4.735
		192.34		-8.405E-01	1.188E+00	1.851E+00	2.763E-01	-0.454
		1099.22	*	-3.688E-02	7.091E-02	1.122E-01	1.070E-02	-0.329
		1291.56		6.900E-03	9.590E-02	1.558E-01	1.576E-02	0.044
CO-60		1173.22		-4.712E-03	3.600E-02	5.894E-02	4.747E-03	-0.080
		1332.49	*	1.484E-02	3.262E-02	5.615E-02	5.232E-03	0.264
ZN-65		1115.52	*	-2.986E-02	7.985E-02	1.085E-01	9.443E-03	-0.275
GE-68		1077.35	*	5.843E-02	9.847E-01	1.653E+00	1.497E-01	0.035
AS-73		53.44	*	-2.682E-01	2.117E+00	3.606E+00	2.985E-01	-0.074
AS-74		595.88	*	3.081E-02	9.448E-02	1.610E-01	1.503E-02	0.191
		634.78		-2.057E-01	3.427E-01	5.502E-01	4.919E-02	-0.374
SE-75		66.05		-2.727E+01	1.087E+01	1.528E+01	1.532E+00	-1.785
		96.73		1.180E+01	2.511E+00	2.684E+00	3.747E-01	4.398
		121.11		-6.360E-02	2.065E-01	3.377E-01	3.721E-02	-0.188
		136.00		-1.764E-02	5.824E-02	9.006E-02	7.970E-03	-0.196
		198.60		-2.653E+00	2.237E+00	3.373E+00	3.949E-01	-0.787
		264.65	*	-1.145E-02	4.688E-02	7.826E-02	9.566E-03	-0.146
		279.53		-5.924E-02	1.161E-01	1.909E-01	2.411E-02	-0.310
		303.91		-8.042E-01	2.210E+00	3.631E+00	5.190E-01	-0.222
		400.65		1.793E-01	2.685E-01	4.521E-01	5.533E-02	0.397
BR-77		87.88		-4.496E+02	3.936E+02	4.550E+02	4.565E+01	-0.988
		200.40		4.803E+01	1.505E+02	2.309E+02	2.537E+01	0.208
	+	239.00		7.497E+01	1.466E+01	1.900E+01	2.235E+00	3.946
		249.79		6.254E+00	5.163E+01	8.763E+01	1.048E+01	0.071
		281.68		2.769E+01	6.579E+01	1.119E+02	1.386E+01	0.247
		297.23		1.504E+01	4.620E+01	6.904E+01	8.431E+00	0.218
		303.76		-5.950E+01	1.329E+02	2.177E+02	2.639E+01	-0.273
		439.47		2.234E+01	1.073E+02	1.762E+02	1.775E+01	0.127
		484.57		1.903E+01	1.738E+02	2.818E+02	2.820E+01	0.068
		520.65	*	-2.215E+00	8.146E+00	1.284E+01	1.267E+00	-0.172
		574.64		-2.182E+01	1.686E+02	2.659E+02	2.531E+01	-0.082
		578.91		-4.967E+01	7.522E+01	1.045E+02	9.916E+00	-0.475
		585.48		2.135E+02	1.492E+02	2.369E+02	2.234E+01	0.901
		755.35		1.747E+01	1.195E+02	1.985E+02	1.844E+01	0.088
		817.79		-5.025E+01	8.792E+01	1.369E+02	1.329E+01	-0.367
SR-82		698.33		2.670E+01	3.590E+01	6.173E+01	5.485E+00	0.432
		776.49	*	-4.590E-01	4.298E-01	6.560E-01	6.190E-02	-0.700
		1395.20		-3.953E+00	9.557E+00	1.478E+01	1.377E+00	-0.268
RB-83		520.41	*	-3.923E-02	7.744E-02	1.203E-01	1.187E-02	-0.326
		529.64		1.019E-02	1.221E-01	1.963E-01	1.927E-02	0.052
		552.65		-3.823E-02	2.090E-01	3.492E-01	3.381E-02	-0.109
RB-84		881.50	*	1.257E-01	7.532E-02	1.344E-01	1.360E-02	0.935
KR-85		513.99	*	3.998E+00	8.982E+00	1.297E+01	1.284E+00	0.308
SR-85		513.99	*	2.023E-02	4.546E-02	6.563E-02	6.497E-03	0.308
RB-86		1076.63	*	-4.470E-02	6.060E-01	1.005E+00	9.109E-02	-0.044

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88		898.02		8.900E-03	3.953E-02	6.522E-02	6.688E-03	0.136
		1836.01	*	-6.116E-02	3.411E-02	3.757E-02	3.065E-03	-1.628
ZR-88		392.90	*	-1.279E-02	3.185E-02	5.110E-02	5.113E-03	-0.250
Y-91		1204.90	*	-4.275E+00	1.431E+01	2.300E+01	1.910E+00	-0.186
NB-94		702.63	*	-2.608E-02	3.736E-02	5.929E-02	5.287E-03	-0.440
		871.10		-1.165E-02	3.403E-02	5.376E-02	5.405E-03	-0.217
NB-95M		235.69	*	-2.008E-03	1.470E-01	2.203E-01	2.787E-02	-0.009
ZR-95		724.18		1.656E-03	1.160E-01	1.662E-01	1.626E-02	0.010
		756.15	*	2.243E-02	7.134E-02	1.197E-01	1.210E-02	0.187
NB-97		657.90	*	-1.959E-02	7.134E-02	Half-Life too short		
		1024.50		-1.176E+00	7.134E-02	Half-Life too short		
ZR-97		254.15		-8.147E-01	7.134E-02	Half-Life too short		
		355.39		5.839E-01	7.134E-02	Half-Life too short		
		507.63	*	4.106E-01	7.134E-02	Half-Life too short		
		602.52		4.845E-01	7.134E-02	Half-Life too short		
		1021.30		5.308E-01	7.134E-02	Half-Life too short		
		1147.95		-5.008E-01	7.134E-02	Half-Life too short		
		1362.66		2.996E-01	7.134E-02	Half-Life too short		
		1750.46		-5.762E-01	7.134E-02	Half-Life too short		
MO-99		140.51		2.521E+01	3.083E+01	4.491E+01	1.249E+01	0.561
		181.06		1.257E+00	1.886E+01	2.706E+01	5.219E+00	0.046
		366.43		-9.285E-01	6.500E+01	1.070E+02	1.154E+01	-0.009
		739.58	*	1.733E+01	1.270E+01	1.953E+01	3.028E+00	0.887
		778.00		-1.231E+01	3.020E+01	4.530E+01	4.279E+00	-0.272
TC-99M		140.51	*	1.658E+09	3.020E+01	Half-Life too short		
RH-101		127.23		-1.003E-02	5.169E-02	7.548E-02	6.406E-03	-0.133
		198.01	*	-8.150E-02	4.259E-02	6.187E-02	6.768E-03	-1.317
		325.23		-1.801E-01	2.362E-01	3.784E-01	4.453E-02	-0.476
RH-102		418.52		-3.144E-01	3.057E-01	4.689E-01	4.717E-02	-0.670
		475.06	*	3.939E-02	3.509E-02	5.943E-02	5.962E-03	0.663
		631.29		2.665E-03	5.285E-02	8.850E-02	7.946E-03	0.030
		697.49		4.056E-02	8.380E-02	1.423E-01	1.264E-02	0.285
	+	766.84		2.233E+00	3.567E-01	4.393E-01	4.116E-02	5.083
		1046.59		3.252E-02	9.707E-02	1.669E-01	1.557E-02	0.195
		1112.84		1.483E-01	1.816E-01	3.055E-01	2.664E-02	0.486
RU-103		497.08	*	-1.606E-02	4.345E-02	6.829E-02	1.026E-02	-0.235
		610.33		5.041E+00	1.335E+00	2.008E+00	3.412E-01	2.510
RH-106	+	511.85		4.223E-02	3.052E-01	3.575E-01	3.542E-02	0.118
		621.84	*	9.591E-02	3.283E-01	5.574E-01	7.614E-02	0.172
		1050.47		2.923E-01	1.854E+00	3.145E+00	2.922E-01	0.093
RU-106	+	511.85		4.223E-02	3.052E-01	3.575E-01	3.542E-02	0.118
		621.84	*	9.591E-02	3.282E-01	5.574E-01	5.062E-02	0.172
		1050.47		2.923E-01	1.854E+00	3.145E+00	2.922E-01	0.093
AG-108M		433.93	*	-1.471E-02	3.584E-02	5.698E-02	5.907E-03	-0.258
		614.37		1.675E-02	4.532E-02	6.780E-02	6.426E-03	0.247
		722.95		1.626E-02	5.067E-02	7.445E-02	6.986E-03	0.218
CD-109		88.03	*	5.056E-01	2.195E+00	3.033E+00	3.045E-01	0.167
AG-110M		657.75	*	-2.850E-02	3.970E-02	6.337E-02	5.653E-03	-0.450
		677.61		-8.037E-02	3.172E-01	5.183E-01	4.651E-02	-0.155

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.67		9.870E-03	2.256E-01	3.740E-01	3.432E-02	0.026
		763.93		2.617E+00	3.971E-01	6.155E-01	5.894E-02	4.252
		884.67		1.388E-02	5.405E-02	8.929E-02	9.264E-03	0.155
		937.48		-3.952E-02	1.035E-01	1.615E-01	1.665E-02	-0.245
		1384.27		-2.082E-02	1.282E-01	2.047E-01	1.955E-02	-0.102
IN-111		171.28		-1.835E-01	1.011E+00	1.623E+00	1.682E-01	-0.113
		245.39	*	-5.759E-01	8.743E-01	1.445E+00	1.716E-01	-0.399
IN-113M		391.69	*	-9.558E-03	4.686E-02	7.602E-02	7.779E-03	-0.126
SN-113		391.69	*	-9.558E-03	4.686E-02	7.602E-02	7.779E-03	-0.126
IN-114M		190.27	*	3.298E-02	2.417E-01	3.466E-01	3.733E-02	0.095
CD-115		260.90		-4.618E+01	1.074E+02	1.562E+02	1.895E+01	-0.296
		492.35		7.536E-01	2.714E+01	4.376E+01	4.369E+00	0.017
		527.90	*	5.621E+00	8.478E+00	1.405E+01	1.381E+00	0.400
SN-117M		156.02		-1.297E+00	2.962E+00	4.750E+00	4.616E-01	-0.273
		158.56	*	6.822E-02	7.909E-02	1.172E-01	1.155E-02	0.582
SB-122		563.90	*	-9.583E-01	1.666E+00	2.722E+00	2.613E-01	-0.352
		692.80		3.362E+00	3.292E+01	5.487E+01	4.853E+00	0.061
I-123		159.00	*	4.050E-01	3.292E+01	Half-Life too short		
		528.96		7.145E+01	3.292E+01	Half-Life too short		
TE-123M		159.00	*	9.468E-03	4.422E-02	6.436E-02	6.386E-03	0.147
I-124		602.71	*	9.193E-02	6.451E-01	9.505E-01	8.815E-02	0.097
		722.78		1.518E+00	4.322E+00	6.365E+00	5.767E-01	0.238
		1325.50		-6.428E-01	2.407E+01	3.933E+01	3.643E+00	-0.016
		1376.25		8.702E+00	1.840E+01	3.186E+01	2.971E+00	0.273
		1509.49		1.110E+01	1.242E+01	2.214E+01	2.041E+00	0.501
		1691.02		-3.853E-01	2.202E+00	3.540E+00	3.101E-01	-0.109
SB-124		602.71		6.462E-03	4.535E-02	6.682E-02	6.197E-03	0.097
		645.85		1.347E-01	5.554E-01	8.214E-01	7.654E-02	0.164
		709.31		-1.688E+00	2.991E+00	4.777E+00	4.282E-01	-0.353
		713.82		2.835E+00	1.737E+00	3.083E+00	3.795E-01	0.920
		722.78		1.547E-01	4.404E-01	6.486E-01	5.992E-02	0.238
	+	968.20		7.759E+00	2.947E+00	4.709E+00	4.650E-01	1.647
		1045.16		-1.809E-01	2.104E+00	3.496E+00	3.263E-01	-0.052
		1325.50		-6.996E-02	2.620E+00	4.280E+00	3.964E-01	-0.016
		1368.21		-3.864E-02	1.428E+00	2.326E+00	3.241E-01	-0.017
		1436.60		1.091E+00	3.139E+00	5.340E+00	4.967E-01	0.204
		1691.02	*	-9.260E-03	5.293E-02	8.509E-02	7.739E-03	-0.109
SB-125		427.89	*	2.142E-02	9.780E-02	1.610E-01	1.644E-02	0.133
		463.38		1.281E-01	2.988E-01	4.938E-01	5.253E-02	0.259
		600.56		-7.217E-02	1.916E-01	3.060E-01	3.025E-02	-0.236
		635.90		-1.461E-01	2.800E-01	4.521E-01	4.341E-02	-0.323
TE-125M		109.28	*	5.190E+01	1.887E+01	2.855E+01	2.927E+00	1.818
I-126		388.63		4.969E-02	2.101E-01	3.482E-01	3.519E-02	0.143
		666.33	*	-4.259E-02	1.823E-01	2.991E-01	2.587E-02	-0.142
		753.82		-2.617E-01	1.431E+00	2.326E+00	2.158E-01	-0.113
SB-126		223.80		-6.320E+00	4.619E+00	6.866E+00	7.879E-01	-0.920
		278.60		-2.284E-01	2.477E+00	4.145E+00	5.136E-01	-0.055
		296.50		2.801E+00	1.730E+00	2.681E+00	3.277E-01	1.044
		414.70		3.356E-02	7.455E-02	1.243E-01	1.250E-02	0.270

---- Non-Identified Nuclides ----

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		415.30		1.130E+00	6.147E+00	1.012E+01	1.018E+00	0.112
		555.20		-7.276E-01	4.001E+00	6.683E+00	6.458E-01	-0.109
		573.80		-1.365E-01	1.072E+00	1.791E+00	1.706E-01	-0.076
		593.00		2.533E-02	9.573E-01	1.608E+00	1.506E-01	0.016
		656.30		-4.708E+00	3.536E+00	5.408E+00	4.696E-01	-0.871
		666.33		-1.775E-02	7.598E-02	1.246E-01	1.078E-02	-0.142
		675.00		-1.005E-01	1.934E+00	3.202E+00	2.790E-01	-0.031
		695.00		-7.445E-02	7.857E-02	1.225E-01	1.085E-02	-0.608
		697.00		2.693E-01	2.681E-01	4.671E-01	4.145E-02	0.577
		720.50	*	2.294E-01	1.528E-01	2.533E-01	2.291E-02	0.906
		856.80		-2.608E-01	4.219E-01	6.520E-01	6.497E-02	-0.400
		989.30		-1.816E-01	1.064E+00	1.682E+00	1.638E-01	-0.108
		1034.80		-3.229E+00	6.382E+00	1.016E+01	9.566E-01	-0.318
		1213.00		1.286E+00	3.787E+00	6.423E+00	5.375E-01	0.200
SN-126	+	64.28		6.936E+01	1.061E+01	2.995E+00	4.442E-01	23.162
		86.94		-2.392E+00	1.306E+00	1.217E+00	5.068E-01	-1.965
		87.57	*	-5.557E-01	2.300E-01	2.935E-01	2.933E-02	-1.893
SB-127		61.10		5.679E+02	1.392E+02	2.084E+02	2.098E+01	2.725
		252.40		-2.021E+00	4.551E+00	6.527E+00	2.791E+00	-0.310
		290.80		9.656E-01	2.024E+01	2.992E+01	4.162E+00	0.032
		411.60		-6.869E-01	1.024E+01	1.666E+01	2.719E+00	-0.041
		444.90		-2.726E+00	8.302E+00	1.322E+01	1.755E+00	-0.206
		473.00		6.534E-01	1.604E+00	2.639E+00	3.581E-01	0.248
		543.00		-8.958E-01	1.511E+01	2.405E+01	3.567E+00	-0.037
		603.60		3.932E+00	1.085E+01	1.624E+01	2.055E+00	0.242
		685.20	*	8.824E-01	1.181E+00	2.035E+00	2.272E-01	0.434
		698.50		6.368E+00	1.339E+01	2.269E+01	3.566E+00	0.281
		722.20		3.251E+01	2.780E+01	4.343E+01	4.845E+00	0.748
		783.80		1.034E+01	4.399E+00	7.003E+00	8.913E-01	1.476
XE-127		57.60		1.599E+01	1.545E+01	2.557E+01	1.967E+00	0.625
		145.22		4.987E+00	1.171E+00	1.776E+00	1.631E-01	2.808
		172.10		-3.333E-02	1.599E-01	2.564E-01	2.662E-02	-0.130
		202.84	*	4.628E-02	6.599E-02	9.596E-02	1.060E-02	0.482
		374.96		-7.839E-02	1.995E-01	3.185E-01	3.356E-02	-0.246
I-131		80.18		-6.844E-01	9.416E+00	1.422E+01	1.317E+00	-0.048
		284.30		-5.766E-01	1.418E+00	2.338E+00	2.962E-01	-0.247
		364.48	*	-1.223E-02	1.082E-01	1.773E-01	1.988E-02	-0.069
		636.97		1.386E-02	1.444E+00	2.411E+00	2.260E-01	0.006
		722.89		2.533E+00	7.677E+00	1.129E+01	1.028E+00	0.224
TE-132		49.72		-4.660E+00	4.320E+01	6.683E+01	7.130E+00	-0.070
	+	111.76		4.583E+02	7.205E+01	9.255E+01	9.640E+00	4.951
		116.30		-3.272E+00	3.686E+01	5.434E+01	5.626E+00	-0.060
		228.16	*	6.891E-01	6.505E-01	1.050E+00	1.818E-01	0.656
BA-133		53.15		5.285E+00	9.222E+00	1.585E+01	1.319E+00	0.333
		79.62		-4.720E+00	3.091E+00	4.426E+00	6.878E-01	-1.066
		81.00		5.054E-02	2.223E-01	3.370E-01	5.478E-02	0.150
		276.40		3.343E-01	4.016E-01	6.871E-01	1.165E-01	0.487
		302.84		-1.155E-01	1.566E-01	2.523E-01	3.987E-02	-0.458
		356.01	*	3.145E-02	4.983E-02	7.484E-02	1.116E-02	0.420

---- Non-Identified Nuclides ----

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		383.85		1.321E-01	3.301E-01	5.509E-01	7.591E-02	0.240
I-133	+	510.53		3.217E-02	3.301E-01	Half-Life too short		
		529.87	*	-3.360E-04	3.301E-01	Half-Life too short		
		706.58		7.319E-03	3.301E-01	Half-Life too short		
		856.28		-3.074E-01	3.301E-01	Half-Life too short		
		875.33		-1.539E-02	3.301E-01	Half-Life too short		
		1236.41		3.031E-01	3.301E-01	Half-Life too short		
		1298.22		-1.416E-03	3.301E-01	Half-Life too short		
CS-134		475.35		2.245E+00	2.325E+00	3.912E+00	3.924E-01	0.574
		563.23		-8.506E-02	3.921E-01	6.531E-01	6.322E-02	-0.130
		569.32		1.313E-01	2.232E-01	3.823E-01	3.696E-02	0.343
		604.70		1.761E-02	3.887E-02	5.854E-02	5.430E-03	0.301
		795.84	*	3.222E-02	5.031E-02	8.547E-02	8.225E-03	0.377
		801.93		-2.303E-01	4.310E-01	6.627E-01	6.396E-02	-0.348
		1038.57		9.676E-01	3.117E+00	5.361E+00	5.033E-01	0.180
		1167.94		3.734E-01	1.965E+00	3.313E+00	2.688E-01	0.113
		1365.15		1.298E-01	1.018E+00	1.691E+00	1.638E-01	0.077
CS-135		268.24	*	1.311E-01	1.694E-01	2.910E-01	3.850E-02	0.450
I-135		288.45		-3.046E+06	1.694E-01	Half-Life too short		
		417.63		-1.405E+09	1.694E-01	Half-Life too short		
		546.56		1.164E+08	1.694E-01	Half-Life too short		
		836.80		1.166E+08	1.694E-01	Half-Life too short		
		1038.76		2.129E+08	1.694E-01	Half-Life too short		
		1124.00		5.249E+08	1.694E-01	Half-Life too short		
		1131.51		1.231E+08	1.694E-01	Half-Life too short		
		1260.41	*	7.261E+07	1.694E-01	Half-Life too short		
		1457.56		2.557E+10	1.694E-01	Half-Life too short		
		1678.03		-1.953E+08	1.694E-01	Half-Life too short		
		1706.46		-1.932E+08	1.694E-01	Half-Life too short		
		1791.20		3.276E+08	1.694E-01	Half-Life too short		
CS-136		66.91		-4.063E+00	1.736E+00	2.363E+00	3.591E-01	-1.719
		86.29		-5.380E+00	2.566E+00	3.578E+00	4.903E-01	-1.504
		153.22		9.076E-01	8.538E-01	1.414E+00	1.484E-01	0.642
	+	163.89		8.198E+00	2.287E+00	2.680E+00	2.958E-01	3.059
		176.55		-9.588E-02	4.664E-01	7.465E-01	8.129E-02	-0.128
		273.65		-6.312E-01	4.662E-01	7.353E-01	9.359E-02	-0.859
		340.57		1.278E-01	1.208E-01	2.072E-01	2.411E-02	0.616
		818.51		-3.364E-02	6.534E-02	1.022E-01	9.938E-03	-0.329
		1048.07	*	8.495E-02	8.406E-02	1.519E-01	1.466E-02	0.559
		1235.34		3.370E-01	4.903E-01	8.465E-01	9.984E-02	0.398
BA-137M		661.65	*	4.439E-02	4.106E-02	7.173E-02	6.180E-03	0.619
CS-137		661.65	*	4.693E-02	4.341E-02	7.583E-02	6.546E-03	0.619
CE-139		165.85	*	-2.284E-02	4.511E-02	6.376E-02	6.541E-03	-0.358
BA-140	+	162.64		5.761E+00	1.597E+00	1.931E+00	2.029E-01	2.984
		304.84		-8.342E-01	1.307E+00	2.089E+00	6.118E-01	-0.399
		423.70		-1.152E+00	1.949E+00	3.017E+00	9.905E-01	-0.382
		537.32	*	-4.894E-02	2.679E-01	4.227E-01	1.414E-01	-0.116
LA-140		328.77		2.225E-01	2.887E-01	4.920E-01	5.933E-02	0.452
		432.53		-4.045E-02	2.046E+00	3.325E+00	3.469E-01	-0.012

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		487.03		-9.465E-02	1.430E-01	2.212E-01	2.314E-02	-0.428
		751.79		1.012E+00	1.630E+00	2.784E+00	2.820E-01	0.364
		815.85		-1.056E-01	2.833E-01	4.489E-01	4.755E-02	-0.235
		867.82		7.710E-01	1.273E+00	2.161E+00	2.254E-01	0.357
		919.63		-3.041E+00	3.107E+00	3.794E+00	4.515E-01	-0.802
		925.24		1.894E+00	1.103E+00	1.982E+00	2.094E-01	0.956
		1596.49	*	-1.691E-03	6.152E-02	1.026E-01	9.275E-03	-0.016
CE-141		145.44	*	3.185E-01	9.945E-02	1.519E-01	1.419E-02	2.096
CE-143		57.37		6.153E-04	9.945E-02	Half-Life too short		
		231.56		6.421E-04	9.945E-02	Half-Life too short		
		293.26	*	2.696E-04	9.945E-02	Half-Life too short		
	+	350.59		7.469E-03	9.945E-02	Half-Life too short		
		490.36		6.516E-04	9.945E-02	Half-Life too short		
		664.57		-1.120E-03	9.945E-02	Half-Life too short		
		721.93		1.017E-03	9.945E-02	Half-Life too short		
CE-144		80.11		-5.150E-01	4.806E+00	7.255E+00	6.682E-01	-0.071
		133.54	*	8.506E-02	3.246E-01	4.785E-01	7.469E-02	0.178
PM-144		476.78		6.362E-02	8.074E-02	1.350E-01	1.448E-02	0.471
		618.01		7.331E-03	3.467E-02	5.552E-02	5.189E-03	0.132
		696.49	*	3.118E-02	3.644E-02	6.308E-02	5.597E-03	0.494
		778.57		-4.489E-03	2.810E+00	4.183E+00	3.954E-01	-0.001
PR-144		696.49	*	2.111E+00	2.467E+00	4.272E+00	3.789E-01	0.494
		1489.15		-4.389E+00	8.883E+00	1.313E+01	1.214E+00	-0.334
PM-146		453.90	*	-9.845E-03	4.799E-02	7.689E-02	9.164E-03	-0.128
		633.02		1.215E-02	1.350E+00	2.255E+00	8.444E-01	0.005
		735.90		-1.390E-01	2.144E-01	2.850E-01	8.200E-02	-0.488
		747.13		-8.425E-03	1.056E-01	1.494E-01	2.155E-02	-0.056
ND-147	+	91.11		8.082E+01	8.305E+00	2.114E+00	2.177E-01	38.225
		319.41		-8.129E-02	3.233E+00	5.372E+00	6.380E-01	-0.015
		439.89		5.580E-01	5.805E+00	9.478E+00	9.549E-01	0.059
		531.02	*	-4.661E-01	6.208E-01	9.439E-01	1.479E-01	-0.494
PM-149		285.90	*	1.948E+00	6.557E+01	1.100E+02	1.966E+01	0.018
EU-152		121.78		9.490E-02	1.111E-01	1.856E-01	1.800E-02	0.511
		244.69		-5.076E-01	3.758E-01	6.015E-01	7.138E-02	-0.844
		344.27	*	2.089E-02	1.172E-01	1.722E-01	2.024E-02	0.121
		443.98		8.785E-02	1.002E+00	1.635E+00	1.646E-01	0.054
		778.89		3.746E-02	3.409E-01	4.889E-01	4.621E-02	0.077
		867.32		-1.840E-02	8.246E-01	1.338E+00	1.342E-01	-0.014
		964.01		2.875E-01	2.802E-01	4.340E-01	4.297E-02	0.662
		1085.78		-1.911E-01	2.899E-01	4.494E-01	4.036E-02	-0.425
		1112.02		1.033E-01	2.461E-01	4.172E-01	3.641E-02	0.248
		1407.95		-4.450E-02	1.454E-01	2.265E-01	2.110E-02	-0.197
GD-153		69.67		2.314E+00	3.348E+00	5.712E+00	4.785E-01	0.405
	+	83.37		1.255E+02	4.882E+01	5.690E+01	5.424E+00	2.205
	+	97.43	*	2.461E+00	3.061E-01	3.181E-01	2.891E-02	7.736
		103.18		-1.069E-01	1.759E-01	2.750E-01	2.407E-02	-0.389
EU-154		123.07		-2.972E-04	7.864E-02	1.294E-01	1.447E-02	-0.002
		247.94		-9.901E-02	3.979E-01	6.672E-01	9.426E-02	-0.148
		591.81		2.489E-01	6.607E-01	1.129E+00	1.382E-01	0.220

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		723.30		9.361E-03	2.148E-01	3.086E-01	3.065E-02	0.030
		756.87		-2.860E-01	8.317E-01	1.298E+00	1.620E-01	-0.220
		873.19		1.143E-01	2.834E-01	4.748E-01	6.317E-02	0.241
		996.32		8.749E-01	4.513E-01	7.148E-01	1.309E-01	1.224
		1004.76		3.111E-01	2.346E-01	3.819E-01	4.741E-02	0.814
		1274.45	*	-5.571E-02	1.060E-01	1.650E-01	1.897E-02	-0.338
EU-155		48.70		4.741E+00	7.065E+00	1.111E+01	9.832E-01	0.427
		60.01		1.690E+01	1.340E+01	2.094E+01	1.580E+00	0.807
		86.54		-5.043E-01	2.466E-01	3.520E-01	3.503E-02	-1.433
		105.31	*	-4.606E-02	1.778E-01	2.937E-01	2.575E-02	-0.157
TB-160		86.79		-1.903E+00	6.731E-01	9.297E-01	9.208E-02	-2.047
		197.04		-1.317E+00	7.176E-01	1.048E+00	1.144E-01	-1.256
		215.65		-2.475E-01	9.460E-01	1.413E+00	1.599E-01	-0.175
		298.57		4.146E-02	1.363E-01	2.035E-01	2.481E-02	0.204
		879.36	*	2.029E-02	1.490E-01	2.444E-01	2.469E-02	0.083
		962.29		4.135E-01	5.079E-01	7.715E-01	7.645E-02	0.536
		966.15		3.665E-01	2.250E-01	3.585E-01	3.544E-02	1.023
		1177.93		-3.785E-02	2.808E-01	4.594E-01	3.716E-02	-0.082
		1271.85		-1.699E-01	5.850E-01	9.337E-01	8.250E-02	-0.182
HO-166M		80.57		8.200E-02	6.151E-01	9.319E-01	8.624E-02	0.088
	+	184.41		2.473E+00	2.834E-01	1.769E-01	1.883E-02	13.977
		280.46		-1.618E-02	9.083E-02	1.514E-01	1.876E-02	-0.107
		410.95		-2.733E-03	2.514E-01	4.104E-01	4.124E-02	-0.007
		711.68	*	-3.813E-03	6.658E-02	1.097E-01	9.853E-03	-0.035
		752.31		1.096E-01	2.815E-01	4.746E-01	4.399E-02	0.231
		810.29		-1.272E-02	5.770E-02	9.278E-02	8.965E-03	-0.137
TM-171		51.35		-1.698E+01	7.937E+01	1.357E+02	1.165E+01	-0.125
		52.39		1.951E+01	4.085E+01	7.019E+01	5.920E+00	0.278
		59.40		1.700E+02	7.212E+01	1.136E+02	8.503E+00	1.496
		66.72	*	-1.474E+02	6.360E+01	9.118E+01	7.449E+00	-1.617
LU-176		88.36		9.979E-01	5.106E-01	7.140E-01	7.138E-02	1.398
		201.83		4.875E-02	4.016E-02	5.932E-02	6.537E-03	0.822
		306.84	*	2.224E-03	2.647E-02	4.430E-02	5.351E-03	0.050
		401.10		-1.361E+00	7.124E+00	1.154E+01	1.158E+00	-0.118
LU-177M		52.97		2.390E+00	4.172E+00	7.172E+00	5.987E-01	0.333
		54.07		-1.788E-01	2.169E+00	3.696E+00	3.024E-01	-0.048
		61.30		2.793E+01	4.699E+00	7.048E+00	5.429E-01	3.963
		121.62		2.238E-01	5.684E-01	9.431E-01	7.875E-02	0.237
		147.16		-2.137E-02	9.681E-01	1.406E+00	1.304E-01	-0.015
		171.86		1.391E-02	6.501E-01	1.049E+00	1.089E-01	0.013
		218.09		2.466E-01	1.031E+00	1.650E+00	1.875E-01	0.149
		268.79		1.683E+00	8.799E-01	1.532E+00	1.878E-01	1.098
		319.02		-1.133E-01	2.710E-01	4.423E-01	5.255E-02	-0.256
		367.43		5.054E-01	9.656E-01	1.626E+00	1.749E-01	0.311
		413.65	*	1.897E-01	1.819E-01	3.108E-01	3.124E-02	0.610
HF-181		56.28		-2.159E+00	2.336E+00	3.931E+00	3.092E-01	-0.549
		57.53		1.259E+00	1.304E+00	2.157E+00	1.661E-01	0.584
		65.20		4.993E-01	2.024E+00	3.110E+00	2.506E-01	0.161
		133.02		3.038E-02	1.031E-01	1.523E-01	1.322E-02	0.200

---- Non-Identified Nuclides ----

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		136.25		-3.715E-01	6.403E-01	1.032E+00	9.085E-02	-0.360
		345.85		3.151E-01	2.883E-01	3.383E-01	3.831E-02	0.932
		482.03	*	1.519E-02	4.598E-02	7.547E-02	7.558E-03	0.201
W-181		56.28		-8.538E-01	9.263E-01	1.559E+00	1.226E-01	-0.548
		57.53		4.986E-01	5.178E-01	8.562E-01	6.594E-02	0.582
		65.20	*	1.966E-01	7.971E-01	1.225E+00	9.867E-02	0.161
TA-182		67.75		-3.290E-01	2.472E-01	3.660E-01	3.017E-02	-0.899
		100.10		8.706E-01	3.278E-01	5.057E-01	4.508E-02	1.721
		152.43		3.677E-01	4.626E-01	7.639E-01	7.282E-02	0.481
		222.10		-7.286E-03	4.056E-01	6.426E-01	7.352E-02	-0.011
	+	1001.68		1.133E+02	1.286E+01	1.358E+01	1.312E+00	8.343
	+	1121.28		2.453E-01	1.169E-01	2.280E-01	1.968E-02	1.076
		1189.05		-1.327E-01	2.667E-01	4.225E-01	3.456E-02	-0.314
		1221.42	*	-9.551E-03	1.736E-01	2.854E-01	2.408E-02	-0.033
		1230.97		-1.882E-01	4.180E-01	6.646E-01	5.656E-02	-0.283
RE-183		57.98		8.820E-01	5.399E-01	8.487E-01	6.489E-02	1.039
		59.32		6.611E-01	2.930E-01	4.615E-01	3.458E-02	1.433
		67.20		-9.596E-01	4.446E-01	6.411E-01	5.260E-02	-1.497
	+	162.32	*	8.902E-01	2.454E-01	2.948E-01	2.965E-02	3.020
	+	208.81		2.437E+00	1.315E+00	1.891E+00	2.112E-01	1.289
		291.72		4.001E-01	1.091E+00	1.638E+00	2.011E-01	0.244
RE-184		57.98		3.274E+00	2.004E+00	3.150E+00	2.408E-01	1.039
		59.32		2.451E+00	1.087E+00	1.711E+00	1.282E-01	1.433
		67.20		-3.560E+00	1.650E+00	2.379E+00	1.951E-01	-1.497
		161.27		2.952E-01	5.772E-01	8.460E-01	8.460E-02	0.349
		216.55		1.235E-01	3.198E-01	5.141E-01	5.824E-02	0.240
		252.85	*	2.232E-02	2.923E-01	4.375E-01	5.253E-02	0.051
		318.01		-7.190E-02	4.650E-01	7.685E-01	9.145E-02	-0.094
		792.07		2.163E-01	1.183E+00	1.783E+00	1.701E-01	0.121
		903.28		3.945E-01	9.687E-01	1.534E+00	1.565E-01	0.257
		920.93		-9.740E-02	4.614E-01	7.119E-01	7.206E-02	-0.137
OS-185		59.72		1.782E+00	7.872E-01	1.239E+00	9.300E-02	1.438
		61.14		2.212E+00	4.801E-01	7.414E-01	5.697E-02	2.984
		69.30		9.314E-01	5.942E-01	1.018E+00	8.505E-02	0.915
		592.07		8.460E-01	2.662E+00	4.540E+00	4.255E-01	0.186
		646.12	*	1.474E-02	4.769E-02	7.092E-02	6.247E-03	0.208
		717.42		-1.744E+00	1.004E+00	1.462E+00	1.319E-01	-1.193
		874.81		-2.127E-02	5.647E-01	9.145E-01	9.216E-02	-0.023
		880.27		7.300E-01	8.323E-01	1.430E+00	1.445E-01	0.511
RE-188		155.03	*	-1.634E-01	2.359E-01	3.755E-01	3.629E-02	-0.435
		477.96		4.845E-01	3.613E+00	5.870E+00	5.885E-01	0.083
		633.10		6.654E-02	2.700E+00	4.512E+00	4.042E-01	0.015
W-188	+	63.58		6.957E+03	6.138E+02	3.819E+02	3.027E+01	18.216
		227.08		1.652E+01	1.543E+01	2.515E+01	2.903E+00	0.657
		290.67	*	5.010E-01	8.647E+00	1.279E+01	1.572E+00	0.039
IR-192	+	295.96		5.615E-01	2.135E-01	2.302E-01	2.825E-02	2.439
		308.46		-2.583E-02	1.034E-01	1.706E-01	2.062E-02	-0.151
		316.51	*	-2.464E-02	3.571E-02	5.749E-02	6.864E-03	-0.429
		468.07		1.366E-02	7.213E-02	1.178E-01	1.246E-02	0.116

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		604.41		3.456E-01	5.120E-01	7.816E-01	1.051E-01	0.442
		612.46		8.112E-01	8.001E-01	1.247E+00	1.296E-01	0.650
AU-195		65.12		2.520E-01	3.733E-01	5.774E-01	4.649E-02	0.436
		66.83		-4.625E-01	2.092E-01	3.011E-01	2.462E-02	-1.536
		75.70		4.873E-01	3.697E-01	6.292E-01	5.554E-02	0.774
	+	98.88	*	7.157E+00	8.902E-01	9.170E-01	8.243E-02	7.805
	+	129.76		6.877E+00	5.209E+00	7.175E+00	6.147E-01	0.958
TL-200		367.94	*	1.507E-04	5.209E+00	Half-Life too short		
		579.30		-5.641E-04	5.209E+00	Half-Life too short		
		828.27		1.637E-03	5.209E+00	Half-Life too short		
		1205.75		-5.116E-04	5.209E+00	Half-Life too short		
TL-201		68.90		9.757E+00	7.270E+00	1.246E+01	1.037E+00	0.783
		70.82		-1.124E+00	4.174E+00	7.039E+00	5.954E-01	-0.160
		80.30		-2.299E+00	8.655E+00	1.303E+01	1.202E+00	-0.177
		135.34		2.337E+01	3.012E+01	4.500E+01	3.945E+00	0.519
		167.43	*	1.046E+01	7.982E+00	1.192E+01	1.226E+00	0.878
TL-202		68.90		1.083E+00	8.072E-01	1.383E+00	1.151E-01	0.783
		70.82		-1.244E-01	4.623E-01	7.795E-01	6.593E-02	-0.160
		80.30		-2.547E-01	9.587E-01	1.443E+00	1.331E-01	-0.177
		439.56	*	1.715E-03	6.985E-02	1.136E-01	1.145E-02	0.015
HG-203		70.83		-5.506E-01	2.110E+00	3.557E+00	4.803E-01	-0.155
		72.87		3.721E-01	1.211E+00	2.053E+00	2.709E-01	0.181
	+	82.60		9.191E+00	3.709E+00	4.068E+00	5.810E-01	2.259
		279.20	*	-2.923E-02	4.327E-02	7.061E-02	8.878E-03	-0.414
BI-207		72.80		-1.768E-01	3.651E-01	6.130E-01	5.273E-02	-0.288
		74.97		1.507E-01	2.089E-01	3.549E-01	3.112E-02	0.425
	+	84.90		1.628E+00	6.336E-01	7.033E-01	6.818E-02	2.315
		569.67		2.486E-02	3.477E-02	5.985E-02	5.721E-03	0.415
		1063.62	*	2.468E-02	4.308E-02	7.546E-02	6.927E-03	0.327
		1770.23		2.512E-01	4.239E-01	6.893E-01	5.825E-02	0.364
TL-207		81.07		2.790E-01	4.884E-01	7.440E-01	6.921E-02	0.375
	+	83.78		1.074E+00	4.178E-01	4.860E-01	4.653E-02	2.210
	+	94.90		2.816E+00	8.246E-01	8.406E-01	7.806E-02	3.349
		122.32		2.235E+00	2.665E+00	4.451E+00	4.008E-01	0.502
	+	144.24		9.938E+00	1.855E+00	2.129E+00	2.152E-01	4.669
		154.21		-2.922E-01	5.524E-01	8.841E-01	9.194E-02	-0.331
		269.46		4.325E-01	2.077E-01	3.615E-01	4.480E-02	1.196
		323.87	*	-1.943E-01	7.071E-01	1.160E+00	2.256E-01	-0.167
	+	338.28		5.833E+00	2.378E+00	2.037E+00	2.949E-01	2.863
		445.03		-7.767E-01	2.415E+00	3.847E+00	5.064E-01	-0.202
PO-209		260.50		9.038E-01	1.160E+01	1.732E+01	2.101E+00	0.052
		262.80		2.135E+01	3.147E+01	4.823E+01	5.867E+00	0.443
		896.60	*	1.798E+00	7.408E+00	1.223E+01	1.249E+00	0.147
BI-210		46.50	*	-8.554E+00	1.077E+01	1.635E+01	1.567E+00	-0.523
PB-210		46.50	*	-8.554E+00	1.077E+01	1.635E+01	1.567E+00	-0.523
PO-210		46.50	*	-8.554E+00	1.076E+01	1.635E+01	1.427E+00	-0.523
PB-211		404.84	*	-1.308E-01	9.668E-01	1.564E+00	9.834E-01	-0.084
		427.08		6.291E-01	2.224E+00	3.617E+00	2.255E+00	0.174
		831.96		4.742E-01	1.295E+00	2.108E+00	1.325E+00	0.225

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-212		74.81		5.234E-01	7.226E-01	1.225E+00	1.569E-01	0.427
		77.11		-3.189E-02	4.040E-01	6.804E-01	6.085E-02	-0.047
		87.30		-2.445E+00	1.084E+00	1.354E+00	1.911E-01	-1.805
	+	238.63	*	6.688E-01	1.341E-01	1.687E-01	2.123E-02	3.965
		300.09		1.579E+00	9.287E-01	1.448E+00	1.957E-01	1.090
PO-212		74.81		5.234E-01	7.226E-01	1.225E+00	1.569E-01	0.427
		77.11		-3.189E-02	4.040E-01	6.804E-01	6.085E-02	-0.047
		87.30		-2.445E+00	1.084E+00	1.354E+00	1.911E-01	-1.805
		115.19		1.022E+01	6.396E+00	9.753E+00	8.201E-01	1.048
	+	238.63	*	6.688E-01	1.341E-01	1.687E-01	2.123E-02	3.965
		300.09		1.579E+00	9.287E-01	1.448E+00	1.957E-01	1.090
PB-214		74.81		9.018E-01	1.244E+00	2.111E+00	2.421E-01	0.427
		77.11		-5.467E-02	6.926E-01	1.166E+00	1.370E-01	-0.047
		87.30		-4.188E+00	1.838E+00	2.319E+00	2.922E-01	-1.805
		241.98		8.697E-01	4.428E-01	6.924E-01	9.058E-02	1.256
	+	295.21		7.449E-01	2.870E-01	3.120E-01	4.287E-02	2.388
	+	351.92	*	6.100E-01	1.582E-01	1.884E-01	2.382E-02	3.238
PO-214		74.81		9.018E-01	1.244E+00	2.111E+00	2.421E-01	0.427
		77.11		-5.467E-02	6.926E-01	1.166E+00	1.370E-01	-0.047
		87.30		-4.188E+00	1.838E+00	2.319E+00	2.922E-01	-1.805
		241.98		8.697E-01	4.428E-01	6.924E-01	9.058E-02	1.256
	+	295.21		7.449E-01	2.870E-01	3.120E-01	4.287E-02	2.388
	+	351.92	*	6.100E-01	1.582E-01	1.884E-01	2.382E-02	3.238
PO-215		81.07		2.790E-01	4.884E-01	7.440E-01	6.921E-02	0.375
	+	83.78		1.074E+00	4.178E-01	4.860E-01	4.653E-02	2.210
	+	94.90		2.816E+00	8.246E-01	8.406E-01	7.806E-02	3.349
		122.32		2.235E+00	2.665E+00	4.451E+00	4.008E-01	0.502
	+	144.24		9.938E+00	1.855E+00	2.129E+00	2.152E-01	4.669
		154.21		-2.922E-01	5.524E-01	8.841E-01	9.194E-02	-0.331
		269.46		4.325E-01	2.077E-01	3.615E-01	4.480E-02	1.196
		323.87	*	-1.943E-01	7.071E-01	1.160E+00	2.256E-01	-0.167
	+	338.28		5.833E+00	2.378E+00	2.037E+00	2.949E-01	2.863
		445.03		-7.767E-01	2.415E+00	3.847E+00	5.064E-01	-0.202
PO-216		74.81		5.234E-01	7.226E-01	1.225E+00	1.569E-01	0.427
		77.11		-3.189E-02	4.040E-01	6.804E-01	6.085E-02	-0.047
		87.30		-2.445E+00	1.084E+00	1.354E+00	1.911E-01	-1.805
	+	238.63	*	6.688E-01	1.341E-01	1.687E-01	2.123E-02	3.965
		300.09		1.579E+00	9.287E-01	1.448E+00	1.957E-01	1.090
PO-218		74.81		9.018E-01	1.244E+00	2.111E+00	2.421E-01	0.427
		77.11		-5.467E-02	6.926E-01	1.166E+00	1.370E-01	-0.047
		87.30		-4.188E+00	1.838E+00	2.319E+00	2.922E-01	-1.805
		241.98		8.697E-01	4.428E-01	6.924E-01	9.058E-02	1.256
	+	295.21		7.449E-01	2.870E-01	3.120E-01	4.287E-02	2.388
	+	351.92	*	6.100E-01	1.582E-01	1.884E-01	2.382E-02	3.238
RN-219		271.23		5.179E-02	2.640E-01	4.468E-01	6.046E-02	0.116
		401.81	*	-1.568E-01	4.414E-01	7.084E-01	1.125E-01	-0.221
RN-220		549.76	*	9.335E+00	2.954E+01	4.799E+01	4.655E+00	0.195
RA-223		81.07		2.790E-01	4.884E-01	7.440E-01	6.921E-02	0.375
	+	83.78		1.074E+00	4.178E-01	4.860E-01	4.653E-02	2.210

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	94.90		2.816E+00	8.246E-01	8.406E-01	7.806E-02	3.349
		122.32		2.235E+00	2.665E+00	4.451E+00	4.008E-01	0.502
	+	144.24		9.938E+00	1.855E+00	2.129E+00	2.152E-01	4.669
		154.21		-2.922E-01	5.524E-01	8.841E-01	9.194E-02	-0.331
		269.46		4.325E-01	2.077E-01	3.615E-01	4.480E-02	1.196
		323.87	*	-1.943E-01	7.071E-01	1.160E+00	2.256E-01	-0.167
	+	338.28		5.833E+00	2.378E+00	2.037E+00	2.949E-01	2.863
		445.03		-7.767E-01	2.415E+00	3.847E+00	5.064E-01	-0.202
RA-224		240.98	*	2.117E+00	8.638E-01	1.360E+00	1.605E-01	1.556
AC-227		79.80		-4.643E+00	3.928E+00	5.627E+00	1.223E+00	-0.825
		236.00		4.248E-01	2.822E-01	4.383E-01	6.392E-02	0.969
		256.20	*	1.127E+00	5.478E-01	8.314E-01	1.456E-01	1.356
		286.10		-9.843E-02	1.611E+00	2.694E+00	4.278E-01	-0.037
		299.80		2.646E+00	1.746E+00	2.654E+00	5.173E-01	0.997
		304.40		-1.223E+00	2.029E+00	3.281E+00	6.662E-01	-0.373
		334.20		-2.957E-02	2.567E+00	3.738E+00	7.811E-01	-0.008
TH-227		79.80		-4.643E+00	3.931E+00	5.627E+00	1.238E+00	-0.825
	+	94.00		2.252E+01	7.988E+00	1.248E+01	2.756E+00	1.805
		236.00		4.248E-01	2.814E-01	4.383E-01	5.969E-02	0.969
		256.20	*	1.127E+00	5.582E-01	8.314E-01	1.658E-01	1.356
		286.10		-9.843E-02	1.614E+00	2.694E+00	2.714E+00	-0.037
		299.80		2.646E+00	1.746E+00	2.654E+00	5.173E-01	0.997
		304.40		-1.223E+00	2.029E+00	3.281E+00	6.662E-01	-0.373
		334.20		-2.957E-02	2.567E+00	3.738E+00	7.811E-01	-0.008
TH-228		74.81		5.307E-01	7.310E-01	1.242E+00	1.096E-01	0.427
		77.11		-3.233E-02	4.096E-01	6.899E-01	6.170E-02	-0.047
		87.30		-2.479E+00	1.071E+00	1.373E+00	1.368E-01	-1.805
	+	238.63	*	6.781E-01	1.360E-01	1.710E-01	2.152E-02	3.965
		300.09		1.601E+00	1.326E+00	1.469E+00	8.797E-01	1.090
TH-229		85.43		-2.710E-01	4.493E-01	6.690E-01	6.524E-02	-0.405
		88.47		6.178E-01	2.949E-01	4.122E-01	4.114E-02	1.499
		100.00		1.285E+00	3.582E-01	5.501E-01	4.908E-02	2.336
		193.63	*	1.071E+00	6.464E-01	1.069E+00	1.159E-01	1.002
		210.97		1.479E-01	9.835E-01	1.396E+00	1.566E-01	0.106
PA-231		283.67	*	-1.233E+00	1.647E+00	2.660E+00	4.677E-01	-0.463
		301.29		4.336E-01	6.563E-01	1.043E+00	1.559E-01	0.416
TH-231		81.07		2.790E-01	4.884E-01	7.440E-01	6.921E-02	0.375
	+	83.78		1.074E+00	4.178E-01	4.860E-01	4.653E-02	2.210
	+	94.90		2.816E+00	8.246E-01	8.406E-01	7.806E-02	3.349
		122.32		2.235E+00	2.665E+00	4.451E+00	4.008E-01	0.502
	+	144.24		9.938E+00	1.855E+00	2.129E+00	2.152E-01	4.669
		154.21		-2.922E-01	5.524E-01	8.841E-01	9.194E-02	-0.331
		269.46		4.325E-01	2.077E-01	3.615E-01	4.480E-02	1.196
		323.87	*	-1.943E-01	7.071E-01	1.160E+00	2.256E-01	-0.167
	+	338.28		5.833E+00	2.378E+00	2.037E+00	2.949E-01	2.863
		445.03		-7.767E-01	2.415E+00	3.847E+00	5.064E-01	-0.202
PA-233		75.28		2.300E+00	6.066E+00	1.026E+01	1.585E+00	0.224
		86.59		-8.106E+00	4.504E+00	5.724E+00	1.560E+00	-1.416
		300.12		8.223E-01	4.882E-01	7.492E-01	1.287E-01	1.098

---- Non-Identified Nuclides ----

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		311.98	*	3.834E-02	6.981E-02	1.186E-01	1.444E-02	0.323
		340.50		6.865E-01	6.448E-01	1.076E+00	2.689E-01	0.638
		398.62		3.827E-01	2.250E+00	3.709E+00	1.006E+00	0.103
		415.76		-3.357E-01	1.739E+00	2.807E+00	6.223E-01	-0.120
PA-234	+	63.00		2.043E+02	3.189E+01	1.185E+01	1.789E+00	17.239
	+	94.67		2.009E+00	6.149E-01	6.419E-01	8.273E-02	3.129
	+	98.44		2.913E+00	1.646E+00	3.808E-01	2.127E-01	7.650
		99.86		5.023E+00	9.951E-01	1.488E+00	1.329E-01	3.375
	+	111.00		9.099E-01	4.175E-01	6.758E-01	8.106E-02	1.346
	+	131.20		2.590E-01	1.962E-01	2.657E-01	2.289E-02	0.975
		152.70		4.186E-01	4.522E-01	7.414E-01	1.300E-01	0.565
	+	186.00		8.903E+01	2.859E+01	6.632E+00	2.112E+00	13.423
		226.40		3.793E-01	4.937E-01	7.971E-01	1.216E-01	0.476
		227.20		5.555E-01	5.274E-01	8.592E-01	9.918E-02	0.646
		248.90		-2.353E-01	9.110E-01	1.525E+00	3.642E-01	-0.154
	+	293.70		3.576E+00	1.461E+00	1.446E+00	2.802E-01	2.472
		369.80		7.761E-01	9.143E-01	1.536E+00	3.484E-01	0.505
		568.70		8.621E-01	1.133E+00	1.954E+00	1.869E-01	0.441
		569.50		1.848E-01	3.094E-01	5.301E-01	5.067E-02	0.349
		574.00		-1.742E-01	1.651E+00	2.761E+00	2.630E-01	-0.063
		699.00		4.906E-01	7.760E-01	1.320E+00	2.535E-01	0.372
		706.10		4.409E-01	1.110E+00	1.850E+00	8.263E-01	0.238
		733.00		6.372E-03	5.127E-01	7.336E-01	1.643E-01	0.009
	+	742.81		9.477E+00	7.014E+00	3.801E+00	2.558E+00	2.493
		796.30		7.812E-01	9.914E-01	1.664E+00	4.555E-01	0.469
		805.60		2.638E-01	1.031E+00	1.711E+00	5.295E-01	0.154
		819.60		1.051E-01	1.143E+00	1.879E+00	7.195E-01	0.056
		826.30		-1.015E-01	8.892E-01	1.438E+00	6.469E-01	-0.071
		831.60		1.423E-01	6.557E-01	1.083E+00	3.272E-01	0.131
		876.40		-7.729E-01	1.163E+00	1.278E+00	1.316E+00	-0.605
		880.51		3.849E-01	3.038E-01	5.329E-01	5.389E-02	0.722
		883.24		3.078E-01	3.761E-01	5.438E-01	3.667E-01	0.566
		899.00		-3.492E-02	7.976E-01	1.288E+00	5.673E-01	-0.027
		925.00		2.168E+00	1.230E+00	2.215E+00	2.238E-01	0.979
		926.50		1.820E-01	1.876E-01	3.157E-01	8.150E-02	0.577
	+	946.00	*	4.899E-01	3.598E-01	5.684E-01	1.105E-01	0.862
		949.00		4.505E-01	4.310E-01	6.784E-01	6.772E-02	0.664
		980.50		-2.024E-01	6.441E-01	1.003E+00	9.834E-02	-0.202
		1394.10		4.616E-01	1.092E+00	1.802E+00	1.175E+00	0.256
NP-236	+	94.67		1.523E+00	4.461E-01	4.875E-01	4.536E-02	3.125
	+	98.44		2.202E+00	2.739E-01	2.879E-01	2.596E-02	7.650
	+	111.00		6.882E-01	3.104E-01	5.112E-01	4.339E-02	1.346
		160.31	*	-9.243E-02	1.264E-01	1.777E-01	1.768E-02	-0.520
NP-237		86.50	*	-1.241E+00	6.539E-01	8.587E-01	1.964E-01	-1.445
	+	95.87		1.213E+01	4.522E+00	3.075E+00	7.641E-01	3.944
NP-239	+	99.55		5.034E+00	6.261E-01	5.605E-01	5.015E-02	8.982
		117.00	*	-7.449E-02	3.248E-01	4.767E-01	3.997E-02	-0.156
	+	209.75		1.946E+00	1.050E+00	1.520E+00	1.701E-01	1.280
		228.18		2.906E-01	2.739E-01	4.462E-01	5.159E-02	0.651

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		8.974E-03	1.959E-01	3.294E-01	4.078E-02	0.027
		334.30		-2.849E-02	1.454E+00	2.116E+00	2.452E-01	-0.013
AM-241		59.54	*	9.287E-01	4.208E-01	6.605E-01	5.411E-02	1.406
AM-243		74.67	*	1.049E-01	1.174E-01	1.997E-01	1.746E-02	0.525
		86.72		-4.420E+01	2.249E+01	3.219E+01	3.186E+00	-1.373
		117.66		-9.067E+00	5.906E+00	9.355E+00	7.838E-01	-0.969
	+	142.18		2.576E+02	4.677E+01	5.062E+01	4.579E+00	5.089
CM-243	+	99.55		5.180E+00	6.443E-01	5.767E-01	5.160E-02	8.982
		103.76	*	7.568E-02	1.537E-01	2.574E-01	2.246E-02	0.294
		117.00		-7.663E-02	3.342E-01	4.904E-01	4.112E-02	-0.156
	+	209.75		1.918E+00	1.035E+00	1.499E+00	1.677E-01	1.280
		228.18		2.936E-01	2.767E-01	4.509E-01	5.213E-02	0.651
		277.60		9.047E-03	1.975E-01	3.321E-01	4.111E-02	0.027
AM-246		798.80		-1.632E-01	1.539E-01	2.332E-01	2.236E-02	-0.700
		1036.00		-1.043E-01	2.344E-01	3.757E-01	3.534E-02	-0.278
		1062.04		-2.981E-02	1.871E-01	3.083E-01	2.834E-02	-0.097
		1078.86	*	6.321E-02	1.075E-01	1.892E-01	1.711E-02	0.334
CM-247		278.00		4.639E-01	8.020E-01	1.370E+00	1.697E-01	0.339
		287.40		4.683E-01	1.301E+00	2.206E+00	2.719E-01	0.212
		402.60	*	-1.546E-02	3.931E-02	6.300E-02	6.320E-03	-0.245
CF-249		252.85		8.418E-02	1.102E+00	1.650E+00	1.981E-01	0.051
		333.44		-2.040E-02	1.924E-01	2.785E-01	3.231E-02	-0.073
		387.95	*	9.645E-03	4.427E-02	7.331E-02	7.425E-03	0.132
CF-251		176.60	*	-3.593E-02	1.716E-01	2.747E-01	2.878E-02	-0.131
		227.00		5.078E-01	4.691E-01	7.647E-01	8.823E-02	0.664
		285.00		-1.183E+00	1.863E+00	3.037E+00	3.751E-01	-0.390

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395007      *
* Acquisition date :  2-FEB-2010 09:13:37 Detector SN#    :                 *
* Detector ID        : GAM02               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:06.26      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395007           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.8103E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.779E+01	2.045E+00	3.990E-01	0.000E+00
NB-95	8.765E-01	1.372E-01	7.869E-02	0.000E+00
LU-177	2.416E+00	1.277E+00	2.000E+00	0.000E+00
TL-208	2.428E-01	8.490E-02	6.488E-02	0.000E+00
BI-211	1.754E+00	4.366E-01	3.735E-01	0.000E+00
BI-212	5.300E-01	4.609E-01	5.439E-01	0.000E+00
BI-214	5.255E-01	1.782E-01	1.254E-01	0.000E+00
RA-226	5.255E-01	1.782E-01	1.254E-01	0.000E+00
AC-228	6.530E-01	2.182E-01	1.924E-01	0.000E+00
RA-228	6.530E-01	2.182E-01	1.924E-01	0.000E+00
TH-230	5.255E-01	1.782E-01	1.254E-01	0.000E+00
U-231	1.121E+01	3.218E+00	2.615E+00	0.000E+00
TH-232	6.530E-01	2.182E-01	1.924E-01	0.000E+00
PA-234M	2.592E+02	3.150E+01	7.417E+00	0.000E+00
TH-234	1.752E+02	3.106E+01	5.225E+00	0.000E+00
U-234	5.255E-01	1.782E-01	1.254E-01	0.000E+00
U-235	3.066E+00	7.123E-01	5.285E-01	0.000E+00
U-238	1.752E+02	3.106E+01	5.225E+00	0.000E+00
ANH-511	8.474E-03	6.002E-02	5.773E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.426E-02	3.683E-01	6.461E-01	0.000E+00	NOT IDENT.
NA-22	-1.993E-02	3.714E-02	6.034E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.511E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.178E-02	1.975E-02	3.776E-02	0.000E+00	NOT IDENT.
TI-44	-1.338E-02	6.974E-02	1.349E-01	0.000E+00	NOT IDENT.
SC-46	1.841E-03	3.850E-02	6.627E-02	0.000E+00	FAIL ABUN
V-48	-1.828E-02	5.749E-02	9.431E-02	0.000E+00	NOT IDENT.
CR-51	7.034E-02	3.732E-01	6.863E-01	0.000E+00	NOT IDENT.

MN-52	1.379E-01	1.748E-01	3.229E-01	0.000E+00	NOT IDENT.
MN-54	-2.394E-02	3.690E-02	6.079E-02	0.000E+00	NOT IDENT.
CO-56	-5.849E-02	3.849E-02	5.784E-02	0.000E+00	NOT IDENT.
CO-57	3.963E-02	3.759E-02	7.144E-02	0.000E+00	NOT IDENT.
CO-58	-1.507E-02	3.766E-02	6.340E-02	0.000E+00	NOT IDENT.
FE-59	-3.688E-02	6.950E-02	1.153E-01	0.000E+00	FAIL ABUN
CO-60	1.484E-02	3.197E-02	5.728E-02	0.000E+00	NOT IDENT.
ZN-65	-2.986E-02	7.826E-02	1.115E-01	0.000E+00	NOT IDENT.
GE-68	5.843E-02	9.650E-01	1.700E+00	0.000E+00	NOT IDENT.
AS-73	-2.682E-01	2.075E+00	4.117E+00	0.000E+00	NOT IDENT.
AS-74	3.081E-02	9.259E-02	1.693E-01	0.000E+00	NOT IDENT.
SE-75	-1.145E-02	4.595E-02	8.475E-02	0.000E+00	NOT IDENT.
BR-77	-2.215E+00	7.983E+00	1.357E+01	0.000E+00	FAIL ABUN
SR-82	-4.590E-01	4.212E-01	6.832E-01	0.000E+00	NOT IDENT.
RB-83	-3.923E-02	7.589E-02	1.272E-01	0.000E+00	NOT IDENT.
RB-84	1.257E-01	7.381E-02	1.393E-01	0.000E+00	NOT IDENT.
KR-85	3.998E+00	8.802E+00	1.371E+01	0.000E+00	NOT IDENT.
SR-85	2.023E-02	4.455E-02	6.941E-02	0.000E+00	NOT IDENT.
RB-86	-4.470E-02	5.938E-01	1.034E+00	0.000E+00	NOT IDENT.
Y-88	-6.116E-02	3.343E-02	3.784E-02	0.000E+00	NOT IDENT.
ZR-88	-1.279E-02	3.121E-02	5.457E-02	0.000E+00	NOT IDENT.
Y-91	-4.275E+00	1.403E+01	2.355E+01	0.000E+00	NOT IDENT.
NB-94	-2.608E-02	3.662E-02	6.199E-02	0.000E+00	NOT IDENT.
NB-95M	-2.008E-03	1.440E-01	2.395E-01	0.000E+00	NOT IDENT.
ZR-95	2.243E-02	6.991E-02	1.248E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.256E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.487E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.733E+01	1.245E+01	2.037E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.985E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.150E-02	4.173E-02	6.767E-02	0.000E+00	NOT IDENT.
RH-102	3.939E-02	3.439E-02	6.303E-02	0.000E+00	FAIL ABUN
RU-103	-1.606E-02	4.258E-02	7.231E-02	0.000E+00	NOT IDENT.
RH-106	9.591E-02	3.218E-01	5.853E-01	0.000E+00	FAIL ABUN
RU-106	9.591E-02	3.216E-01	5.853E-01	0.000E+00	FAIL ABUN
AG-108M	-1.471E-02	3.512E-02	6.063E-02	0.000E+00	NOT IDENT.
CD-109	5.056E-01	2.151E+00	3.408E+00	0.000E+00	NOT IDENT.
AG-110M	-2.850E-02	3.891E-02	6.641E-02	0.000E+00	NOT IDENT.
IN-111	-5.759E-01	8.568E-01	1.569E+00	0.000E+00	NOT IDENT.
IN-113M	-9.558E-03	4.592E-02	8.119E-02	0.000E+00	NOT IDENT.
SN-113	-9.558E-03	4.592E-02	8.119E-02	0.000E+00	NOT IDENT.
IN-114M	3.298E-02	2.369E-01	3.796E-01	0.000E+00	NOT IDENT.
CD-115	5.621E+00	8.309E+00	1.485E+01	0.000E+00	NOT IDENT.
SN-117M	6.822E-02	7.750E-02	1.292E-01	0.000E+00	NOT IDENT.
SB-122	-9.583E-01	1.633E+00	2.869E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.854E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	9.468E-03	4.334E-02	7.093E-02	0.000E+00	NOT IDENT.
I-124	9.193E-02	6.322E-01	9.994E-01	0.000E+00	NOT IDENT.
SB-124	-9.260E-03	5.187E-02	8.598E-02	0.000E+00	FAIL ABUN
SB-125	2.142E-02	9.585E-02	1.714E-01	0.000E+00	NOT IDENT.
TE-125M	0.000E+00	1.850E+01	3.186E+01	0.000E+00	NOT IDENT.
I-126	-4.259E-02	1.787E-01	3.133E-01	0.000E+00	NOT IDENT.
SB-126	2.294E-01	1.497E-01	2.646E-01	0.000E+00	NOT IDENT.
SN-126	-5.557E-01	2.254E-01	3.298E-01	0.000E+00	FAIL ABUN
SB-127	8.824E-01	1.157E+00	2.129E+00	0.000E+00	NOT IDENT.
XE-127	4.628E-02	6.467E-02	1.049E-01	0.000E+00	NOT IDENT.
I-131	-1.223E-02	1.060E-01	1.899E-01	0.000E+00	NOT IDENT.
TE-132	6.891E-01	6.375E-01	1.143E+00	0.000E+00	FAIL ABUN
BA-133	3.145E-02	4.883E-02	8.020E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.577E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.222E-02	4.930E-02	8.893E-02	0.000E+00	NOT IDENT.
CS-135	1.311E-01	1.660E-01	3.150E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.927E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.495E-02	8.238E-02	1.564E-01	0.000E+00	FAIL ABUN
BA-137M	4.439E-02	4.024E-02	7.516E-02	0.000E+00	NOT IDENT.
CS-137	4.693E-02	4.254E-02	7.945E-02	0.000E+00	NOT IDENT.
CE-139	-2.284E-02	4.421E-02	7.017E-02	0.000E+00	NOT IDENT.
BA-140	-4.894E-02	2.625E-01	4.463E-01	0.000E+00	FAIL ABUN
LA-140	-1.691E-03	6.029E-02	1.039E-01	0.000E+00	NOT IDENT.
CE-141	0.000E+00	9.746E-02	1.679E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.069E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	8.506E-02	3.181E-01	5.303E-01	0.000E+00	NOT IDENT.
PM-144	3.118E-02	3.571E-02	6.596E-02	0.000E+00	NOT IDENT.
PR-144	2.111E+00	2.418E+00	4.467E+00	0.000E+00	NOT IDENT.
PM-146	-9.845E-03	4.703E-02	8.169E-02	0.000E+00	NOT IDENT.
ND-147	-4.661E-01	6.084E-01	9.970E-01	0.000E+00	FAIL ABUN
PM-149	1.948E+00	6.425E+01	1.188E+02	0.000E+00	NOT IDENT.
EU-152	2.089E-02	1.149E-01	1.848E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	2.999E-01	3.562E-01	0.000E+00	FAIL ABUN

EU-154	-5.571E-02	1.039E-01	1.686E-01	0.000E+00	NOT IDENT.
EU-155	-4.606E-02	1.743E-01	3.281E-01	0.000E+00	NOT IDENT.
TB-160	2.029E-02	1.461E-01	2.533E-01	0.000E+00	NOT IDENT.
HO-166M	-3.813E-03	6.525E-02	1.146E-01	0.000E+00	FAIL ABUN
TM-171	-1.474E+02	6.233E+01	1.034E+02	0.000E+00	NOT IDENT.
LU-176	2.224E-03	2.594E-02	4.772E-02	0.000E+00	NOT IDENT.
LU-177M	1.897E-01	1.783E-01	3.312E-01	0.000E+00	NOT IDENT.
HF-181	1.519E-02	4.506E-02	8.000E-02	0.000E+00	NOT IDENT.
W-181	1.966E-01	7.811E-01	1.389E+00	0.000E+00	NOT IDENT.
TA-182	-9.551E-03	1.702E-01	2.922E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	2.404E-01	3.247E-01	0.000E+00	FAIL ABUN
RE-184	2.232E-02	2.865E-01	4.745E-01	0.000E+00	NOT IDENT.
OS-185	1.474E-02	4.674E-02	7.437E-02	0.000E+00	NOT IDENT.
RE-188	-1.634E-01	2.311E-01	4.141E-01	0.000E+00	NOT IDENT.
W-188	5.010E-01	8.474E+00	1.380E+01	0.000E+00	FAIL ABUN
IR-192	-2.464E-02	3.500E-02	6.186E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	8.724E-01	1.026E+00	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.193E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.046E+01	7.823E+00	1.311E+01	0.000E+00	NOT IDENT.
TL-202	1.715E-03	6.846E-02	1.209E-01	0.000E+00	NOT IDENT.
HG-203	-2.923E-02	4.240E-02	7.632E-02	0.000E+00	FAIL ABUN
BI-207	2.468E-02	4.222E-02	7.765E-02	0.000E+00	FAIL ABUN
TL-207	-1.943E-01	6.929E-01	1.247E+00	0.000E+00	FAIL ABUN
PO-209	1.798E+00	7.259E+00	1.267E+01	0.000E+00	NOT IDENT.
BI-210	-8.554E+00	1.055E+01	1.875E+01	0.000E+00	NOT IDENT.
PB-210	-8.554E+00	1.055E+01	1.875E+01	0.000E+00	NOT IDENT.
PO-210	-8.554E+00	1.055E+01	1.875E+01	0.000E+00	NOT IDENT.
PB-211	-1.308E-01	9.474E-01	1.668E+00	0.000E+00	NOT IDENT.
PB-212	0.000E+00	1.315E-01	1.833E-01	0.000E+00	FAIL ABUN
PO-212	0.000E+00	1.315E-01	1.833E-01	0.000E+00	FAIL ABUN
PB-214	0.000E+00	1.550E-01	2.020E-01	0.000E+00	FAIL ABUN
PO-214	0.000E+00	1.550E-01	2.020E-01	0.000E+00	FAIL ABUN
PO-215	-1.943E-01	6.929E-01	1.247E+00	0.000E+00	FAIL ABUN
PO-216	0.000E+00	1.315E-01	1.833E-01	0.000E+00	FAIL ABUN
PO-218	0.000E+00	1.550E-01	2.020E-01	0.000E+00	FAIL ABUN
RN-219	-1.568E-01	4.326E-01	7.559E-01	0.000E+00	NOT IDENT.
RN-220	9.335E+00	2.895E+01	5.063E+01	0.000E+00	NOT IDENT.
RA-223	-1.943E-01	6.929E-01	1.247E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	8.465E-01	1.478E+00	0.000E+00	NOT IDENT.
AC-227	0.000E+00	5.368E-01	9.014E-01	0.000E+00	NOT IDENT.
TH-227	0.000E+00	5.470E-01	9.014E-01	0.000E+00	FAIL ABUN
TH-228	0.000E+00	1.333E-01	1.859E-01	0.000E+00	FAIL ABUN
TH-229	1.071E+00	6.335E-01	1.170E+00	0.000E+00	NOT IDENT.
PA-231	-1.233E+00	1.614E+00	2.874E+00	0.000E+00	NOT IDENT.
TH-231	-1.943E-01	6.929E-01	1.247E+00	0.000E+00	FAIL ABUN
PA-233	3.834E-02	6.841E-02	1.277E-01	0.000E+00	NOT IDENT.
PA-234	4.899E-01	3.526E-01	5.876E-01	0.000E+00	FAIL ABUN
NP-236	-9.243E-02	1.239E-01	1.958E-01	0.000E+00	FAIL ABUN
NP-237	-1.241E+00	6.408E-01	9.654E-01	0.000E+00	FAIL ABUN
NP-239	-7.449E-02	3.183E-01	5.307E-01	0.000E+00	FAIL ABUN
AM-241	0.000E+00	4.123E-01	7.516E-01	0.000E+00	NOT IDENT.
AM-243	1.049E-01	1.151E-01	2.256E-01	0.000E+00	FAIL ABUN
CM-243	7.568E-02	1.506E-01	2.876E-01	0.000E+00	FAIL ABUN
AM-246	6.321E-02	1.053E-01	1.945E-01	0.000E+00	NOT IDENT.
CM-247	-1.546E-02	3.853E-02	6.722E-02	0.000E+00	NOT IDENT.
CF-249	9.645E-03	4.338E-02	7.833E-02	0.000E+00	NOT IDENT.
CF-251	-3.593E-02	1.682E-01	3.016E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:14:20.61

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395007.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:13:37.
Sample ID         : G245395007           Sample quantity  : 1.81030E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:06.26  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944966                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	941	10.67*	1.028E+00	1.779E+01	1.779E+01	11.73
NB-95	765.79	664	99.81*	1.829E+00	7.538E-01	8.765E-01	15.97
LU-177	112.95	1310	6.40	6.197E+00	6.847E+00	2.886E+01	14.51
	208.36	149	11.00*	4.885E+00	5.732E-01	2.416E+00	53.95
TL-208	277.35	------	6.80	3.991E+00	------ Line Not Found		------
	510.84	10	21.60	2.539E+00	3.923E-02	3.923E-02	722.74
	583.14	226	84.20*	2.291E+00	2.428E-01	2.428E-01	35.68
	860.37	------	12.46	1.652E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.848E+00	------ Line Not Found		------
	351.07	367	12.94*	3.351E+00	1.754E+00	1.754E+00	25.40
BI-212	727.18	58	11.80*	1.913E+00	5.300E-01	5.300E-01	88.73
	785.46	136	1.97	1.789E+00	8.012E+00	8.012E+00	40.61
	1620.62	------	2.75	9.503E-01	------ Line Not Found		------
BI-214	609.31	260	46.30*	2.214E+00	5.255E-01	5.255E-01	34.59
	1120.29	49	15.10	1.298E+00	5.226E-01	5.226E-01	48.11
	1764.49	56	15.80	9.005E-01	8.140E-01	8.140E-01	45.27
RA-226	609.31	260	46.30*	2.214E+00	5.255E-01	5.255E-01	34.59
	1120.29	49	15.10	1.298E+00	5.226E-01	5.226E-01	48.11
	1764.49	56	15.80	9.005E-01	8.140E-01	8.140E-01	45.27
AC-228	338.32	265	11.40	3.444E+00	1.397E+00	1.397E+00	56.68
	911.07	137	27.70*	1.569E+00	6.530E-01	6.530E-01	34.10
	969.11	91	16.60	1.484E+00	7.644E-01	7.644E-01	43.73
RA-228	338.32	265	11.40	3.444E+00	1.397E+00	1.397E+00	56.68
	911.07	137	27.70*	1.569E+00	6.530E-01	6.530E-01	34.10
	969.11	91	16.60	1.484E+00	7.644E-01	7.644E-01	43.73
TH-230	609.31	260	46.30*	2.214E+00	5.255E-01	5.255E-01	34.59
	1120.29	49	15.10	1.298E+00	5.226E-01	5.226E-01	48.11
	1764.49	56	15.80	9.005E-01	8.140E-01	8.140E-01	45.27
U-231	84.21	634	7.00	4.959E+00	3.789E+00	3.773E+01	38.91
	92.29	25264	17.30	5.576E+00	5.430E+01	5.407E+02	9.63
	95.87	865	28.00*	5.688E+00	1.126E+00	1.121E+01	29.29
	108.00	------	13.10	6.133E+00	------ Line Not Found		------

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-232	338.32	265	11.40	3.444E+00	1.397E+00	1.397E+00	39.80
	911.07	137	27.70*	1.569E+00	6.530E-01	6.530E-01	34.10
	969.11	91	16.60	1.484E+00	7.644E-01	7.644E-01	43.73
PA-234M	766.42	664	0.32	1.829E+00	2.351E+02	2.351E+02	52.49
	1001.03	1512	0.84*	1.440E+00	2.592E+02	2.592E+02	12.40
TH-234	63.29	8148	3.80*	2.537E+00	1.752E+02	1.752E+02	18.09
	92.38	25264	5.41	5.576E+00	1.737E+02	1.737E+02	18.59
U-234	609.31	260	46.30*	2.214E+00	5.255E-01	5.255E-01	34.59
	1120.29	49	15.10	1.298E+00	5.226E-01	5.226E-01	48.11
	1764.49	56	15.80	9.005E-01	8.140E-01	8.140E-01	45.27
U-235	89.95	------	2.70	5.432E+00	------ Line Not Found		------
	93.35	25264	4.50	5.576E+00	2.088E+02	2.088E+02	28.35
	105.00	------	2.10	6.070E+00	------ Line Not Found		------
	143.76	937	10.50*	6.032E+00	3.066E+00	3.066E+00	23.70
	163.35	499	4.70	5.701E+00	3.861E+00	3.861E+00	32.39
	185.71	4545	54.00	5.292E+00	3.297E+00	3.297E+00	11.46
	205.31	428	4.70	4.953E+00	3.812E+00	3.812E+00	28.83
U-238	63.29	8148	3.80*	2.537E+00	1.752E+02	1.752E+02	18.09
	92.38	25264	5.41	5.576E+00	1.737E+02	1.737E+02	9.63
ANH-511	511.00	10	100.00*	2.539E+00	8.474E-03	8.474E-03	722.69

Flag: "*" = Keyline

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

Total number of lines in spectrum 33
Number of unidentified lines 2
Number of lines tentatively identified by NID 31 93.94%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.779E+01	1.779E+01	0.209E+01	11.73	
NB-95	64.02D	1.16	7.538E-01	8.765E-01	1.400E-01	15.97	
LU-177	6.71D	4.21	5.732E-01	2.416E+00	1.303E+00	53.95	
TL-208	1.41E+10Y	1.00	2.428E-01	2.428E-01	0.866E-01	35.68	
BI-211	7.04E+08Y	1.00	1.754E+00	1.754E+00	0.445E+00	25.40	
BI-212	1.41E+10Y	1.00	5.300E-01	5.300E-01	4.703E-01	88.73	
BI-214	1600.00Y	1.00	5.255E-01	5.255E-01	1.818E-01	34.59	
RA-226	1600.00Y	1.00	5.255E-01	5.255E-01	1.818E-01	34.59	
AC-228	1.41E+10Y	1.00	6.530E-01	6.530E-01	2.227E-01	34.10	
RA-228	1.41E+10Y	1.00	6.530E-01	6.530E-01	2.227E-01	34.10	
TH-230	4.47E+09Y	1.00	5.255E-01	5.255E-01	1.818E-01	34.59	
U-231	4.20D	9.96	1.126E+00	1.121E+01	0.328E+01	29.29	
TH-232	1.41E+10Y	1.00	6.530E-01	6.530E-01	2.227E-01	34.10	
PA-234M	4.47E+09Y	1.00	2.592E+02	2.592E+02	0.321E+02	12.40	
TH-234	4.47E+09Y	1.00	1.752E+02	1.752E+02	0.317E+02	18.09	
U-234	4.47E+09Y	1.00	5.255E-01	5.255E-01	1.818E-01	34.59	
U-235	7.04E+08Y	1.00	3.066E+00	3.066E+00	0.727E+00	23.70	
U-238	4.47E+09Y	1.00	1.752E+02	1.752E+02	0.317E+02	18.09	
ANH-511	1.00E+09Y	1.00	8.474E-03	8.474E-03	61.24E-03	722.69	
	Total Activity :		6.395E+02	6.516E+02			

Grand Total Activity : 6.395E+02 6.516E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.28	2091	1908	1.08	195.80	193	8	2.90E-01	8.6	5.86E+00	T
1	110.83	320	1836	0.98	220.91	218	11	4.44E-02	44.3	6.18E+00	T
0	131.12	158	1213	0.83	261.50	259	7	2.19E-02	75.3	6.19E+00	T
0	238.36	641	599	0.96	476.09	472	8	8.91E-02	15.6	4.46E+00	T
0	257.86	327	537	1.05	515.12	510	11	4.54E-02	29.6	4.21E+00	
0	294.99	263	493	1.41	589.42	584	12	3.65E-02	36.0	3.81E+00	T
0	648.06	25	128	1.20	1295.97	1291	10	3.44E-03	****	2.11E+00	
0	742.36	206	177	1.31	1484.68	1477	14	2.86E-02	30.8	1.88E+00	T
0	945.98	43	57	0.92	1892.19	1888	9	5.97E-03	70.8	1.52E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:14:26.50

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395007.CNF;1  *
* Acquisition date : 2-FEB-2010 09:13:37.  Detector SN#    :                *
* Detector ID      : GAM02                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:06.26         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 19-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245395007            Analyst initials: MXR1           *
* Batch Number     : 944966                Sample Quantity : 1.81030E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07.3MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.779E+01	2.087E+00	3.926E-01	3.732E-02	45.304
NB-95	8.765E-01	1.400E-01	7.551E-02	7.070E-03	11.607
LU-177	2.416E+00	1.303E+00	1.832E+00	2.044E-01	1.319
TL-208	2.428E-01	8.663E-02	6.163E-02	6.174E-03	3.939
BI-211	1.754E+00	4.455E-01	3.483E-01	4.018E-02	5.035
BI-212	5.300E-01	4.703E-01	5.210E-01	5.427E-02	1.017
BI-214	5.255E-01	1.818E-01	1.193E-01	1.261E-02	4.404
RA-226	5.255E-01	1.818E-01	1.193E-01	1.261E-02	4.404
AC-228	6.530E-01	2.227E-01	1.859E-01	2.318E-02	3.513
RA-228	6.530E-01	2.227E-01	1.859E-01	2.318E-02	3.513
TH-230	5.255E-01	1.818E-01	1.193E-01	1.261E-02	4.404
U-231	1.121E+01	3.284E+00	2.333E+00	2.148E-01	4.806
TH-232	6.530E-01	2.227E-01	1.859E-01	2.318E-02	3.513
PA-234M	2.592E+02	3.214E+01	7.190E+00	7.824E-01	36.044
TH-234	1.752E+02	3.169E+01	4.601E+00	8.123E-01	38.085
U-234	5.255E-01	1.818E-01	1.193E-01	1.261E-02	4.404
U-235	3.066E+00	7.269E-01	4.780E-01	8.488E-02	6.416
U-238	1.752E+02	3.169E+01	4.601E+00	8.123E-01	38.085

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	8.474E-03	6.124E-02	5.458E-02	5.410E-03	0.155

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.426E-02		3.758E-01	6.093E-01	6.462E-02	0.056
NA-22	-1.993E-02		3.790E-02	5.905E-02	5.235E-03	-0.338
NA-24	4.288E-03		7.712E-02	Half-Life too short		
AL-26	1.178E-02		2.016E-02	3.747E-02	3.102E-03	0.314
TI-44	-1.338E-02		7.117E-02	1.196E-01	1.083E-02	-0.112
SC-46	1.841E-03		3.929E-02	6.396E-02	6.503E-03	0.029
V-48	-1.828E-02		5.866E-02	9.137E-02	8.936E-03	-0.200
CR-51	7.034E-02		3.808E-01	6.380E-01	7.784E-02	0.110
MN-52	1.379E-01		1.784E-01	3.175E-01	2.954E-02	0.434
MN-54	-2.394E-02		3.766E-02	5.853E-02	5.750E-03	-0.409
CO-56	-5.849E-02		3.928E-02	5.572E-02	5.516E-03	-1.050
CO-57	3.963E-02		3.836E-02	6.426E-02	5.372E-03	0.617
CO-58	-1.507E-02		3.843E-02	6.098E-02	5.905E-03	-0.247
FE-59	-3.688E-02		7.091E-02	1.122E-01	1.070E-02	-0.329
CO-60	1.484E-02		3.262E-02	5.615E-02	5.232E-03	0.264
ZN-65	-2.986E-02		7.985E-02	1.085E-01	9.443E-03	-0.275
GE-68	5.843E-02		9.847E-01	1.653E+00	1.497E-01	0.035
AS-73	-2.682E-01		2.117E+00	3.606E+00	2.985E-01	-0.074
AS-74	3.081E-02		9.448E-02	1.610E-01	1.503E-02	0.191
SE-75	-1.145E-02		4.688E-02	7.826E-02	9.566E-03	-0.146
BR-77	-2.215E+00		8.146E+00	1.284E+01	1.267E+00	-0.172
SR-82	-4.590E-01		4.298E-01	6.560E-01	6.190E-02	-0.700
RB-83	-3.923E-02		7.744E-02	1.203E-01	1.187E-02	-0.326
RB-84	1.257E-01		7.532E-02	1.344E-01	1.360E-02	0.935
KR-85	3.998E+00		8.982E+00	1.297E+01	1.284E+00	0.308
SR-85	2.023E-02		4.546E-02	6.563E-02	6.497E-03	0.308
RB-86	-4.470E-02		6.060E-01	1.005E+00	9.109E-02	-0.044
Y-88	-6.116E-02		3.411E-02	3.757E-02	3.065E-03	-1.628
ZR-88	-1.279E-02		3.185E-02	5.110E-02	5.113E-03	-0.250
Y-91	-4.275E+00		1.431E+01	2.300E+01	1.910E+00	-0.186
NB-94	-2.608E-02		3.736E-02	5.929E-02	5.287E-03	-0.440
NB-95M	-2.008E-03		1.470E-01	2.203E-01	2.787E-02	-0.009
ZR-95	2.243E-02		7.134E-02	1.197E-01	1.210E-02	0.187
NB-97	-1.959E-02		1.661E-02	Half-Life too short		
ZR-97	4.106E-01		3.310E-01	Half-Life too short		
MO-99	1.733E+01		1.270E+01	1.953E+01	3.028E+00	0.887
TC-99M	1.658E+09		1.013E+09	Half-Life too short		
RH-101	-8.150E-02		4.259E-02	6.187E-02	6.768E-03	-1.317
RH-102	3.939E-02		3.509E-02	5.943E-02	5.962E-03	0.663
RU-103	-1.606E-02		4.345E-02	6.829E-02	1.026E-02	-0.235
RH-106	9.591E-02		3.283E-01	5.574E-01	7.614E-02	0.172
RU-106	9.591E-02		3.282E-01	5.574E-01	5.062E-02	0.172

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-108M	-1.471E-02		3.584E-02	5.698E-02	5.907E-03	-0.258
CD-109	5.056E-01		2.195E+00	3.033E+00	3.045E-01	0.167
AG-110M	-2.850E-02		3.970E-02	6.337E-02	5.653E-03	-0.450
IN-111	-5.759E-01		8.743E-01	1.445E+00	1.716E-01	-0.399
IN-113M	-9.558E-03		4.686E-02	7.602E-02	7.779E-03	-0.126
SN-113	-9.558E-03		4.686E-02	7.602E-02	7.779E-03	-0.126
IN-114M	3.298E-02		2.417E-01	3.466E-01	3.733E-02	0.095
CD-115	5.621E+00		8.478E+00	1.405E+01	1.381E+00	0.400
SN-117M	6.822E-02		7.909E-02	1.172E-01	1.155E-02	0.582
SB-122	-9.583E-01		1.666E+00	2.722E+00	2.613E-01	-0.352
I-123	4.050E-01		9.458E-01	Half-Life too short		
TE-123M	9.468E-03		4.422E-02	6.436E-02	6.386E-03	0.147
I-124	9.193E-02		6.451E-01	9.505E-01	8.815E-02	0.097
SB-124	-9.260E-03		5.293E-02	8.509E-02	7.739E-03	-0.109
SB-125	2.142E-02		9.780E-02	1.610E-01	1.644E-02	0.133
TE-125M	5.190E+01		1.887E+01	2.855E+01	2.927E+00	1.818
I-126	-4.259E-02		1.823E-01	2.991E-01	2.587E-02	-0.142
SB-126	2.294E-01		1.528E-01	2.533E-01	2.291E-02	0.906
SN-126	-5.557E-01		2.300E-01	2.935E-01	2.933E-02	-1.893
SB-127	8.824E-01		1.181E+00	2.035E+00	2.272E-01	0.434
XE-127	4.628E-02		6.599E-02	9.596E-02	1.060E-02	0.482
I-131	-1.223E-02		1.082E-01	1.773E-01	1.988E-02	-0.069
TE-132	6.891E-01		6.505E-01	1.050E+00	1.818E-01	0.656
BA-133	3.145E-02		4.983E-02	7.484E-02	1.116E-02	0.420
I-133	-3.360E-04		1.315E-03	Half-Life too short		
CS-134	3.222E-02		5.031E-02	8.547E-02	8.225E-03	0.377
CS-135	1.311E-01		1.694E-01	2.910E-01	3.850E-02	0.450
I-135	7.261E+07		9.830E+07	Half-Life too short		
CS-136	8.495E-02		8.406E-02	1.519E-01	1.466E-02	0.559
BA-137M	4.439E-02		4.106E-02	7.173E-02	6.180E-03	0.619
CS-137	4.693E-02		4.341E-02	7.583E-02	6.546E-03	0.619
CE-139	-2.284E-02		4.511E-02	6.376E-02	6.541E-03	-0.358
BA-140	-4.894E-02		2.679E-01	4.227E-01	1.414E-01	-0.116
LA-140	-1.691E-03		6.152E-02	1.026E-01	9.275E-03	-0.016
CE-141	3.185E-01		9.945E-02	1.519E-01	1.419E-02	2.096
CE-143	2.696E-04		5.452E-05	Half-Life too short		
CE-144	8.506E-02		3.246E-01	4.785E-01	7.469E-02	0.178
PM-144	3.118E-02		3.644E-02	6.308E-02	5.597E-03	0.494
PR-144	2.111E+00		2.467E+00	4.272E+00	3.789E-01	0.494
PM-146	-9.845E-03		4.799E-02	7.689E-02	9.164E-03	-0.128
ND-147	-4.661E-01		6.208E-01	9.439E-01	1.479E-01	-0.494
PM-149	1.948E+00		6.557E+01	1.100E+02	1.966E+01	0.018
EU-152	2.089E-02		1.172E-01	1.722E-01	2.024E-02	0.121
GD-153	2.461E+00	+	3.061E-01	3.181E-01	2.891E-02	7.736
EU-154	-5.571E-02		1.060E-01	1.650E-01	1.897E-02	-0.338
EU-155	-4.606E-02		1.778E-01	2.937E-01	2.575E-02	-0.157
TB-160	2.029E-02		1.490E-01	2.444E-01	2.469E-02	0.083
HO-166M	-3.813E-03		6.658E-02	1.097E-01	9.853E-03	-0.035

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171	-1.474E+02		6.360E+01	9.118E+01	7.449E+00	-1.617
LU-176	2.224E-03		2.647E-02	4.430E-02	5.351E-03	0.050
LU-177M	1.897E-01		1.819E-01	3.108E-01	3.124E-02	0.610
HF-181	1.519E-02		4.598E-02	7.547E-02	7.558E-03	0.201
W-181	1.966E-01		7.971E-01	1.225E+00	9.867E-02	0.161
TA-182	-9.551E-03		1.736E-01	2.854E-01	2.408E-02	-0.033
RE-183	8.902E-01	+	2.454E-01	2.948E-01	2.965E-02	3.020
RE-184	2.232E-02		2.923E-01	4.375E-01	5.253E-02	0.051
OS-185	1.474E-02		4.769E-02	7.092E-02	6.247E-03	0.208
RE-188	-1.634E-01		2.359E-01	3.755E-01	3.629E-02	-0.435
W-188	5.010E-01		8.647E+00	1.279E+01	1.572E+00	0.039
IR-192	-2.464E-02		3.571E-02	5.749E-02	6.864E-03	-0.429
AU-195	7.157E+00	+	8.902E-01	9.170E-01	8.243E-02	7.805
TL-200	1.507E-04		1.119E-04	Half-Life too short		
TL-201	1.046E+01		7.982E+00	1.192E+01	1.226E+00	0.878
TL-202	1.715E-03		6.985E-02	1.136E-01	1.145E-02	0.015
HG-203	-2.923E-02		4.327E-02	7.061E-02	8.878E-03	-0.414
BI-207	2.468E-02		4.308E-02	7.546E-02	6.927E-03	0.327
TL-207	-1.943E-01		7.071E-01	1.160E+00	2.256E-01	-0.167
PO-209	1.798E+00		7.408E+00	1.223E+01	1.249E+00	0.147
BI-210	-8.554E+00		1.077E+01	1.635E+01	1.567E+00	-0.523
PB-210	-8.554E+00		1.077E+01	1.635E+01	1.567E+00	-0.523
PO-210	-8.554E+00		1.076E+01	1.635E+01	1.427E+00	-0.523
PB-211	-1.308E-01		9.668E-01	1.564E+00	9.834E-01	-0.084
PB-212	6.688E-01	+	1.341E-01	1.687E-01	2.123E-02	3.965
PO-212	6.688E-01	+	1.341E-01	1.687E-01	2.123E-02	3.965
PB-214	6.100E-01	+	1.582E-01	1.884E-01	2.382E-02	3.238
PO-214	6.100E-01	+	1.582E-01	1.884E-01	2.382E-02	3.238
PO-215	-1.943E-01		7.071E-01	1.160E+00	2.256E-01	-0.167
PO-216	6.688E-01	+	1.341E-01	1.687E-01	2.123E-02	3.965
PO-218	6.100E-01	+	1.582E-01	1.884E-01	2.382E-02	3.238
RN-219	-1.568E-01		4.414E-01	7.084E-01	1.125E-01	-0.221
RN-220	9.335E+00		2.954E+01	4.799E+01	4.655E+00	0.195
RA-223	-1.943E-01		7.071E-01	1.160E+00	2.256E-01	-0.167
RA-224	2.117E+00		8.638E-01	1.360E+00	1.605E-01	1.556
AC-227	1.127E+00		5.478E-01	8.314E-01	1.456E-01	1.356
TH-227	1.127E+00		5.582E-01	8.314E-01	1.658E-01	1.356
TH-228	6.781E-01	+	1.360E-01	1.710E-01	2.152E-02	3.965
TH-229	1.071E+00		6.464E-01	1.069E+00	1.159E-01	1.002
PA-231	-1.233E+00		1.647E+00	2.660E+00	4.677E-01	-0.463
TH-231	-1.943E-01		7.071E-01	1.160E+00	2.256E-01	-0.167
PA-233	3.834E-02		6.981E-02	1.186E-01	1.444E-02	0.323
PA-234	4.899E-01	+	3.598E-01	5.684E-01	1.105E-01	0.862
NP-236	-9.243E-02		1.264E-01	1.777E-01	1.768E-02	-0.520
NP-237	-1.241E+00		6.539E-01	8.587E-01	1.964E-01	-1.445
NP-239	-7.449E-02		3.248E-01	4.767E-01	3.997E-02	-0.156
AM-241	9.287E-01		4.208E-01	6.605E-01	5.411E-02	1.406
AM-243	1.049E-01		1.174E-01	1.997E-01	1.746E-02	0.525

Sample ID : G245395007 Acquisition date : 2-FEB-2010 09:13:37

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	7.568E-02		1.537E-01	2.574E-01	2.246E-02	0.294
AM-246	6.321E-02		1.075E-01	1.892E-01	1.711E-02	0.334
CM-247	-1.546E-02		3.931E-02	6.300E-02	6.320E-03	-0.245
CF-249	9.645E-03		4.427E-02	7.331E-02	7.425E-03	0.132
CF-251	-3.593E-02		1.716E-01	2.747E-01	2.878E-02	-0.131

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395007           *
* Acquisition date  :  2-FEB-2010 09:13:37 Detector SN#     :               *
* Detector ID       : GAM02                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:     0 02:00:06.26     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395007           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.8103E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.779E+01	2.045E+00	1.996E-01	1.044E+00
NB-95	8.765E-01	1.372E-01	3.937E-02	7.000E-02
LU-177	2.416E+00	1.277E+00	1.001E+00	6.516E-01
TL-208	2.428E-01	8.490E-02	3.246E-02	4.331E-02
BI-211	1.754E+00	4.366E-01	1.868E-01	2.227E-01
BI-212	5.300E-01	4.609E-01	2.721E-01	2.351E-01
BI-214	5.255E-01	1.782E-01	6.274E-02	9.090E-02
RA-226	5.255E-01	1.782E-01	6.274E-02	9.090E-02
AC-228	6.530E-01	2.182E-01	9.627E-02	1.113E-01
RA-228	6.530E-01	2.182E-01	9.627E-02	1.113E-01
TH-230	5.255E-01	1.782E-01	6.274E-02	9.090E-02
U-231	1.121E+01	3.218E+00	1.308E+00	1.642E+00
TH-232	6.530E-01	2.182E-01	9.627E-02	1.113E-01
PA-234M	2.592E+02	3.150E+01	3.710E+00	1.607E+01
TH-234	1.752E+02	3.106E+01	2.614E+00	1.585E+01
U-234	5.255E-01	1.782E-01	6.274E-02	9.090E-02
U-235	3.066E+00	7.123E-01	2.644E-01	3.634E-01
U-238	1.752E+02	3.106E+01	2.614E+00	1.585E+01
ANH-511	8.474E-03	6.002E-02	2.888E-02	3.062E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.426E-02	3.683E-01	3.232E-01	1.879E-01	NOT IDENT.
NA-22	-1.993E-02	3.714E-02	3.019E-02	1.895E-02	NOT IDENT.
NA-24	4.288E+03	1.511E+05	0.000E+00	7.712E+04	SHORT HLIF
AL-26	1.178E-02	1.975E-02	1.889E-02	1.008E-02	NOT IDENT.
TI-44	-1.338E-02	6.974E-02	6.748E-02	3.558E-02	NOT IDENT.
SC-46	1.841E-03	3.850E-02	3.316E-02	1.964E-02	FAIL ABUN
V-48	-1.828E-02	5.749E-02	4.718E-02	2.933E-02	NOT IDENT.
CR-51	7.034E-02	3.732E-01	3.434E-01	1.904E-01	NOT IDENT.

MN-52	1.379E-01	1.748E-01	1.616E-01	8.920E-02	NOT IDENT.
MN-54	-2.394E-02	3.690E-02	3.042E-02	1.883E-02	NOT IDENT.
CO-56	-5.849E-02	3.849E-02	2.894E-02	1.964E-02	NOT IDENT.
CO-57	3.963E-02	3.759E-02	3.574E-02	1.918E-02	NOT IDENT.
CO-58	-1.507E-02	3.766E-02	3.172E-02	1.922E-02	NOT IDENT.
FE-59	-3.688E-02	6.950E-02	5.770E-02	3.546E-02	FAIL ABUN
CO-60	1.484E-02	3.197E-02	2.866E-02	1.631E-02	NOT IDENT.
ZN-65	-2.986E-02	7.826E-02	5.578E-02	3.993E-02	NOT IDENT.
GE-68	5.843E-02	9.650E-01	8.505E-01	4.923E-01	NOT IDENT.
AS-73	-2.682E-01	2.075E+00	2.060E+00	1.059E+00	NOT IDENT.
AS-74	3.081E-02	9.259E-02	8.472E-02	4.724E-02	NOT IDENT.
SE-75	-1.145E-02	4.595E-02	4.240E-02	2.344E-02	NOT IDENT.
BR-77	-2.215E+00	7.983E+00	6.791E+00	4.073E+00	FAIL ABUN
SR-82	-4.590E-01	4.212E-01	3.418E-01	2.149E-01	NOT IDENT.
RB-83	-3.923E-02	7.589E-02	6.362E-02	3.872E-02	NOT IDENT.
RB-84	1.257E-01	7.381E-02	6.969E-02	3.766E-02	NOT IDENT.
KR-85	3.998E+00	8.802E+00	6.861E+00	4.491E+00	NOT IDENT.
SR-85	2.023E-02	4.455E-02	3.472E-02	2.273E-02	NOT IDENT.
RB-86	-4.470E-02	5.938E-01	5.171E-01	3.030E-01	NOT IDENT.
Y-88	-6.116E-02	3.343E-02	1.893E-02	1.705E-02	NOT IDENT.
ZR-88	-1.279E-02	3.121E-02	2.730E-02	1.592E-02	NOT IDENT.
Y-91	-4.275E+00	1.403E+01	1.178E+01	7.157E+00	NOT IDENT.
NB-94	-2.608E-02	3.662E-02	3.101E-02	1.868E-02	NOT IDENT.
NB-95M	-2.008E-03	1.440E-01	1.198E-01	7.348E-02	NOT IDENT.
ZR-95	2.243E-02	6.991E-02	6.243E-02	3.567E-02	NOT IDENT.
NB-97	-1.959E+04	3.256E+04	0.000E+00	1.661E+04	SHORT HLIF
ZR-97	4.106E+05	6.487E+05	0.000E+00	3.310E+05	SHORT HLIF
MO-99	1.733E+01	1.245E+01	1.019E+01	6.351E+00	NOT IDENT.
TC-99M	1.658E+15	1.985E+15	0.000E+00	1.013E+15	SHORT HLIF
RH-101	-8.150E-02	4.173E-02	3.386E-02	2.129E-02	NOT IDENT.
RH-102	3.939E-02	3.439E-02	3.154E-02	1.755E-02	FAIL ABUN
RU-103	-1.606E-02	4.258E-02	3.618E-02	2.173E-02	NOT IDENT.
RH-106	9.591E-02	3.218E-01	2.928E-01	1.642E-01	FAIL ABUN
RU-106	9.591E-02	3.216E-01	2.928E-01	1.641E-01	FAIL ABUN
AG-108M	-1.471E-02	3.512E-02	3.033E-02	1.792E-02	NOT IDENT.
CD-109	5.056E-01	2.151E+00	1.705E+00	1.097E+00	NOT IDENT.
AG-110M	-2.850E-02	3.891E-02	3.322E-02	1.985E-02	NOT IDENT.
IN-111	-5.759E-01	8.568E-01	7.848E-01	4.371E-01	NOT IDENT.
IN-113M	-9.558E-03	4.592E-02	4.062E-02	2.343E-02	NOT IDENT.
SN-113	-9.558E-03	4.592E-02	4.062E-02	2.343E-02	NOT IDENT.
IN-114M	3.298E-02	2.369E-01	1.899E-01	1.209E-01	NOT IDENT.
CD-115	5.621E+00	8.309E+00	7.427E+00	4.239E+00	NOT IDENT.
SN-117M	6.822E-02	7.750E-02	6.464E-02	3.954E-02	NOT IDENT.
SB-122	-9.583E-01	1.633E+00	1.435E+00	8.330E-01	NOT IDENT.
I-123	4.050E+05	1.854E+06	0.000E+00	9.458E+05	SHORT HLIF
TE-123M	9.468E-03	4.334E-02	3.548E-02	2.211E-02	NOT IDENT.
I-124	9.193E-02	6.322E-01	5.000E-01	3.225E-01	NOT IDENT.
SB-124	-9.260E-03	5.187E-02	4.302E-02	2.647E-02	FAIL ABUN
SB-125	2.142E-02	9.585E-02	8.575E-02	4.890E-02	NOT IDENT.
TE-125M	5.190E+01	1.850E+01	1.594E+01	9.436E+00	NOT IDENT.
I-126	-4.259E-02	1.787E-01	1.567E-01	9.117E-02	NOT IDENT.
SB-126	2.294E-01	1.497E-01	1.324E-01	7.639E-02	NOT IDENT.
SN-126	-5.557E-01	2.254E-01	1.650E-01	1.150E-01	FAIL ABUN
SB-127	8.824E-01	1.157E+00	1.065E+00	5.903E-01	NOT IDENT.
XE-127	4.628E-02	6.467E-02	5.247E-02	3.299E-02	NOT IDENT.
I-131	-1.223E-02	1.060E-01	9.499E-02	5.410E-02	NOT IDENT.
TE-132	6.891E-01	6.375E-01	5.719E-01	3.252E-01	FAIL ABUN
BA-133	3.145E-02	4.883E-02	4.012E-02	2.491E-02	NOT IDENT.
I-133	-3.360E+02	2.577E+03	0.000E+00	1.315E+03	SHORT HLIF
CS-134	3.222E-02	4.930E-02	4.449E-02	2.515E-02	NOT IDENT.
CS-135	1.311E-01	1.660E-01	1.576E-01	8.469E-02	NOT IDENT.
I-135	7.261E+13	1.927E+14	0.000E+00	9.830E+13	SHORT HLIF
CS-136	8.495E-02	8.238E-02	7.826E-02	4.203E-02	FAIL ABUN
BA-137M	4.439E-02	4.024E-02	3.760E-02	2.053E-02	NOT IDENT.
CS-137	4.693E-02	4.254E-02	3.975E-02	2.170E-02	NOT IDENT.
CE-139	-2.284E-02	4.421E-02	3.510E-02	2.256E-02	NOT IDENT.
BA-140	-4.894E-02	2.625E-01	2.233E-01	1.339E-01	FAIL ABUN
LA-140	-1.691E-03	6.029E-02	5.196E-02	3.076E-02	NOT IDENT.
CE-141	3.185E-01	9.746E-02	8.402E-02	4.972E-02	NOT IDENT.
CE-143	2.696E+02	1.069E+02	0.000E+00	5.452E+01	SHORT HLIF
CE-144	8.506E-02	3.181E-01	2.653E-01	1.623E-01	NOT IDENT.
PM-144	3.118E-02	3.571E-02	3.300E-02	1.822E-02	NOT IDENT.
PR-144	2.111E+00	2.418E+00	2.235E+00	1.234E+00	NOT IDENT.
PM-146	-9.845E-03	4.703E-02	4.087E-02	2.399E-02	NOT IDENT.
ND-147	-4.661E-01	6.084E-01	4.988E-01	3.104E-01	FAIL ABUN
PM-149	1.948E+00	6.425E+01	5.944E+01	3.278E+01	NOT IDENT.
EU-152	2.089E-02	1.149E-01	9.244E-02	5.862E-02	NOT IDENT.
GD-153	2.461E+00	2.999E-01	1.782E-01	1.530E-01	FAIL ABUN

EU-154	-5.571E-02	1.039E-01	8.437E-02	5.300E-02	NOT IDENT.
EU-155	-4.606E-02	1.743E-01	1.641E-01	8.891E-02	NOT IDENT.
TB-160	2.029E-02	1.461E-01	1.267E-01	7.452E-02	NOT IDENT.
HO-166M	-3.813E-03	6.525E-02	5.735E-02	3.329E-02	FAIL ABUN
TM-171	-1.474E+02	6.233E+01	5.172E+01	3.180E+01	NOT IDENT.
LU-176	2.224E-03	2.594E-02	2.387E-02	1.323E-02	NOT IDENT.
LU-177M	1.897E-01	1.783E-01	1.657E-01	9.095E-02	NOT IDENT.
HF-181	1.519E-02	4.506E-02	4.002E-02	2.299E-02	NOT IDENT.
W-181	1.966E-01	7.811E-01	6.951E-01	3.985E-01	NOT IDENT.
TA-182	-9.551E-03	1.702E-01	1.462E-01	8.682E-02	FAIL ABUN
RE-183	8.902E-01	2.404E-01	1.624E-01	1.227E-01	FAIL ABUN
RE-184	2.232E-02	2.865E-01	2.374E-01	1.462E-01	NOT IDENT.
OS-185	1.474E-02	4.674E-02	3.721E-02	2.385E-02	NOT IDENT.
RE-188	-1.634E-01	2.311E-01	2.072E-01	1.179E-01	NOT IDENT.
W-188	5.010E-01	8.474E+00	6.906E+00	4.323E+00	FAIL ABUN
IR-192	-2.464E-02	3.500E-02	3.095E-02	1.786E-02	FAIL ABUN
AU-195	7.157E+00	8.724E-01	5.135E-01	4.451E-01	FAIL ABUN
TL-200	1.507E+02	2.193E+02	0.000E+00	1.119E+02	SHORT HLIF
TL-201	1.046E+01	7.823E+00	6.558E+00	3.991E+00	NOT IDENT.
TL-202	1.715E-03	6.846E-02	6.046E-02	3.493E-02	NOT IDENT.
HG-203	-2.923E-02	4.240E-02	3.818E-02	2.163E-02	FAIL ABUN
BI-207	2.468E-02	4.222E-02	3.885E-02	2.154E-02	FAIL ABUN
TL-207	-1.943E-01	6.929E-01	6.240E-01	3.535E-01	FAIL ABUN
PO-209	1.798E+00	7.259E+00	6.339E+00	3.704E+00	NOT IDENT.
BI-210	-8.554E+00	1.055E+01	9.380E+00	5.383E+00	NOT IDENT.
PB-210	-8.554E+00	1.055E+01	9.380E+00	5.383E+00	NOT IDENT.
PO-210	-8.554E+00	1.055E+01	9.380E+00	5.381E+00	NOT IDENT.
PB-211	-1.308E-01	9.474E-01	8.347E-01	4.834E-01	NOT IDENT.
PB-212	6.688E-01	1.315E-01	9.170E-02	6.707E-02	FAIL ABUN
PO-212	6.688E-01	1.315E-01	9.170E-02	6.707E-02	FAIL ABUN
PB-214	6.100E-01	1.550E-01	1.010E-01	7.910E-02	FAIL ABUN
PO-214	6.100E-01	1.550E-01	1.010E-01	7.910E-02	FAIL ABUN
PO-215	-1.943E-01	6.929E-01	6.240E-01	3.535E-01	FAIL ABUN
PO-216	6.688E-01	1.315E-01	9.170E-02	6.707E-02	FAIL ABUN
PO-218	6.100E-01	1.550E-01	1.010E-01	7.910E-02	FAIL ABUN
RN-219	-1.568E-01	4.326E-01	3.782E-01	2.207E-01	NOT IDENT.
RN-220	9.335E+00	2.895E+01	2.533E+01	1.477E+01	NOT IDENT.
RA-223	-1.943E-01	6.929E-01	6.240E-01	3.535E-01	FAIL ABUN
RA-224	2.117E+00	8.465E-01	7.394E-01	4.319E-01	NOT IDENT.
AC-227	1.127E+00	5.368E-01	4.510E-01	2.739E-01	NOT IDENT.
TH-227	1.127E+00	5.470E-01	4.510E-01	2.791E-01	FAIL ABUN
TH-228	6.781E-01	1.333E-01	9.298E-02	6.800E-02	FAIL ABUN
TH-229	1.071E+00	6.335E-01	5.853E-01	3.232E-01	NOT IDENT.
PA-231	-1.233E+00	1.614E+00	1.438E+00	8.237E-01	NOT IDENT.
TH-231	-1.943E-01	6.929E-01	6.240E-01	3.535E-01	FAIL ABUN
PA-233	3.834E-02	6.841E-02	6.387E-02	3.491E-02	NOT IDENT.
PA-234	4.899E-01	3.526E-01	2.940E-01	1.799E-01	FAIL ABUN
NP-236	-9.243E-02	1.239E-01	9.794E-02	6.321E-02	FAIL ABUN
NP-237	-1.241E+00	6.408E-01	4.830E-01	3.270E-01	FAIL ABUN
NP-239	-7.449E-02	3.183E-01	2.655E-01	1.624E-01	FAIL ABUN
AM-241	9.287E-01	4.123E-01	3.760E-01	2.104E-01	NOT IDENT.
AM-243	1.049E-01	1.151E-01	1.129E-01	5.871E-02	FAIL ABUN
CM-243	7.568E-02	1.506E-01	1.439E-01	7.684E-02	FAIL ABUN
AM-246	6.321E-02	1.053E-01	9.733E-02	5.375E-02	NOT IDENT.
CM-247	-1.546E-02	3.853E-02	3.363E-02	1.966E-02	NOT IDENT.
CF-249	9.645E-03	4.338E-02	3.919E-02	2.213E-02	NOT IDENT.
CF-251	-3.593E-02	1.682E-01	1.509E-01	8.581E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	1477.9814
46.50	1477.9814
46.50	1477.9814
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49.72	1564.8164
51.35	1686.5164
52.39	1715.9388
52.97	1755.4290
53.15	1756.4745
53.44	1841.5634
54.07	1870.7025
56.28	2147.6550
56.28	2147.6743
57.37	0.0000
57.53	2137.7419
57.53	2137.7546
57.60	2138.2131
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57.98	2100.2371
59.32	2190.0933
59.32	2190.0933
59.40	2190.6318
59.54	2225.0713
59.72	2226.2966
60.01	2394.7090
61.10	2508.7898
61.14	2509.0928
61.30	2510.2979
63.00	2183.6802
63.29	2185.5454
63.29	2185.5454
63.58	2187.4072
64.28	2191.8862
65.12	2082.8232
65.20	2083.3054
65.20	2083.3054
66.05	2315.6189
66.72	2360.8115
66.83	2361.5645
66.91	2412.1316
67.20	2404.8921
67.20	2404.8921
67.75	2415.2085
67.85	2407.9717
68.90	2287.0378
68.90	2287.0378
69.30	2302.8230
69.67	2444.9580
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70.82	2657.6267
70.83	2657.7029
72.80	2898.4495
72.87	2794.5830
72.87	2794.5830
74.67	2946.8945
74.81	2962.3142
74.81	2962.3142
74.81	2962.3142
74.81	2962.3142
74.81	2962.3142
74.81	2962.3142
74.81	2962.3142
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77.11	3043.1938

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77.11	3043.1938
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79.80	3103.9731
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80.30	2978.2581
80.57	2917.4570
81.00	2920.5710
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81.07	2867.7671
81.07	2867.7671
81.07	2867.7671
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83.78	3184.0803
83.78	3184.0803
83.78	3184.0803
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84.90	3504.4954
85.43	3510.3340
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86.54	3786.9297
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86.94	3981.8237
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87.30	3975.9690
87.30	3975.9690
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87.30	3975.9690
87.57	4046.9819
87.88	3904.4834
88.03	3647.3184
88.36	3386.7485
88.47	3387.6216
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92.38	3740.1121
92.38	3740.1121
93.35	3748.2825
94.00	3753.7498
94.67	3759.2986
94.67	3759.3391
94.90	3761.2700
94.90	3761.2700
94.90	3761.2700
94.90	3761.2700
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95.87	1533.7700
96.73	1536.6729
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98.44	1371.6362
98.88	1372.9381
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99.55	1293.6195
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100.10	1300.8676
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103.76	1320.9978
105.00	1411.9106
105.31	1480.1827
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109.28	1538.2515

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111.00	1591.7150
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117.00	1193.7592
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122.32	1093.3208
122.32	1093.3208
122.32	1093.3208
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144.24	985.9087
144.24	985.9087
144.24	985.9087
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145.44	826.3145
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152.70	866.3376
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154.21	945.0348
154.21	945.0348
154.21	945.0348
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172.10	794.8630
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176.60	772.8326
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186.00	703.7630
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202.84	615.4864
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208.81	591.2379
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209.75	591.9229
210.97	505.9369
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227.20	460.8636
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228.18	449.7972
228.18	449.7972
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236.00	444.9570
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238.63	619.4375
238.63	619.4375
238.63	619.4375
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241.98	423.9221
241.98	423.9221
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256.20	383.1606
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268.79	325.3334
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269.46	316.4636
269.46	316.4636
269.46	316.4636
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277.35	347.4070
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278.00	340.2947
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284.30	319.3489
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286.10	306.9642
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295.21	348.8445

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323.87	289.1893
323.87	289.1893
323.87	289.1893
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338.28	245.3215
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391.69	220.6778
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445.03	188.3165
445.03	188.3165
445.03	188.3165
445.03	188.3165
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477.96	210.7831
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511.85	196.8777
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513.99	195.3733
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569.67	168.2118
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602.71	160.4857
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609.31	160.7430
609.31	160.7430
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621.84	134.6836
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696.49	129.1133
697.00	129.1457
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722.78	135.9557
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722.95	135.9659
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766.84	151.3760
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911.07	70.1766
911.07	70.1766
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969.11	61.5600
969.11	61.5600
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1036.00	56.5322
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1038.76	0.0000
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1048.07	47.4597

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1063.62	51.4484
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1078.86	42.3065
1085.78	50.8843
1099.22	59.6239
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1112.84	43.0940
1115.52	60.3470
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1120.29	64.7931
1120.29	64.7931
1120.29	64.7931
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1121.28	58.8239
1124.00	0.0000
1129.67	62.1198
1131.51	0.0000
1147.95	0.0000
1167.94	54.1611
1173.22	60.0625
1175.09	54.2796
1177.93	58.2080
1189.05	76.9009
1204.90	60.6402
1205.75	0.0000
1213.00	69.6104
1221.42	79.6157
1230.97	86.7396
1235.34	78.9551
1236.41	0.0000
1238.25	57.2896
1246.25	42.5731
1260.41	0.0000
1271.85	52.8620
1274.45	59.8877
1274.54	59.8901
1291.56	38.1144
1298.22	0.0000
1312.09	45.3955
1325.50	40.5013
1325.50	40.5013
1332.49	33.4780
1333.61	25.3703
1360.21	34.7540
1362.66	0.0000
1365.15	30.7056
1368.21	31.7556
1368.53	0.0000
1376.25	25.6643
1384.27	30.8630
1394.10	30.9436
1395.20	39.2061
1407.95	28.9855
1434.06	25.0137
1436.60	26.0732
1457.56	0.0000
1460.81	19.9386
1489.15	22.1946
1509.49	28.6798
1596.49	21.3828
1620.62	15.8942
1678.03	0.0000
1691.02	13.3003
1691.02	13.3003
1706.46	0.0000
1750.46	0.0000
1764.49	16.4118
1764.49	16.4118
1764.49	16.4118
1764.49	16.4118
1770.23	11.8407
1771.40	29.0050
1791.20	0.0000
1808.65	6.8215

1836.01 33.3229

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395007

Total Uranium Activity	5.2273E+02	ug/g
Total Uranium Counting Unc.	9.2406E+01	ug/g
Total Uranium Tpu	4.7146E-05	ug/g
Total Uranium Mda	7.7778E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID  : G245395007       *
*   ANALYST       : MXR1                      DETECTOR   : GAM02            *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 09:13:37.39    SAMPLE ALQT:  181.030 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.782E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.345E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 5.897E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.913E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:15:16.38

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395008.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:14:06.
Sample ID         : G245395008           Sample quantity  : 1.46430E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.96*	3978	2927	0.92	126.09	121	11	5.53E-01	3.1	
2	2	74.55*	463	2133	1.18	149.24	143	16	6.43E-02	17.4	7.96E-01
3	2	76.92*	566	2154	1.09	153.98	143	16	7.85E-02	14.3	
4	0	83.43*	271	2829	1.87	166.99	163	8	3.76E-02	34.6	
5	0	87.00*	170	2251	1.17	174.11	172	6	2.37E-02	44.7	
6	2	92.31*	14179	2452	1.14	184.73	180	14	1.97E+00	1.0	7.33E+00
7	2	94.37	699	1464	1.23	188.84	180	14	9.71E-02	17.4	
8	0	98.28	1169	1511	1.11	196.66	193	9	1.62E-01	6.7	
9	4	110.82	312	1315	1.53	221.72	218	11	4.33E-02	20.5	2.36E+00
10	4	112.53	690	1134	0.95	225.13	218	11	9.58E-02	8.8	
11	0	143.47*	527	1057	1.02	286.96	282	10	7.32E-02	12.4	
12	0	162.94	209	634	1.28	325.88	322	7	2.91E-02	21.1	
13	0	185.41*	2380	1165	1.10	370.78	364	14	3.30E-01	3.7	
14	0	205.35	155	810	1.17	410.61	405	10	2.15E-02	35.4	
15	0	209.05	62	481	0.97	418.01	415	7	8.55E-03	60.5	
16	5	238.33*	1300	396	1.09	476.53	472	15	1.80E-01	3.8	1.14E+00
17	5	241.34	346	430	1.78	482.54	472	15	4.80E-02	13.1	
18	0	257.99	219	397	1.20	515.82	512	9	3.04E-02	17.8	
19	0	294.79*	408	374	1.20	589.35	583	11	5.67E-02	10.5	
20	0	299.78	93	294	1.32	599.33	595	9	1.30E-02	34.7	
21	0	338.04	295	298	1.26	675.81	671	11	4.10E-02	12.8	
22	0	351.62*	654	386	1.28	702.94	697	13	9.09E-02	7.4	
23	0	510.39*	96	307	1.99	1020.29	1013	17	1.34E-02	45.5	
24	0	582.79*	418	219	1.62	1165.02	1158	16	5.81E-02	9.4	
25	0	608.80*	487	184	1.45	1217.01	1209	16	6.77E-02	7.8	
26	0	726.35*	87	128	1.62	1452.04	1446	10	1.21E-02	27.2	
27	0	742.72	161	162	1.78	1484.76	1477	18	2.24E-02	20.1	
28	0	765.94	413	203	1.46	1531.19	1524	15	5.73E-02	9.0	
29	0	785.70*	106	104	2.03	1570.69	1565	11	1.48E-02	21.1	
30	0	910.74*	236	108	1.68	1820.72	1813	15	3.27E-02	11.8	
31	1	963.91	54	81	1.91	1927.04	1918	40	7.48E-03	33.4	1.03E+00
32	1	968.25	170	68	1.85	1935.71	1918	40	2.36E-02	12.0	
33	0	1000.36*	861	104	1.68	1999.94	1991	18	1.20E-01	4.4	
34	0	1119.75*	139	106	2.02	2238.71	2229	21	1.92E-02	20.5	
35	0	1377.78	41	25	1.81	2754.83	2746	17	5.73E-03	32.0	
36	0	1459.75*	1588	27	2.07	2918.82	2910	18	2.21E-01	2.6	
37	0	1728.09	24	7	2.05	3455.73	3447	14	3.27E-03	31.7	
38	0	1763.36*	88	10	2.42	3526.30	3520	13	1.22E-02	13.7	

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:15:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:14:06
Sample ID : G245395008 Sample quantity : 146.43 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.22 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.445E+01	3.482E+00	4.935E-01	4.250E-02	69.814
NB-95	+	765.79	*	5.989E-01	1.154E-01	7.516E-02	5.245E-03	7.969
CD-109	+	88.03	*	2.282E+00	2.057E+00	3.197E+00	3.625E-01	0.714
SN-126	+	64.28		4.762E+01	8.711E+00	1.905E+00	3.257E-01	24.995
	+	86.94		9.341E-01	9.231E-01	1.261E+00	5.295E-01	0.741
	+	87.57	*	2.247E-01	2.026E-01	3.072E-01	3.476E-02	0.732
LU-177	+	112.95		1.762E+01	3.371E+00	3.790E+00	2.790E-01	4.650
	+	208.36	*	1.085E+00	1.314E+00	1.823E+00	1.065E-01	0.595
TL-208		277.35		4.637E-01	4.275E-01	7.363E-01	8.031E-02	0.630
	+	510.84		3.893E-01	3.565E-01	2.395E-01	2.518E-02	1.626
	+	583.14	*	4.846E-01	9.650E-02	6.526E-02	4.385E-03	7.425
		860.37		4.238E-01	3.289E-01	5.810E-01	5.673E-02	0.729
BI-211		72.87		9.787E+00	6.917E+00	1.154E+01	1.269E+00	0.848
	+	351.07	*	3.333E+00	5.486E-01	3.590E-01	2.617E-02	9.286
BI-212	+	727.18	*	8.745E-01	4.801E-01	5.331E-01	4.265E-02	1.640
	+	785.46		6.894E+00	2.955E+00	3.273E+00	2.424E-01	2.106
		1620.62		9.789E-01	9.570E-01	1.844E+00	1.406E-01	0.531
PB-212	+	74.81		2.874E+00	1.082E+00	1.220E+00	1.756E-01	2.356
	+	77.11		1.936E+00	5.931E-01	6.759E-01	7.390E-02	2.864
	+	87.30		1.039E+00	9.427E-01	1.427E+00	2.153E-01	0.728
	+	238.63	*	1.459E+00	1.567E-01	1.043E-01	7.914E-03	13.990
	+	300.09		1.610E+00	1.126E+00	1.330E+00	1.169E-01	1.210
PO-212	+	74.81		2.874E+00	1.082E+00	1.220E+00	1.756E-01	2.356
	+	77.11		1.936E+00	5.931E-01	6.759E-01	7.390E-02	2.864
	+	87.30		1.039E+00	9.427E-01	1.427E+00	2.153E-01	0.728
		115.19		2.557E+00	6.428E+00	9.423E+00	6.742E-01	0.271
	+	238.63	*	1.459E+00	1.567E-01	1.043E-01	7.914E-03	13.990
	+	300.09		1.610E+00	1.126E+00	1.330E+00	1.169E-01	1.210
BI-214	+	609.31	*	1.066E+00	1.849E-01	1.140E-01	8.674E-03	9.348
	+	1120.29		1.661E+00	7.005E-01	4.413E-01	4.312E-02	3.764
	+	1764.49		1.463E+00	4.122E-01	3.127E-01	2.088E-02	4.678
PB-214	+	74.81		4.952E+00	1.842E+00	2.102E+00	2.779E-01	2.356
	+	77.11		3.318E+00	1.048E+00	1.159E+00	1.544E-01	2.864
	+	87.30		1.780E+00	1.611E+00	2.444E+00	3.343E-01	0.728

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.333E+00	6.395E-01	5.923E-01	4.928E-02	3.939
	+	295.21		1.234E+00	2.817E-01	2.265E-01	2.046E-02	5.449
	+	351.92	*	1.160E+00	2.002E-01	1.251E-01	1.122E-02	9.267
PO-214	+	74.81		4.952E+00	1.842E+00	2.102E+00	2.779E-01	2.356
	+	77.11		3.318E+00	1.048E+00	1.159E+00	1.544E-01	2.864
	+	87.30		1.780E+00	1.611E+00	2.444E+00	3.343E-01	0.728
	+	241.98		2.333E+00	6.395E-01	5.923E-01	4.928E-02	3.939
	+	295.21		1.234E+00	2.817E-01	2.265E-01	2.046E-02	5.449
	+	351.92	*	1.160E+00	2.002E-01	1.251E-01	1.122E-02	9.267
PO-216	+	74.81		2.874E+00	1.082E+00	1.220E+00	1.756E-01	2.356
	+	77.11		1.936E+00	5.931E-01	6.759E-01	7.390E-02	2.864
	+	87.30		1.039E+00	9.427E-01	1.427E+00	2.153E-01	0.728
	+	238.63	*	1.459E+00	1.567E-01	1.043E-01	7.914E-03	13.990
	+	300.09		1.610E+00	1.126E+00	1.330E+00	1.169E-01	1.210
PO-218	+	74.81		4.952E+00	1.842E+00	2.102E+00	2.779E-01	2.356
	+	77.11		3.318E+00	1.048E+00	1.159E+00	1.544E-01	2.864
	+	87.30		1.780E+00	1.611E+00	2.444E+00	3.343E-01	0.728
	+	241.98		2.333E+00	6.395E-01	5.923E-01	4.928E-02	3.939
	+	295.21		1.234E+00	2.817E-01	2.265E-01	2.046E-02	5.449
	+	351.92	*	1.160E+00	2.002E-01	1.251E-01	1.122E-02	9.267
RA-224	+	240.98	*	4.423E+00	1.187E+00	1.187E+00	7.286E-02	3.726
RA-226	+	609.31	*	1.066E+00	1.849E-01	1.140E-01	8.674E-03	9.348
	+	1120.29		1.661E+00	7.005E-01	4.413E-01	4.312E-02	3.764
	+	1764.49		1.463E+00	4.122E-01	3.127E-01	2.088E-02	4.678
AC-228	+	338.32		1.657E+00	7.989E-01	4.016E-01	1.643E-01	4.125
	+	911.07	*	1.253E+00	3.338E-01	2.159E-01	2.665E-02	5.803
	+	969.11		1.605E+00	5.401E-01	3.946E-01	9.329E-02	4.068
RA-228	+	338.32		1.657E+00	7.989E-01	4.016E-01	1.643E-01	4.125
	+	911.07	*	1.253E+00	3.338E-01	2.159E-01	2.665E-02	5.803
	+	969.11		1.605E+00	5.401E-01	3.946E-01	9.329E-02	4.068
TH-228	+	74.81		2.914E+00	1.063E+00	1.237E+00	1.361E-01	2.356
	+	77.11		1.963E+00	6.014E-01	6.853E-01	7.493E-02	2.864
	+	87.30		1.054E+00	9.500E-01	1.447E+00	1.635E-01	0.728
	+	238.63	*	1.480E+00	1.589E-01	1.058E-01	8.024E-03	13.990
	+	300.09		1.632E+00	1.487E+00	1.349E+00	7.961E-01	1.210
TH-230	+	609.31	*	1.066E+00	1.849E-01	1.140E-01	8.674E-03	9.348
	+	1120.29		1.661E+00	7.005E-01	4.413E-01	4.312E-02	3.764
	+	1764.49		1.463E+00	4.122E-01	3.127E-01	2.088E-02	4.678
TH-232	+	338.32		1.657E+00	4.374E-01	4.016E-01	2.692E-02	4.125
	+	911.07	*	1.253E+00	3.338E-01	2.159E-01	2.665E-02	5.803
	+	969.11		1.605E+00	5.401E-01	3.946E-01	9.329E-02	4.068
PA-234M	+	766.42		1.607E+02	8.609E+01	2.018E+01	1.019E+01	7.961
	+	1001.03	*	1.659E+02	2.256E+01	7.551E+00	7.794E-01	21.970
TH-234	+	63.29	*	1.203E+02	2.488E+01	5.274E+00	1.039E+00	22.811
	+	92.38		1.181E+02	2.248E+01	1.786E+00	3.381E-01	66.100
U-234	+	609.31	*	1.066E+00	1.849E-01	1.140E-01	8.674E-03	9.348
	+	1120.29		1.661E+00	7.005E-01	4.413E-01	4.312E-02	3.764
	+	1764.49		1.463E+00	4.122E-01	3.127E-01	2.088E-02	4.678
U-235		89.95		1.156E+01	5.159E+00	4.602E+00	1.452E+00	2.511

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	93.35		6.828E+00	3.067E+00	2.123E+00	6.052E-01	3.216
		105.00		6.636E-01	1.792E+00	2.929E+00	8.708E-01	0.227
	+	143.76	*	1.931E+00	5.741E-01	4.655E-01	7.611E-02	4.149
	+	163.35		1.790E+00	8.209E-01	1.027E+00	1.837E-01	1.744
	+	185.71		1.887E+00	1.752E-01	8.902E-02	5.010E-03	21.198
	+	205.31		1.501E+00	1.097E+00	1.048E+00	1.885E-01	1.432
NP-237	+	86.50	*	6.598E-01	6.103E-01	8.624E-01	2.027E-01	0.765
		95.87		9.156E+00	3.245E+00	3.090E+00	7.722E-01	2.963
U-238	+	63.29	*	1.203E+02	2.488E+01	5.274E+00	1.039E+00	22.811
	+	92.38		1.181E+02	1.238E+01	1.786E+00	1.835E-01	66.100
AM-243	+	74.67	*	4.659E-01	1.699E-01	1.987E-01	2.176E-02	2.345
	+	86.72		2.474E+01	2.231E+01	3.352E+01	3.775E+00	0.738
		117.66		-1.110E+01	6.042E+00	9.280E+00	6.439E-01	-1.196
	+	142.18		1.622E+02	4.140E+01	3.886E+01	2.319E+00	4.175
ANH-511	+	511.00	*	8.410E-02	7.667E-02	5.175E-02	3.315E-03	1.625

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.333E-02	3.512E-01	5.641E-01	4.195E-02	-0.059
NA-22		1274.54	*	2.488E-02	4.585E-02	7.970E-02	6.173E-03	0.312
NA-24		1368.53	*	2.858E-02	4.585E-02	Half-Life too short		
AL-26		1129.67		8.124E-01	1.868E+00	3.031E+00	2.126E-01	0.268
		1808.65	*	1.911E-03	3.201E-02	5.228E-02	3.315E-03	0.037
TI-44		67.85		-1.587E-01	1.197E-01	1.704E-01	1.924E-02	-0.931
	+	78.38	*	3.572E-01	1.094E-01	1.298E-01	1.420E-02	2.752
SC-46		889.25	*	1.200E-02	4.322E-02	7.212E-02	7.137E-03	0.166
	+	1120.51		2.815E-01	1.172E-01	1.267E-01	9.097E-03	2.222
V-48		944.10		8.476E-01	9.488E-01	1.644E+00	1.593E-01	0.516
		983.50	*	1.772E-02	7.816E-02	1.220E-01	1.128E-02	0.145
		1312.09		-5.634E-02	6.936E-02	1.041E-01	8.688E-03	-0.541
CR-51		320.08	*	3.297E-01	4.014E-01	6.868E-01	4.960E-02	0.480
MN-52	+	744.21		1.216E+00	4.964E-01	4.887E-01	3.188E-02	2.489
		848.13		2.041E+00	6.078E+00	1.022E+01	9.062E-01	0.200
		935.52		2.389E-03	2.485E-01	4.050E-01	3.960E-02	0.006
		1246.25		-3.927E+00	6.956E+00	1.109E+01	8.081E-01	-0.354
		1333.61		1.997E-01	4.157E+00	6.915E+00	6.008E-01	0.029
		1434.06	*	1.052E-01	1.946E-01	3.422E-01	2.892E-02	0.307
MN-54		834.83	*	1.311E-02	4.144E-02	6.949E-02	5.936E-03	0.189
CO-56		846.75	*	3.268E-02	4.014E-02	6.976E-02	6.160E-03	0.469
		977.42		-3.140E+00	3.914E+00	4.947E+00	4.610E-01	-0.635
		1037.82		1.109E-01	3.036E-01	5.070E-01	4.559E-02	0.219
		1175.09		-1.378E+00	2.281E+00	3.635E+00	2.252E-01	-0.379
		1238.25		1.417E-01	1.038E-01	1.853E-01	1.382E-02	0.765
		1360.21		9.204E-01	9.494E-01	1.737E+00	1.500E-01	0.530
		1771.40		-8.741E-02	2.194E-01	3.276E-01	2.171E-02	-0.267
CO-57		122.06	*	-3.466E-02	3.830E-02	6.050E-02	3.990E-03	-0.573
		136.48		-2.135E-01	3.024E-01	4.776E-01	3.340E-02	-0.447

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-1.946E-02	4.198E-02	6.671E-02	5.338E-03	-0.292
FE-59	+	142.65		2.444E+01	6.238E+00	7.510E+00	4.475E-01	3.255
		192.34		-6.454E-01	1.178E+00	1.826E+00	2.147E-01	-0.353
		1099.22	*	-3.704E-02	9.508E-02	1.473E-01	1.230E-02	-0.251
		1291.56		9.127E-02	1.195E-01	2.122E-01	1.963E-02	0.430
CO-60		1173.22		2.476E-02	4.484E-02	7.824E-02	4.825E-03	0.316
		1332.49	*	1.895E-02	3.777E-02	6.582E-02	5.720E-03	0.288
ZN-65		1115.52	*	-8.218E-03	1.109E-01	1.520E-01	1.107E-02	-0.054
GE-68		1077.35	*	-5.073E-02	1.323E+00	2.124E+00	1.683E-01	-0.024
AS-73		53.44	*	1.090E+00	2.819E+00	4.745E+00	6.279E-01	0.230
AS-74		595.88	*	4.448E-02	9.564E-02	1.648E-01	9.416E-03	0.270
		634.78		-4.188E-01	3.610E-01	5.596E-01	2.954E-02	-0.748
SE-75		66.05		-7.837E+00	1.214E+01	1.771E+01	2.281E+00	-0.443
		96.73		1.031E+01	2.417E+00	2.691E+00	3.809E-01	3.831
		121.11		-5.196E-02	2.039E-01	3.282E-01	3.215E-02	-0.158
		136.00		8.752E-04	5.632E-02	9.083E-02	5.640E-03	0.010
		198.60		-7.886E-01	2.306E+00	3.595E+00	2.547E-01	-0.219
		264.65	*	2.530E-02	4.891E-02	8.339E-02	5.319E-03	0.303
		279.53		-4.627E-02	1.210E-01	1.990E-01	1.363E-02	-0.233
		303.91		-1.778E-01	2.527E+00	3.676E+00	3.685E-01	-0.048
		400.65		1.689E-01	2.730E-01	4.593E-01	4.485E-02	0.368
BR-77	+	87.88		3.448E+02	3.109E+02	4.644E+02	5.265E+01	0.743
		200.40		-2.920E+01	1.687E+02	2.347E+02	1.354E+01	-0.124
	+	239.00		1.636E+02	1.596E+01	2.484E+01	1.521E+00	6.587
		249.79		-1.102E+00	5.190E+01	8.708E+01	5.408E+00	-0.013
		281.68		-2.597E+01	6.803E+01	1.117E+02	7.194E+00	-0.232
		297.23		4.174E+01	6.287E+01	7.079E+01	4.622E+00	0.590
		303.76		-3.323E+01	1.536E+02	2.215E+02	1.453E+01	-0.150
		439.47		-2.478E+01	1.127E+02	1.809E+02	1.216E+01	-0.137
		484.57		-3.019E+01	1.786E+02	2.853E+02	1.869E+01	-0.106
		520.65	*	-3.185E+00	8.244E+00	1.291E+01	8.192E-01	-0.247
		574.64		1.577E+01	1.667E+02	2.754E+02	1.630E+01	0.057
		578.91		2.693E+01	7.384E+01	1.115E+02	6.552E+00	0.242
		585.48		3.781E+02	1.506E+02	2.561E+02	1.489E+01	1.476
		755.35		6.036E+01	1.290E+02	2.197E+02	1.484E+01	0.275
		817.79		4.993E+01	1.049E+02	1.782E+02	1.451E+01	0.280
SR-82		698.33		-2.587E+01	3.692E+01	5.884E+01	3.301E+00	-0.440
		776.49	*	-6.472E-01	4.412E-01	6.555E-01	4.726E-02	-0.987
		1395.20		6.594E-01	1.068E+01	1.778E+01	1.522E+00	0.037
RB-83		520.41	*	-3.193E-02	7.718E-02	1.207E-01	7.658E-03	-0.265
		529.64		-3.056E-02	1.207E-01	1.905E-01	1.197E-02	-0.160
		552.65		-2.427E-02	2.283E-01	3.625E-01	2.214E-02	-0.067
RB-84		881.50	*	7.665E-02	7.693E-02	1.344E-01	1.303E-02	0.570
KR-85		513.99	*	4.349E+00	8.803E+00	1.282E+01	8.188E-01	0.339
SR-85		513.99	*	2.201E-02	4.455E-02	6.488E-02	4.144E-03	0.339
RB-86		1076.63	*	-3.010E-02	8.100E-01	1.300E+00	1.032E-01	-0.023
Y-88		898.02		2.534E-02	4.319E-02	7.370E-02	7.488E-03	0.344
		1836.01	*	-4.376E-03	2.687E-02	4.166E-02	2.556E-03	-0.105
ZR-88		392.90	*	-2.218E-02	3.370E-02	5.323E-02	3.617E-03	-0.417

---- Non-Identified Nuclides ----

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Y-91		1204.90	*	6.054E+00	1.835E+01	3.144E+01	2.088E+00	0.193
NB-94		702.63	*	4.085E-03	3.672E-02	6.148E-02	3.500E-03	0.066
		871.10		-2.958E-02	3.725E-02	5.697E-02	5.374E-03	-0.519
NB-95M		235.69	*	2.642E-01	1.552E-01	2.451E-01	1.901E-02	1.078
ZR-95		724.18		1.544E-01	1.174E-01	1.866E-01	1.330E-02	0.827
		756.15	*	1.555E-02	7.833E-02	1.312E-01	1.031E-02	0.118
NB-97		657.90	*	-4.789E-02	7.833E-02	Half-Life too short		
		1024.50		6.216E-01	7.833E-02	Half-Life too short		
ZR-97		254.15		1.594E-01	7.833E-02	Half-Life too short		
		355.39		1.155E+00	7.833E-02	Half-Life too short		
		507.63	*	1.192E+00	7.833E-02	Half-Life too short		
		602.52		-8.004E-01	7.833E-02	Half-Life too short		
		1021.30		-7.112E-01	7.833E-02	Half-Life too short		
		1147.95		-9.721E-01	7.833E-02	Half-Life too short		
		1362.66		-5.417E-01	7.833E-02	Half-Life too short		
		1750.46		1.402E-01	7.833E-02	Half-Life too short		
MO-99		140.51		1.800E+01	2.961E+01	4.283E+01	1.156E+01	0.420
		181.06		-9.660E+00	1.878E+01	2.584E+01	4.410E+00	-0.374
		366.43		2.389E+01	6.713E+01	1.122E+02	7.597E+00	0.213
		739.58	*	1.755E+01	1.204E+01	1.900E+01	2.671E+00	0.924
		778.00		1.032E+00	3.048E+01	4.911E+01	3.557E+00	0.021
TC-99M		140.51	*	1.186E+09	3.048E+01	Half-Life too short		
RH-101		127.23		-1.084E-02	4.746E-02	7.630E-02	4.877E-03	-0.142
		198.01	*	1.893E-03	4.184E-02	6.613E-02	3.799E-03	0.029
		325.23		-4.353E-01	2.536E-01	3.862E-01	2.571E-02	-1.127
RH-102		418.52		1.480E-02	3.111E-01	5.081E-01	3.440E-02	0.029
		475.06	*	-1.510E-03	3.310E-02	5.333E-02	3.518E-03	-0.028
		631.29		4.691E-02	5.735E-02	1.007E-01	5.356E-03	0.466
		697.49		4.704E-03	8.446E-02	1.410E-01	7.889E-03	0.033
	+	766.84		1.526E+00	2.941E-01	4.027E-01	2.819E-02	3.789
		1046.59		1.991E-02	1.048E-01	1.724E-01	1.448E-02	0.116
		1112.84		1.476E-01	2.571E-01	3.820E-01	2.796E-02	0.386
RU-103		497.08	*	1.791E-02	4.464E-02	7.350E-02	9.536E-03	0.244
		610.33		9.481E+00	1.932E+00	2.523E+00	3.867E-01	3.758
RH-106	+	511.85		4.191E-01	3.821E-01	3.764E-01	2.409E-02	1.113
		621.84	*	-8.996E-02	3.308E-01	5.453E-01	6.304E-02	-0.165
		1050.47		-1.276E-01	2.140E+00	3.432E+00	2.863E-01	-0.037
RU-106	+	511.85		4.191E-01	3.821E-01	3.764E-01	2.409E-02	1.113
		621.84	*	-8.996E-02	3.306E-01	5.453E-01	2.962E-02	-0.165
		1050.47		-1.276E-01	2.140E+00	3.432E+00	2.863E-01	-0.037
AG-108M		433.93	*	-1.973E-02	3.505E-02	5.507E-02	3.949E-03	-0.358
		614.37		-1.540E-02	4.518E-02	6.393E-02	3.856E-03	-0.241
		722.95		2.830E-02	5.047E-02	7.631E-02	5.006E-03	0.371
AG-110M		657.75	*	-5.650E-02	4.084E-02	6.266E-02	3.395E-03	-0.902
		677.61		-8.749E-02	3.195E-01	5.232E-01	2.937E-02	-0.167
		706.67		-9.134E-02	2.212E-01	3.581E-01	2.192E-02	-0.255
		763.93		1.850E+00	3.197E-01	5.629E-01	4.075E-02	3.286
		884.67		1.678E-02	5.678E-02	9.482E-02	9.504E-03	0.177
		937.48		-1.812E-02	1.223E-01	1.968E-01	1.974E-02	-0.092

---- Non-Identified Nuclides ----

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		1384.27		7.756E-03	1.686E-01	2.490E-01	2.199E-02	0.031
IN-111		171.28		-5.713E-01	9.883E-01	1.545E+00	8.498E-02	-0.370
		245.39	*	3.055E-01	9.638E-01	1.451E+00	8.957E-02	0.211
IN-113M		391.69	*	-4.093E-03	4.808E-02	7.832E-02	5.585E-03	-0.052
SN-113		391.69	*	-4.093E-03	4.808E-02	7.832E-02	5.585E-03	-0.052
IN-114M		190.27	*	6.632E-02	2.480E-01	3.533E-01	2.003E-02	0.188
CD-115		260.90		-1.062E+02	1.142E+02	1.600E+02	1.007E+01	-0.664
		492.35		-3.463E+01	2.798E+01	4.152E+01	2.704E+00	-0.834
		527.90	*	-5.711E+00	8.498E+00	1.305E+01	8.212E-01	-0.438
SN-117M		156.02		-2.000E+00	2.898E+00	4.542E+00	2.572E-01	-0.440
		158.56	*	4.276E-02	7.876E-02	1.144E-01	6.418E-03	0.374
SB-122		563.90	*	-8.420E-01	1.711E+00	2.645E+00	1.591E-01	-0.318
		692.80		6.037E+00	3.552E+01	5.972E+01	3.288E+00	0.101
I-123		159.00	*	7.137E-01	3.552E+01	Half-Life too short		
		528.96		-8.494E+01	3.552E+01	Half-Life too short		
TE-123M		159.00	*	1.668E-02	4.313E-02	6.231E-02	3.539E-03	0.268
I-124		602.71	*	-2.569E-01	6.230E-01	8.797E-01	4.963E-02	-0.292
		722.78		2.077E+00	4.277E+00	6.430E+00	3.914E-01	0.323
		1325.50		-3.553E+01	2.869E+01	4.075E+01	3.494E+00	-0.872
		1376.25		2.610E+01	2.586E+01	4.686E+01	4.033E+00	0.557
		1509.49		1.656E+01	1.389E+01	2.574E+01	2.104E+00	0.643
		1691.02		-9.261E-02	2.682E+00	4.329E+00	3.114E-01	-0.021
SB-124		602.71		-1.806E-02	4.379E-02	6.183E-02	3.490E-03	-0.292
		645.85		1.135E-02	5.497E-01	9.158E-01	5.465E-02	0.012
		709.31		-1.432E+00	2.862E+00	4.600E+00	2.678E-01	-0.311
		713.82		5.538E-01	1.750E+00	2.963E+00	3.044E-01	0.187
		722.78		2.116E-01	4.358E-01	6.552E-01	4.160E-02	0.323
	+	968.20		1.629E+01	4.192E+00	6.649E+00	6.268E-01	2.450
		1045.16		4.071E-01	2.268E+00	3.727E+00	3.138E-01	0.109
		1325.50		-3.867E+00	3.122E+00	4.435E+00	3.802E-01	-0.872
		1368.21		3.933E-01	1.747E+00	2.767E+00	3.729E-01	0.142
		1436.60		7.019E-01	3.528E+00	5.964E+00	5.035E-01	0.118
		1691.02	*	-2.226E-03	6.446E-02	1.040E-01	7.905E-03	-0.021
SB-125		427.89	*	4.421E-02	1.031E-01	1.714E-01	1.193E-02	0.258
		463.38		1.232E-01	3.093E-01	5.111E-01	3.833E-02	0.241
		600.56		-6.135E-02	1.980E-01	3.081E-01	2.031E-02	-0.199
		635.90		-2.209E-01	2.860E-01	4.553E-01	2.887E-02	-0.485
TE-125M		109.28	*	4.024E+01	1.849E+01	2.790E+01	2.677E+00	1.443
I-126		388.63		9.881E-02	2.164E-01	3.618E-01	2.458E-02	0.273
		666.33	*	-8.770E-02	1.968E-01	3.203E-01	1.607E-02	-0.274
		753.82		1.094E+00	1.557E+00	2.686E+00	1.806E-01	0.407
SB-126		223.80		-5.833E+00	4.351E+00	7.012E+00	4.198E-01	-0.832
		278.60		1.264E+00	2.587E+00	4.393E+00	2.820E-01	0.288
		296.50		6.612E+00	2.343E+00	3.026E+00	1.974E-01	2.185
		414.70		2.087E-02	7.624E-02	1.260E-01	8.540E-03	0.166
		415.30		1.601E+00	6.421E+00	1.060E+01	7.182E-01	0.151
		555.20		2.730E+00	4.244E+00	7.049E+00	4.292E-01	0.387
		573.80		3.887E-01	1.088E+00	1.868E+00	1.107E-01	0.208
		593.00		-5.632E-01	9.338E-01	1.516E+00	8.705E-02	-0.371

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		656.30		-3.621E+00	3.658E+00	5.762E+00	2.884E-01	-0.628
		666.33		-3.654E-02	8.201E-02	1.335E-01	6.696E-03	-0.274
		675.00		1.219E-01	1.903E+00	3.187E+00	1.649E-01	0.038
		695.00		-3.817E-02	8.131E-02	1.315E-01	7.297E-03	-0.290
		697.00		2.036E-01	2.715E-01	4.713E-01	2.632E-02	0.432
		720.50	*	2.382E-02	1.686E-01	2.461E-01	1.487E-02	0.097
		856.80		-3.067E-01	4.785E-01	7.457E-01	6.768E-02	-0.411
		989.30		-5.999E-01	1.279E+00	1.988E+00	1.824E-01	-0.302
		1034.80		-3.010E+00	8.362E+00	1.304E+01	1.118E+00	-0.231
		1213.00		2.595E+00	4.493E+00	7.814E+00	5.287E-01	0.332
SB-127		61.10		7.873E+02	1.857E+02	2.491E+02	3.429E+01	3.161
		252.40		1.208E+00	4.125E+00	6.724E+00	2.791E+00	0.180
		290.80		-1.290E+01	2.128E+01	3.006E+01	2.764E+00	-0.429
		411.60		-8.722E+00	1.074E+01	1.666E+01	2.420E+00	-0.524
		444.90		6.360E-01	8.417E+00	1.372E+01	1.502E+00	0.046
		473.00		3.339E-01	1.531E+00	2.503E+00	2.821E-01	0.133
		543.00		1.066E+00	1.565E+01	2.515E+01	3.214E+00	0.042
		603.60		-6.652E+00	1.076E+01	1.489E+01	1.533E+00	-0.447
		685.20	*	-4.650E-01	1.166E+00	1.893E+00	1.652E-01	-0.246
		698.50		-1.336E+01	1.375E+01	2.134E+01	3.014E+00	-0.626
		722.20		6.547E+00	2.883E+01	4.240E+01	3.777E+00	0.154
		783.80		4.902E+00	4.362E+00	6.731E+00	7.566E-01	0.728
XE-127		57.60		-2.722E+00	1.896E+01	3.013E+01	3.830E+00	-0.090
		145.22		2.179E+00	1.096E+00	1.665E+00	9.817E-02	1.309
		172.10		-3.406E-02	1.555E-01	2.460E-01	1.355E-02	-0.138
		202.84	*	5.818E-02	6.492E-02	1.005E-01	5.818E-03	0.579
		374.96		-2.259E-01	2.107E-01	3.258E-01	2.210E-02	-0.693
I-131		80.18		5.921E-01	1.244E+01	1.456E+01	1.603E+00	0.041
		284.30		-9.734E-01	1.440E+00	2.332E+00	1.640E-01	-0.417
		364.48	*	-3.088E-02	1.137E-01	1.844E-01	1.354E-02	-0.167
		636.97		3.766E-01	1.443E+00	2.455E+00	1.472E-01	0.153
		722.89		4.077E+00	7.630E+00	1.151E+01	7.088E-01	0.354
TE-132		49.72		3.313E+01	5.833E+01	9.857E+01	1.384E+01	0.336
	+	111.76		2.799E+02	5.616E+01	8.702E+01	8.377E+00	3.216
		116.30		-3.550E+01	3.774E+01	5.275E+01	4.907E+00	-0.673
		228.16	*	3.069E-01	6.105E-01	1.044E+00	1.484E-01	0.294
BA-133		53.15		-2.691E-01	1.238E+01	2.071E+01	2.742E+00	-0.013
		79.62		-4.036E-01	3.891E+00	4.531E+00	7.549E-01	-0.089
		81.00		7.237E-02	2.970E-01	3.493E-01	6.037E-02	0.207
		276.40		4.391E-01	4.238E-01	7.270E-01	9.629E-02	0.604
		302.84		-4.452E-02	1.751E-01	2.519E-01	3.036E-02	-0.177
		356.01	*	2.933E-02	5.051E-02	7.566E-02	9.129E-03	0.388
		383.85		1.212E-01	3.272E-01	5.455E-01	6.235E-02	0.222
I-133	+	510.53		3.194E-01	3.272E-01	Half-Life too short		
		529.87	*	-3.175E-04	3.272E-01	Half-Life too short		
		706.58		-6.856E-02	3.272E-01	Half-Life too short		
		856.28		-2.065E-01	3.272E-01	Half-Life too short		
		875.33		2.157E-02	3.272E-01	Half-Life too short		
		1236.41		4.944E-01	3.272E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1298.22		6.050E-03	3.272E-01	Half-Life too short		
CS-134		475.35		1.721E-01	2.157E+00	3.500E+00	2.309E-01	0.049
		563.23		-1.513E-01	4.082E-01	6.362E-01	3.904E-02	-0.238
		569.32		9.472E-02	2.283E-01	3.733E-01	2.290E-02	0.254
		604.70		2.948E-03	3.838E-02	5.652E-02	3.196E-03	0.052
		795.84	*	4.664E-02	5.370E-02	9.302E-02	7.171E-03	0.501
		801.93		-3.462E-01	4.320E-01	6.614E-01	5.179E-02	-0.523
		1038.57		2.612E+00	3.832E+00	6.569E+00	5.595E-01	0.398
		1167.94		5.459E-02	2.637E+00	4.424E+00	2.775E-01	0.012
		1365.15		-4.925E-01	1.170E+00	1.833E+00	1.654E-01	-0.269
CS-135		268.24	*	8.911E-03	1.770E-01	2.966E-01	2.397E-02	0.030
I-135		288.45		1.696E+09	1.770E-01	Half-Life too short		
		417.63		2.698E+08	1.770E-01	Half-Life too short		
		546.56		2.644E+08	1.770E-01	Half-Life too short		
		836.80		9.539E+08	1.770E-01	Half-Life too short		
		1038.76		5.293E+08	1.770E-01	Half-Life too short		
		1124.00		7.951E+08	1.770E-01	Half-Life too short		
		1131.51		3.063E+08	1.770E-01	Half-Life too short		
		1260.41	*	-9.492E+07	1.770E-01	Half-Life too short		
		1457.56		5.735E+10	1.770E-01	Half-Life too short		
		1678.03		1.751E+08	1.770E-01	Half-Life too short		
		1706.46		-6.691E+08	1.770E-01	Half-Life too short		
		1791.20		-1.699E+08	1.770E-01	Half-Life too short		
CS-136		66.91		-1.821E+00	1.881E+00	2.692E+00	4.610E-01	-0.676
	+	86.29		2.748E+00	2.491E+00	3.708E+00	5.463E-01	0.741
		153.22		6.330E-01	8.412E-01	1.375E+00	9.843E-02	0.460
	+	163.89		3.801E+00	1.627E+00	2.440E+00	1.711E-01	1.558
		176.55		2.180E-01	4.623E-01	7.459E-01	4.692E-02	0.292
		273.65		-8.192E-01	4.920E-01	7.673E-01	5.473E-02	-1.068
		340.57		2.697E-01	1.313E-01	2.128E-01	1.496E-02	1.267
		818.51		1.927E-03	7.836E-02	1.291E-01	1.054E-02	0.015
		1048.07	*	-7.695E-02	9.687E-02	1.432E-01	1.253E-02	-0.537
		1235.34		1.094E+00	6.318E-01	1.146E+00	1.238E-01	0.955
BA-137M		661.65	*	3.557E-02	4.275E-02	7.444E-02	3.673E-03	0.478
CS-137		661.65	*	3.760E-02	4.520E-02	7.869E-02	3.905E-03	0.478
CE-139		165.85	*	-7.592E-03	4.552E-02	6.418E-02	3.506E-03	-0.118
BA-140	+	162.64		2.671E+00	1.140E+00	1.693E+00	1.063E-01	1.578
		304.84		-7.560E-02	1.398E+00	2.147E+00	5.896E-01	-0.035
		423.70		-1.044E+00	1.990E+00	3.101E+00	9.916E-01	-0.337
		537.32	*	-5.462E-02	2.878E-01	4.548E-01	1.483E-01	-0.120
LA-140		328.77		5.891E-01	3.200E-01	5.621E-01	4.095E-02	1.048
		432.53		-2.276E+00	2.120E+00	3.226E+00	2.345E-01	-0.706
		487.03		-4.083E-02	1.442E-01	2.285E-01	1.652E-02	-0.179
		751.79		7.077E-01	1.908E+00	3.061E+00	2.398E-01	0.231
		815.85		2.346E-01	3.347E-01	5.765E-01	5.273E-02	0.407
		867.82		-3.836E-01	1.362E+00	2.179E+00	2.130E-01	-0.176
		919.63		2.194E+00	2.955E+00	5.068E+00	5.947E-01	0.433
		925.24		-6.009E-01	1.269E+00	1.992E+00	2.063E-01	-0.302
		1596.49	*	-5.973E-02	7.266E-02	1.021E-01	7.921E-03	-0.585

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-141		145.44	*	1.071E-01	9.670E-02	1.435E-01	8.784E-03	0.746
CE-143		57.37		-1.090E-03	9.670E-02	Half-Life too short		
		231.56		-9.640E-04	9.670E-02	Half-Life too short		
		293.26	*	4.296E-04	9.670E-02	Half-Life too short		
	+	350.59		1.420E-02	9.670E-02	Half-Life too short		
		490.36		7.288E-04	9.670E-02	Half-Life too short		
		664.57		-6.048E-04	9.670E-02	Half-Life too short		
		721.93		1.080E-04	9.670E-02	Half-Life too short		
CE-144		80.11		1.293E-01	6.353E+00	7.427E+00	8.150E-01	0.017
		133.54	*	-1.543E-01	3.078E-01	4.889E-01	7.025E-02	-0.316
PM-144		476.78		-3.151E-02	7.572E-02	1.193E-01	9.081E-03	-0.264
		618.01		6.869E-03	3.307E-02	5.616E-02	3.281E-03	0.122
		696.49	*	3.541E-02	3.735E-02	6.552E-02	3.655E-03	0.540
		778.57		2.329E+00	2.807E+00	4.629E+00	3.360E-01	0.503
PR-144		696.49	*	2.398E+00	2.529E+00	4.437E+00	2.474E-01	0.540
		1489.15		-1.814E+01	1.109E+01	1.291E+01	1.066E+00	-1.405
PM-146		453.90	*	-1.898E-03	4.954E-02	8.010E-02	7.399E-03	-0.024
		633.02		-7.822E-01	1.484E+00	2.357E+00	8.663E-01	-0.332
		735.90		1.870E-02	1.996E-01	2.894E-01	8.104E-02	0.065
		747.13		-5.759E-02	1.185E-01	1.621E-01	2.089E-02	-0.355
ND-147	+	91.11		5.495E+01	6.089E+00	2.087E+00	2.326E-01	26.333
		319.41		3.280E+00	3.444E+00	5.921E+00	3.930E-01	0.554
		439.89		-1.243E+00	6.090E+00	9.780E+00	6.576E-01	-0.127
		531.02	*	2.371E-01	5.998E-01	9.830E-01	1.350E-01	0.241
PM-149		285.90	*	-6.317E+01	6.798E+01	1.079E+02	1.560E+01	-0.585
EU-152		121.78		-6.668E-02	1.118E-01	1.781E-01	1.468E-02	-0.374
		244.69		1.634E-01	3.962E-01	5.992E-01	3.696E-02	0.273
		344.27	*	-1.321E-01	1.117E-01	1.577E-01	1.162E-02	-0.838
		443.98		-3.603E-01	1.063E+00	1.691E+00	1.135E-01	-0.213
		778.89		3.440E-01	3.305E-01	5.361E-01	3.893E-02	0.642
		867.32		-2.354E-01	8.789E-01	1.409E+00	1.315E-01	-0.167
	+	964.01		5.839E-01	3.943E-01	5.767E-01	5.464E-02	1.012
		1085.78		-2.083E-01	4.067E-01	6.216E-01	4.839E-02	-0.335
		1112.02		2.946E-01	3.560E-01	5.498E-01	4.033E-02	0.536
		1407.95		1.207E-01	1.917E-01	3.374E-01	2.877E-02	0.358
GD-153		69.67		4.985E+00	4.083E+00	6.180E+00	6.893E-01	0.807
	+	83.37		6.696E+01	4.696E+01	5.656E+01	6.269E+00	1.184
	+	97.43	*	1.640E+00	2.664E-01	3.039E-01	2.830E-02	5.397
		103.18		-7.680E-02	1.964E-01	2.828E-01	2.391E-02	-0.272
EU-154		123.07		-2.542E-02	7.770E-02	1.247E-01	1.233E-02	-0.204
		247.94		-1.364E-01	4.044E-01	6.708E-01	6.565E-02	-0.203
		591.81		-4.645E-01	6.613E-01	1.065E+00	1.038E-01	-0.436
		723.30		1.604E-01	2.135E-01	3.275E-01	2.399E-02	0.490
		756.87		-2.136E-01	8.640E-01	1.406E+00	1.509E-01	-0.152
		873.19		1.400E-01	3.153E-01	5.333E-01	6.862E-02	0.263
		996.32		3.006E-01	4.572E-01	6.842E-01	1.231E-01	0.439
		1004.76		1.398E-01	2.558E-01	3.805E-01	4.532E-02	0.367
		1274.45	*	6.060E-02	1.293E-01	2.234E-01	2.379E-02	0.271
EU-155		48.70		3.681E+00	9.876E+00	1.668E+01	2.003E+00	0.221

---- Non-Identified Nuclides ----

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		60.01		1.827E+01	1.571E+01	2.387E+01	2.940E+00	0.765
	+	86.54		2.705E-01	2.439E-01	3.651E-01	4.132E-02	0.741
		105.31	*	1.201E-01	1.817E-01	3.003E-01	2.491E-02	0.400
TB-160	+	86.79		7.144E-01	6.441E-01	9.632E-01	1.085E-01	0.742
		197.04		-5.677E-01	7.173E-01	1.100E+00	6.307E-02	-0.516
		215.65		1.372E-01	8.328E-01	1.416E+00	8.373E-02	0.097
	+	298.57		2.315E-01	1.613E-01	2.122E-01	1.387E-02	1.091
		879.36	*	-1.028E-01	1.642E-01	2.559E-01	2.467E-02	-0.402
		962.29		1.034E+00	5.909E-01	1.059E+00	1.006E-01	0.976
		966.15		1.099E+00	2.815E-01	5.199E-01	4.913E-02	2.114
		1177.93		-2.377E-01	3.649E-01	5.789E-01	3.610E-02	-0.411
		1271.85		-1.644E-01	7.376E-01	1.203E+00	9.256E-02	-0.137
HO-166M		80.57		1.834E-01	8.142E-01	9.579E-01	1.052E-01	0.191
	+	184.41		1.415E+00	1.314E-01	1.461E-01	8.204E-03	9.688
		280.46		-7.904E-02	9.407E-02	1.516E-01	9.750E-03	-0.521
		410.95		-2.305E-02	2.611E-01	4.238E-01	2.874E-02	-0.054
		711.68	*	-2.093E-02	6.470E-02	1.053E-01	6.178E-03	-0.199
		752.31		2.314E-01	3.132E-01	5.295E-01	3.544E-02	0.437
		810.29		-7.075E-02	6.481E-02	9.766E-02	7.781E-03	-0.724
TM-171		51.35		-1.004E+02	1.142E+02	1.869E+02	2.458E+01	-0.537
		52.39		-3.317E+01	5.628E+01	9.291E+01	1.231E+01	-0.357
		59.40		9.833E+01	8.574E+01	1.304E+02	1.619E+01	0.754
		66.72	*	-4.450E+01	7.162E+01	1.046E+02	1.191E+01	-0.426
LU-176	+	88.36		5.329E-01	4.805E-01	7.180E-01	8.076E-02	0.742
		201.83		-3.970E-03	3.996E-02	5.973E-02	3.453E-03	-0.066
		306.84	*	5.873E-03	2.741E-02	4.591E-02	3.020E-03	0.128
		401.10		4.911E-01	7.239E+00	1.187E+01	8.059E-01	0.041
LU-177M		52.97		-3.098E-01	5.572E+00	9.318E+00	1.234E+00	-0.033
		54.07		9.225E-01	2.856E+00	4.802E+00	6.334E-01	0.192
		61.30		3.992E+01	6.972E+00	8.638E+00	1.045E+00	4.621
		121.62		-1.973E-01	5.671E-01	9.106E-01	6.025E-02	-0.217
		147.16		2.594E-01	9.943E-01	1.435E+00	8.402E-02	0.181
		171.86		-1.642E-01	6.375E-01	1.007E+00	5.545E-02	-0.163
		218.09		-6.347E-01	9.595E-01	1.588E+00	9.423E-02	-0.400
		268.79		8.000E-01	8.884E-01	1.531E+00	9.724E-02	0.523
		319.02		1.437E-01	2.915E-01	4.926E-01	3.268E-02	0.292
		367.43		5.549E-01	9.707E-01	1.638E+00	1.109E-01	0.339
		413.65	*	-5.994E-02	1.899E-01	3.044E-01	2.063E-02	-0.197
HF-181		56.28		-1.542E+00	2.924E+00	4.826E+00	6.235E-01	-0.319
		57.53		-8.560E-01	1.619E+00	2.548E+00	3.242E-01	-0.336
		65.20		1.133E+00	2.394E+00	3.597E+00	4.156E-01	0.315
		133.02		-1.810E-02	9.611E-02	1.544E-01	9.585E-03	-0.117
		136.25		-3.260E-01	6.529E-01	1.038E+00	6.352E-02	-0.314
		345.85		-1.740E-01	2.309E-01	3.169E-01	2.131E-02	-0.549
		482.03	*	2.133E-02	4.539E-02	7.526E-02	4.940E-03	0.283
W-181		56.28		-6.110E-01	1.159E+00	1.914E+00	2.472E-01	-0.319
		57.53		-3.402E-01	6.428E-01	1.011E+00	1.287E-01	-0.336
		65.20	*	4.460E-01	9.427E-01	1.416E+00	1.636E-01	0.315
TA-182		67.75		-4.026E-01	2.841E-01	4.030E-01	4.553E-02	-0.999

---- Non-Identified Nuclides ----

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		100.10		8.873E-01	3.425E-01	5.236E-01	4.653E-02	1.695
		152.43		1.644E-01	4.548E-01	7.365E-01	4.225E-02	0.223
		222.10		1.469E-01	3.903E-01	6.670E-01	3.983E-02	0.220
	+	1001.68		7.253E+01	9.172E+00	1.179E+01	1.064E+00	6.151
		1121.28		5.934E-01	1.827E-01	3.464E-01	2.483E-02	1.713
		1189.05		-2.078E-01	3.267E-01	5.199E-01	3.329E-02	-0.400
		1221.42	*	5.244E-02	2.134E-01	3.622E-01	2.498E-02	0.145
		1230.97		-7.638E-01	5.208E-01	7.721E-01	5.439E-02	-0.989
RE-183		57.98		1.806E-02	6.580E-01	9.858E-01	1.247E-01	0.018
		59.32		3.844E-01	3.491E-01	5.306E-01	6.599E-02	0.724
		67.20		-6.075E-01	5.070E-01	7.247E-01	8.223E-02	-0.838
	+	162.32	*	4.128E-01	1.757E-01	2.625E-01	1.452E-02	1.573
	+	208.81		1.094E+00	1.326E+00	1.941E+00	1.135E-01	0.564
		291.72		-8.624E-01	1.165E+00	1.635E+00	1.062E-01	-0.528
RE-184		57.98		6.703E-02	2.442E+00	3.659E+00	4.629E-01	0.018
		59.32		1.426E+00	1.295E+00	1.968E+00	2.447E-01	0.724
		67.20		-2.254E+00	1.881E+00	2.689E+00	3.051E-01	-0.838
		161.27		4.740E-01	5.539E-01	8.125E-01	4.511E-02	0.583
		216.55		-4.033E-02	2.988E-01	5.033E-01	2.980E-02	-0.080
		252.85	*	1.262E-01	2.836E-01	4.504E-01	2.808E-02	0.280
		318.01		2.042E-03	5.122E-01	8.488E-01	5.626E-02	0.002
		792.07		6.283E-01	1.286E+00	1.997E+00	1.509E-01	0.315
		903.28		1.058E-01	1.165E+00	1.662E+00	1.675E-01	0.064
		920.93		3.584E-01	5.236E-01	8.946E-01	8.873E-02	0.401
OS-185		59.72		1.060E+00	9.345E-01	1.420E+00	1.756E-01	0.746
		61.14		2.985E+00	6.446E-01	8.860E-01	1.074E-01	3.370
		69.30		9.812E-01	7.244E-01	1.098E+00	1.227E-01	0.894
		592.07		-1.578E+00	2.690E+00	4.372E+00	2.514E-01	-0.361
		646.12	*	5.220E-03	4.627E-02	7.751E-02	3.982E-03	0.067
		717.42		-1.582E-01	1.001E+00	1.646E+00	9.845E-02	-0.096
		874.81		1.321E-01	6.620E-01	1.099E+00	1.047E-01	0.120
		880.27		4.328E-01	8.864E-01	1.500E+00	1.450E-01	0.289
RE-188		155.03	*	-2.342E-01	2.339E-01	3.632E-01	2.063E-02	-0.645
		477.96		-9.460E-02	3.380E+00	5.449E+00	3.587E-01	-0.017
		633.10		-1.501E+00	2.912E+00	4.722E+00	2.502E-01	-0.318
W-188	+	63.58		4.776E+03	6.380E+02	3.923E+02	4.613E+01	12.174
		227.08		1.508E+01	1.449E+01	2.519E+01	1.516E+00	0.599
		290.67	*	-3.004E+00	8.980E+00	1.290E+01	8.378E-01	-0.233
IR-192	+	295.96		9.305E-01	2.044E-01	2.674E-01	1.766E-02	3.479
		308.46		-5.382E-03	1.035E-01	1.714E-01	1.139E-02	-0.031
		316.51	*	-1.110E-02	3.839E-02	6.284E-02	4.177E-03	-0.177
		468.07		3.723E-02	7.013E-02	1.168E-01	8.662E-03	0.319
		604.41		-9.214E-03	5.109E-01	7.465E-01	8.406E-02	-0.012
		612.46		5.646E-01	7.880E-01	1.216E+00	8.962E-02	0.464
AU-195		65.12		2.824E-01	4.403E-01	6.633E-01	7.670E-02	0.426
		66.83		-2.349E-01	2.386E-01	3.440E-01	3.915E-02	-0.683
	+	75.70		1.501E+00	5.471E-01	7.389E-01	8.082E-02	2.031
	+	98.88	*	4.771E+00	7.748E-01	8.728E-01	7.921E-02	5.466
		129.76		4.015E+00	4.200E+00	6.935E+00	4.375E-01	0.579

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-200		367.94	*	2.779E-06	4.200E+00	Half-Life too short		
		579.30		1.762E-03	4.200E+00	Half-Life too short		
		828.27		-8.908E-04	4.200E+00	Half-Life too short		
		1205.75		6.820E-05	4.200E+00	Half-Life too short		
TL-201		68.90		6.577E+00	8.926E+00	1.345E+01	1.507E+00	0.489
		70.82		5.654E+00	5.069E+00	7.655E+00	8.486E-01	0.739
		80.30		1.122E+00	1.138E+01	1.334E+01	1.464E+00	0.084
		135.34		2.737E+01	2.766E+01	4.568E+01	2.807E+00	0.599
		167.43	*	8.624E-01	7.484E+00	1.140E+01	6.234E-01	0.076
TL-202		68.90		7.303E-01	9.911E-01	1.493E+00	1.674E-01	0.489
		70.82		6.261E-01	5.613E-01	8.476E-01	9.396E-02	0.739
		80.30		1.243E-01	1.261E+00	1.477E+00	1.622E-01	0.084
		439.56	*	-7.824E-03	7.249E-02	1.170E-01	7.867E-03	-0.067
HG-203		70.83		2.867E+00	2.578E+00	3.867E+00	5.912E-01	0.741
		72.87		1.911E+00	1.364E+00	2.254E+00	3.350E-01	0.848
	+	82.60		4.905E+00	3.480E+00	4.134E+00	6.360E-01	1.187
		279.20	*	-1.661E-02	4.506E-02	7.415E-02	5.004E-03	-0.224
BI-207		72.80		4.729E-01	4.011E-01	6.694E-01	7.363E-02	0.706
	+	74.97		8.363E-01	3.049E-01	4.051E-01	4.435E-02	2.064
	+	84.90		8.691E-01	6.095E-01	6.984E-01	7.793E-02	1.244
		569.67		1.205E-02	3.548E-02	5.777E-02	3.445E-03	0.209
		1063.62	*	-2.368E-02	5.447E-02	8.419E-02	6.854E-03	-0.281
		1770.23		-1.138E+00	6.022E-01	6.694E-01	4.441E-02	-1.699
TL-207		81.07		1.938E-01	6.553E-01	7.723E-01	8.494E-02	0.251
	+	83.78		5.731E-01	4.019E-01	4.795E-01	5.324E-02	1.195
	+	94.90		2.743E+00	9.916E-01	8.366E-01	8.168E-02	3.279
		122.32		-2.459E+00	2.643E+00	4.168E+00	3.076E-01	-0.590
	+	144.24		6.259E+00	1.620E+00	1.907E+00	1.398E-01	3.281
		154.21		4.419E-01	5.329E-01	8.728E-01	6.049E-02	0.506
		269.46		4.070E-01	2.115E-01	3.744E-01	2.470E-02	1.087
		323.87	*	-1.164E+00	7.602E-01	1.131E+00	1.904E-01	-1.030
	+	338.28		6.918E+00	1.925E+00	2.486E+00	2.748E-01	2.783
		445.03		3.249E-01	2.456E+00	4.014E+00	4.338E-01	0.081
PO-209		260.50		-7.053E+00	1.247E+01	1.786E+01	1.124E+00	-0.395
		262.80		1.302E+01	3.320E+01	4.998E+01	3.153E+00	0.261
		896.60	*	4.355E+00	7.906E+00	1.346E+01	1.357E+00	0.324
BI-210		46.50	*	-1.586E+01	1.578E+01	2.587E+01	2.538E+00	-0.613
PB-210		46.50	*	-1.586E+01	1.578E+01	2.587E+01	2.538E+00	-0.613
PO-210		46.50	*	-1.586E+01	1.577E+01	2.587E+01	2.323E+00	-0.613
PB-211		404.84	*	-4.447E-01	1.033E+00	1.586E+00	9.900E-01	-0.280
		427.08		1.366E+00	2.455E+00	3.866E+00	2.393E+00	0.353
		831.96		-3.802E-01	1.350E+00	2.140E+00	1.341E+00	-0.178
PO-215		81.07		1.938E-01	6.553E-01	7.723E-01	8.494E-02	0.251
	+	83.78		5.731E-01	4.019E-01	4.795E-01	5.324E-02	1.195
	+	94.90		2.743E+00	9.916E-01	8.366E-01	8.168E-02	3.279
		122.32		-2.459E+00	2.643E+00	4.168E+00	3.076E-01	-0.590
	+	144.24		6.259E+00	1.620E+00	1.907E+00	1.398E-01	3.281
		154.21		4.419E-01	5.329E-01	8.728E-01	6.049E-02	0.506
		269.46		4.070E-01	2.115E-01	3.744E-01	2.470E-02	1.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-1.164E+00	7.602E-01	1.131E+00	1.904E-01	-1.030
	+	338.28		6.918E+00	1.925E+00	2.486E+00	2.748E-01	2.783
		445.03		3.249E-01	2.456E+00	4.014E+00	4.338E-01	0.081
RN-219		271.23		1.742E-01	2.762E-01	4.712E-01	4.015E-02	0.370
		401.81	*	-8.573E-02	4.417E-01	7.139E-01	1.004E-01	-0.120
RN-220		549.76	*	2.825E+00	2.993E+01	4.815E+01	2.953E+00	0.059
RA-223		81.07		1.938E-01	6.553E-01	7.723E-01	8.494E-02	0.251
	+	83.78		5.731E-01	4.019E-01	4.795E-01	5.324E-02	1.195
	+	94.90		2.743E+00	9.916E-01	8.366E-01	8.168E-02	3.279
		122.32		-2.459E+00	2.643E+00	4.168E+00	3.076E-01	-0.590
	+	144.24		6.259E+00	1.620E+00	1.907E+00	1.398E-01	3.281
		154.21		4.419E-01	5.329E-01	8.728E-01	6.049E-02	0.506
		269.46		4.070E-01	2.115E-01	3.744E-01	2.470E-02	1.087
		323.87	*	-1.164E+00	7.602E-01	1.131E+00	1.904E-01	-1.030
	+	338.28		6.918E+00	1.925E+00	2.486E+00	2.748E-01	2.783
		445.03		3.249E-01	2.456E+00	4.014E+00	4.338E-01	0.081
AC-227		79.80		-5.510E-01	4.943E+00	5.752E+00	1.297E+00	-0.096
		236.00		9.213E-01	3.160E-01	5.004E-01	5.314E-02	1.841
		256.20	*	8.744E-01	5.414E-01	8.372E-01	1.185E-01	1.044
		286.10		-1.247E+00	1.675E+00	2.697E+00	3.211E-01	-0.462
	+	299.80		2.983E+00	2.128E+00	2.769E+00	4.587E-01	1.077
		304.40		-5.363E-02	2.300E+00	3.355E+00	5.895E-01	-0.016
		334.20		-2.385E+00	2.877E+00	3.907E+00	7.281E-01	-0.610
TH-227		79.80		-5.510E-01	4.943E+00	5.752E+00	1.312E+00	-0.096
	+	94.00		2.195E+01	9.067E+00	1.247E+01	2.786E+00	1.759
		236.00		9.213E-01	3.124E-01	5.004E-01	4.628E-02	1.841
		256.20	*	8.744E-01	5.478E-01	8.372E-01	1.429E-01	1.044
		286.10		-1.247E+00	2.085E+00	2.697E+00	2.702E+00	-0.462
	+	299.80		2.983E+00	2.128E+00	2.769E+00	4.587E-01	1.077
		304.40		-5.363E-02	2.300E+00	3.355E+00	5.895E-01	-0.016
		334.20		-2.385E+00	2.877E+00	3.907E+00	7.281E-01	-0.610
TH-229		85.43		2.402E-01	5.814E-01	6.860E-01	7.673E-02	0.350
	+	88.47		3.068E-01	2.766E-01	4.137E-01	4.641E-02	0.742
		100.00		1.220E+00	3.705E-01	5.667E-01	5.045E-02	2.153
		193.63	*	2.400E-01	6.391E-01	1.025E+00	5.843E-02	0.234
		210.97		7.412E-01	9.496E-01	1.466E+00	8.600E-02	0.506
PA-231		283.67	*	-2.686E-01	1.615E+00	2.673E+00	3.761E-01	-0.100
		301.29		7.397E-01	7.019E-01	1.078E+00	1.174E-01	0.686
TH-231		81.07		1.938E-01	6.553E-01	7.723E-01	8.494E-02	0.251
	+	83.78		5.731E-01	4.019E-01	4.795E-01	5.324E-02	1.195
	+	94.90		2.743E+00	9.916E-01	8.366E-01	8.168E-02	3.279
		122.32		-2.459E+00	2.643E+00	4.168E+00	3.076E-01	-0.590
	+	144.24		6.259E+00	1.620E+00	1.907E+00	1.398E-01	3.281
		154.21		4.419E-01	5.329E-01	8.728E-01	6.049E-02	0.506
		269.46		4.070E-01	2.115E-01	3.744E-01	2.470E-02	1.087
		323.87	*	-1.164E+00	7.602E-01	1.131E+00	1.904E-01	-1.030
	+	338.28		6.918E+00	1.925E+00	2.486E+00	2.748E-01	2.783
		445.03		3.249E-01	2.456E+00	4.014E+00	4.338E-01	0.081
U-231	+	84.21		2.014E+01	1.412E+01	1.671E+01	1.859E+00	1.205

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		3.676E+02	3.856E+01	1.535E+01	1.580E+00	23.957
		95.87	*	8.466E+00	2.277E+00	2.857E+00	2.738E-01	2.963
		108.00		1.552E+00	3.217E+00	4.741E+00	3.732E-01	0.327
PA-233	+	75.28		2.441E+01	9.422E+00	1.187E+01	1.989E+00	2.056
	+	86.59		4.399E+00	4.120E+00	5.938E+00	1.649E+00	0.741
	+	300.12		8.317E-01	5.883E-01	7.711E-01	1.062E-01	1.079
		311.98	*	3.991E-02	7.136E-02	1.211E-01	8.377E-03	0.330
		340.50		1.495E+00	7.606E-01	1.115E+00	2.589E-01	1.341
		398.62		2.300E+00	2.323E+00	3.858E+00	1.007E+00	0.596
		415.76		1.536E+00	1.811E+00	3.036E+00	6.340E-01	0.506
PA-234	+	63.00		1.402E+02	2.602E+01	1.211E+01	2.120E+00	11.575
	+	94.67		1.957E+00	7.286E-01	6.513E-01	8.634E-02	3.005
	+	98.44		1.942E+00	1.116E+00	3.606E-01	2.015E-01	5.386
		99.86		4.087E+00	9.859E-01	1.498E+00	1.337E-01	2.728
	+	111.00		1.032E+00	4.398E-01	6.648E-01	7.547E-02	1.552
		131.20		3.049E-02	1.593E-01	2.584E-01	1.619E-02	0.118
		152.70		2.127E-01	4.434E-01	7.185E-01	1.134E-01	0.296
	+	186.00		5.095E+01	1.600E+01	5.429E+00	1.657E+00	9.385
		226.40		2.835E-01	4.617E-01	7.922E-01	9.243E-02	0.358
		227.20		5.057E-01	4.945E-01	8.595E-01	5.173E-02	0.588
		248.90		-7.155E-01	9.377E-01	1.511E+00	3.263E-01	-0.474
	+	293.70		5.925E+00	1.575E+00	1.705E+00	2.787E-01	3.476
		369.80		-1.788E-01	9.231E-01	1.500E+00	3.167E-01	-0.119
		568.70		1.221E+00	1.138E+00	1.930E+00	1.153E-01	0.633
		569.50		1.187E-01	3.155E-01	5.148E-01	3.071E-02	0.231
		574.00		4.439E-01	1.665E+00	2.846E+00	1.686E-01	0.156
		699.00		-5.712E-01	8.097E-01	1.280E+00	2.295E-01	-0.446
		706.10		-7.359E-01	1.175E+00	1.801E+00	7.948E-01	-0.409
		733.00		5.848E-02	4.493E-01	7.313E-01	1.565E-01	0.080
	+	742.81		8.115E+00	6.343E+00	3.518E+00	2.356E+00	2.307
		796.30		6.720E-01	1.056E+00	1.784E+00	4.773E-01	0.377
		805.60		5.831E-01	1.088E+00	1.835E+00	5.588E-01	0.318
		819.60		-5.868E-01	1.400E+00	2.204E+00	8.361E-01	-0.266
		826.30		-9.776E-02	9.038E-01	1.472E+00	6.580E-01	-0.066
		831.60		-4.068E-01	7.041E-01	1.092E+00	3.255E-01	-0.372
		876.40		1.040E-01	9.593E-01	1.573E+00	1.618E+00	0.066
		880.51		1.970E-01	3.265E-01	5.562E-01	5.379E-02	0.354
		883.24		-1.508E-01	3.498E-01	5.294E-01	3.567E-01	-0.285
		899.00		5.872E-02	8.865E-01	1.455E+00	6.408E-01	0.040
		925.00		-6.519E-01	1.410E+00	2.217E+00	2.190E-01	-0.294
		926.50		-3.953E-02	2.016E-01	3.232E-01	8.316E-02	-0.122
		946.00	*	2.156E-01	3.371E-01	5.715E-01	1.101E-01	0.377
		949.00		-3.361E-01	4.939E-01	7.569E-01	7.295E-02	-0.444
		980.50		4.115E-01	9.120E-01	1.345E+00	1.248E-01	0.306
		1394.10		-4.863E-01	1.218E+00	1.845E+00	1.201E+00	-0.264
NP-236	+	94.67		1.484E+00	5.365E-01	4.965E-01	4.870E-02	2.990
	+	98.44		1.468E+00	2.384E-01	2.726E-01	2.493E-02	5.386
	+	111.00		7.804E-01	3.261E-01	5.029E-01	3.799E-02	1.552
		160.31	*	-3.784E-02	1.234E-01	1.735E-01	9.665E-03	-0.218

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		3.356E+00	5.450E-01	5.479E-01	4.915E-02	6.124
		117.00	*	-6.339E-01	3.185E-01	4.597E-01	3.216E-02	-1.379
	+	209.75		8.737E-01	1.059E+00	1.553E+00	9.097E-02	0.562
		228.18		1.299E-01	2.590E-01	4.436E-01	2.674E-02	0.293
		277.60		2.522E-01	2.052E-01	3.566E-01	2.286E-02	0.707
		334.30		-1.364E+00	1.613E+00	2.212E+00	1.480E-01	-0.617
AM-241		59.54	*	6.105E-01	4.983E-01	7.571E-01	9.724E-02	0.806
CM-243	+	99.55		3.453E+00	5.607E-01	5.638E-01	5.057E-02	6.124
		103.76	*	4.314E-02	1.591E-01	2.612E-01	2.188E-02	0.165
		117.00		-6.521E-01	3.276E-01	4.729E-01	3.308E-02	-1.379
	+	209.75		8.612E-01	1.044E+00	1.531E+00	8.967E-02	0.562
		228.18		1.313E-01	2.616E-01	4.482E-01	2.701E-02	0.293
		277.60		2.543E-01	2.069E-01	3.594E-01	2.305E-02	0.707
AM-246		798.80		-1.639E-01	1.558E-01	2.373E-01	1.829E-02	-0.691
		1036.00		-1.850E-01	2.963E-01	4.485E-01	3.837E-02	-0.412
		1062.04		-8.615E-02	2.393E-01	3.729E-01	3.045E-02	-0.231
		1078.86	*	6.033E-02	1.526E-01	2.541E-01	2.007E-02	0.237
CM-247		278.00		1.062E+00	8.471E-01	1.473E+00	9.449E-02	0.721
		287.40		1.536E+00	1.325E+00	2.303E+00	1.491E-01	0.667
		402.60	*	-3.276E-02	4.009E-02	6.256E-02	4.248E-03	-0.524
CF-249		252.85		4.759E-01	1.070E+00	1.699E+00	1.059E-01	0.280
		333.44		-2.062E-01	2.149E-01	2.927E-01	1.957E-02	-0.705
		387.95	*	2.733E-02	4.517E-02	7.602E-02	5.166E-03	0.360
CF-251		176.60	*	1.115E-01	1.691E-01	2.744E-01	1.522E-02	0.406
		227.00		4.498E-01	4.407E-01	7.658E-01	4.608E-02	0.587
		285.00		-2.699E+00	1.895E+00	2.959E+00	1.911E-01	-0.912

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395008      *
* Acquisition date :  2-FEB-2010 09:14:06 Detector SN#    :                 *
* Detector ID        : GAM10               Sensitivity     : 5.000          *
* Geometry           : CAN                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.22      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395008           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.4643E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.445E+01	3.412E+00	4.963E-01	0.000E+00
NB-95	5.989E-01	1.131E-01	7.677E-02	0.000E+00
CD-109	2.282E+00	2.016E+00	3.427E+00	0.000E+00
SN-126	2.247E-01	1.985E-01	3.293E-01	0.000E+00
LU-177	1.085E+00	1.288E+00	1.918E+00	0.000E+00
TL-208	4.846E-01	9.457E-02	6.708E-02	0.000E+00
BI-211	3.333E+00	5.376E-01	3.733E-01	0.000E+00
BI-212	8.745E-01	4.705E-01	5.452E-01	0.000E+00
PB-212	1.459E+00	1.536E-01	1.094E-01	0.000E+00
PO-212	1.459E+00	1.536E-01	1.094E-01	0.000E+00
BI-214	1.066E+00	1.812E-01	1.171E-01	0.000E+00
PB-214	1.160E+00	1.962E-01	1.301E-01	0.000E+00
PO-214	1.160E+00	1.962E-01	1.301E-01	0.000E+00
PO-216	1.459E+00	1.536E-01	1.094E-01	0.000E+00
PO-218	1.160E+00	1.962E-01	1.301E-01	0.000E+00
RA-224	4.423E+00	1.163E+00	1.245E+00	0.000E+00
RA-226	1.066E+00	1.812E-01	1.171E-01	0.000E+00
AC-228	1.253E+00	3.271E-01	2.196E-01	0.000E+00
RA-228	1.253E+00	3.271E-01	2.196E-01	0.000E+00
TH-228	1.480E+00	1.557E-01	1.110E-01	0.000E+00
TH-230	1.066E+00	1.812E-01	1.171E-01	0.000E+00
TH-232	1.253E+00	3.271E-01	2.196E-01	0.000E+00
PA-234M	1.659E+02	2.211E+01	7.664E+00	0.000E+00
TH-234	1.203E+02	2.438E+01	5.693E+00	0.000E+00
U-234	1.066E+00	1.812E-01	1.171E-01	0.000E+00
U-235	1.931E+00	5.626E-01	4.937E-01	0.000E+00
NP-237	6.598E-01	5.981E-01	9.249E-01	0.000E+00
U-238	1.203E+02	2.438E+01	5.693E+00	0.000E+00
AM-243	4.659E-01	1.665E-01	2.137E-01	0.000E+00
ANH-511	8.410E-02	7.514E-02	5.335E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.333E-02	3.442E-01	5.825E-01	0.000E+00	NOT IDENT.
NA-22	2.488E-02	4.493E-02	8.042E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.850E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.911E-03	3.137E-02	5.230E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	1.073E-01	1.395E-01	0.000E+00	FAIL ABUN
SC-46	1.200E-02	4.236E-02	7.340E-02	0.000E+00	FAIL ABUN
V-48	1.772E-02	7.659E-02	1.238E-01	0.000E+00	NOT IDENT.
CR-51	3.297E-01	3.934E-01	7.157E-01	0.000E+00	NOT IDENT.
MN-52	1.052E-01	1.907E-01	3.444E-01	0.000E+00	FAIL ABUN
MN-54	1.311E-02	4.061E-02	7.083E-02	0.000E+00	NOT IDENT.
CO-56	3.268E-02	3.934E-02	7.108E-02	0.000E+00	NOT IDENT.
CO-57	-3.466E-02	3.754E-02	6.441E-02	0.000E+00	NOT IDENT.
CO-58	-1.946E-02	4.114E-02	6.805E-02	0.000E+00	NOT IDENT.
FE-59	-3.704E-02	9.318E-02	1.492E-01	0.000E+00	FAIL ABUN
CO-60	1.895E-02	3.702E-02	6.634E-02	0.000E+00	NOT IDENT.
ZN-65	-8.218E-03	1.087E-01	1.539E-01	0.000E+00	NOT IDENT.
GE-68	-5.073E-02	1.297E+00	2.152E+00	0.000E+00	NOT IDENT.
AS-73	1.090E+00	2.763E+00	5.141E+00	0.000E+00	NOT IDENT.
AS-74	4.448E-02	9.373E-02	1.693E-01	0.000E+00	NOT IDENT.
SE-75	2.530E-02	4.793E-02	8.728E-02	0.000E+00	NOT IDENT.
BR-77	-3.185E+00	8.079E+00	1.331E+01	0.000E+00	FAIL ABUN
SR-82	-6.472E-01	4.324E-01	6.692E-01	0.000E+00	NOT IDENT.
RB-83	-3.193E-02	7.563E-02	1.244E-01	0.000E+00	NOT IDENT.
RB-84	7.665E-02	7.539E-02	1.368E-01	0.000E+00	NOT IDENT.
KR-85	4.349E+00	8.627E+00	1.321E+01	0.000E+00	NOT IDENT.
SR-85	2.201E-02	4.366E-02	6.688E-02	0.000E+00	NOT IDENT.
RB-86	-3.010E-02	7.938E-01	1.317E+00	0.000E+00	NOT IDENT.
Y-88	-4.376E-03	2.633E-02	4.167E-02	0.000E+00	NOT IDENT.
ZR-88	-2.218E-02	3.303E-02	5.521E-02	0.000E+00	NOT IDENT.
Y-91	6.054E+00	1.799E+01	3.177E+01	0.000E+00	NOT IDENT.
NB-94	4.085E-03	3.599E-02	6.292E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.521E-01	2.572E-01	0.000E+00	NOT IDENT.
ZR-95	1.555E-02	7.676E-02	1.341E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.324E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.676E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.755E+01	1.180E+01	1.943E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.909E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.893E-03	4.101E-02	6.966E-02	0.000E+00	NOT IDENT.
RH-102	-1.510E-03	3.244E-02	5.508E-02	0.000E+00	FAIL ABUN
RU-103	1.791E-02	4.375E-02	7.583E-02	0.000E+00	NOT IDENT.
RH-106	-8.996E-02	3.242E-01	5.597E-01	0.000E+00	FAIL ABUN
RU-106	-8.996E-02	3.240E-01	5.597E-01	0.000E+00	FAIL ABUN
AG-108M	-1.973E-02	3.435E-02	5.700E-02	0.000E+00	NOT IDENT.
AG-110M	-5.650E-02	4.003E-02	6.423E-02	0.000E+00	NOT IDENT.
IN-111	3.055E-01	9.445E-01	1.521E+00	0.000E+00	NOT IDENT.
IN-113M	-4.093E-03	4.712E-02	8.124E-02	0.000E+00	NOT IDENT.
SN-113	-4.093E-03	4.712E-02	8.124E-02	0.000E+00	NOT IDENT.
IN-114M	6.632E-02	2.431E-01	3.724E-01	0.000E+00	NOT IDENT.
CD-115	-5.711E+00	8.328E+00	1.344E+01	0.000E+00	NOT IDENT.
SN-117M	4.276E-02	7.718E-02	1.211E-01	0.000E+00	NOT IDENT.
SB-122	-8.420E-01	1.677E+00	2.721E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.809E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.668E-02	4.227E-02	6.595E-02	0.000E+00	NOT IDENT.
I-124	-2.569E-01	6.106E-01	9.035E-01	0.000E+00	NOT IDENT.
SB-124	-2.226E-03	6.317E-02	1.043E-01	0.000E+00	FAIL ABUN
SB-125	4.421E-02	1.010E-01	1.774E-01	0.000E+00	NOT IDENT.
TE-125M	0.000E+00	1.812E+01	2.977E+01	0.000E+00	NOT IDENT.
I-126	-8.770E-02	1.929E-01	3.282E-01	0.000E+00	NOT IDENT.
SB-126	2.382E-02	1.652E-01	2.517E-01	0.000E+00	NOT IDENT.
SB-127	-4.650E-01	1.143E+00	1.938E+00	0.000E+00	NOT IDENT.
XE-127	5.818E-02	6.362E-02	1.058E-01	0.000E+00	NOT IDENT.
I-131	-3.088E-02	1.115E-01	1.916E-01	0.000E+00	NOT IDENT.
TE-132	3.069E-01	5.983E-01	1.096E+00	0.000E+00	FAIL ABUN
BA-133	2.933E-02	4.950E-02	7.866E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.545E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.664E-02	5.262E-02	9.493E-02	0.000E+00	NOT IDENT.
CS-135	8.911E-03	1.734E-01	3.103E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.651E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.695E-02	9.493E-02	1.452E-01	0.000E+00	FAIL ABUN
BA-137M	3.557E-02	4.190E-02	7.629E-02	0.000E+00	NOT IDENT.
CS-137	3.760E-02	4.429E-02	8.064E-02	0.000E+00	NOT IDENT.
CE-139	-7.592E-03	4.461E-02	6.787E-02	0.000E+00	NOT IDENT.
BA-140	-5.462E-02	2.820E-01	4.683E-01	0.000E+00	FAIL ABUN
LA-140	-5.973E-02	7.120E-02	1.024E-01	0.000E+00	NOT IDENT.
CE-141	1.071E-01	9.476E-02	1.522E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	1.321E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.543E-01	3.016E-01	5.195E-01	0.000E+00	NOT IDENT.
PM-144	3.541E-02	3.660E-02	6.707E-02	0.000E+00	NOT IDENT.
PR-144	2.398E+00	2.479E+00	4.542E+00	0.000E+00	NOT IDENT.
PM-146	-1.898E-03	4.854E-02	8.281E-02	0.000E+00	NOT IDENT.
ND-147	2.371E-01	5.878E-01	1.013E+00	0.000E+00	FAIL ABUN
PM-149	-6.317E+01	6.662E+01	1.128E+02	0.000E+00	NOT IDENT.
EU-152	-1.321E-01	1.094E-01	1.641E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	2.611E-01	3.251E-01	0.000E+00	FAIL ABUN
EU-154	6.060E-02	1.267E-01	2.254E-01	0.000E+00	NOT IDENT.
EU-155	1.201E-01	1.781E-01	3.207E-01	0.000E+00	FAIL ABUN
TB-160	-1.028E-01	1.609E-01	2.605E-01	0.000E+00	FAIL ABUN
HO-166M	-2.093E-02	6.341E-02	1.077E-01	0.000E+00	FAIL ABUN
TM-171	-4.450E+01	7.019E+01	1.128E+02	0.000E+00	NOT IDENT.
LU-176	5.873E-03	2.686E-02	4.789E-02	0.000E+00	FAIL ABUN
LU-177M	-5.994E-02	1.861E-01	3.154E-01	0.000E+00	NOT IDENT.
HF-181	2.133E-02	4.448E-02	7.771E-02	0.000E+00	NOT IDENT.
W-181	4.460E-01	9.238E-01	1.528E+00	0.000E+00	NOT IDENT.
TA-182	5.244E-02	2.091E-01	3.659E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.722E-01	2.777E-01	0.000E+00	FAIL ABUN
RE-184	1.262E-01	2.780E-01	4.718E-01	0.000E+00	NOT IDENT.
OS-185	5.220E-03	4.535E-02	7.948E-02	0.000E+00	NOT IDENT.
RE-188	-2.342E-01	2.292E-01	3.846E-01	0.000E+00	NOT IDENT.
W-188	-3.004E+00	8.800E+00	1.348E+01	0.000E+00	FAIL ABUN
IR-192	-1.110E-02	3.763E-02	6.550E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	7.593E-01	9.334E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.252E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	8.624E-01	7.334E+00	1.205E+01	0.000E+00	NOT IDENT.
TL-202	-7.824E-03	7.104E-02	1.211E-01	0.000E+00	NOT IDENT.
HG-203	-1.661E-02	4.416E-02	7.751E-02	0.000E+00	FAIL ABUN
BI-207	-2.368E-02	5.338E-02	8.533E-02	0.000E+00	FAIL ABUN
TL-207	-1.164E+00	7.450E-01	1.178E+00	0.000E+00	FAIL ABUN
PO-209	4.355E+00	7.748E+00	1.369E+01	0.000E+00	NOT IDENT.
BI-210	-1.586E+01	1.546E+01	2.811E+01	0.000E+00	NOT IDENT.
PB-210	-1.586E+01	1.546E+01	2.811E+01	0.000E+00	NOT IDENT.
PO-210	-1.586E+01	1.545E+01	2.811E+01	0.000E+00	NOT IDENT.
PB-211	-4.447E-01	1.012E+00	1.644E+00	0.000E+00	NOT IDENT.
PO-215	-1.164E+00	7.450E-01	1.178E+00	0.000E+00	FAIL ABUN
RN-219	-8.573E-02	4.329E-01	7.402E-01	0.000E+00	NOT IDENT.
RN-220	2.825E+00	2.933E+01	4.956E+01	0.000E+00	NOT IDENT.
RA-223	-1.164E+00	7.450E-01	1.178E+00	0.000E+00	FAIL ABUN
AC-227	8.744E-01	5.306E-01	8.768E-01	0.000E+00	FAIL ABUN
TH-227	8.744E-01	5.368E-01	8.768E-01	0.000E+00	FAIL ABUN
TH-229	2.400E-01	6.263E-01	1.080E+00	0.000E+00	FAIL ABUN
PA-231	-2.686E-01	1.582E+00	2.794E+00	0.000E+00	NOT IDENT.
TH-231	-1.164E+00	7.450E-01	1.178E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	2.232E+00	3.058E+00	0.000E+00	FAIL ABUN
PA-233	3.991E-02	6.994E-02	1.262E-01	0.000E+00	FAIL ABUN
PA-234	2.156E-01	3.304E-01	5.808E-01	0.000E+00	FAIL ABUN
NP-236	-3.784E-02	1.210E-01	1.836E-01	0.000E+00	FAIL ABUN
NP-239	-6.339E-01	3.121E-01	4.898E-01	0.000E+00	FAIL ABUN
AM-241	6.105E-01	4.884E-01	8.184E-01	0.000E+00	NOT IDENT.
CM-243	4.314E-02	1.559E-01	2.790E-01	0.000E+00	FAIL ABUN
AM-246	6.033E-02	1.495E-01	2.574E-01	0.000E+00	NOT IDENT.
CM-247	-3.276E-02	3.929E-02	6.485E-02	0.000E+00	NOT IDENT.
CF-249	2.733E-02	4.427E-02	7.888E-02	0.000E+00	NOT IDENT.
CF-251	1.115E-01	1.657E-01	2.898E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:15:18.12

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395008.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:14:06.
Sample ID         : G245395008           Sample quantity  : 1.46430E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1588	10.67*	1.108E+00	3.445E+01	3.445E+01	10.11
NB-95	765.79	413	99.81*	2.059E+00	5.151E-01	5.989E-01	19.27
CD-109	88.03	170	3.72*	5.253E+00	2.235E+00	2.282E+00	90.16
SN-126	64.28	3978	9.60	2.231E+00	4.762E+01	4.762E+01	18.29
	86.94	170	8.90	5.253E+00	9.341E-01	9.341E-01	98.82
	87.57	170	37.00*	5.253E+00	2.247E-01	2.247E-01	90.16
LU-177	112.95	690	6.40	6.606E+00	4.181E+00	1.762E+01	19.13
	208.36	62	11.00*	5.575E+00	2.573E-01	1.085E+00	121.18
TL-208	277.35	------	6.80	4.610E+00	------ Line Not Found		------
	510.84	96	21.60	2.931E+00	3.893E-01	3.893E-01	91.55
	583.14	418	84.20*	2.629E+00	4.846E-01	4.846E-01	19.91
	860.37	------	12.46	1.841E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.633E+00	------ Line Not Found		------
	351.07	654	12.94*	3.889E+00	3.333E+00	3.333E+00	16.46
BI-212	727.18	87	11.80*	2.164E+00	8.745E-01	8.745E-01	54.91
	785.46	106	1.97	2.010E+00	6.894E+00	6.894E+00	42.87
	1620.62	------	2.75	1.025E+00	------ Line Not Found		------
PB-212	74.81	463	10.70	3.857E+00	2.874E+00	2.874E+00	37.64
	77.11	566	18.00	4.161E+00	1.936E+00	1.936E+00	30.64
	87.30	170	8.00	5.253E+00	1.039E+00	1.039E+00	90.71
	238.63	1300	44.60*	5.118E+00	1.459E+00	1.459E+00	10.74
	300.09	93	3.41	4.363E+00	1.610E+00	1.610E+00	69.93
PO-212	74.81	463	10.70	3.857E+00	2.874E+00	2.874E+00	37.64
	77.11	566	18.00	4.161E+00	1.936E+00	1.936E+00	30.64
	87.30	170	8.00	5.253E+00	1.039E+00	1.039E+00	90.71
	115.19	------	0.60	6.657E+00	------ Line Not Found		------
	238.63	1300	44.60*	5.118E+00	1.459E+00	1.459E+00	10.74
	300.09	93	3.41	4.363E+00	1.610E+00	1.610E+00	69.93
BI-214	609.31	487	46.30*	2.533E+00	1.066E+00	1.066E+00	17.36
	1120.29	139	15.10	1.416E+00	1.661E+00	1.661E+00	42.17
	1764.49	88	15.80	9.767E-01	1.463E+00	1.463E+00	28.18
PB-214	74.81	463	6.21	3.857E+00	4.952E+00	4.952E+00	37.20

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	566	10.50	4.161E+00	3.318E+00	3.318E+00	31.57
	87.30	170	4.67	5.253E+00	1.780E+00	1.780E+00	90.49
	241.98	346	7.49	5.075E+00	2.333E+00	2.333E+00	27.41
	295.21	408	19.20	4.415E+00	1.234E+00	1.234E+00	22.82
	351.92	654	37.20*	3.889E+00	1.160E+00	1.160E+00	17.27
PO-214	74.81	463	6.21	3.857E+00	4.952E+00	4.952E+00	37.20
	77.11	566	10.50	4.161E+00	3.318E+00	3.318E+00	31.57
	87.30	170	4.67	5.253E+00	1.780E+00	1.780E+00	90.49
	241.98	346	7.49	5.075E+00	2.333E+00	2.333E+00	27.41
	295.21	408	19.20	4.415E+00	1.234E+00	1.234E+00	22.82
	351.92	654	37.20*	3.889E+00	1.160E+00	1.160E+00	17.27
PO-216	74.81	463	10.70	3.857E+00	2.874E+00	2.874E+00	37.64
	77.11	566	18.00	4.161E+00	1.936E+00	1.936E+00	30.64
	87.30	170	8.00	5.253E+00	1.039E+00	1.039E+00	90.71
	238.63	1300	44.60*	5.118E+00	1.459E+00	1.459E+00	10.74
	300.09	93	3.41	4.363E+00	1.610E+00	1.610E+00	69.93
PO-218	74.81	463	6.21	3.857E+00	4.952E+00	4.952E+00	37.20
	77.11	566	10.50	4.161E+00	3.318E+00	3.318E+00	31.57
	87.30	170	4.67	5.253E+00	1.780E+00	1.780E+00	90.49
	241.98	346	7.49	5.075E+00	2.333E+00	2.333E+00	27.41
	295.21	408	19.20	4.415E+00	1.234E+00	1.234E+00	22.82
	351.92	654	37.20*	3.889E+00	1.160E+00	1.160E+00	17.27
RA-224	240.98	346	3.95*	5.075E+00	4.423E+00	4.423E+00	26.83
RA-226	609.31	487	46.30*	2.533E+00	1.066E+00	1.066E+00	17.36
	1120.29	139	15.10	1.416E+00	1.661E+00	1.661E+00	42.17
	1764.49	88	15.80	9.767E-01	1.463E+00	1.463E+00	28.18
AC-228	338.32	295	11.40	4.002E+00	1.657E+00	1.657E+00	48.22
	911.07	236	27.70*	1.740E+00	1.253E+00	1.253E+00	26.64
	969.11	170	16.60	1.637E+00	1.605E+00	1.605E+00	33.65
RA-228	338.32	295	11.40	4.002E+00	1.657E+00	1.657E+00	48.22
	911.07	236	27.70*	1.740E+00	1.253E+00	1.253E+00	26.64
	969.11	170	16.60	1.637E+00	1.605E+00	1.605E+00	33.65
TH-228	74.81	463	10.70	3.857E+00	2.874E+00	2.914E+00	36.47
	77.11	566	18.00	4.161E+00	1.936E+00	1.963E+00	30.64
	87.30	170	8.00	5.253E+00	1.039E+00	1.054E+00	90.16
	238.63	1300	44.60*	5.118E+00	1.459E+00	1.480E+00	10.74
	300.09	93	3.41	4.363E+00	1.610E+00	1.632E+00	91.08
TH-230	609.31	487	46.30*	2.533E+00	1.066E+00	1.066E+00	17.36
	1120.29	139	15.10	1.416E+00	1.661E+00	1.661E+00	42.17
	1764.49	88	15.80	9.767E-01	1.463E+00	1.463E+00	28.18
TH-232	338.32	295	11.40	4.002E+00	1.657E+00	1.657E+00	26.40
	911.07	236	27.70*	1.740E+00	1.253E+00	1.253E+00	26.64
	969.11	170	16.60	1.637E+00	1.605E+00	1.605E+00	33.65
PA-234M	766.42	413	0.32	2.059E+00	1.607E+02	1.607E+02	53.59
	1001.03	861	0.84*	1.585E+00	1.659E+02	1.659E+02	13.60
TH-234	63.29	3978	3.80*	2.231E+00	1.203E+02	1.203E+02	20.68
	92.38	14179	5.41	5.691E+00	1.181E+02	1.181E+02	19.05
U-234	609.31	487	46.30*	2.533E+00	1.066E+00	1.066E+00	17.36
	1120.29	139	15.10	1.416E+00	1.661E+00	1.661E+00	42.17

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	88	15.80	9.767E-01	1.463E+00	1.463E+00	28.18
U-235	89.95	------	2.70	5.508E+00	------ Line Not Found		------
	93.35	699	4.50	5.836E+00	6.828E+00	6.828E+00	44.92
	105.00	------	2.10	6.385E+00	------ Line Not Found		------
	143.76	527	10.50*	6.662E+00	1.931E+00	1.931E+00	29.72
	163.35	209	4.70	6.381E+00	1.790E+00	1.790E+00	45.85
	185.71	2380	54.00	5.986E+00	1.887E+00	1.887E+00	9.29
	205.31	155	4.70	5.638E+00	1.501E+00	1.501E+00	73.11
NP-237	86.50	170	12.60*	5.253E+00	6.598E-01	6.598E-01	92.49
	95.87	------	2.60	5.933E+00	------ Line Not Found		------
U-238	63.29	3978	3.80*	2.231E+00	1.203E+02	1.203E+02	20.68
	92.38	14179	5.41	5.691E+00	1.181E+02	1.181E+02	10.49
AM-243	74.67	463	66.00*	3.857E+00	4.659E-01	4.659E-01	36.46
	86.72	170	0.34	5.253E+00	2.474E+01	2.474E+01	90.16
	117.66	------	0.55	6.694E+00	------ Line Not Found		------
	142.18	527	0.13	6.662E+00	1.622E+02	1.622E+02	25.52
ANH-511	511.00	96	100.00*	2.931E+00	8.410E-02	8.410E-02	91.17

Flag: "*" = Keyline

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

Total number of lines in spectrum 38
Number of unidentified lines 3
Number of lines tentatively identified by NID 35 92.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.445E+01	3.445E+01	0.348E+01	10.11	
NB-95	64.02D	1.16	5.151E-01	5.989E-01	1.154E-01	19.27	
CD-109	464.00D	1.02	2.235E+00	2.282E+00	2.057E+00	90.16	
SN-126	1.00E+05Y	1.00	2.247E-01	2.247E-01	2.026E-01	90.16	
LU-177	6.71D	4.21	2.573E-01	1.085E+00	1.314E+00	121.18	
TL-208	1.41E+10Y	1.00	4.846E-01	4.846E-01	0.965E-01	19.91	
BI-211	7.04E+08Y	1.00	3.333E+00	3.333E+00	0.549E+00	16.46	
BI-212	1.41E+10Y	1.00	8.745E-01	8.745E-01	4.801E-01	54.91	
PB-212	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.157E+00	10.74	
PO-212	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.157E+00	10.74	
BI-214	1600.00Y	1.00	1.066E+00	1.066E+00	0.185E+00	17.36	
PB-214	1600.00Y	1.00	1.160E+00	1.160E+00	0.200E+00	17.27	
PO-214	1600.00Y	1.00	1.160E+00	1.160E+00	0.200E+00	17.27	
PO-216	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.157E+00	10.74	
PO-218	1600.00Y	1.00	1.160E+00	1.160E+00	0.200E+00	17.27	
RA-224	1.41E+10Y	1.00	4.423E+00	4.423E+00	1.187E+00	26.83	
RA-226	1600.00Y	1.00	1.066E+00	1.066E+00	0.185E+00	17.36	
AC-228	1.41E+10Y	1.00	1.253E+00	1.253E+00	0.334E+00	26.64	
RA-228	1.41E+10Y	1.00	1.253E+00	1.253E+00	0.334E+00	26.64	
TH-228	1.91Y	1.01	1.459E+00	1.480E+00	0.159E+00	10.74	
TH-230	4.47E+09Y	1.00	1.066E+00	1.066E+00	0.185E+00	17.36	
TH-232	1.41E+10Y	1.00	1.253E+00	1.253E+00	0.334E+00	26.64	
PA-234M	4.47E+09Y	1.00	1.659E+02	1.659E+02	0.226E+02	13.60	
TH-234	4.47E+09Y	1.00	1.203E+02	1.203E+02	0.249E+02	20.68	
U-234	4.47E+09Y	1.00	1.066E+00	1.066E+00	0.185E+00	17.36	
U-235	7.04E+08Y	1.00	1.931E+00	1.931E+00	0.574E+00	29.72	
NP-237	2.14E+06Y	1.00	6.598E-01	6.598E-01	6.103E-01	92.49	
U-238	4.47E+09Y	1.00	1.203E+02	1.203E+02	0.249E+02	20.68	
AM-243	7380.00Y	1.00	4.659E-01	4.659E-01	1.699E-01	36.46	
ANH-511	1.00E+09Y	1.00	8.410E-02	8.410E-02	7.667E-02	91.17	
			---	---			
	Total Activity :		4.738E+02	4.748E+02			

Grand Total Activity : 4.738E+02 4.748E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.43	271	2829	1.87	166.99	163	8	3.76E-02	69.2	4.91E+00	T
0	98.28	1169	1511	1.11	196.66	193	9	1.62E-01	13.4	6.07E+00	T
4	110.82	312	1315	1.53	221.72	218	11	4.33E-02	41.1	6.57E+00	T
0	257.99	219	397	1.20	515.82	512	9	3.04E-02	35.6	4.85E+00	
0	742.72	161	162	1.78	1484.76	1477	18	2.24E-02	40.3	2.12E+00	T
1	963.91	54	81	1.91	1927.04	1918	40	7.48E-03	66.9	1.64E+00	T
0	1377.78	41	25	1.81	2754.83	2746	17	5.73E-03	64.1	1.16E+00	
0	1728.09	24	7	2.05	3455.73	3447	14	3.27E-03	63.4	9.87E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:15:24.45

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395008.CNF;1   *
* Acquisition date  : 2-FEB-2010 09:14:06.  Detector SN#     :               *
* Detector ID       : GAM10                 Sensitivity      : 5.00000        *
* Geometry          : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:02.22          Half life ratio : 8.00000         *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245395008            Analyst initials: MXR1            *
* Batch Number      : 944966                Sample Quantity : 1.46430E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08.8MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.445E+01	3.482E+00	4.935E-01	4.250E-02	69.814
NB-95	5.989E-01	1.154E-01	7.516E-02	5.245E-03	7.969
CD-109	2.282E+00	2.057E+00	3.197E+00	3.625E-01	0.714
SN-126	2.247E-01	2.026E-01	3.072E-01	3.476E-02	0.732
LU-177	1.085E+00	1.314E+00	1.823E+00	1.065E-01	0.595
TL-208	4.846E-01	9.650E-02	6.526E-02	4.385E-03	7.425
BI-211	3.333E+00	5.486E-01	3.590E-01	2.617E-02	9.286
BI-212	8.745E-01	4.801E-01	5.331E-01	4.265E-02	1.640
PB-212	1.459E+00	1.567E-01	1.043E-01	7.914E-03	13.990
PO-212	1.459E+00	1.567E-01	1.043E-01	7.914E-03	13.990
BI-214	1.066E+00	1.849E-01	1.140E-01	8.674E-03	9.348
PB-214	1.160E+00	2.002E-01	1.251E-01	1.122E-02	9.267
PO-214	1.160E+00	2.002E-01	1.251E-01	1.122E-02	9.267
PO-216	1.459E+00	1.567E-01	1.043E-01	7.914E-03	13.990
PO-218	1.160E+00	2.002E-01	1.251E-01	1.122E-02	9.267
RA-224	4.423E+00	1.187E+00	1.187E+00	7.286E-02	3.726
RA-226	1.066E+00	1.849E-01	1.140E-01	8.674E-03	9.348
AC-228	1.253E+00	3.338E-01	2.159E-01	2.665E-02	5.803

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.253E+00	3.338E-01	2.159E-01	2.665E-02	5.803
TH-228	1.480E+00	1.589E-01	1.058E-01	8.024E-03	13.990
TH-230	1.066E+00	1.849E-01	1.140E-01	8.674E-03	9.348
TH-232	1.253E+00	3.338E-01	2.159E-01	2.665E-02	5.803
PA-234M	1.659E+02	2.256E+01	7.551E+00	7.794E-01	21.970
TH-234	1.203E+02	2.488E+01	5.274E+00	1.039E+00	22.811
U-234	1.066E+00	1.849E-01	1.140E-01	8.674E-03	9.348
U-235	1.931E+00	5.741E-01	4.655E-01	7.611E-02	4.149
NP-237	6.598E-01	6.103E-01	8.624E-01	2.027E-01	0.765
U-238	1.203E+02	2.488E+01	5.274E+00	1.039E+00	22.811
AM-243	4.659E-01	1.699E-01	1.987E-01	2.176E-02	2.345
ANH-511	8.410E-02	7.667E-02	5.175E-02	3.315E-03	1.625

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.333E-02		3.512E-01	5.641E-01	4.195E-02	-0.059
NA-22	2.488E-02		4.585E-02	7.970E-02	6.173E-03	0.312
NA-24	2.858E-02		9.438E-02	Half-Life too short		
AL-26	1.911E-03		3.201E-02	5.228E-02	3.315E-03	0.037
TI-44	3.572E-01	+	1.094E-01	1.298E-01	1.420E-02	2.752
SC-46	1.200E-02		4.322E-02	7.212E-02	7.137E-03	0.166
V-48	1.772E-02		7.816E-02	1.220E-01	1.128E-02	0.145
CR-51	3.297E-01		4.014E-01	6.868E-01	4.960E-02	0.480
MN-52	1.052E-01		1.946E-01	3.422E-01	2.892E-02	0.307
MN-54	1.311E-02		4.144E-02	6.949E-02	5.936E-03	0.189
CO-56	3.268E-02		4.014E-02	6.976E-02	6.160E-03	0.469
CO-57	-3.466E-02		3.830E-02	6.050E-02	3.990E-03	-0.573
CO-58	-1.946E-02		4.198E-02	6.671E-02	5.338E-03	-0.292
FE-59	-3.704E-02		9.508E-02	1.473E-01	1.230E-02	-0.251
CO-60	1.895E-02		3.777E-02	6.582E-02	5.720E-03	0.288
ZN-65	-8.218E-03		1.109E-01	1.520E-01	1.107E-02	-0.054
GE-68	-5.073E-02		1.323E+00	2.124E+00	1.683E-01	-0.024
AS-73	1.090E+00		2.819E+00	4.745E+00	6.279E-01	0.230
AS-74	4.448E-02		9.564E-02	1.648E-01	9.416E-03	0.270
SE-75	2.530E-02		4.891E-02	8.339E-02	5.319E-03	0.303
BR-77	-3.185E+00		8.244E+00	1.291E+01	8.192E-01	-0.247
SR-82	-6.472E-01		4.412E-01	6.555E-01	4.726E-02	-0.987
RB-83	-3.193E-02		7.718E-02	1.207E-01	7.658E-03	-0.265
RB-84	7.665E-02		7.693E-02	1.344E-01	1.303E-02	0.570
KR-85	4.349E+00		8.803E+00	1.282E+01	8.188E-01	0.339
SR-85	2.201E-02		4.455E-02	6.488E-02	4.144E-03	0.339
RB-86	-3.010E-02		8.100E-01	1.300E+00	1.032E-01	-0.023
Y-88	-4.376E-03		2.687E-02	4.166E-02	2.556E-03	-0.105
ZR-88	-2.218E-02		3.370E-02	5.323E-02	3.617E-03	-0.417
Y-91	6.054E+00		1.835E+01	3.144E+01	2.088E+00	0.193
NB-94	4.085E-03		3.672E-02	6.148E-02	3.500E-03	0.066

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	2.642E-01		1.552E-01	2.451E-01	1.901E-02	1.078
ZR-95	1.555E-02		7.833E-02	1.312E-01	1.031E-02	0.118
NB-97	-4.789E-02		1.696E-02	Half-Life too short		
ZR-97	1.192E+00		3.406E-01	Half-Life too short		
MO-99	1.755E+01		1.204E+01	1.900E+01	2.671E+00	0.924
TC-99M	1.186E+09		9.741E+08	Half-Life too short		
RH-101	1.893E-03		4.184E-02	6.613E-02	3.799E-03	0.029
RH-102	-1.510E-03		3.310E-02	5.333E-02	3.518E-03	-0.028
RU-103	1.791E-02		4.464E-02	7.350E-02	9.536E-03	0.244
RH-106	-8.996E-02		3.308E-01	5.453E-01	6.304E-02	-0.165
RU-106	-8.996E-02		3.306E-01	5.453E-01	2.962E-02	-0.165
AG-108M	-1.973E-02		3.505E-02	5.507E-02	3.949E-03	-0.358
AG-110M	-5.650E-02		4.084E-02	6.266E-02	3.395E-03	-0.902
IN-111	3.055E-01		9.638E-01	1.451E+00	8.957E-02	0.211
IN-113M	-4.093E-03		4.808E-02	7.832E-02	5.585E-03	-0.052
SN-113	-4.093E-03		4.808E-02	7.832E-02	5.585E-03	-0.052
IN-114M	6.632E-02		2.480E-01	3.533E-01	2.003E-02	0.188
CD-115	-5.711E+00		8.498E+00	1.305E+01	8.212E-01	-0.438
SN-117M	4.276E-02		7.876E-02	1.144E-01	6.418E-03	0.374
SB-122	-8.420E-01		1.711E+00	2.645E+00	1.591E-01	-0.318
I-123	7.137E-01		9.229E-01	Half-Life too short		
TE-123M	1.668E-02		4.313E-02	6.231E-02	3.539E-03	0.268
I-124	-2.569E-01		6.230E-01	8.797E-01	4.963E-02	-0.292
SB-124	-2.226E-03		6.446E-02	1.040E-01	7.905E-03	-0.021
SB-125	4.421E-02		1.031E-01	1.714E-01	1.193E-02	0.258
TE-125M	4.024E+01		1.849E+01	2.790E+01	2.677E+00	1.443
I-126	-8.770E-02		1.968E-01	3.203E-01	1.607E-02	-0.274
SB-126	2.382E-02		1.686E-01	2.461E-01	1.487E-02	0.097
SB-127	-4.650E-01		1.166E+00	1.893E+00	1.652E-01	-0.246
XE-127	5.818E-02		6.492E-02	1.005E-01	5.818E-03	0.579
I-131	-3.088E-02		1.137E-01	1.844E-01	1.354E-02	-0.167
TE-132	3.069E-01		6.105E-01	1.044E+00	1.484E-01	0.294
BA-133	2.933E-02		5.051E-02	7.566E-02	9.129E-03	0.388
I-133	-3.175E-04		1.299E-03	Half-Life too short		
CS-134	4.664E-02		5.370E-02	9.302E-02	7.171E-03	0.501
CS-135	8.911E-03		1.770E-01	2.966E-01	2.397E-02	0.030
I-135	-9.492E+07		1.352E+08	Half-Life too short		
CS-136	-7.695E-02		9.687E-02	1.432E-01	1.253E-02	-0.537
BA-137M	3.557E-02		4.275E-02	7.444E-02	3.673E-03	0.478
CS-137	3.760E-02		4.520E-02	7.869E-02	3.905E-03	0.478
CE-139	-7.592E-03		4.552E-02	6.418E-02	3.506E-03	-0.118
BA-140	-5.462E-02		2.878E-01	4.548E-01	1.483E-01	-0.120
LA-140	-5.973E-02		7.266E-02	1.021E-01	7.921E-03	-0.585
CE-141	1.071E-01		9.670E-02	1.435E-01	8.784E-03	0.746
CE-143	4.296E-04		6.740E-05	Half-Life too short		
CE-144	-1.543E-01		3.078E-01	4.889E-01	7.025E-02	-0.316
PM-144	3.541E-02		3.735E-02	6.552E-02	3.655E-03	0.540
PR-144	2.398E+00		2.529E+00	4.437E+00	2.474E-01	0.540

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-1.898E-03		4.954E-02	8.010E-02	7.399E-03	-0.024
ND-147	2.371E-01		5.998E-01	9.830E-01	1.350E-01	0.241
PM-149	-6.317E+01		6.798E+01	1.079E+02	1.560E+01	-0.585
EU-152	-1.321E-01		1.117E-01	1.577E-01	1.162E-02	-0.838
GD-153	1.640E+00	+	2.664E-01	3.039E-01	2.830E-02	5.397
EU-154	6.060E-02		1.293E-01	2.234E-01	2.379E-02	0.271
EU-155	1.201E-01		1.817E-01	3.003E-01	2.491E-02	0.400
TB-160	-1.028E-01		1.642E-01	2.559E-01	2.467E-02	-0.402
HO-166M	-2.093E-02		6.470E-02	1.053E-01	6.178E-03	-0.199
TM-171	-4.450E+01		7.162E+01	1.046E+02	1.191E+01	-0.426
LU-176	5.873E-03		2.741E-02	4.591E-02	3.020E-03	0.128
LU-177M	-5.994E-02		1.899E-01	3.044E-01	2.063E-02	-0.197
HF-181	2.133E-02		4.539E-02	7.526E-02	4.940E-03	0.283
W-181	4.460E-01		9.427E-01	1.416E+00	1.636E-01	0.315
TA-182	5.244E-02		2.134E-01	3.622E-01	2.498E-02	0.145
RE-183	4.128E-01	+	1.757E-01	2.625E-01	1.452E-02	1.573
RE-184	1.262E-01		2.836E-01	4.504E-01	2.808E-02	0.280
OS-185	5.220E-03		4.627E-02	7.751E-02	3.982E-03	0.067
RE-188	-2.342E-01		2.339E-01	3.632E-01	2.063E-02	-0.645
W-188	-3.004E+00		8.980E+00	1.290E+01	8.378E-01	-0.233
IR-192	-1.110E-02		3.839E-02	6.284E-02	4.177E-03	-0.177
AU-195	4.771E+00	+	7.748E-01	8.728E-01	7.921E-02	5.466
TL-200	2.779E-06		1.149E-04	Half-Life too short		
TL-201	8.624E-01		7.484E+00	1.140E+01	6.234E-01	0.076
TL-202	-7.824E-03		7.249E-02	1.170E-01	7.867E-03	-0.067
HG-203	-1.661E-02		4.506E-02	7.415E-02	5.004E-03	-0.224
BI-207	-2.368E-02		5.447E-02	8.419E-02	6.854E-03	-0.281
TL-207	-1.164E+00		7.602E-01	1.131E+00	1.904E-01	-1.030
PO-209	4.355E+00		7.906E+00	1.346E+01	1.357E+00	0.324
BI-210	-1.586E+01		1.578E+01	2.587E+01	2.538E+00	-0.613
PB-210	-1.586E+01		1.578E+01	2.587E+01	2.538E+00	-0.613
PO-210	-1.586E+01		1.577E+01	2.587E+01	2.323E+00	-0.613
PB-211	-4.447E-01		1.033E+00	1.586E+00	9.900E-01	-0.280
PO-215	-1.164E+00		7.602E-01	1.131E+00	1.904E-01	-1.030
RN-219	-8.573E-02		4.417E-01	7.139E-01	1.004E-01	-0.120
RN-220	2.825E+00		2.993E+01	4.815E+01	2.953E+00	0.059
RA-223	-1.164E+00		7.602E-01	1.131E+00	1.904E-01	-1.030
AC-227	8.744E-01		5.414E-01	8.372E-01	1.185E-01	1.044
TH-227	8.744E-01		5.478E-01	8.372E-01	1.429E-01	1.044
TH-229	2.400E-01		6.391E-01	1.025E+00	5.843E-02	0.234
PA-231	-2.686E-01		1.615E+00	2.673E+00	3.761E-01	-0.100
TH-231	-1.164E+00		7.602E-01	1.131E+00	1.904E-01	-1.030
U-231	8.466E+00		2.277E+00	2.857E+00	2.738E-01	2.963
PA-233	3.991E-02		7.136E-02	1.211E-01	8.377E-03	0.330
PA-234	2.156E-01		3.371E-01	5.715E-01	1.101E-01	0.377
NP-236	-3.784E-02		1.234E-01	1.735E-01	9.665E-03	-0.218
NP-239	-6.339E-01		3.185E-01	4.597E-01	3.216E-02	-1.379
AM-241	6.105E-01		4.983E-01	7.571E-01	9.724E-02	0.806

Sample ID : G245395008 Acquisition date : 2-FEB-2010 09:14:06

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	4.314E-02		1.591E-01	2.612E-01	2.188E-02	0.165
AM-246	6.033E-02		1.526E-01	2.541E-01	2.007E-02	0.237
CM-247	-3.276E-02		4.009E-02	6.256E-02	4.248E-03	-0.524
CF-249	2.733E-02		4.517E-02	7.602E-02	5.166E-03	0.360
CF-251	1.115E-01		1.691E-01	2.744E-01	1.522E-02	0.406

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395008           *
* Acquisition date  :  2-FEB-2010 09:14:06 Detector SN#     :               *
* Detector ID       : GAM10                 Sensitivity     : 5.000         *
* Geometry          : CAN                   Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.22       Half life ratio : 8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395008           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.4643E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.445E+01	3.412E+00	2.483E-01	1.741E+00
NB-95	5.989E-01	1.131E-01	3.841E-02	5.771E-02
CD-109	2.282E+00	2.016E+00	1.715E+00	1.029E+00
SN-126	2.247E-01	1.985E-01	1.648E-01	1.013E-01
LU-177	1.085E+00	1.288E+00	9.595E-01	6.572E-01
TL-208	4.846E-01	9.457E-02	3.356E-02	4.825E-02
BI-211	3.333E+00	5.376E-01	1.868E-01	2.743E-01
BI-212	8.745E-01	4.705E-01	2.727E-01	2.401E-01
PB-212	1.459E+00	1.536E-01	5.475E-02	7.834E-02
PO-212	1.459E+00	1.536E-01	5.475E-02	7.834E-02
BI-214	1.066E+00	1.812E-01	5.856E-02	9.247E-02
PB-214	1.160E+00	1.962E-01	6.510E-02	1.001E-01
PO-214	1.160E+00	1.962E-01	6.510E-02	1.001E-01
PO-216	1.459E+00	1.536E-01	5.475E-02	7.834E-02
PO-218	1.160E+00	1.962E-01	6.510E-02	1.001E-01
RA-224	4.423E+00	1.163E+00	6.228E-01	5.934E-01
RA-226	1.066E+00	1.812E-01	5.856E-02	9.247E-02
AC-228	1.253E+00	3.271E-01	1.099E-01	1.669E-01
RA-228	1.253E+00	3.271E-01	1.099E-01	1.669E-01
TH-228	1.480E+00	1.557E-01	5.551E-02	7.944E-02
TH-230	1.066E+00	1.812E-01	5.856E-02	9.247E-02
TH-232	1.253E+00	3.271E-01	1.099E-01	1.669E-01
PA-234M	1.659E+02	2.211E+01	3.834E+00	1.128E+01
TH-234	1.203E+02	2.438E+01	2.848E+00	1.244E+01
U-234	1.066E+00	1.812E-01	5.856E-02	9.247E-02
U-235	1.931E+00	5.626E-01	2.470E-01	2.870E-01
NP-237	6.598E-01	5.981E-01	4.627E-01	3.051E-01
U-238	1.203E+02	2.438E+01	2.848E+00	1.244E+01
AM-243	4.659E-01	1.665E-01	1.069E-01	8.493E-02
ANH-511	8.410E-02	7.514E-02	2.669E-02	3.834E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.333E-02	3.442E-01	2.914E-01	1.756E-01	NOT IDENT.
NA-22	2.488E-02	4.493E-02	4.024E-02	2.292E-02	NOT IDENT.
NA-24	2.858E+04	1.850E+05	0.000E+00	9.438E+04	SHORT HLIF
AL-26	1.911E-03	3.137E-02	2.617E-02	1.601E-02	NOT IDENT.
TI-44	3.572E-01	1.073E-01	6.978E-02	5.472E-02	FAIL ABUN
SC-46	1.200E-02	4.236E-02	3.672E-02	2.161E-02	FAIL ABUN
V-48	1.772E-02	7.659E-02	6.195E-02	3.908E-02	NOT IDENT.
CR-51	3.297E-01	3.934E-01	3.581E-01	2.007E-01	NOT IDENT.
MN-52	1.052E-01	1.907E-01	1.723E-01	9.729E-02	FAIL ABUN
MN-54	1.311E-02	4.061E-02	3.543E-02	2.072E-02	NOT IDENT.
CO-56	3.268E-02	3.934E-02	3.556E-02	2.007E-02	NOT IDENT.
CO-57	-3.466E-02	3.754E-02	3.222E-02	1.915E-02	NOT IDENT.
CO-58	-1.946E-02	4.114E-02	3.404E-02	2.099E-02	NOT IDENT.
FE-59	-3.704E-02	9.318E-02	7.465E-02	4.754E-02	FAIL ABUN
CO-60	1.895E-02	3.702E-02	3.319E-02	1.889E-02	NOT IDENT.
ZN-65	-8.218E-03	1.087E-01	7.699E-02	5.547E-02	NOT IDENT.
GE-68	-5.073E-02	1.297E+00	1.077E+00	6.617E-01	NOT IDENT.
AS-73	1.090E+00	2.763E+00	2.572E+00	1.409E+00	NOT IDENT.
AS-74	4.448E-02	9.373E-02	8.472E-02	4.782E-02	NOT IDENT.
SE-75	2.530E-02	4.793E-02	4.366E-02	2.446E-02	NOT IDENT.
BR-77	-3.185E+00	8.079E+00	6.658E+00	4.122E+00	FAIL ABUN
SR-82	-6.472E-01	4.324E-01	3.348E-01	2.206E-01	NOT IDENT.
RB-83	-3.193E-02	7.563E-02	6.222E-02	3.859E-02	NOT IDENT.
RB-84	7.665E-02	7.539E-02	6.843E-02	3.846E-02	NOT IDENT.
KR-85	4.349E+00	8.627E+00	6.611E+00	4.401E+00	NOT IDENT.
SR-85	2.201E-02	4.366E-02	3.346E-02	2.228E-02	NOT IDENT.
RB-86	-3.010E-02	7.938E-01	6.591E-01	4.050E-01	NOT IDENT.
Y-88	-4.376E-03	2.633E-02	2.085E-02	1.344E-02	NOT IDENT.
ZR-88	-2.218E-02	3.303E-02	2.762E-02	1.685E-02	NOT IDENT.
Y-91	6.054E+00	1.799E+01	1.589E+01	9.176E+00	NOT IDENT.
NB-94	4.085E-03	3.599E-02	3.148E-02	1.836E-02	NOT IDENT.
NB-95M	2.642E-01	1.521E-01	1.287E-01	7.761E-02	NOT IDENT.
ZR-95	1.555E-02	7.676E-02	6.708E-02	3.916E-02	NOT IDENT.
NB-97	-4.789E+04	3.324E+04	0.000E+00	1.696E+04	SHORT HLIF
ZR-97	1.192E+06	6.676E+05	0.000E+00	3.406E+05	SHORT HLIF
MO-99	1.755E+01	1.180E+01	9.719E+00	6.022E+00	NOT IDENT.
TC-99M	1.186E+15	1.909E+15	0.000E+00	9.741E+14	SHORT HLIF
RH-101	1.893E-03	4.101E-02	3.485E-02	2.092E-02	NOT IDENT.
RH-102	-1.510E-03	3.244E-02	2.756E-02	1.655E-02	FAIL ABUN
RU-103	1.791E-02	4.375E-02	3.794E-02	2.232E-02	NOT IDENT.
RH-106	-8.996E-02	3.242E-01	2.800E-01	1.654E-01	FAIL ABUN
RU-106	-8.996E-02	3.240E-01	2.800E-01	1.653E-01	FAIL ABUN
AG-108M	-1.973E-02	3.435E-02	2.852E-02	1.752E-02	NOT IDENT.
AG-110M	-5.650E-02	4.003E-02	3.213E-02	2.042E-02	NOT IDENT.
IN-111	3.055E-01	9.445E-01	7.608E-01	4.819E-01	NOT IDENT.
IN-113M	-4.093E-03	4.712E-02	4.065E-02	2.404E-02	NOT IDENT.
SN-113	-4.093E-03	4.712E-02	4.065E-02	2.404E-02	NOT IDENT.
IN-114M	6.632E-02	2.431E-01	1.863E-01	1.240E-01	NOT IDENT.
CD-115	-5.711E+00	8.328E+00	6.724E+00	4.249E+00	NOT IDENT.
SN-117M	4.276E-02	7.718E-02	6.061E-02	3.938E-02	NOT IDENT.
SB-122	-8.420E-01	1.677E+00	1.361E+00	8.557E-01	NOT IDENT.
I-123	7.137E+05	1.809E+06	0.000E+00	9.229E+05	SHORT HLIF
TE-123M	1.668E-02	4.227E-02	3.299E-02	2.157E-02	NOT IDENT.
I-124	-2.569E-01	6.106E-01	4.520E-01	3.115E-01	NOT IDENT.
SB-124	-2.226E-03	6.317E-02	5.217E-02	3.223E-02	FAIL ABUN
SB-125	4.421E-02	1.010E-01	8.876E-02	5.154E-02	NOT IDENT.
TE-125M	4.024E+01	1.812E+01	1.489E+01	9.247E+00	NOT IDENT.
I-126	-8.770E-02	1.929E-01	1.642E-01	9.841E-02	NOT IDENT.
SB-126	2.382E-02	1.652E-01	1.259E-01	8.429E-02	NOT IDENT.
SB-127	-4.650E-01	1.143E+00	9.696E-01	5.831E-01	NOT IDENT.
XE-127	5.818E-02	6.362E-02	5.292E-02	3.246E-02	NOT IDENT.
I-131	-3.088E-02	1.115E-01	9.585E-02	5.687E-02	NOT IDENT.
TE-132	3.069E-01	5.983E-01	5.483E-01	3.052E-01	FAIL ABUN
BA-133	2.933E-02	4.950E-02	3.935E-02	2.525E-02	NOT IDENT.
I-133	-3.175E+02	2.545E+03	0.000E+00	1.299E+03	SHORT HLIF
CS-134	4.664E-02	5.262E-02	4.749E-02	2.685E-02	NOT IDENT.
CS-135	8.911E-03	1.734E-01	1.552E-01	8.849E-02	NOT IDENT.
I-135	-9.492E+13	2.651E+14	0.000E+00	1.352E+14	SHORT HLIF
CS-136	-7.695E-02	9.493E-02	7.263E-02	4.843E-02	FAIL ABUN
BA-137M	3.557E-02	4.190E-02	3.817E-02	2.138E-02	NOT IDENT.
CS-137	3.760E-02	4.429E-02	4.035E-02	2.260E-02	NOT IDENT.
CE-139	-7.592E-03	4.461E-02	3.396E-02	2.276E-02	NOT IDENT.
BA-140	-5.462E-02	2.820E-01	2.343E-01	1.439E-01	FAIL ABUN
LA-140	-5.973E-02	7.120E-02	5.125E-02	3.633E-02	NOT IDENT.
CE-141	1.071E-01	9.476E-02	7.615E-02	4.835E-02	NOT IDENT.

CE-143	4.296E+02	1.321E+02	0.000E+00	6.740E+01	SHORT HLIF
CE-144	-1.543E-01	3.016E-01	2.599E-01	1.539E-01	NOT IDENT.
PM-144	3.541E-02	3.660E-02	3.355E-02	1.868E-02	NOT IDENT.
PR-144	2.398E+00	2.479E+00	2.272E+00	1.265E+00	NOT IDENT.
PM-146	-1.898E-03	4.854E-02	4.143E-02	2.477E-02	NOT IDENT.
ND-147	2.371E-01	5.878E-01	5.066E-01	2.999E-01	FAIL ABUN
PM-149	-6.317E+01	6.662E+01	5.642E+01	3.399E+01	NOT IDENT.
EU-152	-1.321E-01	1.094E-01	8.211E-02	5.583E-02	FAIL ABUN
GD-153	1.640E+00	2.611E-01	1.627E-01	1.332E-01	FAIL ABUN
EU-154	6.060E-02	1.267E-01	1.128E-01	6.467E-02	NOT IDENT.
EU-155	1.201E-01	1.781E-01	1.604E-01	9.086E-02	FAIL ABUN
TB-160	-1.028E-01	1.609E-01	1.303E-01	8.208E-02	FAIL ABUN
HO-166M	-2.093E-02	6.341E-02	5.388E-02	3.235E-02	FAIL ABUN
TM-171	-4.450E+01	7.019E+01	5.642E+01	3.581E+01	NOT IDENT.
LU-176	5.873E-03	2.686E-02	2.396E-02	1.370E-02	FAIL ABUN
LU-177M	-5.994E-02	1.861E-01	1.578E-01	9.496E-02	NOT IDENT.
HF-181	2.133E-02	4.448E-02	3.888E-02	2.270E-02	NOT IDENT.
W-181	4.460E-01	9.238E-01	7.644E-01	4.713E-01	NOT IDENT.
TA-182	5.244E-02	2.091E-01	1.830E-01	1.067E-01	FAIL ABUN
RE-183	4.128E-01	1.722E-01	1.389E-01	8.787E-02	FAIL ABUN
RE-184	1.262E-01	2.780E-01	2.361E-01	1.418E-01	NOT IDENT.
OS-185	5.220E-03	4.535E-02	3.976E-02	2.314E-02	NOT IDENT.
RE-188	-2.342E-01	2.292E-01	1.924E-01	1.170E-01	NOT IDENT.
W-188	-3.004E+00	8.800E+00	6.743E+00	4.490E+00	FAIL ABUN
IR-192	-1.110E-02	3.763E-02	3.277E-02	1.920E-02	FAIL ABUN
AU-195	4.771E+00	7.593E-01	4.670E-01	3.874E-01	FAIL ABUN
TL-200	2.779E+00	2.252E+02	0.000E+00	1.149E+02	SHORT HLIF
TL-201	8.624E-01	7.334E+00	6.029E+00	3.742E+00	NOT IDENT.
TL-202	-7.824E-03	7.104E-02	6.057E-02	3.624E-02	NOT IDENT.
HG-203	-1.661E-02	4.416E-02	3.878E-02	2.253E-02	FAIL ABUN
BI-207	-2.368E-02	5.338E-02	4.269E-02	2.723E-02	FAIL ABUN
TL-207	-1.164E+00	7.450E-01	5.895E-01	3.801E-01	FAIL ABUN
PO-209	4.355E+00	7.748E+00	6.850E+00	3.953E+00	NOT IDENT.
BI-210	-1.586E+01	1.546E+01	1.407E+01	7.889E+00	NOT IDENT.
PB-210	-1.586E+01	1.546E+01	1.407E+01	7.889E+00	NOT IDENT.
PO-210	-1.586E+01	1.545E+01	1.407E+01	7.883E+00	NOT IDENT.
PB-211	-4.447E-01	1.012E+00	8.222E-01	5.163E-01	NOT IDENT.
PO-215	-1.164E+00	7.450E-01	5.895E-01	3.801E-01	FAIL ABUN
RN-219	-8.573E-02	4.329E-01	3.703E-01	2.209E-01	NOT IDENT.
RN-220	2.825E+00	2.933E+01	2.480E+01	1.497E+01	NOT IDENT.
RA-223	-1.164E+00	7.450E-01	5.895E-01	3.801E-01	FAIL ABUN
AC-227	8.744E-01	5.306E-01	4.387E-01	2.707E-01	FAIL ABUN
TH-227	8.744E-01	5.368E-01	4.387E-01	2.739E-01	FAIL ABUN
TH-229	2.400E-01	6.263E-01	5.402E-01	3.196E-01	FAIL ABUN
PA-231	-2.686E-01	1.582E+00	1.398E+00	8.073E-01	NOT IDENT.
TH-231	-1.164E+00	7.450E-01	5.895E-01	3.801E-01	FAIL ABUN
U-231	8.466E+00	2.232E+00	1.530E+00	1.139E+00	FAIL ABUN
PA-233	3.991E-02	6.994E-02	6.315E-02	3.568E-02	FAIL ABUN
PA-234	2.156E-01	3.304E-01	2.906E-01	1.685E-01	FAIL ABUN
NP-236	-3.784E-02	1.210E-01	9.184E-02	6.172E-02	FAIL ABUN
NP-239	-6.339E-01	3.121E-01	2.451E-01	1.592E-01	FAIL ABUN
AM-241	6.105E-01	4.884E-01	4.095E-01	2.492E-01	NOT IDENT.
CM-243	4.314E-02	1.559E-01	1.396E-01	7.954E-02	FAIL ABUN
AM-246	6.033E-02	1.495E-01	1.288E-01	7.628E-02	NOT IDENT.
CM-247	-3.276E-02	3.929E-02	3.245E-02	2.004E-02	NOT IDENT.
CF-249	2.733E-02	4.427E-02	3.946E-02	2.259E-02	NOT IDENT.
CF-251	1.115E-01	1.657E-01	1.450E-01	8.455E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	1237.7517
46.50	1237.7517
46.50	1237.7517
48.70	1179.0133
49.72	1187.7494
51.35	1311.2771
52.39	1309.2271
52.97	1265.6317
53.15	1282.9442
53.44	1274.5812
54.07	1294.3102
56.28	1412.8986
56.28	1412.9102
57.37	0.0000
57.53	1502.1625
57.53	1502.1686
57.60	1460.6808
57.98	1447.9044
57.98	1447.9044
59.32	1448.2834
59.32	1448.2834
59.40	1448.5566
59.54	1449.0366
59.72	1470.9092
60.01	1471.9110
61.10	1565.2240
61.14	1565.3668
61.30	1565.9464
63.00	1464.9788
63.29	1465.9435
63.29	1465.9435
63.58	1466.9064
64.28	1377.5759
65.12	1428.9460
65.20	1429.1987
65.20	1429.1987
66.05	1467.8354
66.72	1503.1077
66.83	1550.9977
66.91	1551.2688
67.20	1589.7280
67.20	1589.7280
67.75	1649.3499
67.85	1649.7074
68.90	1507.3433
68.90	1507.3433
69.30	1465.2042
69.67	1515.6354
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70.82	1619.5453
70.83	1619.5793
72.80	1807.6101
72.87	1807.8749
72.87	1807.8749
74.67	1814.5693
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74.81	1815.0894
74.81	1815.0894
74.81	1815.0894
74.81	1815.0894
74.81	1815.0894
74.81	1815.0894
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77.11	1823.5140
77.11	1823.5140

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77.11	1823.5140
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77.11	1823.5140
77.11	1823.5140
78.38	1915.6403
79.62	1898.6198
79.80	1911.1195
79.80	1911.1195
80.11	1912.2826
80.18	1912.5389
80.30	1912.9825
80.30	1912.9825
80.57	1913.9879
81.00	1963.0297
81.07	1963.2922
81.07	1963.2922
81.07	1963.2922
81.07	1963.2922
82.60	1917.0079
83.37	2030.0248
83.78	2113.5959
83.78	2113.5959
83.78	2113.5959
83.78	2113.5959
84.21	2243.5959
84.90	2246.5105
85.43	2248.7366
86.29	2252.3281
86.50	2253.2117
86.54	2253.3723
86.59	2253.5789
86.72	2439.9753
86.79	2440.2734
86.94	2440.9568
87.30	2556.6111
87.30	2556.6111
87.30	2556.6111
87.30	2556.6111
87.30	2556.6111
87.30	2556.6111
87.30	2556.6111
87.57	2557.8721
87.88	2727.5469
88.03	2728.2952
88.36	2618.7017
88.47	2619.2200
89.95	2626.2639
91.11	2631.7395
92.29	2131.6152
92.38	2131.9590
92.38	2131.9590
93.35	2135.6113
94.00	2138.0498
94.67	2140.5313
94.67	2140.5527
94.90	2141.4121
94.90	2141.4121
94.90	2141.4121
94.90	2141.4121
95.87	1048.1302
95.87	1048.1302
96.73	1049.6892
97.43	1050.9437
98.44	1009.9100
98.44	1009.9100
98.88	1010.6653
99.55	968.8831
99.55	968.8831
99.86	957.1187
100.00	957.3472
100.10	957.5138
103.18	1061.1268
103.76	993.1831
105.00	1050.8851
105.31	1039.0372
108.00	1100.5405
109.28	1093.4365

111.00	1127.6348
111.00	1127.6348
111.76	1128.9788
112.95	1019.8397
115.19	952.6219
116.30	958.9548
117.00	1002.5327
117.00	1002.5327
117.66	994.0649
121.11	836.3619
121.62	845.4588
121.78	863.6506
122.06	871.4152
122.32	863.2720
122.32	863.2720
122.32	863.2720
122.32	863.2720
123.07	838.7759
127.23	870.5009
129.76	830.8072
131.20	875.4004
133.02	857.1819
133.54	876.0950
135.34	743.3959
136.00	782.9460
136.25	813.4597
136.48	816.9620
140.51	694.2846
140.51	0.0000
142.18	739.9337
142.65	744.2035
143.76	745.2943
144.24	768.1435
144.24	768.1435
144.24	768.1435
144.24	768.1435
145.22	726.4927
145.44	726.7023
147.16	706.9516
152.43	683.0384
152.70	682.1675
153.22	671.5684
154.21	646.9611
154.21	646.9611
154.21	646.9611
154.21	646.9611
155.03	747.2626
156.02	711.6049
158.56	647.1245
159.00	0.0000
159.00	650.8113
160.31	691.9667
161.27	667.6748
162.32	704.8298
162.64	695.0425
163.35	666.0000
163.89	624.4634
165.85	666.3104
167.43	631.1487
171.28	620.9096
171.86	607.7729
172.10	607.9426
176.55	592.8840
176.60	579.2856
181.06	637.0080
184.41	580.9478
185.71	581.7782
186.00	581.9639
190.27	503.3755
192.34	543.2176
193.63	505.7747
197.04	564.5231
198.01	525.5631
198.60	554.9764
200.40	564.7621
201.83	572.9595
202.84	558.1328
205.31	542.6805

208.36	497.1231
208.81	476.8927
209.75	470.2852
209.75	470.2852
210.97	442.5825
215.65	435.0604
216.55	443.4473
218.09	454.7975
222.10	418.1586
223.80	478.8069
226.40	410.9183
227.00	399.4821
227.08	397.7172
227.20	396.8666
228.16	411.6067
228.18	411.6137
228.18	411.6137
231.56	0.0000
235.69	405.4736
236.00	405.5933
236.00	405.5933
238.63	398.4098
238.63	398.4098
238.63	398.4098
238.63	398.4098
239.00	398.5438
240.98	399.2672
241.98	355.3905
241.98	355.3905
241.98	355.3905
244.69	332.9045
245.39	340.4183
247.94	357.8549
248.90	373.7344
249.79	346.5308
252.40	344.4446
252.85	340.7299
252.85	340.7299
254.15	0.0000
256.20	359.9238
256.20	359.9238
260.50	358.3089
260.90	358.4330
262.80	304.1267
264.65	312.0417
268.24	350.2510
268.79	328.0503
269.46	302.1235
269.46	302.1235
269.46	302.1235
269.46	302.1235
271.23	351.1345
273.65	422.0280
276.40	321.6986
277.35	318.1953
277.60	313.5684
277.60	313.5684
278.00	308.9747
278.60	323.2244
279.20	340.3030
279.53	335.6953
280.46	333.1282
281.68	302.3727
283.67	272.6706
284.30	291.6914
285.00	313.5803
285.90	303.4110
286.10	301.5693
286.10	301.5693
287.40	247.9397
288.45	0.0000
290.67	299.0687
290.80	311.2437
291.72	325.1483
293.26	0.0000
293.70	280.0070
295.21	259.0093
295.21	259.0093

295.21	259.0093
295.96	297.2750
296.50	297.3988
297.23	297.5702
298.57	297.8844
299.80	281.3502
299.80	281.3502
300.09	275.2954
300.09	275.2954
300.09	275.2954
300.09	275.2954
300.12	275.2998
301.29	269.4270
302.84	277.4170
303.76	277.6114
303.91	266.9090
304.40	270.0758
304.40	270.0758
304.84	272.4729
306.84	263.2802
308.46	258.7959
311.98	250.8078
316.51	271.9915
318.01	275.2030
319.02	256.9856
319.41	240.5679
320.08	239.7184
323.87	303.6497
323.87	303.6497
323.87	303.6497
323.87	303.6497
325.23	325.3870
328.77	253.9539
333.44	286.9561
334.20	274.5654
334.20	274.5654
334.30	274.5825
338.28	236.0266
338.28	236.0266
338.28	236.0266
338.28	236.0266
338.32	236.0339
338.32	236.0339
338.32	236.0339
340.50	176.5121
340.57	176.5203
344.27	244.9310
345.85	242.0396
350.59	0.0000
351.07	230.2194
351.92	230.3574
351.92	230.3574
351.92	230.3574
355.39	0.0000
356.01	187.9905
364.48	216.3164
366.43	197.5501
367.43	190.6581
367.94	0.0000
369.80	208.0455
374.96	226.9123
383.85	194.7598
387.95	206.4661
388.63	209.6085
391.69	201.8642
391.69	201.8642
392.90	219.3633
398.62	172.0323
400.65	180.4553
401.10	194.8648
401.81	195.9778
402.60	212.4991
404.84	200.4600
410.95	193.9984
411.60	215.7545
413.65	197.4205
414.70	183.0687
415.30	187.2749

415.76	167.6632
417.63	0.0000
418.52	182.4587
423.70	196.5501
427.08	178.1911
427.89	180.3650
432.53	196.5457
433.93	177.8728
439.47	188.9511
439.56	184.7629
439.89	188.9978
443.98	182.0835
444.90	163.2235
445.03	163.2377
445.03	163.2377
445.03	163.2377
445.03	163.2377
453.90	183.1262
463.38	177.7280
468.07	149.3866
473.00	169.0563
475.06	172.4628
475.35	169.2757
476.78	175.8416
477.59	165.1924
477.96	164.1547
482.03	146.2411
484.57	164.7477
487.03	166.0477
490.36	0.0000
492.35	182.7447
497.08	150.6844
507.63	0.0000
510.53	0.0000
510.84	161.6119
511.00	161.6255
511.85	161.6955
511.85	161.6955
513.99	162.7511
513.99	162.7511
520.41	159.1248
520.65	159.1425
527.90	166.3452
528.96	0.0000
529.64	160.9796
529.87	0.0000
531.02	147.8506
537.32	166.0309
543.00	157.6223
546.56	0.0000
549.76	147.0156
552.65	153.9150
555.20	135.1243
563.23	155.8363
563.90	158.1302
568.70	131.5179
569.32	148.4235
569.50	148.4355
569.67	148.4476
573.80	152.3475
574.00	152.3599
574.64	155.3153
578.91	144.5859
579.30	0.0000
583.14	146.6859
585.48	126.9058
591.81	147.2832
592.07	147.3029
593.00	148.2759
595.88	138.4551
600.56	147.1957
602.52	0.0000
602.71	137.0618
602.71	137.0618
603.60	144.7382
604.41	132.5992
604.70	132.6169
609.31	125.5644

609.31	125.5644
609.31	125.5644
609.31	125.5644
610.33	122.2591
612.46	116.2575
614.37	131.6700
618.01	121.4587
621.84	126.2768
621.84	126.2768
631.29	107.3708
633.02	128.7583
633.10	128.7650
634.78	140.9117
635.90	132.6346
636.97	112.2824
645.85	128.5563
646.12	122.9798
656.30	166.5708
657.75	175.1025
657.90	0.0000
661.65	145.3806
661.65	145.3806
664.57	0.0000
666.33	158.8253
666.33	158.8253
675.00	108.4751
677.61	116.1473
685.20	123.1477
692.80	132.0873
695.00	144.5744
696.49	113.2534
696.49	113.2534
697.00	116.1353
697.49	132.3418
698.33	150.4857
698.50	155.2599
699.00	151.4809
702.63	128.8070
706.10	135.6766
706.58	0.0000
706.67	127.1066
709.31	121.5027
711.68	120.6598
713.82	113.0968
717.42	128.6184
720.50	118.5262
721.93	0.0000
722.20	113.7976
722.78	110.6173
722.78	110.6173
722.89	110.6229
722.95	110.6257
723.30	110.6426
724.18	113.8872
727.18	130.0825
733.00	129.8459
735.90	125.6995
739.58	112.9696
742.81	117.3133
744.21	117.3783
747.13	123.0145
751.79	111.8864
752.31	103.7995
753.82	108.0787
755.35	108.1410
756.15	113.0490
756.87	119.9040
763.93	117.2959
765.79	124.2250
766.42	124.2560
766.84	124.2746
776.49	152.2300
778.00	125.5660
778.57	106.8915
778.89	99.7051
783.80	139.5188
785.46	118.2539
792.07	124.1889

795.84	110.7969
796.30	113.7815
798.80	126.7625
801.93	109.0627
805.60	90.3446
810.29	113.3738
810.76	102.4518
815.85	87.6928
817.79	93.7384
818.51	99.7485
819.60	104.7770
826.30	97.0260
828.27	0.0000
831.60	112.2434
831.96	106.2433
834.83	105.3486
836.80	0.0000
846.75	72.5449
848.13	80.6445
856.28	0.0000
856.80	105.1553
860.37	87.0645
867.32	87.2745
867.82	85.2592
871.10	96.5331
873.19	75.2484
874.81	91.5688
875.33	0.0000
876.40	92.6374
879.36	111.0730
880.27	88.6822
880.51	88.6886
881.50	77.5011
883.24	104.0769
884.67	90.8556
889.25	84.8622
896.60	73.7982
898.02	71.7825
899.00	80.0128
903.28	75.3332
911.07	76.2149
911.07	76.2149
911.07	76.2149
919.63	78.4975
920.93	83.6974
925.00	104.5039
925.24	104.5113
926.50	93.1663
935.52	93.4409
937.48	88.3058
944.10	72.8796
946.00	76.0494
949.00	92.8068
962.29	80.6338
964.01	80.6789
966.15	80.7334
968.20	80.7861
969.11	80.8086
969.11	80.8086
969.11	80.8086
977.42	96.4537
980.50	70.2148
983.50	75.1134
989.30	81.3218
996.32	68.7975
1001.03	71.0174
1001.68	71.0305
1004.76	65.4380
1021.30	0.0000
1024.50	0.0000
1034.80	67.4635
1036.00	67.4881
1037.82	56.8068
1038.57	53.6035
1038.76	0.0000
1045.16	52.6343
1046.59	50.5089
1048.07	65.5810

1050.47	54.8698
1050.47	54.8698
1062.04	72.3292
1063.62	72.3620
1076.63	71.5526
1077.35	70.4844
1078.86	66.1767
1085.78	69.5687
1099.22	75.2936
1112.02	51.1077
1112.84	58.4219
1115.52	80.3910
1120.29	62.5692
1120.29	62.5692
1120.29	62.5692
1120.29	62.5692
1120.51	62.5748
1121.28	62.5887
1124.00	0.0000
1129.67	68.4824
1131.51	0.0000
1147.95	0.0000
1167.94	79.7117
1173.22	64.9756
1175.09	83.5803
1177.93	83.6462
1189.05	92.2848
1204.90	70.2087
1205.75	0.0000
1213.00	74.1107
1221.42	90.2578
1230.97	118.7556
1235.34	84.9243
1236.41	0.0000
1238.25	93.4852
1246.25	93.6786
1260.41	0.0000
1271.85	64.7655
1274.45	58.1381
1274.54	56.2320
1291.56	43.0737
1298.22	0.0000
1312.09	46.1797
1325.50	55.9845
1325.50	55.9845
1332.49	32.8739
1333.61	36.7522
1360.21	26.2815
1362.66	0.0000
1365.15	36.0575
1368.21	29.9080
1368.53	0.0000
1376.25	35.1753
1384.27	26.8516
1394.10	37.2872
1395.20	34.3520
1407.95	33.4701
1434.06	24.7589
1436.60	26.7550
1457.56	0.0000
1460.81	23.9141
1489.15	34.0927
1509.49	25.1811
1596.49	26.6824
1620.62	8.2513
1678.03	0.0000
1691.02	13.6014
1691.02	13.6014
1706.46	0.0000
1750.46	0.0000
1764.49	16.3765
1764.49	16.3765
1764.49	16.3765
1764.49	16.3765
1770.23	43.5675
1771.40	18.0687
1791.20	0.0000
1808.65	17.1270

1836.01 10.7593

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395008

Total Uranium Activity	3.5879E+02	ug/g
Total Uranium Counting Unc.	7.2539E+01	ug/g
Total Uranium Tpu	3.7010E-05	ug/g
Total Uranium Mda	8.4748E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID   : G245395008      *
*   ANALYST       : MXR1                      DETECTOR    : GAM10           *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 09:14:06.14    SAMPLE ALQT:  146.430 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.462E+01
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.384E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 6.564E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 3.233E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:16:19.93

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395009.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:14:48.
Sample ID         : G245395009           Sample quantity  : 1.37080E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.16*	3081	1815	0.85	125.80	121	10	4.28E-01	3.2	
2	4	74.67*	281	1044	0.86	148.83	145	13	3.90E-02	18.4	8.40E-01
3	4	77.04*	420	1049	0.90	153.57	145	13	5.84E-02	12.6	
4	0	83.66*	202	1420	1.20	166.81	164	7	2.81E-02	31.9	
5	3	92.48*	7818	1292	1.09	184.46	181	12	1.09E+00	1.4	1.95E+00
6	3	94.65	268	819	1.20	188.81	181	12	3.73E-02	31.6	
7	0	98.30*	468	808	0.87	196.11	193	8	6.50E-02	11.6	
8	1	110.84	109	637	1.04	221.20	218	21	1.51E-02	36.6	1.83E+00
9	1	112.74*	458	656	1.10	225.01	218	21	6.36E-02	10.5	
10	0	143.70*	249	507	0.82	286.95	283	8	3.45E-02	17.1	
11	0	163.05*	138	513	0.71	325.68	322	9	1.91E-02	31.0	
12	0	185.63*	1226	627	1.09	370.85	366	11	1.70E-01	5.0	
13	0	204.78	143	426	1.08	409.19	403	10	1.98E-02	28.3	
14	0	209.29*	124	345	1.18	418.21	414	9	1.72E-02	29.0	
15	4	238.43*	998	204	1.05	476.50	469	19	1.39E-01	3.9	1.55E+00
16	4	241.41	238	271	1.58	482.47	469	19	3.30E-02	15.1	
17	0	258.11	141	253	1.38	515.88	511	10	1.96E-02	22.7	
18	0	269.76*	95	170	1.30	539.20	536	8	1.32E-02	26.4	
19	0	295.09*	355	158	1.13	589.88	586	9	4.93E-02	8.4	
20	0	338.07*	227	228	1.03	675.87	671	11	3.16E-02	14.5	
21	0	351.67*	548	231	1.33	703.09	699	12	7.61E-02	7.0	
22	0	462.37	63	102	1.61	924.57	921	9	8.73E-03	31.5	
23	0	510.92*	150	190	2.19	1021.69	1013	21	2.08E-02	26.7	
24	0	582.88*	295	102	1.22	1165.66	1160	11	4.10E-02	9.0	
25	0	608.92*	369	203	1.61	1217.76	1209	18	5.13E-02	10.5	
26	0	727.15	68	98	1.88	1454.27	1448	13	9.37E-03	32.5	
27	0	743.04	47	106	0.60	1486.05	1479	12	6.48E-03	46.8	
28	0	766.27	261	80	1.40	1532.53	1526	14	3.63E-02	9.7	
29	0	785.32	86	91	2.04	1570.63	1563	14	1.19E-02	25.9	
30	0	794.93	46	71	0.82	1589.87	1583	11	6.37E-03	38.6	
31	0	860.47	63	57	1.31	1720.96	1716	12	8.81E-03	26.9	
32	0	910.88*	263	61	1.96	1821.80	1815	16	3.65E-02	8.8	
33	2	964.26	40	67	2.20	1928.57	1924	18	5.58E-03	36.4	8.85E-01
34	2	968.68	118	41	1.54	1937.41	1924	18	1.64E-02	14.1	
35	0	1000.60*	408	67	1.71	2001.26	1994	14	5.67E-02	6.6	
36	0	1119.91	108	44	2.11	2239.88	2233	15	1.50E-02	16.6	
37	0	1460.13*	1308	23	1.99	2920.28	2911	17	1.82E-01	2.9	
38	0	1763.84*	62	9	2.02	3527.57	3521	12	8.66E-03	16.9	

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1846.80	17	5	1.45	3693.42	3689	9	2.29E-03	33.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:16:23

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:14:48
Sample ID : G245395009 Sample quantity : 137.08 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.29 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.950E+01	2.715E+00	4.226E-01	3.013E-02	69.813
NB-95	+	765.79	*	4.194E-01	8.660E-02	7.535E-02	5.512E-03	5.565
LU-177	+	112.95		1.255E+01	2.763E+00	3.060E+00	1.955E-01	4.102
	+	208.36	*	2.376E+00	1.385E+00	1.461E+00	7.816E-02	1.626
TL-208		277.35		6.665E-01	3.734E-01	6.625E-01	6.939E-02	1.006
	+	510.84		6.789E-01	3.695E-01	2.165E-01	2.235E-02	3.136
	+	583.14	*	3.835E-01	7.442E-02	5.755E-02	4.117E-03	6.664
	+	860.37		7.770E-01	4.233E-01	4.439E-01	3.879E-02	1.750
BI-211		72.87		6.416E+00	5.120E+00	7.931E+00	5.321E-01	0.809
	+	351.07	*	3.082E+00	4.744E-01	3.372E-01	2.120E-02	9.140
BI-212	+	727.18	*	7.541E-01	4.948E-01	4.509E-01	3.904E-02	1.672
	+	785.46		6.151E+00	3.217E+00	2.826E+00	2.111E-01	2.177
		1620.62		1.851E+00	1.021E+00	2.169E+00	1.397E-01	0.853
PB-212	+	74.81		1.569E+00	6.048E-01	8.786E-01	1.016E-01	1.786
	+	77.11		1.327E+00	3.456E-01	4.986E-01	3.451E-02	2.661
		87.30		-5.797E-01	7.205E-01	1.050E+00	1.319E-01	-0.552
	+	238.63	*	1.221E+00	1.293E-01	9.167E-02	6.509E-03	13.323
		300.09		1.548E+00	8.215E-01	1.340E+00	1.094E-01	1.155
PO-212	+	74.81		1.569E+00	6.048E-01	8.786E-01	1.016E-01	1.786
	+	77.11		1.327E+00	3.456E-01	4.986E-01	3.451E-02	2.661
		87.30		-5.797E-01	7.205E-01	1.050E+00	1.319E-01	-0.552
		115.19		-1.853E+00	4.638E+00	7.525E+00	4.773E-01	-0.246
	+	238.63	*	1.221E+00	1.293E-01	9.167E-02	6.509E-03	13.323
		300.09		1.548E+00	8.215E-01	1.340E+00	1.094E-01	1.155
BI-214	+	609.31	*	9.046E-01	2.040E-01	1.063E-01	8.753E-03	8.509
	+	1120.29		1.373E+00	4.732E-01	4.564E-01	4.145E-02	3.009
	+	1764.49		1.091E+00	3.747E-01	2.993E-01	1.773E-02	3.647
PB-214	+	74.81		2.703E+00	1.031E+00	1.514E+00	1.522E-01	1.786
	+	77.11		2.274E+00	6.173E-01	8.547E-01	8.799E-02	2.661
		87.30		-9.931E-01	1.233E+00	1.799E+00	1.947E-01	-0.552
	+	241.98		1.746E+00	5.464E-01	5.521E-01	4.345E-02	3.162
	+	295.21		1.177E+00	2.215E-01	2.147E-01	1.812E-02	5.482
	+	351.92	*	1.072E+00	1.742E-01	1.088E-01	8.890E-03	9.850
PO-214	+	74.81		2.703E+00	1.031E+00	1.514E+00	1.522E-01	1.786

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.274E+00	6.173E-01	8.547E-01	8.799E-02	2.661
		87.30		-9.931E-01	1.233E+00	1.799E+00	1.947E-01	-0.552
	+	241.98		1.746E+00	5.464E-01	5.521E-01	4.345E-02	3.162
	+	295.21		1.177E+00	2.215E-01	2.147E-01	1.812E-02	5.482
	+	351.92	*	1.072E+00	1.742E-01	1.088E-01	8.890E-03	9.850
PO-216	+	74.81		1.569E+00	6.048E-01	8.786E-01	1.016E-01	1.786
	+	77.11		1.327E+00	3.456E-01	4.986E-01	3.451E-02	2.661
		87.30		-5.797E-01	7.205E-01	1.050E+00	1.319E-01	-0.552
	+	238.63	*	1.221E+00	1.293E-01	9.167E-02	6.509E-03	13.323
		300.09		1.548E+00	8.215E-01	1.340E+00	1.094E-01	1.155
PO-218	+	74.81		2.703E+00	1.031E+00	1.514E+00	1.522E-01	1.786
	+	77.11		2.274E+00	6.173E-01	8.547E-01	8.799E-02	2.661
		87.30		-9.931E-01	1.233E+00	1.799E+00	1.947E-01	-0.552
	+	241.98		1.746E+00	5.464E-01	5.521E-01	4.345E-02	3.162
	+	295.21		1.177E+00	2.215E-01	2.147E-01	1.812E-02	5.482
	+	351.92	*	1.072E+00	1.742E-01	1.088E-01	8.890E-03	9.850
RA-224	+	240.98	*	3.310E+00	1.019E+00	1.043E+00	5.756E-02	3.173
RA-226	+	609.31	*	9.046E-01	2.040E-01	1.063E-01	8.753E-03	8.509
	+	1120.29		1.373E+00	4.732E-01	4.564E-01	4.145E-02	3.009
	+	1764.49		1.091E+00	3.747E-01	2.993E-01	1.773E-02	3.647
AC-228	+	338.32		1.407E+00	7.042E-01	3.565E-01	1.453E-01	3.945
	+	911.07	*	1.521E+00	3.151E-01	2.046E-01	2.246E-02	7.432
	+	969.11		1.206E+00	4.386E-01	3.326E-01	7.668E-02	3.625
RA-228	+	338.32		1.407E+00	7.042E-01	3.565E-01	1.453E-01	3.945
	+	911.07	*	1.521E+00	3.151E-01	2.046E-01	2.246E-02	7.432
	+	969.11		1.206E+00	4.386E-01	3.326E-01	7.668E-02	3.625
TH-228	+	74.81		1.591E+00	5.951E-01	8.908E-01	6.141E-02	1.786
	+	77.11		1.345E+00	3.505E-01	5.055E-01	3.500E-02	2.661
		87.30		-5.878E-01	7.281E-01	1.065E+00	8.091E-02	-0.552
	+	238.63	*	1.238E+00	1.311E-01	9.295E-02	6.600E-03	13.323
		300.09		1.569E+00	1.238E+00	1.358E+00	8.005E-01	1.155
TH-230	+	609.31	*	9.046E-01	2.040E-01	1.063E-01	8.752E-03	8.509
	+	1120.29		1.373E+00	4.732E-01	4.563E-01	4.145E-02	3.009
	+	1764.49		1.091E+00	3.747E-01	2.993E-01	1.773E-02	3.647
U-231	+	84.21		1.459E+01	9.364E+00	1.244E+01	9.168E-01	1.173
	+	92.29		2.067E+02	1.607E+01	4.596E+00	3.349E-01	44.981
	+	95.87	*	4.308E+00	2.742E+00	1.833E+00	1.291E-01	2.351
		108.00		-2.161E+00	2.545E+00	3.627E+00	2.363E-01	-0.596
TH-232	+	338.32		1.407E+00	4.169E-01	3.565E-01	2.020E-02	3.945
	+	911.07	*	1.521E+00	3.151E-01	2.046E-01	2.246E-02	7.432
	+	969.11		1.206E+00	4.386E-01	3.326E-01	7.668E-02	3.625
PA-234M	+	766.42		1.125E+02	6.086E+01	2.023E+01	1.022E+01	5.561
	+	1001.03	*	8.474E+01	1.353E+01	5.419E+00	4.904E-01	15.638
TH-234	+	63.29	*	6.962E+01	1.265E+01	3.307E+00	5.630E-01	21.052
	+	92.38		6.638E+01	1.175E+01	1.475E+00	2.578E-01	45.012
U-234	+	609.31	*	9.046E-01	2.040E-01	1.063E-01	8.752E-03	8.509
	+	1120.29		1.373E+00	4.732E-01	4.563E-01	4.145E-02	3.009
	+	1764.49		1.091E+00	3.747E-01	2.993E-01	1.773E-02	3.647
U-235		89.95		9.898E-01	2.138E+00	3.193E+00	9.758E-01	0.310

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	93.35		7.980E+01	2.217E+01	1.760E+00	4.862E-01	45.339
		105.00		1.329E+00	1.433E+00	2.338E+00	6.858E-01	0.568
	+	143.76	*	9.946E-01	3.774E-01	3.891E-01	6.320E-02	2.556
	+	163.35		1.285E+00	8.281E-01	8.305E-01	1.478E-01	1.548
	+	185.71		1.060E+00	1.192E-01	7.516E-02	3.923E-03	14.106
	+	205.31		1.503E+00	8.925E-01	8.025E-01	1.431E-01	1.873
U-238	+	63.29	*	6.962E+01	1.265E+01	3.307E+00	5.630E-01	21.052
	+	92.38		6.638E+01	5.160E+00	1.475E+00	1.074E-01	45.012
AM-243	+	74.67	*	2.544E-01	9.512E-02	1.429E-01	9.707E-03	1.780
		86.72		-8.745E+00	1.700E+01	2.506E+01	1.894E+00	-0.349
		117.66		-9.741E+00	4.845E+00	7.368E+00	4.642E-01	-1.322
		142.18		2.663E+01	2.450E+01	3.696E+01	2.092E+00	0.721
ANH-511	+	511.00	*	1.466E-01	7.887E-02	4.678E-02	2.851E-03	3.135

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.102E-01	3.234E-01	4.749E-01	3.268E-02	-0.653
NA-22		1274.54	*	2.909E-02	4.072E-02	7.180E-02	4.624E-03	0.405
NA-24		1368.53	*	-1.103E-02	4.072E-02	Half-Life too short		
AL-26		1129.67		4.130E-01	1.645E+00	2.793E+00	1.702E-01	0.148
		1808.65	*	-5.705E-03	2.702E-02	4.273E-02	2.452E-03	-0.134
TI-44		67.85		3.420E-02	7.503E-02	1.151E-01	7.491E-03	0.297
	+	78.38	*	2.448E-01	6.378E-02	9.896E-02	6.921E-03	2.474
SC-46		889.25	*	4.523E-03	3.938E-02	6.449E-02	5.345E-03	0.070
	+	1120.51		2.327E-01	7.869E-02	1.186E-01	7.367E-03	1.963
V-48		944.10		1.066E+00	9.567E-01	1.681E+00	1.350E-01	0.634
		983.50	*	-7.610E-02	6.926E-02	9.785E-02	7.539E-03	-0.778
		1312.09		4.108E-04	7.377E-02	1.210E-01	8.213E-03	0.003
CR-51		320.08	*	8.172E-02	3.635E-01	6.095E-01	3.875E-02	0.134
MN-52	+	744.21		3.916E-01	3.675E-01	4.390E-01	3.136E-02	0.892
		848.13		4.739E+00	6.231E+00	1.076E+01	8.568E-01	0.441
		935.52		1.466E-01	1.981E-01	3.431E-01	2.778E-02	0.427
		1246.25		3.283E+00	6.139E+00	1.059E+01	6.524E-01	0.310
		1333.61		2.660E+00	4.336E+00	7.582E+00	5.295E-01	0.351
		1434.06	*	2.480E-01	2.021E-01	3.792E-01	2.605E-02	0.654
MN-54		834.83	*	-9.989E-03	3.986E-02	6.360E-02	5.000E-03	-0.157
CO-56		846.75	*	-8.104E-03	4.322E-02	6.922E-02	5.507E-03	-0.117
		977.42		1.260E+00	2.941E+00	4.923E+00	3.819E-01	0.256
		1037.82		-1.046E-01	2.723E-01	4.376E-01	3.380E-02	-0.239
		1175.09		-1.069E+00	2.345E+00	3.732E+00	2.058E-01	-0.286
		1238.25		1.155E-01	9.175E-02	1.647E-01	1.060E-02	0.701
		1360.21		2.872E-01	9.496E-01	1.611E+00	1.121E-01	0.178
		1771.40		-2.416E-01	2.314E-01	2.486E-01	1.466E-02	-0.972
CO-57		122.06	*	-2.043E-02	3.176E-02	4.829E-02	3.019E-03	-0.423
		136.48		-1.665E-02	2.416E-01	3.922E-01	2.638E-02	-0.042
CO-58		810.76	*	-1.576E-02	4.037E-02	6.122E-02	4.711E-03	-0.257
FE-59	+	142.65		1.259E+01	4.374E+00	5.934E+00	3.353E-01	2.121

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		192.34		4.095E-01	9.624E-01	1.561E+00	1.803E-01	0.262
		1099.22	*	7.256E-02	8.960E-02	1.592E-01	1.176E-02	0.456
		1291.56		3.538E-02	1.254E-01	2.115E-01	1.703E-02	0.167
CO-60		1173.22		6.769E-03	4.623E-02	7.749E-02	4.259E-03	0.087
		1332.49	*	1.230E-02	3.841E-02	6.522E-02	4.555E-03	0.189
ZN-65		1115.52	*	2.038E-02	9.961E-02	1.463E-01	9.205E-03	0.139
GE-68		1077.35	*	1.388E-01	1.123E+00	1.895E+00	1.278E-01	0.073
AS-73		53.44	*	-2.941E-01	1.299E+00	2.200E+00	1.421E-01	-0.134
AS-74		595.88	*	6.368E-03	8.914E-02	1.499E-01	9.541E-03	0.042
		634.78		2.557E-01	3.305E-01	5.810E-01	3.744E-02	0.440
SE-75		66.05		-7.384E+00	7.503E+00	1.101E+01	9.609E-01	-0.671
		96.73		2.865E+00	1.487E+00	1.879E+00	2.379E-01	1.525
		121.11		7.256E-02	1.790E-01	2.667E-01	2.540E-02	0.272
		136.00		-6.763E-03	4.578E-02	7.413E-02	4.377E-03	-0.091
		198.60		7.715E-01	1.988E+00	3.031E+00	2.037E-01	0.255
		264.65	*	-1.746E-02	4.419E-02	6.724E-02	3.812E-03	-0.260
		279.53		-6.696E-02	1.075E-01	1.746E-01	1.070E-02	-0.384
		303.91		-2.507E+00	2.018E+00	3.114E+00	2.949E-01	-0.805
		400.65		2.703E-01	2.605E-01	4.493E-01	4.015E-02	0.602
BR-77		87.88		-2.320E+02	2.634E+02	3.496E+02	2.673E+01	-0.663
		200.40		-7.913E+00	1.361E+02	1.916E+02	1.016E+01	-0.041
	+	239.00		1.369E+02	1.314E+01	2.310E+01	1.272E+00	5.929
		249.79		-1.873E+01	4.580E+01	7.577E+01	4.207E+00	-0.247
		281.68		-6.826E+01	6.139E+01	9.686E+01	5.474E+00	-0.705
		297.23		1.193E+01	4.449E+01	6.626E+01	3.761E+00	0.180
		303.76		-2.092E+02	1.241E+02	1.875E+02	1.065E+01	-1.116
		439.47		6.507E+01	1.042E+02	1.756E+02	1.011E+01	0.371
		484.57		2.042E+01	1.660E+02	2.693E+02	1.611E+01	0.076
		520.65	*	1.984E+00	7.541E+00	1.189E+01	7.291E-01	0.167
		574.64		1.025E+02	1.437E+02	2.522E+02	1.591E+01	0.406
		578.91		-2.792E+01	7.076E+01	9.943E+01	6.286E+00	-0.281
		585.48		3.601E+02	1.513E+02	2.583E+02	1.638E+01	1.394
		755.35		4.111E+01	1.284E+02	2.158E+02	1.561E+01	0.190
		817.79		2.046E+01	9.461E+01	1.573E+02	1.215E+01	0.130
SR-82		698.33		-5.262E+01	3.649E+01	5.386E+01	3.650E+00	-0.977
		776.49	*	-2.007E-01	4.034E-01	6.152E-01	4.552E-02	-0.326
		1395.20		-8.839E+00	1.024E+01	1.458E+01	1.009E+00	-0.606
RB-83		520.41	*	1.058E-02	7.453E-02	1.114E-01	6.830E-03	0.095
		529.64		-6.696E-02	1.117E-01	1.701E-01	1.049E-02	-0.394
		552.65		-2.146E-01	1.926E-01	2.979E-01	1.861E-02	-0.720
RB-84		881.50	*	3.437E-02	7.735E-02	1.287E-01	1.059E-02	0.267
KR-85		513.99	*	9.254E+00	7.406E+00	1.279E+01	7.811E-01	0.723
SR-85		513.99	*	4.684E-02	3.748E-02	6.474E-02	3.954E-03	0.723
RB-86		1076.63	*	-2.804E-01	7.047E-01	1.130E+00	7.626E-02	-0.248
Y-88		898.02		-1.025E-02	4.172E-02	6.592E-02	5.537E-03	-0.156
		1836.01	*	1.452E-02	3.187E-02	5.707E-02	3.213E-03	0.254
ZR-88		392.90	*	5.555E-03	3.007E-02	4.969E-02	2.726E-03	0.112
Y-91		1204.90	*	-4.813E-01	1.808E+01	2.979E+01	1.722E+00	-0.016
NB-94		702.63	*	1.413E-02	3.598E-02	6.103E-02	4.157E-03	0.232

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.10		-1.452E-04	3.654E-02	5.928E-02	4.829E-03	-0.002
NB-95M		235.69	*	4.749E-02	1.350E-01	2.057E-01	1.500E-02	0.231
ZR-95		724.18		4.849E-02	1.125E-01	1.675E-01	1.321E-02	0.289
		756.15	*	-2.230E-02	7.851E-02	1.262E-01	1.042E-02	-0.177
NB-97		657.90	*	-1.994E-03	7.851E-02	Half-Life too short		
		1024.50		1.815E+00	7.851E-02	Half-Life too short		
ZR-97		254.15		-1.079E-01	7.851E-02	Half-Life too short		
		355.39		4.152E-01	7.851E-02	Half-Life too short		
		507.63	*	7.845E-01	7.851E-02	Half-Life too short		
		602.52		-1.248E+00	7.851E-02	Half-Life too short		
		1021.30		-1.899E+00	7.851E-02	Half-Life too short		
		1147.95		-3.646E-01	7.851E-02	Half-Life too short		
		1362.66		-9.796E-01	7.851E-02	Half-Life too short		
		1750.46		6.831E-01	7.851E-02	Half-Life too short		
MO-99		140.51		-6.730E+00	2.539E+01	3.611E+01	9.723E+00	-0.186
		181.06		-3.834E+00	1.530E+01	2.146E+01	3.636E+00	-0.179
		366.43		2.666E+01	5.847E+01	9.870E+01	5.518E+00	0.270
		739.58	*	8.686E+00	1.083E+01	1.661E+01	2.389E+00	0.523
		778.00		-1.502E+01	3.061E+01	4.086E+01	3.029E+00	-0.368
TC-99M		140.51	*	-4.437E+08	3.061E+01	Half-Life too short		
RH-101		127.23		-4.094E-03	3.756E-02	6.114E-02	3.711E-03	-0.067
		198.01	*	2.621E-02	3.550E-02	5.750E-02	3.042E-03	0.456
		325.23		-1.829E-01	2.257E-01	3.577E-01	2.032E-02	-0.511
RH-102		418.52		2.557E-02	2.871E-01	4.696E-01	2.649E-02	0.054
		475.06	*	-6.746E-04	2.901E-02	4.664E-02	2.770E-03	-0.014
		631.29		-2.953E-03	5.640E-02	9.363E-02	6.028E-03	-0.032
		697.49		-3.063E-02	8.180E-02	1.316E-01	8.910E-03	-0.233
	+	766.84		1.068E+00	2.206E-01	3.339E-01	2.445E-02	3.200
		1046.59		2.905E-02	1.092E-01	1.870E-01	1.325E-02	0.155
		1112.84		2.257E-01	2.506E-01	3.990E-01	2.518E-02	0.566
RU-103		497.08	*	3.945E-03	4.187E-02	6.764E-02	8.627E-03	0.058
	+	610.33		9.559E+00	2.503E+00	2.582E+00	4.042E-01	3.702
RH-106	+	511.85		7.308E-01	3.930E-01	4.087E-01	2.492E-02	1.788
		621.84	*	-1.553E-01	3.210E-01	5.158E-01	6.219E-02	-0.301
		1050.47		-5.497E-01	2.196E+00	3.585E+00	2.525E-01	-0.153
RU-106	+	511.85		7.308E-01	3.930E-01	4.087E-01	2.492E-02	1.788
		621.84	*	-1.553E-01	3.206E-01	5.158E-01	3.312E-02	-0.301
		1050.47		-5.497E-01	2.196E+00	3.585E+00	2.525E-01	-0.153
AG-108M		433.93	*	2.276E-02	3.152E-02	5.361E-02	3.341E-03	0.425
		614.37		-1.507E-02	4.301E-02	6.016E-02	4.124E-03	-0.251
		722.95		-3.146E-02	4.982E-02	6.617E-02	4.887E-03	-0.475
CD-109		88.03	*	-5.842E-01	1.564E+00	2.314E+00	1.771E-01	-0.252
AG-110M		657.75	*	-5.566E-03	3.668E-02	6.027E-02	4.108E-03	-0.092
		677.61		8.509E-02	3.160E-01	5.338E-01	3.696E-02	0.159
		706.67		-9.176E-02	2.448E-01	3.903E-01	2.786E-02	-0.235
		763.93		9.139E-01	2.764E-01	4.733E-01	3.590E-02	1.931
		884.67		1.194E-02	5.545E-02	9.150E-02	7.816E-03	0.131
		937.48		-1.172E-01	1.069E-01	1.514E-01	1.273E-02	-0.775
		1384.27		-1.521E-01	1.560E-01	2.190E-01	1.585E-02	-0.695

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-111		171.28		-5.982E-01	8.164E-01	1.270E+00	6.534E-02	-0.471
		245.39	*	-2.795E-01	8.314E-01	1.211E+00	6.703E-02	-0.231
IN-113M		391.69	*	-2.055E-02	4.465E-02	7.087E-02	4.172E-03	-0.290
SN-113		391.69	*	-2.055E-02	4.465E-02	7.087E-02	4.172E-03	-0.290
IN-114M		190.27	*	-1.655E-01	2.104E-01	2.842E-01	1.491E-02	-0.583
CD-115		260.90		7.726E+01	9.327E+01	1.455E+02	8.142E+00	0.531
		492.35		-9.874E+00	2.520E+01	3.927E+01	2.363E+00	-0.251
		527.90	*	-5.525E+00	7.551E+00	1.133E+01	6.982E-01	-0.487
SN-117M		156.02		-2.671E+00	2.367E+00	3.648E+00	1.948E-01	-0.732
		158.56	*	5.215E-02	6.121E-02	9.185E-02	4.852E-03	0.568
SB-122		563.90	*	-8.805E-01	1.537E+00	2.485E+00	1.561E-01	-0.354
		692.80		3.275E+01	3.395E+01	5.972E+01	4.020E+00	0.548
I-123		159.00	*	1.236E+00	3.395E+01	Half-Life too short		
		528.96		-3.747E+01	3.395E+01	Half-Life too short		
TE-123M		159.00	*	2.886E-02	3.350E-02	5.029E-02	2.694E-03	0.574
I-124		602.71	*	-4.347E-01	6.643E-01	9.066E-01	5.786E-02	-0.480
		722.78		-2.722E+00	4.240E+00	5.623E+00	3.921E-01	-0.484
		1325.50		2.880E+00	2.583E+01	4.289E+01	2.967E+00	0.067
		1376.25		2.659E+01	2.577E+01	4.666E+01	3.241E+00	0.570
		1509.49		2.882E+00	1.061E+01	1.795E+01	1.208E+00	0.161
		1691.02		-8.169E-01	2.459E+00	3.800E+00	2.359E-01	-0.215
SB-124		602.71		-3.056E-02	4.669E-02	6.372E-02	4.068E-03	-0.480
		645.85		1.031E-01	5.124E-01	8.644E-01	6.169E-02	0.119
		709.31		-6.707E-02	3.143E+00	5.127E+00	3.519E-01	-0.013
		713.82		-5.396E-01	1.687E+00	2.714E+00	2.951E-01	-0.199
		722.78		-2.774E-01	4.320E-01	5.730E-01	4.126E-02	-0.484
	+	968.20		1.224E+01	3.574E+00	6.327E+00	4.958E-01	1.934
		1045.16		1.670E+00	2.219E+00	3.966E+00	2.816E-01	0.421
		1325.50		3.133E-01	2.811E+00	4.668E+00	3.228E-01	0.067
		1368.21		-5.526E-01	1.588E+00	2.463E+00	3.073E-01	-0.224
		1436.60		-6.530E-01	3.629E+00	5.749E+00	3.947E-01	-0.114
		1691.02	*	-1.963E-02	5.910E-02	9.133E-02	6.095E-03	-0.215
SB-125		427.89	*	4.169E-02	8.990E-02	1.505E-01	8.944E-03	0.277
	+	463.38		5.542E-01	3.515E-01	5.152E-01	3.521E-02	1.076
		600.56		-5.784E-02	2.017E-01	2.996E-01	2.161E-02	-0.193
		635.90		8.532E-02	2.622E-01	4.471E-01	3.287E-02	0.191
TE-125M		109.28	*	2.193E+01	1.369E+01	2.120E+01	1.827E+00	1.035
I-126		388.63		-7.128E-02	1.968E-01	3.147E-01	1.729E-02	-0.226
		666.33	*	4.217E-02	1.779E-01	3.000E-01	1.956E-02	0.141
		753.82		1.758E-01	1.475E+00	2.445E+00	1.765E-01	0.072
SB-126		223.80		-1.720E+00	3.748E+00	6.242E+00	3.391E-01	-0.276
		278.60		2.231E+00	2.262E+00	3.945E+00	2.227E-01	0.566
	+	296.50		1.094E+01	1.941E+00	2.932E+00	1.664E-01	3.731
		414.70		-2.291E-02	7.006E-02	1.116E-01	6.269E-03	-0.205
		415.30		-3.212E+00	5.742E+00	8.989E+00	5.054E-01	-0.357
		555.20		1.135E+00	3.687E+00	6.328E+00	3.956E-01	0.179
		573.80		3.848E-01	9.738E-01	1.676E+00	1.057E-01	0.230
		593.00		-9.582E-01	8.742E-01	1.345E+00	8.555E-02	-0.712
		656.30		-5.824E-01	3.233E+00	5.301E+00	3.433E-01	-0.110

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.33		1.757E-02	7.415E-02	1.250E-01	8.151E-03	0.141
		675.00		1.947E-01	1.768E+00	2.956E+00	1.948E-01	0.066
		695.00		3.899E-02	7.837E-02	1.339E-01	9.038E-03	0.291
		697.00		-7.861E-02	2.744E-01	4.446E-01	3.008E-02	-0.177
		720.50	*	7.258E-02	1.535E-01	2.307E-01	1.605E-02	0.315
		856.80		7.001E-02	5.060E-01	7.228E-01	5.807E-02	0.097
		989.30		8.348E-01	1.207E+00	2.065E+00	1.580E-01	0.404
		1034.80		1.312E+00	7.325E+00	1.247E+01	8.994E-01	0.105
		1213.00		6.062E+00	4.666E+00	8.439E+00	4.941E-01	0.718
SN-126	+	64.28		2.756E+01	4.245E+00	2.205E+00	3.096E-01	12.498
		86.94		-4.939E-02	6.355E-01	9.474E-01	3.899E-01	-0.052
		87.57	*	-1.783E-01	1.565E-01	2.264E-01	1.725E-02	-0.787
SB-127		61.10		1.492E+02	8.755E+01	1.373E+02	1.245E+01	1.087
		252.40		2.297E+00	3.779E+00	5.915E+00	2.450E+00	0.388
		290.80		1.119E+01	1.810E+01	2.768E+01	2.390E+00	0.404
		411.60		-1.505E+00	1.035E+01	1.670E+01	2.342E+00	-0.090
		444.90		-6.913E+00	8.307E+00	1.264E+01	1.316E+00	-0.547
		473.00		2.186E-01	1.412E+00	2.298E+00	2.502E-01	0.095
		543.00		-6.992E+00	1.365E+01	2.219E+01	2.839E+00	-0.315
		603.60		-4.322E+00	1.098E+01	1.537E+01	1.648E+00	-0.281
		685.20	*	9.267E-01	1.149E+00	2.005E+00	1.923E-01	0.462
		698.50		-1.974E+01	1.369E+01	1.981E+01	2.897E+00	-0.997
		722.20		-6.063E+00	2.783E+01	3.880E+01	3.700E+00	-0.156
		783.80		7.097E+00	3.464E+00	6.287E+00	7.103E-01	1.129
XE-127		57.60		-4.316E+00	9.849E+00	1.656E+01	1.046E+00	-0.261
		145.22		2.393E+00	8.827E-01	1.416E+00	7.908E-02	1.690
		172.10		-5.025E-02	1.282E-01	2.024E-01	1.042E-02	-0.248
		202.84	*	4.687E-02	5.327E-02	7.899E-02	4.200E-03	0.593
		374.96		-1.118E-01	1.945E-01	3.076E-01	1.709E-02	-0.364
I-131		80.18		-1.412E+00	9.182E+00	1.089E+01	7.793E-01	-0.130
		284.30		2.099E-01	1.337E+00	2.251E+00	1.420E-01	0.093
		364.48	*	-6.126E-02	9.751E-02	1.536E-01	9.649E-03	-0.399
		636.97		-1.612E+00	1.379E+00	2.079E+00	1.470E-01	-0.775
		722.89		-4.794E+00	7.543E+00	1.001E+01	7.040E-01	-0.479
TE-132		49.72		1.068E+01	2.233E+01	3.849E+01	3.432E+00	0.277
	+	111.76		4.768E+01	3.518E+01	6.684E+01	5.899E+00	0.713
		116.30		-3.754E+01	2.724E+01	4.247E+01	3.720E+00	-0.884
		228.16	*	1.378E-01	5.439E-01	9.297E-01	1.300E-01	0.148
BA-133		53.15		-2.997E+00	5.677E+00	9.548E+00	6.173E-01	-0.314
		79.62		-4.950E-02	2.837E+00	3.384E+00	4.874E-01	-0.015
		81.00		-2.731E-02	2.144E-01	2.542E-01	3.847E-02	-0.107
		276.40		5.718E-01	3.677E-01	6.450E-01	8.317E-02	0.886
		302.84		-1.545E-01	1.408E-01	2.192E-01	2.542E-02	-0.705
		356.01	*	-1.204E-02	4.595E-02	6.480E-02	7.434E-03	-0.186
		383.85		3.172E-01	3.235E-01	5.552E-01	5.954E-02	0.571
I-133	+	510.53		5.571E-01	3.235E-01	Half-Life too short		
		529.87	*	-1.039E-03	3.235E-01	Half-Life too short		
		706.58		-6.900E-02	3.235E-01	Half-Life too short		
		856.28		-2.839E-03	3.235E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		875.33		-1.048E-02	3.235E-01	Half-Life too short		
		1236.41		2.395E-01	3.235E-01	Half-Life too short		
		1298.22		-4.640E-02	3.235E-01	Half-Life too short		
CS-134		475.35		-5.560E-01	1.901E+00	2.995E+00	1.779E-01	-0.186
		563.23		-1.741E-01	3.599E-01	5.852E-01	3.740E-02	-0.297
		569.32		7.268E-02	1.956E-01	3.363E-01	2.171E-02	0.216
		604.70		-6.581E-03	3.866E-02	5.530E-02	3.548E-03	-0.119
	+	795.84	*	8.607E-02	6.679E-02	9.126E-02	6.958E-03	0.943
		801.93		-2.545E-01	4.020E-01	6.236E-01	4.775E-02	-0.408
		1038.57		-1.233E+00	3.469E+00	5.596E+00	4.013E-01	-0.220
		1167.94		-7.426E-01	2.590E+00	4.185E+00	2.332E-01	-0.177
		1365.15		4.928E-02	1.123E+00	1.846E+00	1.373E-01	0.027
CS-135		268.24	*	1.713E-01	1.703E-01	2.624E-01	1.974E-02	0.653
I-135		288.45		-5.325E+08	1.703E-01	Half-Life too short		
		417.63		3.970E+08	1.703E-01	Half-Life too short		
		546.56		6.060E+08	1.703E-01	Half-Life too short		
		836.80		1.183E+09	1.703E-01	Half-Life too short		
		1038.76		-2.567E+08	1.703E-01	Half-Life too short		
		1124.00		6.991E+08	1.703E-01	Half-Life too short		
		1131.51		2.384E+08	1.703E-01	Half-Life too short		
		1260.41	*	7.377E+07	1.703E-01	Half-Life too short		
		1457.56		4.604E+10	1.703E-01	Half-Life too short		
		1678.03		-1.474E+08	1.703E-01	Half-Life too short		
		1706.46		8.010E+08	1.703E-01	Half-Life too short		
		1791.20		7.995E+07	1.703E-01	Half-Life too short		
CS-136		66.91		-6.719E-01	1.172E+00	1.742E+00	2.500E-01	-0.386
		86.29		4.269E-01	1.836E+00	2.759E+00	3.350E-01	0.155
		153.22		1.029E+00	6.877E-01	1.166E+00	8.054E-02	0.882
	+	163.89		2.729E+00	1.700E+00	2.113E+00	1.427E-01	1.291
		176.55		-2.011E-01	3.861E-01	6.053E-01	3.609E-02	-0.332
		273.65		-7.996E-01	4.820E-01	6.241E-01	4.036E-02	-1.281
		340.57		1.368E-01	1.313E-01	2.039E-01	1.230E-02	0.671
		818.51		5.633E-03	7.219E-02	1.186E-01	9.178E-03	0.047
		1048.07	*	3.631E-02	9.407E-02	1.628E-01	1.223E-02	0.223
		1235.34		5.862E-01	5.875E-01	1.033E+00	1.048E-01	0.567
BA-137M		661.65	*	1.335E-02	4.010E-02	6.750E-02	4.376E-03	0.198
CS-137		661.65	*	1.411E-02	4.239E-02	7.135E-02	4.641E-03	0.198
CE-139		165.85	*	1.684E-02	3.741E-02	5.481E-02	2.809E-03	0.307
BA-140	+	162.64		1.918E+00	1.193E+00	1.448E+00	8.672E-02	1.325
		304.84		-1.792E+00	1.216E+00	1.687E+00	4.599E-01	-1.062
		423.70		-1.206E+00	1.771E+00	2.672E+00	8.487E-01	-0.451
		537.32	*	-7.337E-02	2.615E-01	4.316E-01	1.407E-01	-0.170
LA-140		328.77		1.849E-01	2.831E-01	4.829E-01	3.085E-02	0.383
		432.53		9.033E-01	1.868E+00	3.129E+00	1.982E-01	0.289
		487.03		-6.675E-03	1.321E-01	2.116E-01	1.426E-02	-0.032
		751.79		-6.129E-02	1.698E+00	2.782E+00	2.305E-01	-0.022
		815.85		2.512E-01	3.176E-01	5.511E-01	4.854E-02	0.456
		867.82		-2.763E-01	1.489E+00	2.141E+00	1.842E-01	-0.129
		919.63		-2.821E+00	3.079E+00	4.187E+00	4.320E-01	-0.674

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		925.24		7.805E-01	1.231E+00	2.089E+00	1.826E-01	0.374
		1596.49	*	-3.623E-02	6.801E-02	1.038E-01	6.758E-03	-0.349
CE-141		145.44	*	1.449E-01	7.756E-02	1.212E-01	7.055E-03	1.195
CE-143		57.37		-4.963E-04	7.756E-02	Half-Life too short		
		231.56		-1.037E-03	7.756E-02	Half-Life too short		
		293.26	*	3.095E-04	7.756E-02	Half-Life too short		
	+	350.59		1.313E-02	7.756E-02	Half-Life too short		
		490.36		-7.673E-04	7.756E-02	Half-Life too short		
		664.57		1.595E-04	7.756E-02	Half-Life too short		
		721.93		-1.741E-04	7.756E-02	Half-Life too short		
CE-144		80.11		-7.151E-01	4.687E+00	5.557E+00	3.945E-01	-0.129
		133.54	*	-1.566E-01	2.439E-01	3.871E-01	5.510E-02	-0.405
PM-144		476.78		-9.043E-02	7.026E-02	1.019E-01	7.200E-03	-0.887
		618.01		9.474E-04	3.173E-02	5.171E-02	3.480E-03	0.018
		696.49	*	1.378E-02	3.763E-02	6.373E-02	4.311E-03	0.216
		778.57		-6.682E-01	2.704E+00	3.718E+00	2.759E-01	-0.180
PR-144		696.49	*	9.329E-01	2.548E+00	4.316E+00	2.918E-01	0.216
		1489.15		-5.812E+00	9.594E+00	1.367E+01	9.257E-01	-0.425
PM-146		453.90	*	6.253E-03	4.473E-02	7.298E-02	6.309E-03	0.086
		633.02		3.005E-01	1.399E+00	2.360E+00	8.714E-01	0.127
		735.90		-7.938E-02	1.839E-01	2.474E-01	6.971E-02	-0.321
		747.13		-1.364E-02	1.133E-01	1.591E-01	2.100E-02	-0.086
ND-147	+	91.11		3.089E+01	2.643E+00	1.408E+00	1.155E-01	21.937
		319.41		1.453E+00	3.041E+00	5.165E+00	2.937E-01	0.281
		439.89		3.644E+00	5.682E+00	9.576E+00	5.519E-01	0.381
		531.02	*	1.539E-01	5.729E-01	9.316E-01	1.275E-01	0.165
PM-149		285.90	*	4.006E+00	6.296E+01	1.055E+02	1.489E+01	0.038
EU-152		121.78		-3.707E-02	9.870E-02	1.420E-01	1.129E-02	-0.261
		244.69		-2.466E-01	3.499E-01	4.976E-01	2.753E-02	-0.496
		344.27	*	-6.419E-02	1.066E-01	1.561E-01	1.001E-02	-0.411
		443.98		-6.038E-01	1.004E+00	1.559E+00	9.017E-02	-0.387
		778.89		-1.062E-01	3.143E-01	4.273E-01	3.170E-02	-0.249
		867.32		-6.171E-03	9.744E-01	1.365E+00	1.108E-01	-0.005
	+	964.01		4.717E-01	3.449E-01	5.746E-01	4.523E-02	0.821
		1085.78		-4.826E-02	3.864E-01	6.365E-01	4.229E-02	-0.076
		1112.02		3.295E-01	3.429E-01	5.665E-01	3.581E-02	0.582
		1407.95		1.635E-01	1.770E-01	3.212E-01	2.219E-02	0.509
GD-153		69.67		-1.368E+00	2.583E+00	4.101E+00	2.696E-01	-0.334
	+	83.37		4.852E+01	3.114E+01	4.145E+01	3.031E+00	1.170
	+	97.43	*	6.842E-01	1.652E-01	2.185E-01	1.520E-02	3.131
		103.18		-8.933E-02	1.454E-01	2.243E-01	1.499E-02	-0.398
EU-154		123.07		-4.750E-02	6.134E-02	9.745E-02	9.416E-03	-0.487
		247.94		-7.240E-03	3.493E-01	5.883E-01	5.523E-02	-0.012
		591.81		-2.514E-01	6.089E-01	9.888E-01	1.000E-01	-0.254
		723.30		-1.240E-01	2.088E-01	2.785E-01	2.248E-02	-0.445
		756.87		-2.697E-01	8.736E-01	1.401E+00	1.545E-01	-0.192
		873.19		7.458E-02	3.236E-01	5.354E-01	6.385E-02	0.139
		996.32		3.462E-01	4.295E-01	6.762E-01	1.169E-01	0.512
		1004.76		-1.713E-01	2.370E-01	3.079E-01	3.339E-02	-0.556

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.45	*	8.240E-02	1.141E-01	2.010E-01	1.959E-02	0.410
EU-155		48.70		-4.067E+00	3.555E+00	5.893E+00	3.850E-01	-0.690
		60.01		4.012E+00	9.212E+00	1.420E+01	8.921E-01	0.283
		86.54		8.108E-02	1.809E-01	2.733E-01	2.089E-02	0.297
		105.31	*	3.490E-02	1.409E-01	2.342E-01	1.578E-02	0.149
TB-160		86.79		-2.377E-01	4.905E-01	7.240E-01	5.474E-02	-0.328
		197.04		1.478E-01	6.053E-01	9.615E-01	5.081E-02	0.154
		215.65		-1.951E-01	7.786E-01	1.217E+00	6.557E-02	-0.160
		298.57		7.776E-02	1.201E-01	1.835E-01	1.042E-02	0.424
		879.36	*	-3.837E-02	1.540E-01	2.442E-01	2.005E-02	-0.157
		962.29		9.343E-01	6.045E-01	9.848E-01	7.766E-02	0.949
		966.15		9.477E-01	2.557E-01	4.900E-01	3.848E-02	1.934
		1177.93		2.668E-02	3.589E-01	5.979E-01	3.312E-02	0.045
		1271.85		-3.506E-01	7.155E-01	1.118E+00	7.156E-02	-0.314
HO-166M		80.57		2.865E-01	5.826E-01	7.090E-01	5.053E-02	0.404
	+	184.41		7.952E-01	8.940E-02	1.168E-01	6.088E-03	6.808
		280.46		-7.859E-02	8.366E-02	1.335E-01	7.538E-03	-0.589
		410.95		1.796E-01	2.562E-01	4.340E-01	2.429E-02	0.414
		711.68	*	-7.253E-03	6.634E-02	1.086E-01	7.478E-03	-0.067
		752.31		-5.038E-02	2.961E-01	4.802E-01	3.461E-02	-0.105
		810.29		-3.984E-02	6.085E-02	9.348E-02	7.167E-03	-0.426
TM-171		51.35		2.515E+01	4.719E+01	8.133E+01	5.300E+00	0.309
		52.39		-7.476E+00	2.466E+01	4.172E+01	2.707E+00	-0.179
		59.40		2.014E+01	4.916E+01	7.576E+01	4.751E+00	0.266
		66.72	*	-2.338E+01	4.507E+01	6.728E+01	4.354E+00	-0.347
LU-176		88.36		2.193E-01	3.921E-01	5.437E-01	4.143E-02	0.403
		201.83		-9.576E-03	3.445E-02	4.783E-02	2.541E-03	-0.200
		306.84	*	9.654E-03	2.337E-02	3.969E-02	2.256E-03	0.243
		401.10		2.438E+00	7.025E+00	1.169E+01	6.473E-01	0.209
LU-177M		52.97		-1.486E+00	2.553E+00	4.289E+00	2.776E-01	-0.347
		54.07		3.537E-01	1.338E+00	2.289E+00	1.473E-01	0.154
		61.30		1.032E+01	2.948E+00	4.742E+00	2.996E-01	2.177
		121.62		-1.440E-01	5.048E-01	7.293E-01	4.554E-02	-0.197
		147.16		2.498E-01	7.920E-01	1.162E+00	6.441E-02	0.215
		171.86		-1.969E-01	5.265E-01	8.319E-01	4.282E-02	-0.237
		218.09		5.049E-01	8.811E-01	1.430E+00	7.724E-02	0.353
	+	268.79		1.774E+00	9.429E-01	1.368E+00	7.689E-02	1.297
		319.02		1.367E-01	2.520E-01	4.296E-01	2.442E-02	0.318
		367.43		-5.639E-01	8.915E-01	1.406E+00	7.854E-02	-0.401
		413.65	*	-7.415E-02	1.783E-01	2.824E-01	1.585E-02	-0.263
HF-181		56.28		-3.950E-01	1.509E+00	2.548E+00	1.621E-01	-0.155
		57.53		-3.850E-01	8.312E-01	1.397E+00	8.830E-02	-0.276
		65.20		6.172E-01	1.483E+00	2.278E+00	1.463E-01	0.271
		133.02		-1.333E-02	7.608E-02	1.232E-01	7.269E-03	-0.108
		136.25		2.611E-02	5.206E-01	8.488E-01	4.932E-02	0.031
		345.85		1.300E-01	1.942E-01	3.216E-01	1.817E-02	0.404
		482.03	*	1.065E-02	4.197E-02	6.876E-02	4.106E-03	0.155
W-181		56.28		-1.552E-01	5.984E-01	1.011E+00	6.429E-02	-0.154
		57.53		-1.530E-01	3.299E-01	5.544E-01	3.504E-02	-0.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		65.20	*	2.430E-01	5.841E-01	8.969E-01	5.762E-02	0.271
TA-182		67.75		6.867E-02	1.775E-01	2.718E-01	1.768E-02	0.253
		100.10		3.591E-01	2.631E-01	4.077E-01	2.779E-02	0.881
		152.43		4.998E-01	3.747E-01	6.336E-01	3.434E-02	0.789
		222.10		-3.890E-01	3.396E-01	5.492E-01	2.979E-02	-0.708
	+	1001.68		3.705E+01	5.618E+00	9.055E+00	6.826E-01	4.091
	+	1121.28		6.444E-01	2.179E-01	3.165E-01	1.964E-02	2.036
		1189.05		1.321E-01	3.321E-01	5.663E-01	3.193E-02	0.233
		1221.42	*	-1.699E-01	1.946E-01	2.961E-01	1.756E-02	-0.574
		1230.97		-3.019E-01	5.206E-01	8.196E-01	4.934E-02	-0.368
RE-183		57.98		1.033E-01	3.409E-01	5.567E-01	3.512E-02	0.185
		59.32		1.524E-01	1.979E-01	3.077E-01	1.930E-02	0.495
		67.20		-7.402E-02	3.151E-01	4.743E-01	3.077E-02	-0.156
	+	162.32	*	2.963E-01	1.841E-01	2.215E-01	1.151E-02	1.338
	+	208.81		2.396E+00	1.397E+00	1.780E+00	9.527E-02	1.346
		291.72		-5.786E-01	9.995E-01	1.407E+00	7.975E-02	-0.411
RE-184		57.98		3.832E-01	1.265E+00	2.066E+00	1.303E-01	0.185
		59.32		5.650E-01	7.340E-01	1.141E+00	7.159E-02	0.495
		67.20		-2.746E-01	1.169E+00	1.760E+00	1.142E-01	-0.156
		161.27		1.108E-01	4.381E-01	6.371E-01	3.327E-02	0.174
		216.55		-1.038E-02	2.787E-01	4.398E-01	2.373E-02	-0.024
		252.85	*	5.104E-02	2.583E-01	3.882E-01	2.161E-02	0.131
		318.01		-1.386E-01	4.417E-01	7.201E-01	4.094E-02	-0.192
		792.07		7.652E-01	1.456E+00	1.764E+00	1.327E-01	0.434
		903.28		1.028E+00	1.098E+00	1.778E+00	1.480E-01	0.578
		920.93		-4.134E-01	4.901E-01	7.267E-01	5.961E-02	-0.569
OS-185		59.72		3.178E-01	5.389E-01	8.337E-01	5.232E-02	0.381
		61.14		5.559E-01	3.069E-01	4.850E-01	3.062E-02	1.146
		69.30		-1.470E-01	4.343E-01	7.259E-01	4.763E-02	-0.202
		592.07		-1.093E+00	2.482E+00	4.025E+00	2.558E-01	-0.272
		646.12	*	1.149E-02	4.403E-02	7.457E-02	4.819E-03	0.154
		717.42		-2.678E-01	9.044E-01	1.457E+00	1.009E-01	-0.184
		874.81		1.242E-01	6.140E-01	1.014E+00	8.289E-02	0.123
		880.27		1.298E-01	8.330E-01	1.369E+00	1.125E-01	0.095
RE-188		155.03	*	-4.596E-02	1.863E-01	2.981E-01	1.598E-02	-0.154
		477.96		-2.095E+00	3.089E+00	4.648E+00	2.767E-01	-0.451
		633.10		6.515E-01	2.790E+00	4.726E+00	3.044E-01	0.138
W-188	+	63.58		2.764E+03	2.489E+02	2.563E+02	1.635E+01	10.783
		227.08		1.675E+01	1.274E+01	2.260E+01	1.232E+00	0.741
		290.67	*	2.627E+00	7.874E+00	1.183E+01	6.702E-01	0.222
IR-192	+	295.96		8.872E-01	1.577E-01	2.535E-01	1.462E-02	3.500
		308.46		4.660E-02	9.303E-02	1.585E-01	9.117E-03	0.294
		316.51	*	-2.351E-02	3.319E-02	5.288E-02	3.022E-03	-0.444
		468.07		4.429E-02	7.290E-02	1.139E-01	7.723E-03	0.389
		604.41		-2.533E-01	5.306E-01	7.356E-01	8.577E-02	-0.344
		612.46		6.007E-01	7.871E-01	1.222E+00	9.832E-02	0.491
AU-195		65.12		3.173E-01	2.774E-01	4.333E-01	2.783E-02	0.732
		66.83		-7.170E-02	1.485E-01	2.220E-01	1.437E-02	-0.323
	+	75.70		8.193E-01	3.064E-01	5.313E-01	3.638E-02	1.542

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	98.88	*	1.990E+00	4.806E-01	6.364E-01	4.376E-02	3.127
		129.76		2.885E+00	3.410E+00	5.709E+00	3.421E-01	0.505
TL-200		367.94	*	-1.175E-04	3.410E+00	Half-Life too short		
		579.30		-4.772E-04	3.410E+00	Half-Life too short		
		828.27		2.678E-04	3.410E+00	Half-Life too short		
		1205.75		9.780E-05	3.410E+00	Half-Life too short		
TL-201		68.90		-4.733E-01	5.319E+00	8.941E+00	5.853E-01	-0.053
		70.82		9.041E-01	3.389E+00	5.142E+00	3.405E-01	0.176
		80.30		-1.309E+00	8.403E+00	9.961E+00	7.082E-01	-0.131
		135.34		-1.625E+01	2.238E+01	3.548E+01	2.070E+00	-0.458
		167.43	*	3.609E+00	6.430E+00	9.477E+00	4.858E-01	0.381
TL-202		68.90		-5.255E-02	5.905E-01	9.927E-01	6.499E-02	-0.053
		70.82		1.001E-01	3.752E-01	5.694E-01	3.770E-02	0.176
		80.30		-1.450E-01	9.307E-01	1.103E+00	7.844E-02	-0.131
		439.56	*	4.395E-02	6.752E-02	1.139E-01	6.560E-03	0.386
HG-203		70.83		4.663E-01	1.713E+00	2.598E+00	3.231E-01	0.179
		72.87		1.253E+00	1.008E+00	1.549E+00	1.865E-01	0.809
	+	82.60		3.554E+00	2.312E+00	2.983E+00	3.859E-01	1.191
		279.20	*	1.022E-02	3.929E-02	6.650E-02	3.999E-03	0.154
BI-207		72.80		3.408E-01	2.982E-01	4.609E-01	3.091E-02	0.740
	+	74.97		4.566E-01	1.707E-01	2.867E-01	1.952E-02	1.593
	+	84.90		6.297E-01	4.041E-01	5.218E-01	3.872E-02	1.207
		569.67		9.560E-03	3.095E-02	5.300E-02	3.337E-03	0.180
		1063.62	*	-2.388E-02	5.460E-02	8.725E-02	6.019E-03	-0.274
		1770.23		1.557E-02	4.270E-01	6.121E-01	3.612E-02	0.025
TL-207		81.07		-6.128E-02	4.731E-01	5.610E-01	4.016E-02	-0.109
	+	83.78		4.152E-01	2.665E-01	3.532E-01	2.593E-02	1.175
	+	94.90		1.081E+00	6.884E-01	6.070E-01	4.313E-02	1.782
		122.32		-1.614E+00	2.198E+00	3.327E+00	2.355E-01	-0.485
	+	144.24		3.223E+00	1.129E+00	1.545E+00	1.094E-01	2.086
		154.21		1.688E-01	4.455E-01	7.296E-01	4.867E-02	0.231
	+	269.46		4.176E-01	2.221E-01	3.266E-01	1.924E-02	1.279
		323.87	*	-7.183E-01	6.840E-01	1.054E+00	1.736E-01	-0.682
	+	338.28		5.874E+00	1.816E+00	2.420E+00	2.531E-01	2.427
		445.03		-1.261E+00	2.345E+00	3.650E+00	3.746E-01	-0.345
PO-209		260.50		1.169E+01	1.023E+01	1.624E+01	9.084E-01	0.720
		262.80		-1.427E+01	2.850E+01	4.074E+01	2.282E+00	-0.350
		896.60	*	6.674E-01	7.455E+00	1.217E+01	1.016E+00	0.055
BI-210		46.50	*	2.983E-01	4.859E+00	8.293E+00	6.247E-01	0.036
PB-210		46.50	*	2.983E-01	4.859E+00	8.293E+00	6.247E-01	0.036
PO-210		46.50	*	2.983E-01	4.859E+00	8.293E+00	5.319E-01	0.036
PB-211		404.84	*	-9.196E-01	1.153E+00	1.541E+00	9.603E-01	-0.597
		427.08		1.243E+00	2.070E+00	3.263E+00	2.016E+00	0.381
		831.96		-8.037E-01	1.393E+00	2.006E+00	1.255E+00	-0.401
PO-215		81.07		-6.128E-02	4.731E-01	5.610E-01	4.016E-02	-0.109
	+	83.78		4.152E-01	2.665E-01	3.532E-01	2.593E-02	1.175
	+	94.90		1.081E+00	6.884E-01	6.070E-01	4.313E-02	1.782
		122.32		-1.614E+00	2.198E+00	3.327E+00	2.355E-01	-0.485
	+	144.24		3.223E+00	1.129E+00	1.545E+00	1.094E-01	2.086

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		1.688E-01	4.455E-01	7.296E-01	4.867E-02	0.231
	+	269.46		4.176E-01	2.221E-01	3.266E-01	1.924E-02	1.279
		323.87	*	-7.183E-01	6.840E-01	1.054E+00	1.736E-01	-0.682
	+	338.28		5.874E+00	1.816E+00	2.420E+00	2.531E-01	2.427
		445.03		-1.261E+00	2.345E+00	3.650E+00	3.746E-01	-0.345
RN-219	+	271.23		5.358E-01	2.863E-01	4.171E-01	3.329E-02	1.285
		401.81	*	6.516E-02	4.371E-01	7.191E-01	9.706E-02	0.091
RN-220		549.76	*	-8.692E+00	2.572E+01	4.230E+01	2.638E+00	-0.205
RA-223		81.07		-6.128E-02	4.731E-01	5.610E-01	4.016E-02	-0.109
	+	83.78		4.152E-01	2.665E-01	3.532E-01	2.593E-02	1.175
	+	94.90		1.081E+00	6.884E-01	6.070E-01	4.313E-02	1.782
		122.32		-1.614E+00	2.198E+00	3.327E+00	2.355E-01	-0.485
	+	144.24		3.223E+00	1.129E+00	1.545E+00	1.094E-01	2.086
		154.21		1.688E-01	4.455E-01	7.296E-01	4.867E-02	0.231
	+	269.46		4.176E-01	2.221E-01	3.266E-01	1.924E-02	1.279
		323.87	*	-7.183E-01	6.840E-01	1.054E+00	1.736E-01	-0.682
	+	338.28		5.874E+00	1.816E+00	2.420E+00	2.531E-01	2.427
		445.03		-1.261E+00	2.345E+00	3.650E+00	3.746E-01	-0.345
AC-227		79.80		2.489E-02	3.599E+00	4.297E+00	8.995E-01	0.006
		236.00		3.966E-01	2.687E-01	4.262E-01	4.383E-02	0.931
		256.20	*	1.414E-01	4.477E-01	6.758E-01	9.373E-02	0.209
		286.10		6.664E-01	1.547E+00	2.633E+00	3.026E-01	0.253
		299.80		2.312E+00	1.578E+00	2.469E+00	4.011E-01	0.936
		304.40		-2.397E+00	1.817E+00	2.728E+00	4.708E-01	-0.879
		334.20		-1.957E+00	2.571E+00	3.476E+00	6.359E-01	-0.563
TH-227		79.80		2.489E-02	3.599E+00	4.297E+00	9.117E-01	0.006
	+	94.00		8.652E+00	5.773E+00	1.004E+01	2.133E+00	0.862
		236.00		3.966E-01	2.679E-01	4.262E-01	3.778E-02	0.931
		256.20	*	1.414E-01	4.479E-01	6.758E-01	1.137E-01	0.209
		286.10		6.664E-01	1.683E+00	2.633E+00	2.637E+00	0.253
		299.80		2.312E+00	1.578E+00	2.469E+00	4.011E-01	0.936
		304.40		-2.397E+00	1.817E+00	2.728E+00	4.708E-01	-0.879
		334.20		-1.957E+00	2.571E+00	3.476E+00	6.359E-01	-0.563
TH-229		85.43		-3.317E-01	3.452E-01	5.024E-01	3.747E-02	-0.660
		88.47		9.866E-02	2.077E-01	3.135E-01	2.386E-02	0.315
		100.00		3.937E-01	2.802E-01	4.343E-01	2.962E-02	0.907
		193.63	*	2.147E-01	5.436E-01	8.805E-01	4.636E-02	0.244
		210.97		7.818E-01	8.672E-01	1.275E+00	6.839E-02	0.613
PA-231		283.67	*	3.974E-01	1.503E+00	2.542E+00	3.487E-01	0.156
		301.29		1.013E+00	5.710E-01	9.881E-01	1.026E-01	1.025
TH-231		81.07		-6.128E-02	4.731E-01	5.610E-01	4.016E-02	-0.109
	+	83.78		4.152E-01	2.665E-01	3.532E-01	2.593E-02	1.175
	+	94.90		1.081E+00	6.884E-01	6.070E-01	4.313E-02	1.782
		122.32		-1.614E+00	2.198E+00	3.327E+00	2.355E-01	-0.485
	+	144.24		3.223E+00	1.129E+00	1.545E+00	1.094E-01	2.086
		154.21		1.688E-01	4.455E-01	7.296E-01	4.867E-02	0.231
	+	269.46		4.176E-01	2.221E-01	3.266E-01	1.924E-02	1.279
		323.87	*	-7.183E-01	6.840E-01	1.054E+00	1.736E-01	-0.682
	+	338.28		5.874E+00	1.816E+00	2.420E+00	2.531E-01	2.427

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-1.261E+00	2.345E+00	3.650E+00	3.746E-01	-0.345
PA-233	+	75.28		1.332E+01	5.262E+00	8.459E+00	1.219E+00	1.575
		86.59		-1.730E+00	3.055E+00	4.451E+00	1.179E+00	-0.389
		300.12		8.014E-01	4.330E-01	6.925E-01	9.270E-02	1.157
		311.98	*	1.796E-02	6.234E-02	1.051E-01	6.358E-03	0.171
		340.50		8.229E-01	7.091E-01	1.074E+00	2.462E-01	0.766
		398.62		-1.068E+00	2.209E+00	3.472E+00	8.957E-01	-0.308
		415.76		-9.231E-01	1.679E+00	2.616E+00	5.373E-01	-0.353
PA-234	+	63.00		8.115E+01	1.276E+01	7.871E+00	1.131E+00	10.310
	+	94.67		7.715E-01	4.959E-01	5.094E-01	5.812E-02	1.515
	+	98.44		8.101E-01	4.875E-01	2.614E-01	1.452E-01	3.100
		99.86		1.479E+00	7.304E-01	1.144E+00	7.813E-02	1.293
	+	111.00		3.863E-01	2.860E-01	4.821E-01	5.130E-02	0.801
		131.20		9.114E-02	1.279E-01	2.133E-01	1.269E-02	0.427
		152.70		5.963E-01	3.717E-01	6.166E-01	9.662E-02	0.967
	+	186.00		2.863E+01	9.171E+00	4.479E+00	1.364E+00	6.392
		226.40		6.935E-01	4.159E-01	7.353E-01	8.373E-02	0.943
		227.20		4.955E-01	4.370E-01	7.705E-01	4.199E-02	0.643
		248.90		2.156E-01	7.983E-01	1.359E+00	2.911E-01	0.159
	+	293.70		5.649E+00	1.313E+00	1.560E+00	2.502E-01	3.621
		369.80		1.716E-01	8.626E-01	1.431E+00	2.971E-01	0.120
		568.70		3.176E-01	9.972E-01	1.709E+00	1.076E-01	0.186
		569.50		1.253E-01	2.727E-01	4.714E-01	2.968E-02	0.266
		574.00		6.570E-01	1.503E+00	2.593E+00	1.636E-01	0.253
		699.00		-6.742E-01	7.689E-01	1.174E+00	2.151E-01	-0.574
		706.10		2.463E-01	1.170E+00	1.952E+00	8.644E-01	0.126
		733.00		6.072E-02	4.336E-01	6.282E-01	1.359E-01	0.097
	+	742.81		2.612E+00	3.007E+00	2.965E+00	1.988E+00	0.881
	+	796.30		1.675E+00	1.368E+00	1.708E+00	4.566E-01	0.980
		805.60		5.676E-01	1.018E+00	1.717E+00	5.217E-01	0.331
		819.60		-9.416E-01	1.365E+00	2.016E+00	7.628E-01	-0.467
		826.30		-3.711E-01	8.878E-01	1.369E+00	6.106E-01	-0.271
		831.60		-1.263E-01	6.563E-01	1.050E+00	3.112E-01	-0.120
		876.40		-2.835E-01	9.538E-01	1.432E+00	1.472E+00	-0.198
		880.51		5.506E-02	3.092E-01	5.090E-01	4.184E-02	0.108
		883.24		5.872E-02	3.304E-01	5.342E-01	3.589E-01	0.110
		899.00		-4.572E-01	8.927E-01	1.338E+00	5.843E-01	-0.342
		925.00		7.399E-01	1.366E+00	2.303E+00	1.882E-01	0.321
		926.50		2.548E-01	2.102E-01	3.570E-01	8.970E-02	0.714
		946.00	*	5.087E-01	3.652E-01	6.343E-01	1.173E-01	0.802
		949.00		-3.355E-01	5.229E-01	7.942E-01	6.348E-02	-0.422
		980.50		-3.669E-01	7.256E-01	1.113E+00	8.607E-02	-0.330
		1394.10		-3.416E-01	1.145E+00	1.753E+00	1.138E+00	-0.195
NP-236	+	94.67		5.851E-01	3.725E-01	3.875E-01	2.759E-02	1.510
	+	98.44		6.124E-01	1.479E-01	1.976E-01	1.363E-02	3.100
	+	111.00		2.922E-01	2.149E-01	3.647E-01	2.346E-02	0.801
		160.31	*	1.281E-02	9.647E-02	1.395E-01	7.316E-03	0.092
NP-237		86.50	*	1.783E-01	4.427E-01	6.658E-01	1.463E-01	0.268
	+	95.87		4.659E+00	3.154E+00	2.272E+00	5.482E-01	2.050

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		1.400E+00	3.380E-01	4.187E-01	2.865E-02	3.343
		117.00	*	-4.286E-01	2.431E-01	3.740E-01	2.360E-02	-1.146
	+	209.75		1.914E+00	1.116E+00	1.411E+00	7.557E-02	1.357
		228.18		8.957E-02	2.300E-01	3.952E-01	2.156E-02	0.227
		277.60		3.418E-01	1.753E-01	3.168E-01	1.788E-02	1.079
		334.30		-1.205E+00	1.440E+00	1.952E+00	1.107E-01	-0.618
AM-241		59.54	*	1.400E-01	2.862E-01	4.419E-01	3.140E-02	0.317
CM-243	+	99.55		1.440E+00	3.478E-01	4.308E-01	2.948E-02	3.343
		103.76	*	2.869E-02	1.267E-01	2.105E-01	1.402E-02	0.136
		117.00		-4.409E-01	2.501E-01	3.848E-01	2.428E-02	-1.146
	+	209.75		1.886E+00	1.100E+00	1.390E+00	7.449E-02	1.357
		228.18		9.050E-02	2.323E-01	3.993E-01	2.178E-02	0.227
		277.60		3.445E-01	1.767E-01	3.194E-01	1.802E-02	1.079
AM-246		798.80		-1.109E-01	1.564E-01	2.002E-01	1.517E-02	-0.554
		1036.00		5.427E-02	2.686E-01	4.582E-01	3.298E-02	0.118
		1062.04		-2.948E-02	2.292E-01	3.764E-01	2.604E-02	-0.078
		1078.86	*	5.911E-03	1.263E-01	2.117E-01	1.423E-02	0.028
CM-247		278.00		1.226E+00	7.394E-01	1.321E+00	7.457E-02	0.928
		287.40		1.667E-01	1.226E+00	2.060E+00	1.166E-01	0.081
		402.60	*	5.381E-03	3.905E-02	6.420E-02	3.560E-03	0.084
CF-249		252.85		1.925E-01	9.742E-01	1.464E+00	8.148E-02	0.131
		333.44		2.826E-02	1.881E-01	2.762E-01	1.566E-02	0.102
		387.95	*	-8.022E-03	4.172E-02	6.746E-02	3.708E-03	-0.119
CF-251		176.60	*	-7.658E-02	1.420E-01	2.224E-01	1.150E-02	-0.344
		227.00		5.226E-01	3.878E-01	6.884E-01	3.752E-02	0.759
		285.00		1.186E+00	1.734E+00	2.988E+00	1.691E-01	0.397

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395009      *
* Acquisition date :  2-FEB-2010 09:14:48 Detector SN#    :                 *
* Detector ID        : GAM12                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:02.29       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395009           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.3708E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.950E+01	2.661E+00	4.238E-01	0.000E+00
NB-95	4.194E-01	8.487E-02	7.654E-02	0.000E+00
LU-177	2.376E+00	1.358E+00	1.521E+00	0.000E+00
TL-208	3.835E-01	7.293E-02	5.876E-02	0.000E+00
BI-211	3.082E+00	4.649E-01	3.477E-01	0.000E+00
BI-212	7.541E-01	4.849E-01	4.584E-01	0.000E+00
PB-212	1.221E+00	1.267E-01	9.520E-02	0.000E+00
PO-212	1.221E+00	1.267E-01	9.520E-02	0.000E+00
BI-214	9.046E-01	1.999E-01	1.085E-01	0.000E+00
PB-214	1.072E+00	1.708E-01	1.122E-01	0.000E+00
PO-214	1.072E+00	1.708E-01	1.122E-01	0.000E+00
PO-216	1.221E+00	1.267E-01	9.520E-02	0.000E+00
PO-218	1.072E+00	1.708E-01	1.122E-01	0.000E+00
RA-224	3.310E+00	9.989E-01	1.083E+00	0.000E+00
RA-226	9.046E-01	1.999E-01	1.085E-01	0.000E+00
AC-228	1.521E+00	3.088E-01	2.071E-01	0.000E+00
RA-228	1.521E+00	3.088E-01	2.071E-01	0.000E+00
TH-228	1.238E+00	1.285E-01	9.653E-02	0.000E+00
TH-230	9.046E-01	1.999E-01	1.085E-01	0.000E+00
U-231	4.308E+00	2.687E+00	1.935E+00	0.000E+00
TH-232	1.521E+00	3.088E-01	2.071E-01	0.000E+00
PA-234M	8.474E+01	1.326E+01	5.475E+00	0.000E+00
TH-234	6.962E+01	1.240E+01	3.518E+00	0.000E+00
U-234	9.046E-01	1.999E-01	1.085E-01	0.000E+00
U-235	9.946E-01	3.698E-01	4.079E-01	0.000E+00
U-238	6.962E+01	1.240E+01	3.518E+00	0.000E+00
AM-243	2.544E-01	9.322E-02	1.515E-01	0.000E+00
ANH-511	1.466E-01	7.729E-02	4.789E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-3.102E-01	3.170E-01	4.868E-01	0.000E+00	NOT IDENT.
NA-22	2.909E-02	3.991E-02	7.220E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.729E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-5.705E-03	2.648E-02	4.267E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.250E-02	1.049E-01	0.000E+00	FAIL ABUN
SC-46	4.523E-03	3.860E-02	6.532E-02	0.000E+00	FAIL ABUN
V-48	-7.610E-02	6.787E-02	9.891E-02	0.000E+00	NOT IDENT.
CR-51	8.172E-02	3.562E-01	6.295E-01	0.000E+00	NOT IDENT.
MN-52	2.480E-01	1.981E-01	3.805E-01	0.000E+00	FAIL ABUN
MN-54	-9.989E-03	3.906E-02	6.449E-02	0.000E+00	NOT IDENT.
CO-56	-8.104E-03	4.236E-02	7.017E-02	0.000E+00	NOT IDENT.
CO-57	-2.043E-02	3.112E-02	5.077E-02	0.000E+00	NOT IDENT.
CO-58	-1.576E-02	3.956E-02	6.211E-02	0.000E+00	NOT IDENT.
FE-59	7.256E-02	8.781E-02	1.606E-01	0.000E+00	FAIL ABUN
CO-60	1.230E-02	3.764E-02	6.553E-02	0.000E+00	NOT IDENT.
ZN-65	2.038E-02	9.762E-02	1.475E-01	0.000E+00	NOT IDENT.
GE-68	1.388E-01	1.100E+00	1.912E+00	0.000E+00	NOT IDENT.
AS-73	-2.941E-01	1.273E+00	2.348E+00	0.000E+00	NOT IDENT.
AS-74	6.368E-03	8.736E-02	1.530E-01	0.000E+00	NOT IDENT.
SE-75	-1.746E-02	4.331E-02	6.970E-02	0.000E+00	NOT IDENT.
BR-77	1.984E+00	7.391E+00	1.217E+01	0.000E+00	FAIL ABUN
SR-82	-2.007E-01	3.954E-01	6.247E-01	0.000E+00	NOT IDENT.
RB-83	1.058E-02	7.303E-02	1.140E-01	0.000E+00	NOT IDENT.
RB-84	3.437E-02	7.581E-02	1.303E-01	0.000E+00	NOT IDENT.
KR-85	9.254E+00	7.257E+00	1.309E+01	0.000E+00	NOT IDENT.
SR-85	4.684E-02	3.673E-02	6.627E-02	0.000E+00	NOT IDENT.
RB-86	-2.804E-01	6.906E-01	1.140E+00	0.000E+00	NOT IDENT.
Y-88	1.452E-02	3.124E-02	5.697E-02	0.000E+00	NOT IDENT.
ZR-88	5.555E-03	2.947E-02	5.113E-02	0.000E+00	NOT IDENT.
Y-91	-4.813E-01	1.771E+01	2.999E+01	0.000E+00	NOT IDENT.
NB-94	1.413E-02	3.526E-02	6.209E-02	0.000E+00	NOT IDENT.
NB-95M	4.749E-02	1.323E-01	2.137E-01	0.000E+00	NOT IDENT.
ZR-95	-2.230E-02	7.694E-02	1.282E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.996E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.260E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	8.686E+00	1.061E+01	1.688E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.640E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.621E-02	3.479E-02	5.992E-02	0.000E+00	NOT IDENT.
RH-102	-6.746E-04	2.843E-02	4.782E-02	0.000E+00	FAIL ABUN
RU-103	3.945E-03	4.103E-02	6.928E-02	0.000E+00	FAIL ABUN
RH-106	-1.553E-01	3.146E-01	5.261E-01	0.000E+00	FAIL ABUN
RU-106	-1.553E-01	3.142E-01	5.261E-01	0.000E+00	FAIL ABUN
AG-108M	2.276E-02	3.089E-02	5.505E-02	0.000E+00	NOT IDENT.
CD-109	-5.842E-01	1.533E+00	2.447E+00	0.000E+00	NOT IDENT.
AG-110M	-5.566E-03	3.595E-02	6.140E-02	0.000E+00	NOT IDENT.
IN-111	-2.795E-01	8.148E-01	1.257E+00	0.000E+00	NOT IDENT.
IN-113M	-2.055E-02	4.376E-02	7.292E-02	0.000E+00	NOT IDENT.
SN-113	-2.055E-02	4.376E-02	7.292E-02	0.000E+00	NOT IDENT.
IN-114M	-1.655E-01	2.062E-01	2.964E-01	0.000E+00	NOT IDENT.
CD-115	-5.525E+00	7.400E+00	1.160E+01	0.000E+00	NOT IDENT.
SN-117M	5.215E-02	5.999E-02	9.612E-02	0.000E+00	NOT IDENT.
SB-122	-8.805E-01	1.507E+00	2.540E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.406E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.886E-02	3.283E-02	5.262E-02	0.000E+00	NOT IDENT.
I-124	-4.347E-01	6.510E-01	9.252E-01	0.000E+00	NOT IDENT.
SB-124	-1.963E-02	5.791E-02	9.133E-02	0.000E+00	FAIL ABUN
SB-125	4.169E-02	8.810E-02	1.545E-01	0.000E+00	FAIL ABUN
TE-125M	2.193E+01	1.342E+01	2.233E+01	0.000E+00	NOT IDENT.
I-126	4.217E-02	1.744E-01	3.056E-01	0.000E+00	NOT IDENT.
SB-126	7.258E-02	1.504E-01	2.347E-01	0.000E+00	FAIL ABUN
SN-126	-1.783E-01	1.533E-01	2.395E-01	0.000E+00	FAIL ABUN
SB-127	9.267E-01	1.126E+00	2.041E+00	0.000E+00	NOT IDENT.
XE-127	4.687E-02	5.220E-02	8.228E-02	0.000E+00	NOT IDENT.
I-131	-6.126E-02	9.556E-02	1.582E-01	0.000E+00	NOT IDENT.
TE-132	1.378E-01	5.330E-01	9.663E-01	0.000E+00	FAIL ABUN
BA-133	-1.204E-02	4.503E-02	6.679E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.393E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.607E-02	6.545E-02	9.263E-02	0.000E+00	FAIL ABUN
CS-135	1.713E-01	1.669E-01	2.720E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.353E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.631E-02	9.218E-02	1.644E-01	0.000E+00	FAIL ABUN
BA-137M	1.335E-02	3.930E-02	6.876E-02	0.000E+00	NOT IDENT.
CS-137	1.411E-02	4.154E-02	7.268E-02	0.000E+00	NOT IDENT.
CE-139	1.684E-02	3.666E-02	5.731E-02	0.000E+00	NOT IDENT.
BA-140	-7.337E-02	2.562E-01	4.414E-01	0.000E+00	FAIL ABUN
LA-140	-3.623E-02	6.665E-02	1.039E-01	0.000E+00	NOT IDENT.
CE-141	0.000E+00	7.601E-02	1.270E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	1.063E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.566E-01	2.391E-01	4.063E-01	0.000E+00	NOT IDENT.
PM-144	1.378E-02	3.687E-02	6.485E-02	0.000E+00	NOT IDENT.
PR-144	9.329E-01	2.497E+00	4.391E+00	0.000E+00	NOT IDENT.
PM-146	6.253E-03	4.384E-02	7.488E-02	0.000E+00	NOT IDENT.
ND-147	1.539E-01	5.614E-01	9.529E-01	0.000E+00	FAIL ABUN
PM-149	4.006E+00	6.170E+01	1.092E+02	0.000E+00	NOT IDENT.
EU-152	-6.419E-02	1.045E-01	1.610E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.619E-01	2.307E-01	0.000E+00	FAIL ABUN
EU-154	8.240E-02	1.118E-01	2.022E-01	0.000E+00	NOT IDENT.
EU-155	3.490E-02	1.381E-01	2.469E-01	0.000E+00	NOT IDENT.
TB-160	-3.837E-02	1.509E-01	2.474E-01	0.000E+00	NOT IDENT.
HO-166M	-7.253E-03	6.501E-02	1.105E-01	0.000E+00	FAIL ABUN
TM-171	-2.338E+01	4.417E+01	7.151E+01	0.000E+00	NOT IDENT.
LU-176	9.654E-03	2.290E-02	4.102E-02	0.000E+00	NOT IDENT.
LU-177M	-7.415E-02	1.747E-01	2.903E-01	0.000E+00	FAIL ABUN
HF-181	1.065E-02	4.113E-02	7.047E-02	0.000E+00	NOT IDENT.
W-181	2.430E-01	5.724E-01	9.537E-01	0.000E+00	NOT IDENT.
TA-182	-1.699E-01	1.907E-01	2.980E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.805E-01	2.316E-01	0.000E+00	FAIL ABUN
RE-184	5.104E-02	2.532E-01	4.027E-01	0.000E+00	NOT IDENT.
OS-185	1.149E-02	4.315E-02	7.599E-02	0.000E+00	NOT IDENT.
RE-188	-4.596E-02	1.826E-01	3.120E-01	0.000E+00	NOT IDENT.
W-188	2.627E+00	7.717E+00	1.224E+01	0.000E+00	FAIL ABUN
IR-192	-2.351E-02	3.253E-02	5.463E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.709E-01	6.717E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.028E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.609E+00	6.302E+00	9.907E+00	0.000E+00	NOT IDENT.
TL-202	4.395E-02	6.617E-02	1.169E-01	0.000E+00	NOT IDENT.
HG-203	1.022E-02	3.850E-02	6.886E-02	0.000E+00	FAIL ABUN
BI-207	-2.388E-02	5.351E-02	8.806E-02	0.000E+00	FAIL ABUN
TL-207	-7.183E-01	6.704E-01	1.088E+00	0.000E+00	FAIL ABUN
PO-209	6.674E-01	7.305E+00	1.232E+01	0.000E+00	NOT IDENT.
BI-210	2.983E-01	4.762E+00	8.872E+00	0.000E+00	NOT IDENT.
PB-210	2.983E-01	4.762E+00	8.872E+00	0.000E+00	NOT IDENT.
PO-210	2.983E-01	4.762E+00	8.872E+00	0.000E+00	NOT IDENT.
PB-211	-9.196E-01	1.130E+00	1.585E+00	0.000E+00	NOT IDENT.
PO-215	-7.183E-01	6.704E-01	1.088E+00	0.000E+00	FAIL ABUN
RN-219	6.516E-02	4.284E-01	7.396E-01	0.000E+00	FAIL ABUN
RN-220	-8.692E+00	2.520E+01	4.325E+01	0.000E+00	NOT IDENT.
RA-223	-7.183E-01	6.704E-01	1.088E+00	0.000E+00	FAIL ABUN
AC-227	1.414E-01	4.387E-01	7.009E-01	0.000E+00	NOT IDENT.
TH-227	1.414E-01	4.389E-01	7.009E-01	0.000E+00	FAIL ABUN
TH-229	2.147E-01	5.328E-01	9.179E-01	0.000E+00	NOT IDENT.
PA-231	3.974E-01	1.473E+00	2.631E+00	0.000E+00	NOT IDENT.
TH-231	-7.183E-01	6.704E-01	1.088E+00	0.000E+00	FAIL ABUN
PA-233	1.796E-02	6.110E-02	1.086E-01	0.000E+00	FAIL ABUN
PA-234	5.087E-01	3.579E-01	6.417E-01	0.000E+00	FAIL ABUN
NP-236	1.281E-02	9.454E-02	1.460E-01	0.000E+00	FAIL ABUN
NP-237	1.783E-01	4.338E-01	7.044E-01	0.000E+00	FAIL ABUN
NP-239	-4.286E-01	2.382E-01	3.936E-01	0.000E+00	FAIL ABUN
AM-241	1.400E-01	2.805E-01	4.706E-01	0.000E+00	NOT IDENT.
CM-243	2.869E-02	1.241E-01	2.220E-01	0.000E+00	FAIL ABUN
AM-246	5.911E-03	1.238E-01	2.136E-01	0.000E+00	NOT IDENT.
CM-247	5.381E-03	3.827E-02	6.602E-02	0.000E+00	NOT IDENT.
CF-249	-8.022E-03	4.089E-02	6.943E-02	0.000E+00	NOT IDENT.
CF-251	-7.658E-02	1.391E-01	2.323E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:16:21.11

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395009.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:14:48.
Sample ID         : G245395009           Sample quantity  : 1.37080E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1308	10.67*	1.138E+00	2.950E+01	2.950E+01	9.20
NB-95	765.79	261	99.81*	1.985E+00	3.607E-01	4.194E-01	20.65
LU-177	112.95	458	6.40	6.577E+00	2.978E+00	1.255E+01	22.02
	208.36	124	11.00*	5.466E+00	5.637E-01	2.376E+00	58.31
TL-208	277.35	------	6.80	4.505E+00	------ Line Not Found		------
	510.84	150	21.60	2.793E+00	6.789E-01	6.789E-01	54.42
	583.14	295	84.20*	2.505E+00	3.835E-01	3.835E-01	19.41
	860.37	63	12.46	1.794E+00	7.770E-01	7.770E-01	54.48
BI-211	72.87	------	1.27	4.387E+00	------ Line Not Found		------
	351.07	548	12.94*	3.763E+00	3.082E+00	3.082E+00	15.39
BI-212	727.18	68	11.80*	2.077E+00	7.541E-01	7.541E-01	65.62
	785.46	86	1.97	1.944E+00	6.151E+00	6.151E+00	52.30
	1620.62	------	2.75	1.050E+00	------ Line Not Found		------
PB-212	74.81	281	10.70	4.580E+00	1.569E+00	1.569E+00	38.54
	77.11	420	18.00	4.820E+00	1.327E+00	1.327E+00	26.06
	87.30	------	8.00	5.657E+00	------ Line Not Found		------
	238.63	998	44.60*	5.017E+00	1.221E+00	1.221E+00	10.59
	300.09	------	3.41	4.248E+00	------ Line Not Found		------
PO-212	74.81	281	10.70	4.580E+00	1.569E+00	1.569E+00	38.54
	77.11	420	18.00	4.820E+00	1.327E+00	1.327E+00	26.06
	87.30	------	8.00	5.657E+00	------ Line Not Found		------
	115.19	------	0.60	6.604E+00	------ Line Not Found		------
	238.63	998	44.60*	5.017E+00	1.221E+00	1.221E+00	10.59
	300.09	------	3.41	4.248E+00	------ Line Not Found		------
BI-214	609.31	369	46.30*	2.415E+00	9.046E-01	9.046E-01	22.55
	1120.29	108	15.10	1.423E+00	1.373E+00	1.373E+00	34.46
	1764.49	62	15.80	9.904E-01	1.091E+00	1.091E+00	34.33
PB-214	74.81	281	6.21	4.580E+00	2.703E+00	2.703E+00	38.12
	77.11	420	10.50	4.820E+00	2.274E+00	2.274E+00	27.15
	87.30	------	4.67	5.657E+00	------ Line Not Found		------
	241.98	238	7.49	4.974E+00	1.746E+00	1.746E+00	31.30
	295.21	355	19.20	4.302E+00	1.177E+00	1.177E+00	18.82

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	548	37.20*	3.763E+00	1.072E+00	1.072E+00	16.25
PO-214	74.81	281	6.21	4.580E+00	2.703E+00	2.703E+00	38.12
	77.11	420	10.50	4.820E+00	2.274E+00	2.274E+00	27.15
	87.30	------	4.67	5.657E+00	------ Line Not Found		------
	241.98	238	7.49	4.974E+00	1.746E+00	1.746E+00	31.30
	295.21	355	19.20	4.302E+00	1.177E+00	1.177E+00	18.82
	351.92	548	37.20*	3.763E+00	1.072E+00	1.072E+00	16.25
PO-216	74.81	281	10.70	4.580E+00	1.569E+00	1.569E+00	38.54
	77.11	420	18.00	4.820E+00	1.327E+00	1.327E+00	26.06
	87.30	------	8.00	5.657E+00	------ Line Not Found		------
	238.63	998	44.60*	5.017E+00	1.221E+00	1.221E+00	10.59
	300.09	------	3.41	4.248E+00	------ Line Not Found		------
PO-218	74.81	281	6.21	4.580E+00	2.703E+00	2.703E+00	38.12
	77.11	420	10.50	4.820E+00	2.274E+00	2.274E+00	27.15
	87.30	------	4.67	5.657E+00	------ Line Not Found		------
	241.98	238	7.49	4.974E+00	1.746E+00	1.746E+00	31.30
	295.21	355	19.20	4.302E+00	1.177E+00	1.177E+00	18.82
	351.92	548	37.20*	3.763E+00	1.072E+00	1.072E+00	16.25
RA-224	240.98	238	3.95*	4.974E+00	3.310E+00	3.310E+00	30.79
RA-226	609.31	369	46.30*	2.415E+00	9.046E-01	9.046E-01	22.55
	1120.29	108	15.10	1.423E+00	1.373E+00	1.373E+00	34.46
	1764.49	62	15.80	9.904E-01	1.091E+00	1.091E+00	34.33
AC-228	338.32	227	11.40	3.880E+00	1.407E+00	1.407E+00	50.07
	911.07	263	27.70*	1.707E+00	1.521E+00	1.521E+00	20.72
	969.11	118	16.60	1.617E+00	1.206E+00	1.206E+00	36.38
RA-228	338.32	227	11.40	3.880E+00	1.407E+00	1.407E+00	50.07
	911.07	263	27.70*	1.707E+00	1.521E+00	1.521E+00	20.72
	969.11	118	16.60	1.617E+00	1.206E+00	1.206E+00	36.38
TH-228	74.81	281	10.70	4.580E+00	1.569E+00	1.591E+00	37.41
	77.11	420	18.00	4.820E+00	1.327E+00	1.345E+00	26.06
	87.30	------	8.00	5.657E+00	------ Line Not Found		------
	238.63	998	44.60*	5.017E+00	1.221E+00	1.238E+00	10.59
	300.09	------	3.41	4.248E+00	------ Line Not Found		------
TH-230	609.31	369	46.30*	2.415E+00	9.046E-01	9.046E-01	22.55
	1120.29	108	15.10	1.423E+00	1.373E+00	1.373E+00	34.46
	1764.49	62	15.80	9.904E-01	1.091E+00	1.091E+00	34.33
U-231	84.21	202	7.00	5.396E+00	1.465E+00	1.459E+01	64.18
	92.29	7818	17.30	5.962E+00	2.076E+01	2.067E+02	7.77
	95.87	268	28.00*	6.069E+00	4.326E-01	4.308E+00	63.66
	108.00	------	13.10	6.500E+00	------ Line Not Found		------
TH-232	338.32	227	11.40	3.880E+00	1.407E+00	1.407E+00	29.64
	911.07	263	27.70*	1.707E+00	1.521E+00	1.521E+00	20.72
	969.11	118	16.60	1.617E+00	1.206E+00	1.206E+00	36.38
PA-234M	766.42	261	0.32	1.985E+00	1.125E+02	1.125E+02	54.10
	1001.03	408	0.84*	1.571E+00	8.474E+01	8.474E+01	15.97
TH-234	63.29	3081	3.80*	3.189E+00	6.962E+01	6.962E+01	18.18
	92.38	7818	5.41	5.962E+00	6.638E+01	6.638E+01	17.70
U-234	609.31	369	46.30*	2.415E+00	9.046E-01	9.046E-01	22.55
	1120.29	108	15.10	1.423E+00	1.373E+00	1.373E+00	34.46

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	62	15.80	9.904E-01	1.091E+00	1.091E+00	34.33
U-235	89.95	------	2.70	5.822E+00	------ Line Not Found		------
	93.35	7818	4.50	5.962E+00	7.980E+01	7.980E+01	27.78
	105.00	------	2.10	6.433E+00	------ Line Not Found		------
	143.76	249	10.50*	6.517E+00	9.946E-01	9.946E-01	37.94
	163.35	138	4.70	6.242E+00	1.285E+00	1.285E+00	64.43
	185.71	1226	54.00	5.863E+00	1.060E+00	1.060E+00	11.24
	205.31	143	4.70	5.540E+00	1.503E+00	1.503E+00	59.38
U-238	63.29	3081	3.80*	3.189E+00	6.962E+01	6.962E+01	18.18
	92.38	7818	5.41	5.962E+00	6.638E+01	6.638E+01	7.77
AM-243	74.67	281	66.00*	4.580E+00	2.544E-01	2.544E-01	37.39
	86.72	------	0.34	5.618E+00	------ Line Not Found		------
	117.66	------	0.55	6.624E+00	------ Line Not Found		------
	142.18	------	0.13	6.534E+00	------ Line Not Found		------
ANH-511	511.00	150	100.00*	2.793E+00	1.466E-01	1.466E-01	53.78

Flag: "*" = Keyline

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

Total number of lines in spectrum 39
Number of unidentified lines 2
Number of lines tentatively identified by NID 37 94.87%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.950E+01	2.950E+01	0.271E+01	9.20	
NB-95	64.02D	1.16	3.607E-01	4.194E-01	0.866E-01	20.65	
LU-177	6.71D	4.22	5.637E-01	2.376E+00	1.385E+00	58.31	
TL-208	1.41E+10Y	1.00	3.835E-01	3.835E-01	0.744E-01	19.41	
BI-211	7.04E+08Y	1.00	3.082E+00	3.082E+00	0.474E+00	15.39	
BI-212	1.41E+10Y	1.00	7.541E-01	7.541E-01	4.948E-01	65.62	
PB-212	1.41E+10Y	1.00	1.221E+00	1.221E+00	0.129E+00	10.59	
PO-212	1.41E+10Y	1.00	1.221E+00	1.221E+00	0.129E+00	10.59	
BI-214	1600.00Y	1.00	9.046E-01	9.046E-01	2.040E-01	22.55	
PB-214	1600.00Y	1.00	1.072E+00	1.072E+00	0.174E+00	16.25	
PO-214	1600.00Y	1.00	1.072E+00	1.072E+00	0.174E+00	16.25	
PO-216	1.41E+10Y	1.00	1.221E+00	1.221E+00	0.129E+00	10.59	
PO-218	1600.00Y	1.00	1.072E+00	1.072E+00	0.174E+00	16.25	
RA-224	1.41E+10Y	1.00	3.310E+00	3.310E+00	1.019E+00	30.79	
RA-226	1600.00Y	1.00	9.046E-01	9.046E-01	2.040E-01	22.55	
AC-228	1.41E+10Y	1.00	1.521E+00	1.521E+00	0.315E+00	20.72	
RA-228	1.41E+10Y	1.00	1.521E+00	1.521E+00	0.315E+00	20.72	
TH-228	1.91Y	1.01	1.221E+00	1.238E+00	0.131E+00	10.59	
TH-230	4.47E+09Y	1.00	9.046E-01	9.046E-01	2.040E-01	22.55	
U-231	4.20D	9.96	4.326E-01	4.308E+00	2.742E+00	63.66	
TH-232	1.41E+10Y	1.00	1.521E+00	1.521E+00	0.315E+00	20.72	
PA-234M	4.47E+09Y	1.00	8.474E+01	8.474E+01	1.353E+01	15.97	
TH-234	4.47E+09Y	1.00	6.962E+01	6.962E+01	1.265E+01	18.18	
U-234	4.47E+09Y	1.00	9.046E-01	9.046E-01	2.040E-01	22.55	
U-235	7.04E+08Y	1.00	9.946E-01	9.946E-01	3.774E-01	37.94	
U-238	4.47E+09Y	1.00	6.962E+01	6.962E+01	1.265E+01	18.18	
AM-243	7380.00Y	1.00	2.544E-01	2.544E-01	0.951E-01	37.39	
ANH-511	1.00E+09Y	1.00	1.466E-01	1.466E-01	0.789E-01	53.78	
	Total Activity :		2.800E+02	2.858E+02			

Grand Total Activity : 2.800E+02 2.858E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.30	468	808	0.87	196.11	193	8	6.50E-02	23.1	6.22E+00	T
1	110.84	109	637	1.04	221.20	218	21	1.51E-02	73.3	6.55E+00	T
0	258.11	141	253	1.38	515.88	511	10	1.96E-02	45.4	4.75E+00	
0	269.76	95	170	1.30	539.20	536	8	1.32E-02	52.8	4.60E+00	T
0	462.37	63	102	1.61	924.57	921	9	8.73E-03	63.1	3.03E+00	T
0	743.04	47	106	0.60	1486.05	1479	12	6.48E-03	93.6	2.04E+00	T
0	794.93	46	71	0.82	1589.87	1583	11	6.37E-03	77.2	1.92E+00	T
2	964.26	40	67	2.20	1928.57	1924	18	5.58E-03	72.7	1.62E+00	T
0	1846.80	17	5	1.45	3693.42	3689	9	2.29E-03	67.6	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:16:26.33

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395009.CNF;1   *
* Acquisition date : 2-FEB-2010 09:14:48.  Detector SN#    :                 *
* Detector ID      : GAM12                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:02.29         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                 SAMPLE DATA                                *
*                                                                            *
* Sample date      : 19-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245395009            Analyst initials: MXR1             *
* Batch Number     : 944966                Sample Quantity : 1.37080E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                   QC DATA                                  *
*                                                                            *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24.5MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.950E+01	2.715E+00	4.226E-01	3.013E-02	69.813
NB-95	4.194E-01	8.660E-02	7.535E-02	5.512E-03	5.565
LU-177	2.376E+00	1.385E+00	1.461E+00	7.816E-02	1.626
TL-208	3.835E-01	7.442E-02	5.755E-02	4.117E-03	6.664
BI-211	3.082E+00	4.744E-01	3.372E-01	2.120E-02	9.140
BI-212	7.541E-01	4.948E-01	4.509E-01	3.904E-02	1.672
PB-212	1.221E+00	1.293E-01	9.167E-02	6.509E-03	13.323
PO-212	1.221E+00	1.293E-01	9.167E-02	6.509E-03	13.323
BI-214	9.046E-01	2.040E-01	1.063E-01	8.753E-03	8.509
PB-214	1.072E+00	1.742E-01	1.088E-01	8.890E-03	9.850
PO-214	1.072E+00	1.742E-01	1.088E-01	8.890E-03	9.850
PO-216	1.221E+00	1.293E-01	9.167E-02	6.509E-03	13.323
PO-218	1.072E+00	1.742E-01	1.088E-01	8.890E-03	9.850
RA-224	3.310E+00	1.019E+00	1.043E+00	5.756E-02	3.173
RA-226	9.046E-01	2.040E-01	1.063E-01	8.753E-03	8.509
AC-228	1.521E+00	3.151E-01	2.046E-01	2.246E-02	7.432
RA-228	1.521E+00	3.151E-01	2.046E-01	2.246E-02	7.432
TH-228	1.238E+00	1.311E-01	9.295E-02	6.600E-03	13.323

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	9.046E-01	2.040E-01	1.063E-01	8.752E-03	8.509
U-231	4.308E+00	2.742E+00	1.833E+00	1.291E-01	2.351
TH-232	1.521E+00	3.151E-01	2.046E-01	2.246E-02	7.432
PA-234M	8.474E+01	1.353E+01	5.419E+00	4.904E-01	15.638
TH-234	6.962E+01	1.265E+01	3.307E+00	5.630E-01	21.052
U-234	9.046E-01	2.040E-01	1.063E-01	8.752E-03	8.509
U-235	9.946E-01	3.774E-01	3.891E-01	6.320E-02	2.556
U-238	6.962E+01	1.265E+01	3.307E+00	5.630E-01	21.052
AM-243	2.544E-01	9.512E-02	1.429E-01	9.707E-03	1.780
ANH-511	1.466E-01	7.887E-02	4.678E-02	2.851E-03	3.135

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.102E-01		3.234E-01	4.749E-01	3.268E-02	-0.653
NA-22	2.909E-02		4.072E-02	7.180E-02	4.624E-03	0.405
NA-24	-1.103E-02		8.821E-02	Half-Life too short		
AL-26	-5.705E-03		2.702E-02	4.273E-02	2.452E-03	-0.134
TI-44	2.448E-01	+	6.378E-02	9.896E-02	6.921E-03	2.474
SC-46	4.523E-03		3.938E-02	6.449E-02	5.345E-03	0.070
V-48	-7.610E-02		6.926E-02	9.785E-02	7.539E-03	-0.778
CR-51	8.172E-02		3.635E-01	6.095E-01	3.875E-02	0.134
MN-52	2.480E-01		2.021E-01	3.792E-01	2.605E-02	0.654
MN-54	-9.989E-03		3.986E-02	6.360E-02	5.000E-03	-0.157
CO-56	-8.104E-03		4.322E-02	6.922E-02	5.507E-03	-0.117
CO-57	-2.043E-02		3.176E-02	4.829E-02	3.019E-03	-0.423
CO-58	-1.576E-02		4.037E-02	6.122E-02	4.711E-03	-0.257
FE-59	7.256E-02		8.960E-02	1.592E-01	1.176E-02	0.456
CO-60	1.230E-02		3.841E-02	6.522E-02	4.555E-03	0.189
ZN-65	2.038E-02		9.961E-02	1.463E-01	9.205E-03	0.139
GE-68	1.388E-01		1.123E+00	1.895E+00	1.278E-01	0.073
AS-73	-2.941E-01		1.299E+00	2.200E+00	1.421E-01	-0.134
AS-74	6.368E-03		8.914E-02	1.499E-01	9.541E-03	0.042
SE-75	-1.746E-02		4.419E-02	6.724E-02	3.812E-03	-0.260
BR-77	1.984E+00		7.541E+00	1.189E+01	7.291E-01	0.167
SR-82	-2.007E-01		4.034E-01	6.152E-01	4.552E-02	-0.326
RB-83	1.058E-02		7.453E-02	1.114E-01	6.830E-03	0.095
RB-84	3.437E-02		7.735E-02	1.287E-01	1.059E-02	0.267
KR-85	9.254E+00		7.406E+00	1.279E+01	7.811E-01	0.723
SR-85	4.684E-02		3.748E-02	6.474E-02	3.954E-03	0.723
RB-86	-2.804E-01		7.047E-01	1.130E+00	7.626E-02	-0.248
Y-88	1.452E-02		3.187E-02	5.707E-02	3.213E-03	0.254
ZR-88	5.555E-03		3.007E-02	4.969E-02	2.726E-03	0.112
Y-91	-4.813E-01		1.808E+01	2.979E+01	1.722E+00	-0.016
NB-94	1.413E-02		3.598E-02	6.103E-02	4.157E-03	0.232
NB-95M	4.749E-02		1.350E-01	2.057E-01	1.500E-02	0.231
ZR-95	-2.230E-02		7.851E-02	1.262E-01	1.042E-02	-0.177

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	-1.994E-03		1.528E-02	Half-Life too short		
ZR-97	7.845E-01		3.194E-01	Half-Life too short		
MO-99	8.686E+00		1.083E+01	1.661E+01	2.389E+00	0.523
TC-99M	-4.437E+08		8.370E+08	Half-Life too short		
RH-101	2.621E-02		3.550E-02	5.750E-02	3.042E-03	0.456
RH-102	-6.746E-04		2.901E-02	4.664E-02	2.770E-03	-0.014
RU-103	3.945E-03		4.187E-02	6.764E-02	8.627E-03	0.058
RH-106	-1.553E-01		3.210E-01	5.158E-01	6.219E-02	-0.301
RU-106	-1.553E-01		3.206E-01	5.158E-01	3.312E-02	-0.301
AG-108M	2.276E-02		3.152E-02	5.361E-02	3.341E-03	0.425
CD-109	-5.842E-01		1.564E+00	2.314E+00	1.771E-01	-0.252
AG-110M	-5.566E-03		3.668E-02	6.027E-02	4.108E-03	-0.092
IN-111	-2.795E-01		8.314E-01	1.211E+00	6.703E-02	-0.231
IN-113M	-2.055E-02		4.465E-02	7.087E-02	4.172E-03	-0.290
SN-113	-2.055E-02		4.465E-02	7.087E-02	4.172E-03	-0.290
IN-114M	-1.655E-01		2.104E-01	2.842E-01	1.491E-02	-0.583
CD-115	-5.525E+00		7.551E+00	1.133E+01	6.982E-01	-0.487
SN-117M	5.215E-02		6.121E-02	9.185E-02	4.852E-03	0.568
SB-122	-8.805E-01		1.537E+00	2.485E+00	1.561E-01	-0.354
I-123	1.236E+00		7.173E-01	Half-Life too short		
TE-123M	2.886E-02		3.350E-02	5.029E-02	2.694E-03	0.574
I-124	-4.347E-01		6.643E-01	9.066E-01	5.786E-02	-0.480
SB-124	-1.963E-02		5.910E-02	9.133E-02	6.095E-03	-0.215
SB-125	4.169E-02		8.990E-02	1.505E-01	8.944E-03	0.277
TE-125M	2.193E+01		1.369E+01	2.120E+01	1.827E+00	1.035
I-126	4.217E-02		1.779E-01	3.000E-01	1.956E-02	0.141
SB-126	7.258E-02		1.535E-01	2.307E-01	1.605E-02	0.315
SN-126	-1.783E-01		1.565E-01	2.264E-01	1.725E-02	-0.787
SB-127	9.267E-01		1.149E+00	2.005E+00	1.923E-01	0.462
XE-127	4.687E-02		5.327E-02	7.899E-02	4.200E-03	0.593
I-131	-6.126E-02		9.751E-02	1.536E-01	9.649E-03	-0.399
TE-132	1.378E-01		5.439E-01	9.297E-01	1.300E-01	0.148
BA-133	-1.204E-02		4.595E-02	6.480E-02	7.434E-03	-0.186
I-133	-1.039E-03		1.221E-03	Half-Life too short		
CS-134	8.607E-02	+	6.679E-02	9.126E-02	6.958E-03	0.943
CS-135	1.713E-01		1.703E-01	2.624E-01	1.974E-02	0.653
I-135	7.377E+07		1.201E+08	Half-Life too short		
CS-136	3.631E-02		9.407E-02	1.628E-01	1.223E-02	0.223
BA-137M	1.335E-02		4.010E-02	6.750E-02	4.376E-03	0.198
CS-137	1.411E-02		4.239E-02	7.135E-02	4.641E-03	0.198
CE-139	1.684E-02		3.741E-02	5.481E-02	2.809E-03	0.307
BA-140	-7.337E-02		2.615E-01	4.316E-01	1.407E-01	-0.170
LA-140	-3.623E-02		6.801E-02	1.038E-01	6.758E-03	-0.349
CE-141	1.449E-01		7.756E-02	1.212E-01	7.055E-03	1.195
CE-143	3.095E-04		5.422E-05	Half-Life too short		
CE-144	-1.566E-01		2.439E-01	3.871E-01	5.510E-02	-0.405
PM-144	1.378E-02		3.763E-02	6.373E-02	4.311E-03	0.216
PR-144	9.329E-01		2.548E+00	4.316E+00	2.918E-01	0.216

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	6.253E-03		4.473E-02	7.298E-02	6.309E-03	0.086
ND-147	1.539E-01		5.729E-01	9.316E-01	1.275E-01	0.165
PM-149	4.006E+00		6.296E+01	1.055E+02	1.489E+01	0.038
EU-152	-6.419E-02		1.066E-01	1.561E-01	1.001E-02	-0.411
GD-153	6.842E-01	+	1.652E-01	2.185E-01	1.520E-02	3.131
EU-154	8.240E-02		1.141E-01	2.010E-01	1.959E-02	0.410
EU-155	3.490E-02		1.409E-01	2.342E-01	1.578E-02	0.149
TB-160	-3.837E-02		1.540E-01	2.442E-01	2.005E-02	-0.157
HO-166M	-7.253E-03		6.634E-02	1.086E-01	7.478E-03	-0.067
TM-171	-2.338E+01		4.507E+01	6.728E+01	4.354E+00	-0.347
LU-176	9.654E-03		2.337E-02	3.969E-02	2.256E-03	0.243
LU-177M	-7.415E-02		1.783E-01	2.824E-01	1.585E-02	-0.263
HF-181	1.065E-02		4.197E-02	6.876E-02	4.106E-03	0.155
W-181	2.430E-01		5.841E-01	8.969E-01	5.762E-02	0.271
TA-182	-1.699E-01		1.946E-01	2.961E-01	1.756E-02	-0.574
RE-183	2.963E-01	+	1.841E-01	2.215E-01	1.151E-02	1.338
RE-184	5.104E-02		2.583E-01	3.882E-01	2.161E-02	0.131
OS-185	1.149E-02		4.403E-02	7.457E-02	4.819E-03	0.154
RE-188	-4.596E-02		1.863E-01	2.981E-01	1.598E-02	-0.154
W-188	2.627E+00		7.874E+00	1.183E+01	6.702E-01	0.222
IR-192	-2.351E-02		3.319E-02	5.288E-02	3.022E-03	-0.444
AU-195	1.990E+00	+	4.806E-01	6.364E-01	4.376E-02	3.127
TL-200	-1.175E-04		1.034E-04	Half-Life too short		
TL-201	3.609E+00		6.430E+00	9.477E+00	4.858E-01	0.381
TL-202	4.395E-02		6.752E-02	1.139E-01	6.560E-03	0.386
HG-203	1.022E-02		3.929E-02	6.650E-02	3.999E-03	0.154
BI-207	-2.388E-02		5.460E-02	8.725E-02	6.019E-03	-0.274
TL-207	-7.183E-01		6.840E-01	1.054E+00	1.736E-01	-0.682
PO-209	6.674E-01		7.455E+00	1.217E+01	1.016E+00	0.055
BI-210	2.983E-01		4.859E+00	8.293E+00	6.247E-01	0.036
PB-210	2.983E-01		4.859E+00	8.293E+00	6.247E-01	0.036
PO-210	2.983E-01		4.859E+00	8.293E+00	5.319E-01	0.036
PB-211	-9.196E-01		1.153E+00	1.541E+00	9.603E-01	-0.597
PO-215	-7.183E-01		6.840E-01	1.054E+00	1.736E-01	-0.682
RN-219	6.516E-02		4.371E-01	7.191E-01	9.706E-02	0.091
RN-220	-8.692E+00		2.572E+01	4.230E+01	2.638E+00	-0.205
RA-223	-7.183E-01		6.840E-01	1.054E+00	1.736E-01	-0.682
AC-227	1.414E-01		4.477E-01	6.758E-01	9.373E-02	0.209
TH-227	1.414E-01		4.479E-01	6.758E-01	1.137E-01	0.209
TH-229	2.147E-01		5.436E-01	8.805E-01	4.636E-02	0.244
PA-231	3.974E-01		1.503E+00	2.542E+00	3.487E-01	0.156
TH-231	-7.183E-01		6.840E-01	1.054E+00	1.736E-01	-0.682
PA-233	1.796E-02		6.234E-02	1.051E-01	6.358E-03	0.171
PA-234	5.087E-01		3.652E-01	6.343E-01	1.173E-01	0.802
NP-236	1.281E-02		9.647E-02	1.395E-01	7.316E-03	0.092
NP-237	1.783E-01		4.427E-01	6.658E-01	1.463E-01	0.268
NP-239	-4.286E-01		2.431E-01	3.740E-01	2.360E-02	-1.146
AM-241	1.400E-01		2.862E-01	4.419E-01	3.140E-02	0.317

Sample ID : G245395009 Acquisition date : 2-FEB-2010 09:14:48

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.869E-02		1.267E-01	2.105E-01	1.402E-02	0.136
AM-246	5.911E-03		1.263E-01	2.117E-01	1.423E-02	0.028
CM-247	5.381E-03		3.905E-02	6.420E-02	3.560E-03	0.084
CF-249	-8.022E-03		4.172E-02	6.746E-02	3.708E-03	-0.119
CF-251	-7.658E-02		1.420E-01	2.224E-01	1.150E-02	-0.344

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395009           *
* Acquisition date  :  2-FEB-2010 09:14:48 Detector SN#     :               *
* Detector ID       : GAM12                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:     0 02:00:02.29     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395009           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.3708E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.950E+01	2.661E+00	2.120E-01	1.357E+00
NB-95	4.194E-01	8.487E-02	3.829E-02	4.330E-02
LU-177	2.376E+00	1.358E+00	7.611E-01	6.927E-01
TL-208	3.835E-01	7.293E-02	2.940E-02	3.721E-02
BI-211	3.082E+00	4.649E-01	1.739E-01	2.372E-01
BI-212	7.541E-01	4.849E-01	2.294E-01	2.474E-01
PB-212	1.221E+00	1.267E-01	4.763E-02	6.467E-02
PO-212	1.221E+00	1.267E-01	4.763E-02	6.467E-02
BI-214	9.046E-01	1.999E-01	5.427E-02	1.020E-01
PB-214	1.072E+00	1.708E-01	5.614E-02	8.712E-02
PO-214	1.072E+00	1.708E-01	5.614E-02	8.712E-02
PO-216	1.221E+00	1.267E-01	4.763E-02	6.467E-02
PO-218	1.072E+00	1.708E-01	5.614E-02	8.712E-02
RA-224	3.310E+00	9.989E-01	5.420E-01	5.097E-01
RA-226	9.046E-01	1.999E-01	5.427E-02	1.020E-01
AC-228	1.521E+00	3.088E-01	1.036E-01	1.576E-01
RA-228	1.521E+00	3.088E-01	1.036E-01	1.576E-01
TH-228	1.238E+00	1.285E-01	4.829E-02	6.557E-02
TH-230	9.046E-01	1.999E-01	5.426E-02	1.020E-01
U-231	4.308E+00	2.687E+00	9.682E-01	1.371E+00
TH-232	1.521E+00	3.088E-01	1.036E-01	1.576E-01
PA-234M	8.474E+01	1.326E+01	2.739E+00	6.765E+00
TH-234	6.962E+01	1.240E+01	1.760E+00	6.327E+00
U-234	9.046E-01	1.999E-01	5.426E-02	1.020E-01
U-235	9.946E-01	3.698E-01	2.041E-01	1.887E-01
U-238	6.962E+01	1.240E+01	1.760E+00	6.327E+00
AM-243	2.544E-01	9.322E-02	7.582E-02	4.756E-02
ANH-511	1.466E-01	7.729E-02	2.396E-02	3.943E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-3.102E-01	3.170E-01	2.435E-01	1.617E-01	NOT IDENT.
NA-22	2.909E-02	3.991E-02	3.612E-02	2.036E-02	NOT IDENT.
NA-24	-1.103E+04	1.729E+05	0.000E+00	8.821E+04	SHORT HLIF
AL-26	-5.705E-03	2.648E-02	2.135E-02	1.351E-02	NOT IDENT.
TI-44	2.448E-01	6.250E-02	5.247E-02	3.189E-02	FAIL ABUN
SC-46	4.523E-03	3.860E-02	3.268E-02	1.969E-02	FAIL ABUN
V-48	-7.610E-02	6.787E-02	4.948E-02	3.463E-02	NOT IDENT.
CR-51	8.172E-02	3.562E-01	3.149E-01	1.817E-01	NOT IDENT.
MN-52	2.480E-01	1.981E-01	1.903E-01	1.011E-01	FAIL ABUN
MN-54	-9.989E-03	3.906E-02	3.227E-02	1.993E-02	NOT IDENT.
CO-56	-8.104E-03	4.236E-02	3.511E-02	2.161E-02	NOT IDENT.
CO-57	-2.043E-02	3.112E-02	2.540E-02	1.588E-02	NOT IDENT.
CO-58	-1.576E-02	3.956E-02	3.107E-02	2.019E-02	NOT IDENT.
FE-59	7.256E-02	8.781E-02	8.035E-02	4.480E-02	FAIL ABUN
CO-60	1.230E-02	3.764E-02	3.278E-02	1.920E-02	NOT IDENT.
ZN-65	2.038E-02	9.762E-02	7.382E-02	4.980E-02	NOT IDENT.
GE-68	1.388E-01	1.100E+00	9.565E-01	5.613E-01	NOT IDENT.
AS-73	-2.941E-01	1.273E+00	1.175E+00	6.497E-01	NOT IDENT.
AS-74	6.368E-03	8.736E-02	7.654E-02	4.457E-02	NOT IDENT.
SE-75	-1.746E-02	4.331E-02	3.487E-02	2.210E-02	NOT IDENT.
BR-77	1.984E+00	7.391E+00	6.087E+00	3.771E+00	FAIL ABUN
SR-82	-2.007E-01	3.954E-01	3.125E-01	2.017E-01	NOT IDENT.
RB-83	1.058E-02	7.303E-02	5.703E-02	3.726E-02	NOT IDENT.
RB-84	3.437E-02	7.581E-02	6.520E-02	3.868E-02	NOT IDENT.
KR-85	9.254E+00	7.257E+00	6.550E+00	3.703E+00	NOT IDENT.
SR-85	4.684E-02	3.673E-02	3.315E-02	1.874E-02	NOT IDENT.
RB-86	-2.804E-01	6.906E-01	5.703E-01	3.524E-01	NOT IDENT.
Y-88	1.452E-02	3.124E-02	2.850E-02	1.594E-02	NOT IDENT.
ZR-88	5.555E-03	2.947E-02	2.558E-02	1.504E-02	NOT IDENT.
Y-91	-4.813E-01	1.771E+01	1.500E+01	9.038E+00	NOT IDENT.
NB-94	1.413E-02	3.526E-02	3.106E-02	1.799E-02	NOT IDENT.
NB-95M	4.749E-02	1.323E-01	1.069E-01	6.750E-02	NOT IDENT.
ZR-95	-2.230E-02	7.694E-02	6.414E-02	3.925E-02	NOT IDENT.
NB-97	-1.994E+03	2.996E+04	0.000E+00	1.528E+04	SHORT HLIF
ZR-97	7.845E+05	6.260E+05	0.000E+00	3.194E+05	SHORT HLIF
MO-99	8.686E+00	1.061E+01	8.447E+00	5.414E+00	NOT IDENT.
TC-99M	-4.437E+14	1.640E+15	0.000E+00	8.370E+14	SHORT HLIF
RH-101	2.621E-02	3.479E-02	2.998E-02	1.775E-02	NOT IDENT.
RH-102	-6.746E-04	2.843E-02	2.392E-02	1.451E-02	FAIL ABUN
RU-103	3.945E-03	4.103E-02	3.466E-02	2.093E-02	FAIL ABUN
RH-106	-1.553E-01	3.146E-01	2.632E-01	1.605E-01	FAIL ABUN
RU-106	-1.553E-01	3.142E-01	2.632E-01	1.603E-01	FAIL ABUN
AG-108M	2.276E-02	3.089E-02	2.754E-02	1.576E-02	NOT IDENT.
CD-109	-5.842E-01	1.533E+00	1.224E+00	7.821E-01	NOT IDENT.
AG-110M	-5.566E-03	3.595E-02	3.072E-02	1.834E-02	NOT IDENT.
IN-111	-2.795E-01	8.148E-01	6.289E-01	4.157E-01	NOT IDENT.
IN-113M	-2.055E-02	4.376E-02	3.648E-02	2.232E-02	NOT IDENT.
SN-113	-2.055E-02	4.376E-02	3.648E-02	2.232E-02	NOT IDENT.
IN-114M	-1.655E-01	2.062E-01	1.483E-01	1.052E-01	NOT IDENT.
CD-115	-5.525E+00	7.400E+00	5.801E+00	3.775E+00	NOT IDENT.
SN-117M	5.215E-02	5.999E-02	4.809E-02	3.060E-02	NOT IDENT.
SB-122	-8.805E-01	1.507E+00	1.271E+00	7.687E-01	NOT IDENT.
I-123	1.236E+06	1.406E+06	0.000E+00	7.173E+05	SHORT HLIF
TE-123M	2.886E-02	3.283E-02	2.633E-02	1.675E-02	NOT IDENT.
I-124	-4.347E-01	6.510E-01	4.629E-01	3.321E-01	NOT IDENT.
SB-124	-1.963E-02	5.791E-02	4.569E-02	2.955E-02	FAIL ABUN
SB-125	4.169E-02	8.810E-02	7.732E-02	4.495E-02	FAIL ABUN
TE-125M	2.193E+01	1.342E+01	1.117E+01	6.847E+00	NOT IDENT.
I-126	4.217E-02	1.744E-01	1.529E-01	8.897E-02	NOT IDENT.
SB-126	7.258E-02	1.504E-01	1.174E-01	7.676E-02	FAIL ABUN
SN-126	-1.783E-01	1.533E-01	1.198E-01	7.823E-02	FAIL ABUN
SB-127	9.267E-01	1.126E+00	1.021E+00	5.744E-01	NOT IDENT.
XE-127	4.687E-02	5.220E-02	4.116E-02	2.663E-02	NOT IDENT.
I-131	-6.126E-02	9.556E-02	7.917E-02	4.875E-02	NOT IDENT.
TE-132	1.378E-01	5.330E-01	4.834E-01	2.720E-01	FAIL ABUN
BA-133	-1.204E-02	4.503E-02	3.342E-02	2.297E-02	NOT IDENT.
I-133	-1.039E+03	2.393E+03	0.000E+00	1.221E+03	SHORT HLIF
CS-134	8.607E-02	6.545E-02	4.634E-02	3.339E-02	FAIL ABUN
CS-135	1.713E-01	1.669E-01	1.361E-01	8.517E-02	NOT IDENT.
I-135	7.377E+13	2.353E+14	0.000E+00	1.201E+14	SHORT HLIF
CS-136	3.631E-02	9.218E-02	8.223E-02	4.703E-02	FAIL ABUN
BA-137M	1.335E-02	3.930E-02	3.440E-02	2.005E-02	NOT IDENT.
CS-137	1.411E-02	4.154E-02	3.636E-02	2.119E-02	NOT IDENT.
CE-139	1.684E-02	3.666E-02	2.867E-02	1.870E-02	NOT IDENT.
BA-140	-7.337E-02	2.562E-01	2.208E-01	1.307E-01	FAIL ABUN
LA-140	-3.623E-02	6.665E-02	5.197E-02	3.401E-02	NOT IDENT.
CE-141	1.449E-01	7.601E-02	6.354E-02	3.878E-02	NOT IDENT.

CE-143	3.095E+02	1.063E+02	0.000E+00	5.422E+01	SHORT HLIF
CE-144	-1.566E-01	2.391E-01	2.033E-01	1.220E-01	NOT IDENT.
PM-144	1.378E-02	3.687E-02	3.244E-02	1.881E-02	NOT IDENT.
PR-144	9.329E-01	2.497E+00	2.197E+00	1.274E+00	NOT IDENT.
PM-146	6.253E-03	4.384E-02	3.746E-02	2.237E-02	NOT IDENT.
ND-147	1.539E-01	5.614E-01	4.767E-01	2.864E-01	FAIL ABUN
PM-149	4.006E+00	6.170E+01	5.462E+01	3.148E+01	NOT IDENT.
EU-152	-6.419E-02	1.045E-01	8.056E-02	5.332E-02	FAIL ABUN
GD-153	6.842E-01	1.619E-01	1.154E-01	8.261E-02	FAIL ABUN
EU-154	8.240E-02	1.118E-01	1.011E-01	5.704E-02	NOT IDENT.
EU-155	3.490E-02	1.381E-01	1.235E-01	7.044E-02	NOT IDENT.
TB-160	-3.837E-02	1.509E-01	1.238E-01	7.698E-02	NOT IDENT.
HO-166M	-7.253E-03	6.501E-02	5.529E-02	3.317E-02	FAIL ABUN
TM-171	-2.338E+01	4.417E+01	3.578E+01	2.254E+01	NOT IDENT.
LU-176	9.654E-03	2.290E-02	2.052E-02	1.168E-02	NOT IDENT.
LU-177M	-7.415E-02	1.747E-01	1.452E-01	8.913E-02	FAIL ABUN
HF-181	1.065E-02	4.113E-02	3.525E-02	2.099E-02	NOT IDENT.
W-181	2.430E-01	5.724E-01	4.771E-01	2.920E-01	NOT IDENT.
TA-182	-1.699E-01	1.907E-01	1.491E-01	9.731E-02	FAIL ABUN
RE-183	2.963E-01	1.805E-01	1.159E-01	9.207E-02	FAIL ABUN
RE-184	5.104E-02	2.532E-01	2.015E-01	1.292E-01	NOT IDENT.
OS-185	1.149E-02	4.315E-02	3.802E-02	2.201E-02	NOT IDENT.
RE-188	-4.596E-02	1.826E-01	1.561E-01	9.315E-02	NOT IDENT.
W-188	2.627E+00	7.717E+00	6.122E+00	3.937E+00	FAIL ABUN
IR-192	-2.351E-02	3.253E-02	2.733E-02	1.660E-02	FAIL ABUN
AU-195	1.990E+00	4.709E-01	3.360E-01	2.403E-01	FAIL ABUN
TL-200	-1.175E+02	2.028E+02	0.000E+00	1.034E+02	SHORT HLIF
TL-201	3.609E+00	6.302E+00	4.956E+00	3.215E+00	NOT IDENT.
TL-202	4.395E-02	6.617E-02	5.850E-02	3.376E-02	NOT IDENT.
HG-203	1.022E-02	3.850E-02	3.445E-02	1.964E-02	FAIL ABUN
BI-207	-2.388E-02	5.351E-02	4.405E-02	2.730E-02	FAIL ABUN
TL-207	-7.183E-01	6.704E-01	5.445E-01	3.420E-01	FAIL ABUN
PO-209	6.674E-01	7.305E+00	6.166E+00	3.727E+00	NOT IDENT.
BI-210	2.983E-01	4.762E+00	4.438E+00	2.430E+00	NOT IDENT.
PB-210	2.983E-01	4.762E+00	4.438E+00	2.430E+00	NOT IDENT.
PO-210	2.983E-01	4.762E+00	4.438E+00	2.430E+00	NOT IDENT.
PB-211	-9.196E-01	1.130E+00	7.928E-01	5.763E-01	NOT IDENT.
PO-215	-7.183E-01	6.704E-01	5.445E-01	3.420E-01	FAIL ABUN
RN-219	6.516E-02	4.284E-01	3.700E-01	2.186E-01	FAIL ABUN
RN-220	-8.692E+00	2.520E+01	2.164E+01	1.286E+01	NOT IDENT.
RA-223	-7.183E-01	6.704E-01	5.445E-01	3.420E-01	FAIL ABUN
AC-227	1.414E-01	4.387E-01	3.507E-01	2.238E-01	NOT IDENT.
TH-227	1.414E-01	4.389E-01	3.507E-01	2.239E-01	FAIL ABUN
TH-229	2.147E-01	5.328E-01	4.592E-01	2.718E-01	NOT IDENT.
PA-231	3.974E-01	1.473E+00	1.316E+00	7.514E-01	NOT IDENT.
TH-231	-7.183E-01	6.704E-01	5.445E-01	3.420E-01	FAIL ABUN
PA-233	1.796E-02	6.110E-02	5.432E-02	3.117E-02	FAIL ABUN
PA-234	5.087E-01	3.579E-01	3.210E-01	1.826E-01	FAIL ABUN
NP-236	1.281E-02	9.454E-02	7.303E-02	4.823E-02	FAIL ABUN
NP-237	1.783E-01	4.338E-01	3.524E-01	2.213E-01	FAIL ABUN
NP-239	-4.286E-01	2.382E-01	1.969E-01	1.215E-01	FAIL ABUN
AM-241	1.400E-01	2.805E-01	2.354E-01	1.431E-01	NOT IDENT.
CM-243	2.869E-02	1.241E-01	1.111E-01	6.333E-02	FAIL ABUN
AM-246	5.911E-03	1.238E-01	1.068E-01	6.316E-02	NOT IDENT.
CM-247	5.381E-03	3.827E-02	3.303E-02	1.952E-02	NOT IDENT.
CF-249	-8.022E-03	4.089E-02	3.473E-02	2.086E-02	NOT IDENT.
CF-251	-7.658E-02	1.391E-01	1.162E-01	7.098E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	682.4545
46.50	682.4545
46.50	682.4545
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49.72	758.4140
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52.97	890.1508
53.15	890.6585
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54.07	855.0490
56.28	968.4011
56.28	968.4095
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57.53	1044.0190
57.53	1044.0251
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57.98	1015.2086
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59.32	1037.2424
59.40	1077.1843
59.54	1077.6284
59.72	1078.1967
60.01	1109.6035
61.10	1134.3956
61.14	1134.5273
61.30	1135.0480
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63.29	1000.9833
63.29	1000.9833
63.58	1001.8008
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65.12	932.1282
65.20	924.2622
65.20	924.2622
66.05	933.1642
66.72	953.7776
66.83	954.0685
66.91	966.4435
67.20	952.3218
67.20	952.3218
67.75	949.6648
67.85	949.9269
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68.90	1011.9347
69.30	1032.9602
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70.82	1035.2698
70.83	1035.2987
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72.87	1064.1113
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74.81	1150.7650
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74.81	1150.7650
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74.97	1151.2263
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75.70	1153.3292
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77.11	1157.3634

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79.80	1173.3353
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80.30	1208.3093
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81.07	1176.9049
81.07	1176.9049
81.07	1176.9049
81.07	1176.9049
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83.78	1261.5038
83.78	1261.5038
83.78	1261.5038
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84.90	1441.9547
85.43	1385.6818
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86.54	1316.8237
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86.72	1440.8645
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86.94	1400.3965
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87.30	1488.2399
87.57	1530.3972
87.88	1537.1576
88.03	1470.7593
88.36	1383.0327
88.47	1406.6512
89.95	1489.9252
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92.38	1392.9449
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94.00	1397.8168
94.67	1399.8055
94.67	1399.8203
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94.90	1400.5078
94.90	1400.5078
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97.43	616.0927
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99.55	593.9960
99.55	593.9960
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100.00	594.5457
100.10	574.2174
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103.76	576.0308
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105.31	577.8102
108.00	660.5231
109.28	552.0505

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111.00	574.2765
111.76	575.1071
112.95	576.4013
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117.00	580.7565
117.00	580.7565
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122.32	473.1568
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136.00	448.3665
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144.24	422.2109
144.24	422.2109
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147.16	381.2585
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153.22	353.8155
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154.21	393.9536
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154.21	393.9536
155.03	392.2966
156.02	420.7867
158.56	323.2452
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159.00	321.8355
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162.64	365.2787
163.35	365.6524
163.89	392.5407
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171.86	358.0017
172.10	358.1211
176.55	375.7902
176.60	375.8162
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184.41	371.9489
185.71	349.0862
186.00	349.2195
190.27	330.9025
192.34	290.0269
193.63	309.7189
197.04	315.5977
198.01	294.3838
198.60	293.4624
200.40	312.9312
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202.84	276.1414
205.31	268.3726

208.36	269.3652
208.81	269.5104
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209.75	255.9784
210.97	258.0831
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216.55	282.4544
218.09	257.3432
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223.80	289.2229
226.40	245.1122
227.00	249.6891
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227.20	255.9227
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228.18	276.5257
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236.00	289.4485
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238.63	259.1795
238.63	259.1795
238.63	259.1795
239.00	259.2813
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241.98	260.1176
241.98	260.1176
241.98	260.1176
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249.79	236.9598
252.40	206.7711
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252.85	219.2081
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256.20	238.9051
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260.90	175.6494
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268.79	185.8992
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269.46	197.8332
269.46	197.8332
269.46	197.8332
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273.65	260.9149
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277.60	170.2082
277.60	170.2082
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278.60	194.5789
279.20	205.8723
279.53	229.2324
280.46	226.6408
281.68	222.2353
283.67	189.9129
284.30	196.5802
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285.90	204.3783
286.10	195.0413
286.10	195.0413
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290.67	182.3183
290.80	170.2863
291.72	200.5975
293.26	0.0000
293.70	182.8323
295.21	193.8704
295.21	193.8704

295.21	193.8704
295.96	213.5000
296.50	239.3569
297.23	241.0348
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300.09	150.4723
300.09	150.4723
300.12	150.4747
301.29	156.5056
302.84	208.5573
303.76	223.9808
303.91	203.9916
304.40	197.4074
304.40	197.4074
304.84	196.5323
306.84	154.8314
308.46	163.6706
311.98	162.2618
316.51	177.3684
318.01	175.6710
319.02	156.5049
319.41	161.3888
320.08	172.1197
323.87	206.6363
323.87	206.6363
323.87	206.6363
323.87	206.6363
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334.20	183.2067
334.20	183.2067
334.30	183.2210
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338.28	153.1912
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338.32	153.1983
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340.57	162.1395
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351.92	142.9937
351.92	142.9937
351.92	142.9937
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356.01	138.6796
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367.94	0.0000
369.80	142.0026
374.96	152.6797
383.85	141.4964
387.95	155.2076
388.63	153.2433
391.69	147.4475
391.69	147.4475
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398.62	156.4323
400.65	123.6823
401.10	143.3119
401.81	149.5755
402.60	148.6274
404.84	172.6469
410.95	137.0616
411.60	153.7474
413.65	142.5272
414.70	133.2617
415.30	132.2768

415.76	138.5728
417.63	0.0000
418.52	124.2259
423.70	126.7716
427.08	96.6143
427.89	108.2273
432.53	103.3026
433.93	98.1243
439.47	116.4990
439.56	116.5057
439.89	118.6514
443.98	134.9123
444.90	140.3104
445.03	128.6290
445.03	128.6290
445.03	128.6290
445.03	128.6290
453.90	116.5560
463.38	110.1781
468.07	107.9208
473.00	114.7568
475.06	105.1509
475.35	109.5071
476.78	133.4821
477.59	114.0058
477.96	108.6029
482.03	101.2590
484.57	109.0546
487.03	108.1294
490.36	0.0000
492.35	109.5825
497.08	108.8024
507.63	0.0000
510.53	0.0000
510.84	105.2790
511.00	105.2892
511.85	105.3428
511.85	105.3428
513.99	105.4769
513.99	105.4769
520.41	93.6182
520.65	90.4487
527.90	106.3445
528.96	0.0000
529.64	114.2955
529.87	0.0000
531.02	107.6602
537.32	122.4598
543.00	113.8245
546.56	0.0000
549.76	101.5656
552.65	110.8127
555.20	92.7787
563.23	109.6406
563.90	115.1657
568.70	97.1417
569.32	95.3418
569.50	95.3520
569.67	99.0272
573.80	94.6564
574.00	94.6665
574.64	86.4245
578.91	113.6558
579.30	0.0000
583.14	90.8263
585.48	98.6458
591.81	96.5047
592.07	98.3761
593.00	110.4934
595.88	99.5027
600.56	111.8672
602.52	0.0000
602.71	125.9923
602.71	125.9923
603.60	116.7145
604.41	118.3202
604.70	108.9962
609.31	87.0944

609.31	87.0944
609.31	87.0944
609.31	87.0944
610.33	87.1398
612.46	92.2403
614.37	97.0264
618.01	85.7103
621.84	97.0830
621.84	97.0830
631.29	92.8153
633.02	84.3631
633.10	84.3675
634.78	71.1566
635.90	75.9434
636.97	98.7771
645.85	87.7684
646.12	87.7796
656.30	94.9322
657.75	98.8383
657.90	0.0000
661.65	100.9471
661.65	100.9471
664.57	0.0000
666.33	94.4303
666.33	94.4303
675.00	73.5378
677.61	83.3167
685.20	78.7555
692.80	83.9151
695.00	93.7688
696.49	98.7216
696.49	98.7216
697.00	108.5204
697.49	104.6332
698.33	128.1536
698.50	128.1632
699.00	111.5591
702.63	94.1016
706.10	103.0876
706.58	0.0000
706.67	116.8646
709.31	103.2389
711.68	98.4302
713.82	91.6286
717.42	85.8594
720.50	74.1193
721.93	0.0000
722.20	89.0112
722.78	98.9282
722.78	98.9282
722.89	98.9331
722.95	98.9355
723.30	98.9502
724.18	92.3900
727.18	75.3339
733.00	76.1931
735.90	89.5583
739.58	79.7383
742.81	91.4966
744.21	83.2296
747.13	86.6709
751.79	84.1743
752.31	89.2064
753.82	84.2502
755.35	87.3165
756.15	97.3860
756.87	99.4254
763.93	109.1321
765.79	101.8261
766.42	101.8532
766.84	101.8729
776.49	88.9007
778.00	86.1434
778.57	77.7167
778.89	79.4177
783.80	72.1319
785.46	72.1822
792.07	71.3638

795.84	57.8606
796.30	56.1696
798.80	74.9715
801.93	70.6323
805.60	62.5384
810.29	78.0670
810.76	70.8901
815.85	61.7725
817.79	63.8815
818.51	68.0222
819.60	81.4572
826.30	77.5433
828.27	0.0000
831.60	77.7081
831.96	87.0454
834.83	86.1085
836.80	0.0000
846.75	81.3059
848.13	63.6196
856.28	0.0000
856.80	64.5347
860.37	60.7825
867.32	63.0483
867.82	67.5643
871.10	68.4023
873.19	67.4047
874.81	64.2853
875.33	0.0000
876.40	73.8145
879.36	77.0653
880.27	67.5875
880.51	69.7061
881.50	63.3940
883.24	67.6641
884.67	71.9329
889.25	59.3428
896.60	58.4442
898.02	63.7925
899.00	70.1975
903.28	51.7435
911.07	57.6940
911.07	57.6940
911.07	57.6940
919.63	80.3851
920.93	77.2066
925.00	69.8052
925.24	68.7375
926.50	59.0981
935.52	42.0440
937.48	65.8088
944.10	58.3967
946.00	60.6006
949.00	86.6660
962.29	54.4238
964.01	50.8263
966.15	55.5883
968.20	54.5374
969.11	49.1001
969.11	49.1001
969.11	49.1001
977.42	51.4326
980.50	54.7742
983.50	69.0877
989.30	49.4484
996.32	53.5021
1001.03	31.5227
1001.68	34.6827
1004.76	63.1264
1021.30	0.0000
1024.50	0.0000
1034.80	43.7106
1036.00	44.6582
1037.82	49.3403
1038.57	50.2822
1038.76	0.0000
1045.16	41.0620
1046.59	50.4163
1048.07	46.7061

1050.47	56.0913
1050.47	56.0913
1062.04	54.4269
1063.62	62.9052
1076.63	54.6865
1077.35	46.2107
1078.86	45.2891
1085.78	55.7926
1099.22	50.3345
1112.02	48.6322
1112.84	49.0534
1115.52	58.9118
1120.29	59.2729
1120.29	59.2729
1120.29	59.2729
1120.29	59.2729
1120.51	59.2779
1121.28	49.1832
1124.00	0.0000
1129.67	54.6528
1131.51	0.0000
1147.95	0.0000
1167.94	70.8168
1173.22	65.0998
1175.09	75.8323
1177.93	63.2465
1189.05	71.2653
1204.90	63.7543
1205.75	0.0000
1213.00	60.9556
1221.42	78.8444
1230.97	94.8750
1235.34	74.2157
1236.41	0.0000
1238.25	67.3442
1246.25	53.6023
1260.41	0.0000
1271.85	56.9907
1274.45	37.0211
1274.54	37.0226
1291.56	47.2505
1298.22	0.0000
1312.09	39.4301
1325.50	31.4566
1325.50	31.4566
1332.49	33.5492
1333.61	32.5417
1360.21	28.6768
1362.66	0.0000
1365.15	26.6633
1368.21	29.7647
1368.53	0.0000
1376.25	30.8557
1384.27	38.1352
1394.10	29.9664
1395.20	35.1427
1407.95	22.8146
1434.06	18.7910
1436.60	28.2041
1457.56	0.0000
1460.81	16.2146
1489.15	19.0503
1509.49	17.0176
1596.49	21.4029
1620.62	4.6786
1678.03	0.0000
1691.02	12.3571
1691.02	12.3571
1706.46	0.0000
1750.46	0.0000
1764.49	13.5195
1764.49	13.5195
1764.49	13.5195
1764.49	13.5195
1770.23	10.1517
1771.40	18.9547
1791.20	0.0000
1808.65	12.6699

1836.01 10.7813

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395009

Total Uranium Activity	2.0757E+02	ug/g
Total Uranium Counting Unc.	3.6894E+01	ug/g
Total Uranium Tpu	1.8823E-05	ug/g
Total Uranium Mda	5.2372E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID  : G245395009       *
*   ANALYST       : MXR1                      DETECTOR   : GAM12            *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 09:14:48.69    SAMPLE ALQT:  137.080 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.649E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.785E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 5.900E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.897E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:17:15.95

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395010.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:15:16.
Sample ID         : G245395010           Sample quantity  : 1.37080E+02 GRAM
Detector name     : GAM13                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.84  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944966                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.29*	155	472	1.25	92.35	89	7	2.16E-02	26.1	
2	0	63.13*	405	884	1.25	126.03	122	9	5.62E-02	15.2	
3	2	74.73	586	733	1.11	149.23	142	17	8.14E-02	8.9	1.17E+00
4	2	76.99*	947	671	1.12	153.76	142	17	1.32E-01	6.0	
5	4	83.98*	144	667	1.38	167.73	164	28	2.00E-02	32.6	2.41E+00
6	4	87.04	342	563	1.25	173.87	164	28	4.75E-02	12.5	
7	4	89.83	224	539	1.09	179.44	164	28	3.11E-02	18.5	
8	4	92.53*	675	577	1.40	184.84	164	28	9.37E-02	8.4	
9	0	129.50	121	466	1.09	258.80	255	9	1.69E-02	33.4	
10	0	185.63*	185	407	1.18	371.10	367	10	2.57E-02	23.6	
11	0	208.90	136	318	0.96	417.63	413	9	1.89E-02	25.1	
12	3	238.52*	1307	284	1.30	476.89	471	17	1.82E-01	3.7	1.20E+00
13	3	241.49	294	309	1.66	482.83	471	17	4.08E-02	14.7	
14	0	270.11	119	346	1.52	540.09	532	14	1.65E-02	34.5	
15	0	277.14	66	237	1.23	554.16	549	10	9.10E-03	45.9	
16	0	295.05	340	214	1.41	589.98	585	10	4.72E-02	9.7	
17	0	299.97	51	234	1.12	599.82	596	8	7.03E-03	54.1	
18	0	327.91	67	267	1.17	655.72	650	11	9.32E-03	48.7	
19	0	338.46*	340	246	1.39	676.83	671	13	4.72E-02	11.2	
20	0	351.85*	564	267	1.63	703.61	698	13	7.84E-02	7.5	
21	0	462.94	94	124	1.40	925.85	920	11	1.31E-02	25.1	
22	0	510.85*	133	174	1.93	1021.71	1015	14	1.85E-02	26.0	
23	0	582.96*	341	195	1.56	1165.97	1160	14	4.73E-02	10.6	
24	0	609.31*	469	170	1.59	1218.68	1211	16	6.52E-02	7.9	
25	0	727.24	119	102	1.52	1454.64	1449	12	1.65E-02	19.3	
26	0	860.66	73	83	1.50	1721.58	1715	13	1.01E-02	28.6	
27	0	910.90*	273	123	1.73	1822.09	1813	17	3.79E-02	11.3	
28	0	969.06	157	117	2.42	1938.46	1933	17	2.18E-02	18.2	
29	0	1002.17	58	88	1.46	2004.71	1997	16	8.10E-03	38.9	
30	0	1120.32	179	90	2.30	2241.11	2230	23	2.48E-02	15.8	
31	0	1460.63	1462	36	2.26	2922.03	2913	20	2.03E-01	2.8	
32	0	1587.93*	30	17	2.02	3176.78	3169	14	4.23E-03	34.6	
33	0	1764.98*	60	36	1.92	3531.07	3520	17	8.30E-03	27.8	
34	0	1847.25	22	4	1.64	3695.70	3687	14	3.06E-03	28.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:17:19

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395010.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:15:16
Sample ID : G245395010 Sample quantity : 137.08 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA13 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.84 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.605E+01	2.998E+00	5.869E-01	3.588E-02	61.427
CD-109	+	88.03	*	3.548E+00	9.338E-01	1.015E+00	8.008E-02	3.496
SN-126	+	64.28		1.561E+00	5.332E-01	4.329E-01	6.740E-02	3.607
	+	86.94		1.452E+00	7.009E-01	4.141E-01	1.707E-01	3.507
	+	87.57	*	3.494E-01	9.195E-02	9.980E-02	7.894E-03	3.501
TL-208	+	277.35		6.242E-01	5.772E-01	6.392E-01	7.487E-02	0.976
	+	510.84		6.666E-01	3.536E-01	2.755E-01	2.995E-02	2.419
	+	583.14	*	4.909E-01	1.115E-01	7.588E-02	6.281E-03	6.470
	+	860.37		9.932E-01	5.744E-01	5.613E-01	4.733E-02	1.769
BI-210	+	46.50	*	1.442E+00	7.632E-01	7.853E-01	6.401E-02	1.836
PB-210	+	46.50	*	1.442E+00	7.632E-01	7.853E-01	6.401E-02	1.836
PO-210	+	46.50	*	1.442E+00	7.610E-01	7.853E-01	5.599E-02	1.836
BI-211		72.87		4.770E+00	2.113E+00	3.684E+00	3.222E-01	1.295
	+	351.07	*	3.414E+00	5.701E-01	3.749E-01	2.733E-02	9.106
PB-212	+	74.81		2.037E+00	4.457E-01	3.873E-01	4.927E-02	5.259
	+	77.11		1.963E+00	2.889E-01	2.315E-01	1.967E-02	8.476
	+	87.30		1.616E+00	4.549E-01	4.612E-01	5.885E-02	3.503
	+	238.63	*	1.703E+00	1.987E-01	9.990E-02	9.076E-03	17.042
	+	300.09		1.022E+00	1.109E+00	1.341E+00	1.276E-01	0.762
PO-212	+	74.81		2.037E+00	4.457E-01	3.873E-01	4.927E-02	5.259
	+	77.11		1.963E+00	2.889E-01	2.315E-01	1.967E-02	8.476
	+	87.30		1.616E+00	4.549E-01	4.612E-01	5.885E-02	3.503
		115.19		5.105E-01	3.733E+00	6.140E+00	7.121E-01	0.083
	+	238.63	*	1.703E+00	1.987E-01	9.990E-02	9.076E-03	17.042
	+	300.09		1.022E+00	1.109E+00	1.341E+00	1.276E-01	0.762
BI-214	+	609.31	*	1.279E+00	2.349E-01	1.394E-01	1.303E-02	9.172
	+	1120.29		2.517E+00	8.273E-01	6.401E-01	5.726E-02	3.932
	+	1764.49		1.153E+00	6.440E-01	4.362E-01	2.478E-02	2.644
PB-214	+	74.81		3.510E+00	7.415E-01	6.674E-01	7.590E-02	5.259
	+	77.11		3.365E+00	5.576E-01	3.969E-01	4.530E-02	8.476
	+	87.30		2.768E+00	7.591E-01	7.901E-01	8.735E-02	3.503
	+	241.98		2.298E+00	7.116E-01	5.905E-01	5.716E-02	3.892
	+	295.21		1.203E+00	2.619E-01	2.192E-01	2.147E-02	5.487
	+	351.92	*	1.188E+00	2.078E-01	1.307E-01	1.170E-02	9.084

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		3.510E+00	7.415E-01	6.674E-01	7.590E-02	5.259
	+	77.11		3.365E+00	5.576E-01	3.969E-01	4.530E-02	8.476
	+	87.30		2.768E+00	7.591E-01	7.901E-01	8.735E-02	3.503
	+	241.98		2.298E+00	7.116E-01	5.905E-01	5.716E-02	3.892
	+	295.21		1.203E+00	2.619E-01	2.192E-01	2.147E-02	5.487
	+	351.92	*	1.188E+00	2.078E-01	1.307E-01	1.170E-02	9.084
PO-216	+	74.81		2.037E+00	4.457E-01	3.873E-01	4.927E-02	5.259
	+	77.11		1.963E+00	2.889E-01	2.315E-01	1.967E-02	8.476
	+	87.30		1.616E+00	4.549E-01	4.612E-01	5.885E-02	3.503
	+	238.63	*	1.703E+00	1.987E-01	9.990E-02	9.076E-03	17.042
	+	300.09		1.022E+00	1.109E+00	1.341E+00	1.276E-01	0.762
PO-218	+	74.81		3.510E+00	7.415E-01	6.674E-01	7.590E-02	5.259
	+	77.11		3.365E+00	5.576E-01	3.969E-01	4.530E-02	8.476
	+	87.30		2.768E+00	7.591E-01	7.901E-01	8.735E-02	3.503
	+	241.98		2.298E+00	7.116E-01	5.905E-01	5.716E-02	3.892
	+	295.21		1.203E+00	2.619E-01	2.192E-01	2.147E-02	5.487
	+	351.92	*	1.188E+00	2.078E-01	1.307E-01	1.170E-02	9.084
RA-224	+	240.98	*	4.358E+00	1.327E+00	1.137E+00	8.979E-02	3.831
RA-226	+	609.31	*	1.279E+00	2.349E-01	1.394E-01	1.303E-02	9.172
	+	1120.29		2.517E+00	8.273E-01	6.401E-01	5.726E-02	3.932
	+	1764.49		1.153E+00	6.440E-01	4.362E-01	2.478E-02	2.644
AC-228	+	338.32		2.260E+00	1.055E+00	4.128E-01	1.690E-01	5.475
	+	911.07	*	1.764E+00	4.380E-01	3.137E-01	3.257E-02	5.624
	+	969.11		1.785E+00	7.666E-01	6.175E-01	1.410E-01	2.891
RA-228	+	338.32		2.260E+00	1.055E+00	4.128E-01	1.690E-01	5.475
	+	911.07	*	1.764E+00	4.380E-01	3.137E-01	3.257E-02	5.624
	+	969.11		1.785E+00	7.666E-01	6.175E-01	1.410E-01	2.891
TH-228	+	74.81		2.066E+00	4.093E-01	3.927E-01	3.418E-02	5.259
	+	77.11		1.990E+00	2.929E-01	2.348E-01	1.994E-02	8.476
	+	87.30		1.638E+00	4.312E-01	4.676E-01	3.706E-02	3.503
	+	238.63	*	1.726E+00	2.015E-01	1.013E-01	9.202E-03	17.042
	+	300.09		1.036E+00	1.277E+00	1.359E+00	8.038E-01	0.762
TH-230	+	609.31	*	1.279E+00	2.349E-01	1.394E-01	1.303E-02	9.172
	+	1120.29		2.517E+00	8.273E-01	6.401E-01	5.726E-02	3.932
	+	1764.49		1.153E+00	6.440E-01	4.362E-01	2.477E-02	2.644
TH-232	+	338.32		2.260E+00	5.298E-01	4.128E-01	2.874E-02	5.475
	+	911.07	*	1.764E+00	4.380E-01	3.137E-01	3.257E-02	5.624
	+	969.11		1.785E+00	7.666E-01	6.175E-01	1.410E-01	2.891
TH-234	+	63.29	*	3.945E+00	1.400E+00	1.079E+00	1.980E-01	3.655
	+	92.38		4.755E+00	1.173E+00	6.927E-01	1.247E-01	6.864
U-234	+	609.31	*	1.279E+00	2.349E-01	1.394E-01	1.303E-02	9.172
	+	1120.29		2.517E+00	8.273E-01	6.401E-01	5.726E-02	3.932
	+	1764.49		1.153E+00	6.440E-01	4.362E-01	2.477E-02	2.644
NP-237	+	86.50	*	1.026E+00	3.431E-01	2.921E-01	6.462E-02	3.512
		95.87		-2.168E-01	9.263E-01	1.356E+00	3.355E-01	-0.160
U-238	+	63.29	*	3.945E+00	1.400E+00	1.079E+00	1.980E-01	3.655
	+	92.38		4.755E+00	8.974E-01	6.927E-01	5.847E-02	6.864
AM-243	+	74.67	*	3.303E-01	6.534E-02	6.278E-02	5.423E-03	5.261
	+	86.72		3.847E+01	1.013E+01	1.096E+01	8.722E-01	3.509

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		-2.761E+00	3.949E+00	6.258E+00	7.490E-01	-0.441
		142.18		-3.362E+00	2.012E+01	3.197E+01	3.387E+00	-0.105
ANH-511	+	511.00	*	1.440E-01	7.542E-02	5.953E-02	4.155E-03	2.419

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	6.191E-02	3.747E-01	6.324E-01	4.755E-02	0.098
NA-22		1274.54	*	3.354E-02	6.177E-02	1.067E-01	6.022E-03	0.314
NA-24		1368.53	*	7.595E-02	6.177E-02	Half-Life too short		
AL-26		1129.67		-8.595E-02	2.574E+00	3.547E+00	2.102E-01	-0.024
		1808.65	*	2.592E-02	3.768E-02	6.902E-02	3.895E-03	0.376
TI-44		67.85		2.549E-02	2.876E-02	4.749E-02	4.300E-03	0.537
	+	78.38	*	3.622E-01	5.330E-02	5.679E-02	4.783E-03	6.377
SC-46		889.25	*	-3.545E-03	5.398E-02	8.896E-02	6.736E-03	-0.040
	+	1120.51		4.265E-01	1.373E-01	1.538E-01	9.250E-03	2.773
V-48		944.10		4.838E-01	1.154E+00	1.958E+00	1.430E-01	0.247
		983.50	*	7.287E-02	8.769E-02	1.529E-01	1.082E-02	0.477
		1312.09		-1.087E-01	1.044E-01	1.569E-01	8.892E-03	-0.693
CR-51		320.08	*	-2.925E-01	4.124E-01	6.477E-01	5.041E-02	-0.452
MN-52		744.21		1.064E-01	2.799E-01	4.621E-01	3.751E-02	0.230
		848.13		-1.865E+00	8.196E+00	1.342E+01	1.045E+00	-0.139
		935.52		3.851E-01	2.947E-01	5.281E-01	3.879E-02	0.729
		1246.25		3.065E+00	8.718E+00	1.486E+01	8.319E-01	0.206
		1333.61		-2.632E+00	6.468E+00	1.034E+01	5.884E-01	-0.254
		1434.06	*	-3.410E-01	2.722E-01	3.812E-01	2.191E-02	-0.894
MN-54		834.83	*	-5.100E-02	5.082E-02	7.872E-02	6.177E-03	-0.648
CO-56		846.75	*	1.557E-02	5.311E-02	9.006E-02	7.019E-03	0.173
		977.42		-3.074E+00	4.723E+00	6.146E+00	4.371E-01	-0.500
		1037.82		2.236E-01	4.105E-01	6.982E-01	5.086E-02	0.320
		1175.09		-1.271E+00	3.203E+00	5.007E+00	2.754E-01	-0.254
		1238.25		1.229E-01	1.220E-01	2.151E-01	1.283E-02	0.572
		1360.21		2.149E-01	1.387E+00	2.324E+00	1.326E-01	0.092
		1771.40		1.074E-01	3.304E-01	5.015E-01	2.846E-02	0.214
CO-57		122.06	*	-2.743E-02	2.703E-02	4.197E-02	5.309E-03	-0.654
		136.48		1.038E-01	2.197E-01	3.618E-01	4.235E-02	0.287
CO-58		810.76	*	-5.941E-02	5.348E-02	8.214E-02	6.543E-03	-0.723
FE-59		142.65		1.119E+00	3.035E+00	4.916E+00	5.184E-01	0.228
		192.34		-5.592E-01	9.365E-01	1.548E+00	2.009E-01	-0.361
		1099.22	*	-2.103E-01	1.299E-01	1.819E-01	1.300E-02	-1.156
		1291.56		7.215E-02	1.680E-01	2.881E-01	2.104E-02	0.250
CO-60		1173.22		-1.796E-02	6.396E-02	1.009E-01	5.546E-03	-0.178
		1332.49	*	-3.053E-02	5.721E-02	9.035E-02	5.139E-03	-0.338
ZN-65		1115.52	*	-6.873E-02	1.534E-01	2.024E-01	1.229E-02	-0.339
GE-68		1077.35	*	1.895E+00	1.726E+00	3.032E+00	1.938E-01	0.625
AS-73		53.44	*	1.990E-01	2.446E-01	4.146E-01	3.502E-02	0.480
AS-74		595.88	*	4.581E-02	1.125E-01	1.892E-01	1.453E-02	0.242
		634.78		-3.648E-01	4.592E-01	7.072E-01	5.636E-02	-0.516

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		-4.555E-01	2.897E+00	4.381E+00	4.772E-01	-0.104
		96.73		-5.696E-01	7.781E-01	1.108E+00	1.537E-01	-0.514
		121.11		3.897E-02	1.399E-01	2.305E-01	3.322E-02	0.169
		136.00		2.296E-02	4.083E-02	6.747E-02	7.621E-03	0.340
		198.60		5.777E-01	1.894E+00	3.142E+00	2.808E-01	0.184
		264.65	*	1.291E-02	5.104E-02	7.568E-02	5.928E-03	0.171
		279.53		6.294E-02	1.268E-01	1.900E-01	1.529E-02	0.331
		303.91		-1.547E+00	2.662E+00	3.665E+00	3.894E-01	-0.422
		400.65		2.060E-01	2.993E-01	4.989E-01	4.585E-02	0.413
BR-77	+	87.88		5.362E+02	1.411E+02	2.010E+02	1.587E+01	2.667
		200.40		-1.042E+02	1.171E+02	1.908E+02	1.512E+01	-0.546
	+	239.00		1.909E+02	2.057E+01	2.764E+01	2.183E+00	6.907
		249.79		4.156E+01	4.875E+01	8.412E+01	6.615E+00	0.494
		281.68		4.756E+01	7.613E+01	1.149E+02	8.807E+00	0.414
		297.23		1.161E+02	6.338E+01	7.860E+01	5.912E+00	1.478
		303.76		-1.001E+02	1.609E+02	2.211E+02	1.647E+01	-0.452
		439.47		2.963E+01	1.128E+02	1.926E+02	1.217E+01	0.154
		484.57		-1.410E+01	1.936E+02	3.219E+02	2.170E+01	-0.044
		520.65	*	-6.293E+00	9.010E+00	1.429E+01	1.009E+00	-0.440
		574.64		-1.196E+02	1.806E+02	2.839E+02	2.133E+01	-0.421
		578.91		6.637E+01	8.372E+01	1.276E+02	9.633E+00	0.520
		585.48		8.765E+02	2.227E+02	3.805E+02	2.892E+01	2.303
		755.35		2.535E+01	1.610E+02	2.613E+02	2.116E+01	0.097
		817.79		4.149E+01	1.270E+02	2.165E+02	1.714E+01	0.192
SR-82		698.33		-4.237E+01	4.746E+01	7.209E+01	5.885E+00	-0.588
		776.49	*	-5.653E-01	4.636E-01	7.057E-01	5.680E-02	-0.801
		1395.20		-5.913E+00	1.407E+01	2.217E+01	1.270E+00	-0.267
RB-83		520.41	*	-6.279E-02	8.454E-02	1.336E-01	9.436E-03	-0.470
		529.64		1.079E-01	1.355E-01	2.344E-01	1.674E-02	0.460
		552.65		7.642E-02	2.404E-01	4.049E-01	2.970E-02	0.189
RB-84		881.50	*	-8.929E-02	9.524E-02	1.466E-01	1.117E-02	-0.609
KR-85		513.99	*	1.119E+01	1.058E+01	1.640E+01	1.149E+00	0.682
SR-85		513.99	*	5.662E-02	5.355E-02	8.301E-02	5.815E-03	0.682
RB-86		1076.63	*	1.449E+00	1.047E+00	1.872E+00	1.198E-01	0.774
Y-88		898.02		2.407E-02	5.703E-02	9.707E-02	7.347E-03	0.248
		1836.01	*	3.603E-02	4.184E-02	7.601E-02	4.280E-03	0.474
ZR-88		392.90	*	-3.133E-02	3.837E-02	5.867E-02	3.436E-03	-0.534
Y-91		1204.90	*	4.933E+00	2.459E+01	4.164E+01	2.308E+00	0.118
NB-94		702.63	*	4.362E-02	4.674E-02	7.980E-02	6.514E-03	0.547
		871.10		5.091E-03	4.829E-02	8.069E-02	6.191E-03	0.063
NB-95		765.79	*	6.455E-02	5.859E-02	1.039E-01	8.389E-03	0.621
NB-95M		235.69	*	2.836E-01	1.513E-01	2.409E-01	2.229E-02	1.177
ZR-95		724.18		1.307E-01	1.450E-01	2.177E-01	1.944E-02	0.601
		756.15	*	-6.874E-02	1.008E-01	1.536E-01	1.385E-02	-0.448
NB-97		657.90	*	-1.619E-02	1.008E-01	Half-Life too short		
		1024.50		-1.245E+00	1.008E-01	Half-Life too short		
ZR-97		254.15		-1.760E+00	1.008E-01	Half-Life too short		
		355.39		-5.266E-01	1.008E-01	Half-Life too short		
		507.63	*	4.090E-01	1.008E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		602.52		5.802E-01	1.008E-01	Half-Life too short		
		1021.30		1.455E+00	1.008E-01	Half-Life too short		
		1147.95		-5.977E-01	1.008E-01	Half-Life too short		
		1362.66		1.440E-01	1.008E-01	Half-Life too short		
		1750.46		-3.762E-01	1.008E-01	Half-Life too short		
MO-99		140.51		4.656E+00	2.083E+01	3.387E+01	9.632E+00	0.137
		181.06		-1.396E+00	1.447E+01	2.025E+01	3.636E+00	-0.069
		366.43		2.405E+01	7.190E+01	1.184E+02	7.619E+00	0.203
		739.58	*	-3.801E+00	1.155E+01	1.810E+01	2.699E+00	-0.210
		778.00		-2.786E+01	3.147E+01	4.931E+01	3.967E+00	-0.565
TC-99M		140.51	*	3.072E+08	3.147E+01	Half-Life too short		
RH-101		127.23		-6.195E-03	3.878E-02	5.583E-02	6.779E-03	-0.111
		198.01	*	1.519E-02	3.514E-02	5.860E-02	4.640E-03	0.259
		325.23		-1.584E-02	2.897E-01	4.124E-01	2.957E-02	-0.038
RH-102		418.52		1.901E-01	3.696E-01	5.939E-01	3.631E-02	0.320
		475.06	*	-3.498E-03	3.517E-02	5.848E-02	3.891E-03	-0.060
		631.29		-2.179E-02	6.938E-02	1.107E-01	8.793E-03	-0.197
		697.49		-5.628E-02	1.084E-01	1.693E-01	1.382E-02	-0.332
		766.84		1.230E-01	1.531E-01	2.675E-01	2.159E-02	0.460
		1046.59		4.505E-02	1.702E-01	2.827E-01	1.876E-02	0.159
		1112.84		1.818E-01	3.738E-01	5.448E-01	3.314E-02	0.334
RU-103		497.08	*	-1.821E-02	4.702E-02	7.636E-02	1.005E-02	-0.238
	+	610.33		1.351E+01	3.065E+00	3.243E+00	5.276E-01	4.166
RH-106	+	511.85		7.176E-01	3.759E-01	5.052E-01	3.529E-02	1.420
		621.84	*	-3.145E-01	4.224E-01	6.525E-01	8.411E-02	-0.482
		1050.47		2.468E+00	3.492E+00	5.965E+00	3.941E-01	0.414
RU-106	+	511.85		7.176E-01	3.759E-01	5.052E-01	3.529E-02	1.420
		621.84	*	-3.145E-01	4.212E-01	6.525E-01	5.139E-02	-0.482
		1050.47		2.468E+00	3.492E+00	5.965E+00	3.941E-01	0.414
AG-108M		433.93	*	-1.317E-02	3.793E-02	6.265E-02	4.215E-03	-0.210
		614.37		2.317E-02	5.328E-02	7.853E-02	6.432E-03	0.295
		722.95		3.293E-02	5.944E-02	8.730E-02	7.423E-03	0.377
AG-110M		657.75	*	-1.034E-02	4.834E-02	7.750E-02	6.511E-03	-0.133
		677.61		-5.920E-02	4.168E-01	6.693E-01	5.635E-02	-0.088
		706.67		-2.632E-02	2.823E-01	4.530E-01	3.810E-02	-0.058
		763.93		-4.600E-02	2.308E-01	3.828E-01	3.192E-02	-0.120
		884.67		5.717E-02	6.609E-02	1.160E-01	9.176E-03	0.493
		937.48		-9.037E-02	1.495E-01	2.347E-01	1.807E-02	-0.385
		1384.27		-1.078E-01	2.202E-01	3.454E-01	2.101E-02	-0.312
IN-111		171.28		-5.636E-02	7.975E-01	1.266E+00	9.937E-02	-0.045
		245.39	*	3.998E-01	9.121E-01	1.375E+00	1.083E-01	0.291
IN-113M		391.69	*	-3.380E-02	5.595E-02	8.675E-02	5.405E-03	-0.390
SN-113		391.69	*	-3.380E-02	5.595E-02	8.675E-02	5.405E-03	-0.390
IN-114M		190.27	*	-2.682E-02	2.166E-01	3.014E-01	2.382E-02	-0.089
CD-115		260.90		-2.128E+01	9.499E+01	1.561E+02	1.219E+01	-0.136
		492.35		1.142E+01	3.013E+01	5.133E+01	3.497E+00	0.223
		527.90	*	1.371E+00	9.485E+00	1.586E+01	1.130E+00	0.086
SN-117M		156.02		1.280E+00	2.298E+00	3.765E+00	3.401E-01	0.340
		158.56	*	9.316E-03	5.535E-02	8.927E-02	7.796E-03	0.104

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-122		563.90	*	4.188E-01	1.911E+00	3.192E+00	2.371E-01	0.131
		692.80		-1.365E+01	4.402E+01	6.974E+01	5.694E+00	-0.196
I-123		159.00	*	7.331E-02	4.402E+01	Half-Life too short		
		528.96		7.944E+01	4.402E+01	Half-Life too short		
TE-123M		159.00	*	1.711E-03	3.061E-02	4.912E-02	4.289E-03	0.035
I-124		602.71	*	1.747E-02	8.136E-01	1.156E+00	8.938E-02	0.015
		722.78		2.190E+00	5.160E+00	7.481E+00	6.095E-01	0.293
		1325.50		9.020E+00	3.744E+01	6.335E+01	3.599E+00	0.142
		1376.25		1.979E+01	3.222E+01	5.617E+01	3.212E+00	0.352
		1509.49		1.963E+01	1.550E+01	2.897E+01	1.670E+00	0.678
		1691.02		-2.005E-02	3.381E+00	5.459E+00	3.126E-01	-0.004
SB-124		602.71		1.228E-03	5.719E-02	8.125E-02	6.283E-03	0.015
		645.85		9.668E-02	6.127E-01	1.009E+00	8.677E-02	0.096
		709.31		-3.814E+00	3.566E+00	5.273E+00	4.302E-01	-0.723
		713.82		1.727E+00	2.070E+00	3.527E+00	4.130E-01	0.490
		722.78		2.231E-01	5.258E-01	7.621E-01	6.359E-02	0.293
	+	968.20		1.812E+01	6.716E+00	8.556E+00	6.131E-01	2.118
		1045.16		-2.162E+00	3.639E+00	5.670E+00	3.769E-01	-0.381
		1325.50		9.815E-01	4.074E+00	6.894E+00	3.917E-01	0.142
		1368.21		1.231E+00	2.274E+00	3.947E+00	4.670E-01	0.312
		1436.60		-1.680E-01	4.708E+00	7.707E+00	4.429E-01	-0.022
		1691.02	*	-4.819E-04	8.124E-02	1.312E-01	8.171E-03	-0.004
SB-125		427.89	*	1.745E-02	1.111E-01	1.889E-01	1.216E-02	0.092
	+	463.38		9.095E-01	4.613E-01	6.415E-01	4.755E-02	1.418
		600.56		2.460E-02	2.416E-01	3.880E-01	3.267E-02	0.063
		635.90		5.237E-02	3.617E-01	5.955E-01	5.196E-02	0.088
TE-125M		109.28	*	-9.196E+00	9.410E+00	1.480E+01	1.798E+00	-0.621
I-126		388.63		1.547E-02	2.430E-01	3.921E-01	2.322E-02	0.039
		666.33	*	4.162E-02	2.172E-01	3.573E-01	2.916E-02	0.116
		753.82		1.797E+00	1.910E+00	3.259E+00	2.640E-01	0.551
SB-126		223.80		-2.561E-01	3.964E+00	6.640E+00	5.264E-01	-0.039
	+	278.60		3.852E+00	3.546E+00	4.218E+00	3.245E-01	0.913
	+	296.50		1.118E+01	2.332E+00	3.252E+00	2.449E-01	3.437
		414.70		-8.546E-02	8.576E-02	1.283E-01	7.792E-03	-0.666
		415.30		-5.246E+00	7.202E+00	1.098E+01	6.679E-01	-0.478
		555.20		1.561E+00	4.574E+00	7.712E+00	5.673E-01	0.202
		573.80		-8.168E-01	1.215E+00	1.909E+00	1.433E-01	-0.428
		593.00		-8.439E-01	1.141E+00	1.779E+00	1.362E-01	-0.474
		656.30		1.366E+00	4.304E+00	7.140E+00	5.798E-01	0.191
		666.33		1.734E-02	9.051E-02	1.489E-01	1.215E-02	0.116
		675.00		1.667E+00	2.439E+00	4.135E+00	3.376E-01	0.403
		695.00		1.188E-01	9.842E-02	1.709E-01	1.395E-02	0.695
		697.00		-7.398E-02	3.513E-01	5.602E-01	4.574E-02	-0.132
		720.50	*	5.001E-02	2.001E-01	2.854E-01	2.326E-02	0.175
		856.80		-4.581E-01	6.967E-01	9.277E-01	7.186E-02	-0.494
		989.30		-1.148E+00	1.569E+00	2.415E+00	1.700E-01	-0.475
		1034.80		-4.708E+00	1.063E+01	1.669E+01	1.123E+00	-0.282
		1213.00		-1.064E+00	5.930E+00	9.789E+00	5.437E-01	-0.109
SB-127		61.10		2.513E+01	2.280E+01	3.597E+01	4.142E+00	0.699

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		1.713E+00	3.749E+00	6.255E+00	2.614E+00	0.274
		290.80		-1.501E+01	2.109E+01	2.888E+01	2.887E+00	-0.520
		411.60		-2.386E+00	1.220E+01	1.929E+01	2.739E+00	-0.124
		444.90		1.666E-01	9.149E+00	1.540E+01	1.655E+00	0.011
		473.00		1.037E+00	1.546E+00	2.681E+00	3.026E-01	0.387
		543.00		2.343E+00	1.615E+01	2.694E+01	3.592E+00	0.087
		603.60		1.537E+00	1.377E+01	1.972E+01	2.284E+00	0.078
		685.20	*	7.317E-01	1.520E+00	2.538E+00	2.711E-01	0.288
		698.50		-1.700E+01	1.772E+01	2.656E+01	4.069E+00	-0.640
		722.20		2.371E+01	3.420E+01	5.083E+01	5.302E+00	0.466
		783.80		3.858E+00	3.620E+00	6.438E+00	7.521E-01	0.599
XE-127		57.60		-1.094E+00	2.216E+00	3.714E+00	3.433E-01	-0.295
		145.22		-3.185E-01	7.248E-01	1.146E+00	1.176E-01	-0.278
		172.10		-1.510E-02	1.243E-01	1.967E-01	1.545E-02	-0.077
		202.84	*	2.061E-02	4.847E-02	8.069E-02	6.395E-03	0.255
		374.96		-2.182E-01	2.383E-01	3.636E-01	2.271E-02	-0.600
I-131		80.18		-8.454E-01	4.179E+00	5.033E+00	4.212E-01	-0.168
		284.30		-9.756E-01	1.502E+00	2.396E+00	1.951E-01	-0.407
		364.48	*	6.803E-02	1.223E-01	2.038E-01	1.442E-02	0.334
		636.97		1.102E+00	1.899E+00	3.208E+00	2.725E-01	0.344
		722.89		5.247E+00	9.019E+00	1.328E+01	1.088E+00	0.395
TE-132		49.72		-1.025E+00	3.370E+00	5.145E+00	5.059E-01	-0.199
		111.76		1.402E+01	2.510E+01	4.098E+01	5.180E+00	0.342
		116.30		-7.588E+00	2.225E+01	3.590E+01	4.751E+00	-0.211
		228.16	*	2.478E-02	5.687E-01	9.553E-01	1.444E-01	0.026
BA-133		53.15		7.196E-01	1.041E+00	1.759E+00	1.477E-01	0.409
		79.62		-1.882E-01	1.305E+00	1.578E+00	2.379E-01	-0.119
		81.00		-2.402E-02	1.001E-01	1.201E-01	1.885E-02	-0.200
	+	276.40		6.167E-01	5.721E-01	6.901E-01	9.609E-02	0.894
		302.84		1.600E-02	1.867E-01	2.703E-01	3.396E-02	0.059
		356.01	*	-2.815E-02	5.832E-02	7.882E-02	9.463E-03	-0.357
		383.85		3.676E-02	3.883E-01	6.283E-01	6.911E-02	0.059
I-133	+	510.53		5.472E-01	3.883E-01	Half-Life too short		
		529.87	*	2.756E-03	3.883E-01	Half-Life too short		
		706.58		-1.949E-02	3.883E-01	Half-Life too short		
		856.28		-2.366E-01	3.883E-01	Half-Life too short		
		875.33		5.887E-02	3.883E-01	Half-Life too short		
		1236.41		5.793E-01	3.883E-01	Half-Life too short		
		1298.22		-1.530E-02	3.883E-01	Half-Life too short		
CS-134		475.35		-2.042E-01	2.292E+00	3.813E+00	2.539E-01	-0.054
		563.23		7.059E-02	4.524E-01	7.530E-01	5.660E-02	0.094
		569.32		6.969E-02	2.612E-01	4.240E-01	3.225E-02	0.164
		604.70		-5.966E-03	4.961E-02	6.957E-02	5.407E-03	-0.086
		795.84	*	3.865E-02	5.960E-02	1.037E-01	8.359E-03	0.373
		801.93		-4.689E-01	5.887E-01	8.584E-01	6.889E-02	-0.546
		1038.57		3.103E+00	5.253E+00	8.958E+00	6.000E-01	0.346
		1167.94		3.574E-01	3.637E+00	5.909E+00	3.280E-01	0.060
		1365.15		1.906E-01	1.658E+00	2.769E+00	1.741E-01	0.069
CS-135		268.24	*	2.118E-01	1.751E-01	2.953E-01	2.728E-02	0.717

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-135		288.45		1.093E+09	1.751E-01	Half-Life too short		
		417.63		1.357E+09	1.751E-01	Half-Life too short		
		546.56		-3.861E+07	1.751E-01	Half-Life too short		
		836.80		5.891E+08	1.751E-01	Half-Life too short		
		1038.76		7.937E+08	1.751E-01	Half-Life too short		
		1124.00		2.418E+09	1.751E-01	Half-Life too short		
		1131.51		-1.296E+08	1.751E-01	Half-Life too short		
		1260.41	*	-1.258E+08	1.751E-01	Half-Life too short		
		1457.56		5.111E+10	1.751E-01	Half-Life too short		
		1678.03		-3.485E+08	1.751E-01	Half-Life too short		
		1706.46		3.653E+08	1.751E-01	Half-Life too short		
		1791.20		-1.349E+08	1.751E-01	Half-Life too short		
CS-136		66.91		3.492E-01	4.630E-01	7.176E-01	1.128E-01	0.487
	+	86.29		4.273E+00	1.196E+00	1.608E+00	1.999E-01	2.657
		153.22		-5.785E-02	6.806E-01	1.089E+00	1.122E-01	-0.053
		163.89		-2.896E-01	1.112E+00	1.704E+00	1.564E-01	-0.170
		176.55		1.677E-01	3.688E-01	5.976E-01	5.025E-02	0.281
		273.65		3.958E-02	6.790E-01	7.184E-01	6.004E-02	0.055
		340.57		3.806E-01	1.630E-01	2.629E-01	1.902E-02	1.448
		818.51		-2.057E-02	9.632E-02	1.583E-01	1.254E-02	-0.130
		1048.07	*	9.016E-02	1.500E-01	2.547E-01	1.807E-02	0.354
		1235.34		1.286E+00	7.706E-01	1.391E+00	1.372E-01	0.925
BA-137M		661.65	*	3.153E-03	4.698E-02	7.668E-02	6.254E-03	0.041
CS-137		661.65	*	3.333E-03	4.966E-02	8.106E-02	6.625E-03	0.041
CE-139		165.85	*	-2.653E-02	3.204E-02	4.915E-02	3.854E-03	-0.540
BA-140		162.64		-2.634E-01	7.881E-01	1.205E+00	1.056E-01	-0.219
		304.84		-9.411E-02	1.390E+00	2.101E+00	5.817E-01	-0.045
		423.70		-2.565E-01	2.220E+00	3.516E+00	1.120E+00	-0.073
		537.32	*	-1.700E-01	3.048E-01	4.782E-01	1.569E-01	-0.355
LA-140	+	328.77		5.145E-01	5.027E-01	5.904E-01	4.543E-02	0.871
		432.53		1.091E+00	2.272E+00	3.924E+00	2.675E-01	0.278
		487.03		-1.036E-01	1.583E-01	2.538E-01	1.886E-02	-0.408
		751.79		-1.123E+00	2.361E+00	3.662E+00	3.324E-01	-0.307
		815.85		5.506E-01	4.066E-01	7.339E-01	6.601E-02	0.750
		867.82		-2.619E-01	2.069E+00	3.040E+00	2.493E-01	-0.086
		919.63		-2.099E+00	3.583E+00	5.334E+00	5.176E-01	-0.394
		925.24		1.367E-01	1.374E+00	2.284E+00	1.832E-01	0.060
		1596.49	*	-2.565E-02	8.174E-02	1.163E-01	6.700E-03	-0.221
CE-141		145.44	*	-1.755E-02	6.415E-02	1.022E-01	1.060E-02	-0.172
CE-143		57.37		-8.557E-05	6.415E-02	Half-Life too short		
		231.56		-4.400E-04	6.415E-02	Half-Life too short		
		293.26	*	3.488E-04	6.415E-02	Half-Life too short		
	+	350.59		1.455E-02	6.415E-02	Half-Life too short		
		490.36		-2.951E-04	6.415E-02	Half-Life too short		
		664.57		-5.003E-04	6.415E-02	Half-Life too short		
		721.93		7.939E-04	6.415E-02	Half-Life too short		
CE-144		80.11		-3.804E-01	2.131E+00	2.571E+00	2.140E-01	-0.148
		133.54	*	1.374E-01	2.371E-01	3.517E-01	6.095E-02	0.391
PM-144		476.78		5.881E-03	7.993E-02	1.342E-01	1.031E-02	0.044

---- Non-Identified Nuclides ----

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		618.01		6.364E-03	4.206E-02	6.763E-02	5.483E-03	0.094
		696.49	*	2.032E-02	4.715E-02	7.836E-02	6.400E-03	0.259
		778.57		-2.276E+00	2.818E+00	4.437E+00	3.570E-01	-0.513
PR-144		696.49	*	1.376E+00	3.193E+00	5.307E+00	4.333E-01	0.259
		1489.15		-6.722E+00	1.430E+01	2.193E+01	1.263E+00	-0.307
PM-146		453.90	*	4.536E-02	5.358E-02	9.367E-02	8.501E-03	0.484
		633.02		-1.817E+00	1.990E+00	2.808E+00	1.045E+00	-0.647
		735.90		2.039E-01	2.022E-01	3.358E-01	9.557E-02	0.607
		747.13		-6.388E-02	1.345E-01	2.085E-01	2.863E-02	-0.306
ND-147	+	91.11		7.306E-01	2.783E-01	5.116E-01	4.614E-02	1.428
		319.41		-1.830E+00	3.502E+00	5.563E+00	4.035E-01	-0.329
		439.89		3.835E+00	5.964E+00	1.040E+01	6.574E-01	0.369
		531.02	*	7.836E-01	6.830E-01	1.191E+00	1.686E-01	0.658
PM-149		285.90	*	1.350E+00	6.792E+01	1.121E+02	1.683E+01	0.012
EU-152		121.78		-1.577E-02	7.641E-02	1.236E-01	1.672E-02	-0.128
		244.69		4.522E-01	3.809E-01	5.972E-01	4.707E-02	0.757
		344.27	*	4.493E-02	1.295E-01	1.887E-01	1.415E-02	0.238
		443.98		-4.214E-01	1.104E+00	1.816E+00	1.155E-01	-0.232
		778.89		-3.044E-01	3.249E-01	5.056E-01	4.066E-02	-0.602
		867.32		7.851E-01	1.277E+00	1.938E+00	1.491E-01	0.405
		964.01		4.707E-01	4.377E-01	6.803E-01	4.892E-02	0.692
		1085.78		3.084E-01	5.166E-01	8.800E-01	5.562E-02	0.351
		1112.02		-4.358E-02	5.502E-01	7.563E-01	4.606E-02	-0.058
		1407.95		-4.834E-02	2.388E-01	3.849E-01	2.207E-02	-0.126
GD-153		69.67		-1.064E+00	1.168E+00	1.707E+00	1.526E-01	-0.623
	+	83.37		2.558E+01	1.679E+01	2.097E+01	1.707E+00	1.220
		97.43	*	-5.053E-02	8.298E-02	1.172E-01	1.066E-02	-0.431
		103.18		-8.222E-02	1.016E-01	1.621E-01	1.601E-02	-0.507
EU-154		123.07		-1.790E-02	5.372E-02	8.631E-02	1.258E-02	-0.207
		247.94		-4.074E-01	3.905E-01	6.159E-01	6.728E-02	-0.662
		591.81		-5.570E-01	8.175E-01	1.279E+00	1.404E-01	-0.435
		723.30		1.597E-01	2.500E-01	3.698E-01	3.366E-02	0.432
		756.87		-2.249E-01	1.097E+00	1.735E+00	2.013E-01	-0.130
		873.19		-1.675E-01	4.280E-01	6.899E-01	7.996E-02	-0.243
		996.32		4.169E-01	5.650E-01	8.531E-01	1.453E-01	0.489
		1004.76		-7.723E-02	3.253E-01	4.436E-01	4.637E-02	-0.174
		1274.45	*	9.735E-02	1.731E-01	2.991E-01	2.763E-02	0.326
EU-155		48.70		-1.396E-01	4.816E-01	7.365E-01	5.559E-02	-0.190
		60.01		6.343E-01	2.310E+00	3.570E+00	3.417E-01	0.178
	+	86.54		4.206E-01	1.108E-01	1.602E-01	1.291E-02	2.625
		105.31	*	1.240E-01	1.056E-01	1.798E-01	1.846E-02	0.689
TB-160	+	86.79		1.111E+00	2.923E-01	4.218E-01	3.355E-02	2.633
		197.04		1.417E-02	5.989E-01	9.850E-01	7.798E-02	0.014
		215.65		-1.031E-01	7.810E-01	1.308E+00	1.037E-01	-0.079
	+	298.57		1.469E-01	1.593E-01	2.138E-01	1.605E-02	0.687
		879.36	*	-6.966E-02	1.902E-01	3.069E-01	2.341E-02	-0.227
		962.29		3.707E-01	7.859E-01	1.161E+00	8.362E-02	0.319
		966.15		1.475E+00	3.545E-01	6.378E-01	4.578E-02	2.313
		1177.93		-2.736E-01	5.308E-01	8.229E-01	4.529E-02	-0.332

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		2.373E-03	9.922E-01	1.650E+00	9.286E-02	0.001
HO-166M		80.57		-8.941E-02	2.772E-01	3.312E-01	2.748E-02	-0.270
	+	184.41		1.274E-01	6.084E-02	7.627E-02	6.017E-03	1.670
		280.46		6.723E-02	9.958E-02	1.509E-01	1.159E-02	0.446
		410.95		2.427E-01	2.993E-01	5.009E-01	3.024E-02	0.485
		711.68	*	-3.160E-02	7.818E-02	1.223E-01	9.978E-03	-0.258
		752.31		-1.308E-01	3.984E-01	6.248E-01	5.063E-02	-0.209
		810.29		-8.213E-02	8.127E-02	1.259E-01	9.999E-03	-0.652
TM-171		51.35		-2.636E+00	7.304E+00	1.236E+01	9.952E-01	-0.213
		52.39		5.873E-02	4.363E+00	7.248E+00	5.977E-01	0.008
		59.40		1.399E+01	1.187E+01	1.887E+01	1.809E+00	0.741
		66.72	*	1.134E+01	1.767E+01	2.744E+01	2.504E+00	0.413
LU-176	+	88.36		8.286E-01	2.181E-01	3.074E-01	2.438E-02	2.696
		201.83		-5.080E-02	3.012E-02	4.718E-02	3.738E-03	-1.077
		306.84	*	1.177E-02	2.661E-02	4.462E-02	3.308E-03	0.264
		401.10		5.225E+00	7.858E+00	1.310E+01	7.779E-01	0.399
LU-177		112.95		1.503E-01	1.588E+00	2.557E+00	2.880E-01	0.059
	+	208.36	*	2.777E+00	1.410E+00	1.872E+00	1.484E-01	1.484
LU-177M		52.97		1.925E-01	4.648E-01	7.805E-01	6.523E-02	0.247
		54.07		2.102E-01	2.614E-01	4.427E-01	3.792E-02	0.475
		61.30		1.316E+00	7.639E-01	1.222E+00	1.159E-01	1.077
		121.62		-4.760E-02	3.907E-01	6.342E-01	7.975E-02	-0.075
		147.16		-7.344E-01	6.998E-01	1.072E+00	1.077E-01	-0.685
		171.86		-8.637E-02	5.130E-01	8.103E-01	6.362E-02	-0.107
		218.09		5.715E-01	9.011E-01	1.551E+00	1.230E-01	0.368
	+	268.79		2.357E+00	1.636E+00	1.541E+00	1.197E-01	1.529
		319.02		-2.334E-01	2.959E-01	4.629E-01	3.359E-02	-0.504
		367.43		-5.700E-01	1.080E+00	1.690E+00	1.084E-01	-0.337
		413.65	*	-3.091E-01	2.188E-01	3.179E-01	1.928E-02	-0.972
HF-181		56.28		-3.598E-01	3.128E-01	5.116E-01	4.598E-02	-0.703
		57.53		-5.745E-02	1.849E-01	3.118E-01	2.878E-02	-0.184
		65.20		-4.143E-01	5.586E-01	8.257E-01	7.616E-02	-0.502
		133.02		-3.208E-02	7.696E-02	1.087E-01	1.257E-02	-0.295
		136.25		2.957E-01	4.718E-01	7.810E-01	8.767E-02	0.379
		345.85		-1.420E-01	2.761E-01	3.480E-01	2.378E-02	-0.408
		482.03	*	4.181E-02	5.001E-02	8.738E-02	5.871E-03	0.478
W-181		56.28		-1.426E-01	1.241E-01	2.029E-01	1.824E-02	-0.703
		57.53		-2.289E-02	7.338E-02	1.237E-01	1.142E-02	-0.185
		65.20	*	-1.631E-01	2.199E-01	3.251E-01	2.999E-02	-0.502
TA-182		67.75		6.349E-02	6.804E-02	1.125E-01	1.019E-02	0.564
		100.10		1.160E-02	1.735E-01	2.794E-01	2.642E-02	0.042
		152.43		-2.693E-01	3.738E-01	5.815E-01	5.497E-02	-0.463
		222.10		-1.479E-01	3.647E-01	6.025E-01	4.777E-02	-0.245
	+	1001.68		5.887E+00	4.597E+00	5.075E+00	3.531E-01	1.160
	+	1121.28		1.181E+00	3.803E-01	4.303E-01	2.584E-02	2.745
		1189.05		-1.896E-01	4.429E-01	7.208E-01	3.979E-02	-0.263
		1221.42	*	-1.134E-01	2.845E-01	4.632E-01	2.578E-02	-0.245
		1230.97		-2.863E-01	6.878E-01	1.118E+00	6.237E-02	-0.256
RE-183		57.98		-1.174E-02	7.456E-02	1.263E-01	1.176E-02	-0.093

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		5.804E-02	4.813E-02	7.661E-02	7.333E-03	0.758
		67.20		1.246E-01	1.258E-01	1.970E-01	1.792E-02	0.632
		162.32	*	-4.855E-02	1.229E-01	1.876E-01	1.553E-02	-0.259
	+	208.81		2.801E+00	1.422E+00	1.888E+00	1.497E-01	1.484
		291.72		-5.239E-01	1.120E+00	1.564E+00	1.185E-01	-0.335
RE-184		57.98		-4.355E-02	2.767E-01	4.688E-01	4.366E-02	-0.093
		59.32		2.152E-01	1.785E-01	2.841E-01	2.719E-02	0.758
		67.20		4.622E-01	4.666E-01	7.309E-01	6.648E-02	0.632
		161.27		1.491E-01	3.710E-01	6.036E-01	5.073E-02	0.247
		216.55		1.302E-01	2.786E-01	4.771E-01	3.784E-02	0.273
		252.85	*	1.433E-01	2.428E-01	4.145E-01	3.254E-02	0.346
		318.01		1.079E-03	5.100E-01	8.341E-01	6.065E-02	0.001
		792.07		-1.158E+00	1.227E+00	1.911E+00	1.529E-01	-0.606
		903.28		8.541E-01	1.616E+00	2.416E+00	1.812E-01	0.353
		920.93		-2.318E-01	5.763E-01	9.200E-01	6.824E-02	-0.252
OS-185		59.72		3.587E-02	1.345E-01	2.079E-01	1.994E-02	0.173
		61.14		1.015E-01	8.064E-02	1.280E-01	1.215E-02	0.793
		69.30		-1.194E-01	2.041E-01	3.027E-01	2.713E-02	-0.395
		592.07		-2.416E+00	3.294E+00	5.141E+00	3.933E-01	-0.470
		646.12	*	-4.480E-03	5.314E-02	8.601E-02	6.923E-03	-0.052
		717.42		-2.613E-01	1.186E+00	1.881E+00	1.534E-01	-0.139
		874.81		2.420E-01	8.259E-01	1.396E+00	1.069E-01	0.173
		880.27		-4.542E-01	1.037E+00	1.662E+00	1.267E-01	-0.273
RE-188		155.03	*	2.257E-01	1.830E-01	3.064E-01	2.804E-02	0.736
		477.96		-1.597E+00	3.709E+00	6.044E+00	4.038E-01	-0.264
		633.10		-3.590E+00	3.752E+00	5.617E+00	4.469E-01	-0.639
W-188	+	63.58		1.566E+02	4.977E+01	6.338E+01	5.913E+00	2.471
		227.08		-1.848E-01	1.375E+01	2.306E+01	1.827E+00	-0.008
		290.67	*	-6.155E+00	9.005E+00	1.237E+01	9.386E-01	-0.498
IR-192	+	295.96		9.066E-01	1.893E-01	2.771E-01	2.107E-02	3.272
		308.46		-1.808E-02	1.022E-01	1.659E-01	1.235E-02	-0.109
		316.51	*	2.249E-02	3.913E-02	6.582E-02	4.815E-03	0.342
		468.07		-1.127E-02	8.343E-02	1.201E-01	8.865E-03	-0.094
		604.41		-4.576E-02	6.656E-01	9.378E-01	1.168E-01	-0.049
		612.46		1.817E+00	1.097E+00	1.738E+00	1.599E-01	1.045
AU-195		65.12		-3.541E-02	1.027E-01	1.544E-01	1.425E-02	-0.229
		66.83		4.155E-02	5.857E-02	9.108E-02	8.305E-03	0.456
	+	75.70		1.064E+00	2.104E-01	3.401E-01	2.917E-02	3.128
		98.88	*	2.193E-01	2.185E-01	3.621E-01	3.365E-02	0.606
	+	129.76		6.599E+00	4.476E+00	5.338E+00	6.347E-01	1.236
TL-200		367.94	*	-1.684E-04	4.476E+00	Half-Life too short		
		579.30		2.054E-03	4.476E+00	Half-Life too short		
		828.27		3.771E-05	4.476E+00	Half-Life too short		
		1205.75		7.808E-05	4.476E+00	Half-Life too short		
TL-201		68.90		-2.783E-01	2.456E+00	3.711E+00	3.335E-01	-0.075
		70.82		-3.552E-01	1.449E+00	2.175E+00	1.929E-01	-0.163
		80.30		-8.745E-01	3.831E+00	4.606E+00	3.829E-01	-0.190
		135.34		3.714E+00	1.993E+01	3.252E+01	3.681E+00	0.114
		167.43	*	1.144E+00	5.626E+00	9.054E+00	7.096E-01	0.126

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		-3.089E-02	2.727E-01	4.119E-01	3.703E-02	-0.075
		70.82		-3.933E-02	1.605E-01	2.408E-01	2.136E-02	-0.163
		80.30		-9.685E-02	4.243E-01	5.102E-01	4.241E-02	-0.190
		439.56	*	4.593E-02	7.143E-02	1.245E-01	7.868E-03	0.369
HG-203		70.83		-1.801E-01	7.325E-01	1.099E+00	1.512E-01	-0.164
		72.87		9.315E-01	4.230E-01	7.195E-01	9.558E-02	1.295
	+	82.60		1.874E+00	1.246E+00	1.452E+00	1.957E-01	1.290
		279.20	*	5.386E-03	4.860E-02	7.101E-02	5.654E-03	0.076
BI-207		72.80		2.510E-01	1.220E-01	2.124E-01	1.859E-02	1.181
	+	74.97		5.928E-01	1.173E-01	1.689E-01	1.456E-02	3.510
	+	84.90		3.320E-01	2.179E-01	2.726E-01	2.196E-02	1.218
		569.67		1.430E-02	4.098E-02	6.687E-02	4.997E-03	0.214
		1063.62	*	3.065E-02	7.542E-02	1.264E-01	8.223E-03	0.242
		1770.23		-3.651E-02	6.833E-01	9.566E-01	5.429E-02	-0.038
TL-207		81.07		-5.554E-02	2.210E-01	2.652E-01	2.193E-02	-0.209
	+	83.78		2.189E-01	1.437E-01	1.817E-01	1.475E-02	1.205
		94.90		6.418E-01	2.277E-01	3.679E-01	3.226E-02	1.745
		122.32		-1.570E+00	1.850E+00	2.897E+00	3.785E-01	-0.542
		144.24		-1.968E-01	7.790E-01	1.232E+00	1.384E-01	-0.160
		154.21		1.765E-01	4.334E-01	7.063E-01	7.100E-02	0.250
	+	269.46		5.547E-01	3.853E-01	3.720E-01	2.960E-02	1.491
		323.87	*	3.211E-02	8.448E-01	1.211E+00	2.066E-01	0.027
	+	338.28		9.438E+00	2.363E+00	2.821E+00	3.164E-01	3.345
		445.03		2.316E-02	2.667E+00	4.487E+00	4.757E-01	0.005
PO-209		260.50		-7.131E-01	1.017E+01	1.684E+01	1.315E+00	-0.042
		262.80		-2.163E+01	3.107E+01	4.547E+01	3.547E+00	-0.476
		896.60	*	-2.622E+00	1.030E+01	1.672E+01	1.259E+00	-0.157
PB-211		404.84	*	-1.404E+00	1.431E+00	1.675E+00	1.045E+00	-0.838
		427.08		8.233E-01	2.627E+00	4.191E+00	2.592E+00	0.196
		831.96		-9.997E-02	1.601E+00	2.653E+00	1.660E+00	-0.038
BI-212	+	727.18	*	1.487E+00	5.912E-01	8.463E-01	8.124E-02	1.757
		785.46		2.284E+00	2.253E+00	4.005E+00	3.214E-01	0.570
		1620.62		4.462E-01	1.894E+00	2.962E+00	1.704E-01	0.151
PO-215		81.07		-5.554E-02	2.210E-01	2.652E-01	2.193E-02	-0.209
	+	83.78		2.189E-01	1.437E-01	1.817E-01	1.475E-02	1.205
		94.90		6.418E-01	2.277E-01	3.679E-01	3.226E-02	1.745
		122.32		-1.570E+00	1.850E+00	2.897E+00	3.785E-01	-0.542
		144.24		-1.968E-01	7.790E-01	1.232E+00	1.384E-01	-0.160
		154.21		1.765E-01	4.334E-01	7.063E-01	7.100E-02	0.250
	+	269.46		5.547E-01	3.853E-01	3.720E-01	2.960E-02	1.491
		323.87	*	3.211E-02	8.448E-01	1.211E+00	2.066E-01	0.027
	+	338.28		9.438E+00	2.363E+00	2.821E+00	3.164E-01	3.345
		445.03		2.316E-02	2.667E+00	4.487E+00	4.757E-01	0.005
RN-219	+	271.23		7.117E-01	4.958E-01	4.784E-01	4.590E-02	1.488
		401.81	*	2.080E-01	4.821E-01	7.920E-01	1.083E-01	0.263
RN-220		549.76	*	-9.469E+00	3.269E+01	5.300E+01	3.875E+00	-0.179
RA-223		81.07		-5.554E-02	2.210E-01	2.652E-01	2.193E-02	-0.209
	+	83.78		2.189E-01	1.437E-01	1.817E-01	1.475E-02	1.205
		94.90		6.418E-01	2.277E-01	3.679E-01	3.226E-02	1.745

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-1.570E+00	1.850E+00	2.897E+00	3.785E-01	-0.542
		144.24		-1.968E-01	7.790E-01	1.232E+00	1.384E-01	-0.160
		154.21		1.765E-01	4.334E-01	7.063E-01	7.100E-02	0.250
	+	269.46		5.547E-01	3.853E-01	3.720E-01	2.960E-02	1.491
		323.87	*	3.211E-02	8.448E-01	1.211E+00	2.066E-01	0.027
	+	338.28		9.438E+00	2.363E+00	2.821E+00	3.164E-01	3.345
		445.03		2.316E-02	2.667E+00	4.487E+00	4.757E-01	0.005
AC-227		79.80		-3.148E-01	1.660E+00	2.000E+00	4.280E-01	-0.157
		236.00		9.617E-01	3.150E-01	5.001E-01	5.877E-02	1.923
		256.20	*	2.758E-02	3.981E-01	6.641E-01	9.909E-02	0.042
		286.10		1.498E-01	1.680E+00	2.783E+00	3.500E-01	0.054
	+	299.80		1.894E+00	2.073E+00	2.938E+00	4.984E-01	0.644
		304.40		-9.661E-01	2.350E+00	3.272E+00	5.861E-01	-0.295
		334.20		2.429E-01	3.105E+00	4.144E+00	7.773E-01	0.059
TH-227		79.80		-3.148E-01	1.660E+00	2.000E+00	4.335E-01	-0.157
	+	94.00		1.837E+01	5.053E+00	4.078E+00	8.886E-01	4.506
		236.00		9.617E-01	3.110E-01	5.001E-01	5.266E-02	1.923
		256.20	*	2.758E-02	3.981E-01	6.641E-01	1.176E-01	0.042
		286.10		1.498E-01	1.687E+00	2.783E+00	2.791E+00	0.054
	+	299.80		1.894E+00	2.073E+00	2.938E+00	4.984E-01	0.644
		304.40		-9.661E-01	2.350E+00	3.272E+00	5.861E-01	-0.295
		334.20		2.429E-01	3.105E+00	4.144E+00	7.773E-01	0.059
TH-229	+	85.43		3.277E-01	2.151E-01	2.765E-01	2.220E-02	1.185
	+	88.47		3.133E-01	1.188E-01	1.762E-01	1.400E-02	1.778
		100.00		1.667E-02	1.815E-01	2.925E-01	2.762E-02	0.057
		193.63	*	7.092E-02	5.050E-01	8.611E-01	6.812E-02	0.082
		210.97		8.785E-01	8.775E-01	1.370E+00	1.087E-01	0.641
PA-231		283.67	*	-5.682E-01	1.665E+00	2.697E+00	3.953E-01	-0.211
	+	301.29		7.575E-01	8.238E-01	1.196E+00	1.372E-01	0.633
TH-231		81.07		-5.554E-02	2.210E-01	2.652E-01	2.193E-02	-0.209
	+	83.78		2.189E-01	1.437E-01	1.817E-01	1.475E-02	1.205
		94.90		6.418E-01	2.277E-01	3.679E-01	3.226E-02	1.745
		122.32		-1.570E+00	1.850E+00	2.897E+00	3.785E-01	-0.542
		144.24		-1.968E-01	7.790E-01	1.232E+00	1.384E-01	-0.160
		154.21		1.765E-01	4.334E-01	7.063E-01	7.100E-02	0.250
	+	269.46		5.547E-01	3.853E-01	3.720E-01	2.960E-02	1.491
		323.87	*	3.211E-02	8.448E-01	1.211E+00	2.066E-01	0.027
	+	338.28		9.438E+00	2.363E+00	2.821E+00	3.164E-01	3.345
		445.03		2.316E-02	2.667E+00	4.487E+00	4.757E-01	0.005
U-231	+	84.21		7.694E+00	5.049E+00	6.413E+00	5.191E-01	1.200
	+	92.29		1.481E+01	2.795E+00	3.990E+00	3.363E-01	3.712
		95.87	*	-2.005E-01	8.554E-01	1.254E+00	1.116E-01	-0.160
		108.00		-1.712E+00	1.694E+00	2.667E+00	2.814E-01	-0.642
PA-233	+	75.28		1.730E+01	4.067E+00	5.202E+00	7.978E-01	3.326
	+	86.59		6.839E+00	2.501E+00	2.604E+00	6.930E-01	2.627
	+	300.12		5.280E-01	5.759E-01	8.282E-01	1.180E-01	0.637
		311.98	*	2.430E-03	7.172E-02	1.177E-01	8.986E-03	0.021
		340.50		2.197E+00	9.840E-01	1.391E+00	3.237E-01	1.580
		398.62		-1.537E+00	2.623E+00	4.015E+00	1.039E+00	-0.383

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-6.638E-01	2.090E+00	3.185E+00	6.584E-01	-0.208
PA-234	+	63.00		4.598E+00	1.577E+00	1.880E+00	2.995E-01	2.446
		94.67		6.741E-01	1.842E-01	2.832E-01	3.536E-02	2.380
		98.44		8.349E-02	1.025E-01	1.458E-01	8.151E-02	0.572
		99.86		-1.013E-02	4.619E-01	7.418E-01	6.992E-02	-0.014
		111.00		2.121E-02	1.951E-01	3.213E-01	4.457E-02	0.066
		131.20		6.404E-02	1.235E-01	1.832E-01	2.152E-02	0.349
		152.70		-1.644E-01	3.606E-01	5.665E-01	9.894E-02	-0.290
	+	186.00		4.586E+00	2.587E+00	2.978E+00	9.238E-01	1.540
		226.40		8.995E-02	4.284E-01	7.246E-01	9.245E-02	0.124
		227.20		5.796E-02	4.678E-01	7.886E-01	6.248E-02	0.073
		248.90		-7.028E-01	8.882E-01	1.404E+00	3.107E-01	-0.501
	+	293.70		5.773E+00	1.483E+00	1.695E+00	2.847E-01	3.406
		369.80		-6.129E-01	1.027E+00	1.588E+00	3.334E-01	-0.386
		568.70		1.283E-01	1.371E+00	2.207E+00	1.647E-01	0.058
		569.50		1.121E-01	3.627E-01	5.905E-01	4.412E-02	0.190
		574.00		-1.113E+00	1.878E+00	2.969E+00	2.229E-01	-0.375
		699.00		-1.137E+00	1.049E+00	1.540E+00	2.907E-01	-0.738
		706.10		2.247E-01	1.421E+00	2.315E+00	1.030E+00	0.097
		733.00		-3.243E-02	5.779E-01	7.966E-01	1.753E-01	-0.041
		742.81		-1.226E-01	1.866E+00	2.982E+00	2.003E+00	-0.041
		796.30		8.882E-01	1.182E+00	2.032E+00	5.457E-01	0.437
		805.60		3.578E-01	1.369E+00	2.318E+00	7.064E-01	0.154
		819.60		-1.306E+00	1.814E+00	2.765E+00	1.047E+00	-0.472
		826.30		-3.184E-01	1.151E+00	1.867E+00	8.330E-01	-0.171
		831.60		-1.896E-01	8.395E-01	1.374E+00	4.071E-01	-0.138
		876.40		3.522E-01	1.206E+00	1.948E+00	2.001E+00	0.181
		880.51		-1.793E-01	3.774E-01	6.030E-01	4.596E-02	-0.297
		883.24		-3.786E-02	3.937E-01	6.463E-01	4.337E-01	-0.059
		899.00		-1.921E-01	1.206E+00	1.969E+00	8.566E-01	-0.098
		925.00		1.247E-03	1.533E+00	2.529E+00	1.871E-01	0.000
		926.50		5.048E-03	2.326E-01	3.843E-01	9.563E-02	0.013
		946.00	*	1.589E-01	4.177E-01	7.050E-01	1.283E-01	0.225
		949.00		2.263E-01	6.385E-01	1.050E+00	7.638E-02	0.216
		980.50		-4.574E-01	1.002E+00	1.544E+00	1.095E-01	-0.296
		1394.10		-5.666E-01	1.591E+00	2.452E+00	1.588E+00	-0.231
PA-234M		766.42		1.295E+01	1.736E+01	2.815E+01	1.426E+01	0.460
	+	1001.03	*	1.346E+01	1.054E+01	1.167E+01	9.999E-01	1.154
U-235	+	89.95		3.145E+00	1.514E+00	1.703E+00	5.232E-01	1.847
	+	93.35		5.716E+00	1.868E+00	1.515E+00	4.244E-01	3.773
		105.00		1.238E+00	1.094E+00	1.764E+00	5.348E-01	0.702
		143.76	*	2.426E-02	2.360E-01	3.784E-01	6.985E-02	0.064
		163.35		-4.220E-02	5.242E-01	8.105E-01	1.529E-01	-0.052
	+	185.71		1.698E-01	8.112E-02	1.105E-01	8.723E-03	1.537
		205.31		5.067E-01	6.164E-01	9.331E-01	1.752E-01	0.543
NP-236		94.67		5.158E-01	1.323E-01	2.152E-01	1.880E-02	2.397
		98.44		6.309E-02	6.927E-02	1.103E-01	1.018E-02	0.572
		111.00		1.605E-02	1.476E-01	2.430E-01	2.669E-02	0.066
		160.31	*	-6.220E-03	8.626E-02	1.376E-01	1.173E-02	-0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.374E-01	1.530E-01	2.528E-01	2.372E-02	0.543
		117.00	*	-1.599E-01	2.000E-01	3.157E-01	3.747E-02	-0.506
	+	209.75		2.237E+00	1.136E+00	1.507E+00	1.195E-01	1.484
		228.18		1.975E-02	2.413E-01	4.059E-01	3.216E-02	0.049
	+	277.60		3.010E-01	2.771E-01	3.328E-01	2.563E-02	0.904
		334.30		4.280E-03	1.754E+00	2.325E+00	1.634E-01	0.002
AM-241		59.54	*	7.842E-02	6.937E-02	1.101E-01	1.120E-02	0.712
CM-243		99.55		1.413E-01	1.574E-01	2.601E-01	2.440E-02	0.543
		103.76	*	1.707E-04	9.303E-02	1.533E-01	1.526E-02	0.001
		117.00		-1.644E-01	2.058E-01	3.248E-01	3.855E-02	-0.506
	+	209.75		2.205E+00	1.119E+00	1.485E+00	1.178E-01	1.484
		228.18		1.995E-02	2.438E-01	4.102E-01	3.249E-02	0.049
	+	277.60		3.035E-01	2.793E-01	3.355E-01	2.584E-02	0.904
AM-246		798.80		7.807E-03	1.808E-01	3.031E-01	2.420E-02	0.026
		1036.00		-1.114E-01	3.975E-01	6.336E-01	4.256E-02	-0.176
		1062.04		6.485E-02	3.372E-01	5.566E-01	3.627E-02	0.117
		1078.86	*	-3.737E-02	2.032E-01	3.256E-01	2.077E-02	-0.115
CM-247	+	278.00		1.248E+00	1.149E+00	1.379E+00	1.062E-01	0.905
		287.40		1.219E+00	1.340E+00	2.300E+00	1.752E-01	0.530
		402.60	*	-1.383E-02	4.403E-02	6.922E-02	4.122E-03	-0.200
CF-249		252.85		5.404E-01	9.156E-01	1.563E+00	1.227E-01	0.346
		333.44		6.040E-02	2.539E-01	3.117E-01	2.195E-02	0.194
		387.95	*	2.537E-02	5.123E-02	8.458E-02	5.023E-03	0.300
CF-251		176.60	*	7.366E-02	1.354E-01	2.202E-01	1.733E-02	0.334
		227.00		-8.488E-03	4.177E-01	7.001E-01	5.547E-02	-0.012
		285.00		-1.298E+00	1.948E+00	3.105E+00	2.372E-01	-0.418

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395010      *
* Acquisition date :  2-FEB-2010 09:15:16 Detector SN#     :               *
* Detector ID        : GAM13               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.84      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395010           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.3708E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-FEB-2009 10:41:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.605E+01	2.938E+00	5.886E-01	0.000E+00
CD-109	3.548E+00	9.151E-01	1.073E+00	0.000E+00
SN-126	3.494E-01	9.011E-02	1.056E-01	0.000E+00
TL-208	4.909E-01	1.093E-01	7.748E-02	0.000E+00
BI-210	1.442E+00	7.479E-01	8.400E-01	0.000E+00
PB-210	1.442E+00	7.479E-01	8.400E-01	0.000E+00
PO-210	1.442E+00	7.458E-01	8.400E-01	0.000E+00
BI-211	3.414E+00	5.587E-01	3.866E-01	0.000E+00
PB-212	1.703E+00	1.947E-01	1.038E-01	0.000E+00
PO-212	1.703E+00	1.947E-01	1.038E-01	0.000E+00
BI-214	1.279E+00	2.302E-01	1.422E-01	0.000E+00
PB-214	1.188E+00	2.036E-01	1.348E-01	0.000E+00
PO-214	1.188E+00	2.036E-01	1.348E-01	0.000E+00
PO-216	1.703E+00	1.947E-01	1.038E-01	0.000E+00
PO-218	1.188E+00	2.036E-01	1.348E-01	0.000E+00
RA-224	4.358E+00	1.300E+00	1.181E+00	0.000E+00
RA-226	1.279E+00	2.302E-01	1.422E-01	0.000E+00
AC-228	1.764E+00	4.292E-01	3.175E-01	0.000E+00
RA-228	1.764E+00	4.292E-01	3.175E-01	0.000E+00
TH-228	1.726E+00	1.975E-01	1.052E-01	0.000E+00
TH-230	1.279E+00	2.302E-01	1.422E-01	0.000E+00
TH-232	1.764E+00	4.292E-01	3.175E-01	0.000E+00
TH-234	3.945E+00	1.372E+00	1.148E+00	0.000E+00
U-234	1.279E+00	2.302E-01	1.422E-01	0.000E+00
NP-237	1.026E+00	3.362E-01	3.091E-01	0.000E+00
U-238	3.945E+00	1.372E+00	1.148E+00	0.000E+00
AM-243	3.303E-01	6.403E-02	6.659E-02	0.000E+00
ANH-511	1.440E-01	7.392E-02	6.095E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	6.191E-02	3.672E-01	6.482E-01	0.000E+00	NOT IDENT.
NA-22	3.354E-02	6.054E-02	1.073E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.469E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.592E-02	3.693E-02	6.892E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.224E-02	6.019E-02	0.000E+00	FAIL ABUN
SC-46	-3.545E-03	5.290E-02	9.009E-02	0.000E+00	FAIL ABUN
V-48	7.287E-02	8.593E-02	1.546E-01	0.000E+00	NOT IDENT.
CR-51	-2.925E-01	4.042E-01	6.690E-01	0.000E+00	NOT IDENT.
MN-52	-3.410E-01	2.667E-01	3.825E-01	0.000E+00	NOT IDENT.
MN-54	-5.100E-02	4.981E-02	7.982E-02	0.000E+00	NOT IDENT.
CO-56	1.557E-02	5.205E-02	9.129E-02	0.000E+00	NOT IDENT.
CO-57	-2.743E-02	2.649E-02	4.413E-02	0.000E+00	NOT IDENT.
CO-58	-5.941E-02	5.241E-02	8.334E-02	0.000E+00	NOT IDENT.
FE-59	-2.103E-01	1.273E-01	1.835E-01	0.000E+00	NOT IDENT.
CO-60	-3.053E-02	5.607E-02	9.078E-02	0.000E+00	NOT IDENT.
ZN-65	-6.873E-02	1.503E-01	2.041E-01	0.000E+00	NOT IDENT.
GE-68	1.895E+00	1.691E+00	3.059E+00	0.000E+00	NOT IDENT.
AS-73	1.990E-01	2.397E-01	4.424E-01	0.000E+00	NOT IDENT.
AS-74	4.581E-02	1.102E-01	1.931E-01	0.000E+00	NOT IDENT.
SE-75	1.291E-02	5.002E-02	7.844E-02	0.000E+00	NOT IDENT.
BR-77	-6.293E+00	8.830E+00	1.462E+01	0.000E+00	FAIL ABUN
SR-82	-5.653E-01	4.544E-01	7.166E-01	0.000E+00	NOT IDENT.
RB-83	-6.279E-02	8.285E-02	1.368E-01	0.000E+00	NOT IDENT.
RB-84	-8.929E-02	9.333E-02	1.485E-01	0.000E+00	NOT IDENT.
KR-85	1.119E+01	1.037E+01	1.679E+01	0.000E+00	NOT IDENT.
SR-85	5.662E-02	5.248E-02	8.497E-02	0.000E+00	NOT IDENT.
RB-86	1.449E+00	1.026E+00	1.889E+00	0.000E+00	NOT IDENT.
Y-88	3.603E-02	4.100E-02	7.588E-02	0.000E+00	NOT IDENT.
ZR-88	-3.133E-02	3.761E-02	6.036E-02	0.000E+00	NOT IDENT.
Y-91	4.933E+00	2.409E+01	4.192E+01	0.000E+00	NOT IDENT.
NB-94	4.362E-02	4.580E-02	8.119E-02	0.000E+00	NOT IDENT.
NB-95	6.455E-02	5.742E-02	1.055E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.483E-01	2.503E-01	0.000E+00	NOT IDENT.
ZR-95	-6.874E-02	9.881E-02	1.560E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.980E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	7.652E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-3.801E+00	1.132E+01	1.840E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.347E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.519E-02	3.444E-02	6.107E-02	0.000E+00	NOT IDENT.
RH-102	-3.498E-03	3.446E-02	5.995E-02	0.000E+00	NOT IDENT.
RU-103	-1.821E-02	4.608E-02	7.821E-02	0.000E+00	FAIL ABUN
RH-106	-3.145E-01	4.140E-01	6.655E-01	0.000E+00	FAIL ABUN
RU-106	-3.145E-01	4.128E-01	6.655E-01	0.000E+00	FAIL ABUN
AG-108M	-1.317E-02	3.717E-02	6.434E-02	0.000E+00	NOT IDENT.
AG-110M	-1.034E-02	4.738E-02	7.895E-02	0.000E+00	NOT IDENT.
IN-111	3.998E-01	8.938E-01	1.427E+00	0.000E+00	NOT IDENT.
IN-113M	-3.380E-02	5.483E-02	8.925E-02	0.000E+00	NOT IDENT.
SN-113	-3.380E-02	5.483E-02	8.925E-02	0.000E+00	NOT IDENT.
IN-114M	-2.682E-02	2.123E-01	3.143E-01	0.000E+00	NOT IDENT.
CD-115	1.371E+00	9.296E+00	1.622E+01	0.000E+00	NOT IDENT.
SN-117M	9.316E-03	5.424E-02	9.342E-02	0.000E+00	NOT IDENT.
SB-122	4.188E-01	1.873E+00	3.261E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.285E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.711E-03	2.999E-02	5.140E-02	0.000E+00	NOT IDENT.
I-124	1.747E-02	7.974E-01	1.180E+00	0.000E+00	NOT IDENT.
SB-124	-4.819E-04	7.962E-02	1.312E-01	0.000E+00	FAIL ABUN
SB-125	1.745E-02	1.089E-01	1.941E-01	0.000E+00	FAIL ABUN
TE-125M	-9.196E+00	9.222E+00	1.559E+01	0.000E+00	NOT IDENT.
I-126	4.162E-02	2.129E-01	3.639E-01	0.000E+00	NOT IDENT.
SB-126	5.001E-02	1.961E-01	2.902E-01	0.000E+00	FAIL ABUN
SB-127	7.317E-01	1.490E+00	2.583E+00	0.000E+00	NOT IDENT.
XE-127	2.061E-02	4.750E-02	8.405E-02	0.000E+00	NOT IDENT.
I-131	6.803E-02	1.198E-01	2.100E-01	0.000E+00	NOT IDENT.
TE-132	2.478E-02	5.573E-01	9.929E-01	0.000E+00	NOT IDENT.
BA-133	-2.815E-02	5.716E-02	8.125E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.849E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.865E-02	5.841E-02	1.053E-01	0.000E+00	NOT IDENT.
CS-135	2.118E-01	1.716E-01	3.060E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.534E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.016E-02	1.470E-01	2.572E-01	0.000E+00	FAIL ABUN
BA-137M	3.153E-03	4.604E-02	7.811E-02	0.000E+00	NOT IDENT.
CS-137	3.333E-03	4.867E-02	8.257E-02	0.000E+00	NOT IDENT.
CE-139	-2.653E-02	3.140E-02	5.139E-02	0.000E+00	NOT IDENT.
BA-140	-1.700E-01	2.987E-01	4.891E-01	0.000E+00	NOT IDENT.
LA-140	-2.565E-02	8.011E-02	1.164E-01	0.000E+00	FAIL ABUN
CE-141	-1.755E-02	6.287E-02	1.071E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.207E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	1.374E-01	2.323E-01	3.691E-01	0.000E+00	NOT IDENT.
PM-144	2.032E-02	4.621E-02	7.974E-02	0.000E+00	NOT IDENT.
PR-144	1.376E+00	3.129E+00	5.400E+00	0.000E+00	NOT IDENT.
PM-146	4.536E-02	5.251E-02	9.610E-02	0.000E+00	NOT IDENT.
ND-147	7.836E-01	6.693E-01	1.218E+00	0.000E+00	FAIL ABUN
PM-149	1.350E+00	6.656E+01	1.160E+02	0.000E+00	NOT IDENT.
EU-152	4.493E-02	1.269E-01	1.947E-01	0.000E+00	NOT IDENT.
GD-153	-5.053E-02	8.132E-02	1.237E-01	0.000E+00	FAIL ABUN
EU-154	9.735E-02	1.696E-01	3.008E-01	0.000E+00	NOT IDENT.
EU-155	1.240E-01	1.035E-01	1.896E-01	0.000E+00	FAIL ABUN
TB-160	-6.966E-02	1.864E-01	3.109E-01	0.000E+00	FAIL ABUN
HO-166M	-3.160E-02	7.662E-02	1.244E-01	0.000E+00	FAIL ABUN
TM-171	1.134E+01	1.732E+01	2.916E+01	0.000E+00	NOT IDENT.
LU-176	1.177E-02	2.607E-02	4.613E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.382E+00	1.949E+00	0.000E+00	FAIL ABUN
LU-177M	-3.091E-01	2.144E-01	3.268E-01	0.000E+00	FAIL ABUN
HF-181	4.181E-02	4.901E-02	8.955E-02	0.000E+00	NOT IDENT.
W-181	-1.631E-01	2.155E-01	3.457E-01	0.000E+00	NOT IDENT.
TA-182	-1.134E-01	2.788E-01	4.662E-01	0.000E+00	FAIL ABUN
RE-183	-4.855E-02	1.204E-01	1.962E-01	0.000E+00	FAIL ABUN
RE-184	1.433E-01	2.379E-01	4.300E-01	0.000E+00	NOT IDENT.
OS-185	-4.480E-03	5.207E-02	8.765E-02	0.000E+00	NOT IDENT.
RE-188	2.257E-01	1.793E-01	3.208E-01	0.000E+00	NOT IDENT.
W-188	-6.155E+00	8.824E+00	1.280E+01	0.000E+00	FAIL ABUN
IR-192	2.249E-02	3.835E-02	6.800E-02	0.000E+00	FAIL ABUN
AU-195	2.193E-01	2.141E-01	3.822E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.415E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.144E+00	5.514E+00	9.465E+00	0.000E+00	NOT IDENT.
TL-202	4.593E-02	7.000E-02	1.278E-01	0.000E+00	NOT IDENT.
HG-203	5.386E-03	4.763E-02	7.353E-02	0.000E+00	FAIL ABUN
BI-207	3.065E-02	7.391E-02	1.276E-01	0.000E+00	FAIL ABUN
TL-207	3.211E-02	8.279E-01	1.251E+00	0.000E+00	FAIL ABUN
PO-209	-2.622E+00	1.009E+01	1.693E+01	0.000E+00	NOT IDENT.
PB-211	-1.404E+00	1.403E+00	1.723E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.794E-01	8.605E-01	0.000E+00	FAIL ABUN
PO-215	3.211E-02	8.279E-01	1.251E+00	0.000E+00	FAIL ABUN
RN-219	2.080E-01	4.724E-01	8.145E-01	0.000E+00	FAIL ABUN
RN-220	-9.469E+00	3.204E+01	5.418E+01	0.000E+00	NOT IDENT.
RA-223	3.211E-02	8.279E-01	1.251E+00	0.000E+00	FAIL ABUN
AC-227	2.758E-02	3.902E-01	6.888E-01	0.000E+00	FAIL ABUN
TH-227	2.758E-02	3.902E-01	6.888E-01	0.000E+00	FAIL ABUN
TH-229	7.092E-02	4.949E-01	8.978E-01	0.000E+00	FAIL ABUN
PA-231	-5.682E-01	1.631E+00	2.792E+00	0.000E+00	FAIL ABUN
TH-231	3.211E-02	8.279E-01	1.251E+00	0.000E+00	FAIL ABUN
U-231	-2.005E-01	8.383E-01	1.325E+00	0.000E+00	FAIL ABUN
PA-233	2.430E-03	7.028E-02	1.216E-01	0.000E+00	FAIL ABUN
PA-234	1.589E-01	4.094E-01	7.131E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	1.033E+01	1.179E+01	0.000E+00	FAIL ABUN
U-235	2.426E-02	2.313E-01	3.966E-01	0.000E+00	FAIL ABUN
NP-236	-6.220E-03	8.453E-02	1.440E-01	0.000E+00	NOT IDENT.
NP-239	-1.599E-01	1.960E-01	3.322E-01	0.000E+00	FAIL ABUN
AM-241	7.842E-02	6.799E-02	1.173E-01	0.000E+00	NOT IDENT.
CM-243	1.707E-04	9.117E-02	1.617E-01	0.000E+00	FAIL ABUN
AM-246	-3.737E-02	1.991E-01	3.285E-01	0.000E+00	NOT IDENT.
CM-247	-1.383E-02	4.315E-02	7.118E-02	0.000E+00	FAIL ABUN
CF-249	2.537E-02	5.021E-02	8.704E-02	0.000E+00	NOT IDENT.
CF-251	7.366E-02	1.327E-01	2.300E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:17:17.55

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395010.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:15:16.
Sample ID         : G245395010           Sample quantity  : 1.37080E+02 GRAM
Detector name     : GAM13                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.84  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1462	10.67*	1.041E+00	3.605E+01	3.605E+01	8.32
CD-109	88.03	342	3.72*	7.249E+00	3.475E+00	3.548E+00	26.32
SN-126	64.28	405	9.60	7.391E+00	1.561E+00	1.561E+00	34.15
	86.94	342	8.90	7.249E+00	1.452E+00	1.452E+00	48.26
	87.57	342	37.00*	7.249E+00	3.494E-01	3.494E-01	26.32
TL-208	277.35	66	6.80	4.227E+00	6.242E-01	6.242E-01	92.47
	510.84	133	21.60	2.536E+00	6.666E-01	6.666E-01	53.04
	583.14	341	84.20*	2.257E+00	4.909E-01	4.909E-01	22.72
	860.37	73	12.46	1.605E+00	9.932E-01	9.932E-01	57.83
BI-210	46.50	155	4.05*	7.295E+00	1.440E+00	1.442E+00	52.92
PB-210	46.50	155	4.05*	7.295E+00	1.440E+00	1.442E+00	52.92
PO-210	46.50	155	4.05*	7.295E+00	1.440E+00	1.442E+00	52.77
BI-211	72.87	------	1.27	7.369E+00	------	Line Not Found	------
	351.07	564	12.94*	3.497E+00	3.414E+00	3.414E+00	16.70
PB-212	74.81	586	10.70	7.359E+00	2.037E+00	2.037E+00	21.88
	77.11	947	18.00	7.344E+00	1.963E+00	1.963E+00	14.72
	87.30	342	8.00	7.249E+00	1.616E+00	1.616E+00	28.16
	238.63	1307	44.60*	4.715E+00	1.703E+00	1.703E+00	11.67
	300.09	51	3.41	3.978E+00	1.022E+00	1.022E+00	108.56
PO-212	74.81	586	10.70	7.359E+00	2.037E+00	2.037E+00	21.88
	77.11	947	18.00	7.344E+00	1.963E+00	1.963E+00	14.72
	87.30	342	8.00	7.249E+00	1.616E+00	1.616E+00	28.16
	115.19	------	0.60	6.822E+00	------	Line Not Found	------
	238.63	1307	44.60*	4.715E+00	1.703E+00	1.703E+00	11.67
	300.09	51	3.41	3.978E+00	1.022E+00	1.022E+00	108.56
BI-214	609.31	469	46.30*	2.170E+00	1.279E+00	1.279E+00	18.37
	1120.29	179	15.10	1.287E+00	2.517E+00	2.517E+00	32.87
	1764.49	60	15.80	8.985E-01	1.153E+00	1.153E+00	55.84
PB-214	74.81	586	6.21	7.359E+00	3.510E+00	3.510E+00	21.12
	77.11	947	10.50	7.344E+00	3.364E+00	3.365E+00	16.57
	87.30	342	4.67	7.249E+00	2.768E+00	2.768E+00	27.43
	241.98	294	7.49	4.674E+00	2.298E+00	2.298E+00	30.96

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	340	19.20	4.029E+00	1.203E+00	1.203E+00	21.77
	351.92	564	37.20*	3.497E+00	1.188E+00	1.188E+00	17.49
PO-214	74.81	586	6.21	7.359E+00	3.510E+00	3.510E+00	21.12
	77.11	947	10.50	7.344E+00	3.364E+00	3.365E+00	16.57
	87.30	342	4.67	7.249E+00	2.768E+00	2.768E+00	27.43
	241.98	294	7.49	4.674E+00	2.298E+00	2.298E+00	30.96
	295.21	340	19.20	4.029E+00	1.203E+00	1.203E+00	21.77
	351.92	564	37.20*	3.497E+00	1.188E+00	1.188E+00	17.49
PO-216	74.81	586	10.70	7.359E+00	2.037E+00	2.037E+00	21.88
	77.11	947	18.00	7.344E+00	1.963E+00	1.963E+00	14.72
	87.30	342	8.00	7.249E+00	1.616E+00	1.616E+00	28.16
	238.63	1307	44.60*	4.715E+00	1.703E+00	1.703E+00	11.67
	300.09	51	3.41	3.978E+00	1.022E+00	1.022E+00	108.56
PO-218	74.81	586	6.21	7.359E+00	3.510E+00	3.510E+00	21.12
	77.11	947	10.50	7.344E+00	3.364E+00	3.365E+00	16.57
	87.30	342	4.67	7.249E+00	2.768E+00	2.768E+00	27.43
	241.98	294	7.49	4.674E+00	2.298E+00	2.298E+00	30.96
	295.21	340	19.20	4.029E+00	1.203E+00	1.203E+00	21.77
	351.92	564	37.20*	3.497E+00	1.188E+00	1.188E+00	17.49
RA-224	240.98	294	3.95*	4.674E+00	4.358E+00	4.358E+00	30.45
RA-226	609.31	469	46.30*	2.170E+00	1.279E+00	1.279E+00	18.37
	1120.29	179	15.10	1.287E+00	2.517E+00	2.517E+00	32.87
	1764.49	60	15.80	8.985E-01	1.153E+00	1.153E+00	55.84
AC-228	338.32	340	11.40	3.611E+00	2.260E+00	2.260E+00	46.67
	911.07	273	27.70*	1.529E+00	1.764E+00	1.764E+00	24.83
	969.11	157	16.60	1.452E+00	1.785E+00	1.785E+00	42.95
RA-228	338.32	340	11.40	3.611E+00	2.260E+00	2.260E+00	46.67
	911.07	273	27.70*	1.529E+00	1.764E+00	1.764E+00	24.83
	969.11	157	16.60	1.452E+00	1.785E+00	1.785E+00	42.95
TH-228	74.81	586	10.70	7.359E+00	2.037E+00	2.066E+00	19.81
	77.11	947	18.00	7.344E+00	1.963E+00	1.990E+00	14.72
	87.30	342	8.00	7.249E+00	1.616E+00	1.638E+00	26.32
	238.63	1307	44.60*	4.715E+00	1.703E+00	1.726E+00	11.67
	300.09	51	3.41	3.978E+00	1.022E+00	1.036E+00	123.25
TH-230	609.31	469	46.30*	2.170E+00	1.279E+00	1.279E+00	18.37
	1120.29	179	15.10	1.287E+00	2.517E+00	2.517E+00	32.87
	1764.49	60	15.80	8.985E-01	1.153E+00	1.153E+00	55.84
TH-232	338.32	340	11.40	3.611E+00	2.260E+00	2.260E+00	23.44
	911.07	273	27.70*	1.529E+00	1.764E+00	1.764E+00	24.83
	969.11	157	16.60	1.452E+00	1.785E+00	1.785E+00	42.95
TH-234	63.29	405	3.80*	7.391E+00	3.945E+00	3.945E+00	35.49
	92.38	675	5.41	7.181E+00	4.755E+00	4.755E+00	24.68
U-234	609.31	469	46.30*	2.170E+00	1.279E+00	1.279E+00	18.37
	1120.29	179	15.10	1.287E+00	2.517E+00	2.517E+00	32.87
	1764.49	60	15.80	8.985E-01	1.153E+00	1.153E+00	55.84
NP-237	86.50	342	12.60*	7.249E+00	1.026E+00	1.026E+00	33.44
	95.87	------	2.60	7.135E+00	------ Line Not Found		------
U-238	63.29	405	3.80*	7.391E+00	3.945E+00	3.945E+00	35.49
	92.38	675	5.41	7.181E+00	4.755E+00	4.755E+00	18.87

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	586	66.00*	7.359E+00	3.303E-01	3.303E-01	19.78
	86.72	342	0.34	7.249E+00	3.847E+01	3.847E+01	26.32
	117.66	------	0.55	6.778E+00	------	Line Not Found	------
	142.18	------	0.13	6.323E+00	------	Line Not Found	------
ANH-511	511.00	133	100.00*	2.536E+00	1.440E-01	1.440E-01	52.38

Flag: "*" = Keyline

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

Total number of lines in spectrum 34
Number of unidentified lines 2
Number of lines tentatively identified by NID 32 94.12%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.605E+01	3.605E+01	0.300E+01	8.32	
CD-109	464.00D	1.02	3.475E+00	3.548E+00	0.934E+00	26.32	
SN-126	1.00E+05Y	1.00	3.494E-01	3.494E-01	0.919E-01	26.32	
TL-208	1.41E+10Y	1.00	4.909E-01	4.909E-01	1.115E-01	22.72	
BI-210	22.26Y	1.00	1.440E+00	1.442E+00	0.763E+00	52.92	
PB-210	22.26Y	1.00	1.440E+00	1.442E+00	0.763E+00	52.92	
PO-210	22.26Y	1.00	1.440E+00	1.442E+00	0.761E+00	52.77	
BI-211	7.04E+08Y	1.00	3.414E+00	3.414E+00	0.570E+00	16.70	
PB-212	1.41E+10Y	1.00	1.703E+00	1.703E+00	0.199E+00	11.67	
PO-212	1.41E+10Y	1.00	1.703E+00	1.703E+00	0.199E+00	11.67	
BI-214	1600.00Y	1.00	1.279E+00	1.279E+00	0.235E+00	18.37	
PB-214	1600.00Y	1.00	1.188E+00	1.188E+00	0.208E+00	17.49	
PO-214	1600.00Y	1.00	1.188E+00	1.188E+00	0.208E+00	17.49	
PO-216	1.41E+10Y	1.00	1.703E+00	1.703E+00	0.199E+00	11.67	
PO-218	1600.00Y	1.00	1.188E+00	1.188E+00	0.208E+00	17.49	
RA-224	1.41E+10Y	1.00	4.358E+00	4.358E+00	1.327E+00	30.45	
RA-226	1600.00Y	1.00	1.279E+00	1.279E+00	0.235E+00	18.37	
AC-228	1.41E+10Y	1.00	1.764E+00	1.764E+00	0.438E+00	24.83	
RA-228	1.41E+10Y	1.00	1.764E+00	1.764E+00	0.438E+00	24.83	
TH-228	1.91Y	1.01	1.703E+00	1.726E+00	0.201E+00	11.67	
TH-230	4.47E+09Y	1.00	1.279E+00	1.279E+00	0.235E+00	18.37	
TH-232	1.41E+10Y	1.00	1.764E+00	1.764E+00	0.438E+00	24.83	
TH-234	4.47E+09Y	1.00	3.945E+00	3.945E+00	1.400E+00	35.49	
U-234	4.47E+09Y	1.00	1.279E+00	1.279E+00	0.235E+00	18.37	
NP-237	2.14E+06Y	1.00	1.026E+00	1.026E+00	0.343E+00	33.44	
U-238	4.47E+09Y	1.00	3.945E+00	3.945E+00	1.400E+00	35.49	
AM-243	7380.00Y	1.00	3.303E-01	3.303E-01	0.653E-01	19.78	
ANH-511	1.00E+09Y	1.00	1.440E-01	1.440E-01	0.754E-01	52.38	
	Total Activity :		8.263E+01	8.273E+01			

Grand Total Activity : 8.263E+01 8.273E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	83.98	144	667	1.38	167.73	164	28	2.00E-02	65.1	7.28E+00	T
4	89.83	224	539	1.09	179.44	164	28	3.11E-02	37.1	7.22E+00	T
0	129.50	121	466	1.09	258.80	255	9	1.69E-02	66.8	6.56E+00	T
0	185.63	185	407	1.18	371.10	367	10	2.57E-02	47.1	5.53E+00	T
0	208.90	136	318	0.96	417.63	413	9	1.89E-02	50.1	5.15E+00	T
0	270.11	119	346	1.52	540.09	532	14	1.65E-02	69.0	4.31E+00	T
0	327.91	67	267	1.17	655.72	650	11	9.32E-03	97.4	3.70E+00	T
0	462.94	94	124	1.40	925.85	920	11	1.31E-02	50.2	2.77E+00	T
0	727.24	119	102	1.52	1454.64	1449	12	1.65E-02	38.6	1.86E+00	T
0	1002.17	58	88	1.46	2004.71	1997	16	8.10E-03	77.8	1.41E+00	T
0	1587.93	30	17	2.02	3176.78	3169	14	4.23E-03	69.3	9.75E-01	
0	1847.25	22	4	1.64	3695.70	3687	14	3.06E-03	56.1	8.67E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:17:22.95

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395010.CNF;1  *
* Acquisition date : 2-FEB-2010 09:15:16.  Detector SN#    :                *
* Detector ID      : GAM13                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.84         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 19-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245395010            Analyst initials: MXR1           *
* Batch Number     : 944966                Sample Quantity : 1.37080E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-FEB-2009 10:41:22.03MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.605E+01	2.998E+00	5.869E-01	3.588E-02	61.427
CD-109	3.548E+00	9.338E-01	1.015E+00	8.008E-02	3.496
SN-126	3.494E-01	9.195E-02	9.980E-02	7.894E-03	3.501
TL-208	4.909E-01	1.115E-01	7.588E-02	6.281E-03	6.470
BI-210	1.442E+00	7.632E-01	7.853E-01	6.401E-02	1.836
PB-210	1.442E+00	7.632E-01	7.853E-01	6.401E-02	1.836
PO-210	1.442E+00	7.610E-01	7.853E-01	5.599E-02	1.836
BI-211	3.414E+00	5.701E-01	3.749E-01	2.733E-02	9.106
PB-212	1.703E+00	1.987E-01	9.990E-02	9.076E-03	17.042
PO-212	1.703E+00	1.987E-01	9.990E-02	9.076E-03	17.042
BI-214	1.279E+00	2.349E-01	1.394E-01	1.303E-02	9.172
PB-214	1.188E+00	2.078E-01	1.307E-01	1.170E-02	9.084
PO-214	1.188E+00	2.078E-01	1.307E-01	1.170E-02	9.084
PO-216	1.703E+00	1.987E-01	9.990E-02	9.076E-03	17.042
PO-218	1.188E+00	2.078E-01	1.307E-01	1.170E-02	9.084
RA-224	4.358E+00	1.327E+00	1.137E+00	8.979E-02	3.831
RA-226	1.279E+00	2.349E-01	1.394E-01	1.303E-02	9.172
AC-228	1.764E+00	4.380E-01	3.137E-01	3.257E-02	5.624

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.764E+00	4.380E-01	3.137E-01	3.257E-02	5.624
TH-228	1.726E+00	2.015E-01	1.013E-01	9.202E-03	17.042
TH-230	1.279E+00	2.349E-01	1.394E-01	1.303E-02	9.172
TH-232	1.764E+00	4.380E-01	3.137E-01	3.257E-02	5.624
TH-234	3.945E+00	1.400E+00	1.079E+00	1.980E-01	3.655
U-234	1.279E+00	2.349E-01	1.394E-01	1.303E-02	9.172
NP-237	1.026E+00	3.431E-01	2.921E-01	6.462E-02	3.512
U-238	3.945E+00	1.400E+00	1.079E+00	1.980E-01	3.655
AM-243	3.303E-01	6.534E-02	6.278E-02	5.423E-03	5.261
ANH-511	1.440E-01	7.542E-02	5.953E-02	4.155E-03	2.419

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.191E-02		3.747E-01	6.324E-01	4.755E-02	0.098
NA-22	3.354E-02		6.177E-02	1.067E-01	6.022E-03	0.314
NA-24	7.595E-02		1.260E-01	Half-Life too short		
AL-26	2.592E-02		3.768E-02	6.902E-02	3.895E-03	0.376
TI-44	3.622E-01	+	5.330E-02	5.679E-02	4.783E-03	6.377
SC-46	-3.545E-03		5.398E-02	8.896E-02	6.736E-03	-0.040
V-48	7.287E-02		8.769E-02	1.529E-01	1.082E-02	0.477
CR-51	-2.925E-01		4.124E-01	6.477E-01	5.041E-02	-0.452
MN-52	-3.410E-01		2.722E-01	3.812E-01	2.191E-02	-0.894
MN-54	-5.100E-02		5.082E-02	7.872E-02	6.177E-03	-0.648
CO-56	1.557E-02		5.311E-02	9.006E-02	7.019E-03	0.173
CO-57	-2.743E-02		2.703E-02	4.197E-02	5.309E-03	-0.654
CO-58	-5.941E-02		5.348E-02	8.214E-02	6.543E-03	-0.723
FE-59	-2.103E-01		1.299E-01	1.819E-01	1.300E-02	-1.156
CO-60	-3.053E-02		5.721E-02	9.035E-02	5.139E-03	-0.338
ZN-65	-6.873E-02		1.534E-01	2.024E-01	1.229E-02	-0.339
GE-68	1.895E+00		1.726E+00	3.032E+00	1.938E-01	0.625
AS-73	1.990E-01		2.446E-01	4.146E-01	3.502E-02	0.480
AS-74	4.581E-02		1.125E-01	1.892E-01	1.453E-02	0.242
SE-75	1.291E-02		5.104E-02	7.568E-02	5.928E-03	0.171
BR-77	-6.293E+00		9.010E+00	1.429E+01	1.009E+00	-0.440
SR-82	-5.653E-01		4.636E-01	7.057E-01	5.680E-02	-0.801
RB-83	-6.279E-02		8.454E-02	1.336E-01	9.436E-03	-0.470
RB-84	-8.929E-02		9.524E-02	1.466E-01	1.117E-02	-0.609
KR-85	1.119E+01		1.058E+01	1.640E+01	1.149E+00	0.682
SR-85	5.662E-02		5.355E-02	8.301E-02	5.815E-03	0.682
RB-86	1.449E+00		1.047E+00	1.872E+00	1.198E-01	0.774
Y-88	3.603E-02		4.184E-02	7.601E-02	4.280E-03	0.474
ZR-88	-3.133E-02		3.837E-02	5.867E-02	3.436E-03	-0.534
Y-91	4.933E+00		2.459E+01	4.164E+01	2.308E+00	0.118
NB-94	4.362E-02		4.674E-02	7.980E-02	6.514E-03	0.547
NB-95	6.455E-02		5.859E-02	1.039E-01	8.389E-03	0.621
NB-95M	2.836E-01		1.513E-01	2.409E-01	2.229E-02	1.177

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	-6.874E-02		1.008E-01	1.536E-01	1.385E-02	-0.448
NB-97	-1.619E-02		2.031E-02	Half-Life too short		
ZR-97	4.090E-01		3.904E-01	Half-Life too short		
MO-99	-3.801E+00		1.155E+01	1.810E+01	2.699E+00	-0.210
TC-99M	3.072E+08		6.871E+08	Half-Life too short		
RH-101	1.519E-02		3.514E-02	5.860E-02	4.640E-03	0.259
RH-102	-3.498E-03		3.517E-02	5.848E-02	3.891E-03	-0.060
RU-103	-1.821E-02		4.702E-02	7.636E-02	1.005E-02	-0.238
RH-106	-3.145E-01		4.224E-01	6.525E-01	8.411E-02	-0.482
RU-106	-3.145E-01		4.212E-01	6.525E-01	5.139E-02	-0.482
AG-108M	-1.317E-02		3.793E-02	6.265E-02	4.215E-03	-0.210
AG-110M	-1.034E-02		4.834E-02	7.750E-02	6.511E-03	-0.133
IN-111	3.998E-01		9.121E-01	1.375E+00	1.083E-01	0.291
IN-113M	-3.380E-02		5.595E-02	8.675E-02	5.405E-03	-0.390
SN-113	-3.380E-02		5.595E-02	8.675E-02	5.405E-03	-0.390
IN-114M	-2.682E-02		2.166E-01	3.014E-01	2.382E-02	-0.089
CD-115	1.371E+00		9.485E+00	1.586E+01	1.130E+00	0.086
SN-117M	9.316E-03		5.535E-02	8.927E-02	7.796E-03	0.104
SB-122	4.188E-01		1.911E+00	3.192E+00	2.371E-01	0.131
I-123	7.331E-02		6.555E-01	Half-Life too short		
TE-123M	1.711E-03		3.061E-02	4.912E-02	4.289E-03	0.035
I-124	1.747E-02		8.136E-01	1.156E+00	8.938E-02	0.015
SB-124	-4.819E-04		8.124E-02	1.312E-01	8.171E-03	-0.004
SB-125	1.745E-02		1.111E-01	1.889E-01	1.216E-02	0.092
TE-125M	-9.196E+00		9.410E+00	1.480E+01	1.798E+00	-0.621
I-126	4.162E-02		2.172E-01	3.573E-01	2.916E-02	0.116
SB-126	5.001E-02		2.001E-01	2.854E-01	2.326E-02	0.175
SB-127	7.317E-01		1.520E+00	2.538E+00	2.711E-01	0.288
XE-127	2.061E-02		4.847E-02	8.069E-02	6.395E-03	0.255
I-131	6.803E-02		1.223E-01	2.038E-01	1.442E-02	0.334
TE-132	2.478E-02		5.687E-01	9.553E-01	1.444E-01	0.026
BA-133	-2.815E-02		5.832E-02	7.882E-02	9.463E-03	-0.357
I-133	2.756E-03		1.454E-03	Half-Life too short		
CS-134	3.865E-02		5.960E-02	1.037E-01	8.359E-03	0.373
CS-135	2.118E-01		1.751E-01	2.953E-01	2.728E-02	0.717
I-135	-1.258E+08		1.803E+08	Half-Life too short		
CS-136	9.016E-02		1.500E-01	2.547E-01	1.807E-02	0.354
BA-137M	3.153E-03		4.698E-02	7.668E-02	6.254E-03	0.041
CS-137	3.333E-03		4.966E-02	8.106E-02	6.625E-03	0.041
CE-139	-2.653E-02		3.204E-02	4.915E-02	3.854E-03	-0.540
BA-140	-1.700E-01		3.048E-01	4.782E-01	1.569E-01	-0.355
LA-140	-2.565E-02		8.174E-02	1.163E-01	6.700E-03	-0.221
CE-141	-1.755E-02		6.415E-02	1.022E-01	1.060E-02	-0.172
CE-143	3.488E-04		6.158E-05	Half-Life too short		
CE-144	1.374E-01		2.371E-01	3.517E-01	6.095E-02	0.391
PM-144	2.032E-02		4.715E-02	7.836E-02	6.400E-03	0.259
PR-144	1.376E+00		3.193E+00	5.307E+00	4.333E-01	0.259
PM-146	4.536E-02		5.358E-02	9.367E-02	8.501E-03	0.484

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	7.836E-01		6.830E-01	1.191E+00	1.686E-01	0.658
PM-149	1.350E+00		6.792E+01	1.121E+02	1.683E+01	0.012
EU-152	4.493E-02		1.295E-01	1.887E-01	1.415E-02	0.238
GD-153	-5.053E-02		8.298E-02	1.172E-01	1.066E-02	-0.431
EU-154	9.735E-02		1.731E-01	2.991E-01	2.763E-02	0.326
EU-155	1.240E-01		1.056E-01	1.798E-01	1.846E-02	0.689
TB-160	-6.966E-02		1.902E-01	3.069E-01	2.341E-02	-0.227
HO-166M	-3.160E-02		7.818E-02	1.223E-01	9.978E-03	-0.258
TM-171	1.134E+01		1.767E+01	2.744E+01	2.504E+00	0.413
LU-176	1.177E-02		2.661E-02	4.462E-02	3.308E-03	0.264
LU-177	2.777E+00	+	1.410E+00	1.872E+00	1.484E-01	1.484
LU-177M	-3.091E-01		2.188E-01	3.179E-01	1.928E-02	-0.972
HF-181	4.181E-02		5.001E-02	8.738E-02	5.871E-03	0.478
W-181	-1.631E-01		2.199E-01	3.251E-01	2.999E-02	-0.502
TA-182	-1.134E-01		2.845E-01	4.632E-01	2.578E-02	-0.245
RE-183	-4.855E-02		1.229E-01	1.876E-01	1.553E-02	-0.259
RE-184	1.433E-01		2.428E-01	4.145E-01	3.254E-02	0.346
OS-185	-4.480E-03		5.314E-02	8.601E-02	6.923E-03	-0.052
RE-188	2.257E-01		1.830E-01	3.064E-01	2.804E-02	0.736
W-188	-6.155E+00		9.005E+00	1.237E+01	9.386E-01	-0.498
IR-192	2.249E-02		3.913E-02	6.582E-02	4.815E-03	0.342
AU-195	2.193E-01		2.185E-01	3.621E-01	3.365E-02	0.606
TL-200	-1.684E-04		1.232E-04	Half-Life too short		
TL-201	1.144E+00		5.626E+00	9.054E+00	7.096E-01	0.126
TL-202	4.593E-02		7.143E-02	1.245E-01	7.868E-03	0.369
HG-203	5.386E-03		4.860E-02	7.101E-02	5.654E-03	0.076
BI-207	3.065E-02		7.542E-02	1.264E-01	8.223E-03	0.242
TL-207	3.211E-02		8.448E-01	1.211E+00	2.066E-01	0.027
PO-209	-2.622E+00		1.030E+01	1.672E+01	1.259E+00	-0.157
PB-211	-1.404E+00		1.431E+00	1.675E+00	1.045E+00	-0.838
BI-212	1.487E+00	+	5.912E-01	8.463E-01	8.124E-02	1.757
PO-215	3.211E-02		8.448E-01	1.211E+00	2.066E-01	0.027
RN-219	2.080E-01		4.821E-01	7.920E-01	1.083E-01	0.263
RN-220	-9.469E+00		3.269E+01	5.300E+01	3.875E+00	-0.179
RA-223	3.211E-02		8.448E-01	1.211E+00	2.066E-01	0.027
AC-227	2.758E-02		3.981E-01	6.641E-01	9.909E-02	0.042
TH-227	2.758E-02		3.981E-01	6.641E-01	1.176E-01	0.042
TH-229	7.092E-02		5.050E-01	8.611E-01	6.812E-02	0.082
PA-231	-5.682E-01		1.665E+00	2.697E+00	3.953E-01	-0.211
TH-231	3.211E-02		8.448E-01	1.211E+00	2.066E-01	0.027
U-231	-2.005E-01		8.554E-01	1.254E+00	1.116E-01	-0.160
PA-233	2.430E-03		7.172E-02	1.177E-01	8.986E-03	0.021
PA-234	1.589E-01		4.177E-01	7.050E-01	1.283E-01	0.225
PA-234M	1.346E+01	+	1.054E+01	1.167E+01	9.999E-01	1.154
U-235	2.426E-02		2.360E-01	3.784E-01	6.985E-02	0.064
NP-236	-6.220E-03		8.626E-02	1.376E-01	1.173E-02	-0.045
NP-239	-1.599E-01		2.000E-01	3.157E-01	3.747E-02	-0.506
AM-241	7.842E-02		6.937E-02	1.101E-01	1.120E-02	0.712

Sample ID : G245395010 Acquisition date : 2-FEB-2010 09:15:16

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.707E-04		9.303E-02	1.533E-01	1.526E-02	0.001
AM-246	-3.737E-02		2.032E-01	3.256E-01	2.077E-02	-0.115
CM-247	-1.383E-02		4.403E-02	6.922E-02	4.122E-03	-0.200
CF-249	2.537E-02		5.123E-02	8.458E-02	5.023E-03	0.300
CF-251	7.366E-02		1.354E-01	2.202E-01	1.733E-02	0.334

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395010            *
* Acquisition date :  2-FEB-2010 09:15:16 Detector SN#     :               *
* Detector ID      : GAM13                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.84     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 19-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245395010           Analyst initials: MXR1            *
* Batch Number     : 944966               Sample Quantity : 1.3708E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-FEB-2009 10:41:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.605E+01	2.938E+00	2.945E-01	1.499E+00
CD-109	3.548E+00	9.151E-01	5.370E-01	4.669E-01
SN-126	3.494E-01	9.011E-02	5.281E-02	4.597E-02
TL-208	4.909E-01	1.093E-01	3.876E-02	5.576E-02
BI-210	1.442E+00	7.479E-01	4.203E-01	3.816E-01
PB-210	1.442E+00	7.479E-01	4.203E-01	3.816E-01
PO-210	1.442E+00	7.458E-01	4.203E-01	3.805E-01
BI-211	3.414E+00	5.587E-01	1.934E-01	2.850E-01
PB-212	1.703E+00	1.947E-01	5.191E-02	9.936E-02
PO-212	1.703E+00	1.947E-01	5.191E-02	9.936E-02
BI-214	1.279E+00	2.302E-01	7.115E-02	1.175E-01
PB-214	1.188E+00	2.036E-01	6.744E-02	1.039E-01
PO-214	1.188E+00	2.036E-01	6.744E-02	1.039E-01
PO-216	1.703E+00	1.947E-01	5.191E-02	9.936E-02
PO-218	1.188E+00	2.036E-01	6.744E-02	1.039E-01
RA-224	4.358E+00	1.300E+00	5.909E-01	6.635E-01
RA-226	1.279E+00	2.302E-01	7.115E-02	1.175E-01
AC-228	1.764E+00	4.292E-01	1.589E-01	2.190E-01
RA-228	1.764E+00	4.292E-01	1.589E-01	2.190E-01
TH-228	1.726E+00	1.975E-01	5.263E-02	1.007E-01
TH-230	1.279E+00	2.302E-01	7.115E-02	1.175E-01
TH-232	1.764E+00	4.292E-01	1.589E-01	2.190E-01
TH-234	3.945E+00	1.372E+00	5.744E-01	6.999E-01
U-234	1.279E+00	2.302E-01	7.115E-02	1.175E-01
NP-237	1.026E+00	3.362E-01	1.546E-01	1.715E-01
U-238	3.945E+00	1.372E+00	5.744E-01	6.999E-01
AM-243	3.303E-01	6.403E-02	3.332E-02	3.267E-02
ANH-511	1.440E-01	7.392E-02	3.049E-02	3.771E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	6.191E-02	3.672E-01	3.243E-01	1.874E-01	NOT IDENT.
NA-22	3.354E-02	6.054E-02	5.368E-02	3.089E-02	NOT IDENT.
NA-24	7.595E+04	2.469E+05	0.000E+00	1.260E+05	SHORT HLIF
AL-26	2.592E-02	3.693E-02	3.448E-02	1.884E-02	NOT IDENT.
TI-44	3.622E-01	5.224E-02	3.011E-02	2.665E-02	FAIL ABUN
SC-46	-3.545E-03	5.290E-02	4.507E-02	2.699E-02	FAIL ABUN
V-48	7.287E-02	8.593E-02	7.732E-02	4.384E-02	NOT IDENT.
CR-51	-2.925E-01	4.042E-01	3.347E-01	2.062E-01	NOT IDENT.
MN-52	-3.410E-01	2.667E-01	1.913E-01	1.361E-01	NOT IDENT.
MN-54	-5.100E-02	4.981E-02	3.994E-02	2.541E-02	NOT IDENT.
CO-56	1.557E-02	5.205E-02	4.567E-02	2.656E-02	NOT IDENT.
CO-57	-2.743E-02	2.649E-02	2.208E-02	1.351E-02	NOT IDENT.
CO-58	-5.941E-02	5.241E-02	4.170E-02	2.674E-02	NOT IDENT.
FE-59	-2.103E-01	1.273E-01	9.179E-02	6.494E-02	NOT IDENT.
CO-60	-3.053E-02	5.607E-02	4.542E-02	2.861E-02	NOT IDENT.
ZN-65	-6.873E-02	1.503E-01	1.021E-01	7.670E-02	NOT IDENT.
GE-68	1.895E+00	1.691E+00	1.530E+00	8.629E-01	NOT IDENT.
AS-73	1.990E-01	2.397E-01	2.213E-01	1.223E-01	NOT IDENT.
AS-74	4.581E-02	1.102E-01	9.660E-02	5.625E-02	NOT IDENT.
SE-75	1.291E-02	5.002E-02	3.924E-02	2.552E-02	NOT IDENT.
BR-77	-6.293E+00	8.830E+00	7.314E+00	4.505E+00	FAIL ABUN
SR-82	-5.653E-01	4.544E-01	3.585E-01	2.318E-01	NOT IDENT.
RB-83	-6.279E-02	8.285E-02	6.842E-02	4.227E-02	NOT IDENT.
RB-84	-8.929E-02	9.333E-02	7.431E-02	4.762E-02	NOT IDENT.
KR-85	1.119E+01	1.037E+01	8.399E+00	5.290E+00	NOT IDENT.
SR-85	5.662E-02	5.248E-02	4.251E-02	2.677E-02	NOT IDENT.
RB-86	1.449E+00	1.026E+00	9.451E-01	5.235E-01	NOT IDENT.
Y-88	3.603E-02	4.100E-02	3.796E-02	2.092E-02	NOT IDENT.
ZR-88	-3.133E-02	3.761E-02	3.020E-02	1.919E-02	NOT IDENT.
Y-91	4.933E+00	2.409E+01	2.097E+01	1.229E+01	NOT IDENT.
NB-94	4.362E-02	4.580E-02	4.062E-02	2.337E-02	NOT IDENT.
NB-95	6.455E-02	5.742E-02	5.279E-02	2.930E-02	NOT IDENT.
NB-95M	2.836E-01	1.483E-01	1.252E-01	7.566E-02	NOT IDENT.
ZR-95	-6.874E-02	9.881E-02	7.806E-02	5.041E-02	NOT IDENT.
NB-97	-1.619E+04	3.980E+04	0.000E+00	2.031E+04	SHORT HLIF
ZR-97	4.090E+05	7.652E+05	0.000E+00	3.904E+05	SHORT HLIF
MO-99	-3.801E+00	1.132E+01	9.206E+00	5.777E+00	NOT IDENT.
TC-99M	3.072E+14	1.347E+15	0.000E+00	6.871E+14	SHORT HLIF
RH-101	1.519E-02	3.444E-02	3.055E-02	1.757E-02	NOT IDENT.
RH-102	-3.498E-03	3.446E-02	2.999E-02	1.758E-02	NOT IDENT.
RU-103	-1.821E-02	4.608E-02	3.913E-02	2.351E-02	FAIL ABUN
RH-106	-3.145E-01	4.140E-01	3.329E-01	2.112E-01	FAIL ABUN
RU-106	-3.145E-01	4.128E-01	3.329E-01	2.106E-01	FAIL ABUN
AG-108M	-1.317E-02	3.717E-02	3.219E-02	1.896E-02	NOT IDENT.
AG-110M	-1.034E-02	4.738E-02	3.950E-02	2.417E-02	NOT IDENT.
IN-111	3.998E-01	8.938E-01	7.139E-01	4.560E-01	NOT IDENT.
IN-113M	-3.380E-02	5.483E-02	4.465E-02	2.797E-02	NOT IDENT.
SN-113	-3.380E-02	5.483E-02	4.465E-02	2.797E-02	NOT IDENT.
IN-114M	-2.682E-02	2.123E-01	1.572E-01	1.083E-01	NOT IDENT.
CD-115	1.371E+00	9.296E+00	8.116E+00	4.743E+00	NOT IDENT.
SN-117M	9.316E-03	5.424E-02	4.674E-02	2.768E-02	NOT IDENT.
SB-122	4.188E-01	1.873E+00	1.632E+00	9.555E-01	NOT IDENT.
I-123	7.331E+04	1.285E+06	0.000E+00	6.555E+05	SHORT HLIF
TE-123M	1.711E-03	2.999E-02	2.571E-02	1.530E-02	NOT IDENT.
I-124	1.747E-02	7.974E-01	5.902E-01	4.068E-01	NOT IDENT.
SB-124	-4.819E-04	7.962E-02	6.563E-02	4.062E-02	FAIL ABUN
SB-125	1.745E-02	1.089E-01	9.710E-02	5.557E-02	FAIL ABUN
TE-125M	-9.196E+00	9.222E+00	7.801E+00	4.705E+00	NOT IDENT.
I-126	4.162E-02	2.129E-01	1.821E-01	1.086E-01	NOT IDENT.
SB-126	5.001E-02	1.961E-01	1.452E-01	1.001E-01	FAIL ABUN
SB-127	7.317E-01	1.490E+00	1.292E+00	7.601E-01	NOT IDENT.
XE-127	2.061E-02	4.750E-02	4.205E-02	2.424E-02	NOT IDENT.
I-131	6.803E-02	1.198E-01	1.051E-01	6.114E-02	NOT IDENT.
TE-132	2.478E-02	5.573E-01	4.967E-01	2.843E-01	NOT IDENT.
BA-133	-2.815E-02	5.716E-02	4.065E-02	2.916E-02	FAIL ABUN
I-133	2.756E+03	2.849E+03	0.000E+00	1.454E+03	SHORT HLIF
CS-134	3.865E-02	5.841E-02	5.266E-02	2.980E-02	NOT IDENT.
CS-135	2.118E-01	1.716E-01	1.531E-01	8.756E-02	NOT IDENT.
I-135	-1.258E+14	3.534E+14	0.000E+00	1.803E+14	SHORT HLIF
CS-136	9.016E-02	1.470E-01	1.287E-01	7.499E-02	FAIL ABUN
BA-137M	3.153E-03	4.604E-02	3.908E-02	2.349E-02	NOT IDENT.
CS-137	3.333E-03	4.867E-02	4.131E-02	2.483E-02	NOT IDENT.
CE-139	-2.653E-02	3.140E-02	2.571E-02	1.602E-02	NOT IDENT.
BA-140	-1.700E-01	2.987E-01	2.447E-01	1.524E-01	NOT IDENT.
LA-140	-2.565E-02	8.011E-02	5.823E-02	4.087E-02	FAIL ABUN
CE-141	-1.755E-02	6.287E-02	5.357E-02	3.208E-02	NOT IDENT.
CE-143	3.488E+02	1.207E+02	0.000E+00	6.158E+01	SHORT HLIF

CE-144	1.374E-01	2.323E-01	1.847E-01	1.185E-01	NOT IDENT.
PM-144	2.032E-02	4.621E-02	3.990E-02	2.358E-02	NOT IDENT.
PR-144	1.376E+00	3.129E+00	2.702E+00	1.597E+00	NOT IDENT.
PM-146	4.536E-02	5.251E-02	4.808E-02	2.679E-02	NOT IDENT.
ND-147	7.836E-01	6.693E-01	6.094E-01	3.415E-01	FAIL ABUN
PM-149	1.350E+00	6.656E+01	5.805E+01	3.396E+01	NOT IDENT.
EU-152	4.493E-02	1.269E-01	9.739E-02	6.476E-02	NOT IDENT.
GD-153	-5.053E-02	8.132E-02	6.190E-02	4.149E-02	FAIL ABUN
EU-154	9.735E-02	1.696E-01	1.505E-01	8.654E-02	NOT IDENT.
EU-155	1.240E-01	1.035E-01	9.486E-02	5.282E-02	FAIL ABUN
TB-160	-6.966E-02	1.864E-01	1.555E-01	9.512E-02	FAIL ABUN
HO-166M	-3.160E-02	7.662E-02	6.225E-02	3.909E-02	FAIL ABUN
TM-171	1.134E+01	1.732E+01	1.459E+01	8.837E+00	NOT IDENT.
LU-176	1.177E-02	2.607E-02	2.308E-02	1.330E-02	FAIL ABUN
LU-177	2.777E+00	1.382E+00	9.751E-01	7.049E-01	FAIL ABUN
LU-177M	-3.091E-01	2.144E-01	1.635E-01	1.094E-01	FAIL ABUN
HF-181	4.181E-02	4.901E-02	4.480E-02	2.500E-02	NOT IDENT.
W-181	-1.631E-01	2.155E-01	1.730E-01	1.100E-01	NOT IDENT.
TA-182	-1.134E-01	2.788E-01	2.332E-01	1.422E-01	FAIL ABUN
RE-183	-4.855E-02	1.204E-01	9.818E-02	6.145E-02	FAIL ABUN
RE-184	1.433E-01	2.379E-01	2.151E-01	1.214E-01	NOT IDENT.
OS-185	-4.480E-03	5.207E-02	4.385E-02	2.657E-02	NOT IDENT.
RE-188	2.257E-01	1.793E-01	1.605E-01	9.150E-02	NOT IDENT.
W-188	-6.155E+00	8.824E+00	6.404E+00	4.502E+00	FAIL ABUN
IR-192	2.249E-02	3.835E-02	3.402E-02	1.957E-02	FAIL ABUN
AU-195	2.193E-01	2.141E-01	1.912E-01	1.093E-01	FAIL ABUN
TL-200	-1.684E+02	2.415E+02	0.000E+00	1.232E+02	SHORT HLIF
TL-201	1.144E+00	5.514E+00	4.735E+00	2.813E+00	NOT IDENT.
TL-202	4.593E-02	7.000E-02	6.396E-02	3.572E-02	NOT IDENT.
HG-203	5.386E-03	4.763E-02	3.679E-02	2.430E-02	FAIL ABUN
BI-207	3.065E-02	7.391E-02	6.384E-02	3.771E-02	FAIL ABUN
TL-207	3.211E-02	8.279E-01	6.257E-01	4.224E-01	FAIL ABUN
PO-209	-2.622E+00	1.009E+01	8.472E+00	5.149E+00	NOT IDENT.
PB-211	-1.404E+00	1.403E+00	8.618E-01	7.156E-01	NOT IDENT.
BI-212	1.487E+00	5.794E-01	4.305E-01	2.956E-01	FAIL ABUN
PO-215	3.211E-02	8.279E-01	6.257E-01	4.224E-01	FAIL ABUN
RN-219	2.080E-01	4.724E-01	4.075E-01	2.410E-01	FAIL ABUN
RN-220	-9.469E+00	3.204E+01	2.711E+01	1.635E+01	NOT IDENT.
RA-223	3.211E-02	8.279E-01	6.257E-01	4.224E-01	FAIL ABUN
AC-227	2.758E-02	3.902E-01	3.446E-01	1.991E-01	FAIL ABUN
TH-227	2.758E-02	3.902E-01	3.446E-01	1.991E-01	FAIL ABUN
TH-229	7.092E-02	4.949E-01	4.492E-01	2.525E-01	FAIL ABUN
PA-231	-5.682E-01	1.631E+00	1.397E+00	8.323E-01	FAIL ABUN
TH-231	3.211E-02	8.279E-01	6.257E-01	4.224E-01	FAIL ABUN
U-231	-2.005E-01	8.383E-01	6.628E-01	4.277E-01	FAIL ABUN
PA-233	2.430E-03	7.028E-02	6.083E-02	3.586E-02	FAIL ABUN
PA-234	1.589E-01	4.094E-01	3.568E-01	2.089E-01	FAIL ABUN
PA-234M	1.346E+01	1.033E+01	5.897E+00	5.269E+00	FAIL ABUN
U-235	2.426E-02	2.313E-01	1.984E-01	1.180E-01	FAIL ABUN
NP-236	-6.220E-03	8.453E-02	7.202E-02	4.313E-02	NOT IDENT.
NP-239	-1.599E-01	1.960E-01	1.662E-01	1.000E-01	FAIL ABUN
AM-241	7.842E-02	6.799E-02	5.867E-02	3.469E-02	NOT IDENT.
CM-243	1.707E-04	9.117E-02	8.088E-02	4.651E-02	FAIL ABUN
AM-246	-3.737E-02	1.991E-01	1.643E-01	1.016E-01	NOT IDENT.
CM-247	-1.383E-02	4.315E-02	3.561E-02	2.201E-02	FAIL ABUN
CF-249	2.537E-02	5.021E-02	4.354E-02	2.562E-02	NOT IDENT.
CF-251	7.366E-02	1.327E-01	1.151E-01	6.770E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
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ENERGY	MDA COUNTS
46.50	331.4054
46.50	331.4054
46.50	331.4054
48.70	392.1360
49.72	420.2126
51.35	435.6663
52.39	434.9312
52.97	418.9301
53.15	404.7700
53.44	405.2288
54.07	397.6873
56.28	477.6433
56.28	477.6490
57.37	0.0000
57.53	484.2037
57.53	484.2080
57.60	497.3021
57.98	485.0084
57.98	485.0084
59.32	449.0920
59.32	449.0920
59.40	449.2219
59.54	449.4489
59.72	503.3445
60.01	503.8703
61.10	504.5186
61.14	504.5903
61.30	516.7090
63.00	566.0872
63.29	566.6554
63.29	566.6554
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65.20	634.3347
66.05	584.0314
66.72	567.9223
66.83	568.1358
66.91	568.2846
67.20	560.7818
67.20	560.7818
67.75	577.3897
67.85	577.5831
68.90	620.5817
68.90	620.5817
69.30	647.0513
69.67	668.1185
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74.81	573.6136
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74.81	573.6136
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77.11	577.6255

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77.11	577.6255
77.11	577.6255
77.11	577.6255
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81.07	484.5022
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81.07	484.5022
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83.78	436.5199
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85.43	438.5400
86.29	439.5855
86.50	439.8404
86.54	439.8876
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86.79	440.1873
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87.30	440.8057
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87.88	441.5042
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88.36	442.0801
88.47	442.2122
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92.38	446.8426
92.38	446.8426
93.35	447.9754
94.00	448.7307
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94.67	347.3042
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94.90	347.5084
94.90	347.5084
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96.73	426.5626
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98.44	349.7608
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99.55	353.0841
99.55	353.0841
99.86	387.7091
100.00	379.0067
100.10	379.1029
103.18	408.6790
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105.00	347.8549
105.31	348.1112
108.00	423.3916
109.28	427.6641

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111.00	415.2481
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117.00	393.2852
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121.78	350.9276
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122.32	374.0637
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133.02	364.4287
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136.25	317.8578
136.48	324.3820
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144.24	360.5355
144.24	360.5355
144.24	360.5355
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154.21	334.1730
154.21	334.1730
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162.64	307.8833
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163.89	297.3586
165.85	331.9913
167.43	294.6354
171.28	296.5170
171.86	295.6667
172.10	291.2478
176.55	279.6525
176.60	276.2503
181.06	279.3595
184.41	266.9528
185.71	298.7534
186.00	298.8873
190.27	292.0920
192.34	300.0197
193.63	274.2307
197.04	289.7502
198.01	270.6986
198.60	270.0467
200.40	314.2523
201.83	345.1481
202.84	280.9984
205.31	258.9016

208.36	299.8845
208.81	300.0730
209.75	273.4799
209.75	273.4799
210.97	269.6206
215.65	289.3225
216.55	270.6082
218.09	267.5366
222.10	286.3666
223.80	271.4252
226.40	268.6796
227.00	286.3875
227.08	286.4184
227.20	280.0134
228.16	272.9879
228.18	271.1501
228.18	271.1501
231.56	0.0000
235.69	268.2026
236.00	268.3081
236.00	268.3081
238.63	272.0066
238.63	272.0066
238.63	272.0066
238.63	272.0066
239.00	272.1331
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241.98	262.8268
241.98	262.8268
244.69	206.4499
245.39	218.6930
247.94	258.1495
248.90	248.0377
249.79	203.7622
252.40	212.0126
252.85	205.4696
252.85	205.4696
254.15	0.0000
256.20	213.9349
256.20	213.9349
260.50	216.9477
260.90	223.7704
262.80	223.3057
264.65	194.4633
268.24	204.7892
268.79	204.9214
269.46	205.0763
269.46	205.0763
269.46	205.0763
269.46	205.0763
271.23	202.1602
273.65	210.5123
276.40	207.8098
277.35	208.0304
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277.60	227.1077
278.00	216.2416
278.60	222.6585
279.20	211.8241
279.53	189.9251
280.46	182.2667
281.68	191.9504
283.67	211.8867
284.30	228.7963
285.00	226.9994
285.90	204.4984
286.10	204.5426
286.10	204.5426
287.40	184.0530
288.45	0.0000
290.67	220.8491
290.80	220.8814
291.72	211.5564
293.26	0.0000
293.70	191.2822
295.21	177.2206
295.21	177.2206

295.21	177.2206
295.96	191.7422
296.50	191.8506
297.23	192.0000
298.57	192.2725
299.80	192.5186
299.80	192.5186
300.09	203.8108
300.09	203.8108
300.09	203.8108
300.09	203.8108
300.12	203.8170
301.29	191.2135
302.84	217.2722
303.76	222.3127
303.91	217.5128
304.40	204.7286
304.40	204.7286
304.84	190.8443
306.84	170.7020
308.46	181.1031
311.98	187.8455
316.51	182.5862
318.01	192.0534
319.02	209.6326
319.41	201.5300
320.08	205.7569
323.87	189.0649
323.87	189.0649
323.87	189.0649
323.87	189.0649
325.23	202.4875
328.77	218.0546
333.44	179.7683
334.20	182.6682
334.20	182.6682
334.30	182.6870
338.28	178.1702
338.28	178.1702
338.28	178.1702
338.28	178.1702
338.32	178.1781
338.32	178.1781
338.32	178.1781
340.50	182.0960
340.57	182.1093
344.27	179.3896
345.85	201.4834
350.59	0.0000
351.07	178.2061
351.92	178.3453
351.92	178.3453
351.92	178.3453
355.39	0.0000
356.01	159.3135
364.48	155.8379
366.43	153.9712
367.43	179.7920
367.94	0.0000
369.80	180.1688
374.96	194.9915
383.85	189.9830
387.95	179.7537
388.63	184.2171
391.69	192.3442
391.69	192.3442
392.90	193.6343
398.62	181.3701
400.65	142.0346
401.10	142.0888
401.81	144.3766
402.60	163.2187
404.84	186.7211
410.95	152.1203
411.60	175.5296
413.65	191.3978
414.70	173.7409
415.30	171.5957

415.76	158.2831
417.63	0.0000
418.52	147.4607
423.70	158.1624
427.08	149.5864
427.89	157.5577
432.53	140.0563
433.93	149.2533
439.47	129.9062
439.56	118.1045
439.89	118.1346
443.98	144.0265
444.90	140.4780
445.03	141.4034
445.03	141.4034
445.03	141.4034
445.03	141.4034
453.90	137.7557
463.38	129.4744
468.07	123.7321
473.00	114.5498
475.06	139.9017
475.35	138.9963
476.78	132.6032
477.59	129.8764
477.96	147.6679
482.03	119.0392
484.57	136.1552
487.03	148.6188
490.36	0.0000
492.35	126.5116
497.08	129.7687
507.63	0.0000
510.53	0.0000
510.84	140.5526
511.00	140.5679
511.85	140.6495
511.85	140.6495
513.99	153.3076
513.99	153.3076
520.41	139.5306
520.65	138.5894
527.90	132.4846
528.96	0.0000
529.64	123.9219
529.87	0.0000
531.02	117.2513
537.32	132.3277
543.00	115.2315
546.56	0.0000
549.76	127.4990
552.65	112.0100
555.20	112.1909
563.23	124.6250
563.90	125.6636
568.70	131.0010
569.32	118.1429
569.50	118.1575
569.67	118.1691
573.80	132.4058
574.00	132.4220
574.64	129.4858
578.91	106.5208
579.30	0.0000
583.14	128.1531
585.48	135.3494
591.81	137.8763
592.07	137.8964
593.00	137.9733
595.88	118.0340
600.56	136.0068
602.52	0.0000
602.71	135.0521
602.71	135.0521
603.60	133.4347
604.41	136.8754
604.70	136.8984
609.31	120.9988

609.31	120.9988
609.31	120.9988
609.31	120.9988
610.33	121.0715
612.46	123.9360
614.37	103.6772
618.01	114.6798
621.84	132.1148
621.84	132.1148
631.29	112.2306
633.02	125.7380
633.10	125.7440
634.78	133.0848
635.90	115.6203
636.97	113.6228
645.85	97.5755
646.12	103.8184
656.30	121.1033
657.75	132.6927
657.90	0.0000
661.65	117.2691
661.65	117.2691
664.57	0.0000
666.33	109.1670
666.33	109.1670
675.00	99.1291
677.61	118.2727
685.20	113.4472
692.80	130.9307
695.00	102.3047
696.49	118.3819
696.49	118.3819
697.00	134.4164
697.49	141.9197
698.33	153.7242
698.50	155.8700
699.00	156.9806
702.63	113.4091
706.10	117.8982
706.58	0.0000
706.67	121.1467
709.31	122.3830
711.68	108.5602
713.82	88.2321
717.42	111.0318
720.50	98.9669
721.93	0.0000
722.20	90.0472
722.78	97.2795
722.78	97.2795
722.89	91.8793
722.95	91.8834
723.30	91.8979
724.18	109.9668
727.18	96.4094
733.00	105.0188
735.90	82.6852
739.58	108.9917
742.81	106.9817
744.21	100.5015
747.13	129.0856
751.79	130.4758
752.31	125.0243
753.82	95.4833
755.35	107.6349
756.15	127.4556
756.87	117.6060
763.93	137.8571
765.79	118.6620
766.42	130.6607
766.84	130.6867
776.49	112.7939
778.00	107.3222
778.57	101.7979
778.89	102.7391
783.80	81.6388
785.46	87.2721
792.07	110.8241

795.84	94.2252
796.30	92.3774
798.80	100.8918
801.93	107.5855
805.60	103.0802
810.29	119.2666
810.76	121.1711
815.85	77.2003
817.79	95.1724
818.51	105.5719
819.60	117.8818
826.30	107.8329
828.27	0.0000
831.60	106.1895
831.96	101.4663
834.83	127.2308
836.80	0.0000
846.75	95.4468
848.13	108.8766
856.28	0.0000
856.80	111.7522
860.37	77.7700
867.32	82.5422
867.82	105.4722
871.10	98.3850
873.19	108.1263
874.81	96.6085
875.33	0.0000
876.40	89.9064
879.36	99.6995
880.27	95.8640
880.51	95.8740
881.50	109.4756
883.24	94.0437
884.67	76.6389
889.25	96.2265
896.60	98.4725
898.02	89.7502
899.00	105.4006
903.28	93.8555
911.07	108.8704
911.07	108.8704
911.07	108.8704
919.63	89.7620
920.93	83.7047
925.00	80.8839
925.24	78.9193
926.50	83.8932
935.52	73.3029
937.48	98.1440
944.10	82.5002
946.00	86.5398
949.00	84.6524
962.29	94.3912
964.01	89.3025
966.15	72.1890
968.20	135.8915
969.11	136.5146
969.11	136.5146
969.11	136.5146
977.42	96.6738
980.50	87.9883
983.50	67.6284
989.30	90.0339
996.32	73.0313
1001.03	107.9983
1001.68	88.4249
1004.76	83.7305
1021.30	0.0000
1024.50	0.0000
1034.80	79.2308
1036.00	82.3535
1037.82	73.1379
1038.57	75.2189
1038.76	0.0000
1045.16	109.4850
1046.59	96.1068
1048.07	90.9899

1050.47	94.1733
1050.47	94.1733
1062.04	95.6050
1063.62	88.3791
1076.63	67.8988
1077.35	72.0940
1078.86	94.0869
1085.78	68.1183
1099.22	117.9245
1112.02	106.9663
1112.84	92.4873
1115.52	116.1696
1120.29	95.4529
1120.29	95.4529
1120.29	95.4529
1120.29	95.4529
1120.51	95.4602
1121.28	95.4858
1124.00	0.0000
1129.67	80.2533
1131.51	0.0000
1147.95	0.0000
1167.94	102.3793
1173.22	103.6367
1175.09	108.0200
1177.93	116.7715
1189.05	120.9138
1204.90	96.2931
1205.75	0.0000
1213.00	108.7257
1221.42	130.6325
1230.97	135.7433
1235.34	98.1710
1236.41	0.0000
1238.25	109.5996
1246.25	96.6104
1260.41	0.0000
1271.85	84.9647
1274.45	78.3450
1274.54	78.3479
1291.56	71.0707
1298.22	0.0000
1312.09	79.2373
1325.50	55.2983
1325.50	55.2983
1332.49	74.8569
1333.61	76.8261
1360.21	54.8809
1362.66	0.0000
1365.15	49.0705
1368.21	42.2366
1368.53	0.0000
1376.25	47.2567
1384.27	57.2333
1394.10	48.4856
1395.20	50.4806
1407.95	48.6753
1434.06	55.0307
1436.60	39.0490
1457.56	0.0000
1460.81	26.2049
1489.15	33.5133
1509.49	23.4837
1596.49	19.9305
1620.62	27.3058
1678.03	0.0000
1691.02	16.0233
1691.02	16.0233
1706.46	0.0000
1750.46	0.0000
1764.49	23.6645
1764.49	23.6645
1764.49	23.6645
1764.49	23.6645
1770.23	22.0024
1771.40	18.6228
1791.20	0.0000
1808.65	14.4044

1836.01 11.8908

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395010

Total Uranium Activity	1.1747E+01	ug/g
Total Uranium Counting Unc.	4.0826E+00	ug/g
Total Uranium Tpu	2.0830E-06	ug/g
Total Uranium Mda	1.7114E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID  : G245395010       *
*   ANALYST       : MXR1                      DETECTOR   : GAM13            *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 09:15:16.95    SAMPLE ALQT:  137.080 GRAM    *
*                                                                           *
*****************************************************************************
```

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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.059E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.585E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 4.005E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.953E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:18:40.48

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395011.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:18:04.
Sample ID         : G245395011           Sample quantity  : 1.47640E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.14  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.26*	823	793	0.79	126.71	122	9	1.14E-01	7.2	
2	4	74.96*	264	561	0.78	150.10	147	11	3.67E-02	14.6	4.18E+00
3	4	77.18*	485	473	0.88	154.55	147	11	6.73E-02	8.3	
4	0	87.18*	196	575	1.05	174.55	172	6	2.72E-02	20.9	
5	0	92.71*	2440	834	1.12	185.61	182	10	3.39E-01	3.1	
6	0	98.61*	237	545	0.91	197.42	193	9	3.29E-02	19.1	
7	0	112.24	179	657	0.83	224.66	220	10	2.49E-02	27.7	
8	0	143.59*	155	375	1.46	287.38	283	9	2.15E-02	24.5	
9	0	185.71*	478	387	1.09	371.61	367	10	6.64E-02	9.2	
10	0	208.92	70	209	1.01	418.04	415	6	9.72E-03	34.8	
11	6	238.59*	1122	198	0.97	477.37	471	18	1.56E-01	3.6	1.88E+00
12	6	241.73	215	276	1.67	483.66	471	18	2.99E-02	17.0	
13	0	269.98	125	226	1.33	540.15	535	11	1.74E-02	24.9	
14	0	277.78	40	200	0.81	555.75	551	8	5.54E-03	63.9	
15	0	295.21	379	194	1.13	590.61	586	10	5.26E-02	8.6	
16	0	299.84	87	141	1.32	599.86	596	8	1.21E-02	26.2	
17	0	328.19	12	254	1.14	656.57	650	11	1.65E-03	261.6	
18	0	338.07*	174	240	1.01	676.33	671	11	2.41E-02	19.2	
19	0	351.88*	575	168	1.13	703.95	698	10	7.99E-02	6.0	
20	0	463.12	84	105	1.54	926.42	921	11	1.16E-02	26.3	
21	0	511.03*	97	204	1.89	1022.23	1015	17	1.35E-02	38.4	
22	0	583.24*	277	98	1.34	1166.61	1162	11	3.84E-02	9.5	
23	0	609.46*	430	145	1.38	1219.05	1212	15	5.98E-02	7.9	
24	0	661.72	178	72	1.35	1323.56	1318	10	2.47E-02	11.7	
25	0	727.53*	75	96	1.00	1455.15	1449	12	1.04E-02	29.1	
26	0	767.52	86	109	2.66	1535.12	1528	15	1.20E-02	28.7	
27	0	795.50	33	78	1.53	1591.07	1583	12	4.61E-03	55.9	
28	0	860.54*	67	57	1.69	1721.12	1715	14	9.36E-03	27.0	
29	0	911.27*	215	81	1.24	1822.54	1817	12	2.99E-02	11.0	
30	0	934.62	20	39	1.00	1869.22	1865	9	2.72E-03	62.6	
31	0	965.67	28	81	0.95	1931.31	1922	14	3.88E-03	70.8	
32	0	969.16*	121	51	1.32	1938.29	1935	9	1.68E-02	14.2	
33	0	1001.23*	116	55	1.00	2002.41	1997	11	1.60E-02	15.9	
34	0	1120.16*	100	36	2.32	2240.20	2235	11	1.39E-02	15.7	
35	0	1460.89*	1348	41	1.88	2921.39	2914	17	1.87E-01	3.0	
36	0	1764.65*	57	15	1.11	3528.59	3523	12	7.89E-03	20.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:18:43

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395011.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:18:04
Sample ID : G245395011 Sample quantity : 147.64 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.14 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.659E+01	2.819E+00	4.405E-01	3.872E-02	60.366
CD-109	+	88.03	*	2.188E+00	9.366E-01	1.382E+00	1.331E-01	1.584
SN-126	+	64.28		6.184E+00	1.264E+00	6.764E-01	9.855E-02	9.143
	+	86.94		8.958E-01	5.275E-01	5.603E-01	2.328E-01	1.599
	+	87.57	*	2.155E-01	9.223E-02	1.355E-01	1.299E-02	1.590
BA-137M	+	661.65	*	2.088E-01	5.224E-02	4.739E-02	4.205E-03	4.406
CS-137	+	661.65	*	2.207E-01	5.523E-02	5.009E-02	4.453E-03	4.406
LU-177	+	112.95		4.203E+00	2.358E+00	2.112E+00	1.768E-01	1.991
	+	208.36	*	1.193E+00	8.384E-01	1.269E+00	1.288E-01	0.940
HG-203		70.83		-1.213E+00	9.295E-01	1.439E+00	1.900E-01	-0.843
		72.87		2.708E-01	5.629E-01	8.833E-01	1.138E-01	0.307
		82.60		-3.459E-01	9.843E-01	1.650E+00	2.311E-01	-0.210
	+	279.20	*	3.440E-02	4.413E-02	4.576E-02	5.577E-03	0.752
TL-208	+	277.35		3.179E-01	4.087E-01	4.776E-01	7.099E-02	0.666
	+	510.84		3.850E-01	2.995E-01	1.641E-01	2.076E-02	2.346
	+	583.14	*	3.130E-01	6.681E-02	4.494E-02	4.455E-03	6.964
	+	860.37		7.166E-01	3.941E-01	3.655E-01	3.660E-02	1.961
BI-211		72.87		1.387E+00	2.879E+00	4.523E+00	3.677E-01	0.307
	+	351.07	*	2.869E+00	4.655E-01	2.556E-01	2.795E-02	11.224
PB-212	+	74.81		1.226E+00	3.887E-01	4.995E-01	6.241E-02	2.454
	+	77.11		1.275E+00	2.381E-01	2.834E-01	2.407E-02	4.498
	+	87.30		9.965E-01	4.381E-01	6.073E-01	8.400E-02	1.641
	+	238.63	*	1.224E+00	1.702E-01	7.118E-02	8.427E-03	17.199
	+	300.09		1.462E+00	7.903E-01	9.805E-01	1.285E-01	1.492
PO-212	+	74.81		1.226E+00	3.887E-01	4.995E-01	6.241E-02	2.454
	+	77.11		1.275E+00	2.381E-01	2.834E-01	2.407E-02	4.498
	+	87.30		9.965E-01	4.381E-01	6.073E-01	8.400E-02	1.641
		115.19		3.130E+00	3.324E+00	5.226E+00	4.360E-01	0.599
	+	238.63	*	1.224E+00	1.702E-01	7.118E-02	8.427E-03	17.199
	+	300.09		1.462E+00	7.903E-01	9.805E-01	1.285E-01	1.492
BI-214	+	609.31	*	9.181E-01	1.750E-01	9.050E-02	9.569E-03	10.145
	+	1120.29		1.115E+00	3.710E-01	3.671E-01	3.941E-02	3.037
	+	1764.49		8.660E-01	3.543E-01	2.726E-01	2.256E-02	3.177
PB-214	+	74.81		2.112E+00	6.588E-01	8.608E-01	9.570E-02	2.454

Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.185E+00	4.409E-01	4.859E-01	5.544E-02	4.498
	+	87.30		1.707E+00	7.425E-01	1.040E+00	1.277E-01	1.641
	+	241.98		1.410E+00	5.104E-01	4.287E-01	5.311E-02	3.288
	+	295.21		1.117E+00	2.429E-01	1.708E-01	2.279E-02	6.543
	+	351.92	*	9.980E-01	1.701E-01	9.581E-02	1.159E-02	10.416
PO-214	+	74.81		2.112E+00	6.588E-01	8.608E-01	9.570E-02	2.454
	+	77.11		2.185E+00	4.409E-01	4.859E-01	5.544E-02	4.498
	+	87.30		1.707E+00	7.425E-01	1.040E+00	1.277E-01	1.641
	+	241.98		1.410E+00	5.104E-01	4.287E-01	5.311E-02	3.288
	+	295.21		1.117E+00	2.429E-01	1.708E-01	2.279E-02	6.543
	+	351.92	*	9.980E-01	1.701E-01	9.581E-02	1.159E-02	10.416
PO-216	+	74.81		1.226E+00	3.887E-01	4.995E-01	6.241E-02	2.454
	+	77.11		1.275E+00	2.381E-01	2.834E-01	2.407E-02	4.498
	+	87.30		9.965E-01	4.381E-01	6.073E-01	8.400E-02	1.641
	+	238.63	*	1.224E+00	1.702E-01	7.118E-02	8.427E-03	17.199
	+	300.09		1.462E+00	7.903E-01	9.805E-01	1.285E-01	1.492
PO-218	+	74.81		2.112E+00	6.588E-01	8.608E-01	9.570E-02	2.454
	+	77.11		2.185E+00	4.409E-01	4.859E-01	5.544E-02	4.498
	+	87.30		1.707E+00	7.425E-01	1.040E+00	1.277E-01	1.641
	+	241.98		1.410E+00	5.104E-01	4.287E-01	5.311E-02	3.288
	+	295.21		1.117E+00	2.429E-01	1.708E-01	2.279E-02	6.543
	+	351.92	*	9.980E-01	1.701E-01	9.581E-02	1.159E-02	10.416
RA-224	+	240.98	*	2.673E+00	9.561E-01	8.101E-01	8.928E-02	3.299
RA-226	+	609.31	*	9.181E-01	1.750E-01	9.050E-02	9.569E-03	10.145
	+	1120.29		1.115E+00	3.710E-01	3.671E-01	3.941E-02	3.037
	+	1764.49		8.660E-01	3.543E-01	2.726E-01	2.256E-02	3.177
AC-228	+	338.32		9.541E-01	5.410E-01	2.949E-01	1.233E-01	3.236
	+	911.07	*	1.083E+00	2.708E-01	1.888E-01	2.242E-02	5.735
	+	969.11		1.072E+00	3.965E-01	3.545E-01	8.359E-02	3.025
RA-228	+	338.32		9.541E-01	5.410E-01	2.949E-01	1.233E-01	3.236
	+	911.07	*	1.083E+00	2.708E-01	1.888E-01	2.242E-02	5.735
	+	969.11		1.072E+00	3.965E-01	3.545E-01	8.359E-02	3.025
TH-228	+	74.81		1.243E+00	3.768E-01	5.065E-01	4.238E-02	2.454
	+	77.11		1.293E+00	2.414E-01	2.874E-01	2.441E-02	4.498
	+	87.30		1.010E+00	4.325E-01	6.157E-01	5.884E-02	1.641
	+	238.63	*	1.241E+00	1.726E-01	7.217E-02	8.545E-03	17.199
	+	300.09		1.483E+00	1.179E+00	9.942E-01	5.946E-01	1.492
TH-230	+	609.31	*	9.181E-01	1.750E-01	9.050E-02	9.569E-03	10.145
	+	1120.29		1.115E+00	3.710E-01	3.671E-01	3.941E-02	3.037
	+	1764.49		8.659E-01	3.543E-01	2.726E-01	2.256E-02	3.177
TH-232	+	338.32		9.541E-01	3.800E-01	2.949E-01	3.219E-02	3.236
	+	911.07	*	1.083E+00	2.708E-01	1.888E-01	2.242E-02	5.735
	+	969.11		1.072E+00	3.965E-01	3.545E-01	8.359E-02	3.025
PA-234M	+	766.42		3.239E+01	2.485E+01	1.538E+01	7.822E+00	2.106
	+	1001.03	*	2.085E+01	6.992E+00	6.252E+00	6.509E-01	3.335
TH-234	+	63.29	*	1.562E+01	3.530E+00	1.877E+00	3.274E-01	8.322
	+	92.38		1.740E+01	3.372E+00	8.599E-01	1.580E-01	20.232
U-234	+	609.31	*	9.181E-01	1.750E-01	9.050E-02	9.569E-03	10.145
	+	1120.29		1.115E+00	3.710E-01	3.671E-01	3.941E-02	3.037

Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1764.49		8.659E-01	3.543E-01	2.726E-01	2.256E-02	3.177
U-235		89.95		9.679E-01	1.423E+00	1.763E+00	5.484E-01	0.549
	+	93.35		2.091E+01	6.040E+00	1.027E+00	2.895E-01	20.367
		105.00		9.972E-01	9.283E-01	1.541E+00	4.597E-01	0.647
	+	143.76	*	5.402E-01	2.808E-01	2.727E-01	4.766E-02	1.981
		163.35		8.492E-02	3.995E-01	6.476E-01	1.247E-01	0.131
	+	185.71		3.663E-01	7.597E-02	5.589E-02	5.339E-03	6.554
		205.31		3.129E-01	4.810E-01	7.113E-01	1.407E-01	0.440
NP-237	+	86.50	*	6.327E-01	3.007E-01	3.783E-01	8.588E-02	1.673
		95.87		1.113E+00	1.088E+00	1.376E+00	3.407E-01	0.809
U-238	+	63.29	*	1.562E+01	3.530E+00	1.877E+00	3.274E-01	8.322
	+	92.38		1.740E+01	1.929E+00	8.599E-01	7.934E-02	20.232
AM-243	+	74.67	*	1.987E-01	6.021E-02	8.124E-02	6.725E-03	2.446
	+	86.72		2.373E+01	1.016E+01	1.415E+01	1.343E+00	1.676
		117.66		-3.407E+00	3.142E+00	5.032E+00	4.187E-01	-0.677
	+	142.18		4.537E+01	2.255E+01	2.305E+01	1.965E+00	1.969
ANH-511	+	511.00	*	8.316E-02	6.432E-02	3.547E-02	3.373E-03	2.345

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	7.719E-02	2.498E-01	4.229E-01	4.278E-02	0.183
NA-22		1274.54	*	-4.092E-03	3.610E-02	5.827E-02	4.849E-03	-0.070
NA-24		1368.53	*	5.085E-02	3.610E-02	Half-Life too short		
AL-26		1129.67		3.823E-01	1.321E+00	2.228E+00	1.867E-01	0.172
		1808.65	*	1.235E-02	2.347E-02	4.261E-02	3.484E-03	0.290
TI-44		67.85		-9.433E-03	4.286E-02	6.589E-02	5.103E-03	-0.143
	+	78.38	*	2.352E-01	4.394E-02	5.914E-02	5.093E-03	3.978
SC-46		889.25	*	-2.693E-03	3.114E-02	5.160E-02	4.878E-03	-0.052
	+	1120.51		1.889E-01	6.161E-02	1.030E-01	8.704E-03	1.834
V-48		944.10		-3.321E-01	6.846E-01	1.075E+00	1.004E-01	-0.309
		983.50	*	1.777E-02	5.248E-02	8.986E-02	8.272E-03	0.198
		1312.09		6.702E-03	5.458E-02	8.980E-02	7.538E-03	0.075
CR-51		320.08	*	-9.721E-02	2.935E-01	4.536E-01	5.303E-02	-0.214
MN-52		744.21		1.455E-01	1.781E-01	3.049E-01	2.799E-02	0.477
		848.13		-3.355E-04	4.720E+00	7.915E+00	7.449E-01	0.000
	+	935.52		1.659E-01	2.085E-01	3.154E-01	2.955E-02	0.526
		1246.25		-3.694E-01	5.313E+00	8.574E+00	7.067E-01	-0.043
		1333.61		4.468E+00	3.574E+00	6.616E+00	5.582E-01	0.675
		1434.06	*	-9.743E-02	1.480E-01	2.082E-01	1.777E-02	-0.468
MN-54		834.83	*	1.903E-02	3.106E-02	5.452E-02	5.121E-03	0.349
CO-56		846.75	*	2.283E-03	3.240E-02	5.465E-02	5.143E-03	0.042
		977.42		-1.536E+00	2.333E+00	3.603E+00	3.325E-01	-0.426
		1037.82		-1.949E-01	2.742E-01	4.212E-01	3.959E-02	-0.463
		1175.09		-1.026E+00	1.914E+00	2.962E+00	2.383E-01	-0.347
		1238.25		6.957E-02	8.135E-02	1.406E-01	1.193E-02	0.495
		1360.21		-6.563E-01	8.040E-01	1.130E+00	9.572E-02	-0.581
		1771.40		-2.401E-01	2.323E-01	3.168E-01	2.617E-02	-0.758

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	3.505E-04	2.061E-02	3.455E-02	2.871E-03	0.010
		136.48		-1.053E-01	1.673E-01	2.712E-01	2.465E-02	-0.388
CO-58		810.76	*	-8.108E-03	3.052E-02	5.014E-02	4.698E-03	-0.162
FE-59	+	142.65		6.836E+00	3.397E+00	3.942E+00	3.365E-01	1.734
		192.34		-1.660E-01	7.547E-01	1.221E+00	1.729E-01	-0.136
		1099.22	*	-6.510E-02	7.653E-02	1.146E-01	1.066E-02	-0.568
		1291.56		9.539E-03	1.057E-01	1.728E-01	1.650E-02	0.055
CO-60		1173.22		3.325E-04	3.861E-02	6.311E-02	5.074E-03	0.005
		1332.49	*	2.689E-03	3.288E-02	5.366E-02	4.526E-03	0.050
ZN-65		1115.52	*	-1.050E-03	8.220E-02	1.165E-01	9.893E-03	-0.009
GE-68		1077.35	*	6.300E-01	1.069E+00	1.852E+00	1.618E-01	0.340
AS-73		53.44	*	1.384E-01	7.470E-01	1.181E+00	9.006E-02	0.117
AS-74		595.88	*	2.671E-02	6.891E-02	1.159E-01	1.075E-02	0.231
		634.78		4.433E-02	2.787E-01	4.582E-01	4.154E-02	0.097
SE-75		66.05		-4.347E+00	4.761E+00	6.462E+00	6.218E-01	-0.673
		96.73		6.323E-01	8.631E-01	1.099E+00	1.520E-01	0.575
		121.11		1.923E-02	1.103E-01	1.860E-01	2.043E-02	0.103
		136.00		-2.481E-02	3.166E-02	5.097E-02	4.326E-03	-0.487
		198.60		6.955E-01	1.405E+00	2.344E+00	2.512E-01	0.297
		264.65	*	3.112E-03	3.619E-02	5.202E-02	6.071E-03	0.060
		279.53		7.848E-02	8.679E-02	1.323E-01	1.620E-02	0.593
		303.91		3.848E-01	1.877E+00	2.695E+00	3.745E-01	0.143
		400.65		-1.432E-01	1.863E-01	2.945E-01	3.428E-02	-0.486
BR-77	+	87.88		3.309E+02	1.417E+02	2.064E+02	1.987E+01	1.603
		200.40		-1.904E+01	9.071E+01	1.464E+02	1.455E+01	-0.130
	+	239.00		1.374E+02	1.808E+01	2.105E+01	2.309E+00	6.525
		249.79		-9.467E+00	3.710E+01	5.880E+01	6.616E+00	-0.161
		281.68		6.184E-02	5.076E+01	7.209E+01	8.637E+00	0.001
		297.23		7.719E+01	4.517E+01	5.854E+01	6.886E+00	1.319
		303.76		5.499E+01	1.102E+02	1.621E+02	1.889E+01	0.339
		439.47		2.141E+01	7.877E+01	1.336E+02	1.261E+01	0.160
		484.57		1.202E+00	1.286E+02	2.130E+02	2.026E+01	0.006
		520.65	*	-3.312E+00	5.715E+00	8.959E+00	8.512E-01	-0.370
		574.64		-4.673E+01	1.192E+02	1.886E+02	1.767E+01	-0.248
		578.91		-1.197E+01	5.768E+01	8.069E+01	7.548E+00	-0.148
		585.48		3.158E+02	1.240E+02	2.113E+02	1.971E+01	1.494
		755.35		2.076E+01	9.861E+01	1.608E+02	1.482E+01	0.129
		817.79		-3.467E+01	7.792E+01	1.260E+02	1.179E+01	-0.275
SR-82		698.33		-3.006E+00	2.784E+01	4.441E+01	4.008E+00	-0.068
		776.49	*	-1.464E-01	3.165E-01	4.824E-01	4.473E-02	-0.303
		1395.20		1.631E+00	8.324E+00	1.378E+01	1.172E+00	0.118
RB-83		520.41	*	-3.000E-02	5.362E-02	8.421E-02	8.001E-03	-0.356
		529.64		-1.626E-02	7.998E-02	1.293E-01	1.227E-02	-0.126
		552.65		1.342E-01	1.508E-01	2.641E-01	2.493E-02	0.508
RB-84		881.50	*	8.282E-03	5.752E-02	9.736E-02	9.198E-03	0.085
KR-85		513.99	*	1.249E+01	6.616E+00	1.103E+01	1.048E+00	1.132
SR-85		513.99	*	6.320E-02	3.349E-02	5.581E-02	5.307E-03	1.132
RB-86		1076.63	*	4.003E-01	6.512E-01	1.131E+00	9.879E-02	0.354
Y-88		898.02		-5.500E-03	3.114E-02	5.107E-02	4.851E-03	-0.108

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1836.01	*	8.904E-03	2.732E-02	4.771E-02	3.873E-03	0.187
ZR-88		392.90	*	4.923E-03	2.469E-02	4.195E-02	3.880E-03	0.117
Y-91		1204.90	*	6.632E+00	1.752E+01	2.941E+01	2.392E+00	0.225
NB-94		702.63	*	-2.101E-02	2.679E-02	3.983E-02	3.600E-03	-0.528
		871.10		-5.931E-03	2.770E-02	4.544E-02	4.289E-03	-0.131
NB-95		765.79	*	1.019E-01	4.612E-02	7.696E-02	7.114E-03	1.324
NB-95M		235.69	*	-4.210E-02	1.110E-01	1.556E-01	1.851E-02	-0.270
ZR-95		724.18		3.648E-02	7.847E-02	1.165E-01	1.145E-02	0.313
		756.15	*	5.133E-02	5.720E-02	9.880E-02	9.918E-03	0.520
NB-97		657.90	*	1.527E-02	5.720E-02	Half-Life too short		
		1024.50		-2.231E+00	5.720E-02	Half-Life too short		
ZR-97		254.15		3.940E-01	5.720E-02	Half-Life too short		
		355.39		1.798E-01	5.720E-02	Half-Life too short		
		507.63	*	4.507E-01	5.720E-02	Half-Life too short		
		602.52		3.044E-01	5.720E-02	Half-Life too short		
		1021.30		1.653E+00	5.720E-02	Half-Life too short		
		1147.95		5.846E-01	5.720E-02	Half-Life too short		
		1362.66		-5.366E-01	5.720E-02	Half-Life too short		
		1750.46		8.558E-01	5.720E-02	Half-Life too short		
MO-99		140.51		-4.386E+00	1.709E+01	2.494E+01	6.898E+00	-0.176
		181.06		7.564E+00	1.093E+01	1.657E+01	3.096E+00	0.457
		366.43		-7.489E+00	4.659E+01	7.777E+01	7.866E+00	-0.096
		739.58	*	-4.927E+00	7.265E+00	1.082E+01	1.678E+00	-0.455
		778.00		3.459E+00	2.148E+01	3.480E+01	3.228E+00	0.099
TC-99M		140.51	*	-2.908E+08	2.148E+01	Half-Life too short		
RH-101		127.23		-1.594E-02	2.695E-02	4.402E-02	3.665E-03	-0.362
		198.01	*	1.252E-02	2.628E-02	4.378E-02	4.323E-03	0.286
		325.23		6.902E-02	1.929E-01	2.795E-01	3.138E-02	0.247
RH-102		418.52		2.435E-01	2.247E-01	3.998E-01	3.745E-02	0.609
		475.06	*	-3.218E-03	2.242E-02	3.676E-02	3.494E-03	-0.088
		631.29		-4.560E-03	4.467E-02	7.186E-02	6.530E-03	-0.063
		697.49		3.194E-02	6.498E-02	1.088E-01	9.815E-03	0.294
	+	766.84		3.077E-01	1.790E-01	2.077E-01	1.921E-02	1.481
		1046.59		2.282E-03	9.757E-02	1.612E-01	1.437E-02	0.014
		1112.84		-3.299E-02	2.065E-01	3.137E-01	2.667E-02	-0.105
RU-103		497.08	*	-8.466E-03	3.088E-02	4.990E-02	7.348E-03	-0.170
	+	610.33		9.702E+00	2.256E+00	2.374E+00	4.036E-01	4.086
RH-106	+	511.85		4.144E-01	3.205E-01	3.562E-01	3.387E-02	1.163
		621.84	*	-6.510E-02	2.635E-01	4.190E-01	5.742E-02	-0.155
		1050.47		-8.111E-02	2.017E+00	3.312E+00	2.944E-01	-0.024
RU-106	+	511.85		4.144E-01	3.205E-01	3.562E-01	3.387E-02	1.163
		621.84	*	-6.510E-02	2.634E-01	4.190E-01	3.832E-02	-0.155
		1050.47		-8.111E-02	2.017E+00	3.312E+00	2.944E-01	-0.024
AG-108M		433.93	*	-1.425E-02	2.446E-02	3.899E-02	3.795E-03	-0.366
		614.37		-2.021E-02	3.412E-02	4.493E-02	4.271E-03	-0.450
		722.95		1.476E-04	3.611E-02	5.062E-02	4.774E-03	0.003
AG-110M		657.75	*	1.627E-02	3.378E-02	5.033E-02	4.606E-03	0.323
		677.61		-2.336E-02	2.527E-01	4.045E-01	3.712E-02	-0.058
		706.67		1.615E-01	1.649E-01	2.872E-01	2.666E-02	0.562

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		763.93		2.208E-01	1.525E-01	2.476E-01	2.344E-02	0.892
		884.67		2.606E-03	3.974E-02	6.681E-02	6.483E-03	0.039
		937.48		7.658E-03	9.056E-02	1.326E-01	1.279E-02	0.058
		1384.27		3.823E-03	1.168E-01	1.890E-01	1.652E-02	0.020
IN-111		171.28		1.079E-01	5.755E-01	9.552E-01	8.783E-02	0.113
		245.39	*	-4.601E-01	7.204E-01	9.824E-01	1.094E-01	-0.468
IN-113M		391.69	*	1.863E-02	3.601E-02	6.225E-02	5.908E-03	0.299
SN-113		391.69	*	1.863E-02	3.601E-02	6.225E-02	5.908E-03	0.299
IN-114M		190.27	*	-8.118E-03	1.597E-01	2.328E-01	2.251E-02	-0.035
CD-115		260.90		-3.325E+01	7.304E+01	1.139E+02	1.315E+01	-0.292
		492.35		-7.445E+00	1.871E+01	2.993E+01	2.848E+00	-0.249
		527.90	*	-3.936E+00	5.961E+00	9.273E+00	8.802E-01	-0.424
SN-117M		156.02		-7.748E-01	1.726E+00	2.800E+00	2.470E-01	-0.277
		158.56	*	1.378E-03	4.289E-02	7.099E-02	6.305E-03	0.019
SB-122		563.90	*	2.600E-01	1.292E+00	2.115E+00	1.990E-01	0.123
		692.80		8.683E+00	2.561E+01	4.249E+01	3.825E+00	0.204
I-123		159.00	*	5.711E-01	2.561E+01	Half-Life too short		
		528.96		-1.683E+01	2.561E+01	Half-Life too short		
TE-123M		159.00	*	1.330E-02	2.332E-02	3.939E-02	3.523E-03	0.338
I-124		602.71	*	1.744E-01	4.886E-01	7.239E-01	6.695E-02	0.241
		722.78		2.626E-01	3.052E+00	4.325E+00	3.941E-01	0.061
		1325.50		4.548E+00	2.259E+01	3.747E+01	3.155E+00	0.121
		1376.25		2.985E+01	2.089E+01	3.916E+01	3.324E+00	0.762
		1509.49		6.578E+00	1.023E+01	1.852E+01	1.584E+00	0.355
		1691.02		-8.419E-01	2.253E+00	3.437E+00	2.890E-01	-0.245
SB-124		602.71		1.226E-02	3.433E-02	5.086E-02	4.705E-03	0.241
		645.85		1.186E-01	4.059E-01	6.741E-01	6.395E-02	0.176
		709.31		-7.805E-01	2.278E+00	3.549E+00	3.217E-01	-0.220
		713.82		9.926E-02	1.244E+00	2.014E+00	2.492E-01	0.049
		722.78		2.675E-02	3.108E-01	4.405E-01	4.091E-02	0.061
	+	968.20		1.088E+01	3.260E+00	5.696E+00	5.276E-01	1.911
		1045.16		-1.022E+00	2.120E+00	3.333E+00	2.973E-01	-0.307
		1325.50		4.948E-01	2.458E+00	4.076E+00	3.432E-01	0.121
		1368.21		2.857E-01	1.355E+00	2.249E+00	3.011E-01	0.127
		1436.60		-1.092E-01	2.518E+00	4.200E+00	3.584E-01	-0.026
		1691.02	*	-2.023E-02	5.414E-02	8.256E-02	7.231E-03	-0.245
SB-125		427.89	*	-9.434E-03	6.984E-02	1.155E-01	1.103E-02	-0.082
	+	463.38		6.496E-01	3.473E-01	4.456E-01	4.504E-02	1.458
		600.56		-2.927E-02	1.470E-01	2.357E-01	2.322E-02	-0.124
		635.90		7.153E-02	2.209E-01	3.681E-01	3.579E-02	0.194
TE-125M		109.28	*	5.159E+00	8.567E+00	1.331E+01	1.354E+00	0.388
I-126		388.63		-1.007E-01	1.568E-01	2.528E-01	2.365E-02	-0.398
		666.33	*	1.149E-01	1.455E-01	2.252E-01	2.003E-02	0.510
		753.82		4.513E-01	1.159E+00	1.920E+00	1.768E-01	0.235
SB-126		223.80		-1.425E+00	3.105E+00	4.909E+00	5.184E-01	-0.290
	+	278.60		1.962E+00	2.517E+00	3.237E+00	3.883E-01	0.606
	+	296.50		1.038E+01	2.162E+00	2.686E+00	3.162E-01	3.867
		414.70		2.098E-02	5.230E-02	8.979E-02	8.397E-03	0.234
		415.30		1.489E+00	4.467E+00	7.632E+00	7.139E-01	0.195

Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		555.20		2.120E+00	2.961E+00	5.116E+00	4.826E-01	0.414
		573.80		-5.097E-01	7.779E-01	1.200E+00	1.125E-01	-0.425
		593.00		-8.710E-02	6.922E-01	1.117E+00	1.038E-01	-0.078
		656.30		2.345E+00	2.908E+00	4.490E+00	4.003E-01	0.522
		666.33		4.787E-02	6.062E-02	9.386E-02	8.348E-03	0.510
		675.00		6.379E-01	1.446E+00	2.428E+00	2.168E-01	0.263
		695.00		2.013E-02	6.259E-02	1.034E-01	9.322E-03	0.195
		697.00		1.500E-01	2.135E-01	3.630E-01	3.273E-02	0.413
		720.50	*	2.101E-02	1.066E-01	1.686E-01	1.535E-02	0.125
		856.80		1.388E-01	3.672E-01	5.621E-01	5.297E-02	0.247
		989.30		5.378E-02	9.541E-01	1.589E+00	1.459E-01	0.034
		1034.80		7.051E+00	7.056E+00	1.266E+01	1.136E+00	0.557
		1213.00		4.039E-02	3.821E+00	6.229E+00	5.079E-01	0.006
SB-127		61.10		1.619E+01	4.826E+01	7.017E+01	6.832E+00	0.231
		252.40		1.018E+00	2.827E+00	4.586E+00	1.953E+00	0.222
		290.80		4.255E-01	1.518E+01	2.155E+01	2.916E+00	0.020
		411.60		-5.946E+00	7.499E+00	1.179E+01	1.873E+00	-0.504
		444.90		9.187E+00	6.580E+00	1.174E+01	1.505E+00	0.782
		473.00		-4.740E-01	1.066E+00	1.707E+00	2.250E-01	-0.278
		543.00		4.014E+00	1.090E+01	1.837E+01	2.691E+00	0.219
		603.60		2.996E+00	8.540E+00	1.262E+01	1.596E+00	0.237
		685.20	*	2.451E-01	9.310E-01	1.535E+00	1.736E-01	0.160
		698.50		-1.036E+00	1.029E+01	1.642E+01	2.594E+00	-0.063
		722.20		-7.926E+00	2.135E+01	2.839E+01	3.179E+00	-0.279
		783.80		8.021E-01	2.607E+00	4.266E+00	5.369E-01	0.188
XE-127		57.60		-2.939E+00	5.813E+00	8.890E+00	6.427E-01	-0.331
		145.22		4.987E-01	6.178E-01	9.556E-01	8.204E-02	0.522
		172.10		-1.313E-02	9.310E-02	1.522E-01	1.402E-02	-0.086
		202.84	*	-1.064E-02	3.734E-02	6.003E-02	6.004E-03	-0.177
		374.96		-1.354E-01	1.382E-01	2.158E-01	2.123E-02	-0.627
I-131		80.18		-4.930E-01	3.863E+00	5.914E+00	5.223E-01	-0.083
		284.30		3.465E-01	1.012E+00	1.650E+00	2.024E-01	0.210
		364.48	*	-7.470E-02	7.600E-02	1.191E-01	1.259E-02	-0.627
		636.97		-1.758E-01	1.124E+00	1.797E+00	1.708E-01	-0.098
		722.89		3.746E-01	5.419E+00	7.663E+00	7.016E-01	0.049
TE-132		49.72		8.851E+00	1.348E+01	2.177E+01	2.201E+00	0.407
	+	111.76		6.677E+01	3.768E+01	3.968E+01	4.108E+00	1.683
		116.30		1.077E+01	1.946E+01	3.010E+01	3.101E+00	0.358
		228.16	*	-1.078E-01	4.485E-01	7.166E-01	1.199E-01	-0.150
BA-133		53.15		-6.600E-01	3.298E+00	5.124E+00	3.926E-01	-0.129
		79.62		-4.332E-01	1.194E+00	1.808E+00	2.765E-01	-0.240
		81.00		-2.640E-04	8.881E-02	1.450E-01	2.321E-02	-0.002
	+	276.40		3.141E-01	4.045E-01	5.321E-01	8.855E-02	0.590
		302.84		2.332E-02	1.243E-01	1.783E-01	2.753E-02	0.131
		356.01	*	4.192E-03	3.869E-02	5.821E-02	8.412E-03	0.072
		383.85		-1.938E-02	2.413E-01	4.038E-01	5.347E-02	-0.048
I-133	+	510.53		3.165E-01	2.413E-01	Half-Life too short		
		529.87	*	-2.678E-04	2.413E-01	Half-Life too short		
		706.58		1.152E-01	2.413E-01	Half-Life too short		

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		856.28		2.030E-02	2.413E-01	Half-Life too short		
		875.33		-2.399E-02	2.413E-01	Half-Life too short		
		1236.41		2.296E-01	2.413E-01	Half-Life too short		
		1298.22		5.715E-02	2.413E-01	Half-Life too short		
CS-134		475.35		4.102E-01	1.464E+00	2.475E+00	2.353E-01	0.166
		563.23		4.260E-02	3.118E-01	5.081E-01	4.819E-02	0.084
		569.32		1.074E-01	1.584E-01	2.721E-01	2.584E-02	0.395
		604.70		-1.095E-02	3.363E-02	4.631E-02	4.288E-03	-0.236
	+	795.84	*	5.410E-02	6.075E-02	7.620E-02	7.145E-03	0.710
		801.93		-2.940E-01	3.218E-01	4.811E-01	4.511E-02	-0.611
		1038.57		-6.873E-01	3.287E+00	5.314E+00	4.758E-01	-0.129
		1167.94		1.664E-01	2.201E+00	3.620E+00	2.926E-01	0.046
		1365.15		1.829E-01	9.801E-01	1.622E+00	1.439E-01	0.113
CS-135		268.24	*	1.187E-01	1.398E-01	2.110E-01	2.691E-02	0.562
I-135		288.45		-2.058E+08	1.398E-01	Half-Life too short		
		417.63		4.003E+08	1.398E-01	Half-Life too short		
		546.56		-1.411E+08	1.398E-01	Half-Life too short		
		836.80		1.132E+09	1.398E-01	Half-Life too short		
		1038.76		-1.919E+08	1.398E-01	Half-Life too short		
		1124.00		1.602E+08	1.398E-01	Half-Life too short		
		1131.51		-1.226E+08	1.398E-01	Half-Life too short		
		1260.41	*	5.923E+07	1.398E-01	Half-Life too short		
		1457.56		1.390E+10	1.398E-01	Half-Life too short		
		1678.03		3.865E+07	1.398E-01	Half-Life too short		
		1706.46		4.782E+08	1.398E-01	Half-Life too short		
		1791.20		5.259E+07	1.398E-01	Half-Life too short		
CS-136		66.91		-8.166E-01	7.421E-01	9.872E-01	1.474E-01	-0.827
	+	86.29		2.636E+00	1.156E+00	1.657E+00	2.222E-01	1.591
		153.22		-9.143E-02	5.016E-01	8.243E-01	8.041E-02	-0.111
		163.89		3.352E-01	8.507E-01	1.389E+00	1.391E-01	0.241
		176.55		-1.214E-02	2.726E-01	4.470E-01	4.373E-02	-0.027
		273.65		-2.096E-02	4.787E-01	5.315E-01	6.531E-02	-0.039
		340.57		-2.370E-02	1.068E-01	1.573E-01	1.739E-02	-0.151
		818.51		-3.134E-02	5.656E-02	9.036E-02	8.467E-03	-0.347
		1048.07	*	-1.873E-02	8.651E-02	1.397E-01	1.293E-02	-0.134
		1235.34		5.044E-02	5.186E-01	8.495E-01	9.817E-02	0.059
CE-139		165.85	*	-1.016E-02	2.442E-02	3.952E-02	3.584E-03	-0.257
BA-140		162.64		1.022E-01	5.941E-01	9.623E-01	9.110E-02	0.106
		304.84		-7.329E-01	1.091E+00	1.522E+00	4.429E-01	-0.481
		423.70		-2.455E-01	1.347E+00	2.217E+00	7.235E-01	-0.111
		537.32	*	1.472E-01	2.085E-01	3.507E-01	1.170E-01	0.420
LA-140	+	328.77		7.537E-02	3.945E-01	4.180E-01	4.818E-02	0.180
		432.53		-2.645E-02	1.452E+00	2.419E+00	2.371E-01	-0.011
		487.03		4.000E-02	1.031E-01	1.752E-01	1.752E-02	0.228
		751.79		-7.756E-01	1.398E+00	2.119E+00	2.135E-01	-0.366
		815.85		2.577E-01	2.392E-01	4.361E-01	4.484E-02	0.591
		867.82		-2.403E-01	1.156E+00	1.718E+00	1.693E-01	-0.140
		919.63		-1.514E+00	2.137E+00	3.308E+00	3.737E-01	-0.458
		925.24		5.679E-01	9.040E-01	1.585E+00	1.568E-01	0.358

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1596.49	*	8.317E-04	6.572E-02	1.096E-01	9.333E-03	0.008
CE-141		145.44	*	2.583E-02	5.512E-02	8.398E-02	7.346E-03	0.308
CE-143		57.37		2.575E-05	5.512E-02	Half-Life too short		
		231.56		3.024E-04	5.512E-02	Half-Life too short		
		293.26	*	1.771E-04	5.512E-02	Half-Life too short		
	+	350.59		1.224E-02	5.512E-02	Half-Life too short		
		490.36		-1.007E-03	5.512E-02	Half-Life too short		
		664.57		2.383E-04	5.512E-02	Half-Life too short		
		721.93		-7.275E-04	5.512E-02	Half-Life too short		
CE-144		80.11		-3.083E-01	1.970E+00	3.012E+00	2.645E-01	-0.102
		133.54	*	5.991E-02	1.672E-01	2.823E-01	4.359E-02	0.212
PM-144		476.78		2.112E-02	5.284E-02	9.001E-02	9.220E-03	0.235
		618.01		6.114E-03	2.468E-02	4.098E-02	3.848E-03	0.149
		696.49	*	1.596E-02	2.933E-02	4.930E-02	4.446E-03	0.324
		778.57		4.089E-01	1.975E+00	3.212E+00	2.981E-01	0.127
PR-144		696.49	*	1.081E+00	1.986E+00	3.339E+00	3.010E-01	0.324
		1489.15		-1.843E+00	8.278E+00	1.334E+01	1.140E+00	-0.138
PM-146		453.90	*	2.101E-02	3.536E-02	6.098E-02	6.964E-03	0.345
		633.02		1.329E-01	1.132E+00	1.854E+00	6.949E-01	0.072
		735.90		4.768E-02	1.210E-01	2.001E-01	5.755E-02	0.238
		747.13		-2.793E-02	8.002E-02	1.239E-01	1.783E-02	-0.226
ND-147		91.11		2.878E+00	4.472E-01	6.030E-01	6.027E-02	4.773
		319.41		3.920E-01	2.471E+00	3.953E+00	4.488E-01	0.099
		439.89		-1.353E+00	4.432E+00	7.233E+00	6.827E-01	-0.187
		531.02	*	-2.923E-02	4.063E-01	6.642E-01	1.027E-01	-0.044
PM-149		285.90	*	-1.150E+01	4.950E+01	7.771E+01	1.367E+01	-0.148
EU-152		121.78		-4.563E-03	5.994E-02	1.001E-01	9.665E-03	-0.046
		244.69		-4.588E-02	2.885E-01	4.092E-01	4.550E-02	-0.112
		344.27	*	1.652E-02	8.117E-02	1.346E-01	1.505E-02	0.123
		443.98		7.235E-01	7.829E-01	1.377E+00	1.301E-01	0.525
		778.89		5.342E-02	2.290E-01	3.733E-01	3.464E-02	0.143
		867.32		-9.127E-02	7.690E-01	1.103E+00	1.040E-01	-0.083
		964.01		2.427E-01	2.763E-01	4.364E-01	4.049E-02	0.556
		1085.78		3.915E-01	3.413E-01	6.171E-01	5.357E-02	0.634
		1112.02		9.765E-02	2.622E-01	4.452E-01	3.787E-02	0.219
		1407.95		-2.897E-02	1.295E-01	2.001E-01	1.704E-02	-0.145
GD-153		69.67		8.098E-01	1.385E+00	2.413E+00	1.901E-01	0.336
		83.37		1.238E+01	1.455E+01	2.290E+01	2.088E+00	0.540
	+	97.43	*	2.925E-01	1.149E-01	1.286E-01	1.143E-02	2.274
		103.18		-3.437E-02	8.976E-02	1.425E-01	1.228E-02	-0.241
EU-154		123.07		9.966E-03	4.227E-02	7.139E-02	7.944E-03	0.140
		247.94		1.046E-01	2.868E-01	4.708E-01	6.368E-02	0.222
		591.81		2.312E-01	4.912E-01	8.311E-01	1.012E-01	0.278
		723.30		4.673E-03	1.513E-01	2.128E-01	2.123E-02	0.022
		756.87		4.938E-01	6.249E-01	1.070E+00	1.328E-01	0.462
		873.19		6.185E-02	2.391E-01	4.091E-01	5.251E-02	0.151
		996.32		8.656E-02	3.397E-01	5.046E-01	9.098E-02	0.172
		1004.76		1.187E-01	1.942E-01	3.013E-01	3.619E-02	0.394
		1274.45	*	-1.867E-02	1.014E-01	1.623E-01	1.798E-02	-0.115

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155		48.70		-2.809E+00	2.273E+00	3.355E+00	2.757E-01	-0.837
		60.01		1.569E+00	5.190E+00	7.546E+00	5.390E-01	0.208
	+	86.54		2.594E-01	1.111E-01	1.638E-01	1.564E-02	1.583
		105.31	*	8.788E-02	9.012E-02	1.566E-01	1.355E-02	0.561
TB-160	+	86.79		6.851E-01	2.932E-01	4.349E-01	4.130E-02	1.575
		197.04		-7.795E-02	4.474E-01	7.246E-01	7.135E-02	-0.108
		215.65		7.243E-02	6.094E-01	9.953E-01	1.029E-01	0.073
	+	298.57		2.103E-01	1.130E-01	1.602E-01	1.881E-02	1.313
		879.36	*	1.404E-01	1.166E-01	2.132E-01	2.014E-02	0.659
		962.29		-6.286E-02	4.757E-01	6.868E-01	6.375E-02	-0.092
	+	966.15		1.936E-01	2.746E-01	3.383E-01	3.136E-02	0.572
		1177.93		-2.082E-01	3.164E-01	4.841E-01	3.899E-02	-0.430
		1271.85		-2.792E-01	6.040E-01	9.291E-01	7.716E-02	-0.300
HO-166M		80.57		1.102E-02	2.558E-01	3.941E-01	3.478E-02	0.028
	+	184.41		2.747E-01	5.698E-02	6.416E-02	6.108E-03	4.282
		280.46		1.566E-02	6.963E-02	1.008E-01	1.210E-02	0.155
		410.95		6.816E-03	1.847E-01	3.100E-01	2.894E-02	0.022
		711.68	*	1.043E-03	4.830E-02	7.781E-02	7.060E-03	0.013
		752.31		-9.161E-02	2.368E-01	3.650E-01	3.360E-02	-0.251
		810.29		-2.209E-02	4.669E-02	7.522E-02	7.032E-03	-0.294
TM-171		51.35		-8.723E+00	2.849E+01	4.411E+01	3.476E+00	-0.198
		52.39		7.729E-01	1.443E+01	2.269E+01	1.759E+00	0.034
		59.40		1.263E+01	2.780E+01	4.072E+01	2.892E+00	0.310
		66.72	*	-2.496E+01	2.812E+01	3.827E+01	2.932E+00	-0.652
LU-176	+	88.36		5.110E-01	2.188E-01	3.090E-01	2.966E-02	1.654
		201.83		-1.502E-02	2.367E-02	3.738E-02	3.728E-03	-0.402
		306.84	*	-3.890E-03	2.108E-02	3.266E-02	3.788E-03	-0.119
		401.10		-3.825E+00	4.892E+00	7.737E+00	7.189E-01	-0.494
LU-177M		52.97		-4.266E-01	1.482E+00	2.293E+00	1.762E-01	-0.186
		54.07		-3.844E-01	7.866E-01	1.205E+00	9.106E-02	-0.319
		61.30		6.066E-01	1.548E+00	2.256E+00	1.637E-01	0.269
		121.62		-4.952E-02	3.090E-01	5.144E-01	4.270E-02	-0.096
		147.16		3.807E-01	5.681E-01	8.742E-01	7.539E-02	0.435
		171.86		-3.313E-02	3.829E-01	6.276E-01	5.779E-02	-0.053
		218.09		2.706E-01	7.145E-01	1.180E+00	1.228E-01	0.229
	+	268.79		2.076E+00	1.063E+00	1.149E+00	1.350E-01	1.806
		319.02		-6.024E-02	2.089E-01	3.240E-01	3.681E-02	-0.186
		367.43		-3.504E-01	6.923E-01	1.129E+00	1.138E-01	-0.310
		413.65	*	-6.555E-03	1.316E-01	2.195E-01	2.052E-02	-0.030
HF-181		56.28		2.370E-01	8.750E-01	1.384E+00	1.016E-01	0.171
		57.53		-2.570E-01	4.907E-01	7.499E-01	5.425E-02	-0.343
		65.20		3.565E-01	9.067E-01	1.318E+00	9.955E-02	0.270
		133.02		1.680E-02	5.251E-02	8.864E-02	7.433E-03	0.189
		136.25		-1.919E-01	3.616E-01	5.890E-01	4.965E-02	-0.326
		345.85		1.637E-01	1.538E-01	2.584E-01	2.770E-02	0.634
		482.03	*	1.247E-02	3.160E-02	5.385E-02	5.122E-03	0.232
W-181		56.28		9.472E-02	3.470E-01	5.489E-01	4.029E-02	0.173
		57.53		-1.021E-01	1.948E-01	2.976E-01	2.153E-02	-0.343
		65.20	*	1.404E-01	3.570E-01	5.191E-01	3.920E-02	0.270

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TA-182		67.75		-3.274E-02	1.013E-01	1.551E-01	1.200E-02	-0.211
	+	100.10		6.786E-01	2.665E-01	2.563E-01	2.241E-02	2.648
		152.43		1.171E-01	2.652E-01	4.469E-01	3.905E-02	0.262
		222.10		-1.949E-01	2.838E-01	4.429E-01	4.658E-02	-0.440
	+	1001.68		9.115E+00	3.023E+00	4.911E+00	4.483E-01	1.856
	+	1121.28		5.232E-01	1.706E-01	2.796E-01	2.360E-02	1.871
		1189.05		7.392E-02	2.690E-01	4.495E-01	3.635E-02	0.164
		1221.42	*	1.481E-01	1.680E-01	2.937E-01	2.402E-02	0.504
		1230.97		3.468E-01	4.353E-01	7.518E-01	6.167E-02	0.461
RE-183		57.98		-7.291E-02	1.926E-01	2.961E-01	2.132E-02	-0.246
		59.32		6.995E-02	1.120E-01	1.654E-01	1.175E-02	0.423
		67.20		-2.252E-01	2.005E-01	2.693E-01	2.073E-02	-0.836
		162.32	*	3.874E-03	8.920E-02	1.475E-01	1.324E-02	0.026
	+	208.81		1.203E+00	8.455E-01	1.367E+00	1.389E-01	0.880
		291.72		-5.178E-03	8.065E-01	1.141E+00	1.352E-01	-0.005
RE-184		57.98		-2.706E-01	7.147E-01	1.099E+00	7.911E-02	-0.246
		59.32		2.594E-01	4.154E-01	6.132E-01	4.358E-02	0.423
		67.20		-8.356E-01	7.438E-01	9.992E-01	7.690E-02	-0.836
		161.27		-2.628E-01	2.960E-01	4.691E-01	4.198E-02	-0.560
		216.55		9.561E-02	2.209E-01	3.656E-01	3.790E-02	0.262
		252.85	*	6.561E-02	1.893E-01	3.101E-01	3.514E-02	0.212
		318.01		1.409E-01	3.581E-01	5.818E-01	6.622E-02	0.242
		792.07		8.500E-02	8.351E-01	1.242E+00	1.157E-01	0.068
		903.28		-3.506E-01	7.409E-01	1.177E+00	1.112E-01	-0.298
		920.93		-1.049E-01	3.741E-01	6.070E-01	5.710E-02	-0.173
OS-185		59.72		7.443E-02	3.064E-01	4.444E-01	3.163E-02	0.167
		61.14		5.885E-02	1.697E-01	2.469E-01	1.788E-02	0.238
		69.30		3.529E-01	2.448E-01	4.343E-01	3.410E-02	0.813
		592.07		8.092E-01	1.975E+00	3.330E+00	3.096E-01	0.243
		646.12	*	1.544E-02	3.360E-02	5.662E-02	5.089E-03	0.273
		717.42		8.303E-02	6.976E-01	1.134E+00	1.031E-01	0.073
		874.81		-4.008E-01	4.838E-01	7.454E-01	7.038E-02	-0.538
		880.27		5.973E-01	6.375E-01	1.147E+00	1.084E-01	0.521
RE-188		155.03	*	1.426E-02	1.351E-01	2.245E-01	1.975E-02	0.064
		477.96		1.649E+00	2.359E+00	4.097E+00	3.895E-01	0.402
		633.10		2.807E-01	2.244E+00	3.681E+00	3.340E-01	0.076
W-188	+	63.58		6.203E+02	1.003E+02	1.223E+02	9.093E+00	5.070
		227.08		5.526E+00	1.049E+01	1.739E+01	1.852E+00	0.318
		290.67	*	1.395E-01	6.477E+00	9.191E+00	1.090E+00	0.015
IR-192	+	295.96		8.422E-01	1.756E-01	2.333E-01	2.760E-02	3.609
		308.46		9.516E-03	7.875E-02	1.259E-01	1.461E-02	0.076
		316.51	*	-1.155E-03	2.816E-02	4.448E-02	5.083E-03	-0.026
		468.07		-4.316E-03	5.770E-02	8.342E-02	8.394E-03	-0.052
		604.41		-1.869E-01	4.480E-01	6.100E-01	8.197E-02	-0.306
		612.46		4.969E-01	6.029E-01	9.344E-01	9.725E-02	0.532
AU-195		65.12		1.152E-01	1.675E-01	2.465E-01	1.860E-02	0.467
		66.83		-8.220E-02	9.260E-02	1.260E-01	9.665E-03	-0.652
	+	75.70		6.401E-01	1.940E-01	3.391E-01	2.837E-02	1.888
	+	98.88	*	8.507E-01	3.341E-01	3.858E-01	3.397E-02	2.205

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		129.76		2.658E+00	2.388E+00	4.131E+00	3.449E-01	0.643
TL-200		367.94	*	4.431E-06	2.388E+00	Half-Life too short		
		579.30		-6.747E-04	2.388E+00	Half-Life too short		
		828.27		1.408E-03	2.388E+00	Half-Life too short		
		1205.75		5.708E-04	2.388E+00	Half-Life too short		
TL-201		68.90		3.481E+00	2.998E+00	5.294E+00	4.141E-01	0.658
		70.82		-2.395E+00	1.824E+00	2.852E+00	2.272E-01	-0.840
		80.30		-2.771E-01	3.542E+00	5.432E+00	4.779E-01	-0.051
		135.34		-1.481E+01	1.553E+01	2.481E+01	2.088E+00	-0.597
		167.43	*	2.383E+00	4.167E+00	7.030E+00	6.400E-01	0.339
TL-202		68.90		3.864E-01	3.328E-01	5.875E-01	4.595E-02	0.658
		70.82		-2.651E-01	2.018E-01	3.156E-01	2.515E-02	-0.840
		80.30		-3.067E-02	3.921E-01	6.014E-01	5.291E-02	-0.051
		439.56	*	-5.583E-03	5.216E-02	8.629E-02	8.143E-03	-0.065
BI-207		72.80		8.035E-02	1.681E-01	2.641E-01	2.145E-02	0.304
	+	74.97		3.567E-01	1.081E-01	1.790E-01	1.487E-02	1.993
		84.90		1.207E-01	1.869E-01	2.922E-01	2.712E-02	0.413
		569.67		1.885E-02	2.412E-02	4.179E-02	3.923E-03	0.451
		1063.62	*	6.687E-03	4.281E-02	7.158E-02	6.310E-03	0.093
		1770.23		-1.820E-01	4.972E-01	6.391E-01	5.282E-02	-0.285
TL-207		81.07		-6.400E-03	1.958E-01	3.193E-01	2.834E-02	-0.020
		83.78		1.047E-01	1.264E-01	1.987E-01	1.820E-02	0.527
		94.90		5.357E-01	2.576E-01	3.513E-01	3.176E-02	1.525
		122.32		2.570E-01	1.438E+00	2.424E+00	2.171E-01	0.106
	+	144.24		1.751E+00	8.732E-01	1.033E+00	9.911E-02	1.695
		154.21		-7.331E-02	3.188E-01	5.226E-01	5.028E-02	-0.140
	+	269.46		4.885E-01	2.503E-01	2.887E-01	3.434E-02	1.692
		323.87	*	1.252E-01	5.912E-01	8.455E-01	1.617E-01	0.148
	+	338.28		3.984E+00	1.625E+00	2.001E+00	2.805E-01	1.991
		445.03		2.619E+00	1.907E+00	3.403E+00	4.320E-01	0.770
PO-209		260.50		-2.614E+00	7.951E+00	1.251E+01	1.443E+00	-0.209
		262.80		-2.551E+01	2.075E+01	3.030E+01	3.512E+00	-0.842
		896.60	*	2.053E-01	5.873E+00	9.838E+00	9.304E-01	0.021
BI-210		46.50	*	1.675E+00	3.290E+00	5.251E+00	4.897E-01	0.319
PB-210		46.50	*	1.675E+00	3.290E+00	5.251E+00	4.897E-01	0.319
PO-210		46.50	*	1.675E+00	3.290E+00	5.251E+00	4.436E-01	0.319
PB-211		404.84	*	6.400E-02	7.040E-01	1.185E+00	7.436E-01	0.054
		427.08		-8.026E-02	1.545E+00	2.569E+00	1.599E+00	-0.031
		831.96		-1.154E+00	1.217E+00	1.472E+00	9.244E-01	-0.784
BI-212	+	727.18	*	7.247E-01	4.287E-01	5.378E-01	5.619E-02	1.347
		785.46		9.595E-01	1.483E+00	2.615E+00	2.431E-01	0.367
		1620.62		5.423E-01	8.336E-01	1.545E+00	1.313E-01	0.351
PO-215		81.07		-6.400E-03	1.958E-01	3.193E-01	2.834E-02	-0.020
		83.78		1.047E-01	1.264E-01	1.987E-01	1.820E-02	0.527
		94.90		5.357E-01	2.576E-01	3.513E-01	3.176E-02	1.525
		122.32		2.570E-01	1.438E+00	2.424E+00	2.171E-01	0.106
	+	144.24		1.751E+00	8.732E-01	1.033E+00	9.911E-02	1.695
		154.21		-7.331E-02	3.188E-01	5.226E-01	5.028E-02	-0.140
	+	269.46		4.885E-01	2.503E-01	2.887E-01	3.434E-02	1.692

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	1.252E-01	5.912E-01	8.455E-01	1.617E-01	0.148
	+	338.28		3.984E+00	1.625E+00	2.001E+00	2.805E-01	1.991
		445.03		2.619E+00	1.907E+00	3.403E+00	4.320E-01	0.770
RN-219	+	271.23		6.268E-01	3.229E-01	3.599E-01	4.712E-02	1.742
		401.81	*	-2.123E-01	3.070E-01	4.876E-01	7.521E-02	-0.435
RN-220		549.76	*	-7.425E+00	2.127E+01	3.390E+01	3.203E+00	-0.219
RA-223		81.07		-6.400E-03	1.958E-01	3.193E-01	2.834E-02	-0.020
		83.78		1.047E-01	1.264E-01	1.987E-01	1.820E-02	0.527
		94.90		5.357E-01	2.576E-01	3.513E-01	3.176E-02	1.525
		122.32		2.570E-01	1.438E+00	2.424E+00	2.171E-01	0.106
	+	144.24		1.751E+00	8.732E-01	1.033E+00	9.911E-02	1.695
		154.21		-7.331E-02	3.188E-01	5.226E-01	5.028E-02	-0.140
	+	269.46		4.885E-01	2.503E-01	2.887E-01	3.434E-02	1.692
		323.87	*	1.252E-01	5.912E-01	8.455E-01	1.617E-01	0.148
	+	338.28		3.984E+00	1.625E+00	2.001E+00	2.805E-01	1.991
		445.03		2.619E+00	1.907E+00	3.403E+00	4.320E-01	0.770
AC-227		79.80		-3.384E-01	1.519E+00	2.316E+00	4.991E-01	-0.146
		236.00		1.538E-02	2.064E-01	2.985E-01	4.160E-02	0.052
		256.20	*	-9.122E-02	3.276E-01	5.176E-01	8.841E-02	-0.176
		286.10		2.813E-01	1.204E+00	1.948E+00	3.032E-01	0.144
	+	299.80		2.710E+00	1.513E+00	2.085E+00	4.006E-01	1.300
		304.40		-1.002E+00	1.679E+00	2.387E+00	4.781E-01	-0.420
		334.20		-1.659E+00	2.053E+00	2.842E+00	5.851E-01	-0.584
TH-227		79.80		-3.384E-01	1.519E+00	2.316E+00	5.055E-01	-0.146
	+	94.00		6.723E+01	1.537E+01	4.988E+00	1.096E+00	13.477
		236.00		1.538E-02	2.064E-01	2.985E-01	3.857E-02	0.052
		256.20	*	-9.122E-02	3.277E-01	5.176E-01	1.012E-01	-0.176
		286.10		2.813E-01	1.236E+00	1.948E+00	1.962E+00	0.144
	+	299.80		2.710E+00	1.513E+00	2.085E+00	4.006E-01	1.300
		304.40		-1.002E+00	1.679E+00	2.387E+00	4.781E-01	-0.420
		334.20		-1.659E+00	2.053E+00	2.842E+00	5.851E-01	-0.584
TH-229		85.43		1.179E-01	1.807E-01	2.831E-01	2.644E-02	0.417
	+	88.47		2.942E-01	1.259E-01	1.778E-01	1.704E-02	1.655
	+	100.00		7.094E-01	2.786E-01	2.713E-01	2.374E-02	2.615
		193.63	*	4.676E-02	4.115E-01	6.760E-01	6.596E-02	0.069
		210.97		1.875E-01	6.748E-01	9.962E-01	1.018E-01	0.188
PA-231		283.67	*	-6.816E-01	1.163E+00	1.773E+00	3.066E-01	-0.385
	+	301.29		1.084E+00	5.900E-01	7.840E-01	1.143E-01	1.383
TH-231		81.07		-6.400E-03	1.958E-01	3.193E-01	2.834E-02	-0.020
		83.78		1.047E-01	1.264E-01	1.987E-01	1.820E-02	0.527
		94.90		5.357E-01	2.576E-01	3.513E-01	3.176E-02	1.525
		122.32		2.570E-01	1.438E+00	2.424E+00	2.171E-01	0.106
	+	144.24		1.751E+00	8.732E-01	1.033E+00	9.911E-02	1.695
		154.21		-7.331E-02	3.188E-01	5.226E-01	5.028E-02	-0.140
	+	269.46		4.885E-01	2.503E-01	2.887E-01	3.434E-02	1.692
		323.87	*	1.252E-01	5.912E-01	8.455E-01	1.617E-01	0.148
	+	338.28		3.984E+00	1.625E+00	2.001E+00	2.805E-01	1.991
		445.03		2.619E+00	1.907E+00	3.403E+00	4.320E-01	0.770
U-231		84.21		4.653E+00	4.397E+00	6.952E+00	6.400E-01	0.669

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		5.420E+01	6.009E+00	5.586E+00	5.159E-01	9.702
		95.87	*	1.029E+00	9.781E-01	1.273E+00	1.143E-01	0.809
		108.00		-1.186E+00	1.586E+00	2.311E+00	1.958E-01	-0.513
PA-233	+	75.28		1.041E+01	3.420E+00	5.262E+00	7.991E-01	1.978
	+	86.59		4.218E+00	2.099E+00	2.667E+00	7.229E-01	1.582
	+	300.12		7.556E-01	4.161E-01	5.745E-01	9.685E-02	1.315
		311.98	*	2.754E-02	5.262E-02	8.616E-02	1.007E-02	0.320
		340.50		-5.601E-02	5.561E-01	8.262E-01	2.044E-01	-0.068
		398.62		-1.800E-01	1.580E+00	2.630E+00	7.060E-01	-0.068
		415.76		-6.026E-02	1.278E+00	2.132E+00	4.659E-01	-0.028
PA-234	+	63.00		1.821E+01	3.765E+00	3.720E+00	5.525E-01	4.896
		94.67		6.242E-01	2.093E-01	2.816E-01	3.579E-02	2.216
	+	98.44		3.463E-01	2.344E-01	1.556E-01	8.685E-02	2.226
	+	99.86		1.795E+00	7.050E-01	7.099E-01	6.217E-02	2.529
	+	111.00		5.408E-01	3.068E-01	2.892E-01	3.452E-02	1.870
		131.20		-1.024E-01	9.099E-02	1.448E-01	1.212E-02	-0.707
		152.70		1.332E-01	2.581E-01	4.348E-01	7.439E-02	0.306
	+	186.00		9.891E+00	3.607E+00	2.685E+00	8.453E-01	3.684
		226.40		2.566E-01	3.383E-01	5.646E-01	8.240E-02	0.454
		227.20		1.751E-01	3.580E-01	5.927E-01	6.314E-02	0.295
		248.90		-5.122E-02	6.578E-01	1.054E+00	2.481E-01	-0.049
		293.70		3.256E+00	9.386E-01	1.271E+00	2.427E-01	2.561
		369.80		6.326E-01	6.856E-01	1.193E+00	2.668E-01	0.530
		568.70		3.158E-02	8.163E-01	1.340E+00	1.258E-01	0.024
		569.50		1.365E-01	2.183E-01	3.739E-01	3.511E-02	0.365
		574.00		-6.334E-01	1.208E+00	1.888E+00	1.769E-01	-0.336
		699.00		-1.409E-02	5.917E-01	9.507E-01	1.832E-01	-0.015
		706.10		1.642E-01	8.453E-01	1.378E+00	6.158E-01	0.119
		733.00		2.309E-01	3.390E-01	5.113E-01	1.146E-01	0.452
		742.81		1.325E+00	1.452E+00	2.025E+00	1.362E+00	0.655
	+	796.30		1.053E+00	1.212E+00	1.443E+00	3.936E-01	0.730
		805.60		1.509E-01	7.897E-01	1.348E+00	4.161E-01	0.112
		819.60		-4.334E-01	9.819E-01	1.561E+00	5.964E-01	-0.278
		826.30		-2.103E-01	6.418E-01	1.034E+00	4.643E-01	-0.203
		831.60		-5.894E-01	5.301E-01	7.510E-01	2.258E-01	-0.785
		876.40		-4.145E-01	8.241E-01	1.118E+00	1.150E+00	-0.371
		880.51		1.980E-01	2.343E-01	4.188E-01	3.956E-02	0.473
		883.24		-2.117E-01	2.812E-01	3.730E-01	2.512E-01	-0.568
		899.00		-3.207E-01	6.517E-01	1.009E+00	4.428E-01	-0.318
		925.00		6.769E-01	1.000E+00	1.761E+00	1.654E-01	0.385
		926.50		7.518E-02	1.498E-01	2.583E-01	6.601E-02	0.291
		946.00	*	5.356E-02	2.490E-01	4.217E-01	8.056E-02	0.127
		949.00		3.300E-01	3.670E-01	6.567E-01	6.126E-02	0.502
		980.50		4.073E-03	5.632E-01	9.344E-01	8.612E-02	0.004
		1394.10		2.544E-01	9.338E-01	1.540E+00	1.002E+00	0.165
NP-236		94.67		4.786E-01	1.533E-01	2.141E-01	1.939E-02	2.236
	+	98.44		2.618E-01	1.028E-01	1.176E-01	1.038E-02	2.226
	+	111.00		4.090E-01	2.295E-01	2.188E-01	1.839E-02	1.870
		160.31	*	-1.318E-02	6.696E-02	1.097E-01	9.791E-03	-0.120

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		5.984E-01	2.350E-01	2.551E-01	2.238E-02	2.346
		117.00	*	-8.547E-02	1.735E-01	2.548E-01	2.121E-02	-0.335
	+	209.75		9.609E-01	6.752E-01	1.124E+00	1.145E-01	0.855
		228.18		-4.564E-02	1.905E-01	3.045E-01	3.252E-02	-0.150
	+	277.60		1.533E-01	1.966E-01	2.562E-01	3.066E-02	0.598
		334.30		-9.340E-01	1.152E+00	1.612E+00	1.775E-01	-0.580
AM-241		59.54	*	3.966E-02	1.632E-01	2.367E-01	1.858E-02	0.168
CM-243	+	99.55		6.157E-01	2.418E-01	2.624E-01	2.302E-02	2.346
		103.76	*	1.810E-03	7.957E-02	1.344E-01	1.156E-02	0.013
		117.00		-8.792E-02	1.785E-01	2.621E-01	2.182E-02	-0.335
	+	209.75		9.472E-01	6.655E-01	1.108E+00	1.129E-01	0.855
		228.18		-4.611E-02	1.924E-01	3.077E-01	3.285E-02	-0.150
	+	277.60		1.545E-01	1.982E-01	2.583E-01	3.091E-02	0.598
AM-246		798.80		2.206E-02	1.187E-01	1.783E-01	1.663E-02	0.124
		1036.00		-2.135E-01	2.631E-01	3.992E-01	3.579E-02	-0.535
		1062.04		6.088E-02	1.884E-01	3.200E-01	2.823E-02	0.190
		1078.86	*	-5.210E-03	1.271E-01	2.083E-01	1.817E-02	-0.025
CM-247	+	278.00		6.357E-01	8.154E-01	1.071E+00	1.283E-01	0.594
		287.40		3.574E-01	9.941E-01	1.619E+00	1.928E-01	0.221
		402.60	*	4.154E-03	2.704E-02	4.580E-02	4.258E-03	0.091
CF-249		252.85		2.475E-01	7.139E-01	1.169E+00	1.325E-01	0.212
		333.44		-1.035E-01	1.623E-01	2.138E-01	2.360E-02	-0.484
		387.95	*	-1.284E-03	3.226E-02	5.408E-02	5.073E-03	-0.024
CF-251		176.60	*	-4.466E-03	1.003E-01	1.644E-01	1.533E-02	-0.027
		227.00		1.544E-01	3.202E-01	5.300E-01	5.643E-02	0.291
		285.00		1.576E-01	1.367E+00	2.197E+00	2.623E-01	0.072

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                              DETECTOR DATA                                  *
*                                                                             *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395011        *
* Acquisition date :  2-FEB-2010 09:18:04 Detector SN#     :                 *
* Detector ID        : GAM16               Sensitivity     : 5.000           *
* Geometry           : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:     0 02:00:02.14     Half life ratio :  8.000          *
*******************************************************************************
*                                                                             *
*                              SAMPLE DATA                                    *
*                                                                             *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID          : G245395011           Analyst initials: MXR1            *
* Batch Number       : 944966               Sample Quantity : 1.4764E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000       *
*******************************************************************************
*                                                                             *
*                                QC DATA                                      *
* Standard Weight  :    0.00000                                               *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.659E+01	2.762E+00	4.432E-01	0.000E+00
CD-109	2.188E+00	9.179E-01	1.484E+00	0.000E+00
SN-126	2.155E-01	9.039E-02	1.455E-01	0.000E+00
BA-137M	2.088E-01	5.119E-02	4.860E-02	0.000E+00
CS-137	2.207E-01	5.413E-02	5.138E-02	0.000E+00
LU-177	1.193E+00	8.216E-01	1.337E+00	0.000E+00
HG-203	3.440E-02	4.325E-02	4.790E-02	0.000E+00
TL-208	3.130E-01	6.547E-02	4.624E-02	0.000E+00
BI-211	2.869E+00	4.562E-01	2.661E-01	0.000E+00
PB-212	1.224E+00	1.668E-01	7.476E-02	0.000E+00
PO-212	1.224E+00	1.668E-01	7.476E-02	0.000E+00
BI-214	9.181E-01	1.715E-01	9.301E-02	0.000E+00
PB-214	9.980E-01	1.667E-01	9.974E-02	0.000E+00
PO-214	9.980E-01	1.667E-01	9.974E-02	0.000E+00
PO-216	1.224E+00	1.668E-01	7.476E-02	0.000E+00
PO-218	9.980E-01	1.667E-01	9.974E-02	0.000E+00
RA-224	2.673E+00	9.370E-01	8.507E-01	0.000E+00
RA-226	9.181E-01	1.715E-01	9.301E-02	0.000E+00
AC-228	1.083E+00	2.654E-01	1.922E-01	0.000E+00
RA-228	1.083E+00	2.654E-01	1.922E-01	0.000E+00
TH-228	1.241E+00	1.691E-01	7.580E-02	0.000E+00
TH-230	9.181E-01	1.715E-01	9.301E-02	0.000E+00
TH-232	1.083E+00	2.654E-01	1.922E-01	0.000E+00
PA-234M	2.085E+01	6.852E+00	6.349E+00	0.000E+00
TH-234	1.562E+01	3.460E+00	2.030E+00	0.000E+00
U-234	9.181E-01	1.715E-01	9.301E-02	0.000E+00
U-235	5.402E-01	2.751E-01	2.897E-01	0.000E+00
NP-237	6.327E-01	2.946E-01	4.064E-01	0.000E+00
U-238	1.562E+01	3.460E+00	2.030E+00	0.000E+00
AM-243	1.987E-01	5.901E-02	8.755E-02	0.000E+00
ANH-511	8.316E-02	6.303E-02	3.660E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	7.719E-02	2.448E-01	4.371E-01	0.000E+00	NOT IDENT.
NA-22	-4.092E-03	3.538E-02	5.883E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.479E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.235E-02	2.300E-02	4.264E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.306E-02	6.367E-02	0.000E+00	FAIL ABUN
SC-46	-2.693E-03	3.051E-02	5.255E-02	0.000E+00	FAIL ABUN
V-48	1.777E-02	5.144E-02	9.130E-02	0.000E+00	NOT IDENT.
CR-51	-9.721E-02	2.877E-01	4.732E-01	0.000E+00	NOT IDENT.
MN-52	-9.743E-02	1.451E-01	2.096E-01	0.000E+00	FAIL ABUN
MN-54	1.903E-02	3.044E-02	5.561E-02	0.000E+00	NOT IDENT.
CO-56	2.283E-03	3.175E-02	5.573E-02	0.000E+00	NOT IDENT.
CO-57	3.505E-04	2.020E-02	3.684E-02	0.000E+00	NOT IDENT.
CO-58	-8.108E-03	2.991E-02	5.118E-02	0.000E+00	NOT IDENT.
FE-59	-6.510E-02	7.500E-02	1.161E-01	0.000E+00	FAIL ABUN
CO-60	2.689E-03	3.222E-02	5.411E-02	0.000E+00	NOT IDENT.
ZN-65	-1.050E-03	8.056E-02	1.180E-01	0.000E+00	NOT IDENT.
GE-68	6.300E-01	1.048E+00	1.878E+00	0.000E+00	NOT IDENT.
AS-73	1.384E-01	7.321E-01	1.281E+00	0.000E+00	NOT IDENT.
AS-74	2.671E-02	6.753E-02	1.191E-01	0.000E+00	NOT IDENT.
SE-75	3.112E-03	3.546E-02	5.451E-02	0.000E+00	NOT IDENT.
BR-77	-3.312E+00	5.601E+00	9.241E+00	0.000E+00	FAIL ABUN
SR-82	-1.464E-01	3.102E-01	4.929E-01	0.000E+00	NOT IDENT.
RB-83	-3.000E-02	5.255E-02	8.686E-02	0.000E+00	NOT IDENT.
RB-84	8.282E-03	5.637E-02	9.917E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.484E+00	1.138E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.282E-02	5.759E-02	0.000E+00	NOT IDENT.
RB-86	4.003E-01	6.382E-01	1.146E+00	0.000E+00	NOT IDENT.
Y-88	8.904E-03	2.677E-02	4.773E-02	0.000E+00	NOT IDENT.
ZR-88	4.923E-03	2.420E-02	4.356E-02	0.000E+00	NOT IDENT.
Y-91	6.632E+00	1.717E+01	2.974E+01	0.000E+00	NOT IDENT.
NB-94	-2.101E-02	2.625E-02	4.079E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.519E-02	7.866E-02	0.000E+00	NOT IDENT.
NB-95M	-4.210E-02	1.088E-01	1.635E-01	0.000E+00	NOT IDENT.
ZR-95	5.133E-02	5.606E-02	1.010E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.773E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.259E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.927E+00	7.120E+00	1.107E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.110E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.252E-02	2.575E-02	4.618E-02	0.000E+00	NOT IDENT.
RH-102	-3.218E-03	2.197E-02	3.800E-02	0.000E+00	FAIL ABUN
RU-103	-8.466E-03	3.026E-02	5.153E-02	0.000E+00	FAIL ABUN
RH-106	-6.510E-02	2.583E-01	4.304E-01	0.000E+00	FAIL ABUN
RU-106	-6.510E-02	2.582E-01	4.304E-01	0.000E+00	FAIL ABUN
AG-108M	-1.425E-02	2.397E-02	4.039E-02	0.000E+00	NOT IDENT.
AG-110M	1.627E-02	3.310E-02	5.163E-02	0.000E+00	NOT IDENT.
IN-111	-4.601E-01	7.060E-01	1.031E+00	0.000E+00	NOT IDENT.
IN-113M	1.863E-02	3.529E-02	6.464E-02	0.000E+00	NOT IDENT.
SN-113	1.863E-02	3.529E-02	6.464E-02	0.000E+00	NOT IDENT.
IN-114M	-8.118E-03	1.565E-01	2.457E-01	0.000E+00	NOT IDENT.
CD-115	-3.936E+00	5.842E+00	9.562E+00	0.000E+00	NOT IDENT.
SN-117M	1.378E-03	4.203E-02	7.525E-02	0.000E+00	NOT IDENT.
SB-122	2.600E-01	1.266E+00	2.177E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	9.815E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.330E-02	2.286E-02	4.175E-02	0.000E+00	NOT IDENT.
I-124	1.744E-01	4.788E-01	7.442E-01	0.000E+00	NOT IDENT.
SB-124	-2.023E-02	5.305E-02	8.277E-02	0.000E+00	FAIL ABUN
SB-125	-9.434E-03	6.844E-02	1.197E-01	0.000E+00	FAIL ABUN
TE-125M	5.159E+00	8.395E+00	1.422E+01	0.000E+00	NOT IDENT.
I-126	1.149E-01	1.426E-01	2.310E-01	0.000E+00	NOT IDENT.
SB-126	2.101E-02	1.044E-01	1.726E-01	0.000E+00	FAIL ABUN
SB-127	2.451E-01	9.124E-01	1.573E+00	0.000E+00	NOT IDENT.
XE-127	-1.064E-02	3.659E-02	6.329E-02	0.000E+00	NOT IDENT.
I-131	-7.470E-02	7.448E-02	1.239E-01	0.000E+00	NOT IDENT.
TE-132	-1.078E-01	4.395E-01	7.535E-01	0.000E+00	FAIL ABUN
BA-133	4.192E-03	3.792E-02	6.058E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.724E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.410E-02	5.954E-02	7.782E-02	0.000E+00	FAIL ABUN
CS-135	1.187E-01	1.370E-01	2.211E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.141E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.873E-02	8.478E-02	1.417E-01	0.000E+00	FAIL ABUN
CE-139	-1.016E-02	2.393E-02	4.185E-02	0.000E+00	NOT IDENT.
BA-140	1.472E-01	2.044E-01	3.615E-01	0.000E+00	NOT IDENT.
LA-140	8.317E-04	6.441E-02	1.100E-01	0.000E+00	FAIL ABUN
CE-141	2.583E-02	5.402E-02	8.920E-02	0.000E+00	NOT IDENT.

CE-143	0.000E+00	7.865E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.991E-02	1.639E-01	3.004E-01	0.000E+00	NOT IDENT.
PM-144	1.596E-02	2.874E-02	5.050E-02	0.000E+00	NOT IDENT.
PR-144	1.081E+00	1.946E+00	3.420E+00	0.000E+00	NOT IDENT.
PM-146	2.101E-02	3.465E-02	6.311E-02	0.000E+00	NOT IDENT.
ND-147	-2.923E-02	3.981E-01	6.848E-01	0.000E+00	NOT IDENT.
PM-149	-1.150E+01	4.851E+01	8.128E+01	0.000E+00	NOT IDENT.
EU-152	1.652E-02	7.955E-02	1.402E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.126E-01	1.378E-01	0.000E+00	FAIL ABUN
EU-154	-1.867E-02	9.935E-02	1.638E-01	0.000E+00	NOT IDENT.
EU-155	8.788E-02	8.832E-02	1.675E-01	0.000E+00	FAIL ABUN
TB-160	1.404E-01	1.142E-01	2.172E-01	0.000E+00	FAIL ABUN
HO-166M	1.043E-03	4.733E-02	7.967E-02	0.000E+00	FAIL ABUN
TM-171	-2.496E+01	2.756E+01	4.134E+01	0.000E+00	NOT IDENT.
LU-176	-3.890E-03	2.066E-02	3.410E-02	0.000E+00	FAIL ABUN
LU-177M	-6.555E-03	1.290E-01	2.277E-01	0.000E+00	FAIL ABUN
HF-181	1.247E-02	3.097E-02	5.565E-02	0.000E+00	NOT IDENT.
W-181	1.404E-01	3.499E-01	5.610E-01	0.000E+00	NOT IDENT.
TA-182	1.481E-01	1.646E-01	2.968E-01	0.000E+00	FAIL ABUN
RE-183	3.874E-03	8.742E-02	1.563E-01	0.000E+00	FAIL ABUN
RE-184	6.561E-02	1.855E-01	3.253E-01	0.000E+00	NOT IDENT.
OS-185	1.544E-02	3.293E-02	5.810E-02	0.000E+00	NOT IDENT.
RE-188	1.426E-02	1.324E-01	2.381E-01	0.000E+00	NOT IDENT.
W-188	1.395E-01	6.347E+00	9.610E+00	0.000E+00	FAIL ABUN
IR-192	-1.155E-03	2.760E-02	4.642E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.274E-01	4.133E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.594E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.383E+00	4.084E+00	7.443E+00	0.000E+00	NOT IDENT.
TL-202	-5.583E-03	5.111E-02	8.937E-02	0.000E+00	NOT IDENT.
BI-207	6.687E-03	4.196E-02	7.259E-02	0.000E+00	FAIL ABUN
TL-207	1.252E-01	5.794E-01	8.818E-01	0.000E+00	FAIL ABUN
PO-209	2.053E-01	5.756E+00	1.002E+01	0.000E+00	NOT IDENT.
BI-210	1.675E+00	3.225E+00	5.717E+00	0.000E+00	NOT IDENT.
PB-210	1.675E+00	3.225E+00	5.717E+00	0.000E+00	NOT IDENT.
PO-210	1.675E+00	3.224E+00	5.717E+00	0.000E+00	NOT IDENT.
PB-211	6.400E-02	6.899E-01	1.229E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.201E-01	5.504E-01	0.000E+00	FAIL ABUN
PO-215	1.252E-01	5.794E-01	8.818E-01	0.000E+00	FAIL ABUN
RN-219	-2.123E-01	3.009E-01	5.061E-01	0.000E+00	FAIL ABUN
RN-220	-7.425E+00	2.084E+01	3.492E+01	0.000E+00	NOT IDENT.
RA-223	1.252E-01	5.794E-01	8.818E-01	0.000E+00	FAIL ABUN
AC-227	-9.122E-02	3.210E-01	5.428E-01	0.000E+00	FAIL ABUN
TH-227	-9.122E-02	3.211E-01	5.428E-01	0.000E+00	FAIL ABUN
TH-229	4.676E-02	4.032E-01	7.134E-01	0.000E+00	FAIL ABUN
PA-231	-6.816E-01	1.140E+00	1.854E+00	0.000E+00	FAIL ABUN
TH-231	1.252E-01	5.794E-01	8.818E-01	0.000E+00	FAIL ABUN
U-231	1.029E+00	9.585E-01	1.364E+00	0.000E+00	FAIL ABUN
PA-233	2.754E-02	5.157E-02	8.994E-02	0.000E+00	FAIL ABUN
PA-234	5.356E-02	2.440E-01	4.288E-01	0.000E+00	FAIL ABUN
NP-236	-1.318E-02	6.562E-02	1.163E-01	0.000E+00	FAIL ABUN
NP-239	-8.547E-02	1.700E-01	2.719E-01	0.000E+00	FAIL ABUN
AM-241	3.966E-02	1.599E-01	2.564E-01	0.000E+00	NOT IDENT.
CM-243	1.810E-03	7.798E-02	1.438E-01	0.000E+00	FAIL ABUN
AM-246	-5.210E-03	1.246E-01	2.111E-01	0.000E+00	NOT IDENT.
CM-247	4.154E-03	2.650E-02	4.753E-02	0.000E+00	FAIL ABUN
CF-249	-1.284E-03	3.161E-02	5.617E-02	0.000E+00	NOT IDENT.
CF-251	-4.466E-03	9.828E-02	1.739E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:18:41.57

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395011.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:18:04.
Sample ID         : G245395011           Sample quantity  : 1.47640E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.14  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1348	10.67*	1.208E+00	2.659E+01	2.659E+01	10.60
CD-109	88.03	196	3.72*	6.254E+00	2.143E+00	2.188E+00	42.80
SN-126	64.28	823	9.60	3.526E+00	6.184E+00	6.184E+00	20.43
	86.94	196	8.90	6.254E+00	8.958E-01	8.958E-01	58.89
	87.57	196	37.00*	6.254E+00	2.155E-01	2.155E-01	42.80
BA-137M	661.65	178	89.98*	2.405E+00	2.086E-01	2.088E-01	25.02
CS-137	661.65	178	85.12*	2.405E+00	2.205E-01	2.207E-01	25.02
LU-177	112.95	179	6.40	7.145E+00	9.970E-01	4.203E+00	56.10
	208.36	70	11.00*	5.715E+00	2.830E-01	1.193E+00	70.26
HG-203	70.83	------	4.75	4.611E+00	------	Line Not Found	------
	72.87	------	8.00	4.872E+00	------	Line Not Found	------
	82.60	------	3.55	5.895E+00	------	Line Not Found	------
	279.20	40	77.30*	4.689E+00	2.796E-02	3.440E-02	128.28
TL-208	277.35	40	6.80	4.689E+00	3.179E-01	3.179E-01	128.57
	510.84	97	21.60	2.963E+00	3.850E-01	3.850E-01	77.79
	583.14	277	84.20*	2.667E+00	3.130E-01	3.130E-01	21.34
	860.37	67	12.46	1.919E+00	7.166E-01	7.166E-01	55.00
BI-211	72.87	------	1.27	4.872E+00	------	Line Not Found	------
	351.07	575	12.94*	3.940E+00	2.869E+00	2.869E+00	16.22
PB-212	74.81	264	10.70	5.122E+00	1.226E+00	1.226E+00	31.71
	77.11	485	18.00	5.370E+00	1.275E+00	1.275E+00	18.68
	87.30	196	8.00	6.254E+00	9.965E-01	9.965E-01	43.96
	238.63	1122	44.60*	5.225E+00	1.224E+00	1.224E+00	13.91
	300.09	87	3.41	4.435E+00	1.462E+00	1.462E+00	54.04
PO-212	74.81	264	10.70	5.122E+00	1.226E+00	1.226E+00	31.71
	77.11	485	18.00	5.370E+00	1.275E+00	1.275E+00	18.68
	87.30	196	8.00	6.254E+00	9.965E-01	9.965E-01	43.96
	115.19	------	0.60	7.166E+00	------	Line Not Found	------
	238.63	1122	44.60*	5.225E+00	1.224E+00	1.224E+00	13.91
	300.09	87	3.41	4.435E+00	1.462E+00	1.462E+00	54.04
BI-214	609.31	430	46.30*	2.574E+00	9.181E-01	9.181E-01	19.06
	1120.29	100	15.10	1.516E+00	1.115E+00	1.115E+00	33.27

Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	57	15.80	1.056E+00	8.659E-01	8.660E-01	40.91
PB-214	74.81	264	6.21	5.122E+00	2.112E+00	2.112E+00	31.19
	77.11	485	10.50	5.370E+00	2.185E+00	2.185E+00	20.17
	87.30	196	4.67	6.254E+00	1.707E+00	1.707E+00	43.49
	241.98	215	7.49	5.178E+00	1.410E+00	1.410E+00	36.21
	295.21	379	19.20	4.486E+00	1.117E+00	1.117E+00	21.74
	351.92	575	37.20*	3.940E+00	9.980E-01	9.980E-01	17.04
PO-214	74.81	264	6.21	5.122E+00	2.112E+00	2.112E+00	31.19
	77.11	485	10.50	5.370E+00	2.185E+00	2.185E+00	20.17
	87.30	196	4.67	6.254E+00	1.707E+00	1.707E+00	43.49
	241.98	215	7.49	5.178E+00	1.410E+00	1.410E+00	36.21
	295.21	379	19.20	4.486E+00	1.117E+00	1.117E+00	21.74
	351.92	575	37.20*	3.940E+00	9.980E-01	9.980E-01	17.04
PO-216	74.81	264	10.70	5.122E+00	1.226E+00	1.226E+00	31.71
	77.11	485	18.00	5.370E+00	1.275E+00	1.275E+00	18.68
	87.30	196	8.00	6.254E+00	9.965E-01	9.965E-01	43.96
	238.63	1122	44.60*	5.225E+00	1.224E+00	1.224E+00	13.91
	300.09	87	3.41	4.435E+00	1.462E+00	1.462E+00	54.04
PO-218	74.81	264	6.21	5.122E+00	2.112E+00	2.112E+00	31.19
	77.11	485	10.50	5.370E+00	2.185E+00	2.185E+00	20.17
	87.30	196	4.67	6.254E+00	1.707E+00	1.707E+00	43.49
	241.98	215	7.49	5.178E+00	1.410E+00	1.410E+00	36.21
	295.21	379	19.20	4.486E+00	1.117E+00	1.117E+00	21.74
	351.92	575	37.20*	3.940E+00	9.980E-01	9.980E-01	17.04
RA-224	240.98	215	3.95*	5.178E+00	2.673E+00	2.673E+00	35.77
RA-226	609.31	430	46.30*	2.574E+00	9.181E-01	9.181E-01	19.06
	1120.29	100	15.10	1.516E+00	1.115E+00	1.115E+00	33.27
	1764.49	57	15.80	1.056E+00	8.659E-01	8.660E-01	40.91
AC-228	338.32	174	11.40	4.059E+00	9.541E-01	9.541E-01	56.70
	911.07	215	27.70*	1.824E+00	1.083E+00	1.083E+00	25.01
	969.11	121	16.60	1.727E+00	1.072E+00	1.072E+00	36.98
RA-228	338.32	174	11.40	4.059E+00	9.541E-01	9.541E-01	56.70
	911.07	215	27.70*	1.824E+00	1.083E+00	1.083E+00	25.01
	969.11	121	16.60	1.727E+00	1.072E+00	1.072E+00	36.98
TH-228	74.81	264	10.70	5.122E+00	1.226E+00	1.243E+00	30.32
	77.11	485	18.00	5.370E+00	1.275E+00	1.293E+00	18.68
	87.30	196	8.00	6.254E+00	9.965E-01	1.010E+00	42.80
	238.63	1122	44.60*	5.225E+00	1.224E+00	1.241E+00	13.91
	300.09	87	3.41	4.435E+00	1.462E+00	1.483E+00	79.53
TH-230	609.31	430	46.30*	2.574E+00	9.181E-01	9.181E-01	19.06
	1120.29	100	15.10	1.516E+00	1.115E+00	1.115E+00	33.27
	1764.49	57	15.80	1.056E+00	8.659E-01	8.659E-01	40.91
TH-232	338.32	174	11.40	4.059E+00	9.541E-01	9.541E-01	39.83
	911.07	215	27.70*	1.824E+00	1.083E+00	1.083E+00	25.01
	969.11	121	16.60	1.727E+00	1.072E+00	1.072E+00	36.98
PA-234M	766.42	86	0.32	2.121E+00	3.239E+01	3.239E+01	76.72
	1001.03	116	0.84*	1.677E+00	2.085E+01	2.085E+01	33.54
TH-234	63.29	823	3.80*	3.526E+00	1.562E+01	1.562E+01	22.60
	92.38	2440	5.41	6.591E+00	1.740E+01	1.740E+01	19.38

Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-234	609.31	430	46.30*	2.574E+00	9.181E-01	9.181E-01	19.06
	1120.29	100	15.10	1.516E+00	1.115E+00	1.115E+00	33.27
	1764.49	57	15.80	1.056E+00	8.659E-01	8.659E-01	40.91
U-235	89.95	------	2.70	6.435E+00	------ Line Not Found		------
	93.35	2440	4.50	6.591E+00	2.091E+01	2.091E+01	28.88
	105.00	------	2.10	7.034E+00	------ Line Not Found		------
	143.76	155	10.50*	6.945E+00	5.402E-01	5.402E-01	51.98
	163.35	------	4.70	6.588E+00	------ Line Not Found		------
	185.71	478	54.00	6.148E+00	3.663E-01	3.663E-01	20.74
	205.31	------	4.70	5.780E+00	------ Line Not Found		------
NP-237	86.50	196	12.60*	6.254E+00	6.327E-01	6.327E-01	47.52
	95.87	------	2.60	6.742E+00	------ Line Not Found		------
U-238	63.29	823	3.80*	3.526E+00	1.562E+01	1.562E+01	22.60
	92.38	2440	5.41	6.591E+00	1.740E+01	1.740E+01	11.09
AM-243	74.67	264	66.00*	5.122E+00	1.987E-01	1.987E-01	30.30
	86.72	196	0.34	6.254E+00	2.373E+01	2.373E+01	42.80
	117.66	------	0.55	7.175E+00	------ Line Not Found		------
	142.18	155	0.13	6.945E+00	4.537E+01	4.537E+01	49.69
ANH-511	511.00	97	100.00*	2.963E+00	8.316E-02	8.316E-02	77.34

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

Total number of lines in spectrum 36
Number of unidentified lines 0
Number of lines tentatively identified by NID 36 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.659E+01	2.659E+01	0.282E+01	10.60	
CD-109	464.00D	1.02	2.143E+00	2.188E+00	0.937E+00	42.80	
SN-126	1.00E+05Y	1.00	2.155E-01	2.155E-01	0.922E-01	42.80	
BA-137M	30.17Y	1.00	2.086E-01	2.088E-01	0.522E-01	25.02	
CS-137	30.17Y	1.00	2.205E-01	2.207E-01	0.552E-01	25.02	
LU-177	6.71D	4.22	2.830E-01	1.193E+00	0.838E+00	70.26	
HG-203	46.60D	1.23	2.796E-02	3.440E-02	4.413E-02	128.28	
TL-208	1.41E+10Y	1.00	3.130E-01	3.130E-01	0.668E-01	21.34	
BI-211	7.04E+08Y	1.00	2.869E+00	2.869E+00	0.465E+00	16.22	
PB-212	1.41E+10Y	1.00	1.224E+00	1.224E+00	0.170E+00	13.91	
PO-212	1.41E+10Y	1.00	1.224E+00	1.224E+00	0.170E+00	13.91	
BI-214	1600.00Y	1.00	9.181E-01	9.181E-01	1.750E-01	19.06	
PB-214	1600.00Y	1.00	9.980E-01	9.980E-01	1.701E-01	17.04	
PO-214	1600.00Y	1.00	9.980E-01	9.980E-01	1.701E-01	17.04	
PO-216	1.41E+10Y	1.00	1.224E+00	1.224E+00	0.170E+00	13.91	
PO-218	1600.00Y	1.00	9.980E-01	9.980E-01	1.701E-01	17.04	
RA-224	1.41E+10Y	1.00	2.673E+00	2.673E+00	0.956E+00	35.77	
RA-226	1600.00Y	1.00	9.181E-01	9.181E-01	1.750E-01	19.06	
AC-228	1.41E+10Y	1.00	1.083E+00	1.083E+00	0.271E+00	25.01	
RA-228	1.41E+10Y	1.00	1.083E+00	1.083E+00	0.271E+00	25.01	
TH-228	1.91Y	1.01	1.224E+00	1.241E+00	0.173E+00	13.91	
TH-230	4.47E+09Y	1.00	9.181E-01	9.181E-01	1.750E-01	19.06	
TH-232	1.41E+10Y	1.00	1.083E+00	1.083E+00	0.271E+00	25.01	
PA-234M	4.47E+09Y	1.00	2.085E+01	2.085E+01	0.699E+01	33.54	
TH-234	4.47E+09Y	1.00	1.562E+01	1.562E+01	0.353E+01	22.60	
U-234	4.47E+09Y	1.00	9.181E-01	9.181E-01	1.750E-01	19.06	
U-235	7.04E+08Y	1.00	5.402E-01	5.402E-01	2.808E-01	51.98	
NP-237	2.14E+06Y	1.00	6.327E-01	6.327E-01	3.007E-01	47.52	
U-238	4.47E+09Y	1.00	1.562E+01	1.562E+01	0.353E+01	22.60	
AM-243	7380.00Y	1.00	1.987E-01	1.987E-01	0.602E-01	30.30	
ANH-511	1.00E+09Y	1.00	8.316E-02	8.316E-02	6.432E-02	77.34	
	Total Activity :		1.039E+02	1.049E+02			

Grand Total Activity : 1.039E+02 1.049E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.61	237	545	0.91	197.42	193	9	3.29E-02	38.3	6.85E+00	T
0	269.98	125	226	1.33	540.15	535	11	1.74E-02	49.8	4.79E+00	T
0	328.19	12	254	1.14	656.57	650	11	1.65E-03	****	4.15E+00	T
0	463.12	84	105	1.54	926.42	921	11	1.16E-02	52.5	3.20E+00	T
0	727.53	75	96	1.00	1455.15	1449	12	1.04E-02	58.2	2.22E+00	T
0	795.50	33	78	1.53	1591.07	1583	12	4.61E-03	****	2.06E+00	T
0	934.62	20	39	1.00	1869.22	1865	9	2.72E-03	****	1.78E+00	T
0	965.67	28	81	0.95	1931.31	1922	14	3.88E-03	****	1.73E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:18:47.09

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395011.CNF;1    *
* Acquisition date : 2-FEB-2010 09:18:04.  Detector SN#     :                 *
* Detector ID      : GAM16                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:02.14         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 19-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245395011            Analyst initials: MXR1             *
* Batch Number     : 944966                Sample Quantity : 1.47640E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.659E+01	2.819E+00	4.405E-01	3.872E-02	60.366
CD-109	2.188E+00	9.366E-01	1.382E+00	1.331E-01	1.584
SN-126	2.155E-01	9.223E-02	1.355E-01	1.299E-02	1.590
BA-137M	2.088E-01	5.224E-02	4.739E-02	4.205E-03	4.406
CS-137	2.207E-01	5.523E-02	5.009E-02	4.453E-03	4.406
LU-177	1.193E+00	8.384E-01	1.269E+00	1.288E-01	0.940
HG-203	3.440E-02	4.413E-02	4.576E-02	5.577E-03	0.752
TL-208	3.130E-01	6.681E-02	4.494E-02	4.455E-03	6.964
BI-211	2.869E+00	4.655E-01	2.556E-01	2.795E-02	11.224
PB-212	1.224E+00	1.702E-01	7.118E-02	8.427E-03	17.199
PO-212	1.224E+00	1.702E-01	7.118E-02	8.427E-03	17.199
BI-214	9.181E-01	1.750E-01	9.050E-02	9.569E-03	10.145
PB-214	9.980E-01	1.701E-01	9.581E-02	1.159E-02	10.416
PO-214	9.980E-01	1.701E-01	9.581E-02	1.159E-02	10.416
PO-216	1.224E+00	1.702E-01	7.118E-02	8.427E-03	17.199
PO-218	9.980E-01	1.701E-01	9.581E-02	1.159E-02	10.416
RA-224	2.673E+00	9.561E-01	8.101E-01	8.928E-02	3.299
RA-226	9.181E-01	1.750E-01	9.050E-02	9.569E-03	10.145

Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.083E+00	2.708E-01	1.888E-01	2.242E-02	5.735
RA-228	1.083E+00	2.708E-01	1.888E-01	2.242E-02	5.735
TH-228	1.241E+00	1.726E-01	7.217E-02	8.545E-03	17.199
TH-230	9.181E-01	1.750E-01	9.050E-02	9.569E-03	10.145
TH-232	1.083E+00	2.708E-01	1.888E-01	2.242E-02	5.735
PA-234M	2.085E+01	6.992E+00	6.252E+00	6.509E-01	3.335
TH-234	1.562E+01	3.530E+00	1.877E+00	3.274E-01	8.322
U-234	9.181E-01	1.750E-01	9.050E-02	9.569E-03	10.145
U-235	5.402E-01	2.808E-01	2.727E-01	4.766E-02	1.981
NP-237	6.327E-01	3.007E-01	3.783E-01	8.588E-02	1.673
U-238	1.562E+01	3.530E+00	1.877E+00	3.274E-01	8.322
AM-243	1.987E-01	6.021E-02	8.124E-02	6.725E-03	2.446
ANH-511	8.316E-02	6.432E-02	3.547E-02	3.373E-03	2.345

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.719E-02		2.498E-01	4.229E-01	4.278E-02	0.183
NA-22	-4.092E-03		3.610E-02	5.827E-02	4.849E-03	-0.070
NA-24	5.085E-02		7.546E-02	Half-Life too short		
AL-26	1.235E-02		2.347E-02	4.261E-02	3.484E-03	0.290
TI-44	2.352E-01	+	4.394E-02	5.914E-02	5.093E-03	3.978
SC-46	-2.693E-03		3.114E-02	5.160E-02	4.878E-03	-0.052
V-48	1.777E-02		5.248E-02	8.986E-02	8.272E-03	0.198
CR-51	-9.721E-02		2.935E-01	4.536E-01	5.303E-02	-0.214
MN-52	-9.743E-02		1.480E-01	2.082E-01	1.777E-02	-0.468
MN-54	1.903E-02		3.106E-02	5.452E-02	5.121E-03	0.349
CO-56	2.283E-03		3.240E-02	5.465E-02	5.143E-03	0.042
CO-57	3.505E-04		2.061E-02	3.455E-02	2.871E-03	0.010
CO-58	-8.108E-03		3.052E-02	5.014E-02	4.698E-03	-0.162
FE-59	-6.510E-02		7.653E-02	1.146E-01	1.066E-02	-0.568
CO-60	2.689E-03		3.288E-02	5.366E-02	4.526E-03	0.050
ZN-65	-1.050E-03		8.220E-02	1.165E-01	9.893E-03	-0.009
GE-68	6.300E-01		1.069E+00	1.852E+00	1.618E-01	0.340
AS-73	1.384E-01		7.470E-01	1.181E+00	9.006E-02	0.117
AS-74	2.671E-02		6.891E-02	1.159E-01	1.075E-02	0.231
SE-75	3.112E-03		3.619E-02	5.202E-02	6.071E-03	0.060
BR-77	-3.312E+00		5.715E+00	8.959E+00	8.512E-01	-0.370
SR-82	-1.464E-01		3.165E-01	4.824E-01	4.473E-02	-0.303
RB-83	-3.000E-02		5.362E-02	8.421E-02	8.001E-03	-0.356
RB-84	8.282E-03		5.752E-02	9.736E-02	9.198E-03	0.085
KR-85	1.249E+01		6.616E+00	1.103E+01	1.048E+00	1.132
SR-85	6.320E-02		3.349E-02	5.581E-02	5.307E-03	1.132
RB-86	4.003E-01		6.512E-01	1.131E+00	9.879E-02	0.354
Y-88	8.904E-03		2.732E-02	4.771E-02	3.873E-03	0.187
ZR-88	4.923E-03		2.469E-02	4.195E-02	3.880E-03	0.117
Y-91	6.632E+00		1.752E+01	2.941E+01	2.392E+00	0.225

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	-2.101E-02		2.679E-02	3.983E-02	3.600E-03	-0.528
NB-95	1.019E-01		4.612E-02	7.696E-02	7.114E-03	1.324
NB-95M	-4.210E-02		1.110E-01	1.556E-01	1.851E-02	-0.270
ZR-95	5.133E-02		5.720E-02	9.880E-02	9.918E-03	0.520
NB-97	1.527E-02		1.415E-02	Half-Life too short		
ZR-97	4.507E-01		2.173E-01	Half-Life too short		
MO-99	-4.927E+00		7.265E+00	1.082E+01	1.678E+00	-0.455
TC-99M	-2.908E+08		5.664E+08	Half-Life too short		
RH-101	1.252E-02		2.628E-02	4.378E-02	4.323E-03	0.286
RH-102	-3.218E-03		2.242E-02	3.676E-02	3.494E-03	-0.088
RU-103	-8.466E-03		3.088E-02	4.990E-02	7.348E-03	-0.170
RH-106	-6.510E-02		2.635E-01	4.190E-01	5.742E-02	-0.155
RU-106	-6.510E-02		2.634E-01	4.190E-01	3.832E-02	-0.155
AG-108M	-1.425E-02		2.446E-02	3.899E-02	3.795E-03	-0.366
AG-110M	1.627E-02		3.378E-02	5.033E-02	4.606E-03	0.323
IN-111	-4.601E-01		7.204E-01	9.824E-01	1.094E-01	-0.468
IN-113M	1.863E-02		3.601E-02	6.225E-02	5.908E-03	0.299
SN-113	1.863E-02		3.601E-02	6.225E-02	5.908E-03	0.299
IN-114M	-8.118E-03		1.597E-01	2.328E-01	2.251E-02	-0.035
CD-115	-3.936E+00		5.961E+00	9.273E+00	8.802E-01	-0.424
SN-117M	1.378E-03		4.289E-02	7.099E-02	6.305E-03	0.019
SB-122	2.600E-01		1.292E+00	2.115E+00	1.990E-01	0.123
I-123	5.711E-01		5.008E-01	Half-Life too short		
TE-123M	1.330E-02		2.332E-02	3.939E-02	3.523E-03	0.338
I-124	1.744E-01		4.886E-01	7.239E-01	6.695E-02	0.241
SB-124	-2.023E-02		5.414E-02	8.256E-02	7.231E-03	-0.245
SB-125	-9.434E-03		6.984E-02	1.155E-01	1.103E-02	-0.082
TE-125M	5.159E+00		8.567E+00	1.331E+01	1.354E+00	0.388
I-126	1.149E-01		1.455E-01	2.252E-01	2.003E-02	0.510
SB-126	2.101E-02		1.066E-01	1.686E-01	1.535E-02	0.125
SB-127	2.451E-01		9.310E-01	1.535E+00	1.736E-01	0.160
XE-127	-1.064E-02		3.734E-02	6.003E-02	6.004E-03	-0.177
I-131	-7.470E-02		7.600E-02	1.191E-01	1.259E-02	-0.627
TE-132	-1.078E-01		4.485E-01	7.166E-01	1.199E-01	-0.150
BA-133	4.192E-03		3.869E-02	5.821E-02	8.412E-03	0.072
I-133	-2.678E-04		8.798E-04	Half-Life too short		
CS-134	5.410E-02	+	6.075E-02	7.620E-02	7.145E-03	0.710
CS-135	1.187E-01		1.398E-01	2.110E-01	2.691E-02	0.562
I-135	5.923E+07		1.092E+08	Half-Life too short		
CS-136	-1.873E-02		8.651E-02	1.397E-01	1.293E-02	-0.134
CE-139	-1.016E-02		2.442E-02	3.952E-02	3.584E-03	-0.257
BA-140	1.472E-01		2.085E-01	3.507E-01	1.170E-01	0.420
LA-140	8.317E-04		6.572E-02	1.096E-01	9.333E-03	0.008
CE-141	2.583E-02		5.512E-02	8.398E-02	7.346E-03	0.308
CE-143	1.771E-04		4.013E-05	Half-Life too short		
CE-144	5.991E-02		1.672E-01	2.823E-01	4.359E-02	0.212
PM-144	1.596E-02		2.933E-02	4.930E-02	4.446E-03	0.324
PR-144	1.081E+00		1.986E+00	3.339E+00	3.010E-01	0.324

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	2.101E-02		3.536E-02	6.098E-02	6.964E-03	0.345
ND-147	-2.923E-02		4.063E-01	6.642E-01	1.027E-01	-0.044
PM-149	-1.150E+01		4.950E+01	7.771E+01	1.367E+01	-0.148
EU-152	1.652E-02		8.117E-02	1.346E-01	1.505E-02	0.123
GD-153	2.925E-01	+	1.149E-01	1.286E-01	1.143E-02	2.274
EU-154	-1.867E-02		1.014E-01	1.623E-01	1.798E-02	-0.115
EU-155	8.788E-02		9.012E-02	1.566E-01	1.355E-02	0.561
TB-160	1.404E-01		1.166E-01	2.132E-01	2.014E-02	0.659
HO-166M	1.043E-03		4.830E-02	7.781E-02	7.060E-03	0.013
TM-171	-2.496E+01		2.812E+01	3.827E+01	2.932E+00	-0.652
LU-176	-3.890E-03		2.108E-02	3.266E-02	3.788E-03	-0.119
LU-177M	-6.555E-03		1.316E-01	2.195E-01	2.052E-02	-0.030
HF-181	1.247E-02		3.160E-02	5.385E-02	5.122E-03	0.232
W-181	1.404E-01		3.570E-01	5.191E-01	3.920E-02	0.270
TA-182	1.481E-01		1.680E-01	2.937E-01	2.402E-02	0.504
RE-183	3.874E-03		8.920E-02	1.475E-01	1.324E-02	0.026
RE-184	6.561E-02		1.893E-01	3.101E-01	3.514E-02	0.212
OS-185	1.544E-02		3.360E-02	5.662E-02	5.089E-03	0.273
RE-188	1.426E-02		1.351E-01	2.245E-01	1.975E-02	0.064
W-188	1.395E-01		6.477E+00	9.191E+00	1.090E+00	0.015
IR-192	-1.155E-03		2.816E-02	4.448E-02	5.083E-03	-0.026
AU-195	8.507E-01	+	3.341E-01	3.858E-01	3.397E-02	2.205
TL-200	4.431E-06		8.133E-05	Half-Life too short		
TL-201	2.383E+00		4.167E+00	7.030E+00	6.400E-01	0.339
TL-202	-5.583E-03		5.216E-02	8.629E-02	8.143E-03	-0.065
BI-207	6.687E-03		4.281E-02	7.158E-02	6.310E-03	0.093
TL-207	1.252E-01		5.912E-01	8.455E-01	1.617E-01	0.148
PO-209	2.053E-01		5.873E+00	9.838E+00	9.304E-01	0.021
BI-210	1.675E+00		3.290E+00	5.251E+00	4.897E-01	0.319
PB-210	1.675E+00		3.290E+00	5.251E+00	4.897E-01	0.319
PO-210	1.675E+00		3.290E+00	5.251E+00	4.436E-01	0.319
PB-211	6.400E-02		7.040E-01	1.185E+00	7.436E-01	0.054
BI-212	7.247E-01	+	4.287E-01	5.378E-01	5.619E-02	1.347
PO-215	1.252E-01		5.912E-01	8.455E-01	1.617E-01	0.148
RN-219	-2.123E-01		3.070E-01	4.876E-01	7.521E-02	-0.435
RN-220	-7.425E+00		2.127E+01	3.390E+01	3.203E+00	-0.219
RA-223	1.252E-01		5.912E-01	8.455E-01	1.617E-01	0.148
AC-227	-9.122E-02		3.276E-01	5.176E-01	8.841E-02	-0.176
TH-227	-9.122E-02		3.277E-01	5.176E-01	1.012E-01	-0.176
TH-229	4.676E-02		4.115E-01	6.760E-01	6.596E-02	0.069
PA-231	-6.816E-01		1.163E+00	1.773E+00	3.066E-01	-0.385
TH-231	1.252E-01		5.912E-01	8.455E-01	1.617E-01	0.148
U-231	1.029E+00		9.781E-01	1.273E+00	1.143E-01	0.809
PA-233	2.754E-02		5.262E-02	8.616E-02	1.007E-02	0.320
PA-234	5.356E-02		2.490E-01	4.217E-01	8.056E-02	0.127
NP-236	-1.318E-02		6.696E-02	1.097E-01	9.791E-03	-0.120
NP-239	-8.547E-02		1.735E-01	2.548E-01	2.121E-02	-0.335
AM-241	3.966E-02		1.632E-01	2.367E-01	1.858E-02	0.168

Sample ID : G245395011 Acquisition date : 2-FEB-2010 09:18:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.810E-03		7.957E-02	1.344E-01	1.156E-02	0.013
AM-246	-5.210E-03		1.271E-01	2.083E-01	1.817E-02	-0.025
CM-247	4.154E-03		2.704E-02	4.580E-02	4.258E-03	0.091
CF-249	-1.284E-03		3.226E-02	5.408E-02	5.073E-03	-0.024
CF-251	-4.466E-03		1.003E-01	1.644E-01	1.533E-02	-0.027

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395011           *
* Acquisition date :  2-FEB-2010 09:18:04 Detector SN#    :                 *
* Detector ID       : GAM16               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.14     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395011           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.4764E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.659E+01	2.762E+00	2.218E-01	1.409E+00
CD-109	2.188E+00	9.179E-01	7.423E-01	4.683E-01
SN-126	2.155E-01	9.039E-02	7.281E-02	4.612E-02
BA-137M	2.088E-01	5.119E-02	2.432E-02	2.612E-02
CS-137	2.207E-01	5.413E-02	2.570E-02	2.762E-02
LU-177	1.193E+00	8.216E-01	6.690E-01	4.192E-01
HG-203	3.440E-02	4.325E-02	2.396E-02	2.206E-02
TL-208	3.130E-01	6.547E-02	2.313E-02	3.340E-02
BI-211	2.869E+00	4.562E-01	1.331E-01	2.327E-01
PB-212	1.224E+00	1.668E-01	3.740E-02	8.511E-02
PO-212	1.224E+00	1.668E-01	3.740E-02	8.511E-02
BI-214	9.181E-01	1.715E-01	4.653E-02	8.750E-02
PB-214	9.980E-01	1.667E-01	4.990E-02	8.504E-02
PO-214	9.980E-01	1.667E-01	4.990E-02	8.504E-02
PO-216	1.224E+00	1.668E-01	3.740E-02	8.511E-02
PO-218	9.980E-01	1.667E-01	4.990E-02	8.504E-02
RA-224	2.673E+00	9.370E-01	4.256E-01	4.780E-01
RA-226	9.181E-01	1.715E-01	4.653E-02	8.750E-02
AC-228	1.083E+00	2.654E-01	9.614E-02	1.354E-01
RA-228	1.083E+00	2.654E-01	9.614E-02	1.354E-01
TH-228	1.241E+00	1.691E-01	3.792E-02	8.630E-02
TH-230	9.181E-01	1.715E-01	4.653E-02	8.750E-02
TH-232	1.083E+00	2.654E-01	9.614E-02	1.354E-01
PA-234M	2.085E+01	6.852E+00	3.176E+00	3.496E+00
TH-234	1.562E+01	3.460E+00	1.016E+00	1.765E+00
U-234	9.181E-01	1.715E-01	4.653E-02	8.750E-02
U-235	5.402E-01	2.751E-01	1.449E-01	1.404E-01
NP-237	6.327E-01	2.946E-01	2.033E-01	1.503E-01
U-238	1.562E+01	3.460E+00	1.016E+00	1.765E+00
AM-243	1.987E-01	5.901E-02	4.380E-02	3.011E-02
ANH-511	8.316E-02	6.303E-02	1.831E-02	3.216E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	7.719E-02	2.448E-01	2.187E-01	1.249E-01	NOT IDENT.
NA-22	-4.092E-03	3.538E-02	2.943E-02	1.805E-02	NOT IDENT.
NA-24	5.085E+04	1.479E+05	0.000E+00	7.546E+04	SHORT HLIF
AL-26	1.235E-02	2.300E-02	2.134E-02	1.173E-02	NOT IDENT.
TI-44	2.352E-01	4.306E-02	3.185E-02	2.197E-02	FAIL ABUN
SC-46	-2.693E-03	3.051E-02	2.629E-02	1.557E-02	FAIL ABUN
V-48	1.777E-02	5.144E-02	4.568E-02	2.624E-02	NOT IDENT.
CR-51	-9.721E-02	2.877E-01	2.368E-01	1.468E-01	NOT IDENT.
MN-52	-9.743E-02	1.451E-01	1.049E-01	7.401E-02	FAIL ABUN
MN-54	1.903E-02	3.044E-02	2.782E-02	1.553E-02	NOT IDENT.
CO-56	2.283E-03	3.175E-02	2.788E-02	1.620E-02	NOT IDENT.
CO-57	3.505E-04	2.020E-02	1.843E-02	1.031E-02	NOT IDENT.
CO-58	-8.108E-03	2.991E-02	2.561E-02	1.526E-02	NOT IDENT.
FE-59	-6.510E-02	7.500E-02	5.811E-02	3.826E-02	FAIL ABUN
CO-60	2.689E-03	3.222E-02	2.707E-02	1.644E-02	NOT IDENT.
ZN-65	-1.050E-03	8.056E-02	5.903E-02	4.110E-02	NOT IDENT.
GE-68	6.300E-01	1.048E+00	9.394E-01	5.346E-01	NOT IDENT.
AS-73	1.384E-01	7.321E-01	6.411E-01	3.735E-01	NOT IDENT.
AS-74	2.671E-02	6.753E-02	5.960E-02	3.445E-02	NOT IDENT.
SE-75	3.112E-03	3.546E-02	2.727E-02	1.809E-02	NOT IDENT.
BR-77	-3.312E+00	5.601E+00	4.623E+00	2.858E+00	FAIL ABUN
SR-82	-1.464E-01	3.102E-01	2.466E-01	1.583E-01	NOT IDENT.
RB-83	-3.000E-02	5.255E-02	4.346E-02	2.681E-02	NOT IDENT.
RB-84	8.282E-03	5.637E-02	4.962E-02	2.876E-02	NOT IDENT.
KR-85	1.249E+01	6.484E+00	5.692E+00	3.308E+00	NOT IDENT.
SR-85	6.320E-02	3.282E-02	2.881E-02	1.674E-02	NOT IDENT.
RB-86	4.003E-01	6.382E-01	5.733E-01	3.256E-01	NOT IDENT.
Y-88	8.904E-03	2.677E-02	2.388E-02	1.366E-02	NOT IDENT.
ZR-88	4.923E-03	2.420E-02	2.179E-02	1.235E-02	NOT IDENT.
Y-91	6.632E+00	1.717E+01	1.488E+01	8.758E+00	NOT IDENT.
NB-94	-2.101E-02	2.625E-02	2.041E-02	1.339E-02	NOT IDENT.
NB-95	1.019E-01	4.519E-02	3.935E-02	2.306E-02	NOT IDENT.
NB-95M	-4.210E-02	1.088E-01	8.181E-02	5.550E-02	NOT IDENT.
ZR-95	5.133E-02	5.606E-02	5.054E-02	2.860E-02	NOT IDENT.
NB-97	1.527E+04	2.773E+04	0.000E+00	1.415E+04	SHORT HLIF
ZR-97	4.507E+05	4.259E+05	0.000E+00	2.173E+05	SHORT HLIF
MO-99	-4.927E+00	7.120E+00	5.539E+00	3.633E+00	NOT IDENT.
TC-99M	-2.908E+14	1.110E+15	0.000E+00	5.664E+14	SHORT HLIF
RH-101	1.252E-02	2.575E-02	2.310E-02	1.314E-02	NOT IDENT.
RH-102	-3.218E-03	2.197E-02	1.901E-02	1.121E-02	FAIL ABUN
RU-103	-8.466E-03	3.026E-02	2.578E-02	1.544E-02	FAIL ABUN
RH-106	-6.510E-02	2.583E-01	2.153E-01	1.318E-01	FAIL ABUN
RU-106	-6.510E-02	2.582E-01	2.153E-01	1.317E-01	FAIL ABUN
AG-108M	-1.425E-02	2.397E-02	2.021E-02	1.223E-02	NOT IDENT.
AG-110M	1.627E-02	3.310E-02	2.583E-02	1.689E-02	NOT IDENT.
IN-111	-4.601E-01	7.060E-01	5.159E-01	3.602E-01	NOT IDENT.
IN-113M	1.863E-02	3.529E-02	3.234E-02	1.801E-02	NOT IDENT.
SN-113	1.863E-02	3.529E-02	3.234E-02	1.801E-02	NOT IDENT.
IN-114M	-8.118E-03	1.565E-01	1.229E-01	7.986E-02	NOT IDENT.
CD-115	-3.936E+00	5.842E+00	4.784E+00	2.980E+00	NOT IDENT.
SN-117M	1.378E-03	4.203E-02	3.765E-02	2.145E-02	NOT IDENT.
SB-122	2.600E-01	1.266E+00	1.089E+00	6.460E-01	NOT IDENT.
I-123	5.711E+05	9.815E+05	0.000E+00	5.008E+05	SHORT HLIF
TE-123M	1.330E-02	2.286E-02	2.089E-02	1.166E-02	NOT IDENT.
I-124	1.744E-01	4.788E-01	3.723E-01	2.443E-01	NOT IDENT.
SB-124	-2.023E-02	5.305E-02	4.141E-02	2.707E-02	FAIL ABUN
SB-125	-9.434E-03	6.844E-02	5.988E-02	3.492E-02	FAIL ABUN
TE-125M	5.159E+00	8.395E+00	7.116E+00	4.283E+00	NOT IDENT.
I-126	1.149E-01	1.426E-01	1.156E-01	7.273E-02	NOT IDENT.
SB-126	2.101E-02	1.044E-01	8.633E-02	5.329E-02	FAIL ABUN
SB-127	2.451E-01	9.124E-01	7.868E-01	4.655E-01	NOT IDENT.
XE-127	-1.064E-02	3.659E-02	3.166E-02	1.867E-02	NOT IDENT.
I-131	-7.470E-02	7.448E-02	6.200E-02	3.800E-02	NOT IDENT.
TE-132	-1.078E-01	4.395E-01	3.770E-01	2.243E-01	FAIL ABUN
BA-133	4.192E-03	3.792E-02	3.031E-02	1.935E-02	FAIL ABUN
I-133	-2.678E+02	1.724E+03	0.000E+00	8.798E+02	SHORT HLIF
CS-134	5.410E-02	5.954E-02	3.893E-02	3.038E-02	FAIL ABUN
CS-135	1.187E-01	1.370E-01	1.106E-01	6.990E-02	NOT IDENT.
I-135	5.923E+13	2.141E+14	0.000E+00	1.092E+14	SHORT HLIF
CS-136	-1.873E-02	8.478E-02	7.088E-02	4.326E-02	FAIL ABUN
CE-139	-1.016E-02	2.393E-02	2.094E-02	1.221E-02	NOT IDENT.
BA-140	1.472E-01	2.044E-01	1.808E-01	1.043E-01	NOT IDENT.
LA-140	8.317E-04	6.441E-02	5.503E-02	3.286E-02	FAIL ABUN
CE-141	2.583E-02	5.402E-02	4.463E-02	2.756E-02	NOT IDENT.

CE-143	1.771E+02	7.865E+01	0.000E+00	4.013E+01	SHORT HLIF
CE-144	5.991E-02	1.639E-01	1.503E-01	8.360E-02	NOT IDENT.
PM-144	1.596E-02	2.874E-02	2.527E-02	1.466E-02	NOT IDENT.
PR-144	1.081E+00	1.946E+00	1.711E+00	9.931E-01	NOT IDENT.
PM-146	2.101E-02	3.465E-02	3.157E-02	1.768E-02	NOT IDENT.
ND-147	-2.923E-02	3.981E-01	3.426E-01	2.031E-01	NOT IDENT.
PM-149	-1.150E+01	4.851E+01	4.067E+01	2.475E+01	NOT IDENT.
EU-152	1.652E-02	7.955E-02	7.016E-02	4.059E-02	NOT IDENT.
GD-153	2.925E-01	1.126E-01	6.896E-02	5.743E-02	FAIL ABUN
EU-154	-1.867E-02	9.935E-02	8.197E-02	5.069E-02	NOT IDENT.
EU-155	8.788E-02	8.832E-02	8.380E-02	4.506E-02	FAIL ABUN
TB-160	1.404E-01	1.142E-01	1.086E-01	5.828E-02	FAIL ABUN
HO-166M	1.043E-03	4.733E-02	3.986E-02	2.415E-02	FAIL ABUN
TM-171	-2.496E+01	2.756E+01	2.068E+01	1.406E+01	NOT IDENT.
LU-176	-3.890E-03	2.066E-02	1.706E-02	1.054E-02	FAIL ABUN
LU-177M	-6.555E-03	1.290E-01	1.139E-01	6.582E-02	FAIL ABUN
HF-181	1.247E-02	3.097E-02	2.784E-02	1.580E-02	NOT IDENT.
W-181	1.404E-01	3.499E-01	2.807E-01	1.785E-01	NOT IDENT.
TA-182	1.481E-01	1.646E-01	1.485E-01	8.400E-02	FAIL ABUN
RE-183	3.874E-03	8.742E-02	7.819E-02	4.460E-02	FAIL ABUN
RE-184	6.561E-02	1.855E-01	1.627E-01	9.465E-02	NOT IDENT.
OS-185	1.544E-02	3.293E-02	2.907E-02	1.680E-02	NOT IDENT.
RE-188	1.426E-02	1.324E-01	1.191E-01	6.755E-02	NOT IDENT.
W-188	1.395E-01	6.347E+00	4.808E+00	3.238E+00	FAIL ABUN
IR-192	-1.155E-03	2.760E-02	2.322E-02	1.408E-02	FAIL ABUN
AU-195	8.507E-01	3.274E-01	2.068E-01	1.670E-01	FAIL ABUN
TL-200	4.431E+00	1.594E+02	0.000E+00	8.133E+01	SHORT HLIF
TL-201	2.383E+00	4.084E+00	3.724E+00	2.084E+00	NOT IDENT.
TL-202	-5.583E-03	5.111E-02	4.471E-02	2.608E-02	NOT IDENT.
BI-207	6.687E-03	4.196E-02	3.631E-02	2.141E-02	FAIL ABUN
TL-207	1.252E-01	5.794E-01	4.412E-01	2.956E-01	FAIL ABUN
PO-209	2.053E-01	5.756E+00	5.011E+00	2.937E+00	NOT IDENT.
BI-210	1.675E+00	3.225E+00	2.860E+00	1.645E+00	NOT IDENT.
PB-210	1.675E+00	3.225E+00	2.860E+00	1.645E+00	NOT IDENT.
PO-210	1.675E+00	3.224E+00	2.860E+00	1.645E+00	NOT IDENT.
PB-211	6.400E-02	6.899E-01	6.150E-01	3.520E-01	NOT IDENT.
BI-212	7.247E-01	4.201E-01	2.754E-01	2.143E-01	FAIL ABUN
PO-215	1.252E-01	5.794E-01	4.412E-01	2.956E-01	FAIL ABUN
RN-219	-2.123E-01	3.009E-01	2.532E-01	1.535E-01	FAIL ABUN
RN-220	-7.425E+00	2.084E+01	1.747E+01	1.063E+01	NOT IDENT.
RA-223	1.252E-01	5.794E-01	4.412E-01	2.956E-01	FAIL ABUN
AC-227	-9.122E-02	3.210E-01	2.716E-01	1.638E-01	FAIL ABUN
TH-227	-9.122E-02	3.211E-01	2.716E-01	1.638E-01	FAIL ABUN
TH-229	4.676E-02	4.032E-01	3.569E-01	2.057E-01	FAIL ABUN
PA-231	-6.816E-01	1.140E+00	9.278E-01	5.816E-01	FAIL ABUN
TH-231	1.252E-01	5.794E-01	4.412E-01	2.956E-01	FAIL ABUN
U-231	1.029E+00	9.585E-01	6.826E-01	4.890E-01	FAIL ABUN
PA-233	2.754E-02	5.157E-02	4.500E-02	2.631E-02	FAIL ABUN
PA-234	5.356E-02	2.440E-01	2.145E-01	1.245E-01	FAIL ABUN
NP-236	-1.318E-02	6.562E-02	5.817E-02	3.348E-02	FAIL ABUN
NP-239	-8.547E-02	1.700E-01	1.360E-01	8.676E-02	FAIL ABUN
AM-241	3.966E-02	1.599E-01	1.283E-01	8.160E-02	NOT IDENT.
CM-243	1.810E-03	7.798E-02	7.196E-02	3.979E-02	FAIL ABUN
AM-246	-5.210E-03	1.246E-01	1.056E-01	6.356E-02	NOT IDENT.
CM-247	4.154E-03	2.650E-02	2.378E-02	1.352E-02	FAIL ABUN
CF-249	-1.284E-03	3.161E-02	2.810E-02	1.613E-02	NOT IDENT.
CF-251	-4.466E-03	9.828E-02	8.700E-02	5.014E-02	NOT IDENT.

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                             2040 SAVAGE ROAD                          *
*                           CHARLESTON ,SC 29417                        *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT              *
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ENERGY	MDA COUNTS
46.50	275.0614
46.50	275.0614
46.50	275.0614
48.70	351.5172
49.72	288.5013
51.35	335.2504
52.39	320.7210
52.97	333.2518
53.15	333.4263
53.44	318.1013
54.07	349.9451
56.28	363.0284
56.28	363.0306
57.37	0.0000
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57.53	427.4370
57.60	427.5176
57.98	427.9634
57.98	427.9634
59.32	403.4932
59.32	403.4932
59.40	416.5990
59.54	431.4081
59.72	431.6164
60.01	431.9527
61.10	456.0939
61.14	456.1415
61.30	456.3338
63.00	453.4393
63.29	453.7804
63.29	453.7804
63.58	454.1201
64.28	408.7828
65.12	429.4818
65.20	429.5670
65.20	429.5670
66.05	475.1949
66.72	477.6504
66.83	477.7822
66.91	494.4719
67.20	506.4500
67.20	506.4500
67.75	477.6250
67.85	477.7448
68.90	432.7059
68.90	432.7059
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75.70	533.7671
77.11	535.4846
77.11	535.4846

77.11	535.4846
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83.78	540.8181
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83.78	540.8181
83.78	540.8181
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84.90	535.6251
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86.29	615.2443
86.50	625.9254
86.54	625.9767
86.59	626.0428
86.72	626.2115
86.79	626.2996
86.94	692.0605
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87.30	662.1650
87.30	662.1650
87.30	662.1650
87.30	662.1650
87.30	662.1650
87.30	662.1650
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87.88	722.1255
88.03	722.3492
88.36	603.5305
88.47	603.6680
89.95	605.5009
91.11	630.5750
92.29	668.9476
92.38	669.0677
92.38	669.0677
93.35	670.3622
94.00	671.2303
94.67	367.8083
94.67	367.8126
94.90	338.8574
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94.90	338.8574
94.90	338.8574
95.87	339.5020
95.87	339.5020
96.73	340.0742
97.43	343.1936
98.44	301.2098
98.44	301.2115
98.88	301.4650
99.55	291.1653
99.55	291.1653
99.86	296.6831
100.00	296.7610
100.10	296.8203
103.18	343.1820
103.76	333.8593
105.00	313.0333
105.31	318.6122
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109.28	333.1441

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111.76	375.1248
112.95	375.9064
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116.30	304.2122
117.00	321.1145
117.00	321.1145
117.66	339.4099
121.11	294.1963
121.62	308.3343
121.78	300.0800
122.06	298.3669
122.32	297.5676
122.32	297.5676
122.32	297.5676
122.32	297.5676
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127.23	352.2812
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131.20	374.2546
133.02	296.1062
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136.00	313.5752
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136.48	303.3756
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142.18	288.2965
142.65	282.2792
143.76	282.7414
144.24	281.9803
144.24	281.9803
144.24	281.9803
144.24	281.9803
145.22	286.7093
145.44	286.8004
147.16	262.9552
152.43	265.9141
152.70	264.0728
153.22	295.3566
154.21	288.9544
154.21	288.9544
154.21	288.9544
154.21	288.9544
155.03	274.6763
156.02	294.5624
158.56	288.7462
159.00	0.0000
159.00	270.3090
160.31	299.2477
161.27	311.4277
162.32	280.3874
162.64	274.6009
163.35	273.8796
163.89	270.1341
165.85	287.6461
167.43	237.7295
171.28	230.9640
171.86	251.0643
172.10	251.1412
176.55	244.5585
176.60	244.5759
181.06	228.3110
184.41	255.0710
185.71	246.3519
186.00	246.4409
190.27	246.1898
192.34	252.4222
193.63	242.5740
197.04	250.7439
198.01	230.4531
198.60	223.4038
200.40	238.3151
201.83	265.5776
202.84	251.4021
205.31	227.2116

208.36	257.1459
208.81	241.6525
209.75	231.4803
209.75	231.4803
210.97	230.2303
215.65	228.7998
216.55	225.8742
218.09	228.3595
222.10	235.6921
223.80	228.7090
226.40	208.1065
227.00	212.4878
227.08	209.3185
227.20	209.3446
228.16	230.8318
228.18	230.8362
228.18	230.8362
231.56	0.0000
235.69	241.2209
236.00	230.0381
236.00	230.0381
238.63	196.7849
238.63	196.7849
238.63	196.7849
238.63	196.7849
239.00	196.8575
240.98	197.2541
241.98	197.4532
241.98	197.4532
241.98	197.4532
244.69	183.3836
245.39	203.0010
247.94	163.8967
248.90	174.9162
249.79	176.1575
252.40	163.5269
252.85	170.1426
252.85	170.1426
254.15	0.0000
256.20	199.1449
256.20	199.1449
260.50	181.2912
260.90	180.2592
262.80	170.6760
264.65	135.6749
268.24	152.7344
268.79	161.1180
269.46	158.4486
269.46	158.4486
269.46	158.4486
269.46	158.4486
271.23	173.1355
273.65	170.1857
276.40	178.9788
277.35	166.2972
277.60	137.3115
277.60	137.3115
278.00	137.3615
278.60	125.7042
279.20	129.1245
279.53	114.0673
280.46	127.5936
281.68	124.3714
283.67	142.5546
284.30	125.7881
285.00	139.3512
285.90	149.5871
286.10	138.3625
286.10	138.3625
287.40	144.1537
288.45	0.0000
290.67	149.0881
290.80	149.1042
291.72	145.8336
293.26	0.0000
293.70	144.3869
295.21	154.7816
295.21	154.7816

295.21	154.7816
295.96	153.1824
296.50	153.2538
297.23	153.3499
298.57	153.5257
299.80	153.6877
299.80	153.6877
300.09	157.1423
300.09	157.1423
300.09	157.1423
300.09	157.1423
300.12	157.1479
301.29	141.9166
302.84	131.8315
303.76	130.2214
303.91	140.5196
304.40	157.7207
304.40	157.7207
304.84	160.5237
306.84	143.1580
308.46	141.0601
311.98	128.8232
316.51	137.3880
318.01	122.5301
319.02	136.5143
319.41	127.2994
320.08	137.7899
323.87	127.1819
323.87	127.1819
323.87	127.1819
323.87	127.1819
325.23	120.3457
328.77	157.4176
333.44	158.0054
334.20	158.8014
334.20	158.8014
334.30	158.8152
338.28	133.0535
338.28	133.0535
338.28	133.0535
338.28	133.0535
338.32	133.0582
338.32	133.0582
338.32	133.0582
340.50	165.2368
340.57	165.2454
344.27	138.6055
345.85	107.5423
350.59	0.0000
351.07	121.9132
351.92	141.0484
351.92	141.0484
351.92	141.0484
355.39	0.0000
356.01	128.6224
364.48	116.8524
366.43	110.7199
367.43	120.7096
367.94	0.0000
369.80	103.7748
374.96	110.5048
383.85	122.1490
387.95	123.4190
388.63	136.2817
391.69	114.5763
391.69	114.5763
392.90	118.3432
398.62	105.9191
400.65	108.8335
401.10	108.8677
401.81	110.7660
402.60	96.0496
404.84	103.5952
410.95	104.9547
411.60	118.0083
413.65	101.4224
414.70	91.2514
415.30	96.8763

415.76	104.3608
417.63	0.0000
418.52	87.7492
423.70	98.3542
427.08	93.8782
427.89	96.7464
432.53	91.3860
433.93	97.1252
439.47	94.6335
439.56	105.0482
439.89	111.6963
443.98	90.1598
444.90	85.4640
445.03	85.4723
445.03	85.4723
445.03	85.4723
445.03	85.4723
453.90	92.6337
463.38	82.6118
468.07	87.8574
473.00	97.5895
475.06	88.0368
475.35	82.2465
476.78	84.2534
477.59	86.2323
477.96	77.5293
482.03	76.7458
484.57	91.4555
487.03	84.7684
490.36	0.0000
492.35	84.0565
497.08	86.2490
507.63	0.0000
510.53	0.0000
510.84	79.0295
511.00	79.0369
511.85	79.0741
511.85	79.0741
513.99	79.1699
513.99	79.1699
520.41	87.4011
520.65	87.4146
527.90	91.7557
528.96	0.0000
529.64	77.8691
529.87	0.0000
531.02	78.9277
537.32	79.2001
543.00	79.4436
546.56	0.0000
549.76	86.8005
552.65	61.6627
555.20	68.8322
563.23	83.3563
563.90	80.3332
568.70	84.6135
569.32	73.4238
569.50	73.4304
569.67	68.3372
573.80	87.9054
574.00	87.9133
574.64	87.9421
578.91	93.4655
579.30	0.0000
583.14	72.9219
585.48	75.6821
591.81	68.0867
592.07	68.0947
593.00	76.3848
595.88	70.2931
600.56	89.1100
602.52	0.0000
602.71	76.3425
602.71	76.3425
603.60	81.3572
604.41	106.3063
604.70	106.3219
609.31	83.2520

609.31	83.2520
609.31	83.2520
609.31	83.2520
610.33	83.2935
612.46	66.7051
614.37	80.1211
618.01	65.8416
621.84	79.5764
621.84	79.5764
631.29	73.6295
633.02	70.5332
633.10	69.4825
634.78	70.5925
635.90	67.4668
636.97	71.7208
645.85	67.7852
646.12	61.4391
656.30	63.0084
657.75	73.2764
657.90	0.0000
661.65	75.1158
661.65	75.1158
664.57	0.0000
666.33	54.7469
666.33	54.7469
675.00	57.9699
677.61	70.9367
685.20	71.1804
692.80	66.0114
695.00	76.9087
696.49	72.6229
696.49	72.6229
697.00	70.4709
697.49	72.6556
698.33	80.2758
698.50	80.2826
699.00	75.9601
702.63	78.2556
706.10	67.4890
706.58	0.0000
706.67	55.5291
709.31	76.3040
711.68	64.3800
713.82	58.9785
717.42	60.1646
720.50	57.5850
721.93	0.0000
722.20	68.4004
722.78	59.6461
722.78	59.6461
722.89	59.6494
722.95	61.4055
723.30	61.4141
724.18	56.1719
727.18	61.5166
733.00	52.8604
735.90	57.3352
739.58	75.0930
742.81	53.0801
744.21	60.8562
747.13	75.3317
751.79	77.6990
752.31	74.3854
753.82	62.2122
755.35	65.5864
756.15	52.2640
756.87	52.2798
763.93	51.7625
765.79	67.8786
766.42	78.1711
766.84	78.1839
776.49	72.8850
778.00	65.0765
778.57	65.0907
778.89	65.0995
783.80	73.1012
785.46	66.6235
792.07	57.1701

795.84	57.2567
796.30	52.7464
798.80	54.3062
801.93	63.4358
805.60	58.0828
810.29	63.6460
810.76	60.9298
815.85	44.6491
817.79	68.3917
818.51	65.6736
819.60	60.2266
826.30	57.6382
828.27	0.0000
831.60	75.1753
831.96	77.0191
834.83	63.3348
836.80	0.0000
846.75	61.7787
848.13	59.0438
856.28	0.0000
856.80	46.2781
860.37	54.6816
867.32	57.3006
867.82	58.4175
871.10	57.6906
873.19	51.2161
874.81	67.0869
875.33	0.0000
876.40	66.1933
879.36	45.7329
880.27	46.6821
880.51	48.5532
881.50	57.9116
883.24	69.1636
884.67	53.3025
889.25	54.3283
896.60	51.6552
898.02	49.8027
899.00	53.5808
903.28	52.7215
911.07	65.1406
911.07	65.1406
911.07	65.1406
919.63	61.5516
920.93	58.7380
925.00	50.2827
925.24	51.2354
926.50	52.2084
935.52	41.2629
937.48	41.2915
944.10	51.5742
946.00	52.5629
949.00	44.9644
962.29	59.2638
964.01	60.9011
966.15	19.2461
968.20	19.2593
969.11	73.8516
969.11	73.8516
969.11	73.8516
977.42	56.0261
980.50	45.4475
983.50	43.5575
989.30	49.4610
996.32	48.6035
1001.03	55.4943
1001.68	58.4282
1004.76	43.8651
1021.30	0.0000
1024.50	0.0000
1034.80	43.3104
1036.00	65.9760
1037.82	66.9973
1038.57	56.1734
1038.76	0.0000
1045.16	62.2187
1046.59	54.3420
1048.07	57.3316

1050.47	58.3662
1050.47	58.3662
1062.04	47.6578
1063.62	48.6746
1076.63	48.8708
1077.35	48.8828
1078.86	59.8828
1085.78	42.0082
1099.22	64.2750
1112.02	50.4102
1112.84	61.7704
1115.52	53.8281
1120.29	50.5371
1120.29	50.5371
1120.29	50.5371
1120.29	50.5371
1120.51	48.8549
1121.28	43.8115
1124.00	0.0000
1129.67	44.5973
1131.51	0.0000
1147.95	0.0000
1167.94	61.5000
1173.22	59.5406
1175.09	65.7375
1177.93	70.9305
1189.05	60.8438
1204.90	71.4763
1205.75	0.0000
1213.00	66.4500
1221.42	55.1583
1230.97	67.8247
1235.34	86.7123
1236.41	0.0000
1238.25	73.1890
1246.25	57.6345
1260.41	0.0000
1271.85	51.7036
1274.45	43.2942
1274.54	42.2383
1291.56	44.5532
1298.22	0.0000
1312.09	26.6638
1325.50	29.9688
1325.50	29.9688
1332.49	33.2387
1333.61	22.5237
1360.21	32.3965
1362.66	0.0000
1365.15	24.8687
1368.21	23.8058
1368.53	0.0000
1376.25	21.6855
1384.27	21.7295
1394.10	21.7832
1395.20	22.8785
1407.95	21.8584
1434.06	23.0990
1436.60	18.3439
1457.56	0.0000
1460.81	23.0642
1489.15	17.6471
1509.49	19.5978
1596.49	21.8938
1620.62	9.5699
1678.03	0.0000
1691.02	13.6024
1691.02	13.6024
1706.46	0.0000
1750.46	0.0000
1764.49	14.7980
1764.49	14.7980
1764.49	14.7980
1764.49	14.7980
1770.23	20.3178
1771.40	28.6495
1791.20	0.0000
1808.65	8.9583

1836.01	11.0085

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395011

Total Uranium Activity	4.6729E+01	ug/g
Total Uranium Counting Unc.	1.0294E+01	ug/g
Total Uranium Tpu	5.2519E-06	ug/g
Total Uranium Mda	3.0229E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID   : G245395011      *
*   ANALYST       : MXR1                      DETECTOR    : GAM16           *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 09:18:04.56    SAMPLE ALQT:  147.640 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.114E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.456E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.109E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.511E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:19:43.75

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395012.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:18:37.
Sample ID         : G245395012           Sample quantity  : 1.45520E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:11.90  0.2%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.27*	8683	3308	0.91	126.18	121	11	1.21E+00	1.7	
2	2	74.86*	717	1784	0.95	149.37	143	16	9.96E-02	10.1	2.95E+00
3	2	77.12*	817	1753	0.95	153.89	143	16	1.14E-01	9.0	
4	0	83.86*	484	2596	1.53	167.37	163	9	6.73E-02	19.6	
5	0	86.83*	133	1784	0.71	173.31	172	6	1.84E-02	51.1	
6	3	92.58*	12921	1298	1.03	184.81	182	12	1.79E+00	1.0	7.76E+00
7	3	94.70	674	1007	1.24	189.06	182	12	9.37E-02	16.7	
8	0	98.58*	845	1068	1.02	196.83	193	8	1.17E-01	7.6	
9	2	111.07	177	707	1.11	221.81	219	11	2.46E-02	23.3	3.35E+00
10	2	112.81	554	683	0.84	225.30	219	11	7.70E-02	8.3	
11	0	143.81*	378	693	1.05	287.32	283	9	5.25E-02	13.7	
12	0	163.24	189	444	0.74	326.19	323	8	2.63E-02	20.6	
13	0	185.69*	1614	551	1.01	371.11	367	10	2.24E-01	3.7	
14	0	205.60	141	455	1.36	410.95	405	10	1.95E-02	29.7	
15	0	209.43	134	298	1.02	418.61	415	8	1.86E-02	24.0	
16	3	238.50*	986	219	0.97	476.77	471	17	1.37E-01	4.1	1.38E+00
17	3	240.93	96	241	1.12	481.64	471	17	1.33E-02	33.6	
18	3	241.86	116	239	1.09	483.50	471	17	1.62E-02	25.3	
19	0	258.28	124	237	1.04	516.36	513	8	1.73E-02	23.2	
20	0	270.34	129	273	3.05	540.48	535	12	1.79E-02	27.1	
21	0	277.17	50	221	1.49	554.15	549	9	6.96E-03	55.5	
22	1	295.04*	278	135	1.31	589.90	584	20	3.86E-02	9.8	1.26E+00
23	1	299.97*	65	145	1.31	599.76	584	20	9.05E-03	35.1	
24	0	338.07*	177	208	0.78	675.99	671	10	2.45E-02	17.3	
25	0	351.76*	507	210	1.16	703.38	697	12	7.04E-02	7.3	
26	0	510.88*	147	173	0.79	1021.78	1015	15	2.04E-02	23.3	
27	0	582.61*	269	170	1.13	1165.33	1159	13	3.74E-02	11.9	
28	0	608.97*	331	126	1.42	1218.06	1213	12	4.60E-02	8.9	
29	0	726.36	75	96	1.58	1453.00	1447	12	1.04E-02	28.7	
30	0	742.71	68	77	1.82	1485.70	1481	12	9.45E-03	28.6	
31	0	765.67	186	123	1.34	1531.66	1525	14	2.59E-02	14.6	
32	0	785.59	30	83	1.08	1571.53	1567	9	4.11E-03	58.6	
33	0	860.01*	31	56	1.26	1720.46	1716	9	4.24E-03	49.0	
34	0	910.49*	218	56	1.52	1821.48	1814	16	3.02E-02	10.4	
35	0	968.27*	109	52	1.52	1937.13	1933	10	1.52E-02	15.9	
36	0	1000.28*	427	39	1.68	2001.19	1996	12	5.93E-02	5.7	
37	0	1119.18	68	60	1.55	2239.16	2232	12	9.47E-03	25.7	
38	0	1377.14	23	21	1.07	2755.49	2748	12	3.20E-03	44.9	

Sample ID : G245395012 Acquisition date : 2-FEB-2010 09:18:37

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1459.67*	838	14	1.76	2920.71	2911	16	1.16E-01	3.6	
40	0	1763.11*	47	9	1.84	3528.16	3521	17	6.59E-03	20.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:19:47

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395012.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:18:37
Sample ID : G245395012 Sample quantity : 145.52 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:11.90 0.2%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.603E+01	2.972E+00	5.231E-01	4.645E-02	49.758
NB-95	+	765.79	*	4.019E-01	1.223E-01	9.122E-02	7.968E-03	4.406
CD-109	+	88.03	*	1.407E+00	1.444E+00	2.184E+00	2.132E-01	0.644
SN-126	+	64.28		3.443E+01	5.622E+00	7.364E-01	1.175E-01	46.754
	+	86.94		5.761E-01	6.355E-01	7.982E-01	3.321E-01	0.722
	+	87.57	*	1.386E-01	1.422E-01	2.118E-01	2.067E-02	0.654
LU-177	+	112.95		1.513E+01	3.025E+00	3.440E+00	3.825E-01	4.397
	+	208.36	*	2.993E+00	1.458E+00	1.665E+00	1.464E-01	1.798
TL-208	+	277.35		5.322E-01	5.945E-01	6.679E-01	8.503E-02	0.797
	+	510.84		8.519E-01	4.100E-01	2.990E-01	3.652E-02	2.849
	+	583.14	*	4.553E-01	1.164E-01	8.339E-02	7.887E-03	5.460
	+	860.37		5.073E-01	4.993E-01	6.063E-01	5.704E-02	0.837
BI-211		72.87		3.329E+00	3.401E+00	5.811E+00	5.682E-01	0.573
	+	351.07	*	3.472E+00	6.030E-01	3.671E-01	3.426E-02	9.459
BI-212	+	727.18	*	1.113E+00	6.489E-01	6.241E-01	6.262E-02	1.783
	+	785.46		2.847E+00	3.348E+00	4.268E+00	3.740E-01	0.667
		1620.62		1.279E+00	1.562E+00	2.898E+00	2.497E-01	0.441
PB-212	+	74.81		2.544E+00	6.168E-01	6.697E-01	9.050E-02	3.799
	+	77.11		1.727E+00	3.525E-01	3.999E-01	3.898E-02	4.320
	+	87.30		6.409E-01	6.608E-01	9.790E-01	1.368E-01	0.655
	+	238.63	*	1.417E+00	1.838E-01	1.046E-01	1.055E-02	13.543
	+	300.09		1.475E+00	1.047E+00	1.392E+00	1.515E-01	1.060
PO-212	+	74.81		2.544E+00	6.168E-01	6.697E-01	9.050E-02	3.799
	+	77.11		1.727E+00	3.525E-01	3.999E-01	3.898E-02	4.320
	+	87.30		6.409E-01	6.608E-01	9.790E-01	1.368E-01	0.655
		115.19		6.285E+00	5.515E+00	8.461E+00	9.526E-01	0.743
	+	238.63	*	1.417E+00	1.838E-01	1.046E-01	1.055E-02	13.543
	+	300.09		1.475E+00	1.047E+00	1.392E+00	1.515E-01	1.060
BI-214	+	609.31	*	1.062E+00	2.179E-01	1.490E-01	1.516E-02	7.126
	+	1120.29		1.192E+00	6.264E-01	6.883E-01	7.358E-02	1.731
	+	1764.49		1.153E+00	4.880E-01	3.612E-01	3.054E-02	3.192
PB-214	+	74.81		4.383E+00	1.033E+00	1.154E+00	1.414E-01	3.799
	+	77.11		2.961E+00	6.450E-01	6.855E-01	8.482E-02	4.320
	+	87.30		1.098E+00	1.130E+00	1.677E+00	2.086E-01	0.655

Sample ID : G245395012 Acquisition date : 2-FEB-2010 09:18:37

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		1.008E+00	5.205E-01	6.309E-01	6.717E-02	1.597
	+	295.21		1.103E+00	2.485E-01	2.355E-01	2.616E-02	4.684
	+	351.92	*	1.208E+00	2.190E-01	1.280E-01	1.368E-02	9.435
PO-214	+	74.81		4.383E+00	1.033E+00	1.154E+00	1.414E-01	3.799
	+	77.11		2.961E+00	6.450E-01	6.855E-01	8.482E-02	4.320
	+	87.30		1.098E+00	1.130E+00	1.677E+00	2.086E-01	0.655
	+	241.98		1.008E+00	5.205E-01	6.309E-01	6.717E-02	1.597
	+	295.21		1.103E+00	2.485E-01	2.355E-01	2.616E-02	4.684
	+	351.92	*	1.208E+00	2.190E-01	1.280E-01	1.368E-02	9.435
PO-216	+	74.81		2.544E+00	6.168E-01	6.697E-01	9.050E-02	3.799
	+	77.11		1.727E+00	3.525E-01	3.999E-01	3.898E-02	4.320
	+	87.30		6.409E-01	6.608E-01	9.790E-01	1.368E-01	0.655
	+	238.63	*	1.417E+00	1.838E-01	1.046E-01	1.055E-02	13.543
	+	300.09		1.475E+00	1.047E+00	1.392E+00	1.515E-01	1.060
PO-218	+	74.81		4.383E+00	1.033E+00	1.154E+00	1.414E-01	3.799
	+	77.11		2.961E+00	6.450E-01	6.855E-01	8.482E-02	4.320
	+	87.30		1.098E+00	1.130E+00	1.677E+00	2.086E-01	0.655
	+	241.98		1.008E+00	5.205E-01	6.309E-01	6.717E-02	1.597
	+	295.21		1.103E+00	2.485E-01	2.355E-01	2.616E-02	4.684
	+	351.92	*	1.208E+00	2.190E-01	1.280E-01	1.368E-02	9.435
RA-224	+	240.98	*	1.565E+00	1.061E+00	1.192E+00	1.078E-01	1.313
RA-226	+	609.31	*	1.062E+00	2.179E-01	1.490E-01	1.516E-02	7.126
	+	1120.29		1.192E+00	6.264E-01	6.883E-01	7.358E-02	1.731
	+	1764.49		1.153E+00	4.880E-01	3.612E-01	3.054E-02	3.192
AC-228	+	338.32		1.326E+00	7.157E-01	4.401E-01	1.820E-01	3.014
	+	911.07	*	1.714E+00	4.053E-01	2.462E-01	2.793E-02	6.960
	+	969.11		1.523E+00	6.013E-01	4.658E-01	1.089E-01	3.269
RA-228	+	338.32		1.326E+00	7.157E-01	4.401E-01	1.820E-01	3.014
	+	911.07	*	1.714E+00	4.053E-01	2.462E-01	2.793E-02	6.960
	+	969.11		1.523E+00	6.013E-01	4.658E-01	1.089E-01	3.269
TH-228	+	74.81		2.579E+00	5.778E-01	6.790E-01	6.672E-02	3.799
	+	77.11		1.751E+00	3.574E-01	4.055E-01	3.952E-02	4.320
	+	87.30		6.498E-01	6.669E-01	9.927E-01	9.685E-02	0.655
	+	238.63	*	1.437E+00	1.864E-01	1.061E-01	1.070E-02	13.543
	+	300.09		1.496E+00	1.374E+00	1.411E+00	8.376E-01	1.060
TH-230	+	609.31	*	1.062E+00	2.179E-01	1.490E-01	1.516E-02	7.126
	+	1120.29		1.191E+00	6.263E-01	6.883E-01	7.358E-02	1.731
	+	1764.49		1.153E+00	4.880E-01	3.612E-01	3.054E-02	3.192
U-231	+	84.21		2.647E+01	1.067E+01	1.015E+01	9.894E-01	2.607
	+	92.29		2.910E+02	2.959E+01	4.646E+00	4.628E-01	62.633
	+	95.87	*	9.431E+00	3.293E+00	1.685E+00	1.709E-01	5.598
		108.00		-2.649E+00	2.785E+00	4.001E+00	4.328E-01	-0.662
TH-232	+	338.32		1.326E+00	4.751E-01	4.401E-01	3.966E-02	3.014
	+	911.07	*	1.714E+00	4.053E-01	2.462E-01	2.793E-02	6.960
	+	969.11		1.523E+00	6.013E-01	4.658E-01	1.089E-01	3.269
PA-234M	+	766.42		1.078E+02	6.311E+01	2.449E+01	1.243E+01	4.402
	+	1001.03	*	1.210E+02	1.840E+01	9.062E+00	9.094E-01	13.351
TH-234	+	63.29	*	8.698E+01	1.650E+01	1.860E+00	3.473E-01	46.751
	+	92.38		9.339E+01	1.762E+01	1.389E+00	2.606E-01	67.236

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-234	+	609.31	*	1.062E+00	2.179E-01	1.490E-01	1.516E-02	7.126
	+	1120.29		1.191E+00	6.263E-01	6.883E-01	7.358E-02	1.731
	+	1764.49		1.153E+00	4.880E-01	3.612E-01	3.054E-02	3.192
U-235		89.95		9.966E-01	2.396E+00	2.884E+00	9.006E-01	0.346
	+	93.35		1.123E+02	3.204E+01	1.675E+00	4.772E-01	67.017
		105.00		8.292E-01	1.469E+00	2.445E+00	7.453E-01	0.339
	+	143.76	*	1.660E+00	5.473E-01	4.417E-01	8.097E-02	3.757
	+	163.35		1.990E+00	9.037E-01	9.568E-01	1.823E-01	2.080
	+	185.71		1.603E+00	1.823E-01	8.830E-02	7.562E-03	18.148
	+	205.31		1.720E+00	1.074E+00	1.001E+00	1.917E-01	1.718
NP-237	+	86.50	*	4.069E-01	4.260E-01	5.630E-01	1.285E-01	0.723
	+	95.87		1.019E+01	4.267E+00	1.821E+00	4.591E-01	5.598
U-238	+	63.29	*	8.698E+01	1.650E+01	1.860E+00	3.473E-01	46.751
	+	92.38		9.339E+01	9.498E+00	1.389E+00	1.384E-01	67.236
AM-243	+	74.67	*	4.124E-01	9.227E-02	1.085E-01	1.060E-02	3.800
	+	86.72		1.526E+01	1.566E+01	2.113E+01	2.061E+00	0.722
		117.66		-3.789E+00	5.295E+00	8.137E+00	9.291E-01	-0.466
		142.18		6.528E+01	2.843E+01	4.399E+01	4.536E+00	1.484
ANH-511	+	511.00	*	1.840E-01	8.722E-02	6.461E-02	5.770E-03	2.848

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-4.892E-02	3.901E-01	6.338E-01	6.031E-02	-0.077
NA-22		1274.54	*	-2.813E-02	5.198E-02	7.751E-02	6.530E-03	-0.363
NA-24		1368.53	*	3.806E-02	5.198E-02	Half-Life too short		
AL-26		1129.67		8.659E-01	2.272E+00	3.822E+00	3.194E-01	0.227
		1808.65	*	2.296E-02	3.172E-02	6.048E-02	5.069E-03	0.380
TI-44		67.85		-3.767E-02	4.950E-02	7.366E-02	7.254E-03	-0.511
	+	78.38	*	3.188E-01	6.504E-02	8.250E-02	8.038E-03	3.864
SC-46		889.25	*	1.319E-02	4.829E-02	8.199E-02	7.177E-03	0.161
	+	1120.51		2.019E-01	1.053E-01	1.490E-01	1.250E-02	1.355
V-48		944.10		7.465E-01	1.051E+00	1.848E+00	1.617E-01	0.404
		983.50	*	4.122E-02	8.605E-02	1.478E-01	1.289E-02	0.279
		1312.09		6.172E-02	9.517E-02	1.706E-01	1.448E-02	0.362
CR-51		320.08	*	-6.676E-03	4.225E-01	7.103E-01	6.783E-02	-0.009
MN-52		744.21		4.586E-01	3.332E-01	5.486E-01	4.768E-02	0.836
		848.13		-1.232E+00	7.821E+00	1.282E+01	1.127E+00	-0.096
		935.52		2.283E-02	2.330E-01	3.883E-01	3.398E-02	0.059
		1246.25		-4.784E+00	7.709E+00	1.152E+01	9.623E-01	-0.415
		1333.61		1.745E+00	4.896E+00	8.567E+00	7.303E-01	0.204
		1434.06	*	8.400E-02	2.149E-01	3.797E-01	3.274E-02	0.221
MN-54		834.83	*	-1.069E-02	5.076E-02	8.301E-02	7.298E-03	-0.129
CO-56		846.75	*	7.505E-03	5.159E-02	8.677E-02	7.628E-03	0.086
		977.42		-2.831E+00	3.631E+00	5.453E+00	4.759E-01	-0.519
		1037.82		1.340E-01	3.801E-01	6.441E-01	5.857E-02	0.208
		1175.09		-1.797E+00	2.503E+00	3.688E+00	3.015E-01	-0.487
		1238.25		1.407E-01	1.219E-01	2.142E-01	1.841E-02	0.657

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1360.21		-4.560E-02	1.053E+00	1.751E+00	1.498E-01	-0.026
		1771.40		8.648E-03	2.571E-01	4.236E-01	3.578E-02	0.020
CO-57		122.06	*	1.755E-02	3.323E-02	5.571E-02	6.528E-03	0.315
		136.48		1.023E-01	2.765E-01	4.595E-01	5.172E-02	0.223
CO-58		810.76	*	-1.773E-05	4.969E-02	8.282E-02	7.294E-03	0.000
FE-59	+	142.65		2.100E+01	6.143E+00	7.274E+00	7.476E-01	2.888
		192.34		-1.852E-01	1.124E+00	1.802E+00	2.421E-01	-0.103
		1099.22	*	-2.629E-03	1.063E-01	1.724E-01	1.582E-02	-0.015
		1291.56		-4.502E-03	1.449E-01	2.316E-01	2.231E-02	-0.019
CO-60		1173.22		-2.347E-02	5.133E-02	7.852E-02	6.414E-03	-0.299
		1332.49	*	1.489E-02	4.565E-02	7.907E-02	6.739E-03	0.188
ZN-65		1115.52	*	7.539E-02	1.335E-01	2.015E-01	1.696E-02	0.374
GE-68		1077.35	*	4.168E-01	1.620E+00	2.708E+00	2.311E-01	0.154
AS-73		53.44	*	2.077E-01	4.675E-01	8.041E-01	8.045E-02	0.258
AS-74		595.88	*	7.359E-02	1.213E-01	2.041E-01	1.798E-02	0.361
		634.78		-4.274E-03	4.508E-01	7.231E-01	6.227E-02	-0.006
SE-75		66.05		-6.113E+00	4.655E+00	6.772E+00	7.790E-01	-0.903
		96.73		5.146E+00	1.560E+00	1.918E+00	2.813E-01	2.684
		121.11		-1.341E-01	1.805E-01	2.902E-01	3.972E-02	-0.462
		136.00		1.962E-02	5.141E-02	8.551E-02	9.247E-03	0.229
		198.60		2.197E-01	2.051E+00	3.320E+00	3.198E-01	0.066
		264.65	*	-4.312E-03	5.585E-02	7.804E-02	7.170E-03	-0.055
		279.53		1.874E-02	1.281E-01	1.940E-01	1.840E-02	0.097
		303.91		1.646E+00	2.526E+00	3.927E+00	4.671E-01	0.419
		400.65		1.474E-01	3.173E-01	5.396E-01	5.940E-02	0.273
BR-77	+	87.88		2.129E+02	2.184E+02	3.178E+02	3.101E+01	0.670
		200.40		-8.672E+01	1.499E+02	2.074E+02	1.808E+01	-0.418
	+	239.00		1.590E+02	1.936E+01	2.707E+01	2.445E+00	5.875
		249.79		-1.224E+01	5.660E+01	8.890E+01	8.082E+00	-0.138
		281.68		-2.024E+01	7.415E+01	1.150E+02	1.056E+01	-0.176
		297.23		5.716E+01	4.109E+01	7.326E+01	6.726E+00	0.780
		303.76		9.060E+01	1.508E+02	2.340E+02	2.146E+01	0.387
		439.47		5.237E+01	1.201E+02	2.036E+02	1.774E+01	0.257
		484.57		-1.023E+02	2.032E+02	3.207E+02	2.849E+01	-0.319
		520.65	*	-6.814E+00	9.754E+00	1.506E+01	1.346E+00	-0.452
		574.64		-1.673E+02	1.947E+02	2.929E+02	2.600E+01	-0.571
		578.91		3.121E+01	8.821E+01	1.292E+02	1.146E+01	0.242
		585.48		2.122E+02	1.955E+02	3.013E+02	2.665E+01	0.704
		755.35		8.241E+01	1.597E+02	2.773E+02	2.417E+01	0.297
		817.79		2.089E+01	1.141E+02	1.932E+02	1.698E+01	0.108
SR-82		698.33		-1.682E+01	4.429E+01	7.266E+01	6.222E+00	-0.232
		776.49	*	-3.207E-01	5.082E-01	8.071E-01	7.064E-02	-0.397
		1395.20		-1.555E+00	1.143E+01	1.867E+01	1.605E+00	-0.083
RB-83		520.41	*	-6.233E-02	9.146E-02	1.414E-01	1.264E-02	-0.441
		529.64		-4.696E-02	1.307E-01	2.067E-01	1.848E-02	-0.227
		552.65		-5.788E-02	2.591E-01	4.132E-01	3.687E-02	-0.140
RB-84		881.50	*	7.023E-02	9.568E-02	1.678E-01	1.470E-02	0.419
KR-85		513.99	*	6.139E+00	1.056E+01	1.584E+01	1.415E+00	0.388
SR-85		513.99	*	3.107E-02	5.347E-02	8.019E-02	7.164E-03	0.388

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-86		1076.63	*	2.374E-01	9.617E-01	1.607E+00	1.372E-01	0.148
Y-88		898.02		3.886E-02	4.820E-02	8.586E-02	7.542E-03	0.453
		1836.01	*	1.901E-02	3.812E-02	6.902E-02	5.755E-03	0.275
ZR-88		392.90	*	-4.204E-02	3.515E-02	5.358E-02	4.514E-03	-0.785
Y-91		1204.90	*	-1.116E+01	2.303E+01	3.524E+01	2.909E+00	-0.317
NB-94		702.63	*	3.054E-02	4.426E-02	7.793E-02	6.685E-03	0.392
		871.10		-2.301E-03	4.337E-02	7.155E-02	6.278E-03	-0.032
NB-95M		235.69	*	4.265E-02	1.594E-01	2.297E-01	2.345E-02	0.186
ZR-95		724.18		1.944E-01	1.355E-01	2.247E-01	2.109E-02	0.865
		756.15	*	1.022E-01	9.733E-02	1.744E-01	1.671E-02	0.586
NB-97		657.90	*	-1.158E-02	9.733E-02	Half-Life too short		
		1024.50		2.255E+00	9.733E-02	Half-Life too short		
ZR-97		254.15		2.644E-01	9.733E-02	Half-Life too short		
		355.39		-8.424E-01	9.733E-02	Half-Life too short		
		507.63	*	1.066E+00	9.733E-02	Half-Life too short		
		602.52		-1.474E+00	9.733E-02	Half-Life too short		
		1021.30		1.250E+00	9.733E-02	Half-Life too short		
		1147.95		-1.461E-03	9.733E-02	Half-Life too short		
		1362.66		3.132E-01	9.733E-02	Half-Life too short		
		1750.46		-7.388E-02	9.733E-02	Half-Life too short		
MO-99		140.51		-5.628E+00	2.859E+01	4.118E+01	1.166E+01	-0.137
		181.06		-1.037E+01	1.844E+01	2.575E+01	4.696E+00	-0.403
		366.43		2.372E+01	7.080E+01	1.204E+02	1.054E+01	0.197
		739.58	*	4.836E+00	1.340E+01	2.029E+01	3.088E+00	0.238
		778.00		-2.703E+01	3.455E+01	5.411E+01	4.737E+00	-0.499
TC-99M		140.51	*	-3.736E+08	3.455E+01	Half-Life too short		
RH-101		127.23		-2.793E-02	4.234E-02	6.827E-02	7.764E-03	-0.409
		198.01	*	2.868E-02	3.788E-02	6.292E-02	5.470E-03	0.456
		325.23		-1.539E-01	2.676E-01	4.366E-01	3.969E-02	-0.352
RH-102		418.52		-1.061E-01	3.640E-01	5.794E-01	4.982E-02	-0.183
		475.06	*	1.567E-02	3.460E-02	5.853E-02	5.184E-03	0.268
		631.29		-1.427E-02	7.261E-02	1.147E-01	9.900E-03	-0.124
		697.49		-6.322E-02	1.037E-01	1.672E-01	1.431E-02	-0.378
	+	766.84		1.024E+00	3.117E-01	4.243E-01	3.707E-02	2.413
		1046.59		5.372E-02	1.525E-01	2.576E-01	2.219E-02	0.209
		1112.84		1.003E-01	3.199E-01	4.698E-01	3.956E-02	0.214
RU-103		497.08	*	-6.473E-03	4.978E-02	8.060E-02	1.156E-02	-0.080
	+	610.33		1.122E+01	2.745E+00	3.142E+00	5.262E-01	3.572
RH-106	+	511.85		9.169E-01	4.347E-01	5.088E-01	4.544E-02	1.802
		621.84	*	-3.446E-02	4.343E-01	6.938E-01	9.298E-02	-0.050
		1050.47		-1.014E+00	2.978E+00	4.689E+00	4.035E-01	-0.216
RU-106	+	511.85		9.169E-01	4.347E-01	5.088E-01	4.544E-02	1.802
		621.84	*	-3.446E-02	4.343E-01	6.938E-01	6.028E-02	-0.050
		1050.47		-1.014E+00	2.978E+00	4.689E+00	4.035E-01	-0.216
AG-108M		433.93	*	8.106E-03	3.923E-02	6.560E-02	5.921E-03	0.124
		614.37		3.092E-03	5.546E-02	7.841E-02	7.105E-03	0.039
		722.95		-1.648E-02	6.147E-02	8.740E-02	7.845E-03	-0.189
AG-110M		657.75	*	-2.381E-02	5.065E-02	7.801E-02	6.799E-03	-0.305
		677.61		-1.606E-01	3.943E-01	6.056E-01	5.289E-02	-0.265

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.67		1.181E-01	2.673E-01	4.639E-01	4.096E-02	0.255
		763.93		1.290E+00	3.308E-01	5.915E-01	5.307E-02	2.182
		884.67		-4.411E-02	6.502E-02	1.006E-01	9.087E-03	-0.438
		937.48		-1.702E-01	1.231E-01	1.698E-01	1.538E-02	-1.002
		1384.27		8.168E-02	1.810E-01	3.097E-01	2.734E-02	0.264
IN-111		171.28		-2.396E-01	9.733E-01	1.567E+00	1.315E-01	-0.153
		245.39	*	-9.601E-01	1.062E+00	1.402E+00	1.271E-01	-0.685
IN-113M		391.69	*	-3.147E-02	5.020E-02	7.994E-02	6.946E-03	-0.394
SN-113		391.69	*	-3.147E-02	5.020E-02	7.994E-02	6.946E-03	-0.394
IN-114M		190.27	*	6.326E-02	2.386E-01	3.486E-01	3.002E-02	0.181
CD-115		260.90		2.106E+01	1.206E+02	1.719E+02	1.571E+01	0.123
		492.35		1.297E+01	3.056E+01	5.147E+01	4.582E+00	0.252
		527.90	*	2.599E+00	9.517E+00	1.580E+01	1.412E+00	0.164
SN-117M		156.02		7.714E-02	2.735E+00	4.470E+00	4.115E-01	0.017
		158.56	*	-4.438E-02	6.995E-02	1.057E-01	9.504E-03	-0.420
SB-122		563.90	*	1.354E+00	2.096E+00	3.541E+00	3.153E-01	0.382
		692.80		6.810E+00	4.022E+01	6.864E+01	5.865E+00	0.099
I-123		159.00	*	-3.553E-01	4.022E+01	Half-Life too short		
		528.96		-1.959E+01	4.022E+01	Half-Life too short		
TE-123M		159.00	*	-8.269E-03	4.072E-02	5.874E-02	5.287E-03	-0.141
I-124		602.71	*	-4.441E-01	8.217E-01	1.162E+00	1.020E-01	-0.382
		722.78		-2.957E+00	5.279E+00	7.252E+00	6.265E-01	-0.408
		1325.50		1.383E+01	3.401E+01	5.968E+01	5.079E+00	0.232
	+	1376.25		4.524E+01	4.082E+01	5.948E+01	5.100E+00	0.761
		1509.49		1.442E+01	1.510E+01	2.834E+01	2.451E+00	0.509
		1691.02		4.228E+00	3.615E+00	7.204E+00	6.162E-01	0.587
SB-124		602.71		-3.120E-02	5.773E-02	8.161E-02	7.168E-03	-0.382
		645.85		-7.361E-02	6.871E-01	1.092E+00	9.894E-02	-0.067
		709.31		-2.609E-01	3.569E+00	5.977E+00	5.139E-01	-0.044
		713.82		6.034E-01	2.027E+00	3.486E+00	4.195E-01	0.173
		722.78		-3.012E-01	5.377E-01	7.386E-01	6.518E-02	-0.408
	+	968.20		1.546E+01	5.101E+00	8.465E+00	7.395E-01	1.826
		1045.16		2.143E+00	3.213E+00	5.580E+00	4.810E-01	0.384
		1325.50		1.505E+00	3.699E+00	6.492E+00	5.525E-01	0.232
		1368.21		4.359E-01	2.089E+00	3.442E+00	4.627E-01	0.127
		1436.60		-1.788E+00	4.316E+00	6.726E+00	5.800E-01	-0.266
		1691.02	*	1.016E-01	8.689E-02	1.731E-01	1.540E-02	0.587
SB-125		427.89	*	-2.257E-02	1.091E-01	1.778E-01	1.568E-02	-0.127
		463.38		9.227E-01	3.791E-01	6.919E-01	6.559E-02	1.334
		600.56		-9.631E-02	2.427E-01	3.794E-01	3.572E-02	-0.254
		635.90		-5.074E-02	3.664E-01	5.814E-01	5.408E-02	-0.087
TE-125M		109.28	*	8.120E+00	1.514E+01	2.289E+01	2.812E+00	0.355
I-126		388.63		1.107E-01	2.226E-01	3.806E-01	3.221E-02	0.291
		666.33	*	1.641E-01	2.251E-01	3.808E-01	3.215E-02	0.431
		753.82		-3.466E-01	1.893E+00	3.130E+00	2.727E-01	-0.111
SB-126		223.80		-4.690E+00	4.586E+00	6.948E+00	6.202E-01	-0.675
	+	278.60		3.285E+00	3.658E+00	4.363E+00	4.005E-01	0.753
	+	296.50		1.025E+01	2.219E+00	3.222E+00	2.958E-01	3.182
		414.70		6.319E-02	8.603E-02	1.484E-01	1.272E-02	0.426

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.30		1.874E+00	7.356E+00	1.236E+01	1.060E+00	0.152
		555.20		8.229E-01	4.979E+00	8.173E+00	7.290E-01	0.101
		573.80		-3.125E-01	1.276E+00	2.024E+00	1.798E-01	-0.154
		593.00		-1.048E+00	1.246E+00	1.879E+00	1.657E-01	-0.558
		656.30		1.841E+00	4.262E+00	7.059E+00	5.975E-01	0.261
		666.33		6.839E-02	9.381E-02	1.587E-01	1.340E-02	0.431
		675.00		8.563E-01	2.535E+00	4.164E+00	3.530E-01	0.206
		695.00		3.642E-02	9.365E-02	1.621E-01	1.386E-02	0.225
		697.00		-2.104E-01	3.456E-01	5.577E-01	4.773E-02	-0.377
		720.50	*	9.641E-02	1.911E-01	2.951E-01	2.547E-02	0.327
		856.80		-2.042E-02	6.493E-01	9.320E-01	8.188E-02	-0.022
		989.30		-4.079E-02	1.468E+00	2.403E+00	2.094E-01	-0.017
		1034.80		-2.623E-01	9.944E+00	1.621E+01	1.401E+00	-0.016
		1213.00		-1.048E+00	5.525E+00	8.742E+00	7.234E-01	-0.120
SB-127		61.10		4.833E+01	4.424E+01	6.867E+01	8.208E+00	0.704
		252.40		2.378E+00	4.315E+00	6.865E+00	2.886E+00	0.346
		290.80		-5.332E+00	2.009E+01	2.943E+01	3.314E+00	-0.181
		411.60		-1.067E+00	1.158E+01	1.906E+01	2.943E+00	-0.056
		444.90		-2.290E+00	9.728E+00	1.559E+01	1.918E+00	-0.147
		473.00		-1.619E+00	1.683E+00	2.550E+00	3.243E-01	-0.635
		543.00		1.419E+01	1.831E+01	3.115E+01	4.459E+00	0.456
		603.60		2.502E+00	1.435E+01	2.055E+01	2.529E+00	0.122
		685.20	*	6.185E-01	1.454E+00	2.403E+00	2.632E-01	0.257
		698.50		-4.914E+00	1.639E+01	2.702E+01	4.198E+00	-0.182
		722.20		-2.363E+01	3.477E+01	4.691E+01	5.074E+00	-0.504
		783.80		5.977E+00	4.846E+00	7.806E+00	9.522E-01	0.766
XE-127		57.60		-1.250E+00	4.362E+00	7.404E+00	7.436E-01	-0.169
	+	145.22		5.358E+00	1.567E+00	1.692E+00	1.706E-01	3.166
		172.10		-1.334E-01	1.529E-01	2.395E-01	2.013E-02	-0.557
		202.84	*	7.582E-02	5.893E-02	9.029E-02	7.894E-03	0.840
		374.96		7.696E-02	2.365E-01	4.011E-01	3.469E-02	0.192
I-131		80.18		-1.852E+00	7.485E+00	8.945E+00	8.749E-01	-0.207
		284.30		5.943E-01	1.511E+00	2.606E+00	2.502E-01	0.228
		364.48	*	-1.567E-01	1.198E-01	1.824E-01	1.683E-02	-0.859
		636.97		6.461E-01	1.867E+00	3.081E+00	2.795E-01	0.210
		722.89		-4.479E+00	9.438E+00	1.311E+01	1.138E+00	-0.342
TE-132		49.72		-2.225E+00	5.765E+00	9.805E+00	1.149E+00	-0.227
	+	111.76		7.636E+01	3.693E+01	7.495E+01	9.443E+00	1.019
		116.30		5.302E+00	3.189E+01	4.763E+01	6.120E+00	0.111
		228.16	*	9.632E-02	6.404E-01	1.030E+00	1.617E-01	0.093
BA-133		53.15		2.459E+00	1.993E+00	3.447E+00	3.449E-01	0.713
		79.62		4.640E-01	2.271E+00	2.758E+00	4.381E-01	0.168
		81.00		-5.359E-02	1.803E-01	2.147E-01	3.545E-02	-0.250
	+	276.40		5.258E-01	5.887E-01	7.295E-01	1.079E-01	0.721
		302.84		6.905E-02	1.717E-01	2.629E-01	3.589E-02	0.263
		356.01	*	-3.855E-03	5.824E-02	8.529E-02	1.140E-02	-0.045
		383.85		1.731E-01	3.426E-01	5.863E-01	7.355E-02	0.295
I-133	+	510.53		7.005E-01	3.426E-01	Half-Life too short		
		529.87	*	-9.982E-04	3.426E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.58		8.622E-02	3.426E-01	Half-Life too short		
		856.28		-3.317E-02	3.426E-01	Half-Life too short		
		875.33		-2.216E-02	3.426E-01	Half-Life too short		
		1236.41		3.711E-01	3.426E-01	Half-Life too short		
		1298.22		-8.783E-03	3.426E-01	Half-Life too short		
CS-134		475.35		1.079E+00	2.277E+00	3.856E+00	3.416E-01	0.280
		563.23		3.637E-01	5.028E-01	8.532E-01	7.666E-02	0.426
		569.32		1.579E-01	2.814E-01	4.723E-01	4.253E-02	0.334
		604.70		3.982E-02	5.060E-02	7.667E-02	6.742E-03	0.519
		795.84	*	1.040E-01	7.019E-02	1.275E-01	1.126E-02	0.816
		801.93		6.857E-02	5.444E-01	9.048E-01	7.987E-02	0.076
		1038.57		5.997E-01	4.881E+00	8.081E+00	6.977E-01	0.074
		1167.94		7.328E-01	3.070E+00	5.094E+00	4.173E-01	0.144
		1365.15		-6.404E-01	1.394E+00	2.173E+00	1.947E-01	-0.295
CS-135		268.24	*	2.058E-01	1.978E-01	2.978E-01	3.108E-02	0.691
I-135		288.45		-3.980E+08	1.978E-01	Half-Life too short		
		417.63		1.702E+09	1.978E-01	Half-Life too short		
		546.56		-5.104E+08	1.978E-01	Half-Life too short		
		836.80		9.262E+08	1.978E-01	Half-Life too short		
		1038.76		2.053E+08	1.978E-01	Half-Life too short		
		1124.00		8.502E+08	1.978E-01	Half-Life too short		
		1131.51		1.837E+08	1.978E-01	Half-Life too short		
		1260.41	*	2.957E+07	1.978E-01	Half-Life too short		
		1457.56		4.311E+10	1.978E-01	Half-Life too short		
		1678.03		-3.935E+08	1.978E-01	Half-Life too short		
		1706.46		-4.721E+08	1.978E-01	Half-Life too short		
		1791.20		6.011E+08	1.978E-01	Half-Life too short		
CS-136		66.91		-9.753E-01	7.537E-01	1.085E+00	1.754E-01	-0.899
	+	86.29		1.695E+00	1.747E+00	2.488E+00	3.393E-01	0.681
		153.22		1.236E-01	8.021E-01	1.318E+00	1.367E-01	0.094
	+	163.89		4.226E+00	1.788E+00	2.391E+00	2.287E-01	1.767
		176.55		6.310E-02	4.513E-01	7.357E-01	6.596E-02	0.086
		273.65		2.295E-02	6.803E-01	7.488E-01	7.268E-02	0.031
		340.57		3.476E-02	1.523E-01	2.286E-01	2.110E-02	0.152
		818.51		-2.839E-02	8.704E-02	1.406E-01	1.237E-02	-0.202
		1048.07	*	6.731E-02	1.340E-01	2.294E-01	2.060E-02	0.293
		1235.34		8.032E-01	7.690E-01	1.337E+00	1.556E-01	0.601
BA-137M		661.65	*	-1.842E-02	5.014E-02	7.783E-02	6.556E-03	-0.237
CS-137		661.65	*	-1.947E-02	5.301E-02	8.227E-02	6.945E-03	-0.237
CE-139		165.85	*	-1.234E-02	4.287E-02	6.139E-02	5.119E-03	-0.201
BA-140	+	162.64		2.970E+00	1.253E+00	1.658E+00	1.513E-01	1.792
		304.84		2.678E-02	1.401E+00	2.201E+00	6.205E-01	0.012
		423.70		8.049E-01	2.190E+00	3.676E+00	1.192E+00	0.219
		537.32	*	6.513E-02	3.279E-01	5.394E-01	1.792E-01	0.121
LA-140		328.77		2.806E-01	3.451E-01	5.993E-01	5.712E-02	0.468
		432.53		-6.498E-01	2.208E+00	3.568E+00	3.245E-01	-0.182
		487.03		8.831E-02	1.580E-01	2.686E-01	2.527E-02	0.329
		751.79		-8.582E-01	2.119E+00	3.437E+00	3.307E-01	-0.250
		815.85		-1.314E-02	3.735E-01	6.203E-01	6.057E-02	-0.021

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		867.82		2.529E-01	1.692E+00	2.844E+00	2.624E-01	0.089
		919.63		9.449E-01	3.311E+00	5.611E+00	6.034E-01	0.168
		925.24		1.072E+00	1.411E+00	2.481E+00	2.304E-01	0.432
		1596.49	*	-5.445E-02	9.289E-02	1.371E-01	1.184E-02	-0.397
CE-141		145.44	*	1.902E-01	9.186E-02	1.432E-01	1.461E-02	1.329
CE-143		57.37		-1.178E-04	9.186E-02	Half-Life too short		
		231.56		-2.119E-04	9.186E-02	Half-Life too short		
		293.26	*	2.439E-04	9.186E-02	Half-Life too short		
	+	350.59		1.481E-02	9.186E-02	Half-Life too short		
		490.36		-1.312E-03	9.186E-02	Half-Life too short		
		664.57		-8.036E-04	9.186E-02	Half-Life too short		
		721.93		-6.777E-04	9.186E-02	Half-Life too short		
CE-144		80.11		-9.059E-01	3.815E+00	4.561E+00	4.443E-01	-0.199
		133.54	*	-1.831E-01	2.776E-01	4.448E-01	7.545E-02	-0.412
PM-144		476.78		4.589E-02	8.236E-02	1.400E-01	1.351E-02	0.328
		618.01		-4.301E-02	4.327E-02	6.360E-02	5.689E-03	-0.676
		696.49	*	-2.243E-03	4.647E-02	7.807E-02	6.683E-03	-0.029
		778.57		-1.362E+00	3.224E+00	5.061E+00	4.432E-01	-0.269
PR-144		696.49	*	-1.519E-01	3.147E+00	5.287E+00	4.524E-01	-0.029
		1489.15		-8.075E-01	1.301E+01	2.137E+01	1.847E+00	-0.038
PM-146		453.90	*	-4.550E-03	5.503E-02	9.003E-02	9.772E-03	-0.051
		633.02		-6.658E-01	1.802E+00	2.772E+00	1.036E+00	-0.240
		735.90		-9.329E-02	2.114E-01	3.193E-01	9.137E-02	-0.292
		747.13		4.976E-02	1.300E-01	1.963E-01	2.765E-02	0.254
ND-147	+	91.11		4.348E+01	4.687E+00	1.326E+00	1.396E-01	32.797
		319.41		1.168E+00	3.568E+00	6.101E+00	5.563E-01	0.191
		439.89		1.722E-01	6.585E+00	1.087E+01	9.481E-01	0.016
		531.02	*	-4.041E-01	6.693E-01	1.034E+00	1.565E-01	-0.391
PM-149		285.90	*	4.689E+01	7.161E+01	1.243E+02	1.971E+01	0.377
EU-152		121.78		1.995E-02	9.622E-02	1.601E-01	2.031E-02	0.125
		244.69		-3.316E-01	4.416E-01	5.905E-01	5.352E-02	-0.562
		344.27	*	-1.789E-02	1.094E-01	1.816E-01	1.718E-02	-0.098
		443.98		-6.670E-01	1.198E+00	1.876E+00	1.639E-01	-0.356
		778.89		-5.143E-02	3.786E-01	5.904E-01	5.169E-02	-0.087
		867.32		-1.941E-01	1.107E+00	1.807E+00	1.586E-01	-0.107
		964.01		3.429E-01	4.049E-01	6.364E-01	5.561E-02	0.539
		1085.78		-2.839E-01	4.481E-01	6.714E-01	5.713E-02	-0.423
		1112.02		1.449E-01	4.536E-01	6.668E-01	5.616E-02	0.217
		1407.95		-1.292E-02	2.173E-01	3.595E-01	3.093E-02	-0.036
GD-153		69.67		3.519E+00	1.864E+00	2.908E+00	2.855E-01	1.210
	+	83.37		8.798E+01	3.547E+01	3.837E+01	3.738E+00	2.293
	+	97.43	*	1.116E+00	2.044E-01	2.361E-01	2.414E-02	4.725
		103.18		-1.523E-01	1.488E-01	2.282E-01	2.405E-02	-0.667
EU-154		123.07		4.182E-02	6.928E-02	1.162E-01	1.603E-02	0.360
		247.94		1.107E-01	4.339E-01	6.988E-01	8.264E-02	0.158
		591.81		-5.014E-01	8.732E-01	1.345E+00	1.590E-01	-0.373
		723.30		1.237E-02	2.625E-01	3.862E-01	3.687E-02	0.032
		756.87		7.254E-01	1.064E+00	1.864E+00	2.246E-01	0.389
		873.19		-3.607E-01	3.893E-01	5.838E-01	7.211E-02	-0.618

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		996.32		6.045E-01	5.195E-01	8.426E-01	1.501E-01	0.717
		1004.76		6.869E-02	2.918E-01	4.286E-01	5.012E-02	0.160
		1274.45	*	-7.066E-02	1.440E-01	2.161E-01	2.411E-02	-0.327
EU-155		48.70		-1.819E+00	8.650E-01	1.395E+00	1.401E-01	-1.304
		60.01		2.418E+00	4.512E+00	6.987E+00	7.029E-01	0.346
	+	86.54		1.668E-01	1.712E-01	2.465E-01	2.423E-02	0.677
		105.31	*	9.806E-02	1.485E-01	2.508E-01	2.694E-02	0.391
TB-160	+	86.79		4.406E-01	4.521E-01	6.514E-01	6.354E-02	0.676
		197.04		-5.142E-02	6.520E-01	1.047E+00	9.096E-02	-0.049
		215.65		1.904E-01	8.377E-01	1.358E+00	1.203E-01	0.140
	+	298.57		2.122E-01	1.500E-01	2.137E-01	1.961E-02	0.993
		879.36	*	1.263E-01	1.917E-01	3.345E-01	2.933E-02	0.378
		962.29		1.079E+00	7.071E-01	1.223E+00	1.069E-01	0.883
		966.15		9.003E-01	3.452E-01	6.014E-01	5.255E-02	1.497
		1177.93		-2.134E-01	4.297E-01	6.559E-01	5.366E-02	-0.325
		1271.85		4.176E-01	7.697E-01	1.324E+00	1.114E-01	0.315
HO-166M		80.57		-1.472E-01	4.934E-01	5.883E-01	5.730E-02	-0.250
	+	184.41		1.202E+00	1.367E-01	1.409E-01	1.205E-02	8.530
		280.46		-3.628E-02	1.043E-01	1.525E-01	1.400E-02	-0.238
		410.95		-5.666E-02	2.875E-01	4.702E-01	4.021E-02	-0.120
		711.68	*	1.686E-02	7.795E-02	1.333E-01	1.147E-02	0.127
		752.31		2.825E-02	3.590E-01	6.054E-01	5.273E-02	0.047
		810.29		1.172E-02	7.561E-02	1.277E-01	1.122E-02	0.092
TM-171		51.35		1.882E+00	1.436E+01	2.463E+01	2.466E+00	0.076
		52.39		1.426E+01	8.282E+00	1.434E+01	1.435E+00	0.994
		59.40		1.443E+01	2.351E+01	3.647E+01	3.675E+00	0.396
		66.72	*	-3.799E+01	2.862E+01	4.176E+01	4.122E+00	-0.910
LU-176		88.36		-1.433E-01	3.628E-01	4.950E-01	4.840E-02	-0.289
		201.83		-2.111E-02	3.856E-02	5.346E-02	4.669E-03	-0.395
		306.84	*	-1.458E-02	2.811E-02	4.610E-02	4.224E-03	-0.316
		401.10		7.622E-01	8.522E+00	1.421E+01	1.205E+00	0.054
LU-177M		52.97		1.111E+00	8.868E-01	1.534E+00	1.535E-01	0.724
		54.07		-9.168E-02	5.051E-01	8.607E-01	8.612E-02	-0.107
		61.30		5.665E+00	1.589E+00	2.433E+00	2.436E-01	2.329
		121.62		5.731E-02	4.891E-01	8.116E-01	9.479E-02	0.071
		147.16		-1.449E-01	9.166E-01	1.332E+00	1.323E-01	-0.109
		171.86		-6.720E-01	6.336E-01	9.842E-01	8.271E-02	-0.683
		218.09		1.540E-01	9.994E-01	1.613E+00	1.432E-01	0.095
		268.79		1.386E+00	1.027E+00	1.571E+00	1.439E-01	0.883
		319.02		4.217E-02	2.998E-01	5.080E-01	4.633E-02	0.083
		367.43		2.281E-01	1.060E+00	1.790E+00	1.564E-01	0.127
		413.65	*	-1.471E-01	2.142E-01	3.389E-01	2.904E-02	-0.434
HF-181		56.28		4.135E-02	6.331E-01	1.082E+00	1.084E-01	0.038
		57.53		-1.048E-01	3.670E-01	6.229E-01	6.256E-02	-0.168
		65.20		2.768E+00	9.427E-01	1.469E+00	1.455E-01	1.884
		133.02		-4.187E-02	8.656E-02	1.402E-01	1.539E-02	-0.299
		136.25		2.498E-01	5.932E-01	9.875E-01	1.061E-01	0.253
		345.85		-8.090E-02	2.345E-01	3.360E-01	3.008E-02	-0.241
		482.03	*	2.553E-02	5.096E-02	8.635E-02	7.666E-03	0.296

---- Non-Identified Nuclides ----

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W-181		56.28		1.675E-02	2.511E-01	4.290E-01	4.301E-02	0.039
		57.53		-4.157E-02	1.456E-01	2.472E-01	2.483E-02	-0.168
		65.20	*	1.090E+00	3.712E-01	5.785E-01	5.729E-02	1.884
TA-182		67.75		-1.414E-01	1.180E-01	1.732E-01	1.706E-02	-0.817
		100.10		8.744E-01	2.870E-01	4.461E-01	4.624E-02	1.960
		152.43		2.409E-01	4.326E-01	7.197E-01	6.842E-02	0.335
		222.10		2.166E-01	4.021E-01	6.593E-01	5.876E-02	0.329
	+	1001.68		5.289E+01	7.595E+00	1.206E+01	1.049E+00	4.387
		1121.28		4.260E-01	2.382E-01	3.965E-01	3.326E-02	1.074
		1189.05		-1.966E-02	3.850E-01	6.190E-01	5.084E-02	-0.032
		1221.42	*	1.490E-01	2.348E-01	4.026E-01	3.339E-02	0.370
		1230.97		-1.760E-01	5.940E-01	9.284E-01	7.723E-02	-0.190
RE-183		57.98		-5.610E-02	1.549E-01	2.510E-01	2.522E-02	-0.224
		59.32		5.862E-02	9.530E-02	1.478E-01	1.489E-02	0.397
		67.20		-2.297E-01	2.019E-01	2.965E-01	2.924E-02	-0.774
	+	162.32	*	4.589E-01	1.932E-01	2.551E-01	2.208E-02	1.799
	+	208.81		3.018E+00	1.470E+00	2.025E+00	1.782E-01	1.490
		291.72		8.907E-02	1.067E+00	1.604E+00	1.473E-01	0.056
RE-184		57.98		-2.082E-01	5.750E-01	9.315E-01	9.361E-02	-0.224
		59.32		2.174E-01	3.534E-01	5.481E-01	5.523E-02	0.397
		67.20		-8.520E-01	7.489E-01	1.100E+00	1.085E-01	-0.774
		161.27		-4.834E-02	5.003E-01	7.248E-01	6.343E-02	-0.067
		216.55		2.312E-01	3.048E-01	5.049E-01	4.477E-02	0.458
		252.85	*	-4.778E-02	2.851E-01	4.487E-01	4.086E-02	-0.106
		318.01		1.760E-01	5.230E-01	8.949E-01	8.165E-02	0.197
		792.07		2.802E-01	1.540E+00	2.538E+00	2.226E-01	0.110
		903.28		4.773E-01	1.368E+00	2.045E+00	1.789E-01	0.233
		920.93		3.191E-01	5.986E-01	1.035E+00	9.053E-02	0.308
OS-185		59.72		1.712E-01	2.610E-01	4.049E-01	4.078E-02	0.423
		61.14		1.980E-01	1.562E-01	2.433E-01	2.438E-02	0.814
		69.30		2.959E-01	3.250E-01	5.035E-01	4.946E-02	0.588
		592.07		-2.515E+00	3.517E+00	5.355E+00	4.726E-01	-0.470
		646.12	*	3.177E-03	5.834E-02	9.395E-02	8.022E-03	0.034
		717.42		6.162E-01	1.106E+00	1.937E+00	1.671E-01	0.318
		874.81		-4.006E-01	7.635E-01	1.202E+00	1.055E-01	-0.333
		880.27		9.871E-01	1.066E+00	1.897E+00	1.663E-01	0.520
RE-188		155.03	*	2.791E-02	2.176E-01	3.571E-01	3.317E-02	0.078
		477.96		-1.716E+00	3.779E+00	5.991E+00	5.312E-01	-0.286
		633.10		-1.195E+00	3.577E+00	5.574E+00	4.806E-01	-0.214
W-188	+	63.58		3.453E+03	3.629E+02	1.859E+02	1.849E+01	18.574
		227.08		1.743E+01	1.502E+01	2.518E+01	2.254E+00	0.692
		290.67	*	-2.729E+00	8.551E+00	1.248E+01	1.146E+00	-0.219
IR-192	+	295.96		8.315E-01	1.801E-01	2.795E-01	2.582E-02	2.975
		308.46		2.170E-02	1.057E-01	1.802E-01	1.657E-02	0.120
		316.51	*	1.140E-02	3.966E-02	6.772E-02	6.195E-03	0.168
		468.07		1.623E-02	8.144E-02	1.355E-01	1.279E-02	0.120
		604.41		4.800E-01	6.751E-01	1.014E+00	1.331E-01	0.473
		612.46		-2.188E-02	9.910E-01	1.389E+00	1.389E-01	-0.016
AU-195		65.12		1.094E+00	2.051E-01	2.990E-01	2.961E-02	3.660

---- Non-Identified Nuclides ----

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		66.83		-1.243E-01	9.462E-02	1.381E-01	1.363E-02	-0.900
	+	75.70		1.328E+00	2.972E-01	4.385E-01	4.278E-02	3.029
	+	98.88	*	3.245E+00	5.944E-01	7.174E-01	7.389E-02	4.523
		129.76		2.972E+00	3.829E+00	6.418E+00	7.189E-01	0.463
TL-200		367.94	*	7.918E-05	3.829E+00	Half-Life too short		
		579.30		1.508E-03	3.829E+00	Half-Life too short		
		828.27		-5.356E-05	3.829E+00	Half-Life too short		
		1205.75		3.861E-04	3.829E+00	Half-Life too short		
TL-201		68.90		2.019E+00	3.711E+00	6.064E+00	5.961E-01	0.333
		70.82		9.976E-01	2.404E+00	3.691E+00	3.618E-01	0.270
		80.30		-1.816E+00	6.866E+00	8.200E+00	7.987E-01	-0.221
		135.34		2.124E+00	2.560E+01	4.222E+01	4.565E+00	0.050
		167.43	*	3.797E+00	7.636E+00	1.135E+01	9.475E-01	0.335
TL-202		68.90		2.240E-01	4.118E-01	6.729E-01	6.615E-02	0.333
		70.82		1.104E-01	2.661E-01	4.085E-01	4.004E-02	0.270
		80.30		-2.010E-01	7.601E-01	9.078E-01	8.842E-02	-0.221
		439.56	*	3.337E-02	7.757E-02	1.314E-01	1.145E-02	0.254
HG-203		70.83		5.122E-01	1.215E+00	1.864E+00	2.682E-01	0.275
		72.87		6.501E-01	6.674E-01	1.135E+00	1.587E-01	0.573
	+	82.60		6.445E+00	2.689E+00	2.662E+00	3.852E-01	2.421
		279.20	*	2.057E-02	4.805E-02	7.403E-02	6.967E-03	0.278
BI-207		72.80		1.711E-01	1.977E-01	3.375E-01	3.300E-02	0.507
	+	74.97		7.403E-01	1.656E-01	2.316E-01	2.261E-02	3.196
	+	84.90		1.142E+00	4.604E-01	4.802E-01	4.680E-02	2.378
		569.67		3.410E-02	4.254E-02	7.252E-02	6.449E-03	0.470
		1063.62	*	-6.392E-03	6.964E-02	1.126E-01	9.650E-03	-0.057
		1770.23		-2.135E-01	6.646E-01	8.376E-01	7.075E-02	-0.255
TL-207		81.07		-1.132E-01	3.980E-01	4.747E-01	4.624E-02	-0.238
	+	83.78		7.529E-01	3.036E-01	3.303E-01	3.218E-02	2.280
	+	94.90		2.367E+00	8.263E-01	6.742E-01	6.804E-02	3.510
		122.32		1.628E+00	2.324E+00	3.908E+00	4.757E-01	0.417
	+	144.24		5.378E+00	1.590E+00	1.940E+00	2.141E-01	2.772
		154.21		-3.372E-01	5.163E-01	8.227E-01	8.355E-02	-0.410
	+	269.46		6.703E-01	3.691E-01	3.869E-01	3.610E-02	1.732
		323.87	*	-6.750E-01	7.927E-01	1.260E+00	2.260E-01	-0.536
	+	338.28		5.539E+00	2.043E+00	2.697E+00	3.395E-01	2.054
		445.03		-8.367E-01	2.817E+00	4.493E+00	5.470E-01	-0.186
PO-209		260.50		7.899E+00	1.305E+01	1.913E+01	1.748E+00	0.413
		262.80		7.488E+00	3.495E+01	4.995E+01	4.567E+00	0.150
		896.60	*	3.987E+00	8.953E+00	1.544E+01	1.350E+00	0.258
BI-210		46.50	*	1.491E+00	9.956E-01	1.594E+00	1.729E-01	0.936
PB-210		46.50	*	1.491E+00	9.956E-01	1.594E+00	1.729E-01	0.936
PO-210		46.50	*	1.491E+00	9.938E-01	1.594E+00	1.610E-01	0.936
PB-211		404.84	*	-1.541E-01	1.180E+00	1.935E+00	1.213E+00	-0.080
		427.08		2.478E+00	2.851E+00	4.228E+00	2.627E+00	0.586
		831.96		-2.592E-01	1.597E+00	2.607E+00	1.635E+00	-0.099
PO-215		81.07		-1.132E-01	3.980E-01	4.747E-01	4.624E-02	-0.238
	+	83.78		7.529E-01	3.036E-01	3.303E-01	3.218E-02	2.280
	+	94.90		2.367E+00	8.263E-01	6.742E-01	6.804E-02	3.510

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		1.628E+00	2.324E+00	3.908E+00	4.757E-01	0.417
	+	144.24		5.378E+00	1.590E+00	1.940E+00	2.141E-01	2.772
		154.21		-3.372E-01	5.163E-01	8.227E-01	8.355E-02	-0.410
	+	269.46		6.703E-01	3.691E-01	3.869E-01	3.610E-02	1.732
		323.87	*	-6.750E-01	7.927E-01	1.260E+00	2.260E-01	-0.536
	+	338.28		5.539E+00	2.043E+00	2.697E+00	3.395E-01	2.054
		445.03		-8.367E-01	2.817E+00	4.493E+00	5.470E-01	-0.186
RN-219	+	271.23		8.600E-01	4.759E-01	5.076E-01	5.468E-02	1.694
		401.81	*	4.991E-02	5.274E-01	8.793E-01	1.315E-01	0.057
RN-220		549.76	*	1.002E+01	3.465E+01	5.741E+01	5.125E+00	0.175
RA-223		81.07		-1.132E-01	3.980E-01	4.747E-01	4.624E-02	-0.238
	+	83.78		7.529E-01	3.036E-01	3.303E-01	3.218E-02	2.280
	+	94.90		2.367E+00	8.263E-01	6.742E-01	6.804E-02	3.510
		122.32		1.628E+00	2.324E+00	3.908E+00	4.757E-01	0.417
	+	144.24		5.378E+00	1.590E+00	1.940E+00	2.141E-01	2.772
		154.21		-3.372E-01	5.163E-01	8.227E-01	8.355E-02	-0.410
	+	269.46		6.703E-01	3.691E-01	3.869E-01	3.610E-02	1.732
		323.87	*	-6.750E-01	7.927E-01	1.260E+00	2.260E-01	-0.536
	+	338.28		5.539E+00	2.043E+00	2.697E+00	3.395E-01	2.054
		445.03		-8.367E-01	2.817E+00	4.493E+00	5.470E-01	-0.186
AC-227		79.80		6.784E-01	2.893E+00	3.514E+00	7.723E-01	0.193
		236.00		2.653E-01	3.068E-01	4.550E-01	5.698E-02	0.583
		256.20	*	7.495E-02	5.524E-01	7.853E-01	1.228E-01	0.095
		286.10		1.013E+00	1.757E+00	3.046E+00	4.135E-01	0.333
	+	299.80		2.734E+00	1.978E+00	2.873E+00	5.105E-01	0.952
		304.40		9.493E-01	2.307E+00	3.526E+00	6.594E-01	0.269
		334.20		-3.091E+00	3.168E+00	4.269E+00	8.367E-01	-0.724
TH-227		79.80		6.784E-01	2.893E+00	3.514E+00	7.818E-01	0.193
	+	94.00		1.893E+01	7.618E+00	1.144E+01	2.561E+00	1.655
		236.00		2.653E-01	3.065E-01	4.550E-01	5.180E-02	0.583
		256.20	*	7.495E-02	5.524E-01	7.853E-01	1.438E-01	0.095
		286.10		1.013E+00	2.025E+00	3.046E+00	3.058E+00	0.333
	+	299.80		2.734E+00	1.978E+00	2.873E+00	5.105E-01	0.952
		304.40		9.493E-01	2.307E+00	3.526E+00	6.594E-01	0.269
		334.20		-3.091E+00	3.168E+00	4.269E+00	8.367E-01	-0.724
TH-229	+	85.43		3.107E-01	3.189E-01	4.612E-01	4.496E-02	0.674
		88.47		-8.900E-02	2.088E-01	2.847E-01	2.785E-02	-0.313
	+	100.00		2.706E+00	4.956E-01	4.857E-01	5.032E-02	5.571
		193.63	*	1.324E-01	6.178E-01	1.006E+00	8.698E-02	0.132
		210.97		9.160E-01	9.667E-01	1.455E+00	1.283E-01	0.630
PA-231		283.67	*	5.057E-02	1.751E+00	2.971E+00	4.608E-01	0.017
	+	301.29		1.094E+00	7.793E-01	1.120E+00	1.416E-01	0.976
TH-231		81.07		-1.132E-01	3.980E-01	4.747E-01	4.624E-02	-0.238
	+	83.78		7.529E-01	3.036E-01	3.303E-01	3.218E-02	2.280
	+	94.90		2.367E+00	8.263E-01	6.742E-01	6.804E-02	3.510
		122.32		1.628E+00	2.324E+00	3.908E+00	4.757E-01	0.417
	+	144.24		5.378E+00	1.590E+00	1.940E+00	2.141E-01	2.772
		154.21		-3.372E-01	5.163E-01	8.227E-01	8.355E-02	-0.410
	+	269.46		6.703E-01	3.691E-01	3.869E-01	3.610E-02	1.732

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-6.750E-01	7.927E-01	1.260E+00	2.260E-01	-0.536
	+	338.28		5.539E+00	2.043E+00	2.697E+00	3.395E-01	2.054
		445.03		-8.367E-01	2.817E+00	4.493E+00	5.470E-01	-0.186
PA-233	+	75.28		2.160E+01	5.557E+00	6.896E+00	1.104E+00	3.133
	+	86.59		2.713E+00	2.868E+00	4.010E+00	1.091E+00	0.677
	+	300.12		7.623E-01	5.469E-01	7.924E-01	1.205E-01	0.962
		311.98	*	-3.404E-02	7.150E-02	1.173E-01	1.100E-02	-0.290
		340.50		3.138E-01	7.979E-01	1.206E+00	2.891E-01	0.260
		398.62		5.292E-02	2.619E+00	4.352E+00	1.157E+00	0.012
		415.76		1.249E+00	2.080E+00	3.536E+00	7.616E-01	0.353
PA-234	+	63.00		1.014E+02	1.686E+01	5.497E+00	8.952E-01	18.444
	+	94.67		1.688E+00	6.084E-01	5.764E-01	7.758E-02	2.929
	+	98.44		1.321E+00	7.672E-01	2.925E-01	1.640E-01	4.515
	+	99.86		6.847E+00	1.254E+00	1.292E+00	1.338E-01	5.300
	+	111.00		6.184E-01	3.013E-01	5.195E-01	7.213E-02	1.190
		131.20		1.573E-02	1.429E-01	2.361E-01	2.622E-02	0.067
		152.70		3.487E-01	4.198E-01	6.985E-01	1.222E-01	0.499
	+	186.00		4.327E+01	1.388E+01	5.633E+00	1.758E+00	7.681
		226.40		5.433E-01	4.813E-01	8.013E-01	1.075E-01	0.678
		227.20		5.010E-01	5.165E-01	8.599E-01	7.698E-02	0.583
		248.90		5.668E-01	9.901E-01	1.607E+00	3.632E-01	0.353
	+	293.70		5.295E+00	1.394E+00	1.701E+00	2.991E-01	3.113
		369.80		-3.682E-01	1.024E+00	1.667E+00	3.636E-01	-0.221
		568.70		6.801E-01	1.419E+00	2.370E+00	2.108E-01	0.287
		569.50		2.379E-01	3.839E-01	6.469E-01	5.753E-02	0.368
		574.00		-5.638E-01	1.946E+00	3.075E+00	2.731E-01	-0.183
		699.00		2.506E-01	9.575E-01	1.640E+00	3.125E-01	0.153
		706.10		1.281E-01	1.354E+00	2.293E+00	1.022E+00	0.056
		733.00		-7.872E-02	5.237E-01	8.196E-01	1.821E-01	-0.096
	+	742.81		5.099E+00	4.502E+00	3.918E+00	2.634E+00	1.301
		796.30		1.282E+00	1.365E+00	2.349E+00	6.365E-01	0.546
		805.60		2.479E-01	1.310E+00	2.215E+00	6.800E-01	0.112
		819.60		-2.894E-01	1.531E+00	2.499E+00	9.512E-01	-0.116
		826.30		-4.033E-01	1.078E+00	1.710E+00	7.656E-01	-0.236
		831.60		-2.101E-01	8.240E-01	1.338E+00	3.999E-01	-0.157
		876.40		-3.379E-01	1.191E+00	1.839E+00	1.891E+00	-0.184
		880.51		3.024E-01	3.924E-01	6.901E-01	6.049E-02	0.438
		883.24		-3.619E-02	3.762E-01	6.163E-01	4.144E-01	-0.059
		899.00		-1.487E-02	1.007E+00	1.664E+00	7.276E-01	-0.009
		925.00		1.314E+00	1.579E+00	2.791E+00	2.442E-01	0.471
		926.50		1.775E-01	2.225E-01	3.875E-01	9.812E-02	0.458
		946.00	*	3.041E-01	3.798E-01	6.665E-01	1.255E-01	0.456
		949.00		-3.576E-01	5.786E-01	8.933E-01	7.814E-02	-0.400
		980.50		-3.908E-03	9.471E-01	1.555E+00	1.357E-01	-0.003
		1394.10		1.874E-01	1.310E+00	2.223E+00	1.447E+00	0.084
NP-236	+	94.67		1.280E+00	4.471E-01	4.393E-01	4.428E-02	2.915
	+	98.44		9.986E-01	1.829E-01	2.211E-01	2.272E-02	4.516
	+	111.00		4.677E-01	2.244E-01	3.930E-01	4.321E-02	1.190
		160.31	*	5.595E-02	1.089E-01	1.625E-01	1.436E-02	0.344

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		2.282E+00	4.181E-01	4.686E-01	4.843E-02	4.871
		117.00	*	-3.246E-02	2.790E-01	4.121E-01	4.688E-02	-0.079
	+	209.75		2.410E+00	1.174E+00	1.622E+00	1.428E-01	1.486
		228.18		3.814E-02	2.719E-01	4.373E-01	3.918E-02	0.087
	+	277.60		2.567E-01	2.858E-01	3.552E-01	3.260E-02	0.723
		334.30		-1.743E+00	1.770E+00	2.421E+00	2.188E-01	-0.720
AM-241		59.54	*	8.414E-02	1.376E-01	2.134E-01	2.265E-02	0.394
CM-243	+	99.55		2.348E+00	4.302E-01	4.822E-01	4.983E-02	4.871
		103.76	*	-9.572E-02	1.303E-01	2.124E-01	2.244E-02	-0.451
		117.00		-3.340E-02	2.870E-01	4.240E-01	4.823E-02	-0.079
	+	209.75		2.375E+00	1.157E+00	1.598E+00	1.408E-01	1.486
		228.18		3.853E-02	2.747E-01	4.418E-01	3.958E-02	0.087
	+	277.60		2.588E-01	2.881E-01	3.581E-01	3.286E-02	0.723
AM-246		798.80		-2.788E-01	2.099E-01	3.135E-01	2.752E-02	-0.889
		1036.00		1.244E-01	3.658E-01	6.195E-01	5.352E-02	0.201
		1062.04		1.199E-01	2.978E-01	5.052E-01	4.333E-02	0.237
		1078.86	*	8.224E-02	1.755E-01	2.999E-01	2.558E-02	0.274
CM-247	+	278.00		1.064E+00	1.185E+00	1.478E+00	1.356E-01	0.720
		287.40		1.468E-01	1.402E+00	2.385E+00	2.191E-01	0.062
		402.60	*	-3.264E-03	4.717E-02	7.792E-02	6.619E-03	-0.042
CF-249		252.85		-1.802E-01	1.075E+00	1.692E+00	1.541E-01	-0.106
		333.44		-4.174E-03	2.248E-01	3.321E-01	3.003E-02	-0.013
		387.95	*	1.632E-02	4.666E-02	7.916E-02	6.706E-03	0.206
CF-251		176.60	*	2.058E-02	1.659E-01	2.704E-01	2.287E-02	0.076
		227.00		6.503E-01	4.516E-01	7.650E-01	6.847E-02	0.850
		285.00		1.368E+00	1.995E+00	3.480E+00	3.197E-01	0.393

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395012      *
* Acquisition date :  2-FEB-2010 09:18:37 Detector SN#     :               *
* Detector ID        : GAM17               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:11.90     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395012           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.4552E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.603E+01	2.913E+00	5.260E-01	0.000E+00
NB-95	4.019E-01	1.199E-01	9.312E-02	0.000E+00
CD-109	1.407E+00	1.415E+00	2.338E+00	0.000E+00
SN-126	1.386E-01	1.394E-01	2.268E-01	0.000E+00
LU-177	2.993E+00	1.429E+00	1.750E+00	0.000E+00
TL-208	4.553E-01	1.141E-01	8.566E-02	0.000E+00
BI-211	3.472E+00	5.909E-01	3.815E-01	0.000E+00
BI-212	1.113E+00	6.359E-01	6.379E-01	0.000E+00
PB-212	1.417E+00	1.802E-01	1.097E-01	0.000E+00
PO-212	1.417E+00	1.802E-01	1.097E-01	0.000E+00
BI-214	1.062E+00	2.135E-01	1.529E-01	0.000E+00
PB-214	1.208E+00	2.146E-01	1.330E-01	0.000E+00
PO-214	1.208E+00	2.146E-01	1.330E-01	0.000E+00
PO-216	1.417E+00	1.802E-01	1.097E-01	0.000E+00
PO-218	1.208E+00	2.146E-01	1.330E-01	0.000E+00
RA-224	1.565E+00	1.039E+00	1.249E+00	0.000E+00
RA-226	1.062E+00	2.135E-01	1.529E-01	0.000E+00
AC-228	1.714E+00	3.972E-01	2.503E-01	0.000E+00
RA-228	1.714E+00	3.972E-01	2.503E-01	0.000E+00
TH-228	1.437E+00	1.827E-01	1.112E-01	0.000E+00
TH-230	1.062E+00	2.135E-01	1.529E-01	0.000E+00
U-231	9.431E+00	3.227E+00	1.801E+00	0.000E+00
TH-232	1.714E+00	3.972E-01	2.503E-01	0.000E+00
PA-234M	1.210E+02	1.803E+01	9.193E+00	0.000E+00
TH-234	8.698E+01	1.617E+01	2.006E+00	0.000E+00
U-234	1.062E+00	2.135E-01	1.529E-01	0.000E+00
U-235	1.660E+00	5.364E-01	4.680E-01	0.000E+00
NP-237	4.069E-01	4.174E-01	6.030E-01	0.000E+00
U-238	8.698E+01	1.617E+01	2.006E+00	0.000E+00
AM-243	4.124E-01	9.042E-02	1.166E-01	0.000E+00
ANH-511	1.840E-01	8.548E-02	6.657E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-4.892E-02	3.823E-01	6.540E-01	0.000E+00	NOT IDENT.
NA-22	-2.813E-02	5.094E-02	7.819E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.289E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.296E-02	3.109E-02	6.050E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.374E-02	8.854E-02	0.000E+00	FAIL ABUN
SC-46	1.319E-02	4.732E-02	8.340E-02	0.000E+00	FAIL ABUN
V-48	4.122E-02	8.432E-02	1.500E-01	0.000E+00	NOT IDENT.
CR-51	-6.676E-03	4.140E-01	7.396E-01	0.000E+00	NOT IDENT.
MN-52	8.400E-02	2.106E-01	3.820E-01	0.000E+00	NOT IDENT.
MN-54	-1.069E-02	4.974E-02	8.457E-02	0.000E+00	NOT IDENT.
CO-56	7.505E-03	5.056E-02	8.837E-02	0.000E+00	NOT IDENT.
CO-57	1.755E-02	3.257E-02	5.924E-02	0.000E+00	NOT IDENT.
CO-58	-1.773E-05	4.870E-02	8.444E-02	0.000E+00	NOT IDENT.
FE-59	-2.629E-03	1.041E-01	1.745E-01	0.000E+00	FAIL ABUN
CO-60	1.489E-02	4.474E-02	7.968E-02	0.000E+00	NOT IDENT.
ZN-65	7.539E-02	1.308E-01	2.039E-01	0.000E+00	NOT IDENT.
GE-68	4.168E-01	1.587E+00	2.742E+00	0.000E+00	NOT IDENT.
AS-73	2.077E-01	4.582E-01	8.699E-01	0.000E+00	NOT IDENT.
AS-74	7.359E-02	1.189E-01	2.095E-01	0.000E+00	NOT IDENT.
SE-75	-4.312E-03	5.473E-02	8.160E-02	0.000E+00	NOT IDENT.
BR-77	-6.814E+00	9.559E+00	1.551E+01	0.000E+00	FAIL ABUN
SR-82	-3.207E-01	4.980E-01	8.237E-01	0.000E+00	NOT IDENT.
RB-83	-6.233E-02	8.963E-02	1.456E-01	0.000E+00	NOT IDENT.
RB-84	7.023E-02	9.376E-02	1.707E-01	0.000E+00	NOT IDENT.
KR-85	6.139E+00	1.035E+01	1.632E+01	0.000E+00	NOT IDENT.
SR-85	3.107E-02	5.240E-02	8.261E-02	0.000E+00	NOT IDENT.
RB-86	2.374E-01	9.425E-01	1.628E+00	0.000E+00	NOT IDENT.
Y-88	1.901E-02	3.735E-02	6.902E-02	0.000E+00	NOT IDENT.
ZR-88	-4.204E-02	3.444E-02	5.553E-02	0.000E+00	NOT IDENT.
Y-91	-1.116E+01	2.257E+01	3.560E+01	0.000E+00	NOT IDENT.
NB-94	3.054E-02	4.337E-02	7.972E-02	0.000E+00	NOT IDENT.
NB-95M	4.265E-02	1.562E-01	2.408E-01	0.000E+00	NOT IDENT.
ZR-95	1.022E-01	9.538E-02	1.781E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	4.079E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	7.933E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.836E+00	1.313E+01	2.073E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.859E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.868E-02	3.712E-02	6.621E-02	0.000E+00	NOT IDENT.
RH-102	1.567E-02	3.390E-02	6.040E-02	0.000E+00	FAIL ABUN
RU-103	-6.473E-03	4.878E-02	8.309E-02	0.000E+00	FAIL ABUN
RH-106	-3.446E-02	4.256E-01	7.117E-01	0.000E+00	FAIL ABUN
RU-106	-3.446E-02	4.256E-01	7.117E-01	0.000E+00	FAIL ABUN
AG-108M	8.106E-03	3.844E-02	6.784E-02	0.000E+00	NOT IDENT.
AG-110M	-2.381E-02	4.963E-02	7.992E-02	0.000E+00	NOT IDENT.
IN-111	-9.601E-01	1.041E+00	1.468E+00	0.000E+00	NOT IDENT.
IN-113M	-3.147E-02	4.920E-02	8.286E-02	0.000E+00	NOT IDENT.
SN-113	-3.147E-02	4.920E-02	8.286E-02	0.000E+00	NOT IDENT.
IN-114M	6.326E-02	2.339E-01	3.671E-01	0.000E+00	NOT IDENT.
CD-115	2.599E+00	9.327E+00	1.626E+01	0.000E+00	NOT IDENT.
SN-117M	-4.438E-02	6.855E-02	1.118E-01	0.000E+00	NOT IDENT.
SB-122	1.354E+00	2.054E+00	3.640E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.715E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-8.269E-03	3.991E-02	6.211E-02	0.000E+00	NOT IDENT.
I-124	-4.441E-01	8.052E-01	1.192E+00	0.000E+00	FAIL ABUN
SB-124	1.016E-01	8.515E-02	1.734E-01	0.000E+00	FAIL ABUN
SB-125	-2.257E-02	1.069E-01	1.839E-01	0.000E+00	NOT IDENT.
TE-125M	8.120E+00	1.483E+01	2.440E+01	0.000E+00	NOT IDENT.
I-126	1.641E-01	2.206E-01	3.900E-01	0.000E+00	NOT IDENT.
SB-126	9.641E-02	1.873E-01	3.016E-01	0.000E+00	FAIL ABUN
SB-127	6.185E-01	1.425E+00	2.459E+00	0.000E+00	NOT IDENT.
XE-127	7.582E-02	5.775E-02	9.496E-02	0.000E+00	FAIL ABUN
I-131	-1.567E-01	1.174E-01	1.893E-01	0.000E+00	NOT IDENT.
TE-132	9.632E-02	6.275E-01	1.081E+00	0.000E+00	FAIL ABUN
BA-133	-3.855E-03	5.708E-02	8.859E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.775E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.040E-01	6.879E-02	1.300E-01	0.000E+00	NOT IDENT.
CS-135	2.058E-01	1.939E-01	3.113E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.908E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.731E-02	1.314E-01	2.325E-01	0.000E+00	FAIL ABUN
BA-137M	-1.842E-02	4.914E-02	7.972E-02	0.000E+00	NOT IDENT.
CS-137	-1.947E-02	5.195E-02	8.427E-02	0.000E+00	NOT IDENT.
CE-139	-1.234E-02	4.201E-02	6.485E-02	0.000E+00	NOT IDENT.
BA-140	6.513E-02	3.213E-01	5.551E-01	0.000E+00	FAIL ABUN
LA-140	-5.445E-02	9.103E-02	1.376E-01	0.000E+00	NOT IDENT.

CE-141	0.000E+00	9.003E-02	1.517E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.053E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.831E-01	2.721E-01	4.720E-01	0.000E+00	NOT IDENT.
PM-144	-2.243E-03	4.554E-02	7.987E-02	0.000E+00	NOT IDENT.
PR-144	-1.519E-01	3.084E+00	5.409E+00	0.000E+00	NOT IDENT.
PM-146	-4.550E-03	5.393E-02	9.301E-02	0.000E+00	NOT IDENT.
ND-147	-4.041E-01	6.559E-01	1.064E+00	0.000E+00	FAIL ABUN
PM-149	4.689E+01	7.018E+01	1.297E+02	0.000E+00	NOT IDENT.
EU-152	-1.789E-02	1.072E-01	1.888E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	2.003E-01	2.522E-01	0.000E+00	FAIL ABUN
EU-154	-7.066E-02	1.412E-01	2.180E-01	0.000E+00	NOT IDENT.
EU-155	9.806E-02	1.456E-01	2.675E-01	0.000E+00	FAIL ABUN
TB-160	1.263E-01	1.879E-01	3.404E-01	0.000E+00	FAIL ABUN
HO-166M	1.686E-02	7.639E-02	1.363E-01	0.000E+00	FAIL ABUN
TM-171	-3.799E+01	2.805E+01	4.497E+01	0.000E+00	NOT IDENT.
LU-176	-1.458E-02	2.755E-02	4.805E-02	0.000E+00	NOT IDENT.
LU-177M	-1.471E-01	2.099E-01	3.509E-01	0.000E+00	NOT IDENT.
HF-181	2.553E-02	4.994E-02	8.909E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	3.638E-01	6.232E-01	0.000E+00	NOT IDENT.
TA-182	1.490E-01	2.301E-01	4.065E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.893E-01	2.696E-01	0.000E+00	FAIL ABUN
RE-184	-4.778E-02	2.794E-01	4.697E-01	0.000E+00	NOT IDENT.
OS-185	3.177E-03	5.718E-02	9.629E-02	0.000E+00	NOT IDENT.
RE-188	2.791E-02	2.133E-01	3.777E-01	0.000E+00	NOT IDENT.
W-188	-2.729E+00	8.380E+00	1.302E+01	0.000E+00	FAIL ABUN
IR-192	1.140E-02	3.886E-02	7.053E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	5.825E-01	7.662E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.397E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.797E+00	7.484E+00	1.198E+01	0.000E+00	NOT IDENT.
TL-202	3.337E-02	7.602E-02	1.359E-01	0.000E+00	NOT IDENT.
HG-203	2.057E-02	4.709E-02	7.731E-02	0.000E+00	FAIL ABUN
BI-207	-6.392E-03	6.824E-02	1.140E-01	0.000E+00	FAIL ABUN
TL-207	-6.750E-01	7.768E-01	1.311E+00	0.000E+00	FAIL ABUN
PO-209	3.987E+00	8.774E+00	1.571E+01	0.000E+00	NOT IDENT.
BI-210	1.491E+00	9.757E-01	1.729E+00	0.000E+00	NOT IDENT.
PB-210	1.491E+00	9.757E-01	1.729E+00	0.000E+00	NOT IDENT.
PO-210	1.491E+00	9.740E-01	1.729E+00	0.000E+00	NOT IDENT.
PB-211	-1.541E-01	1.157E+00	2.005E+00	0.000E+00	NOT IDENT.
PO-215	-6.750E-01	7.768E-01	1.311E+00	0.000E+00	FAIL ABUN
RN-219	4.991E-02	5.168E-01	9.109E-01	0.000E+00	FAIL ABUN
RN-220	1.002E+01	3.396E+01	5.905E+01	0.000E+00	NOT IDENT.
RA-223	-6.750E-01	7.768E-01	1.311E+00	0.000E+00	FAIL ABUN
AC-227	7.495E-02	5.413E-01	8.217E-01	0.000E+00	FAIL ABUN
TH-227	7.495E-02	5.414E-01	8.217E-01	0.000E+00	FAIL ABUN
TH-229	1.324E-01	6.055E-01	1.059E+00	0.000E+00	FAIL ABUN
PA-231	5.057E-02	1.716E+00	3.101E+00	0.000E+00	FAIL ABUN
TH-231	-6.750E-01	7.768E-01	1.311E+00	0.000E+00	FAIL ABUN
PA-233	-3.404E-02	7.007E-02	1.222E-01	0.000E+00	FAIL ABUN
PA-234	3.041E-01	3.722E-01	6.770E-01	0.000E+00	FAIL ABUN
NP-236	5.595E-02	1.067E-01	1.718E-01	0.000E+00	FAIL ABUN
NP-239	-3.246E-02	2.734E-01	4.386E-01	0.000E+00	FAIL ABUN
AM-241	8.414E-02	1.349E-01	2.303E-01	0.000E+00	NOT IDENT.
CM-243	-9.572E-02	1.277E-01	2.266E-01	0.000E+00	FAIL ABUN
AM-246	8.224E-02	1.720E-01	3.037E-01	0.000E+00	NOT IDENT.
CM-247	-3.264E-03	4.623E-02	8.072E-02	0.000E+00	FAIL ABUN
CF-249	1.632E-02	4.573E-02	8.206E-02	0.000E+00	NOT IDENT.
CF-251	2.058E-02	1.626E-01	2.852E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:19:45.17

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395012.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:18:37.
Sample ID         : G245395012           Sample quantity  : 1.45520E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:11.90  0.2%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	838	10.67*	7.783E-01	2.603E+01	2.603E+01	11.42
NB-95	765.79	186	99.81*	1.393E+00	3.456E-01	4.019E-01	30.44
CD-109	88.03	133	3.72*	6.681E+00	1.378E+00	1.407E+00	102.62
SN-126	64.28	8683	9.60	6.776E+00	3.443E+01	3.443E+01	16.33
	86.94	133	8.90	6.681E+00	5.761E-01	5.761E-01	110.31
	87.57	133	37.00*	6.681E+00	1.386E-01	1.386E-01	102.62
LU-177	112.95	554	6.40	6.225E+00	3.588E+00	1.513E+01	19.99
	208.36	134	11.00*	4.430E+00	7.098E-01	2.993E+00	48.72
TL-208	277.35	50	6.80	3.570E+00	5.322E-01	5.322E-01	111.69
	510.84	147	21.60	2.057E+00	8.519E-01	8.519E-01	48.13
	583.14	269	84.20*	1.813E+00	4.553E-01	4.553E-01	25.58
	860.37	31	12.46	1.247E+00	5.073E-01	5.073E-01	98.43
BI-211	72.87	------	1.27	6.803E+00	------ Line Not Found		------
	351.07	507	12.94*	2.909E+00	3.472E+00	3.472E+00	17.36
BI-212	727.18	75	11.80*	1.465E+00	1.113E+00	1.113E+00	58.31
	785.46	30	1.97	1.359E+00	2.847E+00	2.847E+00	117.59
	1620.62	------	2.75	7.161E-01	------ Line Not Found		------
PB-212	74.81	717	10.70	6.795E+00	2.544E+00	2.544E+00	24.25
	77.11	817	18.00	6.782E+00	1.727E+00	1.727E+00	20.41
	87.30	133	8.00	6.681E+00	6.409E-01	6.409E-01	103.11
	238.63	986	44.60*	4.023E+00	1.417E+00	1.417E+00	12.97
	300.09	65	3.41	3.342E+00	1.475E+00	1.475E+00	70.96
PO-212	74.81	717	10.70	6.795E+00	2.544E+00	2.544E+00	24.25
	77.11	817	18.00	6.782E+00	1.727E+00	1.727E+00	20.41
	87.30	133	8.00	6.681E+00	6.409E-01	6.409E-01	103.11
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	986	44.60*	4.023E+00	1.417E+00	1.417E+00	12.97
	300.09	65	3.41	3.342E+00	1.475E+00	1.475E+00	70.96
BI-214	609.31	331	46.30*	1.737E+00	1.062E+00	1.062E+00	20.52
	1120.29	68	15.10	9.778E-01	1.191E+00	1.192E+00	52.57
	1764.49	47	15.80	6.718E-01	1.153E+00	1.153E+00	42.34
PB-214	74.81	717	6.21	6.795E+00	4.383E+00	4.383E+00	23.57

Sample ID : G245395012 Acquisition date : 2-FEB-2010 09:18:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	817	10.50	6.782E+00	2.961E+00	2.961E+00	21.78
	87.30	133	4.67	6.681E+00	1.098E+00	1.098E+00	102.91
	241.98	116	7.49	3.980E+00	1.008E+00	1.008E+00	51.66
	295.21	278	19.20	3.389E+00	1.103E+00	1.103E+00	22.52
	351.92	507	37.20*	2.909E+00	1.208E+00	1.208E+00	18.13
PO-214	74.81	717	6.21	6.795E+00	4.383E+00	4.383E+00	23.57
	77.11	817	10.50	6.782E+00	2.961E+00	2.961E+00	21.78
	87.30	133	4.67	6.681E+00	1.098E+00	1.098E+00	102.91
	241.98	116	7.49	3.980E+00	1.008E+00	1.008E+00	51.66
	295.21	278	19.20	3.389E+00	1.103E+00	1.103E+00	22.52
	351.92	507	37.20*	2.909E+00	1.208E+00	1.208E+00	18.13
PO-216	74.81	717	10.70	6.795E+00	2.544E+00	2.544E+00	24.25
	77.11	817	18.00	6.782E+00	1.727E+00	1.727E+00	20.41
	87.30	133	8.00	6.681E+00	6.409E-01	6.409E-01	103.11
	238.63	986	44.60*	4.023E+00	1.417E+00	1.417E+00	12.97
	300.09	65	3.41	3.342E+00	1.475E+00	1.475E+00	70.96
PO-218	74.81	717	6.21	6.795E+00	4.383E+00	4.383E+00	23.57
	77.11	817	10.50	6.782E+00	2.961E+00	2.961E+00	21.78
	87.30	133	4.67	6.681E+00	1.098E+00	1.098E+00	102.91
	241.98	116	7.49	3.980E+00	1.008E+00	1.008E+00	51.66
	295.21	278	19.20	3.389E+00	1.103E+00	1.103E+00	22.52
	351.92	507	37.20*	2.909E+00	1.208E+00	1.208E+00	18.13
RA-224	240.98	96	3.95*	3.992E+00	1.565E+00	1.565E+00	67.75
RA-226	609.31	331	46.30*	1.737E+00	1.062E+00	1.062E+00	20.52
	1120.29	68	15.10	9.778E-01	1.191E+00	1.192E+00	52.57
	1764.49	47	15.80	6.718E-01	1.153E+00	1.153E+00	42.34
AC-228	338.32	177	11.40	3.013E+00	1.326E+00	1.326E+00	53.96
	911.07	218	27.70*	1.182E+00	1.714E+00	1.714E+00	23.65
	969.11	109	16.60	1.116E+00	1.523E+00	1.523E+00	39.49
RA-228	338.32	177	11.40	3.013E+00	1.326E+00	1.326E+00	53.96
	911.07	218	27.70*	1.182E+00	1.714E+00	1.714E+00	23.65
	969.11	109	16.60	1.116E+00	1.523E+00	1.523E+00	39.49
TH-228	74.81	717	10.70	6.795E+00	2.544E+00	2.579E+00	22.40
	77.11	817	18.00	6.782E+00	1.727E+00	1.751E+00	20.41
	87.30	133	8.00	6.681E+00	6.409E-01	6.498E-01	102.62
	238.63	986	44.60*	4.023E+00	1.417E+00	1.437E+00	12.97
	300.09	65	3.41	3.342E+00	1.475E+00	1.496E+00	91.88
TH-230	609.31	331	46.30*	1.737E+00	1.062E+00	1.062E+00	20.52
	1120.29	68	15.10	9.778E-01	1.191E+00	1.191E+00	52.57
	1764.49	47	15.80	6.718E-01	1.153E+00	1.153E+00	42.34
U-231	84.21	484	7.00	6.718E+00	2.657E+00	2.647E+01	40.32
	92.29	12921	17.30	6.597E+00	2.921E+01	2.910E+02	10.17
	95.87	674	28.00*	6.562E+00	9.466E-01	9.431E+00	34.91
	108.00	------	13.10	6.320E+00	------ Line Not Found		------
TH-232	338.32	177	11.40	3.013E+00	1.326E+00	1.326E+00	35.82
	911.07	218	27.70*	1.182E+00	1.714E+00	1.714E+00	23.65
	969.11	109	16.60	1.116E+00	1.523E+00	1.523E+00	39.49
PA-234M	766.42	186	0.32	1.393E+00	1.078E+02	1.078E+02	58.53
	1001.03	427	0.84*	1.083E+00	1.210E+02	1.210E+02	15.21

Sample ID : G245395012 Acquisition date : 2-FEB-2010 09:18:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-234	63.29	8683	3.80*	6.776E+00	8.698E+01	8.698E+01	18.97
	92.38	12921	5.41	6.597E+00	9.339E+01	9.339E+01	18.87
U-234	609.31	331	46.30*	1.737E+00	1.062E+00	1.062E+00	20.52
	1120.29	68	15.10	9.778E-01	1.191E+00	1.191E+00	52.57
	1764.49	47	15.80	6.718E-01	1.153E+00	1.153E+00	42.34
U-235	89.95	------	2.70	6.637E+00	------ Line Not Found		------
	93.35	12921	4.50	6.597E+00	1.123E+02	1.123E+02	28.54
	105.00	------	2.10	6.378E+00	------ Line Not Found		------
	143.76	378	10.50*	5.591E+00	1.660E+00	1.660E+00	32.98
	163.35	189	4.70	5.213E+00	1.990E+00	1.990E+00	45.40
	185.71	1614	54.00	4.810E+00	1.603E+00	1.603E+00	11.37
	205.31	141	4.70	4.488E+00	1.720E+00	1.720E+00	62.43
NP-237	86.50	133	12.60*	6.681E+00	4.069E-01	4.069E-01	104.68
	95.87	674	2.60	6.562E+00	1.019E+01	1.019E+01	41.85
U-238	63.29	8683	3.80*	6.776E+00	8.698E+01	8.698E+01	18.97
	92.38	12921	5.41	6.597E+00	9.339E+01	9.339E+01	10.17
AM-243	74.67	717	66.00*	6.795E+00	4.124E-01	4.124E-01	22.37
	86.72	133	0.34	6.681E+00	1.526E+01	1.526E+01	102.62
	117.66	------	0.55	6.127E+00	------ Line Not Found		------
	142.18	------	0.13	5.624E+00	------ Line Not Found		------
ANH-511	511.00	147	100.00*	2.057E+00	1.840E-01	1.840E-01	47.40

Flag: "*" = Keyline

Sample ID : G245395012 Acquisition date : 2-FEB-2010 09:18:37

Total number of lines in spectrum 40
Number of unidentified lines 1
Number of lines tentatively identified by NID 39 97.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.603E+01	2.603E+01	0.297E+01	11.42	
NB-95	64.02D	1.16	3.456E-01	4.019E-01	1.223E-01	30.44	
CD-109	464.00D	1.02	1.378E+00	1.407E+00	1.444E+00	102.62	
SN-126	1.00E+05Y	1.00	1.386E-01	1.386E-01	1.422E-01	102.62	
LU-177	6.71D	4.22	7.098E-01	2.993E+00	1.458E+00	48.72	
TL-208	1.41E+10Y	1.00	4.553E-01	4.553E-01	1.164E-01	25.58	
BI-211	7.04E+08Y	1.00	3.472E+00	3.472E+00	0.603E+00	17.36	
BI-212	1.41E+10Y	1.00	1.113E+00	1.113E+00	0.649E+00	58.31	
PB-212	1.41E+10Y	1.00	1.417E+00	1.417E+00	0.184E+00	12.97	
PO-212	1.41E+10Y	1.00	1.417E+00	1.417E+00	0.184E+00	12.97	
BI-214	1600.00Y	1.00	1.062E+00	1.062E+00	0.218E+00	20.52	
PB-214	1600.00Y	1.00	1.208E+00	1.208E+00	0.219E+00	18.13	
PO-214	1600.00Y	1.00	1.208E+00	1.208E+00	0.219E+00	18.13	
PO-216	1.41E+10Y	1.00	1.417E+00	1.417E+00	0.184E+00	12.97	
PO-218	1600.00Y	1.00	1.208E+00	1.208E+00	0.219E+00	18.13	
RA-224	1.41E+10Y	1.00	1.565E+00	1.565E+00	1.061E+00	67.75	
RA-226	1600.00Y	1.00	1.062E+00	1.062E+00	0.218E+00	20.52	
AC-228	1.41E+10Y	1.00	1.714E+00	1.714E+00	0.405E+00	23.65	
RA-228	1.41E+10Y	1.00	1.714E+00	1.714E+00	0.405E+00	23.65	
TH-228	1.91Y	1.01	1.417E+00	1.437E+00	0.186E+00	12.97	
TH-230	4.47E+09Y	1.00	1.062E+00	1.062E+00	0.218E+00	20.52	
U-231	4.20D	9.96	9.466E-01	9.431E+00	3.293E+00	34.91	
TH-232	1.41E+10Y	1.00	1.714E+00	1.714E+00	0.405E+00	23.65	
PA-234M	4.47E+09Y	1.00	1.210E+02	1.210E+02	0.184E+02	15.21	
TH-234	4.47E+09Y	1.00	8.698E+01	8.698E+01	1.650E+01	18.97	
U-234	4.47E+09Y	1.00	1.062E+00	1.062E+00	0.218E+00	20.52	
U-235	7.04E+08Y	1.00	1.660E+00	1.660E+00	0.547E+00	32.98	
NP-237	2.14E+06Y	1.00	4.069E-01	4.069E-01	4.260E-01	104.68	
U-238	4.47E+09Y	1.00	8.698E+01	8.698E+01	1.650E+01	18.97	
AM-243	7380.00Y	1.00	4.124E-01	4.124E-01	0.923E-01	22.37	
ANH-511	1.00E+09Y	1.00	1.840E-01	1.840E-01	0.872E-01	47.40	
	Total Activity :		3.524E+02	3.633E+02			

Grand Total Activity : 3.524E+02 3.633E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395012 Acquisition date : 2-FEB-2010 09:18:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.58	845	1068	1.02	196.83	193	8	1.17E-01	15.2	6.50E+00	T
2	111.07	177	707	1.11	221.81	219	11	2.46E-02	46.7	6.26E+00	T
0	258.28	124	237	1.04	516.36	513	8	1.73E-02	46.5	3.78E+00	
0	270.34	129	273	3.05	540.48	535	12	1.79E-02	54.3	3.64E+00	T
0	742.71	68	77	1.82	1485.70	1481	12	9.45E-03	57.2	1.43E+00	T
0	1377.14	23	21	1.07	2755.49	2748	12	3.20E-03	89.8	8.17E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:19:50.70

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395012.CNF;1   *
* Acquisition date  : 2-FEB-2010 09:18:37.  Detector SN#     :               *
* Detector ID       : GAM17                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:11.90          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G245395012            Analyst initials: MXR1           *
* Batch Number      : 944966                Sample Quantity : 1.45520E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.603E+01	2.972E+00	5.231E-01	4.645E-02	49.758
NB-95	4.019E-01	1.223E-01	9.122E-02	7.968E-03	4.406
CD-109	1.407E+00	1.444E+00	2.184E+00	2.132E-01	0.644
SN-126	1.386E-01	1.422E-01	2.118E-01	2.067E-02	0.654
LU-177	2.993E+00	1.458E+00	1.665E+00	1.464E-01	1.798
TL-208	4.553E-01	1.164E-01	8.339E-02	7.887E-03	5.460
BI-211	3.472E+00	6.030E-01	3.671E-01	3.426E-02	9.459
BI-212	1.113E+00	6.489E-01	6.241E-01	6.262E-02	1.783
PB-212	1.417E+00	1.838E-01	1.046E-01	1.055E-02	13.543
PO-212	1.417E+00	1.838E-01	1.046E-01	1.055E-02	13.543
BI-214	1.062E+00	2.179E-01	1.490E-01	1.516E-02	7.126
PB-214	1.208E+00	2.190E-01	1.280E-01	1.368E-02	9.435
PO-214	1.208E+00	2.190E-01	1.280E-01	1.368E-02	9.435
PO-216	1.417E+00	1.838E-01	1.046E-01	1.055E-02	13.543
PO-218	1.208E+00	2.190E-01	1.280E-01	1.368E-02	9.435
RA-224	1.565E+00	1.061E+00	1.192E+00	1.078E-01	1.313
RA-226	1.062E+00	2.179E-01	1.490E-01	1.516E-02	7.126
AC-228	1.714E+00	4.053E-01	2.462E-01	2.793E-02	6.960

Sample ID : G245395012 Acquisition date : 2-FEB-2010 09:18:37

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.714E+00	4.053E-01	2.462E-01	2.793E-02	6.960
TH-228	1.437E+00	1.864E-01	1.061E-01	1.070E-02	13.543
TH-230	1.062E+00	2.179E-01	1.490E-01	1.516E-02	7.126
U-231	9.431E+00	3.293E+00	1.685E+00	1.709E-01	5.598
TH-232	1.714E+00	4.053E-01	2.462E-01	2.793E-02	6.960
PA-234M	1.210E+02	1.840E+01	9.062E+00	9.094E-01	13.351
TH-234	8.698E+01	1.650E+01	1.860E+00	3.473E-01	46.751
U-234	1.062E+00	2.179E-01	1.490E-01	1.516E-02	7.126
U-235	1.660E+00	5.473E-01	4.417E-01	8.097E-02	3.757
NP-237	4.069E-01	4.260E-01	5.630E-01	1.285E-01	0.723
U-238	8.698E+01	1.650E+01	1.860E+00	3.473E-01	46.751
AM-243	4.124E-01	9.227E-02	1.085E-01	1.060E-02	3.800
ANH-511	1.840E-01	8.722E-02	6.461E-02	5.770E-03	2.848

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-4.892E-02		3.901E-01	6.338E-01	6.031E-02	-0.077
NA-22	-2.813E-02		5.198E-02	7.751E-02	6.530E-03	-0.363
NA-24	3.806E-02		1.168E-01	Half-Life too short		
AL-26	2.296E-02		3.172E-02	6.048E-02	5.069E-03	0.380
TI-44	3.188E-01	+	6.504E-02	8.250E-02	8.038E-03	3.864
SC-46	1.319E-02		4.829E-02	8.199E-02	7.177E-03	0.161
V-48	4.122E-02		8.605E-02	1.478E-01	1.289E-02	0.279
CR-51	-6.676E-03		4.225E-01	7.103E-01	6.783E-02	-0.009
MN-52	8.400E-02		2.149E-01	3.797E-01	3.274E-02	0.221
MN-54	-1.069E-02		5.076E-02	8.301E-02	7.298E-03	-0.129
CO-56	7.505E-03		5.159E-02	8.677E-02	7.628E-03	0.086
CO-57	1.755E-02		3.323E-02	5.571E-02	6.528E-03	0.315
CO-58	-1.773E-05		4.969E-02	8.282E-02	7.294E-03	0.000
FE-59	-2.629E-03		1.063E-01	1.724E-01	1.582E-02	-0.015
CO-60	1.489E-02		4.565E-02	7.907E-02	6.739E-03	0.188
ZN-65	7.539E-02		1.335E-01	2.015E-01	1.696E-02	0.374
GE-68	4.168E-01		1.620E+00	2.708E+00	2.311E-01	0.154
AS-73	2.077E-01		4.675E-01	8.041E-01	8.045E-02	0.258
AS-74	7.359E-02		1.213E-01	2.041E-01	1.798E-02	0.361
SE-75	-4.312E-03		5.585E-02	7.804E-02	7.170E-03	-0.055
BR-77	-6.814E+00		9.754E+00	1.506E+01	1.346E+00	-0.452
SR-82	-3.207E-01		5.082E-01	8.071E-01	7.064E-02	-0.397
RB-83	-6.233E-02		9.146E-02	1.414E-01	1.264E-02	-0.441
RB-84	7.023E-02		9.568E-02	1.678E-01	1.470E-02	0.419
KR-85	6.139E+00		1.056E+01	1.584E+01	1.415E+00	0.388
SR-85	3.107E-02		5.347E-02	8.019E-02	7.164E-03	0.388
RB-86	2.374E-01		9.617E-01	1.607E+00	1.372E-01	0.148
Y-88	1.901E-02		3.812E-02	6.902E-02	5.755E-03	0.275
ZR-88	-4.204E-02		3.515E-02	5.358E-02	4.514E-03	-0.785
Y-91	-1.116E+01		2.303E+01	3.524E+01	2.909E+00	-0.317

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	3.054E-02		4.426E-02	7.793E-02	6.685E-03	0.392
NB-95M	4.265E-02		1.594E-01	2.297E-01	2.345E-02	0.186
ZR-95	1.022E-01		9.733E-02	1.744E-01	1.671E-02	0.586
NB-97	-1.158E-02		2.081E-02	Half-Life too short		
ZR-97	1.066E+00		4.047E-01	Half-Life too short		
MO-99	4.836E+00		1.340E+01	2.029E+01	3.088E+00	0.238
TC-99M	-3.736E+08		9.487E+08	Half-Life too short		
RH-101	2.868E-02		3.788E-02	6.292E-02	5.470E-03	0.456
RH-102	1.567E-02		3.460E-02	5.853E-02	5.184E-03	0.268
RU-103	-6.473E-03		4.978E-02	8.060E-02	1.156E-02	-0.080
RH-106	-3.446E-02		4.343E-01	6.938E-01	9.298E-02	-0.050
RU-106	-3.446E-02		4.343E-01	6.938E-01	6.028E-02	-0.050
AG-108M	8.106E-03		3.923E-02	6.560E-02	5.921E-03	0.124
AG-110M	-2.381E-02		5.065E-02	7.801E-02	6.799E-03	-0.305
IN-111	-9.601E-01		1.062E+00	1.402E+00	1.271E-01	-0.685
IN-113M	-3.147E-02		5.020E-02	7.994E-02	6.946E-03	-0.394
SN-113	-3.147E-02		5.020E-02	7.994E-02	6.946E-03	-0.394
IN-114M	6.326E-02		2.386E-01	3.486E-01	3.002E-02	0.181
CD-115	2.599E+00		9.517E+00	1.580E+01	1.412E+00	0.164
SN-117M	-4.438E-02		6.995E-02	1.057E-01	9.504E-03	-0.420
SB-122	1.354E+00		2.096E+00	3.541E+00	3.153E-01	0.382
I-123	-3.553E-01		8.748E-01	Half-Life too short		
TE-123M	-8.269E-03		4.072E-02	5.874E-02	5.287E-03	-0.141
I-124	-4.441E-01		8.217E-01	1.162E+00	1.020E-01	-0.382
SB-124	1.016E-01		8.689E-02	1.731E-01	1.540E-02	0.587
SB-125	-2.257E-02		1.091E-01	1.778E-01	1.568E-02	-0.127
TE-125M	8.120E+00		1.514E+01	2.289E+01	2.812E+00	0.355
I-126	1.641E-01		2.251E-01	3.808E-01	3.215E-02	0.431
SB-126	9.641E-02		1.911E-01	2.951E-01	2.547E-02	0.327
SB-127	6.185E-01		1.454E+00	2.403E+00	2.632E-01	0.257
XE-127	7.582E-02		5.893E-02	9.029E-02	7.894E-03	0.840
I-131	-1.567E-01		1.198E-01	1.824E-01	1.683E-02	-0.859
TE-132	9.632E-02		6.404E-01	1.030E+00	1.617E-01	0.093
BA-133	-3.855E-03		5.824E-02	8.529E-02	1.140E-02	-0.045
I-133	-9.982E-04		1.416E-03	Half-Life too short		
CS-134	1.040E-01		7.019E-02	1.275E-01	1.126E-02	0.816
CS-135	2.058E-01		1.978E-01	2.978E-01	3.108E-02	0.691
I-135	2.957E+07		1.484E+08	Half-Life too short		
CS-136	6.731E-02		1.340E-01	2.294E-01	2.060E-02	0.293
BA-137M	-1.842E-02		5.014E-02	7.783E-02	6.556E-03	-0.237
CS-137	-1.947E-02		5.301E-02	8.227E-02	6.945E-03	-0.237
CE-139	-1.234E-02		4.287E-02	6.139E-02	5.119E-03	-0.201
BA-140	6.513E-02		3.279E-01	5.394E-01	1.792E-01	0.121
LA-140	-5.445E-02		9.289E-02	1.371E-01	1.184E-02	-0.397
CE-141	1.902E-01		9.186E-02	1.432E-01	1.461E-02	1.329
CE-143	2.439E-04		5.372E-05	Half-Life too short		
CE-144	-1.831E-01		2.776E-01	4.448E-01	7.545E-02	-0.412
PM-144	-2.243E-03		4.647E-02	7.807E-02	6.683E-03	-0.029

Sample ID : G245395012 Acquisition date : 2-FEB-2010 09:18:37

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	-1.519E-01		3.147E+00	5.287E+00	4.524E-01	-0.029
PM-146	-4.550E-03		5.503E-02	9.003E-02	9.772E-03	-0.051
ND-147	-4.041E-01		6.693E-01	1.034E+00	1.565E-01	-0.391
PM-149	4.689E+01		7.161E+01	1.243E+02	1.971E+01	0.377
EU-152	-1.789E-02		1.094E-01	1.816E-01	1.718E-02	-0.098
GD-153	1.116E+00	+	2.044E-01	2.361E-01	2.414E-02	4.725
EU-154	-7.066E-02		1.440E-01	2.161E-01	2.411E-02	-0.327
EU-155	9.806E-02		1.485E-01	2.508E-01	2.694E-02	0.391
TB-160	1.263E-01		1.917E-01	3.345E-01	2.933E-02	0.378
HO-166M	1.686E-02		7.795E-02	1.333E-01	1.147E-02	0.127
TM-171	-3.799E+01		2.862E+01	4.176E+01	4.122E+00	-0.910
LU-176	-1.458E-02		2.811E-02	4.610E-02	4.224E-03	-0.316
LU-177M	-1.471E-01		2.142E-01	3.389E-01	2.904E-02	-0.434
HF-181	2.553E-02		5.096E-02	8.635E-02	7.666E-03	0.296
W-181	1.090E+00		3.712E-01	5.785E-01	5.729E-02	1.884
TA-182	1.490E-01		2.348E-01	4.026E-01	3.339E-02	0.370
RE-183	4.589E-01	+	1.932E-01	2.551E-01	2.208E-02	1.799
RE-184	-4.778E-02		2.851E-01	4.487E-01	4.086E-02	-0.106
OS-185	3.177E-03		5.834E-02	9.395E-02	8.022E-03	0.034
RE-188	2.791E-02		2.176E-01	3.571E-01	3.317E-02	0.078
W-188	-2.729E+00		8.551E+00	1.248E+01	1.146E+00	-0.219
IR-192	1.140E-02		3.966E-02	6.772E-02	6.195E-03	0.168
AU-195	3.245E+00	+	5.944E-01	7.174E-01	7.389E-02	4.523
TL-200	7.918E-05		1.223E-04	Half-Life too short		
TL-201	3.797E+00		7.636E+00	1.135E+01	9.475E-01	0.335
TL-202	3.337E-02		7.757E-02	1.314E-01	1.145E-02	0.254
HG-203	2.057E-02		4.805E-02	7.403E-02	6.967E-03	0.278
BI-207	-6.392E-03		6.964E-02	1.126E-01	9.650E-03	-0.057
TL-207	-6.750E-01		7.927E-01	1.260E+00	2.260E-01	-0.536
PO-209	3.987E+00		8.953E+00	1.544E+01	1.350E+00	0.258
BI-210	1.491E+00		9.956E-01	1.594E+00	1.729E-01	0.936
PB-210	1.491E+00		9.956E-01	1.594E+00	1.729E-01	0.936
PO-210	1.491E+00		9.938E-01	1.594E+00	1.610E-01	0.936
PB-211	-1.541E-01		1.180E+00	1.935E+00	1.213E+00	-0.080
PO-215	-6.750E-01		7.927E-01	1.260E+00	2.260E-01	-0.536
RN-219	4.991E-02		5.274E-01	8.793E-01	1.315E-01	0.057
RN-220	1.002E+01		3.465E+01	5.741E+01	5.125E+00	0.175
RA-223	-6.750E-01		7.927E-01	1.260E+00	2.260E-01	-0.536
AC-227	7.495E-02		5.524E-01	7.853E-01	1.228E-01	0.095
TH-227	7.495E-02		5.524E-01	7.853E-01	1.438E-01	0.095
TH-229	1.324E-01		6.178E-01	1.006E+00	8.698E-02	0.132
PA-231	5.057E-02		1.751E+00	2.971E+00	4.608E-01	0.017
TH-231	-6.750E-01		7.927E-01	1.260E+00	2.260E-01	-0.536
PA-233	-3.404E-02		7.150E-02	1.173E-01	1.100E-02	-0.290
PA-234	3.041E-01		3.798E-01	6.665E-01	1.255E-01	0.456
NP-236	5.595E-02		1.089E-01	1.625E-01	1.436E-02	0.344
NP-239	-3.246E-02		2.790E-01	4.121E-01	4.688E-02	-0.079
AM-241	8.414E-02		1.376E-01	2.134E-01	2.265E-02	0.394

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-9.572E-02		1.303E-01	2.124E-01	2.244E-02	-0.451
AM-246	8.224E-02		1.755E-01	2.999E-01	2.558E-02	0.274
CM-247	-3.264E-03		4.717E-02	7.792E-02	6.619E-03	-0.042
CF-249	1.632E-02		4.666E-02	7.916E-02	6.706E-03	0.206
CF-251	2.058E-02		1.659E-01	2.704E-01	2.287E-02	0.076

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395012           *
* Acquisition date  :  2-FEB-2010 09:18:37 Detector SN#     :               *
* Detector ID       : GAM17                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:11.90      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395012           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.4552E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.603E+01	2.913E+00	2.632E-01	1.486E+00
NB-95	4.019E-01	1.199E-01	4.659E-02	6.116E-02
CD-109	1.407E+00	1.415E+00	1.170E+00	7.221E-01
SN-126	1.386E-01	1.394E-01	1.135E-01	7.111E-02
LU-177	2.993E+00	1.429E+00	8.755E-01	7.290E-01
TL-208	4.553E-01	1.141E-01	4.285E-02	5.822E-02
BI-211	3.472E+00	5.909E-01	1.908E-01	3.015E-01
BI-212	1.113E+00	6.359E-01	3.191E-01	3.244E-01
PB-212	1.417E+00	1.802E-01	5.487E-02	9.192E-02
PO-212	1.417E+00	1.802E-01	5.487E-02	9.192E-02
BI-214	1.062E+00	2.135E-01	7.652E-02	1.089E-01
PB-214	1.208E+00	2.146E-01	6.655E-02	1.095E-01
PO-214	1.208E+00	2.146E-01	6.655E-02	1.095E-01
PO-216	1.417E+00	1.802E-01	5.487E-02	9.192E-02
PO-218	1.208E+00	2.146E-01	6.655E-02	1.095E-01
RA-224	1.565E+00	1.039E+00	6.248E-01	5.303E-01
RA-226	1.062E+00	2.135E-01	7.652E-02	1.089E-01
AC-228	1.714E+00	3.972E-01	1.252E-01	2.026E-01
RA-228	1.714E+00	3.972E-01	1.252E-01	2.026E-01
TH-228	1.437E+00	1.827E-01	5.563E-02	9.320E-02
TH-230	1.062E+00	2.135E-01	7.652E-02	1.089E-01
U-231	9.431E+00	3.227E+00	9.008E-01	1.646E+00
TH-232	1.714E+00	3.972E-01	1.252E-01	2.026E-01
PA-234M	1.210E+02	1.803E+01	4.599E+00	9.198E+00
TH-234	8.698E+01	1.617E+01	1.003E+00	8.248E+00
U-234	1.062E+00	2.135E-01	7.652E-02	1.089E-01
U-235	1.660E+00	5.364E-01	2.341E-01	2.737E-01
NP-237	4.069E-01	4.174E-01	3.017E-01	2.130E-01
U-238	8.698E+01	1.617E+01	1.003E+00	8.248E+00
AM-243	4.124E-01	9.042E-02	5.834E-02	4.613E-02
ANH-511	1.840E-01	8.548E-02	3.330E-02	4.361E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-4.892E-02	3.823E-01	3.272E-01	1.950E-01	NOT IDENT.
NA-22	-2.813E-02	5.094E-02	3.912E-02	2.599E-02	NOT IDENT.
NA-24	3.806E+04	2.289E+05	0.000E+00	1.168E+05	SHORT HLIF
AL-26	2.296E-02	3.109E-02	3.027E-02	1.586E-02	NOT IDENT.
TI-44	3.188E-01	6.374E-02	4.430E-02	3.252E-02	FAIL ABUN
SC-46	1.319E-02	4.732E-02	4.173E-02	2.414E-02	FAIL ABUN
V-48	4.122E-02	8.432E-02	7.505E-02	4.302E-02	NOT IDENT.
CR-51	-6.676E-03	4.140E-01	3.700E-01	2.112E-01	NOT IDENT.
MN-52	8.400E-02	2.106E-01	1.911E-01	1.075E-01	NOT IDENT.
MN-54	-1.069E-02	4.974E-02	4.231E-02	2.538E-02	NOT IDENT.
CO-56	7.505E-03	5.056E-02	4.421E-02	2.580E-02	NOT IDENT.
CO-57	1.755E-02	3.257E-02	2.964E-02	1.661E-02	NOT IDENT.
CO-58	-1.773E-05	4.870E-02	4.224E-02	2.484E-02	NOT IDENT.
FE-59	-2.629E-03	1.041E-01	8.732E-02	5.313E-02	FAIL ABUN
CO-60	1.489E-02	4.474E-02	3.986E-02	2.283E-02	NOT IDENT.
ZN-65	7.539E-02	1.308E-01	1.020E-01	6.675E-02	NOT IDENT.
GE-68	4.168E-01	1.587E+00	1.372E+00	8.098E-01	NOT IDENT.
AS-73	2.077E-01	4.582E-01	4.352E-01	2.338E-01	NOT IDENT.
AS-74	7.359E-02	1.189E-01	1.048E-01	6.067E-02	NOT IDENT.
SE-75	-4.312E-03	5.473E-02	4.082E-02	2.793E-02	NOT IDENT.
BR-77	-6.814E+00	9.559E+00	7.759E+00	4.877E+00	FAIL ABUN
SR-82	-3.207E-01	4.980E-01	4.121E-01	2.541E-01	NOT IDENT.
RB-83	-6.233E-02	8.963E-02	7.286E-02	4.573E-02	NOT IDENT.
RB-84	7.023E-02	9.376E-02	8.540E-02	4.784E-02	NOT IDENT.
KR-85	6.139E+00	1.035E+01	8.166E+00	5.282E+00	NOT IDENT.
SR-85	3.107E-02	5.240E-02	4.133E-02	2.674E-02	NOT IDENT.
RB-86	2.374E-01	9.425E-01	8.143E-01	4.809E-01	NOT IDENT.
Y-88	1.901E-02	3.735E-02	3.453E-02	1.906E-02	NOT IDENT.
ZR-88	-4.204E-02	3.444E-02	2.778E-02	1.757E-02	NOT IDENT.
Y-91	-1.116E+01	2.257E+01	1.781E+01	1.152E+01	NOT IDENT.
NB-94	3.054E-02	4.337E-02	3.988E-02	2.213E-02	NOT IDENT.
NB-95M	4.265E-02	1.562E-01	1.205E-01	7.969E-02	NOT IDENT.
ZR-95	1.022E-01	9.538E-02	8.909E-02	4.867E-02	NOT IDENT.
NB-97	-1.158E+04	4.079E+04	0.000E+00	2.081E+04	SHORT HLIF
ZR-97	1.066E+06	7.933E+05	0.000E+00	4.047E+05	SHORT HLIF
MO-99	4.836E+00	1.313E+01	1.037E+01	6.699E+00	NOT IDENT.
TC-99M	-3.736E+14	1.859E+15	0.000E+00	9.487E+14	SHORT HLIF
RH-101	2.868E-02	3.712E-02	3.312E-02	1.894E-02	NOT IDENT.
RH-102	1.567E-02	3.390E-02	3.022E-02	1.730E-02	FAIL ABUN
RU-103	-6.473E-03	4.878E-02	4.157E-02	2.489E-02	FAIL ABUN
RH-106	-3.446E-02	4.256E-01	3.560E-01	2.171E-01	FAIL ABUN
RU-106	-3.446E-02	4.256E-01	3.560E-01	2.171E-01	FAIL ABUN
AG-108M	8.106E-03	3.844E-02	3.394E-02	1.961E-02	NOT IDENT.
AG-110M	-2.381E-02	4.963E-02	3.998E-02	2.532E-02	NOT IDENT.
IN-111	-9.601E-01	1.041E+00	7.345E-01	5.312E-01	NOT IDENT.
IN-113M	-3.147E-02	4.920E-02	4.146E-02	2.510E-02	NOT IDENT.
SN-113	-3.147E-02	4.920E-02	4.146E-02	2.510E-02	NOT IDENT.
IN-114M	6.326E-02	2.339E-01	1.837E-01	1.193E-01	NOT IDENT.
CD-115	2.599E+00	9.327E+00	8.137E+00	4.759E+00	NOT IDENT.
SN-117M	-4.438E-02	6.855E-02	5.593E-02	3.497E-02	NOT IDENT.
SB-122	1.354E+00	2.054E+00	1.821E+00	1.048E+00	NOT IDENT.
I-123	-3.553E+05	1.715E+06	0.000E+00	8.748E+05	SHORT HLIF
TE-123M	-8.269E-03	3.991E-02	3.107E-02	2.036E-02	NOT IDENT.
I-124	-4.441E-01	8.052E-01	5.965E-01	4.108E-01	FAIL ABUN
SB-124	1.016E-01	8.515E-02	8.675E-02	4.344E-02	FAIL ABUN
SB-125	-2.257E-02	1.069E-01	9.200E-02	5.457E-02	NOT IDENT.
TE-125M	8.120E+00	1.483E+01	1.221E+01	7.568E+00	NOT IDENT.
I-126	1.641E-01	2.206E-01	1.951E-01	1.126E-01	NOT IDENT.
SB-126	9.641E-02	1.873E-01	1.509E-01	9.554E-02	FAIL ABUN
SB-127	6.185E-01	1.425E+00	1.230E+00	7.269E-01	NOT IDENT.
XE-127	7.582E-02	5.775E-02	4.751E-02	2.946E-02	FAIL ABUN
I-131	-1.567E-01	1.174E-01	9.473E-02	5.991E-02	NOT IDENT.
TE-132	9.632E-02	6.275E-01	5.407E-01	3.202E-01	FAIL ABUN
BA-133	-3.855E-03	5.708E-02	4.432E-02	2.912E-02	FAIL ABUN
I-133	-9.982E+02	2.775E+03	0.000E+00	1.416E+03	SHORT HLIF
CS-134	1.040E-01	6.879E-02	6.505E-02	3.510E-02	NOT IDENT.
CS-135	2.058E-01	1.939E-01	1.557E-01	9.891E-02	NOT IDENT.
I-135	2.957E+13	2.908E+14	0.000E+00	1.484E+14	SHORT HLIF
CS-136	6.731E-02	1.314E-01	1.163E-01	6.702E-02	FAIL ABUN
BA-137M	-1.842E-02	4.914E-02	3.988E-02	2.507E-02	NOT IDENT.
CS-137	-1.947E-02	5.195E-02	4.216E-02	2.650E-02	NOT IDENT.
CE-139	-1.234E-02	4.201E-02	3.244E-02	2.143E-02	NOT IDENT.
BA-140	6.513E-02	3.213E-01	2.777E-01	1.639E-01	FAIL ABUN
LA-140	-5.445E-02	9.103E-02	6.883E-02	4.645E-02	NOT IDENT.

CE-141	1.902E-01	9.003E-02	7.589E-02	4.593E-02	NOT IDENT.
CE-143	2.439E+02	1.053E+02	0.000E+00	5.372E+01	SHORT HLIF
CE-144	-1.831E-01	2.721E-01	2.362E-01	1.388E-01	NOT IDENT.
PM-144	-2.243E-03	4.554E-02	3.996E-02	2.324E-02	NOT IDENT.
PR-144	-1.519E-01	3.084E+00	2.706E+00	1.573E+00	NOT IDENT.
PM-146	-4.550E-03	5.393E-02	4.653E-02	2.751E-02	NOT IDENT.
ND-147	-4.041E-01	6.559E-01	5.325E-01	3.346E-01	FAIL ABUN
PM-149	4.689E+01	7.018E+01	6.491E+01	3.581E+01	NOT IDENT.
EU-152	-1.789E-02	1.072E-01	9.445E-02	5.471E-02	NOT IDENT.
GD-153	1.116E+00	2.003E-01	1.262E-01	1.022E-01	FAIL ABUN
EU-154	-7.066E-02	1.412E-01	1.091E-01	7.202E-02	NOT IDENT.
EU-155	9.806E-02	1.456E-01	1.338E-01	7.427E-02	FAIL ABUN
TB-160	1.263E-01	1.879E-01	1.703E-01	9.585E-02	FAIL ABUN
HO-166M	1.686E-02	7.639E-02	6.817E-02	3.898E-02	FAIL ABUN
TM-171	-3.799E+01	2.805E+01	2.250E+01	1.431E+01	NOT IDENT.
LU-176	-1.458E-02	2.755E-02	2.404E-02	1.405E-02	NOT IDENT.
LU-177M	-1.471E-01	2.099E-01	1.755E-01	1.071E-01	NOT IDENT.
HF-181	2.553E-02	4.994E-02	4.457E-02	2.548E-02	NOT IDENT.
W-181	1.090E+00	3.638E-01	3.118E-01	1.856E-01	NOT IDENT.
TA-182	1.490E-01	2.301E-01	2.034E-01	1.174E-01	FAIL ABUN
RE-183	4.589E-01	1.893E-01	1.349E-01	9.658E-02	FAIL ABUN
RE-184	-4.778E-02	2.794E-01	2.350E-01	1.426E-01	NOT IDENT.
OS-185	3.177E-03	5.718E-02	4.817E-02	2.917E-02	NOT IDENT.
RE-188	2.791E-02	2.133E-01	1.890E-01	1.088E-01	NOT IDENT.
W-188	-2.729E+00	8.380E+00	6.513E+00	4.275E+00	FAIL ABUN
IR-192	1.140E-02	3.886E-02	3.528E-02	1.983E-02	FAIL ABUN
AU-195	3.245E+00	5.825E-01	3.833E-01	2.972E-01	FAIL ABUN
TL-200	7.918E+01	2.397E+02	0.000E+00	1.223E+02	SHORT HLIF
TL-201	3.797E+00	7.484E+00	5.995E+00	3.818E+00	NOT IDENT.
TL-202	3.337E-02	7.602E-02	6.798E-02	3.879E-02	NOT IDENT.
HG-203	2.057E-02	4.709E-02	3.868E-02	2.403E-02	FAIL ABUN
BI-207	-6.392E-03	6.824E-02	5.705E-02	3.482E-02	FAIL ABUN
TL-207	-6.750E-01	7.768E-01	6.560E-01	3.963E-01	FAIL ABUN
PO-209	3.987E+00	8.774E+00	7.858E+00	4.477E+00	NOT IDENT.
BI-210	1.491E+00	9.757E-01	8.650E-01	4.978E-01	NOT IDENT.
PB-210	1.491E+00	9.757E-01	8.650E-01	4.978E-01	NOT IDENT.
PO-210	1.491E+00	9.740E-01	8.650E-01	4.969E-01	NOT IDENT.
PB-211	-1.541E-01	1.157E+00	1.003E+00	5.901E-01	NOT IDENT.
PO-215	-6.750E-01	7.768E-01	6.560E-01	3.963E-01	FAIL ABUN
RN-219	4.991E-02	5.168E-01	4.557E-01	2.637E-01	FAIL ABUN
RN-220	1.002E+01	3.396E+01	2.954E+01	1.732E+01	NOT IDENT.
RA-223	-6.750E-01	7.768E-01	6.560E-01	3.963E-01	FAIL ABUN
AC-227	7.495E-02	5.413E-01	4.111E-01	2.762E-01	FAIL ABUN
TH-227	7.495E-02	5.414E-01	4.111E-01	2.762E-01	FAIL ABUN
TH-229	1.324E-01	6.055E-01	5.297E-01	3.089E-01	FAIL ABUN
PA-231	5.057E-02	1.716E+00	1.552E+00	8.753E-01	FAIL ABUN
TH-231	-6.750E-01	7.768E-01	6.560E-01	3.963E-01	FAIL ABUN
PA-233	-3.404E-02	7.007E-02	6.116E-02	3.575E-02	FAIL ABUN
PA-234	3.041E-01	3.722E-01	3.387E-01	1.899E-01	FAIL ABUN
NP-236	5.595E-02	1.067E-01	8.593E-02	5.445E-02	FAIL ABUN
NP-239	-3.246E-02	2.734E-01	2.194E-01	1.395E-01	FAIL ABUN
AM-241	8.414E-02	1.349E-01	1.152E-01	6.881E-02	NOT IDENT.
CM-243	-9.572E-02	1.277E-01	1.134E-01	6.517E-02	FAIL ABUN
AM-246	8.224E-02	1.720E-01	1.519E-01	8.773E-02	NOT IDENT.
CM-247	-3.264E-03	4.623E-02	4.038E-02	2.358E-02	FAIL ABUN
CF-249	1.632E-02	4.573E-02	4.106E-02	2.333E-02	NOT IDENT.
CF-251	2.058E-02	1.626E-01	1.427E-01	8.297E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	925.0458
46.50	925.0458
46.50	925.0458
48.70	1372.1941
49.72	1314.1042
51.35	1453.6382
52.39	1430.8156
52.97	1495.0413
53.15	1495.7855
53.44	1579.3558
54.07	1633.9854
56.28	1686.5701
56.28	1686.5801
57.37	0.0000
57.53	1755.7213
57.53	1755.7317
57.60	1756.0437
57.98	1788.5737
57.98	1788.5737
59.32	1766.1000
59.32	1766.1000
59.40	1766.4645
59.54	1767.1050
59.72	1767.9225
60.01	1806.8281
61.10	1852.1510
61.14	1852.3358
61.30	1871.2917
63.00	1594.1508
63.29	1595.2963
63.29	1595.2963
63.58	1596.4418
64.28	1599.1914
65.12	1375.8019
65.20	1376.0677
65.20	1376.0677
66.05	1448.6324
66.72	1510.2628
66.83	1510.6650
66.91	1510.9535
67.20	1500.1283
67.20	1500.1283
67.75	1597.1986
67.85	1557.9437
68.90	1501.6533
68.90	1501.6533
69.30	1486.3564
69.67	1431.9109
70.82	1616.6753
70.82	1616.6753
70.83	1616.7124
72.80	1640.4740
72.87	1640.7269
72.87	1640.7269
74.67	1647.3564
74.81	1647.8621
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74.81	1647.8621
74.81	1647.8621
74.81	1647.8621
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77.11	1656.2052

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77.11	1656.2052
77.11	1656.2052
77.11	1656.2052
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79.80	1533.6970
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81.07	1627.6375
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88.03	1954.6487
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88.47	1886.3542
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92.29	1971.0048
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93.35	1712.8030
94.00	1714.9203
94.67	1717.0845
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94.90	1717.8528
94.90	1717.8528
94.90	1717.8528
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111.00	731.4166
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116.30	586.8499
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117.00	556.9852
117.66	580.0071
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122.32	501.6419
122.32	501.6419
122.32	501.6419
123.07	513.9877
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129.76	524.2959
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133.54	547.1913
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136.48	482.6315
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143.76	467.5403
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144.24	467.8559
144.24	467.8559
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147.16	442.8896
152.43	426.1880
152.70	409.9865
153.22	443.0163
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154.21	464.1010
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154.21	464.1010
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163.35	381.6001
163.89	392.2427
165.85	410.3997
167.43	383.0817
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171.86	426.6329
172.10	414.1786
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176.60	385.9151
181.06	415.0408
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186.00	365.7739
190.27	308.6602
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193.63	313.0891
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198.01	269.2383
198.60	284.5635
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202.84	247.8674
205.31	310.6794

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208.81	259.3441
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209.75	226.7474
210.97	253.3706
215.65	243.6162
216.55	237.2296
218.09	259.7182
222.10	240.8337
223.80	292.3970
226.40	228.5250
227.00	215.2795
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227.20	235.4068
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228.18	256.8595
228.18	256.8595
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236.00	265.0789
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238.63	244.8910
238.63	244.8910
238.63	244.8910
239.00	244.9793
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241.98	245.6945
241.98	245.6945
241.98	245.6945
244.69	248.6139
245.39	248.7810
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249.79	227.0168
252.40	202.4200
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252.85	226.5326
254.15	0.0000
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256.20	239.2965
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260.90	202.3042
262.80	185.3365
264.65	180.4448
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268.79	172.4161
269.46	179.8378
269.46	179.8378
269.46	179.8378
269.46	179.8378
271.23	180.1244
273.65	185.4127
276.40	184.6966
277.35	182.5110
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277.60	167.1055
278.00	167.1636
278.60	170.0617
279.20	171.5595
279.53	171.6072
280.46	188.6403
281.68	187.9036
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284.30	176.5594
285.00	174.8996
285.90	176.8036
286.10	177.7183
286.10	177.7183
287.40	185.8841
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291.72	156.3633
293.26	0.0000
293.70	162.8559
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295.21	163.0626

295.21	163.0626
295.96	163.1659
296.50	163.2385
297.23	163.3390
298.57	163.5233
299.80	163.6880
299.80	163.6880
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300.09	174.6453
300.09	174.6453
300.09	174.6453
300.12	174.6482
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303.91	147.9116
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304.40	155.1551
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306.84	177.2387
308.46	155.8494
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316.51	161.3994
318.01	162.5001
319.02	164.4483
319.41	159.9539
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323.87	194.2630
323.87	194.2630
323.87	194.2630
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334.30	197.1266
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338.28	158.6229
338.28	158.6229
338.28	158.6229
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338.32	158.6281
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351.92	133.2312
351.92	133.2312
351.92	133.2312
355.39	0.0000
356.01	152.5069
364.48	151.3772
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367.43	131.9101
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369.80	146.2893
374.96	139.2458
383.85	114.3750
387.95	123.2996
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391.69	129.3640
391.69	129.3640
392.90	140.9797
398.62	142.4852
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401.10	146.5797
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402.60	149.6217
404.84	147.9106
410.95	129.0934
411.60	128.1771
413.65	141.9633
414.70	116.7609
415.30	131.4075

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433.93	108.3534
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439.56	103.7920
439.89	113.7015
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444.90	109.0953
445.03	109.1037
445.03	109.1037
445.03	109.1037
445.03	109.1037
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475.35	90.9050
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563.90	99.6512
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569.32	106.3049
569.50	102.0615
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602.71	116.7275
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609.31	99.7518
609.31	99.7518
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621.84	90.5330
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666.33	73.4806
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722.78	89.7532
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766.84	100.6818
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911.07	45.1128
911.07	45.1128
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937.48	47.5043
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969.11	51.6780
969.11	51.6780
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1038.76	0.0000
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1046.59	49.2164
1048.07	47.1882

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1115.52	50.6037
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1120.29	71.6432
1120.29	71.6432
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1147.95	0.0000
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1205.75	0.0000
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1298.22	0.0000
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1325.50	27.7234
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1333.61	24.0767
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1365.15	26.1349
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1368.53	0.0000
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1384.27	18.0063
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1407.95	25.4674
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1460.81	13.1004
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1596.49	20.6855
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1691.02	6.0303
1691.02	6.0303
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1750.46	0.0000
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1764.49	10.2022
1764.49	10.2022
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1791.20	0.0000
1808.65	5.1459

1836.01 7.2430

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395012

Total Uranium Activity	2.5953E+02	ug/g
Total Uranium Counting Unc.	4.8097E+01	ug/g
Total Uranium Tpu	2.4539E-05	ug/g
Total Uranium Mda	2.9872E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID   : G245395012      *
*   ANALYST       : MXR1                      DETECTOR    : GAM17           *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 09:18:37.21    SAMPLE ALQT:  145.520 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.995E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.821E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 8.706E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 4.291E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:27:18.10

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395013.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:26:45.
Sample ID         : G245395013           Sample quantity  : 1.45340E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.76  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.54*	142	437	0.91	126.20	123	7	1.97E-02	26.8	
2	3	74.98	508	594	1.30	149.09	142	19	7.06E-02	9.5	2.20E+00
3	3	77.31*	727	423	0.98	153.74	142	19	1.01E-01	6.0	
4	4	84.25*	132	467	1.47	167.62	164	28	1.83E-02	28.5	1.08E+00
5	4	87.46	326	447	1.15	174.03	164	28	4.53E-02	12.0	
6	4	90.16	205	368	0.95	179.42	164	28	2.85E-02	16.5	
7	4	92.92*	656	529	1.51	184.94	164	28	9.11E-02	7.9	
8	0	129.13	96	347	1.16	257.33	254	7	1.34E-02	33.7	
9	0	186.06*	314	464	1.25	371.15	366	10	4.36E-02	14.5	
10	0	209.47	155	378	1.02	417.95	414	8	2.15E-02	23.3	
11	4	238.72*	1963	213	1.21	476.45	469	21	2.73E-01	2.6	1.23E+00
12	4	241.63*	404	341	1.94	482.25	469	21	5.61E-02	14.7	
13	0	270.32	221	248	1.68	539.62	534	11	3.07E-02	15.4	
14	0	295.22*	507	269	1.21	589.40	584	11	7.04E-02	7.8	
15	0	300.15	116	256	1.18	599.27	595	11	1.61E-02	28.3	
16	0	327.72	152	197	1.29	654.38	650	10	2.11E-02	19.1	
17	0	338.28*	392	246	1.22	675.50	671	11	5.45E-02	9.4	
18	0	351.89*	941	222	1.36	702.70	696	12	1.31E-01	4.6	
19	0	408.95	101	150	1.00	816.79	812	11	1.40E-02	25.4	
20	0	462.80	165	145	1.53	924.47	919	11	2.29E-02	16.2	
21	0	510.70*	160	210	2.09	1020.23	1013	15	2.23E-02	24.5	
22	0	583.00*	580	166	1.54	1164.79	1158	13	8.06E-02	6.3	
23	0	609.01*	660	172	1.55	1216.79	1210	13	9.17E-02	5.8	
24	0	666.35	81	168	8.03	1331.46	1321	21	1.12E-02	41.7	
25	0	726.67	205	101	1.82	1452.06	1444	15	2.85E-02	12.8	
26	0	770.36	133	199	5.94	1539.42	1530	25	1.84E-02	30.7	
27	0	795.09	106	99	1.04	1588.88	1583	12	1.47E-02	21.4	
28	0	860.24*	103	105	2.18	1719.14	1712	14	1.43E-02	23.9	
29	0	910.80*	471	101	1.88	1820.24	1814	16	6.54E-02	6.7	
30	3	964.33	150	26	2.81	1927.28	1918	27	2.08E-02	14.6	2.95E+00
31	3	968.71*	313	31	2.08	1936.04	1918	27	4.35E-02	7.0	
32	0	1001.32*	36	70	2.14	2001.24	1996	14	5.03E-03	55.3	
33	0	1120.13*	182	110	1.95	2238.84	2230	18	2.53E-02	15.7	
34	0	1237.68*	56	74	1.18	2473.89	2469	10	7.72E-03	32.7	
35	0	1408.85	42	27	1.92	2816.20	2805	18	5.89E-03	32.5	
36	0	1459.98*	1766	48	2.32	2918.45	2906	22	2.45E-01	2.6	
37	0	1763.67*	143	11	2.49	3525.80	3518	15	1.99E-02	10.4	
38	0	1847.13	27	7	1.45	3692.72	3688	13	3.68E-03	27.8	

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:27:21

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395013.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:26:45
Sample ID : G245395013 Sample quantity : 145.34 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.76 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.258E+01	2.073E+00	3.621E-01	2.748E-02	62.360
CD-109	+	88.03	*	3.573E+00	9.167E-01	1.035E+00	9.572E-02	3.451
SN-126	+	64.28		1.221E+00	6.798E-01	7.741E-01	1.144E-01	1.578
	+	86.94		1.463E+00	7.007E-01	4.304E-01	1.785E-01	3.398
	+	87.57	*	3.519E-01	9.026E-02	1.026E-01	9.454E-03	3.429
TL-208		277.35		5.837E-01	2.939E-01	5.082E-01	5.337E-02	1.148
	+	510.84		4.450E-01	2.234E-01	1.614E-01	1.716E-02	2.757
	+	583.14	*	4.523E-01	6.727E-02	4.504E-02	3.531E-03	10.043
	+	860.37		7.320E-01	3.592E-01	3.048E-01	3.409E-02	2.402
BI-211		72.87		5.194E+00	2.848E+00	4.915E+00	4.059E-01	1.057
	+	351.07	*	3.446E+00	3.877E-01	2.265E-01	1.454E-02	15.218
PB-212	+	74.81		2.487E+00	5.680E-01	4.914E-01	6.159E-02	5.062
	+	77.11		1.984E+00	2.909E-01	2.749E-01	2.330E-02	7.218
	+	87.30		1.627E+00	4.481E-01	4.764E-01	6.470E-02	3.416
	+	238.63	*	1.673E+00	1.481E-01	6.651E-02	4.751E-03	25.159
	+	300.09		1.467E+00	8.388E-01	8.156E-01	6.697E-02	1.799
PO-212	+	74.81		2.487E+00	5.680E-01	4.914E-01	6.159E-02	5.062
	+	77.11		1.984E+00	2.909E-01	2.749E-01	2.330E-02	7.218
	+	87.30		1.627E+00	4.481E-01	4.764E-01	6.470E-02	3.416
		115.19		-1.342E+00	3.015E+00	4.771E+00	3.006E-01	-0.281
	+	238.63	*	1.673E+00	1.481E-01	6.651E-02	4.751E-03	25.159
	+	300.09		1.467E+00	8.388E-01	8.156E-01	6.697E-02	1.799
BI-214	+	609.31	*	9.658E-01	1.407E-01	7.828E-02	6.993E-03	12.338
	+	1120.29		1.333E+00	4.370E-01	3.179E-01	3.044E-02	4.192
	+	1764.49		1.380E+00	2.986E-01	2.155E-01	1.310E-02	6.406
PB-214	+	74.81		4.286E+00	9.477E-01	8.466E-01	9.452E-02	5.062
	+	77.11		3.401E+00	5.620E-01	4.712E-01	5.371E-02	7.218
	+	87.30		2.788E+00	7.467E-01	8.161E-01	9.790E-02	3.416
	+	241.98		2.066E+00	6.302E-01	3.998E-01	3.161E-02	5.167
	+	295.21		1.128E+00	2.008E-01	1.517E-01	1.287E-02	7.433
	+	351.92	*	1.199E+00	1.487E-01	7.892E-02	6.529E-03	15.190
PO-214	+	74.81		4.286E+00	9.477E-01	8.466E-01	9.452E-02	5.062
	+	77.11		3.401E+00	5.620E-01	4.712E-01	5.371E-02	7.218
	+	87.30		2.788E+00	7.467E-01	8.161E-01	9.790E-02	3.416

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.066E+00	6.302E-01	3.998E-01	3.161E-02	5.167
	+	295.21		1.128E+00	2.008E-01	1.517E-01	1.287E-02	7.433
	+	351.92	*	1.199E+00	1.487E-01	7.892E-02	6.529E-03	15.190
PO-216	+	74.81		2.487E+00	5.680E-01	4.914E-01	6.159E-02	5.062
	+	77.11		1.984E+00	2.909E-01	2.749E-01	2.330E-02	7.218
	+	87.30		1.627E+00	4.481E-01	4.764E-01	6.470E-02	3.416
	+	238.63	*	1.673E+00	1.481E-01	6.651E-02	4.751E-03	25.159
	+	300.09		1.467E+00	8.388E-01	8.156E-01	6.697E-02	1.799
PO-218	+	74.81		4.286E+00	9.477E-01	8.466E-01	9.452E-02	5.062
	+	77.11		3.401E+00	5.620E-01	4.712E-01	5.371E-02	7.218
	+	87.30		2.788E+00	7.467E-01	8.161E-01	9.790E-02	3.416
	+	241.98		2.066E+00	6.302E-01	3.998E-01	3.161E-02	5.167
	+	295.21		1.128E+00	2.008E-01	1.517E-01	1.287E-02	7.433
	+	351.92	*	1.199E+00	1.487E-01	7.892E-02	6.529E-03	15.190
RA-224	+	240.98	*	3.917E+00	1.175E+00	7.559E-01	4.211E-02	5.181
RA-226	+	609.31	*	9.658E-01	1.407E-01	7.828E-02	6.993E-03	12.338
	+	1120.29		1.333E+00	4.370E-01	3.179E-01	3.044E-02	4.192
	+	1764.49		1.380E+00	2.986E-01	2.155E-01	1.310E-02	6.406
AC-228	+	338.32		1.592E+00	7.148E-01	2.832E-01	1.154E-01	5.621
	+	911.07	*	1.580E+00	2.987E-01	1.578E-01	2.090E-02	10.018
	+	969.11		1.846E+00	5.112E-01	2.375E-01	5.688E-02	7.770
RA-228	+	338.32		1.592E+00	7.148E-01	2.832E-01	1.154E-01	5.621
	+	911.07	*	1.580E+00	2.987E-01	1.578E-01	2.090E-02	10.018
	+	969.11		1.846E+00	5.112E-01	2.375E-01	5.688E-02	7.770
TH-228	+	74.81		2.522E+00	5.262E-01	4.982E-01	4.198E-02	5.062
	+	77.11		2.012E+00	2.949E-01	2.787E-01	2.362E-02	7.218
	+	87.30		1.650E+00	4.233E-01	4.830E-01	4.440E-02	3.416
	+	238.63	*	1.697E+00	1.502E-01	6.743E-02	4.817E-03	25.159
	+	300.09		1.487E+00	1.215E+00	8.270E-01	4.874E-01	1.799
TH-230	+	609.31	*	9.658E-01	1.407E-01	7.828E-02	6.993E-03	12.338
	+	1120.29		1.333E+00	4.370E-01	3.179E-01	3.044E-02	4.192
	+	1764.49		1.380E+00	2.986E-01	2.155E-01	1.310E-02	6.406
TH-232	+	338.32		1.592E+00	3.139E-01	2.832E-01	1.638E-02	5.621
	+	911.07	*	1.580E+00	2.987E-01	1.578E-01	2.090E-02	10.018
	+	969.11		1.846E+00	5.112E-01	2.375E-01	5.688E-02	7.770
TH-234	+	63.29	*	3.085E+00	1.743E+00	2.054E+00	3.622E-01	1.502
	+	92.38		4.500E+00	1.076E+00	6.615E-01	1.192E-01	6.802
U-234	+	609.31	*	9.658E-01	1.407E-01	7.828E-02	6.993E-03	12.338
	+	1120.29		1.333E+00	4.370E-01	3.179E-01	3.044E-02	4.192
	+	1764.49		1.380E+00	2.986E-01	2.155E-01	1.310E-02	6.406
NP-237	+	86.50	*	1.033E+00	3.402E-01	3.060E-01	6.904E-02	3.376
		95.87		-7.941E-01	9.305E-01	1.268E+00	3.098E-01	-0.626
U-238	+	63.29	*	3.085E+00	1.743E+00	2.054E+00	3.622E-01	1.502
	+	92.38		4.500E+00	8.036E-01	6.615E-01	5.622E-02	6.802
AM-243	+	74.67	*	4.033E-01	8.402E-02	7.998E-02	6.674E-03	5.042
	+	86.72		3.875E+01	9.940E+00	1.144E+01	1.046E+00	3.387
		117.66		3.264E-01	3.070E+00	4.960E+00	3.051E-01	0.066
		142.18		3.810E+00	1.488E+01	2.386E+01	1.314E+00	0.160
ANH-511	+	511.00	*	9.611E-02	4.758E-02	3.487E-02	2.303E-03	2.756

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.864E-02	2.273E-01	3.731E-01	2.703E-02	-0.050
NA-22		1274.54	*	-2.445E-02	3.068E-02	4.691E-02	3.192E-03	-0.521
NA-24		1368.53	*	-1.034E-01	3.068E-02	Half-Life too short		
AL-26		1129.67		3.073E-02	1.227E+00	1.869E+00	1.248E-01	0.016
		1808.65	*	-1.583E-03	1.890E-02	3.057E-02	1.785E-03	-0.052
TI-44		67.85		-2.741E-02	4.623E-02	7.121E-02	5.726E-03	-0.385
	+	78.38	*	3.661E-01	5.367E-02	7.292E-02	6.235E-03	5.021
SC-46		889.25	*	-1.480E-02	2.842E-02	4.456E-02	4.970E-03	-0.332
	+	1120.51		2.259E-01	7.253E-02	9.392E-02	6.489E-03	2.405
V-48		944.10		-4.615E-01	6.239E-01	9.521E-01	1.008E-01	-0.485
		983.50	*	-7.270E-03	4.628E-02	7.393E-02	7.312E-03	-0.098
		1312.09		1.805E-02	5.406E-02	9.108E-02	6.635E-03	0.198
CR-51		320.08	*	8.988E-02	2.781E-01	4.551E-01	2.930E-02	0.197
MN-52		744.21		8.206E-03	1.404E-01	2.341E-01	2.064E-02	0.035
		848.13		1.481E+00	4.323E+00	7.258E+00	7.593E-01	0.204
		935.52		3.696E-02	1.678E-01	2.770E-01	2.971E-02	0.133
		1246.25		-2.055E+00	4.913E+00	7.513E+00	4.831E-01	-0.274
		1333.61		2.029E-01	3.011E+00	4.954E+00	3.743E-01	0.041
		1434.06	*	5.515E-02	1.380E-01	2.340E-01	1.724E-02	0.236
MN-54		834.83	*	-1.352E-03	2.835E-02	4.646E-02	4.759E-03	-0.029
CO-56		846.75	*	-4.034E-04	2.862E-02	4.693E-02	4.900E-03	-0.009
		977.42		4.344E-01	2.169E+00	3.205E+00	3.206E-01	0.136
		1037.82		1.660E-01	2.046E-01	3.620E-01	3.354E-02	0.458
		1175.09		4.324E-01	1.434E+00	2.427E+00	1.347E-01	0.178
	+	1238.25		1.128E-01	7.409E-02	1.230E-01	8.198E-03	0.917
		1360.21		4.022E-01	6.819E-01	1.177E+00	8.848E-02	0.342
		1771.40		7.144E-02	1.442E-01	2.399E-01	1.450E-02	0.298
CO-57		122.06	*	1.173E-02	2.038E-02	3.346E-02	1.982E-03	0.351
		136.48		7.226E-02	1.667E-01	2.702E-01	1.768E-02	0.267
CO-58		810.76	*	-2.563E-02	2.627E-02	3.986E-02	3.935E-03	-0.643
FE-59		142.65		2.575E+00	2.244E+00	3.710E+00	2.041E-01	0.694
		192.34		-5.518E-01	6.985E-01	1.129E+00	1.310E-01	-0.489
		1099.22	*	-8.162E-02	6.097E-02	9.014E-02	7.420E-03	-0.906
		1291.56		2.915E-03	8.301E-02	1.365E-01	1.148E-02	0.021
CO-60		1173.22		1.517E-02	2.935E-02	5.045E-02	2.788E-03	0.301
		1332.49	*	-6.642E-03	2.719E-02	4.340E-02	3.279E-03	-0.153
ZN-65		1115.52	*	-1.971E-02	8.108E-02	1.127E-01	7.937E-03	-0.175
GE-68		1077.35	*	4.684E-01	8.959E-01	1.548E+00	1.229E-01	0.303
AS-73		53.44	*	-3.165E-01	9.468E-01	1.573E+00	1.247E-01	-0.201
AS-74		595.88	*	9.929E-03	6.440E-02	1.052E-01	7.560E-03	0.094
		634.78		-4.876E-02	2.494E-01	3.959E-01	2.947E-02	-0.123
SE-75		66.05		-3.261E+00	5.035E+00	7.269E+00	7.199E-01	-0.449
		96.73		-4.088E-01	7.442E-01	1.050E+00	1.385E-01	-0.389
		121.11		-9.992E-02	1.107E-01	1.704E-01	1.590E-02	-0.586
		136.00		1.761E-02	3.131E-02	5.099E-02	2.904E-03	0.345
		198.60		-3.041E-01	1.428E+00	2.366E+00	1.605E-01	-0.129
		264.65	*	-6.511E-03	3.555E-02	5.027E-02	2.875E-03	-0.130
		279.53		6.423E-02	8.316E-02	1.398E-01	8.639E-03	0.459
		303.91		-1.143E+00	1.733E+00	2.328E+00	2.214E-01	-0.491

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		-1.346E-01	1.861E-01	2.994E-01	2.728E-02	-0.449
BR-77	+	87.88		5.414E+02	1.389E+02	2.040E+02	1.885E+01	2.653
		200.40		1.139E+02	8.850E+01	1.539E+02	8.292E+00	0.740
	+	239.00		1.881E+02	1.436E+01	2.155E+01	1.199E+00	8.727
		249.79		2.096E+01	3.536E+01	5.951E+01	3.336E+00	0.352
		281.68		-7.331E+01	4.855E+01	7.305E+01	4.169E+00	-1.003
		297.23		1.859E+02	4.509E+01	6.273E+01	3.601E+00	2.964
		303.76		-6.775E+01	1.040E+02	1.399E+02	8.051E+00	-0.484
		439.47		1.132E+00	6.953E+01	1.156E+02	7.045E+00	0.010
		484.57		-8.103E+01	1.149E+02	1.811E+02	1.162E+01	-0.447
		520.65	*	1.399E-01	5.058E+00	8.297E+00	5.535E-01	0.017
		574.64		-5.186E+01	1.055E+02	1.606E+02	1.131E+01	-0.323
		578.91		5.259E+01	4.794E+01	7.355E+01	5.201E+00	0.715
		585.48		1.001E+03	1.501E+02	2.605E+02	1.853E+01	3.843
		755.35		1.856E+01	7.901E+01	1.331E+02	1.196E+01	0.139
		817.79		-3.196E+01	6.258E+01	9.887E+01	9.854E+00	-0.323
SR-82		698.33		-7.961E+00	2.315E+01	3.785E+01	3.082E+00	-0.210
		776.49	*	-1.236E-01	2.978E-01	4.055E-01	3.777E-02	-0.305
		1395.20		-6.176E+00	7.490E+00	1.105E+01	8.236E-01	-0.559
RB-83		520.41	*	-8.153E-04	4.718E-02	7.716E-02	5.146E-03	-0.011
		529.64		7.656E-03	7.336E-02	1.207E-01	8.129E-03	0.063
		552.65		-9.633E-02	1.343E-01	2.078E-01	1.432E-02	-0.464
RB-84		881.50	*	-2.582E-03	4.778E-02	7.783E-02	8.578E-03	-0.033
KR-85		513.99	*	1.500E+01	5.877E+00	9.788E+00	6.484E-01	1.532
SR-85		513.99	*	7.591E-02	2.975E-02	4.954E-02	3.282E-03	1.532
RB-86		1076.63	*	-5.087E-02	5.440E-01	9.015E-01	7.176E-02	-0.056
Y-88		898.02		-7.162E-03	2.845E-02	4.552E-02	5.160E-03	-0.157
		1836.01	*	-1.283E-03	2.421E-02	3.936E-02	2.242E-03	-0.033
ZR-88		392.90	*	-1.328E-02	2.148E-02	3.482E-02	2.003E-03	-0.381
Y-91		1204.90	*	5.767E+00	1.262E+01	2.150E+01	1.271E+00	0.268
NB-94		702.63	*	6.212E-03	2.370E-02	4.017E-02	3.295E-03	0.155
		871.10		5.428E-03	2.335E-02	3.890E-02	4.219E-03	0.140
NB-95		765.79	*	7.038E-02	3.655E-02	5.934E-02	5.428E-03	1.186
NB-95M		235.69	*	9.459E-02	1.006E-01	1.527E-01	1.120E-02	0.619
ZR-95		724.18		1.451E-01	8.061E-02	1.303E-01	1.208E-02	1.114
		756.15	*	3.514E-02	4.861E-02	8.422E-02	8.287E-03	0.417
NB-97		657.90	*	8.661E-03	4.861E-02	Half-Life too short		
		1024.50		1.190E+00	4.861E-02	Half-Life too short		
ZR-97		254.15		-1.199E+00	4.861E-02	Half-Life too short		
		355.39		-1.337E-01	4.861E-02	Half-Life too short		
		507.63	*	1.089E+00	4.861E-02	Half-Life too short		
		602.52		-1.437E-01	4.861E-02	Half-Life too short		
		1021.30		6.544E-01	4.861E-02	Half-Life too short		
		1147.95		-1.041E+00	4.861E-02	Half-Life too short		
		1362.66		-1.038E+00	4.861E-02	Half-Life too short		
		1750.46		-6.372E-01	4.861E-02	Half-Life too short		
MO-99		140.51		-9.990E+00	1.679E+01	2.516E+01	6.767E+00	-0.397
		181.06		2.278E+00	1.043E+01	1.560E+01	2.648E+00	0.146
		366.43		2.520E+01	4.046E+01	7.033E+01	4.063E+00	0.358

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	3.896E+00	5.654E+00	9.785E+00	1.493E+00	0.398
		778.00		-6.402E+00	2.066E+01	2.846E+01	2.657E+00	-0.225
TC-99M		140.51	*	-6.725E+08	2.066E+01	Half-Life too short		
RH-101		127.23		-8.475E-03	3.037E-02	4.261E-02	2.461E-03	-0.199
		198.01	*	-8.489E-03	2.596E-02	4.285E-02	2.303E-03	-0.198
		325.23		4.530E-02	1.900E-01	2.711E-01	1.567E-02	0.167
RH-102		418.52		-5.239E-02	2.036E-01	3.298E-01	1.960E-02	-0.159
		475.06	*	-1.498E-02	2.070E-02	3.265E-02	2.074E-03	-0.459
		631.29		3.930E-04	3.977E-02	6.406E-02	4.755E-03	0.006
		697.49		-3.162E-02	5.446E-02	8.768E-02	7.128E-03	-0.361
		766.84		2.055E-01	9.556E-02	1.564E-01	1.433E-02	1.314
		1046.59		-1.930E-02	8.265E-02	1.359E-01	1.173E-02	-0.142
		1112.84		4.894E-03	1.946E-01	2.776E-01	1.971E-02	0.018
RU-103		497.08	*	8.442E-03	2.911E-02	4.862E-02	6.313E-03	0.174
	+	610.33		1.021E+01	2.015E+00	2.038E+00	3.267E-01	5.009
RH-106	+	511.85		4.790E-01	2.371E-01	3.240E-01	2.142E-02	1.478
		621.84	*	-3.083E-02	2.236E-01	3.569E-01	4.490E-02	-0.086
		1050.47		1.412E+00	1.655E+00	2.922E+00	2.496E-01	0.483
RU-106	+	511.85		4.790E-01	2.371E-01	3.240E-01	2.142E-02	1.478
		621.84	*	-3.083E-02	2.236E-01	3.569E-01	2.626E-02	-0.086
		1050.47		1.412E+00	1.655E+00	2.922E+00	2.496E-01	0.483
AG-108M		433.93	*	1.078E-02	2.314E-02	3.942E-02	2.576E-03	0.274
		614.37		1.712E-02	3.075E-02	4.499E-02	3.466E-03	0.381
		722.95		6.879E-03	3.267E-02	4.775E-02	4.223E-03	0.144
AG-110M		657.75	*	1.150E-02	2.536E-02	3.832E-02	3.022E-03	0.300
		677.61		5.430E-02	2.093E-01	3.562E-01	2.889E-02	0.152
		706.67		-4.953E-02	1.474E-01	2.407E-01	2.048E-02	-0.206
		763.93		2.891E-02	1.355E-01	1.969E-01	1.841E-02	0.147
		884.67		2.258E-02	3.499E-02	5.980E-02	6.752E-03	0.378
		937.48		-8.576E-02	8.754E-02	1.277E-01	1.398E-02	-0.671
		1384.27		-1.064E-01	1.269E-01	1.897E-01	1.471E-02	-0.561
IN-111		171.28		-2.816E-01	5.542E-01	9.168E-01	4.824E-02	-0.307
		245.39	*	3.554E-02	6.600E-01	9.549E-01	5.336E-02	0.037
IN-113M		391.69	*	-1.920E-02	3.136E-02	5.089E-02	3.122E-03	-0.377
SN-113		391.69	*	-1.920E-02	3.136E-02	5.089E-02	3.122E-03	-0.377
IN-114M		190.27	*	-6.244E-03	1.480E-01	2.178E-01	1.163E-02	-0.029
CD-115		260.90		3.145E+00	6.640E+01	1.089E+02	6.148E+00	0.029
		492.35		-2.485E+00	1.741E+01	2.839E+01	1.838E+00	-0.088
		527.90	*	8.338E-01	5.242E+00	8.657E+00	5.819E-01	0.096
SN-117M		156.02		-1.941E+00	1.642E+00	2.668E+00	1.425E-01	-0.728
		158.56	*	4.345E-02	3.912E-02	6.863E-02	3.648E-03	0.633
SB-122		563.90	*	-5.489E-02	1.133E+00	1.837E+00	1.280E-01	-0.030
		692.80		6.793E+00	2.281E+01	3.878E+01	3.127E+00	0.175
I-123		159.00	*	1.307E+00	2.281E+01	Half-Life too short		
		528.96		1.742E+01	2.281E+01	Half-Life too short		
TE-123M		159.00	*	3.020E-02	2.148E-02	3.798E-02	2.049E-03	0.795
I-124		602.71	*	4.414E-02	4.737E-01	6.657E-01	4.813E-02	0.066
		722.78		2.325E-01	2.765E+00	3.997E+00	3.396E-01	0.058
		1325.50		-6.747E+00	2.074E+01	3.291E+01	2.456E+00	-0.205

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1376.25		3.667E+01	2.054E+01	3.780E+01	2.831E+00	0.970
		1509.49		8.422E+00	8.729E+00	1.575E+01	1.128E+00	0.535
		1691.02		3.617E-01	2.131E+00	3.600E+00	2.322E-01	0.100
SB-124		602.71		3.099E-03	3.325E-02	4.673E-02	3.380E-03	0.066
		645.85		2.231E-01	3.443E-01	5.778E-01	4.683E-02	0.386
		709.31		-5.889E-01	1.915E+00	3.132E+00	2.599E-01	-0.188
		713.82		3.000E-01	1.143E+00	1.936E+00	2.295E-01	0.155
		722.78		2.366E-02	2.813E-01	4.067E-01	3.533E-02	0.058
	+	968.20		1.873E+01	3.229E+00	5.512E+00	5.605E-01	3.398
		1045.16		-7.685E-01	1.720E+00	2.781E+00	2.408E-01	-0.276
		1325.50		-7.333E-01	2.254E+00	3.577E+00	2.669E-01	-0.205
		1368.21		-6.157E-01	1.324E+00	2.057E+00	2.631E-01	-0.299
		1436.60		-6.147E-01	2.648E+00	4.072E+00	2.998E-01	-0.151
		1691.02	*	8.681E-03	5.115E-02	8.642E-02	5.962E-03	0.100
SB-125		427.89	*	-1.217E-02	6.328E-02	1.042E-01	6.510E-03	-0.117
	+	463.38		9.022E-01	2.991E-01	4.349E-01	3.118E-02	2.074
		600.56		-1.063E-01	1.395E-01	2.078E-01	1.655E-02	-0.511
		635.90		2.998E-02	1.965E-01	3.193E-01	2.634E-02	0.094
TE-125M		109.28	*	-4.338E+00	7.673E+00	1.211E+01	1.065E+00	-0.358
I-126		388.63		8.777E-02	1.374E-01	2.373E-01	1.364E-02	0.370
	+	666.33	*	3.063E-01	2.567E-01	2.089E-01	1.606E-02	1.466
		753.82		1.545E-01	9.358E-01	1.570E+00	1.407E-01	0.098
SB-126		223.80		-5.654E-01	2.808E+00	4.610E+00	2.534E-01	-0.123
		278.60		3.068E+00	1.773E+00	3.087E+00	1.759E-01	0.994
	+	296.50		1.049E+01	1.748E+00	2.544E+00	1.460E-01	4.123
		414.70		4.069E-02	5.492E-02	8.407E-02	4.972E-03	0.484
		415.30		4.748E+00	4.367E+00	7.105E+00	4.205E-01	0.668
		555.20		-1.407E+00	2.520E+00	3.943E+00	2.724E-01	-0.357
		573.80		-3.046E-01	6.859E-01	1.081E+00	7.602E-02	-0.282
		593.00		-3.504E-01	6.542E-01	1.022E+00	7.323E-02	-0.343
		656.30		1.563E+00	2.208E+00	3.625E+00	2.750E-01	0.431
	+	666.33		1.276E-01	1.070E-01	8.703E-02	6.691E-03	1.466
		675.00		-6.421E-01	1.497E+00	2.075E+00	1.620E-01	-0.309
		695.00		1.705E-02	5.114E-02	8.710E-02	7.050E-03	0.196
		697.00		-6.013E-02	1.790E-01	2.929E-01	2.379E-02	-0.205
		720.50	*	4.985E-02	1.028E-01	1.542E-01	1.306E-02	0.323
		856.80		1.460E-01	3.948E-01	5.743E-01	6.091E-02	0.254
		989.30		7.590E-02	7.869E-01	1.284E+00	1.256E-01	0.059
		1034.80		-2.384E+00	5.843E+00	9.080E+00	8.062E-01	-0.263
		1213.00		-1.300E+00	2.924E+00	4.663E+00	2.804E-01	-0.279
SB-127		61.10		-1.507E+01	4.968E+01	7.339E+01	7.411E+00	-0.205
		252.40		-1.472E+00	2.684E+00	4.181E+00	1.732E+00	-0.352
		290.80		-4.669E+00	1.468E+01	2.038E+01	1.769E+00	-0.229
		411.60		5.447E+00	8.042E+00	1.218E+01	1.723E+00	0.447
		444.90		6.373E-01	5.618E+00	9.378E+00	9.951E-01	0.068
		473.00		-3.370E-01	9.712E-01	1.570E+00	1.745E-01	-0.215
		543.00		4.513E+00	9.293E+00	1.560E+01	2.044E+00	0.289
		603.60		2.088E+00	7.908E+00	1.127E+01	1.269E+00	0.185
		685.20	*	-1.375E-01	7.637E-01	1.263E+00	1.329E-01	-0.109

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		-2.757E+00	8.578E+00	1.403E+01	2.148E+00	-0.196
		722.20		1.191E+01	1.724E+01	2.636E+01	2.821E+00	0.452
		783.80		2.549E+00	2.152E+00	3.713E+00	4.711E-01	0.686
XE-127		57.60		1.602E+00	6.090E+00	1.030E+01	7.938E-01	0.155
		145.22		4.531E-01	5.817E-01	9.486E-01	5.185E-02	0.478
		172.10		-5.110E-02	8.581E-02	1.414E-01	7.442E-03	-0.361
		202.84	*	-1.872E-02	3.561E-02	5.821E-02	3.142E-03	-0.322
		374.96		9.170E-02	1.294E-01	2.253E-01	1.299E-02	0.407
I-131		80.18		3.238E+00	4.759E+00	5.804E+00	5.055E-01	0.558
		284.30		-7.712E-01	9.991E-01	1.561E+00	9.926E-02	-0.494
		364.48	*	5.689E-02	6.975E-02	1.222E-01	7.875E-03	0.465
		636.97		6.676E-01	9.886E-01	1.662E+00	1.330E-01	0.402
		722.89		8.204E-01	4.938E+00	7.190E+00	6.146E-01	0.114
TE-132		49.72		3.381E+00	1.839E+01	3.124E+01	3.082E+00	0.108
		111.76		2.981E+00	1.940E+01	3.148E+01	2.804E+00	0.095
		116.30		3.151E+00	1.755E+01	2.845E+01	2.474E+00	0.111
		228.16	*	2.857E-01	4.035E-01	6.822E-01	9.559E-02	0.419
BA-133		53.15		-1.010E+00	4.124E+00	6.875E+00	5.455E-01	-0.147
		79.62		-2.800E-01	1.345E+00	1.789E+00	2.724E-01	-0.156
		81.00		5.028E-02	1.116E-01	1.338E-01	2.131E-02	0.376
		276.40		4.871E-01	2.964E-01	4.917E-01	6.351E-02	0.991
		302.84		-4.068E-02	1.235E-01	1.706E-01	1.984E-02	-0.238
		356.01	*	-9.869E-03	3.302E-02	4.470E-02	5.164E-03	-0.221
		383.85		-2.118E-01	2.209E-01	3.465E-01	3.759E-02	-0.611
I-133	+	510.53		3.676E-01	2.209E-01	Half-Life too short		
		529.87	*	1.646E-04	2.209E-01	Half-Life too short		
		706.58		-3.376E-02	2.209E-01	Half-Life too short		
		856.28		-2.855E-02	2.209E-01	Half-Life too short		
		875.33		2.153E-02	2.209E-01	Half-Life too short		
	+	1236.41		3.105E-01	2.209E-01	Half-Life too short		
		1298.22		2.910E-02	2.209E-01	Half-Life too short		
CS-134		475.35		-5.948E-01	1.356E+00	2.179E+00	1.384E-01	-0.273
		563.23		-3.817E-02	2.684E-01	4.327E-01	3.057E-02	-0.088
		569.32		7.703E-02	1.412E-01	2.315E-01	1.655E-02	0.333
		604.70		2.730E-02	2.844E-02	4.275E-02	3.108E-03	0.639
	+	795.84	*	1.157E-01	5.074E-02	7.262E-02	7.024E-03	1.593
		801.93		8.289E-02	3.184E-01	4.809E-01	4.691E-02	0.172
		1038.57		2.603E+00	2.588E+00	4.634E+00	4.077E-01	0.562
		1167.94		3.778E-01	1.750E+00	2.941E+00	1.668E-01	0.128
		1365.15		-3.689E-01	9.033E-01	1.412E+00	1.123E-01	-0.261
CS-135		268.24	*	2.877E-01	1.328E-01	2.118E-01	1.601E-02	1.358
I-135		288.45		7.225E+08	1.328E-01	Half-Life too short		
		417.63		-2.865E+08	1.328E-01	Half-Life too short		
		546.56		1.907E+08	1.328E-01	Half-Life too short		
		836.80		8.532E+08	1.328E-01	Half-Life too short		
		1038.76		5.021E+08	1.328E-01	Half-Life too short		
		1124.00		1.570E+09	1.328E-01	Half-Life too short		
		1131.51		-7.823E+07	1.328E-01	Half-Life too short		
		1260.41	*	6.413E+07	1.328E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		4.275E+10	1.328E-01	Half-Life too short		
		1678.03		1.596E+08	1.328E-01	Half-Life too short		
		1706.46		-1.046E+08	1.328E-01	Half-Life too short		
		1791.20		2.606E+08	1.328E-01	Half-Life too short		
CS-136		66.91		-7.785E-02	7.709E-01	1.143E+00	1.725E-01	-0.068
	+	86.29		4.305E+00	1.178E+00	1.632E+00	2.151E-01	2.638
		153.22		4.922E-01	4.722E-01	8.267E-01	5.689E-02	0.595
		163.89		-1.914E-02	7.610E-01	1.285E+00	8.779E-02	-0.015
		176.55		1.029E-01	2.550E-01	4.351E-01	2.636E-02	0.237
		273.65		-7.074E-01	3.720E-01	4.620E-01	3.009E-02	-1.531
		340.57		3.426E-01	1.171E-01	1.884E-01	1.159E-02	1.819
		818.51		-1.717E-02	4.698E-02	7.516E-02	7.503E-03	-0.228
		1048.07	*	1.636E-02	7.328E-02	1.244E-01	1.115E-02	0.131
		1235.34		7.802E-01	4.795E-01	7.597E-01	7.809E-02	1.027
BA-137M		661.65	*	-6.531E-03	2.722E-02	3.852E-02	2.937E-03	-0.170
CS-137		661.65	*	-6.904E-03	2.877E-02	4.072E-02	3.112E-03	-0.170
CE-139		165.85	*	-1.170E-02	2.225E-02	3.688E-02	1.936E-03	-0.317
BA-140		162.64		1.855E-02	5.334E-01	9.033E-01	5.476E-02	0.021
		304.84		-2.320E-01	1.014E+00	1.407E+00	3.839E-01	-0.165
		423.70		-6.357E-01	1.202E+00	1.912E+00	6.083E-01	-0.333
		537.32	*	-1.140E-01	1.715E-01	2.609E-01	8.536E-02	-0.437
LA-140	+	328.77		7.157E-01	2.777E-01	3.874E-01	2.510E-02	1.847
		432.53		9.065E-01	1.386E+00	2.382E+00	1.579E-01	0.380
		487.03		2.914E-02	8.798E-02	1.477E-01	1.054E-02	0.197
		751.79		-8.684E-01	1.071E+00	1.668E+00	1.639E-01	-0.520
		815.85		9.129E-02	1.994E-01	3.393E-01	3.668E-02	0.269
		867.82		-8.550E-01	1.023E+00	1.359E+00	1.517E-01	-0.629
		919.63		-1.277E+00	2.113E+00	2.869E+00	3.625E-01	-0.445
		925.24		7.965E-01	7.561E-01	1.320E+00	1.495E-01	0.603
		1596.49	*	-5.473E-02	5.601E-02	8.215E-02	5.636E-03	-0.666
CE-141		145.44	*	3.715E-02	5.250E-02	8.540E-02	4.875E-03	0.435
CE-143		57.37		1.955E-04	5.250E-02	Half-Life too short		
		231.56		-3.018E-04	5.250E-02	Half-Life too short		
		293.26	*	3.423E-04	5.250E-02	Half-Life too short		
	+	350.59		1.474E-02	5.250E-02	Half-Life too short		
		490.36		-1.123E-03	5.250E-02	Half-Life too short		
		664.57		4.489E-04	5.250E-02	Half-Life too short		
		721.93		4.285E-04	5.250E-02	Half-Life too short		
CE-144		80.11		1.523E+00	2.424E+00	2.948E+00	2.552E-01	0.517
		133.54	*	-1.281E-01	1.807E-01	2.637E-01	3.729E-02	-0.486
PM-144		476.78		-2.511E-02	4.959E-02	7.940E-02	5.891E-03	-0.316
		618.01		5.863E-03	2.236E-02	3.670E-02	2.793E-03	0.160
		696.49	*	-4.032E-03	2.447E-02	4.048E-02	3.286E-03	-0.100
		778.57		-1.043E+00	1.950E+00	2.625E+00	2.454E-01	-0.397
PR-144		696.49	*	-2.730E-01	1.657E+00	2.741E+00	2.225E-01	-0.100
		1489.15		-8.357E+00	8.874E+00	1.267E+01	9.152E-01	-0.660
PM-146		453.90	*	-1.201E-02	3.011E-02	4.869E-02	4.332E-03	-0.247
		633.02		-6.769E-02	1.002E+00	1.604E+00	5.952E-01	-0.042
		735.90		-5.782E-03	9.567E-02	1.583E-01	4.532E-02	-0.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		747.13		-1.122E-03	6.063E-02	1.005E-01	1.426E-02	-0.011
ND-147	+	91.11		6.781E-01	2.324E-01	4.329E-01	4.071E-02	1.567
		319.41		3.338E-01	2.377E+00	3.855E+00	2.226E-01	0.087
		439.89		2.411E-01	3.768E+00	6.279E+00	3.831E-01	0.038
		531.02	*	5.550E-02	3.618E-01	5.971E-01	8.331E-02	0.093
PM-149		285.90	*	-2.886E+00	4.654E+01	7.540E+01	1.066E+01	-0.038
EU-152		121.78		-2.773E-02	6.114E-02	9.626E-02	7.418E-03	-0.288
		244.69		-2.934E-02	2.830E-01	4.058E-01	2.267E-02	-0.072
		344.27	*	7.946E-03	9.287E-02	1.212E-01	7.911E-03	0.066
		443.98		2.934E-02	6.863E-01	1.141E+00	6.995E-02	0.026
		778.89		-1.339E-01	2.249E-01	3.007E-01	2.811E-02	-0.445
		867.32		-3.899E-01	6.722E-01	8.794E-01	9.482E-02	-0.443
	+	964.01		1.016E+00	3.142E-01	4.302E-01	4.407E-02	2.361
		1085.78		-2.310E-01	2.774E-01	4.322E-01	3.349E-02	-0.535
		1112.02		1.400E-01	2.684E-01	4.017E-01	2.860E-02	0.349
	+	1407.95		2.729E-01	1.788E-01	2.382E-01	1.769E-02	1.146
GD-153		69.67		-3.262E-01	1.673E+00	2.467E+00	2.002E-01	-0.132
	+	83.37		2.636E+01	1.519E+01	2.140E+01	1.901E+00	1.231
		97.43	*	6.188E-04	7.670E-02	1.115E-01	8.717E-03	0.006
		103.18		-1.120E-01	8.855E-02	1.359E-01	9.804E-03	-0.824
EU-154		123.07		3.342E-02	4.263E-02	7.032E-02	6.650E-03	0.475
		247.94		1.107E-01	3.149E-01	4.629E-01	4.361E-02	0.239
		591.81		-5.254E-01	4.640E-01	6.897E-01	7.336E-02	-0.762
		723.30		6.036E-02	1.403E-01	2.088E-01	1.968E-02	0.289
		756.87		4.772E-01	5.295E-01	9.249E-01	1.134E-01	0.516
		873.19		1.626E-01	2.031E-01	3.508E-01	4.886E-02	0.463
		996.32		2.120E-01	2.877E-01	4.291E-01	7.848E-02	0.494
		1004.76		-9.369E-02	1.673E-01	2.137E-01	2.628E-02	-0.438
		1274.45	*	-7.946E-02	8.677E-02	1.309E-01	1.308E-02	-0.607
EU-155		48.70		-2.536E+00	3.113E+00	5.093E+00	3.863E-01	-0.498
		60.01		3.055E+00	5.150E+00	7.948E+00	6.065E-01	0.384
	+	86.54		4.236E-01	1.088E-01	1.636E-01	1.507E-02	2.589
		105.31	*	6.115E-02	8.812E-02	1.464E-01	1.047E-02	0.418
TB-160	+	86.79		1.119E+00	2.870E-01	4.344E-01	3.974E-02	2.575
		197.04		-1.541E-01	4.301E-01	7.093E-01	3.809E-02	-0.217
		215.65		3.697E-02	5.467E-01	9.097E-01	4.966E-02	0.041
		298.57		1.778E-01	1.220E-01	1.445E-01	8.299E-03	1.231
		879.36	*	-7.375E-02	9.889E-02	1.520E-01	1.669E-02	-0.485
		962.29		1.104E+00	4.119E-01	7.013E-01	7.205E-02	1.574
		966.15		1.525E+00	2.558E-01	4.318E-01	4.407E-02	3.531
		1177.93		-7.241E-02	2.287E-01	3.688E-01	2.059E-02	-0.196
		1271.85		-4.375E-01	4.877E-01	7.376E-01	4.985E-02	-0.593
HO-166M		80.57		9.113E-02	3.163E-01	3.758E-01	3.265E-02	0.243
		184.41		1.185E-01	3.182E-02	5.329E-02	2.831E-03	2.223
		280.46		-7.121E-02	6.586E-02	1.017E-01	5.798E-03	-0.700
		410.95		2.401E-01	2.011E-01	3.154E-01	1.857E-02	0.761
		711.68	*	1.073E-02	4.180E-02	7.081E-02	5.903E-03	0.151
		752.31		-1.133E-01	1.862E-01	2.954E-01	2.641E-02	-0.384
		810.29		-5.605E-02	4.067E-02	5.931E-02	5.839E-03	-0.945

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-7.946E+00	3.678E+01	6.149E+01	4.873E+00	-0.129
		52.39		-5.565E+00	1.815E+01	3.020E+01	2.399E+00	-0.184
		59.40		1.053E+01	2.908E+01	4.442E+01	3.372E+00	0.237
		66.72	*	9.680E+00	2.925E+01	4.418E+01	3.533E+00	0.219
LU-176	+	88.36		8.345E-01	2.141E-01	3.142E-01	2.885E-02	2.656
		201.83		-1.309E-02	2.235E-02	3.646E-02	1.966E-03	-0.359
		306.84	*	-3.192E-03	2.063E-02	3.050E-02	1.756E-03	-0.105
		401.10		-2.027E+00	4.883E+00	7.998E+00	4.649E-01	-0.253
LU-177		112.95		6.508E-01	1.202E+00	1.978E+00	1.274E-01	0.329
	+	208.36	*	2.117E+00	9.917E-01	1.474E+00	7.997E-02	1.436
LU-177M		52.97		-2.792E-01	1.853E+00	3.101E+00	2.462E-01	-0.090
		54.07		2.087E-01	9.397E-01	1.592E+00	1.259E-01	0.131
		61.30		-2.658E-01	1.592E+00	2.368E+00	1.830E-01	-0.112
		121.62		-1.723E-01	3.109E-01	4.874E-01	2.891E-02	-0.354
		147.16		-3.243E-01	5.520E-01	8.538E-01	4.646E-02	-0.380
		171.86		-2.120E-01	3.530E-01	5.815E-01	3.061E-02	-0.365
		218.09		6.420E-02	6.232E-01	1.038E+00	5.677E-02	0.062
		268.79		1.924E+00	6.930E-01	1.134E+00	6.429E-02	1.697
		319.02		2.244E-02	1.993E-01	3.229E-01	1.864E-02	0.070
		367.43		1.171E-01	5.828E-01	9.920E-01	5.729E-02	0.118
		413.65	*	4.017E-02	1.366E-01	2.027E-01	1.197E-02	0.198
HF-181		56.28		-9.394E-01	9.989E-01	1.614E+00	1.257E-01	-0.582
		57.53		1.766E-01	5.129E-01	8.700E-01	6.709E-02	0.203
		65.20		-3.066E-01	9.915E-01	1.458E+00	1.156E-01	-0.210
		133.02		4.508E-02	5.874E-02	8.588E-02	4.858E-03	0.525
		136.25		1.826E-01	3.597E-01	5.846E-01	3.273E-02	0.312
		345.85		-7.399E-02	1.705E-01	2.304E-01	1.333E-02	-0.321
		482.03	*	1.786E-03	3.048E-02	5.040E-02	3.226E-03	0.035
W-181		56.28		-3.723E-01	3.961E-01	6.399E-01	4.985E-02	-0.582
		57.53		7.004E-02	2.036E-01	3.453E-01	2.663E-02	0.203
		65.20	*	-1.207E-01	3.904E-01	5.741E-01	4.553E-02	-0.210
TA-182		67.75		-4.206E-02	1.090E-01	1.693E-01	1.360E-02	-0.249
		100.10		5.289E-02	1.494E-01	2.459E-01	1.849E-02	0.215
		152.43		1.194E-01	2.781E-01	4.469E-01	2.404E-02	0.267
		222.10		-1.004E-01	2.530E-01	4.121E-01	2.262E-02	-0.244
	+	1001.68		1.899E+00	2.107E+00	2.605E+00	2.487E-01	0.729
	+	1121.28		6.255E-01	2.009E-01	2.543E-01	1.752E-02	2.460
		1189.05		9.047E-02	2.128E-01	3.622E-01	2.071E-02	0.250
		1221.42	*	5.685E-02	1.339E-01	2.272E-01	1.390E-02	0.250
		1230.97		5.127E-02	3.722E-01	5.308E-01	3.310E-02	0.097
RE-183		57.98		2.058E-02	2.006E-01	3.373E-01	2.591E-02	0.061
		59.32		4.489E-02	1.185E-01	1.812E-01	1.377E-02	0.248
		67.20		-4.276E-02	2.080E-01	3.068E-01	2.459E-02	-0.139
		162.32	*	-4.923E-03	8.262E-02	1.395E-01	7.363E-03	-0.035
	+	208.81		2.134E+00	9.994E-01	1.477E+00	8.014E-02	1.445
		291.72		-4.808E-01	7.912E-01	1.076E+00	6.167E-02	-0.447
RE-184		57.98		7.638E-02	7.444E-01	1.252E+00	9.616E-02	0.061
		59.32		1.665E-01	4.396E-01	6.720E-01	5.106E-02	0.248
		67.20		-1.586E-01	7.717E-01	1.138E+00	9.124E-02	-0.139

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		161.27		-1.137E-01	2.716E-01	4.530E-01	2.396E-02	-0.251
		216.55		6.334E-03	1.972E-01	3.277E-01	1.790E-02	0.019
		252.85	*	-6.307E-02	1.728E-01	2.787E-01	1.566E-02	-0.226
		318.01		-6.277E-02	3.446E-01	5.502E-01	3.176E-02	-0.114
		792.07		1.156E+00	9.126E-01	1.421E+00	1.358E-01	0.814
		903.28		8.202E-02	7.776E-01	1.145E+00	1.286E-01	0.072
		920.93		-2.068E-01	3.396E-01	4.968E-01	5.444E-02	-0.416
OS-185		59.72		5.120E-02	3.144E-01	4.757E-01	3.619E-02	0.108
		61.14		-4.876E-02	1.745E-01	2.582E-01	1.992E-02	-0.189
		69.30		3.017E-02	2.974E-01	4.443E-01	3.600E-02	0.068
		592.07		-1.513E+00	1.853E+00	2.833E+00	2.028E-01	-0.534
		646.12	*	1.224E-02	2.956E-02	4.886E-02	3.674E-03	0.251
		717.42		1.041E-01	6.553E-01	1.054E+00	8.875E-02	0.099
		874.81		3.435E-01	3.921E-01	6.821E-01	7.440E-02	0.504
		880.27		-3.416E-01	5.515E-01	8.572E-01	9.429E-02	-0.398
RE-188		155.03	*	1.306E-02	1.301E-01	2.214E-01	1.185E-02	0.059
		477.96		-2.673E-01	2.217E+00	3.630E+00	2.313E-01	-0.074
		633.10		-7.062E-03	1.990E+00	3.201E+00	2.380E-01	-0.002
W-188	+	63.58		1.225E+02	6.644E+01	9.384E+01	7.373E+00	1.305
		227.08		-8.078E-01	9.829E+00	1.588E+01	8.752E-01	-0.051
		290.67	*	-1.895E+00	6.260E+00	8.706E+00	4.987E-01	-0.218
IR-192	+	295.96		8.503E-01	1.420E-01	2.106E-01	1.228E-02	4.038
		308.46		7.462E-02	7.088E-02	1.203E-01	7.008E-03	0.620
		316.51	*	5.384E-03	2.588E-02	4.216E-02	2.445E-03	0.128
		468.07		5.321E-04	5.277E-02	7.566E-02	5.392E-03	0.007
		604.41		2.222E-01	3.781E-01	5.523E-01	6.711E-02	0.402
		612.46		1.228E+00	6.576E-01	1.031E+00	9.041E-02	1.191
AU-195		65.12		-8.649E-02	1.821E-01	2.682E-01	2.126E-02	-0.322
		66.83		-1.111E-02	9.840E-02	1.458E-01	1.166E-02	-0.076
	+	75.70		1.299E+00	2.706E-01	3.978E-01	3.341E-02	3.265
		98.88	*	3.919E-01	2.015E-01	3.335E-01	2.551E-02	1.175
	+	129.76		3.928E+00	2.654E+00	3.928E+00	2.248E-01	1.000
TL-200		367.94	*	-4.193E-05	2.654E+00	Half-Life too short		
		579.30		2.101E-03	2.654E+00	Half-Life too short		
		828.27		1.306E-03	2.654E+00	Half-Life too short		
		1205.75		-5.926E-05	2.654E+00	Half-Life too short		
TL-201		68.90		-7.085E-01	3.729E+00	5.503E+00	4.449E-01	-0.129
		70.82		5.108E-01	2.060E+00	3.091E+00	2.524E-01	0.165
		80.30		1.623E+00	4.442E+00	5.306E+00	4.601E-01	0.306
		135.34		4.873E+00	1.547E+01	2.496E+01	1.402E+00	0.195
		167.43	*	-1.369E+00	4.047E+00	6.752E+00	3.544E-01	-0.203
TL-202		68.90		-7.855E-02	4.135E-01	6.101E-01	4.932E-02	-0.129
		70.82		5.647E-02	2.277E-01	3.418E-01	2.791E-02	0.165
		80.30		1.795E-01	4.913E-01	5.869E-01	5.088E-02	0.306
		439.56	*	9.673E-04	4.488E-02	7.462E-02	4.549E-03	0.013
HG-203		70.83		2.662E-01	1.039E+00	1.560E+00	2.078E-01	0.171
		72.87		1.014E+00	5.655E-01	9.601E-01	1.245E-01	1.057
		82.60		1.434E+00	1.247E+00	1.542E+00	2.139E-01	0.930
		279.20	*	3.723E-02	3.089E-02	5.279E-02	3.201E-03	0.705

---- Non-Identified Nuclides ----

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BI-207		72.80		2.710E-01	1.650E-01	2.841E-01	2.344E-02	0.954
	+	74.97		7.238E-01	1.508E-01	2.056E-01	1.719E-02	3.520
	+	84.90		3.421E-01	1.971E-01	2.779E-01	2.501E-02	1.231
		569.67		8.733E-03	2.235E-02	3.631E-02	2.544E-03	0.241
		1063.62	*	1.325E-03	3.749E-02	6.277E-02	5.182E-03	0.021
		1770.23		1.777E-01	3.079E-01	4.890E-01	2.958E-02	0.363
TL-207		81.07		1.055E-01	2.456E-01	2.945E-01	2.569E-02	0.358
	+	83.78		2.256E-01	1.300E-01	1.855E-01	1.653E-02	1.216
		94.90		4.736E-01	2.256E-01	3.534E-01	2.877E-02	1.340
		122.32		1.198E+00	1.429E+00	2.366E+00	1.607E-01	0.506
		144.24		4.924E-01	5.843E-01	9.547E-01	6.662E-02	0.516
		154.21		2.219E-01	3.051E-01	5.294E-01	3.523E-02	0.419
	+	269.46		6.615E-01	2.073E-01	2.762E-01	1.641E-02	2.395
		323.87	*	3.022E-01	5.456E-01	7.940E-01	1.311E-01	0.381
	+	338.28		6.646E+00	1.435E+00	1.954E+00	2.056E-01	3.401
		445.03		5.620E-02	1.629E+00	2.707E+00	2.833E-01	0.021
PO-209		260.50		3.060E+00	7.189E+00	1.199E+01	6.766E-01	0.255
		262.80		-2.417E+01	1.971E+01	3.028E+01	1.711E+00	-0.798
		896.60	*	-1.080E+00	5.111E+00	8.204E+00	9.254E-01	-0.132
BI-210		46.50	*	2.307E+00	4.689E+00	8.070E+00	6.243E-01	0.286
PB-210		46.50	*	2.307E+00	4.689E+00	8.070E+00	6.243E-01	0.286
PO-210		46.50	*	2.307E+00	4.688E+00	8.070E+00	5.368E-01	0.286
PB-211		404.84	*	1.739E-01	7.885E-01	1.150E+00	7.168E-01	0.151
		427.08		-2.976E-01	1.413E+00	2.305E+00	1.425E+00	-0.129
		831.96		-1.804E-01	8.961E-01	1.442E+00	9.069E-01	-0.125
BI-212	+	727.18	*	1.345E+00	3.685E-01	5.039E-01	5.019E-02	2.669
		785.46		7.602E-01	1.298E+00	2.220E+00	2.099E-01	0.342
		1620.62		5.490E-01	1.018E+00	1.777E+00	1.201E-01	0.309
PO-215		81.07		1.055E-01	2.456E-01	2.945E-01	2.569E-02	0.358
	+	83.78		2.256E-01	1.300E-01	1.855E-01	1.653E-02	1.216
		94.90		4.736E-01	2.256E-01	3.534E-01	2.877E-02	1.340
		122.32		1.198E+00	1.429E+00	2.366E+00	1.607E-01	0.506
		144.24		4.924E-01	5.843E-01	9.547E-01	6.662E-02	0.516
		154.21		2.219E-01	3.051E-01	5.294E-01	3.523E-02	0.419
	+	269.46		6.615E-01	2.073E-01	2.762E-01	1.641E-02	2.395
		323.87	*	3.022E-01	5.456E-01	7.940E-01	1.311E-01	0.381
	+	338.28		6.646E+00	1.435E+00	1.954E+00	2.056E-01	3.401
		445.03		5.620E-02	1.629E+00	2.707E+00	2.833E-01	0.021
RN-219	+	271.23		8.488E-01	2.698E-01	3.498E-01	2.804E-02	2.426
		401.81	*	-1.485E-01	3.078E-01	4.873E-01	6.634E-02	-0.305
RN-220		549.76	*	4.241E+00	1.833E+01	3.032E+01	2.083E+00	0.140
RA-223		81.07		1.055E-01	2.456E-01	2.945E-01	2.569E-02	0.358
	+	83.78		2.256E-01	1.300E-01	1.855E-01	1.653E-02	1.216
		94.90		4.736E-01	2.256E-01	3.534E-01	2.877E-02	1.340
		122.32		1.198E+00	1.429E+00	2.366E+00	1.607E-01	0.506
		144.24		4.924E-01	5.843E-01	9.547E-01	6.662E-02	0.516
		154.21		2.219E-01	3.051E-01	5.294E-01	3.523E-02	0.419
	+	269.46		6.615E-01	2.073E-01	2.762E-01	1.641E-02	2.395
		323.87	*	3.022E-01	5.456E-01	7.940E-01	1.311E-01	0.381

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		6.646E+00	1.435E+00	1.954E+00	2.056E-01	3.401
		445.03		5.620E-02	1.629E+00	2.707E+00	2.833E-01	0.021
AC-227		79.80		7.410E-01	1.880E+00	2.246E+00	4.831E-01	0.330
		236.00		5.871E-01	2.123E-01	3.350E-01	3.456E-02	1.752
		256.20	*	-6.797E-03	2.927E-01	4.792E-01	6.656E-02	-0.014
		286.10		2.349E-02	1.149E+00	1.868E+00	2.152E-01	0.013
	+	299.80		2.719E+00	1.601E+00	1.959E+00	3.186E-01	1.388
		304.40		-8.079E-01	1.584E+00	2.148E+00	3.712E-01	-0.376
		334.20		3.946E-01	2.081E+00	2.747E+00	5.035E-01	0.144
TH-227		79.80		7.410E-01	1.880E+00	2.246E+00	4.892E-01	0.330
	+	94.00		1.739E+01	4.662E+00	3.687E+00	7.979E-01	4.716
		236.00		5.871E-01	2.101E-01	3.350E-01	2.982E-02	1.752
		256.20	*	-6.797E-03	2.927E-01	4.792E-01	8.071E-02	-0.014
		286.10		2.349E-02	1.149E+00	1.868E+00	1.871E+00	0.013
	+	299.80		2.719E+00	1.601E+00	1.959E+00	3.186E-01	1.388
		304.40		-8.079E-01	1.584E+00	2.148E+00	3.712E-01	-0.376
		334.20		3.946E-01	2.081E+00	2.747E+00	5.035E-01	0.144
TH-229	+	85.43		3.377E-01	1.946E-01	2.777E-01	2.511E-02	1.216
	+	88.47		4.804E-01	1.232E-01	1.809E-01	1.657E-02	2.656
		100.00		7.976E-02	1.572E-01	2.601E-01	1.958E-02	0.307
		193.63	*	1.162E-01	3.781E-01	6.393E-01	3.423E-02	0.182
		210.97		1.702E+00	6.711E-01	1.090E+00	5.925E-02	1.562
PA-231		283.67	*	-4.400E-01	1.116E+00	1.777E+00	2.442E-01	-0.248
	+	301.29		1.087E+00	6.257E-01	7.757E-01	8.085E-02	1.402
TH-231		81.07		1.055E-01	2.456E-01	2.945E-01	2.569E-02	0.358
	+	83.78		2.256E-01	1.300E-01	1.855E-01	1.653E-02	1.216
		94.90		4.736E-01	2.256E-01	3.534E-01	2.877E-02	1.340
		122.32		1.198E+00	1.429E+00	2.366E+00	1.607E-01	0.506
		144.24		4.924E-01	5.843E-01	9.547E-01	6.662E-02	0.516
		154.21		2.219E-01	3.051E-01	5.294E-01	3.523E-02	0.419
	+	269.46		6.615E-01	2.073E-01	2.762E-01	1.641E-02	2.395
		323.87	*	3.022E-01	5.456E-01	7.940E-01	1.311E-01	0.381
	+	338.28		6.646E+00	1.435E+00	1.954E+00	2.056E-01	3.401
		445.03		5.620E-02	1.629E+00	2.707E+00	2.833E-01	0.021
U-231	+	84.21		7.937E+00	4.574E+00	6.550E+00	5.859E-01	1.212
	+	92.29		1.403E+01	2.506E+00	3.259E+00	2.775E-01	4.306
		95.87	*	-7.353E-01	8.448E-01	1.174E+00	9.409E-02	-0.626
		108.00		-5.834E-01	1.385E+00	2.203E+00	1.498E-01	-0.265
PA-233	+	75.28		2.112E+01	5.154E+00	6.071E+00	9.235E-01	3.479
	+	86.59		6.888E+00	2.487E+00	2.670E+00	7.206E-01	2.580
	+	300.12		7.579E-01	4.408E-01	5.442E-01	7.300E-02	1.393
		311.98	*	-3.856E-02	4.907E-02	7.592E-02	4.651E-03	-0.508
		340.50		1.986E+00	7.563E-01	9.985E-01	2.293E-01	1.989
		398.62		7.204E-02	1.455E+00	2.440E+00	6.309E-01	0.030
		415.76		7.045E-01	1.230E+00	1.992E+00	4.107E-01	0.354
PA-234	+	63.00		3.596E+00	2.005E+00	2.831E+00	4.268E-01	1.270
		94.67		5.354E-01	1.768E-01	2.715E-01	3.284E-02	1.972
		98.44		1.679E-01	1.265E-01	1.357E-01	7.550E-02	1.237
		99.86		2.853E-01	4.014E-01	6.684E-01	5.042E-02	0.427

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		4.372E-02	1.555E-01	2.536E-01	2.721E-02	0.172
		131.20		6.214E-02	9.678E-02	1.407E-01	8.011E-03	0.442
		152.70		1.953E-01	2.676E-01	4.325E-01	6.772E-02	0.452
	+	186.00		5.301E+00	2.231E+00	2.142E+00	6.527E-01	2.475
		226.40		1.164E-01	3.117E-01	5.124E-01	5.850E-02	0.227
		227.20		-1.647E-02	3.360E-01	5.436E-01	2.996E-02	-0.030
		248.90		5.264E-01	6.535E-01	1.060E+00	2.273E-01	0.496
		293.70		4.754E+00	1.032E+00	1.287E+00	2.066E-01	3.695
		369.80		-4.840E-01	5.556E-01	8.746E-01	1.821E-01	-0.553
		568.70		3.314E-01	7.265E-01	1.185E+00	8.296E-02	0.280
		569.50		6.952E-02	1.978E-01	3.206E-01	2.246E-02	0.217
		574.00		-5.801E-01	1.057E+00	1.652E+00	1.163E-01	-0.351
		699.00		-2.332E-01	5.042E-01	8.153E-01	1.539E-01	-0.286
		706.10		1.038E-01	7.399E-01	1.242E+00	5.532E-01	0.084
		733.00		-1.924E-01	2.878E-01	3.785E-01	8.406E-02	-0.508
		742.81		-2.481E-01	9.614E-01	1.545E+00	1.039E+00	-0.161
	+	796.30		2.251E+00	1.143E+00	1.408E+00	3.857E-01	1.599
		805.60		4.958E-01	7.129E-01	1.204E+00	3.731E-01	0.412
		819.60		-6.338E-01	8.623E-01	1.281E+00	4.913E-01	-0.495
		826.30		-1.827E-01	5.885E-01	9.370E-01	4.221E-01	-0.195
		831.60		-2.667E-01	4.779E-01	7.453E-01	2.261E-01	-0.358
		876.40		-1.004E-02	5.725E-01	9.355E-01	9.638E-01	-0.011
		880.51		-1.019E-01	2.005E-01	3.147E-01	3.463E-02	-0.324
		883.24		1.620E-01	2.283E-01	3.475E-01	2.348E-01	0.466
		899.00		-4.600E-01	6.201E-01	8.966E-01	3.973E-01	-0.513
		925.00		8.837E-01	8.339E-01	1.458E+00	1.588E-01	0.606
		926.50		1.793E-02	1.295E-01	2.129E-01	5.565E-02	0.084
		946.00	*	-1.664E-01	2.224E-01	3.362E-01	6.632E-02	-0.495
		949.00		3.537E-01	3.092E-01	5.430E-01	5.703E-02	0.651
		980.50		5.991E-02	5.011E-01	8.195E-01	8.151E-02	0.073
		1394.10		-5.483E-01	8.869E-01	1.221E+00	7.931E-01	-0.449
PA-234M		766.42		2.067E+01	1.441E+01	1.637E+01	8.322E+00	1.263
	+	1001.03	*	4.342E+00	4.823E+00	6.152E+00	6.636E-01	0.706
U-235	+	89.95		2.918E+00	1.318E+00	1.613E+00	4.989E-01	1.809
	+	93.35		5.410E+00	1.736E+00	1.238E+00	3.461E-01	4.368
		105.00		1.019E+00	9.049E-01	1.447E+00	4.259E-01	0.704
		143.76	*	1.732E-01	1.817E-01	2.952E-01	4.781E-02	0.587
		163.35		5.568E-02	3.545E-01	6.025E-01	1.074E-01	0.092
	+	185.71		1.963E-01	5.797E-02	7.947E-02	4.227E-03	2.471
		205.31		-6.410E-02	4.621E-01	6.673E-01	1.192E-01	-0.096
NP-236		94.67		4.100E-01	1.293E-01	2.063E-01	1.686E-02	1.988
		98.44		1.269E-01	6.523E-02	1.026E-01	7.898E-03	1.237
		111.00		3.307E-02	1.176E-01	1.919E-01	1.262E-02	0.172
		160.31	*	-1.257E-03	6.097E-02	1.032E-01	5.465E-03	-0.012
NP-239		99.55		2.519E-01	1.334E-01	2.295E-01	1.739E-02	1.097
		117.00	*	1.240E-01	1.536E-01	2.549E-01	1.578E-02	0.487
	+	209.75		1.704E+00	7.981E-01	1.162E+00	6.312E-02	1.466
		228.18		1.204E-01	1.704E-01	2.894E-01	1.596E-02	0.416
		277.60		2.772E-01	1.394E-01	2.447E-01	1.394E-02	1.133

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		2.327E-01	1.179E+00	1.558E+00	9.011E-02	0.149
AM-241		59.54	*	5.611E-02	1.685E-01	2.570E-01	2.131E-02	0.218
CM-243		99.55		2.591E-01	1.373E-01	2.361E-01	1.789E-02	1.097
		103.76	*	9.258E-03	7.816E-02	1.273E-01	9.114E-03	0.073
		117.00		1.276E-01	1.581E-01	2.622E-01	1.623E-02	0.487
	+	209.75		1.679E+00	7.867E-01	1.146E+00	6.222E-02	1.466
		228.18		1.216E-01	1.722E-01	2.924E-01	1.613E-02	0.416
		277.60		2.795E-01	1.406E-01	2.466E-01	1.405E-02	1.133
AM-246		798.80		-1.128E-02	1.183E-01	1.663E-01	1.607E-02	-0.068
		1036.00		-1.573E-02	2.000E-01	3.328E-01	2.947E-02	-0.047
		1062.04		1.129E-01	1.637E-01	2.860E-01	2.371E-02	0.395
		1078.86	*	9.167E-02	1.009E-01	1.786E-01	1.413E-02	0.513
CM-247		278.00		1.232E+00	5.753E-01	1.015E+00	5.781E-02	1.214
		287.40		6.921E-01	9.249E-01	1.554E+00	8.889E-02	0.445
		402.60	*	1.462E-02	2.878E-02	4.522E-02	2.634E-03	0.323
CF-249		252.85		-2.378E-01	6.516E-01	1.051E+00	5.904E-02	-0.226
		333.44		1.603E-01	1.876E-01	2.087E-01	1.207E-02	0.768
		387.95	*	4.153E-02	2.861E-02	5.113E-02	2.939E-03	0.812
CF-251		176.60	*	3.897E-02	9.382E-02	1.602E-01	8.459E-03	0.243
		227.00		-2.742E-02	2.984E-01	4.820E-01	2.656E-02	-0.057
		285.00		-5.789E-01	1.305E+00	2.075E+00	1.186E-01	-0.279

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395013      *
* Acquisition date :  2-FEB-2010 09:26:45 Detector SN#     :               *
* Detector ID        : GAM18               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.76     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395013           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.4534E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.258E+01	2.031E+00	3.640E-01	0.000E+00
CD-109	3.573E+00	8.983E-01	1.108E+00	0.000E+00
SN-126	3.519E-01	8.846E-02	1.098E-01	0.000E+00
TL-208	4.523E-01	6.592E-02	4.626E-02	0.000E+00
BI-211	3.446E+00	3.799E-01	2.353E-01	0.000E+00
PB-212	1.673E+00	1.452E-01	6.968E-02	0.000E+00
PO-212	1.673E+00	1.452E-01	6.968E-02	0.000E+00
BI-214	9.658E-01	1.379E-01	8.032E-02	0.000E+00
PB-214	1.199E+00	1.457E-01	8.199E-02	0.000E+00
PO-214	1.199E+00	1.457E-01	8.199E-02	0.000E+00
PO-216	1.673E+00	1.452E-01	6.968E-02	0.000E+00
PO-218	1.199E+00	1.457E-01	8.199E-02	0.000E+00
RA-224	3.917E+00	1.151E+00	7.919E-01	0.000E+00
RA-226	9.658E-01	1.379E-01	8.032E-02	0.000E+00
AC-228	1.580E+00	2.927E-01	1.604E-01	0.000E+00
RA-228	1.580E+00	2.927E-01	1.604E-01	0.000E+00
TH-228	1.697E+00	1.472E-01	7.066E-02	0.000E+00
TH-230	9.658E-01	1.379E-01	8.032E-02	0.000E+00
TH-232	1.580E+00	2.927E-01	1.604E-01	0.000E+00
TH-234	3.085E+00	1.708E+00	2.214E+00	0.000E+00
U-234	9.658E-01	1.379E-01	8.032E-02	0.000E+00
NP-237	1.033E+00	3.334E-01	3.277E-01	0.000E+00
U-238	3.085E+00	1.708E+00	2.214E+00	0.000E+00
AM-243	4.033E-01	8.234E-02	8.590E-02	0.000E+00
ANH-511	9.611E-02	4.663E-02	3.592E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.864E-02		2.227E-01	3.849E-01	0.000E+00	NOT IDENT.
NA-22	-2.445E-02		3.006E-02	4.732E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	1.486E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.583E-03	1.852E-02	3.058E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.260E-02	7.824E-02	0.000E+00	FAIL ABUN
SC-46	-1.480E-02	2.785E-02	4.532E-02	0.000E+00	FAIL ABUN
V-48	-7.270E-03	4.536E-02	7.502E-02	0.000E+00	NOT IDENT.
CR-51	8.988E-02	2.726E-01	4.738E-01	0.000E+00	NOT IDENT.
MN-52	5.515E-02	1.352E-01	2.353E-01	0.000E+00	NOT IDENT.
MN-54	-1.352E-03	2.778E-02	4.733E-02	0.000E+00	NOT IDENT.
CO-56	-4.034E-04	2.804E-02	4.780E-02	0.000E+00	FAIL ABUN
CO-57	1.173E-02	1.998E-02	3.556E-02	0.000E+00	NOT IDENT.
CO-58	-2.563E-02	2.574E-02	4.063E-02	0.000E+00	NOT IDENT.
FE-59	-8.162E-02	5.975E-02	9.124E-02	0.000E+00	NOT IDENT.
CO-60	-6.642E-03	2.665E-02	4.373E-02	0.000E+00	NOT IDENT.
ZN-65	-1.971E-02	7.946E-02	1.140E-01	0.000E+00	NOT IDENT.
GE-68	4.684E-01	8.780E-01	1.567E+00	0.000E+00	NOT IDENT.
AS-73	-3.165E-01	9.279E-01	1.701E+00	0.000E+00	NOT IDENT.
AS-74	9.929E-03	6.312E-02	1.080E-01	0.000E+00	NOT IDENT.
SE-75	-6.511E-03	3.484E-02	5.256E-02	0.000E+00	NOT IDENT.
BR-77	1.399E-01	4.957E+00	8.544E+00	0.000E+00	FAIL ABUN
SR-82	-1.236E-01	2.919E-01	4.138E-01	0.000E+00	NOT IDENT.
RB-83	-8.153E-04	4.623E-02	7.946E-02	0.000E+00	NOT IDENT.
RB-84	-2.582E-03	4.683E-02	7.919E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	5.759E+00	1.008E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.915E-02	5.103E-02	0.000E+00	NOT IDENT.
RB-86	-5.087E-02	5.331E-01	9.129E-01	0.000E+00	NOT IDENT.
Y-88	-1.283E-03	2.373E-02	3.936E-02	0.000E+00	NOT IDENT.
ZR-88	-1.328E-02	2.105E-02	3.609E-02	0.000E+00	NOT IDENT.
Y-91	5.767E+00	1.236E+01	2.171E+01	0.000E+00	NOT IDENT.
NB-94	6.212E-03	2.323E-02	4.108E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.582E-02	6.057E-02	0.000E+00	NOT IDENT.
NB-95M	9.459E-02	9.862E-02	1.600E-01	0.000E+00	NOT IDENT.
ZR-95	3.514E-02	4.764E-02	8.599E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.079E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.694E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.896E+00	5.541E+00	9.996E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.107E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.489E-03	2.544E-02	4.508E-02	0.000E+00	NOT IDENT.
RH-102	-1.498E-02	2.028E-02	3.369E-02	0.000E+00	NOT IDENT.
RU-103	8.442E-03	2.853E-02	5.012E-02	0.000E+00	FAIL ABUN
RH-106	-3.083E-02	2.191E-01	3.660E-01	0.000E+00	FAIL ABUN
RU-106	-3.083E-02	2.191E-01	3.660E-01	0.000E+00	FAIL ABUN
AG-108M	1.078E-02	2.268E-02	4.076E-02	0.000E+00	NOT IDENT.
AG-110M	1.150E-02	2.485E-02	3.925E-02	0.000E+00	NOT IDENT.
IN-111	3.554E-02	6.468E-01	9.999E-01	0.000E+00	NOT IDENT.
IN-113M	-1.920E-02	3.073E-02	5.274E-02	0.000E+00	NOT IDENT.
SN-113	-1.920E-02	3.073E-02	5.274E-02	0.000E+00	NOT IDENT.
IN-114M	-6.244E-03	1.451E-01	2.293E-01	0.000E+00	NOT IDENT.
CD-115	8.338E-01	5.137E+00	8.912E+00	0.000E+00	NOT IDENT.
SN-117M	4.345E-02	3.834E-02	7.255E-02	0.000E+00	NOT IDENT.
SB-122	-5.489E-02	1.110E+00	1.888E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	9.106E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	3.020E-02	2.105E-02	4.014E-02	0.000E+00	NOT IDENT.
I-124	4.414E-02	4.642E-01	6.832E-01	0.000E+00	NOT IDENT.
SB-124	8.681E-03	5.013E-02	8.658E-02	0.000E+00	FAIL ABUN
SB-125	-1.217E-02	6.202E-02	1.078E-01	0.000E+00	FAIL ABUN
TE-125M	-4.338E+00	7.520E+00	1.291E+01	0.000E+00	NOT IDENT.
I-126	0.000E+00	2.516E-01	2.139E-01	0.000E+00	FAIL ABUN
SB-126	4.985E-02	1.007E-01	1.577E-01	0.000E+00	FAIL ABUN
SB-127	-1.375E-01	7.484E-01	1.292E+00	0.000E+00	NOT IDENT.
XE-127	-1.872E-02	3.490E-02	6.120E-02	0.000E+00	NOT IDENT.
I-131	5.689E-02	6.836E-02	1.269E-01	0.000E+00	NOT IDENT.
TE-132	2.857E-01	3.954E-01	7.155E-01	0.000E+00	NOT IDENT.
BA-133	-9.869E-03	3.236E-02	4.643E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.544E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.973E-02	7.406E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.301E-01	2.214E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.759E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.636E-02	7.181E-02	1.261E-01	0.000E+00	FAIL ABUN
BA-137M	-6.531E-03	2.668E-02	3.945E-02	0.000E+00	NOT IDENT.
CS-137	-6.904E-03	2.820E-02	4.171E-02	0.000E+00	NOT IDENT.
CE-139	-1.170E-02	2.180E-02	3.895E-02	0.000E+00	NOT IDENT.
BA-140	-1.140E-01	1.680E-01	2.685E-01	0.000E+00	NOT IDENT.
LA-140	-5.473E-02	5.489E-02	8.242E-02	0.000E+00	FAIL ABUN
CE-141	3.715E-02	5.145E-02	9.044E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.935E+01	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.281E-01	1.770E-01	2.798E-01	0.000E+00	NOT IDENT.
PM-144	-4.032E-03	2.398E-02	4.141E-02	0.000E+00	NOT IDENT.
PR-144	-2.730E-01	1.624E+00	2.804E+00	0.000E+00	NOT IDENT.

PM-146	-1.201E-02	2.951E-02	5.030E-02	0.000E+00	NOT IDENT.
ND-147	5.550E-02	3.546E-01	6.146E-01	0.000E+00	FAIL ABUN
PM-149	-2.886E+00	4.561E+01	7.869E+01	0.000E+00	NOT IDENT.
EU-152	7.946E-03	9.101E-02	1.260E-01	0.000E+00	FAIL ABUN
GD-153	6.188E-04	7.517E-02	1.191E-01	0.000E+00	FAIL ABUN
EU-154	-7.946E-02	8.504E-02	1.321E-01	0.000E+00	NOT IDENT.
EU-155	6.115E-02	8.636E-02	1.561E-01	0.000E+00	FAIL ABUN
TB-160	-7.375E-02	9.692E-02	1.546E-01	0.000E+00	FAIL ABUN
HO-166M	1.073E-02	4.097E-02	7.240E-02	0.000E+00	NOT IDENT.
TM-171	9.680E+00	2.867E+01	4.757E+01	0.000E+00	NOT IDENT.
LU-176	-3.192E-03	2.022E-02	3.178E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	9.718E-01	1.549E+00	0.000E+00	FAIL ABUN
LU-177M	4.017E-02	1.339E-01	2.098E-01	0.000E+00	NOT IDENT.
HF-181	1.786E-03	2.987E-02	5.198E-02	0.000E+00	NOT IDENT.
W-181	-1.207E-01	3.826E-01	6.183E-01	0.000E+00	NOT IDENT.
TA-182	5.685E-02	1.312E-01	2.294E-01	0.000E+00	FAIL ABUN
RE-183	-4.923E-03	8.097E-02	1.474E-01	0.000E+00	FAIL ABUN
RE-184	-6.307E-02	1.693E-01	2.917E-01	0.000E+00	NOT IDENT.
OS-185	1.224E-02	2.897E-02	5.007E-02	0.000E+00	NOT IDENT.
RE-188	1.306E-02	1.275E-01	2.342E-01	0.000E+00	NOT IDENT.
W-188	-1.895E+00	6.135E+00	9.083E+00	0.000E+00	FAIL ABUN
IR-192	5.384E-03	2.536E-02	4.390E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	1.974E-01	3.561E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.320E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.369E+00	3.966E+00	7.129E+00	0.000E+00	NOT IDENT.
TL-202	9.673E-04	4.399E-02	7.714E-02	0.000E+00	NOT IDENT.
HG-203	3.723E-02	3.027E-02	5.512E-02	0.000E+00	NOT IDENT.
BI-207	1.325E-03	3.674E-02	6.358E-02	0.000E+00	FAIL ABUN
TL-207	3.022E-01	5.347E-01	8.264E-01	0.000E+00	FAIL ABUN
PO-209	-1.080E+00	5.008E+00	8.344E+00	0.000E+00	NOT IDENT.
BI-210	2.307E+00	4.595E+00	8.753E+00	0.000E+00	NOT IDENT.
PB-210	2.307E+00	4.595E+00	8.753E+00	0.000E+00	NOT IDENT.
PO-210	2.307E+00	4.594E+00	8.753E+00	0.000E+00	NOT IDENT.
PB-211	1.739E-01	7.727E-01	1.191E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.611E-01	5.150E-01	0.000E+00	FAIL ABUN
PO-215	3.022E-01	5.347E-01	8.264E-01	0.000E+00	FAIL ABUN
RN-219	-1.485E-01	3.016E-01	5.048E-01	0.000E+00	FAIL ABUN
RN-220	4.241E+00	1.797E+01	3.118E+01	0.000E+00	NOT IDENT.
RA-223	3.022E-01	5.347E-01	8.264E-01	0.000E+00	FAIL ABUN
AC-227	-6.797E-03	2.868E-01	5.013E-01	0.000E+00	FAIL ABUN
TH-227	-6.797E-03	2.868E-01	5.013E-01	0.000E+00	FAIL ABUN
TH-229	1.162E-01	3.705E-01	6.729E-01	0.000E+00	FAIL ABUN
PA-231	-4.400E-01	1.094E+00	1.854E+00	0.000E+00	FAIL ABUN
TH-231	3.022E-01	5.347E-01	8.264E-01	0.000E+00	FAIL ABUN
U-231	-7.353E-01	8.279E-01	1.255E+00	0.000E+00	FAIL ABUN
PA-233	-3.856E-02	4.809E-02	7.908E-02	0.000E+00	FAIL ABUN
PA-234	-1.664E-01	2.179E-01	3.415E-01	0.000E+00	FAIL ABUN
PA-234M	4.342E+00	4.727E+00	6.240E+00	0.000E+00	FAIL ABUN
U-235	1.732E-01	1.781E-01	3.127E-01	0.000E+00	FAIL ABUN
NP-236	-1.257E-03	5.975E-02	1.090E-01	0.000E+00	NOT IDENT.
NP-239	1.240E-01	1.506E-01	2.712E-01	0.000E+00	FAIL ABUN
AM-241	5.611E-02	1.651E-01	2.773E-01	0.000E+00	NOT IDENT.
CM-243	9.258E-03	7.660E-02	1.358E-01	0.000E+00	FAIL ABUN
AM-246	9.167E-02	9.890E-02	1.809E-01	0.000E+00	NOT IDENT.
CM-247	1.462E-02	2.820E-02	4.684E-02	0.000E+00	NOT IDENT.
CF-249	4.153E-02	2.804E-02	5.300E-02	0.000E+00	NOT IDENT.
CF-251	3.897E-02	9.194E-02	1.689E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:27:19.33

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395013.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:26:45.
Sample ID         : G245395013           Sample quantity  : 1.45340E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.76  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1766	10.67*	1.894E+00	2.258E+01	2.258E+01	9.18
CD-109	88.03	326	3.72*	6.463E+00	3.500E+00	3.573E+00	25.65
SN-126	64.28	142	9.60	3.122E+00	1.221E+00	1.221E+00	55.66
	86.94	326	8.90	6.463E+00	1.463E+00	1.463E+00	47.90
	87.57	326	37.00*	6.463E+00	3.519E-01	3.519E-01	25.65
TL-208	277.35	------	6.80	6.258E+00	------ Line Not Found		------
	510.84	160	21.60	4.311E+00	4.450E-01	4.450E-01	50.21
	583.14	580	84.20*	3.934E+00	4.523E-01	4.523E-01	14.87
	860.37	103	12.46	2.915E+00	7.320E-01	7.320E-01	49.07
BI-211	72.87	------	1.27	4.622E+00	------ Line Not Found		------
	351.07	941	12.94*	5.451E+00	3.446E+00	3.446E+00	11.25
PB-212	74.81	508	10.70	4.934E+00	2.487E+00	2.487E+00	22.84
	77.11	727	18.00	5.261E+00	1.984E+00	1.984E+00	14.66
	87.30	326	8.00	6.463E+00	1.627E+00	1.627E+00	27.53
	238.63	1963	44.60*	6.792E+00	1.673E+00	1.673E+00	8.85
	300.09	116	3.41	5.984E+00	1.467E+00	1.467E+00	57.18
PO-212	74.81	508	10.70	4.934E+00	2.487E+00	2.487E+00	22.84
	77.11	727	18.00	5.261E+00	1.984E+00	1.984E+00	14.66
	87.30	326	8.00	6.463E+00	1.627E+00	1.627E+00	27.53
	115.19	------	0.60	8.058E+00	------ Line Not Found		------
	238.63	1963	44.60*	6.792E+00	1.673E+00	1.673E+00	8.85
	300.09	116	3.41	5.984E+00	1.467E+00	1.467E+00	57.18
BI-214	609.31	660	46.30*	3.813E+00	9.658E-01	9.658E-01	14.57
	1120.29	182	15.10	2.334E+00	1.333E+00	1.333E+00	32.79
	1764.49	143	15.80	1.695E+00	1.380E+00	1.380E+00	21.63
PB-214	74.81	508	6.21	4.934E+00	4.286E+00	4.286E+00	22.11
	77.11	727	10.50	5.261E+00	3.401E+00	3.401E+00	16.52
	87.30	326	4.67	6.463E+00	2.788E+00	2.788E+00	26.79
	241.98	404	7.49	6.749E+00	2.066E+00	2.066E+00	30.51
	295.21	507	19.20	6.041E+00	1.128E+00	1.128E+00	17.80
	351.92	941	37.20*	5.451E+00	1.199E+00	1.199E+00	12.40
PO-214	74.81	508	6.21	4.934E+00	4.286E+00	4.286E+00	22.11

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	727	10.50	5.261E+00	3.401E+00	3.401E+00	16.52
	87.30	326	4.67	6.463E+00	2.788E+00	2.788E+00	26.79
	241.98	404	7.49	6.749E+00	2.066E+00	2.066E+00	30.51
	295.21	507	19.20	6.041E+00	1.128E+00	1.128E+00	17.80
	351.92	941	37.20*	5.451E+00	1.199E+00	1.199E+00	12.40
PO-216	74.81	508	10.70	4.934E+00	2.487E+00	2.487E+00	22.84
	77.11	727	18.00	5.261E+00	1.984E+00	1.984E+00	14.66
	87.30	326	8.00	6.463E+00	1.627E+00	1.627E+00	27.53
	238.63	1963	44.60*	6.792E+00	1.673E+00	1.673E+00	8.85
	300.09	116	3.41	5.984E+00	1.467E+00	1.467E+00	57.18
PO-218	74.81	508	6.21	4.934E+00	4.286E+00	4.286E+00	22.11
	77.11	727	10.50	5.261E+00	3.401E+00	3.401E+00	16.52
	87.30	326	4.67	6.463E+00	2.788E+00	2.788E+00	26.79
	241.98	404	7.49	6.749E+00	2.066E+00	2.066E+00	30.51
	295.21	507	19.20	6.041E+00	1.128E+00	1.128E+00	17.80
	351.92	941	37.20*	5.451E+00	1.199E+00	1.199E+00	12.40
RA-224	240.98	404	3.95*	6.749E+00	3.917E+00	3.917E+00	29.99
RA-226	609.31	660	46.30*	3.813E+00	9.658E-01	9.658E-01	14.57
	1120.29	182	15.10	2.334E+00	1.333E+00	1.333E+00	32.79
	1764.49	143	15.80	1.695E+00	1.380E+00	1.380E+00	21.63
AC-228	338.32	392	11.40	5.581E+00	1.592E+00	1.592E+00	44.91
	911.07	471	27.70*	2.780E+00	1.580E+00	1.580E+00	18.90
	969.11	313	16.60	2.639E+00	1.846E+00	1.846E+00	27.70
RA-228	338.32	392	11.40	5.581E+00	1.592E+00	1.592E+00	44.91
	911.07	471	27.70*	2.780E+00	1.580E+00	1.580E+00	18.90
	969.11	313	16.60	2.639E+00	1.846E+00	1.846E+00	27.70
TH-228	74.81	508	10.70	4.934E+00	2.487E+00	2.522E+00	20.87
	77.11	727	18.00	5.261E+00	1.984E+00	2.012E+00	14.66
	87.30	326	8.00	6.463E+00	1.627E+00	1.650E+00	25.65
	238.63	1963	44.60*	6.792E+00	1.673E+00	1.697E+00	8.85
	300.09	116	3.41	5.984E+00	1.467E+00	1.487E+00	81.70
TH-230	609.31	660	46.30*	3.813E+00	9.658E-01	9.658E-01	14.57
	1120.29	182	15.10	2.334E+00	1.333E+00	1.333E+00	32.79
	1764.49	143	15.80	1.695E+00	1.380E+00	1.380E+00	21.63
TH-232	338.32	392	11.40	5.581E+00	1.592E+00	1.592E+00	19.72
	911.07	471	27.70*	2.780E+00	1.580E+00	1.580E+00	18.90
	969.11	313	16.60	2.639E+00	1.846E+00	1.846E+00	27.70
TH-234	63.29	142	3.80*	3.122E+00	3.085E+00	3.085E+00	56.49
	92.38	656	5.41	6.956E+00	4.500E+00	4.500E+00	23.91
U-234	609.31	660	46.30*	3.813E+00	9.658E-01	9.658E-01	14.57
	1120.29	182	15.10	2.334E+00	1.333E+00	1.333E+00	32.79
	1764.49	143	15.80	1.695E+00	1.380E+00	1.380E+00	21.63
NP-237	86.50	326	12.60*	6.463E+00	1.033E+00	1.033E+00	32.92
	95.87	------	2.60	7.180E+00	------ Line Not Found		------
U-238	63.29	142	3.80*	3.122E+00	3.085E+00	3.085E+00	56.49
	92.38	656	5.41	6.956E+00	4.500E+00	4.500E+00	17.86
AM-243	74.67	508	66.00*	4.934E+00	4.033E-01	4.033E-01	20.84
	86.72	326	0.34	6.463E+00	3.875E+01	3.875E+01	25.65
	117.66	------	0.55	8.112E+00	------ Line Not Found		------

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	8.232E+00	------ Line Not Found		------
ANH-511	511.00	160	100.00*	4.311E+00	9.611E-02	9.611E-02	49.51

Flag: "*" = Keyline

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

Total number of lines in spectrum 38
Number of unidentified lines 3
Number of lines tentatively identified by NID 35 92.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.258E+01	2.258E+01	0.207E+01	9.18	
CD-109	464.00D	1.02	3.500E+00	3.573E+00	0.917E+00	25.65	
SN-126	1.00E+05Y	1.00	3.519E-01	3.519E-01	0.903E-01	25.65	
TL-208	1.41E+10Y	1.00	4.523E-01	4.523E-01	0.673E-01	14.87	
BI-211	7.04E+08Y	1.00	3.446E+00	3.446E+00	0.388E+00	11.25	
PB-212	1.41E+10Y	1.00	1.673E+00	1.673E+00	0.148E+00	8.85	
PO-212	1.41E+10Y	1.00	1.673E+00	1.673E+00	0.148E+00	8.85	
BI-214	1600.00Y	1.00	9.658E-01	9.658E-01	1.407E-01	14.57	
PB-214	1600.00Y	1.00	1.199E+00	1.199E+00	0.149E+00	12.40	
PO-214	1600.00Y	1.00	1.199E+00	1.199E+00	0.149E+00	12.40	
PO-216	1.41E+10Y	1.00	1.673E+00	1.673E+00	0.148E+00	8.85	
PO-218	1600.00Y	1.00	1.199E+00	1.199E+00	0.149E+00	12.40	
RA-224	1.41E+10Y	1.00	3.917E+00	3.917E+00	1.175E+00	29.99	
RA-226	1600.00Y	1.00	9.658E-01	9.658E-01	1.407E-01	14.57	
AC-228	1.41E+10Y	1.00	1.580E+00	1.580E+00	0.299E+00	18.90	
RA-228	1.41E+10Y	1.00	1.580E+00	1.580E+00	0.299E+00	18.90	
TH-228	1.91Y	1.01	1.673E+00	1.697E+00	0.150E+00	8.85	
TH-230	4.47E+09Y	1.00	9.658E-01	9.658E-01	1.407E-01	14.57	
TH-232	1.41E+10Y	1.00	1.580E+00	1.580E+00	0.299E+00	18.90	
TH-234	4.47E+09Y	1.00	3.085E+00	3.085E+00	1.743E+00	56.49	
U-234	4.47E+09Y	1.00	9.658E-01	9.658E-01	1.407E-01	14.57	
NP-237	2.14E+06Y	1.00	1.033E+00	1.033E+00	0.340E+00	32.92	
U-238	4.47E+09Y	1.00	3.085E+00	3.085E+00	1.743E+00	56.49	
AM-243	7380.00Y	1.00	4.033E-01	4.033E-01	0.840E-01	20.84	
ANH-511	1.00E+09Y	1.00	9.611E-02	9.611E-02	4.758E-02	49.51	
	Total Activity :		6.084E+01	6.094E+01			

Grand Total Activity : 6.084E+01 6.094E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.25	132	467	1.47	167.62	164	28	1.83E-02	56.9	6.12E+00	T
4	90.16	205	368	0.95	179.42	164	28	2.85E-02	32.9	6.72E+00	T
0	129.13	96	347	1.16	257.33	254	7	1.34E-02	67.3	8.25E+00	T
0	186.06	314	464	1.25	371.15	366	10	4.36E-02	29.0	7.65E+00	T
0	209.47	155	378	1.02	417.95	414	8	2.15E-02	46.5	7.25E+00	T
0	270.32	221	248	1.68	539.62	534	11	3.07E-02	30.8	6.35E+00	T
0	327.72	152	197	1.29	654.38	650	10	2.11E-02	38.3	5.69E+00	T
0	408.95	101	150	1.00	816.79	812	11	1.40E-02	50.8	4.97E+00	
0	462.80	165	145	1.53	924.47	919	11	2.29E-02	32.4	4.60E+00	T
0	666.35	81	168	8.03	1331.46	1321	21	1.12E-02	83.5	3.57E+00	T
0	726.67	205	101	1.82	1452.06	1444	15	2.85E-02	25.5	3.34E+00	T
0	770.36	133	199	5.94	1539.42	1530	25	1.84E-02	61.4	3.19E+00	
0	795.09	106	99	1.04	1588.88	1583	12	1.47E-02	42.8	3.11E+00	T
3	964.33	150	26	2.81	1927.28	1918	27	2.08E-02	29.2	2.65E+00	T
0	1001.32	36	70	2.14	2001.24	1996	14	5.03E-03	****	2.57E+00	T
0	1237.68	56	74	1.18	2473.89	2469	10	7.72E-03	65.4	2.15E+00	T
0	1408.85	42	27	1.92	2816.20	2805	18	5.89E-03	65.1	1.94E+00	T
0	1847.13	27	7	1.45	3692.72	3688	13	3.68E-03	55.5	1.66E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:27:25.05

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395013.CNF;1  *
* Acquisition date : 2-FEB-2010 09:26:45.  Detector SN#     :               *
* Detector ID      : GAM18                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.76         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 19-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245395013            Analyst initials: MXR1           *
* Batch Number     : 944966                Sample Quantity : 1.45340E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.258E+01	2.073E+00	3.621E-01	2.748E-02	62.360
CD-109	3.573E+00	9.167E-01	1.035E+00	9.572E-02	3.451
SN-126	3.519E-01	9.026E-02	1.026E-01	9.454E-03	3.429
TL-208	4.523E-01	6.727E-02	4.504E-02	3.531E-03	10.043
BI-211	3.446E+00	3.877E-01	2.265E-01	1.454E-02	15.218
PB-212	1.673E+00	1.481E-01	6.651E-02	4.751E-03	25.159
PO-212	1.673E+00	1.481E-01	6.651E-02	4.751E-03	25.159
BI-214	9.658E-01	1.407E-01	7.828E-02	6.993E-03	12.338
PB-214	1.199E+00	1.487E-01	7.892E-02	6.529E-03	15.190
PO-214	1.199E+00	1.487E-01	7.892E-02	6.529E-03	15.190
PO-216	1.673E+00	1.481E-01	6.651E-02	4.751E-03	25.159
PO-218	1.199E+00	1.487E-01	7.892E-02	6.529E-03	15.190
RA-224	3.917E+00	1.175E+00	7.559E-01	4.211E-02	5.181
RA-226	9.658E-01	1.407E-01	7.828E-02	6.993E-03	12.338
AC-228	1.580E+00	2.987E-01	1.578E-01	2.090E-02	10.018
RA-228	1.580E+00	2.987E-01	1.578E-01	2.090E-02	10.018
TH-228	1.697E+00	1.502E-01	6.743E-02	4.817E-03	25.159
TH-230	9.658E-01	1.407E-01	7.828E-02	6.993E-03	12.338

Sample ID : G245395013 Acquisition date : 2-FEB-2010 09:26:45

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.580E+00	2.987E-01	1.578E-01	2.090E-02	10.018
TH-234	3.085E+00	1.743E+00	2.054E+00	3.622E-01	1.502
U-234	9.658E-01	1.407E-01	7.828E-02	6.993E-03	12.338
NP-237	1.033E+00	3.402E-01	3.060E-01	6.904E-02	3.376
U-238	3.085E+00	1.743E+00	2.054E+00	3.622E-01	1.502
AM-243	4.033E-01	8.402E-02	7.998E-02	6.674E-03	5.042
ANH-511	9.611E-02	4.758E-02	3.487E-02	2.303E-03	2.756

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.864E-02		2.273E-01	3.731E-01	2.703E-02	-0.050
NA-22	-2.445E-02		3.068E-02	4.691E-02	3.192E-03	-0.521
NA-24	-1.034E-01		7.581E-02	Half-Life too short		
AL-26	-1.583E-03		1.890E-02	3.057E-02	1.785E-03	-0.052
TI-44	3.661E-01	+	5.367E-02	7.292E-02	6.235E-03	5.021
SC-46	-1.480E-02		2.842E-02	4.456E-02	4.970E-03	-0.332
V-48	-7.270E-03		4.628E-02	7.393E-02	7.312E-03	-0.098
CR-51	8.988E-02		2.781E-01	4.551E-01	2.930E-02	0.197
MN-52	5.515E-02		1.380E-01	2.340E-01	1.724E-02	0.236
MN-54	-1.352E-03		2.835E-02	4.646E-02	4.759E-03	-0.029
CO-56	-4.034E-04		2.862E-02	4.693E-02	4.900E-03	-0.009
CO-57	1.173E-02		2.038E-02	3.346E-02	1.982E-03	0.351
CO-58	-2.563E-02		2.627E-02	3.986E-02	3.935E-03	-0.643
FE-59	-8.162E-02		6.097E-02	9.014E-02	7.420E-03	-0.906
CO-60	-6.642E-03		2.719E-02	4.340E-02	3.279E-03	-0.153
ZN-65	-1.971E-02		8.108E-02	1.127E-01	7.937E-03	-0.175
GE-68	4.684E-01		8.959E-01	1.548E+00	1.229E-01	0.303
AS-73	-3.165E-01		9.468E-01	1.573E+00	1.247E-01	-0.201
AS-74	9.929E-03		6.440E-02	1.052E-01	7.560E-03	0.094
SE-75	-6.511E-03		3.555E-02	5.027E-02	2.875E-03	-0.130
BR-77	1.399E-01		5.058E+00	8.297E+00	5.535E-01	0.017
SR-82	-1.236E-01		2.978E-01	4.055E-01	3.777E-02	-0.305
RB-83	-8.153E-04		4.718E-02	7.716E-02	5.146E-03	-0.011
RB-84	-2.582E-03		4.778E-02	7.783E-02	8.578E-03	-0.033
KR-85	1.500E+01		5.877E+00	9.788E+00	6.484E-01	1.532
SR-85	7.591E-02		2.975E-02	4.954E-02	3.282E-03	1.532
RB-86	-5.087E-02		5.440E-01	9.015E-01	7.176E-02	-0.056
Y-88	-1.283E-03		2.421E-02	3.936E-02	2.242E-03	-0.033
ZR-88	-1.328E-02		2.148E-02	3.482E-02	2.003E-03	-0.381
Y-91	5.767E+00		1.262E+01	2.150E+01	1.271E+00	0.268
NB-94	6.212E-03		2.370E-02	4.017E-02	3.295E-03	0.155
NB-95	7.038E-02		3.655E-02	5.934E-02	5.428E-03	1.186
NB-95M	9.459E-02		1.006E-01	1.527E-01	1.120E-02	0.619
ZR-95	3.514E-02		4.861E-02	8.422E-02	8.287E-03	0.417
NB-97	8.661E-03		1.061E-02	Half-Life too short		
ZR-97	1.089E+00		2.395E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	3.896E+00		5.654E+00	9.785E+00	1.493E+00	0.398
TC-99M	-6.725E+08		5.647E+08	Half-Life too short		
RH-101	-8.489E-03		2.596E-02	4.285E-02	2.303E-03	-0.198
RH-102	-1.498E-02		2.070E-02	3.265E-02	2.074E-03	-0.459
RU-103	8.442E-03		2.911E-02	4.862E-02	6.313E-03	0.174
RH-106	-3.083E-02		2.236E-01	3.569E-01	4.490E-02	-0.086
RU-106	-3.083E-02		2.236E-01	3.569E-01	2.626E-02	-0.086
AG-108M	1.078E-02		2.314E-02	3.942E-02	2.576E-03	0.274
AG-110M	1.150E-02		2.536E-02	3.832E-02	3.022E-03	0.300
IN-111	3.554E-02		6.600E-01	9.549E-01	5.336E-02	0.037
IN-113M	-1.920E-02		3.136E-02	5.089E-02	3.122E-03	-0.377
SN-113	-1.920E-02		3.136E-02	5.089E-02	3.122E-03	-0.377
IN-114M	-6.244E-03		1.480E-01	2.178E-01	1.163E-02	-0.029
CD-115	8.338E-01		5.242E+00	8.657E+00	5.819E-01	0.096
SN-117M	4.345E-02		3.912E-02	6.863E-02	3.648E-03	0.633
SB-122	-5.489E-02		1.133E+00	1.837E+00	1.280E-01	-0.030
I-123	1.307E+00		4.646E-01	Half-Life too short		
TE-123M	3.020E-02		2.148E-02	3.798E-02	2.049E-03	0.795
I-124	4.414E-02		4.737E-01	6.657E-01	4.813E-02	0.066
SB-124	8.681E-03		5.115E-02	8.642E-02	5.962E-03	0.100
SB-125	-1.217E-02		6.328E-02	1.042E-01	6.510E-03	-0.117
TE-125M	-4.338E+00		7.673E+00	1.211E+01	1.065E+00	-0.358
I-126	3.063E-01	+	2.567E-01	2.089E-01	1.606E-02	1.466
SB-126	4.985E-02		1.028E-01	1.542E-01	1.306E-02	0.323
SB-127	-1.375E-01		7.637E-01	1.263E+00	1.329E-01	-0.109
XE-127	-1.872E-02		3.561E-02	5.821E-02	3.142E-03	-0.322
I-131	5.689E-02		6.975E-02	1.222E-01	7.875E-03	0.465
TE-132	2.857E-01		4.035E-01	6.822E-01	9.559E-02	0.419
BA-133	-9.869E-03		3.302E-02	4.470E-02	5.164E-03	-0.221
I-133	1.646E-04		7.878E-04	Half-Life too short		
CS-134	1.157E-01	+	5.074E-02	7.262E-02	7.024E-03	1.593
CS-135	2.877E-01		1.328E-01	2.118E-01	1.601E-02	1.358
I-135	6.413E+07		8.976E+07	Half-Life too short		
CS-136	1.636E-02		7.328E-02	1.244E-01	1.115E-02	0.131
BA-137M	-6.531E-03		2.722E-02	3.852E-02	2.937E-03	-0.170
CS-137	-6.904E-03		2.877E-02	4.072E-02	3.112E-03	-0.170
CE-139	-1.170E-02		2.225E-02	3.688E-02	1.936E-03	-0.317
BA-140	-1.140E-01		1.715E-01	2.609E-01	8.536E-02	-0.437
LA-140	-5.473E-02		5.601E-02	8.215E-02	5.636E-03	-0.666
CE-141	3.715E-02		5.250E-02	8.540E-02	4.875E-03	0.435
CE-143	3.423E-04		5.069E-05	Half-Life too short		
CE-144	-1.281E-01		1.807E-01	2.637E-01	3.729E-02	-0.486
PM-144	-4.032E-03		2.447E-02	4.048E-02	3.286E-03	-0.100
PR-144	-2.730E-01		1.657E+00	2.741E+00	2.225E-01	-0.100
PM-146	-1.201E-02		3.011E-02	4.869E-02	4.332E-03	-0.247
ND-147	5.550E-02		3.618E-01	5.971E-01	8.331E-02	0.093
PM-149	-2.886E+00		4.654E+01	7.540E+01	1.066E+01	-0.038
EU-152	7.946E-03		9.287E-02	1.212E-01	7.911E-03	0.066

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	6.188E-04		7.670E-02	1.115E-01	8.717E-03	0.006
EU-154	-7.946E-02		8.677E-02	1.309E-01	1.308E-02	-0.607
EU-155	6.115E-02		8.812E-02	1.464E-01	1.047E-02	0.418
TB-160	-7.375E-02		9.889E-02	1.520E-01	1.669E-02	-0.485
HO-166M	1.073E-02		4.180E-02	7.081E-02	5.903E-03	0.151
TM-171	9.680E+00		2.925E+01	4.418E+01	3.533E+00	0.219
LU-176	-3.192E-03		2.063E-02	3.050E-02	1.756E-03	-0.105
LU-177	2.117E+00	+	9.917E-01	1.474E+00	7.997E-02	1.436
LU-177M	4.017E-02		1.366E-01	2.027E-01	1.197E-02	0.198
HF-181	1.786E-03		3.048E-02	5.040E-02	3.226E-03	0.035
W-181	-1.207E-01		3.904E-01	5.741E-01	4.553E-02	-0.210
TA-182	5.685E-02		1.339E-01	2.272E-01	1.390E-02	0.250
RE-183	-4.923E-03		8.262E-02	1.395E-01	7.363E-03	-0.035
RE-184	-6.307E-02		1.728E-01	2.787E-01	1.566E-02	-0.226
OS-185	1.224E-02		2.956E-02	4.886E-02	3.674E-03	0.251
RE-188	1.306E-02		1.301E-01	2.214E-01	1.185E-02	0.059
W-188	-1.895E+00		6.260E+00	8.706E+00	4.987E-01	-0.218
IR-192	5.384E-03		2.588E-02	4.216E-02	2.445E-03	0.128
AU-195	3.919E-01		2.015E-01	3.335E-01	2.551E-02	1.175
TL-200	-4.193E-05		6.735E-05	Half-Life too short		
TL-201	-1.369E+00		4.047E+00	6.752E+00	3.544E-01	-0.203
TL-202	9.673E-04		4.488E-02	7.462E-02	4.549E-03	0.013
HG-203	3.723E-02		3.089E-02	5.279E-02	3.201E-03	0.705
BI-207	1.325E-03		3.749E-02	6.277E-02	5.182E-03	0.021
TL-207	3.022E-01		5.456E-01	7.940E-01	1.311E-01	0.381
PO-209	-1.080E+00		5.111E+00	8.204E+00	9.254E-01	-0.132
BI-210	2.307E+00		4.689E+00	8.070E+00	6.243E-01	0.286
PB-210	2.307E+00		4.689E+00	8.070E+00	6.243E-01	0.286
PO-210	2.307E+00		4.688E+00	8.070E+00	5.368E-01	0.286
PB-211	1.739E-01		7.885E-01	1.150E+00	7.168E-01	0.151
BI-212	1.345E+00	+	3.685E-01	5.039E-01	5.019E-02	2.669
PO-215	3.022E-01		5.456E-01	7.940E-01	1.311E-01	0.381
RN-219	-1.485E-01		3.078E-01	4.873E-01	6.634E-02	-0.305
RN-220	4.241E+00		1.833E+01	3.032E+01	2.083E+00	0.140
RA-223	3.022E-01		5.456E-01	7.940E-01	1.311E-01	0.381
AC-227	-6.797E-03		2.927E-01	4.792E-01	6.656E-02	-0.014
TH-227	-6.797E-03		2.927E-01	4.792E-01	8.071E-02	-0.014
TH-229	1.162E-01		3.781E-01	6.393E-01	3.423E-02	0.182
PA-231	-4.400E-01		1.116E+00	1.777E+00	2.442E-01	-0.248
TH-231	3.022E-01		5.456E-01	7.940E-01	1.311E-01	0.381
U-231	-7.353E-01		8.448E-01	1.174E+00	9.409E-02	-0.626
PA-233	-3.856E-02		4.907E-02	7.592E-02	4.651E-03	-0.508
PA-234	-1.664E-01		2.224E-01	3.362E-01	6.632E-02	-0.495
PA-234M	4.342E+00	+	4.823E+00	6.152E+00	6.636E-01	0.706
U-235	1.732E-01		1.817E-01	2.952E-01	4.781E-02	0.587
NP-236	-1.257E-03		6.097E-02	1.032E-01	5.465E-03	-0.012
NP-239	1.240E-01		1.536E-01	2.549E-01	1.578E-02	0.487
AM-241	5.611E-02		1.685E-01	2.570E-01	2.131E-02	0.218

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	9.258E-03		7.816E-02	1.273E-01	9.114E-03	0.073
AM-246	9.167E-02		1.009E-01	1.786E-01	1.413E-02	0.513
CM-247	1.462E-02		2.878E-02	4.522E-02	2.634E-03	0.323
CF-249	4.153E-02		2.861E-02	5.113E-02	2.939E-03	0.812
CF-251	3.897E-02		9.382E-02	1.602E-01	8.459E-03	0.243

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395013           *
* Acquisition date  :  2-FEB-2010 09:26:45 Detector SN#    :                *
* Detector ID       : GAM18                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.76      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395013           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.4534E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.258E+01	2.031E+00	1.821E-01	1.036E+00
CD-109	3.573E+00	8.983E-01	5.545E-01	4.583E-01
SN-126	3.519E-01	8.846E-02	5.495E-02	4.513E-02
TL-208	4.523E-01	6.592E-02	2.314E-02	3.363E-02
BI-211	3.446E+00	3.799E-01	1.177E-01	1.938E-01
PB-212	1.673E+00	1.452E-01	3.486E-02	7.407E-02
PO-212	1.673E+00	1.452E-01	3.486E-02	7.407E-02
BI-214	9.658E-01	1.379E-01	4.019E-02	7.037E-02
PB-214	1.199E+00	1.457E-01	4.102E-02	7.433E-02
PO-214	1.199E+00	1.457E-01	4.102E-02	7.433E-02
PO-216	1.673E+00	1.452E-01	3.486E-02	7.407E-02
PO-218	1.199E+00	1.457E-01	4.102E-02	7.433E-02
RA-224	3.917E+00	1.151E+00	3.962E-01	5.873E-01
RA-226	9.658E-01	1.379E-01	4.019E-02	7.037E-02
AC-228	1.580E+00	2.927E-01	8.023E-02	1.493E-01
RA-228	1.580E+00	2.927E-01	8.023E-02	1.493E-01
TH-228	1.697E+00	1.472E-01	3.535E-02	7.511E-02
TH-230	9.658E-01	1.379E-01	4.018E-02	7.037E-02
TH-232	1.580E+00	2.927E-01	8.023E-02	1.493E-01
TH-234	3.085E+00	1.708E+00	1.108E+00	8.714E-01
U-234	9.658E-01	1.379E-01	4.018E-02	7.037E-02
NP-237	1.033E+00	3.334E-01	1.639E-01	1.701E-01
U-238	3.085E+00	1.708E+00	1.108E+00	8.714E-01
AM-243	4.033E-01	8.234E-02	4.297E-02	4.201E-02
ANH-511	9.611E-02	4.663E-02	1.797E-02	2.379E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-1.864E-02	2.227E-01	1.926E-01	1.136E-01 NOT IDENT.
NA-22	-2.445E-02	3.006E-02	2.367E-02	1.534E-02 NOT IDENT.

NA-24	-1.034E+05	1.486E+05	0.000E+00	7.581E+04	SHORT HLIF
AL-26	-1.583E-03	1.852E-02	1.530E-02	9.449E-03	NOT IDENT.
TI-44	3.661E-01	5.260E-02	3.914E-02	2.684E-02	FAIL ABUN
SC-46	-1.480E-02	2.785E-02	2.267E-02	1.421E-02	FAIL ABUN
V-48	-7.270E-03	4.536E-02	3.753E-02	2.314E-02	NOT IDENT.
CR-51	8.988E-02	2.726E-01	2.370E-01	1.391E-01	NOT IDENT.
MN-52	5.515E-02	1.352E-01	1.177E-01	6.899E-02	NOT IDENT.
MN-54	-1.352E-03	2.778E-02	2.368E-02	1.417E-02	NOT IDENT.
CO-56	-4.034E-04	2.804E-02	2.391E-02	1.431E-02	FAIL ABUN
CO-57	1.173E-02	1.998E-02	1.779E-02	1.019E-02	NOT IDENT.
CO-58	-2.563E-02	2.574E-02	2.033E-02	1.313E-02	NOT IDENT.
FE-59	-8.162E-02	5.975E-02	4.565E-02	3.049E-02	NOT IDENT.
CO-60	-6.642E-03	2.665E-02	2.188E-02	1.360E-02	NOT IDENT.
ZN-65	-1.971E-02	7.946E-02	5.704E-02	4.054E-02	NOT IDENT.
GE-68	4.684E-01	8.780E-01	7.841E-01	4.479E-01	NOT IDENT.
AS-73	-3.165E-01	9.279E-01	8.510E-01	4.734E-01	NOT IDENT.
AS-74	9.929E-03	6.312E-02	5.404E-02	3.220E-02	NOT IDENT.
SE-75	-6.511E-03	3.484E-02	2.629E-02	1.777E-02	NOT IDENT.
BR-77	1.399E-01	4.957E+00	4.274E+00	2.529E+00	FAIL ABUN
SR-82	-1.236E-01	2.919E-01	2.070E-01	1.489E-01	NOT IDENT.
RB-83	-8.153E-04	4.623E-02	3.975E-02	2.359E-02	NOT IDENT.
RB-84	-2.582E-03	4.683E-02	3.962E-02	2.389E-02	NOT IDENT.
KR-85	1.500E+01	5.759E+00	5.044E+00	2.938E+00	NOT IDENT.
SR-85	7.591E-02	2.915E-02	2.553E-02	1.487E-02	NOT IDENT.
RB-86	-5.087E-02	5.331E-01	4.567E-01	2.720E-01	NOT IDENT.
Y-88	-1.283E-03	2.373E-02	1.969E-02	1.211E-02	NOT IDENT.
ZR-88	-1.328E-02	2.105E-02	1.805E-02	1.074E-02	NOT IDENT.
Y-91	5.767E+00	1.236E+01	1.086E+01	6.308E+00	NOT IDENT.
NB-94	6.212E-03	2.323E-02	2.055E-02	1.185E-02	NOT IDENT.
NB-95	7.038E-02	3.582E-02	3.030E-02	1.828E-02	NOT IDENT.
NB-95M	9.459E-02	9.862E-02	8.007E-02	5.032E-02	NOT IDENT.
ZR-95	3.514E-02	4.764E-02	4.302E-02	2.431E-02	NOT IDENT.
NB-97	8.661E+03	2.079E+04	0.000E+00	1.061E+04	SHORT HLIF
ZR-97	1.089E+06	4.694E+05	0.000E+00	2.395E+05	SHORT HLIF
MO-99	3.896E+00	5.541E+00	5.001E+00	2.827E+00	NOT IDENT.
TC-99M	-6.725E+14	1.107E+15	0.000E+00	5.647E+14	SHORT HLIF
RH-101	-8.489E-03	2.544E-02	2.255E-02	1.298E-02	NOT IDENT.
RH-102	-1.498E-02	2.028E-02	1.686E-02	1.035E-02	NOT IDENT.
RU-103	8.442E-03	2.853E-02	2.507E-02	1.456E-02	FAIL ABUN
RH-106	-3.083E-02	2.191E-01	1.831E-01	1.118E-01	FAIL ABUN
RU-106	-3.083E-02	2.191E-01	1.831E-01	1.118E-01	FAIL ABUN
AG-108M	1.078E-02	2.268E-02	2.039E-02	1.157E-02	NOT IDENT.
AG-110M	1.150E-02	2.485E-02	1.964E-02	1.268E-02	NOT IDENT.
IN-111	3.554E-02	6.468E-01	5.002E-01	3.300E-01	NOT IDENT.
IN-113M	-1.920E-02	3.073E-02	2.639E-02	1.568E-02	NOT IDENT.
SN-113	-1.920E-02	3.073E-02	2.639E-02	1.568E-02	NOT IDENT.
IN-114M	-6.244E-03	1.451E-01	1.147E-01	7.401E-02	NOT IDENT.
CD-115	8.338E-01	5.137E+00	4.458E+00	2.621E+00	NOT IDENT.
SN-117M	4.345E-02	3.834E-02	3.630E-02	1.956E-02	NOT IDENT.
SB-122	-5.489E-02	1.110E+00	9.444E-01	5.664E-01	NOT IDENT.
I-123	1.307E+06	9.106E+05	0.000E+00	4.646E+05	SHORT HLIF
TE-123M	3.020E-02	2.105E-02	2.008E-02	1.074E-02	NOT IDENT.
I-124	4.414E-02	4.642E-01	3.418E-01	2.368E-01	NOT IDENT.
SB-124	8.681E-03	5.013E-02	4.332E-02	2.557E-02	FAIL ABUN
SB-125	-1.217E-02	6.202E-02	5.391E-02	3.164E-02	FAIL ABUN
TE-125M	-4.338E+00	7.520E+00	6.458E+00	3.836E+00	NOT IDENT.
I-126	3.063E-01	2.516E-01	1.070E-01	1.284E-01	FAIL ABUN
SB-126	4.985E-02	1.007E-01	7.888E-02	5.140E-02	FAIL ABUN
SB-127	-1.375E-01	7.484E-01	6.466E-01	3.818E-01	NOT IDENT.
XE-127	-1.872E-02	3.490E-02	3.062E-02	1.780E-02	NOT IDENT.
I-131	5.689E-02	6.836E-02	6.347E-02	3.488E-02	NOT IDENT.
TE-132	2.857E-01	3.954E-01	3.580E-01	2.017E-01	NOT IDENT.
BA-133	-9.869E-03	3.236E-02	2.323E-02	1.651E-02	NOT IDENT.
I-133	1.646E+02	1.544E+03	0.000E+00	7.878E+02	SHORT HLIF
CS-134	1.157E-01	4.973E-02	3.705E-02	2.537E-02	FAIL ABUN
CS-135	2.877E-01	1.301E-01	1.108E-01	6.638E-02	NOT IDENT.
I-135	6.413E+13	1.759E+14	0.000E+00	8.976E+13	SHORT HLIF
CS-136	1.636E-02	7.181E-02	6.308E-02	3.664E-02	FAIL ABUN
BA-137M	-6.531E-03	2.668E-02	1.974E-02	1.361E-02	NOT IDENT.
CS-137	-6.904E-03	2.820E-02	2.087E-02	1.439E-02	NOT IDENT.
CE-139	-1.170E-02	2.180E-02	1.949E-02	1.112E-02	NOT IDENT.
BA-140	-1.140E-01	1.680E-01	1.343E-01	8.573E-02	NOT IDENT.
LA-140	-5.473E-02	5.489E-02	4.123E-02	2.801E-02	FAIL ABUN
CE-141	3.715E-02	5.145E-02	4.525E-02	2.625E-02	NOT IDENT.
CE-143	3.423E+02	9.935E+01	0.000E+00	5.069E+01	SHORT HLIF
CE-144	-1.281E-01	1.770E-01	1.400E-01	9.033E-02	NOT IDENT.
PM-144	-4.032E-03	2.398E-02	2.072E-02	1.224E-02	NOT IDENT.
PR-144	-2.730E-01	1.624E+00	1.403E+00	8.287E-01	NOT IDENT.

PM-146	-1.201E-02	2.951E-02	2.516E-02	1.506E-02	NOT IDENT.
ND-147	5.550E-02	3.546E-01	3.075E-01	1.809E-01	FAIL ABUN
PM-149	-2.886E+00	4.561E+01	3.937E+01	2.327E+01	NOT IDENT.
EU-152	7.946E-03	9.101E-02	6.304E-02	4.643E-02	FAIL ABUN
GD-153	6.188E-04	7.517E-02	5.958E-02	3.835E-02	FAIL ABUN
EU-154	-7.946E-02	8.504E-02	6.607E-02	4.339E-02	NOT IDENT.
EU-155	6.115E-02	8.636E-02	7.810E-02	4.406E-02	FAIL ABUN
TB-160	-7.375E-02	9.692E-02	7.735E-02	4.945E-02	FAIL ABUN
HO-166M	1.073E-02	4.097E-02	3.622E-02	2.090E-02	NOT IDENT.
TM-171	9.680E+00	2.867E+01	2.380E+01	1.463E+01	NOT IDENT.
LU-176	-3.192E-03	2.022E-02	1.590E-02	1.031E-02	FAIL ABUN
LU-177	2.117E+00	9.718E-01	7.751E-01	4.958E-01	FAIL ABUN
LU-177M	4.017E-02	1.339E-01	1.049E-01	6.831E-02	NOT IDENT.
HF-181	1.786E-03	2.987E-02	2.601E-02	1.524E-02	NOT IDENT.
W-181	-1.207E-01	3.826E-01	3.093E-01	1.952E-01	NOT IDENT.
TA-182	5.685E-02	1.312E-01	1.148E-01	6.696E-02	FAIL ABUN
RE-183	-4.923E-03	8.097E-02	7.373E-02	4.131E-02	FAIL ABUN
RE-184	-6.307E-02	1.693E-01	1.459E-01	8.639E-02	NOT IDENT.
OS-185	1.224E-02	2.897E-02	2.505E-02	1.478E-02	NOT IDENT.
RE-188	1.306E-02	1.275E-01	1.171E-01	6.503E-02	NOT IDENT.
W-188	-1.895E+00	6.135E+00	4.544E+00	3.130E+00	FAIL ABUN
IR-192	5.384E-03	2.536E-02	2.196E-02	1.294E-02	FAIL ABUN
AU-195	3.919E-01	1.974E-01	1.781E-01	1.007E-01	FAIL ABUN
TL-200	-4.193E+01	1.320E+02	0.000E+00	6.735E+01	SHORT HLIF
TL-201	-1.369E+00	3.966E+00	3.566E+00	2.023E+00	NOT IDENT.
TL-202	9.673E-04	4.399E-02	3.859E-02	2.244E-02	NOT IDENT.
HG-203	3.723E-02	3.027E-02	2.758E-02	1.545E-02	NOT IDENT.
BI-207	1.325E-03	3.674E-02	3.181E-02	1.874E-02	FAIL ABUN
TL-207	3.022E-01	5.347E-01	4.134E-01	2.728E-01	FAIL ABUN
PO-209	-1.080E+00	5.008E+00	4.174E+00	2.555E+00	NOT IDENT.
BI-210	2.307E+00	4.595E+00	4.379E+00	2.344E+00	NOT IDENT.
PB-210	2.307E+00	4.595E+00	4.379E+00	2.344E+00	NOT IDENT.
PO-210	2.307E+00	4.594E+00	4.379E+00	2.344E+00	NOT IDENT.
PB-211	1.739E-01	7.727E-01	5.957E-01	3.942E-01	NOT IDENT.
BI-212	1.345E+00	3.611E-01	2.577E-01	1.842E-01	FAIL ABUN
PO-215	3.022E-01	5.347E-01	4.134E-01	2.728E-01	FAIL ABUN
RN-219	-1.485E-01	3.016E-01	2.525E-01	1.539E-01	FAIL ABUN
RN-220	4.241E+00	1.797E+01	1.560E+01	9.167E+00	NOT IDENT.
RA-223	3.022E-01	5.347E-01	4.134E-01	2.728E-01	FAIL ABUN
AC-227	-6.797E-03	2.868E-01	2.508E-01	1.463E-01	FAIL ABUN
TH-227	-6.797E-03	2.868E-01	2.508E-01	1.463E-01	FAIL ABUN
TH-229	1.162E-01	3.705E-01	3.366E-01	1.890E-01	FAIL ABUN
PA-231	-4.400E-01	1.094E+00	9.277E-01	5.579E-01	FAIL ABUN
TH-231	3.022E-01	5.347E-01	4.134E-01	2.728E-01	FAIL ABUN
U-231	-7.353E-01	8.279E-01	6.278E-01	4.224E-01	FAIL ABUN
PA-233	-3.856E-02	4.809E-02	3.956E-02	2.454E-02	FAIL ABUN
PA-234	-1.664E-01	2.179E-01	1.708E-01	1.112E-01	FAIL ABUN
PA-234M	4.342E+00	4.727E+00	3.122E+00	2.412E+00	FAIL ABUN
U-235	1.732E-01	1.781E-01	1.564E-01	9.085E-02	FAIL ABUN
NP-236	-1.257E-03	5.975E-02	5.454E-02	3.049E-02	NOT IDENT.
NP-239	1.240E-01	1.506E-01	1.357E-01	7.682E-02	FAIL ABUN
AM-241	5.611E-02	1.651E-01	1.387E-01	8.425E-02	NOT IDENT.
CM-243	9.258E-03	7.660E-02	6.795E-02	3.908E-02	FAIL ABUN
AM-246	9.167E-02	9.890E-02	9.048E-02	5.046E-02	NOT IDENT.
CM-247	1.462E-02	2.820E-02	2.343E-02	1.439E-02	NOT IDENT.
CF-249	4.153E-02	2.804E-02	2.652E-02	1.430E-02	NOT IDENT.
CF-251	3.897E-02	9.194E-02	8.451E-02	4.691E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	315.4310
46.50	315.4310
46.50	315.4310
48.70	352.2729
49.72	317.8092
51.35	337.0258
52.39	328.4068
52.97	331.8645
53.15	338.4608
53.44	347.0321
54.07	315.9031
56.28	367.2863
56.28	367.2903
57.37	0.0000
57.53	324.5734
57.53	324.5752
57.60	329.2794
57.98	336.2128
57.98	336.2128
59.32	337.8163
59.32	337.8163
59.40	337.9114
59.54	338.0775
59.72	339.6887
60.01	310.6479
61.10	386.2708
61.14	386.3243
61.30	386.5373
63.00	370.4044
63.29	400.9558
63.29	400.9558
63.58	401.3460
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65.20	418.7042
65.20	418.7042
66.05	418.4446
66.72	386.4359
66.83	418.0747
66.91	418.1816
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67.20	424.3076
67.75	431.9502
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68.90	455.4434
69.30	435.8162
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70.82	449.4920
70.83	449.5062
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72.87	459.1418
72.87	459.1418
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74.81	461.8318
74.81	461.8318
74.81	461.8318
74.81	461.8318
74.81	461.8318
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77.11	464.9755

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77.11	464.9755
77.11	464.9755
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79.80	405.0574
80.11	405.4143
80.18	405.4952
80.30	429.4929
80.30	429.4929
80.57	429.8225
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81.07	406.5162
81.07	406.5162
81.07	406.5162
81.07	406.5162
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83.37	465.2791
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83.78	414.6112
83.78	414.6112
83.78	414.6112
84.21	415.1006
84.90	415.8821
85.43	416.4807
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86.50	417.6844
86.54	417.7285
86.59	417.7852
86.72	417.9302
86.79	418.0058
86.94	418.1760
87.30	418.5793
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87.57	418.8797
87.88	419.2242
88.03	419.3922
88.36	419.7577
88.47	419.8796
89.95	421.5139
91.11	422.7847
92.29	424.0703
92.38	424.1690
92.38	424.1690
93.35	425.2173
94.00	425.9189
94.67	402.8719
94.67	402.8778
94.90	403.1099
94.90	403.1099
94.90	403.1099
94.90	403.1099
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95.87	446.0508
96.73	432.9900
97.43	413.4519
98.44	323.7597
98.44	323.7597
98.88	333.1884
99.55	328.2939
99.55	328.2939
99.86	371.4384
100.00	371.5648
100.10	371.6569
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103.76	341.1093
105.00	316.6792
105.31	338.1068
108.00	379.6624
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111.00	375.7985
111.76	388.2649
112.95	368.7988
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116.30	357.3797
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117.00	320.9292
117.66	338.8148
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121.62	370.2204
121.78	370.3438
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122.32	323.4511
122.32	323.4511
122.32	323.4511
122.32	323.4511
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136.25	335.9408
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144.24	397.2608
144.24	397.2608
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145.44	398.1337
147.16	424.7663
152.43	374.0069
152.70	355.5324
153.22	346.5242
154.21	360.2710
154.21	360.2710
154.21	360.2710
154.21	360.2710
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162.64	358.3684
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163.89	360.0067
165.85	362.9629
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171.86	339.4362
172.10	337.7591
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176.60	318.3438
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209.75	329.9643
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227.20	303.8842
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228.18	286.6559
228.18	286.6559
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236.00	301.9535
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238.63	281.5299
238.63	281.5299
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241.98	282.6913
241.98	282.6913
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252.85	264.2208
254.15	0.0000
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256.20	271.3380
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268.24	210.2344
268.79	218.5830
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269.46	225.1186
269.46	225.1186
269.46	225.1186
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281.68	289.6441
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293.26	0.0000
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295.21	214.7776

295.21	214.7776
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297.23	194.8907
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300.09	192.0697
300.09	192.0697
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303.91	228.6539
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304.40	230.4756
304.84	227.1650
306.84	232.4720
308.46	191.7826
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319.41	220.9554
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323.87	189.7175
323.87	189.7175
323.87	189.7175
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334.30	208.7547
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338.28	224.9740
338.28	224.9740
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338.32	224.9833
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351.92	177.5600
351.92	177.5600
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366.43	141.1770
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388.63	171.5459
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391.69	189.5499
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445.03	156.1940
445.03	156.1940
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475.35	154.7347
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511.00	156.5335
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513.99	121.4268
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529.87	0.0000
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537.32	134.5788
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546.56	0.0000
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555.20	124.6670
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563.90	149.3575
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569.32	113.1759
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569.67	119.4885
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574.00	137.6651
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592.07	146.5879
593.00	147.7282
595.88	134.1396
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602.71	151.4166
602.71	151.4166
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604.70	133.7555
609.31	132.3214

609.31	132.3214
609.31	132.3214
609.31	132.3214
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621.84	117.7764
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661.65	115.1675
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666.33	110.7080
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696.49	132.1387
697.00	135.9227
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756.87	89.7853
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766.84	111.4104
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778.57	122.0545
778.89	122.0723
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792.07	122.8158

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896.60	87.2810
898.02	89.3878
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903.28	89.5789
911.07	102.2589
911.07	102.2589
911.07	102.2589
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935.52	104.3070
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946.00	102.6436
949.00	68.1606
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968.20	75.0070
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969.11	75.0345
969.11	75.0345
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1038.76	0.0000
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1046.59	95.0914
1048.07	89.5446

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1063.62	90.0402
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1078.86	75.4381
1085.78	95.4695
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1112.84	103.5162
1115.52	123.6646
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1120.29	87.0391
1120.29	87.0391
1120.29	87.0391
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1129.67	80.5986
1131.51	0.0000
1147.95	0.0000
1167.94	90.3695
1173.22	74.9509
1175.09	75.9706
1177.93	82.8655
1189.05	89.0322
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1213.00	98.5875
1221.42	92.9148
1230.97	97.1592
1235.34	104.2419
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1274.54	85.4032
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1298.22	0.0000
1312.09	60.9626
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1325.50	67.3213
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1333.61	55.2110
1360.21	43.2715
1362.66	0.0000
1365.15	57.7773
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1368.53	0.0000
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1384.27	71.5750
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1395.20	55.1461
1407.95	59.5168
1434.06	36.8079
1436.60	42.0954
1457.56	0.0000
1460.81	37.0740
1489.15	50.1604
1509.49	27.2256
1596.49	47.0261
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1691.02	24.5453
1691.02	24.5453
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1750.46	0.0000
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1764.49	23.0773
1764.49	23.0773
1764.49	23.0773
1770.23	14.2196
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1808.65	19.1600

1836.01	25.3624

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395013

Total Uranium Activity	9.2591E+00	ug/g
Total Uranium Counting Unc.	5.0820E+00	ug/g
Total Uranium Tpu	2.5929E-06	ug/g
Total Uranium Mda	3.2963E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944966                    SAMPLE ID   : G245395013      *
*   ANALYST       : MXR1                      DETECTOR    : GAM18           *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  2-FEB-2010 09:26:45.71    SAMPLE ALQT:  145.340 GRAM    *
*                                                                           *
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        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.886E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.112E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.434E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.181E+00
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VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:28:19.18

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395014.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:27:14.
Sample ID         : G245395014           Sample quantity  : 1.69810E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.32*	4572	3216	1.24	126.51	121	13	6.35E-01	3.0	
2	2	74.86	501	2807	1.62	149.56	143	16	6.96E-02	20.6	1.15E+00
3	2	77.30	520	2445	1.44	154.45	143	16	7.22E-02	18.2	
4	0	83.88*	193	2573	0.95	167.59	165	8	2.68E-02	46.1	
5	0	92.67*	12364	3909	1.37	185.15	177	16	1.72E+00	1.5	
6	0	98.59	859	1290	1.27	196.99	193	9	1.19E-01	8.3	
7	0	112.35*	754	1666	1.25	224.49	218	11	1.05E-01	11.1	
8	0	143.52*	353	923	1.35	286.77	282	10	4.90E-02	17.1	
9	0	163.08	205	749	1.41	325.86	322	10	2.85E-02	25.9	
10	0	185.75*	2034	742	1.25	371.18	366	12	2.82E-01	3.5	
11	0	205.32	102	602	1.18	410.28	403	10	1.42E-02	46.1	
12	2	238.56*	1157	337	1.39	476.73	471	16	1.61E-01	4.1	3.83E-01
13	2	241.39	228	392	1.68	482.38	471	16	3.16E-02	21.2	
14	0	258.25	156	314	1.45	516.07	511	10	2.17E-02	22.8	
15	0	270.01	113	322	1.43	539.57	535	10	1.58E-02	31.0	
16	0	295.00*	346	336	1.56	589.52	583	12	4.81E-02	12.0	
17	0	300.21	72	210	1.33	599.94	596	8	1.01E-02	36.7	
18	0	327.64	77	244	1.30	654.76	651	11	1.08E-02	40.4	
19	0	338.26	224	247	1.33	675.99	671	10	3.11E-02	14.7	
20	0	351.78*	518	256	1.17	703.02	696	11	7.19E-02	7.5	
21	0	510.56*	148	212	2.12	1020.43	1012	18	2.06E-02	26.6	
22	0	568.60*	209	204	2.54	1136.46	1128	20	2.90E-02	18.5	
23	0	583.32*	327	158	1.50	1165.89	1160	14	4.54E-02	10.1	
24	0	609.40*	440	128	1.62	1218.02	1212	15	6.12E-02	7.5	
25	0	661.92*	53	196	1.44	1323.04	1315	16	7.40E-03	60.5	
26	0	727.59	121	99	1.87	1454.34	1448	14	1.69E-02	19.5	
27	0	743.27	92	101	1.16	1485.71	1481	11	1.27E-02	23.7	
28	0	766.48	365	162	1.84	1532.12	1523	18	5.07E-02	9.7	
29	0	787.40	107	132	6.21	1573.95	1565	19	1.48E-02	27.6	
30	0	861.03	68	81	1.59	1721.18	1715	14	9.45E-03	30.5	
31	0	911.56*	267	79	1.61	1822.24	1815	16	3.70E-02	9.7	
32	3	964.99	61	65	2.27	1929.10	1920	25	8.46E-03	31.3	1.90E+00
33	3	969.11	127	53	1.90	1937.34	1920	25	1.76E-02	14.5	
34	0	1001.28*	657	87	1.70	2001.68	1994	17	9.12E-02	5.1	
35	0	1120.50	101	49	2.31	2240.14	2235	12	1.40E-02	17.3	
36	0	1378.28	48	11	3.79	2755.85	2749	15	6.60E-03	21.2	
37	0	1461.10*	1182	21	1.92	2921.55	2913	17	1.64E-01	3.1	
38	0	1509.37	27	6	1.25	3018.15	3012	11	3.68E-03	25.9	

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1765.25*	75	25	2.00	3530.23	3519	20	1.04E-02	20.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:28:22

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395014.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:27:14
Sample ID : G245395014 Sample quantity : 169.81 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.37 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.096E+01	2.020E+00	4.413E-01	3.287E-02	47.503
NB-95	+	765.79	*	4.629E-01	9.567E-02	6.386E-02	4.512E-03	7.249
BA-137M	+	661.65	*	5.697E-02	6.904E-02	5.050E-02	2.941E-03	1.128
CS-137	+	661.65	*	6.023E-02	7.299E-02	5.339E-02	3.122E-03	1.128
TL-208		277.35		-1.001E-01	3.537E-01	5.893E-01	6.218E-02	-0.170
	+	510.84		5.326E-01	2.882E-01	2.053E-01	2.096E-02	2.594
	+	583.14	*	3.361E-01	7.158E-02	5.497E-02	3.738E-03	6.114
	+	860.37		6.578E-01	4.056E-01	3.860E-01	3.456E-02	1.704
BI-211		72.87		1.271E+01	5.718E+00	8.485E+00	6.648E-01	1.498
	+	351.07	*	2.334E+00	3.786E-01	3.087E-01	1.971E-02	7.563
PB-212	+	74.81		2.040E+00	8.780E-01	9.041E-01	1.109E-01	2.256
	+	77.11		1.200E+00	4.472E-01	5.145E-01	4.156E-02	2.333
		87.30		3.920E-02	1.078E+00	1.117E+00	1.494E-01	0.035
	+	238.63	*	1.143E+00	1.246E-01	9.040E-02	6.524E-03	12.646
	+	300.09		1.103E+00	8.139E-01	1.162E+00	9.595E-02	0.949
PO-212	+	74.81		2.040E+00	8.780E-01	9.041E-01	1.109E-01	2.256
	+	77.11		1.200E+00	4.472E-01	5.145E-01	4.156E-02	2.333
		87.30		3.920E-02	1.078E+00	1.117E+00	1.494E-01	0.035
		115.19		1.675E+01	5.768E+00	8.801E+00	5.603E-01	1.903
	+	238.63	*	1.143E+00	1.246E-01	9.040E-02	6.524E-03	12.646
	+	300.09		1.103E+00	8.139E-01	1.162E+00	9.595E-02	0.949
BI-214	+	609.31	*	8.533E-01	1.452E-01	9.833E-02	7.731E-03	8.678
	+	1120.29		1.012E+00	3.622E-01	4.020E-01	3.677E-02	2.518
	+	1764.49		1.020E+00	4.194E-01	2.564E-01	1.554E-02	3.978
PB-214	+	74.81		3.514E+00	1.500E+00	1.558E+00	1.691E-01	2.256
	+	77.11		2.058E+00	7.825E-01	8.820E-01	9.794E-02	2.333
		87.30		6.715E-02	1.847E+00	1.913E+00	2.252E-01	0.035
	+	241.98		1.351E+00	5.836E-01	5.203E-01	4.149E-02	2.597
	+	295.21		9.239E-01	2.348E-01	2.019E-01	1.724E-02	4.575
	+	351.92	*	8.121E-01	1.384E-01	1.029E-01	8.487E-03	7.889
PO-214	+	74.81		3.514E+00	1.500E+00	1.558E+00	1.691E-01	2.256
	+	77.11		2.058E+00	7.825E-01	8.820E-01	9.794E-02	2.333
		87.30		6.715E-02	1.847E+00	1.913E+00	2.252E-01	0.035
	+	241.98		1.351E+00	5.836E-01	5.203E-01	4.149E-02	2.597

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		9.239E-01	2.348E-01	2.019E-01	1.724E-02	4.575
	+	351.92	*	8.121E-01	1.384E-01	1.029E-01	8.487E-03	7.889
PO-216	+	74.81		2.040E+00	8.780E-01	9.041E-01	1.109E-01	2.256
	+	77.11		1.200E+00	4.472E-01	5.145E-01	4.156E-02	2.333
		87.30		3.920E-02	1.078E+00	1.117E+00	1.494E-01	0.035
	+	238.63	*	1.143E+00	1.246E-01	9.040E-02	6.524E-03	12.646
	+	300.09		1.103E+00	8.139E-01	1.162E+00	9.595E-02	0.949
PO-218	+	74.81		3.514E+00	1.500E+00	1.558E+00	1.691E-01	2.256
	+	77.11		2.058E+00	7.825E-01	8.820E-01	9.794E-02	2.333
		87.30		6.715E-02	1.847E+00	1.913E+00	2.252E-01	0.035
	+	241.98		1.351E+00	5.836E-01	5.203E-01	4.149E-02	2.597
	+	295.21		9.239E-01	2.348E-01	2.019E-01	1.724E-02	4.575
	+	351.92	*	8.121E-01	1.384E-01	1.029E-01	8.487E-03	7.889
RA-224	+	240.98	*	2.562E+00	1.097E+00	1.028E+00	5.826E-02	2.492
RA-226	+	609.31	*	8.533E-01	1.452E-01	9.833E-02	7.731E-03	8.678
	+	1120.29		1.012E+00	3.622E-01	4.020E-01	3.677E-02	2.518
	+	1764.49		1.020E+00	4.194E-01	2.564E-01	1.554E-02	3.978
AC-228	+	338.32		1.113E+00	5.601E-01	3.598E-01	1.467E-01	3.094
	+	911.07	*	1.219E+00	2.731E-01	1.768E-01	2.000E-02	6.896
	+	969.11		1.021E+00	3.783E-01	2.904E-01	6.732E-02	3.515
RA-228	+	338.32		1.113E+00	5.601E-01	3.598E-01	1.467E-01	3.094
	+	911.07	*	1.219E+00	2.731E-01	1.768E-01	2.000E-02	6.896
	+	969.11		1.021E+00	3.783E-01	2.904E-01	6.732E-02	3.515
TH-228	+	74.81		2.068E+00	8.693E-01	9.167E-01	7.350E-02	2.256
	+	77.11		1.217E+00	4.534E-01	5.217E-01	4.214E-02	2.333
		87.30		3.974E-02	1.093E+00	1.132E+00	1.007E-01	0.035
	+	238.63	*	1.159E+00	1.263E-01	9.166E-02	6.615E-03	12.646
	+	300.09		1.118E+00	1.052E+00	1.178E+00	6.942E-01	0.949
TH-230	+	609.31	*	8.533E-01	1.452E-01	9.833E-02	7.731E-03	8.678
	+	1120.29		1.012E+00	3.622E-01	4.019E-01	3.677E-02	2.518
	+	1764.49		1.020E+00	4.194E-01	2.564E-01	1.554E-02	3.978
TH-232	+	338.32		1.113E+00	3.345E-01	3.598E-01	2.080E-02	3.094
	+	911.07	*	1.219E+00	2.731E-01	1.768E-01	2.000E-02	6.896
	+	969.11		1.021E+00	3.783E-01	2.904E-01	6.732E-02	3.515
PA-234M	+	766.42		1.242E+02	6.717E+01	1.714E+01	8.656E+00	7.243
	+	1001.03	*	1.075E+02	1.483E+01	6.315E+00	5.878E-01	17.032
TH-234	+	63.29	*	7.329E+01	1.355E+01	3.343E+00	5.849E-01	21.922
	+	92.38		7.915E+01	1.439E+01	1.527E+00	2.742E-01	51.836
U-234	+	609.31	*	8.533E-01	1.452E-01	9.833E-02	7.731E-03	8.678
	+	1120.29		1.012E+00	3.622E-01	4.019E-01	3.677E-02	2.518
	+	1764.49		1.020E+00	4.194E-01	2.564E-01	1.554E-02	3.978
U-235		89.95		1.852E+01	6.310E+00	4.030E+00	1.244E+00	4.595
	+	93.35		9.516E+01	2.672E+01	1.824E+00	5.091E-01	52.170
		105.00		-5.813E-01	1.519E+00	2.357E+00	6.939E-01	-0.247
	+	143.76	*	1.119E+00	4.231E-01	4.179E-01	6.776E-02	2.676
	+	163.35		1.529E+00	8.374E-01	9.008E-01	1.605E-01	1.698
	+	185.71		1.415E+00	1.252E-01	7.716E-02	4.123E-03	18.334
	+	205.31		8.659E-01	8.131E-01	9.936E-01	1.777E-01	0.871
U-238	+	63.29	*	7.329E+01	1.355E+01	3.343E+00	5.849E-01	21.922

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		7.915E+01	6.972E+00	1.527E+00	1.275E-01	51.836
AM-243	+	74.67	*	3.307E-01	1.389E-01	1.470E-01	1.166E-02	2.250
		86.72		8.928E-02	2.580E+01	2.670E+01	2.360E+00	0.003
		117.66		-4.704E+00	5.439E+00	7.967E+00	4.950E-01	-0.590
	+	142.18		9.396E+01	3.253E+01	3.540E+01	1.971E+00	2.654
ANH-511	+	511.00	*	1.150E-01	6.152E-02	4.436E-02	2.618E-03	2.593

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.615E-02	3.112E-01	5.129E-01	3.481E-02	-0.051
NA-22		1274.54	*	6.238E-03	3.488E-02	5.889E-02	3.928E-03	0.106
NA-24		1368.53	*	-1.724E-02	3.488E-02	Half-Life too short		
AL-26		1129.67		6.415E-01	1.427E+00	2.468E+00	1.523E-01	0.260
		1808.65	*	-6.013E-03	2.508E-02	3.907E-02	2.281E-03	-0.154
TI-44		67.85		-1.681E-01	9.975E-02	1.141E-01	8.706E-03	-1.474
	+	78.38	*	2.215E-01	8.252E-02	1.009E-01	8.233E-03	2.196
SC-46		889.25	*	-2.052E-02	3.393E-02	5.166E-02	4.489E-03	-0.397
	+	1120.51		1.715E-01	6.033E-02	9.677E-02	6.104E-03	1.772
V-48		944.10		2.740E-01	7.136E-01	1.188E+00	1.001E-01	0.231
		983.50	*	2.129E-02	5.463E-02	9.102E-02	7.318E-03	0.234
		1312.09		-4.705E-02	5.868E-02	8.834E-02	6.287E-03	-0.533
CR-51		320.08	*	3.341E-01	3.334E-01	5.818E-01	3.765E-02	0.574
MN-52	+	744.21		6.072E-01	2.912E-01	4.249E-01	2.889E-02	1.429
		848.13		-3.100E+00	5.361E+00	8.247E+00	6.706E-01	-0.376
		935.52		9.795E-02	1.825E-01	3.006E-01	2.556E-02	0.326
		1246.25		-5.753E-01	5.079E+00	8.362E+00	5.285E-01	-0.069
		1333.61		-1.237E+00	3.317E+00	5.254E+00	3.871E-01	-0.236
		1434.06	*	5.278E-02	1.484E-01	2.567E-01	1.852E-02	0.206
MN-54		834.83	*	-4.505E-03	3.370E-02	5.397E-02	4.293E-03	-0.083
CO-56		846.75	*	8.427E-03	3.519E-02	5.799E-02	4.705E-03	0.145
		977.42		-1.589E+00	2.607E+00	3.652E+00	2.959E-01	-0.435
		1037.82		-1.854E-03	2.399E-01	4.020E-01	3.198E-02	-0.005
		1175.09		9.658E-02	1.802E+00	3.017E+00	1.660E-01	0.032
		1238.25		5.080E-02	7.159E-02	1.250E-01	8.213E-03	0.406
		1360.21		3.665E-01	7.288E-01	1.279E+00	9.387E-02	0.286
		1771.40		1.121E-01	1.696E-01	2.838E-01	1.710E-02	0.395
CO-57		122.06	*	-2.728E-02	3.228E-02	5.123E-02	3.057E-03	-0.532
		136.48		-9.430E-02	2.597E-01	4.176E-01	2.757E-02	-0.226
CO-58		810.76	*	-5.018E-02	3.382E-02	4.721E-02	3.617E-03	-1.063
FE-59	+	142.65		1.416E+01	4.901E+00	6.366E+00	3.540E-01	2.224
		192.34		-8.886E-01	1.107E+00	1.584E+00	1.839E-01	-0.561
		1099.22	*	-4.550E-02	7.025E-02	1.105E-01	8.292E-03	-0.412
		1291.56		-6.214E-02	9.143E-02	1.403E-01	1.162E-02	-0.443
CO-60		1173.22		-1.261E-02	3.824E-02	6.157E-02	3.374E-03	-0.205
		1332.49	*	-1.185E-02	3.072E-02	4.864E-02	3.584E-03	-0.244
ZN-65		1115.52	*	5.073E-02	8.018E-02	1.242E-01	7.938E-03	0.409
GE-68		1077.35	*	8.738E-01	9.635E-01	1.735E+00	1.200E-01	0.504

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	4.347E-01	1.288E+00	2.140E+00	1.583E-01	0.203
AS-74		595.88	*	-2.073E-02	8.139E-02	1.314E-01	7.787E-03	-0.158
		634.78		-1.124E-01	3.182E-01	5.086E-01	2.989E-02	-0.221
SE-75		66.05		1.087E+01	8.675E+00	1.277E+01	1.226E+00	0.851
		96.73		8.360E+00	2.174E+00	2.302E+00	3.028E-01	3.632
		121.11		-1.832E-02	1.705E-01	2.762E-01	2.587E-02	-0.066
		136.00		-4.288E-02	4.878E-02	7.728E-02	4.451E-03	-0.555
		198.60		-7.209E-01	2.272E+00	3.143E+00	2.145E-01	-0.229
		264.65	*	-1.856E-03	5.413E-02	6.963E-02	4.049E-03	-0.027
		279.53		-6.907E-02	1.012E-01	1.657E-01	1.038E-02	-0.417
		303.91		-1.871E-01	2.207E+00	3.212E+00	3.068E-01	-0.058
		400.65		-6.482E-03	2.328E-01	3.872E-01	3.477E-02	-0.017
BR-77		87.88		8.530E+01	3.575E+02	3.726E+02	3.335E+01	0.229
		200.40		1.272E+01	1.464E+02	2.062E+02	1.121E+01	0.062
	+	239.00		1.285E+02	1.276E+01	2.097E+01	1.187E+00	6.127
		249.79		-2.719E+01	4.803E+01	7.488E+01	4.270E+00	-0.363
		281.68		-2.450E+01	5.973E+01	9.894E+01	5.734E+00	-0.248
		297.23		1.097E+02	6.284E+01	7.211E+01	4.192E+00	1.521
		303.76		-1.743E+01	1.323E+02	1.920E+02	1.117E+01	-0.091
		439.47		1.711E+01	9.334E+01	1.565E+02	8.984E+00	0.109
		484.57		-7.904E+01	1.485E+02	2.379E+02	1.394E+01	-0.332
		520.65	*	-4.008E+00	6.399E+00	1.012E+01	5.986E-01	-0.396
		574.64		-1.592E+02	1.595E+02	2.059E+02	1.222E+01	-0.773
		578.91		3.460E+01	6.663E+01	9.396E+01	5.575E+00	0.368
		585.48		5.098E+02	1.481E+02	2.544E+02	1.509E+01	2.004
		755.35		2.824E+01	1.094E+02	1.811E+02	1.256E+01	0.156
		817.79		7.538E+01	8.311E+01	1.440E+02	1.113E+01	0.523
SR-82		698.33		1.404E+01	3.205E+01	5.369E+01	3.354E+00	0.262
		776.49	*	-4.149E-01	3.536E-01	5.215E-01	3.755E-02	-0.796
		1395.20		-1.380E-02	7.474E+00	1.235E+01	8.997E-01	-0.001
RB-83		520.41	*	-4.427E-02	6.062E-02	9.526E-02	5.632E-03	-0.465
		529.64		-1.480E-02	9.534E-02	1.557E-01	9.219E-03	-0.095
		552.65		-8.242E-02	1.806E-01	2.886E-01	1.712E-02	-0.286
RB-84		881.50	*	7.368E-02	6.272E-02	1.103E-01	9.463E-03	0.668
KR-85		513.99	*	1.425E+01	7.301E+00	1.193E+01	7.043E-01	1.195
SR-85		513.99	*	7.215E-02	3.696E-02	6.038E-02	3.565E-03	1.195
RB-86		1076.63	*	4.822E-01	5.950E-01	1.063E+00	7.364E-02	0.454
Y-88		898.02		-2.118E-03	3.627E-02	5.819E-02	5.151E-03	-0.036
		1836.01	*	-1.254E-02	2.682E-02	3.966E-02	2.264E-03	-0.316
ZR-88		392.90	*	-1.524E-02	2.919E-02	4.741E-02	2.640E-03	-0.321
Y-91		1204.90	*	1.097E+00	1.468E+01	2.459E+01	1.436E+00	0.045
NB-94		702.63	*	-9.374E-03	3.217E-02	5.145E-02	3.240E-03	-0.182
		871.10		9.171E-03	2.844E-02	4.725E-02	3.989E-03	0.194
NB-95M		235.69	*	3.084E-01	1.473E-01	2.234E-01	1.655E-02	1.381
ZR-95		724.18		4.645E-02	9.343E-02	1.379E-01	1.035E-02	0.337
		756.15	*	3.530E-02	6.503E-02	1.097E-01	8.781E-03	0.322
NB-97		657.90	*	-6.601E-03	6.503E-02	Half-Life too short		
		1024.50		-7.143E-02	6.503E-02	Half-Life too short		
ZR-97		254.15		4.481E-01	6.503E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		355.39		-3.934E-01	6.503E-02	Half-Life too short		
		507.63	*	8.773E-01	6.503E-02	Half-Life too short		
		602.52		-5.086E-01	6.503E-02	Half-Life too short		
		1021.30		-1.764E+00	6.503E-02	Half-Life too short		
		1147.95		6.624E-02	6.503E-02	Half-Life too short		
		1362.66		7.185E-01	6.503E-02	Half-Life too short		
		1750.46		1.004E-01	6.503E-02	Half-Life too short		
MO-99		140.51		1.096E+01	2.763E+01	3.953E+01	1.063E+01	0.277
		181.06		2.105E+00	1.641E+01	2.322E+01	3.944E+00	0.091
		366.43		4.270E+01	6.059E+01	1.043E+02	5.938E+00	0.409
		739.58	*	1.332E+01	9.456E+00	1.483E+01	2.107E+00	0.898
		778.00		-1.520E+01	2.407E+01	3.600E+01	2.599E+00	-0.422
TC-99M		140.51	*	7.382E+08	2.407E+01	Half-Life too short		
RH-101		127.23		2.950E-02	4.045E-02	6.689E-02	3.904E-03	0.441
		198.01	*	-2.618E-02	3.985E-02	5.757E-02	3.123E-03	-0.455
		325.23		-1.355E-01	2.260E-01	3.166E-01	1.838E-02	-0.428
RH-102		418.52		-2.625E-01	2.691E-01	4.241E-01	2.405E-02	-0.619
		475.06	*	2.535E-03	2.807E-02	4.669E-02	2.725E-03	0.054
		631.29		6.312E-02	5.043E-02	8.904E-02	5.238E-03	0.709
		697.49		1.781E-02	7.589E-02	1.223E-01	7.628E-03	0.146
	+	766.84		1.179E+00	2.437E-01	3.184E-01	2.254E-02	3.703
		1046.59		-2.738E-02	9.370E-02	1.531E-01	1.120E-02	-0.179
		1112.84		-7.762E-02	1.933E-01	2.967E-01	1.905E-02	-0.262
RU-103		497.08	*	-4.225E-03	3.509E-02	5.757E-02	7.301E-03	-0.073
	+	610.33		9.018E+00	1.948E+00	2.176E+00	3.364E-01	4.144
RH-106	+	511.85		5.733E-01	3.066E-01	3.535E-01	2.086E-02	1.622
		621.84	*	1.480E-01	2.977E-01	5.025E-01	5.923E-02	0.294
		1050.47		-9.434E-02	1.737E+00	2.896E+00	2.106E-01	-0.033
RU-106	+	511.85		5.733E-01	3.066E-01	3.535E-01	2.086E-02	1.622
		621.84	*	1.480E-01	2.973E-01	5.025E-01	2.963E-02	0.294
		1050.47		-9.434E-02	1.737E+00	2.896E+00	2.106E-01	-0.033
AG-108M		433.93	*	-1.365E-02	3.007E-02	4.870E-02	3.033E-03	-0.280
		614.37		-1.546E-03	3.827E-02	5.409E-02	3.457E-03	-0.029
		722.95		1.390E-02	3.969E-02	5.794E-02	4.044E-03	0.240
CD-109		88.03	*	9.238E-01	2.360E+00	2.472E+00	2.214E-01	0.374
AG-110M		657.75	*	-5.338E-03	3.804E-02	5.307E-02	3.293E-03	-0.101
		677.61		2.172E-01	2.741E-01	4.718E-01	2.995E-02	0.460
		706.67		-5.081E-02	1.901E-01	3.040E-01	2.026E-02	-0.167
		763.93		9.847E-01	2.328E-01	4.061E-01	2.981E-02	2.424
		884.67		-3.720E-03	4.541E-02	7.278E-02	6.480E-03	-0.051
		937.48		3.310E-02	8.874E-02	1.478E-01	1.301E-02	0.224
		1384.27		1.392E-01	1.191E-01	2.076E-01	1.575E-02	0.671
IN-111		171.28		-4.219E-01	8.599E-01	1.367E+00	7.176E-02	-0.309
		245.39	*	7.431E-01	8.867E-01	1.293E+00	7.352E-02	0.575
IN-113M		391.69	*	-2.976E-02	4.163E-02	6.688E-02	3.990E-03	-0.445
SN-113		391.69	*	-2.976E-02	4.163E-02	6.688E-02	3.990E-03	-0.445
IN-114M		190.27	*	-2.842E-02	2.124E-01	2.966E-01	1.594E-02	-0.096
CD-115		260.90		-7.534E+00	1.053E+02	1.458E+02	8.374E+00	-0.052
		492.35		1.915E-01	2.299E+01	3.803E+01	2.233E+00	0.005

---- Non-Identified Nuclides ----

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		527.90	*	-1.343E+00	6.847E+00	1.116E+01	6.603E-01	-0.120
SN-117M		156.02		3.571E-01	2.508E+00	4.075E+00	2.184E-01	0.088
		158.56	*	2.595E-02	7.011E-02	1.005E-01	5.351E-03	0.258
SB-122		563.90	*	2.854E+00	1.513E+00	2.497E+00	1.482E-01	1.143
		692.80		-3.878E+00	2.985E+01	4.827E+01	2.984E+00	-0.080
I-123		159.00	*	4.631E-01	2.985E+01	Half-Life too short		
		528.96		-2.187E+01	2.985E+01	Half-Life too short		
TE-123M		159.00	*	1.070E-02	3.835E-02	5.480E-02	2.959E-03	0.195
I-124		602.71	*	4.831E-02	5.497E-01	7.871E-01	4.658E-02	0.061
		722.78		1.295E+00	3.392E+00	4.967E+00	3.248E-01	0.261
		1325.50		-1.904E+00	2.209E+01	3.626E+01	2.641E+00	-0.053
		1376.25		2.341E+01	2.061E+01	3.477E+01	2.543E+00	0.673
	+	1509.49		1.780E+01	9.306E+00	1.838E+01	1.293E+00	0.968
		1691.02		4.389E-01	1.899E+00	3.264E+00	2.088E-01	0.134
SB-124		602.71		3.391E-03	3.859E-02	5.525E-02	3.271E-03	0.061
		645.85		3.757E-02	4.564E-01	7.509E-01	4.952E-02	0.050
		709.31		-1.638E-01	2.553E+00	4.143E+00	2.642E-01	-0.040
		713.82		2.749E-01	1.522E+00	2.511E+00	2.657E-01	0.109
		722.78		1.318E-01	3.451E-01	5.054E-01	3.428E-02	0.261
	+	968.20		1.036E+01	3.113E+00	5.347E+00	4.382E-01	1.938
		1045.16		2.493E-01	1.963E+00	3.325E+00	2.439E-01	0.075
		1325.50		-2.070E-01	2.401E+00	3.941E+00	2.870E-01	-0.053
		1368.21		-2.103E-01	1.250E+00	2.022E+00	2.565E-01	-0.104
		1436.60		-3.721E-01	2.795E+00	4.529E+00	3.264E-01	-0.082
		1691.02	*	1.053E-02	4.558E-02	7.833E-02	5.365E-03	0.134
SB-125		427.89	*	1.785E-03	8.598E-02	1.430E-01	8.516E-03	0.012
		463.38		5.609E-01	2.715E-01	4.903E-01	3.320E-02	1.144
		600.56		-1.823E-02	1.606E-01	2.617E-01	1.783E-02	-0.070
		635.90		-1.976E-01	2.531E-01	3.915E-01	2.684E-02	-0.505
TE-125M		109.28	*	2.688E+01	1.569E+01	2.323E+01	2.052E+00	1.157
I-126		388.63		1.434E-02	1.771E-01	2.963E-01	1.654E-02	0.048
		666.33	*	2.350E-03	1.760E-01	2.490E-01	1.463E-02	0.009
		753.82		2.274E-01	1.295E+00	2.132E+00	1.475E-01	0.107
SB-126		223.80		-2.649E+00	4.000E+00	6.250E+00	3.488E-01	-0.424
		278.60		-1.822E-01	2.181E+00	3.661E+00	2.119E-01	-0.050
		296.50		6.546E+00	2.254E+00	2.773E+00	1.612E-01	2.361
		414.70		-1.572E-02	6.407E-02	1.052E-01	5.952E-03	-0.149
		415.30		-2.744E+00	5.312E+00	8.591E+00	4.862E-01	-0.319
		555.20		1.994E+00	3.275E+00	5.598E+00	3.322E-01	0.356
		573.80		-1.498E-02	1.007E+00	1.431E+00	8.495E-02	-0.010
		593.00		-4.220E-01	8.090E-01	1.283E+00	7.603E-02	-0.329
		656.30		-1.459E+00	3.521E+00	4.784E+00	2.792E-01	-0.305
		666.33		9.793E-04	7.334E-02	1.038E-01	6.098E-03	0.009
		675.00		4.244E-01	1.729E+00	2.871E+00	1.715E-01	0.148
		695.00		-5.917E-02	7.318E-02	1.098E-01	6.817E-03	-0.539
		697.00		1.089E-01	2.459E-01	4.012E-01	2.500E-02	0.271
		720.50	*	-9.524E-03	1.336E-01	1.959E-01	1.275E-02	-0.049
		856.80		-8.996E-02	4.426E-01	6.017E-01	4.963E-02	-0.150
		989.30		-7.089E-01	9.742E-01	1.445E+00	1.153E-01	-0.491

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		1034.80		4.954E-01	6.311E+00	1.066E+01	7.953E-01	0.046
		1213.00		-1.234E+00	3.371E+00	5.434E+00	3.224E-01	-0.227
SN-126	+	64.28		2.901E+01	4.575E+00	2.259E+00	3.299E-01	12.841
		86.94		-2.053E-02	9.720E-01	1.005E+00	4.161E-01	-0.020
		87.57	*	2.531E-02	2.327E-01	2.416E-01	2.155E-02	0.105
SB-127		61.10		1.003E+03	1.382E+02	1.637E+02	1.630E+01	6.129
		252.40		2.213E+00	4.147E+00	5.810E+00	2.408E+00	0.381
		290.80		1.588E+01	1.731E+01	2.665E+01	2.326E+00	0.596
		411.60		2.634E+00	9.026E+00	1.522E+01	2.137E+00	0.173
		444.90		1.205E+00	7.395E+00	1.238E+01	1.287E+00	0.097
		473.00		5.916E-01	1.276E+00	2.163E+00	2.344E-01	0.273
		543.00		2.913E+00	1.219E+01	2.036E+01	2.578E+00	0.143
		603.60		-2.691E+00	9.383E+00	1.296E+01	1.356E+00	-0.208
		685.20	*	-4.782E-01	1.020E+00	1.609E+00	1.481E-01	-0.297
		698.50		5.315E+00	1.188E+01	1.987E+01	2.860E+00	0.267
		722.20		-4.215E+00	2.380E+01	3.285E+01	3.031E+00	-0.128
		783.80		3.061E+00	3.226E+00	4.910E+00	5.496E-01	0.623
XE-127		57.60		9.144E+00	1.096E+01	1.615E+01	1.210E+00	0.566
		145.22		3.436E+00	1.013E+00	1.566E+00	8.641E-02	2.194
		172.10		-9.643E-02	1.343E-01	2.119E-01	1.113E-02	-0.455
		202.84	*	2.692E-02	5.931E-02	8.484E-02	4.628E-03	0.317
		374.96		1.392E-01	1.784E-01	3.085E-01	1.744E-02	0.451
I-131		80.18		-2.692E+00	1.097E+01	1.127E+01	9.397E-01	-0.239
		284.30		7.514E-01	1.259E+00	2.167E+00	1.395E-01	0.347
		364.48	*	3.398E-02	1.000E-01	1.696E-01	1.081E-02	0.200
		636.97		-8.019E-01	1.298E+00	2.033E+00	1.331E-01	-0.394
		722.89		2.175E+00	6.020E+00	8.798E+00	5.807E-01	0.247
TE-132		49.72		-2.800E+01	2.184E+01	3.500E+01	3.282E+00	-0.800
	+	111.76		2.550E+02	6.107E+01	7.046E+01	6.312E+00	3.619
		116.30		3.198E+01	3.226E+01	4.732E+01	4.137E+00	0.676
		228.16	*	4.415E-01	5.698E-01	9.331E-01	1.311E-01	0.473
BA-133		53.15		3.937E+00	5.585E+00	9.328E+00	6.889E-01	0.422
		79.62		1.601E+00	3.392E+00	3.571E+00	5.363E-01	0.448
		81.00		8.360E-02	2.563E-01	2.686E-01	4.226E-02	0.311
		276.40		1.370E-01	3.714E-01	6.002E-01	7.777E-02	0.228
		302.84		4.360E-02	1.519E-01	2.258E-01	2.634E-02	0.193
		356.01	*	1.692E-02	4.434E-02	6.609E-02	7.618E-03	0.256
		383.85		5.102E-02	2.771E-01	4.662E-01	5.021E-02	0.109
I-133	+	510.53		4.401E-01	2.771E-01	Half-Life too short		
		529.87	*	-1.739E-04	2.771E-01	Half-Life too short		
		706.58		-3.958E-02	2.771E-01	Half-Life too short		
		856.28		-1.564E-02	2.771E-01	Half-Life too short		
		875.33		-2.543E-02	2.771E-01	Half-Life too short		
		1236.41		4.476E-02	2.771E-01	Half-Life too short		
		1298.22		-1.029E-01	2.771E-01	Half-Life too short		
CS-134		475.35		-6.076E-04	1.825E+00	3.021E+00	1.764E-01	0.000
		563.23		5.226E-01	3.634E-01	5.812E-01	3.519E-02	0.899
	+	569.32		1.162E+00	4.353E-01	4.414E-01	2.694E-02	2.633
		604.70		-1.543E-02	3.454E-02	4.702E-02	2.797E-03	-0.328

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		795.84	*	1.038E-01	5.135E-02	8.690E-02	6.534E-03	1.195
		801.93		-2.623E-01	3.889E-01	5.914E-01	4.483E-02	-0.443
		1038.57		1.127E-01	3.103E+00	5.219E+00	3.871E-01	0.022
		1167.94		-1.778E-01	1.979E+00	3.274E+00	1.823E-01	-0.054
		1365.15		-1.640E-01	9.466E-01	1.532E+00	1.193E-01	-0.107
CS-135		268.24	*	1.757E-01	1.724E-01	2.657E-01	2.028E-02	0.661
I-135		288.45		-4.233E+08	1.724E-01	Half-Life too short		
		417.63		-2.566E+08	1.724E-01	Half-Life too short		
		546.56		1.581E+07	1.724E-01	Half-Life too short		
		836.80		6.673E+08	1.724E-01	Half-Life too short		
		1038.76		-1.093E+07	1.724E-01	Half-Life too short		
		1124.00		-3.248E+08	1.724E-01	Half-Life too short		
		1131.51		5.977E+07	1.724E-01	Half-Life too short		
		1260.41	*	-2.113E+08	1.724E-01	Half-Life too short		
		1457.56		1.076E+10	1.724E-01	Half-Life too short		
		1678.03		1.253E+08	1.724E-01	Half-Life too short		
		1706.46		-4.331E+08	1.724E-01	Half-Life too short		
		1791.20		1.133E+08	1.724E-01	Half-Life too short		
CS-136		66.91		-3.585E+00	1.398E+00	1.748E+00	2.603E-01	-2.051
		86.29		1.699E+00	2.854E+00	3.004E+00	3.897E-01	0.565
		153.22		3.489E-01	7.158E-01	1.174E+00	8.107E-02	0.297
	+	163.89		3.248E+00	1.696E+00	2.161E+00	1.472E-01	1.504
		176.55		1.835E-01	3.963E-01	6.481E-01	3.927E-02	0.283
		273.65		7.112E-02	4.680E-01	6.926E-01	4.567E-02	0.103
		340.57		3.331E-01	1.289E-01	2.123E-01	1.304E-02	1.569
		818.51		2.396E-02	6.353E-02	1.059E-01	8.207E-03	0.226
		1048.07	*	5.244E-03	7.927E-02	1.336E-01	1.032E-02	0.039
		1235.34		2.285E-02	4.341E-01	7.249E-01	7.407E-02	0.032
CE-139		165.85	*	3.114E-02	4.021E-02	5.846E-02	3.052E-03	0.533
BA-140	+	162.64		2.283E+00	1.190E+00	1.509E+00	9.130E-02	1.513
		304.84		-4.597E-01	1.300E+00	1.853E+00	5.057E-01	-0.248
		423.70		-2.724E-01	1.691E+00	2.784E+00	8.844E-01	-0.098
		537.32	*	-4.517E-02	2.200E-01	3.572E-01	1.162E-01	-0.126
LA-140	+	328.77		4.451E-01	3.607E-01	4.570E-01	2.969E-02	0.974
		432.53		-5.273E-01	1.779E+00	2.908E+00	1.842E-01	-0.181
		487.03		2.498E-02	1.190E-01	1.992E-01	1.319E-02	0.125
		751.79		-7.297E-02	1.509E+00	2.445E+00	1.960E-01	-0.030
		815.85		8.668E-02	2.679E-01	4.452E-01	3.919E-02	0.195
		867.82		-3.083E-01	1.204E+00	1.618E+00	1.434E-01	-0.191
		919.63		1.597E-01	2.439E+00	3.581E+00	3.818E-01	0.045
		925.24		2.506E-01	9.473E-01	1.560E+00	1.425E-01	0.161
		1596.49	*	-2.515E-02	6.293E-02	9.712E-02	6.571E-03	-0.259
CE-141		145.44	*	2.792E-01	9.074E-02	1.393E-01	8.022E-03	2.004
CE-143		57.37		6.745E-04	9.074E-02	Half-Life too short		
		231.56		-6.063E-04	9.074E-02	Half-Life too short		
		293.26	*	3.344E-04	9.074E-02	Half-Life too short		
	+	350.59		9.990E-03	9.074E-02	Half-Life too short		
		490.36		7.682E-04	9.074E-02	Half-Life too short		
		664.57		1.425E-03	9.074E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		721.93		-9.461E-05	9.074E-02	Half-Life too short		
CE-144		80.11		-1.252E+00	5.595E+00	5.753E+00	4.767E-01	-0.218
		133.54	*	-1.092E-01	2.575E-01	4.130E-01	5.851E-02	-0.264
PM-144		476.78		-1.078E-02	6.655E-02	1.092E-01	7.620E-03	-0.099
		618.01		-1.199E-02	3.145E-02	4.715E-02	2.944E-03	-0.254
		696.49	*	1.054E-02	3.347E-02	5.417E-02	3.374E-03	0.195
		778.57		5.181E-02	2.313E+00	3.407E+00	2.463E-01	0.015
PR-144		696.49	*	7.140E-01	2.267E+00	3.668E+00	2.284E-01	0.195
		1489.15		-3.074E+00	8.459E+00	1.312E+01	9.299E-01	-0.234
PM-146		453.90	*	-1.385E-02	4.197E-02	6.835E-02	5.886E-03	-0.203
		633.02		7.126E-01	1.314E+00	2.185E+00	8.049E-01	0.326
		735.90		-2.938E-02	1.488E-01	2.239E-01	6.289E-02	-0.131
		747.13		2.490E-02	9.758E-02	1.406E-01	1.831E-02	0.177
ND-147		91.11		2.800E+01	2.697E+00	1.530E+00	1.413E-01	18.298
		319.41		2.728E+00	2.887E+00	5.027E+00	2.922E-01	0.543
		439.89		1.140E+00	5.097E+00	8.560E+00	4.919E-01	0.133
		531.02	*	-4.042E-02	4.784E-01	7.846E-01	1.065E-01	-0.052
PM-149		285.90	*	-3.622E+01	5.887E+01	9.627E+01	1.364E+01	-0.376
EU-152		121.78		-6.507E-02	9.366E-02	1.492E-01	1.155E-02	-0.436
		244.69		2.148E-01	3.776E-01	5.426E-01	3.083E-02	0.396
		344.27	*	-1.873E-02	1.213E-01	1.526E-01	9.935E-03	-0.123
		443.98		-2.984E-01	9.132E-01	1.489E+00	8.571E-02	-0.200
		778.89		1.366E-01	2.591E-01	4.003E-01	2.895E-02	0.341
		867.32		-4.595E-01	8.127E-01	1.045E+00	8.770E-02	-0.440
	+	964.01		5.643E-01	3.560E-01	4.481E-01	3.691E-02	1.259
		1085.78		-1.658E-01	3.072E-01	4.880E-01	3.321E-02	-0.340
		1112.02		-1.044E-01	2.723E-01	4.305E-01	2.769E-02	-0.242
		1407.95		4.784E-02	1.679E-01	2.853E-01	2.072E-02	0.168
GD-153		69.67		-3.143E-01	4.119E+00	4.276E+00	3.290E-01	-0.074
	+	83.37		3.444E+01	3.186E+01	4.391E+01	3.751E+00	0.784
	+	97.43	*	9.561E-01	1.750E-01	2.402E-01	1.868E-02	3.981
		103.18		-3.824E-02	1.615E-01	2.293E-01	1.660E-02	-0.167
EU-154		123.07		-4.891E-02	6.583E-02	1.046E-01	9.924E-03	-0.468
		247.94		-2.167E-01	3.775E-01	5.881E-01	5.574E-02	-0.368
		591.81		2.873E-01	5.810E-01	9.589E-01	9.446E-02	0.300
		723.30		5.596E-02	1.658E-01	2.417E-01	1.861E-02	0.232
		756.87		-8.225E-02	7.492E-01	1.174E+00	1.273E-01	-0.070
		873.19		1.012E-01	2.507E-01	4.189E-01	5.085E-02	0.242
		996.32		2.433E-02	3.293E-01	4.598E-01	8.015E-02	0.053
		1004.76		8.610E-01	2.674E-01	4.682E-01	5.176E-02	1.839
		1274.45	*	1.684E-02	9.745E-02	1.644E-01	1.627E-02	0.102
EU-155		48.70		-5.701E+00	3.487E+00	5.553E+00	3.895E-01	-1.027
		60.01		1.858E+01	9.423E+00	1.406E+01	1.058E+00	1.321
		86.54		1.980E-02	2.827E-01	2.933E-01	2.612E-02	0.068
		105.31	*	-1.148E-02	1.603E-01	2.416E-01	1.738E-02	-0.048
TB-160		86.79		-1.616E-02	7.444E-01	7.697E-01	6.808E-02	-0.021
		197.04		1.795E-02	6.113E-01	9.842E-01	5.333E-02	0.018
		215.65		3.113E-01	7.833E-01	1.274E+00	7.052E-02	0.244
		298.57		2.567E-02	1.819E-01	1.820E-01	1.058E-02	0.141

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	2.932E-02	1.287E-01	2.115E-01	1.809E-02	0.139
		962.29		5.838E-01	4.467E-01	7.179E-01	5.925E-02	0.813
	+	966.15		3.830E-01	2.417E-01	3.660E-01	3.007E-02	1.047
		1177.93		-4.972E-02	2.855E-01	4.689E-01	2.594E-02	-0.106
		1271.85		5.544E-02	5.421E-01	9.092E-01	6.024E-02	0.061
HO-166M		80.57		1.295E-01	7.072E-01	7.383E-01	6.143E-02	0.175
	+	184.41		1.061E+00	9.393E-02	1.206E-01	6.434E-03	8.796
		280.46		-6.908E-02	7.988E-02	1.298E-01	7.519E-03	-0.532
		410.95		1.175E-01	2.283E-01	3.892E-01	2.196E-02	0.302
		711.68	*	1.692E-02	5.626E-02	9.356E-02	5.993E-03	0.181
		752.31		-2.168E-02	2.561E-01	4.138E-01	2.855E-02	-0.052
		810.29		-6.450E-02	5.234E-02	7.542E-02	5.757E-03	-0.855
TM-171		51.35		2.019E+00	4.595E+01	7.603E+01	5.545E+00	0.027
		52.39		1.154E+01	2.438E+01	4.060E+01	2.985E+00	0.284
		59.40		7.482E+01	5.011E+01	7.444E+01	5.600E+00	1.005
		66.72	*	-1.069E+02	5.008E+01	6.782E+01	5.156E+00	-1.577
LU-176		88.36		3.871E-01	5.518E-01	5.829E-01	5.192E-02	0.664
		201.83		-3.914E-03	3.675E-02	5.130E-02	2.796E-03	-0.076
		306.84	*	-3.479E-03	2.369E-02	3.955E-02	2.300E-03	-0.088
		401.10		-2.478E+00	6.133E+00	1.000E+01	5.604E-01	-0.248
LU-177	+	112.95		1.604E+01	3.717E+00	4.351E+00	2.833E-01	3.687
		208.36	*	1.412E+00	1.154E+00	1.704E+00	9.357E-02	0.828
LU-177M		52.97		1.828E+00	2.516E+00	4.204E+00	3.102E-01	0.435
		54.07		4.538E-01	1.339E+00	2.224E+00	1.649E-01	0.204
		61.30		4.245E+01	4.524E+00	5.650E+00	4.251E-01	7.512
		121.62		-3.228E-01	4.778E-01	7.620E-01	4.556E-02	-0.424
		147.16		4.803E-02	8.745E-01	1.242E+00	6.816E-02	0.039
		171.86		-3.310E-01	5.518E-01	8.740E-01	4.591E-02	-0.379
		218.09		2.303E-01	9.078E-01	1.469E+00	8.151E-02	0.157
	+	268.79		1.703E+00	1.060E+00	1.362E+00	7.854E-02	1.250
		319.02		1.810E-01	2.418E-01	4.180E-01	2.429E-02	0.433
		367.43		7.433E-01	8.726E-01	1.512E+00	8.595E-02	0.492
		413.65	*	-3.013E-02	1.600E-01	2.636E-01	1.490E-02	-0.114
HF-181		56.28		-1.876E+00	1.528E+00	2.461E+00	1.838E-01	-0.762
		57.53		7.175E-01	9.244E-01	1.361E+00	1.019E-01	0.527
		65.20		2.889E+01	2.939E+00	3.520E+00	2.664E-01	8.208
		133.02		-7.959E-03	8.148E-02	1.320E-01	7.555E-03	-0.060
		136.25		-4.420E-01	5.629E-01	8.942E-01	5.066E-02	-0.494
		345.85		-9.862E-02	2.099E-01	2.963E-01	1.708E-02	-0.333
		482.03	*	-2.296E-02	3.986E-02	6.379E-02	3.733E-03	-0.360
W-181		56.28		-6.455E-01	6.036E-01	9.759E-01	7.288E-02	-0.661
		57.53		2.841E-01	3.668E-01	5.399E-01	4.044E-02	0.526
		65.20	*	1.138E+01	1.157E+00	1.386E+00	1.049E-01	8.208
TA-182		67.75		-4.093E-01	2.133E-01	2.694E-01	2.056E-02	-1.519
		100.10		2.075E+00	3.378E-01	5.054E-01	3.798E-02	4.105
		152.43		8.348E-02	3.894E-01	6.343E-01	3.433E-02	0.132
		222.10		-2.002E-01	3.657E-01	5.743E-01	3.199E-02	-0.349
	+	1001.68		4.702E+01	6.040E+00	8.961E+00	7.030E-01	5.247
	+	1121.28		4.749E-01	1.671E-01	2.639E-01	1.661E-02	1.800

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		2.398E-02	2.360E-01	3.965E-01	2.244E-02	0.060
		1221.42	*	7.569E-02	1.502E-01	2.600E-01	1.568E-02	0.291
		1230.97		2.635E-01	3.565E-01	6.279E-01	3.856E-02	0.420
RE-183		57.98		4.003E-01	3.648E-01	5.397E-01	4.046E-02	0.742
		59.32		2.929E-01	2.037E-01	3.023E-01	2.274E-02	0.969
		67.20		-8.959E-01	3.561E-01	4.754E-01	3.620E-02	-1.885
	+	162.32	*	3.526E-01	1.835E-01	2.330E-01	1.228E-02	1.513
		208.81		1.904E+00	1.143E+00	1.719E+00	9.441E-02	1.108
		291.72		8.392E-01	9.449E-01	1.454E+00	8.444E-02	0.577
RE-184		57.98		1.486E+00	1.354E+00	2.003E+00	1.502E-01	0.742
		59.32		1.086E+00	7.552E-01	1.121E+00	8.431E-02	0.969
		67.20		-3.324E+00	1.321E+00	1.764E+00	1.343E-01	-1.885
		161.27		2.850E-01	4.975E-01	7.180E-01	3.793E-02	0.397
		216.55		1.333E-01	2.817E-01	4.593E-01	2.544E-02	0.290
		252.85	*	1.873E-01	2.642E-01	3.828E-01	2.188E-02	0.489
		318.01		-1.821E-01	4.258E-01	7.012E-01	4.076E-02	-0.260
		792.07		-7.378E-01	1.226E+00	1.618E+00	1.197E-01	-0.456
		903.28		-2.046E-01	9.042E-01	1.339E+00	1.174E-01	-0.153
		920.93		-6.700E-02	3.894E-01	6.173E-01	5.325E-02	-0.109
OS-185		59.72		9.206E-01	5.497E-01	8.181E-01	6.155E-02	1.125
		61.14		3.769E+00	4.416E-01	5.843E-01	4.396E-02	6.451
		69.30		8.149E-01	7.012E-01	7.610E-01	5.846E-02	1.071
		592.07		1.048E+00	2.342E+00	3.857E+00	2.286E-01	0.272
		646.12	*	-7.054E-03	3.924E-02	6.341E-02	3.714E-03	-0.111
		717.42		-7.160E-01	8.451E-01	1.292E+00	8.364E-02	-0.554
		874.81		1.192E-02	5.029E-01	8.137E-01	6.909E-02	0.015
		880.27		1.673E-01	7.243E-01	1.191E+00	1.020E-01	0.140
RE-188		155.03	*	-3.091E-02	2.007E-01	3.235E-01	1.738E-02	-0.096
		477.96		-1.305E-01	2.991E+00	4.940E+00	2.887E-01	-0.026
		633.10		1.329E+00	2.567E+00	4.345E+00	2.555E-01	0.306
W-188	+	63.58		2.910E+03	2.797E+02	2.366E+02	1.784E+01	12.299
		227.08		1.953E+01	1.334E+01	2.242E+01	1.255E+00	0.871
		290.67	*	5.618E+00	7.429E+00	1.136E+01	6.595E-01	0.495
IR-192	+	295.96		6.965E-01	1.717E-01	2.311E-01	1.364E-02	3.014
		308.46		5.997E-02	9.166E-02	1.578E-01	9.285E-03	0.380
		316.51	*	6.974E-03	3.285E-02	5.560E-02	3.248E-03	0.125
		468.07		-1.084E-01	6.225E-02	9.221E-02	6.183E-03	-1.175
		604.41		-2.541E-01	4.634E-01	6.235E-01	7.114E-02	-0.408
		612.46		1.140E+00	7.502E-01	1.190E+00	9.109E-02	0.958
AU-195		65.12		5.795E+00	5.705E-01	6.613E-01	5.003E-02	8.763
		66.83		-3.686E-01	1.649E-01	2.225E-01	1.692E-02	-1.657
	+	75.70		1.065E+00	4.476E-01	5.444E-01	4.350E-02	1.957
	+	98.88	*	2.781E+00	5.091E-01	6.758E-01	5.157E-02	4.115
		129.76		2.195E+00	3.606E+00	5.944E+00	3.438E-01	0.369
TL-200		367.94	*	2.783E-05	3.606E+00	Half-Life too short		
		579.30		1.620E-03	3.606E+00	Half-Life too short		
		828.27		6.277E-04	3.606E+00	Half-Life too short		
		1205.75		4.673E-04	3.606E+00	Half-Life too short		
TL-201		68.90		6.631E+00	8.584E+00	9.203E+00	7.056E-01	0.720

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		5.624E+00	3.935E+00	5.440E+00	4.212E-01	1.034
		80.30		-2.842E+00	1.005E+01	1.031E+01	8.555E-01	-0.276
		135.34		-3.333E+01	2.426E+01	3.786E+01	2.151E+00	-0.880
		167.43	*	-1.130E+00	7.095E+00	9.948E+00	5.198E-01	-0.114
TL-202		68.90		7.351E-01	9.517E-01	1.020E+00	7.823E-02	0.720
		70.82		6.218E-01	4.351E-01	6.015E-01	4.656E-02	1.034
		80.30		-3.143E-01	1.111E+00	1.140E+00	9.461E-02	-0.276
		439.56	*	1.314E-02	6.034E-02	1.013E-01	5.819E-03	0.130
HG-203		70.83		3.290E+00	1.882E+00	2.744E+00	3.585E-01	1.199
		72.87		2.483E+00	1.144E+00	1.657E+00	2.105E-01	1.498
	+	82.60		2.523E+00	2.350E+00	3.196E+00	4.365E-01	0.789
		279.20	*	-1.537E-02	3.741E-02	6.198E-02	3.811E-03	-0.248
BI-207		72.80		8.554E-01	3.321E-01	4.938E-01	3.867E-02	1.732
	+	74.97		5.935E-01	2.494E-01	2.996E-01	2.381E-02	1.981
	+	84.90		4.469E-01	4.135E-01	5.667E-01	4.916E-02	0.789
	+	569.67		1.813E-01	6.786E-02	6.756E-02	4.010E-03	2.684
		1063.62	*	-1.439E-02	4.144E-02	6.726E-02	4.776E-03	-0.214
		1770.23		6.500E-02	3.919E-01	5.735E-01	3.459E-02	0.113
TL-207		81.07		2.014E-01	5.653E-01	5.936E-01	4.961E-02	0.339
	+	83.78		2.947E-01	2.727E-01	3.749E-01	3.216E-02	0.786
		94.90		1.403E+01	1.304E+00	1.093E+00	8.798E-02	12.835
		122.32		-1.923E+00	2.246E+00	3.562E+00	2.433E-01	-0.540
	+	144.24		3.625E+00	1.265E+00	1.600E+00	1.124E-01	2.265
		154.21		-1.229E-01	4.660E-01	7.486E-01	4.997E-02	-0.164
	+	269.46		4.008E-01	2.496E-01	3.259E-01	1.966E-02	1.230
		323.87	*	-7.084E-01	6.765E-01	9.025E-01	1.491E-01	-0.785
	+	338.28		4.649E+00	1.455E+00	2.054E+00	2.162E-01	2.263
		445.03		9.819E-01	2.128E+00	3.614E+00	3.703E-01	0.272
PO-209		260.50		5.771E+00	1.157E+01	1.653E+01	9.493E-01	0.349
		262.80		3.270E+01	2.890E+01	4.295E+01	2.469E+00	0.761
		896.60	*	3.932E+00	6.351E+00	1.079E+01	9.482E-01	0.365
BI-210		46.50	*	4.432E-01	4.687E+00	7.747E+00	5.905E-01	0.057
PB-210		46.50	*	4.432E-01	4.687E+00	7.747E+00	5.905E-01	0.057
PO-210		46.50	*	4.432E-01	4.687E+00	7.747E+00	5.049E-01	0.057
PB-211		404.84	*	-1.165E+00	1.117E+00	1.312E+00	8.178E-01	-0.888
		427.08		-1.424E+00	2.149E+00	3.135E+00	1.937E+00	-0.454
		831.96		-9.672E-01	1.240E+00	1.622E+00	1.015E+00	-0.596
BI-212	+	727.18	*	1.072E+00	4.280E-01	5.636E-01	4.692E-02	1.901
		785.46		1.491E+00	1.912E+00	3.244E+00	2.373E-01	0.460
		1620.62		1.747E-01	9.941E-01	1.673E+00	1.117E-01	0.104
PO-215		81.07		2.014E-01	5.653E-01	5.936E-01	4.961E-02	0.339
	+	83.78		2.947E-01	2.727E-01	3.749E-01	3.216E-02	0.786
		94.90		1.403E+01	1.304E+00	1.093E+00	8.798E-02	12.835
		122.32		-1.923E+00	2.246E+00	3.562E+00	2.433E-01	-0.540
	+	144.24		3.625E+00	1.265E+00	1.600E+00	1.124E-01	2.265
		154.21		-1.229E-01	4.660E-01	7.486E-01	4.997E-02	-0.164
	+	269.46		4.008E-01	2.496E-01	3.259E-01	1.966E-02	1.230
		323.87	*	-7.084E-01	6.765E-01	9.025E-01	1.491E-01	-0.785
	+	338.28		4.649E+00	1.455E+00	2.054E+00	2.162E-01	2.263

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		9.819E-01	2.128E+00	3.614E+00	3.703E-01	0.272
RN-219	+	271.23		5.142E-01	3.214E-01	4.311E-01	3.485E-02	1.193
		401.81	*	-1.580E-01	3.773E-01	6.139E-01	8.302E-02	-0.257
RN-220		549.76	*	-6.553E+00	2.394E+01	3.874E+01	2.298E+00	-0.169
RA-223		81.07		2.014E-01	5.653E-01	5.936E-01	4.961E-02	0.339
	+	83.78		2.947E-01	2.727E-01	3.749E-01	3.216E-02	0.786
		94.90		1.403E+01	1.304E+00	1.093E+00	8.798E-02	12.835
		122.32		-1.923E+00	2.246E+00	3.562E+00	2.433E-01	-0.540
	+	144.24		3.625E+00	1.265E+00	1.600E+00	1.124E-01	2.265
		154.21		-1.229E-01	4.660E-01	7.486E-01	4.997E-02	-0.164
	+	269.46		4.008E-01	2.496E-01	3.259E-01	1.966E-02	1.230
		323.87	*	-7.084E-01	6.765E-01	9.025E-01	1.491E-01	-0.785
	+	338.28		4.649E+00	1.455E+00	2.054E+00	2.162E-01	2.263
		445.03		9.819E-01	2.128E+00	3.614E+00	3.703E-01	0.272
AC-227		79.80		1.337E+00	4.294E+00	4.496E+00	9.604E-01	0.297
		236.00		1.292E+00	3.209E-01	4.833E-01	5.010E-02	2.673
		256.20	*	2.702E-01	4.765E-01	6.813E-01	9.490E-02	0.397
		286.10		-9.406E-01	1.444E+00	2.360E+00	2.728E-01	-0.399
	+	299.80		2.044E+00	1.535E+00	2.343E+00	3.817E-01	0.872
		304.40		-7.765E-01	2.044E+00	2.916E+00	5.046E-01	-0.266
		334.20		-2.788E+00	3.796E+00	3.340E+00	6.122E-01	-0.835
TH-227		79.80		1.337E+00	4.294E+00	4.496E+00	9.729E-01	0.297
	+	94.00		3.059E+02	6.684E+01	1.263E+01	2.727E+00	24.226
		236.00		1.292E+00	3.137E-01	4.833E-01	4.329E-02	2.673
		256.20	*	2.702E-01	4.772E-01	6.813E-01	1.150E-01	0.397
		286.10		-9.406E-01	1.721E+00	2.360E+00	2.364E+00	-0.399
	+	299.80		2.044E+00	1.535E+00	2.343E+00	3.817E-01	0.872
		304.40		-7.765E-01	2.044E+00	2.916E+00	5.046E-01	-0.266
		334.20		-2.788E+00	3.796E+00	3.340E+00	6.122E-01	-0.835
TH-229		85.43		2.618E-01	5.356E-01	5.634E-01	4.914E-02	0.465
		88.47		4.395E-01	3.121E-01	3.356E-01	2.983E-02	1.310
	+	100.00		2.319E+00	4.245E-01	5.364E-01	4.036E-02	4.323
		193.63	*	-2.333E-01	5.537E-01	8.754E-01	4.723E-02	-0.267
		210.97		5.143E-01	8.044E-01	1.318E+00	7.260E-02	0.390
PA-231		283.67	*	1.162E+00	1.439E+00	2.483E+00	3.421E-01	0.468
	+	301.29		8.175E-01	6.056E-01	9.585E-01	1.003E-01	0.853
TH-231		81.07		2.014E-01	5.653E-01	5.936E-01	4.961E-02	0.339
	+	83.78		2.947E-01	2.727E-01	3.749E-01	3.216E-02	0.786
		94.90		1.403E+01	1.304E+00	1.093E+00	8.798E-02	12.835
		122.32		-1.923E+00	2.246E+00	3.562E+00	2.433E-01	-0.540
	+	144.24		3.625E+00	1.265E+00	1.600E+00	1.124E-01	2.265
		154.21		-1.229E-01	4.660E-01	7.486E-01	4.997E-02	-0.164
	+	269.46		4.008E-01	2.496E-01	3.259E-01	1.966E-02	1.230
		323.87	*	-7.084E-01	6.765E-01	9.025E-01	1.491E-01	-0.785
	+	338.28		4.649E+00	1.455E+00	2.054E+00	2.162E-01	2.263
		445.03		9.819E-01	2.128E+00	3.614E+00	3.703E-01	0.272
U-231	+	84.21		1.037E+01	9.594E+00	1.315E+01	1.133E+00	0.789
	+	92.29		2.469E+02	2.174E+01	1.097E+01	9.171E-01	22.511
		95.87	*	9.085E+00	2.226E+00	2.574E+00	2.045E-01	3.529

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		9.133E-01	2.755E+00	3.973E+00	2.725E-01	0.230
PA-233	+	75.28		1.732E+01	7.603E+00	8.816E+00	1.322E+00	1.965
		86.59		2.369E-01	4.595E+00	4.763E+00	1.281E+00	0.050
	+	300.12		5.698E-01	4.248E-01	6.505E-01	8.745E-02	0.876
		311.98	*	-2.797E-02	6.239E-02	1.028E-01	6.344E-03	-0.272
		340.50		1.857E+00	7.887E-01	1.115E+00	2.560E-01	1.666
		398.62		2.428E+00	2.064E+00	3.466E+00	8.947E-01	0.701
		415.76		-1.189E+00	1.540E+00	2.425E+00	4.983E-01	-0.490
PA-234	+	63.00		8.543E+01	1.373E+01	7.159E+00	1.068E+00	11.934
		94.67		1.412E+01	1.771E+00	8.958E-01	1.078E-01	15.763
	+	98.44		1.132E+00	6.575E-01	2.773E-01	1.543E-01	4.083
	+	99.86		5.868E+00	1.074E+00	1.381E+00	1.041E-01	4.248
	+	111.00		2.062E+00	5.088E-01	5.465E-01	5.885E-02	3.774
		131.20		1.643E-01	1.336E-01	2.231E-01	1.284E-02	0.737
		152.70		1.058E-01	3.785E-01	6.170E-01	9.668E-02	0.172
	+	186.00		3.819E+01	1.195E+01	4.467E+00	1.361E+00	8.550
		226.40		2.598E-01	4.280E-01	6.992E-01	8.012E-02	0.372
		227.20		7.554E-01	4.553E-01	7.699E-01	4.310E-02	0.981
		248.90		-5.174E-01	8.575E-01	1.324E+00	2.842E-01	-0.391
	+	293.70		4.435E+00	1.279E+00	1.452E+00	2.335E-01	3.055
		369.80		7.623E-02	8.286E-01	1.389E+00	2.888E-01	0.055
	+	568.70		5.902E+00	2.209E+00	2.261E+00	1.342E-01	2.611
	+	569.50		1.610E+00	6.023E-01	6.053E-01	3.593E-02	2.659
		574.00		-1.767E-01	1.540E+00	2.169E+00	1.287E-01	-0.081
		699.00		3.562E-01	6.850E-01	1.149E+00	2.084E-01	0.310
		706.10		-3.627E-01	9.453E-01	1.476E+00	6.526E-01	-0.246
		733.00		-1.922E-01	3.923E-01	5.190E-01	1.117E-01	-0.370
	+	742.81		4.046E+00	3.323E+00	2.823E+00	1.892E+00	1.433
		796.30		1.841E+00	1.088E+00	1.650E+00	4.406E-01	1.116
		805.60		5.985E-01	9.389E-01	1.566E+00	4.755E-01	0.382
		819.60		6.390E-01	1.127E+00	1.866E+00	7.059E-01	0.343
		826.30		-4.035E-02	7.188E-01	1.158E+00	5.164E-01	-0.035
		831.60		-5.750E-01	5.867E-01	8.317E-01	2.466E-01	-0.691
		876.40		-6.083E-01	9.922E-01	1.159E+00	1.192E+00	-0.525
		880.51		1.636E-01	2.587E-01	4.385E-01	3.758E-02	0.373
		883.24		1.507E-01	2.802E-01	4.417E-01	2.969E-01	0.341
		899.00		7.930E-03	7.254E-01	1.171E+00	5.123E-01	0.007
		925.00		2.782E-01	1.052E+00	1.732E+00	1.489E-01	0.161
		926.50		1.802E-02	1.726E-01	2.622E-01	6.625E-02	0.069
		946.00	*	2.257E-01	2.605E-01	4.459E-01	8.323E-02	0.506
		949.00		-6.805E-02	3.856E-01	6.102E-01	5.113E-02	-0.112
		980.50		-1.943E-01	6.012E-01	9.339E-01	7.537E-02	-0.208
		1394.10		2.976E-01	8.511E-01	1.437E+00	9.329E-01	0.207
NP-236		94.67		1.078E+01	9.506E-01	6.812E-01	5.503E-02	15.822
	+	98.44		8.558E-01	1.567E-01	2.096E-01	1.609E-02	4.082
	+	111.00		1.560E+00	3.614E-01	4.134E-01	2.747E-02	3.774
		160.31	*	5.548E-02	1.074E-01	1.548E-01	8.200E-03	0.358
NP-237		86.50	*	5.853E-02	6.902E-01	7.161E-01	1.607E-01	0.082
		95.87		9.810E+00	3.302E+00	2.780E+00	6.784E-01	3.529

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		1.956E+00	3.581E-01	4.684E-01	3.544E-02	4.176
		117.00	*	1.149E-01	2.843E-01	4.108E-01	2.569E-02	0.280
		209.75		1.185E+00	8.775E-01	1.368E+00	7.523E-02	0.866
		228.18		1.843E-01	2.405E-01	3.956E-01	2.217E-02	0.466
		277.60		-5.178E-02	1.705E-01	2.839E-01	1.643E-02	-0.182
		334.30		-1.569E+00	2.133E+00	1.894E+00	1.097E-01	-0.828
AM-241		59.54	*	4.590E-01	2.922E-01	4.339E-01	3.572E-02	1.058
CM-243	+	99.55		2.013E+00	3.685E-01	4.819E-01	3.647E-02	4.176
		103.76	*	-1.265E-01	1.523E-01	2.118E-01	1.524E-02	-0.597
		117.00		1.182E-01	2.925E-01	4.226E-01	2.643E-02	0.280
		209.75		1.168E+00	8.650E-01	1.348E+00	7.415E-02	0.866
		228.18		1.862E-01	2.430E-01	3.997E-01	2.240E-02	0.466
		277.60		-5.220E-02	1.719E-01	2.862E-01	1.656E-02	-0.182
AM-246		798.80		-2.102E-01	1.475E-01	2.144E-01	1.605E-02	-0.980
		1036.00		3.710E-03	2.346E-01	3.938E-01	2.933E-02	0.009
		1062.04		-6.015E-03	1.835E-01	3.065E-01	2.183E-02	-0.020
		1078.86	*	9.168E-02	1.114E-01	1.992E-01	1.374E-02	0.460
CM-247		278.00		-2.207E-01	7.098E-01	1.182E+00	6.838E-02	-0.187
		287.40		-1.148E+00	1.231E+00	1.868E+00	1.084E-01	-0.615
		402.60	*	-2.470E-02	3.316E-02	5.303E-02	2.974E-03	-0.466
CF-249		252.85		7.064E-01	9.962E-01	1.444E+00	8.250E-02	0.489
		333.44		8.433E-02	2.504E-01	2.561E-01	1.483E-02	0.329
		387.95	*	1.188E-02	3.686E-02	6.239E-02	3.484E-03	0.190
CF-251		176.60	*	6.743E-02	1.457E-01	2.383E-01	1.259E-02	0.283
		227.00		5.732E-01	4.044E-01	6.790E-01	3.801E-02	0.844
		285.00		8.175E-02	1.637E+00	2.760E+00	1.601E-01	0.030

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395014      *
* Acquisition date :  2-FEB-2010 09:27:14 Detector SN#    :                 *
* Detector ID        : GAM19               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.37      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245395014           Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.6981E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.096E+01	1.979E+00	4.470E-01	0.000E+00
NB-95	4.629E-01	9.375E-02	6.611E-02	0.000E+00
BA-137M	5.697E-02	6.766E-02	5.254E-02	0.000E+00
CS-137	6.023E-02	7.153E-02	5.554E-02	0.000E+00
TL-208	3.361E-01	7.014E-02	5.743E-02	0.000E+00
BI-211	2.334E+00	3.710E-01	3.277E-01	0.000E+00
PB-212	1.143E+00	1.221E-01	9.715E-02	0.000E+00
PO-212	1.143E+00	1.221E-01	9.715E-02	0.000E+00
BI-214	8.533E-01	1.423E-01	1.026E-01	0.000E+00
PB-214	8.121E-01	1.356E-01	1.093E-01	0.000E+00
PO-214	8.121E-01	1.356E-01	1.093E-01	0.000E+00
PO-216	1.143E+00	1.221E-01	9.715E-02	0.000E+00
PO-218	8.121E-01	1.356E-01	1.093E-01	0.000E+00
RA-224	2.562E+00	1.075E+00	1.105E+00	0.000E+00
RA-226	8.533E-01	1.423E-01	1.026E-01	0.000E+00
AC-228	1.219E+00	2.676E-01	1.820E-01	0.000E+00
RA-228	1.219E+00	2.676E-01	1.820E-01	0.000E+00
TH-228	1.159E+00	1.238E-01	9.850E-02	0.000E+00
TH-230	8.533E-01	1.423E-01	1.026E-01	0.000E+00
TH-232	1.219E+00	2.676E-01	1.820E-01	0.000E+00
PA-234M	1.075E+02	1.453E+01	6.480E+00	0.000E+00
TH-234	7.329E+01	1.328E+01	3.737E+00	0.000E+00
U-234	8.533E-01	1.423E-01	1.026E-01	0.000E+00
U-235	1.119E+00	4.146E-01	4.561E-01	0.000E+00
U-238	7.329E+01	1.328E+01	3.737E+00	0.000E+00
AM-243	3.307E-01	1.362E-01	1.635E-01	0.000E+00
ANH-511	1.150E-01	6.029E-02	4.654E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	-2.615E-02	3.050E-01	5.393E-01	0.000E+00	NOT IDENT.
NA-22	6.238E-03	3.419E-02	5.993E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.357E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-6.013E-03	2.458E-02	3.928E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	8.087E-02	1.120E-01	0.000E+00	FAIL ABUN
SC-46	-2.052E-02	3.325E-02	5.323E-02	0.000E+00	FAIL ABUN
V-48	2.129E-02	5.354E-02	9.346E-02	0.000E+00	NOT IDENT.
CR-51	3.341E-01	3.267E-01	6.196E-01	0.000E+00	NOT IDENT.
MN-52	5.278E-02	1.454E-01	2.602E-01	0.000E+00	FAIL ABUN
MN-54	-4.505E-03	3.302E-02	5.571E-02	0.000E+00	NOT IDENT.
CO-56	8.427E-03	3.448E-02	5.984E-02	0.000E+00	NOT IDENT.
CO-57	-2.728E-02	3.163E-02	5.618E-02	0.000E+00	NOT IDENT.
CO-58	-5.018E-02	3.314E-02	4.878E-02	0.000E+00	NOT IDENT.
FE-59	-4.550E-02	6.885E-02	1.130E-01	0.000E+00	FAIL ABUN
CO-60	-1.185E-02	3.011E-02	4.943E-02	0.000E+00	NOT IDENT.
ZN-65	5.073E-02	7.857E-02	1.269E-01	0.000E+00	NOT IDENT.
GE-68	8.738E-01	9.442E-01	1.776E+00	0.000E+00	NOT IDENT.
AS-73	4.347E-01	1.262E+00	2.404E+00	0.000E+00	NOT IDENT.
AS-74	-2.073E-02	7.976E-02	1.372E-01	0.000E+00	NOT IDENT.
SE-75	-1.856E-03	5.305E-02	7.459E-02	0.000E+00	NOT IDENT.
BR-77	-4.008E+00	6.271E+00	1.062E+01	0.000E+00	FAIL ABUN
SR-82	-4.149E-01	3.465E-01	5.397E-01	0.000E+00	NOT IDENT.
RB-83	-4.427E-02	5.941E-02	9.989E-02	0.000E+00	NOT IDENT.
RB-84	7.368E-02	6.147E-02	1.136E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.155E+00	1.251E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.622E-02	6.334E-02	0.000E+00	NOT IDENT.
RB-86	4.822E-01	5.831E-01	1.088E+00	0.000E+00	NOT IDENT.
Y-88	-1.254E-02	2.628E-02	3.985E-02	0.000E+00	NOT IDENT.
ZR-88	-1.524E-02	2.861E-02	5.016E-02	0.000E+00	NOT IDENT.
Y-91	1.097E+00	1.439E+01	2.508E+01	0.000E+00	NOT IDENT.
NB-94	-9.374E-03	3.153E-02	5.342E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.444E-01	2.402E-01	0.000E+00	NOT IDENT.
ZR-95	3.530E-02	6.373E-02	1.136E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.118E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	5.784E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.332E+01	9.267E+00	1.538E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.824E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.618E-02	3.905E-02	6.222E-02	0.000E+00	NOT IDENT.
RH-102	2.535E-03	2.750E-02	4.910E-02	0.000E+00	FAIL ABUN
RU-103	-4.225E-03	3.439E-02	6.046E-02	0.000E+00	FAIL ABUN
RH-106	1.480E-01	2.917E-01	5.239E-01	0.000E+00	FAIL ABUN
RU-106	1.480E-01	2.914E-01	5.239E-01	0.000E+00	FAIL ABUN
AG-108M	-1.365E-02	2.947E-02	5.136E-02	0.000E+00	NOT IDENT.
CD-109	9.238E-01	2.313E+00	2.737E+00	0.000E+00	NOT IDENT.
AG-110M	-5.338E-03	3.728E-02	5.522E-02	0.000E+00	NOT IDENT.
IN-111	7.431E-01	8.690E-01	1.388E+00	0.000E+00	NOT IDENT.
IN-113M	-2.976E-02	4.079E-02	7.076E-02	0.000E+00	NOT IDENT.
SN-113	-2.976E-02	4.079E-02	7.076E-02	0.000E+00	NOT IDENT.
IN-114M	-2.842E-02	2.081E-01	3.209E-01	0.000E+00	NOT IDENT.
CD-115	-1.343E+00	6.710E+00	1.169E+01	0.000E+00	NOT IDENT.
SN-117M	2.595E-02	6.871E-02	1.094E-01	0.000E+00	NOT IDENT.
SB-122	0.000E+00	1.483E+00	2.611E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.627E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.070E-02	3.758E-02	5.962E-02	0.000E+00	NOT IDENT.
I-124	4.831E-02	5.387E-01	8.214E-01	0.000E+00	FAIL ABUN
SB-124	1.053E-02	4.467E-02	7.894E-02	0.000E+00	FAIL ABUN
SB-125	1.785E-03	8.427E-02	1.509E-01	0.000E+00	NOT IDENT.
TE-125M	0.000E+00	1.537E+01	2.555E+01	0.000E+00	NOT IDENT.
I-126	2.350E-03	1.725E-01	2.590E-01	0.000E+00	NOT IDENT.
SB-126	-9.524E-03	1.310E-01	2.032E-01	0.000E+00	NOT IDENT.
SN-126	2.531E-02	2.280E-01	2.675E-01	0.000E+00	FAIL ABUN
SB-127	-4.782E-01	1.000E+00	1.672E+00	0.000E+00	NOT IDENT.
XE-127	2.692E-02	5.813E-02	9.163E-02	0.000E+00	NOT IDENT.
I-131	3.398E-02	9.801E-02	1.799E-01	0.000E+00	NOT IDENT.
TE-132	4.415E-01	5.585E-01	1.004E+00	0.000E+00	FAIL ABUN
BA-133	1.692E-02	4.346E-02	7.015E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.040E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.032E-02	8.986E-02	0.000E+00	FAIL ABUN
CS-135	1.757E-01	1.690E-01	2.846E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.854E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.244E-03	7.769E-02	1.369E-01	0.000E+00	FAIL ABUN
CE-139	3.114E-02	3.941E-02	6.353E-02	0.000E+00	NOT IDENT.
BA-140	-4.517E-02	2.156E-01	3.741E-01	0.000E+00	FAIL ABUN
LA-140	-2.515E-02	6.167E-02	9.807E-02	0.000E+00	FAIL ABUN
CE-141	0.000E+00	8.892E-02	1.520E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.094E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.092E-01	2.524E-01	4.517E-01	0.000E+00	NOT IDENT.
PM-144	1.054E-02	3.280E-02	5.626E-02	0.000E+00	NOT IDENT.

PR-144	7.140E-01	2.221E+00	3.810E+00	0.000E+00	NOT IDENT.
PM-146	-1.385E-02	4.113E-02	7.199E-02	0.000E+00	NOT IDENT.
ND-147	-4.042E-02	4.688E-01	8.222E-01	0.000E+00	NOT IDENT.
PM-149	-3.622E+01	5.770E+01	1.029E+02	0.000E+00	NOT IDENT.
EU-152	-1.873E-02	1.189E-01	1.622E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.715E-01	2.652E-01	0.000E+00	FAIL ABUN
EU-154	1.684E-02	9.550E-02	1.673E-01	0.000E+00	NOT IDENT.
EU-155	-1.148E-02	1.571E-01	2.661E-01	0.000E+00	NOT IDENT.
TB-160	2.932E-02	1.261E-01	2.180E-01	0.000E+00	FAIL ABUN
HO-166M	1.692E-02	5.514E-02	9.711E-02	0.000E+00	FAIL ABUN
TM-171	-1.069E+02	4.907E+01	7.569E+01	0.000E+00	NOT IDENT.
LU-176	-3.479E-03	2.322E-02	4.217E-02	0.000E+00	NOT IDENT.
LU-177	1.412E+00	1.131E+00	1.839E+00	0.000E+00	FAIL ABUN
LU-177M	-3.013E-02	1.568E-01	2.785E-01	0.000E+00	FAIL ABUN
HF-181	-2.296E-02	3.906E-02	6.705E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	1.134E+00	1.548E+00	0.000E+00	NOT IDENT.
TA-182	7.569E-02	1.472E-01	2.650E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.798E-01	2.534E-01	0.000E+00	FAIL ABUN
RE-184	1.873E-01	2.589E-01	4.106E-01	0.000E+00	NOT IDENT.
OS-185	-7.054E-03	3.846E-02	6.603E-02	0.000E+00	NOT IDENT.
RE-188	-3.091E-02	1.967E-01	3.523E-01	0.000E+00	NOT IDENT.
W-188	5.618E+00	7.280E+00	1.213E+01	0.000E+00	FAIL ABUN
IR-192	6.974E-03	3.219E-02	5.923E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.989E-01	7.457E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.022E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.130E+00	6.953E+00	1.081E+01	0.000E+00	NOT IDENT.
TL-202	1.314E-02	5.914E-02	1.068E-01	0.000E+00	NOT IDENT.
HG-203	-1.537E-02	3.666E-02	6.629E-02	0.000E+00	FAIL ABUN
BI-207	-1.439E-02	4.061E-02	6.887E-02	0.000E+00	FAIL ABUN
TL-207	-7.084E-01	6.630E-01	9.607E-01	0.000E+00	FAIL ABUN
PO-209	3.932E+00	6.224E+00	1.111E+01	0.000E+00	NOT IDENT.
BI-210	4.432E-01	4.593E+00	8.735E+00	0.000E+00	NOT IDENT.
PB-210	4.432E-01	4.593E+00	8.735E+00	0.000E+00	NOT IDENT.
PO-210	4.432E-01	4.593E+00	8.735E+00	0.000E+00	NOT IDENT.
PB-211	-1.165E+00	1.094E+00	1.387E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.195E-01	5.846E-01	0.000E+00	FAIL ABUN
PO-215	-7.084E-01	6.630E-01	9.607E-01	0.000E+00	FAIL ABUN
RN-219	-1.580E-01	3.697E-01	6.491E-01	0.000E+00	FAIL ABUN
RN-220	-6.553E+00	2.346E+01	4.055E+01	0.000E+00	NOT IDENT.
RA-223	-7.084E-01	6.630E-01	9.607E-01	0.000E+00	FAIL ABUN
AC-227	2.702E-01	4.670E-01	7.306E-01	0.000E+00	FAIL ABUN
TH-227	2.702E-01	4.676E-01	7.306E-01	0.000E+00	FAIL ABUN
TH-229	-2.333E-01	5.426E-01	9.468E-01	0.000E+00	FAIL ABUN
PA-231	1.162E+00	1.410E+00	2.654E+00	0.000E+00	FAIL ABUN
TH-231	-7.084E-01	6.630E-01	9.607E-01	0.000E+00	FAIL ABUN
U-231	0.000E+00	2.182E+00	2.843E+00	0.000E+00	FAIL ABUN
PA-233	-2.797E-02	6.114E-02	1.095E-01	0.000E+00	FAIL ABUN
PA-234	2.257E-01	2.553E-01	4.584E-01	0.000E+00	FAIL ABUN
NP-236	5.548E-02	1.052E-01	1.684E-01	0.000E+00	FAIL ABUN
NP-237	5.853E-02	6.764E-01	7.933E-01	0.000E+00	NOT IDENT.
NP-239	1.149E-01	2.786E-01	4.510E-01	0.000E+00	FAIL ABUN
AM-241	4.590E-01	2.864E-01	4.858E-01	0.000E+00	NOT IDENT.
CM-243	-1.265E-01	1.493E-01	2.334E-01	0.000E+00	FAIL ABUN
AM-246	9.168E-02	1.092E-01	2.039E-01	0.000E+00	NOT IDENT.
CM-247	-2.470E-02	3.250E-02	5.606E-02	0.000E+00	NOT IDENT.
CF-249	1.188E-02	3.612E-02	6.604E-02	0.000E+00	NOT IDENT.
CF-251	6.743E-02	1.428E-01	2.585E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:28:20.53

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395014.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:27:14.
Sample ID         : G245395014           Sample quantity  : 1.69810E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1182	10.67*	1.168E+00	2.096E+01	2.096E+01	9.63
NB-95	765.79	365	99.81*	2.031E+00	3.981E-01	4.629E-01	20.67
BA-137M	661.65	53	89.98*	2.301E+00	5.692E-02	5.697E-02	121.19
CS-137	661.65	53	85.12*	2.301E+00	6.017E-02	6.023E-02	121.19
TL-208	277.35	------	6.80	4.511E+00	------ Line Not Found		------
	510.84	148	21.60	2.843E+00	5.326E-01	5.326E-01	54.12
	583.14	327	84.20*	2.554E+00	3.361E-01	3.361E-01	21.30
	860.37	68	12.46	1.835E+00	6.578E-01	6.578E-01	61.66
BI-211	72.87	------	1.27	4.857E+00	------ Line Not Found		------
	351.07	518	12.94*	3.788E+00	2.334E+00	2.334E+00	16.22
PB-212	74.81	501	10.70	5.073E+00	2.040E+00	2.040E+00	43.05
	77.11	520	18.00	5.318E+00	1.200E+00	1.200E+00	37.25
	87.30	------	8.00	6.097E+00	------ Line Not Found		------
	238.63	1157	44.60*	5.017E+00	1.143E+00	1.143E+00	10.90
	300.09	72	3.41	4.260E+00	1.103E+00	1.103E+00	73.80
PO-212	74.81	501	10.70	5.073E+00	2.040E+00	2.040E+00	43.05
	77.11	520	18.00	5.318E+00	1.200E+00	1.200E+00	37.25
	87.30	------	8.00	6.097E+00	------ Line Not Found		------
	115.19	------	0.60	6.866E+00	------ Line Not Found		------
	238.63	1157	44.60*	5.017E+00	1.143E+00	1.143E+00	10.90
	300.09	72	3.41	4.260E+00	1.103E+00	1.103E+00	73.80
BI-214	609.31	440	46.30*	2.464E+00	8.533E-01	8.533E-01	17.01
	1120.29	101	15.10	1.455E+00	1.012E+00	1.012E+00	35.79
	1764.49	75	15.80	1.029E+00	1.020E+00	1.020E+00	41.12
PB-214	74.81	501	6.21	5.073E+00	3.514E+00	3.514E+00	42.67
	77.11	520	10.50	5.318E+00	2.058E+00	2.058E+00	38.02
	87.30	------	4.67	6.097E+00	------ Line Not Found		------
	241.98	228	7.49	4.976E+00	1.351E+00	1.351E+00	43.19
	295.21	346	19.20	4.314E+00	9.239E-01	9.239E-01	25.41
	351.92	518	37.20*	3.788E+00	8.120E-01	8.121E-01	17.04
PO-214	74.81	501	6.21	5.073E+00	3.514E+00	3.514E+00	42.67
	77.11	520	10.50	5.318E+00	2.058E+00	2.058E+00	38.02

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	------	4.67	6.097E+00	------ Line Not Found		------
	241.98	228	7.49	4.976E+00	1.351E+00	1.351E+00	43.19
	295.21	346	19.20	4.314E+00	9.239E-01	9.239E-01	25.41
	351.92	518	37.20*	3.788E+00	8.120E-01	8.121E-01	17.04
PO-216	74.81	501	10.70	5.073E+00	2.040E+00	2.040E+00	43.05
	77.11	520	18.00	5.318E+00	1.200E+00	1.200E+00	37.25
	87.30	------	8.00	6.097E+00	------ Line Not Found		------
	238.63	1157	44.60*	5.017E+00	1.143E+00	1.143E+00	10.90
	300.09	72	3.41	4.260E+00	1.103E+00	1.103E+00	73.80
PO-218	74.81	501	6.21	5.073E+00	3.514E+00	3.514E+00	42.67
	77.11	520	10.50	5.318E+00	2.058E+00	2.058E+00	38.02
	87.30	------	4.67	6.097E+00	------ Line Not Found		------
	241.98	228	7.49	4.976E+00	1.351E+00	1.351E+00	43.19
	295.21	346	19.20	4.314E+00	9.239E-01	9.239E-01	25.41
	351.92	518	37.20*	3.788E+00	8.120E-01	8.121E-01	17.04
RA-224	240.98	228	3.95*	4.976E+00	2.562E+00	2.562E+00	42.83
RA-226	609.31	440	46.30*	2.464E+00	8.533E-01	8.533E-01	17.01
	1120.29	101	15.10	1.455E+00	1.012E+00	1.012E+00	35.79
	1764.49	75	15.80	1.029E+00	1.020E+00	1.020E+00	41.12
AC-228	338.32	224	11.40	3.900E+00	1.113E+00	1.113E+00	50.31
	911.07	267	27.70*	1.745E+00	1.219E+00	1.219E+00	22.40
	969.11	127	16.60	1.654E+00	1.021E+00	1.021E+00	37.05
RA-228	338.32	224	11.40	3.900E+00	1.113E+00	1.113E+00	50.31
	911.07	267	27.70*	1.745E+00	1.219E+00	1.219E+00	22.40
	969.11	127	16.60	1.654E+00	1.021E+00	1.021E+00	37.05
TH-228	74.81	501	10.70	5.073E+00	2.040E+00	2.068E+00	42.04
	77.11	520	18.00	5.318E+00	1.200E+00	1.217E+00	37.25
	87.30	------	8.00	6.097E+00	------ Line Not Found		------
	238.63	1157	44.60*	5.017E+00	1.143E+00	1.159E+00	10.90
	300.09	72	3.41	4.260E+00	1.103E+00	1.118E+00	94.08
TH-230	609.31	440	46.30*	2.464E+00	8.533E-01	8.533E-01	17.01
	1120.29	101	15.10	1.455E+00	1.012E+00	1.012E+00	35.79
	1764.49	75	15.80	1.029E+00	1.020E+00	1.020E+00	41.12
TH-232	338.32	224	11.40	3.900E+00	1.113E+00	1.113E+00	30.04
	911.07	267	27.70*	1.745E+00	1.219E+00	1.219E+00	22.40
	969.11	127	16.60	1.654E+00	1.021E+00	1.021E+00	37.05
PA-234M	766.42	365	0.32	2.031E+00	1.242E+02	1.242E+02	54.10
	1001.03	657	0.84*	1.607E+00	1.075E+02	1.075E+02	13.78
TH-234	63.29	4572	3.80*	3.629E+00	7.329E+01	7.329E+01	18.49
	92.38	12364	5.41	6.383E+00	7.915E+01	7.915E+01	18.17
U-234	609.31	440	46.30*	2.464E+00	8.533E-01	8.533E-01	17.01
	1120.29	101	15.10	1.455E+00	1.012E+00	1.012E+00	35.79
	1764.49	75	15.80	1.029E+00	1.020E+00	1.020E+00	41.12
U-235	89.95	------	2.70	6.249E+00	------ Line Not Found		------
	93.35	12364	4.50	6.383E+00	9.516E+01	9.516E+01	28.08
	105.00	------	2.10	6.763E+00	------ Line Not Found		------
	143.76	353	10.50*	6.639E+00	1.119E+00	1.119E+00	37.82
	163.35	205	4.70	6.305E+00	1.529E+00	1.529E+00	54.75
	185.71	2034	54.00	5.886E+00	1.415E+00	1.415E+00	8.85

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	205.31	102	4.70	5.540E+00	8.659E-01	8.659E-01	93.91
U-238	63.29	4572	3.80*	3.629E+00	7.329E+01	7.329E+01	18.49
	92.38	12364	5.41	6.383E+00	7.915E+01	7.915E+01	8.81
AM-243	74.67	501	66.00*	5.073E+00	3.307E-01	3.307E-01	42.02
	86.72	------	0.34	6.061E+00	------ Line Not Found		------
	117.66	------	0.55	6.871E+00	------ Line Not Found		------
	142.18	353	0.13	6.639E+00	9.396E+01	9.396E+01	34.62
ANH-511	511.00	148	100.00*	2.843E+00	1.150E-01	1.150E-01	53.47

Flag: "*" = Keyline

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

Total number of lines in spectrum 39
Number of unidentified lines 3
Number of lines tentatively identified by NID 36 92.31%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.096E+01	2.096E+01	0.202E+01	9.63	
NB-95	64.02D	1.16	3.981E-01	4.629E-01	0.957E-01	20.67	
BA-137M	30.17Y	1.00	5.692E-02	5.697E-02	6.904E-02	121.19	
CS-137	30.17Y	1.00	6.017E-02	6.023E-02	7.299E-02	121.19	
TL-208	1.41E+10Y	1.00	3.361E-01	3.361E-01	0.716E-01	21.30	
BI-211	7.04E+08Y	1.00	2.334E+00	2.334E+00	0.379E+00	16.22	
PB-212	1.41E+10Y	1.00	1.143E+00	1.143E+00	0.125E+00	10.90	
PO-212	1.41E+10Y	1.00	1.143E+00	1.143E+00	0.125E+00	10.90	
BI-214	1600.00Y	1.00	8.533E-01	8.533E-01	1.452E-01	17.01	
PB-214	1600.00Y	1.00	8.120E-01	8.121E-01	1.384E-01	17.04	
PO-214	1600.00Y	1.00	8.120E-01	8.121E-01	1.384E-01	17.04	
PO-216	1.41E+10Y	1.00	1.143E+00	1.143E+00	0.125E+00	10.90	
PO-218	1600.00Y	1.00	8.120E-01	8.121E-01	1.384E-01	17.04	
RA-224	1.41E+10Y	1.00	2.562E+00	2.562E+00	1.097E+00	42.83	
RA-226	1600.00Y	1.00	8.533E-01	8.533E-01	1.452E-01	17.01	
AC-228	1.41E+10Y	1.00	1.219E+00	1.219E+00	0.273E+00	22.40	
RA-228	1.41E+10Y	1.00	1.219E+00	1.219E+00	0.273E+00	22.40	
TH-228	1.91Y	1.01	1.143E+00	1.159E+00	0.126E+00	10.90	
TH-230	4.47E+09Y	1.00	8.533E-01	8.533E-01	1.452E-01	17.01	
TH-232	1.41E+10Y	1.00	1.219E+00	1.219E+00	0.273E+00	22.40	
PA-234M	4.47E+09Y	1.00	1.075E+02	1.075E+02	0.148E+02	13.78	
TH-234	4.47E+09Y	1.00	7.329E+01	7.329E+01	1.355E+01	18.49	
U-234	4.47E+09Y	1.00	8.533E-01	8.533E-01	1.452E-01	17.01	
U-235	7.04E+08Y	1.00	1.119E+00	1.119E+00	0.423E+00	37.82	
U-238	4.47E+09Y	1.00	7.329E+01	7.329E+01	1.355E+01	18.49	
AM-243	7380.00Y	1.00	3.307E-01	3.307E-01	1.389E-01	42.02	
ANH-511	1.00E+09Y	1.00	1.150E-01	1.150E-01	0.615E-01	53.47	
	Total Activity :		2.965E+02	2.966E+02			

Grand Total Activity : 2.965E+02 2.966E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.88	193	2573	0.95	167.59	165	8	2.68E-02	92.1	5.87E+00	T
0	98.59	859	1290	1.27	196.99	193	9	1.19E-01	16.6	6.61E+00	T
0	112.35	754	1666	1.25	224.49	218	11	1.05E-01	22.2	6.85E+00	T
0	258.25	156	314	1.45	516.07	511	10	2.17E-02	45.6	4.75E+00	
0	270.01	113	322	1.43	539.57	535	10	1.58E-02	62.0	4.60E+00	T
0	327.64	77	244	1.30	654.76	651	11	1.08E-02	80.8	3.99E+00	T
0	568.60	209	204	2.54	1136.46	1128	20	2.90E-02	36.9	2.61E+00	T
0	727.59	121	99	1.87	1454.34	1448	14	1.69E-02	39.1	2.12E+00	T
0	743.27	92	101	1.16	1485.71	1481	11	1.27E-02	47.5	2.09E+00	T
0	787.40	107	132	6.21	1573.95	1565	19	1.48E-02	55.2	1.98E+00	
3	964.99	61	65	2.27	1929.10	1920	25	8.46E-03	62.6	1.66E+00	T
0	1378.28	48	11	3.79	2755.85	2749	15	6.60E-03	42.3	1.22E+00	
0	1509.37	27	6	1.25	3018.15	3012	11	3.68E-03	51.8	1.14E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:28:26.13

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395014.CNF;1 *
* Acquisition date  : 2-FEB-2010 09:27:14.  Detector SN#     :             *
* Detector ID       : GAM19                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:02.37          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245395014            Analyst initials: MXR1         *
* Batch Number      : 944966                Sample Quantity : 1.69810E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope       :              *
* MSD ID           :                       MSD Isotope      :              *
* LCS ID           : 1032-A                LCS Isotope      :              *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.096E+01	2.020E+00	4.413E-01	3.287E-02	47.503
NB-95	4.629E-01	9.567E-02	6.386E-02	4.512E-03	7.249
BA-137M	5.697E-02	6.904E-02	5.050E-02	2.941E-03	1.128
CS-137	6.023E-02	7.299E-02	5.339E-02	3.122E-03	1.128
TL-208	3.361E-01	7.158E-02	5.497E-02	3.738E-03	6.114
BI-211	2.334E+00	3.786E-01	3.087E-01	1.971E-02	7.563
PB-212	1.143E+00	1.246E-01	9.040E-02	6.524E-03	12.646
PO-212	1.143E+00	1.246E-01	9.040E-02	6.524E-03	12.646
BI-214	8.533E-01	1.452E-01	9.833E-02	7.731E-03	8.678
PB-214	8.121E-01	1.384E-01	1.029E-01	8.487E-03	7.889
PO-214	8.121E-01	1.384E-01	1.029E-01	8.487E-03	7.889
PO-216	1.143E+00	1.246E-01	9.040E-02	6.524E-03	12.646
PO-218	8.121E-01	1.384E-01	1.029E-01	8.487E-03	7.889
RA-224	2.562E+00	1.097E+00	1.028E+00	5.826E-02	2.492
RA-226	8.533E-01	1.452E-01	9.833E-02	7.731E-03	8.678
AC-228	1.219E+00	2.731E-01	1.768E-01	2.000E-02	6.896
RA-228	1.219E+00	2.731E-01	1.768E-01	2.000E-02	6.896
TH-228	1.159E+00	1.263E-01	9.166E-02	6.615E-03	12.646

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	8.533E-01	1.452E-01	9.833E-02	7.731E-03	8.678
TH-232	1.219E+00	2.731E-01	1.768E-01	2.000E-02	6.896
PA-234M	1.075E+02	1.483E+01	6.315E+00	5.878E-01	17.032
TH-234	7.329E+01	1.355E+01	3.343E+00	5.849E-01	21.922
U-234	8.533E-01	1.452E-01	9.833E-02	7.731E-03	8.678
U-235	1.119E+00	4.231E-01	4.179E-01	6.776E-02	2.676
U-238	7.329E+01	1.355E+01	3.343E+00	5.849E-01	21.922
AM-243	3.307E-01	1.389E-01	1.470E-01	1.166E-02	2.250
ANH-511	1.150E-01	6.152E-02	4.436E-02	2.618E-03	2.593

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.615E-02		3.112E-01	5.129E-01	3.481E-02	-0.051
NA-22	6.238E-03		3.488E-02	5.889E-02	3.928E-03	0.106
NA-24	-1.724E-02		6.924E-02	Half-Life too short		
AL-26	-6.013E-03		2.508E-02	3.907E-02	2.281E-03	-0.154
TI-44	2.215E-01	+	8.252E-02	1.009E-01	8.233E-03	2.196
SC-46	-2.052E-02		3.393E-02	5.166E-02	4.489E-03	-0.397
V-48	2.129E-02		5.463E-02	9.102E-02	7.318E-03	0.234
CR-51	3.341E-01		3.334E-01	5.818E-01	3.765E-02	0.574
MN-52	5.278E-02		1.484E-01	2.567E-01	1.852E-02	0.206
MN-54	-4.505E-03		3.370E-02	5.397E-02	4.293E-03	-0.083
CO-56	8.427E-03		3.519E-02	5.799E-02	4.705E-03	0.145
CO-57	-2.728E-02		3.228E-02	5.123E-02	3.057E-03	-0.532
CO-58	-5.018E-02		3.382E-02	4.721E-02	3.617E-03	-1.063
FE-59	-4.550E-02		7.025E-02	1.105E-01	8.292E-03	-0.412
CO-60	-1.185E-02		3.072E-02	4.864E-02	3.584E-03	-0.244
ZN-65	5.073E-02		8.018E-02	1.242E-01	7.938E-03	0.409
GE-68	8.738E-01		9.635E-01	1.735E+00	1.200E-01	0.504
AS-73	4.347E-01		1.288E+00	2.140E+00	1.583E-01	0.203
AS-74	-2.073E-02		8.139E-02	1.314E-01	7.787E-03	-0.158
SE-75	-1.856E-03		5.413E-02	6.963E-02	4.049E-03	-0.027
BR-77	-4.008E+00		6.399E+00	1.012E+01	5.986E-01	-0.396
SR-82	-4.149E-01		3.536E-01	5.215E-01	3.755E-02	-0.796
RB-83	-4.427E-02		6.062E-02	9.526E-02	5.632E-03	-0.465
RB-84	7.368E-02		6.272E-02	1.103E-01	9.463E-03	0.668
KR-85	1.425E+01		7.301E+00	1.193E+01	7.043E-01	1.195
SR-85	7.215E-02		3.696E-02	6.038E-02	3.565E-03	1.195
RB-86	4.822E-01		5.950E-01	1.063E+00	7.364E-02	0.454
Y-88	-1.254E-02		2.682E-02	3.966E-02	2.264E-03	-0.316
ZR-88	-1.524E-02		2.919E-02	4.741E-02	2.640E-03	-0.321
Y-91	1.097E+00		1.468E+01	2.459E+01	1.436E+00	0.045
NB-94	-9.374E-03		3.217E-02	5.145E-02	3.240E-03	-0.182
NB-95M	3.084E-01		1.473E-01	2.234E-01	1.655E-02	1.381
ZR-95	3.530E-02		6.503E-02	1.097E-01	8.781E-03	0.322
NB-97	-6.601E-03		1.591E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	8.773E-01		2.951E-01	Half-Life too short		
MO-99	1.332E+01		9.456E+00	1.483E+01	2.107E+00	0.898
TC-99M	7.382E+08		9.305E+08	Half-Life too short		
RH-101	-2.618E-02		3.985E-02	5.757E-02	3.123E-03	-0.455
RH-102	2.535E-03		2.807E-02	4.669E-02	2.725E-03	0.054
RU-103	-4.225E-03		3.509E-02	5.757E-02	7.301E-03	-0.073
RH-106	1.480E-01		2.977E-01	5.025E-01	5.923E-02	0.294
RU-106	1.480E-01		2.973E-01	5.025E-01	2.963E-02	0.294
AG-108M	-1.365E-02		3.007E-02	4.870E-02	3.033E-03	-0.280
CD-109	9.238E-01		2.360E+00	2.472E+00	2.214E-01	0.374
AG-110M	-5.338E-03		3.804E-02	5.307E-02	3.293E-03	-0.101
IN-111	7.431E-01		8.867E-01	1.293E+00	7.352E-02	0.575
IN-113M	-2.976E-02		4.163E-02	6.688E-02	3.990E-03	-0.445
SN-113	-2.976E-02		4.163E-02	6.688E-02	3.990E-03	-0.445
IN-114M	-2.842E-02		2.124E-01	2.966E-01	1.594E-02	-0.096
CD-115	-1.343E+00		6.847E+00	1.116E+01	6.603E-01	-0.120
SN-117M	2.595E-02		7.011E-02	1.005E-01	5.351E-03	0.258
SB-122	2.854E+00		1.513E+00	2.497E+00	1.482E-01	1.143
I-123	4.631E-01		8.300E-01	Half-Life too short		
TE-123M	1.070E-02		3.835E-02	5.480E-02	2.959E-03	0.195
I-124	4.831E-02		5.497E-01	7.871E-01	4.658E-02	0.061
SB-124	1.053E-02		4.558E-02	7.833E-02	5.365E-03	0.134
SB-125	1.785E-03		8.598E-02	1.430E-01	8.516E-03	0.012
TE-125M	2.688E+01		1.569E+01	2.323E+01	2.052E+00	1.157
I-126	2.350E-03		1.760E-01	2.490E-01	1.463E-02	0.009
SB-126	-9.524E-03		1.336E-01	1.959E-01	1.275E-02	-0.049
SN-126	2.531E-02		2.327E-01	2.416E-01	2.155E-02	0.105
SB-127	-4.782E-01		1.020E+00	1.609E+00	1.481E-01	-0.297
XE-127	2.692E-02		5.931E-02	8.484E-02	4.628E-03	0.317
I-131	3.398E-02		1.000E-01	1.696E-01	1.081E-02	0.200
TE-132	4.415E-01		5.698E-01	9.331E-01	1.311E-01	0.473
BA-133	1.692E-02		4.434E-02	6.609E-02	7.618E-03	0.256
I-133	-1.739E-04		1.041E-03	Half-Life too short		
CS-134	1.038E-01		5.135E-02	8.690E-02	6.534E-03	1.195
CS-135	1.757E-01		1.724E-01	2.657E-01	2.028E-02	0.661
I-135	-2.113E+08		9.461E+07	Half-Life too short		
CS-136	5.244E-03		7.927E-02	1.336E-01	1.032E-02	0.039
CE-139	3.114E-02		4.021E-02	5.846E-02	3.052E-03	0.533
BA-140	-4.517E-02		2.200E-01	3.572E-01	1.162E-01	-0.126
LA-140	-2.515E-02		6.293E-02	9.712E-02	6.571E-03	-0.259
CE-141	2.792E-01		9.074E-02	1.393E-01	8.022E-03	2.004
CE-143	3.344E-04		5.582E-05	Half-Life too short		
CE-144	-1.092E-01		2.575E-01	4.130E-01	5.851E-02	-0.264
PM-144	1.054E-02		3.347E-02	5.417E-02	3.374E-03	0.195
PR-144	7.140E-01		2.267E+00	3.668E+00	2.284E-01	0.195
PM-146	-1.385E-02		4.197E-02	6.835E-02	5.886E-03	-0.203
ND-147	-4.042E-02		4.784E-01	7.846E-01	1.065E-01	-0.052
PM-149	-3.622E+01		5.887E+01	9.627E+01	1.364E+01	-0.376

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-1.873E-02		1.213E-01	1.526E-01	9.935E-03	-0.123
GD-153	9.561E-01	+	1.750E-01	2.402E-01	1.868E-02	3.981
EU-154	1.684E-02		9.745E-02	1.644E-01	1.627E-02	0.102
EU-155	-1.148E-02		1.603E-01	2.416E-01	1.738E-02	-0.048
TB-160	2.932E-02		1.287E-01	2.115E-01	1.809E-02	0.139
HO-166M	1.692E-02		5.626E-02	9.356E-02	5.993E-03	0.181
TM-171	-1.069E+02		5.008E+01	6.782E+01	5.156E+00	-1.577
LU-176	-3.479E-03		2.369E-02	3.955E-02	2.300E-03	-0.088
LU-177	1.412E+00		1.154E+00	1.704E+00	9.357E-02	0.828
LU-177M	-3.013E-02		1.600E-01	2.636E-01	1.490E-02	-0.114
HF-181	-2.296E-02		3.986E-02	6.379E-02	3.733E-03	-0.360
W-181	1.138E+01		1.157E+00	1.386E+00	1.049E-01	8.208
TA-182	7.569E-02		1.502E-01	2.600E-01	1.568E-02	0.291
RE-183	3.526E-01	+	1.835E-01	2.330E-01	1.228E-02	1.513
RE-184	1.873E-01		2.642E-01	3.828E-01	2.188E-02	0.489
OS-185	-7.054E-03		3.924E-02	6.341E-02	3.714E-03	-0.111
RE-188	-3.091E-02		2.007E-01	3.235E-01	1.738E-02	-0.096
W-188	5.618E+00		7.429E+00	1.136E+01	6.595E-01	0.495
IR-192	6.974E-03		3.285E-02	5.560E-02	3.248E-03	0.125
AU-195	2.781E+00	+	5.091E-01	6.758E-01	5.157E-02	4.115
TL-200	2.783E-05		1.032E-04	Half-Life too short		
TL-201	-1.130E+00		7.095E+00	9.948E+00	5.198E-01	-0.114
TL-202	1.314E-02		6.034E-02	1.013E-01	5.819E-03	0.130
HG-203	-1.537E-02		3.741E-02	6.198E-02	3.811E-03	-0.248
BI-207	-1.439E-02		4.144E-02	6.726E-02	4.776E-03	-0.214
TL-207	-7.084E-01		6.765E-01	9.025E-01	1.491E-01	-0.785
PO-209	3.932E+00		6.351E+00	1.079E+01	9.482E-01	0.365
BI-210	4.432E-01		4.687E+00	7.747E+00	5.905E-01	0.057
PB-210	4.432E-01		4.687E+00	7.747E+00	5.905E-01	0.057
PO-210	4.432E-01		4.687E+00	7.747E+00	5.049E-01	0.057
PB-211	-1.165E+00		1.117E+00	1.312E+00	8.178E-01	-0.888
BI-212	1.072E+00	+	4.280E-01	5.636E-01	4.692E-02	1.901
PO-215	-7.084E-01		6.765E-01	9.025E-01	1.491E-01	-0.785
RN-219	-1.580E-01		3.773E-01	6.139E-01	8.302E-02	-0.257
RN-220	-6.553E+00		2.394E+01	3.874E+01	2.298E+00	-0.169
RA-223	-7.084E-01		6.765E-01	9.025E-01	1.491E-01	-0.785
AC-227	2.702E-01		4.765E-01	6.813E-01	9.490E-02	0.397
TH-227	2.702E-01		4.772E-01	6.813E-01	1.150E-01	0.397
TH-229	-2.333E-01		5.537E-01	8.754E-01	4.723E-02	-0.267
PA-231	1.162E+00		1.439E+00	2.483E+00	3.421E-01	0.468
TH-231	-7.084E-01		6.765E-01	9.025E-01	1.491E-01	-0.785
U-231	9.085E+00		2.226E+00	2.574E+00	2.045E-01	3.529
PA-233	-2.797E-02		6.239E-02	1.028E-01	6.344E-03	-0.272
PA-234	2.257E-01		2.605E-01	4.459E-01	8.323E-02	0.506
NP-236	5.548E-02		1.074E-01	1.548E-01	8.200E-03	0.358
NP-237	5.853E-02		6.902E-01	7.161E-01	1.607E-01	0.082
NP-239	1.149E-01		2.843E-01	4.108E-01	2.569E-02	0.280
AM-241	4.590E-01		2.922E-01	4.339E-01	3.572E-02	1.058

Sample ID : G245395014 Acquisition date : 2-FEB-2010 09:27:14

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.265E-01		1.523E-01	2.118E-01	1.524E-02	-0.597
AM-246	9.168E-02		1.114E-01	1.992E-01	1.374E-02	0.460
CM-247	-2.470E-02		3.316E-02	5.303E-02	2.974E-03	-0.466
CF-249	1.188E-02		3.686E-02	6.239E-02	3.484E-03	0.190
CF-251	6.743E-02		1.457E-01	2.383E-01	1.259E-02	0.283

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395014            *
* Acquisition date :  2-FEB-2010 09:27:14 Detector SN#     :               *
* Detector ID      : GAM19                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.37     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 19-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245395014           Analyst initials: MXR1            *
* Batch Number     : 944966               Sample Quantity : 1.6981E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.096E+01	1.979E+00	2.236E-01	1.010E+00
NB-95	4.629E-01	9.375E-02	3.308E-02	4.783E-02
BA-137M	5.697E-02	6.766E-02	2.629E-02	3.452E-02
CS-137	6.023E-02	7.153E-02	2.779E-02	3.649E-02
TL-208	3.361E-01	7.014E-02	2.873E-02	3.579E-02
BI-211	2.334E+00	3.710E-01	1.640E-01	1.893E-01
PB-212	1.143E+00	1.221E-01	4.860E-02	6.229E-02
PO-212	1.143E+00	1.221E-01	4.860E-02	6.229E-02
BI-214	8.533E-01	1.423E-01	5.132E-02	7.258E-02
PB-214	8.121E-01	1.356E-01	5.468E-02	6.918E-02
PO-214	8.121E-01	1.356E-01	5.468E-02	6.918E-02
PO-216	1.143E+00	1.221E-01	4.860E-02	6.229E-02
PO-218	8.121E-01	1.356E-01	5.468E-02	6.918E-02
RA-224	2.562E+00	1.075E+00	5.526E-01	5.486E-01
RA-226	8.533E-01	1.423E-01	5.132E-02	7.258E-02
AC-228	1.219E+00	2.676E-01	9.104E-02	1.365E-01
RA-228	1.219E+00	2.676E-01	9.104E-02	1.365E-01
TH-228	1.159E+00	1.238E-01	4.928E-02	6.316E-02
TH-230	8.533E-01	1.423E-01	5.132E-02	7.258E-02
TH-232	1.219E+00	2.676E-01	9.104E-02	1.365E-01
PA-234M	1.075E+02	1.453E+01	3.242E+00	7.413E+00
TH-234	7.329E+01	1.328E+01	1.870E+00	6.774E+00
U-234	8.533E-01	1.423E-01	5.132E-02	7.258E-02
U-235	1.119E+00	4.146E-01	2.282E-01	2.115E-01
U-238	7.329E+01	1.328E+01	1.870E+00	6.774E+00
AM-243	3.307E-01	1.362E-01	8.181E-02	6.947E-02
ANH-511	1.150E-01	6.029E-02	2.328E-02	3.076E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-2.615E-02	3.050E-01	2.698E-01	1.556E-01	NOT IDENT.
NA-22	6.238E-03	3.419E-02	2.998E-02	1.744E-02	NOT IDENT.
NA-24	-1.724E+04	1.357E+05	0.000E+00	6.924E+04	SHORT HLIF
AL-26	-6.013E-03	2.458E-02	1.965E-02	1.254E-02	NOT IDENT.
TI-44	2.215E-01	8.087E-02	5.605E-02	4.126E-02	FAIL ABUN
SC-46	-2.052E-02	3.325E-02	2.663E-02	1.697E-02	FAIL ABUN
V-48	2.129E-02	5.354E-02	4.676E-02	2.732E-02	NOT IDENT.
CR-51	3.341E-01	3.267E-01	3.100E-01	1.667E-01	NOT IDENT.
MN-52	5.278E-02	1.454E-01	1.302E-01	7.421E-02	FAIL ABUN
MN-54	-4.505E-03	3.302E-02	2.787E-02	1.685E-02	NOT IDENT.
CO-56	8.427E-03	3.448E-02	2.994E-02	1.759E-02	NOT IDENT.
CO-57	-2.728E-02	3.163E-02	2.811E-02	1.614E-02	NOT IDENT.
CO-58	-5.018E-02	3.314E-02	2.441E-02	1.691E-02	NOT IDENT.
FE-59	-4.550E-02	6.885E-02	5.654E-02	3.513E-02	FAIL ABUN
CO-60	-1.185E-02	3.011E-02	2.473E-02	1.536E-02	NOT IDENT.
ZN-65	5.073E-02	7.857E-02	6.351E-02	4.009E-02	NOT IDENT.
GE-68	8.738E-01	9.442E-01	8.885E-01	4.818E-01	NOT IDENT.
AS-73	4.347E-01	1.262E+00	1.203E+00	6.441E-01	NOT IDENT.
AS-74	-2.073E-02	7.976E-02	6.865E-02	4.069E-02	NOT IDENT.
SE-75	-1.856E-03	5.305E-02	3.732E-02	2.706E-02	NOT IDENT.
BR-77	-4.008E+00	6.271E+00	5.311E+00	3.199E+00	FAIL ABUN
SR-82	-4.149E-01	3.465E-01	2.700E-01	1.768E-01	NOT IDENT.
RB-83	-4.427E-02	5.941E-02	4.997E-02	3.031E-02	NOT IDENT.
RB-84	7.368E-02	6.147E-02	5.684E-02	3.136E-02	NOT IDENT.
KR-85	1.425E+01	7.155E+00	6.260E+00	3.651E+00	NOT IDENT.
SR-85	7.215E-02	3.622E-02	3.169E-02	1.848E-02	NOT IDENT.
RB-86	4.822E-01	5.831E-01	5.442E-01	2.975E-01	NOT IDENT.
Y-88	-1.254E-02	2.628E-02	1.994E-02	1.341E-02	NOT IDENT.
ZR-88	-1.524E-02	2.861E-02	2.510E-02	1.460E-02	NOT IDENT.
Y-91	1.097E+00	1.439E+01	1.255E+01	7.341E+00	NOT IDENT.
NB-94	-9.374E-03	3.153E-02	2.673E-02	1.609E-02	NOT IDENT.
NB-95M	3.084E-01	1.444E-01	1.202E-01	7.366E-02	NOT IDENT.
ZR-95	3.530E-02	6.373E-02	5.684E-02	3.251E-02	NOT IDENT.
NB-97	-6.601E+03	3.118E+04	0.000E+00	1.591E+04	SHORT HLIF
ZR-97	8.773E+05	5.784E+05	0.000E+00	2.951E+05	SHORT HLIF
MO-99	1.332E+01	9.267E+00	7.692E+00	4.728E+00	NOT IDENT.
TC-99M	7.382E+14	1.824E+15	0.000E+00	9.305E+14	SHORT HLIF
RH-101	-2.618E-02	3.905E-02	3.113E-02	1.992E-02	NOT IDENT.
RH-102	2.535E-03	2.750E-02	2.457E-02	1.403E-02	FAIL ABUN
RU-103	-4.225E-03	3.439E-02	3.025E-02	1.755E-02	FAIL ABUN
RH-106	1.480E-01	2.917E-01	2.621E-01	1.488E-01	FAIL ABUN
RU-106	1.480E-01	2.914E-01	2.621E-01	1.487E-01	FAIL ABUN
AG-108M	-1.365E-02	2.947E-02	2.569E-02	1.504E-02	NOT IDENT.
CD-109	9.238E-01	2.313E+00	1.369E+00	1.180E+00	NOT IDENT.
AG-110M	-5.338E-03	3.728E-02	2.763E-02	1.902E-02	NOT IDENT.
IN-111	7.431E-01	8.690E-01	6.946E-01	4.433E-01	NOT IDENT.
IN-113M	-2.976E-02	4.079E-02	3.540E-02	2.081E-02	NOT IDENT.
SN-113	-2.976E-02	4.079E-02	3.540E-02	2.081E-02	NOT IDENT.
IN-114M	-2.842E-02	2.081E-01	1.606E-01	1.062E-01	NOT IDENT.
CD-115	-1.343E+00	6.710E+00	5.849E+00	3.423E+00	NOT IDENT.
SN-117M	2.595E-02	6.871E-02	5.473E-02	3.505E-02	NOT IDENT.
SB-122	2.854E+00	1.483E+00	1.307E+00	7.566E-01	NOT IDENT.
I-123	4.631E+05	1.627E+06	0.000E+00	8.300E+05	SHORT HLIF
TE-123M	1.070E-02	3.758E-02	2.983E-02	1.917E-02	NOT IDENT.
I-124	4.831E-02	5.387E-01	4.109E-01	2.749E-01	FAIL ABUN
SB-124	1.053E-02	4.467E-02	3.949E-02	2.279E-02	FAIL ABUN
SB-125	1.785E-03	8.427E-02	7.551E-02	4.299E-02	NOT IDENT.
TE-125M	2.688E+01	1.537E+01	1.278E+01	7.843E+00	NOT IDENT.
I-126	2.350E-03	1.725E-01	1.296E-01	8.800E-02	NOT IDENT.
SB-126	-9.524E-03	1.310E-01	1.017E-01	6.682E-02	NOT IDENT.
SN-126	2.531E-02	2.280E-01	1.338E-01	1.163E-01	FAIL ABUN
SB-127	-4.782E-01	1.000E+00	8.367E-01	5.102E-01	NOT IDENT.
XE-127	2.692E-02	5.813E-02	4.584E-02	2.966E-02	NOT IDENT.
I-131	3.398E-02	9.801E-02	9.000E-02	5.000E-02	NOT IDENT.
TE-132	4.415E-01	5.585E-01	5.024E-01	2.849E-01	FAIL ABUN
BA-133	1.692E-02	4.346E-02	3.510E-02	2.217E-02	NOT IDENT.
I-133	-1.739E+02	2.040E+03	0.000E+00	1.041E+03	SHORT HLIF
CS-134	1.038E-01	5.032E-02	4.496E-02	2.567E-02	FAIL ABUN
CS-135	1.757E-01	1.690E-01	1.424E-01	8.620E-02	NOT IDENT.
I-135	-2.113E+14	1.854E+14	0.000E+00	9.461E+13	SHORT HLIF
CS-136	5.244E-03	7.769E-02	6.849E-02	3.964E-02	FAIL ABUN
CE-139	3.114E-02	3.941E-02	3.178E-02	2.011E-02	NOT IDENT.
BA-140	-4.517E-02	2.156E-01	1.872E-01	1.100E-01	FAIL ABUN
LA-140	-2.515E-02	6.167E-02	4.907E-02	3.146E-02	FAIL ABUN
CE-141	2.792E-01	8.892E-02	7.603E-02	4.537E-02	NOT IDENT.
CE-143	3.344E+02	1.094E+02	0.000E+00	5.582E+01	SHORT HLIF
CE-144	-1.092E-01	2.524E-01	2.260E-01	1.288E-01	NOT IDENT.
PM-144	1.054E-02	3.280E-02	2.815E-02	1.673E-02	NOT IDENT.

PR-144	7.140E-01	2.221E+00	1.906E+00	1.133E+00	NOT IDENT.
PM-146	-1.385E-02	4.113E-02	3.602E-02	2.098E-02	NOT IDENT.
ND-147	-4.042E-02	4.688E-01	4.113E-01	2.392E-01	NOT IDENT.
PM-149	-3.622E+01	5.770E+01	5.147E+01	2.944E+01	NOT IDENT.
EU-152	-1.873E-02	1.189E-01	8.113E-02	6.064E-02	FAIL ABUN
GD-153	9.561E-01	1.715E-01	1.327E-01	8.752E-02	FAIL ABUN
EU-154	1.684E-02	9.550E-02	8.371E-02	4.872E-02	NOT IDENT.
EU-155	-1.148E-02	1.571E-01	1.331E-01	8.014E-02	NOT IDENT.
TB-160	2.932E-02	1.261E-01	1.091E-01	6.433E-02	FAIL ABUN
HO-166M	1.692E-02	5.514E-02	4.858E-02	2.813E-02	FAIL ABUN
TM-171	-1.069E+02	4.907E+01	3.787E+01	2.504E+01	NOT IDENT.
LU-176	-3.479E-03	2.322E-02	2.110E-02	1.185E-02	NOT IDENT.
LU-177	1.412E+00	1.131E+00	9.201E-01	5.771E-01	FAIL ABUN
LU-177M	-3.013E-02	1.568E-01	1.393E-01	8.000E-02	FAIL ABUN
HF-181	-2.296E-02	3.906E-02	3.354E-02	1.993E-02	NOT IDENT.
W-181	1.138E+01	1.134E+00	7.744E-01	5.786E-01	NOT IDENT.
TA-182	7.569E-02	1.472E-01	1.326E-01	7.509E-02	FAIL ABUN
RE-183	3.526E-01	1.798E-01	1.268E-01	9.176E-02	FAIL ABUN
RE-184	1.873E-01	2.589E-01	2.054E-01	1.321E-01	NOT IDENT.
OS-185	-7.054E-03	3.846E-02	3.303E-02	1.962E-02	NOT IDENT.
RE-188	-3.091E-02	1.967E-01	1.762E-01	1.004E-01	NOT IDENT.
W-188	5.618E+00	7.280E+00	6.068E+00	3.714E+00	FAIL ABUN
IR-192	6.974E-03	3.219E-02	2.963E-02	1.642E-02	FAIL ABUN
AU-195	2.781E+00	4.989E-01	3.731E-01	2.546E-01	FAIL ABUN
TL-200	2.783E+01	2.022E+02	0.000E+00	1.032E+02	SHORT HLIF
TL-201	-1.130E+00	6.953E+00	5.407E+00	3.548E+00	NOT IDENT.
TL-202	1.314E-02	5.914E-02	5.344E-02	3.017E-02	NOT IDENT.
HG-203	-1.537E-02	3.666E-02	3.316E-02	1.870E-02	FAIL ABUN
BI-207	-1.439E-02	4.061E-02	3.446E-02	2.072E-02	FAIL ABUN
TL-207	-7.084E-01	6.630E-01	4.806E-01	3.383E-01	FAIL ABUN
PO-209	3.932E+00	6.224E+00	5.558E+00	3.176E+00	NOT IDENT.
BI-210	4.432E-01	4.593E+00	4.370E+00	2.343E+00	NOT IDENT.
PB-210	4.432E-01	4.593E+00	4.370E+00	2.343E+00	NOT IDENT.
PO-210	4.432E-01	4.593E+00	4.370E+00	2.343E+00	NOT IDENT.
PB-211	-1.165E+00	1.094E+00	6.939E-01	5.584E-01	NOT IDENT.
BI-212	1.072E+00	4.195E-01	2.925E-01	2.140E-01	FAIL ABUN
PO-215	-7.084E-01	6.630E-01	4.806E-01	3.383E-01	FAIL ABUN
RN-219	-1.580E-01	3.697E-01	3.247E-01	1.886E-01	FAIL ABUN
RN-220	-6.553E+00	2.346E+01	2.029E+01	1.197E+01	NOT IDENT.
RA-223	-7.084E-01	6.630E-01	4.806E-01	3.383E-01	FAIL ABUN
AC-227	2.702E-01	4.670E-01	3.655E-01	2.382E-01	FAIL ABUN
TH-227	2.702E-01	4.676E-01	3.655E-01	2.386E-01	FAIL ABUN
TH-229	-2.333E-01	5.426E-01	4.737E-01	2.768E-01	FAIL ABUN
PA-231	1.162E+00	1.410E+00	1.328E+00	7.193E-01	FAIL ABUN
TH-231	-7.084E-01	6.630E-01	4.806E-01	3.383E-01	FAIL ABUN
U-231	9.085E+00	2.182E+00	1.422E+00	1.113E+00	FAIL ABUN
PA-233	-2.797E-02	6.114E-02	5.479E-02	3.119E-02	FAIL ABUN
PA-234	2.257E-01	2.553E-01	2.293E-01	1.303E-01	FAIL ABUN
NP-236	5.548E-02	1.052E-01	8.424E-02	5.369E-02	FAIL ABUN
NP-237	5.853E-02	6.764E-01	3.969E-01	3.451E-01	NOT IDENT.
NP-239	1.149E-01	2.786E-01	2.257E-01	1.422E-01	FAIL ABUN
AM-241	4.590E-01	2.864E-01	2.430E-01	1.461E-01	NOT IDENT.
CM-243	-1.265E-01	1.493E-01	1.168E-01	7.617E-02	FAIL ABUN
AM-246	9.168E-02	1.092E-01	1.020E-01	5.570E-02	NOT IDENT.
CM-247	-2.470E-02	3.250E-02	2.805E-02	1.658E-02	NOT IDENT.
CF-249	1.188E-02	3.612E-02	3.304E-02	1.843E-02	NOT IDENT.
CF-251	6.743E-02	1.428E-01	1.293E-01	7.287E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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46.50	1250.7310
46.50	1250.7310
46.50	1250.7310
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52.97	1579.5732
53.15	1579.8994
53.44	1627.4497
54.07	1649.1998
56.28	1934.3748
56.28	1914.7239
57.37	0.0000
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57.53	1807.9004
57.60	1808.0334
57.98	1815.0820
57.98	1815.0820
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59.32	1937.6190
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59.54	1938.0762
59.72	1938.4473
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61.10	1964.9968
61.14	1965.0765
61.30	2009.6796
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63.29	2006.3230
63.58	2006.9220
64.28	2008.3634
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65.20	1905.0677
65.20	1905.0677
66.05	1997.2750
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66.83	2070.3977
66.91	2156.4407
67.20	2157.0613
67.20	2157.0613
67.75	2152.6658
67.85	2156.8682
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68.90	1876.2670
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69.67	2132.8325
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70.82	2037.4275
70.83	2001.9302
72.80	2165.6643
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72.87	2237.7937
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74.81	2274.5520
74.81	2274.5520
74.81	2274.5520
74.81	2274.5520
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74.97	2274.8896
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77.11	2279.4207

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77.11	2279.4207
77.11	2279.4207
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79.80	2286.0320
79.80	2286.0320
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80.30	2375.6467
80.30	2375.6467
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81.07	2288.6406
81.07	2288.6406
81.07	2288.6406
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83.37	2314.3162
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83.78	2315.1558
83.78	2315.1558
83.78	2315.1558
84.21	2663.7178
84.90	2883.9844
85.43	2794.9778
86.29	2703.9648
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86.54	2797.6665
86.59	2797.7930
86.72	2798.1094
86.79	2798.2673
86.94	2798.6365
87.30	2799.5010
87.30	2799.5010
87.30	2799.5010
87.30	2799.5010
87.30	2799.5010
87.30	2799.5010
87.30	2799.5010
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87.88	2800.8928
88.03	2801.2512
88.36	2802.0422
88.47	2644.1438
89.95	2962.1577
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92.29	2620.1118
92.38	2620.3083
92.38	2620.3083
93.35	2622.4114
94.00	2623.8167
94.67	1345.2374
94.67	1345.2424
94.90	1345.4993
94.90	1345.4993
94.90	1345.4993
94.90	1345.4993
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95.87	1346.5618
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97.43	1348.2637
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98.44	1108.9298
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99.55	941.2958
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100.00	987.4861
100.10	987.5671
103.18	1049.0614
103.76	1107.0237
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105.31	1079.8486
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111.00	1136.4730
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117.00	889.1469
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122.32	864.8526
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144.24	760.4517
144.24	760.4517
144.24	760.4517
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154.21	709.9590
154.21	709.9590
154.21	709.9590
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156.02	688.4050
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159.00	671.9595
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171.86	622.9495
172.10	625.1820
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176.60	584.7922
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186.00	569.4695
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209.75	460.4741
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228.18	407.1887
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236.00	406.9474
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238.63	386.9944
238.63	386.9944
238.63	386.9944
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241.98	354.6364
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252.85	299.1098
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268.79	282.6120
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334.20	273.3107
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351.92	198.9766
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391.69	211.9305
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445.03	156.0179
445.03	156.0179
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513.99	122.9454
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609.31	119.1495
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621.84	112.4444
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661.65	103.3475
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696.49	113.5127
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911.07	69.1984
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969.11	60.1455
969.11	60.1455
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1077.35	46.4803
1078.86	48.3543
1085.78	61.4480
1099.22	66.2592
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1120.29	73.8612
1120.29	73.8612
1120.29	73.8612
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1124.00	0.0000
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1147.95	0.0000
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1173.22	71.8283
1175.09	67.1230
1177.93	68.1006
1189.05	61.5934
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1221.42	60.9688
1230.97	58.2027
1235.34	78.2931
1236.41	0.0000
1238.25	74.5088
1246.25	67.9117
1260.41	0.0000
1271.85	48.0204
1274.45	50.9211
1274.54	50.9232
1291.56	50.0957
1298.22	0.0000
1312.09	48.3236
1325.50	39.7071
1325.50	39.7071
1332.49	41.6877
1333.61	39.7555
1360.21	26.2870
1362.66	0.0000
1365.15	33.1270
1368.21	29.2432
1368.53	0.0000
1376.25	23.4229
1384.27	15.0751
1394.10	22.5068
1395.20	25.4456
1407.95	42.1637
1434.06	22.6388
1436.60	27.5705
1457.56	0.0000
1460.81	28.6554
1489.15	22.8184
1509.49	15.9193
1596.49	27.1868
1620.62	21.2136
1678.03	0.0000
1691.02	9.1758
1691.02	9.1758
1706.46	0.0000
1750.46	0.0000
1764.49	16.4661
1764.49	16.4661
1764.49	16.4661
1764.49	16.4661
1770.23	12.3584
1771.40	7.0628
1791.20	0.0000
1808.65	17.5914

1836.01	17.6502

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395014

Total Uranium Activity	2.1856E+02	ug/g
Total Uranium Counting Unc.	3.9500E+01	ug/g
Total Uranium Tpu	2.0153E-05	ug/g
Total Uranium Mda	5.5629E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 944966                    SAMPLE ID  : G245395014         *
*   ANALYST       : MXR1                      DETECTOR   : GAM19              *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  2-FEB-2010 09:27:14.40    SAMPLE ALQT:  169.810 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.655E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.688E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 6.739E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 3.326E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:49:06.08

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395015.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:47:21.
Sample ID         : G245395015           Sample quantity  : 1.57390E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.59  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.22*	1423	1166	1.13	127.17	121	12	1.98E-01	5.5	
2	2	74.92*	375	979	1.30	150.55	143	19	5.21E-02	15.9	1.89E+00
3	2	77.17*	533	854	1.09	155.06	143	19	7.40E-02	10.3	
4	2	87.26	294	780	1.30	175.23	172	22	4.09E-02	15.4	5.99E+00
5	2	90.08	219	981	1.29	180.86	172	22	3.05E-02	26.0	
6	2	92.69*	3562	845	1.28	186.08	172	22	4.95E-01	2.3	
7	0	98.54*	284	638	1.31	197.77	194	8	3.94E-02	16.7	
8	1	111.28	97	427	1.25	223.23	220	14	1.34E-02	32.2	2.74E+00
9	1	113.05*	205	607	1.25	226.77	220	14	2.85E-02	22.8	
10	0	128.88	80	495	1.31	258.42	255	8	1.11E-02	49.4	
11	0	144.21*	93	503	1.01	289.06	285	8	1.29E-02	44.3	
12	0	186.15*	862	627	1.31	372.90	366	15	1.20E-01	7.3	
13	5	238.96*	1194	245	1.20	478.45	472	23	1.66E-01	3.7	7.85E-01
14	5	242.08*	340	316	1.89	484.70	472	23	4.72E-02	14.0	
15	0	270.50	99	278	1.85	541.49	536	10	1.37E-02	33.1	
16	0	295.59*	313	292	1.40	591.66	586	11	4.35E-02	12.1	
17	0	300.71	61	213	1.05	601.88	598	9	8.41E-03	45.4	
18	0	338.65*	216	261	1.04	677.72	672	12	3.01E-02	16.6	
19	0	352.25*	595	263	1.14	704.90	698	14	8.27E-02	7.1	
20	0	463.44	69	111	1.36	927.14	921	10	9.54E-03	31.3	
21	0	511.04*	87	218	2.16	1022.29	1015	15	1.22E-02	41.4	
22	0	583.57*	308	152	1.42	1167.26	1161	14	4.28E-02	10.5	
23	0	609.51*	415	144	1.47	1219.10	1211	16	5.76E-02	8.3	
24	0	727.15	78	33	1.26	1454.24	1450	9	1.08E-02	17.5	
25	0	767.29	131	118	1.40	1534.47	1528	15	1.82E-02	20.1	
26	0	786.61*	32	54	1.47	1573.08	1569	10	4.50E-03	50.6	
27	0	795.15	58	50	2.62	1590.14	1585	11	8.04E-03	27.0	
28	0	860.55	65	66	1.77	1720.87	1715	13	9.09E-03	28.3	
29	0	911.44*	240	64	1.55	1822.57	1817	14	3.33E-02	9.8	
30	1	964.60*	42	73	1.92	1928.81	1921	29	5.80E-03	39.4	1.44E+00
31	1	969.16*	159	56	1.92	1937.94	1921	29	2.20E-02	13.0	
32	0	1001.18*	246	45	1.79	2001.94	1996	15	3.42E-02	8.8	
33	0	1121.17*	49	99	0.87	2241.73	2234	17	6.74E-03	50.1	
34	0	1269.73	18	59	4.33	2538.64	2523	18	2.55E-03	103.4	
35	0	1408.78	25	9	1.39	2816.52	2812	9	3.40E-03	31.4	
36	0	1460.98*	1397	26	2.08	2920.84	2911	16	1.94E-01	2.8	
37	0	1588.30	38	10	2.21	3175.30	3170	12	5.31E-03	22.7	
38	0	1764.76*	74	3	1.19	3527.92	3522	11	1.03E-02	13.5	

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:49:09

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395015.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:47:21
Sample ID : G245395015 Sample quantity : 157.39 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.59 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.301E+01	3.471E+00	4.858E-01	4.319E-02	67.954
CD-109	+	88.03	*	3.711E+00	1.198E+00	1.783E+00	1.687E-01	2.081
SN-126	+	64.28		1.278E+01	2.349E+00	1.033E+00	1.520E-01	12.374
	+	86.94		1.519E+00	7.861E-01	7.885E-01	3.274E-01	1.926
	+	87.57	*	3.654E-01	1.180E-01	1.765E-01	1.662E-02	2.070
CE-141	+	145.44	*	1.048E-01	9.325E-02	1.095E-01	9.526E-03	0.957
TL-208		277.35		3.908E-01	4.011E-01	6.849E-01	8.704E-02	0.571
	+	510.84		4.038E-01	3.378E-01	2.369E-01	2.815E-02	1.705
	+	583.14	*	4.076E-01	9.317E-02	6.132E-02	5.569E-03	6.647
	+	860.37		8.228E-01	4.720E-01	4.784E-01	4.585E-02	1.720
BI-211		72.87		8.158E+00	4.155E+00	6.941E+00	5.693E-01	1.175
	+	351.07	*	3.403E+00	5.750E-01	3.117E-01	2.835E-02	10.916
BI-212	+	727.18	*	8.904E-01	3.243E-01	4.531E-01	4.490E-02	1.965
	+	785.46		2.378E+00	2.417E+00	2.836E+00	2.478E-01	0.838
		1620.62		1.159E+00	1.169E+00	2.186E+00	1.881E-01	0.530
PB-212	+	74.81		2.010E+00	6.868E-01	7.124E-01	8.916E-02	2.821
	+	77.11		1.610E+00	3.598E-01	4.020E-01	3.411E-02	4.005
	+	87.30		1.690E+00	5.711E-01	8.187E-01	1.123E-01	2.064
	+	238.63	*	1.469E+00	1.835E-01	9.485E-02	9.603E-03	15.488
	+	300.09		1.160E+00	1.060E+00	1.207E+00	1.305E-01	0.960
PO-212	+	74.81		2.010E+00	6.868E-01	7.124E-01	8.916E-02	2.821
	+	77.11		1.610E+00	3.598E-01	4.020E-01	3.411E-02	4.005
	+	87.30		1.690E+00	5.711E-01	8.187E-01	1.123E-01	2.064
		115.19		4.512E+00	4.853E+00	7.121E+00	6.188E-01	0.634
	+	238.63	*	1.469E+00	1.835E-01	9.485E-02	9.603E-03	15.488
	+	300.09		1.160E+00	1.060E+00	1.207E+00	1.305E-01	0.960
BI-214	+	609.31	*	1.035E+00	1.994E-01	1.097E-01	1.082E-02	9.438
	+	1120.29		6.430E-01	6.476E-01	4.889E-01	5.231E-02	1.315
	+	1764.49		1.356E+00	3.836E-01	2.592E-01	2.174E-02	5.232
PB-214	+	74.81		3.463E+00	1.167E+00	1.227E+00	1.368E-01	2.821
	+	77.11		2.760E+00	6.517E-01	6.891E-01	7.859E-02	4.005
	+	87.30		2.895E+00	9.608E-01	1.403E+00	1.704E-01	2.064
	+	241.98		2.514E+00	7.532E-01	5.713E-01	6.103E-02	4.399
	+	295.21		1.051E+00	2.796E-01	2.290E-01	2.529E-02	4.588

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.184E+00	2.093E-01	1.087E-01	1.139E-02	10.892
PO-214	+	74.81		3.463E+00	1.167E+00	1.227E+00	1.368E-01	2.821
	+	77.11		2.760E+00	6.517E-01	6.891E-01	7.859E-02	4.005
	+	87.30		2.895E+00	9.608E-01	1.403E+00	1.704E-01	2.064
	+	241.98		2.514E+00	7.532E-01	5.713E-01	6.103E-02	4.399
	+	295.21		1.051E+00	2.796E-01	2.290E-01	2.529E-02	4.588
	+	351.92	*	1.184E+00	2.093E-01	1.087E-01	1.139E-02	10.892
PO-216	+	74.81		2.010E+00	6.868E-01	7.124E-01	8.916E-02	2.821
	+	77.11		1.610E+00	3.598E-01	4.020E-01	3.411E-02	4.005
	+	87.30		1.690E+00	5.711E-01	8.187E-01	1.123E-01	2.064
	+	238.63	*	1.469E+00	1.835E-01	9.485E-02	9.603E-03	15.488
	+	300.09		1.160E+00	1.060E+00	1.207E+00	1.305E-01	0.960
PO-218	+	74.81		3.463E+00	1.167E+00	1.227E+00	1.368E-01	2.821
	+	77.11		2.760E+00	6.517E-01	6.891E-01	7.859E-02	4.005
	+	87.30		2.895E+00	9.608E-01	1.403E+00	1.704E-01	2.064
	+	241.98		2.514E+00	7.532E-01	5.713E-01	6.103E-02	4.399
	+	295.21		1.051E+00	2.796E-01	2.290E-01	2.529E-02	4.588
	+	351.92	*	1.184E+00	2.093E-01	1.087E-01	1.139E-02	10.892
RA-224	+	240.98	*	4.766E+00	1.403E+00	1.080E+00	9.811E-02	4.414
RA-226	+	609.31	*	1.035E+00	1.994E-01	1.097E-01	1.082E-02	9.438
	+	1120.29		6.430E-01	6.476E-01	4.889E-01	5.231E-02	1.315
	+	1764.49		1.356E+00	3.836E-01	2.592E-01	2.174E-02	5.232
AC-228	+	338.32		1.361E+00	7.215E-01	3.765E-01	1.555E-01	3.614
	+	911.07	*	1.430E+00	3.257E-01	2.250E-01	2.604E-02	6.354
	+	969.11		1.672E+00	5.855E-01	3.782E-01	8.873E-02	4.421
RA-228	+	338.32		1.361E+00	7.215E-01	3.765E-01	1.555E-01	3.614
	+	911.07	*	1.430E+00	3.257E-01	2.250E-01	2.604E-02	6.354
	+	969.11		1.672E+00	5.855E-01	3.782E-01	8.873E-02	4.421
TH-228	+	74.81		2.038E+00	6.702E-01	7.223E-01	6.068E-02	2.821
	+	77.11		1.632E+00	3.648E-01	4.076E-01	3.459E-02	4.005
	+	87.30		1.713E+00	5.531E-01	8.301E-01	7.796E-02	2.064
	+	238.63	*	1.489E+00	1.861E-01	9.617E-02	9.737E-03	15.488
	+	300.09		1.176E+00	1.275E+00	1.224E+00	7.265E-01	0.960
TH-230	+	609.31	*	1.035E+00	1.994E-01	1.097E-01	1.082E-02	9.438
	+	1120.29		6.430E-01	6.476E-01	4.889E-01	5.231E-02	1.315
	+	1764.49		1.356E+00	3.836E-01	2.592E-01	2.174E-02	5.232
TH-232	+	338.32		1.361E+00	4.680E-01	3.765E-01	3.314E-02	3.614
	+	911.07	*	1.430E+00	3.257E-01	2.250E-01	2.604E-02	6.354
	+	969.11		1.672E+00	5.855E-01	3.782E-01	8.873E-02	4.421
PA-234M	+	766.42		5.797E+01	3.755E+01	1.963E+01	9.959E+00	2.954
	+	1001.03	*	5.275E+01	1.073E+01	7.097E+00	7.234E-01	7.433
TH-234	+	63.29	*	3.228E+01	6.702E+00	2.728E+00	4.795E-01	11.833
	+	92.38		2.857E+01	5.393E+00	1.151E+00	2.111E-01	24.812
U-234	+	609.31	*	1.035E+00	1.994E-01	1.097E-01	1.082E-02	9.438
	+	1120.29		6.430E-01	6.476E-01	4.889E-01	5.231E-02	1.315
	+	1764.49		1.356E+00	3.836E-01	2.592E-01	2.174E-02	5.232
U-235	+	89.95		3.614E+00	2.191E+00	2.358E+00	7.324E-01	1.532
	+	93.35		3.435E+01	9.804E+00	1.374E+00	3.869E-01	25.007
		105.00		7.667E-01	1.313E+00	2.103E+00	6.280E-01	0.365

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	143.76	*	3.587E-01	3.238E-01	3.741E-01	6.536E-02	0.959
		163.35		3.955E-01	5.418E-01	9.161E-01	1.744E-01	0.432
	+	185.71		7.377E-01	1.258E-01	7.291E-02	6.335E-03	10.119
		205.31		-1.370E-01	5.798E-01	9.498E-01	1.823E-01	-0.144
NP-237	+	86.50	*	1.073E+00	4.111E-01	5.503E-01	1.246E-01	1.950
		95.87		3.138E+00	1.859E+00	2.100E+00	5.197E-01	1.495
U-238	+	63.29	*	3.228E+01	6.702E+00	2.728E+00	4.795E-01	11.833
	+	92.38		2.857E+01	2.907E+00	1.151E+00	1.052E-01	24.812
AM-243	+	74.67	*	3.258E-01	1.071E-01	1.159E-01	9.637E-03	2.812
	+	86.72		4.023E+01	1.299E+01	2.094E+01	1.954E+00	1.921
		117.66		1.125E+00	4.904E+00	6.998E+00	6.101E-01	0.161
		142.18		1.611E+01	2.141E+01	3.301E+01	2.823E+00	0.488
ANH-511	+	511.00	*	8.722E-02	7.261E-02	5.118E-02	4.337E-03	1.704

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.782E-02	3.188E-01	5.092E-01	4.632E-02	-0.035
NA-22		1274.54	*	3.053E-02	4.810E-02	7.780E-02	6.533E-03	0.392
NA-24		1368.53	*	-2.934E-03	4.810E-02	Half-Life too short		
AL-26		1129.67		-9.609E-01	2.253E+00	3.113E+00	2.600E-01	-0.309
		1808.65	*	-1.210E-02	2.718E-02	3.952E-02	3.275E-03	-0.306
TI-44		67.85		-1.177E-02	7.220E-02	9.415E-02	7.466E-03	-0.125
	+	78.38	*	2.971E-01	6.640E-02	8.888E-02	7.627E-03	3.343
SC-46		889.25	*	2.036E-02	4.125E-02	7.029E-02	6.354E-03	0.290
	+	1120.51		1.090E-01	1.095E-01	1.131E-01	9.506E-03	0.963
V-48		944.10		4.260E-01	9.242E-01	1.565E+00	1.410E-01	0.272
		983.50	*	4.907E-02	6.952E-02	1.202E-01	1.073E-02	0.408
		1312.09		6.143E-03	6.934E-02	1.167E-01	9.898E-03	0.053
CR-51		320.08	*	-2.753E-01	3.816E-01	5.995E-01	5.639E-02	-0.459
MN-52		744.21		1.688E-01	2.278E-01	3.960E-01	3.397E-02	0.426
		848.13		-4.265E+00	5.565E+00	8.408E+00	7.516E-01	-0.507
		935.52		1.217E-02	2.357E-01	3.858E-01	3.479E-02	0.032
		1246.25		-2.355E+00	6.563E+00	1.063E+01	8.839E-01	-0.221
		1333.61		-3.113E+00	3.793E+00	5.579E+00	4.757E-01	-0.558
		1434.06	*	6.313E-02	1.834E-01	3.187E-01	2.751E-02	0.198
MN-54		834.83	*	2.954E-02	3.810E-02	6.630E-02	5.901E-03	0.446
CO-56		846.75	*	-3.382E-03	3.659E-02	5.947E-02	5.313E-03	-0.057
		977.42		1.938E+00	3.192E+00	4.871E+00	4.356E-01	0.398
		1037.82		3.337E-02	3.479E-01	5.677E-01	5.233E-02	0.059
		1175.09		-1.290E+00	2.317E+00	3.704E+00	3.000E-01	-0.348
		1238.25		1.664E-01	1.016E-01	1.864E-01	1.593E-02	0.893
		1360.21		-5.600E-02	9.316E-01	1.536E+00	1.315E-01	-0.036
		1771.40		-6.614E-01	3.057E-01	2.944E-01	2.465E-02	-2.246
CO-57		122.06	*	-1.094E-02	2.962E-02	4.631E-02	4.077E-03	-0.236
		136.48		5.783E-03	2.241E-01	3.808E-01	3.518E-02	0.015
CO-58		810.76	*	-6.566E-03	4.193E-02	6.805E-02	6.021E-03	-0.096
FE-59		142.65		4.886E+00	3.349E+00	5.270E+00	4.507E-01	0.927

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		192.34		3.414E-01	1.074E+00	1.610E+00	2.175E-01	0.212
		1099.22	*	3.526E-02	9.585E-02	1.598E-01	1.473E-02	0.221
		1291.56		4.588E-02	1.198E-01	2.074E-01	1.995E-02	0.221
CO-60		1173.22		-8.445E-03	4.839E-02	8.010E-02	6.483E-03	-0.105
		1332.49	*	-3.157E-02	3.440E-02	4.977E-02	4.242E-03	-0.634
ZN-65		1115.52	*	-2.484E-02	1.147E-01	1.546E-01	1.304E-02	-0.161
GE-68		1077.35	*	7.970E-01	1.427E+00	2.415E+00	2.079E-01	0.330
AS-73		53.44	*	7.351E-01	1.189E+00	1.971E+00	1.595E-01	0.373
AS-74		595.88	*	-1.160E-01	8.856E-02	1.334E-01	1.124E-02	-0.869
		634.78		4.019E-03	3.337E-01	5.575E-01	4.631E-02	0.007
SE-75		66.05		2.002E+00	6.736E+00	9.831E+00	9.640E-01	0.204
		96.73		2.263E+00	1.418E+00	1.699E+00	2.347E-01	1.332
		121.11		-1.631E-01	1.614E-01	2.447E-01	2.775E-02	-0.667
		136.00		7.749E-03	4.183E-02	7.141E-02	6.180E-03	0.109
		198.60		-1.523E+00	1.995E+00	3.145E+00	3.060E-01	-0.484
		264.65	*	2.842E-02	5.052E-02	7.595E-02	6.977E-03	0.374
		279.53		2.420E-02	1.169E-01	1.946E-01	1.839E-02	0.124
		303.91		-1.642E-02	2.444E+00	3.518E+00	4.157E-01	-0.005
		400.65		7.999E-02	2.573E-01	4.247E-01	4.551E-02	0.188
BR-77	+	87.88		5.645E+02	1.822E+02	3.013E+02	2.848E+01	1.873
		200.40		8.943E+01	1.241E+02	2.125E+02	1.874E+01	0.421
	+	239.00		1.658E+02	1.933E+01	2.513E+01	2.281E+00	6.598
		249.79		-6.399E+00	5.493E+01	7.942E+01	7.243E+00	-0.081
		281.68		-3.420E+01	6.799E+01	1.093E+02	9.993E+00	-0.313
		297.23		2.030E+02	6.623E+01	8.701E+01	7.915E+00	2.333
		303.76		-5.880E+00	1.471E+02	2.113E+02	1.916E+01	-0.028
		439.47		5.410E+01	9.792E+01	1.639E+02	1.359E+01	0.330
		484.57		-3.644E+00	1.674E+02	2.678E+02	2.258E+01	-0.014
		520.65	*	-6.096E-02	7.736E+00	1.234E+01	1.047E+00	-0.005
		574.64		4.342E+01	1.508E+02	2.578E+02	2.182E+01	0.168
		578.91		-4.918E+01	7.331E+01	1.001E+02	8.467E+00	-0.491
		585.48		9.412E+02	1.933E+02	3.426E+02	2.894E+01	2.747
		755.35		1.547E+02	1.241E+02	2.227E+02	1.921E+01	0.695
		817.79		1.766E+01	9.679E+01	1.616E+02	1.430E+01	0.109
SR-82		698.33		6.621E+00	3.554E+01	5.973E+01	5.002E+00	0.111
		776.49	*	-2.343E-01	3.744E-01	5.837E-01	5.082E-02	-0.401
		1395.20		1.124E+01	9.396E+00	1.800E+01	1.548E+00	0.625
RB-83		520.41	*	1.797E-03	7.222E-02	1.155E-01	9.795E-03	0.016
		529.64		-4.274E-02	1.148E-01	1.849E-01	1.570E-02	-0.231
		552.65		-4.913E-02	2.018E-01	3.339E-01	2.834E-02	-0.147
RB-84		881.50	*	6.884E-02	7.628E-02	1.336E-01	1.205E-02	0.515
KR-85		513.99	*	1.561E+01	9.147E+00	1.445E+01	1.225E+00	1.081
SR-85		513.99	*	7.903E-02	4.631E-02	7.314E-02	6.201E-03	1.081
RB-86		1076.63	*	2.302E-01	9.004E-01	1.485E+00	1.279E-01	0.155
Y-88		898.02		9.531E-03	4.686E-02	7.783E-02	7.082E-03	0.122
		1836.01	*	2.191E-02	2.886E-02	5.460E-02	4.490E-03	0.401
ZR-88		392.90	*	-2.393E-03	3.161E-02	5.100E-02	4.106E-03	-0.047
Y-91		1204.90	*	7.244E+00	2.077E+01	3.569E+01	2.924E+00	0.203
NB-94		702.63	*	1.816E-02	3.532E-02	6.066E-02	5.092E-03	0.299

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.10		-1.093E-02	3.233E-02	5.108E-02	4.596E-03	-0.214
NB-95		765.79	*	1.482E-01	6.320E-02	1.054E-01	9.134E-03	1.406
NB-95M		235.69	*	8.137E-02	1.401E-01	2.108E-01	2.162E-02	0.386
ZR-95		724.18		-6.078E-02	1.072E-01	1.440E-01	1.332E-02	-0.422
		756.15	*	5.952E-02	7.581E-02	1.321E-01	1.255E-02	0.450
NB-97		657.90	*	-2.503E-02	7.581E-02	Half-Life too short		
		1024.50		-3.400E+00	7.581E-02	Half-Life too short		
ZR-97		254.15		2.307E-02	7.581E-02	Half-Life too short		
		355.39		5.381E-01	7.581E-02	Half-Life too short		
		507.63	*	3.804E-01	7.581E-02	Half-Life too short		
		602.52		5.722E-01	7.581E-02	Half-Life too short		
		1021.30		1.498E+00	7.581E-02	Half-Life too short		
		1147.95		2.745E-01	7.581E-02	Half-Life too short		
		1362.66		1.189E+00	7.581E-02	Half-Life too short		
		1750.46		2.009E+00	7.581E-02	Half-Life too short		
MO-99		140.51		-2.475E+00	2.321E+01	3.430E+01	9.493E+00	-0.072
		181.06		-1.659E+00	1.490E+01	2.194E+01	4.016E+00	-0.076
		366.43		2.036E+01	6.229E+01	1.034E+02	8.741E+00	0.197
		739.58	*	8.691E-01	1.004E+01	1.670E+01	2.530E+00	0.052
		778.00		-2.641E+00	2.608E+01	4.264E+01	3.715E+00	-0.062
TC-99M		140.51	*	-1.727E+08	2.608E+01	Half-Life too short		
RH-101		127.23		-1.273E-02	4.264E-02	5.908E-02	5.139E-03	-0.215
		198.01	*	-3.463E-02	3.641E-02	5.691E-02	5.008E-03	-0.609
		325.23		-3.678E-01	2.529E-01	3.805E-01	3.396E-02	-0.967
RH-102		418.52		-1.167E-01	2.986E-01	4.697E-01	3.849E-02	-0.248
		475.06	*	-1.162E-02	3.079E-02	4.803E-02	4.039E-03	-0.242
		631.29		-5.077E-02	5.541E-02	8.583E-02	7.142E-03	-0.592
		697.49		-3.590E-03	8.319E-02	1.377E-01	1.152E-02	-0.026
	+	766.84		5.506E-01	2.268E-01	2.807E-01	2.433E-02	1.962
		1046.59		-8.443E-02	1.254E-01	1.889E-01	1.650E-02	-0.447
		1112.84		-1.696E-01	2.849E-01	3.847E-01	3.248E-02	-0.441
RU-103		497.08	*	-2.489E-02	4.270E-02	6.511E-02	9.156E-03	-0.382
	+	610.33		1.094E+01	2.562E+00	2.756E+00	4.566E-01	3.971
RH-106	+	511.85		4.347E-01	3.618E-01	4.254E-01	3.606E-02	1.022
		621.84	*	-2.560E-01	3.154E-01	4.916E-01	6.483E-02	-0.521
		1050.47		1.578E+00	2.433E+00	4.170E+00	3.636E-01	0.379
RU-106	+	511.85		4.347E-01	3.618E-01	4.254E-01	3.606E-02	1.022
		621.84	*	-2.560E-01	3.144E-01	4.916E-01	4.107E-02	-0.521
		1050.47		1.578E+00	2.433E+00	4.170E+00	3.636E-01	0.379
AG-108M		433.93	*	-2.855E-03	3.204E-02	5.133E-02	4.426E-03	-0.056
		614.37		3.934E-03	4.108E-02	6.035E-02	5.265E-03	0.065
		722.95		-8.162E-03	4.599E-02	6.471E-02	5.714E-03	-0.126
AG-110M		657.75	*	-3.221E-02	3.833E-02	5.995E-02	5.083E-03	-0.537
		677.61		-4.349E-02	3.125E-01	5.141E-01	4.383E-02	-0.085
		706.67		-1.716E-01	2.308E-01	3.522E-01	3.049E-02	-0.487
		763.93		2.797E-01	2.111E-01	3.385E-01	3.013E-02	0.826
		884.67		-6.165E-02	5.796E-02	8.569E-02	7.965E-03	-0.719
		937.48		2.033E-03	1.181E-01	1.927E-01	1.795E-02	0.011
		1384.27		-9.927E-02	1.774E-01	2.749E-01	2.429E-02	-0.361

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-111		171.28		-9.088E-02	7.570E-01	1.269E+00	1.086E-01	-0.072
		245.39	*	-3.297E-01	9.048E-01	1.288E+00	1.173E-01	-0.256
IN-113M		391.69	*	-1.319E-02	4.607E-02	7.335E-02	6.109E-03	-0.180
SN-113		391.69	*	-1.319E-02	4.607E-02	7.335E-02	6.109E-03	-0.180
IN-114M		190.27	*	-4.861E-02	2.044E-01	2.981E-01	2.603E-02	-0.163
CD-115		260.90		-1.595E+01	9.453E+01	1.552E+02	1.419E+01	-0.103
		492.35		1.381E+01	2.575E+01	4.282E+01	3.617E+00	0.323
		527.90	*	-2.072E+00	7.733E+00	1.281E+01	1.088E+00	-0.162
SN-117M		156.02		-2.620E-01	2.292E+00	3.858E+00	3.285E-01	-0.068
		158.56	*	-1.370E-02	5.447E-02	9.120E-02	7.764E-03	-0.150
SB-122		563.90	*	1.728E+00	1.541E+00	2.762E+00	2.341E-01	0.626
		692.80		1.950E+01	3.464E+01	5.792E+01	4.835E+00	0.337
I-123		159.00	*	1.828E-01	3.464E+01	Half-Life too short		
		528.96		-9.074E+00	3.464E+01	Half-Life too short		
TE-123M		159.00	*	4.148E-03	2.959E-02	5.019E-02	4.299E-03	0.083
I-124		602.71	*	-6.322E-02	6.240E-01	8.997E-01	7.565E-02	-0.070
		722.78		-6.579E-01	3.934E+00	5.542E+00	4.703E-01	-0.119
		1325.50		1.434E+01	2.651E+01	4.688E+01	3.989E+00	0.306
		1376.25		3.218E+01	2.959E+01	5.389E+01	4.625E+00	0.597
		1509.49		1.573E+01	1.313E+01	2.482E+01	2.149E+00	0.634
		1691.02		2.982E-01	2.491E+00	4.186E+00	3.566E-01	0.071
SB-124		602.71		-4.428E-03	4.371E-02	6.302E-02	5.300E-03	-0.070
		645.85		4.954E-02	5.143E-01	8.634E-01	7.599E-02	0.057
		709.31		3.854E-01	2.815E+00	4.715E+00	3.972E-01	0.082
		713.82		-9.884E-01	1.608E+00	2.526E+00	3.009E-01	-0.391
		722.78		-6.679E-02	3.994E-01	5.627E-01	4.882E-02	-0.119
	+	968.20		1.697E+01	4.667E+00	7.358E+00	6.594E-01	2.307
		1045.16		-2.045E+00	2.665E+00	3.973E+00	3.472E-01	-0.515
		1325.50		1.555E+00	2.875E+00	5.083E+00	4.325E-01	0.306
		1368.21		-4.265E-01	1.838E+00	2.967E+00	3.990E-01	-0.144
		1436.60		-1.231E+00	3.368E+00	5.262E+00	4.544E-01	-0.234
		1691.02	*	7.140E-03	5.966E-02	1.002E-01	8.887E-03	0.071
SB-125		427.89	*	7.717E-03	9.692E-02	1.572E-01	1.323E-02	0.049
	+	463.38		6.165E-01	3.897E-01	5.342E-01	4.845E-02	1.154
		600.56		1.231E-01	1.791E-01	3.063E-01	2.776E-02	0.402
		635.90		-4.203E-02	2.722E-01	4.491E-01	4.052E-02	-0.094
TE-125M		109.28	*	8.607E-01	1.318E+01	1.871E+01	1.939E+00	0.046
I-126		388.63		5.846E-02	1.982E-01	3.272E-01	2.650E-02	0.179
		666.33	*	-7.412E-02	1.848E-01	2.990E-01	2.456E-02	-0.248
		753.82		7.024E-01	1.449E+00	2.480E+00	2.137E-01	0.283
SB-126		223.80		-5.341E+00	4.015E+00	6.282E+00	5.652E-01	-0.850
		278.60		3.664E+00	2.489E+00	4.330E+00	3.960E-01	0.846
	+	296.50		9.778E+00	2.529E+00	3.321E+00	3.022E-01	2.944
		414.70		3.056E-02	7.191E-02	1.194E-01	9.759E-03	0.256
		415.30		4.048E+00	5.946E+00	1.002E+01	8.195E-01	0.404
		555.20		-2.171E+00	3.802E+00	6.140E+00	5.210E-01	-0.354
		573.80		-1.621E-01	1.019E+00	1.693E+00	1.434E-01	-0.096
		593.00		5.670E-01	8.763E-01	1.531E+00	1.291E-01	0.370
		656.30		6.034E-02	3.201E+00	5.339E+00	4.387E-01	0.011

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.33		-3.089E-02	7.702E-02	1.246E-01	1.023E-02	-0.248
		675.00		5.990E-01	1.942E+00	3.300E+00	2.726E-01	0.182
		695.00		-3.265E-02	7.975E-02	1.286E-01	1.074E-02	-0.254
		697.00		-9.296E-04	2.694E-01	4.470E-01	3.740E-02	-0.002
		720.50	*	7.740E-02	1.391E-01	2.283E-01	1.935E-02	0.339
		856.80		6.576E-02	5.197E-01	7.485E-01	6.708E-02	0.088
		989.30		-1.718E-01	1.339E+00	2.149E+00	1.915E-01	-0.080
		1034.80		-1.161E+00	8.885E+00	1.419E+01	1.246E+00	-0.082
		1213.00		-4.987E-01	4.704E+00	7.814E+00	6.421E-01	-0.064
SB-127		61.10		1.459E+02	7.468E+01	1.133E+02	1.137E+01	1.288
		252.40		-6.861E-01	3.706E+00	6.071E+00	2.553E+00	-0.113
		290.80		-6.420E+00	2.024E+01	2.858E+01	3.204E+00	-0.225
		411.60		-5.921E-02	1.060E+01	1.713E+01	2.609E+00	-0.003
		444.90		-4.659E+00	8.466E+00	1.309E+01	1.572E+00	-0.356
		473.00		7.285E-01	1.410E+00	2.341E+00	2.906E-01	0.311
		543.00		1.221E-01	1.422E+01	2.396E+01	3.365E+00	0.005
		603.60		-7.358E+00	1.080E+01	1.460E+01	1.759E+00	-0.504
		685.20	*	6.332E-01	1.087E+00	1.883E+00	2.034E-01	0.336
		698.50		-2.149E+00	1.335E+01	2.190E+01	3.382E+00	-0.098
		722.20		-2.536E+00	2.725E+01	3.875E+01	4.147E+00	-0.065
		783.80		5.404E-01	3.464E+00	5.033E+00	6.132E-01	0.107
XE-127		57.60		8.195E+00	9.293E+00	1.391E+01	1.068E+00	0.589
	+	145.22		1.158E+00	1.031E+00	1.391E+00	1.188E-01	0.833
		172.10		-3.100E-02	1.176E-01	1.960E-01	1.679E-02	-0.158
		202.84	*	-4.101E-02	5.087E-02	8.247E-02	7.291E-03	-0.497
		374.96		-5.815E-02	2.015E-01	3.169E-01	2.639E-02	-0.183
I-131		80.18		-4.771E+00	6.184E+00	8.606E+00	7.549E-01	-0.554
		284.30		-2.386E-01	1.393E+00	2.276E+00	2.174E-01	-0.105
		364.48	*	2.651E-03	1.032E-01	1.683E-01	1.506E-02	0.016
		636.97		3.500E-01	1.407E+00	2.390E+00	2.101E-01	0.146
		722.89		-1.239E+00	6.979E+00	9.820E+00	8.380E-01	-0.126
TE-132		49.72		-1.561E+01	2.123E+01	3.369E+01	3.514E+00	-0.463
	+	111.76		4.036E+01	2.636E+01	5.483E+01	5.802E+00	0.736
		116.30		2.571E+01	2.806E+01	4.115E+01	4.366E+00	0.625
		228.16	*	5.318E-01	5.620E-01	9.597E-01	1.510E-01	0.554
BA-133		53.15		4.636E+00	5.158E+00	8.610E+00	6.996E-01	0.538
		79.62		-2.909E-01	1.915E+00	2.731E+00	4.167E-01	-0.107
		81.00		-2.843E-01	1.591E-01	2.048E-01	3.271E-02	-1.388
		276.40		2.064E-01	4.139E-01	6.739E-01	9.952E-02	0.306
		302.84		6.947E-02	1.691E-01	2.501E-01	3.398E-02	0.278
		356.01	*	-1.257E-02	5.274E-02	7.378E-02	9.730E-03	-0.170
		383.85		-9.396E-02	3.082E-01	4.904E-01	6.036E-02	-0.192
I-133	+	510.53		3.374E-01	3.082E-01	Half-Life too short		
		529.87	*	-7.864E-04	3.082E-01	Half-Life too short		
		706.58		-1.360E-01	3.082E-01	Half-Life too short		
		856.28		5.013E-02	3.082E-01	Half-Life too short		
		875.33		5.351E-02	3.082E-01	Half-Life too short		
		1236.41		3.249E-01	3.082E-01	Half-Life too short		
		1298.22		-1.414E-01	3.082E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134		475.35		-1.606E+00	2.020E+00	3.044E+00	2.560E-01	-0.528
		563.23		2.390E-01	3.704E-01	6.469E-01	5.539E-02	0.369
		569.32		-3.259E-02	2.065E-01	3.419E-01	2.937E-02	-0.095
		604.70		-1.044E-02	3.842E-02	5.443E-02	4.587E-03	-0.192
	+	795.84	*	1.113E-01	6.086E-02	9.095E-02	8.038E-03	1.224
		801.93		-1.491E-01	4.627E-01	6.966E-01	6.161E-02	-0.214
		1038.57		4.066E+00	4.310E+00	7.539E+00	6.608E-01	0.539
		1167.94		6.714E-01	2.878E+00	4.915E+00	3.995E-01	0.137
		1365.15		4.366E-01	1.249E+00	2.161E+00	1.937E-01	0.202
CS-135		268.24	*	8.202E-02	1.812E-01	2.703E-01	2.818E-02	0.303
I-135		288.45		-4.172E+08	1.812E-01	Half-Life too short		
		417.63		-8.066E+07	1.812E-01	Half-Life too short		
		546.56		4.553E+08	1.812E-01	Half-Life too short		
		836.80		3.955E+08	1.812E-01	Half-Life too short		
		1038.76		1.050E+09	1.812E-01	Half-Life too short		
		1124.00		-1.219E+09	1.812E-01	Half-Life too short		
		1131.51		1.694E+08	1.812E-01	Half-Life too short		
		1260.41	*	-1.260E+08	1.812E-01	Half-Life too short		
		1457.56		2.156E+10	1.812E-01	Half-Life too short		
		1678.03		1.486E+08	1.812E-01	Half-Life too short		
		1706.46		1.024E+09	1.812E-01	Half-Life too short		
		1791.20		1.428E+08	1.812E-01	Half-Life too short		
CS-136		66.91		-8.569E-01	1.058E+00	1.469E+00	2.209E-01	-0.583
	+	86.29		4.474E+00	1.506E+00	2.416E+00	3.215E-01	1.852
		153.22		4.828E-01	6.842E-01	1.179E+00	1.125E-01	0.410
		163.89		1.346E+00	1.154E+00	1.983E+00	1.895E-01	0.679
		176.55		2.307E-01	3.593E-01	6.166E-01	5.613E-02	0.374
		273.65		-5.369E-01	5.259E-01	7.100E-01	6.877E-02	-0.756
		340.57		4.990E-01	1.533E-01	2.543E-01	2.295E-02	1.962
		818.51		1.371E-02	7.214E-02	1.205E-01	1.067E-02	0.114
		1048.07	*	3.350E-02	1.067E-01	1.776E-01	1.615E-02	0.189
		1235.34		-1.038E-01	6.400E-01	1.059E+00	1.229E-01	-0.098
BA-137M		661.65	*	3.672E-02	3.919E-02	6.904E-02	5.655E-03	0.532
CS-137		661.65	*	3.882E-02	4.143E-02	7.298E-02	5.991E-03	0.532
CE-139		165.85	*	3.518E-02	3.318E-02	5.755E-02	4.901E-03	0.611
BA-140		162.64		-2.927E-01	7.936E-01	1.309E+00	1.181E-01	-0.224
		304.84		-5.631E-01	1.431E+00	1.991E+00	5.606E-01	-0.283
		423.70		-6.084E-01	1.882E+00	2.958E+00	9.557E-01	-0.206
		537.32	*	-6.073E-02	2.468E-01	4.077E-01	1.350E-01	-0.149
LA-140		328.77		3.158E-01	3.004E-01	5.141E-01	4.814E-02	0.614
		432.53		1.404E+00	1.938E+00	3.274E+00	2.848E-01	0.429
		487.03		5.376E-02	1.365E-01	2.246E-01	2.017E-02	0.239
		751.79		-1.193E+00	1.676E+00	2.602E+00	2.480E-01	-0.458
		815.85		9.485E-02	3.239E-01	5.450E-01	5.348E-02	0.174
		867.82		-1.638E-02	1.313E+00	1.946E+00	1.835E-01	-0.008
		919.63		-3.605E-01	2.934E+00	4.447E+00	4.887E-01	-0.081
		925.24		-3.573E-01	1.108E+00	1.750E+00	1.671E-01	-0.204
		1596.49	*	-4.013E-02	9.512E-02	1.390E-01	1.199E-02	-0.289
CE-143		57.37		4.049E-04	9.512E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		231.56		-6.754E-04	9.512E-02	Half-Life too short		
		293.26	*	2.199E-04	9.512E-02	Half-Life too short		
		350.59		1.146E-02	9.512E-02	Half-Life too short		
		490.36		-1.026E-03	9.512E-02	Half-Life too short		
		664.57		3.767E-04	9.512E-02	Half-Life too short		
		721.93		4.835E-05	9.512E-02	Half-Life too short		
CE-144		80.11		-2.440E+00	3.151E+00	4.385E+00	3.823E-01	-0.557
		133.54	*	-1.135E-01	2.720E-01	3.729E-01	5.805E-02	-0.304
PM-144		476.78		-2.729E-02	7.007E-02	1.091E-01	1.008E-02	-0.250
		618.01		2.106E-03	3.126E-02	5.117E-02	4.406E-03	0.041
		696.49	*	-4.646E-03	3.789E-02	6.236E-02	5.218E-03	-0.075
		778.57		9.698E-01	2.287E+00	3.900E+00	3.399E-01	0.249
PR-144		696.49	*	-3.146E-01	2.566E+00	4.223E+00	3.533E-01	-0.075
		1489.15		6.910E+00	9.885E+00	1.819E+01	1.574E+00	0.380
PM-146		453.90	*	2.991E-02	4.865E-02	8.116E-02	8.525E-03	0.369
		633.02		-4.550E-01	1.418E+00	2.293E+00	8.555E-01	-0.198
		735.90		-6.056E-02	1.618E-01	2.585E-01	7.387E-02	-0.234
		747.13		-7.169E-02	9.691E-02	1.498E-01	2.100E-02	-0.479
ND-147	+	91.11		8.406E-01	4.457E-01	9.745E-01	9.633E-02	0.863
		319.41		-2.062E+00	3.244E+00	5.126E+00	4.599E-01	-0.402
		439.89		5.100E+00	5.493E+00	9.383E+00	7.782E-01	0.544
		531.02	*	-2.475E-01	5.769E-01	9.247E-01	1.376E-01	-0.268
PM-149		285.90	*	-1.364E+01	6.507E+01	1.060E+02	1.678E+01	-0.129
EU-152		121.78		-3.963E-02	8.600E-02	1.339E-01	1.349E-02	-0.296
		244.69		9.979E-02	3.526E-01	5.916E-01	5.384E-02	0.169
		344.27	*	7.030E-02	1.070E-01	1.609E-01	1.488E-02	0.437
		443.98		-2.871E-01	1.013E+00	1.600E+00	1.329E-01	-0.179
		778.89		1.421E-01	2.634E-01	4.532E-01	3.950E-02	0.314
		867.32		6.058E-01	8.219E-01	1.289E+00	1.159E-01	0.470
	+	964.01		5.055E-01	4.009E-01	5.784E-01	5.189E-02	0.874
		1085.78		-9.479E-03	4.797E-01	7.722E-01	6.621E-02	-0.012
		1112.02		7.392E-02	3.514E-01	5.617E-01	4.745E-02	0.132
	+	1407.95		2.905E-01	1.842E-01	3.490E-01	3.006E-02	0.832
GD-153		69.67		5.954E-01	2.349E+00	3.415E+00	2.739E-01	0.174
		83.37		2.623E+01	2.477E+01	3.347E+01	3.014E+00	0.784
	+	97.43	*	3.925E-01	1.354E-01	1.831E-01	1.626E-02	2.143
		103.18		-1.524E-01	1.367E-01	1.976E-01	1.724E-02	-0.771
EU-154		123.07		3.770E-02	6.026E-02	9.750E-02	1.120E-02	0.387
		247.94		1.252E-01	4.107E-01	6.098E-01	7.227E-02	0.205
		591.81		4.591E-01	6.340E-01	1.087E+00	1.254E-01	0.422
		723.30		-5.154E-02	1.931E-01	2.688E-01	2.529E-02	-0.192
		756.87		2.566E-01	8.469E-01	1.429E+00	1.713E-01	0.180
		873.19		-5.351E-02	2.922E-01	4.696E-01	5.878E-02	-0.114
		996.32		-5.768E-02	4.303E-01	5.907E-01	1.057E-01	-0.098
		1004.76		8.116E-02	2.696E-01	3.926E-01	4.643E-02	0.207
		1274.45	*	1.021E-01	1.377E-01	2.183E-01	2.431E-02	0.468
EU-155		48.70		-4.395E-01	3.382E+00	5.497E+00	4.704E-01	-0.080
		60.01		5.817E+00	7.647E+00	1.137E+01	8.598E-01	0.511
	+	86.54		4.398E-01	1.421E-01	2.372E-01	2.229E-02	1.854

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	7.774E-02	1.325E-01	2.151E-01	1.892E-02	0.361
TB-160	+	86.79		1.162E+00	3.751E-01	6.277E-01	5.862E-02	1.851
		197.04		-6.333E-01	6.121E-01	9.529E-01	8.377E-02	-0.665
		215.65		-4.721E-01	7.935E-01	1.292E+00	1.155E-01	-0.365
		298.57		6.064E-02	1.754E-01	1.900E-01	1.727E-02	0.319
		879.36	*	7.758E-02	1.529E-01	2.605E-01	2.349E-02	0.298
		962.29		9.288E-01	6.213E-01	1.014E+00	9.103E-02	0.916
		966.15		7.664E-01	2.546E-01	4.794E-01	4.299E-02	1.599
		1177.93		-5.913E-02	3.529E-01	5.836E-01	4.733E-02	-0.101
		1271.85		6.606E-01	7.567E-01	1.226E+00	1.027E-01	0.539
HO-166M		80.57		-4.912E-01	4.133E-01	5.649E-01	4.948E-02	-0.869
		184.41		3.459E-01	5.324E-02	8.795E-02	7.632E-03	3.933
		280.46		-7.200E-02	9.100E-02	1.441E-01	1.317E-02	-0.500
		410.95		5.373E-02	2.596E-01	4.251E-01	3.467E-02	0.126
		711.68	*	4.225E-02	5.888E-02	1.029E-01	8.681E-03	0.411
		752.31		-1.709E-01	2.887E-01	4.537E-01	3.907E-02	-0.377
		810.29		-2.287E-02	6.537E-02	1.044E-01	9.213E-03	-0.219
TM-171		51.35		-4.990E+00	4.343E+01	7.054E+01	5.870E+00	-0.071
		52.39		1.848E+01	2.255E+01	3.760E+01	3.086E+00	0.491
		59.40		3.764E+01	4.078E+01	6.102E+01	4.599E+00	0.617
		66.72	*	-1.611E+01	4.020E+01	5.710E+01	4.497E+00	-0.282
LU-176	+	88.36		8.666E-01	2.798E-01	4.637E-01	4.374E-02	1.869
		201.83		2.047E-02	3.145E-02	5.370E-02	4.743E-03	0.381
		306.84	*	-1.510E-03	2.696E-02	4.263E-02	3.858E-03	-0.035
		401.10		2.717E+00	6.888E+00	1.142E+01	9.255E-01	0.238
LU-177	+	112.95		5.353E+00	2.483E+00	3.397E+00	2.946E-01	1.576
		208.36	*	7.253E-01	1.052E+00	1.796E+00	1.596E-01	0.404
LU-177M		52.97		2.093E+00	2.328E+00	3.887E+00	3.166E-01	0.538
		54.07		1.408E-01	1.232E+00	2.013E+00	1.616E-01	0.070
		61.30		6.554E+00	2.430E+00	3.761E+00	2.869E-01	1.743
		121.62		-2.771E-01	4.406E-01	6.813E-01	5.985E-02	-0.407
		147.16		3.374E-02	7.845E-01	1.175E+00	1.003E-01	0.029
		171.86		-9.050E-02	4.838E-01	8.088E-01	6.927E-02	-0.112
		218.09		-4.788E-01	9.216E-01	1.505E+00	1.348E-01	-0.318
		268.79		7.977E-01	9.436E-01	1.435E+00	1.313E-01	0.556
		319.02		-2.747E-01	2.699E-01	4.158E-01	3.731E-02	-0.661
		367.43		4.293E-01	8.923E-01	1.494E+00	1.261E-01	0.287
		413.65	*	-1.511E-01	1.865E-01	2.852E-01	2.330E-02	-0.530
HF-181		56.28		-8.786E-01	1.343E+00	2.139E+00	1.668E-01	-0.411
		57.53		6.964E-01	7.853E-01	1.176E+00	9.037E-02	0.592
		65.20		5.479E+00	1.516E+00	2.357E+00	1.840E-01	2.325
		133.02		7.847E-03	8.354E-02	1.178E-01	1.016E-02	0.067
		136.25		-1.461E-02	4.819E-01	8.174E-01	7.024E-02	-0.018
		345.85		-6.409E-03	2.129E-01	3.035E-01	2.647E-02	-0.021
		482.03	*	-1.980E-02	4.311E-02	6.666E-02	5.617E-03	-0.297
W-181		56.28		-3.473E-01	5.325E-01	8.481E-01	6.615E-02	-0.410
		57.53		2.764E-01	3.116E-01	4.666E-01	3.586E-02	0.592
		65.20	*	2.157E+00	5.966E-01	9.278E-01	7.243E-02	2.325
TA-182		67.75		-7.197E-02	1.573E-01	2.228E-01	1.766E-02	-0.323

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		100.10		5.866E-01	2.520E-01	3.849E-01	3.384E-02	1.524
		152.43		2.083E-01	3.704E-01	6.362E-01	5.420E-02	0.327
		222.10		1.649E-01	3.635E-01	6.156E-01	5.532E-02	0.268
	+	1001.68		2.307E+01	4.547E+00	7.297E+00	6.480E-01	3.161
	+	1121.28		3.018E-01	3.033E-01	3.129E-01	2.627E-02	0.965
		1189.05		1.780E-02	3.197E-01	5.385E-01	4.386E-02	0.033
		1221.42	*	-5.859E-02	2.338E-01	3.845E-01	3.169E-02	-0.152
		1230.97		-3.570E-01	5.371E-01	8.536E-01	7.060E-02	-0.418
RE-183		57.98		1.726E-01	3.090E-01	4.574E-01	3.498E-02	0.377
		59.32		1.441E-01	1.658E-01	2.477E-01	1.868E-02	0.582
		67.20		-2.085E-01	2.838E-01	3.974E-01	3.139E-02	-0.525
		162.32	*	-5.052E-02	1.222E-01	2.012E-01	1.712E-02	-0.251
		208.81		8.504E-01	1.067E+00	1.826E+00	1.623E-01	0.466
		291.72		-5.895E-01	1.116E+00	1.553E+00	1.416E-01	-0.380
RE-184		57.98		6.406E-01	1.147E+00	1.697E+00	1.298E-01	0.377
		59.32		5.342E-01	6.147E-01	9.185E-01	6.928E-02	0.582
		67.20		-7.734E-01	1.053E+00	1.474E+00	1.164E-01	-0.525
		161.27		-4.249E-01	3.846E-01	6.226E-01	5.301E-02	-0.682
		216.55		-6.574E-02	2.814E-01	4.651E-01	4.162E-02	-0.141
		252.85	*	-5.628E-02	2.453E-01	4.021E-01	3.671E-02	-0.140
		318.01		-2.649E-01	4.767E-01	7.573E-01	6.800E-02	-0.350
		792.07		1.200E+00	1.337E+00	1.578E+00	1.383E-01	0.760
		903.28		1.498E-01	1.061E+00	1.755E+00	1.589E-01	0.085
		920.93		-4.444E-01	4.713E-01	6.947E-01	6.279E-02	-0.640
OS-185		59.72		4.624E-01	4.474E-01	6.715E-01	5.065E-02	0.689
		61.14		5.530E-01	2.609E-01	4.003E-01	3.050E-02	1.381
		69.30		1.392E-01	4.137E-01	6.035E-01	4.829E-02	0.231
		592.07		9.515E-01	2.550E+00	4.378E+00	3.692E-01	0.217
		646.12	*	1.654E-02	4.329E-02	7.413E-02	6.124E-03	0.223
		717.42		1.218E-01	8.810E-01	1.476E+00	1.249E-01	0.083
		874.81		7.760E-01	5.727E-01	1.046E+00	9.418E-02	0.742
		880.27		-1.312E-02	8.475E-01	1.384E+00	1.249E-01	-0.009
RE-188		155.03	*	9.593E-02	1.854E-01	3.180E-01	2.708E-02	0.302
		477.96		-6.035E-01	3.103E+00	4.903E+00	4.127E-01	-0.123
		633.10		1.440E-02	2.744E+00	4.582E+00	3.809E-01	0.003
W-188	+	63.58		1.282E+03	1.728E+02	1.843E+02	1.426E+01	6.955
		227.08		2.014E+00	1.323E+01	2.215E+01	1.998E+00	0.091
		290.67	*	-2.347E+00	8.622E+00	1.222E+01	1.114E+00	-0.192
IR-192	+	295.96		7.922E-01	2.051E-01	2.711E-01	2.483E-02	2.922
		308.46		3.458E-02	9.967E-02	1.664E-01	1.512E-02	0.208
		316.51	*	2.111E-02	3.454E-02	5.840E-02	5.262E-03	0.362
		468.07		-4.337E-02	7.799E-02	1.029E-01	9.288E-03	-0.421
		604.41		-1.390E-01	5.104E-01	7.229E-01	9.308E-02	-0.192
		612.46		1.909E+00	8.541E-01	1.447E+00	1.402E-01	1.320
AU-195		65.12		1.212E+00	2.865E-01	4.460E-01	3.480E-02	2.718
		66.83		-1.076E-01	1.343E-01	1.876E-01	1.478E-02	-0.573
	+	75.70		1.050E+00	3.450E-01	4.948E-01	4.149E-02	2.121
	+	98.88	*	1.142E+00	3.937E-01	5.315E-01	4.693E-02	2.148
	+	129.76		4.124E+00	4.094E+00	5.463E+00	4.733E-01	0.755

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-200		367.94	*	7.527E-05	4.094E+00	Half-Life too short		
		579.30		-1.527E-03	4.094E+00	Half-Life too short		
		828.27		-4.375E-04	4.094E+00	Half-Life too short		
		1205.75		5.229E-05	4.094E+00	Half-Life too short		
TL-201		68.90		7.657E-01	5.665E+00	7.483E+00	5.972E-01	0.102
		70.82		3.744E+00	2.930E+00	4.389E+00	3.548E-01	0.853
		80.30		-7.321E+00	5.803E+00	7.905E+00	6.906E-01	-0.926
		135.34		1.488E+01	2.222E+01	3.593E+01	3.090E+00	0.414
		167.43	*	-3.151E+00	5.800E+00	9.590E+00	8.177E-01	-0.329
TL-202		68.90		8.469E-02	6.265E-01	8.276E-01	6.605E-02	0.102
		70.82		4.129E-01	3.231E-01	4.841E-01	3.913E-02	0.853
		80.30		-8.077E-01	6.402E-01	8.722E-01	7.619E-02	-0.926
		439.56	*	4.168E-02	6.347E-02	1.069E-01	8.861E-03	0.390
HG-203		70.83		1.896E+00	1.487E+00	2.208E+00	2.930E-01	0.859
		72.87		1.594E+00	8.273E-01	1.356E+00	1.754E-01	1.175
		82.60		-8.211E-01	1.884E+00	2.408E+00	3.358E-01	-0.341
		279.20	*	3.202E-02	4.324E-02	7.347E-02	6.889E-03	0.436
BI-207		72.80		4.313E-01	2.411E-01	4.021E-01	3.296E-02	1.073
	+	74.97		5.848E-01	1.922E-01	2.579E-01	2.150E-02	2.268
		84.90		4.073E-01	2.928E-01	4.332E-01	3.964E-02	0.940
		569.67		1.021E-03	3.197E-02	5.359E-02	4.539E-03	0.019
		1063.62	*	-6.893E-03	5.821E-02	9.294E-02	8.057E-03	-0.074
		1770.23		-2.867E+00	8.388E-01	6.182E-01	5.176E-02	-4.638
TL-207		81.07		-6.268E-01	3.411E-01	4.519E-01	3.977E-02	-1.387
		83.78		1.995E-01	1.948E-01	2.862E-01	2.588E-02	0.697
		94.90		3.251E+00	5.287E-01	6.693E-01	6.017E-02	4.858
		122.32		-4.167E-01	2.060E+00	3.241E+00	3.050E-01	-0.129
	+	144.24		1.162E+00	1.036E+00	1.398E+00	1.338E-01	0.832
		154.21		1.410E-01	4.319E-01	7.370E-01	6.918E-02	0.191
	+	269.46		4.382E-01	2.927E-01	3.601E-01	3.356E-02	1.217
		323.87	*	6.646E-01	7.087E-01	1.199E+00	2.142E-01	0.554
	+	338.28		5.682E+00	2.017E+00	2.412E+00	3.001E-01	2.356
		445.03		-1.369E+00	2.451E+00	3.787E+00	4.495E-01	-0.362
PO-209		260.50		8.918E-01	1.042E+01	1.730E+01	1.582E+00	0.052
		262.80		-3.104E+01	2.899E+01	4.538E+01	4.150E+00	-0.684
		896.60	*	7.299E+00	8.444E+00	1.472E+01	1.333E+00	0.496
BI-210		46.50	*	-2.451E+00	4.961E+00	7.914E+00	7.470E-01	-0.310
PB-210		46.50	*	-2.451E+00	4.961E+00	7.914E+00	7.470E-01	-0.310
PO-210		46.50	*	-2.451E+00	4.960E+00	7.914E+00	6.784E-01	-0.310
PB-211		404.84	*	-8.970E-01	1.131E+00	1.498E+00	9.375E-01	-0.599
		427.08		1.207E+00	2.280E+00	3.601E+00	2.236E+00	0.335
		831.96		-1.351E+00	1.478E+00	1.785E+00	1.119E+00	-0.757
PO-215		81.07		-6.268E-01	3.411E-01	4.519E-01	3.977E-02	-1.387
		83.78		1.995E-01	1.948E-01	2.862E-01	2.588E-02	0.697
		94.90		3.251E+00	5.287E-01	6.693E-01	6.017E-02	4.858
		122.32		-4.167E-01	2.060E+00	3.241E+00	3.050E-01	-0.129
	+	144.24		1.162E+00	1.036E+00	1.398E+00	1.338E-01	0.832
		154.21		1.410E-01	4.319E-01	7.370E-01	6.918E-02	0.191
	+	269.46		4.382E-01	2.927E-01	3.601E-01	3.356E-02	1.217

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	6.646E-01	7.087E-01	1.199E+00	2.142E-01	0.554
	+	338.28		5.682E+00	2.017E+00	2.412E+00	3.001E-01	2.356
		445.03		-1.369E+00	2.451E+00	3.787E+00	4.495E-01	-0.362
RN-219	+	271.23		5.623E-01	3.767E-01	4.811E-01	5.176E-02	1.169
		401.81	*	9.123E-02	4.250E-01	6.971E-01	1.027E-01	0.131
RN-220		549.76	*	-6.280E+00	2.797E+01	4.615E+01	3.917E+00	-0.136
RA-223		81.07		-6.268E-01	3.411E-01	4.519E-01	3.977E-02	-1.387
		83.78		1.995E-01	1.948E-01	2.862E-01	2.588E-02	0.697
		94.90		3.251E+00	5.287E-01	6.693E-01	6.017E-02	4.858
		122.32		-4.167E-01	2.060E+00	3.241E+00	3.050E-01	-0.129
	+	144.24		1.162E+00	1.036E+00	1.398E+00	1.338E-01	0.832
		154.21		1.410E-01	4.319E-01	7.370E-01	6.918E-02	0.191
	+	269.46		4.382E-01	2.927E-01	3.601E-01	3.356E-02	1.217
		323.87	*	6.646E-01	7.087E-01	1.199E+00	2.142E-01	0.554
	+	338.28		5.682E+00	2.017E+00	2.412E+00	3.001E-01	2.356
		445.03		-1.369E+00	2.451E+00	3.787E+00	4.495E-01	-0.362
AC-227		79.80		-1.513E+00	2.474E+00	3.441E+00	7.409E-01	-0.440
		236.00		1.236E-01	2.696E-01	4.028E-01	5.060E-02	0.307
		256.20	*	-1.374E-01	4.234E-01	6.905E-01	1.080E-01	-0.199
		286.10		5.947E-02	1.581E+00	2.609E+00	3.533E-01	0.023
	+	299.80		2.149E+00	1.988E+00	2.593E+00	4.595E-01	0.829
		304.40		-2.896E-01	2.196E+00	3.132E+00	5.840E-01	-0.092
		334.20		6.404E-01	2.683E+00	3.906E+00	7.621E-01	0.164
TH-227		79.80		-1.513E+00	2.474E+00	3.441E+00	7.503E-01	-0.440
	+	94.00		1.104E+02	2.478E+01	8.485E+00	1.862E+00	13.012
		236.00		1.236E-01	2.695E-01	4.028E-01	4.603E-02	0.307
		256.20	*	-1.374E-01	4.236E-01	6.905E-01	1.265E-01	-0.199
		286.10		5.947E-02	1.582E+00	2.609E+00	2.620E+00	0.023
	+	299.80		2.149E+00	1.988E+00	2.593E+00	4.595E-01	0.829
		304.40		-2.896E-01	2.196E+00	3.132E+00	5.840E-01	-0.092
		334.20		6.404E-01	2.683E+00	3.906E+00	7.621E-01	0.164
TH-229		85.43		4.173E-01	2.927E-01	4.330E-01	3.985E-02	0.964
	+	88.47		4.988E-01	1.610E-01	2.671E-01	2.517E-02	1.867
	+	100.00		9.520E-01	3.283E-01	4.082E-01	3.590E-02	2.332
		193.63	*	5.093E-02	5.452E-01	8.870E-01	7.771E-02	0.057
		210.97		6.569E-01	8.357E-01	1.429E+00	1.273E-01	0.460
PA-231		283.67	*	-2.005E-01	1.602E+00	2.623E+00	4.061E-01	-0.076
	+	301.29		8.596E-01	7.880E-01	1.055E+00	1.327E-01	0.814
TH-231		81.07		-6.268E-01	3.411E-01	4.519E-01	3.977E-02	-1.387
		83.78		1.995E-01	1.948E-01	2.862E-01	2.588E-02	0.697
		94.90		3.251E+00	5.287E-01	6.693E-01	6.017E-02	4.858
		122.32		-4.167E-01	2.060E+00	3.241E+00	3.050E-01	-0.129
	+	144.24		1.162E+00	1.036E+00	1.398E+00	1.338E-01	0.832
		154.21		1.410E-01	4.319E-01	7.370E-01	6.918E-02	0.191
	+	269.46		4.382E-01	2.927E-01	3.601E-01	3.356E-02	1.217
		323.87	*	6.646E-01	7.087E-01	1.199E+00	2.142E-01	0.554
	+	338.28		5.682E+00	2.017E+00	2.412E+00	3.001E-01	2.356
		445.03		-1.369E+00	2.451E+00	3.787E+00	4.495E-01	-0.362
U-231		84.21		6.667E+00	6.814E+00	1.000E+01	9.085E-01	0.667

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		8.931E+01	9.088E+00	7.793E+00	7.120E-01	11.461
		95.87	*	2.913E+00	1.590E+00	1.949E+00	1.743E-01	1.495
		108.00		-1.191E+00	2.424E+00	3.358E+00	2.911E-01	-0.355
PA-233	+	75.28		1.707E+01	6.014E+00	7.658E+00	1.164E+00	2.229
	+	86.59		7.153E+00	2.938E+00	3.861E+00	1.044E+00	1.853
	+	300.12		5.991E-01	5.515E-01	7.263E-01	1.100E-01	0.825
		311.98	*	-1.185E-02	6.775E-02	1.101E-01	1.019E-02	-0.108
		340.50		2.697E+00	9.983E-01	1.330E+00	3.178E-01	2.028
		398.62		-1.375E+00	2.187E+00	3.350E+00	8.865E-01	-0.411
		415.76		4.130E-01	1.703E+00	2.792E+00	5.970E-01	0.148
PA-234	+	63.00		3.763E+01	7.017E+00	5.572E+00	8.366E-01	6.753
		94.67		2.498E+00	4.498E-01	5.467E-01	6.927E-02	4.569
	+	98.44		4.647E-01	3.022E-01	2.181E-01	1.217E-01	2.131
	+	99.86		2.409E+00	8.307E-01	1.052E+00	9.258E-02	2.290
	+	111.00		3.255E-01	2.134E-01	4.157E-01	5.039E-02	0.783
		131.20		-1.844E-02	1.387E-01	1.935E-01	1.672E-02	-0.095
		152.70		2.787E-01	3.611E-01	6.195E-01	1.053E-01	0.450
	+	186.00		1.992E+01	6.874E+00	3.720E+00	1.162E+00	5.355
		226.40		5.307E-02	4.171E-01	6.978E-01	9.394E-02	0.076
		227.20		8.440E-02	4.531E-01	7.596E-01	6.849E-02	0.111
		248.90		1.831E-01	9.535E-01	1.405E+00	3.176E-01	0.130
		293.70		3.194E+00	1.046E+00	1.518E+00	2.665E-01	2.104
		369.80		-3.825E-01	8.568E-01	1.347E+00	2.923E-01	-0.284
		568.70		-5.083E-01	1.042E+00	1.686E+00	1.428E-01	-0.302
		569.50		9.079E-03	2.837E-01	4.755E-01	4.028E-02	0.019
		574.00		-4.971E-01	1.583E+00	2.603E+00	2.203E-01	-0.191
		699.00		5.584E-02	7.649E-01	1.276E+00	2.420E-01	0.044
		706.10		-9.616E-01	1.208E+00	1.709E+00	7.612E-01	-0.563
		733.00		1.685E-01	4.160E-01	6.485E-01	1.437E-01	0.260
		742.81		1.257E+00	1.782E+00	2.738E+00	1.840E+00	0.459
	+	796.30		2.166E+00	1.308E+00	1.707E+00	4.625E-01	1.269
		805.60		1.548E-01	1.096E+00	1.821E+00	5.590E-01	0.085
		819.60		-4.474E-01	1.308E+00	2.066E+00	7.869E-01	-0.217
		826.30		5.370E-02	7.372E-01	1.219E+00	5.459E-01	0.044
		831.60		-5.976E-01	6.467E-01	9.302E-01	2.783E-01	-0.642
		876.40		-4.753E-01	1.030E+00	1.413E+00	1.453E+00	-0.336
		880.51		5.061E-03	3.123E-01	5.115E-01	4.614E-02	0.010
		883.24		8.916E-02	3.276E-01	5.389E-01	3.625E-01	0.165
		899.00		5.230E-01	9.804E-01	1.627E+00	7.127E-01	0.321
		925.00		-2.089E-01	1.246E+00	1.999E+00	1.805E-01	-0.105
		926.50		-1.141E-02	1.871E-01	3.032E-01	7.708E-02	-0.038
		946.00	*	1.734E-01	3.303E-01	5.599E-01	1.061E-01	0.310
		949.00		-1.705E-01	5.087E-01	8.064E-01	7.256E-02	-0.211
		980.50		-3.693E-01	7.493E-01	1.155E+00	1.032E-01	-0.320
		1394.10		9.623E-01	1.255E+00	2.014E+00	1.311E+00	0.478
NP-236		94.67		1.914E+00	2.977E-01	4.157E-01	3.743E-02	4.605
	+	98.44		3.513E-01	1.211E-01	1.648E-01	1.458E-02	2.131
	+	111.00		2.462E-01	1.601E-01	3.145E-01	2.725E-02	0.783
		160.31	*	-9.201E-02	8.617E-02	1.397E-01	1.190E-02	-0.658

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		8.030E-01	2.769E-01	3.633E-01	3.200E-02	2.210
		117.00	*	1.187E-01	2.490E-01	3.593E-01	3.129E-02	0.330
		209.75		1.035E+00	8.526E-01	1.473E+00	1.311E-01	0.702
		228.18		2.258E-01	2.360E-01	4.061E-01	3.664E-02	0.556
		277.60		2.284E-01	1.912E-01	3.301E-01	3.019E-02	0.692
		334.30		3.279E-01	1.517E+00	2.207E+00	1.952E-01	0.149
AM-241		59.54	*	2.243E-01	2.379E-01	3.560E-01	2.934E-02	0.630
CM-243	+	99.55		8.262E-01	2.849E-01	3.738E-01	3.293E-02	2.210
		103.76	*	-5.506E-02	1.178E-01	1.848E-01	1.611E-02	-0.298
		117.00		1.221E-01	2.562E-01	3.696E-01	3.219E-02	0.330
		209.75		1.020E+00	8.404E-01	1.452E+00	1.292E-01	0.702
		228.18		2.281E-01	2.385E-01	4.103E-01	3.702E-02	0.556
		277.60		2.303E-01	1.927E-01	3.328E-01	3.044E-02	0.692
AM-246		798.80		1.682E-02	1.620E-01	2.338E-01	2.055E-02	0.072
		1036.00		-2.129E-01	3.295E-01	4.986E-01	4.374E-02	-0.427
		1062.04		-2.928E-02	2.456E-01	3.920E-01	3.401E-02	-0.075
		1078.86	*	8.876E-02	1.633E-01	2.760E-01	2.375E-02	0.322
CM-247		278.00		8.873E-01	7.954E-01	1.370E+00	1.253E-01	0.648
		287.40		-3.610E-01	1.284E+00	2.085E+00	1.903E-01	-0.173
		402.60	*	1.719E-02	3.733E-02	6.217E-02	5.042E-03	0.277
CF-249		252.85		-2.122E-01	9.249E-01	1.516E+00	1.384E-01	-0.140
		333.44		-1.753E-01	2.136E-01	2.869E-01	2.540E-02	-0.611
		387.95	*	-3.706E-03	4.249E-02	6.857E-02	5.562E-03	-0.054
CF-251		176.60	*	8.452E-02	1.320E-01	2.266E-01	1.950E-02	0.373
		227.00		3.433E-02	4.020E-01	6.714E-01	6.053E-02	0.051
		285.00		-8.471E-01	1.822E+00	2.931E+00	2.677E-01	-0.289

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395015     *
* Acquisition date :  2-FEB-2010 09:47:21 Detector SN#     :               *
* Detector ID        : GAM01              Sensitivity      : 5.000         *
* Geometry           : CAN                Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.59     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245395015           Analyst initials: MXR1         *
* Batch Number       : 944966               Sample Quantity : 1.5739E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.301E+01	3.402E+00	4.903E-01	0.000E+00
CD-109	3.711E+00	1.174E+00	1.941E+00	0.000E+00
SN-126	3.654E-01	1.156E-01	1.921E-01	0.000E+00
CE-141	1.048E-01	9.139E-02	1.177E-01	0.000E+00
TL-208	4.076E-01	9.130E-02	6.352E-02	0.000E+00
BI-211	3.403E+00	5.635E-01	3.274E-01	0.000E+00
BI-212	8.904E-01	3.178E-01	4.665E-01	0.000E+00
PB-212	1.469E+00	1.798E-01	1.006E-01	0.000E+00
PO-212	1.469E+00	1.798E-01	1.006E-01	0.000E+00
BI-214	1.035E+00	1.954E-01	1.135E-01	0.000E+00
PB-214	1.184E+00	2.052E-01	1.141E-01	0.000E+00
PO-214	1.184E+00	2.052E-01	1.141E-01	0.000E+00
PO-216	1.469E+00	1.798E-01	1.006E-01	0.000E+00
PO-218	1.184E+00	2.052E-01	1.141E-01	0.000E+00
RA-224	4.766E+00	1.375E+00	1.145E+00	0.000E+00
RA-226	1.035E+00	1.954E-01	1.135E-01	0.000E+00
AC-228	1.430E+00	3.192E-01	2.302E-01	0.000E+00
RA-228	1.430E+00	3.192E-01	2.302E-01	0.000E+00
TH-228	1.489E+00	1.823E-01	1.020E-01	0.000E+00
TH-230	1.035E+00	1.954E-01	1.135E-01	0.000E+00
TH-232	1.430E+00	3.192E-01	2.302E-01	0.000E+00
PA-234M	5.275E+01	1.051E+01	7.240E+00	0.000E+00
TH-234	3.228E+01	6.568E+00	2.994E+00	0.000E+00
U-234	1.035E+00	1.954E-01	1.135E-01	0.000E+00
U-235	3.587E-01	3.174E-01	4.022E-01	0.000E+00
NP-237	1.073E+00	4.029E-01	5.994E-01	0.000E+00
U-238	3.228E+01	6.568E+00	2.994E+00	0.000E+00
AM-243	3.258E-01	1.050E-01	1.267E-01	0.000E+00
ANH-511	8.722E-02	7.116E-02	5.320E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	-1.782E-02	3.125E-01	5.303E-01	0.000E+00	NOT IDENT.
NA-22	3.053E-02	4.714E-02	7.882E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.954E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.210E-02	2.664E-02	3.963E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.507E-02	9.704E-02	0.000E+00	FAIL ABUN
SC-46	2.036E-02	4.042E-02	7.195E-02	0.000E+00	FAIL ABUN
V-48	4.907E-02	6.813E-02	1.227E-01	0.000E+00	NOT IDENT.
CR-51	-2.753E-01	3.739E-01	6.312E-01	0.000E+00	NOT IDENT.
MN-52	6.313E-02	1.797E-01	3.217E-01	0.000E+00	NOT IDENT.
MN-54	2.954E-02	3.734E-02	6.799E-02	0.000E+00	NOT IDENT.
CO-56	-3.382E-03	3.586E-02	6.096E-02	0.000E+00	NOT IDENT.
CO-57	-1.094E-02	2.903E-02	5.001E-02	0.000E+00	NOT IDENT.
CO-58	-6.566E-03	4.109E-02	6.984E-02	0.000E+00	NOT IDENT.
FE-59	3.526E-02	9.393E-02	1.626E-01	0.000E+00	NOT IDENT.
CO-60	-3.157E-02	3.371E-02	5.036E-02	0.000E+00	NOT IDENT.
ZN-65	-2.484E-02	1.124E-01	1.572E-01	0.000E+00	NOT IDENT.
GE-68	7.970E-01	1.399E+00	2.458E+00	0.000E+00	NOT IDENT.
AS-73	7.351E-01	1.165E+00	2.172E+00	0.000E+00	NOT IDENT.
AS-74	-1.160E-01	8.679E-02	1.381E-01	0.000E+00	NOT IDENT.
SE-75	2.842E-02	4.951E-02	8.038E-02	0.000E+00	NOT IDENT.
BR-77	-6.096E-02	7.581E+00	1.282E+01	0.000E+00	FAIL ABUN
SR-82	-2.343E-01	3.669E-01	5.998E-01	0.000E+00	NOT IDENT.
RB-83	1.797E-03	7.077E-02	1.200E-01	0.000E+00	NOT IDENT.
RB-84	6.884E-02	7.475E-02	1.368E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.964E+00	1.502E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.538E-02	7.602E-02	0.000E+00	NOT IDENT.
RB-86	2.302E-01	8.824E-01	1.512E+00	0.000E+00	NOT IDENT.
Y-88	2.191E-02	2.828E-02	5.473E-02	0.000E+00	NOT IDENT.
ZR-88	-2.393E-03	3.097E-02	5.340E-02	0.000E+00	NOT IDENT.
Y-91	7.244E+00	2.036E+01	3.622E+01	0.000E+00	NOT IDENT.
NB-94	1.816E-02	3.462E-02	6.251E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	6.194E-02	1.083E-01	0.000E+00	NOT IDENT.
NB-95M	8.137E-02	1.373E-01	2.237E-01	0.000E+00	NOT IDENT.
ZR-95	5.952E-02	7.430E-02	1.359E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.182E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.581E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	8.691E-01	9.835E+00	1.718E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.587E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.463E-02	3.568E-02	6.069E-02	0.000E+00	NOT IDENT.
RH-102	-1.162E-02	3.018E-02	5.003E-02	0.000E+00	FAIL ABUN
RU-103	-2.489E-02	4.184E-02	6.773E-02	0.000E+00	FAIL ABUN
RH-106	-2.560E-01	3.091E-01	5.083E-01	0.000E+00	FAIL ABUN
RU-106	-2.560E-01	3.081E-01	5.083E-01	0.000E+00	FAIL ABUN
AG-108M	-2.855E-03	3.140E-02	5.360E-02	0.000E+00	NOT IDENT.
AG-110M	-3.221E-02	3.756E-02	6.189E-02	0.000E+00	NOT IDENT.
IN-111	-3.297E-01	8.867E-01	1.366E+00	0.000E+00	NOT IDENT.
IN-113M	-1.319E-02	4.515E-02	7.681E-02	0.000E+00	NOT IDENT.
SN-113	-1.319E-02	4.515E-02	7.681E-02	0.000E+00	NOT IDENT.
IN-114M	-4.861E-02	2.003E-01	3.182E-01	0.000E+00	NOT IDENT.
CD-115	-2.072E+00	7.579E+00	1.331E+01	0.000E+00	NOT IDENT.
SN-117M	-1.370E-02	5.339E-02	9.781E-02	0.000E+00	NOT IDENT.
SB-122	1.728E+00	1.510E+00	2.863E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.278E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.148E-03	2.900E-02	5.382E-02	0.000E+00	NOT IDENT.
I-124	-6.322E-02	6.115E-01	9.311E-01	0.000E+00	NOT IDENT.
SB-124	7.140E-03	5.847E-02	1.007E-01	0.000E+00	FAIL ABUN
SB-125	7.717E-03	9.498E-02	1.642E-01	0.000E+00	FAIL ABUN
TE-125M	8.607E-01	1.292E+01	2.026E+01	0.000E+00	NOT IDENT.
I-126	-7.412E-02	1.811E-01	3.085E-01	0.000E+00	NOT IDENT.
SB-126	7.740E-02	1.363E-01	2.350E-01	0.000E+00	FAIL ABUN
SB-127	6.332E-01	1.066E+00	1.942E+00	0.000E+00	NOT IDENT.
XE-127	-4.101E-02	4.986E-02	8.789E-02	0.000E+00	FAIL ABUN
I-131	2.651E-03	1.012E-01	1.766E-01	0.000E+00	NOT IDENT.
TE-132	5.318E-01	5.508E-01	1.020E+00	0.000E+00	FAIL ABUN
BA-133	-1.257E-02	5.169E-02	7.746E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.484E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.965E-02	9.340E-02	0.000E+00	FAIL ABUN
CS-135	8.202E-02	1.776E-01	2.859E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.198E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.350E-02	1.045E-01	1.810E-01	0.000E+00	FAIL ABUN
BA-137M	3.672E-02	3.841E-02	7.126E-02	0.000E+00	NOT IDENT.
CS-137	3.882E-02	4.060E-02	7.533E-02	0.000E+00	NOT IDENT.
CE-139	3.518E-02	3.252E-02	6.165E-02	0.000E+00	NOT IDENT.
BA-140	-6.073E-02	2.419E-01	4.232E-01	0.000E+00	NOT IDENT.
LA-140	-4.013E-02	9.322E-02	1.399E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.826E+01	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-1.135E-01	2.665E-01	4.017E-01	0.000E+00	NOT IDENT.
PM-144	-4.646E-03	3.713E-02	6.427E-02	0.000E+00	NOT IDENT.
PR-144	-3.146E-01	2.514E+00	4.353E+00	0.000E+00	NOT IDENT.
PM-146	2.991E-02	4.768E-02	8.465E-02	0.000E+00	NOT IDENT.
ND-147	-2.475E-01	5.653E-01	9.603E-01	0.000E+00	FAIL ABUN
PM-149	-1.364E+01	6.377E+01	1.120E+02	0.000E+00	NOT IDENT.
EU-152	7.030E-02	1.049E-01	1.691E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.326E-01	1.989E-01	0.000E+00	FAIL ABUN
EU-154	1.021E-01	1.350E-01	2.212E-01	0.000E+00	NOT IDENT.
EU-155	7.774E-02	1.298E-01	2.331E-01	0.000E+00	FAIL ABUN
TB-160	7.758E-02	1.498E-01	2.667E-01	0.000E+00	FAIL ABUN
HO-166M	4.225E-02	5.770E-02	1.060E-01	0.000E+00	NOT IDENT.
TM-171	-1.611E+01	3.940E+01	6.260E+01	0.000E+00	NOT IDENT.
LU-176	-1.510E-03	2.642E-02	4.493E-02	0.000E+00	FAIL ABUN
LU-177	7.253E-01	1.031E+00	1.912E+00	0.000E+00	FAIL ABUN
LU-177M	-1.511E-01	1.828E-01	2.982E-01	0.000E+00	NOT IDENT.
HF-181	-1.980E-02	4.225E-02	6.941E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	5.847E-01	1.018E+00	0.000E+00	NOT IDENT.
TA-182	-5.859E-02	2.291E-01	3.900E-01	0.000E+00	FAIL ABUN
RE-183	-5.052E-02	1.197E-01	2.156E-01	0.000E+00	NOT IDENT.
RE-184	-5.628E-02	2.404E-01	4.261E-01	0.000E+00	NOT IDENT.
OS-185	1.654E-02	4.242E-02	7.657E-02	0.000E+00	NOT IDENT.
RE-188	9.593E-02	1.817E-01	3.413E-01	0.000E+00	NOT IDENT.
W-188	-2.347E+00	8.450E+00	1.290E+01	0.000E+00	FAIL ABUN
IR-192	2.111E-02	3.385E-02	6.151E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.858E-01	5.770E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.034E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.151E+00	5.684E+00	1.027E+01	0.000E+00	NOT IDENT.
TL-202	4.168E-02	6.220E-02	1.116E-01	0.000E+00	NOT IDENT.
HG-203	3.202E-02	4.237E-02	7.764E-02	0.000E+00	NOT IDENT.
BI-207	-6.893E-03	5.704E-02	9.466E-02	0.000E+00	FAIL ABUN
TL-207	6.646E-01	6.946E-01	1.262E+00	0.000E+00	FAIL ABUN
PO-209	7.299E+00	8.275E+00	1.507E+01	0.000E+00	NOT IDENT.
BI-210	-2.451E+00	4.862E+00	8.753E+00	0.000E+00	NOT IDENT.
PB-210	-2.451E+00	4.862E+00	8.753E+00	0.000E+00	NOT IDENT.
PO-210	-2.451E+00	4.861E+00	8.753E+00	0.000E+00	NOT IDENT.
PB-211	-8.970E-01	1.109E+00	1.567E+00	0.000E+00	NOT IDENT.
PO-215	6.646E-01	6.946E-01	1.262E+00	0.000E+00	FAIL ABUN
RN-219	9.123E-02	4.165E-01	7.295E-01	0.000E+00	FAIL ABUN
RN-220	-6.280E+00	2.741E+01	4.788E+01	0.000E+00	NOT IDENT.
RA-223	6.646E-01	6.946E-01	1.262E+00	0.000E+00	FAIL ABUN
AC-227	-1.374E-01	4.150E-01	7.314E-01	0.000E+00	FAIL ABUN
TH-227	-1.374E-01	4.152E-01	7.314E-01	0.000E+00	FAIL ABUN
TH-229	5.093E-02	5.343E-01	9.464E-01	0.000E+00	FAIL ABUN
PA-231	-2.005E-01	1.570E+00	2.771E+00	0.000E+00	FAIL ABUN
TH-231	6.646E-01	6.946E-01	1.262E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	1.558E+00	2.117E+00	0.000E+00	FAIL ABUN
PA-233	-1.185E-02	6.639E-02	1.160E-01	0.000E+00	FAIL ABUN
PA-234	1.734E-01	3.237E-01	5.721E-01	0.000E+00	FAIL ABUN
NP-236	-9.201E-02	8.445E-02	1.498E-01	0.000E+00	FAIL ABUN
NP-239	1.187E-01	2.441E-01	3.884E-01	0.000E+00	FAIL ABUN
AM-241	2.243E-01	2.331E-01	3.913E-01	0.000E+00	NOT IDENT.
CM-243	-5.506E-02	1.155E-01	2.004E-01	0.000E+00	FAIL ABUN
AM-246	8.876E-02	1.601E-01	2.810E-01	0.000E+00	NOT IDENT.
CM-247	1.719E-02	3.658E-02	6.505E-02	0.000E+00	NOT IDENT.
CF-249	-3.706E-03	4.164E-02	7.182E-02	0.000E+00	NOT IDENT.
CF-251	8.452E-02	1.294E-01	2.423E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:49:07.10

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395015.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:47:21.
Sample ID         : G245395015           Sample quantity  : 1.57390E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.59  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1397	10.67*	9.456E-01	3.301E+01	3.301E+01	10.51
CD-109	88.03	294	3.72*	5.191E+00	3.634E+00	3.711E+00	32.28
SN-126	64.28	1423	9.60	2.767E+00	1.278E+01	1.278E+01	18.38
	86.94	294	8.90	5.191E+00	1.519E+00	1.519E+00	51.75
	87.57	294	37.00*	5.191E+00	3.654E-01	3.654E-01	32.28
CE-141	145.44	93	48.40*	5.859E+00	7.782E-02	1.048E-01	89.00
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	87	21.60	2.393E+00	4.038E-01	4.038E-01	83.66
	583.14	308	84.20*	2.142E+00	4.076E-01	4.076E-01	22.86
	860.37	65	12.46	1.522E+00	8.228E-01	8.228E-01	57.36
BI-211	72.87	------	1.27	3.944E+00	------ Line Not Found		------
	351.07	595	12.94*	3.226E+00	3.403E+00	3.403E+00	16.90
BI-212	727.18	78	11.80*	1.771E+00	8.904E-01	8.904E-01	36.42
	785.46	32	1.97	1.651E+00	2.378E+00	2.378E+00	101.68
	1620.62	------	2.75	8.735E-01	------ Line Not Found		------
PB-212	74.81	375	10.70	4.161E+00	2.010E+00	2.010E+00	34.17
	77.11	533	18.00	4.386E+00	1.610E+00	1.610E+00	22.35
	87.30	294	8.00	5.191E+00	1.690E+00	1.690E+00	33.80
	238.63	1194	44.60*	4.346E+00	1.469E+00	1.469E+00	12.49
	300.09	61	3.41	3.650E+00	1.160E+00	1.160E+00	91.44
PO-212	74.81	375	10.70	4.161E+00	2.010E+00	2.010E+00	34.17
	77.11	533	18.00	4.386E+00	1.610E+00	1.610E+00	22.35
	87.30	294	8.00	5.191E+00	1.690E+00	1.690E+00	33.80
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	1194	44.60*	4.346E+00	1.469E+00	1.469E+00	12.49
	300.09	61	3.41	3.650E+00	1.160E+00	1.160E+00	91.44
BI-214	609.31	415	46.30*	2.065E+00	1.035E+00	1.035E+00	19.26
	1120.29	49	15.10	1.193E+00	6.430E-01	6.430E-01	100.72
	1764.49	74	15.80	8.256E-01	1.356E+00	1.356E+00	28.29
PB-214	74.81	375	6.21	4.161E+00	3.463E+00	3.463E+00	33.69
	77.11	533	10.50	4.386E+00	2.760E+00	2.760E+00	23.61
	87.30	294	4.67	5.191E+00	2.895E+00	2.895E+00	33.19

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	340	7.49	4.305E+00	2.513E+00	2.514E+00	29.97
	295.21	313	19.20	3.699E+00	1.051E+00	1.051E+00	26.61
	351.92	595	37.20*	3.226E+00	1.184E+00	1.184E+00	17.69
PO-214	74.81	375	6.21	4.161E+00	3.463E+00	3.463E+00	33.69
	77.11	533	10.50	4.386E+00	2.760E+00	2.760E+00	23.61
	87.30	294	4.67	5.191E+00	2.895E+00	2.895E+00	33.19
	241.98	340	7.49	4.305E+00	2.513E+00	2.514E+00	29.97
	295.21	313	19.20	3.699E+00	1.051E+00	1.051E+00	26.61
	351.92	595	37.20*	3.226E+00	1.184E+00	1.184E+00	17.69
PO-216	74.81	375	10.70	4.161E+00	2.010E+00	2.010E+00	34.17
	77.11	533	18.00	4.386E+00	1.610E+00	1.610E+00	22.35
	87.30	294	8.00	5.191E+00	1.690E+00	1.690E+00	33.80
	238.63	1194	44.60*	4.346E+00	1.469E+00	1.469E+00	12.49
	300.09	61	3.41	3.650E+00	1.160E+00	1.160E+00	91.44
PO-218	74.81	375	6.21	4.161E+00	3.463E+00	3.463E+00	33.69
	77.11	533	10.50	4.386E+00	2.760E+00	2.760E+00	23.61
	87.30	294	4.67	5.191E+00	2.895E+00	2.895E+00	33.19
	241.98	340	7.49	4.305E+00	2.513E+00	2.514E+00	29.97
	295.21	313	19.20	3.699E+00	1.051E+00	1.051E+00	26.61
	351.92	595	37.20*	3.226E+00	1.184E+00	1.184E+00	17.69
RA-224	240.98	340	3.95*	4.305E+00	4.766E+00	4.766E+00	29.44
RA-226	609.31	415	46.30*	2.065E+00	1.035E+00	1.035E+00	19.26
	1120.29	49	15.10	1.193E+00	6.430E-01	6.430E-01	100.72
	1764.49	74	15.80	8.256E-01	1.356E+00	1.356E+00	28.29
AC-228	338.32	216	11.40	3.327E+00	1.361E+00	1.361E+00	53.02
	911.07	240	27.70*	1.444E+00	1.430E+00	1.430E+00	22.78
	969.11	159	16.60	1.364E+00	1.672E+00	1.672E+00	35.02
RA-228	338.32	216	11.40	3.327E+00	1.361E+00	1.361E+00	53.02
	911.07	240	27.70*	1.444E+00	1.430E+00	1.430E+00	22.78
	969.11	159	16.60	1.364E+00	1.672E+00	1.672E+00	35.02
TH-228	74.81	375	10.70	4.161E+00	2.010E+00	2.038E+00	32.89
	77.11	533	18.00	4.386E+00	1.610E+00	1.632E+00	22.35
	87.30	294	8.00	5.191E+00	1.690E+00	1.713E+00	32.28
	238.63	1194	44.60*	4.346E+00	1.469E+00	1.489E+00	12.49
	300.09	61	3.41	3.650E+00	1.160E+00	1.176E+00	108.48
TH-230	609.31	415	46.30*	2.065E+00	1.035E+00	1.035E+00	19.26
	1120.29	49	15.10	1.193E+00	6.430E-01	6.430E-01	100.72
	1764.49	74	15.80	8.256E-01	1.356E+00	1.356E+00	28.29
TH-232	338.32	216	11.40	3.327E+00	1.361E+00	1.361E+00	34.40
	911.07	240	27.70*	1.444E+00	1.430E+00	1.430E+00	22.78
	969.11	159	16.60	1.364E+00	1.672E+00	1.672E+00	35.02
PA-234M	766.42	131	0.32	1.688E+00	5.797E+01	5.797E+01	64.78
	1001.03	246	0.84*	1.324E+00	5.275E+01	5.275E+01	20.34
TH-234	63.29	1423	3.80*	2.767E+00	3.228E+01	3.228E+01	20.76
	92.38	3562	5.41	5.495E+00	2.857E+01	2.857E+01	18.87
U-234	609.31	415	46.30*	2.065E+00	1.035E+00	1.035E+00	19.26
	1120.29	49	15.10	1.193E+00	6.430E-01	6.430E-01	100.72
	1764.49	74	15.80	8.256E-01	1.356E+00	1.356E+00	28.29
U-235	89.95	219	2.70	5.359E+00	3.614E+00	3.614E+00	60.64

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	93.35	3562	4.50	5.495E+00	3.435E+01	3.435E+01	28.54
	105.00	------	2.10	5.912E+00	------ Line Not Found		------
	143.76	93	10.50*	5.859E+00	3.587E-01	3.587E-01	90.28
	163.35	------	4.70	5.554E+00	------ Line Not Found		------
	185.71	862	54.00	5.159E+00	7.377E-01	7.377E-01	17.05
	205.31	------	4.70	4.840E+00	------ Line Not Found		------
NP-237	86.50	294	12.60*	5.191E+00	1.073E+00	1.073E+00	38.31
	95.87	------	2.60	5.636E+00	------ Line Not Found		------
U-238	63.29	1423	3.80*	2.767E+00	3.228E+01	3.228E+01	20.76
	92.38	3562	5.41	5.495E+00	2.857E+01	2.857E+01	10.18
AM-243	74.67	375	66.00*	4.161E+00	3.258E-01	3.258E-01	32.87
	86.72	294	0.34	5.191E+00	4.023E+01	4.023E+01	32.28
	117.66	------	0.55	6.054E+00	------ Line Not Found		------
	142.18	------	0.13	5.887E+00	------ Line Not Found		------
ANH-511	511.00	87	100.00*	2.393E+00	8.722E-02	8.722E-02	83.25

Flag: "*" = Keyline

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

Total number of lines in spectrum 38
Number of unidentified lines 2
Number of lines tentatively identified by NID 36 94.74%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.301E+01	3.301E+01	0.347E+01	10.51	
CD-109	464.00D	1.02	3.634E+00	3.711E+00	1.198E+00	32.28	
SN-126	1.00E+05Y	1.00	3.654E-01	3.654E-01	1.180E-01	32.28	
CE-141	32.50D	1.35	7.782E-02	1.048E-01	0.933E-01	89.00	
TL-208	1.41E+10Y	1.00	4.076E-01	4.076E-01	0.932E-01	22.86	
BI-211	7.04E+08Y	1.00	3.403E+00	3.403E+00	0.575E+00	16.90	
BI-212	1.41E+10Y	1.00	8.904E-01	8.904E-01	3.243E-01	36.42	
PB-212	1.41E+10Y	1.00	1.469E+00	1.469E+00	0.184E+00	12.49	
PO-212	1.41E+10Y	1.00	1.469E+00	1.469E+00	0.184E+00	12.49	
BI-214	1600.00Y	1.00	1.035E+00	1.035E+00	0.199E+00	19.26	
PB-214	1600.00Y	1.00	1.184E+00	1.184E+00	0.209E+00	17.69	
PO-214	1600.00Y	1.00	1.184E+00	1.184E+00	0.209E+00	17.69	
PO-216	1.41E+10Y	1.00	1.469E+00	1.469E+00	0.184E+00	12.49	
PO-218	1600.00Y	1.00	1.184E+00	1.184E+00	0.209E+00	17.69	
RA-224	1.41E+10Y	1.00	4.766E+00	4.766E+00	1.403E+00	29.44	
RA-226	1600.00Y	1.00	1.035E+00	1.035E+00	0.199E+00	19.26	
AC-228	1.41E+10Y	1.00	1.430E+00	1.430E+00	0.326E+00	22.78	
RA-228	1.41E+10Y	1.00	1.430E+00	1.430E+00	0.326E+00	22.78	
TH-228	1.91Y	1.01	1.469E+00	1.489E+00	0.186E+00	12.49	
TH-230	4.47E+09Y	1.00	1.035E+00	1.035E+00	0.199E+00	19.26	
TH-232	1.41E+10Y	1.00	1.430E+00	1.430E+00	0.326E+00	22.78	
PA-234M	4.47E+09Y	1.00	5.275E+01	5.275E+01	1.073E+01	20.34	
TH-234	4.47E+09Y	1.00	3.228E+01	3.228E+01	0.670E+01	20.76	
U-234	4.47E+09Y	1.00	1.035E+00	1.035E+00	0.199E+00	19.26	
U-235	7.04E+08Y	1.00	3.587E-01	3.587E-01	3.238E-01	90.28	
NP-237	2.14E+06Y	1.00	1.073E+00	1.073E+00	0.411E+00	38.31	
U-238	4.47E+09Y	1.00	3.228E+01	3.228E+01	0.670E+01	20.76	
AM-243	7380.00Y	1.00	3.258E-01	3.258E-01	1.071E-01	32.87	
ANH-511	1.00E+09Y	1.00	8.722E-02	8.722E-02	7.261E-02	83.25	
			---	---			
	Total Activity :		1.836E+02	1.837E+02			

Grand Total Activity : 1.836E+02 1.837E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.54	284	638	1.31	197.77	194	8	3.94E-02	33.3	5.74E+00	T
1	111.28	97	427	1.25	223.23	220	14	1.34E-02	64.5	6.01E+00	T
1	113.05	205	607	1.25	226.77	220	14	2.85E-02	45.6	6.03E+00	T
0	128.88	80	495	1.31	258.42	255	8	1.11E-02	98.9	6.03E+00	T
0	270.50	99	278	1.85	541.49	536	10	1.37E-02	66.1	3.96E+00	T
0	463.44	69	111	1.36	927.14	921	10	9.54E-03	62.5	2.59E+00	T
0	795.15	58	50	2.62	1590.14	1585	11	8.04E-03	54.0	1.64E+00	T
1	964.60	42	73	1.92	1928.81	1921	29	5.80E-03	78.8	1.37E+00	T
0	1269.73	18	59	4.33	2538.64	2523	18	2.55E-03	****	1.07E+00	
0	1408.78	25	9	1.39	2816.52	2812	9	3.40E-03	62.8	9.74E-01	T
0	1588.30	38	10	2.21	3175.30	3170	12	5.31E-03	45.3	8.86E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:49:12.63

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245395015.CNF;1   *
* Acquisition date  : 2-FEB-2010 09:47:21.  Detector SN#     :               *
* Detector ID       : GAM01                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.59          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245395015            Analyst initials: MXR1            *
* Batch Number      : 944966                Sample Quantity : 1.57390E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.301E+01	3.471E+00	4.858E-01	4.319E-02	67.954
CD-109	3.711E+00	1.198E+00	1.783E+00	1.687E-01	2.081
SN-126	3.654E-01	1.180E-01	1.765E-01	1.662E-02	2.070
CE-141	1.048E-01	9.325E-02	1.095E-01	9.526E-03	0.957
TL-208	4.076E-01	9.317E-02	6.132E-02	5.569E-03	6.647
BI-211	3.403E+00	5.750E-01	3.117E-01	2.835E-02	10.916
BI-212	8.904E-01	3.243E-01	4.531E-01	4.490E-02	1.965
PB-212	1.469E+00	1.835E-01	9.485E-02	9.603E-03	15.488
PO-212	1.469E+00	1.835E-01	9.485E-02	9.603E-03	15.488
BI-214	1.035E+00	1.994E-01	1.097E-01	1.082E-02	9.438
PB-214	1.184E+00	2.093E-01	1.087E-01	1.139E-02	10.892
PO-214	1.184E+00	2.093E-01	1.087E-01	1.139E-02	10.892
PO-216	1.469E+00	1.835E-01	9.485E-02	9.603E-03	15.488
PO-218	1.184E+00	2.093E-01	1.087E-01	1.139E-02	10.892
RA-224	4.766E+00	1.403E+00	1.080E+00	9.811E-02	4.414
RA-226	1.035E+00	1.994E-01	1.097E-01	1.082E-02	9.438
AC-228	1.430E+00	3.257E-01	2.250E-01	2.604E-02	6.354
RA-228	1.430E+00	3.257E-01	2.250E-01	2.604E-02	6.354

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.489E+00	1.861E-01	9.617E-02	9.737E-03	15.488
TH-230	1.035E+00	1.994E-01	1.097E-01	1.082E-02	9.438
TH-232	1.430E+00	3.257E-01	2.250E-01	2.604E-02	6.354
PA-234M	5.275E+01	1.073E+01	7.097E+00	7.234E-01	7.433
TH-234	3.228E+01	6.702E+00	2.728E+00	4.795E-01	11.833
U-234	1.035E+00	1.994E-01	1.097E-01	1.082E-02	9.438
U-235	3.587E-01	3.238E-01	3.741E-01	6.536E-02	0.959
NP-237	1.073E+00	4.111E-01	5.503E-01	1.246E-01	1.950
U-238	3.228E+01	6.702E+00	2.728E+00	4.795E-01	11.833
AM-243	3.258E-01	1.071E-01	1.159E-01	9.637E-03	2.812
ANH-511	8.722E-02	7.261E-02	5.118E-02	4.337E-03	1.704

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.782E-02		3.188E-01	5.092E-01	4.632E-02	-0.035
NA-22	3.053E-02		4.810E-02	7.780E-02	6.533E-03	0.392
NA-24	-2.934E-03		9.969E-02	Half-Life too short		
AL-26	-1.210E-02		2.718E-02	3.952E-02	3.275E-03	-0.306
TI-44	2.971E-01	+	6.640E-02	8.888E-02	7.627E-03	3.343
SC-46	2.036E-02		4.125E-02	7.029E-02	6.354E-03	0.290
V-48	4.907E-02		6.952E-02	1.202E-01	1.073E-02	0.408
CR-51	-2.753E-01		3.816E-01	5.995E-01	5.639E-02	-0.459
MN-52	6.313E-02		1.834E-01	3.187E-01	2.751E-02	0.198
MN-54	2.954E-02		3.810E-02	6.630E-02	5.901E-03	0.446
CO-56	-3.382E-03		3.659E-02	5.947E-02	5.313E-03	-0.057
CO-57	-1.094E-02		2.962E-02	4.631E-02	4.077E-03	-0.236
CO-58	-6.566E-03		4.193E-02	6.805E-02	6.021E-03	-0.096
FE-59	3.526E-02		9.585E-02	1.598E-01	1.473E-02	0.221
CO-60	-3.157E-02		3.440E-02	4.977E-02	4.242E-03	-0.634
ZN-65	-2.484E-02		1.147E-01	1.546E-01	1.304E-02	-0.161
GE-68	7.970E-01		1.427E+00	2.415E+00	2.079E-01	0.330
AS-73	7.351E-01		1.189E+00	1.971E+00	1.595E-01	0.373
AS-74	-1.160E-01		8.856E-02	1.334E-01	1.124E-02	-0.869
SE-75	2.842E-02		5.052E-02	7.595E-02	6.977E-03	0.374
BR-77	-6.096E-02		7.736E+00	1.234E+01	1.047E+00	-0.005
SR-82	-2.343E-01		3.744E-01	5.837E-01	5.082E-02	-0.401
RB-83	1.797E-03		7.222E-02	1.155E-01	9.795E-03	0.016
RB-84	6.884E-02		7.628E-02	1.336E-01	1.205E-02	0.515
KR-85	1.561E+01		9.147E+00	1.445E+01	1.225E+00	1.081
SR-85	7.903E-02		4.631E-02	7.314E-02	6.201E-03	1.081
RB-86	2.302E-01		9.004E-01	1.485E+00	1.279E-01	0.155
Y-88	2.191E-02		2.886E-02	5.460E-02	4.490E-03	0.401
ZR-88	-2.393E-03		3.161E-02	5.100E-02	4.106E-03	-0.047
Y-91	7.244E+00		2.077E+01	3.569E+01	2.924E+00	0.203
NB-94	1.816E-02		3.532E-02	6.066E-02	5.092E-03	0.299
NB-95	1.482E-01		6.320E-02	1.054E-01	9.134E-03	1.406

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	8.137E-02		1.401E-01	2.108E-01	2.162E-02	0.386
ZR-95	5.952E-02		7.581E-02	1.321E-01	1.255E-02	0.450
NB-97	-2.503E-02		1.623E-02	Half-Life too short		
ZR-97	3.804E-01		3.358E-01	Half-Life too short		
MO-99	8.691E-01		1.004E+01	1.670E+01	2.530E+00	0.052
TC-99M	-1.727E+08		8.099E+08	Half-Life too short		
RH-101	-3.463E-02		3.641E-02	5.691E-02	5.008E-03	-0.609
RH-102	-1.162E-02		3.079E-02	4.803E-02	4.039E-03	-0.242
RU-103	-2.489E-02		4.270E-02	6.511E-02	9.156E-03	-0.382
RH-106	-2.560E-01		3.154E-01	4.916E-01	6.483E-02	-0.521
RU-106	-2.560E-01		3.144E-01	4.916E-01	4.107E-02	-0.521
AG-108M	-2.855E-03		3.204E-02	5.133E-02	4.426E-03	-0.056
AG-110M	-3.221E-02		3.833E-02	5.995E-02	5.083E-03	-0.537
IN-111	-3.297E-01		9.048E-01	1.288E+00	1.173E-01	-0.256
IN-113M	-1.319E-02		4.607E-02	7.335E-02	6.109E-03	-0.180
SN-113	-1.319E-02		4.607E-02	7.335E-02	6.109E-03	-0.180
IN-114M	-4.861E-02		2.044E-01	2.981E-01	2.603E-02	-0.163
CD-115	-2.072E+00		7.733E+00	1.281E+01	1.088E+00	-0.162
SN-117M	-1.370E-02		5.447E-02	9.120E-02	7.764E-03	-0.150
SB-122	1.728E+00		1.541E+00	2.762E+00	2.341E-01	0.626
I-123	1.828E-01		6.519E-01	Half-Life too short		
TE-123M	4.148E-03		2.959E-02	5.019E-02	4.299E-03	0.083
I-124	-6.322E-02		6.240E-01	8.997E-01	7.565E-02	-0.070
SB-124	7.140E-03		5.966E-02	1.002E-01	8.887E-03	0.071
SB-125	7.717E-03		9.692E-02	1.572E-01	1.323E-02	0.049
TE-125M	8.607E-01		1.318E+01	1.871E+01	1.939E+00	0.046
I-126	-7.412E-02		1.848E-01	2.990E-01	2.456E-02	-0.248
SB-126	7.740E-02		1.391E-01	2.283E-01	1.935E-02	0.339
SB-127	6.332E-01		1.087E+00	1.883E+00	2.034E-01	0.336
XE-127	-4.101E-02		5.087E-02	8.247E-02	7.291E-03	-0.497
I-131	2.651E-03		1.032E-01	1.683E-01	1.506E-02	0.016
TE-132	5.318E-01		5.620E-01	9.597E-01	1.510E-01	0.554
BA-133	-1.257E-02		5.274E-02	7.378E-02	9.730E-03	-0.170
I-133	-7.864E-04		1.267E-03	Half-Life too short		
CS-134	1.113E-01	+	6.086E-02	9.095E-02	8.038E-03	1.224
CS-135	8.202E-02		1.812E-01	2.703E-01	2.818E-02	0.303
I-135	-1.260E+08		1.632E+08	Half-Life too short		
CS-136	3.350E-02		1.067E-01	1.776E-01	1.615E-02	0.189
BA-137M	3.672E-02		3.919E-02	6.904E-02	5.655E-03	0.532
CS-137	3.882E-02		4.143E-02	7.298E-02	5.991E-03	0.532
CE-139	3.518E-02		3.318E-02	5.755E-02	4.901E-03	0.611
BA-140	-6.073E-02		2.468E-01	4.077E-01	1.350E-01	-0.149
LA-140	-4.013E-02		9.512E-02	1.390E-01	1.199E-02	-0.289
CE-143	2.199E-04		5.013E-05	Half-Life too short		
CE-144	-1.135E-01		2.720E-01	3.729E-01	5.805E-02	-0.304
PM-144	-4.646E-03		3.789E-02	6.236E-02	5.218E-03	-0.075
PR-144	-3.146E-01		2.566E+00	4.223E+00	3.533E-01	-0.075
PM-146	2.991E-02		4.865E-02	8.116E-02	8.525E-03	0.369

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	-2.475E-01		5.769E-01	9.247E-01	1.376E-01	-0.268
PM-149	-1.364E+01		6.507E+01	1.060E+02	1.678E+01	-0.129
EU-152	7.030E-02		1.070E-01	1.609E-01	1.488E-02	0.437
GD-153	3.925E-01	+	1.354E-01	1.831E-01	1.626E-02	2.143
EU-154	1.021E-01		1.377E-01	2.183E-01	2.431E-02	0.468
EU-155	7.774E-02		1.325E-01	2.151E-01	1.892E-02	0.361
TB-160	7.758E-02		1.529E-01	2.605E-01	2.349E-02	0.298
HO-166M	4.225E-02		5.888E-02	1.029E-01	8.681E-03	0.411
TM-171	-1.611E+01		4.020E+01	5.710E+01	4.497E+00	-0.282
LU-176	-1.510E-03		2.696E-02	4.263E-02	3.858E-03	-0.035
LU-177	7.253E-01		1.052E+00	1.796E+00	1.596E-01	0.404
LU-177M	-1.511E-01		1.865E-01	2.852E-01	2.330E-02	-0.530
HF-181	-1.980E-02		4.311E-02	6.666E-02	5.617E-03	-0.297
W-181	2.157E+00		5.966E-01	9.278E-01	7.243E-02	2.325
TA-182	-5.859E-02		2.338E-01	3.845E-01	3.169E-02	-0.152
RE-183	-5.052E-02		1.222E-01	2.012E-01	1.712E-02	-0.251
RE-184	-5.628E-02		2.453E-01	4.021E-01	3.671E-02	-0.140
OS-185	1.654E-02		4.329E-02	7.413E-02	6.124E-03	0.223
RE-188	9.593E-02		1.854E-01	3.180E-01	2.708E-02	0.302
W-188	-2.347E+00		8.622E+00	1.222E+01	1.114E+00	-0.192
IR-192	2.111E-02		3.454E-02	5.840E-02	5.262E-03	0.362
AU-195	1.142E+00	+	3.937E-01	5.315E-01	4.693E-02	2.148
TL-200	7.527E-05		1.038E-04	Half-Life too short		
TL-201	-3.151E+00		5.800E+00	9.590E+00	8.177E-01	-0.329
TL-202	4.168E-02		6.347E-02	1.069E-01	8.861E-03	0.390
HG-203	3.202E-02		4.324E-02	7.347E-02	6.889E-03	0.436
BI-207	-6.893E-03		5.821E-02	9.294E-02	8.057E-03	-0.074
TL-207	6.646E-01		7.087E-01	1.199E+00	2.142E-01	0.554
PO-209	7.299E+00		8.444E+00	1.472E+01	1.333E+00	0.496
BI-210	-2.451E+00		4.961E+00	7.914E+00	7.470E-01	-0.310
PB-210	-2.451E+00		4.961E+00	7.914E+00	7.470E-01	-0.310
PO-210	-2.451E+00		4.960E+00	7.914E+00	6.784E-01	-0.310
PB-211	-8.970E-01		1.131E+00	1.498E+00	9.375E-01	-0.599
PO-215	6.646E-01		7.087E-01	1.199E+00	2.142E-01	0.554
RN-219	9.123E-02		4.250E-01	6.971E-01	1.027E-01	0.131
RN-220	-6.280E+00		2.797E+01	4.615E+01	3.917E+00	-0.136
RA-223	6.646E-01		7.087E-01	1.199E+00	2.142E-01	0.554
AC-227	-1.374E-01		4.234E-01	6.905E-01	1.080E-01	-0.199
TH-227	-1.374E-01		4.236E-01	6.905E-01	1.265E-01	-0.199
TH-229	5.093E-02		5.452E-01	8.870E-01	7.771E-02	0.057
PA-231	-2.005E-01		1.602E+00	2.623E+00	4.061E-01	-0.076
TH-231	6.646E-01		7.087E-01	1.199E+00	2.142E-01	0.554
U-231	2.913E+00		1.590E+00	1.949E+00	1.743E-01	1.495
PA-233	-1.185E-02		6.775E-02	1.101E-01	1.019E-02	-0.108
PA-234	1.734E-01		3.303E-01	5.599E-01	1.061E-01	0.310
NP-236	-9.201E-02		8.617E-02	1.397E-01	1.190E-02	-0.658
NP-239	1.187E-01		2.490E-01	3.593E-01	3.129E-02	0.330
AM-241	2.243E-01		2.379E-01	3.560E-01	2.934E-02	0.630

Sample ID : G245395015 Acquisition date : 2-FEB-2010 09:47:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-5.506E-02		1.178E-01	1.848E-01	1.611E-02	-0.298
AM-246	8.876E-02		1.633E-01	2.760E-01	2.375E-02	0.322
CM-247	1.719E-02		3.733E-02	6.217E-02	5.042E-03	0.277
CF-249	-3.706E-03		4.249E-02	6.857E-02	5.562E-03	-0.054
CF-251	8.452E-02		1.320E-01	2.266E-01	1.950E-02	0.373

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245395015           *
* Acquisition date  :  2-FEB-2010 09:47:21 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.59      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245395015           Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.5739E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.301E+01	3.402E+00	2.453E-01	1.736E+00
CD-109	3.711E+00	1.174E+00	9.711E-01	5.989E-01
SN-126	3.654E-01	1.156E-01	9.613E-02	5.898E-02
CE-141	1.048E-01	9.139E-02	5.890E-02	4.663E-02
TL-208	4.076E-01	9.130E-02	3.178E-02	4.658E-02
BI-211	3.403E+00	5.635E-01	1.638E-01	2.875E-01
BI-212	8.904E-01	3.178E-01	2.334E-01	1.621E-01
PB-212	1.469E+00	1.798E-01	5.035E-02	9.175E-02
PO-212	1.469E+00	1.798E-01	5.035E-02	9.175E-02
BI-214	1.035E+00	1.954E-01	5.677E-02	9.970E-02
PB-214	1.184E+00	2.052E-01	5.709E-02	1.047E-01
PO-214	1.184E+00	2.052E-01	5.709E-02	1.047E-01
PO-216	1.469E+00	1.798E-01	5.035E-02	9.175E-02
PO-218	1.184E+00	2.052E-01	5.709E-02	1.047E-01
RA-224	4.766E+00	1.375E+00	5.730E-01	7.015E-01
RA-226	1.035E+00	1.954E-01	5.677E-02	9.970E-02
AC-228	1.430E+00	3.192E-01	1.151E-01	1.629E-01
RA-228	1.430E+00	3.192E-01	1.151E-01	1.629E-01
TH-228	1.489E+00	1.823E-01	5.105E-02	9.304E-02
TH-230	1.035E+00	1.954E-01	5.677E-02	9.970E-02
TH-232	1.430E+00	3.192E-01	1.151E-01	1.629E-01
PA-234M	5.275E+01	1.051E+01	3.622E+00	5.365E+00
TH-234	3.228E+01	6.568E+00	1.498E+00	3.351E+00
U-234	1.035E+00	1.954E-01	5.677E-02	9.970E-02
U-235	3.587E-01	3.174E-01	2.012E-01	1.619E-01
NP-237	1.073E+00	4.029E-01	2.999E-01	2.055E-01
U-238	3.228E+01	6.568E+00	1.498E+00	3.351E+00
AM-243	3.258E-01	1.050E-01	6.338E-02	5.355E-02
ANH-511	8.722E-02	7.116E-02	2.662E-02	3.630E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	-1.782E-02	3.125E-01	2.653E-01	1.594E-01	NOT IDENT.
NA-22	3.053E-02	4.714E-02	3.944E-02	2.405E-02	NOT IDENT.
NA-24	-2.934E+03	1.954E+05	0.000E+00	9.969E+04	SHORT HLIF
AL-26	-1.210E-02	2.664E-02	1.983E-02	1.359E-02	NOT IDENT.
TI-44	2.971E-01	6.507E-02	4.855E-02	3.320E-02	FAIL ABUN
SC-46	2.036E-02	4.042E-02	3.600E-02	2.062E-02	FAIL ABUN
V-48	4.907E-02	6.813E-02	6.140E-02	3.476E-02	NOT IDENT.
CR-51	-2.753E-01	3.739E-01	3.158E-01	1.908E-01	NOT IDENT.
MN-52	6.313E-02	1.797E-01	1.610E-01	9.169E-02	NOT IDENT.
MN-54	2.954E-02	3.734E-02	3.401E-02	1.905E-02	NOT IDENT.
CO-56	-3.382E-03	3.586E-02	3.050E-02	1.830E-02	NOT IDENT.
CO-57	-1.094E-02	2.903E-02	2.502E-02	1.481E-02	NOT IDENT.
CO-58	-6.566E-03	4.109E-02	3.494E-02	2.096E-02	NOT IDENT.
FE-59	3.526E-02	9.393E-02	8.134E-02	4.792E-02	NOT IDENT.
CO-60	-3.157E-02	3.371E-02	2.519E-02	1.720E-02	NOT IDENT.
ZN-65	-2.484E-02	1.124E-01	7.865E-02	5.737E-02	NOT IDENT.
GE-68	7.970E-01	1.399E+00	1.230E+00	7.135E-01	NOT IDENT.
AS-73	7.351E-01	1.165E+00	1.087E+00	5.946E-01	NOT IDENT.
AS-74	-1.160E-01	8.679E-02	6.910E-02	4.428E-02	NOT IDENT.
SE-75	2.842E-02	4.951E-02	4.021E-02	2.526E-02	NOT IDENT.
BR-77	-6.096E-02	7.581E+00	6.413E+00	3.868E+00	FAIL ABUN
SR-82	-2.343E-01	3.669E-01	3.001E-01	1.872E-01	NOT IDENT.
RB-83	1.797E-03	7.077E-02	6.002E-02	3.611E-02	NOT IDENT.
RB-84	6.884E-02	7.475E-02	6.844E-02	3.814E-02	NOT IDENT.
KR-85	1.561E+01	8.964E+00	7.513E+00	4.574E+00	NOT IDENT.
SR-85	7.903E-02	4.538E-02	3.803E-02	2.315E-02	NOT IDENT.
RB-86	2.302E-01	8.824E-01	7.563E-01	4.502E-01	NOT IDENT.
Y-88	2.191E-02	2.828E-02	2.738E-02	1.443E-02	NOT IDENT.
ZR-88	-2.393E-03	3.097E-02	2.671E-02	1.580E-02	NOT IDENT.
Y-91	7.244E+00	2.036E+01	1.812E+01	1.039E+01	NOT IDENT.
NB-94	1.816E-02	3.462E-02	3.127E-02	1.766E-02	NOT IDENT.
NB-95	1.482E-01	6.194E-02	5.421E-02	3.160E-02	NOT IDENT.
NB-95M	8.137E-02	1.373E-01	1.119E-01	7.003E-02	NOT IDENT.
ZR-95	5.952E-02	7.430E-02	6.798E-02	3.791E-02	NOT IDENT.
NB-97	-2.503E+04	3.182E+04	0.000E+00	1.623E+04	SHORT HLIF
ZR-97	3.804E+05	6.581E+05	0.000E+00	3.358E+05	SHORT HLIF
MO-99	8.691E-01	9.835E+00	8.595E+00	5.018E+00	NOT IDENT.
TC-99M	-1.727E+14	1.587E+15	0.000E+00	8.099E+14	SHORT HLIF
RH-101	-3.463E-02	3.568E-02	3.036E-02	1.821E-02	NOT IDENT.
RH-102	-1.162E-02	3.018E-02	2.503E-02	1.540E-02	FAIL ABUN
RU-103	-2.489E-02	4.184E-02	3.389E-02	2.135E-02	FAIL ABUN
RH-106	-2.560E-01	3.091E-01	2.543E-01	1.577E-01	FAIL ABUN
RU-106	-2.560E-01	3.081E-01	2.543E-01	1.572E-01	FAIL ABUN
AG-108M	-2.855E-03	3.140E-02	2.682E-02	1.602E-02	NOT IDENT.
AG-110M	-3.221E-02	3.756E-02	3.096E-02	1.917E-02	NOT IDENT.
IN-111	-3.297E-01	8.867E-01	6.834E-01	4.524E-01	NOT IDENT.
IN-113M	-1.319E-02	4.515E-02	3.843E-02	2.303E-02	NOT IDENT.
SN-113	-1.319E-02	4.515E-02	3.843E-02	2.303E-02	NOT IDENT.
IN-114M	-4.861E-02	2.003E-01	1.592E-01	1.022E-01	NOT IDENT.
CD-115	-2.072E+00	7.579E+00	6.659E+00	3.867E+00	NOT IDENT.
SN-117M	-1.370E-02	5.339E-02	4.893E-02	2.724E-02	NOT IDENT.
SB-122	1.728E+00	1.510E+00	1.433E+00	7.707E-01	NOT IDENT.
I-123	1.828E+05	1.278E+06	0.000E+00	6.519E+05	SHORT HLIF
TE-123M	4.148E-03	2.900E-02	2.693E-02	1.480E-02	NOT IDENT.
I-124	-6.322E-02	6.115E-01	4.658E-01	3.120E-01	NOT IDENT.
SB-124	7.140E-03	5.847E-02	5.040E-02	2.983E-02	FAIL ABUN
SB-125	7.717E-03	9.498E-02	8.217E-02	4.846E-02	FAIL ABUN
TE-125M	8.607E-01	1.292E+01	1.014E+01	6.591E+00	NOT IDENT.
I-126	-7.412E-02	1.811E-01	1.544E-01	9.241E-02	NOT IDENT.
SB-126	7.740E-02	1.363E-01	1.176E-01	6.953E-02	FAIL ABUN
SB-127	6.332E-01	1.066E+00	9.716E-01	5.437E-01	NOT IDENT.
XE-127	-4.101E-02	4.986E-02	4.397E-02	2.544E-02	FAIL ABUN
I-131	2.651E-03	1.012E-01	8.833E-02	5.161E-02	NOT IDENT.
TE-132	5.318E-01	5.508E-01	5.101E-01	2.810E-01	FAIL ABUN
BA-133	-1.257E-02	5.169E-02	3.875E-02	2.637E-02	NOT IDENT.
I-133	-7.864E+02	2.484E+03	0.000E+00	1.267E+03	SHORT HLIF
CS-134	1.113E-01	5.965E-02	4.673E-02	3.043E-02	FAIL ABUN
CS-135	8.202E-02	1.776E-01	1.430E-01	9.062E-02	NOT IDENT.
I-135	-1.260E+14	3.198E+14	0.000E+00	1.632E+14	SHORT HLIF
CS-136	3.350E-02	1.045E-01	9.055E-02	5.334E-02	FAIL ABUN
BA-137M	3.672E-02	3.841E-02	3.565E-02	1.960E-02	NOT IDENT.
CS-137	3.882E-02	4.060E-02	3.769E-02	2.072E-02	NOT IDENT.
CE-139	3.518E-02	3.252E-02	3.084E-02	1.659E-02	NOT IDENT.
BA-140	-6.073E-02	2.419E-01	2.117E-01	1.234E-01	NOT IDENT.
LA-140	-4.013E-02	9.322E-02	6.999E-02	4.756E-02	NOT IDENT.
CE-143	2.199E+02	9.826E+01	0.000E+00	5.013E+01	SHORT HLIF

CE-144	-1.135E-01	2.665E-01	2.010E-01	1.360E-01	NOT IDENT.
PM-144	-4.646E-03	3.713E-02	3.216E-02	1.894E-02	NOT IDENT.
PR-144	-3.146E-01	2.514E+00	2.178E+00	1.283E+00	NOT IDENT.
PM-146	2.991E-02	4.768E-02	4.235E-02	2.433E-02	NOT IDENT.
ND-147	-2.475E-01	5.653E-01	4.804E-01	2.884E-01	FAIL ABUN
PM-149	-1.364E+01	6.377E+01	5.602E+01	3.253E+01	NOT IDENT.
EU-152	7.030E-02	1.049E-01	8.461E-02	5.350E-02	FAIL ABUN
GD-153	3.925E-01	1.326E-01	9.949E-02	6.768E-02	FAIL ABUN
EU-154	1.021E-01	1.350E-01	1.107E-01	6.887E-02	NOT IDENT.
EU-155	7.774E-02	1.298E-01	1.166E-01	6.625E-02	FAIL ABUN
TB-160	7.758E-02	1.498E-01	1.335E-01	7.645E-02	FAIL ABUN
HO-166M	4.225E-02	5.770E-02	5.303E-02	2.944E-02	NOT IDENT.
TM-171	-1.611E+01	3.940E+01	3.132E+01	2.010E+01	NOT IDENT.
LU-176	-1.510E-03	2.642E-02	2.248E-02	1.348E-02	FAIL ABUN
LU-177	7.253E-01	1.031E+00	9.566E-01	5.262E-01	FAIL ABUN
LU-177M	-1.511E-01	1.828E-01	1.492E-01	9.325E-02	NOT IDENT.
HF-181	-1.980E-02	4.225E-02	3.472E-02	2.155E-02	NOT IDENT.
W-181	2.157E+00	5.847E-01	5.091E-01	2.983E-01	NOT IDENT.
TA-182	-5.859E-02	2.291E-01	1.951E-01	1.169E-01	FAIL ABUN
RE-183	-5.052E-02	1.197E-01	1.079E-01	6.109E-02	NOT IDENT.
RE-184	-5.628E-02	2.404E-01	2.132E-01	1.226E-01	NOT IDENT.
OS-185	1.654E-02	4.242E-02	3.831E-02	2.165E-02	NOT IDENT.
RE-188	9.593E-02	1.817E-01	1.707E-01	9.272E-02	NOT IDENT.
W-188	-2.347E+00	8.450E+00	6.451E+00	4.311E+00	FAIL ABUN
IR-192	2.111E-02	3.385E-02	3.077E-02	1.727E-02	FAIL ABUN
AU-195	1.142E+00	3.858E-01	2.887E-01	1.968E-01	FAIL ABUN
TL-200	7.527E+01	2.034E+02	0.000E+00	1.038E+02	SHORT HLIF
TL-201	-3.151E+00	5.684E+00	5.138E+00	2.900E+00	NOT IDENT.
TL-202	4.168E-02	6.220E-02	5.582E-02	3.173E-02	NOT IDENT.
HG-203	3.202E-02	4.237E-02	3.884E-02	2.162E-02	NOT IDENT.
BI-207	-6.893E-03	5.704E-02	4.736E-02	2.910E-02	FAIL ABUN
TL-207	6.646E-01	6.946E-01	6.315E-01	3.544E-01	FAIL ABUN
PO-209	7.299E+00	8.275E+00	7.539E+00	4.222E+00	NOT IDENT.
BI-210	-2.451E+00	4.862E+00	4.379E+00	2.480E+00	NOT IDENT.
PB-210	-2.451E+00	4.862E+00	4.379E+00	2.480E+00	NOT IDENT.
PO-210	-2.451E+00	4.861E+00	4.379E+00	2.480E+00	NOT IDENT.
PB-211	-8.970E-01	1.109E+00	7.839E-01	5.657E-01	NOT IDENT.
PO-215	6.646E-01	6.946E-01	6.315E-01	3.544E-01	FAIL ABUN
RN-219	9.123E-02	4.165E-01	3.649E-01	2.125E-01	FAIL ABUN
RN-220	-6.280E+00	2.741E+01	2.395E+01	1.398E+01	NOT IDENT.
RA-223	6.646E-01	6.946E-01	6.315E-01	3.544E-01	FAIL ABUN
AC-227	-1.374E-01	4.150E-01	3.659E-01	2.117E-01	FAIL ABUN
TH-227	-1.374E-01	4.152E-01	3.659E-01	2.118E-01	FAIL ABUN
TH-229	5.093E-02	5.343E-01	4.735E-01	2.726E-01	FAIL ABUN
PA-231	-2.005E-01	1.570E+00	1.386E+00	8.008E-01	FAIL ABUN
TH-231	6.646E-01	6.946E-01	6.315E-01	3.544E-01	FAIL ABUN
U-231	2.913E+00	1.558E+00	1.059E+00	7.948E-01	FAIL ABUN
PA-233	-1.185E-02	6.639E-02	5.804E-02	3.387E-02	FAIL ABUN
PA-234	1.734E-01	3.237E-01	2.862E-01	1.651E-01	FAIL ABUN
NP-236	-9.201E-02	8.445E-02	7.496E-02	4.308E-02	FAIL ABUN
NP-239	1.187E-01	2.441E-01	1.943E-01	1.245E-01	FAIL ABUN
AM-241	2.243E-01	2.331E-01	1.958E-01	1.189E-01	NOT IDENT.
CM-243	-5.506E-02	1.155E-01	1.003E-01	5.891E-02	FAIL ABUN
AM-246	8.876E-02	1.601E-01	1.406E-01	8.167E-02	NOT IDENT.
CM-247	1.719E-02	3.658E-02	3.254E-02	1.866E-02	NOT IDENT.
CF-249	-3.706E-03	4.164E-02	3.593E-02	2.124E-02	NOT IDENT.
CF-251	8.452E-02	1.294E-01	1.212E-01	6.600E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	455.5146
46.50	455.5146
46.50	455.5146
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52.97	517.5759
53.15	517.7574
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54.07	571.6984
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56.28	641.9732
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57.53	579.1349
57.53	579.1370
57.60	579.2103
57.98	603.1816
57.98	603.1816
59.32	607.8251
59.32	607.8251
59.40	607.9135
59.54	612.7955
59.72	612.9973
60.01	640.1240
61.10	682.4619
61.14	682.5106
61.30	682.7075
63.00	673.1522
63.29	673.4964
63.29	673.4964
63.58	673.8406
64.28	674.6668
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65.20	690.5973
65.20	690.5973
66.05	658.1431
66.72	700.3763
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66.91	732.5223
67.20	732.8830
67.20	732.8830
67.75	722.3786
67.85	701.1899
68.90	710.9684
68.90	710.9684
69.30	693.8168
69.67	718.2964
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70.82	700.3835
70.83	700.3936
72.80	811.1581
72.87	811.2502
72.87	811.2502
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74.81	813.7770
74.81	813.7770
74.81	813.7770
74.81	813.7770
74.81	813.7770
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74.81	813.7770
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75.70	814.9214
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77.11	816.7263

77.11	816.7263
77.11	816.7263
77.11	816.7263
77.11	816.7263
77.11	816.7263
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80.30	934.3469
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81.07	1012.1688
81.07	1012.1688
81.07	1012.1688
81.07	1012.1688
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83.78	876.9507
83.78	876.9507
83.78	876.9507
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86.54	1033.5658
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86.72	1070.0562
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86.94	1070.3934
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87.30	940.7917
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87.30	940.7917
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92.38	947.5920
92.38	947.5920
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94.67	950.5936
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94.90	576.1985
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98.44	527.0948
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100.10	493.0453
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109.28	580.3578

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111.00	559.4973
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112.95	517.0891
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117.00	440.2619
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121.78	458.2661
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122.32	456.2568
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144.24	416.8027
144.24	416.8027
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152.70	428.4604
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154.21	429.1136
154.21	429.1136
154.21	429.1136
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162.64	436.2898
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165.85	397.9370
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171.28	342.8451
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172.10	340.3845
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176.60	337.2462
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185.71	336.3535
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190.27	333.6452
192.34	319.4569
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202.84	402.9071
205.31	383.1770

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208.81	371.1624
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209.75	354.5625
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227.20	290.0911
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228.18	264.6103
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236.00	309.4777
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238.63	275.3577
238.63	275.3577
238.63	275.3577
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241.98	276.0475
241.98	276.0475
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252.85	252.0734
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256.20	276.9766
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264.65	204.9178
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269.46	229.1480
269.46	229.1480
269.46	229.1480
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277.60	213.0634
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285.90	210.2823
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286.10	202.3751
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295.21	215.5616

295.21	215.5616
295.96	215.6638
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300.09	184.2050
300.09	184.2050
300.09	184.2050
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304.40	195.9536
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323.87	171.7154
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338.28	166.0292
338.28	166.0292
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338.32	166.0317
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351.92	138.4247
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392.90	141.5878
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401.10	130.5280
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439.56	97.3842
439.89	100.6459
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445.03	134.5314
445.03	134.5314
445.03	134.5314
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477.96	107.9920
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511.85	121.9589
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520.65	101.0880
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529.87	0.0000
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546.56	0.0000
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555.20	107.5915
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563.90	85.1009
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569.32	105.4653
569.50	100.8879
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574.64	97.4211
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579.30	0.0000
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591.81	80.2005
592.07	88.8469
593.00	83.3225
595.88	113.0764
600.56	84.6025
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602.71	100.6791
602.71	100.6791
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609.31	89.4469
609.31	89.4469
609.31	89.4469
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618.01	79.9827
621.84	94.5580
621.84	94.5580
631.29	97.7158
633.02	90.2578
633.10	81.7983
634.78	79.9677
635.90	85.6502
636.97	80.9756
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646.12	80.3080
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661.65	89.3184
664.57	0.0000
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666.33	107.5542
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677.61	84.0984
685.20	69.9524
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695.00	106.7345
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696.49	103.9025
697.00	97.1854
697.49	100.0898
698.33	96.2695
698.50	103.9764
699.00	96.2915
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713.82	84.2048
717.42	73.6491
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722.78	77.6680
722.78	77.6680
722.89	77.6699
722.95	77.6719
723.30	79.3000
724.18	92.2748
727.18	72.9218
733.00	70.9788
735.90	89.7157
739.58	97.6367
742.81	84.0579
744.21	78.2305
747.13	89.0738
751.79	87.2509
752.31	87.2661
753.82	73.5754
755.35	64.7786
756.15	73.6304
756.87	82.4865
763.93	80.3807
765.79	100.1278
766.42	91.6105
766.84	91.6218
776.49	80.0508
778.00	76.1353
778.57	64.2811
778.89	62.3094
783.80	75.9460
785.46	69.3796
792.07	39.7285

795.84	69.6086
796.30	82.8796
798.80	69.6736
801.93	80.9525
805.60	77.8039
810.29	82.9129
810.76	76.9304
815.85	68.0465
817.79	64.0813
818.51	64.0969
819.60	72.1318
826.30	49.1914
828.27	0.0000
831.60	76.4221
831.96	79.4475
834.83	63.4122
836.80	0.0000
846.75	55.5613
848.13	63.6691
856.28	0.0000
856.80	65.8617
860.37	66.9475
867.32	37.2700
867.82	49.3778
871.10	54.9492
873.19	57.0199
874.81	40.7480
875.33	0.0000
876.40	73.3816
879.36	64.2643
880.27	69.3829
880.51	70.4083
881.50	60.2215
883.24	68.4231
884.67	90.9273
889.25	58.3123
896.60	62.5384
898.02	71.7944
899.00	67.7112
903.28	65.7406
911.07	65.8875
911.07	65.8875
911.07	65.8875
919.63	63.2104
920.93	70.2014
925.00	63.0477
925.24	63.0522
926.50	63.0745
935.52	66.3453
937.48	64.3068
944.10	59.2307
946.00	59.2613
949.00	71.7981
962.29	55.6992
964.01	59.5564
966.15	59.5912
968.20	59.6246
969.11	59.6399
969.11	59.6399
969.11	59.6399
977.42	41.9473
980.50	59.8249
983.50	48.3191
989.30	68.3833
996.32	56.2148
1001.03	50.6566
1001.68	50.6660
1004.76	56.3411
1021.30	0.0000
1024.50	0.0000
1034.80	59.6258
1036.00	68.1656
1037.82	63.9346
1038.57	52.2252
1038.76	0.0000
1045.16	69.3958
1046.59	68.3531
1048.07	53.4204

1050.47	50.2473
1050.47	50.2473
1062.04	60.0441
1063.62	64.3594
1076.63	68.8781
1077.35	60.2793
1078.86	60.3012
1085.78	73.3490
1099.22	55.1960
1112.02	60.3163
1112.84	77.5670
1115.52	72.4414
1120.29	63.0977
1120.29	63.0977
1120.29	63.0977
1120.29	63.0977
1120.51	63.1033
1121.28	63.1147
1124.00	0.0000
1129.67	80.9997
1131.51	0.0000
1147.95	0.0000
1167.94	76.1137
1173.22	71.6174
1175.09	71.6492
1177.93	60.6665
1189.05	66.3545
1204.90	74.9224
1205.75	0.0000
1213.00	75.9908
1221.42	97.4890
1230.97	96.7721
1235.34	101.5266
1236.41	0.0000
1238.25	72.6997
1246.25	68.1613
1260.41	0.0000
1271.85	33.8057
1274.45	38.6585
1274.54	40.8733
1291.56	39.6125
1298.22	0.0000
1312.09	32.2098
1325.50	27.5521
1325.50	27.5521
1332.49	34.2539
1333.61	33.3110
1360.21	28.7134
1362.66	0.0000
1365.15	28.7427
1368.21	36.4306
1368.53	0.0000
1376.25	38.4131
1384.27	42.3242
1394.10	18.3135
1395.20	14.4611
1407.95	27.0646
1434.06	19.4352
1436.60	24.3062
1457.56	0.0000
1460.81	19.5386
1489.15	11.7891
1509.49	17.7532
1596.49	31.2825
1620.62	8.0570
1678.03	0.0000
1691.02	9.1794
1691.02	9.1794
1706.46	0.0000
1750.46	0.0000
1764.49	9.2970
1764.49	9.2970
1764.49	9.2970
1764.49	9.2970
1770.23	77.5513
1771.40	40.3346
1791.20	0.0000
1808.65	12.4893

1836.01 6.2729

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245395015

Total Uranium Activity	9.6202E+01	ug/g
Total Uranium Counting Unc.	1.9540E+01	ug/g
Total Uranium Tpu	9.9695E-06	ug/g
Total Uranium Mda	4.4576E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 944966                    SAMPLE ID   : G245395015        *
*   ANALYST       : MXR1                      DETECTOR    : GAM01             *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  2-FEB-2010 09:47:21.72    SAMPLE ALQT:  157.390 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.268E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.721E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 5.147E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.516E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:50:07.44

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023719.CNF;1
Sample date       : 26-JAN-2010 00:00:00 Acquisition date : 2-FEB-2010 09:48:17.
Sample ID         : G1202023719          Sample quantity  : 1.81030E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.43  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
No peaks were found
```

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:50:10

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023719.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 26-JAN-2010 00:00:00 Acquisition date : 2-FEB-2010 09:48:17
Sample ID : G1202023719 Sample quantity : 181.03 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.43 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.912E-02	1.040E-01	1.622E-01	1.074E-02	-0.180
NA-22		1274.54	*	6.515E-03	1.680E-02	3.012E-02	1.969E-03	0.216
NA-24		1368.53	*	8.754E-06	1.680E-02	Half-Life too short		
AL-26		1129.67		-7.055E-02	6.224E-01	9.806E-01	6.326E-02	-0.072
		1808.65	*	-1.301E-02	1.744E-02	2.198E-02	1.303E-03	-0.592
K-40		1460.81	*	2.098E-02	1.528E-01	2.659E-01	1.890E-02	0.079
TI-44		67.85		-1.899E-02	1.652E-02	2.446E-02	2.845E-03	-0.776
		78.38	*	-4.955E-03	9.998E-03	1.591E-02	1.829E-03	-0.311
SC-46		889.25	*	1.243E-06	1.438E-02	2.104E-02	1.702E-03	0.000
		1120.51		4.864E-04	1.540E-02	2.506E-02	1.641E-03	0.019
V-48		944.10		1.158E-01	2.235E-01	4.038E-01	3.228E-02	0.287
		983.50	*	1.527E-03	1.462E-02	2.452E-02	1.900E-03	0.062
		1312.09		5.909E-03	1.825E-02	3.290E-02	2.217E-03	0.180
CR-51		320.08	*	-5.050E-02	1.089E-01	1.725E-01	1.215E-02	-0.293
MN-52		744.21		-1.503E-02	3.166E-02	4.829E-02	2.866E-03	-0.311
		848.13		3.522E-01	1.109E+00	1.922E+00	1.430E-01	0.183
		935.52		2.157E-02	2.952E-02	5.603E-02	4.506E-03	0.385
		1246.25		-6.101E-01	9.922E-01	1.457E+00	9.275E-02	-0.419
		1333.61		2.423E-01	7.024E-01	1.264E+00	8.660E-02	0.192
		1434.06	*	-4.159E-02	3.099E-02	2.227E-02	1.520E-03	-1.867
MN-54		834.83	*	3.439E-03	1.243E-02	2.158E-02	1.562E-03	0.159
CO-56		846.75	*	5.879E-03	1.495E-02	2.625E-02	1.947E-03	0.224
		977.42		-4.571E-01	8.627E-01	1.217E+00	9.475E-02	-0.376
		1037.82		-3.337E-02	9.762E-02	1.456E-01	1.146E-02	-0.229
		1175.09		-7.922E-01	6.899E-01	7.483E-01	4.458E-02	-1.059
		1238.25		1.690E-03	2.599E-02	4.412E-02	2.937E-03	0.038
		1360.21		2.586E-01	3.724E-01	7.120E-01	4.880E-02	0.363
		1771.40		3.632E-02	7.758E-02	1.481E-01	8.991E-03	0.245
CO-57		122.06	*	-6.230E-03	8.423E-03	1.286E-02	8.930E-04	-0.484
		136.48		-3.662E-02	6.889E-02	1.069E-01	7.951E-03	-0.343
CO-58		810.76	*	8.404E-03	9.876E-03	1.939E-02	1.339E-03	0.433
FE-59		142.65		3.853E-01	8.495E-01	1.393E+00	9.102E-02	0.277
		192.34		-1.719E-01	2.845E-01	4.256E-01	5.176E-02	-0.404
		1099.22	*	-2.081E-02	2.474E-02	3.010E-02	2.300E-03	-0.691

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	1291.56		1.676E-02	3.663E-02	6.735E-02	5.442E-03	0.249
CO-60	1173.22		2.007E-04	1.527E-02	2.465E-02	1.466E-03	0.008
	1332.49	*	-2.494E-03	1.556E-02	2.502E-02	1.715E-03	-0.100
ZN-65	1115.52	*	-1.455E-02	2.710E-02	3.766E-02	2.491E-03	-0.386
GE-68	1077.35	*	-1.142E-01	3.761E-01	5.603E-01	3.914E-02	-0.204
AS-73	53.44	*	3.264E-01	4.547E-01	8.207E-01	1.074E-01	0.398
AS-74	595.88	*	-1.201E-02	2.497E-02	3.664E-02	1.934E-03	-0.328
	634.78		-4.843E-03	9.631E-02	1.523E-01	7.706E-03	-0.032
SE-75	66.05		-1.866E+00	1.974E+00	2.893E+00	3.796E-01	-0.645
	96.73		-2.686E-01	2.184E-01	3.097E-01	4.492E-02	-0.867
	121.11		-8.605E-03	4.151E-02	6.687E-02	6.711E-03	-0.129
	136.00		-7.425E-04	1.220E-02	1.983E-02	1.329E-03	-0.037
	198.60		-8.523E-02	6.949E-01	1.043E+00	8.048E-02	-0.082
	264.65	*	9.108E-03	1.447E-02	2.595E-02	1.746E-03	0.351
	279.53		7.881E-05	3.836E-02	6.474E-02	4.571E-03	0.001
	303.91		-3.367E-01	7.486E-01	1.198E+00	1.199E-01	-0.281
	400.65		1.798E-03	9.297E-02	1.538E-01	1.384E-02	0.012
BR-77	87.88		-3.192E-01	5.207E+00	8.637E+00	1.038E+00	-0.037
	200.40		-4.379E+00	6.358E+00	9.465E+00	6.175E-01	-0.463
	239.00		-3.215E-01	4.139E-01	6.175E-01	4.114E-02	-0.521
	249.79		-1.109E+00	2.368E+00	3.833E+00	2.559E-01	-0.289
	281.68		-2.866E+00	3.614E+00	5.619E+00	3.731E-01	-0.510
	297.23		-2.260E+00	1.848E+00	2.666E+00	1.754E-01	-0.848
	303.76		-1.606E+00	6.985E+00	1.145E+01	7.498E-01	-0.140
	439.47		1.974E-01	5.230E+00	8.624E+00	4.892E-01	0.023
	484.57		1.109E+00	9.457E+00	1.565E+01	8.833E-01	0.071
	520.65	*	-7.763E-02	3.661E-01	5.707E-01	3.178E-02	-0.136
	574.64		-4.430E+00	8.485E+00	1.247E+01	6.706E-01	-0.355
	578.91		1.278E+00	3.303E+00	5.637E+00	3.022E-01	0.227
	585.48		-1.024E+00	5.754E+00	8.941E+00	4.766E-01	-0.115
	755.35		-3.886E+00	5.670E+00	8.159E+00	4.967E-01	-0.476
	817.79		2.604E+00	5.430E+00	9.705E+00	6.775E-01	0.268
SR-82	698.33		-4.948E+00	1.070E+01	1.617E+01	8.622E-01	-0.306
	776.49	*	-9.653E-02	1.033E-01	1.393E-01	8.893E-03	-0.693
	1395.20		-2.845E-01	3.619E+00	5.897E+00	4.037E-01	-0.048
RB-83	520.41	*	-3.877E-03	2.165E-02	3.398E-02	1.892E-03	-0.114
	529.64		-2.913E-03	3.298E-02	5.253E-02	2.912E-03	-0.055
	552.65		3.008E-02	6.928E-02	1.194E-01	6.527E-03	0.252
RB-84	881.50	*	1.599E-02	2.463E-02	4.293E-02	3.419E-03	0.373
KR-85	513.99	*	-1.139E+01	4.568E+00	5.619E+00	3.138E-01	-2.028
SR-85	513.99	*	-5.387E-02	2.160E-02	2.657E-02	1.484E-03	-2.028
RB-86	1076.63	*	-7.419E-03	1.704E-01	2.729E-01	1.908E-02	-0.027
Y-88	898.02		2.160E-03	1.623E-02	2.632E-02	2.177E-03	0.082
	1836.01	*	-4.558E-04	1.673E-02	2.692E-02	1.571E-03	-0.017
ZR-88	392.90	*	-2.398E-03	1.039E-02	1.665E-02	9.373E-04	-0.144
Y-91	1204.90	*	-5.504E+00	5.416E+00	6.189E+00	3.793E-01	-0.889
NB-94	702.63	*	4.650E-03	1.256E-02	2.215E-02	1.193E-03	0.210
	871.10		-1.123E-02	1.182E-02	1.526E-02	1.190E-03	-0.735
NB-95	765.79	*	-3.980E-03	1.268E-02	1.993E-02	1.242E-03	-0.200

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M		235.69	*	-5.428E-02	4.180E-02	5.640E-02	4.629E-03	-0.962
ZR-95		724.18		2.857E-02	3.129E-02	5.898E-02	3.980E-03	0.484
		756.15	*	-6.200E-03	1.893E-02	2.934E-02	2.136E-03	-0.211
NB-97		657.90	*	-2.705E-05	1.893E-02	Half-Life too short		
		1024.50		-1.928E-03	1.893E-02	Half-Life too short		
ZR-97		254.15		-1.238E-04	1.893E-02	Half-Life too short		
		355.39		-1.172E-03	1.893E-02	Half-Life too short		
		507.63	*	-1.323E-03	1.893E-02	Half-Life too short		
		602.52		3.175E-04	1.893E-02	Half-Life too short		
		1021.30		8.285E-04	1.893E-02	Half-Life too short		
		1147.95		1.958E-04	1.893E-02	Half-Life too short		
		1362.66		-1.070E-04	1.893E-02	Half-Life too short		
		1750.46		7.469E-04	1.893E-02	Half-Life too short		
MO-99		140.51		-5.311E-01	1.284E+00	2.003E+00	5.433E-01	-0.265
		181.06		2.661E-02	7.981E-01	1.289E+00	2.239E-01	0.021
		366.43		1.125E+00	4.515E+00	7.712E+00	4.609E-01	0.146
		739.58	*	3.574E-01	6.189E-01	1.122E+00	1.550E-01	0.318
		778.00		-5.638E-01	1.553E+00	2.396E+00	1.534E-01	-0.235
TC-99M		140.51	*	-3.021E+00	1.553E+00	Half-Life too short		
RH-101		127.23		2.255E-03	1.084E-02	1.810E-02	1.229E-03	0.125
		198.01	*	1.197E-04	1.319E-02	2.005E-02	1.306E-03	0.006
		325.23		6.024E-02	8.839E-02	1.571E-01	1.006E-02	0.383
RH-102		418.52		-2.142E-02	1.048E-01	1.677E-01	9.495E-03	-0.128
		475.06	*	2.531E-03	1.090E-02	1.836E-02	1.038E-03	0.138
		631.29		1.246E-02	2.189E-02	3.810E-02	1.935E-03	0.327
		697.49		-1.588E-02	3.064E-02	4.608E-02	2.452E-03	-0.345
		766.84		-1.719E-02	3.655E-02	5.595E-02	3.495E-03	-0.307
		1046.59		1.347E-03	4.659E-02	7.613E-02	5.529E-03	0.018
		1112.84		-3.585E-02	6.305E-02	8.465E-02	5.613E-03	-0.424
RU-103		497.08	*	-1.394E-03	1.315E-02	2.104E-02	2.643E-03	-0.066
		610.33		1.627E-01	3.111E-01	4.942E-01	7.514E-02	0.329
RH-106		511.85		-2.221E-01	1.138E-01	1.990E-01	1.113E-02	-1.116
		621.84	*	-1.277E-02	1.147E-01	1.796E-01	2.052E-02	-0.071
		1050.47		2.683E-01	8.721E-01	1.502E+00	1.086E-01	0.179
RU-106		511.85		-2.221E-01	1.138E-01	1.990E-01	1.113E-02	-1.116
		621.84	*	-1.277E-02	1.146E-01	1.796E-01	9.228E-03	-0.071
		1050.47		2.683E-01	8.721E-01	1.502E+00	1.086E-01	0.179
AG-108M		433.93	*	-3.168E-03	1.169E-02	1.844E-02	1.139E-03	-0.172
		614.37		-4.295E-03	1.484E-02	2.261E-02	1.295E-03	-0.190
		722.95		1.332E-02	1.593E-02	2.966E-02	1.825E-03	0.449
CD-109		88.03	*	-2.375E-02	2.241E-01	3.701E-01	4.448E-02	-0.064
AG-110M		657.75	*	-1.844E-02	1.290E-02	1.665E-02	8.898E-04	-1.107
		677.61		-5.461E-02	1.153E-01	1.798E-01	9.843E-03	-0.304
		706.67		2.213E-03	7.829E-02	1.317E-01	7.650E-03	0.017
		763.93		2.169E-03	5.182E-02	8.696E-02	5.688E-03	0.025
		884.67		-8.152E-03	1.906E-02	2.889E-02	2.401E-03	-0.282
		937.48		-3.983E-03	3.379E-02	5.388E-02	4.507E-03	-0.074
		1384.27		-6.097E-03	4.555E-02	7.232E-02	5.173E-03	-0.084
IN-111		171.28		-3.376E-02	5.462E-02	8.286E-02	5.282E-03	-0.407

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	5.625E-03	5.926E-02	9.470E-02	6.319E-03	0.059
IN-113M		391.69	*	4.046E-03	1.474E-02	2.522E-02	1.520E-03	0.160
SN-113		391.69	*	4.046E-03	1.474E-02	2.522E-02	1.520E-03	0.160
IN-114M		190.27	*	1.649E-02	5.346E-02	8.858E-02	5.733E-03	0.186
CD-115		260.90		-5.710E+00	4.054E+00	5.799E+00	3.872E-01	-0.985
		492.35		-3.563E-01	1.364E+00	2.139E+00	1.204E-01	-0.167
		527.90	*	-1.491E-01	3.173E-01	4.675E-01	2.594E-02	-0.319
SN-117M		156.02		1.769E-02	5.352E-01	8.714E-01	5.589E-02	0.020
		158.56	*	4.651E-04	1.309E-02	2.129E-02	1.362E-03	0.022
SB-122		563.90	*	4.891E-02	1.105E-01	1.897E-01	1.029E-02	0.258
		692.80		-3.554E-01	2.323E+00	3.813E+00	2.006E-01	-0.093
I-123		159.00	*	6.211E-05	2.323E+00	Half-Life too short		
		528.96		9.352E-04	2.323E+00	Half-Life too short		
TE-123M		159.00	*	5.117E-03	9.408E-03	1.601E-02	1.035E-03	0.320
I-124		602.71	*	1.874E-02	7.651E-02	1.269E-01	6.657E-03	0.148
		722.78		2.556E-01	4.727E-01	8.487E-01	4.794E-02	0.301
		1325.50		2.626E-01	2.734E+00	4.691E+00	3.196E-01	0.056
		1376.25		2.514E+00	2.715E+00	5.538E+00	3.795E-01	0.454
		1509.49		5.049E-01	2.276E+00	3.920E+00	2.643E-01	0.129
		1691.02		2.883E-01	3.573E-01	7.541E-01	4.780E-02	0.382
SB-124		602.71		3.578E-03	1.461E-02	2.424E-02	1.272E-03	0.148
		645.85		-4.418E-02	1.539E-01	2.472E-01	1.442E-02	-0.179
		709.31		-2.574E-01	9.403E-01	1.508E+00	8.255E-02	-0.171
		713.82		4.731E-02	5.576E-01	9.455E-01	9.513E-02	0.050
		722.78		7.074E-02	1.308E-01	2.349E-01	1.393E-02	0.301
		968.20		-6.514E-01	8.385E-01	1.180E+00	9.261E-02	-0.552
		1045.16		6.946E-01	9.143E-01	1.687E+00	1.227E-01	0.412
		1325.50		7.763E-02	8.083E-01	1.387E+00	9.448E-02	0.056
		1368.21		9.808E-02	5.160E-01	9.048E-01	1.124E-01	0.108
		1436.60		9.152E-02	9.084E-01	1.563E+00	1.066E-01	0.059
		1691.02	*	1.882E-02	2.333E-02	4.923E-02	3.345E-03	0.382
SB-125		427.89	*	-2.337E-02	3.871E-02	5.644E-02	3.341E-03	-0.414
		463.38		8.995E-02	9.534E-02	1.758E-01	1.169E-02	0.512
		600.56		2.978E-02	7.083E-02	1.206E-01	7.528E-03	0.247
		635.90		-7.648E-02	1.027E-01	1.406E-01	8.666E-03	-0.544
TE-125M		109.28	*	-1.027E+00	3.172E+00	4.738E+00	4.694E-01	-0.217
I-126		388.63		-6.628E-03	4.718E-02	7.656E-02	4.342E-03	-0.087
		666.33	*	-4.161E-02	4.153E-02	5.803E-02	2.863E-03	-0.717
		753.82		-9.766E-02	3.039E-01	4.746E-01	2.879E-02	-0.206
SB-126		223.80		-1.481E-01	8.688E-01	1.354E+00	8.966E-02	-0.109
		278.60		9.186E-02	5.874E-01	1.005E+00	6.686E-02	0.091
		296.50		-2.469E-01	3.134E-01	4.669E-01	3.074E-02	-0.529
		414.70		-4.572E-03	1.878E-02	2.996E-02	1.695E-03	-0.153
		415.30		-1.731E-01	1.543E+00	2.504E+00	1.417E-01	-0.069
		555.20		3.262E-02	9.554E-01	1.549E+00	8.458E-02	0.021
		573.80		-1.134E-02	2.591E-01	4.139E-01	2.228E-02	-0.027
		593.00		-8.297E-02	1.963E-01	2.880E-01	1.525E-02	-0.288
		656.30		-5.525E-01	7.213E-01	1.052E+00	5.171E-02	-0.525
		666.33		-1.709E-02	1.705E-02	2.383E-02	1.175E-03	-0.717

---- Non-Identified Nuclides ----

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		675.00		-1.097E-01	4.676E-01	7.572E-01	3.816E-02	-0.145
		695.00		1.080E-02	1.867E-02	3.386E-02	1.791E-03	0.319
		697.00		-4.026E-02	7.086E-02	1.059E-01	5.627E-03	-0.380
		720.50	*	3.071E-03	3.869E-02	6.544E-02	3.677E-03	0.047
		856.80		-3.556E-02	1.035E-01	1.591E-01	1.205E-02	-0.223
		989.30		2.130E-01	2.952E-01	5.497E-01	4.237E-02	0.388
		1034.80		1.731E-03	1.774E+00	2.886E+00	2.125E-01	0.001
		1213.00		-8.634E-02	8.761E-01	1.369E+00	8.456E-02	-0.063
SN-126		64.28		-9.739E-03	2.294E-01	3.736E-01	6.436E-02	-0.026
		86.94		-3.380E-02	9.963E-02	1.595E-01	6.725E-02	-0.212
		87.57	*	-3.494E-03	2.294E-02	3.773E-02	4.525E-03	-0.093
SB-127		61.10		-3.823E+00	6.674E+00	1.017E+01	1.278E+00	-0.376
		252.40		-1.258E-01	3.710E-01	6.022E-01	2.482E-01	-0.209
		290.80		-1.969E+00	1.849E+00	2.741E+00	2.048E-01	-0.718
		411.60		-2.215E-01	1.184E+00	1.905E+00	2.460E-01	-0.116
		444.90		-2.906E-01	8.624E-01	1.341E+00	1.175E-01	-0.217
		473.00		9.599E-02	1.591E-01	2.805E-01	2.588E-02	0.342
		543.00		7.533E-01	1.332E+00	2.364E+00	2.643E-01	0.319
		603.60		2.261E-01	1.174E+00	1.934E+00	1.635E-01	0.117
		685.20	*	-9.509E-02	1.285E-01	1.904E-01	1.261E-02	-0.499
		698.50		-3.215E-01	1.437E+00	2.254E+00	2.906E-01	-0.143
		722.20		5.663E-01	2.937E+00	5.045E+00	3.345E-01	0.112
		783.80		9.180E-02	2.769E-01	4.892E-01	4.479E-02	0.188
XE-127		57.60		4.248E-01	2.342E+00	4.044E+00	5.063E-01	0.105
		145.22		-1.267E-01	2.041E-01	3.132E-01	2.038E-02	-0.405
		172.10		1.140E-02	3.669E-02	6.096E-02	3.888E-03	0.187
		202.84	*	7.109E-03	1.363E-02	2.296E-02	1.501E-03	0.310
		374.96		8.838E-03	6.315E-02	1.064E-01	6.242E-03	0.083
I-131		80.18		6.214E-01	6.663E-01	1.207E+00	1.396E-01	0.515
		284.30		1.299E-01	2.814E-01	4.951E-01	3.543E-02	0.262
		364.48	*	-1.565E-02	2.357E-02	3.607E-02	2.381E-03	-0.434
		636.97		-2.997E-01	2.917E-01	3.667E-01	2.115E-02	-0.817
		722.89		1.128E+00	1.376E+00	2.559E+00	1.451E-01	0.441
TE-132		49.72		5.198E-02	2.676E+00	4.568E+00	5.823E-01	0.011
		111.76		-3.844E-01	1.832E+00	2.964E+00	2.521E-01	-0.130
		116.30		6.231E-01	1.781E+00	3.024E+00	2.449E-01	0.206
		228.16	*	2.596E-02	4.442E-02	7.508E-02	1.018E-02	0.346
BA-133		53.15		9.976E-01	2.103E+00	3.728E+00	4.880E-01	0.268
		79.62		-2.586E-01	3.825E-01	5.943E-01	1.013E-01	-0.435
		81.00		7.247E-03	2.849E-02	4.876E-02	8.613E-03	0.149
		276.40		-4.132E-02	1.391E-01	2.171E-01	2.903E-02	-0.190
		302.84		4.518E-03	5.225E-02	8.849E-02	1.066E-02	0.051
		356.01	*	-2.027E-02	1.591E-02	2.186E-02	2.561E-03	-0.927
		383.85		-3.088E-02	1.044E-01	1.659E-01	1.799E-02	-0.186
I-133		510.53		-3.157E-04	1.044E-01	Half-Life too short		
		529.87	*	-3.730E-07	1.044E-01	Half-Life too short		
		706.58		1.869E-05	1.044E-01	Half-Life too short		
		856.28		-2.535E-04	1.044E-01	Half-Life too short		
		875.33		8.176E-05	1.044E-01	Half-Life too short		

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		1236.41		-7.560E-05	1.044E-01	Half-Life too short		
		1298.22		-7.234E-05	1.044E-01	Half-Life too short		
CS-134		475.35		-6.800E-02	7.076E-01	1.138E+00	6.433E-02	-0.060
		563.23		5.250E-03	1.428E-01	2.313E-01	1.286E-02	0.023
		569.32		-3.648E-02	8.461E-02	1.260E-01	7.039E-03	-0.290
		604.70		-5.249E-04	1.335E-02	2.126E-02	1.121E-03	-0.025
		795.84	*	8.840E-03	1.501E-02	2.750E-02	1.854E-03	0.321
		801.93		-6.375E-02	1.596E-01	2.552E-01	1.738E-02	-0.250
		1038.57		-2.060E-01	1.277E+00	1.996E+00	1.463E-01	-0.103
		1167.94		-4.070E-01	9.250E-01	1.345E+00	8.087E-02	-0.303
		1365.15		-3.742E-02	4.568E-01	7.443E-01	5.464E-02	-0.050
CS-135		268.24	*	-2.750E-02	5.002E-02	7.950E-02	6.627E-03	-0.346
I-135		288.45		2.785E+01	5.002E-02	Half-Life too short		
		417.63		-3.619E+01	5.002E-02	Half-Life too short		
		546.56		-3.454E+01	5.002E-02	Half-Life too short		
		836.80		2.603E+01	5.002E-02	Half-Life too short		
		1038.76		-2.030E+01	5.002E-02	Half-Life too short		
		1124.00		-7.610E+00	5.002E-02	Half-Life too short		
		1131.51		-1.355E+00	5.002E-02	Half-Life too short		
		1260.41	*	1.109E+01	5.002E-02	Half-Life too short		
		1457.56		5.931E+00	5.002E-02	Half-Life too short		
		1678.03		-8.905E-01	5.002E-02	Half-Life too short		
		1706.46		4.336E+01	5.002E-02	Half-Life too short		
		1791.20		8.713E+00	5.002E-02	Half-Life too short		
CS-136		66.91		-2.560E-01	2.076E-01	2.847E-01	4.933E-02	-0.900
		86.29		-5.952E-03	2.062E-01	3.434E-01	5.233E-02	-0.017
		153.22		1.106E-02	1.343E-01	2.200E-01	1.702E-02	0.050
		163.89		-1.195E-02	2.410E-01	3.883E-01	2.991E-02	-0.031
		176.55		1.693E-02	8.724E-02	1.432E-01	1.010E-02	0.118
		273.65		-6.567E-02	9.490E-02	1.480E-01	1.091E-02	-0.444
		340.57		-1.827E-02	2.892E-02	4.465E-02	2.946E-03	-0.409
		818.51		1.474E-02	1.898E-02	3.537E-02	2.474E-03	0.417
		1048.07	*	-1.259E-02	3.105E-02	4.660E-02	3.576E-03	-0.270
		1235.34		2.978E-02	1.222E-01	2.141E-01	2.202E-02	0.139
BA-137M		661.65	*	-4.569E-03	1.590E-02	2.814E-02	1.372E-03	-0.162
CS-137		661.65	*	-4.830E-03	1.680E-02	2.975E-02	1.459E-03	-0.162
CE-139		165.85	*	-1.614E-03	1.010E-02	1.610E-02	1.023E-03	-0.100
BA-140		162.64		-8.317E-02	1.647E-01	2.531E-01	1.780E-02	-0.329
		304.84		-1.039E-01	3.209E-01	5.191E-01	1.425E-01	-0.200
		423.70		-1.070E-04	4.605E-01	7.569E-01	2.404E-01	0.000
		537.32	*	5.011E-02	6.621E-02	1.158E-01	3.761E-02	0.433
LA-140		328.77		-2.748E-02	7.346E-02	1.180E-01	8.271E-03	-0.233
		432.53		1.364E-01	5.112E-01	8.685E-01	5.463E-02	0.157
		487.03		2.774E-03	3.745E-02	6.157E-02	3.955E-03	0.045
		751.79		2.144E-01	3.787E-01	6.918E-01	5.046E-02	0.310
		815.85		-1.598E-02	7.918E-02	1.265E-01	1.031E-02	-0.126
		867.82		1.779E-01	3.202E-01	5.825E-01	4.806E-02	0.305
		919.63		1.412E-01	7.005E-01	1.193E+00	1.223E-01	0.118
		925.24		-1.904E-01	2.232E-01	2.793E-01	2.422E-02	-0.682

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		1596.49	*	3.132E-03	2.331E-02	3.968E-02	2.613E-03	0.079
CE-141		145.44	*	-1.546E-02	1.829E-02	2.740E-02	1.839E-03	-0.564
CE-143		57.37		-8.934E-01	1.020E+01	1.714E+01	2.290E+00	-0.052
		231.56		8.209E+00	1.941E+01	3.005E+01	9.336E+00	0.273
		293.26	*	6.363E-01	8.600E-01	1.542E+00	3.187E-01	0.413
		350.59		5.155E+00	1.367E+01	2.215E+01	6.731E+00	0.233
		490.36		5.924E+00	2.423E+01	4.060E+01	1.253E+01	0.146
		664.57		-9.517E+00	1.023E+01	1.396E+01	4.395E+00	-0.682
		721.93		1.661E+00	1.143E+01	1.948E+01	5.531E+00	0.085
CE-144		80.11		2.032E-01	6.042E-01	1.043E+00	1.205E-01	0.195
		133.54	*	-1.160E-02	6.591E-02	1.060E-01	1.546E-02	-0.109
PM-144		476.78		-2.217E-02	2.519E-02	3.547E-02	2.418E-03	-0.625
		618.01		6.979E-03	1.195E-02	2.092E-02	1.160E-03	0.334
		696.49	*	-6.477E-03	1.400E-02	2.133E-02	1.133E-03	-0.304
		778.57		-3.438E-01	7.299E-01	1.099E+00	7.049E-02	-0.313
PR-144		696.49	*	-4.371E-01	9.447E-01	1.439E+00	7.642E-02	-0.304
		1489.15		-3.093E+00	3.983E+00	4.599E+00	3.113E-01	-0.672
PM-146		453.90	*	-6.475E-04	1.481E-02	2.407E-02	2.054E-03	-0.027
		633.02		3.698E-01	5.525E-01	9.515E-01	3.494E-01	0.389
		735.90		-5.369E-02	5.675E-02	7.566E-02	2.110E-02	-0.710
		747.13		-3.011E-02	3.287E-02	4.531E-02	5.704E-03	-0.665
ND-147		91.11		1.866E-02	4.851E-02	8.337E-02	9.776E-03	0.224
		319.41		-2.248E-01	7.278E-01	1.175E+00	7.577E-02	-0.191
		439.89		3.549E-01	1.232E+00	2.104E+00	1.194E-01	0.169
		531.02	*	2.071E-02	1.169E-01	1.949E-01	2.614E-02	0.106
PM-149		285.90	*	-2.728E+00	3.124E+00	4.763E+00	6.912E-01	-0.573
EU-152		121.78		-1.716E-02	2.503E-02	3.844E-02	3.276E-03	-0.446
		244.69		-2.679E-02	1.217E-01	1.877E-01	1.253E-02	-0.143
		344.27	*	8.659E-03	3.376E-02	5.794E-02	4.010E-03	0.149
		443.98		-8.622E-02	3.552E-01	5.620E-01	3.188E-02	-0.153
		778.89		-1.871E-02	8.000E-02	1.266E-01	8.122E-03	-0.148
		867.32		2.505E-01	2.852E-01	5.457E-01	4.223E-02	0.459
		964.01		3.465E-02	9.086E-02	1.599E-01	1.259E-02	0.217
		1085.78		3.092E-02	1.070E-01	1.875E-01	1.294E-02	0.165
		1112.02		-1.680E-02	8.536E-02	1.300E-01	8.633E-03	-0.129
		1407.95		7.698E-03	7.240E-02	1.232E-01	8.427E-03	0.062
GD-153		69.67		4.324E-01	5.419E-01	9.745E-01	1.125E-01	0.444
		83.37		-1.073E+00	4.400E+00	7.193E+00	8.420E-01	-0.149
		97.43	*	-2.153E-02	2.244E-02	3.330E-02	3.269E-03	-0.646
		103.18		2.713E-02	3.352E-02	5.935E-02	5.281E-03	0.457
EU-154		123.07		2.690E-03	1.625E-02	2.712E-02	2.745E-03	0.099
		247.94		8.264E-02	1.330E-01	2.246E-01	2.268E-02	0.368
		591.81		-4.624E-02	2.076E-01	3.189E-01	3.025E-02	-0.145
		723.30		6.491E-02	6.656E-02	1.258E-01	8.761E-03	0.516
		756.87		-5.737E-02	2.068E-01	3.226E-01	3.328E-02	-0.178
		873.19		-1.014E-02	9.984E-02	1.611E-01	1.885E-02	-0.063
		996.32		2.976E-02	1.390E-01	2.360E-01	4.088E-02	0.126
		1004.76		7.975E-04	8.067E-02	1.318E-01	1.437E-02	0.006
		1274.45	*	1.774E-02	4.701E-02	8.413E-02	8.252E-03	0.211

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155		48.70		3.241E-01	2.032E+00	3.266E+00	3.763E-01	0.099
		60.01		-2.581E+00	2.330E+00	3.281E+00	3.986E-01	-0.787
		86.54		-2.772E-03	2.817E-02	4.660E-02	5.581E-03	-0.059
		105.31	*	-5.709E-02	3.569E-02	4.925E-02	4.293E-03	-1.159
TB-160		86.79		-1.424E-02	7.028E-02	1.151E-01	1.373E-02	-0.124
		197.04		-1.313E-01	2.172E-01	3.116E-01	2.028E-02	-0.421
		215.65		1.106E-02	2.446E-01	3.918E-01	2.583E-02	0.028
		298.57		-1.044E-02	3.398E-02	5.518E-02	3.627E-03	-0.189
		879.36	*	-1.232E-02	4.912E-02	7.711E-02	6.114E-03	-0.160
		962.29		9.013E-02	1.618E-01	2.924E-01	2.306E-02	0.308
		966.15		-5.275E-02	6.259E-02	8.394E-02	6.598E-03	-0.628
		1177.93		1.969E-02	7.825E-02	1.360E-01	8.125E-03	0.145
		1271.85		1.116E-01	2.161E-01	4.016E-01	2.615E-02	0.278
HO-166M		80.57		6.506E-02	7.901E-02	1.416E-01	1.638E-02	0.460
		184.41		1.511E-03	1.384E-02	2.241E-02	1.444E-03	0.067
		280.46		-4.924E-03	3.082E-02	5.117E-02	3.400E-03	-0.096
		410.95		-3.922E-02	9.616E-02	1.505E-01	8.511E-03	-0.261
		711.68	*	-1.849E-03	2.181E-02	3.603E-02	1.983E-03	-0.051
		752.31		3.266E-02	9.130E-02	1.617E-01	9.777E-03	0.202
		810.29		1.350E-02	1.689E-02	3.265E-02	2.243E-03	0.413
TM-171		51.35		-1.089E+01	1.976E+01	3.175E+01	4.111E+00	-0.343
		52.39		6.072E-01	9.737E+00	1.666E+01	2.179E+00	0.036
		59.40		-9.164E+00	1.206E+01	1.759E+01	2.145E+00	-0.521
		66.72	*	-9.490E+00	1.100E+01	1.606E+01	1.878E+00	-0.591
LU-176		88.36		2.364E-04	5.173E-02	8.631E-02	1.029E-02	0.003
		201.83		-1.382E-03	1.013E-02	1.599E-02	1.044E-03	-0.086
		306.84	*	7.478E-03	9.343E-03	1.689E-02	1.102E-03	0.443
		401.10		-1.255E+00	2.571E+00	3.982E+00	2.246E-01	-0.315
LU-177		112.95		2.399E-03	2.345E-01	3.872E-01	2.998E-02	0.006
		208.36	*	-4.604E-03	1.617E-01	2.575E-01	1.690E-02	-0.018
LU-177M		52.97		2.662E-01	9.274E-01	1.619E+00	2.120E-01	0.164
		54.07		1.663E-01	4.767E-01	8.352E-01	1.089E-01	0.199
		61.30		-1.162E-01	6.278E-01	1.044E+00	1.260E-01	-0.111
		121.62		-6.516E-02	1.219E-01	1.902E-01	1.325E-02	-0.343
		147.16		1.636E-02	2.142E-01	3.512E-01	2.278E-02	0.047
		171.86		3.385E-02	1.640E-01	2.700E-01	1.722E-02	0.125
		218.09		9.435E-02	2.919E-01	4.808E-01	3.175E-02	0.196
		268.79		-4.048E-02	2.402E-01	3.988E-01	2.660E-02	-0.101
		319.02		-1.926E-03	8.657E-02	1.445E-01	9.320E-03	-0.013
		367.43		-4.365E-02	3.302E-01	5.392E-01	3.216E-02	-0.081
		413.65	*	5.048E-02	6.198E-02	1.123E-01	6.352E-03	0.450
HF-181		56.28		-1.790E-01	4.197E-01	6.809E-01	8.680E-02	-0.263
		57.53		5.288E-03	2.049E-01	3.483E-01	4.364E-02	0.015
		65.20		-1.969E-01	3.640E-01	5.599E-01	6.599E-02	-0.352
		133.02		-1.283E-03	1.861E-02	3.025E-02	2.019E-03	-0.042
		136.25		-5.132E-02	1.353E-01	2.132E-01	1.412E-02	-0.241
		345.85		2.211E-02	5.633E-02	9.829E-02	6.106E-03	0.225
		482.03	*	2.408E-03	1.413E-02	2.359E-02	1.332E-03	0.102
W-181		56.28		-7.616E-02	1.783E-01	2.892E-01	3.686E-02	-0.263

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		57.53		2.288E-03	8.711E-02	1.481E-01	1.856E-02	0.015
		65.20	*	-8.306E-02	1.535E-01	2.361E-01	2.783E-02	-0.352
TA-182		67.75		-6.495E-02	4.150E-02	5.501E-02	6.400E-03	-1.181
		100.10		-7.537E-03	5.234E-02	8.560E-02	8.012E-03	-0.088
		152.43		-8.745E-02	1.023E-01	1.513E-01	9.748E-03	-0.578
		222.10		-3.425E-02	1.128E-01	1.732E-01	1.146E-02	-0.198
		1001.68		-4.155E-01	8.710E-01	1.375E+00	1.047E-01	-0.302
		1121.28		-1.172E-02	4.479E-02	6.811E-02	4.456E-03	-0.172
		1189.05		6.169E-02	9.713E-02	1.777E-01	1.073E-02	0.347
		1221.42	*	2.473E-03	5.147E-02	8.736E-02	5.437E-03	0.028
		1230.97		1.522E-02	1.310E-01	2.252E-01	1.414E-02	0.068
RE-183		57.98		9.265E-03	8.223E-02	1.410E-01	1.755E-02	0.066
		59.32		-3.334E-02	4.663E-02	6.850E-02	8.363E-03	-0.487
		67.20		-1.226E-01	7.344E-02	9.561E-02	1.115E-02	-1.282
		162.32	*	-1.209E-02	3.337E-02	5.206E-02	3.317E-03	-0.232
		208.81		1.524E-01	2.888E-01	4.870E-01	3.197E-02	0.313
		291.72		-3.127E-01	3.003E-01	4.470E-01	2.952E-02	-0.700
RE-184		57.98		3.570E-02	3.169E-01	5.432E-01	6.764E-02	0.066
		59.32		-1.284E-01	1.795E-01	2.637E-01	3.220E-02	-0.487
		67.20		-4.723E-01	2.829E-01	3.683E-01	4.296E-02	-1.282
		161.27		-9.672E-02	1.204E-01	1.797E-01	1.146E-02	-0.538
		216.55		-1.370E-04	9.165E-02	1.460E-01	9.633E-03	-0.001
		252.85	*	6.522E-03	7.454E-02	1.276E-01	8.519E-03	0.051
		318.01		-1.348E-02	1.471E-01	2.436E-01	1.573E-02	-0.055
		792.07		-1.989E-03	3.504E-01	5.163E-01	3.410E-02	-0.004
		903.28		-1.086E-01	4.069E-01	6.390E-01	5.243E-02	-0.170
		920.93		1.889E-02	1.522E-01	2.562E-01	2.081E-02	0.074
OS-185		59.72		-1.650E-01	1.324E-01	1.823E-01	2.218E-02	-0.905
		61.14		-3.892E-02	7.192E-02	1.100E-01	1.328E-02	-0.354
		69.30		6.221E-02	9.477E-02	1.687E-01	1.950E-02	0.369
		592.07		-1.390E-01	7.812E-01	1.210E+00	6.412E-02	-0.115
		646.12	*	-5.446E-03	1.398E-02	2.208E-02	1.101E-03	-0.247
		717.42		3.348E-03	3.502E-01	5.868E-01	3.274E-02	0.006
		874.81		2.160E-01	1.874E-01	3.741E-01	2.939E-02	0.577
		880.27		1.326E-01	2.784E-01	4.972E-01	3.949E-02	0.267
RE-188		155.03	*	1.305E-02	5.311E-02	8.821E-02	5.664E-03	0.148
		477.96		-2.138E-01	1.030E+00	1.627E+00	9.192E-02	-0.131
		633.10		6.691E-01	1.002E+00	1.774E+00	8.992E-02	0.377
W-188		63.58		1.511E+00	2.288E+01	3.764E+01	4.479E+00	0.040
		227.08		-5.131E-02	4.012E+00	6.365E+00	4.223E-01	-0.008
		290.67	*	-2.459E+00	2.381E+00	3.550E+00	2.346E-01	-0.693
IR-192		295.96		-1.200E-02	3.378E-02	5.299E-02	3.532E-03	-0.227
		308.46		5.530E-03	3.139E-02	5.366E-02	3.530E-03	0.103
		316.51	*	-3.657E-03	1.113E-02	1.792E-02	1.163E-03	-0.204
		468.07		-2.354E-03	2.385E-02	3.841E-02	2.522E-03	-0.061
		604.41		4.955E-03	1.671E-01	2.690E-01	2.978E-02	0.018
		612.46		-2.456E-01	2.764E-01	3.817E-01	2.716E-02	-0.643
AU-195		65.12		-3.761E-02	7.246E-02	1.117E-01	1.318E-02	-0.337
		66.83		-3.362E-02	3.524E-02	5.076E-02	5.931E-03	-0.662

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		75.70		4.268E-02	5.263E-02	9.434E-02	1.081E-02	0.452
		98.88	*	-2.027E-03	6.541E-02	1.082E-01	1.035E-02	-0.019
		129.76		-3.630E-01	9.227E-01	1.458E+00	9.818E-02	-0.249
TL-200		367.94	*	-1.198E-01	1.275E+00	2.092E+00	1.247E-01	-0.057
		579.30		1.127E+00	9.430E+00	1.545E+01	8.281E-01	0.073
		828.27		4.190E-01	1.233E+01	2.054E+01	1.466E+00	0.020
		1205.75		-2.895E+00	5.739E+00	8.013E+00	4.915E-01	-0.361
TL-201		68.90		4.087E-02	2.869E-01	4.894E-01	5.667E-02	0.084
		70.82		9.613E-02	1.562E-01	2.765E-01	3.182E-02	0.348
		80.30		2.672E-01	2.483E-01	4.537E-01	5.245E-02	0.589
		135.34		3.868E-01	1.428E+00	2.393E+00	1.588E-01	0.162
		167.43	*	1.928E-01	4.081E-01	6.896E-01	4.384E-02	0.280
TL-202		68.90		1.374E-02	9.642E-02	1.645E-01	1.905E-02	0.084
		70.82		3.222E-02	5.235E-02	9.268E-02	1.067E-02	0.348
		80.30		8.960E-02	8.326E-02	1.521E-01	1.759E-02	0.589
		439.56	*	3.822E-04	1.546E-02	2.544E-02	1.443E-03	0.015
HG-203		70.83		1.920E-01	3.136E-01	5.540E-01	8.641E-02	0.347
		72.87		-2.694E-02	1.712E-01	2.834E-01	4.312E-02	-0.095
		82.60		1.052E-01	3.009E-01	5.178E-01	8.197E-02	0.203
		279.20	*	-1.721E-03	1.356E-02	2.260E-02	1.574E-03	-0.076
BI-207		72.80		-3.726E-02	5.906E-02	9.337E-02	1.071E-02	-0.399
		74.97		2.662E-02	3.123E-02	5.610E-02	6.425E-03	0.474
		84.90		3.115E-02	5.434E-02	9.523E-02	1.124E-02	0.327
		569.67		-6.726E-03	1.364E-02	2.016E-02	1.089E-03	-0.334
		1063.62	*	-7.522E-04	1.596E-02	2.559E-02	1.820E-03	-0.029
		1770.23		1.296E-02	1.903E-01	3.170E-01	1.926E-02	0.041
TL-207		81.07		1.334E-02	6.259E-02	1.068E-01	1.238E-02	0.125
		83.78		4.440E-03	3.870E-02	6.532E-02	7.662E-03	0.068
		94.90		-1.318E-02	7.260E-02	1.188E-01	1.224E-02	-0.111
		122.32		-2.004E-01	5.706E-01	9.058E-01	6.968E-02	-0.221
		144.24		-8.085E-02	2.432E-01	3.713E-01	2.904E-02	-0.218
		154.21		5.535E-02	1.285E-01	2.171E-01	1.637E-02	0.255
		269.46		3.956E-02	5.799E-02	1.048E-01	7.228E-03	0.378
		323.87	*	6.434E-02	2.648E-01	4.528E-01	7.581E-02	0.142
		338.28		1.970E-01	3.629E-01	6.380E-01	6.896E-02	0.309
		445.03		-2.560E-01	8.071E-01	1.259E+00	1.284E-01	-0.203
TL-208		277.35		1.157E-01	1.384E-01	2.394E-01	2.645E-02	0.483
		510.84		-7.472E-02	1.062E-01	2.001E-01	2.008E-02	-0.373
		583.14	*	-1.234E-02	1.475E-02	2.006E-02	1.262E-03	-0.615
		860.37		1.064E-03	9.630E-02	1.593E-01	1.329E-02	0.007
PO-209		260.50		-4.626E+00	3.284E+00	4.698E+00	3.137E-01	-0.985
		262.80		8.122E+00	8.845E+00	1.630E+01	1.088E+00	0.498
		896.60	*	-8.078E-01	2.947E+00	4.396E+00	3.608E-01	-0.184
BI-210		46.50	*	-6.447E-01	3.316E+00	5.157E+00	4.494E-01	-0.125
PB-210		46.50	*	-6.447E-01	3.316E+00	5.157E+00	4.494E-01	-0.125
PO-210		46.50	*	-6.447E-01	3.316E+00	5.157E+00	4.006E-01	-0.125
BI-211		72.87		-1.519E-01	9.649E-01	1.598E+00	1.832E-01	-0.095
		351.07	*	2.734E-02	8.396E-02	1.362E-01	9.200E-03	0.201
PB-211		404.84	*	1.374E-01	3.691E-01	6.187E-01	3.856E-01	0.222

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.08		-7.663E-01	9.839E-01	1.202E+00	7.429E-01	-0.637
		831.96		-4.371E-01	4.977E-01	5.375E-01	3.359E-01	-0.813
BI-212		727.18	*	-7.369E-02	1.021E-01	1.498E-01	1.145E-02	-0.492
		785.46		-1.943E-01	5.499E-01	8.494E-01	5.529E-02	-0.229
		1620.62		1.465E-01	5.676E-01	9.932E-01	6.484E-02	0.147
PB-212		74.81		7.123E-02	1.105E-01	1.950E-01	2.883E-02	0.365
		77.11		-6.546E-02	5.963E-02	8.861E-02	1.017E-02	-0.739
		87.30		-1.847E-02	1.064E-01	1.746E-01	2.723E-02	-0.106
		238.63	*	-2.267E-02	2.468E-02	3.626E-02	2.912E-03	-0.625
		300.09		4.190E-02	2.544E-01	4.349E-01	3.829E-02	0.096
PO-212		74.81		7.123E-02	1.105E-01	1.950E-01	2.883E-02	0.365
		77.11		-6.546E-02	5.963E-02	8.861E-02	1.017E-02	-0.739
		87.30		-1.847E-02	1.064E-01	1.746E-01	2.723E-02	-0.106
		115.19		-1.260E-01	1.167E+00	1.904E+00	1.433E-01	-0.066
		238.63	*	-2.267E-02	2.468E-02	3.626E-02	2.912E-03	-0.625
		300.09		4.190E-02	2.544E-01	4.349E-01	3.829E-02	0.096
BI-214		609.31	*	1.142E-02	3.270E-02	5.087E-02	3.738E-03	0.224
		1120.29		2.987E-02	9.202E-02	1.596E-01	1.487E-02	0.187
		1764.49		-1.265E-01	1.055E-01	1.432E-01	8.730E-03	-0.884
PB-214		74.81		1.227E-01	1.902E-01	3.360E-01	4.583E-02	0.365
		77.11		-1.122E-01	1.026E-01	1.519E-01	2.092E-02	-0.739
		87.30		-3.164E-02	1.822E-01	2.991E-01	4.258E-02	-0.106
		241.98		-8.056E-02	1.450E-01	1.936E-01	1.687E-02	-0.416
		295.21		1.140E-02	4.712E-02	7.881E-02	7.157E-03	0.145
		351.92	*	2.981E-02	2.940E-02	5.086E-02	4.338E-03	0.586
PO-214		74.81		1.227E-01	1.902E-01	3.360E-01	4.583E-02	0.365
		77.11		-1.122E-01	1.026E-01	1.519E-01	2.092E-02	-0.739
		87.30		-3.164E-02	1.822E-01	2.991E-01	4.258E-02	-0.106
		241.98		-8.056E-02	1.450E-01	1.936E-01	1.687E-02	-0.416
		295.21		1.140E-02	4.712E-02	7.881E-02	7.157E-03	0.145
		351.92	*	2.981E-02	2.940E-02	5.086E-02	4.338E-03	0.586
PO-215		81.07		1.334E-02	6.259E-02	1.068E-01	1.238E-02	0.125
		83.78		4.440E-03	3.870E-02	6.532E-02	7.662E-03	0.068
		94.90		-1.318E-02	7.260E-02	1.188E-01	1.224E-02	-0.111
		122.32		-2.004E-01	5.706E-01	9.058E-01	6.968E-02	-0.221
		144.24		-8.085E-02	2.432E-01	3.713E-01	2.904E-02	-0.218
		154.21		5.535E-02	1.285E-01	2.171E-01	1.637E-02	0.255
		269.46		3.956E-02	5.799E-02	1.048E-01	7.228E-03	0.378
		323.87	*	6.434E-02	2.648E-01	4.528E-01	7.581E-02	0.142
		338.28		1.970E-01	3.629E-01	6.380E-01	6.896E-02	0.309
		445.03		-2.560E-01	8.071E-01	1.259E+00	1.284E-01	-0.203
PO-216		74.81		7.123E-02	1.105E-01	1.950E-01	2.883E-02	0.365
		77.11		-6.546E-02	5.963E-02	8.861E-02	1.017E-02	-0.739
		87.30		-1.847E-02	1.064E-01	1.746E-01	2.723E-02	-0.106
		238.63	*	-2.267E-02	2.468E-02	3.626E-02	2.912E-03	-0.625
		300.09		4.190E-02	2.544E-01	4.349E-01	3.829E-02	0.096
PO-218		74.81		1.227E-01	1.902E-01	3.360E-01	4.583E-02	0.365
		77.11		-1.122E-01	1.026E-01	1.519E-01	2.092E-02	-0.739
		87.30		-3.164E-02	1.822E-01	2.991E-01	4.258E-02	-0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		241.98		-8.056E-02	1.450E-01	1.936E-01	1.687E-02	-0.416
		295.21		1.140E-02	4.712E-02	7.881E-02	7.157E-03	0.145
		351.92	*	2.981E-02	2.940E-02	5.086E-02	4.338E-03	0.586
RN-219		271.23		1.861E-02	7.538E-02	1.306E-01	1.142E-02	0.142
		401.81	*	-1.430E-01	1.609E-01	2.335E-01	3.161E-02	-0.612
RN-220		549.76	*	1.108E+01	8.141E+00	1.620E+01	8.877E-01	0.684
RA-223		81.07		1.334E-02	6.259E-02	1.068E-01	1.238E-02	0.125
		83.78		4.440E-03	3.870E-02	6.532E-02	7.662E-03	0.068
		94.90		-1.318E-02	7.260E-02	1.188E-01	1.224E-02	-0.111
		122.32		-2.004E-01	5.706E-01	9.058E-01	6.968E-02	-0.221
		144.24		-8.085E-02	2.432E-01	3.713E-01	2.904E-02	-0.218
		154.21		5.535E-02	1.285E-01	2.171E-01	1.637E-02	0.255
		269.46		3.956E-02	5.799E-02	1.048E-01	7.228E-03	0.378
		323.87	*	6.434E-02	2.648E-01	4.528E-01	7.581E-02	0.142
		338.28		1.970E-01	3.629E-01	6.380E-01	6.896E-02	0.309
		445.03		-2.560E-01	8.071E-01	1.259E+00	1.284E-01	-0.203
RA-224		240.98	*	-3.465E-01	2.954E-01	3.727E-01	2.485E-02	-0.930
RA-226		609.31	*	1.142E-02	3.270E-02	5.087E-02	3.738E-03	0.224
		1120.29		2.987E-02	9.202E-02	1.596E-01	1.487E-02	0.187
		1764.49		-1.265E-01	1.055E-01	1.432E-01	8.730E-03	-0.884
AC-227		79.80		-1.882E-01	4.755E-01	7.624E-01	1.741E-01	-0.247
		236.00		-7.533E-02	8.026E-02	1.131E-01	1.238E-02	-0.666
		256.20	*	8.749E-02	1.291E-01	2.320E-01	3.328E-02	0.377
		286.10		-3.387E-01	5.678E-01	8.967E-01	1.076E-01	-0.378
		299.80		-3.724E-02	4.689E-01	7.811E-01	1.295E-01	-0.048
		304.40		-4.249E-01	7.152E-01	1.122E+00	1.970E-01	-0.379
		334.20		-3.287E-01	8.519E-01	1.359E+00	2.515E-01	-0.242
TH-227		79.80		-1.882E-01	4.756E-01	7.624E-01	1.761E-01	-0.247
		94.00		-4.881E-01	6.956E-01	1.041E+00	2.351E-01	-0.469
		236.00		-7.533E-02	8.017E-02	1.131E-01	1.089E-02	-0.666
		256.20	*	8.749E-02	1.294E-01	2.320E-01	3.995E-02	0.377
		286.10		-3.387E-01	6.603E-01	8.967E-01	8.987E-01	-0.378
		299.80		-3.724E-02	4.689E-01	7.811E-01	1.295E-01	-0.048
		304.40		-4.249E-01	7.152E-01	1.122E+00	1.970E-01	-0.379
		334.20		-3.287E-01	8.519E-01	1.359E+00	2.515E-01	-0.242
AC-228		338.32		4.640E-02	8.871E-02	1.525E-01	6.229E-02	0.304
		911.07	*	-7.661E-03	5.791E-02	9.882E-02	1.077E-02	-0.078
		969.11		-1.982E-02	8.902E-02	1.415E-01	3.264E-02	-0.140
RA-228		338.32		4.640E-02	8.871E-02	1.525E-01	6.229E-02	0.304
		911.07	*	-7.661E-03	5.791E-02	9.882E-02	1.077E-02	-0.078
		969.11		-1.982E-02	8.902E-02	1.415E-01	3.264E-02	-0.140
TH-228		74.81		7.176E-02	1.111E-01	1.965E-01	2.261E-02	0.365
		77.11		-6.595E-02	6.007E-02	8.926E-02	1.024E-02	-0.739
		87.30		-1.861E-02	1.071E-01	1.759E-01	2.106E-02	-0.106
		238.63	*	-2.284E-02	2.487E-02	3.653E-02	2.933E-03	-0.625
		300.09		4.221E-02	2.575E-01	4.381E-01	2.586E-01	0.096
TH-229		85.43		2.245E-02	5.367E-02	9.286E-02	1.099E-02	0.242
		88.47		4.652E-04	2.976E-02	4.970E-02	5.908E-03	0.009
		100.00		-6.431E-03	5.711E-02	9.370E-02	8.786E-03	-0.069

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		193.63	*	-3.390E-03	1.728E-01	2.766E-01	1.795E-02	-0.012
		210.97		-6.555E-02	2.577E-01	4.001E-01	2.630E-02	-0.164
TH-230		609.31	*	1.142E-02	3.270E-02	5.087E-02	3.738E-03	0.224
		1120.29		2.987E-02	9.202E-02	1.596E-01	1.487E-02	0.187
		1764.49		-1.265E-01	1.055E-01	1.432E-01	8.730E-03	-0.884
PA-231		283.67	*	6.693E-01	5.598E-01	1.036E+00	1.467E-01	0.646
		301.29		6.096E-02	1.928E-01	3.343E-01	3.642E-02	0.182
TH-231		81.07		1.334E-02	6.259E-02	1.068E-01	1.238E-02	0.125
		83.78		4.440E-03	3.870E-02	6.532E-02	7.662E-03	0.068
		94.90		-1.318E-02	7.260E-02	1.188E-01	1.224E-02	-0.111
		122.32		-2.004E-01	5.706E-01	9.058E-01	6.968E-02	-0.221
		144.24		-8.085E-02	2.432E-01	3.713E-01	2.904E-02	-0.218
		154.21		5.535E-02	1.285E-01	2.171E-01	1.637E-02	0.255
		269.46		3.956E-02	5.799E-02	1.048E-01	7.228E-03	0.378
		323.87	*	6.434E-02	2.648E-01	4.528E-01	7.581E-02	0.142
		338.28		1.970E-01	3.629E-01	6.380E-01	6.896E-02	0.309
		445.03		-2.560E-01	8.071E-01	1.259E+00	1.284E-01	-0.203
U-231		84.21		1.503E-01	4.615E-01	7.921E-01	9.312E-02	0.190
		92.29		-2.136E-01	2.066E-01	3.049E-01	3.318E-02	-0.700
		95.87	*	-4.895E-02	8.997E-02	1.414E-01	1.429E-02	-0.346
		108.00		1.671E-01	1.859E-01	3.307E-01	2.738E-02	0.505
TH-232		338.32		4.640E-02	8.672E-02	1.525E-01	9.589E-03	0.304
		911.07	*	-7.661E-03	5.791E-02	9.882E-02	1.077E-02	-0.078
		969.11		-1.982E-02	8.902E-02	1.415E-01	3.264E-02	-0.140
PA-233		75.28		6.242E-01	8.978E-01	1.590E+00	2.718E-01	0.393
		86.59		-5.178E-02	4.584E-01	7.569E-01	2.123E-01	-0.068
		300.12		2.581E-02	1.320E-01	2.262E-01	3.119E-02	0.114
		311.98	*	1.117E-02	2.187E-02	3.873E-02	2.641E-03	0.288
		340.50		-1.295E-01	2.128E-01	3.264E-01	7.537E-02	-0.397
		398.62		1.618E-01	7.662E-01	1.296E+00	3.347E-01	0.125
		415.76		-3.710E-02	5.916E-01	9.654E-01	1.984E-01	-0.038
PA-234		63.00		1.655E-01	7.320E-01	1.218E+00	2.139E-01	0.136
		94.67		-1.868E-03	5.179E-02	8.585E-02	1.173E-02	-0.022
		98.44		-1.082E-03	2.598E-02	4.293E-02	2.402E-02	-0.025
		99.86		-1.026E-02	1.453E-01	2.393E-01	2.250E-02	-0.043
		111.00		-3.978E-02	6.703E-02	9.646E-02	1.120E-02	-0.412
		131.20		-1.237E-02	3.556E-02	5.639E-02	3.782E-03	-0.219
		152.70		-5.193E-02	1.009E-01	1.547E-01	2.483E-02	-0.336
		186.00		4.791E-02	5.041E-01	8.147E-01	2.500E-01	0.059
		226.40		-4.238E-03	1.307E-01	2.069E-01	2.483E-02	-0.020
		227.20		1.629E-03	1.467E-01	2.334E-01	1.549E-02	0.007
		248.90		-4.031E-02	3.031E-01	4.711E-01	1.024E-01	-0.086
		293.70		7.749E-02	2.280E-01	3.848E-01	6.306E-02	0.201
		369.80		-8.073E-02	3.311E-01	5.327E-01	1.111E-01	-0.152
		568.70		-6.342E-02	4.314E-01	6.713E-01	3.629E-02	-0.094
		569.50		-6.859E-02	1.200E-01	1.749E-01	9.448E-03	-0.392
		574.00		1.430E-01	5.409E-01	9.079E-01	4.887E-02	0.157
		699.00		3.610E-02	2.676E-01	4.573E-01	8.158E-02	0.079
		706.10		3.173E-01	4.110E-01	7.223E-01	3.185E-01	0.439

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		733.00		8.754E-02	1.111E-01	2.101E-01	4.466E-02	0.417
		742.81		1.570E-01	4.793E-01	8.250E-01	5.521E-01	0.190
		796.30		1.885E-01	3.010E-01	5.473E-01	1.450E-01	0.344
		805.60		-2.545E-02	3.082E-01	5.025E-01	1.517E-01	-0.051
		819.60		4.932E-01	5.160E-01	9.258E-01	3.490E-01	0.533
		826.30		-6.812E-02	2.879E-01	4.523E-01	2.011E-01	-0.151
		831.60		-1.752E-01	2.162E-01	2.869E-01	8.453E-02	-0.611
		876.40		-4.394E-02	3.045E-01	4.823E-01	4.955E-01	-0.091
		880.51		5.076E-02	1.066E-01	1.903E-01	1.513E-02	0.267
		883.24		-4.972E-02	1.224E-01	1.686E-01	1.132E-01	-0.295
		899.00		-3.114E-02	3.705E-01	5.810E-01	2.535E-01	-0.054
		925.00		-1.922E-01	3.360E-01	4.639E-01	3.757E-02	-0.414
		926.50		-4.085E-02	4.787E-02	5.562E-02	1.396E-02	-0.734
		946.00	*	7.620E-02	1.101E-01	2.025E-01	3.742E-02	0.376
		949.00		2.195E-02	1.493E-01	2.522E-01	2.009E-02	0.087
		980.50		-2.502E-01	2.135E-01	2.167E-01	1.683E-02	-1.154
		1394.10		8.306E-02	4.301E-01	7.450E-01	4.833E-01	0.111
PA-234M		766.42		-1.485E+00	3.665E+00	5.521E+00	2.782E+00	-0.269
		1001.03	*	-9.673E-01	2.074E+00	3.279E+00	2.989E-01	-0.295
TH-234		63.29	*	1.001E-02	6.237E-01	1.022E+00	2.022E-01	0.010
		92.38		-1.766E-01	1.936E-01	2.855E-01	5.497E-02	-0.619
U-234		609.31	*	1.142E-02	3.270E-02	5.087E-02	3.738E-03	0.224
		1120.29		2.987E-02	9.202E-02	1.596E-01	1.487E-02	0.187
		1764.49		-1.265E-01	1.055E-01	1.432E-01	8.730E-03	-0.884
U-235		89.95		-3.505E-01	3.435E-01	4.893E-01	1.555E-01	-0.716
		93.35		-3.723E-02	2.232E-01	3.550E-01	1.019E-01	-0.105
		105.00		-4.533E-01	3.720E-01	5.011E-01	1.496E-01	-0.905
		143.76	*	-2.351E-03	7.518E-02	1.182E-01	1.959E-02	-0.020
		163.35		3.868E-03	1.531E-01	2.485E-01	4.516E-02	0.016
		185.71		4.557E-03	1.851E-02	3.028E-02	1.952E-03	0.150
		205.31		-2.571E-01	1.882E-01	2.464E-01	4.493E-02	-1.043
NP-236		94.67		-1.399E-03	3.928E-02	6.512E-02	6.742E-03	-0.021
		98.44		-8.325E-04	1.963E-02	3.245E-02	3.127E-03	-0.026
		111.00		-3.009E-02	5.063E-02	7.296E-02	5.796E-03	-0.412
		160.31	*	-7.377E-03	2.724E-02	4.300E-02	2.745E-03	-0.172
NP-237		86.50	*	-5.986E-03	6.902E-02	1.143E-01	2.723E-02	-0.052
		95.87		-1.542E-01	2.856E-01	4.452E-01	1.122E-01	-0.346
U-238		63.29	*	1.001E-02	6.237E-01	1.022E+00	2.022E-01	0.010
		92.38		-1.766E-01	1.915E-01	2.855E-01	3.101E-02	-0.619
NP-239		99.55		2.025E-02	4.591E-02	7.942E-02	7.505E-03	0.255
		117.00	*	-2.181E-02	6.286E-02	1.001E-01	7.369E-03	-0.218
		209.75		6.996E-02	2.576E-01	4.228E-01	2.777E-02	0.165
		228.18		4.501E-02	7.484E-02	1.270E-01	8.429E-03	0.354
		277.60		5.122E-02	6.671E-02	1.150E-01	7.652E-03	0.445
		334.30		-1.700E-01	4.834E-01	7.763E-01	4.909E-02	-0.219
AM-241		59.54	*	-8.389E-02	7.328E-02	1.020E-01	1.288E-02	-0.823
AM-243		74.67	*	1.282E-02	1.809E-02	3.213E-02	3.679E-03	0.399
		86.72		-5.422E-01	2.592E+00	4.242E+00	5.059E-01	-0.128
		117.66		2.707E-01	1.260E+00	2.115E+00	1.544E-01	0.128

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		2.530E+00	6.111E+00	9.981E+00	6.529E-01	0.254
CM-243		99.55		2.083E-02	4.722E-02	8.168E-02	7.719E-03	0.255
		103.76	*	8.695E-03	3.072E-02	5.219E-02	4.601E-03	0.167
		117.00		-2.243E-02	6.463E-02	1.030E-01	7.577E-03	-0.218
		209.75		6.893E-02	2.538E-01	4.166E-01	2.736E-02	0.165
		228.18		4.545E-02	7.558E-02	1.283E-01	8.513E-03	0.354
		277.60		5.161E-02	6.722E-02	1.159E-01	7.710E-03	0.445
AM-246		798.80		-4.758E-03	5.131E-02	8.386E-02	5.620E-03	-0.057
		1036.00		-3.659E-02	8.909E-02	1.283E-01	9.434E-03	-0.285
		1062.04		2.328E-02	6.248E-02	1.117E-01	7.958E-03	0.209
		1078.86	*	1.750E-02	3.675E-02	6.764E-02	4.715E-03	0.259
CM-247		278.00		1.371E-01	2.789E-01	4.696E-01	3.123E-02	0.292
		287.40		6.548E-02	4.502E-01	7.692E-01	5.093E-02	0.085
		402.60	*	-5.375E-03	1.461E-02	2.303E-02	1.300E-03	-0.233
CF-249		252.85		2.526E-02	2.887E-01	4.940E-01	3.299E-02	0.051
		333.44		-2.952E-02	6.087E-02	9.602E-02	6.079E-03	-0.307
		387.95	*	-3.272E-03	1.351E-02	2.159E-02	1.227E-03	-0.152
CF-251		176.60	*	7.760E-03	4.506E-02	7.384E-02	4.726E-03	0.105
		227.00		-4.150E-02	1.341E-01	2.055E-01	1.363E-02	-0.202
		285.00		-2.902E-01	6.555E-01	1.056E+00	7.002E-02	-0.275
ANH-511		511.00	*	-1.760E-02	2.282E-02	4.295E-02	2.402E-03	-0.410

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023719    *
* Acquisition date :  2-FEB-2010 09:48:17 Detector SN#    :                *
* Detector ID        : GAM04                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:00.43       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 00:00:00 Nuclide Library : SOLID        *
* Sample ID          : G1202023719          Analyst initials: MXR1         *
* Batch Number       : 944966               Sample Quantity : 1.8103E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.912E-02	1.019E-01	1.720E-01	0.000E+00	NOT IDENT.
NA-22	6.515E-03	1.646E-02	3.077E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	4.514E+01	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.301E-02	1.709E-02	2.215E-02	0.000E+00	NOT IDENT.
K-40	2.098E-02	1.497E-01	2.703E-01	0.000E+00	NOT IDENT.
TI-44	-4.955E-03	9.798E-03	1.794E-02	0.000E+00	NOT IDENT.
SC-46	1.243E-06	1.409E-02	2.180E-02	0.000E+00	NOT IDENT.
V-48	1.527E-03	1.432E-02	2.531E-02	0.000E+00	NOT IDENT.
CR-51	-5.050E-02	1.067E-01	1.855E-01	0.000E+00	NOT IDENT.
MN-52	-4.159E-02	3.037E-02	2.265E-02	0.000E+00	NOT IDENT.
MN-54	3.439E-03	1.218E-02	2.242E-02	0.000E+00	NOT IDENT.
CO-56	5.879E-03	1.465E-02	2.725E-02	0.000E+00	NOT IDENT.
CO-57	-6.230E-03	8.255E-03	1.430E-02	0.000E+00	NOT IDENT.
CO-58	8.404E-03	9.678E-03	2.016E-02	0.000E+00	NOT IDENT.
FE-59	-2.081E-02	2.425E-02	3.093E-02	0.000E+00	NOT IDENT.
CO-60	-2.494E-03	1.525E-02	2.553E-02	0.000E+00	NOT IDENT.
ZN-65	-1.455E-02	2.655E-02	3.869E-02	0.000E+00	NOT IDENT.
GE-68	-1.142E-01	3.686E-01	5.763E-01	0.000E+00	NOT IDENT.
AS-73	3.264E-01	4.456E-01	9.370E-01	0.000E+00	NOT IDENT.
AS-74	-1.201E-02	2.447E-02	3.854E-02	0.000E+00	NOT IDENT.
SE-75	9.108E-03	1.418E-02	2.810E-02	0.000E+00	NOT IDENT.
BR-77	-7.763E-02	3.588E-01	6.033E-01	0.000E+00	NOT IDENT.
SR-82	-9.653E-02	1.013E-01	1.451E-01	0.000E+00	NOT IDENT.
RB-83	-3.877E-03	2.122E-02	3.592E-02	0.000E+00	NOT IDENT.
RB-84	1.599E-02	2.414E-02	4.450E-02	0.000E+00	NOT IDENT.
KR-85	-1.139E+01	4.477E+00	5.942E+00	0.000E+00	NOT IDENT.

SR-85	-5.387E-02	2.117E-02	2.810E-02	0.000E+00	NOT IDENT.
RB-86	-7.419E-03	1.670E-01	2.807E-01	0.000E+00	NOT IDENT.
Y-88	-4.558E-04	1.640E-02	2.711E-02	0.000E+00	NOT IDENT.
ZR-88	-2.398E-03	1.019E-02	1.778E-02	0.000E+00	NOT IDENT.
Y-91	-5.504E+00	5.307E+00	6.338E+00	0.000E+00	NOT IDENT.
NB-94	4.650E-03	1.231E-02	2.316E-02	0.000E+00	NOT IDENT.
NB-95	-3.980E-03	1.242E-02	2.076E-02	0.000E+00	NOT IDENT.
NB-95M	-5.428E-02	4.097E-02	6.132E-02	0.000E+00	NOT IDENT.
ZR-95	-6.200E-03	1.855E-02	3.059E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.816E+01	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	5.729E+02	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.574E-01	6.065E-01	1.171E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.125E+06	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.197E-04	1.293E-02	2.193E-02	0.000E+00	NOT IDENT.
RH-102	2.531E-03	1.068E-02	1.948E-02	0.000E+00	NOT IDENT.
RU-103	-1.394E-03	1.289E-02	2.228E-02	0.000E+00	NOT IDENT.
RH-106	-1.277E-02	1.124E-01	1.886E-01	0.000E+00	NOT IDENT.
RU-106	-1.277E-02	1.124E-01	1.886E-01	0.000E+00	NOT IDENT.
AG-108M	-3.168E-03	1.146E-02	1.962E-02	0.000E+00	NOT IDENT.
CD-109	-2.375E-02	2.196E-01	4.159E-01	0.000E+00	NOT IDENT.
AG-110M	-1.844E-02	1.264E-02	1.745E-02	0.000E+00	NOT IDENT.
IN-111	5.625E-03	5.807E-02	1.028E-01	0.000E+00	NOT IDENT.
IN-113M	4.046E-03	1.444E-02	2.694E-02	0.000E+00	NOT IDENT.
SN-113	4.046E-03	1.444E-02	2.694E-02	0.000E+00	NOT IDENT.
IN-114M	1.649E-02	5.239E-02	9.702E-02	0.000E+00	NOT IDENT.
CD-115	-1.491E-01	3.110E-01	4.939E-01	0.000E+00	NOT IDENT.
SN-117M	4.651E-04	1.282E-02	2.347E-02	0.000E+00	NOT IDENT.
SB-122	4.891E-02	1.082E-01	1.999E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.119E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	5.117E-03	9.220E-03	1.764E-02	0.000E+00	NOT IDENT.
I-124	1.874E-02	7.498E-02	1.335E-01	0.000E+00	NOT IDENT.
SB-124	1.882E-02	2.286E-02	4.975E-02	0.000E+00	NOT IDENT.
SB-125	-2.337E-02	3.794E-02	6.009E-02	0.000E+00	NOT IDENT.
TE-125M	-1.027E+00	3.109E+00	5.286E+00	0.000E+00	NOT IDENT.
I-126	-4.161E-02	4.070E-02	6.079E-02	0.000E+00	NOT IDENT.
SB-126	3.071E-03	3.792E-02	6.834E-02	0.000E+00	NOT IDENT.
SN-126	-3.494E-03	2.248E-02	4.240E-02	0.000E+00	NOT IDENT.
SB-127	-9.509E-02	1.259E-01	1.992E-01	0.000E+00	NOT IDENT.
XE-127	7.109E-03	1.336E-02	2.510E-02	0.000E+00	NOT IDENT.
I-131	-1.565E-02	2.310E-02	3.862E-02	0.000E+00	NOT IDENT.
TE-132	2.596E-02	4.353E-02	8.173E-02	0.000E+00	NOT IDENT.
BA-133	-2.027E-02	1.559E-02	2.343E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.138E+00	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.840E-03	1.471E-02	2.862E-02	0.000E+00	NOT IDENT.
CS-135	-2.750E-02	4.902E-02	8.605E-02	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.749E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.259E-02	3.043E-02	4.798E-02	0.000E+00	NOT IDENT.
BA-137M	-4.569E-03	1.558E-02	2.948E-02	0.000E+00	NOT IDENT.
CS-137	-4.830E-03	1.647E-02	3.117E-02	0.000E+00	NOT IDENT.
CE-139	-1.614E-03	9.899E-03	1.771E-02	0.000E+00	NOT IDENT.
BA-140	5.011E-02	6.488E-02	1.223E-01	0.000E+00	NOT IDENT.
LA-140	3.132E-03	2.284E-02	4.019E-02	0.000E+00	NOT IDENT.
CE-141	-1.546E-02	1.792E-02	3.029E-02	0.000E+00	NOT IDENT.
CE-143	6.363E-01	8.428E-01	1.664E+00	0.000E+00	NOT IDENT.
CE-144	-1.160E-02	6.459E-02	1.175E-01	0.000E+00	NOT IDENT.
PM-144	-6.477E-03	1.372E-02	2.231E-02	0.000E+00	NOT IDENT.
PR-144	-4.371E-01	9.258E-01	1.505E+00	0.000E+00	NOT IDENT.
PM-146	-6.475E-04	1.451E-02	2.557E-02	0.000E+00	NOT IDENT.
ND-147	2.071E-02	1.146E-01	2.059E-01	0.000E+00	NOT IDENT.
PM-149	-2.728E+00	3.062E+00	5.144E+00	0.000E+00	NOT IDENT.
EU-152	8.659E-03	3.309E-02	6.217E-02	0.000E+00	NOT IDENT.
GD-153	-2.153E-02	2.199E-02	3.730E-02	0.000E+00	NOT IDENT.
EU-154	1.774E-02	4.607E-02	8.596E-02	0.000E+00	NOT IDENT.
EU-155	-5.709E-02	3.498E-02	5.502E-02	0.000E+00	NOT IDENT.
TB-160	-1.232E-02	4.814E-02	7.993E-02	0.000E+00	NOT IDENT.
HO-166M	-1.849E-03	2.138E-02	3.765E-02	0.000E+00	NOT IDENT.
TM-171	-9.490E+00	1.078E+01	1.821E+01	0.000E+00	NOT IDENT.
LU-176	7.478E-03	9.156E-03	1.819E-02	0.000E+00	NOT IDENT.
LU-177	-4.604E-03	1.585E-01	2.811E-01	0.000E+00	NOT IDENT.
LU-177M	5.048E-02	6.074E-02	1.197E-01	0.000E+00	NOT IDENT.
HF-181	2.408E-03	1.385E-02	2.501E-02	0.000E+00	NOT IDENT.
W-181	-8.306E-02	1.505E-01	2.679E-01	0.000E+00	NOT IDENT.
TA-182	2.473E-03	5.044E-02	8.942E-02	0.000E+00	NOT IDENT.
RE-183	-1.209E-02	3.270E-02	5.732E-02	0.000E+00	NOT IDENT.
RE-184	6.522E-03	7.305E-02	1.384E-01	0.000E+00	NOT IDENT.
OS-185	-5.446E-03	1.370E-02	2.316E-02	0.000E+00	NOT IDENT.
RE-188	1.305E-02	5.205E-02	9.729E-02	0.000E+00	NOT IDENT.
W-188	-2.459E+00	2.334E+00	3.832E+00	0.000E+00	NOT IDENT.

IR-192	-3.657E-03	1.090E-02	1.928E-02	0.000E+00	NOT IDENT.
AU-195	-2.027E-03	6.410E-02	1.212E-01	0.000E+00	NOT IDENT.
TL-200	-1.198E-01	1.250E+00	2.240E+00	0.000E+00	NOT IDENT.
TL-201	1.928E-01	4.000E-01	7.586E-01	0.000E+00	NOT IDENT.
TL-202	3.822E-04	1.515E-02	2.706E-02	0.000E+00	NOT IDENT.
HG-203	-1.721E-03	1.329E-02	2.443E-02	0.000E+00	NOT IDENT.
BI-207	-7.522E-04	1.564E-02	2.633E-02	0.000E+00	NOT IDENT.
TL-207	6.434E-02	2.595E-01	4.869E-01	0.000E+00	NOT IDENT.
TL-208	-1.234E-02	1.446E-02	2.112E-02	0.000E+00	NOT IDENT.
PO-209	-8.078E-01	2.888E+00	4.553E+00	0.000E+00	NOT IDENT.
BI-210	-6.447E-01	3.250E+00	5.913E+00	0.000E+00	NOT IDENT.
PB-210	-6.447E-01	3.250E+00	5.913E+00	0.000E+00	NOT IDENT.
PO-210	-6.447E-01	3.250E+00	5.913E+00	0.000E+00	NOT IDENT.
BI-211	2.734E-02	8.228E-02	1.460E-01	0.000E+00	NOT IDENT.
PB-211	1.374E-01	3.617E-01	6.599E-01	0.000E+00	NOT IDENT.
BI-212	-7.369E-02	1.001E-01	1.564E-01	0.000E+00	NOT IDENT.
PB-212	-2.267E-02	2.419E-02	3.940E-02	0.000E+00	NOT IDENT.
PO-212	-2.267E-02	2.419E-02	3.940E-02	0.000E+00	NOT IDENT.
BI-214	1.142E-02	3.204E-02	5.346E-02	0.000E+00	NOT IDENT.
PB-214	2.981E-02	2.881E-02	5.452E-02	0.000E+00	NOT IDENT.
PO-214	2.981E-02	2.881E-02	5.452E-02	0.000E+00	NOT IDENT.
PO-215	6.434E-02	2.595E-01	4.869E-01	0.000E+00	NOT IDENT.
PO-216	-2.267E-02	2.419E-02	3.940E-02	0.000E+00	NOT IDENT.
PO-218	2.981E-02	2.881E-02	5.452E-02	0.000E+00	NOT IDENT.
RN-219	-1.430E-01	1.577E-01	2.491E-01	0.000E+00	NOT IDENT.
RN-220	1.108E+01	7.978E+00	1.709E+01	0.000E+00	NOT IDENT.
RA-223	6.434E-02	2.595E-01	4.869E-01	0.000E+00	NOT IDENT.
RA-224	-3.465E-01	2.895E-01	4.050E-01	0.000E+00	NOT IDENT.
RA-226	1.142E-02	3.204E-02	5.346E-02	0.000E+00	NOT IDENT.
AC-227	8.749E-02	1.265E-01	2.515E-01	0.000E+00	NOT IDENT.
TH-227	8.749E-02	1.268E-01	2.515E-01	0.000E+00	NOT IDENT.
AC-228	-7.661E-03	5.675E-02	1.023E-01	0.000E+00	NOT IDENT.
RA-228	-7.661E-03	5.675E-02	1.023E-01	0.000E+00	NOT IDENT.
TH-228	-2.284E-02	2.437E-02	3.970E-02	0.000E+00	NOT IDENT.
TH-229	-3.390E-03	1.693E-01	3.027E-01	0.000E+00	NOT IDENT.
TH-230	1.142E-02	3.204E-02	5.346E-02	0.000E+00	NOT IDENT.
PA-231	6.693E-01	5.487E-01	1.120E+00	0.000E+00	NOT IDENT.
TH-231	6.434E-02	2.595E-01	4.869E-01	0.000E+00	NOT IDENT.
U-231	-4.895E-02	8.817E-02	1.584E-01	0.000E+00	NOT IDENT.
TH-232	-7.661E-03	5.675E-02	1.023E-01	0.000E+00	NOT IDENT.
PA-233	1.117E-02	2.144E-02	4.170E-02	0.000E+00	NOT IDENT.
PA-234	7.620E-02	1.079E-01	2.093E-01	0.000E+00	NOT IDENT.
PA-234M	-9.673E-01	2.033E+00	3.382E+00	0.000E+00	NOT IDENT.
TH-234	1.001E-02	6.112E-01	1.160E+00	0.000E+00	NOT IDENT.
U-234	1.142E-02	3.204E-02	5.346E-02	0.000E+00	NOT IDENT.
U-235	-2.351E-03	7.367E-02	1.307E-01	0.000E+00	NOT IDENT.
NP-236	-7.377E-03	2.669E-02	4.737E-02	0.000E+00	NOT IDENT.
NP-237	-5.986E-03	6.764E-02	1.285E-01	0.000E+00	NOT IDENT.
U-238	1.001E-02	6.112E-01	1.160E+00	0.000E+00	NOT IDENT.
NP-239	-2.181E-02	6.160E-02	1.115E-01	0.000E+00	NOT IDENT.
AM-241	-8.389E-02	7.181E-02	1.160E-01	0.000E+00	NOT IDENT.
AM-243	1.282E-02	1.773E-02	3.629E-02	0.000E+00	NOT IDENT.
CM-243	8.695E-03	3.010E-02	5.833E-02	0.000E+00	NOT IDENT.
AM-246	1.750E-02	3.601E-02	6.957E-02	0.000E+00	NOT IDENT.
CM-247	-5.375E-03	1.432E-02	2.457E-02	0.000E+00	NOT IDENT.
CF-249	-3.272E-03	1.324E-02	2.307E-02	0.000E+00	NOT IDENT.
CF-251	7.760E-03	4.416E-02	8.108E-02	0.000E+00	NOT IDENT.
ANH-511	-1.760E-02	2.236E-02	4.543E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:50:08.46

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023719.CNF;1
Sample date       : 26-JAN-2010 00:00:00 Acquisition date : 2-FEB-2010 09:48:17.
Sample ID         : G1202023719          Sample quantity  : 1.81030E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.43  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944966                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202023719 Acquisition date : 2-FEB-2010 09:48:17

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:50:13.97

```
*******************************************************************************
*                            GEL Laboratories LLC                             *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                               DETECTOR DATA                                 *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023719.CNF;1   *
* Acquisition date : 2-FEB-2010 09:48:17.  Detector SN#    :                  *
* Detector ID      : GAM04                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:00.43         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 26-JAN-2010 00:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202023719           Analyst initials: MXR1             *
* Batch Number     : 944966                Sample Quantity : 1.81030E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.912E-02		1.040E-01	1.622E-01	1.074E-02	-0.180
NA-22	6.515E-03		1.680E-02	3.012E-02	1.969E-03	0.216
NA-24	8.754E-06		2.303E-05	Half-Life too short		
AL-26	-1.301E-02		1.744E-02	2.198E-02	1.303E-03	-0.592
K-40	2.098E-02		1.528E-01	2.659E-01	1.890E-02	0.079
TI-44	-4.955E-03		9.998E-03	1.591E-02	1.829E-03	-0.311
SC-46	1.243E-06		1.438E-02	2.104E-02	1.702E-03	0.000
V-48	1.527E-03		1.462E-02	2.452E-02	1.900E-03	0.062
CR-51	-5.050E-02		1.089E-01	1.725E-01	1.215E-02	-0.293
MN-52	-4.159E-02		3.099E-02	2.227E-02	1.520E-03	-1.867
MN-54	3.439E-03		1.243E-02	2.158E-02	1.562E-03	0.159
CO-56	5.879E-03		1.495E-02	2.625E-02	1.947E-03	0.224
CO-57	-6.230E-03		8.423E-03	1.286E-02	8.930E-04	-0.484
CO-58	8.404E-03		9.876E-03	1.939E-02	1.339E-03	0.433
FE-59	-2.081E-02		2.474E-02	3.010E-02	2.300E-03	-0.691
CO-60	-2.494E-03		1.556E-02	2.502E-02	1.715E-03	-0.100
ZN-65	-1.455E-02		2.710E-02	3.766E-02	2.491E-03	-0.386

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GE-68	-1.142E-01		3.761E-01	5.603E-01	3.914E-02	-0.204
AS-73	3.264E-01		4.547E-01	8.207E-01	1.074E-01	0.398
AS-74	-1.201E-02		2.497E-02	3.664E-02	1.934E-03	-0.328
SE-75	9.108E-03		1.447E-02	2.595E-02	1.746E-03	0.351
BR-77	-7.763E-02		3.661E-01	5.707E-01	3.178E-02	-0.136
SR-82	-9.653E-02		1.033E-01	1.393E-01	8.893E-03	-0.693
RB-83	-3.877E-03		2.165E-02	3.398E-02	1.892E-03	-0.114
RB-84	1.599E-02		2.463E-02	4.293E-02	3.419E-03	0.373
KR-85	-1.139E+01		4.568E+00	5.619E+00	3.138E-01	-2.028
SR-85	-5.387E-02		2.160E-02	2.657E-02	1.484E-03	-2.028
RB-86	-7.419E-03		1.704E-01	2.729E-01	1.908E-02	-0.027
Y-88	-4.558E-04		1.673E-02	2.692E-02	1.571E-03	-0.017
ZR-88	-2.398E-03		1.039E-02	1.665E-02	9.373E-04	-0.144
Y-91	-5.504E+00		5.416E+00	6.189E+00	3.793E-01	-0.889
NB-94	4.650E-03		1.256E-02	2.215E-02	1.193E-03	0.210
NB-95	-3.980E-03		1.268E-02	1.993E-02	1.242E-03	-0.200
NB-95M	-5.428E-02		4.180E-02	5.640E-02	4.629E-03	-0.962
ZR-95	-6.200E-03		1.893E-02	2.934E-02	2.136E-03	-0.211
NB-97	-2.705E-05		9.268E-06	Half-Life too short		
ZR-97	-1.323E-03		2.923E-04	Half-Life too short		
MO-99	3.574E-01		6.189E-01	1.122E+00	1.550E-01	0.318
TC-99M	-3.021E+00		3.635E+00	Half-Life too short		
RH-101	1.197E-04		1.319E-02	2.005E-02	1.306E-03	0.006
RH-102	2.531E-03		1.090E-02	1.836E-02	1.038E-03	0.138
RU-103	-1.394E-03		1.315E-02	2.104E-02	2.643E-03	-0.066
RH-106	-1.277E-02		1.147E-01	1.796E-01	2.052E-02	-0.071
RU-106	-1.277E-02		1.146E-01	1.796E-01	9.228E-03	-0.071
AG-108M	-3.168E-03		1.169E-02	1.844E-02	1.139E-03	-0.172
CD-109	-2.375E-02		2.241E-01	3.701E-01	4.448E-02	-0.064
AG-110M	-1.844E-02		1.290E-02	1.665E-02	8.898E-04	-1.107
IN-111	5.625E-03		5.926E-02	9.470E-02	6.319E-03	0.059
IN-113M	4.046E-03		1.474E-02	2.522E-02	1.520E-03	0.160
SN-113	4.046E-03		1.474E-02	2.522E-02	1.520E-03	0.160
IN-114M	1.649E-02		5.346E-02	8.858E-02	5.733E-03	0.186
CD-115	-1.491E-01		3.173E-01	4.675E-01	2.594E-02	-0.319
SN-117M	4.651E-04		1.309E-02	2.129E-02	1.362E-03	0.022
SB-122	4.891E-02		1.105E-01	1.897E-01	1.029E-02	0.258
I-123	6.211E-05		5.710E-05	Half-Life too short		
TE-123M	5.117E-03		9.408E-03	1.601E-02	1.035E-03	0.320
I-124	1.874E-02		7.651E-02	1.269E-01	6.657E-03	0.148
SB-124	1.882E-02		2.333E-02	4.923E-02	3.345E-03	0.382
SB-125	-2.337E-02		3.871E-02	5.644E-02	3.341E-03	-0.414
TE-125M	-1.027E+00		3.172E+00	4.738E+00	4.694E-01	-0.217
I-126	-4.161E-02		4.153E-02	5.803E-02	2.863E-03	-0.717
SB-126	3.071E-03		3.869E-02	6.544E-02	3.677E-03	0.047
SN-126	-3.494E-03		2.294E-02	3.773E-02	4.525E-03	-0.093
SB-127	-9.509E-02		1.285E-01	1.904E-01	1.261E-02	-0.499
XE-127	7.109E-03		1.363E-02	2.296E-02	1.501E-03	0.310

Sample ID : G1202023719 Acquisition date : 2-FEB-2010 09:48:17

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	-1.565E-02		2.357E-02	3.607E-02	2.381E-03	-0.434
TE-132	2.596E-02		4.442E-02	7.508E-02	1.018E-02	0.346
BA-133	-2.027E-02		1.591E-02	2.186E-02	2.561E-03	-0.927
I-133	-3.730E-07		2.111E-06	Half-Life too short		
CS-134	8.840E-03		1.501E-02	2.750E-02	1.854E-03	0.321
CS-135	-2.750E-02		5.002E-02	7.950E-02	6.627E-03	-0.346
I-135	1.109E+01		3.444E+00	Half-Life too short		
CS-136	-1.259E-02		3.105E-02	4.660E-02	3.576E-03	-0.270
BA-137M	-4.569E-03		1.590E-02	2.814E-02	1.372E-03	-0.162
CS-137	-4.830E-03		1.680E-02	2.975E-02	1.459E-03	-0.162
CE-139	-1.614E-03		1.010E-02	1.610E-02	1.023E-03	-0.100
BA-140	5.011E-02		6.621E-02	1.158E-01	3.761E-02	0.433
LA-140	3.132E-03		2.331E-02	3.968E-02	2.613E-03	0.079
CE-141	-1.546E-02		1.829E-02	2.740E-02	1.839E-03	-0.564
CE-143	6.363E-01		8.600E-01	1.542E+00	3.187E-01	0.413
CE-144	-1.160E-02		6.591E-02	1.060E-01	1.546E-02	-0.109
PM-144	-6.477E-03		1.400E-02	2.133E-02	1.133E-03	-0.304
PR-144	-4.371E-01		9.447E-01	1.439E+00	7.642E-02	-0.304
PM-146	-6.475E-04		1.481E-02	2.407E-02	2.054E-03	-0.027
ND-147	2.071E-02		1.169E-01	1.949E-01	2.614E-02	0.106
PM-149	-2.728E+00		3.124E+00	4.763E+00	6.912E-01	-0.573
EU-152	8.659E-03		3.376E-02	5.794E-02	4.010E-03	0.149
GD-153	-2.153E-02		2.244E-02	3.330E-02	3.269E-03	-0.646
EU-154	1.774E-02		4.701E-02	8.413E-02	8.252E-03	0.211
EU-155	-5.709E-02		3.569E-02	4.925E-02	4.293E-03	-1.159
TB-160	-1.232E-02		4.912E-02	7.711E-02	6.114E-03	-0.160
HO-166M	-1.849E-03		2.181E-02	3.603E-02	1.983E-03	-0.051
TM-171	-9.490E+00		1.100E+01	1.606E+01	1.878E+00	-0.591
LU-176	7.478E-03		9.343E-03	1.689E-02	1.102E-03	0.443
LU-177	-4.604E-03		1.617E-01	2.575E-01	1.690E-02	-0.018
LU-177M	5.048E-02		6.198E-02	1.123E-01	6.352E-03	0.450
HF-181	2.408E-03		1.413E-02	2.359E-02	1.332E-03	0.102
W-181	-8.306E-02		1.535E-01	2.361E-01	2.783E-02	-0.352
TA-182	2.473E-03		5.147E-02	8.736E-02	5.437E-03	0.028
RE-183	-1.209E-02		3.337E-02	5.206E-02	3.317E-03	-0.232
RE-184	6.522E-03		7.454E-02	1.276E-01	8.519E-03	0.051
OS-185	-5.446E-03		1.398E-02	2.208E-02	1.101E-03	-0.247
RE-188	1.305E-02		5.311E-02	8.821E-02	5.664E-03	0.148
W-188	-2.459E+00		2.381E+00	3.550E+00	2.346E-01	-0.693
IR-192	-3.657E-03		1.113E-02	1.792E-02	1.163E-03	-0.204
AU-195	-2.027E-03		6.541E-02	1.082E-01	1.035E-02	-0.019
TL-200	-1.198E-01		1.275E+00	2.092E+00	1.247E-01	-0.057
TL-201	1.928E-01		4.081E-01	6.896E-01	4.384E-02	0.280
TL-202	3.822E-04		1.546E-02	2.544E-02	1.443E-03	0.015
HG-203	-1.721E-03		1.356E-02	2.260E-02	1.574E-03	-0.076
BI-207	-7.522E-04		1.596E-02	2.559E-02	1.820E-03	-0.029
TL-207	6.434E-02		2.648E-01	4.528E-01	7.581E-02	0.142
TL-208	-1.234E-02		1.475E-02	2.006E-02	1.262E-03	-0.615

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-209	-8.078E-01		2.947E+00	4.396E+00	3.608E-01	-0.184
BI-210	-6.447E-01		3.316E+00	5.157E+00	4.494E-01	-0.125
PB-210	-6.447E-01		3.316E+00	5.157E+00	4.494E-01	-0.125
PO-210	-6.447E-01		3.316E+00	5.157E+00	4.006E-01	-0.125
BI-211	2.734E-02		8.396E-02	1.362E-01	9.200E-03	0.201
PB-211	1.374E-01		3.691E-01	6.187E-01	3.856E-01	0.222
BI-212	-7.369E-02		1.021E-01	1.498E-01	1.145E-02	-0.492
PB-212	-2.267E-02		2.468E-02	3.626E-02	2.912E-03	-0.625
PO-212	-2.267E-02		2.468E-02	3.626E-02	2.912E-03	-0.625
BI-214	1.142E-02		3.270E-02	5.087E-02	3.738E-03	0.224
PB-214	2.981E-02		2.940E-02	5.086E-02	4.338E-03	0.586
PO-214	2.981E-02		2.940E-02	5.086E-02	4.338E-03	0.586
PO-215	6.434E-02		2.648E-01	4.528E-01	7.581E-02	0.142
PO-216	-2.267E-02		2.468E-02	3.626E-02	2.912E-03	-0.625
PO-218	2.981E-02		2.940E-02	5.086E-02	4.338E-03	0.586
RN-219	-1.430E-01		1.609E-01	2.335E-01	3.161E-02	-0.612
RN-220	1.108E+01		8.141E+00	1.620E+01	8.877E-01	0.684
RA-223	6.434E-02		2.648E-01	4.528E-01	7.581E-02	0.142
RA-224	-3.465E-01		2.954E-01	3.727E-01	2.485E-02	-0.930
RA-226	1.142E-02		3.270E-02	5.087E-02	3.738E-03	0.224
AC-227	8.749E-02		1.291E-01	2.320E-01	3.328E-02	0.377
TH-227	8.749E-02		1.294E-01	2.320E-01	3.995E-02	0.377
AC-228	-7.661E-03		5.791E-02	9.882E-02	1.077E-02	-0.078
RA-228	-7.661E-03		5.791E-02	9.882E-02	1.077E-02	-0.078
TH-228	-2.284E-02		2.487E-02	3.653E-02	2.933E-03	-0.625
TH-229	-3.390E-03		1.728E-01	2.766E-01	1.795E-02	-0.012
TH-230	1.142E-02		3.270E-02	5.087E-02	3.738E-03	0.224
PA-231	6.693E-01		5.598E-01	1.036E+00	1.467E-01	0.646
TH-231	6.434E-02		2.648E-01	4.528E-01	7.581E-02	0.142
U-231	-4.895E-02		8.997E-02	1.414E-01	1.429E-02	-0.346
TH-232	-7.661E-03		5.791E-02	9.882E-02	1.077E-02	-0.078
PA-233	1.117E-02		2.187E-02	3.873E-02	2.641E-03	0.288
PA-234	7.620E-02		1.101E-01	2.025E-01	3.742E-02	0.376
PA-234M	-9.673E-01		2.074E+00	3.279E+00	2.989E-01	-0.295
TH-234	1.001E-02		6.237E-01	1.022E+00	2.022E-01	0.010
U-234	1.142E-02		3.270E-02	5.087E-02	3.738E-03	0.224
U-235	-2.351E-03		7.518E-02	1.182E-01	1.959E-02	-0.020
NP-236	-7.377E-03		2.724E-02	4.300E-02	2.745E-03	-0.172
NP-237	-5.986E-03		6.902E-02	1.143E-01	2.723E-02	-0.052
U-238	1.001E-02		6.237E-01	1.022E+00	2.022E-01	0.010
NP-239	-2.181E-02		6.286E-02	1.001E-01	7.369E-03	-0.218
AM-241	-8.389E-02		7.328E-02	1.020E-01	1.288E-02	-0.823
AM-243	1.282E-02		1.809E-02	3.213E-02	3.679E-03	0.399
CM-243	8.695E-03		3.072E-02	5.219E-02	4.601E-03	0.167
AM-246	1.750E-02		3.675E-02	6.764E-02	4.715E-03	0.259
CM-247	-5.375E-03		1.461E-02	2.303E-02	1.300E-03	-0.233
CF-249	-3.272E-03		1.351E-02	2.159E-02	1.227E-03	-0.152
CF-251	7.760E-03		4.506E-02	7.384E-02	4.726E-03	0.105

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	-1.760E-02		2.282E-02	4.295E-02	2.402E-03	-0.410

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202023719          *
* Acquisition date  :  2-FEB-2010 09:48:17 Detector SN#     :               *
* Detector ID       : GAM04                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.43      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202023719          Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.8103E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-2.912E-02	1.019E-01	8.606E-02	5.201E-02 NOT IDENT.
NA-22	6.515E-03	1.646E-02	1.540E-02	8.398E-03 NOT IDENT.
NA-24	8.754E+00	4.514E+01	0.000E+00	2.303E+01 SHORT HLIF
AL-26	-1.301E-02	1.709E-02	1.108E-02	8.720E-03 NOT IDENT.
K-40	2.098E-02	1.497E-01	1.352E-01	7.640E-02 NOT IDENT.
TI-44	-4.955E-03	9.798E-03	8.977E-03	4.999E-03 NOT IDENT.
SC-46	1.243E-06	1.409E-02	1.091E-02	7.190E-03 NOT IDENT.
V-48	1.527E-03	1.432E-02	1.266E-02	7.308E-03 NOT IDENT.
CR-51	-5.050E-02	1.067E-01	9.282E-02	5.445E-02 NOT IDENT.
MN-52	-4.159E-02	3.037E-02	1.133E-02	1.549E-02 NOT IDENT.
MN-54	3.439E-03	1.218E-02	1.122E-02	6.214E-03 NOT IDENT.
CO-56	5.879E-03	1.465E-02	1.363E-02	7.476E-03 NOT IDENT.
CO-57	-6.230E-03	8.255E-03	7.155E-03	4.211E-03 NOT IDENT.
CO-58	8.404E-03	9.678E-03	1.009E-02	4.938E-03 NOT IDENT.
FE-59	-2.081E-02	2.425E-02	1.548E-02	1.237E-02 NOT IDENT.
CO-60	-2.494E-03	1.525E-02	1.277E-02	7.782E-03 NOT IDENT.
ZN-65	-1.455E-02	2.655E-02	1.936E-02	1.355E-02 NOT IDENT.
GE-68	-1.142E-01	3.686E-01	2.883E-01	1.881E-01 NOT IDENT.
AS-73	3.264E-01	4.456E-01	4.688E-01	2.273E-01 NOT IDENT.
AS-74	-1.201E-02	2.447E-02	1.928E-02	1.249E-02 NOT IDENT.
SE-75	9.108E-03	1.418E-02	1.406E-02	7.235E-03 NOT IDENT.
BR-77	-7.763E-02	3.588E-01	3.018E-01	1.830E-01 NOT IDENT.
SR-82	-9.653E-02	1.013E-01	7.261E-02	5.166E-02 NOT IDENT.
RB-83	-3.877E-03	2.122E-02	1.797E-02	1.083E-02 NOT IDENT.
RB-84	1.599E-02	2.414E-02	2.226E-02	1.231E-02 NOT IDENT.
KR-85	-1.139E+01	4.477E+00	2.973E+00	2.284E+00 NOT IDENT.

SR-85	-5.387E-02	2.117E-02	1.406E-02	1.080E-02	NOT IDENT.
RB-86	-7.419E-03	1.670E-01	1.404E-01	8.519E-02	NOT IDENT.
Y-88	-4.558E-04	1.640E-02	1.356E-02	8.366E-03	NOT IDENT.
ZR-88	-2.398E-03	1.019E-02	8.898E-03	5.196E-03	NOT IDENT.
Y-91	-5.504E+00	5.307E+00	3.171E+00	2.708E+00	NOT IDENT.
NB-94	4.650E-03	1.231E-02	1.159E-02	6.279E-03	NOT IDENT.
NB-95	-3.980E-03	1.242E-02	1.039E-02	6.339E-03	NOT IDENT.
NB-95M	-5.428E-02	4.097E-02	3.068E-02	2.090E-02	NOT IDENT.
ZR-95	-6.200E-03	1.855E-02	1.530E-02	9.466E-03	NOT IDENT.
NB-97	-2.705E+01	1.816E+01	0.000E+00	9.268E+00	SHORT HLIF
ZR-97	-1.323E+03	5.729E+02	0.000E+00	2.923E+02	SHORT HLIF
MO-99	3.574E-01	6.065E-01	5.857E-01	3.095E-01	NOT IDENT.
TC-99M	-3.021E+06	7.125E+06	0.000E+00	3.635E+06	SHORT HLIF
RH-101	1.197E-04	1.293E-02	1.097E-02	6.596E-03	NOT IDENT.
RH-102	2.531E-03	1.068E-02	9.743E-03	5.451E-03	NOT IDENT.
RU-103	-1.394E-03	1.289E-02	1.114E-02	6.577E-03	NOT IDENT.
RH-106	-1.277E-02	1.124E-01	9.437E-02	5.733E-02	NOT IDENT.
RU-106	-1.277E-02	1.124E-01	9.437E-02	5.732E-02	NOT IDENT.
AG-108M	-3.168E-03	1.146E-02	9.815E-03	5.846E-03	NOT IDENT.
CD-109	-2.375E-02	2.196E-01	2.081E-01	1.121E-01	NOT IDENT.
AG-110M	-1.844E-02	1.264E-02	8.731E-03	6.448E-03	NOT IDENT.
IN-111	5.625E-03	5.807E-02	5.144E-02	2.963E-02	NOT IDENT.
IN-113M	4.046E-03	1.444E-02	1.348E-02	7.369E-03	NOT IDENT.
SN-113	4.046E-03	1.444E-02	1.348E-02	7.369E-03	NOT IDENT.
IN-114M	1.649E-02	5.239E-02	4.854E-02	2.673E-02	NOT IDENT.
CD-115	-1.491E-01	3.110E-01	2.471E-01	1.587E-01	NOT IDENT.
SN-117M	4.651E-04	1.282E-02	1.174E-02	6.543E-03	NOT IDENT.
SB-122	4.891E-02	1.082E-01	1.000E-01	5.523E-02	NOT IDENT.
I-123	6.211E+01	1.119E+02	0.000E+00	5.710E+01	SHORT HLIF
TE-123M	5.117E-03	9.220E-03	8.824E-03	4.704E-03	NOT IDENT.
I-124	1.874E-02	7.498E-02	6.677E-02	3.825E-02	NOT IDENT.
SB-124	1.882E-02	2.286E-02	2.489E-02	1.167E-02	NOT IDENT.
SB-125	-2.337E-02	3.794E-02	3.006E-02	1.936E-02	NOT IDENT.
TE-125M	-1.027E+00	3.109E+00	2.645E+00	1.586E+00	NOT IDENT.
I-126	-4.161E-02	4.070E-02	3.041E-02	2.076E-02	NOT IDENT.
SB-126	3.071E-03	3.792E-02	3.419E-02	1.935E-02	NOT IDENT.
SN-126	-3.494E-03	2.248E-02	2.121E-02	1.147E-02	NOT IDENT.
SB-127	-9.509E-02	1.259E-01	9.967E-02	6.425E-02	NOT IDENT.
XE-127	7.109E-03	1.336E-02	1.256E-02	6.814E-03	NOT IDENT.
I-131	-1.565E-02	2.310E-02	1.932E-02	1.179E-02	NOT IDENT.
TE-132	2.596E-02	4.353E-02	4.089E-02	2.221E-02	NOT IDENT.
BA-133	-2.027E-02	1.559E-02	1.172E-02	7.953E-03	NOT IDENT.
I-133	-3.730E-01	4.138E+00	0.000E+00	2.111E+00	SHORT HLIF
CS-134	8.840E-03	1.471E-02	1.432E-02	7.507E-03	NOT IDENT.
CS-135	-2.750E-02	4.902E-02	4.305E-02	2.501E-02	NOT IDENT.
I-135	1.109E+07	6.749E+06	0.000E+00	3.444E+06	SHORT HLIF
CS-136	-1.259E-02	3.043E-02	2.401E-02	1.552E-02	NOT IDENT.
BA-137M	-4.569E-03	1.558E-02	1.475E-02	7.948E-03	NOT IDENT.
CS-137	-4.830E-03	1.647E-02	1.559E-02	8.402E-03	NOT IDENT.
CE-139	-1.614E-03	9.899E-03	8.862E-03	5.050E-03	NOT IDENT.
BA-140	5.011E-02	6.488E-02	6.118E-02	3.310E-02	NOT IDENT.
LA-140	3.132E-03	2.284E-02	2.011E-02	1.166E-02	NOT IDENT.
CE-141	-1.546E-02	1.792E-02	1.515E-02	9.143E-03	NOT IDENT.
CE-143	6.363E-01	8.428E-01	8.324E-01	4.300E-01	NOT IDENT.
CE-144	-1.160E-02	6.459E-02	5.880E-02	3.296E-02	NOT IDENT.
PM-144	-6.477E-03	1.372E-02	1.116E-02	6.999E-03	NOT IDENT.
PR-144	-4.371E-01	9.258E-01	7.531E-01	4.724E-01	NOT IDENT.
PM-146	-6.475E-04	1.451E-02	1.279E-02	7.405E-03	NOT IDENT.
ND-147	2.071E-02	1.146E-01	1.030E-01	5.847E-02	NOT IDENT.
PM-149	-2.728E+00	3.062E+00	2.574E+00	1.562E+00	NOT IDENT.
EU-152	8.659E-03	3.309E-02	3.110E-02	1.688E-02	NOT IDENT.
GD-153	-2.153E-02	2.199E-02	1.866E-02	1.122E-02	NOT IDENT.
EU-154	1.774E-02	4.607E-02	4.301E-02	2.350E-02	NOT IDENT.
EU-155	-5.709E-02	3.498E-02	2.753E-02	1.784E-02	NOT IDENT.
TB-160	-1.232E-02	4.814E-02	3.999E-02	2.456E-02	NOT IDENT.
HO-166M	-1.849E-03	2.138E-02	1.884E-02	1.091E-02	NOT IDENT.
TM-171	-9.490E+00	1.078E+01	9.109E+00	5.500E+00	NOT IDENT.
LU-176	7.478E-03	9.156E-03	9.101E-03	4.672E-03	NOT IDENT.
LU-177	-4.604E-03	1.585E-01	1.406E-01	8.085E-02	NOT IDENT.
LU-177M	5.048E-02	6.074E-02	5.987E-02	3.099E-02	NOT IDENT.
HF-181	2.408E-03	1.385E-02	1.251E-02	7.067E-03	NOT IDENT.
W-181	-8.306E-02	1.505E-01	1.340E-01	7.676E-02	NOT IDENT.
TA-182	2.473E-03	5.044E-02	4.473E-02	2.573E-02	NOT IDENT.
RE-183	-1.209E-02	3.270E-02	2.868E-02	1.668E-02	NOT IDENT.
RE-184	6.522E-03	7.305E-02	6.922E-02	3.727E-02	NOT IDENT.
OS-185	-5.446E-03	1.370E-02	1.159E-02	6.990E-03	NOT IDENT.
RE-188	1.305E-02	5.205E-02	4.867E-02	2.656E-02	NOT IDENT.
W-188	-2.459E+00	2.334E+00	1.917E+00	1.191E+00	NOT IDENT.

IR-192	-3.657E-03	1.090E-02	9.646E-03	5.563E-03	NOT IDENT.
AU-195	-2.027E-03	6.410E-02	6.061E-02	3.270E-02	NOT IDENT.
TL-200	-1.198E-01	1.250E+00	1.121E+00	6.377E-01	NOT IDENT.
TL-201	1.928E-01	4.000E-01	3.795E-01	2.041E-01	NOT IDENT.
TL-202	3.822E-04	1.515E-02	1.354E-02	7.730E-03	NOT IDENT.
HG-203	-1.721E-03	1.329E-02	1.222E-02	6.779E-03	NOT IDENT.
BI-207	-7.522E-04	1.564E-02	1.317E-02	7.980E-03	NOT IDENT.
TL-207	6.434E-02	2.595E-01	2.436E-01	1.324E-01	NOT IDENT.
TL-208	-1.234E-02	1.446E-02	1.057E-02	7.377E-03	NOT IDENT.
PO-209	-8.078E-01	2.888E+00	2.278E+00	1.473E+00	NOT IDENT.
BI-210	-6.447E-01	3.250E+00	2.959E+00	1.658E+00	NOT IDENT.
PB-210	-6.447E-01	3.250E+00	2.959E+00	1.658E+00	NOT IDENT.
PO-210	-6.447E-01	3.250E+00	2.959E+00	1.658E+00	NOT IDENT.
BI-211	2.734E-02	8.228E-02	7.305E-02	4.198E-02	NOT IDENT.
PB-211	1.374E-01	3.617E-01	3.302E-01	1.845E-01	NOT IDENT.
BI-212	-7.369E-02	1.001E-01	7.822E-02	5.107E-02	NOT IDENT.
PB-212	-2.267E-02	2.419E-02	1.971E-02	1.234E-02	NOT IDENT.
PO-212	-2.267E-02	2.419E-02	1.971E-02	1.234E-02	NOT IDENT.
BI-214	1.142E-02	3.204E-02	2.675E-02	1.635E-02	NOT IDENT.
PB-214	2.981E-02	2.881E-02	2.728E-02	1.470E-02	NOT IDENT.
PO-214	2.981E-02	2.881E-02	2.728E-02	1.470E-02	NOT IDENT.
PO-215	6.434E-02	2.595E-01	2.436E-01	1.324E-01	NOT IDENT.
PO-216	-2.267E-02	2.419E-02	1.971E-02	1.234E-02	NOT IDENT.
PO-218	2.981E-02	2.881E-02	2.728E-02	1.470E-02	NOT IDENT.
RN-219	-1.430E-01	1.577E-01	1.246E-01	8.044E-02	NOT IDENT.
RN-220	1.108E+01	7.978E+00	8.552E+00	4.071E+00	NOT IDENT.
RA-223	6.434E-02	2.595E-01	2.436E-01	1.324E-01	NOT IDENT.
RA-224	-3.465E-01	2.895E-01	2.026E-01	1.477E-01	NOT IDENT.
RA-226	1.142E-02	3.204E-02	2.675E-02	1.635E-02	NOT IDENT.
AC-227	8.749E-02	1.265E-01	1.258E-01	6.455E-02	NOT IDENT.
TH-227	8.749E-02	1.268E-01	1.258E-01	6.468E-02	NOT IDENT.
AC-228	-7.661E-03	5.675E-02	5.118E-02	2.896E-02	NOT IDENT.
RA-228	-7.661E-03	5.675E-02	5.118E-02	2.896E-02	NOT IDENT.
TH-228	-2.284E-02	2.437E-02	1.986E-02	1.243E-02	NOT IDENT.
TH-229	-3.390E-03	1.693E-01	1.515E-01	8.639E-02	NOT IDENT.
TH-230	1.142E-02	3.204E-02	2.675E-02	1.635E-02	NOT IDENT.
PA-231	6.693E-01	5.487E-01	5.601E-01	2.799E-01	NOT IDENT.
TH-231	6.434E-02	2.595E-01	2.436E-01	1.324E-01	NOT IDENT.
U-231	-4.895E-02	8.817E-02	7.924E-02	4.498E-02	NOT IDENT.
TH-232	-7.661E-03	5.675E-02	5.118E-02	2.896E-02	NOT IDENT.
PA-233	1.117E-02	2.144E-02	2.086E-02	1.094E-02	NOT IDENT.
PA-234	7.620E-02	1.079E-01	1.047E-01	5.505E-02	NOT IDENT.
PA-234M	-9.673E-01	2.033E+00	1.692E+00	1.037E+00	NOT IDENT.
TH-234	1.001E-02	6.112E-01	5.805E-01	3.118E-01	NOT IDENT.
U-234	1.142E-02	3.204E-02	2.675E-02	1.635E-02	NOT IDENT.
U-235	-2.351E-03	7.367E-02	6.537E-02	3.759E-02	NOT IDENT.
NP-236	-7.377E-03	2.669E-02	2.370E-02	1.362E-02	NOT IDENT.
NP-237	-5.986E-03	6.764E-02	6.428E-02	3.451E-02	NOT IDENT.
U-238	1.001E-02	6.112E-01	5.805E-01	3.118E-01	NOT IDENT.
NP-239	-2.181E-02	6.160E-02	5.577E-02	3.143E-02	NOT IDENT.
AM-241	-8.389E-02	7.181E-02	5.806E-02	3.664E-02	NOT IDENT.
AM-243	1.282E-02	1.773E-02	1.816E-02	9.047E-03	NOT IDENT.
CM-243	8.695E-03	3.010E-02	2.918E-02	1.536E-02	NOT IDENT.
AM-246	1.750E-02	3.601E-02	3.481E-02	1.837E-02	NOT IDENT.
CM-247	-5.375E-03	1.432E-02	1.229E-02	7.305E-03	NOT IDENT.
CF-249	-3.272E-03	1.324E-02	1.154E-02	6.754E-03	NOT IDENT.
CF-251	7.760E-03	4.416E-02	4.057E-02	2.253E-02	NOT IDENT.
ANH-511	-1.760E-02	2.236E-02	2.273E-02	1.141E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	49.5013
46.50	49.5013
46.50	49.5013
48.70	45.5287
49.72	45.6632
51.35	50.2031
52.39	45.1406
52.97	40.8656
53.15	39.1461
53.44	37.4360
54.07	42.7332
56.28	47.3736
56.28	47.3740
57.37	42.2313
57.53	39.6083
57.53	39.6086
57.60	36.9746
57.98	38.7736
57.98	38.7736
59.32	45.0979
59.32	45.0979
59.40	45.1071
59.54	53.0861
59.72	55.7660
60.01	54.9214
61.10	55.0729
61.14	55.0784
61.30	55.1007
63.00	51.7639
63.29	56.2664
63.29	56.2664
63.58	56.3064
64.28	55.5073
65.12	59.2087
65.20	59.2201
65.20	59.2201
66.05	62.9373
66.72	52.2309
66.83	52.2448
66.91	57.6605
67.20	63.1092
67.20	63.1092
67.75	62.2884
67.85	62.3031
68.90	49.7836
68.90	49.7836
69.30	42.5818
69.67	40.8051
70.82	45.4582
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70.83	45.4592
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72.87	53.8898
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74.81	48.6181
74.81	48.6181
74.81	48.6181
74.81	48.6181
74.81	48.6181
74.81	48.6181
74.81	48.6181
74.97	44.0469
75.28	44.9952
75.70	43.1983
77.11	64.5348
77.11	64.5348

77.11	64.5348
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77.11	64.5348
77.11	64.5348
77.11	64.5348
78.38	52.6930
79.62	57.4662
79.80	52.8519
79.80	52.8519
80.11	46.3915
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83.37	60.7173
83.78	58.8988
83.78	58.8988
83.78	58.8988
83.78	58.8988
84.21	56.1432
84.90	47.7886
85.43	50.6536
86.29	56.3791
86.50	56.4026
86.54	56.4072
86.59	56.4127
86.72	58.3082
86.79	58.3161
86.94	61.1564
87.30	56.4926
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87.30	56.4926
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87.57	56.5228
87.88	53.7294
88.03	53.7454
88.36	50.9499
88.47	50.9609
89.95	75.7161
91.11	56.9147
92.29	61.7974
92.38	58.9553
92.38	58.9553
93.35	45.7271
94.00	46.7373
94.67	62.0758
94.67	62.0764
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94.90	64.0141
94.90	64.0141
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96.73	60.3981
97.43	55.6763
98.44	44.2389
98.44	44.2389
98.88	49.0869
99.55	42.4012
99.55	42.4012
99.86	53.0312
100.00	53.0446
100.10	53.0547
103.18	48.4975
103.76	51.4602
105.00	72.9797
105.31	76.9138
108.00	47.9286
109.28	60.7771

111.00	58.9883
111.00	58.9883
111.76	59.0634
112.95	57.2085
115.19	60.3906
116.30	56.5332
117.00	62.5552
117.00	62.5552
117.66	56.6582
121.11	55.9727
121.62	65.0208
121.78	69.0393
122.06	69.0698
122.32	60.0854
122.32	60.0854
122.32	60.0854
122.32	60.0854
123.07	51.1328
127.23	63.5728
129.76	68.8833
131.20	68.0176
133.02	58.0228
133.54	61.1243
135.34	55.1580
136.00	58.2785
136.25	65.4596
136.48	67.5277
140.51	69.9804
140.51	0.0000
142.18	51.5788
142.65	53.6774
143.76	60.9986
144.24	64.1437
144.24	64.1437
144.24	64.1437
144.24	64.1437
145.22	72.5200
145.44	75.6511
147.16	63.3667
152.43	63.8246
152.70	57.5681
153.22	50.2764
154.21	52.4404
154.21	52.4404
154.21	52.4404
154.21	52.4404
155.03	57.7482
156.02	65.1838
158.56	64.3477
159.00	0.0000
159.00	55.9410
160.31	63.4381
161.27	71.9865
162.32	59.3633
162.64	62.5693
163.35	54.1351
163.89	59.4835
165.85	64.9571
167.43	52.2833
171.28	69.6907
171.86	57.9386
172.10	57.9556
176.55	59.3523
176.60	59.3562
181.06	53.1661
184.41	59.9140
185.71	57.8237
186.00	61.1173
190.27	48.2597
192.34	59.3690
193.63	53.9511
197.04	66.3177
198.01	53.1123
198.60	55.3614
200.40	69.8958
201.83	58.8945
202.84	46.7232
205.31	72.5054

208.36	52.6010
208.81	43.6687
209.75	50.4382
209.75	50.4382
210.97	56.1157
215.65	51.8834
216.55	53.0615
218.09	48.6243
222.10	49.9624
223.80	45.4997
226.40	42.1994
227.00	51.3547
227.08	45.6523
227.20	45.6580
228.16	37.7044
228.18	37.7051
228.18	37.7051
231.56	40.1262
235.69	72.5246
236.00	63.3341
236.00	63.3341
238.63	55.4165
238.63	55.4165
238.63	55.4165
238.63	55.4165
239.00	51.9717
240.98	71.7436
241.98	52.1228
241.98	52.1228
241.98	52.1228
244.69	52.2592
245.39	47.6457
247.94	39.6075
248.90	46.6394
249.79	48.1376
252.40	46.5012
252.85	40.3767
252.85	40.3767
254.15	0.0000
256.20	36.1004
256.20	36.1004
260.50	55.6922
260.90	55.7124
262.80	31.0052
264.65	36.3811
268.24	43.6212
268.79	39.1895
269.46	31.1922
269.46	31.1922
269.46	31.1922
269.46	31.1922
271.23	35.7043
273.65	44.7266
276.40	46.6283
277.35	32.3080
277.60	33.2128
277.60	33.2128
278.00	36.8159
278.60	47.6164
279.20	51.2370
279.53	48.5544
280.46	47.6940
281.68	57.6533
283.67	31.5831
284.30	39.7266
285.00	50.5911
285.90	56.0551
286.10	50.6389
286.10	50.6389
287.40	42.5479
288.45	0.0000
290.67	50.8363
290.80	50.8414
291.72	50.8807
293.26	30.0226
293.70	29.1235
295.21	29.1602
295.21	29.1602

295.21	29.1602
295.96	35.5616
296.50	41.0504
297.23	50.2038
298.57	40.2073
299.80	38.4188
299.80	38.4188
300.09	36.5985
300.09	36.5985
300.09	36.5985
300.09	36.5985
300.12	36.5991
301.29	36.6345
302.84	42.1830
303.76	45.8862
303.91	48.6451
304.40	51.4191
304.40	51.4191
304.84	48.6823
306.84	34.9611
308.46	35.0069
311.98	29.5630
316.51	37.0880
318.01	33.4188
319.02	34.3742
319.41	39.0315
320.08	39.9818
323.87	44.7634
323.87	44.7634
323.87	44.7634
323.87	44.7634
325.23	41.0768
328.77	47.7425
333.44	42.2768
334.20	44.1815
334.20	44.1815
334.30	44.1844
338.28	35.8314
338.28	35.8314
338.28	35.8314
338.28	35.8314
338.32	35.8326
338.32	35.8326
338.32	35.8326
340.50	42.5034
340.57	42.5054
344.27	30.3096
345.85	26.5521
350.59	31.4033
351.07	32.3663
351.92	25.7187
351.92	25.7187
351.92	25.7187
355.39	0.0000
356.01	44.9030
364.48	43.2552
366.43	30.8018
367.43	34.6767
367.94	34.6893
369.80	37.6295
374.96	30.9873
383.85	30.2044
387.95	28.3349
388.63	29.3253
391.69	25.4680
391.69	25.4680
392.90	31.3706
398.62	28.5389
400.65	32.5191
401.10	37.4573
401.81	41.4200
402.60	38.4811
404.84	30.6329
410.95	38.6923
411.60	35.7314
413.65	22.8586
414.70	33.8143
415.30	31.8374

415.76	27.8658
417.63	0.0000
418.52	29.9094
423.70	28.0081
427.08	34.0825
427.89	32.0942
432.53	26.1527
433.93	27.1821
439.47	23.2348
439.56	23.2362
439.89	21.2201
443.98	28.3644
444.90	26.3535
445.03	26.3555
445.03	26.3555
445.03	26.3555
445.03	26.3555
453.90	22.4213
463.38	17.4239
468.07	28.7780
473.00	21.6460
475.06	23.7359
475.35	25.8041
476.78	32.0236
477.59	24.8042
477.96	24.8097
482.03	23.8318
484.57	25.9418
487.03	29.0959
490.36	27.0688
492.35	31.2685
497.08	24.0364
507.63	0.0000
510.53	0.0000
510.84	34.7516
511.00	34.7548
511.85	53.7369
511.85	53.7369
513.99	111.8195
513.99	111.8195
520.41	19.0547
520.65	19.0574
527.90	19.1316
528.96	0.0000
529.64	18.0858
529.87	0.0000
531.02	17.0342
537.32	17.0913
543.00	12.8569
546.56	0.0000
549.76	7.5264
552.65	18.3058
555.20	20.4861
563.23	24.9015
563.90	20.5777
568.70	21.7133
569.32	23.8926
569.50	26.0669
569.67	26.0691
573.80	22.8579
574.00	18.5061
574.64	26.1343
578.91	18.5512
579.30	20.7378
583.14	21.8707
585.48	18.6119
591.81	17.5718
592.07	16.4754
593.00	17.5820
595.88	23.1085
600.56	22.0581
602.52	0.0000
602.71	25.3935
602.71	25.3935
603.60	25.4047
604.41	25.4146
604.70	26.5232
609.31	17.7212

609.31	17.7212
609.31	17.7212
609.31	17.7212
610.33	16.6219
612.46	35.4961
614.37	24.4257
618.01	16.6827
621.84	18.9408
621.84	18.9408
631.29	17.9058
633.02	15.6804
633.10	15.6808
634.78	17.9351
635.90	23.5519
636.97	23.5635
645.85	18.0264
646.12	19.8317
656.30	20.8291
657.75	30.8108
657.90	0.0000
661.65	11.8012
661.65	11.8012
664.57	27.2695
666.33	24.5617
666.33	24.5617
675.00	20.0906
677.61	23.7707
685.20	24.7667
692.80	23.0078
695.00	16.5814
696.49	23.9665
696.49	23.9665
697.00	23.9719
697.49	23.0548
698.33	21.2177
698.50	18.4517
699.00	20.3011
702.63	18.4844
706.10	14.8094
706.58	0.0000
706.67	21.2935
709.31	21.3177
711.68	18.5557
713.82	18.5723
717.42	23.2507
720.50	23.2806
721.93	22.3629
722.20	21.4333
722.78	18.6426
722.78	18.6426
722.89	15.8466
722.95	15.8470
723.30	14.9172
724.18	13.9900
727.18	22.4121
733.00	7.4887
735.90	23.4302
739.58	14.0793
742.81	13.1582
744.21	17.8677
747.13	21.6552
751.79	11.3197
752.31	12.2656
753.82	14.1610
755.35	17.0038
756.15	12.2846
756.87	10.3976
763.93	14.2189
765.79	17.0754
766.42	17.0793
766.84	19.9295
776.49	19.0532
778.00	14.2983
778.57	15.2551
778.89	12.3963
783.80	10.5094
785.46	14.3401
792.07	11.5017

795.84	10.5588
796.30	10.5606
798.80	17.2978
801.93	14.4320
805.60	11.5619
810.29	5.7913
810.76	4.8269
815.85	16.4434
817.79	13.5516
818.51	11.6188
819.60	10.6549
826.30	14.5660
828.27	12.6334
831.60	17.5140
831.96	19.4624
834.83	12.6642
836.80	0.0000
846.75	15.6555
848.13	17.6216
856.28	0.0000
856.80	14.7312
860.37	12.7835
867.32	7.8867
867.82	9.8601
871.10	16.7821
873.19	11.8550
874.81	5.9309
875.33	0.0000
876.40	13.8465
879.36	15.8414
880.27	11.8849
880.51	11.8860
881.50	9.9084
883.24	15.8633
884.67	17.8554
889.25	8.9422
896.60	11.9537
898.02	10.9632
899.00	14.9550
903.28	19.9697
911.07	14.0167
911.07	14.0167
911.07	14.0167
919.63	13.0540
920.93	11.0505
925.00	10.0601
925.24	12.0729
926.50	10.0652
935.52	6.0577
937.48	10.1028
944.10	9.1129
946.00	9.1187
949.00	10.1421
962.29	10.1870
964.01	10.1929
966.15	18.3599
968.20	15.3105
969.11	12.2520
969.11	12.2520
969.11	12.2520
977.42	11.2616
980.50	12.2979
983.50	7.1808
989.30	8.2221
996.32	12.3609
1001.03	15.4746
1001.68	15.4779
1004.76	13.4275
1021.30	0.0000
1024.50	0.0000
1034.80	8.3418
1036.00	9.3880
1037.82	11.4807
1038.57	10.4395
1038.76	0.0000
1045.16	10.4609
1046.59	14.6515
1048.07	18.8464

1050.47	11.5258
1050.47	11.5258
1062.04	5.2576
1063.62	8.4164
1076.63	7.3934
1077.35	9.5080
1078.86	4.2277
1085.78	5.2957
1099.22	11.6972
1112.02	7.4717
1112.84	9.6091
1115.52	11.7536
1120.29	8.5598
1120.29	8.5598
1120.29	8.5598
1120.29	8.5598
1120.51	10.7007
1121.28	12.8438
1124.00	0.0000
1129.67	12.8748
1131.51	0.0000
1147.95	0.0000
1167.94	15.1860
1173.22	10.8633
1175.09	15.2168
1177.93	4.3512
1189.05	7.6381
1204.90	14.2473
1205.75	12.0586
1213.00	8.7871
1221.42	8.2570
1230.97	9.1984
1235.34	11.0508
1236.41	0.0000
1238.25	11.9812
1246.25	15.7016
1260.41	0.0000
1271.85	6.5092
1274.45	10.2360
1274.54	10.2360
1291.56	6.5428
1298.22	0.0000
1312.09	5.6379
1325.50	4.7144
1325.50	4.7144
1332.49	10.3902
1333.61	6.6138
1360.21	5.7068
1362.66	0.0000
1365.15	7.6185
1368.21	4.7652
1368.53	0.0000
1376.25	2.8647
1384.27	4.7841
1394.10	5.7546
1395.20	8.6345
1407.95	7.6989
1434.06	9.6838
1436.60	2.9069
1457.56	0.0000
1460.81	4.8726
1489.15	6.8667
1509.49	10.8407
1596.49	6.0288
1620.62	6.0603
1678.03	0.0000
1691.02	1.0251
1691.02	1.0251
1706.46	0.0000
1750.46	0.0000
1764.49	7.2840
1764.49	7.2840
1764.49	7.2840
1764.49	7.2840
1770.23	4.1670
1771.40	2.0840
1791.20	0.0000
1808.65	10.4964

1836.01	6.3315

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202023719

Total Uranium Activity	2.8686E-02	ug/g
Total Uranium Counting Unc.	1.8186E+00	ug/g
Total Uranium Tpu	9.2788E-07	ug/g
Total Uranium Mda	1.7273E+00	ug/g

THERE ARE NO PEAKS !

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:51:02.87

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023720.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:49:21.
Sample ID         : G1202023720          Sample quantity  : 1.43580E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.92*	787	903	1.02	125.85	120	11	1.09E-01	8.3	
2	2	74.64	325	753	1.35	149.27	141	17	4.51E-02	15.8	2.31E+00
3	2	76.85	427	672	1.11	153.69	141	17	5.93E-02	11.4	
4	1	83.91*	135	755	1.40	167.81	162	31	1.88E-02	34.2	7.66E+00
5	1	86.97	206	701	1.41	173.95	162	31	2.86E-02	22.5	
6	1	92.37*	2152	473	1.17	184.74	162	31	2.99E-01	2.8	
7	0	98.49	271	504	1.05	196.98	193	10	3.76E-02	16.7	
8	0	143.36*	119	306	1.00	286.72	283	8	1.65E-02	27.6	
9	0	185.70*	379	441	1.11	371.39	365	11	5.27E-02	12.2	
10	0	205.12	55	290	1.33	410.25	404	9	7.57E-03	58.0	
11	0	209.39	39	345	1.14	418.78	414	9	5.48E-03	86.4	
12	3	238.36*	845	188	1.07	476.72	472	15	1.17E-01	4.4	2.33E+00
13	3	241.33	205	201	1.68	482.67	472	15	2.84E-02	14.7	
14	0	295.00*	278	169	1.21	590.01	586	9	3.86E-02	10.6	
15	0	327.98	55	158	1.53	655.95	652	9	7.59E-03	43.6	
16	0	337.81*	185	145	1.21	675.63	671	12	2.56E-02	15.2	
17	0	351.59*	465	216	1.19	703.19	696	14	6.45E-02	8.3	
18	0	410.16	28	132	0.90	820.32	812	12	3.94E-03	83.2	
19	0	510.45*	94	159	2.44	1020.90	1012	21	1.30E-02	38.0	
20	0	582.82*	214	92	1.37	1165.63	1158	12	2.98E-02	11.4	
21	0	608.97*	306	136	1.51	1217.93	1209	17	4.25E-02	10.6	
22	0	661.03	132	57	1.50	1322.06	1316	11	1.83E-02	14.1	
23	0	727.11	81	98	2.27	1454.22	1447	19	1.12E-02	31.0	
24	0	795.20	49	57	0.70	1590.40	1585	12	6.77E-03	35.8	
25	0	836.88*	11	40	1.35	1673.76	1667	8	1.54E-03	108.8	
26	0	860.78*	37	48	1.46	1721.56	1714	15	5.16E-03	46.0	
27	0	910.91*	157	86	1.39	1821.81	1814	15	2.17E-02	15.5	
28	0	968.72*	77	56	1.77	1937.43	1933	10	1.07E-02	22.1	
29	0	1000.89	90	64	1.19	2001.79	1995	14	1.26E-02	21.4	
30	0	1120.09	86	49	1.55	2240.19	2235	13	1.19E-02	20.0	
31	0	1460.23	1031	4	2.22	2920.46	2912	15	1.43E-01	3.1	
32	0	1763.89	62	4	2.36	3527.78	3521	14	8.68E-03	14.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 11:51:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023720.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:49:21
Sample ID : G1202023720 Sample quantity : 143.58 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.40 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.624E+01	2.394E+00	4.542E-01	3.005E-02	57.759
CD-109	+	88.03	*	2.873E+00	1.325E+00	1.677E+00	1.656E-01	1.713
SN-126	+	64.28		7.925E+00	1.791E+00	1.108E+00	1.706E-01	7.150
	+	86.94		1.176E+00	7.214E-01	6.954E-01	2.894E-01	1.691
	+	87.57	*	2.829E-01	1.304E-01	1.660E-01	1.634E-02	1.704
BA-137M	+	661.65	*	1.980E-01	5.675E-02	7.251E-02	3.581E-03	2.730
CS-137	+	661.65	*	2.093E-01	6.000E-02	7.665E-02	3.807E-03	2.730
TL-208		277.35		1.738E-01	4.122E-01	6.715E-01	7.152E-02	0.259
	+	510.84		4.715E-01	3.618E-01	2.046E-01	2.053E-02	2.304
	+	583.14	*	3.085E-01	7.302E-02	6.152E-02	3.888E-03	5.015
	+	860.37		5.064E-01	4.675E-01	5.143E-01	3.932E-02	0.985
BI-211		72.87		1.319E+01	4.445E+00	7.639E+00	6.859E-01	1.727
	+	351.07	*	2.894E+00	5.137E-01	3.408E-01	2.200E-02	8.493
PB-212	+	74.81		1.934E+00	6.611E-01	7.434E-01	9.664E-02	2.601
	+	77.11		1.434E+00	3.525E-01	4.233E-01	3.865E-02	3.387
	+	87.30		1.309E+00	6.174E-01	7.703E-01	1.080E-01	1.699
	+	238.63	*	1.134E+00	1.296E-01	1.018E-01	7.504E-03	11.139
		300.09		1.367E+00	9.397E-01	1.496E+00	1.252E-01	0.914
PO-212	+	74.81		1.934E+00	6.611E-01	7.434E-01	9.664E-02	2.601
	+	77.11		1.434E+00	3.525E-01	4.233E-01	3.865E-02	3.387
	+	87.30		1.309E+00	6.174E-01	7.703E-01	1.080E-01	1.699
		115.19		-8.961E+00	4.551E+00	6.951E+00	4.587E-01	-1.289
	+	238.63	*	1.134E+00	1.296E-01	1.018E-01	7.504E-03	11.139
		300.09		1.367E+00	9.397E-01	1.496E+00	1.252E-01	0.914
BI-214	+	609.31	*	8.301E-01	1.866E-01	1.197E-01	8.831E-03	6.937
	+	1120.29		1.226E+00	5.024E-01	4.845E-01	4.426E-02	2.529
	+	1764.49		1.230E+00	3.556E-01	1.686E-01	9.871E-03	7.294
PB-214	+	74.81		3.332E+00	1.123E+00	1.281E+00	1.497E-01	2.601
	+	77.11		2.458E+00	6.327E-01	7.257E-01	8.629E-02	3.387
	+	87.30		2.242E+00	1.048E+00	1.320E+00	1.647E-01	1.699
	+	241.98		1.650E+00	5.018E-01	6.166E-01	5.003E-02	2.676
	+	295.21		1.017E+00	2.324E-01	2.709E-01	2.342E-02	3.756
	+	351.92	*	1.007E+00	1.862E-01	1.188E-01	9.857E-03	8.475
PO-214	+	74.81		3.332E+00	1.123E+00	1.281E+00	1.497E-01	2.601

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.458E+00	6.327E-01	7.257E-01	8.629E-02	3.387
	+	87.30		2.242E+00	1.048E+00	1.320E+00	1.647E-01	1.699
	+	241.98		1.650E+00	5.018E-01	6.166E-01	5.003E-02	2.676
	+	295.21		1.017E+00	2.324E-01	2.709E-01	2.342E-02	3.756
	+	351.92	*	1.007E+00	1.862E-01	1.188E-01	9.857E-03	8.475
PO-216	+	74.81		1.934E+00	6.611E-01	7.434E-01	9.664E-02	2.601
	+	77.11		1.434E+00	3.525E-01	4.233E-01	3.865E-02	3.387
	+	87.30		1.309E+00	6.174E-01	7.703E-01	1.080E-01	1.699
	+	238.63	*	1.134E+00	1.296E-01	1.018E-01	7.504E-03	11.139
		300.09		1.367E+00	9.397E-01	1.496E+00	1.252E-01	0.914
PO-218	+	74.81		3.332E+00	1.123E+00	1.281E+00	1.497E-01	2.601
	+	77.11		2.458E+00	6.327E-01	7.257E-01	8.629E-02	3.387
	+	87.30		2.242E+00	1.048E+00	1.320E+00	1.647E-01	1.699
	+	241.98		1.650E+00	5.018E-01	6.166E-01	5.003E-02	2.676
	+	295.21		1.017E+00	2.324E-01	2.709E-01	2.342E-02	3.756
	+	351.92	*	1.007E+00	1.862E-01	1.188E-01	9.857E-03	8.475
RA-224	+	240.98	*	3.129E+00	9.352E-01	1.159E+00	6.790E-02	2.701
RA-226	+	609.31	*	8.301E-01	1.866E-01	1.197E-01	8.831E-03	6.937
	+	1120.29		1.226E+00	5.024E-01	4.845E-01	4.426E-02	2.529
	+	1764.49		1.230E+00	3.556E-01	1.686E-01	9.871E-03	7.294
AC-228	+	338.32		1.265E+00	6.431E-01	3.720E-01	1.517E-01	3.401
	+	911.07	*	1.011E+00	3.295E-01	2.052E-01	2.097E-02	4.925
	+	969.11		8.787E-01	4.367E-01	4.862E-01	1.109E-01	1.807
RA-228	+	338.32		1.265E+00	6.431E-01	3.720E-01	1.517E-01	3.401
	+	911.07	*	1.011E+00	3.295E-01	2.052E-01	2.097E-02	4.925
	+	969.11		8.787E-01	4.367E-01	4.862E-01	1.109E-01	1.807
TH-228	+	74.81		1.961E+00	6.452E-01	7.537E-01	6.863E-02	2.601
	+	77.11		1.454E+00	3.575E-01	4.292E-01	3.919E-02	3.387
	+	87.30		1.327E+00	6.117E-01	7.811E-01	7.668E-02	1.699
	+	238.63	*	1.150E+00	1.314E-01	1.032E-01	7.608E-03	11.139
		300.09		1.386E+00	1.250E+00	1.517E+00	8.944E-01	0.914
TH-230	+	609.31	*	8.301E-01	1.866E-01	1.197E-01	8.831E-03	6.937
	+	1120.29		1.226E+00	5.024E-01	4.845E-01	4.426E-02	2.529
	+	1764.49		1.230E+00	3.556E-01	1.686E-01	9.871E-03	7.294
TH-232	+	338.32		1.265E+00	3.912E-01	3.720E-01	2.188E-02	3.401
	+	911.07	*	1.011E+00	3.295E-01	2.052E-01	2.097E-02	4.925
	+	969.11		8.787E-01	4.367E-01	4.862E-01	1.109E-01	1.807
TH-234	+	63.29	*	2.002E+01	4.920E+00	2.977E+00	5.412E-01	6.726
	+	92.38		1.907E+01	3.657E+00	1.082E+00	1.982E-01	17.626
U-234	+	609.31	*	8.301E-01	1.866E-01	1.197E-01	8.831E-03	6.937
	+	1120.29		1.226E+00	5.024E-01	4.845E-01	4.426E-02	2.529
	+	1764.49		1.230E+00	3.556E-01	1.686E-01	9.871E-03	7.294
U-235		89.95		9.821E+00	3.517E+00	2.963E+00	9.221E-01	3.314
	+	93.35		2.293E+01	6.590E+00	1.291E+00	3.630E-01	17.768
		105.00		1.110E-01	1.325E+00	2.109E+00	6.230E-01	0.053
	+	143.76	*	5.044E-01	2.907E-01	3.766E-01	6.125E-02	1.339
		163.35		4.464E-01	5.485E-01	9.113E-01	1.628E-01	0.490
	+	185.71		3.546E-01	8.849E-02	7.393E-02	4.091E-03	4.796
	+	205.31		6.245E-01	7.324E-01	9.367E-01	1.680E-01	0.667

Sample ID : G1202023720 Acquisition date : 2-FEB-2010 09:49:21

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	+	86.50	*	8.308E-01	4.197E-01	4.939E-01	1.127E-01	1.682
		95.87		3.374E+00	1.848E+00	2.014E+00	4.958E-01	1.675
U-238	+	63.29	*	2.002E+01	4.920E+00	2.977E+00	5.412E-01	6.726
	+	92.38		1.907E+01	2.044E+00	1.082E+00	9.838E-02	17.626
AM-243	+	74.67	*	3.135E-01	1.031E-01	1.209E-01	1.092E-02	2.592
	+	86.72		3.116E+01	1.436E+01	1.847E+01	1.804E+00	1.687
		117.66		-6.525E+00	4.429E+00	6.870E+00	4.404E-01	-0.950
	+	142.18		4.237E+01	2.355E+01	3.156E+01	1.802E+00	1.343
ANH-511	+	511.00	*	1.018E-01	7.769E-02	4.420E-02	2.471E-03	2.304

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.806E-01	3.570E-01	5.966E-01	3.941E-02	0.303
NA-22		1274.54	*	-6.015E-02	4.531E-02	6.160E-02	3.804E-03	-0.976
NA-24		1368.53	*	-2.741E-02	4.531E-02	Half-Life too short		
AL-26		1129.67		1.128E+00	1.896E+00	3.220E+00	2.006E-01	0.350
		1808.65	*	1.520E-02	2.562E-02	4.804E-02	2.759E-03	0.316
TI-44		67.85		5.716E-02	9.393E-02	1.042E-01	9.300E-03	0.548
		78.38	*	1.572E-01	7.719E-02	8.997E-02	8.270E-03	1.748
SC-46		889.25	*	-7.237E-03	4.064E-02	6.660E-02	4.773E-03	-0.109
	+	1120.51		2.077E-01	8.403E-02	1.298E-01	8.162E-03	1.601
V-48		944.10		1.747E-01	8.893E-01	1.504E+00	1.073E-01	0.116
		983.50	*	-5.915E-03	6.671E-02	1.095E-01	7.666E-03	-0.054
		1312.09		-7.821E-03	7.856E-02	1.262E-01	7.876E-03	-0.062
CR-51		320.08	*	-1.419E-01	3.867E-01	6.359E-01	4.189E-02	-0.223
MN-52		744.21		2.627E-01	2.271E-01	4.006E-01	2.285E-02	0.656
		848.13		2.004E+00	6.370E+00	1.092E+01	7.354E-01	0.184
		935.52		8.396E-02	2.184E-01	3.759E-01	2.693E-02	0.223
		1246.25		-8.700E+00	7.427E+00	1.076E+01	6.562E-01	-0.808
		1333.61		-7.476E-01	4.083E+00	6.457E+00	4.056E-01	-0.116
		1434.06	*	4.950E-02	1.585E-01	2.720E-01	1.712E-02	0.182
MN-54		834.83	*	1.408E-02	3.906E-02	6.718E-02	4.434E-03	0.210
CO-56		846.75	*	1.191E-02	4.253E-02	7.268E-02	4.886E-03	0.164
		977.42		-1.111E+00	3.144E+00	5.033E+00	3.536E-01	-0.221
		1037.82		-1.960E-01	3.328E-01	5.170E-01	3.795E-02	-0.379
		1175.09		4.828E-01	2.393E+00	3.995E+00	2.366E-01	0.121
		1238.25		1.947E-01	1.014E-01	1.884E-01	1.211E-02	1.034
		1360.21		4.168E-01	9.496E-01	1.638E+00	1.031E-01	0.254
		1771.40		-7.907E-01	3.035E-01	2.358E-01	1.377E-02	-3.353
CO-57		122.06	*	-2.011E-02	2.940E-02	4.712E-02	2.878E-03	-0.427
		136.48		-2.668E-01	2.450E-01	3.811E-01	2.561E-02	-0.700
CO-58		810.76	*	-3.029E-02	3.717E-02	5.727E-02	3.657E-03	-0.529
FE-59	+	142.65		6.386E+00	3.549E+00	5.238E+00	2.987E-01	1.219
		192.34		-2.879E-01	1.026E+00	1.640E+00	1.920E-01	-0.175
		1099.22	*	-4.615E-03	9.449E-02	1.547E-01	1.135E-02	-0.030
		1291.56		1.181E-01	1.331E-01	2.364E-01	1.829E-02	0.499
CO-60		1173.22		-7.078E-03	4.900E-02	7.919E-02	4.685E-03	-0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-1.370E-02	3.667E-02	5.625E-02	3.534E-03	-0.244
ZN-65		1115.52	*	-9.759E-02	1.148E-01	1.424E-01	9.017E-03	-0.686
GE-68		1077.35	*	-8.329E-01	1.337E+00	2.062E+00	1.351E-01	-0.404
AS-73		53.44	*	1.272E+00	1.313E+00	2.255E+00	2.062E-01	0.564
AS-74		595.88	*	1.330E-02	9.739E-02	1.602E-01	8.518E-03	0.083
		634.78		-5.356E-03	3.631E-01	5.884E-01	3.007E-02	-0.009
SE-75		66.05		-2.040E+00	7.314E+00	1.066E+01	1.140E+00	-0.191
		96.73		3.393E+00	1.445E+00	1.714E+00	2.318E-01	1.980
		121.11		-8.767E-02	1.547E-01	2.489E-01	2.356E-02	-0.352
		136.00		-2.995E-02	4.593E-02	7.282E-02	4.292E-03	-0.411
		198.60		-1.709E+00	2.249E+00	3.194E+00	2.229E-01	-0.535
		264.65	*	-3.328E-03	4.835E-02	7.699E-02	4.618E-03	-0.043
		279.53		-8.980E-02	1.171E-01	1.903E-01	1.222E-02	-0.472
		303.91		-1.734E+00	2.256E+00	3.638E+00	3.509E-01	-0.477
		400.65		-8.358E-04	2.739E-01	4.547E-01	4.074E-02	-0.002
BR-77	+	87.88		4.373E+02	2.016E+02	3.060E+02	3.020E+01	1.429
		200.40		1.808E+01	1.461E+02	2.079E+02	1.171E+01	0.087
	+	239.00		1.280E+02	1.346E+01	2.442E+01	1.429E+00	5.243
		249.79		-5.855E+01	5.456E+01	8.249E+01	4.863E+00	-0.710
		281.68		-1.245E+01	7.002E+01	1.171E+02	6.989E+00	-0.106
		297.23		1.075E+02	5.127E+01	8.336E+01	4.979E+00	1.290
		303.76		-1.003E+02	1.361E+02	2.202E+02	1.314E+01	-0.456
		439.47		3.743E+01	1.063E+02	1.798E+02	1.012E+01	0.208
		484.57		8.216E+01	1.775E+02	3.010E+02	1.693E+01	0.273
		520.65	*	5.311E+00	7.827E+00	1.283E+01	7.148E-01	0.414
		574.64		-5.140E+01	1.655E+02	2.470E+02	1.336E+01	-0.208
		578.91		3.825E+01	7.879E+01	1.165E+02	6.280E+00	0.328
		585.48		4.685E+02	1.616E+02	2.821E+02	1.513E+01	1.661
		755.35		3.686E+01	1.284E+02	2.115E+02	1.229E+01	0.174
		817.79		-3.256E+01	9.389E+01	1.521E+02	9.778E+00	-0.214
SR-82		698.33		9.100E+00	3.539E+01	5.833E+01	3.075E+00	0.156
		776.49	*	-2.158E-01	4.034E-01	6.483E-01	3.900E-02	-0.333
		1395.20		-1.067E+01	9.892E+00	1.288E+01	8.111E-01	-0.828
RB-83		520.41	*	4.816E-02	7.278E-02	1.191E-01	6.639E-03	0.404
		529.64		1.492E-01	1.064E-01	1.921E-01	1.067E-02	0.777
		552.65		-3.459E-02	2.108E-01	3.402E-01	1.867E-02	-0.102
RB-84		881.50	*	2.860E-02	7.500E-02	1.290E-01	9.143E-03	0.222
KR-85		513.99	*	1.137E+01	7.892E+00	1.279E+01	7.146E-01	0.889
SR-85		513.99	*	5.758E-02	3.995E-02	6.477E-02	3.618E-03	0.889
RB-86		1076.63	*	-3.663E-01	8.334E-01	1.314E+00	8.616E-02	-0.279
Y-88		898.02		-2.137E-02	3.991E-02	6.168E-02	4.509E-03	-0.347
		1836.01	*	6.657E-03	3.086E-02	5.339E-02	3.035E-03	0.125
ZR-88		392.90	*	-9.218E-03	3.278E-02	5.356E-02	2.972E-03	-0.172
Y-91		1204.90	*	-2.309E+00	1.891E+01	3.056E+01	1.833E+00	-0.076
NB-94		702.63	*	1.333E-02	3.535E-02	5.884E-02	3.125E-03	0.227
		871.10		-1.305E-02	3.687E-02	5.954E-02	4.154E-03	-0.219
NB-95		765.79	*	6.060E-02	4.881E-02	8.560E-02	5.060E-03	0.708
NB-95M		235.69	*	3.578E-01	1.706E-01	2.634E-01	1.990E-02	1.359
ZR-95		724.18		1.163E-01	1.148E-01	1.776E-01	1.175E-02	0.655

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		756.15	*	4.038E-02	7.573E-02	1.274E-01	8.978E-03	0.317
NB-97		657.90	*	1.279E-02	7.573E-02	Half-Life too short		
		1024.50		4.548E-01	7.573E-02	Half-Life too short		
ZR-97		254.15		5.444E-02	7.573E-02	Half-Life too short		
		355.39		-3.952E-01	7.573E-02	Half-Life too short		
		507.63	*	1.674E+00	7.573E-02	Half-Life too short		
		602.52		-2.414E-01	7.573E-02	Half-Life too short		
		1021.30		-9.646E-01	7.573E-02	Half-Life too short		
		1147.95		-1.463E+00	7.573E-02	Half-Life too short		
		1362.66		1.037E+00	7.573E-02	Half-Life too short		
		1750.46		1.560E-01	7.573E-02	Half-Life too short		
MO-99		140.51		1.744E+00	2.447E+01	3.513E+01	9.463E+00	0.050
		181.06		-9.465E+00	1.679E+01	2.297E+01	3.915E+00	-0.412
		366.43		3.108E+01	6.588E+01	1.128E+02	6.470E+00	0.276
		739.58	*	2.282E+00	9.538E+00	1.566E+01	2.148E+00	0.146
		778.00		-7.920E-01	2.661E+01	4.456E+01	2.687E+00	-0.018
TC-99M		140.51	*	1.221E+08	2.661E+01	Half-Life too short		
RH-101		127.23		1.137E-02	3.722E-02	6.177E-02	3.688E-03	0.184
		198.01	*	-4.392E-02	3.982E-02	5.811E-02	3.264E-03	-0.756
		325.23		2.637E-01	2.687E-01	4.188E-01	2.483E-02	0.630
RH-102		418.52		6.688E-02	3.205E-01	5.377E-01	3.012E-02	0.124
		475.06	*	1.824E-02	3.203E-02	5.472E-02	3.081E-03	0.333
		631.29		-1.629E-02	5.732E-02	9.073E-02	4.656E-03	-0.180
		697.49		2.683E-04	8.265E-02	1.334E-01	7.023E-03	0.002
		766.84		2.108E-01	1.273E-01	2.285E-01	1.353E-02	0.923
		1046.59		-9.306E-02	1.146E-01	1.721E-01	1.157E-02	-0.541
		1112.84		-1.922E-02	2.742E-01	3.996E-01	2.533E-02	-0.048
RU-103		497.08	*	1.275E-02	3.873E-02	6.523E-02	8.192E-03	0.195
	+	610.33		8.775E+00	2.292E+00	2.628E+00	4.000E-01	3.339
RH-106	+	511.85		5.075E-01	3.872E-01	4.194E-01	2.344E-02	1.210
		621.84	*	8.864E-02	3.428E-01	5.683E-01	6.504E-02	0.156
		1050.47		8.673E-01	2.104E+00	3.628E+00	2.431E-01	0.239
RU-106	+	511.85		5.075E-01	3.872E-01	4.194E-01	2.344E-02	1.210
		621.84	*	8.864E-02	3.427E-01	5.683E-01	2.947E-02	0.156
		1050.47		8.673E-01	2.104E+00	3.628E+00	2.431E-01	0.239
AG-108M		433.93	*	-1.437E-02	3.649E-02	5.885E-02	3.609E-03	-0.244
		614.37		-7.790E-03	4.727E-02	6.509E-02	3.754E-03	-0.120
		722.95		1.035E-02	4.737E-02	6.765E-02	4.070E-03	0.153
AG-110M		657.75	*	5.245E-03	4.225E-02	5.993E-02	3.235E-03	0.088
		677.61		1.237E-01	3.324E-01	5.452E-01	2.990E-02	0.227
		706.67		-1.442E-03	2.259E-01	3.641E-01	2.084E-02	-0.004
		763.93		3.500E-02	1.949E-01	3.173E-01	1.981E-02	0.110
		884.67		1.036E-02	5.510E-02	9.329E-02	6.952E-03	0.111
		937.48		-1.071E-01	1.125E-01	1.686E-01	1.270E-02	-0.635
		1384.27		-4.415E-02	1.477E-01	2.276E-01	1.508E-02	-0.194
IN-111		171.28		3.486E-01	8.685E-01	1.434E+00	7.796E-02	0.243
		245.39	*	8.334E-01	1.010E+00	1.489E+00	8.753E-02	0.560
IN-113M		391.69	*	-1.111E-02	4.710E-02	7.717E-02	4.593E-03	-0.144
SN-113		391.69	*	-1.111E-02	4.710E-02	7.717E-02	4.593E-03	-0.144

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-114M		190.27	*	-7.841E-02	2.222E-01	3.079E-01	1.713E-02	-0.255
CD-115		260.90		-1.262E+01	9.926E+01	1.577E+02	9.350E+00	-0.080
		492.35		-2.651E+00	2.433E+01	3.966E+01	2.228E+00	-0.067
		527.90	*	8.300E+00	7.485E+00	1.328E+01	7.379E-01	0.625
SN-117M		156.02		-1.456E+00	2.354E+00	3.745E+00	2.069E-01	-0.389
		158.56	*	4.165E-02	5.722E-02	9.587E-02	5.267E-03	0.434
SB-122		563.90	*	-4.205E-01	1.657E+00	2.654E+00	1.446E-01	-0.158
		692.80		-4.575E+01	3.633E+01	5.018E+01	2.620E+00	-0.912
I-123		159.00	*	2.922E-02	3.633E+01	Half-Life too short		
		528.96		1.531E+02	3.633E+01	Half-Life too short		
TE-123M		159.00	*	6.621E-04	3.192E-02	5.207E-02	2.900E-03	0.013
I-124		602.71	*	-2.195E-02	7.195E-01	1.008E+00	5.328E-02	-0.022
		722.78		9.356E-01	4.054E+00	5.799E+00	3.189E-01	0.161
		1325.50		2.242E+01	2.941E+01	5.223E+01	3.274E+00	0.429
		1376.25		4.373E+01	2.322E+01	4.670E+01	2.940E+00	0.936
		1509.49		2.601E+00	1.206E+01	2.015E+01	1.261E+00	0.129
		1691.02		5.526E-01	2.485E+00	4.339E+00	2.609E-01	0.127
SB-124		602.71		-1.537E-03	5.039E-02	7.060E-02	3.733E-03	-0.022
		645.85		2.441E-02	5.141E-01	8.367E-01	4.923E-02	0.029
		709.31		1.534E+00	2.900E+00	4.888E+00	2.626E-01	0.314
		713.82		-1.301E+00	1.721E+00	2.571E+00	2.571E-01	-0.506
		722.78		9.498E-02	4.115E-01	5.887E-01	3.407E-02	0.161
	+	968.20		8.921E+00	3.989E+00	6.625E+00	4.676E-01	1.347
		1045.16		8.590E-01	2.386E+00	4.084E+00	2.747E-01	0.210
		1325.50		2.430E+00	3.188E+00	5.663E+00	3.550E-01	0.429
		1368.21		-6.916E-01	1.521E+00	2.268E+00	2.750E-01	-0.305
		1436.60		-2.716E+00	3.242E+00	4.360E+00	2.744E-01	-0.623
		1691.02	*	1.323E-02	5.950E-02	1.039E-01	6.746E-03	0.127
SB-125		427.89	*	-5.844E-02	9.825E-02	1.562E-01	9.166E-03	-0.374
		463.38		3.135E-01	3.256E-01	5.659E-01	3.747E-02	0.554
		600.56		6.113E-02	2.224E-01	3.362E-01	2.111E-02	0.182
		635.90		-1.063E-02	2.874E-01	4.648E-01	2.885E-02	-0.023
TE-125M		109.28	*	-1.106E+01	1.204E+01	1.904E+01	1.730E+00	-0.581
I-126		388.63		8.414E-02	2.063E-01	3.512E-01	1.957E-02	0.240
		666.33	*	1.626E-01	2.018E-01	3.087E-01	1.537E-02	0.527
		753.82		3.912E-01	1.488E+00	2.448E+00	1.418E-01	0.160
SB-126		223.80		1.276E+00	4.293E+00	7.002E+00	4.045E-01	0.182
		278.60		-7.286E-01	2.490E+00	4.143E+00	2.472E-01	-0.176
	+	296.50		9.468E+00	2.080E+00	3.363E+00	2.009E-01	2.815
		414.70		-4.441E-02	8.805E-02	1.209E-01	6.764E-03	-0.367
		415.30		1.493E+00	6.835E+00	1.048E+01	5.864E-01	0.142
		555.20		-3.047E+00	4.200E+00	6.483E+00	3.552E-01	-0.470
		573.80		-1.017E+00	1.109E+00	1.623E+00	8.784E-02	-0.627
		593.00		-2.309E-01	9.357E-01	1.493E+00	7.962E-02	-0.155
		656.30		1.381E+00	3.548E+00	5.207E+00	2.590E-01	0.265
		666.33		6.776E-02	8.411E-02	1.286E-01	6.405E-03	0.527
		675.00		-6.733E-01	1.985E+00	3.113E+00	1.575E-01	-0.216
		695.00		-2.514E-03	8.187E-02	1.277E-01	6.693E-03	-0.020
		697.00		9.734E-02	2.654E-01	4.415E-01	2.322E-02	0.220

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		720.50	*	3.435E-02	1.548E-01	2.213E-01	1.212E-02	0.155
		856.80		1.794E-02	5.245E-01	7.581E-01	5.175E-02	0.024
		989.30		3.771E-01	1.086E+00	1.865E+00	1.302E-01	0.202
		1034.80		-6.394E+00	8.788E+00	1.342E+01	9.095E-01	-0.477
		1213.00		-2.733E-01	4.729E+00	7.690E+00	4.628E-01	-0.036
SB-127		61.10		3.429E+02	8.935E+01	1.351E+02	1.513E+01	2.538
		252.40		-2.284E-01	3.994E+00	6.377E+00	2.644E+00	-0.036
		290.80		-6.571E+00	2.104E+01	3.020E+01	2.671E+00	-0.218
	+	411.60		9.272E+00	1.548E+01	1.797E+01	2.519E+00	0.516
		444.90		9.218E-01	8.447E+00	1.406E+01	1.452E+00	0.066
		473.00		-1.510E+00	1.511E+00	2.303E+00	2.472E-01	-0.656
		543.00		-8.913E+00	1.518E+01	2.370E+01	2.957E+00	-0.376
		603.60		2.023E+00	1.193E+01	1.706E+01	1.726E+00	0.119
		685.20	*	3.333E-01	1.154E+00	1.911E+00	1.645E-01	0.174
		698.50		4.390E+00	1.303E+01	2.159E+01	3.023E+00	0.203
		722.20		9.816E+00	2.726E+01	3.962E+01	3.380E+00	0.248
		783.80		1.022E+00	2.987E+00	5.145E+00	5.377E-01	0.199
XE-127		57.60		4.116E-01	1.001E+01	1.483E+01	1.365E+00	0.028
		145.22		1.116E+00	8.750E-01	1.330E+00	7.536E-02	0.839
		172.10		3.128E-02	1.367E-01	2.242E-01	1.220E-02	0.140
		202.84	*	1.871E-02	5.836E-02	8.394E-02	4.742E-03	0.223
		374.96		9.050E-02	2.058E-01	3.514E-01	1.995E-02	0.258
I-131		80.18		-7.596E+00	8.886E+00	8.883E+00	8.294E-01	-0.855
		284.30		1.939E+00	1.492E+00	2.649E+00	1.747E-01	0.732
		364.48	*	3.745E-02	1.128E-01	1.916E-01	1.230E-02	0.195
		636.97		2.087E-01	1.460E+00	2.397E+00	1.405E-01	0.087
		722.89		1.602E+00	7.192E+00	1.028E+01	5.727E-01	0.156
TE-132		49.72		-3.783E+01	2.442E+01	3.871E+01	4.098E+00	-0.977
		111.76		7.852E+01	3.133E+01	5.399E+01	4.953E+00	1.454
		116.30		-5.720E+01	2.650E+01	3.959E+01	3.525E+00	-1.445
		228.16	*	-4.141E-01	6.239E-01	9.685E-01	1.368E-01	-0.428
BA-133		53.15		6.355E+00	5.731E+00	9.869E+00	9.009E-01	0.644
		79.62		-1.855E+00	2.791E+00	2.822E+00	4.401E-01	-0.657
		81.00		-1.946E-02	1.997E-01	2.103E-01	3.425E-02	-0.092
		276.40		3.260E-01	4.129E-01	6.823E-01	8.896E-02	0.478
		302.84		-8.285E-02	1.567E-01	2.562E-01	3.009E-02	-0.323
		356.01	*	-3.712E-02	5.169E-02	7.016E-02	8.110E-03	-0.529
		383.85		1.884E-01	3.367E-01	5.766E-01	6.211E-02	0.327
I-133	+	510.53		3.944E-01	3.367E-01	Half-Life too short		
		529.87	*	1.621E-03	3.367E-01	Half-Life too short		
		706.58		3.739E-03	3.367E-01	Half-Life too short		
		856.28		-1.688E-02	3.367E-01	Half-Life too short		
		875.33		-1.090E-02	3.367E-01	Half-Life too short		
		1236.41		2.290E-01	3.367E-01	Half-Life too short		
		1298.22		-3.008E-02	3.367E-01	Half-Life too short		
CS-134		475.35		1.453E+00	2.092E+00	3.602E+00	2.028E-01	0.403
		563.23		-3.615E-01	3.962E-01	6.009E-01	3.353E-02	-0.602
		569.32		9.496E-02	2.027E-01	3.428E-01	1.924E-02	0.277
		604.70		6.018E-03	4.344E-02	6.191E-02	3.288E-03	0.097

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	+	795.84	*	1.017E-01	7.304E-02	9.419E-02	5.928E-03	1.079
		801.93		-2.862E-01	4.757E-01	6.342E-01	4.017E-02	-0.451
		1038.57		-8.552E-01	4.185E+00	6.771E+00	4.578E-01	-0.126
		1167.94		-2.684E-01	2.765E+00	4.491E+00	2.675E-01	-0.060
		1365.15		-5.988E-02	1.059E+00	1.702E+00	1.161E-01	-0.035
CS-135		268.24	*	1.272E-01	1.804E-01	2.979E-01	2.315E-02	0.427
I-135		288.45		-2.421E+09	1.804E-01	Half-Life too short		
		417.63		-2.841E+08	1.804E-01	Half-Life too short		
		546.56		-4.990E+07	1.804E-01	Half-Life too short		
	+	836.80		4.869E+08	1.804E-01	Half-Life too short		
		1038.76		-5.396E+07	1.804E-01	Half-Life too short		
		1124.00		1.949E+08	1.804E-01	Half-Life too short		
		1131.51		2.165E+08	1.804E-01	Half-Life too short		
		1260.41	*	-1.728E+08	1.804E-01	Half-Life too short		
		1457.56		4.013E+10	1.804E-01	Half-Life too short		
		1678.03		-9.612E+06	1.804E-01	Half-Life too short		
		1706.46		-3.080E+08	1.804E-01	Half-Life too short		
		1791.20		-5.636E+07	1.804E-01	Half-Life too short		
CS-136		66.91		-1.790E-01	1.299E+00	1.605E+00	2.505E-01	-0.112
	+	86.29		3.465E+00	1.631E+00	2.417E+00	3.292E-01	1.433
		153.22		-2.610E-01	6.790E-01	1.091E+00	7.674E-02	-0.239
		163.89		1.264E+00	1.149E+00	1.944E+00	1.352E-01	0.650
		176.55		1.163E-01	3.936E-01	6.467E-01	4.025E-02	0.180
		273.65		-6.775E-01	5.093E-01	7.554E-01	5.101E-02	-0.897
		340.57		6.545E-02	1.386E-01	2.087E-01	1.301E-02	0.314
		818.51		-2.177E-02	7.073E-02	1.151E-01	7.414E-03	-0.189
		1048.07	*	-1.102E-01	1.018E-01	1.474E-01	1.058E-02	-0.747
		1235.34		4.712E-01	6.657E-01	1.142E+00	1.159E-01	0.413
CE-139		165.85	*	-3.316E-02	3.462E-02	5.419E-02	2.930E-03	-0.612
BA-140		162.64		4.388E-01	8.136E-01	1.352E+00	8.390E-02	0.325
		304.84		-9.038E-01	1.275E+00	2.025E+00	5.534E-01	-0.446
		423.70		1.098E+00	1.979E+00	3.337E+00	1.059E+00	0.329
		537.32	*	4.210E-01	3.049E-01	4.933E-01	1.602E-01	0.853
LA-140	+	328.77		4.332E-01	3.789E-01	5.534E-01	3.653E-02	0.783
		432.53		8.768E-01	2.097E+00	3.561E+00	2.223E-01	0.246
		487.03		5.433E-02	1.385E-01	2.340E-01	1.500E-02	0.232
		751.79		6.116E-02	1.729E+00	2.787E+00	1.973E-01	0.022
		815.85		-1.518E-01	2.895E-01	4.598E-01	3.537E-02	-0.330
		867.82		3.238E-01	1.601E+00	2.362E+00	1.772E-01	0.137
		919.63		3.645E-02	2.700E+00	4.399E+00	4.197E-01	0.008
		925.24		4.459E-01	1.016E+00	1.762E+00	1.380E-01	0.253
		1596.49	*	-2.032E-02	8.099E-02	1.299E-01	8.013E-03	-0.156
CE-141		145.44	*	7.543E-02	7.830E-02	1.175E-01	6.931E-03	0.642
CE-143		57.37		-9.959E-05	7.830E-02	Half-Life too short		
		231.56		-6.158E-04	7.830E-02	Half-Life too short		
		293.26	*	5.282E-04	7.830E-02	Half-Life too short		
	+	350.59		1.248E-02	7.830E-02	Half-Life too short		
		490.36		-8.113E-04	7.830E-02	Half-Life too short		
		664.57		1.172E-03	7.830E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		721.93		3.502E-04	7.830E-02	Half-Life too short		
CE-144		80.11		-3.783E+00	4.528E+00	4.534E+00	4.211E-01	-0.834
		133.54	*	1.407E-02	2.408E-01	3.957E-01	5.627E-02	0.036
PM-144		476.78		3.270E-02	7.507E-02	1.249E-01	8.494E-03	0.262
		618.01		1.348E-02	3.379E-02	5.667E-02	3.168E-03	0.238
		696.49	*	3.146E-02	3.553E-02	6.160E-02	3.239E-03	0.511
		778.57		8.416E-01	2.439E+00	4.204E+00	2.539E-01	0.200
PR-144		696.49	*	2.130E+00	2.406E+00	4.171E+00	2.192E-01	0.511
		1489.15		-3.068E+00	1.194E+01	1.839E+01	1.153E+00	-0.167
PM-146		453.90	*	5.009E-03	4.649E-02	7.729E-02	6.578E-03	0.065
		633.02		5.436E-01	1.454E+00	2.413E+00	8.861E-01	0.225
		735.90		-6.888E-02	1.939E-01	2.551E-01	7.103E-02	-0.270
		747.13		-8.897E-02	1.035E-01	1.523E-01	1.900E-02	-0.584
ND-147	+	91.11		8.891E+00	1.004E+00	1.015E+00	1.012E-01	8.757
		319.41		-2.418E+00	3.364E+00	5.428E+00	3.227E-01	-0.446
		439.89		1.290E+00	5.733E+00	9.618E+00	5.414E-01	0.134
		531.02	*	-1.259E-01	5.575E-01	8.971E-01	1.204E-01	-0.140
PM-149		285.90	*	4.639E+01	6.851E+01	1.185E+02	1.687E+01	0.392
EU-152		121.78		-6.193E-02	8.551E-02	1.367E-01	1.074E-02	-0.453
		244.69		3.451E-01	4.140E-01	6.111E-01	3.591E-02	0.565
		344.27	*	1.744E-02	1.463E-01	1.702E-01	1.121E-02	0.102
		443.98		-2.660E-02	1.031E+00	1.701E+00	9.574E-02	-0.016
		778.89		9.738E-02	2.821E-01	4.863E-01	2.937E-02	0.200
		867.32		5.843E-01	9.642E-01	1.497E+00	1.038E-01	0.390
		964.01		5.449E-01	3.385E-01	5.714E-01	4.042E-02	0.954
		1085.78		-2.691E-01	4.417E-01	6.833E-01	4.445E-02	-0.394
		1112.02		1.001E-01	3.575E-01	5.771E-01	3.661E-02	0.174
		1407.95		8.656E-02	1.777E-01	3.082E-01	1.941E-02	0.281
GD-153		69.67		7.507E-01	2.497E+00	3.710E+00	3.312E-01	0.202
	+	83.37		3.389E+01	2.340E+01	3.452E+01	3.280E+00	0.982
	+	97.43	*	4.121E-01	1.416E-01	1.809E-01	1.512E-02	2.278
		103.18		8.221E-02	1.384E-01	2.062E-01	1.584E-02	0.399
EU-154		123.07		1.664E-02	5.927E-02	9.840E-02	9.421E-03	0.169
		247.94		9.754E-02	4.153E-01	6.732E-01	6.460E-02	0.145
		591.81		-2.501E-01	6.689E-01	1.056E+00	1.004E-01	-0.237
		723.30		4.627E-02	2.065E-01	2.948E-01	2.016E-02	0.157
		756.87		3.127E-01	8.440E-01	1.400E+00	1.421E-01	0.223
		873.19		1.740E-01	3.058E-01	5.352E-01	5.974E-02	0.325
		996.32		1.143E-02	4.379E-01	6.255E-01	1.064E-01	0.018
		1004.76		-2.261E-02	2.295E-01	3.212E-01	3.354E-02	-0.070
		1274.45	*	-1.681E-01	1.272E-01	1.722E-01	1.648E-02	-0.976
EU-155		48.70		-5.402E+00	3.891E+00	6.239E+00	5.225E-01	-0.866
		60.01		9.122E+00	8.119E+00	1.242E+01	1.138E+00	0.735
	+	86.54		3.406E-01	1.571E-01	2.346E-01	2.306E-02	1.452
		105.31	*	4.759E-02	1.289E-01	2.141E-01	1.624E-02	0.222
TB-160	+	86.79		8.997E-01	4.148E-01	6.130E-01	5.991E-02	1.468
		197.04		-2.131E-01	6.398E-01	1.004E+00	5.634E-02	-0.212
		215.65		-3.157E-01	8.313E-01	1.297E+00	7.433E-02	-0.243
		298.57		1.760E-01	1.326E-01	2.106E-01	1.258E-02	0.836

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	-1.148E-01	1.486E-01	2.298E-01	1.623E-02	-0.500
		962.29		8.948E-01	5.901E-01	1.017E+00	7.196E-02	0.880
		966.15		8.432E-01	2.945E-01	5.202E-01	3.676E-02	1.621
		1177.93		2.820E-02	3.931E-01	6.481E-01	3.843E-02	0.044
		1271.85		-3.977E-01	7.088E-01	1.077E+00	6.631E-02	-0.369
HO-166M		80.57		-4.725E-01	5.805E-01	5.821E-01	5.423E-02	-0.812
	+	184.41		2.659E-01	6.637E-02	8.955E-02	4.947E-03	2.970
		280.46		-5.285E-02	9.264E-02	1.521E-01	9.075E-03	-0.348
	+	410.95		2.304E-01	3.836E-01	4.619E-01	2.581E-02	0.499
		711.68	*	-5.792E-03	6.418E-02	1.026E-01	5.536E-03	-0.056
		752.31		1.216E-01	2.952E-01	4.919E-01	2.844E-02	0.247
		810.29		-3.081E-02	5.608E-02	8.890E-02	5.646E-03	-0.347
TM-171		51.35		3.398E+01	4.888E+01	8.362E+01	7.499E+00	0.406
		52.39		2.897E+01	2.532E+01	4.365E+01	3.962E+00	0.664
		59.40		4.905E+01	4.353E+01	6.665E+01	6.126E+00	0.736
		66.72	*	-3.074E+01	4.658E+01	6.204E+01	5.542E+00	-0.495
LU-176	+	88.36		6.710E-01	3.094E-01	4.732E-01	4.641E-02	1.418
		201.83		-8.769E-03	3.645E-02	5.071E-02	2.861E-03	-0.173
		306.84	*	-1.121E-02	2.505E-02	4.106E-02	2.449E-03	-0.273
		401.10		-7.886E-03	7.427E+00	1.201E+01	6.687E-01	-0.001
LU-177		112.95		6.080E+00	1.894E+00	3.341E+00	2.264E-01	1.820
	+	208.36	*	8.278E-01	1.432E+00	1.852E+00	1.053E-01	0.447
LU-177M		52.97		2.537E+00	2.592E+00	4.453E+00	4.061E-01	0.570
		54.07		1.256E+00	1.339E+00	2.299E+00	2.108E-01	0.546
		61.30		1.478E+01	2.987E+00	4.592E+00	4.176E-01	3.218
		121.62		-3.117E-01	4.340E-01	6.945E-01	4.253E-02	-0.449
		147.16		1.677E-01	8.113E-01	1.174E+00	6.623E-02	0.143
		171.86		1.586E-01	5.618E-01	9.233E-01	5.023E-02	0.172
		218.09		1.175E-01	9.654E-01	1.542E+00	8.857E-02	0.076
		268.79		8.021E-01	9.153E-01	1.523E+00	9.060E-02	0.527
		319.02		-2.279E-01	2.839E-01	4.562E-01	2.711E-02	-0.500
		367.43		2.906E-01	9.494E-01	1.611E+00	9.228E-02	0.180
		413.65	*	-1.083E-01	2.160E-01	2.966E-01	1.659E-02	-0.365
HF-181		56.28		-1.648E+00	1.488E+00	2.323E+00	2.138E-01	-0.710
		57.53		-1.699E-01	8.534E-01	1.252E+00	1.152E-01	-0.136
		65.20		3.388E+00	1.501E+00	2.335E+00	2.092E-01	1.451
		133.02		-7.051E-03	7.762E-02	1.269E-01	7.434E-03	-0.056
		136.25		-5.118E-01	5.308E-01	8.310E-01	4.821E-02	-0.616
		345.85		1.133E-01	2.358E-01	3.375E-01	1.974E-02	0.336
		482.03	*	-3.080E-02	4.737E-02	7.449E-02	4.192E-03	-0.413
W-181		56.28		-6.535E-01	5.898E-01	9.209E-01	8.477E-02	-0.710
		57.53		-6.754E-02	3.386E-01	4.967E-01	4.572E-02	-0.136
		65.20	*	1.334E+00	5.909E-01	9.192E-01	8.234E-02	1.451
TA-182		67.75		1.372E-01	2.228E-01	2.473E-01	2.207E-02	0.555
		100.10		6.386E-01	2.499E-01	3.947E-01	3.168E-02	1.618
		152.43		4.537E-02	3.653E-01	5.993E-01	3.338E-02	0.076
		222.10		-5.484E-02	3.943E-01	6.309E-01	3.638E-02	-0.087
	+	1001.68		9.169E+00	3.977E+00	5.699E+00	3.948E-01	1.609
	+	1121.28		5.752E-01	2.327E-01	3.619E-01	2.274E-02	1.590

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		-8.817E-02	3.294E-01	5.254E-01	3.130E-02	-0.168
		1221.42	*	-7.473E-02	2.144E-01	3.391E-01	2.048E-02	-0.220
		1230.97		-3.395E-01	5.862E-01	9.134E-01	5.537E-02	-0.372
RE-183		57.98		6.528E-02	3.282E-01	4.888E-01	4.498E-02	0.134
		59.32		1.954E-01	1.771E-01	2.711E-01	2.491E-02	0.721
		67.20		4.301E-02	3.502E-01	4.384E-01	3.914E-02	0.098
		162.32	*	5.182E-02	1.253E-01	2.073E-01	1.129E-02	0.250
	+	208.81		8.330E-01	1.441E+00	1.877E+00	1.068E-01	0.444
		291.72		4.897E-01	1.114E+00	1.683E+00	1.005E-01	0.291
RE-184		57.98		2.422E-01	1.218E+00	1.814E+00	1.669E-01	0.134
		59.32		7.246E-01	6.568E-01	1.005E+00	9.238E-02	0.721
		67.20		1.596E-01	1.299E+00	1.626E+00	1.452E-01	0.098
		161.27		1.216E-01	4.018E-01	6.623E-01	3.616E-02	0.184
		216.55		-2.916E-02	2.986E-01	4.722E-01	2.708E-02	-0.062
		252.85	*	1.177E-01	2.595E-01	4.251E-01	2.511E-02	0.277
		318.01		-1.558E-01	4.872E-01	8.038E-01	4.779E-02	-0.194
		792.07		1.426E+00	1.293E+00	2.078E+00	1.282E-01	0.686
		903.28		4.896E-01	1.097E+00	1.679E+00	1.217E-01	0.292
		920.93		3.315E-02	4.488E-01	7.517E-01	5.416E-02	0.044
OS-185		59.72		4.600E-01	4.784E-01	7.288E-01	6.688E-02	0.631
		61.14		1.270E+00	3.077E-01	4.796E-01	4.365E-02	2.648
		69.30		-5.036E-03	4.416E-01	6.491E-01	5.792E-02	-0.008
		592.07		-3.019E-01	2.676E+00	4.319E+00	2.304E-01	-0.070
		646.12	*	-2.773E-03	4.454E-02	7.181E-02	3.620E-03	-0.039
		717.42		3.813E-01	9.089E-01	1.520E+00	8.285E-02	0.251
		874.81		7.740E-02	6.106E-01	1.030E+00	7.224E-02	0.075
		880.27		-2.059E-01	8.370E-01	1.365E+00	9.651E-02	-0.151
RE-188		155.03	*	-2.038E-02	1.856E-01	3.016E-01	1.670E-02	-0.068
		477.96		2.044E+00	3.424E+00	5.755E+00	3.240E-01	0.355
		633.10		1.238E+00	2.891E+00	4.861E+00	2.489E-01	0.255
W-188	+	63.58		7.950E+02	1.497E+02	1.680E+02	1.512E+01	4.731
		227.08		-4.214E+00	1.452E+01	2.304E+01	1.335E+00	-0.183
		290.67	*	-2.793E+00	8.945E+00	1.284E+01	7.671E-01	-0.218
IR-192	+	295.96		7.671E-01	1.687E-01	2.754E-01	1.670E-02	2.786
		308.46		-7.800E-02	9.584E-02	1.536E-01	9.258E-03	-0.508
		316.51	*	2.051E-02	3.689E-02	6.359E-02	3.801E-03	0.322
		468.07		5.431E-02	7.485E-02	1.288E-01	8.427E-03	0.422
		604.41		3.857E-02	5.788E-01	8.190E-01	9.084E-02	0.047
		612.46		-1.113E-02	8.406E-01	1.178E+00	8.426E-02	-0.009
AU-195		65.12		7.126E-01	2.785E-01	4.346E-01	3.893E-02	1.640
		66.83		-1.000E-01	1.534E-01	2.043E-01	1.825E-02	-0.490
	+	75.70		1.010E+00	3.321E-01	5.278E-01	4.787E-02	1.913
	+	98.88	*	1.199E+00	4.118E-01	5.254E-01	4.295E-02	2.281
		129.76		3.578E+00	3.345E+00	5.677E+00	3.360E-01	0.630
TL-200		367.94	*	-6.307E-06	3.345E+00	Half-Life too short		
		579.30		1.818E-03	3.345E+00	Half-Life too short		
		828.27		-1.056E-03	3.345E+00	Half-Life too short		
		1205.75		-2.241E-04	3.345E+00	Half-Life too short		
TL-201		68.90		1.109E-01	5.842E+00	8.018E+00	7.155E-01	0.014

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		70.82		5.925E+00	3.109E+00	4.804E+00	4.294E-01	1.233
		80.30		-7.117E+00	8.156E+00	8.142E+00	7.572E-01	-0.874
		135.34		-1.512E+01	2.305E+01	3.658E+01	2.128E+00	-0.413
		167.43	*	-4.879E+00	6.164E+00	9.712E+00	5.256E-01	-0.502
TL-202		68.90		1.226E-02	6.459E-01	8.866E-01	7.911E-02	0.014
		70.82		6.534E-01	3.428E-01	5.298E-01	4.735E-02	1.233
		80.30		-7.850E-01	8.997E-01	8.981E-01	8.352E-02	-0.874
		439.56	*	2.365E-02	6.832E-02	1.155E-01	6.499E-03	0.205
HG-203		70.83		2.979E+00	1.594E+00	2.415E+00	3.334E-01	1.234
		72.87		2.578E+00	9.057E-01	1.492E+00	2.006E-01	1.727
	+	82.60		2.483E+00	1.735E+00	2.511E+00	3.585E-01	0.989
		279.20	*	-2.663E-02	4.385E-02	7.189E-02	4.540E-03	-0.371
BI-207		72.80		7.228E-01	2.574E-01	4.427E-01	3.974E-02	1.633
	+	74.97		5.627E-01	1.851E-01	2.810E-01	2.541E-02	2.003
	+	84.90		4.399E-01	3.037E-01	4.546E-01	4.373E-02	0.968
		569.67		8.520E-03	3.213E-02	5.350E-02	2.904E-03	0.159
		1063.62	*	1.768E-02	5.583E-02	9.481E-02	6.286E-03	0.186
		1770.23		-5.081E-01	5.375E-01	5.119E-01	2.990E-02	-0.992
TL-207		81.07		-4.185E-02	4.407E-01	4.642E-01	4.339E-02	-0.090
	+	83.78		2.900E-01	2.002E-01	2.936E-01	2.799E-02	0.988
		94.90		2.064E+00	4.499E-01	5.807E-01	5.056E-02	3.555
		122.32		-6.663E-01	2.020E+00	3.281E+00	2.281E-01	-0.203
	+	144.24		1.635E+00	9.111E-01	1.370E+00	9.781E-02	1.193
		154.21		-1.816E-01	4.318E-01	6.928E-01	4.715E-02	-0.262
		269.46		2.621E-01	2.184E-01	3.681E-01	2.285E-02	0.712
		323.87	*	-5.333E-02	8.131E-01	1.180E+00	1.955E-01	-0.045
	+	338.28		5.283E+00	1.698E+00	2.318E+00	2.452E-01	2.279
		445.03		3.532E-01	2.452E+00	4.089E+00	4.160E-01	0.086
PO-209		260.50		9.749E-01	1.069E+01	1.718E+01	1.019E+00	0.057
		262.80		-2.986E+01	2.988E+01	4.506E+01	2.674E+00	-0.663
		896.60	*	-4.134E+00	7.206E+00	1.108E+01	8.030E-01	-0.373
BI-210		46.50	*	-2.277E+00	5.624E+00	9.293E+00	7.651E-01	-0.245
PB-210		46.50	*	-2.277E+00	5.624E+00	9.293E+00	7.651E-01	-0.245
PO-210		46.50	*	-2.277E+00	5.623E+00	9.293E+00	6.712E-01	-0.245
PB-211		404.84	*	-5.977E-02	1.097E+00	1.572E+00	9.796E-01	-0.038
		427.08		-1.701E+00	2.414E+00	3.411E+00	2.108E+00	-0.499
		831.96		-1.098E-01	1.303E+00	1.855E+00	1.158E+00	-0.059
BI-212	+	727.18	*	1.003E+00	6.271E-01	6.439E-01	4.842E-02	1.557
		785.46		-6.684E-02	1.812E+00	3.032E+00	1.850E-01	-0.022
		1620.62		7.694E-01	1.002E+00	1.910E+00	1.172E-01	0.403
PO-215		81.07		-4.185E-02	4.407E-01	4.642E-01	4.339E-02	-0.090
	+	83.78		2.900E-01	2.002E-01	2.936E-01	2.799E-02	0.988
		94.90		2.064E+00	4.499E-01	5.807E-01	5.056E-02	3.555
		122.32		-6.663E-01	2.020E+00	3.281E+00	2.281E-01	-0.203
	+	144.24		1.635E+00	9.111E-01	1.370E+00	9.781E-02	1.193
		154.21		-1.816E-01	4.318E-01	6.928E-01	4.715E-02	-0.262
		269.46		2.621E-01	2.184E-01	3.681E-01	2.285E-02	0.712
		323.87	*	-5.333E-02	8.131E-01	1.180E+00	1.955E-01	-0.045
	+	338.28		5.283E+00	1.698E+00	2.318E+00	2.452E-01	2.279

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		3.532E-01	2.452E+00	4.089E+00	4.160E-01	0.086
RN-219		271.23		3.219E-01	2.823E-01	4.735E-01	3.890E-02	0.680
		401.81	*	-3.616E-01	4.811E-01	7.098E-01	9.589E-02	-0.509
RN-220		549.76	*	4.291E+00	2.893E+01	4.781E+01	2.628E+00	0.090
RA-223		81.07		-4.185E-02	4.407E-01	4.642E-01	4.339E-02	-0.090
	+	83.78		2.900E-01	2.002E-01	2.936E-01	2.799E-02	0.988
		94.90		2.064E+00	4.499E-01	5.807E-01	5.056E-02	3.555
		122.32		-6.663E-01	2.020E+00	3.281E+00	2.281E-01	-0.203
	+	144.24		1.635E+00	9.111E-01	1.370E+00	9.781E-02	1.193
		154.21		-1.816E-01	4.318E-01	6.928E-01	4.715E-02	-0.262
		269.46		2.621E-01	2.184E-01	3.681E-01	2.285E-02	0.712
		323.87	*	-5.333E-02	8.131E-01	1.180E+00	1.955E-01	-0.045
	+	338.28		5.283E+00	1.698E+00	2.318E+00	2.452E-01	2.279
		445.03		3.532E-01	2.452E+00	4.089E+00	4.160E-01	0.086
AC-227		79.80		-2.583E+00	3.560E+00	3.557E+00	7.744E-01	-0.726
		236.00		1.635E+00	3.829E-01	5.887E-01	6.166E-02	2.776
		256.20	*	2.977E-01	4.452E-01	7.330E-01	1.027E-01	0.406
		286.10		3.539E-01	1.690E+00	2.873E+00	3.346E-01	0.123
		299.80		2.350E+00	1.774E+00	2.761E+00	4.513E-01	0.851
		304.40		-1.754E+00	2.030E+00	3.227E+00	5.600E-01	-0.543
		334.20		-6.660E-01	3.083E+00	3.841E+00	7.054E-01	-0.173
TH-227		79.80		-2.583E+00	3.562E+00	3.557E+00	7.841E-01	-0.726
		94.00		4.820E+01	1.123E+01	7.335E+00	1.604E+00	6.572
		236.00		1.635E+00	3.733E-01	5.887E-01	5.347E-02	2.776
		256.20	*	2.977E-01	4.461E-01	7.330E-01	1.242E-01	0.406
		286.10		3.539E-01	1.726E+00	2.873E+00	2.878E+00	0.123
		299.80		2.350E+00	1.774E+00	2.761E+00	4.513E-01	0.851
		304.40		-1.754E+00	2.030E+00	3.227E+00	5.600E-01	-0.543
		334.20		-6.660E-01	3.083E+00	3.841E+00	7.054E-01	-0.173
TH-229		85.43		8.391E-01	2.957E-01	4.543E-01	4.389E-02	1.847
	+	88.47		3.863E-01	1.781E-01	2.708E-01	2.650E-02	1.427
		100.00		7.028E-01	2.629E-01	4.161E-01	3.345E-02	1.689
		193.63	*	1.286E-01	5.590E-01	9.136E-01	5.105E-02	0.141
		210.97		1.089E+00	9.511E-01	1.428E+00	8.140E-02	0.763
PA-231		283.67	*	1.626E+00	1.711E+00	2.981E+00	4.129E-01	0.546
		301.29		6.123E-01	6.476E-01	1.076E+00	1.135E-01	0.569
TH-231		81.07		-4.185E-02	4.407E-01	4.642E-01	4.339E-02	-0.090
	+	83.78		2.900E-01	2.002E-01	2.936E-01	2.799E-02	0.988
		94.90		2.064E+00	4.499E-01	5.807E-01	5.056E-02	3.555
		122.32		-6.663E-01	2.020E+00	3.281E+00	2.281E-01	-0.203
	+	144.24		1.635E+00	9.111E-01	1.370E+00	9.781E-02	1.193
		154.21		-1.816E-01	4.318E-01	6.928E-01	4.715E-02	-0.262
		269.46		2.621E-01	2.184E-01	3.681E-01	2.285E-02	0.712
		323.87	*	-5.333E-02	8.131E-01	1.180E+00	1.955E-01	-0.045
	+	338.28		5.283E+00	1.698E+00	2.318E+00	2.452E-01	2.279
		445.03		3.532E-01	2.452E+00	4.089E+00	4.160E-01	0.086
U-231	+	84.21		1.023E+01	7.064E+00	1.043E+01	9.976E-01	0.981
	+	92.29		5.964E+01	6.390E+00	6.838E+00	6.227E-01	8.721
		95.87	*	3.132E+00	1.556E+00	1.870E+00	1.602E-01	1.675

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-4.799E+00	2.133E+00	3.217E+00	2.318E-01	-1.492
PA-233	+	75.28		1.642E+01	5.789E+00	8.481E+00	1.323E+00	1.936
	+	86.59		5.539E+00	2.916E+00	3.805E+00	1.035E+00	1.456
		300.12		7.026E-01	4.910E-01	7.725E-01	1.044E-01	0.909
		311.98	*	-2.371E-02	6.524E-02	1.073E-01	6.771E-03	-0.221
		340.50		5.045E-01	7.334E-01	1.107E+00	2.545E-01	0.456
		398.62		8.436E-02	2.247E+00	3.740E+00	9.650E-01	0.023
		415.76		-2.530E-01	1.906E+00	2.952E+00	6.061E-01	-0.086
PA-234	+	63.00		2.334E+01	5.325E+00	5.106E+00	8.031E-01	4.570
		94.67		2.055E+00	3.995E-01	4.580E-01	5.718E-02	4.487
	+	98.44		4.879E-01	3.169E-01	2.150E-01	1.198E-01	2.269
	+	99.86		2.529E+00	8.688E-01	1.065E+00	8.579E-02	2.375
		111.00		4.633E-01	2.524E-01	4.261E-01	4.668E-02	1.087
		131.20		1.201E-01	1.246E-01	2.108E-01	1.242E-02	0.570
		152.70		-5.358E-02	3.561E-01	5.778E-01	9.085E-02	-0.093
	+	186.00		9.573E+00	3.736E+00	3.273E+00	9.985E-01	2.925
		226.40		8.282E-02	4.526E-01	7.342E-01	8.484E-02	0.113
		227.20		-1.319E-01	4.968E-01	7.894E-01	4.574E-02	-0.167
		248.90		-8.091E-01	9.638E-01	1.453E+00	3.126E-01	-0.557
	+	293.70		4.884E+00	1.299E+00	1.753E+00	2.830E-01	2.786
		369.80		-6.375E-01	9.190E-01	1.452E+00	3.021E-01	-0.439
		568.70		8.600E-01	1.033E+00	1.791E+00	9.729E-02	0.480
		569.50		7.561E-02	2.851E-01	4.748E-01	2.578E-02	0.159
		574.00		-6.285E-01	1.632E+00	2.505E+00	1.356E-01	-0.251
		699.00		-4.280E-01	7.908E-01	1.212E+00	2.160E-01	-0.353
		706.10		-1.025E-01	1.149E+00	1.837E+00	8.097E-01	-0.056
		733.00		4.270E-01	4.372E-01	6.717E-01	1.424E-01	0.636
		742.81		1.643E+00	1.894E+00	2.702E+00	1.808E+00	0.608
	+	796.30		1.978E+00	1.509E+00	1.799E+00	4.745E-01	1.100
		805.60		1.040E+00	1.026E+00	1.786E+00	5.373E-01	0.582
		819.60		-3.168E-01	1.346E+00	2.200E+00	8.269E-01	-0.144
		826.30		5.421E-01	9.067E-01	1.538E+00	6.826E-01	0.352
		831.60		-3.850E-02	6.753E-01	9.660E-01	2.832E-01	-0.040
		876.40		-9.956E-02	8.732E-01	1.431E+00	1.469E+00	-0.070
		880.51		-9.511E-02	3.083E-01	4.999E-01	3.537E-02	-0.190
		883.24		1.656E-01	3.271E-01	5.369E-01	3.599E-01	0.308
		899.00		-5.049E-01	8.639E-01	1.286E+00	5.590E-01	-0.393
		925.00		5.225E-01	1.118E+00	1.945E+00	1.399E-01	0.269
		926.50		-7.428E-02	1.742E-01	2.754E-01	6.838E-02	-0.270
		946.00	*	1.548E-01	3.077E-01	5.330E-01	9.663E-02	0.290
		949.00		3.819E-01	4.380E-01	7.865E-01	5.602E-02	0.486
		980.50		7.435E-01	7.507E-01	1.357E+00	9.519E-02	0.548
		1394.10		-8.200E-01	1.198E+00	1.502E+00	9.735E-01	-0.546
PA-234M		766.42		1.929E+01	1.646E+01	2.365E+01	1.191E+01	0.816
	+	1001.03	*	2.097E+01	9.156E+00	1.306E+01	1.116E+00	1.605
NP-236		94.67		1.578E+00	2.705E-01	3.488E-01	3.048E-02	4.525
	+	98.44		3.689E-01	1.267E-01	1.626E-01	1.338E-02	2.269
		111.00		3.504E-01	1.886E-01	3.223E-01	2.237E-02	1.087
		160.31	*	-7.124E-02	9.211E-02	1.455E-01	7.962E-03	-0.490

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		8.431E-01	2.896E-01	3.624E-01	2.933E-02	2.326
		117.00	*	-3.188E-01	2.239E-01	3.485E-01	2.251E-02	-0.915
	+	209.75		6.651E-01	1.150E+00	1.489E+00	8.477E-02	0.447
		228.18		-1.769E-01	2.628E-01	4.093E-01	2.374E-02	-0.432
		277.60		3.545E-02	2.002E-01	3.224E-01	1.923E-02	0.110
		334.30		-4.155E-01	1.744E+00	2.169E+00	1.279E-01	-0.192
AM-241		59.54	*	2.894E-01	2.531E-01	3.873E-01	3.787E-02	0.747
CM-243	+	99.55		8.675E-01	2.980E-01	3.729E-01	3.018E-02	2.326
		103.76	*	1.367E-01	1.284E-01	1.949E-01	1.486E-02	0.701
		117.00		-3.280E-01	2.304E-01	3.585E-01	2.316E-02	-0.915
	+	209.75		6.556E-01	1.134E+00	1.468E+00	8.356E-02	0.447
		228.18		-1.787E-01	2.655E-01	4.136E-01	2.399E-02	-0.432
		277.60		3.574E-02	2.019E-01	3.250E-01	1.938E-02	0.110
AM-246		798.80		-7.065E-02	1.563E-01	2.123E-01	1.324E-02	-0.333
		1036.00		-1.379E-01	3.113E-01	4.904E-01	3.321E-02	-0.281
		1062.04		4.400E-02	2.406E-01	4.038E-01	2.681E-02	0.109
		1078.86	*	8.828E-02	1.493E-01	2.598E-01	1.701E-02	0.340
CM-247		278.00		-1.561E-01	7.946E-01	1.328E+00	7.923E-02	-0.118
		287.40		-1.658E+00	1.367E+00	2.166E+00	1.294E-01	-0.765
		402.60	*	-1.634E-02	4.730E-02	6.616E-02	3.686E-03	-0.247
CF-249		252.85		4.438E-01	9.787E-01	1.603E+00	9.469E-02	0.277
		333.44		2.285E-01	2.596E-01	2.909E-01	1.717E-02	0.785
		387.95	*	3.306E-02	4.485E-02	7.755E-02	4.326E-03	0.426
CF-251		176.60	*	4.053E-02	1.445E-01	2.374E-01	1.299E-02	0.171
		227.00		-1.460E-01	4.401E-01	6.971E-01	4.039E-02	-0.209
		285.00		2.711E+00	1.876E+00	3.359E+00	2.006E-01	0.807

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023720    *
* Acquisition date :  2-FEB-2010 09:49:21 Detector SN#    :                *
* Detector ID        : GAM06               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.40      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 19-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202023720          Analyst initials: MXR1          *
* Batch Number       : 944966               Sample Quantity : 1.4358E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.624E+01	2.346E+00	4.565E-01	0.000E+00
CD-109	2.873E+00	1.298E+00	1.791E+00	0.000E+00
SN-126	2.829E-01	1.278E-01	1.773E-01	0.000E+00
BA-137M	1.980E-01	5.562E-02	7.417E-02	0.000E+00
CS-137	2.093E-01	5.880E-02	7.841E-02	0.000E+00
TL-208	3.085E-01	7.156E-02	6.311E-02	0.000E+00
BI-211	2.894E+00	5.034E-01	3.535E-01	0.000E+00
PB-212	1.134E+00	1.270E-01	1.065E-01	0.000E+00
PO-212	1.134E+00	1.270E-01	1.065E-01	0.000E+00
BI-214	8.301E-01	1.829E-01	1.226E-01	0.000E+00
PB-214	1.007E+00	1.825E-01	1.232E-01	0.000E+00
PO-214	1.007E+00	1.825E-01	1.232E-01	0.000E+00
PO-216	1.134E+00	1.270E-01	1.065E-01	0.000E+00
PO-218	1.007E+00	1.825E-01	1.232E-01	0.000E+00
RA-224	3.129E+00	9.165E-01	1.211E+00	0.000E+00
RA-226	8.301E-01	1.829E-01	1.226E-01	0.000E+00
AC-228	1.011E+00	3.229E-01	2.084E-01	0.000E+00
RA-228	1.011E+00	3.229E-01	2.084E-01	0.000E+00
TH-228	1.150E+00	1.288E-01	1.079E-01	0.000E+00
TH-230	8.301E-01	1.828E-01	1.226E-01	0.000E+00
TH-232	1.011E+00	3.229E-01	2.084E-01	0.000E+00
TH-234	2.002E+01	4.822E+00	3.200E+00	0.000E+00
U-234	8.301E-01	1.828E-01	1.226E-01	0.000E+00
U-235	5.044E-01	2.848E-01	3.980E-01	0.000E+00
NP-237	8.308E-01	4.113E-01	5.275E-01	0.000E+00
U-238	2.002E+01	4.822E+00	3.200E+00	0.000E+00
AM-243	3.135E-01	1.010E-01	1.295E-01	0.000E+00
ANH-511	1.018E-01	7.614E-02	4.548E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	1.806E-01	3.499E-01	6.147E-01	0.000E+00	NOT IDENT.
NA-22	-6.015E-02	4.440E-02	6.210E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.511E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.520E-02	2.511E-02	4.803E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.565E-02	9.628E-02	0.000E+00	NOT IDENT.
SC-46	-7.237E-03	3.983E-02	6.768E-02	0.000E+00	FAIL ABUN
V-48	-5.915E-03	6.537E-02	1.110E-01	0.000E+00	NOT IDENT.
CR-51	-1.419E-01	3.789E-01	6.608E-01	0.000E+00	NOT IDENT.
MN-52	4.950E-02	1.553E-01	2.735E-01	0.000E+00	NOT IDENT.
MN-54	1.408E-02	3.828E-02	6.837E-02	0.000E+00	NOT IDENT.
CO-56	1.191E-02	4.168E-02	7.394E-02	0.000E+00	NOT IDENT.
CO-57	-2.011E-02	2.881E-02	4.997E-02	0.000E+00	NOT IDENT.
CO-58	-3.029E-02	3.643E-02	5.832E-02	0.000E+00	NOT IDENT.
FE-59	-4.615E-03	9.260E-02	1.565E-01	0.000E+00	FAIL ABUN
CO-60	-1.370E-02	3.593E-02	5.664E-02	0.000E+00	NOT IDENT.
ZN-65	-9.759E-02	1.125E-01	1.439E-01	0.000E+00	NOT IDENT.
GE-68	-8.329E-01	1.310E+00	2.086E+00	0.000E+00	NOT IDENT.
AS-73	1.272E+00	1.287E+00	2.432E+00	0.000E+00	NOT IDENT.
AS-74	1.330E-02	9.544E-02	1.642E-01	0.000E+00	NOT IDENT.
SE-75	-3.328E-03	4.738E-02	8.034E-02	0.000E+00	NOT IDENT.
BR-77	5.311E+00	7.671E+00	1.319E+01	0.000E+00	FAIL ABUN
SR-82	-2.158E-01	3.953E-01	6.609E-01	0.000E+00	NOT IDENT.
RB-83	4.816E-02	7.133E-02	1.225E-01	0.000E+00	NOT IDENT.
RB-84	2.860E-02	7.350E-02	1.312E-01	0.000E+00	NOT IDENT.
KR-85	1.137E+01	7.734E+00	1.316E+01	0.000E+00	NOT IDENT.
SR-85	5.758E-02	3.916E-02	6.663E-02	0.000E+00	NOT IDENT.
RB-86	-3.663E-01	8.167E-01	1.329E+00	0.000E+00	NOT IDENT.
Y-88	6.657E-03	3.025E-02	5.337E-02	0.000E+00	NOT IDENT.
ZR-88	-9.218E-03	3.213E-02	5.542E-02	0.000E+00	NOT IDENT.
Y-91	-2.309E+00	1.853E+01	3.084E+01	0.000E+00	NOT IDENT.
NB-94	1.333E-02	3.464E-02	6.012E-02	0.000E+00	NOT IDENT.
NB-95	6.060E-02	4.783E-02	8.728E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.672E-01	2.755E-01	0.000E+00	NOT IDENT.
ZR-95	4.038E-02	7.421E-02	1.299E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.585E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.530E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.282E+00	9.347E+00	1.598E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.679E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.392E-02	3.903E-02	6.101E-02	0.000E+00	NOT IDENT.
RH-102	1.824E-02	3.139E-02	5.639E-02	0.000E+00	NOT IDENT.
RU-103	1.275E-02	3.795E-02	6.715E-02	0.000E+00	FAIL ABUN
RH-106	8.864E-02	3.359E-01	5.821E-01	0.000E+00	FAIL ABUN
RU-106	8.864E-02	3.358E-01	5.821E-01	0.000E+00	FAIL ABUN
AG-108M	-1.437E-02	3.576E-02	6.076E-02	0.000E+00	NOT IDENT.
AG-110M	5.245E-03	4.140E-02	6.131E-02	0.000E+00	NOT IDENT.
IN-111	8.334E-01	9.893E-01	1.556E+00	0.000E+00	NOT IDENT.
IN-113M	-1.111E-02	4.616E-02	7.986E-02	0.000E+00	NOT IDENT.
SN-113	-1.111E-02	4.616E-02	7.986E-02	0.000E+00	NOT IDENT.
IN-114M	-7.841E-02	2.178E-01	3.235E-01	0.000E+00	NOT IDENT.
CD-115	8.300E+00	7.335E+00	1.366E+01	0.000E+00	NOT IDENT.
SN-117M	4.165E-02	5.608E-02	1.011E-01	0.000E+00	NOT IDENT.
SB-122	-4.205E-01	1.624E+00	2.725E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.380E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	6.621E-04	3.128E-02	5.493E-02	0.000E+00	NOT IDENT.
I-124	-2.195E-02	7.052E-01	1.033E+00	0.000E+00	NOT IDENT.
SB-124	1.323E-02	5.831E-02	1.040E-01	0.000E+00	FAIL ABUN
SB-125	-5.844E-02	9.628E-02	1.613E-01	0.000E+00	NOT IDENT.
TE-125M	-1.106E+01	1.179E+01	2.024E+01	0.000E+00	NOT IDENT.
I-126	1.626E-01	1.978E-01	3.157E-01	0.000E+00	NOT IDENT.
SB-126	3.435E-02	1.517E-01	2.260E-01	0.000E+00	FAIL ABUN
SB-127	3.333E-01	1.131E+00	1.953E+00	0.000E+00	FAIL ABUN
XE-127	1.871E-02	5.719E-02	8.809E-02	0.000E+00	NOT IDENT.
I-131	3.745E-02	1.106E-01	1.986E-01	0.000E+00	NOT IDENT.
TE-132	-4.141E-01	6.114E-01	1.014E+00	0.000E+00	NOT IDENT.
BA-133	-3.712E-02	5.065E-02	7.275E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.366E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.158E-02	9.596E-02	0.000E+00	FAIL ABUN
CS-135	1.272E-01	1.768E-01	3.108E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.687E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.102E-01	9.975E-02	1.493E-01	0.000E+00	FAIL ABUN
CE-139	-3.316E-02	3.393E-02	5.711E-02	0.000E+00	NOT IDENT.
BA-140	4.210E-01	2.988E-01	5.070E-01	0.000E+00	NOT IDENT.
LA-140	-2.032E-02	7.937E-02	1.302E-01	0.000E+00	FAIL ABUN
CE-141	7.543E-02	7.673E-02	1.241E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.488E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.407E-02	2.360E-01	4.189E-01	0.000E+00	NOT IDENT.
PM-144	3.146E-02	3.482E-02	6.294E-02	0.000E+00	NOT IDENT.

PR-144	2.130E+00	2.358E+00	4.262E+00	0.000E+00	NOT IDENT.
PM-146	5.009E-03	4.556E-02	7.972E-02	0.000E+00	NOT IDENT.
ND-147	-1.259E-01	5.464E-01	9.222E-01	0.000E+00	FAIL ABUN
PM-149	4.639E+01	6.714E+01	1.234E+02	0.000E+00	NOT IDENT.
EU-152	1.744E-02	1.433E-01	1.766E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.387E-01	1.928E-01	0.000E+00	FAIL ABUN
EU-154	-1.681E-01	1.247E-01	1.736E-01	0.000E+00	NOT IDENT.
EU-155	4.759E-02	1.264E-01	2.277E-01	0.000E+00	FAIL ABUN
TB-160	-1.148E-01	1.456E-01	2.336E-01	0.000E+00	FAIL ABUN
HO-166M	-5.792E-03	6.289E-02	1.048E-01	0.000E+00	FAIL ABUN
TM-171	-3.074E+01	4.565E+01	6.661E+01	0.000E+00	NOT IDENT.
LU-176	-1.121E-02	2.455E-02	4.271E-02	0.000E+00	FAIL ABUN
LU-177	8.278E-01	1.403E+00	1.943E+00	0.000E+00	FAIL ABUN
LU-177M	-1.083E-01	2.117E-01	3.065E-01	0.000E+00	NOT IDENT.
HF-181	-3.080E-02	4.642E-02	7.674E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	5.791E-01	9.874E-01	0.000E+00	NOT IDENT.
TA-182	-7.473E-02	2.101E-01	3.422E-01	0.000E+00	FAIL ABUN
RE-183	5.182E-02	1.228E-01	2.186E-01	0.000E+00	FAIL ABUN
RE-184	1.177E-01	2.543E-01	4.441E-01	0.000E+00	NOT IDENT.
OS-185	-2.773E-03	4.365E-02	7.350E-02	0.000E+00	NOT IDENT.
RE-188	-2.038E-02	1.819E-01	3.183E-01	0.000E+00	NOT IDENT.
W-188	-2.793E+00	8.766E+00	1.337E+01	0.000E+00	FAIL ABUN
IR-192	2.051E-02	3.615E-02	6.610E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.035E-01	5.597E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.193E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.879E+00	6.041E+00	1.023E+01	0.000E+00	NOT IDENT.
TL-202	2.365E-02	6.696E-02	1.192E-01	0.000E+00	NOT IDENT.
HG-203	-2.663E-02	4.297E-02	7.493E-02	0.000E+00	FAIL ABUN
BI-207	1.768E-02	5.471E-02	9.597E-02	0.000E+00	FAIL ABUN
TL-207	-5.333E-02	7.968E-01	1.226E+00	0.000E+00	FAIL ABUN
PO-209	-4.134E+00	7.062E+00	1.126E+01	0.000E+00	NOT IDENT.
BI-210	-2.277E+00	5.511E+00	1.005E+01	0.000E+00	NOT IDENT.
PB-210	-2.277E+00	5.511E+00	1.005E+01	0.000E+00	NOT IDENT.
PO-210	-2.277E+00	5.511E+00	1.005E+01	0.000E+00	NOT IDENT.
PB-211	-5.977E-02	1.075E+00	1.625E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.146E-01	6.573E-01	0.000E+00	FAIL ABUN
PO-215	-5.333E-02	7.968E-01	1.226E+00	0.000E+00	FAIL ABUN
RN-219	-3.616E-01	4.715E-01	7.341E-01	0.000E+00	NOT IDENT.
RN-220	4.291E+00	2.835E+01	4.911E+01	0.000E+00	NOT IDENT.
RA-223	-5.333E-02	7.968E-01	1.226E+00	0.000E+00	FAIL ABUN
AC-227	2.977E-01	4.363E-01	7.654E-01	0.000E+00	NOT IDENT.
TH-227	2.977E-01	4.372E-01	7.654E-01	0.000E+00	NOT IDENT.
TH-229	1.286E-01	5.478E-01	9.597E-01	0.000E+00	FAIL ABUN
PA-231	1.626E+00	1.677E+00	3.106E+00	0.000E+00	NOT IDENT.
TH-231	-5.333E-02	7.968E-01	1.226E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	1.525E+00	1.993E+00	0.000E+00	FAIL ABUN
PA-233	-2.371E-02	6.393E-02	1.116E-01	0.000E+00	FAIL ABUN
PA-234	1.548E-01	3.016E-01	5.409E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	8.973E+00	1.324E+01	0.000E+00	FAIL ABUN
NP-236	-7.124E-02	9.027E-02	1.535E-01	0.000E+00	FAIL ABUN
NP-239	-3.188E-01	2.194E-01	3.699E-01	0.000E+00	FAIL ABUN
AM-241	2.894E-01	2.480E-01	4.168E-01	0.000E+00	NOT IDENT.
CM-243	1.367E-01	1.258E-01	2.074E-01	0.000E+00	FAIL ABUN
AM-246	8.828E-02	1.463E-01	2.629E-01	0.000E+00	NOT IDENT.
CM-247	-1.634E-02	4.635E-02	6.842E-02	0.000E+00	NOT IDENT.
CF-249	3.306E-02	4.395E-02	8.027E-02	0.000E+00	NOT IDENT.
CF-251	4.053E-02	1.417E-01	2.498E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:51:03.86

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023720.CNF;1
Sample date       : 19-JAN-2010 12:00:00 Acquisition date : 2-FEB-2010 09:49:21.
Sample ID         : G1202023720          Sample quantity  : 1.43580E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1031	10.67*	9.626E-01	2.624E+01	2.624E+01	9.12
CD-109	88.03	206	3.72*	5.143E+00	2.814E+00	2.873E+00	46.11
SN-126	64.28	787	9.60	2.705E+00	7.925E+00	7.925E+00	22.60
	86.94	206	8.90	5.143E+00	1.176E+00	1.176E+00	61.34
	87.57	206	37.00*	5.143E+00	2.829E-01	2.829E-01	46.11
BA-137M	661.65	132	89.98*	1.940E+00	1.978E-01	1.980E-01	28.67
CS-137	661.65	132	85.12*	1.940E+00	2.091E-01	2.093E-01	28.68
TL-208	277.35	------	6.80	3.899E+00	------	Line Not Found	------
	510.84	94	21.60	2.408E+00	4.715E-01	4.715E-01	76.75
	583.14	214	84.20*	2.158E+00	3.085E-01	3.085E-01	23.67
	860.37	37	12.46	1.538E+00	5.064E-01	5.064E-01	92.34
BI-211	72.87	------	1.27	3.913E+00	------	Line Not Found	------
	351.07	465	12.94*	3.243E+00	2.894E+00	2.894E+00	17.75
PB-212	74.81	325	10.70	4.101E+00	1.934E+00	1.934E+00	34.19
	77.11	427	18.00	4.324E+00	1.434E+00	1.434E+00	24.59
	87.30	206	8.00	5.143E+00	1.309E+00	1.309E+00	47.18
	238.63	845	44.60*	4.368E+00	1.134E+00	1.134E+00	11.43
	300.09	------	3.41	3.669E+00	------	Line Not Found	------
PO-212	74.81	325	10.70	4.101E+00	1.934E+00	1.934E+00	34.19
	77.11	427	18.00	4.324E+00	1.434E+00	1.434E+00	24.59
	87.30	206	8.00	5.143E+00	1.309E+00	1.309E+00	47.18
	115.19	------	0.60	6.030E+00	------	Line Not Found	------
	238.63	845	44.60*	4.368E+00	1.134E+00	1.134E+00	11.43
	300.09	------	3.41	3.669E+00	------	Line Not Found	------
BI-214	609.31	306	46.30*	2.080E+00	8.301E-01	8.301E-01	22.48
	1120.29	86	15.10	1.211E+00	1.226E+00	1.226E+00	40.99
	1764.49	62	15.80	8.405E-01	1.230E+00	1.230E+00	28.92
PB-214	74.81	325	6.21	4.101E+00	3.332E+00	3.332E+00	33.71
	77.11	427	10.50	4.324E+00	2.458E+00	2.458E+00	25.74
	87.30	206	4.67	5.143E+00	2.242E+00	2.242E+00	46.75
	241.98	205	7.49	4.328E+00	1.650E+00	1.650E+00	30.41
	295.21	278	19.20	3.718E+00	1.017E+00	1.017E+00	22.84

Sample ID : G1202023720 Acquisition date : 2-FEB-2010 09:49:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	465	37.20*	3.243E+00	1.007E+00	1.007E+00	18.50
PO-214	74.81	325	6.21	4.101E+00	3.332E+00	3.332E+00	33.71
	77.11	427	10.50	4.324E+00	2.458E+00	2.458E+00	25.74
	87.30	206	4.67	5.143E+00	2.242E+00	2.242E+00	46.75
	241.98	205	7.49	4.328E+00	1.650E+00	1.650E+00	30.41
	295.21	278	19.20	3.718E+00	1.017E+00	1.017E+00	22.84
	351.92	465	37.20*	3.243E+00	1.007E+00	1.007E+00	18.50
PO-216	74.81	325	10.70	4.101E+00	1.934E+00	1.934E+00	34.19
	77.11	427	18.00	4.324E+00	1.434E+00	1.434E+00	24.59
	87.30	206	8.00	5.143E+00	1.309E+00	1.309E+00	47.18
	238.63	845	44.60*	4.368E+00	1.134E+00	1.134E+00	11.43
	300.09	------	3.41	3.669E+00	------ Line Not Found		------
PO-218	74.81	325	6.21	4.101E+00	3.332E+00	3.332E+00	33.71
	77.11	427	10.50	4.324E+00	2.458E+00	2.458E+00	25.74
	87.30	206	4.67	5.143E+00	2.242E+00	2.242E+00	46.75
	241.98	205	7.49	4.328E+00	1.650E+00	1.650E+00	30.41
	295.21	278	19.20	3.718E+00	1.017E+00	1.017E+00	22.84
	351.92	465	37.20*	3.243E+00	1.007E+00	1.007E+00	18.50
RA-224	240.98	205	3.95*	4.328E+00	3.129E+00	3.129E+00	29.89
RA-226	609.31	306	46.30*	2.080E+00	8.301E-01	8.301E-01	22.48
	1120.29	86	15.10	1.211E+00	1.226E+00	1.226E+00	40.99
	1764.49	62	15.80	8.405E-01	1.230E+00	1.230E+00	28.92
AC-228	338.32	185	11.40	3.346E+00	1.265E+00	1.265E+00	50.83
	911.07	157	27.70*	1.462E+00	1.011E+00	1.011E+00	32.60
	969.11	77	16.60	1.382E+00	8.787E-01	8.787E-01	49.70
RA-228	338.32	185	11.40	3.346E+00	1.265E+00	1.265E+00	50.83
	911.07	157	27.70*	1.462E+00	1.011E+00	1.011E+00	32.60
	969.11	77	16.60	1.382E+00	8.787E-01	8.787E-01	49.70
TH-228	74.81	325	10.70	4.101E+00	1.934E+00	1.961E+00	32.91
	77.11	427	18.00	4.324E+00	1.434E+00	1.454E+00	24.59
	87.30	206	8.00	5.143E+00	1.309E+00	1.327E+00	46.11
	238.63	845	44.60*	4.368E+00	1.134E+00	1.150E+00	11.43
	300.09	------	3.41	3.669E+00	------ Line Not Found		------
TH-230	609.31	306	46.30*	2.080E+00	8.301E-01	8.301E-01	22.48
	1120.29	86	15.10	1.211E+00	1.226E+00	1.226E+00	40.99
	1764.49	62	15.80	8.405E-01	1.230E+00	1.230E+00	28.92
TH-232	338.32	185	11.40	3.346E+00	1.265E+00	1.265E+00	30.92
	911.07	157	27.70*	1.462E+00	1.011E+00	1.011E+00	32.60
	969.11	77	16.60	1.382E+00	8.787E-01	8.787E-01	49.70
TH-234	63.29	787	3.80*	2.705E+00	2.002E+01	2.002E+01	24.58
	92.38	2152	5.41	5.452E+00	1.907E+01	1.907E+01	19.17
U-234	609.31	306	46.30*	2.080E+00	8.301E-01	8.301E-01	22.48
	1120.29	86	15.10	1.211E+00	1.226E+00	1.226E+00	40.99
	1764.49	62	15.80	8.405E-01	1.230E+00	1.230E+00	28.92
U-235	89.95	------	2.70	5.324E+00	------ Line Not Found		------
	93.35	2152	4.50	5.452E+00	2.293E+01	2.293E+01	28.74
	105.00	------	2.10	5.892E+00	------ Line Not Found		------
	143.76	119	10.50*	5.872E+00	5.044E-01	5.044E-01	57.63
	163.35	------	4.70	5.561E+00	------ Line Not Found		------

Sample ID : G1202023720 Acquisition date : 2-FEB-2010 09:49:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	185.71	379	54.00	5.178E+00	3.546E-01	3.546E-01	24.96
	205.31	55	4.70	4.856E+00	6.245E-01	6.245E-01	117.28
NP-237	86.50	206	12.60*	5.143E+00	8.308E-01	8.308E-01	50.51
	95.87	------	2.60	5.611E+00	------ Line Not Found		------
U-238	63.29	787	3.80*	2.705E+00	2.002E+01	2.002E+01	24.58
	92.38	2152	5.41	5.452E+00	1.907E+01	1.907E+01	10.72
AM-243	74.67	325	66.00*	4.101E+00	3.135E-01	3.135E-01	32.89
	86.72	206	0.34	5.143E+00	3.116E+01	3.116E+01	46.11
	117.66	------	0.55	6.042E+00	------ Line Not Found		------
	142.18	119	0.13	5.872E+00	4.237E+01	4.237E+01	55.58
ANH-511	511.00	94	100.00*	2.408E+00	1.018E-01	1.018E-01	76.29

Flag: "*" = Keyline

Sample ID : G1202023720 Acquisition date : 2-FEB-2010 09:49:21

Total number of lines in spectrum 32
Number of unidentified lines 0
Number of lines tentatively identified by NID 32 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.624E+01	2.624E+01	0.239E+01	9.12	
CD-109	464.00D	1.02	2.814E+00	2.873E+00	1.325E+00	46.11	
SN-126	1.00E+05Y	1.00	2.829E-01	2.829E-01	1.304E-01	46.11	
BA-137M	30.17Y	1.00	1.978E-01	1.980E-01	0.568E-01	28.67	
CS-137	30.17Y	1.00	2.091E-01	2.093E-01	0.600E-01	28.68	
TL-208	1.41E+10Y	1.00	3.085E-01	3.085E-01	0.730E-01	23.67	
BI-211	7.04E+08Y	1.00	2.894E+00	2.894E+00	0.514E+00	17.75	
PB-212	1.41E+10Y	1.00	1.134E+00	1.134E+00	0.130E+00	11.43	
PO-212	1.41E+10Y	1.00	1.134E+00	1.134E+00	0.130E+00	11.43	
BI-214	1600.00Y	1.00	8.301E-01	8.301E-01	1.866E-01	22.48	
PB-214	1600.00Y	1.00	1.007E+00	1.007E+00	0.186E+00	18.50	
PO-214	1600.00Y	1.00	1.007E+00	1.007E+00	0.186E+00	18.50	
PO-216	1.41E+10Y	1.00	1.134E+00	1.134E+00	0.130E+00	11.43	
PO-218	1600.00Y	1.00	1.007E+00	1.007E+00	0.186E+00	18.50	
RA-224	1.41E+10Y	1.00	3.129E+00	3.129E+00	0.935E+00	29.89	
RA-226	1600.00Y	1.00	8.301E-01	8.301E-01	1.866E-01	22.48	
AC-228	1.41E+10Y	1.00	1.011E+00	1.011E+00	0.329E+00	32.60	
RA-228	1.41E+10Y	1.00	1.011E+00	1.011E+00	0.329E+00	32.60	
TH-228	1.91Y	1.01	1.134E+00	1.150E+00	0.131E+00	11.43	
TH-230	4.47E+09Y	1.00	8.301E-01	8.301E-01	1.866E-01	22.48	
TH-232	1.41E+10Y	1.00	1.011E+00	1.011E+00	0.329E+00	32.60	
TH-234	4.47E+09Y	1.00	2.002E+01	2.002E+01	0.492E+01	24.58	
U-234	4.47E+09Y	1.00	8.301E-01	8.301E-01	1.866E-01	22.48	
U-235	7.04E+08Y	1.00	5.044E-01	5.044E-01	2.907E-01	57.63	
NP-237	2.14E+06Y	1.00	8.308E-01	8.308E-01	4.197E-01	50.51	
U-238	4.47E+09Y	1.00	2.002E+01	2.002E+01	0.492E+01	24.58	
AM-243	7380.00Y	1.00	3.135E-01	3.135E-01	1.031E-01	32.89	
ANH-511	1.00E+09Y	1.00	1.018E-01	1.018E-01	0.777E-01	76.29	
	Total Activity :		9.177E+01	9.185E+01			

Grand Total Activity : 9.177E+01 9.185E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202023720 Acquisition date : 2-FEB-2010 09:49:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	83.91	135	755	1.40	167.81	162	31	1.88E-02	68.4	4.93E+00	T
0	98.49	271	504	1.05	196.98	193	10	3.76E-02	33.4	5.71E+00	T
0	209.39	39	345	1.14	418.78	414	9	5.48E-03	****	4.79E+00	T
0	327.98	55	158	1.53	655.95	652	9	7.59E-03	87.2	3.42E+00	T
0	410.16	28	132	0.90	820.32	812	12	3.94E-03	****	2.87E+00	T
0	727.11	81	98	2.27	1454.22	1447	19	1.12E-02	62.1	1.79E+00	T
0	795.20	49	57	0.70	1590.40	1585	12	6.77E-03	71.6	1.65E+00	T
0	836.88	11	40	1.35	1673.76	1667	8	1.54E-03	****	1.58E+00	T
0	1000.89	90	64	1.19	2001.79	1995	14	1.26E-02	42.8	1.34E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 11:51:09.46

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023720.CNF;1  *
* Acquisition date  : 2-FEB-2010 09:49:21.  Detector SN#     :            *
* Detector ID       : GAM06                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.40          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G1202023720           Analyst initials: MXR1         *
* Batch Number      : 944966                Sample Quantity : 1.43580E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 4-FEB-2009 13:05:54.47MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.624E+01	2.394E+00	4.542E-01	3.005E-02	57.759
CD-109	2.873E+00	1.325E+00	1.677E+00	1.656E-01	1.713
SN-126	2.829E-01	1.304E-01	1.660E-01	1.634E-02	1.704
BA-137M	1.980E-01	5.675E-02	7.251E-02	3.581E-03	2.730
CS-137	2.093E-01	6.000E-02	7.665E-02	3.807E-03	2.730
TL-208	3.085E-01	7.302E-02	6.152E-02	3.888E-03	5.015
BI-211	2.894E+00	5.137E-01	3.408E-01	2.200E-02	8.493
PB-212	1.134E+00	1.296E-01	1.018E-01	7.504E-03	11.139
PO-212	1.134E+00	1.296E-01	1.018E-01	7.504E-03	11.139
BI-214	8.301E-01	1.866E-01	1.197E-01	8.831E-03	6.937
PB-214	1.007E+00	1.862E-01	1.188E-01	9.857E-03	8.475
PO-214	1.007E+00	1.862E-01	1.188E-01	9.857E-03	8.475
PO-216	1.134E+00	1.296E-01	1.018E-01	7.504E-03	11.139
PO-218	1.007E+00	1.862E-01	1.188E-01	9.857E-03	8.475
RA-224	3.129E+00	9.352E-01	1.159E+00	6.790E-02	2.701
RA-226	8.301E-01	1.866E-01	1.197E-01	8.831E-03	6.937
AC-228	1.011E+00	3.295E-01	2.052E-01	2.097E-02	4.925
RA-228	1.011E+00	3.295E-01	2.052E-01	2.097E-02	4.925

Sample ID : G1202023720 Acquisition date : 2-FEB-2010 09:49:21

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.150E+00	1.314E-01	1.032E-01	7.608E-03	11.139
TH-230	8.301E-01	1.866E-01	1.197E-01	8.831E-03	6.937
TH-232	1.011E+00	3.295E-01	2.052E-01	2.097E-02	4.925
TH-234	2.002E+01	4.920E+00	2.977E+00	5.412E-01	6.726
U-234	8.301E-01	1.866E-01	1.197E-01	8.831E-03	6.937
U-235	5.044E-01	2.907E-01	3.766E-01	6.125E-02	1.339
NP-237	8.308E-01	4.197E-01	4.939E-01	1.127E-01	1.682
U-238	2.002E+01	4.920E+00	2.977E+00	5.412E-01	6.726
AM-243	3.135E-01	1.031E-01	1.209E-01	1.092E-02	2.592
ANH-511	1.018E-01	7.769E-02	4.420E-02	2.471E-03	2.304

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.806E-01		3.570E-01	5.966E-01	3.941E-02	0.303
NA-22	-6.015E-02		4.531E-02	6.160E-02	3.804E-03	-0.976
NA-24	-2.741E-02		7.710E-02	Half-Life too short		
AL-26	1.520E-02		2.562E-02	4.804E-02	2.759E-03	0.316
TI-44	1.572E-01		7.719E-02	8.997E-02	8.270E-03	1.748
SC-46	-7.237E-03		4.064E-02	6.660E-02	4.773E-03	-0.109
V-48	-5.915E-03		6.671E-02	1.095E-01	7.666E-03	-0.054
CR-51	-1.419E-01		3.867E-01	6.359E-01	4.189E-02	-0.223
MN-52	4.950E-02		1.585E-01	2.720E-01	1.712E-02	0.182
MN-54	1.408E-02		3.906E-02	6.718E-02	4.434E-03	0.210
CO-56	1.191E-02		4.253E-02	7.268E-02	4.886E-03	0.164
CO-57	-2.011E-02		2.940E-02	4.712E-02	2.878E-03	-0.427
CO-58	-3.029E-02		3.717E-02	5.727E-02	3.657E-03	-0.529
FE-59	-4.615E-03		9.449E-02	1.547E-01	1.135E-02	-0.030
CO-60	-1.370E-02		3.667E-02	5.625E-02	3.534E-03	-0.244
ZN-65	-9.759E-02		1.148E-01	1.424E-01	9.017E-03	-0.686
GE-68	-8.329E-01		1.337E+00	2.062E+00	1.351E-01	-0.404
AS-73	1.272E+00		1.313E+00	2.255E+00	2.062E-01	0.564
AS-74	1.330E-02		9.739E-02	1.602E-01	8.518E-03	0.083
SE-75	-3.328E-03		4.835E-02	7.699E-02	4.618E-03	-0.043
BR-77	5.311E+00		7.827E+00	1.283E+01	7.148E-01	0.414
SR-82	-2.158E-01		4.034E-01	6.483E-01	3.900E-02	-0.333
RB-83	4.816E-02		7.278E-02	1.191E-01	6.639E-03	0.404
RB-84	2.860E-02		7.500E-02	1.290E-01	9.143E-03	0.222
KR-85	1.137E+01		7.892E+00	1.279E+01	7.146E-01	0.889
SR-85	5.758E-02		3.995E-02	6.477E-02	3.618E-03	0.889
RB-86	-3.663E-01		8.334E-01	1.314E+00	8.616E-02	-0.279
Y-88	6.657E-03		3.086E-02	5.339E-02	3.035E-03	0.125
ZR-88	-9.218E-03		3.278E-02	5.356E-02	2.972E-03	-0.172
Y-91	-2.309E+00		1.891E+01	3.056E+01	1.833E+00	-0.076
NB-94	1.333E-02		3.535E-02	5.884E-02	3.125E-03	0.227
NB-95	6.060E-02		4.881E-02	8.560E-02	5.060E-03	0.708
NB-95M	3.578E-01		1.706E-01	2.634E-01	1.990E-02	1.359

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	4.038E-02		7.573E-02	1.274E-01	8.978E-03	0.317
NB-97	1.279E-02		1.829E-02	Half-Life too short		
ZR-97	1.674E+00		3.331E-01	Half-Life too short		
MO-99	2.282E+00		9.538E+00	1.566E+01	2.148E+00	0.146
TC-99M	1.221E+08		8.568E+08	Half-Life too short		
RH-101	-4.392E-02		3.982E-02	5.811E-02	3.264E-03	-0.756
RH-102	1.824E-02		3.203E-02	5.472E-02	3.081E-03	0.333
RU-103	1.275E-02		3.873E-02	6.523E-02	8.192E-03	0.195
RH-106	8.864E-02		3.428E-01	5.683E-01	6.504E-02	0.156
RU-106	8.864E-02		3.427E-01	5.683E-01	2.947E-02	0.156
AG-108M	-1.437E-02		3.649E-02	5.885E-02	3.609E-03	-0.244
AG-110M	5.245E-03		4.225E-02	5.993E-02	3.235E-03	0.088
IN-111	8.334E-01		1.010E+00	1.489E+00	8.753E-02	0.560
IN-113M	-1.111E-02		4.710E-02	7.717E-02	4.593E-03	-0.144
SN-113	-1.111E-02		4.710E-02	7.717E-02	4.593E-03	-0.144
IN-114M	-7.841E-02		2.222E-01	3.079E-01	1.713E-02	-0.255
CD-115	8.300E+00		7.485E+00	1.328E+01	7.379E-01	0.625
SN-117M	4.165E-02		5.722E-02	9.587E-02	5.267E-03	0.434
SB-122	-4.205E-01		1.657E+00	2.654E+00	1.446E-01	-0.158
I-123	2.922E-02		7.043E-01	Half-Life too short		
TE-123M	6.621E-04		3.192E-02	5.207E-02	2.900E-03	0.013
I-124	-2.195E-02		7.195E-01	1.008E+00	5.328E-02	-0.022
SB-124	1.323E-02		5.950E-02	1.039E-01	6.746E-03	0.127
SB-125	-5.844E-02		9.825E-02	1.562E-01	9.166E-03	-0.374
TE-125M	-1.106E+01		1.204E+01	1.904E+01	1.730E+00	-0.581
I-126	1.626E-01		2.018E-01	3.087E-01	1.537E-02	0.527
SB-126	3.435E-02		1.548E-01	2.213E-01	1.212E-02	0.155
SB-127	3.333E-01		1.154E+00	1.911E+00	1.645E-01	0.174
XE-127	1.871E-02		5.836E-02	8.394E-02	4.742E-03	0.223
I-131	3.745E-02		1.128E-01	1.916E-01	1.230E-02	0.195
TE-132	-4.141E-01		6.239E-01	9.685E-01	1.368E-01	-0.428
BA-133	-3.712E-02		5.169E-02	7.016E-02	8.110E-03	-0.529
I-133	1.621E-03		1.207E-03	Half-Life too short		
CS-134	1.017E-01	+	7.304E-02	9.419E-02	5.928E-03	1.079
CS-135	1.272E-01		1.804E-01	2.979E-01	2.315E-02	0.427
I-135	-1.728E+08		1.371E+08	Half-Life too short		
CS-136	-1.102E-01		1.018E-01	1.474E-01	1.058E-02	-0.747
CE-139	-3.316E-02		3.462E-02	5.419E-02	2.930E-03	-0.612
BA-140	4.210E-01		3.049E-01	4.933E-01	1.602E-01	0.853
LA-140	-2.032E-02		8.099E-02	1.299E-01	8.013E-03	-0.156
CE-141	7.543E-02		7.830E-02	1.175E-01	6.931E-03	0.642
CE-143	5.282E-04		7.591E-05	Half-Life too short		
CE-144	1.407E-02		2.408E-01	3.957E-01	5.627E-02	0.036
PM-144	3.146E-02		3.553E-02	6.160E-02	3.239E-03	0.511
PR-144	2.130E+00		2.406E+00	4.171E+00	2.192E-01	0.511
PM-146	5.009E-03		4.649E-02	7.729E-02	6.578E-03	0.065
ND-147	-1.259E-01		5.575E-01	8.971E-01	1.204E-01	-0.140
PM-149	4.639E+01		6.851E+01	1.185E+02	1.687E+01	0.392

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	1.744E-02		1.463E-01	1.702E-01	1.121E-02	0.102
GD-153	4.121E-01	+	1.416E-01	1.809E-01	1.512E-02	2.278
EU-154	-1.681E-01		1.272E-01	1.722E-01	1.648E-02	-0.976
EU-155	4.759E-02		1.289E-01	2.141E-01	1.624E-02	0.222
TB-160	-1.148E-01		1.486E-01	2.298E-01	1.623E-02	-0.500
HO-166M	-5.792E-03		6.418E-02	1.026E-01	5.536E-03	-0.056
TM-171	-3.074E+01		4.658E+01	6.204E+01	5.542E+00	-0.495
LU-176	-1.121E-02		2.505E-02	4.106E-02	2.449E-03	-0.273
LU-177	8.278E-01	+	1.432E+00	1.852E+00	1.053E-01	0.447
LU-177M	-1.083E-01		2.160E-01	2.966E-01	1.659E-02	-0.365
HF-181	-3.080E-02		4.737E-02	7.449E-02	4.192E-03	-0.413
W-181	1.334E+00		5.909E-01	9.192E-01	8.234E-02	1.451
TA-182	-7.473E-02		2.144E-01	3.391E-01	2.048E-02	-0.220
RE-183	5.182E-02		1.253E-01	2.073E-01	1.129E-02	0.250
RE-184	1.177E-01		2.595E-01	4.251E-01	2.511E-02	0.277
OS-185	-2.773E-03		4.454E-02	7.181E-02	3.620E-03	-0.039
RE-188	-2.038E-02		1.856E-01	3.016E-01	1.670E-02	-0.068
W-188	-2.793E+00		8.945E+00	1.284E+01	7.671E-01	-0.218
IR-192	2.051E-02		3.689E-02	6.359E-02	3.801E-03	0.322
AU-195	1.199E+00	+	4.118E-01	5.254E-01	4.295E-02	2.281
TL-200	-6.307E-06		1.119E-04	Half-Life too short		
TL-201	-4.879E+00		6.164E+00	9.712E+00	5.256E-01	-0.502
TL-202	2.365E-02		6.832E-02	1.155E-01	6.499E-03	0.205
HG-203	-2.663E-02		4.385E-02	7.189E-02	4.540E-03	-0.371
BI-207	1.768E-02		5.583E-02	9.481E-02	6.286E-03	0.186
TL-207	-5.333E-02		8.131E-01	1.180E+00	1.955E-01	-0.045
PO-209	-4.134E+00		7.206E+00	1.108E+01	8.030E-01	-0.373
BI-210	-2.277E+00		5.624E+00	9.293E+00	7.651E-01	-0.245
PB-210	-2.277E+00		5.624E+00	9.293E+00	7.651E-01	-0.245
PO-210	-2.277E+00		5.623E+00	9.293E+00	6.712E-01	-0.245
PB-211	-5.977E-02		1.097E+00	1.572E+00	9.796E-01	-0.038
BI-212	1.003E+00	+	6.271E-01	6.439E-01	4.842E-02	1.557
PO-215	-5.333E-02		8.131E-01	1.180E+00	1.955E-01	-0.045
RN-219	-3.616E-01		4.811E-01	7.098E-01	9.589E-02	-0.509
RN-220	4.291E+00		2.893E+01	4.781E+01	2.628E+00	0.090
RA-223	-5.333E-02		8.131E-01	1.180E+00	1.955E-01	-0.045
AC-227	2.977E-01		4.452E-01	7.330E-01	1.027E-01	0.406
TH-227	2.977E-01		4.461E-01	7.330E-01	1.242E-01	0.406
TH-229	1.286E-01		5.590E-01	9.136E-01	5.105E-02	0.141
PA-231	1.626E+00		1.711E+00	2.981E+00	4.129E-01	0.546
TH-231	-5.333E-02		8.131E-01	1.180E+00	1.955E-01	-0.045
U-231	3.132E+00		1.556E+00	1.870E+00	1.602E-01	1.675
PA-233	-2.371E-02		6.524E-02	1.073E-01	6.771E-03	-0.221
PA-234	1.548E-01		3.077E-01	5.330E-01	9.663E-02	0.290
PA-234M	2.097E+01	+	9.156E+00	1.306E+01	1.116E+00	1.605
NP-236	-7.124E-02		9.211E-02	1.455E-01	7.962E-03	-0.490
NP-239	-3.188E-01		2.239E-01	3.485E-01	2.251E-02	-0.915
AM-241	2.894E-01		2.531E-01	3.873E-01	3.787E-02	0.747

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.367E-01		1.284E-01	1.949E-01	1.486E-02	0.701
AM-246	8.828E-02		1.493E-01	2.598E-01	1.701E-02	0.340
CM-247	-1.634E-02		4.730E-02	6.616E-02	3.686E-03	-0.247
CF-249	3.306E-02		4.485E-02	7.755E-02	4.326E-03	0.426
CF-251	4.053E-02		1.445E-01	2.374E-01	1.299E-02	0.171

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202023720          *
* Acquisition date  :  2-FEB-2010 09:49:21 Detector SN#     :               *
* Detector ID       : GAM06                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.40      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 19-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202023720          Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.4358E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.624E+01	2.346E+00	2.284E-01	1.197E+00
CD-109	2.873E+00	1.298E+00	8.960E-01	6.624E-01
SN-126	2.829E-01	1.278E-01	8.870E-02	6.522E-02
BA-137M	1.980E-01	5.562E-02	3.711E-02	2.838E-02
CS-137	2.093E-01	5.880E-02	3.923E-02	3.000E-02
TL-208	3.085E-01	7.156E-02	3.157E-02	3.651E-02
BI-211	2.894E+00	5.034E-01	1.768E-01	2.568E-01
PB-212	1.134E+00	1.270E-01	5.326E-02	6.478E-02
PO-212	1.134E+00	1.270E-01	5.326E-02	6.478E-02
BI-214	8.301E-01	1.829E-01	6.136E-02	9.329E-02
PB-214	1.007E+00	1.825E-01	6.164E-02	9.312E-02
PO-214	1.007E+00	1.825E-01	6.164E-02	9.312E-02
PO-216	1.134E+00	1.270E-01	5.326E-02	6.478E-02
PO-218	1.007E+00	1.825E-01	6.164E-02	9.312E-02
RA-224	3.129E+00	9.165E-01	6.061E-01	4.676E-01
RA-226	8.301E-01	1.829E-01	6.136E-02	9.329E-02
AC-228	1.011E+00	3.229E-01	1.043E-01	1.647E-01
RA-228	1.011E+00	3.229E-01	1.043E-01	1.647E-01
TH-228	1.150E+00	1.288E-01	5.400E-02	6.569E-02
TH-230	8.301E-01	1.828E-01	6.136E-02	9.329E-02
TH-232	1.011E+00	3.229E-01	1.043E-01	1.647E-01
TH-234	2.002E+01	4.822E+00	1.601E+00	2.460E+00
U-234	8.301E-01	1.828E-01	6.136E-02	9.329E-02
U-235	5.044E-01	2.848E-01	1.991E-01	1.453E-01
NP-237	8.308E-01	4.113E-01	2.639E-01	2.098E-01
U-238	2.002E+01	4.822E+00	1.601E+00	2.460E+00
AM-243	3.135E-01	1.010E-01	6.481E-02	5.155E-02
ANH-511	1.018E-01	7.614E-02	2.275E-02	3.885E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	1.806E-01	3.499E-01	3.075E-01	1.785E-01	NOT IDENT.
NA-22	-6.015E-02	4.440E-02	3.107E-02	2.265E-02	NOT IDENT.
NA-24	-2.741E+04	1.511E+05	0.000E+00	7.710E+04	SHORT HLIF
AL-26	1.520E-02	2.511E-02	2.403E-02	1.281E-02	NOT IDENT.
TI-44	1.572E-01	7.565E-02	4.817E-02	3.860E-02	NOT IDENT.
SC-46	-7.237E-03	3.983E-02	3.386E-02	2.032E-02	FAIL ABUN
V-48	-5.915E-03	6.537E-02	5.554E-02	3.335E-02	NOT IDENT.
CR-51	-1.419E-01	3.789E-01	3.306E-01	1.933E-01	NOT IDENT.
MN-52	4.950E-02	1.553E-01	1.368E-01	7.926E-02	NOT IDENT.
MN-54	1.408E-02	3.828E-02	3.421E-02	1.953E-02	NOT IDENT.
CO-56	1.191E-02	4.168E-02	3.699E-02	2.126E-02	NOT IDENT.
CO-57	-2.011E-02	2.881E-02	2.500E-02	1.470E-02	NOT IDENT.
CO-58	-3.029E-02	3.643E-02	2.918E-02	1.859E-02	NOT IDENT.
FE-59	-4.615E-03	9.260E-02	7.828E-02	4.725E-02	FAIL ABUN
CO-60	-1.370E-02	3.593E-02	2.834E-02	1.833E-02	NOT IDENT.
ZN-65	-9.759E-02	1.125E-01	7.201E-02	5.739E-02	NOT IDENT.
GE-68	-8.329E-01	1.310E+00	1.044E+00	6.683E-01	NOT IDENT.
AS-73	1.272E+00	1.287E+00	1.217E+00	6.566E-01	NOT IDENT.
AS-74	1.330E-02	9.544E-02	8.217E-02	4.870E-02	NOT IDENT.
SE-75	-3.328E-03	4.738E-02	4.019E-02	2.417E-02	NOT IDENT.
BR-77	5.311E+00	7.671E+00	6.600E+00	3.914E+00	FAIL ABUN
SR-82	-2.158E-01	3.953E-01	3.306E-01	2.017E-01	NOT IDENT.
RB-83	4.816E-02	7.133E-02	6.130E-02	3.639E-02	NOT IDENT.
RB-84	2.860E-02	7.350E-02	6.562E-02	3.750E-02	NOT IDENT.
KR-85	1.137E+01	7.734E+00	6.585E+00	3.946E+00	NOT IDENT.
SR-85	5.758E-02	3.916E-02	3.333E-02	1.998E-02	NOT IDENT.
RB-86	-3.663E-01	8.167E-01	6.651E-01	4.167E-01	NOT IDENT.
Y-88	6.657E-03	3.025E-02	2.670E-02	1.543E-02	NOT IDENT.
ZR-88	-9.218E-03	3.213E-02	2.773E-02	1.639E-02	NOT IDENT.
Y-91	-2.309E+00	1.853E+01	1.543E+01	9.455E+00	NOT IDENT.
NB-94	1.333E-02	3.464E-02	3.008E-02	1.767E-02	NOT IDENT.
NB-95	6.060E-02	4.783E-02	4.367E-02	2.440E-02	NOT IDENT.
NB-95M	3.578E-01	1.672E-01	1.378E-01	8.532E-02	NOT IDENT.
ZR-95	4.038E-02	7.421E-02	6.500E-02	3.786E-02	NOT IDENT.
NB-97	1.279E+04	3.585E+04	0.000E+00	1.829E+04	SHORT HLIF
ZR-97	1.674E+06	6.530E+05	0.000E+00	3.331E+05	SHORT HLIF
MO-99	2.282E+00	9.347E+00	7.993E+00	4.769E+00	NOT IDENT.
TC-99M	1.221E+14	1.679E+15	0.000E+00	8.568E+14	SHORT HLIF
RH-101	-4.392E-02	3.903E-02	3.052E-02	1.991E-02	NOT IDENT.
RH-102	1.824E-02	3.139E-02	2.821E-02	1.601E-02	NOT IDENT.
RU-103	1.275E-02	3.795E-02	3.359E-02	1.936E-02	FAIL ABUN
RH-106	8.864E-02	3.359E-01	2.912E-01	1.714E-01	FAIL ABUN
RU-106	8.864E-02	3.358E-01	2.912E-01	1.713E-01	FAIL ABUN
AG-108M	-1.437E-02	3.576E-02	3.040E-02	1.824E-02	NOT IDENT.
AG-110M	5.245E-03	4.140E-02	3.067E-02	2.112E-02	NOT IDENT.
IN-111	8.334E-01	9.893E-01	7.785E-01	5.048E-01	NOT IDENT.
IN-113M	-1.111E-02	4.616E-02	3.995E-02	2.355E-02	NOT IDENT.
SN-113	-1.111E-02	4.616E-02	3.995E-02	2.355E-02	NOT IDENT.
IN-114M	-7.841E-02	2.178E-01	1.619E-01	1.111E-01	NOT IDENT.
CD-115	8.300E+00	7.335E+00	6.832E+00	3.742E+00	NOT IDENT.
SN-117M	4.165E-02	5.608E-02	5.059E-02	2.861E-02	NOT IDENT.
SB-122	-4.205E-01	1.624E+00	1.363E+00	8.286E-01	NOT IDENT.
I-123	2.922E+04	1.380E+06	0.000E+00	7.043E+05	SHORT HLIF
TE-123M	6.621E-04	3.128E-02	2.748E-02	1.596E-02	NOT IDENT.
I-124	-2.195E-02	7.052E-01	5.170E-01	3.598E-01	NOT IDENT.
SB-124	1.323E-02	5.831E-02	5.205E-02	2.975E-02	FAIL ABUN
SB-125	-5.844E-02	9.628E-02	8.072E-02	4.912E-02	NOT IDENT.
TE-125M	-1.106E+01	1.179E+01	1.012E+01	6.018E+00	NOT IDENT.
I-126	1.626E-01	1.978E-01	1.579E-01	1.009E-01	NOT IDENT.
SB-126	3.435E-02	1.517E-01	1.131E-01	7.740E-02	FAIL ABUN
SB-127	3.333E-01	1.131E+00	9.772E-01	5.769E-01	FAIL ABUN
XE-127	1.871E-02	5.719E-02	4.407E-02	2.918E-02	NOT IDENT.
I-131	3.745E-02	1.106E-01	9.936E-02	5.641E-02	NOT IDENT.
TE-132	-4.141E-01	6.114E-01	5.072E-01	3.119E-01	NOT IDENT.
BA-133	-3.712E-02	5.065E-02	3.640E-02	2.584E-02	NOT IDENT.
I-133	1.621E+03	2.366E+03	0.000E+00	1.207E+03	SHORT HLIF
CS-134	1.017E-01	7.158E-02	4.801E-02	3.652E-02	FAIL ABUN
CS-135	1.272E-01	1.768E-01	1.555E-01	9.022E-02	NOT IDENT.
I-135	-1.728E+14	2.687E+14	0.000E+00	1.371E+14	SHORT HLIF
CS-136	-1.102E-01	9.975E-02	7.469E-02	5.089E-02	FAIL ABUN
CE-139	-3.316E-02	3.393E-02	2.857E-02	1.731E-02	NOT IDENT.
BA-140	4.210E-01	2.988E-01	2.537E-01	1.525E-01	NOT IDENT.
LA-140	-2.032E-02	7.937E-02	6.516E-02	4.050E-02	FAIL ABUN
CE-141	7.543E-02	7.673E-02	6.211E-02	3.915E-02	NOT IDENT.
CE-143	5.282E+02	1.488E+02	0.000E+00	7.591E+01	SHORT HLIF
CE-144	1.407E-02	2.360E-01	2.096E-01	1.204E-01	NOT IDENT.
PM-144	3.146E-02	3.482E-02	3.149E-02	1.777E-02	NOT IDENT.

PR-144	2.130E+00	2.358E+00	2.132E+00	1.203E+00	NOT IDENT.
PM-146	5.009E-03	4.556E-02	3.989E-02	2.324E-02	NOT IDENT.
ND-147	-1.259E-01	5.464E-01	4.614E-01	2.788E-01	FAIL ABUN
PM-149	4.639E+01	6.714E+01	6.174E+01	3.425E+01	NOT IDENT.
EU-152	1.744E-02	1.433E-01	8.835E-02	7.313E-02	NOT IDENT.
GD-153	4.121E-01	1.387E-01	9.645E-02	7.078E-02	FAIL ABUN
EU-154	-1.681E-01	1.247E-01	8.683E-02	6.361E-02	NOT IDENT.
EU-155	4.759E-02	1.264E-01	1.139E-01	6.447E-02	FAIL ABUN
TB-160	-1.148E-01	1.456E-01	1.168E-01	7.429E-02	FAIL ABUN
HO-166M	-5.792E-03	6.289E-02	5.243E-02	3.209E-02	FAIL ABUN
TM-171	-3.074E+01	4.565E+01	3.333E+01	2.329E+01	NOT IDENT.
LU-176	-1.121E-02	2.455E-02	2.137E-02	1.252E-02	FAIL ABUN
LU-177	8.278E-01	1.403E+00	9.720E-01	7.158E-01	FAIL ABUN
LU-177M	-1.083E-01	2.117E-01	1.534E-01	1.080E-01	NOT IDENT.
HF-181	-3.080E-02	4.642E-02	3.839E-02	2.369E-02	NOT IDENT.
W-181	1.334E+00	5.791E-01	4.940E-01	2.955E-01	NOT IDENT.
TA-182	-7.473E-02	2.101E-01	1.712E-01	1.072E-01	FAIL ABUN
RE-183	5.182E-02	1.228E-01	1.094E-01	6.267E-02	FAIL ABUN
RE-184	1.177E-01	2.543E-01	2.222E-01	1.298E-01	NOT IDENT.
OS-185	-2.773E-03	4.365E-02	3.677E-02	2.227E-02	NOT IDENT.
RE-188	-2.038E-02	1.819E-01	1.592E-01	9.281E-02	NOT IDENT.
W-188	-2.793E+00	8.766E+00	6.690E+00	4.472E+00	FAIL ABUN
IR-192	2.051E-02	3.615E-02	3.307E-02	1.844E-02	FAIL ABUN
AU-195	1.199E+00	4.035E-01	2.800E-01	2.059E-01	FAIL ABUN
TL-200	-6.307E+00	2.193E+02	0.000E+00	1.119E+02	SHORT HLIF
TL-201	-4.879E+00	6.041E+00	5.119E+00	3.082E+00	NOT IDENT.
TL-202	2.365E-02	6.696E-02	5.965E-02	3.416E-02	NOT IDENT.
HG-203	-2.663E-02	4.297E-02	3.749E-02	2.193E-02	FAIL ABUN
BI-207	1.768E-02	5.471E-02	4.801E-02	2.791E-02	FAIL ABUN
TL-207	-5.333E-02	7.968E-01	6.136E-01	4.065E-01	FAIL ABUN
PO-209	-4.134E+00	7.062E+00	5.634E+00	3.603E+00	NOT IDENT.
BI-210	-2.277E+00	5.511E+00	5.028E+00	2.812E+00	NOT IDENT.
PB-210	-2.277E+00	5.511E+00	5.028E+00	2.812E+00	NOT IDENT.
PO-210	-2.277E+00	5.511E+00	5.028E+00	2.812E+00	NOT IDENT.
PB-211	-5.977E-02	1.075E+00	8.132E-01	5.485E-01	NOT IDENT.
BI-212	1.003E+00	6.146E-01	3.288E-01	3.136E-01	FAIL ABUN
PO-215	-5.333E-02	7.968E-01	6.136E-01	4.065E-01	FAIL ABUN
RN-219	-3.616E-01	4.715E-01	3.672E-01	2.405E-01	NOT IDENT.
RN-220	4.291E+00	2.835E+01	2.457E+01	1.446E+01	NOT IDENT.
RA-223	-5.333E-02	7.968E-01	6.136E-01	4.065E-01	FAIL ABUN
AC-227	2.977E-01	4.363E-01	3.829E-01	2.226E-01	NOT IDENT.
TH-227	2.977E-01	4.372E-01	3.829E-01	2.231E-01	NOT IDENT.
TH-229	1.286E-01	5.478E-01	4.801E-01	2.795E-01	FAIL ABUN
PA-231	1.626E+00	1.677E+00	1.554E+00	8.556E-01	NOT IDENT.
TH-231	-5.333E-02	7.968E-01	6.136E-01	4.065E-01	FAIL ABUN
U-231	3.132E+00	1.525E+00	9.971E-01	7.778E-01	FAIL ABUN
PA-233	-2.371E-02	6.393E-02	5.584E-02	3.262E-02	FAIL ABUN
PA-234	1.548E-01	3.016E-01	2.706E-01	1.539E-01	FAIL ABUN
PA-234M	2.097E+01	8.973E+00	6.624E+00	4.578E+00	FAIL ABUN
NP-236	-7.124E-02	9.027E-02	7.678E-02	4.605E-02	FAIL ABUN
NP-239	-3.188E-01	2.194E-01	1.851E-01	1.120E-01	FAIL ABUN
AM-241	2.894E-01	2.480E-01	2.085E-01	1.265E-01	NOT IDENT.
CM-243	1.367E-01	1.258E-01	1.038E-01	6.420E-02	FAIL ABUN
AM-246	8.828E-02	1.463E-01	1.315E-01	7.465E-02	NOT IDENT.
CM-247	-1.634E-02	4.635E-02	3.423E-02	2.365E-02	NOT IDENT.
CF-249	3.306E-02	4.395E-02	4.016E-02	2.243E-02	NOT IDENT.
CF-251	4.053E-02	1.417E-01	1.250E-01	7.227E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	505.0168
46.50	505.0168
46.50	505.0168
48.70	568.6995
49.72	600.6198
51.35	534.8932
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52.97	554.6495
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53.44	557.8329
54.07	554.7610
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56.28	653.1317
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57.53	617.2118
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57.98	589.6484
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59.32	577.6127
59.40	577.6855
59.54	577.8132
59.72	595.7164
60.01	595.9882
61.10	623.6692
61.14	629.6337
61.30	629.7906
63.00	655.5837
63.29	655.8726
63.29	655.8726
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65.20	639.5043
66.05	679.1230
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66.83	702.3207
66.91	660.0604
67.20	655.3570
67.20	655.3570
67.75	620.9701
67.85	621.0613
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68.90	678.2170
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77.11	742.9015

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98.44	400.1963
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100.10	405.6486
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105.31	425.7089
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109.28	546.7897

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111.76	471.2100
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117.00	450.9917
117.66	441.3629
121.11	395.0544
121.62	408.2371
121.78	412.2958
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122.32	395.5423
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131.20	395.0266
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136.48	411.2194
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144.24	329.7369
144.24	329.7369
145.22	351.2725
145.44	351.3434
147.16	350.2578
152.43	341.2276
152.70	351.5890
153.22	358.9503
154.21	352.0561
154.21	352.0561
154.21	352.0561
154.21	352.0561
155.03	346.1309
156.02	361.8965
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162.64	350.4862
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163.89	325.9458
165.85	391.9912
167.43	377.9330
171.28	337.3619
171.86	344.8393
172.10	344.9073
176.55	325.1793
176.60	325.1911
181.06	370.5706
184.41	336.7179
185.71	289.0906
186.00	289.1574
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192.34	306.9302
193.63	291.2860
197.04	309.0919
198.01	336.4400
198.60	327.2371
200.40	297.4759
201.83	304.6360
202.84	292.8751
205.31	308.8499

208.36	309.5376
208.81	264.9131
209.75	263.3703
209.75	263.3703
210.97	268.7706
215.65	278.7468
216.55	272.4373
218.09	268.4043
222.10	284.3537
223.80	267.3039
226.40	261.2512
227.00	283.1392
227.08	283.1551
227.20	283.1789
228.16	296.4417
228.18	296.4458
228.18	296.4458
231.56	0.0000
235.69	290.9438
236.00	283.9924
236.00	283.9924
238.63	265.6125
238.63	265.6125
238.63	265.6125
238.63	265.6125
239.00	265.6771
240.98	266.0261
241.98	269.2815
241.98	269.2815
241.98	269.2815
244.69	216.8656
245.39	218.7286
247.94	228.5872
248.90	253.0388
249.79	260.9230
252.40	225.9218
252.85	207.1550
252.85	207.1550
254.15	0.0000
256.20	217.5870
256.20	217.5870
260.50	204.8185
260.90	207.0987
262.80	225.1787
264.65	202.0010
268.24	214.7520
268.79	217.0630
269.46	214.9131
269.46	214.9131
269.46	214.9131
269.46	214.9131
271.23	216.2680
273.65	282.7963
276.40	194.4640
277.35	196.8243
277.60	204.7278
277.60	204.7278
278.00	216.9294
278.60	224.2094
279.20	232.3984
279.53	229.7397
280.46	224.4587
281.68	218.3081
283.67	187.8576
284.30	177.9902
285.00	162.6965
285.90	184.4890
286.10	198.9802
286.10	198.9802
287.40	230.8136
288.45	0.0000
290.67	204.0491
290.80	204.0628
291.72	186.0240
293.26	0.0000
293.70	186.2392
295.21	252.7757
295.21	252.7757

295.21	252.7757
295.96	242.5781
296.50	244.1696
297.23	216.9613
298.57	170.0576
299.80	174.7367
299.80	174.7367
300.09	171.7254
300.09	171.7254
300.09	171.7254
300.09	171.7254
300.12	171.7277
301.29	182.4878
302.84	206.3933
303.76	204.6734
303.91	204.6898
304.40	202.0051
304.40	202.0051
304.84	189.2539
306.84	163.8401
308.46	167.6532
311.98	159.7202
316.51	159.1993
318.01	178.6732
319.02	191.6713
319.41	187.1035
320.08	173.3423
323.87	172.4684
323.87	172.4684
323.87	172.4684
323.87	172.4684
325.23	152.5605
328.77	174.4681
333.44	111.4424
334.20	160.2637
334.20	160.2637
334.30	160.2721
338.28	135.9358
338.28	135.9358
338.28	135.9358
338.28	135.9358
338.32	135.9375
338.32	135.9375
338.32	135.9375
340.50	156.9125
340.57	156.9166
344.27	143.2109
345.85	136.4722
350.59	0.0000
351.07	138.7157
351.92	138.7753
351.92	138.7753
351.92	138.7753
355.39	0.0000
356.01	150.3398
364.48	135.8842
366.43	125.6275
367.43	127.5793
367.94	0.0000
369.80	147.5983
374.96	127.1053
383.85	136.2305
387.95	134.5903
388.63	128.9042
391.69	134.8295
391.69	134.8295
392.90	137.7773
398.62	130.4750
400.65	132.5201
401.10	133.4025
401.81	148.9264
402.60	145.7774
404.84	120.2713
410.95	122.2197
411.60	117.4309
413.65	133.6423
414.70	135.3174
415.30	118.7809

415.76	129.3401
417.63	0.0000
418.52	128.7756
423.70	115.4904
427.08	126.3580
427.89	125.4317
432.53	111.0762
433.93	129.6685
439.47	104.5758
439.56	104.5797
439.89	107.5280
443.98	112.6163
444.90	109.7223
445.03	109.7291
445.03	109.7291
445.03	109.7291
445.03	109.7291
453.90	107.1997
463.38	122.4470
468.07	110.8160
473.00	126.9094
475.06	100.2245
475.35	98.2519
476.78	100.2960
477.59	101.3239
477.96	99.3518
482.03	123.4036
484.57	99.6228
487.03	94.7379
490.36	0.0000
492.35	82.9504
497.08	76.1002
507.63	0.0000
510.53	0.0000
510.84	76.5191
511.00	76.5237
511.85	76.5501
511.85	76.5501
513.99	73.9259
513.99	73.9259
520.41	73.2700
520.65	73.2770
527.90	65.8823
528.96	0.0000
529.64	63.8982
529.87	0.0000
531.02	93.3611
537.32	77.3100
543.00	108.0600
546.56	0.0000
549.76	91.9841
552.65	90.0367
555.20	106.5086
563.23	107.8531
563.90	97.6069
568.70	73.0766
569.32	77.2119
569.50	82.3652
569.67	82.3691
573.80	106.5549
574.00	91.6667
574.64	90.2557
578.91	94.6991
579.30	0.0000
583.14	84.4979
585.48	75.9401
591.81	89.2586
592.07	84.0771
593.00	87.2197
595.88	90.4260
600.56	96.6748
602.52	0.0000
602.71	104.1895
602.71	104.1895
603.60	97.2754
604.41	100.7778
604.70	100.7873
609.31	89.8108

609.31	89.8108
609.31	89.8108
609.31	89.8108
610.33	80.0920
612.46	88.8640
614.37	87.1806
618.01	74.3715
621.84	76.5662
621.84	76.5662
631.29	76.8158
633.02	67.3844
633.10	67.3859
634.78	75.8531
635.90	74.8273
636.97	70.6379
645.85	69.7915
646.12	72.9705
656.30	60.1309
657.75	72.5458
657.90	0.0000
661.65	108.0730
661.65	108.0730
664.57	0.0000
666.33	63.8789
666.33	63.8789
675.00	76.8709
677.61	63.0447
685.20	66.4124
692.80	82.6810
695.00	66.6212
696.49	61.2778
696.49	61.2778
697.00	70.9645
697.49	78.5035
698.33	75.2961
698.50	73.1498
699.00	89.3000
702.63	70.0131
706.10	80.8722
706.58	0.0000
706.67	77.6514
709.31	65.8431
711.68	71.2932
713.82	78.9063
717.42	59.5171
720.50	59.5735
721.93	0.0000
722.20	59.6050
722.78	61.4216
722.78	61.4216
722.89	61.4244
722.95	61.4258
723.30	66.8532
724.18	66.8713
727.18	65.1240
733.00	48.9298
735.90	76.1814
739.58	68.6386
742.81	61.0723
744.21	56.7341
747.13	82.9933
751.79	66.7053
752.31	62.3410
753.82	64.5586
755.35	66.7768
756.15	61.3184
756.87	64.6177
763.93	86.7033
765.79	72.4759
766.42	72.4888
766.84	70.3016
776.49	80.7830
778.00	68.8797
778.57	65.2162
778.89	65.2220
783.80	63.4760
785.46	68.1088
792.07	69.5572

795.84	41.1464
796.30	45.9001
798.80	61.7727
801.93	69.7552
805.60	44.4355
810.29	56.5459
810.76	60.2617
815.85	55.7068
817.79	58.5242
818.51	59.4648
819.60	66.9185
826.30	54.9392
828.27	0.0000
831.60	51.1574
831.96	51.1629
834.83	63.4719
836.80	0.0000
846.75	61.8079
848.13	60.8952
856.28	0.0000
856.80	59.5636
860.37	65.7988
867.32	46.8185
867.82	56.5125
871.10	63.1615
873.19	47.1619
874.81	54.7325
875.33	0.0000
876.40	55.6990
879.36	67.0811
880.27	62.3732
880.51	64.2674
881.50	56.7212
883.24	52.0179
884.67	60.5534
889.25	56.8384
896.60	48.4070
898.02	48.4247
899.00	52.2361
903.28	39.1197
911.07	46.6852
911.07	46.6852
911.07	46.6852
919.63	50.0007
920.93	47.7600
925.00	39.2041
925.24	40.1628
926.50	51.6555
935.52	46.9813
937.48	61.3932
944.10	50.9275
946.00	45.1841
949.00	38.4839
962.29	46.3350
964.01	46.3545
966.15	62.9441
968.20	87.0062
969.11	84.1255
969.11	84.1255
969.11	84.1255
977.42	58.1372
980.50	38.7874
983.50	46.5801
989.30	35.9567
996.32	50.0642
1001.03	43.8565
1001.68	33.4194
1004.76	41.8056
1021.30	0.0000
1024.50	0.0000
1034.80	57.9701
1036.00	53.0706
1037.82	58.9941
1038.57	55.0703
1038.76	0.0000
1045.16	40.3827
1046.59	53.2046
1048.07	56.1790

1050.47	34.5158
1050.47	34.5158
1062.04	48.4537
1063.62	48.4716
1076.63	59.5313
1077.35	58.5487
1078.86	43.6777
1085.78	61.6443
1099.22	51.8604
1112.02	52.8107
1112.84	58.5238
1115.52	70.3544
1120.29	53.1100
1120.29	53.1100
1120.29	53.1100
1120.29	53.1100
1120.51	53.1121
1121.28	51.5458
1124.00	0.0000
1129.67	50.3901
1131.51	0.0000
1147.95	0.0000
1167.94	60.7568
1173.22	59.8138
1175.09	54.7668
1177.93	58.8591
1189.05	61.0352
1204.90	55.1162
1205.75	0.0000
1213.00	62.3676
1221.42	68.6248
1230.97	87.2343
1235.34	78.0688
1236.41	0.0000
1238.25	54.4751
1246.25	80.3042
1260.41	0.0000
1271.85	44.5030
1274.45	53.8451
1274.54	53.8472
1291.56	35.3281
1298.22	0.0000
1312.09	35.4734
1325.50	26.1525
1325.50	26.1525
1332.49	28.2843
1333.61	27.2420
1360.21	21.0645
1362.66	0.0000
1365.15	18.9756
1368.21	22.1519
1368.53	0.0000
1376.25	11.6213
1384.27	23.2783
1394.10	24.3813
1395.20	27.5679
1407.95	20.1937
1434.06	11.7484
1436.60	21.3704
1457.56	0.0000
1460.81	14.7199
1489.15	20.4983
1509.49	17.3242
1596.49	21.6724
1620.62	7.5692
1678.03	0.0000
1691.02	7.6582
1691.02	7.6582
1706.46	0.0000
1750.46	0.0000
1764.49	3.3903
1764.49	3.3903
1764.49	3.3903
1764.49	3.3903
1770.23	16.9666
1771.40	39.7574
1791.20	0.0000
1808.65	5.8523

1836.01	8.8154

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202023720

Total Uranium Activity	5.9795E+01	ug/g
Total Uranium Counting Unc.	1.4345E+01	ug/g
Total Uranium Tpu	7.3190E-06	ug/g
Total Uranium Mda	4.7630E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 944966                    SAMPLE ID  : G1202023720        *
*   ANALYST       : MXR1                      DETECTOR   : GAM06              *
*   SAMPLE DATE   : 19-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  2-FEB-2010 09:49:21.21    SAMPLE ALQT:  143.580 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.246E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.474E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 4.179E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 2.042E+00
```

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:51:21.41

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023721.CNF;1
Sample date       : 26-JAN-2010 00:00:00 Acquisition date : 2-FEB-2010 09:50:49.
Sample ID         : G1202023721          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.32  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	5	57.88	169	862	1.41	115.42	112	13	4.69E-02	27.7	9.50E-01
2	5	59.55	4214	567	0.97	118.76	112	13	1.17E+00	1.8	
3	3	74.63*	190	435	1.34	148.90	144	14	5.29E-02	20.4	9.97E-01
4	3	77.15*	305	355	1.11	153.94	144	14	8.47E-02	11.9	
5	2	88.03	1567	297	1.07	175.71	171	11	4.35E-01	3.1	2.67E+00
6	2	89.77	61	225	1.02	179.18	171	11	1.71E-02	66.9	
7	2	92.35*	53	144	1.00	184.35	182	9	1.46E-02	37.8	6.24E-01
8	2	93.46*	33	300	1.26	186.56	182	9	9.27E-03	98.1	
9	0	122.19	249	357	0.99	244.01	239	10	6.91E-02	15.6	
10	0	186.26*	98	364	2.13	372.13	367	13	2.71E-02	42.1	
11	2	238.65*	527	203	1.17	476.89	472	15	1.47E-01	6.4	2.65E-01
12	2	241.51	88	268	1.51	482.61	472	15	2.46E-02	37.3	
13	0	295.04	79	219	1.25	589.66	585	9	2.19E-02	35.7	
14	0	338.30	120	161	1.49	676.17	671	10	3.32E-02	21.9	
15	0	352.03*	205	167	1.22	703.61	699	10	5.70E-02	13.8	
16	0	510.72*	36	157	1.42	1020.95	1015	13	1.00E-02	78.6	
17	0	583.37*	181	111	1.49	1166.23	1161	13	5.03E-02	14.3	
18	0	609.27*	150	110	1.44	1218.01	1213	10	4.16E-02	15.5	
19	0	661.64	2301	141	1.52	1322.74	1316	14	6.39E-01	2.4	
20	0	911.62*	55	125	1.25	1822.64	1817	10	1.53E-02	41.0	
21	0	968.83*	58	106	1.19	1937.05	1932	10	1.61E-02	36.1	
22	0	1173.11	1807	70	1.88	2345.56	2336	20	5.02E-01	2.6	
23	0	1332.38*	1587	16	1.90	2664.07	2656	16	4.41E-01	2.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-FEB-2010 10:51:24

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023721.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 26-JAN-2010 00:00:00 Acquisition date : 2-FEB-2010 09:50:49
Sample ID : G1202023721 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.32 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.025E-01	6.553E-02	5.699E-02	4.903E-03	3.554
		136.48		3.560E-01	3.130E-01	5.250E-01	4.726E-02	0.678
CO-60	+	1173.22		6.443E+00	6.230E-01	1.050E-01	8.541E-03	61.386
	+	1332.49	*	6.310E+00	6.106E-01	8.244E-02	6.753E-03	76.550
CD-109	+	88.03	*	2.996E+01	3.372E+00	1.742E+00	1.641E-01	17.201
SN-126		64.28		-3.253E-01	6.018E-01	8.744E-01	1.268E-01	-0.372
	+	86.94		1.238E+01	5.199E+00	8.118E-01	3.369E-01	15.254
	+	87.57	*	2.979E+00	3.352E-01	1.735E-01	1.626E-02	17.163
BA-137M	+	661.65	*	5.537E+00	5.553E-01	1.204E-01	1.065E-02	45.999
CS-137	+	661.65	*	5.853E+00	5.878E-01	1.273E-01	1.128E-02	45.999
TL-208		277.35		4.346E-01	6.205E-01	1.061E+00	1.299E-01	0.410
	+	510.84		2.931E-01	4.623E-01	3.979E-01	4.847E-02	0.737
	+	583.14	*	4.199E-01	1.267E-01	1.095E-01	1.047E-02	3.835
		860.37		4.440E-01	6.496E-01	1.104E+00	1.080E-01	0.402
BI-211		72.87		1.927E+00	4.004E+00	6.015E+00	4.747E-01	0.320
	+	351.07	*	2.082E+00	6.046E-01	5.955E-01	5.342E-02	3.496
PB-212	+	74.81		1.419E+00	6.046E-01	6.632E-01	8.181E-02	2.140
	+	77.11		1.307E+00	3.302E-01	3.835E-01	3.165E-02	3.407
	+	87.30		1.378E+01	2.074E+00	8.037E-01	1.100E-01	17.141
	+	238.63	*	1.163E+00	1.851E-01	1.529E-01	1.463E-02	7.608
		300.09		6.042E-01	1.518E+00	2.373E+00	2.461E-01	0.255
PO-212	+	74.81		1.419E+00	6.046E-01	6.632E-01	8.181E-02	2.140
	+	77.11		1.307E+00	3.302E-01	3.835E-01	3.165E-02	3.407
	+	87.30		1.378E+01	2.074E+00	8.037E-01	1.100E-01	17.141
		115.19		4.377E+00	4.891E+00	8.206E+00	7.068E-01	0.533
	+	238.63	*	1.163E+00	1.851E-01	1.529E-01	1.463E-02	7.608
		300.09		6.042E-01	1.518E+00	2.373E+00	2.461E-01	0.255
PB-214	+	74.81		2.445E+00	1.032E+00	1.143E+00	1.250E-01	2.140
	+	77.11		2.240E+00	5.912E-01	6.574E-01	7.384E-02	3.408
	+	87.30		2.360E+01	3.219E+00	1.377E+00	1.667E-01	17.141
	+	241.98		1.172E+00	8.816E-01	9.125E-01	9.262E-02	1.284
	+	295.21		4.712E-01	3.398E-01	4.153E-01	4.396E-02	1.134
	+	351.92	*	7.242E-01	2.137E-01	2.097E-01	2.176E-02	3.454
PO-214	+	74.81		2.445E+00	1.032E+00	1.143E+00	1.250E-01	2.140

Sample ID : G1202023721 Acquisition date : 2-FEB-2010 09:50:49

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.240E+00	5.912E-01	6.574E-01	7.384E-02	3.408
	+	87.30		2.360E+01	3.219E+00	1.377E+00	1.667E-01	17.141
	+	241.98		1.172E+00	8.816E-01	9.125E-01	9.262E-02	1.284
	+	295.21		4.712E-01	3.398E-01	4.153E-01	4.396E-02	1.134
	+	351.92	*	7.242E-01	2.137E-01	2.097E-01	2.176E-02	3.454
PO-216	+	74.81		1.419E+00	6.046E-01	6.632E-01	8.181E-02	2.140
	+	77.11		1.307E+00	3.302E-01	3.835E-01	3.165E-02	3.407
	+	87.30		1.378E+01	2.074E+00	8.037E-01	1.100E-01	17.141
	+	238.63	*	1.163E+00	1.851E-01	1.529E-01	1.463E-02	7.608
		300.09		6.042E-01	1.518E+00	2.373E+00	2.461E-01	0.255
PO-218	+	74.81		2.445E+00	1.032E+00	1.143E+00	1.250E-01	2.140
	+	77.11		2.240E+00	5.912E-01	6.574E-01	7.384E-02	3.408
	+	87.30		2.360E+01	3.219E+00	1.377E+00	1.667E-01	17.141
	+	241.98		1.172E+00	8.816E-01	9.125E-01	9.262E-02	1.284
	+	295.21		4.712E-01	3.398E-01	4.153E-01	4.396E-02	1.134
	+	351.92	*	7.242E-01	2.137E-01	2.097E-01	2.176E-02	3.454
RA-224	+	240.98	*	2.222E+00	1.667E+00	1.741E+00	1.472E-01	1.276
AC-228	+	338.32		1.337E+00	8.043E-01	6.872E-01	2.835E-01	1.945
	+	911.07	*	5.652E-01	4.684E-01	4.944E-01	5.759E-02	1.143
	+	969.11		1.049E+00	7.971E-01	9.623E-01	2.261E-01	1.090
RA-228	+	338.32		1.337E+00	8.043E-01	6.872E-01	2.835E-01	1.945
	+	911.07	*	5.652E-01	4.684E-01	4.944E-01	5.759E-02	1.143
	+	969.11		1.049E+00	7.971E-01	9.623E-01	2.261E-01	1.090
TH-228	+	74.81		1.430E+00	5.945E-01	6.681E-01	5.431E-02	2.140
	+	77.11		1.316E+00	3.326E-01	3.863E-01	3.188E-02	3.407
	+	87.30		1.388E+01	1.562E+00	8.097E-01	7.560E-02	17.141
	+	238.63	*	1.172E+00	1.865E-01	1.540E-01	1.473E-02	7.608
		300.09		6.087E-01	1.569E+00	2.390E+00	1.417E+00	0.255
TH-232	+	338.32		1.337E+00	5.967E-01	6.872E-01	5.883E-02	1.945
	+	911.07	*	5.652E-01	4.684E-01	4.944E-01	5.759E-02	1.143
	+	969.11		1.049E+00	7.971E-01	9.623E-01	2.261E-01	1.090
AM-241	+	59.54	*	1.332E+01	1.161E+00	3.650E-01	2.893E-02	36.502
AM-243	+	74.67	*	2.301E-01	9.564E-02	1.077E-01	8.659E-03	2.136
	+	86.72		3.280E+02	3.692E+01	2.153E+01	1.995E+00	15.237
		117.66		-6.131E+00	6.217E+00	8.305E+00	7.143E-01	-0.738
		142.18		-1.138E+01	2.493E+01	3.892E+01	3.212E+00	-0.292
ANH-511	+	511.00	*	6.331E-02	9.972E-02	8.597E-02	7.638E-03	0.736

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.262E-01	6.775E-01	1.115E+00	1.052E-01	0.293
NA-22		1274.54	*	-1.137E-02	5.295E-02	8.478E-02	6.959E-03	-0.134
NA-24		1368.53	*	4.223E-05	5.295E-02	Half-Life too short		
AL-26		1129.67		-1.311E+00	3.024E+00	4.849E+00	4.073E-01	-0.270
		1808.65	*	-2.545E-02	3.567E-02	4.652E-02	3.794E-03	-0.547
K-40		1460.81	*	8.777E-01	5.491E-01	1.116E+00	9.582E-02	0.787
TI-44		67.85		4.054E-02	5.202E-02	8.802E-02	6.641E-03	0.461

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	78.38	*	2.411E-01	6.091E-02	8.354E-02	6.994E-03	2.886
SC-46		889.25	*	3.526E-02	8.290E-02	1.387E-01	1.271E-02	0.254
		1120.51		5.008E-02	9.704E-02	1.676E-01	1.416E-02	0.299
V-48		944.10		-1.633E+00	1.725E+00	2.599E+00	2.363E-01	-0.628
		983.50	*	-2.564E-02	1.208E-01	1.914E-01	1.723E-02	-0.134
		1312.09		-1.078E-02	6.955E-02	1.118E-01	9.167E-03	-0.096
CR-51		320.08	*	-2.625E-01	5.617E-01	8.996E-01	8.129E-02	-0.292
MN-52		744.21		6.664E-02	1.686E-01	2.857E-01	2.593E-02	0.233
		848.13		-3.353E+00	5.746E+00	8.940E+00	8.207E-01	-0.375
		935.52		-1.257E-01	2.531E-01	3.954E-01	3.601E-02	-0.318
		1246.25		2.944E+00	3.450E+00	6.283E+00	5.146E-01	0.469
	+	1333.61		3.119E+02	3.018E+01	3.613E+01	2.960E+00	8.632
		1434.06	*	-7.805E-02	1.268E-01	1.842E-01	1.532E-02	-0.424
MN-54		834.83	*	4.686E-02	7.793E-02	1.323E-01	1.214E-02	0.354
CO-56		846.75	*	-7.647E-02	7.948E-02	1.193E-01	1.096E-02	-0.641
		977.42		-4.426E-01	6.667E+00	1.069E+01	9.640E-01	-0.041
		1037.82		3.994E-01	6.374E-01	1.114E+00	1.034E-01	0.358
		1175.09		2.608E+02	2.516E+01	3.105E+01	2.528E+00	8.397
		1238.25		-1.016E-02	1.014E-01	1.660E-01	1.403E-02	-0.061
		1360.21		3.782E-01	1.059E+00	1.854E+00	1.526E-01	0.204
		1771.40		-6.580E-01	3.492E-01	3.148E-01	2.586E-02	-2.090
CO-58		810.76	*	-4.123E-02	7.340E-02	1.145E-01	1.052E-02	-0.360
FE-59		142.65		-1.711E+00	3.378E+00	5.256E+00	4.334E-01	-0.326
		192.34		3.960E-01	1.456E+00	2.206E+00	2.897E-01	0.179
		1099.22	*	-5.586E-02	1.620E-01	2.633E-01	2.439E-02	-0.212
		1291.56		1.077E-01	1.334E-01	2.445E-01	2.303E-02	0.440
ZN-65		1115.52	*	-8.688E-02	1.966E-01	3.184E-01	2.702E-02	-0.273
GE-68		1077.35	*	7.957E-01	2.685E+00	4.586E+00	3.974E-01	0.174
AS-73		53.44	*	2.963E-01	1.247E+00	1.989E+00	1.494E-01	0.149
AS-74		595.88	*	-4.081E-02	1.187E-01	1.934E-01	1.733E-02	-0.211
		634.78		3.297E-01	4.674E-01	8.157E-01	7.272E-02	0.404
SE-75		66.05		-4.046E+00	5.099E+00	8.133E+00	7.716E-01	-0.497
		96.73		3.532E-01	1.041E+00	1.539E+00	2.132E-01	0.229
	+	121.11		1.062E+00	3.520E-01	4.216E-01	4.722E-02	2.520
		136.00		8.044E-02	5.641E-02	9.574E-02	8.049E-03	0.840
		198.60		-8.334E-01	2.678E+00	4.453E+00	4.093E-01	-0.187
		264.65	*	-7.865E-02	7.175E-02	1.121E-01	9.573E-03	-0.702
		279.53		5.221E-02	1.740E-01	2.927E-01	2.580E-02	0.178
		303.91		-5.937E+00	3.753E+00	5.581E+00	6.380E-01	-1.064
		400.65		1.682E-01	4.928E-01	8.141E-01	8.900E-02	0.207
BR-77	+	87.88		6.876E+02	7.739E+01	8.861E+01	8.336E+00	7.759
		200.40		1.842E+01	2.704E+01	4.683E+01	3.850E+00	0.393
	+	239.00		1.962E+01	2.995E+00	4.857E+00	4.104E-01	4.039
		249.79		8.958E-01	1.157E+01	1.937E+01	1.643E+00	0.046
		281.68		-6.577E+00	1.604E+01	2.600E+01	2.209E+00	-0.253
		297.23		-5.141E+00	1.252E+01	1.768E+01	1.511E+00	-0.291
		303.76		-5.658E+01	3.482E+01	5.203E+01	4.454E+00	-1.087
		439.47		-2.397E+01	3.182E+01	4.885E+01	4.208E+00	-0.491
		484.57		-4.743E+01	5.076E+01	7.598E+01	6.691E+00	-0.624

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		520.65	*	-8.875E-01	2.056E+00	3.371E+00	3.002E-01	-0.263
		574.64		-1.472E+01	3.918E+01	6.390E+01	5.731E+00	-0.230
		578.91		7.717E+00	1.768E+01	2.683E+01	2.407E+00	0.288
		585.48		8.125E+01	4.013E+01	6.678E+01	5.989E+00	1.217
		755.35		1.637E+01	3.337E+01	5.679E+01	5.167E+00	0.288
		817.79		2.311E+00	3.153E+01	5.177E+01	4.748E+00	0.045
SR-82		698.33		6.008E-01	5.039E+01	8.335E+01	7.473E+00	0.007
		776.49	*	-2.616E-01	5.906E-01	9.341E-01	8.529E-02	-0.280
		1395.20		-6.085E+00	9.792E+00	1.385E+01	1.146E+00	-0.439
RB-83		520.41	*	-5.647E-02	1.214E-01	1.985E-01	1.768E-02	-0.284
		529.64		-7.022E-03	1.847E-01	3.102E-01	2.768E-02	-0.023
		552.65		1.386E-01	3.388E-01	5.835E-01	5.226E-02	0.238
RB-84		881.50	*	5.673E-02	1.312E-01	2.198E-01	2.016E-02	0.258
KR-85		513.99	*	1.522E+00	1.526E+01	2.262E+01	2.011E+00	0.067
SR-85		513.99	*	7.193E-03	7.214E-02	1.069E-01	9.507E-03	0.067
RB-86		1076.63	*	4.158E-02	1.302E+00	2.184E+00	1.893E-01	0.019
Y-88		898.02		5.806E-04	9.889E-02	1.605E-01	1.476E-02	0.004
		1836.01	*	1.640E-02	3.735E-02	6.917E-02	5.614E-03	0.237
ZR-88		392.90	*	8.254E-03	5.652E-02	9.255E-02	7.709E-03	0.089
Y-91		1204.90	*	1.654E+01	2.083E+01	3.773E+01	3.081E+00	0.438
NB-94		702.63	*	-2.607E-02	6.118E-02	9.791E-02	8.791E-03	-0.266
		871.10		-1.003E-02	7.979E-02	1.286E-01	1.179E-02	-0.078
NB-95		765.79	*	9.507E-03	7.277E-02	1.206E-01	1.099E-02	0.079
NB-95M		235.69	*	7.887E-02	1.983E-01	2.992E-01	2.905E-02	0.264
ZR-95		724.18		-1.470E-01	1.665E-01	2.561E-01	2.496E-02	-0.574
		756.15	*	2.665E-02	1.239E-01	2.069E-01	2.054E-02	0.129
NB-97		657.90	*	2.522E-04	1.239E-01	Half-Life too short		
		1024.50		1.471E-03	1.239E-01	Half-Life too short		
ZR-97		254.15		3.489E-03	1.239E-01	Half-Life too short		
		355.39		1.388E-03	1.239E-01	Half-Life too short		
		507.63	*	5.929E-04	1.239E-01	Half-Life too short		
		602.52		-2.237E-03	1.239E-01	Half-Life too short		
		1021.30		6.472E-04	1.239E-01	Half-Life too short		
		1147.95		-1.738E-03	1.239E-01	Half-Life too short		
		1362.66		-4.439E-03	1.239E-01	Half-Life too short		
		1750.46		3.720E-04	1.239E-01	Half-Life too short		
MO-99		140.51		-1.422E+00	5.324E+00	8.376E+00	2.311E+00	-0.170
		181.06		2.843E+00	3.978E+00	6.162E+00	1.111E+00	0.461
		366.43		3.647E+00	2.276E+01	3.747E+01	3.174E+00	0.097
		739.58	*	7.242E-01	3.124E+00	5.229E+00	8.075E-01	0.138
		778.00		-2.589E+00	9.347E+00	1.499E+01	1.369E+00	-0.173
TC-99M		140.51	*	-7.720E+00	9.347E+00	Half-Life too short		
RH-101		127.23		1.603E-03	4.945E-02	7.564E-02	6.424E-03	0.021
		198.01	*	-3.194E-02	5.147E-02	8.441E-02	6.924E-03	-0.378
		325.23		1.027E-01	4.043E-01	6.728E-01	5.769E-02	0.153
RH-102		418.52		2.905E-01	5.517E-01	9.201E-01	7.817E-02	0.316
		475.06	*	-2.443E-02	6.867E-02	1.078E-01	9.461E-03	-0.227
		631.29		4.575E-02	1.001E-01	1.719E-01	1.533E-02	0.266
		697.49		-3.208E-02	1.415E-01	2.300E-01	2.062E-02	-0.139

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		766.84		-1.643E-02	2.016E-01	3.290E-01	3.000E-02	-0.050
		1046.59		1.014E-02	2.511E-01	4.225E-01	3.715E-02	0.024
		1112.84		2.437E-01	5.002E-01	8.617E-01	7.317E-02	0.283
RU-103		497.08	*	-1.764E-02	7.258E-02	1.140E-01	1.631E-02	-0.155
	+	610.33		6.169E+00	2.179E+00	3.047E+00	5.136E-01	2.025
RH-106	+	511.85		3.117E-01	4.909E-01	5.922E-01	5.263E-02	0.526
		621.84	*	1.891E-01	6.008E-01	1.021E+00	1.385E-01	0.185
		1050.47		-2.213E+00	4.922E+00	7.982E+00	7.008E-01	-0.277
RU-106	+	511.85		3.117E-01	4.909E-01	5.922E-01	5.263E-02	0.526
		621.84	*	1.891E-01	6.005E-01	1.021E+00	9.124E-02	0.185
		1050.47		-2.213E+00	4.922E+00	7.982E+00	7.008E-01	-0.277
AG-108M		433.93	*	1.541E-02	6.917E-02	1.130E-01	1.009E-02	0.136
		614.37		3.966E-03	7.959E-02	1.159E-01	1.075E-02	0.034
		722.95		-1.232E-01	8.288E-02	1.198E-01	1.120E-02	-1.029
AG-110M		657.75	*	1.277E-01	8.170E-02	1.324E-01	1.206E-02	0.964
		677.61		2.356E-01	5.445E-01	9.300E-01	8.499E-02	0.253
		706.67		1.656E-02	3.740E-01	6.196E-01	5.711E-02	0.027
		763.93		9.055E-02	3.067E-01	5.143E-01	4.805E-02	0.176
		884.67		-4.008E-02	1.088E-01	1.716E-01	1.618E-02	-0.234
		937.48		9.479E-02	2.827E-01	4.668E-01	4.387E-02	0.203
		1384.27		-9.904E-02	2.087E-01	3.141E-01	2.675E-02	-0.315
IN-111		171.28		-1.705E-01	2.345E-01	3.554E-01	2.828E-02	-0.480
		245.39	*	1.689E-02	3.001E-01	4.425E-01	3.748E-02	0.038
IN-113M		391.69	*	-8.542E-03	8.500E-02	1.363E-01	1.172E-02	-0.063
SN-113		391.69	*	-8.542E-03	8.500E-02	1.363E-01	1.172E-02	-0.063
IN-114M		190.27	*	-2.004E-01	2.840E-01	4.053E-01	3.297E-02	-0.494
CD-115		260.90		1.057E+01	1.996E+01	3.403E+01	2.892E+00	0.311
		492.35		2.114E+00	6.547E+00	1.070E+01	9.451E-01	0.198
		527.90	*	-7.509E-02	1.852E+00	3.111E+00	2.776E-01	-0.024
SN-117M		156.02		-4.401E-01	2.248E+00	3.535E+00	2.847E-01	-0.125
		158.56	*	3.475E-02	5.463E-02	8.952E-02	7.178E-03	0.388
SB-122		563.90	*	-6.473E-02	5.263E-01	8.754E-01	7.848E-02	-0.074
		692.80		9.204E+00	1.134E+01	1.975E+01	1.767E+00	0.466
I-123		159.00	*	3.184E-04	1.134E+01	Half-Life too short		
		528.96		8.535E-03	1.134E+01	Half-Life too short		
TE-123M		159.00	*	2.686E-02	3.993E-02	6.556E-02	5.289E-03	0.410
I-124		602.71	*	-1.153E-02	3.593E-01	5.442E-01	4.876E-02	-0.021
		722.78		-3.377E+00	2.413E+00	3.524E+00	3.182E-01	-0.958
		1325.50		3.425E+00	1.482E+01	2.201E+01	1.803E+00	0.156
		1376.25		9.472E+00	1.136E+01	2.086E+01	1.721E+00	0.454
		1509.49		1.978E+00	6.513E+00	1.113E+01	9.305E-01	0.178
		1691.02		8.909E-02	1.210E+00	1.994E+00	1.656E-01	0.045
SB-124		602.71		-2.208E-03	6.880E-02	1.042E-01	9.340E-03	-0.021
		645.85		-4.946E-02	8.505E-01	1.407E+00	1.322E-01	-0.035
		709.31		5.826E-01	4.606E+00	7.674E+00	6.904E-01	0.076
		713.82		-5.367E-01	2.762E+00	4.489E+00	5.531E-01	-0.120
		722.78		-9.375E-01	6.702E-01	9.782E-01	9.008E-02	-0.958
	+	968.20		9.883E+00	7.195E+00	1.058E+01	9.563E-01	0.934
		1045.16		2.407E+00	5.088E+00	8.800E+00	7.745E-01	0.274

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1325.50		1.016E+00	4.393E+00	6.525E+00	5.347E-01	0.156
		1368.21		2.576E-01	1.633E+00	2.773E+00	3.671E-01	0.093
		1436.60		4.501E+00	4.408E+00	8.453E+00	7.031E-01	0.532
		1691.02	*	5.834E-03	7.922E-02	1.305E-01	1.131E-02	0.045
SB-125		427.89	*	-2.317E-02	1.896E-01	3.039E-01	2.650E-02	-0.076
		463.38		5.407E-01	6.297E-01	1.055E+00	9.910E-02	0.513
		600.56		9.876E-03	3.126E-01	5.230E-01	5.008E-02	0.019
		635.90		-1.428E-01	4.894E-01	7.963E-01	7.635E-02	-0.179
TE-125M		109.28	*	-3.327E+00	1.170E+01	1.865E+01	1.931E+00	-0.178
I-126		388.63		1.238E-01	2.642E-01	4.405E-01	3.675E-02	0.281
		666.33	*	-4.279E-02	2.557E-01	3.616E-01	3.206E-02	-0.118
		753.82		8.566E-01	1.844E+00	3.134E+00	2.851E-01	0.273
SB-126		223.80		-1.299E-01	4.390E+00	7.354E+00	6.163E-01	-0.018
		278.60		1.976E+00	2.633E+00	4.521E+00	3.837E-01	0.437
	+	296.50		3.046E+00	2.188E+00	3.057E+00	2.612E-01	0.996
		414.70		-1.493E-02	9.743E-02	1.562E-01	1.324E-02	-0.096
		415.30		-1.210E+00	7.962E+00	1.276E+01	1.082E+00	-0.095
		555.20		-2.585E+00	4.711E+00	7.608E+00	6.816E-01	-0.340
		573.80		-9.174E-01	1.235E+00	1.961E+00	1.758E-01	-0.468
		593.00		-4.176E-01	1.071E+00	1.740E+00	1.560E-01	-0.240
		656.30		2.332E+00	4.742E+00	7.156E+00	6.344E-01	0.326
		666.33		-1.757E-02	1.050E-01	1.484E-01	1.316E-02	-0.118
		675.00		2.474E+00	2.352E+00	4.174E+00	3.713E-01	0.593
		695.00		2.082E-02	9.551E-02	1.603E-01	1.435E-02	0.130
		697.00		-1.767E-01	3.279E-01	5.203E-01	4.664E-02	-0.340
		720.50	*	1.038E-01	1.715E-01	2.951E-01	2.663E-02	0.352
		856.80		-6.521E-01	6.851E-01	1.033E+00	9.484E-02	-0.631
		989.30		7.336E-01	1.857E+00	3.081E+00	2.769E-01	0.238
		1034.80		-1.057E+01	1.255E+01	1.971E+01	1.742E+00	-0.536
		1213.00		1.039E-03	3.380E+00	5.607E+00	4.582E-01	0.000
SB-127		61.10		5.135E+02	5.100E+01	6.234E+01	5.002E+00	8.237
		252.40		-1.245E+00	1.903E+00	2.950E+00	1.226E+00	-0.422
		290.80		-1.164E+00	1.007E+01	1.450E+01	1.335E+00	-0.080
		411.60		2.591E+00	6.111E+00	1.011E+01	1.453E+00	0.256
		444.90		2.681E+00	5.215E+00	8.639E+00	9.433E-01	0.310
		473.00		-5.495E-01	9.826E-01	1.523E+00	1.735E-01	-0.361
		543.00		-7.109E+00	7.774E+00	1.220E+01	1.612E+00	-0.583
		603.60		7.608E-01	5.908E+00	8.677E+00	9.671E-01	0.088
		685.20	*	5.118E-01	5.966E-01	1.048E+00	1.031E-01	0.488
		698.50		2.210E+00	6.789E+00	1.147E+01	1.694E+00	0.193
		722.20		-1.495E+01	1.466E+01	2.214E+01	2.142E+00	-0.675
		783.80		1.842E+00	1.766E+00	3.092E+00	3.461E-01	0.596
XE-127	+	57.60		1.796E+01	1.004E+01	1.975E+01	1.431E+00	0.910
		145.22		9.598E-01	8.381E-01	1.410E+00	1.157E-01	0.681
		172.10		-5.804E-02	1.586E-01	2.456E-01	1.956E-02	-0.236
		202.84	*	2.292E-02	6.284E-02	1.075E-01	8.861E-03	0.213
		374.96		-5.573E-02	3.355E-01	5.413E-01	4.561E-02	-0.103
I-131		80.18		-2.993E+00	3.359E+00	4.684E+00	4.011E-01	-0.639
		284.30		-6.417E-01	1.305E+00	2.102E+00	1.875E-01	-0.305

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		364.48	*	4.806E-02	1.091E-01	1.826E-01	1.627E-02	0.263
		636.97		-1.207E+00	1.450E+00	2.253E+00	2.104E-01	-0.536
		722.89		-1.045E+01	7.178E+00	1.041E+01	9.418E-01	-1.004
TE-132		49.72		2.849E+00	4.864E+00	8.214E+00	7.039E-01	0.347
		111.76		4.944E+00	7.922E+00	1.315E+01	1.213E+00	0.376
		116.30		6.185E-01	7.395E+00	1.197E+01	1.100E+00	0.052
		228.16	*	4.798E-02	2.172E-01	3.674E-01	5.327E-02	0.131
BA-133		53.15		7.563E-01	5.742E+00	9.136E+00	6.884E-01	0.083
		79.62		-1.513E+00	1.822E+00	2.533E+00	3.839E-01	-0.597
		81.00		-1.681E-01	1.481E-01	2.013E-01	3.198E-02	-0.835
		276.40		7.144E-02	6.022E-01	1.005E+00	1.444E-01	0.071
		302.84		-3.177E-01	2.631E-01	4.014E-01	5.318E-02	-0.792
		356.01	*	5.937E-02	8.625E-02	1.311E-01	1.721E-02	0.453
		383.85		1.578E-01	5.901E-01	9.738E-01	1.211E-01	0.162
I-133	+	510.53		1.333E-03	5.901E-01	Half-Life too short		
		529.87	*	-4.129E-06	5.901E-01	Half-Life too short		
		706.58		1.219E-04	5.901E-01	Half-Life too short		
		856.28		-2.390E-03	5.901E-01	Half-Life too short		
		875.33		-6.119E-04	5.901E-01	Half-Life too short		
		1236.41		1.318E-03	5.901E-01	Half-Life too short		
		1298.22		6.050E-05	5.901E-01	Half-Life too short		
CS-134		475.35		1.212E-01	4.375E+00	7.027E+00	6.165E-01	0.017
		563.23		-1.869E-01	6.546E-01	1.077E+00	9.740E-02	-0.174
		569.32		3.069E-01	3.687E-01	6.475E-01	5.879E-02	0.474
		604.70		2.482E-02	6.809E-02	1.021E-01	9.169E-03	0.243
		795.84	*	1.872E-01	1.018E-01	1.837E-01	1.692E-02	1.019
		801.93		-3.102E-01	8.133E-01	1.297E+00	1.194E-01	-0.239
		1038.57		3.791E+00	8.577E+00	1.482E+01	1.308E+00	0.256
		1167.94		1.629E+00	4.571E+00	6.869E+00	5.613E-01	0.237
		1365.15		-3.885E-01	1.233E+00	1.882E+00	1.628E-01	-0.206
CS-135		268.24	*	6.591E-02	2.679E-01	4.501E-01	4.438E-02	0.146
I-135		288.45		1.085E+02	2.679E-01	Half-Life too short		
		417.63		1.068E+02	2.679E-01	Half-Life too short		
		546.56		9.225E-01	2.679E-01	Half-Life too short		
		836.80		1.108E+02	2.679E-01	Half-Life too short		
		1038.76		5.091E+01	2.679E-01	Half-Life too short		
		1124.00		-1.967E+02	2.679E-01	Half-Life too short		
		1131.51		-4.426E+00	2.679E-01	Half-Life too short		
		1260.41	*	-5.851E+00	2.679E-01	Half-Life too short		
		1457.56		5.523E+00	2.679E-01	Half-Life too short		
		1678.03		8.397E-01	2.679E-01	Half-Life too short		
		1706.46		-8.134E+01	2.679E-01	Half-Life too short		
		1791.20		1.923E+01	2.679E-01	Half-Life too short		
CS-136		66.91		1.897E-01	5.698E-01	9.499E-01	1.409E-01	0.200
		86.29		7.863E+00	1.714E+00	2.379E+00	3.153E-01	3.305
		153.22		4.545E-01	6.446E-01	1.060E+00	9.713E-02	0.429
		163.89		3.793E-01	1.049E+00	1.694E+00	1.532E-01	0.224
		176.55		-9.099E-02	3.523E-01	5.910E-01	5.045E-02	-0.154
		273.65		-6.891E-01	4.979E-01	7.611E-01	6.899E-02	-0.905

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		340.57		2.215E-01	1.656E-01	2.594E-01	2.283E-02	0.854
		818.51		1.795E-02	1.127E-01	1.862E-01	1.708E-02	0.096
		1048.07	*	-4.064E-02	1.586E-01	2.612E-01	2.388E-02	-0.156
		1235.34		2.477E-01	4.617E-01	8.101E-01	9.343E-02	0.306
CE-139		165.85	*	-6.309E-03	4.422E-02	6.950E-02	5.497E-03	-0.091
BA-140		162.64		-1.993E-01	7.300E-01	1.140E+00	9.686E-02	-0.175
		304.84		-1.931E-01	1.432E+00	2.344E+00	6.564E-01	-0.082
		423.70		1.143E-01	2.550E+00	4.132E+00	1.338E+00	0.028
		537.32	*	-3.284E-02	3.122E-01	5.213E-01	1.732E-01	-0.063
LA-140		328.77		8.410E-02	3.470E-01	5.769E-01	5.225E-02	0.146
		432.53		6.551E-01	2.880E+00	4.709E+00	4.237E-01	0.139
		487.03		-4.439E-03	1.833E-01	2.930E-01	2.736E-02	-0.015
		751.79		-2.837E-01	2.091E+00	3.400E+00	3.389E-01	-0.083
		815.85		-3.857E-02	4.546E-01	7.381E-01	7.462E-02	-0.052
		867.82		1.007E+00	2.208E+00	3.699E+00	3.553E-01	0.272
		919.63		6.562E+00	4.582E+00	8.035E+00	8.891E-01	0.817
		925.24		-2.422E+00	1.923E+00	2.811E+00	2.709E-01	-0.862
		1596.49	*	-1.083E-02	7.988E-02	1.262E-01	1.056E-02	-0.086
CE-141		145.44	*	7.447E-02	7.474E-02	1.249E-01	1.046E-02	0.596
CE-143	+	57.37		7.331E+01	4.110E+01	7.063E+01	6.047E+00	1.038
		231.56		-3.293E+01	8.355E+01	1.363E+02	4.291E+01	-0.242
		293.26	*	3.151E+00	5.310E+00	7.952E+00	1.699E+00	0.396
	+	350.59		3.356E+02	1.392E+02	1.383E+02	4.283E+01	2.426
		490.36		-9.115E+01	1.236E+02	1.823E+02	5.761E+01	-0.500
		664.57		8.417E+02	2.876E+02	1.943E+02	6.284E+01	4.332
		721.93		-2.590E+01	5.376E+01	8.407E+01	2.459E+01	-0.308
CE-144		80.11		-2.751E+00	2.950E+00	4.104E+00	3.505E-01	-0.670
		133.54	*	-2.070E-01	3.052E-01	4.697E-01	7.252E-02	-0.441
PM-144		476.78		-1.991E-03	1.533E-01	2.456E-01	2.351E-02	-0.008
		618.01		4.692E-03	6.022E-02	1.009E-01	9.250E-03	0.047
		696.49	*	-1.749E-02	6.479E-02	1.050E-01	9.412E-03	-0.167
		778.57		-1.286E-01	4.324E+00	7.074E+00	6.462E-01	-0.018
PR-144		696.49	*	-1.181E+00	4.372E+00	7.088E+00	6.352E-01	-0.167
		1489.15		1.211E+01	1.650E+01	3.030E+01	2.531E+00	0.400
PM-146		453.90	*	8.626E-03	9.694E-02	1.567E-01	1.689E-02	0.055
		633.02		1.725E+00	2.644E+00	4.464E+00	1.671E+00	0.387
		735.90		5.064E-02	2.710E-01	4.522E-01	1.299E-01	0.112
		747.13		-1.434E-01	1.677E-01	2.541E-01	3.641E-02	-0.564
ND-147	+	91.11		2.068E-01	1.576E-01	3.368E-01	3.333E-02	0.614
		319.41		-2.330E+00	3.787E+00	6.015E+00	5.159E-01	-0.387
		439.89		-5.695E+00	7.630E+00	1.172E+01	1.010E+00	-0.486
		531.02	*	7.669E-02	6.545E-01	1.109E+00	1.678E-01	0.069
PM-149		285.90	*	-3.108E+00	1.381E+01	2.258E+01	3.491E+00	-0.138
EU-152	+	121.78		5.989E-01	1.960E-01	2.431E-01	2.408E-02	2.464
		244.69		3.655E-01	6.068E-01	9.256E-01	7.838E-02	0.395
		344.27	*	1.980E-02	1.832E-01	2.916E-01	2.643E-02	0.068
		443.98		2.302E-01	2.041E+00	3.310E+00	2.859E-01	0.070
		778.89		2.244E-02	5.089E-01	8.373E-01	7.648E-02	0.027
		867.32		8.863E-01	2.015E+00	3.371E+00	3.094E-01	0.263

---- Non-Identified Nuclides ----

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		964.01		2.223E-01	8.135E-01	1.159E+00	1.049E-01	0.192
		1085.78		-6.050E-01	8.285E-01	1.305E+00	1.126E-01	-0.463
		1112.02		-1.119E-01	7.145E-01	1.181E+00	1.003E-01	-0.095
		1407.95		6.316E-03	2.571E-01	4.231E-01	3.508E-02	0.015
GD-153		69.67		7.274E-02	2.115E+00	3.119E+00	2.389E-01	0.023
		83.37		2.177E+01	2.191E+01	3.337E+01	2.965E+00	0.652
		97.43	*	5.090E-02	1.085E-01	1.617E-01	1.446E-02	0.315
		103.18		5.303E-02	1.354E-01	2.234E-01	1.961E-02	0.237
EU-154	+	123.07		4.202E-01	1.395E-01	1.671E-01	1.894E-02	2.514
		247.94		6.068E-02	5.989E-01	1.004E+00	1.141E-01	0.060
		591.81		-3.872E-01	1.096E+00	1.734E+00	2.068E-01	-0.223
		723.30		-6.205E-01	3.536E-01	4.968E-01	4.920E-02	-1.249
		756.87		9.700E-01	1.484E+00	2.548E+00	3.141E-01	0.381
		873.19		-3.201E-01	6.706E-01	1.049E+00	1.326E-01	-0.305
		996.32		-7.239E-01	8.396E-01	1.240E+00	2.224E-01	-0.584
		1004.76		-9.600E-02	4.784E-01	7.609E-01	9.038E-02	-0.126
		1274.45	*	-4.244E-02	1.500E-01	2.377E-01	2.614E-02	-0.179
EU-155		48.70		8.535E-01	2.984E+00	5.009E+00	4.054E-01	0.170
	+	60.01		4.321E+02	3.477E+01	3.192E+01	2.298E+00	13.538
	+	86.54		3.577E+00	4.050E-01	3.762E-01	3.509E-02	9.508
		105.31	*	-8.123E-02	1.441E-01	2.266E-01	2.002E-02	-0.358
TB-160	+	86.79		8.898E+00	1.002E+00	1.051E+00	9.750E-02	8.465
		197.04		-8.504E-01	8.101E-01	1.300E+00	1.065E-01	-0.654
		215.65		-1.790E-02	1.113E+00	1.869E+00	1.557E-01	-0.010
		298.57		2.146E-01	2.166E-01	3.331E-01	2.848E-02	0.644
		879.36	*	9.808E-02	2.882E-01	4.800E-01	4.402E-02	0.204
		962.29		1.004E+00	1.296E+00	2.007E+00	1.817E-01	0.500
		966.15		4.277E-01	5.525E-01	8.163E-01	7.383E-02	0.524
		1177.93		2.549E-01	5.775E-01	8.796E-01	7.162E-02	0.290
		1271.85		-1.188E-02	7.959E-01	1.313E+00	1.076E-01	-0.009
HO-166M		80.57		-4.071E-01	3.960E-01	5.482E-01	4.709E-02	-0.743
		184.41		-1.490E-02	5.784E-02	8.752E-02	7.075E-03	-0.170
		280.46		-8.240E-03	1.430E-01	2.363E-01	2.007E-02	-0.035
		410.95		3.320E-01	4.876E-01	8.186E-01	6.917E-02	0.406
		711.68	*	4.964E-02	1.097E-01	1.871E-01	1.684E-02	0.265
		752.31		1.862E-01	5.038E-01	8.515E-01	7.743E-02	0.219
		810.29		-1.031E-01	1.202E-01	1.824E-01	1.672E-02	-0.565
TM-171		51.35		-3.039E+01	4.307E+01	7.023E+01	5.423E+00	-0.433
		52.39		-1.129E+01	2.317E+01	3.798E+01	2.889E+00	-0.297
	+	59.40		2.262E+03	1.820E+02	1.747E+02	1.256E+01	12.943
		66.72	*	-3.883E+00	3.131E+01	5.137E+01	3.842E+00	-0.076
LU-176	+	88.36		7.065E+00	7.951E-01	9.037E-01	8.492E-02	7.818
		201.83		3.169E-02	4.511E-02	7.816E-02	6.435E-03	0.405
		306.84	*	5.259E-04	4.354E-02	7.183E-02	6.153E-03	0.007
		401.10		1.001E+01	1.339E+01	2.259E+01	1.894E+00	0.443
LU-177		112.95		-3.611E-01	1.022E+00	1.620E+00	1.398E-01	-0.223
		208.36	*	1.378E+00	7.915E-01	1.410E+00	1.168E-01	0.977
LU-177M		52.97		9.056E-01	2.378E+00	3.985E+00	3.009E-01	0.227
		54.07		1.437E+00	1.420E+00	2.178E+00	1.624E-01	0.660

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		61.30		2.861E+01	3.279E+00	4.986E+00	3.609E-01	5.739
	+	121.62		2.974E+00	9.623E-01	1.207E+00	1.037E-01	2.465
		147.16		-2.678E-01	9.100E-01	1.427E+00	1.168E-01	-0.188
		171.86		-2.701E-01	7.156E-01	1.107E+00	8.819E-02	-0.244
		218.09		3.777E-02	1.365E+00	2.295E+00	1.916E-01	0.016
		268.79		1.232E+00	1.292E+00	2.237E+00	1.901E-01	0.551
		319.02		-2.479E-01	4.668E-01	7.454E-01	6.393E-02	-0.333
		367.43		-8.643E-01	1.653E+00	2.610E+00	2.209E-01	-0.331
		413.65	*	-4.420E-01	3.464E-01	5.143E-01	4.355E-02	-0.859
HF-181		56.28		1.341E+00	1.584E+00	2.410E+00	1.762E-01	0.557
	+	57.53		1.538E+00	8.592E-01	1.597E+00	1.158E-01	0.963
		65.20		-8.366E-01	9.451E-01	1.426E+00	1.055E-01	-0.586
		133.02		-1.089E-01	8.859E-02	1.326E-01	1.112E-02	-0.821
		136.25		8.927E-01	6.108E-01	1.038E+00	8.655E-02	0.860
		345.85		-2.177E-01	3.283E-01	4.970E-01	4.246E-02	-0.438
		482.03	*	-3.871E-02	8.214E-02	1.276E-01	1.123E-02	-0.303
W-181		56.28		5.738E-01	6.732E-01	1.024E+00	7.490E-02	0.560
	+	57.53		6.538E-01	3.653E-01	6.778E-01	4.915E-02	0.965
		65.20	*	-3.529E-01	3.987E-01	6.018E-01	4.453E-02	-0.586
TA-182		67.75		9.140E-02	1.184E-01	2.003E-01	1.510E-02	0.456
		100.10		-5.652E-02	2.236E-01	3.583E-01	3.173E-02	-0.158
		152.43		2.664E-01	4.728E-01	7.730E-01	6.266E-02	0.345
		222.10		-1.274E-02	5.519E-01	9.252E-01	7.745E-02	-0.014
		1001.68		7.467E-01	4.184E+00	6.866E+00	6.146E-01	0.109
		1121.28		9.703E-02	2.694E-01	4.609E-01	3.893E-02	0.211
		1189.05		-2.837E-04	4.147E-01	6.890E-01	5.617E-02	0.000
		1221.42	*	-6.308E-03	2.173E-01	3.590E-01	2.936E-02	-0.018
		1230.97		4.245E-02	5.240E-01	8.771E-01	7.178E-02	0.048
RE-183	+	57.98		6.428E-01	3.592E-01	8.905E-01	6.442E-02	0.722
	+	59.32		8.651E+00	6.962E-01	6.715E-01	4.829E-02	12.884
		67.20		1.594E-01	2.031E-01	3.440E-01	2.582E-02	0.463
		162.32	*	-3.881E-02	1.503E-01	2.349E-01	1.870E-02	-0.165
		208.81		3.113E+00	1.469E+00	2.640E+00	2.187E-01	1.179
		291.72		-5.776E-01	1.627E+00	2.299E+00	1.961E-01	-0.251
RE-184	+	57.98		2.477E+00	1.384E+00	3.432E+00	2.483E-01	0.722
	+	59.32		3.331E+01	2.681E+00	2.586E+00	1.860E-01	12.884
		67.20		6.140E-01	7.826E-01	1.325E+00	9.949E-02	0.463
		161.27		-3.207E-01	5.176E-01	7.925E-01	6.322E-02	-0.405
		216.55		-8.682E-02	4.179E-01	6.958E-01	5.801E-02	-0.125
		252.85	*	5.341E-03	3.771E-01	6.290E-01	5.338E-02	0.008
		318.01		3.818E-01	8.070E-01	1.359E+00	1.166E-01	0.281
		792.07		-6.154E-01	1.950E+00	3.119E+00	2.854E-01	-0.197
		903.28		7.458E-01	2.458E+00	4.063E+00	3.718E-01	0.184
		920.93		1.365E+00	1.087E+00	1.898E+00	1.733E-01	0.719
OS-185	+	59.72		2.406E+01	1.936E+00	1.821E+00	1.310E-01	13.213
		61.14		5.052E+00	4.824E-01	6.481E-01	4.688E-02	7.794
		69.30		6.772E-03	3.384E-01	5.317E-01	4.060E-02	0.013
		592.07		-1.978E+00	4.150E+00	6.689E+00	5.998E-01	-0.296
		646.12	*	-1.354E-02	7.559E-02	1.240E-01	1.102E-02	-0.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		717.42		1.488E-01	1.570E+00	2.607E+00	2.351E-01	0.057
		874.81		-9.910E-01	1.233E+00	1.873E+00	1.718E-01	-0.529
		880.27		1.160E+00	1.617E+00	2.762E+00	2.533E-01	0.420
RE-188		155.03	*	-1.751E-01	2.416E-01	3.690E-01	2.978E-02	-0.475
		477.96		6.672E+00	6.489E+00	1.097E+01	9.636E-01	0.608
		633.10		3.265E+00	4.821E+00	8.381E+00	7.474E-01	0.390
W-188		63.58		-2.423E+01	5.768E+01	8.459E+01	6.195E+00	-0.286
		227.08		4.538E+00	1.967E+01	3.329E+01	2.796E+00	0.136
		290.67	*	-1.419E+00	1.298E+01	1.870E+01	1.595E+00	-0.076
IR-192	+	295.96		3.342E-01	2.402E-01	3.397E-01	2.924E-02	0.984
		308.46		1.104E-01	1.527E-01	2.611E-01	2.249E-02	0.423
		316.51	*	5.291E-02	5.829E-02	1.002E-01	8.612E-03	0.528
		468.07		-3.555E-02	1.420E-01	2.247E-01	2.103E-02	-0.158
		604.41		3.054E-01	8.624E-01	1.292E+00	1.711E-01	0.236
		612.46		8.119E-01	1.324E+00	2.026E+00	2.064E-01	0.401
AU-195		65.12		-1.621E-01	1.875E-01	2.833E-01	2.095E-02	-0.572
		66.83		-1.218E-02	1.014E-01	1.664E-01	1.246E-02	-0.073
	+	75.70		7.230E-01	3.006E-01	4.413E-01	3.587E-02	1.638
		98.88	*	-7.722E-02	2.837E-01	4.544E-01	4.041E-02	-0.170
		129.76		2.119E+00	4.088E+00	6.708E+00	5.666E-01	0.316
TL-200		367.94	*	-1.666E+00	6.284E+00	1.008E+01	8.534E-01	-0.165
		579.30		2.113E+01	4.955E+01	7.512E+01	6.738E+00	0.281
		828.27		1.018E+01	7.702E+01	1.269E+02	1.165E+01	0.080
		1205.75		1.851E+01	2.164E+01	3.944E+01	3.222E+00	0.469
TL-201		68.90		-4.690E-02	9.457E-01	1.554E+00	1.183E-01	-0.030
		70.82		1.554E-02	6.019E-01	8.868E-01	6.864E-02	0.018
		80.30		-1.008E+00	1.229E+00	1.722E+00	1.474E-01	-0.586
		135.34		5.950E+00	6.660E+00	1.108E+01	9.256E-01	0.537
		167.43	*	8.874E-01	1.848E+00	2.997E+00	2.374E-01	0.296
TL-202		68.90		-1.581E-02	3.189E-01	5.241E-01	3.988E-02	-0.030
		70.82		5.227E-03	2.024E-01	2.982E-01	2.308E-02	0.018
		80.30		-3.392E-01	4.135E-01	5.792E-01	4.959E-02	-0.586
		439.56	*	-7.317E-02	9.458E-02	1.450E-01	1.249E-02	-0.505
HG-203		70.83		2.929E-02	1.212E+00	1.785E+00	2.332E-01	0.016
		72.87		3.416E-01	7.107E-01	1.066E+00	1.359E-01	0.320
		82.60		8.468E-01	1.396E+00	2.221E+00	3.078E-01	0.381
		279.20	*	3.042E-02	6.066E-02	1.030E-01	8.997E-03	0.295
BI-207		72.80		1.013E-01	2.332E-01	3.496E-01	2.758E-02	0.290
	+	74.97		4.128E-01	1.716E-01	2.330E-01	1.879E-02	1.771
		84.90		1.796E-01	2.951E-01	4.421E-01	4.004E-02	0.406
		569.67		4.407E-02	5.757E-02	1.008E-01	9.038E-03	0.437
		1063.62	*	-1.659E-02	1.072E-01	1.775E-01	1.549E-02	-0.093
		1770.23		-1.888E+00	8.484E-01	7.224E-01	5.935E-02	-2.614
TL-207		81.07		-3.577E-01	3.239E-01	4.467E-01	3.859E-02	-0.801
		83.78		2.272E-01	1.903E-01	2.918E-01	2.606E-02	0.778
	+	94.90		2.045E-01	4.017E-01	4.924E-01	4.452E-02	0.415
	+	122.32		1.428E+01	4.645E+00	5.845E+00	5.391E-01	2.443
		144.24		2.153E-01	9.654E-01	1.561E+00	1.450E-01	0.138
		154.21		-1.590E-01	5.892E-01	9.232E-01	8.301E-02	-0.172

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		269.46		2.917E-01	3.147E-01	5.439E-01	4.720E-02	0.536
		323.87	*	-2.487E-01	1.211E+00	1.967E+00	3.478E-01	-0.126
	+	338.28		5.582E+00	2.540E+00	3.382E+00	4.150E-01	1.650
		445.03		2.476E+00	4.883E+00	8.084E+00	9.784E-01	0.306
PO-209		260.50		1.580E+01	1.611E+01	2.800E+01	2.379E+00	0.564
		262.80		2.432E+00	4.483E+01	7.476E+01	6.353E+00	0.033
		896.60	*	1.800E+01	1.834E+01	3.158E+01	2.892E+00	0.570
BI-210		46.50	*	-2.582E+00	3.825E+00	6.288E+00	5.898E-01	-0.411
PB-210		46.50	*	-2.582E+00	3.825E+00	6.288E+00	5.898E-01	-0.411
PO-210		46.50	*	-2.582E+00	3.824E+00	6.288E+00	5.350E-01	-0.411
PB-211		404.84	*	8.589E-01	1.971E+00	3.151E+00	1.974E+00	0.273
		427.08		3.104E-01	4.353E+00	7.053E+00	4.382E+00	0.044
		831.96		-8.333E-01	2.709E+00	4.241E+00	2.661E+00	-0.196
BI-212		727.18	*	8.740E-01	5.742E-01	1.029E+00	1.068E-01	0.849
		785.46		1.483E+00	3.402E+00	5.751E+00	5.258E-01	0.258
		1620.62		7.081E-01	1.569E+00	2.789E+00	2.330E-01	0.254
BI-214	+	609.31	*	6.546E-01	2.141E-01	3.247E-01	3.359E-02	2.016
		1120.29		3.616E-01	6.085E-01	1.055E+00	1.133E-01	0.343
		1764.49		7.666E-01	4.170E-01	8.649E-01	7.112E-02	0.886
PO-215		81.07		-3.577E-01	3.239E-01	4.467E-01	3.859E-02	-0.801
		83.78		2.272E-01	1.903E-01	2.918E-01	2.606E-02	0.778
	+	94.90		2.045E-01	4.017E-01	4.924E-01	4.452E-02	0.415
	+	122.32		1.428E+01	4.645E+00	5.845E+00	5.391E-01	2.443
		144.24		2.153E-01	9.654E-01	1.561E+00	1.450E-01	0.138
		154.21		-1.590E-01	5.892E-01	9.232E-01	8.301E-02	-0.172
		269.46		2.917E-01	3.147E-01	5.439E-01	4.720E-02	0.536
		323.87	*	-2.487E-01	1.211E+00	1.967E+00	3.478E-01	-0.126
	+	338.28		5.582E+00	2.540E+00	3.382E+00	4.150E-01	1.650
		445.03		2.476E+00	4.883E+00	8.084E+00	9.784E-01	0.306
RN-219		271.23		2.802E-01	4.010E-01	6.864E-01	7.008E-02	0.408
		401.81	*	2.660E-01	8.426E-01	1.389E+00	2.069E-01	0.192
RN-220		549.76	*	1.228E+00	4.895E+01	8.234E+01	7.372E+00	0.015
RA-223		81.07		-3.577E-01	3.239E-01	4.467E-01	3.859E-02	-0.801
		83.78		2.272E-01	1.903E-01	2.918E-01	2.606E-02	0.778
	+	94.90		2.045E-01	4.017E-01	4.924E-01	4.452E-02	0.415
	+	122.32		1.428E+01	4.645E+00	5.845E+00	5.391E-01	2.443
		144.24		2.153E-01	9.654E-01	1.561E+00	1.450E-01	0.138
		154.21		-1.590E-01	5.892E-01	9.232E-01	8.301E-02	-0.172
		269.46		2.917E-01	3.147E-01	5.439E-01	4.720E-02	0.536
		323.87	*	-2.487E-01	1.211E+00	1.967E+00	3.478E-01	-0.126
	+	338.28		5.582E+00	2.540E+00	3.382E+00	4.150E-01	1.650
		445.03		2.476E+00	4.883E+00	8.084E+00	9.784E-01	0.306
RA-226	+	609.31	*	6.546E-01	2.141E-01	3.247E-01	3.359E-02	2.016
		1120.29		3.616E-01	6.085E-01	1.055E+00	1.133E-01	0.343
		1764.49		7.666E-01	4.170E-01	8.649E-01	7.112E-02	0.886
AC-227		79.80		-2.162E+00	2.349E+00	3.212E+00	6.893E-01	-0.673
		236.00		2.414E-01	4.143E-01	6.302E-01	7.636E-02	0.383
		256.20	*	1.434E-01	6.430E-01	1.082E+00	1.653E-01	0.133
		286.10		-2.739E-01	2.587E+00	4.258E+00	5.592E-01	-0.064

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		299.80		1.241E+00	2.994E+00	4.445E+00	7.760E-01	0.279
		304.40		-1.804E+00	3.339E+00	5.324E+00	9.800E-01	-0.339
		334.20		4.124E+00	4.301E+00	6.555E+00	1.271E+00	0.629
TH-227		79.80		-2.162E+00	2.350E+00	3.212E+00	6.982E-01	-0.673
	+	94.00		1.636E+00	3.230E+00	4.241E+00	9.316E-01	0.386
		236.00		2.414E-01	4.141E-01	6.302E-01	6.892E-02	0.383
		256.20	*	1.434E-01	6.431E-01	1.082E+00	1.947E-01	0.133
		286.10		-2.739E-01	2.601E+00	4.258E+00	4.273E+00	-0.064
		299.80		1.241E+00	2.994E+00	4.445E+00	7.760E-01	0.279
		304.40		-1.804E+00	3.339E+00	5.324E+00	9.800E-01	-0.339
		334.20		4.124E+00	4.301E+00	6.555E+00	1.271E+00	0.629
TH-229		85.43		1.762E-01	2.921E-01	4.372E-01	3.986E-02	0.403
	+	88.47		4.067E+00	4.577E-01	5.189E-01	4.873E-02	7.837
		100.00		-5.106E-02	2.409E-01	3.867E-01	3.426E-02	-0.132
		193.63	*	7.985E-01	8.120E-01	1.381E+00	1.128E-01	0.578
		210.97		-2.357E-01	1.259E+00	2.101E+00	1.744E-01	-0.112
TH-230	+	609.31	*	6.545E-01	2.141E-01	3.247E-01	3.359E-02	2.016
		1120.29		3.616E-01	6.085E-01	1.055E+00	1.133E-01	0.343
		1764.49		7.666E-01	4.170E-01	8.649E-01	7.112E-02	0.886
PA-231		283.67	*	-3.836E-01	2.539E+00	4.170E+00	6.305E-01	-0.092
		301.29		5.781E-01	1.027E+00	1.737E+00	2.119E-01	0.333
TH-231		81.07		-3.577E-01	3.239E-01	4.467E-01	3.859E-02	-0.801
		83.78		2.272E-01	1.903E-01	2.918E-01	2.606E-02	0.778
	+	94.90		2.045E-01	4.017E-01	4.924E-01	4.452E-02	0.415
	+	122.32		1.428E+01	4.645E+00	5.845E+00	5.391E-01	2.443
		144.24		2.153E-01	9.654E-01	1.561E+00	1.450E-01	0.138
		154.21		-1.590E-01	5.892E-01	9.232E-01	8.301E-02	-0.172
		269.46		2.917E-01	3.147E-01	5.439E-01	4.720E-02	0.536
		323.87	*	-2.487E-01	1.211E+00	1.967E+00	3.478E-01	-0.126
	+	338.28		5.582E+00	2.540E+00	3.382E+00	4.150E-01	1.650
		445.03		2.476E+00	4.883E+00	8.084E+00	9.784E-01	0.306
U-231		84.21		2.005E+00	2.297E+00	3.480E+00	3.125E-01	0.576
	+	92.29		7.136E-01	5.433E-01	1.216E+00	1.115E-01	0.587
		95.87	*	9.254E-02	4.252E-01	6.248E-01	5.624E-02	0.148
		108.00		-4.649E-01	7.874E-01	1.235E+00	1.073E-01	-0.376
PA-233	+	75.28		1.205E+01	5.238E+00	6.972E+00	1.050E+00	1.728
	+	86.59		5.831E+01	1.620E+01	6.293E+00	1.701E+00	9.266
		300.12		3.058E-01	7.845E-01	1.225E+00	1.817E-01	0.250
		311.98	*	-1.025E-01	1.085E-01	1.681E-01	1.483E-02	-0.610
		340.50		1.677E+00	1.265E+00	1.900E+00	4.525E-01	0.883
		398.62		4.954E-01	4.165E+00	6.800E+00	1.805E+00	0.073
		415.76		8.028E-01	3.199E+00	5.248E+00	1.128E+00	0.153
PA-234		63.00		3.624E-01	1.808E+00	2.736E+00	4.052E-01	0.132
	+	94.67		1.459E-01	2.868E-01	3.564E-01	4.528E-02	0.409
		98.44		-4.477E-02	1.295E-01	1.928E-01	1.077E-01	-0.232
		99.86		-1.602E-01	6.082E-01	9.740E-01	8.633E-02	-0.165
		111.00		1.554E-01	2.559E-01	4.241E-01	5.134E-02	0.367
		131.20		1.543E-02	1.559E-01	2.510E-01	2.114E-02	0.061
		152.70		3.117E-01	4.814E-01	7.865E-01	1.321E-01	0.396

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	186.00		4.059E+00	3.641E+00	3.457E+00	1.074E+00	1.174
		226.40		-7.849E-02	6.700E-01	1.117E+00	1.459E-01	-0.070
		227.20		1.031E-01	7.175E-01	1.210E+00	1.016E-01	0.085
		248.90		-2.465E-01	1.373E+00	2.268E+00	5.072E-01	-0.109
	+	293.70		2.262E+00	1.660E+00	2.127E+00	3.671E-01	1.063
		369.80		-5.940E-01	1.639E+00	2.607E+00	5.661E-01	-0.228
		568.70		1.356E+00	1.888E+00	3.297E+00	2.957E-01	0.411
		569.50		4.090E-01	5.123E-01	8.984E-01	8.056E-02	0.455
		574.00		-1.361E+00	2.691E+00	4.347E+00	3.899E-01	-0.313
		699.00		3.730E-01	1.283E+00	2.162E+00	4.159E-01	0.173
		706.10		5.604E-01	1.855E+00	3.106E+00	1.387E+00	0.180
		733.00		-9.417E-01	7.393E-01	1.044E+00	2.336E-01	-0.902
		742.81		2.875E-01	2.586E+00	4.278E+00	2.878E+00	0.067
		796.30		3.477E+00	2.186E+00	3.586E+00	9.764E-01	0.970
		805.60		6.619E-01	1.971E+00	3.290E+00	1.014E+00	0.201
		819.60		2.625E+00	2.950E+00	4.828E+00	1.842E+00	0.544
		826.30		-9.134E-01	1.862E+00	2.855E+00	1.280E+00	-0.320
		831.60		-8.472E-01	1.404E+00	2.155E+00	6.466E-01	-0.393
		876.40		-7.588E-01	2.009E+00	2.913E+00	2.996E+00	-0.260
		880.51		4.381E-01	6.221E-01	1.061E+00	9.734E-02	0.413
		883.24		-2.052E-01	6.773E-01	1.052E+00	7.081E-01	-0.195
		899.00		-1.076E+00	2.200E+00	3.368E+00	1.476E+00	-0.320
		925.00		-4.220E+00	3.081E+00	4.467E+00	4.075E-01	-0.945
		926.50		-1.833E-01	4.476E-01	6.998E-01	1.781E-01	-0.262
		946.00	*	-2.805E-01	7.949E-01	1.251E+00	2.375E-01	-0.224
		949.00		3.307E-01	1.182E+00	1.943E+00	1.765E-01	0.170
		980.50		-5.915E-01	1.795E+00	2.820E+00	2.540E-01	-0.210
		1394.10		-1.313E-01	1.286E+00	2.059E+00	1.339E+00	-0.064
PA-234M		766.42		-6.330E-01	2.128E+01	3.485E+01	1.771E+01	-0.018
		1001.03	*	-2.179E+00	1.015E+01	1.614E+01	1.655E+00	-0.135
TH-234		63.29	*	1.083E-01	1.532E+00	2.304E+00	4.009E-01	0.047
	+	92.38		6.694E-01	5.206E-01	1.148E+00	2.106E-01	0.583
U-234	+	609.31	*	6.545E-01	2.141E-01	3.247E-01	3.359E-02	2.016
		1120.29		3.616E-01	6.085E-01	1.055E+00	1.133E-01	0.343
		1764.49		7.666E-01	4.170E-01	8.649E-01	7.112E-02	0.886
U-235	+	89.95		1.587E+00	2.178E+00	2.890E+00	8.975E-01	0.549
	+	93.35		5.091E-01	1.009E+00	1.400E+00	3.944E-01	0.364
		105.00		-8.693E-01	1.441E+00	2.226E+00	6.652E-01	-0.390
		143.76	*	-1.286E-01	3.034E-01	4.733E-01	8.197E-02	-0.272
		163.35		-2.376E-01	7.119E-01	1.106E+00	2.078E-01	-0.215
	+	185.71		1.503E-01	1.271E-01	1.261E-01	1.021E-02	1.192
		205.31		-2.006E+00	9.054E-01	1.239E+00	2.344E-01	-1.619
NP-236	+	94.67		1.107E-01	2.173E-01	2.704E-01	2.447E-02	0.409
		98.44		-3.385E-02	9.613E-02	1.458E-01	1.298E-02	-0.232
		111.00		1.176E-01	1.933E-01	3.208E-01	2.774E-02	0.367
		160.31	*	-7.132E-02	1.190E-01	1.825E-01	1.459E-02	-0.391
NP-237		86.50	*	3.943E+00	1.019E+00	9.003E-01	2.036E-01	4.380
		95.87		2.923E-01	1.345E+00	1.974E+00	4.889E-01	0.148
U-238		63.29	*	1.083E-01	1.532E+00	2.304E+00	4.009E-01	0.047

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		6.694E-01	5.096E-01	1.148E+00	1.052E-01	0.583
NP-239		99.55		-4.734E-02	2.039E-01	3.272E-01	2.903E-02	-0.145
		117.00	*	-3.035E-01	3.057E-01	4.079E-01	3.509E-02	-0.744
		209.75		1.965E+00	1.250E+00	2.217E+00	1.838E-01	0.887
		228.18		8.051E-02	3.676E-01	6.219E-01	5.226E-02	0.129
		277.60		1.410E-01	2.997E-01	5.081E-01	4.313E-02	0.278
		334.30		2.387E+00	2.406E+00	3.724E+00	3.190E-01	0.641
CM-243		99.55		-4.869E-02	2.097E-01	3.365E-01	2.985E-02	-0.145
		103.76	*	-1.752E-02	1.290E-01	2.076E-01	1.819E-02	-0.084
		117.00		-3.121E-01	3.143E-01	4.194E-01	3.608E-02	-0.744
		209.75		1.937E+00	1.232E+00	2.184E+00	1.811E-01	0.887
		228.18		8.131E-02	3.712E-01	6.280E-01	5.278E-02	0.129
		277.60		1.421E-01	3.019E-01	5.120E-01	4.346E-02	0.278
AM-246		798.80		-2.964E-01	3.159E-01	4.819E-01	4.413E-02	-0.615
		1036.00		-1.529E-01	6.580E-01	1.086E+00	9.599E-02	-0.141
		1062.04		-1.066E-01	4.658E-01	7.668E-01	6.696E-02	-0.139
		1078.86	*	-7.586E-02	3.078E-01	5.059E-01	4.380E-02	-0.150
CM-247		278.00		3.109E-01	1.232E+00	2.069E+00	1.756E-01	0.150
		287.40		-2.256E-01	2.101E+00	3.457E+00	2.945E-01	-0.065
		402.60	*	-1.974E-02	7.643E-02	1.221E-01	1.025E-02	-0.162
CF-249		252.85		2.069E-02	1.461E+00	2.436E+00	2.068E-01	0.008
		333.44		1.601E-01	3.198E-01	4.781E-01	4.096E-02	0.335
		387.95	*	1.950E-02	7.912E-02	1.303E-01	1.088E-02	0.150
CF-251		176.60	*	-4.760E-02	1.825E-01	3.061E-01	2.452E-02	-0.155
		227.00		1.421E-01	6.372E-01	1.078E+00	9.055E-02	0.132
		285.00		-1.150E+00	2.927E+00	4.741E+00	4.035E-01	-0.242

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023721    *
* Acquisition date :  2-FEB-2010 09:50:49 Detector SN#    :                *
* Detector ID       : GAM07               Sensitivity     : 5.000          *
* Geometry          : CAN                 Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.32     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202023721          Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.025E-01	6.422E-02	6.138E-02	0.000E+00
CO-60	6.310E+00	5.984E-01	8.336E-02	0.000E+00
CD-109	2.996E+01	3.304E+00	1.891E+00	0.000E+00
SN-126	2.979E+00	3.285E-01	1.884E-01	0.000E+00
BA-137M	5.537E+00	5.442E-01	1.241E-01	0.000E+00
CS-137	5.853E+00	5.761E-01	1.312E-01	0.000E+00
TL-208	4.199E-01	1.241E-01	1.133E-01	0.000E+00
BI-211	2.082E+00	5.925E-01	6.243E-01	0.000E+00
PB-212	1.163E+00	1.814E-01	1.619E-01	0.000E+00
PO-212	1.163E+00	1.814E-01	1.619E-01	0.000E+00
PB-214	7.242E-01	2.094E-01	2.198E-01	0.000E+00
PO-214	7.242E-01	2.094E-01	2.198E-01	0.000E+00
PO-216	1.163E+00	1.814E-01	1.619E-01	0.000E+00
PO-218	7.242E-01	2.094E-01	2.198E-01	0.000E+00
RA-224	2.222E+00	1.634E+00	1.843E+00	0.000E+00
AC-228	5.652E-01	4.590E-01	5.052E-01	0.000E+00
RA-228	5.652E-01	4.590E-01	5.052E-01	0.000E+00
TH-228	1.172E+00	1.827E-01	1.631E-01	0.000E+00
TH-232	5.652E-01	4.590E-01	5.052E-01	0.000E+00
AM-241	1.332E+01	1.138E+00	4.000E-01	0.000E+00
AM-243	2.301E-01	9.372E-02	1.174E-01	0.000E+00
ANH-511	6.331E-02	9.773E-02	8.924E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.262E-01	6.640E-01	1.159E+00	0.000E+00	NOT IDENT.
NA-22	-1.137E-02	5.189E-02	8.583E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.441E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.545E-02	3.495E-02	4.663E-02	0.000E+00	NOT IDENT.
K-40	8.777E-01	5.381E-01	1.125E+00	0.000E+00	NOT IDENT.

TI-44	0.000E+00	5.969E-02	9.096E-02	0.000E+00	FAIL ABUN
SC-46	3.526E-02	8.125E-02	1.419E-01	0.000E+00	NOT IDENT.
V-48	-2.564E-02	1.184E-01	1.951E-01	0.000E+00	NOT IDENT.
CR-51	-2.625E-01	5.504E-01	9.455E-01	0.000E+00	NOT IDENT.
MN-52	-7.805E-02	1.242E-01	1.859E-01	0.000E+00	FAIL ABUN
MN-54	4.686E-02	7.637E-02	1.355E-01	0.000E+00	NOT IDENT.
CO-56	-7.647E-02	7.789E-02	1.222E-01	0.000E+00	NOT IDENT.
CO-58	-4.123E-02	7.194E-02	1.174E-01	0.000E+00	NOT IDENT.
FE-59	-5.586E-02	1.587E-01	2.677E-01	0.000E+00	NOT IDENT.
ZN-65	-8.688E-02	1.927E-01	3.236E-01	0.000E+00	NOT IDENT.
GE-68	7.957E-01	2.631E+00	4.665E+00	0.000E+00	NOT IDENT.
AS-73	2.963E-01	1.222E+00	2.186E+00	0.000E+00	NOT IDENT.
AS-74	-4.081E-02	1.163E-01	1.999E-01	0.000E+00	NOT IDENT.
SE-75	-7.865E-02	7.032E-02	1.184E-01	0.000E+00	FAIL ABUN
BR-77	-8.875E-01	2.015E+00	3.497E+00	0.000E+00	FAIL ABUN
SR-82	-2.616E-01	5.788E-01	9.587E-01	0.000E+00	NOT IDENT.
RB-83	-5.647E-02	1.190E-01	2.060E-01	0.000E+00	NOT IDENT.
RB-84	5.673E-02	1.285E-01	2.248E-01	0.000E+00	NOT IDENT.
KR-85	1.522E+00	1.495E+01	2.347E+01	0.000E+00	NOT IDENT.
SR-85	7.193E-03	7.069E-02	1.110E-01	0.000E+00	NOT IDENT.
RB-86	4.158E-02	1.276E+00	2.222E+00	0.000E+00	NOT IDENT.
Y-88	1.640E-02	3.660E-02	6.930E-02	0.000E+00	NOT IDENT.
ZR-88	8.254E-03	5.539E-02	9.674E-02	0.000E+00	NOT IDENT.
Y-91	1.654E+01	2.042E+01	3.825E+01	0.000E+00	NOT IDENT.
NB-94	-2.607E-02	5.996E-02	1.008E-01	0.000E+00	NOT IDENT.
NB-95	9.507E-03	7.131E-02	1.238E-01	0.000E+00	NOT IDENT.
NB-95M	7.887E-02	1.943E-01	3.170E-01	0.000E+00	NOT IDENT.
ZR-95	2.665E-02	1.214E-01	2.125E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.183E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.755E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	7.242E-01	3.061E+00	5.374E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.829E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.194E-02	5.044E-02	8.981E-02	0.000E+00	NOT IDENT.
RH-102	-2.443E-02	6.729E-02	1.122E-01	0.000E+00	NOT IDENT.
RU-103	-1.764E-02	7.113E-02	1.185E-01	0.000E+00	FAIL ABUN
RH-106	1.891E-01	5.888E-01	1.054E+00	0.000E+00	FAIL ABUN
RU-106	1.891E-01	5.885E-01	1.054E+00	0.000E+00	FAIL ABUN
AG-108M	1.541E-02	6.778E-02	1.178E-01	0.000E+00	NOT IDENT.
AG-110M	1.277E-01	8.007E-02	1.365E-01	0.000E+00	NOT IDENT.
IN-111	1.689E-02	2.941E-01	4.683E-01	0.000E+00	NOT IDENT.
IN-113M	-8.542E-03	8.330E-02	1.425E-01	0.000E+00	NOT IDENT.
SN-113	-8.542E-03	8.330E-02	1.425E-01	0.000E+00	NOT IDENT.
IN-114M	-2.004E-01	2.783E-01	4.316E-01	0.000E+00	NOT IDENT.
CD-115	-7.509E-02	1.815E+00	3.227E+00	0.000E+00	NOT IDENT.
SN-117M	3.475E-02	5.353E-02	9.579E-02	0.000E+00	NOT IDENT.
SB-122	-6.473E-02	5.157E-01	9.064E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.639E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.686E-02	3.913E-02	7.014E-02	0.000E+00	NOT IDENT.
I-124	-1.153E-02	3.521E-01	5.624E-01	0.000E+00	NOT IDENT.
SB-124	5.834E-03	7.763E-02	1.311E-01	0.000E+00	FAIL ABUN
SB-125	-2.317E-02	1.858E-01	3.170E-01	0.000E+00	NOT IDENT.
TE-125M	-3.327E+00	1.147E+01	2.014E+01	0.000E+00	NOT IDENT.
I-126	-4.279E-02	2.506E-01	3.727E-01	0.000E+00	NOT IDENT.
SB-126	1.038E-01	1.681E-01	3.035E-01	0.000E+00	FAIL ABUN
SB-127	5.118E-01	5.847E-01	1.079E+00	0.000E+00	NOT IDENT.
XE-127	2.292E-02	6.158E-02	1.143E-01	0.000E+00	FAIL ABUN
I-131	4.806E-02	1.070E-01	1.912E-01	0.000E+00	NOT IDENT.
TE-132	4.798E-02	2.129E-01	3.896E-01	0.000E+00	NOT IDENT.
BA-133	5.937E-02	8.453E-02	1.374E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.298E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.872E-01	9.976E-02	1.884E-01	0.000E+00	NOT IDENT.
CS-135	6.591E-02	2.625E-01	4.752E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.398E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.064E-02	1.554E-01	2.659E-01	0.000E+00	NOT IDENT.
CE-139	-6.309E-03	4.333E-02	7.429E-02	0.000E+00	NOT IDENT.
BA-140	-3.284E-02	3.060E-01	5.404E-01	0.000E+00	NOT IDENT.
LA-140	-1.083E-02	7.828E-02	1.269E-01	0.000E+00	NOT IDENT.
CE-141	7.447E-02	7.325E-02	1.339E-01	0.000E+00	NOT IDENT.
CE-143	3.151E+00	5.203E+00	8.377E+00	0.000E+00	FAIL ABUN
CE-144	-2.070E-01	2.991E-01	5.048E-01	0.000E+00	NOT IDENT.
PM-144	-1.749E-02	6.349E-02	1.081E-01	0.000E+00	NOT IDENT.
PR-144	-1.181E+00	4.285E+00	7.296E+00	0.000E+00	NOT IDENT.
PM-146	8.626E-03	9.501E-02	1.632E-01	0.000E+00	NOT IDENT.
ND-147	7.669E-02	6.414E-01	1.151E+00	0.000E+00	FAIL ABUN
PM-149	-3.108E+00	1.353E+01	2.380E+01	0.000E+00	NOT IDENT.
EU-152	1.980E-02	1.795E-01	3.058E-01	0.000E+00	FAIL ABUN
GD-153	5.090E-02	1.063E-01	1.752E-01	0.000E+00	NOT IDENT.
EU-154	-4.244E-02	1.470E-01	2.407E-01	0.000E+00	FAIL ABUN

EU-155	-8.123E-02	1.412E-01	2.449E-01	0.000E+00	FAIL ABUN
TB-160	9.808E-02	2.825E-01	4.910E-01	0.000E+00	FAIL ABUN
HO-166M	4.964E-02	1.075E-01	1.925E-01	0.000E+00	NOT IDENT.
TM-171	-3.883E+00	3.068E+01	5.616E+01	0.000E+00	FAIL ABUN
LU-176	5.259E-04	4.267E-02	7.558E-02	0.000E+00	FAIL ABUN
LU-177	1.378E+00	7.757E-01	1.498E+00	0.000E+00	NOT IDENT.
LU-177M	-4.420E-01	3.394E-01	5.369E-01	0.000E+00	FAIL ABUN
HF-181	-3.871E-02	8.050E-02	1.327E-01	0.000E+00	FAIL ABUN
W-181	-3.529E-01	3.908E-01	6.581E-01	0.000E+00	FAIL ABUN
TA-182	-6.308E-03	2.130E-01	3.639E-01	0.000E+00	NOT IDENT.
RE-183	-3.881E-02	1.473E-01	2.512E-01	0.000E+00	FAIL ABUN
RE-184	5.341E-03	3.696E-01	6.651E-01	0.000E+00	FAIL ABUN
OS-185	-1.354E-02	7.408E-02	1.279E-01	0.000E+00	FAIL ABUN
RE-188	-1.751E-01	2.368E-01	3.951E-01	0.000E+00	NOT IDENT.
W-188	-1.419E+00	1.272E+01	1.970E+01	0.000E+00	NOT IDENT.
IR-192	5.291E-02	5.713E-02	1.053E-01	0.000E+00	FAIL ABUN
AU-195	-7.722E-02	2.780E-01	4.919E-01	0.000E+00	FAIL ABUN
TL-200	-1.666E+00	6.158E+00	1.056E+01	0.000E+00	NOT IDENT.
TL-201	8.874E-01	1.811E+00	3.202E+00	0.000E+00	NOT IDENT.
TL-202	-7.317E-02	9.269E-02	1.511E-01	0.000E+00	NOT IDENT.
HG-203	3.042E-02	5.945E-02	1.086E-01	0.000E+00	NOT IDENT.
BI-207	-1.659E-02	1.050E-01	1.806E-01	0.000E+00	FAIL ABUN
TL-207	-2.487E-01	1.187E+00	2.066E+00	0.000E+00	FAIL ABUN
PO-209	1.800E+01	1.797E+01	3.229E+01	0.000E+00	NOT IDENT.
BI-210	-2.582E+00	3.749E+00	6.932E+00	0.000E+00	NOT IDENT.
PB-210	-2.582E+00	3.749E+00	6.932E+00	0.000E+00	NOT IDENT.
PO-210	-2.582E+00	3.747E+00	6.932E+00	0.000E+00	NOT IDENT.
PB-211	8.589E-01	1.932E+00	3.291E+00	0.000E+00	NOT IDENT.
BI-212	8.740E-01	5.627E-01	1.058E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	2.098E-01	3.355E-01	0.000E+00	FAIL ABUN
PO-215	-2.487E-01	1.187E+00	2.066E+00	0.000E+00	FAIL ABUN
RN-219	2.660E-01	8.257E-01	1.451E+00	0.000E+00	NOT IDENT.
RN-220	1.228E+00	4.797E+01	8.531E+01	0.000E+00	NOT IDENT.
RA-223	-2.487E-01	1.187E+00	2.066E+00	0.000E+00	FAIL ABUN
RA-226	0.000E+00	2.098E-01	3.355E-01	0.000E+00	FAIL ABUN
AC-227	1.434E-01	6.301E-01	1.143E+00	0.000E+00	NOT IDENT.
TH-227	1.434E-01	6.303E-01	1.143E+00	0.000E+00	FAIL ABUN
TH-229	7.985E-01	7.958E-01	1.471E+00	0.000E+00	FAIL ABUN
TH-230	0.000E+00	2.098E-01	3.355E-01	0.000E+00	FAIL ABUN
PA-231	-3.836E-01	2.489E+00	4.397E+00	0.000E+00	NOT IDENT.
TH-231	-2.487E-01	1.187E+00	2.066E+00	0.000E+00	FAIL ABUN
U-231	9.254E-02	4.167E-01	6.769E-01	0.000E+00	FAIL ABUN
PA-233	-1.025E-01	1.063E-01	1.768E-01	0.000E+00	FAIL ABUN
PA-234	-2.805E-01	7.790E-01	1.277E+00	0.000E+00	FAIL ABUN
PA-234M	-2.179E+00	9.947E+00	1.645E+01	0.000E+00	NOT IDENT.
TH-234	1.083E-01	1.501E+00	2.522E+00	0.000E+00	FAIL ABUN
U-234	0.000E+00	2.098E-01	3.355E-01	0.000E+00	FAIL ABUN
U-235	-1.286E-01	2.974E-01	5.077E-01	0.000E+00	FAIL ABUN
NP-236	-7.132E-02	1.167E-01	1.953E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	9.990E-01	9.779E-01	0.000E+00	NOT IDENT.
U-238	1.083E-01	1.501E+00	2.522E+00	0.000E+00	FAIL ABUN
NP-239	-3.035E-01	2.996E-01	4.397E-01	0.000E+00	NOT IDENT.
CM-243	-1.752E-02	1.264E-01	2.245E-01	0.000E+00	NOT IDENT.
AM-246	-7.586E-02	3.016E-01	5.145E-01	0.000E+00	NOT IDENT.
CM-247	-1.974E-02	7.490E-02	1.276E-01	0.000E+00	NOT IDENT.
CF-249	1.950E-02	7.754E-02	1.363E-01	0.000E+00	NOT IDENT.
CF-251	-4.760E-02	1.789E-01	3.266E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:51:22.45

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023721.CNF;1
Sample date       : 26-JAN-2010 00:00:00 Acquisition date : 2-FEB-2010 09:50:49.
Sample ID         : G1202023721          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.32  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944966               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	249	85.51*	7.072E+00	1.987E-01	2.025E-01	32.36
	136.48	------	10.60	6.835E+00	------ Line Not Found		------
CO-60	1173.22	1807	100.00	1.358E+00	6.426E+00	6.443E+00	9.67
	1332.49	1587	100.00*	1.218E+00	6.294E+00	6.310E+00	9.68
CD-109	88.03	1567	3.72*	6.867E+00	2.963E+01	2.996E+01	11.26
SN-126	64.28	------	9.60	4.930E+00	------ Line Not Found		------
	86.94	1567	8.90	6.867E+00	1.238E+01	1.238E+01	41.99
	87.57	1567	37.00*	6.867E+00	2.979E+00	2.979E+00	11.26
BA-137M	661.65	2301	89.98*	2.232E+00	5.535E+00	5.537E+00	10.03
CS-137	661.65	2301	85.12*	2.232E+00	5.851E+00	5.853E+00	10.04
TL-208	277.35	------	6.80	4.401E+00	------ Line Not Found		------
	510.84	36	21.60	2.756E+00	2.931E-01	2.931E-01	157.74
	583.14	181	84.20*	2.476E+00	4.199E-01	4.199E-01	30.17
	860.37	------	12.46	1.783E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	5.899E+00	------ Line Not Found		------
	351.07	205	12.94*	3.680E+00	2.082E+00	2.082E+00	29.04
PB-212	74.81	190	10.70	6.057E+00	1.419E+00	1.419E+00	42.61
	77.11	305	18.00	6.260E+00	1.307E+00	1.307E+00	25.27
	87.30	1567	8.00	6.867E+00	1.378E+01	1.378E+01	15.06
	238.63	527	44.60*	4.910E+00	1.163E+00	1.163E+00	15.91
	300.09	------	3.41	4.151E+00	------ Line Not Found		------
PO-212	74.81	190	10.70	6.057E+00	1.419E+00	1.419E+00	42.61
	77.11	305	18.00	6.260E+00	1.307E+00	1.307E+00	25.27
	87.30	1567	8.00	6.867E+00	1.378E+01	1.378E+01	15.06
	115.19	------	0.60	7.150E+00	------ Line Not Found		------
	238.63	527	44.60*	4.910E+00	1.163E+00	1.163E+00	15.91
	300.09	------	3.41	4.151E+00	------ Line Not Found		------
PB-214	74.81	190	6.21	6.057E+00	2.445E+00	2.445E+00	42.22
	77.11	305	10.50	6.260E+00	2.240E+00	2.240E+00	26.39
	87.30	1567	4.67	6.867E+00	2.360E+01	2.360E+01	13.64
	241.98	88	7.49	4.868E+00	1.172E+00	1.172E+00	75.25
	295.21	79	19.20	4.204E+00	4.712E-01	4.712E-01	72.12

Sample ID : G1202023721 Acquisition date : 2-FEB-2010 09:50:49

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	205	37.20*	3.680E+00	7.242E-01	7.242E-01	29.50
PO-214	74.81	190	6.21	6.057E+00	2.445E+00	2.445E+00	42.22
	77.11	305	10.50	6.260E+00	2.240E+00	2.240E+00	26.39
	87.30	1567	4.67	6.867E+00	2.360E+01	2.360E+01	13.64
	241.98	88	7.49	4.868E+00	1.172E+00	1.172E+00	75.25
	295.21	79	19.20	4.204E+00	4.712E-01	4.712E-01	72.12
	351.92	205	37.20*	3.680E+00	7.242E-01	7.242E-01	29.50
PO-216	74.81	190	10.70	6.057E+00	1.419E+00	1.419E+00	42.61
	77.11	305	18.00	6.260E+00	1.307E+00	1.307E+00	25.27
	87.30	1567	8.00	6.867E+00	1.378E+01	1.378E+01	15.06
	238.63	527	44.60*	4.910E+00	1.163E+00	1.163E+00	15.91
	300.09	------	3.41	4.151E+00	------ Line Not Found		------
PO-218	74.81	190	6.21	6.057E+00	2.445E+00	2.445E+00	42.22
	77.11	305	10.50	6.260E+00	2.240E+00	2.240E+00	26.39
	87.30	1567	4.67	6.867E+00	2.360E+01	2.360E+01	13.64
	241.98	88	7.49	4.868E+00	1.172E+00	1.172E+00	75.25
	295.21	79	19.20	4.204E+00	4.712E-01	4.712E-01	72.12
	351.92	205	37.20*	3.680E+00	7.242E-01	7.242E-01	29.50
RA-224	240.98	88	3.95*	4.868E+00	2.222E+00	2.222E+00	75.04
AC-228	338.32	120	11.40	3.793E+00	1.337E+00	1.337E+00	60.17
	911.07	55	27.70*	1.695E+00	5.652E-01	5.652E-01	82.87
	969.11	58	16.60	1.607E+00	1.049E+00	1.049E+00	75.96
RA-228	338.32	120	11.40	3.793E+00	1.337E+00	1.337E+00	60.17
	911.07	55	27.70*	1.695E+00	5.652E-01	5.652E-01	82.87
	969.11	58	16.60	1.607E+00	1.049E+00	1.049E+00	75.96
TH-228	74.81	190	10.70	6.057E+00	1.419E+00	1.430E+00	41.58
	77.11	305	18.00	6.260E+00	1.307E+00	1.316E+00	25.27
	87.30	1567	8.00	6.867E+00	1.378E+01	1.388E+01	11.26
	238.63	527	44.60*	4.910E+00	1.163E+00	1.172E+00	15.91
	300.09	------	3.41	4.151E+00	------ Line Not Found		------
TH-232	338.32	120	11.40	3.793E+00	1.337E+00	1.337E+00	44.64
	911.07	55	27.70*	1.695E+00	5.652E-01	5.652E-01	82.87
	969.11	58	16.60	1.607E+00	1.049E+00	1.049E+00	75.96
AM-241	59.54	4214	35.90*	4.256E+00	1.332E+01	1.332E+01	8.71
AM-243	74.67	190	66.00*	6.057E+00	2.301E-01	2.301E-01	41.57
	86.72	1567	0.34	6.867E+00	3.280E+02	3.280E+02	11.26
	117.66	------	0.55	7.126E+00	------ Line Not Found		------
	142.18	------	0.13	6.723E+00	------ Line Not Found		------
ANH-511	511.00	36	100.00*	2.756E+00	6.331E-02	6.331E-02	157.52

Flag: "*" = Keyline

Sample ID : G1202023721 Acquisition date : 2-FEB-2010 09:50:49

Total number of lines in spectrum	23	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	23	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	1.987E-01	2.025E-01	0.655E-01	32.36	
CO-60	5.27Y	1.00	6.294E+00	6.310E+00	0.611E+00	9.68	
CD-109	464.00D	1.01	2.963E+01	2.996E+01	0.337E+01	11.26	
SN-126	1.00E+05Y	1.00	2.979E+00	2.979E+00	0.335E+00	11.26	
BA-137M	30.17Y	1.00	5.535E+00	5.537E+00	0.555E+00	10.03	
CS-137	30.17Y	1.00	5.851E+00	5.853E+00	0.588E+00	10.04	
TL-208	1.41E+10Y	1.00	4.199E-01	4.199E-01	1.267E-01	30.17	
BI-211	7.04E+08Y	1.00	2.082E+00	2.082E+00	0.605E+00	29.04	
PB-212	1.41E+10Y	1.00	1.163E+00	1.163E+00	0.185E+00	15.91	
PO-212	1.41E+10Y	1.00	1.163E+00	1.163E+00	0.185E+00	15.91	
PB-214	1600.00Y	1.00	7.242E-01	7.242E-01	2.137E-01	29.50	
PO-214	1600.00Y	1.00	7.242E-01	7.242E-01	2.137E-01	29.50	
PO-216	1.41E+10Y	1.00	1.163E+00	1.163E+00	0.185E+00	15.91	
PO-218	1600.00Y	1.00	7.242E-01	7.242E-01	2.137E-01	29.50	
RA-224	1.41E+10Y	1.00	2.222E+00	2.222E+00	1.667E+00	75.04	
AC-228	1.41E+10Y	1.00	5.652E-01	5.652E-01	4.684E-01	82.87	
RA-228	1.41E+10Y	1.00	5.652E-01	5.652E-01	4.684E-01	82.87	
TH-228	1.91Y	1.01	1.163E+00	1.172E+00	0.186E+00	15.91	
TH-232	1.41E+10Y	1.00	5.652E-01	5.652E-01	4.684E-01	82.87	
AM-241	432.20Y	1.00	1.332E+01	1.332E+01	0.116E+01	8.71	
AM-243	7380.00Y	1.00	2.301E-01	2.301E-01	0.956E-01	41.57	
ANH-511	1.00E+09Y	1.00	6.331E-02	6.331E-02	9.972E-02	157.52	
	Total Activity :		7.734E+01	7.771E+01			

Grand Total Activity : 7.734E+01 7.771E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202023721 Acquisition date : 2-FEB-2010 09:50:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	57.88	169	862	1.41	115.42	112	13	4.69E-02	55.4	4.00E+00	T
2	89.77	61	225	1.02	179.18	171	11	1.71E-02	****	6.93E+00	T
2	92.35	53	144	1.00	184.35	182	9	1.46E-02	75.6	7.01E+00	T
2	93.46	33	300	1.26	186.56	182	9	9.27E-03	****	7.04E+00	T
0	186.26	98	364	2.13	372.13	367	13	2.71E-02	84.1	5.81E+00	T
0	609.27	150	110	1.44	1218.01	1213	10	4.16E-02	31.0	2.39E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-FEB-2010 10:51:28.88

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023721.CNF;1   *
* Acquisition date : 2-FEB-2010 09:50:49.  Detector SN#    :                  *
* Detector ID      : GAM07                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 01:00:01.32         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 26-JAN-2010 00:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202023721           Analyst initials: MXR1             *
* Batch Number     : 944966                Sample Quantity : 1.55440E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.025E-01	6.553E-02	5.699E-02	4.903E-03	3.554
CO-60	6.310E+00	6.106E-01	8.244E-02	6.753E-03	76.550
CD-109	2.996E+01	3.372E+00	1.742E+00	1.641E-01	17.201
SN-126	2.979E+00	3.352E-01	1.735E-01	1.626E-02	17.163
BA-137M	5.537E+00	5.553E-01	1.204E-01	1.065E-02	45.999
CS-137	5.853E+00	5.878E-01	1.273E-01	1.128E-02	45.999
TL-208	4.199E-01	1.267E-01	1.095E-01	1.047E-02	3.835
BI-211	2.082E+00	6.046E-01	5.955E-01	5.342E-02	3.496
PB-212	1.163E+00	1.851E-01	1.529E-01	1.463E-02	7.608
PO-212	1.163E+00	1.851E-01	1.529E-01	1.463E-02	7.608
PB-214	7.242E-01	2.137E-01	2.097E-01	2.176E-02	3.454
PO-214	7.242E-01	2.137E-01	2.097E-01	2.176E-02	3.454
PO-216	1.163E+00	1.851E-01	1.529E-01	1.463E-02	7.608
PO-218	7.242E-01	2.137E-01	2.097E-01	2.176E-02	3.454
RA-224	2.222E+00	1.667E+00	1.741E+00	1.472E-01	1.276
AC-228	5.652E-01	4.684E-01	4.944E-01	5.759E-02	1.143
RA-228	5.652E-01	4.684E-01	4.944E-01	5.759E-02	1.143
TH-228	1.172E+00	1.865E-01	1.540E-01	1.473E-02	7.608

Sample ID : G1202023721 Acquisition date : 2-FEB-2010 09:50:49

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	5.652E-01	4.684E-01	4.944E-01	5.759E-02	1.143
AM-241	1.332E+01	1.161E+00	3.650E-01	2.893E-02	36.502
AM-243	2.301E-01	9.564E-02	1.077E-01	8.659E-03	2.136
ANH-511	6.331E-02	9.972E-02	8.597E-02	7.638E-03	0.736

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.262E-01		6.775E-01	1.115E+00	1.052E-01	0.293
NA-22	-1.137E-02		5.295E-02	8.478E-02	6.959E-03	-0.134
NA-24	4.223E-05		7.352E-05	Half-Life too short		
AL-26	-2.545E-02		3.567E-02	4.652E-02	3.794E-03	-0.547
K-40	8.777E-01		5.491E-01	1.116E+00	9.582E-02	0.787
TI-44	2.411E-01	+	6.091E-02	8.354E-02	6.994E-03	2.886
SC-46	3.526E-02		8.290E-02	1.387E-01	1.271E-02	0.254
V-48	-2.564E-02		1.208E-01	1.914E-01	1.723E-02	-0.134
CR-51	-2.625E-01		5.617E-01	8.996E-01	8.129E-02	-0.292
MN-52	-7.805E-02		1.268E-01	1.842E-01	1.532E-02	-0.424
MN-54	4.686E-02		7.793E-02	1.323E-01	1.214E-02	0.354
CO-56	-7.647E-02		7.948E-02	1.193E-01	1.096E-02	-0.641
CO-58	-4.123E-02		7.340E-02	1.145E-01	1.052E-02	-0.360
FE-59	-5.586E-02		1.620E-01	2.633E-01	2.439E-02	-0.212
ZN-65	-8.688E-02		1.966E-01	3.184E-01	2.702E-02	-0.273
GE-68	7.957E-01		2.685E+00	4.586E+00	3.974E-01	0.174
AS-73	2.963E-01		1.247E+00	1.989E+00	1.494E-01	0.149
AS-74	-4.081E-02		1.187E-01	1.934E-01	1.733E-02	-0.211
SE-75	-7.865E-02		7.175E-02	1.121E-01	9.573E-03	-0.702
BR-77	-8.875E-01		2.056E+00	3.371E+00	3.002E-01	-0.263
SR-82	-2.616E-01		5.906E-01	9.341E-01	8.529E-02	-0.280
RB-83	-5.647E-02		1.214E-01	1.985E-01	1.768E-02	-0.284
RB-84	5.673E-02		1.312E-01	2.198E-01	2.016E-02	0.258
KR-85	1.522E+00		1.526E+01	2.262E+01	2.011E+00	0.067
SR-85	7.193E-03		7.214E-02	1.069E-01	9.507E-03	0.067
RB-86	4.158E-02		1.302E+00	2.184E+00	1.893E-01	0.019
Y-88	1.640E-02		3.735E-02	6.917E-02	5.614E-03	0.237
ZR-88	8.254E-03		5.652E-02	9.255E-02	7.709E-03	0.089
Y-91	1.654E+01		2.083E+01	3.773E+01	3.081E+00	0.438
NB-94	-2.607E-02		6.118E-02	9.791E-02	8.791E-03	-0.266
NB-95	9.507E-03		7.277E-02	1.206E-01	1.099E-02	0.079
NB-95M	7.887E-02		1.983E-01	2.992E-01	2.905E-02	0.264
ZR-95	2.665E-02		1.239E-01	2.069E-01	2.054E-02	0.129
NB-97	2.522E-04		6.034E-05	Half-Life too short		
ZR-97	5.929E-04		8.954E-04	Half-Life too short		
MO-99	7.242E-01		3.124E+00	5.229E+00	8.075E-01	0.138
TC-99M	-7.720E+00		1.443E+01	Half-Life too short		
RH-101	-3.194E-02		5.147E-02	8.441E-02	6.924E-03	-0.378
RH-102	-2.443E-02		6.867E-02	1.078E-01	9.461E-03	-0.227

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-103	-1.764E-02		7.258E-02	1.140E-01	1.631E-02	-0.155
RH-106	1.891E-01		6.008E-01	1.021E+00	1.385E-01	0.185
RU-106	1.891E-01		6.005E-01	1.021E+00	9.124E-02	0.185
AG-108M	1.541E-02		6.917E-02	1.130E-01	1.009E-02	0.136
AG-110M	1.277E-01		8.170E-02	1.324E-01	1.206E-02	0.964
IN-111	1.689E-02		3.001E-01	4.425E-01	3.748E-02	0.038
IN-113M	-8.542E-03		8.500E-02	1.363E-01	1.172E-02	-0.063
SN-113	-8.542E-03		8.500E-02	1.363E-01	1.172E-02	-0.063
IN-114M	-2.004E-01		2.840E-01	4.053E-01	3.297E-02	-0.494
CD-115	-7.509E-02		1.852E+00	3.111E+00	2.776E-01	-0.024
SN-117M	3.475E-02		5.463E-02	8.952E-02	7.178E-03	0.388
SB-122	-6.473E-02		5.263E-01	8.754E-01	7.848E-02	-0.074
I-123	3.184E-04		2.367E-04	Half-Life too short		
TE-123M	2.686E-02		3.993E-02	6.556E-02	5.289E-03	0.410
I-124	-1.153E-02		3.593E-01	5.442E-01	4.876E-02	-0.021
SB-124	5.834E-03		7.922E-02	1.305E-01	1.131E-02	0.045
SB-125	-2.317E-02		1.896E-01	3.039E-01	2.650E-02	-0.076
TE-125M	-3.327E+00		1.170E+01	1.865E+01	1.931E+00	-0.178
I-126	-4.279E-02		2.557E-01	3.616E-01	3.206E-02	-0.118
SB-126	1.038E-01		1.715E-01	2.951E-01	2.663E-02	0.352
SB-127	5.118E-01		5.966E-01	1.048E+00	1.031E-01	0.488
XE-127	2.292E-02		6.284E-02	1.075E-01	8.861E-03	0.213
I-131	4.806E-02		1.091E-01	1.826E-01	1.627E-02	0.263
TE-132	4.798E-02		2.172E-01	3.674E-01	5.327E-02	0.131
BA-133	5.937E-02		8.625E-02	1.311E-01	1.721E-02	0.453
I-133	-4.129E-06		1.173E-05	Half-Life too short		
CS-134	1.872E-01		1.018E-01	1.837E-01	1.692E-02	1.019
CS-135	6.591E-02		2.679E-01	4.501E-01	4.438E-02	0.146
I-135	-5.851E+00		1.223E+01	Half-Life too short		
CS-136	-4.064E-02		1.586E-01	2.612E-01	2.388E-02	-0.156
CE-139	-6.309E-03		4.422E-02	6.950E-02	5.497E-03	-0.091
BA-140	-3.284E-02		3.122E-01	5.213E-01	1.732E-01	-0.063
LA-140	-1.083E-02		7.988E-02	1.262E-01	1.056E-02	-0.086
CE-141	7.447E-02		7.474E-02	1.249E-01	1.046E-02	0.596
CE-143	3.151E+00		5.310E+00	7.952E+00	1.699E+00	0.396
CE-144	-2.070E-01		3.052E-01	4.697E-01	7.252E-02	-0.441
PM-144	-1.749E-02		6.479E-02	1.050E-01	9.412E-03	-0.167
PR-144	-1.181E+00		4.372E+00	7.088E+00	6.352E-01	-0.167
PM-146	8.626E-03		9.694E-02	1.567E-01	1.689E-02	0.055
ND-147	7.669E-02		6.545E-01	1.109E+00	1.678E-01	0.069
PM-149	-3.108E+00		1.381E+01	2.258E+01	3.491E+00	-0.138
EU-152	1.980E-02		1.832E-01	2.916E-01	2.643E-02	0.068
GD-153	5.090E-02		1.085E-01	1.617E-01	1.446E-02	0.315
EU-154	-4.244E-02		1.500E-01	2.377E-01	2.614E-02	-0.179
EU-155	-8.123E-02		1.441E-01	2.266E-01	2.002E-02	-0.358
TB-160	9.808E-02		2.882E-01	4.800E-01	4.402E-02	0.204
HO-166M	4.964E-02		1.097E-01	1.871E-01	1.684E-02	0.265
TM-171	-3.883E+00		3.131E+01	5.137E+01	3.842E+00	-0.076

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-176	5.259E-04		4.354E-02	7.183E-02	6.153E-03	0.007
LU-177	1.378E+00		7.915E-01	1.410E+00	1.168E-01	0.977
LU-177M	-4.420E-01		3.464E-01	5.143E-01	4.355E-02	-0.859
HF-181	-3.871E-02		8.214E-02	1.276E-01	1.123E-02	-0.303
W-181	-3.529E-01		3.987E-01	6.018E-01	4.453E-02	-0.586
TA-182	-6.308E-03		2.173E-01	3.590E-01	2.936E-02	-0.018
RE-183	-3.881E-02		1.503E-01	2.349E-01	1.870E-02	-0.165
RE-184	5.341E-03		3.771E-01	6.290E-01	5.338E-02	0.008
OS-185	-1.354E-02		7.559E-02	1.240E-01	1.102E-02	-0.109
RE-188	-1.751E-01		2.416E-01	3.690E-01	2.978E-02	-0.475
W-188	-1.419E+00		1.298E+01	1.870E+01	1.595E+00	-0.076
IR-192	5.291E-02		5.829E-02	1.002E-01	8.612E-03	0.528
AU-195	-7.722E-02		2.837E-01	4.544E-01	4.041E-02	-0.170
TL-200	-1.666E+00		6.284E+00	1.008E+01	8.534E-01	-0.165
TL-201	8.874E-01		1.848E+00	2.997E+00	2.374E-01	0.296
TL-202	-7.317E-02		9.458E-02	1.450E-01	1.249E-02	-0.505
HG-203	3.042E-02		6.066E-02	1.030E-01	8.997E-03	0.295
BI-207	-1.659E-02		1.072E-01	1.775E-01	1.549E-02	-0.093
TL-207	-2.487E-01		1.211E+00	1.967E+00	3.478E-01	-0.126
PO-209	1.800E+01		1.834E+01	3.158E+01	2.892E+00	0.570
BI-210	-2.582E+00		3.825E+00	6.288E+00	5.898E-01	-0.411
PB-210	-2.582E+00		3.825E+00	6.288E+00	5.898E-01	-0.411
PO-210	-2.582E+00		3.824E+00	6.288E+00	5.350E-01	-0.411
PB-211	8.589E-01		1.971E+00	3.151E+00	1.974E+00	0.273
BI-212	8.740E-01		5.742E-01	1.029E+00	1.068E-01	0.849
BI-214	6.546E-01	+	2.141E-01	3.247E-01	3.359E-02	2.016
PO-215	-2.487E-01		1.211E+00	1.967E+00	3.478E-01	-0.126
RN-219	2.660E-01		8.426E-01	1.389E+00	2.069E-01	0.192
RN-220	1.228E+00		4.895E+01	8.234E+01	7.372E+00	0.015
RA-223	-2.487E-01		1.211E+00	1.967E+00	3.478E-01	-0.126
RA-226	6.546E-01	+	2.141E-01	3.247E-01	3.359E-02	2.016
AC-227	1.434E-01		6.430E-01	1.082E+00	1.653E-01	0.133
TH-227	1.434E-01		6.431E-01	1.082E+00	1.947E-01	0.133
TH-229	7.985E-01		8.120E-01	1.381E+00	1.128E-01	0.578
TH-230	6.545E-01	+	2.141E-01	3.247E-01	3.359E-02	2.016
PA-231	-3.836E-01		2.539E+00	4.170E+00	6.305E-01	-0.092
TH-231	-2.487E-01		1.211E+00	1.967E+00	3.478E-01	-0.126
U-231	9.254E-02		4.252E-01	6.248E-01	5.624E-02	0.148
PA-233	-1.025E-01		1.085E-01	1.681E-01	1.483E-02	-0.610
PA-234	-2.805E-01		7.949E-01	1.251E+00	2.375E-01	-0.224
PA-234M	-2.179E+00		1.015E+01	1.614E+01	1.655E+00	-0.135
TH-234	1.083E-01		1.532E+00	2.304E+00	4.009E-01	0.047
U-234	6.545E-01	+	2.141E-01	3.247E-01	3.359E-02	2.016
U-235	-1.286E-01		3.034E-01	4.733E-01	8.197E-02	-0.272
NP-236	-7.132E-02		1.190E-01	1.825E-01	1.459E-02	-0.391
NP-237	3.943E+00		1.019E+00	9.003E-01	2.036E-01	4.380
U-238	1.083E-01		1.532E+00	2.304E+00	4.009E-01	0.047
NP-239	-3.035E-01		3.057E-01	4.079E-01	3.509E-02	-0.744

Sample ID : G1202023721 Acquisition date : 2-FEB-2010 09:50:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.752E-02		1.290E-01	2.076E-01	1.819E-02	-0.084
AM-246	-7.586E-02		3.078E-01	5.059E-01	4.380E-02	-0.150
CM-247	-1.974E-02		7.643E-02	1.221E-01	1.025E-02	-0.162
CF-249	1.950E-02		7.912E-02	1.303E-01	1.088E-02	0.150
CF-251	-4.760E-02		1.825E-01	3.061E-01	2.452E-02	-0.155

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202023721          *
* Acquisition date  :  2-FEB-2010 09:50:49 Detector SN#     :               *
* Detector ID       : GAM07                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.32      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202023721          Analyst initials: MXR1           *
* Batch Number      : 944966               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.025E-01	6.422E-02	3.071E-02	3.277E-02
CO-60	6.310E+00	5.984E-01	4.170E-02	3.053E-01
CD-109	2.996E+01	3.304E+00	9.460E-01	1.686E+00
SN-126	2.979E+00	3.285E-01	9.428E-02	1.676E-01
BA-137M	5.537E+00	5.442E-01	6.209E-02	2.776E-01
CS-137	5.853E+00	5.761E-01	6.563E-02	2.939E-01
TL-208	4.199E-01	1.241E-01	5.666E-02	6.334E-02
BI-211	2.082E+00	5.925E-01	3.123E-01	3.023E-01
PB-212	1.163E+00	1.814E-01	8.101E-02	9.255E-02
PO-212	1.163E+00	1.814E-01	8.101E-02	9.255E-02
PB-214	7.242E-01	2.094E-01	1.100E-01	1.068E-01
PO-214	7.242E-01	2.094E-01	1.100E-01	1.068E-01
PO-216	1.163E+00	1.814E-01	8.101E-02	9.255E-02
PO-218	7.242E-01	2.094E-01	1.100E-01	1.068E-01
RA-224	2.222E+00	1.634E+00	9.219E-01	8.335E-01
AC-228	5.652E-01	4.590E-01	2.527E-01	2.342E-01
RA-228	5.652E-01	4.590E-01	2.527E-01	2.342E-01
TH-228	1.172E+00	1.827E-01	8.161E-02	9.323E-02
TH-232	5.652E-01	4.590E-01	2.527E-01	2.342E-01
AM-241	1.332E+01	1.138E+00	2.001E-01	5.804E-01
AM-243	2.301E-01	9.372E-02	5.875E-02	4.782E-02
ANH-511	6.331E-02	9.773E-02	4.465E-02	4.986E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.262E-01	6.640E-01	5.799E-01	3.388E-01	NOT IDENT.
NA-22	-1.137E-02	5.189E-02	4.294E-02	2.648E-02	NOT IDENT.
NA-24	4.223E+01	1.441E+02	0.000E+00	7.352E+01	SHORT HLIF
AL-26	-2.545E-02	3.495E-02	2.333E-02	1.783E-02	NOT IDENT.
K-40	8.777E-01	5.381E-01	5.630E-01	2.746E-01	NOT IDENT.

TI-44	2.411E-01	5.969E-02	4.551E-02	3.046E-02	FAIL ABUN
SC-46	3.526E-02	8.125E-02	7.097E-02	4.145E-02	NOT IDENT.
V-48	-2.564E-02	1.184E-01	9.763E-02	6.039E-02	NOT IDENT.
CR-51	-2.625E-01	5.504E-01	4.730E-01	2.808E-01	NOT IDENT.
MN-52	-7.805E-02	1.242E-01	9.298E-02	6.338E-02	FAIL ABUN
MN-54	4.686E-02	7.637E-02	6.778E-02	3.897E-02	NOT IDENT.
CO-56	-7.647E-02	7.789E-02	6.114E-02	3.974E-02	NOT IDENT.
CO-58	-4.123E-02	7.194E-02	5.872E-02	3.670E-02	NOT IDENT.
FE-59	-5.586E-02	1.587E-01	1.339E-01	8.099E-02	NOT IDENT.
ZN-65	-8.688E-02	1.927E-01	1.619E-01	9.831E-02	NOT IDENT.
GE-68	7.957E-01	2.631E+00	2.334E+00	1.342E+00	NOT IDENT.
AS-73	2.963E-01	1.222E+00	1.093E+00	6.234E-01	NOT IDENT.
AS-74	-4.081E-02	1.163E-01	1.000E-01	5.934E-02	NOT IDENT.
SE-75	-7.865E-02	7.032E-02	5.923E-02	3.588E-02	FAIL ABUN
BR-77	-8.875E-01	2.015E+00	1.750E+00	1.028E+00	FAIL ABUN
SR-82	-2.616E-01	5.788E-01	4.797E-01	2.953E-01	NOT IDENT.
RB-83	-5.647E-02	1.190E-01	1.031E-01	6.070E-02	NOT IDENT.
RB-84	5.673E-02	1.285E-01	1.125E-01	6.558E-02	NOT IDENT.
KR-85	1.522E+00	1.495E+01	1.174E+01	7.630E+00	NOT IDENT.
SR-85	7.193E-03	7.069E-02	5.551E-02	3.607E-02	NOT IDENT.
RB-86	4.158E-02	1.276E+00	1.111E+00	6.508E-01	NOT IDENT.
Y-88	1.640E-02	3.660E-02	3.467E-02	1.867E-02	NOT IDENT.
ZR-88	8.254E-03	5.539E-02	4.840E-02	2.826E-02	NOT IDENT.
Y-91	1.654E+01	2.042E+01	1.914E+01	1.042E+01	NOT IDENT.
NB-94	-2.607E-02	5.996E-02	5.042E-02	3.059E-02	NOT IDENT.
NB-95	9.507E-03	7.131E-02	6.195E-02	3.638E-02	NOT IDENT.
NB-95M	7.887E-02	1.943E-01	1.586E-01	9.915E-02	NOT IDENT.
ZR-95	2.665E-02	1.214E-01	1.063E-01	6.194E-02	NOT IDENT.
NB-97	2.522E+02	1.183E+02	0.000E+00	6.034E+01	SHORT HLIF
ZR-97	5.929E+02	1.755E+03	0.000E+00	8.954E+02	SHORT HLIF
MO-99	7.242E-01	3.061E+00	2.689E+00	1.562E+00	NOT IDENT.
TC-99M	-7.720E+06	2.829E+07	0.000E+00	1.443E+07	SHORT HLIF
RH-101	-3.194E-02	5.044E-02	4.493E-02	2.574E-02	NOT IDENT.
RH-102	-2.443E-02	6.729E-02	5.612E-02	3.433E-02	NOT IDENT.
RU-103	-1.764E-02	7.113E-02	5.927E-02	3.629E-02	FAIL ABUN
RH-106	1.891E-01	5.888E-01	5.274E-01	3.004E-01	FAIL ABUN
RU-106	1.891E-01	5.885E-01	5.274E-01	3.002E-01	FAIL ABUN
AG-108M	1.541E-02	6.778E-02	5.896E-02	3.458E-02	NOT IDENT.
AG-110M	1.277E-01	8.007E-02	6.830E-02	4.085E-02	NOT IDENT.
IN-111	1.689E-02	2.941E-01	2.343E-01	1.500E-01	NOT IDENT.
IN-113M	-8.542E-03	8.330E-02	7.130E-02	4.250E-02	NOT IDENT.
SN-113	-8.542E-03	8.330E-02	7.130E-02	4.250E-02	NOT IDENT.
IN-114M	-2.004E-01	2.783E-01	2.159E-01	1.420E-01	NOT IDENT.
CD-115	-7.509E-02	1.815E+00	1.614E+00	9.262E-01	NOT IDENT.
SN-117M	3.475E-02	5.353E-02	4.792E-02	2.731E-02	NOT IDENT.
SB-122	-6.473E-02	5.157E-01	4.535E-01	2.631E-01	NOT IDENT.
I-123	3.184E+02	4.639E+02	0.000E+00	2.367E+02	SHORT HLIF
TE-123M	2.686E-02	3.913E-02	3.509E-02	1.997E-02	NOT IDENT.
I-124	-1.153E-02	3.521E-01	2.814E-01	1.796E-01	NOT IDENT.
SB-124	5.834E-03	7.763E-02	6.559E-02	3.961E-02	FAIL ABUN
SB-125	-2.317E-02	1.858E-01	1.586E-01	9.478E-02	NOT IDENT.
TE-125M	-3.327E+00	1.147E+01	1.008E+01	5.852E+00	NOT IDENT.
I-126	-4.279E-02	2.506E-01	1.865E-01	1.279E-01	NOT IDENT.
SB-126	1.038E-01	1.681E-01	1.518E-01	8.576E-02	FAIL ABUN
SB-127	5.118E-01	5.847E-01	5.398E-01	2.983E-01	NOT IDENT.
XE-127	2.292E-02	6.158E-02	5.720E-02	3.142E-02	FAIL ABUN
I-131	4.806E-02	1.070E-01	9.566E-02	5.457E-02	NOT IDENT.
TE-132	4.798E-02	2.129E-01	1.949E-01	1.086E-01	NOT IDENT.
BA-133	5.937E-02	8.453E-02	6.873E-02	4.313E-02	NOT IDENT.
I-133	-4.129E+00	2.298E+01	0.000E+00	1.173E+01	SHORT HLIF
CS-134	1.872E-01	9.976E-02	9.426E-02	5.090E-02	NOT IDENT.
CS-135	6.591E-02	2.625E-01	2.378E-01	1.339E-01	NOT IDENT.
I-135	-5.851E+06	2.398E+07	0.000E+00	1.223E+07	SHORT HLIF
CS-136	-4.064E-02	1.554E-01	1.330E-01	7.930E-02	NOT IDENT.
CE-139	-6.309E-03	4.333E-02	3.716E-02	2.211E-02	NOT IDENT.
BA-140	-3.284E-02	3.060E-01	2.704E-01	1.561E-01	NOT IDENT.
LA-140	-1.083E-02	7.828E-02	6.351E-02	3.994E-02	NOT IDENT.
CE-141	7.447E-02	7.325E-02	6.701E-02	3.737E-02	NOT IDENT.
CE-143	3.151E+00	5.203E+00	4.191E+00	2.655E+00	FAIL ABUN
CE-144	-2.070E-01	2.991E-01	2.525E-01	1.526E-01	NOT IDENT.
PM-144	-1.749E-02	6.349E-02	5.409E-02	3.239E-02	NOT IDENT.
PR-144	-1.181E+00	4.285E+00	3.650E+00	2.186E+00	NOT IDENT.
PM-146	8.626E-03	9.501E-02	8.166E-02	4.847E-02	NOT IDENT.
ND-147	7.669E-02	6.414E-01	5.756E-01	3.273E-01	FAIL ABUN
PM-149	-3.108E+00	1.353E+01	1.191E+01	6.905E+00	NOT IDENT.
EU-152	1.980E-02	1.795E-01	1.530E-01	9.158E-02	FAIL ABUN
GD-153	5.090E-02	1.063E-01	8.764E-02	5.423E-02	NOT IDENT.
EU-154	-4.244E-02	1.470E-01	1.204E-01	7.502E-02	FAIL ABUN

EU-155	-8.123E-02	1.412E-01	1.225E-01	7.206E-02	FAIL ABUN
TB-160	9.808E-02	2.825E-01	2.456E-01	1.441E-01	FAIL ABUN
HO-166M	4.964E-02	1.075E-01	9.629E-02	5.485E-02	NOT IDENT.
TM-171	-3.883E+00	3.068E+01	2.809E+01	1.565E+01	FAIL ABUN
LU-176	5.259E-04	4.267E-02	3.781E-02	2.177E-02	FAIL ABUN
LU-177	1.378E+00	7.757E-01	7.494E-01	3.958E-01	NOT IDENT.
LU-177M	-4.420E-01	3.394E-01	2.686E-01	1.732E-01	FAIL ABUN
HF-181	-3.871E-02	8.050E-02	6.638E-02	4.107E-02	FAIL ABUN
W-181	-3.529E-01	3.908E-01	3.293E-01	1.994E-01	FAIL ABUN
TA-182	-6.308E-03	2.130E-01	1.821E-01	1.087E-01	NOT IDENT.
RE-183	-3.881E-02	1.473E-01	1.257E-01	7.514E-02	FAIL ABUN
RE-184	5.341E-03	3.696E-01	3.327E-01	1.886E-01	FAIL ABUN
OS-185	-1.354E-02	7.408E-02	6.398E-02	3.779E-02	FAIL ABUN
RE-188	-1.751E-01	2.368E-01	1.976E-01	1.208E-01	NOT IDENT.
W-188	-1.419E+00	1.272E+01	9.856E+00	6.490E+00	NOT IDENT.
IR-192	5.291E-02	5.713E-02	5.270E-02	2.915E-02	FAIL ABUN
AU-195	-7.722E-02	2.780E-01	2.461E-01	1.418E-01	FAIL ABUN
TL-200	-1.666E+00	6.158E+00	5.283E+00	3.142E+00	NOT IDENT.
TL-201	8.874E-01	1.811E+00	1.602E+00	9.240E-01	NOT IDENT.
TL-202	-7.317E-02	9.269E-02	7.559E-02	4.729E-02	NOT IDENT.
HG-203	3.042E-02	5.945E-02	5.434E-02	3.033E-02	NOT IDENT.
BI-207	-1.659E-02	1.050E-01	9.036E-02	5.359E-02	FAIL ABUN
TL-207	-2.487E-01	1.187E+00	1.034E+00	6.054E-01	FAIL ABUN
PO-209	1.800E+01	1.797E+01	1.615E+01	9.169E+00	NOT IDENT.
BI-210	-2.582E+00	3.749E+00	3.468E+00	1.913E+00	NOT IDENT.
PB-210	-2.582E+00	3.749E+00	3.468E+00	1.913E+00	NOT IDENT.
PO-210	-2.582E+00	3.747E+00	3.468E+00	1.912E+00	NOT IDENT.
PB-211	8.589E-01	1.932E+00	1.647E+00	9.856E-01	NOT IDENT.
BI-212	8.740E-01	5.627E-01	5.295E-01	2.871E-01	NOT IDENT.
BI-214	6.546E-01	2.098E-01	1.678E-01	1.071E-01	FAIL ABUN
PO-215	-2.487E-01	1.187E+00	1.034E+00	6.054E-01	FAIL ABUN
RN-219	2.660E-01	8.257E-01	7.259E-01	4.213E-01	NOT IDENT.
RN-220	1.228E+00	4.797E+01	4.268E+01	2.447E+01	NOT IDENT.
RA-223	-2.487E-01	1.187E+00	1.034E+00	6.054E-01	FAIL ABUN
RA-226	6.546E-01	2.098E-01	1.678E-01	1.071E-01	FAIL ABUN
AC-227	1.434E-01	6.301E-01	5.721E-01	3.215E-01	NOT IDENT.
TH-227	1.434E-01	6.303E-01	5.721E-01	3.216E-01	FAIL ABUN
TH-229	7.985E-01	7.958E-01	7.358E-01	4.060E-01	FAIL ABUN
TH-230	6.545E-01	2.098E-01	1.678E-01	1.071E-01	FAIL ABUN
PA-231	-3.836E-01	2.489E+00	2.200E+00	1.270E+00	NOT IDENT.
TH-231	-2.487E-01	1.187E+00	1.034E+00	6.054E-01	FAIL ABUN
U-231	9.254E-02	4.167E-01	3.387E-01	2.126E-01	FAIL ABUN
PA-233	-1.025E-01	1.063E-01	8.845E-02	5.423E-02	FAIL ABUN
PA-234	-2.805E-01	7.790E-01	6.389E-01	3.974E-01	FAIL ABUN
PA-234M	-2.179E+00	9.947E+00	8.231E+00	5.075E+00	NOT IDENT.
TH-234	1.083E-01	1.501E+00	1.262E+00	7.658E-01	FAIL ABUN
U-234	6.545E-01	2.098E-01	1.678E-01	1.071E-01	FAIL ABUN
U-235	-1.286E-01	2.974E-01	2.540E-01	1.517E-01	FAIL ABUN
NP-236	-7.132E-02	1.167E-01	9.769E-02	5.952E-02	FAIL ABUN
NP-237	3.943E+00	9.990E-01	4.892E-01	5.097E-01	NOT IDENT.
U-238	1.083E-01	1.501E+00	1.262E+00	7.658E-01	FAIL ABUN
NP-239	-3.035E-01	2.996E-01	2.200E-01	1.528E-01	NOT IDENT.
CM-243	-1.752E-02	1.264E-01	1.123E-01	6.450E-02	NOT IDENT.
AM-246	-7.586E-02	3.016E-01	2.574E-01	1.539E-01	NOT IDENT.
CM-247	-1.974E-02	7.490E-02	6.382E-02	3.821E-02	NOT IDENT.
CF-249	1.950E-02	7.754E-02	6.819E-02	3.956E-02	NOT IDENT.
CF-251	-4.760E-02	1.789E-01	1.634E-01	9.126E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
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ENERGY	MDA COUNTS
46.50	566.7648
46.50	566.7648
46.50	566.7648
48.70	606.1360
49.72	626.7681
51.35	736.2484
52.39	756.3801
52.97	743.1299
53.15	764.5450
53.44	754.7484
54.07	718.7763
56.28	854.4899
56.28	854.4944
57.37	852.3932
57.53	613.0288
57.53	613.0320
57.60	613.1318
57.98	613.6888
57.98	613.6888
59.32	615.6415
59.32	615.6415
59.40	615.7558
59.54	615.9586
59.72	616.2194
60.01	616.6364
61.10	376.4864
61.14	376.5207
61.30	376.6599
63.00	322.2147
63.29	322.4261
63.29	322.4261
63.58	347.6819
64.28	348.2275
65.12	368.9837
65.20	369.0489
65.20	369.0489
66.05	375.2705
66.72	359.9954
66.83	360.0843
66.91	336.4013
67.20	322.7517
67.20	322.7517
67.75	333.0486
67.85	333.1204
68.90	370.6380
68.90	370.6380
69.30	368.7669
69.67	377.7184
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70.83	369.6614
72.80	372.6812
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74.81	368.1799
74.81	368.1799
74.81	368.1799
74.81	368.1799
74.81	368.1799
74.81	368.1799
74.81	368.1799
74.97	368.2990
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75.70	368.8408
77.11	369.8814
77.11	369.8814

77.11	369.8814
77.11	369.8814
77.11	369.8814
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77.11	369.8814
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80.30	398.1310
80.30	398.1310
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81.07	441.4972
81.07	441.4972
81.07	441.4972
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83.78	376.2123
84.21	391.8851
84.90	420.0870
85.43	425.1224
86.29	468.9976
86.50	481.5253
86.54	481.5610
86.59	481.6062
86.72	481.7205
86.79	481.7800
86.94	481.9156
87.30	383.3128
87.30	383.3128
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87.57	383.5020
87.88	383.7196
88.03	383.8237
88.36	384.0545
88.47	384.1321
89.95	217.4277
91.11	217.8795
92.29	218.3345
92.38	290.1198
92.38	290.1198
93.35	251.5527
94.00	264.3526
94.67	238.0358
94.67	238.0381
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94.90	245.9665
94.90	245.9665
94.90	245.9665
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95.87	251.0864
96.73	235.7414
97.43	223.4340
98.44	258.4934
98.44	258.4934
98.88	246.0661
99.55	244.2379
99.55	244.2379
99.86	242.2587
100.00	242.3149
100.10	247.6257
103.18	223.4706
103.76	238.5246
105.00	250.6900
105.31	248.6905
108.00	257.2356
109.28	251.3394

111.00	228.4251
111.00	228.4251
111.76	227.6211
112.95	251.7052
115.19	208.3167
116.30	227.0471
117.00	256.5101
117.00	256.5101
117.66	263.2648
121.11	226.5024
121.62	226.6727
121.78	226.7256
122.06	226.8187
122.32	226.9044
122.32	226.9044
122.32	226.9044
122.32	226.9044
123.07	235.8896
127.23	253.1244
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131.20	245.2628
133.02	283.5391
133.54	264.8999
135.34	231.1097
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136.25	211.3707
136.48	223.6775
140.51	223.7711
140.51	0.0000
142.18	224.2655
142.65	222.1619
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144.24	209.1327
144.24	209.1327
144.24	209.1327
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145.44	191.4402
147.16	227.9815
152.43	211.3351
152.70	211.4070
153.22	208.1331
154.21	232.3036
154.21	232.3036
154.21	232.3036
154.21	232.3036
155.03	250.7786
156.02	222.5548
158.56	199.2086
159.00	0.0000
159.00	195.8784
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161.27	230.8789
162.32	216.2199
162.64	216.3021
163.35	225.6979
163.89	201.6477
165.85	228.6817
167.43	210.5949
171.28	231.3023
171.86	219.8271
172.10	219.8886
176.55	220.1325
176.60	220.1459
181.06	205.9131
184.41	250.5635
185.71	226.8203
186.00	226.8926
190.27	253.5891
192.34	227.0233
193.63	210.3827
197.04	257.3939
198.01	253.1657
198.60	242.5410
200.40	226.7965
201.83	225.3304
202.84	226.4672
205.31	299.4031

208.36	220.4857
208.81	209.6927
209.75	224.4279
209.75	224.4279
210.97	275.6479
215.65	230.3188
216.55	238.7555
218.09	240.0321
222.10	240.0478
223.80	239.5189
226.40	236.4199
227.00	227.3143
227.08	227.3330
227.20	229.2059
228.16	216.4632
228.18	216.4686
228.18	216.4686
231.56	222.7258
235.69	213.1489
236.00	226.6288
236.00	226.6288
238.63	222.3188
238.63	222.3188
238.63	222.3188
238.63	222.3188
239.00	222.3951
240.98	222.7963
241.98	218.8761
241.98	218.8761
241.98	218.8761
244.69	193.8638
245.39	206.0168
247.94	194.0523
248.90	201.7597
249.79	192.4842
252.40	212.7880
252.85	193.9502
252.85	193.9502
254.15	0.0000
256.20	191.6728
256.20	191.6728
260.50	168.5762
260.90	181.9740
262.80	186.0855
264.65	212.1866
268.24	199.4084
268.79	180.3177
269.46	182.3404
269.46	182.3404
269.46	182.3404
269.46	182.3404
271.23	182.6100
273.65	220.5369
276.40	180.5000
277.35	172.9119
277.60	178.7445
277.60	178.7445
278.00	179.7703
278.60	167.2875
279.20	174.1415
279.53	178.0591
280.46	184.0045
281.68	190.0036
283.67	170.8921
284.30	184.5786
285.00	176.9068
285.90	178.9800
286.10	174.1437
286.10	174.1437
287.40	178.2223
288.45	0.0000
290.67	176.5377
290.80	176.5570
291.72	178.2502
293.26	192.5569
293.70	184.7927
295.21	222.6412
295.21	222.6412

295.21	222.6412
295.96	247.8741
296.50	280.9373
297.23	266.9656
298.57	196.5027
299.80	209.2802
299.80	209.2802
300.09	205.9156
300.09	205.9156
300.09	205.9156
300.09	205.9156
300.12	205.9220
301.29	193.9640
302.84	219.8253
303.76	230.8329
303.91	230.8579
304.40	193.4429
304.40	193.4429
304.84	170.8011
306.84	170.0736
308.46	145.5331
311.98	168.7523
316.51	155.3811
318.01	171.5092
319.02	192.5936
319.41	192.6496
320.08	184.7544
323.87	185.2710
323.87	185.2710
323.87	185.2710
323.87	185.2710
325.23	179.4397
328.77	176.8889
333.44	140.3746
334.20	127.5360
334.20	127.5360
334.30	127.5457
338.28	175.0643
338.28	175.0643
338.28	175.0643
338.28	175.0643
338.32	175.0696
338.32	175.0696
338.32	175.0696
340.50	147.5684
340.57	147.5751
344.27	161.4338
345.85	183.7014
350.59	150.2457
351.07	160.0970
351.92	163.4619
351.92	163.4619
351.92	163.4619
355.39	0.0000
356.01	129.4975
364.48	140.1338
366.43	151.6678
367.43	163.1255
367.94	159.0498
369.80	165.4517
374.96	169.1284
383.85	158.6310
387.95	162.1899
388.63	153.8861
391.69	164.6756
391.69	164.6756
392.90	157.4547
398.62	161.1851
400.65	161.3905
401.10	151.9387
401.81	166.7853
402.60	181.6530
404.84	163.9283
410.95	152.8704
411.60	159.3040
413.65	187.1504
414.70	159.6062
415.30	153.2769

415.76	141.6088
417.63	0.0000
418.52	134.3806
423.70	156.1966
427.08	165.0890
427.89	160.8788
432.53	159.1718
433.93	157.1501
439.47	172.7808
439.56	172.7881
439.89	174.9825
443.98	158.0746
444.90	151.6595
445.03	151.6724
445.03	151.6724
445.03	151.6724
445.03	151.6724
453.90	170.9569
463.38	172.9692
468.07	185.4962
473.00	191.5073
475.06	189.5212
475.35	174.1240
476.78	174.2590
477.59	167.7158
477.96	148.9890
482.03	161.4875
484.57	156.1723
487.03	129.7630
490.36	144.4389
492.35	119.0117
497.08	132.6929
507.63	0.0000
510.53	0.0000
510.84	111.1937
511.00	111.2028
511.85	118.6687
511.85	118.6687
513.99	139.5000
513.99	139.5000
520.41	121.9021
520.65	121.9186
527.90	116.0250
528.96	0.0000
529.64	112.4991
529.87	0.0000
531.02	113.4857
537.32	108.3812
543.00	124.2129
546.56	0.0000
549.76	109.0523
552.65	96.3585
555.20	110.2617
563.23	111.6148
563.90	111.6503
568.70	102.6587
569.32	99.9158
569.50	99.9237
569.67	99.9316
573.80	114.9634
574.00	108.4821
574.64	104.8064
578.91	88.2902
579.30	88.3064
583.14	103.3660
585.48	99.4401
591.81	92.4621
592.07	95.3810
593.00	98.2299
595.88	97.4238
600.56	98.5734
602.52	0.0000
602.71	102.0269
602.71	102.0269
603.60	103.4124
604.41	100.3151
604.70	100.3281
609.31	115.9341

609.31	115.9341
609.31	115.9341
609.31	115.9341
610.33	106.8726
612.46	94.3896
614.37	99.1963
618.01	104.0891
621.84	97.6337
621.84	97.6337
631.29	85.6692
633.02	83.8299
633.10	83.8320
634.78	75.3142
635.90	92.5194
636.97	100.1986
645.85	91.9664
646.12	95.8081
656.30	91.4189
657.75	94.6842
657.90	0.0000
661.65	115.7402
661.65	115.7402
664.57	82.0844
666.33	98.2538
666.33	98.2538
675.00	71.7778
677.61	78.6527
685.20	68.1868
692.80	85.0119
695.00	94.8710
696.49	103.7356
696.49	103.7356
697.00	104.7351
697.49	97.9028
698.33	93.0402
698.50	85.2116
699.00	85.2286
702.63	95.1670
706.10	79.5801
706.58	0.0000
706.67	89.4248
709.31	84.6017
711.68	77.7907
713.82	88.6992
717.42	84.8788
720.50	78.0665
721.93	99.8633
722.20	116.6834
722.78	124.6219
722.78	124.6219
722.89	124.6280
722.95	124.6311
723.30	132.5638
724.18	115.7860
727.18	80.2545
733.00	105.2650
735.90	76.5545
739.58	80.6460
742.81	82.7427
744.21	74.8077
747.13	88.8718
751.79	83.0304
752.31	75.0421
753.82	79.0907
755.35	80.1387
756.15	82.1682
756.87	78.1809
763.93	89.4476
765.79	91.5221
766.42	96.5742
766.84	97.5944
776.49	90.8833
778.00	87.9027
778.57	83.8794
778.89	83.8896
783.80	76.9556
785.46	83.0831
792.07	103.6012

795.84	85.4376
796.30	87.4865
798.80	131.3495
801.93	96.8416
805.60	79.6187
810.29	98.1586
810.76	93.0617
815.85	95.2841
817.79	102.5269
818.51	103.5793
819.60	89.2578
826.30	106.9555
828.27	93.6505
831.60	115.3988
831.96	110.2628
834.83	94.9020
836.80	0.0000
846.75	107.7324
848.13	106.7468
856.28	0.0000
856.80	119.5455
860.37	98.8779
867.32	108.5043
867.82	106.4351
871.10	104.4666
873.19	102.4502
874.81	104.5996
875.33	0.0000
876.40	98.3764
879.36	89.0466
880.27	81.7400
880.51	82.7938
881.50	85.9679
883.24	104.8999
884.67	99.7036
889.25	89.3455
896.60	99.0511
898.02	119.1273
899.00	132.8783
903.28	121.4491
911.07	106.9402
911.07	106.9402
911.07	106.9402
919.63	90.2544
920.93	92.4163
925.00	143.5957
925.24	138.2900
926.50	123.4482
935.52	136.6188
937.48	121.7512
944.10	145.5592
946.00	131.7265
949.00	124.3488
962.29	118.4165
964.01	132.8423
966.15	141.9146
968.20	136.9715
969.11	130.5388
969.11	130.5388
969.11	130.5388
977.42	103.8375
980.50	109.3517
983.50	101.8670
989.30	83.5946
996.32	103.3612
1001.03	91.5243
1001.68	82.8244
1004.76	91.6289
1021.30	0.0000
1024.50	0.0000
1034.80	99.0703
1036.00	92.6820
1037.82	80.7956
1038.57	86.3235
1038.76	0.0000
1045.16	88.3320
1046.59	90.2122
1048.07	94.8567

1050.47	94.0022
1050.47	94.0022
1062.04	80.4509
1063.62	80.4863
1076.63	89.1484
1077.35	85.4526
1078.86	90.1363
1085.78	89.3867
1099.22	80.3835
1112.02	103.1877
1112.84	92.8890
1115.52	112.6807
1120.29	84.6240
1120.29	84.6240
1120.29	84.6240
1120.29	84.6240
1120.51	84.6277
1121.28	84.6460
1124.00	0.0000
1129.67	66.9323
1131.51	0.0000
1147.95	0.0000
1167.94	47.3617
1173.22	40.0688
1175.09	40.0894
1177.93	40.9389
1189.05	41.1978
1204.90	25.0151
1205.75	24.0580
1213.00	26.9963
1221.42	29.9556
1230.97	30.0300
1235.34	30.0640
1236.41	0.0000
1238.25	37.8495
1246.25	23.3408
1260.41	0.0000
1271.85	23.4932
1274.45	26.4474
1274.54	25.4679
1291.56	16.7233
1298.22	0.0000
1312.09	20.7633
1325.50	20.4065
1325.50	20.4065
1332.49	19.8739
1333.61	15.3350
1360.21	12.0039
1362.66	0.0000
1365.15	12.0181
1368.21	10.0224
1368.53	0.0000
1376.25	16.0664
1384.27	21.1273
1394.10	12.1006
1395.20	15.1294
1407.95	20.2327
1434.06	21.3726
1436.60	9.1648
1457.56	0.0000
1460.81	8.1914
1489.15	11.3348
1509.49	17.5963
1596.49	15.8173
1620.62	8.4785
1678.03	0.0000
1691.02	6.4502
1691.02	6.4502
1706.46	0.0000
1750.46	0.0000
1764.49	7.4785
1764.49	7.4785
1764.49	7.4785
1764.49	7.4785
1770.23	30.8823
1771.40	23.4018
1791.20	0.0000
1808.65	8.4843

1836.01	4.7377

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202023721

Total Uranium Activity	2.6264E-01	ug/g
Total Uranium Counting Unc.	4.4673E+00	ug/g
Total Uranium Tpu	2.2793E-06	ug/g
Total Uranium Mda	3.7549E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 944966                    SAMPLE ID   : G1202023721       *
*   ANALYST       : MXR1                      DETECTOR    : GAM07             *
*   SAMPLE DATE   : 26-JAN-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00   *
*   ANALYSIS DATE:  2-FEB-2010 09:50:49.53    SAMPLE ALQT:  155.440 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.670E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 3.197E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.260E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.084E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 948398 Product: Tritium Date: 2/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		case narrative
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] LANL 2/20/10

Secondary Review Performed By: [signature] 2/13/10

Tritium Que Sheet

95 / 03-FEB-10

Batch #: 948398 **Analyst:** KXK2 **First Client Due Date** 20-FEB-10 **Internal Due Date:** 09-FEB-10

Spike Isotope: Hydrogen-3 **Spike Code:** ——— **Expiration Date:** ——— **Vol:** ———

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 2/3/10 **Initials:** KXK **Pipet ID:** 2970968 **Witness:** AW 2/3/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture Dist Vol (mL) KXK 2/3/10
245395001-1	RE15-10-7869	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-2	1		356.04	268.10	87.94
245395002-1	RE15-10-7874	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-3	2		428.08	410.53	17.55
245395003-1	RE15-10-7871	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-4	3		515.81	462.68	53.13
245395004-1	RE15-10-7872	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-5	4		507.58	445.66	61.92
245395005-1	RE15-10-7870	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-6	5		408.55	355.44	53.11
245395006-1	RE15-10-7873	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-7	6		420.11	367.61	52.52
245395007-1	RE15-10-7911	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-8	7		420.77	370.70	50.07
245395008-1	RE15-10-7908	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-9	8	KXK 2/3/10	416.82	383.06	33.76
245395009-1	RE15-10-7912	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-10	9		396.48	343.35	53.13
245395010-1	RE15-10-7906	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-11	10		544.18	490.31	53.87
245395011-1	RE15-10-7905	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	24-12	11		249.72	195.28	54.44
245395012-1	RE15-10-7907	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	31-1	12		433.81	350.95	82.86
245395013-1	RE15-10-7913	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	31-2	13		238.49	187.69	50.80
245395014-1	RE15-10-7909	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	31-3	14		328.48	276.91	51.57
245395015-1	RE15-10-7910	SAMPLE		.25 pCi/mL	SOIL	LANL010	19-JAN-10	10	31-4	15		389.23	351.09	38.14
1202031673-1	MB for batch 948398	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	31-5	16		20.00	0	20.00
1202031674-1	RE15-10-7869(245395001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	19-JAN-10	10	31-6	1		356.04	268.10	87.94
1202031675-1	LCS for batch 948398	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	31-7	17		20.00	0	20.00

18

Bkg Rack #: 24-1

Comments:

Bkg prepared with dead water? Yes No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 2/11/10

Lynda Lu Pace 2/11/10

GEL Laboratories LLC, Radiochemistry Division

DATE	2/3/2010	INITIALS	KXK2		BATCH NUMBER	948398

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
245395001	356.04	0.247	87.94	268.10	10	
245395002	428.08	0.041	17.55	410.53	10	
245395003	515.81	0.103	53.13	462.68	10	
245395004	507.58	0.122	61.92	445.66	10	
245395005	408.55	0.130	53.11	355.44	10	
245395006	420.12	0.125	52.52	367.61	10	
245395007	420.77	0.119	50.07	370.70	10	
245395008	416.82	0.081	33.76	383.06	10	
245395009	396.48	0.134	53.13	343.35	10	
245395010	544.18	0.099	53.87	490.31	10	
245395011	249.72	0.218	54.44	195.28	10	
245395012	433.81	0.191	82.86	350.95	10	
245395013	238.49	0.213	50.80	187.69	10	
245395014	328.48	0.157	51.57	276.91	10	
245395015	389.23	0.098	38.14	351.09	10	
MB	20.00	1.00	20.00	0.00	10.00	
DUP	356.04	0.25	87.94	268.10	10.00	
LCS	20.00	1.00	20.00	0.00	10.00	

T948398R

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.5

Batch : 948398
Analyst : KXK2
Prep Date : 2/3/2010

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2471.24
LCS Volume Added: 0.10

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.28 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	245395001.2	356.04	0.0879	0.0100	2.5729E-05	268.10	24.70%	1	1/19/2010 12:00
2	245395002.2	428.08	0.0176	0.0100	2.5729E-05	410.53	4.10%	2	1/19/2010 12:00
3	245395003.2	515.81	0.0531	0.0100	2.5729E-05	462.68	10.30%	3	1/19/2010 12:00
4	245395004.2	507.58	0.0619	0.0100	2.5729E-05	445.66	12.20%	4	1/19/2010 12:00
5	245395005.2	408.55	0.0531	0.0100	2.5729E-05	355.44	13.00%	5	1/19/2010 12:00
6	245395006.2	420.12	0.0525	0.0100	2.5729E-05	367.61	12.50%	6	1/19/2010 12:00
7	245395007.2	420.77	0.0501	0.0100	2.5729E-05	370.70	11.90%	7	1/19/2010 12:00
8	245395008.2	416.82	0.0338	0.0100	2.5729E-05	383.06	8.10%	8	1/19/2010 12:00
9	245395009.2	396.48	0.0531	0.0100	2.5729E-05	343.35	13.40%	9	1/19/2010 12:00
10	245395010.2	544.18	0.0539	0.0100	2.5729E-05	490.31	9.90%	10	1/19/2010 12:00
11	245395011.2	249.72	0.0544	0.0100	2.5729E-05	195.28	21.80%	11	1/19/2010 12:00
12	245395012.2	433.81	0.0829	0.0100	2.5729E-05	350.95	19.10%	12	1/19/2010 12:00
13	245395013.2	238.49	0.0508	0.0100	2.5729E-05	187.69	21.30%	13	1/19/2010 12:00
14	245395014.2	328.48	0.0516	0.0100	2.5729E-05	276.91	15.70%	14	1/19/2010 12:00
15	245395015.2	389.23	0.0381	0.0100	2.5729E-05	351.09	9.80%	15	1/19/2010 12:00
16	1202031673.2	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	16	2/3/2010 0:00
17	1202031674.2	356.04	0.0879	0.0100	2.5729E-05	268.10	24.70%	1	1/19/2010 12:00
18	1202031675.2	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	17	2/3/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	24-2	15	110.5	45.6	3.40	15	2/8/2010 13:52	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2363	0.00792	24-1	2/8/2010 13:36
2	24-3	15	110.5	167.93	3.40	15	2/8/2010 14:08	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2363	0.00792	24-1	2/8/2010 13:36
3	24-4	15	110	145.27	3.40	15	2/8/2010 14:25	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	24-1	2/8/2010 13:36
4	24-5	15	110.2	48.47	3.40	15	2/8/2010 14:41	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2365	0.00792	24-1	2/8/2010 13:36
5	24-6	15	110	42.87	3.40	15	2/8/2010 14:57	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	24-1	2/8/2010 13:36
6	24-7	15	110.6	106.93	3.40	15	2/8/2010 15:13	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2362	0.00792	24-1	2/8/2010 13:36
7	24-8	9.7	110.2	1035.88	3.40	15	2/8/2010 15:30	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2365	0.00792	24-1	2/8/2010 13:36
8	24-9	15	108.9	568.33	3.40	15	2/8/2010 15:40	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2371	0.00792	24-1	2/8/2010 13:36
9	24-10	15	110.4	429.33	3.40	15	2/8/2010 15:57	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2364	0.00792	24-1	2/8/2010 13:36
10	24-11	15	110.7	29	3.40	15	2/8/2010 16:13	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2362	0.00792	24-1	2/8/2010 13:36
11	24-12	15	110.1	62.33	3.40	15	2/8/2010 16:29	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2365	0.00792	24-1	2/8/2010 13:36
12	31-1	15	109.7	396.2	3.40	15	2/8/2010 16:46	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2367	0.00792	24-1	2/8/2010 13:36
13	31-2	15	109.8	21.33	3.40	15	2/8/2010 17:02	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2367	0.00792	24-1	2/8/2010 13:36
14	31-3	15	110	559.8	3.40	15	2/8/2010 17:18	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	24-1	2/8/2010 13:36
15	31-4	15	110.6	631.87	3.40	15	2/8/2010 17:35	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2362	0.00792	24-1	2/8/2010 13:36
16	31-5	15	109.5	3.8	3.40	15	2/8/2010 17:51	0.999	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	24-1	2/8/2010 13:36
17	31-6	15	111.4	46.73	3.40	15	2/8/2010 18:07	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2358	0.00792	24-1	2/8/2010 13:36
18	31-7	15	110.9	35.93	3.40	15	2/8/2010 18:23	0.999	LSCBROWN	9/9/2009	9/30/2010	0.2361	0.00792	24-1	2/8/2010 13:36

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	299.9829	211.7905	250	461.8248	**8069.4546**	0.044	42.200	1.807	345.6083	659.7793		SAMPLE				
2	299.9834	211.7909	250	461.8257	**31461.3670**	0.022	164.530	3.380	646.2545	2284.5193		SAMPLE				
3	299.6399	211.5484	250	461.2968	**27097.2669**	0.024	141.870	3.148	601.3135	1980.7367		SAMPLE				
4	299.7762	211.6446	250	461.5066	**8612.3153**	0.042	45.070	1.860	355.3406	697.1790		SAMPLE				
5	299.6410	211.5491	250	461.2985	**7538.8233**	0.045	39.470	1.756	335.4599	623.0743		SAMPLE				
6	300.0562	211.8422	250	461.9377	**19801.7714**	0.028	103.530	2.712	518.7272	1473.4709		SAMPLE				
7	338.2571	238.8124	250	536.7243	**197295.0354**	0.013	1032.480	10.345	1976.8048	13882.5725		SAMPLE				
8	298.9408	211.0548	250	460.2206	**107650.2663**	0.014	564.930	6.174	1176.4415	7589.3096		SAMPLE				
9	299.9168	211.7439	250	461.7232	**81428.1087**	0.015	425.930	5.371	1026.8310	5763.4739		SAMPLE				
10	300.1294	211.8939	250	462.0504	**4897.6050**	0.058	25.600	1.470	281.1711	442.0526		SAMPLE				
11	299.7115	211.5989	250	461.4070	**11258.3585**	0.037	58.930	2.093	399.9216	880.2137		SAMPLE				
12	299.4456	211.4111	250	460.9976	**74976.4030**	0.016	392.800	5.161	985.1905	5314.0426		SAMPLE				
13	299.5117	211.4579	250	461.0995	**3423.1774**	0.072	17.930	1.284	245.1408	341.9592		SAMPLE				
14	299.6455	211.5523	250	461.3054	**106274.7608**	0.014	556.400	6.128	1170.3849	7493.7334		SAMPLE				
15	300.0607	211.8454	250	461.9447	**120206.7787**	0.014	628.470	6.508	1244.7380	8464.1293		SAMPLE				
16	298.6482	210.8482	250	459.7701	**76.1474**	1.732	0.400	0.693	131.8912	131.9978		MB				
17	300.6495	212.2611	250	462.8511	**8303.9442**	0.043	43.330	1.828	350.3474	676.1886	245395001.2	DUP	2.9%	0.0878		
18	299.6059	211.5244	250	461.2445	**6212.5474**	0.051	32.530	1.619	309.2445	531.8378		LCS			5565.8668	111.6%

ID: TRITIUM 8 FEB 2010 13:43

USER: 6 COMMENT: BROWN

PRESET TIME :	15.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 0.0 - 240.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	LUMEX %	ELAPSED TIME
1	24-1	15.00	108.7	3.40	28.28	0.50	15.79
2	24-2	15.00	110.5	45.60	7.65	0.21	32.05
3	24-3	15.00	110.5	167.93	3.99	0.09	48.32
4	24-4	15.00	110.0	145.27	4.29	0.09	64.58
5	24-5	15.00	110.2	48.47	7.42	0.21	80.84
6	24-6	15.00	110.0	42.87	7.89	0.22	97.10
7	24-7	15.00	110.6	106.93	5.00	0.11	113.37
8	24-8	9.70	110.2	1035.88	2.00	0.02	124.23
9	24-9	15.00	108.9	568.33	2.17	0.03	140.49
10	24-10	15.00	110.4	429.33	2.49	0.04	156.75
11	24-11	15.00	110.7	29.00	9.60	0.26	173.04
12	24-12	15.00	110.1	62.33	6.55	0.23	189.31
13	31-1	15.00	109.7	396.20	2.59	0.04	205.68
14	31-2	15.00	109.8	21.33	11.20	0.36	221.97
15	31-3	15.00	110.0	559.80	2.18	0.04	238.25
16	31-4	15.00	110.6	631.87	2.05	0.03	254.54
17	31-5	15.00	109.5	3.80	26.72	0.41	270.80
18	31-6	15.00	111.4	46.73	7.56	0.20	287.06
19	31-7	15.00	110.9	35.93	8.62	0.23	303.33

INSTRUMENT CALIBRATION: Mini 9 FEB 2010 05:31

Sample Count Start Time:	8 Feb 2010 13:36:15		
Data Capture Date	08 Feb 2010 13:51:38		
User Filename	S06020824-1A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	24-1	15.00
H#, Total Counts:	108.7	570	
Win1: Tritium - Start, End, Counts:	0	240	51
Win2: - Start, End, Counts:	0	990	570

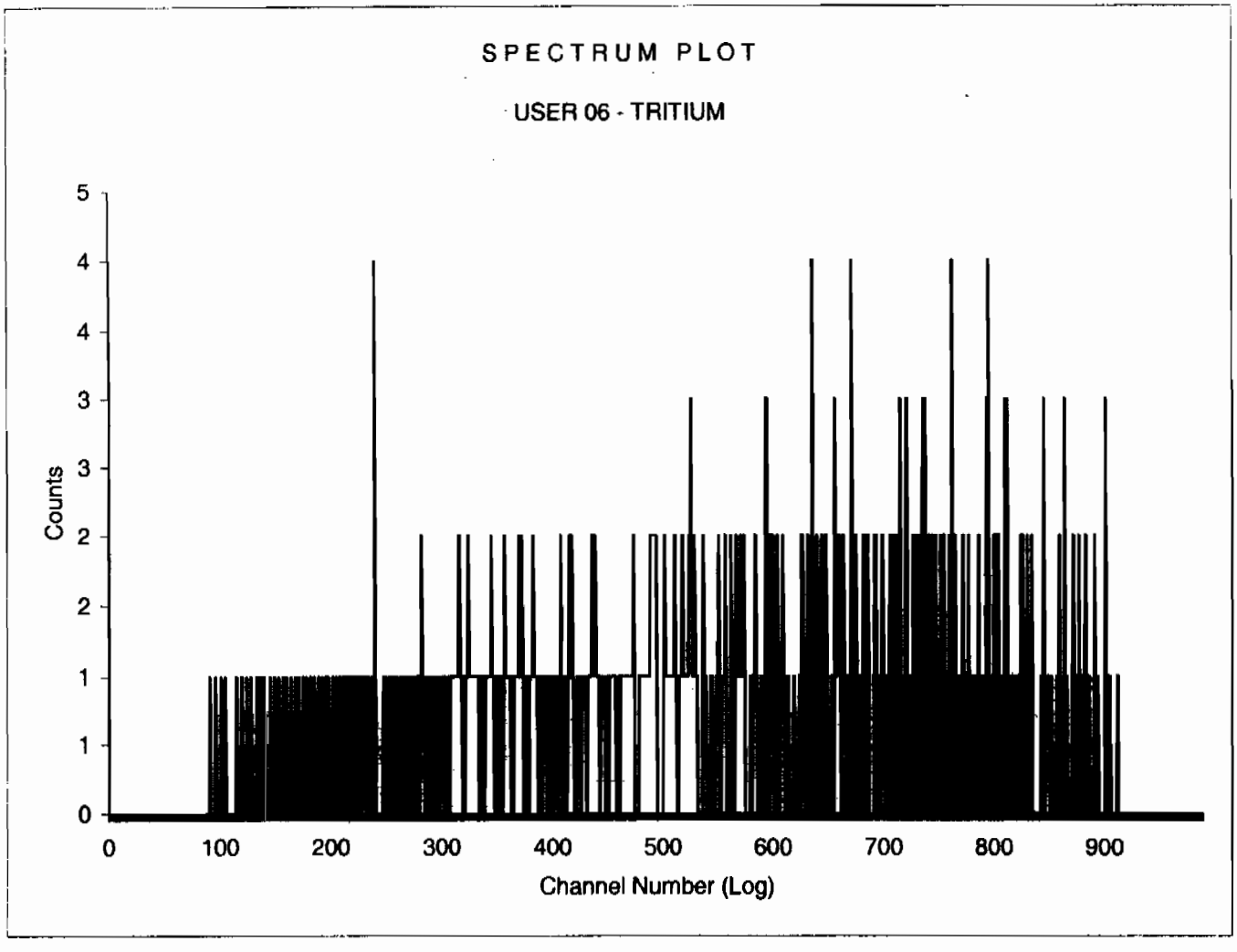

Sample Count Start Time:	8 Feb 2010 13:52:31		
Data Capture Date	08 Feb 2010 14:07:53		
User Filename	S06020824-2A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	24-2	15.00
H#, Total Counts:	110.5	1400	
Win1: Tritium - Start, End, Counts:	0	240	684
Win2: - Start, End, Counts:	0	990	1400

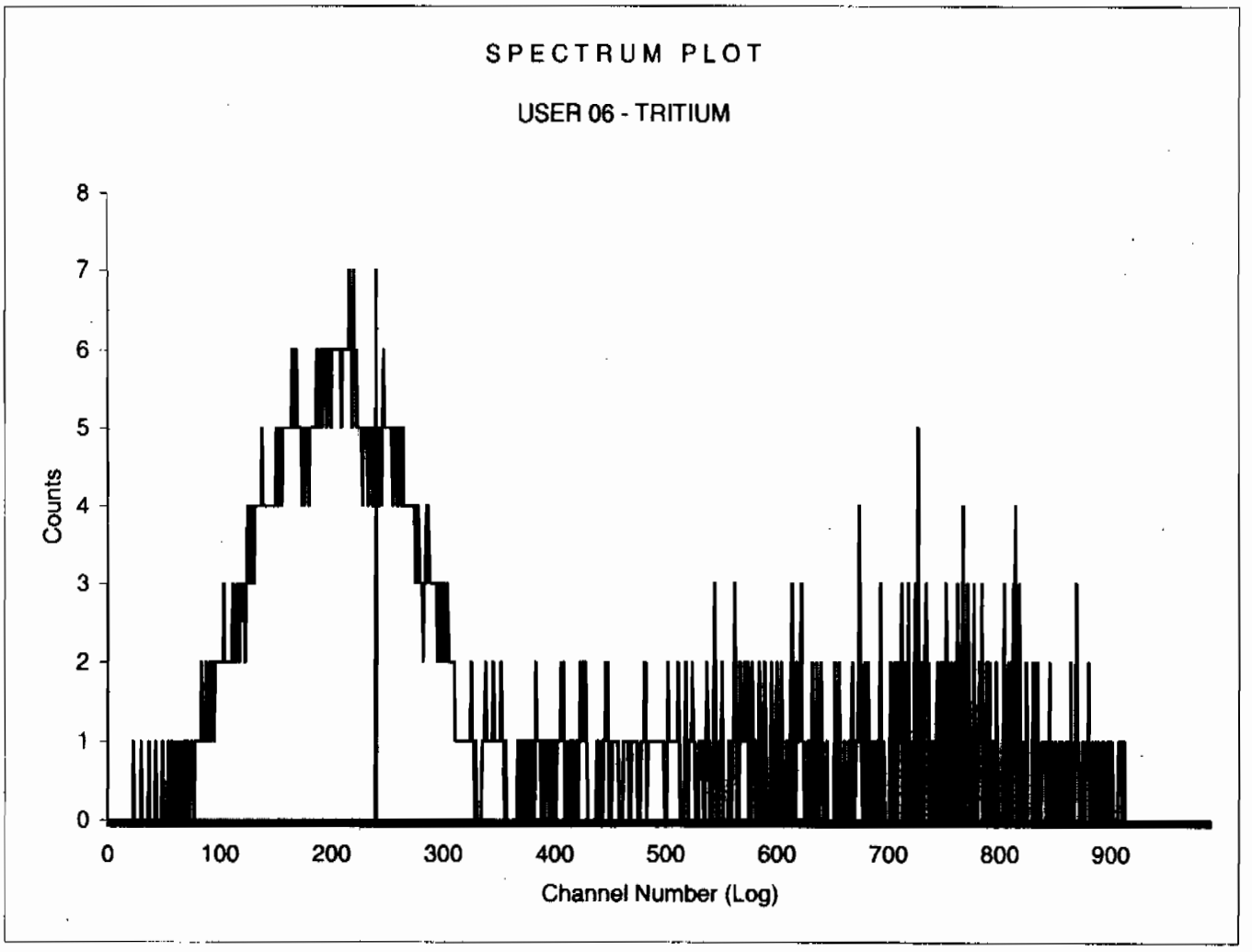

Sample Count Start Time:	8 Feb 2010 14:08:47		
Data Capture Date	08 Feb 2010 14:24:49		
User Filename	S06020824-3A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	24-3	15.00
H#, Total Counts:	110.5	3800	
Win1: Tritium - Start, End, Counts:	0	240	2519
Win2: - Start, End, Counts:	0	990	3800

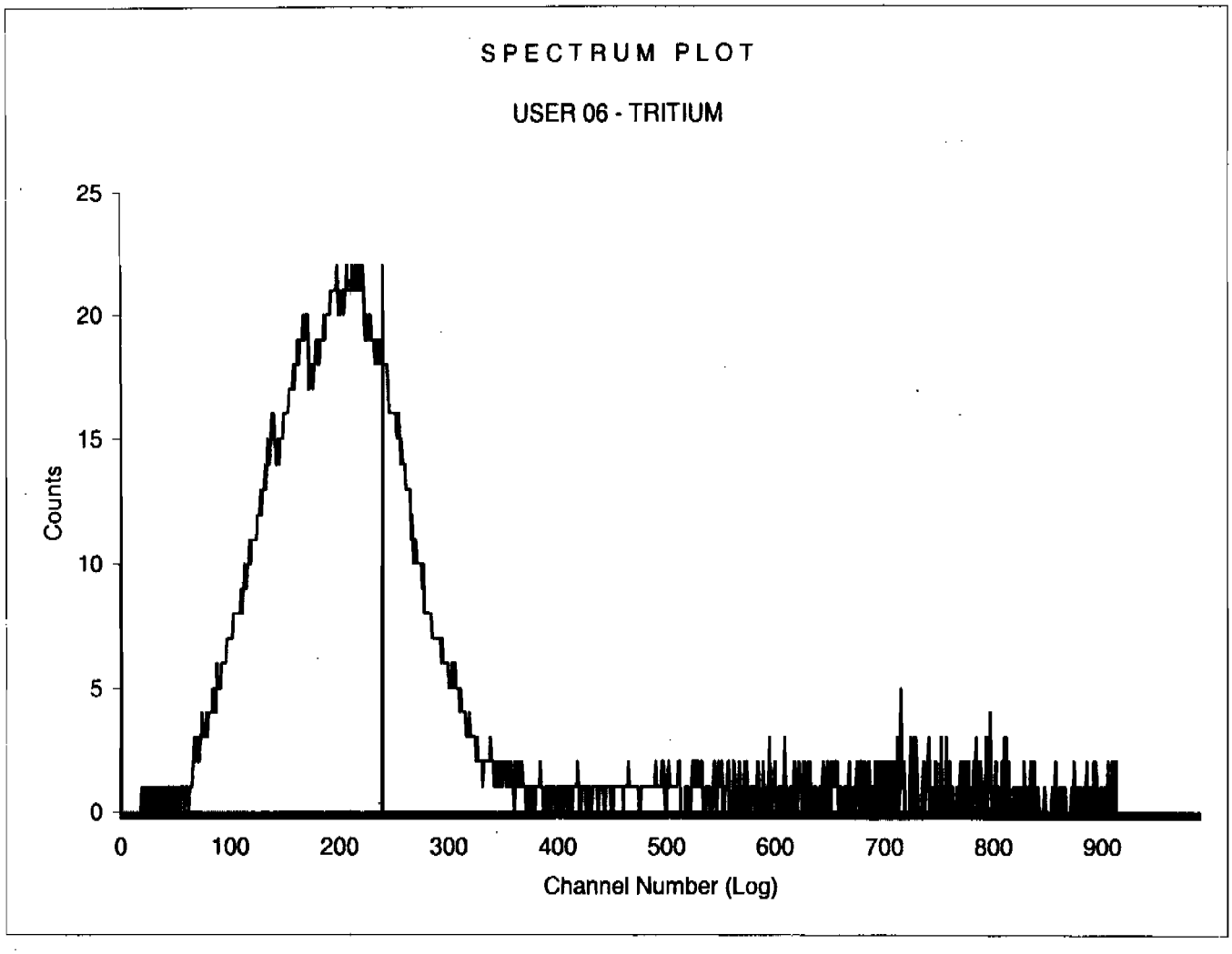

Sample Count Start Time:	8 Feb 2010 14:25:03		
Data Capture Date	08 Feb 2010 14:40:26		
User Filename	S06020824-4A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	24-4	15.00
H#, Total Counts:	110.0	3340	
Win1: Tritium - Start, End, Counts:	0	240	2179
Win2: - Start, End, Counts:	0	990	3340

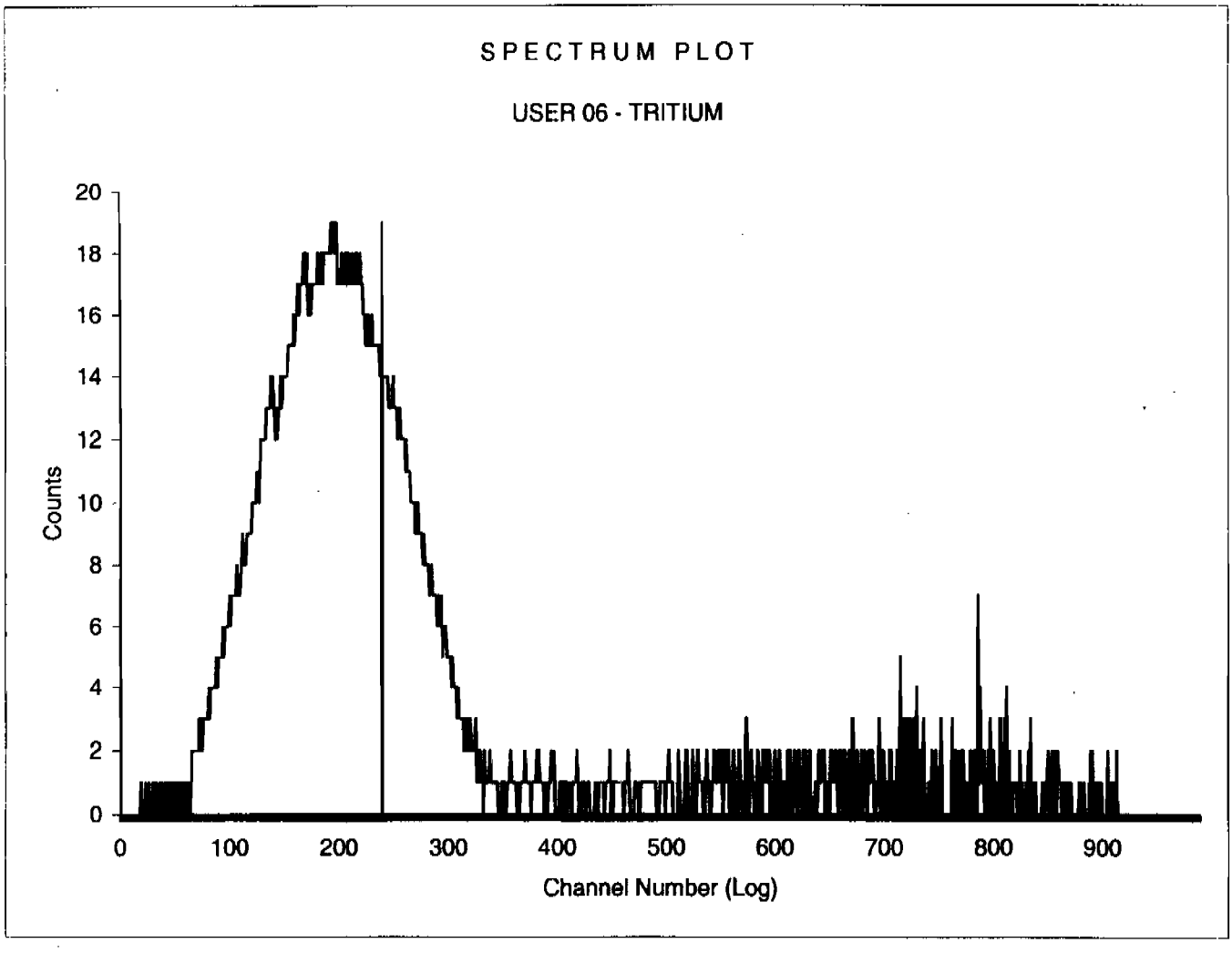

Sample Count Start Time:	8 Feb 2010 14:41:18		
Data Capture Date	08 Feb 2010 14:56:41		
User Filename	S06020824-5A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	24-5	15.00
H#, Total Counts:	110.2	1419	
Win1: Tritium - Start, End, Counts:	0	240	727
Win2: - Start, End, Counts:	0	990	1419

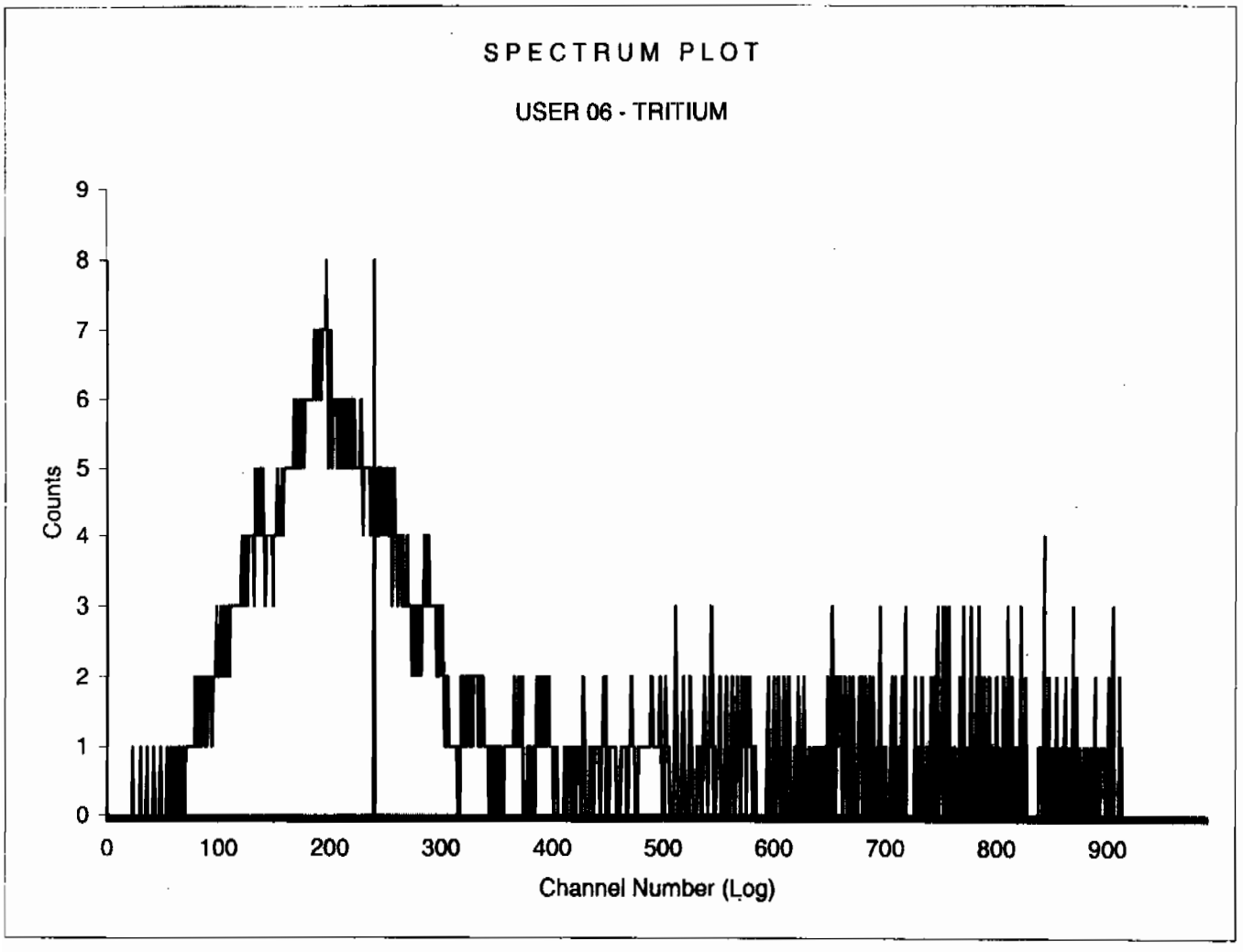

Sample Count Start Time:	8 Feb 2010 14:57:34		
Data Capture Date	08 Feb 2010 15:12:57		
User Filename	S06020824-6A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	24-6	15.00
H#, Total Counts:	110.0	1348	
Win1: Tritium - Start, End, Counts:	0	240	643
Win2: - Start, End, Counts:	0	990	1348

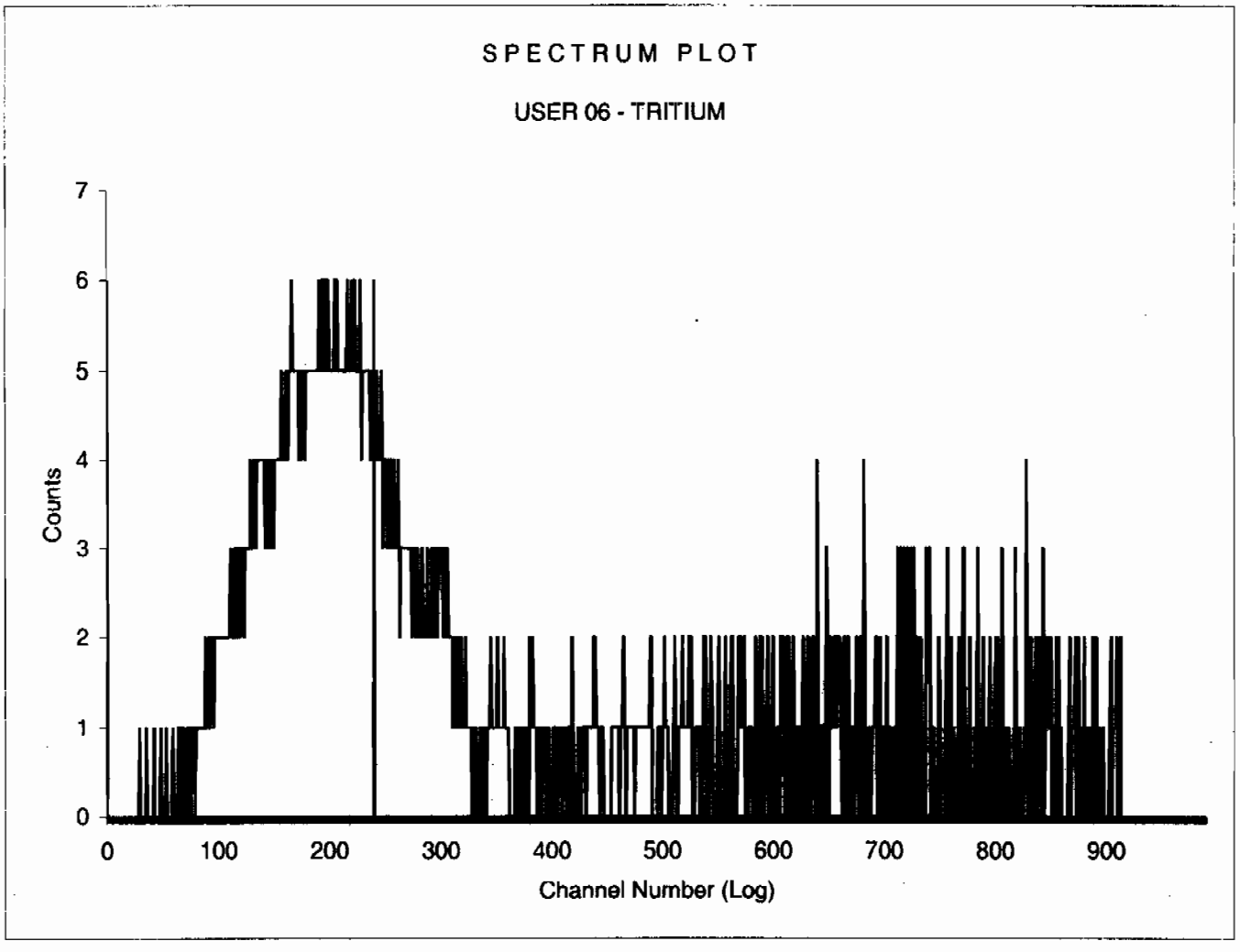

Sample Count Start Time:	8 Feb 2010 15:13:50		
Data Capture Date	08 Feb 2010 15:29:13		
User Filename	S06020824-7A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	24-7	15.00
H#, Total Counts:	110.6	2591	
Win1: Tritium - Start, End, Counts:	0	240	1604
Win2: - Start, End, Counts:	0	990	2591

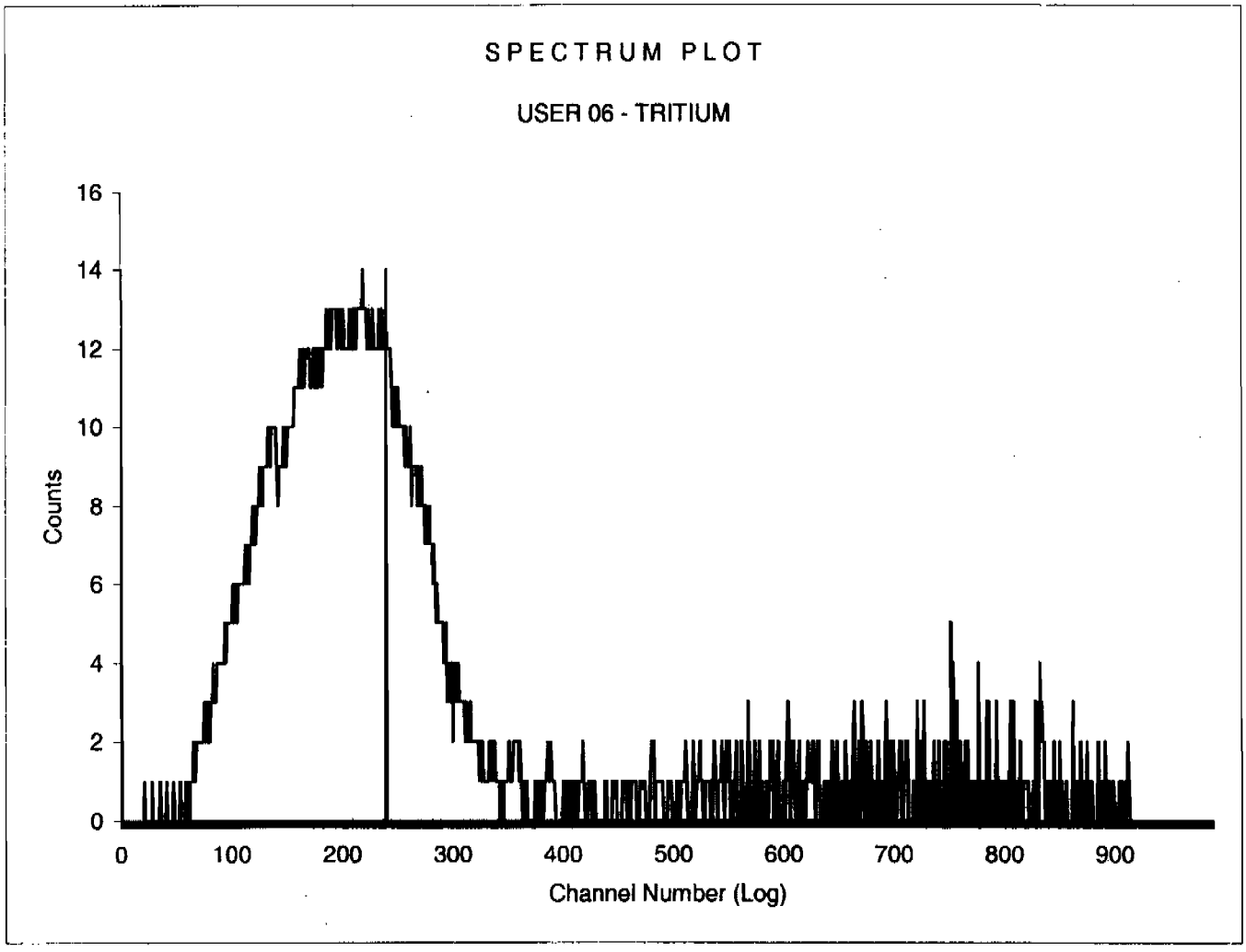

Sample Count Start Time:	8 Feb 2010 15:30:00		
Data Capture Date	08 Feb 2010 15:40:04		
User Filename	S06020824-8A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	24-8	9.70
H#, Total Counts:	110.2	13394	
Win1: Tritium - Start, End, Counts:	0	240	9984
Win2: - Start, End, Counts:	0	990	13394

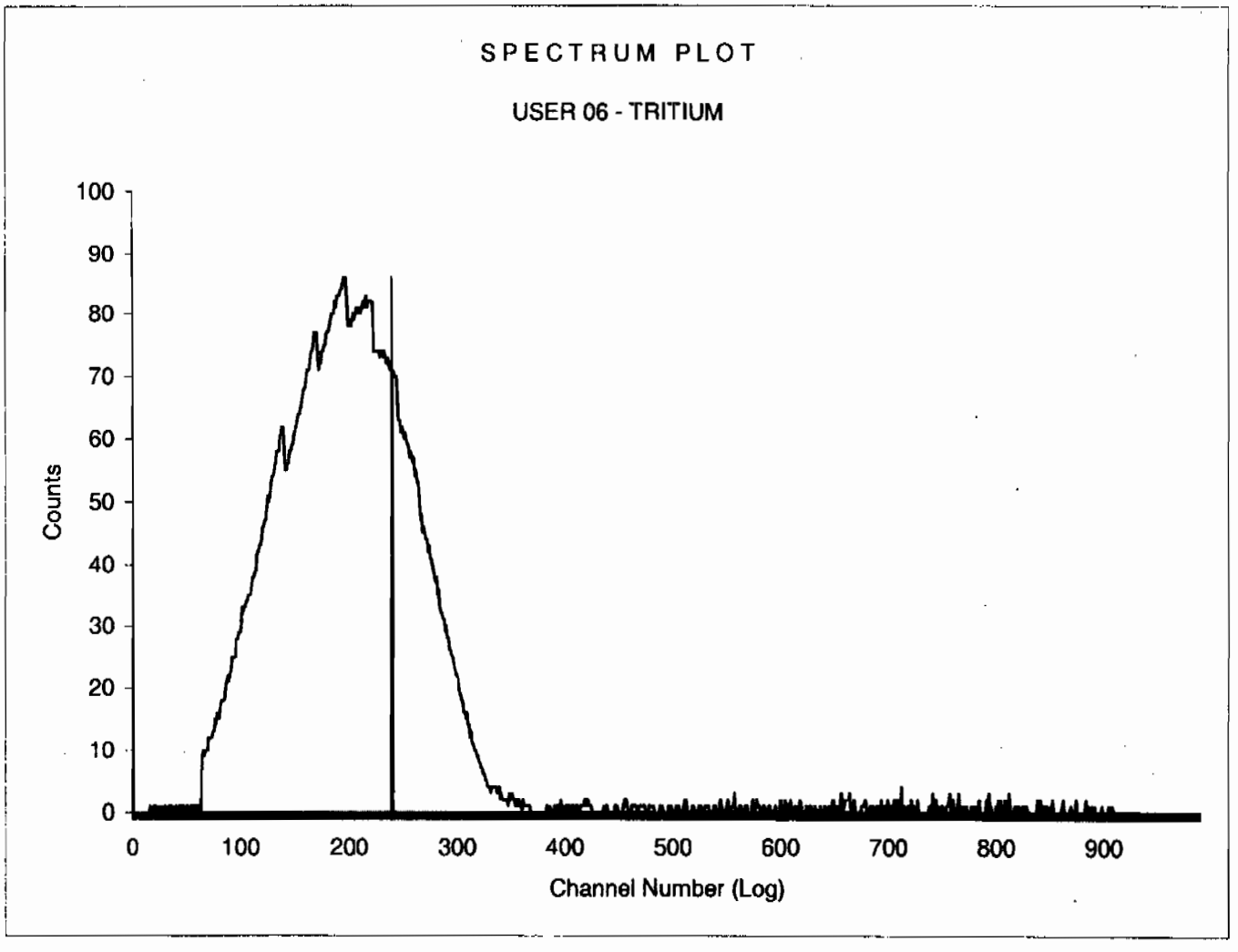

Sample Count Start Time:	8 Feb 2010 15:40:57		
Data Capture Date	08 Feb 2010 15:56:20		
User Filename	S06020824-9A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	24-9	15.00
H#, Total Counts:	108.9	11656	
Win1: Tritium - Start, End, Counts:	0	240	8525
Win2: - Start, End, Counts:	0	990	11656

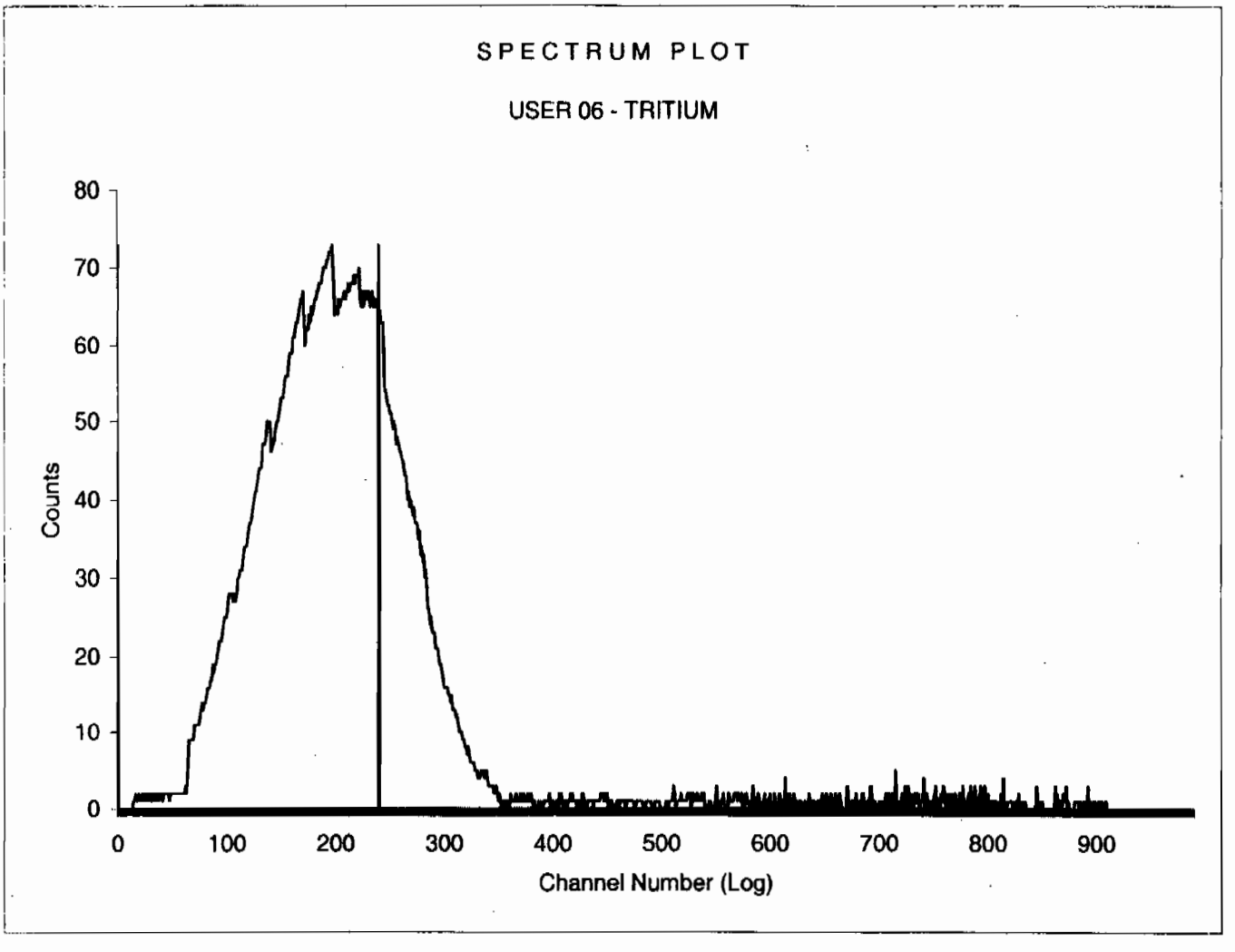

Sample Count Start Time:	8 Feb 2010 15:57:13		
Data Capture Date	08 Feb 2010 16:12:36		
User Filename	S06020824-10A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	24-10	15.00
H#, Total Counts:	110.4	8859	
Win1: Tritium - Start, End, Counts:	0	240	6408
Win2: - Start, End, Counts:	0	990	8859

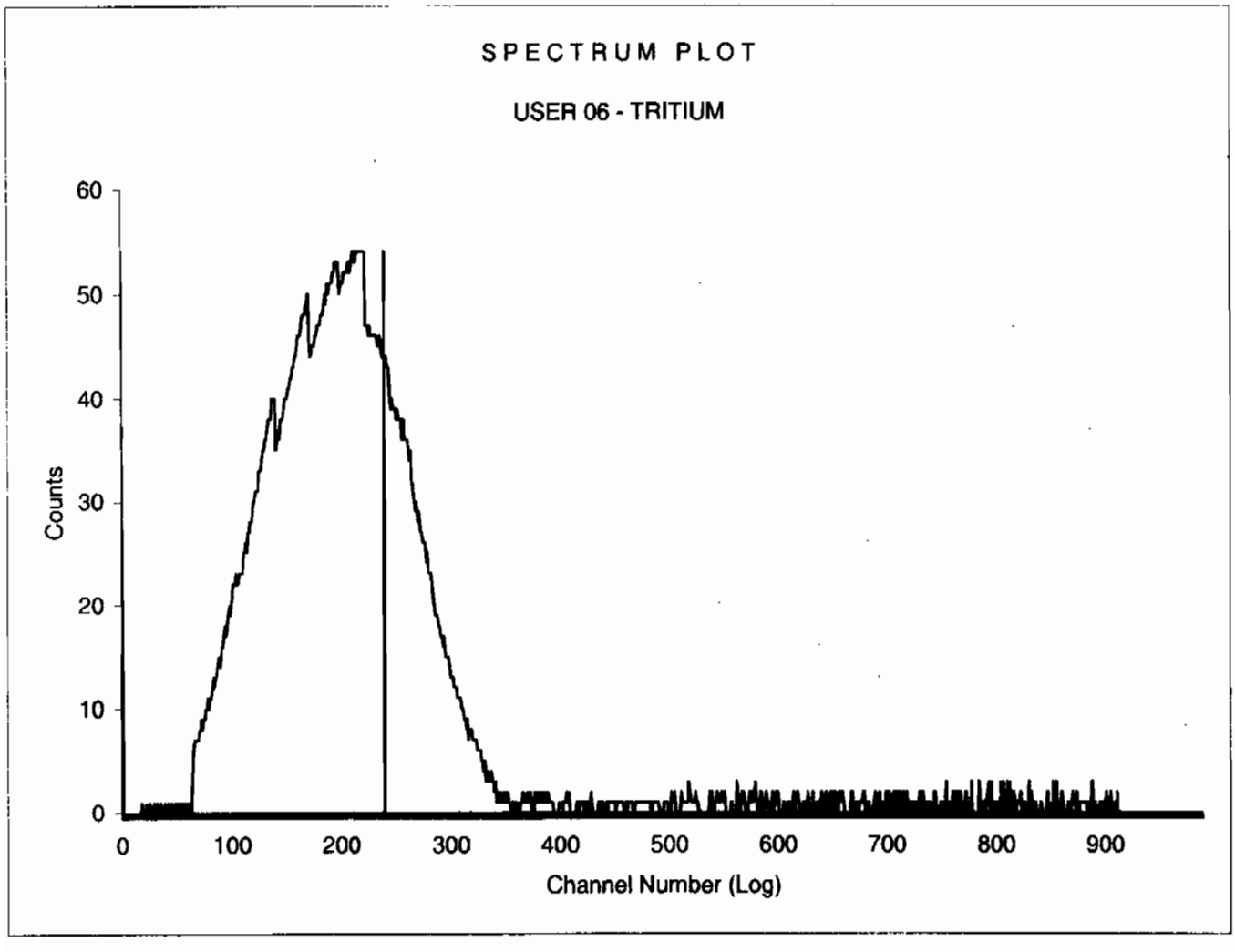

Sample Count Start Time:	8 Feb 2010 16:13:30		
Data Capture Date	08 Feb 2010 16:28:53		
User Filename	S06020824-11A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	24-11	15.00
H#, Total Counts:	110.7	1101	
Win1: Tritium - Start, End, Counts:	0	240	435
Win2: - Start, End, Counts:	0	990	1101

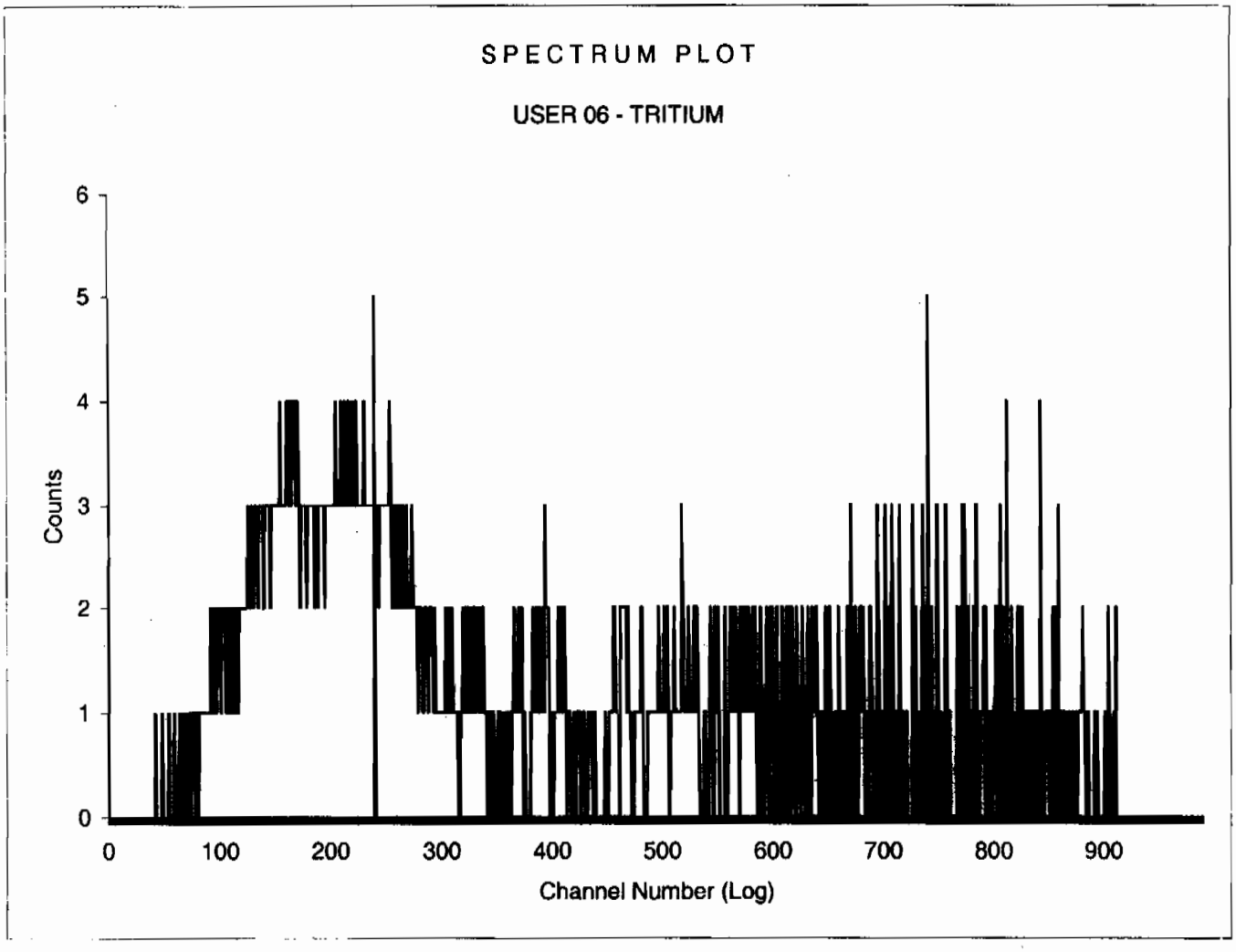

Sample Count Start Time:	8 Feb 2010 16:29:47		
Data Capture Date	08 Feb 2010 16:45:09		
User Filename	S06020824-12A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	24-12	15.00
H#, Total Counts:	110.1	1723	
Win1: Tritium - Start, End, Counts:	0	240	935
Win2: - Start, End, Counts:	0	990	1723

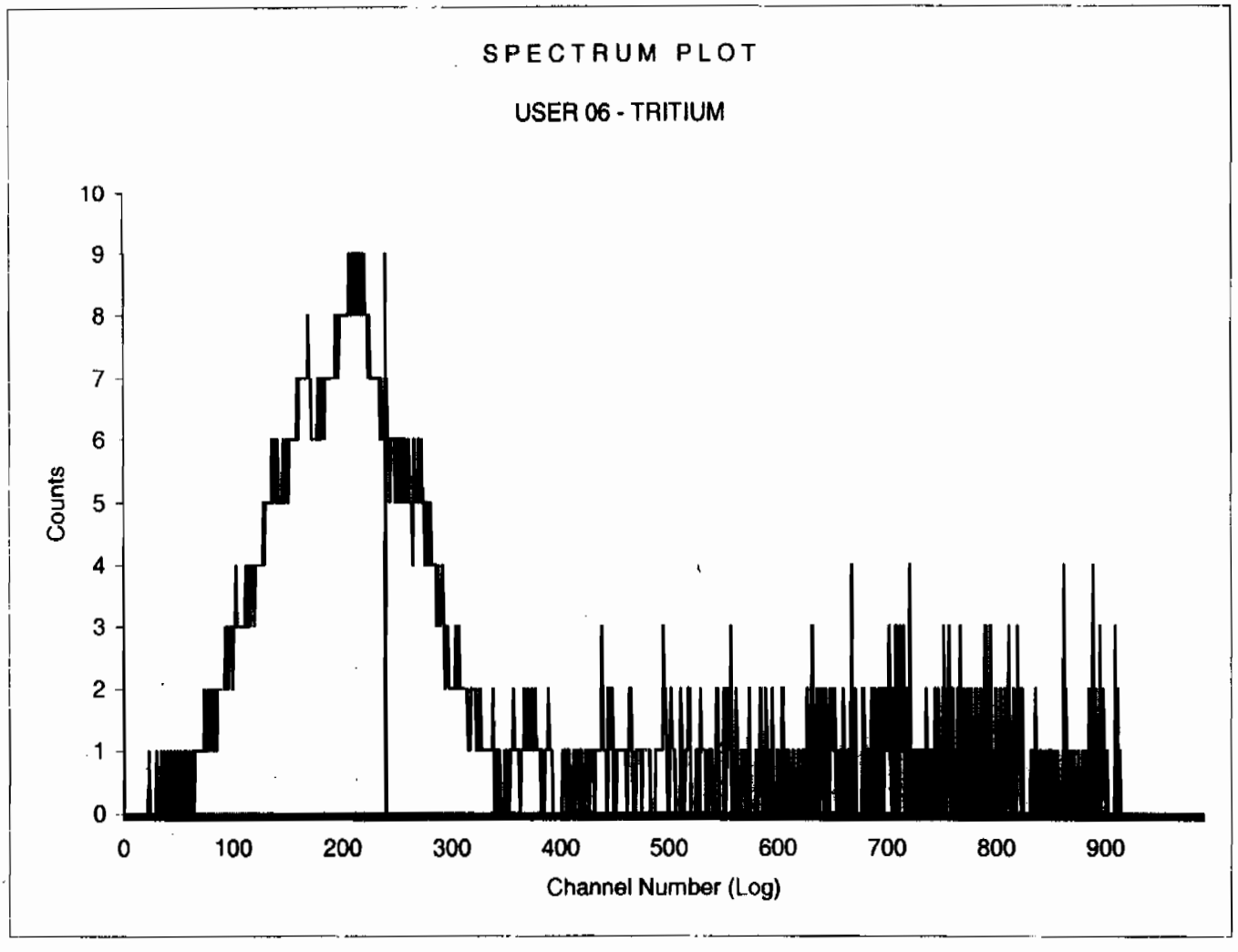

Sample Count Start Time:	8 Feb 2010 16:46:09		
Data Capture Date	08 Feb 2010 17:01:32		
User Filename	S06020831-1A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	13	31-1	15.00
H#, Total Counts:	109.7	8215	
Win1: Tritium - Start, End, Counts:	0	240	5943
Win2: - Start, End, Counts:	0	990	8215

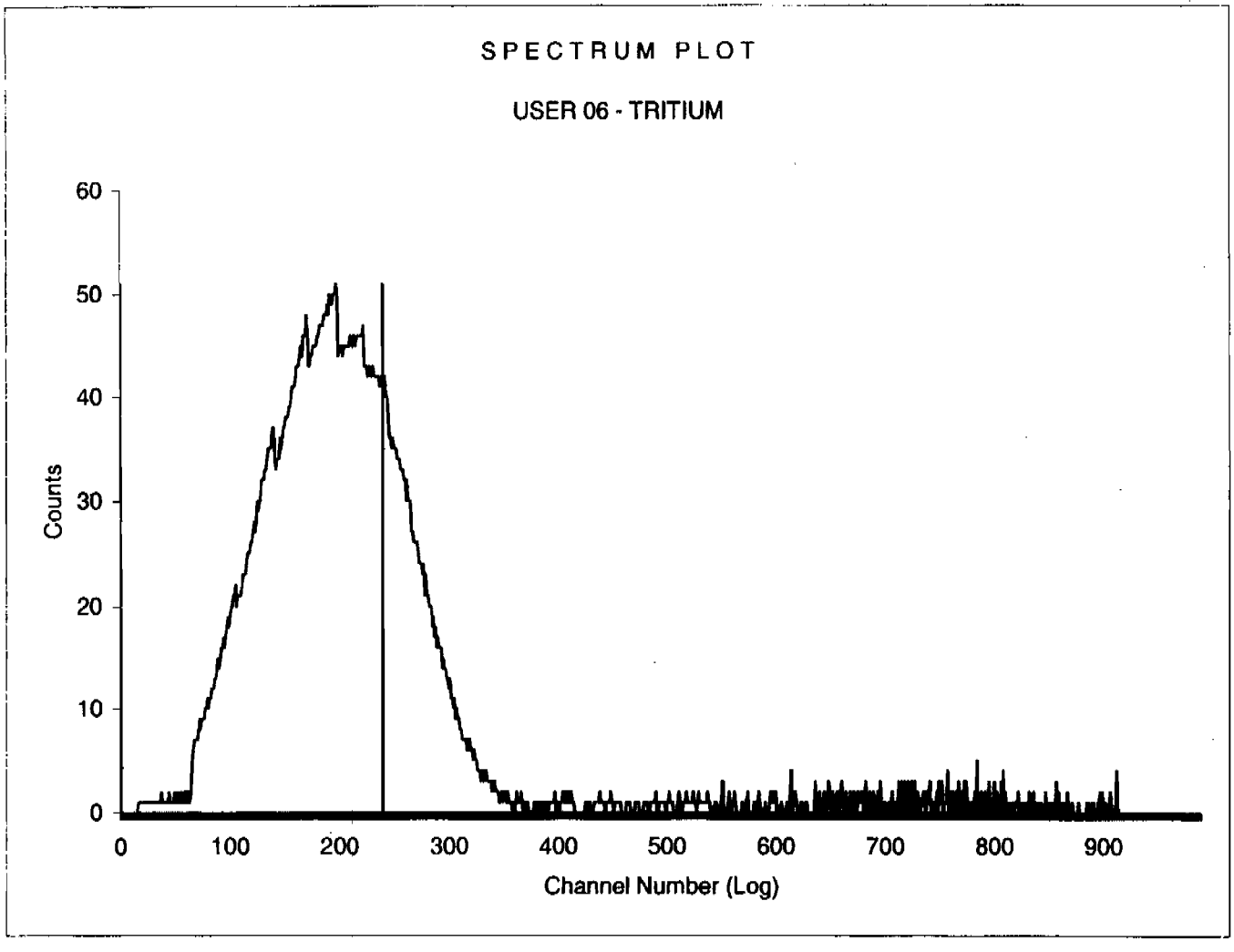

Sample Count Start Time:	8 Feb 2010 17:02:26		
Data Capture Date	08 Feb 2010 17:17:49		
User Filename	S06020831-2A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	14	31-2	15.00
H#, Total Counts:	109.8	869	
Win1: Tritium - Start, End, Counts:	0	240	320
Win2: - Start, End, Counts:	0	990	869

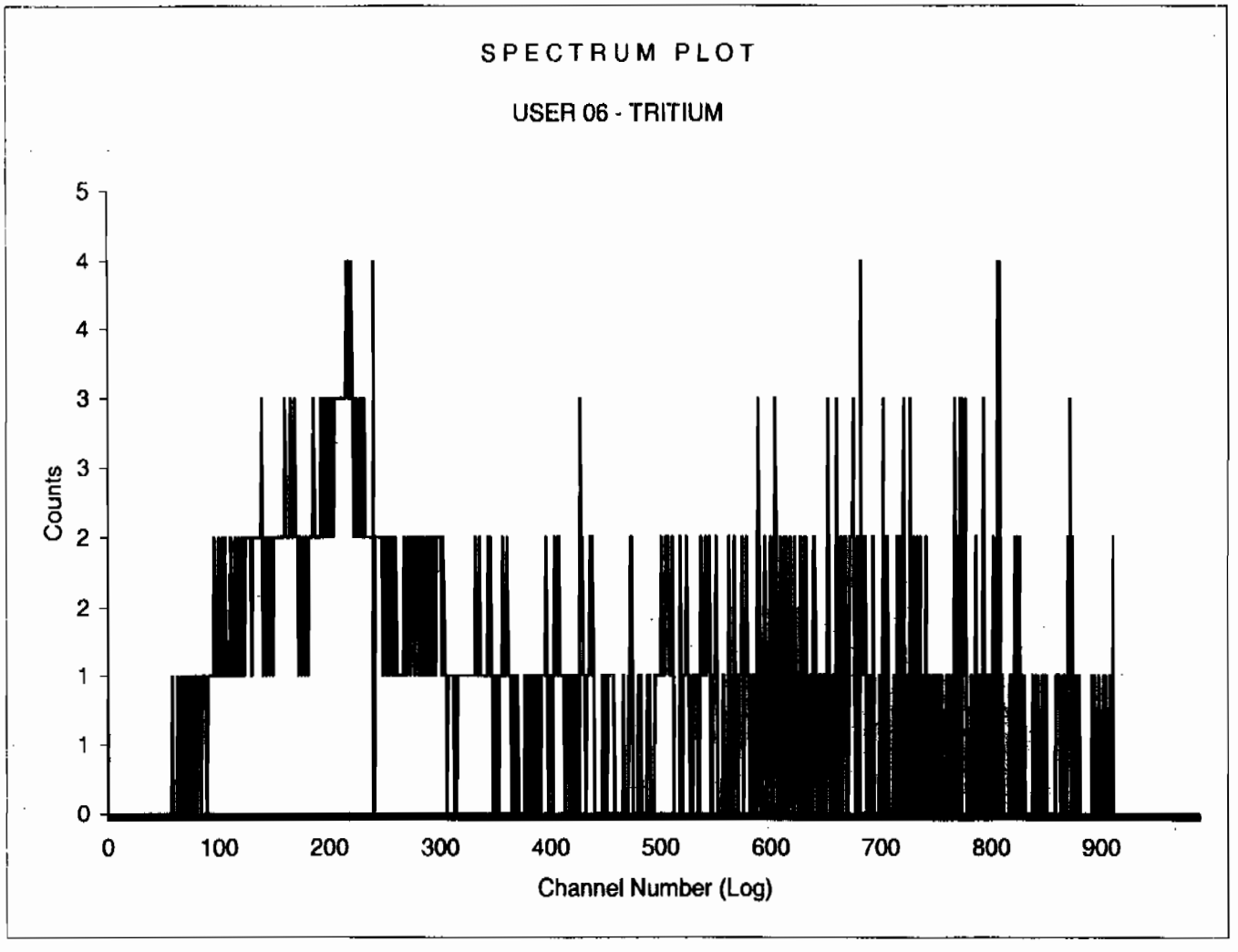

Sample Count Start Time:	8 Feb 2010 17:18:43		
Data Capture Date	08 Feb 2010 17:34:06		
User Filename	S06020831-3A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	15	31-3	15.00
H#, Total Counts:	110.0	11367	
Win1: Tritium - Start, End, Counts:	0	240	8397
Win2: - Start, End, Counts:	0	990	11367

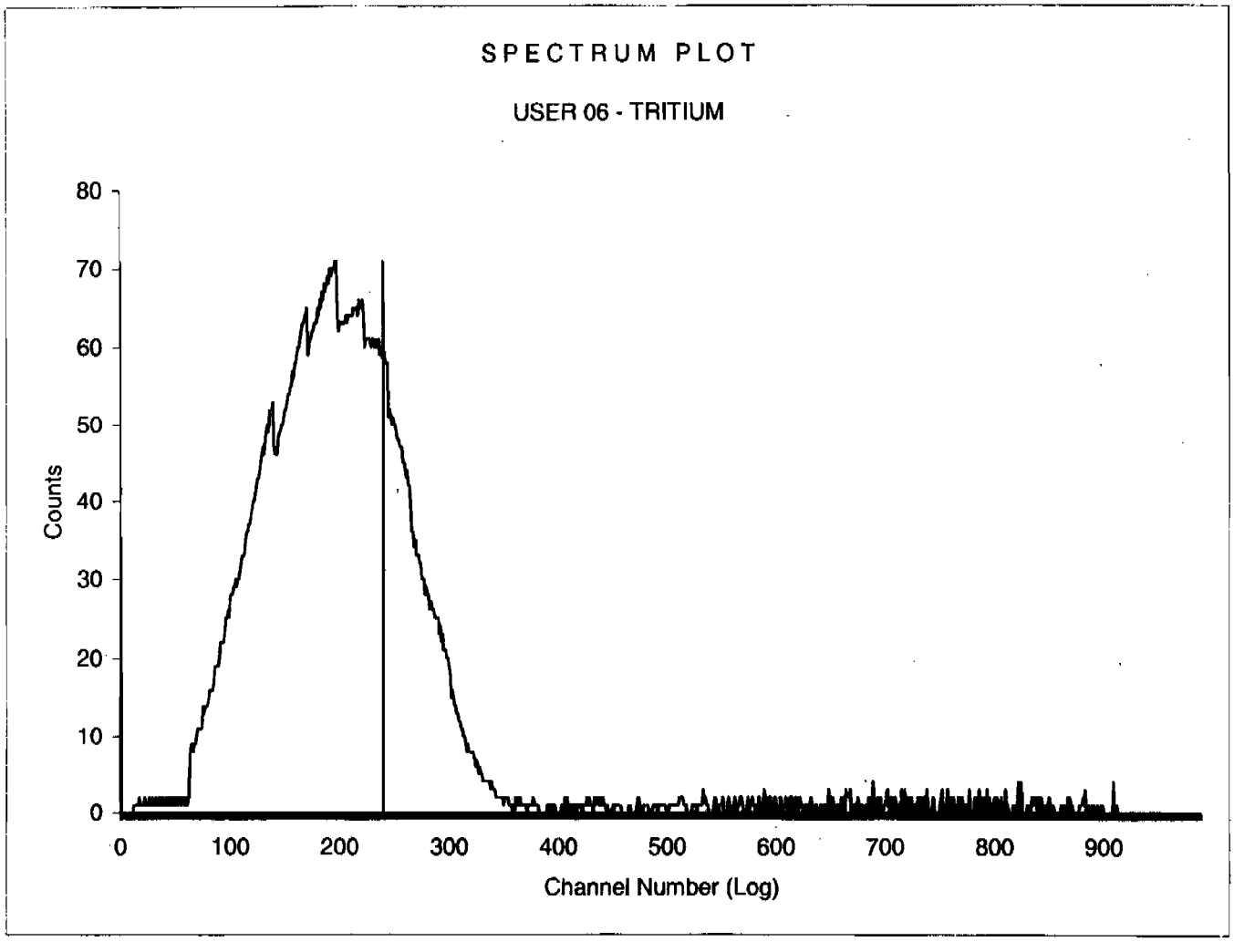

Sample Count Start Time:	8 Feb 2010 17:35:00		
Data Capture Date	08 Feb 2010 17:50:23		
User Filename	S06020831-4A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	16	31-4	15.00
H#, Total Counts:	110.6	12875	
Win1: Tritium - Start, End, Counts:	0	240	9414
Win2: - Start, End, Counts:	0	990	12875

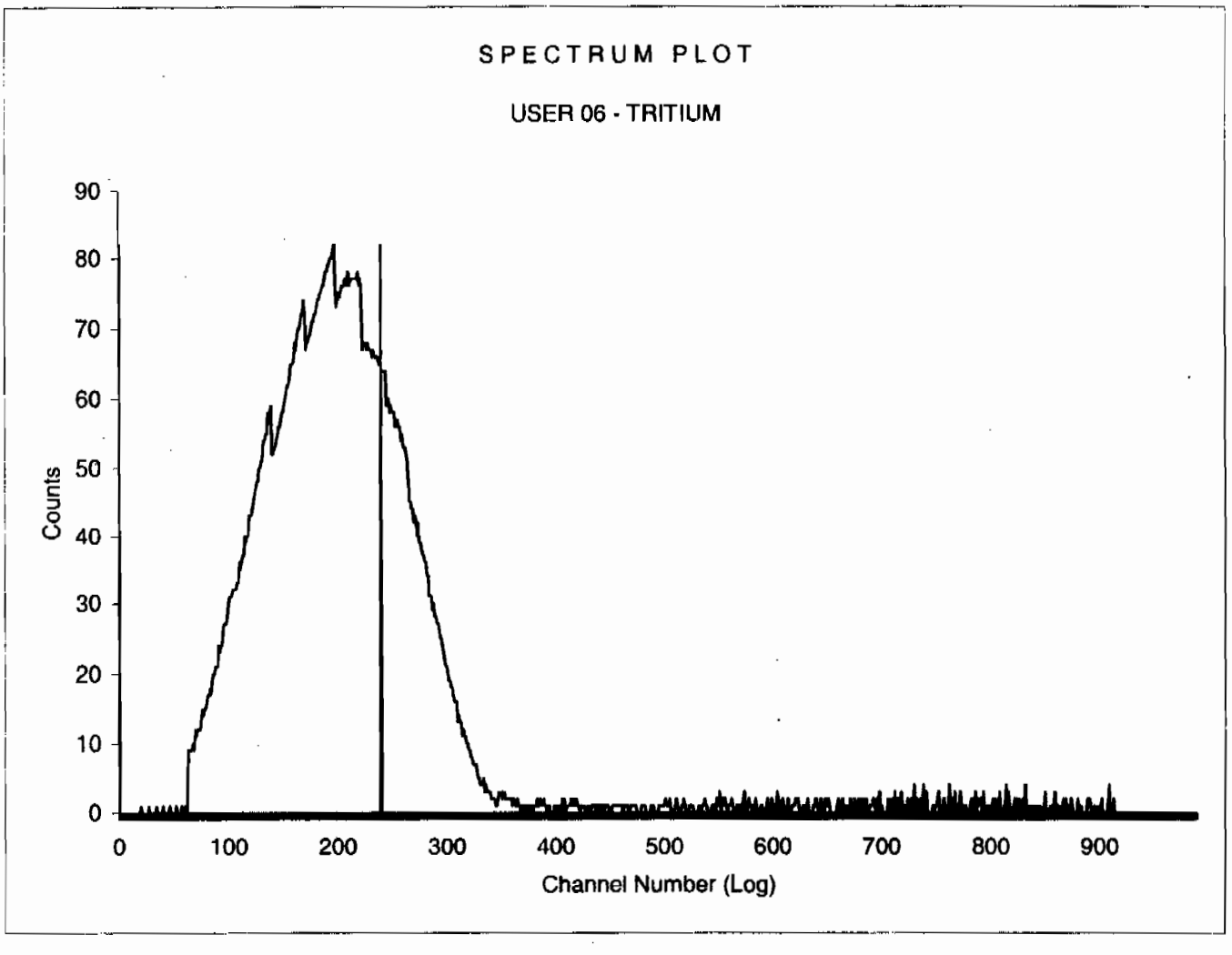

Sample Count Start Time:	8 Feb 2010 17:51:16		
Data Capture Date	08 Feb 2010 18:07:14		
User Filename	S06020831-5A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	17	31-5	15.00
H#, Total Counts:	109.5	559	
Win1: Tritium - Start, End, Counts:	0	240	57
Win2: - Start, End, Counts:	0	990	559

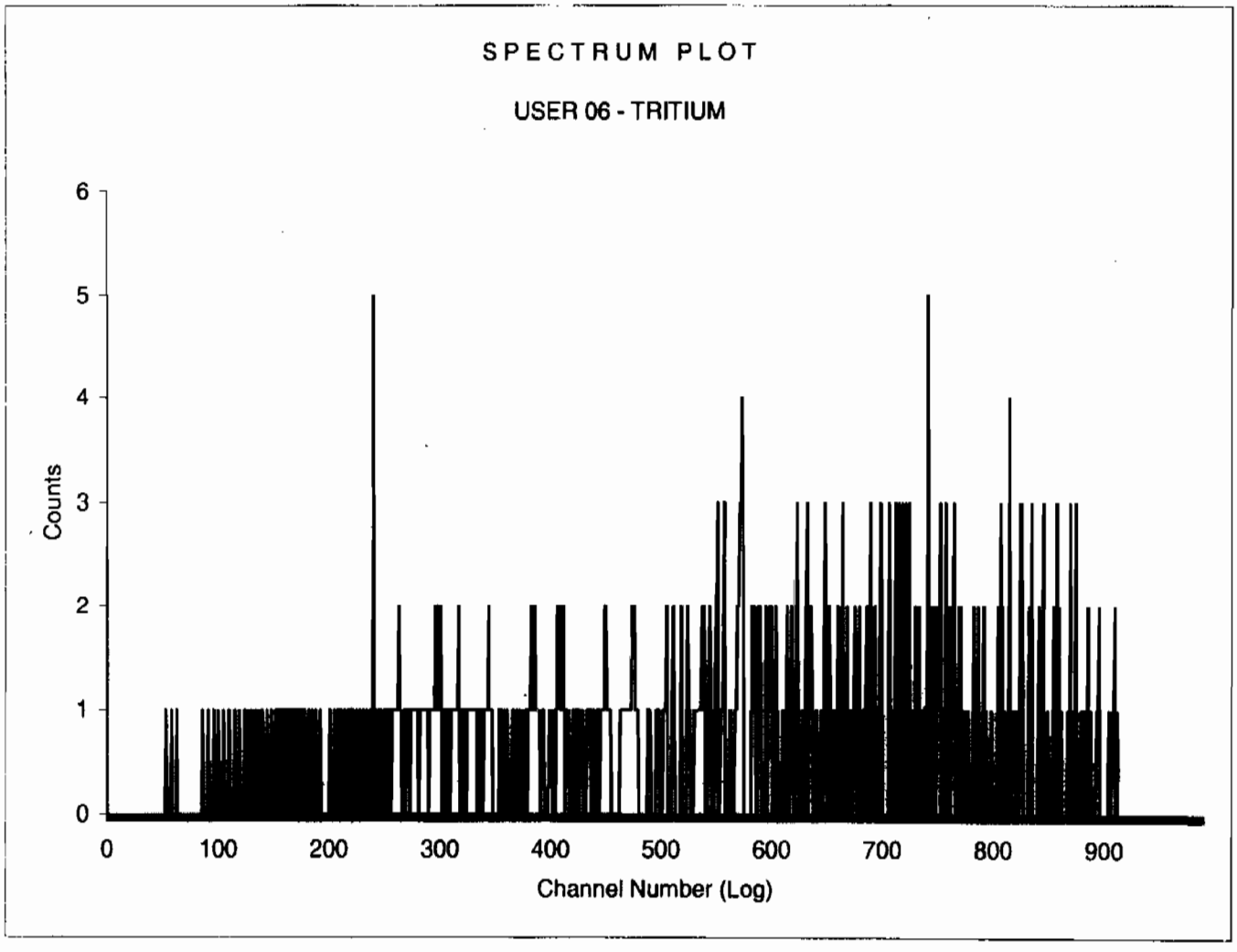

Sample Count Start Time:	8 Feb 2010 18:07:32		
Data Capture Date	08 Feb 2010 18:23:31		
User Filename	S06020831-6A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	18	31-6	15.00
H#, Total Counts:	111.4	1424	
Win1: Tritium - Start, End, Counts:	0	240	701
Win2: - Start, End, Counts:	0	990	1424

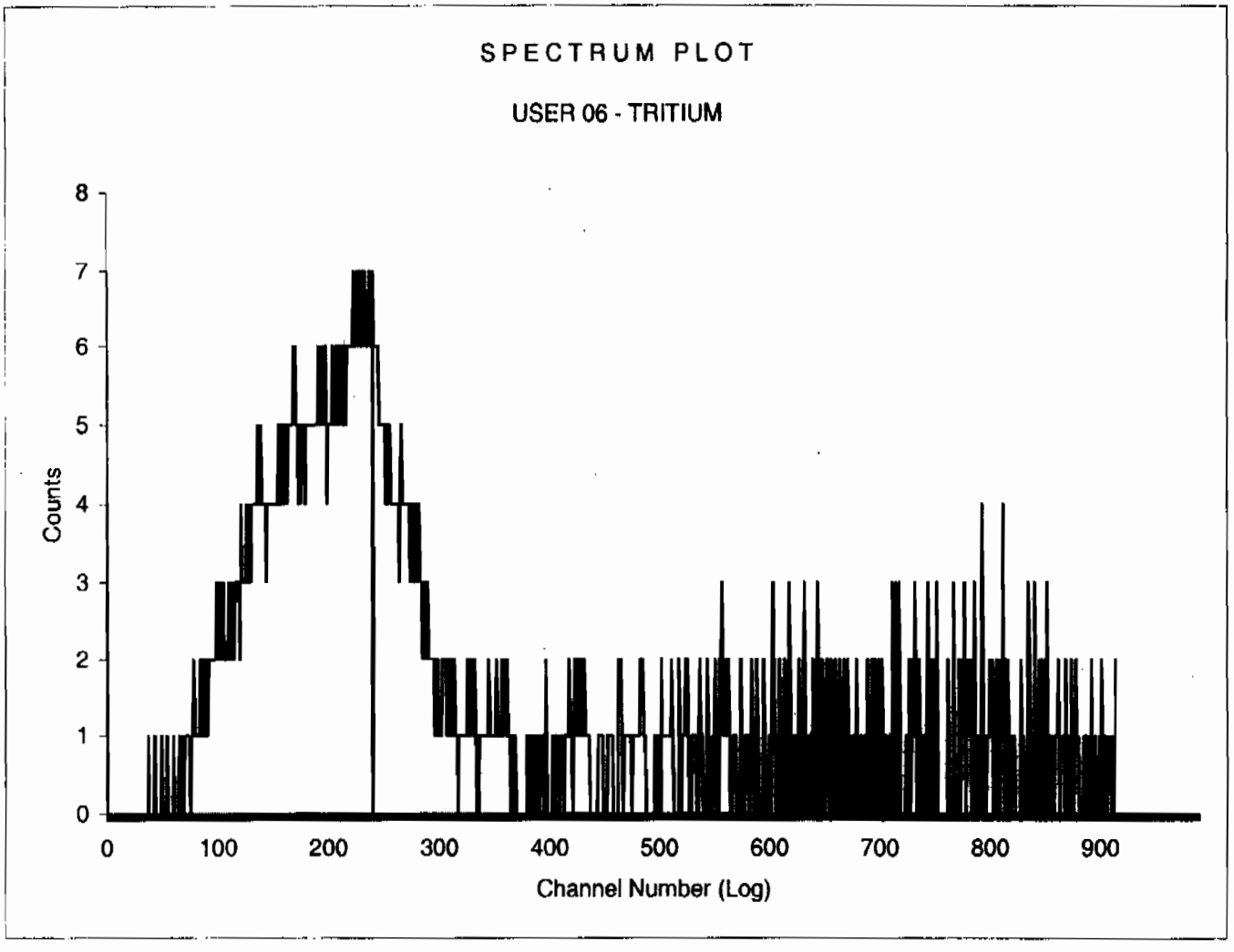

Sample Count Start Time:	8 Feb 2010 18:23:48		
Data Capture Date	08 Feb 2010 18:39:26		
User Filename	S06020831-7A.XLS		
	U06020824-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	19	31-7	15.00
H#, Total Counts:	110.9	1191	
Win1: Tritium - Start, End, Counts:	0	240	539
Win2: - Start, End, Counts:	0	990	1191

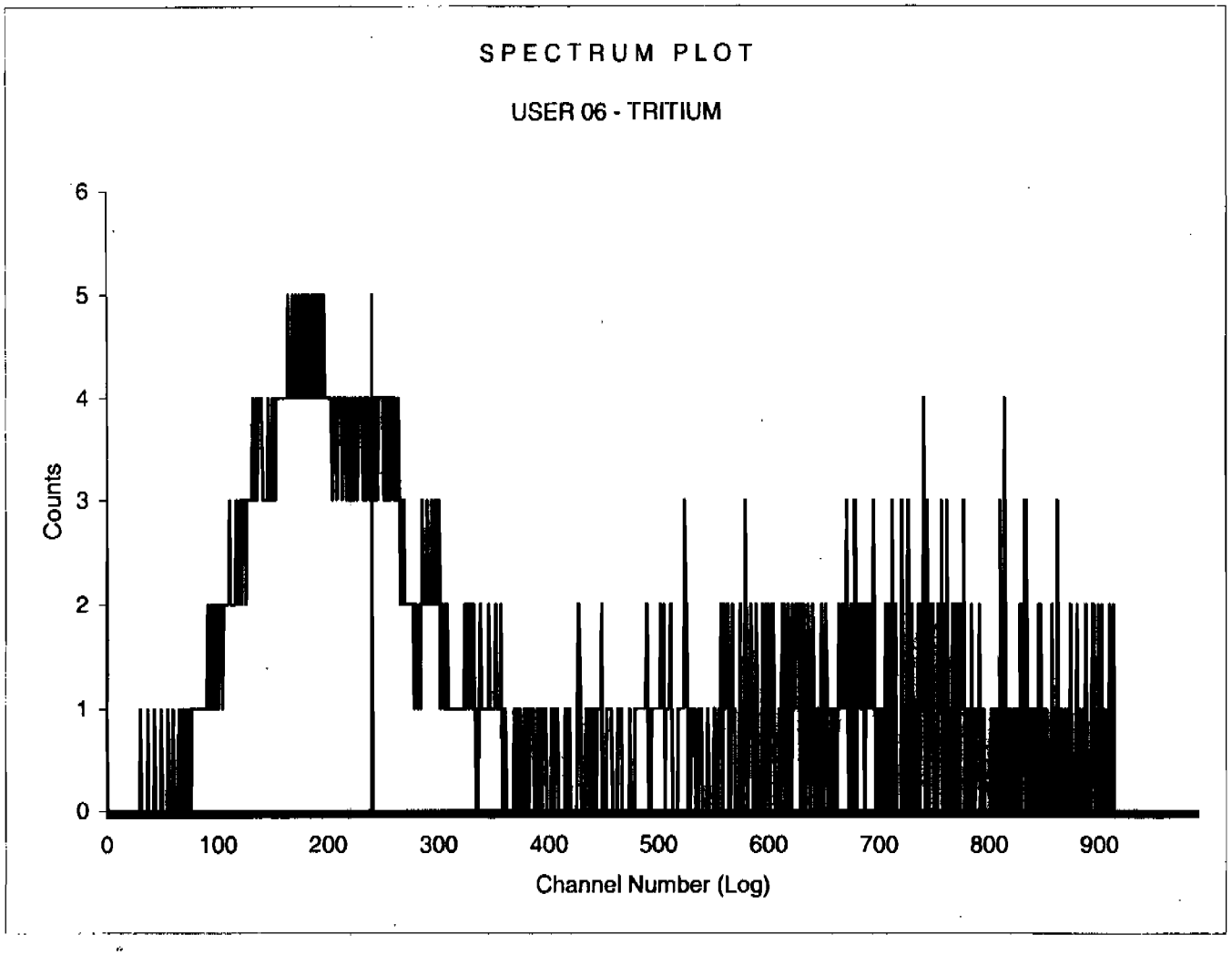

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.290108 through 0.310108

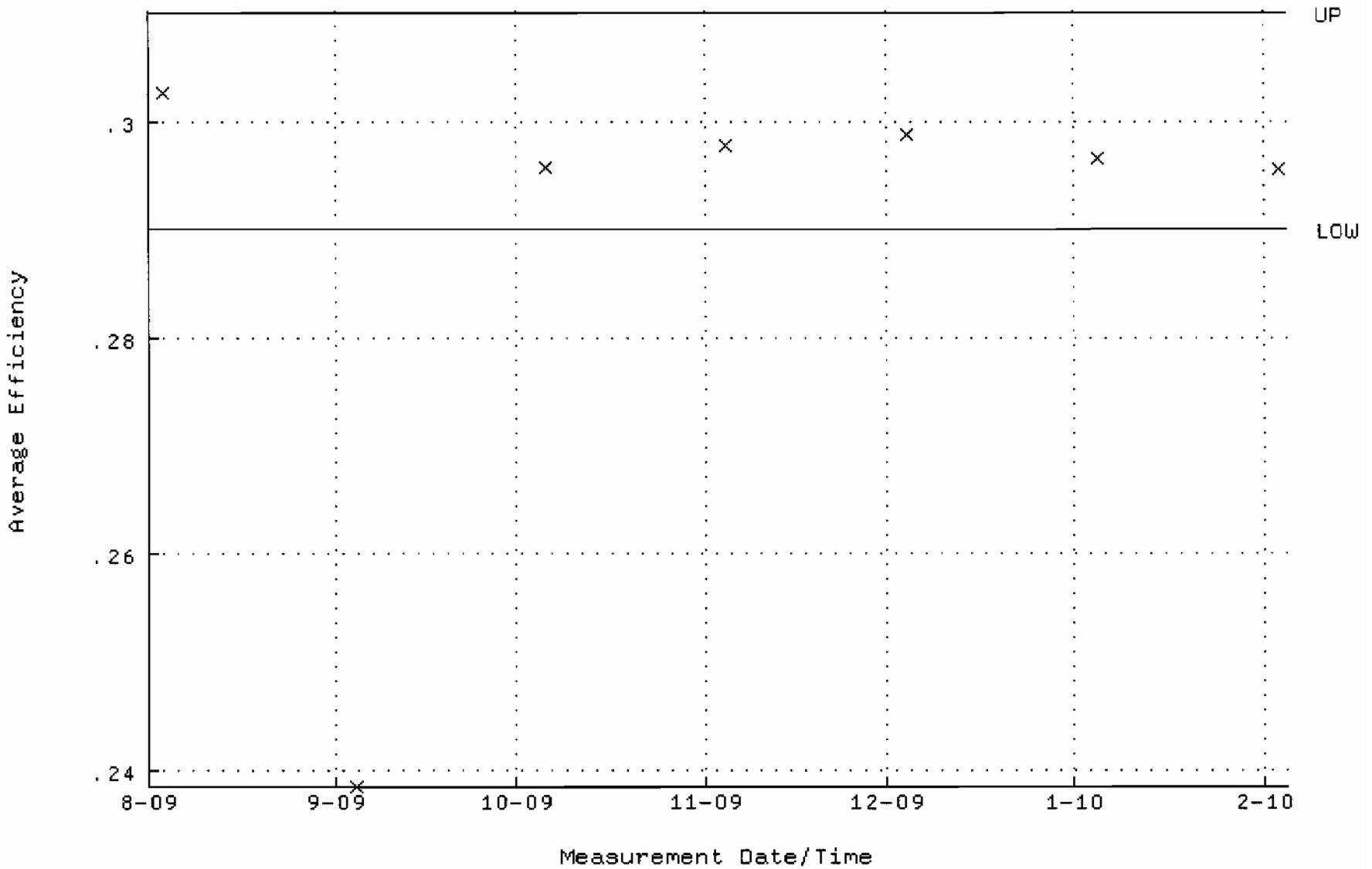

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.0687 through 96.2339

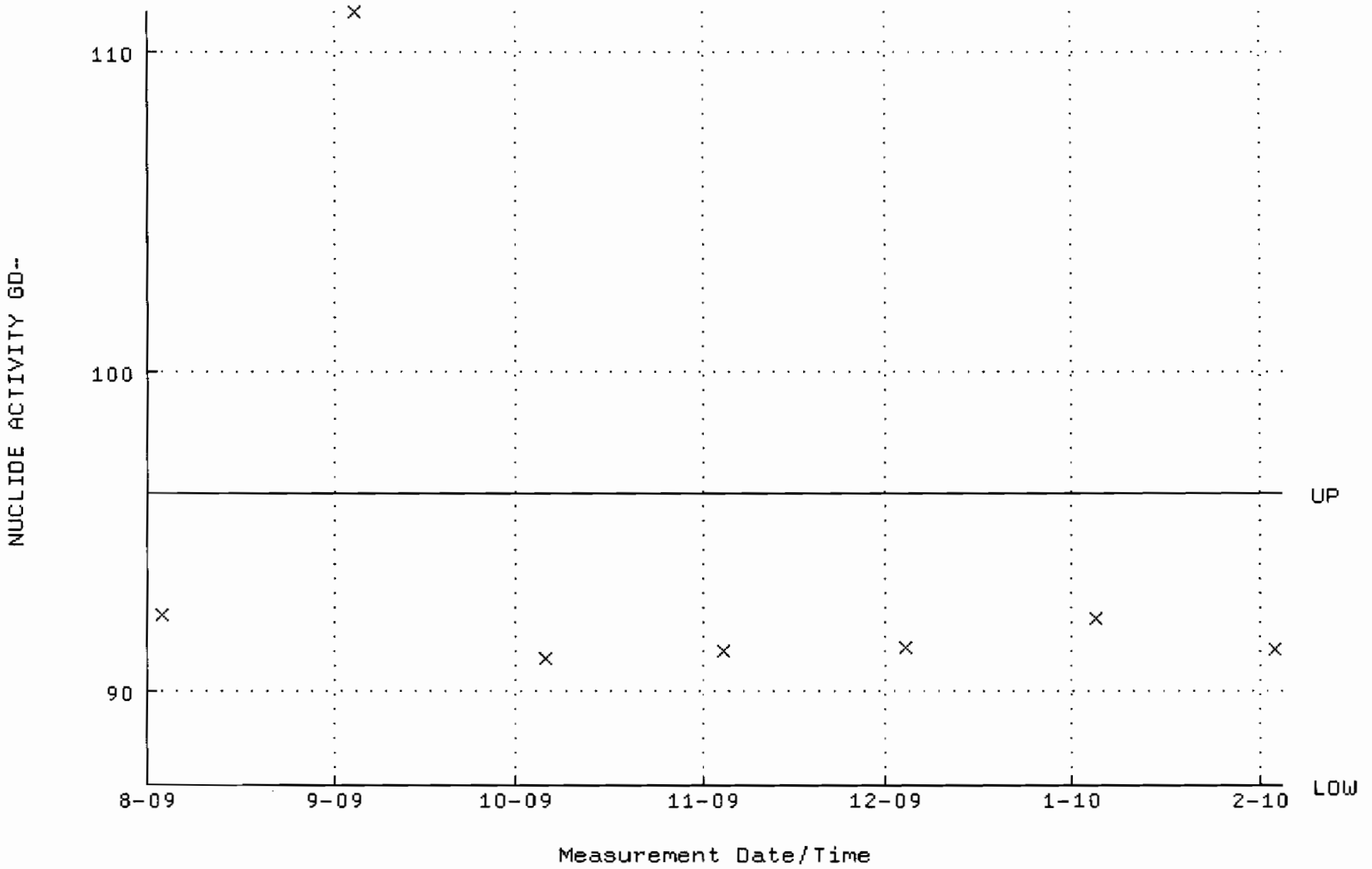

QA filename : DKA100:[ENV_ALPHA.QA.B]B007.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

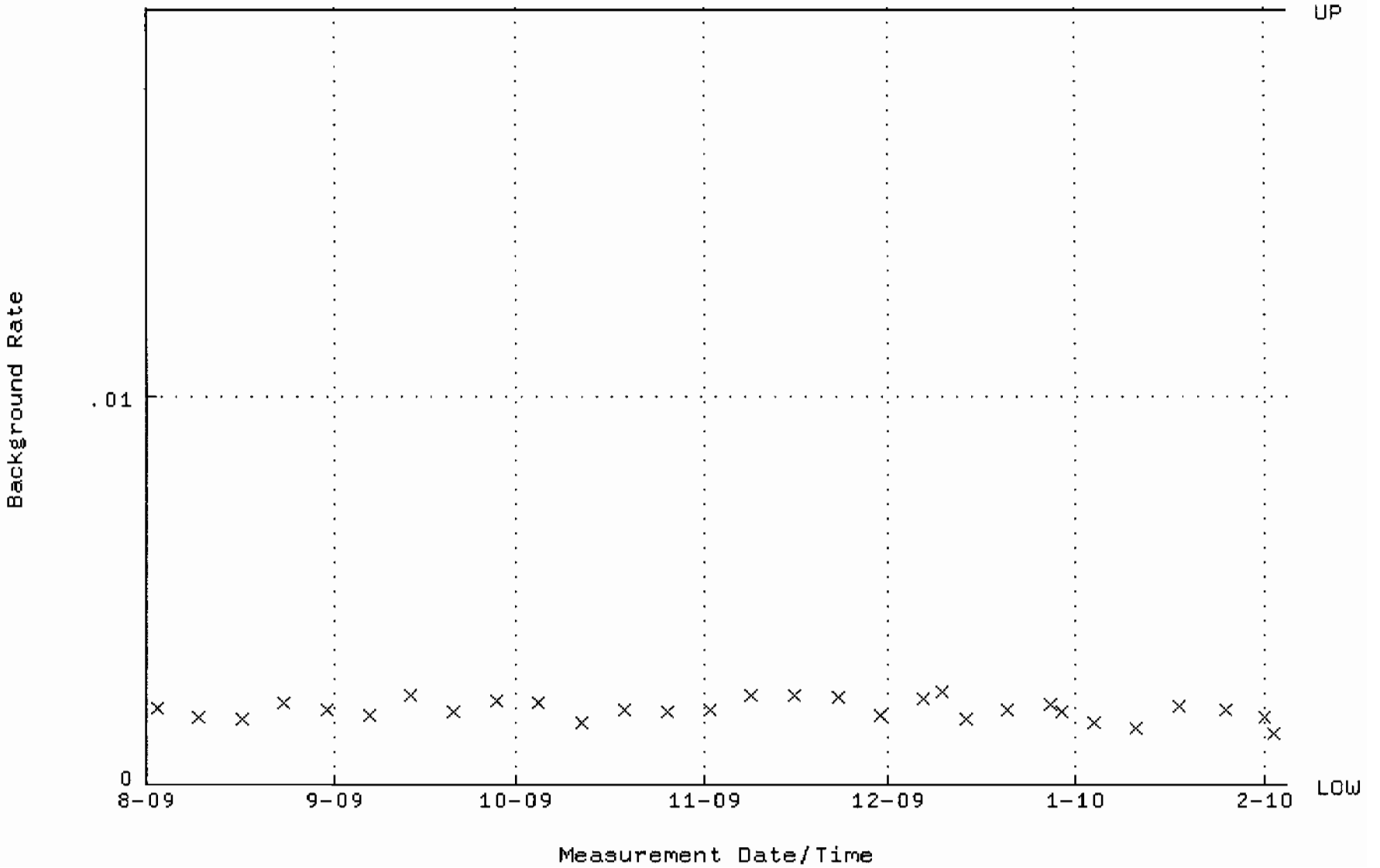

QA filename : DKA100:[ENV_ALPHA.QA.W]W008.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.309318 through 0.329318

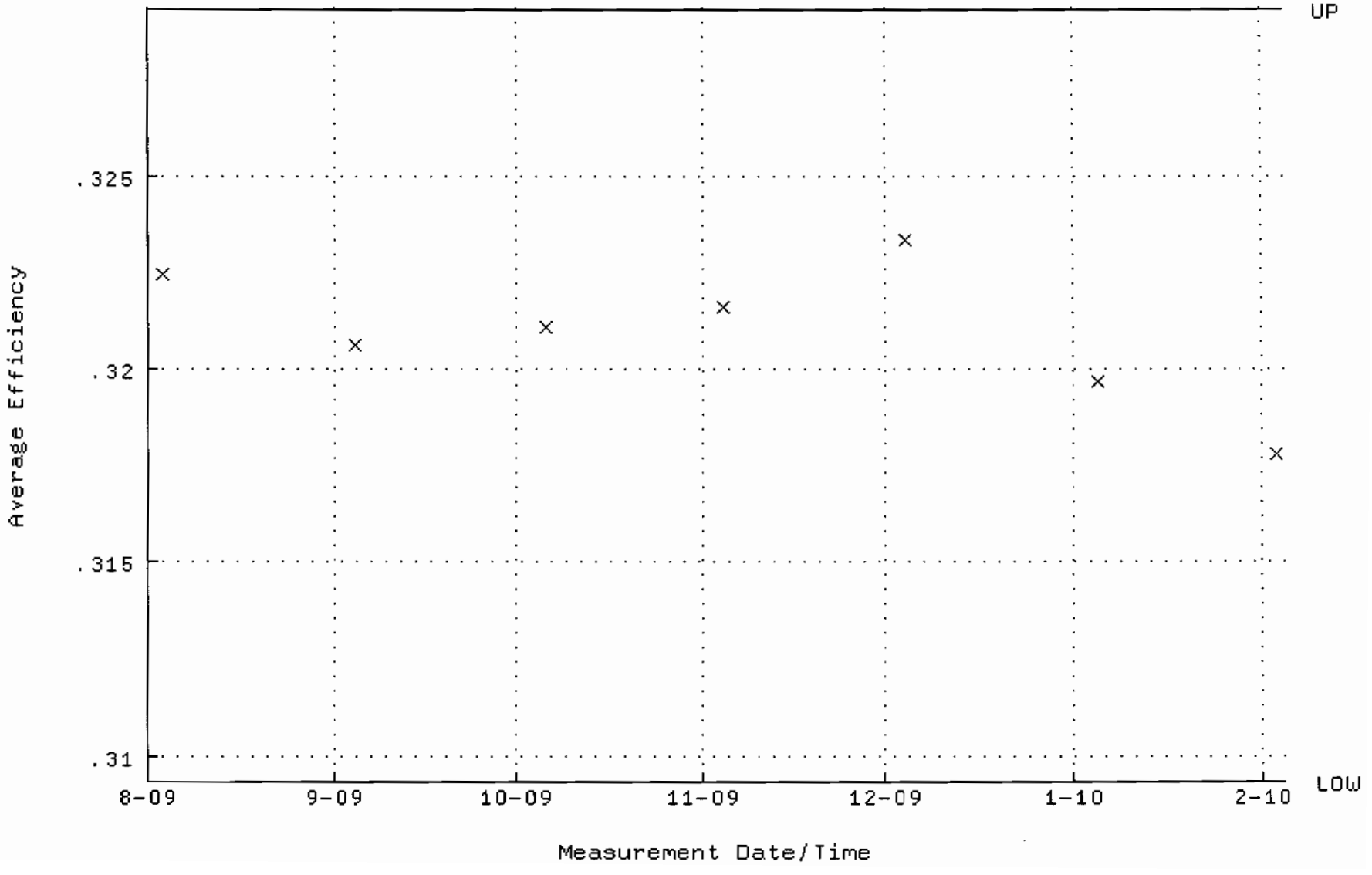

QA filename : DKA100:[ENV_ALPHA.QA.W]W008.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.8346 through 97.0804

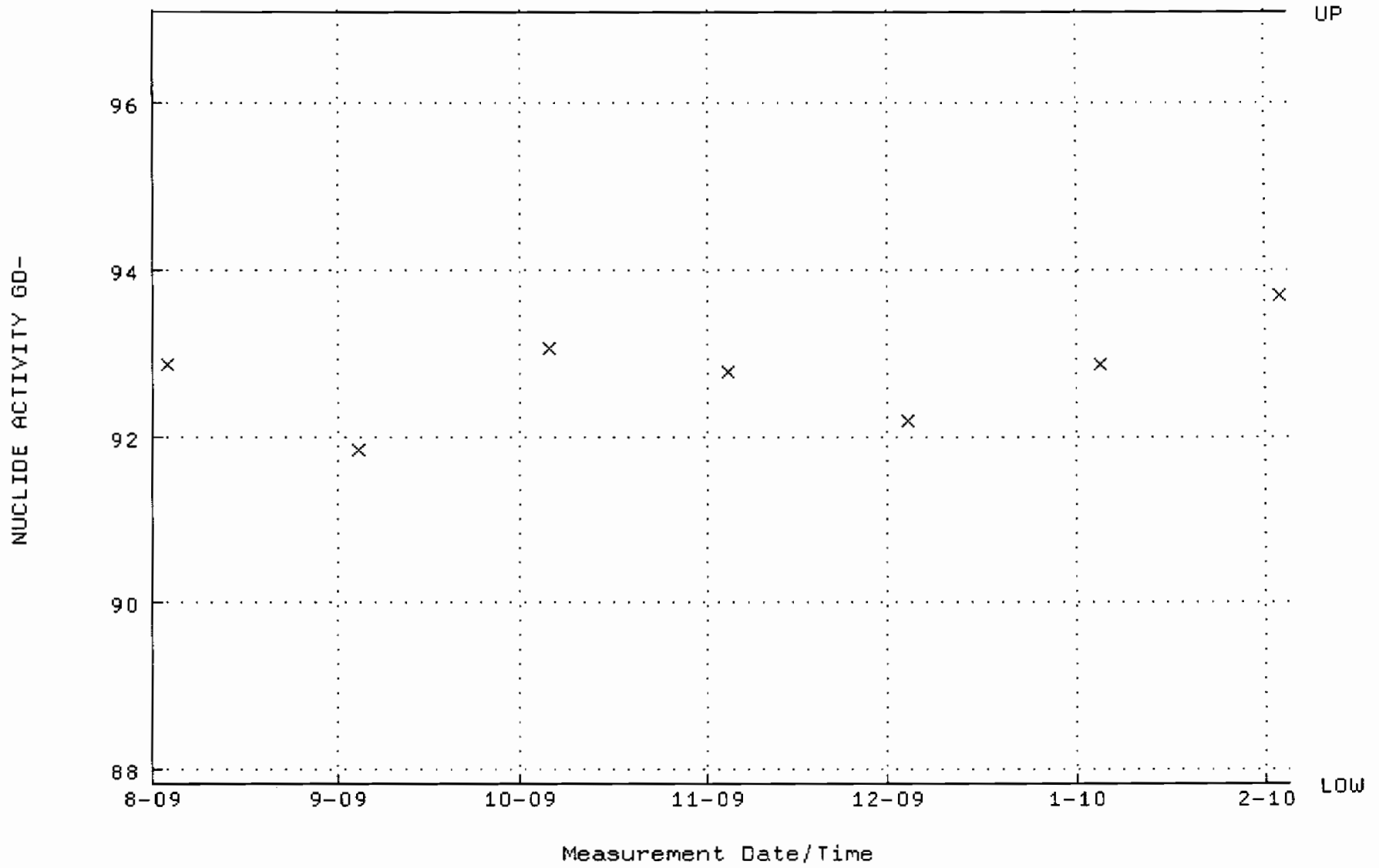

QA filename : DKA100:[ENV_ALPHA.QA.B]B008.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

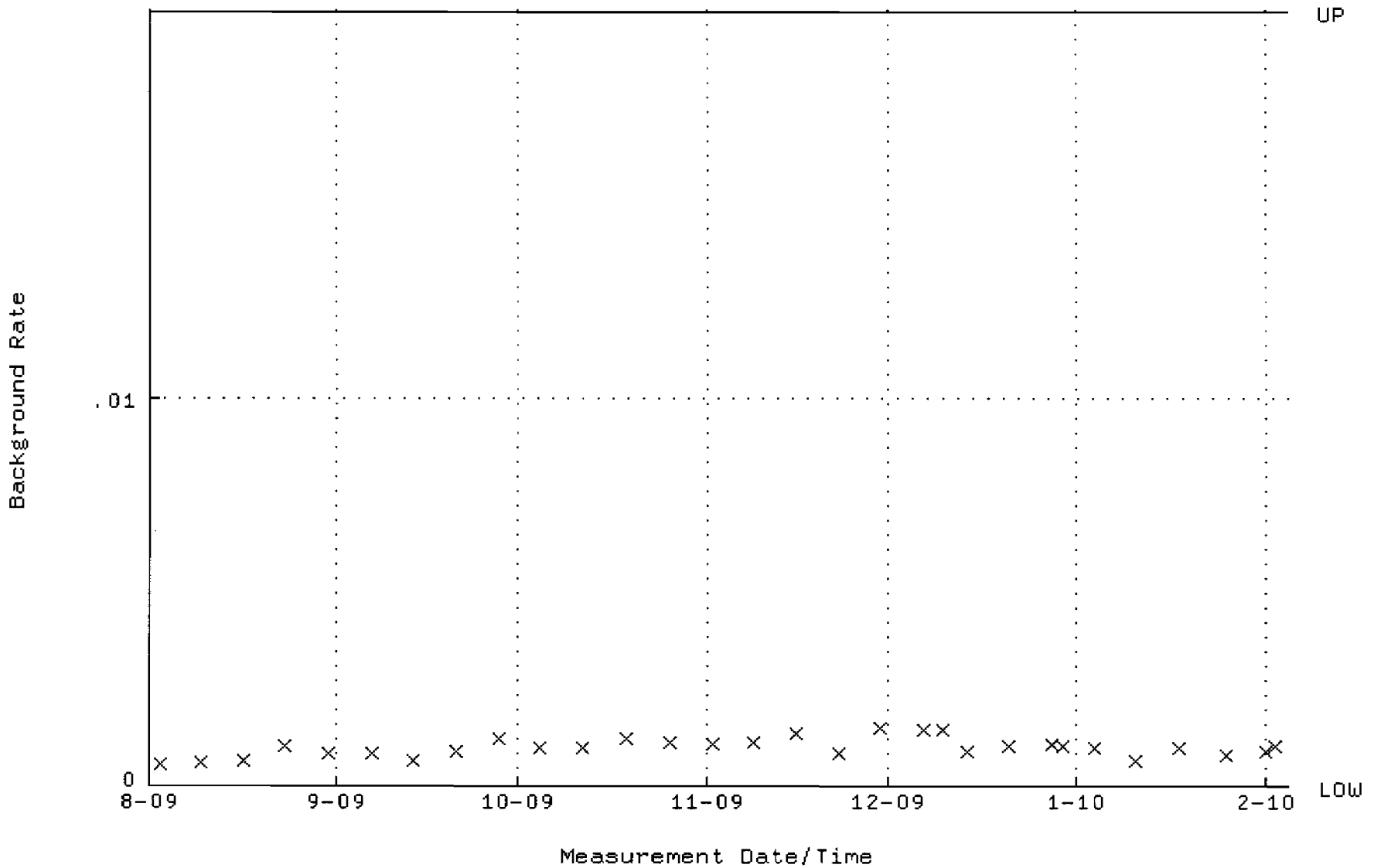

QA filename : DKA100:[ENV_ALPHA.QA.W]W031.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:41 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.324029 through 0.364065

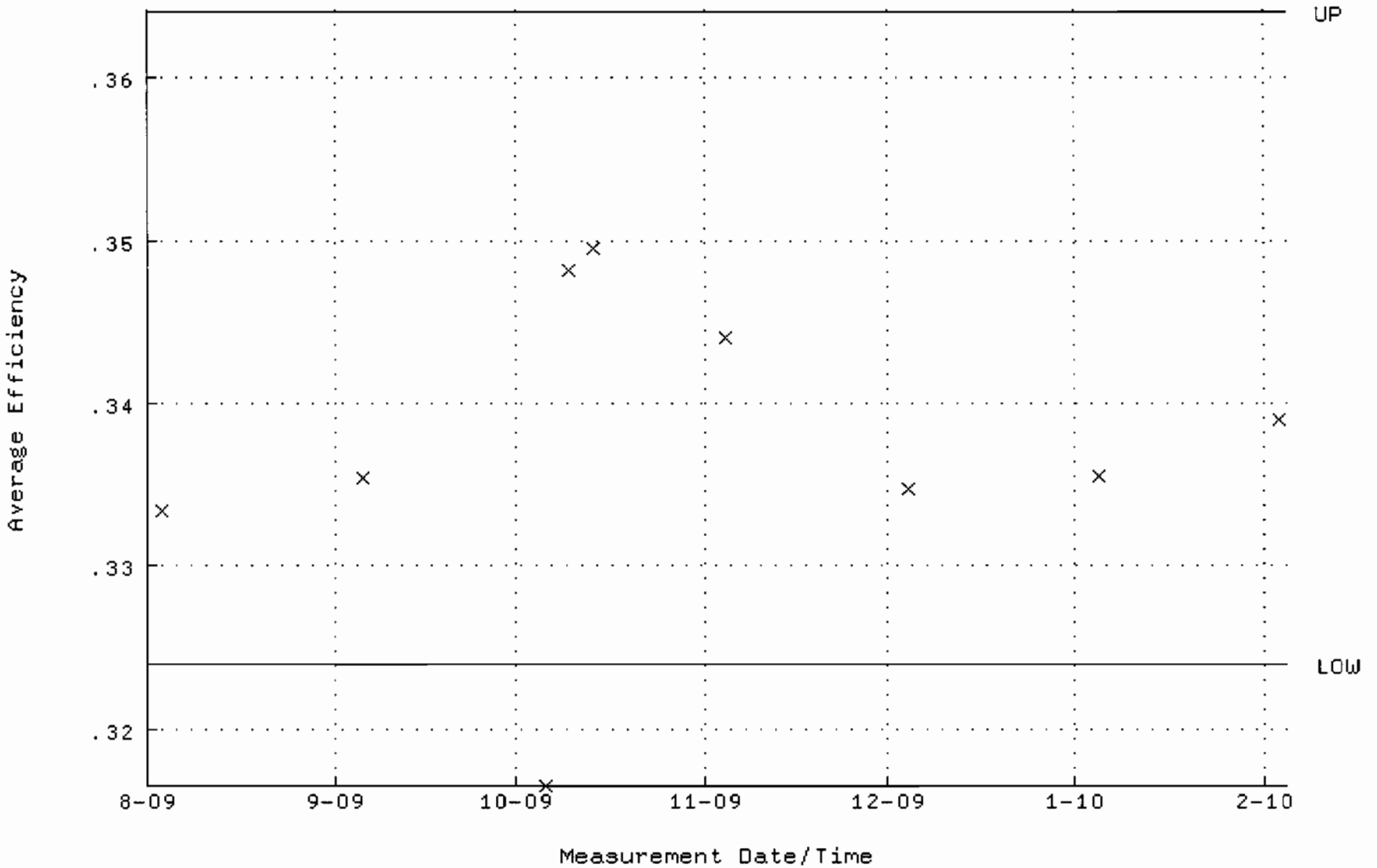

QA filename : DKA100:[ENV_ALPHA.QA.W]W031.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:41 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.2165 through 88.5165

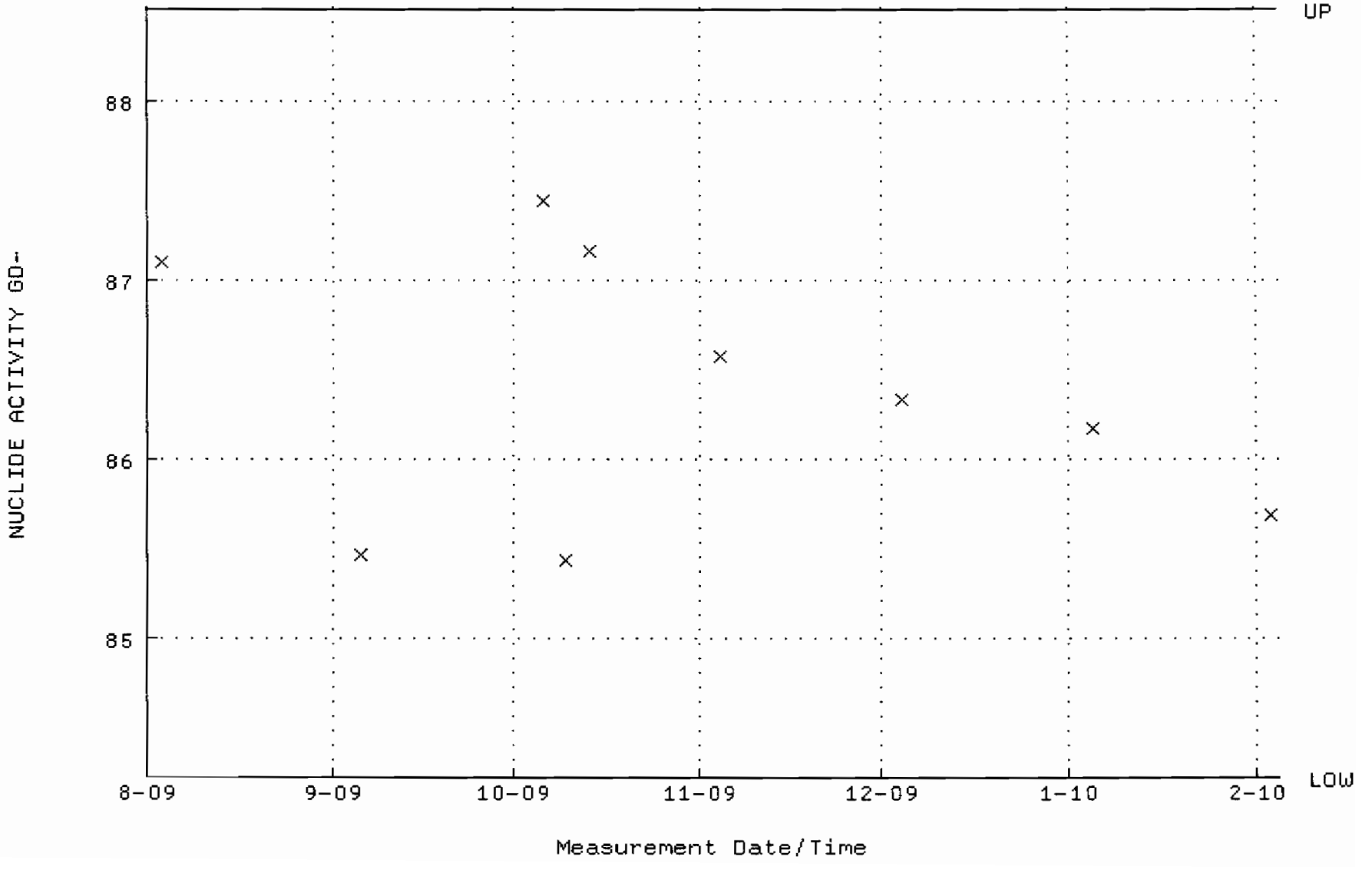

QA filename : DKA100:[ENV_ALPHA.QA.B]B031.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

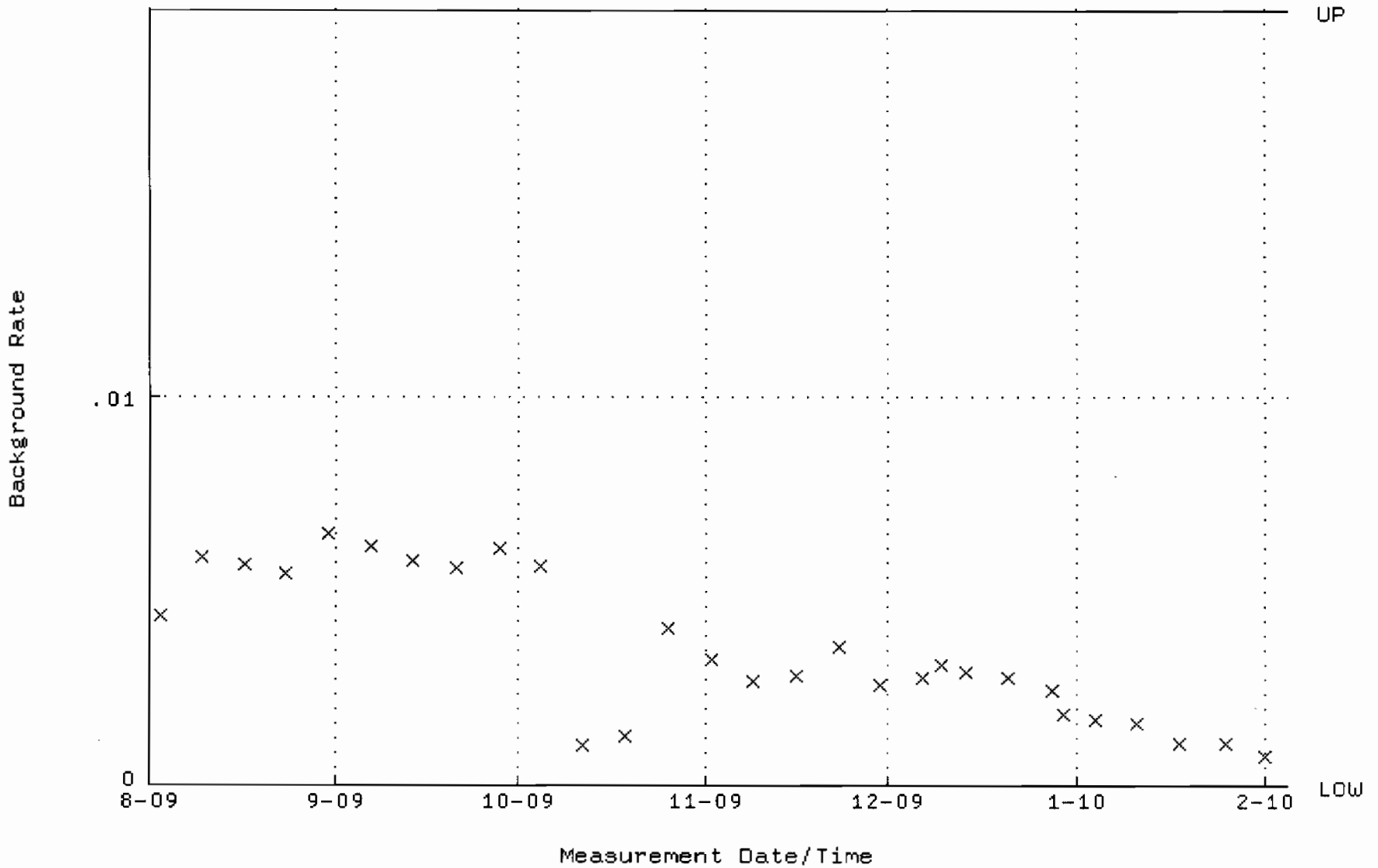

QA filename : DKA100:[ENV_ALPHA.QA.W]W037.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

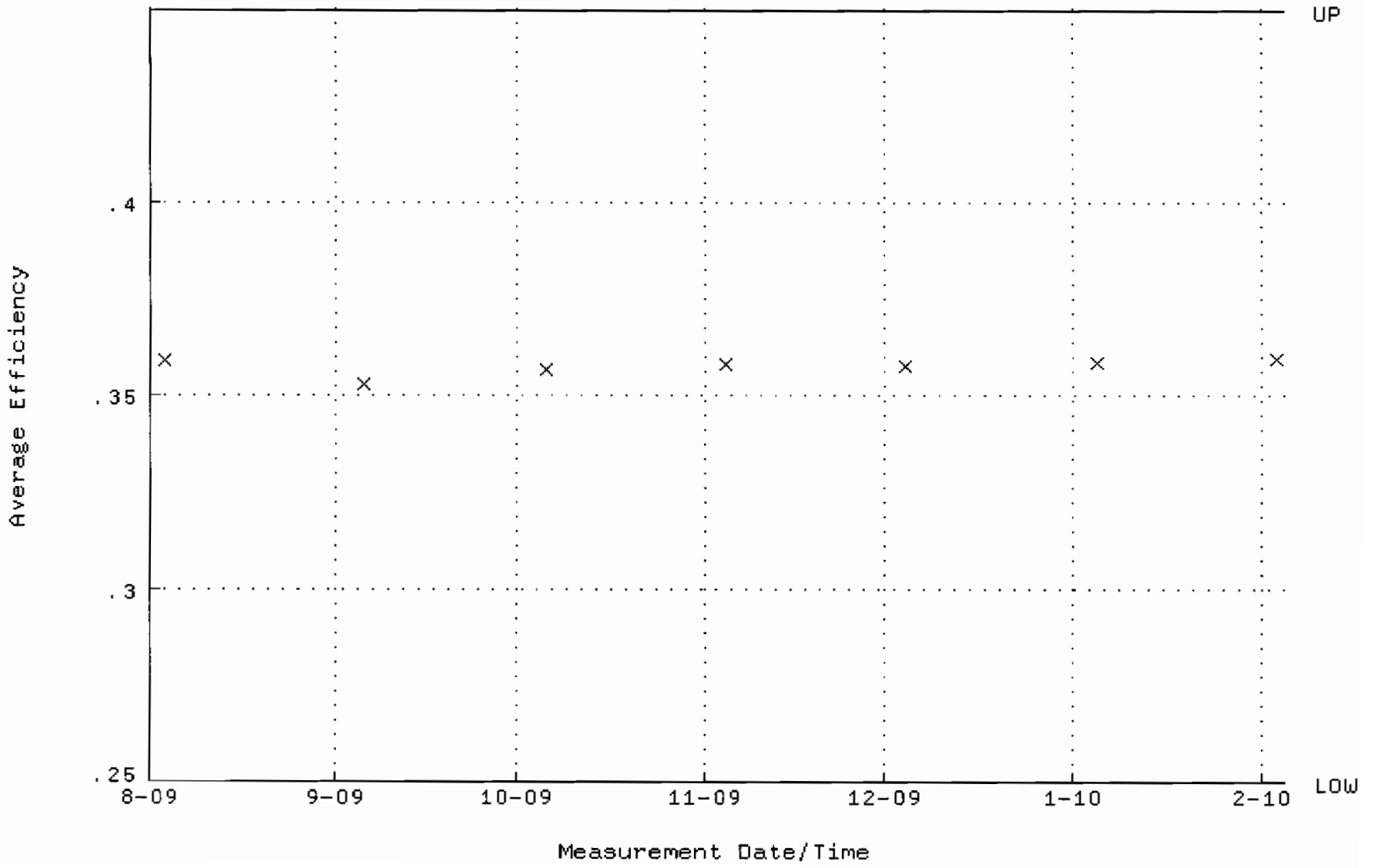

QA filename : DKA100:[ENV_ALPHA.QA.W]W037.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

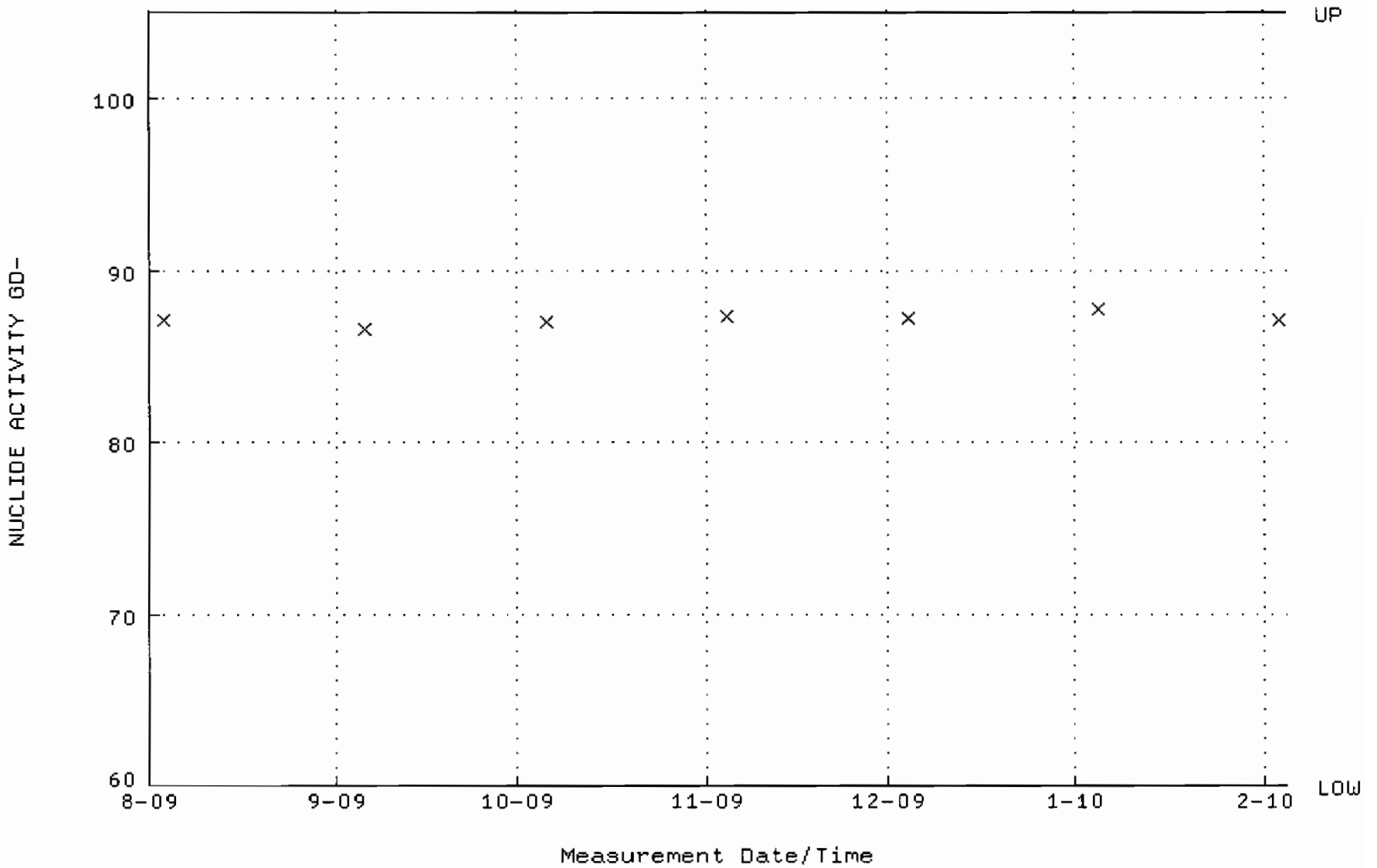

QA filename : DKA100:[ENV_ALPHA.QA.B]B037.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

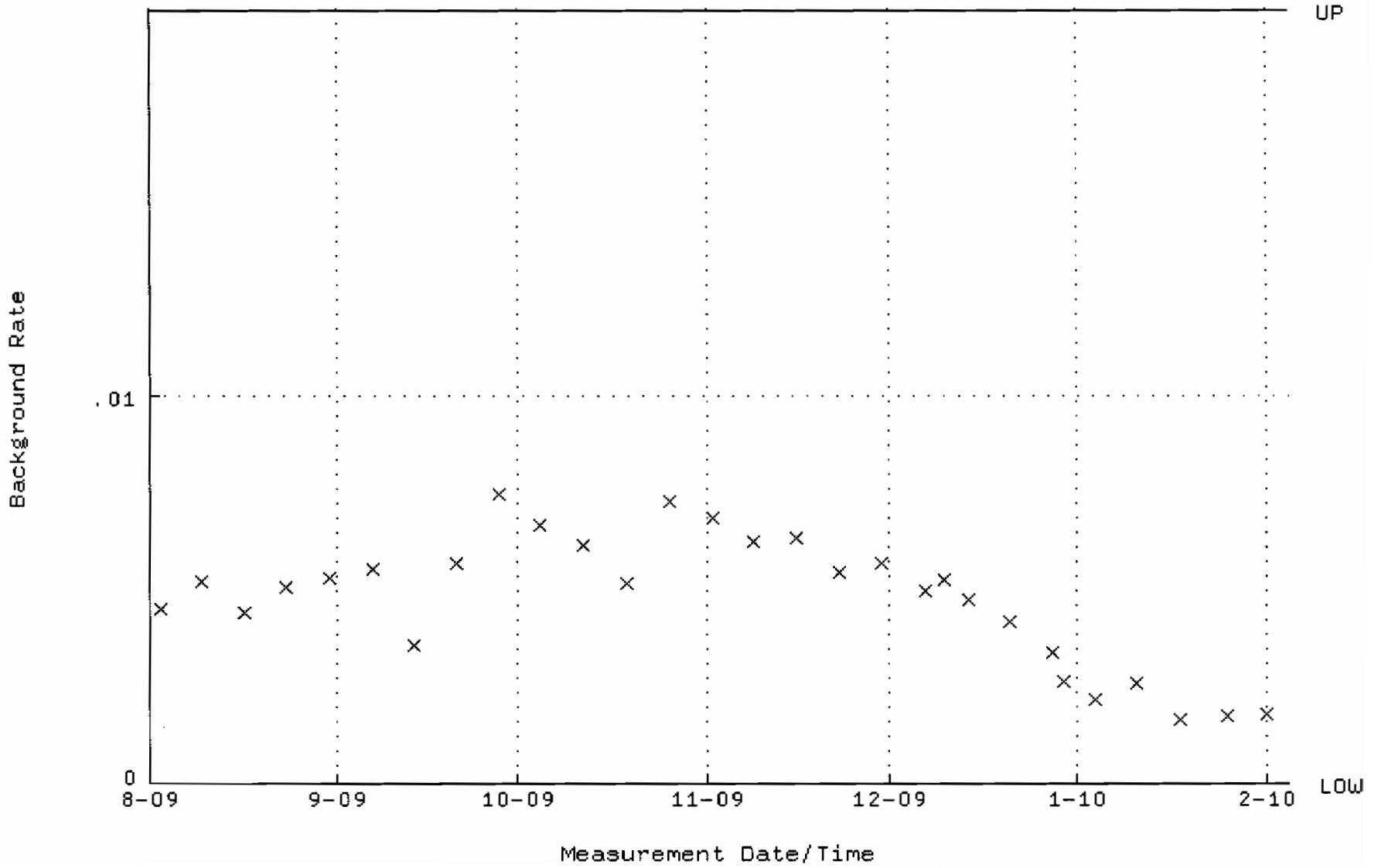

QA filename : DKA100:[ENV_ALPHA.QA.W]W038.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.327380 through 0.362086

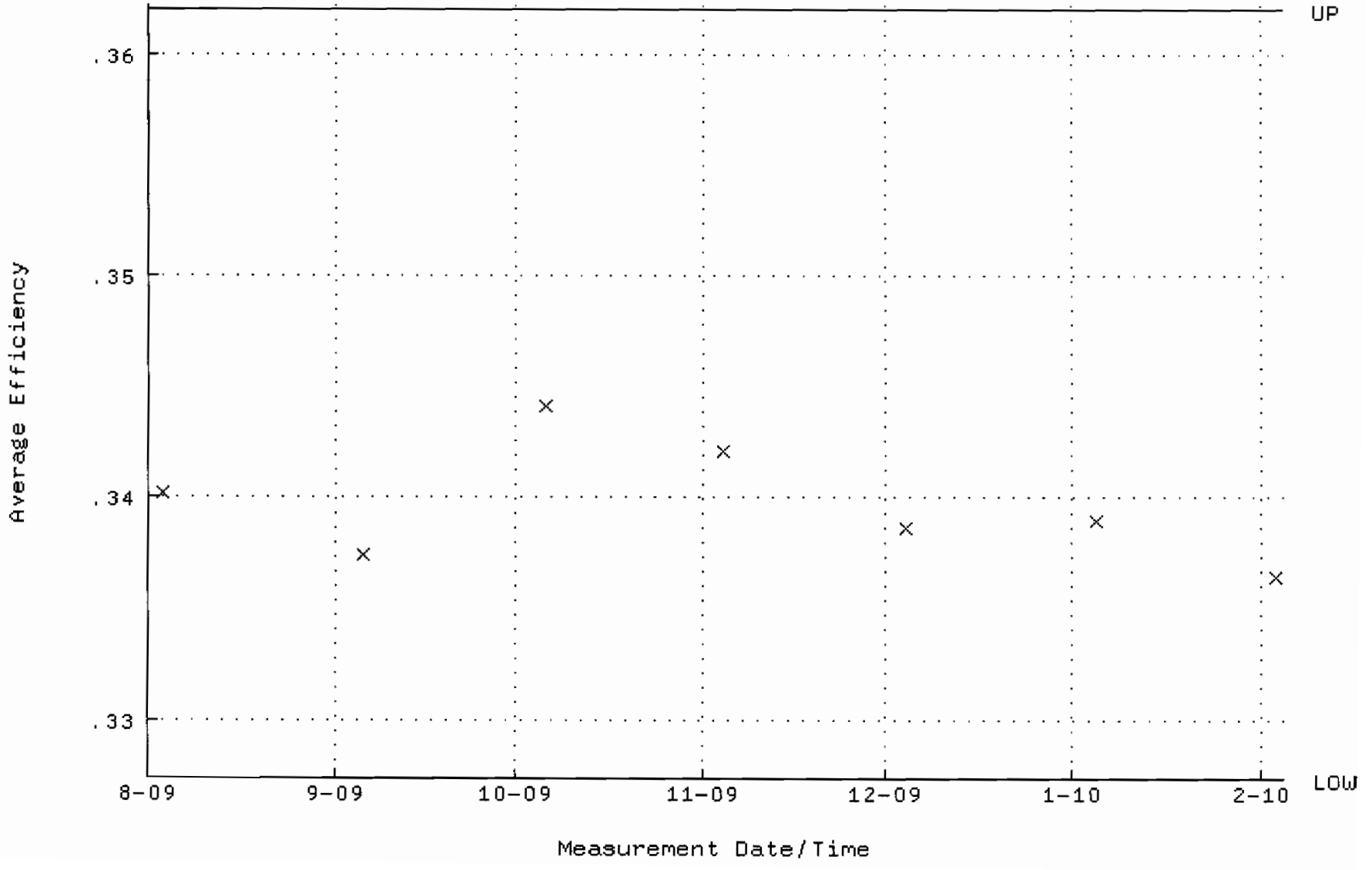

QA filename : DKA100:[ENV_ALPHA.QA.W]W038.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5715 through 92.1899

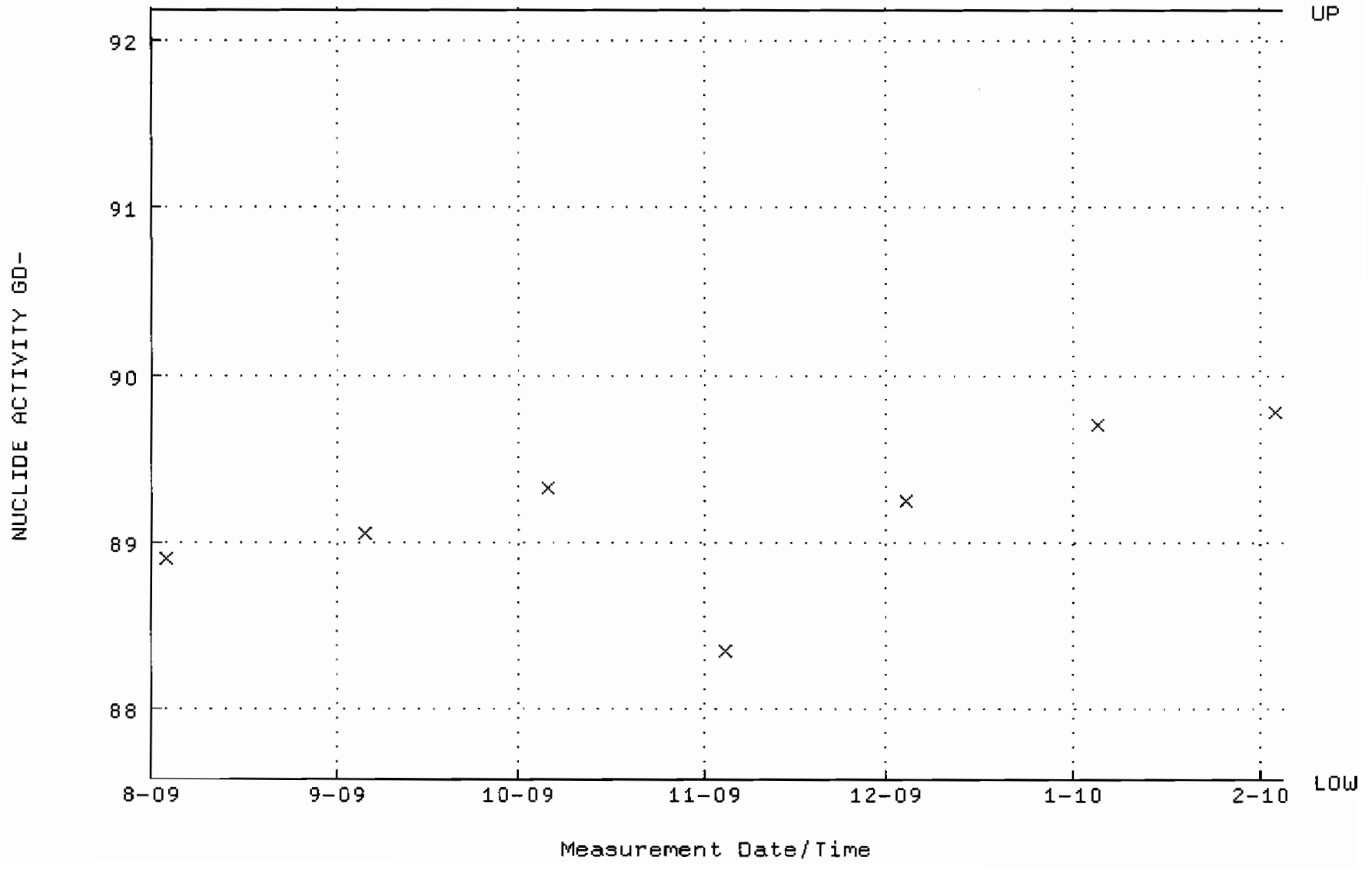

QA filename : DKA100:[ENV_ALPHA.QA.B]B038.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

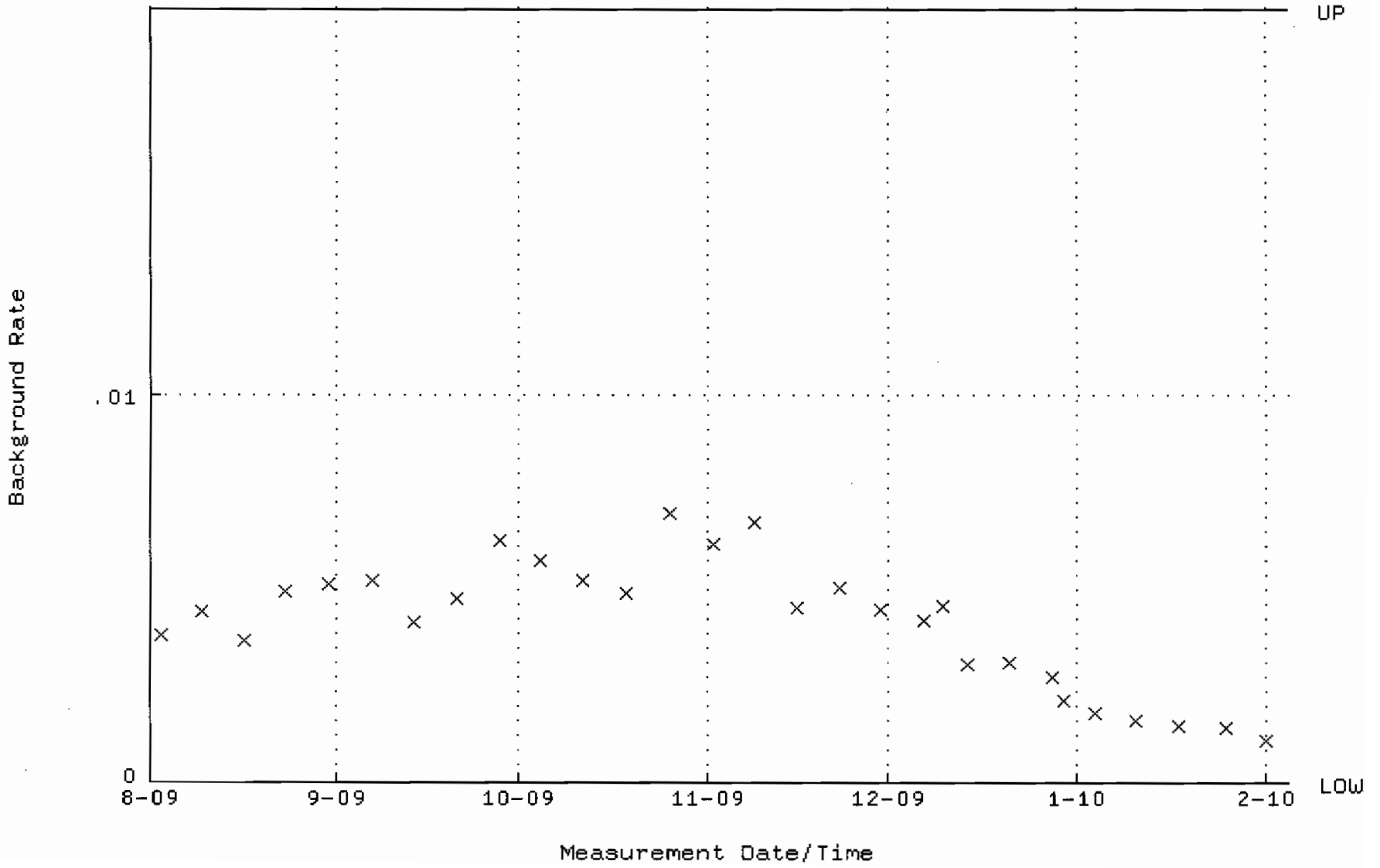

QA filename : DKA100:[ENV_ALPHA.QA.W]W039.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

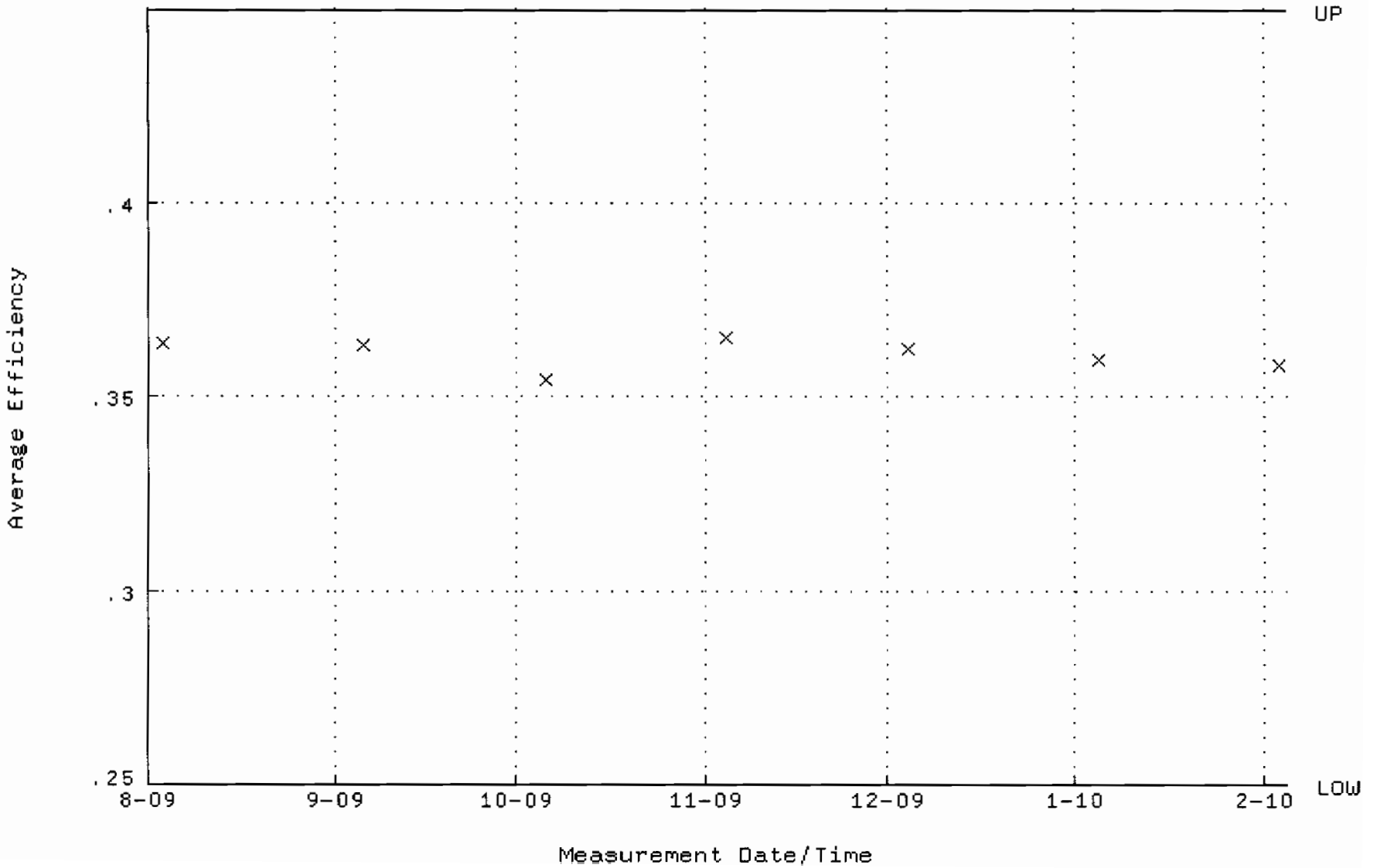

QA filename : DKA100:[ENV_ALPHA.QA.W]W039.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

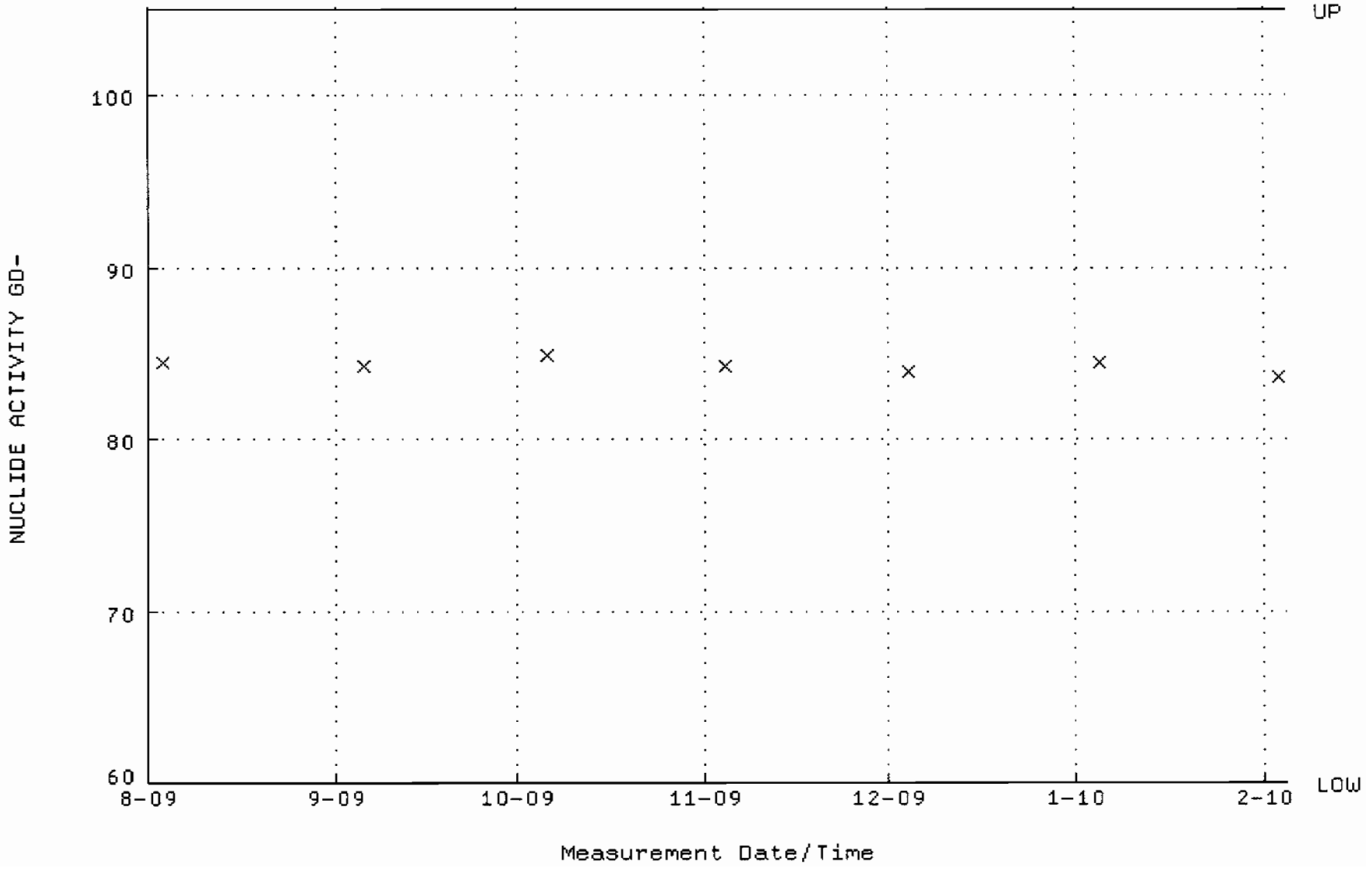

QA filename : DKA100:[ENV_ALPHA.QA.B]B039.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

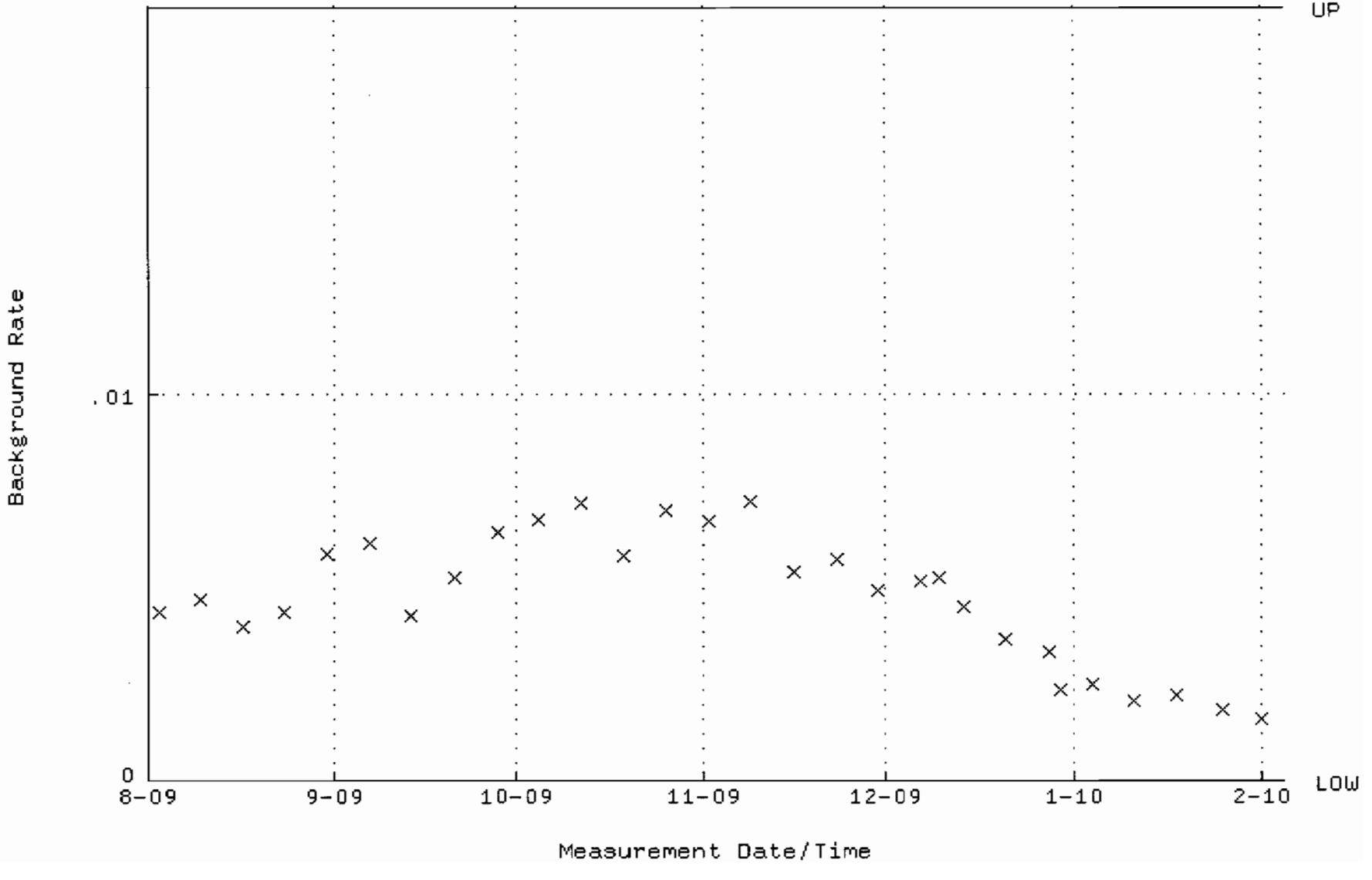

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313016 through 0.333016

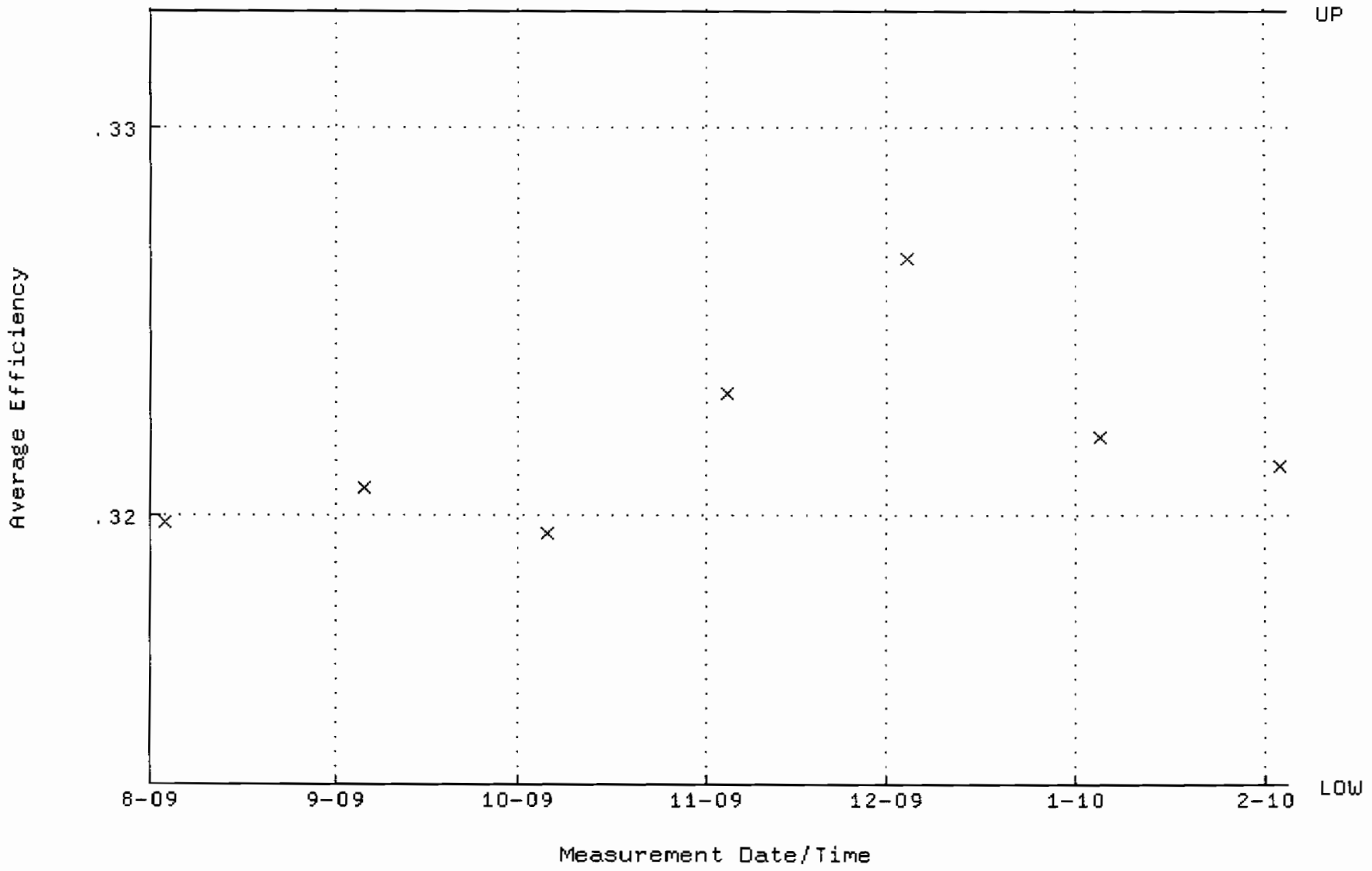

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 82.8065 through 91.5229

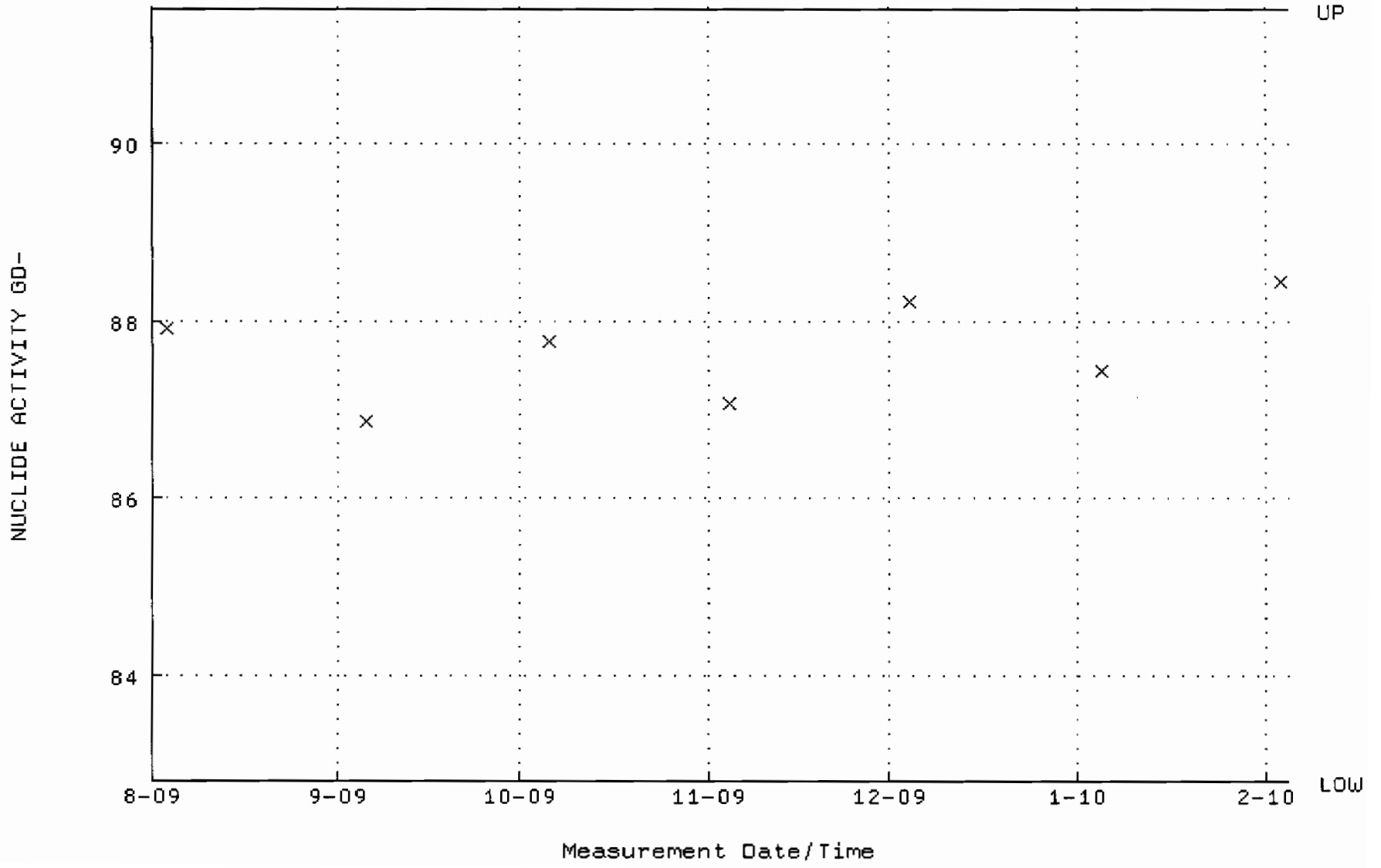

QA filename : DKA100:[ENV_ALPHA.QA.B]B040.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

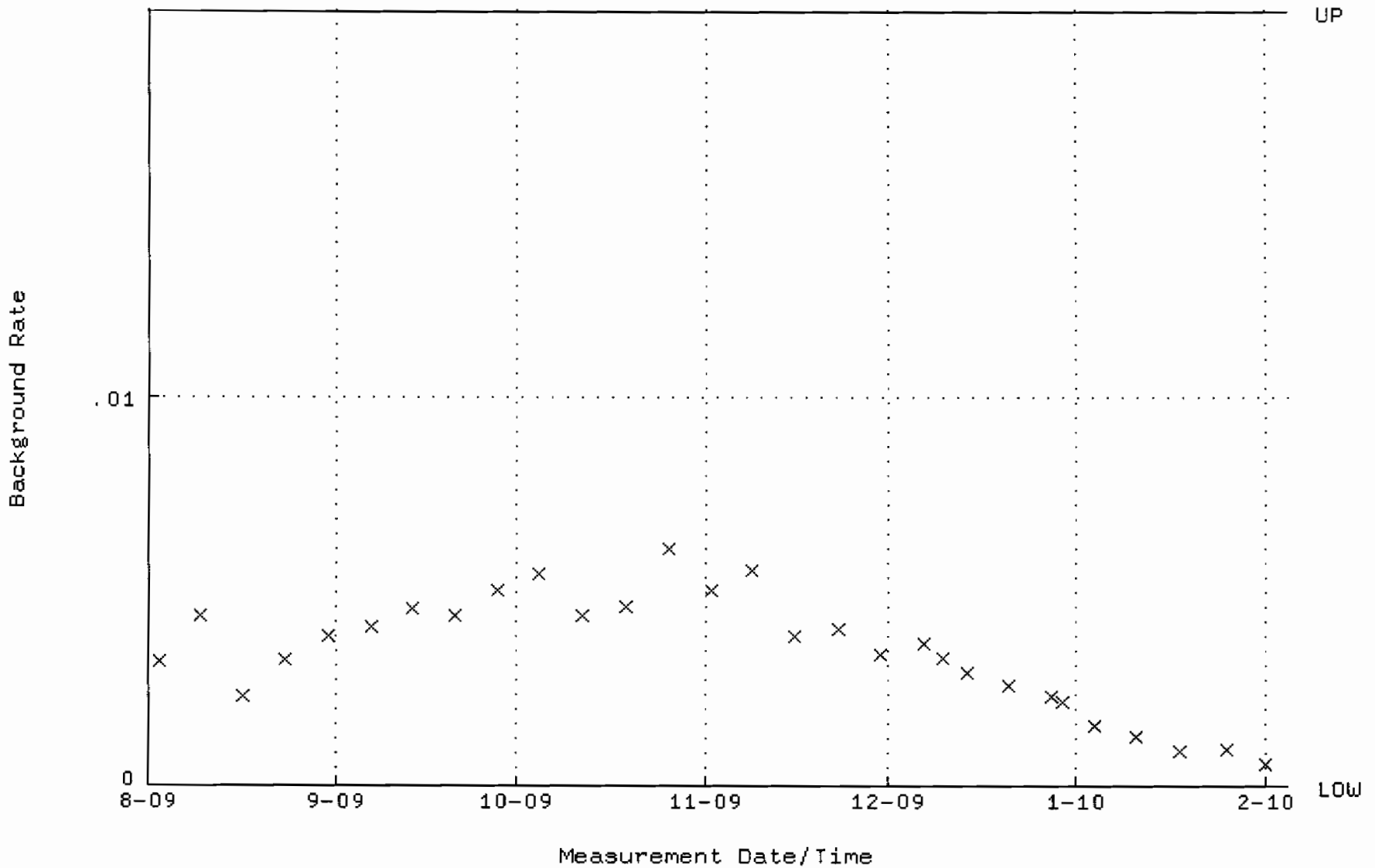

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.320943 through 0.340943

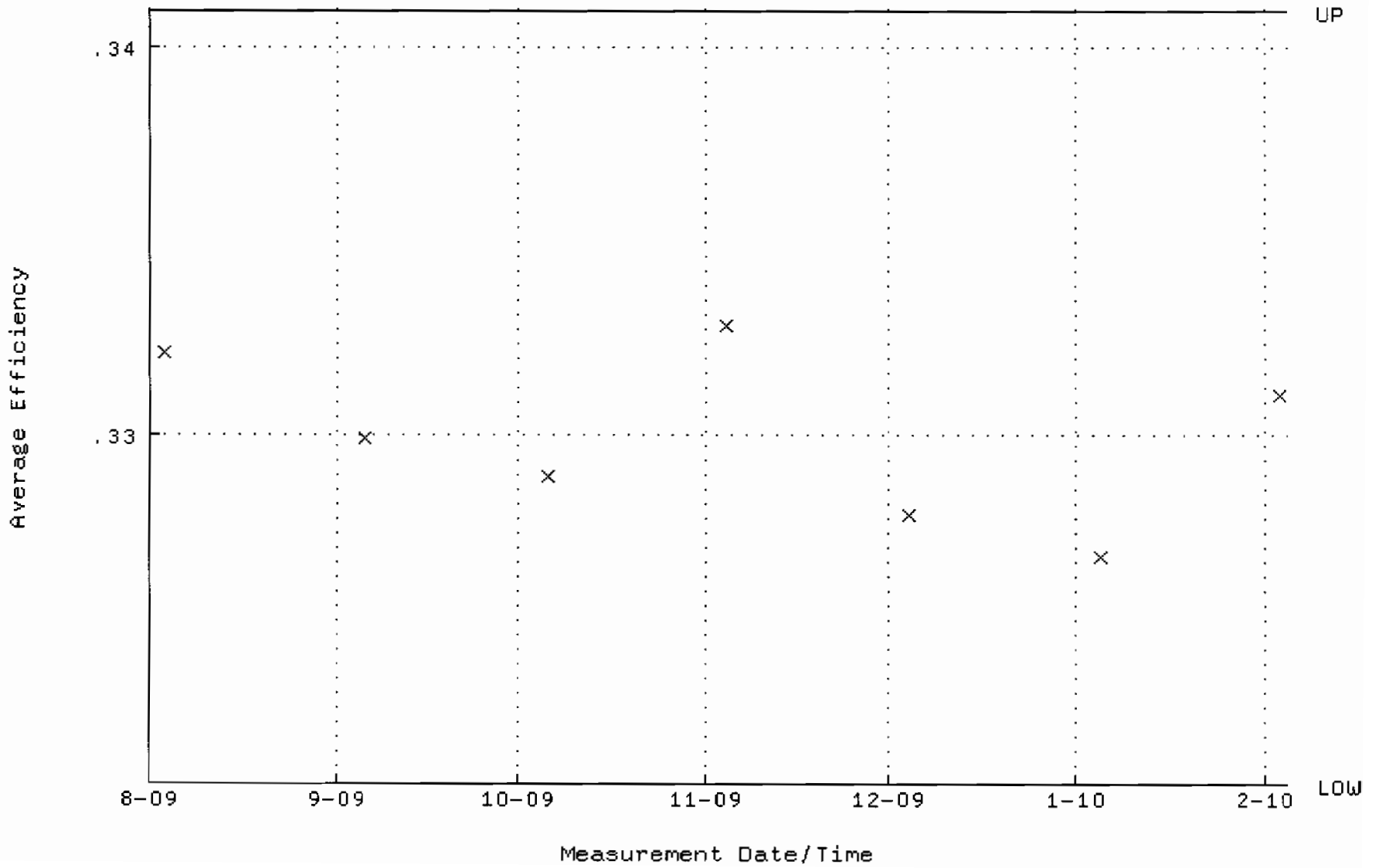

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.6435 through 95.7639

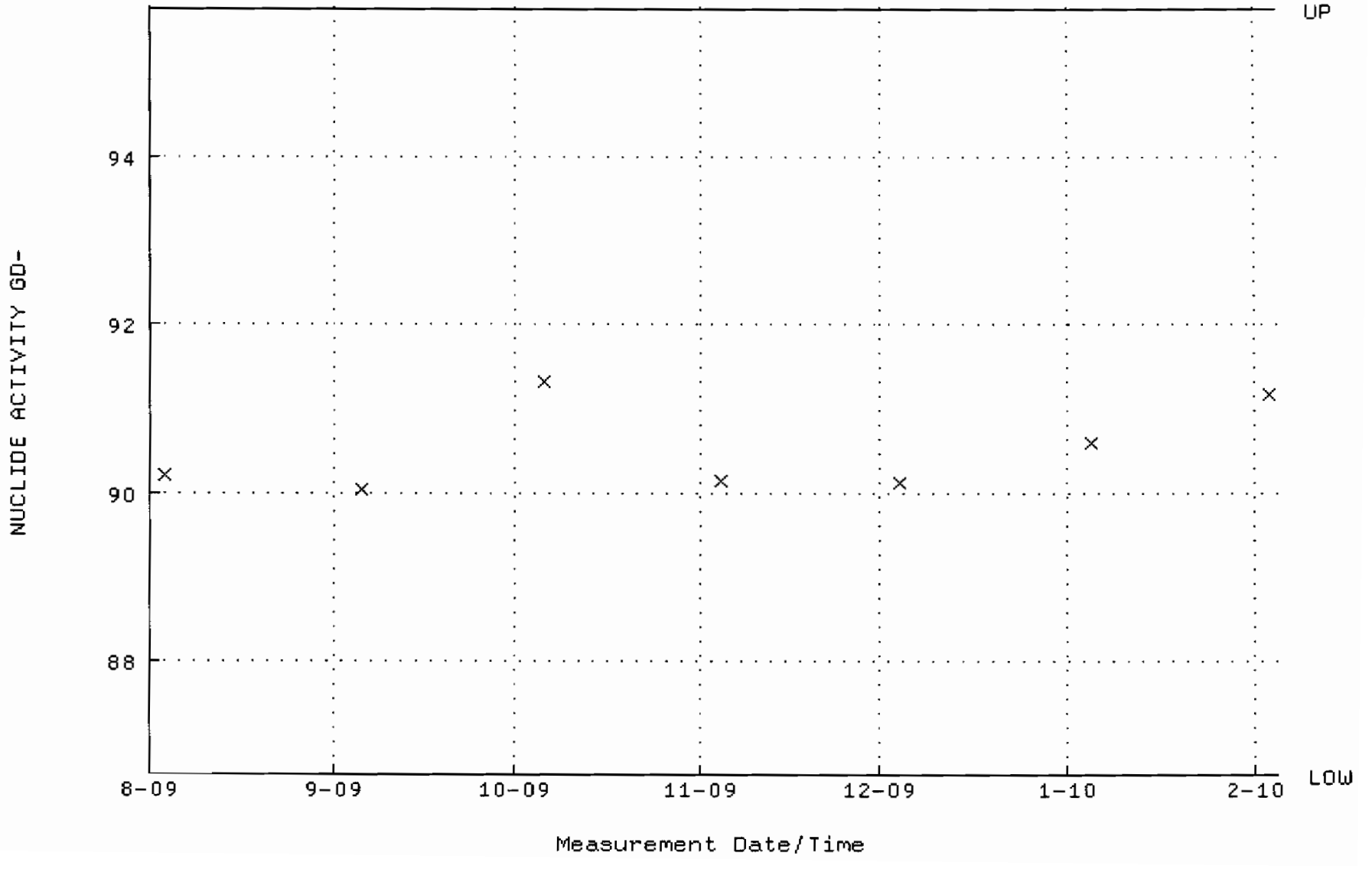

QA filename : DKA100:[ENV_ALPHA.QA.B]B041.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

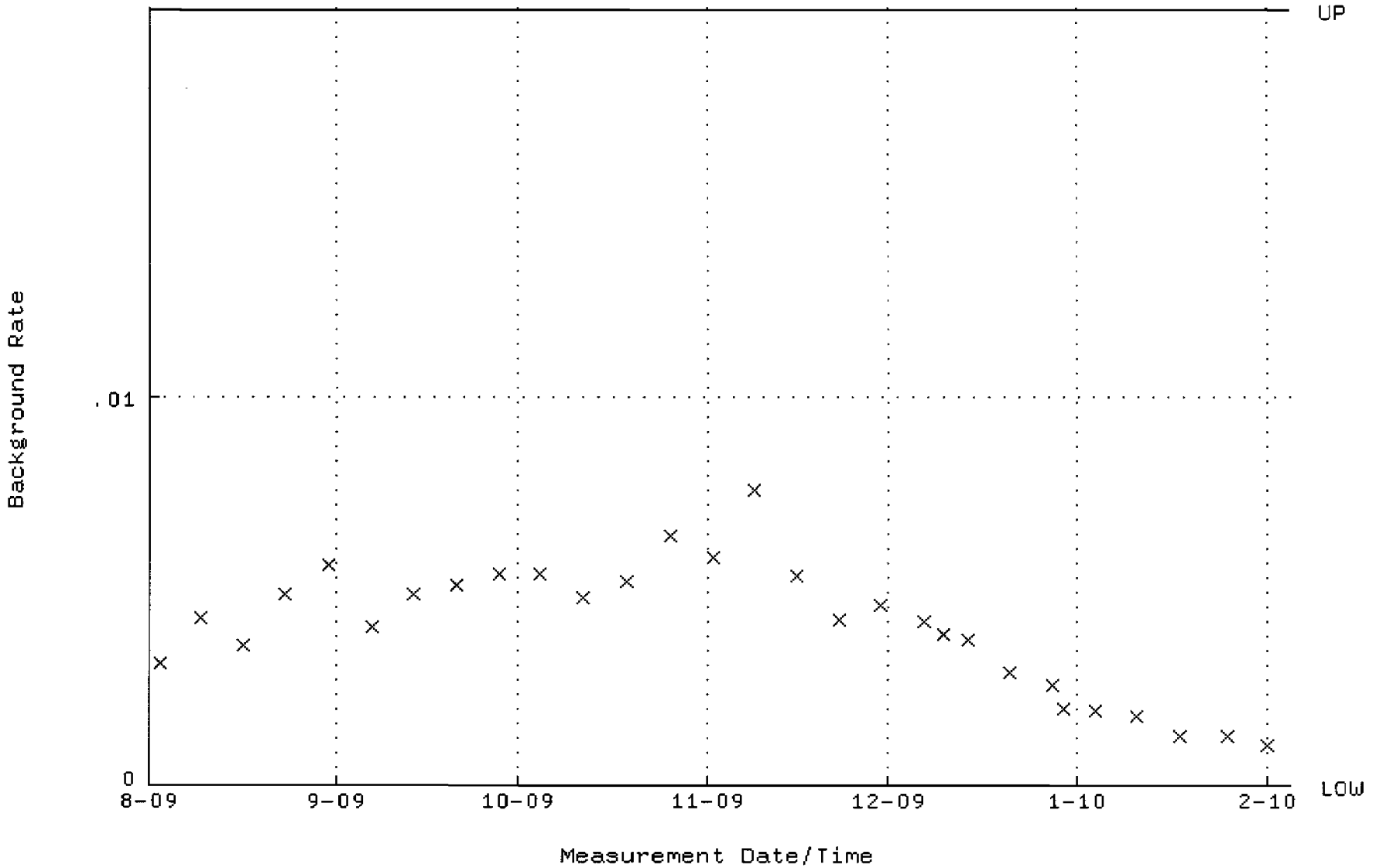

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.322243 through 0.342243

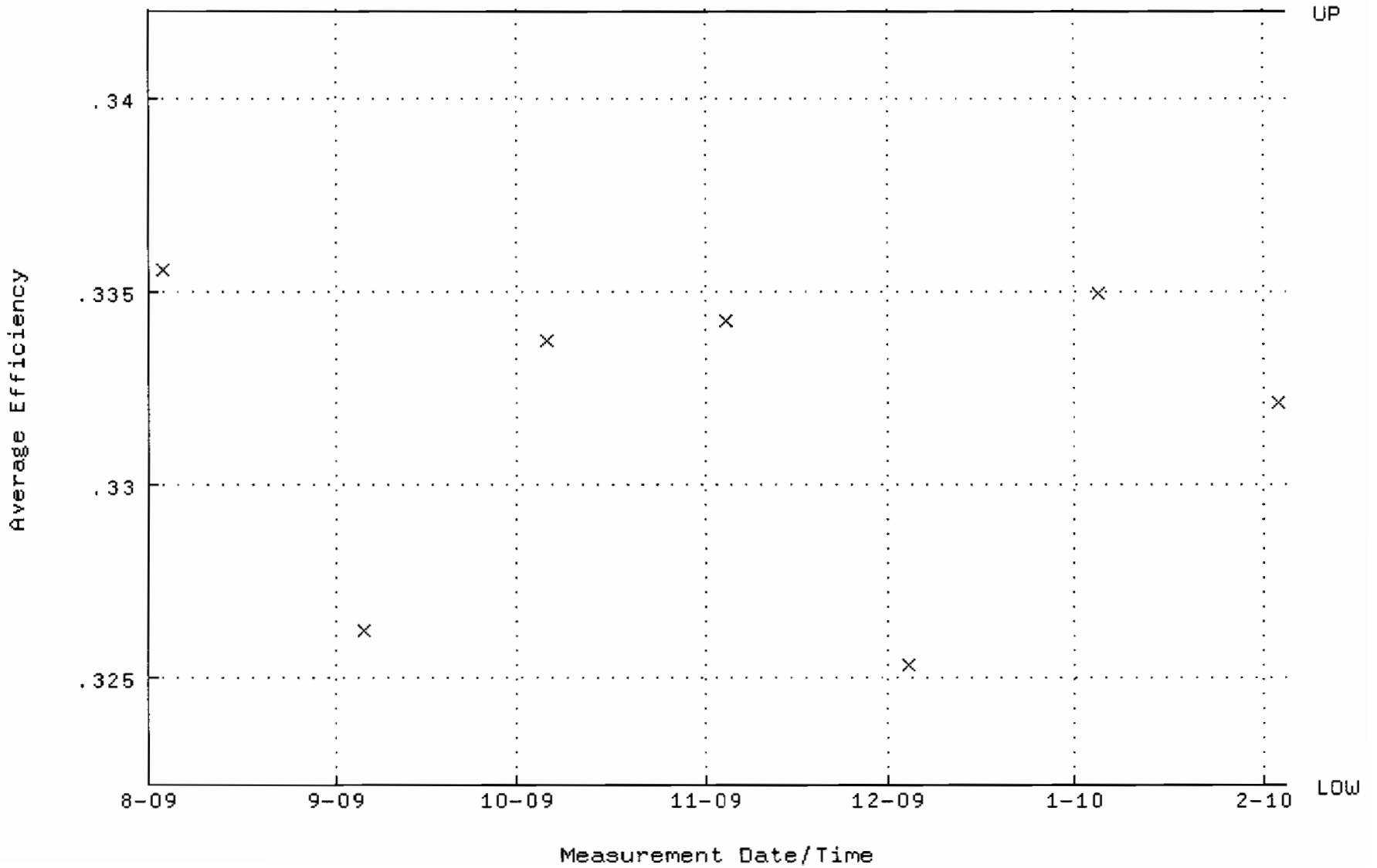

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 80.6389 through 89.1273

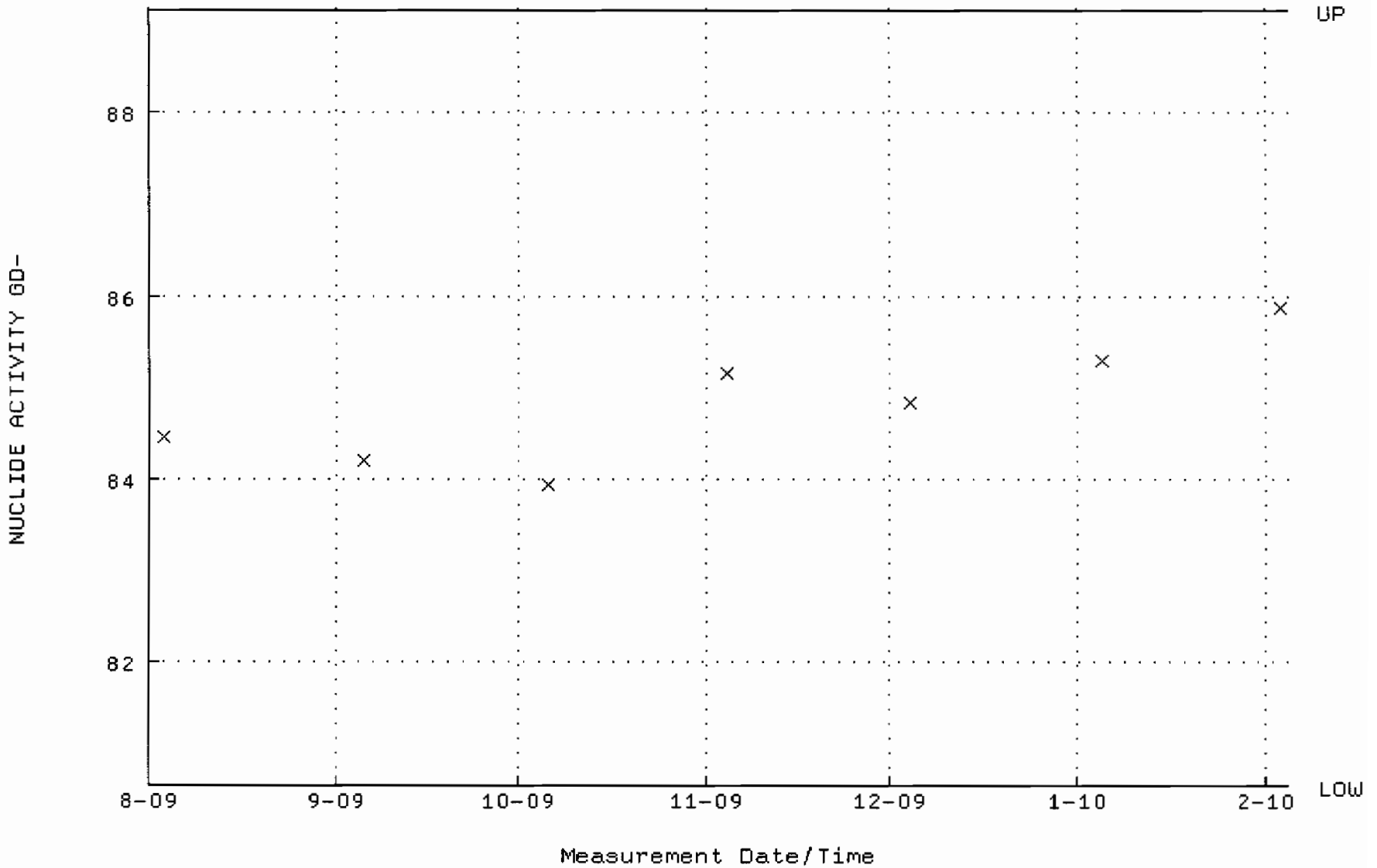

QA filename : DKA100:[ENV_ALPHA.QA.B]B042.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

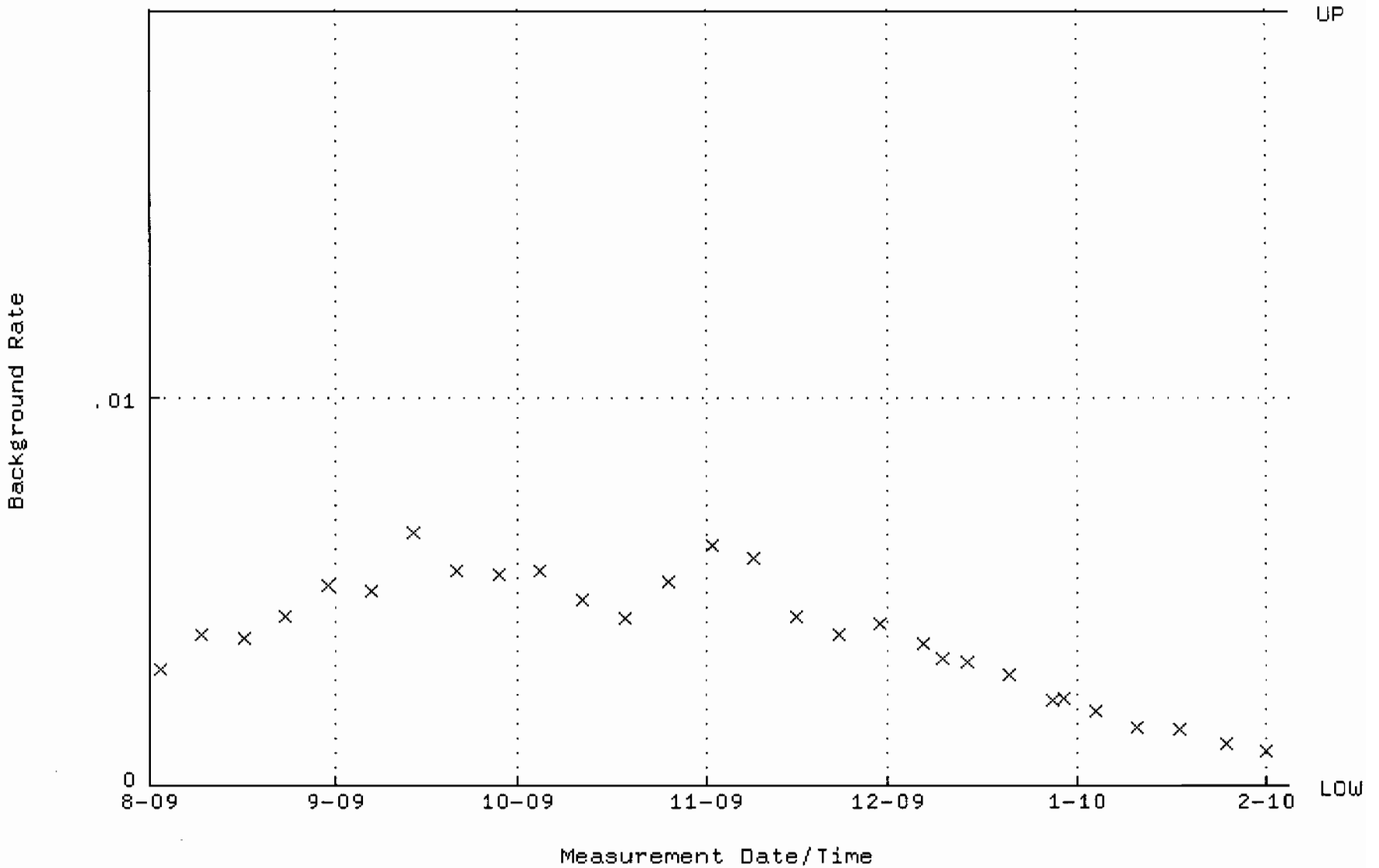

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335973 through 0.355973

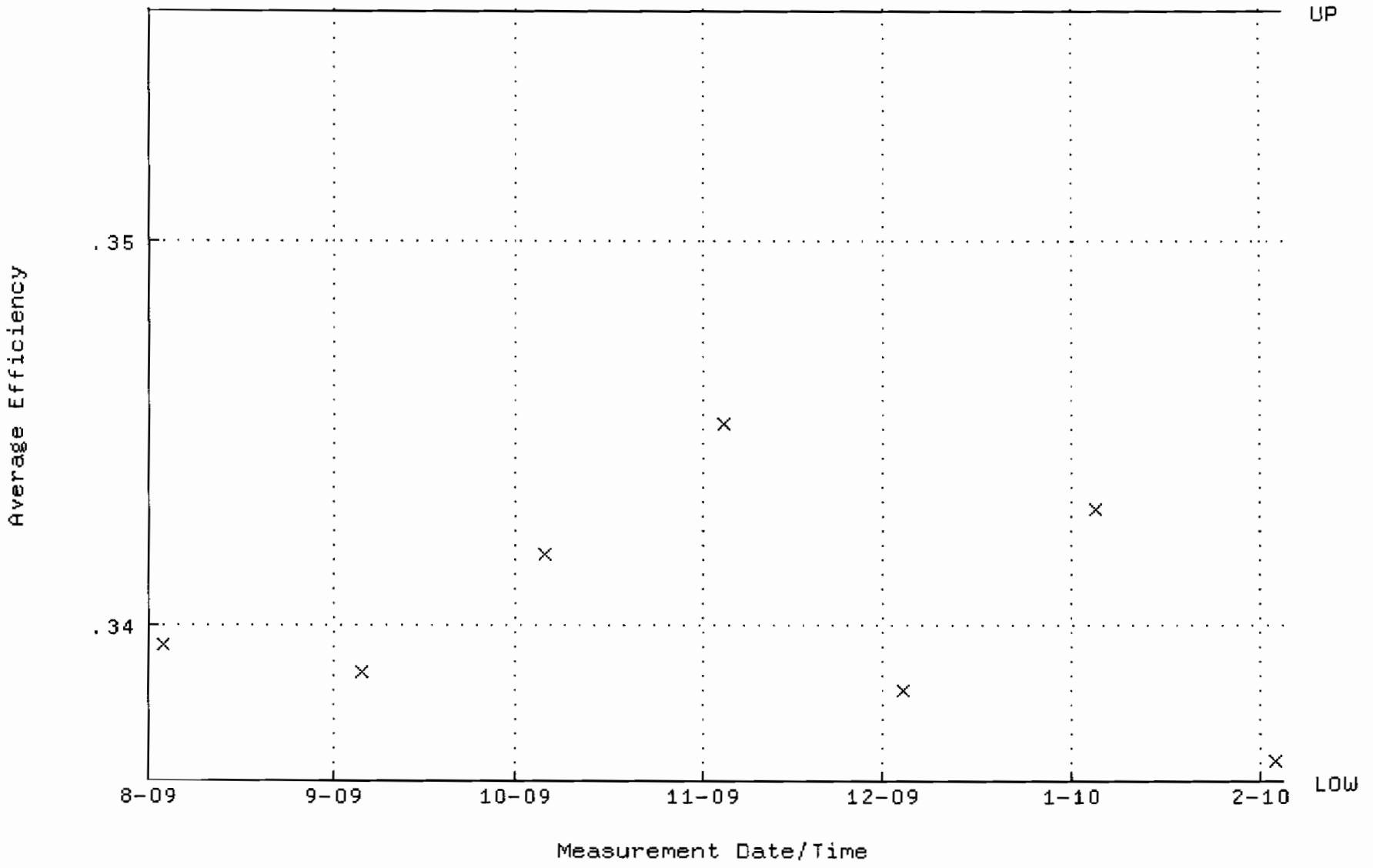

QA filename : OKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.2440 through 93.1118

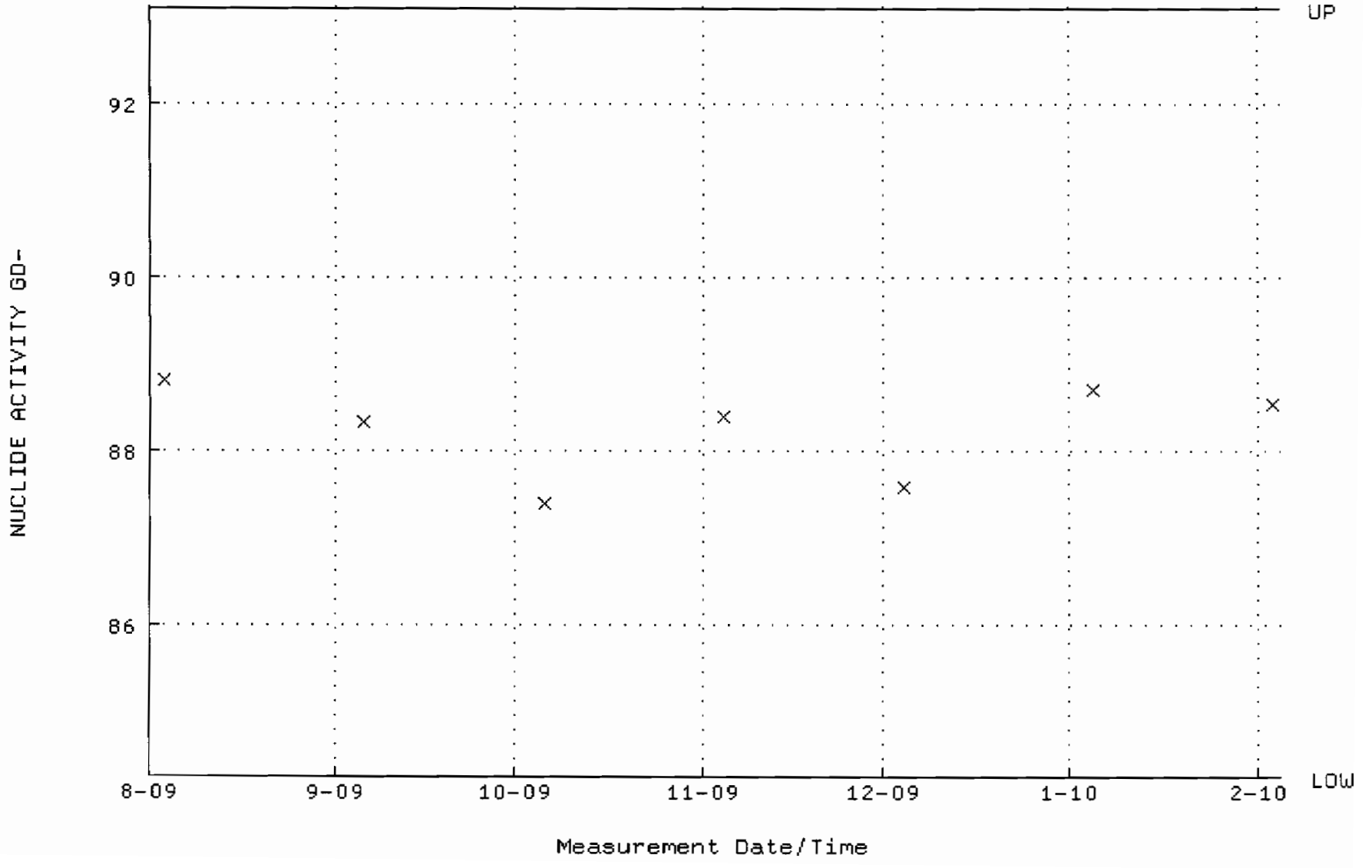

QA filename : DKA100:[ENV_ALPHA.QA.B]B043.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

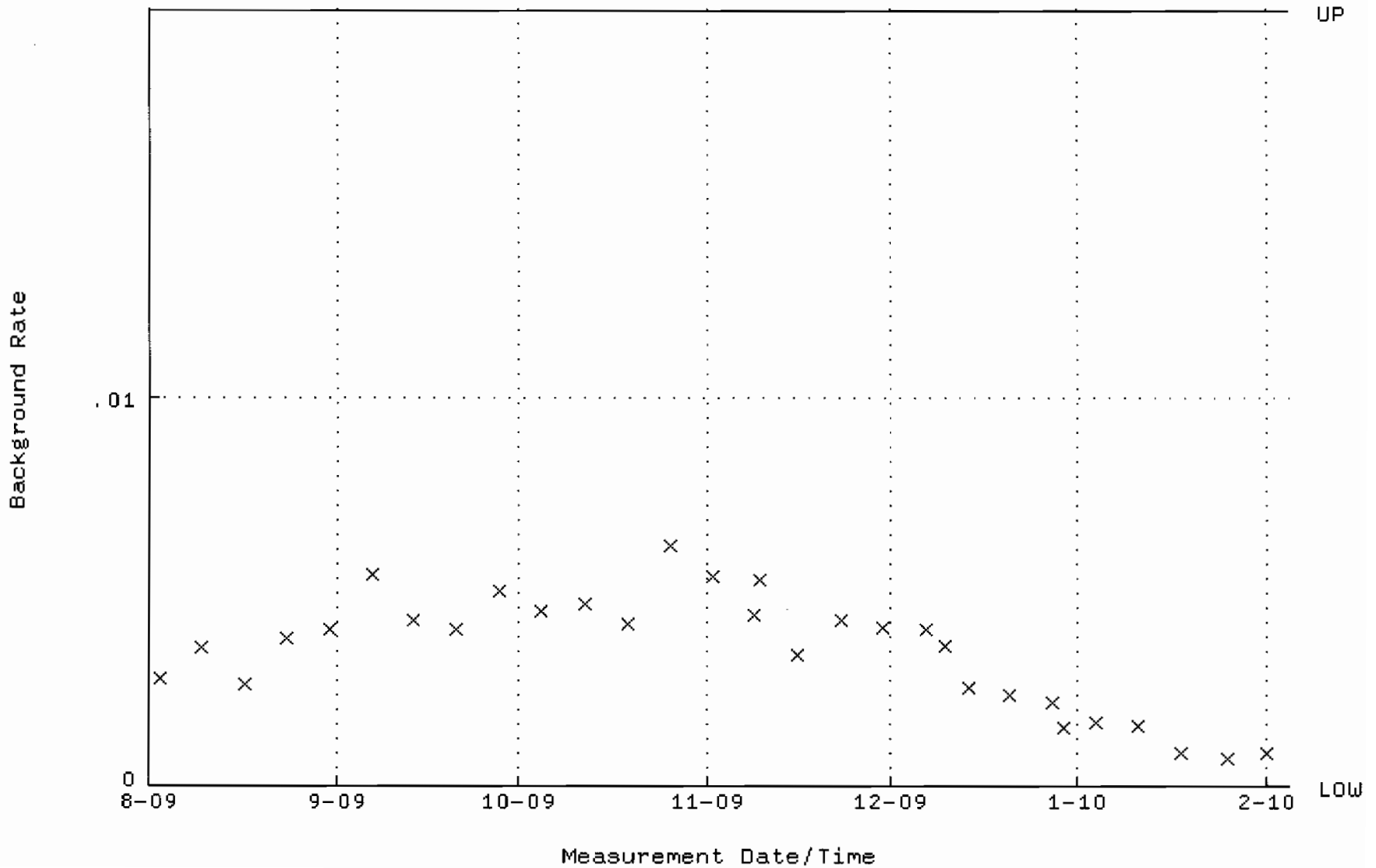

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335557 through 0.360677

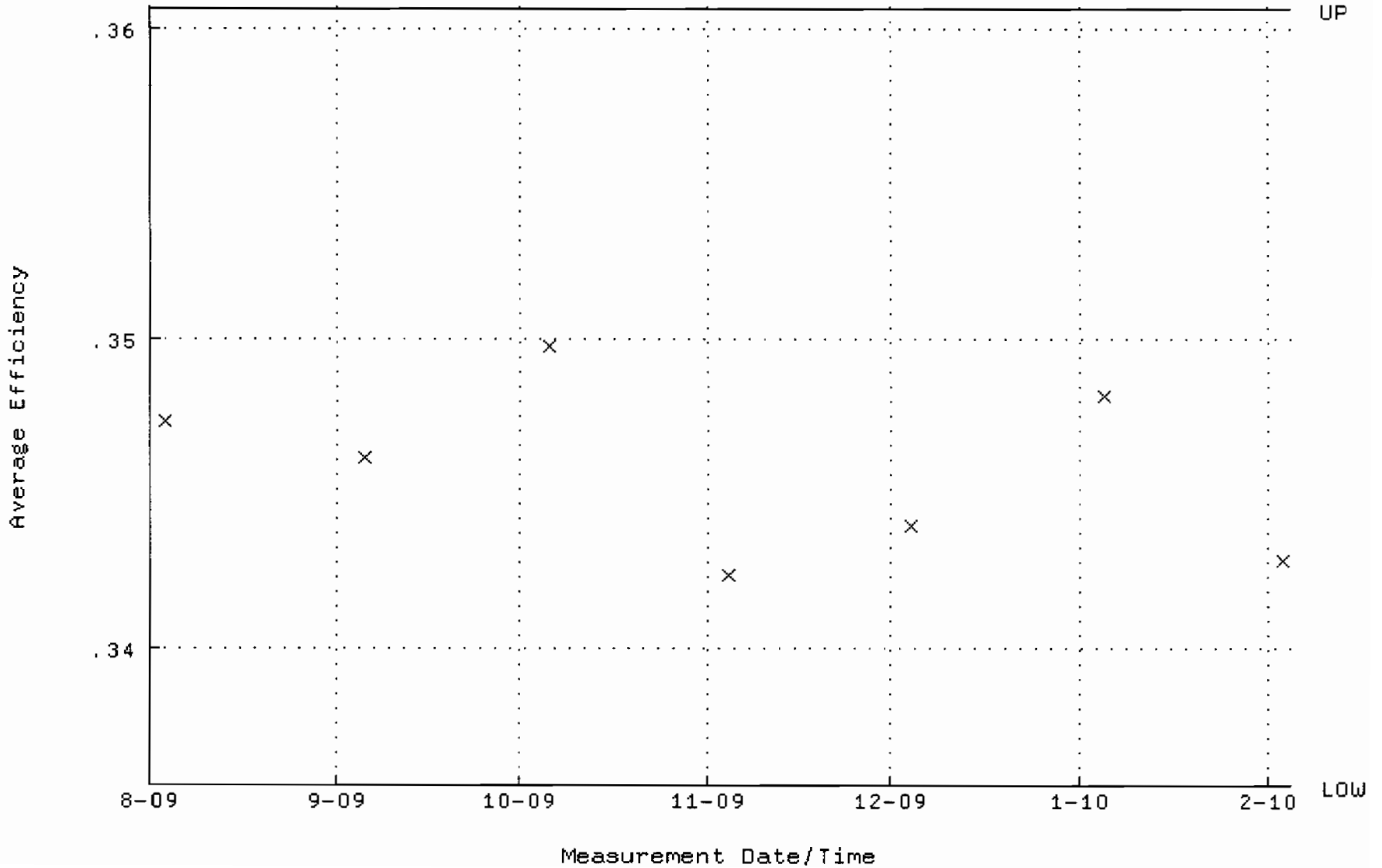

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8425 through 89.6949

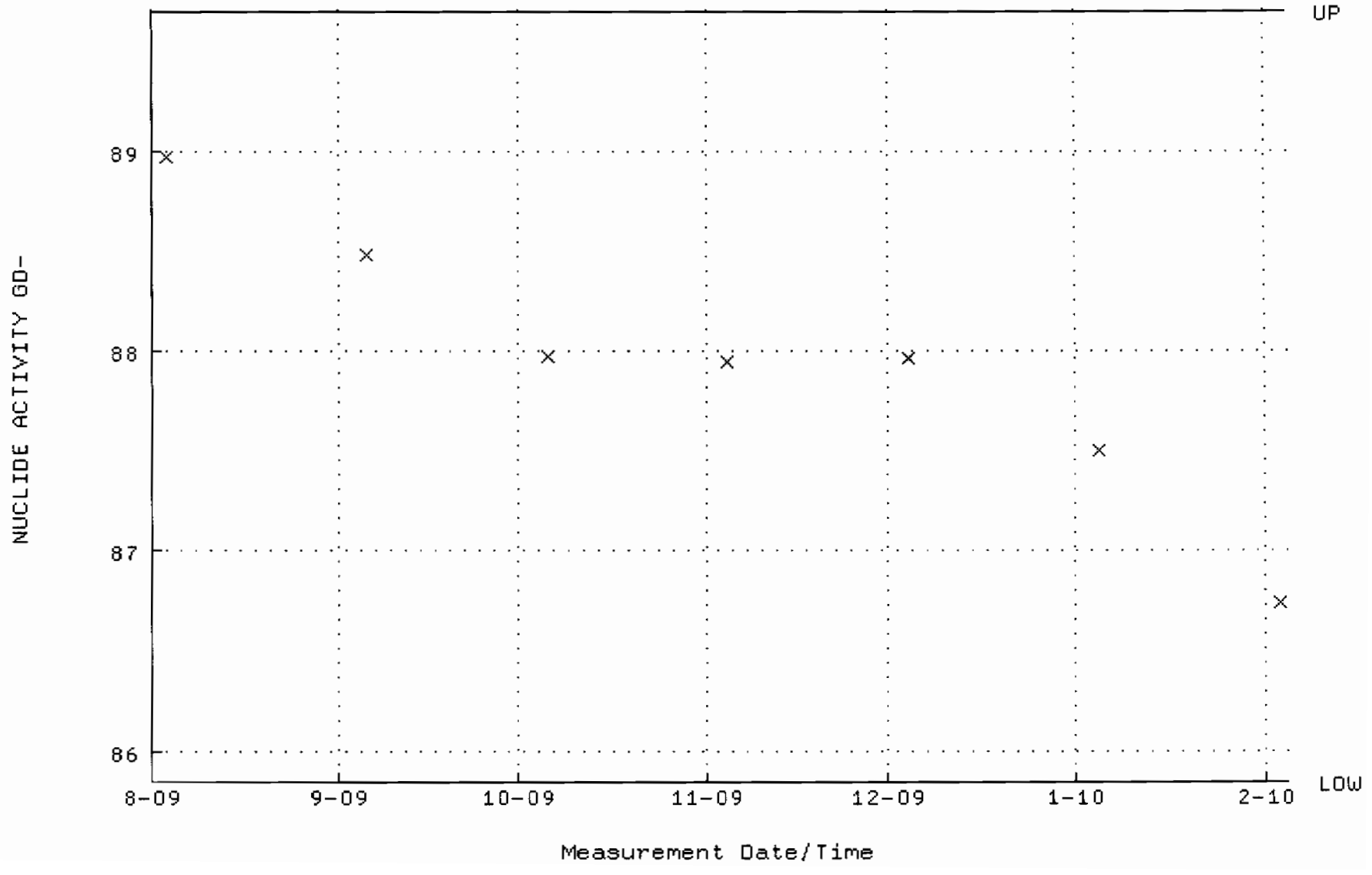

QA filename : DKA100:[ENV_ALPHA.QA.B]B044.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

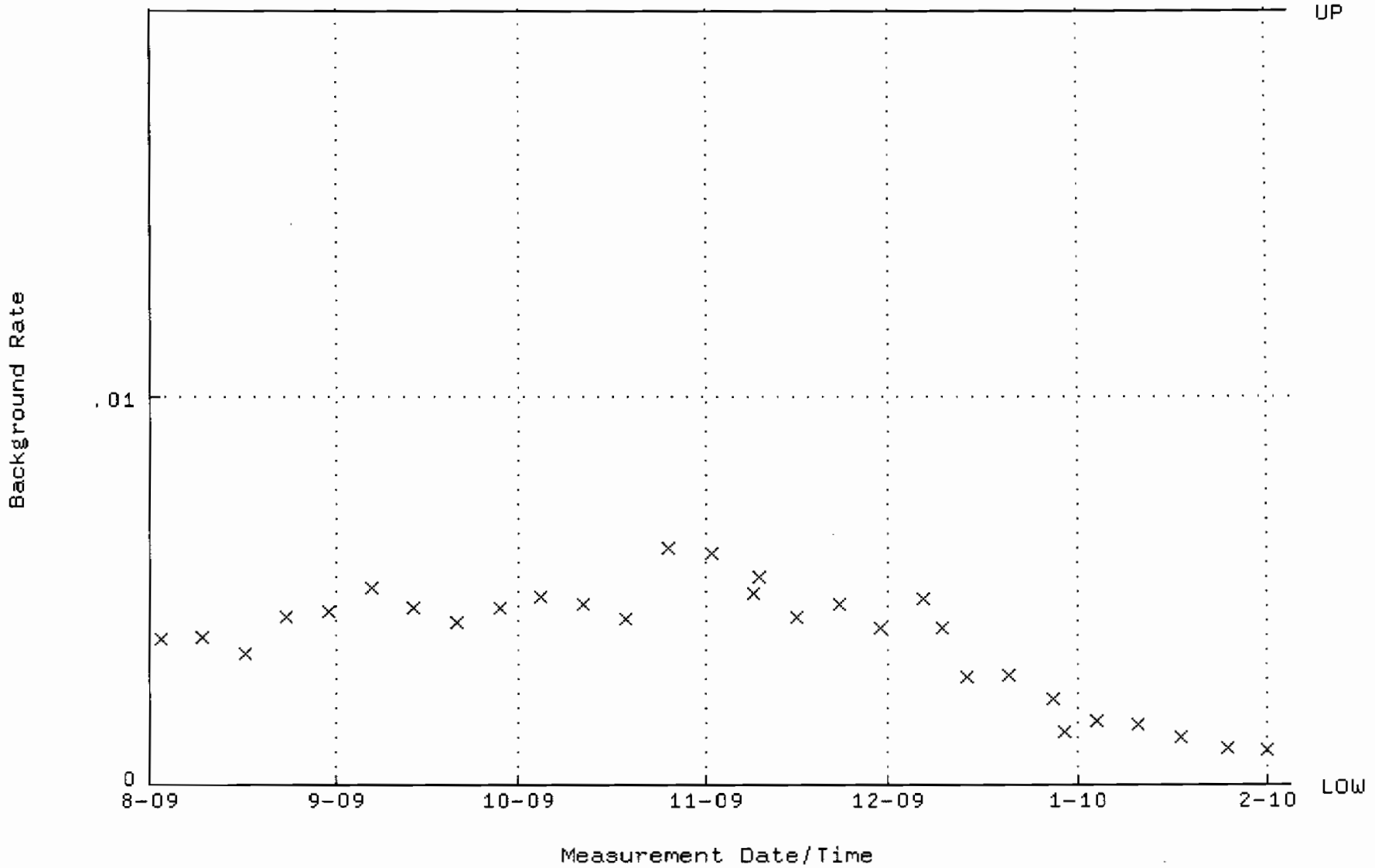

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.332472 through 0.352472

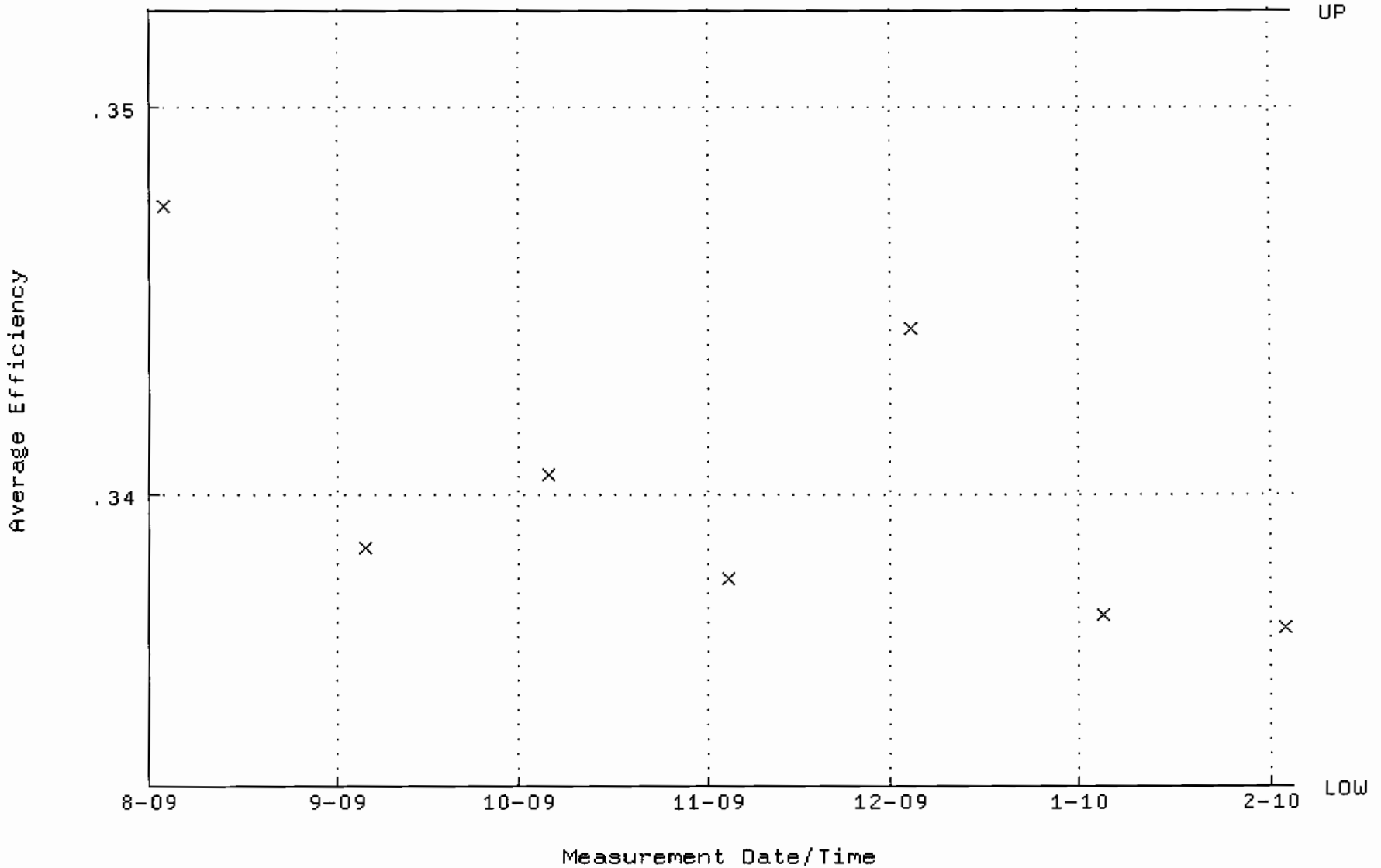

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 80.4622 through 88.9320

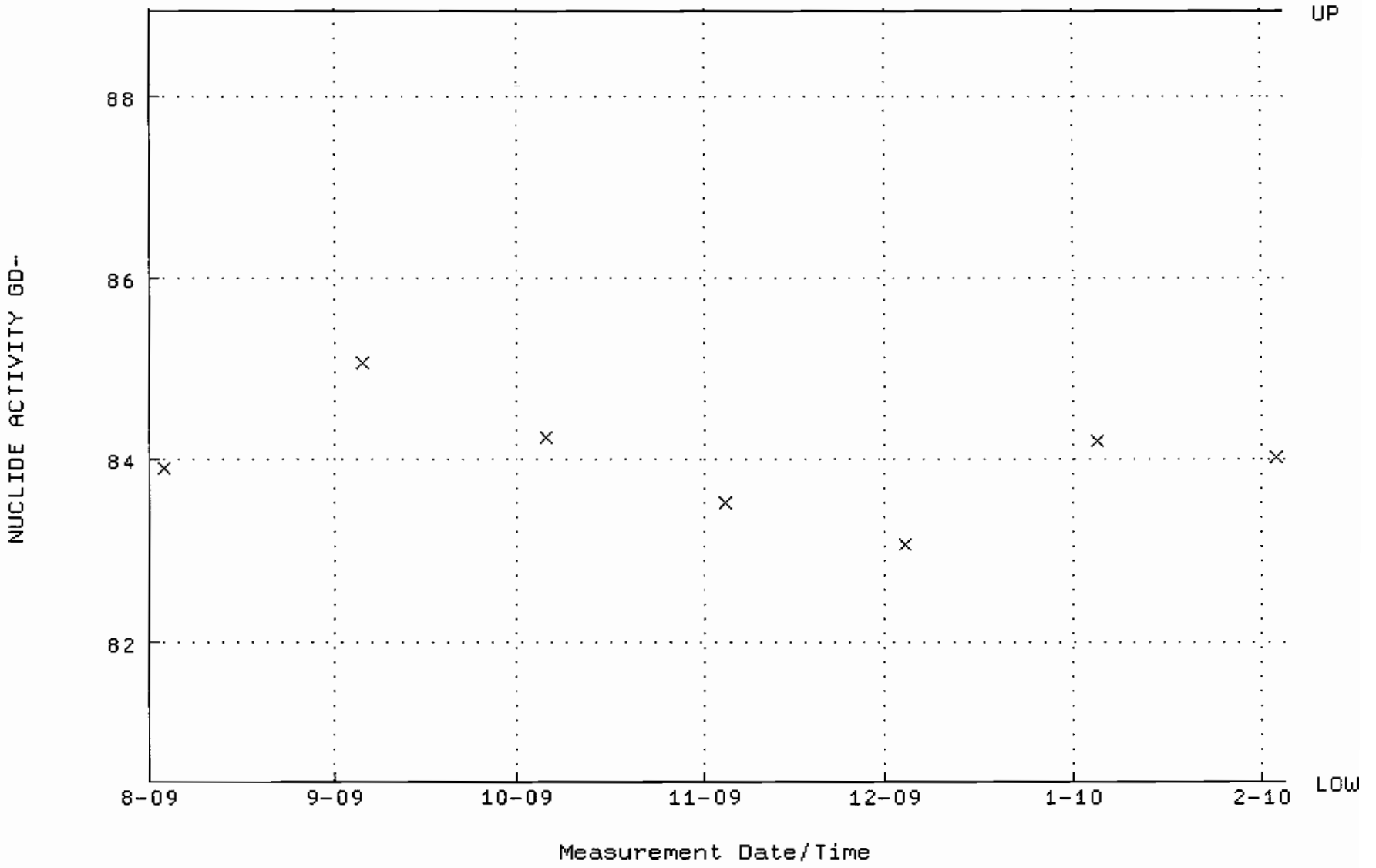

QA filename : DKA100:[ENV_ALPHA.QA.B]B045.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

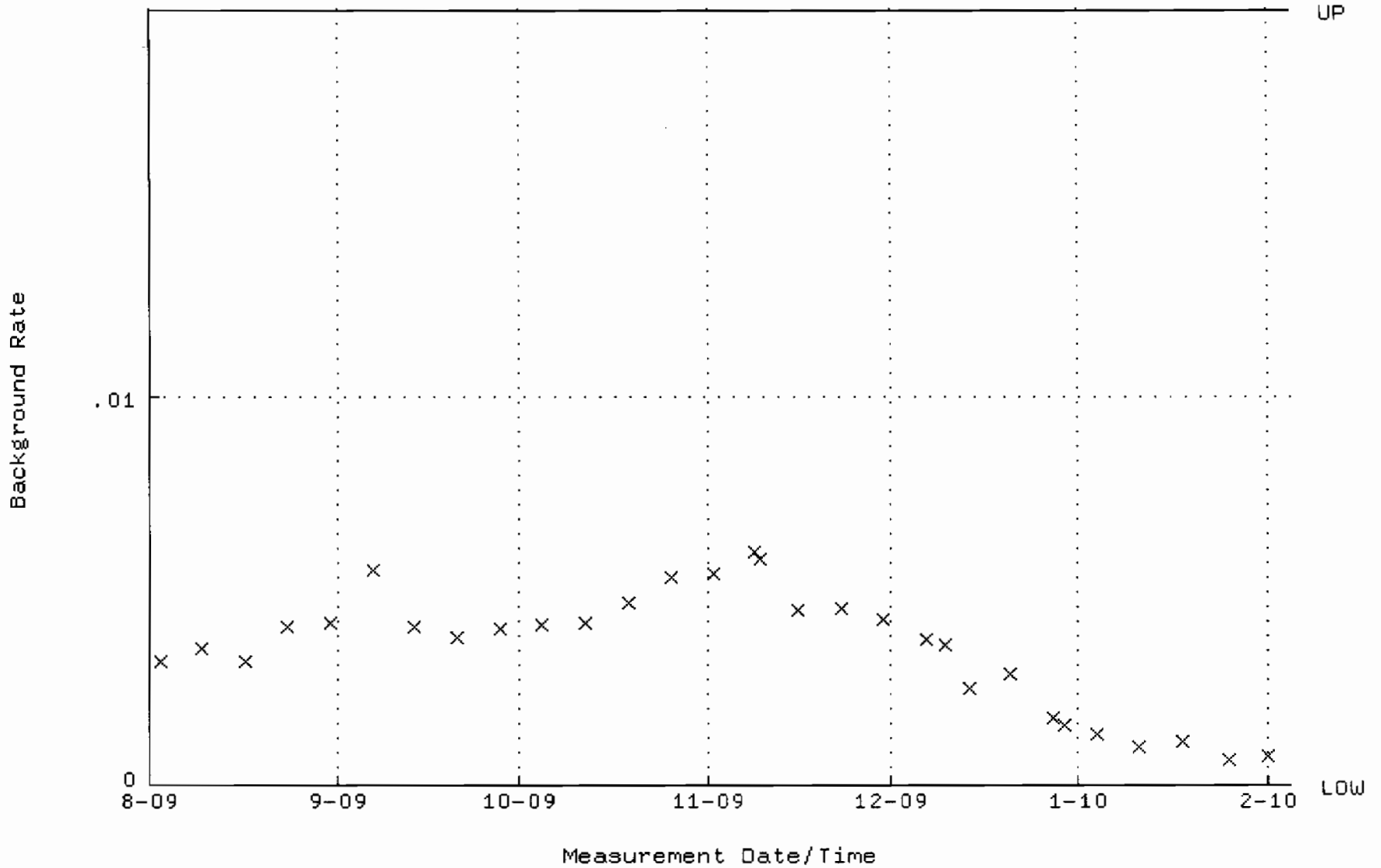

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.333927 through 0.353927

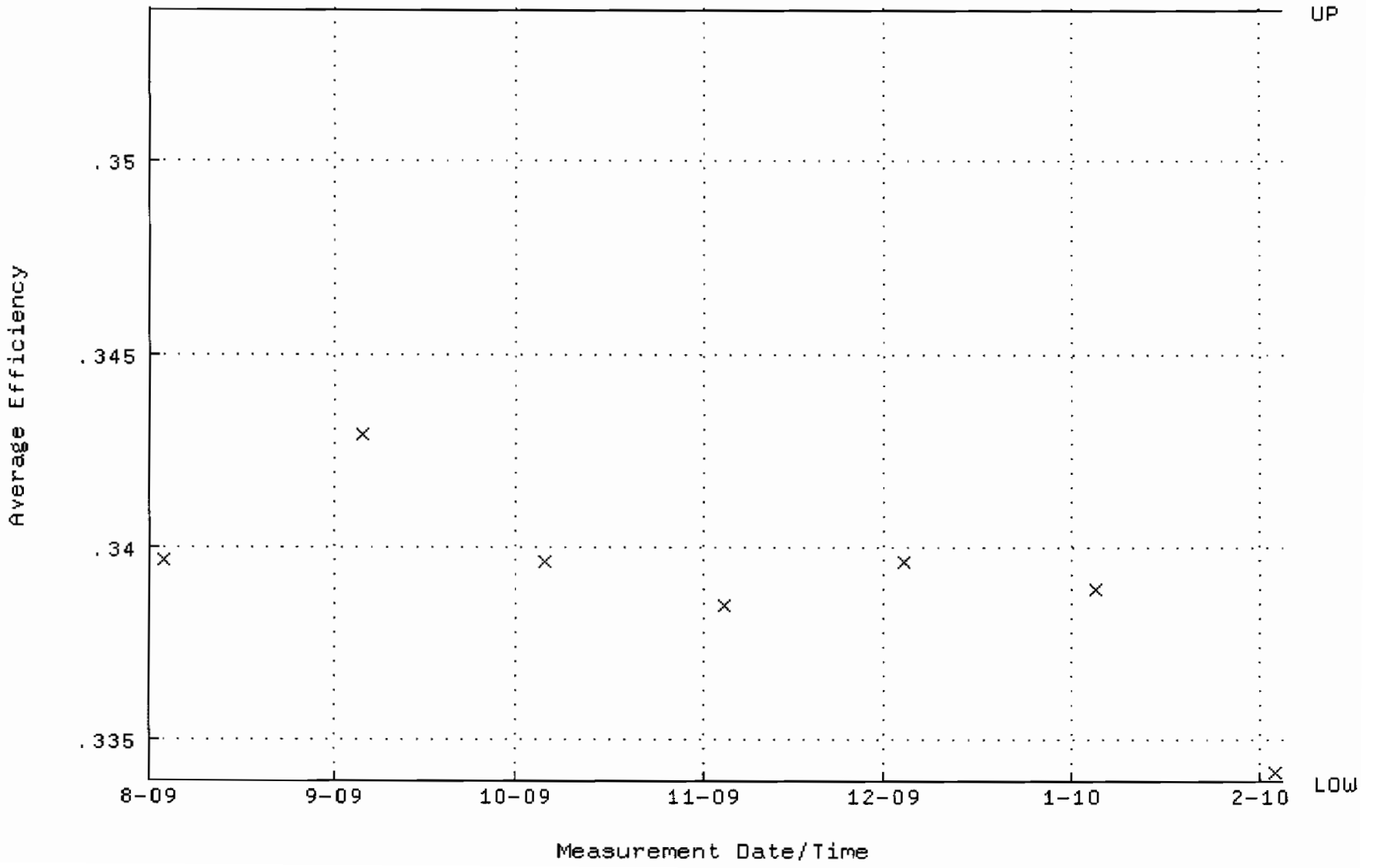

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.7568 through 90.3628

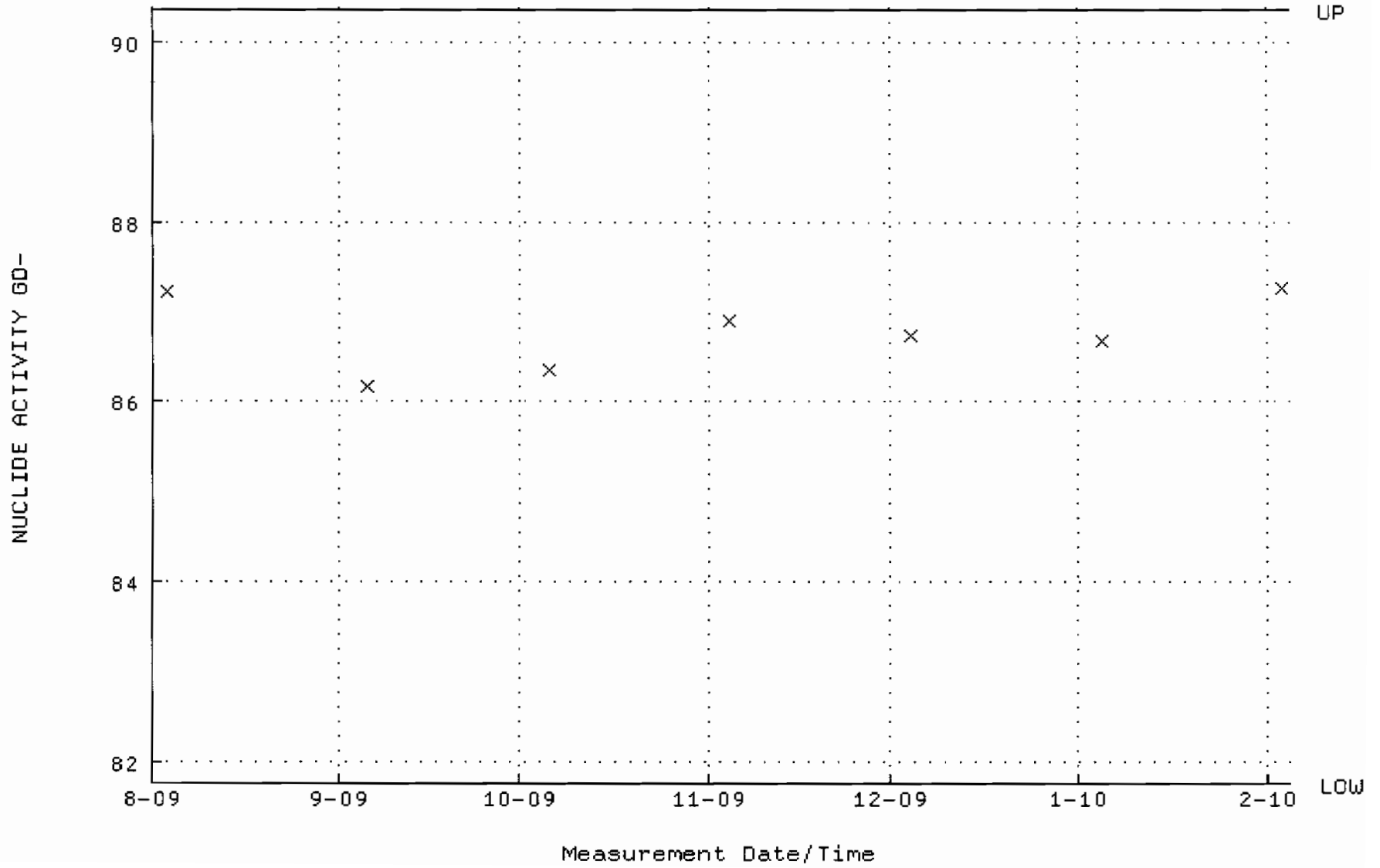

QA filename : DKA100:[ENV_ALPHA.QA.B]B046.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

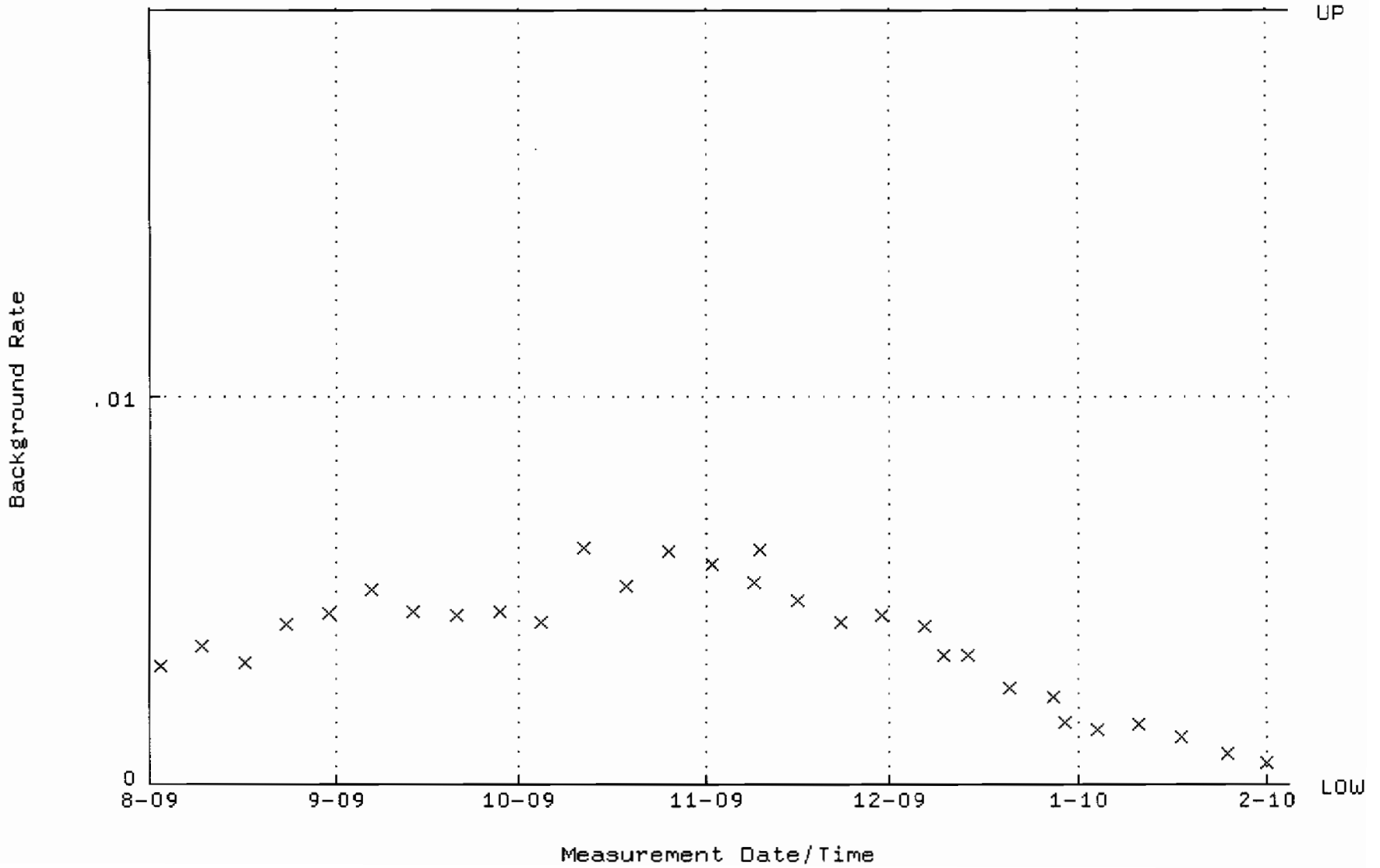

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.336276 through 0.364038

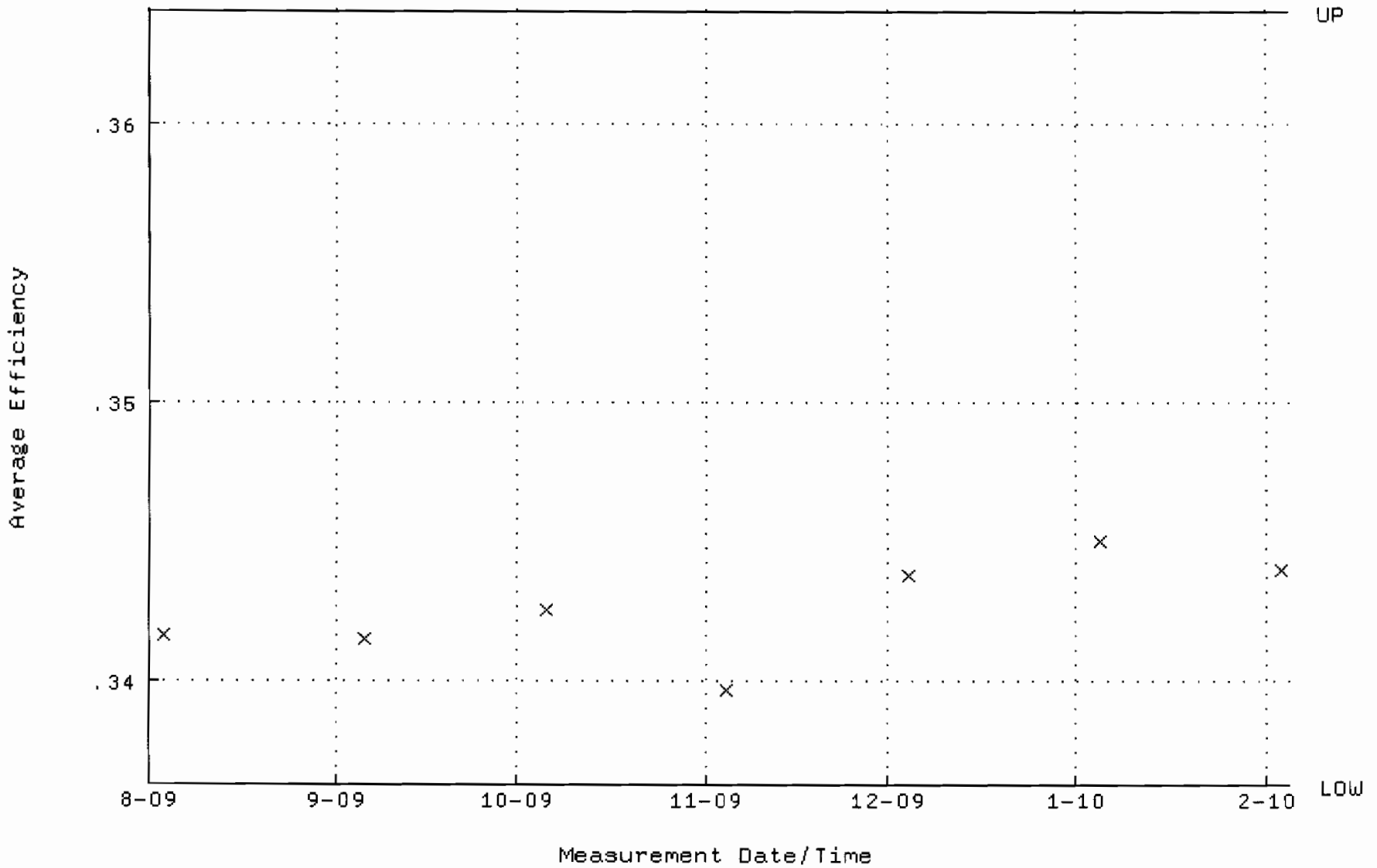

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1403 through 89.8631

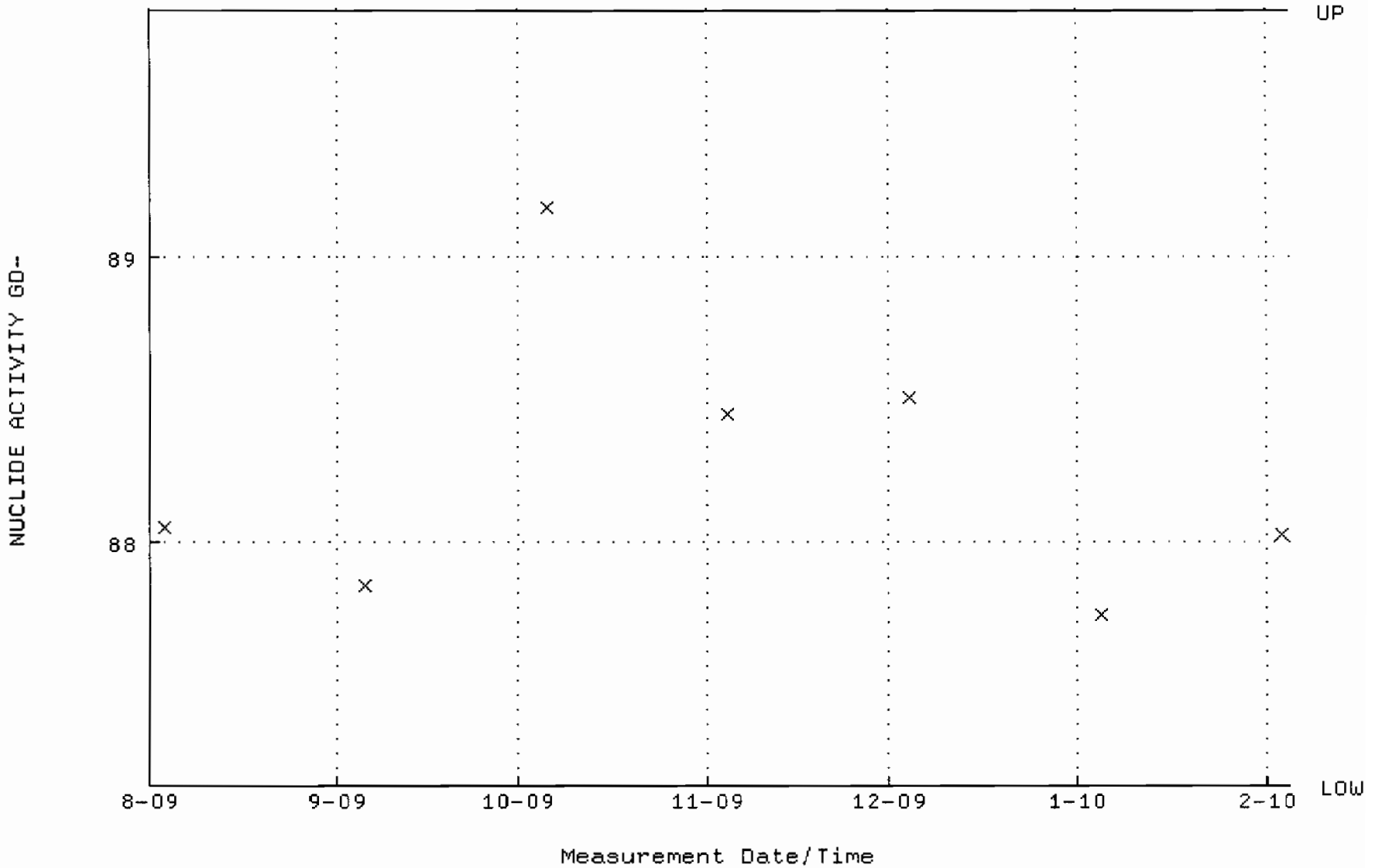

QA filename : DKA100:[ENV_ALPHA.QA.B]B047.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

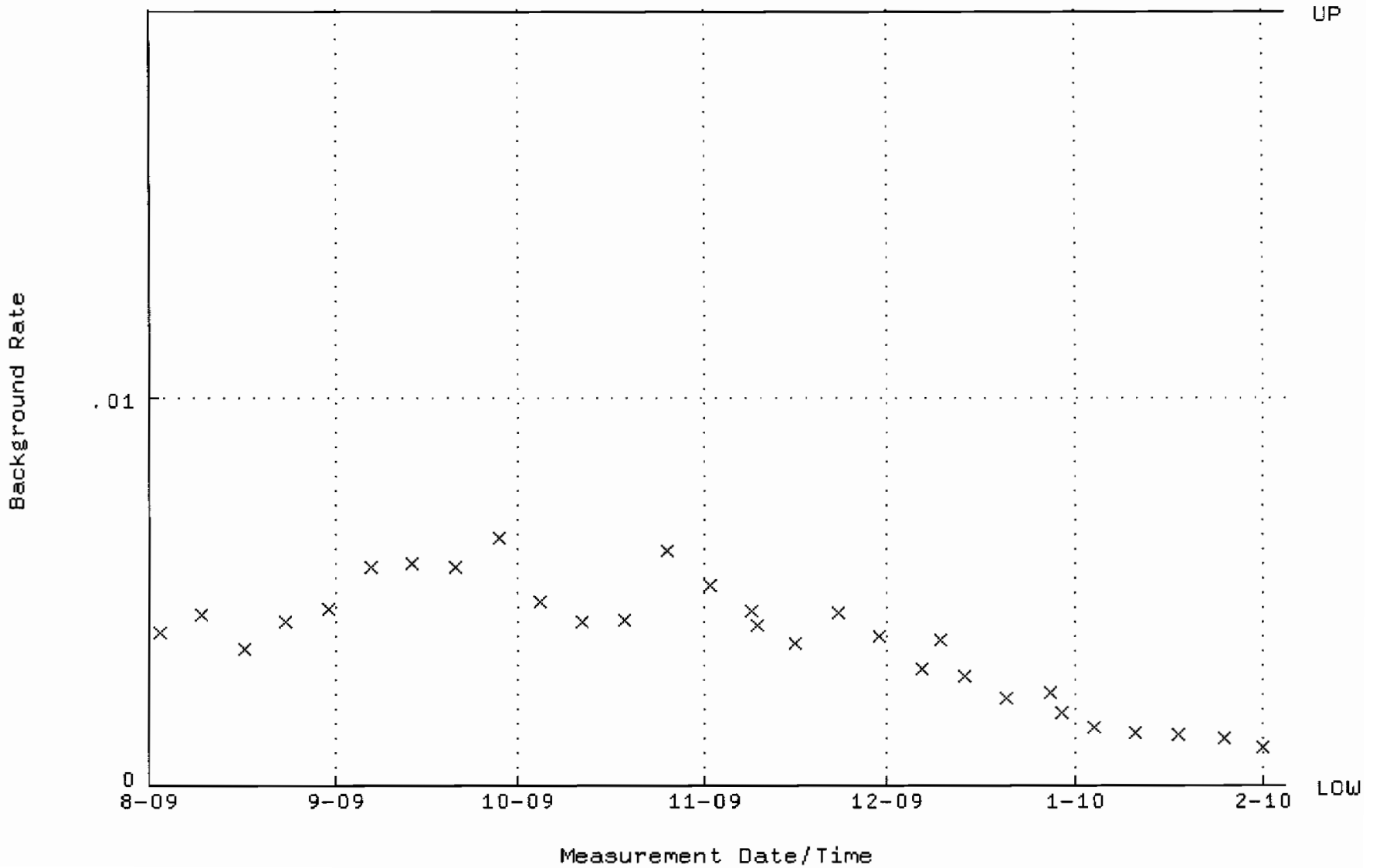

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

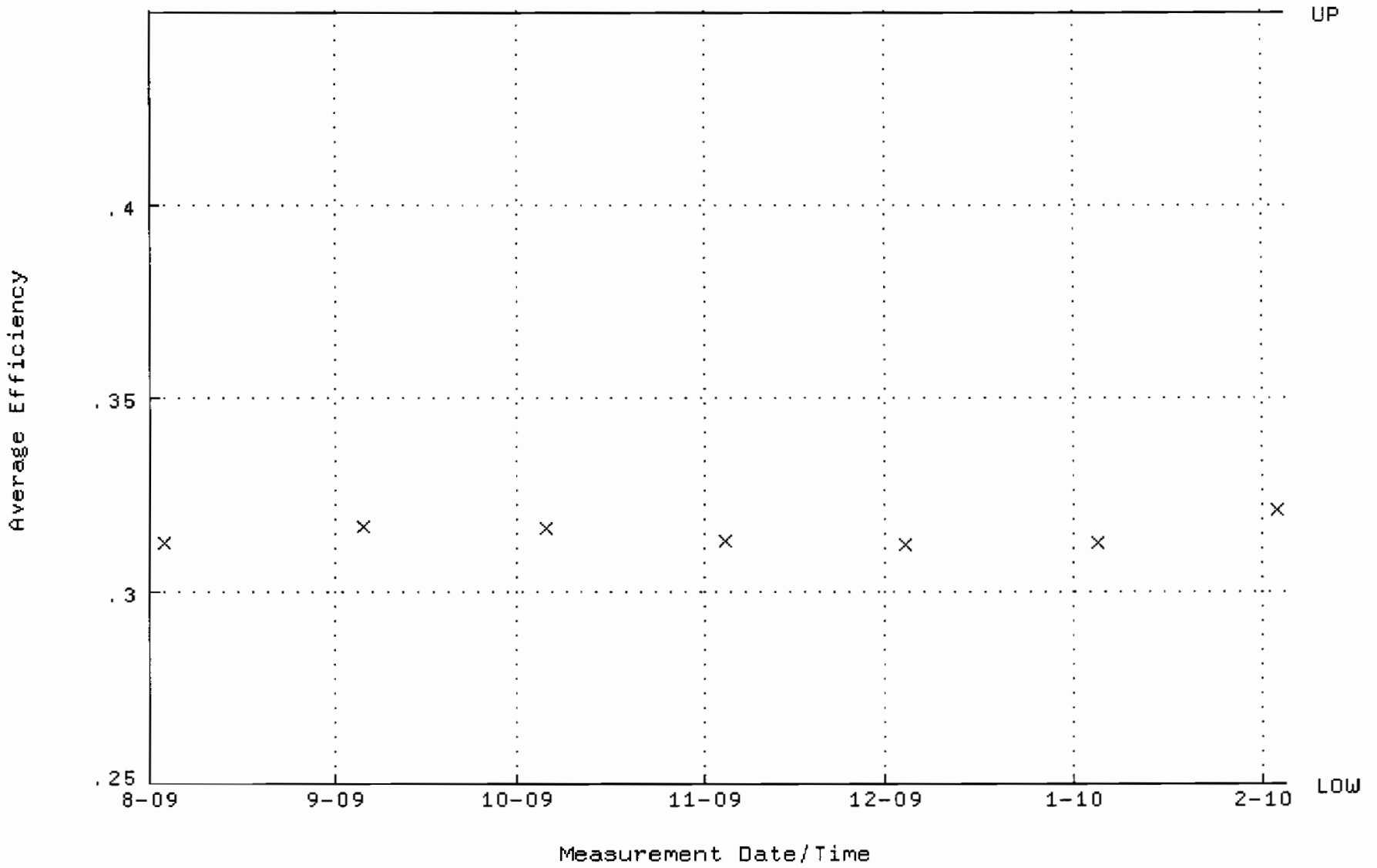

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

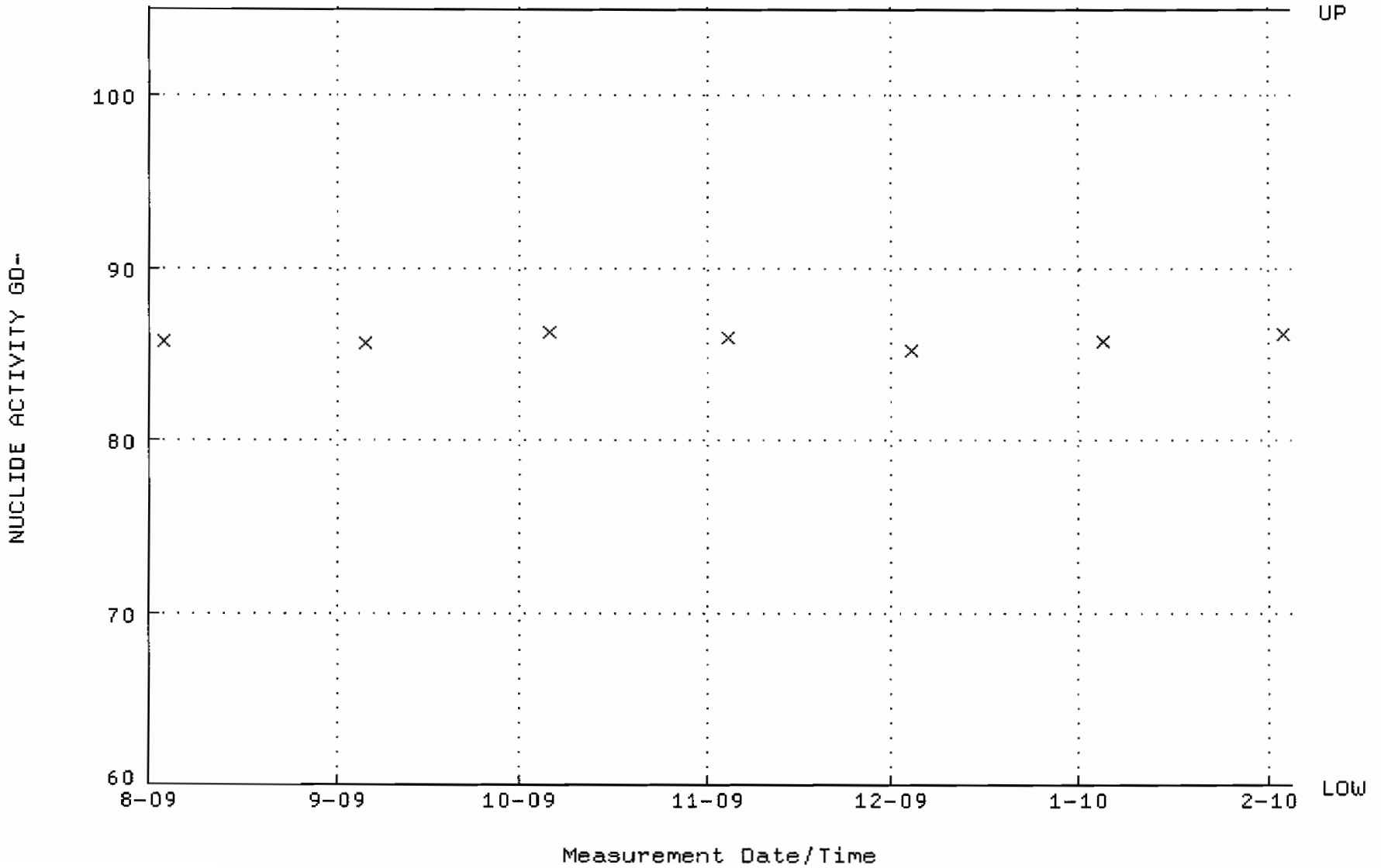

QA filename : DKA100:[ENV_ALPHA.QA.B]B048.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

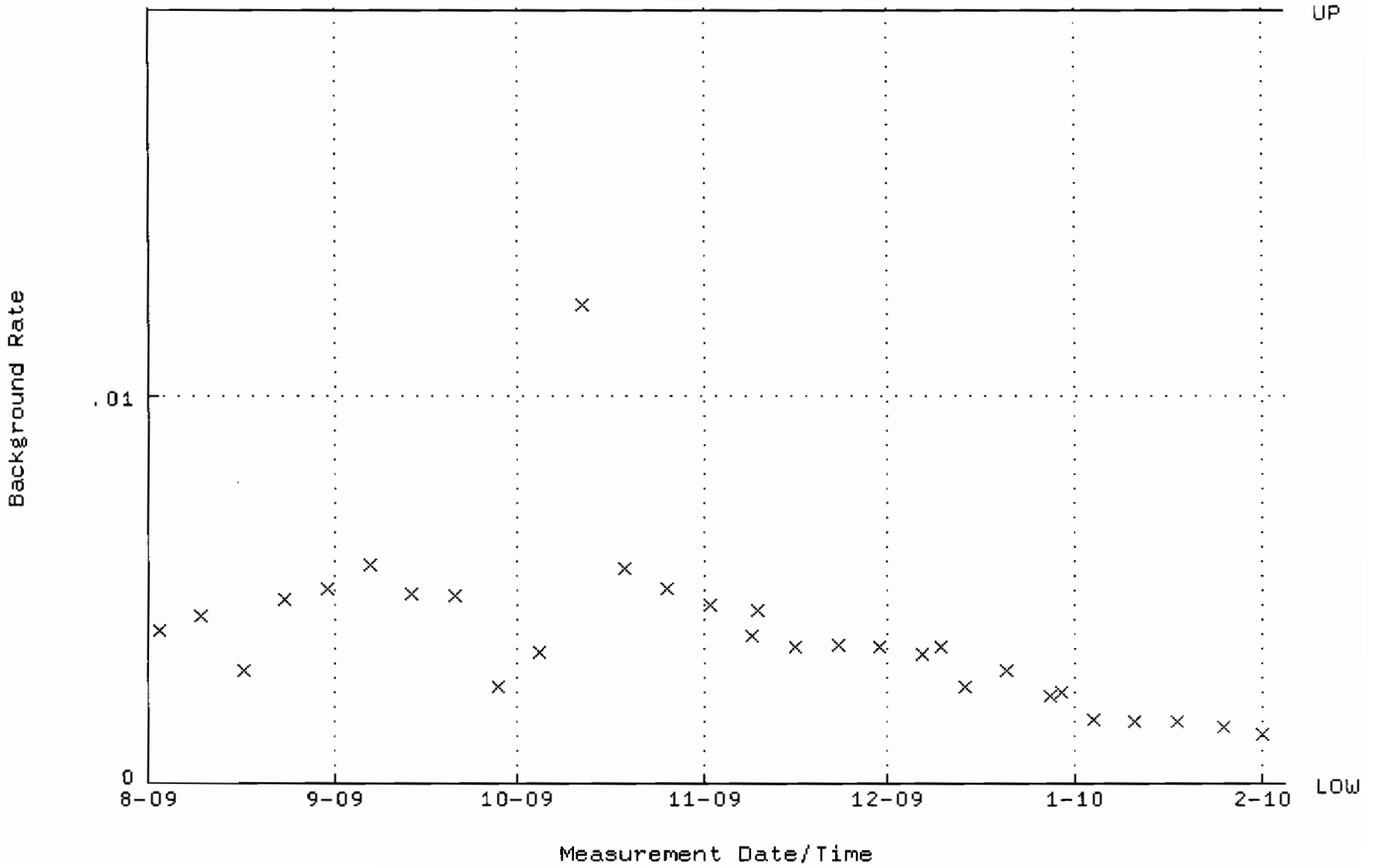

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.302750 through 0.322750

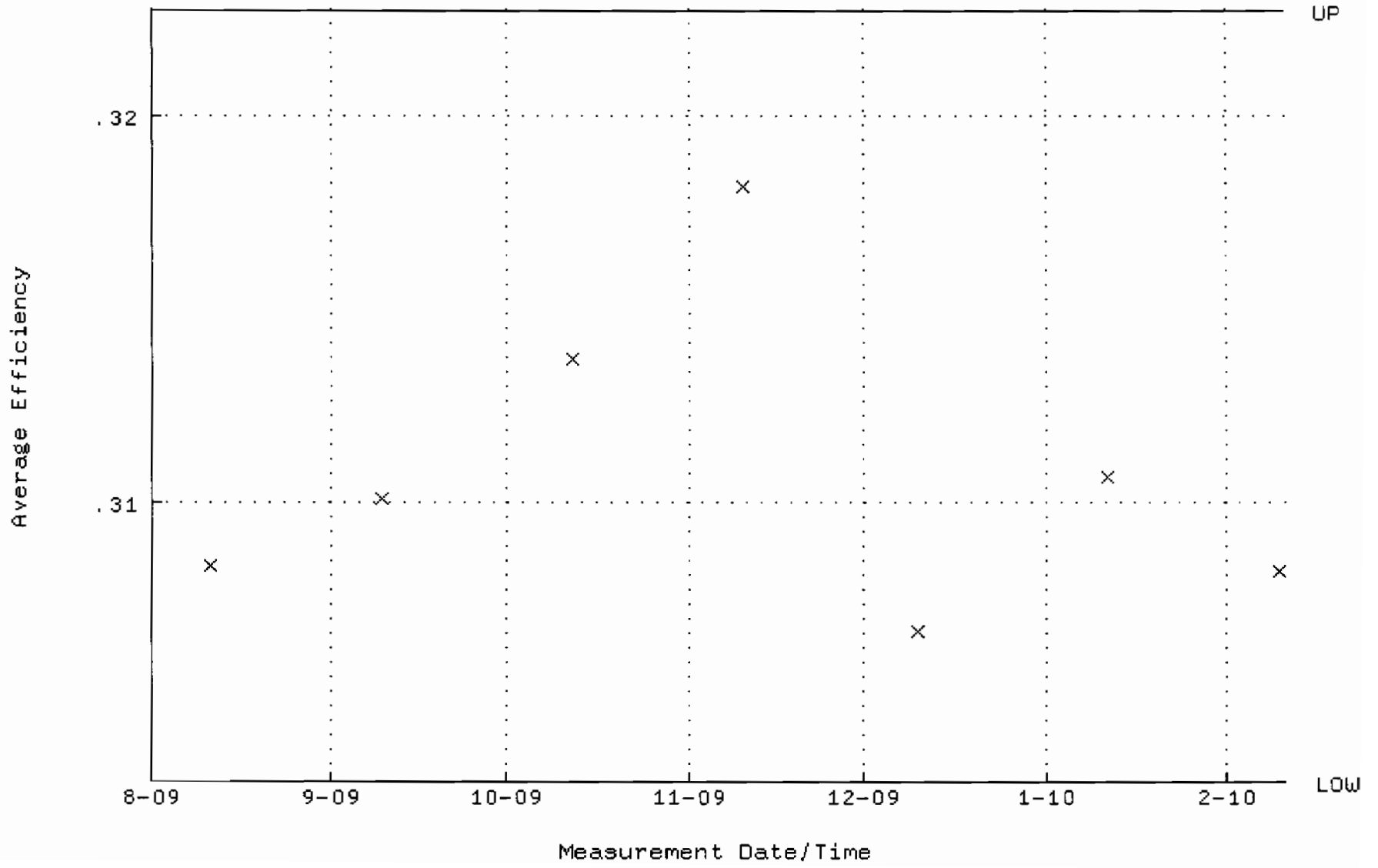

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8638 through 96.0074

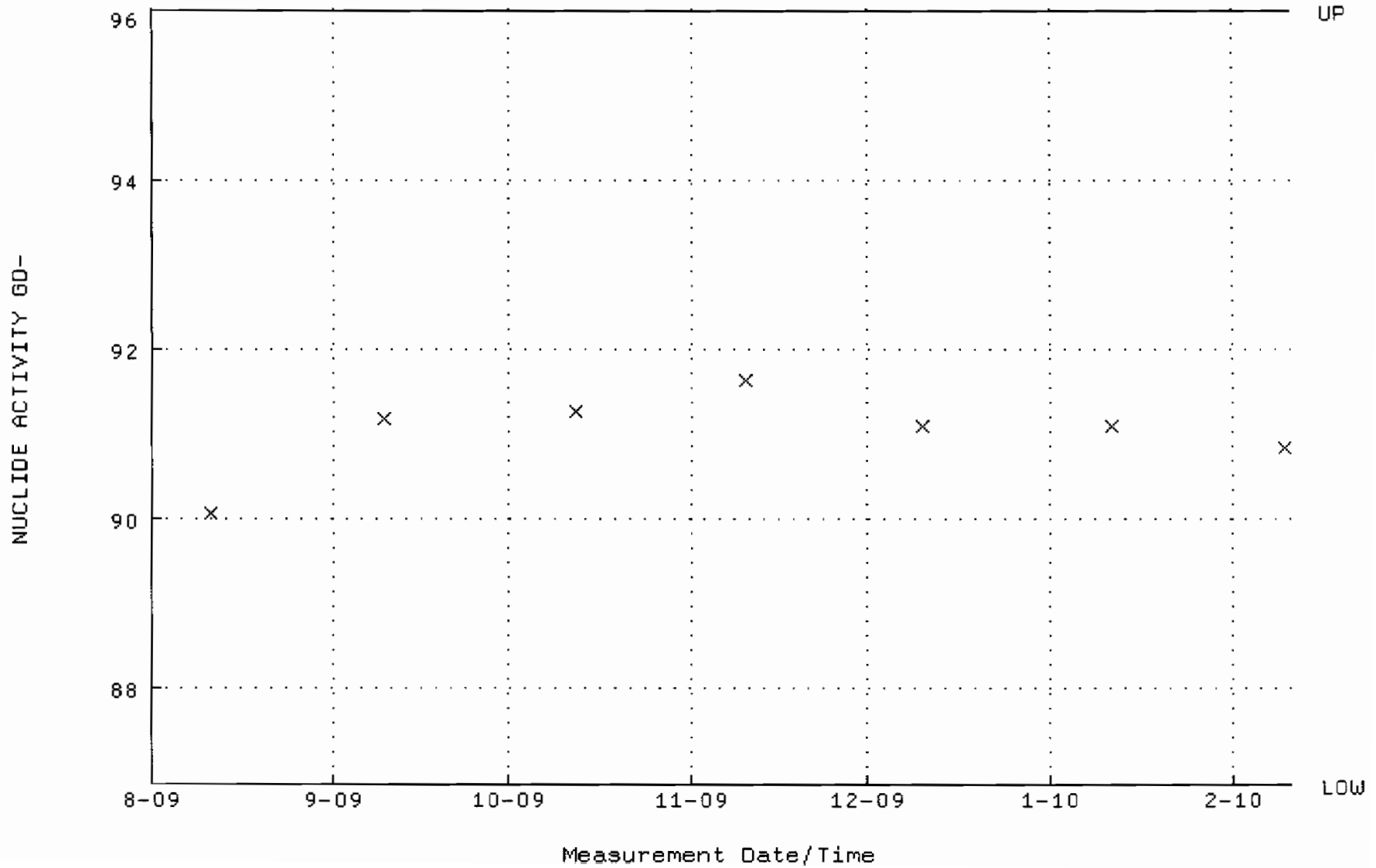

QA filename : DKA100:[ENV_ALPHA.QA.B]B065.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

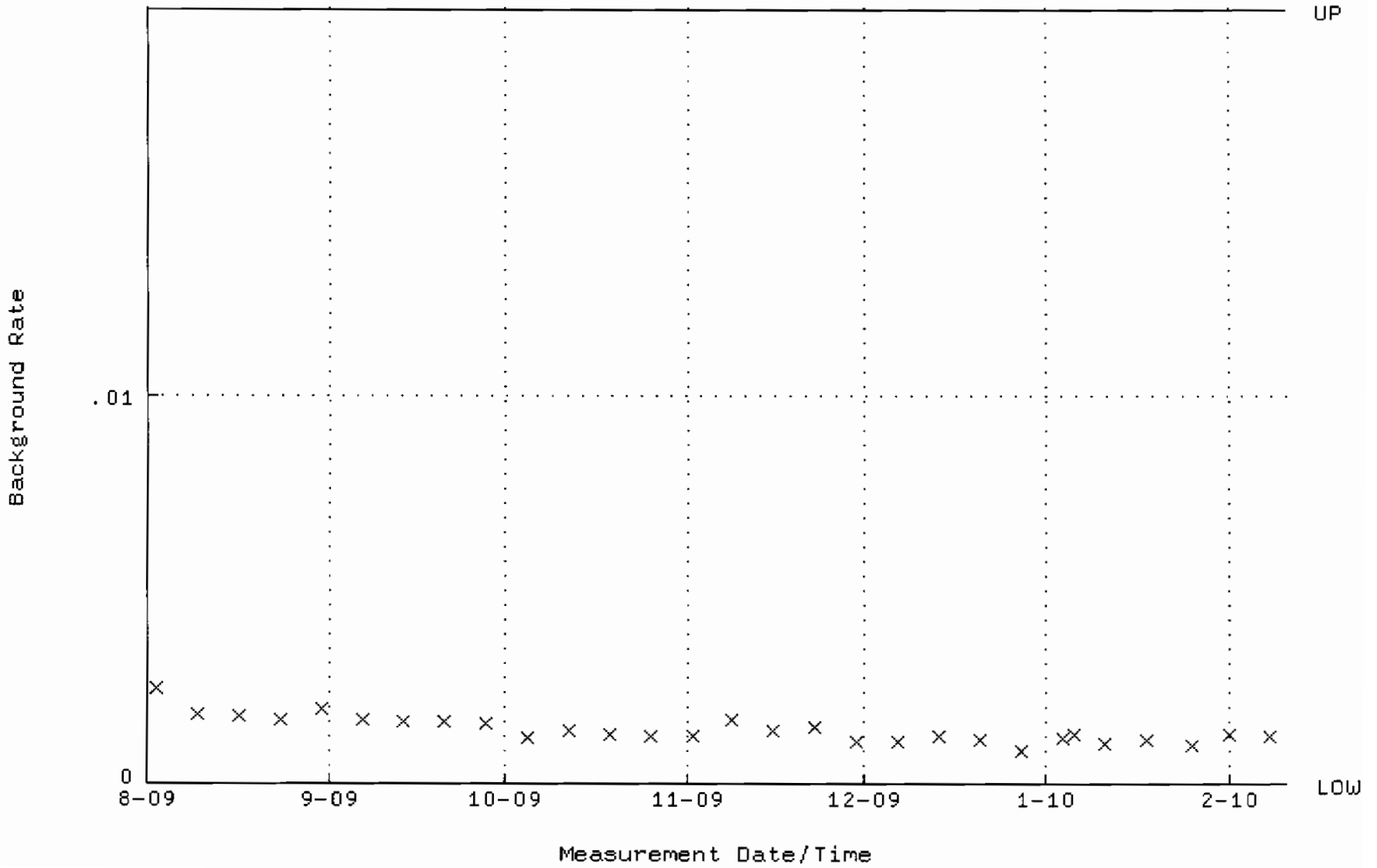

QA filename : DKA100:[ENV_ALPHA.QA.W]W066.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.300416 through 0.320416

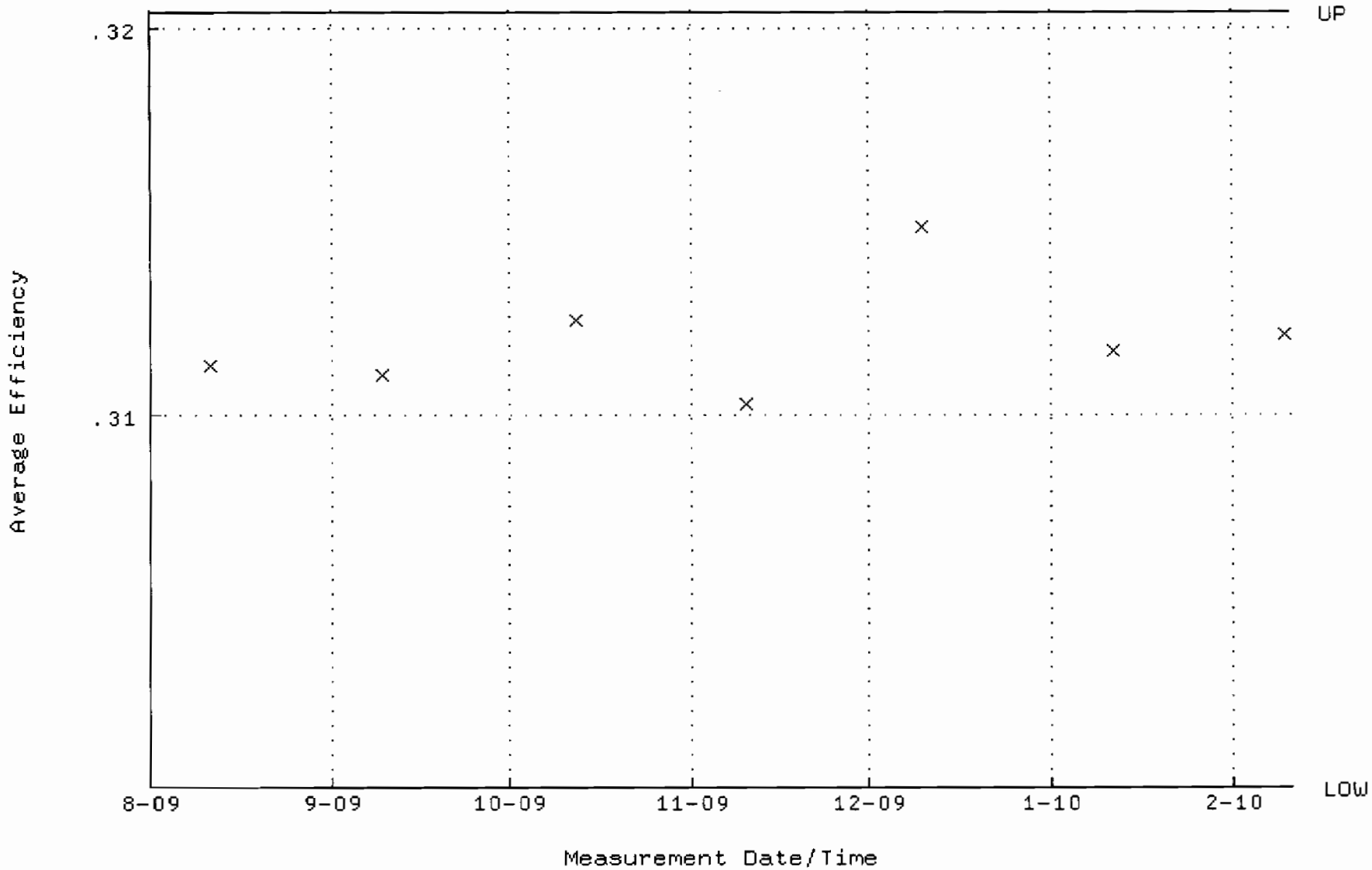

QA filename : DKA100:[ENV_ALPHA.QA.W]W066.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.0864 through 94.0428

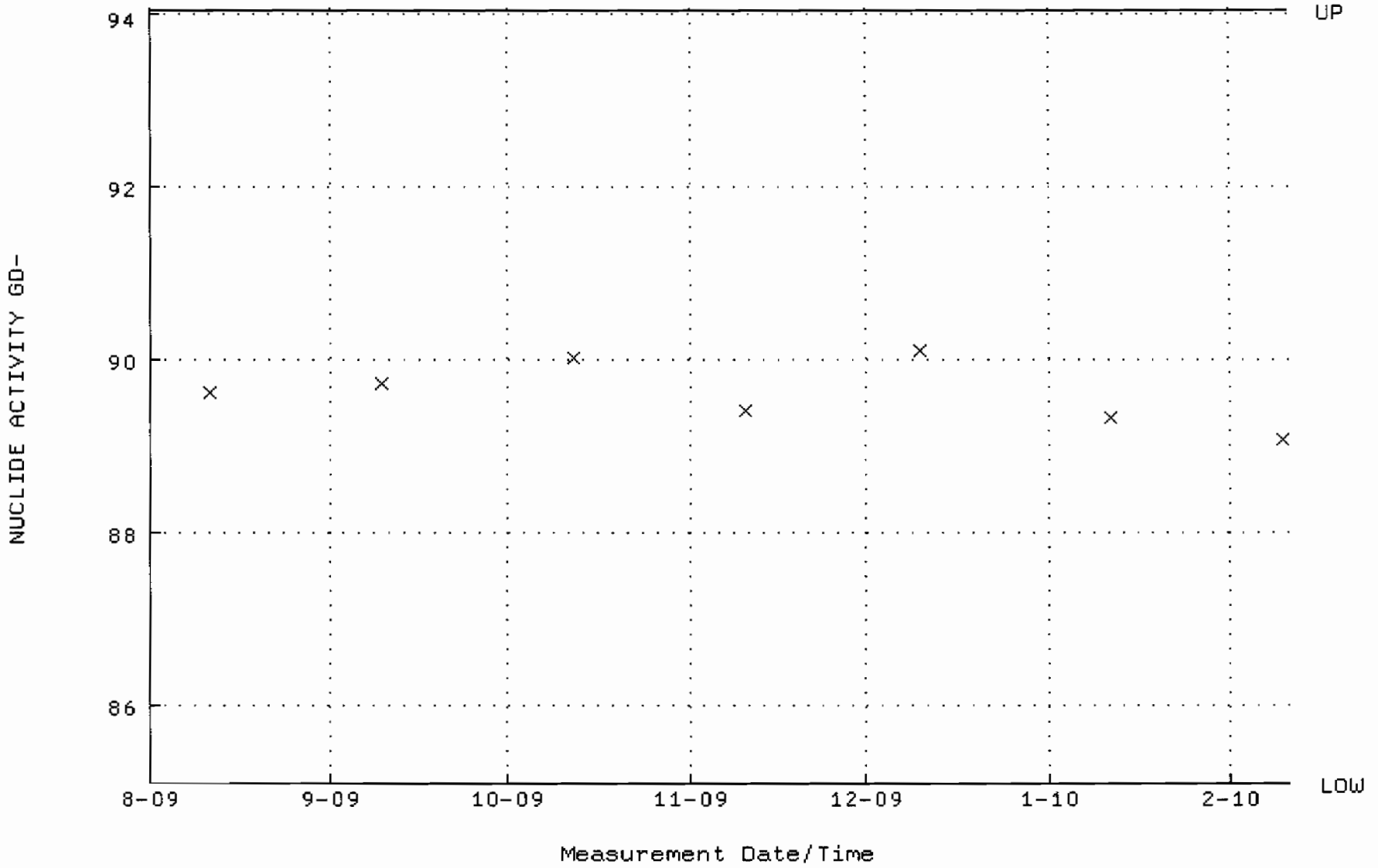

QA filename : DKA100:[ENV_ALPHA.QA.B]B066.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

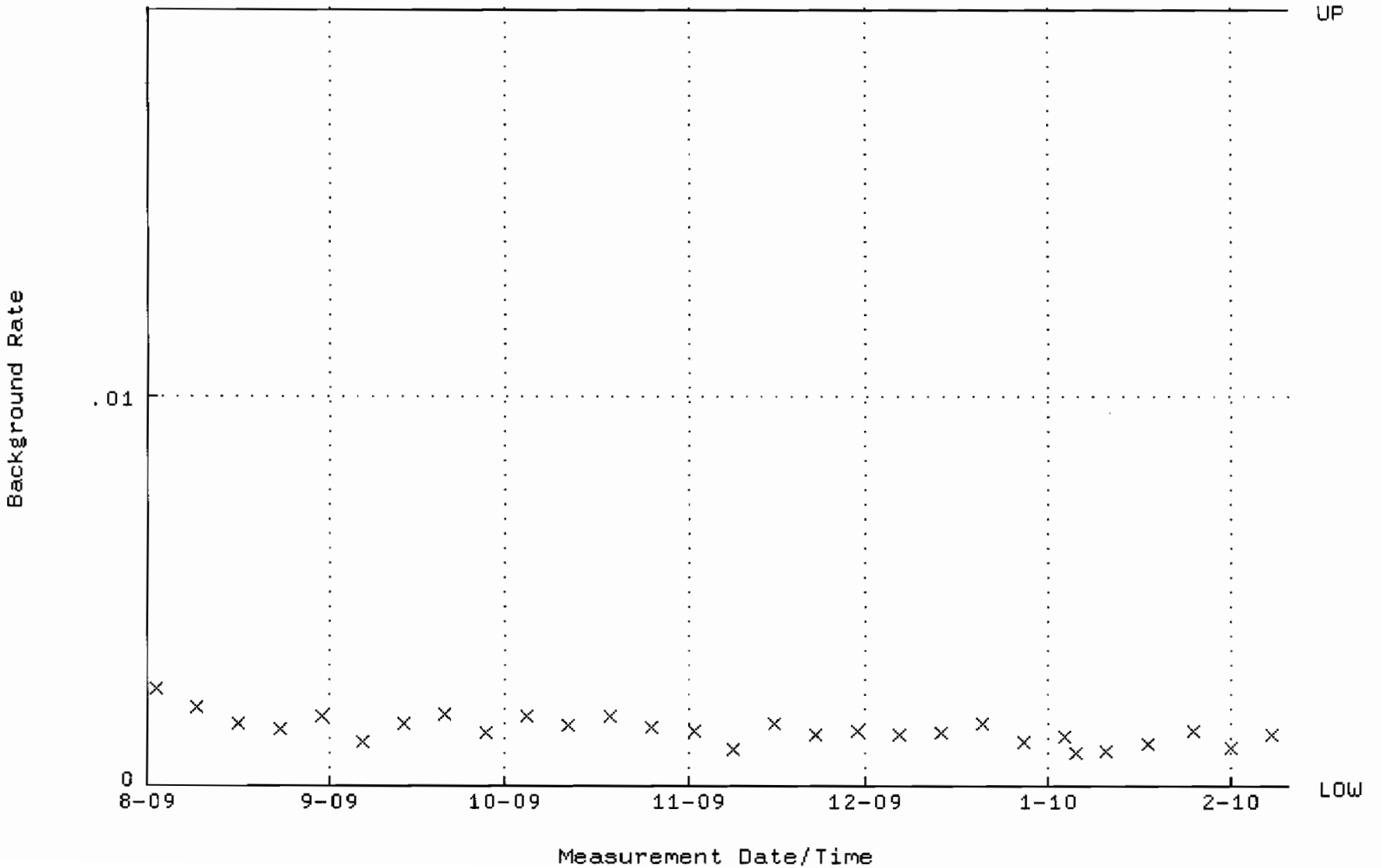

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316597 through 0.336597

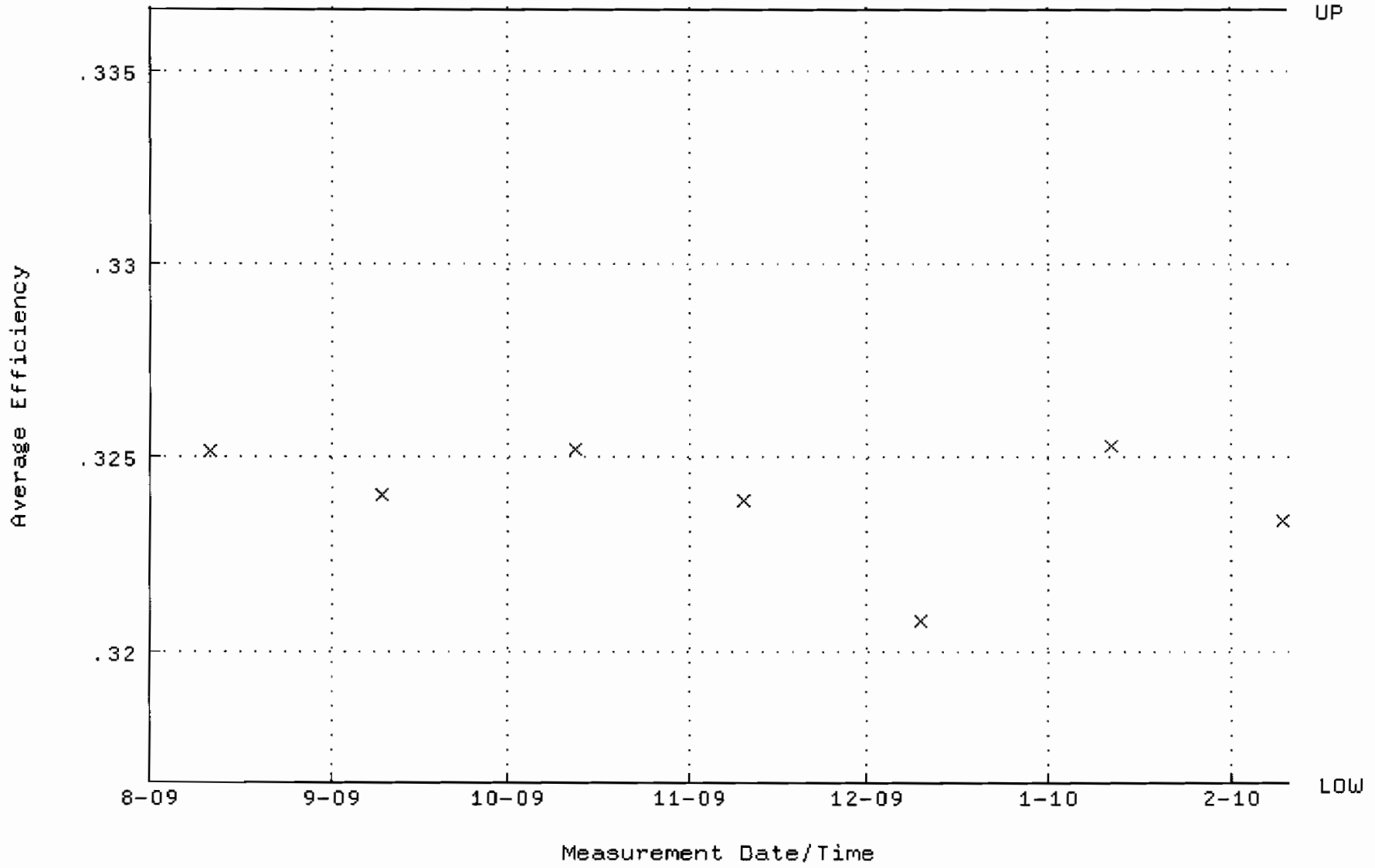

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.2683 through 95.3491

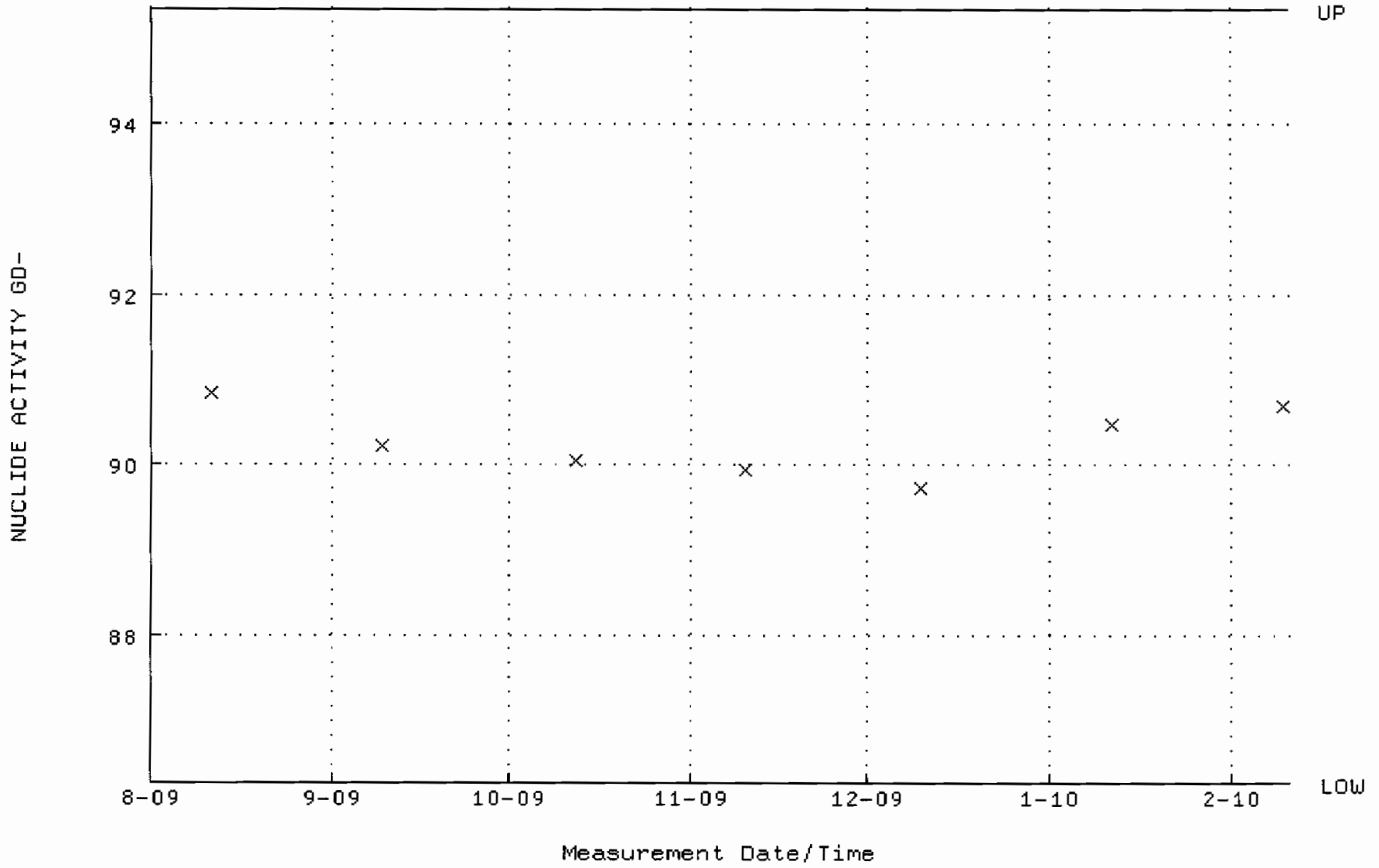

QA filename : DKA100:[ENV_ALPHA.QA.B]B067.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

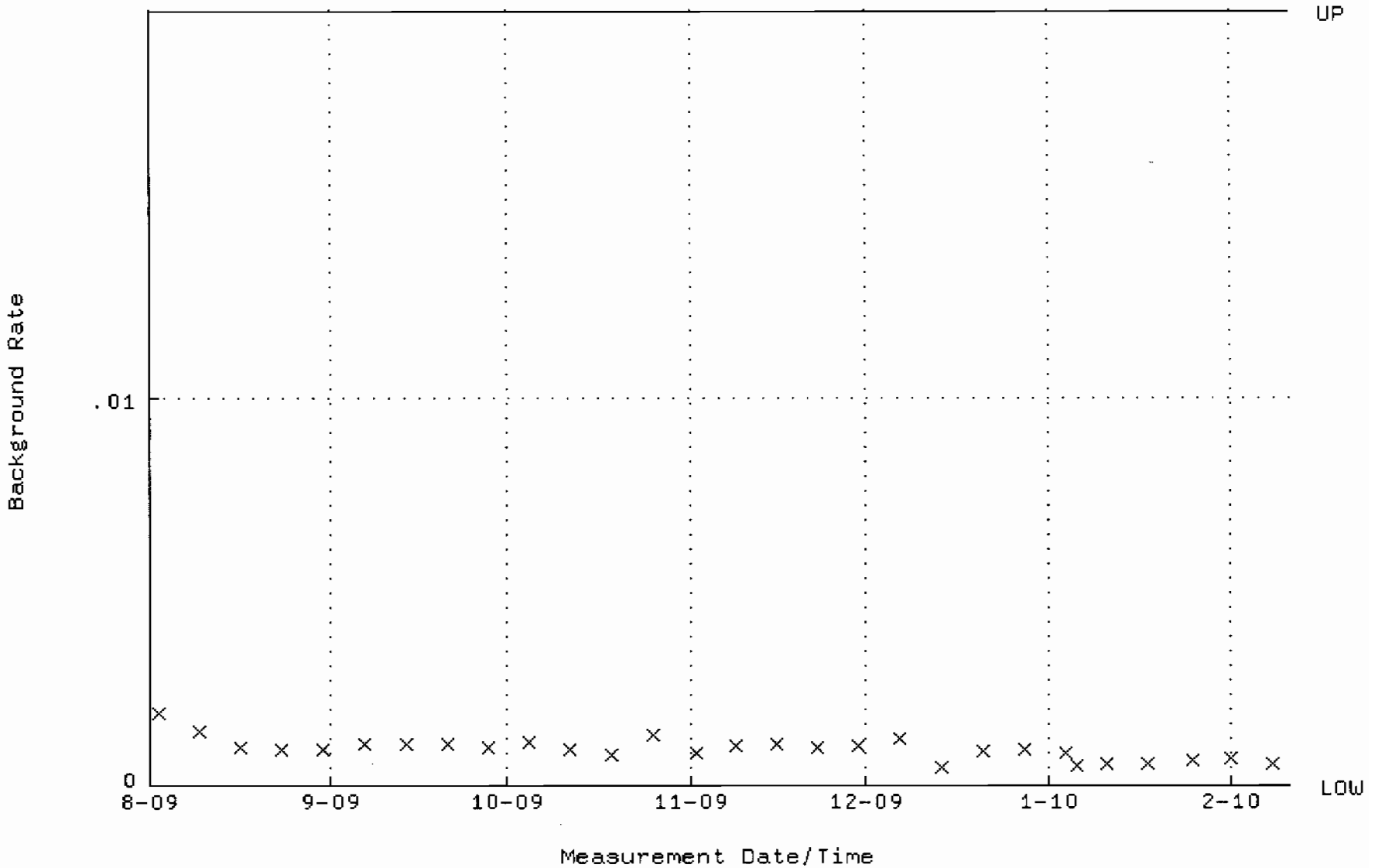

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.289178 through 0.309178

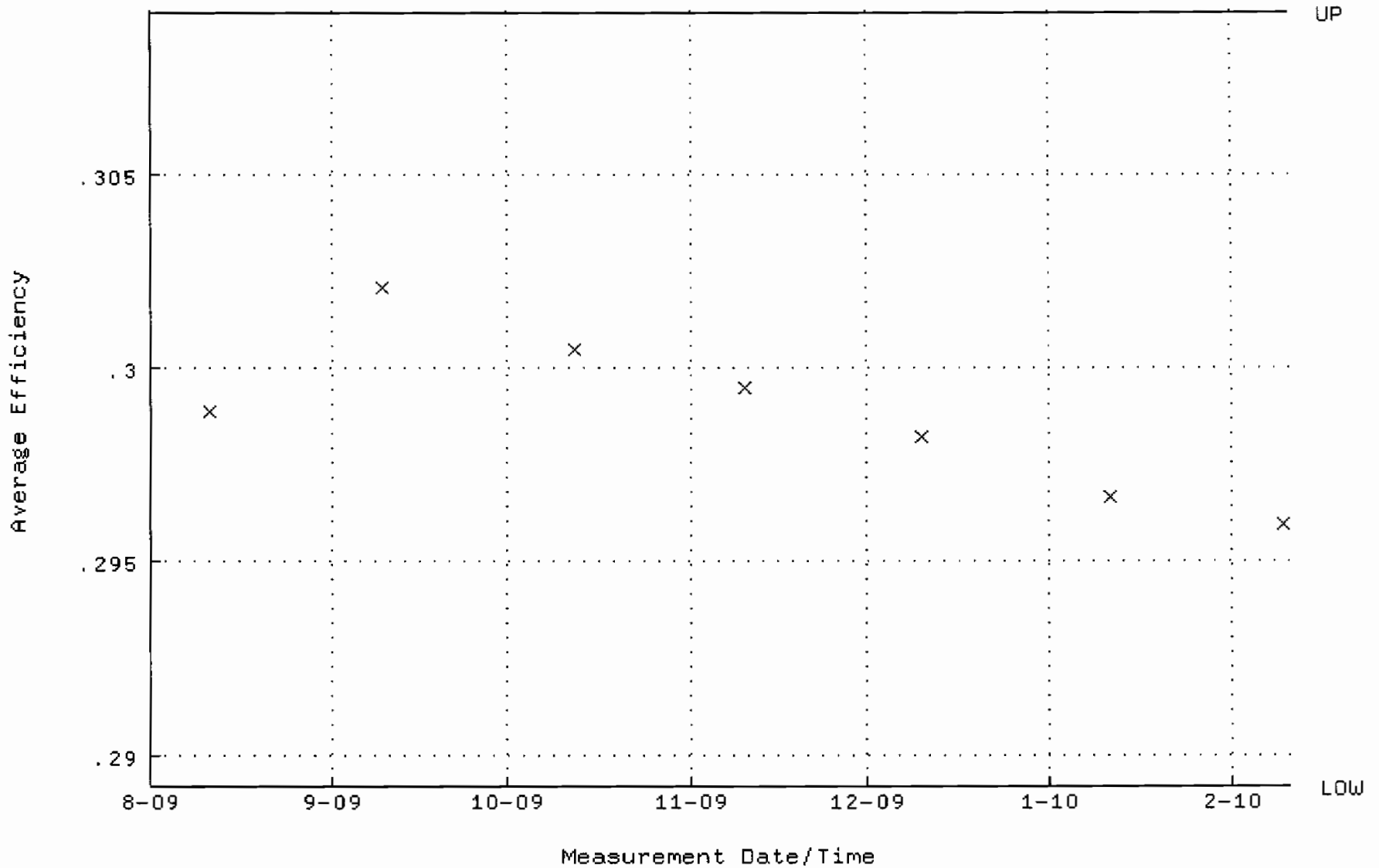

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.4419 through 96.6463

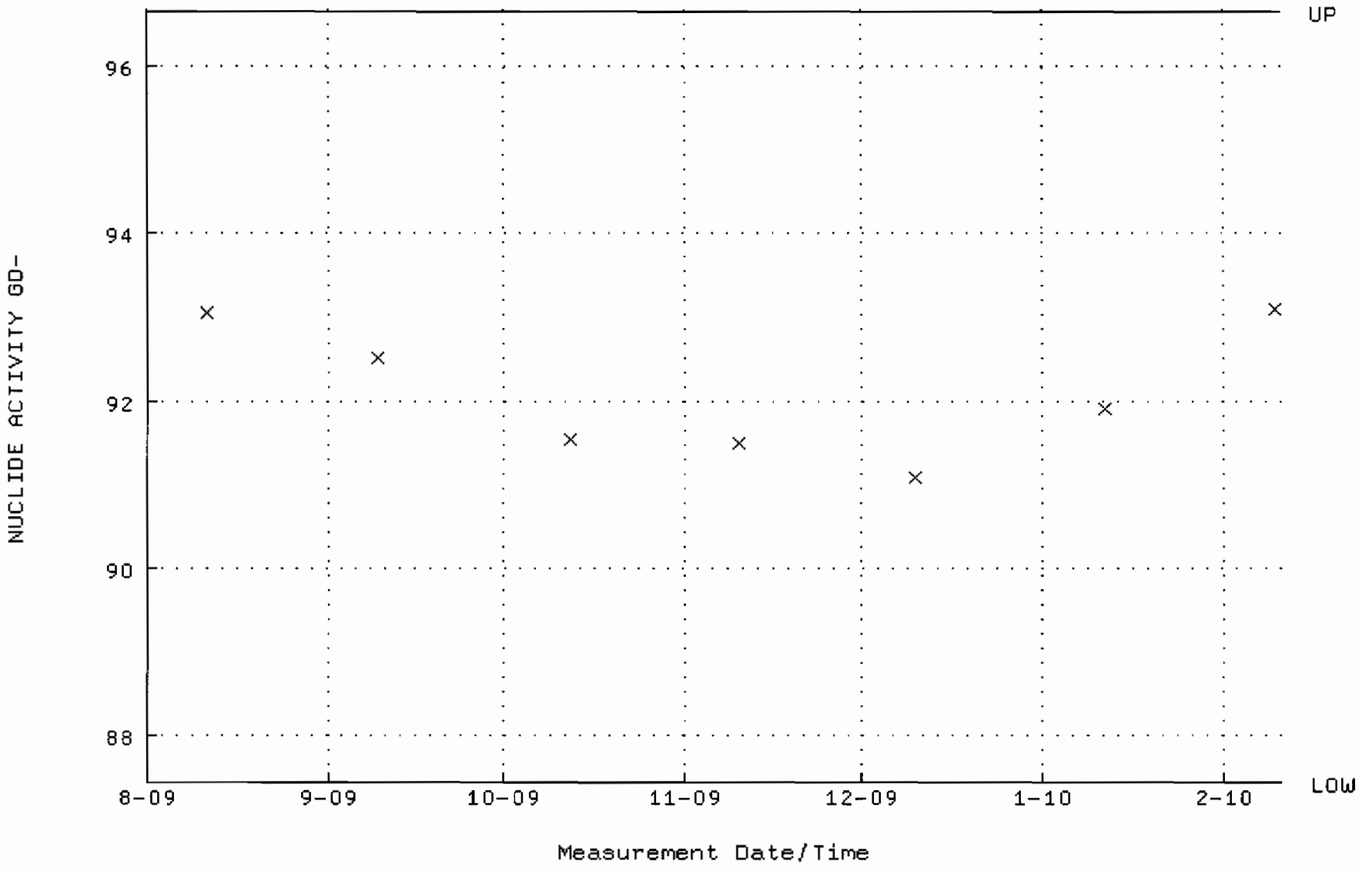

QA filename : DKA100:[ENV_ALPHA.QA.B]B068.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

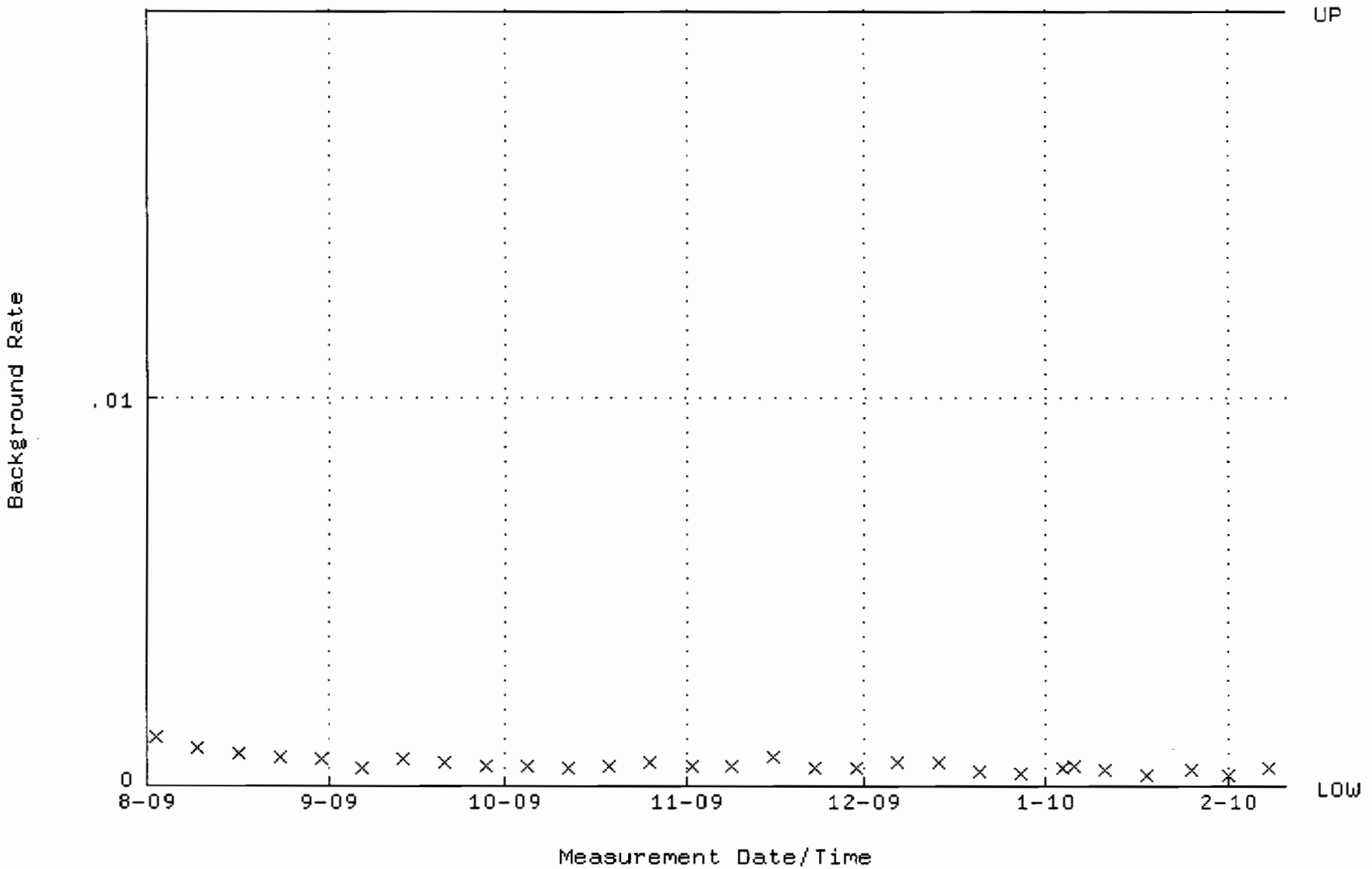

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.306636 through 0.326636

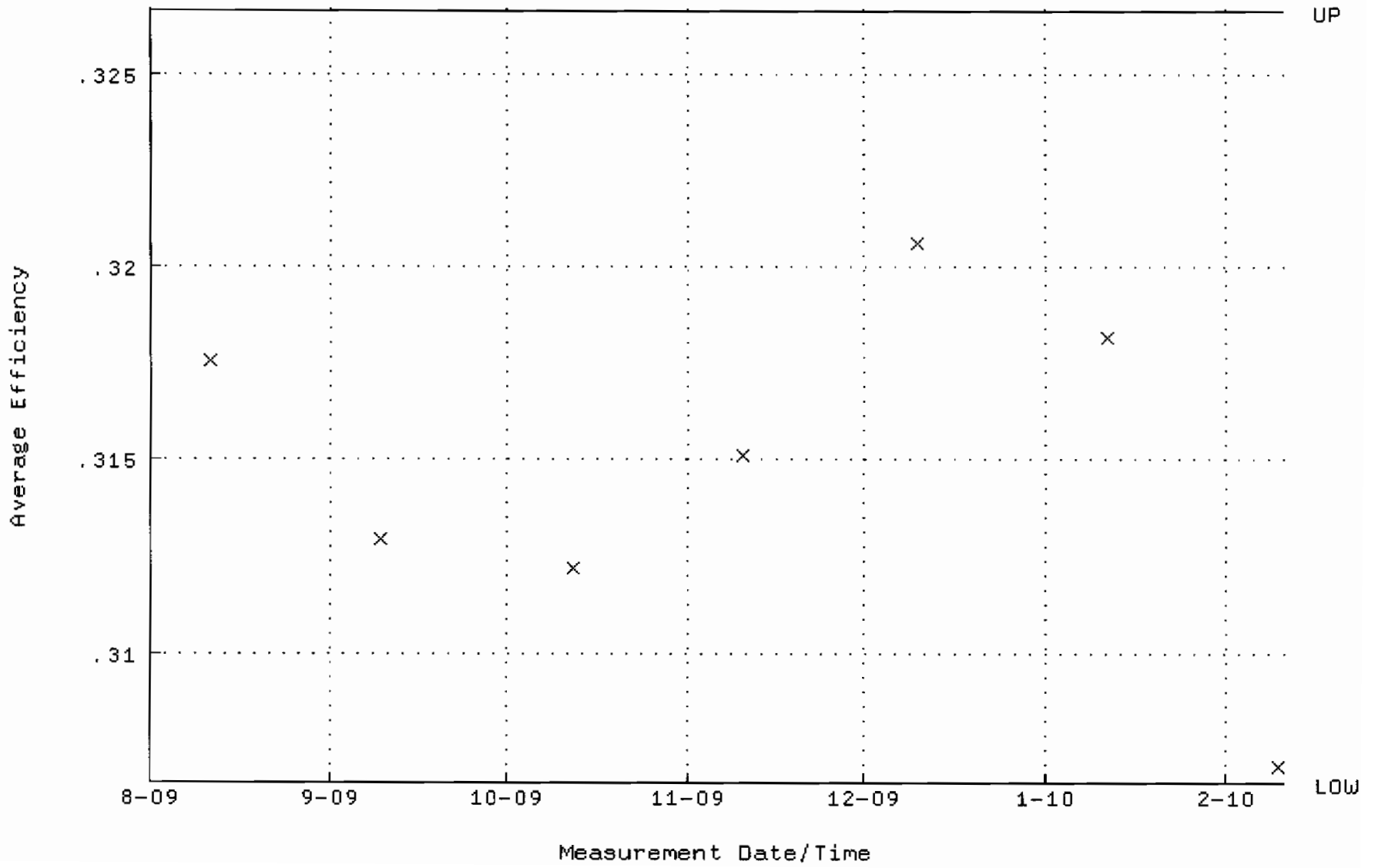

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 89.6479 through 99.0845

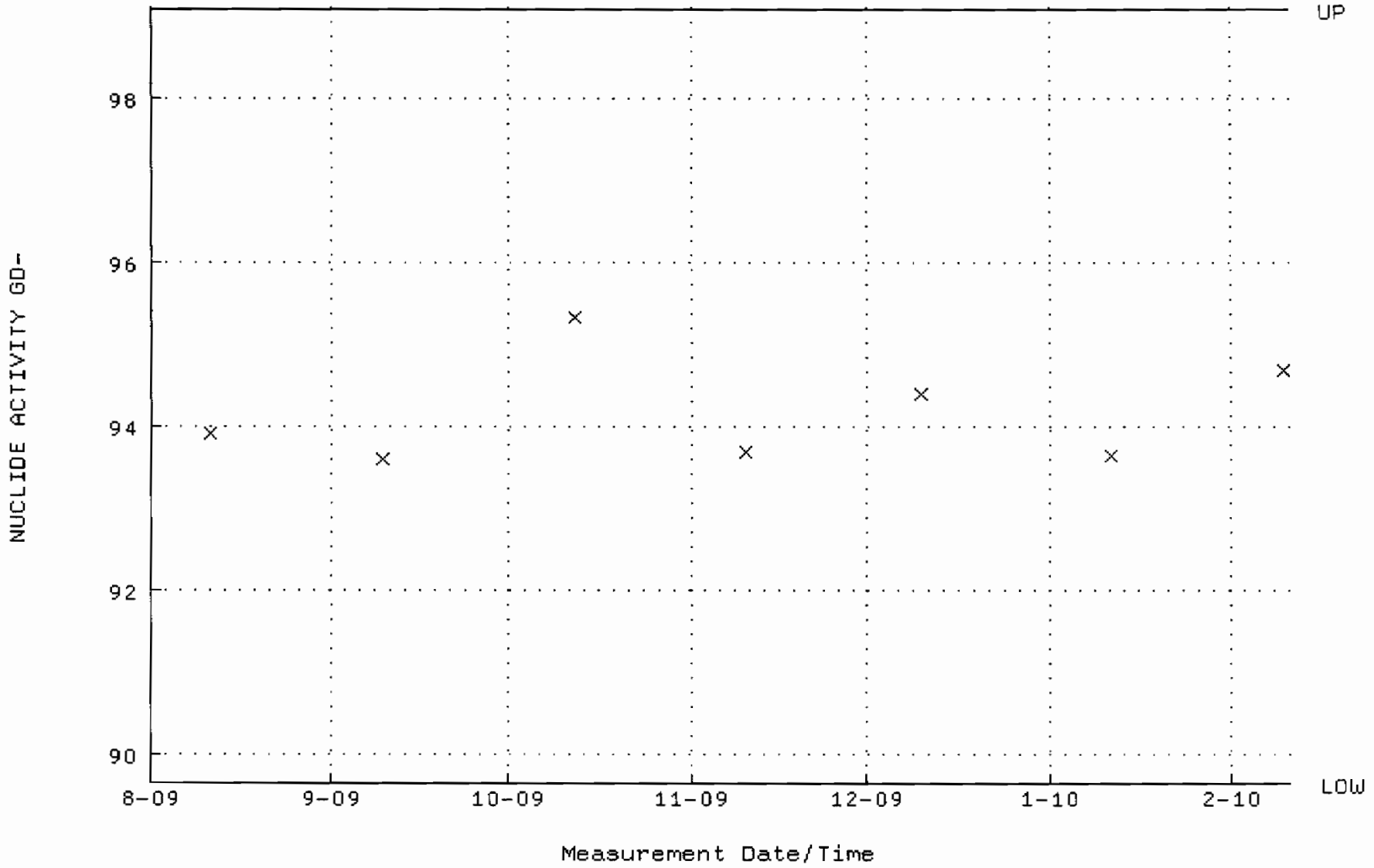

QA filename : DKA100:[ENV_ALPHA.QA.B]B069.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

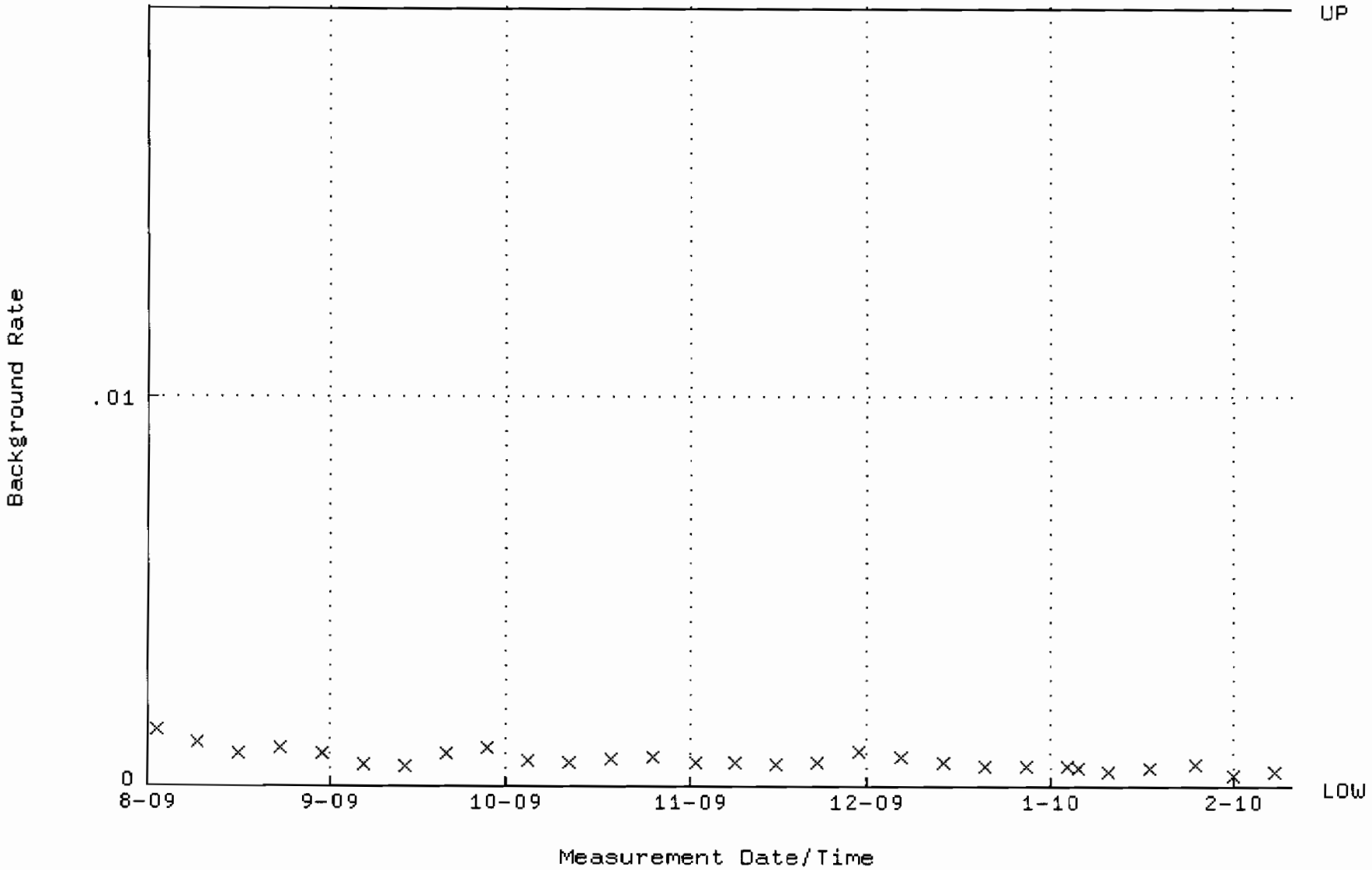

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.342785 through 0.362785

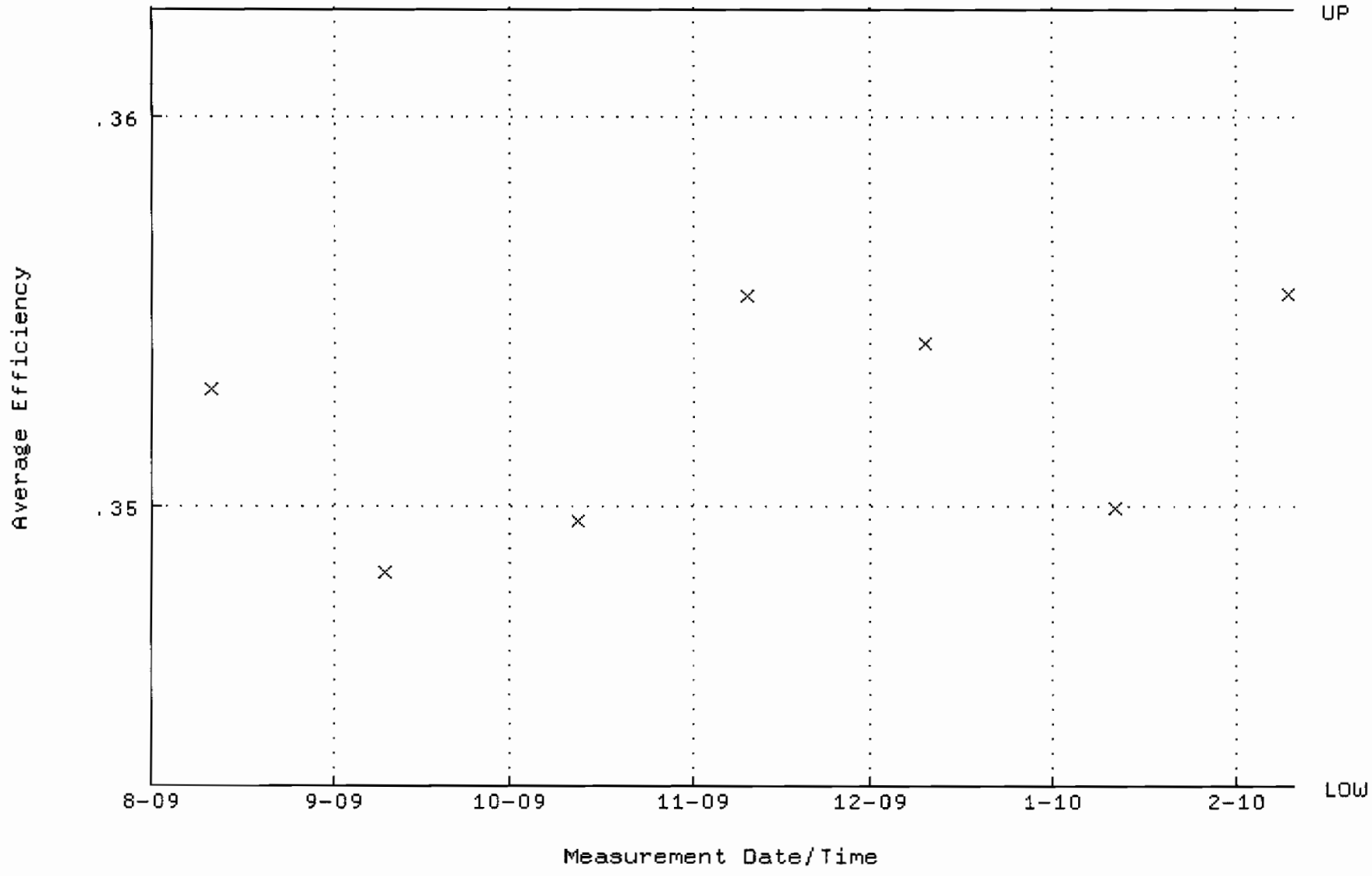

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5293 through 94.5323

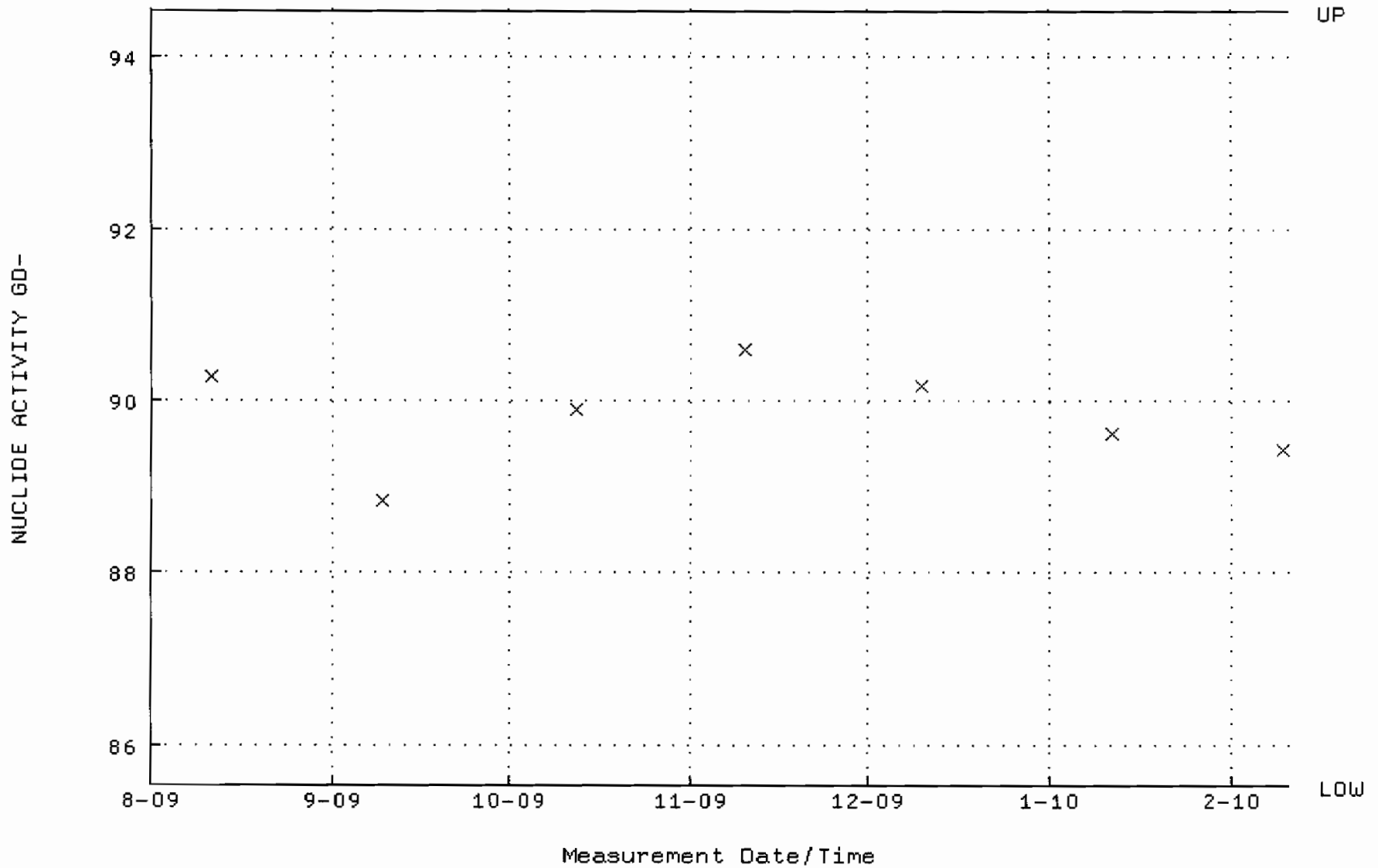

QA filename : DKA100:[ENV_ALPHA.QA.B]B070.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

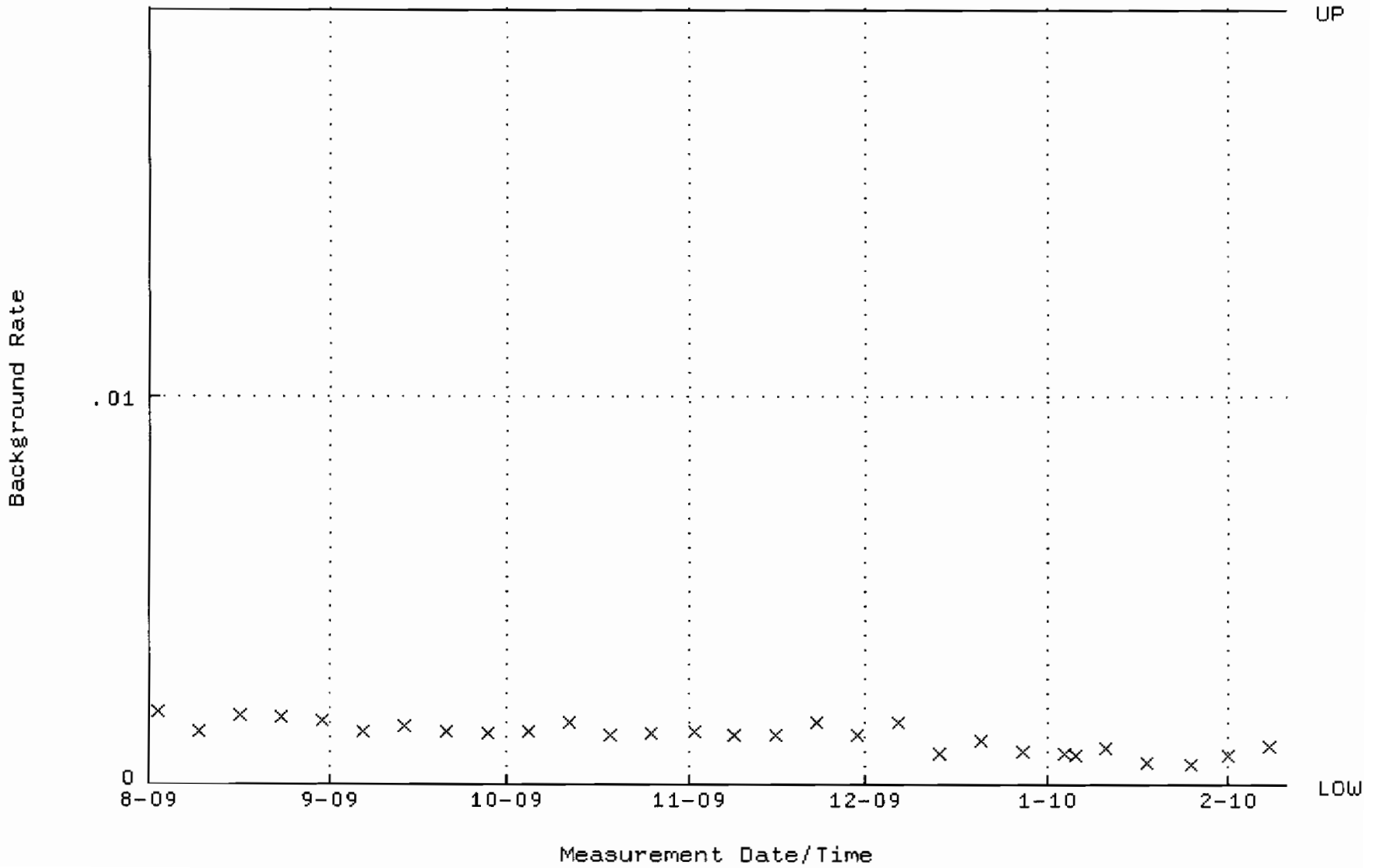

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.248404 through 0.268404

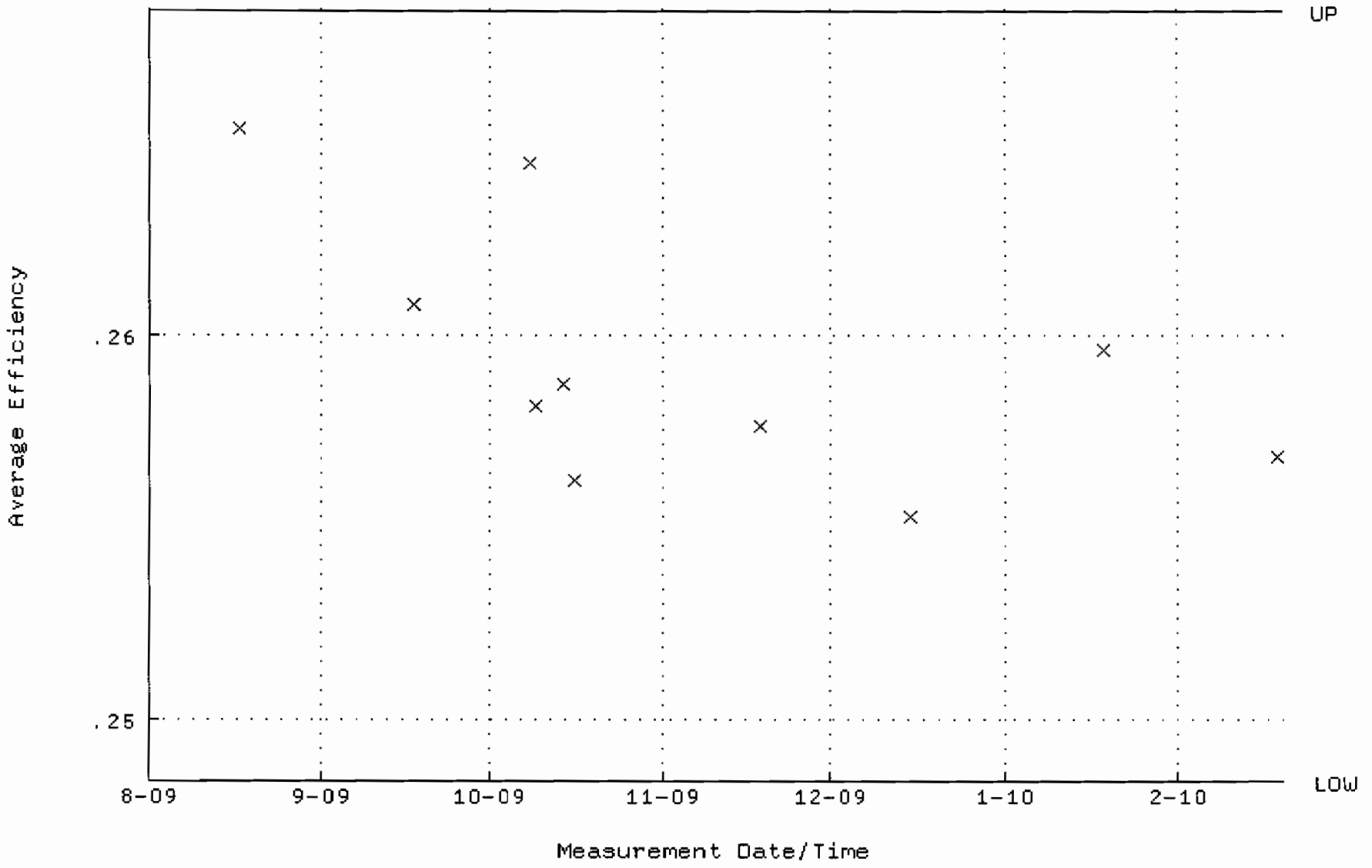

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5661 through 94.5731

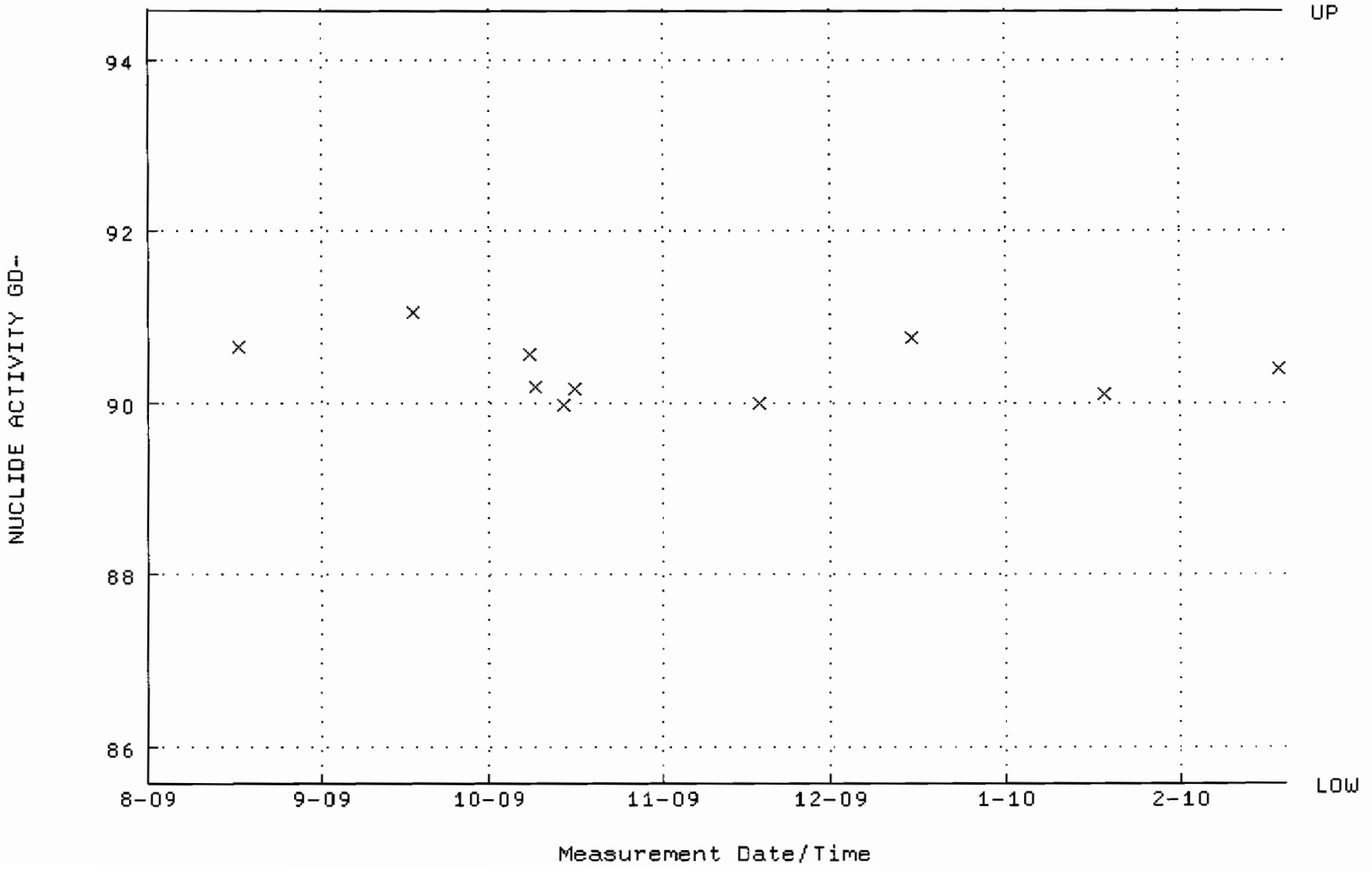

QA filename : DKA100:[ENV_ALPHA.QA.B]B115.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:05 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

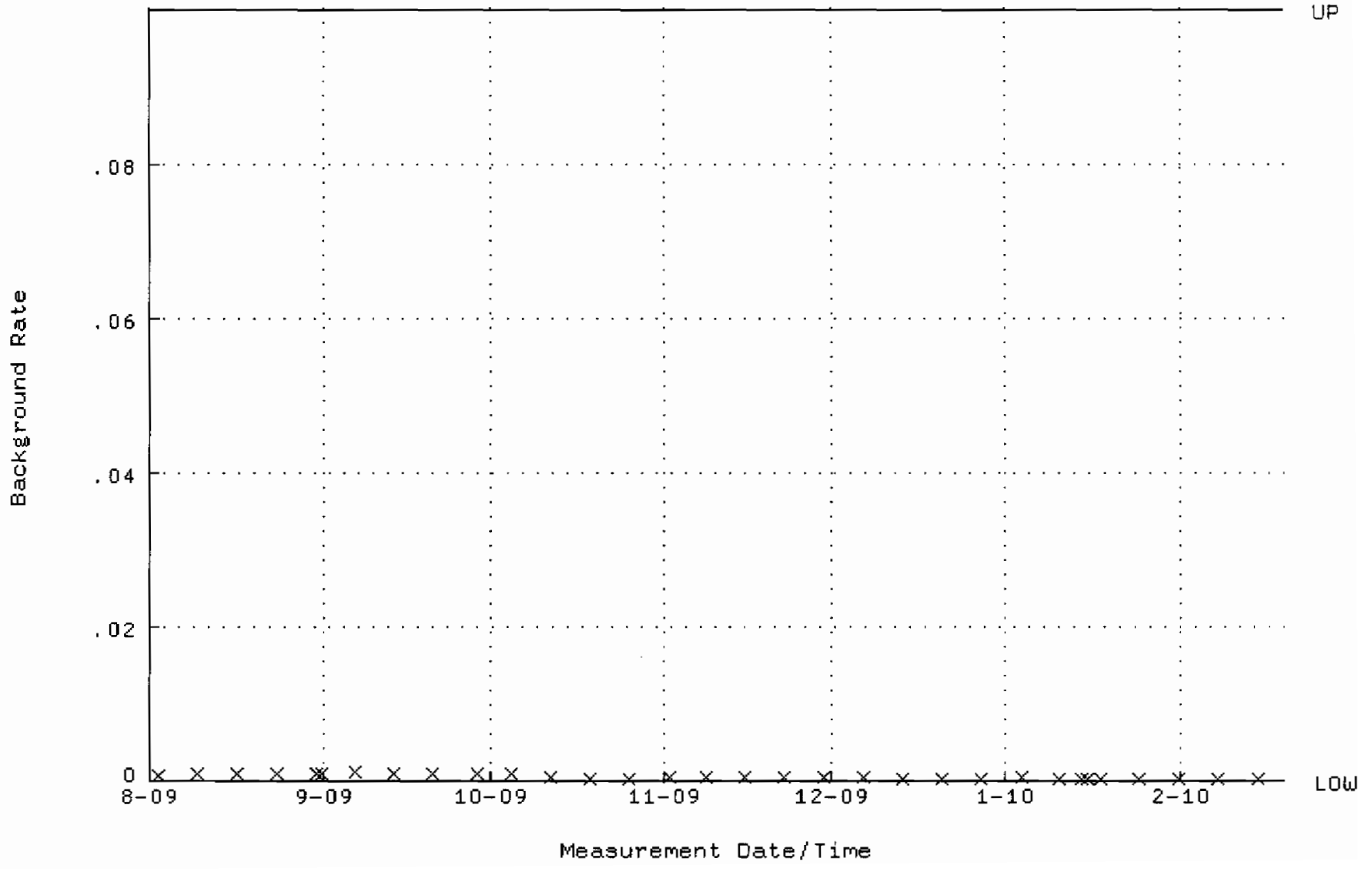

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.232847 through 0.282381

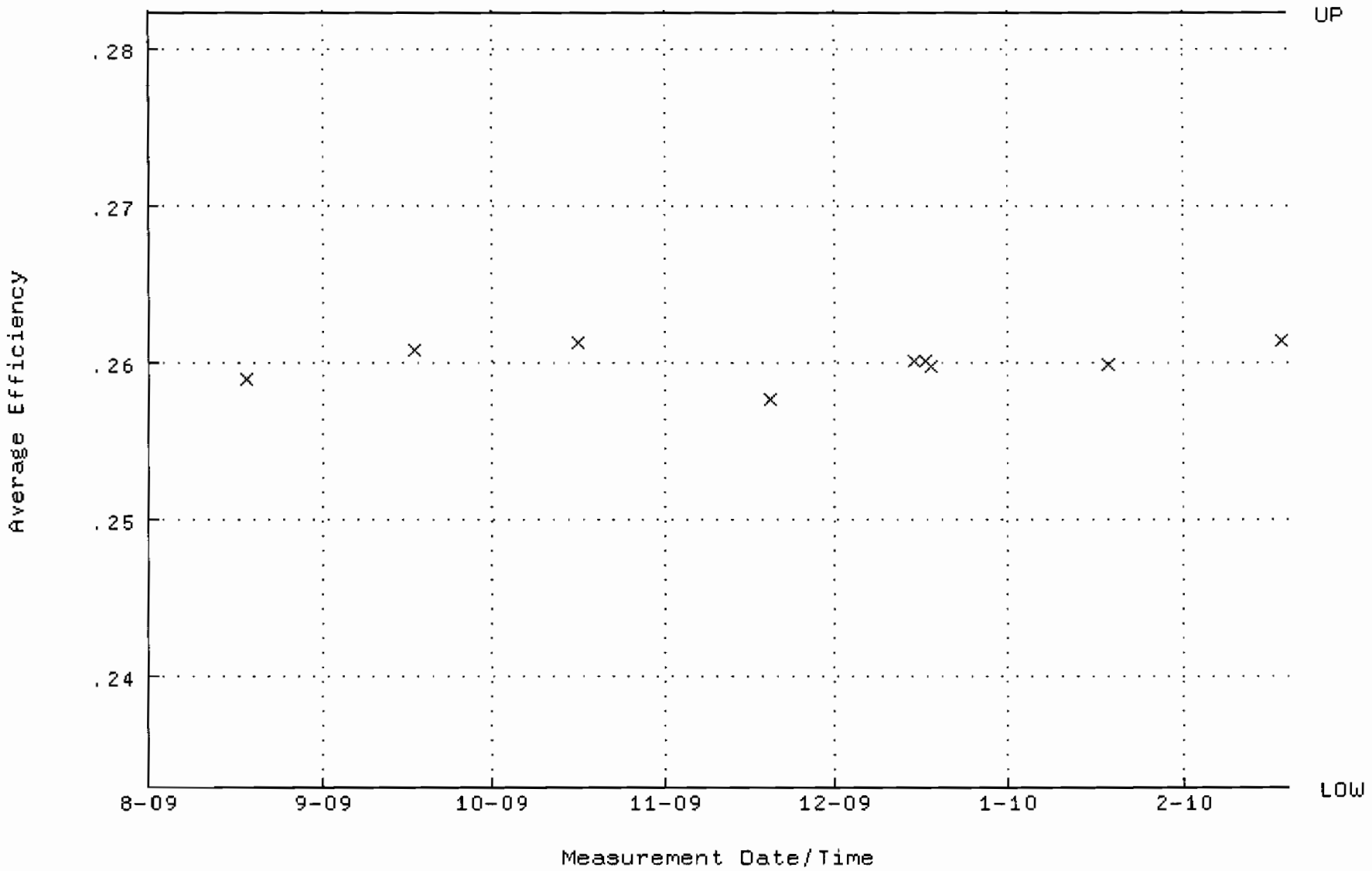

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.3881 through 91.8481

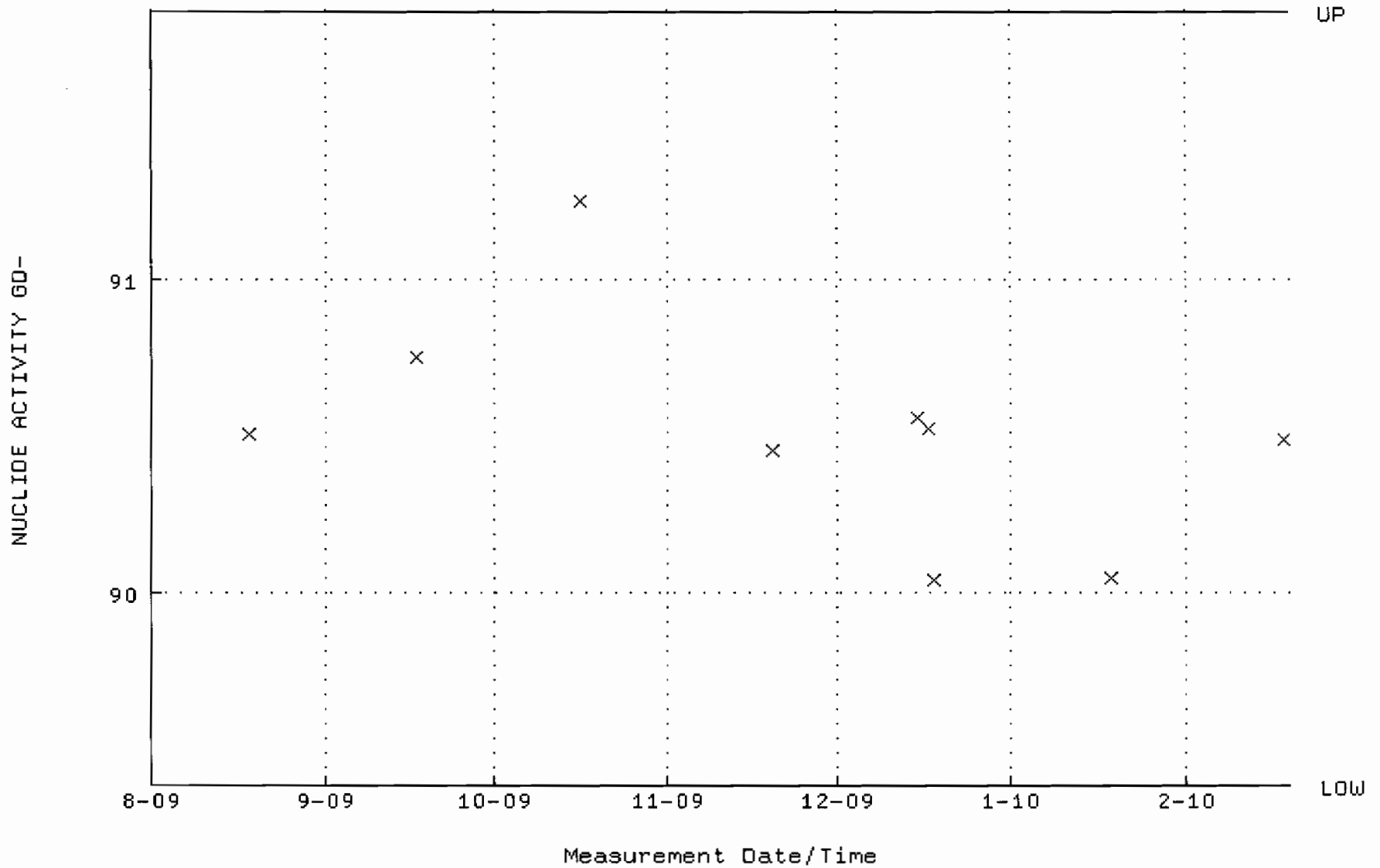

QA filename : DKA100:[ENV_ALPHA.QA.B]B120.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 3-AUG-2009 15:38:20 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

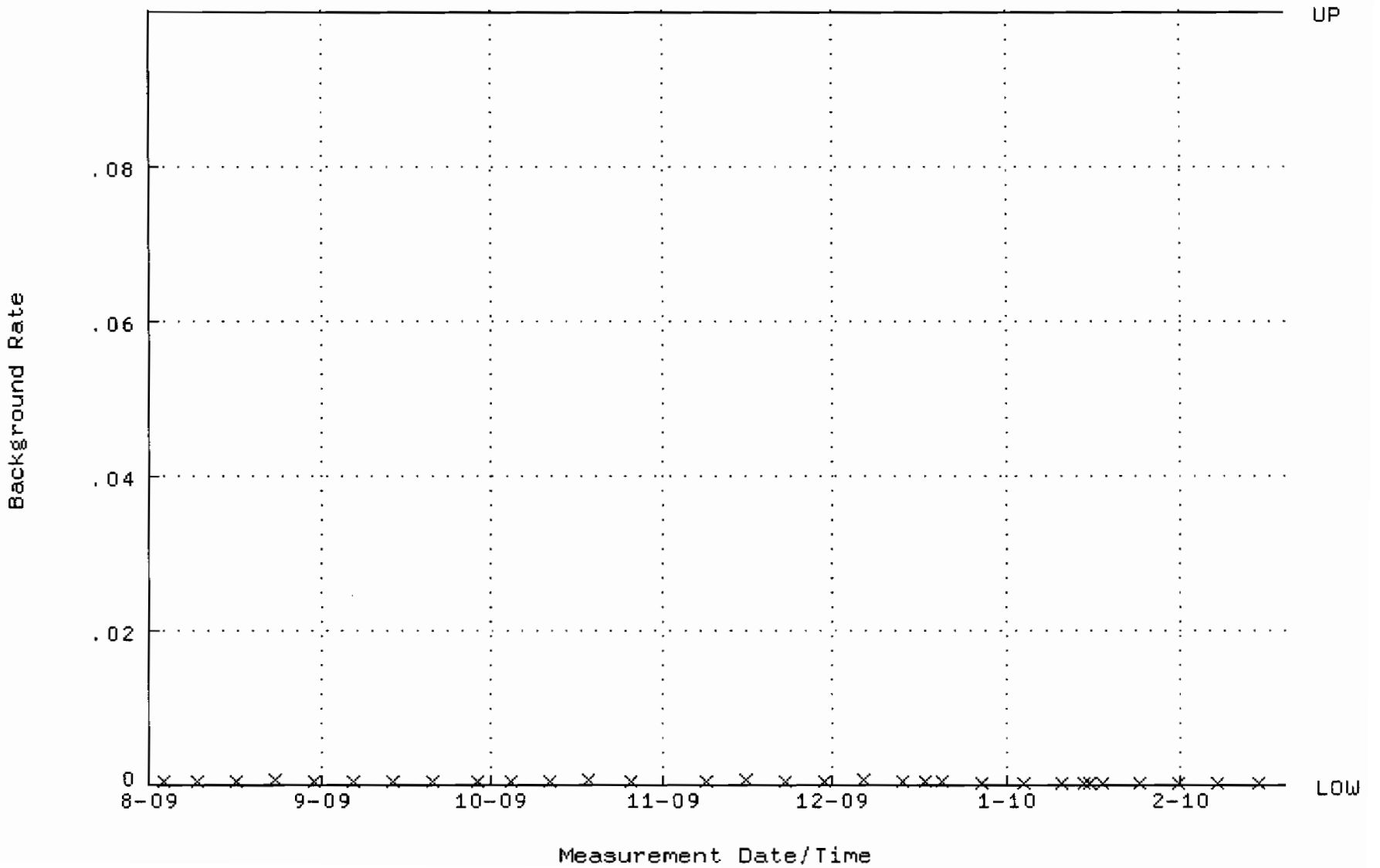

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686

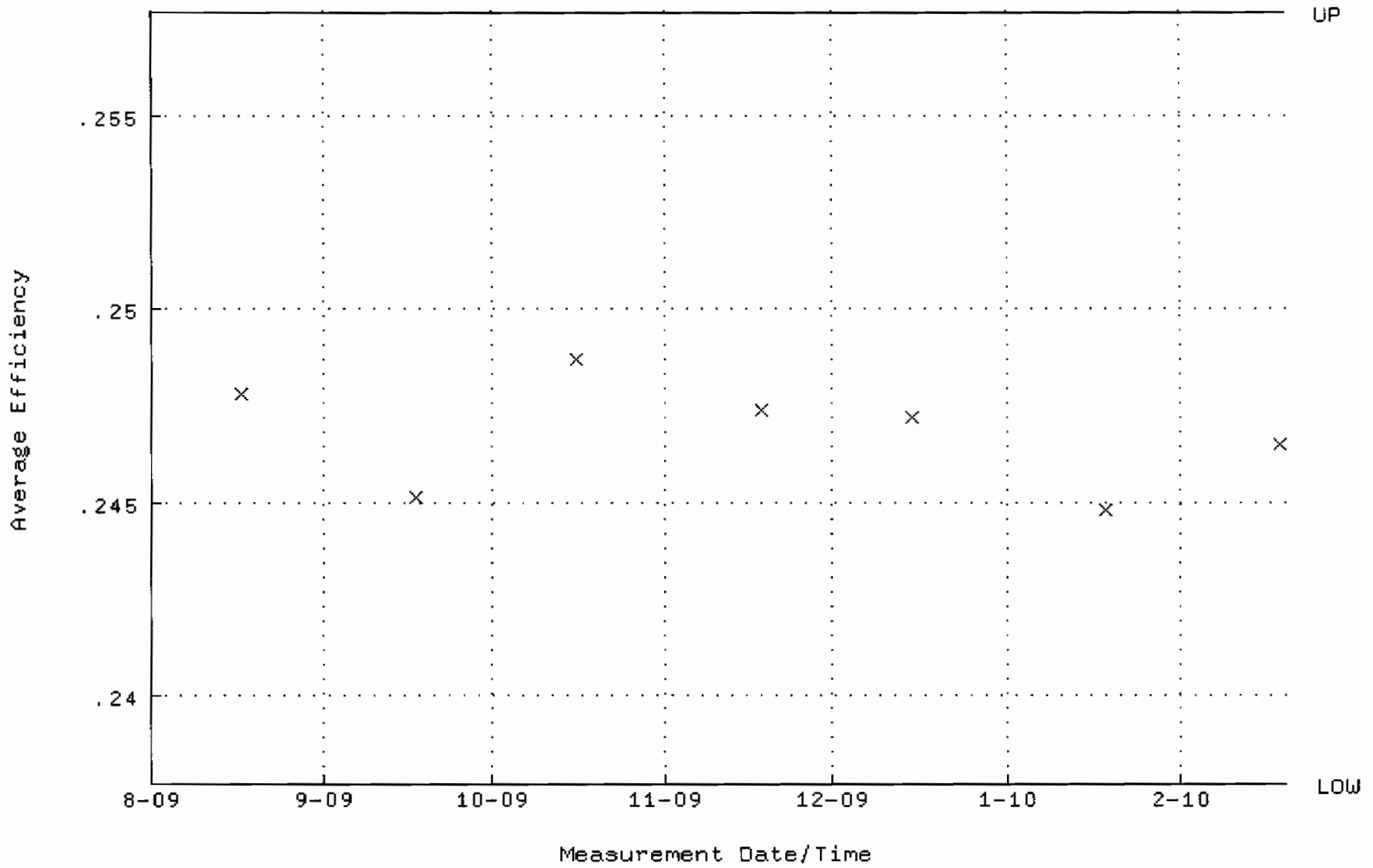

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395

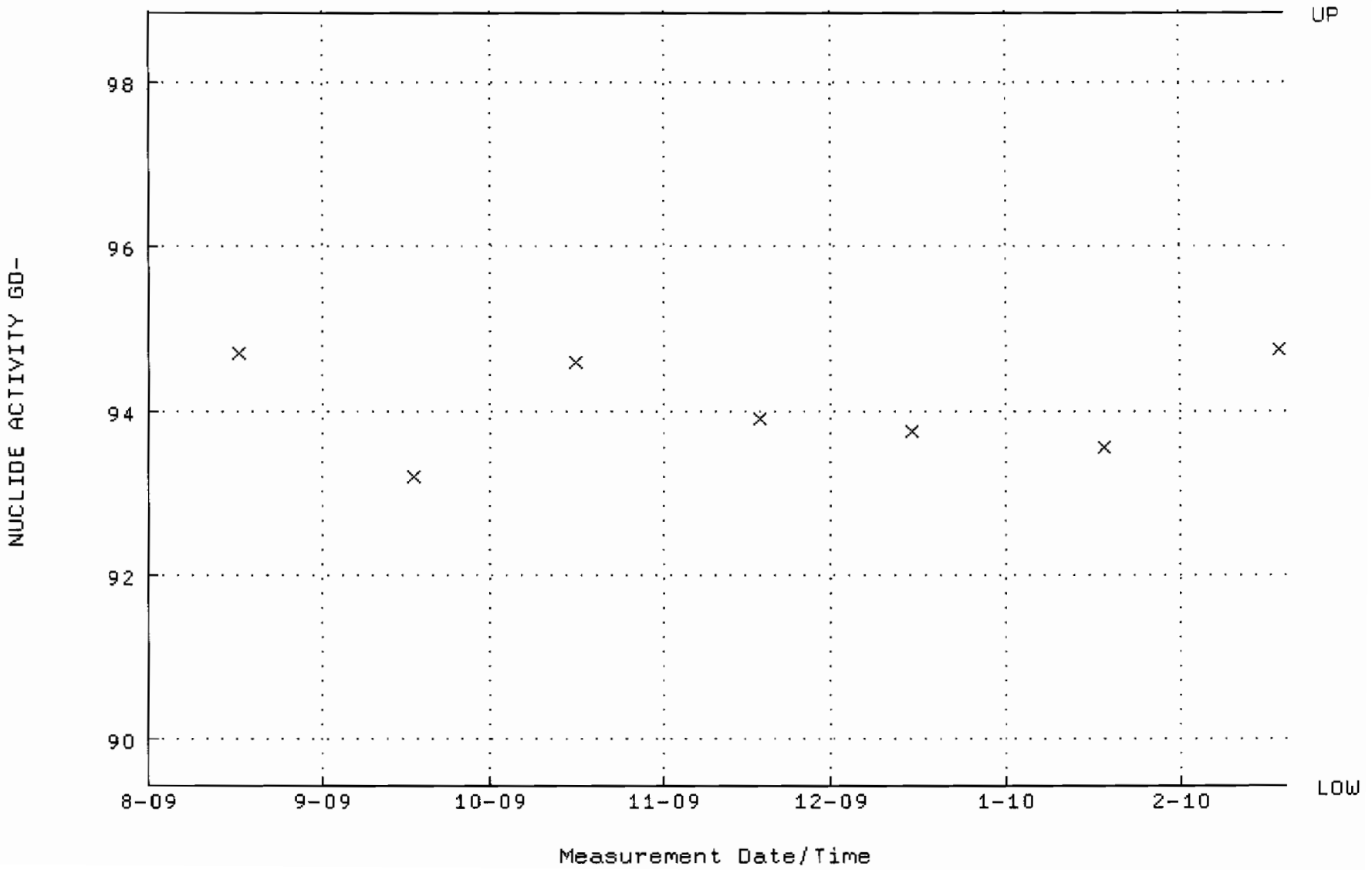

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:33 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

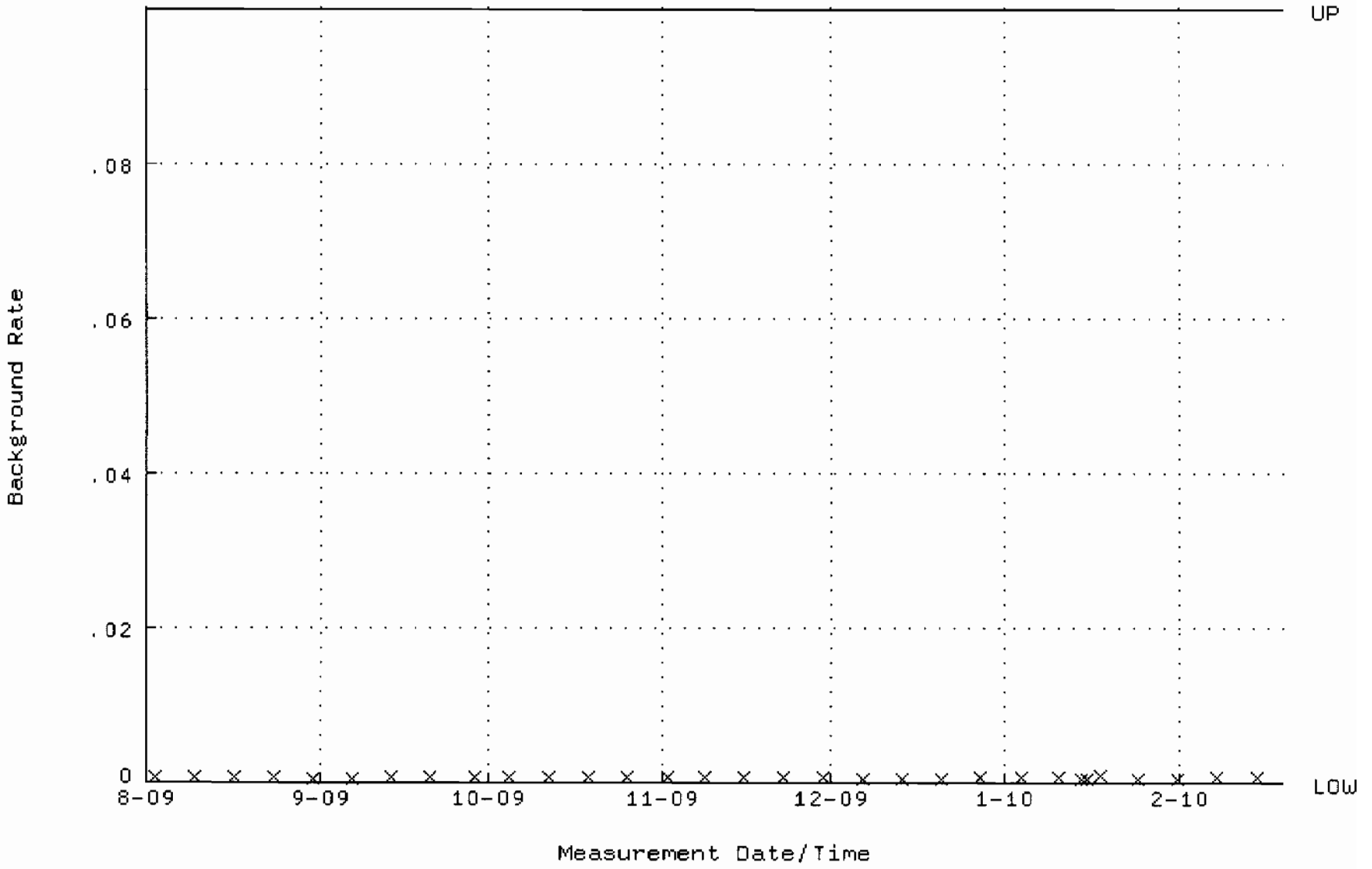

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242659 through 0.262659

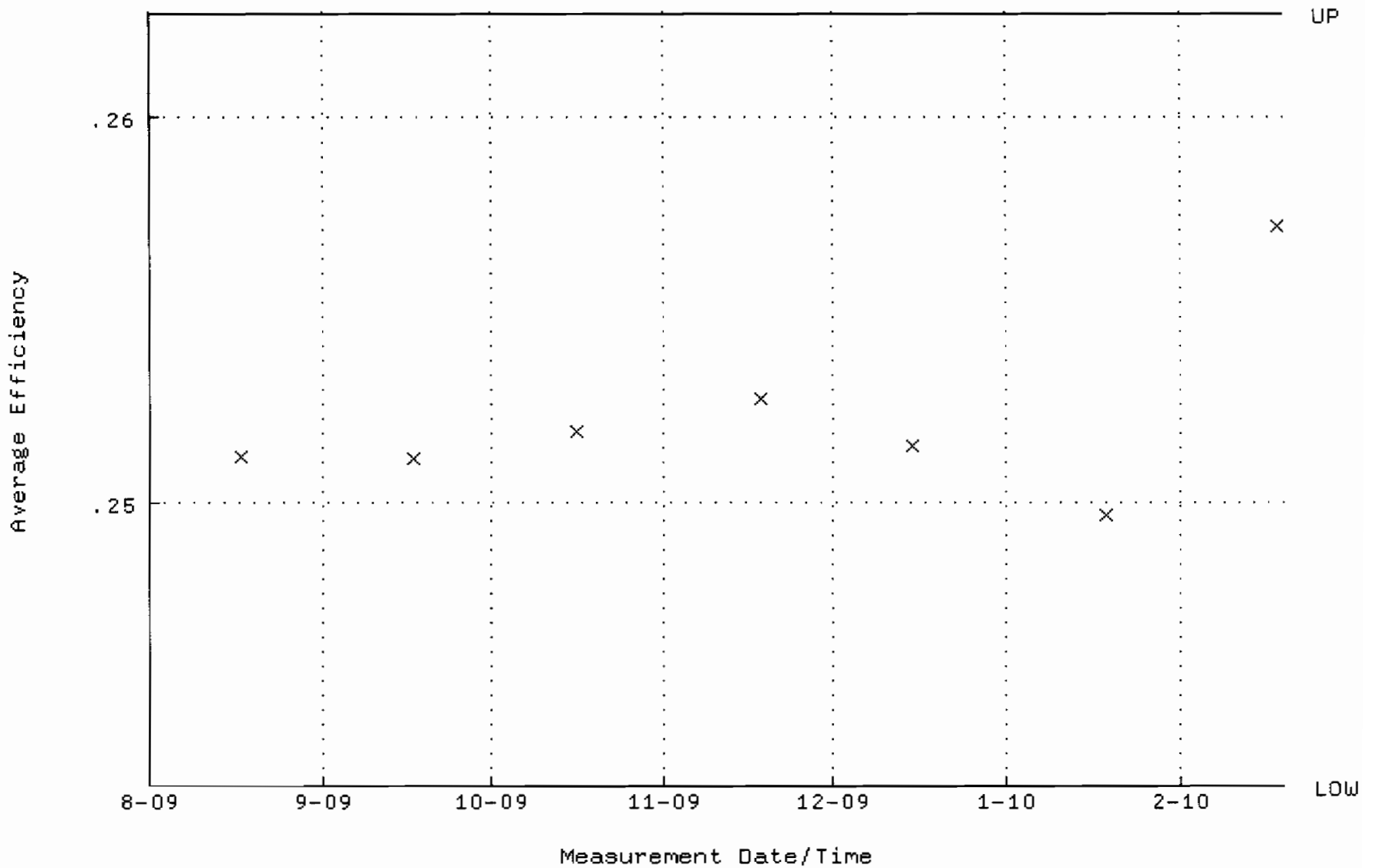

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.5949 through 100.131

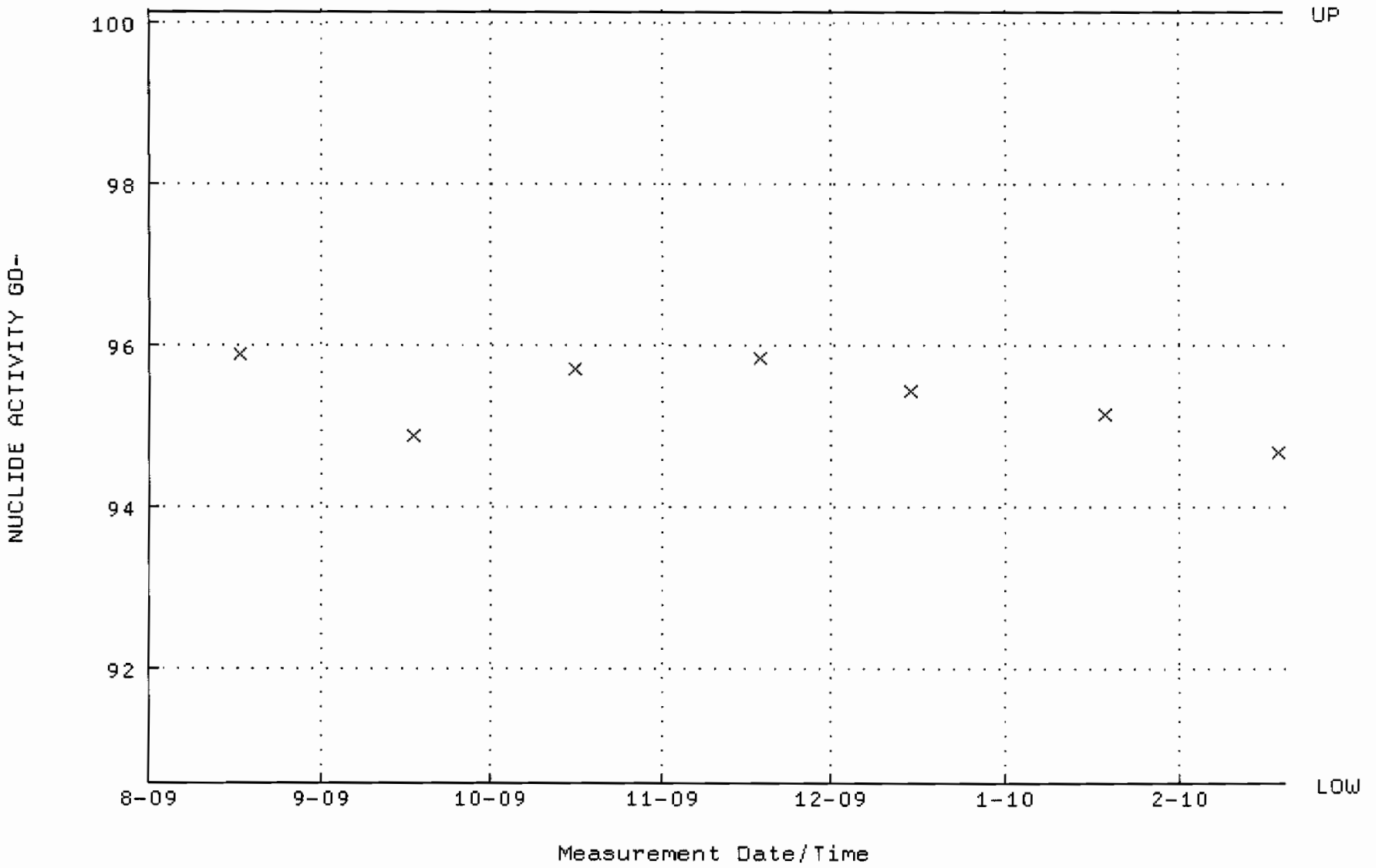

QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:37 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

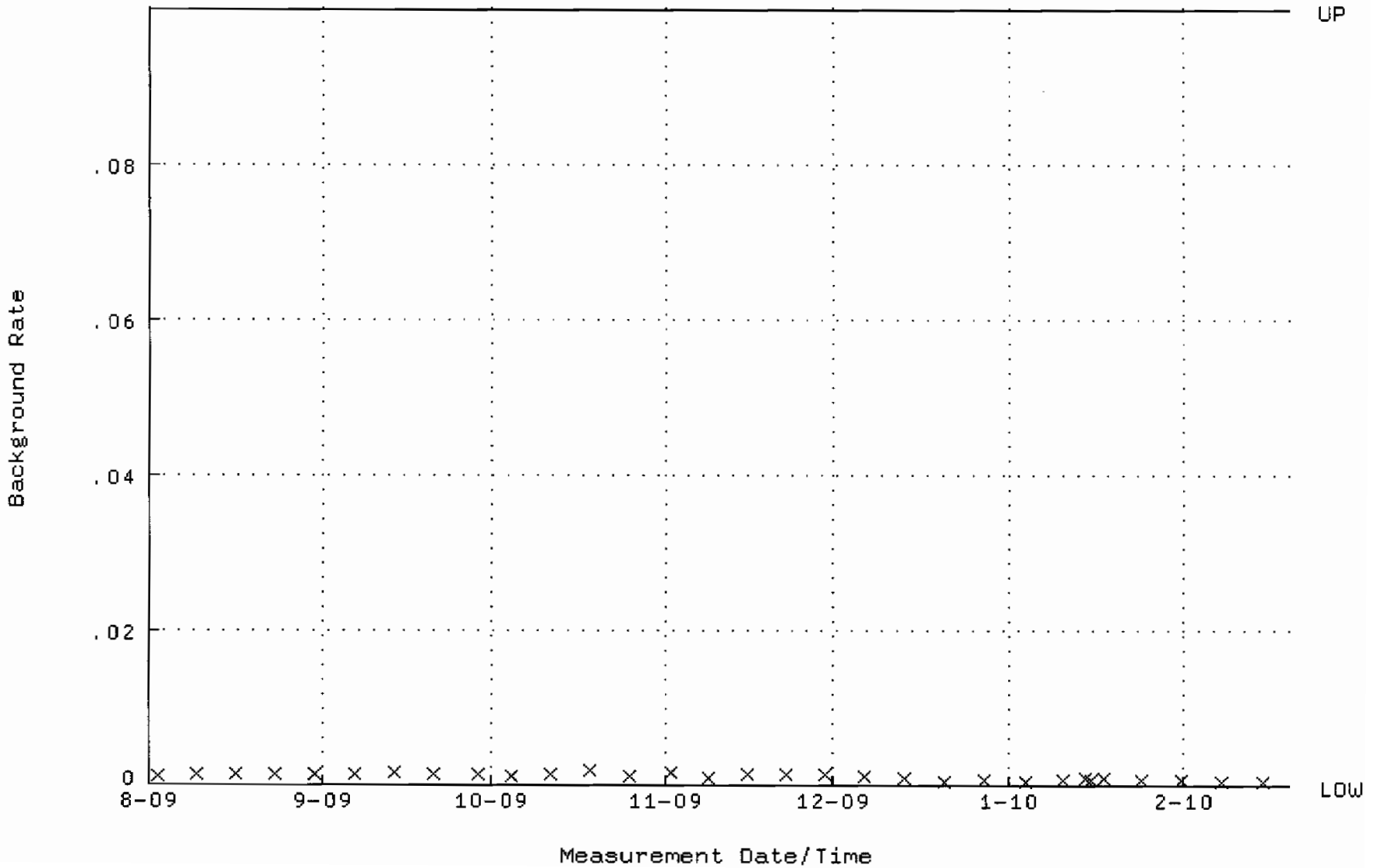

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.249752 through 0.269752

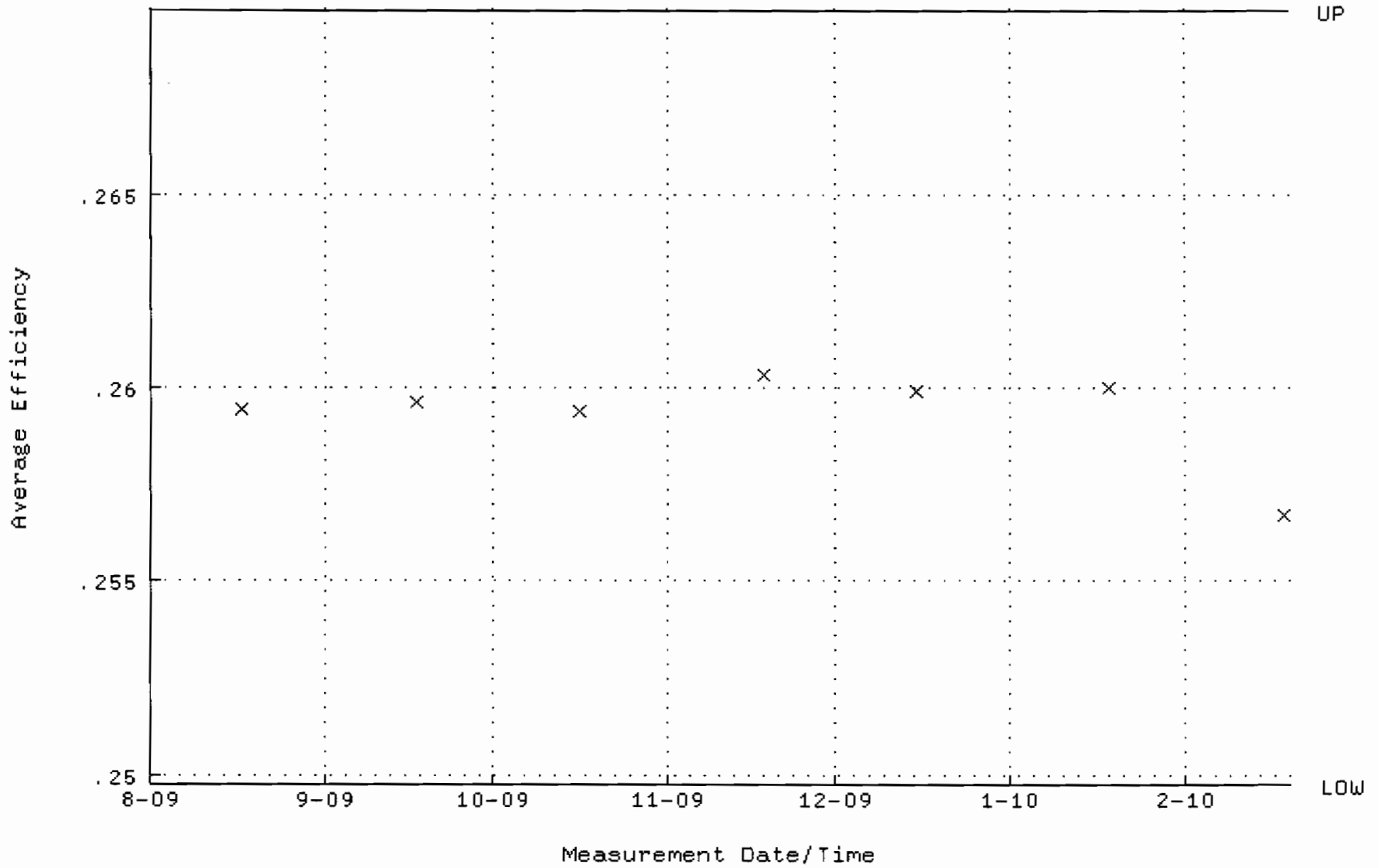

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0496 through 95.1074

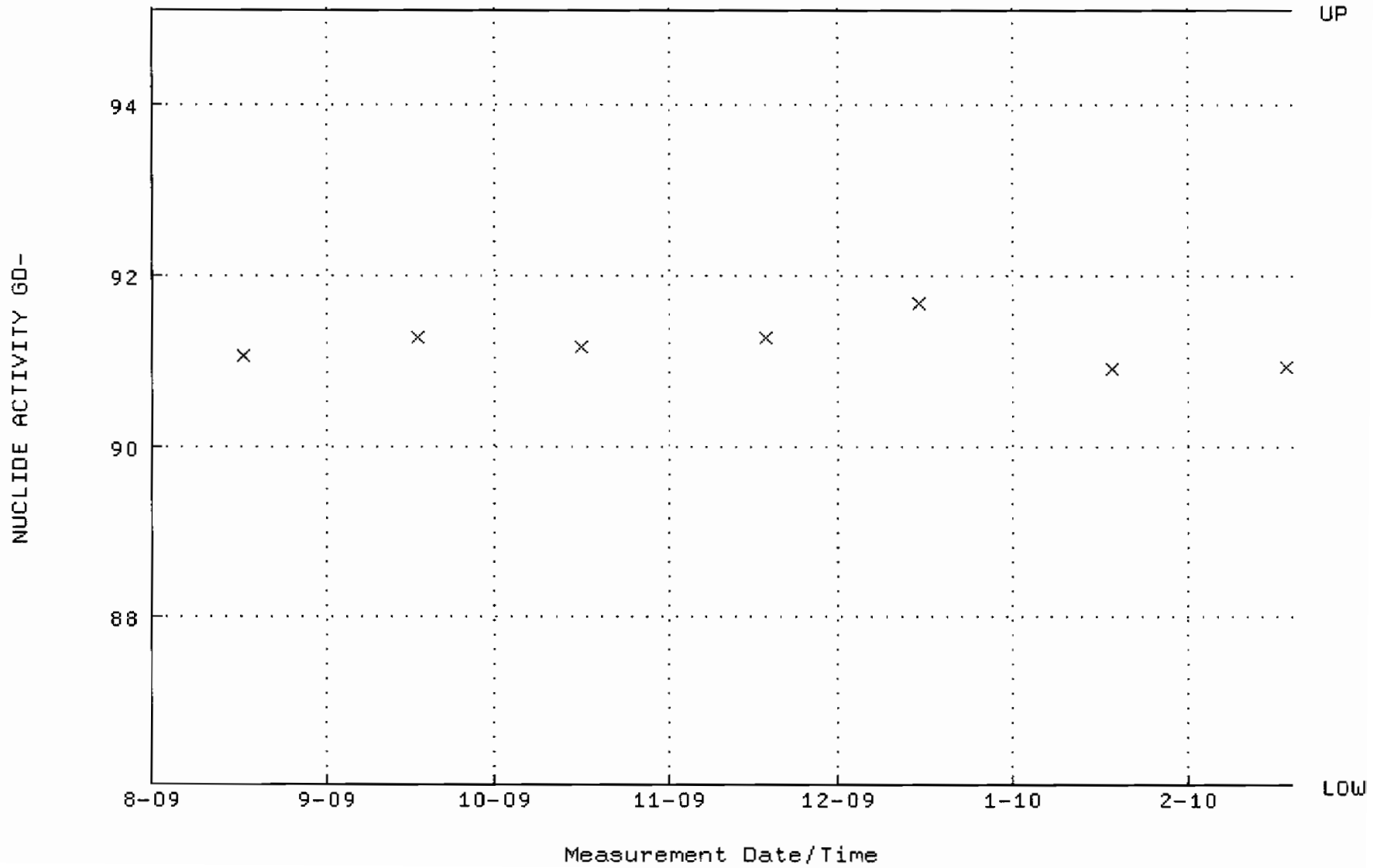

QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:42 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

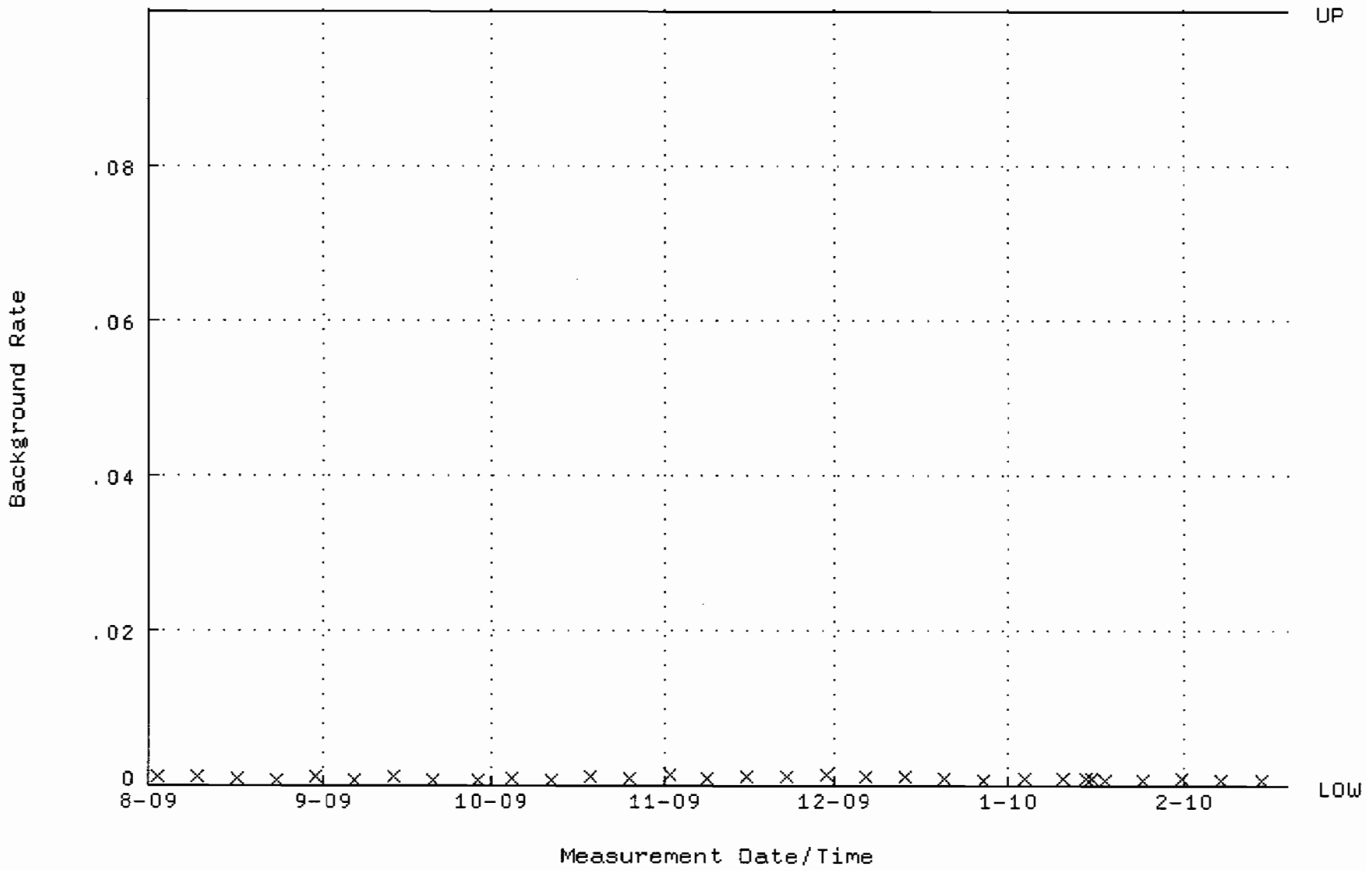

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.251398 through 0.271398

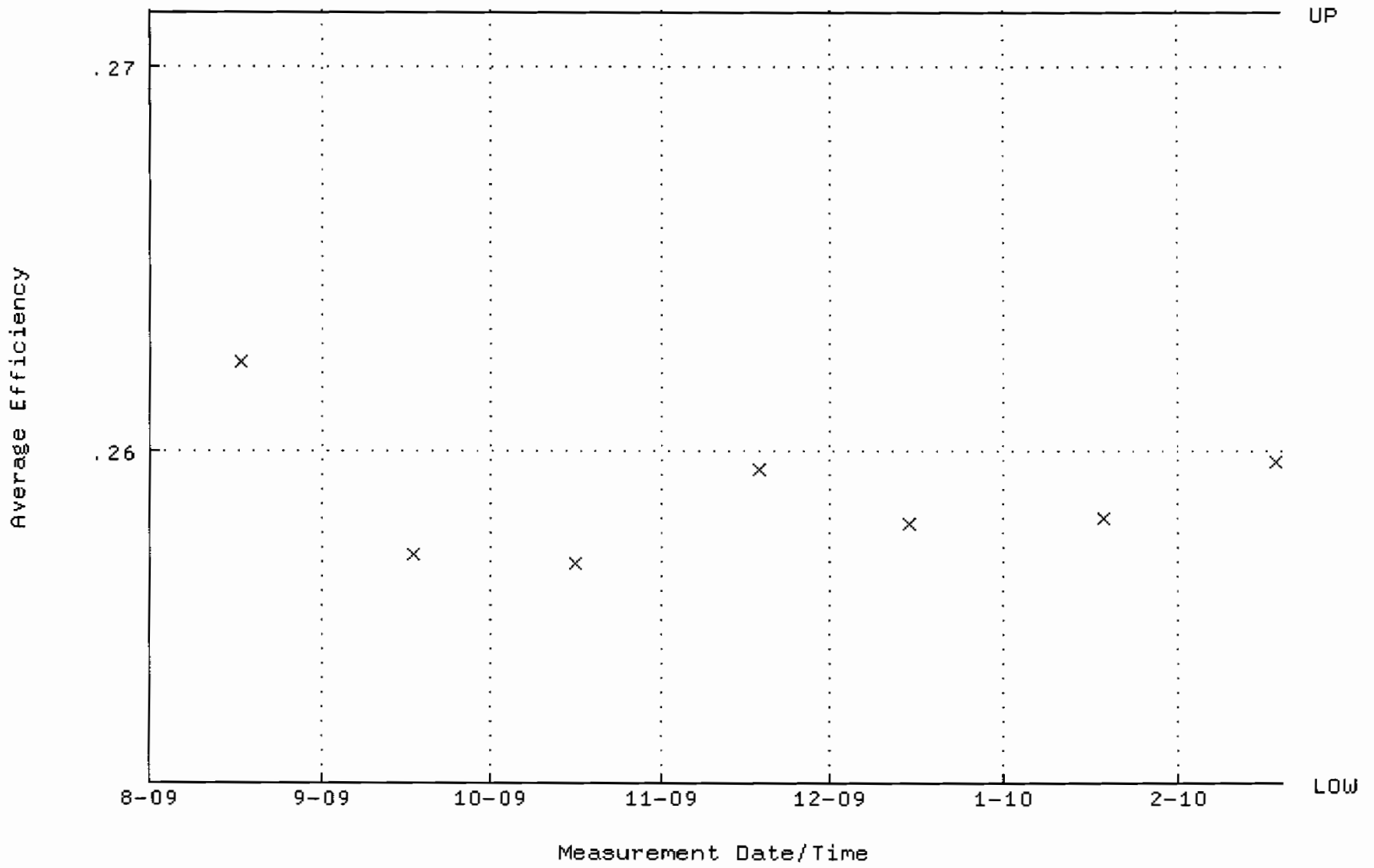

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8862 through 96.0322

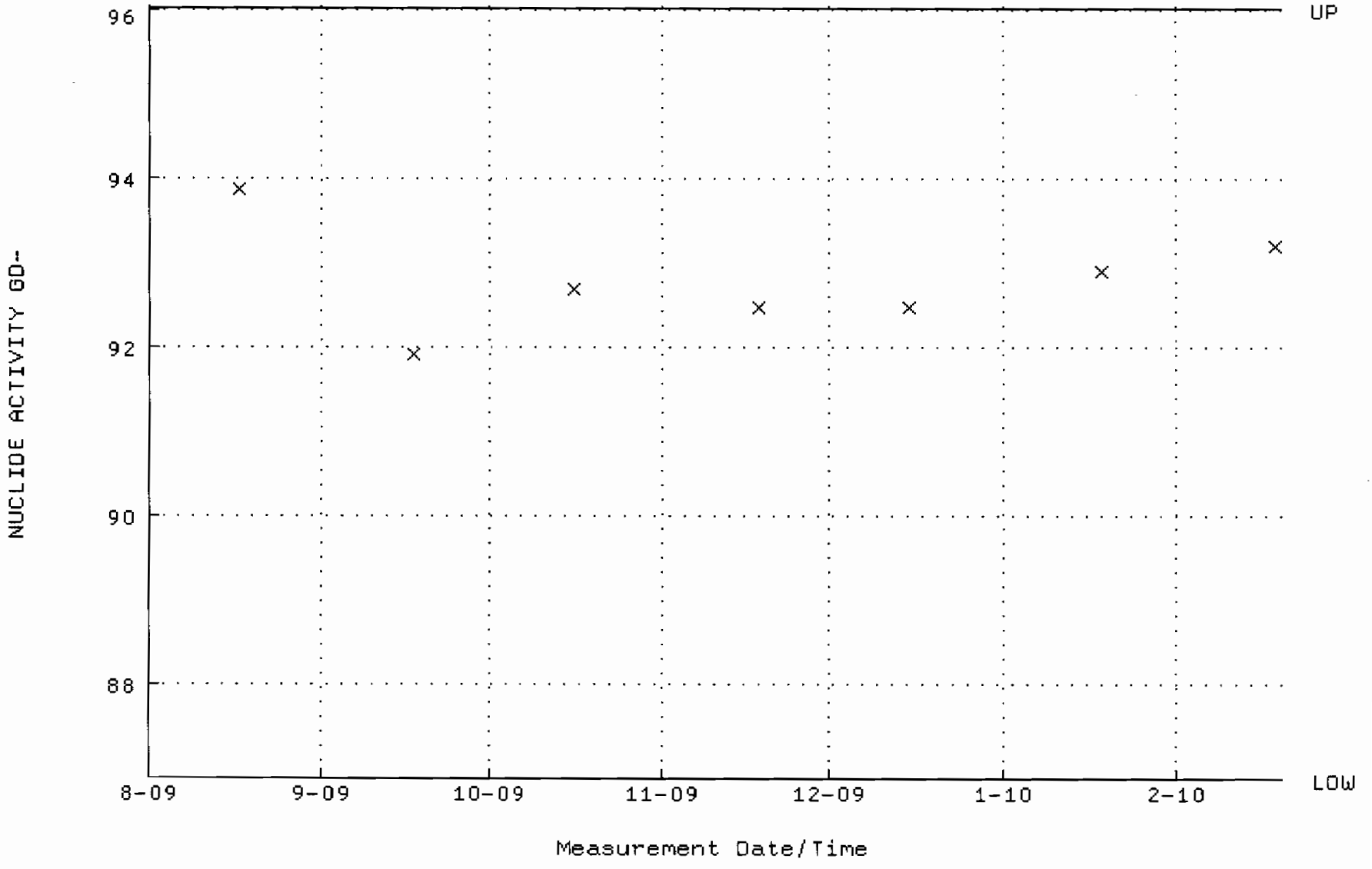

QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:47 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

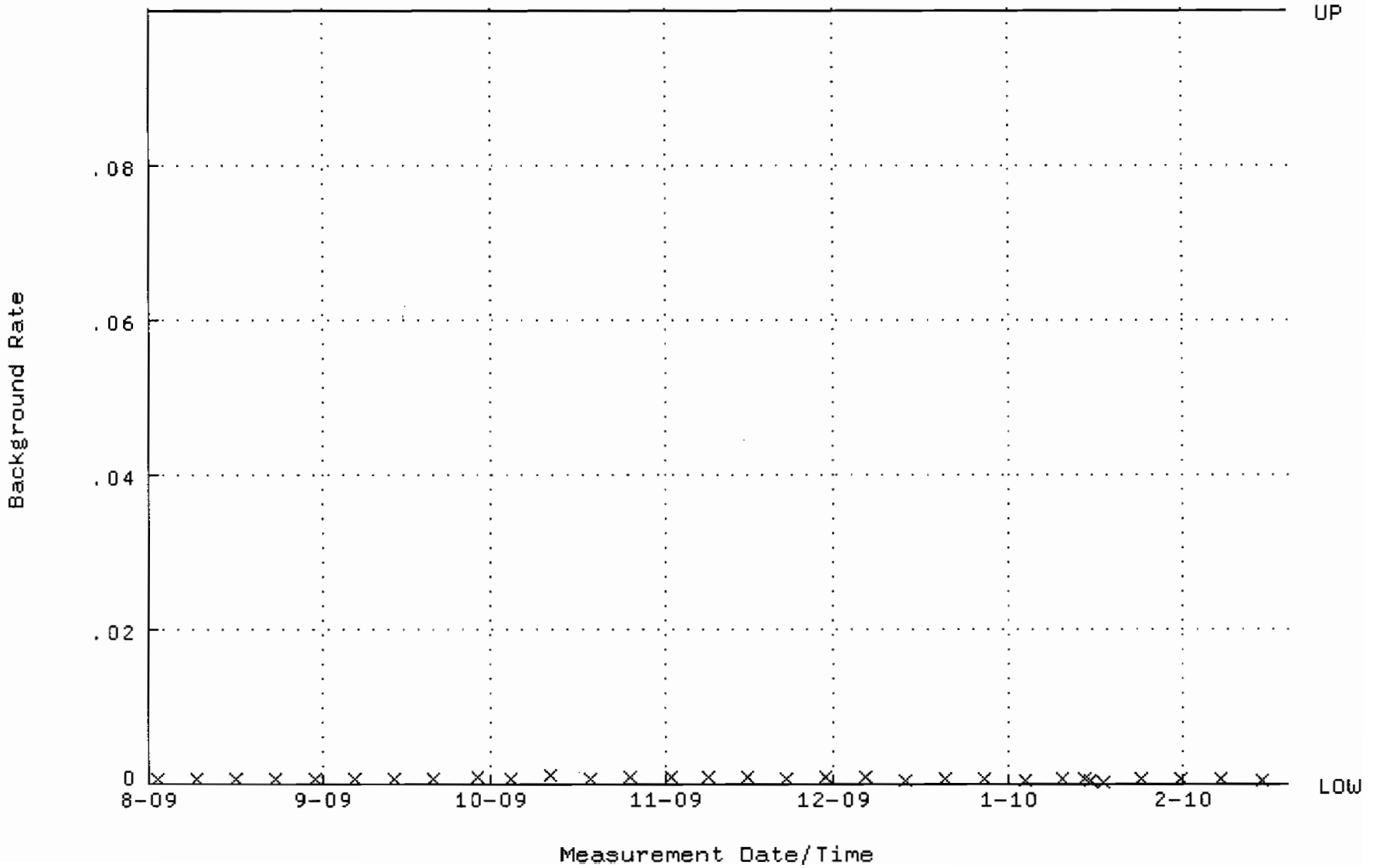

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:03 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.256741 through 0.276741

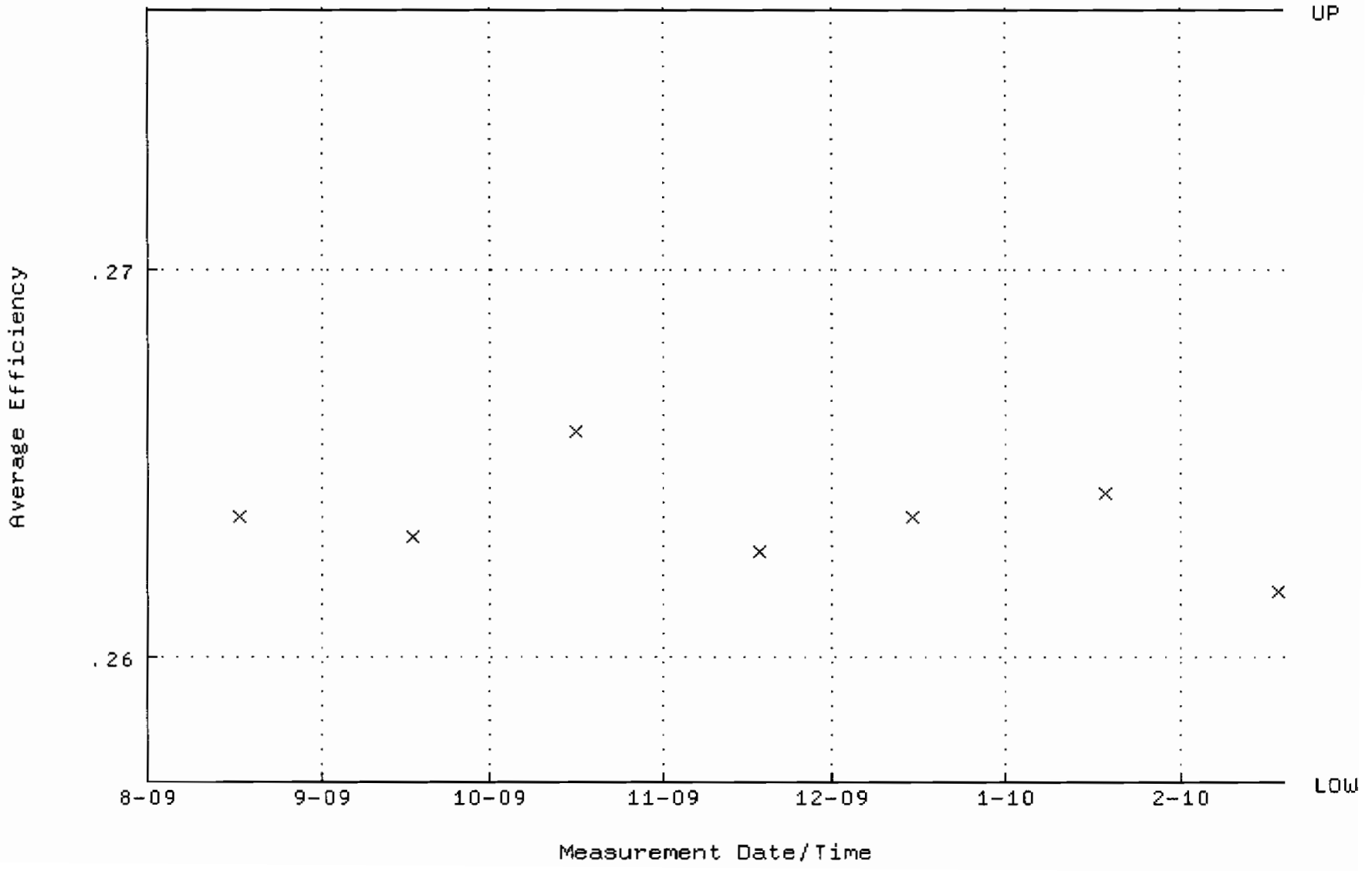

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:03 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.3646 through 95.4556

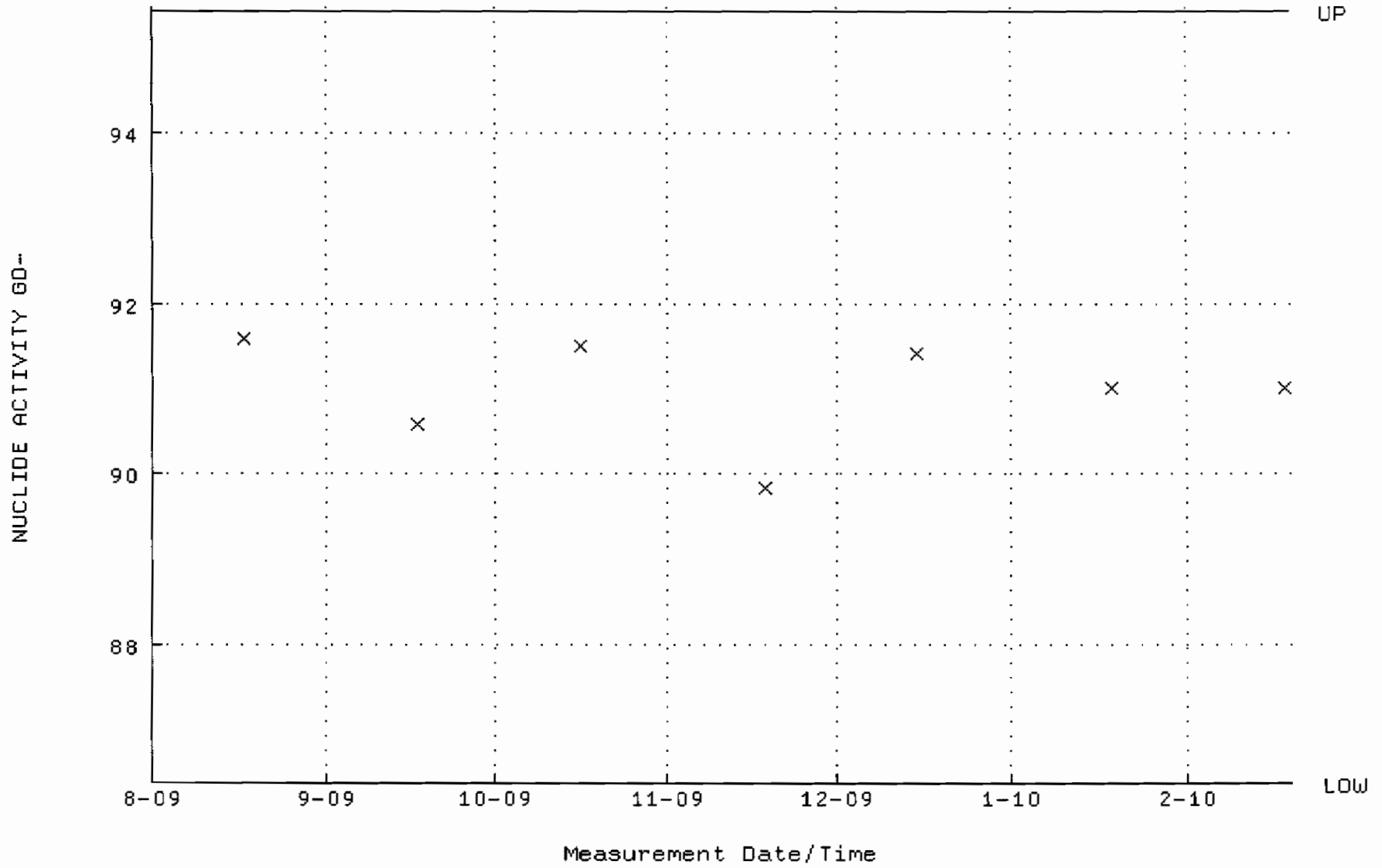

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

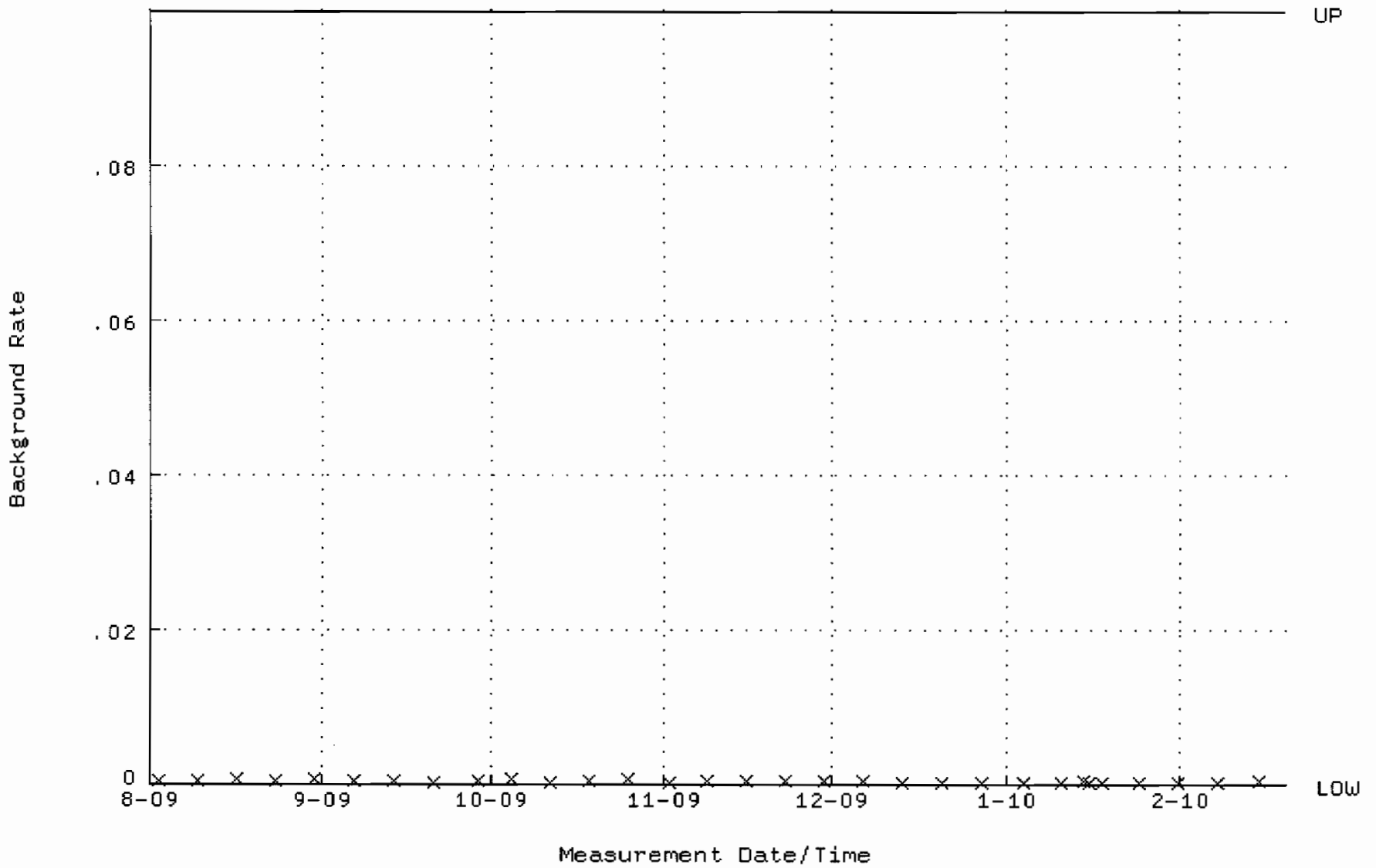

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131

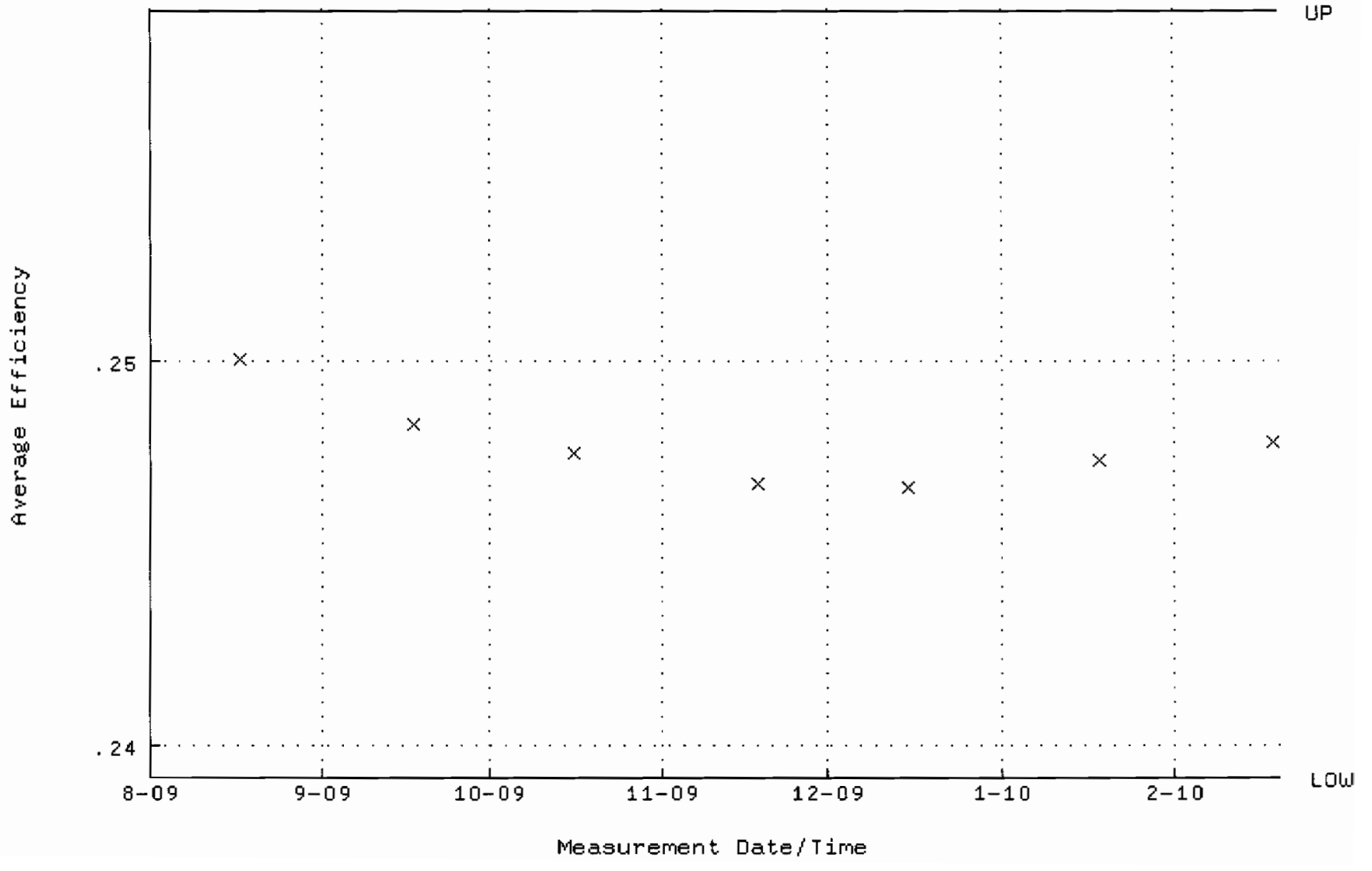

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 88.1614 through 97.4416

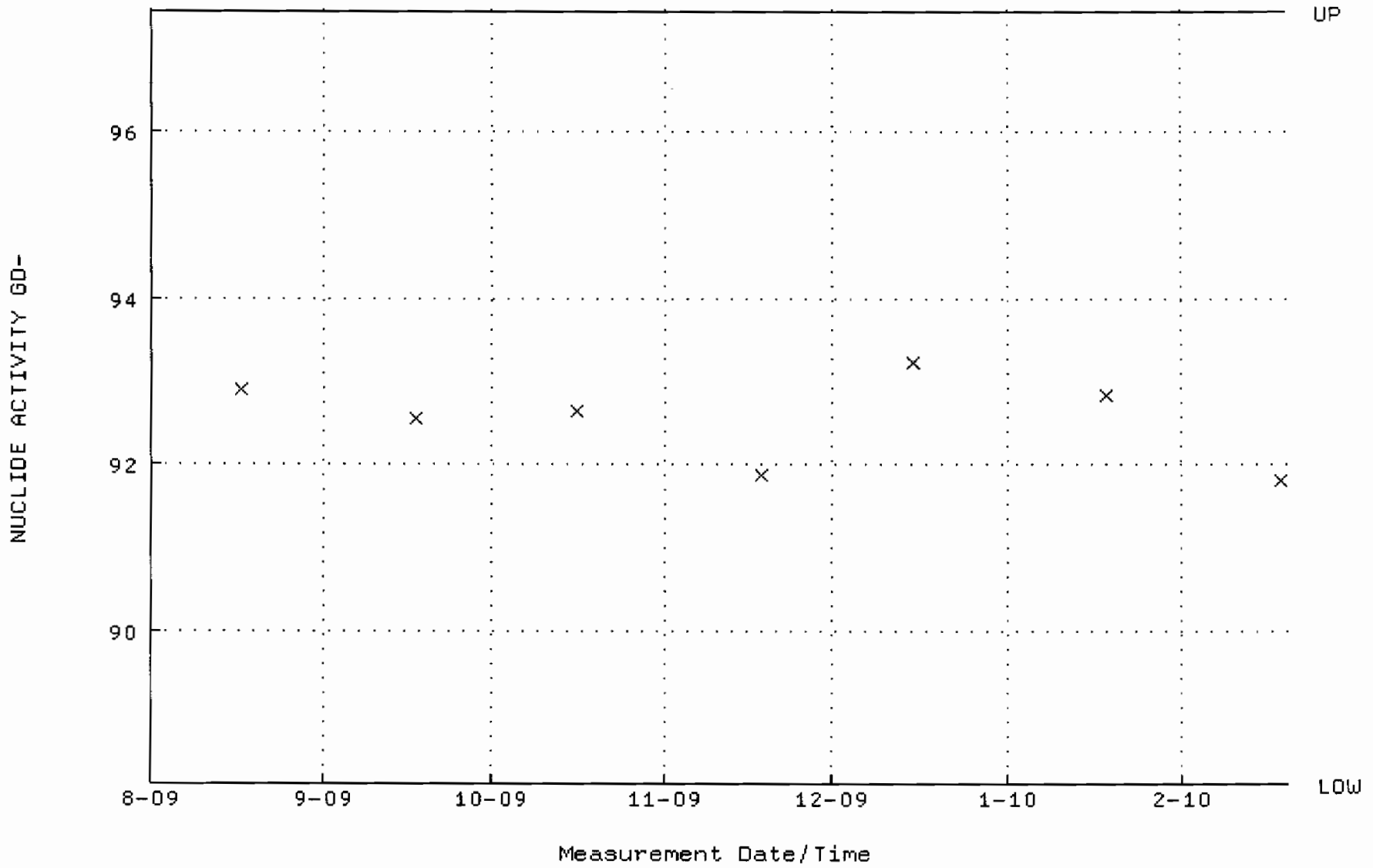

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

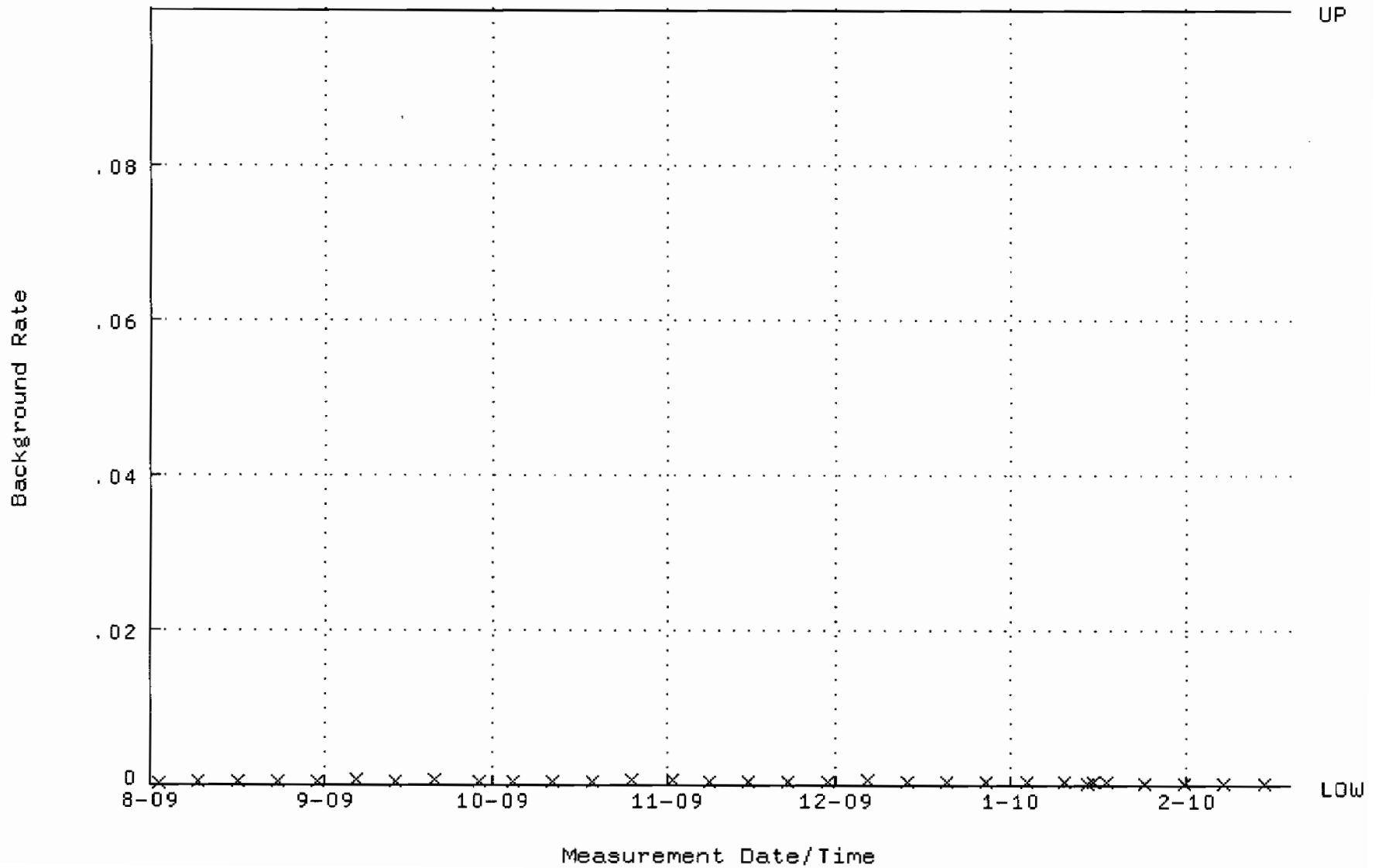

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573

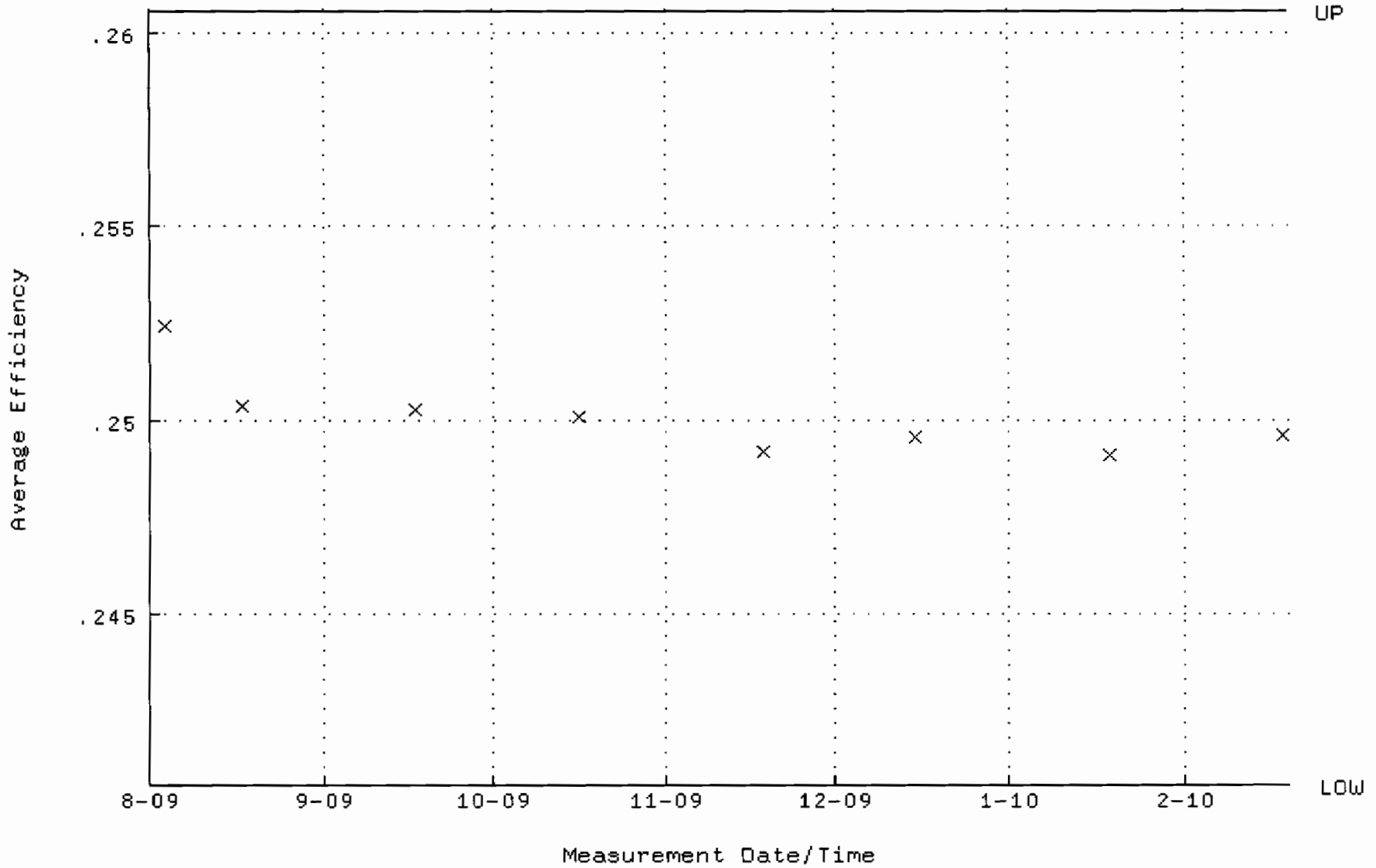

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272

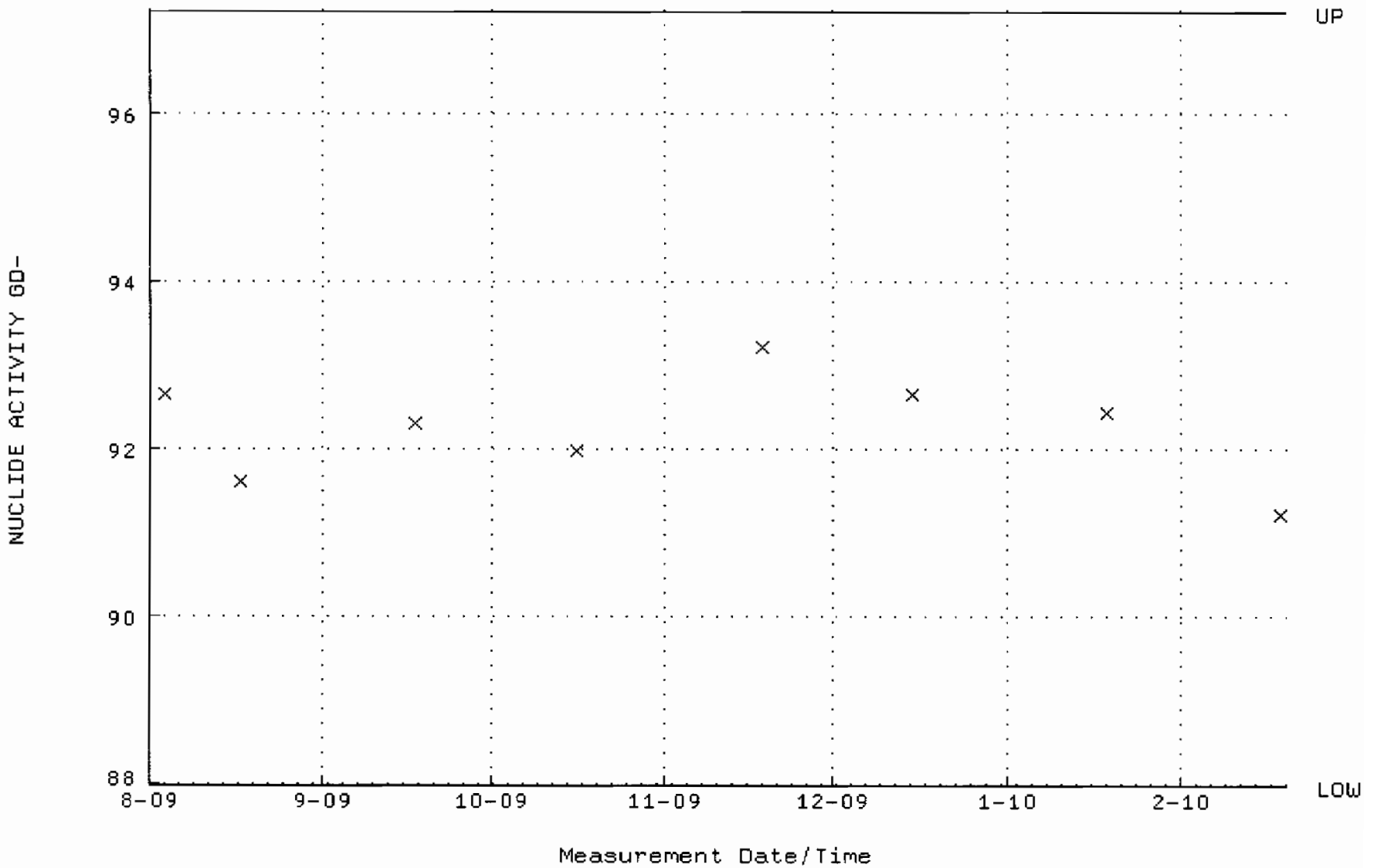

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:22 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

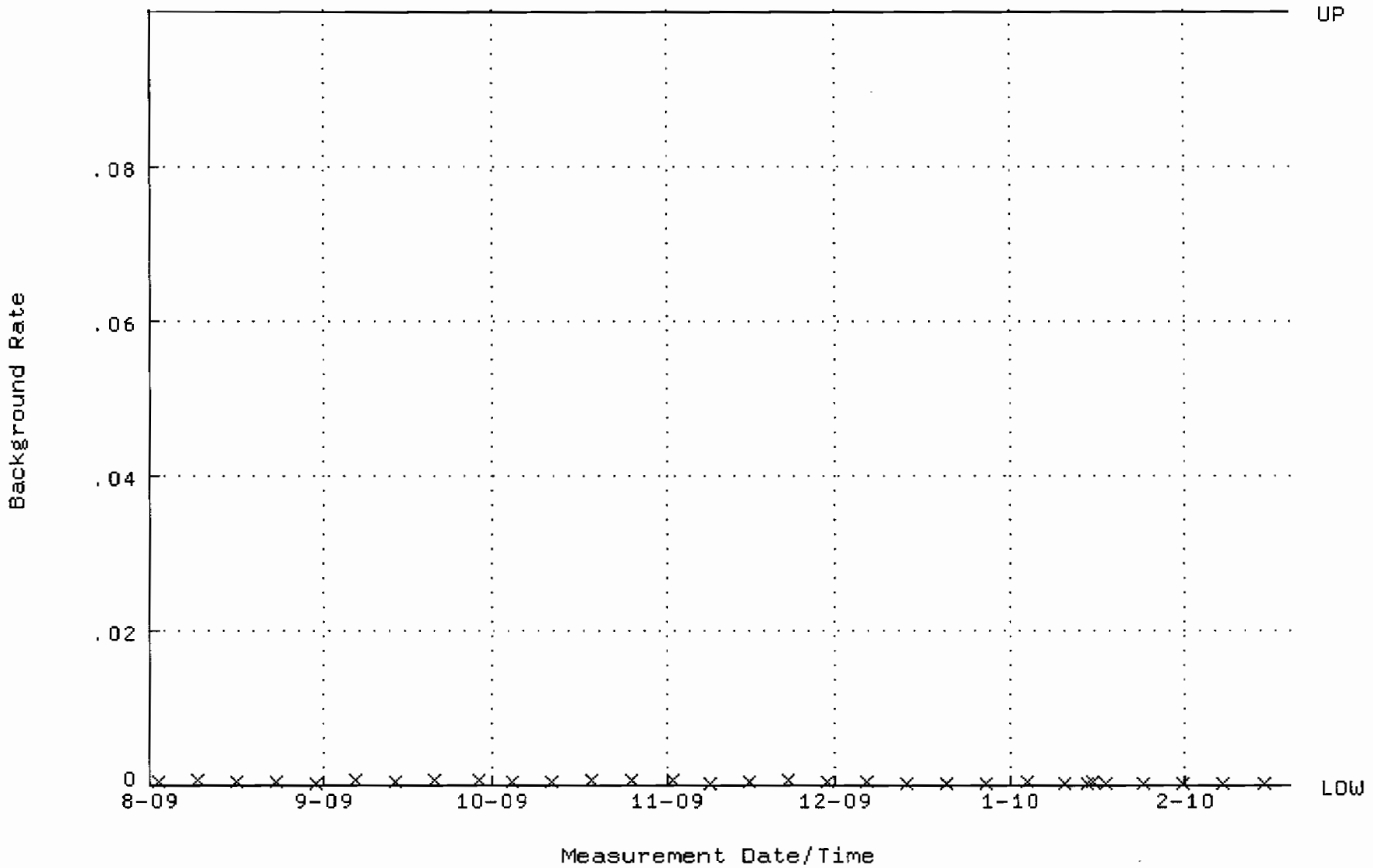

QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:05:25 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247085 through 0.267085

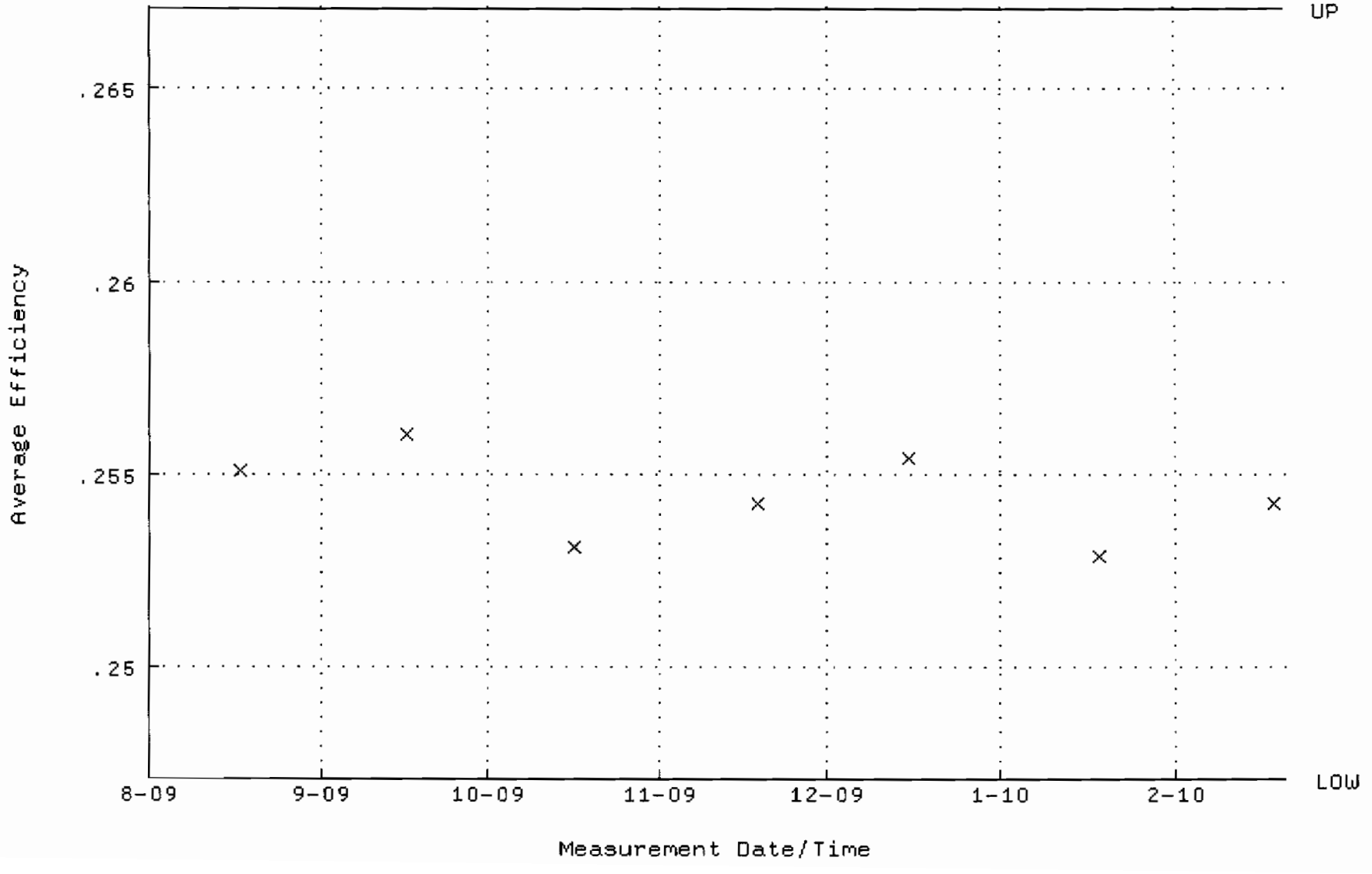

QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:05:25 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 82.8399 through 91.5599

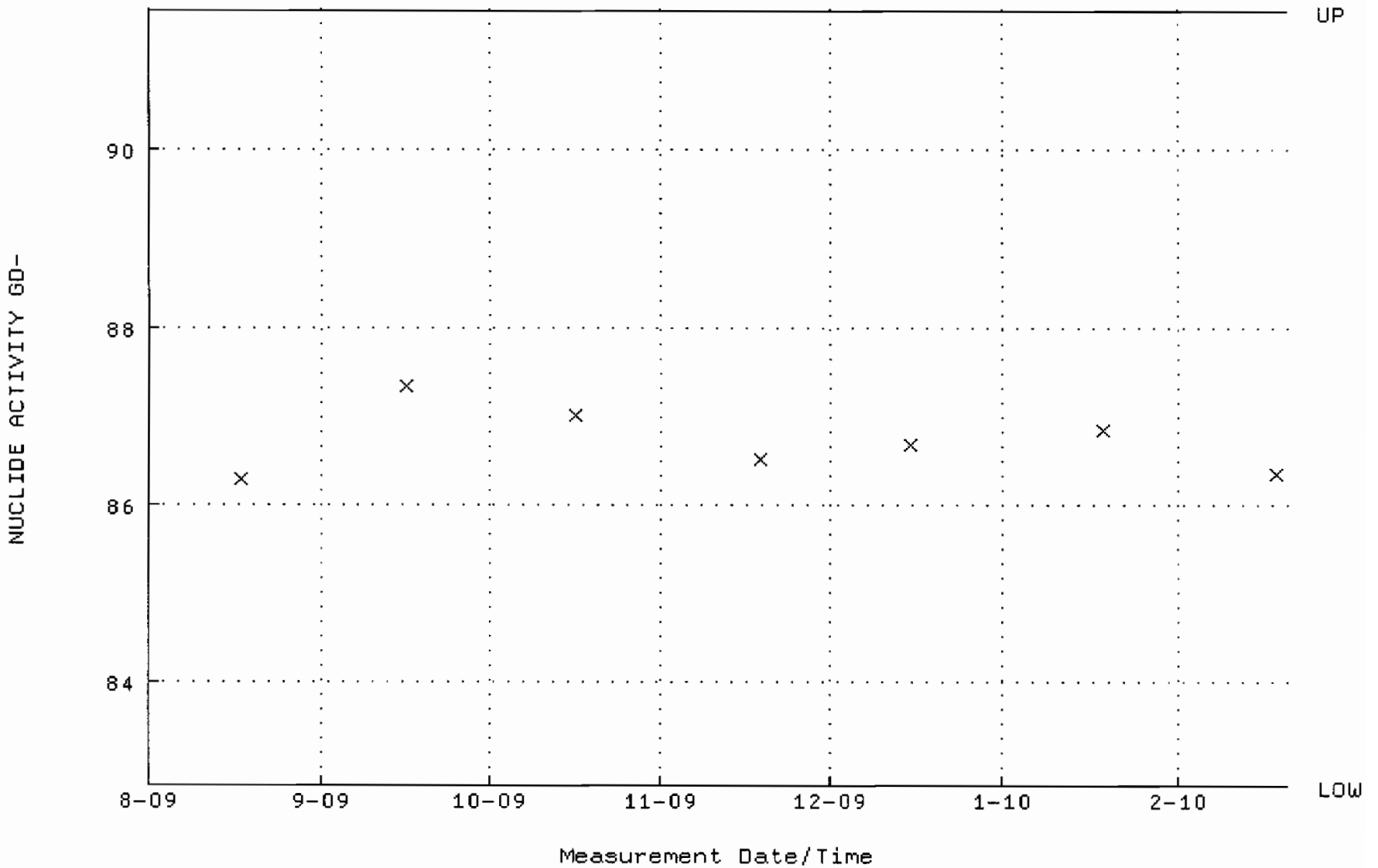

QA filename : DKA100:[ENV_ALPHA.QA.B]B138.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:48 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

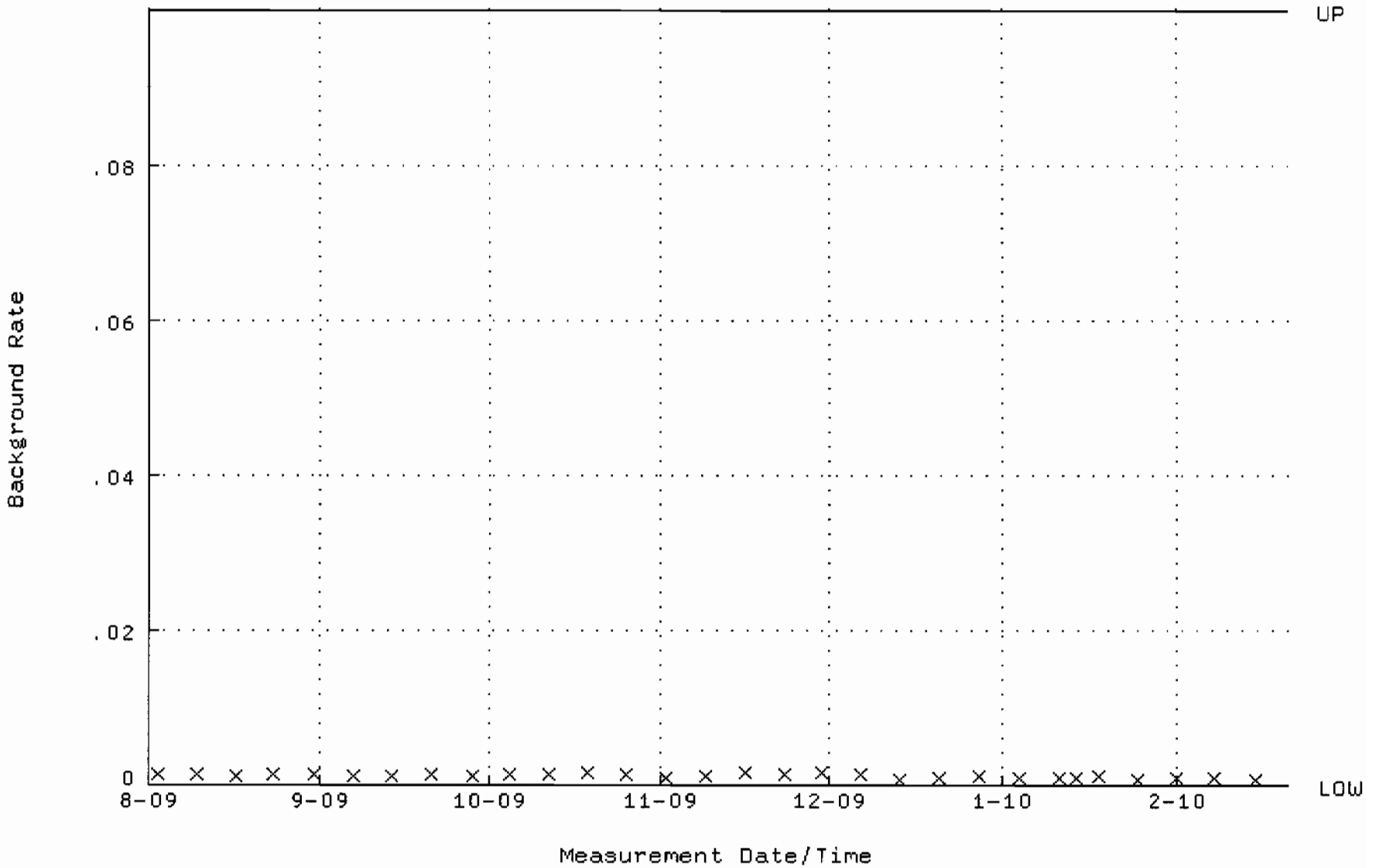

QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:05:40 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.240299 through 0.260299

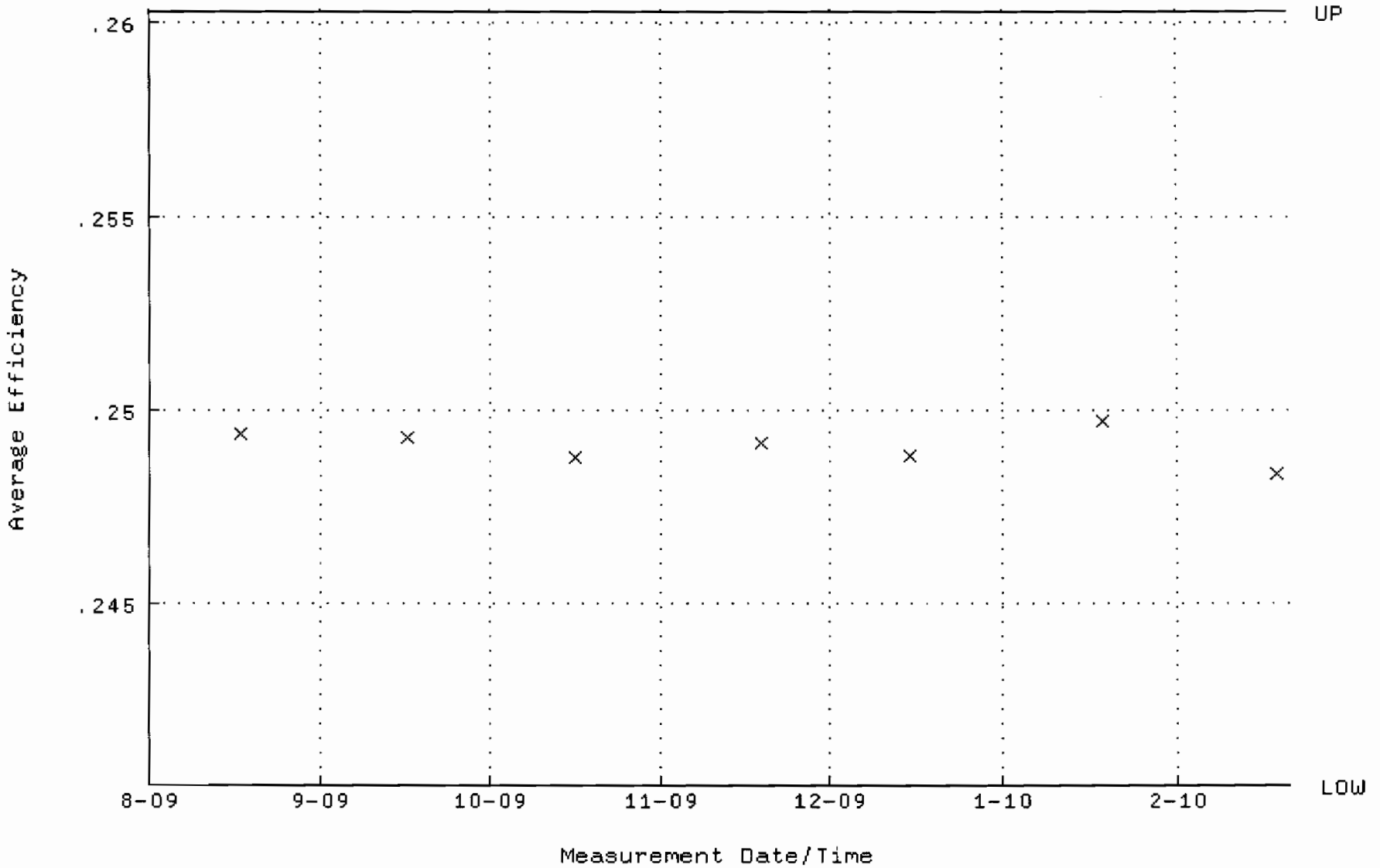

QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:05:40 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8145 through 94.8477

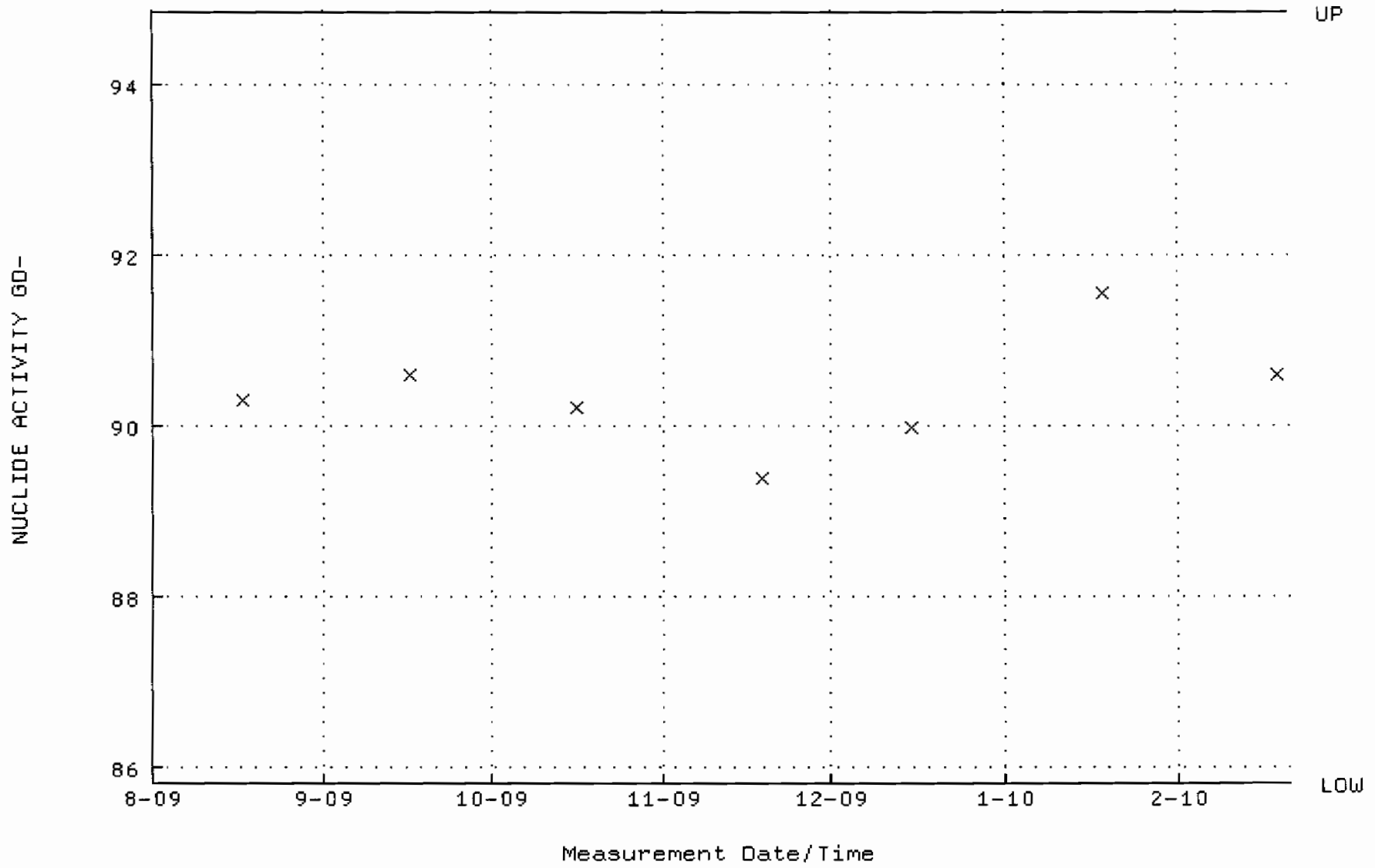

QA filename : DKA100:[ENV_ALPHA.QA.B]B139.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:52 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

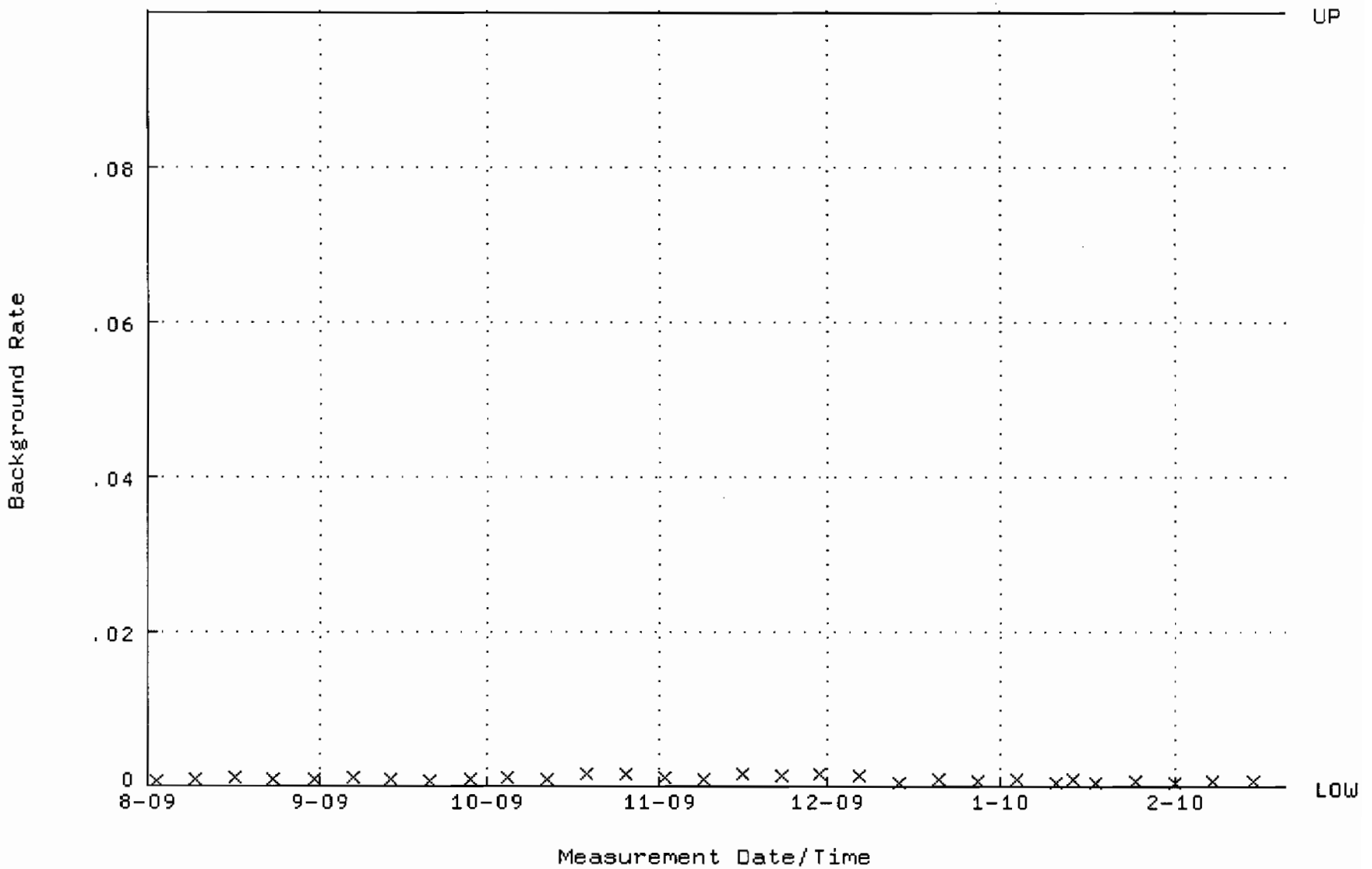

QA filename : DKA100:[ENV_ALPHA.QA.W]W140.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:05:55 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.246178 through 0.266178

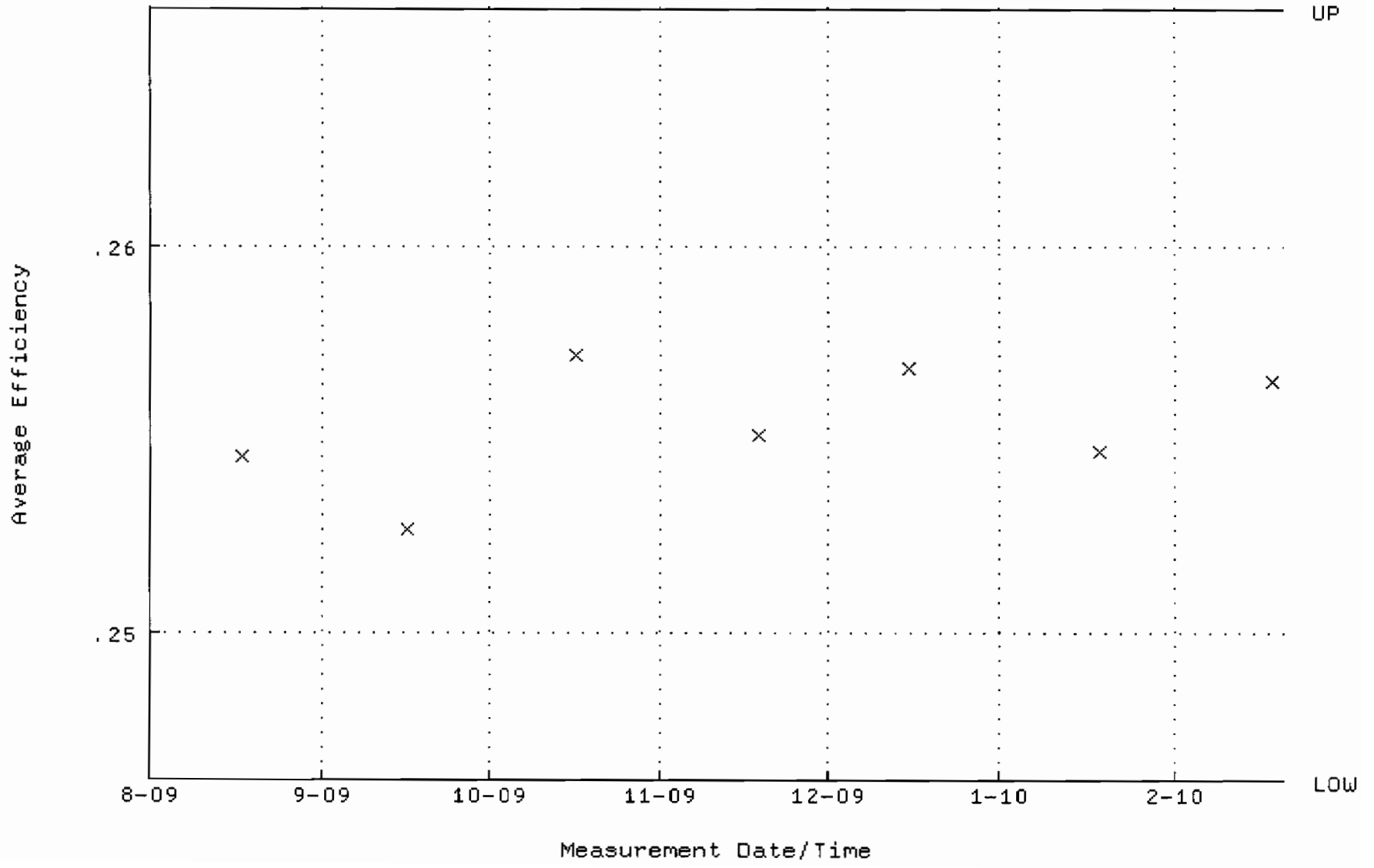

QA filename : DKA100:[ENV_ALPHA.QA.W]W140.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:05:55 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 83.8171 through 92.6399

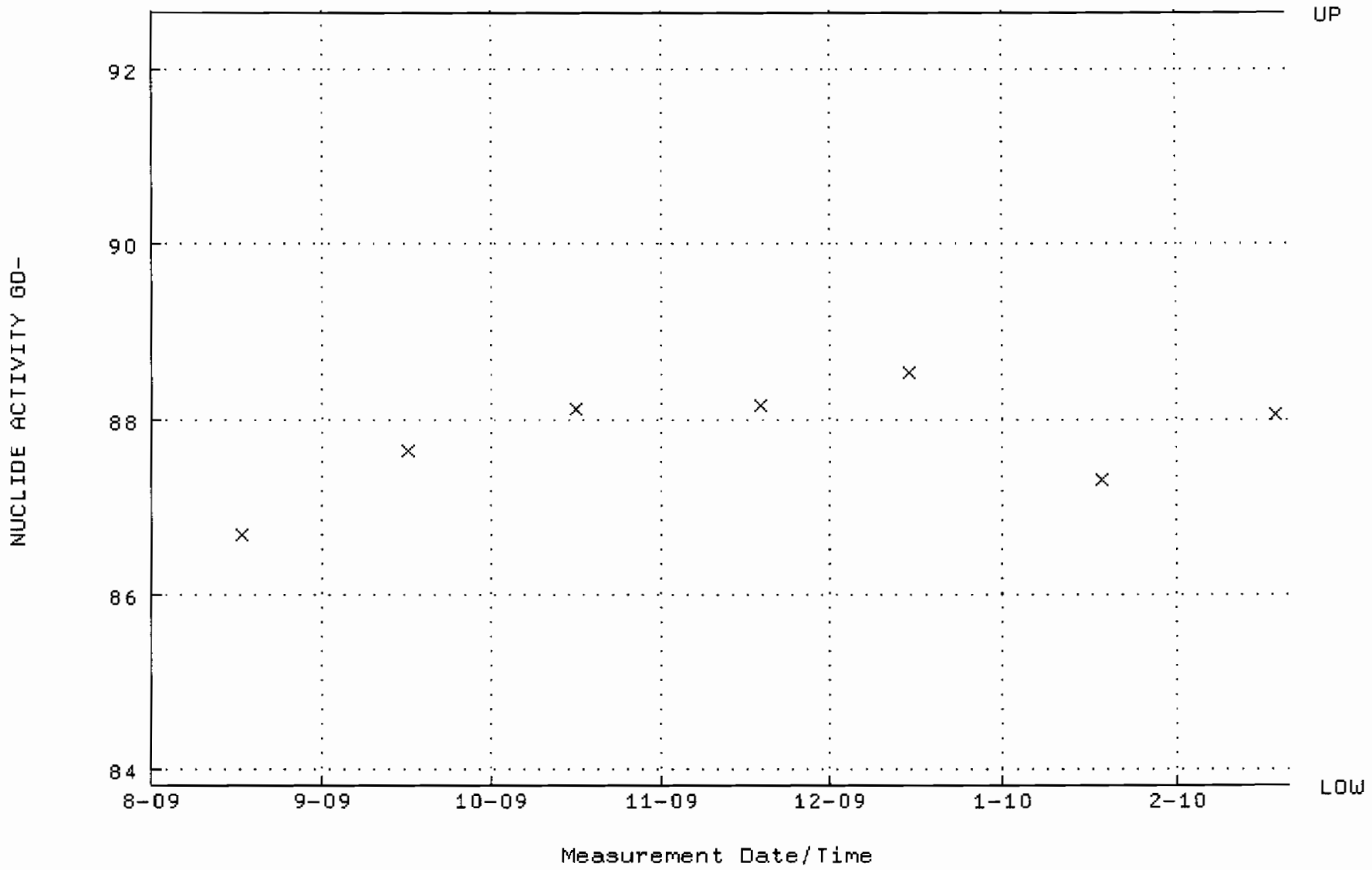

QA filename : DKA100:[ENV_ALPHA.QA.B]B140.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

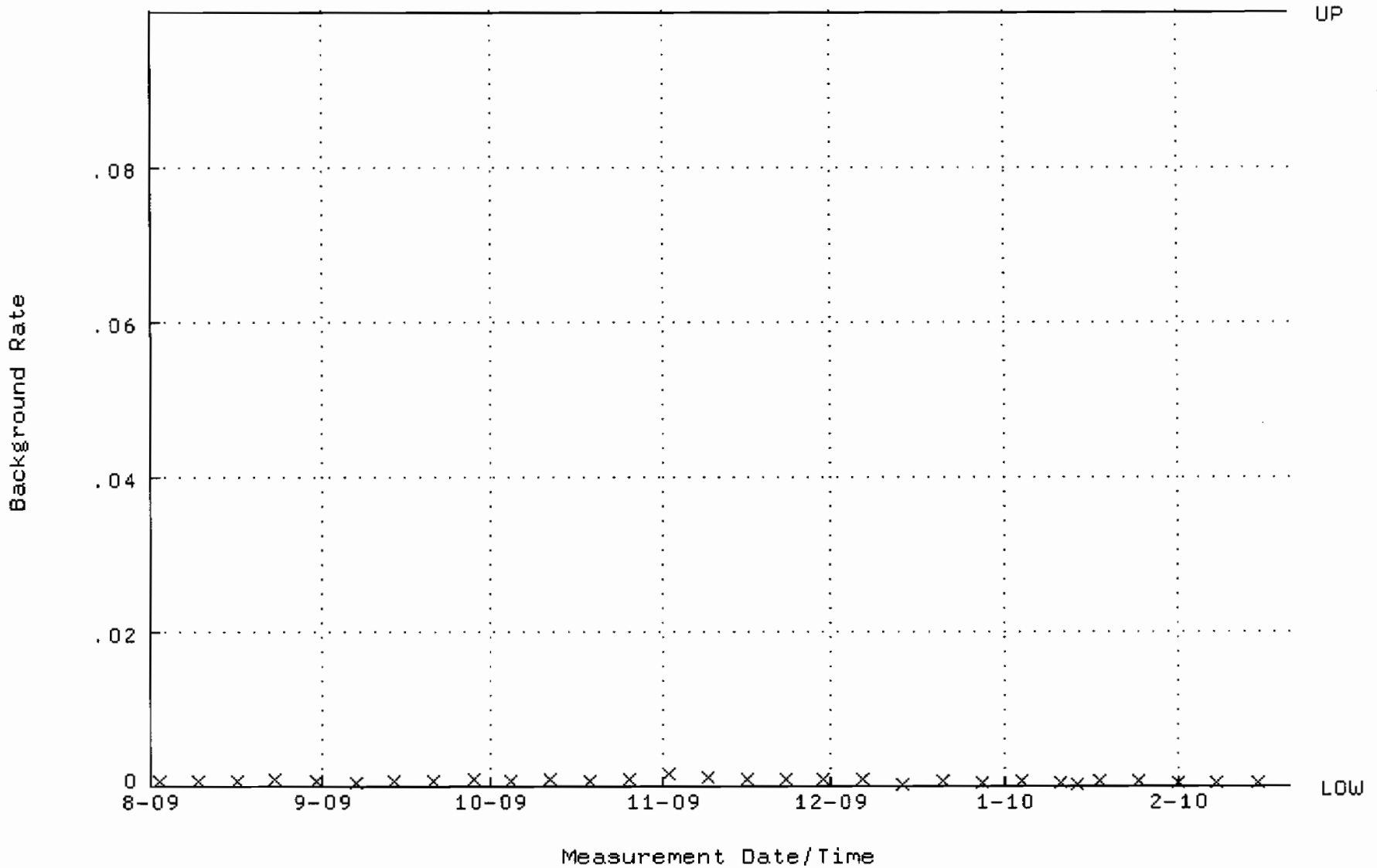

QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:09 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247845 through 0.267845

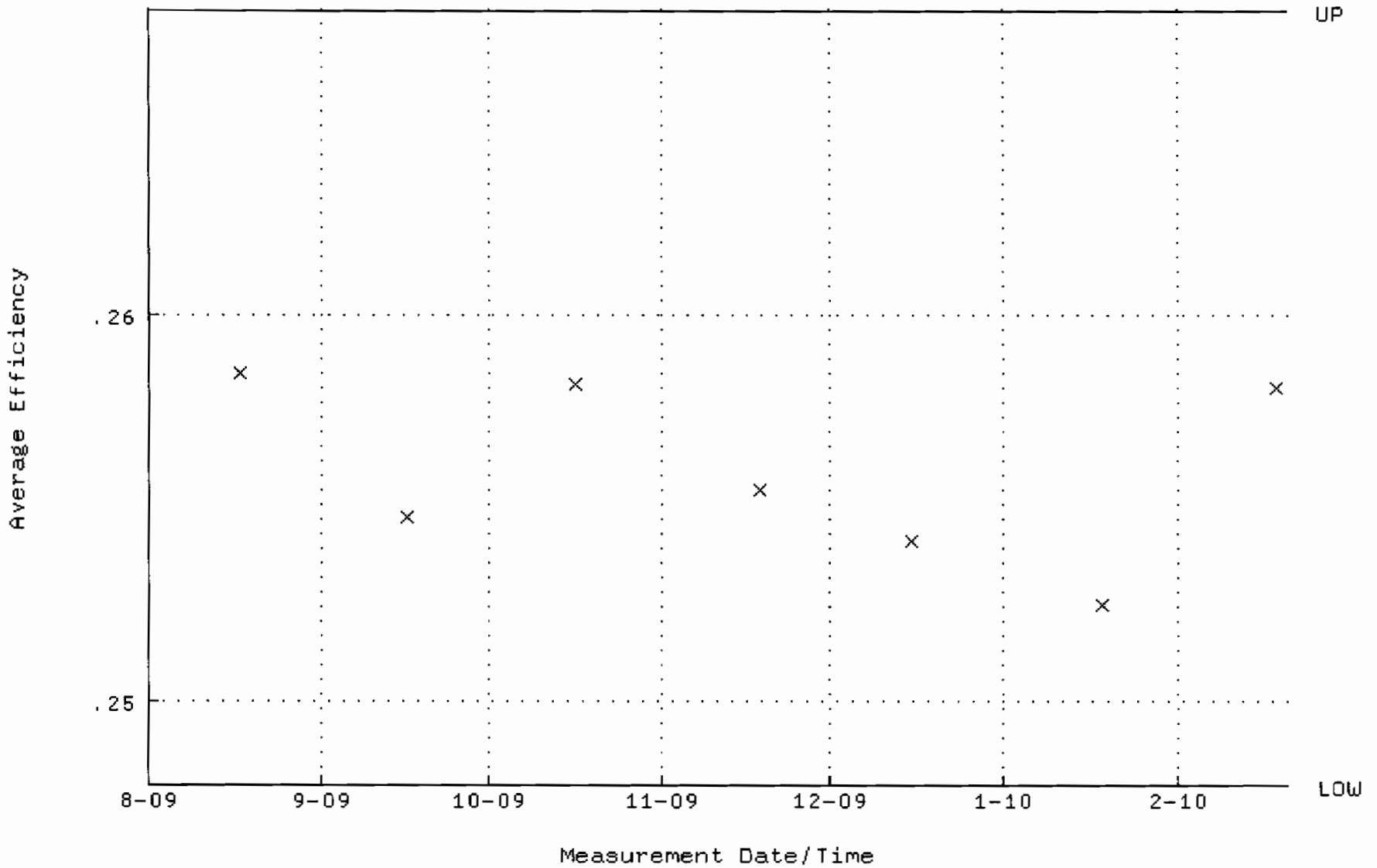

QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:09 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 80.8595 through 89.3711

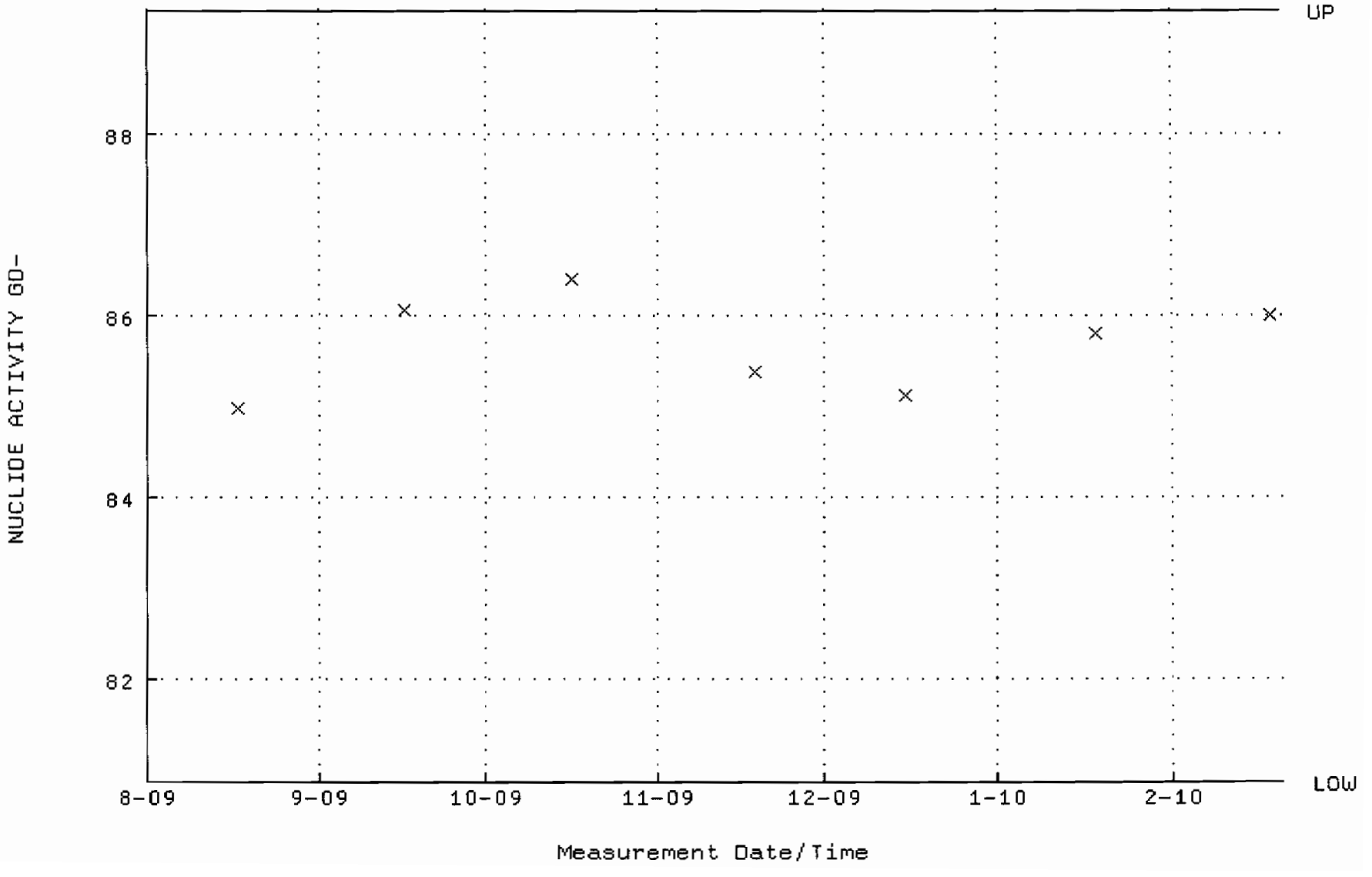

QA filename : DKA100:[ENV_ALPHA.QA.B]B141.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:00 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

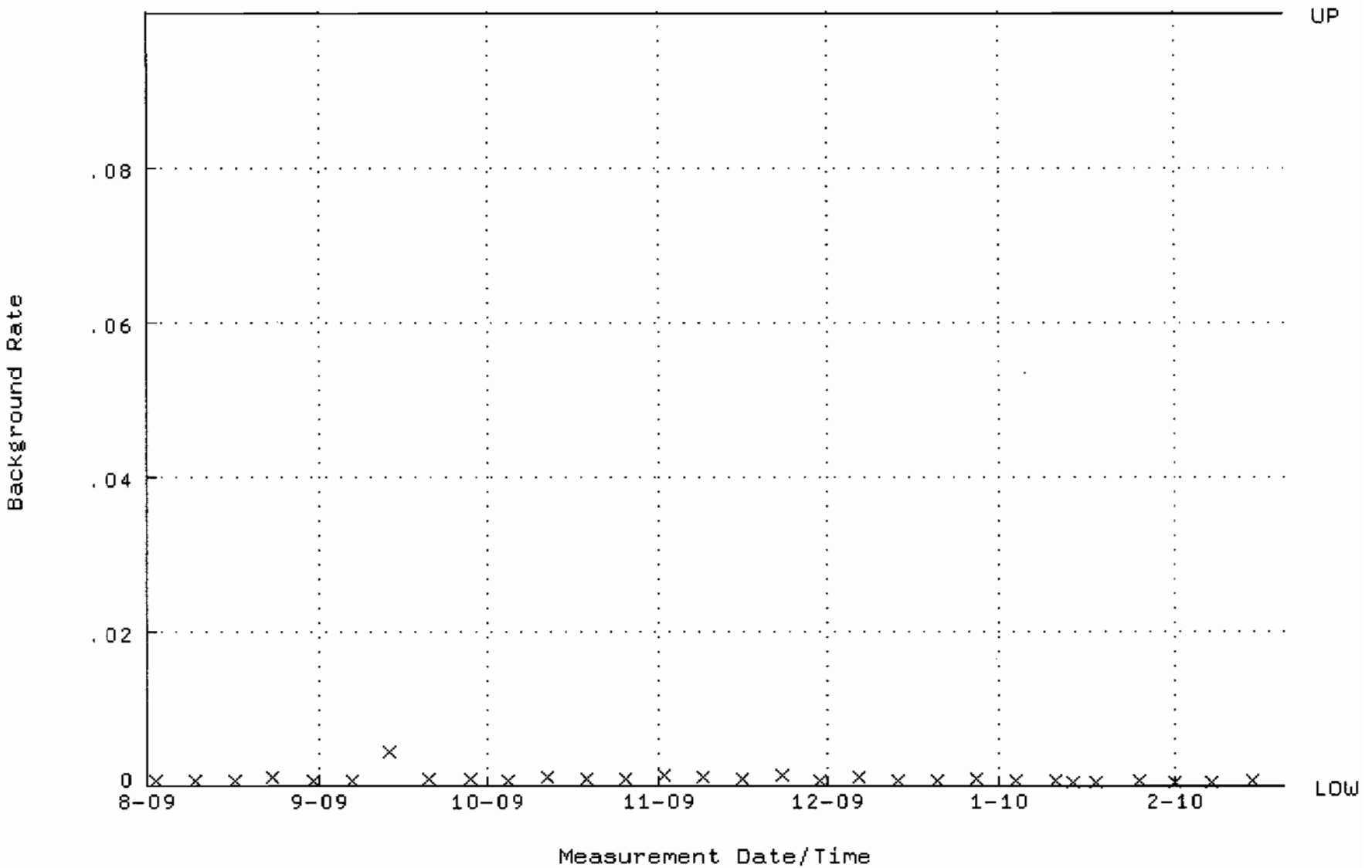

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:21 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.252182 through 0.272182

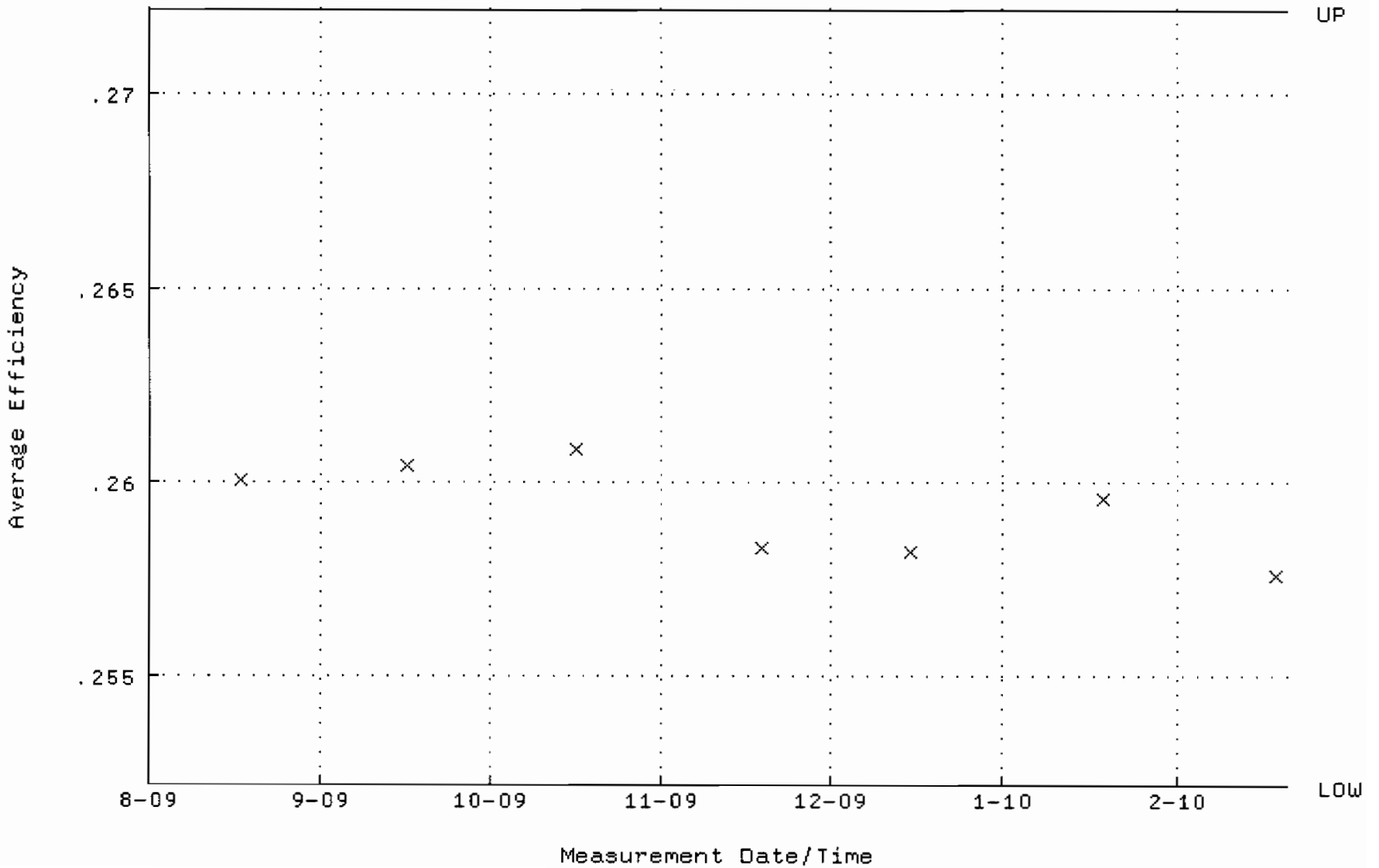

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:21 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 81.0245 through 89.5533

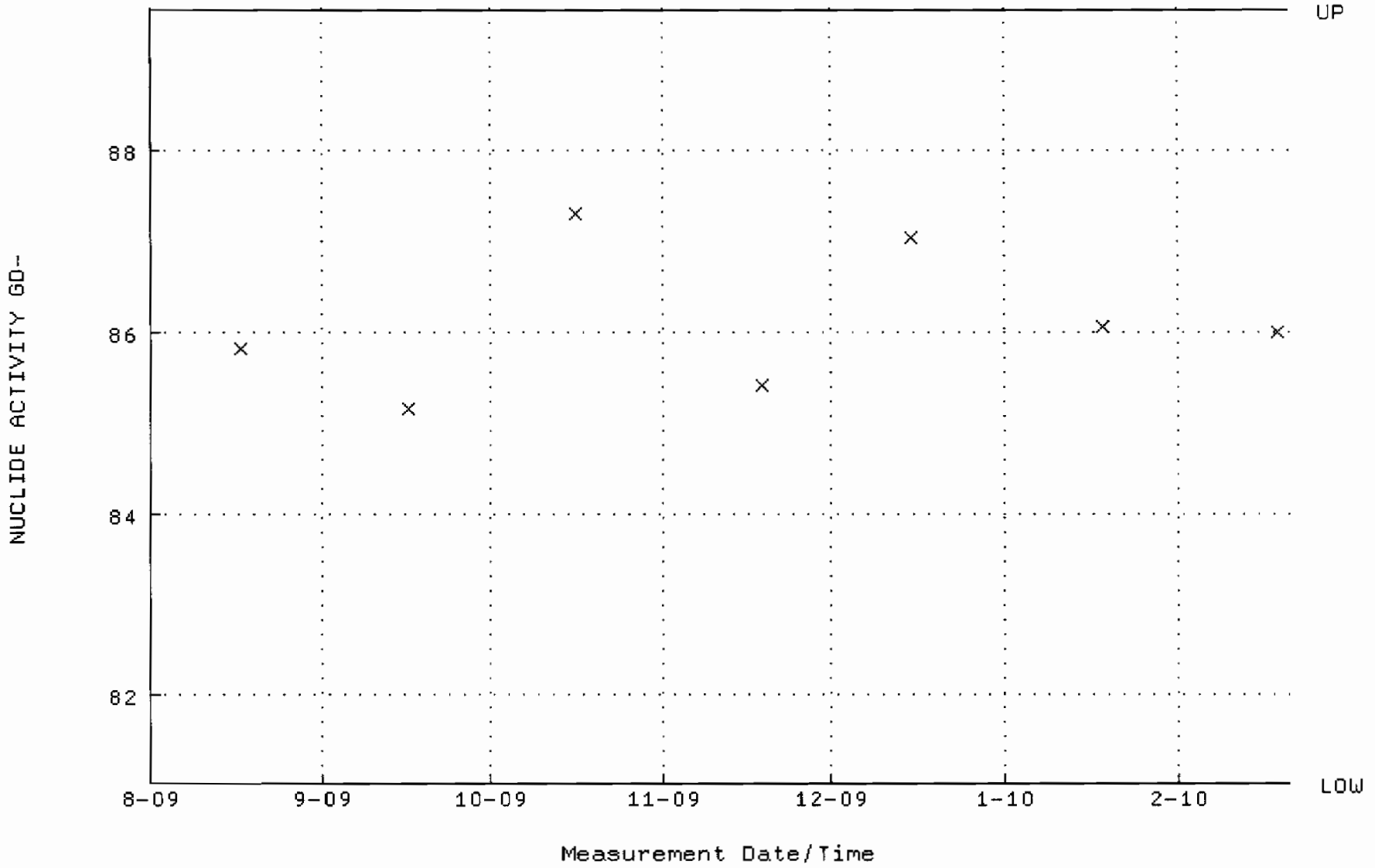

QA filename : DKA100:[ENV_ALPHA.QA.B]B142.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:04 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

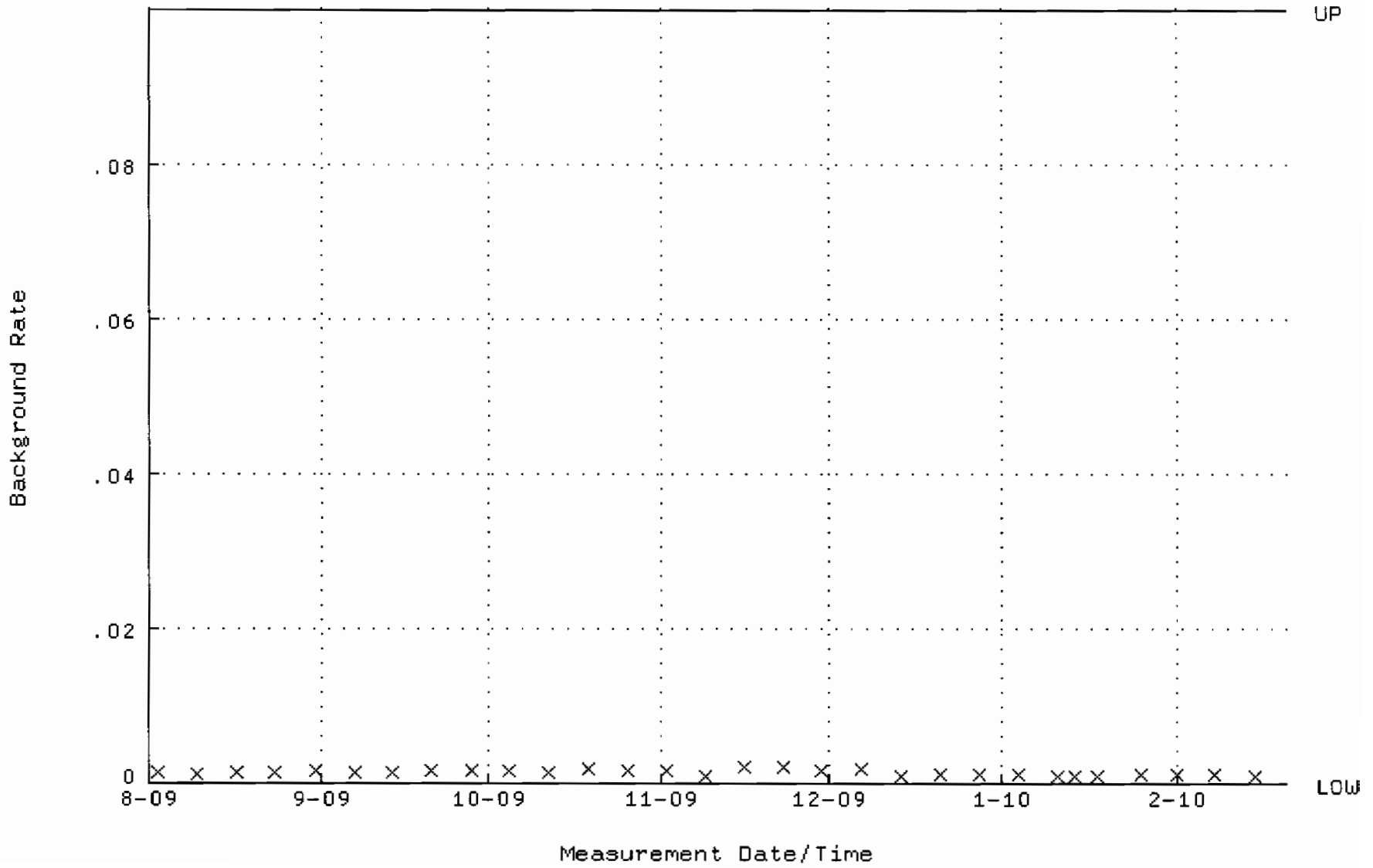

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:01:06 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.233879 through 0.253879

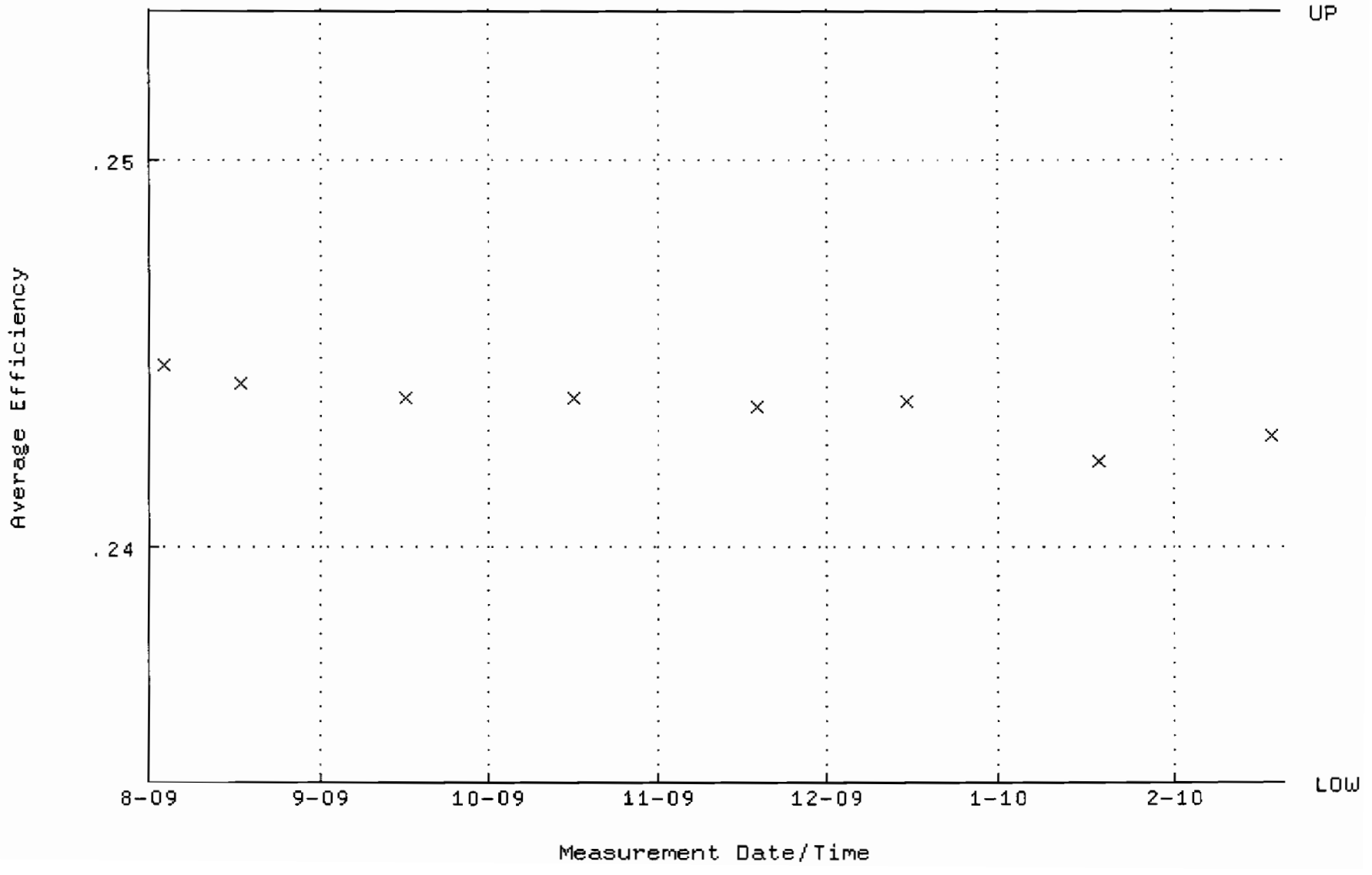

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:01:06 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9200 through 93.8590

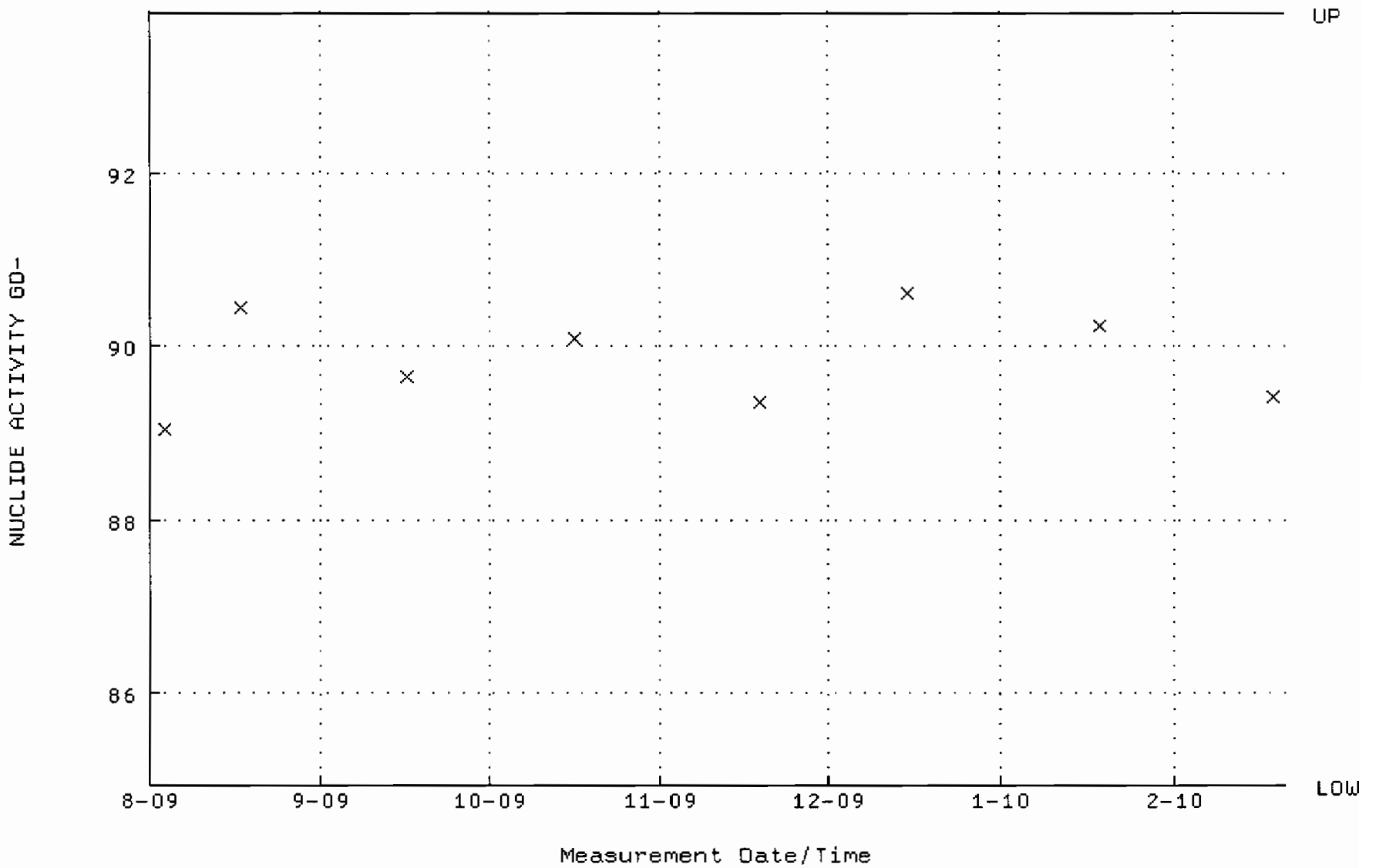

QA filename : DKA100:[ENV_ALPHA.QA.B]B143.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:08 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

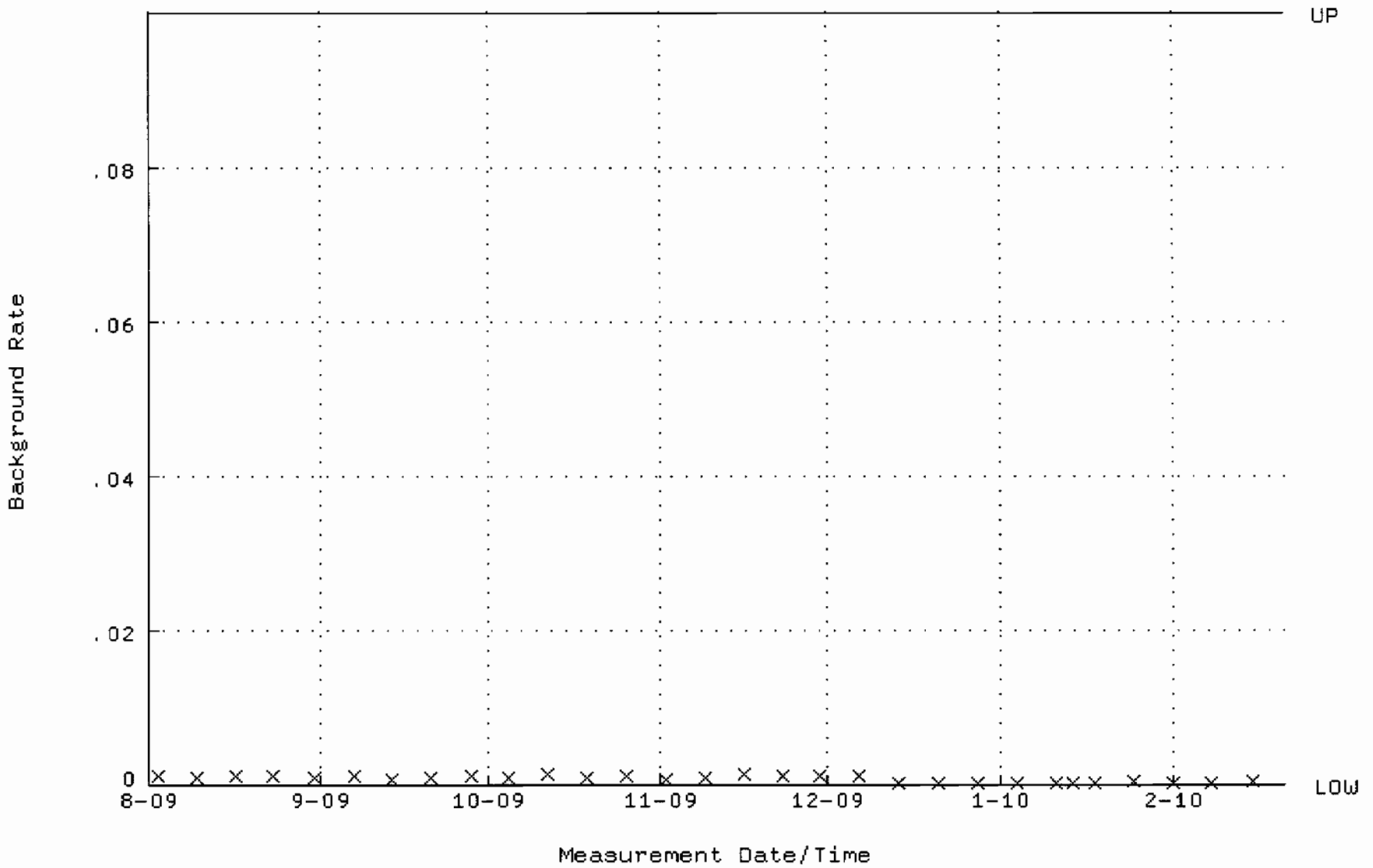

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237963 through 0.257963

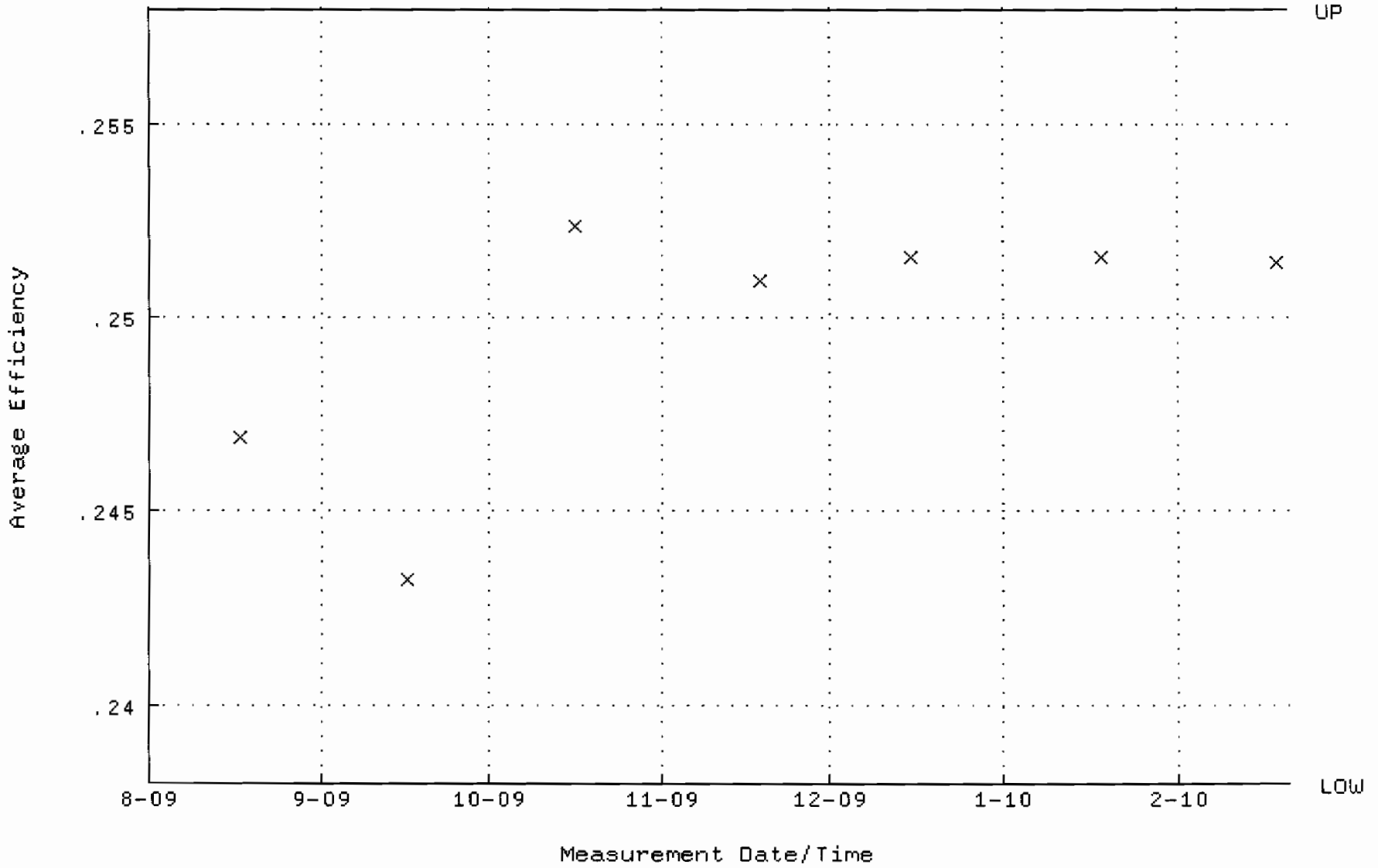

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.6507 through 93.5613

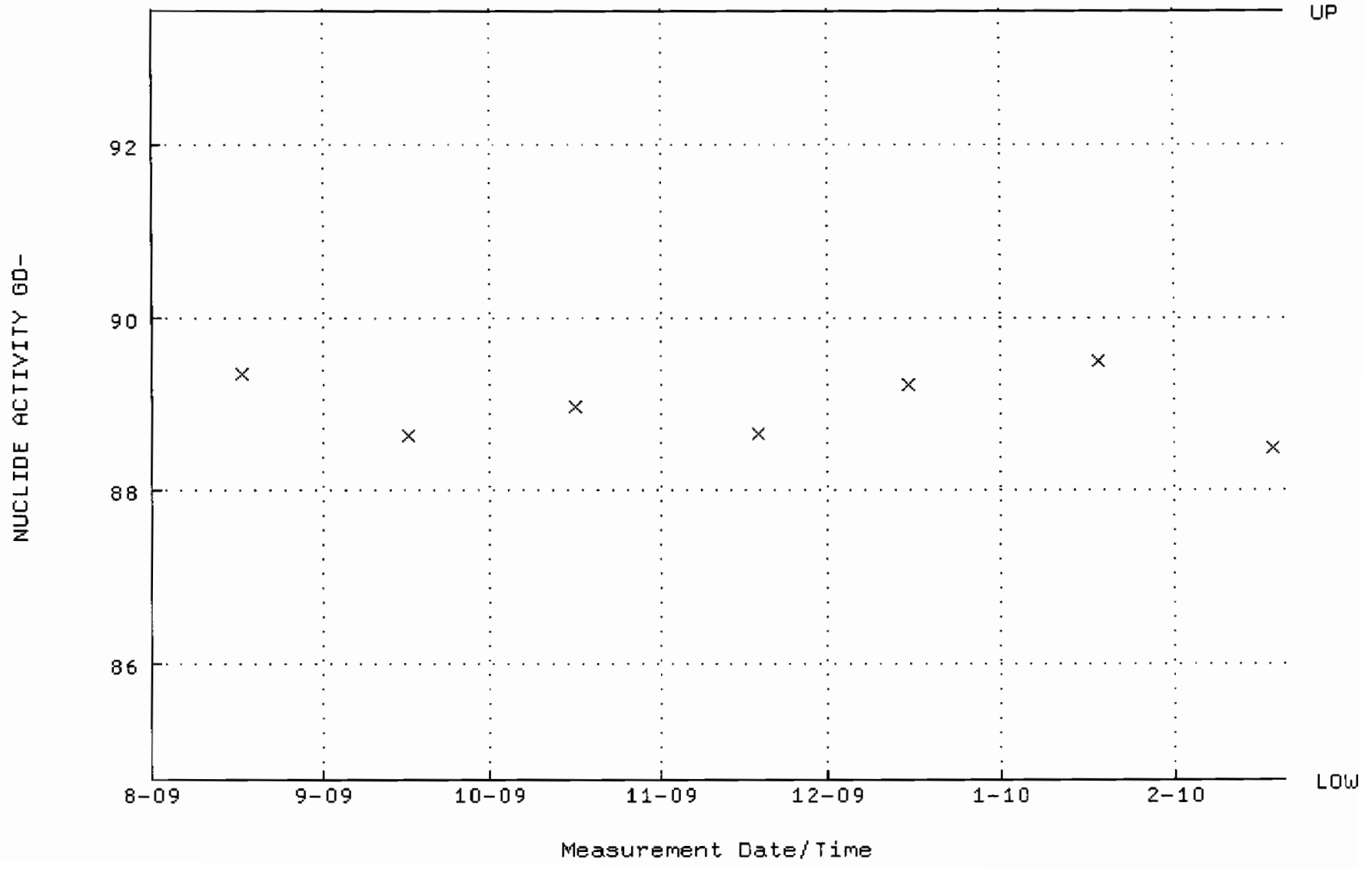

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:12 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

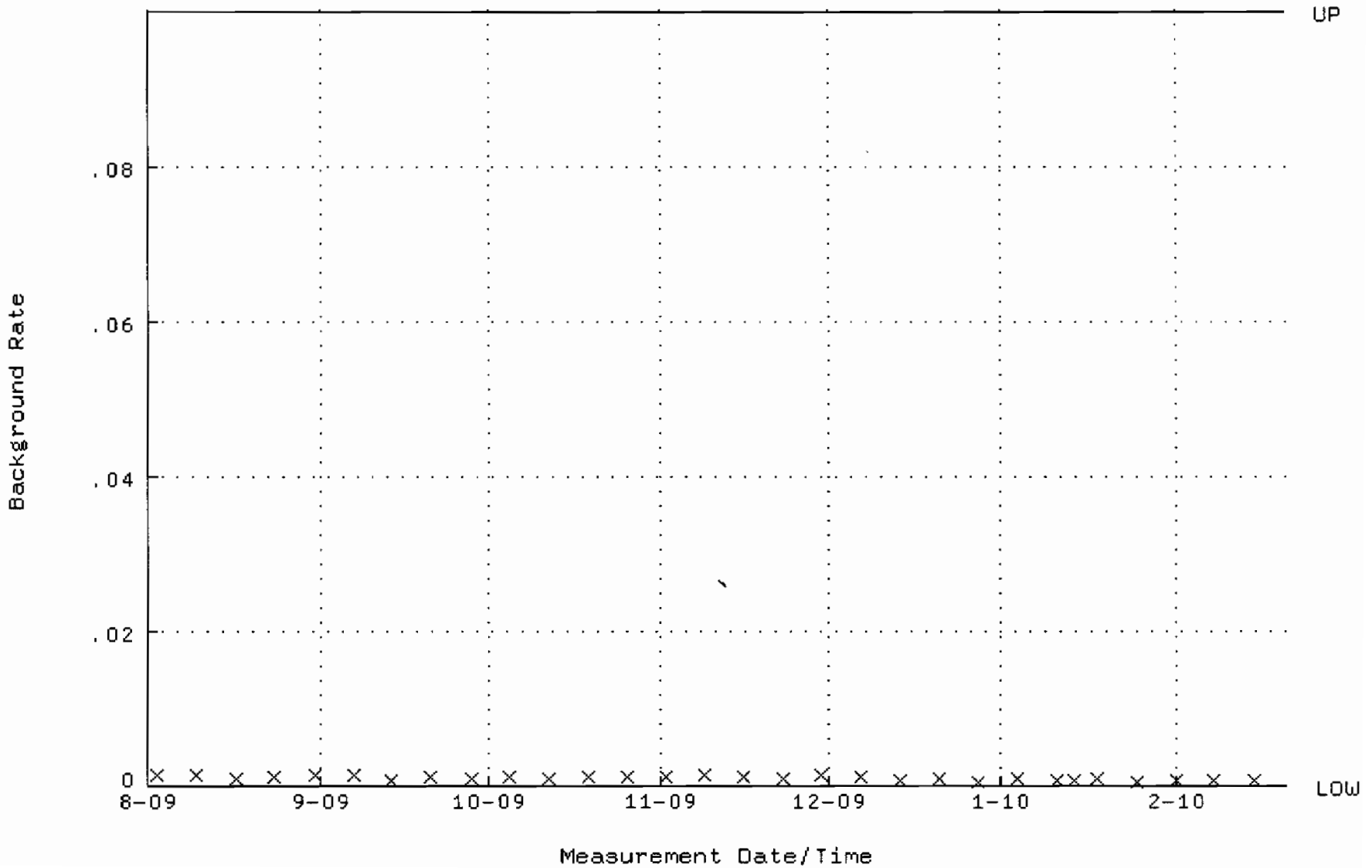

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239850 through 0.259850

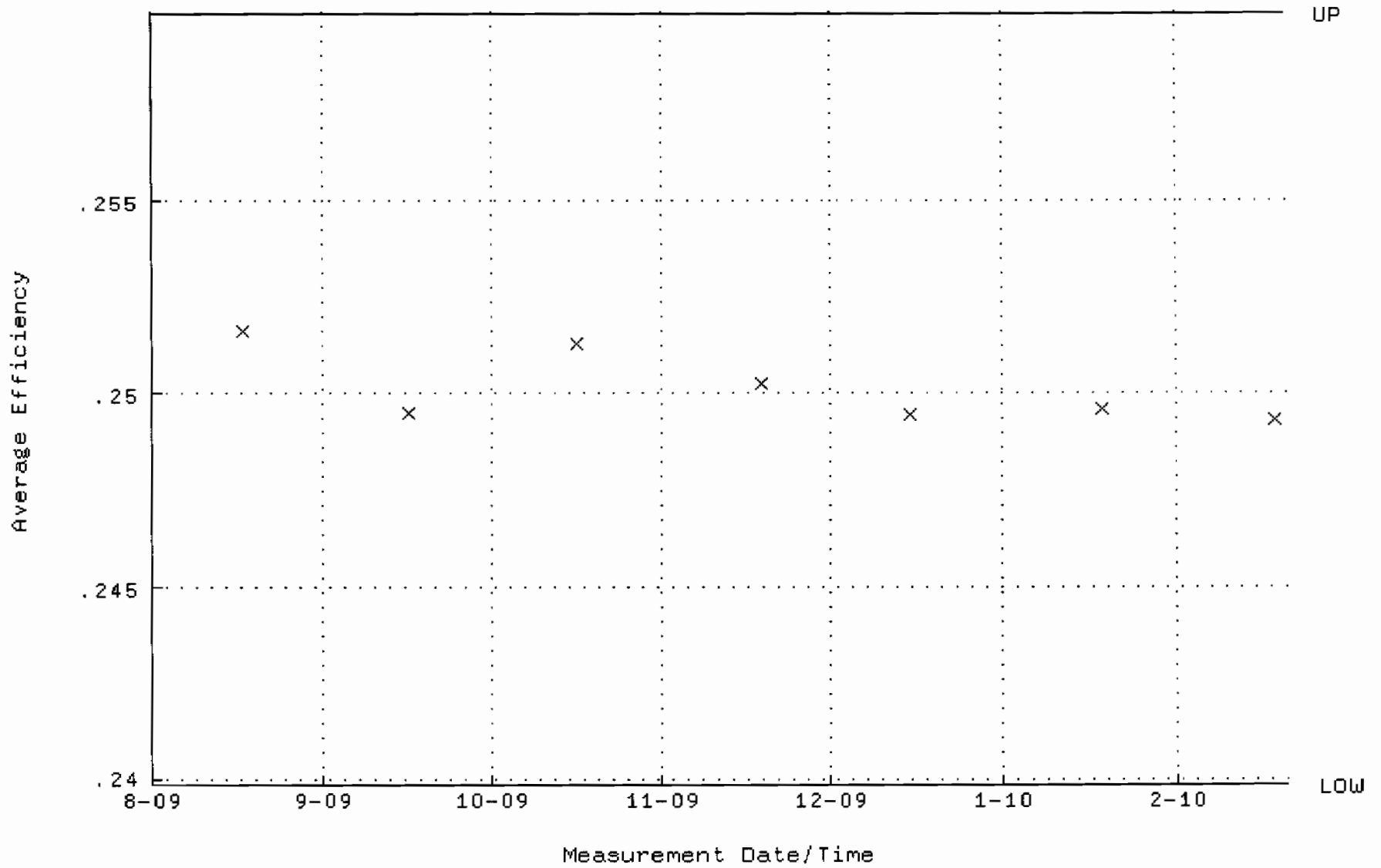

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9354 through 93.8760

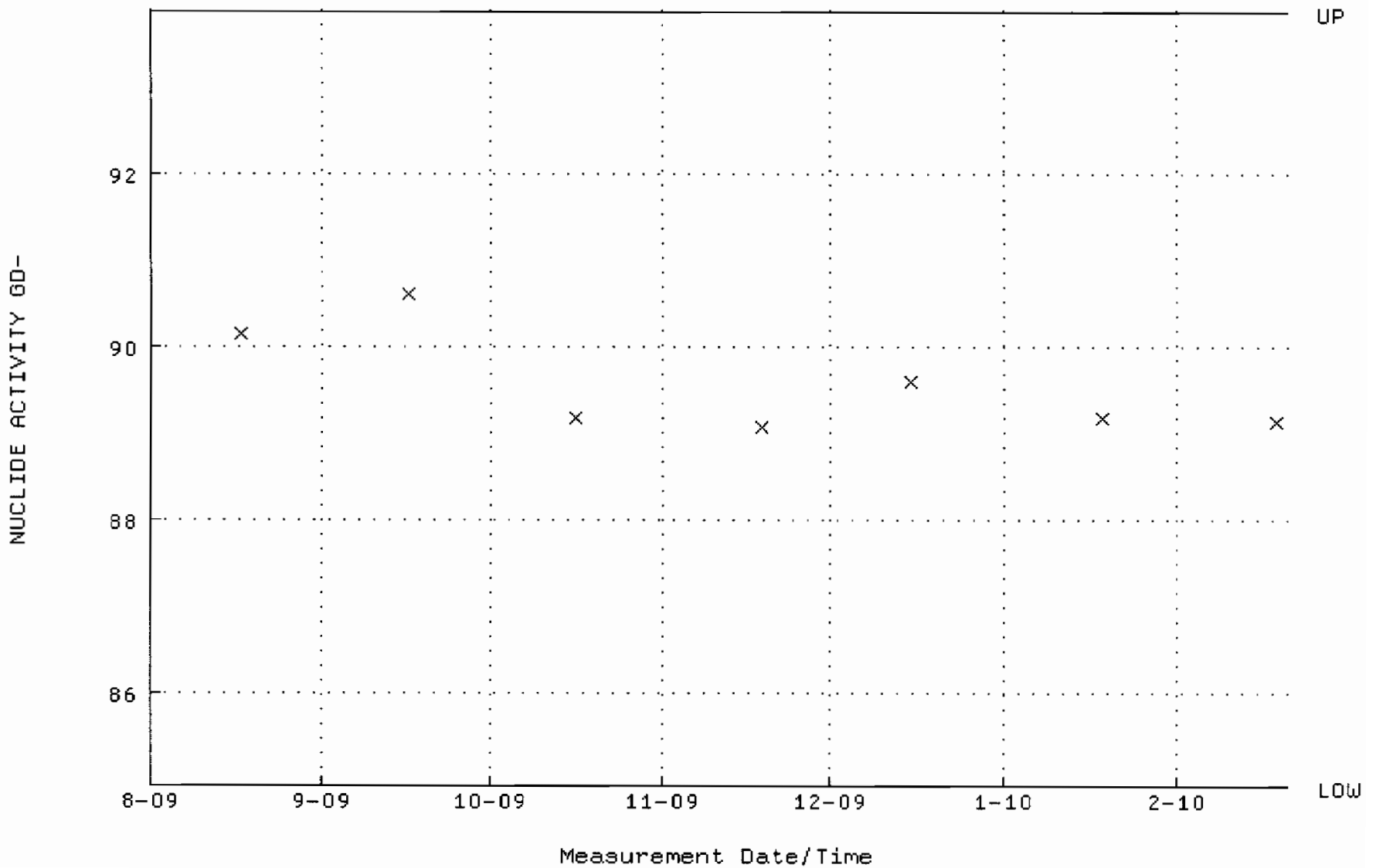

QA filename : DKA100:[ENV_ALPHA.QA.B]B145.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:16 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

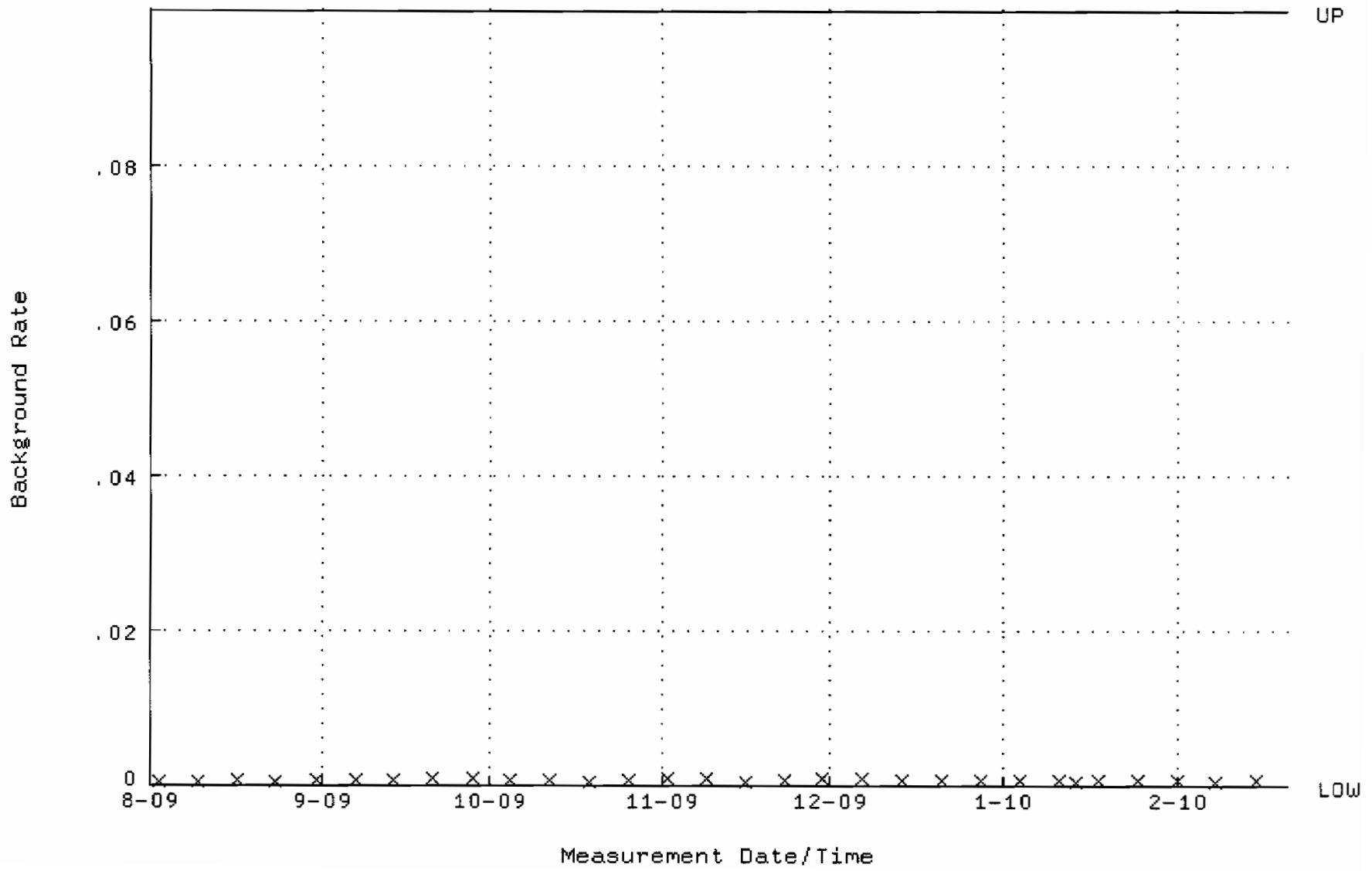

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.241831 through 0.261831

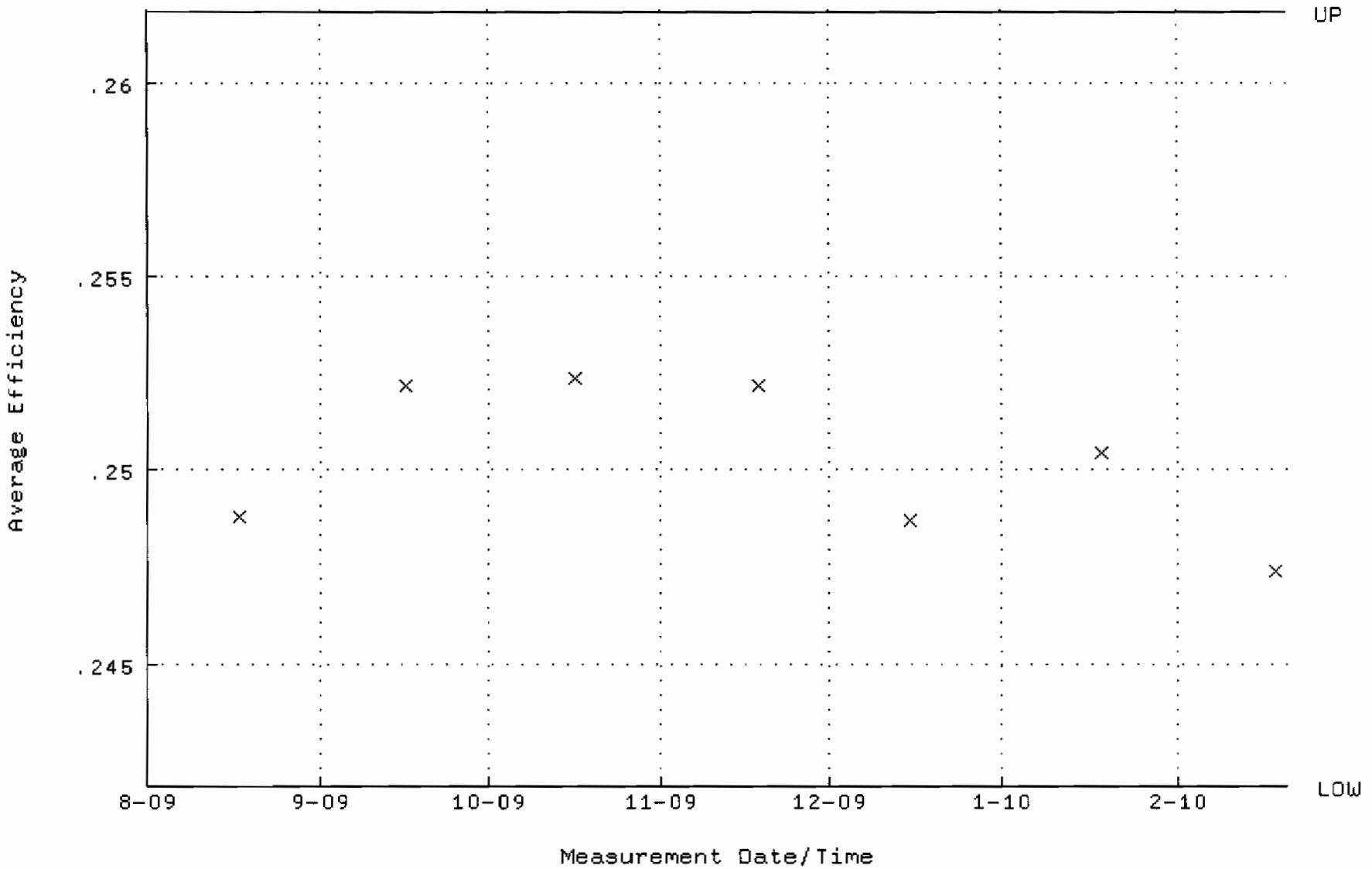

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8578 through 93.7902

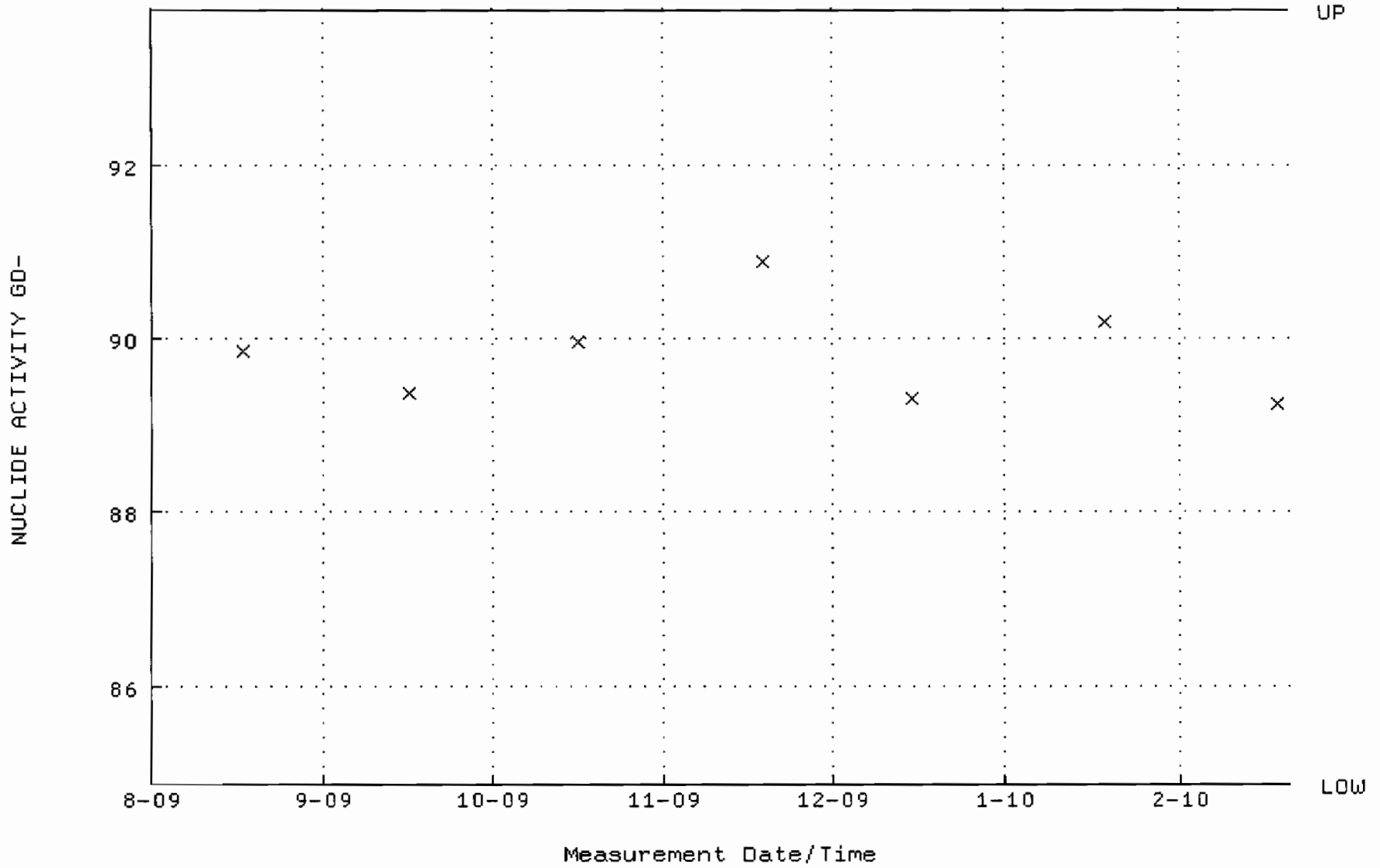

QA filename : DKA100:[ENV_ALPHA.QA.B]B146.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:20 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

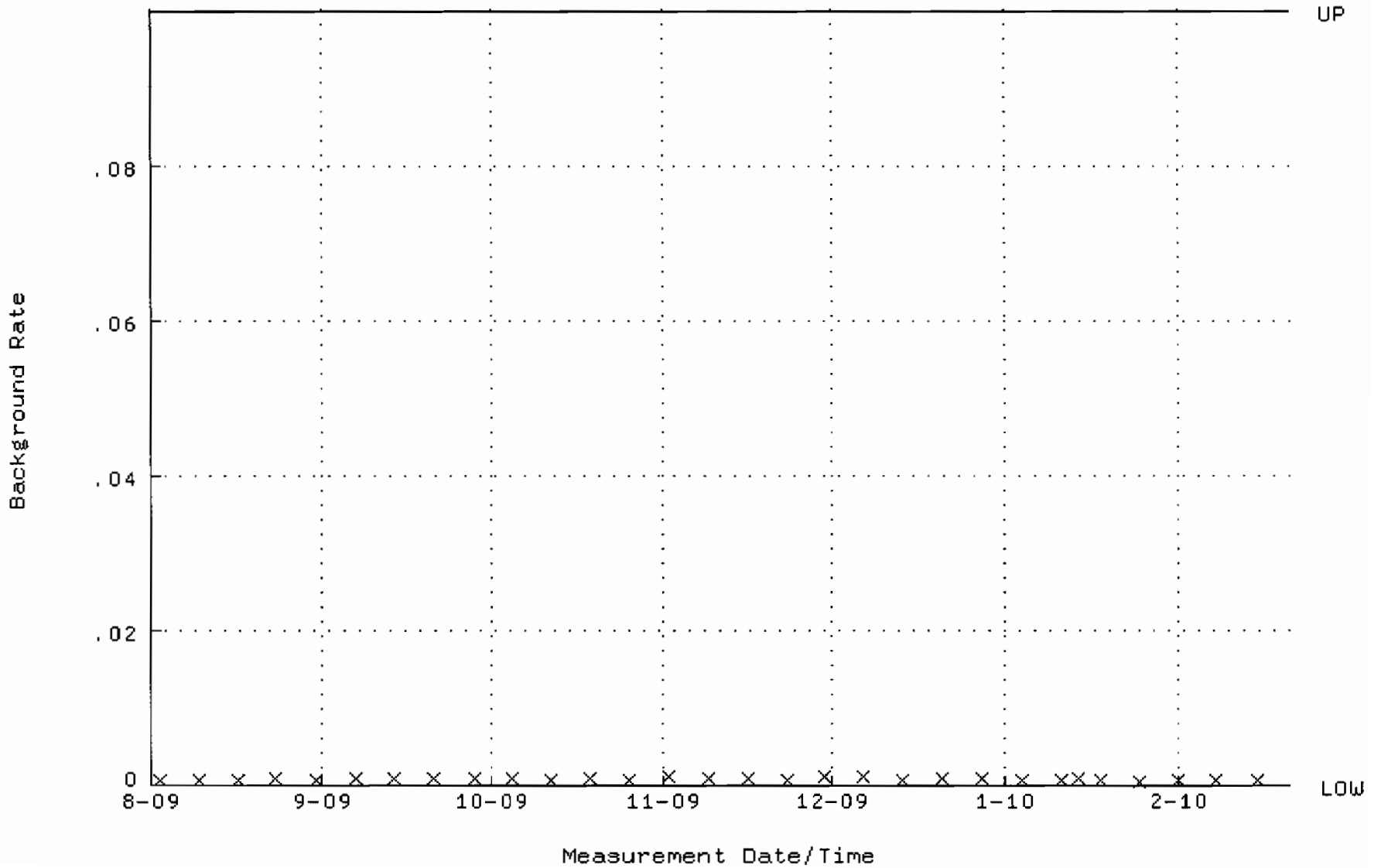

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:19 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.374526 through 0.394526

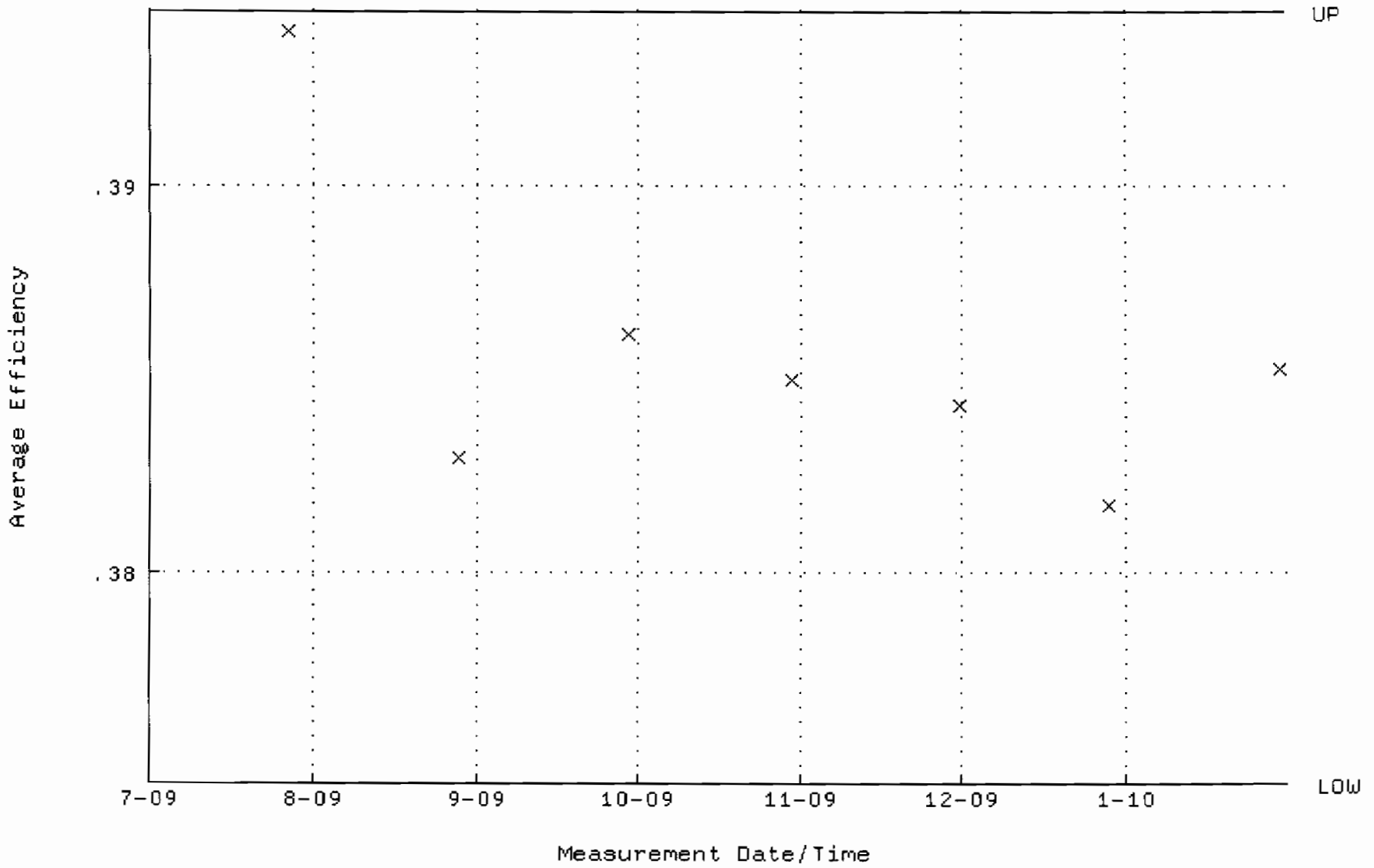

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:19 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 85.5688 through 94.5760

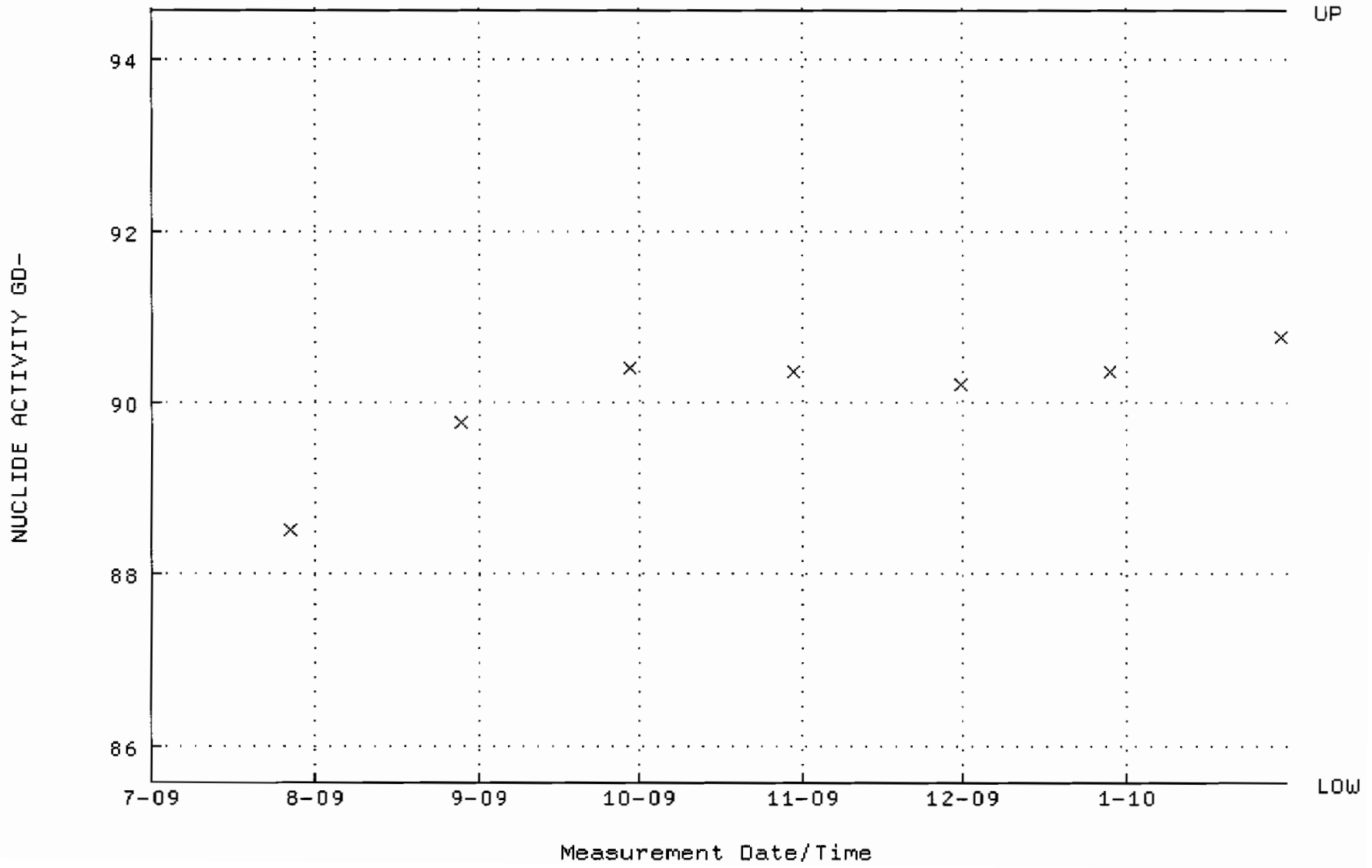

QA filename : DKA100:[ENV_ALPHA.QA.B]B210.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

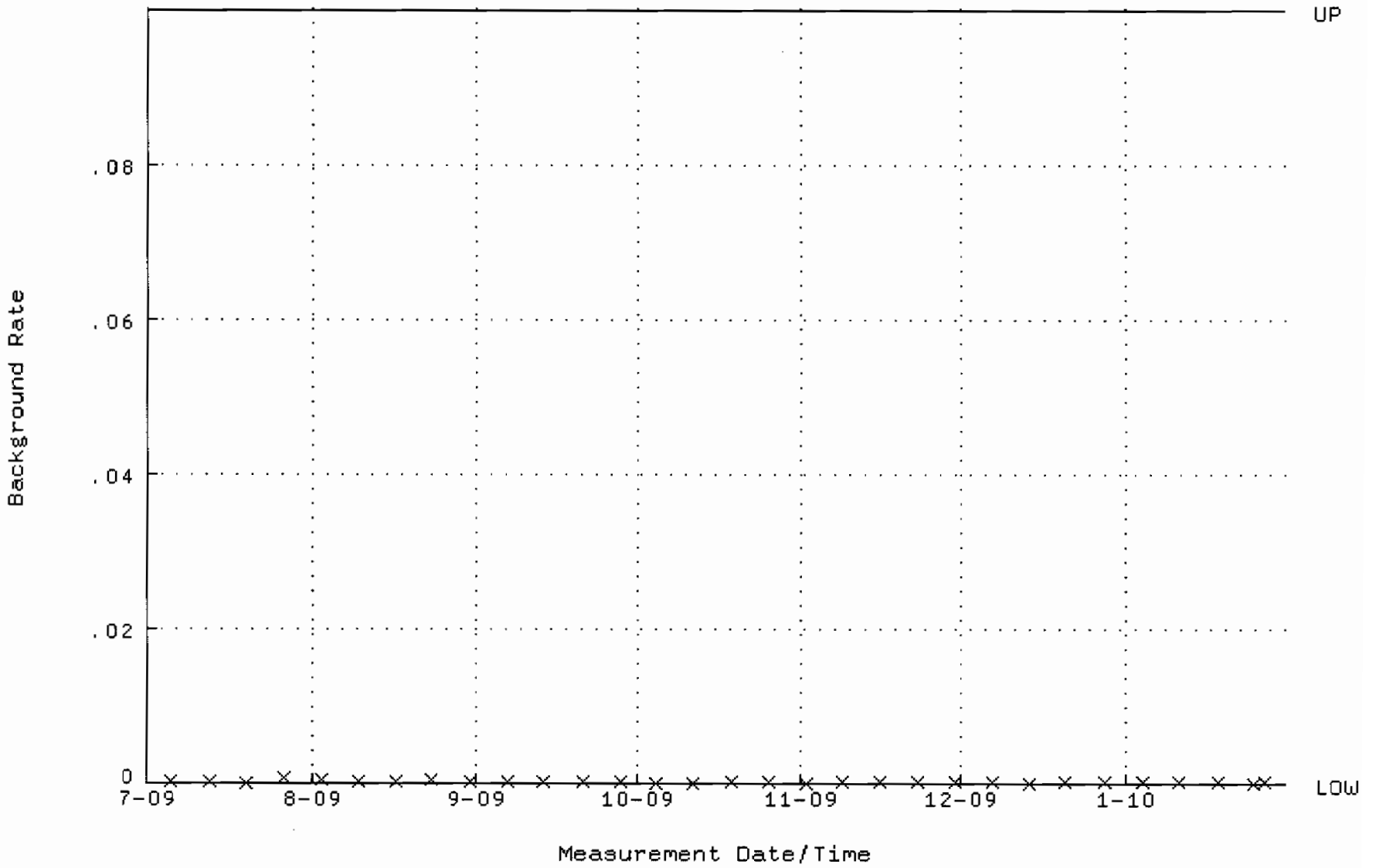

QA filename : DKA100:[ENV_ALPHA.QA.W]W214.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:45 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.373649 through 0.393649

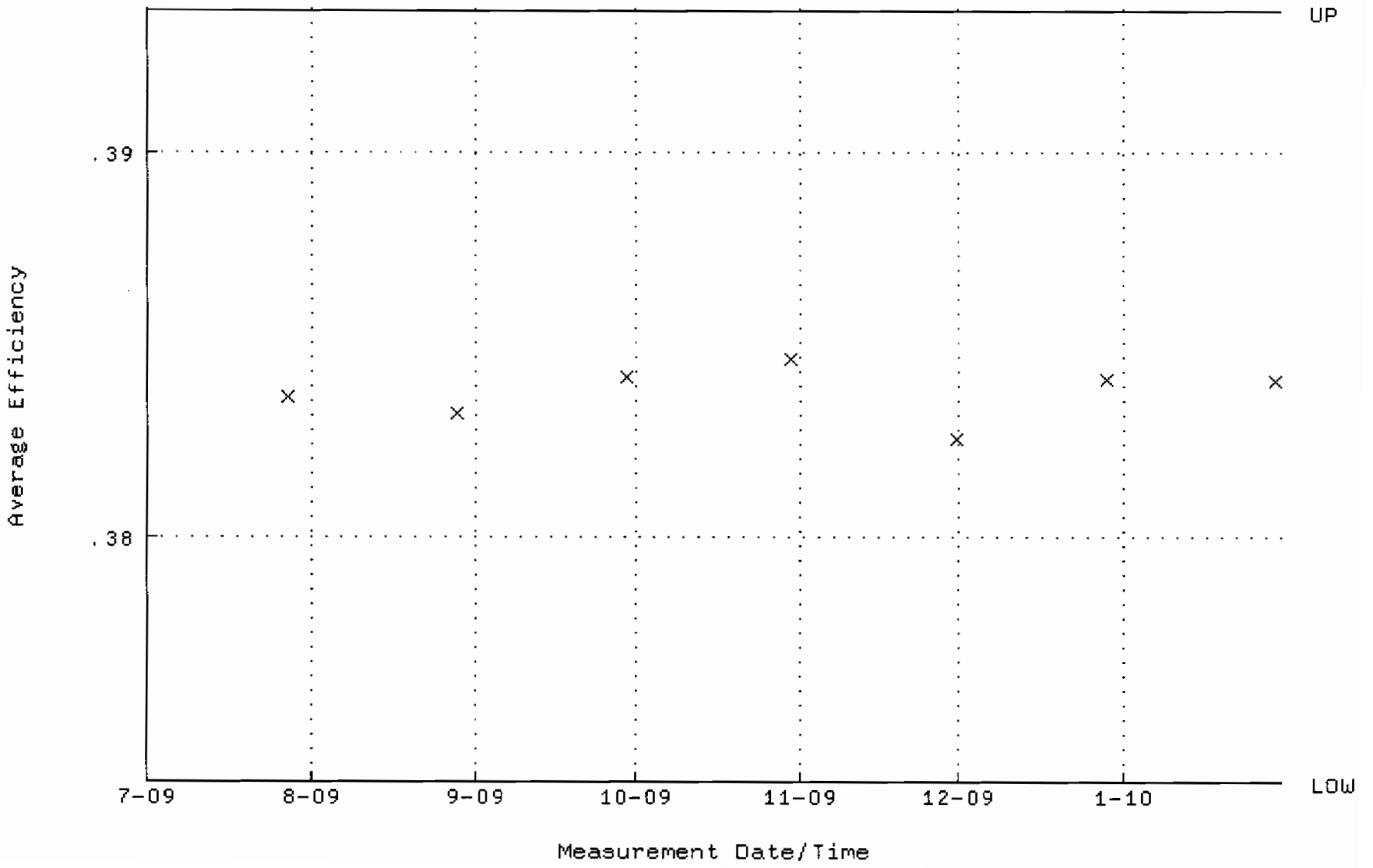

QA filename : DKA100:[ENV_ALPHA.QA.W]W214.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:45 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 85.6739 through 94.6921

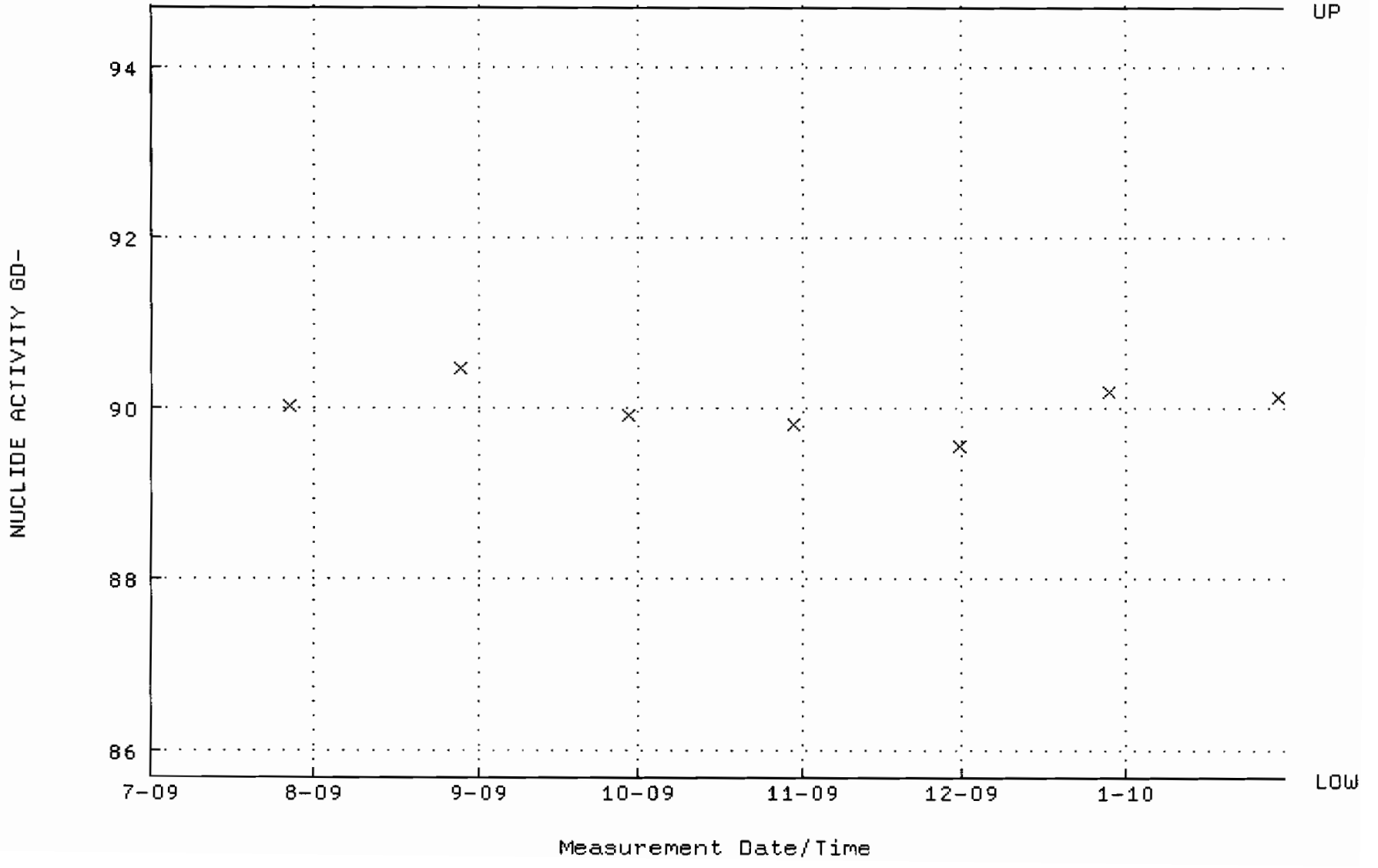

QA filename : DKA100:[ENV_ALPHA.QA.B]B214.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

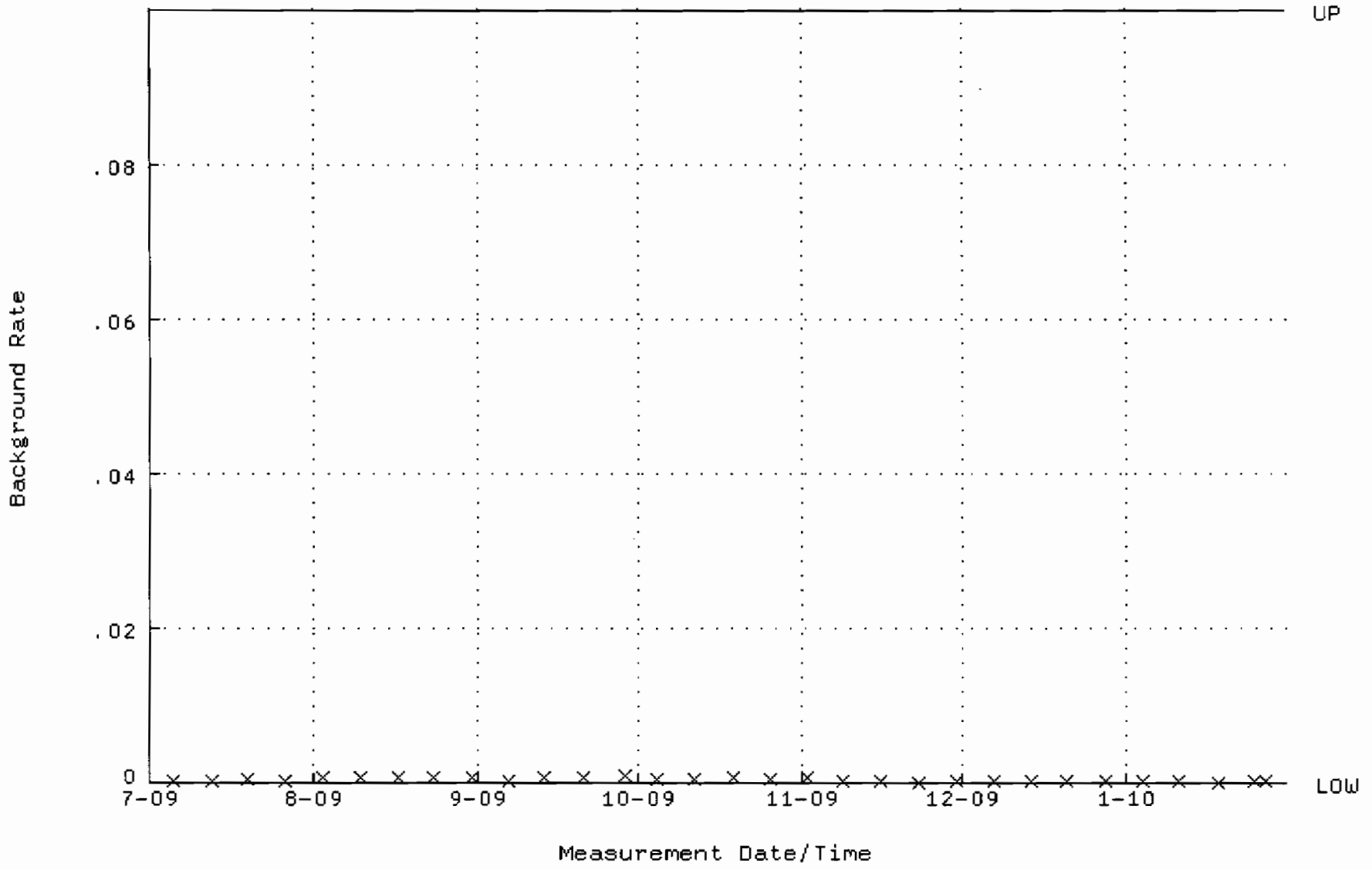

QA filename : DKA100:[ENV_ALPHA.QA.W]W215.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.366025 through 0.386025

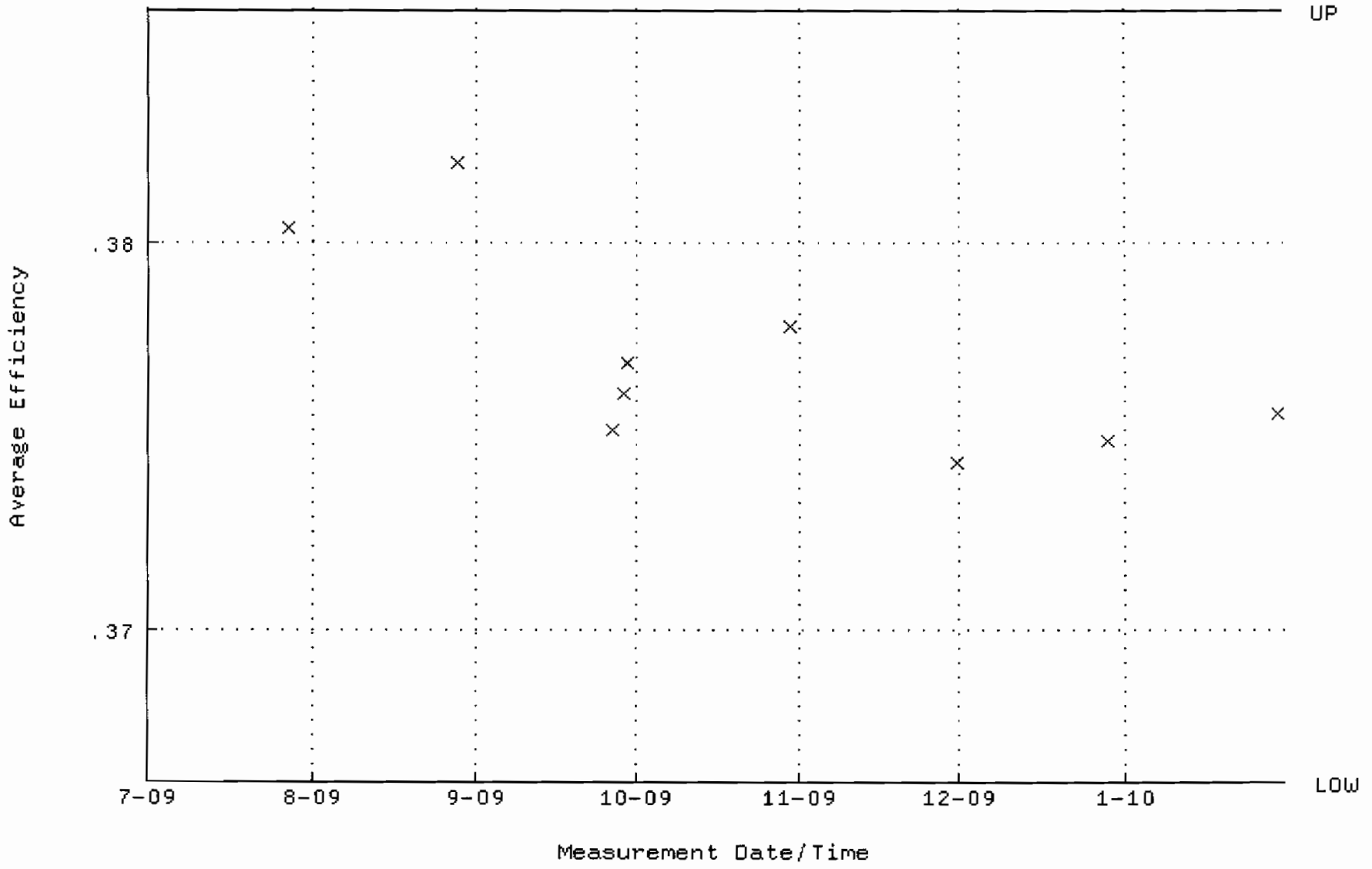

QA filename : DKA100:[ENV_ALPHA.QA.W]W215.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 86.2153 through 95.2905

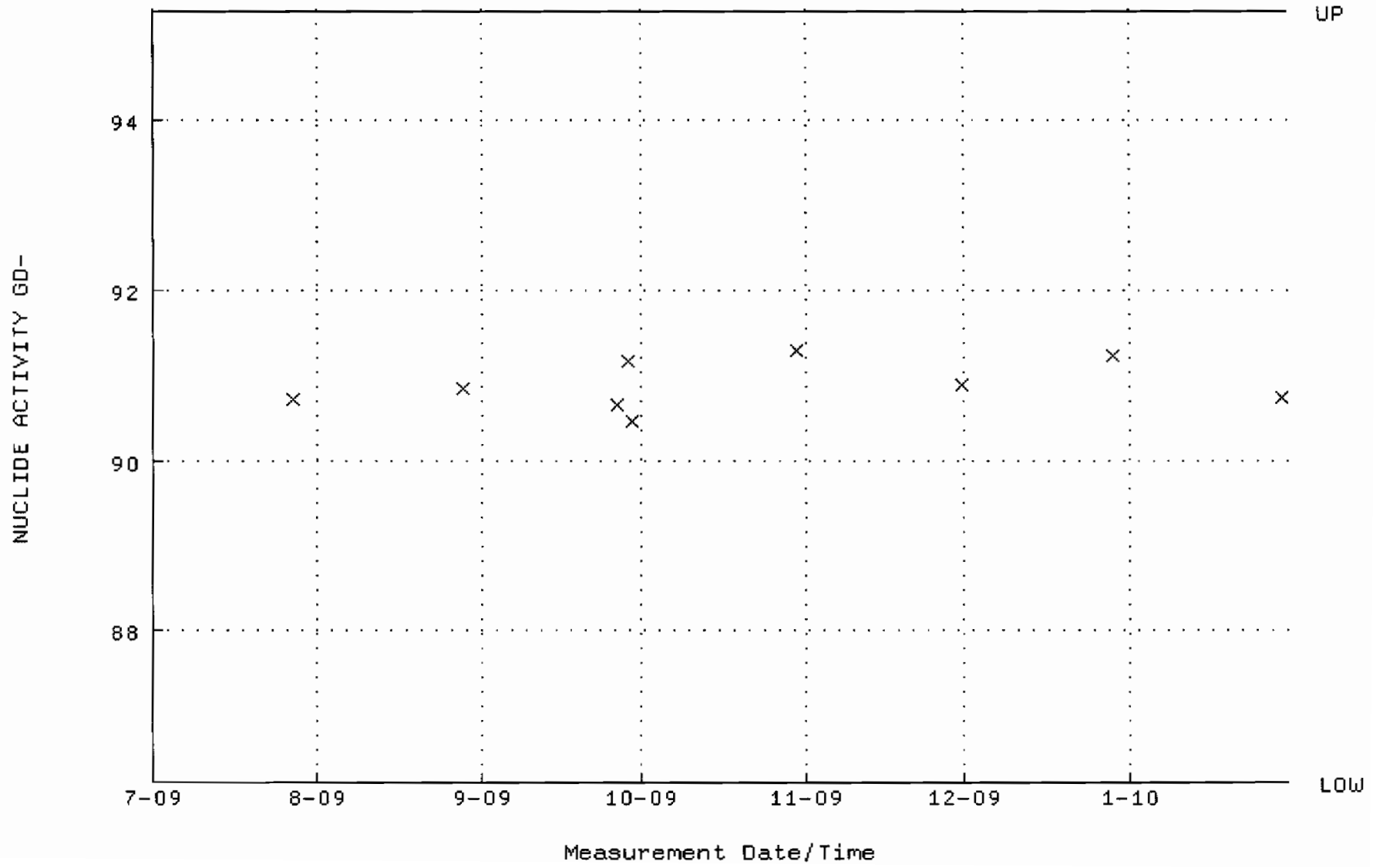

QA filename : DKA100:[ENV_ALPHA.QA.B]B215.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:47 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

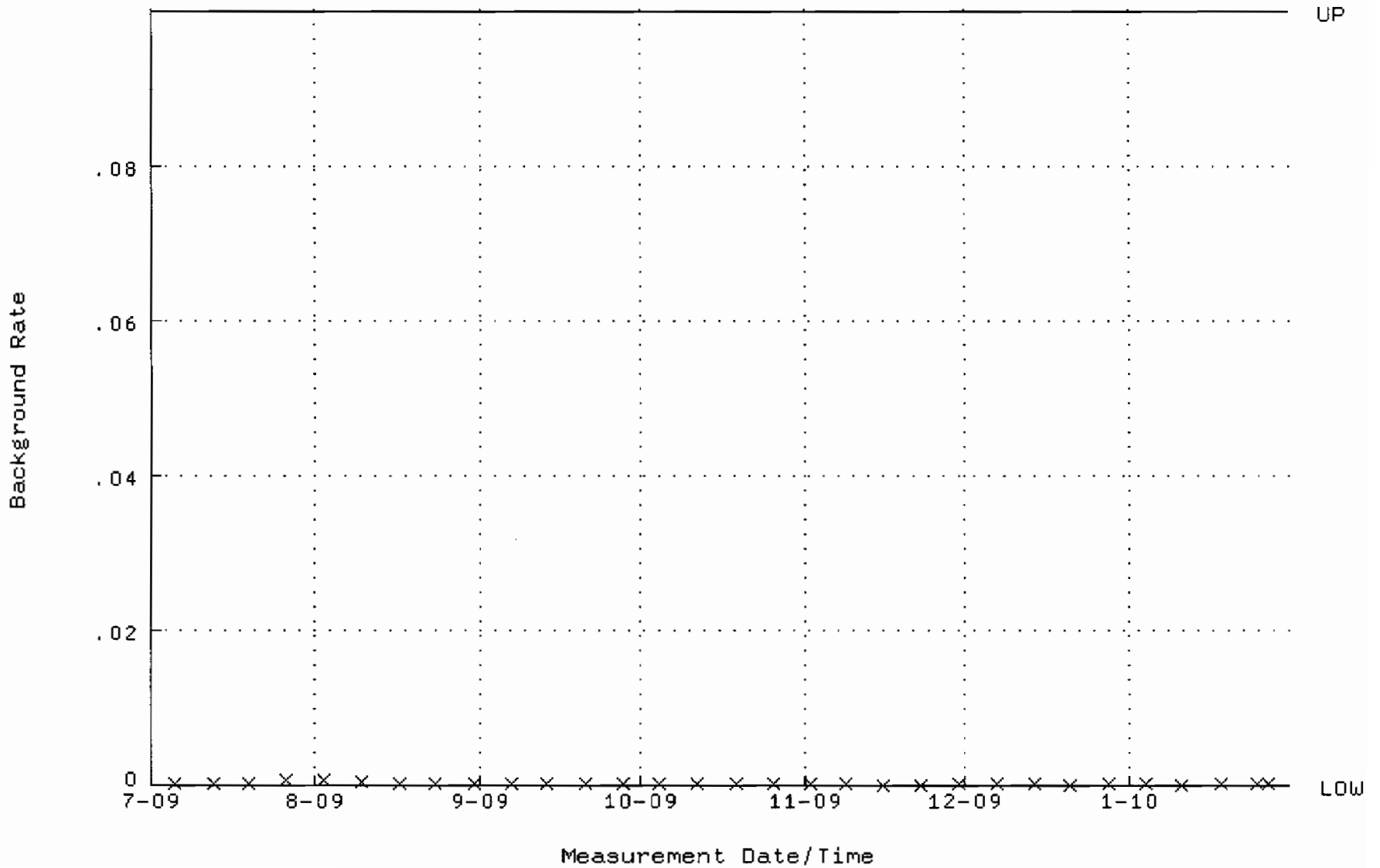

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.354934 through 0.374934

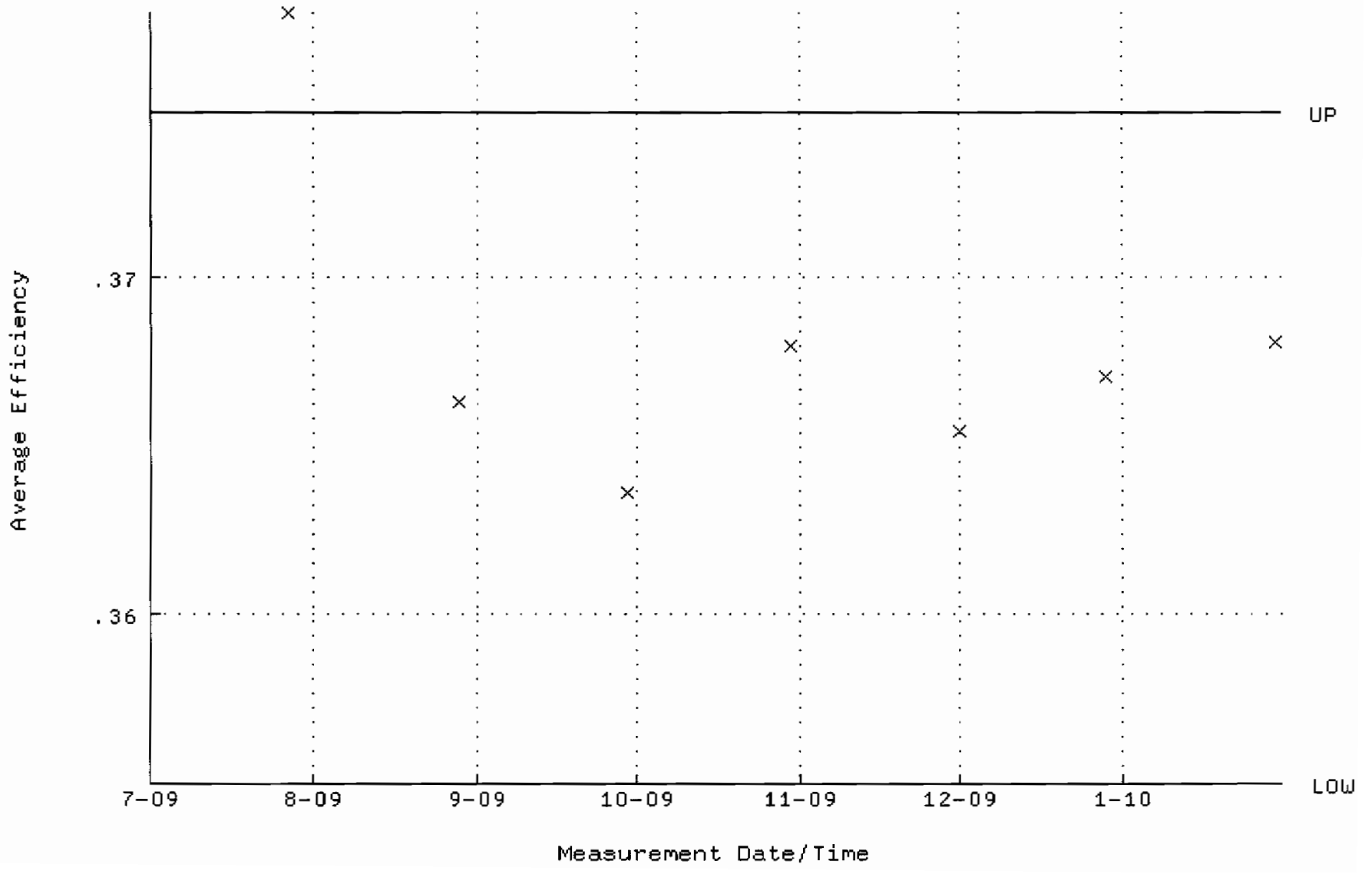

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.3174 through 97.6140

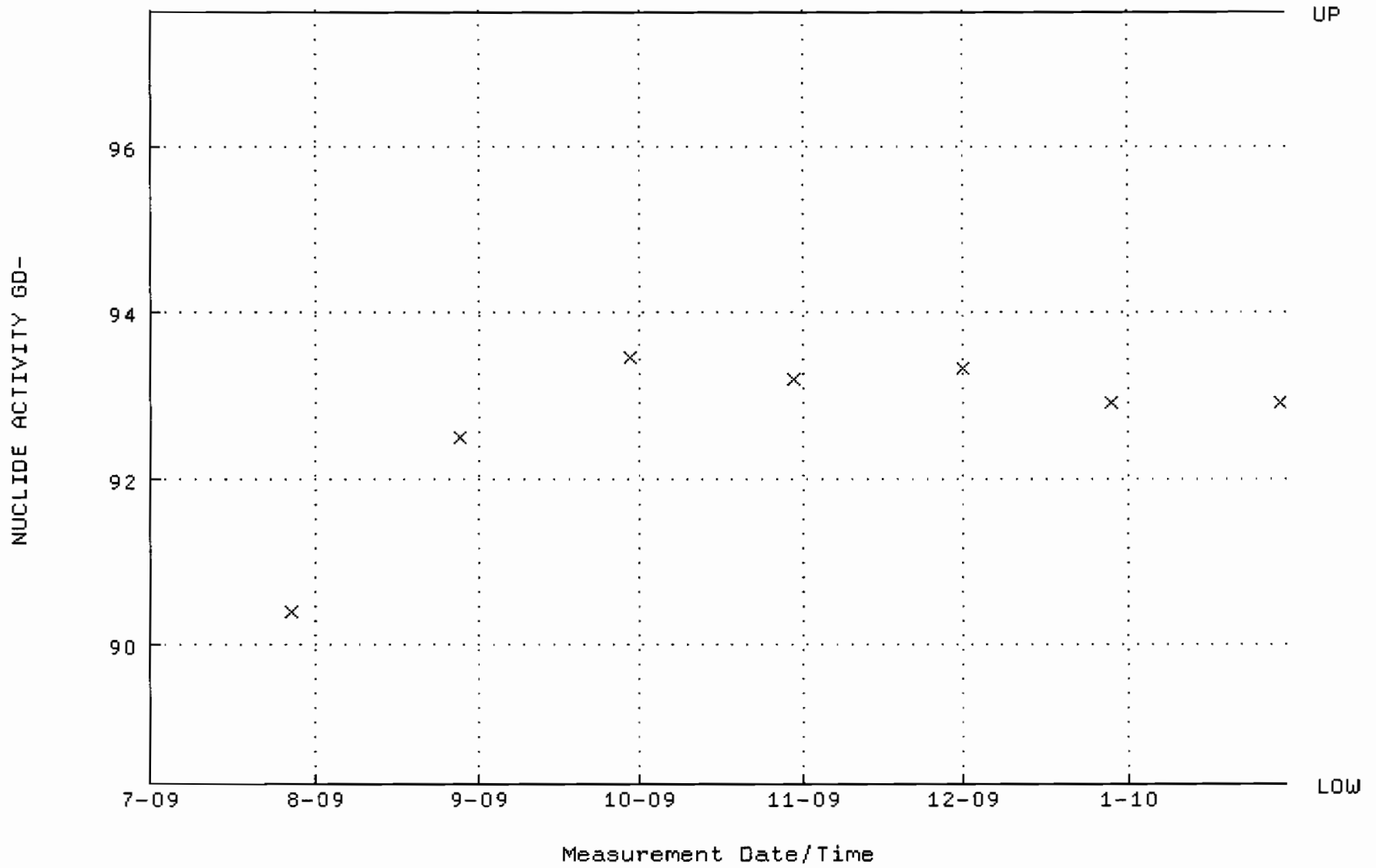

QA filename : DKA100:[ENV_ALPHA.QA.B]B217.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:56 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

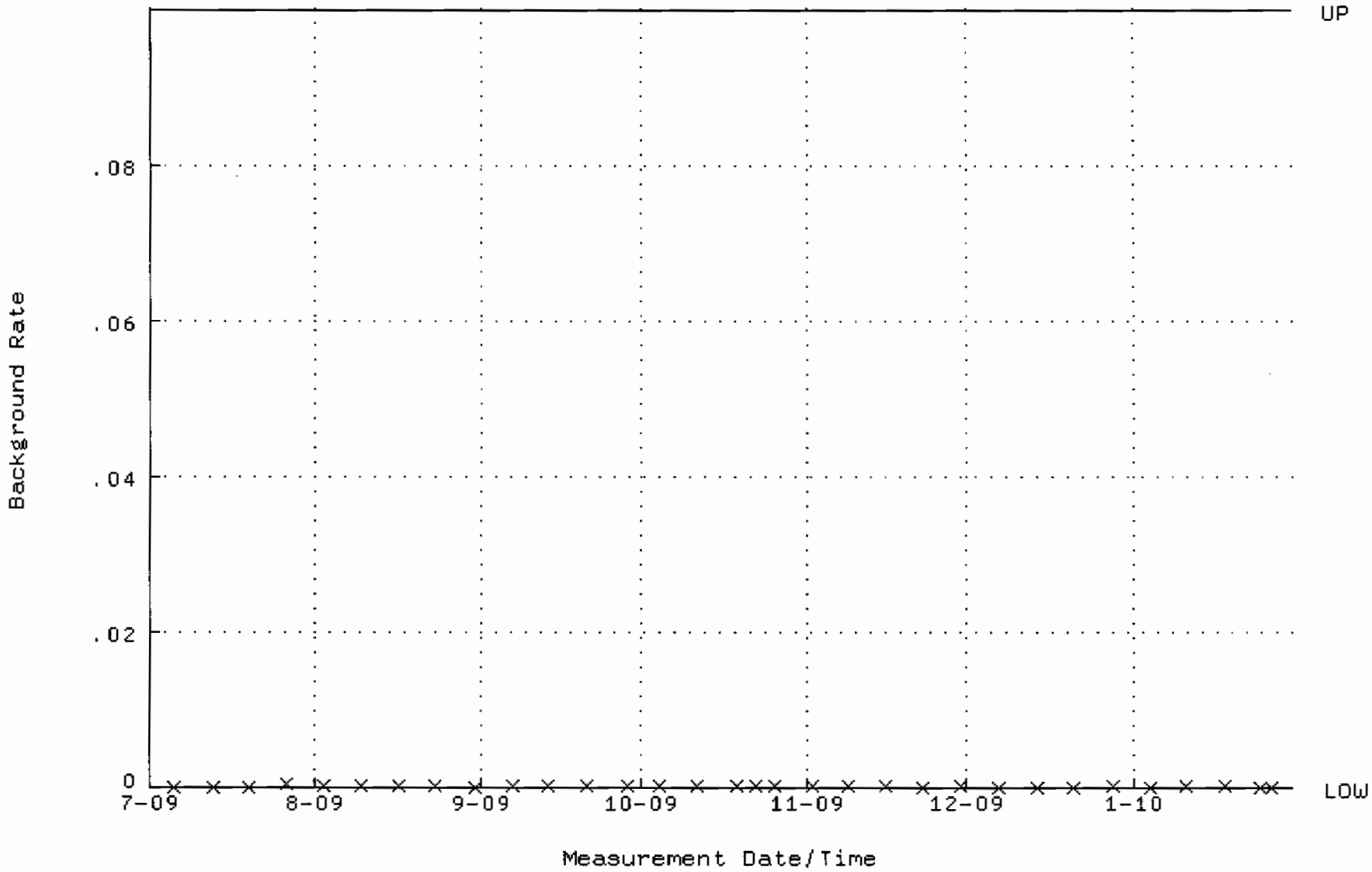

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362380 through 0.382380

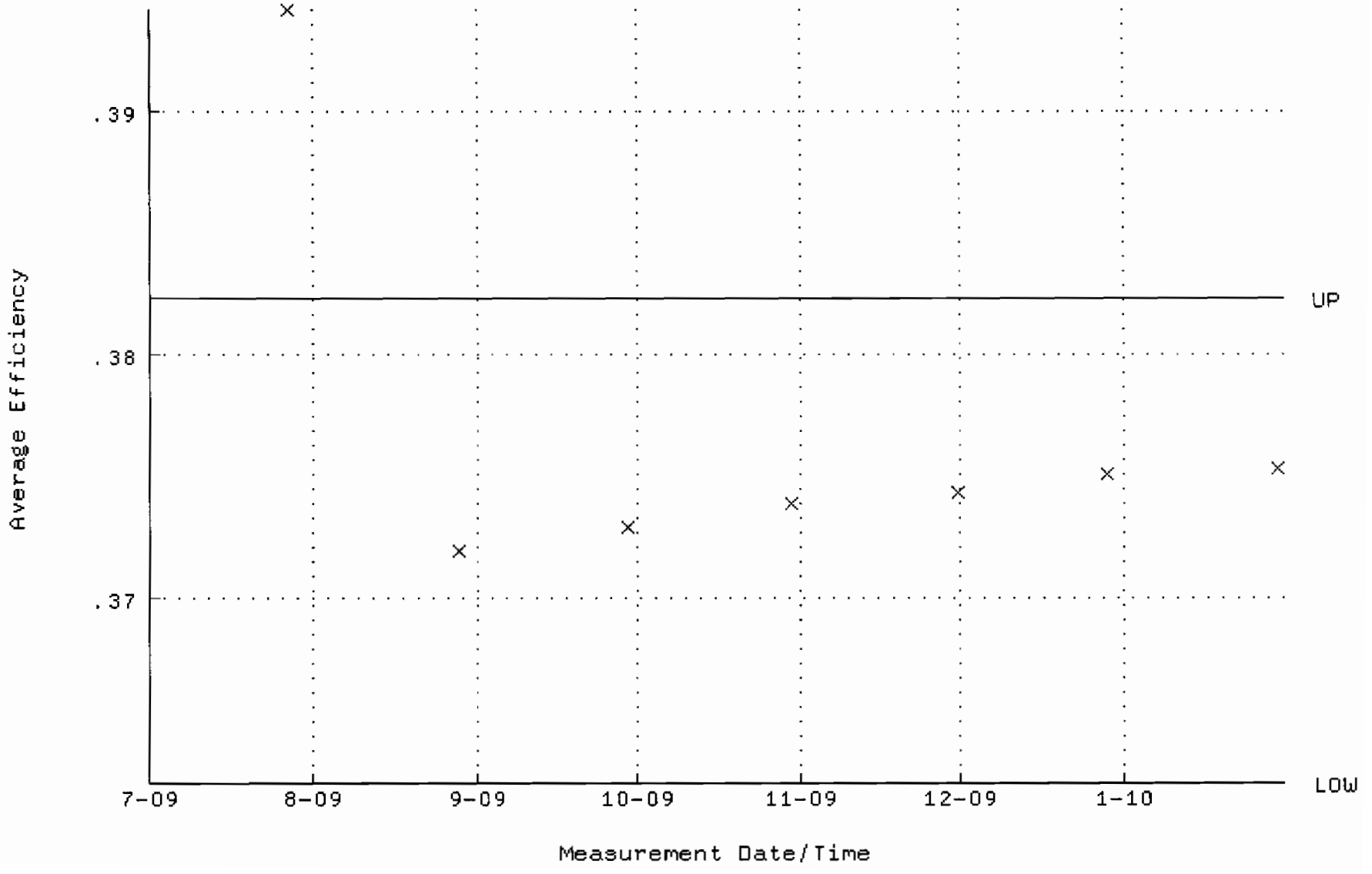

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.3892 through 98.7986

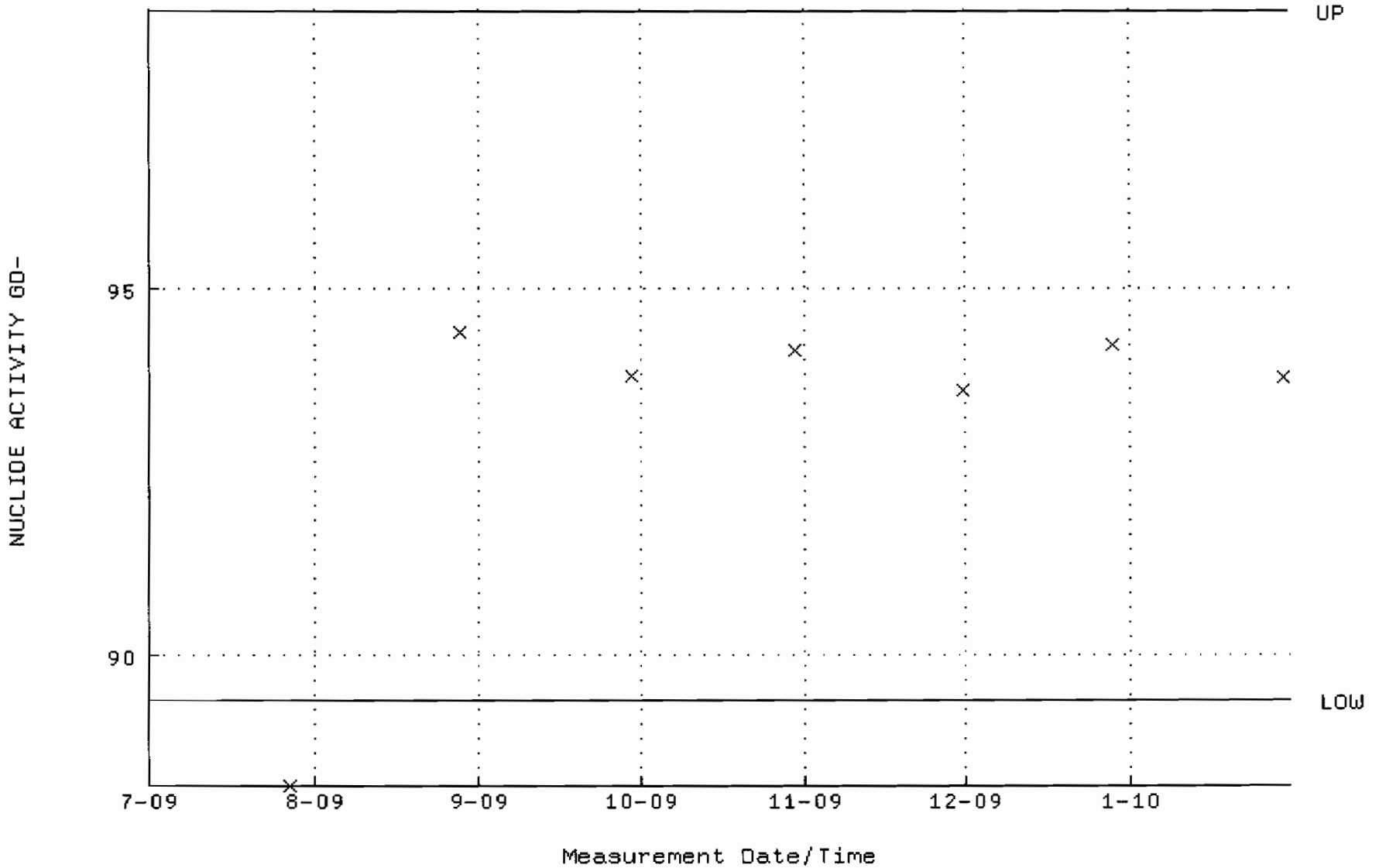

QA filename : DKA100:[ENV_ALPHA.QA.B]B218.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

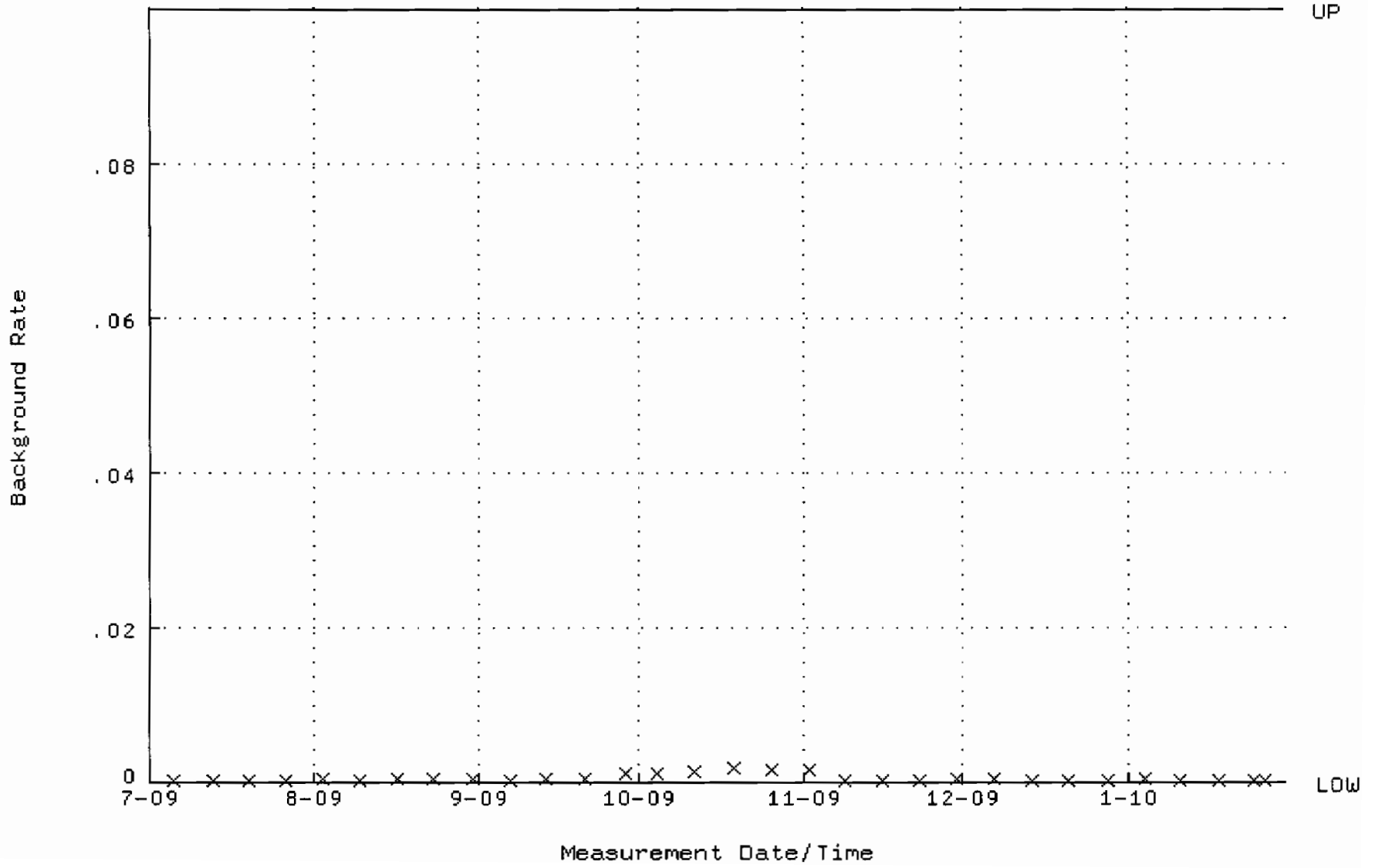

QA filename : DKA100:[ENV_ALPHA.QA.W]W220.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:23 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.359644 through 0.379644

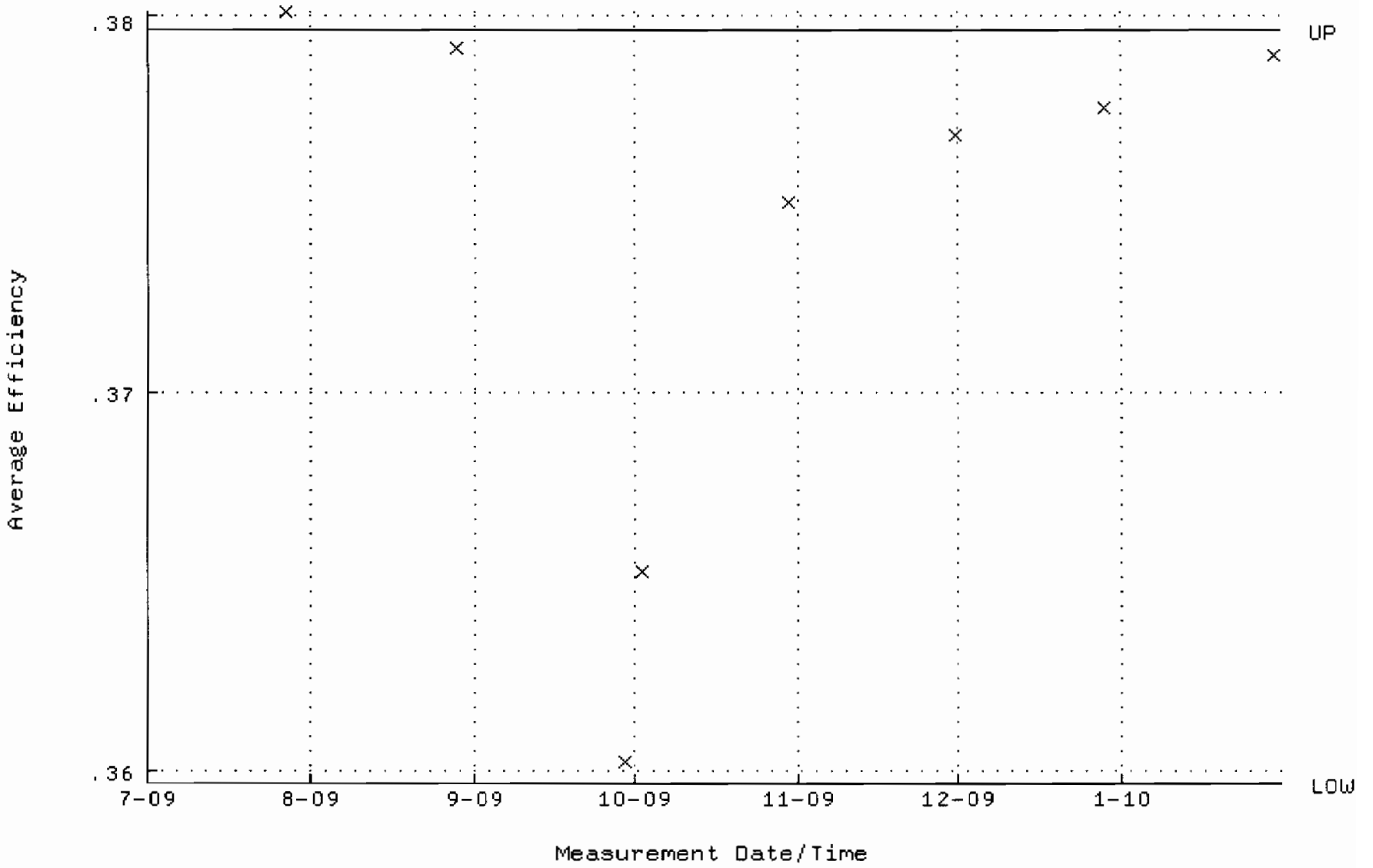

QA filename : DKA100:[ENV_ALPHA.QA.W]W220.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:23 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.2863 through 97.5795

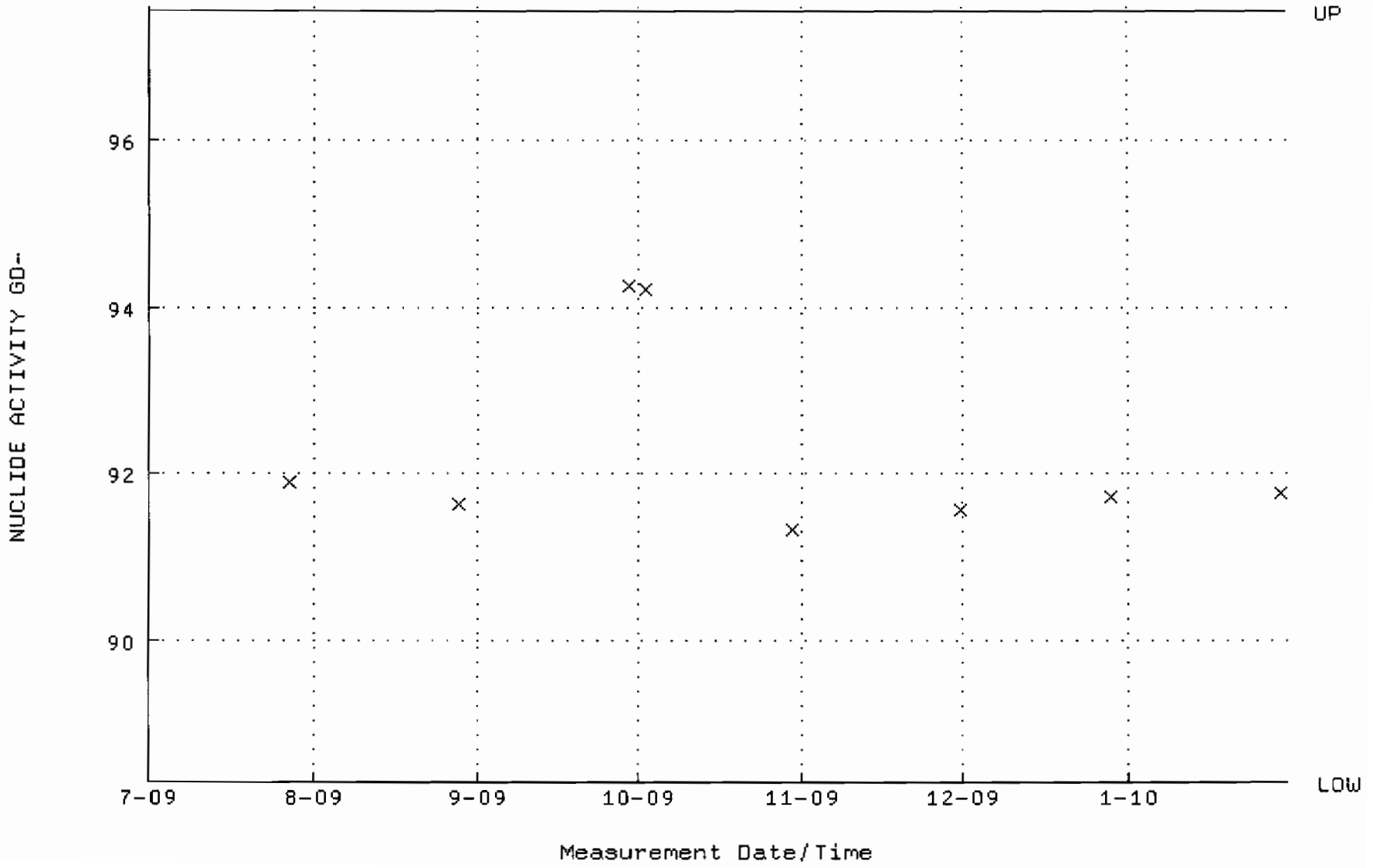

QA filename : DKA100:[ENV_ALPHA.QA.B]B220.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

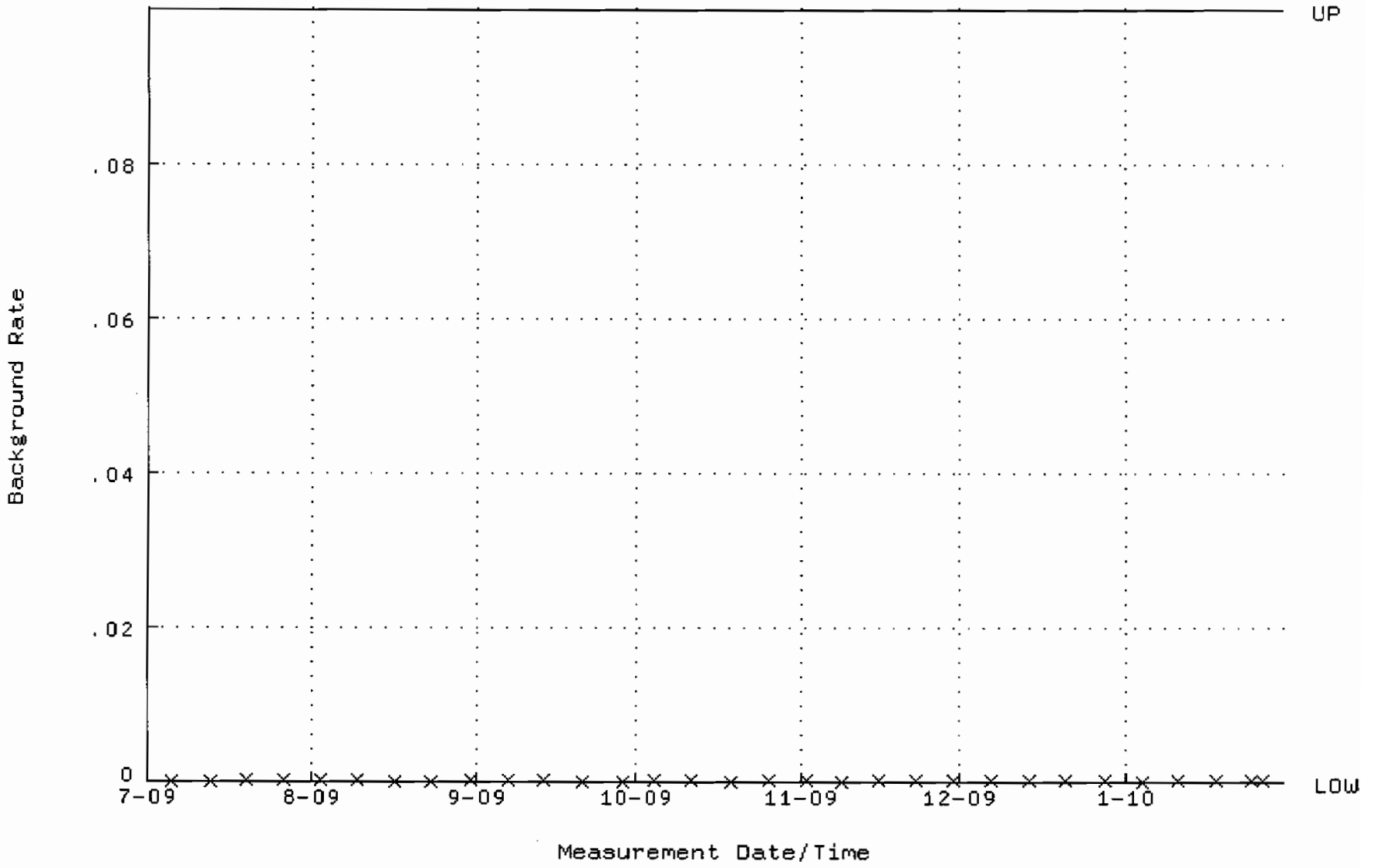

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:22 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.364789 through 0.384789

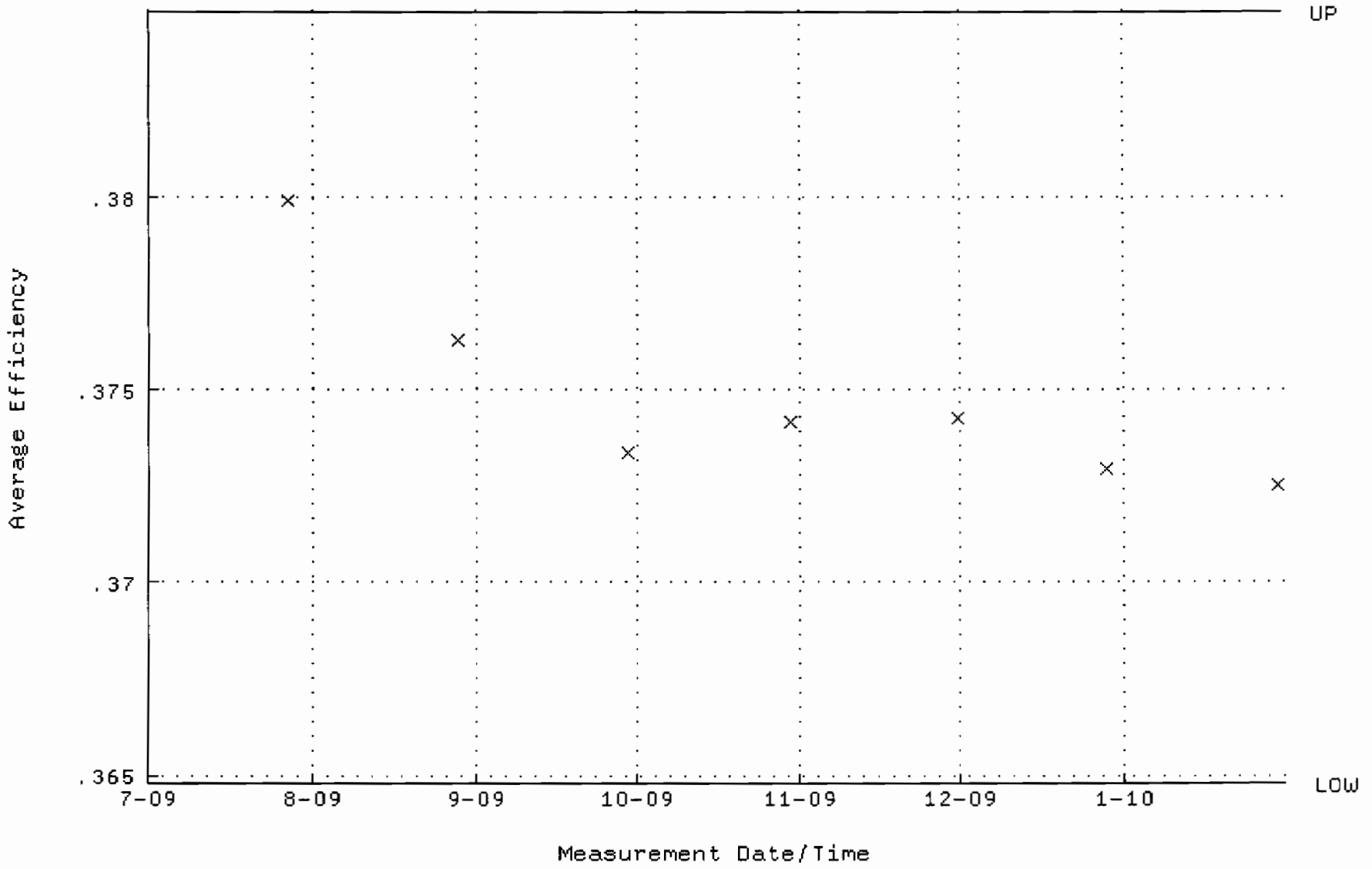

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:22 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.2691 through 97.5605

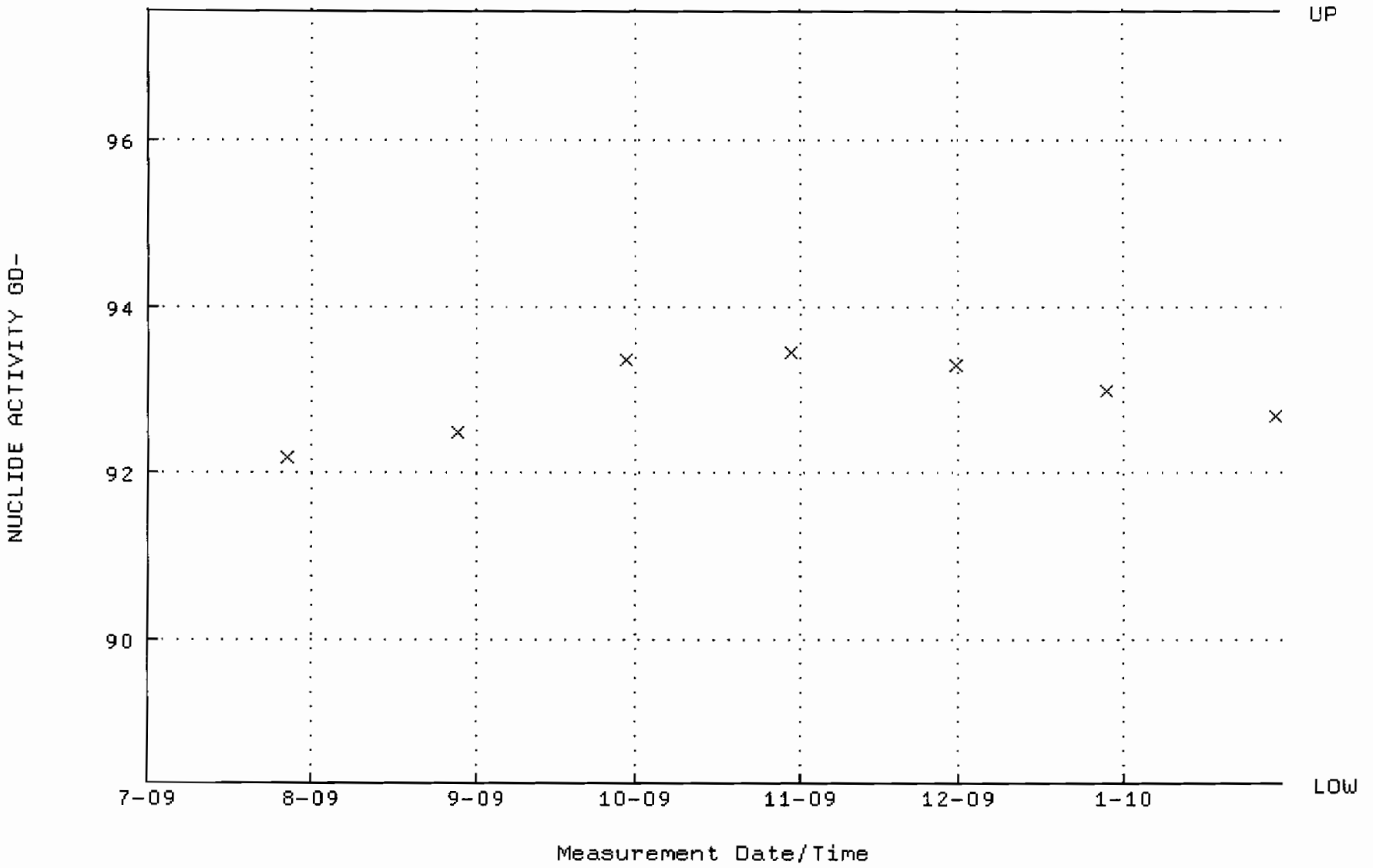

QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:53 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

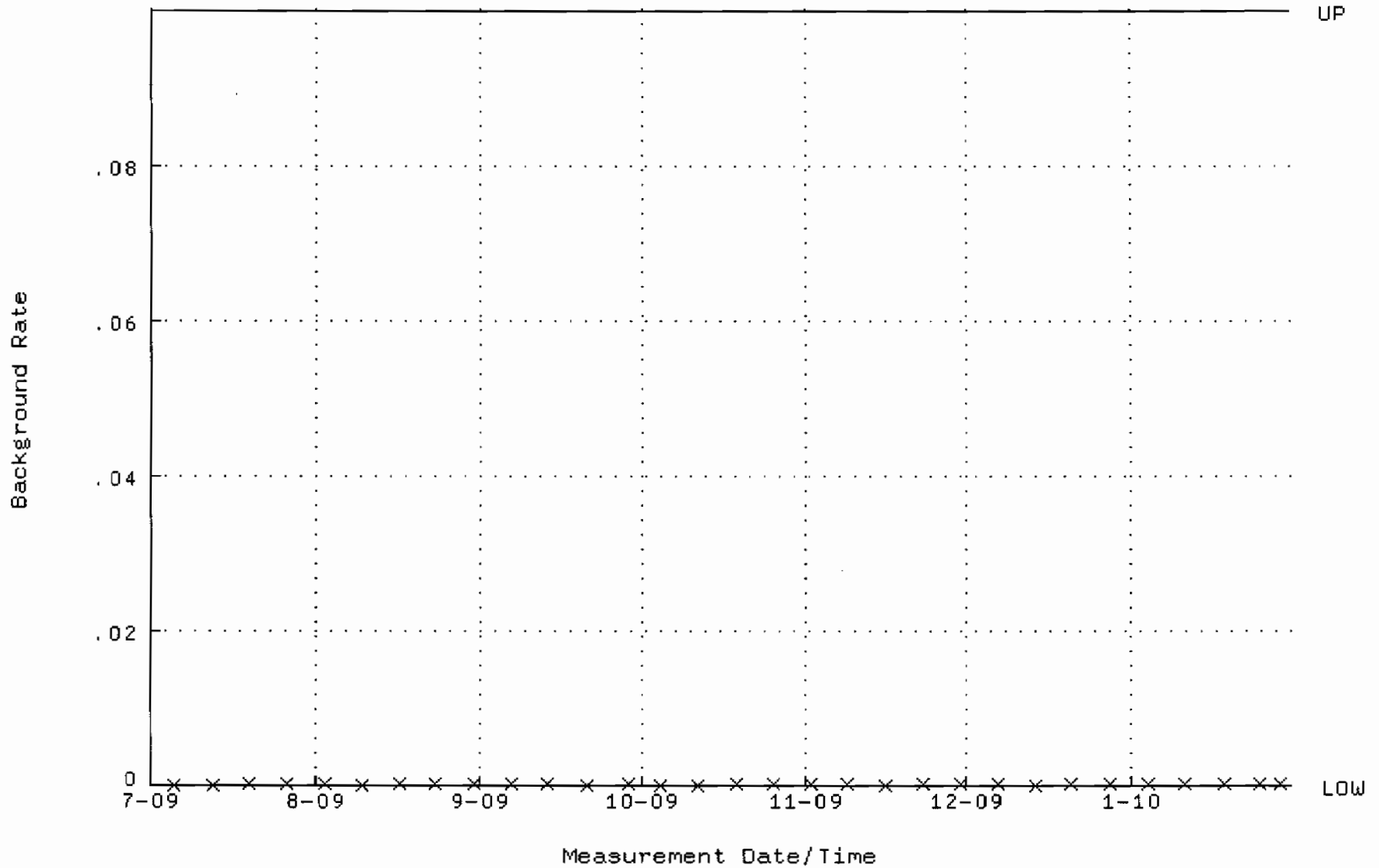

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.366240 through 0.386240

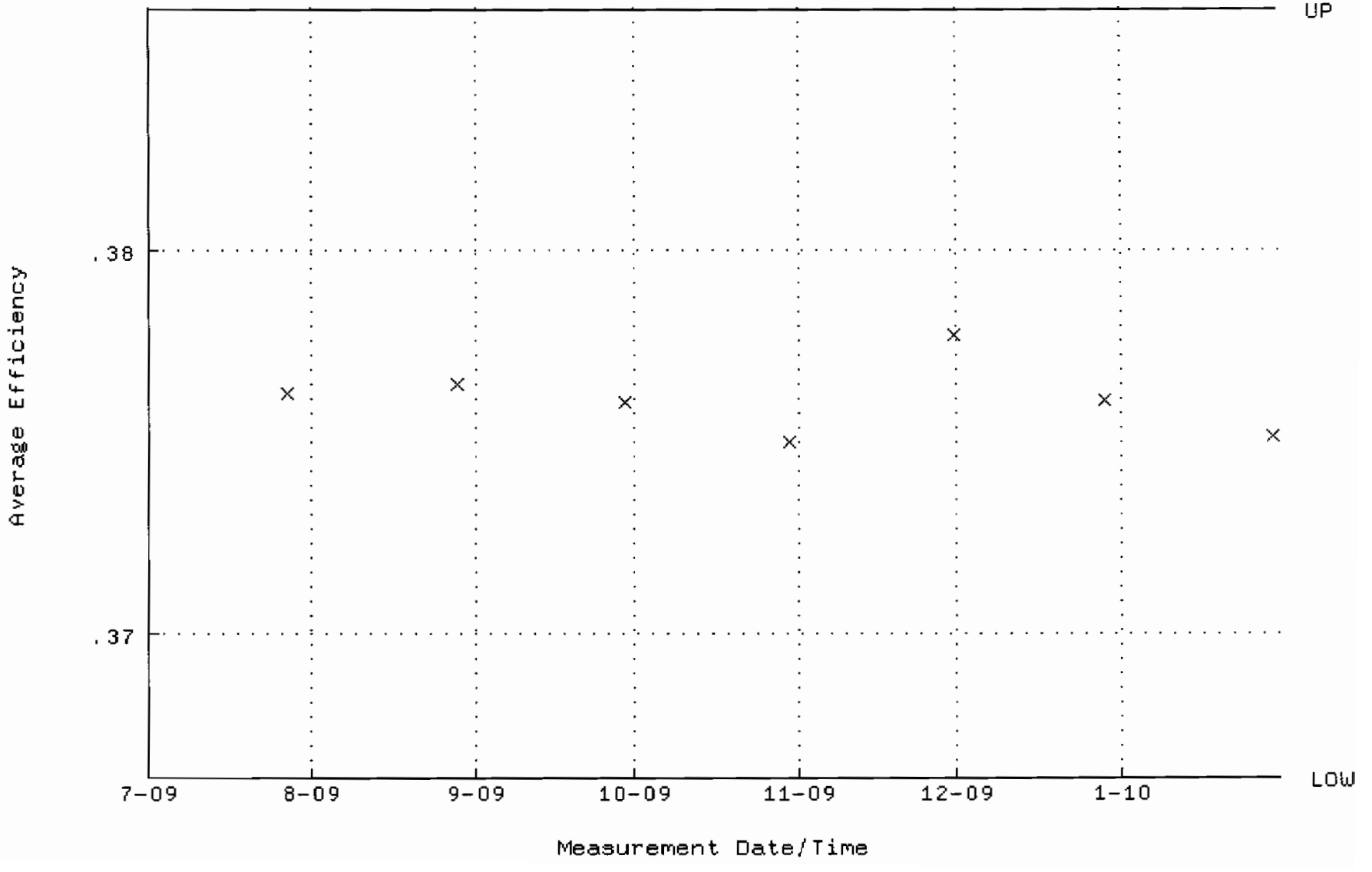

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 85.7127 through 94.7351

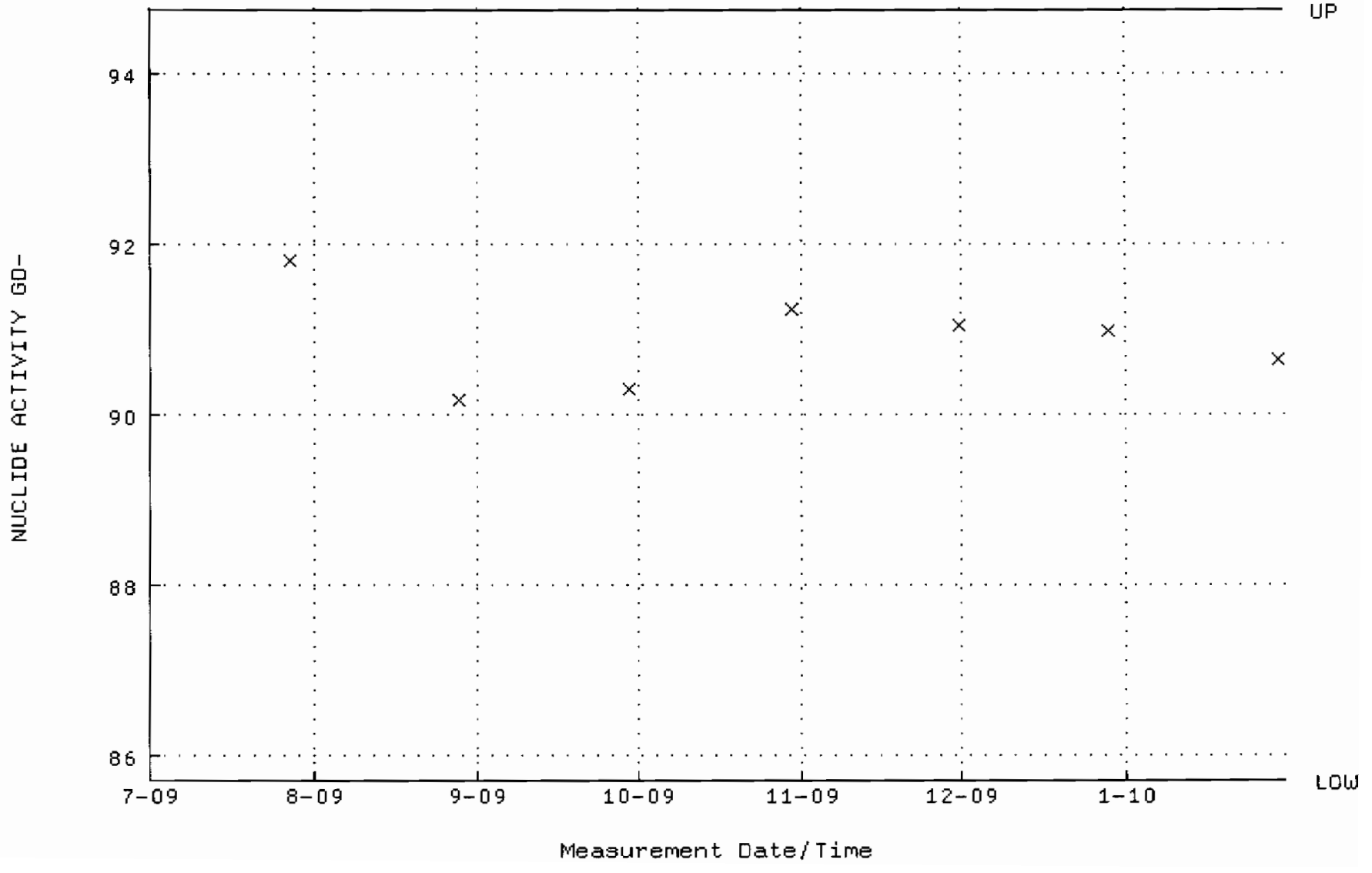

QA filename : DKA100:[ENV_ALPHA.QA.B]B230.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

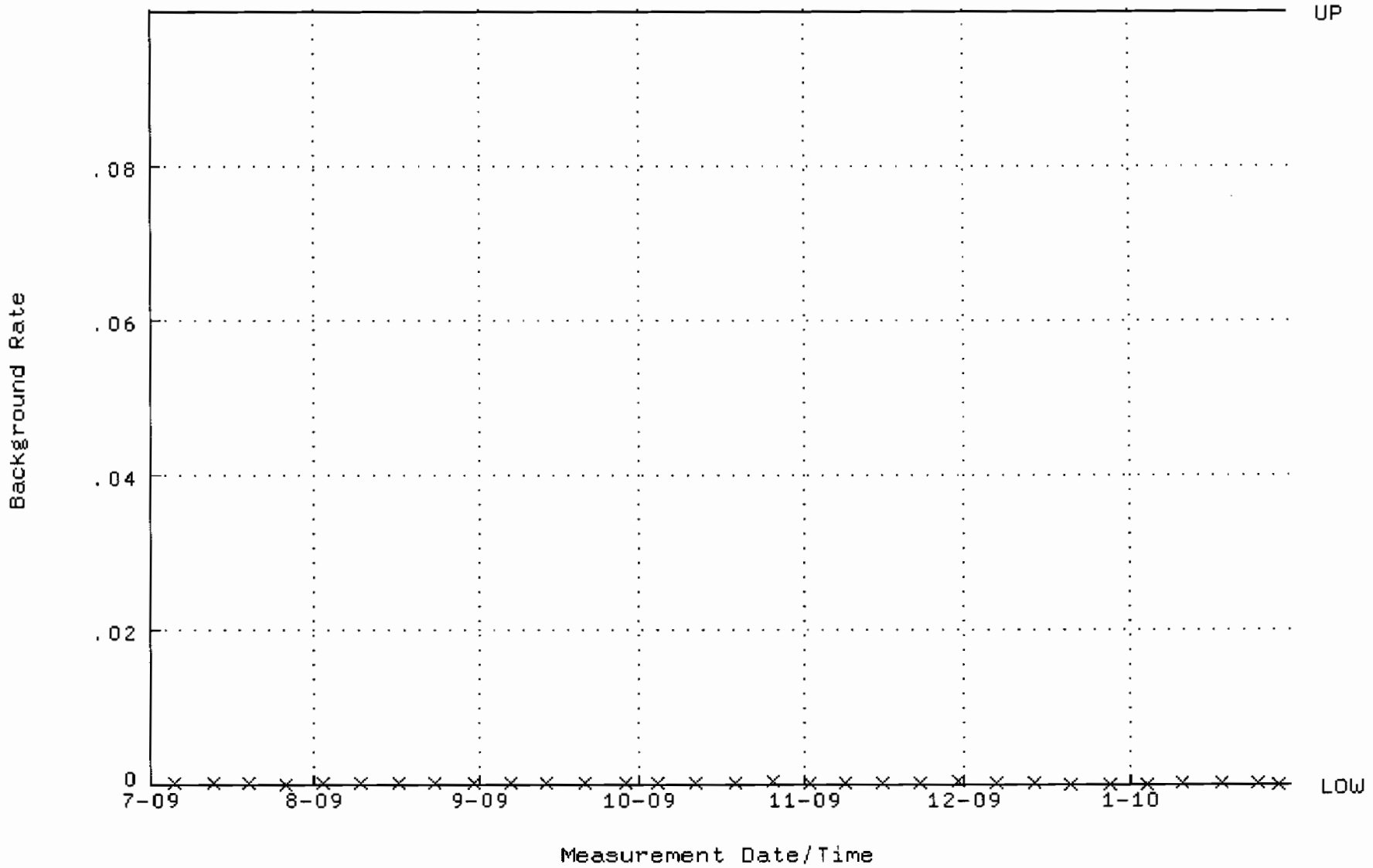

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:35 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.378748 through 0.398748

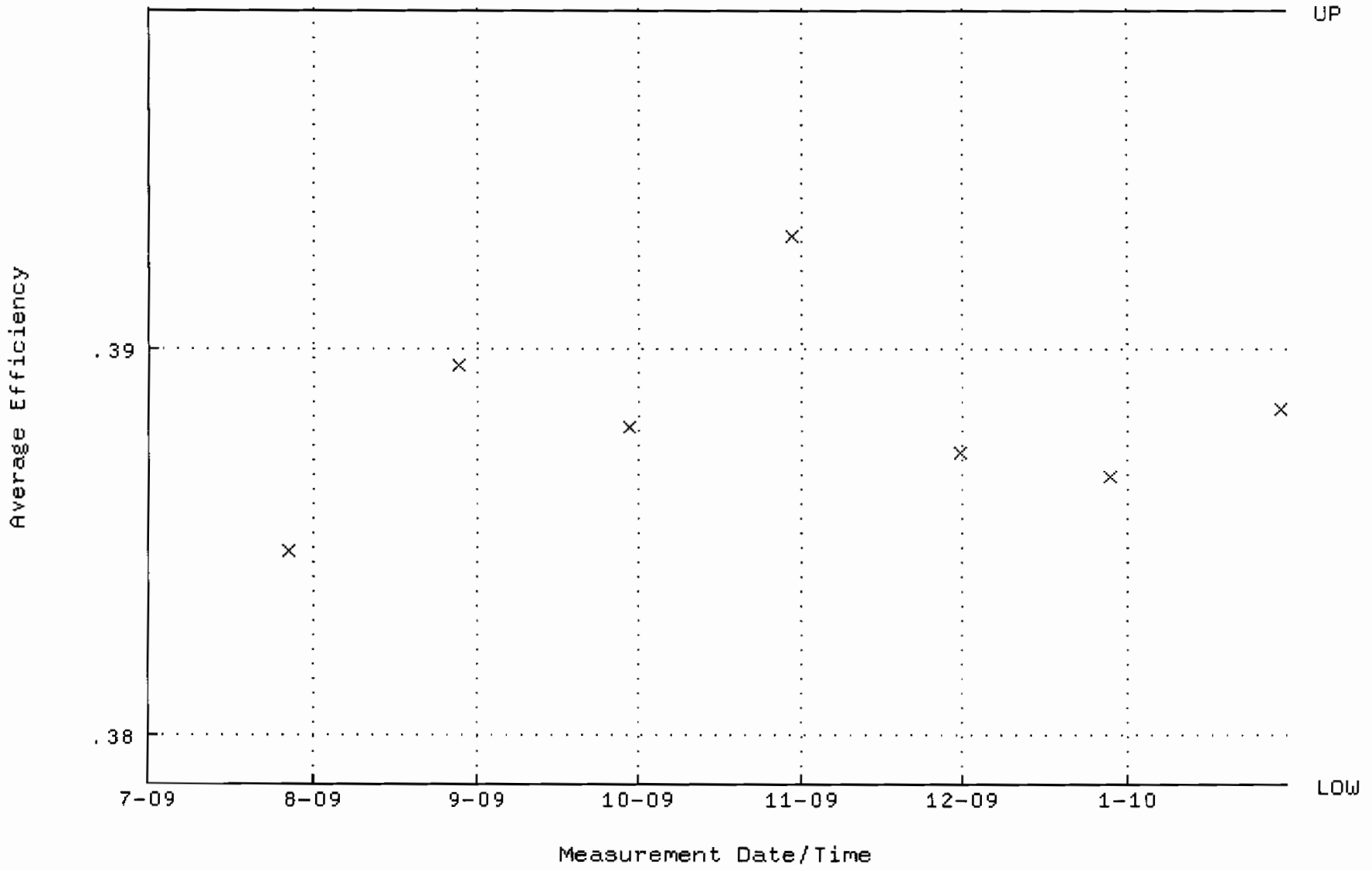

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:35 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 85.6783 through 94.6971

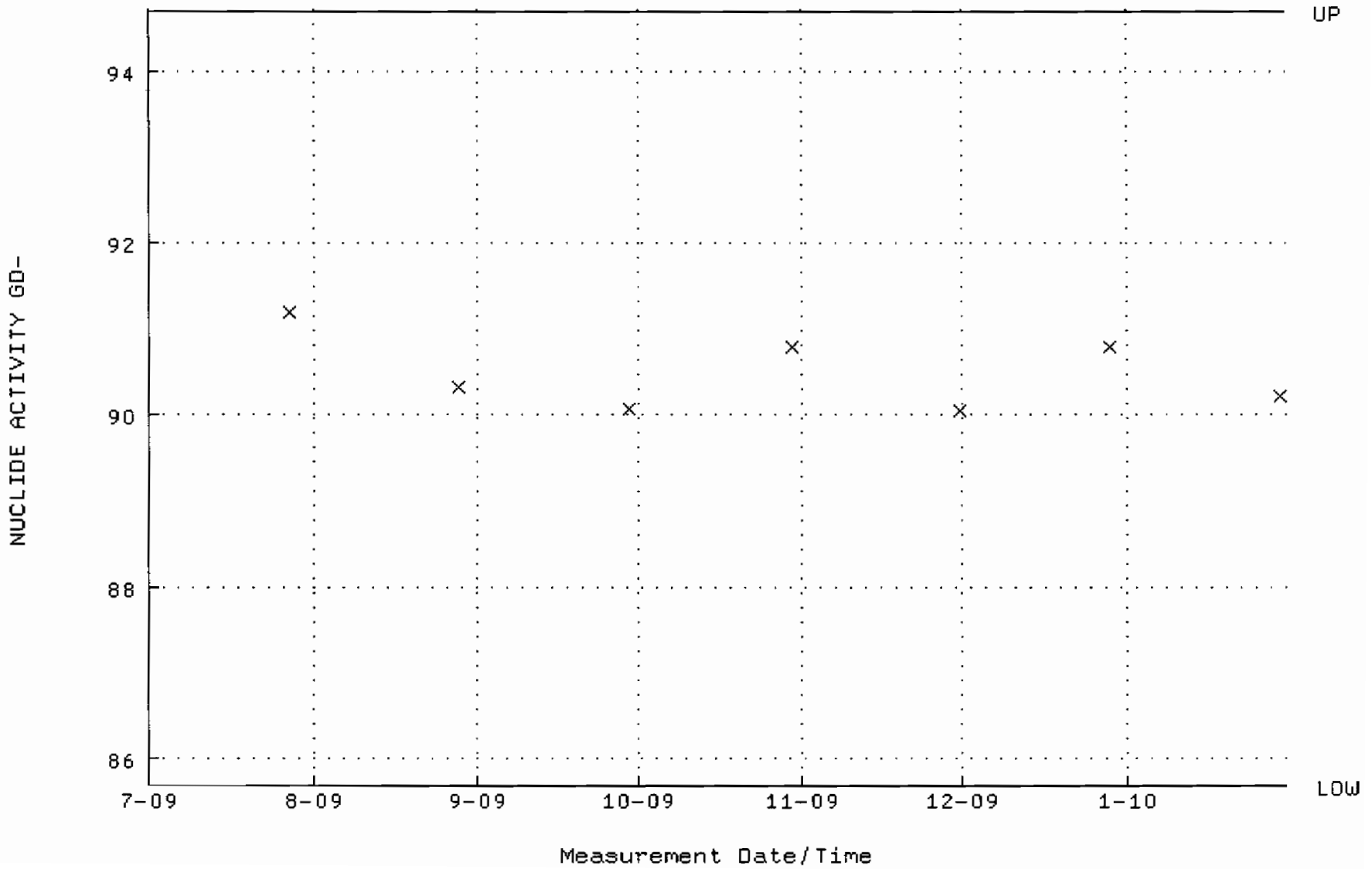

QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

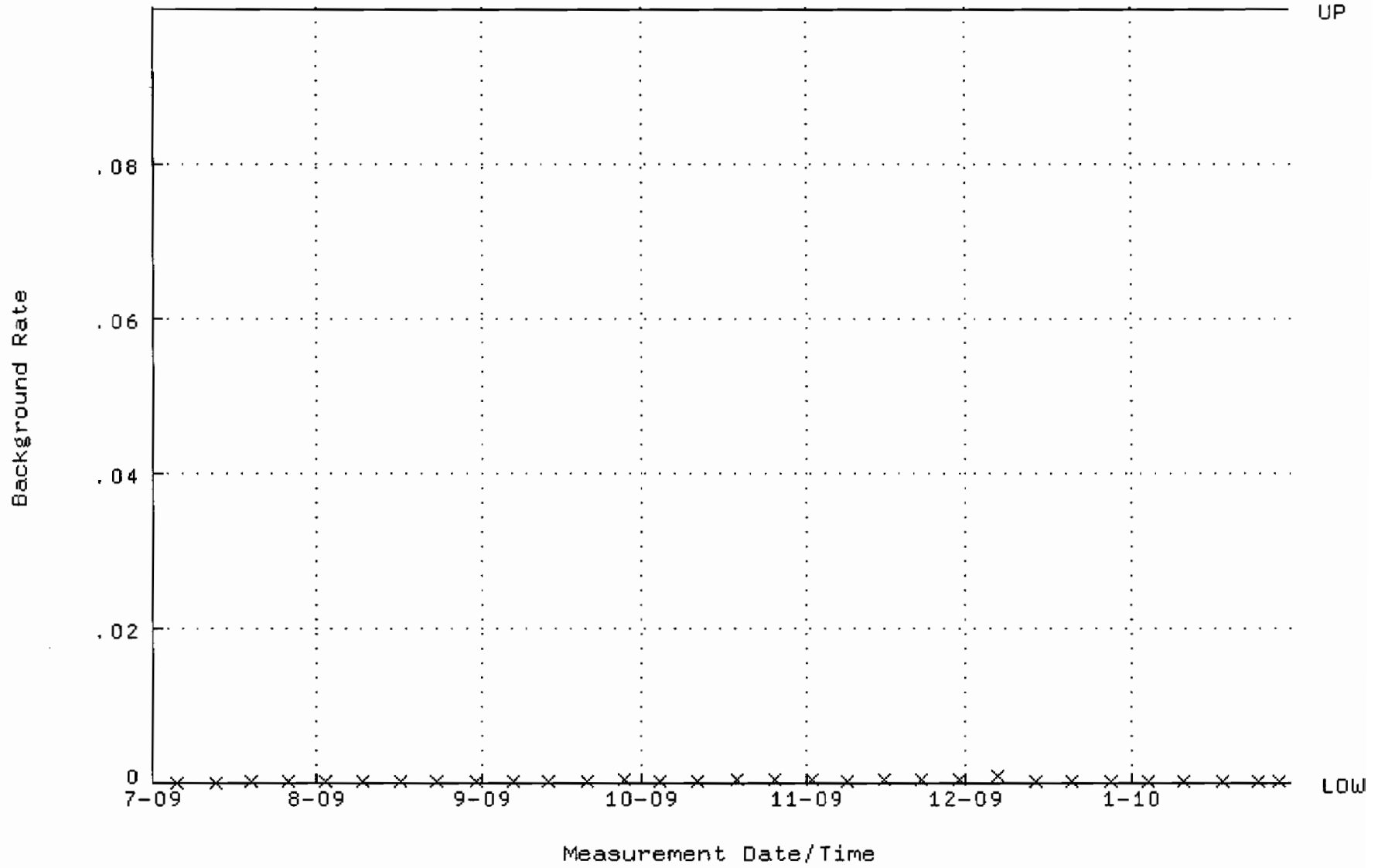

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.372001 through 0.392001

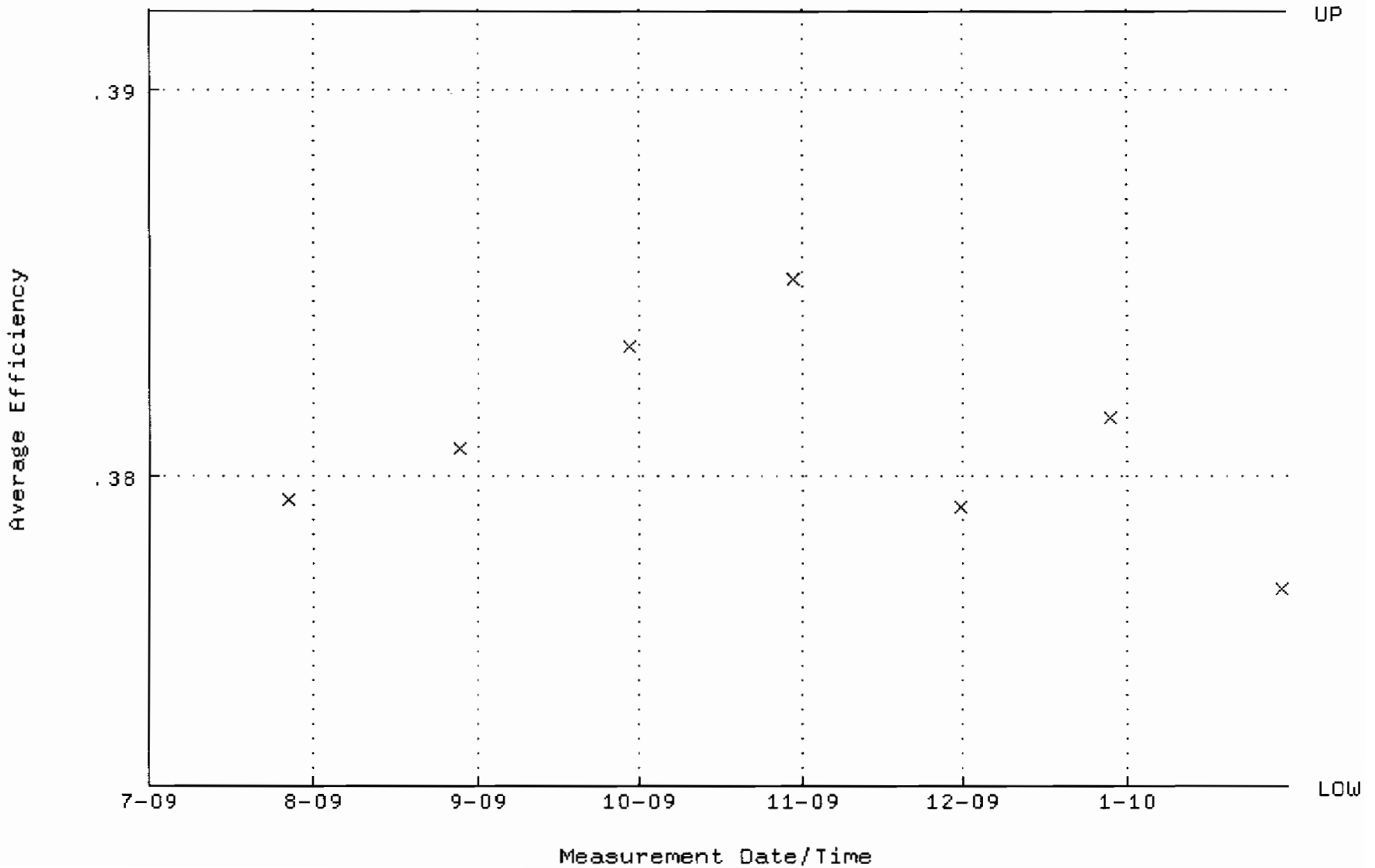

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.9652 through 91.6984

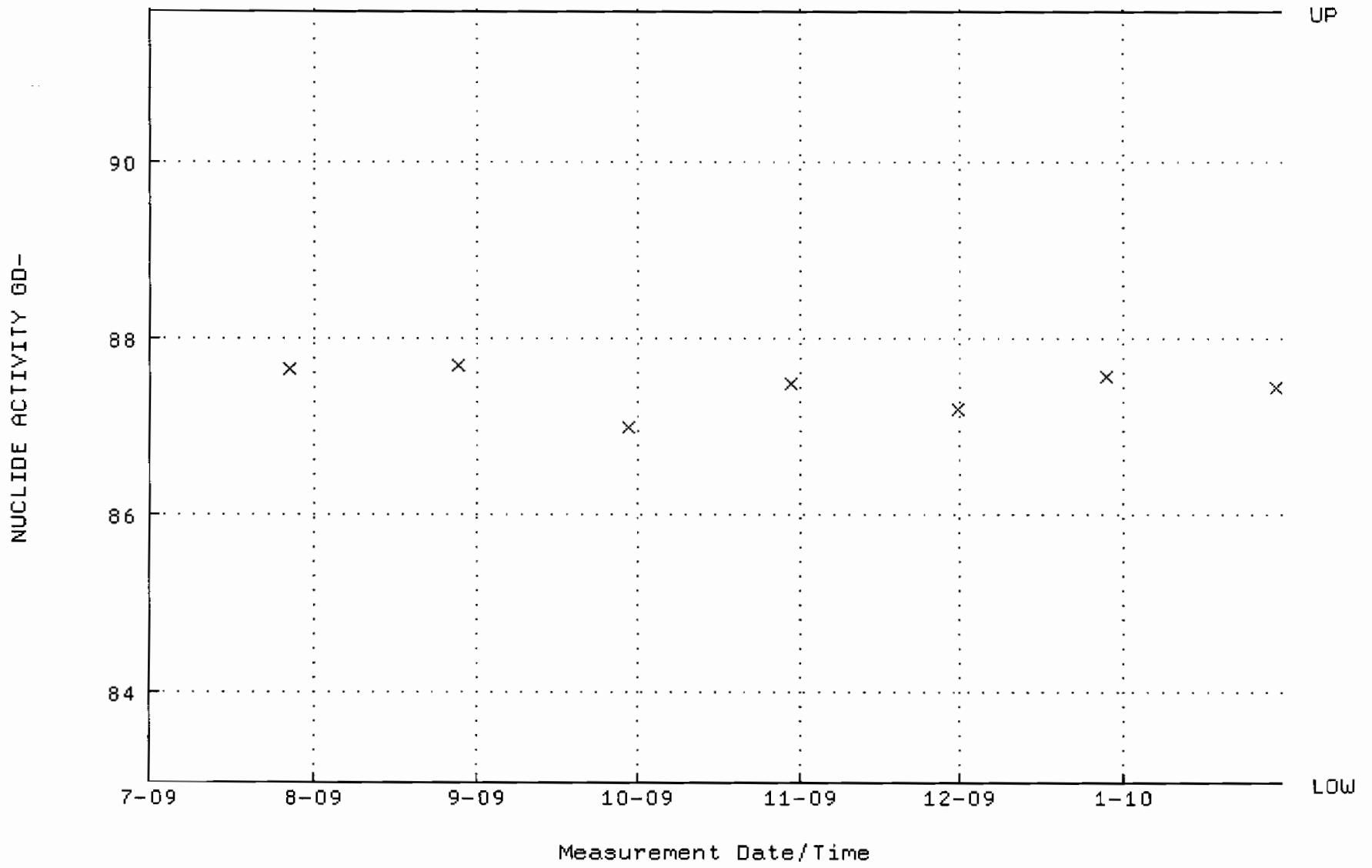

QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

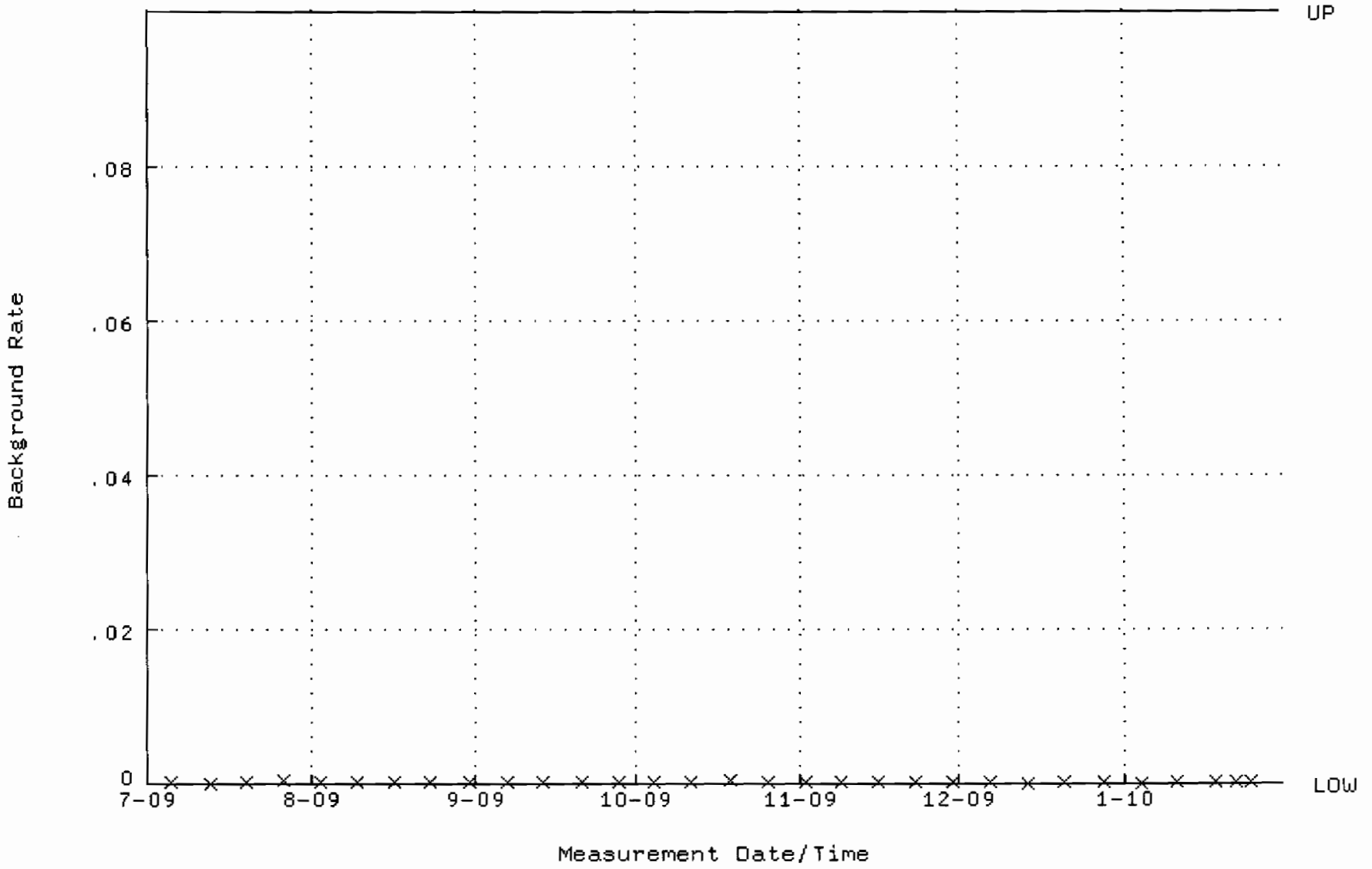

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.372763 through 0.392763

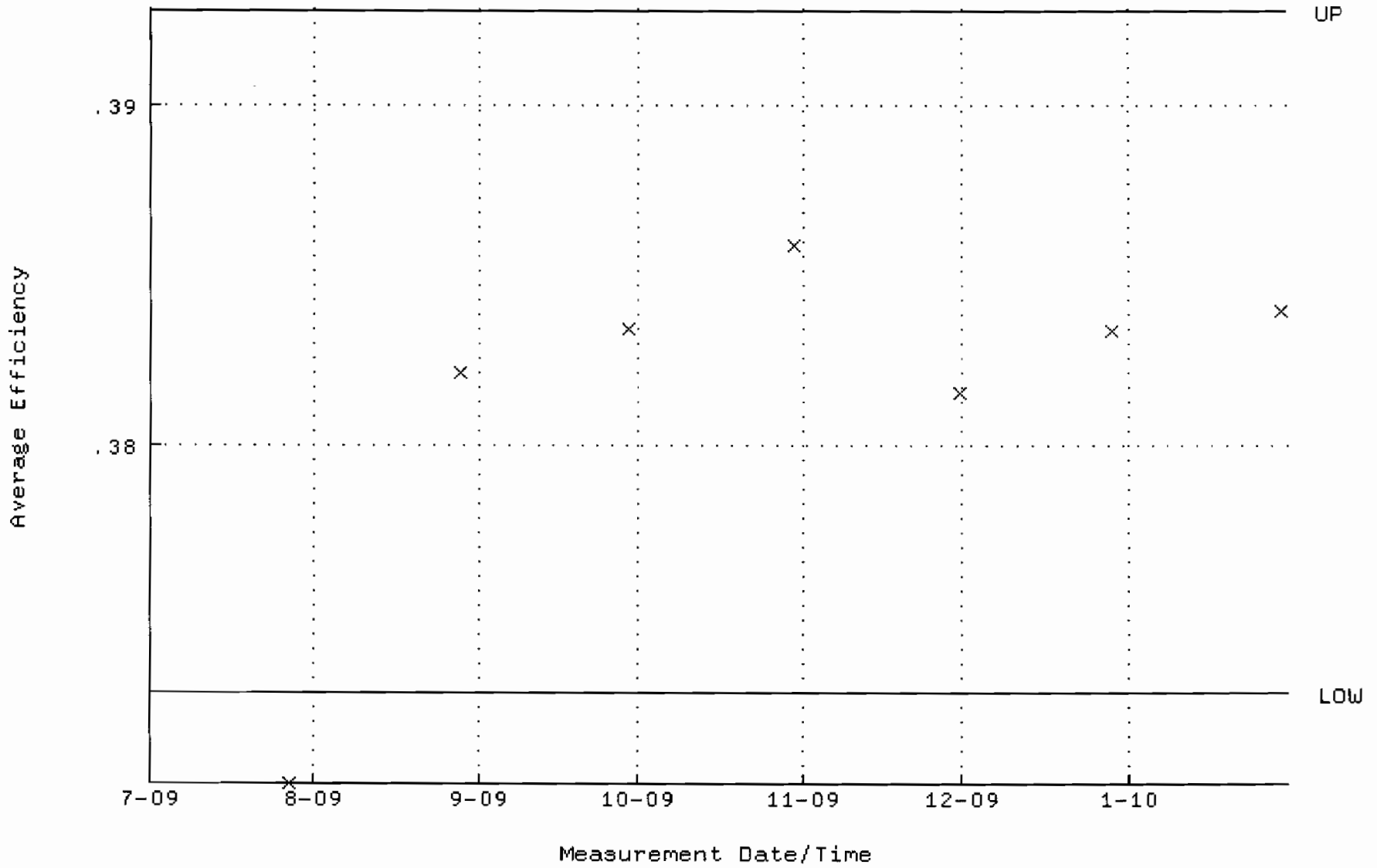

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 80.7996 through 89.3048

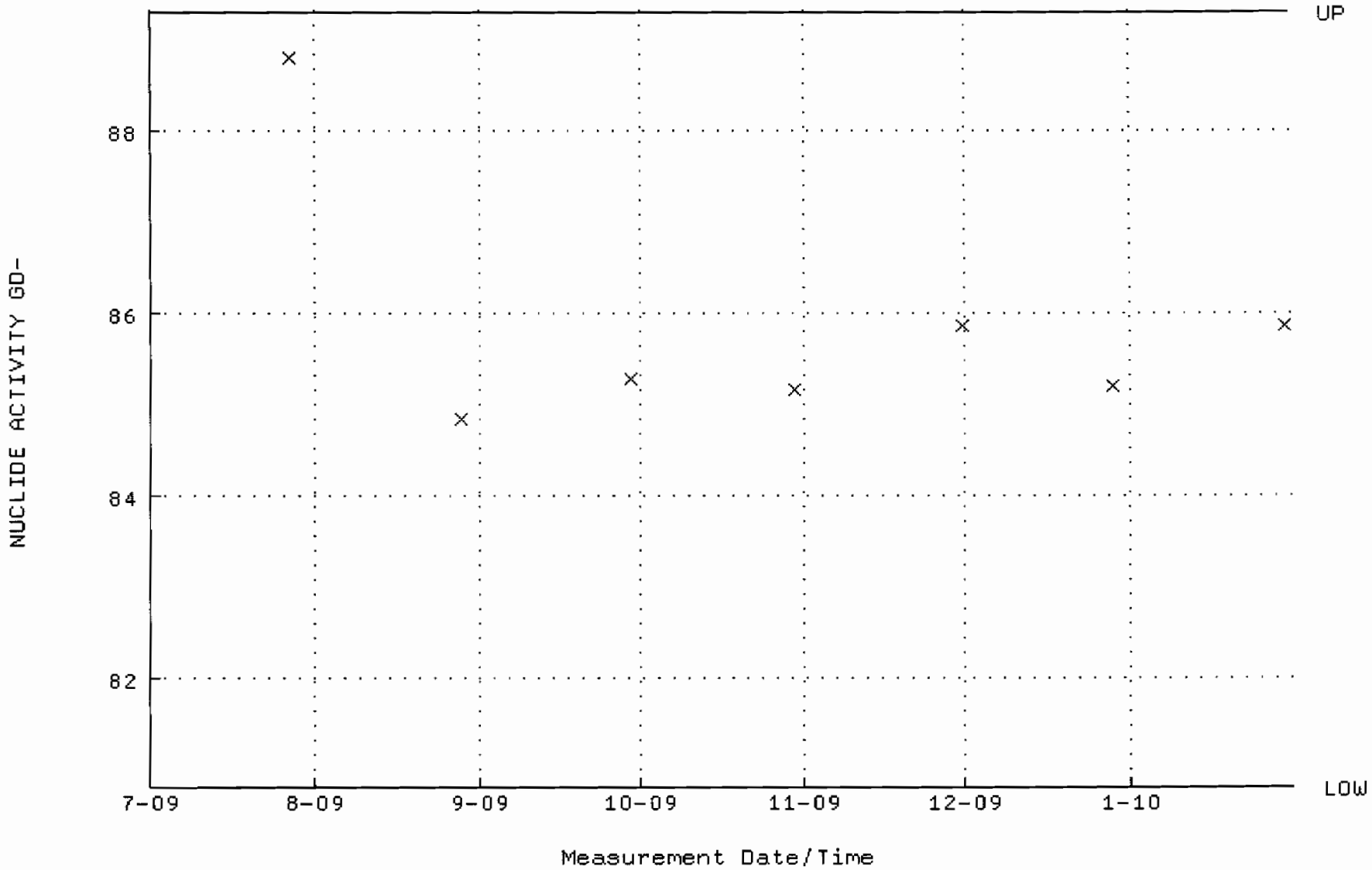

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:15 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

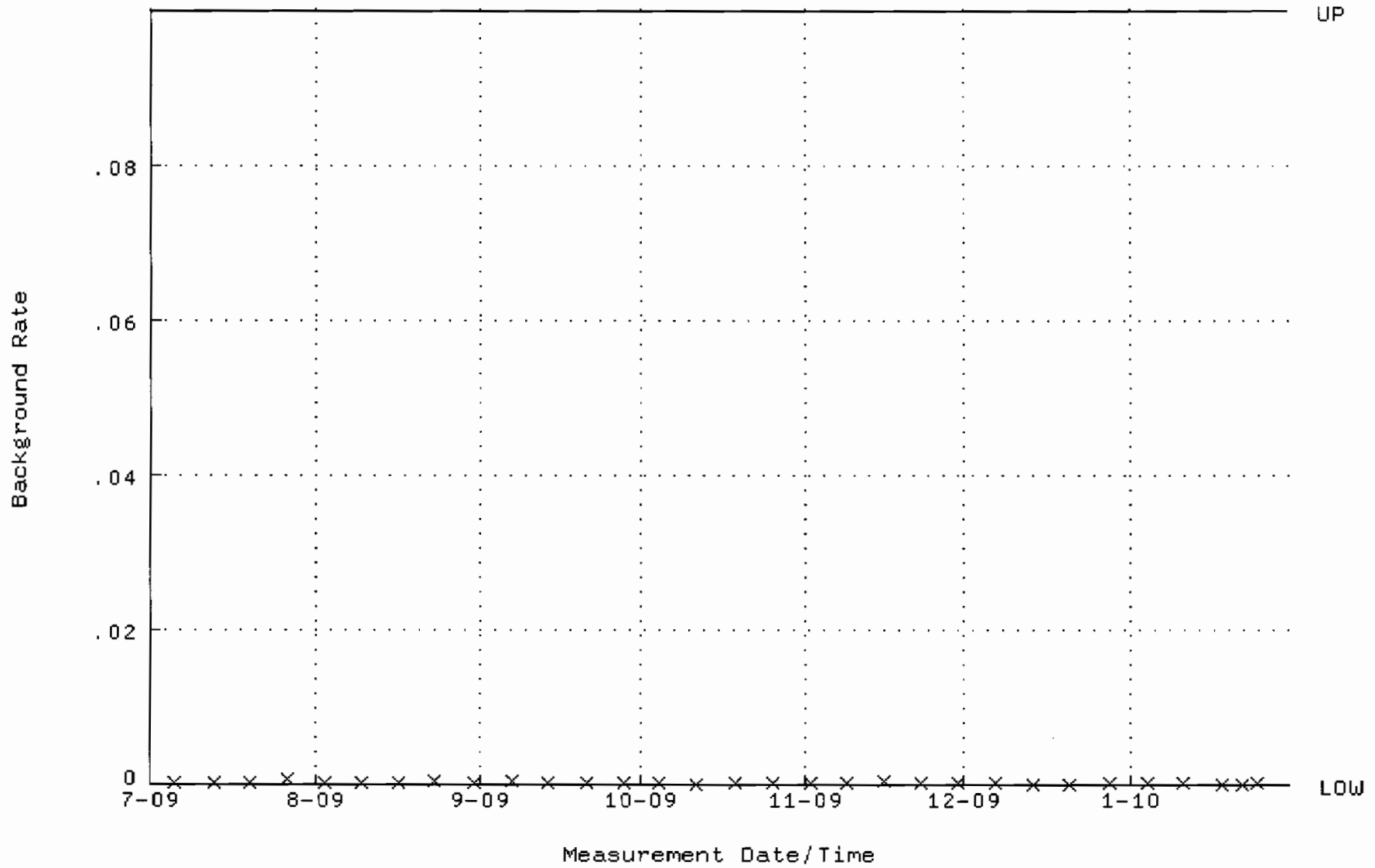

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.364314 through 0.384314

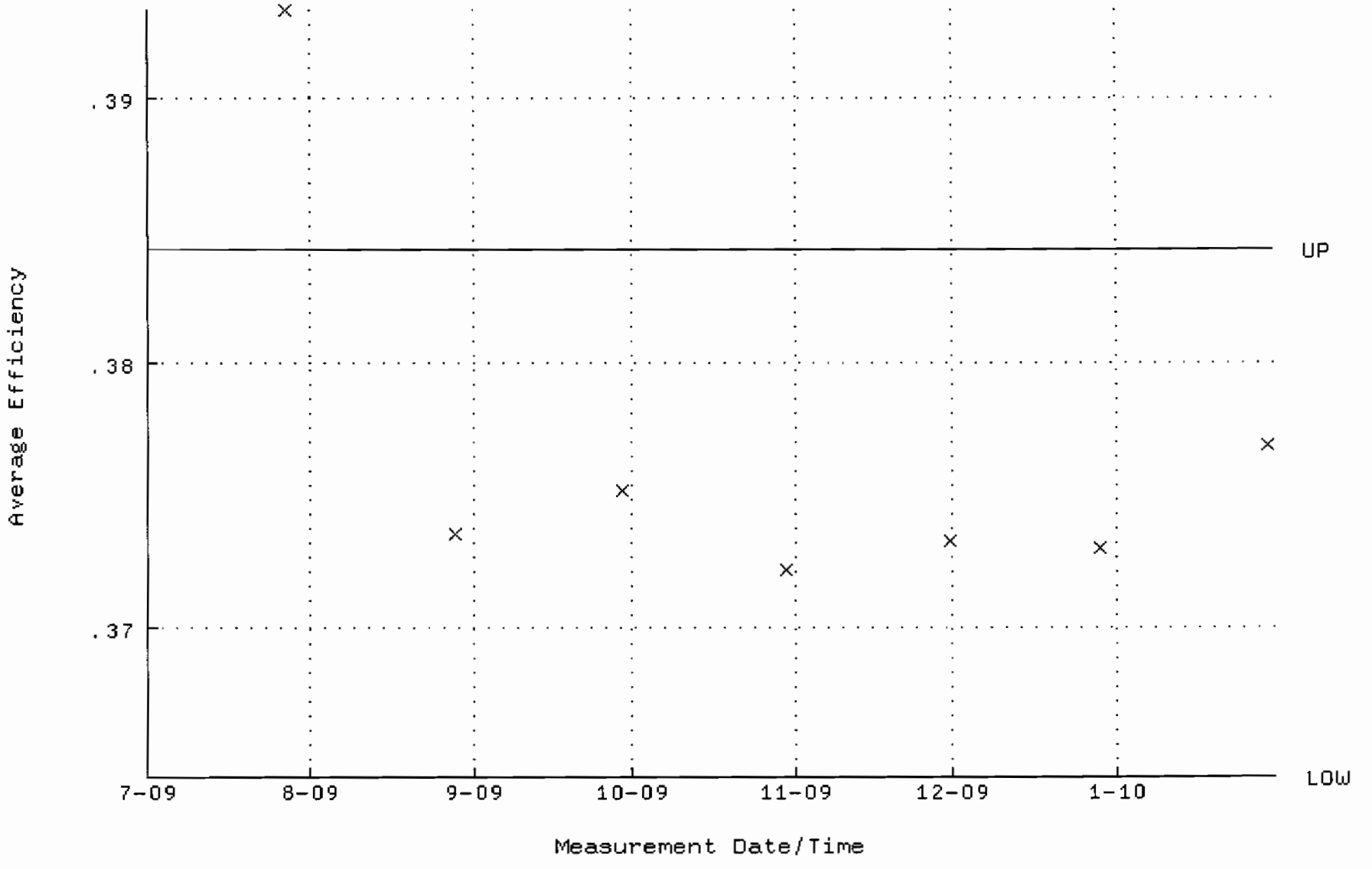

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7416 through 92.5566

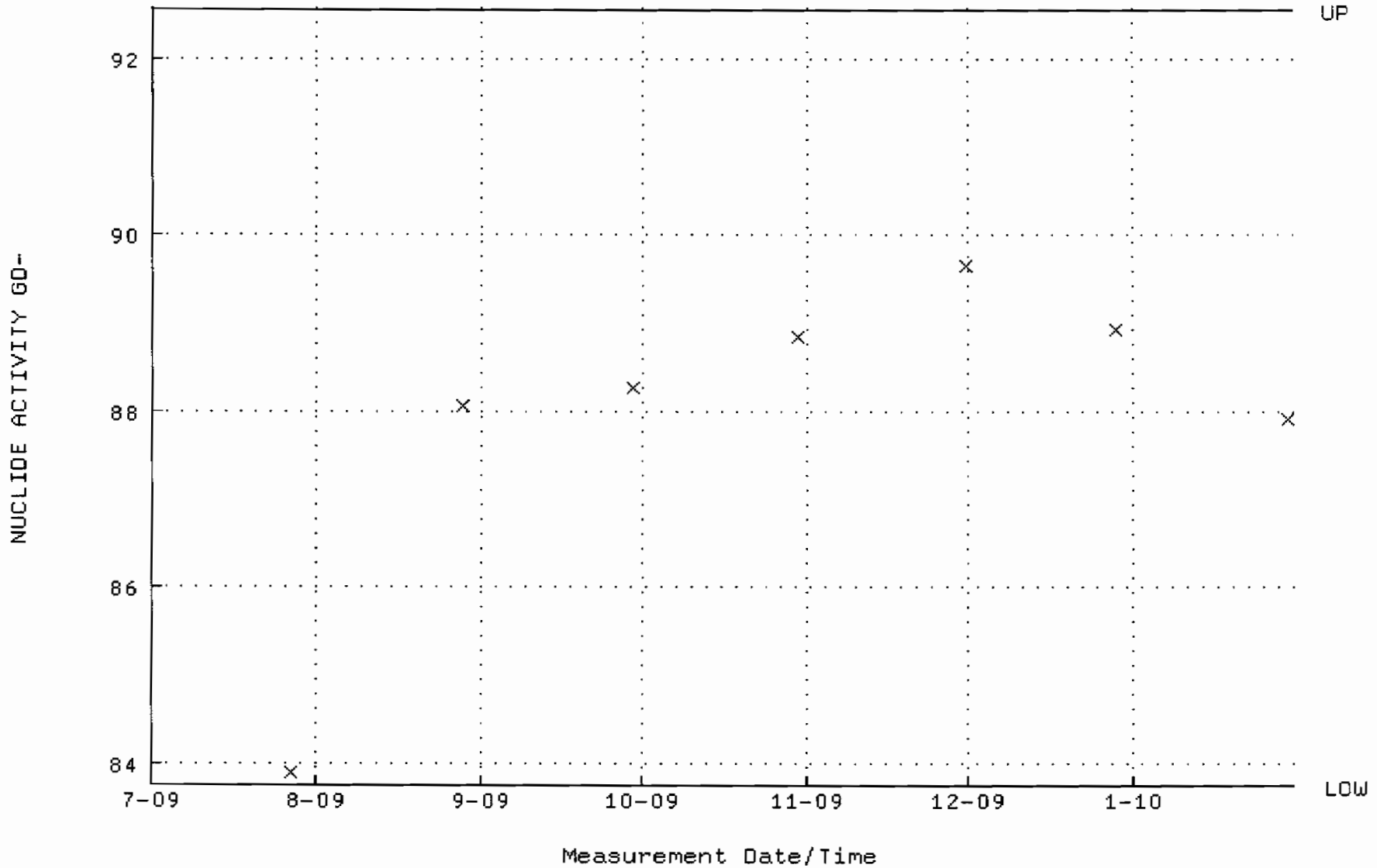

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

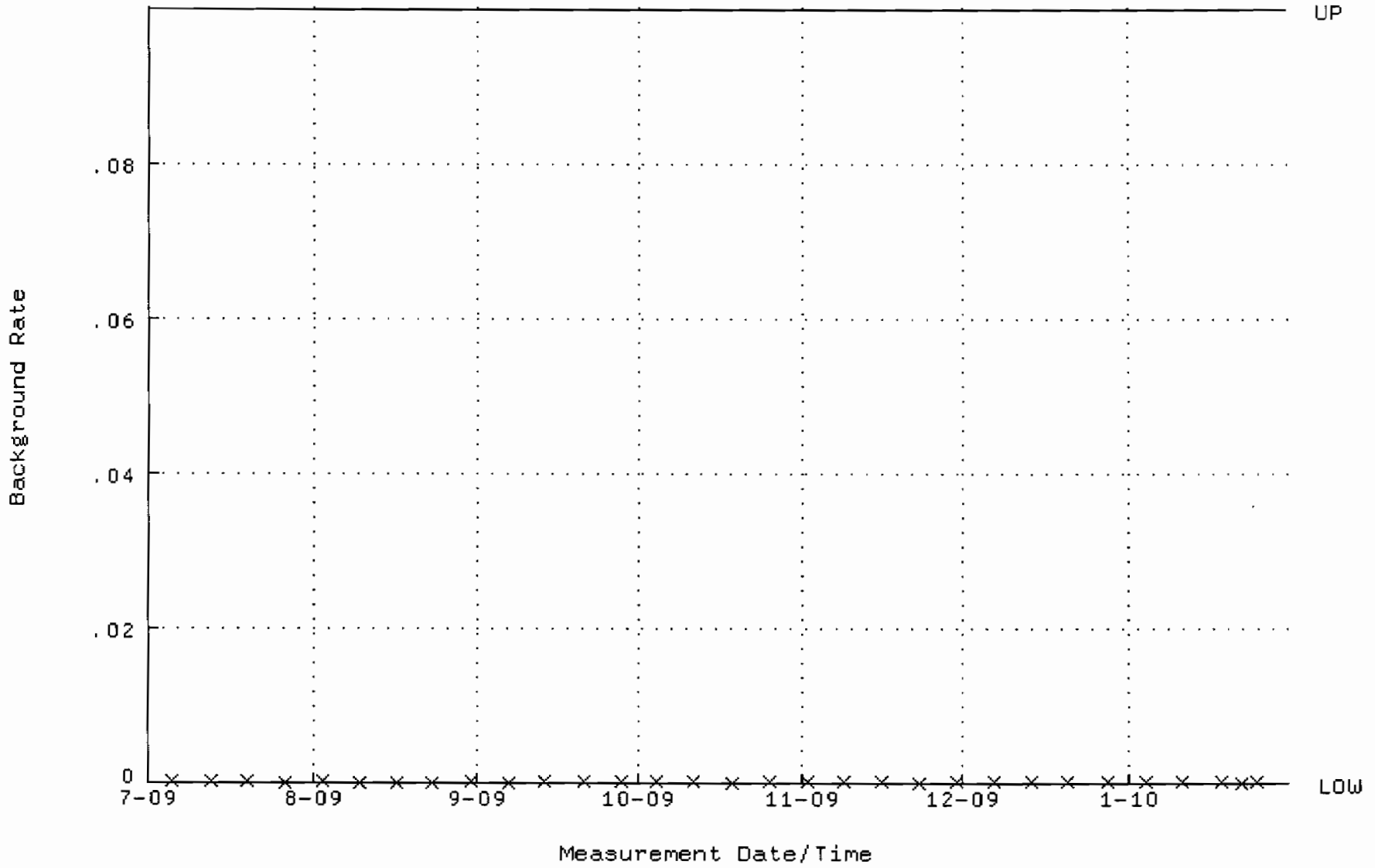

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.378766 through 0.398766

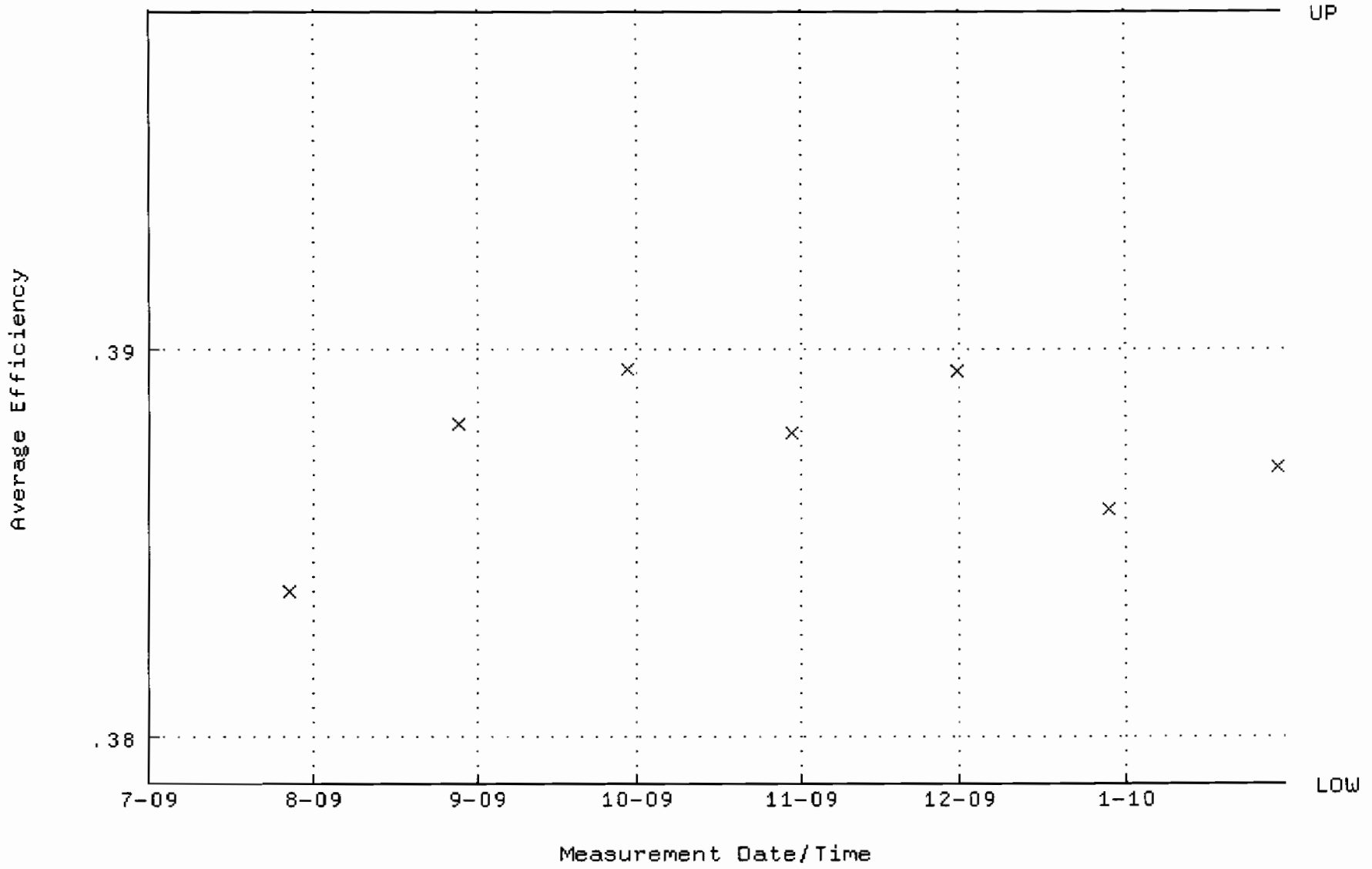

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 81.8490 through 90.4646

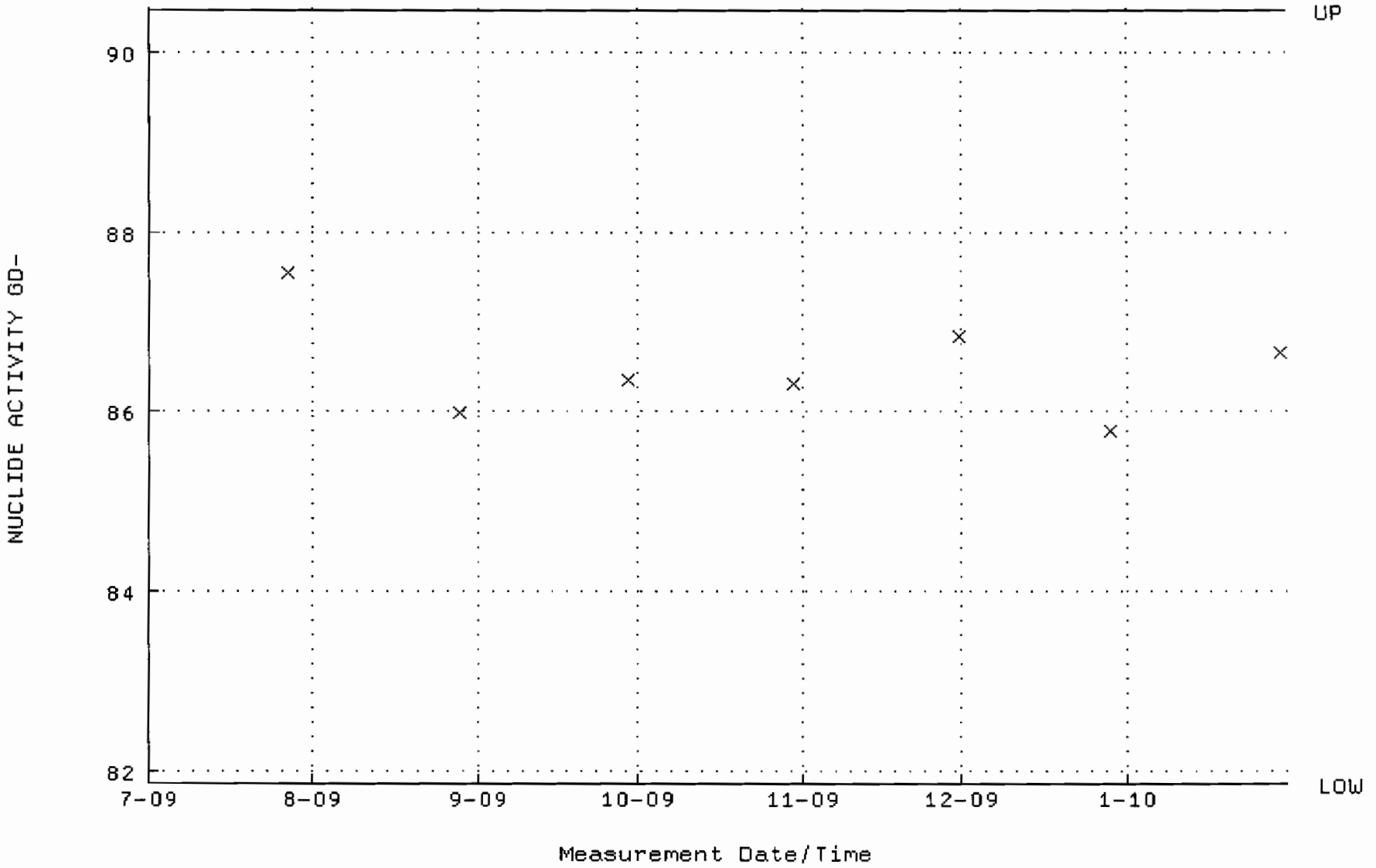

QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

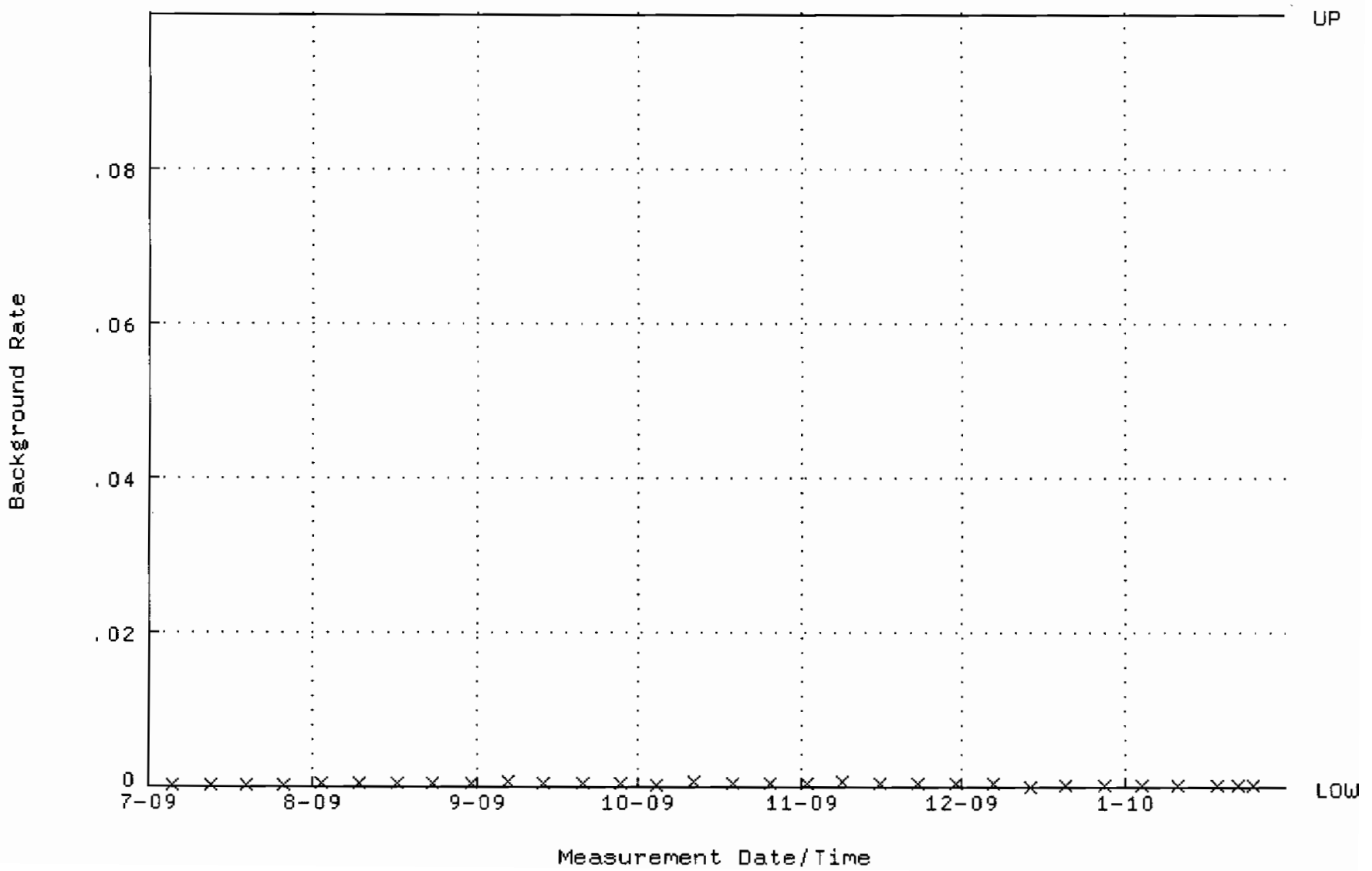

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:14 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.390000 through 0.410000

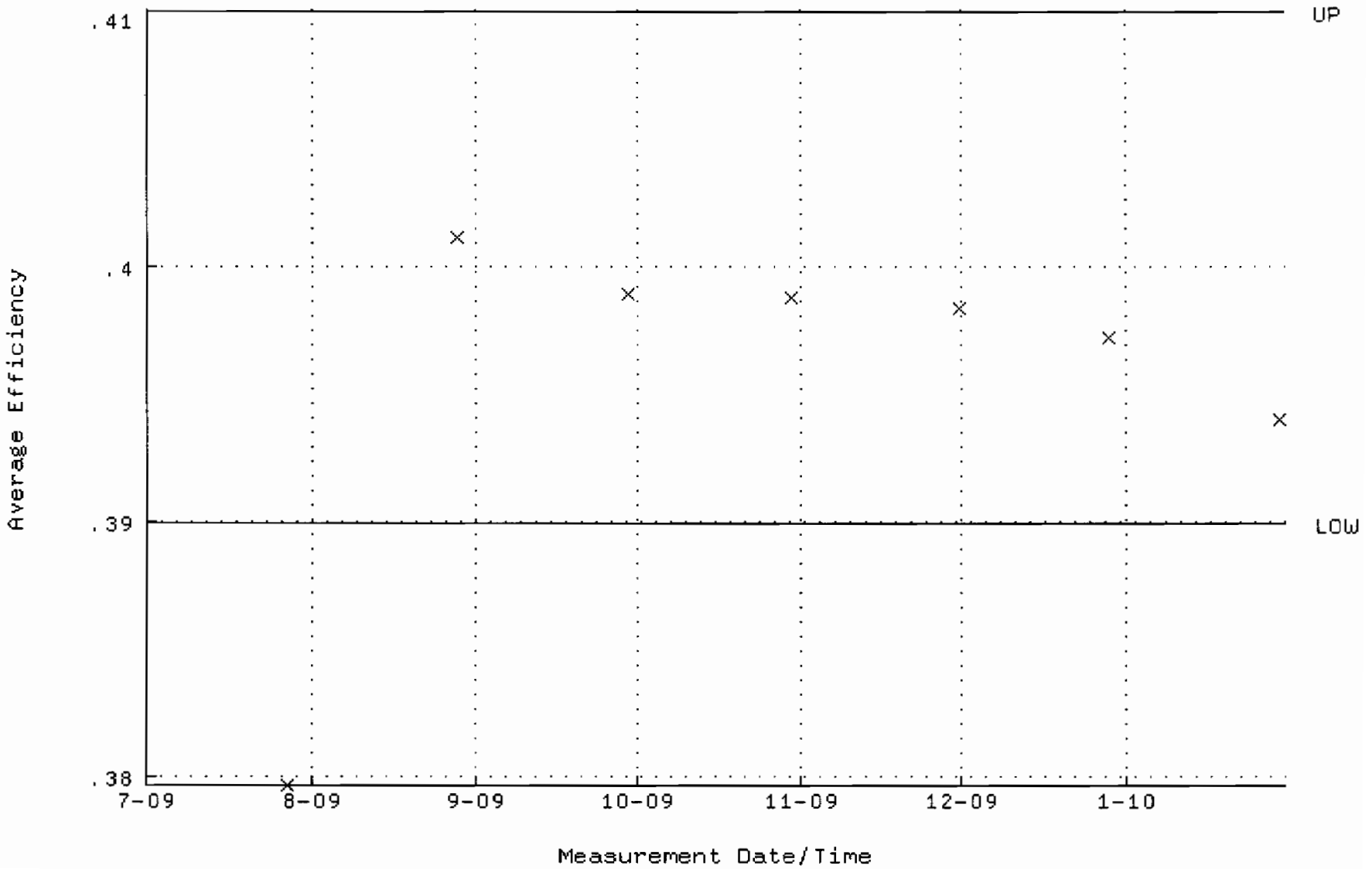

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:14 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.5642 through 87.9394

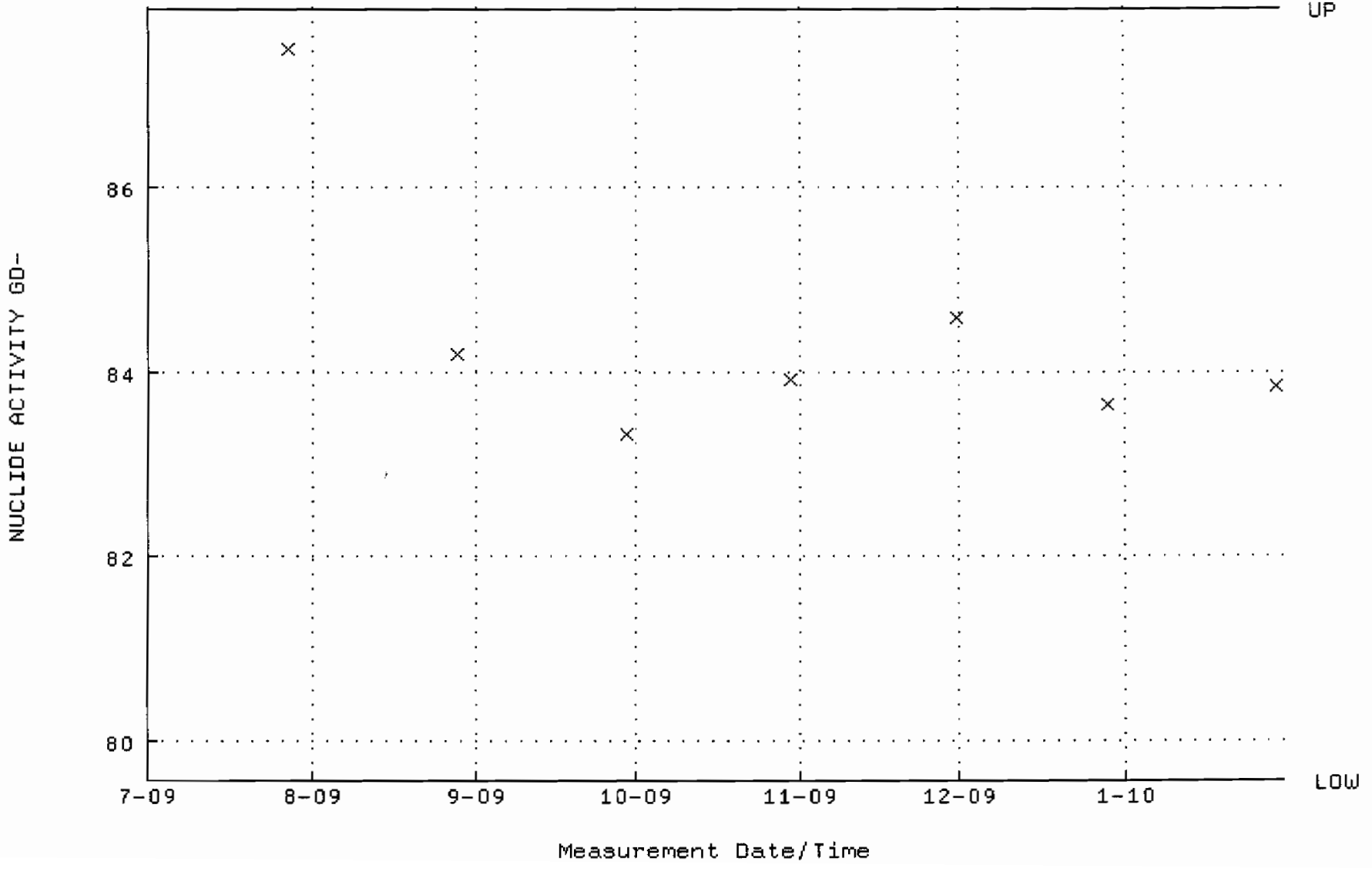

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

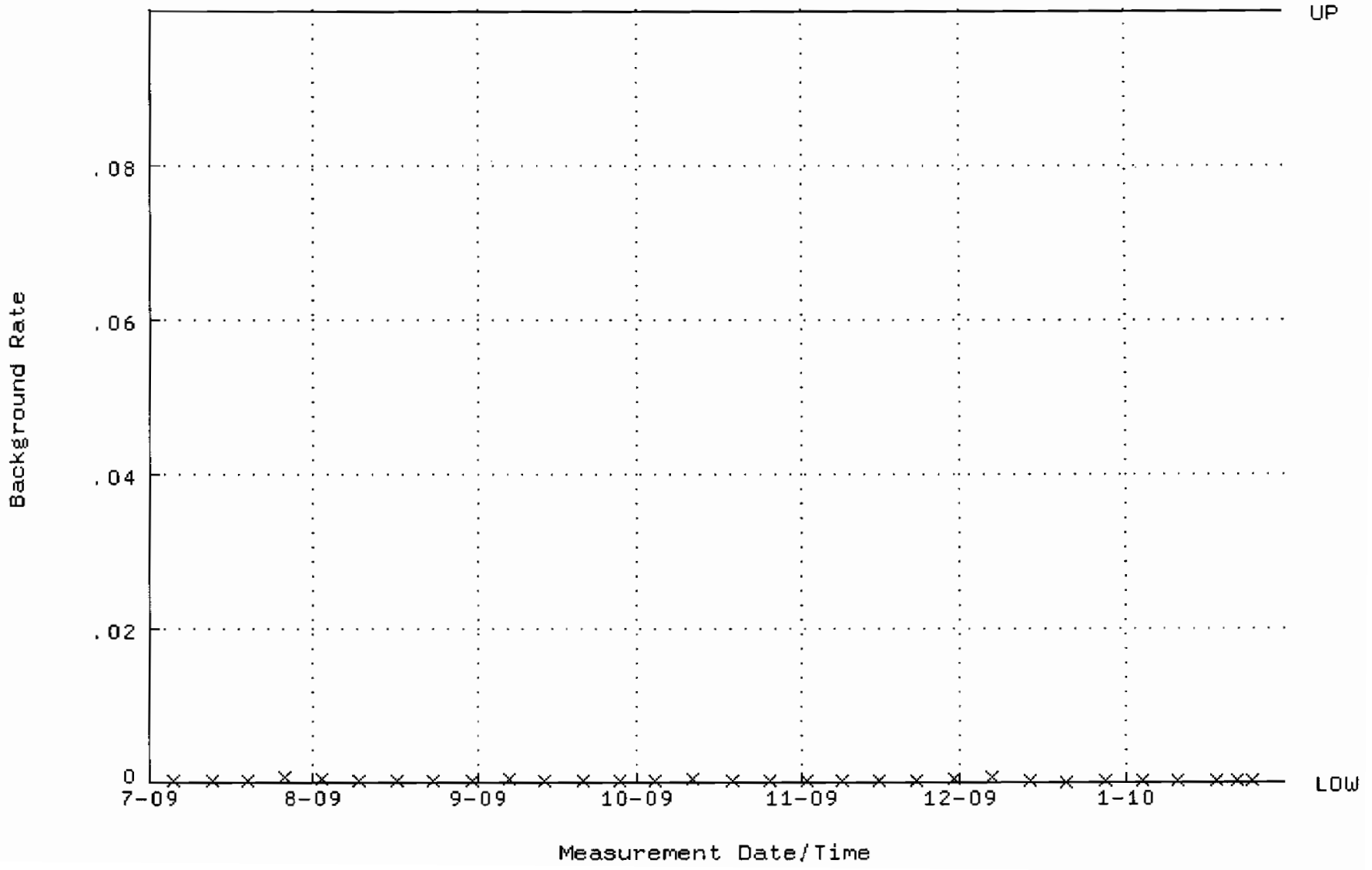

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.386660 through 0.406660

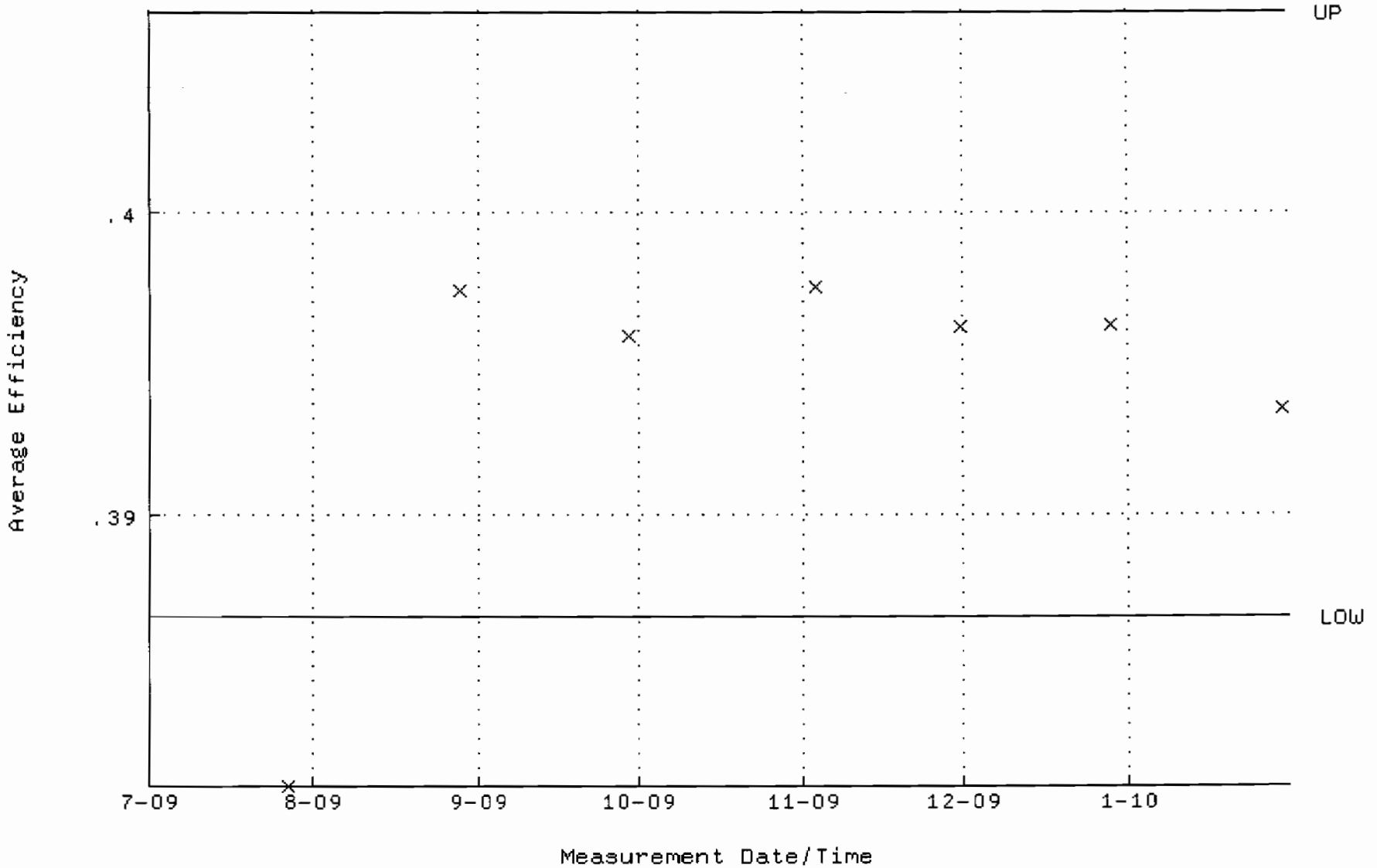

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 80.1146 through 88.5478

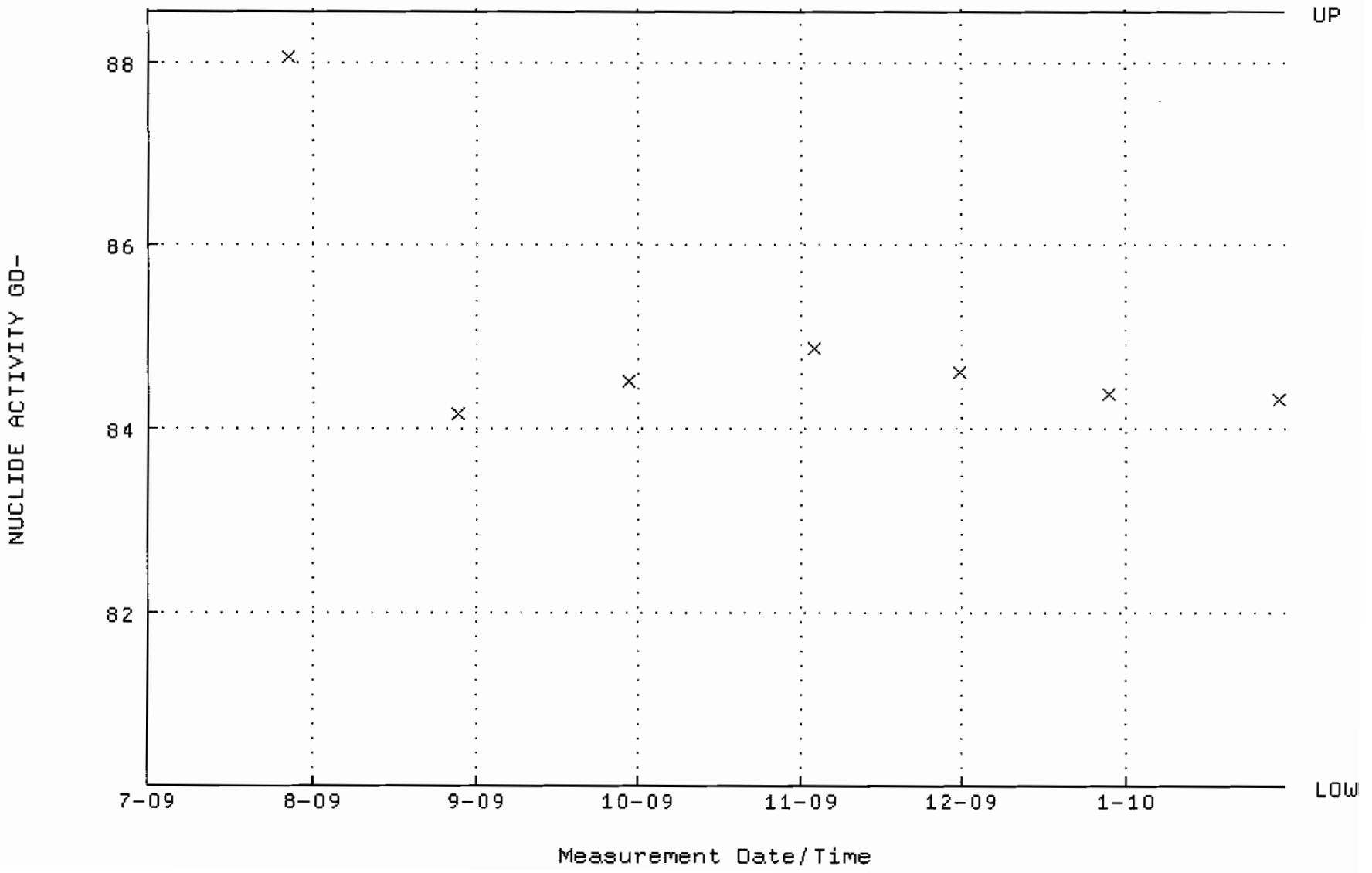

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:34 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

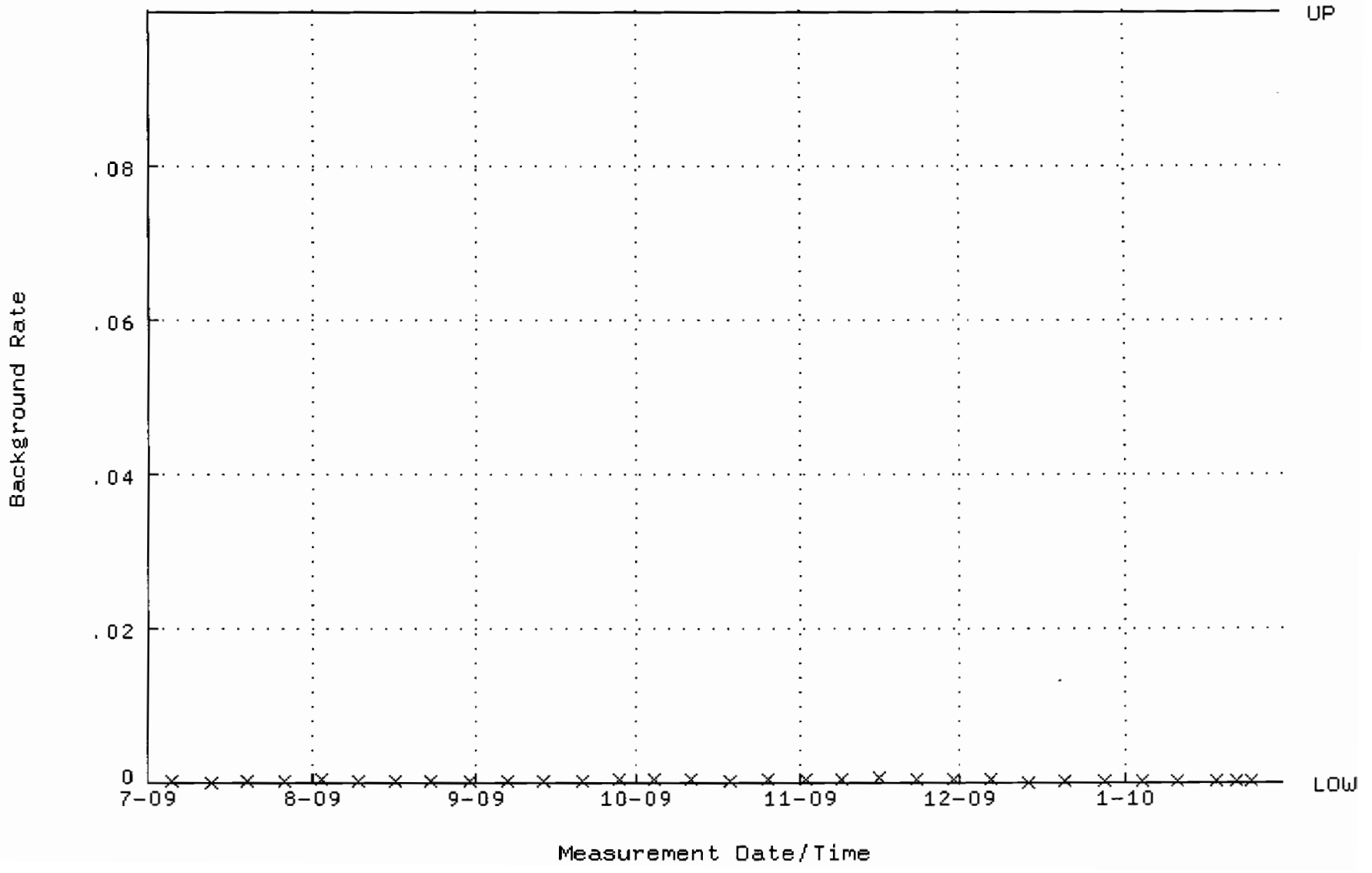

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:26 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.369142 through 0.389142

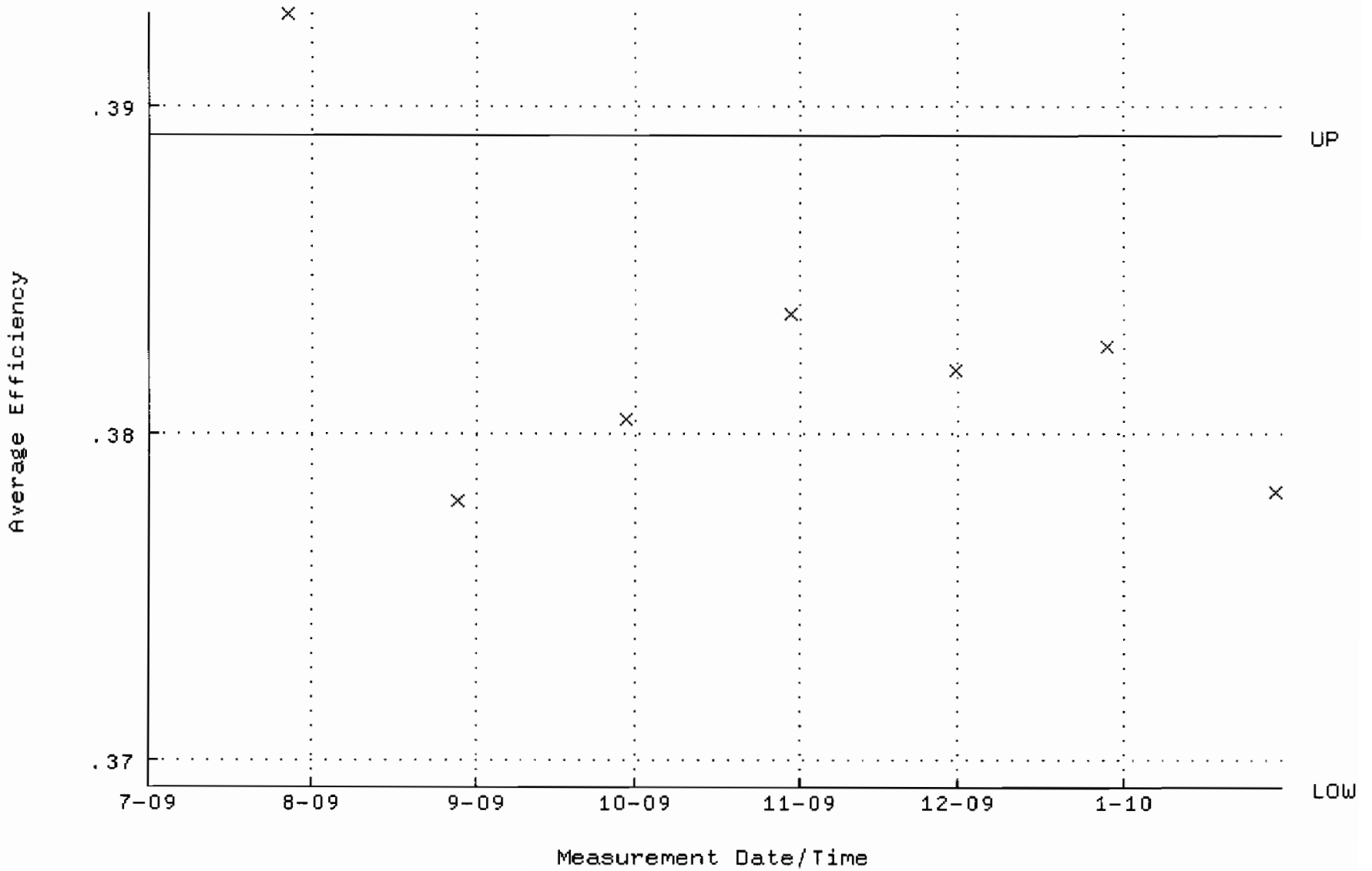

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:26 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.6848 through 92.4938

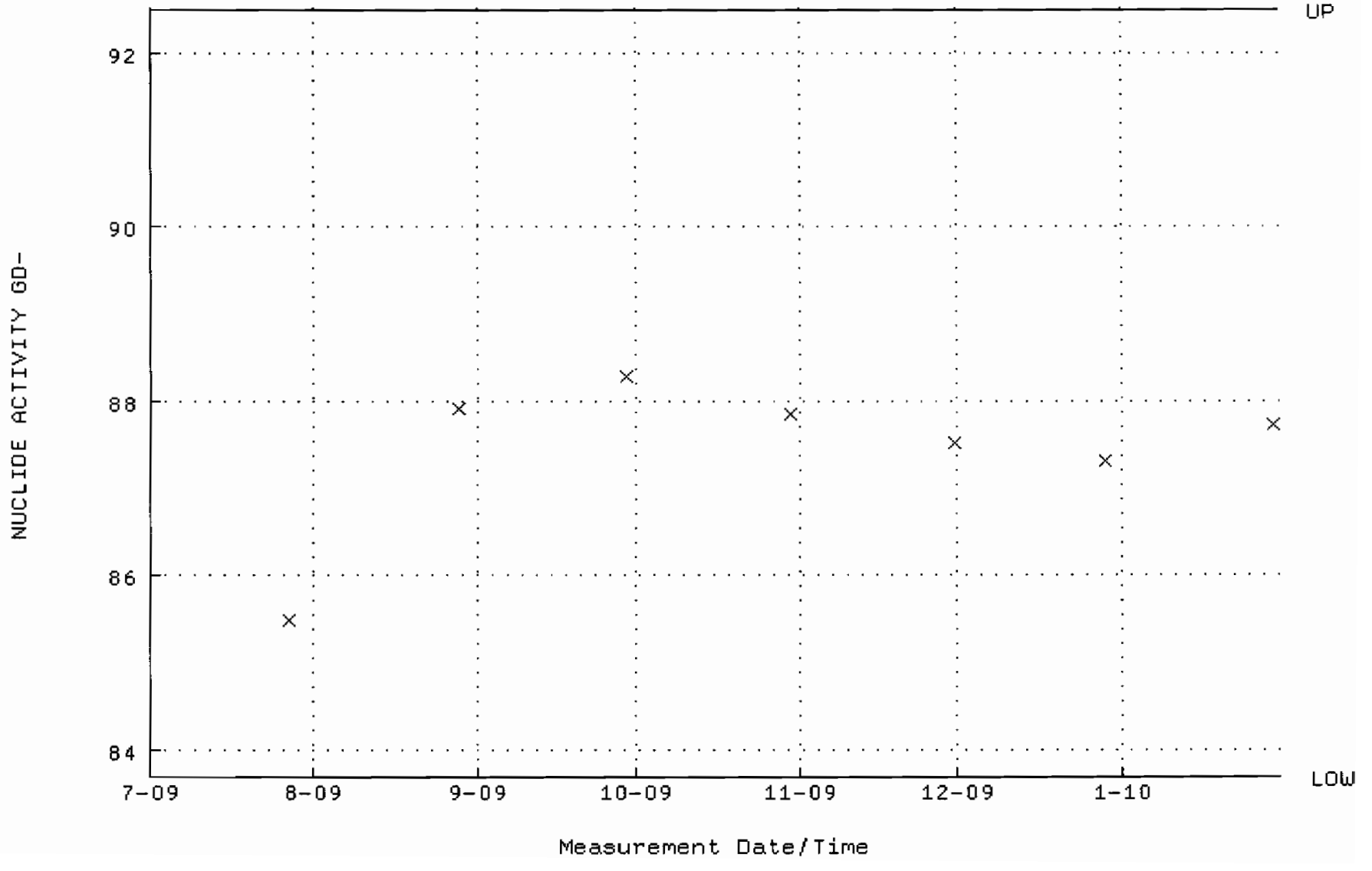

QA filename : DKA100:[ENV_ALPHA.QA.B]B239.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:39 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

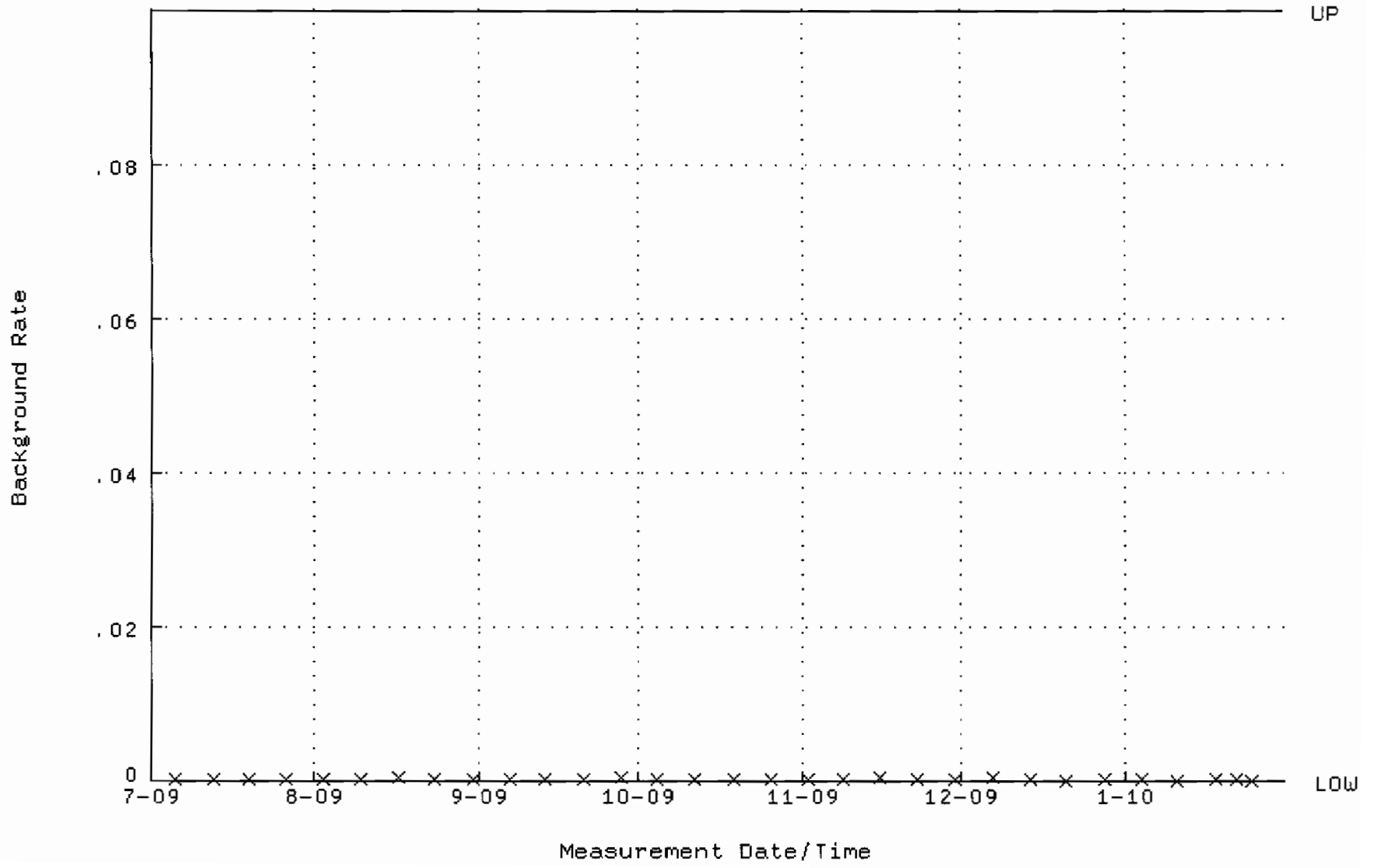

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:32 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362523 through 0.382523

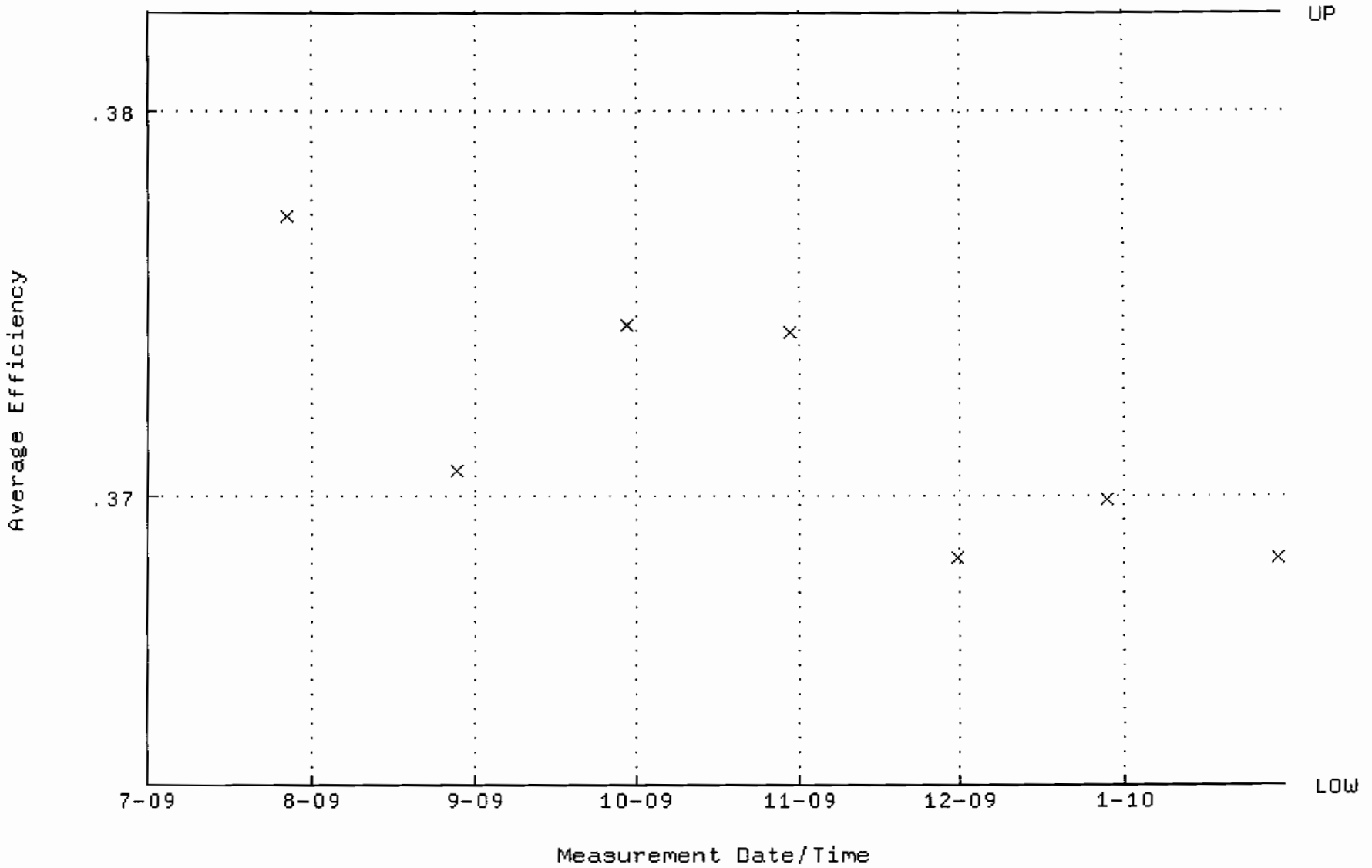

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:32 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.3638 through 92.1390

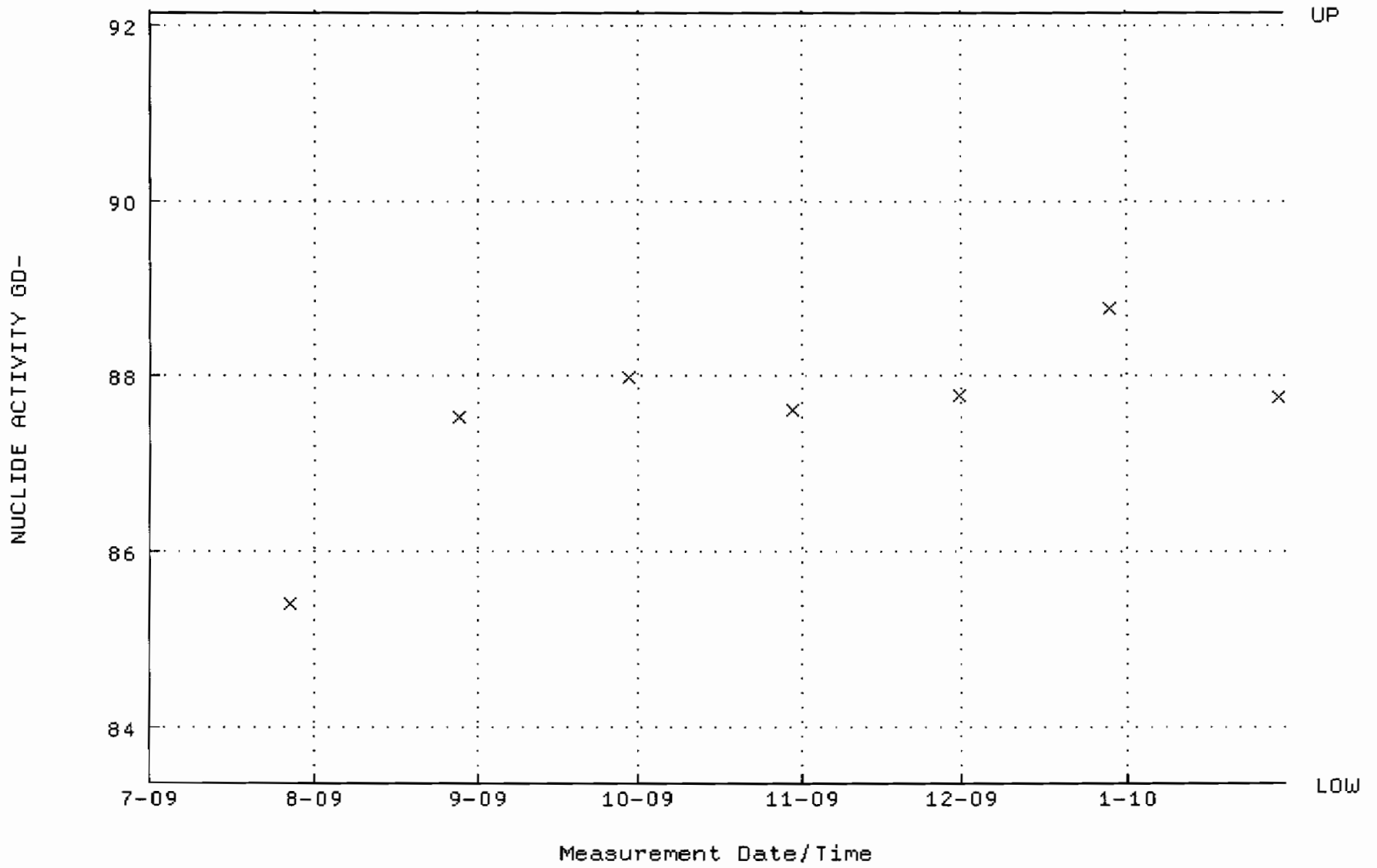

QA filename : DKA100:[ENV_ALPHA.QA.B]B240.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

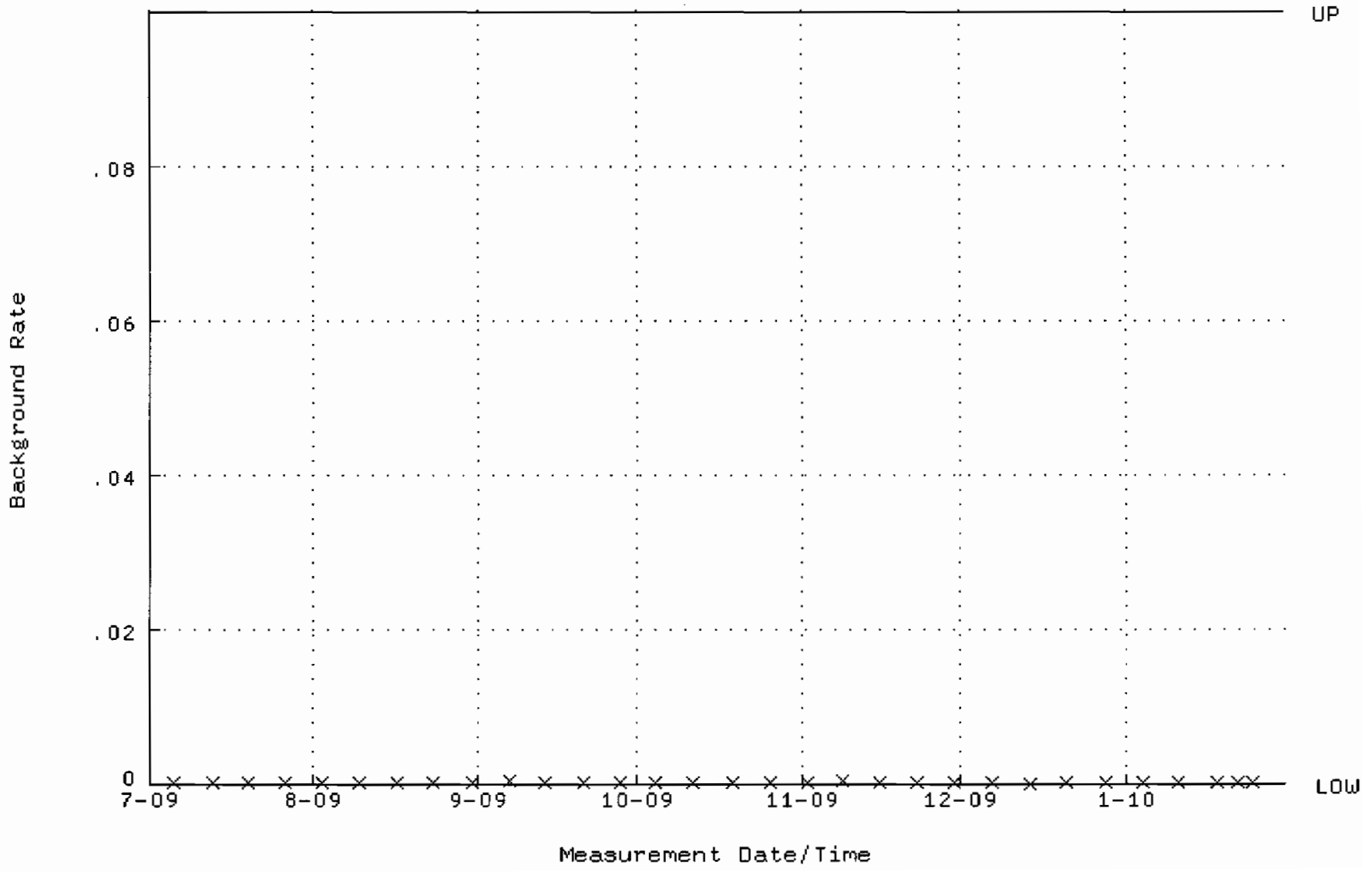

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:08:48 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

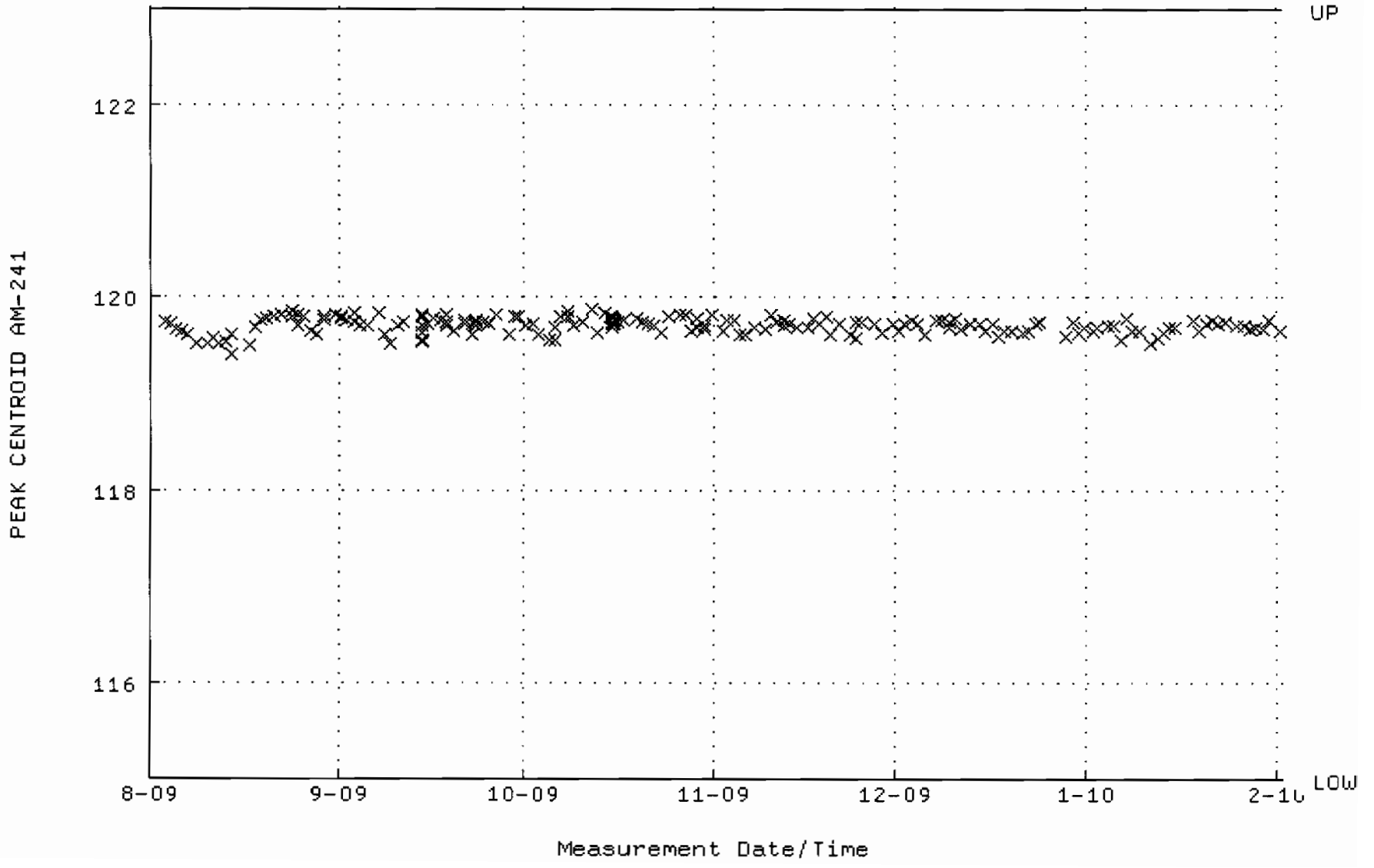

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:21:01 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

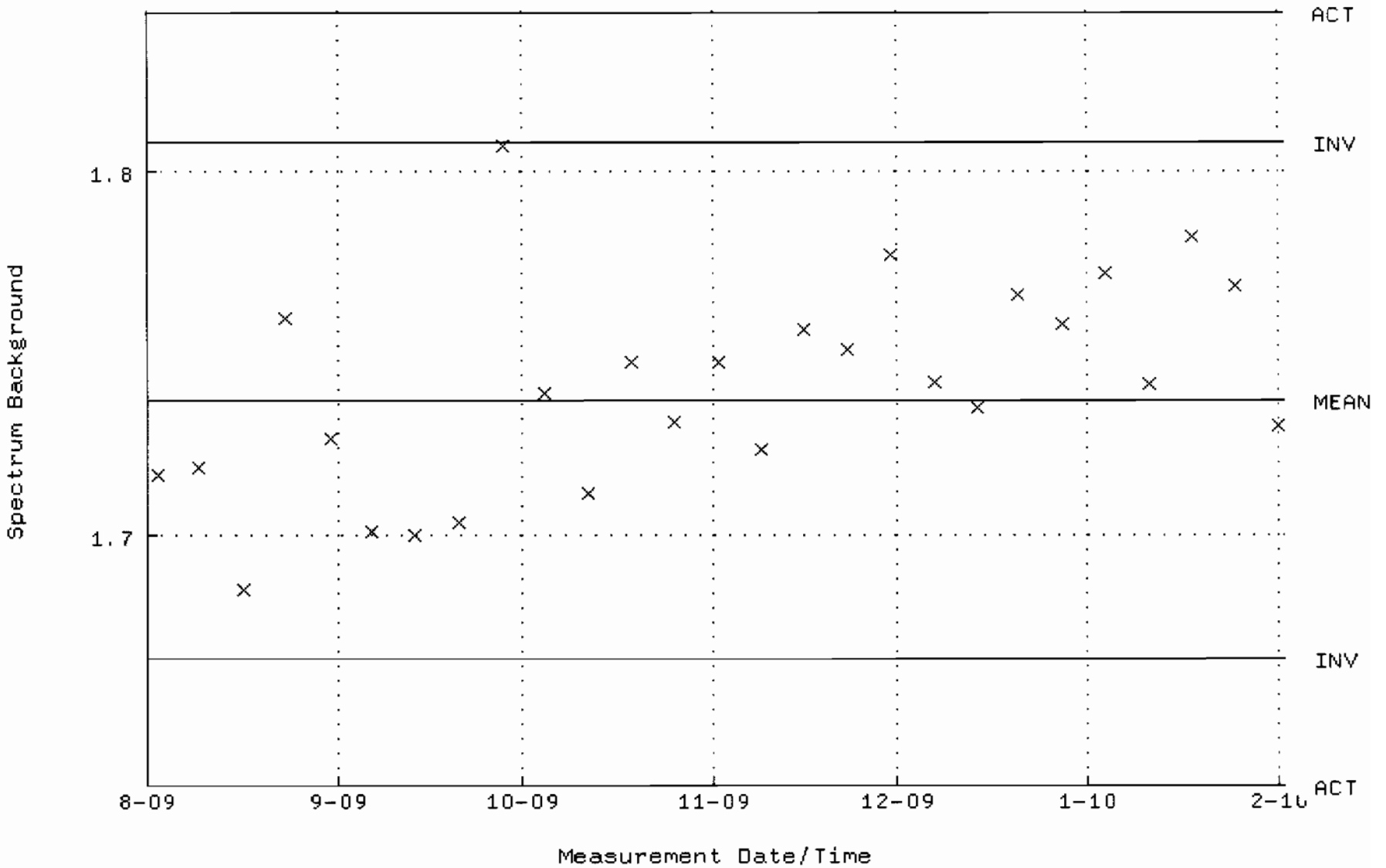

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:19:33 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

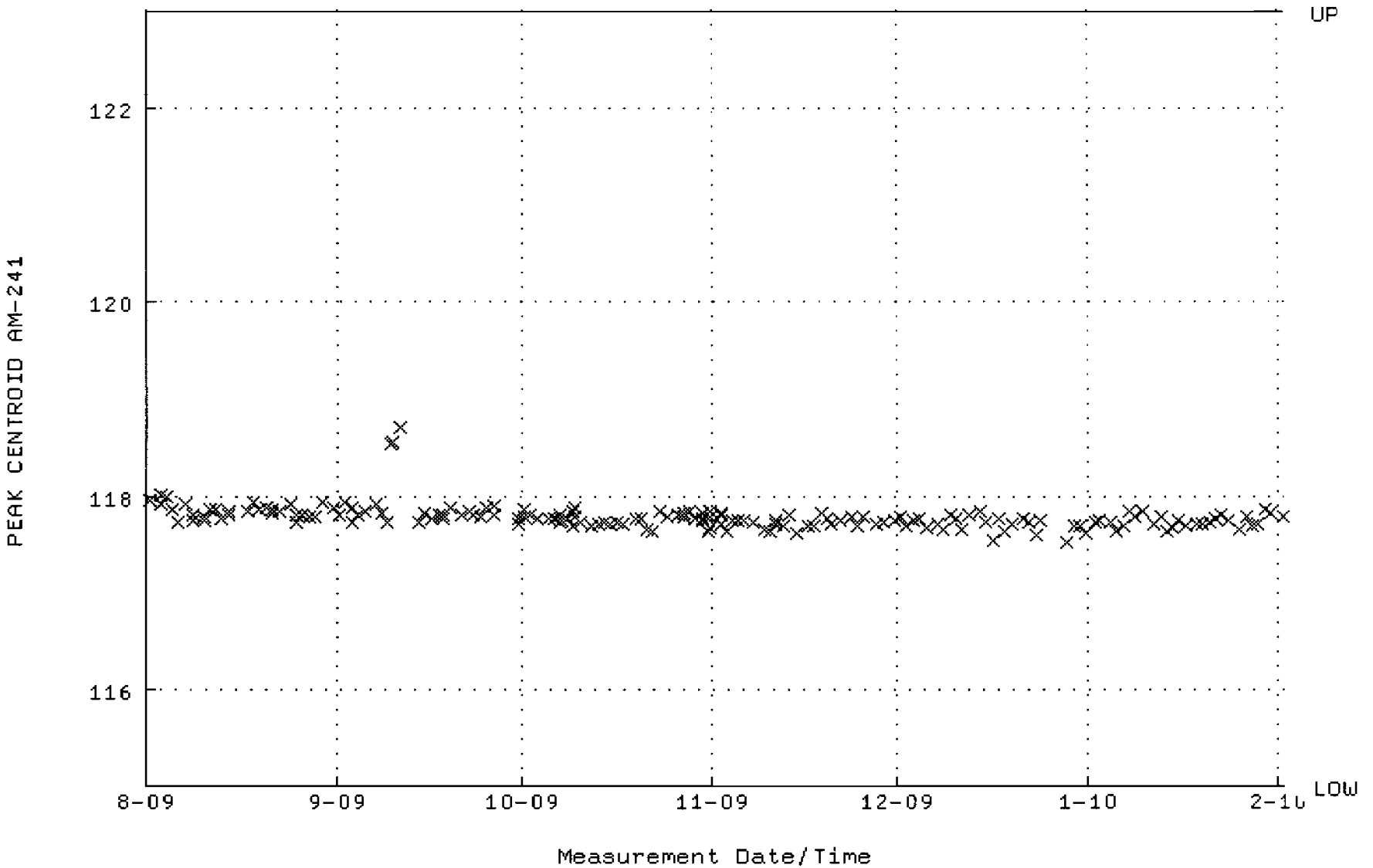

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:27 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)

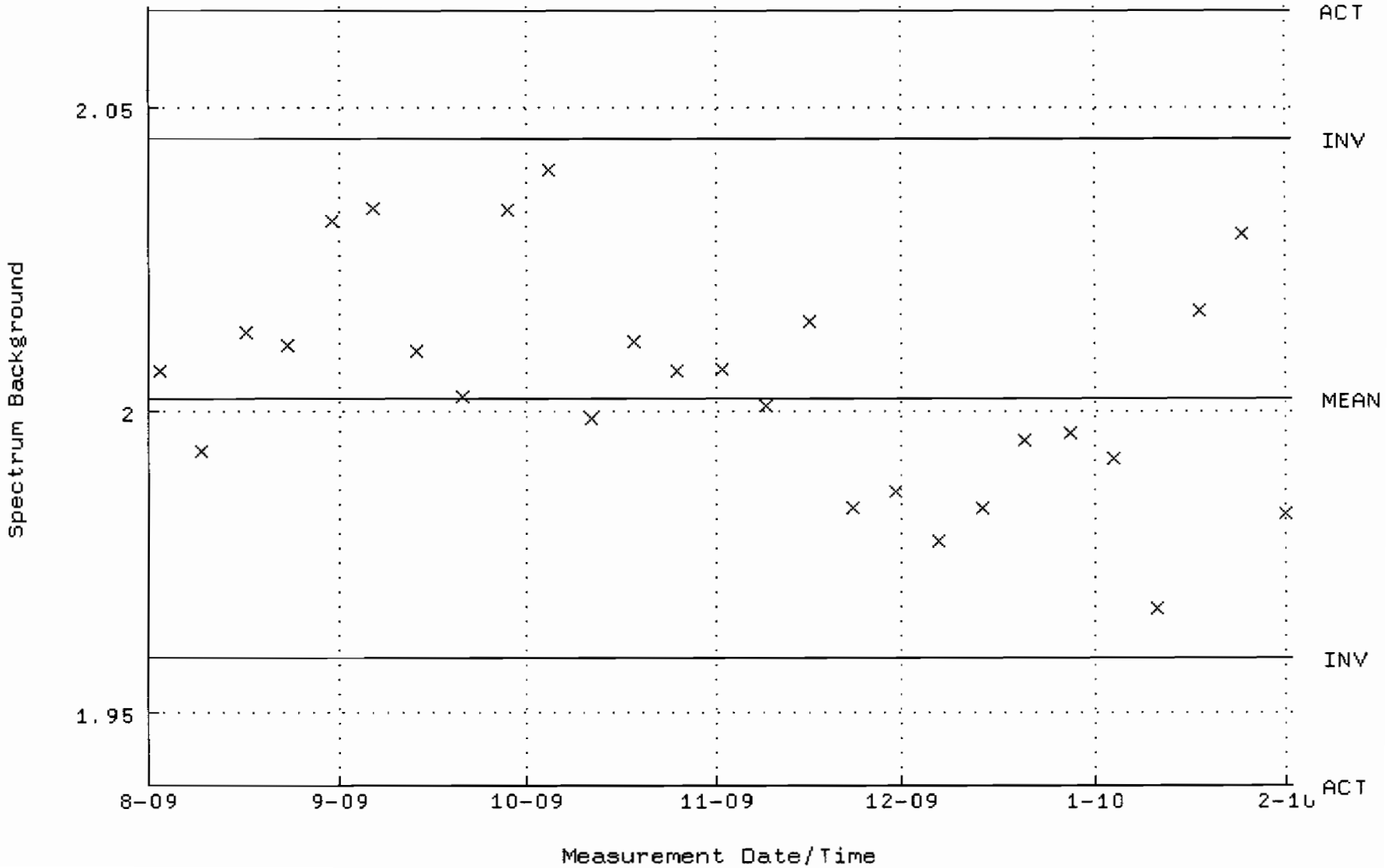

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:11:46 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

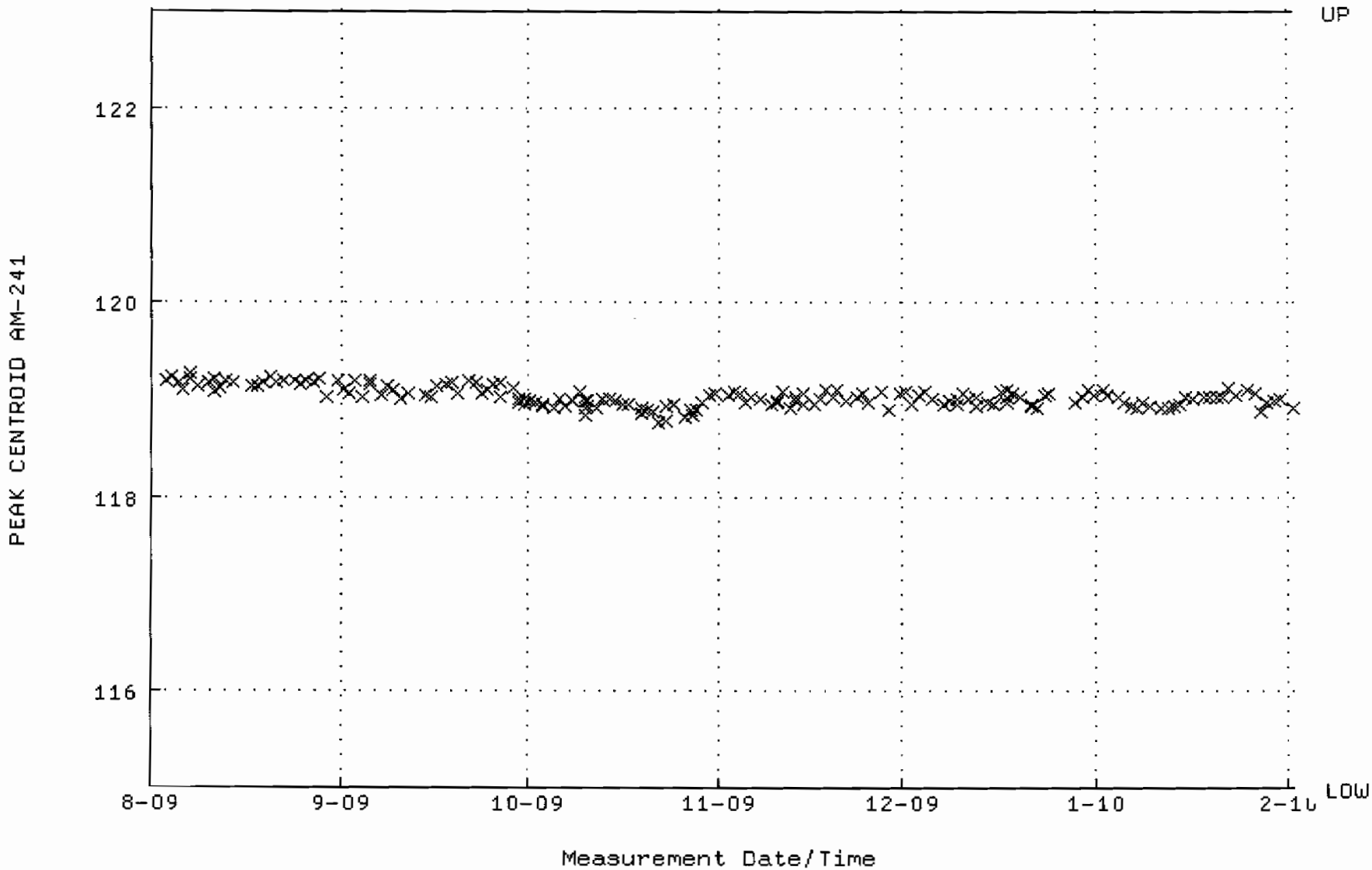

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:48 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

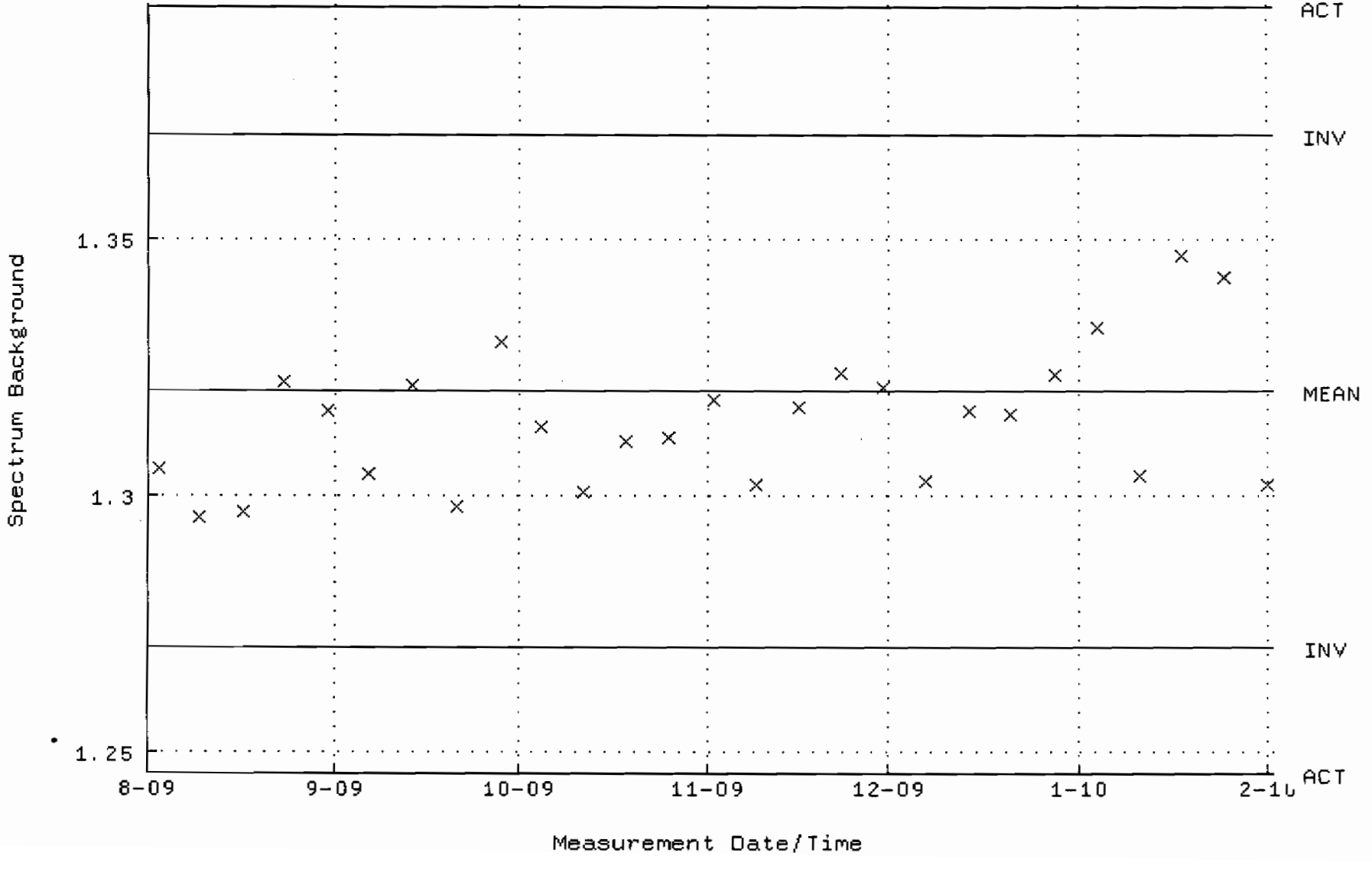

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

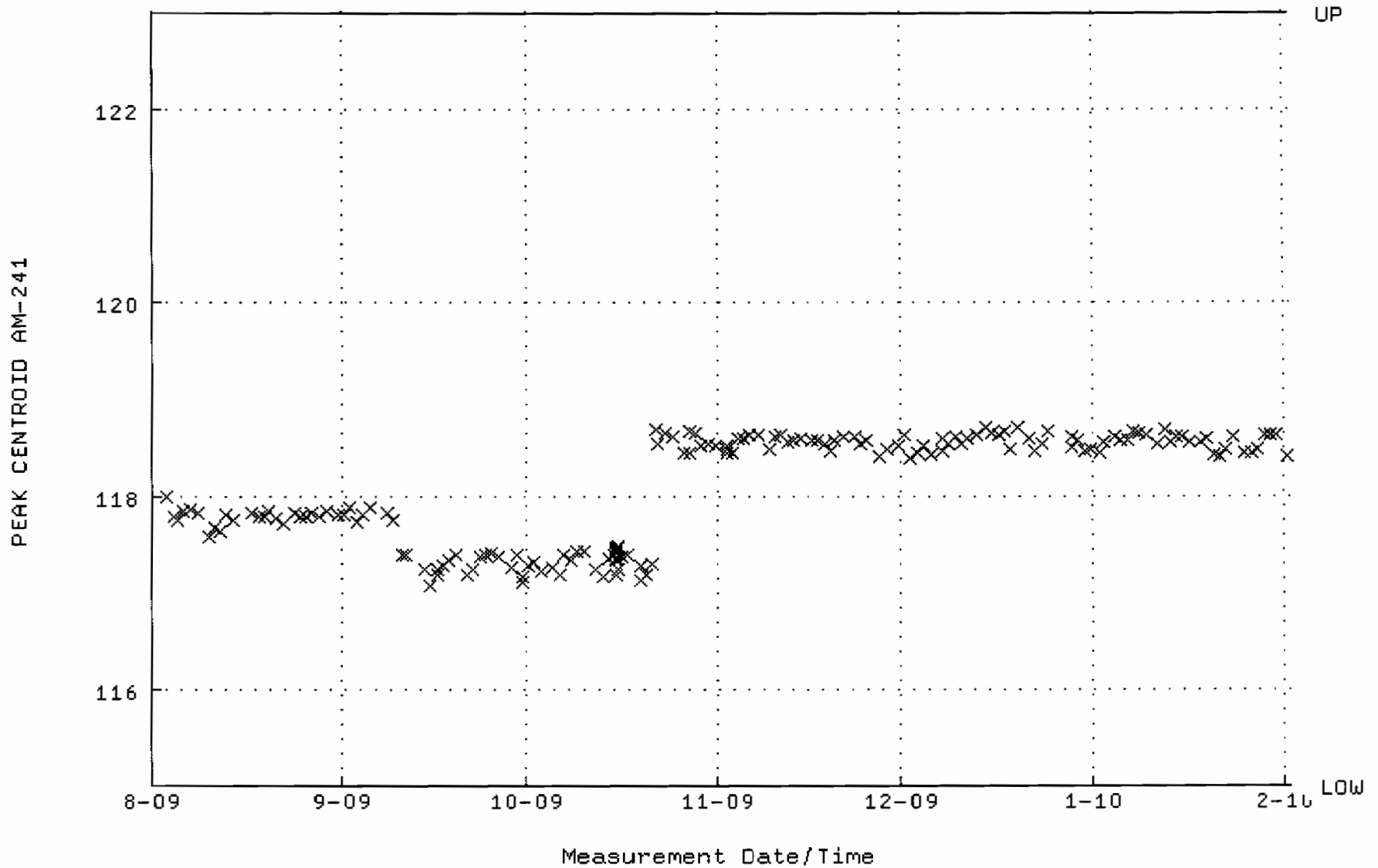

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:13 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

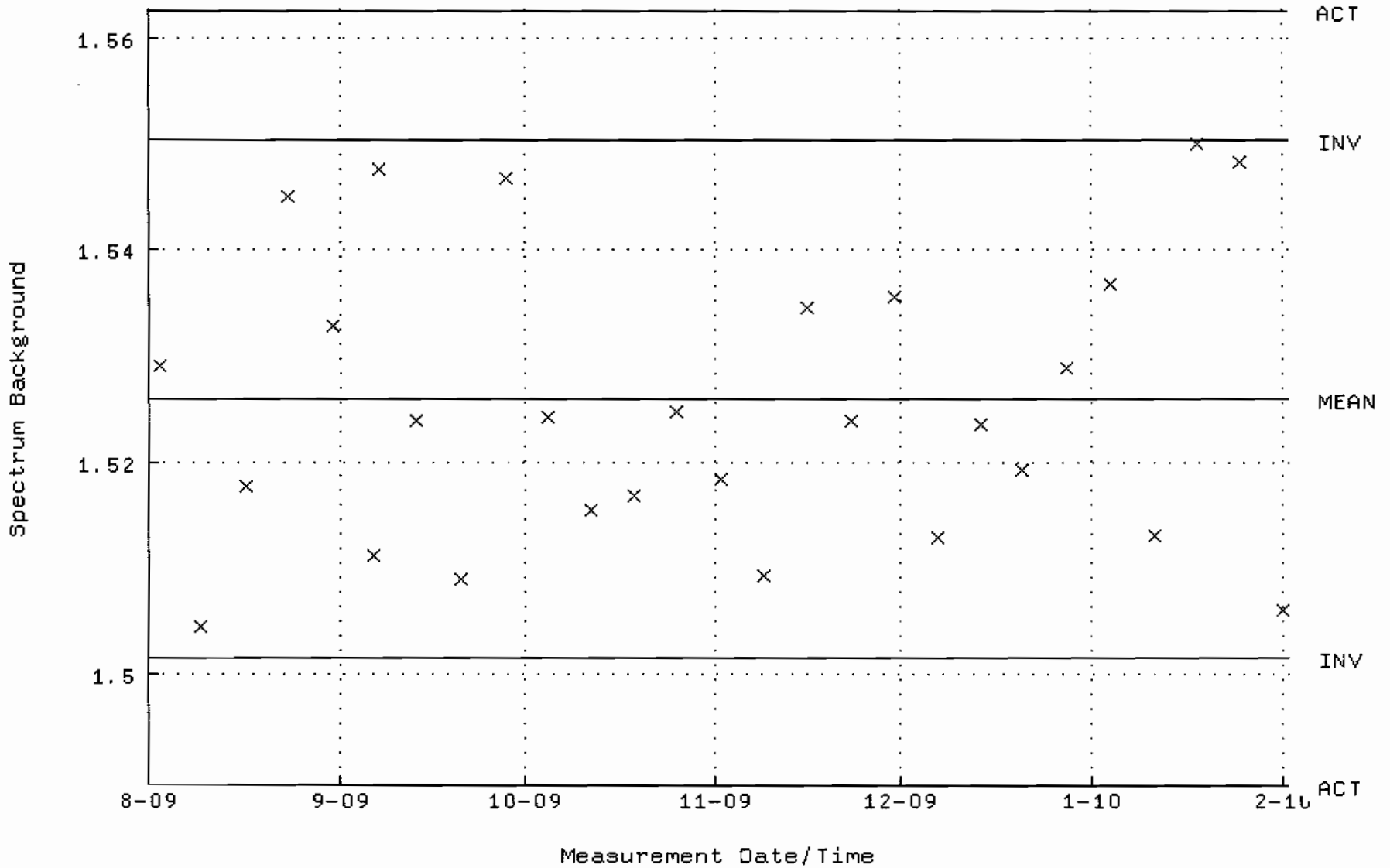

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:52 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

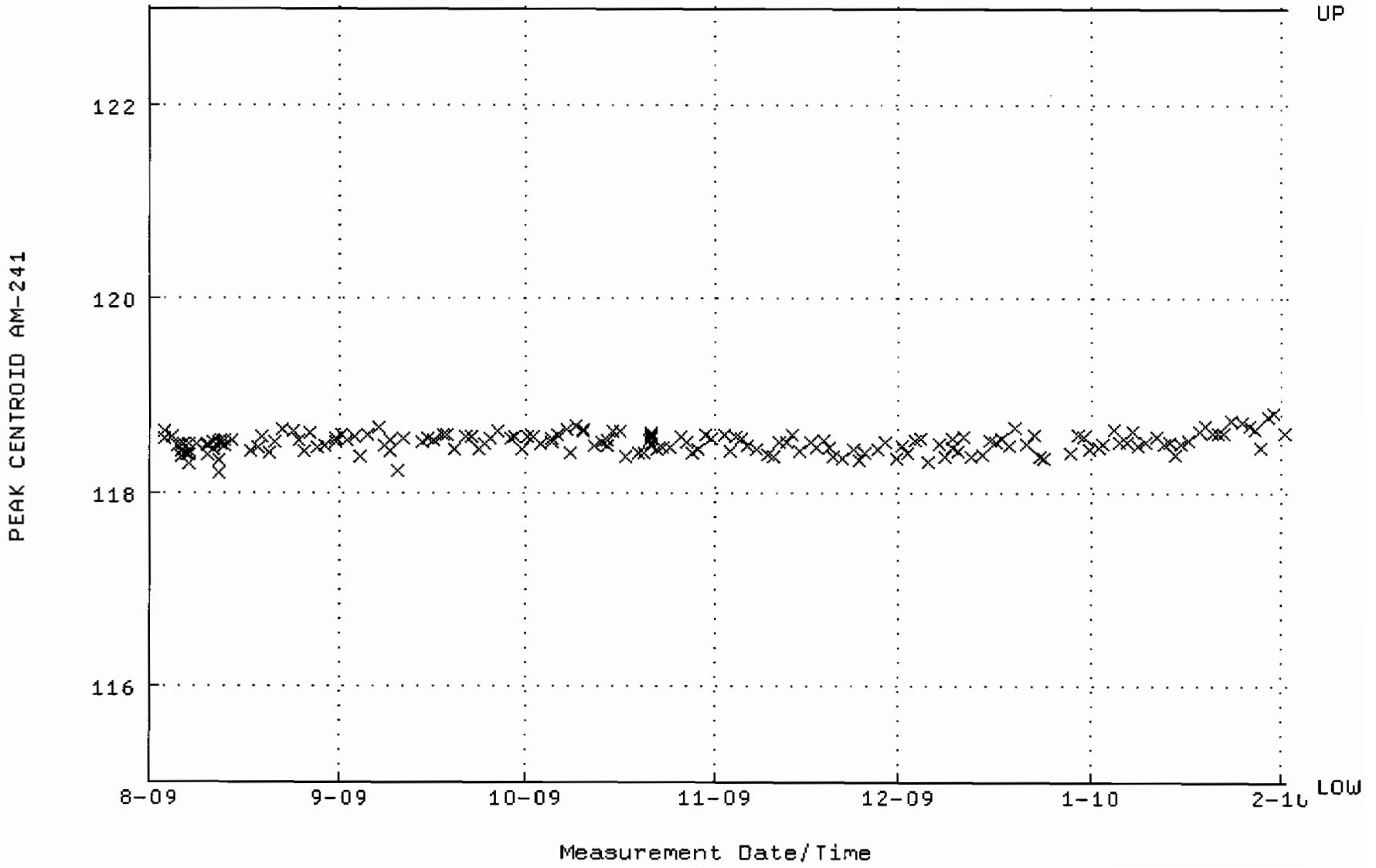

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:26 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

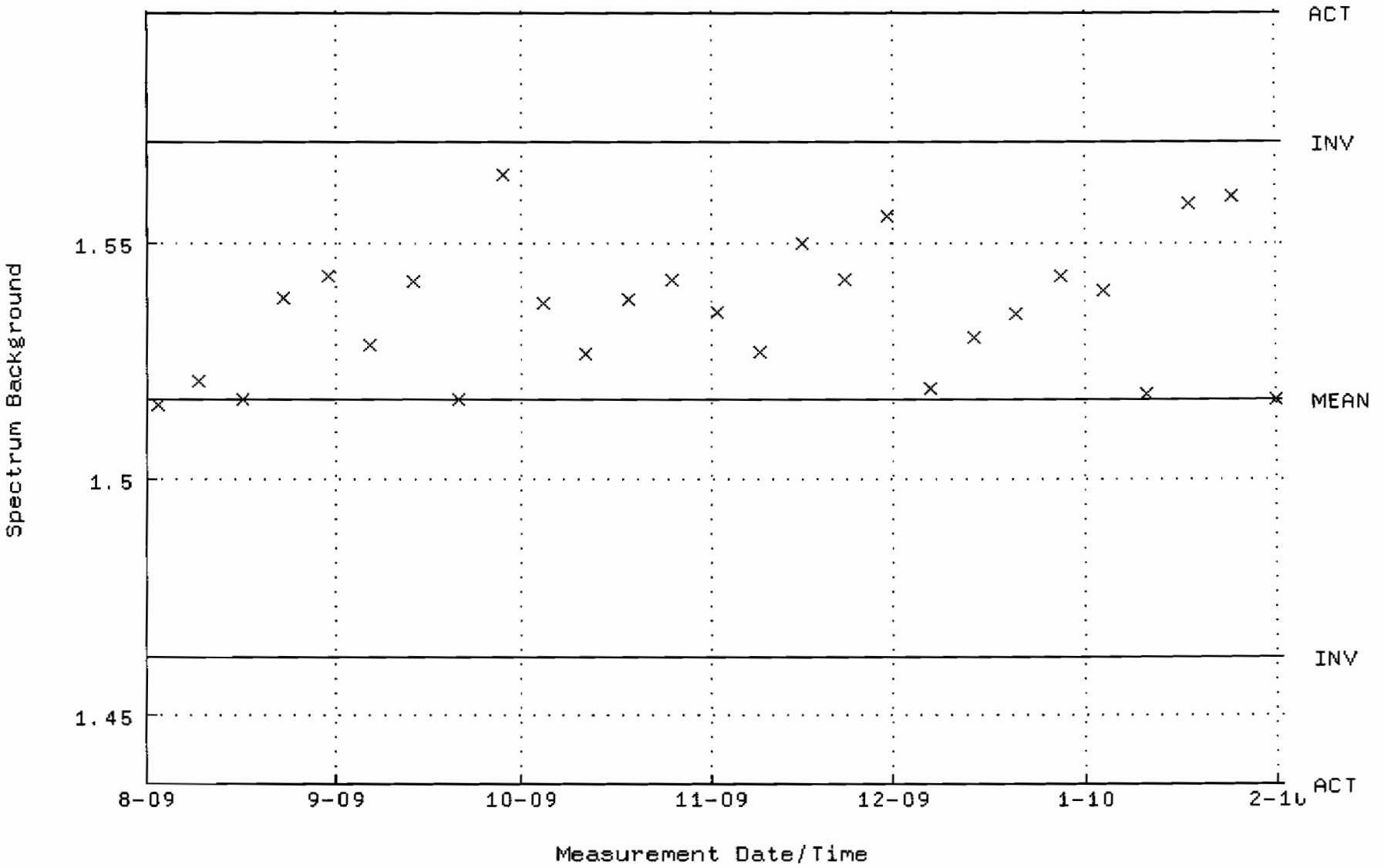

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:36:50 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

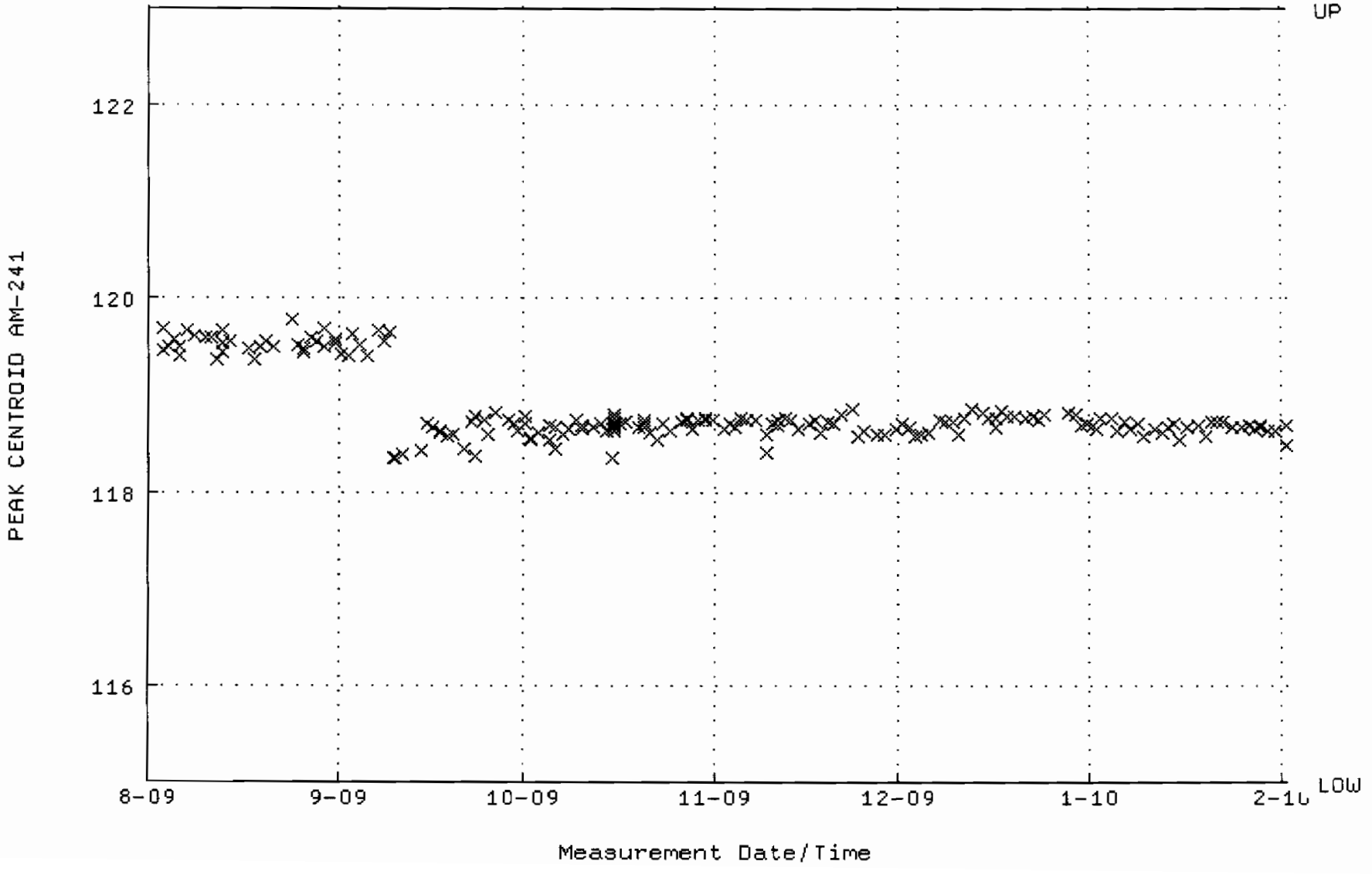

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:43 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

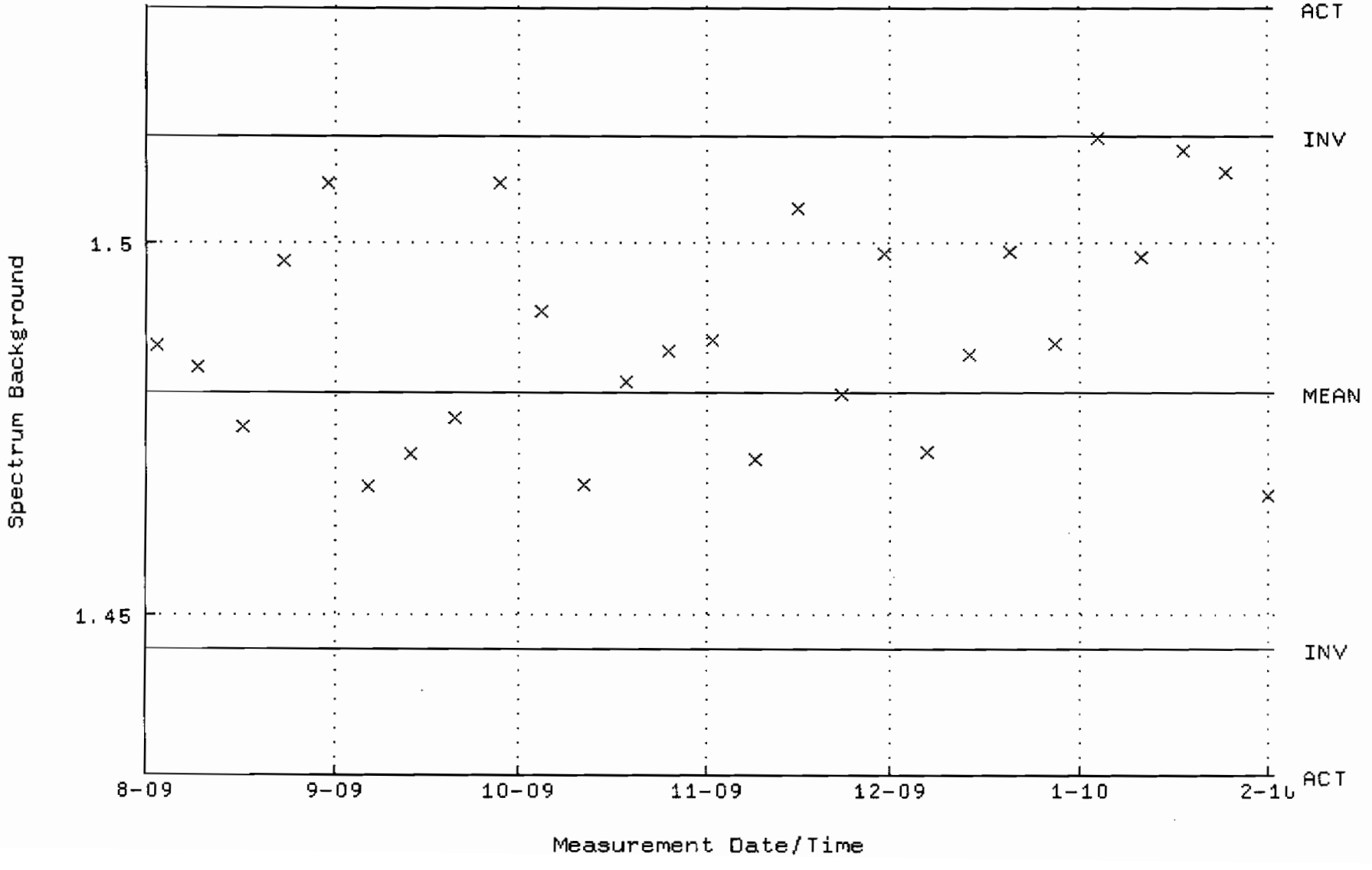

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

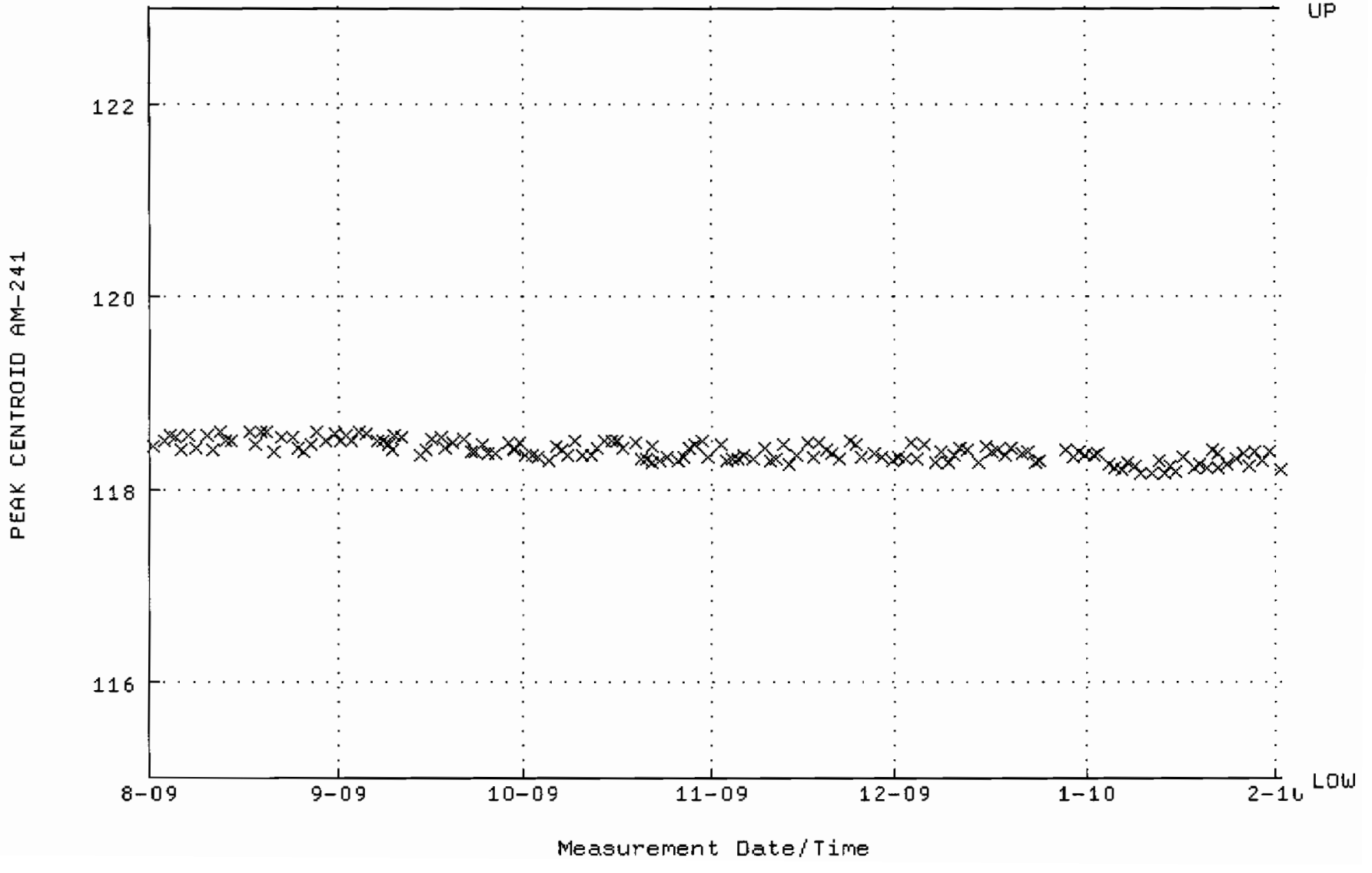

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

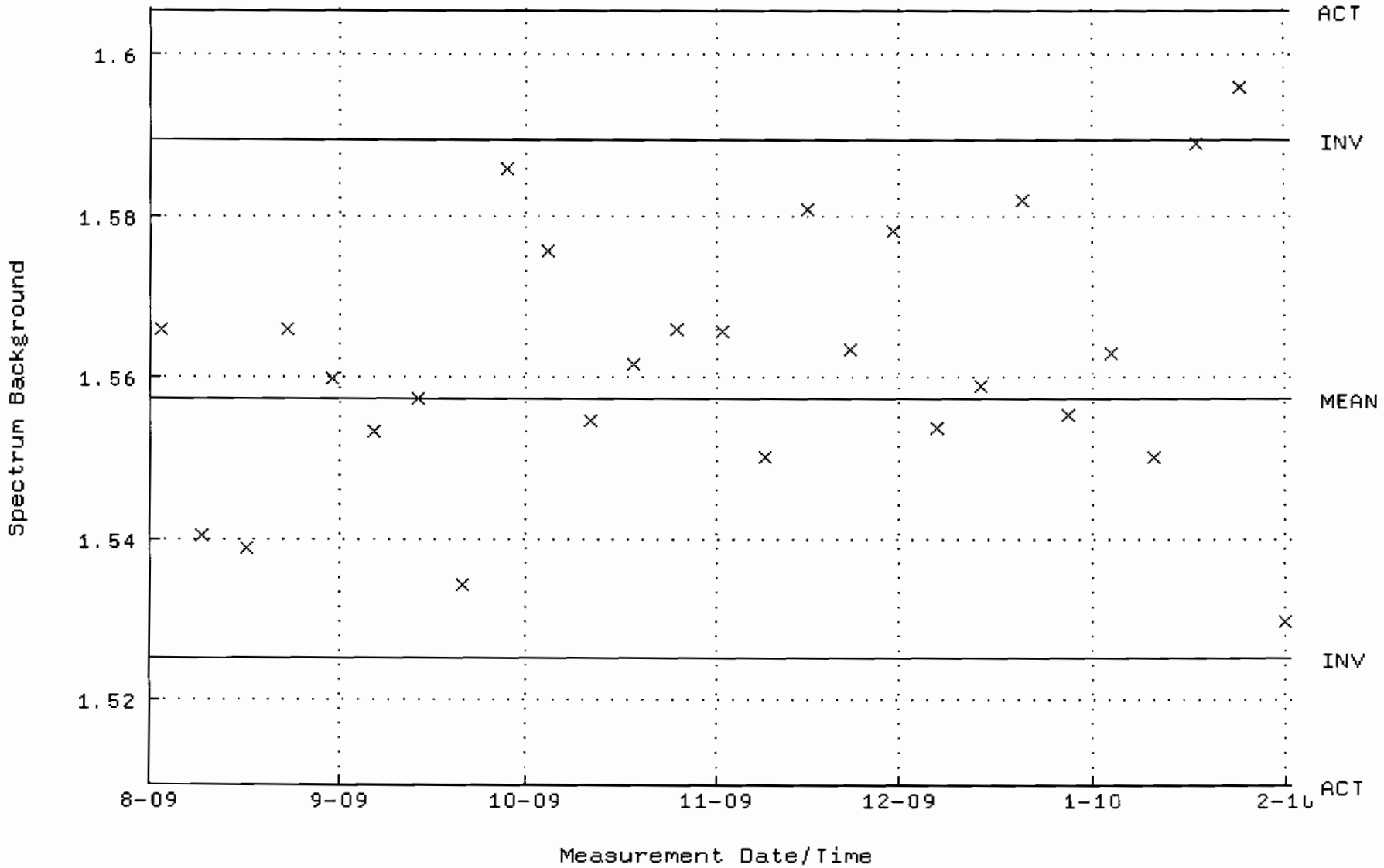

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:34:18 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

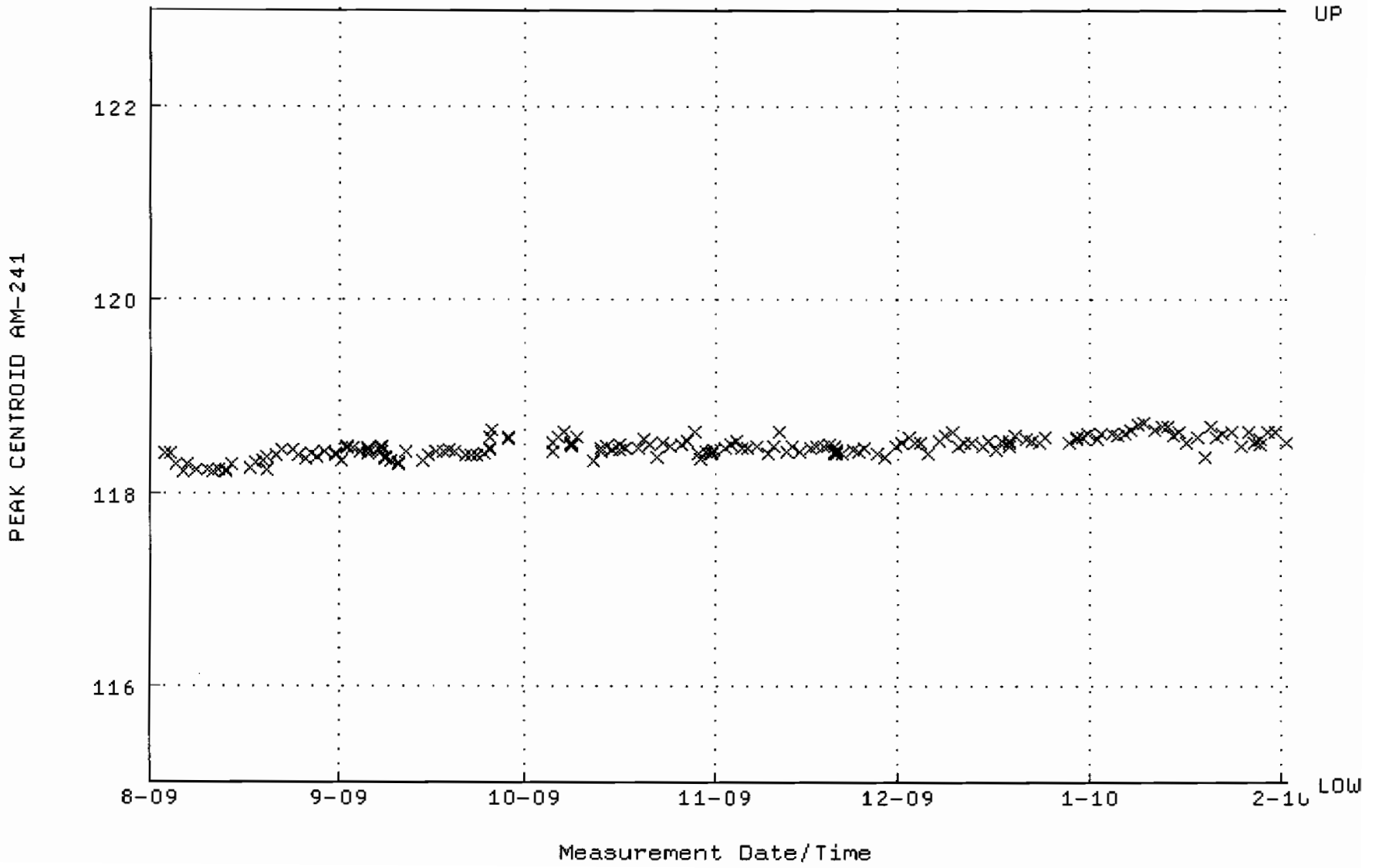

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM13.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:20 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.27712 +- 1.999120E-02 (0.61 %)

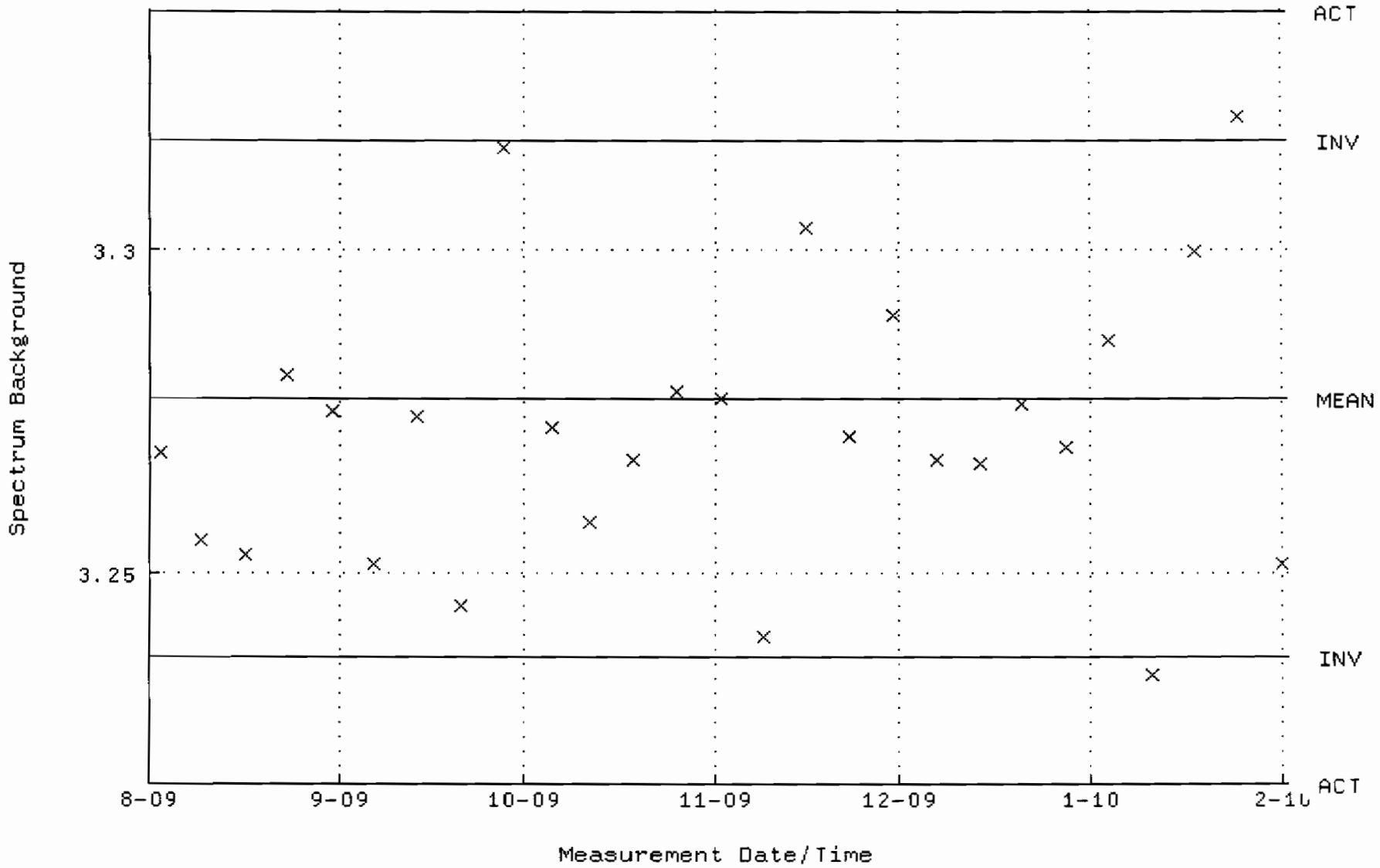

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:30 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

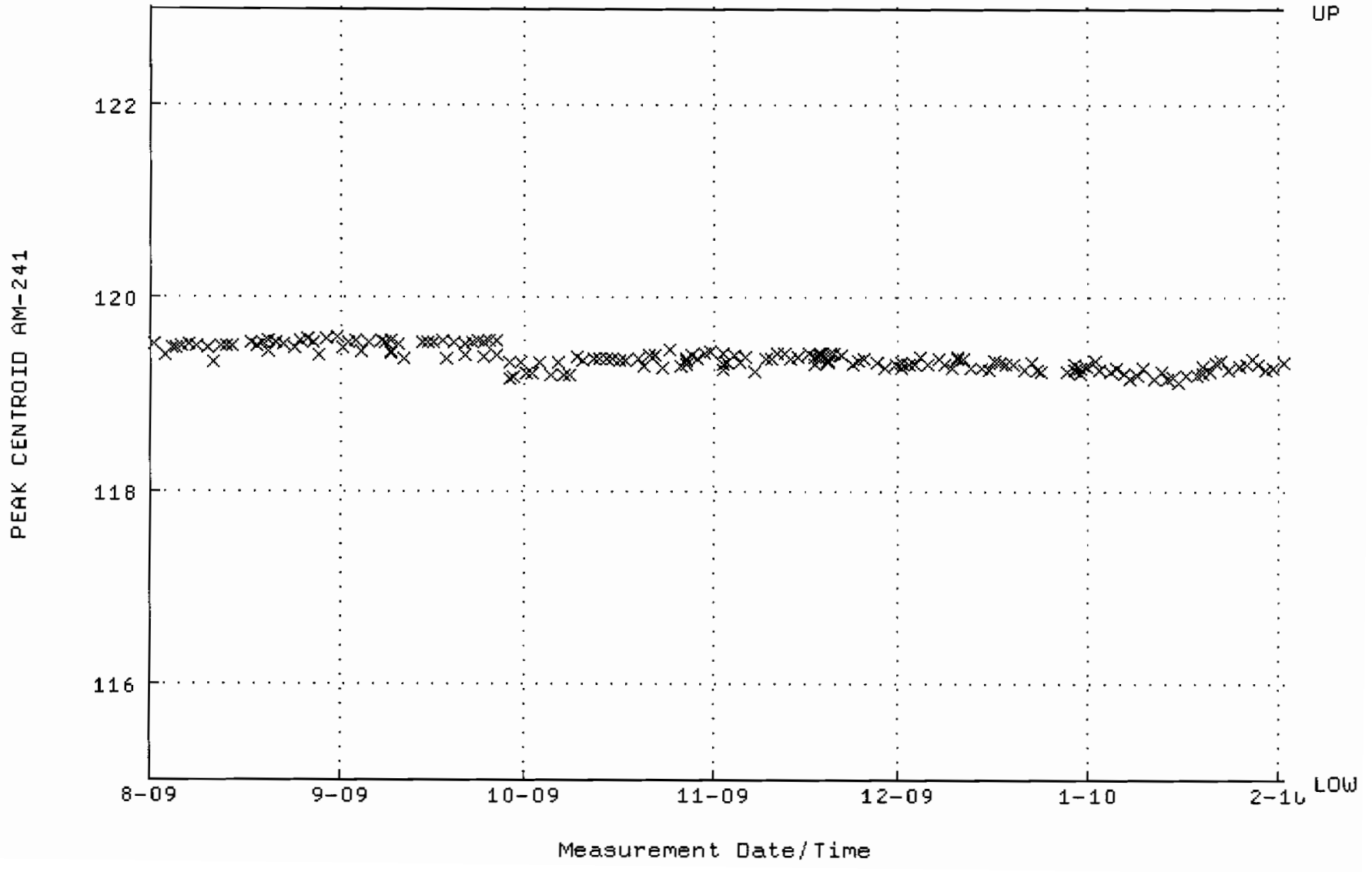

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:58 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

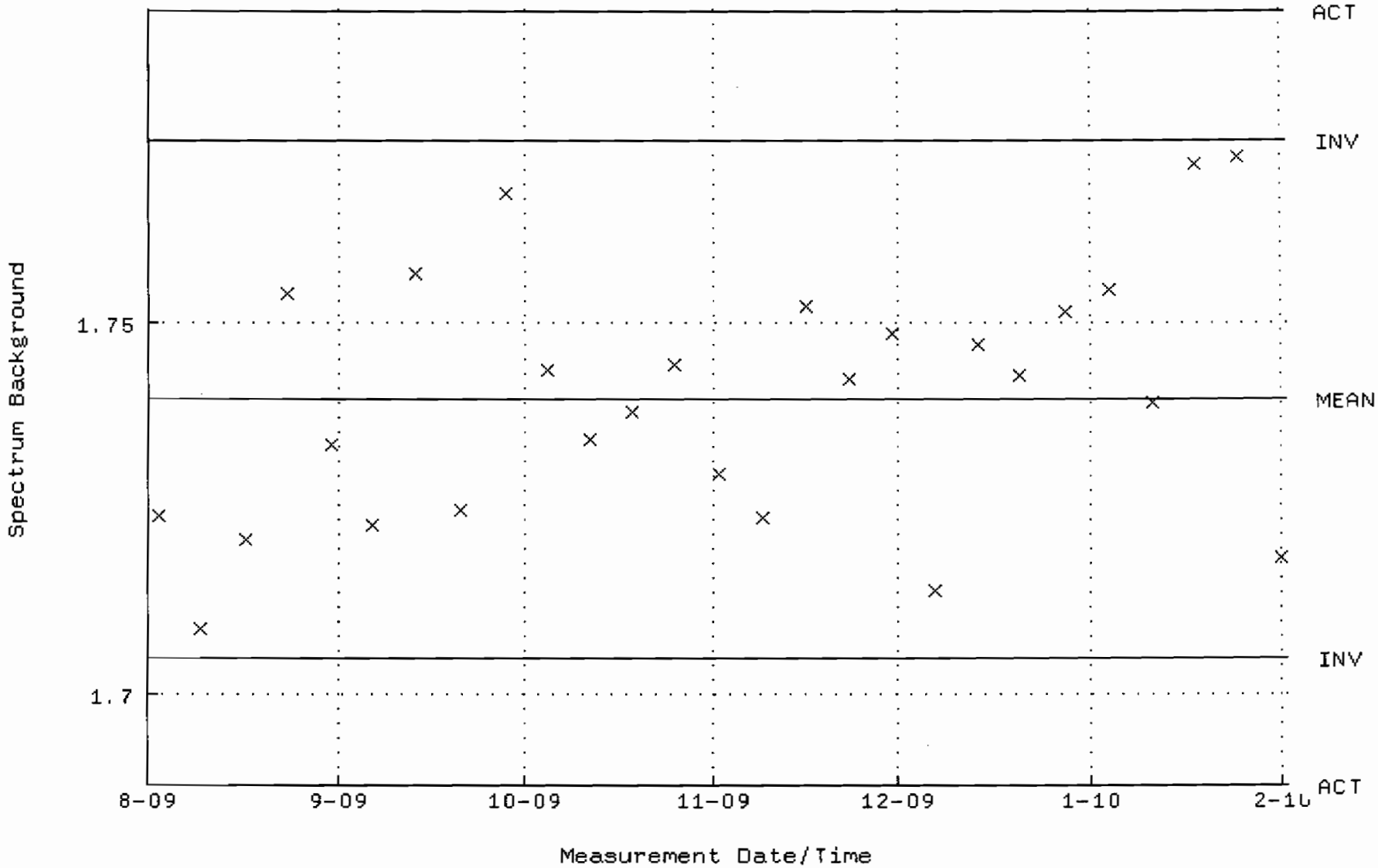

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:55:06 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

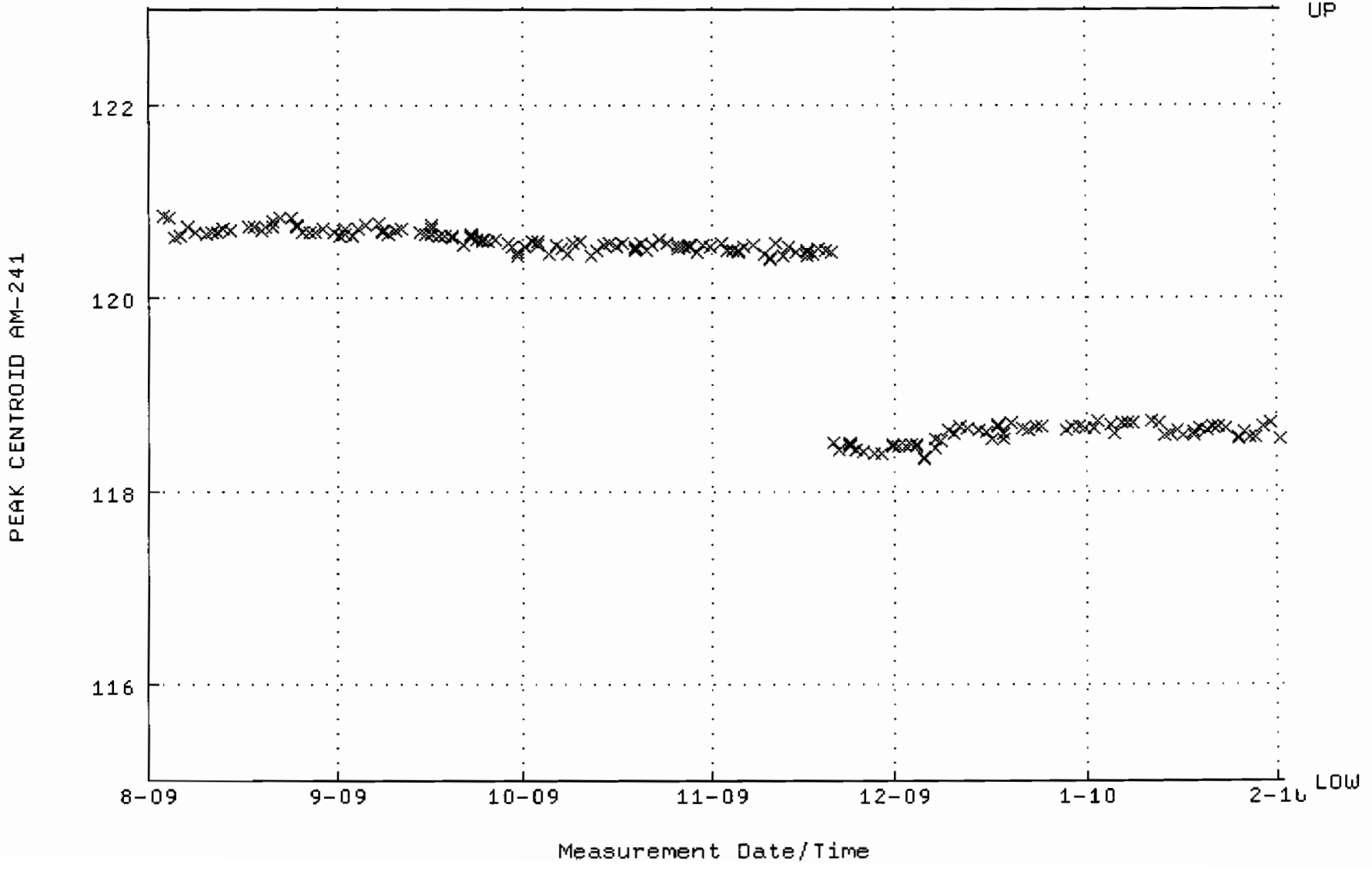

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:10 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

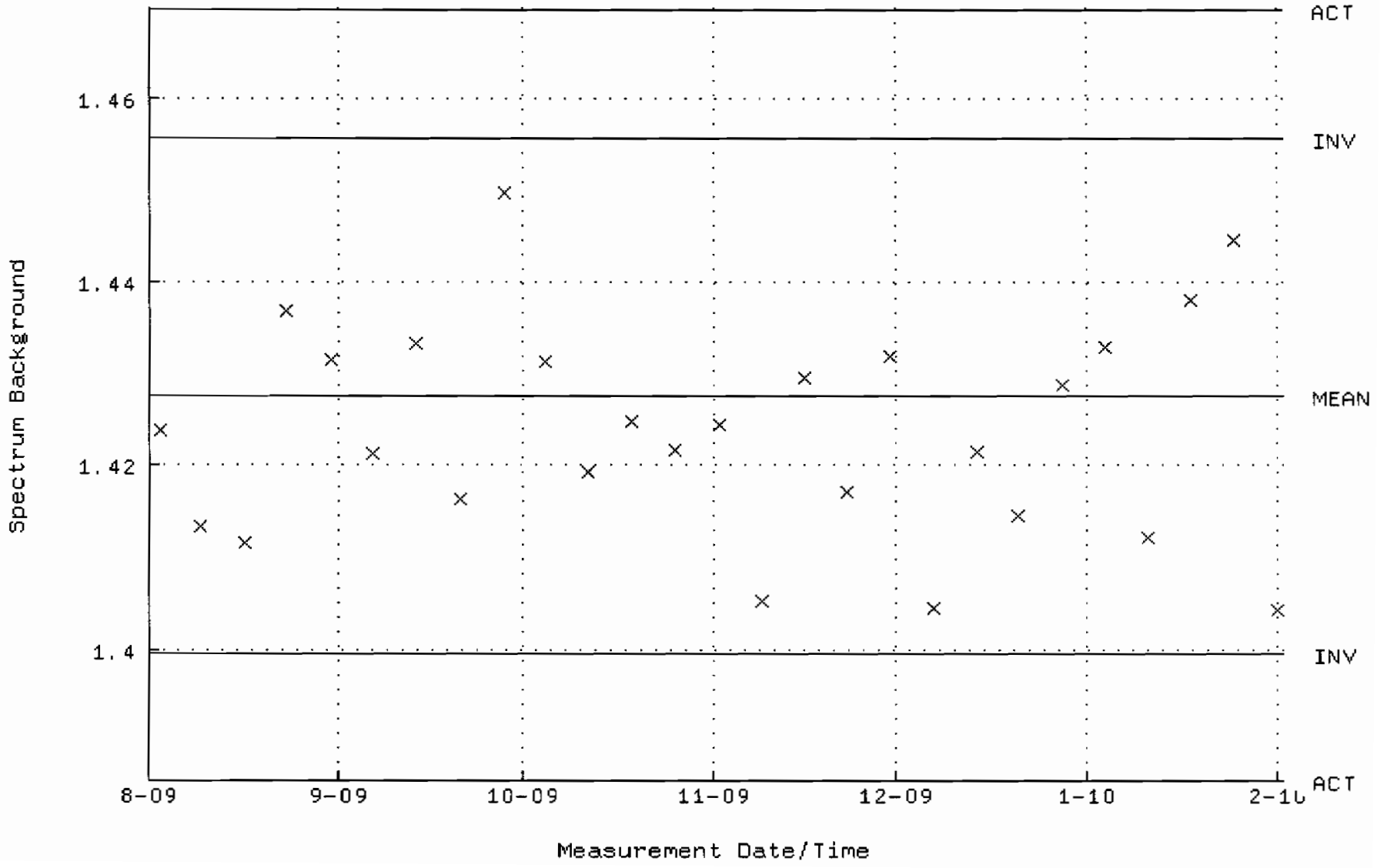

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

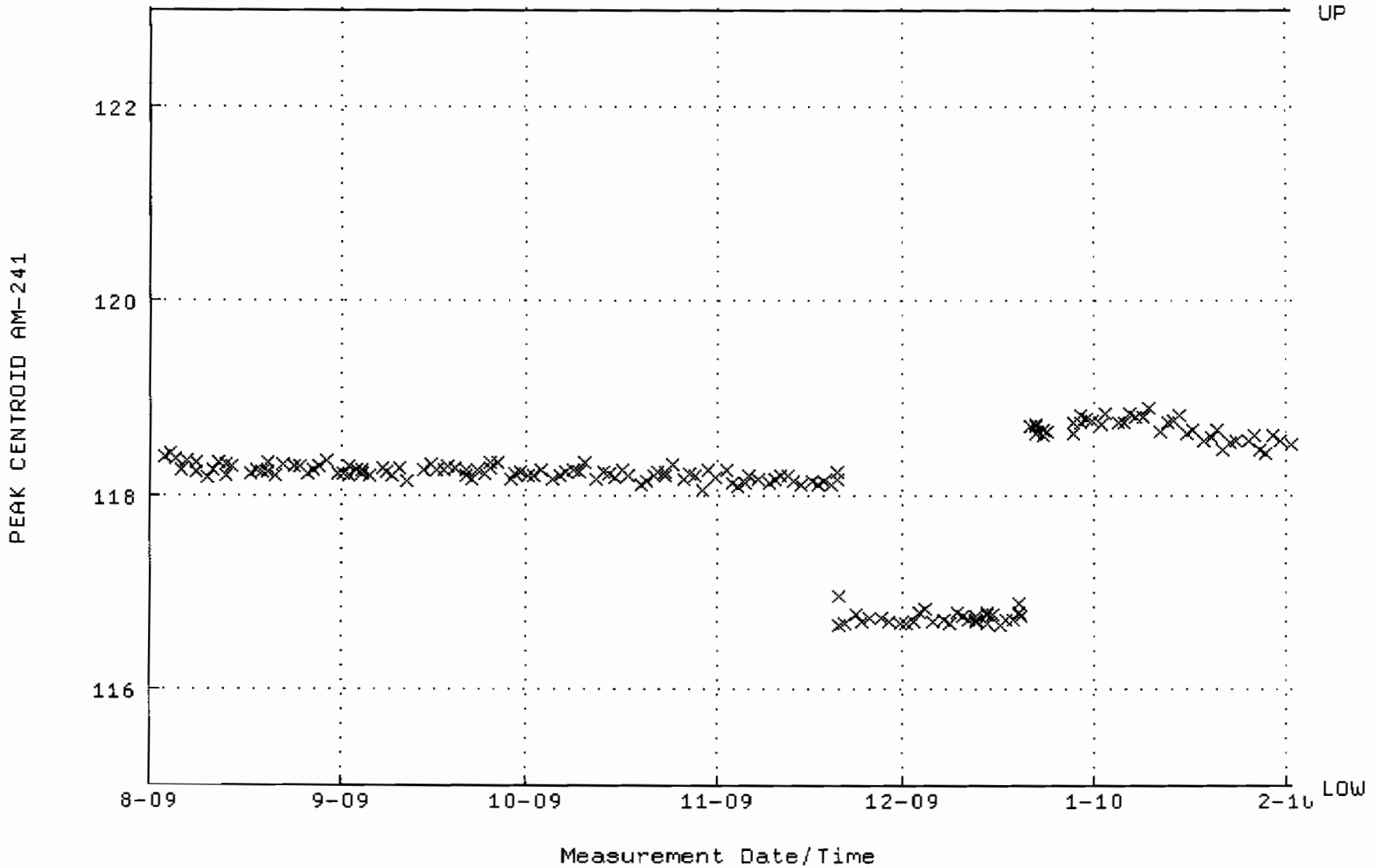

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

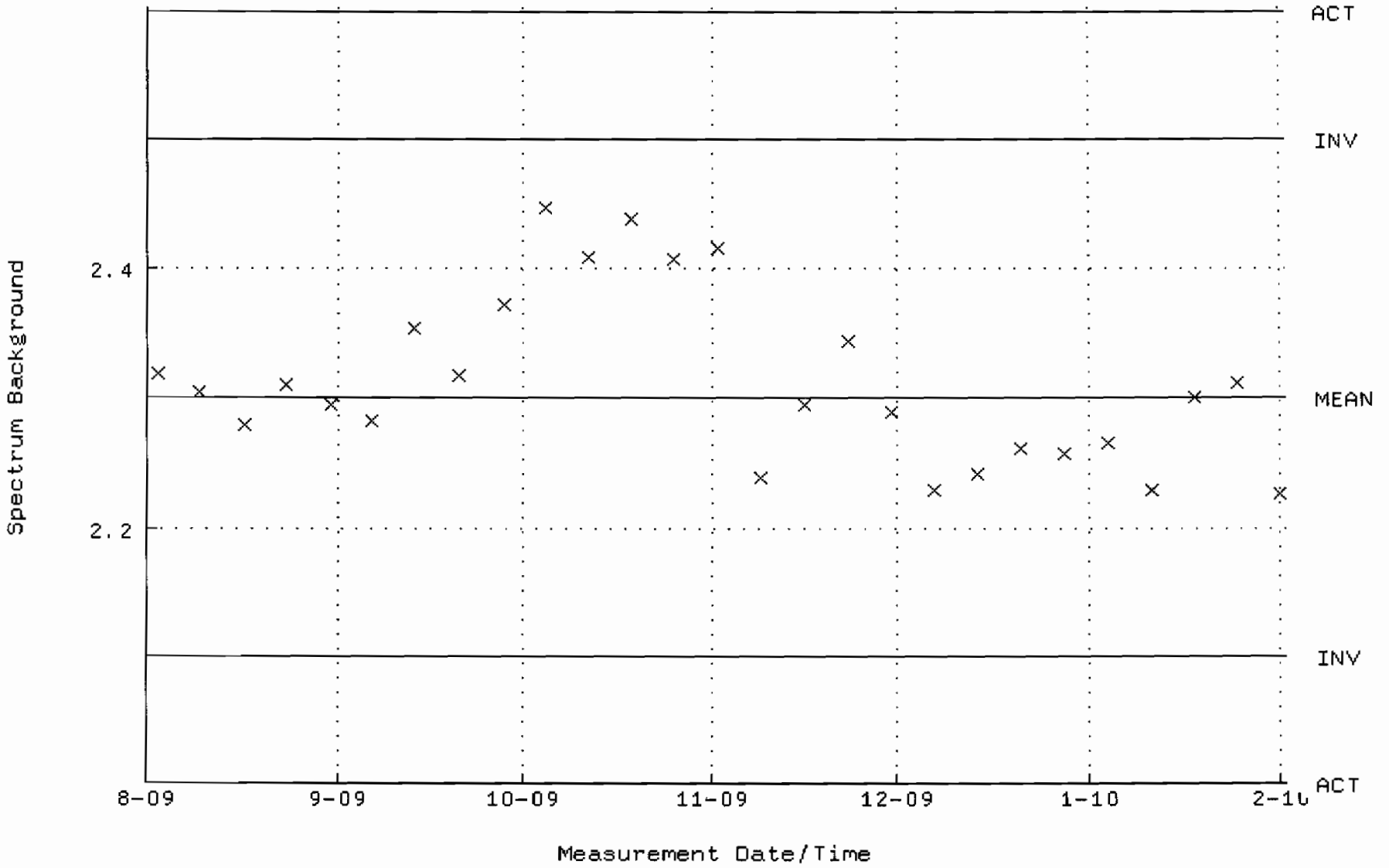

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:08:04 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

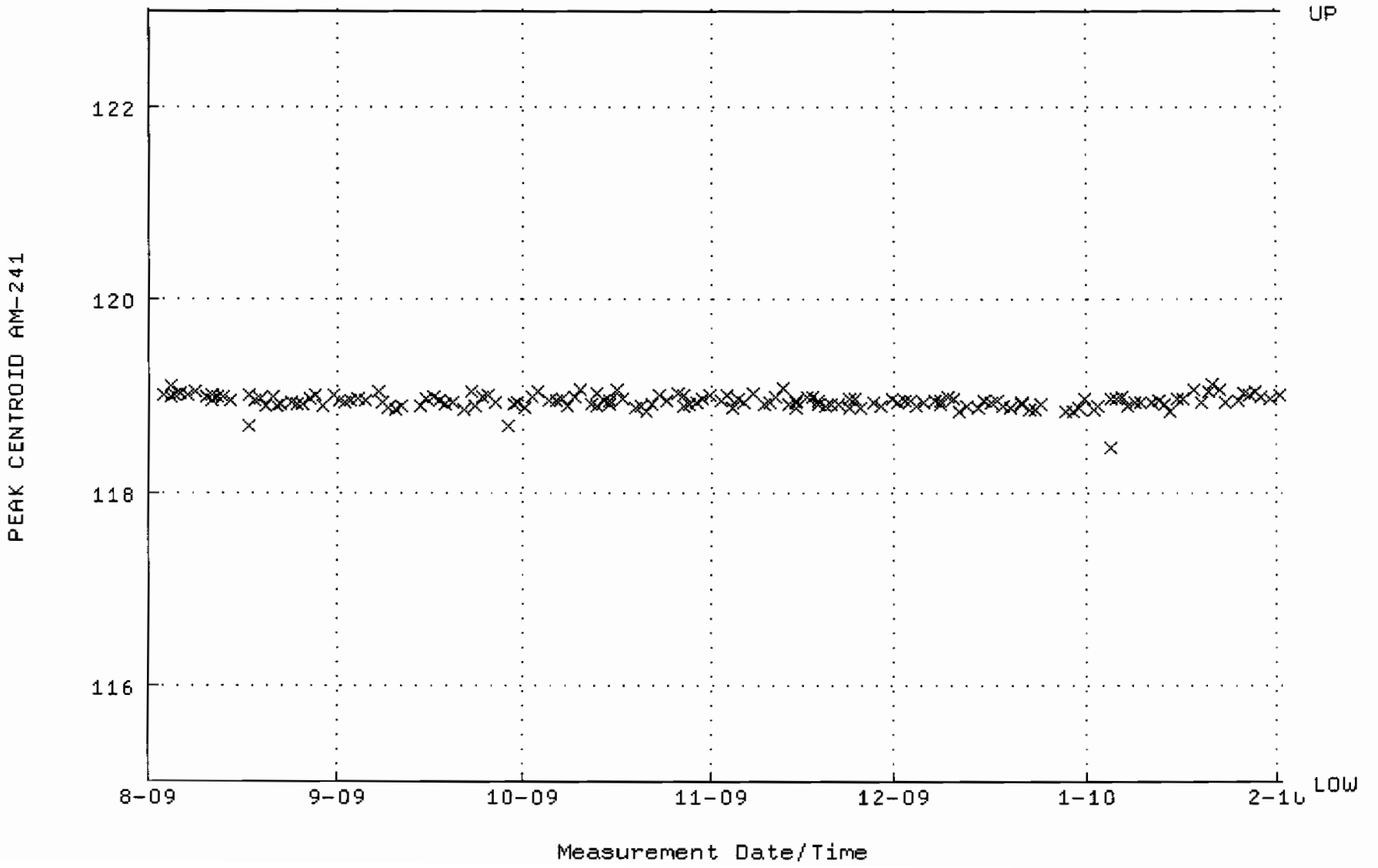

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

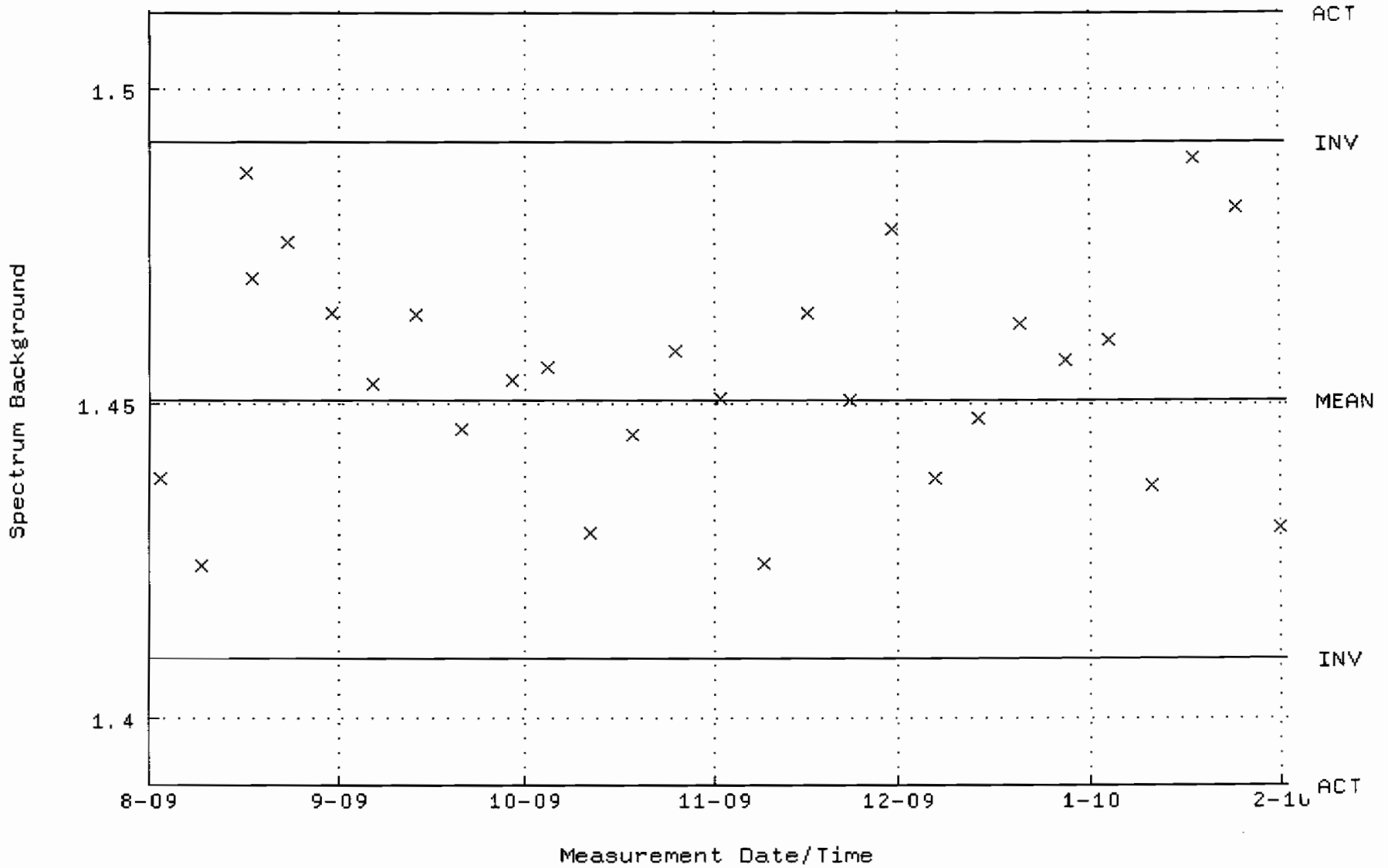

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:19:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

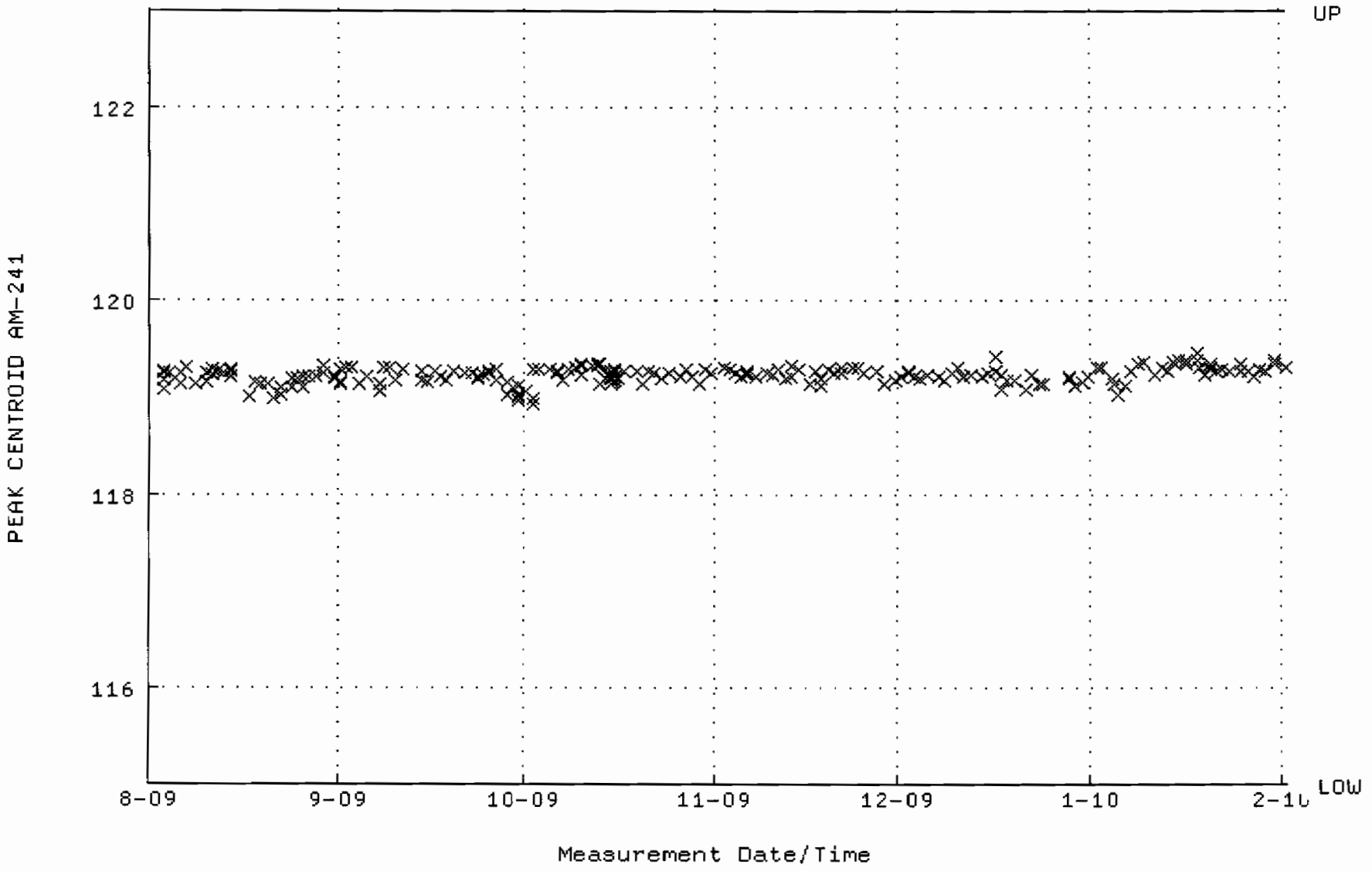

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

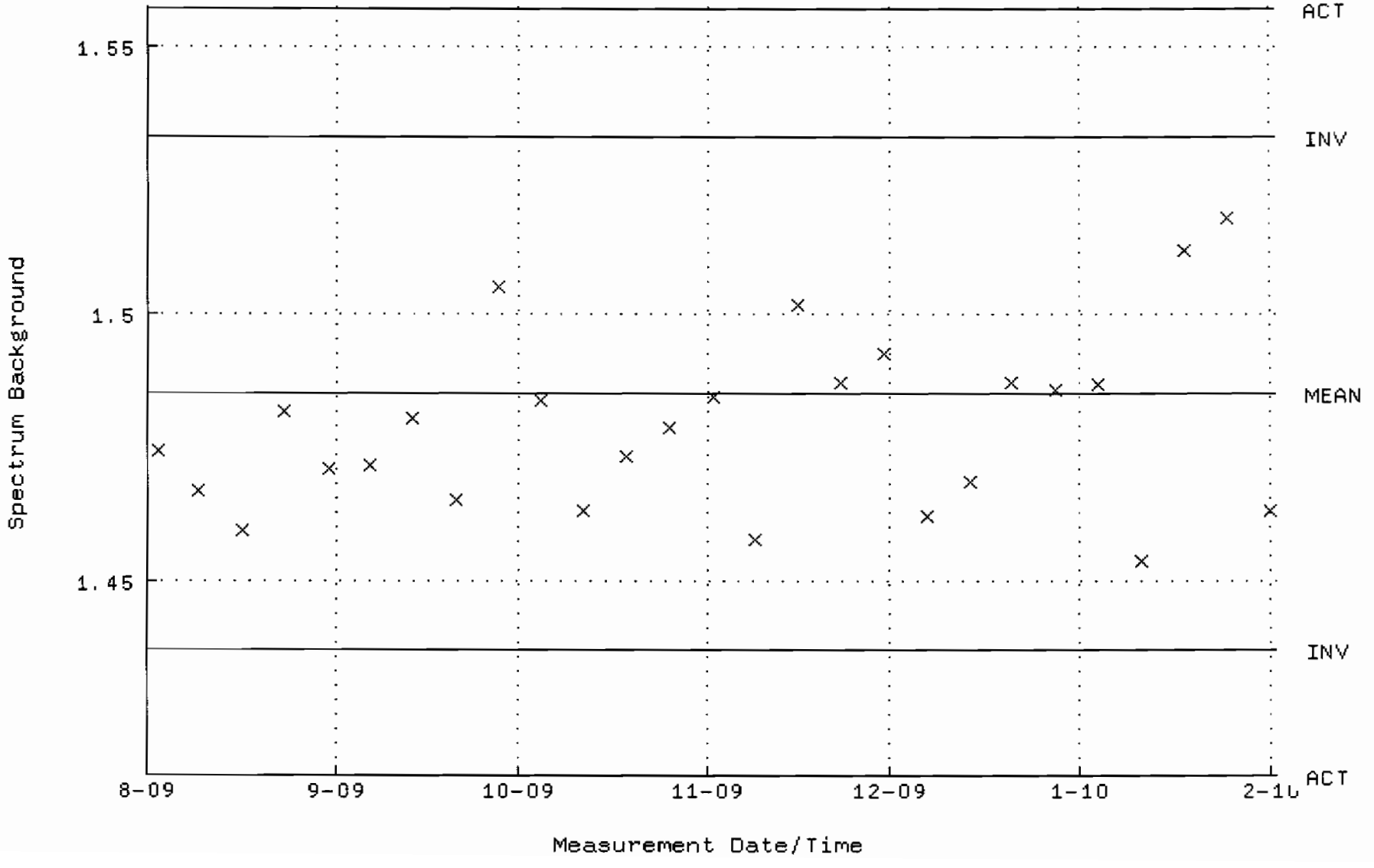

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 17-NOV-2009 15:50:12 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

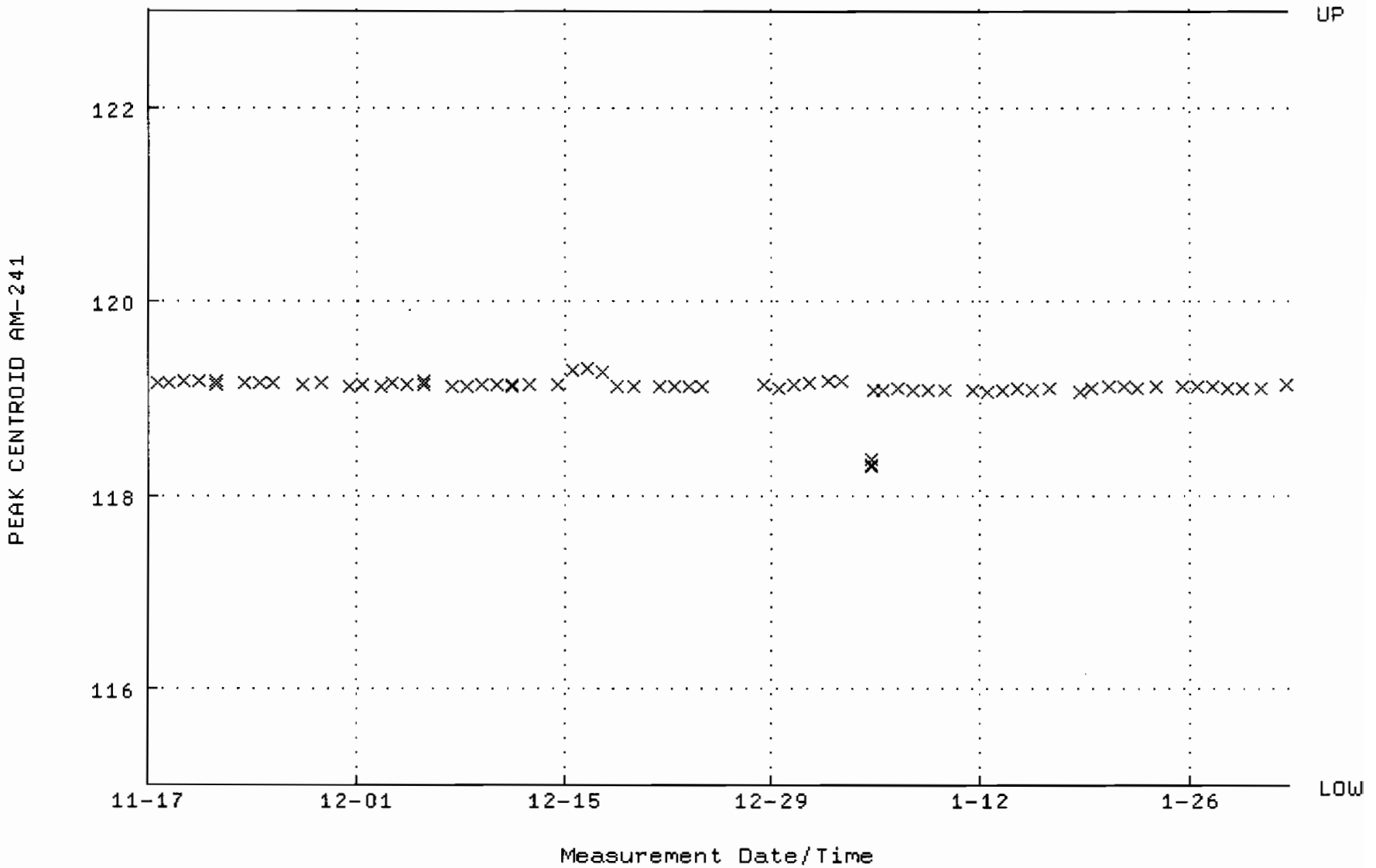

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 22-NOV-2009 17:05:16 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.03312 +- 8.784250E-03 (0.85 %)

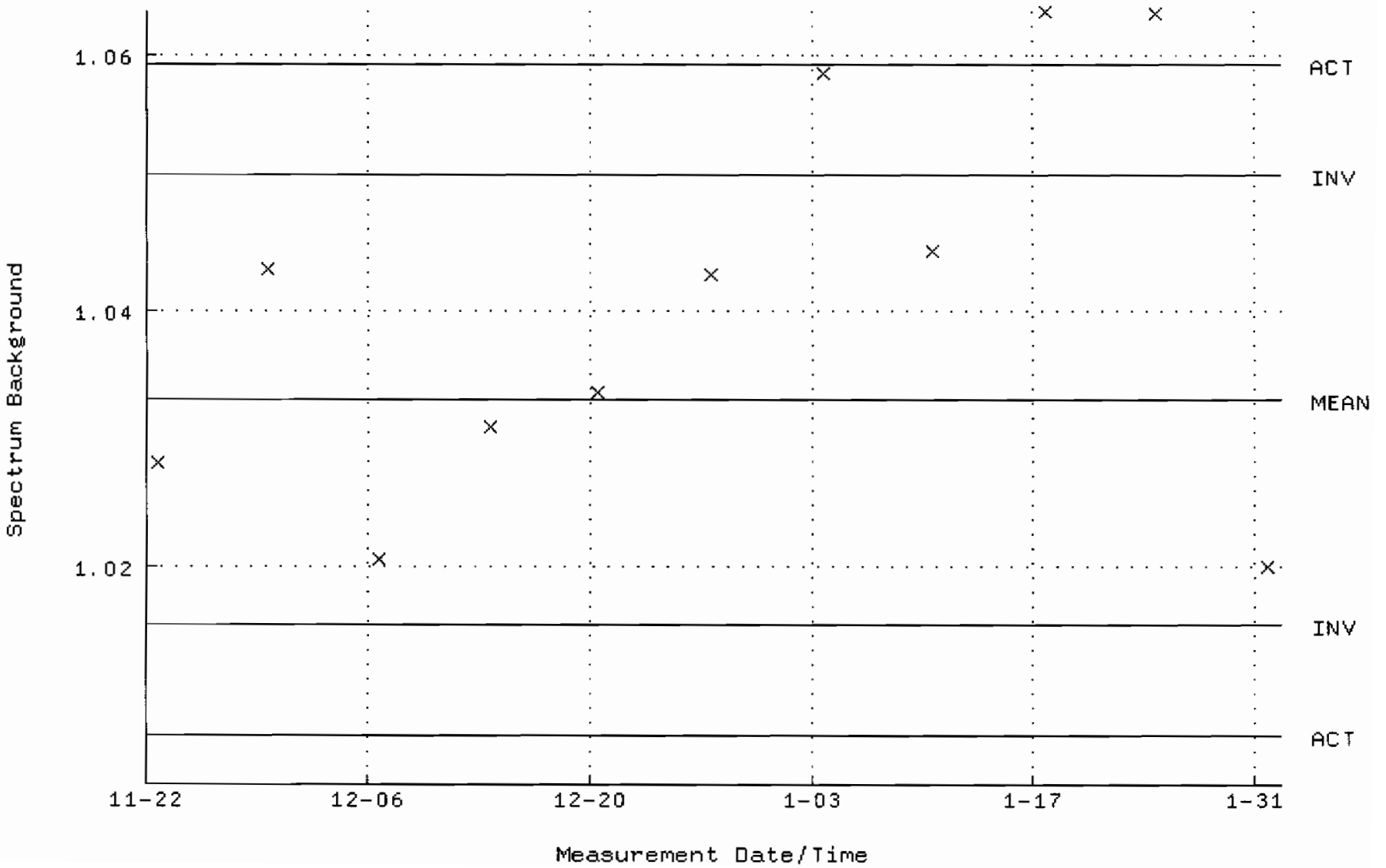

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

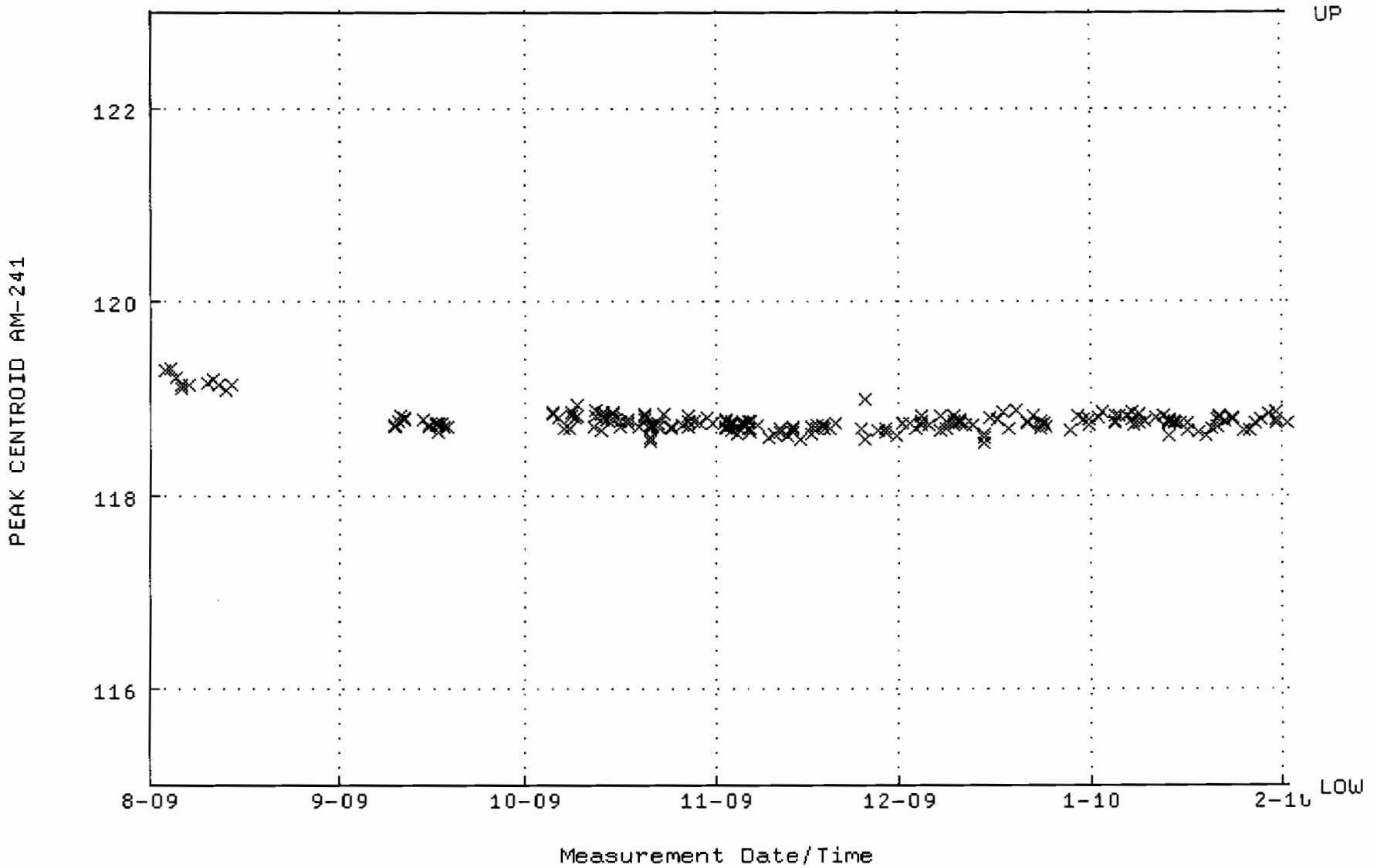

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

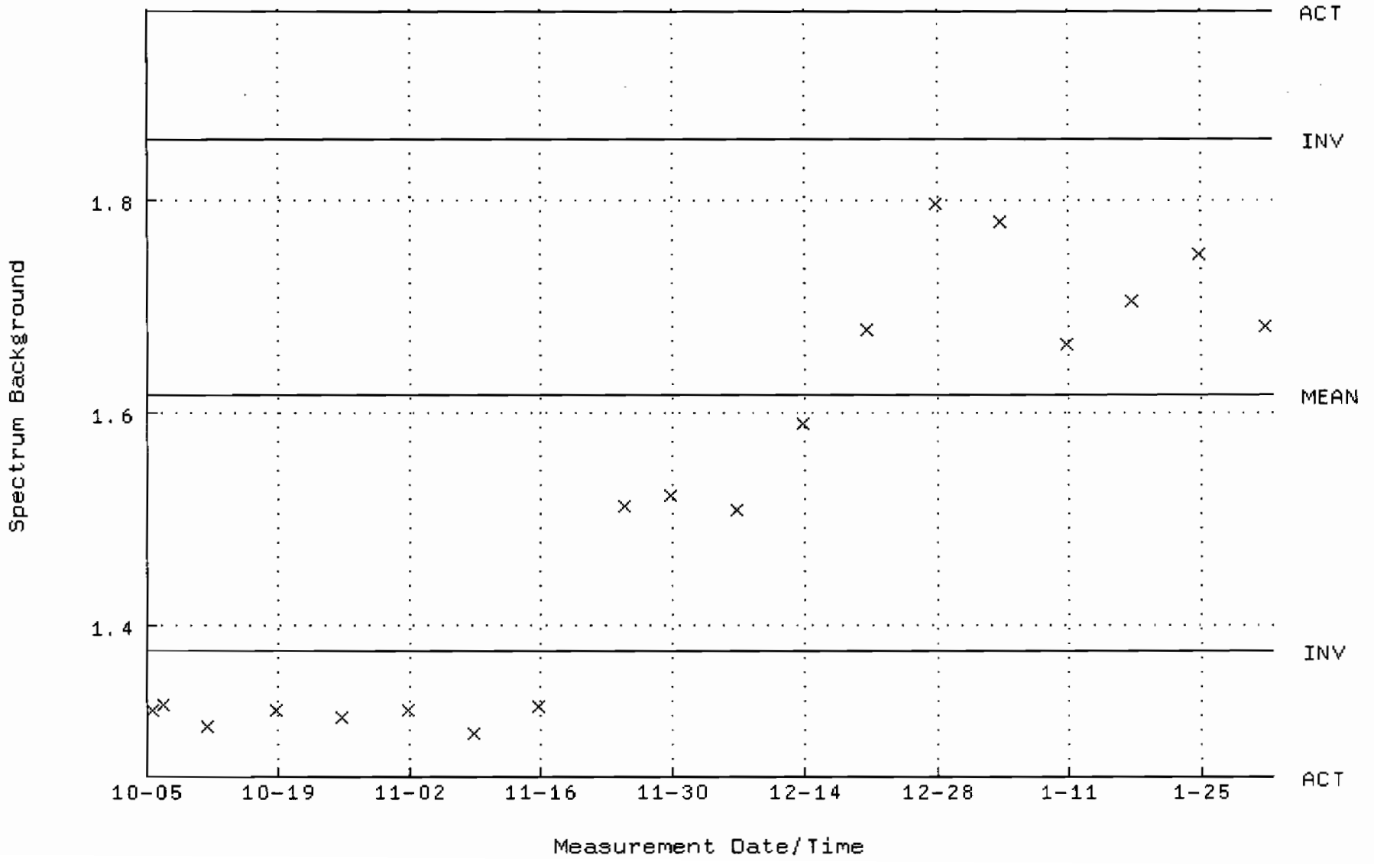

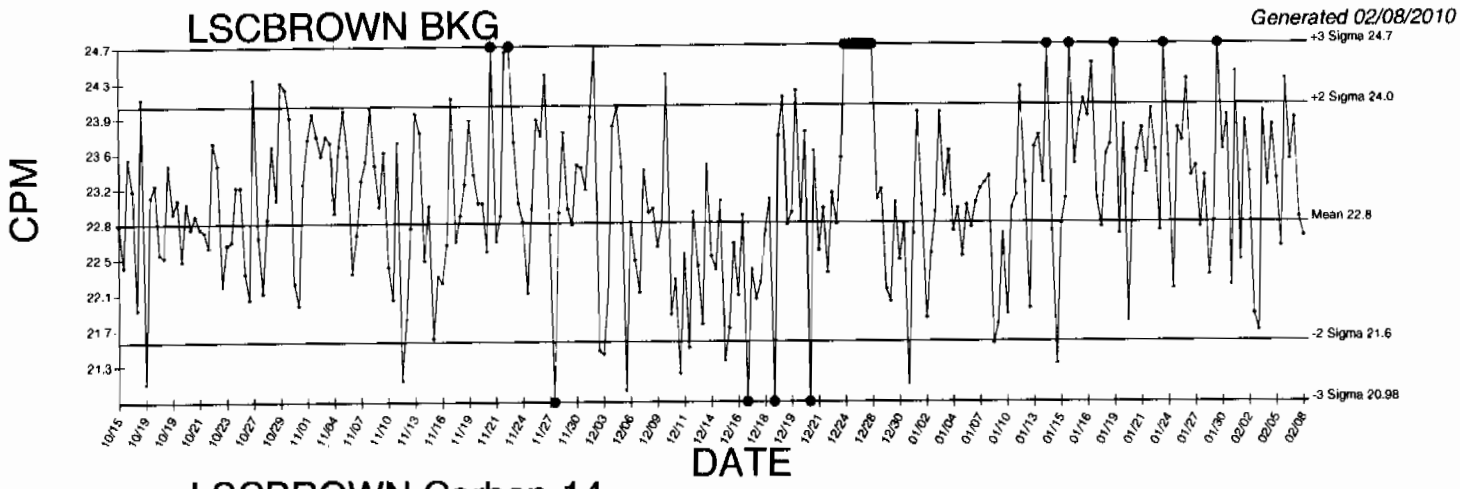

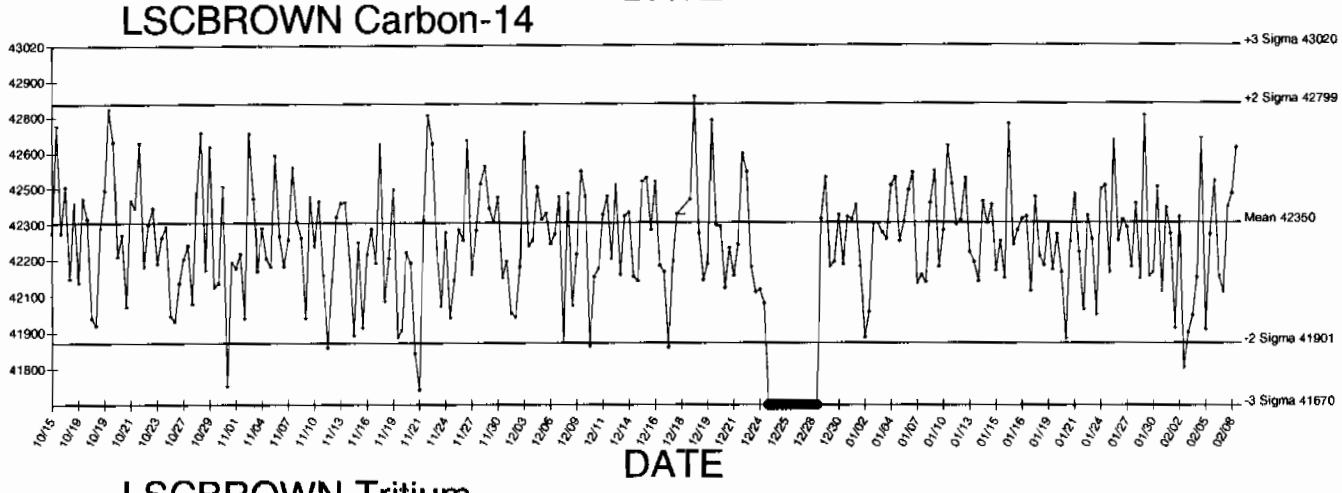

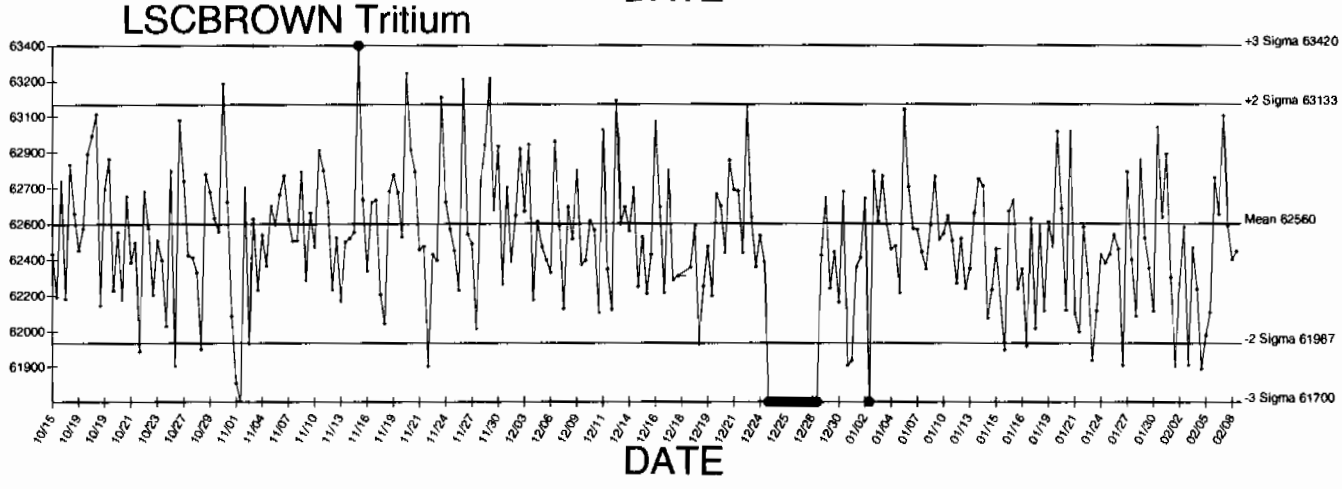

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

[redacted]

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-023-061a

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

[illegible] 4/9/09
Amanda L. [illegible] 4/9/09

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837

www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- Ver. JAR-1
	Mixed Gamma N2	2510	pCi/L	- Ver. JAR-3
	Mixed Gamma N3	2413	pCi/L	- Ver. JAR-5

Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**

Certificate Value =	2485.68018	pCi/L
Lower Limit =	2357.536524	pCi/L
Upper Limit =	2613.796809	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	128.1301422	
10 % of Mean =	248.56666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Neff 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 (SMO USE)
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1/3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (SMO USE) Date Entered (mm/dd/yy) Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL per behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DP	Weston / 7577 / 845-0867

1. Relinquished by	Org.	Date	Time	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Kabel 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are soil uncontaminated and materials being sent to GEL are behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DP	Weston / 7577 / 845-0867

1. Relinquished by	Org.	Date	Time	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

1. Relinquished by: Org. 577 Date 11-16-99 Time 0900

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Pier
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Lindsey 5/15/09
Robert Bin 007509

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

1375

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/21/01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

RC-5-084-094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: $(373\,500 \pm 1100)$ a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	$^{239}Pu + ^{240}Pu$ <0.000 001 [u]	$^{239}Pu + ^{240}Pu$ 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	$^{238}Pu + ^{241}Am$ <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}·{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	**Isotope**	**Value**	**Uncertainty**
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480
Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**
Target =	1.52		
Lower Limit =	1.48		
Upper Limit =	1.68		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.1		
10 % of Mean =	0.158		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 944966**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status		Geometry	Calibration Date
245371001	SAMPLE	MXR1	GAM02	02-FEB-10 06:51	DONE	CAN		29-OCT-09 00:00
245371002	SAMPLE	MXR1	GAM10	02-FEB-10 07:08	DONE	CAN		16-MAR-09 00:00
245393010	SAMPLE	MXR1	GAM12	02-FEB-10 07:09	DONE	CAN		10-FEB-09 00:00
245393011	SAMPLE	MXR1	GAM13	02-FEB-10 07:09	DONE	CAN		02-FEB-09 00:00
245395001	SAMPLE	MXR1	GAM16	02-FEB-10 07:10	DONE	CAN		16-NOV-09 00:00
245395002	SAMPLE	MXR1	GAM18	02-FEB-10 07:20	DONE	CAN		23-APR-09 00:00
245395003	SAMPLE	MXR1	GAM19	02-FEB-10 07:21	DONE	CAN		12-MAR-09 00:00
245395004	SAMPLE	MXR1	GAM20	02-FEB-10 08:23	DONE	CAN		26-AUG-09 00:00
245395005	SAMPLE	MXR1	GAM21	02-FEB-10 08:24	DONE	CAN		28-JUL-09 00:00
245395006	SAMPLE	MXR1	GAM23	02-FEB-10 08:24	DONE	CAN		02-JUN-09 00:00
245395007	SAMPLE	MXR1	GAM02	02-FEB-10 09:13	DONE	CAN		29-OCT-09 00:00
245395008	SAMPLE	MXR1	GAM10	02-FEB-10 09:14	DONE	CAN		16-MAR-09 00:00
245395009	SAMPLE	MXR1	GAM12	02-FEB-10 09:14	DONE	CAN		10-FEB-09 00:00
245395010	SAMPLE	MXR1	GAM13	02-FEB-10 09:15	DONE	CAN		02-FEB-09 00:00
245395011	SAMPLE	MXR1	GAM16	02-FEB-10 09:18	DONE	CAN		16-NOV-09 00:00
245395012	SAMPLE	MXR1	GAM17	02-FEB-10 09:18	DONE	CAN		06-JAN-10 00:00
245395013	SAMPLE	MXR1	GAM18	02-FEB-10 09:26	DONE	CAN		23-APR-09 00:00
245395014	SAMPLE	MXR1	GAM19	02-FEB-10 09:27	DONE	CAN		12-MAR-09 00:00
245395015	SAMPLE	MXR1	GAM01	02-FEB-10 09:47	DONE	CAN		12-JAN-10 00:00
1202023719	MB	MXR1	GAM04	02-FEB-10 09:48	DONE	CAN		05-MAY-09 00:00
1202023720	DUP	MXR1	GAM06	02-FEB-10 09:49	DONE	CAN		04-FEB-09 00:00
1202023721	LCS	MXR1	GAM07	02-FEB-10 09:50	DONE	CAN		20-JUL-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID:944985**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245371001	SAMPLE	JXD2	1031	08-FEB-10 10:21	DONE		
245371002	SAMPLE	JXD2	1033	08-FEB-10 10:21	DONE		
245393010	SAMPLE	JXD2	1035	08-FEB-10 10:21	DONE		
245393011	SAMPLE	JXD2	1036	08-FEB-10 10:21	DONE		
245395001	SAMPLE	JXD2	1037	08-FEB-10 10:21	DONE		
245395002	SAMPLE	JXD2	1038	08-FEB-10 10:21	DONE		
245395003	SAMPLE	JXD2	1039	08-FEB-10 10:21	DONE		
245395004	SAMPLE	JXD2	1040	08-FEB-10 10:21	DONE		
245395005	SAMPLE	JXD2	1041	08-FEB-10 10:21	DONE		
245395006	SAMPLE	JXD2	1042	08-FEB-10 10:21	DONE		
245395007	SAMPLE	JXD2	1043	08-FEB-10 10:21	DONE		
245395008	SAMPLE	JXD2	1044	08-FEB-10 10:21	DONE		
245395009	SAMPLE	JXD2	1045	08-FEB-10 10:21	DONE		
245395010	SAMPLE	JXD2	1046	08-FEB-10 10:21	DONE		
245395011	SAMPLE	JXD2	1047	08-FEB-10 10:21	DONE		
245395012	SAMPLE	JXD2	1048	08-FEB-10 10:21	DONE		
245395013	SAMPLE	JXD2	1065	08-FEB-10 10:21	DONE		
245395014	SAMPLE	JXD2	1066	08-FEB-10 10:21	DONE		
245395015	SAMPLE	JXD2	1067	08-FEB-10 10:21	DONE		
1202023804	MB	JXD2	1068	08-FEB-10 10:21	DONE		
1202023805	DUP	JXD2	1069	08-FEB-10 10:21	DONE		
1202023806	LCS	JXD2	1070	08-FEB-10 10:21	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 944994**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245371001	SAMPLE	JXD2	1210	05-FEB-10 18:17	DONE		
245371002	SAMPLE	JXD2	1211	05-FEB-10 18:17	DONE		
245393010	SAMPLE	JXD2	1212	05-FEB-10 18:17	DUSE		
245393011	SAMPLE	JXD2	1213	05-FEB-10 18:17	DONE		
245395001	SAMPLE	JXD2	1214	05-FEB-10 18:17	DONE		
245395002	SAMPLE	JXD2	1215	05-FEB-10 18:17	DONE		
245395003	SAMPLE	JXD2	1216	05-FEB-10 18:17	DUSE		
245395004	SAMPLE	JXD2	1217	05-FEB-10 18:17	DONE		
245395005	SAMPLE	JXD2	1218	05-FEB-10 18:17	DONE		
245395006	SAMPLE	JXD2	1219	05-FEB-10 18:17	DUSE		
245395007	SAMPLE	JXD2	1220	05-FEB-10 18:17	DONE		
245395008	SAMPLE	JXD2	1229	05-FEB-10 18:17	DONE		
245395009	SAMPLE	JXD2	1230	05-FEB-10 18:17	DONE		
245395010	SAMPLE	JXD2	1231	05-FEB-10 18:17	DONE		
245395011	SAMPLE	JXD2	1232	05-FEB-10 18:17	DUSE		
245395012	SAMPLE	JXD2	1233	05-FEB-10 18:17	DONE		
245395013	SAMPLE	JXD2	1234	05-FEB-10 18:17	DONE		
245395014	SAMPLE	JXD2	1235	05-FEB-10 18:18	DUSE		
245395015	SAMPLE	JXD2	1236	05-FEB-10 18:18	DUSE		
1202023807	MB	JXD2	1237	05-FEB-10 18:18	DONE		
1202023808	DUP	JXD2	1238	05-FEB-10 18:18	DONE		
1202023809	LCS	JXD2	1239	05-FEB-10 18:18	DONE		
245393010	SAMPLE	JXD2	1233	08-FEB-10 20:42	DONE		
245395003	SAMPLE	JXD2	1234	08-FEB-10 20:42	DONE		
245395006	SAMPLE	JXD2	1235	08-FEB-10 20:42	DONE		
245395011	SAMPLE	JXD2	1236	08-FEB-10 20:42	DONE		
245395014	SAMPLE	JXD2	1239	08-FEB-10 20:42	DONE		
245395015	SAMPLE	JXD2	1240	08-FEB-10 20:42	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 944996**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245395015	SAMPLE	JXD2	1007	08-FEB-10 11:56	DONE		
1202023820	MB	JXD2	1008	08-FEB-10 11:56	DONE		
245371001	SAMPLE	JXD2	1115	08-FEB-10 12:04	DONE		
245371002	SAMPLE	JXD2	1117	08-FEB-10 12:04	DONE		
245393010	SAMPLE	JXD2	1118	08-FEB-10 12:04	DONE		
245393011	SAMPLE	JXD2	1119	08-FEB-10 12:04	DONE		
245395001	SAMPLE	JXD2	1120	08-FEB-10 12:04	DONE		
245395002	SAMPLE	JXD2	1121	08-FEB-10 12:04	DONE		
245395003	SAMPLE	JXD2	1122	08-FEB-10 12:04	DONE		
245395004	SAMPLE	JXD2	1123	08-FEB-10 12:04	DONE		
245395005	SAMPLE	JXD2	1124	08-FEB-10 12:04	DONE		
245395006	SAMPLE	JXD2	1125	08-FEB-10 12:04	DUSE		
245395007	SAMPLE	JXD2	1126	08-FEB-10 12:04	DUSE		
245395008	SAMPLE	JXD2	1127	08-FEB-10 12:04	DUSE		
245395009	SAMPLE	JXD2	1128	08-FEB-10 12:04	DUSE		
245395010	SAMPLE	JXD2	1129	08-FEB-10 12:04	DONE		
245395011	SAMPLE	JXD2	1130	08-FEB-10 12:04	DONE		
245395012	SAMPLE	JXD2	1131	08-FEB-10 12:04	DUSE		
245395013	SAMPLE	JXD2	1132	08-FEB-10 12:04	DONE		
245395014	SAMPLE	JXD2	1133	08-FEB-10 12:04	DUSE		
1202023821	DUP	JXD2	1139	08-FEB-10 12:05	DONE		
1202023822	LCS	JXD2	1140	08-FEB-10 12:05	DONE		

Instrument Run Log

Instrument Type: LSC **Batch ID: 948398**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245395005	SAMPLE	KXK2	LSCSILVER	07-FEB-10 01:22	DUSE		
245395006	SAMPLE	KXK2	LSCSILVER	07-FEB-10 03:01	DUSE		
245395007	SAMPLE	KXK2	LSCSILVER	07-FEB-10 04:39	DUSE		
245395008	SAMPLE	KXK2	LSCSILVER	07-FEB-10 06:17	DUSE		
245395009	SAMPLE	KXK2	LSCSILVER	07-FEB-10 07:55	DUSE		
245395010	SAMPLE	KXK2	LSCSILVER	07-FEB-10 09:33	DUSE		
245395011	SAMPLE	KXK2	LSCSILVER	07-FEB-10 11:11	DUSE		
245395012	SAMPLE	KXK2	LSCSILVER	07-FEB-10 12:50	DUSE		
245395013	SAMPLE	KXK2	LSCSILVER	07-FEB-10 14:28	DUSE		
245395014	SAMPLE	KXK2	LSCSILVER	07-FEB-10 16:06	DUSE		
245395015	SAMPLE	KXK2	LSCSILVER	07-FEB-10 18:58	DUSE		
1202031673	MB	KXK2	LSCSILVER	07-FEB-10 20:36	DUSE		
1202031675	LCS	KXK2	LSCSILVER	07-FEB-10 23:51	DUSE		
245395001	SAMPLE	KXK2	LSCBROWN	08-FEB-10 13:52	DONE		
245395001	SAMPLE	KXK2	LSCBROWN	08-FEB-10 13:52	DUSE	10mL DW/13mL Ecoscint Ultra	09-SEP-09 00:00
245395002	SAMPLE	KXK2	LSCBROWN	08-FEB-10 14:08	DONE		
245395002	SAMPLE	KXK2	LSCBROWN	08-FEB-10 14:08	DUSE	10mL DW/13mL Ecoscint Ultra	09-SEP-09 00:00
245395003	SAMPLE	KXK2	LSCBROWN	08-FEB-10 14:25	DONE		
245395003	SAMPLE	KXK2	LSCBROWN	08-FEB-10 14:25	DUSE	10mL DW/13mL Ecoscint Ultra	09-SEP-09 00:00
245395004	SAMPLE	KXK2	LSCBROWN	08-FEB-10 14:41	DONE		
245395004	SAMPLE	KXK2	LSCBROWN	08-FEB-10 14:41	DUSE	10mL DW/13mL Ecoscint Ultra	09-SEP-09 00:00
245395005	SAMPLE	KXK2	LSCBROWN	08-FEB-10 14:57	DONE		
245395006	SAMPLE	KXK2	LSCBROWN	08-FEB-10 15:13	DONE		
245395007	SAMPLE	KXK2	LSCBROWN	08-FEB-10 15:30	DONE		
245395008	SAMPLE	KXK2	LSCBROWN	08-FEB-10 15:40	DONE		
245395009	SAMPLE	KXK2	LSCBROWN	08-FEB-10 15:57	DONE		
245395010	SAMPLE	KXK2	LSCBROWN	08-FEB-10 16:13	DONE		
245395011	SAMPLE	KXK2	LSCBROWN	08-FEB-10 16:29	DONE		
245395012	SAMPLE	KXK2	LSCBROWN	08-FEB-10 16:46	DONE		
245395013	SAMPLE	KXK2	LSCBROWN	08-FEB-10 17:02	DONE		
245395014	SAMPLE	KXK2	LSCBROWN	08-FEB-10 17:18	DONE		
245395015	SAMPLE	KXK2	LSCBROWN	08-FEB-10 17:35	DONE		
1202031673	MB	KXK2	LSCBROWN	08-FEB-10 17:51	DONE		
1202031674	DUP	KXK2	LSCBROWN	08-FEB-10 18:07	DONE		
1202031674	DUP	KXK2	LSCBROWN	08-FEB-10 18:07	DUSE	10mL DW/13mL Ecoscint Ultra	09-SEP-09 00:00
1202031675	LCS	KXK2	LSCBROWN	08-FEB-10 18:23	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 954840**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202047013	MB	AXD2	1138	19-FEB-10 07:56	DONE		
1202047014	DUP	AXD2	1139	19-FEB-10 07:56	DONE		
1202047015	LCS	AXD2	1140	19-FEB-10 07:56	DONE		
245395006	SAMPLE	AXD2	1141	19-FEB-10 07:56	DONE		
245395007	SAMPLE	AXD2	1142	19-FEB-10 07:56	DONE		
245395008	SAMPLE	AXD2	1143	19-FEB-10 07:56	DONE		
245395009	SAMPLE	AXD2	1144	19-FEB-10 07:56	DONE		
245395012	SAMPLE	AXD2	1145	19-FEB-10 07:56	DONE		
245395014	SAMPLE	AXD2	1146	19-FEB-10 07:56	DONE		

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1510

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:8260B	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7329	S	1/28/2010	
		2	RE15-10-7329	S	1/28/2010	
	SW-846:8270C	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:8321A_MOD	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7324	R	1/28/2010	

Final Page of REQUEST NUMBER 10-1510

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1510C

REQUEST NUMBER: 10-1510

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7309	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7308	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7308	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7315	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7315	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7317	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7317	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7319	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7319	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7312	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7312	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7313	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7313	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7314	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7314	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7316	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7316	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7318	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7318	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7329	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE15-10-7329	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE15-10-7324	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7324	1	SEPTUM AMBER GLASS	8260B	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/1/10	5:00				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7329 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0846	SUB-MEDIA:	OTHER	
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
12m 1/28/10						
1 ~~2~~	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE15-10-7308

SAMPLE COMMENTS:

FTB

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7314 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		0906	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610562	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+C N	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Frozen brown silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 11 dpm

Bγ ≤ 1734 dpm

PID ambient reading 0.1 / 0.1 ppm

HE negative

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7308 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610559	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 SRC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty sand, numerous rocks, some roots

FTB RE15-10-7329

SAMPLE COMMENTS:
NA

LOCATION DESC: 5c-3

FIELD SCREENING/MEASUREMENT RESULTS:

HE NEG

α ≤ 11 dpm
Bγ ≤ 1976 dpm

PID ambient reading 0.0 / 0.0 ppm

HE neg

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7318 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0943	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610564	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, numerous rocks, grass roots

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-5

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 5$ dpm

$\beta\gamma \leq 2080$ dpm

HE negative

PID ambient reading 0.1 / 0.4 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7309 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610559	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt
FD : RE 15-10-7324

SAMPLE COMMENTS: NA

LOCATION DESC: 5C-3

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 16 dpm PID ambient reading 0.0 / 0.0 ppm

BY ≤ 1824 dpm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R. Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7317 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Milk
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610563	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, white tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-6

FIELD SCREENING/MEASUREMENT RESULTS:

α ± 22 dpm
βγ ± 1935 dpm

ambient reading 0.0 / 0.3 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7315 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Auh
TIME COLLECTED (HH:MM)		0920	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610562	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, white tuff fragments
Field duplicate collected with this sample RE15-10-7326

FR : RE15-10-7326

SAMPLE COMMENTS: NA

LOCATION DESC: 5C-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 27 dpm

BY ≤ 16.37 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7324 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610559	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7308

Light brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

5c-3

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 16 dpm

βγ ≤ 1824 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7316 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Alth
TIME COLLECTED (HH:MM)		0930	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610563	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown frozen silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-6

FIELD SCREENING/MEASUREMENT RESULTS: PID ambient reading 0.0 / 0.5

α ≤ 0 dpm

β/γ ≤ 1513 dpm HE negative

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7313 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		0918	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610561	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	✓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/4/10 JC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, white tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 5C-1

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 5 dpm

βγ ≤ 1790 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7319 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		0945	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610564	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, white tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: ~~5c-6~~ 5c.5 TJM 1/28/10

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 5 dpm PID ambient reading 0.0 / 0.2 ppm

Bγ ≤ 1686 dpm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7312 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610561	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty sand, some pebbles

SAMPLE COMMENTS:

NA

LOCATION DESC: 5C-1

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq$ 5 dpm PID HE NEG

$\beta\gamma \leq$ 1845 dpm ambient reading 0.0 / 0.1 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7326 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0933	SUB-MEDIA:	OTHER	
PRS ID:	15-005(c)		SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	OK ~~OK~~ ~~SC-2~~ 15-610562 ~~OK~~	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7315

SAMPLE COMMENTS:
Field Rinsate

LOCATION DESC:
SC-2

FIELD SCREENING/MEASUREMENT RESULTS:
α ≤ NA
~~β/γ ≤ NA~~ 1/28/10 NA

COLLECTED BY (PRINT) LARRY A. LOPEZ REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders ~~Larry A. Lopez~~ 1/28/10	~~01/28/10~~ 1/28/10 1350	(Printed Name)	1/28/10 1350
(Signature) R Saunders ~~Larry A. Lopez~~ 1/28/10		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7308
7309
7312
7313
7314
7315
7316
7317
7318
7319
7324

RE15-10-8112
8113
8114
8115
8116
8117
8118
8119
8122

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-7329 FTB

RE15-10-8124
RE15-10-7326 Rinsate

Reason:

Print Last Name McFarland Signature [signature] Date 1/28/10

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1510 VALIDATION DATE: 3/9/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %Ds for chloromethane and acetone were >20%. The acetone result for sample RE15-10-7312 was a detect and, thus, was qualified J,V7c. All other associated sample results were NDs and, thus, were qualified UJ,V7c.

2. The MS/MSD %Rs for four target analytes and the MS/MSD RPDs for sec-butylbenzene; 4-isopropyltoluene; and n-butylbenzene were outside the laboratory acceptance limits. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN. MS/MSD analyses are not required for VOCs, thus, no sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 3/9/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☐	☒	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☒	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:11**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:06**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.363	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.320	1.07 UJ,V7c
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	U	5.33	ug/kg	1.77	5.33 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
74-88-4	Iodomethane	U	5.33	ug/kg	1.71	5.33
75-09-2	Methylene chloride	U	5.33	ug/kg	2.13	5.33
75-15-0	Carbon disulfide	U	5.33	ug/kg	1.33	5.33
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	U	5.33	ug/kg	1.60	5.33
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	U	5.33	ug/kg	1.33	5.33
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.320	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	U	5.33	ug/kg	1.60	5.33
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.320	1.07

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959001	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7309	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/09/2010 22:11	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:06	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	020910\AX213.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.320	1.07
179601-23-1	m,p-Xylenes	U	2.13	ug/kg	0.320	2.13
95-47-6	o-Xylene	U	1.07	ug/kg	0.320	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.320	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.320	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.320	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.33	ug/kg	1.71	5.33
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:38**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.438	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29 UJ,V7c
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29
67-64-1	Acetone	U	6.44	ug/kg	2.14	6.44 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
74-88-4	Iodomethane	U	6.44	ug/kg	2.06	6.44
75-09-2	Methylene chloride	U	6.44	ug/kg	2.57	6.44
75-15-0	Carbon disulfide	U	6.44	ug/kg	1.61	6.44
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29
78-93-3	2-Butanone	U	6.44	ug/kg	1.93	6.44
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29
108-10-1	4-Methyl-2-pentanone	U	6.44	ug/kg	1.61	6.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
108-88-3	Toluene	U	1.29	ug/kg	0.386	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29
591-78-6	2-Hexanone	U	6.44	ug/kg	1.93	6.44
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:38**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	U	2.57	ug/kg	0.386	2.57
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	U	1.29	ug/kg	0.386	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.44	ug/kg	2.06	6.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**8.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7315**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:04**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:08**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.352	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.311	1.04 UJ,V7c
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.311	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.311	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.311	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.311	1.04
67-64-1	Acetone	U	5.18	ug/kg	1.72	5.18 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
74-88-4	Iodomethane	U	5.18	ug/kg	1.66	5.18
75-09-2	Methylene chloride	U	5.18	ug/kg	2.07	5.18
75-15-0	Carbon disulfide	U	5.18	ug/kg	1.29	5.18
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.311	1.04
78-93-3	2-Butanone	U	5.18	ug/kg	1.55	5.18
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.311	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.342	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.311	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.311	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.311	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.311	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.311	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.342	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.311	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.311	1.04
108-10-1	4-Methyl-2-pentanone	U	5.18	ug/kg	1.29	5.18
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.311	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.311	1.04
591-78-6	2-Hexanone	U	5.18	ug/kg	1.55	5.18
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.311	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.311	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.311	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.311	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.311	1.04

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**8.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7315**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:04**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:08**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.311	1.04
179601-23-1	m,p-Xylenes	U	2.07	ug/kg	0.311	2.07
95-47-6	o-Xylene	U	1.04	ug/kg	0.311	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.311	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.311	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.311	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.311	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.311	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.311	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.311	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.311	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.311	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.311	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.311	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.18	ug/kg	1.66	5.18
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:30**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10	
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10	UJ,V7c
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10	
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10	
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10	
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10	
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49	
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49	
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49	
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10	
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49	
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10	
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10	
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10	
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10	
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10	
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10	
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10	
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10	
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10	
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10	
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10	
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10	
74-95-3	Dibromomethane	U	1.10	ug/kg	0.330	1.10	
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49	
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10	
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10	
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10	
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10	
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49	
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10	
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10	
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10	
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10	
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10	

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:30**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959005**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7319**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:57**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12	
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12	UJ,V7c
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12	
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12	
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12	
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12	
67-64-1	Acetone	U	5.60	ug/kg	1.86	5.60	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12	
74-88-4	Iodomethane	U	5.60	ug/kg	1.79	5.60	
75-09-2	Methylene chloride	U	5.60	ug/kg	2.24	5.60	
75-15-0	Carbon disulfide	U	5.60	ug/kg	1.40	5.60	
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12	
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12	
78-93-3	2-Butanone	U	5.60	ug/kg	1.68	5.60	
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12	
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12	
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12	
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12	
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12	
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12	
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12	
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12	
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12	
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12	
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12	
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12	
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12	
108-10-1	4-Methyl-2-pentanone	U	5.60	ug/kg	1.40	5.60	
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12	
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12	
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12	
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12	
591-78-6	2-Hexanone	U	5.60	ug/kg	1.68	5.60	
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12	
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12	
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12	
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12	
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12	

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959005	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7319	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/09/2010 23:57	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX217.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.60	ug/kg	1.79	5.60
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959006	**Date Received:**	02/02/2010 09:10	**%Moisture:**	29.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7312	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 00:23	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:11	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	020910\AX218.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.446	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.393	1.31 UJ,V7c
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.393	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.393	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.393	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.393	1.31
67-64-1	Acetone		18.8	ug/kg	2.18	6.55 J,V7c
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
74-88-4	Iodomethane	U	6.55	ug/kg	2.10	6.55
75-09-2	Methylene chloride	U	6.55	ug/kg	2.62	6.55
75-15-0	Carbon disulfide	U	6.55	ug/kg	1.64	6.55
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.393	1.31
78-93-3	2-Butanone	U	6.55	ug/kg	1.97	6.55
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.393	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.433	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.393	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.393	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.393	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.393	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.393	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.433	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.393	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.393	1.31
108-10-1	4-Methyl-2-pentanone	U	6.55	ug/kg	1.64	6.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.393	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.393	1.31
591-78-6	2-Hexanone	U	6.55	ug/kg	1.97	6.55
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.393	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.393	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.393	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.393	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.393	1.31

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959006	**Date Received:**	02/02/2010 09:10	**%Moisture:**	29.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7312	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 00:23	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:11	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	020910\AX218.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.31	ug/kg	0.393	1.31
179601-23-1	m,p-Xylenes	J	0.406	ug/kg	0.393	2.62
95-47-6	o-Xylene	U	1.31	ug/kg	0.393	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.393	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.393	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.393	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.393	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.393	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.393	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.393	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.393	1.31
99-87-6	4-Isopropyltoluene		1.51	ug/kg	0.393	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.393	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.393	1.31
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.55	ug/kg	2.10	6.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.36	8.26	ug/kg	0	J

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959007**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7313**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 00:50**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:12**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.03	ug/kg	0.349	1.03
74-87-3	Chloromethane	U	1.03	ug/kg	0.308	1.03 UJ,V7c
75-01-4	Vinyl chloride	U	1.03	ug/kg	0.308	1.03
74-83-9	Bromomethane	U	1.03	ug/kg	0.308	1.03
75-00-3	Chloroethane	U	1.03	ug/kg	0.308	1.03
75-69-4	Trichlorofluoromethane	U	1.03	ug/kg	0.308	1.03
67-64-1	Acetone	U	5.13	ug/kg	1.70	5.13 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
74-88-4	Iodomethane	U	5.13	ug/kg	1.64	5.13
75-09-2	Methylene chloride	U	5.13	ug/kg	2.05	5.13
75-15-0	Carbon disulfide	U	5.13	ug/kg	1.28	5.13
156-60-5	trans-1,2-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
75-34-3	1,1-Dichloroethane	U	1.03	ug/kg	0.308	1.03
78-93-3	2-Butanone	U	5.13	ug/kg	1.54	5.13
156-59-2	cis-1,2-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
594-20-7	2,2-Dichloropropane	U	1.03	ug/kg	0.308	1.03
67-66-3	Chloroform	U	1.03	ug/kg	0.308	1.03
74-97-5	Bromochloromethane	U	1.03	ug/kg	0.338	1.03
71-55-6	1,1,1-Trichloroethane	U	1.03	ug/kg	0.308	1.03
563-58-6	1,1-Dichloropropene	U	1.03	ug/kg	0.308	1.03
56-23-5	Carbon tetrachloride	U	1.03	ug/kg	0.308	1.03
107-06-2	1,2-Dichloroethane	U	1.03	ug/kg	0.308	1.03
71-43-2	Benzene	U	1.03	ug/kg	0.308	1.03
79-01-6	Trichloroethylene	U	1.03	ug/kg	0.338	1.03
78-87-5	1,2-Dichloropropane	U	1.03	ug/kg	0.308	1.03
75-27-4	Bromodichloromethane	U	1.03	ug/kg	0.308	1.03
74-95-3	Dibromomethane	U	1.03	ug/kg	0.308	1.03
108-10-1	4-Methyl-2-pentanone	U	5.13	ug/kg	1.28	5.13
10061-01-5	cis-1,3-Dichloropropylene	U	1.03	ug/kg	0.308	1.03
108-88-3	Toluene	U	1.03	ug/kg	0.308	1.03
10061-02-6	trans-1,3-Dichloropropylene	U	1.03	ug/kg	0.308	1.03
79-00-5	1,1,2-Trichloroethane	U	1.03	ug/kg	0.308	1.03
591-78-6	2-Hexanone	U	5.13	ug/kg	1.54	5.13
142-28-9	1,3-Dichloropropane	U	1.03	ug/kg	0.308	1.03
127-18-4	Tetrachloroethylene	U	1.03	ug/kg	0.308	1.03
124-48-1	Dibromochloromethane	U	1.03	ug/kg	0.308	1.03
106-93-4	1,2-Dibromoethane	U	1.03	ug/kg	0.308	1.03
108-90-7	Chlorobenzene	U	1.03	ug/kg	0.308	1.03

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959007**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7313**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 00:50**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:12**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.03	ug/kg	0.308	1.03
179601-23-1	m,p-Xylenes	U	2.05	ug/kg	0.308	2.05
95-47-6	o-Xylene	U	1.03	ug/kg	0.308	1.03
100-42-5	Styrene	U	1.03	ug/kg	0.308	1.03
75-25-2	Bromoform	U	1.03	ug/kg	0.308	1.03
79-34-5	1,1,2,2-Tetrachloroethane	U	1.03	ug/kg	0.308	1.03
96-18-4	1,2,3-Trichloropropane	U	1.03	ug/kg	0.308	1.03
108-86-1	Bromobenzene	U	1.03	ug/kg	0.308	1.03
103-65-1	n-Propylbenzene	U	1.03	ug/kg	0.308	1.03
95-49-8	2-Chlorotoluene	U	1.03	ug/kg	0.308	1.03
98-82-8	Isopropylbenzene	U	1.03	ug/kg	0.308	1.03
108-67-8	1,3,5-Trimethylbenzene	U	1.03	ug/kg	0.308	1.03
106-43-4	4-Chlorotoluene	U	1.03	ug/kg	0.308	1.03
98-06-6	tert-Butylbenzene	U	1.03	ug/kg	0.308	1.03
95-63-6	1,2,4-Trimethylbenzene	U	1.03	ug/kg	0.308	1.03
135-98-8	sec-Butylbenzene	U	1.03	ug/kg	0.308	1.03
99-87-6	4-Isopropyltoluene	U	1.03	ug/kg	0.308	1.03
541-73-1	1,3-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03
106-46-7	1,4-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03
104-51-8	n-Butylbenzene	U	1.03	ug/kg	0.308	1.03
96-12-8	1,2-Dibromo-3-chloropropane	U	1.03	ug/kg	0.308	1.03
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.13	ug/kg	1.64	5.13
630-20-6	1,1,1,2-Tetrachloroethane	U	1.03	ug/kg	0.308	1.03
95-50-1	1,2-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959008	**Date Received:**	02/02/2010 09:10	**%Moisture:**	32.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7314	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 01:16	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:13	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX220.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.48	ug/kg	0.505	1.48
74-87-3	Chloromethane	U	1.48	ug/kg	0.445	1.48 UJ,V7c
75-01-4	Vinyl chloride	U	1.48	ug/kg	0.445	1.48
74-83-9	Bromomethane	U	1.48	ug/kg	0.445	1.48
75-00-3	Chloroethane	U	1.48	ug/kg	0.445	1.48
75-69-4	Trichlorofluoromethane	U	1.48	ug/kg	0.445	1.48
67-64-1	Acetone	U	7.42	ug/kg	2.46	7.42 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
74-88-4	Iodomethane	U	7.42	ug/kg	2.37	7.42
75-09-2	Methylene chloride	U	7.42	ug/kg	2.97	7.42
75-15-0	Carbon disulfide	U	7.42	ug/kg	1.85	7.42
156-60-5	trans-1,2-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
75-34-3	1,1-Dichloroethane	U	1.48	ug/kg	0.445	1.48
78-93-3	2-Butanone	U	7.42	ug/kg	2.23	7.42
156-59-2	cis-1,2-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
594-20-7	2,2-Dichloropropane	U	1.48	ug/kg	0.445	1.48
67-66-3	Chloroform	U	1.48	ug/kg	0.445	1.48
74-97-5	Bromochloromethane	U	1.48	ug/kg	0.490	1.48
71-55-6	1,1,1-Trichloroethane	U	1.48	ug/kg	0.445	1.48
563-58-6	1,1-Dichloropropene	U	1.48	ug/kg	0.445	1.48
56-23-5	Carbon tetrachloride	U	1.48	ug/kg	0.445	1.48
107-06-2	1,2-Dichloroethane	U	1.48	ug/kg	0.445	1.48
71-43-2	Benzene	U	1.48	ug/kg	0.445	1.48
79-01-6	Trichloroethylene	U	1.48	ug/kg	0.490	1.48
78-87-5	1,2-Dichloropropane	U	1.48	ug/kg	0.445	1.48
75-27-4	Bromodichloromethane	U	1.48	ug/kg	0.445	1.48
74-95-3	Dibromomethane	U	1.48	ug/kg	0.445	1.48
108-10-1	4-Methyl-2-pentanone	U	7.42	ug/kg	1.85	7.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.48	ug/kg	0.445	1.48
108-88-3	Toluene	U	1.48	ug/kg	0.445	1.48
10061-02-6	trans-1,3-Dichloropropylene	U	1.48	ug/kg	0.445	1.48
79-00-5	1,1,2-Trichloroethane	U	1.48	ug/kg	0.445	1.48
591-78-6	2-Hexanone	U	7.42	ug/kg	2.23	7.42
142-28-9	1,3-Dichloropropane	U	1.48	ug/kg	0.445	1.48
127-18-4	Tetrachloroethylene	U	1.48	ug/kg	0.445	1.48
124-48-1	Dibromochloromethane	U	1.48	ug/kg	0.445	1.48
106-93-4	1,2-Dibromoethane	U	1.48	ug/kg	0.445	1.48
108-90-7	Chlorobenzene	U	1.48	ug/kg	0.445	1.48

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959008	**Date Received:**	02/02/2010 09:10	**%Moisture:**	32.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7314	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 01:16	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:13	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX220.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.48	ug/kg	0.445	1.48
179601-23-1	m,p-Xylenes	U	2.97	ug/kg	0.445	2.97
95-47-6	o-Xylene	U	1.48	ug/kg	0.445	1.48
100-42-5	Styrene	U	1.48	ug/kg	0.445	1.48
75-25-2	Bromoform	U	1.48	ug/kg	0.445	1.48
79-34-5	1,1,2,2-Tetrachloroethane	U	1.48	ug/kg	0.445	1.48
96-18-4	1,2,3-Trichloropropane	U	1.48	ug/kg	0.445	1.48
108-86-1	Bromobenzene	U	1.48	ug/kg	0.445	1.48
103-65-1	n-Propylbenzene	U	1.48	ug/kg	0.445	1.48
95-49-8	2-Chlorotoluene	U	1.48	ug/kg	0.445	1.48
98-82-8	Isopropylbenzene	U	1.48	ug/kg	0.445	1.48
108-67-8	1,3,5-Trimethylbenzene	U	1.48	ug/kg	0.445	1.48
106-43-4	4-Chlorotoluene	U	1.48	ug/kg	0.445	1.48
98-06-6	tert-Butylbenzene	U	1.48	ug/kg	0.445	1.48
95-63-6	1,2,4-Trimethylbenzene	U	1.48	ug/kg	0.445	1.48
135-98-8	sec-Butylbenzene	U	1.48	ug/kg	0.445	1.48
99-87-6	4-Isopropyltoluene	U	1.48	ug/kg	0.445	1.48
541-73-1	1,3-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48
106-46-7	1,4-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48
104-51-8	n-Butylbenzene	U	1.48	ug/kg	0.445	1.48
96-12-8	1,2-Dibromo-3-chloropropane	U	1.48	ug/kg	0.445	1.48
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.42	ug/kg	2.37	7.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.48	ug/kg	0.445	1.48
95-50-1	1,2-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959009	**Date Received:**	02/02/2010 09:10	**%Moisture:**	35.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7316	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 01:42	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:14	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	020910\AX221.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.49	ug/kg	0.508	1.49	
74-87-3	Chloromethane	U	1.49	ug/kg	0.448	1.49	UJ,V7c
75-01-4	Vinyl chloride	U	1.49	ug/kg	0.448	1.49	
74-83-9	Bromomethane	U	1.49	ug/kg	0.448	1.49	
75-00-3	Chloroethane	U	1.49	ug/kg	0.448	1.49	
75-69-4	Trichlorofluoromethane	U	1.49	ug/kg	0.448	1.49	
67-64-1	Acetone	U	7.47	ug/kg	2.48	7.47	UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.49	ug/kg	0.448	1.49	
74-88-4	Iodomethane	U	7.47	ug/kg	2.39	7.47	
75-09-2	Methylene chloride	U	7.47	ug/kg	2.99	7.47	
75-15-0	Carbon disulfide	U	7.47	ug/kg	1.87	7.47	
156-60-5	trans-1,2-Dichloroethylene	U	1.49	ug/kg	0.448	1.49	
75-34-3	1,1-Dichloroethane	U	1.49	ug/kg	0.448	1.49	
78-93-3	2-Butanone	U	7.47	ug/kg	2.24	7.47	
156-59-2	cis-1,2-Dichloroethylene	U	1.49	ug/kg	0.448	1.49	
594-20-7	2,2-Dichloropropane	U	1.49	ug/kg	0.448	1.49	
67-66-3	Chloroform	U	1.49	ug/kg	0.448	1.49	
74-97-5	Bromochloromethane	U	1.49	ug/kg	0.493	1.49	
71-55-6	1,1,1-Trichloroethane	U	1.49	ug/kg	0.448	1.49	
563-58-6	1,1-Dichloropropene	U	1.49	ug/kg	0.448	1.49	
56-23-5	Carbon tetrachloride	U	1.49	ug/kg	0.448	1.49	
107-06-2	1,2-Dichloroethane	U	1.49	ug/kg	0.448	1.49	
71-43-2	Benzene	U	1.49	ug/kg	0.448	1.49	
79-01-6	Trichloroethylene	U	1.49	ug/kg	0.493	1.49	
78-87-5	1,2-Dichloropropane	U	1.49	ug/kg	0.448	1.49	
75-27-4	Bromodichloromethane	U	1.49	ug/kg	0.448	1.49	
74-95-3	Dibromomethane	U	1.49	ug/kg	0.448	1.49	
108-10-1	4-Methyl-2-pentanone	U	7.47	ug/kg	1.87	7.47	
10061-01-5	cis-1,3-Dichloropropylene	U	1.49	ug/kg	0.448	1.49	
108-88-3	Toluene	J	0.538	ug/kg	0.448	1.49	
10061-02-6	trans-1,3-Dichloropropylene	U	1.49	ug/kg	0.448	1.49	
79-00-5	1,1,2-Trichloroethane	U	1.49	ug/kg	0.448	1.49	
591-78-6	2-Hexanone	U	7.47	ug/kg	2.24	7.47	
142-28-9	1,3-Dichloropropane	U	1.49	ug/kg	0.448	1.49	
127-18-4	Tetrachloroethylene	U	1.49	ug/kg	0.448	1.49	
124-48-1	Dibromochloromethane	U	1.49	ug/kg	0.448	1.49	
106-93-4	1,2-Dibromoethane	U	1.49	ug/kg	0.448	1.49	
108-90-7	Chlorobenzene	U	1.49	ug/kg	0.448	1.49	

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959009**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**35.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7316**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 01:42**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.49	ug/kg	0.448	1.49
179601-23-1	m,p-Xylenes	U	2.99	ug/kg	0.448	2.99
95-47-6	o-Xylene	U	1.49	ug/kg	0.448	1.49
100-42-5	Styrene	U	1.49	ug/kg	0.448	1.49
75-25-2	Bromoform	U	1.49	ug/kg	0.448	1.49
79-34-5	1,1,2,2-Tetrachloroethane	U	1.49	ug/kg	0.448	1.49
96-18-4	1,2,3-Trichloropropane	U	1.49	ug/kg	0.448	1.49
108-86-1	Bromobenzene	U	1.49	ug/kg	0.448	1.49
103-65-1	n-Propylbenzene	U	1.49	ug/kg	0.448	1.49
95-49-8	2-Chlorotoluene	U	1.49	ug/kg	0.448	1.49
98-82-8	Isopropylbenzene	U	1.49	ug/kg	0.448	1.49
108-67-8	1,3,5-Trimethylbenzene	U	1.49	ug/kg	0.448	1.49
106-43-4	4-Chlorotoluene	U	1.49	ug/kg	0.448	1.49
98-06-6	tert-Butylbenzene	U	1.49	ug/kg	0.448	1.49
95-63-6	1,2,4-Trimethylbenzene	U	1.49	ug/kg	0.448	1.49
135-98-8	sec-Butylbenzene	U	1.49	ug/kg	0.448	1.49
99-87-6	4-Isopropyltoluene	U	1.49	ug/kg	0.448	1.49
541-73-1	1,3-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49
106-46-7	1,4-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49
104-51-8	n-Butylbenzene	U	1.49	ug/kg	0.448	1.49
96-12-8	1,2-Dibromo-3-chloropropane	U	1.49	ug/kg	0.448	1.49
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.47	ug/kg	2.39	7.47
630-20-6	1,1,1,2-Tetrachloroethane	U	1.49	ug/kg	0.448	1.49
95-50-1	1,2-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown	3.33	7.84	ug/kg	0	J

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:08**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:15**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13 UJ,V7c
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone	U	5.64	ug/kg	1.87	5.64 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.64	ug/kg	1.81	5.64
75-09-2	Methylene chloride	U	5.64	ug/kg	2.26	5.64
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:08**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:15**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.338	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.81	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959011**	**Date Received:**	**02/02/2010 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7329**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:35**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	0.980	ug/kg	0.333	0.980
74-87-3	Chloromethane	U	0.980	ug/kg	0.294	0.980 UJ,V7c
75-01-4	Vinyl chloride	U	0.980	ug/kg	0.294	0.980
74-83-9	Bromomethane	U	0.980	ug/kg	0.294	0.980
75-00-3	Chloroethane	U	0.980	ug/kg	0.294	0.980
75-69-4	Trichlorofluoromethane	U	0.980	ug/kg	0.294	0.980
67-64-1	Acetone	U	4.90	ug/kg	1.63	4.90 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
74-88-4	Iodomethane	U	4.90	ug/kg	1.57	4.90
75-09-2	Methylene chloride	U	4.90	ug/kg	1.96	4.90
75-15-0	Carbon disulfide	U	4.90	ug/kg	1.23	4.90
156-60-5	trans-1,2-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
75-34-3	1,1-Dichloroethane	U	0.980	ug/kg	0.294	0.980
78-93-3	2-Butanone	U	4.90	ug/kg	1.47	4.90
156-59-2	cis-1,2-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
594-20-7	2,2-Dichloropropane	U	0.980	ug/kg	0.294	0.980
67-66-3	Chloroform	U	0.980	ug/kg	0.294	0.980
74-97-5	Bromochloromethane	U	0.980	ug/kg	0.324	0.980
71-55-6	1,1,1-Trichloroethane	U	0.980	ug/kg	0.294	0.980
563-58-6	1,1-Dichloropropene	U	0.980	ug/kg	0.294	0.980
56-23-5	Carbon tetrachloride	U	0.980	ug/kg	0.294	0.980
107-06-2	1,2-Dichloroethane	U	0.980	ug/kg	0.294	0.980
71-43-2	Benzene	U	0.980	ug/kg	0.294	0.980
79-01-6	Trichloroethylene	U	0.980	ug/kg	0.324	0.980
78-87-5	1,2-Dichloropropane	U	0.980	ug/kg	0.294	0.980
75-27-4	Bromodichloromethane	U	0.980	ug/kg	0.294	0.980
74-95-3	Dibromomethane	U	0.980	ug/kg	0.294	0.980
108-10-1	4-Methyl-2-pentanone	U	4.90	ug/kg	1.23	4.90
10061-01-5	cis-1,3-Dichloropropylene	U	0.980	ug/kg	0.294	0.980
108-88-3	Toluene	U	0.980	ug/kg	0.294	0.980
10061-02-6	trans-1,3-Dichloropropylene	U	0.980	ug/kg	0.294	0.980
79-00-5	1,1,2-Trichloroethane	U	0.980	ug/kg	0.294	0.980
591-78-6	2-Hexanone	U	4.90	ug/kg	1.47	4.90
142-28-9	1,3-Dichloropropane	U	0.980	ug/kg	0.294	0.980
127-18-4	Tetrachloroethylene	U	0.980	ug/kg	0.294	0.980
124-48-1	Dibromochloromethane	U	0.980	ug/kg	0.294	0.980
106-93-4	1,2-Dibromoethane	U	0.980	ug/kg	0.294	0.980
108-90-7	Chlorobenzene	U	0.980	ug/kg	0.294	0.980

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959011**	**Date Received:**	**02/02/2010 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7329**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:35**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	0.980	ug/kg	0.294	0.980
179601-23-1	m,p-Xylenes	U	1.96	ug/kg	0.294	1.96
95-47-6	o-Xylene	U	0.980	ug/kg	0.294	0.980
100-42-5	Styrene	U	0.980	ug/kg	0.294	0.980
75-25-2	Bromoform	U	0.980	ug/kg	0.294	0.980
79-34-5	1,1,2,2-Tetrachloroethane	U	0.980	ug/kg	0.294	0.980
96-18-4	1,2,3-Trichloropropane	U	0.980	ug/kg	0.294	0.980
108-86-1	Bromobenzene	U	0.980	ug/kg	0.294	0.980
103-65-1	n-Propylbenzene	U	0.980	ug/kg	0.294	0.980
95-49-8	2-Chlorotoluene	U	0.980	ug/kg	0.294	0.980
98-82-8	Isopropylbenzene	U	0.980	ug/kg	0.294	0.980
108-67-8	1,3,5-Trimethylbenzene	U	0.980	ug/kg	0.294	0.980
106-43-4	4-Chlorotoluene	U	0.980	ug/kg	0.294	0.980
98-06-6	tert-Butylbenzene	U	0.980	ug/kg	0.294	0.980
95-63-6	1,2,4-Trimethylbenzene	U	0.980	ug/kg	0.294	0.980
135-98-8	sec-Butylbenzene	U	0.980	ug/kg	0.294	0.980
99-87-6	4-Isopropyltoluene	U	0.980	ug/kg	0.294	0.980
541-73-1	1,3-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980
106-46-7	1,4-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980
104-51-8	n-Butylbenzene	U	0.980	ug/kg	0.294	0.980
96-12-8	1,2-Dibromo-3-chloropropane	U	0.980	ug/kg	0.294	0.980
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	4.90	ug/kg	1.57	4.90
630-20-6	1,1,1,2-Tetrachloroethane	U	0.980	ug/kg	0.294	0.980
95-50-1	1,2-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 03:01**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:17**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05 UJ,V7c
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone	U	5.26	ug/kg	1.75	5.26 UJ,V7c
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.26	ug/kg	1.68	5.26
75-09-2	Methylene chloride	U	5.26	ug/kg	2.10	5.26
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.31	5.26
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.58	5.26
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.31	5.26
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.26	ug/kg	1.58	5.26
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

AMF
3/9/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 03:01**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:17**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.26	ug/kg	1.68	5.26
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

AMF
3/9/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1510 VALIDATION DATE: 3/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV %D for hexachlorocyclopentadiene was >20%. In the CCV associated with sample RE15-10-7318, the %Ds for pyridine; benzoic acid; 3-nitroaniline; 2-methyl-4,6-dinitrophenol; and 4-nitroaniline were >20%. In the CCV associated with all other samples, the %Ds for pyridine; benzyl alcohol; 2-nitroaniline; and 2-methyl-4,6-dinitrophenol were >20%. All associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. The LCS %R for benzyl alcohol was < the laboratory LAL but ≥10%. The associated sample results were NDs and, thus, were qualified UJ,SV12a.
3. The MS/MSD RPDs for bis(2-chloroethoxy)methane and benzoic acid were > the laboratory acceptance limits. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. MS/MSD analyses are not required for SVOCs, thus, no sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 3/10/10

DATA VALIDATION COVER SHEET

5115-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959002	Date Received:	02/02/2010 09:10	%Moisture:	22.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7308	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 15:37	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	s6b0708.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	427	ug/kg	85.5	427
108-95-2	Phenol	U	427	ug/kg	85.5	427
95-57-8	2-Chlorophenol	U	427	ug/kg	85.5	427
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.5	427
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.5	427
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.5	427
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427
129-00-0	Pyrene	U	42.7	ug/kg	12.8	42.7
110-86-1	Pyridine	U	427	ug/kg	85.5	427 UJ,SV7c
62-53-3	Aniline	U	427	ug/kg	128	427
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.5	427
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.5	427
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.5	427
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.5	427
95-48-7	o-Cresol	U	427	ug/kg	85.5	427
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427
67-72-1	Hexachloroethane	U	427	ug/kg	85.5	427
98-95-3	Nitrobenzene	U	427	ug/kg	85.5	427
78-59-1	Isophorone	U	427	ug/kg	85.5	427
88-75-5	2-Nitrophenol	U	427	ug/kg	85.5	427
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	150	427
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.5	427
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.5	427
65-85-0	Benzoic acid	U	855	ug/kg	214	855
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7
106-47-8	4-Chloroaniline	U	427	ug/kg	85.5	427
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.5	427
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.55	42.7
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.5	427 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.5	427
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.5	427
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	427	ug/kg	85.5	427 UJ,SV7c
99-09-2	3-Nitroaniline	U	427	ug/kg	85.5	427

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 15:37**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0708.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	427	ug/kg	85.5	427
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7
51-28-5	2,4-Dinitrophenol	U	855	ug/kg	162	855
132-64-9	Dibenzofuran	U	427	ug/kg	85.5	427
84-66-2	Diethylphthalate	U	427	ug/kg	85.5	427
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.5	427
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.5	427 UJ,SV7c
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427
	p-Nitroaniline					
122-39-4	Diphenylamine	U	427	ug/kg	85.5	427
122-66-7	Azobenzene	U	427	ug/kg	85.5	427
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.5	427
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.5	427
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7
120-12-7	Anthracene	U	42.7	ug/kg	8.55	42.7
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.5	427
206-44-0	Fluoranthene	U	42.7	ug/kg	12.8	42.7
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.5	427
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7
117-81-7	bis(2-Ethylhexyl)phthalate	J	99.5	ug/kg	85.5	427
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.5	427
205-99-2	Benzo(b)fluoranthene	U	42.7	ug/kg	12.8	42.7
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.5	427

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	485	ug/kg		JA
112-95-8	Eicosane	15.75	172	ug/kg	97	NJ

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959001	Date Received:	02/02/2010 09:10	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7309	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 15:09	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s6b0707.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369 UJ,SV7c
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	184	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	369	ug/kg	73.8	369 UJ,SV7c
99-09-2	3-Nitroaniline	U	369	ug/kg	73.8	369

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959001	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7309	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 15:09	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s6b0707.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369	
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369	
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9	
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738	
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369	
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369	
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9	
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369	
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369	UJ,SV7c
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369	
122-66-7	Azobenzene	U	369	ug/kg	73.8	369	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369	
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369	
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9	
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9	
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369	
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9	
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369	
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9	
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369	
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9	
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369	
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369	
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9	
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9	
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9	
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9	
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9	
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9	
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.48	538	ug/kg		JA

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959006	Date Received:	02/02/2010 09:10	%Moisture:	29.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7312	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 17:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	s6b0712.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	469	ug/kg	93.8	469
108-95-2	Phenol	U	469	ug/kg	93.8	469
95-57-8	2-Chlorophenol	U	469	ug/kg	93.8	469
106-46-7	1,4-Dichlorobenzene	U	469	ug/kg	93.8	469
621-64-7	N-Nitrosodipropylamine	U	469	ug/kg	93.8	469
59-50-7	4-Chloro-3-methylphenol	U	469	ug/kg	93.8	469
83-32-9	Acenaphthene	U	46.9	ug/kg	15.5	46.9
121-14-2	2,4-Dinitrotoluene	U	469	ug/kg	46.9	469
100-02-7	4-Nitrophenol	U	469	ug/kg	155	469
87-86-5	Pentachlorophenol	U	469	ug/kg	117	469
129-00-0	Pyrene	U	46.9	ug/kg	14.1	46.9
110-86-1	Pyridine	U	469	ug/kg	93.8	469 UJ,SV7c
62-53-3	Aniline	U	469	ug/kg	141	469
111-44-4	bis(2-Chloroethyl) ether	U	469	ug/kg	93.8	469
541-73-1	1,3-Dichlorobenzene	U	469	ug/kg	93.8	469
100-51-6	Benzyl alcohol	U	469	ug/kg	141	469 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	469	ug/kg	93.8	469
108-60-1	bis(2-Chloroisopropyl)ether	U	469	ug/kg	93.8	469
95-48-7	o-Cresol	U	469	ug/kg	93.8	469
65794-96-9	m,p-Cresols	U	469	ug/kg	141	469
67-72-1	Hexachloroethane	U	469	ug/kg	93.8	469
98-95-3	Nitrobenzene	U	469	ug/kg	93.8	469
78-59-1	Isophorone	U	469	ug/kg	93.8	469
88-75-5	2-Nitrophenol	U	469	ug/kg	93.8	469
105-67-9	2,4-Dimethylphenol	U	469	ug/kg	164	469
111-91-1	bis(2-Chloroethoxy)methane	U	469	ug/kg	93.8	469
120-83-2	2,4-Dichlorophenol	U	469	ug/kg	93.8	469
65-85-0	Benzoic acid	U	938	ug/kg	235	938
91-20-3	Naphthalene	U	46.9	ug/kg	14.1	46.9
106-47-8	4-Chloroaniline	U	469	ug/kg	93.8	469
87-68-3	Hexachlorobutadiene	U	469	ug/kg	93.8	469
91-57-6	2-Methylnaphthalene	U	46.9	ug/kg	9.38	46.9
77-47-4	Hexachlorocyclopentadiene	U	469	ug/kg	93.8	469 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	469	ug/kg	93.8	469
95-95-4	2,4,5-Trichlorophenol	U	469	ug/kg	93.8	469
91-58-7	2-Chloronaphthalene	U	46.9	ug/kg	15.5	46.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	469	ug/kg	93.8	469 UJ,SV7c
99-09-2	3-Nitroaniline	U	469	ug/kg	93.8	469

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959006	Date Received:	02/02/2010 09:10	%Moisture:	29.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7312	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 17:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	s6b0712.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	469	ug/kg	93.8	469
606-20-2	2,6-Dinitrotoluene	U	469	ug/kg	46.9	469
208-96-8	Acenaphthylene	U	46.9	ug/kg	14.1	46.9
51-28-5	2,4-Dinitrophenol	U	938	ug/kg	178	938
132-64-9	Dibenzofuran	U	469	ug/kg	93.8	469
84-66-2	Diethylphthalate	U	469	ug/kg	93.8	469
86-73-7	Fluorene	U	46.9	ug/kg	14.1	46.9
7005-72-3	4-Chlorophenylphenylether	U	469	ug/kg	93.8	469
534-52-1	2-Methyl-4,6-dinitrophenol	U	469	ug/kg	93.8	469 UJ,SV7c
100-01-6	4-Nitroaniline	U	469	ug/kg	141	469
	p-Nitroaniline					
122-39-4	Diphenylamine	U	469	ug/kg	93.8	469
122-66-7	Azobenzene	U	469	ug/kg	93.8	469
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	469	ug/kg	93.8	469
118-74-1	Hexachlorobenzene	U	469	ug/kg	93.8	469
85-01-8	Phenanthrene	U	46.9	ug/kg	14.1	46.9
120-12-7	Anthracene	U	46.9	ug/kg	9.38	46.9
84-74-2	Di-n-butylphthalate	U	469	ug/kg	93.8	469
206-44-0	Fluoranthene	U	46.9	ug/kg	14.1	46.9
85-68-7	Butylbenzylphthalate	U	469	ug/kg	93.8	469
56-55-3	Benzo(a)anthracene	U	46.9	ug/kg	14.1	46.9
91-94-1	3,3'-Dichlorobenzidine	U	469	ug/kg	141	469
218-01-9	Chrysene	U	46.9	ug/kg	14.1	46.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	469	ug/kg	93.8	469
117-84-0	Di-n-octylphthalate	U	469	ug/kg	93.8	469
205-99-2	Benzo(b)fluoranthene	U	46.9	ug/kg	14.1	46.9
207-08-9	Benzo(k)fluoranthene	U	46.9	ug/kg	14.1	46.9
50-32-8	Benzo(a)pyrene	U	46.9	ug/kg	14.1	46.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.9	ug/kg	14.1	46.9
53-70-3	Dibenzo(a,h)anthracene	U	46.9	ug/kg	14.1	46.9
191-24-2	Benzo(ghi)perylene	U	46.9	ug/kg	14.1	46.9
120-82-1	1,2,4-Trichlorobenzene	U	469	ug/kg	93.8	469

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.26	417	ug/kg		J
	Unknown Aldol Condensate	3.47	637	ug/kg		JA

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959006	**Date Received:**	02/02/2010 09:10	**%Moisture:**	29.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7312	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s6b0712.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
630-02-4	Octacosane	14.46	388	ug/kg	87	NJ
112-95-8	Eicosane	15.75	222	ug/kg	98	NJ

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959007**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7313**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 17:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0713.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369 UJ,SV7c
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	184	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	369	ug/kg	73.8	369 UJ,SV7c
99-09-2	3-Nitroaniline	U	369	ug/kg	73.8	369

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959007	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7313	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:55	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6b0713.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369 UJ,SV7c
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	215	ug/kg		J
	Unknown Aldol Condensate	3.48	669	ug/kg		JA

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959007	Date Received:	02/02/2010 09:10	%Moisture:	9.7
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7313	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 17:55	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6b0713.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.85	272	ug/kg		J
	Unknown	13.87	467	ug/kg		J
79-63-0	Lanosterol	17.17	267	ug/kg	83	J

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959008**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**32.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7314**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 18:23**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0714.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	494	ug/kg	98.8	494
108-95-2	Phenol	U	494	ug/kg	98.8	494
95-57-8	2-Chlorophenol	U	494	ug/kg	98.8	494
106-46-7	1,4-Dichlorobenzene	U	494	ug/kg	98.8	494
621-64-7	N-Nitrosodipropylamine	U	494	ug/kg	98.8	494
59-50-7	4-Chloro-3-methylphenol	U	494	ug/kg	98.8	494
83-32-9	Acenaphthene	U	49.4	ug/kg	16.3	49.4
121-14-2	2,4-Dinitrotoluene	U	494	ug/kg	49.4	494
100-02-7	4-Nitrophenol	U	494	ug/kg	163	494
87-86-5	Pentachlorophenol	U	494	ug/kg	124	494
129-00-0	Pyrene		205	ug/kg	14.8	49.4
110-86-1	Pyridine	U	494	ug/kg	98.8	494 UJ,SV7c
62-53-3	Aniline	U	494	ug/kg	148	494
111-44-4	bis(2-Chloroethyl) ether	U	494	ug/kg	98.8	494
541-73-1	1,3-Dichlorobenzene	U	494	ug/kg	98.8	494
100-51-6	Benzyl alcohol	U	494	ug/kg	148	494 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	494	ug/kg	98.8	494
108-60-1	bis(2-Chloroisopropyl)ether	U	494	ug/kg	98.8	494
95-48-7	o-Cresol	U	494	ug/kg	98.8	494
65794-96-9	m,p-Cresols	U	494	ug/kg	148	494
67-72-1	Hexachloroethane	U	494	ug/kg	98.8	494
98-95-3	Nitrobenzene	U	494	ug/kg	98.8	494
78-59-1	Isophorone	U	494	ug/kg	98.8	494
88-75-5	2-Nitrophenol	U	494	ug/kg	98.8	494
105-67-9	2,4-Dimethylphenol	U	494	ug/kg	173	494
111-91-1	bis(2-Chloroethoxy)methane	U	494	ug/kg	98.8	494
120-83-2	2,4-Dichlorophenol	U	494	ug/kg	98.8	494
65-85-0	Benzoic acid	U	988	ug/kg	247	988
91-20-3	Naphthalene	J	20.8	ug/kg	14.8	49.4
106-47-8	4-Chloroaniline	U	494	ug/kg	98.8	494
87-68-3	Hexachlorobutadiene	U	494	ug/kg	98.8	494
91-57-6	2-Methylnaphthalene	J	12.3	ug/kg	9.88	49.4
77-47-4	Hexachlorocyclopentadiene	U	494	ug/kg	98.8	494 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	494	ug/kg	98.8	494
95-95-4	2,4,5-Trichlorophenol	U	494	ug/kg	98.8	494
91-58-7	2-Chloronaphthalene	U	49.4	ug/kg	16.3	49.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	494	ug/kg	98.8	494 UJ,SV7c
99-09-2	3-Nitroaniline	U	494	ug/kg	98.8	494

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959008	Date Received:	02/02/2010 09:10	%Moisture:	32.6
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7314	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 18:23	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.03 g	Final Volume:	1 mL
Data File:	s6b0714.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	494	ug/kg	98.8	494
606-20-2	2,6-Dinitrotoluene	U	494	ug/kg	49.4	494
208-96-8	Acenaphthylene	U	49.4	ug/kg	14.8	49.4
51-28-5	2,4-Dinitrophenol	U	988	ug/kg	188	988
132-64-9	Dibenzofuran	U	494	ug/kg	98.8	494
84-66-2	Diethylphthalate	U	494	ug/kg	98.8	494
86-73-7	Fluorene	U	49.4	ug/kg	14.8	49.4
7005-72-3	4-Chlorophenylphenylether	U	494	ug/kg	98.8	494
534-52-1	2-Methyl-4,6-dinitrophenol	U	494	ug/kg	98.8	494 UJ,SV7c
100-01-6	4-Nitroaniline	U	494	ug/kg	148	494
	p-Nitroaniline					
122-39-4	Diphenylamine	U	494	ug/kg	98.8	494
122-66-7	Azobenzene	U	494	ug/kg	98.8	494
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	494	ug/kg	98.8	494
118-74-1	Hexachlorobenzene	U	494	ug/kg	98.8	494
85-01-8	Phenanthrene		235	ug/kg	14.8	49.4
120-12-7	Anthracene	U	49.4	ug/kg	9.88	49.4
84-74-2	Di-n-butylphthalate	U	494	ug/kg	98.8	494
206-44-0	Fluoranthene		311	ug/kg	14.8	49.4
85-68-7	Butylbenzylphthalate	U	494	ug/kg	98.8	494
56-55-3	Benzo(a)anthracene	U	49.4	ug/kg	14.8	49.4
91-94-1	3,3'-Dichlorobenzidine	U	494	ug/kg	148	494
218-01-9	Chrysene		91.9	ug/kg	14.8	49.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	494	ug/kg	98.8	494
117-84-0	Di-n-octylphthalate	U	494	ug/kg	98.8	494
205-99-2	Benzo(b)fluoranthene		120	ug/kg	14.8	49.4
207-08-9	Benzo(k)fluoranthene	J	46.3	ug/kg	14.8	49.4
50-32-8	Benzo(a)pyrene	U	49.4	ug/kg	14.8	49.4
193-39-5	Indeno(1,2,3-cd)pyrene		173	ug/kg	14.8	49.4
53-70-3	Dibenzo(a,h)anthracene	U	49.4	ug/kg	14.8	49.4
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	14.8	49.4
120-82-1	1,2,4-Trichlorobenzene	U	494	ug/kg	98.8	494

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	833	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	306	ug/kg	99	NJ

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959003	Date Received:	02/02/2010 09:10	%Moisture:	8.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7315	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 16:05	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Allquot:	30.11 g	Final Volume:	1 mL
Data File:	s6b0709.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	365	ug/kg	72.9	365
108-95-2	Phenol	U	365	ug/kg	72.9	365
95-57-8	2-Chlorophenol	U	365	ug/kg	72.9	365
106-46-7	1,4-Dichlorobenzene	U	365	ug/kg	72.9	365
621-64-7	N-Nitrosodipropylamine	U	365	ug/kg	72.9	365
59-50-7	4-Chloro-3-methylphenol	U	365	ug/kg	72.9	365
83-32-9	Acenaphthene	U	36.5	ug/kg	12.0	36.5
121-14-2	2,4-Dinitrotoluene	U	365	ug/kg	36.5	365
100-02-7	4-Nitrophenol	U	365	ug/kg	120	365
87-86-5	Pentachlorophenol	U	365	ug/kg	91.2	365
129-00-0	Pyrene	U	36.5	ug/kg	10.9	36.5
110-86-1	Pyridine	U	365	ug/kg	72.9	365 UJ,SV7c
62-53-3	Aniline	U	365	ug/kg	109	365
111-44-4	bis(2-Chloroethyl) ether	U	365	ug/kg	72.9	365
541-73-1	1,3-Dichlorobenzene	U	365	ug/kg	72.9	365
100-51-6	Benzyl alcohol	U	365	ug/kg	109	365 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	365	ug/kg	72.9	365
108-60-1	bis(2-Chloroisopropyl)ether	U	365	ug/kg	72.9	365
95-48-7	o-Cresol	U	365	ug/kg	72.9	365
65794-96-9	m,p-Cresols	U	365	ug/kg	109	365
67-72-1	Hexachloroethane	U	365	ug/kg	72.9	365
98-95-3	Nitrobenzene	U	365	ug/kg	72.9	365
78-59-1	Isophorone	U	365	ug/kg	72.9	365
88-75-5	2-Nitrophenol	U	365	ug/kg	72.9	365
105-67-9	2,4-Dimethylphenol	U	365	ug/kg	128	365
111-91-1	bis(2-Chloroethoxy)methane	U	365	ug/kg	72.9	365
120-83-2	2,4-Dichlorophenol	U	365	ug/kg	72.9	365
65-85-0	Benzoic acid	U	729	ug/kg	182	729
91-20-3	Naphthalene	U	36.5	ug/kg	10.9	36.5
106-47-8	4-Chloroaniline	U	365	ug/kg	72.9	365
87-68-3	Hexachlorobutadiene	U	365	ug/kg	72.9	365
91-57-6	2-Methylnaphthalene	U	36.5	ug/kg	7.29	36.5
77-47-4	Hexachlorocyclopentadiene	U	365	ug/kg	72.9	365 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	365	ug/kg	72.9	365
95-95-4	2,4,5-Trichlorophenol	U	365	ug/kg	72.9	365
91-58-7	2-Chloronaphthalene	U	36.5	ug/kg	12.0	36.5
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	365	ug/kg	72.9	365 UJ,SV7c
99-09-2	3-Nitroaniline	U	365	ug/kg	72.9	365

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959003	**Date Received:**	02/02/2010 09:10	**%Moisture:**	8.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7315	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 16:05	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.11 g	**Final Volume:**	1 mL
Data File:	s6b0709.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	365	ug/kg	72.9	365
606-20-2	2,6-Dinitrotoluene	U	365	ug/kg	36.5	365
208-96-8	Acenaphthylene	U	36.5	ug/kg	10.9	36.5
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	139	729
132-64-9	Dibenzofuran	U	365	ug/kg	72.9	365
84-66-2	Diethylphthalate	U	365	ug/kg	72.9	365
86-73-7	Fluorene	U	36.5	ug/kg	10.9	36.5
7005-72-3	4-Chlorophenylphenylether	U	365	ug/kg	72.9	365
534-52-1	2-Methyl-4,6-dinitrophenol	U	365	ug/kg	72.9	365 UJ,SV7c
100-01-6	4-Nitroaniline	U	365	ug/kg	109	365
	p-Nitroaniline					
122-39-4	Diphenylamine	U	365	ug/kg	72.9	365
122-66-7	Azobenzene	U	365	ug/kg	72.9	365
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	365	ug/kg	72.9	365
118-74-1	Hexachlorobenzene	U	365	ug/kg	72.9	365
85-01-8	Phenanthrene	U	36.5	ug/kg	10.9	36.5
120-12-7	Anthracene	U	36.5	ug/kg	7.29	36.5
84-74-2	Di-n-butylphthalate	U	365	ug/kg	72.9	365
206-44-0	Fluoranthene	J	12.3	ug/kg	10.9	36.5
85-68-7	Butylbenzylphthalate	U	365	ug/kg	72.9	365
56-55-3	Benzo(a)anthracene	U	36.5	ug/kg	10.9	36.5
91-94-1	3,3'-Dichlorobenzidine	U	365	ug/kg	109	365
218-01-9	Chrysene	U	36.5	ug/kg	10.9	36.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	365	ug/kg	72.9	365
117-84-0	Di-n-octylphthalate	U	365	ug/kg	72.9	365
205-99-2	Benzo(b)fluoranthene	U	36.5	ug/kg	10.9	36.5
207-08-9	Benzo(k)fluoranthene	U	36.5	ug/kg	10.9	36.5
50-32-8	Benzo(a)pyrene	U	36.5	ug/kg	10.9	36.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.5	ug/kg	10.9	36.5
53-70-3	Dibenzo(a,h)anthracene	U	36.5	ug/kg	10.9	36.5
191-24-2	Benzo(ghi)perylene	U	36.5	ug/kg	10.9	36.5
120-82-1	1,2,4-Trichlorobenzene	U	365	ug/kg	72.9	365

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	532	ug/kg		JA
5989-08-2	Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	7.56	197	ug/kg	89	NJ

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959003	**Date Received:**	02/02/2010 09:10	**%Moisture:**	8.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7315	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 16:05	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.11 g	**Final Volume:**	1 mL
Data File:	s6b0709.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.61	1490	ug/kg	99	NJ
514-95-4	1,5,5-Trimethyl-6-methylene-cyclohexene	7.88	154	ug/kg	86	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.83	1770	ug/kg	97	NJ
	Unknown	11.91	151	ug/kg		J
	Unknown	11.95	162	ug/kg		J
	Unknown	13.33	258	ug/kg		J
	Unknown	17.17	244	ug/kg		J

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959009	**Date Received:**	02/02/2010 09:10	**%Moisture:**	35.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7316	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 18:50	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s6b0715.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	514	ug/kg	103	514
108-95-2	Phenol	U	514	ug/kg	103	514
95-57-8	2-Chlorophenol	U	514	ug/kg	103	514
106-46-7	1,4-Dichlorobenzene	U	514	ug/kg	103	514
621-64-7	N-Nitrosodipropylamine	U	514	ug/kg	103	514
59-50-7	4-Chloro-3-methylphenol	U	514	ug/kg	103	514
83-32-9	Acenaphthene	U	51.4	ug/kg	17.0	51.4
121-14-2	2,4-Dinitrotoluene	U	514	ug/kg	51.4	514
100-02-7	4-Nitrophenol	U	514	ug/kg	170	514
87-86-5	Pentachlorophenol	U	514	ug/kg	129	514
129-00-0	Pyrene	U	51.4	ug/kg	15.4	51.4
110-86-1	Pyridine	U	514	ug/kg	103	514 UJ,SV7c
62-53-3	Aniline	U	514	ug/kg	154	514
111-44-4	bis(2-Chloroethyl) ether	U	514	ug/kg	103	514
541-73-1	1,3-Dichlorobenzene	U	514	ug/kg	103	514
100-51-6	Benzyl alcohol	U	514	ug/kg	154	514 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	514	ug/kg	103	514
108-60-1	bis(2-Chloroisopropyl)ether	U	514	ug/kg	103	514
95-48-7	o-Cresol	U	514	ug/kg	103	514
65794-96-9	m,p-Cresols	U	514	ug/kg	154	514
67-72-1	Hexachloroethane	U	514	ug/kg	103	514
98-95-3	Nitrobenzene	U	514	ug/kg	103	514
78-59-1	Isophorone	U	514	ug/kg	103	514
88-75-5	2-Nitrophenol	U	514	ug/kg	103	514
105-67-9	2,4-Dimethylphenol	U	514	ug/kg	180	514
111-91-1	bis(2-Chloroethoxy)methane	U	514	ug/kg	103	514
120-83-2	2,4-Dichlorophenol	U	514	ug/kg	103	514
65-85-0	Benzoic acid	U	1030	ug/kg	257	1030
91-20-3	Naphthalene	U	51.4	ug/kg	15.4	51.4
106-47-8	4-Chloroaniline	U	514	ug/kg	103	514
87-68-3	Hexachlorobutadiene	U	514	ug/kg	103	514
91-57-6	2-Methylnaphthalene	U	51.4	ug/kg	10.3	51.4
77-47-4	Hexachlorocyclopentadiene	U	514	ug/kg	103	514 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	514	ug/kg	103	514
95-95-4	2,4,5-Trichlorophenol	U	514	ug/kg	103	514
91-58-7	2-Chloronaphthalene	U	51.4	ug/kg	17.0	51.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	514	ug/kg	103	514 UJ,SV7c
99-09-2	3-Nitroaniline	U	514	ug/kg	103	514

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959009**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**35.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7316**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 18:50**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0715.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	514	ug/kg	103	514
606-20-2	2,6-Dinitrotoluene	U	514	ug/kg	51.4	514
208-96-8	Acenaphthylene	U	51.4	ug/kg	15.4	51.4
51-28-5	2,4-Dinitrophenol	U	1030	ug/kg	195	1030
132-64-9	Dibenzofuran	U	514	ug/kg	103	514
84-66-2	Diethylphthalate	U	514	ug/kg	103	514
86-73-7	Fluorene	U	51.4	ug/kg	15.4	51.4
7005-72-3	4-Chlorophenylphenylether	U	514	ug/kg	103	514
534-52-1	2-Methyl-4,6-dinitrophenol	U	514	ug/kg	103	514 UJ,SV7c
100-01-6	4-Nitroaniline	U	514	ug/kg	154	514
	p-Nitroaniline					
122-39-4	Diphenylamine	U	514	ug/kg	103	514
122-66-7	Azobenzene	U	514	ug/kg	103	514
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	514	ug/kg	103	514
118-74-1	Hexachlorobenzene	U	514	ug/kg	103	514
85-01-8	Phenanthrene	U	51.4	ug/kg	15.4	51.4
120-12-7	Anthracene	U	51.4	ug/kg	10.3	51.4
84-74-2	Di-n-butylphthalate	U	514	ug/kg	103	514
206-44-0	Fluoranthene	U	51.4	ug/kg	15.4	51.4
85-68-7	Butylbenzylphthalate	U	514	ug/kg	103	514
56-55-3	Benzo(a)anthracene	U	51.4	ug/kg	15.4	51.4
91-94-1	3,3'-Dichlorobenzidine	U	514	ug/kg	154	514
218-01-9	Chrysene	U	51.4	ug/kg	15.4	51.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	514	ug/kg	103	514
117-84-0	Di-n-octylphthalate	U	514	ug/kg	103	514
205-99-2	Benzo(b)fluoranthene	U	51.4	ug/kg	15.4	51.4
207-08-9	Benzo(k)fluoranthene	U	51.4	ug/kg	15.4	51.4
50-32-8	Benzo(a)pyrene	U	51.4	ug/kg	15.4	51.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	51.4	ug/kg	15.4	51.4
53-70-3	Dibenzo(a,h)anthracene	U	51.4	ug/kg	15.4	51.4
191-24-2	Benzo(ghi)perylene	U	51.4	ug/kg	15.4	51.4
120-82-1	1,2,4-Trichlorobenzene	U	514	ug/kg	103	514

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	244	ug/kg		J
	Unknown Aldol Condensate	3.47	820	ug/kg		JA

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959009**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**35.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7316**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 18:50**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0715.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2416-20-8	Hexadecenoic acid, Z-11-	10.13	356	ug/kg	96	NJ
57-10-3	n-Hexadecanoic acid	10.16	290	ug/kg	98	NJ
112-79-8	9-Octadecenoic acid, (E)-	10.93	267	ug/kg	99	NJ
55282-15-0	Docosane, 7-butyl-	14.46	213	ug/kg	83	NJ
112-95-8	Eicosane	15.75	253	ug/kg	96	NJ

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 16:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0710.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.5	373	
108-95-2	Phenol	U	373	ug/kg	74.5	373	
95-57-8	2-Chlorophenol	U	373	ug/kg	74.5	373	
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.5	373	
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.5	373	
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.5	373	
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3	
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373	
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373	
87-86-5	Pentachlorophenol	U	373	ug/kg	93.2	373	
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3	
110-86-1	Pyridine	U	373	ug/kg	74.5	373	UJ,SV7c
62-53-3	Aniline	U	373	ug/kg	112	373	
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.5	373	
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.5	373	
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.5	373	
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.5	373	
95-48-7	o-Cresol	U	373	ug/kg	74.5	373	
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373	
67-72-1	Hexachloroethane	U	373	ug/kg	74.5	373	
98-95-3	Nitrobenzene	U	373	ug/kg	74.5	373	
78-59-1	Isophorone	U	373	ug/kg	74.5	373	
88-75-5	2-Nitrophenol	U	373	ug/kg	74.5	373	
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	130	373	
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.5	373	
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.5	373	
65-85-0	Benzoic acid	U	745	ug/kg	186	745	
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3	
106-47-8	4-Chloroaniline	U	373	ug/kg	74.5	373	
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.5	373	
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.45	37.3	
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.5	373	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.5	373	
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.5	373	
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	373	ug/kg	74.5	373	UJ,SV7c
99-09-2	3-Nitroaniline	U	373	ug/kg	74.5	373	

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959004	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7317	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 16:32	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	s6b0710.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	373	ug/kg	74.5	373
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3
51-28-5	2,4-Dinitrophenol	U	745	ug/kg	142	745
132-64-9	Dibenzofuran	U	373	ug/kg	74.5	373
84-66-2	Diethylphthalate	U	373	ug/kg	74.5	373
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.5	373
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.5	373 UJ,SV7c
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373
	p-Nitroaniline					
122-39-4	Diphenylamine	U	373	ug/kg	74.5	373
122-66-7	Azobenzene	U	373	ug/kg	74.5	373
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.5	373
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.5	373
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3
120-12-7	Anthracene	U	37.3	ug/kg	7.45	37.3
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.5	373
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.5	373
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	373	ug/kg	74.5	373
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.5	373
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.5	373

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	230	ug/kg		J
	Unknown Aldol Condensate	3.47	336	ug/kg		JA

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959010	Date Received:	02/02/2010 09:10	%Moisture:	14.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7318	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/08/2010 17:00	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s6b0808.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390	
108-95-2	Phenol	U	390	ug/kg	78.0	390	
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390	
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390	
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390	
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390	
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0	
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390	
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390	
87-86-5	Pentachlorophenol	U	390	ug/kg	97.6	390	
129-00-0	Pyrene	U	39.0	ug/kg	11.7	39.0	
110-86-1	Pyridine	U	390	ug/kg	78.0	390	UJ,SV7c
62-53-3	Aniline	U	390	ug/kg	117	390	
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390	
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390	
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390	UJ,SV12a
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390	
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390	
95-48-7	o-Cresol	U	390	ug/kg	78.0	390	
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390	
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390	
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390	
78-59-1	Isophorone	U	390	ug/kg	78.0	390	
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390	
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	137	390	
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390	
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390	
65-85-0	Benzoic acid	U	780	ug/kg	195	780	UJ,SV7c
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0	
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390	
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390	
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0	
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390	
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390	
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	390	ug/kg	78.0	390	
99-09-2	3-Nitroaniline	U	390	ug/kg	78.0	390	UJ,SV7c

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959010	Date Received:	02/02/2010 09:10	%Moisture:	14.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7318	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/08/2010 17:00	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.07 g	Final Volume:	1 mL
Data File:	s6b0808.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390 UJ,SV7c
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390 UJ,SV7c
	p-Nitroaniline					
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390
122-66-7	Azobenzene	U	390	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390
206-44-0	Fluoranthene	U	39.0	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene	U	39.0	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene	U	39.0	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.0	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene	U	39.0	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown Aldol Condensate	3.42	485	ug/kg		JA
21112-37-8	Benzene, 2-(1,1-dimethylethyl)-1,4-dimet	7.38	157	ug/kg	90	NJ

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0808.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
295-17-0	Cyclotetradecane	9.85	237	ug/kg	96	NJ
	Unknown	9.93	216	ug/kg		J
629-73-2	1-Hexadecene	10.32	244	ug/kg	96	NJ
	Unknown	10.42	746	ug/kg		J
112-95-8	Eicosane	15.67	164	ug/kg	95	NJ

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959005	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7319	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:00	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s6b0711.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.3	371
108-95-2	Phenol	U	371	ug/kg	74.3	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.3	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.3	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.3	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.3	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.3	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	123	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.3	371 UJ,SV7c
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.3	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.3	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.3	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.3	371
95-48-7	o-Cresol	U	371	ug/kg	74.3	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.3	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.3	371
78-59-1	Isophorone	U	371	ug/kg	74.3	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.3	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.3	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.3	371
65-85-0	Benzoic acid	U	743	ug/kg	186	743
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.3	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.3	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.43	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.3	371 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.3	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.3	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.3	37.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.3	371 UJ,SV7c
99-09-2	3-Nitroaniline	U	371	ug/kg	74.3	371

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959005	Date Received:	02/02/2010 09:10	%Moisture:	10.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7319	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 17:00	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	s6b0711.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.3	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	743	ug/kg	141	743
132-64-9	Dibenzofuran	U	371	ug/kg	74.3	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.3	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.3	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.3	371 UJ,SV7c
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.3	371
122-66-7	Azobenzene	U	371	ug/kg	74.3	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.3	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.3	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.43	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.3	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.3	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.3	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.3	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.3	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.48	589	ug/kg		JA
	Unknown	17.17	179	ug/kg		J

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959012	Date Received:	02/02/2010 09:10	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7324	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 19:44	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s6b0717.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371
108-95-2	Phenol	U	371	ug/kg	74.2	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.7	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.2	371 UJ,SV7c
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371 UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371
95-48-7	o-Cresol	U	371	ug/kg	74.2	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371
78-59-1	Isophorone	U	371	ug/kg	74.2	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371
65-85-0	Benzoic acid	U	742	ug/kg	185	742
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.2	371 UJ,SV7c
99-09-2	3-Nitroaniline	U	371	ug/kg	74.2	371

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959012	Date Received:	02/02/2010 09:10	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7324	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 19:44	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s6b0717.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371	
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371	
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1	
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742	
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371	
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371	
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1	
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371	
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371	UJ,SV7c
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371	
	p-Nitroaniline						
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371	
122-66-7	Azobenzene	U	371	ug/kg	74.2	371	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371	
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371	
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1	
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1	
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371	
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1	
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371	
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1	
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371	
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1	
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371	
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371	
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1	
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1	
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1	
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1	
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1	
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1	
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371	

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	434	ug/kg		JA
	Unknown	14.46	171	ug/kg		J

AMF
3/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959012	Date Received:	02/02/2010 09:10	%Moisture:	10.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7324	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 19:44	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.05 g	Final Volume:	1 mL
Data File:	s6b0717.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.17	166	ug/kg		J

AMF
3/10/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1510 VALIDATION DATE: 3/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %D for 2,4-diamino-6-nitrotoluene was >20% but ≤40% with negative bias. The associated sample results were NDs and, thus, were qualified UJ,HE7c. The ICV/CCV %Ds for PETN and RDX were >20% with positive bias. The associated sample results were NDs and, thus, were not qualified.
2. The MS/MSD RPD for RDX was > the laboratory acceptance limit. The associated sample results were NDs and, thus, were qualified UJ,HE12g.
3. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate retention time criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 3/10/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959001

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216085a

Date Analyzed: 18-FEB-10 10:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959001

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140124.wiff

Date Analyzed: 15-FEB-10 22:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7308

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959002

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216088a

Date Analyzed: 18-FEB-10 12:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7308

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959002

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140127.wiff

Date Analyzed: 15-FEB-10 23:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7315

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959003

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216092a

Date Analyzed: 18-FEB-10 14:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7315

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959003

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140128.wiff

Date Analyzed: 15-FEB-10 23:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7317

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959004

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216093a

Date Analyzed: 18-FEB-10 14:34

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX	UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene		500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN		1000	U
88-72-2	o-Nitrotoluene		500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene		500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene		500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7317

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959004

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140129.wiff

Date Analyzed: 15-FEB-10 23:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7319

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216094a

Date Analyzed: 18-FEB-10 15:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7319

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140133.wiff

Date Analyzed: 16-FEB-10 00:51

Units: ug/kg

Cas No.	Compound		Concentration*	Q
3058-38-6	TATB		1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene		2000	U
618-87-1	3,5-Dinitroaniline		1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate		1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7312

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959006

Sample Amount 2

Moisture: 29.4

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216095a

Date Analyzed: 18-FEB-10 15:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

AMF
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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7312

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959006

Sample Amount 2

Moisture: 29.4

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140134.wiff

Date Analyzed: 16-FEB-10 01:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7313

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959007

Sample Amount 2

Moisture: 9.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216096a

Date Analyzed: 18-FEB-10 16:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7313

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959007

Sample Amount 2

Moisture: 9.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140135.wiff

Date Analyzed: 16-FEB-10 01:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7314

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959008

Sample Amount 2

Moisture: 32.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216097a

Date Analyzed: 18-FEB-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7314

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959008

Sample Amount 2

Moisture: 32.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140136.wiff

Date Analyzed: 16-FEB-10 01:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7316

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959009

Sample Amount 2

Moisture: 35.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216098a

Date Analyzed: 18-FEB-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7316

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959009

Sample Amount 2

Moisture: 35.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140137.wiff

Date Analyzed: 16-FEB-10 01:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7318

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959010

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216099a

Date Analyzed: 18-FEB-10 17:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7318

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959010

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140138.wiff

Date Analyzed: 16-FEB-10 02:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7324

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959012

Sample Amount 2

Moisture: 10.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216100a

Date Analyzed: 18-FEB-10 18:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX UJ,HE12g	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7324

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959012

Sample Amount 2

Moisture: 10.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140139.wiff

Date Analyzed: 16-FEB-10 02:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

AMF
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DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1510 VALIDATION DATE: 3/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 3/10/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 12:15**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**029f2901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	029b2901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.29	ug/kg	1.43	4.29	1
11104-28-2	Aroclor-1221	U	4.29	ug/kg	1.43	4.29	1
11141-16-5	Aroclor-1232	U	4.29	ug/kg	1.43	4.29	1
53469-21-9	Aroclor-1242	U	4.29	ug/kg	1.43	4.29	1
12672-29-6	Aroclor-1248	U	4.29	ug/kg	1.43	4.29	1
11097-69-1	Aroclor-1254	U	4.29	ug/kg	1.43	4.29	1
11096-82-5	Aroclor-1260	U	4.29	ug/kg	1.43	4.29	1

AMF
3/10/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959001	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7309	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 12:03	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	028f2801.d	**Column:**	1 CLP1	**Level:**	LOW
	028b2801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.67	ug/kg	1.22	3.67	1
11104-28-2	Aroclor-1221	U	3.67	ug/kg	1.22	3.67	1
11141-16-5	Aroclor-1232	U	3.67	ug/kg	1.22	3.67	1
53469-21-9	Aroclor-1242	U	3.67	ug/kg	1.22	3.67	1
12672-29-6	Aroclor-1248	U	3.67	ug/kg	1.22	3.67	1
11097-69-1	Aroclor-1254	U	3.67	ug/kg	1.22	3.67	1
11096-82-5	Aroclor-1260	U	3.67	ug/kg	1.22	3.67	1

AMF
3/10/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959012	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7324	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1AJ	**Dilution:**	1
Run Date:	02/05/2010 12:28	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	030f3001.d	**Column:**	1 CLP1	**Level:**	LOW
	030b3001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.24	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.24	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.24	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.24	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.24	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.24	3.71	1
11096-82-5	Aroclor-1260	U	3.71	ug/kg	1.24	3.71	1

AMF
3/10/10

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1510C

REQUEST NUMBER: 10-1510

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245959

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7309	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7308	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7308	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7315	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7315	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7317	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7317	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7319	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7319	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7312	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7312	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7313	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7313	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7314	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7314	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7316	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7316	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7318	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7318	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7329	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE15-10-7329	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE15-10-7324	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7324	1	SEPTUM AMBER GLASS	8260B	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	2/1/10	5:00	Dionne Francis [signature]	2/2/10	0910
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1510
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:8260B	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7329	S	1/28/2010	
		2	RE15-10-7329	S	1/28/2010	
	SW-846:8270C	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:8321A_MOD	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7324	R	1/28/2010	

Final Page of REQUEST NUMBER 10-1510

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245959
SDG: 10-1510

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1510
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245959
SDG: 10-1510

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 19

GC/MS Volatile Analysis.....21
- Case Narrative.....22
- Sample Data Summary.....28
- Quality Control Summary.....53
- Sample Data..... 69
- Standards.....175
- Quality Control Data.....212
- Miscellaneous..... 236

GC/MS Semivolatile Analysis.....256
- Sample Data Summary.....263
- QC Summary..... 292
- Sample Data..... 313
- Standard Data.....461
- QC Data.....526
- Miscellaneous Data.....559

LC/MS/MS Explosives Analysis.....577
- Sample Data Summary.....583
- Quality Control Summary.....606
- Sample Data..... 736
- Standards Data.....814
- Quality Control Data.....1017
- Miscellaneous Data.....1049

GC Semivolatile PCB Analysis.....1062

Sample Data Summary.....1068
Quality Control Summary.....1072
Sample Data.....1076
Standards Data.....1092
Quality Control Data.....1157
Miscellaneous Data.....1172

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245959
SDG # : 10-1510

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab received (1)40ml vial 8260B container for sample RE15-10-7329 instead of (2), as indicated on the COC. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245959001	RE15-10-7309
245959002	RE15-10-7308
245959003	RE15-10-7315
245959004	RE15-10-7317
245959005	RE15-10-7319
245959006	RE15-10-7312
245959007	RE15-10-7313
245959008	RE15-10-7314
245959009	RE15-10-7316
245959010	RE15-10-7318
245959011	RE15-10-7329
245959012	RE15-10-7324

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile and GC/MS Volatile.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1510C

REQUEST NUMBER: 10-1510

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245959

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7309	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7308	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7308	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7315	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7315	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7317	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7317	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7319	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7319	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7312	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7312	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7313	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7313	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7314	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7314	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7316	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7316	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7318	1	SEPTUM AMBER GLASS	8260B	Ice	R
RE15-10-7318	1	AMBER GLASS	8270C+NMED Exp	Ice	R
RE15-10-7329	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE15-10-7329	2	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
RE15-10-7324	1	AMBER GLASS	8082+8270+NMED-EXP	Ice	R
RE15-10-7324	1	SEPTUM AMBER GLASS	8260B	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/1/10	5:00	Dionne Francis		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1510
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:8260B	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7329	S	1/28/2010	
		2	RE15-10-7329	S	1/28/2010	
	SW-846:8270C	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:8321A_MOD	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1510

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7324	R	1/28/2010	

Final Page of REQUEST NUMBER 10-1510

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1510**
Received By: Dionne Francis	**Date Received: February 2, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **RE15-10-7329** **the lab rec'd (1) 40ml vial 8260B instead of (2) as indicated on the COC**
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C 7209 7849 7886 2C 7209 7849 7967 3C 7209 7849 7739 19C
7209 7849 7772 1C 7209 7849 7901 2C 7209 7849 7945 4C
7209 7849 7934 1C 7209 7849 7853 2C 7209 7849 7810 5C
7209 7849 7831 1C 7209 7849 7875 2C 7209 7849 7897 5C
7209 7849 7783 1C 7209 7849 7956 2C 7209 7849 7728 13C
7209 7849 7864 1C 7209 7849 7794 2C 7209 7849 7706 13C
7209 7849 7923 1C 7209 7849 7820 2C 7209 7849 7717 14C
7209 7849 7761 1C 7209 7849 7809 2C 7209 7849 7750 15C
7209 7849 7842 1C 7209 7849 7912 3C 7209 7849 7740 15C

 PM Review: Initials P. N. W. Date 2/3/10

Subject: Sample Receipt for 2/2/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Wed, 03 Feb 2010 11:38:13 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-1508: the lab rec'd (2) 40ml vials 8260B containers for sample RE16-10-12078 which is not listed on the COC. Would you like us to add the analysis?

RN10-1510: the lab rec'd (1) 40ml vial 8260B containers for sample RE15-10-7329 instead of (2) as indicated on the COC.

RN10-1509: the lab rec'd (1) 40ml vial 8260B containers for sample RE16-10-1498 instead of (2) as indicated on the COC.

RN10-1507: the lab rec'd (1) 40ml vial 8260B containers for sample RE16-10-12079 instead of (2) as indicated on the COC.

RN10-1520: the lab rec'd (1) 40ml vial 8260B containers for sample RE16-10-2898 instead of (2) as indicated on the COC.

RN10-1488: the lab rec'd (1) 40ml vial 8260B containers for sample RE16-10-1468 instead of (2) as indicated on the COC.

RN10-1486: the lab rec'd (1) 40ml vial 8260B containers for sample RE16-10-1403 instead of (2) as indicated on the COC.

RN10-1492: the lab rec'd (1) 40ml vial 8260B containers for sample RE16-10-1308 instead of (2) as indicated on the COC.

RN10-1501: the lab rec'd (1) 40ml vial 8260B container each for samples CASA-10-9413 and 9460 instead of (2) as indicated on the COC. Also, one of the 1L amber glass PEST containers for sample CASA-10-9459 was rec'd broken. There is sufficient volume to complete the analysis.

RN10-1505: the lab rec'd (1) 40ml vial 8260B containers for sample RE46-10-11974 instead of (2) as indicated on the COC.

RN10-1495: the lab rec'd (1) 40ml vial 8260B container each for samples CAMO-10-9276, 9290, 9295, 9362, 9380, 9368, 9382. We did not receive any 40ml vial containers for samples CAMO-10-9284, 9288, 9286, 9285. All samples requesting PEST, PCB, SVOA,HEXP we rec'd (2) 1L amber glass containers each instead of (3) as indicated on the COC.

RN10-1497: the Gross A/B containers were preserved prior to analysis.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR1A015AGWL0

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TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449
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CHARLESTON SC 29407
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2 of 2
MPS# 0263 7209 7849 7772
Mstr# 7209 7849 7761 0201

TUE - 02FEB A1
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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449
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TRK# 0201 7209 7849 7831
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

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TRK# 0201 7209 7849 7783
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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
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MPS# 0263 7209 784[illegible] 7864
MstrW 7209 7[illegible] 7853 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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MPS# 0263 7209 7849 7923
MstrW 7209 7849 7912 0201

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 7849 7842
MstrW 7209 7849 7831 0201

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PRIORITY OVERNIGHT

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Part # 156148-434 NAIT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 7849 7886
MstrW 7209 7849 7875 0201

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PRIORITY OVERNIGHT

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Part # 156148-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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2 of 2
MPS# 0263 7209 7849 7901
MstrW 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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1 of 2
TRK# 0201 7209 7849 7853
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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TRK# 0201 7209 7849 7875
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Part # 156148-434 NRT V04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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REF: 6B010AMR1A015AGWL0

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TRK# 0201 7209 7849 7956
TUE - 02FEB A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRT V03-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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REF: 6B010AMR3A052VA00

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MPS# 0263 7209 7849 7794
Mstr# 7209 7849 7783 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

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(843) 556-8171
REF: 6B010AMR3A052VA00

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3 of 3
MPS# 0263 7209 7849 7820
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TUE - 02FEB A1
PRIORITY OVERNIGHT

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TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
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(843) 556-8171
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1 of 3

TUE - 02FEB A1

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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SC-US
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Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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2 of 2

TUE - 02FEB A1

MPS# 0263 7209 7849 7961
Mstr# 7209 7849 7956 0201

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CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR1A015AGWL0

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2 of 2

TUE - 02FEB A1

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Mstr# 7209 7849 7934 0201

PRIORITY OVERNIGHT

29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR3A052VA00

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2 of 3
MPS# 0263 7209 7849 7810
Mstr# 7209 7849 7809 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

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Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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REF: 6B010AMR1A015AGHK0

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1 of 2
TRK# 0201 7209 7849 7897
** MASTER **

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PRIORITY OVERNIGHT

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Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

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13c

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1 of 2
TRK# 0201 7209 7849 7728
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TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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REF: 6B010AMR2A0515BYD0

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2 of 3
MPS# 0263 7209 7849 7706
Mstr# 7209 7849 7891 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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FedEx Express

3 of 3
MPS# 0263 7209 7849 7717
Mstr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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XX CHSA

Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

15c

FedEx Express

2 of 2
MPS# 0263 7209 7849 7750
Mstr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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1 of 2
TRK# 0201 7209 7849 7740
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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

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MPS# 0263 7209 7849 7739
Mstr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1510

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	951185
Prep Batch Number:	951184

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
245959001	RE15-10-7309
245959002	RE15-10-7308
245959003	RE15-10-7315
245959004	RE15-10-7317
245959005	RE15-10-7319
245959006	RE15-10-7312
245959007	RE15-10-7313
245959008	RE15-10-7314
245959009	RE15-10-7316
245959010	RE15-10-7318
245959011	RE15-10-7329
245959012	RE15-10-7324
1202038395	Method Blank (MB)
1202038398	Laboratory Control Sample (LCS)
1202038399	Laboratory Control Sample (LCS)
1202038396	245955001(RE16-10-1474) Post Spike (PS)
1202038397	245955001(RE16-10-1474) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 245959 001, 002, 003, 004, 005, 006, 007, 008, 009, 010 and 012 in this SDG were analyzed on an "dry weight" basis. Samples 245959 011 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

QC Sample Designation

Sample 245955001 (RE16-10-1474) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement

The spike recoveries were not all within the acceptance limits. See DER# 791111.

Matrix Spike Duplicate (PSD) Recovery Statement

The spike duplicate recoveries were within the acceptance limits.

Relative Percent Difference (RPD) Statement

The RPD between the matrix spike pair were not all within the acceptance limits. See DER# 791111.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
The following DER was generated for this SDG: 791111

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOAA.I	Agilent 7890/5975C GC/MS system	HP7890A/HP5975C	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1510 GEL Work Order: 245959

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 25 FEB 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:11**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:06**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.363	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.320	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	U	5.33	ug/kg	1.77	5.33
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
74-88-4	Iodomethane	U	5.33	ug/kg	1.71	5.33
75-09-2	Methylene chloride	U	5.33	ug/kg	2.13	5.33
75-15-0	Carbon disulfide	U	5.33	ug/kg	1.33	5.33
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	U	5.33	ug/kg	1.60	5.33
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	U	5.33	ug/kg	1.33	5.33
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.320	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	U	5.33	ug/kg	1.60	5.33
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.320	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:11**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:06**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.320	1.07
179601-23-1	m,p-Xylenes	U	2.13	ug/kg	0.320	2.13
95-47-6	o-Xylene	U	1.07	ug/kg	0.320	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.320	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.320	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.320	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.33	ug/kg	1.71	5.33
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	22.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7308	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/09/2010 22:38	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:07	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX214.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.438	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29
67-64-1	Acetone	U	6.44	ug/kg	2.14	6.44
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
74-88-4	Iodomethane	U	6.44	ug/kg	2.06	6.44
75-09-2	Methylene chloride	U	6.44	ug/kg	2.57	6.44
75-15-0	Carbon disulfide	U	6.44	ug/kg	1.61	6.44
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29
78-93-3	2-Butanone	U	6.44	ug/kg	1.93	6.44
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29
108-10-1	4-Methyl-2-pentanone	U	6.44	ug/kg	1.61	6.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
108-88-3	Toluene	U	1.29	ug/kg	0.386	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29
591-78-6	2-Hexanone	U	6.44	ug/kg	1.93	6.44
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	22.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7308	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/09/2010 22:38	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:07	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX214.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	U	2.57	ug/kg	0.386	2.57
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	U	1.29	ug/kg	0.386	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.44	ug/kg	2.06	6.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**8.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7315**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:04**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:08**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.352	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.311	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.311	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.311	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.311	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.311	1.04
67-64-1	Acetone	U	5.18	ug/kg	1.72	5.18
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
74-88-4	Iodomethane	U	5.18	ug/kg	1.66	5.18
75-09-2	Methylene chloride	U	5.18	ug/kg	2.07	5.18
75-15-0	Carbon disulfide	U	5.18	ug/kg	1.29	5.18
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.311	1.04
78-93-3	2-Butanone	U	5.18	ug/kg	1.55	5.18
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.311	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.342	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.311	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.311	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.311	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.311	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.311	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.342	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.311	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.311	1.04
108-10-1	4-Methyl-2-pentanone	U	5.18	ug/kg	1.29	5.18
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.311	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.311	1.04
591-78-6	2-Hexanone	U	5.18	ug/kg	1.55	5.18
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.311	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.311	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.311	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.311	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.311	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**8.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7315**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:04**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:08**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.311	1.04
179601-23-1	m,p-Xylenes	U	2.07	ug/kg	0.311	2.07
95-47-6	o-Xylene	U	1.04	ug/kg	0.311	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.311	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.311	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.311	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.311	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.311	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.311	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.311	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.311	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.311	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.311	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.311	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.18	ug/kg	1.66	5.18
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959004	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7317	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/09/2010 23:30	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:09	**Aliquot:**	5.1 g	**Final Volume:**	5 mL
Data File:	020910\AX216.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.330	1.10
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:30**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959005**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7319**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:57**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12
67-64-1	Acetone	U	5.60	ug/kg	1.86	5.60
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
74-88-4	Iodomethane	U	5.60	ug/kg	1.79	5.60
75-09-2	Methylene chloride	U	5.60	ug/kg	2.24	5.60
75-15-0	Carbon disulfide	U	5.60	ug/kg	1.40	5.60
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12
78-93-3	2-Butanone	U	5.60	ug/kg	1.68	5.60
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12
108-10-1	4-Methyl-2-pentanone	U	5.60	ug/kg	1.40	5.60
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12
591-78-6	2-Hexanone	U	5.60	ug/kg	1.68	5.60
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959005**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7319**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:57**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.60	ug/kg	1.79	5.60
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959006**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**29.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7312**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 00:23**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:11**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.446	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.393	1.31
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.393	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.393	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.393	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.393	1.31
67-64-1	Acetone		18.8	ug/kg	2.18	6.55
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
74-88-4	Iodomethane	U	6.55	ug/kg	2.10	6.55
75-09-2	Methylene chloride	U	6.55	ug/kg	2.62	6.55
75-15-0	Carbon disulfide	U	6.55	ug/kg	1.64	6.55
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.393	1.31
78-93-3	2-Butanone	U	6.55	ug/kg	1.97	6.55
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.393	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.433	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.393	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.393	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.393	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.393	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.393	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.433	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.393	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.393	1.31
108-10-1	4-Methyl-2-pentanone	U	6.55	ug/kg	1.64	6.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.393	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.393	1.31
591-78-6	2-Hexanone	U	6.55	ug/kg	1.97	6.55
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.393	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.393	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.393	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.393	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.393	1.31

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959006**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**29.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7312**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 00:23**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:11**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.31	ug/kg	0.393	1.31
179601-23-1	m,p-Xylenes	J	0.406	ug/kg	0.393	2.62
95-47-6	o-Xylene	U	1.31	ug/kg	0.393	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.393	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.393	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.393	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.393	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.393	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.393	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.393	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.393	1.31
99-87-6	4-Isopropyltoluene		1.51	ug/kg	0.393	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.393	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.393	1.31
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.55	ug/kg	2.10	6.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.36	8.26	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959007	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7313	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 00:50	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:12	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	020910\AX219.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.03	ug/kg	0.349	1.03
74-87-3	Chloromethane	U	1.03	ug/kg	0.308	1.03
75-01-4	Vinyl chloride	U	1.03	ug/kg	0.308	1.03
74-83-9	Bromomethane	U	1.03	ug/kg	0.308	1.03
75-00-3	Chloroethane	U	1.03	ug/kg	0.308	1.03
75-69-4	Trichlorofluoromethane	U	1.03	ug/kg	0.308	1.03
67-64-1	Acetone	U	5.13	ug/kg	1.70	5.13
75-35-4	1,1-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
74-88-4	Iodomethane	U	5.13	ug/kg	1.64	5.13
75-09-2	Methylene chloride	U	5.13	ug/kg	2.05	5.13
75-15-0	Carbon disulfide	U	5.13	ug/kg	1.28	5.13
156-60-5	trans-1,2-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
75-34-3	1,1-Dichloroethane	U	1.03	ug/kg	0.308	1.03
78-93-3	2-Butanone	U	5.13	ug/kg	1.54	5.13
156-59-2	cis-1,2-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
594-20-7	2,2-Dichloropropane	U	1.03	ug/kg	0.308	1.03
67-66-3	Chloroform	U	1.03	ug/kg	0.308	1.03
74-97-5	Bromochloromethane	U	1.03	ug/kg	0.338	1.03
71-55-6	1,1,1-Trichloroethane	U	1.03	ug/kg	0.308	1.03
563-58-6	1,1-Dichloropropene	U	1.03	ug/kg	0.308	1.03
56-23-5	Carbon tetrachloride	U	1.03	ug/kg	0.308	1.03
107-06-2	1,2-Dichloroethane	U	1.03	ug/kg	0.308	1.03
71-43-2	Benzene	U	1.03	ug/kg	0.308	1.03
79-01-6	Trichloroethylene	U	1.03	ug/kg	0.338	1.03
78-87-5	1,2-Dichloropropane	U	1.03	ug/kg	0.308	1.03
75-27-4	Bromodichloromethane	U	1.03	ug/kg	0.308	1.03
74-95-3	Dibromomethane	U	1.03	ug/kg	0.308	1.03
108-10-1	4-Methyl-2-pentanone	U	5.13	ug/kg	1.28	5.13
10061-01-5	cis-1,3-Dichloropropylene	U	1.03	ug/kg	0.308	1.03
108-88-3	Toluene	U	1.03	ug/kg	0.308	1.03
10061-02-6	trans-1,3-Dichloropropylene	U	1.03	ug/kg	0.308	1.03
79-00-5	1,1,2-Trichloroethane	U	1.03	ug/kg	0.308	1.03
591-78-6	2-Hexanone	U	5.13	ug/kg	1.54	5.13
142-28-9	1,3-Dichloropropane	U	1.03	ug/kg	0.308	1.03
127-18-4	Tetrachloroethylene	U	1.03	ug/kg	0.308	1.03
124-48-1	Dibromochloromethane	U	1.03	ug/kg	0.308	1.03
106-93-4	1,2-Dibromoethane	U	1.03	ug/kg	0.308	1.03
108-90-7	Chlorobenzene	U	1.03	ug/kg	0.308	1.03

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959007**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7313**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 00:50**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:12**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.03	ug/kg	0.308	1.03
179601-23-1	m,p-Xylenes	U	2.05	ug/kg	0.308	2.05
95-47-6	o-Xylene	U	1.03	ug/kg	0.308	1.03
100-42-5	Styrene	U	1.03	ug/kg	0.308	1.03
75-25-2	Bromoform	U	1.03	ug/kg	0.308	1.03
79-34-5	1,1,2,2-Tetrachloroethane	U	1.03	ug/kg	0.308	1.03
96-18-4	1,2,3-Trichloropropane	U	1.03	ug/kg	0.308	1.03
108-86-1	Bromobenzene	U	1.03	ug/kg	0.308	1.03
103-65-1	n-Propylbenzene	U	1.03	ug/kg	0.308	1.03
95-49-8	2-Chlorotoluene	U	1.03	ug/kg	0.308	1.03
98-82-8	Isopropylbenzene	U	1.03	ug/kg	0.308	1.03
108-67-8	1,3,5-Trimethylbenzene	U	1.03	ug/kg	0.308	1.03
106-43-4	4-Chlorotoluene	U	1.03	ug/kg	0.308	1.03
98-06-6	tert-Butylbenzene	U	1.03	ug/kg	0.308	1.03
95-63-6	1,2,4-Trimethylbenzene	U	1.03	ug/kg	0.308	1.03
135-98-8	sec-Butylbenzene	U	1.03	ug/kg	0.308	1.03
99-87-6	4-Isopropyltoluene	U	1.03	ug/kg	0.308	1.03
541-73-1	1,3-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03
106-46-7	1,4-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03
104-51-8	n-Butylbenzene	U	1.03	ug/kg	0.308	1.03
96-12-8	1,2-Dibromo-3-chloropropane	U	1.03	ug/kg	0.308	1.03
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.13	ug/kg	1.64	5.13
630-20-6	1,1,1,2-Tetrachloroethane	U	1.03	ug/kg	0.308	1.03
95-50-1	1,2-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959008**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**32.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7314**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 01:16**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.48	ug/kg	0.505	1.48
74-87-3	Chloromethane	U	1.48	ug/kg	0.445	1.48
75-01-4	Vinyl chloride	U	1.48	ug/kg	0.445	1.48
74-83-9	Bromomethane	U	1.48	ug/kg	0.445	1.48
75-00-3	Chloroethane	U	1.48	ug/kg	0.445	1.48
75-69-4	Trichlorofluoromethane	U	1.48	ug/kg	0.445	1.48
67-64-1	Acetone	U	7.42	ug/kg	2.46	7.42
75-35-4	1,1-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
74-88-4	Iodomethane	U	7.42	ug/kg	2.37	7.42
75-09-2	Methylene chloride	U	7.42	ug/kg	2.97	7.42
75-15-0	Carbon disulfide	U	7.42	ug/kg	1.85	7.42
156-60-5	trans-1,2-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
75-34-3	1,1-Dichloroethane	U	1.48	ug/kg	0.445	1.48
78-93-3	2-Butanone	U	7.42	ug/kg	2.23	7.42
156-59-2	cis-1,2-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
594-20-7	2,2-Dichloropropane	U	1.48	ug/kg	0.445	1.48
67-66-3	Chloroform	U	1.48	ug/kg	0.445	1.48
74-97-5	Bromochloromethane	U	1.48	ug/kg	0.490	1.48
71-55-6	1,1,1-Trichloroethane	U	1.48	ug/kg	0.445	1.48
563-58-6	1,1-Dichloropropene	U	1.48	ug/kg	0.445	1.48
56-23-5	Carbon tetrachloride	U	1.48	ug/kg	0.445	1.48
107-06-2	1,2-Dichloroethane	U	1.48	ug/kg	0.445	1.48
71-43-2	Benzene	U	1.48	ug/kg	0.445	1.48
79-01-6	Trichloroethylene	U	1.48	ug/kg	0.490	1.48
78-87-5	1,2-Dichloropropane	U	1.48	ug/kg	0.445	1.48
75-27-4	Bromodichloromethane	U	1.48	ug/kg	0.445	1.48
74-95-3	Dibromomethane	U	1.48	ug/kg	0.445	1.48
108-10-1	4-Methyl-2-pentanone	U	7.42	ug/kg	1.85	7.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.48	ug/kg	0.445	1.48
108-88-3	Toluene	U	1.48	ug/kg	0.445	1.48
10061-02-6	trans-1,3-Dichloropropylene	U	1.48	ug/kg	0.445	1.48
79-00-5	1,1,2-Trichloroethane	U	1.48	ug/kg	0.445	1.48
591-78-6	2-Hexanone	U	7.42	ug/kg	2.23	7.42
142-28-9	1,3-Dichloropropane	U	1.48	ug/kg	0.445	1.48
127-18-4	Tetrachloroethylene	U	1.48	ug/kg	0.445	1.48
124-48-1	Dibromochloromethane	U	1.48	ug/kg	0.445	1.48
106-93-4	1,2-Dibromoethane	U	1.48	ug/kg	0.445	1.48
108-90-7	Chlorobenzene	U	1.48	ug/kg	0.445	1.48

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959008	**Date Received:**	02/02/2010 09:10	**%Moisture:**	32.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7314	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 01:16	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:13	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX220.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.48	ug/kg	0.445	1.48
179601-23-1	m,p-Xylenes	U	2.97	ug/kg	0.445	2.97
95-47-6	o-Xylene	U	1.48	ug/kg	0.445	1.48
100-42-5	Styrene	U	1.48	ug/kg	0.445	1.48
75-25-2	Bromoform	U	1.48	ug/kg	0.445	1.48
79-34-5	1,1,2,2-Tetrachloroethane	U	1.48	ug/kg	0.445	1.48
96-18-4	1,2,3-Trichloropropane	U	1.48	ug/kg	0.445	1.48
108-86-1	Bromobenzene	U	1.48	ug/kg	0.445	1.48
103-65-1	n-Propylbenzene	U	1.48	ug/kg	0.445	1.48
95-49-8	2-Chlorotoluene	U	1.48	ug/kg	0.445	1.48
98-82-8	Isopropylbenzene	U	1.48	ug/kg	0.445	1.48
108-67-8	1,3,5-Trimethylbenzene	U	1.48	ug/kg	0.445	1.48
106-43-4	4-Chlorotoluene	U	1.48	ug/kg	0.445	1.48
98-06-6	tert-Butylbenzene	U	1.48	ug/kg	0.445	1.48
95-63-6	1,2,4-Trimethylbenzene	U	1.48	ug/kg	0.445	1.48
135-98-8	sec-Butylbenzene	U	1.48	ug/kg	0.445	1.48
99-87-6	4-Isopropyltoluene	U	1.48	ug/kg	0.445	1.48
541-73-1	1,3-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48
106-46-7	1,4-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48
104-51-8	n-Butylbenzene	U	1.48	ug/kg	0.445	1.48
96-12-8	1,2-Dibromo-3-chloropropane	U	1.48	ug/kg	0.445	1.48
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.42	ug/kg	2.37	7.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.48	ug/kg	0.445	1.48
95-50-1	1,2-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959009**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**35.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7316**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 01:42**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.49	ug/kg	0.508	1.49
74-87-3	Chloromethane	U	1.49	ug/kg	0.448	1.49
75-01-4	Vinyl chloride	U	1.49	ug/kg	0.448	1.49
74-83-9	Bromomethane	U	1.49	ug/kg	0.448	1.49
75-00-3	Chloroethane	U	1.49	ug/kg	0.448	1.49
75-69-4	Trichlorofluoromethane	U	1.49	ug/kg	0.448	1.49
67-64-1	Acetone	U	7.47	ug/kg	2.48	7.47
75-35-4	1,1-Dichloroethylene	U	1.49	ug/kg	0.448	1.49
74-88-4	Iodomethane	U	7.47	ug/kg	2.39	7.47
75-09-2	Methylene chloride	U	7.47	ug/kg	2.99	7.47
75-15-0	Carbon disulfide	U	7.47	ug/kg	1.87	7.47
156-60-5	trans-1,2-Dichloroethylene	U	1.49	ug/kg	0.448	1.49
75-34-3	1,1-Dichloroethane	U	1.49	ug/kg	0.448	1.49
78-93-3	2-Butanone	U	7.47	ug/kg	2.24	7.47
156-59-2	cis-1,2-Dichloroethylene	U	1.49	ug/kg	0.448	1.49
594-20-7	2,2-Dichloropropane	U	1.49	ug/kg	0.448	1.49
67-66-3	Chloroform	U	1.49	ug/kg	0.448	1.49
74-97-5	Bromochloromethane	U	1.49	ug/kg	0.493	1.49
71-55-6	1,1,1-Trichloroethane	U	1.49	ug/kg	0.448	1.49
563-58-6	1,1-Dichloropropene	U	1.49	ug/kg	0.448	1.49
56-23-5	Carbon tetrachloride	U	1.49	ug/kg	0.448	1.49
107-06-2	1,2-Dichloroethane	U	1.49	ug/kg	0.448	1.49
71-43-2	Benzene	U	1.49	ug/kg	0.448	1.49
79-01-6	Trichloroethylene	U	1.49	ug/kg	0.493	1.49
78-87-5	1,2-Dichloropropane	U	1.49	ug/kg	0.448	1.49
75-27-4	Bromodichloromethane	U	1.49	ug/kg	0.448	1.49
74-95-3	Dibromomethane	U	1.49	ug/kg	0.448	1.49
108-10-1	4-Methyl-2-pentanone	U	7.47	ug/kg	1.87	7.47
10061-01-5	cis-1,3-Dichloropropylene	U	1.49	ug/kg	0.448	1.49
108-88-3	Toluene	J	0.538	ug/kg	0.448	1.49
10061-02-6	trans-1,3-Dichloropropylene	U	1.49	ug/kg	0.448	1.49
79-00-5	1,1,2-Trichloroethane	U	1.49	ug/kg	0.448	1.49
591-78-6	2-Hexanone	U	7.47	ug/kg	2.24	7.47
142-28-9	1,3-Dichloropropane	U	1.49	ug/kg	0.448	1.49
127-18-4	Tetrachloroethylene	U	1.49	ug/kg	0.448	1.49
124-48-1	Dibromochloromethane	U	1.49	ug/kg	0.448	1.49
106-93-4	1,2-Dibromoethane	U	1.49	ug/kg	0.448	1.49
108-90-7	Chlorobenzene	U	1.49	ug/kg	0.448	1.49

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959009	**Date Received:**	02/02/2010 09:10	**%Moisture:**	35.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7316	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 01:42	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:14	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	020910\AX221.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.49	ug/kg	0.448	1.49
179601-23-1	m,p-Xylenes	U	2.99	ug/kg	0.448	2.99
95-47-6	o-Xylene	U	1.49	ug/kg	0.448	1.49
100-42-5	Styrene	U	1.49	ug/kg	0.448	1.49
75-25-2	Bromoform	U	1.49	ug/kg	0.448	1.49
79-34-5	1,1,2,2-Tetrachloroethane	U	1.49	ug/kg	0.448	1.49
96-18-4	1,2,3-Trichloropropane	U	1.49	ug/kg	0.448	1.49
108-86-1	Bromobenzene	U	1.49	ug/kg	0.448	1.49
103-65-1	n-Propylbenzene	U	1.49	ug/kg	0.448	1.49
95-49-8	2-Chlorotoluene	U	1.49	ug/kg	0.448	1.49
98-82-8	Isopropylbenzene	U	1.49	ug/kg	0.448	1.49
108-67-8	1,3,5-Trimethylbenzene	U	1.49	ug/kg	0.448	1.49
106-43-4	4-Chlorotoluene	U	1.49	ug/kg	0.448	1.49
98-06-6	tert-Butylbenzene	U	1.49	ug/kg	0.448	1.49
95-63-6	1,2,4-Trimethylbenzene	U	1.49	ug/kg	0.448	1.49
135-98-8	sec-Butylbenzene	U	1.49	ug/kg	0.448	1.49
99-87-6	4-Isopropyltoluene	U	1.49	ug/kg	0.448	1.49
541-73-1	1,3-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49
106-46-7	1,4-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49
104-51-8	n-Butylbenzene	U	1.49	ug/kg	0.448	1.49
96-12-8	1,2-Dibromo-3-chloropropane	U	1.49	ug/kg	0.448	1.49
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.47	ug/kg	2.39	7.47
630-20-6	1,1,1,2-Tetrachloroethane	U	1.49	ug/kg	0.448	1.49
95-50-1	1,2-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.33	7.84	ug/kg	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:08**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:15**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone	U	5.64	ug/kg	1.87	5.64
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.64	ug/kg	1.81	5.64
75-09-2	Methylene chloride	U	5.64	ug/kg	2.26	5.64
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959010	**Date Received:**	02/02/2010 09:10	**%Moisture:**	14.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7318	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 02:08	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:15	**Aliquot:**	5.2 g	**Final Volume:**	5 mL
Data File:	020910\AX222.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.338	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.81	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959011**	**Date Received:**	**02/02/2010 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7329**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:35**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	0.980	ug/kg	0.333	0.980
74-87-3	Chloromethane	U	0.980	ug/kg	0.294	0.980
75-01-4	Vinyl chloride	U	0.980	ug/kg	0.294	0.980
74-83-9	Bromomethane	U	0.980	ug/kg	0.294	0.980
75-00-3	Chloroethane	U	0.980	ug/kg	0.294	0.980
75-69-4	Trichlorofluoromethane	U	0.980	ug/kg	0.294	0.980
67-64-1	Acetone	U	4.90	ug/kg	1.63	4.90
75-35-4	1,1-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
74-88-4	Iodomethane	U	4.90	ug/kg	1.57	4.90
75-09-2	Methylene chloride	U	4.90	ug/kg	1.96	4.90
75-15-0	Carbon disulfide	U	4.90	ug/kg	1.23	4.90
156-60-5	trans-1,2-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
75-34-3	1,1-Dichloroethane	U	0.980	ug/kg	0.294	0.980
78-93-3	2-Butanone	U	4.90	ug/kg	1.47	4.90
156-59-2	cis-1,2-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
594-20-7	2,2-Dichloropropane	U	0.980	ug/kg	0.294	0.980
67-66-3	Chloroform	U	0.980	ug/kg	0.294	0.980
74-97-5	Bromochloromethane	U	0.980	ug/kg	0.324	0.980
71-55-6	1,1,1-Trichloroethane	U	0.980	ug/kg	0.294	0.980
563-58-6	1,1-Dichloropropene	U	0.980	ug/kg	0.294	0.980
56-23-5	Carbon tetrachloride	U	0.980	ug/kg	0.294	0.980
107-06-2	1,2-Dichloroethane	U	0.980	ug/kg	0.294	0.980
71-43-2	Benzene	U	0.980	ug/kg	0.294	0.980
79-01-6	Trichloroethylene	U	0.980	ug/kg	0.324	0.980
78-87-5	1,2-Dichloropropane	U	0.980	ug/kg	0.294	0.980
75-27-4	Bromodichloromethane	U	0.980	ug/kg	0.294	0.980
74-95-3	Dibromomethane	U	0.980	ug/kg	0.294	0.980
108-10-1	4-Methyl-2-pentanone	U	4.90	ug/kg	1.23	4.90
10061-01-5	cis-1,3-Dichloropropylene	U	0.980	ug/kg	0.294	0.980
108-88-3	Toluene	U	0.980	ug/kg	0.294	0.980
10061-02-6	trans-1,3-Dichloropropylene	U	0.980	ug/kg	0.294	0.980
79-00-5	1,1,2-Trichloroethane	U	0.980	ug/kg	0.294	0.980
591-78-6	2-Hexanone	U	4.90	ug/kg	1.47	4.90
142-28-9	1,3-Dichloropropane	U	0.980	ug/kg	0.294	0.980
127-18-4	Tetrachloroethylene	U	0.980	ug/kg	0.294	0.980
124-48-1	Dibromochloromethane	U	0.980	ug/kg	0.294	0.980
106-93-4	1,2-Dibromoethane	U	0.980	ug/kg	0.294	0.980
108-90-7	Chlorobenzene	U	0.980	ug/kg	0.294	0.980

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959011**	**Date Received:**	**02/02/2010 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7329**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:35**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	0.980	ug/kg	0.294	0.980
179601-23-1	m,p-Xylenes	U	1.96	ug/kg	0.294	1.96
95-47-6	o-Xylene	U	0.980	ug/kg	0.294	0.980
100-42-5	Styrene	U	0.980	ug/kg	0.294	0.980
75-25-2	Bromoform	U	0.980	ug/kg	0.294	0.980
79-34-5	1,1,2,2-Tetrachloroethane	U	0.980	ug/kg	0.294	0.980
96-18-4	1,2,3-Trichloropropane	U	0.980	ug/kg	0.294	0.980
108-86-1	Bromobenzene	U	0.980	ug/kg	0.294	0.980
103-65-1	n-Propylbenzene	U	0.980	ug/kg	0.294	0.980
95-49-8	2-Chlorotoluene	U	0.980	ug/kg	0.294	0.980
98-82-8	Isopropylbenzene	U	0.980	ug/kg	0.294	0.980
108-67-8	1,3,5-Trimethylbenzene	U	0.980	ug/kg	0.294	0.980
106-43-4	4-Chlorotoluene	U	0.980	ug/kg	0.294	0.980
98-06-6	tert-Butylbenzene	U	0.980	ug/kg	0.294	0.980
95-63-6	1,2,4-Trimethylbenzene	U	0.980	ug/kg	0.294	0.980
135-98-8	sec-Butylbenzene	U	0.980	ug/kg	0.294	0.980
99-87-6	4-Isopropyltoluene	U	0.980	ug/kg	0.294	0.980
541-73-1	1,3-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980
106-46-7	1,4-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980
104-51-8	n-Butylbenzene	U	0.980	ug/kg	0.294	0.980
96-12-8	1,2-Dibromo-3-chloropropane	U	0.980	ug/kg	0.294	0.980
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	4.90	ug/kg	1.57	4.90
630-20-6	1,1,1,2-Tetrachloroethane	U	0.980	ug/kg	0.294	0.980
95-50-1	1,2-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959012	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7324	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 03:01	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:17	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	020910\AX224.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone	U	5.26	ug/kg	1.75	5.26
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.26	ug/kg	1.68	5.26
75-09-2	Methylene chloride	U	5.26	ug/kg	2.10	5.26
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.31	5.26
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.58	5.26
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.31	5.26
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.26	ug/kg	1.58	5.26
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 03:01**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:17**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.26	ug/kg	1.68	5.26
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1510

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202038398	LCS for batch 951184	86	100	95
1202038399	LCS for batch 951184	84	100	96
1202038395	MB for batch 951184	79	99	93
245959001	RE15-10-7309	95	98	96
245959002	RE15-10-7308	93	99	96
245959003	RE15-10-7315	98	98	97
245959004	RE15-10-7317	98	98	96
245959005	RE15-10-7319	98	98	96
245959006	RE15-10-7312	94	99	97
245959007	RE15-10-7313	100	98	98
245959008	RE15-10-7314	97	99	97
245959009	RE15-10-7316	97	98	98
245959010	RE15-10-7318	99	99	98
245959011	RE15-10-7329	101	100	98
245959012	RE15-10-7324	103	99	99

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(66%-134%)
TOL	= Toluene-d8	(71%-128%)
BFB	= Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE16-10-1474PS
Lab Sample ID: 1202038396
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 26.4
Analysis Date: 02/10/2010 03:27
Prep Batch ID 951184
Batch ID: 951185

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	37.7	75	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	30.0	60	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	38.0	76	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	41.5	83	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	43.7	87	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	40.6	81	55-138
67-64-1	PS	Acetone	250	2.45	J	146	57	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	35.5	71	55-128
74-88-4	PS	Iodomethane	250	0.00	U	190	76	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	40.3	81	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	195	78	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	36.1	72	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	36.8	74	62-125
78-93-3	PS	2-Butanone	250	0.00	U	155	62	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	36.2	72	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	35.6	71	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	38.9	78	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	39.1	78	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	37.4	75	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	36.1	72	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	36.2	72	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	36.7	73	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE16-10-1474PS
Lab Sample ID: 1202038396
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 26.4
Analysis Date: 02/10/2010 03:27
Prep Batch ID: 951184
Batch ID: 951185
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	37.2	74	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	42.9	86	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	35.8	72	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	37.1	74	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	37.8	76	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	182	73	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	34.0	68	50-131
108-88-3	PS	Toluene	50.0	0.00	U	34.8	70	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	34.4	69	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	37.5	75	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	160	64	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	36.9	74	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	32.6	65	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	34.4	69	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	36.5	73	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	32.3	65	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	30.8	62	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	59.0	59	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	29.9	60	51-127
100-42-5	PS	Styrene	50.0	0.00	U	29.0	58	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	33.0	66	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	25.5	51 *	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE16-10-1474PS
Lab Sample ID: 1202038396
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 26.4
Analysis Date: 02/10/2010 03:27
Prep Batch ID: 951184
Batch ID: 951185
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	35.4	71	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	30.8	62	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	23.5	47	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	25.8	52	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	25.6	51	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	22.9	46	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	24.6	49	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	22.3	45 *	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	22.7	45	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	19.0	38 *	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	18.5	37	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	23.8	48	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	23.8	48	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	16.1	32 *	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	25.4	51	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	35.2	70	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	23.4	47	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE16-10-1474PSD
Lab Sample ID: 1202038397
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 26.4
Analysis Date: 02/10/2010 03:53
Dilution: 1
Prep Batch ID: 951184
Batch ID: 951185

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	37.2	74	39-148	1	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	29.7	59	42-131	1	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	37.9	76	50-127	0	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	40.9	82	26-135	1	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	43.2	86	54-128	1	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	40.9	82	55-138	1	0-21
67-64-1	PSD	Acetone	250	2.45	J	138	54	20-144	5	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	35.8	72	55-128	1	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	190	76	47-132	0	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	40.0	80	56-123	1	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	202	81	53-133	3	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	36.4	73	57-119	1	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	36.9	74	62-125	0	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	148	59	30-150	5	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	36.0	72	60-124	1	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	36.7	73	56-129	3	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	38.9	78	62-120	0	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	38.4	77	51-135	2	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	38.3	77	58-129	2	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	37.9	76	59-126	5	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	38.0	76	55-132	5	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	35.8	72	54-121	3	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE16-10-1474PSD
Lab Sample ID: 1202038397
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 26.4
Analysis Date: 02/10/2010 03:53
Dilution: 1
Prep Batch ID: 951184
Batch ID: 951185

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	37.9	76	58-120	2	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	42.7	85	54-130	1	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	36.2	72	59-121	1	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	37.0	74	57-130	0	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	37.4	75	57-124	1	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	176	70	40-137	4	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	34.4	69	50-131	1	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	36.6	73	54-119	5	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	34.4	69	47-133	0	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	37.7	75	60-130	1	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	151	61	30-139	6	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	36.6	73	59-125	1	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	36.9	74	50-126	13	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	34.8	70	54-131	1	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	36.7	73	55-127	1	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	34.6	69	50-130	7	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	34.2	68	50-121	10	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	66.0	66	47-125	11	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	32.8	66	51-127	9	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	31.5	63	41-136	8	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	33.2	66	48-143	0	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	27.7	55	52-129	8	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE16-10-1474PSD
Lab Sample ID: 1202038397
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 26.4
Analysis Date: 02/10/2010 03:53
Dilution: 1
Prep Batch ID: 951184
Batch ID: 951185

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	34.6	69	56-139	2	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	33.4	67	54-125	8	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	28.7	57	46-127	20	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	29.5	59	47-130	14	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	30.1	60	42-126	16	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	27.5	55	44-132	18	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	28.4	57	46-127	14	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	28.2	56	48-136	23	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	27.0	54	42-132	17	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	25.4	51	47-130	29 *	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	24.4	49	36-142	28 *	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	27.5	55	41-130	14	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	27.3	55	41-126	14	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	22.4	45	37-136	33 *	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	25.9	52	42-143	2	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	36.2	72	58-127	3	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	26.4	53	42-128	12	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: LCS for batch 951184
Lab Sample ID: 1202038398
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/09/2010 17:49
Dilution: 1
Prep Batch ID: 951184
Batch ID: 951185

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	34.9	70	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	30.0	60	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	39.3	79	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	45.2	90	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	45.9	92	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	43.1	86	73-143
67-64-1	LCS	Acetone	250	0.0	173	69	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	39.0	78	71-129
74-88-4	LCS	Iodomethane	250	0.0	225	90	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	46.9	94	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	238	95	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	40.9	82	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	42.1	84	73-120
78-93-3	LCS	2-Butanone	250	0.0	198	79	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	41.5	83	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	43.6	87	73-134
67-66-3	LCS	Chloroform	50.0	0.0	44.0	88	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	47.6	95	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	42.9	86	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	45.7	91	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	44.1	88	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	40.1	80	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: LCS for batch 951184
Lab Sample ID: 1202038398
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/09/2010 17:49
Dilution: 1
Prep Batch ID: 951184
Batch ID: 951185

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	45.8	92	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	46.5	93	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	44.0	88	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	44.3	89	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	46.4	93	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	250	100	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	46.5	93	78-127
108-88-3	LCS	Toluene	50.0	0.0	47.4	95	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	47.3	95	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	49.5	99	75-120
591-78-6	LCS	2-Hexanone	250	0.0	207	83	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	47.3	95	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	52.6	105	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	46.8	94	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	49.8	100	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	48.6	97	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	47.5	95	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	95.4	95	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	47.8	96	76-122
100-42-5	LCS	Styrene	50.0	0.0	48.3	97	75-125
75-25-2	LCS	Bromoform	50.0	0.0	51.5	103	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	51.3	103	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 951184 **Matrix:** SOIL

Lab Sample ID: 1202038398

Instrument: VOAA.I **Analysis Date:** 02/09/2010 17:49 **Dilution:** 1

Analyst: JEB **Prep Batch ID:** 951184

Purge Vol: 5 mL **Batch ID:** 951185

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	50.4	101	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	51.9	104	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	47.4	95	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	48.7	97	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	46.9	94	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	46.8	94	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	46.8	94	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	50.2	100	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	46.7	93	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	48.1	96	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	47.8	96	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	52.3	105	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	51.8	104	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	48.7	97	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	49.2	98	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	48.7	97	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	51.4	103	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: LCS for batch 951184
Lab Sample ID: 1202038399
Instrument: VOAA.I
Analyst: JEB
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/09/2010 18:42
Dilution: 1
Prep Batch ID: 951184
Batch ID: 951185

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	251	100	67-140

Method Blank Summary

SDG Number:	10-1510	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 951184	Instrument ID:	VOAA.I	Data File:	020910\AX206LA.D
Lab Sample ID:	1202038395	Prep Date:	02/09/2010 16:11	Analyzed:	02/09/10 19:08
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 951184	1202038398	020910\AX203LA.D	02/09/10	1749
02	LCS for batch 951184	1202038399	020910\AX205LA.D	02/09/10	1842
03	RE15-10-7309	245959001	020910\AX213.D	02/09/10	2211
04	RE15-10-7308	245959002	020910\AX214.D	02/09/10	2238
05	RE15-10-7315	245959003	020910\AX215.D	02/09/10	2304
06	RE15-10-7317	245959004	020910\AX216.D	02/09/10	2330
07	RE15-10-7319	245959005	020910\AX217.D	02/09/10	2357
08	RE15-10-7312	245959006	020910\AX218.D	02/10/10	0023
09	RE15-10-7313	245959007	020910\AX219.D	02/10/10	0050
10	RE15-10-7314	245959008	020910\AX220.D	02/10/10	0116
11	RE15-10-7316	245959009	020910\AX221.D	02/10/10	0142
12	RE15-10-7318	245959010	020910\AX222.D	02/10/10	0208
13	RE15-10-7329	245959011	020910\AX223.D	02/10/10	0235
14	RE15-10-7324	245959012	020910\AX224.D	02/10/10	0301

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1510

Instrument ID: VOAA.l **Injection Date/Time:** 02-FEB-10 22:04

Column Description: DB-624 **Lab File ID** 020210\AW301.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	25.6
75	30.0 - 60.0% of mass 95	56.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	67.7
175	5.0 -9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	96.7
177	5.0 - 9.0% of mass 176	6.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WAVM100202-01	020210\AW303.D	02-FEB-10 22:55
ICALMIX[A]	WAVM100202-03	020210\AW305.D	02-FEB-10 23:47
ICALMIX [A]	WAVM100202-04	020210\AW306.D	03-FEB-10 00:14
ICALMIX[A]	WAVM100202-05	020210\AW307.D	03-FEB-10 00:40
ICALMIX[A]	WAVM100202-06	020210\AW308.D	03-FEB-10 01:06
ICALMIX[A]	WAVM100202-07	020210\AW309.D	03-FEB-10 01:32
ICALMIX [A]	WAVM100202-08	020210\AW310.D	03-FEB-10 01:59
ICALMIX[A]	WAVM100202-09	020210\AW311.D	03-FEB-10 02:25
ICALMIX[B]	WAVM100202-10	020210\AW313.D	03-FEB-10 03:17
ICALMIX[B]	WAVM100202-11	020210\AW314.D	03-FEB-10 03:43
ICALMIX[B]	WAVM100202-12	020210\AW315.D	03-FEB-10 04:09
ICALMIX[B]	WAVM100202-13	020210\AW316.D	03-FEB-10 04:35
ICALMIX[B]	WAVM100202-14	020210\AW317.D	03-FEB-10 05:02
ICALMIX[B]	WAVM100202-15	020210\AW318.D	03-FEB-10 05:28
ICALMIX[B]	WAVM100202-16	020210\AW319.D	03-FEB-10 05:55
ICVMIX[A]01	WAVM100202-17	020210\AW321.D	03-FEB-10 06:48
ICVMIX[B]03	WAVM100202-19	020210\AW323.D	03-FEB-10 07:40

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1510

Instrument ID: VOAA.I **Injection Date/Time:** 09-FEB-10 16:37

Column Description: DB-624 **Lab File ID** 020910\AX201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	54.4
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.4
174	50.0 - 100.0% of mass 95	73
175	5.0 -9.0% of mass 174	6.9
176	95.0 - 101.0% of mass 174	96.6
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	WAVM100209-01	020910\AX202.D	09-FEB-10 17:01
BLK01LCS	1202038398	020910\AX203LA.D	09-FEB-10 17:49
CCVMIX[B]03	WAVM100209-03	020910\AX204.D	09-FEB-10 18:15
BLK01SLCS	1202038399	020910\AX205LA.D	09-FEB-10 18:42
BLK01	1202038395	020910\AX206LA.D	09-FEB-10 19:08
RE15-10-7309	245959001	020910\AX213.D	09-FEB-10 22:11
RE15-10-7308	245959002	020910\AX214.D	09-FEB-10 22:38
RE15-10-7315	245959003	020910\AX215.D	09-FEB-10 23:04
RE15-10-7317	245959004	020910\AX216.D	09-FEB-10 23:30
RE15-10-7319	245959005	020910\AX217.D	09-FEB-10 23:57
RE15-10-7312	245959006	020910\AX218.D	10-FEB-10 00:23
RE15-10-7313	245959007	020910\AX219.D	10-FEB-10 00:50
RE15-10-7314	245959008	020910\AX220.D	10-FEB-10 01:16
RE15-10-7316	245959009	020910\AX221.D	10-FEB-10 01:42
RE15-10-7318	245959010	020910\AX222.D	10-FEB-10 02:08
RE15-10-7329	245959011	020910\AX223.D	10-FEB-10 02:35
RE15-10-7324	245959012	020910\AX224.D	10-FEB-10 03:01

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOAA.I

GC Column: DB-624

Client SDG: 10-1510

STD Analysis Time: 09-FEB-10 17:01

Data File: C:\msdchem\1\DATA\020910\AX202.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1396930		9.34		997004		12.5		581443		14.9	
Upper Limit	2793860		9.84		1994008		13.0		1162886		15.4	
Lower Limit	698465		8.84		498502		12.0		290722		14.4	
Sample ID												
BLK01LCS	1450439		9.34		1030853		12.5		601075		14.9	
BLK01SLCS	1447065		9.34		1025660		12.5		596963		14.9	
BLK01	1414560		9.34		999180		12.5		574900		14.9	
RE15-10-7309	1264629		9.34		898990		12.5		525884		14.9	
RE15-10-7308	1231770		9.34		870696		12.5		499237		14.9	
RE15-10-7315	1224743		9.34		870209		12.5		507488		14.9	
RE15-10-7317	1192501		9.34		853820		12.5		506015		14.9	
RE15-10-7319	1180078		9.34		841970		12.5		489686		14.9	
RE15-10-7312	1170030		9.34		821431		12.5		469284		14.9	
RE15-10-7313	1160325		9.34		824240		12.5		485070		14.9	
RE15-10-7314	1143140		9.34		810440		12.5		471508		14.9	
RE15-10-7316	1125206		9.34		795836		12.5		452447		14.9	
RE15-10-7318	1110769		9.34		787055		12.5		452789		14.9	
RE15-10-7329	1083656		9.34		771853		12.5		453248		14.9	
RE15-10-7324	1081583		9.34		775163		12.5		455587		14.9	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:11**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:06**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.07	ug/kg	0.363	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.320	1.07
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.320	1.07
74-83-9	Bromomethane	U	1.07	ug/kg	0.320	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.320	1.07
75-69-4	Trichlorofluoromethane	U	1.07	ug/kg	0.320	1.07
67-64-1	Acetone	U	5.33	ug/kg	1.77	5.33
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
74-88-4	Iodomethane	U	5.33	ug/kg	1.71	5.33
75-09-2	Methylene chloride	U	5.33	ug/kg	2.13	5.33
75-15-0	Carbon disulfide	U	5.33	ug/kg	1.33	5.33
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.320	1.07
78-93-3	2-Butanone	U	5.33	ug/kg	1.60	5.33
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.320	1.07
594-20-7	2,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.320	1.07
74-97-5	Bromochloromethane	U	1.07	ug/kg	0.352	1.07
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.320	1.07
563-58-6	1,1-Dichloropropene	U	1.07	ug/kg	0.320	1.07
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.320	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.320	1.07
71-43-2	Benzene	U	1.07	ug/kg	0.320	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.352	1.07
78-87-5	1,2-Dichloropropane	U	1.07	ug/kg	0.320	1.07
75-27-4	Bromodichloromethane	U	1.07	ug/kg	0.320	1.07
74-95-3	Dibromomethane	U	1.07	ug/kg	0.320	1.07
108-10-1	4-Methyl-2-pentanone	U	5.33	ug/kg	1.33	5.33
10061-01-5	cis-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.320	1.07
10061-02-6	trans-1,3-Dichloropropylene	U	1.07	ug/kg	0.320	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.320	1.07
591-78-6	2-Hexanone	U	5.33	ug/kg	1.60	5.33
142-28-9	1,3-Dichloropropane	U	1.07	ug/kg	0.320	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.320	1.07
124-48-1	Dibromochloromethane	U	1.07	ug/kg	0.320	1.07
106-93-4	1,2-Dibromoethane	U	1.07	ug/kg	0.320	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.320	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:11**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:06**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.320	1.07
179601-23-1	m,p-Xylenes	U	2.13	ug/kg	0.320	2.13
95-47-6	o-Xylene	U	1.07	ug/kg	0.320	1.07
100-42-5	Styrene	U	1.07	ug/kg	0.320	1.07
75-25-2	Bromoform	U	1.07	ug/kg	0.320	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
96-18-4	1,2,3-Trichloropropane	U	1.07	ug/kg	0.320	1.07
108-86-1	Bromobenzene	U	1.07	ug/kg	0.320	1.07
103-65-1	n-Propylbenzene	U	1.07	ug/kg	0.320	1.07
95-49-8	2-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-82-8	Isopropylbenzene	U	1.07	ug/kg	0.320	1.07
108-67-8	1,3,5-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
106-43-4	4-Chlorotoluene	U	1.07	ug/kg	0.320	1.07
98-06-6	tert-Butylbenzene	U	1.07	ug/kg	0.320	1.07
95-63-6	1,2,4-Trimethylbenzene	U	1.07	ug/kg	0.320	1.07
135-98-8	sec-Butylbenzene	U	1.07	ug/kg	0.320	1.07
99-87-6	4-Isopropyltoluene	U	1.07	ug/kg	0.320	1.07
541-73-1	1,3-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
106-46-7	1,4-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07
104-51-8	n-Butylbenzene	U	1.07	ug/kg	0.320	1.07
96-12-8	1,2-Dibromo-3-chloropropane	U	1.07	ug/kg	0.320	1.07
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.33	ug/kg	1.71	5.33
630-20-6	1,1,1,2-Tetrachloroethane	U	1.07	ug/kg	0.320	1.07
95-50-1	1,2-Dichlorobenzene	U	1.07	ug/kg	0.320	1.07

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX213.D
Acq On : 9 Feb 2010 10:11 pm
Operator : JEB
InstName : VOAA
Sample : |245959001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 10 13:29:58 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1264629	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	898990	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	525884	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1264629	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	898990	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	525884	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	501543	47.68	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 95.36%					
43) Toluene-d8	10.987	10.987	0.878	98	1185859	49.02	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.04%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	511318	47.78	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.56%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	622	N.D.		
4) Vinyl chloride	4.245	4.265	0.454	62	590	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.099	6.082	0.653	43	3129	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.425	6.428	0.688	76	809	N.D.		
15) Methylene chloride	6.651	6.651	0.712	84	5522	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX213.D
Acq On : 9 Feb 2010 10:11 pm
Operator : JEB
InstName : VOAA
Sample : |245959001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 10 13:29:58 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.054	11.057	0.884	91	1332	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.621	12.617	1.009	91	154	N.D.	
55) m,p-Xylenes	12.727	12.730	1.017	106	399	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	0.000	13.162	0.000		0	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	13.664	13.529	0.914	105	117	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.	
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.957	13.957	0.934	91	111	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	14.198	14.198	0.950	91	108	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.534	14.530	0.973	105	526	N.D.	
71) sec-Butylbenzene	14.534	14.718	0.973	105	526	N.D.	
72) 4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	14.884	14.884	0.996	146	128	N.D.	
74) 1,4-Dichlorobenzene	14.965	14.969	1.001	146	728	N.D.	
75) n-Butylbenzene	15.089	15.276	1.010	91	343	N.D.	
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.190	17.183	1.150	180	733	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.529	17.529	1.173	128	2558	N.D.	
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.194	180	460	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	8.433	8.430	0.903	42	334	N.D.	
98) Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX213.D
Acq On : 9 Feb 2010 10:11 pm
Operator : JEB
InstName : VOAA
Sample : |245959001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 10 13:29:58 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.238	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	15.089	15.082	1.010	91	343	N.D.	
112)	bis(2-Chloroisopropyl)...	15.605	15.485	1.044	45	4729	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX213.D
Acq On : 9 Feb 2010 10:11 pm
Operator : JEB
InstName : VOAA
Sample : |245959001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 10 13:29:58 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

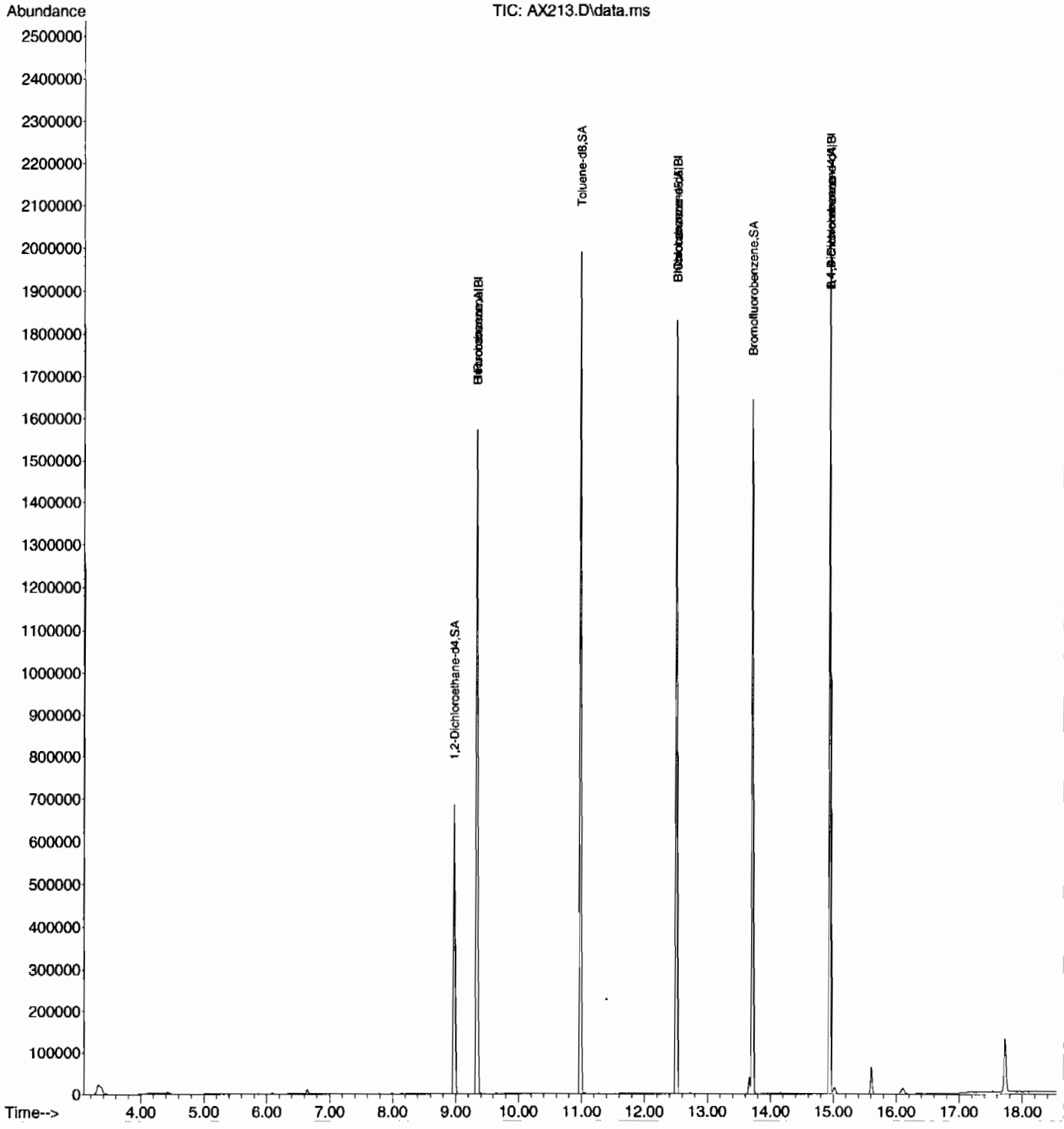

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX213.D
Acq On : 9 Feb 2010 10:11 pm
Operator : JEB
Sample : |245959001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX213.D
Acq On : 9 Feb 2010 10:11 pm
Operator : JEB
Sample : |245959001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:38**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.29	ug/kg	0.438	1.29
74-87-3	Chloromethane	U	1.29	ug/kg	0.386	1.29
75-01-4	Vinyl chloride	U	1.29	ug/kg	0.386	1.29
74-83-9	Bromomethane	U	1.29	ug/kg	0.386	1.29
75-00-3	Chloroethane	U	1.29	ug/kg	0.386	1.29
75-69-4	Trichlorofluoromethane	U	1.29	ug/kg	0.386	1.29
67-64-1	Acetone	U	6.44	ug/kg	2.14	6.44
75-35-4	1,1-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
74-88-4	Iodomethane	U	6.44	ug/kg	2.06	6.44
75-09-2	Methylene chloride	U	6.44	ug/kg	2.57	6.44
75-15-0	Carbon disulfide	U	6.44	ug/kg	1.61	6.44
156-60-5	trans-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
75-34-3	1,1-Dichloroethane	U	1.29	ug/kg	0.386	1.29
78-93-3	2-Butanone	U	6.44	ug/kg	1.93	6.44
156-59-2	cis-1,2-Dichloroethylene	U	1.29	ug/kg	0.386	1.29
594-20-7	2,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
67-66-3	Chloroform	U	1.29	ug/kg	0.386	1.29
74-97-5	Bromochloromethane	U	1.29	ug/kg	0.425	1.29
71-55-6	1,1,1-Trichloroethane	U	1.29	ug/kg	0.386	1.29
563-58-6	1,1-Dichloropropene	U	1.29	ug/kg	0.386	1.29
56-23-5	Carbon tetrachloride	U	1.29	ug/kg	0.386	1.29
107-06-2	1,2-Dichloroethane	U	1.29	ug/kg	0.386	1.29
71-43-2	Benzene	U	1.29	ug/kg	0.386	1.29
79-01-6	Trichloroethylene	U	1.29	ug/kg	0.425	1.29
78-87-5	1,2-Dichloropropane	U	1.29	ug/kg	0.386	1.29
75-27-4	Bromodichloromethane	U	1.29	ug/kg	0.386	1.29
74-95-3	Dibromomethane	U	1.29	ug/kg	0.386	1.29
108-10-1	4-Methyl-2-pentanone	U	6.44	ug/kg	1.61	6.44
10061-01-5	cis-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
108-88-3	Toluene	U	1.29	ug/kg	0.386	1.29
10061-02-6	trans-1,3-Dichloropropylene	U	1.29	ug/kg	0.386	1.29
79-00-5	1,1,2-Trichloroethane	U	1.29	ug/kg	0.386	1.29
591-78-6	2-Hexanone	U	6.44	ug/kg	1.93	6.44
142-28-9	1,3-Dichloropropane	U	1.29	ug/kg	0.386	1.29
127-18-4	Tetrachloroethylene	U	1.29	ug/kg	0.386	1.29
124-48-1	Dibromochloromethane	U	1.29	ug/kg	0.386	1.29
106-93-4	1,2-Dibromoethane	U	1.29	ug/kg	0.386	1.29
108-90-7	Chlorobenzene	U	1.29	ug/kg	0.386	1.29

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 22:38**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.29	ug/kg	0.386	1.29
179601-23-1	m,p-Xylenes	U	2.57	ug/kg	0.386	2.57
95-47-6	o-Xylene	U	1.29	ug/kg	0.386	1.29
100-42-5	Styrene	U	1.29	ug/kg	0.386	1.29
75-25-2	Bromoform	U	1.29	ug/kg	0.386	1.29
79-34-5	1,1,2,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
96-18-4	1,2,3-Trichloropropane	U	1.29	ug/kg	0.386	1.29
108-86-1	Bromobenzene	U	1.29	ug/kg	0.386	1.29
103-65-1	n-Propylbenzene	U	1.29	ug/kg	0.386	1.29
95-49-8	2-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-82-8	Isopropylbenzene	U	1.29	ug/kg	0.386	1.29
108-67-8	1,3,5-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
106-43-4	4-Chlorotoluene	U	1.29	ug/kg	0.386	1.29
98-06-6	tert-Butylbenzene	U	1.29	ug/kg	0.386	1.29
95-63-6	1,2,4-Trimethylbenzene	U	1.29	ug/kg	0.386	1.29
135-98-8	sec-Butylbenzene	U	1.29	ug/kg	0.386	1.29
99-87-6	4-Isopropyltoluene	U	1.29	ug/kg	0.386	1.29
541-73-1	1,3-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
106-46-7	1,4-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29
104-51-8	n-Butylbenzene	U	1.29	ug/kg	0.386	1.29
96-12-8	1,2-Dibromo-3-chloropropane	U	1.29	ug/kg	0.386	1.29
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.44	ug/kg	2.06	6.44
630-20-6	1,1,1,2-Tetrachloroethane	U	1.29	ug/kg	0.386	1.29
95-50-1	1,2-Dichlorobenzene	U	1.29	ug/kg	0.386	1.29

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX214.D
Acq On : 9 Feb 2010 10:38 pm
Operator : JEB
InstName : VOAA
Sample : |245959002|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 10 13:30:00 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1231770	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	870696	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	499237	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1231770	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	870696	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	499237	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	476268	46.49	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 92.98%					
43) Toluene-d8	10.987	10.987	0.878	98	1155900	49.33	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.66%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	488723	48.10	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.20%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	354	N.D.		
4) Vinyl chloride	4.255	4.265	0.455	62	571	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.096	6.082	0.653	43	3314	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.428	6.428	0.688	76	846	N.D.		
15) Methylene chloride	6.648	6.651	0.712	84	6662	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	9.084	9.084	0.972	78	348	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX214.D
Acq On : 9 Feb 2010 10:38 pm
Operator : JEB
InstName : VOAA
Sample : |245959002|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 10 13:30:00 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.057	11.057	0.884	91	3466	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.617	12.617	1.008	91	3020	N.D.	
55) m,p-Xylenes	12.727	12.730	1.017	106	1613	N.D.	
56) o-Xylene	13.154	13.162	1.051	106	107	N.D.	
57) Styrene	0.000	13.162	0.000		0	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	0.000	13.529	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.	
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.713	13.957	0.918	91	1260	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	14.205	14.198	0.951	91	263	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.530	14.530	0.972	105	731	N.D.	
71) sec-Butylbenzene	14.530	14.718	0.972	105	731	N.D.	
72) 4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	14.887	14.884	0.996	146	125	N.D.	
74) 1,4-Dichlorobenzene	14.972	14.969	1.002	146	510	N.D.	
75) n-Butylbenzene	15.085	15.276	1.009	91	176	N.D.	
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.190	17.183	1.150	180	723	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.529	17.529	1.173	128	2814	N.D.	
81) 1,2,3-Trichlorobenzene	17.839	17.847	1.194	180	557	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	8.441	8.430	0.903	42	112	N.D.	
98) Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX214.D
Acq On : 9 Feb 2010 10:38 pm
Operator : JEB
InstName : VOAA
Sample : |245959002|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 10 13:30:00 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.238	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	15.085	15.082	1.009	91	176	N.D.	
112)	bis(2-Chloroisopropyl)...	15.609	15.485	1.044	45	6355	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX214.D
Acq On : 9 Feb 2010 10:38 pm
Operator : JEB
InstName : VOAA
Sample : |245959002|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Feb 10 13:30:00 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

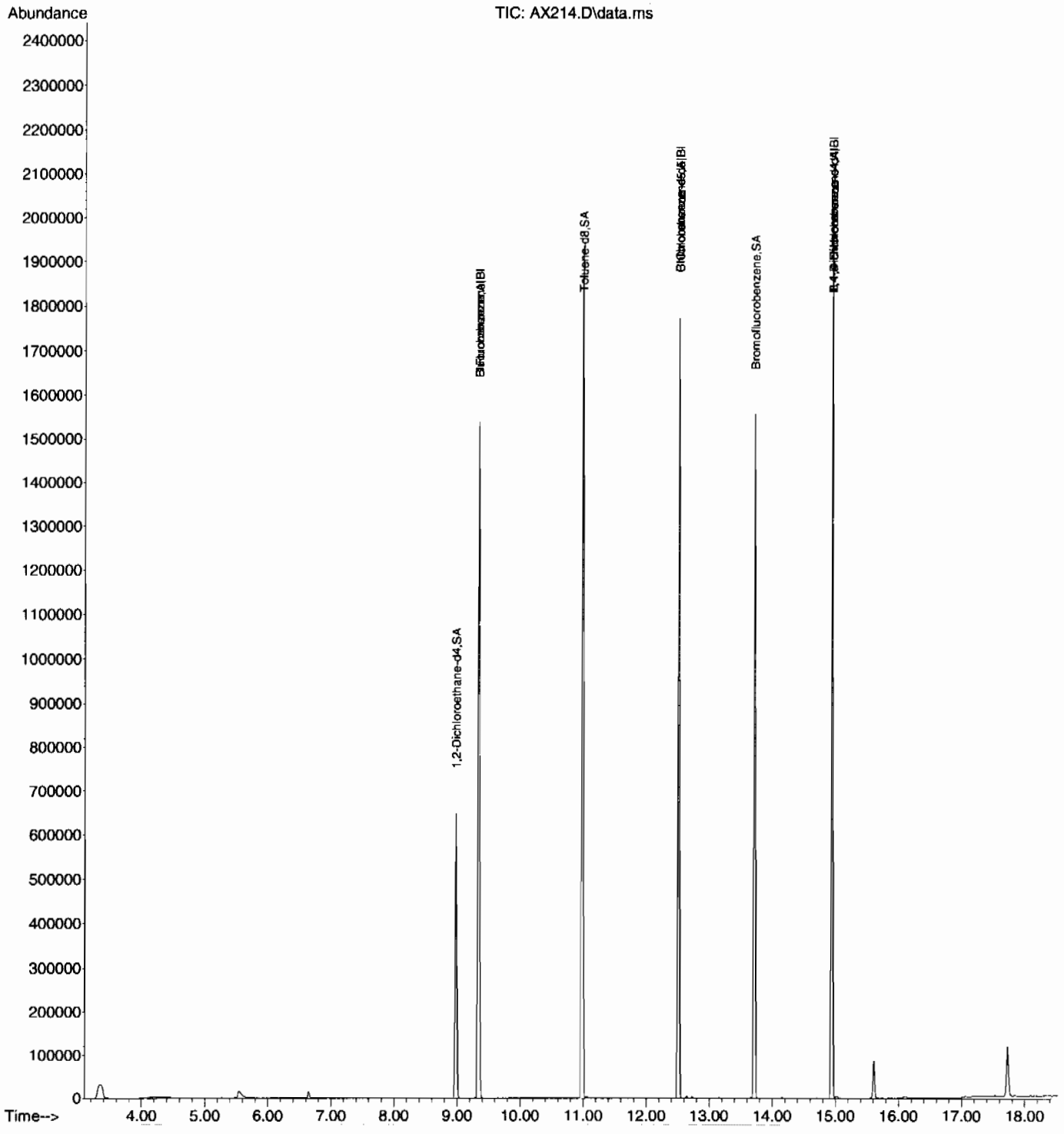

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX214.D
Acq On : 9 Feb 2010 10:38 pm
Operator : JEB
Sample : |245959002|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX214.D
Acq On : 9 Feb 2010 10:38 pm
Operator : JEB
Sample : |245959002|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959003	**Date Received:**	02/02/2010 09:10	**%Moisture:**	8.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7315	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/09/2010 23:04	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:08	**Aliquot:**	5.3 g	**Final Volume:**	5 mL
Data File:	020910\AX215.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.04	ug/kg	0.352	1.04
74-87-3	Chloromethane	U	1.04	ug/kg	0.311	1.04
75-01-4	Vinyl chloride	U	1.04	ug/kg	0.311	1.04
74-83-9	Bromomethane	U	1.04	ug/kg	0.311	1.04
75-00-3	Chloroethane	U	1.04	ug/kg	0.311	1.04
75-69-4	Trichlorofluoromethane	U	1.04	ug/kg	0.311	1.04
67-64-1	Acetone	U	5.18	ug/kg	1.72	5.18
75-35-4	1,1-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
74-88-4	Iodomethane	U	5.18	ug/kg	1.66	5.18
75-09-2	Methylene chloride	U	5.18	ug/kg	2.07	5.18
75-15-0	Carbon disulfide	U	5.18	ug/kg	1.29	5.18
156-60-5	trans-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
75-34-3	1,1-Dichloroethane	U	1.04	ug/kg	0.311	1.04
78-93-3	2-Butanone	U	5.18	ug/kg	1.55	5.18
156-59-2	cis-1,2-Dichloroethylene	U	1.04	ug/kg	0.311	1.04
594-20-7	2,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
67-66-3	Chloroform	U	1.04	ug/kg	0.311	1.04
74-97-5	Bromochloromethane	U	1.04	ug/kg	0.342	1.04
71-55-6	1,1,1-Trichloroethane	U	1.04	ug/kg	0.311	1.04
563-58-6	1,1-Dichloropropene	U	1.04	ug/kg	0.311	1.04
56-23-5	Carbon tetrachloride	U	1.04	ug/kg	0.311	1.04
107-06-2	1,2-Dichloroethane	U	1.04	ug/kg	0.311	1.04
71-43-2	Benzene	U	1.04	ug/kg	0.311	1.04
79-01-6	Trichloroethylene	U	1.04	ug/kg	0.342	1.04
78-87-5	1,2-Dichloropropane	U	1.04	ug/kg	0.311	1.04
75-27-4	Bromodichloromethane	U	1.04	ug/kg	0.311	1.04
74-95-3	Dibromomethane	U	1.04	ug/kg	0.311	1.04
108-10-1	4-Methyl-2-pentanone	U	5.18	ug/kg	1.29	5.18
10061-01-5	cis-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
108-88-3	Toluene	U	1.04	ug/kg	0.311	1.04
10061-02-6	trans-1,3-Dichloropropylene	U	1.04	ug/kg	0.311	1.04
79-00-5	1,1,2-Trichloroethane	U	1.04	ug/kg	0.311	1.04
591-78-6	2-Hexanone	U	5.18	ug/kg	1.55	5.18
142-28-9	1,3-Dichloropropane	U	1.04	ug/kg	0.311	1.04
127-18-4	Tetrachloroethylene	U	1.04	ug/kg	0.311	1.04
124-48-1	Dibromochloromethane	U	1.04	ug/kg	0.311	1.04
106-93-4	1,2-Dibromoethane	U	1.04	ug/kg	0.311	1.04
108-90-7	Chlorobenzene	U	1.04	ug/kg	0.311	1.04

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**8.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7315**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:04**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:08**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.04	ug/kg	0.311	1.04
179601-23-1	m,p-Xylenes	U	2.07	ug/kg	0.311	2.07
95-47-6	o-Xylene	U	1.04	ug/kg	0.311	1.04
100-42-5	Styrene	U	1.04	ug/kg	0.311	1.04
75-25-2	Bromoform	U	1.04	ug/kg	0.311	1.04
79-34-5	1,1,2,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
96-18-4	1,2,3-Trichloropropane	U	1.04	ug/kg	0.311	1.04
108-86-1	Bromobenzene	U	1.04	ug/kg	0.311	1.04
103-65-1	n-Propylbenzene	U	1.04	ug/kg	0.311	1.04
95-49-8	2-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-82-8	Isopropylbenzene	U	1.04	ug/kg	0.311	1.04
108-67-8	1,3,5-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
106-43-4	4-Chlorotoluene	U	1.04	ug/kg	0.311	1.04
98-06-6	tert-Butylbenzene	U	1.04	ug/kg	0.311	1.04
95-63-6	1,2,4-Trimethylbenzene	U	1.04	ug/kg	0.311	1.04
135-98-8	sec-Butylbenzene	U	1.04	ug/kg	0.311	1.04
99-87-6	4-Isopropyltoluene	U	1.04	ug/kg	0.311	1.04
541-73-1	1,3-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
106-46-7	1,4-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04
104-51-8	n-Butylbenzene	U	1.04	ug/kg	0.311	1.04
96-12-8	1,2-Dibromo-3-chloropropane	U	1.04	ug/kg	0.311	1.04
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.18	ug/kg	1.66	5.18
630-20-6	1,1,1,2-Tetrachloroethane	U	1.04	ug/kg	0.311	1.04
95-50-1	1,2-Dichlorobenzene	U	1.04	ug/kg	0.311	1.04

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX215.D
Acq On : 9 Feb 2010 11:04 pm
Operator : JEB
InstName : VOAA
Sample : |245959003|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 10 13:34:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1224743	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	870209	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	507488	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1224743	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	870209	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	507488	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	497883	48.88	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 97.76%					
43) Toluene-d8	10.987	10.987	0.878	98	1148551	49.05	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.10%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	500413	48.45	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.90%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.033	4.043	0.432	50	544	N.D.		
4) Vinyl chloride	4.255	4.265	0.455	62	424	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.103	6.082	0.653	43	2512	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.435	6.428	0.689	76	691	N.D.		
15) Methylene chloride	6.651	6.651	0.712	84	4792	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX215.D
Acq On : 9 Feb 2010 11:04 pm
Operator : JEB
InstName : VOAA
Sample : |245959003|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 10 13:34:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40)	cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44)	Toluene	11.061	11.057	0.884	91	2666	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47)	2-Hexanone	0.000	11.627	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52)	Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54)	Ethylbenzene	12.620	12.617	1.009	91	1102	N.D.	
55)	m,p-Xylenes	12.734	12.730	1.018	106	931	N.D.	
56)	o-Xylene	13.165	13.162	1.052	106	116	N.D.	
57)	Styrene	0.000	13.162	0.000		0	N.D.	
59)	Bromoform	0.000	13.402	0.000		0	N.D.	
60)	Isopropylbenzene	13.667	13.529	0.915	105	886	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	13.879	0.000		0m	N.D.	d
64)	Bromobenzene	0.000	13.918	0.000		0	N.D.	
65)	n-Propylbenzene	14.194	13.957	0.950	91	504	N.D.	
66)	1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67)	2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68)	4-Chlorotoluene	14.194	14.198	0.950	91	504	N.D.	
69)	tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	14.530	14.530	0.972	105	695	N.D.	
71)	sec-Butylbenzene	14.530	14.718	0.972	105	695	N.D.	
72)	4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.976	14.969	1.002	146	511	N.D.	
75)	n-Butylbenzene	0.000	15.276	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.190	17.183	1.150	180	712	N.D.	
79)	Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80)	Naphthalene	17.522	17.529	1.173	128	2601	N.D.	
81)	1,2,3-Trichlorobenzene	17.847	17.847	1.194	180	247	N.D.	
83)	Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85)	Acrolein	0.000	5.898	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88)	Allyl chloride	0.000	6.506	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.	
90)	Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91)	Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94)	Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95)	Propionitrile	0.000	8.122	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	8.430	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX215.D
Acq On : 9 Feb 2010 11:04 pm
Operator : JEB
InstName : VOAA
Sample : |245959003|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 10 13:34:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	10.990	11.238	0.878	69	4279	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	14.944	15.082	1.000	91	1358	N.D.	
112)	bis(2-Chloroisopropyl)...	15.605	15.485	1.044	45	2867	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX215.D
Acq On : 9 Feb 2010 11:04 pm
Operator : JEB
InstName : VOAA
Sample : |245959003|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Feb 10 13:34:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

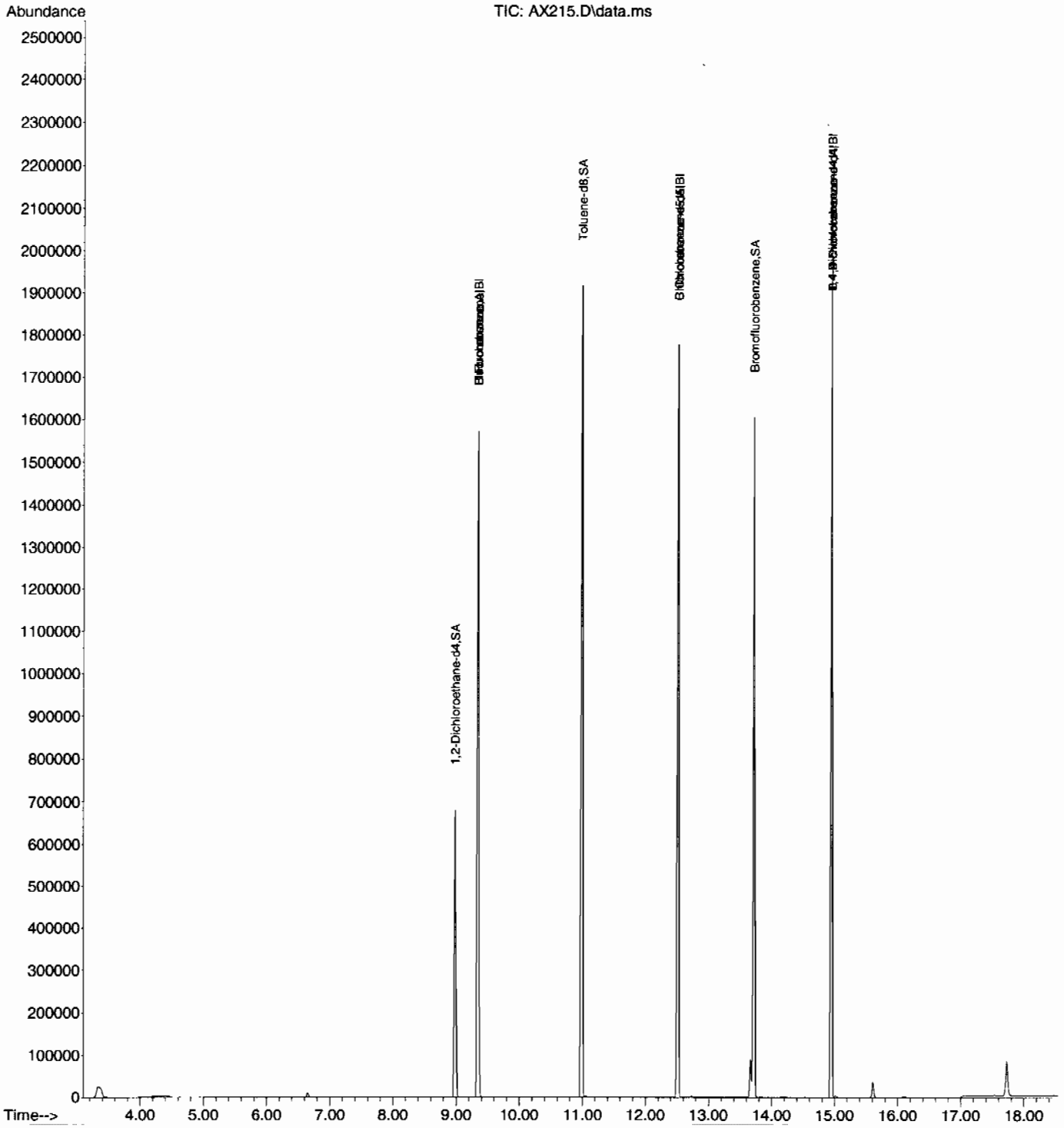

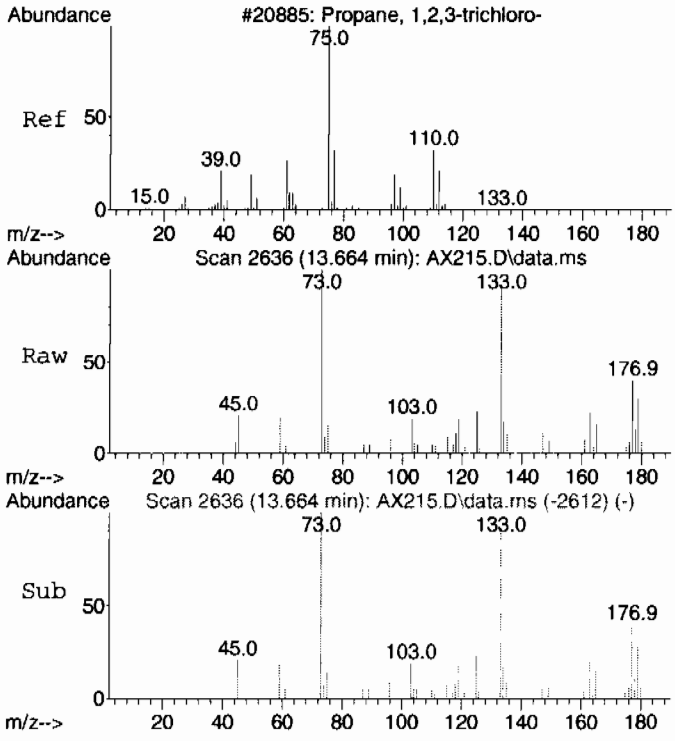

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.34 ug/L
RT: 13.664 min Scan# 2636
Delta R.T. -0.216 min
Lab File: AX215.D
Acq: 9 Feb 2010 11:04 pm

Tgt Ion:110 Resp: 682

Ion	Ratio	Lower	Upper
110	100		
75	531.7	242.8	302.8#
77	0.0	52.2	112.2#

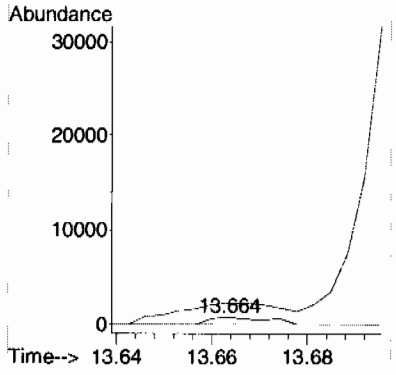

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX215.D
Acq On : 9 Feb 2010 11:04 pm
Operator : JEB
Sample : |245959003|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX215.D
Acq On : 9 Feb 2010 11:04 pm
Operator : JEB
Sample : |245959003|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:30**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.10	ug/kg	0.374	1.10
74-87-3	Chloromethane	U	1.10	ug/kg	0.330	1.10
75-01-4	Vinyl chloride	U	1.10	ug/kg	0.330	1.10
74-83-9	Bromomethane	U	1.10	ug/kg	0.330	1.10
75-00-3	Chloroethane	U	1.10	ug/kg	0.330	1.10
75-69-4	Trichlorofluoromethane	U	1.10	ug/kg	0.330	1.10
67-64-1	Acetone	U	5.49	ug/kg	1.82	5.49
75-35-4	1,1-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
74-88-4	Iodomethane	U	5.49	ug/kg	1.76	5.49
75-09-2	Methylene chloride	U	5.49	ug/kg	2.20	5.49
75-15-0	Carbon disulfide	U	5.49	ug/kg	1.37	5.49
156-60-5	trans-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
75-34-3	1,1-Dichloroethane	U	1.10	ug/kg	0.330	1.10
78-93-3	2-Butanone	U	5.49	ug/kg	1.65	5.49
156-59-2	cis-1,2-Dichloroethylene	U	1.10	ug/kg	0.330	1.10
594-20-7	2,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
67-66-3	Chloroform	U	1.10	ug/kg	0.330	1.10
74-97-5	Bromochloromethane	U	1.10	ug/kg	0.363	1.10
71-55-6	1,1,1-Trichloroethane	U	1.10	ug/kg	0.330	1.10
563-58-6	1,1-Dichloropropene	U	1.10	ug/kg	0.330	1.10
56-23-5	Carbon tetrachloride	U	1.10	ug/kg	0.330	1.10
107-06-2	1,2-Dichloroethane	U	1.10	ug/kg	0.330	1.10
71-43-2	Benzene	U	1.10	ug/kg	0.330	1.10
79-01-6	Trichloroethylene	U	1.10	ug/kg	0.363	1.10
78-87-5	1,2-Dichloropropane	U	1.10	ug/kg	0.330	1.10
75-27-4	Bromodichloromethane	U	1.10	ug/kg	0.330	1.10
74-95-3	Dibromomethane	U	1.10	ug/kg	0.330	1.10
108-10-1	4-Methyl-2-pentanone	U	5.49	ug/kg	1.37	5.49
10061-01-5	cis-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
108-88-3	Toluene	U	1.10	ug/kg	0.330	1.10
10061-02-6	trans-1,3-Dichloropropylene	U	1.10	ug/kg	0.330	1.10
79-00-5	1,1,2-Trichloroethane	U	1.10	ug/kg	0.330	1.10
591-78-6	2-Hexanone	U	5.49	ug/kg	1.65	5.49
142-28-9	1,3-Dichloropropane	U	1.10	ug/kg	0.330	1.10
127-18-4	Tetrachloroethylene	U	1.10	ug/kg	0.330	1.10
124-48-1	Dibromochloromethane	U	1.10	ug/kg	0.330	1.10
106-93-4	1,2-Dibromoethane	U	1.10	ug/kg	0.330	1.10
108-90-7	Chlorobenzene	U	1.10	ug/kg	0.330	1.10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 23:30**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.10	ug/kg	0.330	1.10
179601-23-1	m,p-Xylenes	U	2.20	ug/kg	0.330	2.20
95-47-6	o-Xylene	U	1.10	ug/kg	0.330	1.10
100-42-5	Styrene	U	1.10	ug/kg	0.330	1.10
75-25-2	Bromoform	U	1.10	ug/kg	0.330	1.10
79-34-5	1,1,2,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
96-18-4	1,2,3-Trichloropropane	U	1.10	ug/kg	0.330	1.10
108-86-1	Bromobenzene	U	1.10	ug/kg	0.330	1.10
103-65-1	n-Propylbenzene	U	1.10	ug/kg	0.330	1.10
95-49-8	2-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-82-8	Isopropylbenzene	U	1.10	ug/kg	0.330	1.10
108-67-8	1,3,5-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
106-43-4	4-Chlorotoluene	U	1.10	ug/kg	0.330	1.10
98-06-6	tert-Butylbenzene	U	1.10	ug/kg	0.330	1.10
95-63-6	1,2,4-Trimethylbenzene	U	1.10	ug/kg	0.330	1.10
135-98-8	sec-Butylbenzene	U	1.10	ug/kg	0.330	1.10
99-87-6	4-Isopropyltoluene	U	1.10	ug/kg	0.330	1.10
541-73-1	1,3-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
106-46-7	1,4-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10
104-51-8	n-Butylbenzene	U	1.10	ug/kg	0.330	1.10
96-12-8	1,2-Dibromo-3-chloropropane	U	1.10	ug/kg	0.330	1.10
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.49	ug/kg	1.76	5.49
630-20-6	1,1,1,2-Tetrachloroethane	U	1.10	ug/kg	0.330	1.10
95-50-1	1,2-Dichlorobenzene	U	1.10	ug/kg	0.330	1.10

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX216.D
Acq On : 9 Feb 2010 11:30 pm
Operator : JEB
InstName : VOAA
Sample : |245959004|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 10 13:35:28 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.339	9.342	1.000	96	1192501	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	853820	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	506015	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	9.339	1.000	96	1192501	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	853820	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	506015	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.962	65	485337	48.93	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 97.86%					
43) Toluene-d8	10.987	10.987	0.878	98	1121907	48.83	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 97.66%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	494834	48.05	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.10%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.034	4.043	0.432	50	511	N.D.		
4) Vinyl chloride	4.265	4.265	0.457	62	523	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.096	6.082	0.653	43	2660	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.421	6.428	0.688	76	611	N.D.		
15) Methylene chloride	6.648	6.651	0.712	84	4986	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX216.D
Acq On : 9 Feb 2010 11:30 pm
Operator : JEB
InstName : VOAA
Sample : |245959004|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 10 13:35:28 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40)	cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44)	Toluene	11.061	11.057	0.884	91	1053	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47)	2-Hexanone	0.000	11.627	0.000		0	N.D.	
48)	1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52)	Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54)	Ethylbenzene	12.621	12.617	1.009	91	113	N.D.	
55)	m,p-Xylenes	12.727	12.730	1.017	106	681	N.D.	
56)	o-Xylene	0.000	13.162	0.000		0	N.D.	
57)	Styrene	0.000	13.162	0.000		0	N.D.	
59)	Bromoform	0.000	13.402	0.000		0	N.D.	
60)	Isopropylbenzene	13.664	13.529	0.914	105	1777	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	13.879	0.000		0m	N.D.	d
64)	Bromobenzene	0.000	13.918	0.000		0	N.D.	
65)	n-Propylbenzene	14.120	13.957	0.945	91	119	N.D.	
66)	1,3,5-Trimethylbenzene	14.124	14.116	0.945	105	1069	N.D.	
67)	2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68)	4-Chlorotoluene	0.000	14.198	0.000		0	N.D.	
69)	tert-Butylbenzene	0.000	14.488	0.000		0m	N.D.	d
70)	1,2,4-Trimethylbenzene	0.000	14.530	0.000		0m	N.D.	d
71)	sec-Butylbenzene	0.000	14.718	0.000		0m	N.D.	d
72)	4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.	
74)	1,4-Dichlorobenzene	14.969	14.969	1.002	146	627	N.D.	
75)	n-Butylbenzene	0.000	15.276	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	17.190	17.183	1.150	180	488	N.D.	
79)	Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80)	Naphthalene	17.522	17.529	1.173	128	2189	N.D.	
81)	1,2,3-Trichlorobenzene	17.840	17.847	1.194	180	233	N.D.	
83)	Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85)	Acrolein	0.000	5.898	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88)	Allyl chloride	0.000	6.506	0.000		0	N.D.	
89)	tert-Butyl Alcohol	6.694	6.687	0.717	59	107	N.D.	
90)	Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91)	Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94)	Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95)	Propionitrile	0.000	8.122	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000	8.430	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX216.D
Acq On : 9 Feb 2010 11:30 pm
Operator : JEB
InstName : VOAA
Sample : |245959004|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 10 13:35:28 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	10.994	11.238	0.879	69	3831	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	14.941	15.082	1.000	91	1371	N.D.	
112)	bis(2-Chloroisopropyl)...	15.605	15.485	1.044	45	5788	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX216.D
Acq On : 9 Feb 2010 11:30 pm
Operator : JEB
InstName : VOAA
Sample : |245959004|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Feb 10 13:35:28 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

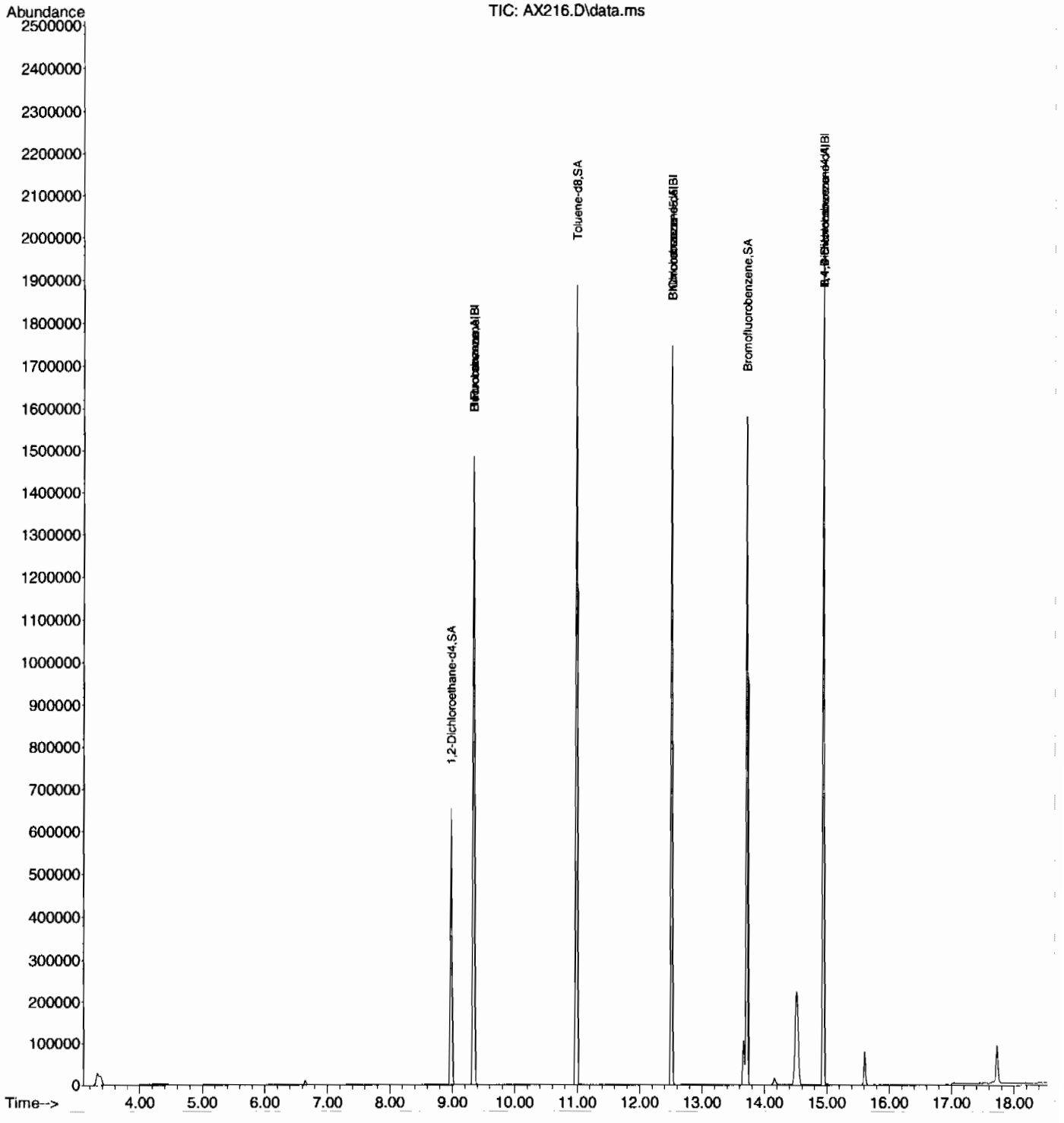

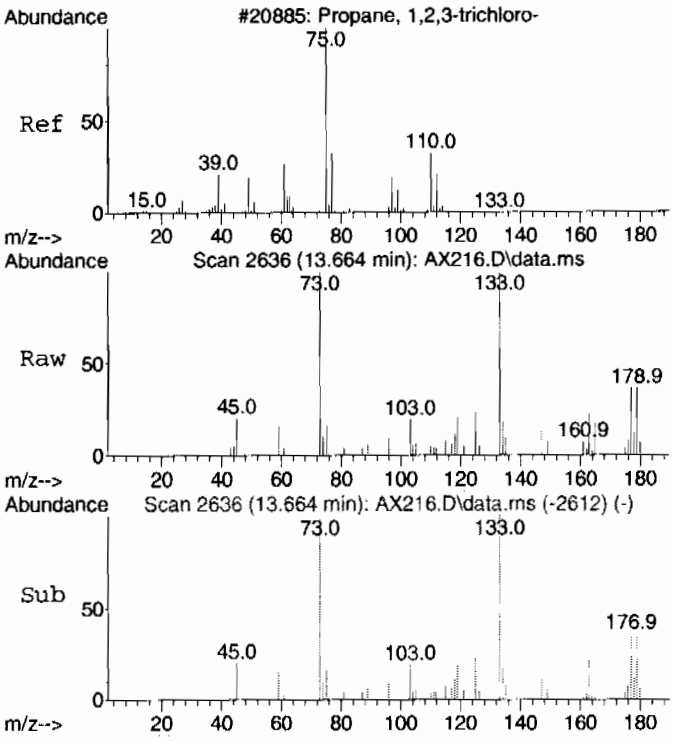

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.61 ug/L
RT: 13.664 min Scan# 2636
Delta R.T. -0.216 min
Lab File: AX216.D
Acq: 9 Feb 2010 11:30 pm

Tgt Ion:110 Resp: 1219

Ion	Ratio	Lower	Upper
110	100		
75	369.2	242.8	302.8#
77	0.0	52.2	112.2#

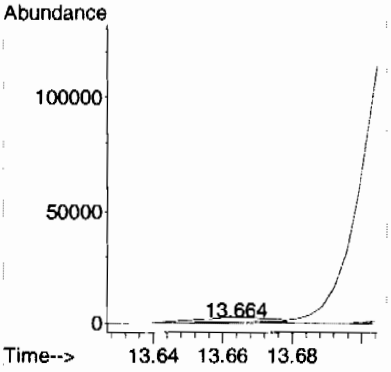

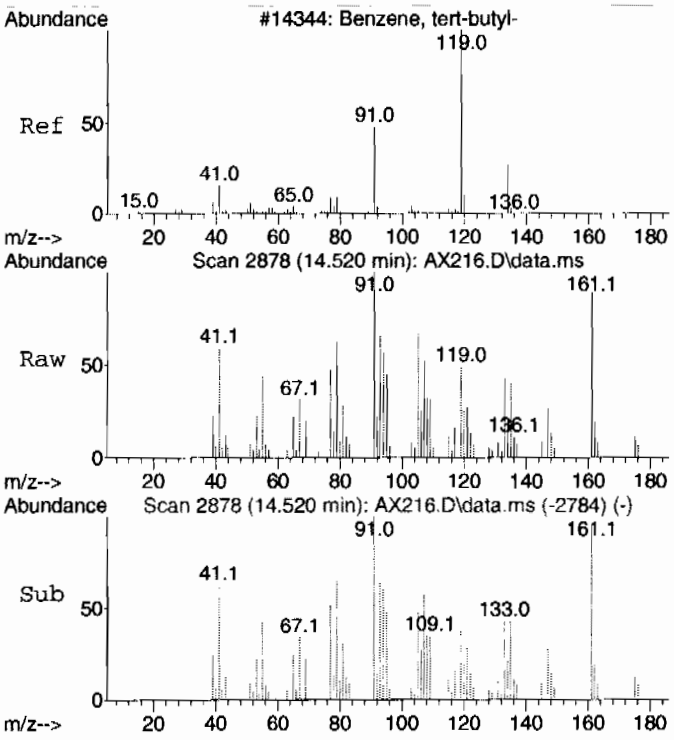

#69 BEFORE analyst DELETION
tert-Butylbenzene
Concen: 2.10 ug/L
RT: 14.520 min Scan# 2878
Delta R.T. 0.032 min
Lab File: AX216.D
Acq: 9 Feb 2010 11:30 pm

Tgt Ion:134 Resp: 9752

Ion	Ratio	Lower	Upper
134	100		
119	293.5	420.0	480.0#
91	565.6	318.4	378.4#

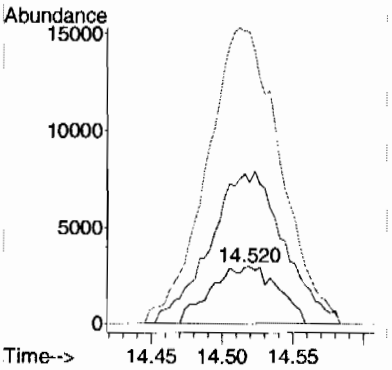

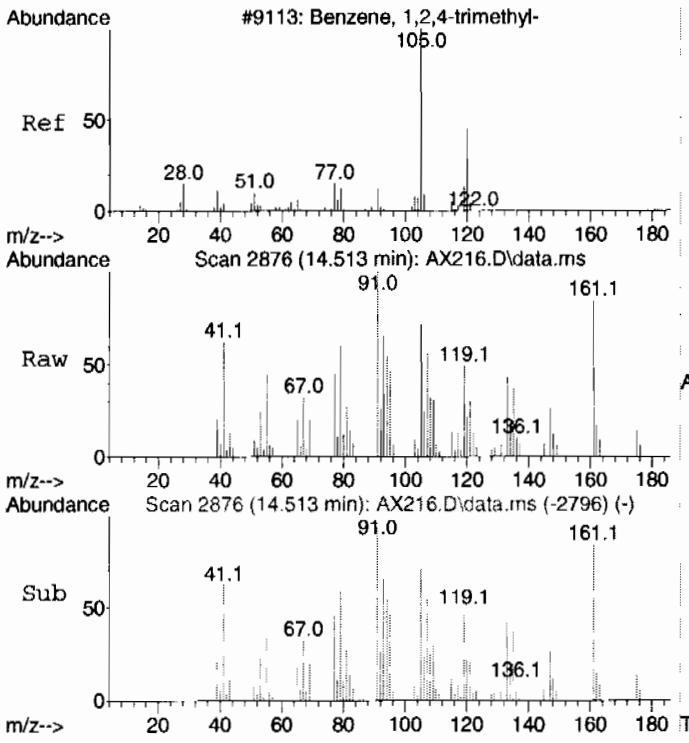

#70 BEFORE analyst DELETION
1,2,4-Trimethylbenzene
Concen: 1.60 ug/L
RT: 14.513 min Scan# 2876
Delta R.T. -0.017 min
Lab File: AX216.D
Acq: 9 Feb 2010 11:30 pm

Tgt Ion:105 Resp: 40000

Ion	Ratio	Lower	Upper
105	100		
120	32.5	11.4	71.4

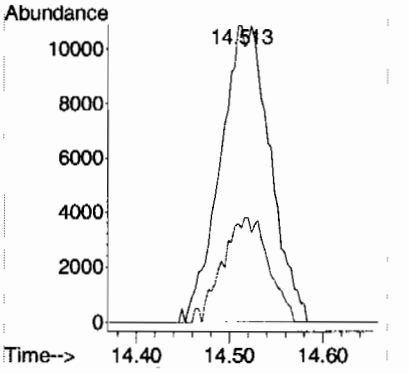

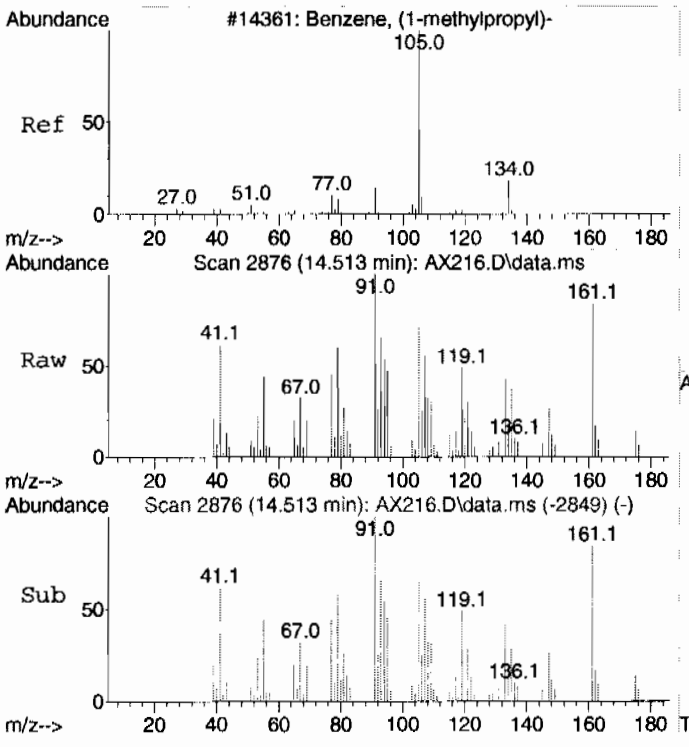

#71 BEFORE analyst DELETION
sec-Butylbenzene
Concen: 1.29 ug/L
RT: 14.513 min Scan# 2876
Delta R.T. -0.205 min
Lab File: AX216.D
Acq: 9 Feb 2010 11:30 pm

Tgt Ion:105 Resp: 40000

Ion	Ratio	Lower	Upper
105	100		
134	24.4	0.0	48.7

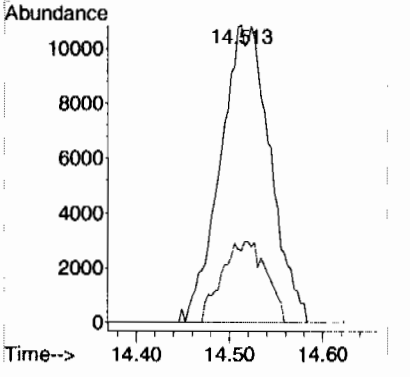

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX216.D
Acq On : 9 Feb 2010 11:30 pm
Operator : JEB
Sample : |245959004|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX216.D
Acq On : 9 Feb 2010 11:30 pm
Operator : JEB
Sample : |245959004|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959005	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7319	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/09/2010 23:57	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX217.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.12	ug/kg	0.381	1.12
74-87-3	Chloromethane	U	1.12	ug/kg	0.336	1.12
75-01-4	Vinyl chloride	U	1.12	ug/kg	0.336	1.12
74-83-9	Bromomethane	U	1.12	ug/kg	0.336	1.12
75-00-3	Chloroethane	U	1.12	ug/kg	0.336	1.12
75-69-4	Trichlorofluoromethane	U	1.12	ug/kg	0.336	1.12
67-64-1	Acetone	U	5.60	ug/kg	1.86	5.60
75-35-4	1,1-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
74-88-4	Iodomethane	U	5.60	ug/kg	1.79	5.60
75-09-2	Methylene chloride	U	5.60	ug/kg	2.24	5.60
75-15-0	Carbon disulfide	U	5.60	ug/kg	1.40	5.60
156-60-5	trans-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
75-34-3	1,1-Dichloroethane	U	1.12	ug/kg	0.336	1.12
78-93-3	2-Butanone	U	5.60	ug/kg	1.68	5.60
156-59-2	cis-1,2-Dichloroethylene	U	1.12	ug/kg	0.336	1.12
594-20-7	2,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
67-66-3	Chloroform	U	1.12	ug/kg	0.336	1.12
74-97-5	Bromochloromethane	U	1.12	ug/kg	0.370	1.12
71-55-6	1,1,1-Trichloroethane	U	1.12	ug/kg	0.336	1.12
563-58-6	1,1-Dichloropropene	U	1.12	ug/kg	0.336	1.12
56-23-5	Carbon tetrachloride	U	1.12	ug/kg	0.336	1.12
107-06-2	1,2-Dichloroethane	U	1.12	ug/kg	0.336	1.12
71-43-2	Benzene	U	1.12	ug/kg	0.336	1.12
79-01-6	Trichloroethylene	U	1.12	ug/kg	0.370	1.12
78-87-5	1,2-Dichloropropane	U	1.12	ug/kg	0.336	1.12
75-27-4	Bromodichloromethane	U	1.12	ug/kg	0.336	1.12
74-95-3	Dibromomethane	U	1.12	ug/kg	0.336	1.12
108-10-1	4-Methyl-2-pentanone	U	5.60	ug/kg	1.40	5.60
10061-01-5	cis-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
108-88-3	Toluene	U	1.12	ug/kg	0.336	1.12
10061-02-6	trans-1,3-Dichloropropylene	U	1.12	ug/kg	0.336	1.12
79-00-5	1,1,2-Trichloroethane	U	1.12	ug/kg	0.336	1.12
591-78-6	2-Hexanone	U	5.60	ug/kg	1.68	5.60
142-28-9	1,3-Dichloropropane	U	1.12	ug/kg	0.336	1.12
127-18-4	Tetrachloroethylene	U	1.12	ug/kg	0.336	1.12
124-48-1	Dibromochloromethane	U	1.12	ug/kg	0.336	1.12
106-93-4	1,2-Dibromoethane	U	1.12	ug/kg	0.336	1.12
108-90-7	Chlorobenzene	U	1.12	ug/kg	0.336	1.12

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959005	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7319	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/09/2010 23:57	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:10	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX217.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.12	ug/kg	0.336	1.12
179601-23-1	m,p-Xylenes	U	2.24	ug/kg	0.336	2.24
95-47-6	o-Xylene	U	1.12	ug/kg	0.336	1.12
100-42-5	Styrene	U	1.12	ug/kg	0.336	1.12
75-25-2	Bromoform	U	1.12	ug/kg	0.336	1.12
79-34-5	1,1,2,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
96-18-4	1,2,3-Trichloropropane	U	1.12	ug/kg	0.336	1.12
108-86-1	Bromobenzene	U	1.12	ug/kg	0.336	1.12
103-65-1	n-Propylbenzene	U	1.12	ug/kg	0.336	1.12
95-49-8	2-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-82-8	Isopropylbenzene	U	1.12	ug/kg	0.336	1.12
108-67-8	1,3,5-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
106-43-4	4-Chlorotoluene	U	1.12	ug/kg	0.336	1.12
98-06-6	tert-Butylbenzene	U	1.12	ug/kg	0.336	1.12
95-63-6	1,2,4-Trimethylbenzene	U	1.12	ug/kg	0.336	1.12
135-98-8	sec-Butylbenzene	U	1.12	ug/kg	0.336	1.12
99-87-6	4-Isopropyltoluene	U	1.12	ug/kg	0.336	1.12
541-73-1	1,3-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
106-46-7	1,4-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12
104-51-8	n-Butylbenzene	U	1.12	ug/kg	0.336	1.12
96-12-8	1,2-Dibromo-3-chloropropane	U	1.12	ug/kg	0.336	1.12
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.60	ug/kg	1.79	5.60
630-20-6	1,1,1,2-Tetrachloroethane	U	1.12	ug/kg	0.336	1.12
95-50-1	1,2-Dichlorobenzene	U	1.12	ug/kg	0.336	1.12

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX217.D
Acq On : 9 Feb 2010 11:57 pm
Operator : JEB
InstName : VOAA
Sample : |245959005|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 10 13:30:06 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1180078	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	841970	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	489686	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1180078	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	841970	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	489686	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	483027	49.21	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 98.42%					
43) Toluene-d8	10.987	10.987	0.878	98	1114137	49.17	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.34%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	479352	48.10	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.20%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	569	N.D.		
4) Vinyl chloride	4.255	4.265	0.455	62	538	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.096	6.082	0.653	43	1975	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.425	6.428	0.688	76	222	N.D.		
15) Methylene chloride	6.648	6.651	0.712	84	4103	Below Cal		95
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX217.D
Acq On : 9 Feb 2010 11:57 pm
Operator : JEB
InstName : VOAA
Sample : |245959005|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 10 13:30:06 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.058	11.057	0.884	91	1597	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.617	12.617	1.008	91	970	N.D.	
55) m,p-Xylenes	12.734	12.730	1.018	106	868	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	0.000	13.162	0.000		0	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	13.710	13.529	0.917	105	110	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.	
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.720	13.957	0.918	91	1293	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.198	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.527	14.530	0.972	105	359	N.D.	
71) sec-Butylbenzene	14.527	14.718	0.972	105	359	N.D.	
72) 4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	14.972	14.969	1.002	146	237	N.D.	
75) n-Butylbenzene	0.000	15.276	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	494	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.530	17.529	1.173	128	1868	N.D.	
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.194	180	276	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	8.434	8.430	0.903	42	119	N.D.	
98) Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX217.D
Acq On : 9 Feb 2010 11:57 pm
Operator : JEB
InstName : VOAA
Sample : |245959005|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 10 13:30:06 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	10.994	11.238	0.879	69	4036	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	14.941	15.082	1.000	91	1143	N.D.	
112)	bis(2-Chloroisopropyl)...	15.612	15.485	1.045	45	1570	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX217.D
Acq On : 9 Feb 2010 11:57 pm
Operator : JEB
InstName : VOAA
Sample : |245959005|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 10 13:30:06 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

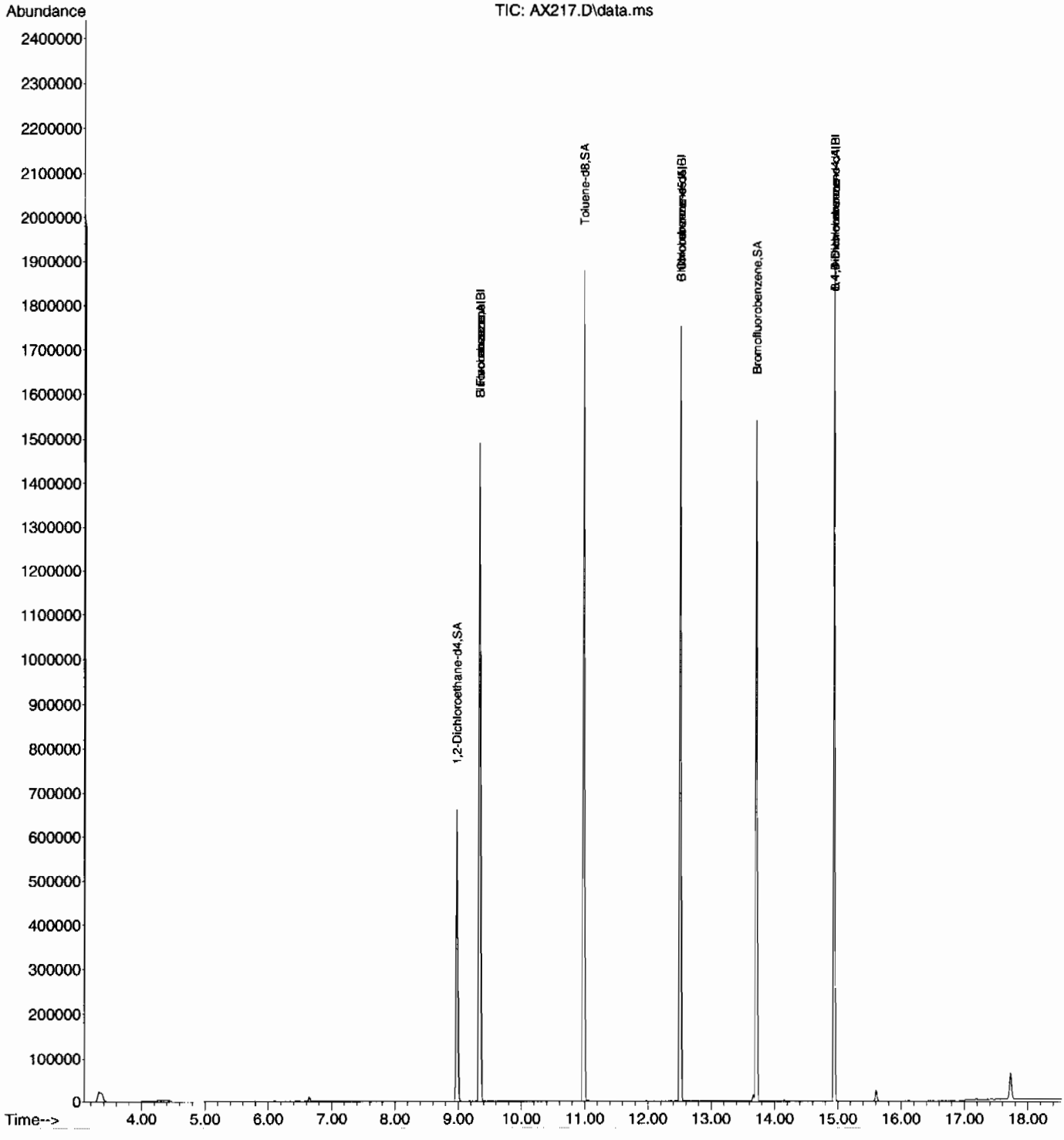

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX217.D
Acq On : 9 Feb 2010 11:57 pm
Operator : JEB
Sample : |245959005|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX217.D
Acq On : 9 Feb 2010 11:57 pm
Operator : JEB
Sample : |245959005|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959006**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**29.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7312**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 00:23**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:11**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.31	ug/kg	0.446	1.31
74-87-3	Chloromethane	U	1.31	ug/kg	0.393	1.31
75-01-4	Vinyl chloride	U	1.31	ug/kg	0.393	1.31
74-83-9	Bromomethane	U	1.31	ug/kg	0.393	1.31
75-00-3	Chloroethane	U	1.31	ug/kg	0.393	1.31
75-69-4	Trichlorofluoromethane	U	1.31	ug/kg	0.393	1.31
67-64-1	Acetone		18.8	ug/kg	2.18	6.55
75-35-4	1,1-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
74-88-4	Iodomethane	U	6.55	ug/kg	2.10	6.55
75-09-2	Methylene chloride	U	6.55	ug/kg	2.62	6.55
75-15-0	Carbon disulfide	U	6.55	ug/kg	1.64	6.55
156-60-5	trans-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
75-34-3	1,1-Dichloroethane	U	1.31	ug/kg	0.393	1.31
78-93-3	2-Butanone	U	6.55	ug/kg	1.97	6.55
156-59-2	cis-1,2-Dichloroethylene	U	1.31	ug/kg	0.393	1.31
594-20-7	2,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
67-66-3	Chloroform	U	1.31	ug/kg	0.393	1.31
74-97-5	Bromochloromethane	U	1.31	ug/kg	0.433	1.31
71-55-6	1,1,1-Trichloroethane	U	1.31	ug/kg	0.393	1.31
563-58-6	1,1-Dichloropropene	U	1.31	ug/kg	0.393	1.31
56-23-5	Carbon tetrachloride	U	1.31	ug/kg	0.393	1.31
107-06-2	1,2-Dichloroethane	U	1.31	ug/kg	0.393	1.31
71-43-2	Benzene	U	1.31	ug/kg	0.393	1.31
79-01-6	Trichloroethylene	U	1.31	ug/kg	0.433	1.31
78-87-5	1,2-Dichloropropane	U	1.31	ug/kg	0.393	1.31
75-27-4	Bromodichloromethane	U	1.31	ug/kg	0.393	1.31
74-95-3	Dibromomethane	U	1.31	ug/kg	0.393	1.31
108-10-1	4-Methyl-2-pentanone	U	6.55	ug/kg	1.64	6.55
10061-01-5	cis-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
108-88-3	Toluene	U	1.31	ug/kg	0.393	1.31
10061-02-6	trans-1,3-Dichloropropylene	U	1.31	ug/kg	0.393	1.31
79-00-5	1,1,2-Trichloroethane	U	1.31	ug/kg	0.393	1.31
591-78-6	2-Hexanone	U	6.55	ug/kg	1.97	6.55
142-28-9	1,3-Dichloropropane	U	1.31	ug/kg	0.393	1.31
127-18-4	Tetrachloroethylene	U	1.31	ug/kg	0.393	1.31
124-48-1	Dibromochloromethane	U	1.31	ug/kg	0.393	1.31
106-93-4	1,2-Dibromoethane	U	1.31	ug/kg	0.393	1.31
108-90-7	Chlorobenzene	U	1.31	ug/kg	0.393	1.31

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959006**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**29.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7312**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 00:23**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:11**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.31	ug/kg	0.393	1.31
179601-23-1	m,p-Xylenes	J	0.406	ug/kg	0.393	2.62
95-47-6	o-Xylene	U	1.31	ug/kg	0.393	1.31
100-42-5	Styrene	U	1.31	ug/kg	0.393	1.31
75-25-2	Bromoform	U	1.31	ug/kg	0.393	1.31
79-34-5	1,1,2,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
96-18-4	1,2,3-Trichloropropane	U	1.31	ug/kg	0.393	1.31
108-86-1	Bromobenzene	U	1.31	ug/kg	0.393	1.31
103-65-1	n-Propylbenzene	U	1.31	ug/kg	0.393	1.31
95-49-8	2-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-82-8	Isopropylbenzene	U	1.31	ug/kg	0.393	1.31
108-67-8	1,3,5-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
106-43-4	4-Chlorotoluene	U	1.31	ug/kg	0.393	1.31
98-06-6	tert-Butylbenzene	U	1.31	ug/kg	0.393	1.31
95-63-6	1,2,4-Trimethylbenzene	U	1.31	ug/kg	0.393	1.31
135-98-8	sec-Butylbenzene	U	1.31	ug/kg	0.393	1.31
99-87-6	4-Isopropyltoluene		1.51	ug/kg	0.393	1.31
541-73-1	1,3-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
106-46-7	1,4-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31
104-51-8	n-Butylbenzene	U	1.31	ug/kg	0.393	1.31
96-12-8	1,2-Dibromo-3-chloropropane	U	1.31	ug/kg	0.393	1.31
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	6.55	ug/kg	2.10	6.55
630-20-6	1,1,1,2-Tetrachloroethane	U	1.31	ug/kg	0.393	1.31
95-50-1	1,2-Dichlorobenzene	U	1.31	ug/kg	0.393	1.31

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.36	8.26	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX218.D
Acq On : 10 Feb 2010 12:23 am
Operator : JEB
InstName : VOAA
Sample : |245959006|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 10 13:30:08 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1170030	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	821431	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	469284	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1170030	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	821431	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	469284	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.978	8.982	0.961	65	458943	47.16	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 94.32%					
43) Toluene-d8	10.987	10.987	0.878	98	1093484	49.47	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.94%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	461642	48.34	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.68%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	0.000	4.043	0.000		0	N.D.		
4) Vinyl chloride	4.265	4.265	0.457	62	551	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.085	6.082	0.651	43	80350	14.36	ug/L	96
10) 1,1-Dichloroethylene	6.223	6.082	0.666	61	235	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	6.238	6.481	0.668	43	107	N.D.		
14) Carbon disulfide	6.421	6.428	0.687	76	653	N.D.		
15) Methylene chloride	6.648	6.651	0.712	84	9111	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	8.069	8.062	0.864	43	4602	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	8.787	8.791	0.941	56	2486	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	9.088	9.084	0.973	78	113	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX218.D
Acq On : 10 Feb 2010 12:23 am
Operator : JEB
InstName : VOAA
Sample : |245959006|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 10 13:30:08 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.		
44) Toluene	11.058	11.057	0.884	91	5263	N.D.		
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.		
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.		
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.		
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.		
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.		
54) Ethylbenzene	12.649	12.617	1.011	91	5786	N.D.		
55) m,p-Xylenes	12.727	12.730	1.017	106	2980	0.31	ug/L	98
56) o-Xylene	13.162	13.162	1.052	106	1039	N.D.		
57) Styrene	0.000	13.162	0.000		0	N.D.		
59) Bromoform	0.000	13.402	0.000		0	N.D.		
60) Isopropylbenzene	13.551	13.529	0.907	105	3085	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.		
64) Bromobenzene	0.000	13.918	0.000		0	N.D.		
65) n-Propylbenzene	13.957	13.957	0.934	91	114	N.D.		
66) 1,3,5-Trimethylbenzene	14.117	14.116	0.945	105	115	N.D.		
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.		
68) 4-Chlorotoluene	14.201	14.198	0.950	91	111	N.D.		
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	14.527	14.530	0.972	105	2034	N.D.		
71) sec-Butylbenzene	14.937	14.718	1.000	105	1756	N.D.		
72) 4-Isopropyltoluene	14.845	14.841	0.993	119	26698	1.15	ug/L	89
73) 1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	14.972	14.969	1.002	146	230	N.D.		
75) n-Butylbenzene	15.132	15.276	1.013	91	6334	N.D.		
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	529	N.D.		
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.		
80) Naphthalene	17.530	17.529	1.173	128	2224	N.D.		
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.194	180	114	N.D.		
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.		
85) Acrolein	0.000	5.898	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.		
87) Isopropyl Alcohol	6.202	6.188	0.664	45	5556	N.D.		
88) Allyl chloride	0.000	6.506	0.000		0	N.D.		
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.		
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.		
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.		
94) Ethyl acetate	8.069	8.094	0.864	43	4602	N.D.		
95) Propionitrile	0.000	8.122	0.000		0	N.D.		
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.		
97) Tetrahydrofuran	8.430	8.430	0.902	42	116	N.D.		
98) Isobutyl alcohol	8.787	8.777	0.941	41	1124	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX218.D
Acq On : 10 Feb 2010 12:23 am
Operator : JEB
InstName : VOAA
Sample : |245959006|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 10 13:30:08 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	10.990	11.238	0.878	69	4093	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	13.551	13.554	0.907	53	2508	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	15.132	15.082	1.013	91	6334	N.D.	
112)	bis(2-Chloroisopropyl)...	15.605	15.485	1.044	45	1759	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX218.D
Acq On : 10 Feb 2010 12:23 am
Operator : JEB
InstName : VOAA
Sample : |245959006|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 10 13:30:08 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

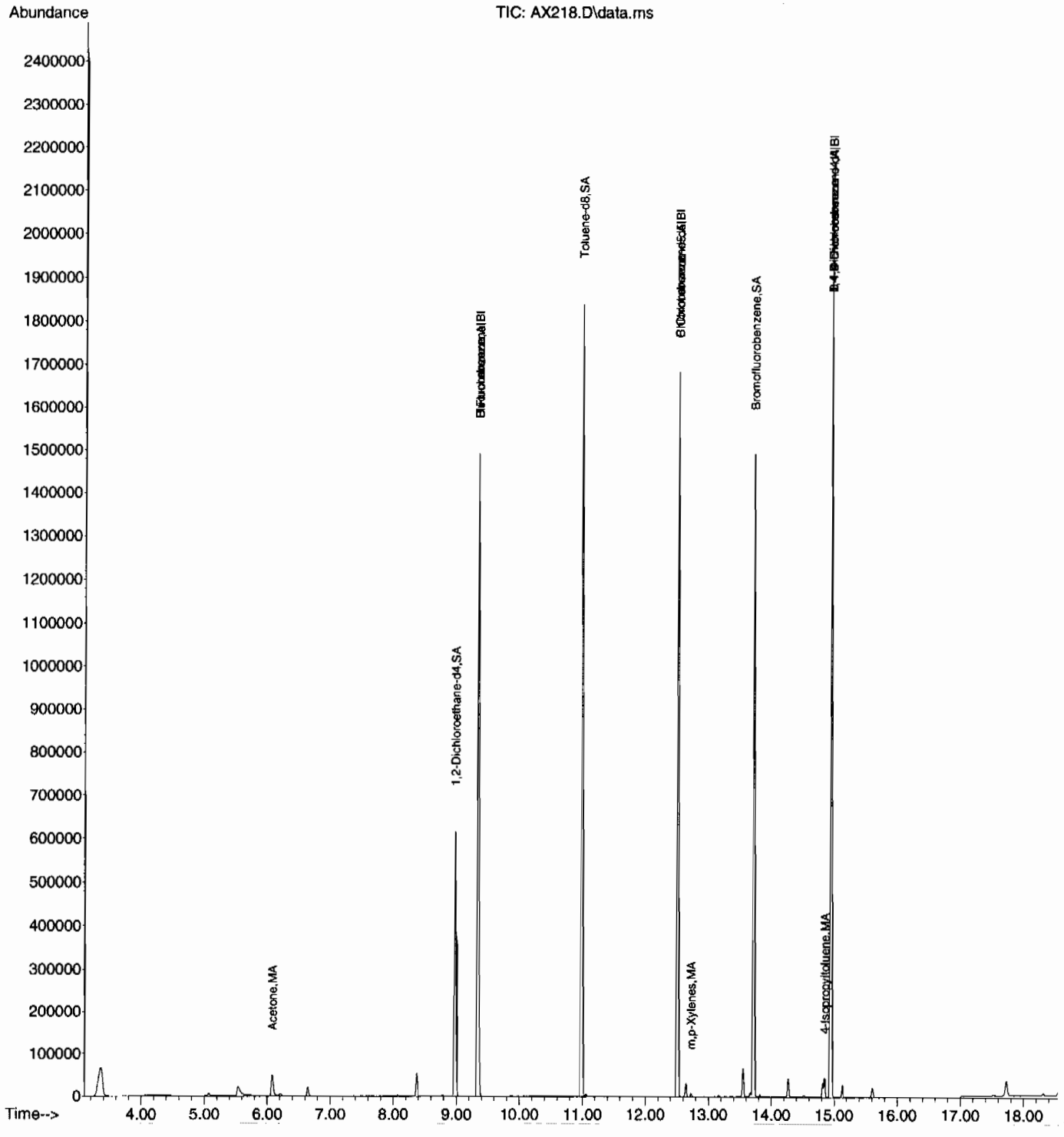

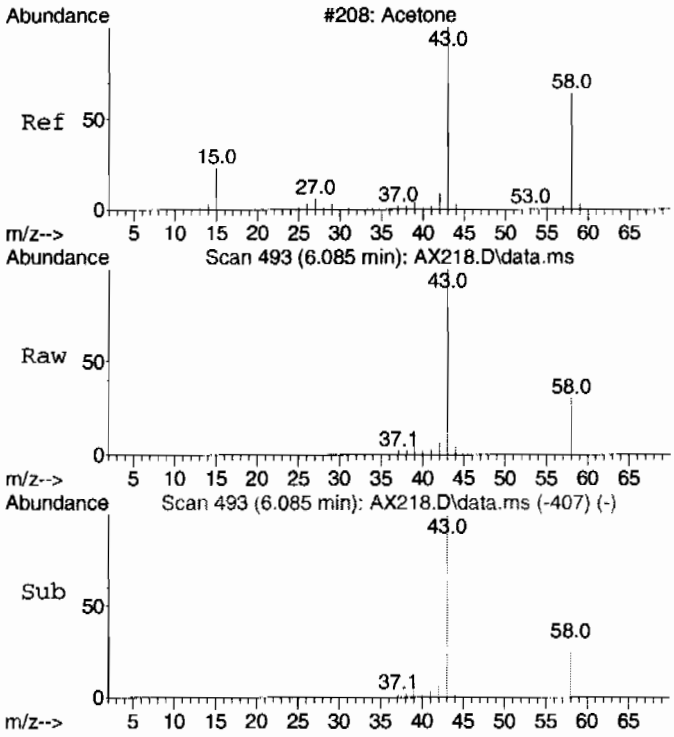

#9
Acetone
Concen: 14.36 ug/L
RT: 6.085 min Scan# 493
Delta R.T. 0.003 min
Lab File: AX218.D
Acq: 10 Feb 2010 12:23 am

Tgt Ion: 43 Resp: 80350

Ion	Ratio	Lower	Upper
43	100		
58	28.6	0.0	56.6

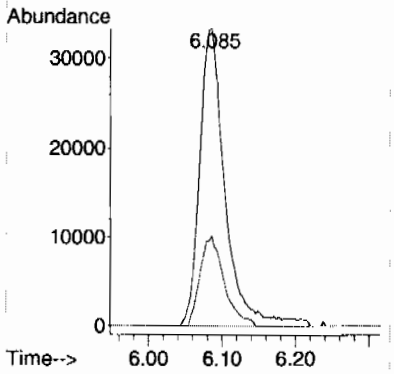

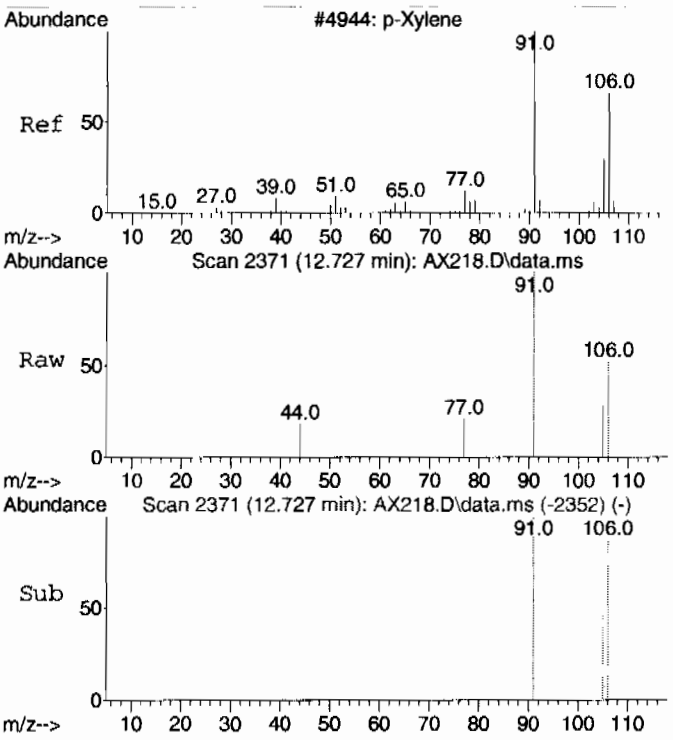

#55
m,p-Xylenes
Concen: 0.31 ug/L
RT: 12.727 min Scan# 2371
Delta R.T. -0.003 min
Lab File: AX218.D
Acq: 10 Feb 2010 12:23 am

Tgt Ion:106 Resp: 2980

Ion	Ratio	Lower	Upper
106	100		
91	225.5	192.3	252.3

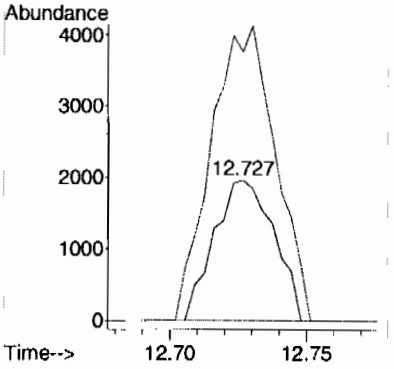

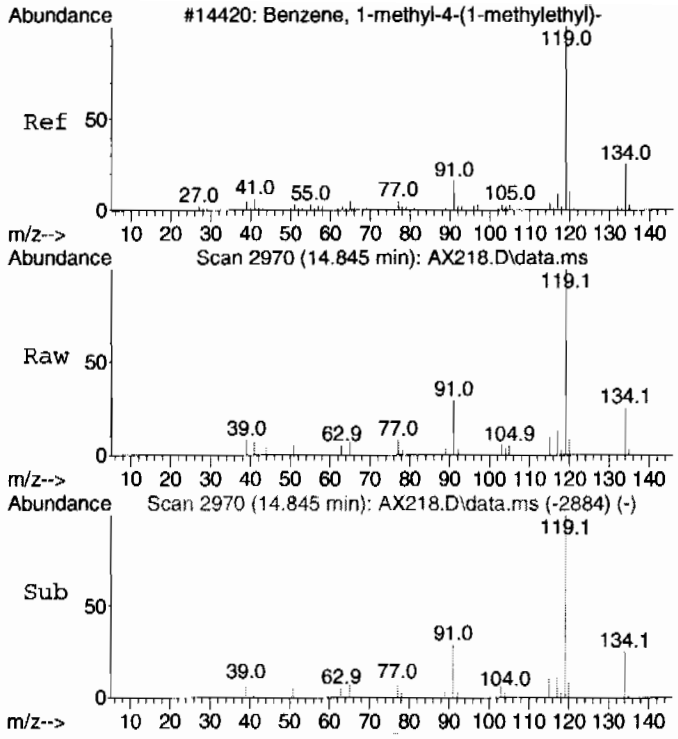

#72
4-Isopropyltoluene
Concen: 1.15 ug/L
RT: 14.845 min Scan# 2970
Delta R.T. 0.004 min
Lab File: AX218.D
Acq: 10 Feb 2010 12:23 am

Tgt Ion:119 Resp: 26698

Ion	Ratio	Lower	Upper
119	100		
134	24.4	0.0	54.5
91	38.5	0.0	58.0

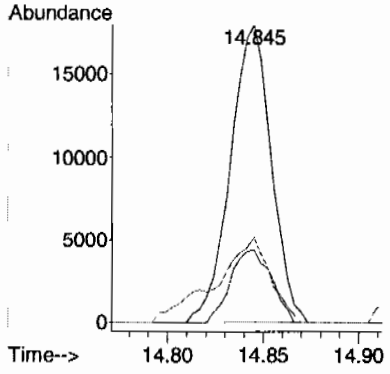

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX218.D
Acq On : 10 Feb 2010 12:23 am
Operator : JEB
Sample : |245959006|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.359	6.30 ug/L	329338	Fluorobenzene	9.342

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydrazine, methyl-	46	CH6N2	000060-34-4	4
2	Formic acid	46	CH2O2	000064-18-6	4
3	Ethene, fluoro-	46	C2H3F	000075-02-5	3
4	Formic acid	46	CH2O2	000064-18-6	3
5	Hydrazine, methyl-	46	CH6N2	000060-34-4	3

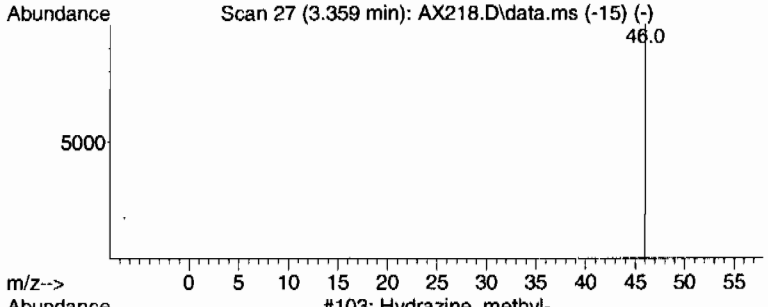

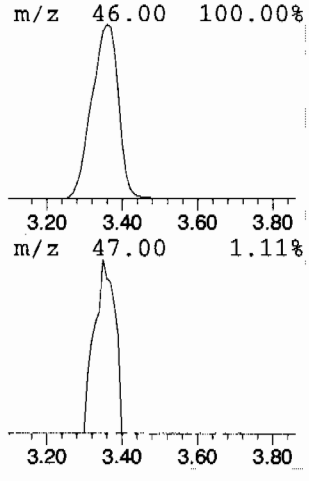

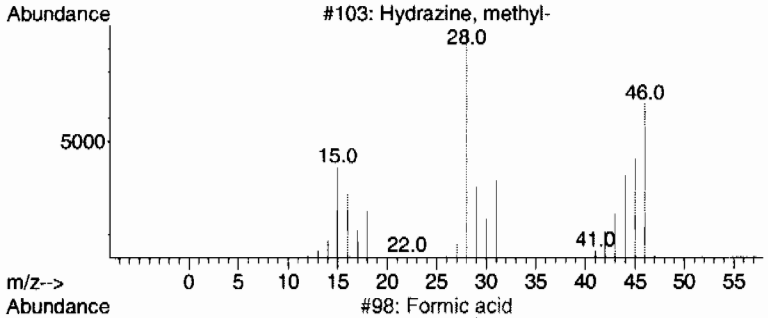

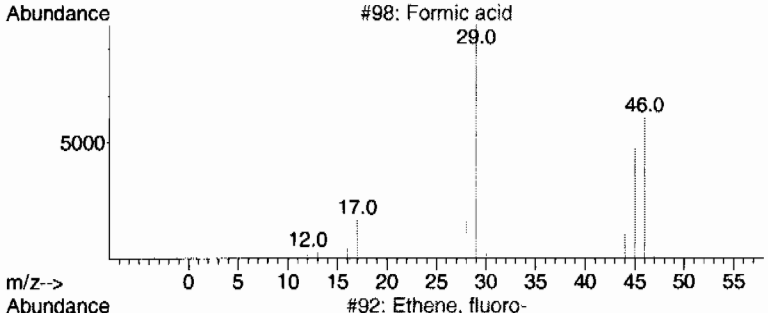

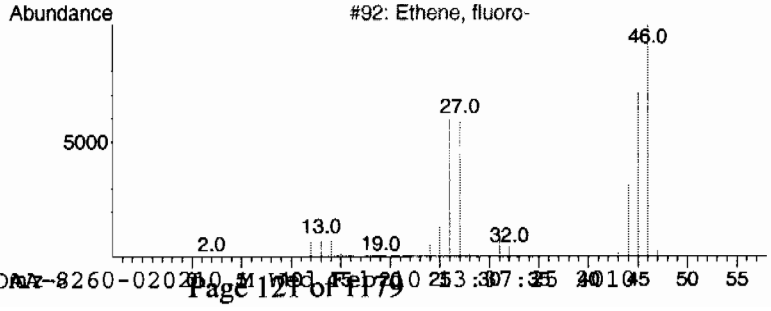

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX218.D
Acq On : 10 Feb 2010 12:23 am
Operator : JEB
Sample : |245959006|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.359	6.3	ug/L	329338	1	9.342	2614900	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959007	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7313	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 00:50	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:12	**Aliquot:**	5.4 g	**Final Volume:**	5 mL
Data File:	020910\AX219.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.03	ug/kg	0.349	1.03
74-87-3	Chloromethane	U	1.03	ug/kg	0.308	1.03
75-01-4	Vinyl chloride	U	1.03	ug/kg	0.308	1.03
74-83-9	Bromomethane	U	1.03	ug/kg	0.308	1.03
75-00-3	Chloroethane	U	1.03	ug/kg	0.308	1.03
75-69-4	Trichlorofluoromethane	U	1.03	ug/kg	0.308	1.03
67-64-1	Acetone	U	5.13	ug/kg	1.70	5.13
75-35-4	1,1-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
74-88-4	Iodomethane	U	5.13	ug/kg	1.64	5.13
75-09-2	Methylene chloride	U	5.13	ug/kg	2.05	5.13
75-15-0	Carbon disulfide	U	5.13	ug/kg	1.28	5.13
156-60-5	trans-1,2-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
75-34-3	1,1-Dichloroethane	U	1.03	ug/kg	0.308	1.03
78-93-3	2-Butanone	U	5.13	ug/kg	1.54	5.13
156-59-2	cis-1,2-Dichloroethylene	U	1.03	ug/kg	0.308	1.03
594-20-7	2,2-Dichloropropane	U	1.03	ug/kg	0.308	1.03
67-66-3	Chloroform	U	1.03	ug/kg	0.308	1.03
74-97-5	Bromochloromethane	U	1.03	ug/kg	0.338	1.03
71-55-6	1,1,1-Trichloroethane	U	1.03	ug/kg	0.308	1.03
563-58-6	1,1-Dichloropropene	U	1.03	ug/kg	0.308	1.03
56-23-5	Carbon tetrachloride	U	1.03	ug/kg	0.308	1.03
107-06-2	1,2-Dichloroethane	U	1.03	ug/kg	0.308	1.03
71-43-2	Benzene	U	1.03	ug/kg	0.308	1.03
79-01-6	Trichloroethylene	U	1.03	ug/kg	0.338	1.03
78-87-5	1,2-Dichloropropane	U	1.03	ug/kg	0.308	1.03
75-27-4	Bromodichloromethane	U	1.03	ug/kg	0.308	1.03
74-95-3	Dibromomethane	U	1.03	ug/kg	0.308	1.03
108-10-1	4-Methyl-2-pentanone	U	5.13	ug/kg	1.28	5.13
10061-01-5	cis-1,3-Dichloropropylene	U	1.03	ug/kg	0.308	1.03
108-88-3	Toluene	U	1.03	ug/kg	0.308	1.03
10061-02-6	trans-1,3-Dichloropropylene	U	1.03	ug/kg	0.308	1.03
79-00-5	1,1,2-Trichloroethane	U	1.03	ug/kg	0.308	1.03
591-78-6	2-Hexanone	U	5.13	ug/kg	1.54	5.13
142-28-9	1,3-Dichloropropane	U	1.03	ug/kg	0.308	1.03
127-18-4	Tetrachloroethylene	U	1.03	ug/kg	0.308	1.03
124-48-1	Dibromochloromethane	U	1.03	ug/kg	0.308	1.03
106-93-4	1,2-Dibromoethane	U	1.03	ug/kg	0.308	1.03
108-90-7	Chlorobenzene	U	1.03	ug/kg	0.308	1.03

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959007**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7313**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 00:50**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:12**	**Aliquot:**	**5.4 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.03	ug/kg	0.308	1.03
179601-23-1	m,p-Xylenes	U	2.05	ug/kg	0.308	2.05
95-47-6	o-Xylene	U	1.03	ug/kg	0.308	1.03
100-42-5	Styrene	U	1.03	ug/kg	0.308	1.03
75-25-2	Bromoform	U	1.03	ug/kg	0.308	1.03
79-34-5	1,1,2,2-Tetrachloroethane	U	1.03	ug/kg	0.308	1.03
96-18-4	1,2,3-Trichloropropane	U	1.03	ug/kg	0.308	1.03
108-86-1	Bromobenzene	U	1.03	ug/kg	0.308	1.03
103-65-1	n-Propylbenzene	U	1.03	ug/kg	0.308	1.03
95-49-8	2-Chlorotoluene	U	1.03	ug/kg	0.308	1.03
98-82-8	Isopropylbenzene	U	1.03	ug/kg	0.308	1.03
108-67-8	1,3,5-Trimethylbenzene	U	1.03	ug/kg	0.308	1.03
106-43-4	4-Chlorotoluene	U	1.03	ug/kg	0.308	1.03
98-06-6	tert-Butylbenzene	U	1.03	ug/kg	0.308	1.03
95-63-6	1,2,4-Trimethylbenzene	U	1.03	ug/kg	0.308	1.03
135-98-8	sec-Butylbenzene	U	1.03	ug/kg	0.308	1.03
99-87-6	4-Isopropyltoluene	U	1.03	ug/kg	0.308	1.03
541-73-1	1,3-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03
106-46-7	1,4-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03
104-51-8	n-Butylbenzene	U	1.03	ug/kg	0.308	1.03
96-12-8	1,2-Dibromo-3-chloropropane	U	1.03	ug/kg	0.308	1.03
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.13	ug/kg	1.64	5.13
630-20-6	1,1,1,2-Tetrachloroethane	U	1.03	ug/kg	0.308	1.03
95-50-1	1,2-Dichlorobenzene	U	1.03	ug/kg	0.308	1.03

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX219.D
Acq On : 10 Feb 2010 12:50 am
Operator : JEB
InstName : VOAA
Sample : |245959007|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 10 13:39:59 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1160325	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	824240	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	485070	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1160325	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	824240	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	485070	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	482972	50.05	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 100.10%					
43) Toluene-d8	10.987	10.987	0.878	98	1090658	49.17	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.34%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	481904	48.82	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.64%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	711	N.D.		
4) Vinyl chloride	4.255	4.265	0.455	62	348	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.096	6.082	0.653	43	2721	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.425	6.428	0.688	76	464	N.D.		
15) Methylene chloride	6.655	6.651	0.712	84	4545	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX219.D
Acq On : 10 Feb 2010 12:50 am
Operator : JEB
InstName : VOAA
Sample : |245959007|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 10 13:39:59 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.061	11.057	0.884	91	1568	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.610	12.617	1.008	91	242	N.D.	
55) m,p-Xylenes	12.723	12.730	1.017	106	574	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	0.000	13.162	0.000		0	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	13.667	13.529	0.915	105	2008	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0m	N.D.	d
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.713	13.957	0.918	91	1464	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.198	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.534	14.530	0.973	105	139	N.D.	
71) sec-Butylbenzene	14.714	14.718	0.985	105	2843	N.D.	
72) 4-Isopropyltoluene	14.686	14.841	0.983	119	251	N.D.	
73) 1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	14.969	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.276	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	463	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.530	17.529	1.173	128	1850	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	17.847	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	6.690	6.687	0.716	59	107	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	8.437	8.430	0.903	42	110	N.D.	
98) Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX219.D
Acq On : 10 Feb 2010 12:50 am
Operator : JEB
InstName : VOAA
Sample : |245959007|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 10 13:39:59 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	10.994	11.238	0.879	69	3792	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	14.940	15.082	1.000	91	1111	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	15.485	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX219.D
Acq On : 10 Feb 2010 12:50 am
Operator : JEB
InstName : VOAA
Sample : |245959007|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 10 13:39:59 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

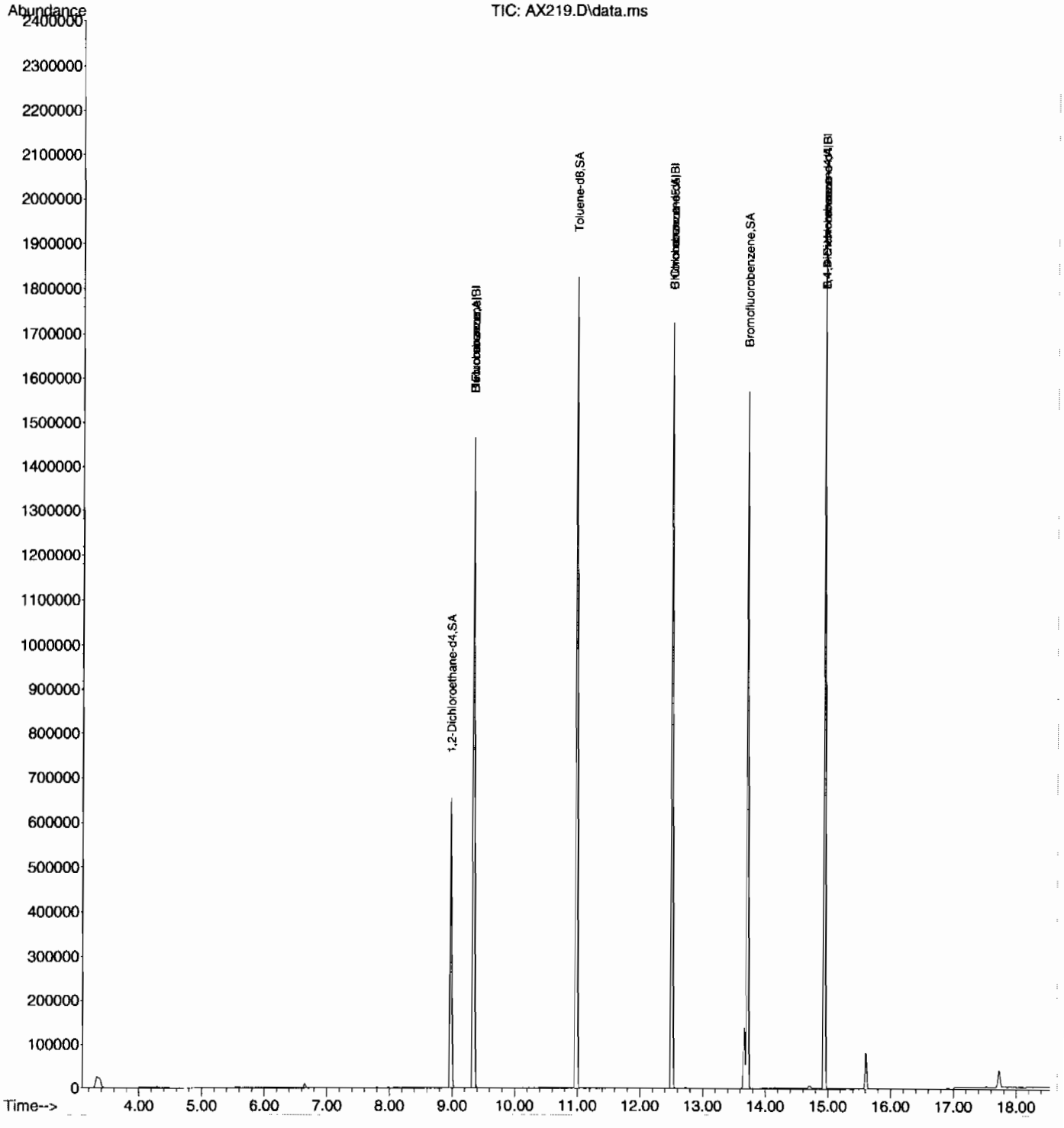

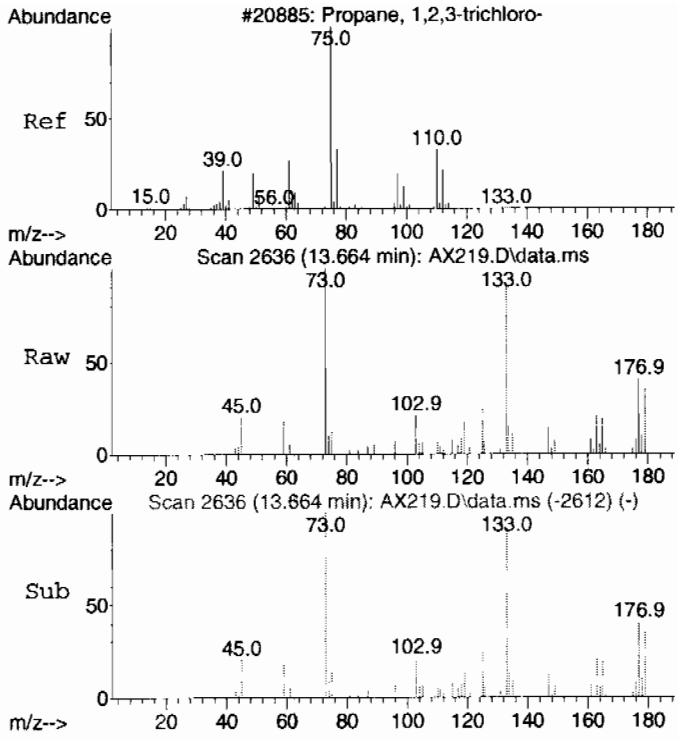

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.91 ug/L
RT: 13.664 min Scan# 2636
Delta R.T. -0.216 min
Lab File: AX219.D
Acq: 10 Feb 2010 12:50 am

Tgt Ion:110 Resp: 1737

Ion	Ratio	Lower	Upper
110	100		
75	330.1	242.8	302.8#
77	0.0	52.2	112.2#

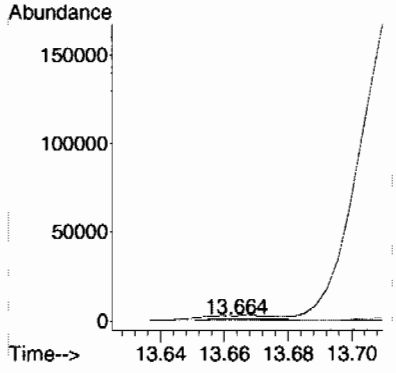

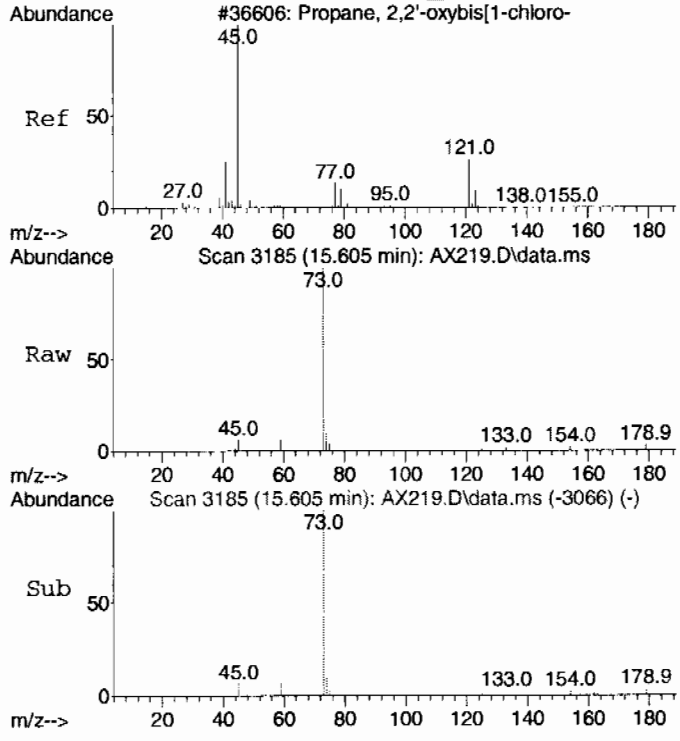

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.51 ug/L
RT: 15.605 min Scan# 3185
Delta R.T. 0.120 min
Lab File: AX219.D
Acq: 10 Feb 2010 12:50 am

Tgt Ion: 45 Resp: 6327

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	49.0

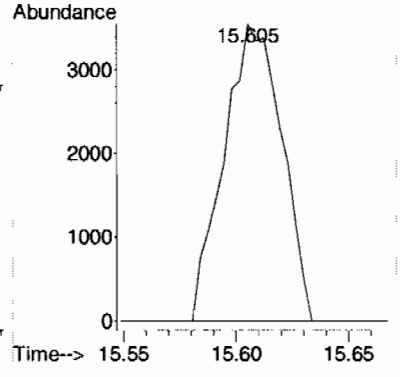

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX219.D
Acq On : 10 Feb 2010 12:50 am
Operator : JEB
Sample : |245959007|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX219.D
Acq On : 10 Feb 2010 12:50 am
Operator : JEB
Sample : |245959007|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.4G N/A SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959008	**Date Received:**	02/02/2010 09:10	**%Moisture:**	32.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7314	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 01:16	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:13	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX220.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.48	ug/kg	0.505	1.48
74-87-3	Chloromethane	U	1.48	ug/kg	0.445	1.48
75-01-4	Vinyl chloride	U	1.48	ug/kg	0.445	1.48
74-83-9	Bromomethane	U	1.48	ug/kg	0.445	1.48
75-00-3	Chloroethane	U	1.48	ug/kg	0.445	1.48
75-69-4	Trichlorofluoromethane	U	1.48	ug/kg	0.445	1.48
67-64-1	Acetone	U	7.42	ug/kg	2.46	7.42
75-35-4	1,1-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
74-88-4	Iodomethane	U	7.42	ug/kg	2.37	7.42
75-09-2	Methylene chloride	U	7.42	ug/kg	2.97	7.42
75-15-0	Carbon disulfide	U	7.42	ug/kg	1.85	7.42
156-60-5	trans-1,2-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
75-34-3	1,1-Dichloroethane	U	1.48	ug/kg	0.445	1.48
78-93-3	2-Butanone	U	7.42	ug/kg	2.23	7.42
156-59-2	cis-1,2-Dichloroethylene	U	1.48	ug/kg	0.445	1.48
594-20-7	2,2-Dichloropropane	U	1.48	ug/kg	0.445	1.48
67-66-3	Chloroform	U	1.48	ug/kg	0.445	1.48
74-97-5	Bromochloromethane	U	1.48	ug/kg	0.490	1.48
71-55-6	1,1,1-Trichloroethane	U	1.48	ug/kg	0.445	1.48
563-58-6	1,1-Dichloropropene	U	1.48	ug/kg	0.445	1.48
56-23-5	Carbon tetrachloride	U	1.48	ug/kg	0.445	1.48
107-06-2	1,2-Dichloroethane	U	1.48	ug/kg	0.445	1.48
71-43-2	Benzene	U	1.48	ug/kg	0.445	1.48
79-01-6	Trichloroethylene	U	1.48	ug/kg	0.490	1.48
78-87-5	1,2-Dichloropropane	U	1.48	ug/kg	0.445	1.48
75-27-4	Bromodichloromethane	U	1.48	ug/kg	0.445	1.48
74-95-3	Dibromomethane	U	1.48	ug/kg	0.445	1.48
108-10-1	4-Methyl-2-pentanone	U	7.42	ug/kg	1.85	7.42
10061-01-5	cis-1,3-Dichloropropylene	U	1.48	ug/kg	0.445	1.48
108-88-3	Toluene	U	1.48	ug/kg	0.445	1.48
10061-02-6	trans-1,3-Dichloropropylene	U	1.48	ug/kg	0.445	1.48
79-00-5	1,1,2-Trichloroethane	U	1.48	ug/kg	0.445	1.48
591-78-6	2-Hexanone	U	7.42	ug/kg	2.23	7.42
142-28-9	1,3-Dichloropropane	U	1.48	ug/kg	0.445	1.48
127-18-4	Tetrachloroethylene	U	1.48	ug/kg	0.445	1.48
124-48-1	Dibromochloromethane	U	1.48	ug/kg	0.445	1.48
106-93-4	1,2-Dibromoethane	U	1.48	ug/kg	0.445	1.48
108-90-7	Chlorobenzene	U	1.48	ug/kg	0.445	1.48

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959008	**Date Received:**	02/02/2010 09:10	**%Moisture:**	32.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7314	**Method:**	SW846 8260B	**SOP Ref:**	GL-OA-E-038
Batch ID:	951185	**Inst:**	VOAA.I	**Dilution:**	1
Run Date:	02/10/2010 01:16	**Analyst:**	JEB	**Purge Vol:**	5 mL
Prep Date:	02/09/2010 18:13	**Aliquot:**	5 g	**Final Volume:**	5 mL
Data File:	020910\AX220.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.48	ug/kg	0.445	1.48
179601-23-1	m,p-Xylenes	U	2.97	ug/kg	0.445	2.97
95-47-6	o-Xylene	U	1.48	ug/kg	0.445	1.48
100-42-5	Styrene	U	1.48	ug/kg	0.445	1.48
75-25-2	Bromoform	U	1.48	ug/kg	0.445	1.48
79-34-5	1,1,2,2-Tetrachloroethane	U	1.48	ug/kg	0.445	1.48
96-18-4	1,2,3-Trichloropropane	U	1.48	ug/kg	0.445	1.48
108-86-1	Bromobenzene	U	1.48	ug/kg	0.445	1.48
103-65-1	n-Propylbenzene	U	1.48	ug/kg	0.445	1.48
95-49-8	2-Chlorotoluene	U	1.48	ug/kg	0.445	1.48
98-82-8	Isopropylbenzene	U	1.48	ug/kg	0.445	1.48
108-67-8	1,3,5-Trimethylbenzene	U	1.48	ug/kg	0.445	1.48
106-43-4	4-Chlorotoluene	U	1.48	ug/kg	0.445	1.48
98-06-6	tert-Butylbenzene	U	1.48	ug/kg	0.445	1.48
95-63-6	1,2,4-Trimethylbenzene	U	1.48	ug/kg	0.445	1.48
135-98-8	sec-Butylbenzene	U	1.48	ug/kg	0.445	1.48
99-87-6	4-Isopropyltoluene	U	1.48	ug/kg	0.445	1.48
541-73-1	1,3-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48
106-46-7	1,4-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48
104-51-8	n-Butylbenzene	U	1.48	ug/kg	0.445	1.48
96-12-8	1,2-Dibromo-3-chloropropane	U	1.48	ug/kg	0.445	1.48
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.42	ug/kg	2.37	7.42
630-20-6	1,1,1,2-Tetrachloroethane	U	1.48	ug/kg	0.445	1.48
95-50-1	1,2-Dichlorobenzene	U	1.48	ug/kg	0.445	1.48

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX220.D
Acq On : 10 Feb 2010 1:16 am
Operator : JEB
InstName : VOAA
Sample : |245959008|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 13:30:12 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1143140	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	810440	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	471508	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1143140	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	810440	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	471508	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	459031	48.28	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 96.56%					
43) Toluene-d8	10.983	10.987	0.878	98	1078818	49.47	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.94%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	464476	48.40	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.80%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.034	4.043	0.432	50	153	N.D.		
4) Vinyl chloride	4.265	4.265	0.457	62	371	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.100	6.082	0.653	43	2183	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.425	6.428	0.688	76	117	N.D.		
15) Methylene chloride	6.644	6.651	0.711	84	5342	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX220.D
Acq On : 10 Feb 2010 1:16 am
Operator : JEB
InstName : VOAA
Sample : |245959008|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 13:30:12 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.054	11.057	0.884	91	1658	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.617	12.617	1.009	91	834	N.D.	
55) m,p-Xylenes	12.727	12.730	1.018	106	1124	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	0.000	13.162	0.000		0	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	13.713	13.529	0.918	105	108	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.	
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.717	13.957	0.918	91	1065	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	14.201	14.198	0.950	91	113	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.534	14.530	0.973	105	226	N.D.	
71) sec-Butylbenzene	14.534	14.718	0.973	105	226	N.D.	
72) 4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	14.969	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.276	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.190	17.183	1.150	180	272	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.530	17.529	1.173	128	1528	N.D.	
81) 1,2,3-Trichlorobenzene	17.854	17.847	1.195	180	355	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	6.220	6.188	0.666	45	116	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	8.430	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX220.D
Acq On : 10 Feb 2010 1:16 am
Operator : JEB
InstName : VOAA
Sample : |245959008|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 13:30:12 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100) Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102) 2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104) Ethyl methacrylate	10.990	11.238	0.879	69	4028	N.D.	
106) 1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108) Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110) Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111) Benzyl chloride	14.941	15.082	1.000	91	1107	N.D.	
112) bis(2-Chloroisopropyl)...	15.609	15.485	1.044	45	2443	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX220.D
Acq On : 10 Feb 2010 1:16 am
Operator : JEB
InstName : VOAA
Sample : |245959008|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 10 13:30:12 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

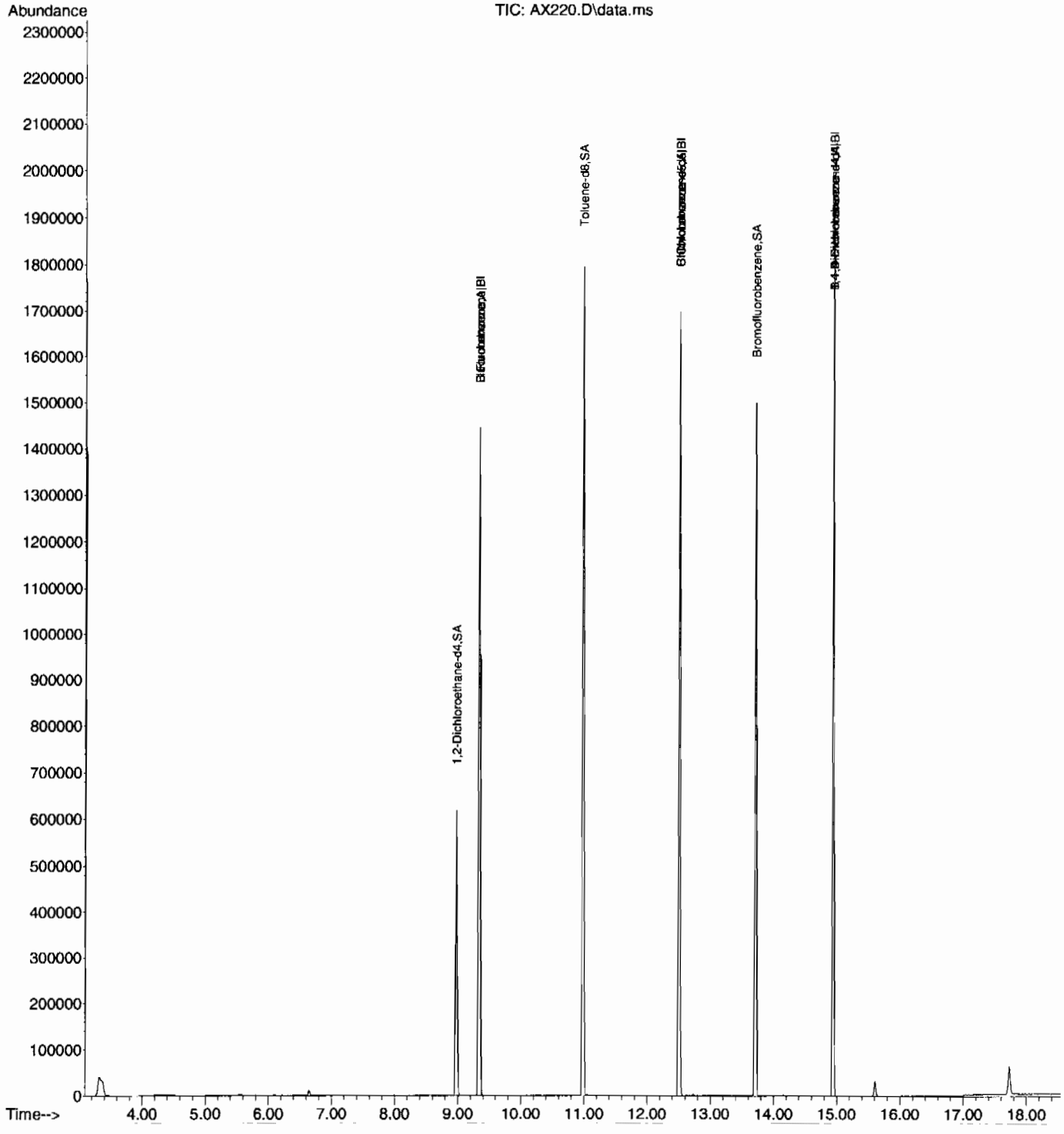

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX220.D
Acq On : 10 Feb 2010 1:16 am
Operator : JEB
Sample : |245959008|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX220.D
Acq On : 10 Feb 2010 1:16 am
Operator : JEB
Sample : |245959008|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959009**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**35.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7316**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 01:42**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.49	ug/kg	0.508	1.49
74-87-3	Chloromethane	U	1.49	ug/kg	0.448	1.49
75-01-4	Vinyl chloride	U	1.49	ug/kg	0.448	1.49
74-83-9	Bromomethane	U	1.49	ug/kg	0.448	1.49
75-00-3	Chloroethane	U	1.49	ug/kg	0.448	1.49
75-69-4	Trichlorofluoromethane	U	1.49	ug/kg	0.448	1.49
67-64-1	Acetone	U	7.47	ug/kg	2.48	7.47
75-35-4	1,1-Dichloroethylene	U	1.49	ug/kg	0.448	1.49
74-88-4	Iodomethane	U	7.47	ug/kg	2.39	7.47
75-09-2	Methylene chloride	U	7.47	ug/kg	2.99	7.47
75-15-0	Carbon disulfide	U	7.47	ug/kg	1.87	7.47
156-60-5	trans-1,2-Dichloroethylene	U	1.49	ug/kg	0.448	1.49
75-34-3	1,1-Dichloroethane	U	1.49	ug/kg	0.448	1.49
78-93-3	2-Butanone	U	7.47	ug/kg	2.24	7.47
156-59-2	cis-1,2-Dichloroethylene	U	1.49	ug/kg	0.448	1.49
594-20-7	2,2-Dichloropropane	U	1.49	ug/kg	0.448	1.49
67-66-3	Chloroform	U	1.49	ug/kg	0.448	1.49
74-97-5	Bromochloromethane	U	1.49	ug/kg	0.493	1.49
71-55-6	1,1,1-Trichloroethane	U	1.49	ug/kg	0.448	1.49
563-58-6	1,1-Dichloropropene	U	1.49	ug/kg	0.448	1.49
56-23-5	Carbon tetrachloride	U	1.49	ug/kg	0.448	1.49
107-06-2	1,2-Dichloroethane	U	1.49	ug/kg	0.448	1.49
71-43-2	Benzene	U	1.49	ug/kg	0.448	1.49
79-01-6	Trichloroethylene	U	1.49	ug/kg	0.493	1.49
78-87-5	1,2-Dichloropropane	U	1.49	ug/kg	0.448	1.49
75-27-4	Bromodichloromethane	U	1.49	ug/kg	0.448	1.49
74-95-3	Dibromomethane	U	1.49	ug/kg	0.448	1.49
108-10-1	4-Methyl-2-pentanone	U	7.47	ug/kg	1.87	7.47
10061-01-5	cis-1,3-Dichloropropylene	U	1.49	ug/kg	0.448	1.49
108-88-3	Toluene	J	0.538	ug/kg	0.448	1.49
10061-02-6	trans-1,3-Dichloropropylene	U	1.49	ug/kg	0.448	1.49
79-00-5	1,1,2-Trichloroethane	U	1.49	ug/kg	0.448	1.49
591-78-6	2-Hexanone	U	7.47	ug/kg	2.24	7.47
142-28-9	1,3-Dichloropropane	U	1.49	ug/kg	0.448	1.49
127-18-4	Tetrachloroethylene	U	1.49	ug/kg	0.448	1.49
124-48-1	Dibromochloromethane	U	1.49	ug/kg	0.448	1.49
106-93-4	1,2-Dibromoethane	U	1.49	ug/kg	0.448	1.49
108-90-7	Chlorobenzene	U	1.49	ug/kg	0.448	1.49

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959009**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**35.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7316**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 01:42**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.49	ug/kg	0.448	1.49
179601-23-1	m,p-Xylenes	U	2.99	ug/kg	0.448	2.99
95-47-6	o-Xylene	U	1.49	ug/kg	0.448	1.49
100-42-5	Styrene	U	1.49	ug/kg	0.448	1.49
75-25-2	Bromoform	U	1.49	ug/kg	0.448	1.49
79-34-5	1,1,2,2-Tetrachloroethane	U	1.49	ug/kg	0.448	1.49
96-18-4	1,2,3-Trichloropropane	U	1.49	ug/kg	0.448	1.49
108-86-1	Bromobenzene	U	1.49	ug/kg	0.448	1.49
103-65-1	n-Propylbenzene	U	1.49	ug/kg	0.448	1.49
95-49-8	2-Chlorotoluene	U	1.49	ug/kg	0.448	1.49
98-82-8	Isopropylbenzene	U	1.49	ug/kg	0.448	1.49
108-67-8	1,3,5-Trimethylbenzene	U	1.49	ug/kg	0.448	1.49
106-43-4	4-Chlorotoluene	U	1.49	ug/kg	0.448	1.49
98-06-6	tert-Butylbenzene	U	1.49	ug/kg	0.448	1.49
95-63-6	1,2,4-Trimethylbenzene	U	1.49	ug/kg	0.448	1.49
135-98-8	sec-Butylbenzene	U	1.49	ug/kg	0.448	1.49
99-87-6	4-Isopropyltoluene	U	1.49	ug/kg	0.448	1.49
541-73-1	1,3-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49
106-46-7	1,4-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49
104-51-8	n-Butylbenzene	U	1.49	ug/kg	0.448	1.49
96-12-8	1,2-Dibromo-3-chloropropane	U	1.49	ug/kg	0.448	1.49
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	7.47	ug/kg	2.39	7.47
630-20-6	1,1,1,2-Tetrachloroethane	U	1.49	ug/kg	0.448	1.49
95-50-1	1,2-Dichlorobenzene	U	1.49	ug/kg	0.448	1.49

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	3.33	7.84	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX221.D
Acq On : 10 Feb 2010 1:42 am
Operator : JEB
InstName : VOAA
Sample : |245959009|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 13:40:58 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1125206	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	795836	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	452447	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1125206	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	795836	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	452447	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	451956	48.29	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 96.58%					
43) Toluene-d8	10.983	10.987	0.878	98	1052994	49.17	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.34%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	449216	48.79	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.58%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	308	N.D.		
4) Vinyl chloride	4.255	4.265	0.455	62	372	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.092	6.082	0.652	43	4584	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0m	N.D.	d	
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.432	6.428	0.688	76	719	N.D.		
15) Methylene chloride	6.648	6.651	0.712	84	9320	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	7.295	7.454	0.781	43	126	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	8.066	8.062	0.863	43	110	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	8.784	8.791	0.940	56	1255	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	9.081	9.084	0.972	78	495	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX221.D
Acq On : 10 Feb 2010 1:42 am
Operator : JEB
InstName : VOAA
Sample : |245959009|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 13:40:58 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.		
44) Toluene	11.054	11.057	0.884	91	7744	0.36	ug/L	98
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.		
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.		
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.		
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.		
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.		
54) Ethylbenzene	12.614	12.617	1.008	91	1677	N.D.		
55) m,p-Xylenes	12.727	12.730	1.018	106	2742	N.D.		
56) o-Xylene	13.158	13.162	1.052	106	901	N.D.		
57) Styrene	0.000	13.162	0.000		0	N.D.		
59) Bromoform	0.000	13.402	0.000		0	N.D.		
60) Isopropylbenzene	0.000	13.529	0.000		0	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.		
64) Bromobenzene	0.000	13.918	0.000		0	N.D.		
65) n-Propylbenzene	13.717	13.957	0.918	91	1196	N.D.		
66) 1,3,5-Trimethylbenzene	14.032	14.116	0.939	105	356	N.D.		
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.		
68) 4-Chlorotoluene	14.205	14.198	0.951	91	230	N.D.		
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	14.530	14.530	0.972	105	1257	N.D.		
71) sec-Butylbenzene	14.530	14.718	0.972	105	1257	N.D.		
72) 4-Isopropyltoluene	14.845	14.841	0.993	119	757	N.D.		
73) 1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	14.965	14.969	1.001	146	112	N.D.		
75) n-Butylbenzene	0.000	15.276	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	17.190	17.183	1.150	180	288	N.D.		
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.		
80) Naphthalene	17.530	17.529	1.173	128	1574	N.D.		
81) 1,2,3-Trichlorobenzene	17.854	17.847	1.195	180	134	N.D.		
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.		
85) Acrolein	0.000	5.898	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.		
87) Isopropyl Alcohol	6.216	6.188	0.665	45	6432	N.D.		
88) Allyl chloride	0.000	6.506	0.000		0	N.D.		
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.		
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.		
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.		
94) Ethyl acetate	8.080	8.094	0.865	43	117	N.D.		
95) Propionitrile	0.000	8.122	0.000		0	N.D.		
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.		
97) Tetrahydrofuran	0.000	8.430	0.000		0	N.D.		
98) Isobutyl alcohol	8.794	8.777	0.941	41	341	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX221.D
Acq On : 10 Feb 2010 1:42 am
Operator : JEB
InstName : VOAA
Sample : |245959009|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 13:40:58 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100) Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102) 2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104) Ethyl methacrylate	10.990	11.238	0.879	69	3860	N.D.	
106) 1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108) Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110) Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111) Benzyl chloride	14.940	15.082	1.000	91	939	N.D.	
112) bis(2-Chloroisopropyl)...	15.612	15.485	1.045	45	2068	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX221.D
Acq On : 10 Feb 2010 1:42 am
Operator : JEB
InstName : VOAA
Sample : |245959009|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 10 13:40:58 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

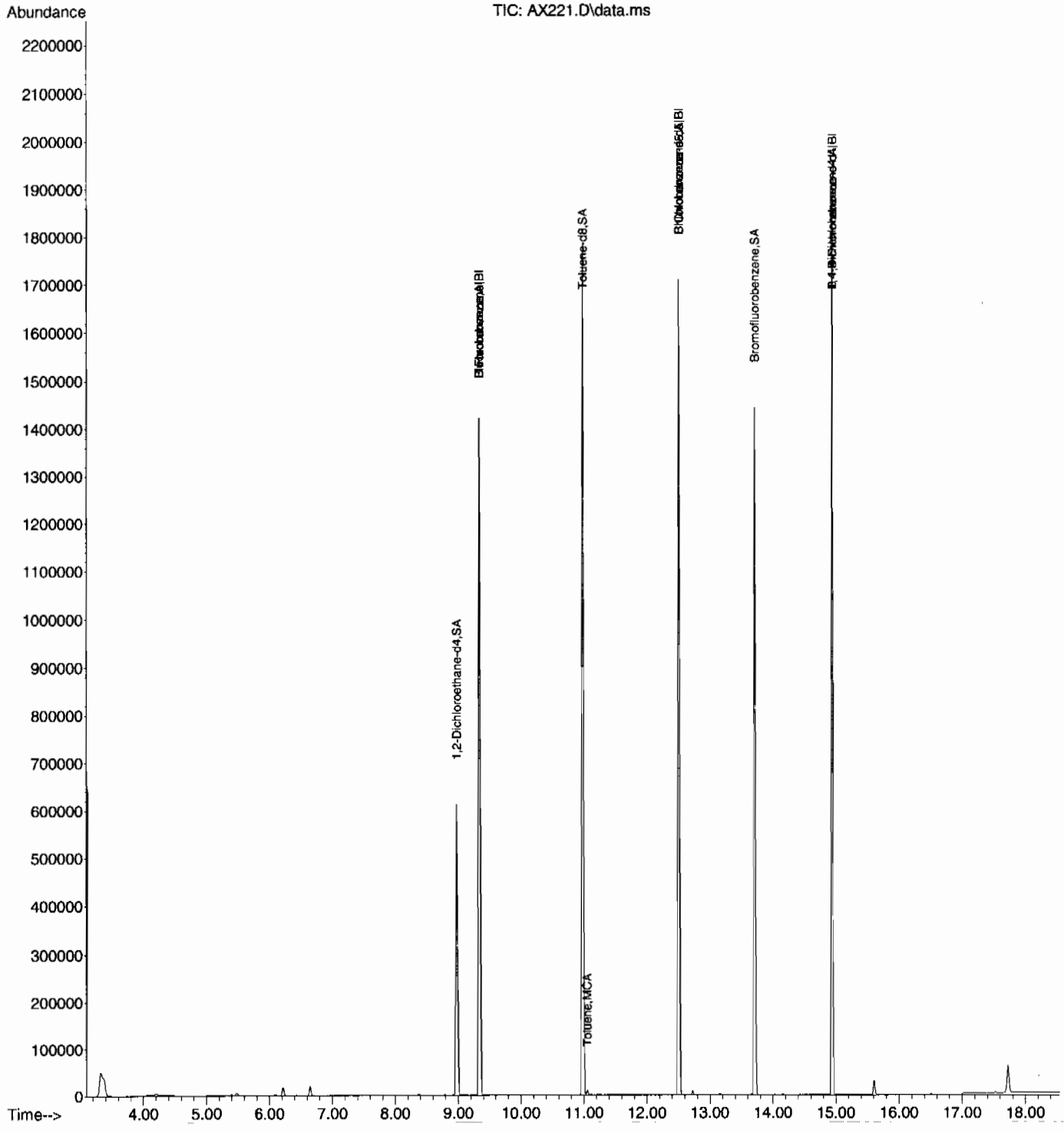

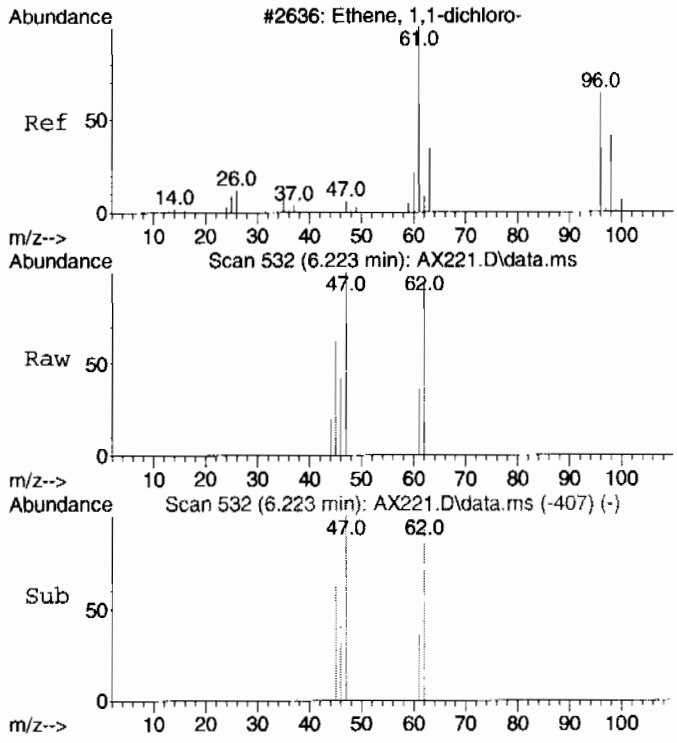

#10 BEFORE analyst DELETION
1,1-Dichloroethylene
Concen: 0.30 ug/L
RT: 6.223 min Scan# 532
Delta R.T. 0.141 min
Lab File: AX221.D
Acq: 10 Feb 2010 1:42 am

Tgt Ion: 61 Resp: 3071

Ion	Ratio	Lower	Upper
61	100		
96	0.0	13.8	73.8#
63	0.0	1.0	61.0#

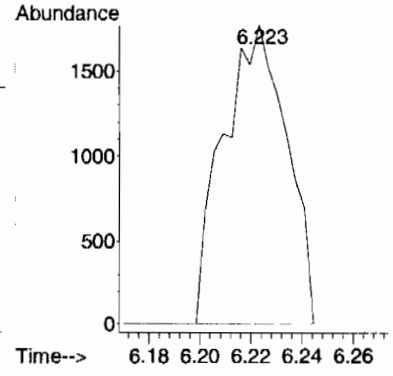

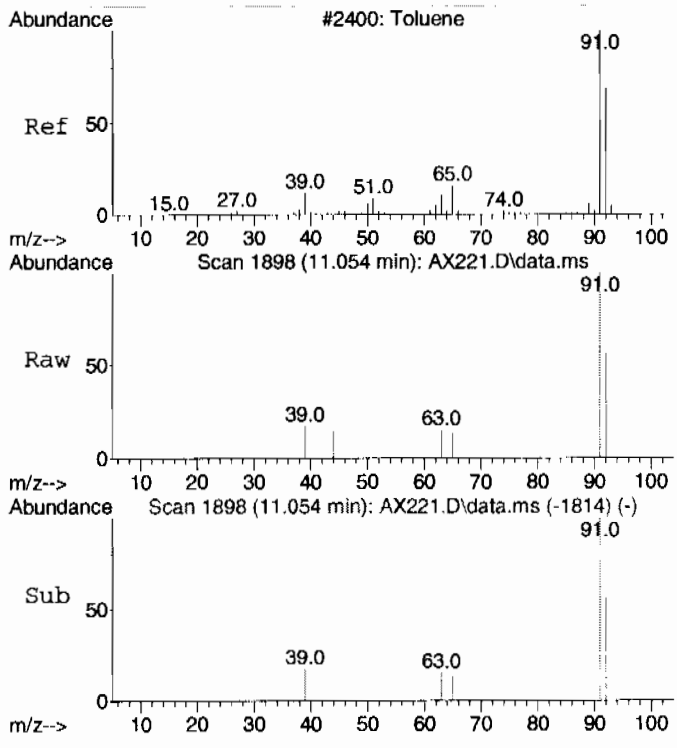

#44
Toluene
Concen: 0.36 ug/L
RT: 11.054 min Scan# 1898
Delta R.T. -0.003 min
Lab File: AX221.D
Acq: 10 Feb 2010 1:42 am

Tgt Ion: 91 Resp: 7744

Ion	Ratio	Lower	Upper
91	100		
92	58.4	29.5	89.5

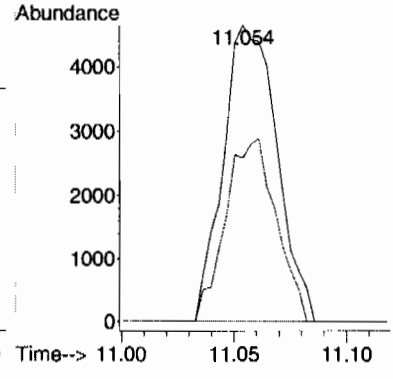

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX221.D
Acq On : 10 Feb 2010 1:42 am
Operator : JEB
Sample : |245959009|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
3.329	5.25 ug/L	265869	Fluorobenzene	9.342

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Hydrazine, methyl-	46	CH6N2	000060-34-4	4
2	Formic acid	46	CH2O2	000064-18-6	4
3	Ethene, fluoro-	46	C2H3F	000075-02-5	3
4	Formic acid	46	CH2O2	000064-18-6	3
5	Hydrazine, methyl-	46	CH6N2	000060-34-4	3

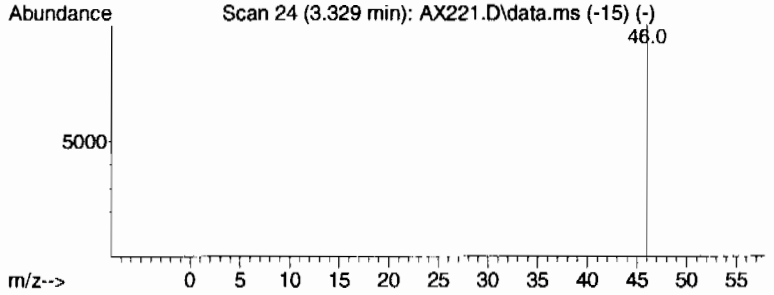

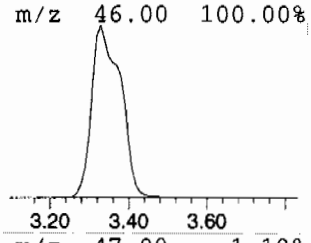

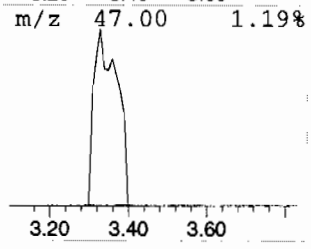

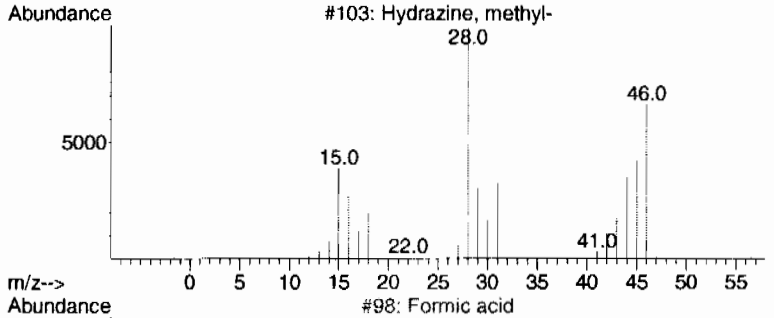

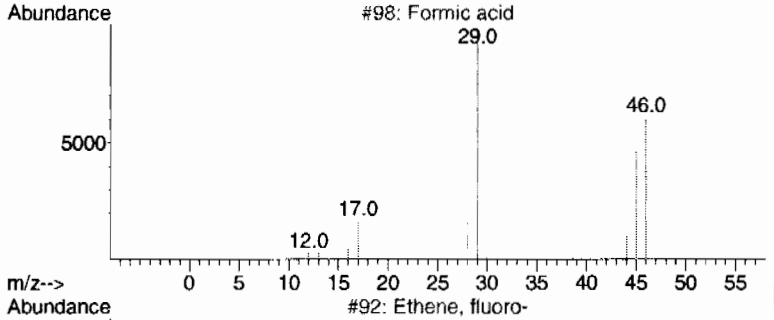

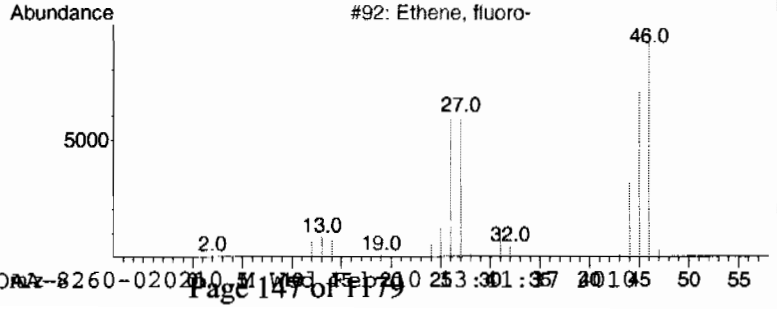

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX221.D
Acq On : 10 Feb 2010 1:42 am
Operator : JEB
Sample : |245959009|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	3.329	5.3	ug/L	265869	1	9.342	2531120	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:08**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:15**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.13	ug/kg	0.384	1.13
74-87-3	Chloromethane	U	1.13	ug/kg	0.338	1.13
75-01-4	Vinyl chloride	U	1.13	ug/kg	0.338	1.13
74-83-9	Bromomethane	U	1.13	ug/kg	0.338	1.13
75-00-3	Chloroethane	U	1.13	ug/kg	0.338	1.13
75-69-4	Trichlorofluoromethane	U	1.13	ug/kg	0.338	1.13
67-64-1	Acetone	U	5.64	ug/kg	1.87	5.64
75-35-4	1,1-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
74-88-4	Iodomethane	U	5.64	ug/kg	1.81	5.64
75-09-2	Methylene chloride	U	5.64	ug/kg	2.26	5.64
75-15-0	Carbon disulfide	U	5.64	ug/kg	1.41	5.64
156-60-5	trans-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
75-34-3	1,1-Dichloroethane	U	1.13	ug/kg	0.338	1.13
78-93-3	2-Butanone	U	5.64	ug/kg	1.69	5.64
156-59-2	cis-1,2-Dichloroethylene	U	1.13	ug/kg	0.338	1.13
594-20-7	2,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
67-66-3	Chloroform	U	1.13	ug/kg	0.338	1.13
74-97-5	Bromochloromethane	U	1.13	ug/kg	0.372	1.13
71-55-6	1,1,1-Trichloroethane	U	1.13	ug/kg	0.338	1.13
563-58-6	1,1-Dichloropropene	U	1.13	ug/kg	0.338	1.13
56-23-5	Carbon tetrachloride	U	1.13	ug/kg	0.338	1.13
107-06-2	1,2-Dichloroethane	U	1.13	ug/kg	0.338	1.13
71-43-2	Benzene	U	1.13	ug/kg	0.338	1.13
79-01-6	Trichloroethylene	U	1.13	ug/kg	0.372	1.13
78-87-5	1,2-Dichloropropane	U	1.13	ug/kg	0.338	1.13
75-27-4	Bromodichloromethane	U	1.13	ug/kg	0.338	1.13
74-95-3	Dibromomethane	U	1.13	ug/kg	0.338	1.13
108-10-1	4-Methyl-2-pentanone	U	5.64	ug/kg	1.41	5.64
10061-01-5	cis-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
108-88-3	Toluene	U	1.13	ug/kg	0.338	1.13
10061-02-6	trans-1,3-Dichloropropylene	U	1.13	ug/kg	0.338	1.13
79-00-5	1,1,2-Trichloroethane	U	1.13	ug/kg	0.338	1.13
591-78-6	2-Hexanone	U	5.64	ug/kg	1.69	5.64
142-28-9	1,3-Dichloropropane	U	1.13	ug/kg	0.338	1.13
127-18-4	Tetrachloroethylene	U	1.13	ug/kg	0.338	1.13
124-48-1	Dibromochloromethane	U	1.13	ug/kg	0.338	1.13
106-93-4	1,2-Dibromoethane	U	1.13	ug/kg	0.338	1.13
108-90-7	Chlorobenzene	U	1.13	ug/kg	0.338	1.13

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:08**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:15**	**Aliquot:**	**5.2 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.13	ug/kg	0.338	1.13
179601-23-1	m,p-Xylenes	U	2.26	ug/kg	0.338	2.26
95-47-6	o-Xylene	U	1.13	ug/kg	0.338	1.13
100-42-5	Styrene	U	1.13	ug/kg	0.338	1.13
75-25-2	Bromoform	U	1.13	ug/kg	0.338	1.13
79-34-5	1,1,2,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
96-18-4	1,2,3-Trichloropropane	U	1.13	ug/kg	0.338	1.13
108-86-1	Bromobenzene	U	1.13	ug/kg	0.338	1.13
103-65-1	n-Propylbenzene	U	1.13	ug/kg	0.338	1.13
95-49-8	2-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-82-8	Isopropylbenzene	U	1.13	ug/kg	0.338	1.13
108-67-8	1,3,5-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
106-43-4	4-Chlorotoluene	U	1.13	ug/kg	0.338	1.13
98-06-6	tert-Butylbenzene	U	1.13	ug/kg	0.338	1.13
95-63-6	1,2,4-Trimethylbenzene	U	1.13	ug/kg	0.338	1.13
135-98-8	sec-Butylbenzene	U	1.13	ug/kg	0.338	1.13
99-87-6	4-Isopropyltoluene	U	1.13	ug/kg	0.338	1.13
541-73-1	1,3-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
106-46-7	1,4-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13
104-51-8	n-Butylbenzene	U	1.13	ug/kg	0.338	1.13
96-12-8	1,2-Dibromo-3-chloropropane	U	1.13	ug/kg	0.338	1.13
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.64	ug/kg	1.81	5.64
630-20-6	1,1,1,2-Tetrachloroethane	U	1.13	ug/kg	0.338	1.13
95-50-1	1,2-Dichlorobenzene	U	1.13	ug/kg	0.338	1.13

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	No Tentatively Identified Compounds Found		ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX222.D
Acq On : 10 Feb 2010 2:08 am
Operator : JEB
InstName : VOAA
Sample : |245959010|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 13:42:01 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1110769	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	787055	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	452789	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1110769	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	787055	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	452789	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	455160	49.27	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 98.54%					
43) Toluene-d8	10.987	10.987	0.878	98	1046056	49.39	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.78%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	452471	49.10	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.20%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.013	4.043	0.430	50	163	N.D.		
4) Vinyl chloride	4.265	4.265	0.457	62	212	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.096	6.082	0.653	43	2139	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.432	6.428	0.688	76	106	N.D.		
15) Methylene chloride	6.655	6.651	0.712	84	5300	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX222.D
Acq On : 10 Feb 2010 2:08 am
Operator : JEB
InstName : VOAA
Sample : |245959010|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 13:42:01 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.061	11.057	0.884	91	1547	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.617	12.617	1.008	91	1081	N.D.	
55) m,p-Xylenes	12.727	12.730	1.017	106	1282	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	0.000	13.162	0.000		0	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	0.000	13.529	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.	
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.710	13.957	0.917	91	1283	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.198	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.527	14.530	0.972	105	110	N.D.	
71) sec-Butylbenzene	14.527	14.718	0.972	105	110	N.D.	
72) 4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	14.969	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.276	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	269	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.529	17.529	1.173	128	1460	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	17.847	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	6.223	6.188	0.666	45	713	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	8.430	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX222.D
Acq On : 10 Feb 2010 2:08 am
Operator : JEB
InstName : VOAA
Sample : |245959010|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 13:42:01 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.238	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	14.940	15.082	1.000	91	860	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	15.485	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX222.D
Acq On : 10 Feb 2010 2:08 am
Operator : JEB
InstName : VOAA
Sample : |245959010|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 10 13:42:01 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

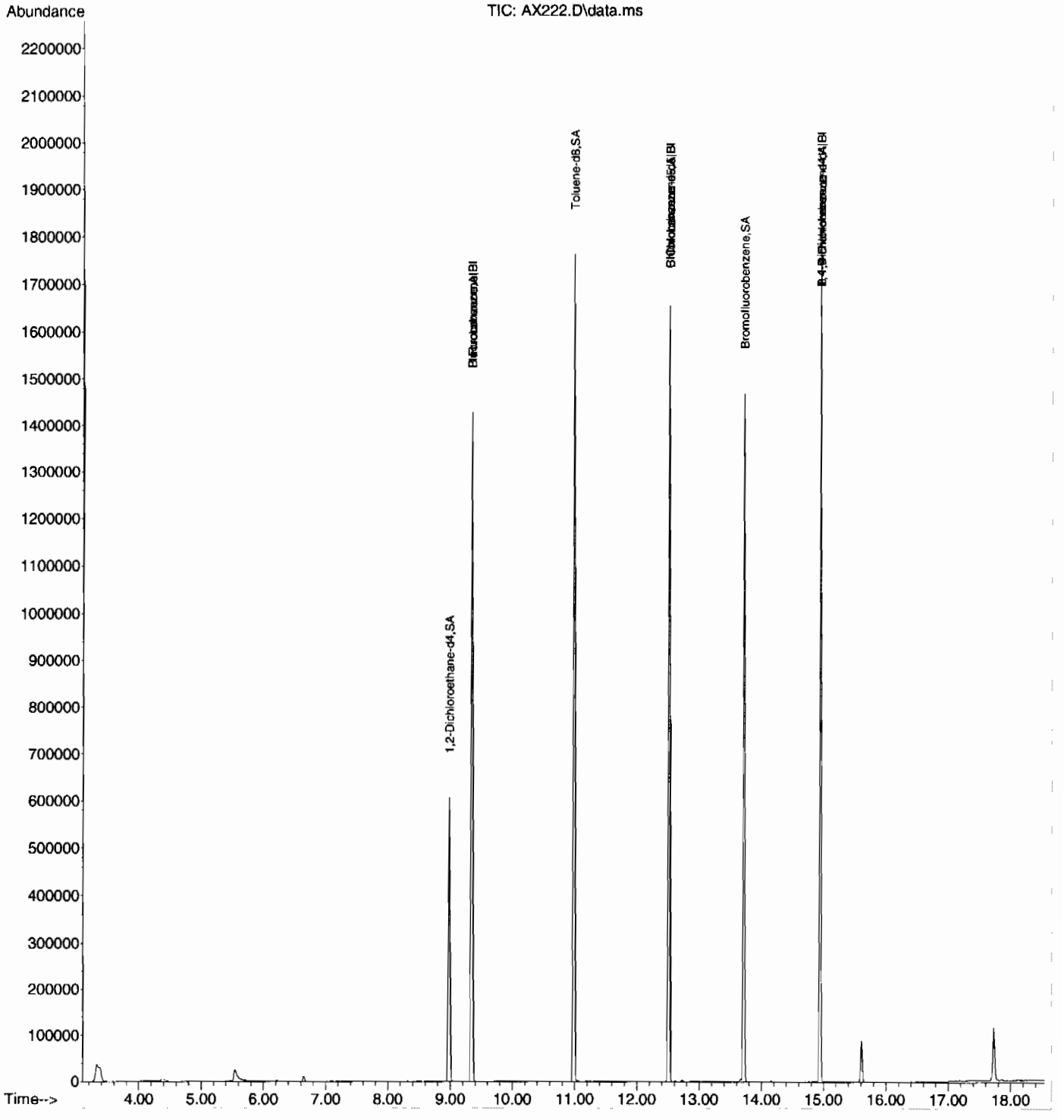

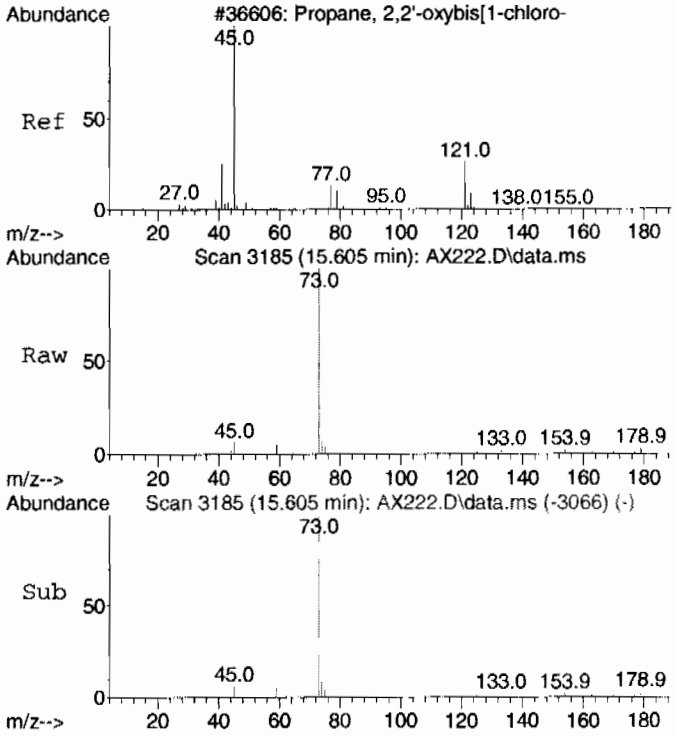

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.71 ug/L
RT: 15.605 min Scan# 3185
Delta R.T. 0.120 min
Lab File: AX222.D
Acq: 10 Feb 2010 2:08 am

Tgt Ion: 45 Resp: 6685

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	49.0

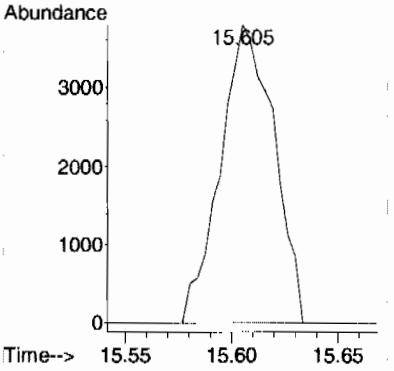

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX222.D
Acq On : 10 Feb 2010 2:08 am
Operator : JEB
Sample : |245959010|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX222.D
Acq On : 10 Feb 2010 2:08 am
Operator : JEB
Sample : |245959010|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.2G N/A SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959011**	**Date Received:**	**02/02/2010 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7329**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:35**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	0.980	ug/kg	0.333	0.980
74-87-3	Chloromethane	U	0.980	ug/kg	0.294	0.980
75-01-4	Vinyl chloride	U	0.980	ug/kg	0.294	0.980
74-83-9	Bromomethane	U	0.980	ug/kg	0.294	0.980
75-00-3	Chloroethane	U	0.980	ug/kg	0.294	0.980
75-69-4	Trichlorofluoromethane	U	0.980	ug/kg	0.294	0.980
67-64-1	Acetone	U	4.90	ug/kg	1.63	4.90
75-35-4	1,1-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
74-88-4	Iodomethane	U	4.90	ug/kg	1.57	4.90
75-09-2	Methylene chloride	U	4.90	ug/kg	1.96	4.90
75-15-0	Carbon disulfide	U	4.90	ug/kg	1.23	4.90
156-60-5	trans-1,2-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
75-34-3	1,1-Dichloroethane	U	0.980	ug/kg	0.294	0.980
78-93-3	2-Butanone	U	4.90	ug/kg	1.47	4.90
156-59-2	cis-1,2-Dichloroethylene	U	0.980	ug/kg	0.294	0.980
594-20-7	2,2-Dichloropropane	U	0.980	ug/kg	0.294	0.980
67-66-3	Chloroform	U	0.980	ug/kg	0.294	0.980
74-97-5	Bromochloromethane	U	0.980	ug/kg	0.324	0.980
71-55-6	1,1,1-Trichloroethane	U	0.980	ug/kg	0.294	0.980
563-58-6	1,1-Dichloropropene	U	0.980	ug/kg	0.294	0.980
56-23-5	Carbon tetrachloride	U	0.980	ug/kg	0.294	0.980
107-06-2	1,2-Dichloroethane	U	0.980	ug/kg	0.294	0.980
71-43-2	Benzene	U	0.980	ug/kg	0.294	0.980
79-01-6	Trichloroethylene	U	0.980	ug/kg	0.324	0.980
78-87-5	1,2-Dichloropropane	U	0.980	ug/kg	0.294	0.980
75-27-4	Bromodichloromethane	U	0.980	ug/kg	0.294	0.980
74-95-3	Dibromomethane	U	0.980	ug/kg	0.294	0.980
108-10-1	4-Methyl-2-pentanone	U	4.90	ug/kg	1.23	4.90
10061-01-5	cis-1,3-Dichloropropylene	U	0.980	ug/kg	0.294	0.980
108-88-3	Toluene	U	0.980	ug/kg	0.294	0.980
10061-02-6	trans-1,3-Dichloropropylene	U	0.980	ug/kg	0.294	0.980
79-00-5	1,1,2-Trichloroethane	U	0.980	ug/kg	0.294	0.980
591-78-6	2-Hexanone	U	4.90	ug/kg	1.47	4.90
142-28-9	1,3-Dichloropropane	U	0.980	ug/kg	0.294	0.980
127-18-4	Tetrachloroethylene	U	0.980	ug/kg	0.294	0.980
124-48-1	Dibromochloromethane	U	0.980	ug/kg	0.294	0.980
106-93-4	1,2-Dibromoethane	U	0.980	ug/kg	0.294	0.980
108-90-7	Chlorobenzene	U	0.980	ug/kg	0.294	0.980

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959011**	**Date Received:**	**02/02/2010 09:10**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7329**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 02:35**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:16**	**Aliquot:**	**5.1 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	0.980	ug/kg	0.294	0.980
179601-23-1	m,p-Xylenes	U	1.96	ug/kg	0.294	1.96
95-47-6	o-Xylene	U	0.980	ug/kg	0.294	0.980
100-42-5	Styrene	U	0.980	ug/kg	0.294	0.980
75-25-2	Bromoform	U	0.980	ug/kg	0.294	0.980
79-34-5	1,1,2,2-Tetrachloroethane	U	0.980	ug/kg	0.294	0.980
96-18-4	1,2,3-Trichloropropane	U	0.980	ug/kg	0.294	0.980
108-86-1	Bromobenzene	U	0.980	ug/kg	0.294	0.980
103-65-1	n-Propylbenzene	U	0.980	ug/kg	0.294	0.980
95-49-8	2-Chlorotoluene	U	0.980	ug/kg	0.294	0.980
98-82-8	Isopropylbenzene	U	0.980	ug/kg	0.294	0.980
108-67-8	1,3,5-Trimethylbenzene	U	0.980	ug/kg	0.294	0.980
106-43-4	4-Chlorotoluene	U	0.980	ug/kg	0.294	0.980
98-06-6	tert-Butylbenzene	U	0.980	ug/kg	0.294	0.980
95-63-6	1,2,4-Trimethylbenzene	U	0.980	ug/kg	0.294	0.980
135-98-8	sec-Butylbenzene	U	0.980	ug/kg	0.294	0.980
99-87-6	4-Isopropyltoluene	U	0.980	ug/kg	0.294	0.980
541-73-1	1,3-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980
106-46-7	1,4-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980
104-51-8	n-Butylbenzene	U	0.980	ug/kg	0.294	0.980
96-12-8	1,2-Dibromo-3-chloropropane	U	0.980	ug/kg	0.294	0.980
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	4.90	ug/kg	1.57	4.90
630-20-6	1,1,1,2-Tetrachloroethane	U	0.980	ug/kg	0.294	0.980
95-50-1	1,2-Dichlorobenzene	U	0.980	ug/kg	0.294	0.980

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX223.D
Acq On : 10 Feb 2010 2:35 am
Operator : JEB
InstName : VOAA
Sample : |245959011|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 10 13:30:18 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.339	9.342	1.000	96	1083656	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	771853	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	453248	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	9.339	1.000	96	1083656	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	771853	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	453248	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.978	8.982	0.961	65	456146	50.61	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.22%					
43) Toluene-d8	10.983	10.987	0.878	98	1034168	49.79	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.58%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	450488	48.84	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.68%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	371	N.D.		
4) Vinyl chloride	4.255	4.265	0.456	62	558	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.092	6.082	0.652	43	5251	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.425	6.428	0.688	76	235	N.D.		
15) Methylene chloride	6.648	6.651	0.712	84	3992	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	8.791	8.791	0.941	56	218	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX223.D
Acq On : 10 Feb 2010 2:35 am
Operator : JEB
InstName : VOAA
Sample : |245959011|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 10 13:30:18 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.057	11.057	0.884	91	1096	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.511	12.617	1.000	91	1694	N.D.	
55) m,p-Xylenes	0.000	12.730	0.000		0	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	0.000	13.162	0.000		0	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	13.710	13.529	0.917	105	107	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.	
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.713	13.957	0.918	91	1166	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.198	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000	14.530	0.000		0	N.D.	
71) sec-Butylbenzene	0.000	14.718	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	14.969	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.276	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	438	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.529	17.529	1.173	128	1174	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	17.847	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	8.430	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX223.D
Acq On : 10 Feb 2010 2:35 am
Operator : JEB
InstName : VOAA
Sample : |245959011|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 10 13:30:18 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100) Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102) 2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104) Ethyl methacrylate	0.000	11.238	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108) Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110) Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111) Benzyl chloride	14.947	15.082	1.000	91	1035	N.D.	
112) bis(2-Chloroisopropyl)...	15.609	15.485	1.044	45	1422	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX223.D
Acq On : 10 Feb 2010 2:35 am
Operator : JEB
InstName : VOAA
Sample : |245959011|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 10 13:30:18 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

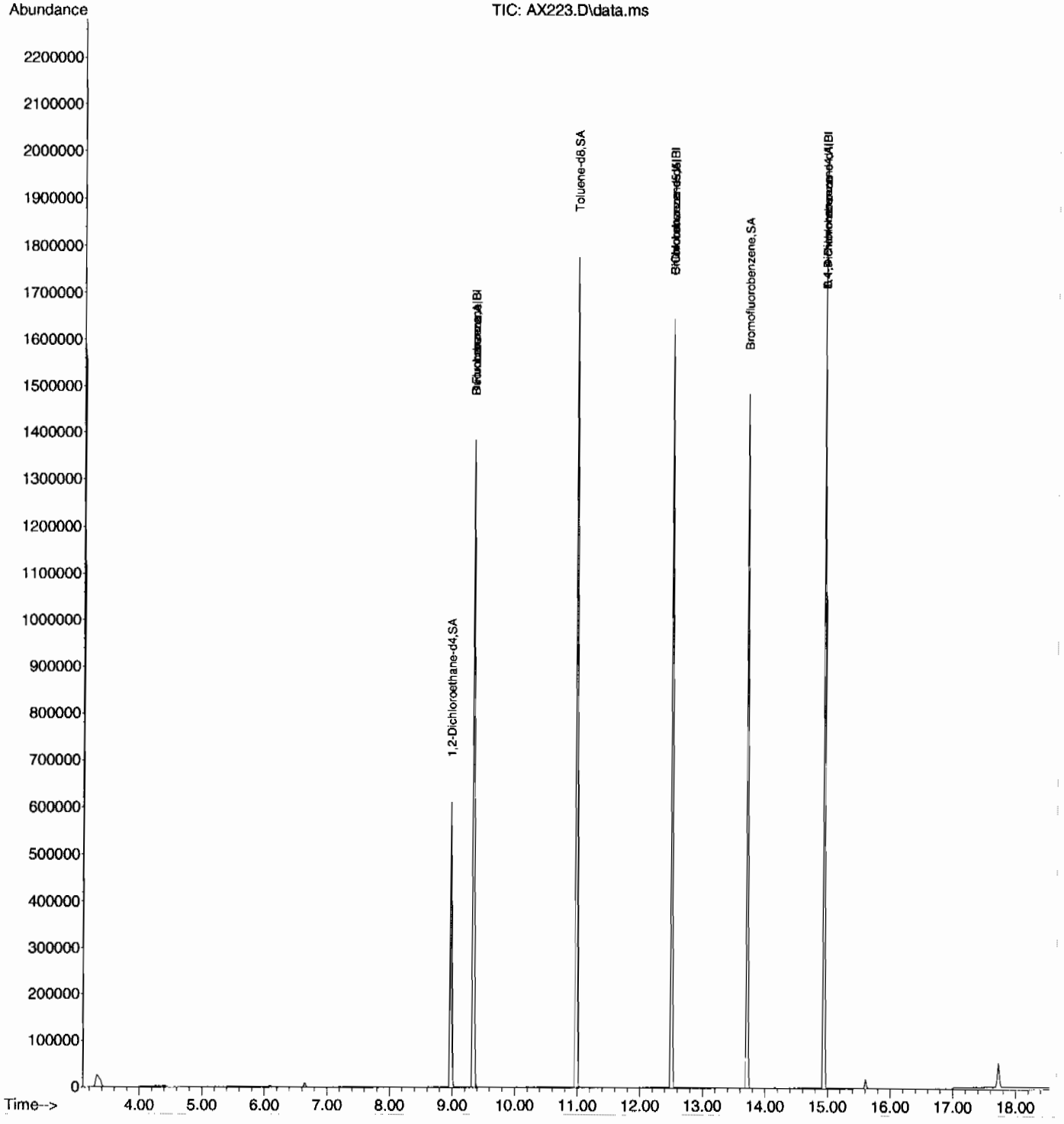

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX223.D
Acq On : 10 Feb 2010 2:35 am
Operator : JEB
Sample : |245959011|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX223.D
Acq On : 10 Feb 2010 2:35 am
Operator : JEB
Sample : |245959011|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 03:01**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:17**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.05	ug/kg	0.358	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.315	1.05
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.315	1.05
74-83-9	Bromomethane	U	1.05	ug/kg	0.315	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.315	1.05
75-69-4	Trichlorofluoromethane	U	1.05	ug/kg	0.315	1.05
67-64-1	Acetone	U	5.26	ug/kg	1.75	5.26
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
74-88-4	Iodomethane	U	5.26	ug/kg	1.68	5.26
75-09-2	Methylene chloride	U	5.26	ug/kg	2.10	5.26
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.31	5.26
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.315	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.58	5.26
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.315	1.05
594-20-7	2,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.315	1.05
74-97-5	Bromochloromethane	U	1.05	ug/kg	0.347	1.05
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.315	1.05
563-58-6	1,1-Dichloropropene	U	1.05	ug/kg	0.315	1.05
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.315	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.315	1.05
71-43-2	Benzene	U	1.05	ug/kg	0.315	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.347	1.05
78-87-5	1,2-Dichloropropane	U	1.05	ug/kg	0.315	1.05
75-27-4	Bromodichloromethane	U	1.05	ug/kg	0.315	1.05
74-95-3	Dibromomethane	U	1.05	ug/kg	0.315	1.05
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.31	5.26
10061-01-5	cis-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.315	1.05
10061-02-6	trans-1,3-Dichloropropylene	U	1.05	ug/kg	0.315	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.315	1.05
591-78-6	2-Hexanone	U	5.26	ug/kg	1.58	5.26
142-28-9	1,3-Dichloropropane	U	1.05	ug/kg	0.315	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.315	1.05
124-48-1	Dibromochloromethane	U	1.05	ug/kg	0.315	1.05
106-93-4	1,2-Dibromoethane	U	1.05	ug/kg	0.315	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.315	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 03:01**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 18:17**	**Aliquot:**	**5.3 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.315	1.05
179601-23-1	m,p-Xylenes	U	2.10	ug/kg	0.315	2.10
95-47-6	o-Xylene	U	1.05	ug/kg	0.315	1.05
100-42-5	Styrene	U	1.05	ug/kg	0.315	1.05
75-25-2	Bromoform	U	1.05	ug/kg	0.315	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
96-18-4	1,2,3-Trichloropropane	U	1.05	ug/kg	0.315	1.05
108-86-1	Bromobenzene	U	1.05	ug/kg	0.315	1.05
103-65-1	n-Propylbenzene	U	1.05	ug/kg	0.315	1.05
95-49-8	2-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-82-8	Isopropylbenzene	U	1.05	ug/kg	0.315	1.05
108-67-8	1,3,5-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
106-43-4	4-Chlorotoluene	U	1.05	ug/kg	0.315	1.05
98-06-6	tert-Butylbenzene	U	1.05	ug/kg	0.315	1.05
95-63-6	1,2,4-Trimethylbenzene	U	1.05	ug/kg	0.315	1.05
135-98-8	sec-Butylbenzene	U	1.05	ug/kg	0.315	1.05
99-87-6	4-Isopropyltoluene	U	1.05	ug/kg	0.315	1.05
541-73-1	1,3-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
106-46-7	1,4-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05
104-51-8	n-Butylbenzene	U	1.05	ug/kg	0.315	1.05
96-12-8	1,2-Dibromo-3-chloropropane	U	1.05	ug/kg	0.315	1.05
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.26	ug/kg	1.68	5.26
630-20-6	1,1,1,2-Tetrachloroethane	U	1.05	ug/kg	0.315	1.05
95-50-1	1,2-Dichlorobenzene	U	1.05	ug/kg	0.315	1.05

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/kg		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX224.D
Acq On : 10 Feb 2010 3:01 am
Operator : JEB
InstName : VOAA
Sample : |245959012|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 13:43:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1081583	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	775163	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	455587	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1081583	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	775163	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	455587	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	463893	51.57	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 103.14%					
43) Toluene-d8	10.983	10.987	0.878	98	1034059	49.57	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.14%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	457787	49.37	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.74%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	540	N.D.		
4) Vinyl chloride	4.265	4.265	0.457	62	395	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.096	6.082	0.653	43	2440	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.425	6.428	0.688	76	108	N.D.		
15) Methylene chloride	6.651	6.651	0.712	84	4016	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	0.000	8.062	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX224.D
Acq On : 10 Feb 2010 3:01 am
Operator : JEB
InstName : VOAA
Sample : |245959012|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 13:43:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.054	11.057	0.884	91	1160	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	0.000	11.627	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	0.000	12.543	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.610	12.617	1.008	91	229	N.D.	
55) m,p-Xylenes	12.734	12.730	1.018	106	585	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	0.000	13.162	0.000		0	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	13.660	13.529	0.914	105	2005	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0m	N.D.	d
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.717	13.957	0.918	91	1231	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.198	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.530	14.530	0.972	105	345	N.D.	
71) sec-Butylbenzene	14.530	14.718	0.972	105	345	N.D.	
72) 4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	0.000	14.884	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	14.969	14.969	1.002	146	117	N.D.	
75) n-Butylbenzene	0.000	15.276	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	15.379	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	148	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.530	17.529	1.173	128	1478	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	17.847	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	6.697	6.687	0.717	59	226	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.094	0.000		0	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	0.000	8.430	0.000		0	N.D.	
98) Isobutyl alcohol	0.000	8.777	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX224.D
Acq On : 10 Feb 2010 3:01 am
Operator : JEB
InstName : VOAA
Sample : |245959012|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 13:43:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.238	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	13.554	0.000		0	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	14.944	15.082	1.000	91	935	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	15.485	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX224.D
Acq On : 10 Feb 2010 3:01 am
Operator : JEB
InstName : VOAA
Sample : |245959012|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Feb 10 13:43:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

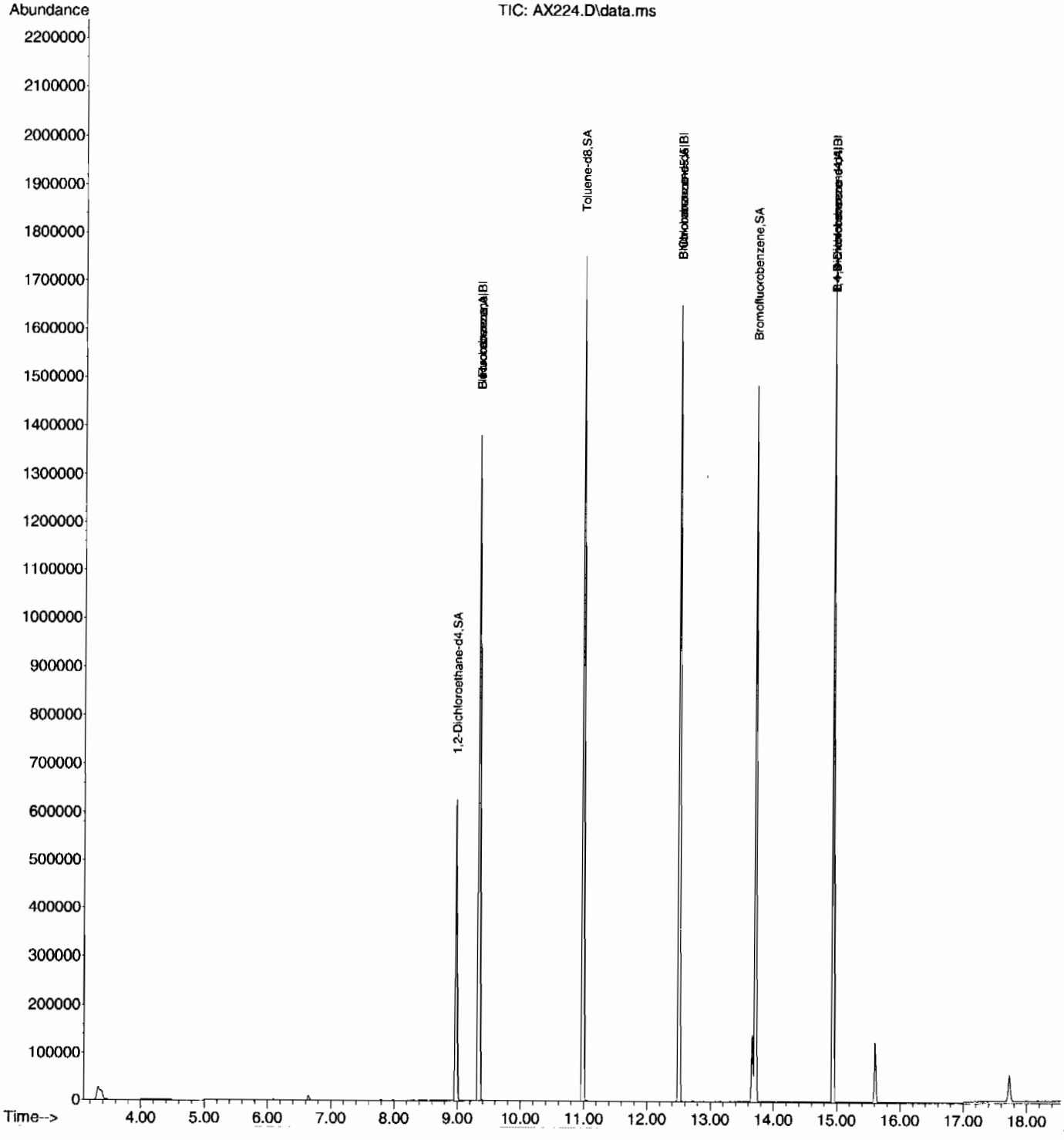

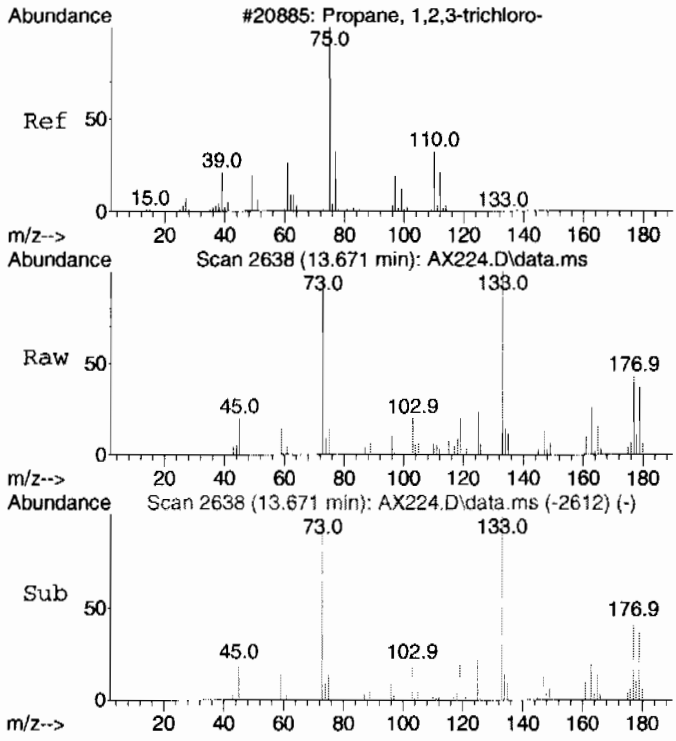

#63 BEFORE analyst DELETION
1,2,3-Trichloropropane
Concen: 0.77 ug/L
RT: 13.671 min Scan# 2638
Delta R.T. -0.208 min
Lab File: AX224.D
Acq: 10 Feb 2010 3:01 am

Tgt Ion:110 Resp: 1382

Ion	Ratio	Lower	Upper
110	100		
75	446.6	242.8	302.8#
77	0.0	52.2	112.2#

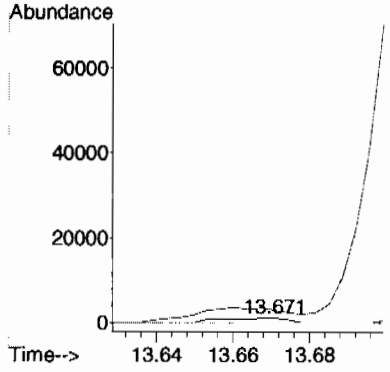

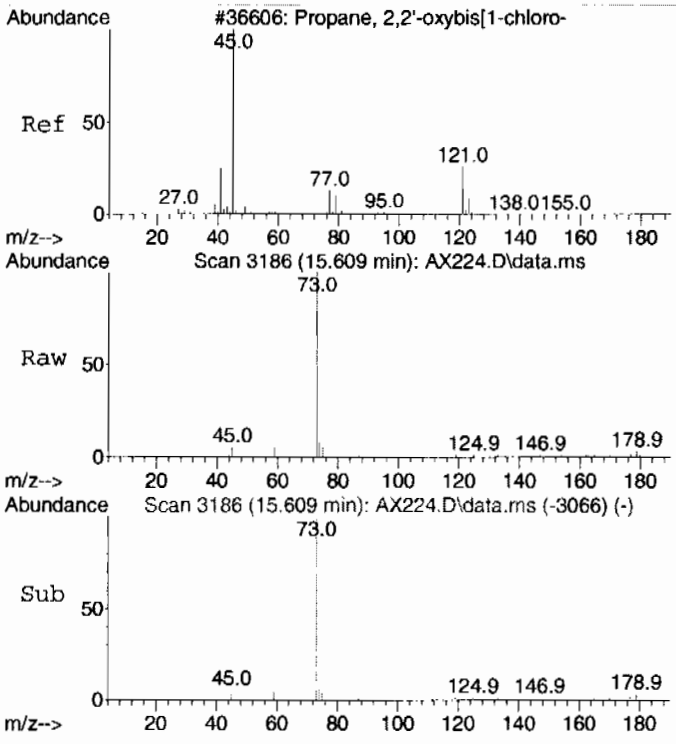

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.29 ug/L
RT: 15.609 min Scan# 3186
Delta R.T. 0.124 min
Lab File: AX224.D
Acq: 10 Feb 2010 3:01 am

Tgt Ion: 45 Resp: 9009

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	49.0

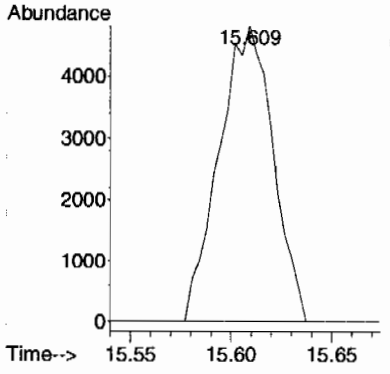

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX224.D
Acq On : 10 Feb 2010 3:01 am
Operator : JEB
Sample : |245959012|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX224.D
Acq On : 10 Feb 2010 3:01 am
Operator : JEB
Sample : |245959012|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.3G N/A SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOAA
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Last Update : Wed Feb 03 22:34:28 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\020210\AW303.D

Injection Date	Mix	Calibration File
2 Feb 2010 10:55 pm	A	C:\msdchem\1\DATA\020210\AW303.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\020210\AW313.D

Injection Date	Mix	Calibration File
2 Feb 2010 11:47 pm	A	C:\msdchem\1\DATA\020210\AW305.D
3 Feb 2010 3:17 am	B	C:\msdchem\1\DATA\020210\AW313.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\020210\AW314.D

Injection Date	Mix	Calibration File
3 Feb 2010 12:14 am	A	C:\msdchem\1\DATA\020210\AW306.D
3 Feb 2010 3:43 am	B	C:\msdchem\1\DATA\020210\AW314.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\020210\AW315.D

Injection Date	Mix	Calibration File
3 Feb 2010 12:40 am	A	C:\msdchem\1\DATA\020210\AW307.D
3 Feb 2010 4:09 am	B	C:\msdchem\1\DATA\020210\AW315.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\020210\AW316.D

Injection Date	Mix	Calibration File
3 Feb 2010 1:06 am	A	C:\msdchem\1\DATA\020210\AW308.D
3 Feb 2010 4:35 am	B	C:\msdchem\1\DATA\020210\AW316.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\020210\AW317.D

Injection Date	Mix	Calibration File
3 Feb 2010 1:32 am	A	C:\msdchem\1\DATA\020210\AW309.D
3 Feb 2010 5:02 am	B	C:\msdchem\1\DATA\020210\AW317.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\020210\AW318.D

Injection Date	Mix	Calibration File
3 Feb 2010 1:59 am	A	C:\msdchem\1\DATA\020210\AW310.D
3 Feb 2010 5:28 am	B	C:\msdchem\1\DATA\020210\AW318.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\020210\AW319.D

Injection Date	Mix	Calibration File
3 Feb 2010 2:25 am	A	C:\msdchem\1\DATA\020210\AW311.D
3 Feb 2010 5:55 am	B	C:\msdchem\1\DATA\020210\AW319.D

Response Factor Report VOAA
GEL Laboratories, LLC

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.2385542	0.2177688 0.2252913	0.2448628	0.2683433	0.2418479	0.2373488	0.2391	AVRG		6.7100
3)MPA Chloromethane	0.2994965	0.4188132 0.2788950	0.3649641	0.3207923	0.3084509	0.2977658	0.3270	AVRG		14.8649
4)MCA Vinyl chloride	0.2917077	0.3196001 0.2733973	0.3131282	0.2949595	0.2950989	0.2889657	0.2967	AVRG		5.1991
5)MA Bromomethane	0.1871993	0.1910020 0.1749093	0.1850689	0.1840110	0.1876557	0.1874027	0.1853	AVRG		2.7494
6)MA Chloroethane 0.0052 | 0.1053 | 0.00	154410	4460 271253	9002	18270	32282	61349		LINR		0.9942
7)MA Trichlorofluoromethane	0.4627652	0.4452675 0.4343512	0.4545760	0.4505400	0.4608244	0.4582548	0.4524	AVRG		2.2060
8)MA Ethyl ether	0.2495694	0.2297650 0.2307527	0.2419205	0.2358205	0.2459701	0.2505338	0.2406	AVRG		3.5868
9)MA Acetone	0.2210842	0.2871985 0.2217309	0.2560594	0.2422324	0.2322602	0.2132260	0.2391	AVRG		10.7351
10)MCA 1,1-Dichloroethylene	0.4448336	0.4366708 0.4546305	0.4627907	0.4806969	0.4780774	0.4189814	0.4538	AVRG		4.9113
11)MA Iodomethane	0.3744511	0.3720631 0.3854221	0.3788423	0.4000460	0.3961622	0.3525849	0.3799	AVRG		4.2155
12)MA Acetonitrile	0.0373952	0.0436397 0.0357479	0.0420264	0.0410509	0.0402577	0.0357799	0.0394	AVRG		7.9423
13)MA Methyl acetate	0.2273735	0.2391667 0.2253824	0.2336584	0.2379882	0.2286672	0.2012925	0.2276	AVRG		5.6042
14)MA Carbon disulfide	0.6952276	0.6959614 0.7328280	0.7149046	0.7610247	0.7539913	0.6574611	0.7159	AVRG		5.1051
15)MA Methylene chloride 0.0035 | 0.2377 | 0.00	302164	621707	18197	36579	66367	116317		LINR		0.9997
16)MA tert-Butyl methyl ether	0.7815815	0.8059361 0.7826571	0.9417937	0.8446745	0.9144057	0.7321587	0.8290	AVRG		9.1558

Response Factor Report VOAA
GEL Laboratories, LLC

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.4378040	0.4457491	0.4625292	0.4591634	0.4136231				
	0.4307833	0.4398208					0.4414	AVRG		3.7920
18)MA Vinyl acetate		0.5788204	0.5655818	0.5407487	0.6057377	0.5882265				
	0.5701527	0.5162012					0.5665	AVRG		5.2813
19)MPA 1,1-Dichloroethane		0.5241222	0.5270672	0.5512337	0.5395770	0.4901051				
	0.5105945	0.5153500					0.5226	AVRG		3.8136
20)MA 2-Butanone		0.2788207	0.2614029	0.2694703	0.2616377	0.2535838				
	0.2603803	0.2795955					0.2664	AVRG		3.7094
21)MA cis-1,2-Dichloroethylene		0.4907125	0.5121977	0.5264719	0.5162673	0.4757449				
	0.4942956	0.5009409					0.5024	AVRG		3.4311
22)MA 2,2-Dichloropropane		0.4785600	0.4641533	0.4684439	0.4691171	0.4277495				
	0.4508151	0.4609637					0.4600	AVRG		3.5960
23)MA Bromochloromethane		0.1022611	0.1152830	0.1199884	0.1201518	0.1121099				
	0.1174770	0.1181459					0.1151	AVRG		5.4755
24)MCA Chloroform		0.5161898	0.5080706	0.5286779	0.5173129	0.4839673				
	0.5012549	0.5057099					0.5087	AVRG		2.7866
25)MA 1,1,1-Trichloroethane		0.4938776	0.4808395	0.4980254	0.5038524	0.4588563				
	0.4835590	0.4950057					0.4877	AVRG		3.0815
26)MA Cyclohexane		0.5273264	0.5251320	0.5568446	0.5481271	0.4852124				
	0.5061283	0.5200301					0.5241	AVRG		4.6166
27)MA 1,1-Dichloropropene		0.3724304	0.3711251	0.3893948	0.3896487	0.3507817				
	0.3698426	0.3747430					0.3740	AVRG		3.5364
28)MA Carbon tetrachloride		0.4002523	0.4142526	0.4405889	0.4352747	0.4057424				
	0.4305904	0.4417764					0.4241	AVRG		4.0319
29)SA 1,2-Dichloroethane-d4		0.4144250	0.4132889	0.4118562	0.4237107	0.4202146				
	0.4185267	0.4089249					0.4158	AVRG		1.2437
30)MA 1,2-Dichloroethane		0.4713309	0.4875732	0.4975858	0.4878099	0.4565019				
	0.4709627	0.4768172					0.4784	AVRG		2.8664
31)MA Benzene	0.9855503	0.9591128	0.9623504	0.9598272	0.9484654	0.8731669				
	0.9175513	0.9311177					0.9421	AVRG		3.6806

Response Factor Report VOAA
GEL Laboratories, LLC

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.5314294	0.5302267	0.5414424	0.5419136	0.4846988				
	0.5074292	0.5218520					0.5227	AVRG		3.9295
33)MA n-Butyl alcohol	0.0080997	0.0081402	0.0083135	0.0088410	0.0095615	0.0096783				
	0.0099530	0.0102307					0.0091	AVRG	#	9.4333
34)MA Trichloroethylene		0.2586811	0.2627339	0.2735307	0.2706149	0.2508116				
	0.2591424	0.2615899					0.2624	AVRG		2.9138
35)MCA 1,2-Dichloropropane		0.2677466	0.2711263	0.2806603	0.2777011	0.2629194				
	0.2696337	0.2731998					0.2719	AVRG		2.2056
36)MA Methylcyclohexane		0.4229162	0.4344143	0.4465755	0.4499297	0.3955433				
	0.4192760	0.4257842					0.4278	AVRG		4.2967
37)MA Dibromomethane		0.1456351	0.1555274	0.1606879	0.1632682	0.1543632				
	0.1586009	0.1599450					0.1569	AVRG		3.7015
38)MA Bromodichloromethane		0.3523064	0.3535108	0.3728896	0.3810181	0.3707962				
	0.3834628	0.3925865					0.3724	AVRG		4.0543
39)MA 2-Chloroethylvinyl ether		0.1395627	0.1359818	0.1657474	0.1436456	0.1448516				
	0.1471383	0.1378339					0.1450	AVRG		6.8931
40)MA cis-1,3-Dichloropropylen		0.3851300	0.3985142	0.4111912	0.4106941	0.4006699				
	0.4172425	0.4260431					0.4071	AVRG		3.3097
42)MA 4-Methyl-2-pentanone		0.1562685	0.1599605	0.1708793	0.1689419	0.1679933				
	0.1688665	0.1772762					0.1672	AVRG		4.1832
43)SA Toluene-d8		1.3431112	1.3367832	1.3405691	1.3540508	1.3449102				
	1.3520386	1.3470052					1.3455	AVRG		0.4546
44)MCA Toluene		1.4332347	1.3833823	1.4204063	1.3681986	1.2769041				
	1.3076759	1.3402087					1.3614	AVRG		4.2031
45)MA trans-1,3-Dichloropropyl		0.5249764	0.5245505	0.5538819	0.5601831	0.5542609				
	0.5675656	0.5869785					0.5532	AVRG		4.0522
46)MA 1,1,2-Trichloroethane		0.2183401	0.2276846	0.2422380	0.2358528	0.2296616				
	0.2305078	0.2333061					0.2311	AVRG		3.2016
47)MA 2-Hexanone		0.4889568	0.4659797	0.4981286	0.4716690	0.4793765				
	0.4768393	0.5193377					0.4858	AVRG		3.7593

Response Factor Report VOAA
GEL Laboratories, LLC

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.5136580	0.5462279 0.5168251	0.5113419	0.5398010	0.5370849	0.5070997	0.5246	AVRG		3.0311
49)MA Tetrachloroethylene	0.2760900	0.2796135 0.2783270	0.2835482	0.2954103	0.2903799	0.2671434	0.2815	AVRG		3.3247
50)MA Dibromochloromethane	0.3537629	0.3176396 0.3723235	0.3076184	0.3304406	0.3404751	0.3409890	0.3376	AVRG		6.4389
51)MA 1,2-Dibromoethane	0.2913374	0.2712531 0.2945651	0.2828386	0.2962203	0.2916184	0.2864034	0.2877	AVRG		2.9899
52)MPA Chlorobenzene	0.8305045	0.8760035 0.8507380	0.8663366	0.8805720	0.8674466	0.8396810	0.8588	AVRG		2.1954
53)MA 1,1,1,2-Tetrachloroethan	0.3473239	0.3103580 0.3569188	0.3207451	0.3439889	0.3439351	0.3420465	0.3379	AVRG		4.8238
54)MCA Ethylbenzene	1.6044667	1.6711004 1.6449923	1.6712424	1.6859350	1.6556294	1.5962957	1.6471	AVRG		2.0948
55)MA m,p-Xylenes	0.5744294	0.5823123 0.5845427	0.5856266	0.6103719	0.5970936	0.5738560	0.5869	AVRG		2.2093
56)MA o-Xylene	0.5674394	0.5963361 0.5789702	0.5824064	0.6006407	0.5919341	0.5719526	0.5842	AVRG		2.1411
57)MA Styrene	0.9532494	0.9241700 0.9708665	0.9158416	0.9816904	0.9628218	0.9521263	0.9515	AVRG		2.5151
59)MPA Bromoform	0.4422719	0.3321333 0.4736539	0.3564595	0.3939360	0.4065686	0.4195564	0.4035	AVRG		12.0093
60)MA Isopropylbenzene	2.8059741	2.8390379 2.8902554	2.8238870	2.9173115	2.8965075	2.8091851	2.8546	AVRG		1.6036
61)SA Bromofluorobenzene	1.0199187	1.0178117 1.0169340	1.0131430	1.0000442	1.0297192	1.0254793	1.0176	AVRG		0.9348
62)MPA 1,1,2,2-Tetrachloroethan	0.6373970	0.6405027 0.6531101	0.6235666	0.6434916	0.6392097	0.6529942	0.6415	AVRG		1.5790
63)MA 1,2,3-Trichloropropane	0.2028210	0.1630728 0.2076139	0.1882528	0.2041486	0.2091267	0.2087850	0.1977	AVRG		8.5343

Response Factor Report VOAA
GEL Laboratories, LLC

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.6472395	0.6275916 0.6636465	0.6592886	0.6650334	0.6688129	0.6601157	0.6560	AVRG		2.1701
65)MA n-Propylbenzene	3.3076036	3.4376263 3.3845357	3.3886454	3.4847729	3.4006035	3.3383655	3.3917	AVRG		1.7371
66)MA 1,3,5-Trimethylbenzene	2.3966152	2.3951956 2.4686459	2.3955560	2.4988192	2.4371692	2.4119383	2.4291	AVRG		1.6902
67)MA 2-Chlorotoluene	0.5970273	0.6190777 0.6122079	0.5991028	0.6139627	0.6275443	0.6013597	0.6100	AVRG		1.8600
68)MA 4-Chlorotoluene	2.0521041	2.2596291 2.0878533	2.1889672	2.1847149	2.1375415	2.0893009	2.1429	AVRG		3.3905
69)MA tert-Butylbenzene	0.4593125	0.4406613 0.4708390	0.4423442	0.4697358	0.4684619	0.4608197	0.4589	AVRG		2.7593
70)MA 1,2,4-Trimethylbenzene	2.4298309	2.4238245 2.4848269	2.4635798	2.5554003	2.5112015	2.4680135	2.4767	AVRG		1.8569
71)MA sec-Butylbenzene	3.0240989	2.9964036 3.1085773	3.0039693	3.1916152	3.0648005	3.0303279	3.0600	AVRG		2.2743
72)MA 4-Isopropyltoluene	2.4610780	2.4242923 2.5223827	2.4152221	2.5543251	2.5239590	2.4843057	2.4837	AVRG		2.1328
73)MA 1,3-Dichlorobenzene	1.1458512	1.2215020 1.1634890	1.2163990	1.2231063	1.2029470	1.1745468	1.1925	AVRG		2.6067
74)MA 1,4-Dichlorobenzene	1.1680582	1.3035530 1.1945796	1.2528810	1.2605453	1.2503431	1.2110366	1.2344	AVRG		3.7115
75)MA n-Butylbenzene	2.4532193	2.5374983 2.5231534	2.5080422	2.6146500	2.5650730	2.5052073	2.5295	AVRG		2.0086
76)MA 1,2-Dichlorobenzene	1.1328855	1.2482598 1.1539174	1.1748818	1.1875679	1.1882662	1.1721890	1.1797	AVRG		3.0508
77)MA 1,2-Dibromo-3-chloroprop -0.0016 | 0.1568 | 0.00	81247	985	2758	7433	15003	31203		LINR		0.9999
78)MA 1,2,4-Trichlorobenzene	0.9694614	1.0715275 0.9966666	0.9938019	1.0355844	1.0274441	1.0046721	1.0142	AVRG		3.3036

Response Factor Report VOAA
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Last Update : Wed Feb 03 22:34:28 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.6650150	0.6684091	0.7147602	0.7033065	0.6844503				
	0.6819756	0.7091170					0.6896	AVRG		2.8638
80)MA Naphthalene		2.3168870	2.1637434	2.1508661	2.1982944	2.2122179				
	2.1611243	2.2332118					2.2052	AVRG		2.6161
81)MA 1,2,3-Trichlorobenzene		0.9923768	0.9591250	0.9709012	0.9701899	0.9519720				
	0.9198888	0.9397709					0.9577	AVRG		2.4556
83)B Chlorotrifluoroethylene		0.1545077	0.1637749	0.1711184	0.1655019	0.1998214				
	0.1675495	0.1826572					0.1721	AVRG		8.6296
84)B 2-Chloro-1,1,1-trifluoro		0.2536732	0.2503474	0.2514422	0.2473082	0.2616670				
	0.2688861	0.2682404					0.2574	AVRG		3.4338
85)B Acrolein		0.0514738	0.0509818	0.0471297	0.0485942	0.0483780				
	0.0484340	0.0498812					0.0493	AVRG		3.1762
86)B Trichlorotrifluoroethane		0.1139564	0.1012790	0.1002761	0.1039117	0.1011428				
	0.1022431	0.1039375					0.1038	AVRG		4.5082
87)B Isopropyl Alcohol		0.0241432	0.0230015	0.0232875	0.0236424	0.0250832				
	0.0250177	0.0249797					0.0242	AVRG		3.6358
88)B Allyl chloride		0.4879103	0.4759531	0.4631783	0.4779541	0.4652477				
	0.4628992	0.4640660					0.4710	AVRG		2.0635
89)B tert-Butyl Alcohol		0.0402061	0.0383375	0.0389020	0.0399164	0.0415679				
	0.0420428	0.0419608					0.0404	AVRG		3.6788
90)B Acrylonitrile		0.1022257	0.1019832	0.0993805	0.1049458	0.1019885				
	0.1039009	0.1034836					0.1026	AVRG		1.7453
91)B Isopropyl ether		1.0803219	1.0559044	1.0790138	1.0559427	1.0977074				
	1.0796499	1.1215483					1.0814	AVRG		2.1308
92)B 2-Chloro-1,3-butadiene		0.4782511	0.4727880	0.4708845	0.4904941	0.4833293				
	0.4907408	0.5052759					0.4845	AVRG		2.4844
93)B Ethyl tert-butyl ether		1.0019342	0.9907637	1.0044684	0.9901999	1.0389514				
	1.0286049	1.0794600					1.0192	AVRG		3.1729
94)B Ethyl acetate		0.3301855	0.2906485	0.2800202	0.2869687	0.2824676				
	0.2856064	0.2860745					0.2917	AVRG		5.9294

Response Factor Report VOAA
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Last Update : Wed Feb 03 22:34:28 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0407366	0.0364711 0.0407413	0.0391705	0.0385692	0.0416155	0.0398314	0.0396	AVRG		4.3440
96)B Methacrylonitrile	0.1830359	0.1818924 0.1818713	0.1857662	0.1789612	0.1877184	0.1815158	0.1830	AVRG		1.5923
97)B Tetrahydrofuran	0.0883990	0.0960190 0.0872267	0.0939003	0.0890542	0.0905842	0.0873487	0.0904	AVRG		3.7541
98)B Isobutyl alcohol	0.0119286	0.0127296 0.0117598	0.0115199	0.0108352	0.0116607	0.0115863	0.0117	AVRG		4.8134
99)B Methyl tert-amyl ether	0.7915634	0.7996485 0.8353931	0.7704397	0.7713128	0.7632083	0.7974335	0.7899	AVRG		3.1273
100)B Methyl methacrylate	0.1636172	0.1597414 0.1664293	0.1566936	0.1554329	0.1619850	0.1600165	0.1606	AVRG		2.3856
101)B 1,4-Dioxane	0.0026775	0.0019569 0.0027388	0.0023455	0.0025010	0.0026900	0.0027413	0.0025	AVRG	#	11.4303
102)B 2-Nitropropane	0.0961194	0.0747782 0.0988517	0.0774176	0.0775306	0.0848201	0.0882881	0.0854	AVRG		11.1394
104)B Ethyl methacrylate	0.4371484	0.3877646 0.4431927	0.4030788	0.4122445	0.4315604	0.4316063	0.4209	AVRG		4.8295
106)B 1-Chlorohexane	0.7802548	0.7883855 0.8108573	0.7895554	0.7851573	0.7653485	0.7970432	0.7881	AVRG		1.7854
107)B cis-1,4-Dichloro-2-buten	0.2883336	0.2357172 0.2997519	0.2487551	0.2527046	0.2689231	0.2769942	0.2673	AVRG		8.5669
108)B Cyclohexanone	0.1281330	0.1118408 0.1399375	0.1201373	0.1216406	0.1290551	0.1267126	0.1254	AVRG		6.9818
109)B trans-1,4-Dichloro-2-but	0.2688412	0.2218657 0.2766715	0.2402934	0.2459768	0.2568598	0.2603657	0.2530	AVRG		7.3253
110)B Pentachloroethane	0.2078111	0.1718814 0.1804959	0.1901216	0.2004149	0.1950654	0.2298334	0.1965	AVRG		9.6534
111)B Benzyl chloride	1.1464261	0.9262137 1.1767395	0.9816031	1.0299901	1.0918255	1.1006369	1.0648	AVRG		8.4479

Response Factor Report VOAA
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Last Update : Wed Feb 03 22:34:28 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et		0.4014342	0.4154083	0.4233880	0.4427023	0.4399476				
	0.4490478	0.4485767					0.4315	AVRG		4.2576

#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-1510

Instrument ID: VOAA.I **Injection Date** 03-FEB-10 06:48

Data File: 020210\AW321.D **Init. Cal. Date(s)** 02-FEB-10 22:55 - 03-FEB-10 05:55

Lab Sample ID WAVM100202-17 **Quant Type** ISTD **Method:** 122209\Methods\VOAA-8260-020210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.4158	0.41367		.01		-0.51227	30		Averaged	
S	Toluene-d8	1.3455	1.35484		.01		0.69417	30		Averaged	
S	Bromofluorobenzene	1.0176	1.01378		.01		-0.37539	30		Averaged	
	Dichlorodifluoromethane	0.2391	0.23204		.01		-2.95274	30		Averaged	
	Chloromethane	0.327	0.27449		.1		-16.0581	30		Averaged	spcc
	Vinyl chloride	0.2967	0.28428		.01		-4.18605	20		Averaged	ccc
	Bromomethane	0.1853	0.18155		.01		-2.02375	30		Averaged	
	Chloroethane	50	50	50			0	30		Linear	
	Trichlorofluoromethane	0.4524	0.45736		.01		1.09637	30		Averaged	
	Ethyl ether	0.2406	0.23219		.01		-3.49543	30		Averaged	
	Acetone	0.2391	0.18425		.01		-22.94019	40		Averaged	
	1,1-Dichloroethylene	0.4538	0.4361		.01		-3.9004	20		Averaged	ccc
	Iodomethane	0.3799	0.37491		.01		-1.3135	30		Averaged	
	Acetonitrile	0.0394	0.03631		.01		-7.84264	30		Averaged	
	Carbon disulfide	0.7159	0.74392		.01		3.91395	30		Averaged	
	Methyl acetate	0.2276	0.21647		.01		-4.89016	40		Averaged	
	Methylene chloride	50	51.17	50			2.34	30		Linear	
	tert-Butyl methyl ether	0.829	0.78733		.01		-5.02654	30		Averaged	
	trans-1,2-Dichloroethylene	0.4414	0.43645		.01		-1.12143	30		Averaged	
	Vinyl acetate	0.5665	0.45697		.01		-19.33451	40		Averaged	
	1,1-Dichloroethane	0.5226	0.51924		.1		-0.64294	30		Averaged	spcc
	2-Butanone	0.2664	0.2146		.01		-19.44444	40		Averaged	
	cis-1,2-Dichloroethylene	0.5024	0.50352		.01		0.22293	30		Averaged	
	2,2-Dichloropropane	0.46	0.45136		.01		-1.87826	30		Averaged	
	Bromochloromethane	0.1151	0.1198		.01		4.08341	30		Averaged	
	Chloroform	0.5087	0.5124		.01		0.72734	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4877	0.49369		.01		1.22821	30		Averaged	
	Cyclohexane	0.5241	0.51908		.01		-0.95783	30		Averaged	
	1,1-Dichloropropene	0.374	0.37562		.01		0.43316	30		Averaged	
	Carbon tetrachloride	0.4241	0.44132		.01		4.06036	30		Averaged	
	1,2-Dichloroethane	0.4784	0.47662		.01		-0.37207	30		Averaged	
	Benzene	0.9421	0.92378		.01		-1.94459	30		Averaged	
	Cyclohexene	0.5227	0.50067		.01		-4.21465	30		Averaged	
	n-Butyl alcohol	0.0091	0.00949		.01		4.28571	40		Averaged	
	Trichloroethylene	0.2624	0.26825		.01		2.22942	30		Averaged	
	1,2-Dichloropropane	0.2719	0.27456		.01		0.9783	20		Averaged	ccc
	Methylcyclohexane	0.4278	0.42512		.01		-0.62646	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Date** 03-FEB-10 06:48

Data File: 020210\AW321.D **Init. Cal. Date(s)** 02-FEB-10 22:55 03-FEB-10 05:55

Lab Sample ID WAVM100202-17 **Quant Type** ISTD **Method:** 122209\Methods\VOAA-8260-020210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1569	0.15852		.01		1.0325	30		Averaged	
Bromodichloromethane	0.3724	0.38792		.01		4.16756	30		Averaged	
2-Chloroethylvinyl ether	0.145	0.131		.01		-9.65517	30		Averaged	
cis-1,3-Dichloropropylene	0.4071	0.41297		.01		1.44191	30		Averaged	
4-Methyl-2-pentanone	0.1672	0.1602		.01		-4.1866	40		Averaged	
Toluene	1.3614	1.32364		.01		-2.77362	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5532	0.5627		.01		1.71728	30		Averaged	
1,1,2-Trichloroethane	0.2311	0.22996		.01		-0.49329	30		Averaged	
2-Hexanone	0.4858	0.40036		.01		-17.58748	40		Averaged	
1,3-Dichloropropane	0.5246	0.51782		.01		-1.29241	30		Averaged	
Tetrachloroethylene	0.2815	0.27989		.01		-0.57194	30		Averaged	
Dibromochloromethane	0.3376	0.35528		.01		5.23697	30		Averaged	
1,2-Dibromoethane	0.2877	0.29123		.01		1.22697	30		Averaged	
Chlorobenzene	0.8588	0.85329		.3		-0.64159	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3379	0.35484		.01		5.01332	30		Averaged	
Ethylbenzene	1.6471	1.61437		.01		-1.98713	20		Averaged	ccc
m,p-Xylenes	0.5869	0.57705		.01		-1.67831	30		Averaged	
o-Xylene	0.5842	0.57647		.01		-1.32318	30		Averaged	
Styrene	0.9515	0.96058		.01		0.95428	30		Averaged	
Bromoform	0.4035	0.43647		.1		8.171	30		Averaged	spcc
Isopropylbenzene	2.8546	2.80344		.01		-1.7922	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6415	0.60262		.3		-6.0608	30		Averaged	spcc
1,2,3-Trichloropropane	0.1977	0.20214		.01		2.24583	30		Averaged	
Bromobenzene	0.656	0.66402		.01		1.22256	30		Averaged	
n-Propylbenzene	3.3917	3.2717		.01		-3.53805	30		Averaged	
2-Chlorotoluene	0.61	0.60918		.01		-0.13443	30		Averaged	
1,3,5-Trimethylbenzene	2.4291	2.38921		.01		-1.64217	30		Averaged	
4-Chlorotoluene	2.1429	2.05806		.01		-3.95912	30		Averaged	
tert-Butylbenzene	0.4589	0.46143		.01		0.55132	30		Averaged	
1,2,4-Trimethylbenzene	2.4767	2.42585		.01		-2.05314	30		Averaged	
sec-Butylbenzene	3.06	3.00994		.01		-1.63595	30		Averaged	
4-Isopropyltoluene	2.4837	2.44876		.01		-1.40677	30		Averaged	
1,3-Dichlorobenzene	1.1925	1.15178		.01		-3.41468	30		Averaged	
1,4-Dichlorobenzene	1.2344	1.18293		.01		-4.16964	30		Averaged	
n-Butylbenzene	2.5295	2.42397		.01		-4.17197	30		Averaged	
1,2-Dichlorobenzene	1.1797	1.15375		.01		-2.19971	30		Averaged	
1,2-Dibromo-3-chloropropane	50	49.08	50			-1.84	30		Linear	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Dat** 03-FEB-10 06:48

Data File: 020210\AW321.D **Init. Cal. Date(s)** 02-FEB-10 22:55 03-FEB-10 05:55

Lab Sample ID WAVM100202-17 **Quant Type** ISTD **Method:** 122209\Methods\VOAA-8260-020210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.0142	0.96718		.01		-4.63617	30		Averaged
Hexachlorobutadiene	0.6896	0.7053		.01		2.27668	30		Averaged
Naphthalene	2.2052	2.07507		.01		-5.90105	30		Averaged
1,2,3-Trichlorobenzene	0.9577	0.96128		.01		0.37381	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW321.D
Acq On : 3 Feb 2010 6:48 am
Operator : JEB
InstName : VOAA
Sample : |WAVM100202-17|ICV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[A] 100126-01A/100202-01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 03 22:35:00 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.339	9.342	1.000	96	1249146	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	911788	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	14.944	1.000	152	523089	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	9.339	1.000	96	1249146	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	911788	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	14.944	1.000	152	523089	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.978	8.982	0.961	65	516737	49.74	ug/L	0.00
43) Toluene-d8	10.983	10.987	0.878	98	1235324	50.35	ug/L	0.00
61) Bromofluorobenzene	13.713	13.713	0.918	95	530295	49.81	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	3.731	3.731	0.400	85	289855	48.51	ug/L	99
3) Chloromethane	4.034	4.043	0.432	50	342874	41.97	ug/L	99
4) Vinyl chloride	4.265	4.265	0.457	62	355107	47.91	ug/L	97
5) Bromomethane	4.829	4.839	0.517	94	226787	48.98	ug/L	98
6) Chloroethane	4.980	4.990	0.533	64	138042	50.00	ug/L	96
7) Trichlorofluoromethane	5.375	5.382	0.576	101	571306	50.55	ug/L	100
8) Ethyl ether	5.728	5.732	0.613	59	290039	48.25	ug/L	100
9) Acetone	6.075	6.082	0.650	43	1150776	192.64	ug/L	100
10) 1,1-Dichloroethylene	6.078	6.082	0.651	61	544758	48.05	ug/L	100
11) Iodomethane	6.298	6.305	0.674	142	2341568	246.69	ug/L	99
12) Acetonitrile	6.414	6.421	0.687	41	1133839	1151.49	ug/L	99
13) Methyl acetate	6.478	6.481	0.694	43	1352041	237.73	ug/L	100
14) Carbon disulfide	6.425	6.428	0.688	76	4646336	259.78	ug/L	100
15) Methylene chloride	6.644	6.651	0.711	84	308287	51.17	ug/L	99
16) tert-Butyl methyl ether	6.970	6.973	0.746	73	983484	47.48	ug/L	100
17) trans-1,2-Dichloroethy...	6.991	6.994	0.749	61	545193	49.44	ug/L	99
18) Vinyl acetate	7.447	7.454	0.797	43	2854099	201.66	ug/L	100
19) 1,1-Dichloroethane	7.468	7.471	0.800	63	648607	49.68	ug/L	100
20) 2-Butanone	8.059	8.062	0.863	43	1340327	201.38	ug/L	100
21) cis-1,2-Dichloroethylene	8.105	8.108	0.868	61	628967	50.11	ug/L	100
22) 2,2-Dichloropropane	8.133	8.140	0.871	77	563809	49.06	ug/L	100
23) Bromochloromethane	8.373	8.373	0.897	128	149644	52.06	ug/L	98
24) Chloroform	8.419	8.423	0.902	83	640063	50.36	ug/L	100
25) 1,1,1-Trichloroethane	8.688	8.692	0.930	97	616685	50.61	ug/L	99
26) Cyclohexane	8.787	8.791	0.941	56	648406	49.52	ug/L	99
27) 1,1-Dichloropropene	8.847	8.851	0.947	75	469202	50.22	ug/L	100
28) Carbon tetrachloride	8.883	8.886	0.951	117	551269	52.03	ug/L	99
30) 1,2-Dichloroethane	9.059	9.063	0.970	62	595363	49.82	ug/L	98
31) Benzene	9.084	9.084	0.973	78	1153939	49.03	ug/L	100
32) Cyclohexene	9.204	9.208	0.986	67	625416	47.89	ug/L	99
33) n-Butyl alcohol	9.459	9.462	1.013	56	1185084	5211.45	ug/L	100
34) Trichloroethylene	9.728	9.731	1.042	95	335088	51.11	ug/L	99
35) 1,2-Dichloropropane	9.965	9.965	1.067	63	342968	50.50	ug/L	100
36) Methylcyclohexane	9.979	9.982	1.069	83	531041	49.69	ug/L	100
37) Dibromomethane	10.092	10.095	1.081	93	198015	50.53	ug/L	99
38) Bromodichloromethane	10.212	10.216	1.094	83	484567	52.09	ug/L	100
39) 2-Chloroethylvinyl ether	10.453	10.453	1.119	63	818163	225.91	ug/L	100
40) cis-1,3-Dichloropropylene	10.669	10.668	1.142	75	515858	50.72	ug/L	99
42) 4-Methyl-2-pentanone	10.775	10.774	0.861	58	730341	239.58	ug/L	99
44) Toluene	11.058	11.057	0.884	91	1206877	48.61	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW321.D
Acq On : 3 Feb 2010 6:48 am
Operator : JEB
InstName : VOAA
Sample : |WAVM100202-17|ICV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[A] 100126-01A/100202-01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 03 22:35:00 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	11.213	11.213	0.897	75	513063	50.86	ug/L	100
46)	1,1,2-Trichloroethane	11.429	11.429	0.914	83	209672	49.76	ug/L	98
47)	2-Hexanone	11.623	11.627	0.929	43	1825213	206.05	ug/L	100
48)	1,3-Dichloropropane	11.616	11.620	0.929	76	472143	49.36	ug/L	91
49)	Tetrachloroethylene	11.652	11.655	0.932	164	255197	49.71	ug/L	100
50)	Dibromochloromethane	11.882	11.881	0.950	129	323944	52.62	ug/L	100
51)	1,2-Dibromoethane	12.044	12.044	0.963	107	265542	50.61	ug/L	99
52)	Chlorobenzene	12.539	12.543	1.003	112	778021	49.68	ug/L	99
53)	1,1,1,2-Tetrachloroethane	12.596	12.599	1.007	131	323538	52.51	ug/L	99
54)	Ethylbenzene	12.614	12.617	1.008	91	1471962	49.01	ug/L	99
55)	m,p-Xylenes	12.727	12.730	1.018	106	1052288	98.32	ug/L	99
56)	o-Xylene	13.162	13.162	1.052	106	525616	49.33	ug/L	99
57)	Styrene	13.162	13.162	1.052	104	875848	50.48	ug/L	99
59)	Bromoform	13.402	13.402	0.897	173	228315	54.08	ug/L	100
60)	Isopropylbenzene	13.529	13.529	0.906	105	1466447	49.10	ug/L	100
62)	1,1,2,2-Tetrachloroethane	13.795	13.795	0.923	83	315226	46.97	ug/L	99
63)	1,2,3-Trichloropropane	13.880	13.879	0.929	110	105735	51.12	ug/L	99
64)	Bromobenzene	13.918	13.918	0.932	156	347340	50.61	ug/L	98
65)	n-Propylbenzene	13.957	13.957	0.934	91	1711392	48.23	ug/L	100
66)	1,3,5-Trimethylbenzene	14.117	14.116	0.945	105	1249767	49.18	ug/L	100
67)	2-Chlorotoluene	14.095	14.095	0.943	126	318655	49.93	ug/L	99
68)	4-Chlorotoluene	14.198	14.198	0.950	91	1076549	48.02	ug/L	100
69)	tert-Butylbenzene	14.488	14.488	0.970	134	241370	50.28	ug/L	99
70)	1,2,4-Trimethylbenzene	14.530	14.530	0.973	105	1268936	48.97	ug/L	99
71)	sec-Butylbenzene	14.714	14.718	0.985	105	1574467	49.18	ug/L	100
72)	4-Isopropyltoluene	14.841	14.841	0.993	119	1280921	49.30	ug/L	100
73)	1,3-Dichlorobenzene	14.884	14.884	0.996	146	602486	48.29	ug/L	100
74)	1,4-Dichlorobenzene	14.969	14.969	1.002	146	618780	47.91	ug/L	100
75)	n-Butylbenzene	15.276	15.276	1.022	91	1267953	47.91	ug/L	99
76)	1,2-Dichlorobenzene	15.379	15.379	1.029	146	603515	48.90	ug/L	100
77)	1,2-Dibromo-3-chloropr...	16.192	16.192	1.084	157	79646	49.08	ug/L	99
78)	1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	505922	47.68	ug/L	100
79)	Hexachlorobutadiene	17.360	17.360	1.162	225	368933	51.14	ug/L	100
80)	Naphthalene	17.530	17.529	1.173	128	1085444	47.05	ug/L	100
81)	1,2,3-Trichlorobenzene	17.847	17.847	1.195	180	502835	50.18	ug/L	100
83)	Chlorotrifluoroethylene	3.651	3.661	0.391		0m	N.D.	d	
84)	2-Chloro-1,1,1-trifluo...	4.406	4.416	0.472		0m	N.D.	d	
85)	Acrolein	5.902	5.898	0.632		0m	N.D.	d	
86)	Trichlorotrifluoroethane	6.068	6.068	0.650		0m	N.D.	d	
87)	Isopropyl Alcohol	6.191	6.188	0.663		0m	N.D.	d	
88)	Allyl chloride	6.414	6.506	0.687		0m	N.D.	d	
89)	tert-Butyl Alcohol	6.694	6.687	0.717		0m	N.D.	d	
90)	Acrylonitrile	6.899	6.895	0.739		0m	N.D.	d	
91)	Isopropyl ether	7.447	7.489	0.797		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	7.585	7.581	0.812		0m	N.D.	d	
93)	Ethyl tert-butyl ether	8.105	7.893	0.868		0m	N.D.	d	
94)	Ethyl acetate	8.059	8.094	0.863		0m	N.D.	d	
95)	Propionitrile	8.055	8.122	0.863		0m	N.D.	d	
96)	Methacrylonitrile	8.303	8.306	0.889		0m	N.D.	d	
97)	Tetrahydrofuran	8.419	8.430	0.902		0m	N.D.	d	
98)	Isobutyl alcohol	8.787	8.777	0.941		0m	N.D.	d	
99)	Methyl tert-amyl ether	9.081	9.127	0.972		0m	N.D.	d	
100)	Methyl methacrylate	9.979	9.968	1.069		0m	N.D.	d	
101)	1,4-Dioxane	10.092	10.060	1.081		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW321.D
Acq On : 3 Feb 2010 6:48 am
Operator : JEB
InstName : VOAA
Sample : |WAVM100202-17|ICV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[A] 100126-01A/100202-01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 03 22:35:00 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	10.584	10.414	1.133		0m	N.D.	d
104) Ethyl methacrylate	11.238	11.238	0.898		0m	N.D.	d
106) 1-Chlorohexane	12.430	12.426	0.832		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	13.526	13.554	0.905		0m	N.D.	d
108) Cyclohexanone	13.660	13.657	0.914		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	13.841	13.844	0.926		0m	N.D.	d
110) Pentachloroethane	14.541	14.541	0.973		0m	N.D.	d
111) Benzyl chloride	15.082	15.082	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	15.482	15.485	1.036		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW321.D
Acq On : 3 Feb 2010 6:48 am
Operator : JEB
InstName : VOAA
Sample : |WAVM100202-17|ICV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[A] 100126-01A/100202-01
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 03 22:35:00 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

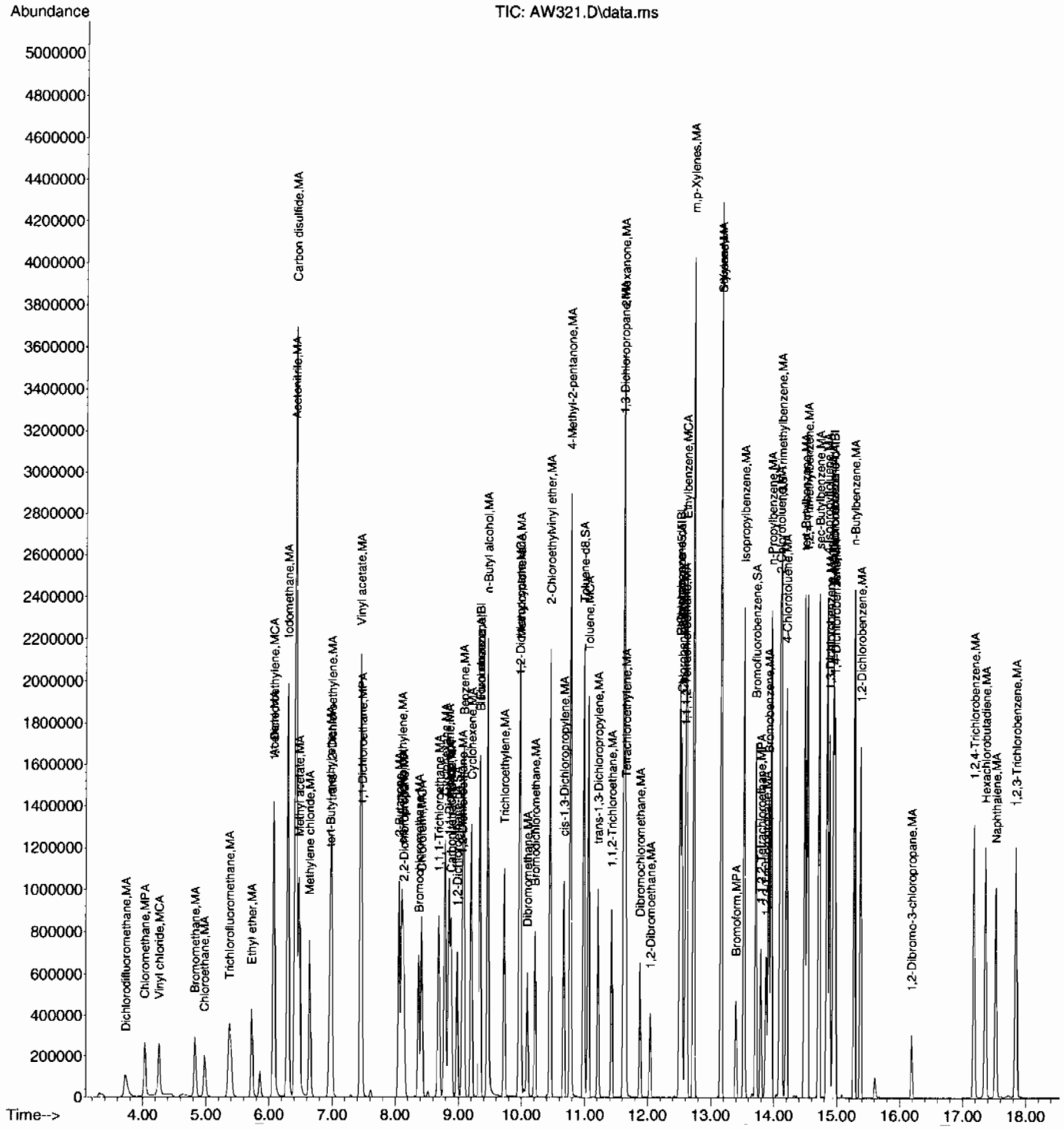

Continuing Calibration Summary

Client SDG: 10-1510

Instrument ID: VOAA.I **Injection Date** 03-FEB-10 07:40

Data File: 020210\AW323.D **Init. Cal. Date(s)** 02-FEB-10 22:55 - 03-FEB-10 05:55

Lab Sample ID WAVM100202-19 **Quant Type** ISTD **Method:** 122209\Methods\VOAA-8260-020210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.4158	0.41146		.01		-1.04377	30		Averaged
S	Toluene-d8	1.3455	1.34459		.01		-0.06763	30		Averaged
S	Bromofluorobenzene	1.0176	0.99795		.01		-1.93101	30		Averaged
	Chlorotrifluoroethylene	0.1721	0.13162		.01		-23.52121	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.2574	0.24703		.01		-4.02875	30		Averaged
	Acrolein	0.0493	0.03977		.01		-19.33063	30		Averaged
	Trichlorotrifluoroethane	0.1038	0.1054		.01		1.54143	30		Averaged
	Isopropyl Alcohol	0.0242	0.02382		.01		-1.57025	40		Averaged
	Allyl chloride	0.471	0.43912		.01		-6.76858	30		Averaged
	tert-Butyl Alcohol	0.0404	0.03953		.01		-2.15347	40		Averaged
	Acrylonitrile	0.1026	0.09834		.01		-4.15205	30		Averaged
	Isopropyl ether	1.0814	1.00659		.01		-6.91788	30		Averaged
	2-Chloro-1,3-butadiene	0.4845	0.47933		.01		-1.06708	30		Averaged
	Ethyl tert-butyl ether	1.0192	0.9653		.01		-5.28846	30		Averaged
	Ethyl acetate	0.2917	0.25283		.01		-13.32533	40		Averaged
	Propionitrile	0.0396	0.03804		.01		-3.93939	30		Averaged
	Methacrylonitrile	0.183	0.16856		.01		-7.89071	30		Averaged
	Tetrahydrofuran	0.0904	0.08491		.01		-6.07301	30		Averaged
	Isobutyl alcohol	0.0117	0.01057		.01		-9.65812	40		Averaged
	Methyl tert-amyl ether	0.7899	0.74292		.01		-5.94759	30		Averaged
	Methyl methacrylate	0.1606	0.15118		.01		-5.8655	30		Averaged
	1,4-Dioxane	0.0025	0.00259		.01		3.6	40		Averaged
	2-Nitropropane	0.0854	0.08732		.01		2.24824	30		Averaged
	Ethyl methacrylate	0.4209	0.40888		.01		-2.85579	30		Averaged
	1-Chlorohexane	0.7881	0.71856		.01		-8.82375	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2673	0.27531		.01		2.99663	30		Averaged
	Cyclohexanone	0.1254	0.03024		.01		-75.88517	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.253	0.25984		.01		2.70356	30		Averaged
	Pentachloroethane	0.1965	0.15216		.01		-22.56489	30		Averaged
	Benzyl chloride	1.0648	0.95098		.01		-10.68933	30		Averaged
	bis(2-Chloroisopropyl)ether	0.4315	0.41569		.01		-3.66396	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW323.D
Acq On : 3 Feb 2010 7:40 am
Operator : JEB
InstName : VOAA
Sample : |WAVM100202-19|ICV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[B] 100125-08A/100118-08A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 03 22:35:17 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.339	9.342	1.000	96	1257590	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	917718	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	533691	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	9.339	1.000	96	1257590	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	917718	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	533691	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.978	8.982	0.961	65	517449	49.47	ug/L	0.00
43) Toluene-d8	10.983	10.987	0.878	98	1233954	49.97	ug/L	0.00
61) Bromofluorobenzene	13.713	13.713	0.918	95	532598	49.04	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	3.651	3.731	0.391		0m	N.D.	d	
3) Chloromethane	4.023	4.043	0.431		0m	N.D.	d	
4) Vinyl chloride	4.255	4.265	0.456		0m	N.D.	d	
5) Bromomethane	4.829	4.839	0.517		0m	N.D.	d	
6) Chloroethane	4.990	4.990	0.534		0m	N.D.	d	
7) Trichlorofluoromethane	5.367	5.382	0.575		0m	N.D.	d	
8) Ethyl ether	5.732	5.732	0.614		0m	N.D.	d	
9) Acetone	6.089	6.082	0.652		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.071	6.082	0.650		0m	N.D.	d	
11) Iodomethane	6.305	6.305	0.675		0m	N.D.	d	
12) Acetonitrile	6.510	6.421	0.697		0m	N.D.	d	
13) Methyl acetate	6.683	6.481	0.716		0m	N.D.	d	
14) Carbon disulfide	6.428	6.428	0.688		0m	N.D.	d	
15) Methylene chloride	6.648	6.651	0.712		0m	N.D.	d	
16) tert-Butyl methyl ether	6.980	6.973	0.747		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.998	6.994	0.749		0m	N.D.	d	
18) Vinyl acetate	7.489	7.454	0.802		0m	N.D.	d	
19) 1,1-Dichloroethane	7.471	7.471	0.800		0m	N.D.	d	
20) 2-Butanone	8.094	8.062	0.867		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.094	8.108	0.867		0m	N.D.	d	
22) 2,2-Dichloropropane	8.140	8.140	0.872		0m	N.D.	d	
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	8.419	8.423	0.902		0m	N.D.	d	
25) 1,1,1-Trichloroethane	8.692	8.692	0.931		0m	N.D.	d	
26) Cyclohexane	8.776	8.791	0.940		0m	N.D.	d	
27) 1,1-Dichloropropene	8.851	8.851	0.948		0m	N.D.	d	
28) Carbon tetrachloride	8.893	8.886	0.952		0m	N.D.	d	
30) 1,2-Dichloroethane	9.063	9.063	0.970		0m	N.D.	d	
31) Benzene	9.084	9.084	0.973		0m	N.D.	d	
32) Cyclohexene	9.204	9.208	0.986		0m	N.D.	d	
33) n-Butyl alcohol	9.466	9.462	1.014		0m	N.D.	d	
34) Trichloroethylene	9.731	9.731	1.042		0m	N.D.	d	
35) 1,2-Dichloropropane	9.965	9.965	1.067		0m	N.D.	d	
36) Methylcyclohexane	9.968	9.982	1.067		0m	N.D.	d	
37) Dibromomethane	10.095	10.095	1.081		0m	N.D.	d	
38) Bromodichloromethane	10.219	10.216	1.094		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	10.456	10.453	1.120		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	10.672	10.668	1.143		0m	N.D.	d	
42) 4-Methyl-2-pentanone	10.774	10.774	0.861		0m	N.D.	d	
44) Toluene	11.061	11.057	0.884		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW323.D
Acq On : 3 Feb 2010 7:40 am
Operator : JEB
InstName : VOAA
Sample : |WAVM100202-19|ICV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[B] 100125-08A/100118-08A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 03 22:35:17 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45) trans-1,3-Dichloroprop...	11.213	11.213	0.897		0m	N.D.	d	
46) 1,1,2-Trichloroethane	11.425	11.429	0.913		0m	N.D.	d	
47) 2-Hexanone	11.623	11.627	0.929		0m	N.D.	d	
48) 1,3-Dichloropropane	11.616	11.620	0.929		0m	N.D.	d	
49) Tetrachloroethylene	11.651	11.655	0.932		0m	N.D.	d	
50) Dibromochloromethane	11.888	11.881	0.951		0m	N.D.	d	
51) 1,2-Dibromoethane	12.040	12.044	0.963		0m	N.D.	d	
52) Chlorobenzene	12.539	12.543	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	12.596	12.599	1.007		0m	N.D.	d	
54) Ethylbenzene	12.617	12.617	1.009		0m	N.D.	d	
55) m,p-Xylenes	12.727	12.730	1.018		0m	N.D.	d	
56) o-Xylene	13.165	13.162	1.053		0m	N.D.	d	
57) Styrene	13.162	13.162	1.052		0m	N.D.	d	
59) Bromoform	13.406	13.402	0.897		0m	N.D.	d	
60) Isopropylbenzene	13.526	13.529	0.905		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	13.795	13.795	0.923		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.		
64) Bromobenzene	13.915	13.918	0.931		0m	N.D.	d	
65) n-Propylbenzene	13.957	13.957	0.934		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.116	14.116	0.945		0m	N.D.	d	
67) 2-Chlorotoluene	14.095	14.095	0.943		0m	N.D.	d	
68) 4-Chlorotoluene	14.201	14.198	0.950		0m	N.D.	d	
69) tert-Butylbenzene	14.491	14.488	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	14.530	14.530	0.972		0m	N.D.	d	
71) sec-Butylbenzene	14.714	14.718	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	14.845	14.841	0.993		0m	N.D.	d	
73) 1,3-Dichlorobenzene	14.884	14.884	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	14.969	14.969	1.002		0m	N.D.	d	
75) n-Butylbenzene	15.276	15.276	1.022		0m	N.D.	d	
76) 1,2-Dichlorobenzene	15.382	15.379	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	16.192	16.192	1.084		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150		0m	N.D.	d	
79) Hexachlorobutadiene	17.367	17.360	1.162		0m	N.D.	d	
80) Naphthalene	17.529	17.529	1.173		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.194		0m	N.D.	d	
83) Chlorotrifluoroethylene	3.661	3.661	0.392	116	496559	114.69	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	4.416	4.416	0.473	118	931987	143.98	ug/L	100
85) Acrolein	5.898	5.898	0.632	56	250080	201.81	ug/L	99
86) Trichlorotrifluoroethane	6.071	6.068	0.650	85	662722	253.79	ug/L	99
87) Isopropyl Alcohol	6.188	6.188	0.663	45	1498060	2464.75	ug/L	99
88) Allyl chloride	6.510	6.506	0.697	41	2761188	233.07	ug/L	99
89) tert-Butyl Alcohol	6.686	6.687	0.716	59	2485789	2445.17	ug/L	100
90) Acrylonitrile	6.899	6.895	0.739	53	618366	239.72	ug/L	99
91) Isopropyl ether	7.489	7.489	0.802	45	1265875	46.54	ug/L	99
92) 2-Chloro-1,3-butadiene	7.581	7.581	0.812	53	602806	49.46	ug/L	99
93) Ethyl tert-butyl ether	7.892	7.893	0.845	59	1213957	47.36	ug/L	100
94) Ethyl acetate	8.094	8.094	0.867	43	1589756	216.68	ug/L	100
95) Propionitrile	8.122	8.122	0.870	54	239166	240.18	ug/L	99
96) Methacrylonitrile	8.306	8.306	0.889	41	1059868	230.31	ug/L	100
97) Tetrahydrofuran	8.430	8.430	0.903	42	533886	234.91	ug/L	99
98) Isobutyl alcohol	8.776	8.777	0.940	41	664588	2255.08	ug/L	100
99) Methyl tert-amyl ether	9.130	9.127	0.978	73	934288	47.03	ug/L	98
100) Methyl methacrylate	9.968	9.968	1.067	69	950624	235.40	ug/L	99
101) 1,4-Dioxane	10.060	10.060	1.077	88	162970	2569.59	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW323.D
Acq On : 3 Feb 2010 7:40 am
Operator : JEB
InstName : VOAA
Sample : |WAVM100202-19|ICV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[B] 100125-08A/100118-08A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 03 22:35:17 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
102) 2-Nitropropane	10.414	10.414	1.115	43	549045	255.61	ug/L	99
104) Ethyl methacrylate	11.238	11.238	0.898	69	1876183	242.84	ug/L	99
106) 1-Chlorohexane	12.426	12.426	0.832	55	383489	45.59	ug/L	99
107) cis-1,4-Dichloro-2-butene	13.554	13.554	0.907	53	734656	257.48	ug/L	100
108) Cyclohexanone	13.657	13.657	0.914	42	403446	301.54	ug/L	99
109) trans-1,4-Dichloro-2-b...	13.848	13.844	0.927	53	693381	256.78	ug/L	99
110) Pentachloroethane	14.544	14.541	0.973	167	406032	193.57	ug/L	99
111) Benzyl chloride	15.082	15.082	1.009	91	2537655	223.28	ug/L	100
112) bis(2-Chloroisopropyl)...	15.485	15.485	1.036	45	1109248	240.84	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW323.D
Acq On : 3 Feb 2010 7:40 am
Operator : JEB
InstName : VOAA
Sample : |WAVM100202-19|ICV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[B] 100125-08A/100118-08A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 03 22:35:17 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

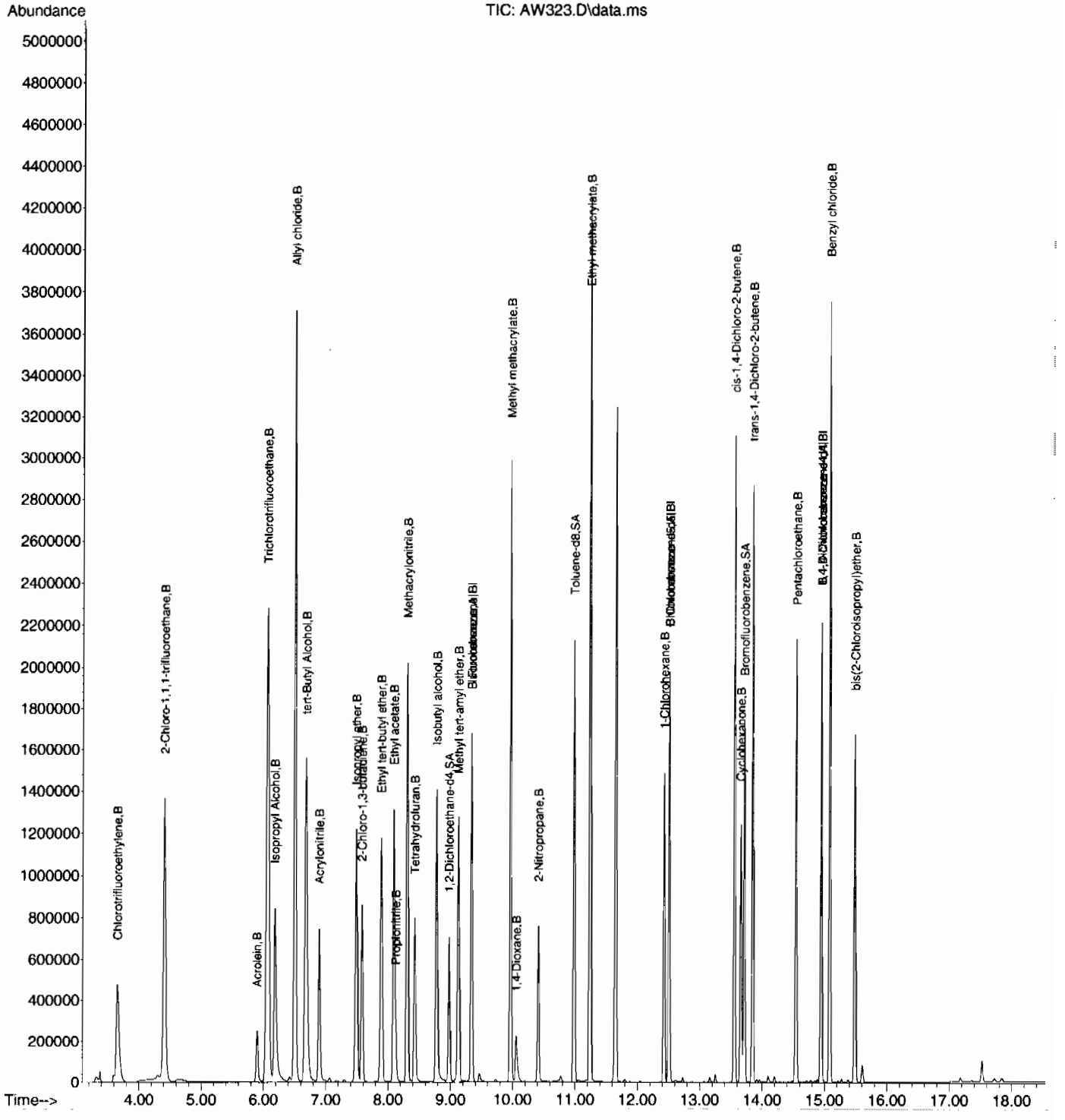

Continuing Calibration Summary

Client SDG: 10-1510

Instrument ID: VOAA.I **Injection Date** 09-FEB-10 17:01

Data File: 020910\AX202.D **Init. Cal. Date(s)** 02-FEB-10 22:55 - 03-FEB-10 05:55

Lab Sample ID WAVM100209-01 **Quant Type** ISTD **Method:** 122209\Methods\VOAA-8260-020210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.4158	0.35992		.01		-13.43915	30		Averaged	
S	Toluene-d8	1.3455	1.33651		.01		-0.66815	30		Averaged	
S	Bromofluorobenzene	1.0176	0.96361		.01		-5.30562	30		Averaged	
	Dichlorodifluoromethane	0.2391	0.22672		.01		-5.17775	30		Averaged	
	Chloromethane	0.327	0.25572		.1		-21.79817	30		Averaged	spcc
	Vinyl chloride	0.2967	0.2871		.01		-3.23559	20		Averaged	ccc
	Bromomethane	0.1853	0.20557		.01		10.93902	30		Averaged	
	Chloroethane	50	55.12	50			10.24	30		Linear	
	Trichlorofluoromethane	0.4524	0.47069		.01		4.04288	30		Averaged	
	Ethyl ether	0.2406	0.23012		.01		-4.35578	30		Averaged	
	Acetone	0.2391	0.16921		.01		-29.23045	40		Averaged	
	1,1-Dichloroethylene	0.4538	0.4383		.01		-3.4156	20		Averaged	ccc
	Iodomethane	0.3799	0.40975		.01		7.85733	30		Averaged	
	Acetonitrile	0.0394	0.03017		.01		-23.4264	30		Averaged	
	Carbon disulfide	0.7159	0.80112		.01		11.9039	30		Averaged	
	Methyl acetate	0.2276	0.19293		.01		-15.23286	40		Averaged	
	Methylene chloride	50	51.93	50			3.86	30		Linear	
	tert-Butyl methyl ether	0.829	0.73181		.01		-11.72376	30		Averaged	
	trans-1,2-Dichloroethylene	0.4414	0.41925		.01		-5.01812	30		Averaged	
	Vinyl acetate	0.5665	0.51649		.01		-8.82789	40		Averaged	
	1,1-Dichloroethane	0.5226	0.49861		.1		-4.59051	30		Averaged	spcc
	2-Butanone	0.2664	0.2199		.01		-17.45495	40		Averaged	
	cis-1,2-Dichloroethylene	0.5024	0.46991		.01		-6.46696	30		Averaged	
	2,2-Dichloropropane	0.46	0.45955		.01		-0.09783	30		Averaged	
	Bromochloromethane	0.1151	0.11988		.01		4.15291	30		Averaged	
	Chloroform	0.5087	0.50167		.01		-1.38195	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4877	0.47832		.01		-1.92331	30		Averaged	
	Cyclohexane	0.5241	0.52514		.01		0.19844	30		Averaged	
	1,1-Dichloropropene	0.374	0.38435		.01		2.76738	30		Averaged	
	Carbon tetrachloride	0.4241	0.42968		.01		1.31573	30		Averaged	
	1,2-Dichloroethane	0.4784	0.41872		.01		-12.47492	30		Averaged	
	Benzene	0.9421	0.96361		.01		2.2832	30		Averaged	
	Cyclohexene	0.5227	0.52965		.01		1.32963	30		Averaged	
	n-Butyl alcohol	0.0091	0.00931		.01		2.30769	40		Averaged	
	Trichloroethylene	0.2624	0.2722		.01		3.73476	30		Averaged	
	1,2-Dichloropropane	0.2719	0.26107		.01		-3.98308	20		Averaged	ccc
	Methylcyclohexane	0.4278	0.46183		.01		7.95465	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Dat** 09-FEB-10 17:01

Data File: 020910\AX202.D **Init. Cal. Date(s)** 02-FEB-10 22:55 03-FEB-10 05:55

Lab Sample ID WAVM100209-01 **Quant Type** ISTD **Method:** 122209\Methods\VOAA-8260-020210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1569	0.15688		.01		-0.01275	30		Averaged	
Bromodichloromethane	0.3724	0.36454		.01		-2.11063	30		Averaged	
2-Chloroethylvinyl ether	0.145	0.15293		.01		5.46897	30		Averaged	
cis-1,3-Dichloropropylene	0.4071	0.41818		.01		2.72169	30		Averaged	
4-Methyl-2-pentanone	0.1672	0.17369		.01		3.88158	40		Averaged	
Toluene	1.3614	1.43074		.01		5.09329	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5532	0.56531		.01		2.18908	30		Averaged	
1,1,2-Trichloroethane	0.2311	0.24307		.01		5.17958	30		Averaged	
1,3-Dichloropropane	0.5246	0.52558		.01		0.18681	30		Averaged	
2-Hexanone	0.4858	0.43447		.01		-10.56608	40		Averaged	
Tetrachloroethylene	0.2815	0.32427		.01		15.19361	30		Averaged	
Dibromochloromethane	0.3376	0.34334		.01		1.70024	30		Averaged	
1,2-Dibromoethane	0.2877	0.30383		.01		5.60653	30		Averaged	
Chlorobenzene	0.8588	0.89401		.3		4.09991	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3379	0.35725		.01		5.72655	30		Averaged	
Ethylbenzene	1.6471	1.73788		.01		5.51151	20		Averaged	ccc
m,p-Xylenes	0.5869	0.6222		.01		6.01465	30		Averaged	
o-Xylene	0.5842	0.61368		.01		5.04622	30		Averaged	
Styrene	0.9515	1.01047		.01		6.19758	30		Averaged	
Bromoform	0.4035	0.43915		.1		8.83519	30		Averaged	spcc
Isopropylbenzene	2.8546	2.98222		.01		4.47068	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6415	0.67647		.3		5.45129	30		Averaged	spcc
1,2,3-Trichloropropane	0.1977	0.20092		.01		1.62873	30		Averaged	
Bromobenzene	0.656	0.72548		.01		10.59146	30		Averaged	
n-Propylbenzene	3.3917	3.59707		.01		6.05508	30		Averaged	
2-Chlorotoluene	0.61	0.64753		.01		6.15246	30		Averaged	
1,3,5-Trimethylbenzene	2.4291	2.52248		.01		3.84422	30		Averaged	
4-Chlorotoluene	2.1429	2.17336		.01		1.42144	30		Averaged	
tert-Butylbenzene	0.4589	0.50882		.01		10.87819	30		Averaged	
1,2,4-Trimethylbenzene	2.4767	2.58437		.01		4.34732	30		Averaged	
sec-Butylbenzene	3.06	3.28024		.01		7.19739	30		Averaged	
4-Isopropyltoluene	2.4837	2.6504		.01		6.71176	30		Averaged	
1,3-Dichlorobenzene	1.1925	1.32879		.01		11.42893	30		Averaged	
1,4-Dichlorobenzene	1.2344	1.37477		.01		11.37152	30		Averaged	
n-Butylbenzene	2.5295	2.75612		.01		8.95908	30		Averaged	
1,2-Dichlorobenzene	1.1797	1.30302		.01		10.45351	30		Averaged	
1,2-Dibromo-3-chloropropane	50	48.55	50			-2.9	30		Linear	

Continuing Calibration Summary

Instrument ID: VOAA.I **Injection Dat** 09-FEB-10 17:01

Data File: 020910\AX202.D **Init. Cal. Date(s)** 02-FEB-10 22:55 03-FEB-10 05:55

Lab Sample ID WAVM100209-01 **Quant Type** ISTD **Method:** 122209\Methods\VOAA-8260-020210.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	1.0142	1.18984		.01		17.31808	30		Averaged
Hexachlorobutadiene	0.6896	0.82284		.01		19.32135	30		Averaged
Naphthalene	2.2052	2.35955		.01		6.99937	30		Averaged
1,2,3-Trichlorobenzene	0.9577	1.09851		.01		14.70293	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX202.D
Acq On : 9 Feb 2010 5:01 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM100209-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[A]100126-01B/100206-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 20:39:54 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1396930	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	997004	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	581443	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1396930	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	997004	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	581443	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	502783	43.28	ug/L	0.00
43) Toluene-d8	10.987	10.987	0.878	98	1332504	49.67	ug/L	0.00
61) Bromofluorobenzene	13.713	13.713	0.918	95	560282	47.35	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	3.731	3.731	0.399	85	316711	47.40	ug/L	100
3) Chloromethane	4.043	4.043	0.433	50	357226	39.10	ug/L	98
4) Vinyl chloride	4.265	4.265	0.457	62	401053	48.38	ug/L	99
5) Bromomethane	4.839	4.839	0.518	94	287161	55.46	ug/L	98
6) Chloroethane	4.990	4.990	0.534	64	169431	55.12	ug/L	97
7) Trichlorofluoromethane	5.382	5.382	0.576	101	657519	52.02	ug/L	100
8) Ethyl ether	5.732	5.732	0.614	59	321458	47.82	ug/L	93
9) Acetone	6.082	6.082	0.651	43	1181877	176.91	ug/L	88
10) 1,1-Dichloroethylene	6.082	6.082	0.651	61	612277	48.29	ug/L	94
11) Iodomethane	6.305	6.305	0.675	142	2861982	269.62	ug/L	96
12) Acetonitrile	6.418	6.421	0.687	41	1053777	956.96	ug/L	99
13) Methyl acetate	6.481	6.481	0.694	43	1347578	211.88	ug/L	94
14) Carbon disulfide	6.428	6.428	0.688	76	5595514	279.75	ug/L	100
15) Methylene chloride	6.651	6.651	0.712	84	349843	51.93	ug/L	86
16) tert-Butyl methyl ether	6.973	6.973	0.746	73	1022293	44.14	ug/L	98
17) trans-1,2-Dichloroethy...	6.994	6.994	0.749	61	585665	47.50	ug/L	91
18) Vinyl acetate	7.454	7.454	0.798	43	3607467	227.93	ug/L	95
19) 1,1-Dichloroethane	7.472	7.471	0.800	63	696527	47.71	ug/L	99
20) 2-Butanone	8.062	8.062	0.863	43	1535891	206.35	ug/L	91
21) cis-1,2-Dichloroethylene	8.108	8.108	0.868	61	656431	46.77	ug/L	92
22) 2,2-Dichloropropane	8.136	8.140	0.871	77	641958	49.95	ug/L	86
23) Bromochloromethane	8.373	8.373	0.896	128	167460	52.09	ug/L #	87
24) Chloroform	8.423	8.423	0.902	83	700794	49.30	ug/L	100
25) 1,1,1-Trichloroethane	8.692	8.692	0.930	97	668178	49.04	ug/L	97
26) Cyclohexane	8.791	8.791	0.941	56	733584	50.10	ug/L	95
27) 1,1-Dichloropropene	8.851	8.851	0.947	75	536917	51.39	ug/L	86
28) Carbon tetrachloride	8.886	8.886	0.951	117	600232	50.66	ug/L	100
30) 1,2-Dichloroethane	9.063	9.063	0.970	62	584929	43.77	ug/L	99
31) Benzene	9.084	9.084	0.972	78	1346097	51.14	ug/L	95
32) Cyclohexene	9.204	9.208	0.985	67	739881	50.66	ug/L	93
33) n-Butyl alcohol	9.463	9.462	1.013	56	1300194	5112.77	ug/L	89
34) Trichloroethylene	9.731	9.731	1.042	95	380250	51.86	ug/L	100
35) 1,2-Dichloropropane	9.968	9.965	1.067	63	364700	48.02	ug/L	96
36) Methylcyclohexane	9.982	9.982	1.069	83	645142	53.98	ug/L	92
37) Dibromomethane	10.092	10.095	1.080	93	219152	50.01	ug/L	95
38) Bromodichloromethane	10.216	10.216	1.093	83	509241	48.95	ug/L	99
39) 2-Chloroethylvinyl ether	10.456	10.453	1.119	63	1068195	263.74	ug/L	98
40) cis-1,3-Dichloropropylene	10.672	10.668	1.142	75	584169	51.36	ug/L	87
42) 4-Methyl-2-pentanone	10.775	10.774	0.861	58	865824	259.74	ug/L #	80
44) Toluene	11.057	11.057	0.884	91	1426452	52.55	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX202.D
Acq On : 9 Feb 2010 5:01 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM100209-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[A]100126-01B/100206-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 20:39:54 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
45)	trans-1,3-Dichloroprop...	11.213	11.213	0.897	75	563614	51.09	ug/L		89
46)	1,1,2-Trichloroethane	11.429	11.429	0.914	83	242340	52.59	ug/L		99
47)	2-Hexanone	11.627	11.627	0.930	43	2165862	223.61	ug/L		90
48)	1,3-Dichloropropane	11.620	11.620	0.929	76	524002	50.10	ug/L	#	81
49)	Tetrachloroethylene	11.655	11.655	0.932	164	323298	57.60	ug/L		95
50)	Dibromochloromethane	11.881	11.881	0.950	129	342314	50.85	ug/L		100
51)	1,2-Dibromoethane	12.044	12.044	0.963	107	302916	52.79	ug/L		99
52)	Chlorobenzene	12.543	12.543	1.003	112	891333	52.05	ug/L		98
53)	1,1,1,2-Tetrachloroethane	12.599	12.599	1.007	131	356181	52.86	ug/L		98
54)	Ethylbenzene	12.617	12.617	1.009	91	1732669	52.76	ug/L		99
55)	m,p-Xylenes	12.730	12.730	1.018	106	1240672	106.02	ug/L		100
56)	o-Xylene	13.162	13.162	1.052	106	611841	52.52	ug/L		98
57)	Styrene	13.165	13.162	1.053	104	1007444	53.10	ug/L		94
59)	Bromoform	13.406	13.402	0.897	173	255343	54.42	ug/L		100
60)	Isopropylbenzene	13.529	13.529	0.905	105	1733989	52.24	ug/L		100
62)	1,1,2,2-Tetrachloroethane	13.795	13.795	0.923	83	393330	52.73	ug/L		99
63)	1,2,3-Trichloropropane	13.879	13.879	0.929	110	116824	50.82	ug/L		99
64)	Bromobenzene	13.918	13.918	0.931	156	421828	55.30	ug/L		93
65)	n-Propylbenzene	13.961	13.957	0.934	91	2091490	53.03	ug/L		100
66)	1,3,5-Trimethylbenzene	14.120	14.116	0.945	105	1466681	51.92	ug/L		99
67)	2-Chlorotoluene	14.095	14.095	0.943	126	376502	53.07	ug/L		95
68)	4-Chlorotoluene	14.198	14.198	0.950	91	1263683	50.71	ug/L		98
69)	tert-Butylbenzene	14.488	14.488	0.969	134	295850	55.44	ug/L		89
70)	1,2,4-Trimethylbenzene	14.530	14.530	0.972	105	1502665	52.17	ug/L		100
71)	sec-Butylbenzene	14.718	14.718	0.985	105	1907273	53.60	ug/L		98
72)	4-Isopropyltoluene	14.845	14.841	0.993	119	1541055	53.36	ug/L		98
73)	1,3-Dichlorobenzene	14.887	14.884	0.996	146	772614	55.71	ug/L		96
74)	1,4-Dichlorobenzene	14.969	14.969	1.002	146	799350	55.68	ug/L		96
75)	n-Butylbenzene	15.276	15.276	1.022	91	1602528	54.48	ug/L		100
76)	1,2-Dichlorobenzene	15.379	15.379	1.029	146	757631	55.23	ug/L		96
77)	1,2-Dibromo-3-chloropr...	16.196	16.192	1.084	157	87553	48.55	ug/L		93
78)	1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	691824	58.66	ug/L		100
79)	Hexachlorobutadiene	17.367	17.360	1.162	225	478433	59.66	ug/L		99
80)	Naphthalene	17.529	17.529	1.173	128	1371944	53.50	ug/L		100
81)	1,2,3-Trichlorobenzene	17.847	17.847	1.194	180	638721	57.35	ug/L		100
83)	Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.			
85)	Acrolein	5.866	5.898	0.628		0m	N.D.	d		
86)	Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.425	6.188	0.688		0m	N.D.	d		
88)	Allyl chloride	6.418	6.506	0.687		0m	N.D.	d		
89)	tert-Butyl Alcohol	6.485	6.687	0.694		0m	N.D.	d		
90)	Acrylonitrile	6.976	6.895	0.747		0m	N.D.	d		
91)	Isopropyl ether	7.450	7.489	0.797		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	7.617	7.581	0.815		0m	N.D.	d		
93)	Ethyl tert-butyl ether	8.112	7.893	0.868		0m	N.D.	d		
94)	Ethyl acetate	8.062	8.094	0.863		0m	N.D.	d		
95)	Propionitrile	8.059	8.122	0.863		0m	N.D.	d		
96)	Methacrylonitrile	8.416	8.306	0.901		0m	N.D.	d		
97)	Tetrahydrofuran	8.430	8.430	0.902		0m	N.D.	d		
98)	Isobutyl alcohol	8.787	8.777	0.941		0m	N.D.	d		
99)	Methyl tert-amyl ether	9.084	9.127	0.972		0m	N.D.	d		
100)	Methyl methacrylate	9.979	9.968	1.068		0m	N.D.	d		
101)	1,4-Dioxane	10.092	10.060	1.080		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX202.D
Acq On : 9 Feb 2010 5:01 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM100209-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[A]100126-01B/100206-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 20:39:54 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	10.400	10.414	1.113		0m	N.D.	d
104) Ethyl methacrylate	10.990	11.238	0.879		0m	N.D.	d
106) 1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	13.526	13.554	0.905		0m	N.D.	d
108) Cyclohexanone	13.526	13.657	0.905		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110) Pentachloroethane	14.541	14.541	0.973		0m	N.D.	d
111) Benzyl chloride	15.276	15.082	1.022		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	15.605	15.485	1.044		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX202.D
Acq On : 9 Feb 2010 5:01 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM100209-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[A]100126-01B/100206-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 09 20:39:54 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

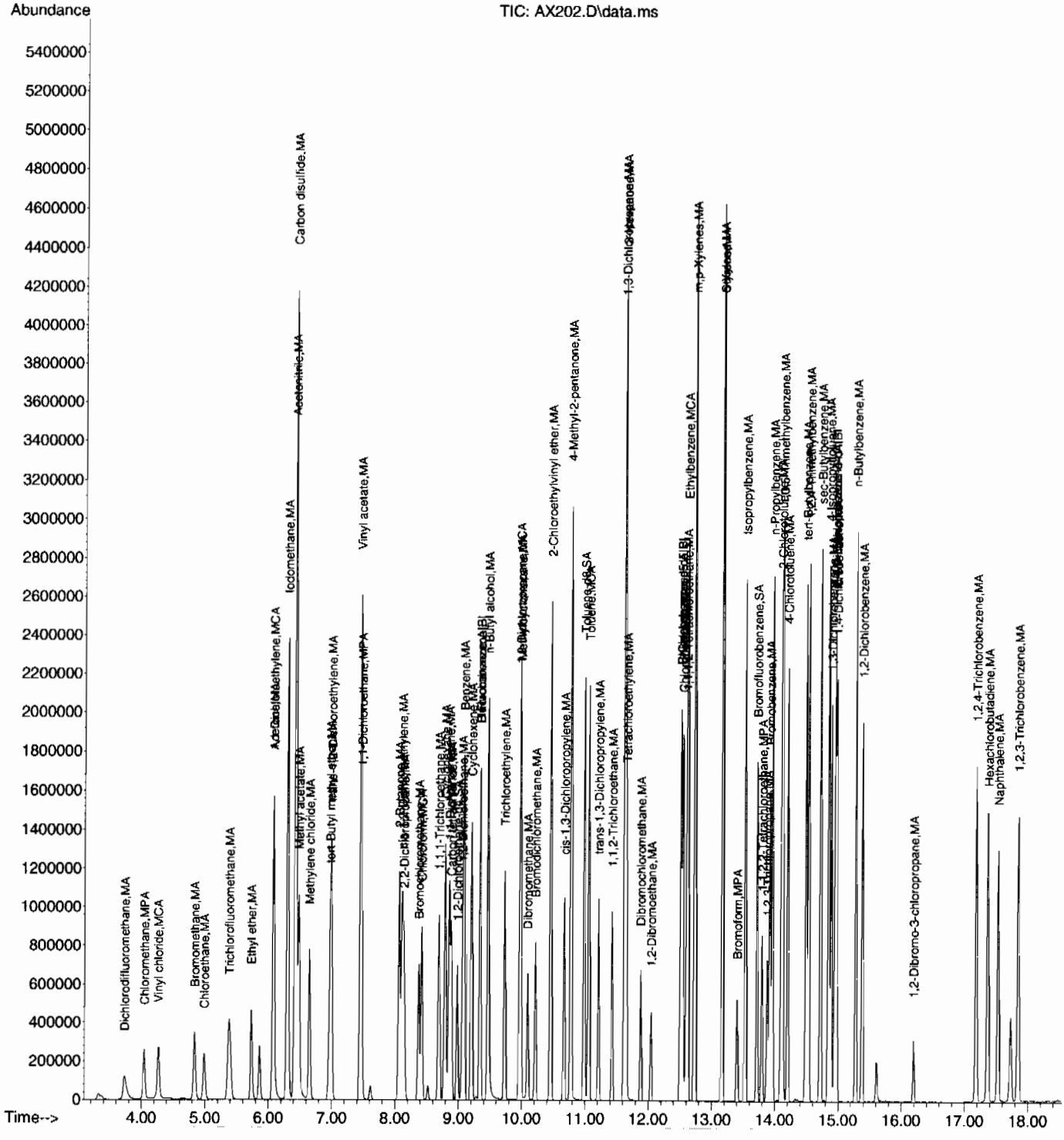

Continuing Calibration Summary

Client SDG: 10-1510

Instrument ID: VOAA.I **Injection Date** 09-FEB-10 18:15

Data File: 020910\AX204.D **Init. Cal. Date(s)** 02-FEB-10 22:55 - 03-FEB-10 05:55

Lab Sample ID WAVM100209-03 **Quant Type** ISTD **Method:** 122209\Methods\VOAA-8260-020210.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.4158	0.3506		.01		-15.68062	30		Averaged
S	Toluene-d8	1.3455	1.34625		.01		0.05574	30		Averaged
S	Bromofluorobenzene	1.0176	0.97479		.01		-4.20696	30		Averaged
	Acrolein	0.0493	0.04726		.01		-4.13793	30		Averaged
	Trichlorotrifluoroethane	0.1038	0.10755		.01		3.61272	30		Averaged
	Allyl chloride	0.471	0.36642		.01		-22.20382	30		Averaged
	Acrylonitrile	0.1026	0.09701		.01		-5.44834	30		Averaged
	2-Chloro-1,3-butadiene	0.4845	0.41074		.01		-15.22394	30		Averaged
	Ethyl acetate	0.2917	0.22391		.01		-23.23963	40		Averaged
	Propionitrile	0.0396	0.03888		.01		-1.81818	30		Averaged
	Methacrylonitrile	0.183	0.14209		.01		-22.35519	30		Averaged
	Tetrahydrofuran	0.0904	0.07533		.01		-16.67035	30		Averaged
	Isobutyl alcohol	0.0117	0.00919		.01		-21.45299	40		Averaged
	Methyl methacrylate	0.1606	0.16311		.01		1.56289	30		Averaged
	1,4-Dioxane	0.0025	0.00275		.01		10	40		Averaged
	2-Nitropropane	0.0854	0.07204		.01		-15.64403	30		Averaged
	Ethyl methacrylate	0.4209	0.44684		.01		6.16298	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2673	0.27635		.01		3.38571	30		Averaged
	Cyclohexanone	0.1254	0.02625		.01		-79.06699	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.253	0.26391		.01		4.31225	30		Averaged
	Pentachloroethane	0.1965	0.42726		.01		117.43511	30	*	Averaged
	Benzyl chloride	1.0648	1.43434		.01		34.70511	30	*	Averaged
	bis(2-Chloroisopropyl)ether	0.4315	0.40129		.01		-7.00116	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX204.D
Acq On : 9 Feb 2010 6:15 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM100209-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[B]100118-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 19:52:13 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.342	9.342	1.000	96	1443707	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	1019514	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	592868	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1443707	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	1019514	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	592868	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	506170	42.16	ug/L	0.00
43) Toluene-d8	10.983	10.987	0.878	98	1372525	50.03	ug/L	0.00
61) Bromofluorobenzene	13.713	13.713	0.918	95	577920	47.90	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.033	4.043	0.432		0m	N.D.	d	
4) Vinyl chloride	4.255	4.265	0.455		0m	N.D.	d	
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.089	6.082	0.652		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.082	6.082	0.651		0m	N.D.	d	
11) Iodomethane	6.301	6.305	0.674		0m	N.D.	d	
12) Acetonitrile	6.432	6.421	0.688		0m	N.D.	d	
13) Methyl acetate	6.489	6.481	0.695		0m	N.D.	d	
14) Carbon disulfide	6.425	6.428	0.688		0m	N.D.	d	
15) Methylene chloride	6.655	6.651	0.712		0m	N.D.	d	
16) tert-Butyl methyl ether	6.969	6.973	0.746		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	6.998	6.994	0.749		0m	N.D.	d	
18) Vinyl acetate	7.454	7.454	0.798		0m	N.D.	d	
19) 1,1-Dichloroethane	7.585	7.471	0.812		0m	N.D.	d	
20) 2-Butanone	8.094	8.062	0.866		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.094	8.108	0.866		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	8.419	8.423	0.901		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	8.780	8.791	0.940		0m	N.D.	d	
27) 1,1-Dichloropropene	8.854	8.851	0.948		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	9.059	9.063	0.970		0m	N.D.	d	
31) Benzene	9.088	9.084	0.973		0m	N.D.	d	
32) Cyclohexene	9.204	9.208	0.985		0m	N.D.	d	
33) n-Butyl alcohol	9.466	9.462	1.013		0m	N.D.	d	
34) Trichloroethylene	9.735	9.731	1.042		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	9.968	9.982	1.067		0m	N.D.	d	
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	9.968	10.216	1.067		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	10.449	10.453	1.118		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	10.672	10.668	1.142		0m	N.D.	d	
42) 4-Methyl-2-pentanone	10.771	10.774	0.861		0m	N.D.	d	
44) Toluene	11.057	11.057	0.884		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX204.D
Acq On : 9 Feb 2010 6:15 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM100209-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[B]100118-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 19:52:13 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	11.217	11.213	0.897		0m	N.D.	d	
46)	1,1,2-Trichloroethane	11.422	11.429	0.913		0m	N.D.	d	
47)	2-Hexanone	11.627	11.627	0.930		0m	N.D.	d	
48)	1,3-Dichloropropane	11.613	11.620	0.928		0m	N.D.	d	
49)	Tetrachloroethylene	11.652	11.655	0.932		0m	N.D.	d	
50)	Dibromochloromethane	11.652	11.881	0.932		0m	N.D.	d	
51)	1,2-Dibromoethane	12.048	12.044	0.963		0m	N.D.	d	
52)	Chlorobenzene	12.543	12.543	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	12.599	12.599	1.007		0m	N.D.	d	
54)	Ethylbenzene	12.617	12.617	1.009		0m	N.D.	d	
55)	m,p-Xylenes	12.730	12.730	1.018		0m	N.D.	d	
56)	o-Xylene	13.162	13.162	1.052		0m	N.D.	d	
57)	Styrene	13.162	13.162	1.052		0m	N.D.	d	
59)	Bromoform	0.000	13.402	0.000		0	N.D.		
60)	Isopropylbenzene	13.529	13.529	0.905		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	13.788	13.795	0.923		0m	N.D.	d	
63)	1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.		
64)	Bromobenzene	13.922	13.918	0.932		0m	N.D.	d	
65)	n-Propylbenzene	13.957	13.957	0.934		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	14.116	14.116	0.945		0m	N.D.	d	
67)	2-Chlorotoluene	14.095	14.095	0.943		0m	N.D.	d	
68)	4-Chlorotoluene	14.198	14.198	0.950		0m	N.D.	d	
69)	tert-Butylbenzene	14.541	14.488	0.973		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	14.530	14.530	0.972		0m	N.D.	d	
71)	sec-Butylbenzene	14.718	14.718	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	14.841	14.841	0.993		0m	N.D.	d	
73)	1,3-Dichlorobenzene	14.884	14.884	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	14.969	14.969	1.002		0m	N.D.	d	
75)	n-Butylbenzene	15.082	15.276	1.009		0m	N.D.	d	
76)	1,2-Dichlorobenzene	15.379	15.379	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	17.183	17.183	1.150		0m	N.D.	d	
79)	Hexachlorobutadiene	17.367	17.360	1.162		0m	N.D.	d	
80)	Naphthalene	17.530	17.529	1.173		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	17.847	17.847	1.194		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.		
85)	Acrolein	5.901	5.898	0.632	56	341117	239.79	ug/L	94
86)	Trichlorotrifluoroethane	6.071	6.068	0.650	85	776334	258.97	ug/L	91
87)	Isopropyl Alcohol	0.000	6.188	0.000		0m	N.D.	d	
88)	Allyl chloride	6.510	6.506	0.697	41	2645038	194.48	ug/L	91
89)	tert-Butyl Alcohol	0.000	6.687	0.000		0m	N.D.	d	
90)	Acrylonitrile	6.899	6.895	0.738	53	700234	236.46	ug/L	98
91)	Isopropyl ether	0.000	7.489	0.000		0	N.D.		
92)	2-Chloro-1,3-butadiene	7.585	7.581	0.812	53	592987	42.38	ug/L	85
93)	Ethyl tert-butyl ether	0.000	7.893	0.000		0m	N.D.	d	
94)	Ethyl acetate	8.094	8.094	0.866	43	1616310	191.90	ug/L	94
95)	Propionitrile	8.122	8.122	0.869	54	280681	245.53	ug/L	99
96)	Methacrylonitrile	8.306	8.306	0.889	41	1025677	194.15	ug/L	98
97)	Tetrahydrofuran	8.430	8.430	0.902	42	543783	208.42	ug/L	86
98)	Isobutyl alcohol	8.780	8.777	0.940	41	663583	1961.39	ug/L	95
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.		
100)	Methyl methacrylate	9.968	9.968	1.067	69	1177398	253.97	ug/L #	77
101)	1,4-Dioxane	10.060	10.060	1.077	88	198834	2730.91	ug/L	92

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX204.D
Acq On : 9 Feb 2010 6:15 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM100209-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[B]100118-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 19:52:13 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102) 2-Nitropropane	10.414	10.414	1.115	43	520020	210.89	ug/L	100	
104) Ethyl methacrylate	11.238	11.238	0.898	69	2277782	265.38	ug/L	83	
106) 1-Chlorohexane	0.000	12.426	0.000		0	N.D.			
107) cis-1,4-Dichloro-2-butene	13.558	13.554	0.907	53	819193	258.45	ug/L	89	
108) Cyclohexanone	13.660	13.657	0.914	42	389052	261.75	ug/L	79	
109) trans-1,4-Dichloro-2-b...	13.848	13.844	0.927	53	782322	260.80	ug/L	82	
110) Pentachloroethane	14.544	14.541	0.973	167	1266538	543.54	ug/L	94	E
111) Benzyl chloride	15.082	15.082	1.009	91	4251857	336.77	ug/L	98	
112) bis(2-Chloroisopropyl)...	15.485	15.485	1.036	45	1189570	232.50	ug/L	91	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX204.D
Acq On : 9 Feb 2010 6:15 pm
Operator : JEB
InstName : VOAA
Sample : |WAVM100209-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEEL 5ML N/A MIX[B]100118-08B
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 09 19:52:13 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

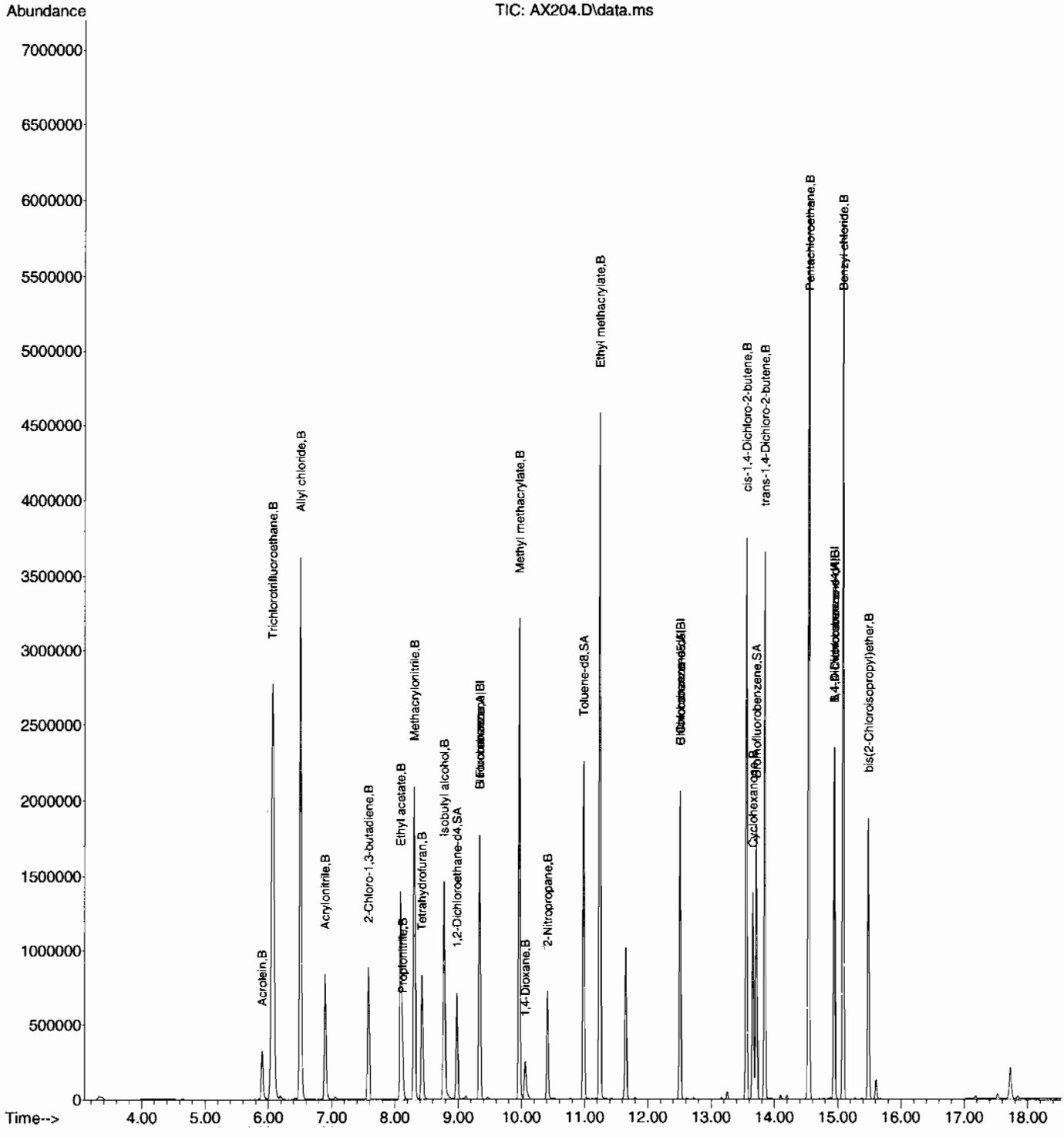

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020210\
Data File : AW301.D
Acq On : 2 Feb 2010 10:04 pm
Operator : JEB
Sample : |UVM100114-02|BFB|1|VOA|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Jan 27 17:03:34 2010

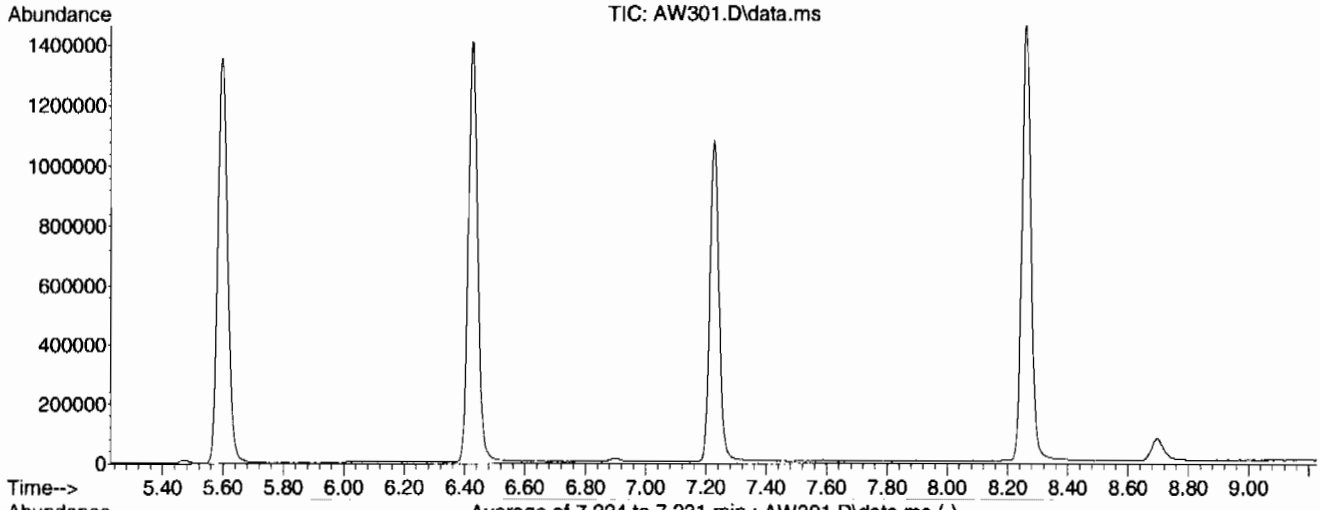

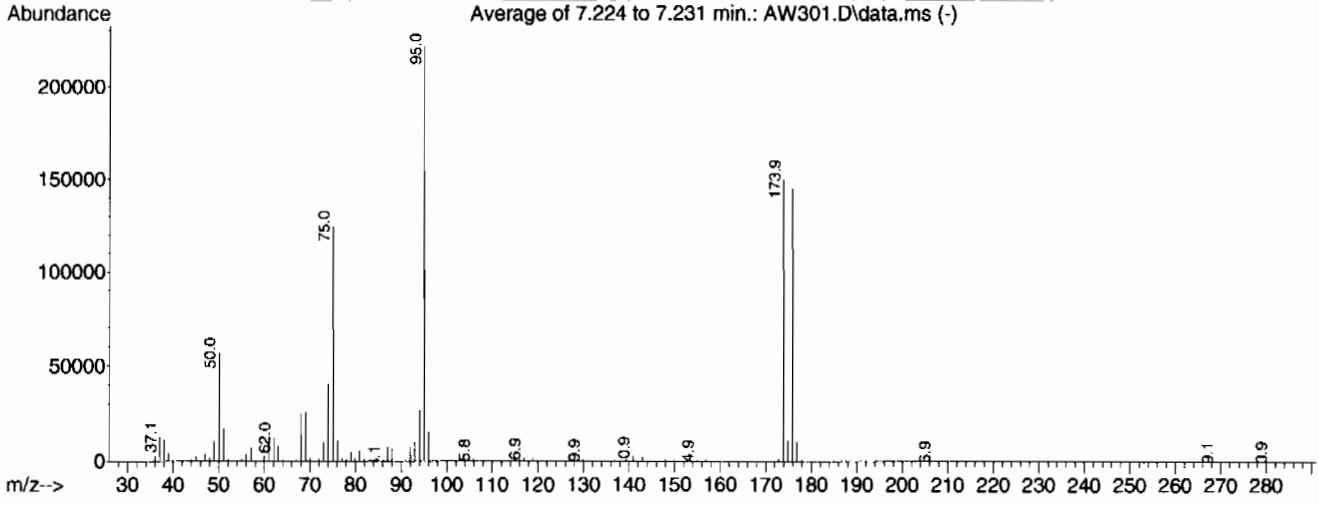

AutoFind: Scans 835, 836, 837; Background Corrected with Scan 818

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	25.6	56651	PASS
75	95	30	60	56.3	124699	PASS
95	95	100	100	100.0	221440	PASS
96	95	5	9	6.9	15318	PASS
173	174	0.00	2	0.6	868	PASS
174	95	50	100	67.7	149909	PASS
175	174	5	9	6.8	10237	PASS
176	174	95	101	96.7	144960	PASS
177	176	5	9	6.9	10065	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX201.D
Acq On : 9 Feb 2010 4:37 pm
Operator : JEB
Sample : |UVM100114-02|BFB|1|VOA|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Feb 03 22:34:28 2010

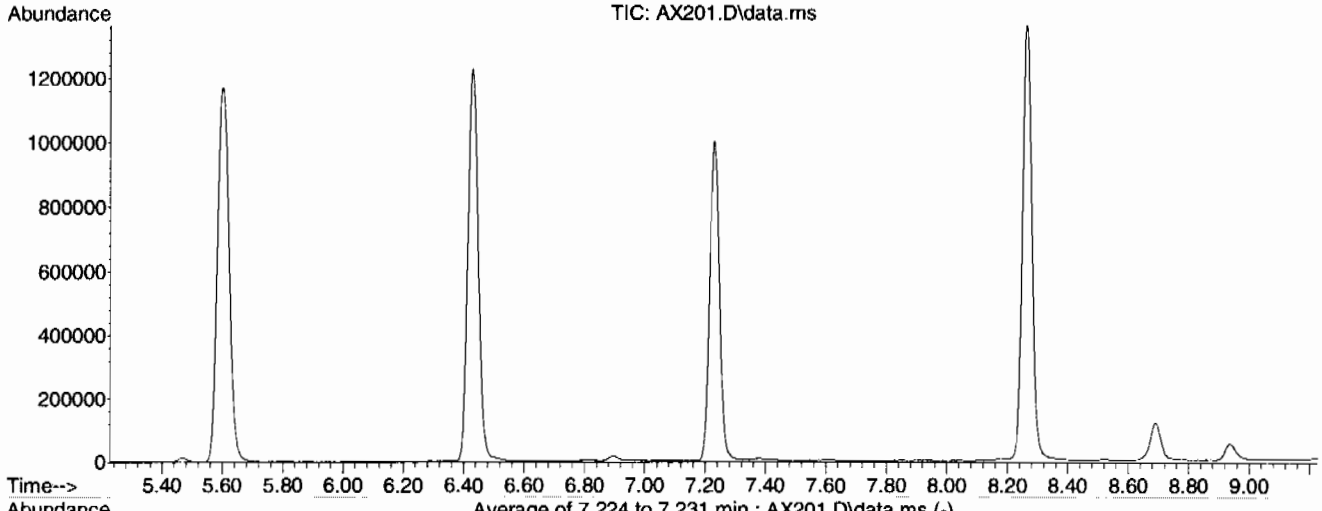

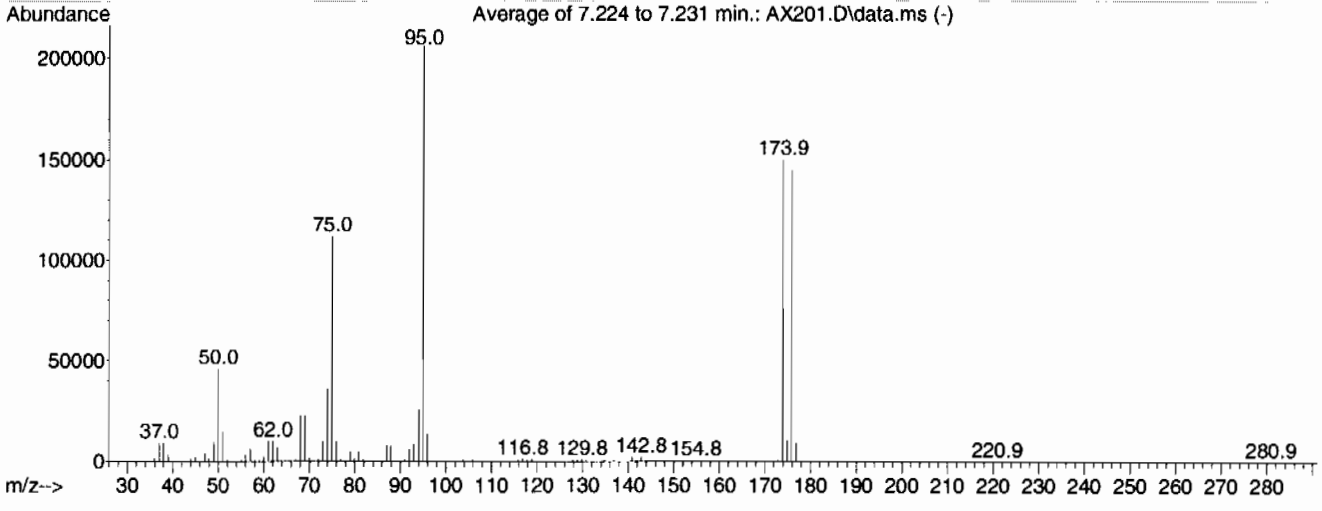

AutoFind: Scans 835, 836, 837; Background Corrected with Scan 818

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.3	45915	PASS
75	95	30	60	54.4	111893	PASS
95	95	100	100	100.0	205781	PASS
96	95	5	9	6.7	13710	PASS
173	174	0.00	2	0.4	664	PASS
174	95	50	100	73.0	150165	PASS
175	174	5	9	6.9	10394	PASS
176	174	95	101	96.6	145109	PASS
177	176	5	9	6.5	9373	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038395**				
Client Sample:	**QC for batch 951184**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 951184**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 19:08**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 16:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX206LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038395**				
Client Sample:	**QC for batch 951184**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 951184**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 19:08**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 16:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX206LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	17.73	11	ug/kg	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX206LA.D
Acq On : 9 Feb 2010 7:08 pm
Operator : JEB
InstName : VOAA
Sample : |1202038395|951185|1|VOA|1|VOA8260BS|
Misc : GEEL 5G N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 19:54:15 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.339	9.342	1.000	96	1414560	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	999180	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	574900	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	9.339	1.000	96	1414560	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	999180	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	574900	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.962	65	463580	39.40	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 78.80%					
43) Toluene-d8	10.987	10.987	0.878	98	1324642	49.27	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.54%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	545672	46.64	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 93.28%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	1434	N.D.		
4) Vinyl chloride	4.245	4.265	0.455	62	1501	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.092	6.082	0.652	43	3887	N.D.		
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	6.425	6.421	0.688	41	360	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.428	6.428	0.688	76	3340	N.D.		
15) Methylene chloride	6.641	6.651	0.711	84	5006	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	8.069	8.062	0.864	43	719	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	0.000	8.791	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX206LA.D
Acq On : 9 Feb 2010 7:08 pm
Operator : JEB
InstName : VOAA
Sample : |1202038395|951185|1|VOA|1|VOA8260BS|
Misc : GEEL 5G N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 19:54:15 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.057	11.057	0.884	91	1487	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	11.634	11.627	0.930	43	1099	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	12.546	12.543	1.003	112	676	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.617	12.617	1.008	91	719	N.D.	
55) m,p-Xylenes	12.730	12.730	1.018	106	272	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	13.165	13.162	1.052	104	884	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	13.717	13.529	0.918	105	109	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.	
64) Bromobenzene	13.918	13.918	0.931	156	159	N.D.	
65) n-Propylbenzene	13.961	13.957	0.934	91	926	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	14.201	14.198	0.950	91	2051	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.530	14.530	0.972	105	370	N.D.	
71) sec-Butylbenzene	14.530	14.718	0.972	105	370	N.D.	
72) 4-Isopropyltoluene	0.000	14.841	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	14.887	14.884	0.996	146	1419	N.D.	
74) 1,4-Dichlorobenzene	14.972	14.969	1.002	146	2402	N.D.	
75) n-Butylbenzene	15.276	15.276	1.022	91	641	N.D.	
76) 1,2-Dichlorobenzene	15.379	15.379	1.029	146	1149	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	2130	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.530	17.529	1.173	128	7508	N.D.	
81) 1,2,3-Trichlorobenzene	17.839	17.847	1.194	180	1638	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.188	0.000		0	N.D.	
88) Allyl chloride	6.503	6.506	0.696	41	134	N.D.	
89) tert-Butyl Alcohol	0.000	6.687	0.000		0	N.D.	
90) Acrylonitrile	6.906	6.895	0.739	53	2027	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	8.069	8.094	0.864	43	719	N.D.	
95) Propionitrile	8.129	8.122	0.870	54	459	N.D.	
96) Methacrylonitrile	8.306	8.306	0.889	41	1949	N.D.	
97) Tetrahydrofuran	8.441	8.430	0.904	42	1169	N.D.	
98) Isobutyl alcohol	8.777	8.777	0.940	41	2257	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX206LA.D
Acq On : 9 Feb 2010 7:08 pm
Operator : JEB
InstName : VOAA
Sample : |1202038395|951185|1|VOA|1|VOA8260BS|
Misc : GEEL 5G N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 19:54:15 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	9.961	9.968	1.067	69	1181	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	10.414	10.414	1.115	43	1564	N.D.	
104)	Ethyl methacrylate	11.241	11.238	0.899	69	2058	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	13.558	13.554	0.907	53	2036	N.D.	
108)	Cyclohexanone	13.660	13.657	0.914	42	2324	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0m	N.D.	d
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	15.082	15.082	1.009	91	10546	N.D.	
112)	bis(2-Chloroisopropyl)...	15.485	15.485	1.036	45	3802	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX206LA.D
Acq On : 9 Feb 2010 7:08 pm
Operator : JEB
InstName : VOAA
Sample : |1202038395|951185|1|VOA|1|VOA8260BS|
Misc : GEEL 5G N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 09 19:54:15 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

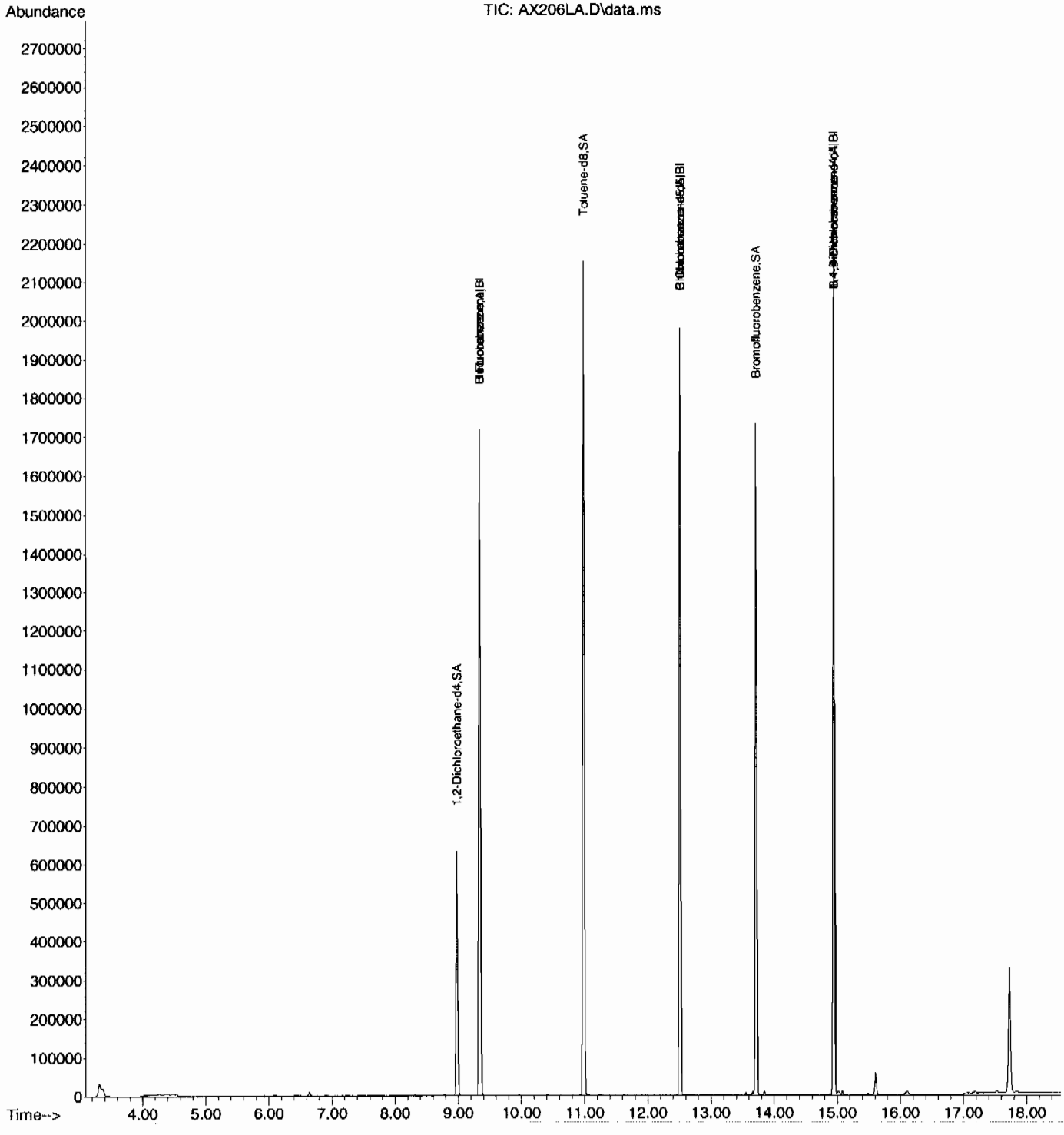

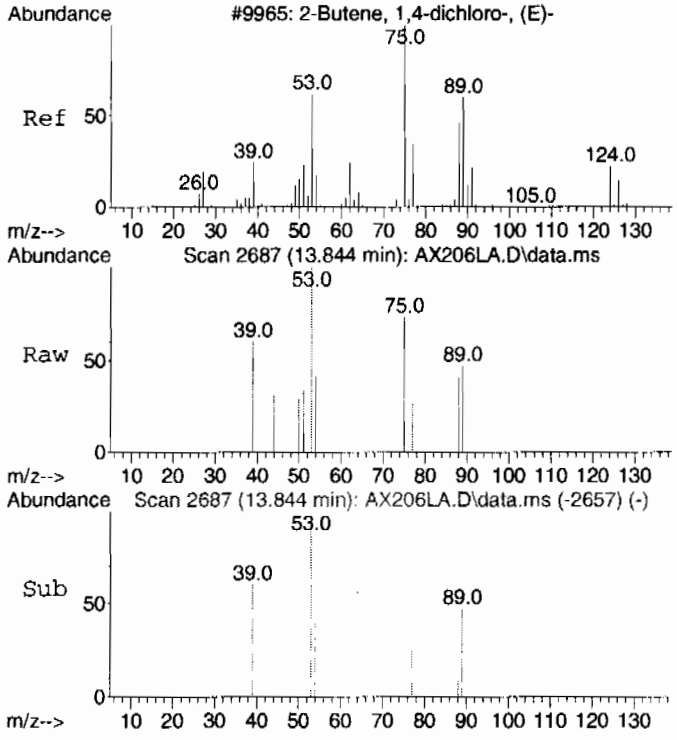

#109 BEFORE analyst DELETION
trans-1,4-Dichloro-2-butene
Concen: 0.94 ug/L
RT: 13.844 min Scan# 2687
Delta R.T. -0.000 min
Lab File: AX206LA.D
Acq: 9 Feb 2010 7:08 pm

Tgt Ion: 53 Resp: 2734

Ion	Ratio	Lower	Upper
53	100		
88	43.4	21.0	81.0
75	96.4	61.9	121.9

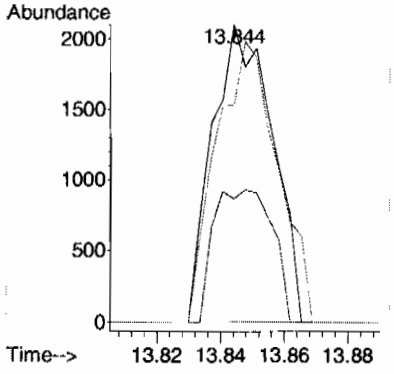

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX206LA.D
Acq On : 9 Feb 2010 7:08 pm
Operator : JEB
Sample : |1202038395|951185|1|VOA|1|VOA8260BS|
Misc : GEEL 5G N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

****

Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
17.729	10.99 ug/L	768683	B 1,4-Dichlorobenzene-d4	14.944

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Phenyl-3-trimethylsilyloxyprop...	310	C15H26O3Si2	1000079-40-7	36
2	Silanamine, N-ethyl-1,1,1-trimet...	207	C12H21NSi	014629-66-4	23
3	3-Oxa-6-thia-2,7-disilaoctane, 2...	222	C8H22OSSi2	078921-31-0	23
4	Undecanoic acid, 11-fluoro-, tri...	276	C14H29FO2Si	026305-97-5	22
5	Silane, [(1-methyl-1,3-propanedi...	234	C10H26O2Si2	056771-47-2	12

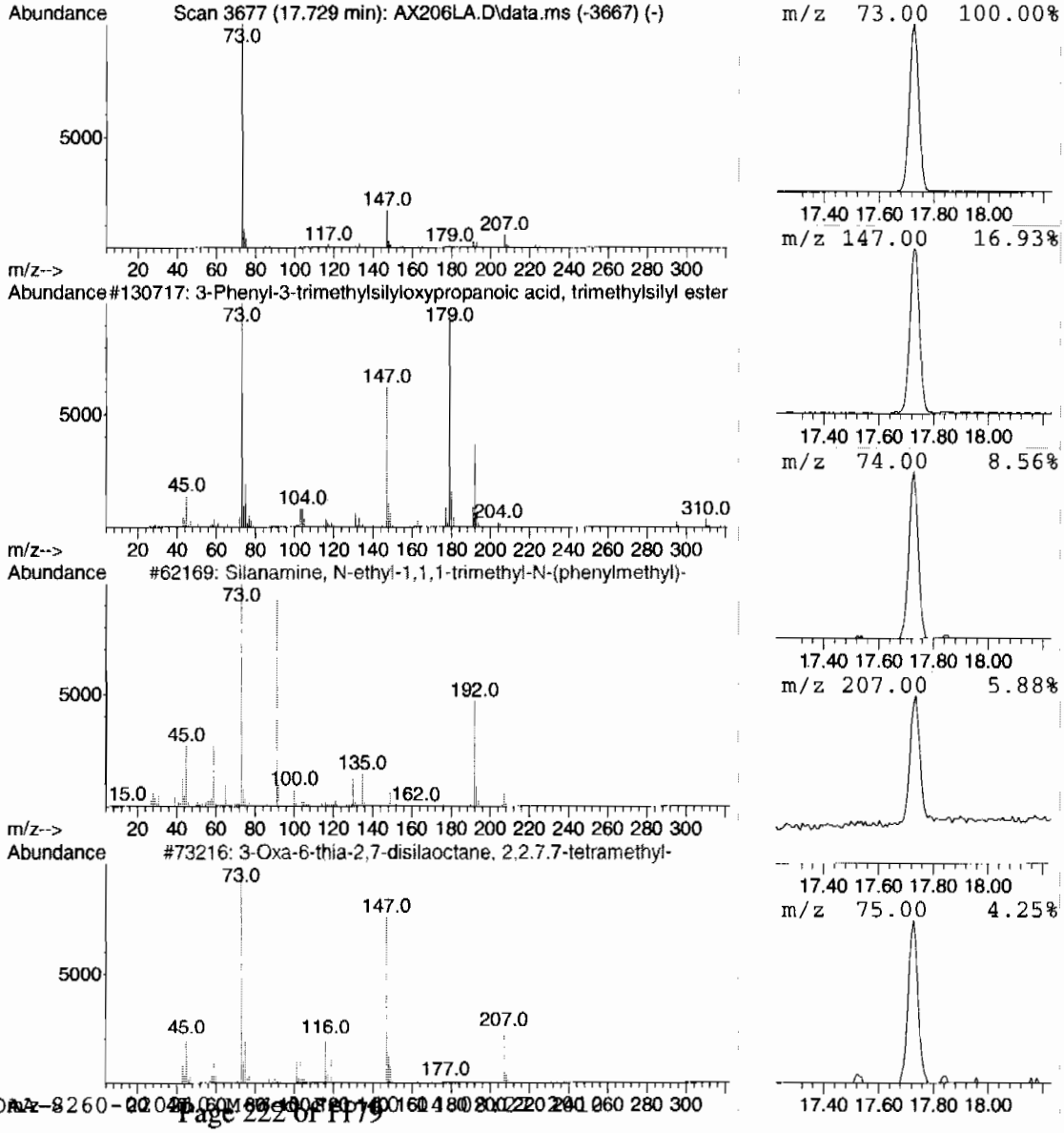

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX206LA.D
Acq On : 9 Feb 2010 7:08 pm
Operator : JEB
Sample : |1202038395|951185|1|VOA|1|VOA8260BS|
Misc : GEEL 5G N/A SOIL
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	17.729	11.0	ug/L	768683	6	14.944	3498090	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038398**				
Client Sample:	**QC for batch 951184**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 951184**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 17:49**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 16:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX203LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		34.9	ug/kg	0.340	1.00
74-87-3	Chloromethane		30.0	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		39.3	ug/kg	0.300	1.00
74-83-9	Bromomethane		45.2	ug/kg	0.300	1.00
75-00-3	Chloroethane		45.9	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		43.1	ug/kg	0.300	1.00
67-64-1	Acetone		173	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		39.0	ug/kg	0.300	1.00
74-88-4	Iodomethane		225	ug/kg	1.60	5.00
75-09-2	Methylene chloride		46.9	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		238	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		40.9	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		42.1	ug/kg	0.300	1.00
78-93-3	2-Butanone		198	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		41.5	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		43.6	ug/kg	0.300	1.00
67-66-3	Chloroform		44.0	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		47.6	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		42.9	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		45.7	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		44.1	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		40.1	ug/kg	0.300	1.00
71-43-2	Benzene		45.8	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		46.5	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		44.0	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		44.3	ug/kg	0.300	1.00
74-95-3	Dibromomethane		46.4	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		250	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		46.5	ug/kg	0.300	1.00
108-88-3	Toluene		47.4	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.3	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		49.5	ug/kg	0.300	1.00
591-78-6	2-Hexanone		207	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		47.3	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		52.6	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		46.8	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		49.8	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		48.6	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038398**				
Client Sample:	**QC for batch 951184**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 951184**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 17:49**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 16:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX203LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		47.5	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		95.4	ug/kg	0.300	2.00
95-47-6	o-Xylene		47.8	ug/kg	0.300	1.00
100-42-5	Styrene		48.3	ug/kg	0.300	1.00
75-25-2	Bromoform		51.5	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		51.3	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		50.4	ug/kg	0.300	1.00
108-86-1	Bromobenzene		51.9	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		47.4	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		48.7	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		46.9	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		46.8	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		46.8	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		50.2	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		46.7	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		48.1	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		47.8	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		52.3	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		51.8	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		48.7	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane		49.2	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		48.7	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		51.4	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX203LA.D
Acq On : 9 Feb 2010 5:49 pm
Operator : JEB
InstName : VOAA
Sample : |1202038398|951185|1|VOA|1|VOA8260BS|
Misc : LCS 5G N/A SOILMIX [A] 100126-01B/100206-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 20:40:06 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.339	9.342	1.000	96	1450439	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	1030853	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	14.944	1.000	152	601075	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	9.339	1.000	96	1450439	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	1030853	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	14.944	1.000	152	601075	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.978	8.982	0.961	65	516667	42.83	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 85.66%					
43) Toluene-d8	10.983	10.987	0.878	98	1380857	49.78	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.56%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	582505	47.62	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.24%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	3.731	3.731	0.400	85	242120	34.90	ug/L	100
3) Chloromethane	4.044	4.043	0.433	50	284564	30.00	ug/L	98
4) Vinyl chloride	4.265	4.265	0.457	62	338467	39.33	ug/L	98
5) Bromomethane	4.839	4.839	0.518	94	243127	45.22	ug/L	98
6) Chloroethane	4.990	4.990	0.534	64	147628	45.85	ug/L	96
7) Trichlorofluoromethane	5.378	5.382	0.576	101	565330	43.08	ug/L	99
8) Ethyl ether	5.728	5.732	0.613	59	281584	40.34	ug/L	92
9) Acetone	6.078	6.082	0.651	43	1196658	172.52	ug/L	88
10) 1,1-Dichloroethylene	6.078	6.082	0.651	61	513120	38.98	ug/L	94
11) Iodomethane	6.301	6.305	0.675	142	2475306	224.59	ug/L	96
12) Acetonitrile	6.418	6.421	0.687	41	1090153	953.47	ug/L	100
13) Methyl acetate	6.478	6.481	0.694	43	1329053	201.26	ug/L	93
14) Carbon disulfide	6.425	6.428	0.688	76	4944208	238.07	ug/L	100
15) Methylene chloride	6.648	6.651	0.712	84	328535	46.90	ug/L	85
16) tert-Butyl methyl ether	6.969	6.973	0.746	73	973036	40.46	ug/L	98
17) trans-1,2-Dichloroethy...	6.991	6.994	0.749	61	523363	40.88	ug/L	91
18) Vinyl acetate	7.450	7.454	0.798	43	3391644	206.39	ug/L	94
19) 1,1-Dichloroethane	7.468	7.471	0.800	63	637707	42.07	ug/L	99
20) 2-Butanone	8.062	8.062	0.863	43	1529027	197.85	ug/L	91
21) cis-1,2-Dichloroethylene	8.105	8.108	0.868	61	604573	41.48	ug/L	90
22) 2,2-Dichloropropane	8.133	8.140	0.871	77	581115	43.55	ug/L	85
23) Bromochloromethane	8.370	8.373	0.896	128	158782	47.57	ug/L #	85
24) Chloroform	8.419	8.423	0.902	83	648648	43.95	ug/L	99
25) 1,1,1-Trichloroethane	8.692	8.692	0.931	97	606478	42.87	ug/L	97
26) Cyclohexane	8.787	8.791	0.941	56	662487	43.57	ug/L	95
27) 1,1-Dichloropropene	8.851	8.851	0.948	75	496105	45.73	ug/L	85
28) Carbon tetrachloride	8.883	8.886	0.951	117	542603	44.11	ug/L	100
30) 1,2-Dichloroethane	9.059	9.063	0.970	62	556015	40.07	ug/L	98
31) Benzene	9.081	9.084	0.972	78	1250509	45.76	ug/L	95
32) Cyclohexene	9.201	9.208	0.985	67	648069	42.74	ug/L	93
33) n-Butyl alcohol	9.459	9.462	1.013	56	1453572	5505.03	ug/L	88
34) Trichloroethylene	9.728	9.731	1.042	95	354348	46.54	ug/L	99
35) 1,2-Dichloropropane	9.965	9.965	1.067	63	346707	43.96	ug/L	96
36) Methylcyclohexane	9.979	9.982	1.069	83	586087	47.23	ug/L	91
37) Dibromomethane	10.092	10.095	1.081	93	210900	46.35	ug/L	94
38) Bromodichloromethane	10.212	10.216	1.094	83	478607	44.31	ug/L	99
39) 2-Chloroethylvinyl ether	10.453	10.453	1.119	63	883204	210.02	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX203LA.D
Acq On : 9 Feb 2010 5:49 pm
Operator : JEB
InstName : VOAA
Sample : |1202038398|951185|1|VOA|1|VOA8260BS|
Misc : LCS 5G N/A SOILMIX [A] 100126-01B/100206-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 20:40:06 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	10.669	10.668	1.142	75	548517	46.45	ug/L	87
42) 4-Methyl-2-pentanone	10.771	10.774	0.861	58	860331	249.62	ug/L #	79
44) Toluene	11.058	11.057	0.884	91	1331097	47.42	ug/L	100
45) trans-1,3-Dichloroprop...	11.210	11.213	0.896	75	539647	47.32	ug/L	89
46) 1,1,2-Trichloroethane	11.425	11.429	0.913	83	235798	49.49	ug/L	99
47) 2-Hexanone	11.623	11.627	0.929	43	2077885	207.48	ug/L	90
48) 1,3-Dichloropropane	11.616	11.620	0.929	76	511088	47.26	ug/L #	80
49) Tetrachloroethylene	11.652	11.655	0.932	164	305383	52.62	ug/L	92
50) Dibromochloromethane	11.882	11.881	0.950	129	325957	46.83	ug/L	100
51) 1,2-Dibromoethane	12.041	12.044	0.963	107	295296	49.78	ug/L	100
52) Chlorobenzene	12.539	12.543	1.003	112	861122	48.64	ug/L	98
53) 1,1,1,2-Tetrachloroethane	12.596	12.599	1.007	131	339055	48.67	ug/L	99
54) Ethylbenzene	12.614	12.617	1.008	91	1612717	47.49	ug/L	99
55) m,p-Xylenes	12.727	12.730	1.018	106	1154739	95.43	ug/L	100
56) o-Xylene	13.158	13.162	1.052	106	575389	47.77	ug/L	97
57) Styrene	13.162	13.162	1.052	104	947396	48.29	ug/L	94
59) Bromoform	13.402	13.402	0.897	173	249910	51.52	ug/L	100
60) Isopropylbenzene	13.526	13.529	0.905	105	1609412	46.90	ug/L	100
62) 1,1,2,2-Tetrachloroethane	13.795	13.795	0.923	83	395195	51.25	ug/L	99
63) 1,2,3-Trichloropropane	13.876	13.879	0.929	110	119825	50.42	ug/L	97
64) Bromobenzene	13.918	13.918	0.932	156	409534	51.93	ug/L	91
65) n-Propylbenzene	13.957	13.957	0.934	91	1931340	47.37	ug/L	100
66) 1,3,5-Trimethylbenzene	14.116	14.116	0.945	105	1366450	46.79	ug/L	99
67) 2-Chlorotoluene	14.095	14.095	0.943	126	356744	48.65	ug/L	95
68) 4-Chlorotoluene	14.198	14.198	0.950	91	1205360	46.79	ug/L	98
69) tert-Butylbenzene	14.488	14.488	0.970	134	276715	50.16	ug/L #	87
70) 1,2,4-Trimethylbenzene	14.527	14.530	0.972	105	1390042	46.69	ug/L	100
71) sec-Butylbenzene	14.714	14.718	0.985	105	1769084	48.09	ug/L	98
72) 4-Isopropyltoluene	14.841	14.841	0.993	119	1426588	47.78	ug/L	97
73) 1,3-Dichlorobenzene	14.884	14.884	0.996	146	749336	52.27	ug/L	96
74) 1,4-Dichlorobenzene	14.969	14.969	1.002	146	768570	51.79	ug/L	96
75) n-Butylbenzene	15.276	15.276	1.022	91	1480922	48.70	ug/L	100
76) 1,2-Dichlorobenzene	15.379	15.379	1.029	146	728684	51.38	ug/L	96
77) 1,2-Dibromo-3-chloropr...	16.192	16.192	1.084	157	91647	49.15	ug/L	93
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	665292	54.57	ug/L	99
79) Hexachlorobutadiene	17.360	17.360	1.162	225	446333	53.84	ug/L	99
80) Naphthalene	17.530	17.529	1.173	128	1387174	52.33	ug/L	100
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.195	180	637042	55.33	ug/L	99
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.		
85) Acrolein	5.859	5.898	0.627		0m	N.D.	d	
86) Trichlorotrifluoroethane	6.068	6.068	0.650		0m	N.D.	d	
87) Isopropyl Alcohol	6.428	6.188	0.688		0m	N.D.	d	
88) Allyl chloride	6.418	6.506	0.687		0m	N.D.	d	
89) tert-Butyl Alcohol	6.478	6.687	0.694		0m	N.D.	d	
90) Acrylonitrile	6.973	6.895	0.747		0m	N.D.	d	
91) Isopropyl ether	7.447	7.489	0.797		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.613	7.581	0.815		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.896	7.893	0.846		0m	N.D.	d	
94) Ethyl acetate	8.062	8.094	0.863		0m	N.D.	d	
95) Propionitrile	8.055	8.122	0.863		0m	N.D.	d	
96) Methacrylonitrile	8.426	8.306	0.902		0m	N.D.	d	
97) Tetrahydrofuran	8.430	8.430	0.903		0m	N.D.	d	
98) Isobutyl alcohol	8.787	8.777	0.941		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX203LA.D
Acq On : 9 Feb 2010 5:49 pm
Operator : JEB
InstName : VOAA
Sample : |1202038398|951185|1|VOA|1|VOA8260BS|
Misc : LCS 5G N/A SOILMIX [A] 100126-01B/100206-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 20:40:06 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	9.084	9.127	0.973		0m	N.D.	d
100) Methyl methacrylate	9.979	9.968	1.069		0m	N.D.	d
101) 1,4-Dioxane	10.085	10.060	1.080		0m	N.D.	d
102) 2-Nitropropane	10.453	10.414	1.119		0m	N.D.	d
104) Ethyl methacrylate	11.241	11.238	0.899		0m	N.D.	d
106) 1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107) cis-1,4-Dichloro-2-butene	13.526	13.554	0.905		0m	N.D.	d
108) Cyclohexanone	13.526	13.657	0.905		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	13.851	13.844	0.927		0m	N.D.	d
110) Pentachloroethane	14.544	14.541	0.973		0m	N.D.	d
111) Benzyl chloride	15.082	15.082	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	15.482	15.485	1.036		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX203LA.D
Acq On : 9 Feb 2010 5:49 pm
Operator : JEB
InstName : VOAA
Sample : |1202038398|951185|1|VOA|1|VOA8260BS|
Misc : LCS 5G N/A SOILMIX [A] 100126-01B/100206-01
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 09 20:40:06 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

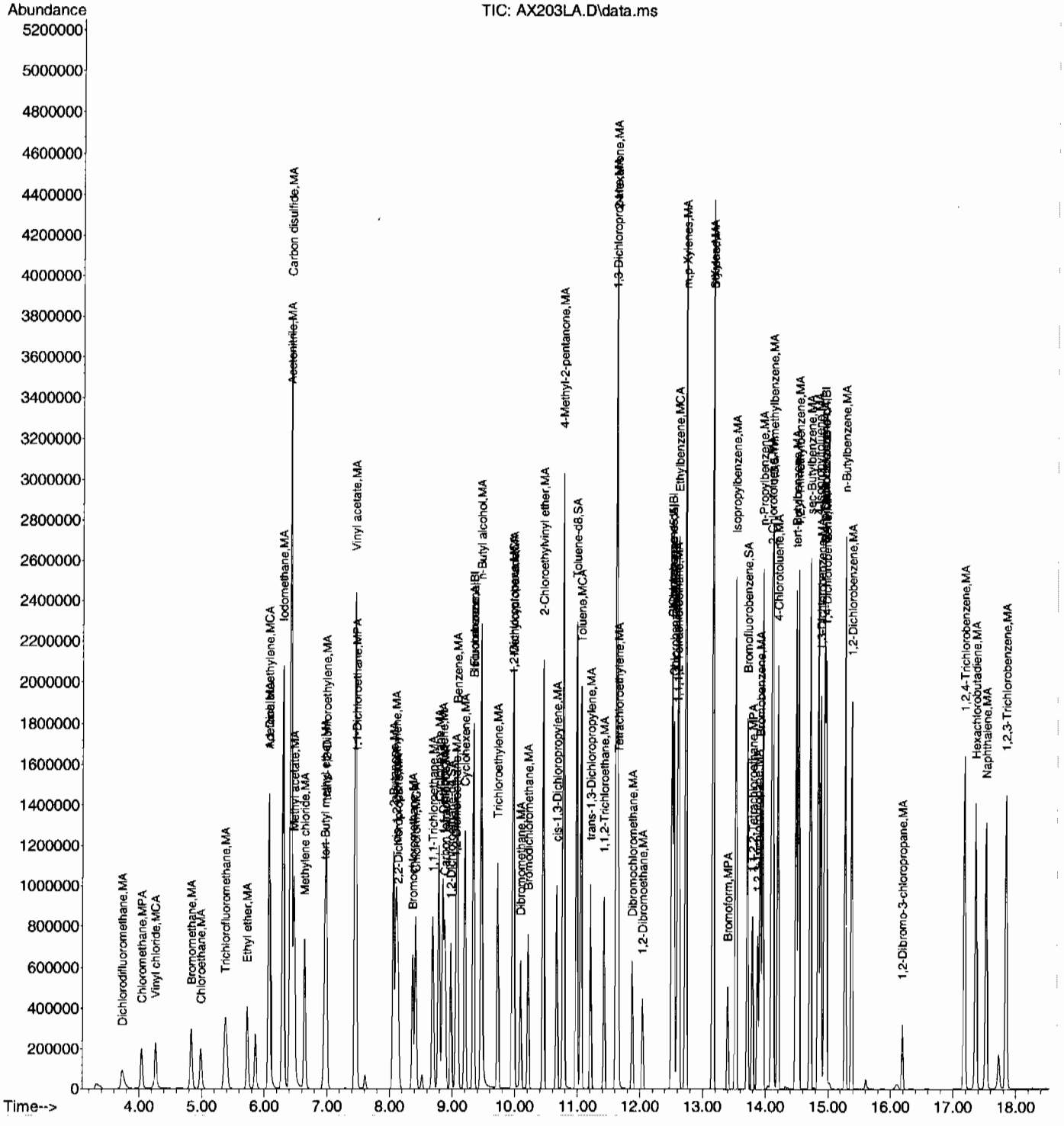

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038399**				
Client Sample:	**QC for batch 951184**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 951184**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 18:42**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 16:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX205LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	U	5.00	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038399**				
Client Sample:	**QC for batch 951184**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 951184**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**951185**	**Inst:**	**VOAA.I**	**Dilution:**	**1**
Run Date:	**02/09/2010 18:42**	**Analyst:**	**JEB**	**Purge Vol:**	**5 mL**
Prep Date:	**02/09/2010 16:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**020910\AX205LA.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		251	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX205LA.D
Acq On : 9 Feb 2010 6:42 pm
Operator : JEB
InstName : VOAA
Sample : |1202038399|951185|1|VOA|1|VOA8260BS|
Misc : LCS 5G N/A SOIL MIX[B]100118-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 09 20:41:30 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1447065	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	1025660	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	596963	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1447065	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	1025660	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	596963	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	506518	42.09	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 84.18%					
43) Toluene-d8	10.987	10.987	0.878	98	1376644	49.88	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.76%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	580570	47.79	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 95.58%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431		0m	N.D.	d	
4) Vinyl chloride	4.255	4.265	0.455		0m	N.D.	d	
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.089	6.082	0.652		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.078	6.082	0.651		0m	N.D.	d	
11) Iodomethane	6.301	6.305	0.674		0m	N.D.	d	
12) Acetonitrile	6.428	6.421	0.688		0m	N.D.	d	
13) Methyl acetate	6.485	6.481	0.694		0m	N.D.	d	
14) Carbon disulfide	6.510	6.428	0.697		0m	N.D.	d	
15) Methylene chloride	6.655	6.651	0.712		0m	N.D.	d	
16) tert-Butyl methyl ether	6.966	6.973	0.746		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	7.454	7.454	0.798		0m	N.D.	d	
19) 1,1-Dichloroethane	7.585	7.471	0.812		0m	N.D.	d	
20) 2-Butanone	8.094	8.062	0.866		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.094	8.108	0.866		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	8.419	8.423	0.901		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	8.777	8.791	0.939		0m	N.D.	d	
27) 1,1-Dichloropropene	8.780	8.851	0.940		0m	N.D.	d	
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	9.088	9.084	0.973		0m	N.D.	d	
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	9.463	9.462	1.013		0m	N.D.	d	
34) Trichloroethylene	9.731	9.731	1.042		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	9.965	9.982	1.067		0m	N.D.	d	
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	9.965	10.216	1.067		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX205LA.D
Acq On : 9 Feb 2010 6:42 pm
Operator : JEB
InstName : VOAA
Sample : |1202038399|951185|1|VOA|1|VOA8260BS|
Misc : LCS 5G N/A SOIL MIX[B]100118-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 09 20:41:30 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	10.771	10.774	0.861		0m	N.D.	d	
44) Toluene	11.058	11.057	0.884		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	11.220	11.213	0.897		0m	N.D.	d	
46) 1,1,2-Trichloroethane	11.425	11.429	0.913		0m	N.D.	d	
47) 2-Hexanone	11.623	11.627	0.929		0m	N.D.	d	
48) 1,3-Dichloropropane	11.620	11.620	0.929		0m	N.D.	d	
49) Tetrachloroethylene	11.652	11.655	0.931		0m	N.D.	d	
50) Dibromochloromethane	11.652	11.881	0.931		0m	N.D.	d	
51) 1,2-Dibromoethane	12.041	12.044	0.962		0m	N.D.	d	
52) Chlorobenzene	12.543	12.543	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	12.599	12.599	1.007		0m	N.D.	d	
54) Ethylbenzene	12.617	12.617	1.008		0m	N.D.	d	
55) m,p-Xylenes	12.727	12.730	1.017		0m	N.D.	d	
56) o-Xylene	13.165	13.162	1.052		0m	N.D.	d	
57) Styrene	13.165	13.162	1.052		0m	N.D.	d	
59) Bromoform	0.000	13.402	0.000		0	N.D.		
60) Isopropylbenzene	13.530	13.529	0.905		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	13.848	13.795	0.927		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.		
64) Bromobenzene	13.922	13.918	0.932		0m	N.D.	d	
65) n-Propylbenzene	13.961	13.957	0.934		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.120	14.116	0.945		0m	N.D.	d	
67) 2-Chlorotoluene	14.099	14.095	0.943		0m	N.D.	d	
68) 4-Chlorotoluene	14.198	14.198	0.950		0m	N.D.	d	
69) tert-Butylbenzene	14.541	14.488	0.973		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	14.530	14.530	0.972		0m	N.D.	d	
71) sec-Butylbenzene	14.721	14.718	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	14.838	14.841	0.993		0m	N.D.	d	
73) 1,3-Dichlorobenzene	14.880	14.884	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	14.969	14.969	1.002		0m	N.D.	d	
75) n-Butylbenzene	15.082	15.276	1.009		0m	N.D.	d	
76) 1,2-Dichlorobenzene	15.379	15.379	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150		0m	N.D.	d	
79) Hexachlorobutadiene	17.367	17.360	1.162		0m	N.D.	d	
80) Naphthalene	17.530	17.529	1.173		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.194		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.		
85) Acrolein	5.902	5.898	0.632	56	331390	232.41	ug/L	94
86) Trichlorotrifluoroethane	6.075	6.068	0.650	85	753274	250.70	ug/L	90
87) Isopropyl Alcohol	0.000	6.188	0.000		0m	N.D.	d	
88) Allyl chloride	6.510	6.506	0.697	41	2580712	189.31	ug/L	91
89) tert-Butyl Alcohol	0.000	6.687	0.000		0m	N.D.	d	
90) Acrylonitrile	6.899	6.895	0.738	53	694145	233.86	ug/L	98
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	7.585	7.581	0.812	53	580301	41.38	ug/L	85
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0m	N.D.	d	
94) Ethyl acetate	8.094	8.094	0.866	43	1589269	188.25	ug/L	94
95) Propionitrile	8.122	8.122	0.869	54	277329	242.04	ug/L	98
96) Methacrylonitrile	8.306	8.306	0.889	41	1011918	191.10	ug/L	98
97) Tetrahydrofuran	8.430	8.430	0.902	42	537960	205.71	ug/L	86
98) Isobutyl alcohol	8.780	8.777	0.940	41	651799	1922.09	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX205LA.D
Acq On : 9 Feb 2010 6:42 pm
Operator : JEB
InstName : VOAA
Sample : |1202038399|951185|1|VOA|1|VOA8260BS|
Misc : LCS 5G N/A SOIL MIX[B]100118-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 09 20:41:30 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.			
100)	Methyl methacrylate	9.968	9.968	1.067	69	1157199	249.03	ug/L	#	77
101)	1,4-Dioxane	10.060	10.060	1.077	88	192709	2640.64	ug/L		91
102)	2-Nitropropane	10.414	10.414	1.115	43	512457	207.34	ug/L		100
104)	Ethyl methacrylate	11.238	11.238	0.898	69	2270169	262.91	ug/L		82
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.			
107)	cis-1,4-Dichloro-2-butene	13.558	13.554	0.907	53	806635	252.74	ug/L		89
108)	Cyclohexanone	13.660	13.657	0.914	42	382047	255.28	ug/L		79
109)	trans-1,4-Dichloro-2-b...	13.848	13.844	0.927	53	770820	255.20	ug/L		82
110)	Pentachloroethane	14.544	14.541	0.973	167	1212006	516.57	ug/L		94 E
111)	Benzyl chloride	15.082	15.082	1.009	91	4138390	325.53	ug/L		98
112)	bis(2-Chloroisopropyl)...	15.485	15.485	1.036	45	1175369	228.15	ug/L		91

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX205LA.D
Acq On : 9 Feb 2010 6:42 pm
Operator : JEB
InstName : VOAA
Sample : |1202038399|951185|1|VOA|1|VOA8260BS|
Misc : LCS 5G N/A SOIL MIX[B]100118-08B
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 09 20:41:30 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

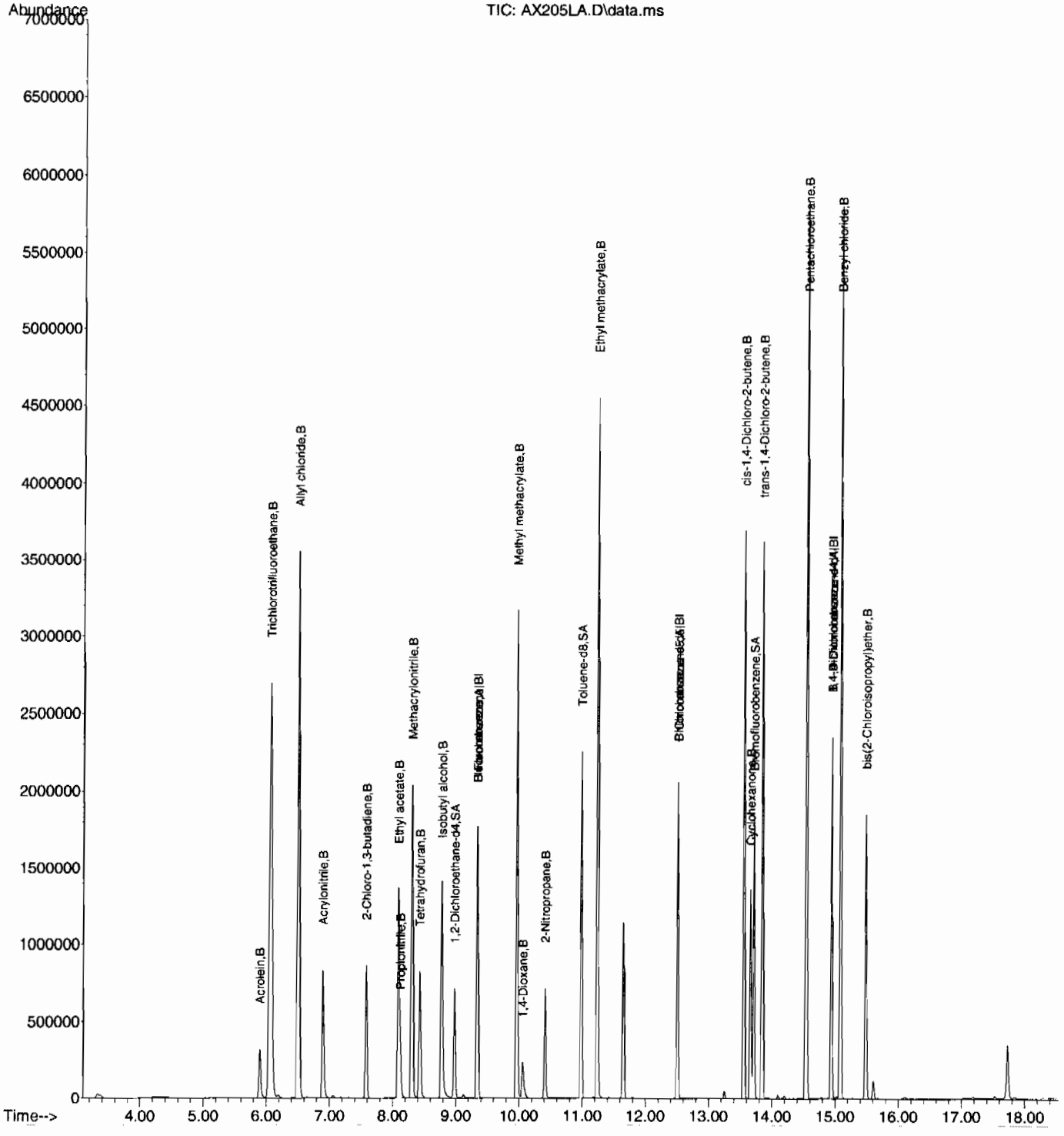

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **951184** Verified by: _____

Analyst: John Bell, Jr.
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 14
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202038395 MB	09-FEB-2010 16:11:00	Soil	5	5	1	
1202038398 LCS	09-FEB-2010 16:11:00	Soil	5	5	1	
1202038399 LCS	09-FEB-2010 16:11:00	Soil	5	5	1	
245955001	09-FEB-2010 18:03:00	Soil	5	5	1	
245955002	09-FEB-2010 18:04:00	Soil	5.2	5	0.96154	
245955003	09-FEB-2010 18:05:00	Soil	5.2	5	0.96154	
245959001	09-FEB-2010 18:06:00	Soil	5.2	5	0.96154	
245959002	09-FEB-2010 18:07:00	Soil	5	5	1	
245959003	09-FEB-2010 18:08:00	Soil	5.3	5	0.9434	
245959004	09-FEB-2010 18:09:00	Soil	5.1	5	0.98039	
245959005	09-FEB-2010 18:10:00	Soil	5	5	1	
245959006	09-FEB-2010 18:11:00	Soil	5.4	5	0.92593	
245959007	09-FEB-2010 18:12:00	Soil	5.4	5	0.92593	
245959008	09-FEB-2010 18:13:00	Soil	5	5	1	
245959009	09-FEB-2010 18:14:00	Soil	5.2	5	0.96154	
245959010	09-FEB-2010 18:15:00	Soil	5.2	5	0.96154	
245959011	09-FEB-2010 18:16:00	Soil	5.1	5	0.98039	
245959012	09-FEB-2010 18:17:00	Soil	5.3	5	0.9434	
1202038396 PS (245955001)	09-FEB-2010 18:18:00	Soil	5.1	5	0.98039	
1202038397 PSD (245955001)	09-FEB-2010 18:19:00	Soil	5.1	5	0.98039	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX225.D
Acq On : 10 Feb 2010 3:27 am
Operator : JEB
InstName : VOAA
Sample : |1202038396|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOILMIX[A] 245955001MS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 10 13:30:22 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.339	9.342	1.000	96	1115798	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	804204	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.940	14.944	1.000	152	469722	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	9.339	1.000	96	1115798	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	804204	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.940	14.944	1.000	152	469722	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.978	8.982	0.961	65	449860	48.48	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 96.96%					
43) Toluene-d8	10.983	10.987	0.878	98	1071564	49.52	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.04%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	467277	48.88	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 97.76%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	3.731	3.731	0.400	85	201158	37.69	ug/L	100
3) Chloromethane	4.033	4.043	0.432	50	218860	29.99	ug/L	98
4) Vinyl chloride	4.265	4.265	0.457	62	251767	38.03	ug/L	98
5) Bromomethane	4.839	4.839	0.518	94	171706	41.52	ug/L	99
6) Chloroethane	4.990	4.990	0.534	64	108607	43.74	ug/L	99
7) Trichlorofluoromethane	5.378	5.382	0.576	101	409371	40.55	ug/L	99
8) Ethyl ether	5.732	5.732	0.614	59	185452	34.54	ug/L	99
9) Acetone	6.078	6.082	0.651	43	777201	145.65	ug/L	93
10) 1,1-Dichloroethylene	6.078	6.082	0.651	61	359542	35.50	ug/L	97
11) Iodomethane	6.301	6.305	0.675	142	1612373	190.17	ug/L	98
12) Acetonitrile	6.418	6.421	0.687	41	659059	749.31	ug/L	99
13) Methyl acetate	6.478	6.481	0.694	43	564357	111.09	ug/L	97
14) Carbon disulfide	6.425	6.428	0.688	76	3115790	195.03	ug/L	100
15) Methylene chloride	6.648	6.651	0.712	84	217890	40.33	ug/L	92
16) tert-Butyl methyl ether	6.969	6.973	0.746	73	635542	34.35	ug/L	98
17) trans-1,2-Dichloroethy...	6.994	6.994	0.749	61	355634	36.11	ug/L	95
18) Vinyl acetate	7.479	7.454	0.801	43	107	N.D.		
19) 1,1-Dichloroethane	7.472	7.471	0.800	63	429524	36.83	ug/L	99
20) 2-Butanone	8.062	8.062	0.863	43	922579	155.18	ug/L	96
21) cis-1,2-Dichloroethylene	8.105	8.108	0.868	61	406079	36.22	ug/L	95
22) 2,2-Dichloropropane	8.136	8.140	0.871	77	364890	35.55	ug/L	91
23) Bromochloromethane	8.373	8.373	0.897	128	100292	39.06	ug/L	91
24) Chloroform	8.419	8.423	0.902	83	441948	38.93	ug/L	99
25) 1,1,1-Trichloroethane	8.692	8.692	0.931	97	406972	37.39	ug/L	98
26) Cyclohexane	8.787	8.791	0.941	56	332166	28.40	ug/L	98
27) 1,1-Dichloropropene	8.851	8.851	0.948	75	300874	36.05	ug/L	90
28) Carbon tetrachloride	8.886	8.886	0.952	117	342452	36.19	ug/L	100
30) 1,2-Dichloroethane	9.059	9.063	0.970	62	391526	36.68	ug/L	99
31) Benzene	9.084	9.084	0.973	78	782596	37.22	ug/L	98
32) Cyclohexene	9.204	9.208	0.986	67	372516	31.93	ug/L	97
33) n-Butyl alcohol	9.463	9.462	1.013	56	684442	3369.56	ug/L	94
34) Trichloroethylene	9.728	9.731	1.042	95	251050	42.87	ug/L	98
35) 1,2-Dichloropropane	9.965	9.965	1.067	63	217248	35.81	ug/L	96
36) Methylcyclohexane	9.982	9.982	1.069	83	215952	22.62	ug/L	95
37) Dibromomethane	10.092	10.095	1.081	93	132391	37.82	ug/L	97
38) Bromodichloromethane	10.216	10.216	1.094	83	307974	37.06	ug/L	100
39) 2-Chloroethylvinyl ether	10.665	10.453	1.142	63	1559	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX225.D
Acq On : 10 Feb 2010 3:27 am
Operator : JEB
InstName : VOAA
Sample : |1202038396|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOILMIX[A] 245955001MS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 10 13:30:22 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	10.669	10.668	1.142	75	308394	33.95	ug/L	92
42) 4-Methyl-2-pentanone	10.775	10.774	0.861	58	490025	182.25	ug/L	88
44) Toluene	11.058	11.057	0.884	91	762848	34.84	ug/L	99
45) trans-1,3-Dichloroprop...	11.213	11.213	0.897	75	306201	34.41	ug/L	92
46) 1,1,2-Trichloroethane	11.429	11.429	0.914	83	139351	37.49	ug/L	99
47) 2-Hexanone	11.623	11.627	0.929	43	1250957	160.11	ug/L	95
48) 1,3-Dichloropropane	11.620	11.620	0.929	76	311387	36.91	ug/L	85
49) Tetrachloroethylene	11.652	11.655	0.932	164	147591	32.60	ug/L	95
50) Dibromochloromethane	11.882	11.881	0.950	129	186546	34.35	ug/L	100
51) 1,2-Dibromoethane	12.044	12.044	0.963	107	168977	36.51	ug/L	100
52) Chlorobenzene	12.539	12.543	1.003	112	446529	32.33	ug/L	99
53) 1,1,1,2-Tetrachloroethane	12.596	12.599	1.007	131	191077	35.16	ug/L	98
54) Ethylbenzene	12.614	12.617	1.008	91	816170	30.81	ug/L	98
55) m,p-Xylenes	12.727	12.730	1.018	106	557206	59.03	ug/L	96
56) o-Xylene	13.158	13.162	1.052	106	280789	29.88	ug/L	99
57) Styrene	13.162	13.162	1.052	104	444221	29.03	ug/L	99
59) Bromoform	13.402	13.402	0.897	173	125056	32.99	ug/L	100
60) Isopropylbenzene	13.529	13.529	0.906	105	687141	25.62	ug/L	99
62) 1,1,2,2-Tetrachloroethane	13.795	13.795	0.923	83	153584	25.49	ug/L	99
63) 1,2,3-Trichloropropane	13.876	13.879	0.929	110	65697	35.37	ug/L	99
64) Bromobenzene	13.918	13.918	0.932	156	189853	30.81	ug/L	94
65) n-Propylbenzene	13.957	13.957	0.934	91	748005	23.48	ug/L	100
66) 1,3,5-Trimethylbenzene	14.116	14.116	0.945	105	522205	22.88	ug/L	99
67) 2-Chlorotoluene	14.095	14.095	0.943	126	147586	25.75	ug/L	97
68) 4-Chlorotoluene	14.198	14.198	0.950	91	495753	24.63	ug/L	100
69) tert-Butylbenzene	14.488	14.488	0.970	134	96109	22.29	ug/L	95
70) 1,2,4-Trimethylbenzene	14.530	14.530	0.973	105	528325	22.71	ug/L	99
71) sec-Butylbenzene	14.714	14.718	0.985	105	545849	18.99	ug/L	99
72) 4-Isopropyltoluene	14.841	14.841	0.993	119	431035	18.47	ug/L	99
73) 1,3-Dichlorobenzene	14.884	14.884	0.996	146	267012	23.83	ug/L	97
74) 1,4-Dichlorobenzene	14.969	14.969	1.002	146	275929	23.79	ug/L	96
75) n-Butylbenzene	15.276	15.276	1.022	91	383271	16.13	ug/L	99
76) 1,2-Dichlorobenzene	15.379	15.379	1.029	146	258951	23.37	ug/L	98
77) 1,2-Dibromo-3-chloropr...	16.192	16.192	1.084	157	36572	25.35	ug/L	98
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	132734	13.93	ug/L	100
79) Hexachlorobutadiene	17.360	17.360	1.162	225	71476	11.03	ug/L	100
80) Naphthalene	17.530	17.529	1.173	128	357588	17.26	ug/L	100
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.195	180	117907	13.10	ug/L	100
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.		
85) Acrolein	5.859	5.898	0.627		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.		
87) Isopropyl Alcohol	6.209	6.188	0.665		0m	N.D.	d	
88) Allyl chloride	6.418	6.506	0.687		0m	N.D.	d	
89) tert-Butyl Alcohol	6.478	6.687	0.694		0m	N.D.	d	
90) Acrylonitrile	6.966	6.895	0.746		0m	N.D.	d	
91) Isopropyl ether	7.493	7.489	0.802		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	7.617	7.581	0.816		0m	N.D.	d	
93) Ethyl tert-butyl ether	7.885	7.893	0.844		0m	N.D.	d	
94) Ethyl acetate	8.062	8.094	0.863		0m	N.D.	d	
95) Propionitrile	8.059	8.122	0.863		0m	N.D.	d	
96) Methacrylonitrile	8.136	8.306	0.871		0m	N.D.	d	
97) Tetrahydrofuran	8.426	8.430	0.902		0m	N.D.	d	
98) Isobutyl alcohol	8.787	8.777	0.941		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX225.D
Acq On : 10 Feb 2010 3:27 am
Operator : JEB
InstName : VOAA
Sample : |1202038396|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOILMIX[A] 245955001MS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 10 13:30:22 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	9.084	9.127	0.973		0m	N.D.	d
100)	Methyl methacrylate	9.979	9.968	1.069		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	10.453	10.414	1.119		0m	N.D.	d
104)	Ethyl methacrylate	10.990	11.238	0.879		0m	N.D.	d
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	13.526	13.554	0.905		0m	N.D.	d
108)	Cyclohexanone	13.529	13.657	0.906		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	13.957	13.844	0.934		0m	N.D.	d
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	15.082	15.082	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	15.605	15.485	1.044		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX225.D
Acq On : 10 Feb 2010 3:27 am
Operator : JEB
InstName : VOAA
Sample : |1202038396|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOILMIX[A] 245955001MS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Feb 10 13:30:22 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

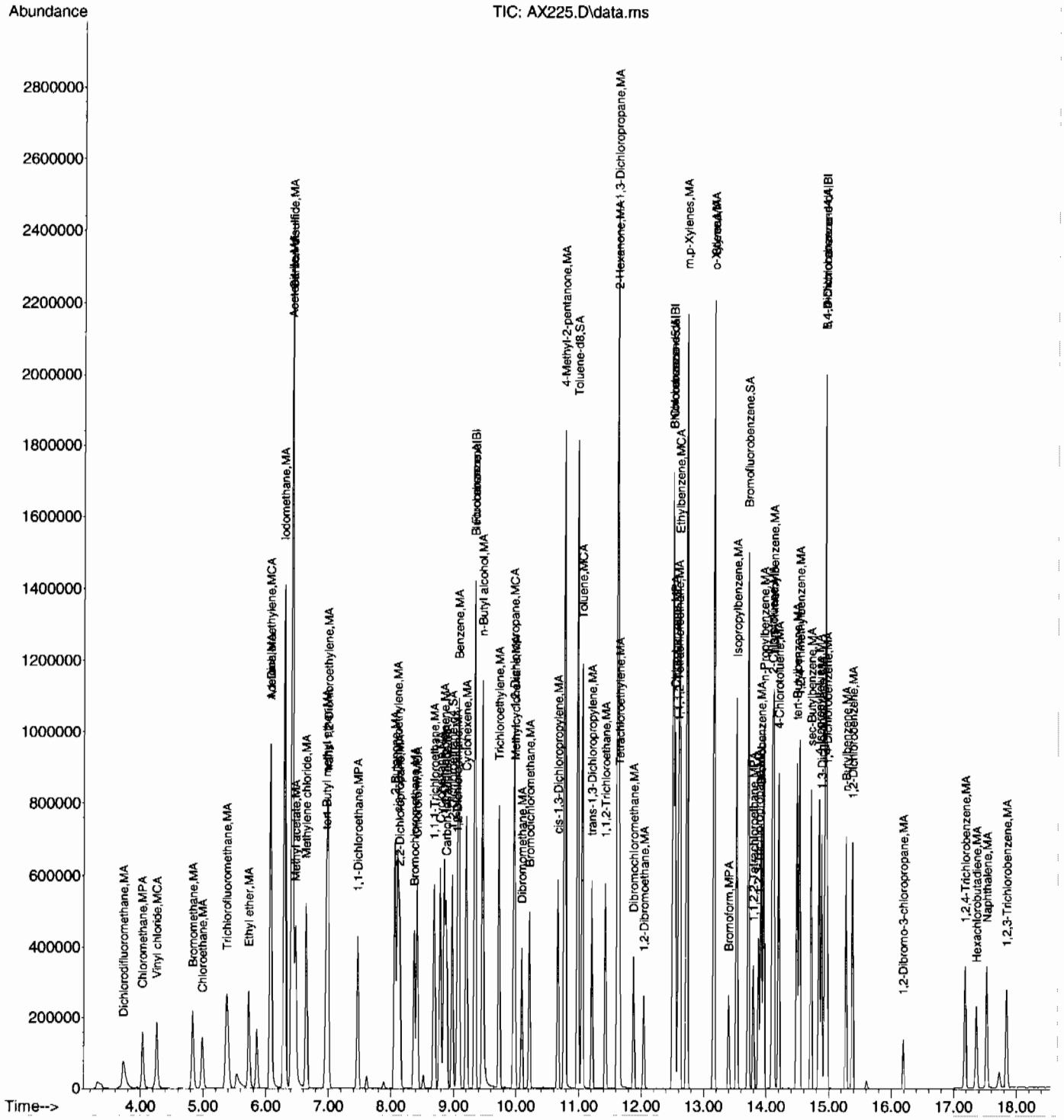

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX226.D
Acq On : 10 Feb 2010 3:53 am
Operator : JEB
InstName : VOAA
Sample : |1202038397|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOILMIX[A] 245955001MS
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 10 13:30:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.339	9.342	1.000	96	1121636	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.507	12.507	1.000	117	808468	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	476353	50.00	ug/L	0.00
82) B Fluorobenzene	9.339	9.339	1.000	96	1121636	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.507	12.508	1.000	117	808468	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	476353	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.978	8.982	0.961	65	460706	49.39	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 98.78%					
43) Toluene-d8	10.983	10.987	0.878	98	1098833	50.51	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.02%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	477708	49.28	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 98.56%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	3.721	3.731	0.398	85	199651	37.22	ug/L	99
3) Chloromethane	4.033	4.043	0.432	50	217625	29.67	ug/L	98
4) Vinyl chloride	4.265	4.265	0.457	62	251889	37.85	ug/L	98
5) Bromomethane	4.829	4.839	0.517	94	170163	40.93	ug/L	98
6) Chloroethane	4.980	4.990	0.533	64	107803	43.16	ug/L	97
7) Trichlorofluoromethane	5.378	5.382	0.576	101	415176	40.91	ug/L	99
8) Ethyl ether	5.725	5.732	0.613	59	181059	33.54	ug/L	93
9) Acetone	6.075	6.082	0.650	43	742621	138.45	ug/L	93
10) 1,1-Dichloroethylene	6.075	6.082	0.650	61	364163	35.77	ug/L	96
11) Iodomethane	6.298	6.305	0.674	142	1615387	189.53	ug/L	99
12) Acetonitrile	6.414	6.421	0.687	41	641461	725.50	ug/L	99
13) Methyl acetate	6.474	6.481	0.693	43	473102	92.64	ug/L	97
14) Carbon disulfide	6.421	6.428	0.688	76	3243315	201.95	ug/L	100
15) Methylene chloride	6.644	6.651	0.711	84	217009	39.95	ug/L	90
16) tert-Butyl methyl ether	6.966	6.973	0.746	73	621522	33.42	ug/L	98
17) trans-1,2-Dichloroethy...	6.991	6.994	0.749	61	359974	36.36	ug/L	94
18) Vinyl acetate	7.475	7.454	0.800	43	112	N.D.		
19) 1,1-Dichloroethane	7.468	7.471	0.800	63	432222	36.87	ug/L	99
20) 2-Butanone	8.059	8.062	0.863	43	886332	148.31	ug/L	95
21) cis-1,2-Dichloroethylene	8.105	8.108	0.868	61	405843	36.01	ug/L	94
22) 2,2-Dichloropropane	8.136	8.140	0.871	77	378477	36.68	ug/L	91
23) Bromochloromethane	8.370	8.373	0.896	128	99197	38.43	ug/L	92
24) Chloroform	8.419	8.423	0.902	83	443647	38.87	ug/L	100
25) 1,1,1-Trichloroethane	8.692	8.692	0.931	97	418737	38.27	ug/L	98
26) Cyclohexane	8.787	8.791	0.941	56	380969	32.40	ug/L	98
27) 1,1-Dichloropropene	8.847	8.851	0.947	75	318264	37.93	ug/L	90
28) Carbon tetrachloride	8.883	8.886	0.951	117	361721	38.02	ug/L	99
30) 1,2-Dichloroethane	9.059	9.063	0.970	62	383851	35.77	ug/L	99
31) Benzene	9.084	9.084	0.973	78	800297	37.87	ug/L	97
32) Cyclohexene	9.204	9.208	0.986	67	403699	34.43	ug/L	96
33) n-Butyl alcohol	9.459	9.462	1.013	56	656269	3214.05	ug/L	93
34) Trichloroethylene	9.728	9.731	1.042	95	251067	42.65	ug/L	98
35) 1,2-Dichloropropane	9.961	9.965	1.067	63	220775	36.20	ug/L	97
36) Methylcyclohexane	9.979	9.982	1.069	83	278431	29.01	ug/L	94
37) Dibromomethane	10.089	10.095	1.080	93	131726	37.43	ug/L	96
38) Bromodichloromethane	10.212	10.216	1.094	83	309102	37.00	ug/L	99
39) 2-Chloroethylvinyl ether	10.661	10.453	1.142	63	1366	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX226.D
Acq On : 10 Feb 2010 3:53 am
Operator : JEB
InstName : VOAA
Sample : |1202038397|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOILMIX[A] 245955001MS
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 10 13:30:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
40) cis-1,3-Dichloropropylene	10.669	10.668	1.142	75	313839	34.37	ug/L		91
42) 4-Methyl-2-pentanone	10.775	10.774	0.861	58	475474	175.90	ug/L		87
44) Toluene	11.057	11.057	0.884	91	804736	36.56	ug/L		100
45) trans-1,3-Dichloroprop...	11.213	11.213	0.897	75	308013	34.43	ug/L		92
46) 1,1,2-Trichloroethane	11.425	11.429	0.913	83	140918	37.71	ug/L		99
47) 2-Hexanone	11.623	11.627	0.929	43	1189621	151.46	ug/L		94
48) 1,3-Dichloropropane	11.616	11.620	0.929	76	310520	36.61	ug/L	#	81
49) Tetrachloroethylene	11.652	11.655	0.932	164	168083	36.93	ug/L		95
50) Dibromochloromethane	11.881	11.881	0.950	129	189900	34.79	ug/L		99
51) 1,2-Dibromoethane	12.044	12.044	0.963	107	170928	36.74	ug/L		99
52) Chlorobenzene	12.539	12.543	1.003	112	480719	34.62	ug/L		100
53) 1,1,1,2-Tetrachloroethane	12.599	12.599	1.007	131	197986	36.24	ug/L		98
54) Ethylbenzene	12.617	12.617	1.009	91	909596	34.15	ug/L		98
55) m,p-Xylenes	12.727	12.730	1.018	106	626377	66.01	ug/L		96
56) o-Xylene	13.162	13.162	1.052	106	310019	32.82	ug/L		99
57) Styrene	13.162	13.162	1.052	104	485232	31.54	ug/L		99
59) Bromoform	13.402	13.402	0.897	173	127436	33.15	ug/L		100
60) Isopropylbenzene	13.526	13.529	0.905	105	817732	30.07	ug/L		99
62) 1,1,2,2-Tetrachloroethane	13.795	13.795	0.923	83	169135	27.68	ug/L		99
63) 1,2,3-Trichloropropane	13.876	13.879	0.929	110	65106	34.57	ug/L		100
64) Bromobenzene	13.918	13.918	0.931	156	208757	33.40	ug/L		93
65) n-Propylbenzene	13.957	13.957	0.934	91	926958	28.69	ug/L		99
66) 1,3,5-Trimethylbenzene	14.116	14.116	0.945	105	636654	27.51	ug/L		99
67) 2-Chlorotoluene	14.095	14.095	0.943	126	171464	29.50	ug/L		99
68) 4-Chlorotoluene	14.198	14.198	0.950	91	579543	28.39	ug/L		100
69) tert-Butylbenzene	14.488	14.488	0.969	134	123238	28.19	ug/L		94
70) 1,2,4-Trimethylbenzene	14.530	14.530	0.972	105	637446	27.02	ug/L		99
71) sec-Butylbenzene	14.718	14.718	0.985	105	739046	25.35	ug/L		98
72) 4-Isopropyltoluene	14.841	14.841	0.993	119	578033	24.43	ug/L		98
73) 1,3-Dichlorobenzene	14.884	14.884	0.996	146	312585	27.51	ug/L		96
74) 1,4-Dichlorobenzene	14.969	14.969	1.002	146	321367	27.33	ug/L		96
75) n-Butylbenzene	15.276	15.276	1.022	91	539648	22.39	ug/L		99
76) 1,2-Dichlorobenzene	15.379	15.379	1.029	146	296258	26.36	ug/L		97
77) 1,2-Dibromo-3-chloropr...	16.192	16.192	1.084	157	37884	25.89	ug/L		97
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	158467	16.40	ug/L		100
79) Hexachlorobutadiene	17.360	17.360	1.162	225	113323	17.25	ug/L		100
80) Naphthalene	17.530	17.529	1.173	128	398200	18.95	ug/L		100
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.194	180	137080	15.02	ug/L		99
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.			
85) Acrolein	0.000	5.898	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.			
87) Isopropyl Alcohol	6.191	6.188	0.663		0m	N.D.	d		
88) Allyl chloride	6.414	6.506	0.687		0m	N.D.	d		
89) tert-Butyl Alcohol	6.478	6.687	0.694		0m	N.D.	d		
90) Acrylonitrile	6.962	6.895	0.746		0m	N.D.	d		
91) Isopropyl ether	7.479	7.489	0.801		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	7.606	7.581	0.814		0m	N.D.	d		
93) Ethyl tert-butyl ether	7.889	7.893	0.845		0m	N.D.	d		
94) Ethyl acetate	8.059	8.094	0.863		0m	N.D.	d		
95) Propionitrile	8.055	8.122	0.863		0m	N.D.	d		
96) Methacrylonitrile	8.133	8.306	0.871		0m	N.D.	d		
97) Tetrahydrofuran	8.423	8.430	0.902		0m	N.D.	d		
98) Isobutyl alcohol	8.787	8.777	0.941		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX226.D
Acq On : 10 Feb 2010 3:53 am
Operator : JEB
InstName : VOAA
Sample : |1202038397|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOILMIX[A] 245955001MS
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 10 13:30:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	9.084	9.127	0.973		0m	N.D.	d
100)	Methyl methacrylate	9.979	9.968	1.069		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	10.442	10.414	1.118		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.238	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	13.526	13.554	0.905		0m	N.D.	d
108)	Cyclohexanone	13.529	13.657	0.905		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	13.957	13.844	0.934		0m	N.D.	d
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	15.078	15.082	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	15.609	15.485	1.044		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX226.D
Acq On : 10 Feb 2010 3:53 am
Operator : JEB
InstName : VOAA
Sample : |1202038397|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.1G N/A SOILMIX[A] 245955001MS
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Feb 10 13:30:24 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

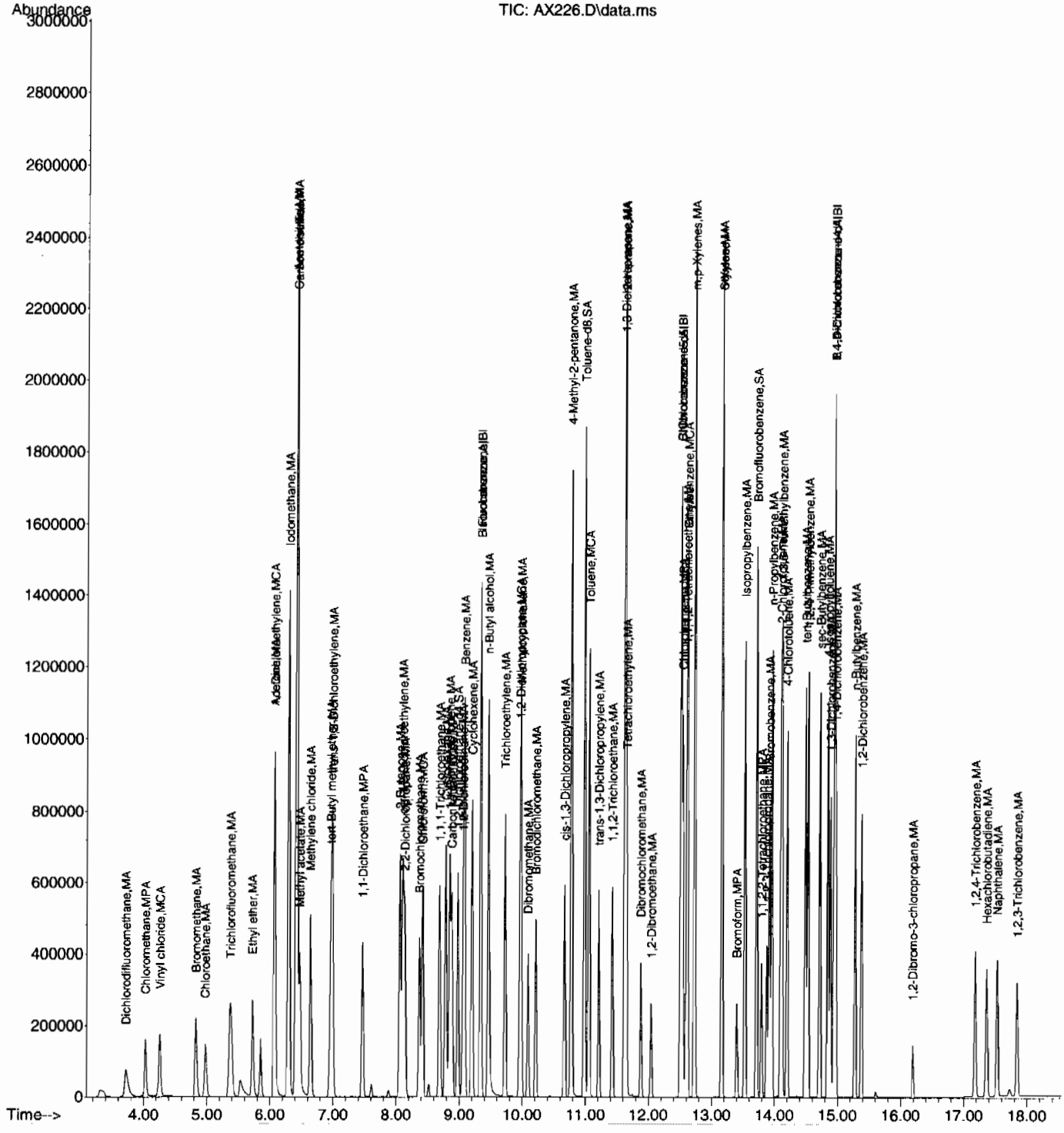

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX210.D
Acq On : 9 Feb 2010 8:52 pm
Operator : JEB
InstName : VOAA
Sample : |245955001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 10 13:29:52 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.342	9.342	1.000	96	1336623	50.00	ug/L	0.00
41) Chlorobenzene-d5	12.511	12.507	1.000	117	946386	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	538041	50.00	ug/L	0.00
82) B Fluorobenzene	9.342	9.339	1.000	96	1336623	50.00	ug/L	0.00
103) B Chlorobenzene-d5	12.511	12.508	1.000	117	946386	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	14.944	14.944	1.000	152	538041	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	8.982	8.982	0.961	65	487981	43.90	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 87.80%					
43) Toluene-d8	10.987	10.987	0.878	98	1255709	49.31	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 98.62%					
61) Bromofluorobenzene	13.713	13.713	0.918	95	527760	48.20	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 96.40%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	3.731	0.000		0	N.D.		
3) Chloromethane	4.023	4.043	0.431	50	520	N.D.		
4) Vinyl chloride	4.255	4.265	0.455	62	629	N.D.		
5) Bromomethane	0.000	4.839	0.000		0	N.D.		
6) Chloroethane	0.000	4.990	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	5.382	0.000		0	N.D.		
8) Ethyl ether	0.000	5.732	0.000		0	N.D.		
9) Acetone	6.089	6.082	0.652	43	15684	2.45	ug/L	100
10) 1,1-Dichloroethylene	0.000	6.082	0.000		0	N.D.		
11) Iodomethane	0.000	6.305	0.000		0	N.D.		
12) Acetonitrile	0.000	6.421	0.000		0	N.D.		
13) Methyl acetate	0.000	6.481	0.000		0	N.D.		
14) Carbon disulfide	6.418	6.428	0.687	76	1497	N.D.		
15) Methylene chloride	6.651	6.651	0.712	84	8163	N.D.		
16) tert-Butyl methyl ether	0.000	6.973	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	6.994	0.000		0	N.D.		
18) Vinyl acetate	0.000	7.454	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	7.471	0.000		0	N.D.		
20) 2-Butanone	8.069	8.062	0.864	43	2112	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.108	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.140	0.000		0	N.D.		
23) Bromochloromethane	0.000	8.373	0.000		0	N.D.		
24) Chloroform	0.000	8.423	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	8.692	0.000		0	N.D.		
26) Cyclohexane	8.794	8.791	0.941	56	528	N.D.		
27) 1,1-Dichloropropene	0.000	8.851	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	8.886	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.063	0.000		0	N.D.		
31) Benzene	0.000	9.084	0.000		0	N.D.		
32) Cyclohexene	0.000	9.208	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	9.462	0.000		0	N.D.		
34) Trichloroethylene	0.000	9.731	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	9.965	0.000		0	N.D.		
36) Methylcyclohexane	0.000	9.982	0.000		0	N.D.		
37) Dibromomethane	0.000	10.095	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.216	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	10.453	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX210.D
Acq On : 9 Feb 2010 8:52 pm
Operator : JEB
InstName : VOAA
Sample : |245955001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 10 13:29:52 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	10.668	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	10.774	0.000		0	N.D.	
44) Toluene	11.057	11.057	0.884	91	1832	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.213	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	11.429	0.000		0	N.D.	
47) 2-Hexanone	11.623	11.627	0.929	43	5060	N.D.	
48) 1,3-Dichloropropane	0.000	11.620	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	11.655	0.000		0	N.D.	
50) Dibromochloromethane	0.000	11.881	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.044	0.000		0	N.D.	
52) Chlorobenzene	12.546	12.543	1.003	112	123	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	12.599	0.000		0	N.D.	
54) Ethylbenzene	12.606	12.617	1.008	91	119	N.D.	
55) m,p-Xylenes	0.000	12.730	0.000		0	N.D.	
56) o-Xylene	0.000	13.162	0.000		0	N.D.	
57) Styrene	13.162	13.162	1.052	104	108	N.D.	
59) Bromoform	0.000	13.402	0.000		0	N.D.	
60) Isopropylbenzene	0.000	13.529	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	13.795	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	13.879	0.000		0	N.D.	
64) Bromobenzene	0.000	13.918	0.000		0	N.D.	
65) n-Propylbenzene	13.957	13.957	0.934	91	510	N.D.	
66) 1,3,5-Trimethylbenzene	0.000	14.116	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000	14.095	0.000		0	N.D.	
68) 4-Chlorotoluene	14.194	14.198	0.950	91	1170	N.D.	
69) tert-Butylbenzene	0.000	14.488	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	14.534	14.530	0.973	105	113	N.D.	
71) sec-Butylbenzene	14.534	14.718	0.973	105	113	N.D.	
72) 4-Isopropyltoluene	14.848	14.841	0.994	119	1967	N.D.	
73) 1,3-Dichlorobenzene	14.887	14.884	0.996	146	698	N.D.	
74) 1,4-Dichlorobenzene	14.972	14.969	1.002	146	1184	N.D.	
75) n-Butylbenzene	15.089	15.276	1.010	91	1190	N.D.	
76) 1,2-Dichlorobenzene	15.375	15.379	1.029	146	133	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.192	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	17.183	17.183	1.150	180	1322	N.D.	
79) Hexachlorobutadiene	0.000	17.360	0.000		0	N.D.	
80) Naphthalene	17.530	17.529	1.173	128	5262	N.D.	
81) 1,2,3-Trichlorobenzene	17.847	17.847	1.194	180	959	N.D.	
83) Chlorotrifluoroethylene	0.000	3.661	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	4.416	0.000		0	N.D.	
85) Acrolein	0.000	5.898	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.068	0.000		0	N.D.	
87) Isopropyl Alcohol	6.199	6.188	0.663	45	336	N.D.	
88) Allyl chloride	0.000	6.506	0.000		0	N.D.	
89) tert-Butyl Alcohol	6.687	6.687	0.716	59	263	N.D.	
90) Acrylonitrile	0.000	6.895	0.000		0	N.D.	
91) Isopropyl ether	0.000	7.489	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	7.581	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	7.893	0.000		0	N.D.	
94) Ethyl acetate	8.069	8.094	0.864	43	2112	N.D.	
95) Propionitrile	0.000	8.122	0.000		0	N.D.	
96) Methacrylonitrile	0.000	8.306	0.000		0	N.D.	
97) Tetrahydrofuran	8.444	8.430	0.904	42	114	N.D.	
98) Isobutyl alcohol	8.791	8.777	0.941	41	112	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX210.D
Acq On : 9 Feb 2010 8:52 pm
Operator : JEB
InstName : VOAA
Sample : |245955001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 10 13:29:52 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	9.127	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	9.968	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.060	0.000		0	N.D.	
102)	2-Nitropropane	0.000	10.414	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.238	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	12.426	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	13.554	13.554	0.907	53	350	N.D.	
108)	Cyclohexanone	0.000	13.657	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	13.844	0.000		0	N.D.	
110)	Pentachloroethane	0.000	14.541	0.000		0	N.D.	
111)	Benzyl chloride	15.089	15.082	1.010	91	1190	N.D.	
112)	bis(2-Chloroisopropyl)...	15.609	15.485	1.044	45	1702	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX210.D
Acq On : 9 Feb 2010 8:52 pm
Operator : JEB
InstName : VOAA
Sample : |245955001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 10 13:29:52 2010
Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Feb 03 22:34:28 2010
Response via : Initial Calibration
Integrator: RTE

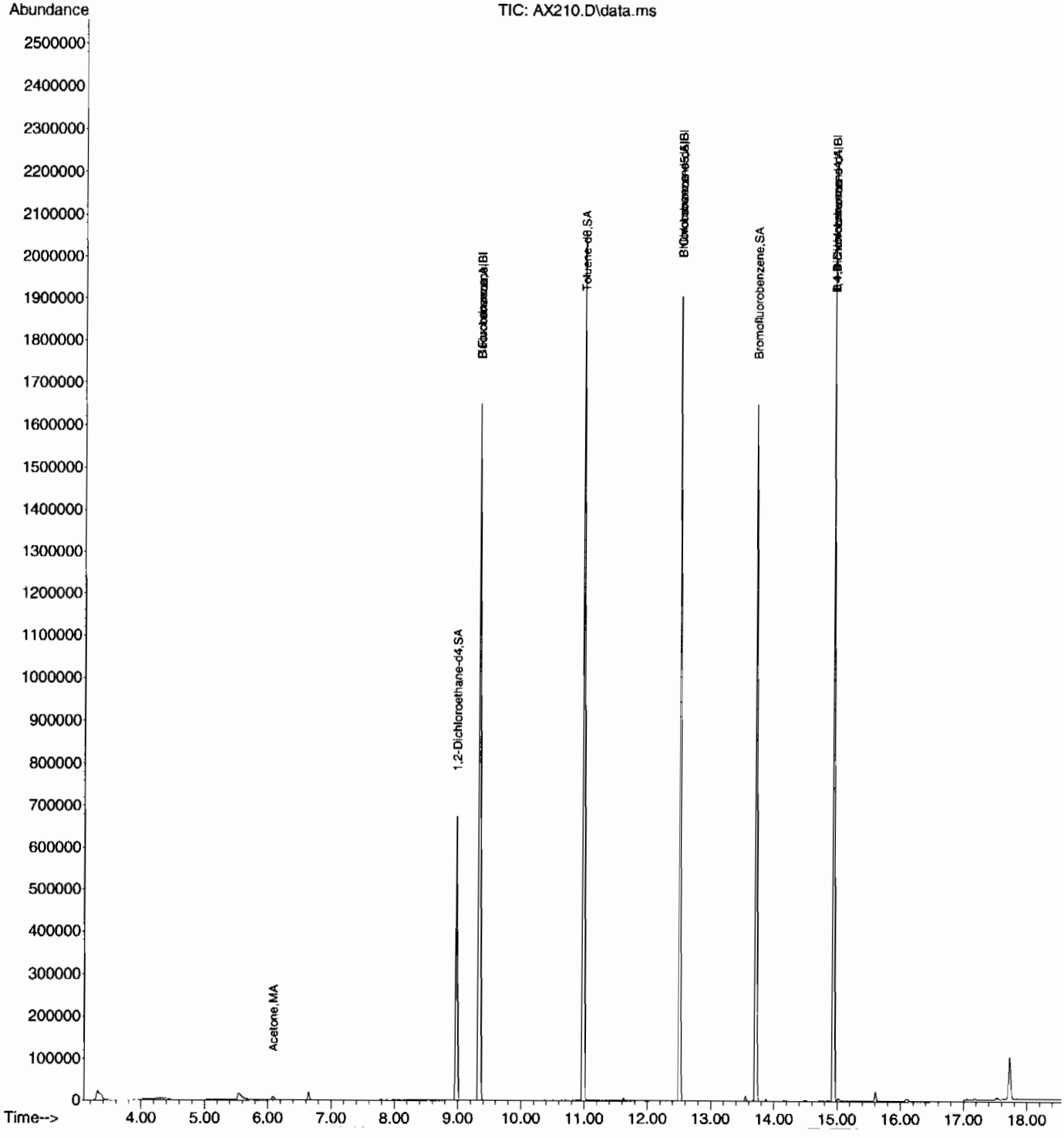

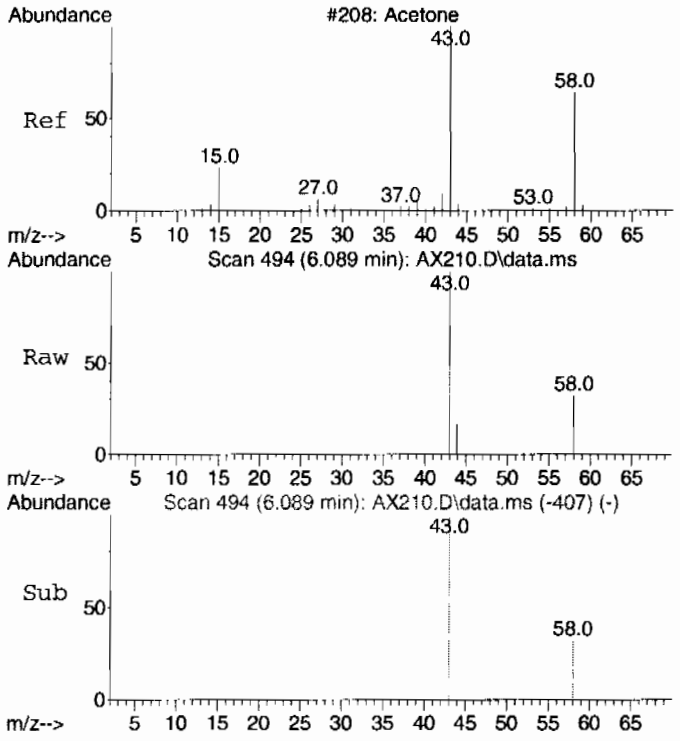

#9
Acetone
Concen: 2.45 ug/L
RT: 6.089 min Scan# 494
Delta R.T. 0.007 min
Lab File: AX210.D
Acq: 9 Feb 2010 8:52 pm

Tgt Ion: 43 Resp: 15684

Ion	Ratio	Lower	Upper
43	100		
58	26.8	0.0	56.6

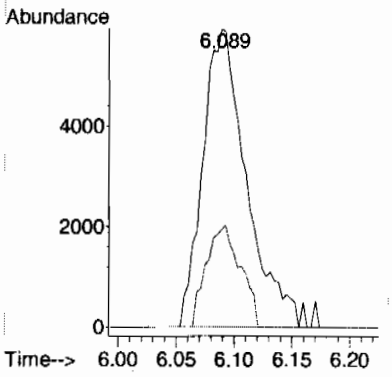

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX210.D
Acq On : 9 Feb 2010 8:52 pm
Operator : JEB
Sample : |245955001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\020910\
Data File : AX210.D
Acq On : 9 Feb 2010 8:52 pm
Operator : JEB
Sample : |245955001|951185|1|VOA|1|VOA8260BS|
Misc : LANL 5.0G N/A SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\122209\Methods\VOAA-8260-020210.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: ron.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOAA

Date: 2/2/2010 Method 8260B/624 Operator: JEB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/2/2010

(See pg. 14 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 020210VA

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	N/A		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM100114-02	1	1	1	
LCS/MS	N/A			5+5	
BFB	UVM100114-02				1
SHORT	N/A		5+5	5+5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
2 Feb 2010 22:04	AW301.D	UVM100114-02	GEL	BFB	5ML	1	N/A	1	W	JEB	N/A	O	
2 Feb 2010 22:29	AW302.D	BLANK	GEEL	BLANK	5ML	1	N/A	2	w	JEB	N/A	O	
2 Feb 2010 22:55	AW303.D	WAVM100202-01	GEEL	ICAL	5ML	1	N/A	3	w	JEB	N/A	O	UVM100106-01B/UVM100202-01A
2 Feb 2010 23:21	AW304.D	WAVM100202-02	GEEL	ICAL	5ML	1	N/A	4	w	JEB	N/A	X	UVM100106-02B/UVM100202-02A
2 Feb 2010 23:47	AW305.D	WAVM100202-03	GEEL	ICAL	5ML	1	N/A	5	w	JEB	N/A	O	UVM100106-02B/UVM100202-02A
3 Feb 2010 00:14	AW306.D	WAVM100202-04	GEEL	ICAL	5ML	1	N/A	6	w	JEB	N/A	O	UVM100106-03B/UVM100202-03A
3 Feb 2010 00:40	AW307.D	WAVM100202-05	GEEL	ICAL	5ML	1	N/A	7	w	JEB	N/A	O	UVM100106-04B/UVM100202-04A
3 Feb 2010 01:06	AW308.D	WAVM100202-06	GEEL	ICAL	5ML	1	N/A	8	w	JEB	N/A	O	UVM100106-05B/UVM100202-05A
3 Feb 2010 01:32	AW309.D	WAVM100202-07	GEEL	ICAL	5ML	1	N/A	9	w	JEB	N/A	O	UVM100106-06B/UVM100202-06A
3 Feb 2010 01:59	AW310.D	WAVM100202-08	GEEL	ICAL	5ML	1	N/A	10	w	JEB	N/A	O	UVM100106-07B/UVM100202-07A
3 Feb 2010 02:25	AW311.D	WAVM100202-09	GEEL	ICAL	5ML	1	N/A	11	w	JEB	N/A	O	UVM100106-08B/UVM100202-08A
3 Feb 2010 02:51	AW312.D	BLANK	GEEL	BLANK	5ML	1	N/A	12	w	JEB	N/A	O	
3 Feb 2010 03:17	AW313.D	WAVM100202-10	GEEL	ICAL	5ML	1	N/A	13	w	JEB	N/A	O	UVM100118-01/UVM100125-01B
3 Feb 2010 03:43	AW314.D	WAVM100202-11	GEEL	ICAL	5ML	1	N/A	14	w	JEB	N/A	O	UVM100118-02/UVM100125-02B
3 Feb 2010 04:09	AW315.D	WAVM100202-12	GEEL	ICAL	5ML	1	N/A	15	w	JEB	N/A	O	UVM100118-03/UVM100125-03B
3 Feb 2010 04:35	AW316.D	WAVM100202-13	GEEL	ICAL	5ML	1	N/A	16	w	JEB	N/A	O	UVM100118-04/UVM100125-04B
3 Feb 2010 05:02	AW317.D	WAVM100202-14	GEEL	ICAL	5ML	1	N/A	17	w	JEB	N/A	O	UVM100118-05/UVM100125-05B
3 Feb 2010 05:28	AW318.D	WAVM100202-15	GEEL	ICAL	5ML	1	N/A	18	w	JEB	N/A	O	UVM100118-06/UVM100125-06B
3 Feb 2010 05:55	AW319.D	WAVM100202-16	GEEL	ICAL	5ML	1	N/A	19	w	JEB	N/A	O	UVM100118-07/UVM100125-07B
3 Feb 2010 06:21	AW320.D	BLANK	GEEL	BLANK	5ML	1	N/A	20	w	JEB	N/A	O	
3 Feb 2010 06:48	AW321.D	WAVM100202-17	GEEL	ICV	5ML	1	N/A	21	w	JEB	N/A	O	UVM100126-01A/IVM100202-01
3 Feb 2010 07:14	AW322.D	WAVM100202-18	GEEL	ICV	5ML	1	N/A	22	w	JEB	N/A	X	UVM100126-02A/IVM100202-01
3 Feb 2010 07:40	AW323.D	WAVM100202-19	GEEL	ICV	5ML	1	N/A	23	w	JEB	N/A	O	UVM100125-08A/UVM100118-08A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOAA

Date: 2/9/2010 Method 8260B/624 Operator: JEB

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1306

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/2/2010

(See pg. 14 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 020910VA

Daily Standard — Volume Added for Purge (ul)

Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	WAVM100209-01		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM100114-02	1	1	1	
LCS/MS	WAVM100209-01,02			5+5	
BFB	UVM100114-02				1
SHORT	WAVM100209-03		5+5	5+5	
DHEC	N/A			5	

Purge Amount

5	Water Purge Vol:
VARIOUS	Soil Purge Wt.
VARIOUS	Mid level ext. MeOH Vol:
VARIOUS	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
9 Feb 2010 16:37	AX201.D	UVM100114-02	GEL	BFB	5ML	1	N/A	1	W	JEB	N/A	O	
9 Feb 2010 17:01	AX202.D	WAVM100209-01	GEL	CCV/LCS	5ML	1	N/A	2	W	JEB	N/A	O	UVM100126-01B/IVM100206-01
9 Feb 2010 17:49	AX203.D	WAVM100209-02	GEL	LCS	5GL	1	N/A	3	s	JEB	N/A	O	UVM100126-01B/IVM100206-01
9 Feb 2010 18:15	AX204.D	WAVM100209-03	GEL	CCV	5ML	1	N/A	4	W	JEB	N/A	O	UVM100118-08B
9 Feb 2010 18:42	AX205.D	WAVM100209-04	GEL	LCS	5G	1	N/A	5	W	JEB	N/A	O	UVM100118-08B
9 Feb 2010 19:08	AX206.D	BLANK	GEL	BLANK	5G	1	N/A	6	s	JEB	N/A	O	
9 Feb 2010 19:33	AX207.D	BLANK	GEL	BLANK	5ML	1	N/A	7	w	JEB	N/A	O	
9 Feb 2010 20:00	AX208.D	2 PPB	GEEL	BLANK	5ML	1	N/A	8	w	JEB	N/A	O	
9 Feb 2010 20:26	AX209.D	2 PPB	GEEL	BLANK	5ML	1	N/A	9	w	JEB	N/A	O	
9 Feb 2010 20:52	AX210.D	245955001	LANL	951185	5.0G	1	N/A	10	s	JEB	N/A	O	
9 Feb 2010 21:19	AX211.D	245955002	LANL	951185	5.2G	1	N/A	11	s	JEB	N/A	O	
9 Feb 2010 21:45	AX212.D	245955003	LANL	951185	5.2G	1	N/A	12	s	JEB	N/A	O	
9 Feb 2010 22:11	AX213.D	245959001	LANL	951185	5.2G	1	N/A	13	s	JEB	N/A	O	
9 Feb 2010 22:38	AX214.D	245959002	LANL	951185	5.0G	1	N/A	14	s	JEB	N/A	O	
9 Feb 2010 23:04	AX215.D	245959003	LANL	951185	5.3G	1	N/A	15	s	JEB	N/A	O	
9 Feb 2010 23:30	AX216.D	245959004	LANL	951185	5.1G	1	N/A	16	s	JEB	N/A	O	
9 Feb 2010 23:57	AX217.D	245959005	LANL	951185	5.0G	1	N/A	17	s	JEB	N/A	O	
2/10/2010 0:23	AX218.D	245959006	LANL	951185	5.4G	1	N/A	18	s	JEB	N/A	O	
2/10/2010 0:50	AX219.D	245959007	LANL	951185	5.4G	1	N/A	19	s	JEB	N/A	O	
2/10/2010 1:16	AX220.D	245959008	LANL	951185	5.0G	1	N/A	20	s	JEB	N/A	O	
2/10/2010 1:42	AX221.D	245959009	LANL	951185	5.2G	1	N/A	21	s	JEB	N/A	O	
2/10/2010 2:08	AX222.D	245959010	LANL	951185	5.2G	1	N/A	22	s	JEB	N/A	O	
2/10/2010 2:35	AX223.D	245959011	LANL	951185	5.1G	1	N/A	23	s	JEB	N/A	O	
2/10/2010 3:01	AX224.D	245959012	LANL	951185	5.3G	1	N/A	24	s	JEB	N/A	O	
2/10/2010 3:27	AX225.D	1202038396	LANL	951185	5.1G	1	N/A	25	s	JEB	N/A	O	SOILMIX[A] 245955001MS
2/10/2010 3:53	AX226.D	1202038397	LANL	951185	5.1G	1	N/A	26	s	JEB	N/A	O	SOILMIX[A] 245955001MS

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
951185	See Below		

Potentially affected work order(s)(SDG): 245955(10-1509),245959(10-1510)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1.The Matrix Spike did not meet acceptance criteria for all recoveries. 2. The RPD recoveries for the MS/MSD (1202038396 & 1202038397) were outside acceptance criteria.	The matrix spike and duplicate recovered in a similar manner therefore, it is possible that matrix interference was demonstrated.

Originator's Name:

John Bell, Jr. 15-FEB-10

Data Validator/Group Leader:

Stacy Calloway 25-FEB-10

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1510

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	949132
Prep Batch Number:	949131

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
245959001	RE15-10-7309
245959002	RE15-10-7308
245959003	RE15-10-7315
245959004	RE15-10-7317
245959005	RE15-10-7319
245959006	RE15-10-7312
245959007	RE15-10-7313
245959008	RE15-10-7314
245959009	RE15-10-7316
245959010	RE15-10-7318
245959012	RE15-10-7324
1202033476	Method Blank (MB)
1202033477	Laboratory Control Sample (LCS)
1202033478	246062001(RE52-10-12020) Matrix Spike (MS)
1202033479	246062001(RE52-10-12020) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the

'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms. 2,4-Toluene diisocyanate rapidly hydrolyzes in water (half-life less than 30 minutes). Therefore, recoveries of this compound from aqueous matrices should not be expected. In addition, in solid matrices, 2,4-Toluene diisocynate often reacts with alcohols and amines to produce urethane and ureas and consequently cannot usually coexist in a solution containing these materials. 2,4-Toluene diisocyanate is reported as an estimated value.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS failed recovery for Benzyl alcohol. Please see the spike recovery report for the specific failures. The failure represented less than 5% of the requested spike analyte list. That satisfied the clients acceptance criteria and the data were reported.

QC Sample Designation
The non-SDG sample 246062001 (RE52-10-12020) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD failed RPD for Benzoic acid and bis(2-Chloroethoxy)methane. Please see the spike recovery report for the specific failures. The MS and MSD pair passed recoveries for all analytes. Therefore, the data were reported un-qualified for the RPD value failure.

Internal Standard (ISTD) Acceptance
The internal standard responses were outside of the acceptance criteria for the following sample: 245959010 (RE15-10-7318). The sample was re-analyzed and the failures were not confirmed. The re-analysis data are reported.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 788971. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the

analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Blackburn **Date:** 2-28-10

Roadmap for LANL 10-1510 SVOA

This roadmap was analyzed by nat00999 on 02-10-2010, 07:04.
This roadmap was reviewed by dan01134 on 02-12-2010, 17:00.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s020710.b/s6b0707.d	245959001	07-FEB-2010	15:09	10-1510.sub	RE15-10-7309	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0708.d	245959002	07-FEB-2010	15:37	10-1510.sub	RE15-10-7308	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0709.d	245959003	07-FEB-2010	16:05	10-1510.sub	RE15-10-7315	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0710.d	245959004	07-FEB-2010	16:32	10-1510.sub	RE15-10-7317	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0711.d	245959005	07-FEB-2010	17:00	10-1510.sub	RE15-10-7319	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0712.d	245959006	07-FEB-2010	17:28	10-1510.sub	RE15-10-7312	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0713.d	245959007	07-FEB-2010	17:55	10-1510.sub	RE15-10-7313	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0714.d	245959008	07-FEB-2010	18:23	10-1510.sub	RE15-10-7314	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0715.d	245959009	07-FEB-2010	18:50	10-1510.sub	RE15-10-7316	1	949132	
■	N	/chem/MSD6.i/s020710.b/s6b0716.d	245959010	07-FEB-2010	19:17	10-1510.sub	RE15-10-7318	1	949132	DUSE - failed IS - rr - see s6b0808
☐	N	/chem/MSD6.i/s020710.b/s6b0717.d	245959012	07-FEB-2010	19:44	10-1510.sub	RE15-10-7324	1	949132	
☐	N	/chem/MSD6.i/s020810.b/s6b0808.d	245959010	08-FEB-2010	17:00	10-1510.sub	RE15-10-7318	1	949132	USE - rr of s6b0716

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s020710.b/s6b0705.d	1202033476	mb	07-FEB-2010	14:13	10-1510.sub	SBLK01	1	949132	
☐	N	/chem/MSD6.i/s020710.b/s6b0706.d	1202033477	lcs	07-FEB-2010	14:41	10-1510.sub	SBLK01LCS	1	949132	failed <5%

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 15:37**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0708.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	427	ug/kg	85.5	427
108-95-2	Phenol	U	427	ug/kg	85.5	427
95-57-8	2-Chlorophenol	U	427	ug/kg	85.5	427
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.5	427
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.5	427
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.5	427
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427
129-00-0	Pyrene	U	42.7	ug/kg	12.8	42.7
110-86-1	Pyridine	U	427	ug/kg	85.5	427
62-53-3	Aniline	U	427	ug/kg	128	427
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.5	427
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.5	427
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.5	427
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.5	427
95-48-7	o-Cresol	U	427	ug/kg	85.5	427
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427
67-72-1	Hexachloroethane	U	427	ug/kg	85.5	427
98-95-3	Nitrobenzene	U	427	ug/kg	85.5	427
78-59-1	Isophorone	U	427	ug/kg	85.5	427
88-75-5	2-Nitrophenol	U	427	ug/kg	85.5	427
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	150	427
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.5	427
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.5	427
65-85-0	Benzoic acid	U	855	ug/kg	214	855
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7
106-47-8	4-Chloroaniline	U	427	ug/kg	85.5	427
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.5	427
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.55	42.7
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.5	427
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.5	427
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.5	427
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7
88-74-4	2-Nitroaniline	U	427	ug/kg	85.5	427
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	427	ug/kg	85.5	427

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 15:37**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0708.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	427	ug/kg	85.5	427
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7
51-28-5	2,4-Dinitrophenol	U	855	ug/kg	162	855
132-64-9	Dibenzofuran	U	427	ug/kg	85.5	427
84-66-2	Diethylphthalate	U	427	ug/kg	85.5	427
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.5	427
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.5	427
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427
	p-Nitroaniline					
122-39-4	Diphenylamine	U	427	ug/kg	85.5	427
122-66-7	Azobenzene	U	427	ug/kg	85.5	427
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.5	427
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.5	427
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7
120-12-7	Anthracene	U	42.7	ug/kg	8.55	42.7
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.5	427
206-44-0	Fluoranthene	U	42.7	ug/kg	12.8	42.7
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.5	427
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7
117-81-7	bis(2-Ethylhexyl)phthalate	J	99.5	ug/kg	85.5	427
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.5	427
205-99-2	Benzo(b)fluoranthene	U	42.7	ug/kg	12.8	42.7
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.5	427

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	485	ug/kg		JA
112-95-8	Eicosane	15.75	172	ug/kg	97	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 15:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0707.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	184	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline	U	369	ug/kg	73.8	369
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	369	ug/kg	73.8	369

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**02/07/2010 15:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0707.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.48	538	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959006**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**29.4**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7312**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 17:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0712.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	469	ug/kg	93.8	469
108-95-2	Phenol	U	469	ug/kg	93.8	469
95-57-8	2-Chlorophenol	U	469	ug/kg	93.8	469
106-46-7	1,4-Dichlorobenzene	U	469	ug/kg	93.8	469
621-64-7	N-Nitrosodipropylamine	U	469	ug/kg	93.8	469
59-50-7	4-Chloro-3-methylphenol	U	469	ug/kg	93.8	469
83-32-9	Acenaphthene	U	46.9	ug/kg	15.5	46.9
121-14-2	2,4-Dinitrotoluene	U	469	ug/kg	46.9	469
100-02-7	4-Nitrophenol	U	469	ug/kg	155	469
87-86-5	Pentachlorophenol	U	469	ug/kg	117	469
129-00-0	Pyrene	U	46.9	ug/kg	14.1	46.9
110-86-1	Pyridine	U	469	ug/kg	93.8	469
62-53-3	Aniline	U	469	ug/kg	141	469
111-44-4	bis(2-Chloroethyl) ether	U	469	ug/kg	93.8	469
541-73-1	1,3-Dichlorobenzene	U	469	ug/kg	93.8	469
100-51-6	Benzyl alcohol	U	469	ug/kg	141	469
95-50-1	1,2-Dichlorobenzene	U	469	ug/kg	93.8	469
108-60-1	bis(2-Chloroisopropyl)ether	U	469	ug/kg	93.8	469
95-48-7	o-Cresol	U	469	ug/kg	93.8	469
65794-96-9	m,p-Cresols	U	469	ug/kg	141	469
67-72-1	Hexachloroethane	U	469	ug/kg	93.8	469
98-95-3	Nitrobenzene	U	469	ug/kg	93.8	469
78-59-1	Isophorone	U	469	ug/kg	93.8	469
88-75-5	2-Nitrophenol	U	469	ug/kg	93.8	469
105-67-9	2,4-Dimethylphenol	U	469	ug/kg	164	469
111-91-1	bis(2-Chloroethoxy)methane	U	469	ug/kg	93.8	469
120-83-2	2,4-Dichlorophenol	U	469	ug/kg	93.8	469
65-85-0	Benzoic acid	U	938	ug/kg	235	938
91-20-3	Naphthalene	U	46.9	ug/kg	14.1	46.9
106-47-8	4-Chloroaniline	U	469	ug/kg	93.8	469
87-68-3	Hexachlorobutadiene	U	469	ug/kg	93.8	469
91-57-6	2-Methylnaphthalene	U	46.9	ug/kg	9.38	46.9
77-47-4	Hexachlorocyclopentadiene	U	469	ug/kg	93.8	469
88-06-2	2,4,6-Trichlorophenol	U	469	ug/kg	93.8	469
95-95-4	2,4,5-Trichlorophenol	U	469	ug/kg	93.8	469
91-58-7	2-Chloronaphthalene	U	46.9	ug/kg	15.5	46.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	469	ug/kg	93.8	469
99-09-2	3-Nitroaniline	U	469	ug/kg	93.8	469

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959006	Date Received:	02/02/2010 09:10	%Moisture:	29.4
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7312	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.1	Dilution:	1
Run Date:	02/07/2010 17:28	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.18 g	Final Volume:	1 mL
Data File:	s6b0712.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	469	ug/kg	93.8	469
606-20-2	2,6-Dinitrotoluene	U	469	ug/kg	46.9	469
208-96-8	Acenaphthylene	U	46.9	ug/kg	14.1	46.9
51-28-5	2,4-Dinitrophenol	U	938	ug/kg	178	938
132-64-9	Dibenzofuran	U	469	ug/kg	93.8	469
84-66-2	Diethylphthalate	U	469	ug/kg	93.8	469
86-73-7	Fluorene	U	46.9	ug/kg	14.1	46.9
7005-72-3	4-Chlorophenylphenylether	U	469	ug/kg	93.8	469
534-52-1	2-Methyl-4,6-dinitrophenol	U	469	ug/kg	93.8	469
100-01-6	4-Nitroaniline	U	469	ug/kg	141	469
	p-Nitroaniline					
122-39-4	Diphenylamine	U	469	ug/kg	93.8	469
122-66-7	Azobenzene	U	469	ug/kg	93.8	469
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	469	ug/kg	93.8	469
118-74-1	Hexachlorobenzene	U	469	ug/kg	93.8	469
85-01-8	Phenanthrene	U	46.9	ug/kg	14.1	46.9
120-12-7	Anthracene	U	46.9	ug/kg	9.38	46.9
84-74-2	Di-n-butylphthalate	U	469	ug/kg	93.8	469
206-44-0	Fluoranthene	U	46.9	ug/kg	14.1	46.9
85-68-7	Butylbenzylphthalate	U	469	ug/kg	93.8	469
56-55-3	Benzo(a)anthracene	U	46.9	ug/kg	14.1	46.9
91-94-1	3,3'-Dichlorobenzidine	U	469	ug/kg	141	469
218-01-9	Chrysene	U	46.9	ug/kg	14.1	46.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	469	ug/kg	93.8	469
117-84-0	Di-n-octylphthalate	U	469	ug/kg	93.8	469
205-99-2	Benzo(b)fluoranthene	U	46.9	ug/kg	14.1	46.9
207-08-9	Benzo(k)fluoranthene	U	46.9	ug/kg	14.1	46.9
50-32-8	Benzo(a)pyrene	U	46.9	ug/kg	14.1	46.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.9	ug/kg	14.1	46.9
53-70-3	Dibenzo(a,h)anthracene	U	46.9	ug/kg	14.1	46.9
191-24-2	Benzo(ghi)perylene	U	46.9	ug/kg	14.1	46.9
120-82-1	1,2,4-Trichlorobenzene	U	469	ug/kg	93.8	469

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.26	417	ug/kg		J
	Unknown Aldol Condensate	3.47	637	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959006	**Date Received:**	02/02/2010 09:10	**%Moisture:**	29.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7312	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s6b0712.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
630-02-4	Octacosane	14.46	388	ug/kg	87	NJ
112-95-8	Eicosane	15.75	222	ug/kg	98	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959007**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7313**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 17:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0713.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	184	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline	U	369	ug/kg	73.8	369
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	369	ug/kg	73.8	369

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959007**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7313**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 17:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0713.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	215	ug/kg		J
	Unknown Aldol Condensate	3.48	669	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959007	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7313	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:55	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6b0713.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.85	272	ug/kg		J
	Unknown	13.87	467	ug/kg		J
79-63-0	Lanosterol	17.17	267	ug/kg	83	J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959008	**Date Received:**	02/02/2010 09:10	**%Moisture:**	32.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7314	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.l	**Dilution:**	1
Run Date:	02/07/2010 18:23	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6b0714.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	494	ug/kg	98.8	494
108-95-2	Phenol	U	494	ug/kg	98.8	494
95-57-8	2-Chlorophenol	U	494	ug/kg	98.8	494
106-46-7	1,4-Dichlorobenzene	U	494	ug/kg	98.8	494
621-64-7	N-Nitrosodipropylamine	U	494	ug/kg	98.8	494
59-50-7	4-Chloro-3-methylphenol	U	494	ug/kg	98.8	494
83-32-9	Acenaphthene	U	49.4	ug/kg	16.3	49.4
121-14-2	2,4-Dinitrotoluene	U	494	ug/kg	49.4	494
100-02-7	4-Nitrophenol	U	494	ug/kg	163	494
87-86-5	Pentachlorophenol	U	494	ug/kg	124	494
129-00-0	Pyrene		205	ug/kg	14.8	49.4
110-86-1	Pyridine	U	494	ug/kg	98.8	494
62-53-3	Aniline	U	494	ug/kg	148	494
111-44-4	bis(2-Chloroethyl) ether	U	494	ug/kg	98.8	494
541-73-1	1,3-Dichlorobenzene	U	494	ug/kg	98.8	494
100-51-6	Benzyl alcohol	U	494	ug/kg	148	494
95-50-1	1,2-Dichlorobenzene	U	494	ug/kg	98.8	494
108-60-1	bis(2-Chloroisopropyl)ether	U	494	ug/kg	98.8	494
95-48-7	o-Cresol	U	494	ug/kg	98.8	494
65794-96-9	m,p-Cresols	U	494	ug/kg	148	494
67-72-1	Hexachloroethane	U	494	ug/kg	98.8	494
98-95-3	Nitrobenzene	U	494	ug/kg	98.8	494
78-59-1	Isophorone	U	494	ug/kg	98.8	494
88-75-5	2-Nitrophenol	U	494	ug/kg	98.8	494
105-67-9	2,4-Dimethylphenol	U	494	ug/kg	173	494
111-91-1	bis(2-Chloroethoxy)methane	U	494	ug/kg	98.8	494
120-83-2	2,4-Dichlorophenol	U	494	ug/kg	98.8	494
65-85-0	Benzoic acid	U	988	ug/kg	247	988
91-20-3	Naphthalene	J	20.8	ug/kg	14.8	49.4
106-47-8	4-Chloroaniline	U	494	ug/kg	98.8	494
87-68-3	Hexachlorobutadiene	U	494	ug/kg	98.8	494
91-57-6	2-Methylnaphthalene	J	12.3	ug/kg	9.88	49.4
77-47-4	Hexachlorocyclopentadiene	U	494	ug/kg	98.8	494
88-06-2	2,4,6-Trichlorophenol	U	494	ug/kg	98.8	494
95-95-4	2,4,5-Trichlorophenol	U	494	ug/kg	98.8	494
91-58-7	2-Chloronaphthalene	U	49.4	ug/kg	16.3	49.4
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	494	ug/kg	98.8	494
99-09-2	3-Nitroaniline	U	494	ug/kg	98.8	494

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959008**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**32.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7314**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 18:23**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0714.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	494	ug/kg	98.8	494
606-20-2	2,6-Dinitrotoluene	U	494	ug/kg	49.4	494
208-96-8	Acenaphthylene	U	49.4	ug/kg	14.8	49.4
51-28-5	2,4-Dinitrophenol	U	988	ug/kg	188	988
132-64-9	Dibenzofuran	U	494	ug/kg	98.8	494
84-66-2	Diethylphthalate	U	494	ug/kg	98.8	494
86-73-7	Fluorene	U	49.4	ug/kg	14.8	49.4
7005-72-3	4-Chlorophenylphenylether	U	494	ug/kg	98.8	494
534-52-1	2-Methyl-4,6-dinitrophenol	U	494	ug/kg	98.8	494
100-01-6	4-Nitroaniline	U	494	ug/kg	148	494
	p-Nitroaniline					
122-39-4	Diphenylamine	U	494	ug/kg	98.8	494
122-66-7	Azobenzene	U	494	ug/kg	98.8	494
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	494	ug/kg	98.8	494
118-74-1	Hexachlorobenzene	U	494	ug/kg	98.8	494
85-01-8	Phenanthrene		235	ug/kg	14.8	49.4
120-12-7	Anthracene	U	49.4	ug/kg	9.88	49.4
84-74-2	Di-n-butylphthalate	U	494	ug/kg	98.8	494
206-44-0	Fluoranthene		311	ug/kg	14.8	49.4
85-68-7	Butylbenzylphthalate	U	494	ug/kg	98.8	494
56-55-3	Benzo(a)anthracene	U	49.4	ug/kg	14.8	49.4
91-94-1	3,3'-Dichlorobenzidine	U	494	ug/kg	148	494
218-01-9	Chrysene		91.9	ug/kg	14.8	49.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	494	ug/kg	98.8	494
117-84-0	Di-n-octylphthalate	U	494	ug/kg	98.8	494
205-99-2	Benzo(b)fluoranthene		120	ug/kg	14.8	49.4
207-08-9	Benzo(k)fluoranthene	J	46.3	ug/kg	14.8	49.4
50-32-8	Benzo(a)pyrene	U	49.4	ug/kg	14.8	49.4
193-39-5	Indeno(1,2,3-cd)pyrene		173	ug/kg	14.8	49.4
53-70-3	Dibenzo(a,h)anthracene	U	49.4	ug/kg	14.8	49.4
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	14.8	49.4
120-82-1	1,2,4-Trichlorobenzene	U	494	ug/kg	98.8	494

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	833	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	306	ug/kg	99	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959003	Date Received:	02/02/2010 09:10	%Moisture:	8.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7315	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 16:05	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	s6b0709.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	365	ug/kg	72.9	365
108-95-2	Phenol	U	365	ug/kg	72.9	365
95-57-8	2-Chlorophenol	U	365	ug/kg	72.9	365
106-46-7	1,4-Dichlorobenzene	U	365	ug/kg	72.9	365
621-64-7	N-Nitrosodipropylamine	U	365	ug/kg	72.9	365
59-50-7	4-Chloro-3-methylphenol	U	365	ug/kg	72.9	365
83-32-9	Acenaphthene	U	36.5	ug/kg	12.0	36.5
121-14-2	2,4-Dinitrotoluene	U	365	ug/kg	36.5	365
100-02-7	4-Nitrophenol	U	365	ug/kg	120	365
87-86-5	Pentachlorophenol	U	365	ug/kg	91.2	365
129-00-0	Pyrene	U	36.5	ug/kg	10.9	36.5
110-86-1	Pyridine	U	365	ug/kg	72.9	365
62-53-3	Aniline	U	365	ug/kg	109	365
111-44-4	bis(2-Chloroethyl) ether	U	365	ug/kg	72.9	365
541-73-1	1,3-Dichlorobenzene	U	365	ug/kg	72.9	365
100-51-6	Benzyl alcohol	U	365	ug/kg	109	365
95-50-1	1,2-Dichlorobenzene	U	365	ug/kg	72.9	365
108-60-1	bis(2-Chloroisopropyl)ether	U	365	ug/kg	72.9	365
95-48-7	o-Cresol	U	365	ug/kg	72.9	365
65794-96-9	m,p-Cresols	U	365	ug/kg	109	365
67-72-1	Hexachloroethane	U	365	ug/kg	72.9	365
98-95-3	Nitrobenzene	U	365	ug/kg	72.9	365
78-59-1	Isophorone	U	365	ug/kg	72.9	365
88-75-5	2-Nitrophenol	U	365	ug/kg	72.9	365
105-67-9	2,4-Dimethylphenol	U	365	ug/kg	128	365
111-91-1	bis(2-Chloroethoxy)methane	U	365	ug/kg	72.9	365
120-83-2	2,4-Dichlorophenol	U	365	ug/kg	72.9	365
65-85-0	Benzoic acid	U	729	ug/kg	182	729
91-20-3	Naphthalene	U	36.5	ug/kg	10.9	36.5
106-47-8	4-Chloroaniline	U	365	ug/kg	72.9	365
87-68-3	Hexachlorobutadiene	U	365	ug/kg	72.9	365
91-57-6	2-Methylnaphthalene	U	36.5	ug/kg	7.29	36.5
77-47-4	Hexachlorocyclopentadiene	U	365	ug/kg	72.9	365
88-06-2	2,4,6-Trichlorophenol	U	365	ug/kg	72.9	365
95-95-4	2,4,5-Trichlorophenol	U	365	ug/kg	72.9	365
91-58-7	2-Chloronaphthalene	U	36.5	ug/kg	12.0	36.5
88-74-4	2-Nitroaniline	U	365	ug/kg	72.9	365
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	365	ug/kg	72.9	365

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959003	**Date Received:**	02/02/2010 09:10	**%Moisture:**	8.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7315	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 16:05	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.11 g	**Final Volume:**	1 mL
Data File:	s6b0709.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	365	ug/kg	72.9	365
606-20-2	2,6-Dinitrotoluene	U	365	ug/kg	36.5	365
208-96-8	Acenaphthylene	U	36.5	ug/kg	10.9	36.5
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	139	729
132-64-9	Dibenzofuran	U	365	ug/kg	72.9	365
84-66-2	Diethylphthalate	U	365	ug/kg	72.9	365
86-73-7	Fluorene	U	36.5	ug/kg	10.9	36.5
7005-72-3	4-Chlorophenylphenylether	U	365	ug/kg	72.9	365
534-52-1	2-Methyl-4,6-dinitrophenol	U	365	ug/kg	72.9	365
100-01-6	4-Nitroaniline	U	365	ug/kg	109	365
	p-Nitroaniline					
122-39-4	Diphenylamine	U	365	ug/kg	72.9	365
122-66-7	Azobenzene	U	365	ug/kg	72.9	365
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	365	ug/kg	72.9	365
118-74-1	Hexachlorobenzene	U	365	ug/kg	72.9	365
85-01-8	Phenanthrene	U	36.5	ug/kg	10.9	36.5
120-12-7	Anthracene	U	36.5	ug/kg	7.29	36.5
84-74-2	Di-n-butylphthalate	U	365	ug/kg	72.9	365
206-44-0	Fluoranthene	J	12.3	ug/kg	10.9	36.5
85-68-7	Butylbenzylphthalate	U	365	ug/kg	72.9	365
56-55-3	Benzo(a)anthracene	U	36.5	ug/kg	10.9	36.5
91-94-1	3,3'-Dichlorobenzidine	U	365	ug/kg	109	365
218-01-9	Chrysene	U	36.5	ug/kg	10.9	36.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	365	ug/kg	72.9	365
117-84-0	Di-n-octylphthalate	U	365	ug/kg	72.9	365
205-99-2	Benzo(b)fluoranthene	U	36.5	ug/kg	10.9	36.5
207-08-9	Benzo(k)fluoranthene	U	36.5	ug/kg	10.9	36.5
50-32-8	Benzo(a)pyrene	U	36.5	ug/kg	10.9	36.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.5	ug/kg	10.9	36.5
53-70-3	Dibenzo(a,h)anthracene	U	36.5	ug/kg	10.9	36.5
191-24-2	Benzo(ghi)perylene	U	36.5	ug/kg	10.9	36.5
120-82-1	1,2,4-Trichlorobenzene	U	365	ug/kg	72.9	365

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	532	ug/kg		JA
5989-08-2	Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	7.56	197	ug/kg	89	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**8.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7315**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 16:05**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0709.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.61	1490	ug/kg	99	NJ
514-95-4	1,5,5-Trimethyl-6-methylene-cyclohexene	7.88	154	ug/kg	86	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.83	1770	ug/kg	97	NJ
	Unknown	11.91	151	ug/kg		J
	Unknown	11.95	162	ug/kg		J
	Unknown	13.33	258	ug/kg		J
	Unknown	17.17	244	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959009	**Date Received:**	02/02/2010 09:10	**%Moisture:**	35.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7316	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 18:50	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s6b0715.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	514	ug/kg	103	514
108-95-2	Phenol	U	514	ug/kg	103	514
95-57-8	2-Chlorophenol	U	514	ug/kg	103	514
106-46-7	1,4-Dichlorobenzene	U	514	ug/kg	103	514
621-64-7	N-Nitrosodipropylamine	U	514	ug/kg	103	514
59-50-7	4-Chloro-3-methylphenol	U	514	ug/kg	103	514
83-32-9	Acenaphthene	U	51.4	ug/kg	17.0	51.4
121-14-2	2,4-Dinitrotoluene	U	514	ug/kg	51.4	514
100-02-7	4-Nitrophenol	U	514	ug/kg	170	514
87-86-5	Pentachlorophenol	U	514	ug/kg	129	514
129-00-0	Pyrene	U	51.4	ug/kg	15.4	51.4
110-86-1	Pyridine	U	514	ug/kg	103	514
62-53-3	Aniline	U	514	ug/kg	154	514
111-44-4	bis(2-Chloroethyl) ether	U	514	ug/kg	103	514
541-73-1	1,3-Dichlorobenzene	U	514	ug/kg	103	514
100-51-6	Benzyl alcohol	U	514	ug/kg	154	514
95-50-1	1,2-Dichlorobenzene	U	514	ug/kg	103	514
108-60-1	bis(2-Chloroisopropyl)ether	U	514	ug/kg	103	514
95-48-7	o-Cresol	U	514	ug/kg	103	514
65794-96-9	m,p-Cresols	U	514	ug/kg	154	514
67-72-1	Hexachloroethane	U	514	ug/kg	103	514
98-95-3	Nitrobenzene	U	514	ug/kg	103	514
78-59-1	Isophorone	U	514	ug/kg	103	514
88-75-5	2-Nitrophenol	U	514	ug/kg	103	514
105-67-9	2,4-Dimethylphenol	U	514	ug/kg	180	514
111-91-1	bis(2-Chloroethoxy)methane	U	514	ug/kg	103	514
120-83-2	2,4-Dichlorophenol	U	514	ug/kg	103	514
65-85-0	Benzoic acid	U	1030	ug/kg	257	1030
91-20-3	Naphthalene	U	51.4	ug/kg	15.4	51.4
106-47-8	4-Chloroaniline	U	514	ug/kg	103	514
87-68-3	Hexachlorobutadiene	U	514	ug/kg	103	514
91-57-6	2-Methylnaphthalene	U	51.4	ug/kg	10.3	51.4
77-47-4	Hexachlorocyclopentadiene	U	514	ug/kg	103	514
88-06-2	2,4,6-Trichlorophenol	U	514	ug/kg	103	514
95-95-4	2,4,5-Trichlorophenol	U	514	ug/kg	103	514
91-58-7	2-Chloronaphthalene	U	51.4	ug/kg	17.0	51.4
88-74-4	2-Nitroaniline	U	514	ug/kg	103	514
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	514	ug/kg	103	514

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959009	**Date Received:**	02/02/2010 09:10	**%Moisture:**	35.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7316	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 18:50	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s6b0715.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	514	ug/kg	103	514
606-20-2	2,6-Dinitrotoluene	U	514	ug/kg	51.4	514
208-96-8	Acenaphthylene	U	51.4	ug/kg	15.4	51.4
51-28-5	2,4-Dinitrophenol	U	1030	ug/kg	195	1030
132-64-9	Dibenzofuran	U	514	ug/kg	103	514
84-66-2	Diethylphthalate	U	514	ug/kg	103	514
86-73-7	Fluorene	U	51.4	ug/kg	15.4	51.4
7005-72-3	4-Chlorophenylphenylether	U	514	ug/kg	103	514
534-52-1	2-Methyl-4,6-dinitrophenol	U	514	ug/kg	103	514
100-01-6	4-Nitroaniline	U	514	ug/kg	154	514
	p-Nitroaniline					
122-39-4	Diphenylamine	U	514	ug/kg	103	514
122-66-7	Azobenzene	U	514	ug/kg	103	514
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	514	ug/kg	103	514
118-74-1	Hexachlorobenzene	U	514	ug/kg	103	514
85-01-8	Phenanthrene	U	51.4	ug/kg	15.4	51.4
120-12-7	Anthracene	U	51.4	ug/kg	10.3	51.4
84-74-2	Di-n-butylphthalate	U	514	ug/kg	103	514
206-44-0	Fluoranthene	U	51.4	ug/kg	15.4	51.4
85-68-7	Butylbenzylphthalate	U	514	ug/kg	103	514
56-55-3	Benzo(a)anthracene	U	51.4	ug/kg	15.4	51.4
91-94-1	3,3'-Dichlorobenzidine	U	514	ug/kg	154	514
218-01-9	Chrysene	U	51.4	ug/kg	15.4	51.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	514	ug/kg	103	514
117-84-0	Di-n-octylphthalate	U	514	ug/kg	103	514
205-99-2	Benzo(b)fluoranthene	U	51.4	ug/kg	15.4	51.4
207-08-9	Benzo(k)fluoranthene	U	51.4	ug/kg	15.4	51.4
50-32-8	Benzo(a)pyrene	U	51.4	ug/kg	15.4	51.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	51.4	ug/kg	15.4	51.4
53-70-3	Dibenzo(a,h)anthracene	U	51.4	ug/kg	15.4	51.4
191-24-2	Benzo(ghi)perylene	U	51.4	ug/kg	15.4	51.4
120-82-1	1,2,4-Trichlorobenzene	U	514	ug/kg	103	514

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	244	ug/kg		J
	Unknown Aldol Condensate	3.47	820	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959009	**Date Received:**	02/02/2010 09:10	**%Moisture:**	35.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7316	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 18:50	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s6b0715.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2416-20-8	Hexadecenoic acid, Z-11-	10.13	356	ug/kg	96	NJ
57-10-3	n-Hexadecanoic acid	10.16	290	ug/kg	98	NJ
112-79-8	9-Octadecenoic acid, (E)-	10.93	267	ug/kg	99	NJ
55282-15-0	Docosane, 7-butyl-	14.46	213	ug/kg	83	NJ
112-95-8	Eicosane	15.75	253	ug/kg	96	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 16:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0710.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.5	373
108-95-2	Phenol	U	373	ug/kg	74.5	373
95-57-8	2-Chlorophenol	U	373	ug/kg	74.5	373
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.5	373
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.5	373
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.5	373
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373
87-86-5	Pentachlorophenol	U	373	ug/kg	93.2	373
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3
110-86-1	Pyridine	U	373	ug/kg	74.5	373
62-53-3	Aniline	U	373	ug/kg	112	373
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.5	373
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.5	373
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.5	373
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.5	373
95-48-7	o-Cresol	U	373	ug/kg	74.5	373
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373
67-72-1	Hexachloroethane	U	373	ug/kg	74.5	373
98-95-3	Nitrobenzene	U	373	ug/kg	74.5	373
78-59-1	Isophorone	U	373	ug/kg	74.5	373
88-75-5	2-Nitrophenol	U	373	ug/kg	74.5	373
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	130	373
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.5	373
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.5	373
65-85-0	Benzoic acid	U	745	ug/kg	186	745
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3
106-47-8	4-Chloroaniline	U	373	ug/kg	74.5	373
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.5	373
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.45	37.3
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.5	373
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.5	373
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.5	373
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	373	ug/kg	74.5	373
99-09-2	3-Nitroaniline	U	373	ug/kg	74.5	373

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 16:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0710.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	373	ug/kg	74.5	373
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3
51-28-5	2,4-Dinitrophenol	U	745	ug/kg	142	745
132-64-9	Dibenzofuran	U	373	ug/kg	74.5	373
84-66-2	Diethylphthalate	U	373	ug/kg	74.5	373
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.5	373
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.5	373
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373
	p-Nitroaniline					
122-39-4	Diphenylamine	U	373	ug/kg	74.5	373
122-66-7	Azobenzene	U	373	ug/kg	74.5	373
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.5	373
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.5	373
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3
120-12-7	Anthracene	U	37.3	ug/kg	7.45	37.3
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.5	373
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.5	373
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	373	ug/kg	74.5	373
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.5	373
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.5	373

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	230	ug/kg		J
	Unknown Aldol Condensate	3.47	336	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0808.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390
108-95-2	Phenol	U	390	ug/kg	78.0	390
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390
87-86-5	Pentachlorophenol	U	390	ug/kg	97.6	390
129-00-0	Pyrene	U	39.0	ug/kg	11.7	39.0
110-86-1	Pyridine	U	390	ug/kg	78.0	390
62-53-3	Aniline	U	390	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390
95-48-7	o-Cresol	U	390	ug/kg	78.0	390
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390
78-59-1	Isophorone	U	390	ug/kg	78.0	390
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	137	390
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390
65-85-0	Benzoic acid	U	780	ug/kg	195	780
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline	U	390	ug/kg	78.0	390
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	390	ug/kg	78.0	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0808.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390
122-66-7	Azobenzene	U	390	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390
206-44-0	Fluoranthene	U	39.0	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene	U	39.0	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene	U	39.0	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.0	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene	U	39.0	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.42	485	ug/kg		JA
21112-37-8	Benzene, 2-(1,1-dimethylethyl)-1,4-dimet	7.38	157	ug/kg	90	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**02/08/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0808.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
295-17-0	Cyclotetradecane	9.85	237	ug/kg	96	NJ
	Unknown	9.93	216	ug/kg		J
629-73-2	1-Hexadecene	10.32	244	ug/kg	96	NJ
	Unknown	10.42	746	ug/kg		J
112-95-8	Eicosane	15.67	164	ug/kg	95	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959005**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7319**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0711.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.3	371
108-95-2	Phenol	U	371	ug/kg	74.3	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.3	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.3	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.3	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.3	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.3	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	123	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.3	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.3	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.3	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.3	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.3	371
95-48-7	o-Cresol	U	371	ug/kg	74.3	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.3	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.3	371
78-59-1	Isophorone	U	371	ug/kg	74.3	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.3	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.3	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.3	371
65-85-0	Benzoic acid	U	743	ug/kg	186	743
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.3	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.3	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.43	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.3	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.3	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.3	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.3	37.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.3	371
99-09-2	3-Nitroaniline	U	371	ug/kg	74.3	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959005**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7319**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0711.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.3	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	743	ug/kg	141	743
132-64-9	Dibenzofuran	U	371	ug/kg	74.3	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.3	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.3	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.3	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.3	371
122-66-7	Azobenzene	U	371	ug/kg	74.3	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.3	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.3	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.43	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.3	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.3	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.3	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.3	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.3	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.48	589	ug/kg		JA
	Unknown	17.17	179	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 19:44**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0717.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371
108-95-2	Phenol	U	371	ug/kg	74.2	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.7	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.2	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371
95-48-7	o-Cresol	U	371	ug/kg	74.2	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371
78-59-1	Isophorone	U	371	ug/kg	74.2	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371
65-85-0	Benzoic acid	U	742	ug/kg	185	742
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline	U	371	ug/kg	74.2	371
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	371	ug/kg	74.2	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 19:44**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0717.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371
122-66-7	Azobenzene	U	371	ug/kg	74.2	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	434	ug/kg		JA
	Unknown	14.46	171	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959012	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7324	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 19:44	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s6b0717.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.17	166	ug/kg		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-1510

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202033476	MB for batch 949131	71	71	80	75	72	94
1202033477	LCS for batch 949131	69	70	72	72	71	89
245959001	RE15-10-7309	63	62	68	66	62	85
245959002	RE15-10-7308	57	56	61	60	57	88
245959003	RE15-10-7315	67	67	74	69	63	82
245959004	RE15-10-7317	47	46	54	52	39	71
245959005	RE15-10-7319	66	64	72	67	60	90
245959006	RE15-10-7312	58	55	63	61	48	74
245959007	RE15-10-7313	68	70	76	72	67	98
245959008	RE15-10-7314	59	56	63	61	53	81
245959009	RE15-10-7316	62	63	67	64	61	80
245959012	RE15-10-7324	59	59	64	62	57	84
245959010	RE15-10-7318	52	54	60	57	59	72

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: LCS for batch 949131
Lab Sample ID: 1202033477
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/07/2010 14:41
Dilution: 1
Prep Batch ID 949131
Batch ID: 949132

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1010	61	22-114
108-95-2	LCS	Phenol	1670	0.0	1240	74	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1220	73	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1320	79	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1300	78	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1420	85	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1220	73	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1270	76	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	839	50	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1190	71	27-116
129-00-0	LCS	Pyrene	1670	0.0	1370	82	42-113
110-86-1	LCS	Pyridine	1670	0.0	1170	70	8-125
62-53-3	LCS	Aniline	1670	0.0	1040	63	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1150	69	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1320	79	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	291	17 *	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1350	81	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1240	74	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1220	73	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1440	86	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1330	80	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1260	76	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1510**
Client ID: **LCS for batch 949131**
Lab Sample ID: **1202033477**
Instrument: **MSD6.I**
Analyst: **NAG1**
Inj. Vol: **.5 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **02/07/2010 14:41**
Dilution: **1**
Prep Batch ID **949131**
Batch ID: **949132**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1300	78	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1310	79	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1260	75	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1200	72	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1340	80	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	3250	98	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1190	71	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	902	54	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1460	88	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1380	83	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1240	75	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1280	77	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1240	74	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1350	81	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1140	68	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1130	68	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1300	78	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1240	74	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1320	79	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1240	74	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1240	75	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1350	81	51-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510 **Sample Type:** Laboratory Control Sample
Client ID: LCS for batch 949131 **Matrix:** SOIL
Lab Sample ID: 1202033477
Instrument: MSD6.I **Analysis Date:** 02/07/2010 14:41 **Dilution:** 1
Analyst: NAG1 **Prep Batch ID** 949131
Inj. Vol: .5 uL **Batch ID:** 949132

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1300	78	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1310	78	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1260	76	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1260	75	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1260	76	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1260	75	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1260	76	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1320	79	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1300	78	46-107
120-12-7	LCS	Anthracene	1670	0.0	1300	78	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1390	83	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1360	82	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1430	86	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1290	78	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1000	60	36-103
218-01-9	LCS	Chrysene	1670	0.0	1290	78	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1310	78	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1590	95	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1500	90	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1480	89	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1510	91	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1270	76	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1510**
Client ID: **LCS for batch 949131**
Lab Sample ID: **1202033477**
Instrument: **MSD6.I**
Analyst: **NAG1**
Inj. Vol: **.5 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **02/07/2010 14:41**
Dilution: **1**
Prep Batch ID: **949131**
Batch ID: **949132**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1260	76	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1260	76	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1400	84	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE52-10-12020MS
Lab Sample ID: 1202033478
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 10.6
Analysis Date: 02/08/2010 16:04
Prep Batch ID: 949131
Batch ID: 949132
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1860	0.00	U	1020	55	27-98
108-95-2	MS	Phenol	1860	0.00	U	1380	74	33-94
95-57-8	MS	2-Chlorophenol	1860	0.00	U	1340	72	29-96
106-46-7	MS	1,4-Dichlorobenzene	1860	0.00	U	1350	72	27-96
621-64-7	MS	N-Nitrosodipropylamine	1860	0.00	U	1440	77	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1860	0.00	U	1700	91	29-110
83-32-9	MS	Acenaphthene	1860	0.00	U	1370	74	17-109
121-14-2	MS	2,4-Dinitrotoluene	1860	0.00	U	1440	77	33-107
100-02-7	MS	4-Nitrophenol	1860	0.00	U	1320	71	15-110
87-86-5	MS	Pentachlorophenol	1860	0.00	U	1580	85	23-110
129-00-0	MS	Pyrene	1860	33.2	J	1570	83	24-118
110-86-1	MS	Pyridine	1860	0.00	U	1070	58	25-102
62-53-3	MS	Aniline	1860	0.00	U	1350	73	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1860	0.00	U	1170	63	29-96
541-73-1	MS	1,3-Dichlorobenzene	1860	0.00	U	1330	72	26-97
100-51-6	MS	Benzyl alcohol	1860	0.00	U	1020	55	19-112
95-50-1	MS	1,2-Dichlorobenzene	1860	0.00	U	1390	75	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1860	0.00	U	1290	69	28-103
95-48-7	MS	o-Cresol	1860	0.00	U	1350	73	32-107
65794-96-9	MS	m,p-Cresols	1860	0.00	U	1540	83	33-115
67-72-1	MS	Hexachloroethane	1860	0.00	U	1340	72	25-100
98-95-3	MS	Nitrobenzene	1860	0.00	U	1360	73	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE52-10-12020MS
Lab Sample ID: 1202033478
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 10.6
Analysis Date: 02/08/2010 16:04
Prep Batch ID: 949131
Batch ID: 949132
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1860	0.00	U	1490	80	29-104
88-75-5	MS	2-Nitrophenol	1860	0.00	U	1320	71	26-102
105-67-9	MS	2,4-Dimethylphenol	1860	0.00	U	1540	83	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1860	0.00	U	1330	72	27-101
120-83-2	MS	2,4-Dichlorophenol	1860	0.00	U	1520	81	26-103
65-85-0	MS	Benzoic acid	3730	0.00	U	3550	95	13-131
91-20-3	MS	Naphthalene	1860	0.00	U	1280	69	23-103
106-47-8	MS	4-Chloroaniline	1860	0.00	U	1260	68	26-103
87-68-3	MS	Hexachlorobutadiene	1860	0.00	U	1590	85	28-101
91-57-6	MS	2-Methylnaphthalene	1860	0.00	U	1550	83	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1860	0.00	U	930	50	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1860	0.00	U	1500	81	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1860	0.00	U	1500	81	30-110
91-58-7	MS	2-Chloronaphthalene	1860	0.00	U	1430	77	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1860	0.00	U	1280	69	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1860	0.00	U	1210	65	33-116
131-11-3	MS	Dimethylphthalate	1860	0.00	U	1530	82	38-113
606-20-2	MS	2,6-Dinitrotoluene	1860	0.00	U	1450	78	29-107
208-96-8	MS	Acenaphthylene	1860	0.00	U	1460	78	25-108
51-28-5	MS	2,4-Dinitrophenol	1860	0.00	U	1310	71	14-102
132-64-9	MS	Dibenzofuran	1860	0.00	U	1360	73	35-112
84-66-2	MS	Diethylphthalate	1860	0.00	U	1590	85	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE52-10-12020MS
Lab Sample ID: 1202033478
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 10.6
Analysis Date: 02/08/2010 16:04
Prep Batch ID: 949131
Batch ID: 949132
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1860	0.00	U	1480	79	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1860	0.00	U	1470	79	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1860	0.00	U	1350	72	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1860	0.00	U	1300	70	28-135
122-39-4	MS	Diphenylamine	1860	0.00	U	1450	78	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1860	0.00	U	1400	75	31-113
101-55-3	MS	4-Bromophenylphenylether	1860	0.00	U	1470	79	31-109
118-74-1	MS	Hexachlorobenzene	1860	0.00	U	1640	88	37-99
85-01-8	MS	Phenanthrene	1860	17.5	J	1560	83	29-109
120-12-7	MS	Anthracene	1860	0.00	U	1530	82	19-118
84-74-2	MS	Di-n-butylphthalate	1860	0.00	U	1750	94	39-123
206-44-0	MS	Fluoranthene	1860	33.3	J	1760	93	33-114
85-68-7	MS	Butylbenzylphthalate	1860	0.00	U	1750	94	35-131
56-55-3	MS	Benzo(a)anthracene	1860	0.00	U	1640	88	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1860	0.00	U	1340	72	30-124
218-01-9	MS	Chrysene	1860	0.00	U	1650	89	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1860	0.00	U	1810	97	37-129
117-84-0	MS	Di-n-octylphthalate	1860	0.00	U	1840	99	31-143
205-99-2	MS	Benzo(b)fluoranthene	1860	15.0	J	1750	93	29-118
207-08-9	MS	Benzo(k)fluoranthene	1860	0.00	U	1720	92	32-118
50-32-8	MS	Benzo(a)pyrene	1860	12.4	J	1860	99	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1860	119		1790	90	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE52-10-12020MS
Lab Sample ID: 1202033478
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 10.6
Analysis Date: 02/08/2010 16:04
Prep Batch ID: 949131
Batch ID: 949132
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1860	0.00	U	1800	97	27-119
191-24-2	MS	Benzo(ghi)perylene	1860	0.00	U	1870	100	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1860	0.00	U	1490	80	28-99

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE52-10-12020MSD
Lab Sample ID: 1202033479
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 10.6
Analysis Date: 02/08/2010 16:32
Dilution: 1
Prep Batch ID: 949131
Batch ID: 949132

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1860	0.00	U	899	48	27-98	13	0-30
108-95-2	MSD	Phenol	1860	0.00	U	1260	67	33-94	9	0-30
95-57-8	MSD	2-Chlorophenol	1860	0.00	U	1220	66	29-96	9	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1860	0.00	U	1170	63	27-96	14	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1860	0.00	U	1300	70	29-102	10	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1860	0.00	U	1540	83	29-110	10	0-30
83-32-9	MSD	Acenaphthene	1860	0.00	U	1290	69	17-109	7	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1860	0.00	U	1390	74	33-107	4	0-30
100-02-7	MSD	4-Nitrophenol	1860	0.00	U	1250	67	15-110	5	0-30
87-86-5	MSD	Pentachlorophenol	1860	0.00	U	1430	77	23-110	10	0-30
129-00-0	MSD	Pyrene	1860	33.2	J	1520	80	24-118	3	0-30
110-86-1	MSD	Pyridine	1860	0.00	U	915	49	25-102	16	0-30
62-53-3	MSD	Aniline	1860	0.00	U	1210	65	18-109	11	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1860	0.00	U	1060	57	29-96	10	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1860	0.00	U	1190	64	26-97	12	0-30
100-51-6	MSD	Benzyl alcohol	1860	0.00	U	895	48	19-112	13	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1860	0.00	U	1220	66	30-97	13	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1860	0.00	U	1130	61	28-103	13	0-30
95-48-7	MSD	o-Cresol	1860	0.00	U	1270	68	32-107	6	0-30
65794-96-9	MSD	m,p-Cresols	1860	0.00	U	1410	76	33-115	9	0-30
67-72-1	MSD	Hexachloroethane	1860	0.00	U	1180	63	25-100	13	0-30
98-95-3	MSD	Nitrobenzene	1860	0.00	U	1180	63	27-106	14	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE52-10-12020MSD
Lab Sample ID: 1202033479
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 10.6
Analysis Date: 02/08/2010 16:32
Dilution: 1
Prep Batch ID 949131
Batch ID: 949132

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	1860	0.00	U	1320	71	29-104	12	0-30
88-75-5	MSD	2-Nitrophenol	1860	0.00	U	1210	65	26-102	9	0-30
105-67-9	MSD	2,4-Dimethylphenol	1860	0.00	U	1380	74	22-104	11	0-30
111-91-1	MSD	bis(2-Chloroethoxy)methane	1860	0.00	U	920	49	27-101	37 *	0-30
120-83-2	MSD	2,4-Dichlorophenol	1860	0.00	U	1380	74	26-103	9	0-30
65-85-0	MSD	Benzoic acid	3730	0.00	U	2600	70	13-131	31 *	0-30
91-20-3	MSD	Naphthalene	1860	0.00	U	1130	60	23-103	13	0-30
106-47-8	MSD	4-Chloroaniline	1860	0.00	U	1210	65	26-103	4	0-30
87-68-3	MSD	Hexachlorobutadiene	1860	0.00	U	1370	73	28-101	15	0-30
91-57-6	MSD	2-Methylnaphthalene	1860	0.00	U	1380	74	27-106	12	0-30
77-47-4	MSD	Hexachlorocyclopentadiene	1860	0.00	U	925	50	24-117	1	0-30
88-06-2	MSD	2,4,6-Trichlorophenol	1860	0.00	U	1410	76	26-105	6	0-30
95-95-4	MSD	2,4,5-Trichlorophenol	1860	0.00	U	1320	71	30-110	13	0-30
91-58-7	MSD	2-Chloronaphthalene	1860	0.00	U	1340	72	28-102	7	0-30
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	1860	0.00	U	1250	67	33-106	2	0-30
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	1860	0.00	U	1280	69	33-116	6	0-30
131-11-3	MSD	Dimethylphthalate	1860	0.00	U	1310	70	38-113	15	0-30
606-20-2	MSD	2,6-Dinitrotoluene	1860	0.00	U	1240	67	29-107	15	0-30
208-96-8	MSD	Acenaphthylene	1860	0.00	U	1390	74	25-108	5	0-30
51-28-5	MSD	2,4-Dinitrophenol	1860	0.00	U	1360	73	14-102	4	0-30
132-64-9	MSD	Dibenzofuran	1860	0.00	U	1330	71	35-112	3	0-30
84-66-2	MSD	Diethylphthalate	1860	0.00	U	1390	75	36-122	13	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1510**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE52-10-12020MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202033479**	**%Moisture:**	**10.6**
Instrument:	**MSD6.I**	**Analysis Date:**	**02/08/2010 16:32**
Analyst:	**NAG1**	**Prep Batch ID**	**949131**
Inj. Vol:	**.5 uL**	**Batch ID:**	**949132**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1860	0.00	U	1400	75	33-105	5	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1860	0.00	U	1390	74	30-110	6	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1860	0.00	U	1270	68	26-97	6	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1860	0.00	U	1270	68	28-135	3	0-30
122-39-4	MSD	Diphenylamine	1860	0.00	U	1290	69	33-109	12	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1860	0.00	U	1350	72	31-113	3	0-30
101-55-3	MSD	4-Bromophenylphenylether	1860	0.00	U	1380	74	31-109	6	0-30
118-74-1	MSD	Hexachlorobenzene	1860	0.00	U	1550	83	37-99	6	0-30
85-01-8	MSD	Phenanthrene	1860	17.5	J	1410	75	29-109	10	0-30
120-12-7	MSD	Anthracene	1860	0.00	U	1460	78	19-118	4	0-30
84-74-2	MSD	Di-n-butylphthalate	1860	0.00	U	1640	88	39-123	7	0-30
206-44-0	MSD	Fluoranthene	1860	33.3	J	1680	88	33-114	5	0-30
85-68-7	MSD	Butylbenzylphthalate	1860	0.00	U	1630	88	35-131	7	0-30
56-55-3	MSD	Benzo(a)anthracene	1860	0.00	U	1650	89	30-111	1	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1860	0.00	U	1320	71	30-124	1	0-30
218-01-9	MSD	Chrysene	1860	0.00	U	1570	84	32-108	5	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1860	0.00	U	1670	90	37-129	8	0-30
117-84-0	MSD	Di-n-octylphthalate	1860	0.00	U	1730	93	31-143	6	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1860	15.0	J	1780	95	29-118	2	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1860	0.00	U	1650	89	32-118	4	0-30
50-32-8	MSD	Benzo(a)pyrene	1860	12.4	J	1810	97	33-115	3	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1860	119		1810	91	29-114	1	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: RE52-10-12020MSD
Lab Sample ID: 1202033479
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 10.6
Analysis Date: 02/08/2010 16:32
Dilution: 1
Prep Batch ID: 949131
Batch ID: 949132

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD	Dibenzo(a,h)anthracene	1860	0.00	U	1820	98	27-119	1	0-30
191-24-2	MSD	Benzo(ghi)perylene	1860	0.00	U	1910	103	28-112	2	0-30
120-82-1	MSD	1,2,4-Trichlorobenzene	1860	0.00	U	1320	71	28-99	13	0-30

Method Blank Summary

SDG Number:	10-1510	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 949131	Instrument ID:	MSD6.I	Data File:	s6b0705-1.d
Lab Sample ID:	1202033476	Prep Date:	02/04/2010 20:55	Analyzed:	02/07/10 14:13
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 949131	1202033477	s6b0706-1.d	02/07/10	1441
02	RE15-10-7309	245959001	s6b0707.d	02/07/10	1509
03	RE15-10-7308	245959002	s6b0708.d	02/07/10	1537
04	RE15-10-7315	245959003	s6b0709.d	02/07/10	1605
05	RE15-10-7317	245959004	s6b0710.d	02/07/10	1632
06	RE15-10-7319	245959005	s6b0711.d	02/07/10	1700
07	RE15-10-7312	245959006	s6b0712.d	02/07/10	1728
08	RE15-10-7313	245959007	s6b0713.d	02/07/10	1755
09	RE15-10-7314	245959008	s6b0714.d	02/07/10	1823
10	RE15-10-7316	245959009	s6b0715.d	02/07/10	1850
11	RE15-10-7324	245959012	s6b0717.d	02/07/10	1944
14	RE15-10-7318	245959010	s6b0808.d	02/08/10	1700

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1510

Instrument ID: MSD6.I **Injection Date/Time:** 07-FEB-10 13:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s020710.b/s6b0702.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	39.9
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	40.2
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.2
199	5 - 9% of mass 198	7.1
275	10 - 30% of mass 198	21.9
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	74.3
442	Greater than 40% of mass 198	65.2
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100121-17.4	/chem/MSD6.i/s020710.b/s6b070	07-FEB-10 13:14
APCVS	WBN100120-03.2	/chem/MSD6.i/s020710.b/s6b070	07-FEB-10 13:45
SBLK01	1202033476	/chem/MSD6.i/s020710.b/s6b070	07-FEB-10 14:13
SBLK01LCS	1202033477	/chem/MSD6.i/s020710.b/s6b070	07-FEB-10 14:41
RE15-10-7309	245959001	/chem/MSD6.i/s020710.b/s6b070	07-FEB-10 15:09
RE15-10-7308	245959002	/chem/MSD6.i/s020710.b/s6b070	07-FEB-10 15:37
RE15-10-7315	245959003	/chem/MSD6.i/s020710.b/s6b070	07-FEB-10 16:05
RE15-10-7317	245959004	/chem/MSD6.i/s020710.b/s6b071	07-FEB-10 16:32
RE15-10-7319	245959005	/chem/MSD6.i/s020710.b/s6b071	07-FEB-10 17:00
RE15-10-7312	245959006	/chem/MSD6.i/s020710.b/s6b071	07-FEB-10 17:28
RE15-10-7313	245959007	/chem/MSD6.i/s020710.b/s6b071	07-FEB-10 17:55
RE15-10-7314	245959008	/chem/MSD6.i/s020710.b/s6b071	07-FEB-10 18:23
RE15-10-7316	245959009	/chem/MSD6.i/s020710.b/s6b071	07-FEB-10 18:50
RE15-10-7324	245959012	/chem/MSD6.i/s020710.b/s6b071	07-FEB-10 19:44

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1510

Instrument ID: MSD6.I **Injection Date/Time:** 08-FEB-10 13:50

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s020810.b/s6b0801.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	43.6
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	42.4
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	52.2
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	21.5
365	Greater than 1% of mass 198	2.1
441	Present, but less than mass 443	72.7
442	Greater than 40% of mass 198	60.1
443	17 - 23% of mass 442	19.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100121-17.4	/chem/MSD6.i/s020810.b/s6b080	08-FEB-10 14:04
APCVS	WBN100120-03.4	/chem/MSD6.i/s020810.b/s6b080	08-FEB-10 14:37
RE15-10-7318	245959010	/chem/MSD6.i/s020810.b/s6b080	08-FEB-10 17:00

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1510

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1510

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1510

Instrument: MSD6.I

STD Analysis Time: 07-FEB-10 13:14

GC Column: J&W DB-5MS

Data File: s6b0703.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	283821		4.86		1117855		6.14		616750		8.01		1069246		9.62		879750		12.7		640102		15.0
Upper Limit	567642		5.36		2235710		6.64		1233500		8.51		2138492		10.1		1759500		13.2		1280204		15.5
Lower Limit	141911		4.36		558928		5.64		308375		7.51		534623		9.12		439875		12.2		320051		14.5
Sample ID																							
BLK01	290565		4.86		1069716		6.14		601024		8.01		1044062		9.62		745794		12.6		480805		15.0
BLK01LCS	291659		4.86		1160363		6.14		628390		8.01		1099347		9.62		807941		12.6		536868		15.0
RE15-10-7309	288212		4.86		1071309		6.14		606714		8.01		1041571		9.62		756547		12.6		526113		15.0
RE15-10-7308	293050		4.86		1093962		6.14		621625		8.01		1055503		9.62		648464		12.6		367688		15.0
RE15-10-7315	292356		4.86		1097024		6.14		618575		8.01		1076637		9.62		810019		12.6		573129		15.0
RE15-10-7317	289598		4.86		1096381		6.14		623560		8.01		1076277		9.62		720483		12.6		457127		15.0
RE15-10-7319	288629		4.86		1088255		6.14		625270		8.01		1072022		9.62		757008		12.6		504363		15.0
RE15-10-7312	299205		4.86		1108817		6.14		623957		8.01		1078893		9.62		783707		12.6		515934		15.0
RE15-10-7313	291869		4.86		1100925		6.14		630997		8.01		1096318		9.62		765474		12.6		500995		15.0
RE15-10-7314	286077		4.86		1081345		6.14		613814		8.01		1071206		9.62		713165		12.6		408352		15.0
RE15-10-7316	286854		4.86		1099087		6.14		633286		8.01		1109102		9.62		787093		12.6		514534		15.0
RE15-10-7324	306222		4.86		1155564		6.14		653753		8.01		1137122		9.62		762495		12.6		476937		15.0

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1510

Instrument: MSD6.I

STD Analysis Time: 08-FEB-10 14:04

GC Column: J&W DB-5MS

Data File: s6b0802.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	245875		4.81	949758		6.09	514386		7.96	876117		9.57	731973		12.6	606320		14.9
Upper Limit	491750		5.31	1899516		6.59	1028772		8.46	1752234		10.1	1463946		13.1	1212640		15.4
Lower Limit	122938		4.31	474879		5.59	257193		7.46	438059		9.07	365987		12.1	303160		14.4
Sample ID																		
RE15-10-7318	263355		4.81	961527		6.08	554935		7.96	950131		9.57	684309		12.6	362429		14.9

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959002	Date Received:	02/02/2010 09:10	%Moisture:	22.3
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7308	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.1	Dilution:	1
Run Date:	02/07/2010 15:37	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	s6b0708.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	427	ug/kg	85.5	427
108-95-2	Phenol	U	427	ug/kg	85.5	427
95-57-8	2-Chlorophenol	U	427	ug/kg	85.5	427
106-46-7	1,4-Dichlorobenzene	U	427	ug/kg	85.5	427
621-64-7	N-Nitrosodipropylamine	U	427	ug/kg	85.5	427
59-50-7	4-Chloro-3-methylphenol	U	427	ug/kg	85.5	427
83-32-9	Acenaphthene	U	42.7	ug/kg	14.1	42.7
121-14-2	2,4-Dinitrotoluene	U	427	ug/kg	42.7	427
100-02-7	4-Nitrophenol	U	427	ug/kg	141	427
87-86-5	Pentachlorophenol	U	427	ug/kg	107	427
129-00-0	Pyrene	U	42.7	ug/kg	12.8	42.7
110-86-1	Pyridine	U	427	ug/kg	85.5	427
62-53-3	Aniline	U	427	ug/kg	128	427
111-44-4	bis(2-Chloroethyl) ether	U	427	ug/kg	85.5	427
541-73-1	1,3-Dichlorobenzene	U	427	ug/kg	85.5	427
100-51-6	Benzyl alcohol	U	427	ug/kg	128	427
95-50-1	1,2-Dichlorobenzene	U	427	ug/kg	85.5	427
108-60-1	bis(2-Chloroisopropyl)ether	U	427	ug/kg	85.5	427
95-48-7	o-Cresol	U	427	ug/kg	85.5	427
65794-96-9	m,p-Cresols	U	427	ug/kg	128	427
67-72-1	Hexachloroethane	U	427	ug/kg	85.5	427
98-95-3	Nitrobenzene	U	427	ug/kg	85.5	427
78-59-1	Isophorone	U	427	ug/kg	85.5	427
88-75-5	2-Nitrophenol	U	427	ug/kg	85.5	427
105-67-9	2,4-Dimethylphenol	U	427	ug/kg	150	427
111-91-1	bis(2-Chloroethoxy)methane	U	427	ug/kg	85.5	427
120-83-2	2,4-Dichlorophenol	U	427	ug/kg	85.5	427
65-85-0	Benzoic acid	U	855	ug/kg	214	855
91-20-3	Naphthalene	U	42.7	ug/kg	12.8	42.7
106-47-8	4-Chloroaniline	U	427	ug/kg	85.5	427
87-68-3	Hexachlorobutadiene	U	427	ug/kg	85.5	427
91-57-6	2-Methylnaphthalene	U	42.7	ug/kg	8.55	42.7
77-47-4	Hexachlorocyclopentadiene	U	427	ug/kg	85.5	427
88-06-2	2,4,6-Trichlorophenol	U	427	ug/kg	85.5	427
95-95-4	2,4,5-Trichlorophenol	U	427	ug/kg	85.5	427
91-58-7	2-Chloronaphthalene	U	42.7	ug/kg	14.1	42.7
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	427	ug/kg	85.5	427
99-09-2	3-Nitroaniline	U	427	ug/kg	85.5	427

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**22.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7308**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 15:37**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0708.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	427	ug/kg	85.5	427
606-20-2	2,6-Dinitrotoluene	U	427	ug/kg	42.7	427
208-96-8	Acenaphthylene	U	42.7	ug/kg	12.8	42.7
51-28-5	2,4-Dinitrophenol	U	855	ug/kg	162	855
132-64-9	Dibenzofuran	U	427	ug/kg	85.5	427
84-66-2	Diethylphthalate	U	427	ug/kg	85.5	427
86-73-7	Fluorene	U	42.7	ug/kg	12.8	42.7
7005-72-3	4-Chlorophenylphenylether	U	427	ug/kg	85.5	427
534-52-1	2-Methyl-4,6-dinitrophenol	U	427	ug/kg	85.5	427
100-01-6	4-Nitroaniline	U	427	ug/kg	128	427
	p-Nitroaniline					
122-39-4	Diphenylamine	U	427	ug/kg	85.5	427
122-66-7	Azobenzene	U	427	ug/kg	85.5	427
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	427	ug/kg	85.5	427
118-74-1	Hexachlorobenzene	U	427	ug/kg	85.5	427
85-01-8	Phenanthrene	U	42.7	ug/kg	12.8	42.7
120-12-7	Anthracene	U	42.7	ug/kg	8.55	42.7
84-74-2	Di-n-butylphthalate	U	427	ug/kg	85.5	427
206-44-0	Fluoranthene	U	42.7	ug/kg	12.8	42.7
85-68-7	Butylbenzylphthalate	U	427	ug/kg	85.5	427
56-55-3	Benzo(a)anthracene	U	42.7	ug/kg	12.8	42.7
91-94-1	3,3'-Dichlorobenzidine	U	427	ug/kg	128	427
218-01-9	Chrysene	U	42.7	ug/kg	12.8	42.7
117-81-7	bis(2-Ethylhexyl)phthalate	J	99.5	ug/kg	85.5	427
117-84-0	Di-n-octylphthalate	U	427	ug/kg	85.5	427
205-99-2	Benzo(b)fluoranthene	U	42.7	ug/kg	12.8	42.7
207-08-9	Benzo(k)fluoranthene	U	42.7	ug/kg	12.8	42.7
50-32-8	Benzo(a)pyrene	U	42.7	ug/kg	12.8	42.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	42.7	ug/kg	12.8	42.7
53-70-3	Dibenzo(a,h)anthracene	U	42.7	ug/kg	12.8	42.7
191-24-2	Benzo(ghi)perylene	U	42.7	ug/kg	12.8	42.7
120-82-1	1,2,4-Trichlorobenzene	U	427	ug/kg	85.5	427

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	485	ug/kg		JA
112-95-8	Eicosane	15.75	172	ug/kg	97	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0708.d
Lab Smp Id: 245959002 Client Smp ID: RE15-10-7308
Inj Date : 07-FEB-2010 15:37
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959002|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	22.30000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	293050	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1093962	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	621625	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1055503	40.0000	
* 91 Chrysene-d12	240	12.633	12.646	(1.000)	648464	40.0000	
* 98 Perylene-d12	264	14.978	14.990	(1.000)	367688	40.0000	
$ 3 2-Fluorophenol	112	3.707	3.697	(0.763)	417116	56.8384	2430
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	519971	56.1381	2400
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	235860	30.4782	1300
$ 39 2-Fluorobiphenyl	172	7.259	7.265	(0.907)	480627	30.0021	1280
$ 60 2,4,6-Tribromophenol	329	8.855	8.860	(1.106)	103954	57.2953	2450
$ 81 p-Terphenyl-d14	244	11.321	11.324	(0.896)	459485	43.9380	1880

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
93 bis(2-Ethylhexyl)phthalate	149	12.572	12.577	(0.995)	21814	2.32736	99.5(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6b0708.d
Report Date: 02/08/2010 09:13
Lab. ID: 245959002 SampleType: SAMPLE
Injection Date: 07-FEB-2010 15:37
Operator: nagl Instrument: MSD6.i
Sample Info: |245959002|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline			CAS#: 62-53-3			
66	23884	4.47	4.55	80-120	100	(T)
93	105	4.53	4.55	217-277	0	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	33272	5.39	5.24	80-120	100	(T)
42	21477	5.39	5.24	39- 99	65	(T)
22 Isophorone			CAS#: 78-59-1			
82	235860	5.39	5.66	80-120	100	(T)
138	5844	6.14	5.66	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	111211	8.01	7.70	80-120	100	(T)
164	621625	8.01	7.70	0- 40	559	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	81668	8.01	8.21	80-120	100	(T)
89	603	8.01	8.21	43-103	1	(QT)
63	522	8.01	8.21	18- 78	1	(QT)
53 Fluorene			CAS#: 86-73-7			
166	6529	8.85	8.60	80-120	100	(T)
165	6262	8.85	8.60	62-122	96	(T)
167	2294	8.85	8.60	0- 44	35	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	102	8.84	8.65	80-120	100	(T)
105	110	8.84	8.65	11- 71	108	(QT)
51	467	8.85	8.65	23- 83	455	(QT)
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	21814	12.57	12.58	80-120	100	( )
167	6509	12.57	12.58	1- 61	30	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0708.d
Lab Smp Id: 245959002 Client Smp ID: RE15-10-7308
Inj Date : 07-FEB-2010 15:37
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959002|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	22.30000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1752385	40.000
* 98 Perylene-d12	14.978	1043803	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.473	497540	11.3568574	485	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	==========	==========	======
Eicosane					CAS #: 112-95-8		
15.750	104720	4.01302052	172	97	NIST05.L	113488	98

Data File: /chem/MSD6.i/s020710.b/s6b0708.d
Date : 07-FEB-2010 15:37
Client ID: RE15-10-7308
Sample Info: 1245959002194913211ISVMI1ILANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

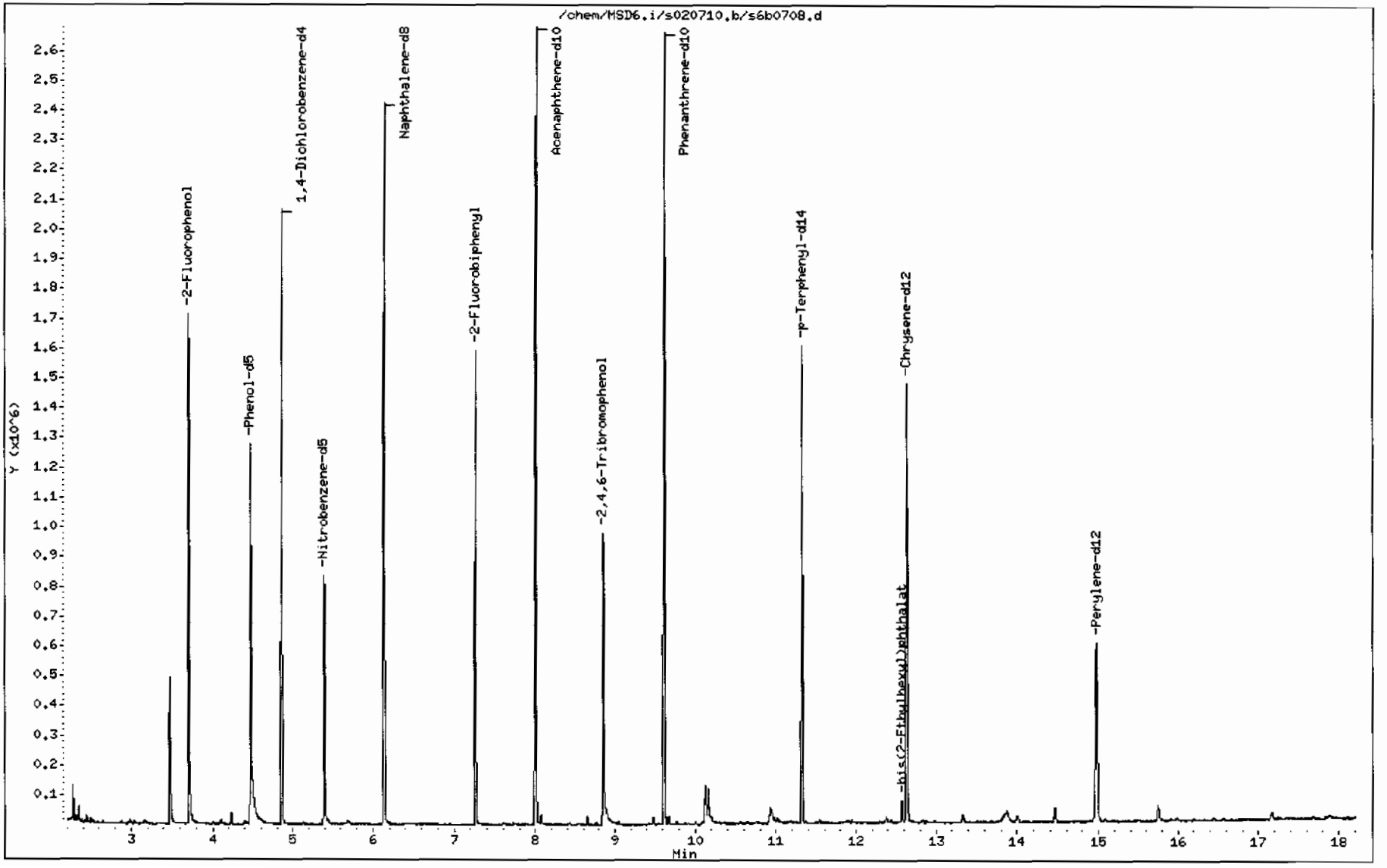

Data File: /chem/MSD6.i/s020710.b/s6b0708.d

Date : 07-FEB-2010 15:37

Client ID: RE15-10-7308

Instrument: MSD6.i

Sample Info: 1245959002194913211ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 99.5 ug/Kg

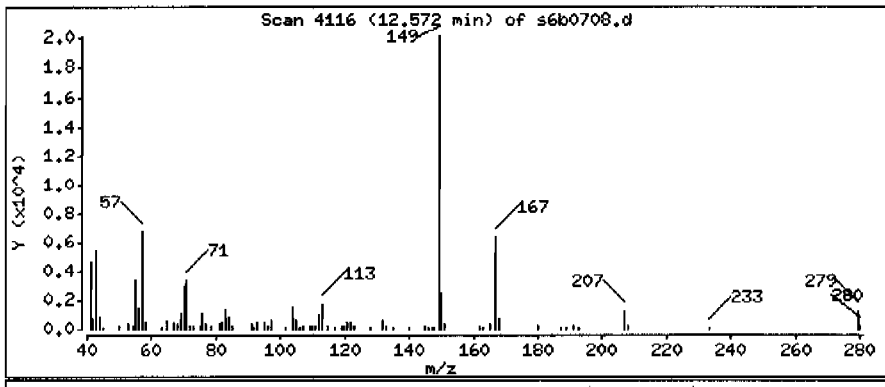

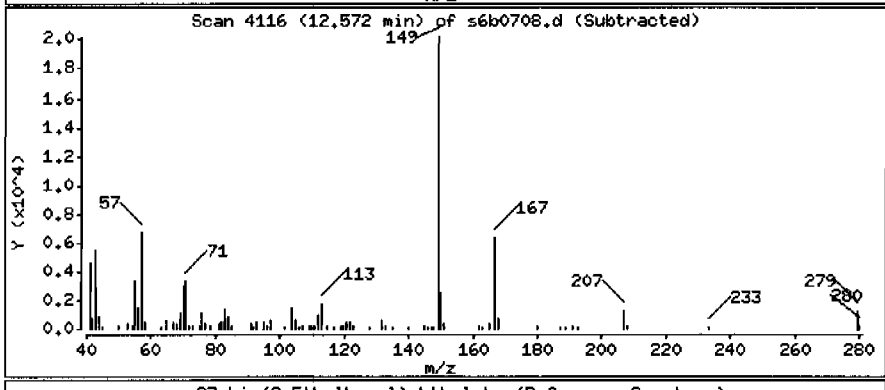

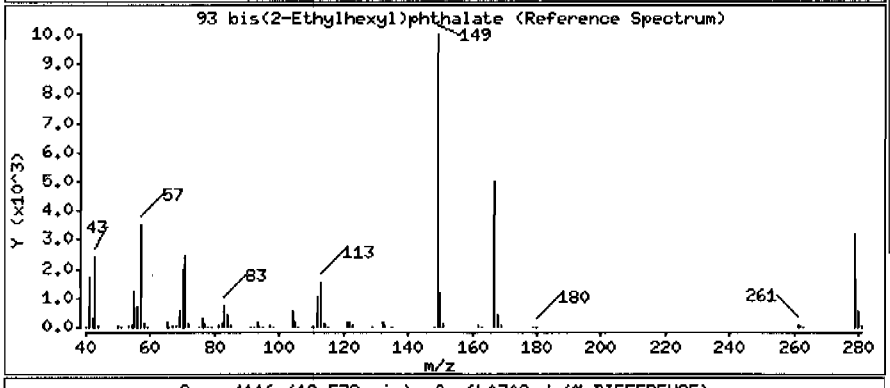

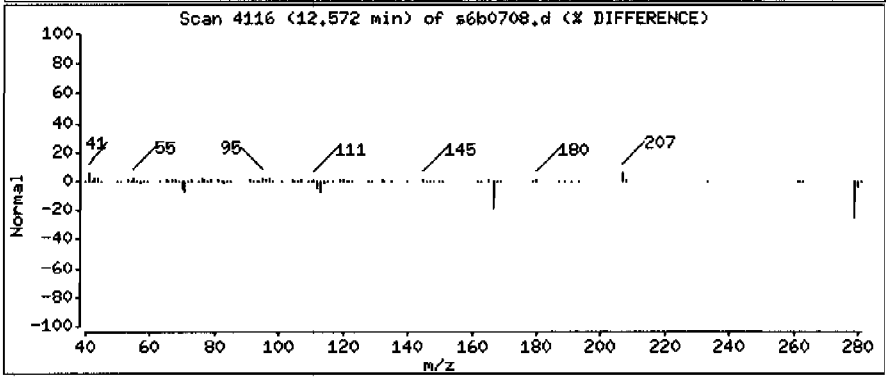

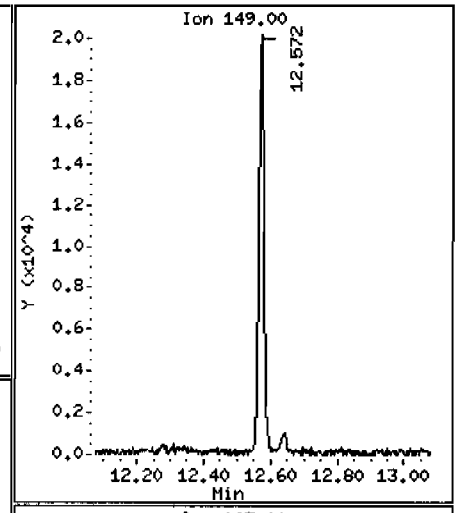

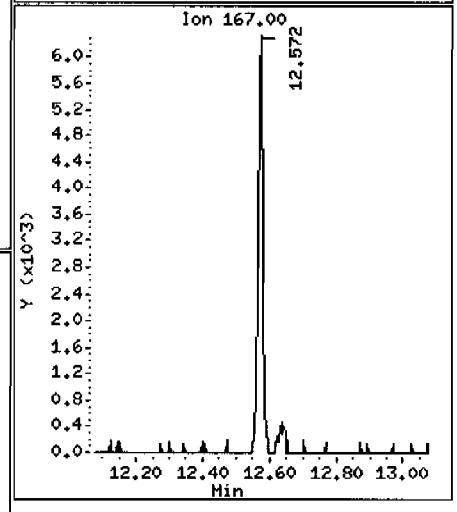

Data File: /chem/MSD6.i/s020710.b/s6b0708.d

Date : 07-FEB-2010 15:37

Client ID: RE15-10-7308

Instrument: MSD6.i

Sample Info: 1245959002194913211ISVM11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
Acetic acid, cyano-, 1,1-dimethylethyl e	1116-98-9	NIST05.L	18291	25	C7H11NO2	141

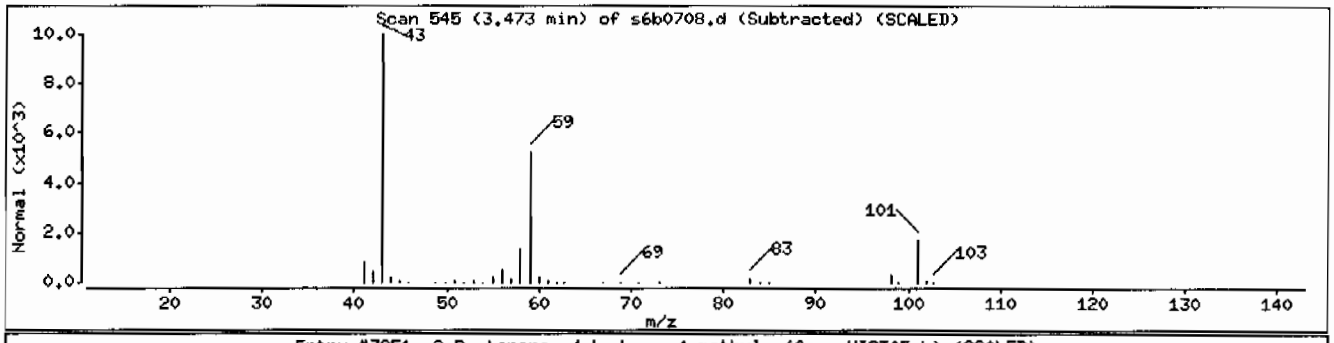

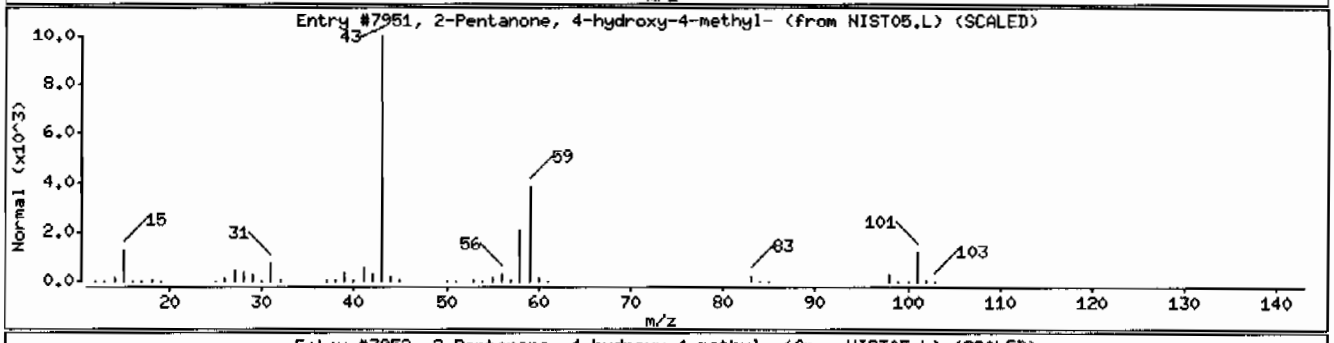

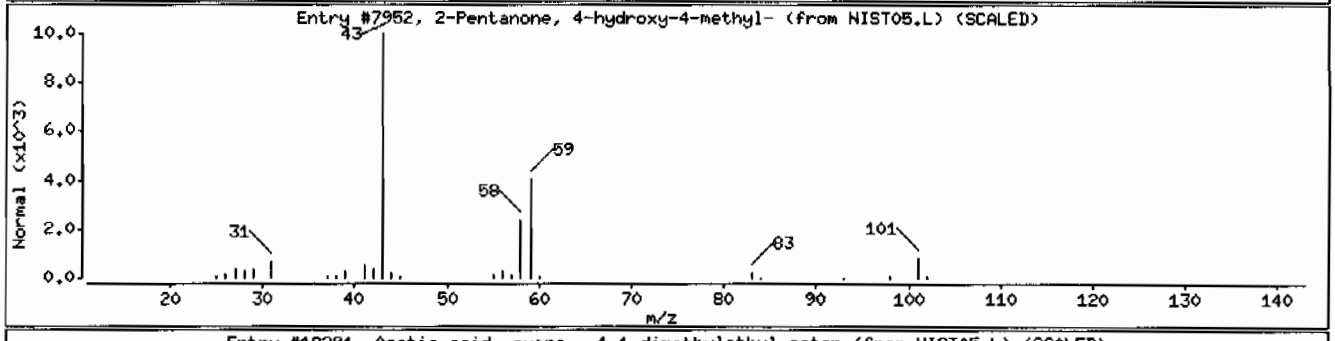

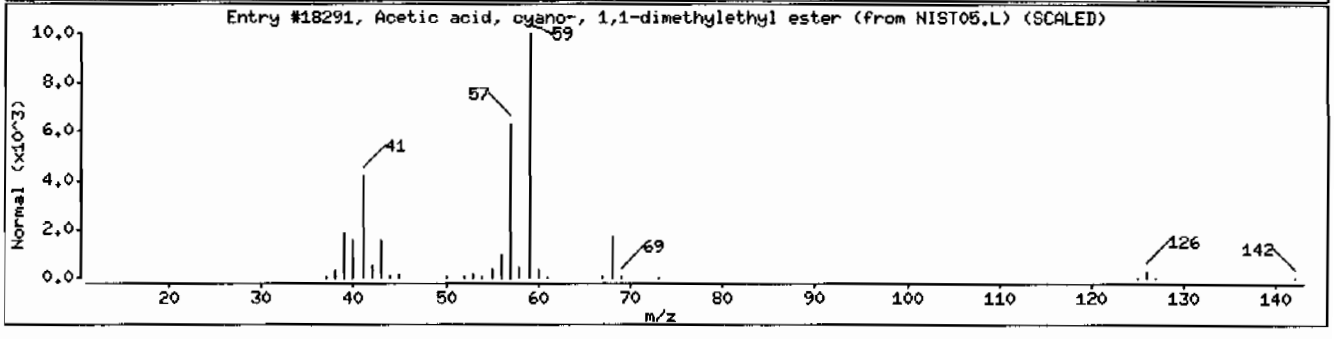

Data File: /chem/MSD6.i/s020710.b/s6b0708.d

Date : 07-FEB-2010 15:37

Client ID: RE15-10-7308

Instrument: MSD6.i

Sample Info: 1245959002|949132|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113488	97	C20H42	282
Octacosane	630-02-4	NIST05.L	169721	70	C28H58	394
Heptacosane, 1-chloro-	62016-79-9	NIST05.L	174384	68	C27H55Cl	414

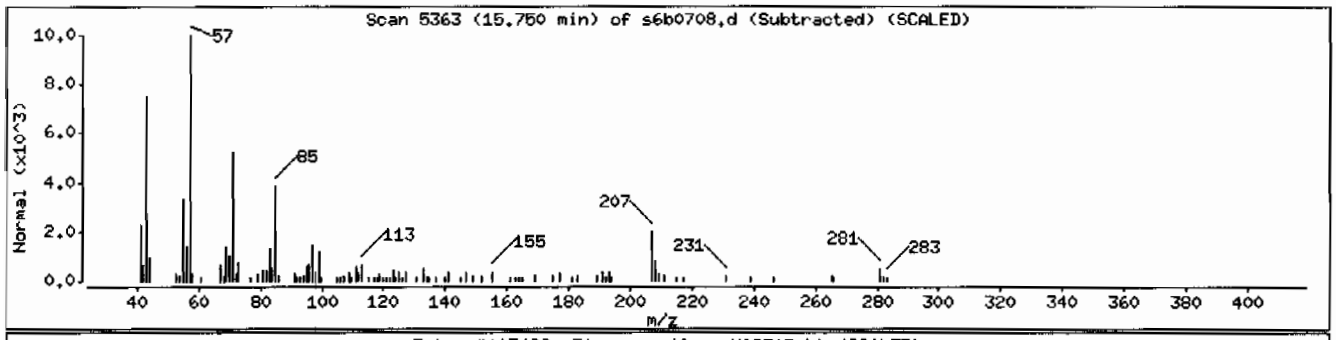

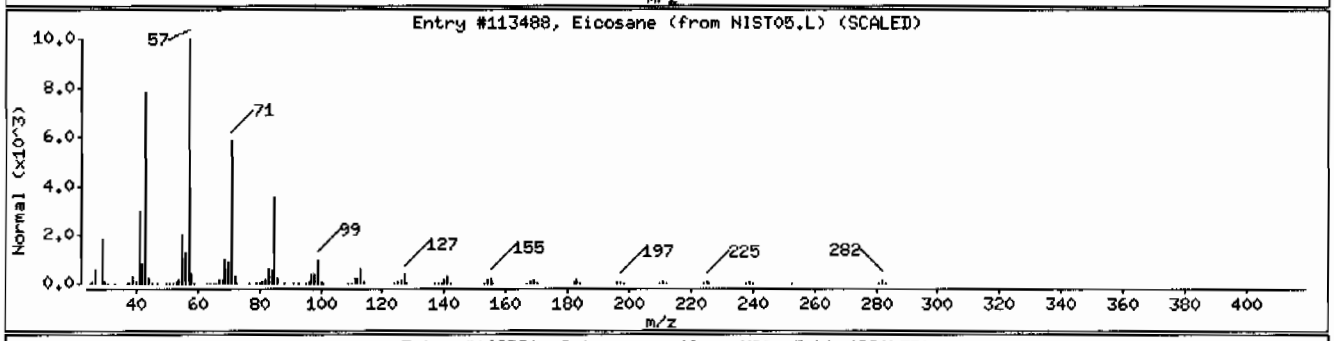

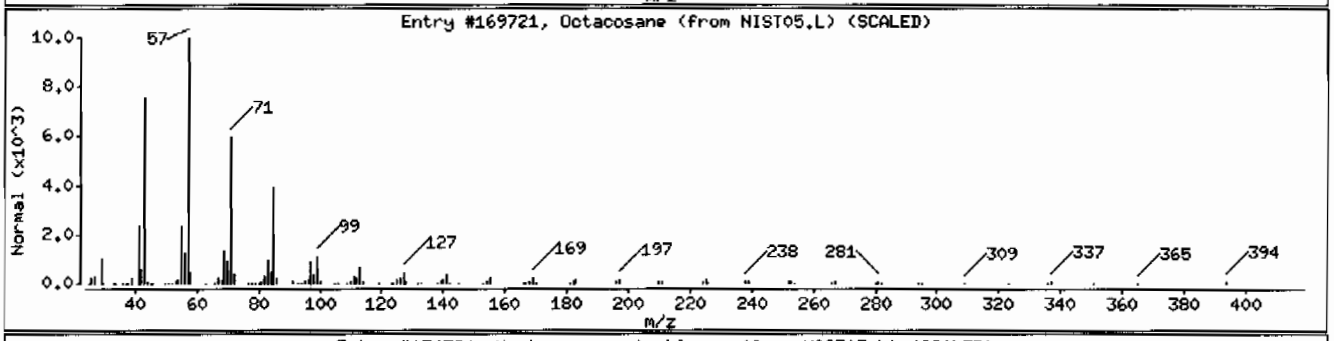

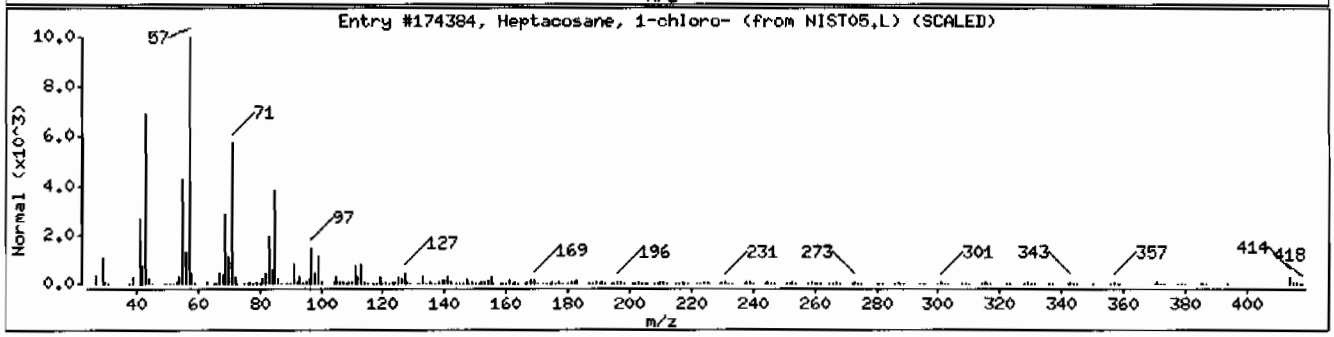

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 15:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0707.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	184	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	369	ug/kg	73.8	369
99-09-2	3-Nitroaniline	U	369	ug/kg	73.8	369

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 15:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0707.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.48	538	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0707.d
Lab Smp Id: 245959001 Client Smp ID: RE15-10-7309
Inj Date : 07-FEB-2010 15:09
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959001|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	9.84000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	288212	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1071309	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	606714	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1041571	40.0000	
* 91 Chrysene-d12	240	12.636	12.646	(1.000)	756547	40.0000	
* 98 Perylene-d12	264	14.983	14.990	(1.000)	526113	40.0000	
$ 3 2-Fluorophenol	112	3.710	3.697	(0.763)	457043	63.3245	2340
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	563589	61.8687	2280
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	256731	33.8767	1250
$ 39 2-Fluorobiphenyl	172	7.259	7.265	(0.907)	514613	32.9131	1210
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	108915	61.5049	2270
$ 81 p-Terphenyl-d14	244	11.321	11.324	(0.896)	518931	42.5333	1570

ION RATIO REPORT

SV REPORT

Data file: s6b0707.d
Report Date: 02/08/2010 09:13
Lab. ID: 245959001 SampleType: SAMPLE
Injection Date: 07-FEB-2010 15:09
Operator: nagl Instrument: MSD6.i
Sample Info: |245959001|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	37162	5.39	5.24	80-120	100	(T)
42	22640	5.39	5.24	39- 99	61	(T)
22 Isophorone				CAS#: 78-59-1		
82	256731	5.39	5.66	80-120	100	(T)
138	6011	6.14	5.66	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	107801	8.01	7.70	80-120	100	(T)
164	606714	8.01	7.70	0- 40	563	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	80553	8.01	8.21	80-120	100	(T)
89	966	8.00	8.21	43-103	1	(QT)
63	986	8.00	8.21	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	7581	8.86	8.60	80-120	100	(T)
165	7744	8.85	8.60	62-122	102	(T)
167	2332	8.85	8.60	0- 44	31	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	148	8.86	8.65	80-120	100	(T)
105	884	8.85	8.65	11- 71	596	(QT)
51	848	8.86	8.65	23- 83	572	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0707.d
Lab Smp Id: 245959001 Client Smp ID: RE15-10-7309
Inj Date : 07-FEB-2010 15:09
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959001|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	9.84000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1710077	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.475	623210	14.5773493	538	0		0	10

Data File: /chem/MSD6.i/s020710.b/s6b0707.d

Page 1

Date : 07-FEB-2010 15:09

Client ID: RE15-10-7309

Instrument: MSD6.i

Sample Info: 1245959001|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

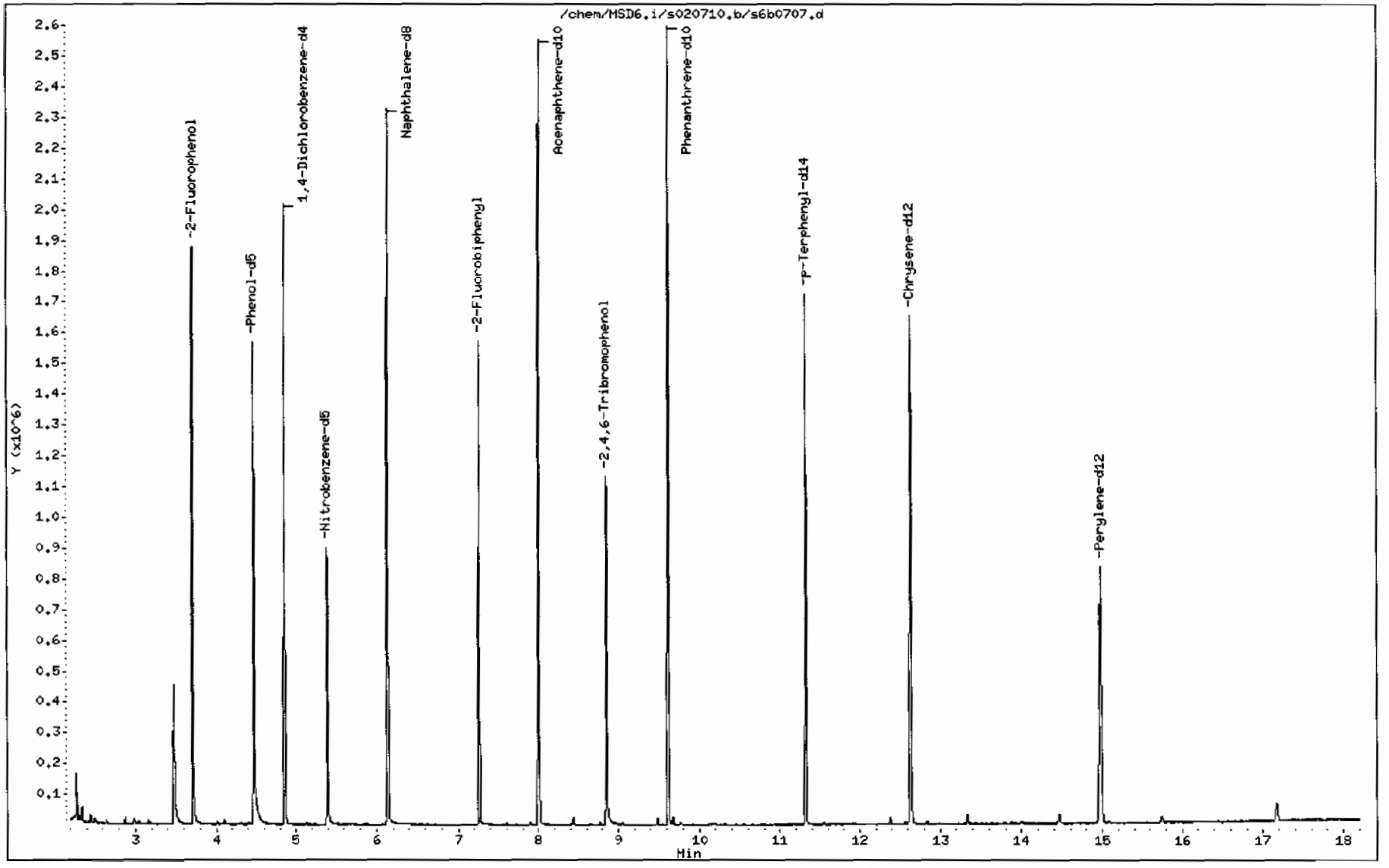

Data File: /chem/MSD6.i/s020710.b/s6b0707.d

Date : 07-FEB-2010 15:09

Client ID: RE15-10-7309

Instrument: MSD6.i

Sample Info: |245959001|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	28	C6H12O2	116

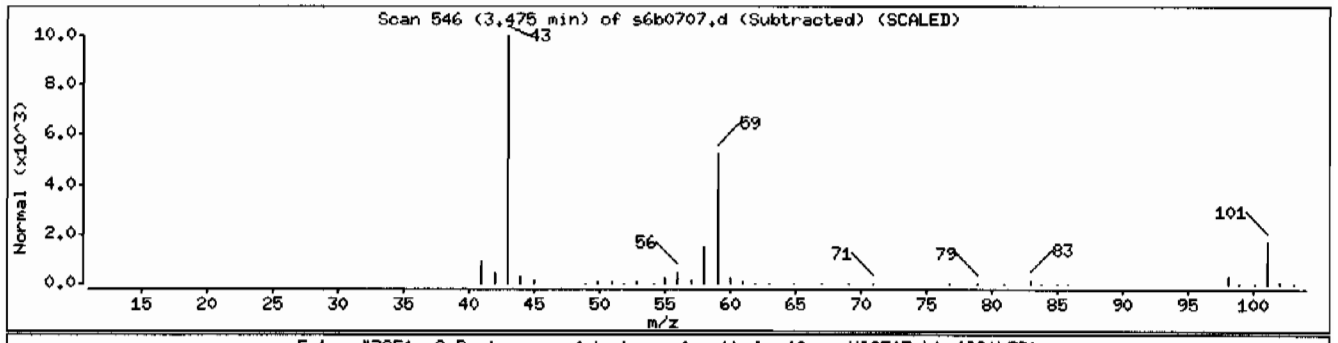

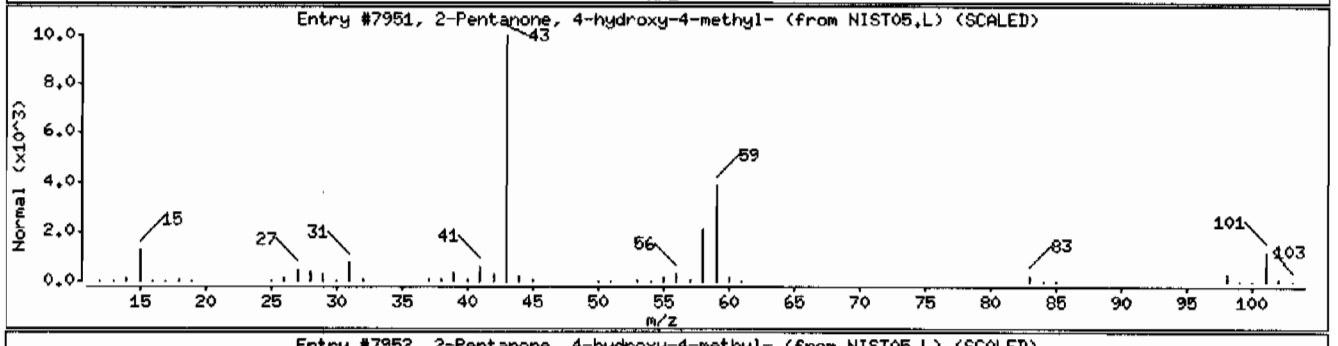

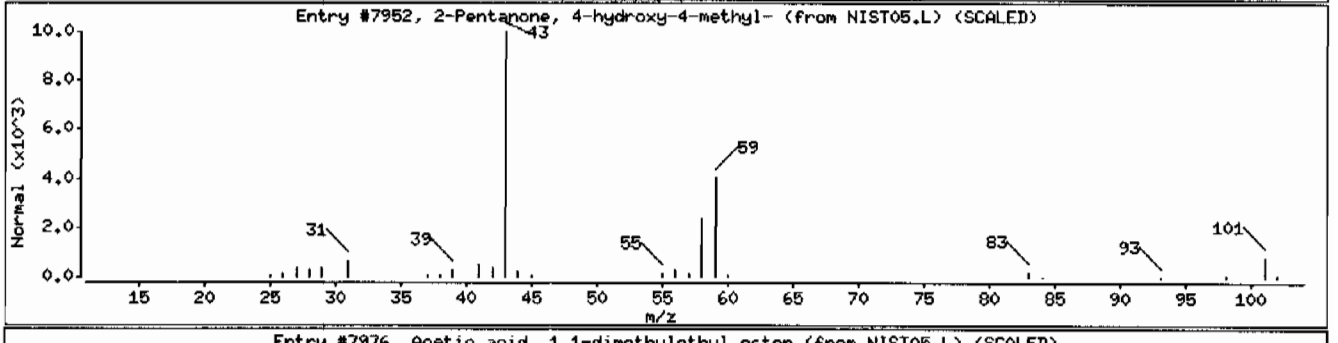

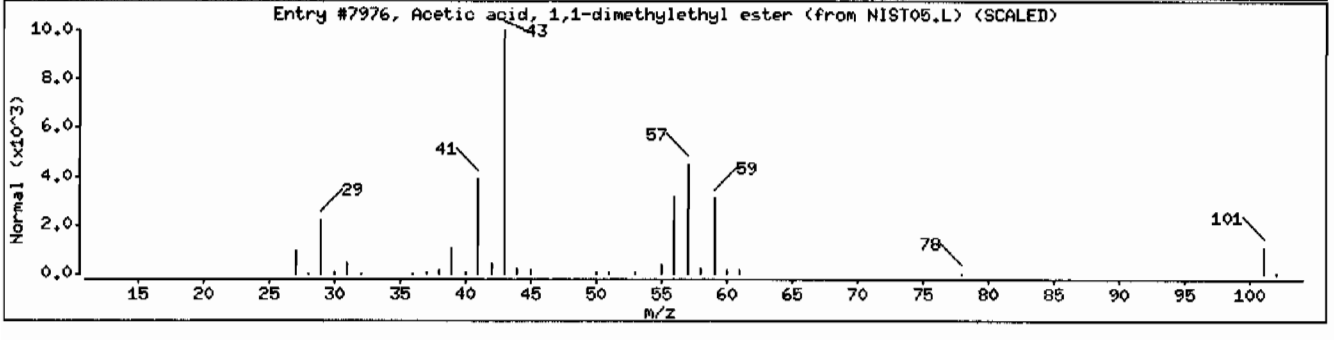

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959006	**Date Received:**	02/02/2010 09:10	**%Moisture:**	29.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7312	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s6b0712.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	469	ug/kg	93.8	469
108-95-2	Phenol	U	469	ug/kg	93.8	469
95-57-8	2-Chlorophenol	U	469	ug/kg	93.8	469
106-46-7	1,4-Dichlorobenzene	U	469	ug/kg	93.8	469
621-64-7	N-Nitrosodipropylamine	U	469	ug/kg	93.8	469
59-50-7	4-Chloro-3-methylphenol	U	469	ug/kg	93.8	469
83-32-9	Acenaphthene	U	46.9	ug/kg	15.5	46.9
121-14-2	2,4-Dinitrotoluene	U	469	ug/kg	46.9	469
100-02-7	4-Nitrophenol	U	469	ug/kg	155	469
87-86-5	Pentachlorophenol	U	469	ug/kg	117	469
129-00-0	Pyrene	U	46.9	ug/kg	14.1	46.9
110-86-1	Pyridine	U	469	ug/kg	93.8	469
62-53-3	Aniline	U	469	ug/kg	141	469
111-44-4	bis(2-Chloroethyl) ether	U	469	ug/kg	93.8	469
541-73-1	1,3-Dichlorobenzene	U	469	ug/kg	93.8	469
100-51-6	Benzyl alcohol	U	469	ug/kg	141	469
95-50-1	1,2-Dichlorobenzene	U	469	ug/kg	93.8	469
108-60-1	bis(2-Chloroisopropyl)ether	U	469	ug/kg	93.8	469
95-48-7	o-Cresol	U	469	ug/kg	93.8	469
65794-96-9	m,p-Cresols	U	469	ug/kg	141	469
67-72-1	Hexachloroethane	U	469	ug/kg	93.8	469
98-95-3	Nitrobenzene	U	469	ug/kg	93.8	469
78-59-1	Isophorone	U	469	ug/kg	93.8	469
88-75-5	2-Nitrophenol	U	469	ug/kg	93.8	469
105-67-9	2,4-Dimethylphenol	U	469	ug/kg	164	469
111-91-1	bis(2-Chloroethoxy)methane	U	469	ug/kg	93.8	469
120-83-2	2,4-Dichlorophenol	U	469	ug/kg	93.8	469
65-85-0	Benzoic acid	U	938	ug/kg	235	938
91-20-3	Naphthalene	U	46.9	ug/kg	14.1	46.9
106-47-8	4-Chloroaniline	U	469	ug/kg	93.8	469
87-68-3	Hexachlorobutadiene	U	469	ug/kg	93.8	469
91-57-6	2-Methylnaphthalene	U	46.9	ug/kg	9.38	46.9
77-47-4	Hexachlorocyclopentadiene	U	469	ug/kg	93.8	469
88-06-2	2,4,6-Trichlorophenol	U	469	ug/kg	93.8	469
95-95-4	2,4,5-Trichlorophenol	U	469	ug/kg	93.8	469
91-58-7	2-Chloronaphthalene	U	46.9	ug/kg	15.5	46.9
88-74-4	2-Nitroaniline	U	469	ug/kg	93.8	469
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	469	ug/kg	93.8	469

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959006	**Date Received:**	02/02/2010 09:10	**%Moisture:**	29.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7312	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s6b0712.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	469	ug/kg	93.8	469
606-20-2	2,6-Dinitrotoluene	U	469	ug/kg	46.9	469
208-96-8	Acenaphthylene	U	46.9	ug/kg	14.1	46.9
51-28-5	2,4-Dinitrophenol	U	938	ug/kg	178	938
132-64-9	Dibenzofuran	U	469	ug/kg	93.8	469
84-66-2	Diethylphthalate	U	469	ug/kg	93.8	469
86-73-7	Fluorene	U	46.9	ug/kg	14.1	46.9
7005-72-3	4-Chlorophenylphenylether	U	469	ug/kg	93.8	469
534-52-1	2-Methyl-4,6-dinitrophenol	U	469	ug/kg	93.8	469
100-01-6	4-Nitroaniline	U	469	ug/kg	141	469
	p-Nitroaniline					
122-39-4	Diphenylamine	U	469	ug/kg	93.8	469
122-66-7	Azobenzene	U	469	ug/kg	93.8	469
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	469	ug/kg	93.8	469
118-74-1	Hexachlorobenzene	U	469	ug/kg	93.8	469
85-01-8	Phenanthrene	U	46.9	ug/kg	14.1	46.9
120-12-7	Anthracene	U	46.9	ug/kg	9.38	46.9
84-74-2	Di-n-butylphthalate	U	469	ug/kg	93.8	469
206-44-0	Fluoranthene	U	46.9	ug/kg	14.1	46.9
85-68-7	Butylbenzylphthalate	U	469	ug/kg	93.8	469
56-55-3	Benzo(a)anthracene	U	46.9	ug/kg	14.1	46.9
91-94-1	3,3'-Dichlorobenzidine	U	469	ug/kg	141	469
218-01-9	Chrysene	U	46.9	ug/kg	14.1	46.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	469	ug/kg	93.8	469
117-84-0	Di-n-octylphthalate	U	469	ug/kg	93.8	469
205-99-2	Benzo(b)fluoranthene	U	46.9	ug/kg	14.1	46.9
207-08-9	Benzo(k)fluoranthene	U	46.9	ug/kg	14.1	46.9
50-32-8	Benzo(a)pyrene	U	46.9	ug/kg	14.1	46.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	46.9	ug/kg	14.1	46.9
53-70-3	Dibenzo(a,h)anthracene	U	46.9	ug/kg	14.1	46.9
191-24-2	Benzo(ghi)perylene	U	46.9	ug/kg	14.1	46.9
120-82-1	1,2,4-Trichlorobenzene	U	469	ug/kg	93.8	469

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.26	417	ug/kg		J
	Unknown Aldol Condensate	3.47	637	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959006	**Date Received:**	02/02/2010 09:10	**%Moisture:**	29.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7312	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s6b0712.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
630-02-4	Octacosane	14.46	388	ug/kg	87	NJ
112-95-8	Eicosane	15.75	222	ug/kg	98	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0712.d
Lab Smp Id: 245959006 Client Smp ID: RE15-10-7312
Inj Date : 07-FEB-2010 17:28
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959006|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	29.40000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	299205	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1108817	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	623957	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1078893	40.0000	
* 91 Chrysene-d12	240	12.633	12.646	(1.000)	783707	40.0000	
* 98 Perylene-d12	264	14.978	14.990	(1.000)	515934	40.0000	
$ 3 2-Fluorophenol	112	3.707	3.697	(0.763)	432626	57.7392	2710
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	515622	54.5234	2560
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	247863	31.6002	1480
$ 39 2-Fluorobiphenyl	172	7.260	7.265	(0.907)	494241	30.7366	1440
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	87374	47.9771	2250
$ 81 p-Terphenyl-d14	244	11.321	11.324	(0.896)	466032	36.8737	1730

ION RATIO REPORT

SV REPORT

Data file: s6b0712.d
Report Date: 02/08/2010 09:14
Lab. ID: 245959006 SampleType: SAMPLE
Injection Date: 07-FEB-2010 17:28
Operator: nag1 Instrument: MSD6.i
Sample Info: |245959006|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	25848	4.47	4.55	80-120	100	(T)
93	112	4.52	4.55	217-277	0	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	35429	5.39	5.24	80-120	100	(T)
42	22210	5.39	5.24	39- 99	63	(T)
22 Isophorone		CAS#: 78-59-1				
82	247863	5.39	5.66	80-120	100	(T)
138	381	5.92	5.66	0- 49	0	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	5268	7.45	7.41	80-120	100	( )
164	530	7.82	7.41	3- 63	10	(T)
127	1819	7.26	7.41	8- 68	35	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	110903	8.01	7.70	80-120	100	(T)
164	623957	8.01	7.70	0- 40	563	(QT)
45 Acenaphthylene				CAS#: 208-96-8		
152	11852	8.00	7.86	80-120	100	(T)
151	3217	8.00	7.86	0- 50	27	(T)
153	12844	8.00	7.86	0- 43	108	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
47 Acenaphthene			CAS#: 83-32-9			
154	12235	8.00	8.05	80-120	100	( )
153	12844	8.00	8.05	77-137	105	( )
152	11852	8.00	8.05	21- 81	97	(Q)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	81129	8.01	8.21	80-120	100	(T)
89	1691	8.01	8.21	43-103	2	(QT)
63	2691	8.01	8.21	18- 78	3	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	251	8.23	8.12	80-120	100	(T)
109	101	8.32	8.13	36- 96	41	(T)
65	123	8.11	8.12	60-120	49	(Q)
53 Fluorene			CAS#: 86-73-7			
166	5758	8.85	8.60	80-120	100	(T)
165	5074	8.86	8.60	62-122	88	(T)
167	1298	8.86	8.60	0- 44	23	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	168	8.85	8.65	80-120	100	(T)
105	616	8.85	8.65	11- 71	366	(QT)
51	708	8.85	8.65	23- 83	420	(QT)
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	206	16.98	16.98	80-120	100	( )
138	171	17.15	16.98	7- 67	83	(QT)
100 Dibenzo(a,h)anthracene			CAS#: 53-70-3			
278	117	17.00	17.01	80-120	100	( )
139	0	0.00	17.01	0- 30	0	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0712.d
Lab Smp Id: 245959006 Client Smp ID: RE15-10-7312
Inj Date : 07-FEB-2010 17:28
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959006|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	29.40000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1779730	40.000
* 98 Perylene-d12	14.978	1452056	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.263	395028	8.87837769	417	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.473	603464	13.5630367	636	0		0	10
Octacosane				CAS #: 630-02-4			
14.458	300070	8.26607712	388	87	NIST05.L	169721	98
Eicosane				CAS #: 112-95-8			
15.747	171996	4.73800567	222	98	NIST05.L	113488	98

Data File: /chem/MSD6.i/s020710.b/s6b0712.d
Date : 07-FEB-2010 17:28
Client ID: RE15-10-7312
Sample Info: 1245959006|94913211|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

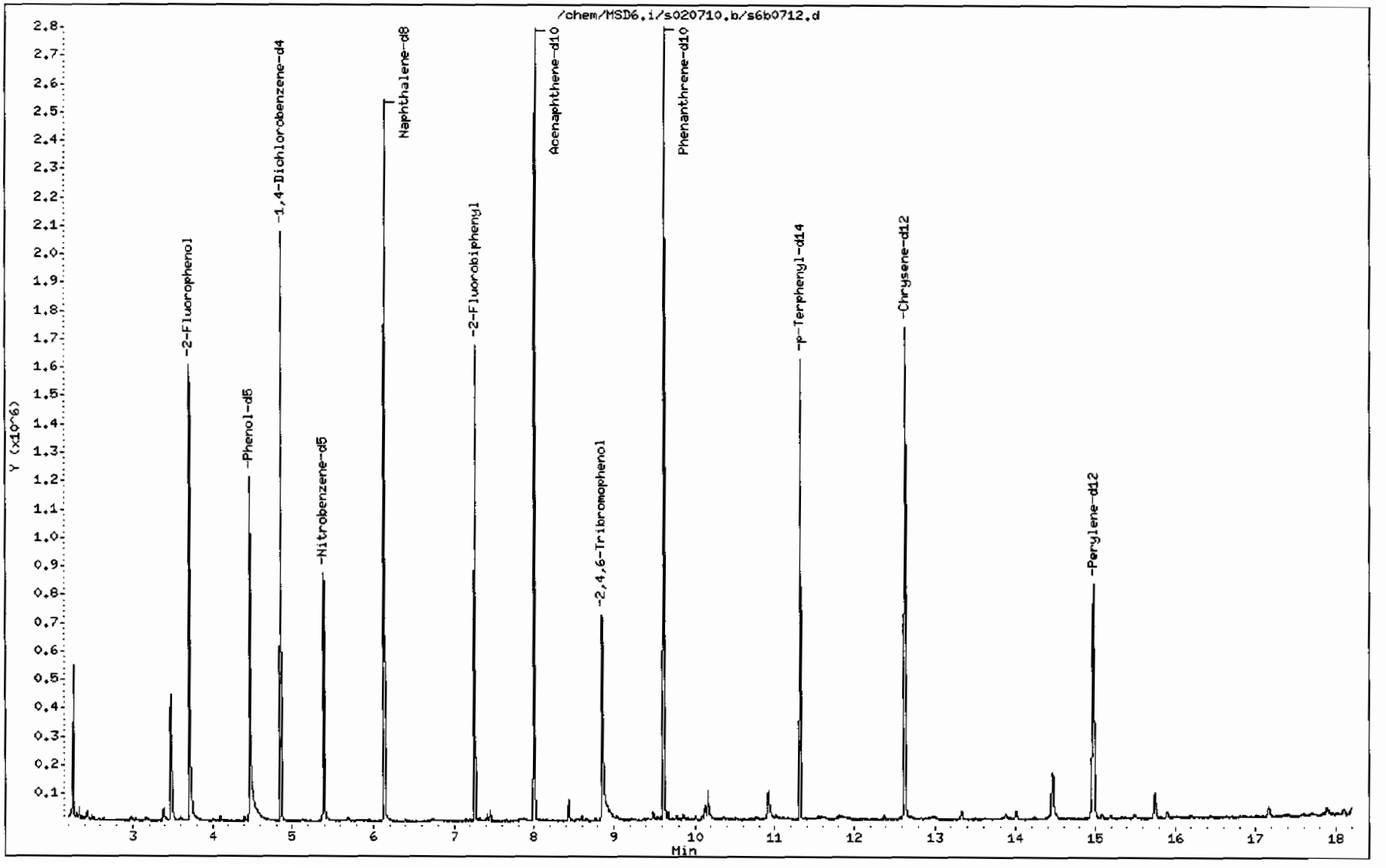

Data File: /chem/MSD6.i/s020710.b/s6b0712.d

Date : 07-FEB-2010 17:28

Client ID: RE15-10-7312

Instrument: MSD6.i

Sample Info: |2459590061949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	42	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	38	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	33	C5H12O2	104

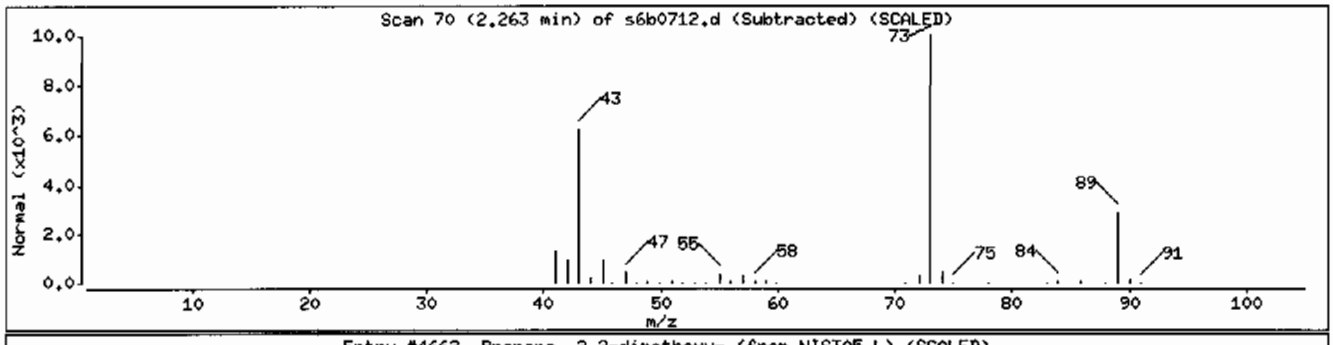

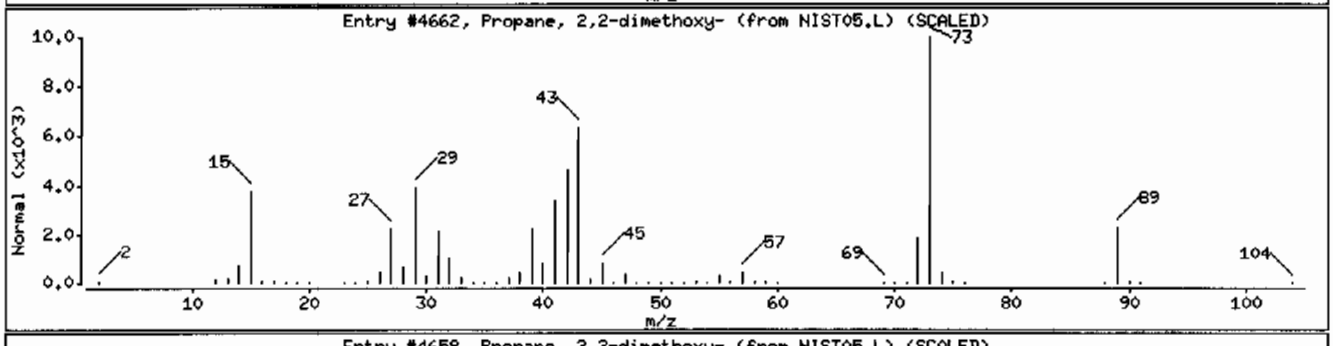

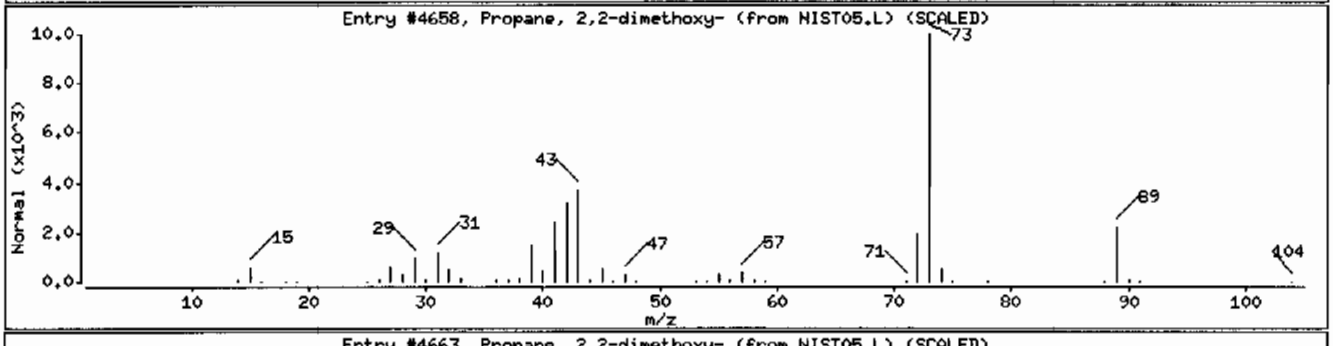

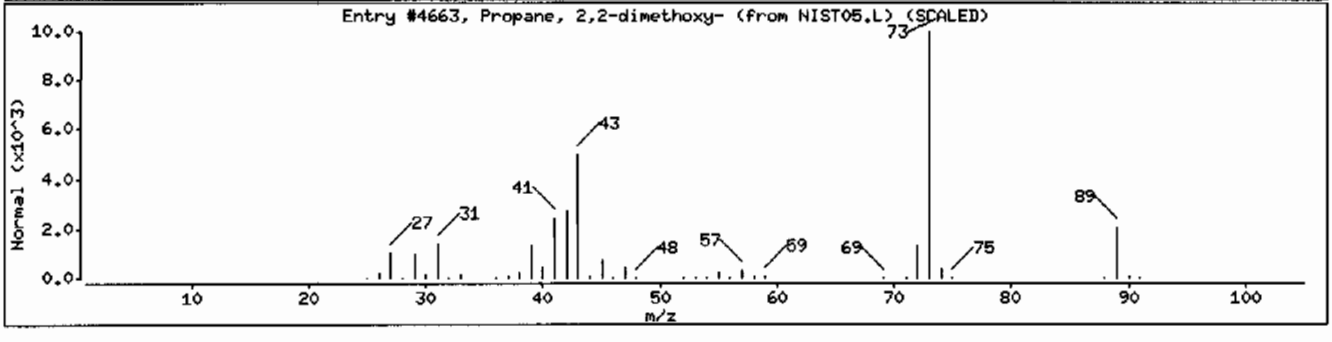

Data File: /chem/MSD6.i/s020710.b/s6b0712.d

Date : 07-FEB-2010 17:28

Client ID: RE15-10-7312 Instrument: MSD6.i

Sample Info: 1245959006|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	28	C6H12O2	116

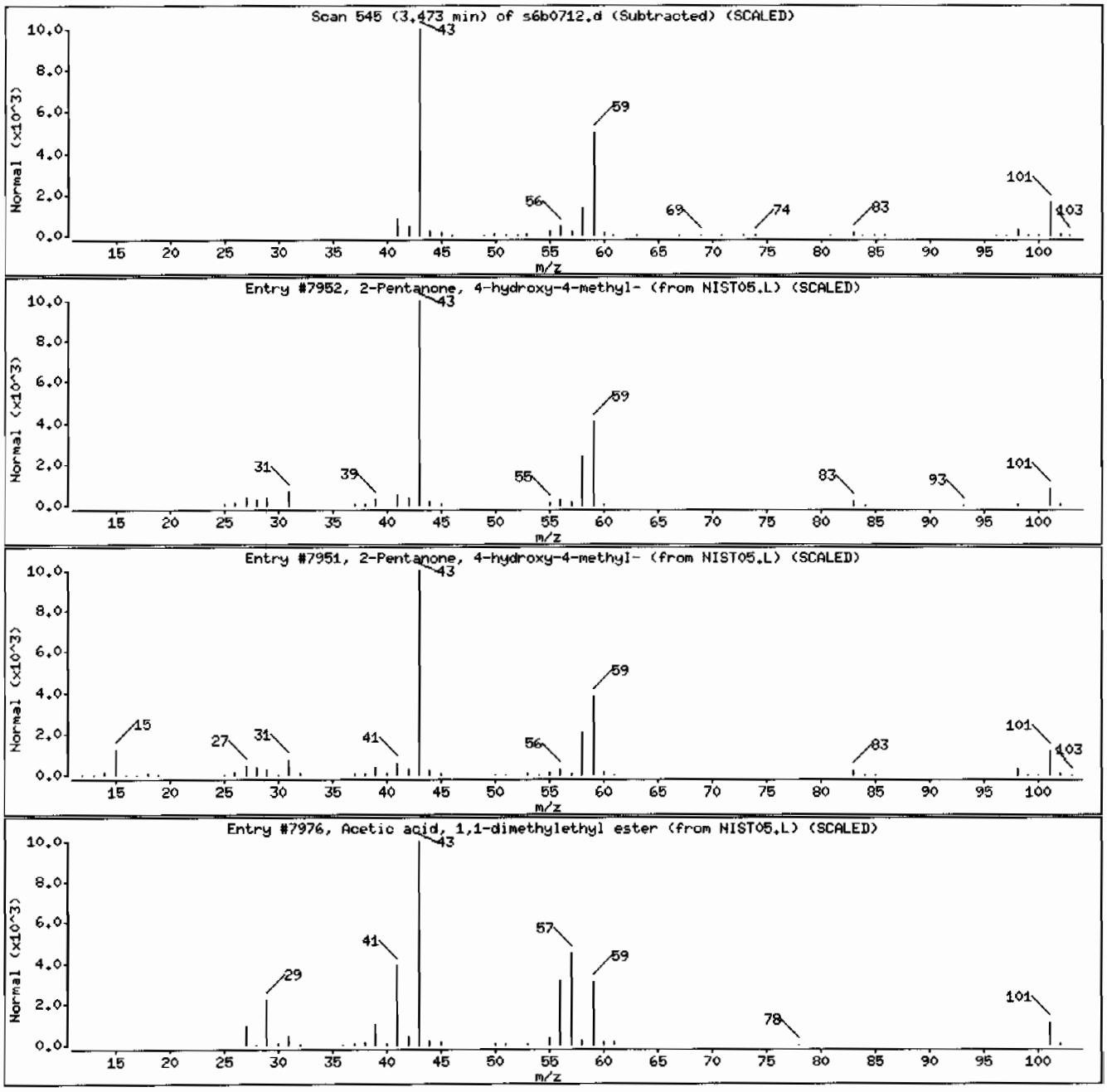

Data File: /chem/MSD6.i/s020710.b/s6b0712.d

Date : 07-FEB-2010 17:28

Client ID: RE15-10-7312

Instrument: MSD6.i

Sample Info: 1245959006194913211SVM11LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Octacosane	630-02-4	NIST05.L	169721	87	C28H58	394
Heptadecane, 9-hexyl-	55124-79-3	NIST05.L	139238	83	C23H48	324
Heptadecane, 9-octyl-	7225-64-1	NIST05.L	153748	83	C25H52	352

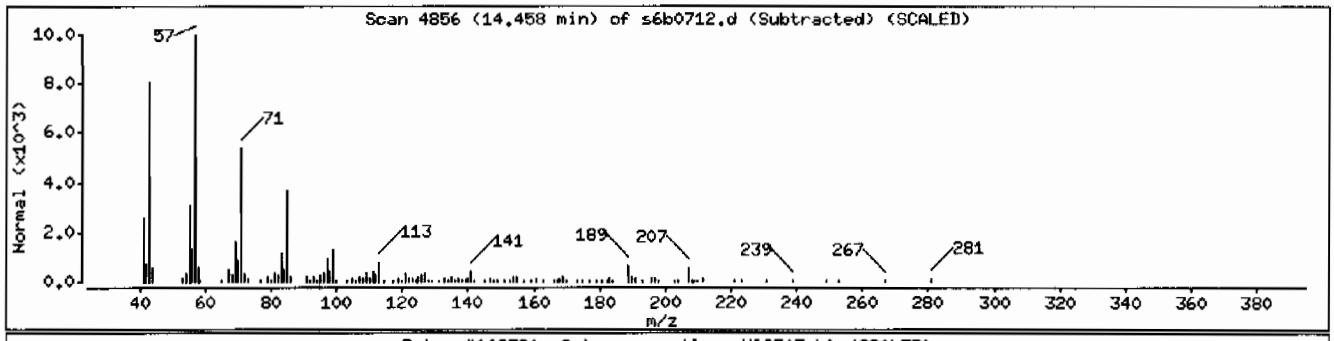

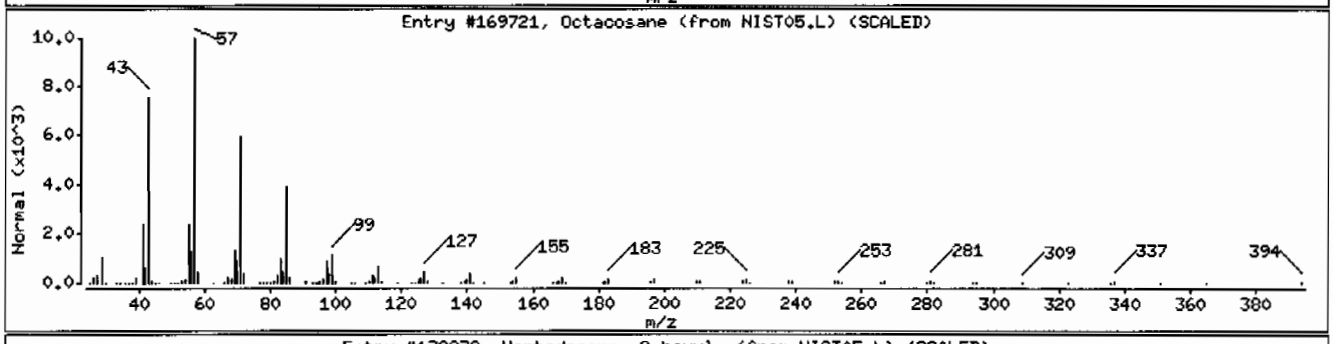

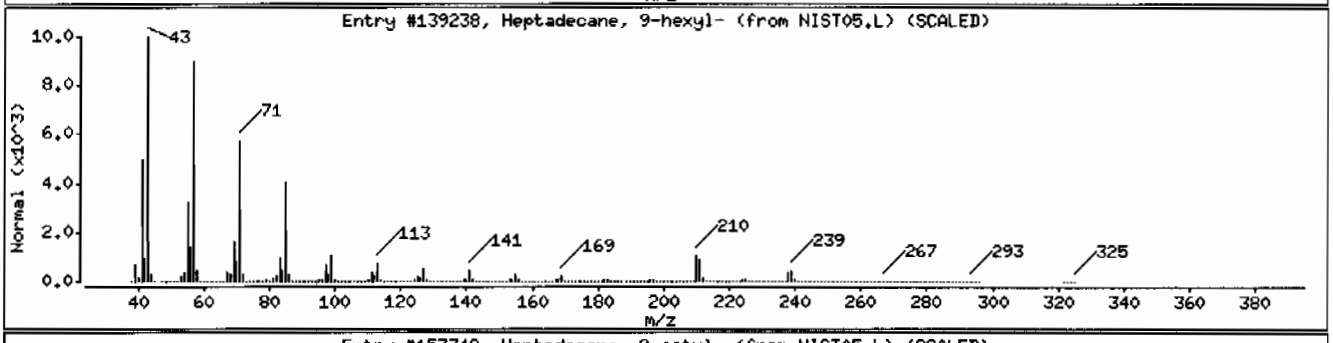

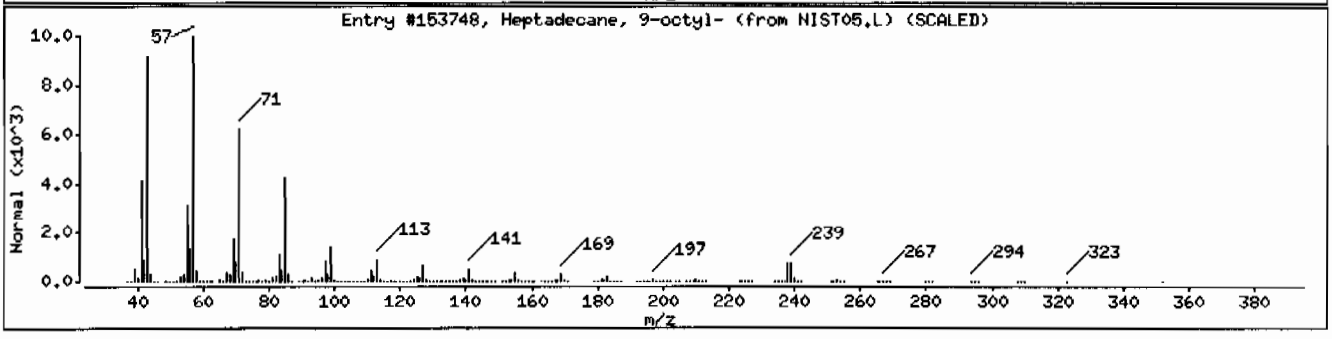

Data File: /chem/MSD6.i/s020710.b/s6b0712.d

Date : 07-FEB-2010 17:28

Client ID: RE15-10-7312 Instrument: MSD6.i

Sample Info: 1245959006|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113488	98	C20H42	282
Eicosane	112-95-8	NIST05.L	113490	95	C20H42	282
Sulfurous acid, butyl tetradecyl ester	1000309-18-1	NIST05.L	144698	87	C18H38O3S	334

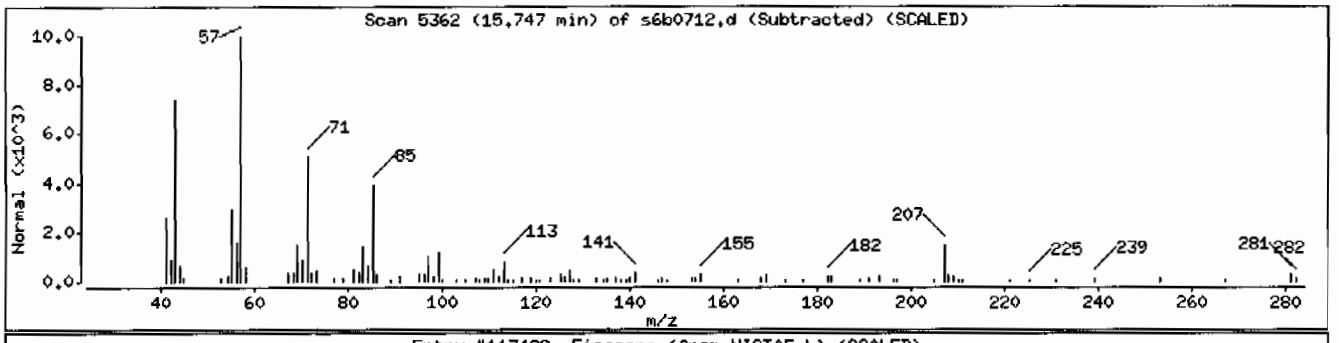

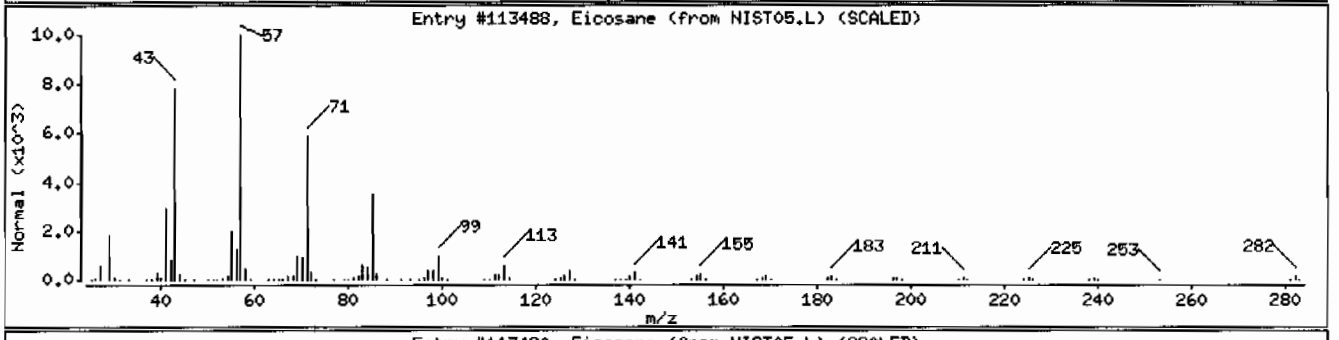

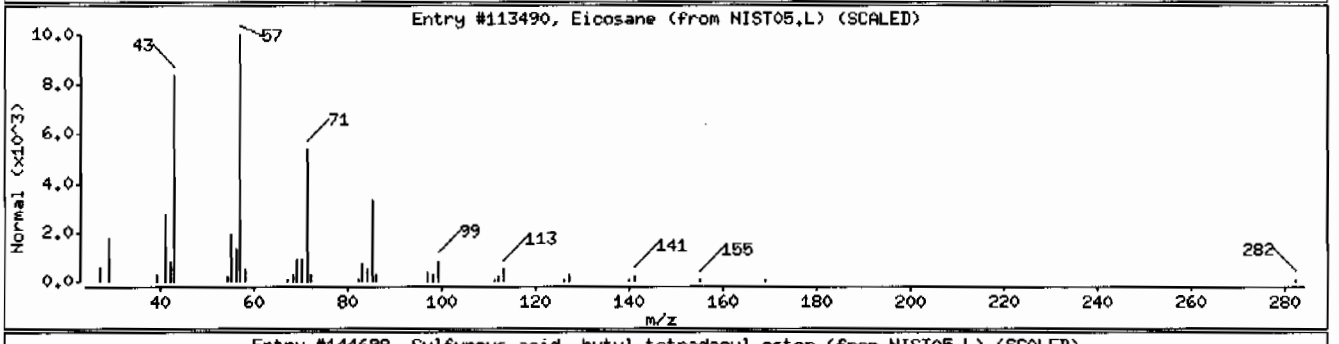

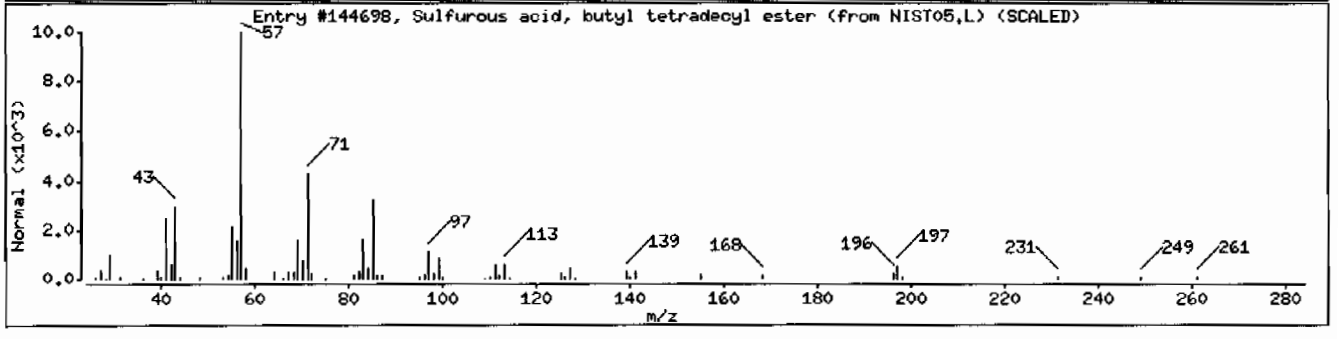

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959007	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7313	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:55	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6b0713.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	369	ug/kg	73.8	369
108-95-2	Phenol	U	369	ug/kg	73.8	369
95-57-8	2-Chlorophenol	U	369	ug/kg	73.8	369
106-46-7	1,4-Dichlorobenzene	U	369	ug/kg	73.8	369
621-64-7	N-Nitrosodipropylamine	U	369	ug/kg	73.8	369
59-50-7	4-Chloro-3-methylphenol	U	369	ug/kg	73.8	369
83-32-9	Acenaphthene	U	36.9	ug/kg	12.2	36.9
121-14-2	2,4-Dinitrotoluene	U	369	ug/kg	36.9	369
100-02-7	4-Nitrophenol	U	369	ug/kg	122	369
87-86-5	Pentachlorophenol	U	369	ug/kg	92.2	369
129-00-0	Pyrene	U	36.9	ug/kg	11.1	36.9
110-86-1	Pyridine	U	369	ug/kg	73.8	369
62-53-3	Aniline	U	369	ug/kg	111	369
111-44-4	bis(2-Chloroethyl) ether	U	369	ug/kg	73.8	369
541-73-1	1,3-Dichlorobenzene	U	369	ug/kg	73.8	369
100-51-6	Benzyl alcohol	U	369	ug/kg	111	369
95-50-1	1,2-Dichlorobenzene	U	369	ug/kg	73.8	369
108-60-1	bis(2-Chloroisopropyl)ether	U	369	ug/kg	73.8	369
95-48-7	o-Cresol	U	369	ug/kg	73.8	369
65794-96-9	m,p-Cresols	U	369	ug/kg	111	369
67-72-1	Hexachloroethane	U	369	ug/kg	73.8	369
98-95-3	Nitrobenzene	U	369	ug/kg	73.8	369
78-59-1	Isophorone	U	369	ug/kg	73.8	369
88-75-5	2-Nitrophenol	U	369	ug/kg	73.8	369
105-67-9	2,4-Dimethylphenol	U	369	ug/kg	129	369
111-91-1	bis(2-Chloroethoxy)methane	U	369	ug/kg	73.8	369
120-83-2	2,4-Dichlorophenol	U	369	ug/kg	73.8	369
65-85-0	Benzoic acid	U	738	ug/kg	184	738
91-20-3	Naphthalene	U	36.9	ug/kg	11.1	36.9
106-47-8	4-Chloroaniline	U	369	ug/kg	73.8	369
87-68-3	Hexachlorobutadiene	U	369	ug/kg	73.8	369
91-57-6	2-Methylnaphthalene	U	36.9	ug/kg	7.38	36.9
77-47-4	Hexachlorocyclopentadiene	U	369	ug/kg	73.8	369
88-06-2	2,4,6-Trichlorophenol	U	369	ug/kg	73.8	369
95-95-4	2,4,5-Trichlorophenol	U	369	ug/kg	73.8	369
91-58-7	2-Chloronaphthalene	U	36.9	ug/kg	12.2	36.9
88-74-4	2-Nitroaniline	U	369	ug/kg	73.8	369
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	369	ug/kg	73.8	369

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959007**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7313**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 17:55**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0713.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	369	ug/kg	73.8	369
606-20-2	2,6-Dinitrotoluene	U	369	ug/kg	36.9	369
208-96-8	Acenaphthylene	U	36.9	ug/kg	11.1	36.9
51-28-5	2,4-Dinitrophenol	U	738	ug/kg	140	738
132-64-9	Dibenzofuran	U	369	ug/kg	73.8	369
84-66-2	Diethylphthalate	U	369	ug/kg	73.8	369
86-73-7	Fluorene	U	36.9	ug/kg	11.1	36.9
7005-72-3	4-Chlorophenylphenylether	U	369	ug/kg	73.8	369
534-52-1	2-Methyl-4,6-dinitrophenol	U	369	ug/kg	73.8	369
100-01-6	4-Nitroaniline	U	369	ug/kg	111	369
	p-Nitroaniline					
122-39-4	Diphenylamine	U	369	ug/kg	73.8	369
122-66-7	Azobenzene	U	369	ug/kg	73.8	369
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	369	ug/kg	73.8	369
118-74-1	Hexachlorobenzene	U	369	ug/kg	73.8	369
85-01-8	Phenanthrene	U	36.9	ug/kg	11.1	36.9
120-12-7	Anthracene	U	36.9	ug/kg	7.38	36.9
84-74-2	Di-n-butylphthalate	U	369	ug/kg	73.8	369
206-44-0	Fluoranthene	U	36.9	ug/kg	11.1	36.9
85-68-7	Butylbenzylphthalate	U	369	ug/kg	73.8	369
56-55-3	Benzo(a)anthracene	U	36.9	ug/kg	11.1	36.9
91-94-1	3,3'-Dichlorobenzidine	U	369	ug/kg	111	369
218-01-9	Chrysene	U	36.9	ug/kg	11.1	36.9
117-81-7	bis(2-Ethylhexyl)phthalate	U	369	ug/kg	73.8	369
117-84-0	Di-n-octylphthalate	U	369	ug/kg	73.8	369
205-99-2	Benzo(b)fluoranthene	U	36.9	ug/kg	11.1	36.9
207-08-9	Benzo(k)fluoranthene	U	36.9	ug/kg	11.1	36.9
50-32-8	Benzo(a)pyrene	U	36.9	ug/kg	11.1	36.9
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.9	ug/kg	11.1	36.9
53-70-3	Dibenzo(a,h)anthracene	U	36.9	ug/kg	11.1	36.9
191-24-2	Benzo(ghi)perylene	U	36.9	ug/kg	11.1	36.9
120-82-1	1,2,4-Trichlorobenzene	U	369	ug/kg	73.8	369

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	215	ug/kg		J
	Unknown Aldol Condensate	3.48	669	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959007	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7313	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:55	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6b0713.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	13.85	272	ug/kg		J
	Unknown	13.87	467	ug/kg		J
79-63-0	Lanosterol	17.17	267	ug/kg	83	J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0713.d
Lab Smp Id: 245959007 Client Smp ID: RE15-10-7313
Inj Date : 07-FEB-2010 17:55
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959007|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	9.72000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	291869	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1100925	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	630997	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1096318	40.0000	
* 91 Chrysene-d12	240	12.636	12.646	(1.000)	765474	40.0000	
* 98 Perylene-d12	264	14.983	14.990	(1.000)	500995	40.0000	
$ 3 2-Fluorophenol	112	3.708	3.697	(0.763)	494653	67.6767	2500
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	641152	69.5014	2560
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	295276	37.9148	1400
$ 39 2-Fluorobiphenyl	172	7.262	7.265	(0.907)	586424	36.0626	1330
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	124070	67.3668	2480
$ 81 p-Terphenyl-d14	244	11.324	11.324	(0.896)	607624	49.2221	1820

ION RATIO REPORT

SV REPORT

Data file: s6b0713.d
Report Date: 02/08/2010 09:14
Lab. ID: 245959007 SampleType: SAMPLE
Injection Date: 07-FEB-2010 17:55
Operator: nagl Instrument: MSD6.i
Sample Info: |245959007|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	43662	5.40	5.24	80-120	100	(T)
42	26443	5.39	5.24	39- 99	61	(T)
22 Isophorone				CAS#: 78-59-1		
82	295276	5.39	5.66	80-120	100	(T)
138	5873	6.14	5.66	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	112769	8.01	7.70	80-120	100	(T)
164	630997	8.01	7.70	0- 40	560	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	83783	8.00	8.21	80-120	100	(T)
89	972	8.01	8.21	43-103	1	(QT)
63	939	8.00	8.21	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	8645	8.85	8.60	80-120	100	(T)
165	7857	8.85	8.60	62-122	91	(T)
167	2646	8.85	8.60	0- 44	31	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	329	8.86	8.65	80-120	100	(T)
105	911	8.86	8.65	11- 71	277	(QT)
51	854	8.85	8.65	23- 83	259	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0713.d
Lab Smp Id: 245959007 Client Smp ID: RE15-10-7313
Inj Date : 07-FEB-2010 17:55
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959007|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	9.72000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1743063	40.000
* 98 Perylene-d12	14.983	1420453	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.270	253811	5.82449228	215	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.476	790172	18.1329516	669	0		0	10
Unknown				CAS #:			
13.852	261801	7.37231881	272	0		0	98
Unknown				CAS #:			
13.874	449826	12.6670961	467	0		0	98
Lanosterol				CAS #: 79-63-0			
17.172	257046	7.23840980	267	83	NIST05.L	176558	98(L)

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/MSD6.i/s020710.b/s6b0713.d

Date : 07-FEB-2010 17:55

Client ID: RE15-10-7313

Sample Info: 1245959007|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

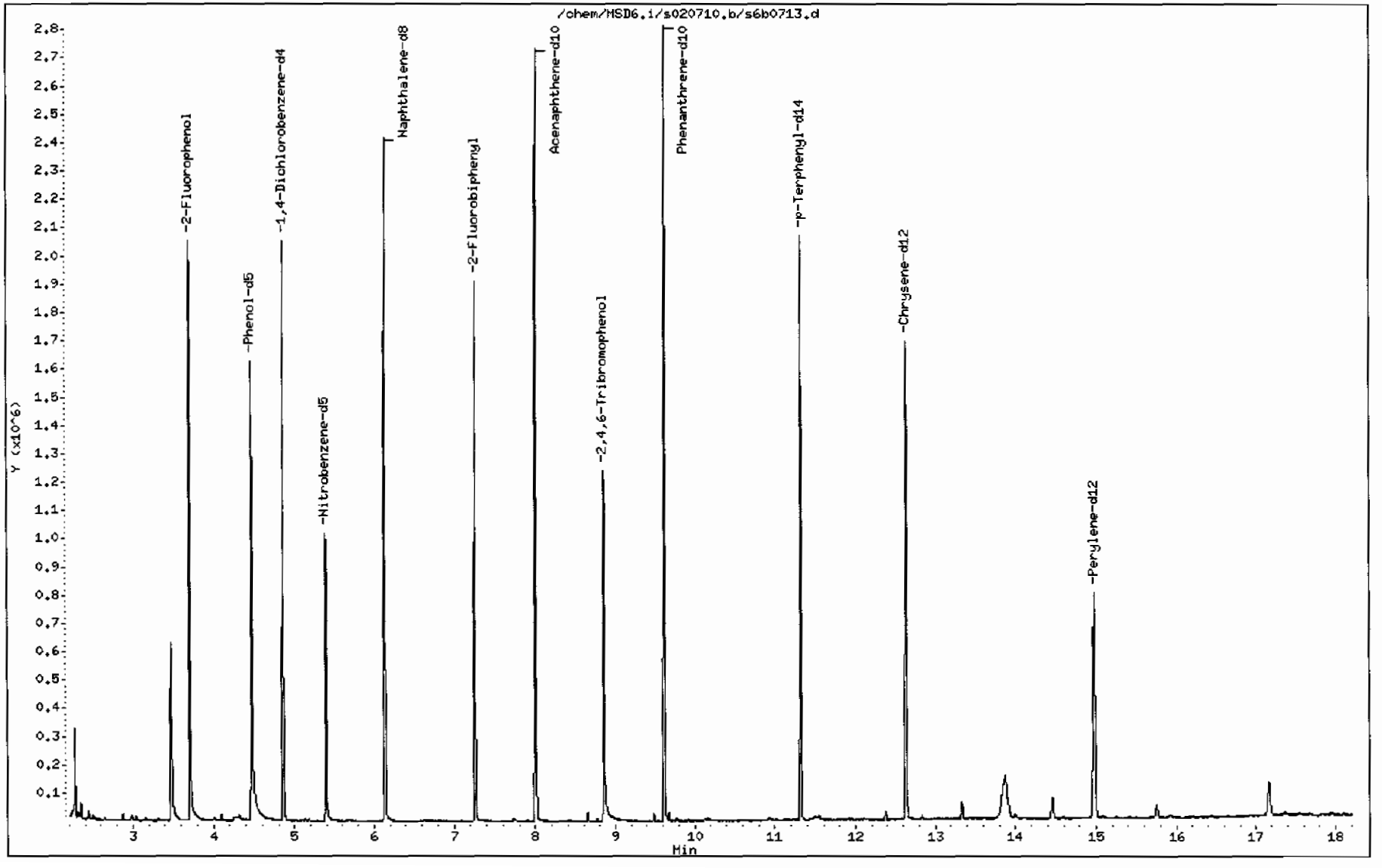

Data File: /chem/MSD6.i/s020710.b/s6b0713.d

Date : 07-FEB-2010 17:55

Client ID: RE15-10-7313

Instrument: MSD6.i

Sample Info: 1245959007194913211SVHI1LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	59	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	42	C5H12O2	104
Acetamide, N-methyl-	79-16-3	NIST05.L	724	37	C3H7NO	73

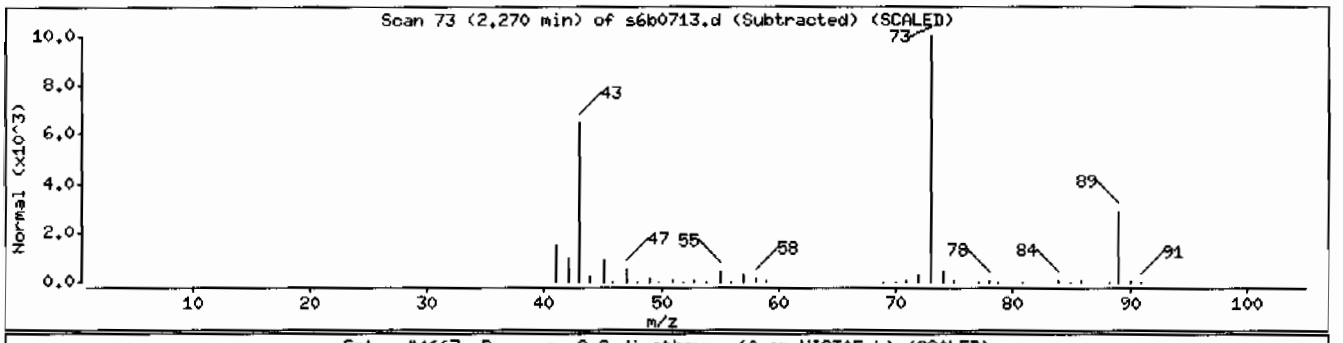

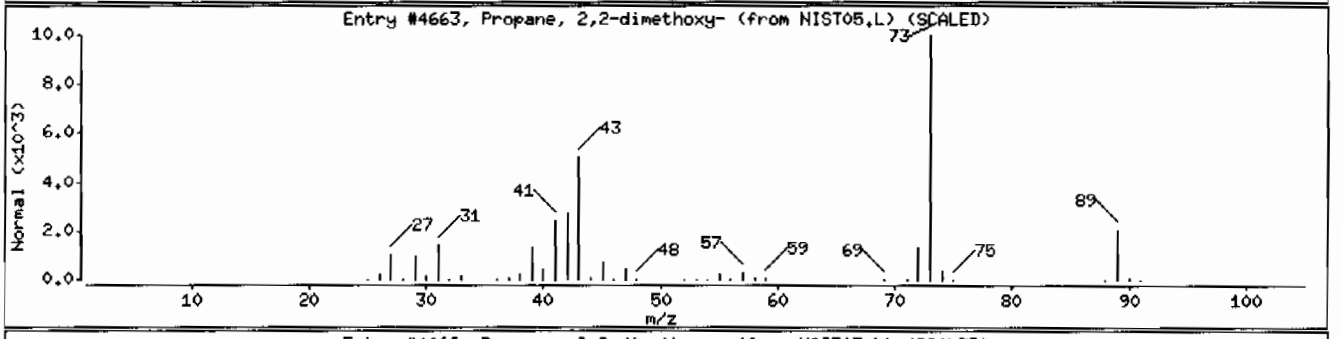

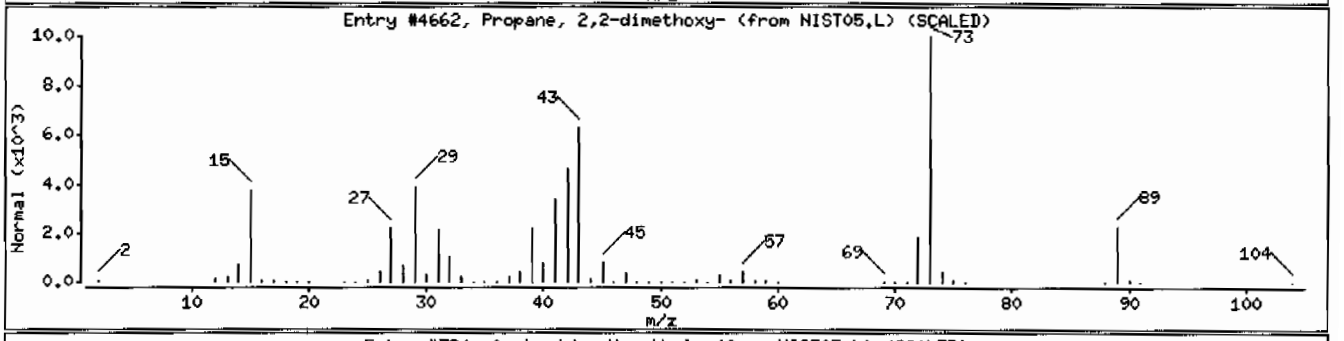

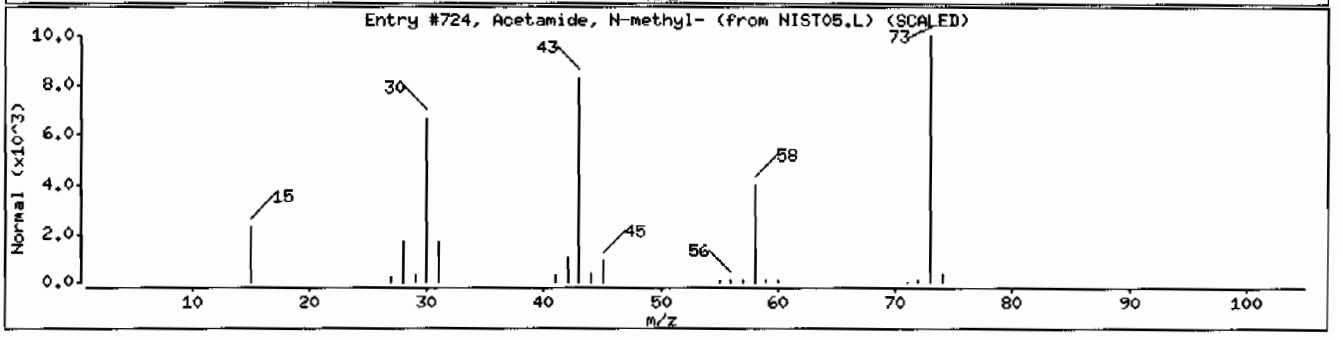

Data File: /chem/MSD6.i/s020710.b/s6b0713.d

Date : 07-FEB-2010 17:55

Client ID: RE15-10-7313 Instrument: MSD6.i

Sample Info: |245959007|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116

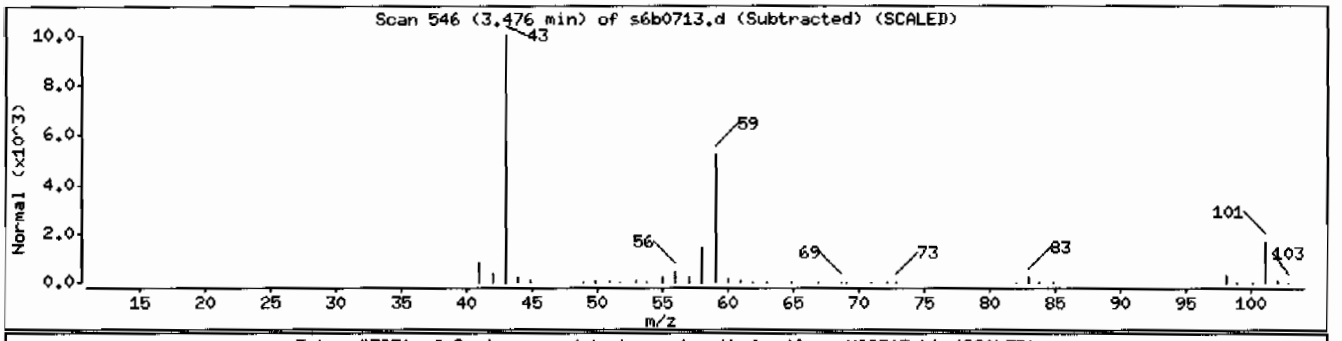

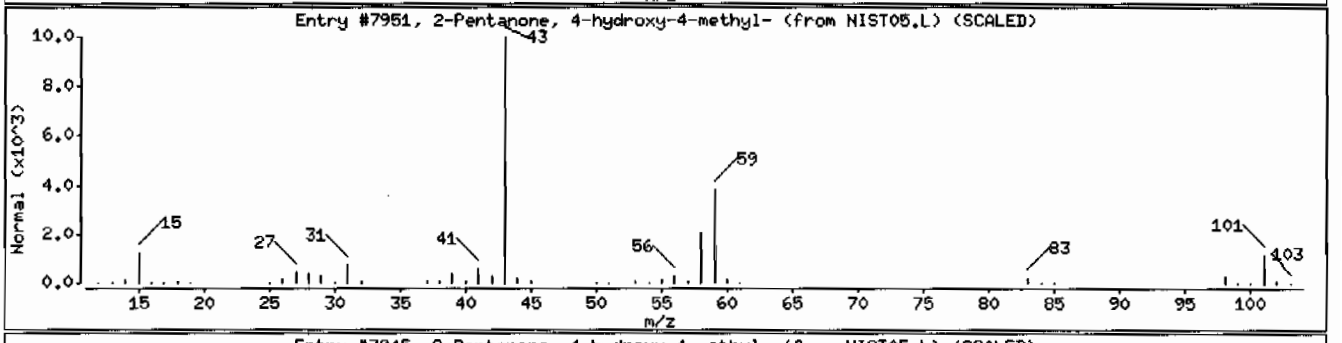

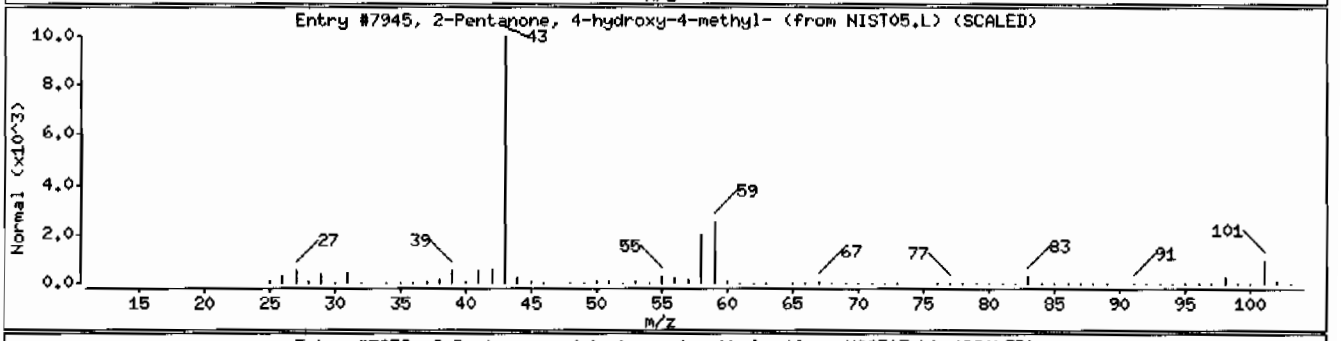

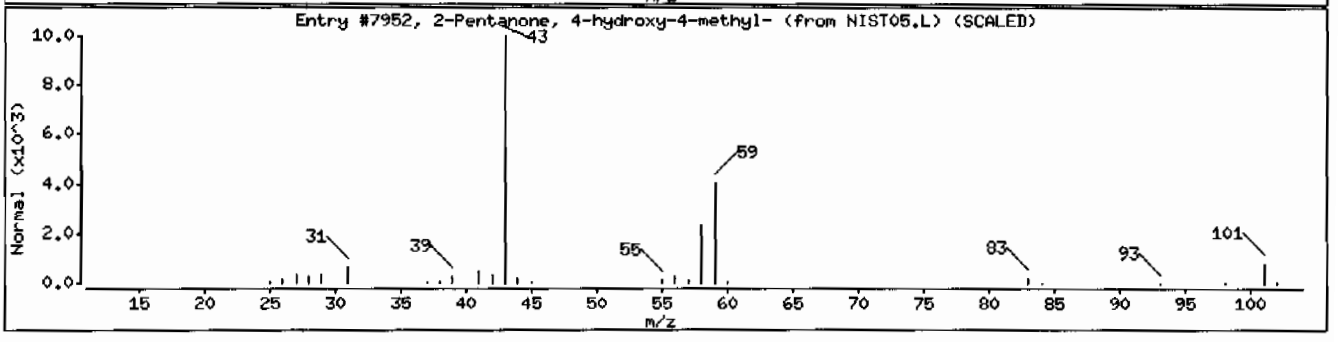

Data File: /chem/MSD6.i/s020710.b/s6b0713.d

Date : 07-FEB-2010 17:55

Client ID: RE15-10-7313

Instrument: MSD6.i

Sample Info: |245959007|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
7-Hexadecyne	74685-28-2	NIST05.L	73055	78	C16H30	222
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	60	C15H220	218
(-)-Neoclovene-(II), dihydro-	1000152-83-6	NIST05.L	61550	52	C15H26	206

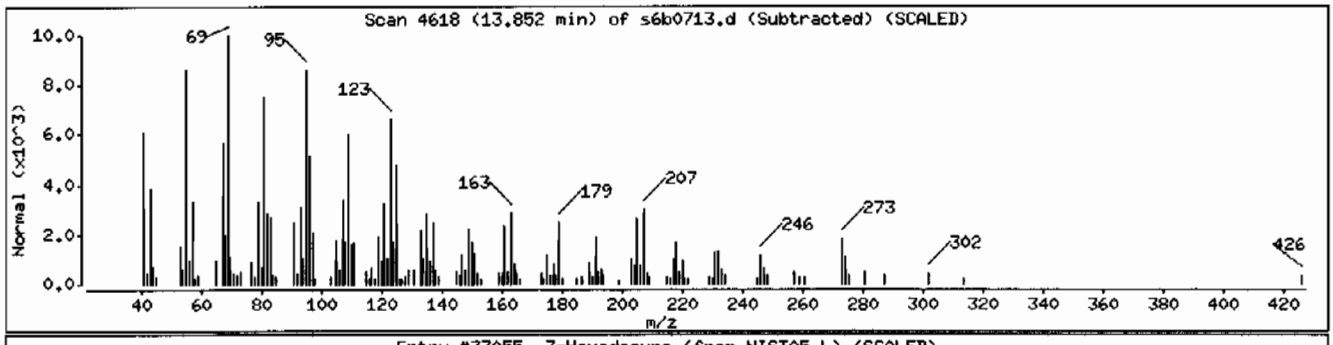

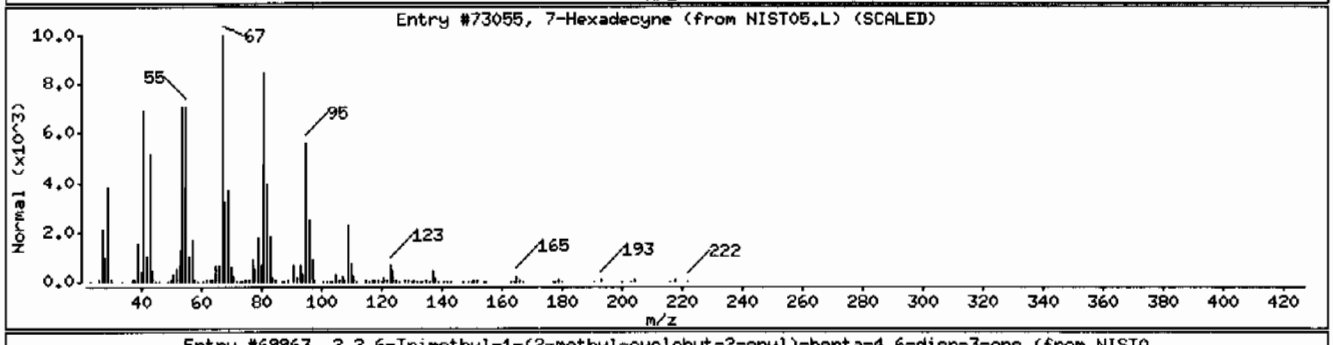

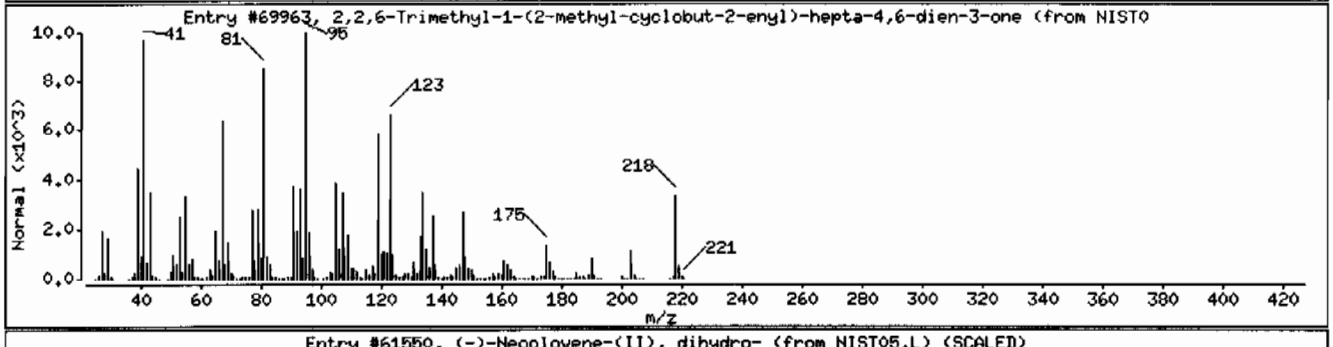

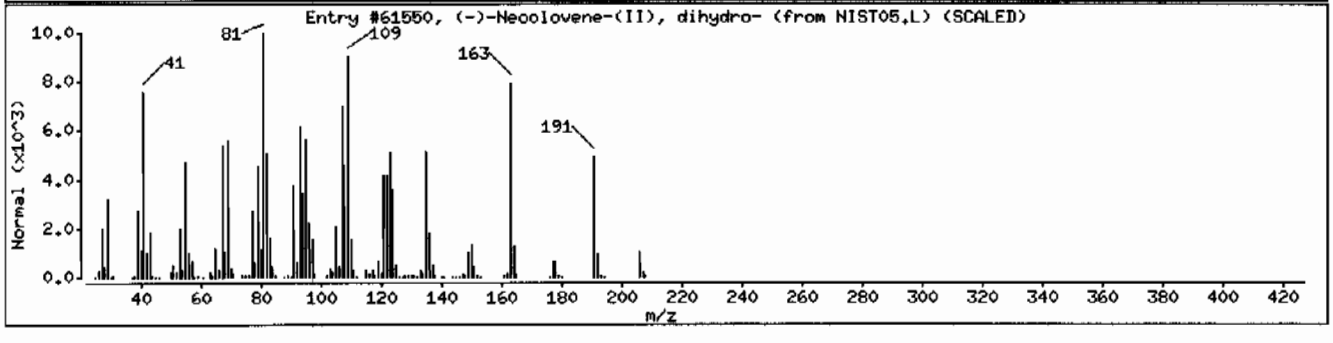

Data File: /chem/MSD6.i/s020710.b/s6b0713.d

Date : 07-FEB-2010 17:55

Client ID: RE15-10-7313 Instrument: MSD6.i

Sample Info: |245959007|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,2,6-Trimethyl-1-(2-methyl-cyclobut-2-e	1000188-72-8	NIST05.L	69963	60	C15H220	218
7-Tetradecyne	35216-11-6	NIST05.L	52908	55	C14H26	194
2-Cyclohexene-1-carboxaldehyde, 2,6-dime	56772-07-7	NIST05.L	71436	48	C15H240	220

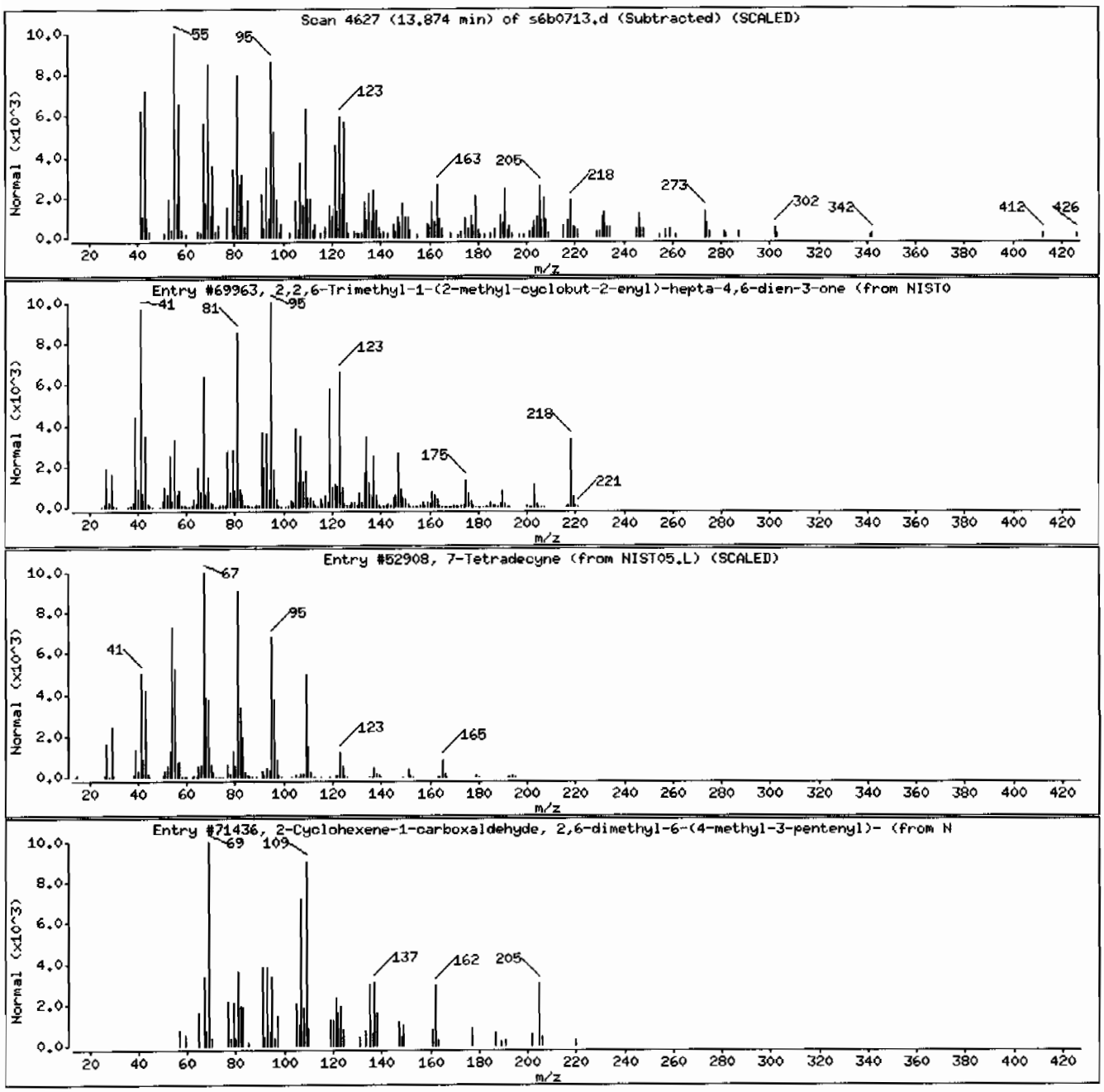

Data File: /chem/MSD6.i/s020710.b/s6b0713.d

Date : 07-FEB-2010 17:55

Client ID: RE15-10-7313

Instrument: MSD6.i

Sample Info: |245959007|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Lanosterol	79-63-0	NIST05.L	176558	83	C30H50O	426
Farnesyl bromide	6874-67-5	NIST05.L	114486	50	C15H25Br	284
1,6,10,14,18,22-Tetracosahexaen-3-ol, 2,	54159-46-5	NIST05.L	176609	46	C30H50O	426

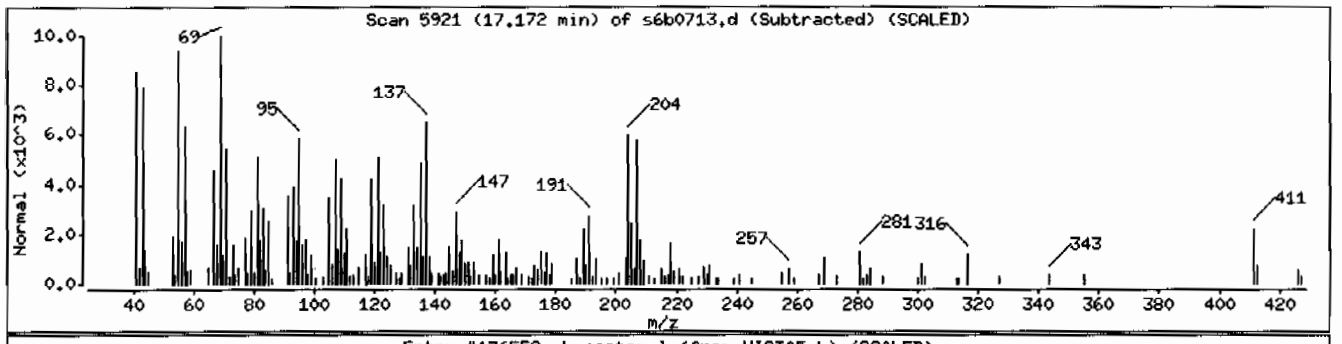

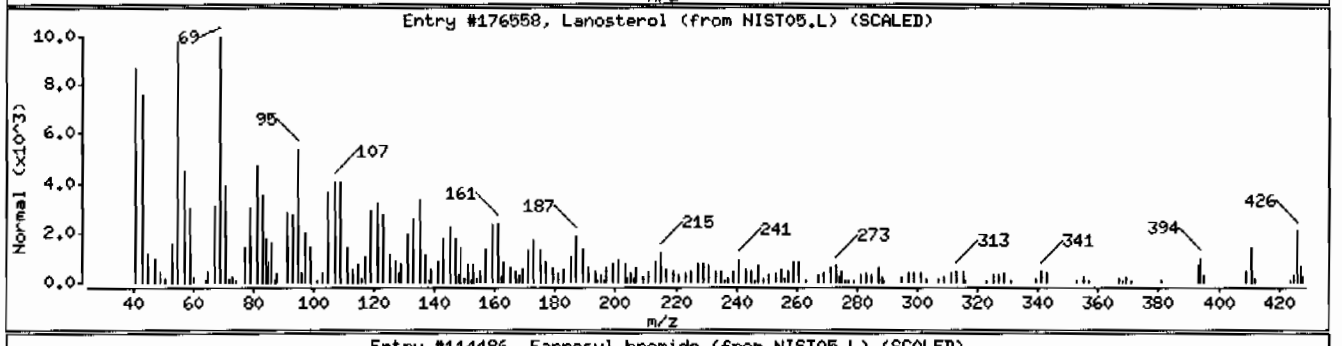

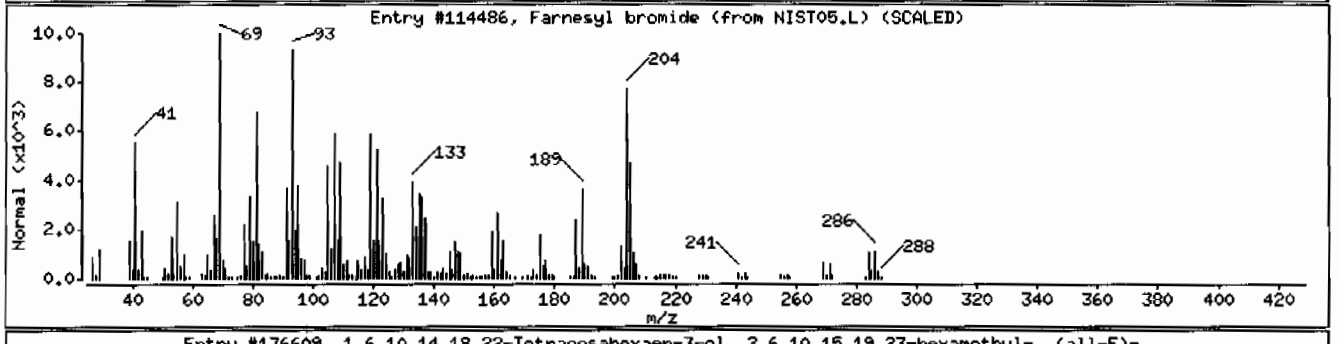

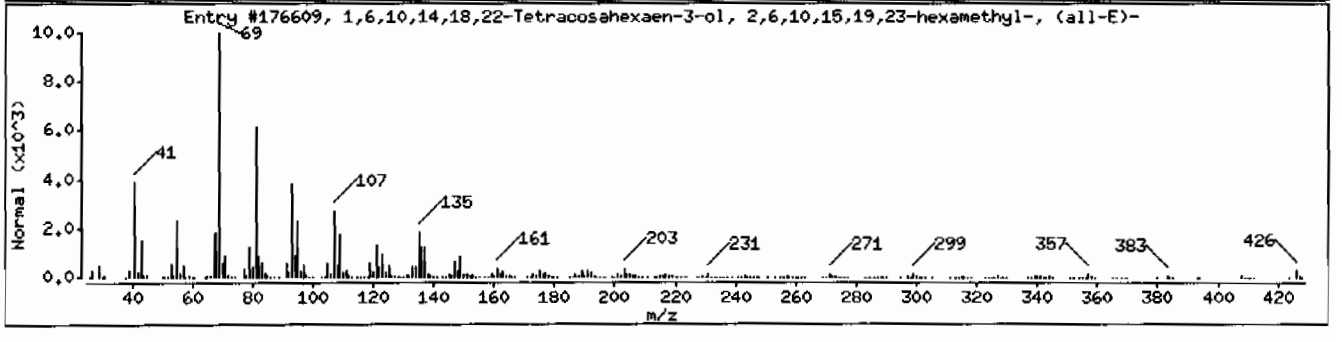

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959008	**Date Received:**	02/02/2010 09:10	**%Moisture:**	32.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7314	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 18:23	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	s6b0714.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	494	ug/kg	98.8	494
108-95-2	Phenol	U	494	ug/kg	98.8	494
95-57-8	2-Chlorophenol	U	494	ug/kg	98.8	494
106-46-7	1,4-Dichlorobenzene	U	494	ug/kg	98.8	494
621-64-7	N-Nitrosodipropylamine	U	494	ug/kg	98.8	494
59-50-7	4-Chloro-3-methylphenol	U	494	ug/kg	98.8	494
83-32-9	Accnaphthene	U	49.4	ug/kg	16.3	49.4
121-14-2	2,4-Dinitrotoluene	U	494	ug/kg	49.4	494
100-02-7	4-Nitrophenol	U	494	ug/kg	163	494
87-86-5	Pentachlorophenol	U	494	ug/kg	124	494
129-00-0	Pyrene		205	ug/kg	14.8	49.4
110-86-1	Pyridine	U	494	ug/kg	98.8	494
62-53-3	Aniline	U	494	ug/kg	148	494
111-44-4	bis(2-Chloroethyl) ether	U	494	ug/kg	98.8	494
541-73-1	1,3-Dichlorobenzene	U	494	ug/kg	98.8	494
100-51-6	Benzyl alcohol	U	494	ug/kg	148	494
95-50-1	1,2-Dichlorobenzene	U	494	ug/kg	98.8	494
108-60-1	bis(2-Chloroisopropyl)ether	U	494	ug/kg	98.8	494
95-48-7	o-Cresol	U	494	ug/kg	98.8	494
65794-96-9	m,p-Cresols	U	494	ug/kg	148	494
67-72-1	Hexachloroethane	U	494	ug/kg	98.8	494
98-95-3	Nitrobenzene	U	494	ug/kg	98.8	494
78-59-1	Isophorone	U	494	ug/kg	98.8	494
88-75-5	2-Nitrophenol	U	494	ug/kg	98.8	494
105-67-9	2,4-Dimethylphenol	U	494	ug/kg	173	494
111-91-1	bis(2-Chloroethoxy)methane	U	494	ug/kg	98.8	494
120-83-2	2,4-Dichlorophenol	U	494	ug/kg	98.8	494
65-85-0	Benzoic acid	U	988	ug/kg	247	988
91-20-3	Naphthalene	J	20.8	ug/kg	14.8	49.4
106-47-8	4-Chloroaniline	U	494	ug/kg	98.8	494
87-68-3	Hexachlorobutadiene	U	494	ug/kg	98.8	494
91-57-6	2-Methylnaphthalene	J	12.3	ug/kg	9.88	49.4
77-47-4	Hexachlorocyclopentadiene	U	494	ug/kg	98.8	494
88-06-2	2,4,6-Trichlorophenol	U	494	ug/kg	98.8	494
95-95-4	2,4,5-Trichlorophenol	U	494	ug/kg	98.8	494
91-58-7	2-Chloronaphthalene	U	49.4	ug/kg	16.3	49.4
88-74-4	2-Nitroaniline	U	494	ug/kg	98.8	494
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	494	ug/kg	98.8	494

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959008**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**32.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7314**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 18:23**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0714.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	494	ug/kg	98.8	494
606-20-2	2,6-Dinitrotoluene	U	494	ug/kg	49.4	494
208-96-8	Acenaphthylene	U	49.4	ug/kg	14.8	49.4
51-28-5	2,4-Dinitrophenol	U	988	ug/kg	188	988
132-64-9	Dibenzofuran	U	494	ug/kg	98.8	494
84-66-2	Diethylphthalate	U	494	ug/kg	98.8	494
86-73-7	Fluorene	U	49.4	ug/kg	14.8	49.4
7005-72-3	4-Chlorophenylphenylether	U	494	ug/kg	98.8	494
534-52-1	2-Methyl-4,6-dinitrophenol	U	494	ug/kg	98.8	494
100-01-6	4-Nitroaniline	U	494	ug/kg	148	494
	p-Nitroaniline					
122-39-4	Diphenylamine	U	494	ug/kg	98.8	494
122-66-7	Azobenzene	U	494	ug/kg	98.8	494
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	494	ug/kg	98.8	494
118-74-1	Hexachlorobenzene	U	494	ug/kg	98.8	494
85-01-8	Phenanthrene		235	ug/kg	14.8	49.4
120-12-7	Anthracene	U	49.4	ug/kg	9.88	49.4
84-74-2	Di-n-butylphthalate	U	494	ug/kg	98.8	494
206-44-0	Fluoranthene		311	ug/kg	14.8	49.4
85-68-7	Butylbenzylphthalate	U	494	ug/kg	98.8	494
56-55-3	Benzo(a)anthracene	U	49.4	ug/kg	14.8	49.4
91-94-1	3,3'-Dichlorobenzidine	U	494	ug/kg	148	494
218-01-9	Chrysene		91.9	ug/kg	14.8	49.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	494	ug/kg	98.8	494
117-84-0	Di-n-octylphthalate	U	494	ug/kg	98.8	494
205-99-2	Benzo(b)fluoranthene		120	ug/kg	14.8	49.4
207-08-9	Benzo(k)fluoranthene	J	46.3	ug/kg	14.8	49.4
50-32-8	Benzo(a)pyrene	U	49.4	ug/kg	14.8	49.4
193-39-5	Indeno(1,2,3-cd)pyrene		173	ug/kg	14.8	49.4
53-70-3	Dibenzo(a,h)anthracene	U	49.4	ug/kg	14.8	49.4
191-24-2	Benzo(ghi)perylene	J	25.4	ug/kg	14.8	49.4
120-82-1	1,2,4-Trichlorobenzene	U	494	ug/kg	98.8	494

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	833	ug/kg		JA
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.6	306	ug/kg	99	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0714.d
Lab Smp Id: 245959008 Client Smp ID: RE15-10-7314
Inj Date : 07-FEB-2010 18:23
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959008|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	32.60000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	286077	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1081345	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	613814	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1071206	40.0000	
* 91 Chrysene-d12	240	12.636	12.646	(1.000)	713165	40.0000	
* 98 Perylene-d12	264	14.980	14.990	(1.000)	408352	40.0000	
$ 3 2-Fluorophenol	112	3.710	3.697	(0.763)	423977	59.1815	2920
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	505090	55.8607	2760
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	240183	31.3990	1550
$ 39 2-Fluorobiphenyl	172	7.262	7.265	(0.907)	480697	30.3883	1500
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	94644	52.8278	2610
$ 81 p-Terphenyl-d14	244	11.321	11.324	(0.896)	464392	40.3785	1990

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
79 Pyrene	202	11.178	11.186	(0.885)	81365	4.14795	205
30 Naphthalene	128	6.156	6.164	(1.003)	9097	0.42173	20.8(a)
34 2-Methylnaphthalene	142	6.882	6.885	(1.122)	3247	0.24945	12.3(a)
68 Phenanthrene	178	9.642	9.650	(1.002)	105328	4.75459	235
76 Fluoranthene	202	10.929	10.936	(1.136)	133618	6.29647	311
92 Chrysene	228	12.669	12.682	(1.003)	27405	1.85886	91.8
95 Benzo(b)fluoranthene	252	14.292	14.305	(0.954)	22026	2.43771	120
96 Benzo(k)fluoranthene	252	14.338	14.353	(0.957)	8424	0.93758	46.3(a)
99 Indeno(1,2,3-cd)pyrene	276	16.978	16.983	(1.133)	3782	3.50703	173
101 Benzo(ghi)perylene	276	17.493	17.500	(1.168)	3065	0.51407	25.4(aQ)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

ION RATIO REPORT

SV REPORT

Data file: s6b0714.d
Report Date: 02/08/2010 09:15
Lab. ID: 245959008 SampleType: SAMPLE
Injection Date: 07-FEB-2010 18:23
Operator: nagl Instrument: MSD6.i
Sample Info: |245959008|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline			CAS#: 62-53-3			
66	23478	4.47	4.55	80-120	100	(T)
93	648	4.53	4.55	217-277	3	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	35105	5.39	5.24	80-120	100	(T)
42	21289	5.39	5.24	39- 99	61	(T)
22 Isophorone			CAS#: 78-59-1			
82	240183	5.39	5.66	80-120	100	(T)
138	5759	6.14	5.66	0- 49	2	(T)
30 Naphthalene			CAS#: 91-20-3			
128	9097	6.16	6.16	80-120	100	( )
129	786	6.16	6.16	0- 41	9	( )
127	1143	6.16	6.16	0- 30	13	( )
34 2-Methylnaphthalene			CAS#: 91-57-6			
142	3247	6.88	6.88	80-120	100	( )
141	2552	6.88	6.88	55-115	79	( )
43 Dimethylphthalate			CAS#: 131-11-3			
163	109957	8.01	7.70	80-120	100	(T)
164	613814	8.01	7.70	0- 40	558	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	79817	8.01	8.21	80-120	100	(T)
89	1100	8.01	8.21	43-103	1	(QT)
63	616	8.01	8.21	18- 78	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	3240	8.22	8.12	80-120	100	(T)
109	197	8.20	8.13	36- 96	6	(QT)
65	255	8.23	8.12	60-120	8	(QT)
53 Fluorene			CAS#: 86-73-7			
166	5616	8.85	8.60	80-120	100	(T)
165	5849	8.86	8.60	62-122	104	(T)
167	1867	8.85	8.60	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	224	8.86	8.65	80-120	100	(T)
105	576	8.85	8.65	11- 71	257	(QT)
51	517	8.85	8.65	23- 83	231	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	105328	9.64	9.65	80-120	100	( )
179	16828	9.64	9.65	0- 46	16	( )
176	20189	9.64	9.65	0- 49	19	( )
69 Anthracene			CAS#: 120-12-7			
178	105328	9.64	9.71	80-120	100	(T)
179	16828	9.64	9.70	0- 46	16	(T)
176	20189	9.64	9.71	0- 49	19	(T)
76 Fluoranthene			CAS#: 206-44-0			
202	133618	10.93	10.94	80-120	100	( )
203	23638	10.93	10.94	0- 48	18	( )
101	17217	10.93	10.94	0- 43	13	( )
79 Pyrene			CAS#: 129-00-0			
202	81365	11.18	11.19	80-120	100	( )
200	16482	11.18	11.19	0- 51	20	( )
101	12244	11.18	11.19	0- 45	15	( )
89 Benzo(a)anthracene			CAS#: 56-55-3			
228	11260	12.62	12.63	80-120	100	( )
226	2833	12.62	12.63	0- 56	25	( )
229	1703	12.62	12.63	0- 50	15	( )
92 Chrysene			CAS#: 218-01-9			
228	27405	12.67	12.68	80-120	100	( )
229	6007	12.67	12.68	0- 50	22	( )
226	8842	12.67	12.68	0- 59	32	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	22026	14.29	14.30	80-120	100	( )
253	2347	14.29	14.30	0- 52	11	( )
125	1012	14.29	14.30	0- 43	5	( )
96 Benzo(k)fluoranthene				CAS#: 207-08-9		
252	8424	14.34	14.35	80-120	100	( )
253	1627	14.34	14.35	0- 52	19	( )
125	389	14.33	14.35	0- 43	5	( )
97 Benzo(a)pyrene				CAS#: 50-32-8		
252	4862	14.78	14.89	80-120	100	(T)
253	703	14.78	14.89	0- 52	14	(T)
125	613	14.78	14.89	0- 30	13	(T)
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	3782	16.98	16.98	80-120	100	( )
138	279	16.98	16.98	7- 67	7	( )
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	187	17.01	17.01	80-120	100	( )
139	118	16.99	17.01	0- 30	63	(Q)
101 Benzo(ghi)perylene				CAS#: 191-24-2		
276	3065	17.49	17.50	80-120	100	( )
138	1133	17.50	17.50	0- 30	37	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0714.d
Lab Smp Id: 245959008 Client Smp ID: RE15-10-7314
Inj Date : 07-FEB-2010 18:23
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959008|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	32.60000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1731347	40.000
* 46 Acenaphthene-d10	8.006	2589849	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.473	729887	16.8628713	833	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	========	==========	======

1,4-Methanoazulene, decahydro-4,8,8-trim CAS #: 475-20-7

7.603	401102	6.19499167	306	99	NIST05.L	60018	46

Data File: /chem/MSD6.i/s020710.b/s6b0714.d
Date : 07-FEB-2010 18:23
Client ID: RE15-10-7314
Sample Info: 1245959008|94913211|SVM11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

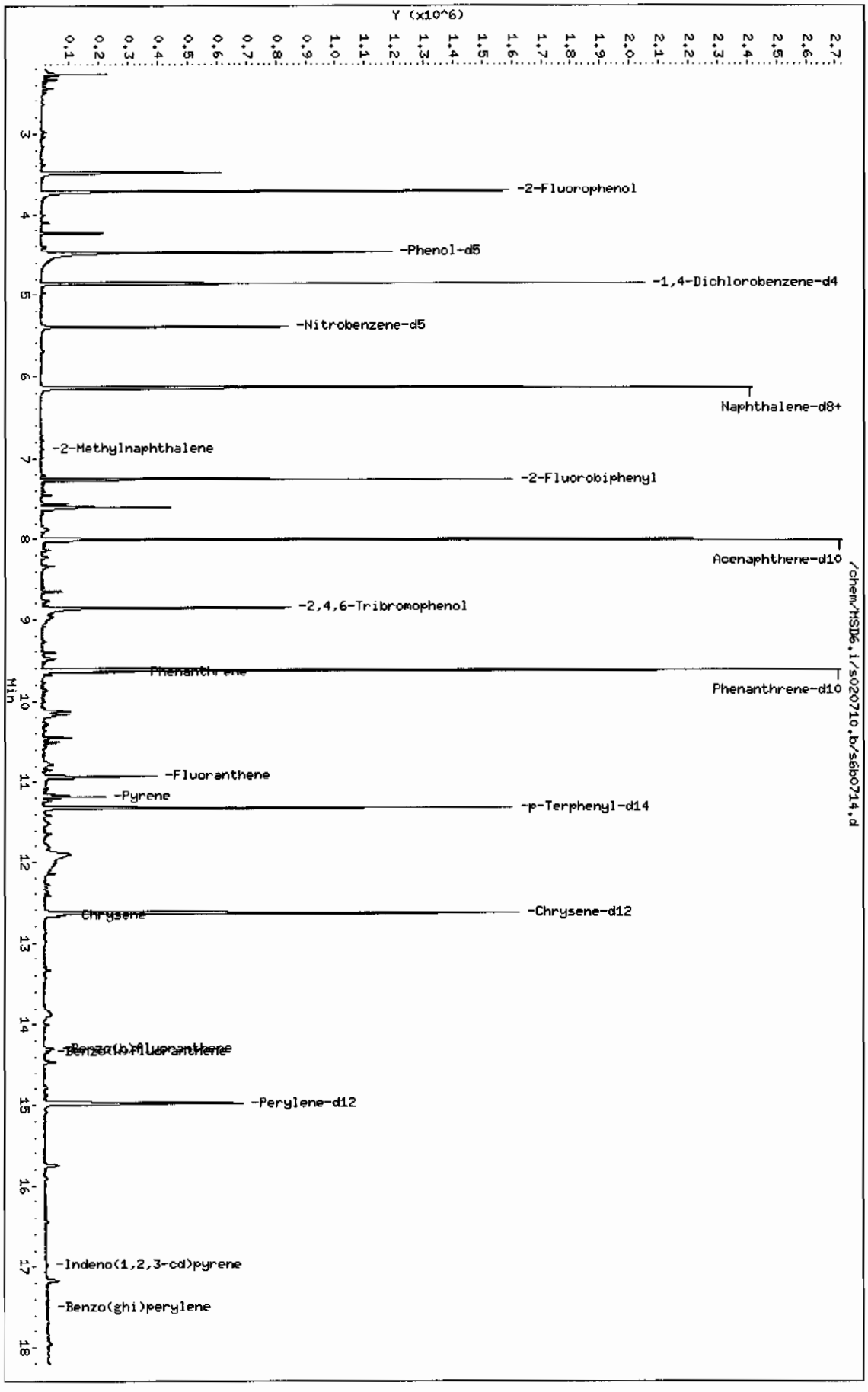

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314

Instrument: MSD6.i

Sample Info: 1245959008194913211ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

79 Pyrene

Concentration: 205 ug/Kg

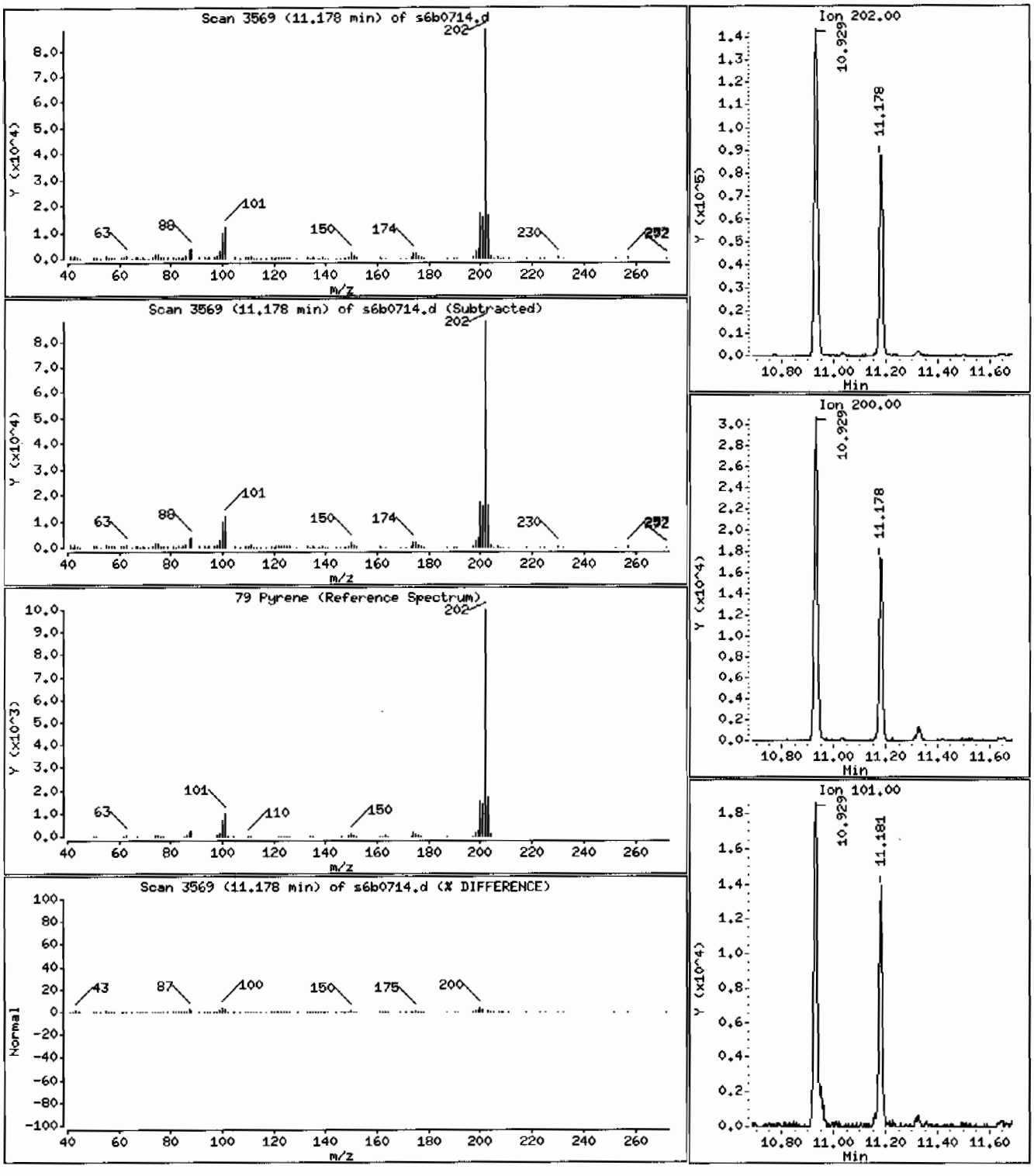

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314

Instrument: MSD6.i

Sample Info: 1245959008|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

30 Naphthalene

Concentration: 20.8 ug/Kg

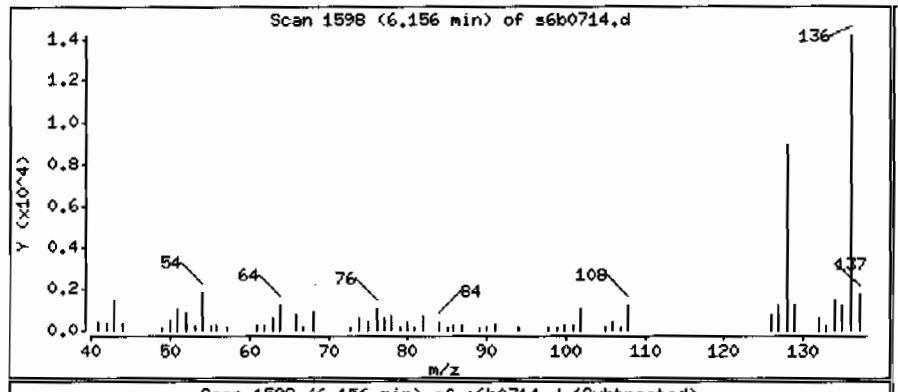

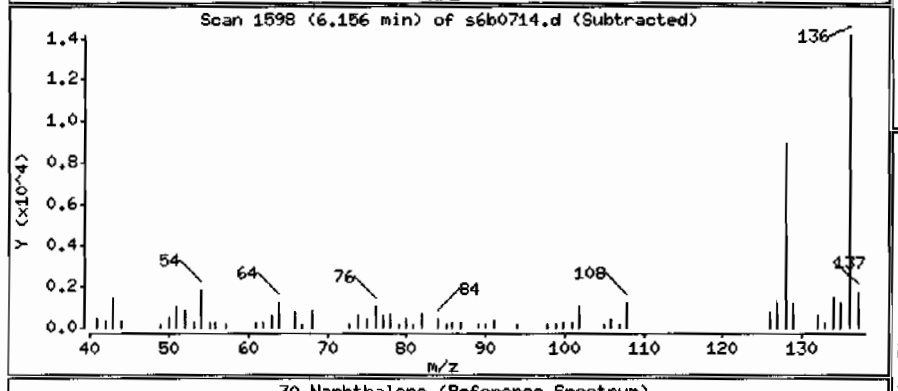

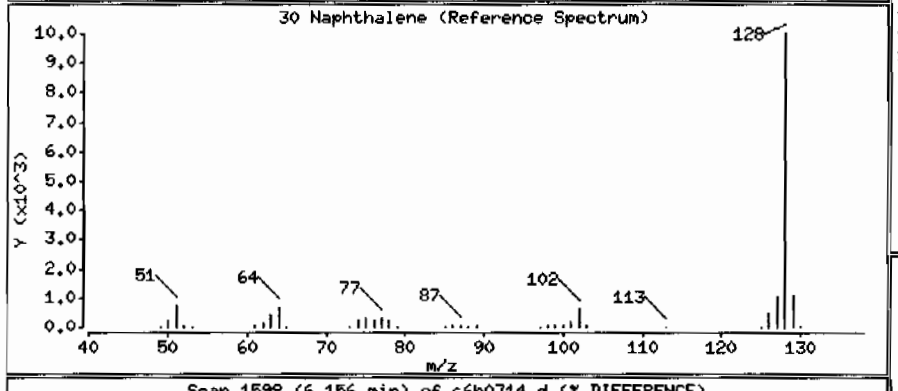

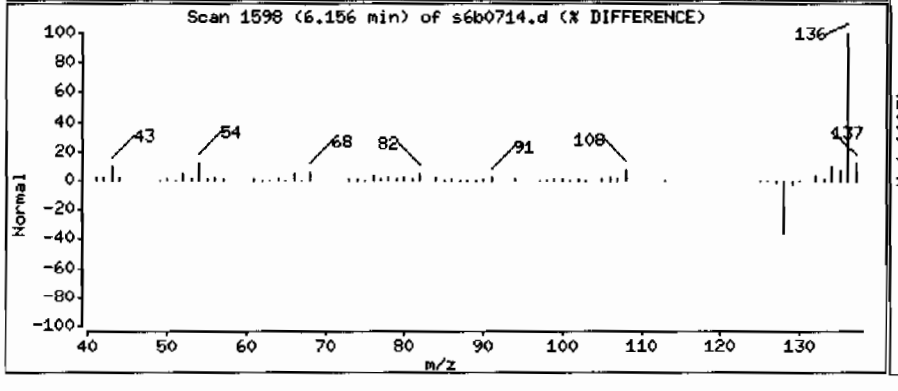

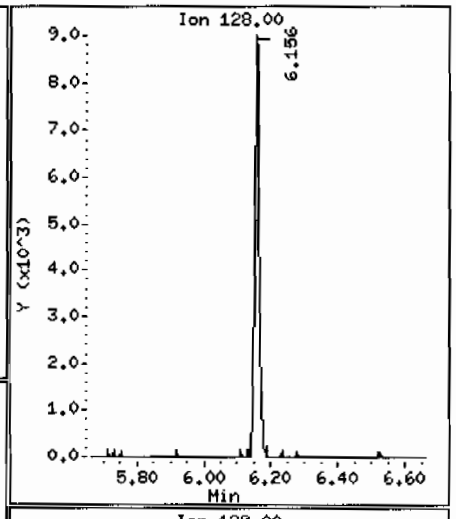

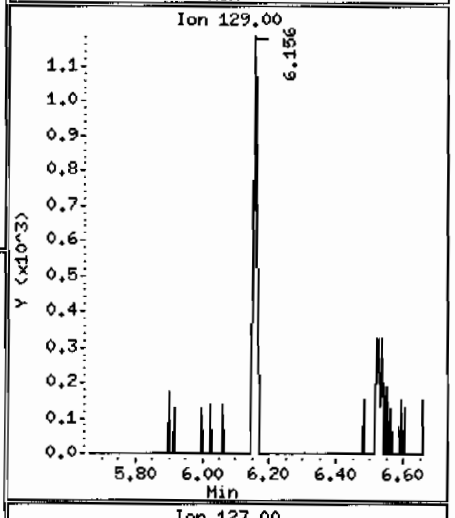

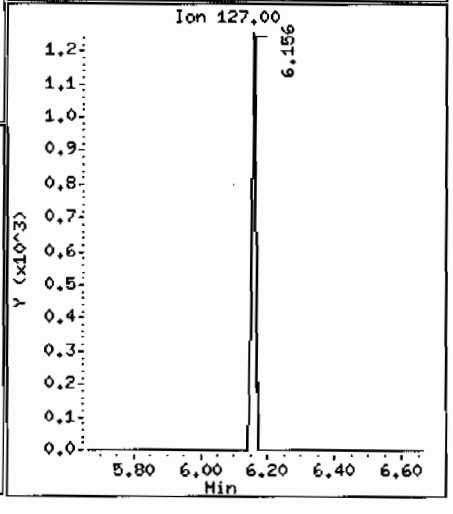

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314 Instrument: MSD6.i

Sample Info: 1245959008194913211|SVHI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

34 2-Methylnaphthalene Concentration: 12.3 ug/Kg

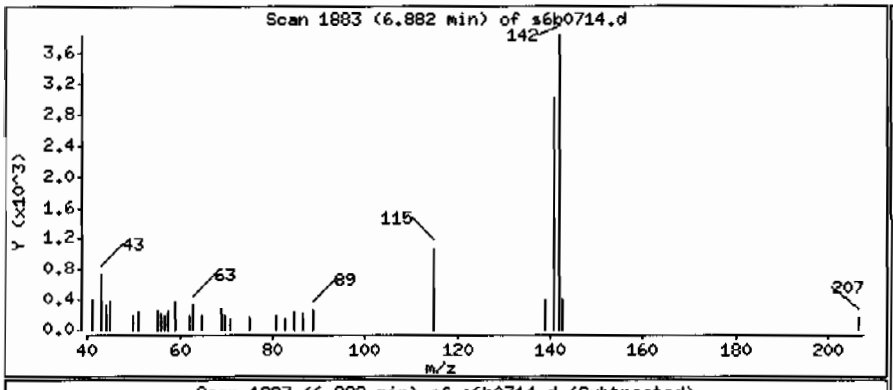

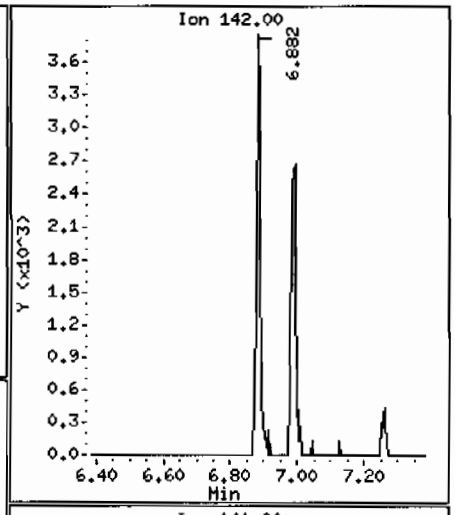

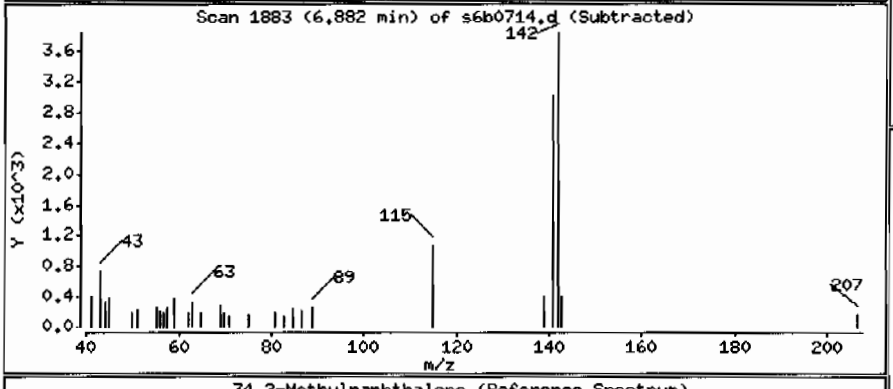

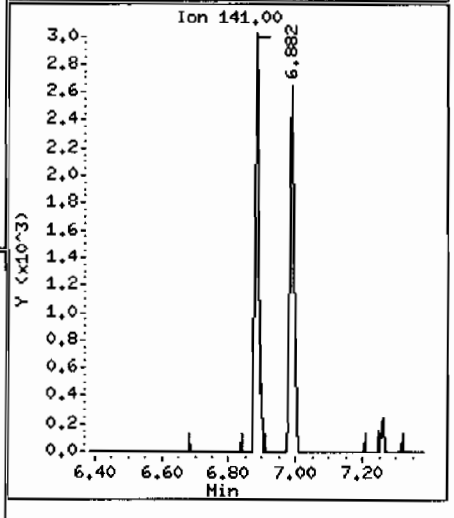

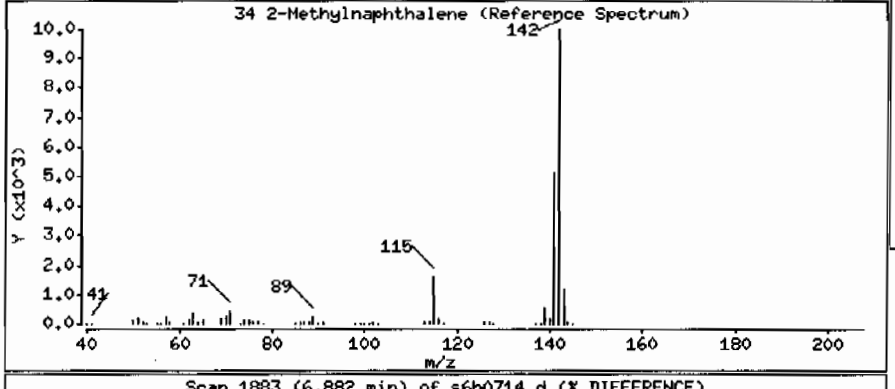

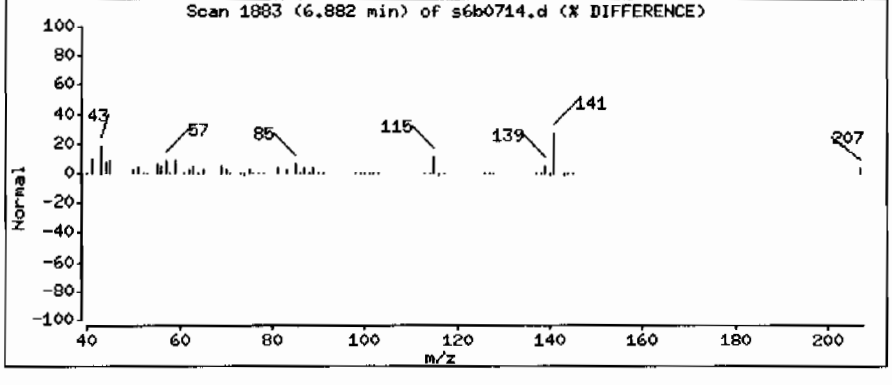

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314

Instrument: MSD6.i

Sample Info: |245959008|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

68 Phenanthrene

Concentration: 235 ug/Kg

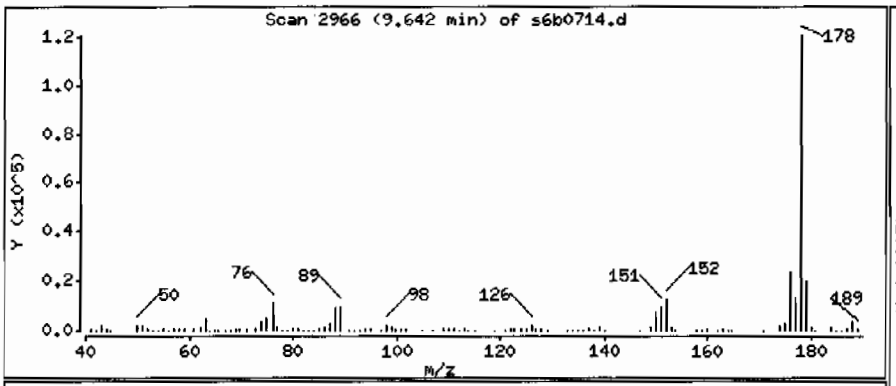

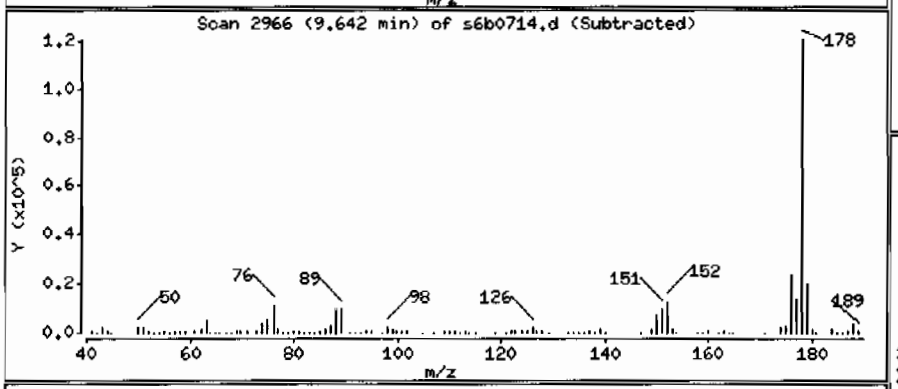

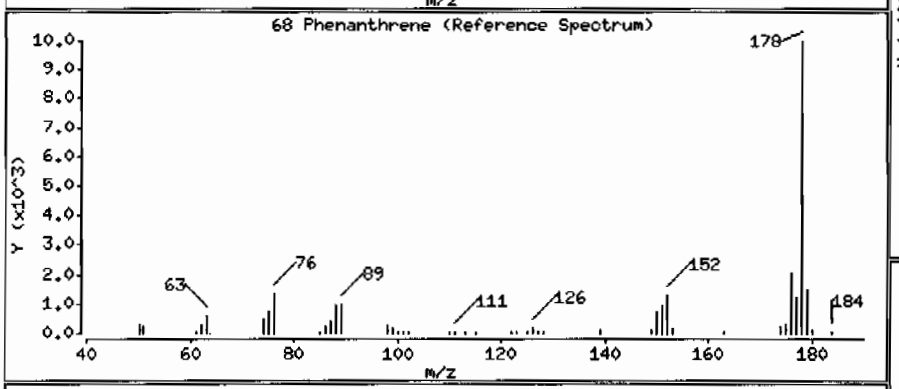

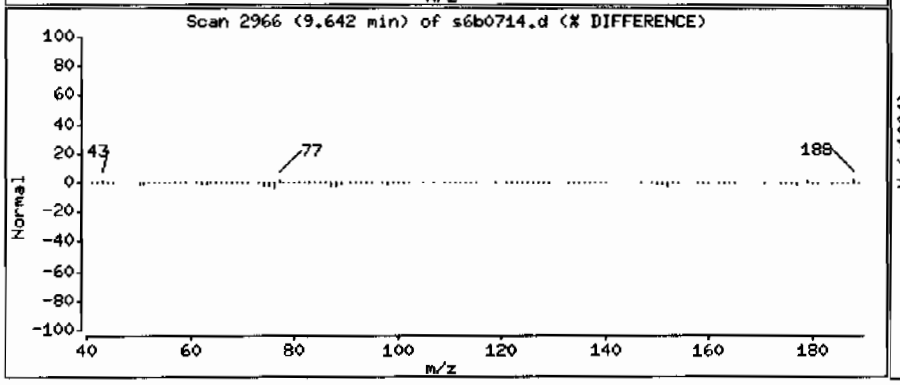

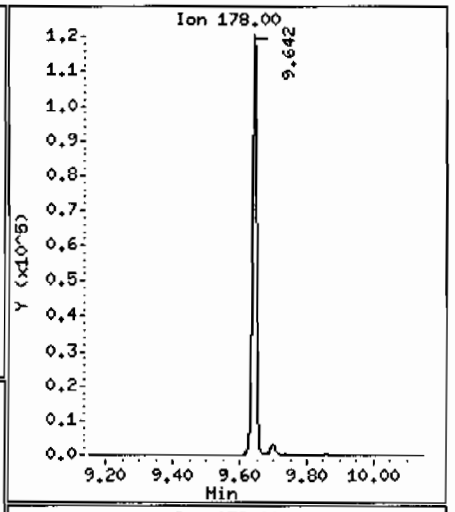

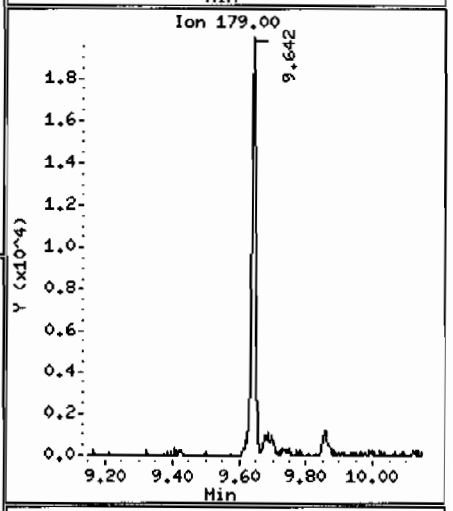

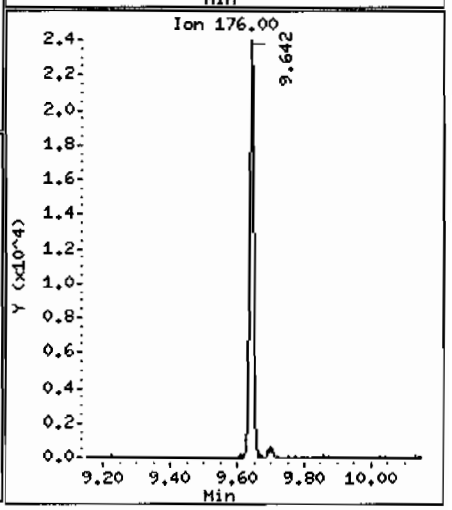

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314

Instrument: MSD6.i

Sample Info: |245959008|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

76 Fluoranthene

Concentration: 311 ug/Kg

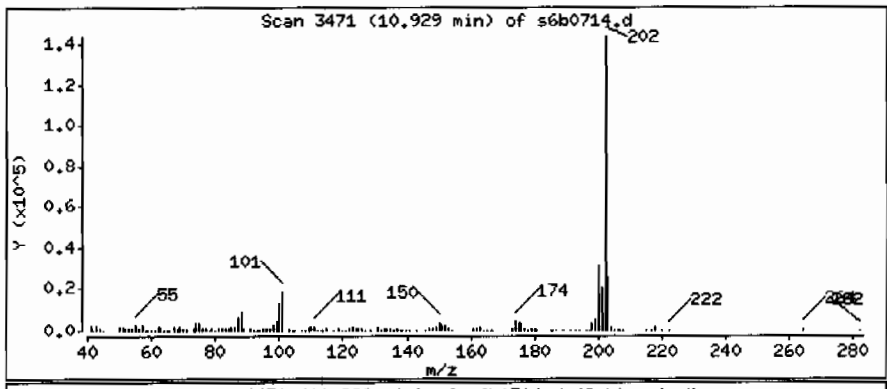

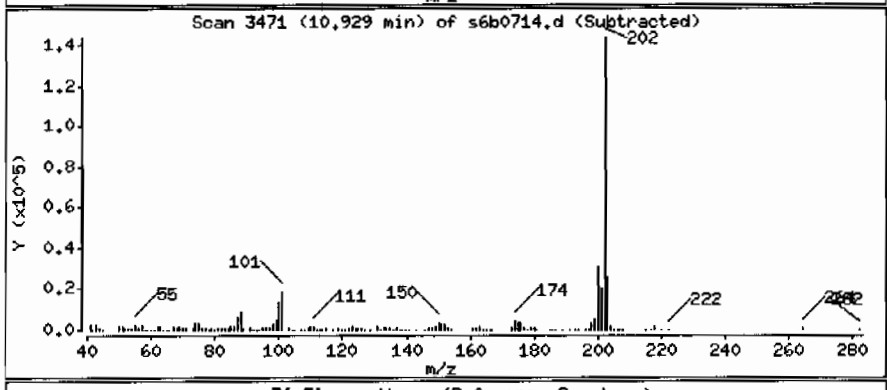

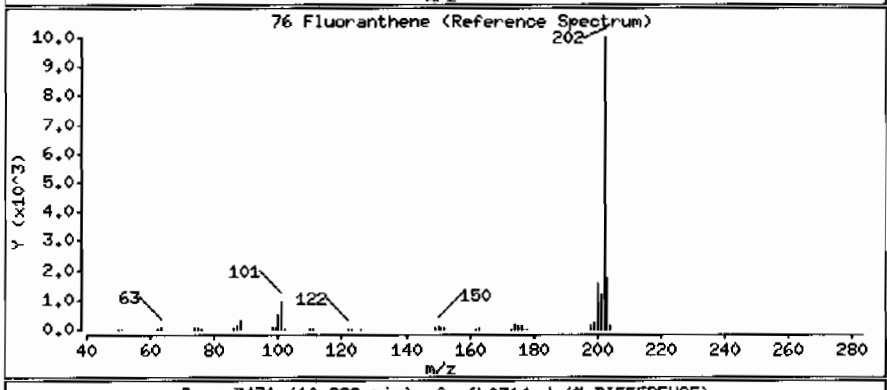

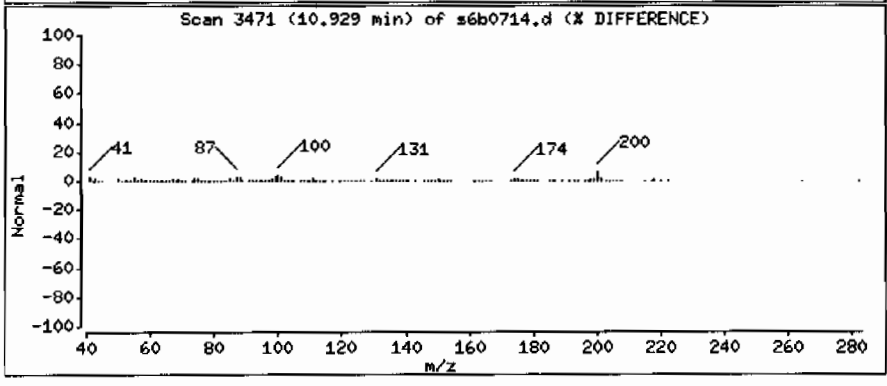

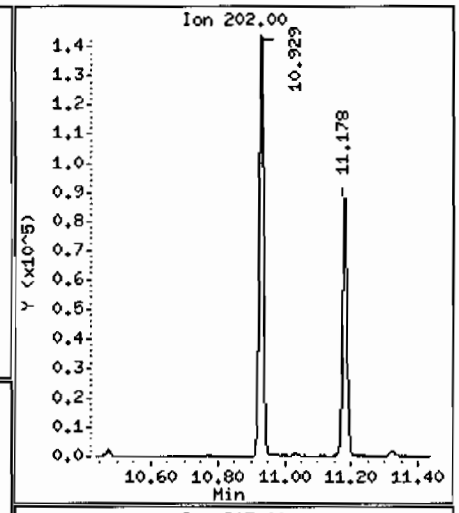

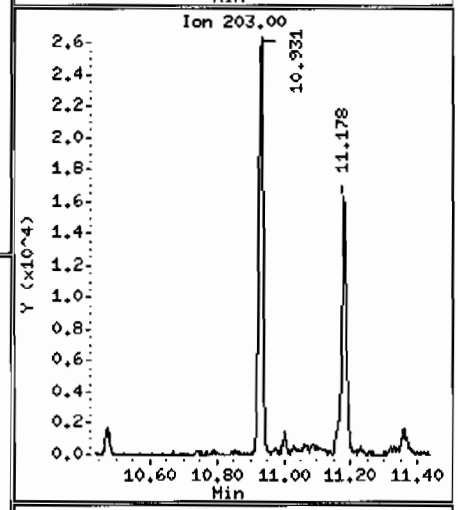

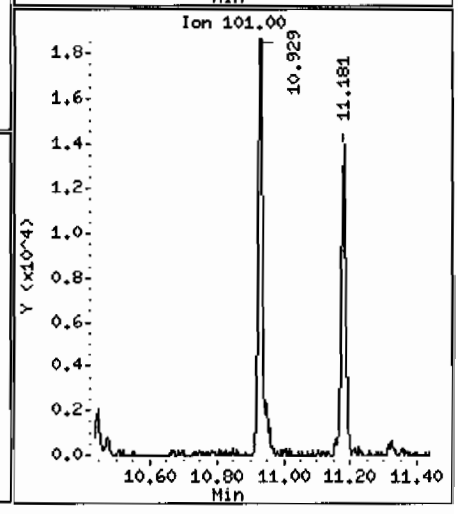

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314

Instrument: MSD6.i

Sample Info: 1245959008194913211ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

92 Chrysene

Concentration: 91.8 ug/Kg

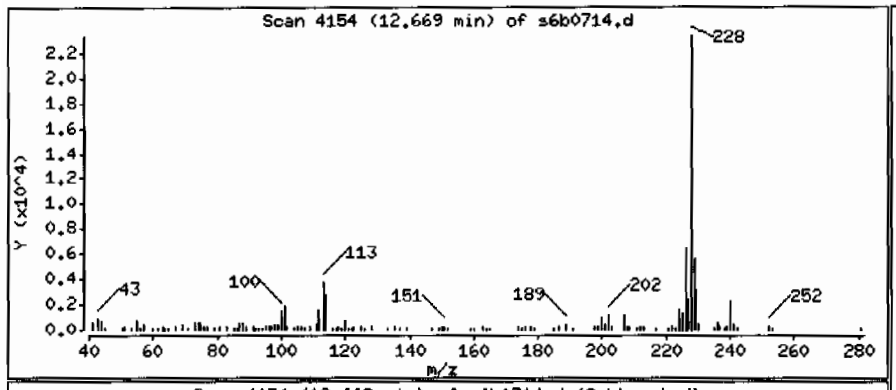

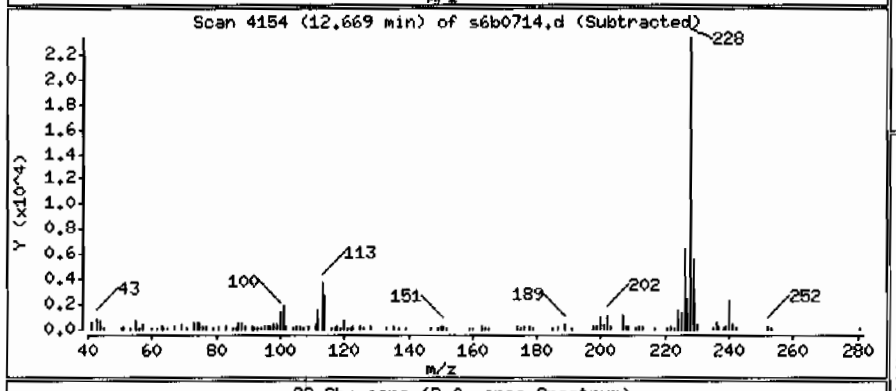

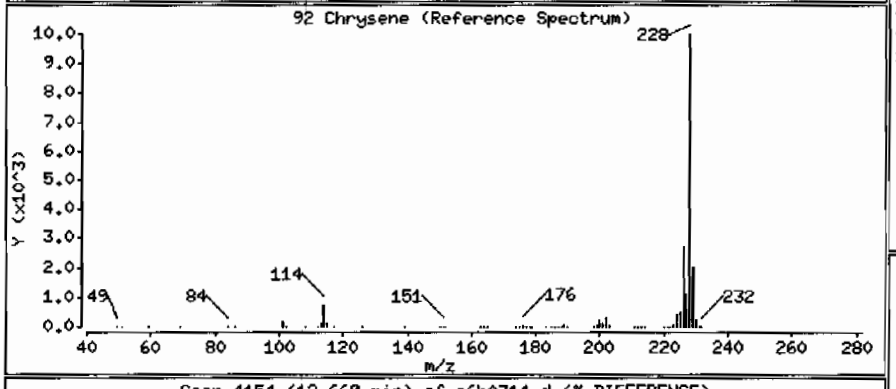

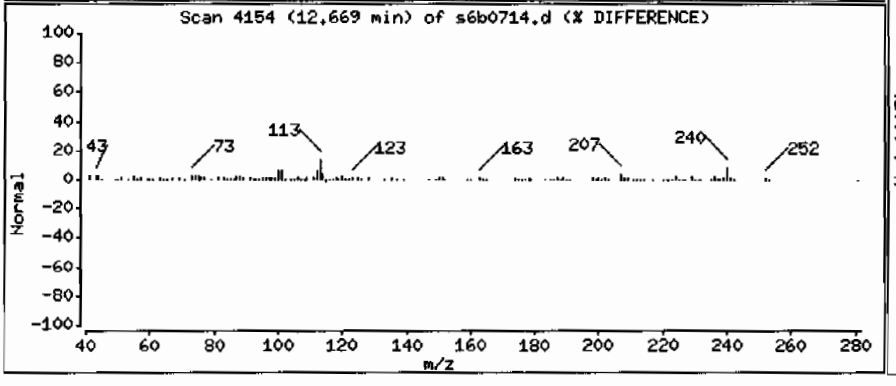

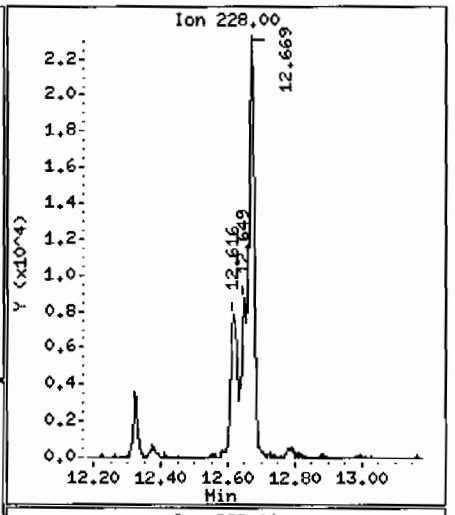

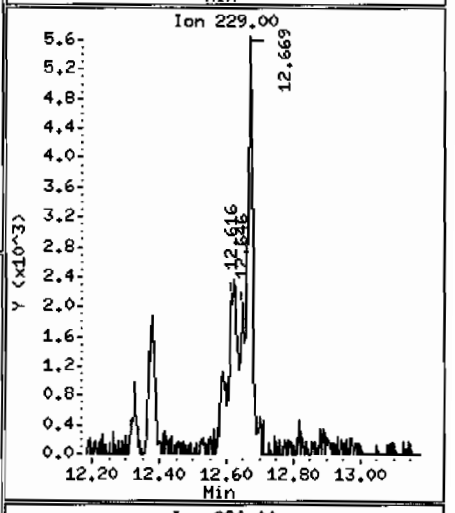

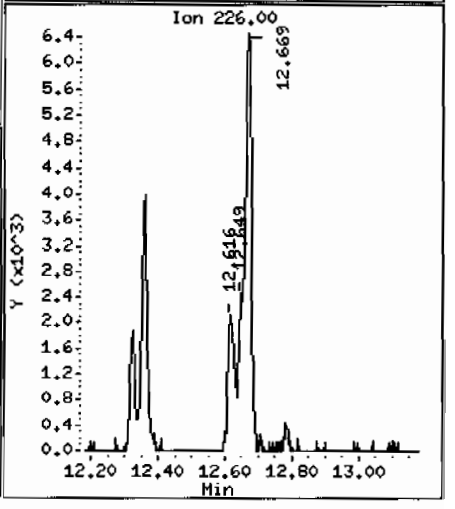

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314

Instrument: MSD6.i

Sample Info: |2459590081949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

95 Benzo(b)fluoranthene

Concentration: 120 ug/Kg

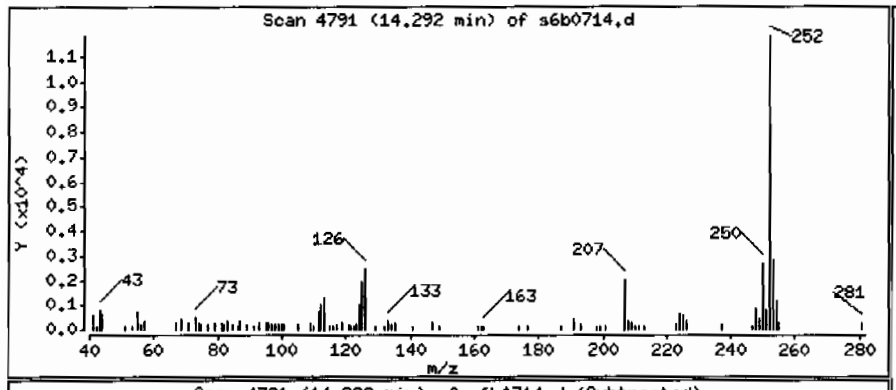

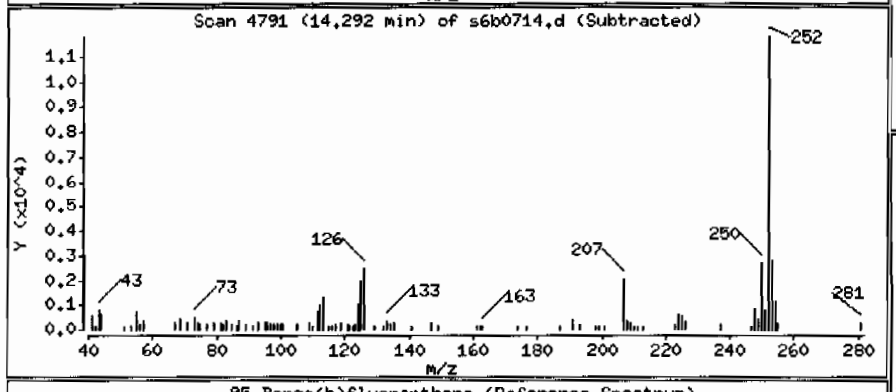

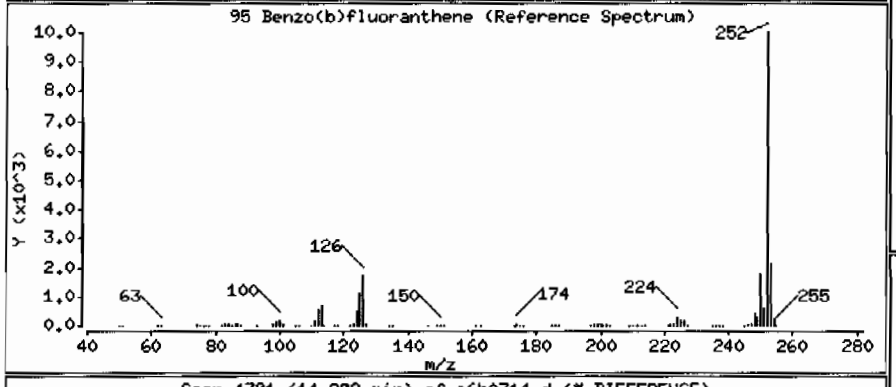

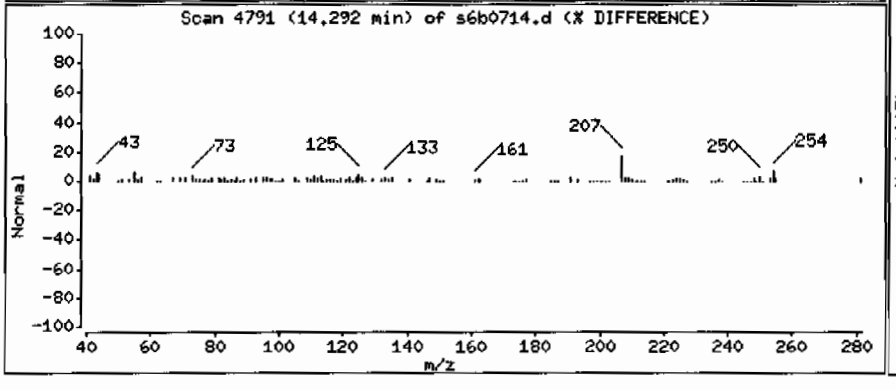

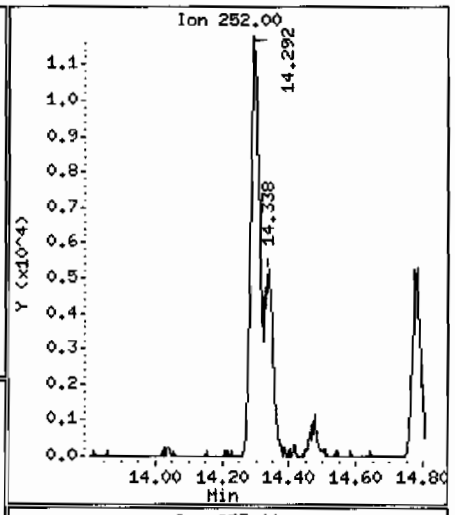

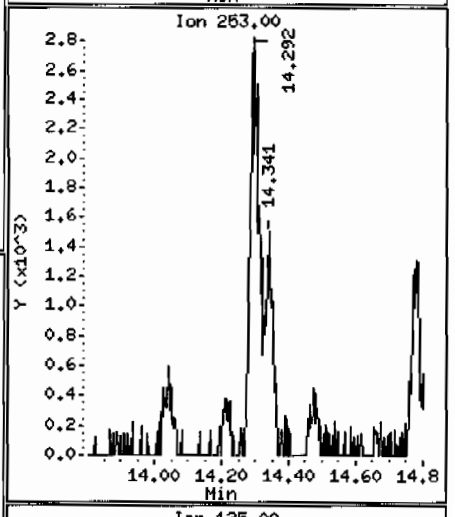

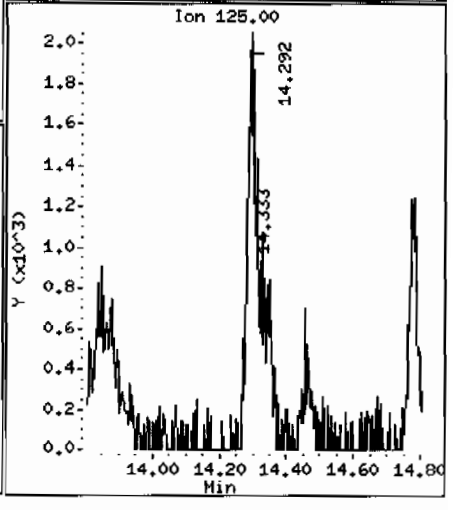

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314

Instrument: MSD6.i

Sample Info: |2459590081949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

96 Benzo(k)fluoranthene

Concentration: 46.3 ug/Kg

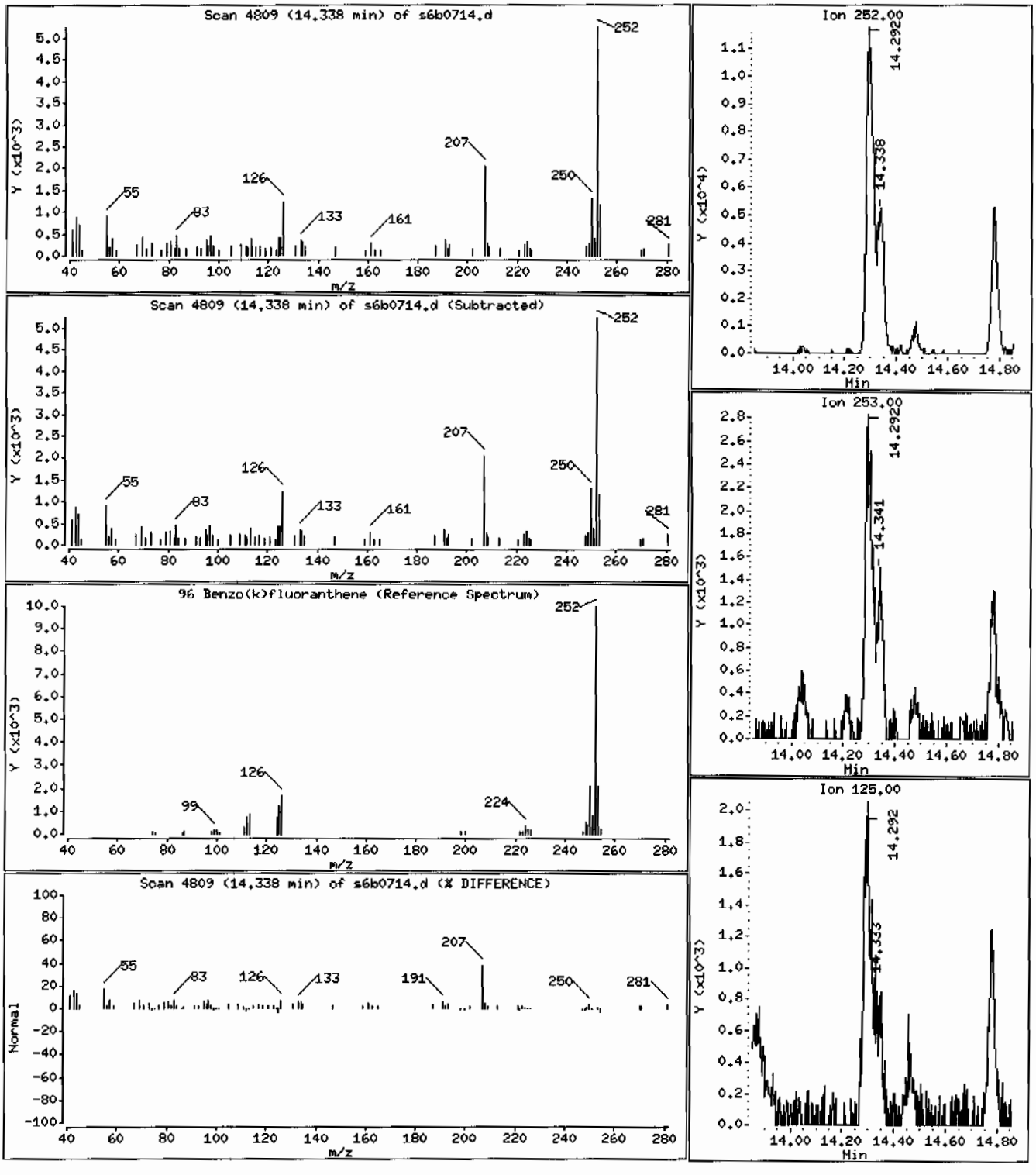

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314

Instrument: MSD6.i

Sample Info: |245959008|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

99 Indeno(1,2,3-cd)pyrene

Concentration: 173 ug/Kg

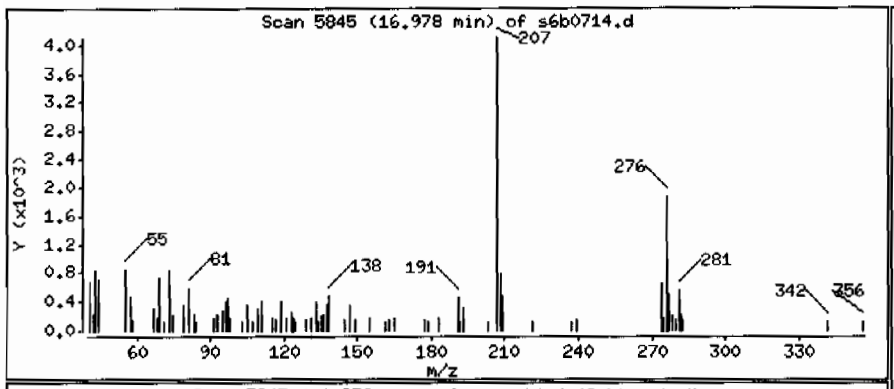

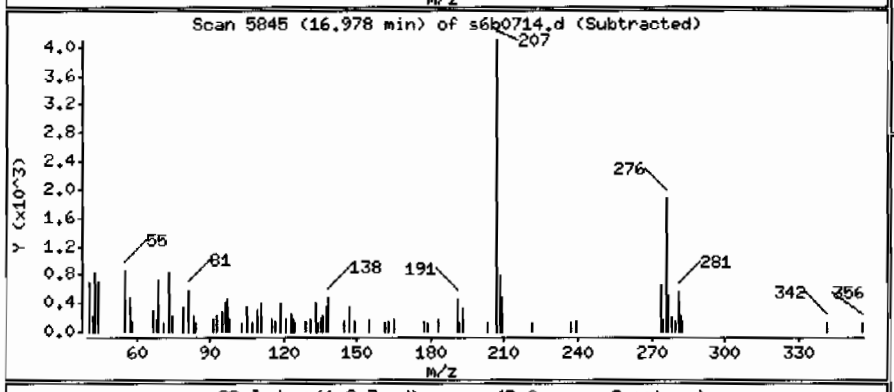

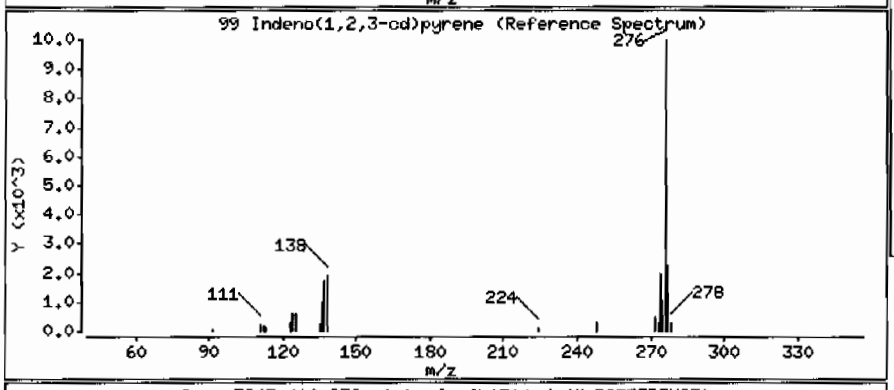

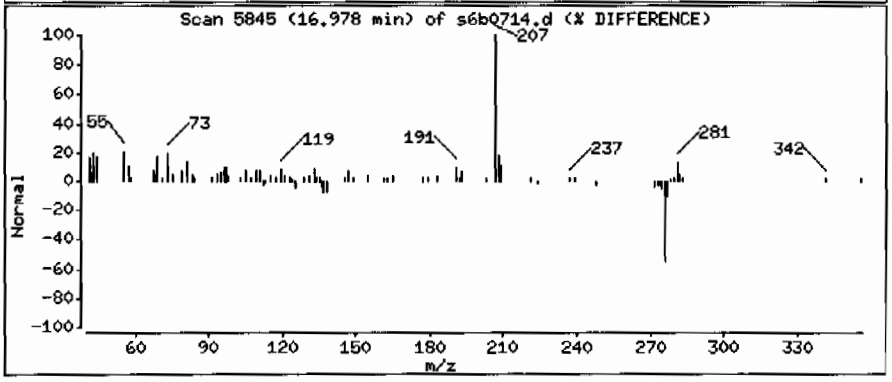

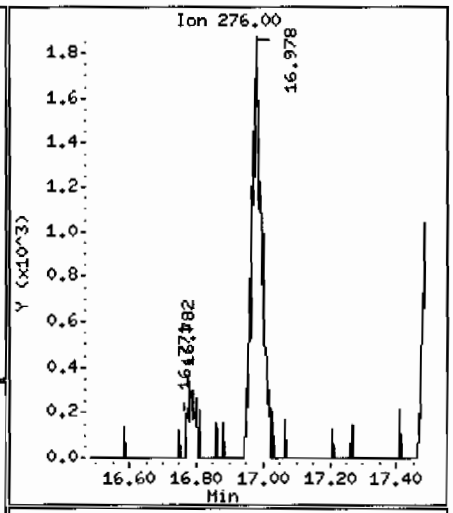

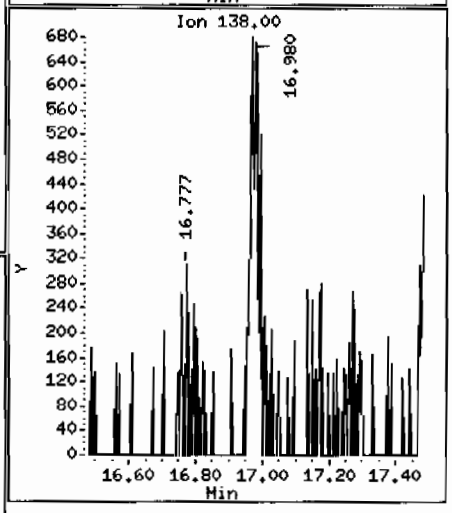

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314 Instrument: MSD6.i

Sample Info: 1245959008|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5HS Column diameter: 0.20

101 Benzo(ghi)perylene Concentration: 25.4 ug/Kg

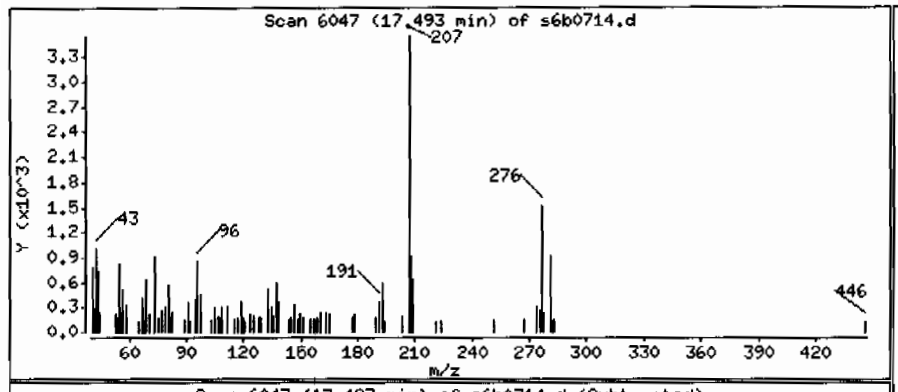

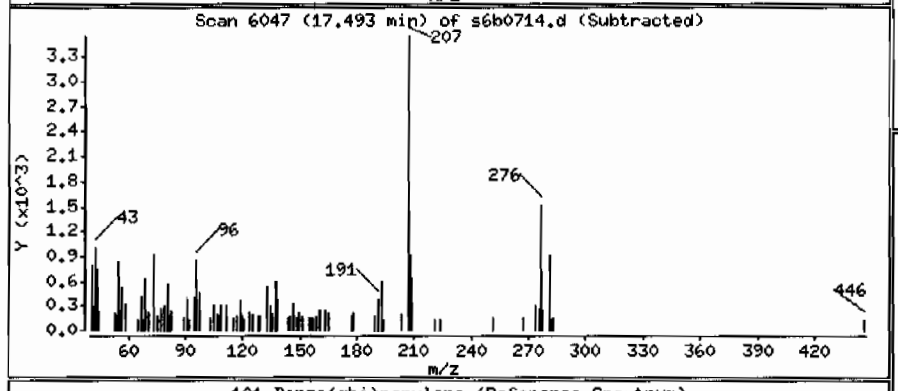

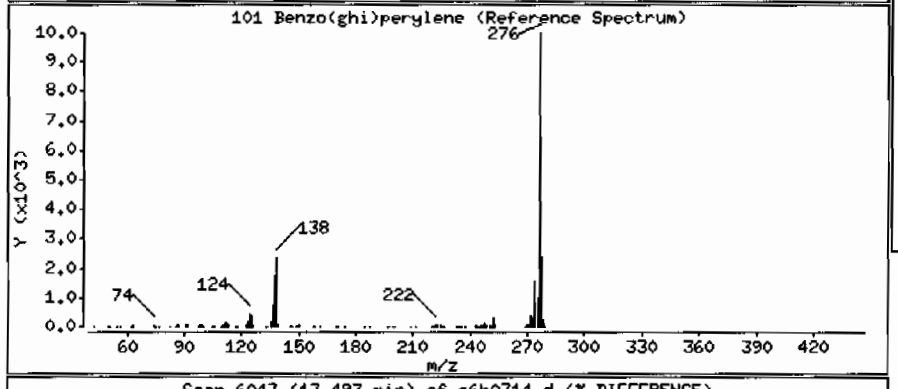

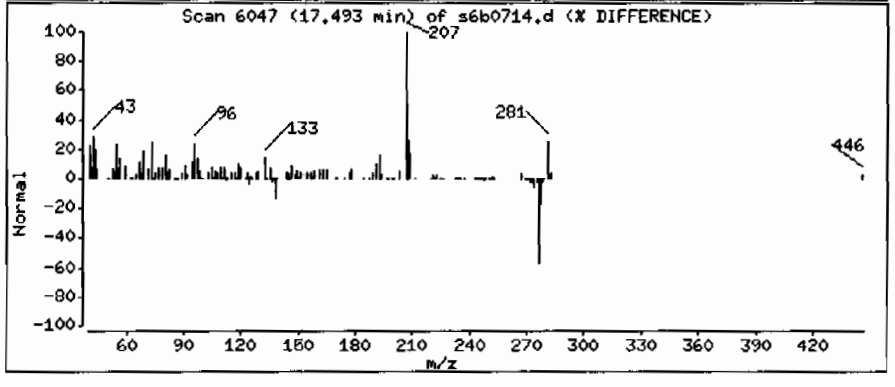

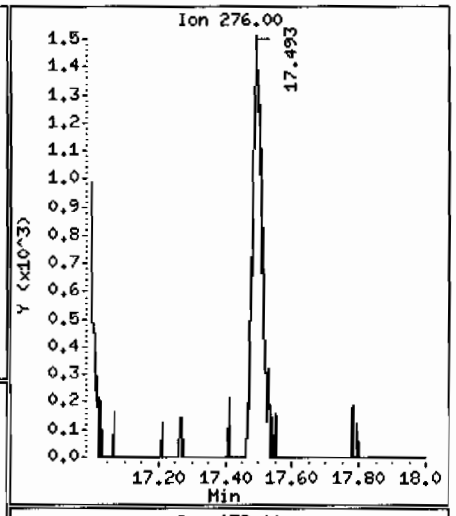

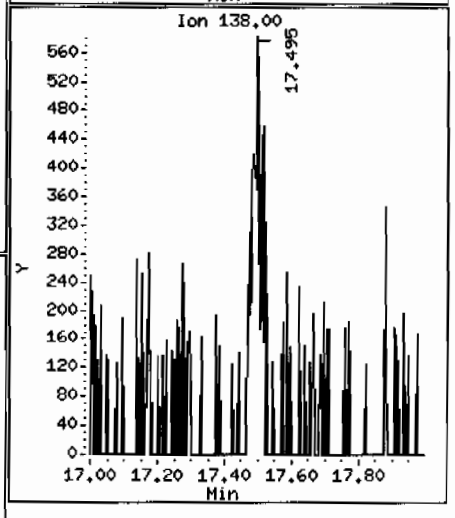

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314 Instrument: MSD6.i

Sample Info: 1245959008|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	28	C6H12O2	116

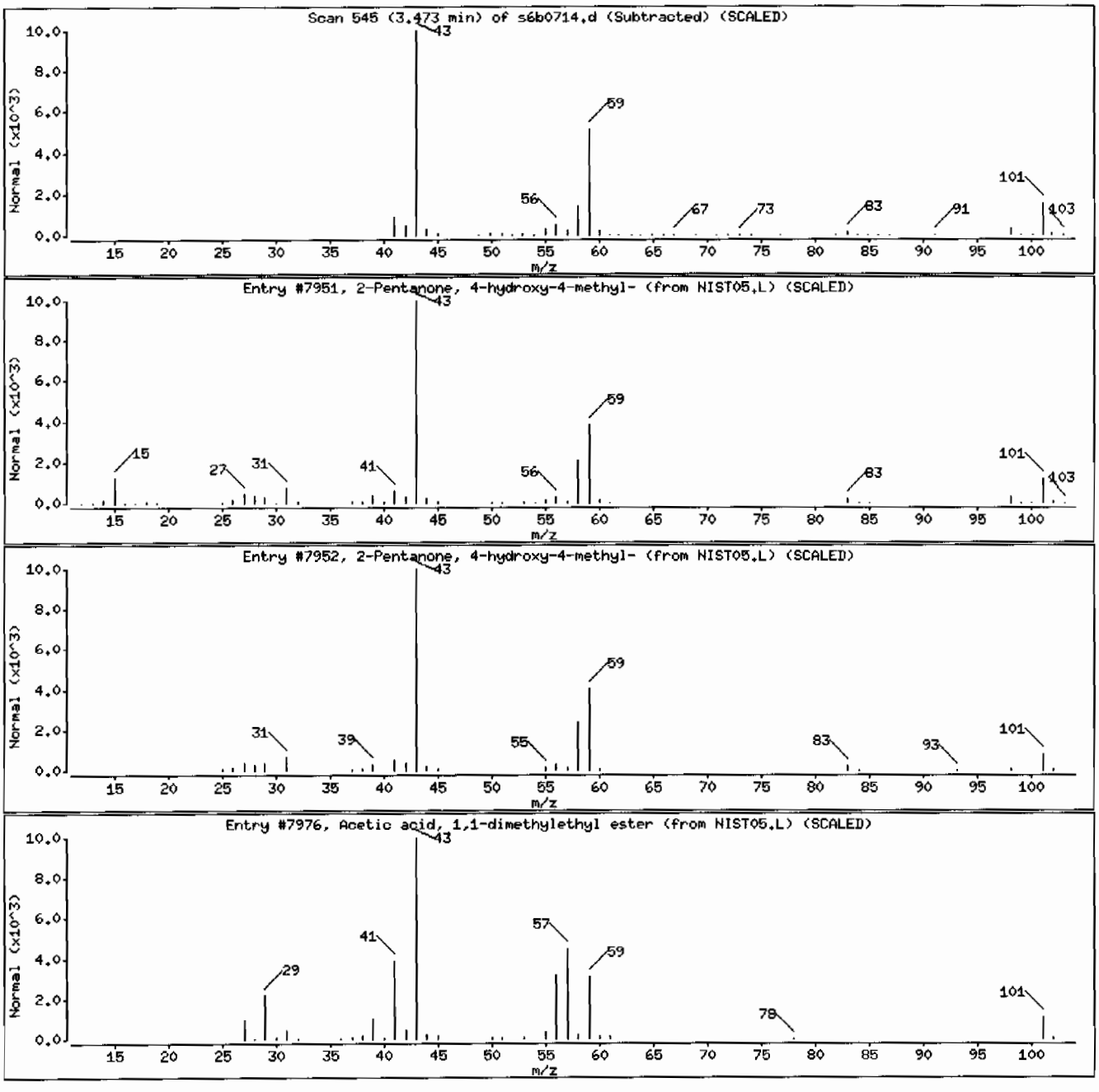

Data File: /chem/MSD6.i/s020710.b/s6b0714.d

Date : 07-FEB-2010 18:23

Client ID: RE15-10-7314 Instrument: MSD6.i

Sample Info: 1245959008|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60047	98	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	97	C15H24	204

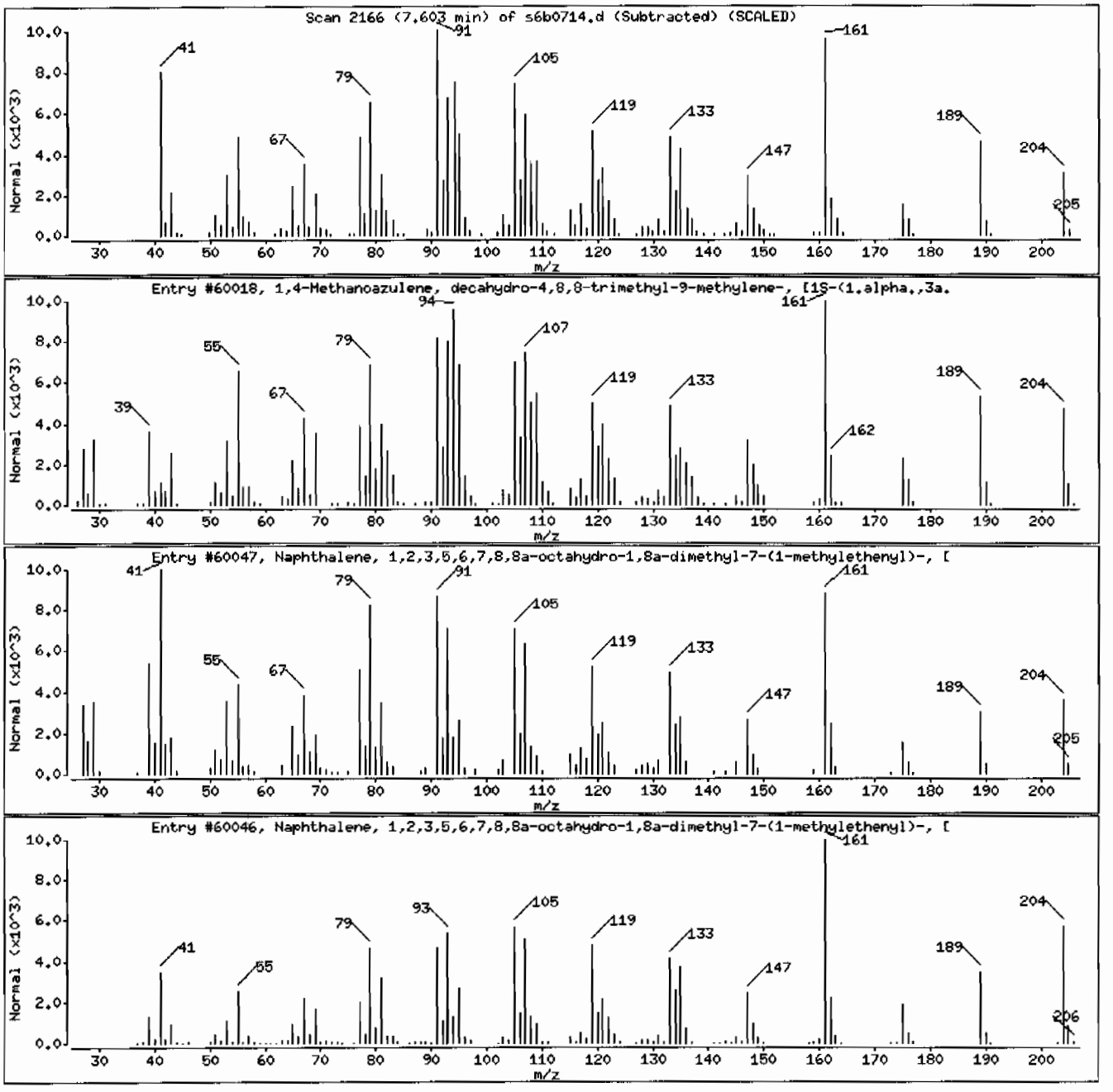

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	Date Collected:	01/28/2010 12:00	Matrix:	R
Lab Sample ID:	245959003	Date Received:	02/02/2010 09:10	%Moisture:	8.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7315	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	949132	Inst:	MSD6.I	Dilution:	1
Run Date:	02/07/2010 16:05	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/04/2010 20:55	Aliquot:	30.11 g	Final Volume:	1 mL
Data File:	s6b0709.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	365	ug/kg	72.9	365
108-95-2	Phenol	U	365	ug/kg	72.9	365
95-57-8	2-Chlorophenol	U	365	ug/kg	72.9	365
106-46-7	1,4-Dichlorobenzene	U	365	ug/kg	72.9	365
621-64-7	N-Nitrosodipropylamine	U	365	ug/kg	72.9	365
59-50-7	4-Chloro-3-methylphenol	U	365	ug/kg	72.9	365
83-32-9	Acenaphthene	U	36.5	ug/kg	12.0	36.5
121-14-2	2,4-Dinitrotoluene	U	365	ug/kg	36.5	365
100-02-7	4-Nitrophenol	U	365	ug/kg	120	365
87-86-5	Pentachlorophenol	U	365	ug/kg	91.2	365
129-00-0	Pyrene	U	36.5	ug/kg	10.9	36.5
110-86-1	Pyridine	U	365	ug/kg	72.9	365
62-53-3	Aniline	U	365	ug/kg	109	365
111-44-4	bis(2-Chloroethyl) ether	U	365	ug/kg	72.9	365
541-73-1	1,3-Dichlorobenzene	U	365	ug/kg	72.9	365
100-51-6	Benzyl alcohol	U	365	ug/kg	109	365
95-50-1	1,2-Dichlorobenzene	U	365	ug/kg	72.9	365
108-60-1	bis(2-Chloroisopropyl)ether	U	365	ug/kg	72.9	365
95-48-7	o-Cresol	U	365	ug/kg	72.9	365
65794-96-9	m,p-Cresols	U	365	ug/kg	109	365
67-72-1	Hexachloroethane	U	365	ug/kg	72.9	365
98-95-3	Nitrobenzene	U	365	ug/kg	72.9	365
78-59-1	Isophorone	U	365	ug/kg	72.9	365
88-75-5	2-Nitrophenol	U	365	ug/kg	72.9	365
105-67-9	2,4-Dimethylphenol	U	365	ug/kg	128	365
111-91-1	bis(2-Chloroethoxy)methane	U	365	ug/kg	72.9	365
120-83-2	2,4-Dichlorophenol	U	365	ug/kg	72.9	365
65-85-0	Benzoic acid	U	729	ug/kg	182	729
91-20-3	Naphthalene	U	36.5	ug/kg	10.9	36.5
106-47-8	4-Chloroaniline	U	365	ug/kg	72.9	365
87-68-3	Hexachlorobutadiene	U	365	ug/kg	72.9	365
91-57-6	2-Methylnaphthalene	U	36.5	ug/kg	7.29	36.5
77-47-4	Hexachlorocyclopentadiene	U	365	ug/kg	72.9	365
88-06-2	2,4,6-Trichlorophenol	U	365	ug/kg	72.9	365
95-95-4	2,4,5-Trichlorophenol	U	365	ug/kg	72.9	365
91-58-7	2-Chloronaphthalene	U	36.5	ug/kg	12.0	36.5
88-74-4	2-Nitroaniline	U	365	ug/kg	72.9	365
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	365	ug/kg	72.9	365

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**8.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7315**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 16:05**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0709.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	365	ug/kg	72.9	365
606-20-2	2,6-Dinitrotoluene	U	365	ug/kg	36.5	365
208-96-8	Acenaphthylene	U	36.5	ug/kg	10.9	36.5
51-28-5	2,4-Dinitrophenol	U	729	ug/kg	139	729
132-64-9	Dibenzofuran	U	365	ug/kg	72.9	365
84-66-2	Diethylphthalate	U	365	ug/kg	72.9	365
86-73-7	Fluorene	U	36.5	ug/kg	10.9	36.5
7005-72-3	4-Chlorophenylphenylether	U	365	ug/kg	72.9	365
534-52-1	2-Methyl-4,6-dinitrophenol	U	365	ug/kg	72.9	365
100-01-6	4-Nitroaniline	U	365	ug/kg	109	365
	p-Nitroaniline					
122-39-4	Diphenylamine	U	365	ug/kg	72.9	365
122-66-7	Azobenzene	U	365	ug/kg	72.9	365
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	365	ug/kg	72.9	365
118-74-1	Hexachlorobenzene	U	365	ug/kg	72.9	365
85-01-8	Phenanthrene	U	36.5	ug/kg	10.9	36.5
120-12-7	Anthracene	U	36.5	ug/kg	7.29	36.5
84-74-2	Di-n-butylphthalate	U	365	ug/kg	72.9	365
206-44-0	Fluoranthene	J	12.3	ug/kg	10.9	36.5
85-68-7	Butylbenzylphthalate	U	365	ug/kg	72.9	365
56-55-3	Benzo(a)anthracene	U	36.5	ug/kg	10.9	36.5
91-94-1	3,3'-Dichlorobenzidine	U	365	ug/kg	109	365
218-01-9	Chrysene	U	36.5	ug/kg	10.9	36.5
117-81-7	bis(2-Ethylhexyl)phthalate	U	365	ug/kg	72.9	365
117-84-0	Di-n-octylphthalate	U	365	ug/kg	72.9	365
205-99-2	Benzo(b)fluoranthene	U	36.5	ug/kg	10.9	36.5
207-08-9	Benzo(k)fluoranthene	U	36.5	ug/kg	10.9	36.5
50-32-8	Benzo(a)pyrene	U	36.5	ug/kg	10.9	36.5
193-39-5	Indeno(1,2,3-cd)pyrene	U	36.5	ug/kg	10.9	36.5
53-70-3	Dibenzo(a,h)anthracene	U	36.5	ug/kg	10.9	36.5
191-24-2	Benzo(ghi)perylene	U	36.5	ug/kg	10.9	36.5
120-82-1	1,2,4-Trichlorobenzene	U	365	ug/kg	72.9	365

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	532	ug/kg		JA
5989-08-2	Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	7.56	197	ug/kg	89	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959003	**Date Received:**	02/02/2010 09:10	**%Moisture:**	8.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7315	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 16:05	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.11 g	**Final Volume:**	1 mL
Data File:	s6b0709.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
475-20-7	1,4-Methanoazulene, decahydro-4,8,8-trim	7.61	1490	ug/kg	99	NJ
514-95-4	1,5,5-Trimethyl-6-methylene-cyclohexene	7.88	154	ug/kg	86	NJ
511-15-9	2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	11.83	1770	ug/kg	97	NJ
	Unknown	11.91	151	ug/kg		J
	Unknown	11.95	162	ug/kg		J
	Unknown	13.33	258	ug/kg		J
	Unknown	17.17	244	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0709.d
Lab Smp Id: 245959003 Client Smp ID: RE15-10-7315
Inj Date : 07-FEB-2010 16:05
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959003|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	8.92000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	292356	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1097024	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	618575	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1076637	40.0000	
* 91 Chrysene-d12	240	12.636	12.646	(1.000)	810019	40.0000	
* 98 Perylene-d12	264	14.980	14.990	(1.000)	573129	40.0000	
$ 3 2-Fluorophenol	112	3.708	3.697	(0.763)	491757	67.1684	2450
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	618074	66.8881	2440
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	285311	36.7655	1340
$ 39 2-Fluorobiphenyl	172	7.262	7.265	(0.907)	552118	34.6347	1260
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	113957	63.1182	2300
$ 81 p-Terphenyl-d14	244	11.321	11.324	(0.896)	537844	41.1734	1500

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
76 Fluoranthene	202	10.931	10.936	(1.136)	7220	0.33851	12.3(aH)

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

ION RATIO REPORT

SV REPORT

Data file: s6b0709.d
Report Date: 02/08/2010 09:14
Lab. ID: 245959003 SampleType: SAMPLE
Injection Date: 07-FEB-2010 16:05
Operator: nagl Instrument: MSD6.i
Sample Info: |245959003|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
1 N-Methyl-N-nitrosomethylamine				CAS#: 62-75-9		
74	11331	2.27	2.74	80-120	100	(T)
42	25656	2.27	2.74	62-122	226	(QT)
43	163787	2.27	2.74	10- 70	1445	(QT)
4 Aniline				CAS#: 62-53-3		
66	30406	4.47	4.55	80-120	100	(T)
93	158	4.52	4.55	217-277	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	40407	5.40	5.24	80-120	100	(T)
42	25183	5.39	5.24	39- 99	62	(T)
22 Isophorone				CAS#: 78-59-1		
82	285311	5.39	5.66	80-120	100	(T)
138	5932	6.14	5.66	0- 49	2	(T)
40 2-Chloronaphthalene				CAS#: 91-58-7		
162	27896	7.61	7.41	80-120	100	(T)
164	978	7.60	7.41	3- 63	4	(T)
127	2213	7.61	7.41	8- 68	8	(T)
42 o-Nitroaniline				CAS#: 88-74-4		
65	36189	7.61	7.51	80-120	100	(T)
92	43784	7.61	7.51	36- 96	121	(QT)
138	2862	7.61	7.51	81-141	8	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 Dimethylphthalate			CAS#: 131-11-3			
163	110283	8.01	7.70	80-120	100	(T)
164	618575	8.01	7.70	0- 40	561	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	81156	8.01	8.21	80-120	100	(T)
89	576	8.00	8.21	43-103	1	(QT)
63	684	8.01	8.21	18- 78	1	(QT)
53 Fluorene			CAS#: 86-73-7			
166	8056	8.85	8.60	80-120	100	(T)
165	8172	8.85	8.60	62-122	101	(T)
167	2312	8.85	8.60	0- 44	29	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	166	8.86	8.65	80-120	100	(T)
105	712	8.86	8.65	11- 71	429	(QT)
51	567	8.85	8.65	23- 83	342	(QT)
56 p-Nitroaniline			CAS#: 100-01-6			
138	663	8.73	8.62	80-120	100	(T)
108	17673	8.74	8.62	32- 92	2663	(QT)
92	5220	8.74	8.62	12- 72	786	(QT)
61 4-Bromophenylphenylether			CAS#: 101-55-3			
248	8551	8.86	9.11	80-120	100	(T)
141	64999	8.85	9.11	48-108	760	(QT)
250	16054	8.85	9.11	67-127	188	(QT)
76 Fluoranthene			CAS#: 206-44-0			
202	7220	10.93	10.94	80-120	100	( )
203	1181	10.93	10.94	0- 48	16	( )
101	664	10.93	10.94	0- 43	9	( )
79 Pyrene			CAS#: 129-00-0			
202	7220	10.93	11.19	80-120	100	(T)
200	1502	10.93	11.19	0- 51	21	(T)
101	664	10.93	11.19	0- 45	9	(T)
99 Indeno(1,2,3-cd)pyrene			CAS#: 193-39-5			
276	642	16.98	16.98	80-120	100	( )
138	144	16.98	16.98	7- 67	22	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0709.d
Lab Smp Id: 245959003 Client Smp ID: RE15-10-7315
Inj Date : 07-FEB-2010 16:05
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959003|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.11000	weight of sample
M	8.92000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1743172	40.000
* 46 Acenaphthene-d10	8.006	2650208	40.000
* 91 Chrysene-d12	12.636	2263322	40.000
* 98 Perylene-d12	14.980	1629570	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.473	635485	14.5822585	532	0		0	10
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6					CAS #: 5989-08-2		
7.558	357135	5.39028576	196	89	NIST05.L	59909	46
1,4-Methanoazulene, decahydro-4,8,8-trim					CAS #: 475-20-7		
7.606	2700388	40.7573556	1490	99	NIST05.L	60024	46(L)
1,5,5-Trimethyl-6-methylene-cyclohexene					CAS #: 514-95-4		
7.879	280223	4.22945411	154	86	NIST05.L	15292	46
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa					CAS #: 511-15-9		
11.826	2747289	48.5532125	1770	97	NIST05.L	116239	91
Unknown					CAS #:		
11.912	234994	4.15308738	151	0		0	91
Unknown					CAS #:		
11.951	250737	4.43130921	162	0		0	91
Unknown					CAS #:		
13.334	400904	7.08523322	258	0		0	91
Unknown					CAS #:		
17.169	272750	6.69501008	244	0		0	98

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315

Sample Info: |245959003|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

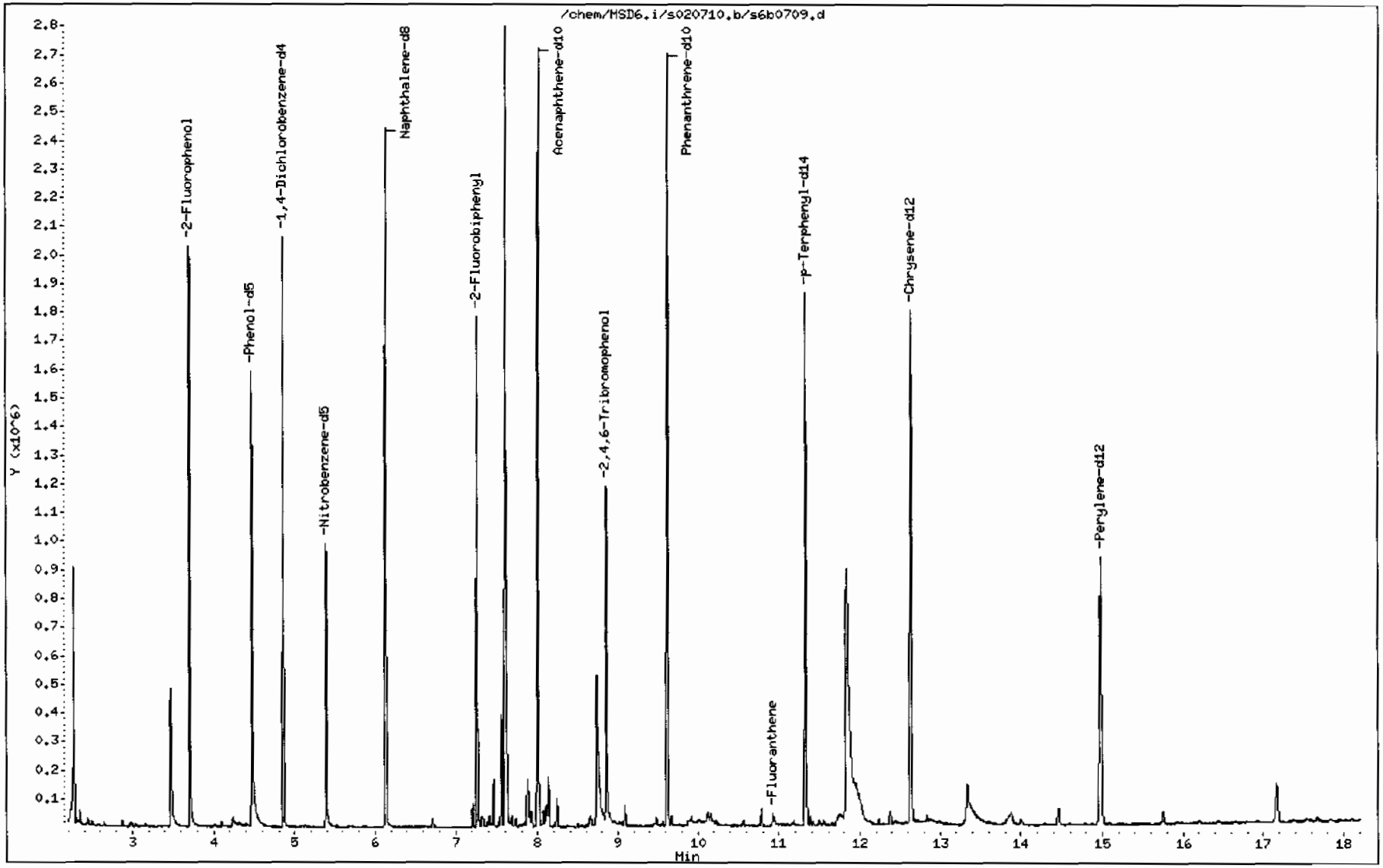

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: |2459590031949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

76 Fluoranthene Concentration: 12.3 ug/Kg

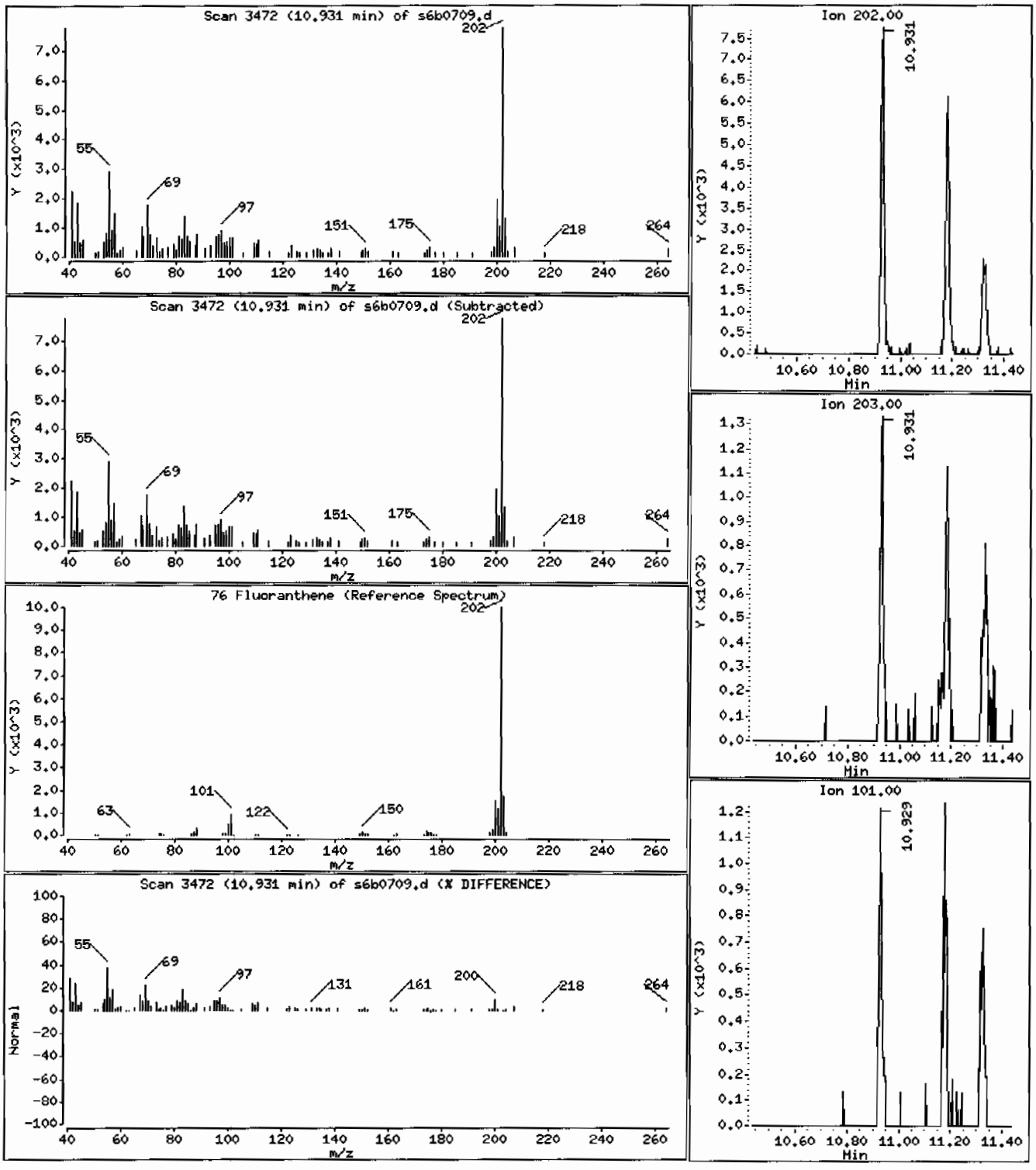

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: 1245959003|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7977	38	C6H12O2	116

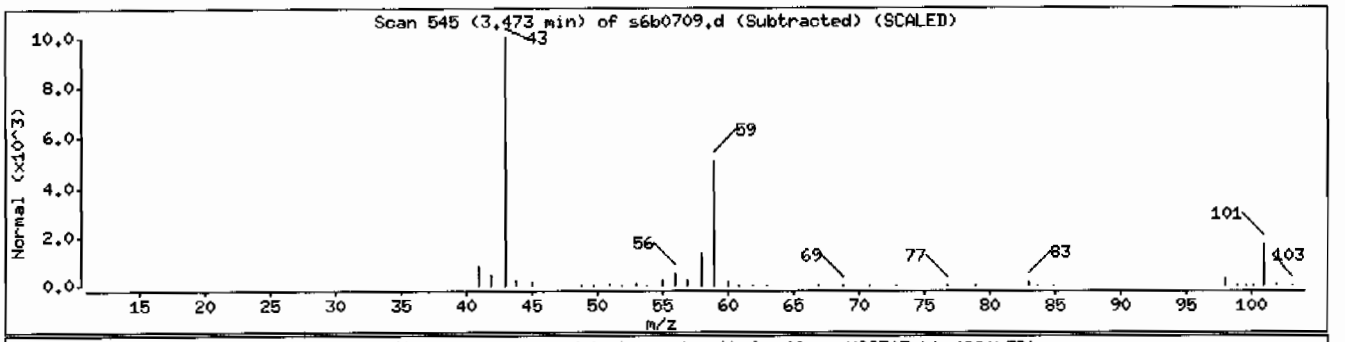

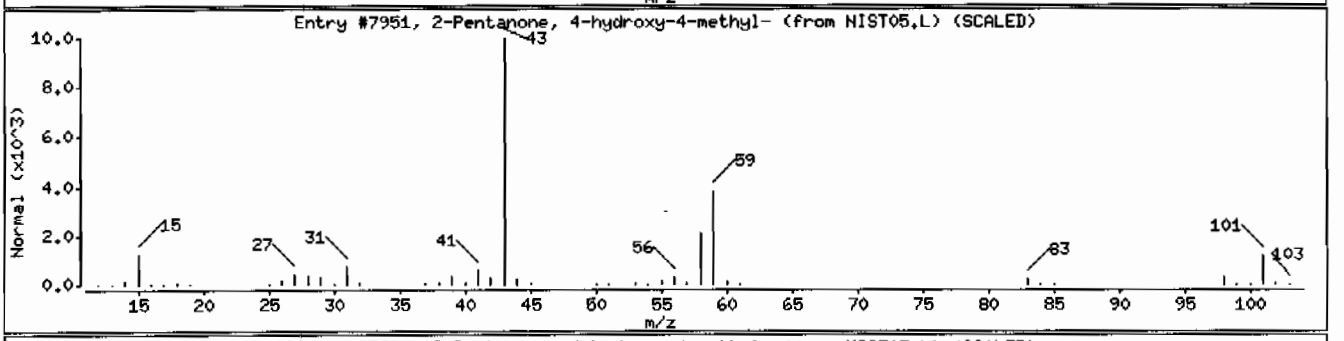

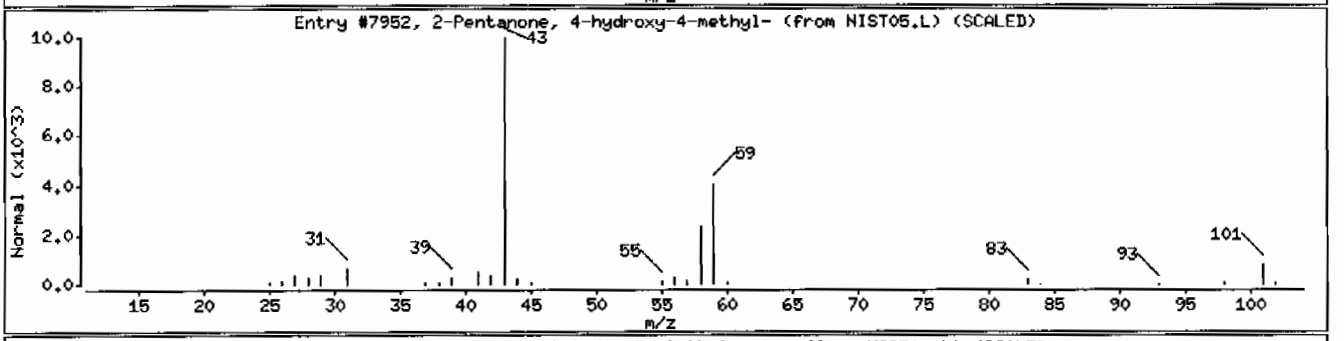

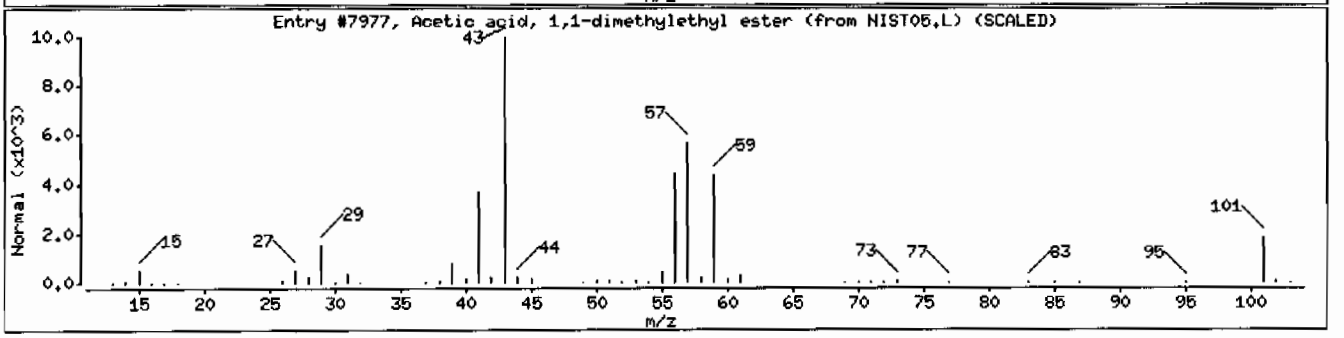

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: |245959003|949132|1|SVH|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	5989-08-2	NIST05.L	59909	89	C15H24	204
Tricyclo[5.4.0.0(2,8)]undec-9-ene, 2,6,6	5989-08-2	NIST05.L	59907	86	C15H24	204
1H-Benzocycloheptene, 2,4a,5,6,7,8-hexah	1461-03-6	NIST05.L	59959	58	C15H24	204

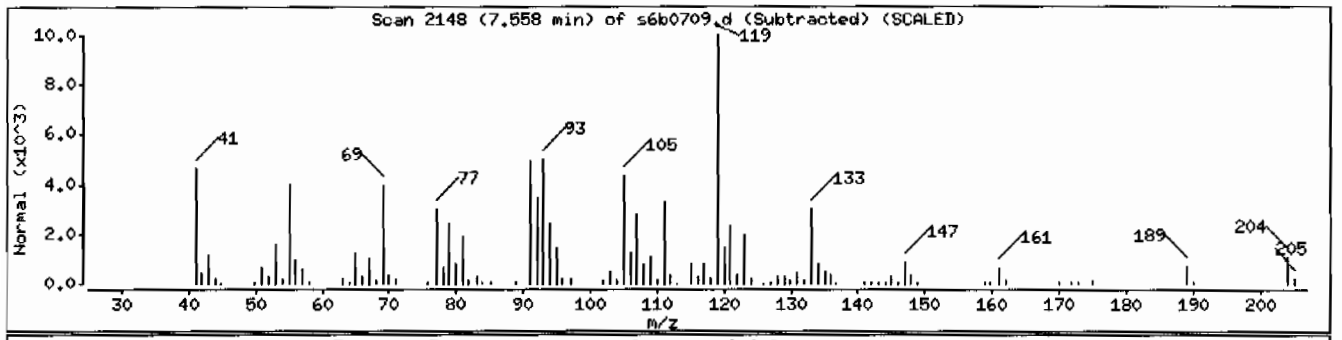

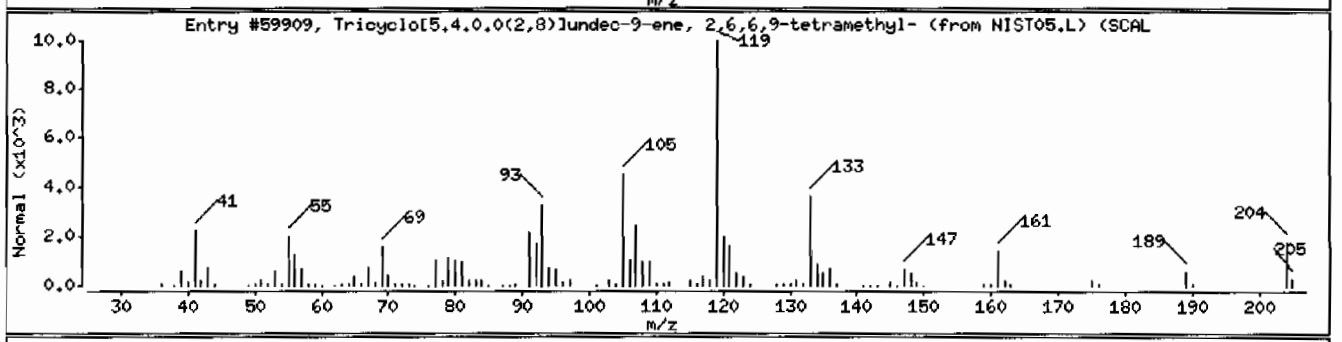

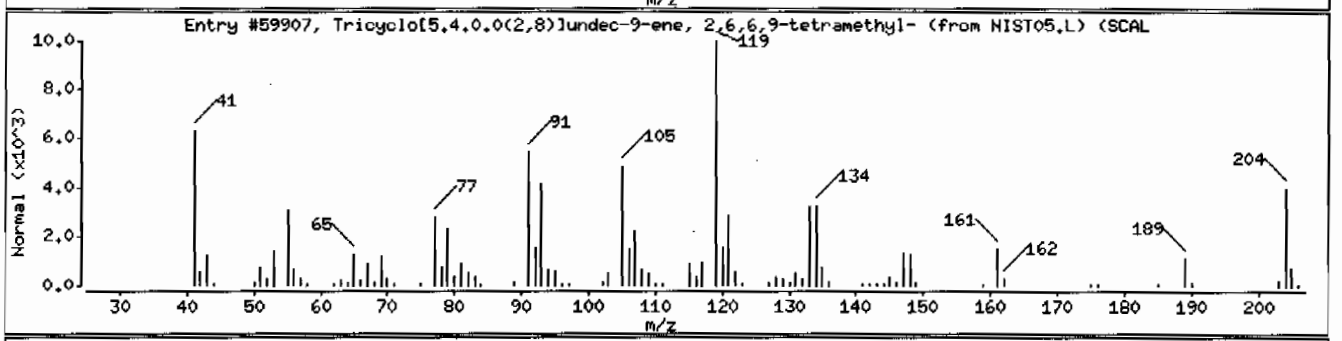

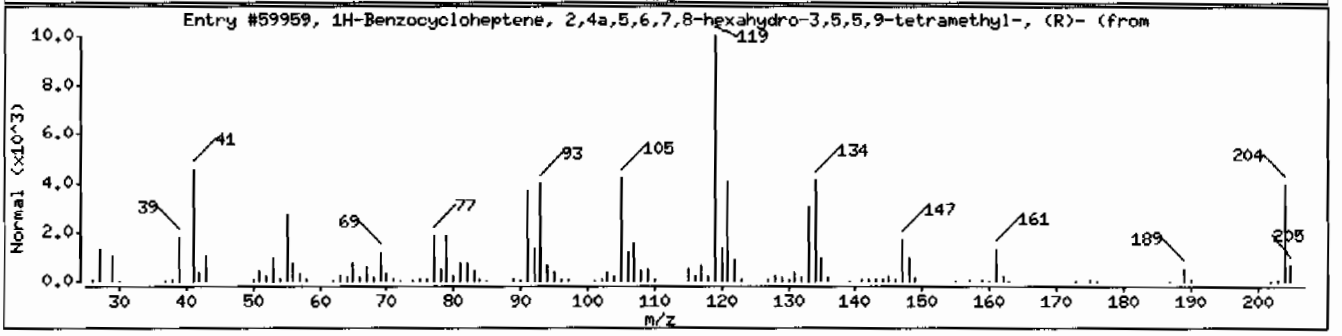

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: 1245959003194913211ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60024	99	C15H24	204
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-	4630-07-3	NIST05.L	60046	98	C15H24	204
1,4-Methanoazulene, decahydro-4,8,8-trim	475-20-7	NIST05.L	60018	97	C15H24	204

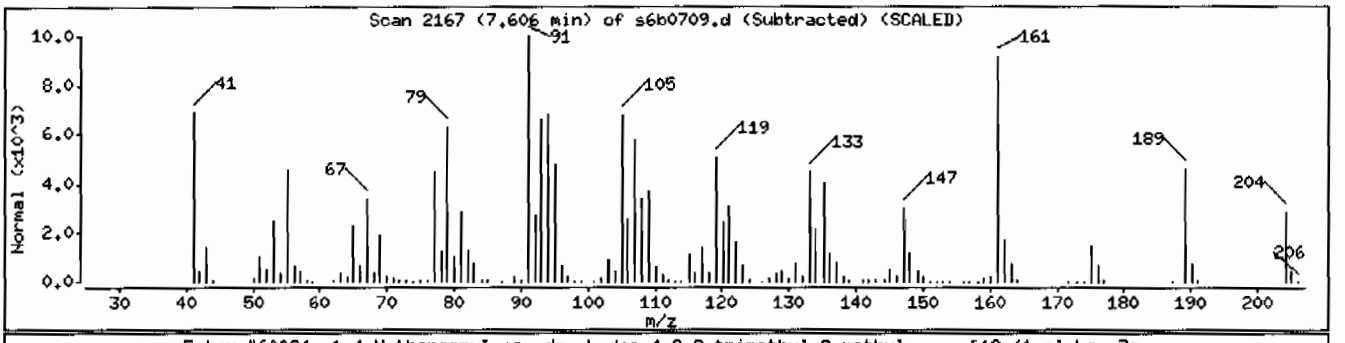

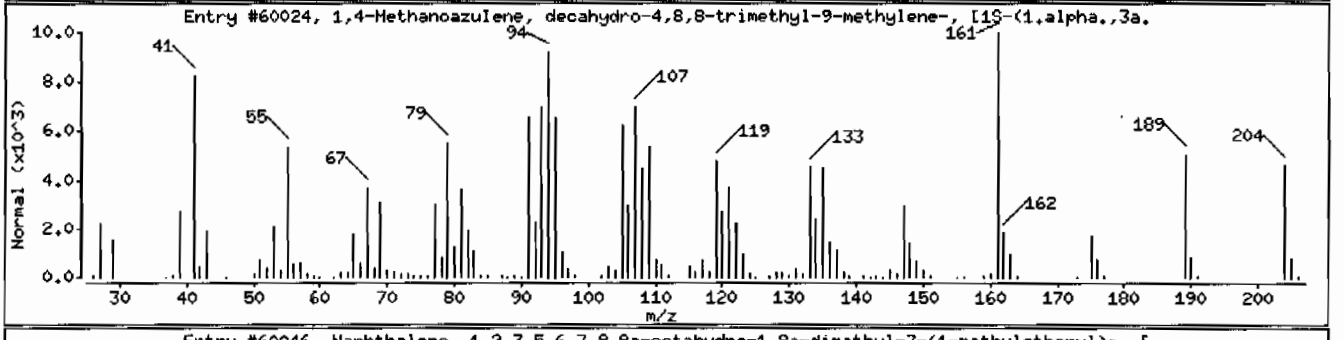

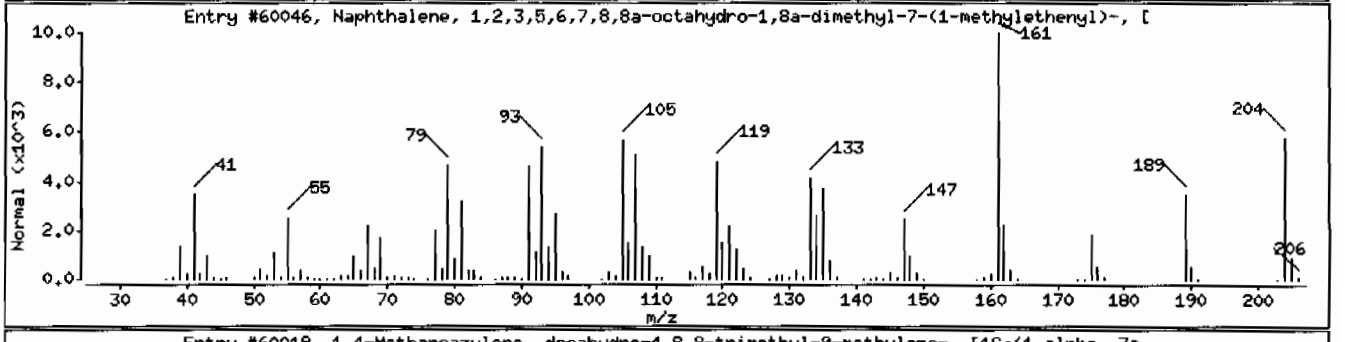

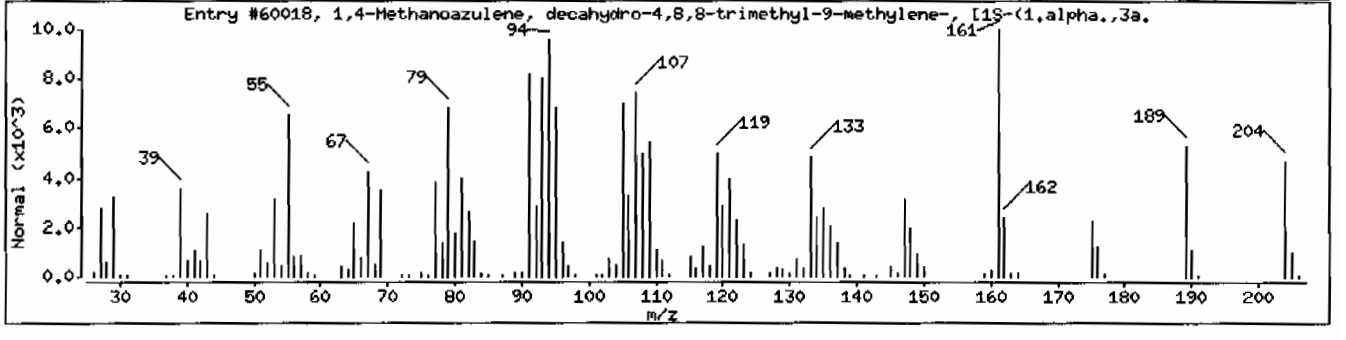

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: |245959003|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,5,5-Trimethyl-6-methylene-cyclohexene	514-95-4	NIST05.L	15292	86	C10H16	136
Cycloheptene, 5-ethylidene-1-methyl-	15402-94-5	NIST05.L	15278	83	C10H16	136
Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-me	5794-04-7	NIST05.L	15387	70	C10H16	136

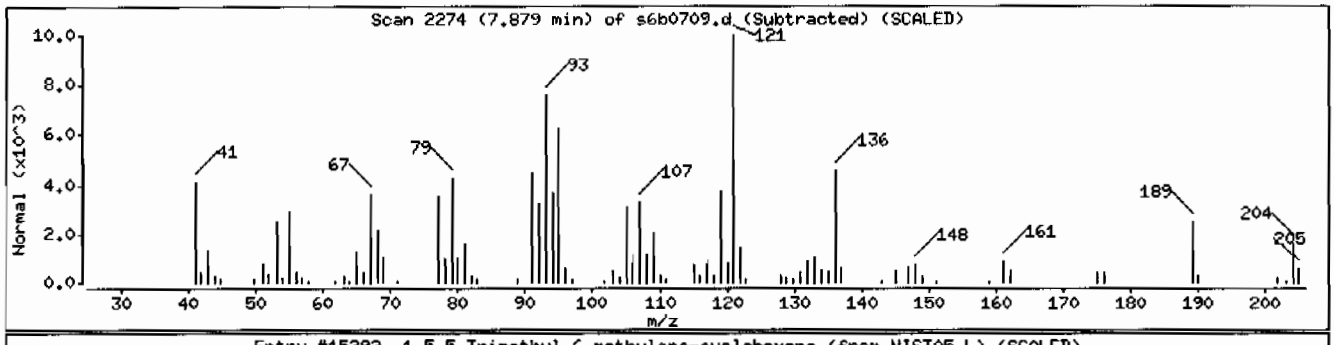

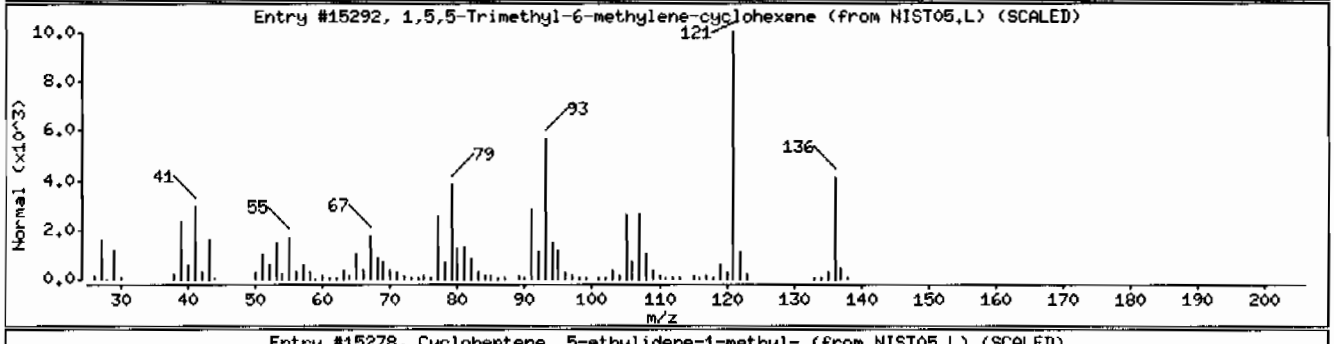

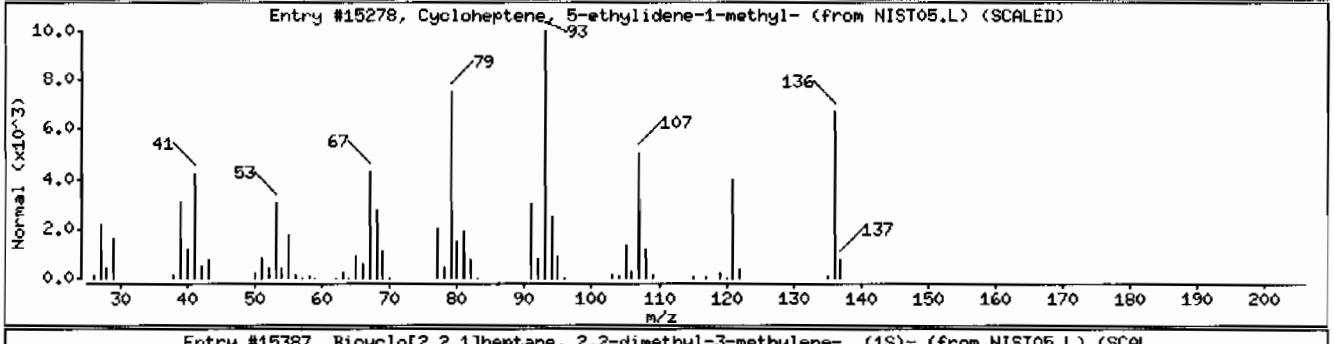

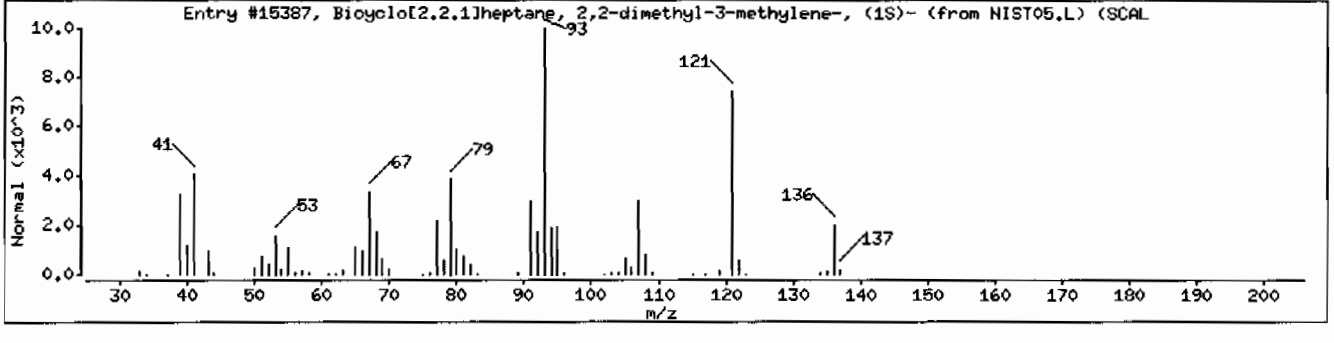

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315

Instrument: MSD6.i

Sample Info: 1245959003194913211SVM111LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	97	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	87	C20H30O	286
Pyrrolidine, 1-[5-(1,3-benzodioxol-5-yl)	25924-78-1	NIST05.L	106209	50	C16H17NO3	271

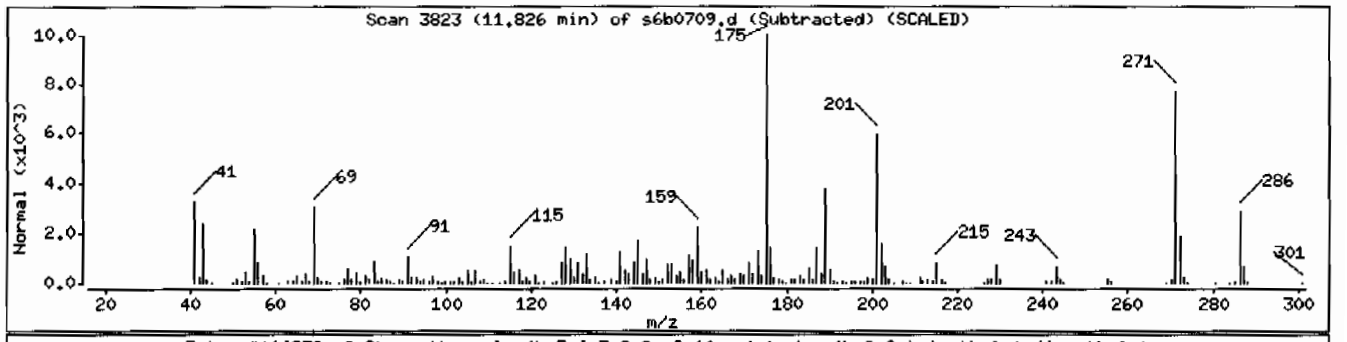

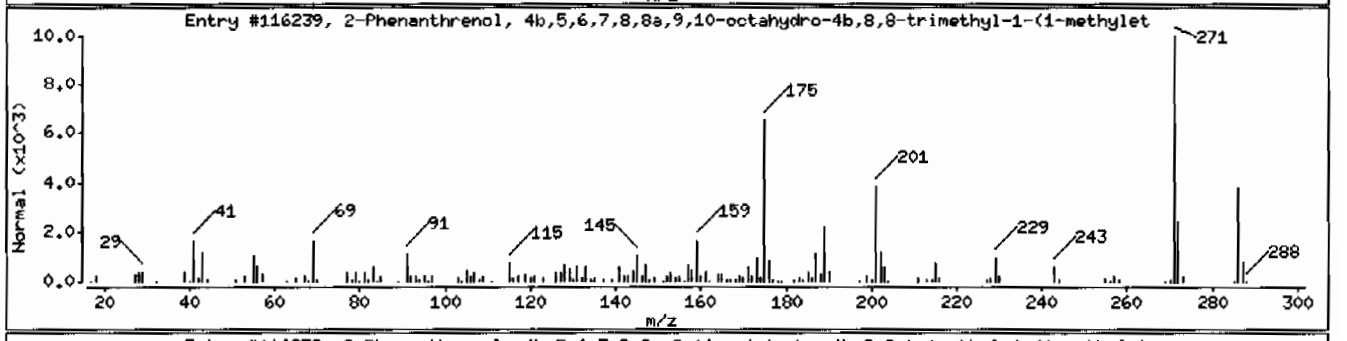

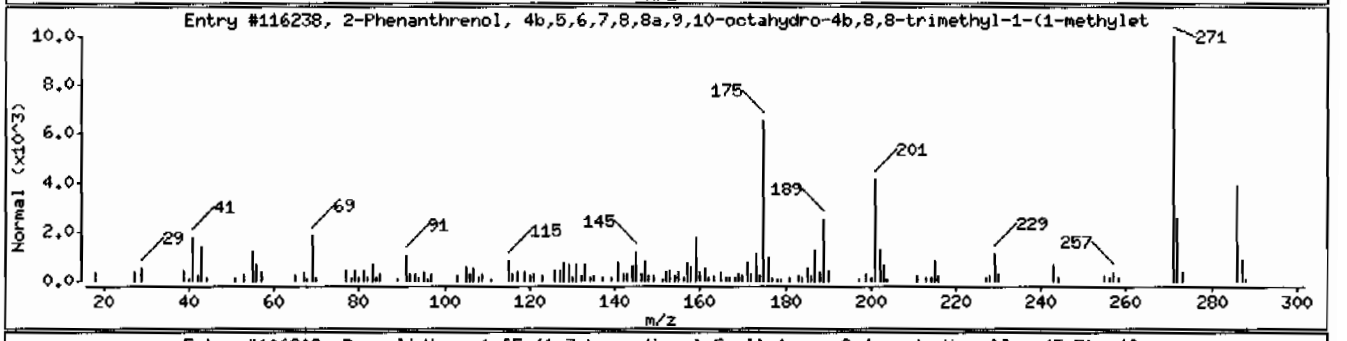

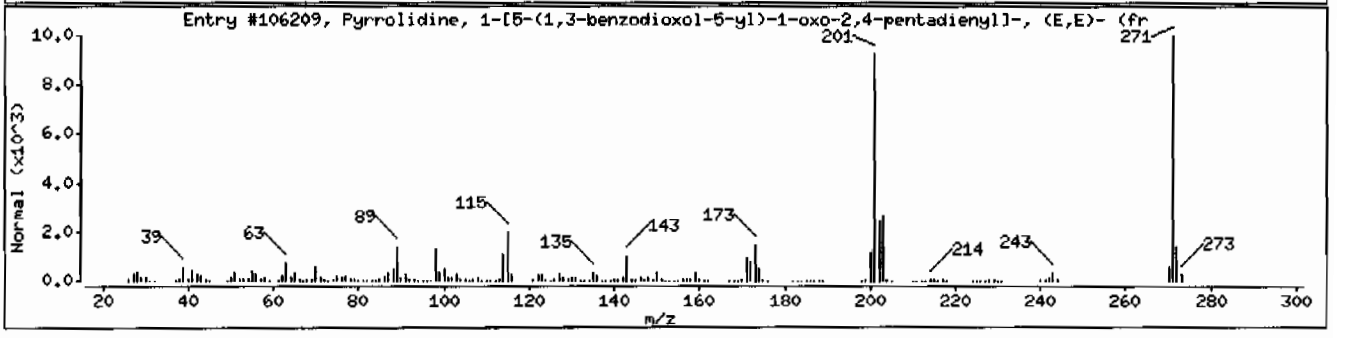

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: 1248959003|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	87	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	49	C20H30O	286
Pyrrolidine, 1-[5-(1,3-benzodioxol-5-yl)	25924-78-1	NIST05.L	106209	27	C16H17NO3	271

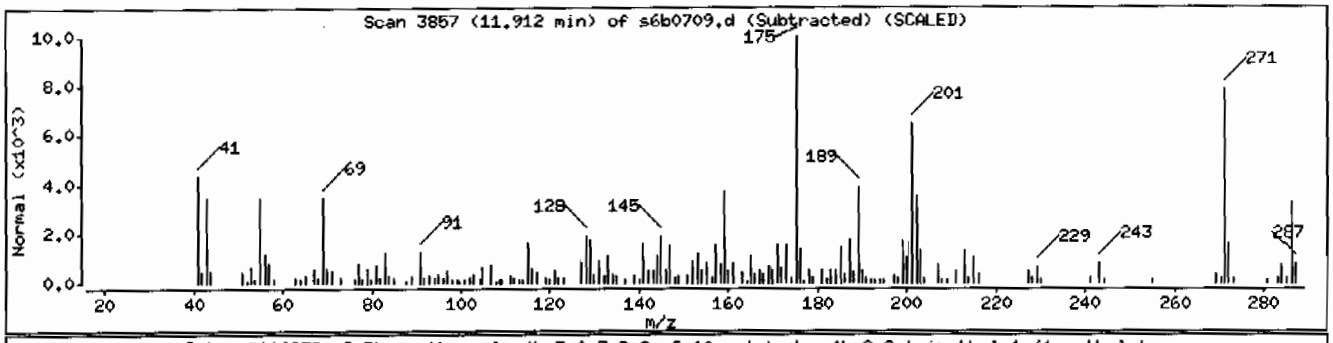

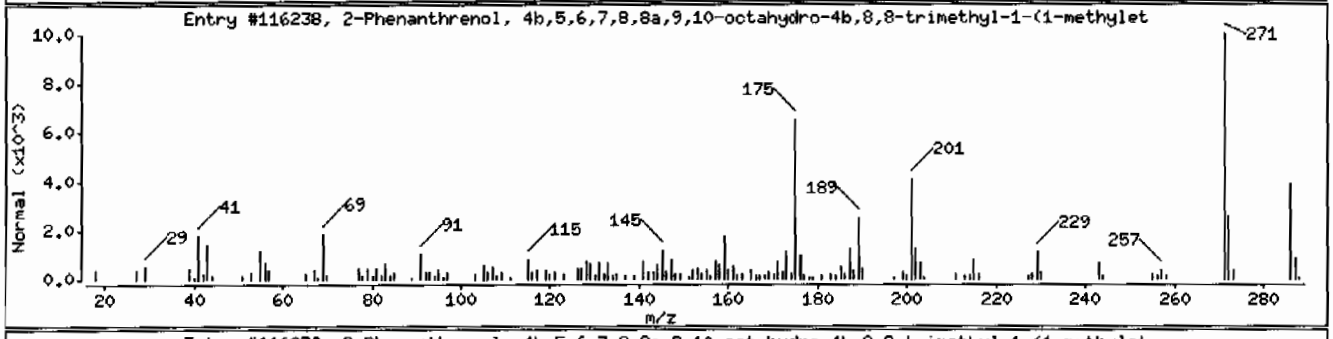

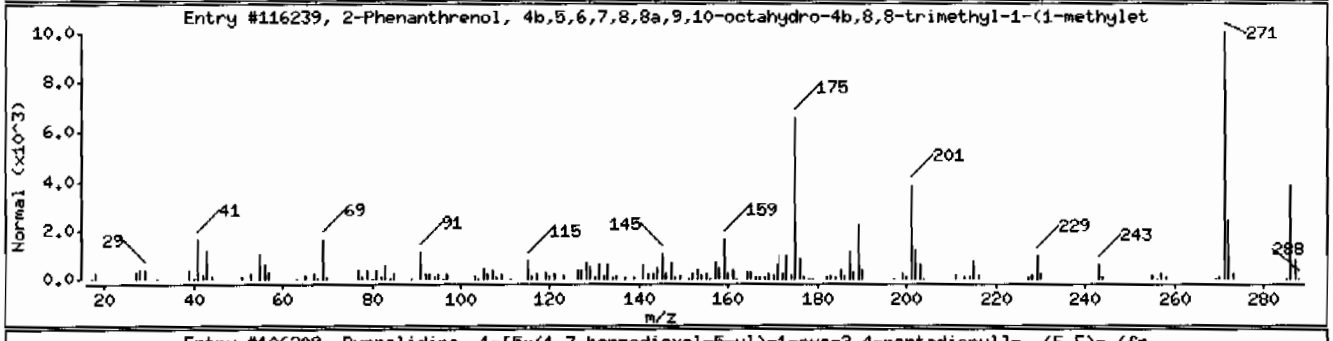

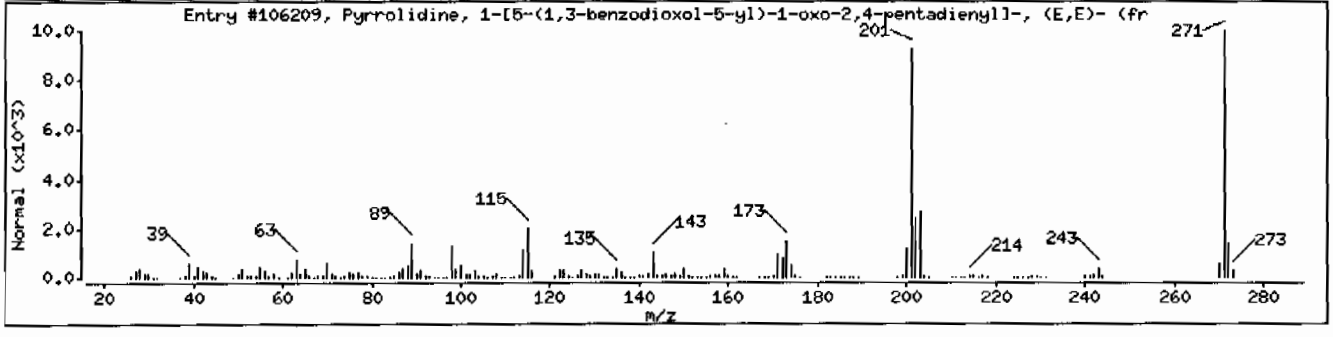

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: |245959003|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116239	58	C20H30O	286
2-Phenanthrenol, 4b,5,6,7,8,8a,9,10-octa	511-15-9	NIST05.L	116238	46	C20H30O	286
8-Amino-2,5-dimethyl-6-methoxyquinoline	1000214-69-9	NIST05.L	58341	35	C12H14N2O	202

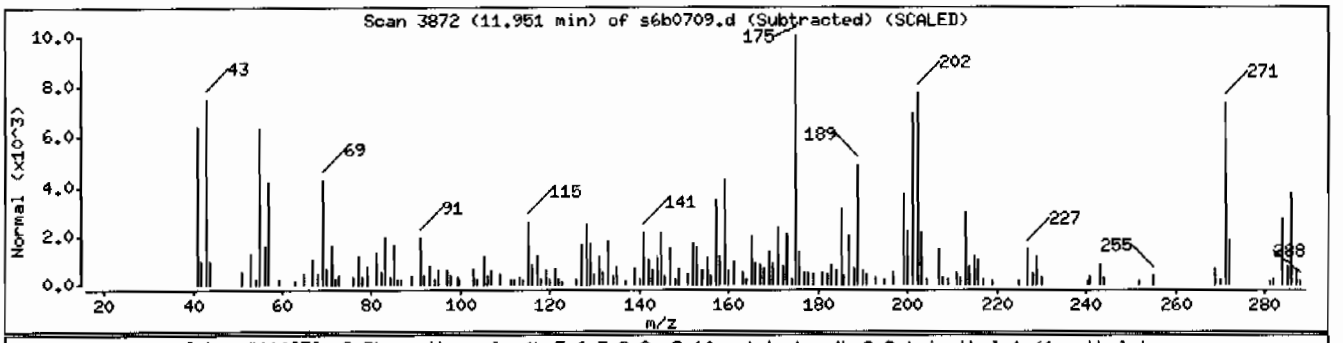

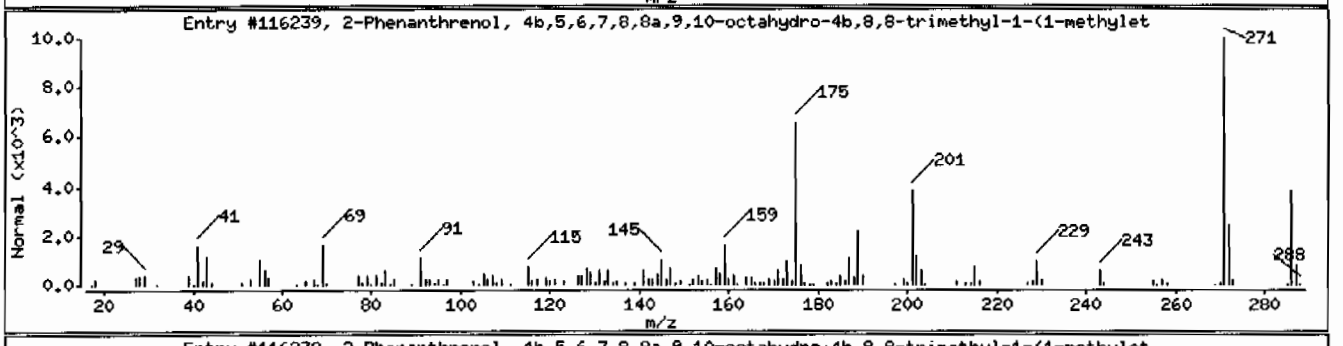

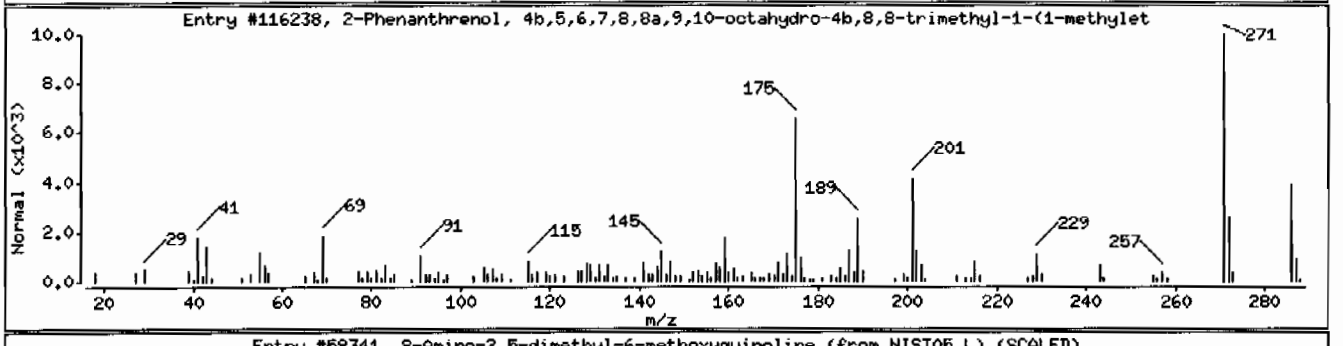

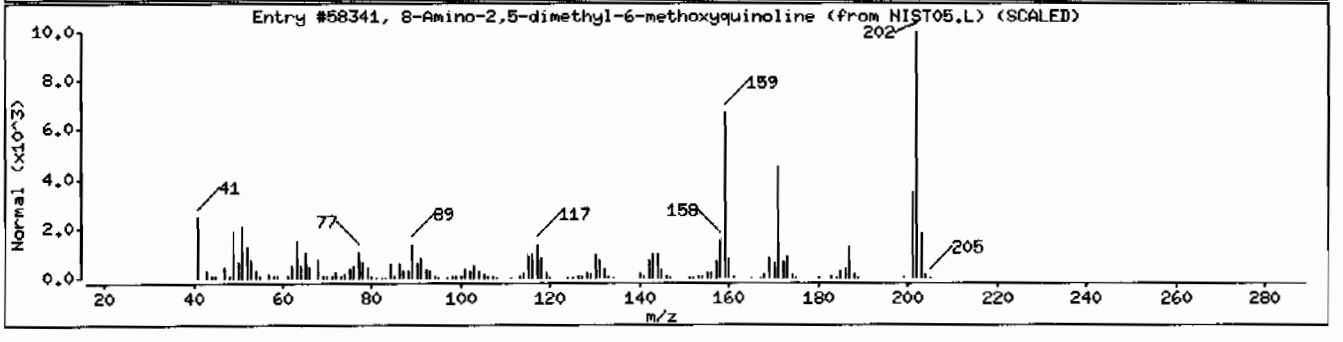

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: |245959003|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Tetracosane, 11-decyl-	55429-84-0	NIST05.L	182862	46	C34H70	479
Undecane, 2-methyl-	7045-71-8	NIST05.L	36437	46	C12H26	170
10-Methylnonadecane	56862-62-5	NIST05.L	113493	41	C20H42	282

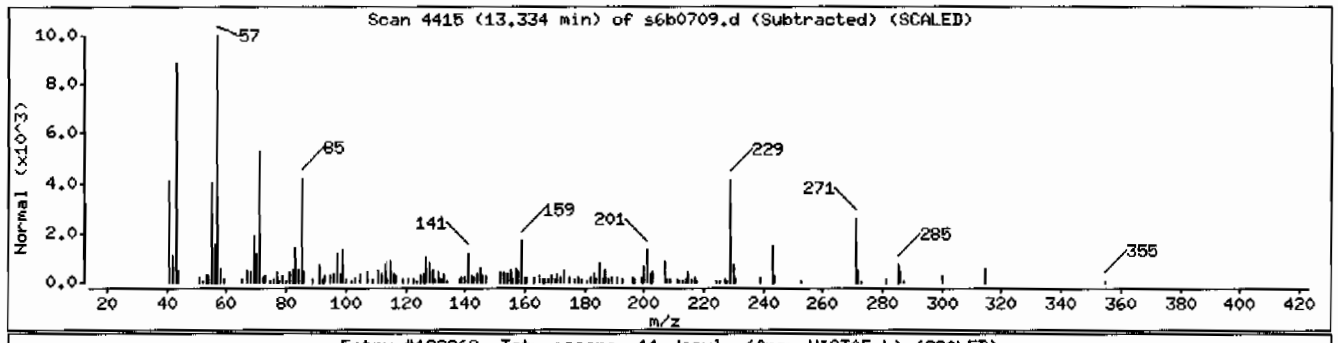

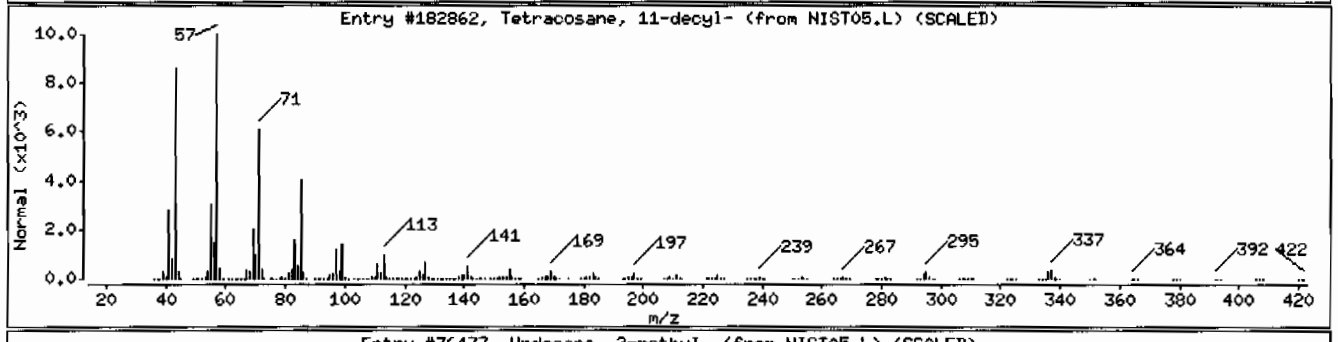

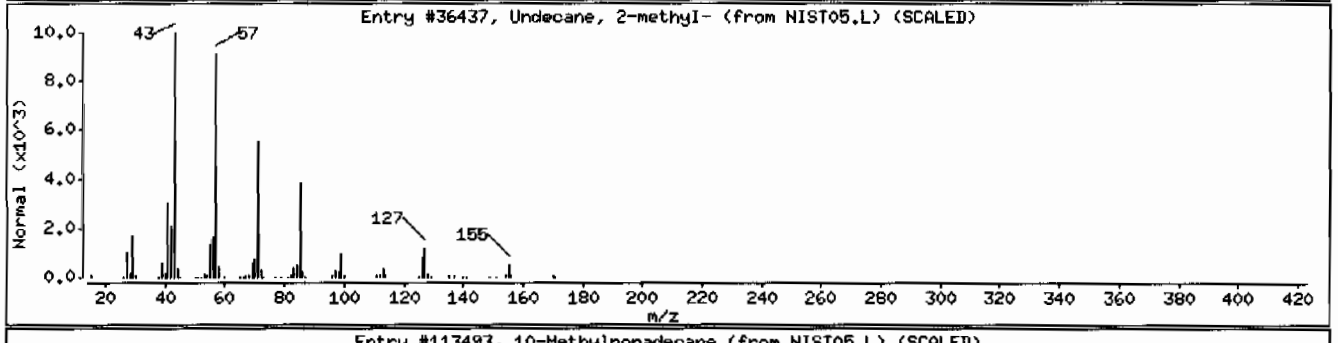

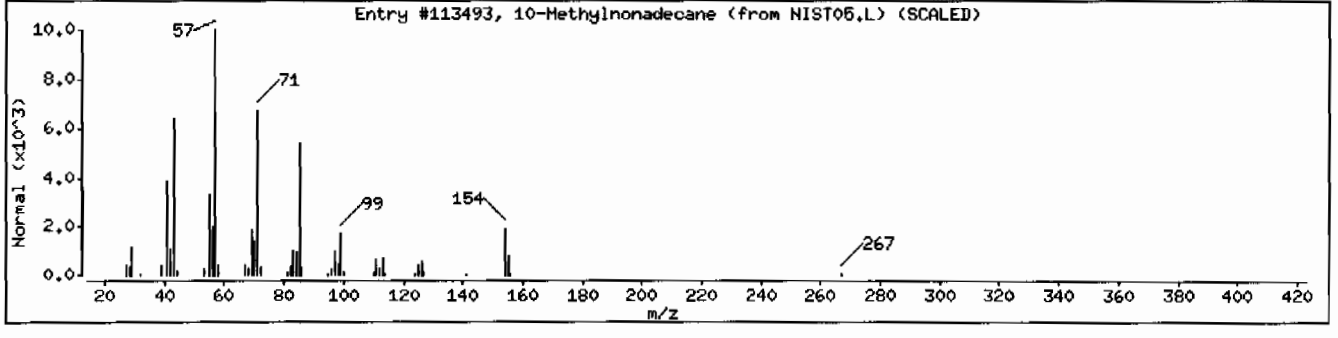

Data File: /chem/MSD6.i/s020710.b/s6b0709.d

Date : 07-FEB-2010 16:05

Client ID: RE15-10-7315 Instrument: MSD6.i

Sample Info: |2459590031949132|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Lanosterol	79-63-0	NIST05.L	176556	64	C30H500	426
Ergost-25-ene-3,5,6,12-tetrol, (3.beta.,	56052-97-2	NIST05.L	179805	43	C28M4804	448
.alpha.-Bisabolol	72691-24-8	NIST05.L	72913	35	C15H260	222

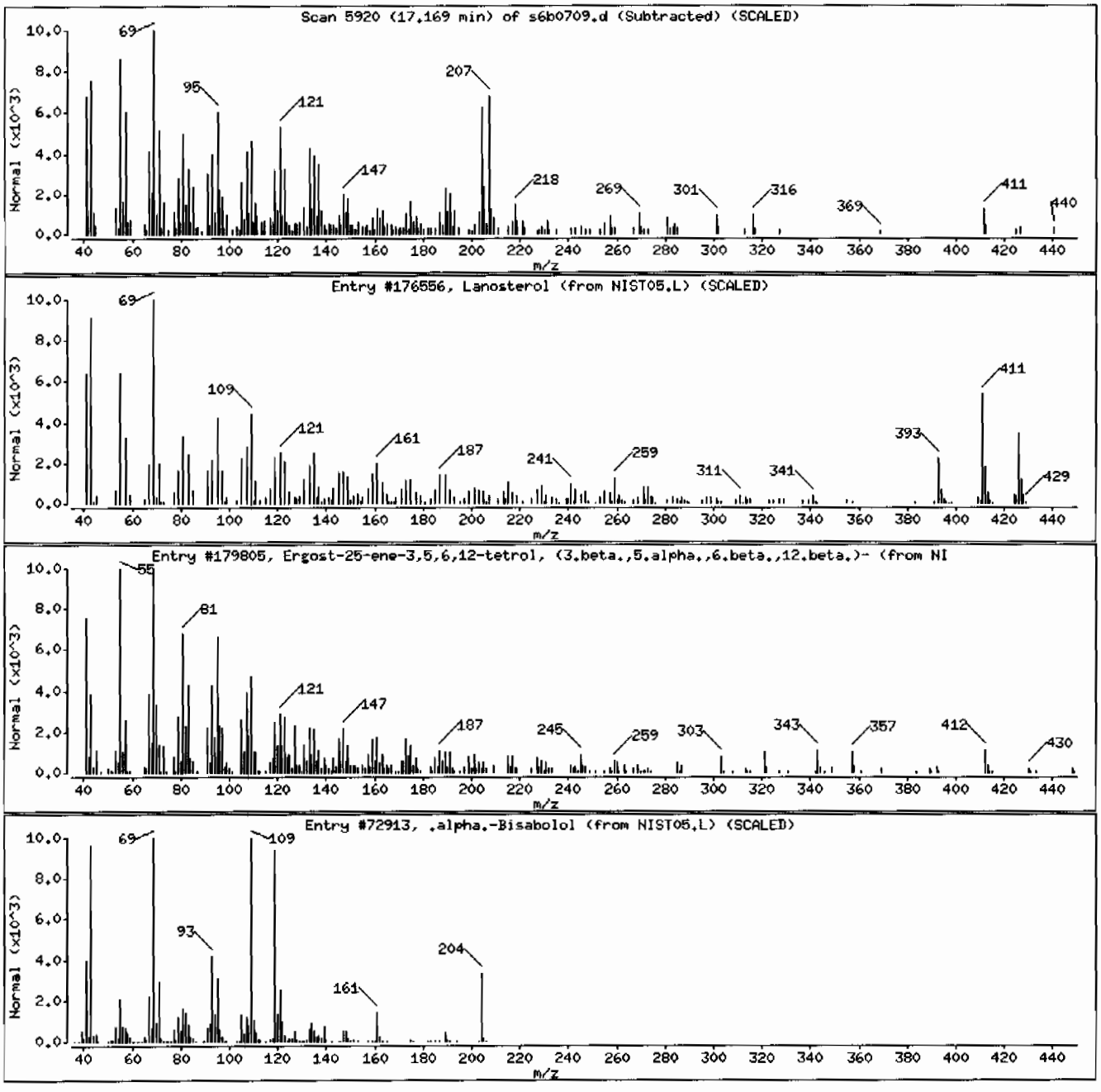

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959009**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**35.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7316**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 18:50**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0715.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	514	ug/kg	103	514
108-95-2	Phenol	U	514	ug/kg	103	514
95-57-8	2-Chlorophenol	U	514	ug/kg	103	514
106-46-7	1,4-Dichlorobenzene	U	514	ug/kg	103	514
621-64-7	N-Nitrosodipropylamine	U	514	ug/kg	103	514
59-50-7	4-Chloro-3-methylphenol	U	514	ug/kg	103	514
83-32-9	Acenaphthene	U	51.4	ug/kg	17.0	51.4
121-14-2	2,4-Dinitrotoluene	U	514	ug/kg	51.4	514
100-02-7	4-Nitrophenol	U	514	ug/kg	170	514
87-86-5	Pentachlorophenol	U	514	ug/kg	129	514
129-00-0	Pyrene	U	51.4	ug/kg	15.4	51.4
110-86-1	Pyridine	U	514	ug/kg	103	514
62-53-3	Aniline	U	514	ug/kg	154	514
111-44-4	bis(2-Chloroethyl) ether	U	514	ug/kg	103	514
541-73-1	1,3-Dichlorobenzene	U	514	ug/kg	103	514
100-51-6	Benzyl alcohol	U	514	ug/kg	154	514
95-50-1	1,2-Dichlorobenzene	U	514	ug/kg	103	514
108-60-1	bis(2-Chloroisopropyl)ether	U	514	ug/kg	103	514
95-48-7	o-Cresol	U	514	ug/kg	103	514
65794-96-9	m,p-Cresols	U	514	ug/kg	154	514
67-72-1	Hexachloroethane	U	514	ug/kg	103	514
98-95-3	Nitrobenzene	U	514	ug/kg	103	514
78-59-1	Isophorone	U	514	ug/kg	103	514
88-75-5	2-Nitrophenol	U	514	ug/kg	103	514
105-67-9	2,4-Dimethylphenol	U	514	ug/kg	180	514
111-91-1	bis(2-Chloroethoxy)methane	U	514	ug/kg	103	514
120-83-2	2,4-Dichlorophenol	U	514	ug/kg	103	514
65-85-0	Benzoic acid	U	1030	ug/kg	257	1030
91-20-3	Naphthalene	U	51.4	ug/kg	15.4	51.4
106-47-8	4-Chloroaniline	U	514	ug/kg	103	514
87-68-3	Hexachlorobutadiene	U	514	ug/kg	103	514
91-57-6	2-Methylnaphthalene	U	51.4	ug/kg	10.3	51.4
77-47-4	Hexachlorocyclopentadiene	U	514	ug/kg	103	514
88-06-2	2,4,6-Trichlorophenol	U	514	ug/kg	103	514
95-95-4	2,4,5-Trichlorophenol	U	514	ug/kg	103	514
91-58-7	2-Chloronaphthalene	U	51.4	ug/kg	17.0	51.4
88-74-4	2-Nitroaniline	U	514	ug/kg	103	514
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	514	ug/kg	103	514

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959009	**Date Received:**	02/02/2010 09:10	**%Moisture:**	35.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7316	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 18:50	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s6b0715.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	514	ug/kg	103	514
606-20-2	2,6-Dinitrotoluene	U	514	ug/kg	51.4	514
208-96-8	Acenaphthylene	U	51.4	ug/kg	15.4	51.4
51-28-5	2,4-Dinitrophenol	U	1030	ug/kg	195	1030
132-64-9	Dibenzofuran	U	514	ug/kg	103	514
84-66-2	Diethylphthalate	U	514	ug/kg	103	514
86-73-7	Fluorene	U	51.4	ug/kg	15.4	51.4
7005-72-3	4-Chlorophenylphenylether	U	514	ug/kg	103	514
534-52-1	2-Methyl-4,6-dinitrophenol	U	514	ug/kg	103	514
100-01-6	4-Nitroaniline	U	514	ug/kg	154	514
	p-Nitroaniline					
122-39-4	Diphenylamine	U	514	ug/kg	103	514
122-66-7	Azobenzene	U	514	ug/kg	103	514
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	514	ug/kg	103	514
118-74-1	Hexachlorobenzene	U	514	ug/kg	103	514
85-01-8	Phenanthrene	U	51.4	ug/kg	15.4	51.4
120-12-7	Anthracene	U	51.4	ug/kg	10.3	51.4
84-74-2	Di-n-butylphthalate	U	514	ug/kg	103	514
206-44-0	Fluoranthene	U	51.4	ug/kg	15.4	51.4
85-68-7	Butylbenzylphthalate	U	514	ug/kg	103	514
56-55-3	Benzo(a)anthracene	U	51.4	ug/kg	15.4	51.4
91-94-1	3,3'-Dichlorobenzidine	U	514	ug/kg	154	514
218-01-9	Chrysene	U	51.4	ug/kg	15.4	51.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	514	ug/kg	103	514
117-84-0	Di-n-octylphthalate	U	514	ug/kg	103	514
205-99-2	Benzo(b)fluoranthene	U	51.4	ug/kg	15.4	51.4
207-08-9	Benzo(k)fluoranthene	U	51.4	ug/kg	15.4	51.4
50-32-8	Benzo(a)pyrene	U	51.4	ug/kg	15.4	51.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	51.4	ug/kg	15.4	51.4
53-70-3	Dibenzo(a,h)anthracene	U	51.4	ug/kg	15.4	51.4
191-24-2	Benzo(ghi)perylene	U	51.4	ug/kg	15.4	51.4
120-82-1	1,2,4-Trichlorobenzene	U	514	ug/kg	103	514

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	244	ug/kg		J
	Unknown Aldol Condensate	3.47	820	ug/kg		JA

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959009	**Date Received:**	02/02/2010 09:10	**%Moisture:**	35.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7316	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 18:50	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	s6b0715.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
2416-20-8	Hexadecenoic acid, Z-11-	10.13	356	ug/kg	96	NJ
57-10-3	n-Hexadecanoic acid	10.16	290	ug/kg	98	NJ
112-79-8	9-Octadecenoic acid, (E)-	10.93	267	ug/kg	99	NJ
55282-15-0	Docosane, 7-butyl-	14.46	213	ug/kg	83	NJ
112-95-8	Eicosane	15.75	253	ug/kg	96	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0715.d
Lab Smp Id: 245959009 Client Smp ID: RE15-10-7316
Inj Date : 07-FEB-2010 18:50
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959009|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	35.60000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	286854	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1099087	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	633286	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1109102	40.0000	
* 91 Chrysene-d12	240	12.638	12.646	(1.000)	787093	40.0000	
* 98 Perylene-d12	264	14.983	14.990	(1.000)	514534	40.0000	
$ 3 2-Fluorophenol	112	3.707	3.697	(0.763)	447838	62.3429	3210
$ 5 Phenol-d5	99	4.474	4.474	(0.921)	568120	62.6613	3220
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	259881	33.4257	1720
$ 39 2-Fluorobiphenyl	172	7.259	7.265	(0.907)	521412	31.9487	1640
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	112234	60.7199	3120
$ 81 p-Terphenyl-d14	244	11.324	11.324	(0.896)	507093	39.9500	2050

ION RATIO REPORT

SV REPORT

Data file: s6b0715.d
Report Date: 02/08/2010 09:15
Lab. ID: 245959009 SampleType: SAMPLE
Injection Date: 07-FEB-2010 18:50
Operator: nagl Instrument: MSD6.i
Sample Info: |245959009|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	28768	4.47	4.55	80-120	100	(T)
93	165	4.39	4.55	217-277	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	36723	5.39	5.24	80-120	100	(T)
42	23088	5.39	5.24	39- 99	63	(T)
22 Isophorone		CAS#: 78-59-1				
82	259881	5.39	5.66	80-120	100	(T)
138	5859	6.14	5.66	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	113199	8.01	7.70	80-120	100	(T)
164	633286	8.01	7.70	0- 40	559	(QT)
48 2,4-Dinitrophenol			CAS#: 51-28-5			
184	118	8.56	8.07	80-120	100	(T)
154	4258	8.01	8.07	19- 79	3606	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	83254	8.00	8.21	80-120	100	(T)
89	1044	8.00	8.21	43-103	1	(QT)
63	1312	8.01	8.21	18- 78	2	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
52 4-Nitrophenol			CAS#: 100-02-7			
139	352	8.01	8.12	80-120	100	(T)
109	1396	8.01	8.13	36- 96	397	(QT)
65	2740	8.01	8.12	60-120	778	(QT)
53 Fluorene			CAS#: 86-73-7			
166	6701	8.86	8.60	80-120	100	(T)
165	7213	8.86	8.60	62-122	108	(T)
167	2363	8.86	8.60	0- 44	35	(T)
55 2-Methyl-4,6-dinitrophenol			CAS#: 534-52-1			
198	222	8.86	8.65	80-120	100	(T)
105	576	8.85	8.65	11- 71	259	(QT)
51	565	8.85	8.65	23- 83	254	(QT)
56 p-Nitroaniline			CAS#: 100-01-6			
138	191	8.66	8.62	80-120	100	( )
108	110	8.60	8.62	32- 92	58	( )
92	1659	8.86	8.62	12- 72	865	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0715.d
Lab Smp Id: 245959009 Client Smp ID: RE15-10-7316
Inj Date : 07-FEB-2010 18:50
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959009|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.19000	weight of sample
M	35.60000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1727719	40.000
* 67 Phenanthrene-d10	9.619	2776337	40.000
* 98 Perylene-d12	14.983	1453540	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.265	205177	4.75024892	244	0		0	10
Unknown Aldol Condensate				CAS #:			
3.473	688289	15.9352038	820	0		0	10
Hexadecenoic acid, Z-11-				CAS #: 2416-20-8			
10.126	480800	6.92710925	356	96	NIST05.L	94748	67
n-Hexadecanoic acid				CAS #: 57-10-3			
10.162	390919	5.63215259	290	98	NIST05.L	96235	67
9-Octadecenoic acid, (E)-				CAS #: 112-79-8			
10.931	360896	5.19959410	267	99	NIST05.L	113363	67
Docosane, 7-butyl-				CAS #: 55282-15-0			
14.463	150663	4.14610960	213	83	NIST05.L	159839	98
Eicosane				CAS #: 112-95-8			
15.750	178496	4.91203931	253	96	NIST05.L	113488	98

Data File: /chem/MSD6.i/s020710.b/s6b0715.d
Date : 07-FEB-2010 18:50
Client ID: RE15-10-7316
Sample Info: 1245959009194913211ISVMI1ILANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

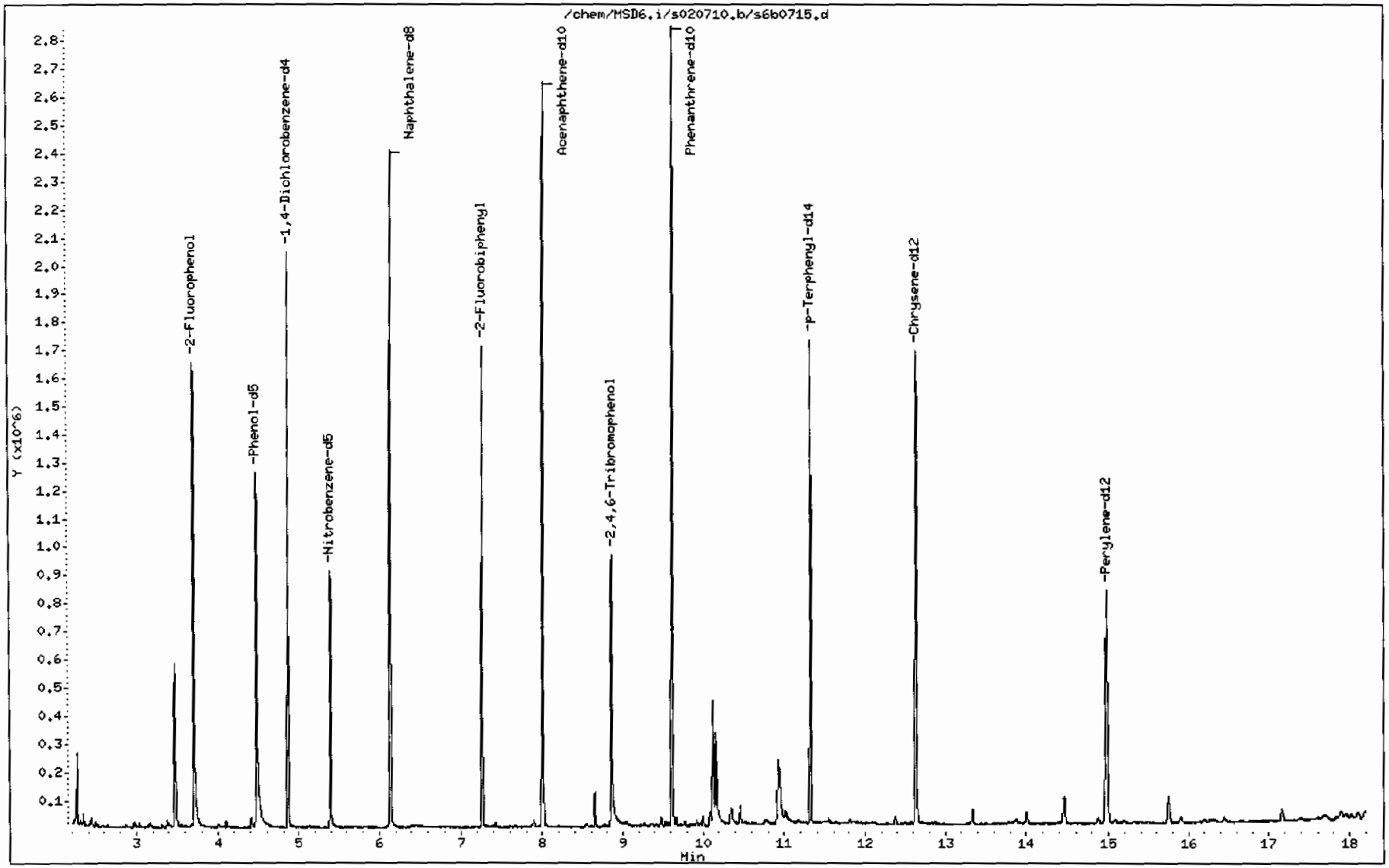

Data File: /chem/MSD6.i/s020710.b/s6b0715.d

Date : 07-FEB-2010 18:50

Client ID: RE15-10-7316

Instrument: MSD6.i

Sample Info: 1245969009194913211ISVHI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	38	C5H12O2	104

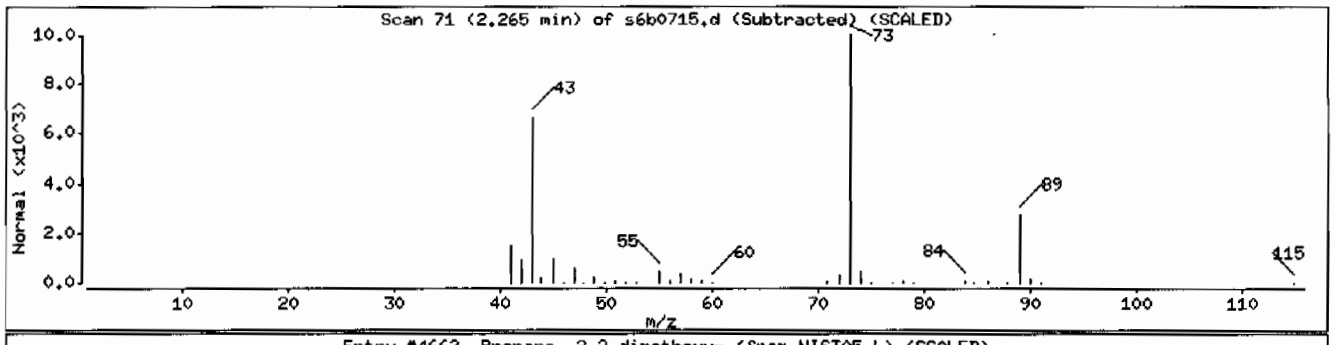

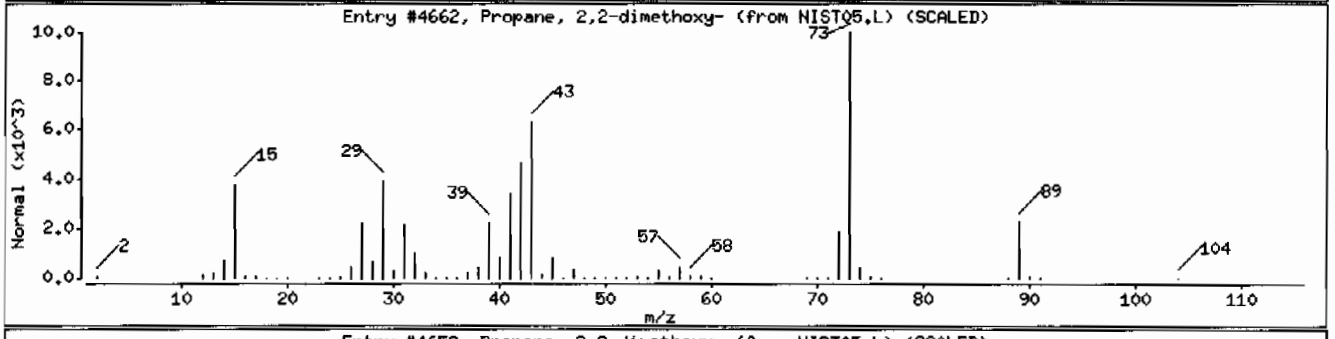

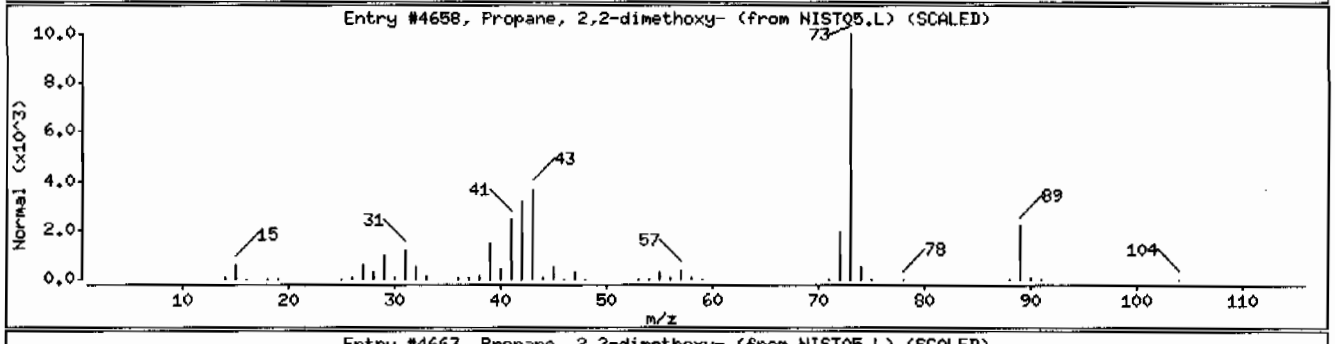

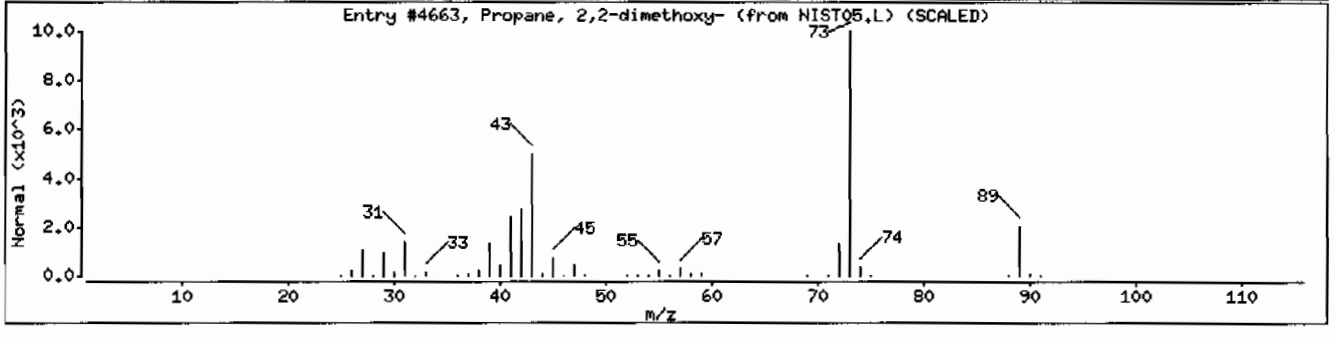

Data File: /chem/MSD6.i/s020710.b/s6b0715.d

Date : 07-FEB-2010 18:50

Client ID: RE15-10-7316 Instrument: MSD6.i

Sample Info: |245959009|949132|1|SVHI1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
Acetic acid, 1,1-dimethylethyl ester	540-88-5	NIST05.L	7976	17	C6H12O2	116

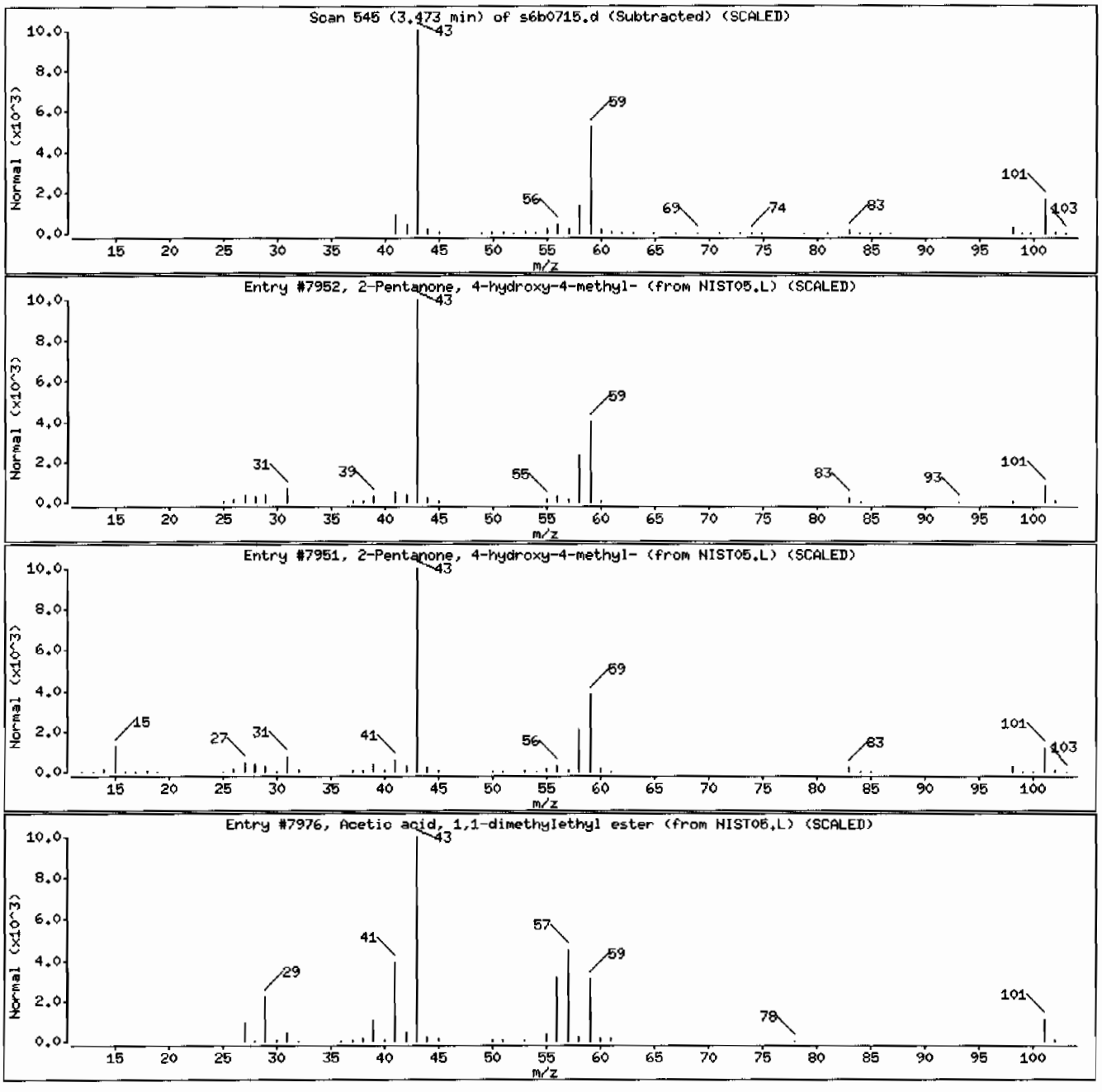

Data File: /chem/MSD6.i/s020710.b/s6b0715.d

Date : 07-FEB-2010 18:50

Client ID: RE15-10-7316 Instrument: MSD6.i

Sample Info: 1245959009194913211ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecenoic acid, Z-11-	2416-20-8	NIST05.L	94748	96	C16H3002	254
Oxacycloheptadecan-2-one	109-29-5	NIST05.L	94746	94	C16H3002	254
Myristoleic acid	544-64-9	NIST05.L	75851	91	C14H2602	226

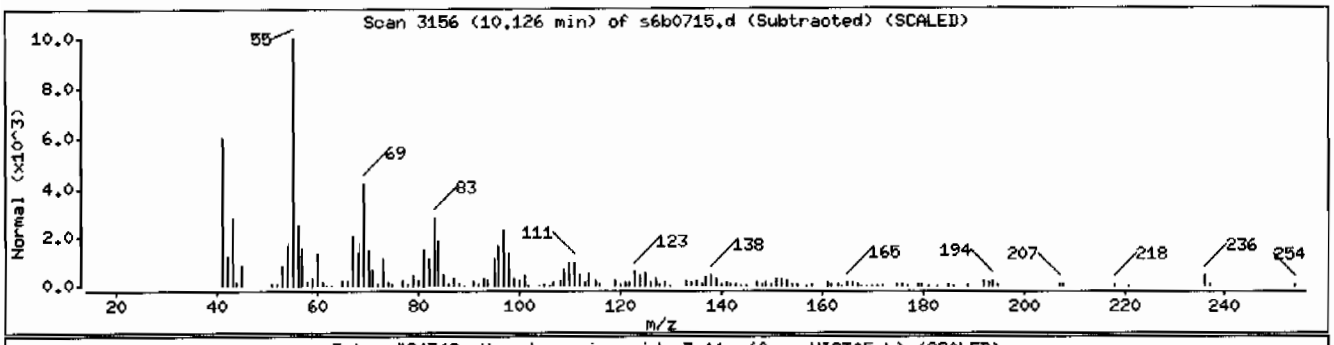

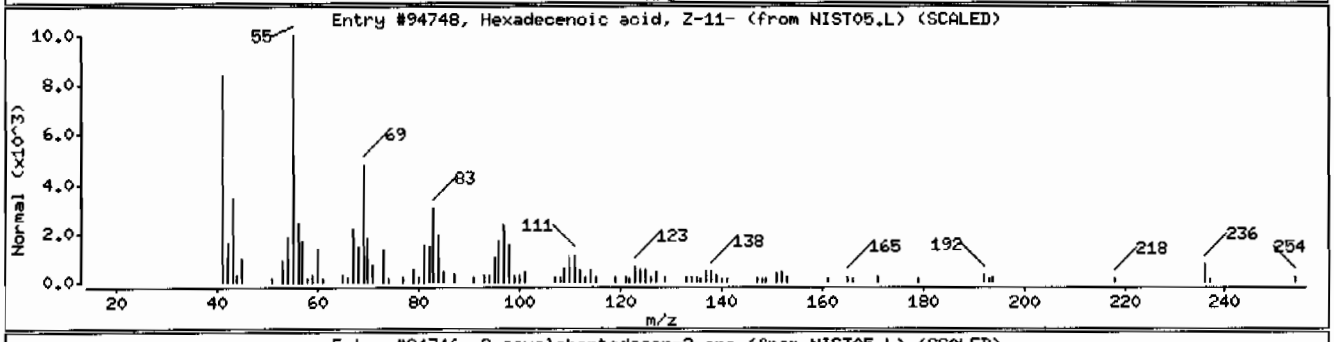

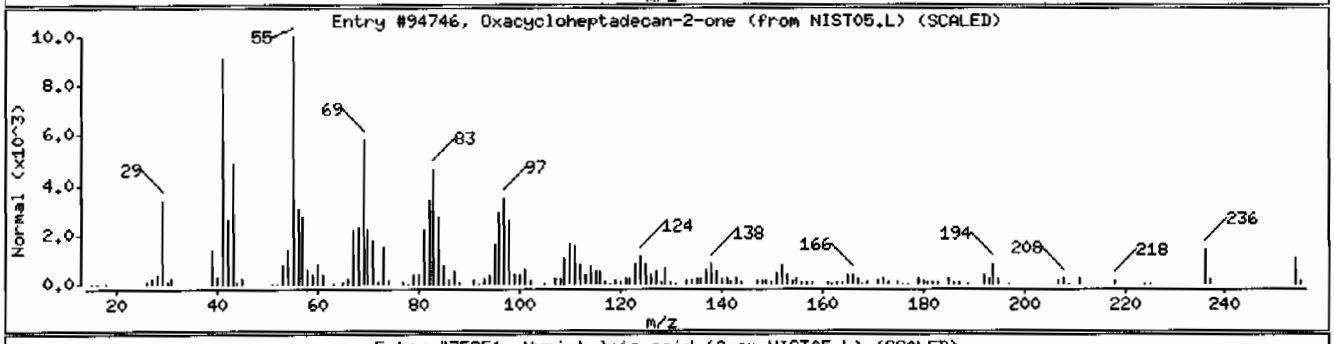

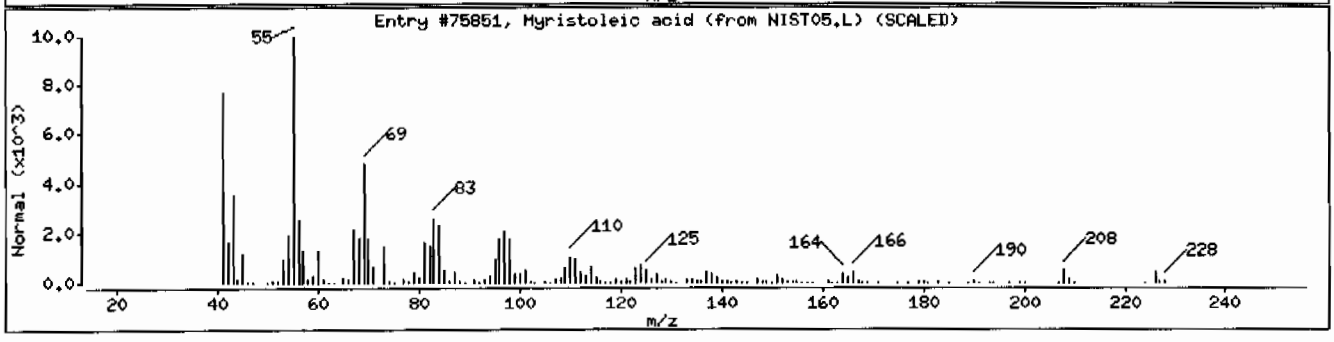

Data File: /chem/MSD6.i/s020710.b/s6b0715.d

Date : 07-FEB-2010 18:50

Client ID: RE15-10-7316 Instrument: MSD6.i

Sample Info: |245959009|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
n-Hexadecanoic acid	57-10-3	NIST05.L	96235	98	C16H3202	256
n-Hexadecanoic acid	57-10-3	NIST05.L	96234	98	C16H3202	256
Tridecanoic acid	638-53-9	NIST05.L	67136	95	C13H2602	214

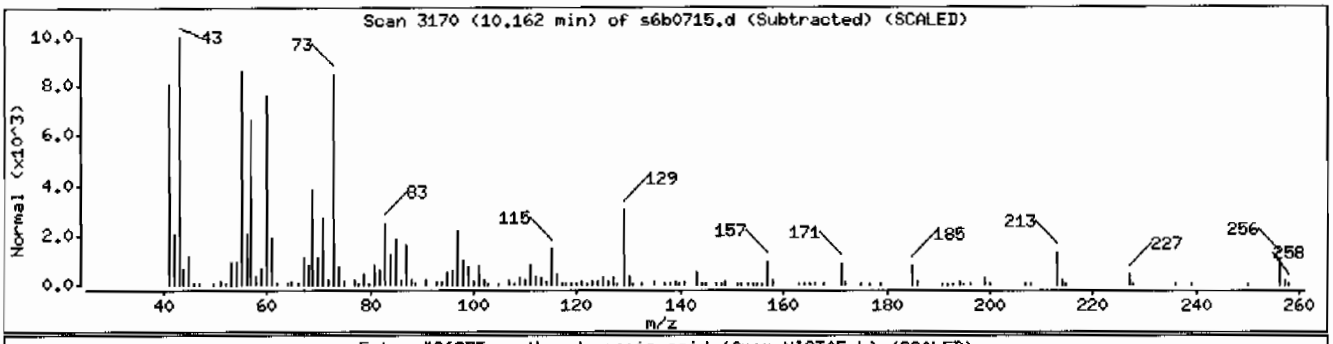

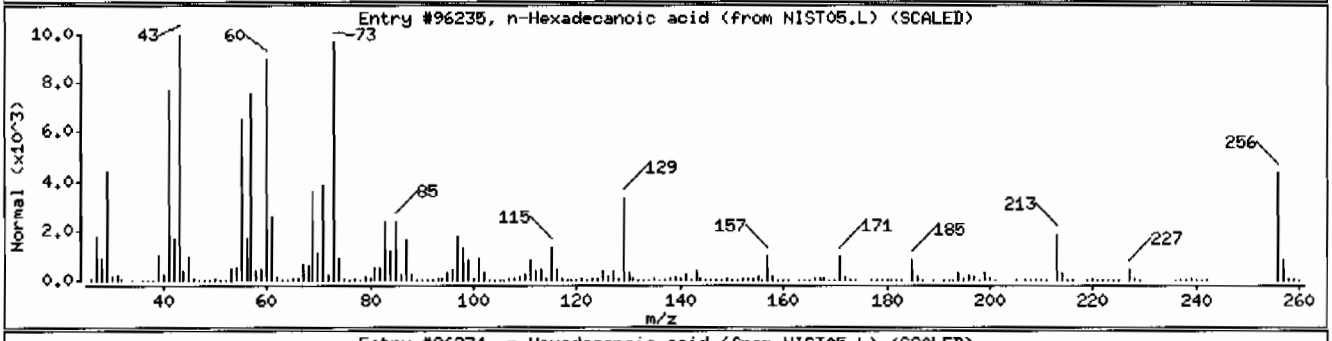

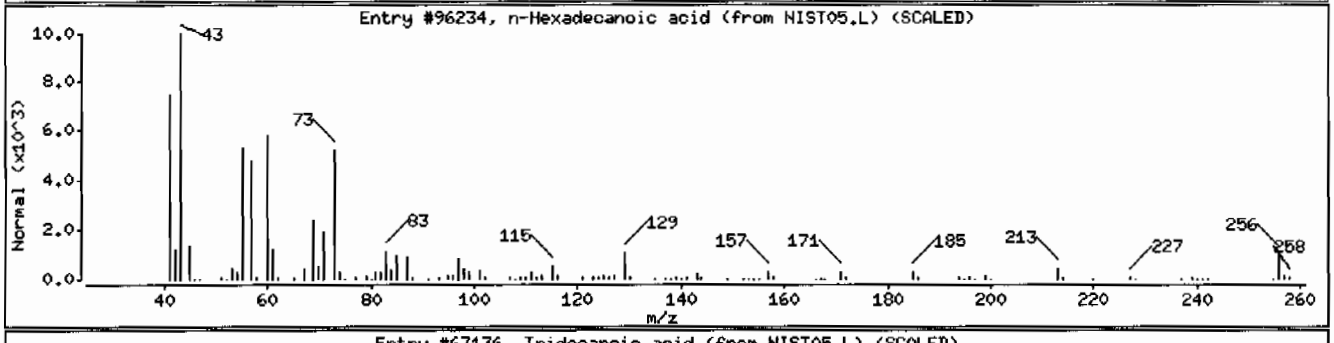

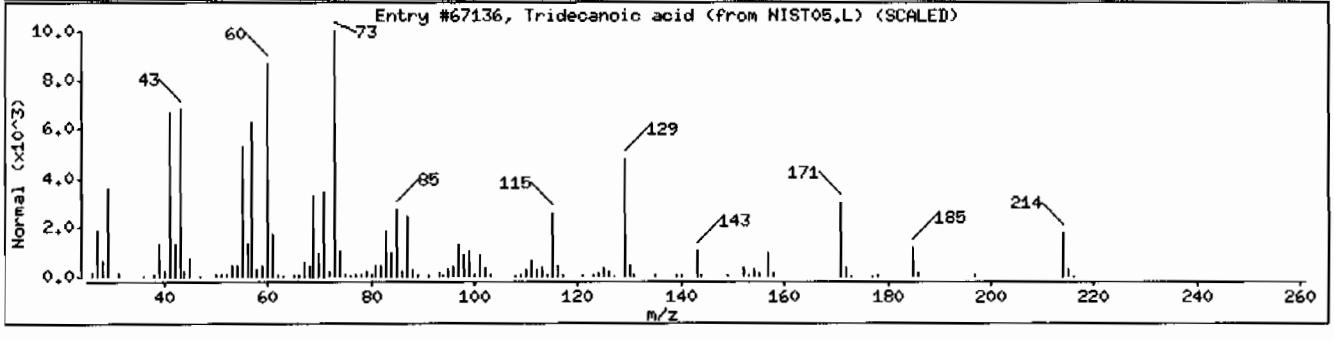

Data File: /chem/MSD6.i/s020710.b/s6b0715.d

Date : 07-FEB-2010 18:50

Client ID: RE15-10-7316 Instrument: MSD6.i

Sample Info: |2459590091949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
9-Octadecenoic acid, (E)-	112-79-8	NIST05.L	113363	99	C18H3402	282
6-Octadecenoic acid, (Z)-	593-39-5	NIST05.L	113359	83	C18H3402	282
9-Hexadecenoic acid	2091-29-4	NIST05.L	94742	68	C16H3002	254

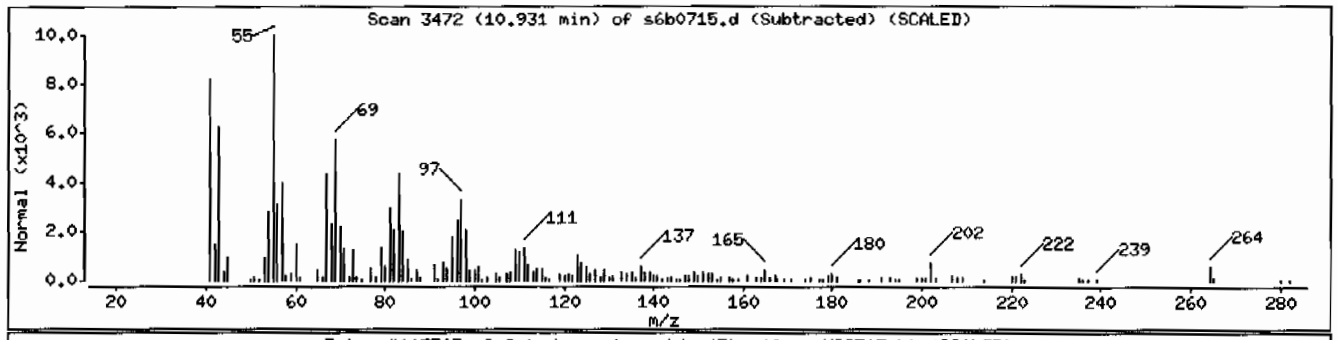

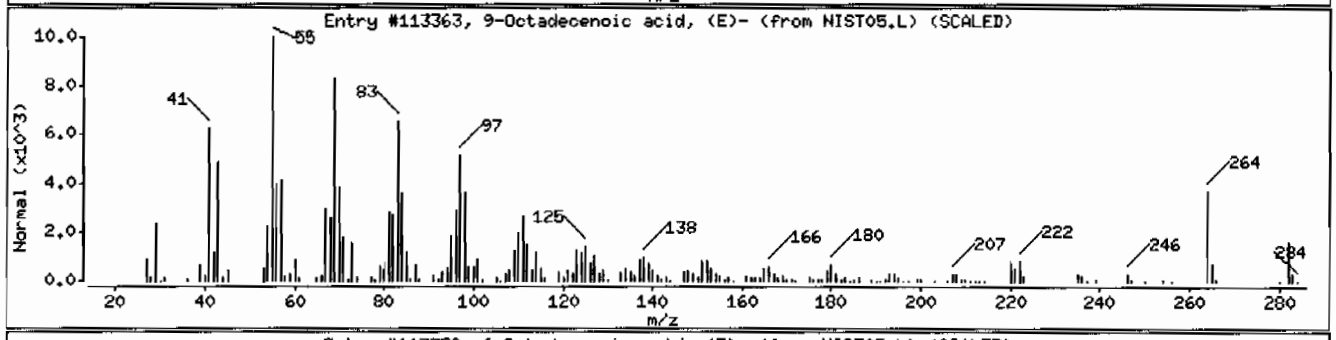

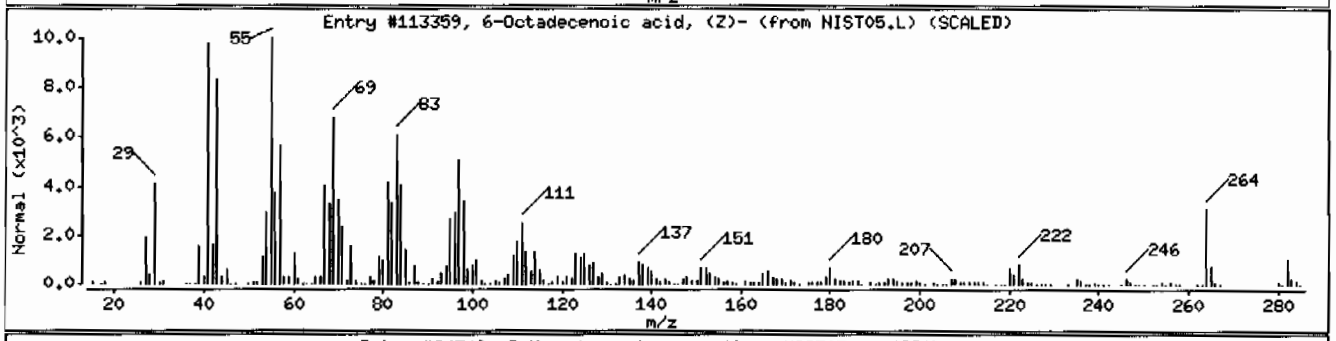

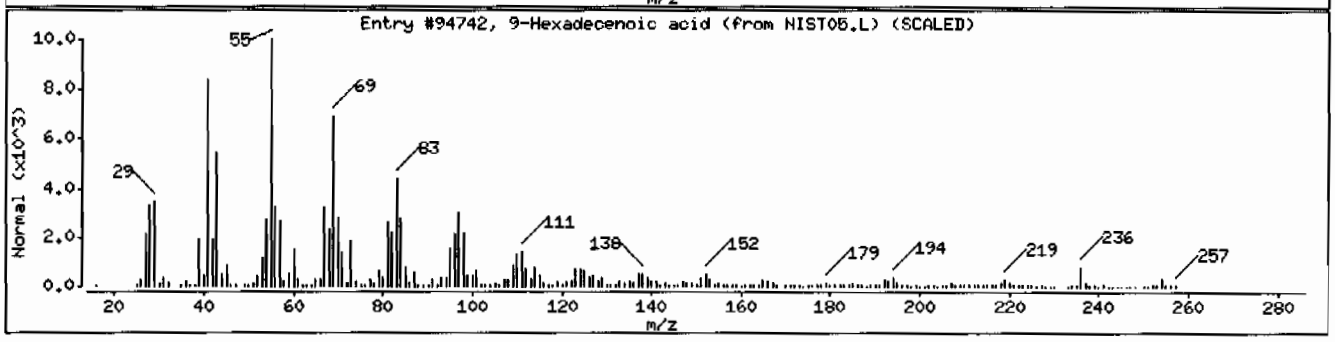

Data File: /chem/MSD6.i/s020710.b/s6b0715.d

Date : 07-FEB-2010 18:50

Client ID: RE15-10-7316 Instrument: MSD6.i

Sample Info: 1245959009|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Docosane, 7-butyl-	55282-15-0	NIST05.L	159839	83	C26H54	366
Octacosane	630-02-4	NIST05.L	169721	81	C28H58	394
Tetratetracontane	7098-22-8	NIST05.L	188837	81	C44H90	619

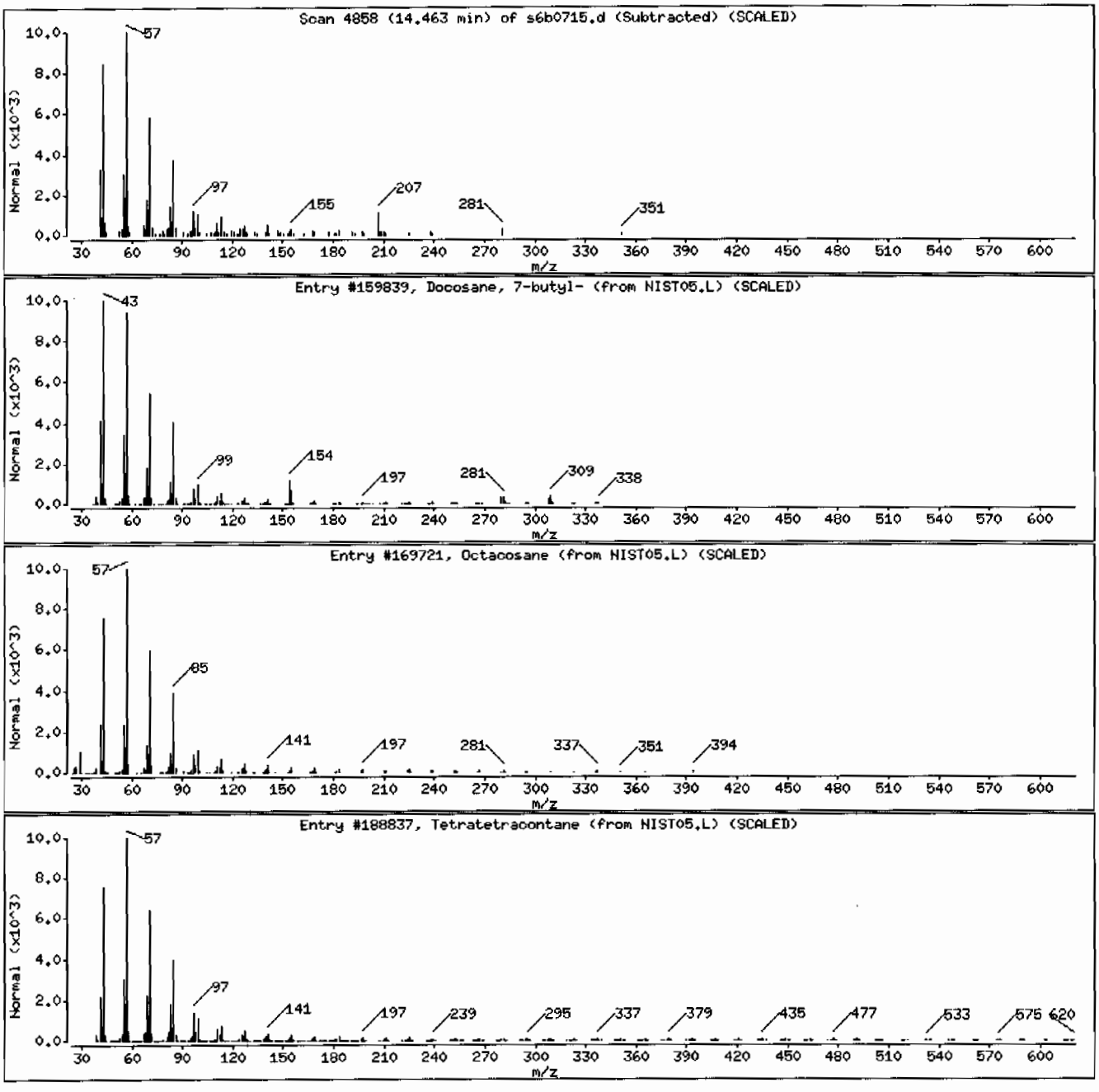

Data File: /chem/MSD6.i/s020710.b/s6b0715.d

Date : 07-FEB-2010 18:50

Client ID: RE15-10-7316 Instrument: MSD6.i

Sample Info: 1245959009194913211ISVMI1ILANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113488	96	C20H42	282
Hexadecane, 2-methyl-	1560-92-5	NIST05.L	85532	90	C17H36	240
Tetratetracontane	7098-22-8	NIST05.L	188837	87	C44H90	619

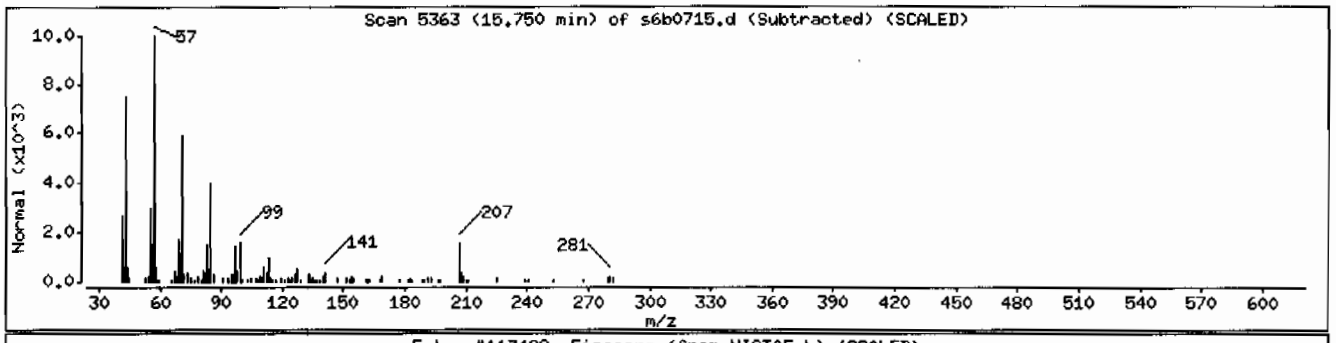

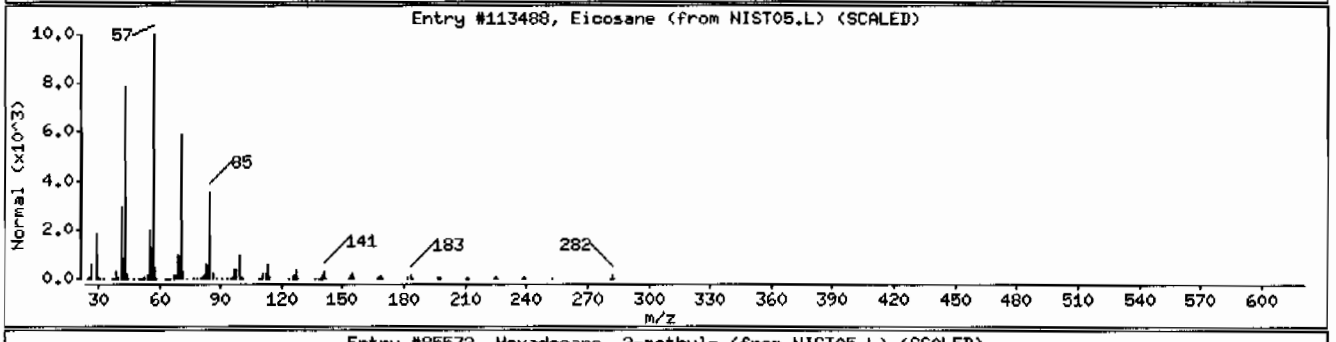

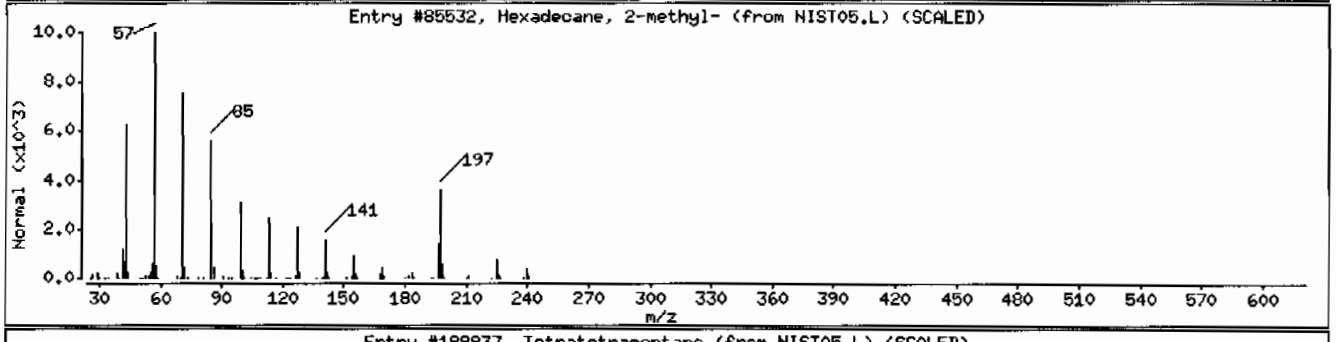

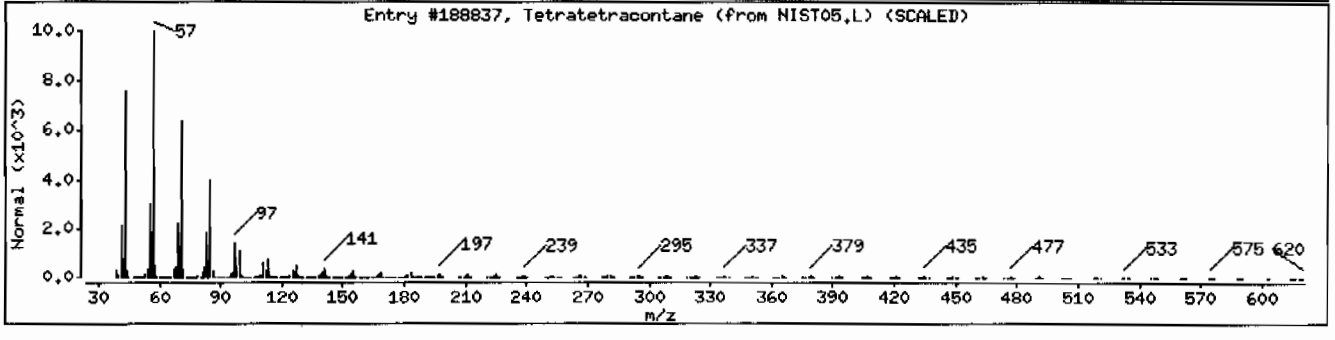

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 16:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0710.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	373	ug/kg	74.5	373
108-95-2	Phenol	U	373	ug/kg	74.5	373
95-57-8	2-Chlorophenol	U	373	ug/kg	74.5	373
106-46-7	1,4-Dichlorobenzene	U	373	ug/kg	74.5	373
621-64-7	N-Nitrosodipropylamine	U	373	ug/kg	74.5	373
59-50-7	4-Chloro-3-methylphenol	U	373	ug/kg	74.5	373
83-32-9	Acenaphthene	U	37.3	ug/kg	12.3	37.3
121-14-2	2,4-Dinitrotoluene	U	373	ug/kg	37.3	373
100-02-7	4-Nitrophenol	U	373	ug/kg	123	373
87-86-5	Pentachlorophenol	U	373	ug/kg	93.2	373
129-00-0	Pyrene	U	37.3	ug/kg	11.2	37.3
110-86-1	Pyridine	U	373	ug/kg	74.5	373
62-53-3	Aniline	U	373	ug/kg	112	373
111-44-4	bis(2-Chloroethyl) ether	U	373	ug/kg	74.5	373
541-73-1	1,3-Dichlorobenzene	U	373	ug/kg	74.5	373
100-51-6	Benzyl alcohol	U	373	ug/kg	112	373
95-50-1	1,2-Dichlorobenzene	U	373	ug/kg	74.5	373
108-60-1	bis(2-Chloroisopropyl)ether	U	373	ug/kg	74.5	373
95-48-7	o-Cresol	U	373	ug/kg	74.5	373
65794-96-9	m,p-Cresols	U	373	ug/kg	112	373
67-72-1	Hexachloroethane	U	373	ug/kg	74.5	373
98-95-3	Nitrobenzene	U	373	ug/kg	74.5	373
78-59-1	Isophorone	U	373	ug/kg	74.5	373
88-75-5	2-Nitrophenol	U	373	ug/kg	74.5	373
105-67-9	2,4-Dimethylphenol	U	373	ug/kg	130	373
111-91-1	bis(2-Chloroethoxy)methane	U	373	ug/kg	74.5	373
120-83-2	2,4-Dichlorophenol	U	373	ug/kg	74.5	373
65-85-0	Benzoic acid	U	745	ug/kg	186	745
91-20-3	Naphthalene	U	37.3	ug/kg	11.2	37.3
106-47-8	4-Chloroaniline	U	373	ug/kg	74.5	373
87-68-3	Hexachlorobutadiene	U	373	ug/kg	74.5	373
91-57-6	2-Methylnaphthalene	U	37.3	ug/kg	7.45	37.3
77-47-4	Hexachlorocyclopentadiene	U	373	ug/kg	74.5	373
88-06-2	2,4,6-Trichlorophenol	U	373	ug/kg	74.5	373
95-95-4	2,4,5-Trichlorophenol	U	373	ug/kg	74.5	373
91-58-7	2-Chloronaphthalene	U	37.3	ug/kg	12.3	37.3
88-74-4	2-Nitroaniline	U	373	ug/kg	74.5	373
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	373	ug/kg	74.5	373

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959004**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7317**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 16:32**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0710.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	373	ug/kg	74.5	373
606-20-2	2,6-Dinitrotoluene	U	373	ug/kg	37.3	373
208-96-8	Acenaphthylene	U	37.3	ug/kg	11.2	37.3
51-28-5	2,4-Dinitrophenol	U	745	ug/kg	142	745
132-64-9	Dibenzofuran	U	373	ug/kg	74.5	373
84-66-2	Diethylphthalate	U	373	ug/kg	74.5	373
86-73-7	Fluorene	U	37.3	ug/kg	11.2	37.3
7005-72-3	4-Chlorophenylphenylether	U	373	ug/kg	74.5	373
534-52-1	2-Methyl-4,6-dinitrophenol	U	373	ug/kg	74.5	373
100-01-6	4-Nitroaniline	U	373	ug/kg	112	373
	p-Nitroaniline					
122-39-4	Diphenylamine	U	373	ug/kg	74.5	373
122-66-7	Azobenzene	U	373	ug/kg	74.5	373
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	373	ug/kg	74.5	373
118-74-1	Hexachlorobenzene	U	373	ug/kg	74.5	373
85-01-8	Phenanthrene	U	37.3	ug/kg	11.2	37.3
120-12-7	Anthracene	U	37.3	ug/kg	7.45	37.3
84-74-2	Di-n-butylphthalate	U	373	ug/kg	74.5	373
206-44-0	Fluoranthene	U	37.3	ug/kg	11.2	37.3
85-68-7	Butylbenzylphthalate	U	373	ug/kg	74.5	373
56-55-3	Benzo(a)anthracene	U	37.3	ug/kg	11.2	37.3
91-94-1	3,3'-Dichlorobenzidine	U	373	ug/kg	112	373
218-01-9	Chrysene	U	37.3	ug/kg	11.2	37.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	373	ug/kg	74.5	373
117-84-0	Di-n-octylphthalate	U	373	ug/kg	74.5	373
205-99-2	Benzo(b)fluoranthene	U	37.3	ug/kg	11.2	37.3
207-08-9	Benzo(k)fluoranthene	U	37.3	ug/kg	11.2	37.3
50-32-8	Benzo(a)pyrene	U	37.3	ug/kg	11.2	37.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.3	ug/kg	11.2	37.3
53-70-3	Dibenzo(a,h)anthracene	U	37.3	ug/kg	11.2	37.3
191-24-2	Benzo(ghi)perylene	U	37.3	ug/kg	11.2	37.3
120-82-1	1,2,4-Trichlorobenzene	U	373	ug/kg	74.5	373

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.27	230	ug/kg		J
	Unknown Aldol Condensate	3.47	336	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0710.d
Lab Smp Id: 245959004 Client Smp ID: RE15-10-7317
Inj Date : 07-FEB-2010 16:32
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959004|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	10.80000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	289598	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1096381	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	623560	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1076277	40.0000	
* 91 Chrysene-d12	240	12.636	12.646	(1.000)	720483	40.0000	
* 98 Perylene-d12	264	14.980	14.990	(1.000)	457127	40.0000	
$ 3 2-Fluorophenol	112	3.705	3.697	(0.762)	337577	46.5483	1730
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	422268	46.1331	1720
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	207668	26.7760	998
$ 39 2-Fluorobiphenyl	172	7.259	7.265	(0.907)	418629	26.0509	971
$ 60 2,4,6-Tribromophenol	329	8.855	8.860	(1.106)	71177	39.1082	1460
$ 81 p-Terphenyl-d14	244	11.321	11.324	(0.896)	414302	35.6573	1330

ION RATIO REPORT

SV REPORT

Data file: s6b0710.d
Report Date: 02/08/2010 09:14
Lab. ID: 245959004 SampleType: SAMPLE
Injection Date: 07-FEB-2010 16:32
Operator: nagl Instrument: MSD6.i
Sample Info: |245959004|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	29699	5.39	5.24	80-120	100	(T)
42	19005	5.39	5.24	39- 99	64	(T)
22 Isophorone				CAS#: 78-59-1		
82	207668	5.39	5.66	80-120	100	(T)
138	5835	6.13	5.66	0- 49	3	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	111352	8.01	7.70	80-120	100	(T)
164	623560	8.01	7.70	0- 40	560	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	82152	8.01	8.21	80-120	100	(T)
89	631	8.00	8.21	43-103	1	(QT)
63	977	8.01	8.21	18- 78	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	106	8.85	8.65	80-120	100	(T)
105	608	8.85	8.65	11- 71	570	(QT)
51	273	8.85	8.65	23- 83	256	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0710.d
Lab Smp Id: 245959004 Client Smp ID: RE15-10-7317
Inj Date : 07-FEB-2010 16:32
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959004|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.08000	weight of sample
M	10.80000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1730850	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.268	267381	6.17917149	230	0		0	10
Unknown Aldol Condensate				CAS #:			
3.470	389740	9.00689302	336	0		0	10

Data File: /chem/MSD6.i/s020710.b/s6b0710.d
Date : 07-FEB-2010 16:32
Client ID: RE15-10-7317
Sample Info: |245959004|949132|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nagl
Column diameter: 0.20

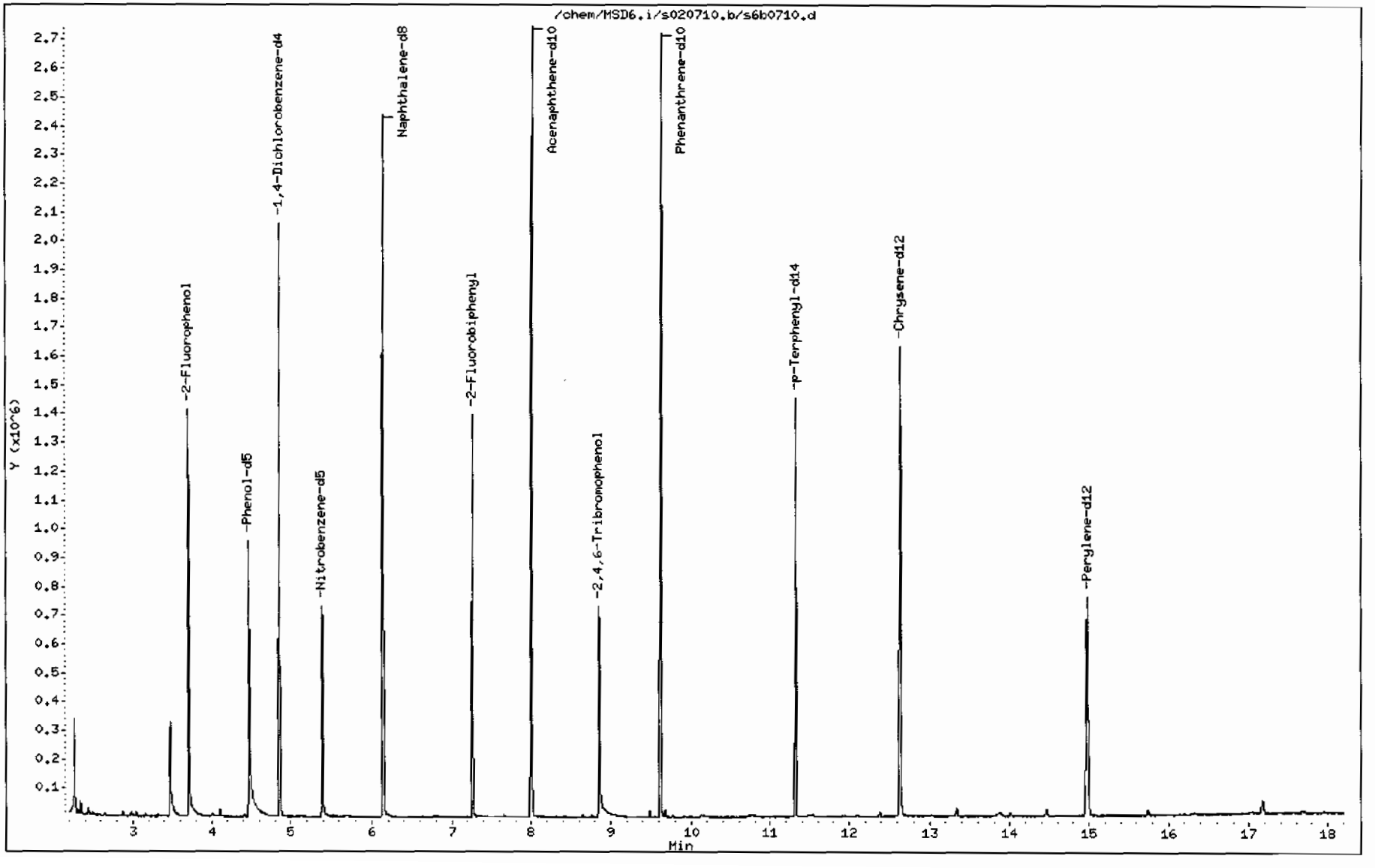

Data File: /chem/MSD6.i/s020710.b/s6b0710.d

Date : 07-FEB-2010 16:32

Client ID: RE15-10-7317

Instrument: MSD6.i

Sample Info: |245959004|949132|1|SVH|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	45	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	42	C5H12O2	104

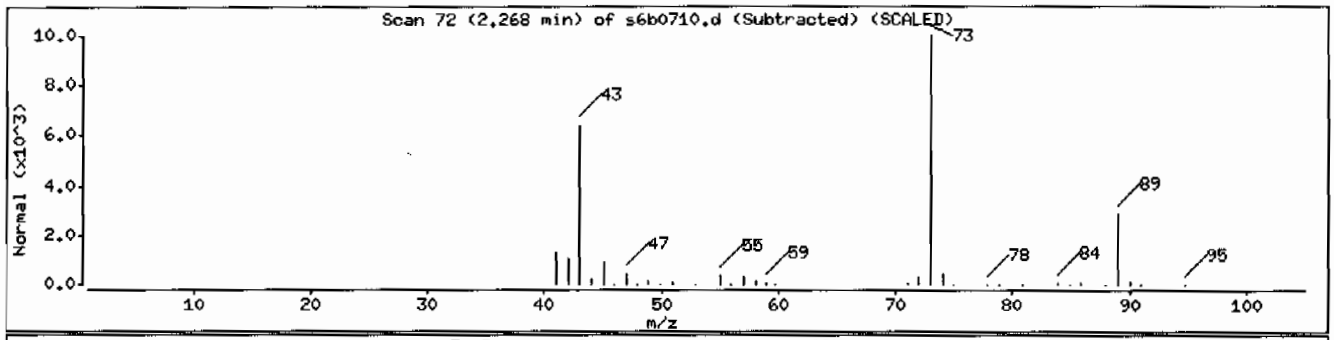

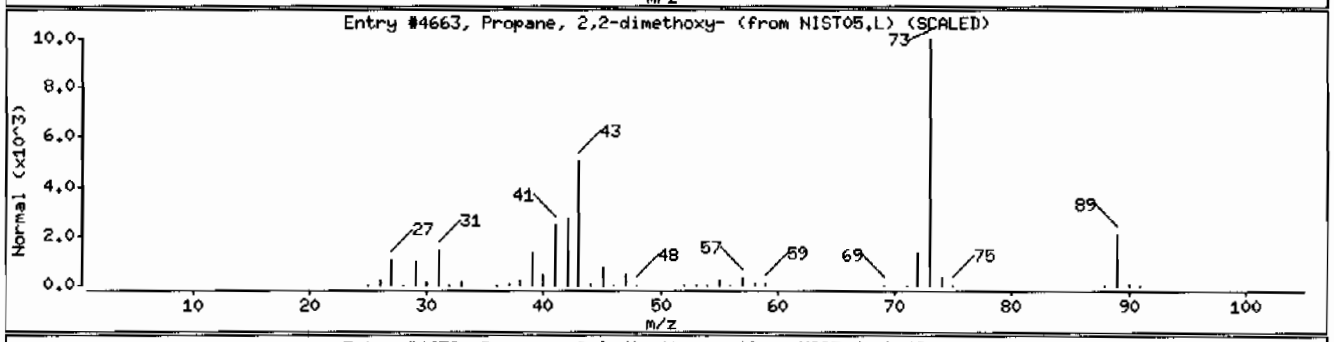

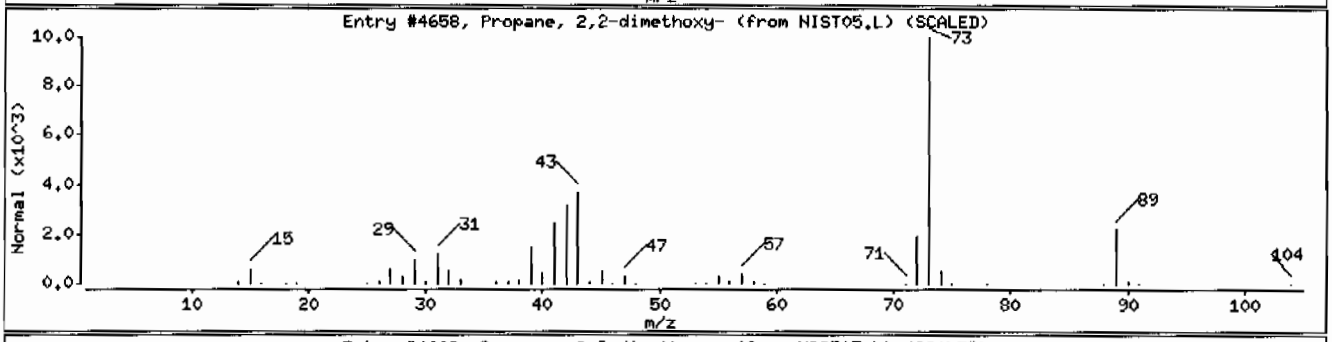

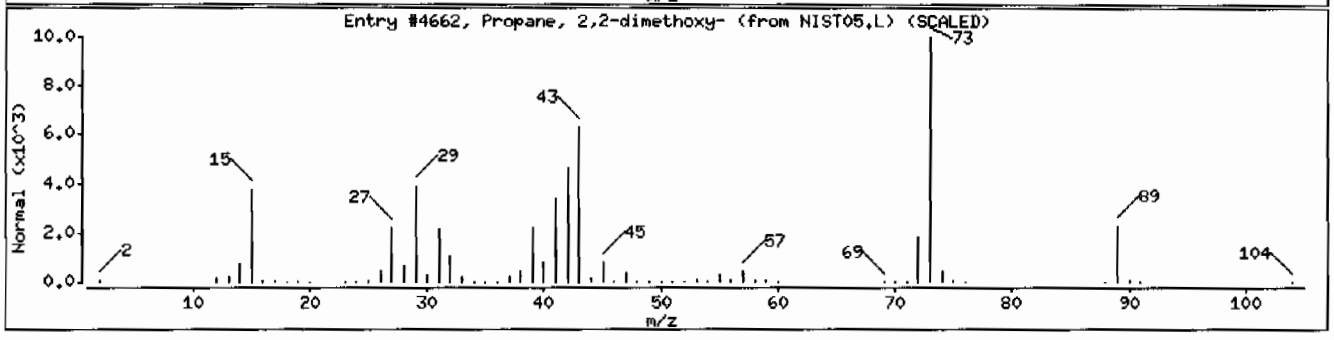

Data File: /chem/MSD6.i/s020710.b/s6b0710.d

Date : 07-FEB-2010 16:32

Client ID: RE15-10-7317 Instrument: MSD6.i

Sample Info: 1245959004194913211SVM11LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5HS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	39	C6H12O2	116

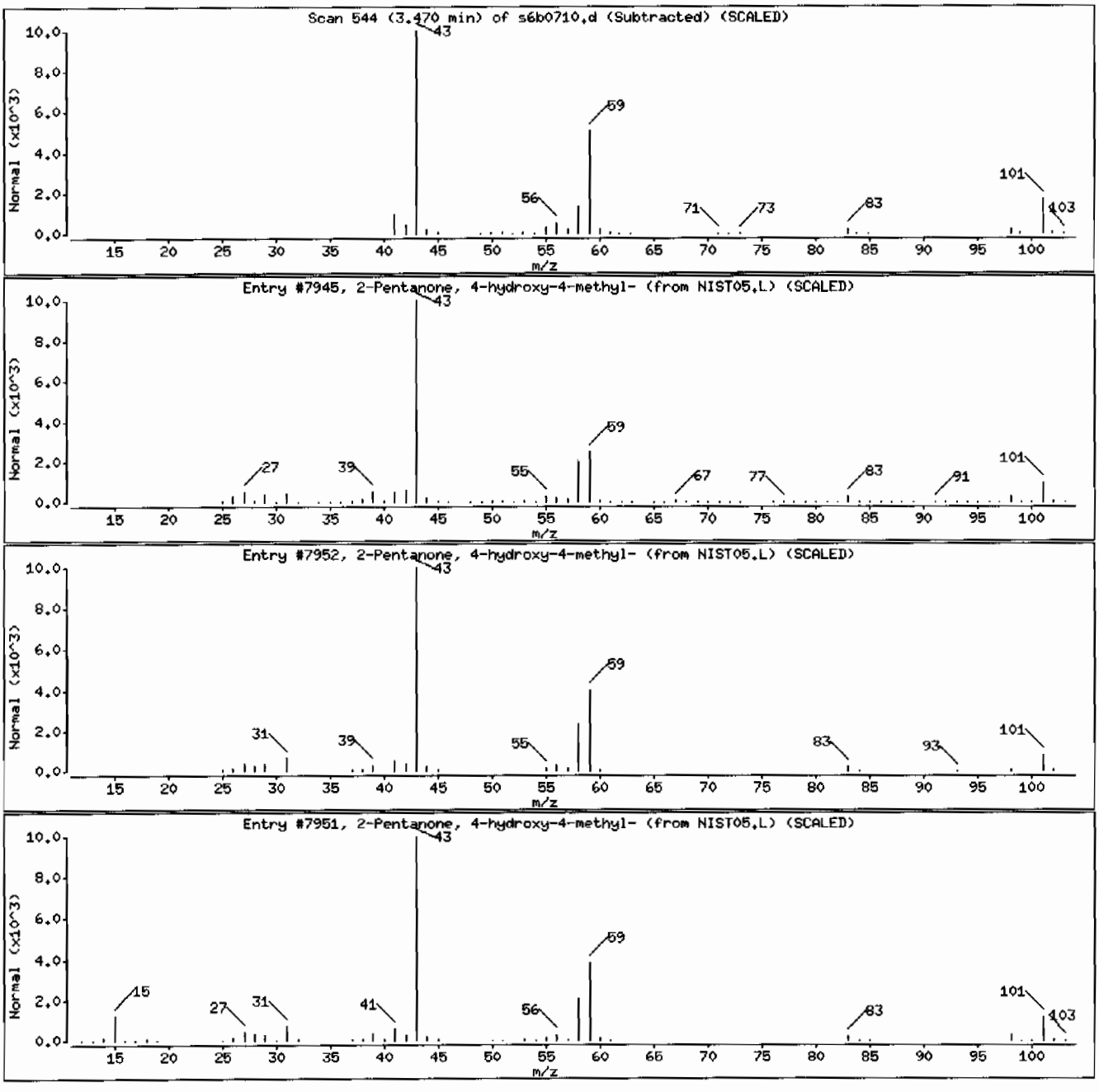

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0808.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	390	ug/kg	78.0	390
108-95-2	Phenol	U	390	ug/kg	78.0	390
95-57-8	2-Chlorophenol	U	390	ug/kg	78.0	390
106-46-7	1,4-Dichlorobenzene	U	390	ug/kg	78.0	390
621-64-7	N-Nitrosodipropylamine	U	390	ug/kg	78.0	390
59-50-7	4-Chloro-3-methylphenol	U	390	ug/kg	78.0	390
83-32-9	Acenaphthene	U	39.0	ug/kg	12.9	39.0
121-14-2	2,4-Dinitrotoluene	U	390	ug/kg	39.0	390
100-02-7	4-Nitrophenol	U	390	ug/kg	129	390
87-86-5	Pentachlorophenol	U	390	ug/kg	97.6	390
129-00-0	Pyrene	U	39.0	ug/kg	11.7	39.0
110-86-1	Pyridine	U	390	ug/kg	78.0	390
62-53-3	Aniline	U	390	ug/kg	117	390
111-44-4	bis(2-Chloroethyl) ether	U	390	ug/kg	78.0	390
541-73-1	1,3-Dichlorobenzene	U	390	ug/kg	78.0	390
100-51-6	Benzyl alcohol	U	390	ug/kg	117	390
95-50-1	1,2-Dichlorobenzene	U	390	ug/kg	78.0	390
108-60-1	bis(2-Chloroisopropyl)ether	U	390	ug/kg	78.0	390
95-48-7	o-Cresol	U	390	ug/kg	78.0	390
65794-96-9	m,p-Cresols	U	390	ug/kg	117	390
67-72-1	Hexachloroethane	U	390	ug/kg	78.0	390
98-95-3	Nitrobenzene	U	390	ug/kg	78.0	390
78-59-1	Isophorone	U	390	ug/kg	78.0	390
88-75-5	2-Nitrophenol	U	390	ug/kg	78.0	390
105-67-9	2,4-Dimethylphenol	U	390	ug/kg	137	390
111-91-1	bis(2-Chloroethoxy)methane	U	390	ug/kg	78.0	390
120-83-2	2,4-Dichlorophenol	U	390	ug/kg	78.0	390
65-85-0	Benzoic acid	U	780	ug/kg	195	780
91-20-3	Naphthalene	U	39.0	ug/kg	11.7	39.0
106-47-8	4-Chloroaniline	U	390	ug/kg	78.0	390
87-68-3	Hexachlorobutadiene	U	390	ug/kg	78.0	390
91-57-6	2-Methylnaphthalene	U	39.0	ug/kg	7.80	39.0
77-47-4	Hexachlorocyclopentadiene	U	390	ug/kg	78.0	390
88-06-2	2,4,6-Trichlorophenol	U	390	ug/kg	78.0	390
95-95-4	2,4,5-Trichlorophenol	U	390	ug/kg	78.0	390
91-58-7	2-Chloronaphthalene	U	39.0	ug/kg	12.9	39.0
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	390	ug/kg	78.0	390
99-09-2	3-Nitroaniline	U	390	ug/kg	78.0	390

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959010**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7318**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/08/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0808.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	390	ug/kg	78.0	390
606-20-2	2,6-Dinitrotoluene	U	390	ug/kg	39.0	390
208-96-8	Acenaphthylene	U	39.0	ug/kg	11.7	39.0
51-28-5	2,4-Dinitrophenol	U	780	ug/kg	148	780
132-64-9	Dibenzofuran	U	390	ug/kg	78.0	390
84-66-2	Diethylphthalate	U	390	ug/kg	78.0	390
86-73-7	Fluorene	U	39.0	ug/kg	11.7	39.0
7005-72-3	4-Chlorophenylphenylether	U	390	ug/kg	78.0	390
534-52-1	2-Methyl-4,6-dinitrophenol	U	390	ug/kg	78.0	390
100-01-6	4-Nitroaniline	U	390	ug/kg	117	390
	p-Nitroaniline					
122-39-4	Diphenylamine	U	390	ug/kg	78.0	390
122-66-7	Azobenzene	U	390	ug/kg	78.0	390
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	390	ug/kg	78.0	390
118-74-1	Hexachlorobenzene	U	390	ug/kg	78.0	390
85-01-8	Phenanthrene	U	39.0	ug/kg	11.7	39.0
120-12-7	Anthracene	U	39.0	ug/kg	7.80	39.0
84-74-2	Di-n-butylphthalate	U	390	ug/kg	78.0	390
206-44-0	Fluoranthene	U	39.0	ug/kg	11.7	39.0
85-68-7	Butylbenzylphthalate	U	390	ug/kg	78.0	390
56-55-3	Benzo(a)anthracene	U	39.0	ug/kg	11.7	39.0
91-94-1	3,3'-Dichlorobenzidine	U	390	ug/kg	117	390
218-01-9	Chrysene	U	39.0	ug/kg	11.7	39.0
117-81-7	bis(2-Ethylhexyl)phthalate	U	390	ug/kg	78.0	390
117-84-0	Di-n-octylphthalate	U	390	ug/kg	78.0	390
205-99-2	Benzo(b)fluoranthene	U	39.0	ug/kg	11.7	39.0
207-08-9	Benzo(k)fluoranthene	U	39.0	ug/kg	11.7	39.0
50-32-8	Benzo(a)pyrene	U	39.0	ug/kg	11.7	39.0
193-39-5	Indeno(1,2,3-cd)pyrene	U	39.0	ug/kg	11.7	39.0
53-70-3	Dibenzo(a,h)anthracene	U	39.0	ug/kg	11.7	39.0
191-24-2	Benzo(ghi)perylene	U	39.0	ug/kg	11.7	39.0
120-82-1	1,2,4-Trichlorobenzene	U	390	ug/kg	78.0	390

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.42	485	ug/kg		JA
21112-37-8	Benzene, 2-(1,1-dimethylethyl)-1,4-dimet	7.38	157	ug/kg	90	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959010	**Date Received:**	02/02/2010 09:10	**%Moisture:**	14.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7318	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/08/2010 17:00	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	s6b0808.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Teutatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
295-17-0	Cyclotetradecane	9.85	237	ug/kg	96	NJ
	Unknown	9.93	216	ug/kg		J
629-73-2	1-Hexadecene	10.32	244	ug/kg	96	NJ
	Unknown	10.42	746	ug/kg		J
112-95-8	Eicosane	15.67	164	ug/kg	95	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020810.b/s6b0808.d
Lab Smp Id: 245959010 Client Smp ID: RE15-10-7318
Inj Date : 08-FEB-2010 17:00
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959010|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100205-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m
Meth Date : 09-Feb-2010 07:32 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	14.77280	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.811	4.813	(1.000)	263355	40.0000	
* 29 Naphthalene-d8	136	6.085	6.090	(1.000)	961527	40.0000	
* 46 Acenaphthene-d10	164	7.955	7.960	(1.000)	554935	40.0000	
* 67 Phenanthrene-d10	188	9.568	9.571	(1.000)	950131	40.0000	
* 91 Chrysene-d12	240	12.575	12.580	(1.000)	684309	40.0000	
* 98 Perylene-d12	264	14.896	14.904	(1.000)	362429	40.0000	
$ 3 2-Fluorophenol	112	3.659	3.649	(0.761)	345938	52.4546	2050
$ 5 Phenol-d5	99	4.426	4.429	(0.920)	446582	53.6513	2090
$ 20 Nitrobenzene-d5	82	5.346	5.354	(0.879)	202722	29.8042	1160
$ 39 2-Fluorobiphenyl	172	7.211	7.214	(0.906)	408372	28.5553	1110
$ 60 2,4,6-Tribromophenol	329	8.809	8.809	(1.107)	95508	58.9663	2300
$ 81 p-Terphenyl-d14	244	11.273	11.273	(0.896)	398417	36.1028	1410

ION RATIO REPORT

SV REPORT

Data file: s6b0808.d
Report Date: 02/09/2010 07:57
Lab. ID: 245959010 SampleType: SAMPLE
Injection Date: 08-FEB-2010 17:00
Operator: nagl Instrument: MSD6.i
Sample Info: |245959010|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100205-01
Comment:
Method used: /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	22612	4.43	4.51	80-120	100	(T)
93	1424	4.48	4.51	198-258	6	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	30020	5.35	5.19	80-120	100	(T)
42	17768	5.34	5.19	42-102	59	(T)
22 Isophorone		CAS#: 78-59-1				
82	202722	5.35	5.61	80-120	100	(T)
138	4999	6.09	5.61	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	100572	7.96	7.65	80-120	100	(T)
164	554935	7.96	7.65	0- 40	552	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	72845	7.96	8.16	80-120	100	(T)
89	873	7.96	8.16	46-106	1	(QT)
63	830	7.96	8.16	22- 82	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	6399	8.81	8.55	80-120	100	(T)
165	6122	8.81	8.55	62-122	96	(T)
167	2241	8.80	8.55	0- 44	35	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	100	8.80	8.60	80-120	100	(T)
105	786	8.81	8.60	11- 71	781	(QT)
51	734	8.80	8.60	29- 89	730	(QT)
99 Indeno(1,2,3-cd)pyrene				CAS#: 193-39-5		
276	460	16.90	16.89	80-120	100	( )
138	130	16.90	16.89	5- 65	28	( )
100 Dibenzo(a,h)anthracene				CAS#: 53-70-3		
278	401	16.91	16.91	80-120	100	( )
139	189	16.91	16.91	0- 30	47	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020810.b/s6b0808.d
Lab Smp Id: 245959010 Client Smp ID: RE15-10-7318
Inj Date : 08-FEB-2010 17:00
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959010|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100205-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m
Meth Date : 09-Feb-2010 07:32 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.07000	weight of sample
M	14.77280	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.811	1576823	40.000
* 46 Acenaphthene-d10	7.955	2322921	40.000
* 67 Phenanthrene-d10	9.568	2340832	40.000
* 98 Perylene-d12	14.896	1027849	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUANT QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate				CAS #:			
3.422	490202	12.4351777	485	0		0	10
Benzene, 2-(1,1-dimethylethyl)-1,4-dimet				CAS #: 21112-37-8			
7.377	233684	4.02396012	157	90	NIST05.L	52670	46
Cyclotetradecane				CAS #: 295-17-0			
9.848	354916	6.06479058	237	96	NIST05.L	54515	67
Unknown				CAS #:			
9.930	324022	5.53687374	216	0		0	67
1-Hexadecene				CAS #: 629-73-2			
10.317	365915	6.25273668	244	96	NIST05.L	74522	67
Unknown				CAS #:			
10.422	1118343	19.1101807	746	0		0	67
Eicosane				CAS #: 112-95-8			
15.671	107910	4.19945679	164	95	NIST05.L	113489	98

Data File: /chem/MSD6.i/s020810.b/s6b0808.d
Date : 08-FEB-2010 17:00
Client ID: RE15-10-7318
Sample Info: I2459590101949132|1|SVM11|LAML
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagi
Column diameter: 0.20

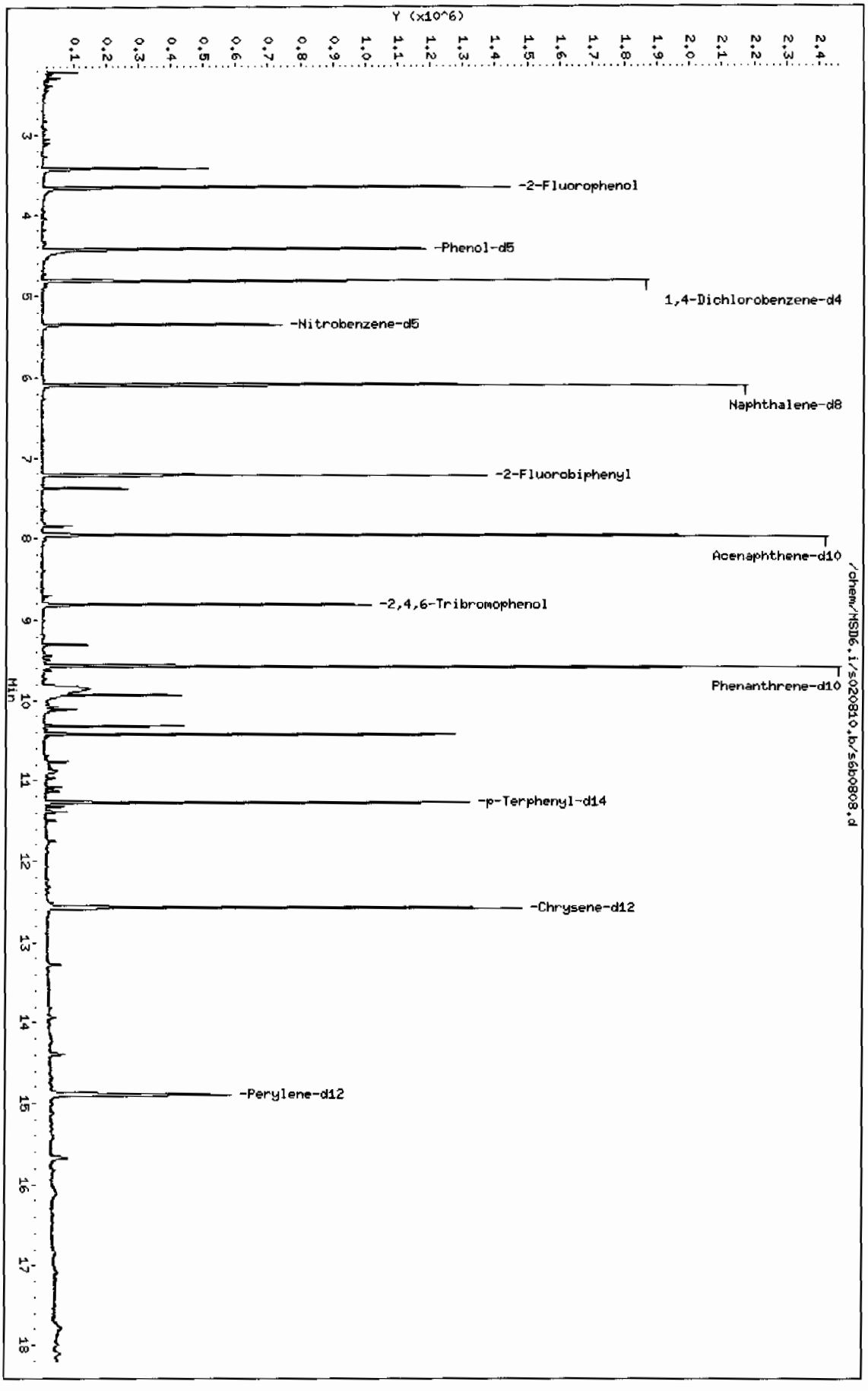

Page 1

Data File: /chem/MSD6.i/s020810.b/s6b0808.d

Date : 08-FEB-2010 17:00

Client ID: RE15-10-7318

Instrument: MSD6.i

Sample Info: 1245959010|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	38	C6H12O2	116

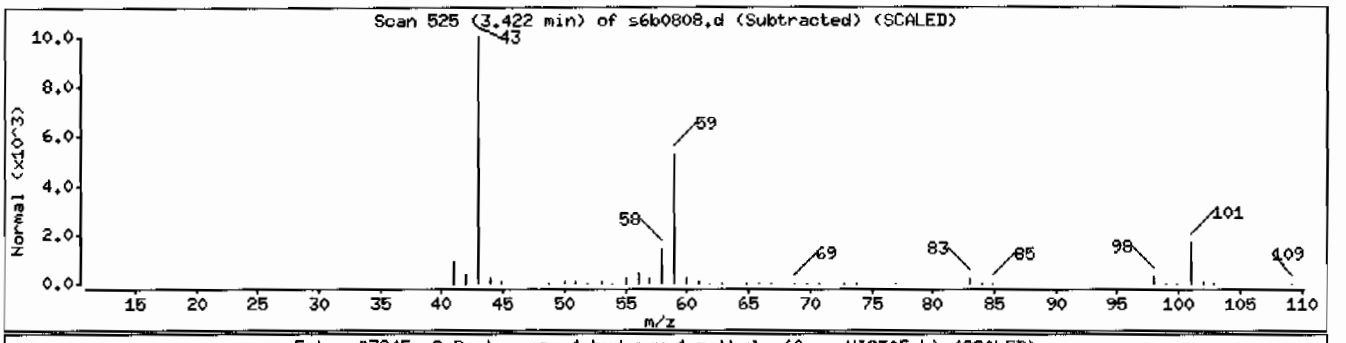

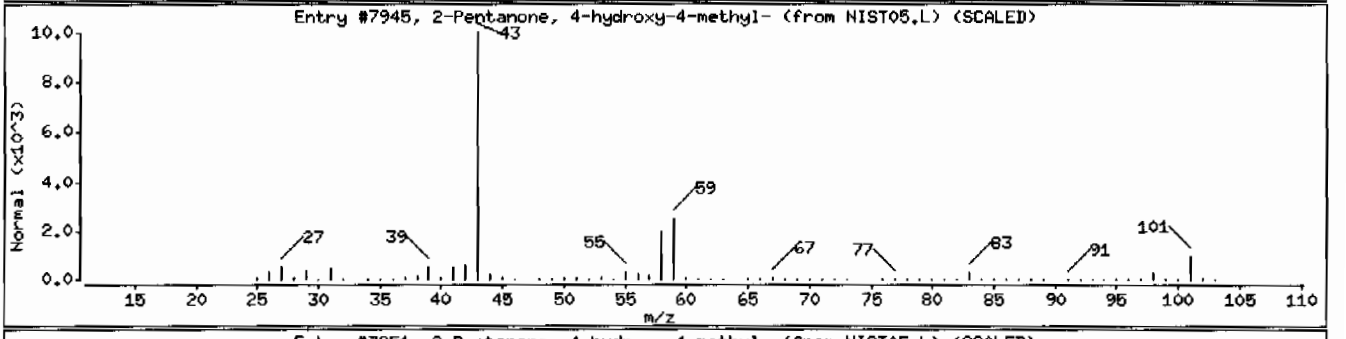

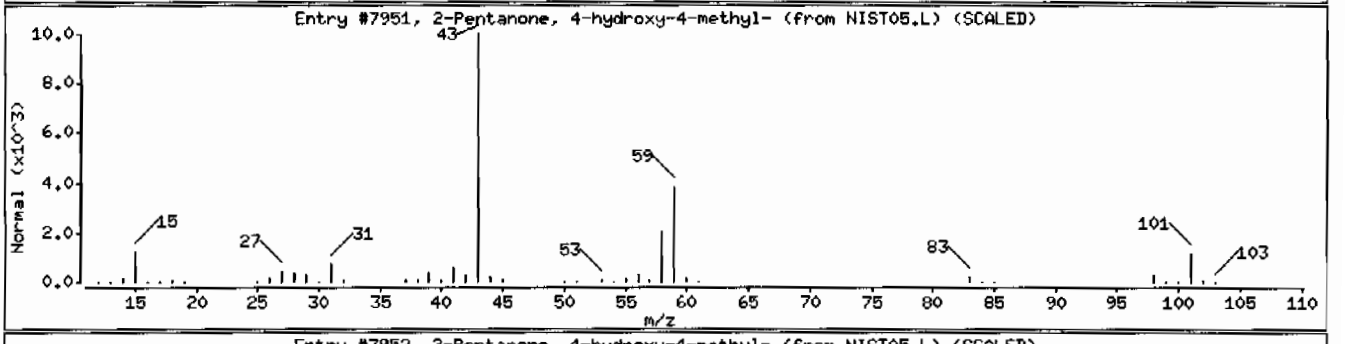

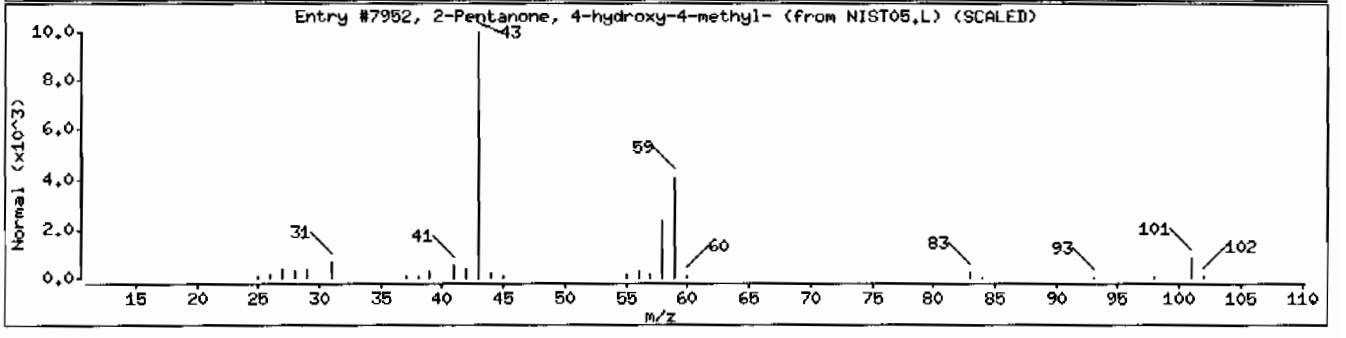

Data File: /chem/MSD6.i/s020810.b/s6b0808.d

Date : 08-FEB-2010 17:00

Client ID: RE15-10-7318

Instrument: MSD6.i

Sample Info: 1245959010|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 2-(1,1-dimethylethyl)-1,4-dimet	21112-37-8	NIST05.L	52670	90	C12H18O2	194
4-Acetylphenoxyacetic acid	1878-81-5	NIST05.L	52259	68	C10H10O4	194
9H-Fluorene, 9,9-dimethyl-	4569-45-3	NIST05.L	52967	64	C15H14	194

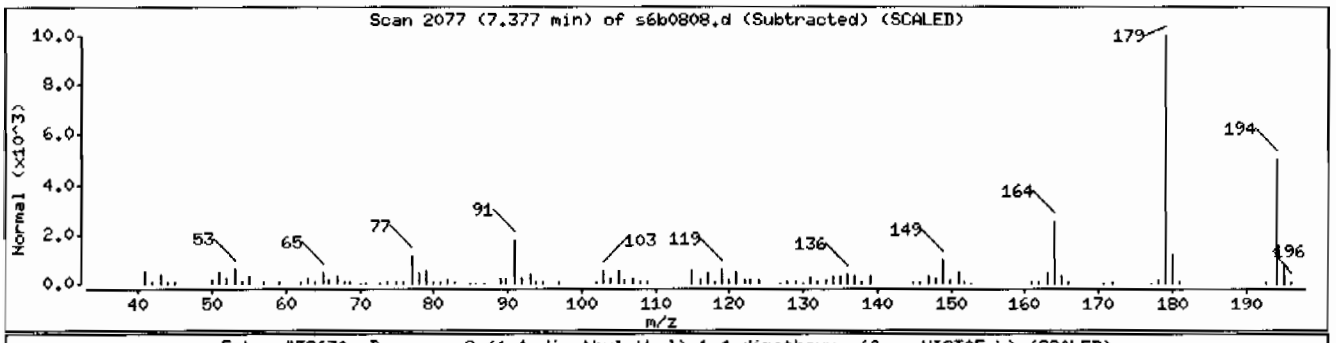

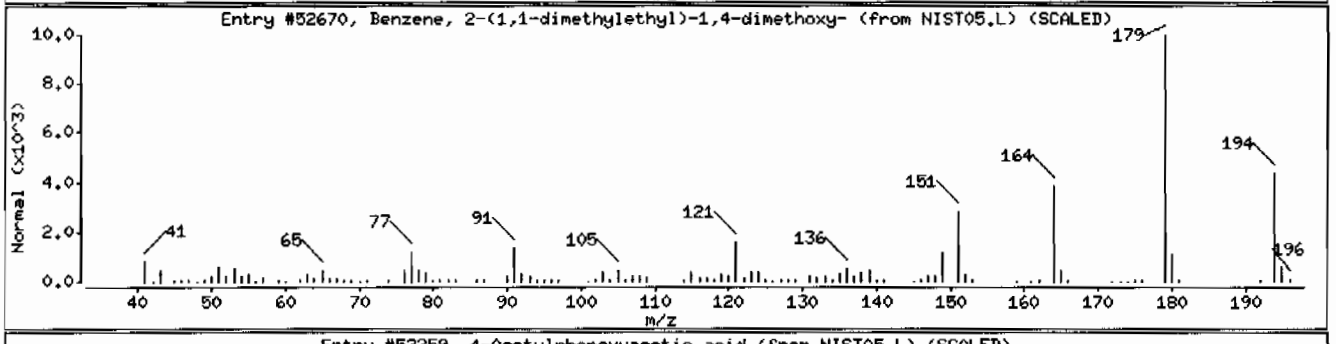

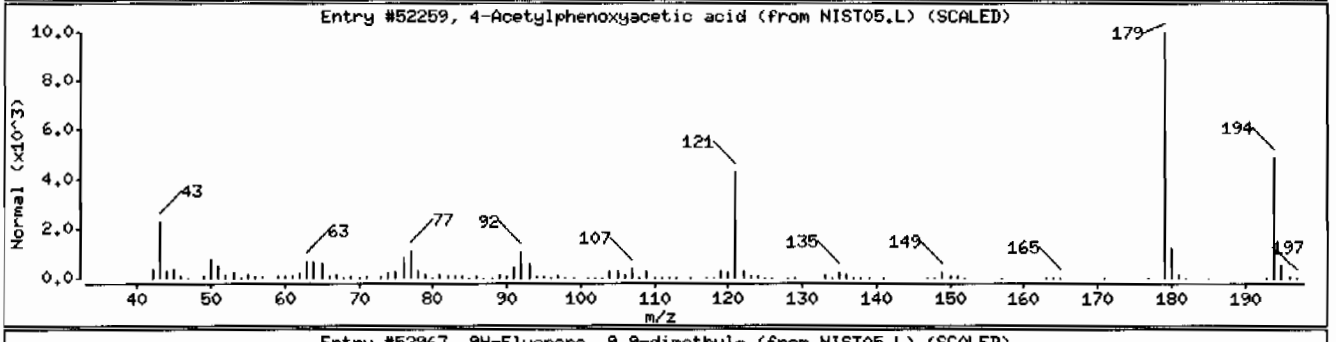

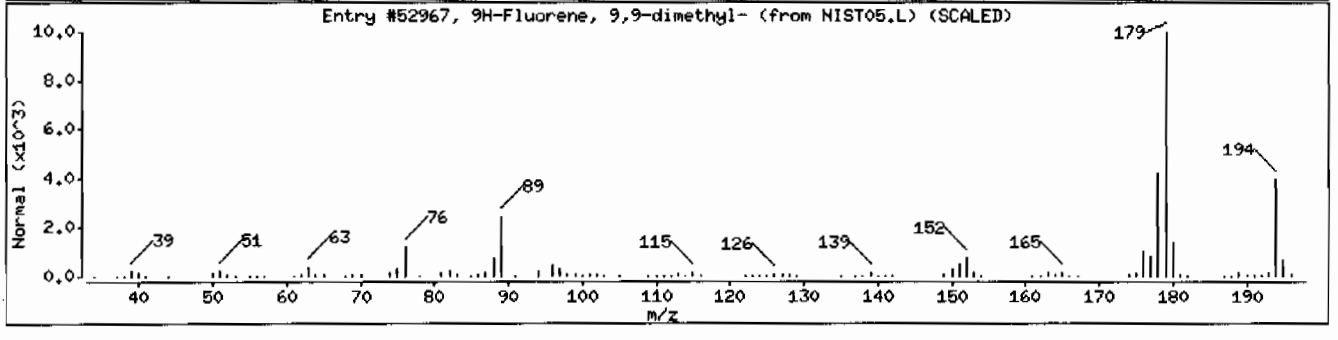

Data File: /chem/MSD6.i/s020810.b/s6b0808.d

Date : 08-FEB-2010 17:00

Client ID: RE15-10-7318 Instrument: MSD6.i

Sample Info: |245959010|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclotetradecane	295-17-0	NIST05.L	54515	96	C14H28	196
5-Tetradecene, (Z)-	41446-62-2	NIST05.L	54522	91	C14H28	196
1-Hexadecene	629-73-2	NIST05.L	74521	91	C16H32	224

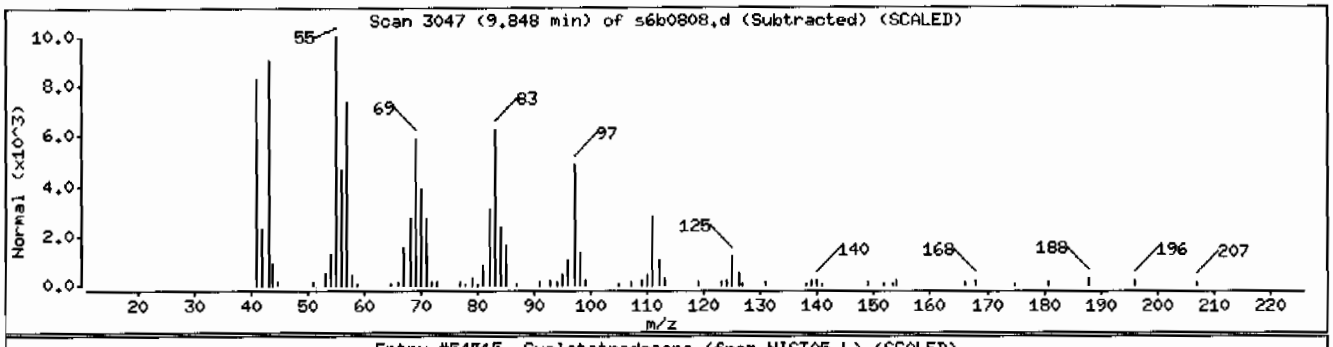

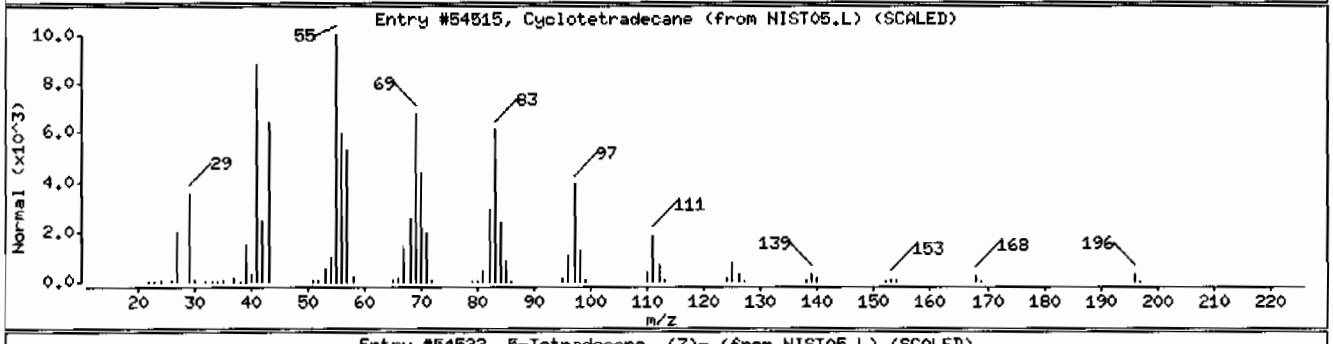

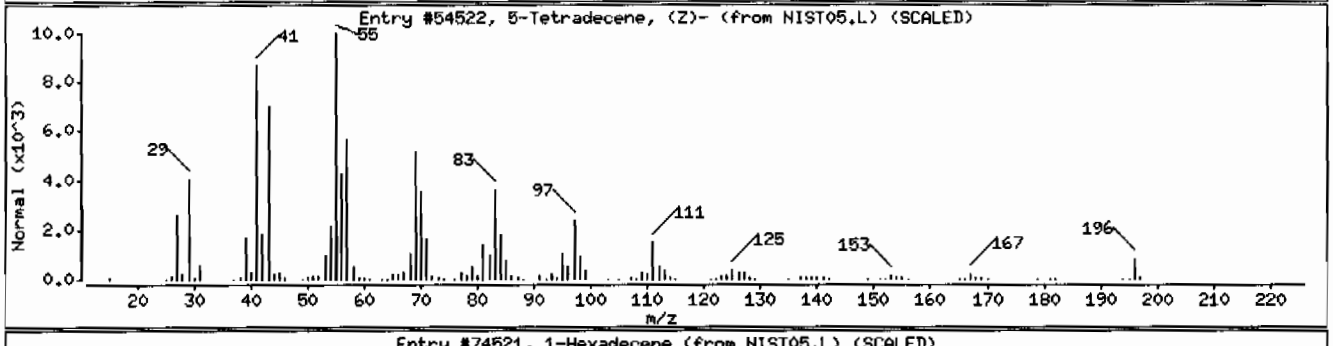

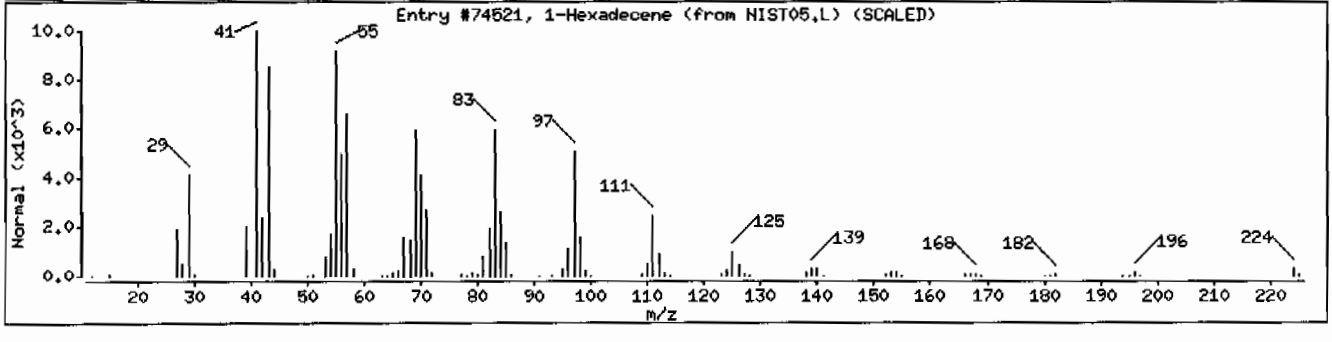

Data File: /chem/MSD6.i/s020810.b/s6b0808.d

Date : 08-FEB-2010 17:00

Client ID: RE15-10-7318 Instrument: MSD6.i

Sample Info: |245959010|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
(4-Methoxy-2,6-dimethylphenyl)boronic ac	1000306-55-2	NIST05.L	43650	47	C9H13BO3	180
2-Ethyl-6-methoxybenzoic acid	72216-29-6	NIST05.L	42666	43	C10H12O3	180
Benzenamine, 2-nitro-5-(1-piperazinyl)-	96103-52-5	NIST05.L	72225	38	C10H14N4O2	222

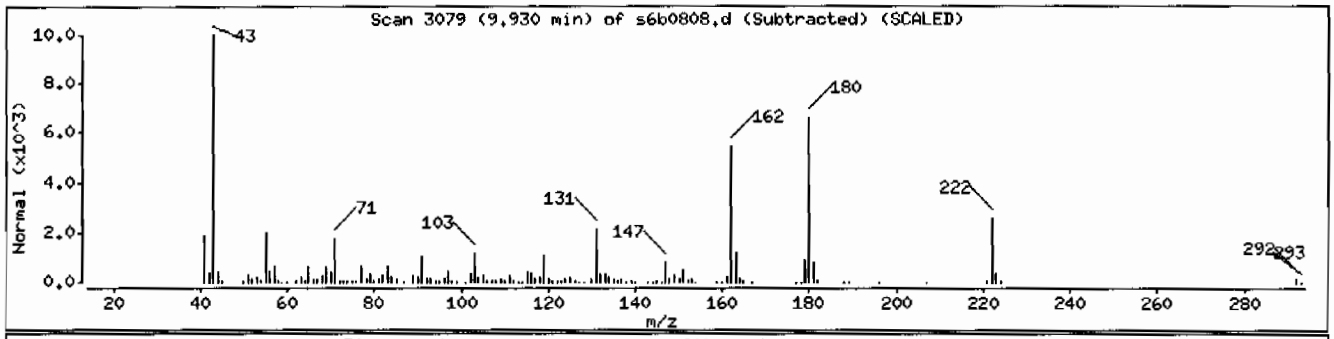

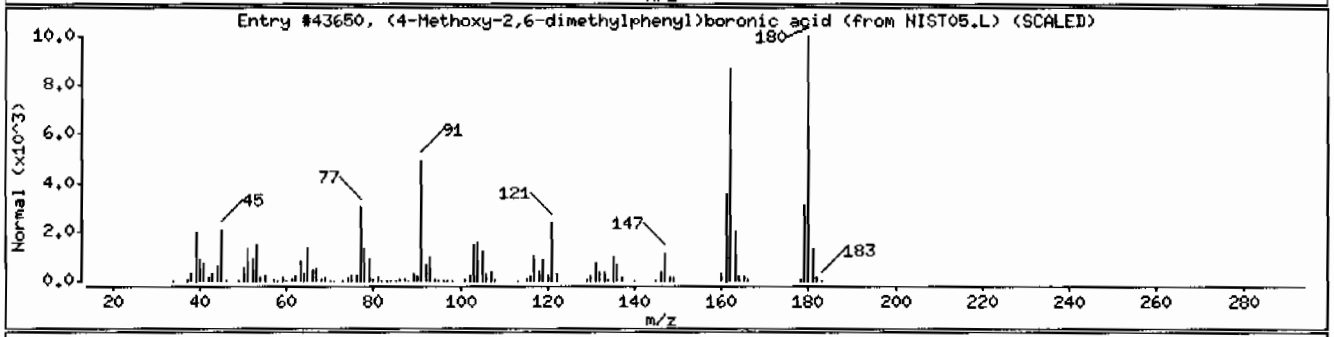

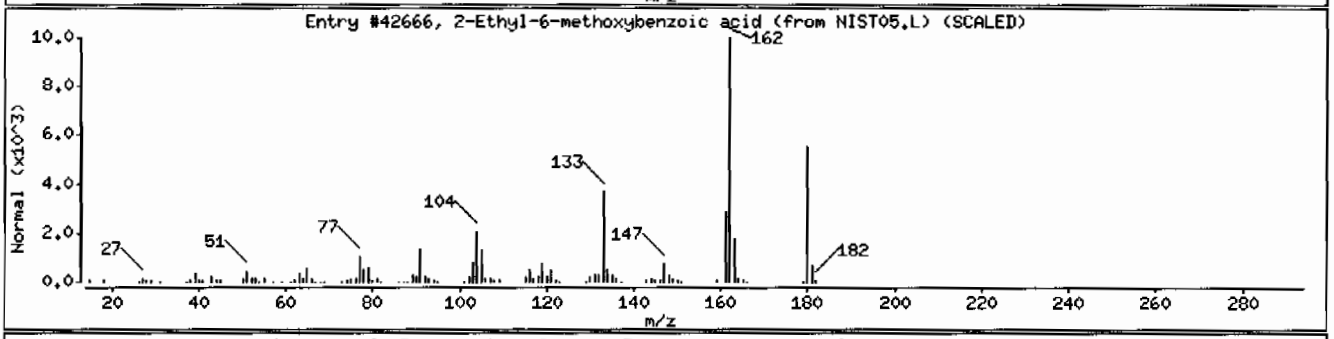

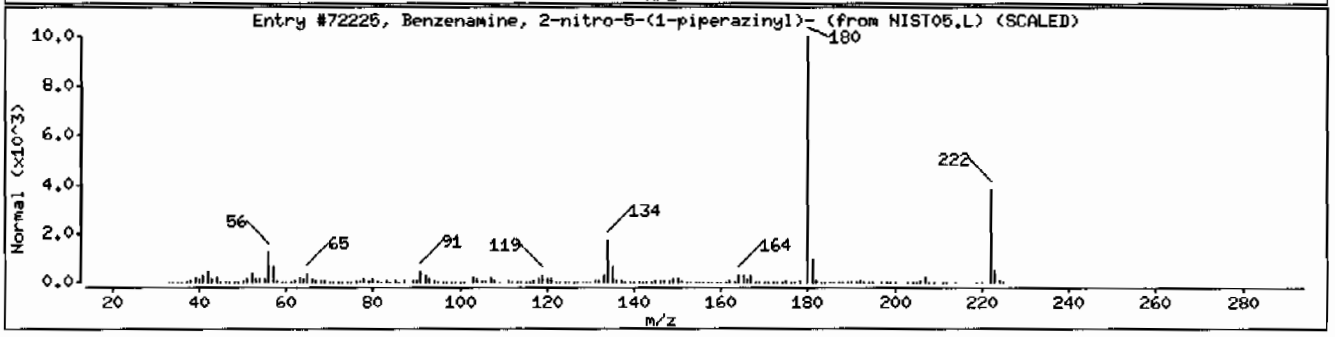

Data File: /chem/MSD6.i/s020810.b/s6b0808.d

Date : 08-FEB-2010 17:00

Client ID: RE15-10-7318

Instrument: MSD6.i

Sample Info: 1245959010|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Hexadecene	629-73-2	NIST05.L	74522	96	C16H32	224
1-Hexadecanol, acetate	629-70-9	NIST05.L	114828	91	C18H3602	284
1-Tetradecanol, acetate	638-59-5	NIST05.L	96251	80	C16H3202	256

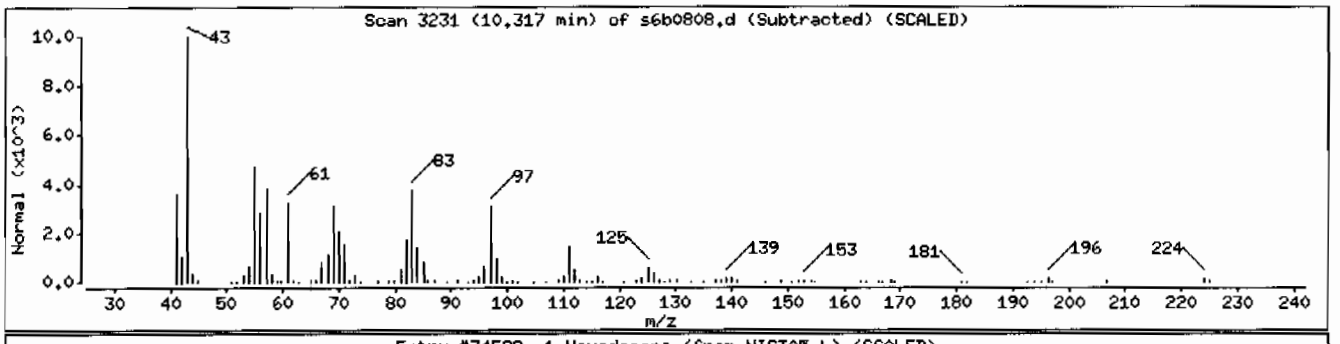

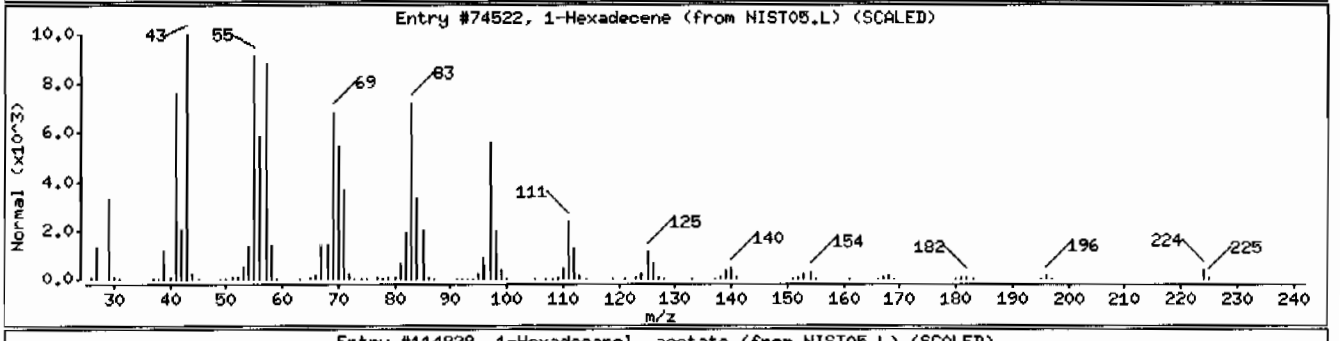

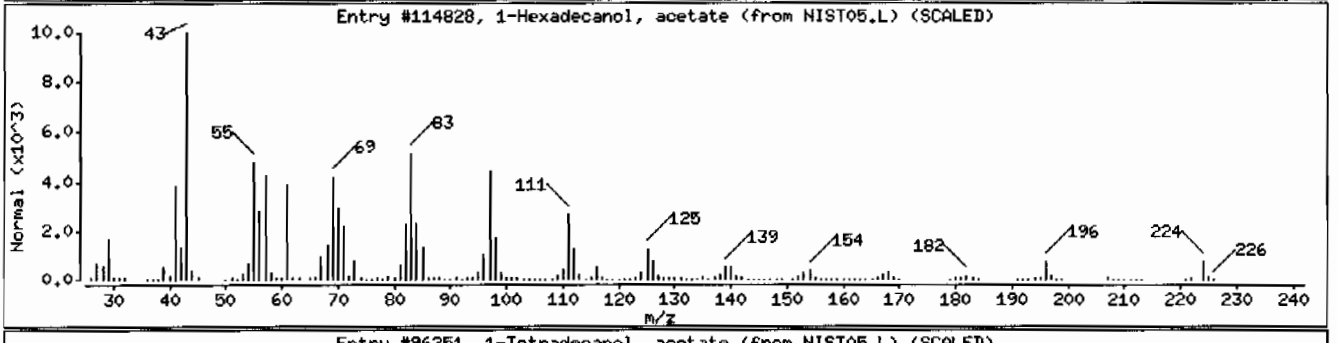

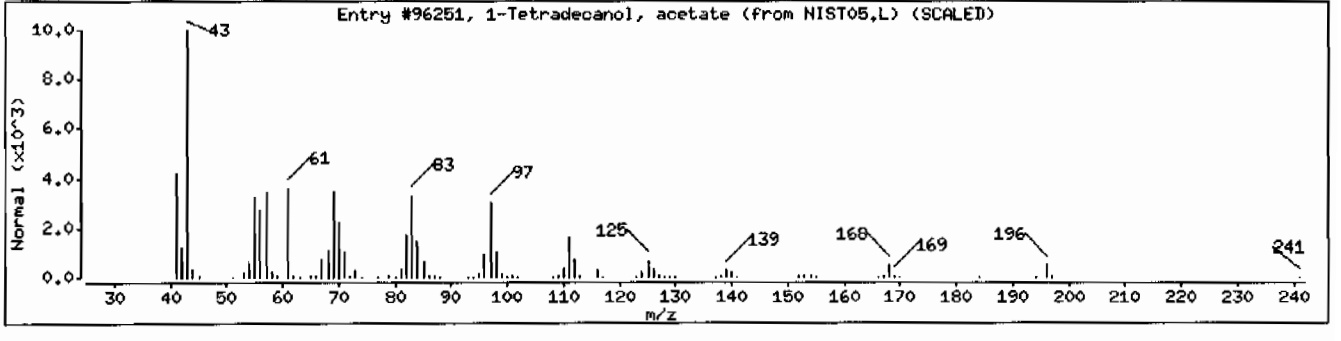

Data File: /chem/MSD6.i/s020810.b/s6b0808.d

Date : 08-FEB-2010 17:00

Client ID: RE15-10-7318 Instrument: MSD6.i

Sample Info: |245959010|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Ethyl-6-methoxybenzoic acid	72216-29-6	NIST05.L	42666	37	C10H12O3	180
1,3-Benzenediamine, 2,4,5,6-tetrafluoro-	1198-63-6	NIST05.L	43399	27	C6H4F4N2	180
4-Methyl-2,5-dimethoxybenzaldehyde	4925-88-6	NIST05.L	42688	27	C10H12O3	180

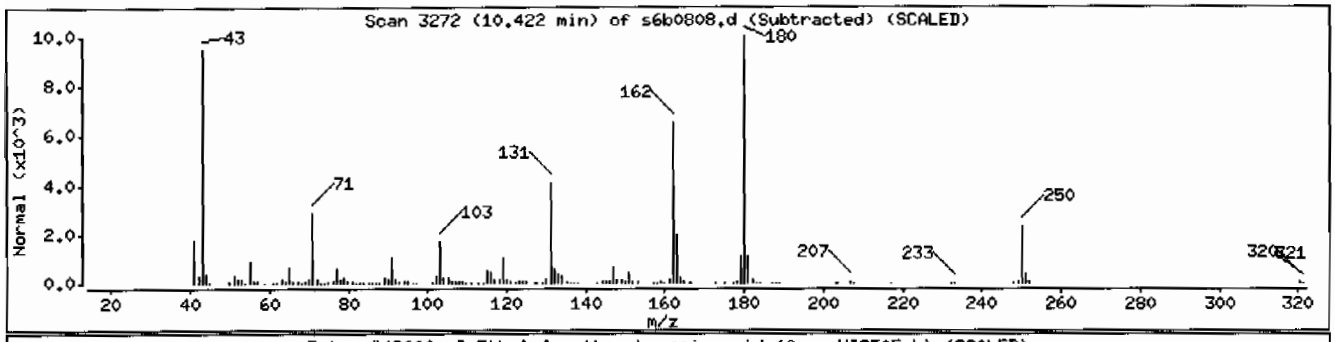

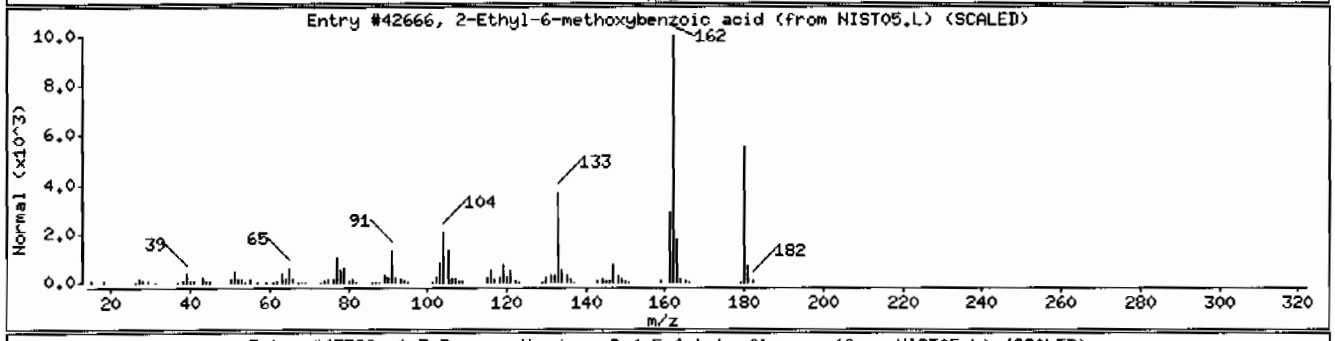

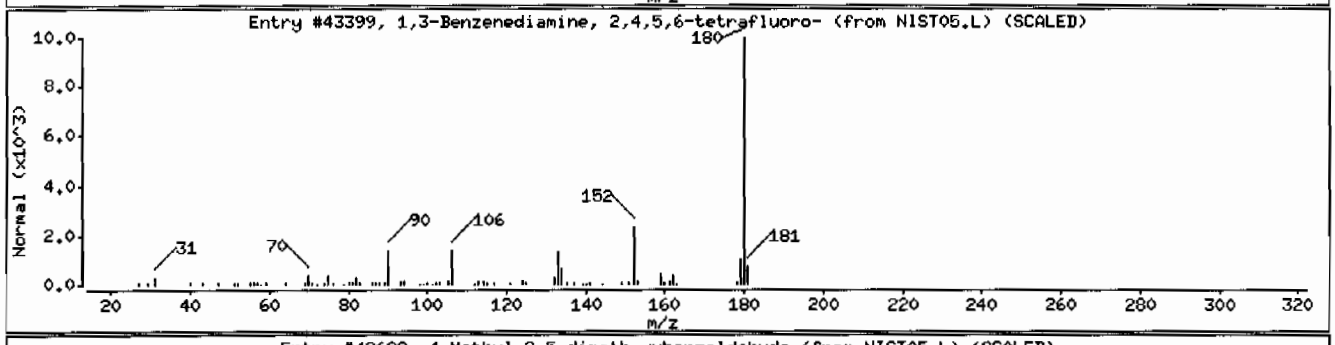

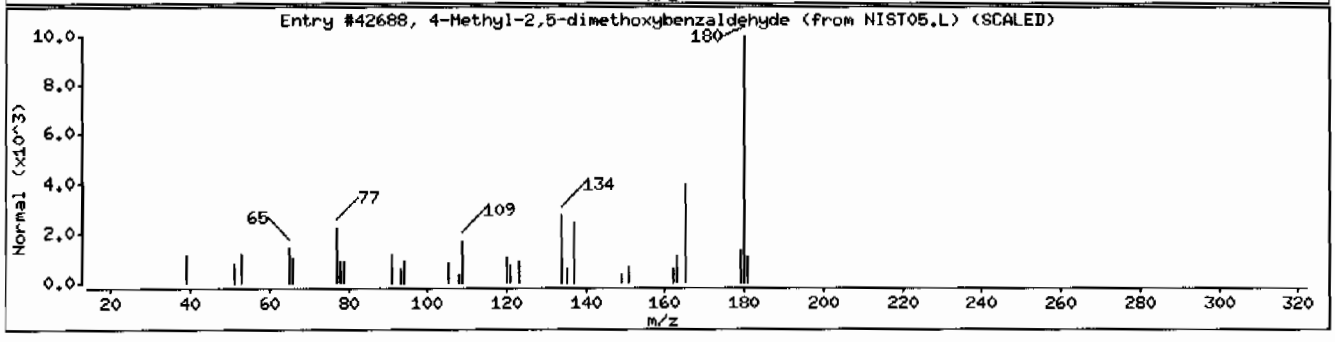

Data File: /chem/MSD6.i/s020810.b/s6b0808.d

Date : 08-FEB-2010 17:00

Client ID: RE15-10-7318 Instrument: MSD6.i

Sample Info: 1245959010194913211ISVH11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NIST05.L	113489	95	C20H42	282
Hexadecane	544-76-3	NIST05.L	76088	95	C16H34	226
Nonadecane	629-92-5	NIST05.L	104271	91	C19H40	268

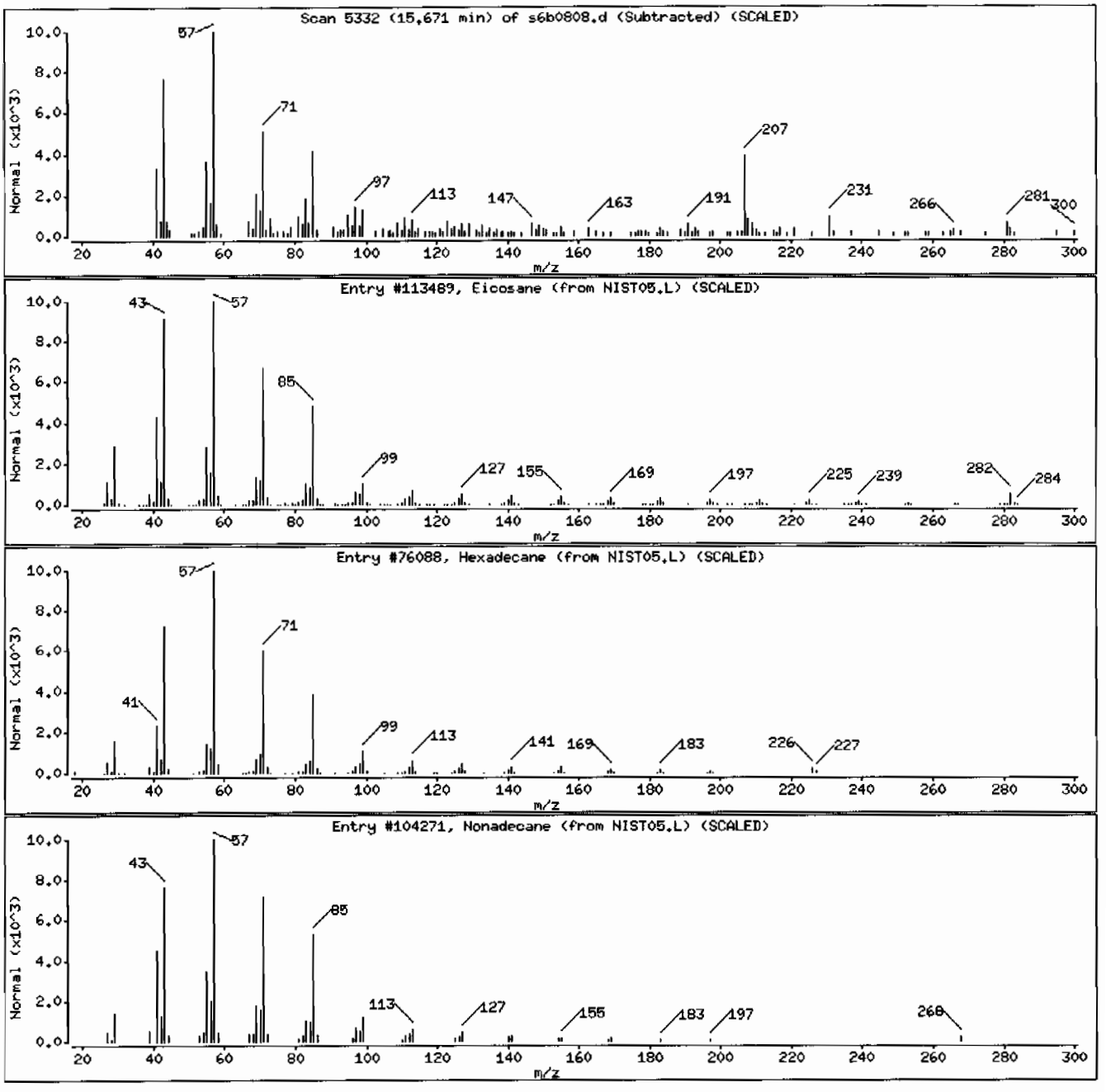

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959005	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7319	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 17:00	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	s6b0711.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.3	371
108-95-2	Phenol	U	371	ug/kg	74.3	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.3	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.3	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.3	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.3	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.3	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	123	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.8	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.3	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.3	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.3	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.3	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.3	371
95-48-7	o-Cresol	U	371	ug/kg	74.3	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.3	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.3	371
78-59-1	Isophorone	U	371	ug/kg	74.3	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.3	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.3	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.3	371
65-85-0	Benzoic acid	U	743	ug/kg	186	743
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.3	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.3	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.43	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.3	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.3	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.3	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.3	37.1
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	371	ug/kg	74.3	371
99-09-2	3-Nitroaniline	U	371	ug/kg	74.3	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959005**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7319**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 17:00**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**s6h0711.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.3	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	743	ug/kg	141	743
132-64-9	Dibenzofuran	U	371	ug/kg	74.3	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.3	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.3	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.3	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.3	371
122-66-7	Azobenzene	U	371	ug/kg	74.3	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.3	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.3	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.43	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.3	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.3	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.3	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.3	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.3	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.48	589	ug/kg		JA
	Unknown	17.17	179	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0711.d
Lab Smp Id: 245959005 Client Smp ID: RE15-10-7319
Inj Date : 07-FEB-2010 17:00
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959005|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	10.80000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	288629	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1088255	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	625270	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1072022	40.0000	
* 91 Chrysene-d12	240	12.636	12.646	(1.000)	757008	40.0000	
* 98 Perylene-d12	264	14.980	14.990	(1.000)	504363	40.0000	
$ 3 2-Fluorophenol	112	3.707	3.697	(0.763)	475682	65.8117	2440
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	585086	64.1357	2380
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	278438	36.1689	1340
$ 39 2-Fluorobiphenyl	172	7.262	7.265	(0.907)	543540	33.7315	1250
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	109425	59.9591	2230
$ 81 p-Terphenyl-d14	244	11.321	11.324	(0.896)	549072	44.9763	1670

ION RATIO REPORT

SV REPORT

Data file: s6b0711.d
Report Date: 02/08/2010 09:14
Lab. ID: 245959005 SampleType: SAMPLE
Injection Date: 07-FEB-2010 17:00
Operator: nagl Instrument: MSD6.i
Sample Info: |245959005|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	39498	5.39	5.24	80-120	100	(T)
42	25209	5.39	5.24	39- 99	64	(T)
22 Isophorone				CAS#: 78-59-1		
82	278438	5.39	5.66	80-120	100	(T)
138	6043	6.14	5.66	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	111908	8.01	7.70	80-120	100	(T)
164	625270	8.01	7.70	0- 40	559	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	81395	8.01	8.21	80-120	100	(T)
89	1086	8.01	8.21	43-103	1	(QT)
63	946	8.01	8.21	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	7245	8.85	8.60	80-120	100	(T)
165	7774	8.85	8.60	62-122	107	(T)
167	2376	8.86	8.60	0- 44	33	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	161	8.86	8.65	80-120	100	(T)
105	727	8.86	8.65	11- 71	451	(QT)
51	487	8.86	8.65	23- 83	302	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0711.d
Lab Smp Id: 245959005 Client Smp ID: RE15-10-7319
Inj Date : 07-FEB-2010 17:00
Operator : nagl Inst ID: MSD6.i
Smp Info : |245959005|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.18000	weight of sample
M	10.80000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1737353	40.000
* 98 Perylene-d12	14.980	1429350	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.476	688845	15.8596491	589	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	==	======	==========	======
Unknown				CAS #:			
17.169	172275	4.82106198	179	0		0	98

Data File: /chem/MSD6.i/s020710.b/s6b0711.d
Date : 07-FEB-2010 17:00
Client ID: RE15-10-7319
Sample Info: 1245959005|949132|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

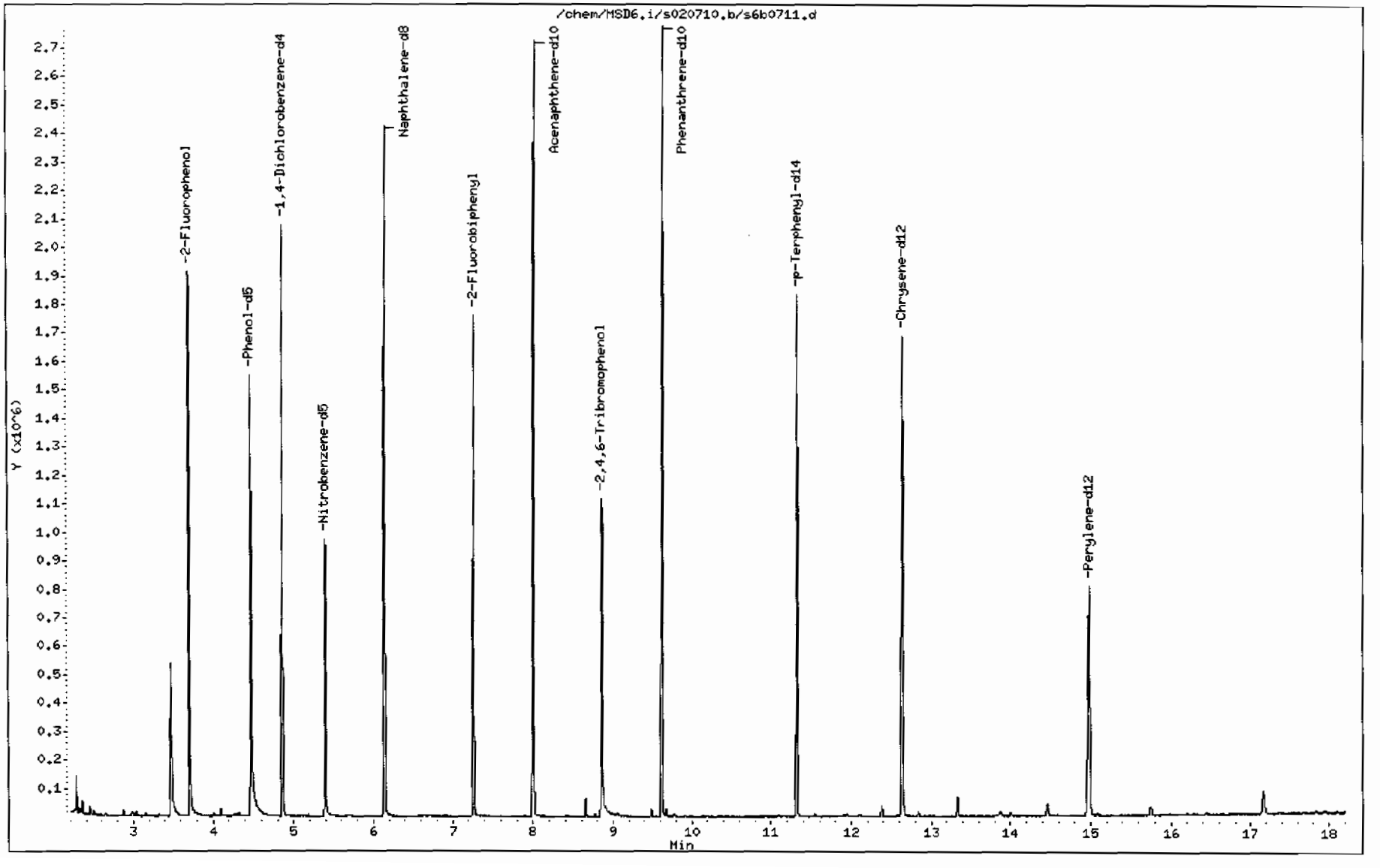

Data File: /chem/MSD6.i/s020710.b/s6b0711.d

Date : 07-FEB-2010 17:00

Client ID: RE15-10-7319

Instrument: MSD6.i

Sample Info: |245959005|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2,3-Butanedione, monooxime	57-71-6	NIST05.L	3949	16	C4H7NO2	101

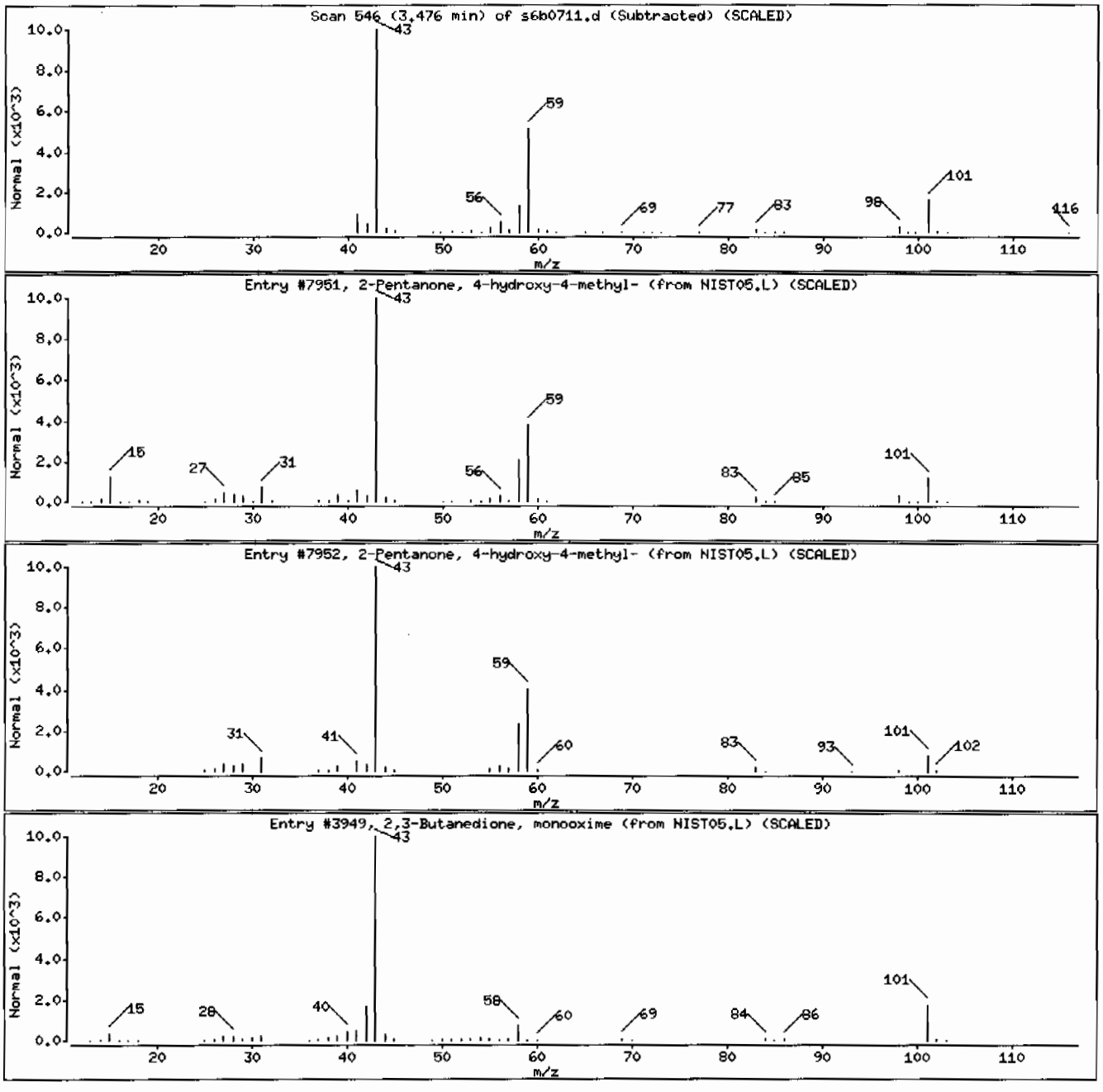

Data File: /chem/MSD6.i/s020710.b/s6b0711.d

Date : 07-FEB-2010 17:00

Client ID: RE15-10-7319

Instrument: MSD6.i

Sample Info: 1245959005|949132|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
D:B-Friedo-18,19-secolup-19-ene, 3,10-ep	35060-26-5	NIST05.L	176604	55	C30H50O	426
Lanosterol	79-63-0	NIST05.L	176556	52	C30H50O	426
Lanost-7-en-3-one, (9.beta.,13.alpha.,14	55515-18-9	NIST05.L	176602	49	C30H50O	426

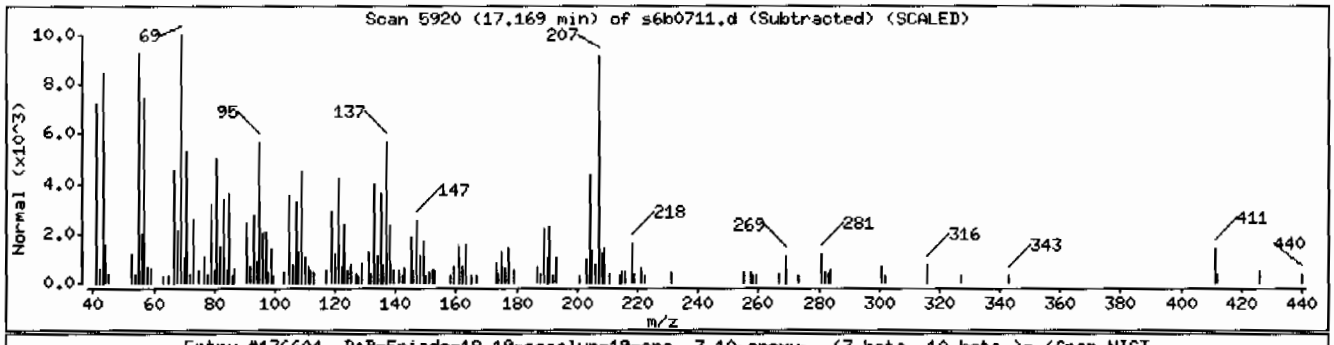

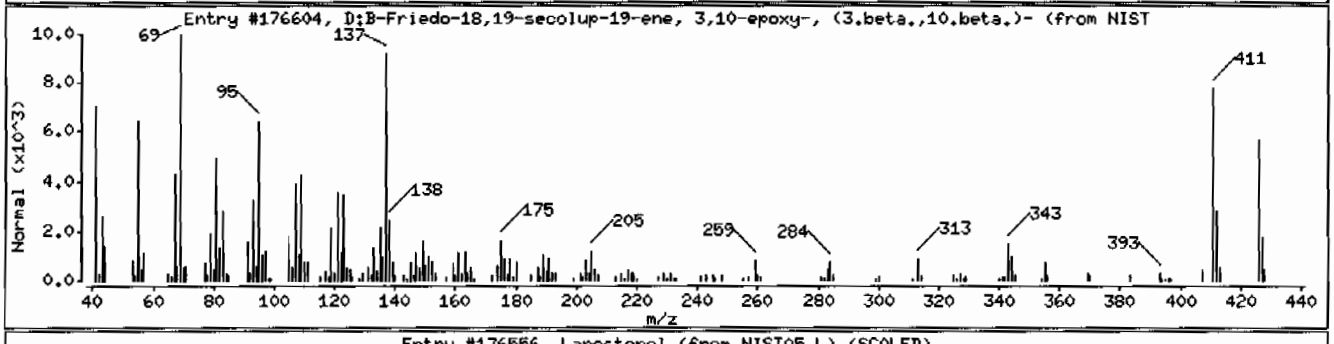

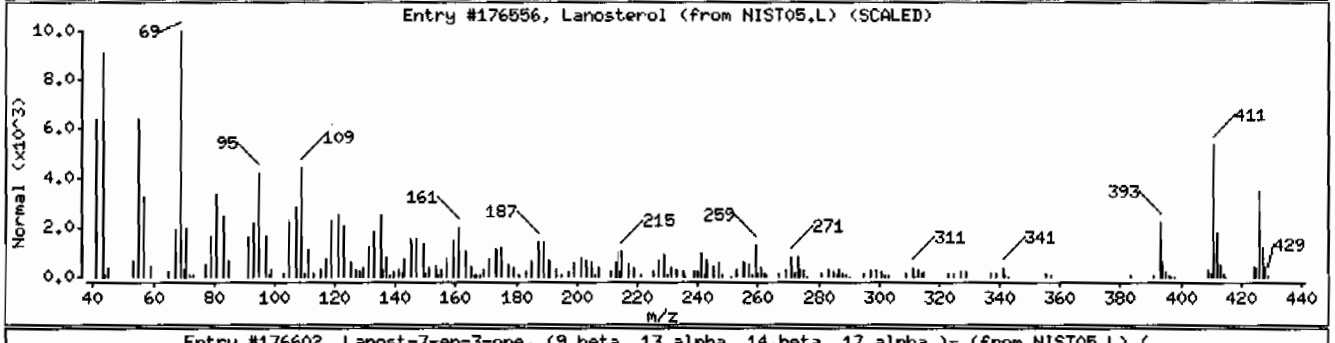

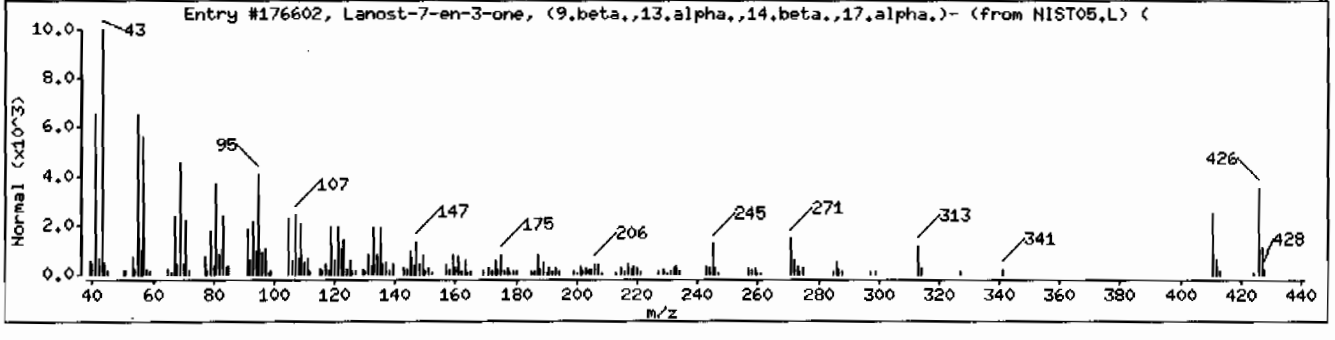

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 19:44**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0717.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	371	ug/kg	74.2	371
108-95-2	Phenol	U	371	ug/kg	74.2	371
95-57-8	2-Chlorophenol	U	371	ug/kg	74.2	371
106-46-7	1,4-Dichlorobenzene	U	371	ug/kg	74.2	371
621-64-7	N-Nitrosodipropylamine	U	371	ug/kg	74.2	371
59-50-7	4-Chloro-3-methylphenol	U	371	ug/kg	74.2	371
83-32-9	Acenaphthene	U	37.1	ug/kg	12.2	37.1
121-14-2	2,4-Dinitrotoluene	U	371	ug/kg	37.1	371
100-02-7	4-Nitrophenol	U	371	ug/kg	122	371
87-86-5	Pentachlorophenol	U	371	ug/kg	92.7	371
129-00-0	Pyrene	U	37.1	ug/kg	11.1	37.1
110-86-1	Pyridine	U	371	ug/kg	74.2	371
62-53-3	Aniline	U	371	ug/kg	111	371
111-44-4	bis(2-Chloroethyl) ether	U	371	ug/kg	74.2	371
541-73-1	1,3-Dichlorobenzene	U	371	ug/kg	74.2	371
100-51-6	Benzyl alcohol	U	371	ug/kg	111	371
95-50-1	1,2-Dichlorobenzene	U	371	ug/kg	74.2	371
108-60-1	bis(2-Chloroisopropyl)ether	U	371	ug/kg	74.2	371
95-48-7	o-Cresol	U	371	ug/kg	74.2	371
65794-96-9	m,p-Cresols	U	371	ug/kg	111	371
67-72-1	Hexachloroethane	U	371	ug/kg	74.2	371
98-95-3	Nitrobenzene	U	371	ug/kg	74.2	371
78-59-1	Isophorone	U	371	ug/kg	74.2	371
88-75-5	2-Nitrophenol	U	371	ug/kg	74.2	371
105-67-9	2,4-Dimethylphenol	U	371	ug/kg	130	371
111-91-1	bis(2-Chloroethoxy)methane	U	371	ug/kg	74.2	371
120-83-2	2,4-Dichlorophenol	U	371	ug/kg	74.2	371
65-85-0	Benzoic acid	U	742	ug/kg	185	742
91-20-3	Naphthalene	U	37.1	ug/kg	11.1	37.1
106-47-8	4-Chloroaniline	U	371	ug/kg	74.2	371
87-68-3	Hexachlorobutadiene	U	371	ug/kg	74.2	371
91-57-6	2-Methylnaphthalene	U	37.1	ug/kg	7.42	37.1
77-47-4	Hexachlorocyclopentadiene	U	371	ug/kg	74.2	371
88-06-2	2,4,6-Trichlorophenol	U	371	ug/kg	74.2	371
95-95-4	2,4,5-Trichlorophenol	U	371	ug/kg	74.2	371
91-58-7	2-Chloronaphthalene	U	37.1	ug/kg	12.2	37.1
88-74-4	2-Nitroaniline	U	371	ug/kg	74.2	371
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	371	ug/kg	74.2	371

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 19:44**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0717.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	371	ug/kg	74.2	371
606-20-2	2,6-Dinitrotoluene	U	371	ug/kg	37.1	371
208-96-8	Acenaphthylene	U	37.1	ug/kg	11.1	37.1
51-28-5	2,4-Dinitrophenol	U	742	ug/kg	141	742
132-64-9	Dibenzofuran	U	371	ug/kg	74.2	371
84-66-2	Diethylphthalate	U	371	ug/kg	74.2	371
86-73-7	Fluorene	U	37.1	ug/kg	11.1	37.1
7005-72-3	4-Chlorophenylphenylether	U	371	ug/kg	74.2	371
534-52-1	2-Methyl-4,6-dinitrophenol	U	371	ug/kg	74.2	371
100-01-6	4-Nitroaniline	U	371	ug/kg	111	371
	p-Nitroaniline					
122-39-4	Diphenylamine	U	371	ug/kg	74.2	371
122-66-7	Azobenzene	U	371	ug/kg	74.2	371
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	371	ug/kg	74.2	371
118-74-1	Hexachlorobenzene	U	371	ug/kg	74.2	371
85-01-8	Phenanthrene	U	37.1	ug/kg	11.1	37.1
120-12-7	Anthracene	U	37.1	ug/kg	7.42	37.1
84-74-2	Di-n-butylphthalate	U	371	ug/kg	74.2	371
206-44-0	Fluoranthene	U	37.1	ug/kg	11.1	37.1
85-68-7	Butylbenzylphthalate	U	371	ug/kg	74.2	371
56-55-3	Benzo(a)anthracene	U	37.1	ug/kg	11.1	37.1
91-94-1	3,3'-Dichlorobenzidine	U	371	ug/kg	111	371
218-01-9	Chrysene	U	37.1	ug/kg	11.1	37.1
117-81-7	bis(2-Ethylhexyl)phthalate	U	371	ug/kg	74.2	371
117-84-0	Di-n-octylphthalate	U	371	ug/kg	74.2	371
205-99-2	Benzo(b)fluoranthene	U	37.1	ug/kg	11.1	37.1
207-08-9	Benzo(k)fluoranthene	U	37.1	ug/kg	11.1	37.1
50-32-8	Benzo(a)pyrene	U	37.1	ug/kg	11.1	37.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	37.1	ug/kg	11.1	37.1
53-70-3	Dibenzo(a,h)anthracene	U	37.1	ug/kg	11.1	37.1
191-24-2	Benzo(ghi)perylene	U	37.1	ug/kg	11.1	37.1
120-82-1	1,2,4-Trichlorobenzene	U	371	ug/kg	74.2	371

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	434	ug/kg		JA
	Unknown	14.46	171	ug/kg		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959012	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7324	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	949132	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	02/07/2010 19:44	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/04/2010 20:55	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	s6b0717.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	17.17	166	ug/kg		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0717.d
Lab Smp Id: 245959012 Client Smp ID: RE15-10-7324
Inj Date : 07-FEB-2010 19:44
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959012|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	10.30000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	306222	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1155564	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	653753	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1137122	40.0000	
* 91 Chrysene-d12	240	12.636	12.646	(1.000)	762495	40.0000	
* 98 Perylene-d12	264	14.978	14.990	(1.000)	476937	40.0000	
$ 3 2-Fluorophenol	112	3.710	3.697	(0.764)	451862	58.9245	2190
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	573631	59.2675	2200
$ 20 Nitrobenzene-d5	82	5.394	5.404	(0.879)	261495	31.9895	1190
$ 39 2-Fluorobiphenyl	172	7.260	7.265	(0.907)	520965	30.9220	1150
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	108102	56.6534	2100
$ 81 p-Terphenyl-d14	244	11.321	11.324	(0.896)	517509	42.0859	1560

ION RATIO REPORT

SV REPORT

Data file: s6b0717.d
Report Date: 02/08/2010 09:15
Lab. ID: 245959012 SampleType: SAMPLE
Injection Date: 07-FEB-2010 19:44
Operator: nagl Instrument: MSD6.i
Sample Info: |245959012|949132|1|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100122-01
Comment:
Method used: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1510
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	38686	5.40	5.24	80-120	100	(T)
42	24269	5.39	5.24	39- 99	63	(T)
22 Isophorone				CAS#: 78-59-1		
82	261495	5.39	5.66	80-120	100	(T)
138	5939	6.13	5.66	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	117480	8.01	7.70	80-120	100	(T)
164	653753	8.01	7.70	0- 40	556	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	85087	8.01	8.21	80-120	100	(T)
89	761	8.01	8.21	43-103	1	(QT)
63	995	8.01	8.21	18- 78	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	7062	8.86	8.60	80-120	100	(T)
165	7038	8.85	8.60	62-122	100	(T)
167	908	8.86	8.60	0- 44	13	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	154	8.86	8.65	80-120	100	(T)
105	735	8.85	8.65	11- 71	476	(QT)
51	840	8.86	8.65	23- 83	544	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0717.d
Lab Smp Id: 245959012 Client Smp ID: RE15-10-7324
Inj Date : 07-FEB-2010 19:44
Operator : nag1 Inst ID: MSD6.i
Smp Info : |245959012|949132|1|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.05000	weight of sample
M	10.30000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1840429	40.000
* 98 Perylene-d12	14.978	1346992	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.473	538474	11.7032251	434	0		0	10

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
14.458	155126	4.60659086	171	0		0	98
Unknown				CAS #:			
17.167	150469	4.46830237	166	0		0	98

Data File: /chem/MSD6.i/s020710.b/s6b0717.d
Date : 07-FEB-2010 19:44
Client ID: RE15-10-7324
Sample Info: |245959012|949132|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

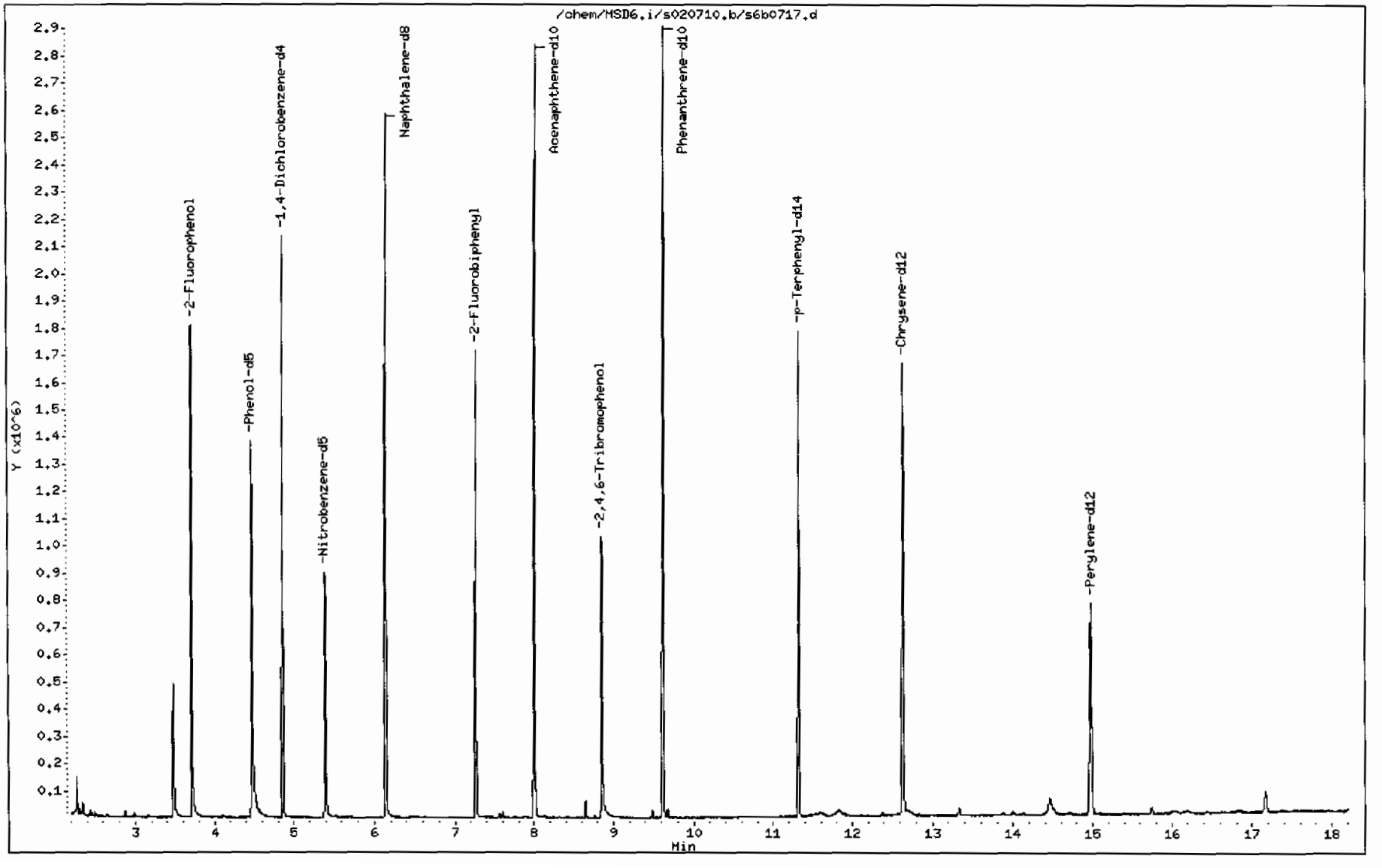

Data File: /chem/MSD6.i/s020710.b/s6b0717.d

Date : 07-FEB-2010 19:44

Client ID: RE15-10-7324

Instrument: MSD6.i

Sample Info: |245959012|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	56	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116

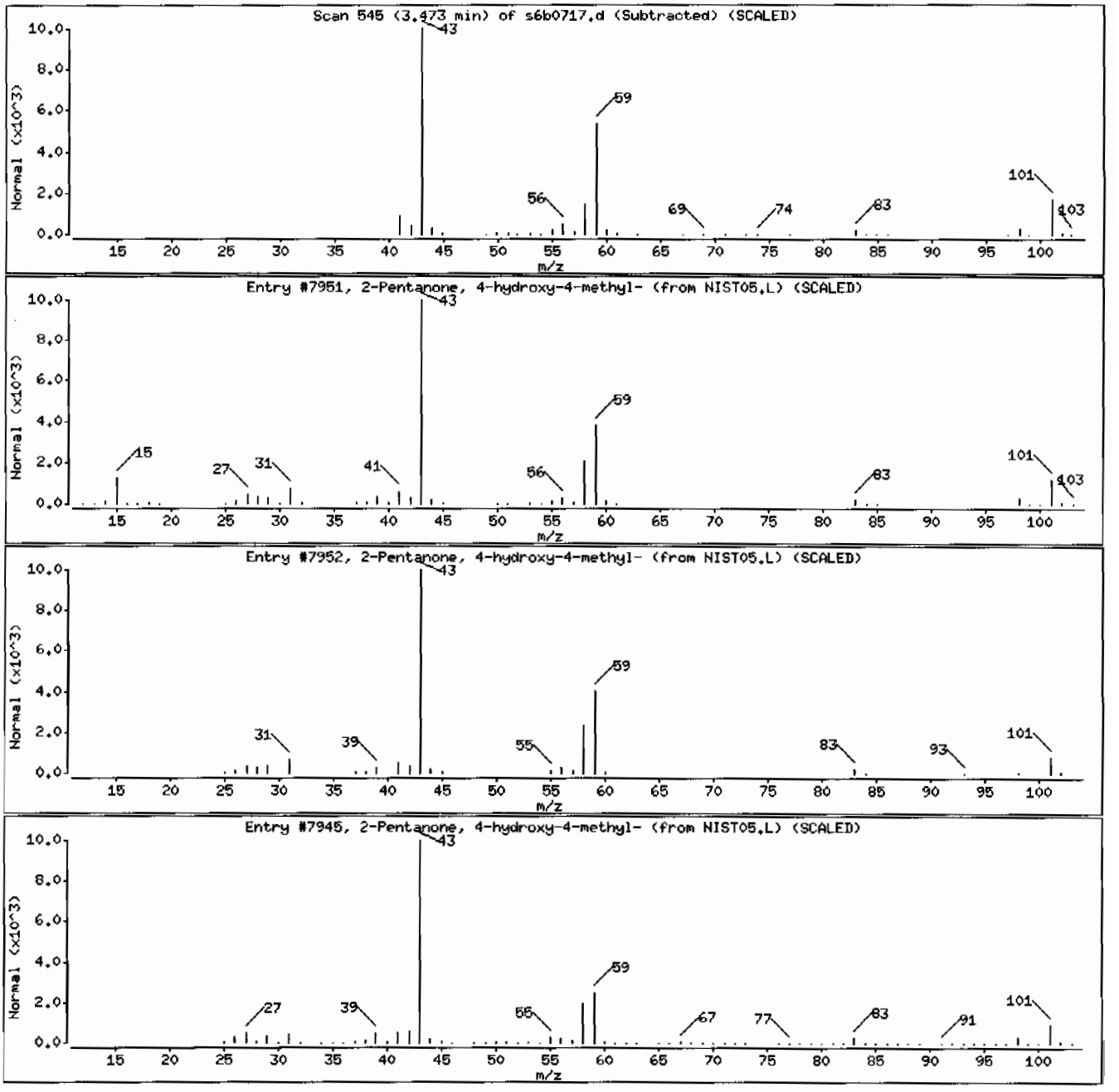

Data File: /chem/MSD6.i/s020710.b/s6b0717.d

Date : 07-FEB-2010 19:44

Client ID: RE15-10-7324 Instrument: MSD6.i

Sample Info: |245959012|949132|1|SVM|1|LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Nonadecane, 2-methyl-	1560-86-7	NIST05.L	113499	20	C20H42	282
Sulfurous acid, butyl hexadecyl ester	1000309-18-3	NIST05.L	158000	20	C20H42O3S	362
Sulfurous acid, butyl heptadecyl ester	1000309-18-4	NIST05.L	163811	20	C21H44O3S	376

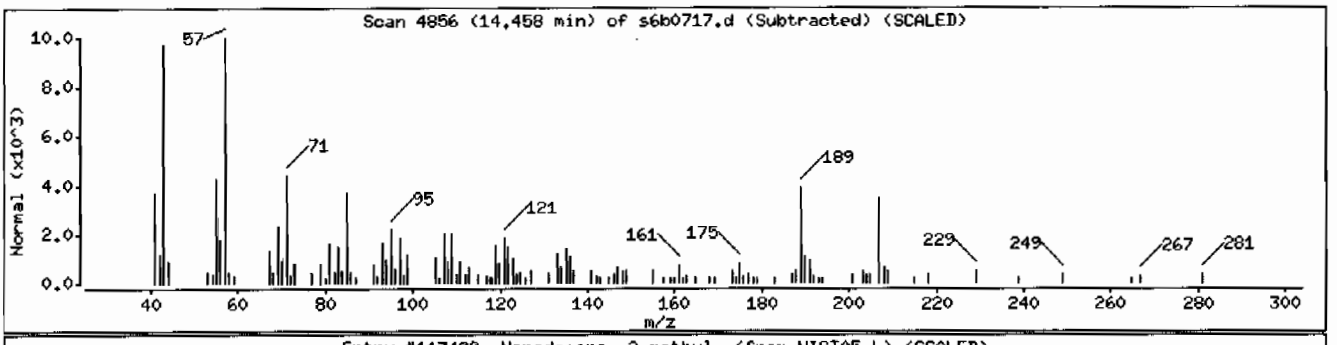

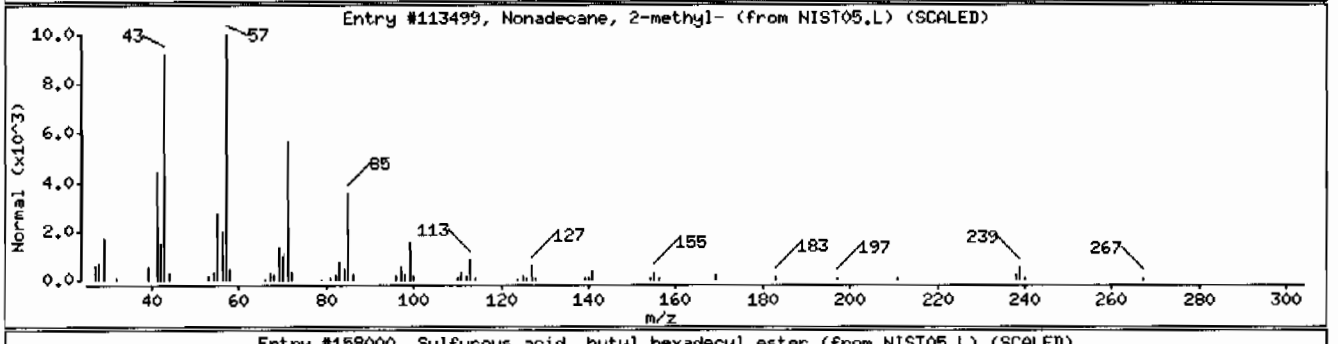

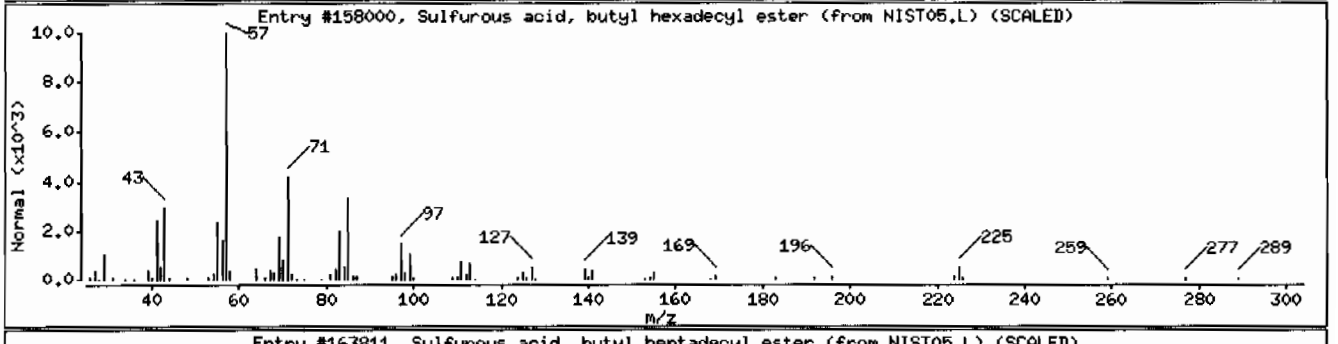

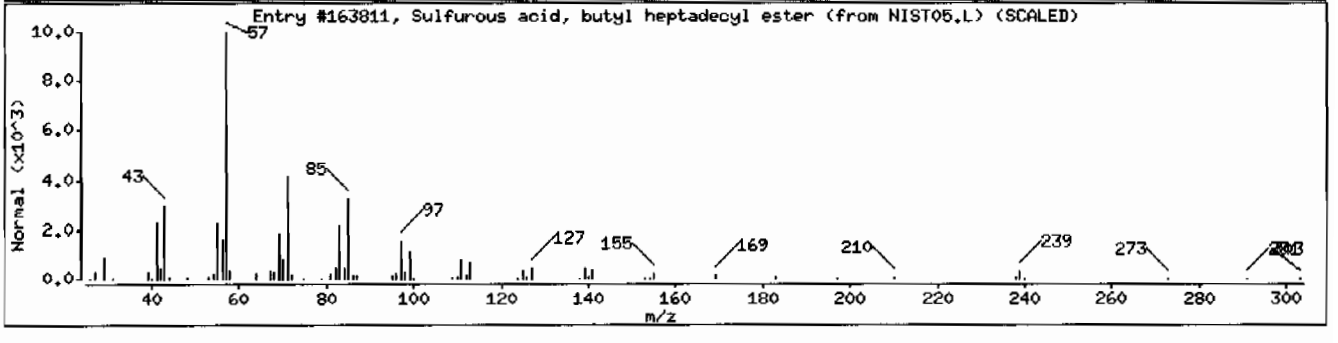

Data File: /chem/MSD6.i/s020710.b/s6b0717.d

Date : 07-FEB-2010 19:44

Client ID: RE15-10-7324 Instrument: MSD6.i

Sample Info: |245959012|949132|1|SVH|1|LANL

Volume Injected (uL): 0.5 Operator: nagl

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
1,6,10,14,18,22-Tetracosahexaen-3-ol, 2,	54159-46-5	NIST05.L	176609	48	C30H500	426
Neopentylidenecyclohexane	39546-80-0	NIST05.L	24397	47	C11H20	152
Tetracosapentaene, 2,6,10,15,19,23-hexam	26266-08-0	NIST05.L	173973	38	C30H52	412

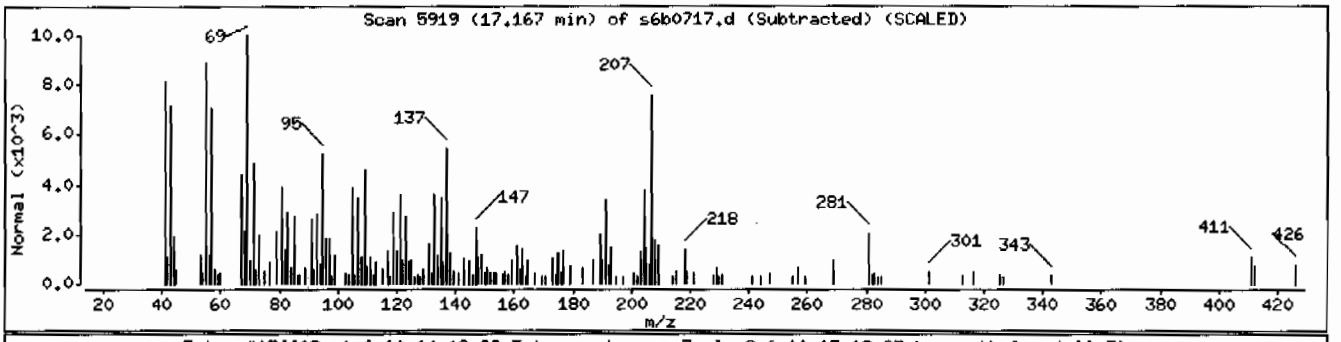

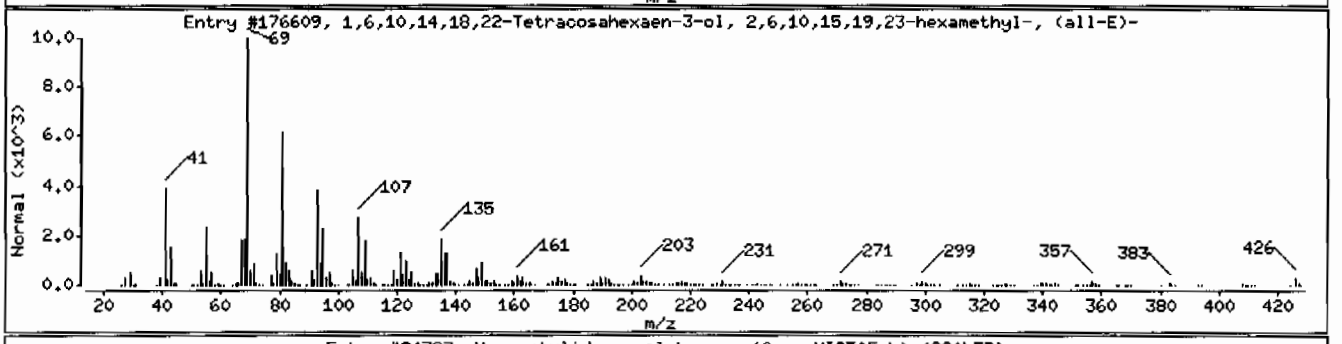

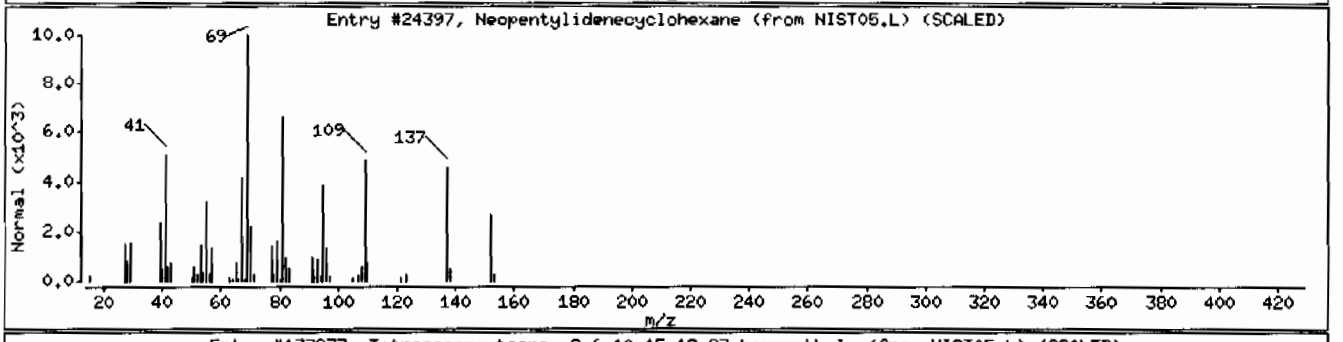

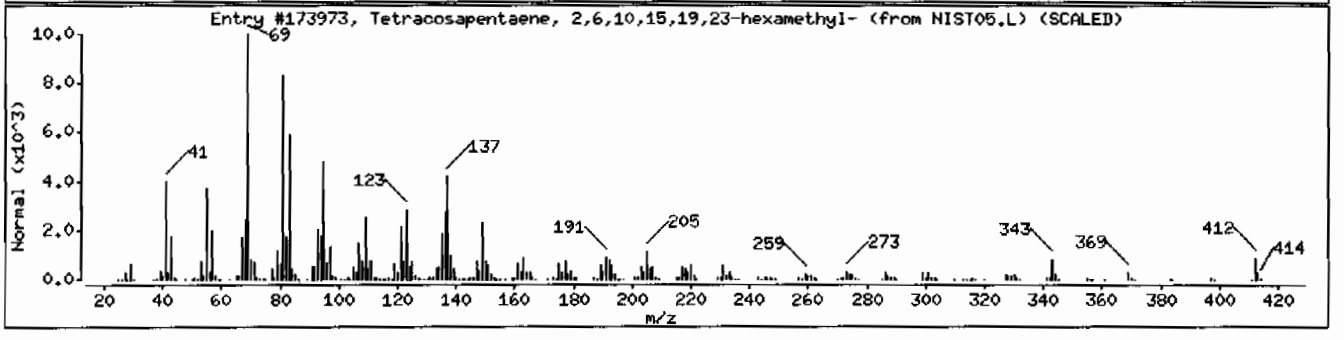

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 08-Feb-2010 11:54

Calibration History

Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000

11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

07-FEB-2010 13:14	MEGA	/chem/MSD6.i/s020710.b/s6b0703.d

Ccal Level: 4 , Ccal Amount: 40.0

07-FEB-2010 13:45	AP12	/chem/MSD6.i/s020710.b/s6b0704.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Cal Date : 08-Feb-2010 08:45 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Cal Date : 08-Feb-2010 08:45 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02139		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	++-++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	++++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++-+	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Cal Date : 08-Feb-2010 08:45 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	++++-	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775						
	0.18141	0.17864					AVRG		0.17237		8.70434	
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224						
	0.01930	0.01750					AVRG		0.02349		22.76469	<-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937						
	0.35132	0.33430					AVRG		0.38600		8.45747	
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481						
	0.09122	0.09037					AVRG		0.09631		4.58453	
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690						
	0.04564	0.04428					AVRG		0.04420		6.60357	
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085						
	0.06194	0.06656					AVRG		0.06173		4.75009	
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931						
	0.31446	0.30396					AVRG		0.31734		2.95033	
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377						
	0.29203	0.28006					AVRG		0.29130		3.50189	
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397						
	0.53619	0.54473					AVRG		0.52763		3.04743	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.09004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818						
	0.17963	+++++					AVRG		0.16131		17.36813	<-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308						
	402020	+++++					LINR	0.25337	0.15547		0.99358	
239 Thiophenol	+++++	41092	104698	327879	+++++	922601						
	1046955	+++++					LINR	0.23456	1.46946		0.99364	
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480						
	1.05711	+++++					AVRG		1.02641		5.71407	
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399						
	0.07072	+++++					AVRG		0.06526		10.12747	
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074						
	0.26883	0.26877					AVRG		0.28180		3.98593	
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201						
	0.21460	0.22254					AVRG		0.21896		4.07356	
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592						
	0.88671	0.88707					AVRG		0.88259		7.33906	
M 228 TTO Sum Semivolatiles	+++++	++++-	+++++	+++++	+++++	++++-						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	++++++	0.98202	1.07204	1.02934	1.03017	0.98830						
	0.95348	0.95648					AVRG		1.00169		4.36295	
$ 5 Phenol-d5	++++++	1.23734	1.34586	1.27212	1.28456	1.26316						
	1.22407	1.22277					AVRG		1.26427		3.41674	
$ 187 2-Chlorophenol-d4	++++++	++++++	++++++	++++++	++++++	++++++						
	++++++	++++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	++++++	++++++	++++++	++++++	++++++	++++++						
	++++++	++++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	++++++	0.30745	0.31426	0.29453	0.29315	0.27101						
	0.25359	0.24671					AVRG		0.28296		9.27927	
$ 39 2-Fluorobiphenyl	++++++	1.11512	1.14628	1.04977	1.05601	0.99136						
	0.92488	0.93239					AVRG		1.03083		8.29816	
$ 60 2,4,6-Tribromophenol	++++++	0.10485	0.11685	0.11180	0.11267	0.12310						
	0.12190	0.12607					AVRG		0.11675		6.41378	
$ 81 p-Terphenyl-d14	++++++	0.71309	0.69797	0.64349	0.66522	0.61764						
	0.59401	0.58404					AVRG		0.64507		7.73004	

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Cal Date : 08-Feb-2010 08:45 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Report Date: 11-Nov-2009 10:50

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$	3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged
$	5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged
$	20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged
$	39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged
$	60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged
$	81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged
	1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged
	2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged
	4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged
	6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged ccc
	7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged
	8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged
	203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged
	9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged
	11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged ccc
	13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged
	14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged
	12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged
	15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged
	18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged
	17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged spcc
	19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged
	21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged
	22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged
	23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged ccc
	24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged
	25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged
	26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged ccc
	27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged
	28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged
	30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged
	204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged
	31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged
	32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged ccc
	33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged ccc
	34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35	1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged
36	Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged spcc
205	2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged
37	2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged ccc
38	2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged
40	2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged
42	o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged
41	m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged
43	Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged
44	2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged
50	2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged
45	Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged
47	Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged ccc
48	2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear spcc
49	Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged
51	Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged
52	4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear spcc
53	Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged
54	4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged
55	2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear
56	p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear
133	Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged ccc
58	1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged
61	4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged
63	Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged
65	Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear ccc
206	n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged
68	Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged
69	Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged
72	Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged
76	Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged ccc
79	Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged
85	Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged
89	Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged
92	Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged
93	bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
	143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
	173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
	26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MECAICV
Sample Info: IWBN091106-09.1140 PPM|1|SVHF11|MECAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JWB3
Column diameter: 0.20

Page 1

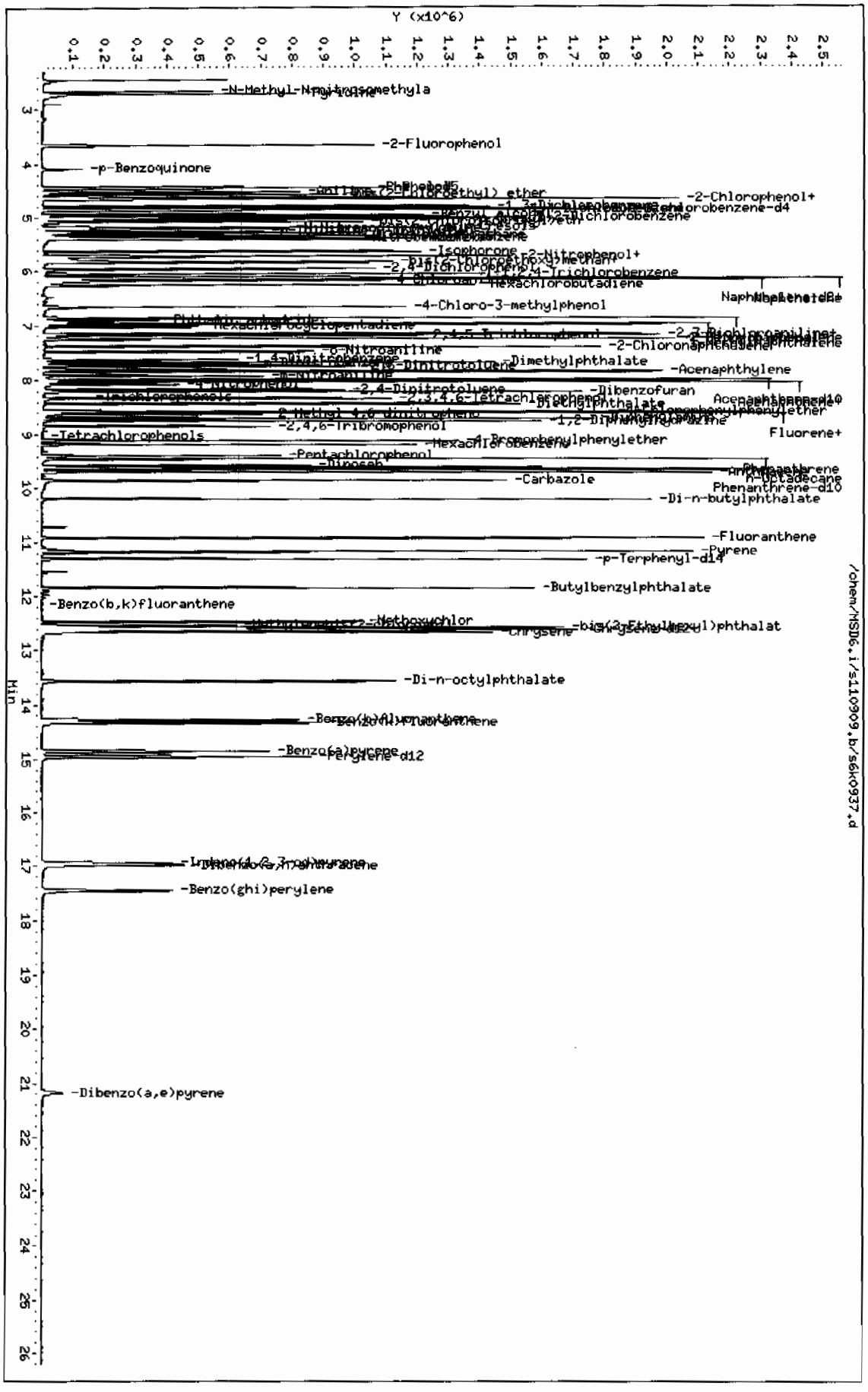

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0938.d
Analysis Type:
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 21:07
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0938.d
Analysis Type:
Lab Sample ID: WBN091016-08.1
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 21:07
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: IWBN091016-08,1|40 PPM|1|SVMF|1|AP12ICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JWB3
Column diameter: 0.20

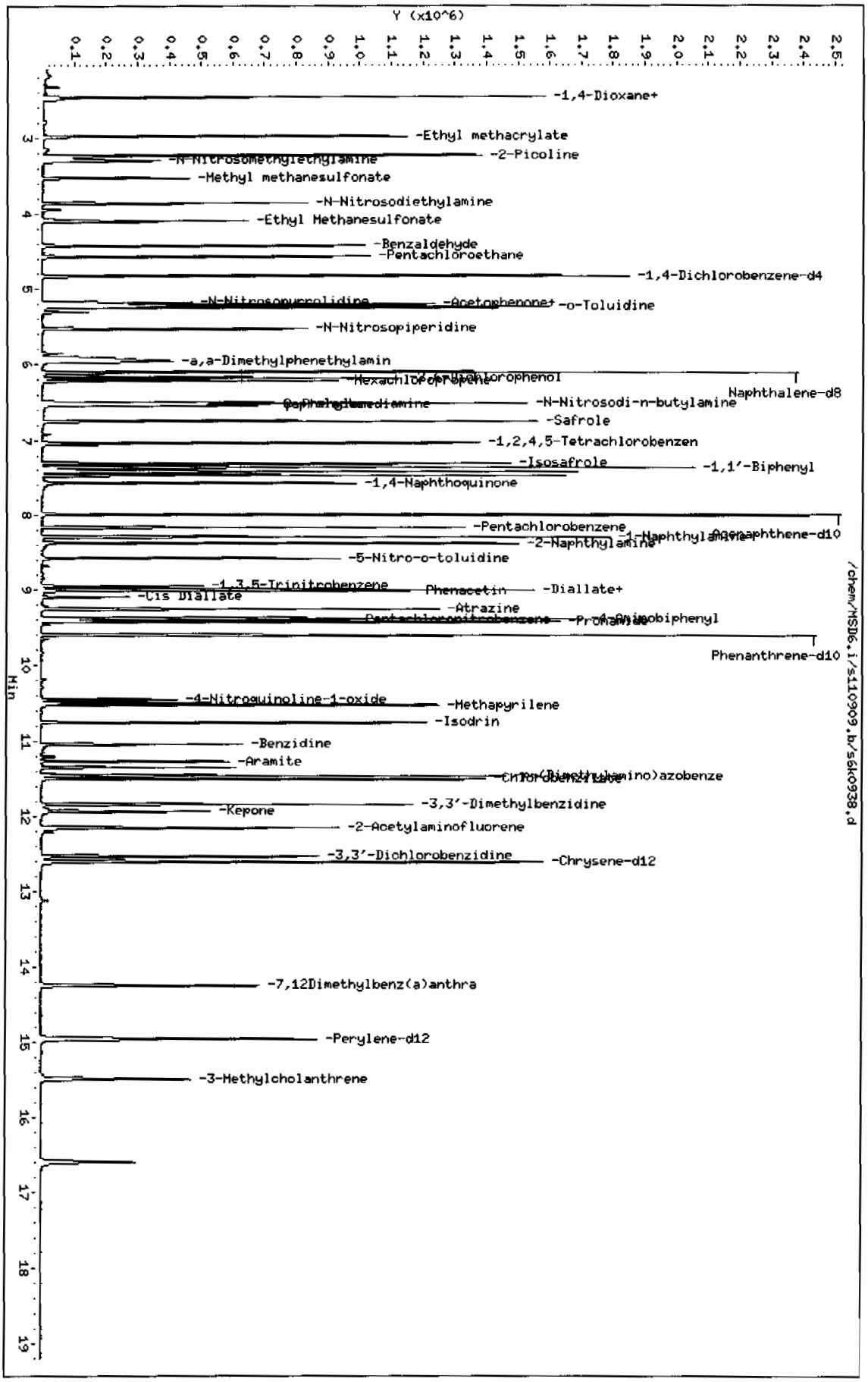

Page 1

Data File: /chem/MSD6.i/s020710.b/s6b0703.d
Report Date: 08-Feb-2010 08:45

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6b0703.d
Analysis Type:
Lab Sample ID: WBN100121-17.4
Method: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m

Injection Date: 07-FEB-2010 13:14
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.00169	0.91521	0.91521	0.000	-8.63370	60.00000	Averaged	
$ 5 Phenol-d5	1.26427	1.15595	1.15595	0.000	-8.56774	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.28296	0.27008	0.27008	0.000	-4.55039	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.03083	1.02610	1.02610	0.000	-0.45934	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11675	0.10778	0.10778	0.000	-7.68146	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.64507	0.67439	0.67439	0.000	4.54636	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.68098	0.57173	0.57173	0.000	-16.04308	60.00000	Averaged	
2 Pyridine	0.84757	0.63328	0.63328	0.000	-25.28356	60.00000	Averaged	
4 Aniline	0.52752	0.47494	0.47494	0.000	-9.96671	60.00000	Averaged	
6 Phenol	1.27120	1.22285	1.22285	0.001	-3.80333	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.86081	0.73879	0.73879	0.000	-14.17485	60.00000	Averaged	
8 2-Chlorophenol	1.02109	0.96052	0.96052	0.000	-5.93193	60.00000	Averaged	
203 n-Decane	1.42254	1.15710	1.15710	0.000	-18.65917	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.17550	1.22184	1.22184	0.000	3.94238	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.19162	1.20241	1.20241	0.001	0.90539	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.11231	1.13163	1.13163	0.000	1.73737	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.92182	1.77149	1.77149	0.000	-7.82237	60.00000	Averaged	
12 Benzyl alcohol	0.63436	0.46716	0.46716	0.000	-26.35748	60.00000	Averaged	
15 o-Cresol	0.83139	0.81358	0.81358	0.000	-2.14223	60.00000	Averaged	
18 m,p-Cresols	1.05346	1.03768	1.03768	0.000	-1.49758	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.70865	0.73616	0.73616	0.050	3.88128	60.00000	Averaged	spcc
19 Hexachloroethane	0.46100	0.46679	0.46679	0.000	1.25746	60.00000	Averaged	
21 Nitrobenzene	0.28519	0.27391	0.27391	0.000	-3.95602	60.00000	Averaged	
22 Isophorone	0.50552	0.50988	0.50988	0.000	0.86298	60.00000	Averaged	
23 2-Nitrophenol	0.13154	0.13557	0.13557	0.001	3.06020	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.21795	0.23430	0.23430	0.000	7.50182	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.29749	0.27659	0.27659	0.000	-7.02725	60.00000	Averaged	
26 2,4-Dichlorophenol	0.19769	0.21419	0.21419	0.001	8.34646	20.00000	Averaged	ccc
27 Benzoic acid	0.13453	0.14210	0.14210	0.000	5.62434	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24261	0.24954	0.24954	0.000	2.85280	60.00000	Averaged	
30 Naphthalene	0.79792	0.74198	0.74198	0.000	-7.01028	60.00000	Averaged	
204 alpha-Terpineol	0.21868	0.20491	0.20491	0.000	-6.29618	60.00000	Averaged	
31 4-Chloroaniline	0.25646	0.24494	0.24494	0.000	-4.49298	60.00000	Averaged	
32 Hexachlorobutadiene	0.12634	0.13748	0.13748	0.001	8.81408	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.19957	0.21326	0.21326	0.001	6.86192	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.48150	0.51482	0.51482	0.000	6.92074	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6b0703.d
Analysis Type:
Lab Sample ID: WBN100121-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m

Injection Date: 07-FEB-2010 13:14
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.50080	0.50080	0.000	6.32584	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.13878	0.13878	0.050	-14.10173	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.46555	0.46555	0.000	-2.82378	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.27767	0.27767	0.001	1.73291	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.29209	0.29209	0.000	0.48893	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.86452	0.86452	0.000	-3.76288	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.24375	0.24375	0.000	-20.68621	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.20206	0.20206	0.000	-10.18425	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.01730	1.01730	0.000	-0.85783	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.23260	0.23260	0.000	-4.96337	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.29754	0.29754	0.000	-3.59118	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.44404	1.44404	0.000	-0.02347	60.00000	Averaged	
47	Acenaphthene	0.90151	0.82890	0.82890	0.001	-8.05432	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	45.85365	40.00000	0.10249	0.050	14.63413	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.19163	1.19163	0.000	-2.07577	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.03764	1.03764	0.000	0.41539	60.00000	Averaged	
52	4-Nitrophenol	41.26112	40.00000	0.17113	0.050	3.15279	60.00000	Linear	spcc
53	Fluorene	0.99879	0.98594	0.98594	0.000	-1.28701	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.46660	0.46660	0.000	-1.12857	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	51.82338	40.00000	0.12056	0.000	29.55846	60.00000	Linear	
56	p-Nitroaniline	33.73858	40.00000	0.17014	0.000	-15.65356	60.00000	Linear	
133	Diphenylamine	0.48213	0.45139	0.45139	0.001	-6.37606	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.57130	0.57130	0.000	-6.84268	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.15151	0.15151	0.000	-4.00828	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.15621	0.15621	0.000	-5.51685	60.00000	Averaged	
65	Pentachlorophenol	40.94652	40.00000	0.08862	0.001	2.36629	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.41603	0.41603	0.000	-5.81938	60.00000	Averaged	
68	Phenanthrene	0.82721	0.80558	0.80558	0.000	-2.61518	60.00000	Averaged	
69	Anthracene	0.82682	0.81390	0.81390	0.000	-1.56255	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	0.99922	0.99922	0.000	5.23226	60.00000	Averaged	
76	Fluoranthene	0.79242	0.83377	0.83377	0.001	5.21769	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.05219	1.05219	0.000	-4.36431	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.51111	0.51111	0.000	1.50970	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.83029	0.83029	0.000	-3.79106	60.00000	Averaged	
92	Chrysene	0.82690	0.80182	0.80182	0.000	-3.03314	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	38.82791	40.00000	0.67324	0.000	-2.93023	60.00000	Wt Linear	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 07-FEB-2010 13:14
Lab File ID: s6b0703.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100121-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.37116	1.37116	0.001	7.85711	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.96305	0.96305	0.000	8.81056	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	0.94688	0.94688	0.000	7.58704	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.85092	0.85092	0.001	11.30843	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	37.81211	40.00000	0.68480	0.000	-5.46972	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.34544	40.00000	0.55132	0.000	-6.63641	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.56060	0.56060	0.000	-4.01229	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.15485	0.15485	0.000	-8.53470	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23245	0.23245	0.000	6.16195	60.00000	Averaged	
	143 Dinoseb	40.87769	40.00000	0.12778	0.000	2.19422	60.00000	Linear	
	173 Carbazole	0.65449	0.66524	0.66524	0.000	1.64113	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.06068	0.06068	0.000	-52.33838	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.52474	0.52474	0.000	-5.01217	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.87194	0.87194	0.000	-3.10452	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.04804	1.04804	0.000	-6.75437	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.52795	0.52795	0.000	-25.67864	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	27.81380	40.00000	0.19454	0.000	-30.46550	60.00000	Linear	
	26 Phthalic anhydride	47.89785	40.00000	0.09437	0.000	19.74463	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.15901	0.15901	0.000	-13.49251	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	29.50241	40.00000	0.08721	0.000	-26.24397	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.28488	0.28488	0.000	1.09136	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23245	0.23245	0.000	6.16195	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	0.95497	0.95497	0.000	8.20052	60.00000	Averaged	

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Data file : /chem/MSD6.i/s020710.b/s6b0703.d
Lab Smp Id: WBN100121-17.4 Client Smp ID: MEGACVS
Inj Date : 07-FEB-2010 13:14
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100121-17.4|CCV|1|SVM|1|MEGACVS
Misc Info : |MSD8270|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.862	4.862	(1.000)	283821	40.0000	(H)
* 29 Naphthalene-d8	136	6.141	6.141	(1.000)	1117855	40.0000	(H)
* 46 Acenaphthene-d10	164	8.011	8.011	(1.000)	616750	40.0000	(H)
* 67 Phenanthrene-d10	188	9.622	9.622	(1.000)	1069246	40.0000	(H)
* 91 Chrysene-d12	240	12.646	12.646	(1.000)	879750	40.0000	(H)
* 98 Perylene-d12	264	14.990	14.990	(1.000)	640102	40.0000	(H)
$ 3 2-Fluorophenol	112	3.697	3.697	(0.755)	259755	40.0000	36.5
$ 5 Phenol-d5	99	4.474	4.474	(0.914)	328083	40.0000	36.6(H)
$ 20 Nitrobenzene-d5	82	5.404	5.404	(0.874)	301913	40.0000	38.2(H)
$ 39 2-Fluorobiphenyl	172	7.265	7.265	(0.902)	632845	40.0000	39.8(H)
$ 60 2,4,6-Tribromophenol	329	8.860	8.860	(1.101)	66474	40.0000	36.9(H)
$ 81 p-Terphenyl-d14	244	11.324	11.324	(0.892)	593298	40.0000	41.8(H)
1 N-Methyl-N-nitrosomethylamine	74	2.739	2.739	(0.560)	162268	40.0000	33.6(H)
2 Pyridine	79	2.777	2.777	(0.567)	179737	40.0000	29.9(H)
4 Aniline	66	4.553	4.553	(0.930)	134799	40.0000	36.0(H)
6 Phenol	94	4.490	4.490	(0.917)	347070	40.0000	38.5(Q)
7 bis(2-Chloroethyl) ether	63	4.589	4.589	(0.938)	209684	40.0000	34.3
8 2-Chlorophenol	128	4.665	4.665	(0.953)	272616	40.0000	37.6(H)
203 n-Decane	43	4.663	4.663	(0.953)	328410	40.0000	32.5
9 1,3-Dichlorobenzene	146	4.811	4.811	(0.983)	346784	40.0000	41.6(H)
11 1,4-Dichlorobenzene	146	4.880	4.880	(0.997)	341269	40.0000	40.4
13 1,2-Dichlorobenzene	146	5.027	5.027	(1.027)	321181	40.0000	40.7
14 bis(2-Chloroisopropyl)ether	45	5.096	5.096	(1.041)	502786	40.0000	36.9(H)
12 Benzyl alcohol	108	4.976	4.976	(1.017)	132590	40.0000	29.4(H)
15 o-Cresol	107	5.063	5.063	(1.034)	230910	40.0000	39.1(H)
18 m,p-Cresols	107	5.218	5.218	(1.066)	294516	40.0000	39.4(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.239	5.239	(1.070)	208937	40.0000	41.6(H)
19 Hexachloroethane	117	5.359	5.359	(1.095)	132486	40.0000	40.5(H)
21 Nitrobenzene	77	5.425	5.425	(0.878)	306190	40.0000	38.4
22 Isophorone	82	5.657	5.657	(0.915)	569970	40.0000	40.3
23 2-Nitrophenol	139	5.738	5.738	(0.928)	151548	40.0000	41.2
24 2,4-Dimethylphenol	122	5.754	5.754	(0.931)	261916	40.0000	43.0(H)
25 bis(2-Chloroethoxy)methane	93	5.853	5.853	(0.947)	309184	40.0000	37.2(H)
26 2,4-Dichlorophenol	162	5.983	5.983	(0.968)	239428	40.0000	43.3
27 Benzoic acid	105	5.868	5.868	(0.949)	158842	40.0000	42.2
28 1,2,4-Trichlorobenzene	180	6.072	6.072	(0.982)	278945	40.0000	41.1(H)
30 Naphthalene	128	6.164	6.164	(0.997)	829426	40.0000	37.2(H)
204 alpha-Terpineol	59	6.151	6.151	(0.995)	229060	40.0000	37.5(H)
31 4-Chloroaniline	127	6.205	6.205	(1.004)	273802	40.0000	38.2(H)
32 Hexachlorobutadiene	225	6.268	6.268	(1.014)	153678	40.0000	43.5
33 4-Chloro-3-methylphenol	107	6.691	6.691	(1.082)	238393	40.0000	42.7(H)
34 2-Methylnaphthalene	142	6.885	6.885	(1.114)	575496	40.0000	42.8(H)
35 1-Methylnaphthalene	142	6.992	6.992	(1.131)	559820	40.0000	42.5(H)
36 Hexachlorocyclopentadiene	237	7.040	7.040	(0.875)	85595	40.0000	34.4
205 2,3-Dichloroaniline	161	7.183	7.183	(0.892)	287128	40.0000	38.9(H)
37 2,4,6-Trichlorophenol	196	7.178	7.178	(0.892)	171252	40.0000	40.7(H)
38 2,4,5-Trichlorophenol	196	7.219	7.219	(0.897)	180146	40.0000	40.2(H)
40 2-Chloronaphthalene	162	7.410	7.410	(0.921)	533193	40.0000	38.5(H)
42 o-Nitroaniline	65	7.512	7.512	(0.933)	150333	40.0000	31.7
41 m-Nitroaniline	138	7.958	7.958	(0.989)	124620	40.0000	35.9(H)
43 Dimethylphthalate	163	7.698	7.698	(0.956)	627419	40.0000	39.6
44 2,6-Dinitrotoluene	165	7.772	7.772	(0.965)	143456	40.0000	38.0
50 2,4-Dinitrotoluene	165	8.207	8.207	(1.020)	183506	40.0000	38.6
45 Acenaphthylene	152	7.861	7.861	(0.977)	890613	40.0000	40.0(H)
47 Acenaphthene	154	8.047	8.047	(1.000)	511224	40.0000	36.8(H)
48 2,4-Dinitrophenol	184	8.072	8.072	(1.003)	63213	40.0000	45.8(H)
49 Dibenzofuran	168	8.230	8.230	(1.022)	734937	40.0000	39.2(H)
51 Diethylphthalate	149	8.447	8.447	(1.049)	639964	40.0000	40.2(H)
52 4-Nitrophenol	139	8.123	8.123	(1.009)	105543	40.0000	41.3
53 Fluorene	166	8.602	8.602	(1.069)	608078	40.0000	39.5
54 4-Chlorophenylphenylether	204	8.584	8.584	(1.066)	287773	40.0000	39.5(H)
55 2-Methyl-4,6-dinitrophenol	198	8.653	8.653	(0.894)	128905	40.0000	51.8
56 p-Nitroaniline	138	8.620	8.620	(1.071)	104932	40.0000	33.7(H)
133 Diphenylamine	169	8.714	8.714	(0.900)	482650	40.0000	37.4(H)
58 1,2-Diphenylhydrazine	77	8.760	8.760	(0.905)	610865	40.0000	37.3
61 4-Bromophenylphenylether	248	9.114	9.114	(0.942)	162003	40.0000	38.4(H)
63 Hexachlorobenzene	284	9.193	9.193	(0.950)	167026	40.0000	37.8
65 Pentachlorophenol	266	9.405	9.405	(0.972)	94757	40.0000	40.9(H)
206 n-Octadecane	57	9.441	9.441	(0.975)	444834	40.0000	37.7(H)
68 Phenanthrene	178	9.650	9.650	(0.997)	861364	40.0000	39.0(H)
69 Anthracene	178	9.706	9.706	(1.003)	870264	40.0000	39.4(H)
72 Di-n-butylphthalate	149	10.203	10.203	(1.054)	1068410	40.0000	42.1(H)
76 Fluoranthene	202	10.936	10.936	(1.130)	891500	40.0000	42.1(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.186	11.186	(0.882)	925664	40.0000	38.2(H)
85 Butylbenzylphthalate	149	11.856	11.856	(0.934)	449646	40.0000	40.6(H)
89 Benzo(a)anthracene	228	12.626	12.626	(0.995)	730447	40.0000	38.5(H)
92 Chrysene	228	12.682	12.682	(0.999)	705399	40.0000	38.8(H)
93 bis(2-Ethylhexyl)phthalate	149	12.577	12.577	(0.991)	592285	40.0000	38.8(H)
94 Di-n-octylphthalate	149	13.563	13.563	(0.901)	877681	40.0000	43.1(H)
95 Benzo(b)fluoranthene	252	14.305	14.305	(0.950)	616453	40.0000	43.5(H)
96 Benzo(k)fluoranthene	252	14.353	14.353	(0.953)	606100	40.0000	43.0(H)
97 Benzo(a)pyrene	252	14.886	14.886	(0.988)	544673	40.0000	44.5(H)
99 Indeno(1,2,3-cd)pyrene	276	16.983	16.983	(1.128)	438341	40.0000	37.8(H)
100 Dibenzo(a,h)anthracene	278	17.008	17.008	(1.129)	352901	40.0000	37.3(H)
101 Benzo(ghi)perylene	276	17.500	17.500	(1.162)	358838	40.0000	38.4(QH)
126 m-Dinitrobenzene	168	7.749	7.749	(0.963)	95501	40.0000	36.6(H)
130 2,3,4,6-Tetrachlorophenol	232	8.353	8.353	(1.038)	143364	40.0000	42.5(H)
143 Dinoseb	211	9.583	9.583	(0.990)	136624	40.0000	40.9(H)
173 Carbazole	167	9.869	9.869	(1.019)	711301	40.0000	40.6(H)
184 p-Benzoquinone	54	4.128	4.128	(0.843)	17221	40.0000	19.1(H)
192 Methoxychlor	227	12.486	12.486	(0.984)	461643	40.0000	38.0(H)
211 p-Toluidine	106	5.282	5.282	(1.079)	247474	40.0000	38.8(H)
210 m-Toluidine	106	5.318	5.318	(1.086)	297457	40.0000	37.3(H)
215 2-Ethoxyethanol	59	2.530	2.530	(0.517)	149842	40.0000	29.7(H)
179 Dibenzo(a,e)pyrene	302	21.241	21.241	(1.410)	124527	40.0000	27.8(H)
26 Phthalic anhydride	104	6.951	6.951	(1.124)	105491	40.0000	47.9
214 1,4-Dinitrobenzene	75	7.665	7.665	(0.952)	98072	40.0000	34.6(H)
216 Methylenebis(2-chloroaniline)	231	12.565	12.565	(0.990)	76726	40.0000	29.5(QH)
M 225 Trichlorophenols	196				351398	80.0000	80.9
M 226 Tetrachlorophenols	232				143364	40.0000	42.5
M 227 Benzo(b,k)fluoranthene	252				1222553	80.0000	86.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s020710.b/s6b0703.d
Date : 07-FEB-2010 13:14
Client ID: MEGACVS
Sample Info: IWBN100121-17,4!CCV!1!SV!1!MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

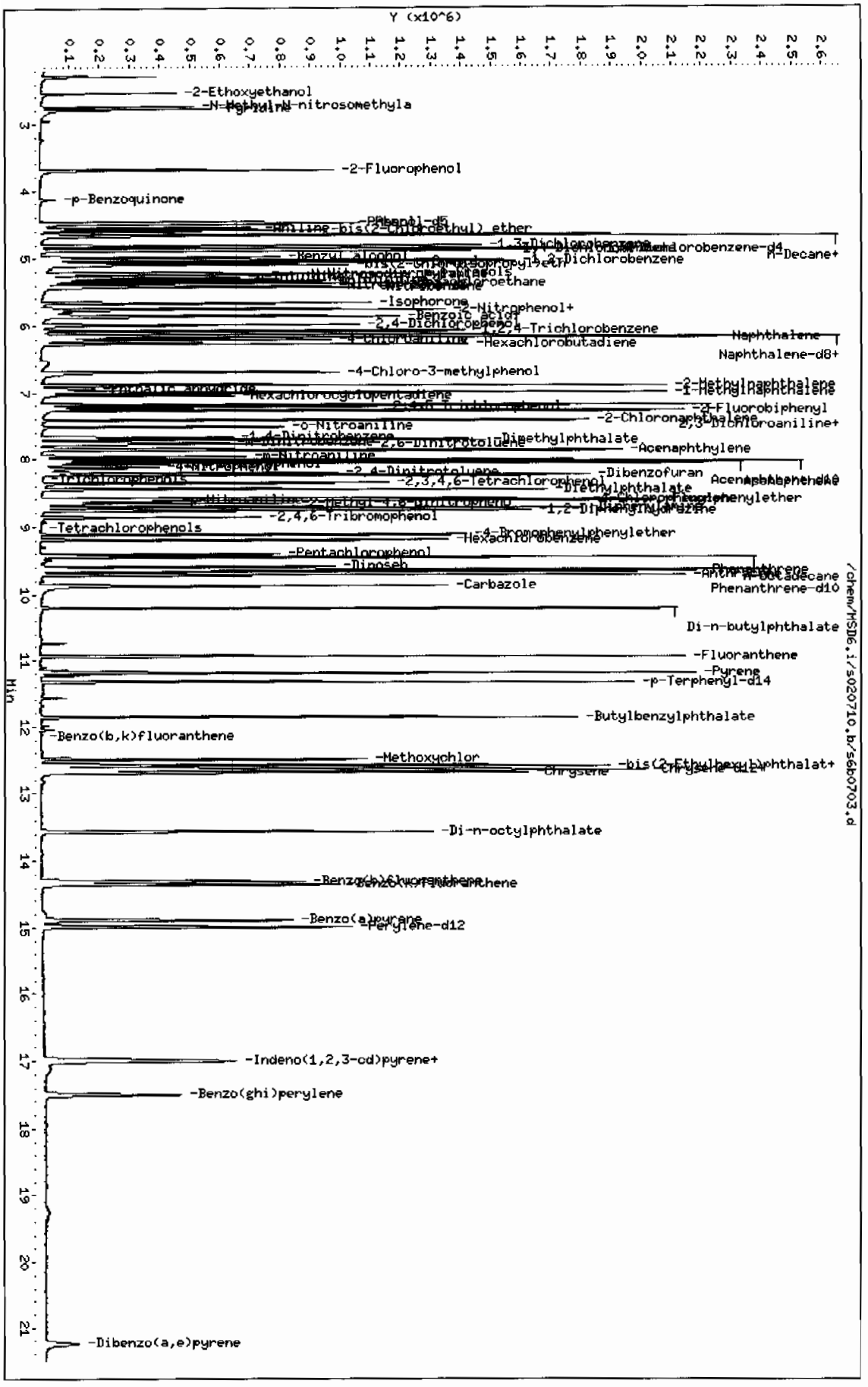

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6b0704.d
Analysis Type:
Lab Sample ID: WBN100120-03.2 Quant Type: ISTD
Method: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m

Injection Date: 07-FEB-2010 13:45
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.86077	0.86077	0.000	-0.05826	60.00000	Averaged
16 Acetophenone	1.16908	1.14618	1.14618	0.000	-1.95826	60.00000	Averaged
189 Caprolactam	0.07388	0.08449	0.08449	0.000	14.35564	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.13982	1.13982	0.000	-5.11866	60.00000	Averaged
207 Atrazine	0.04063	0.04230	0.04230	0.000	4.08876	60.00000	Averaged
77 Benzidine	0.39304	0.20486	0.20486	0.000	-47.87736	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.28377	0.28377	0.000	0.44259	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.34234	0.34234	0.000	-6.47942	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.18514	0.18514	0.000	-4.50879	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.74060	0.74060	0.000	-8.06917	60.00000	Averaged
105 2-Picoline	1.30872	1.21521	1.21521	0.000	-7.14534	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.45849	0.45849	0.000	-10.28158	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.50540	0.50540	0.000	-4.37548	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.48349	0.48349	0.000	-2.43049	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.61776	0.61776	0.000	-5.20613	60.00000	Averaged
110 Pentachloroethane	0.31681	0.32198	0.32198	0.000	1.63346	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.50951	0.50951	0.000	7.00945	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.68072	0.68072	0.000	0.20008	60.00000	Averaged
114 o-Toluidine	1.65281	1.62054	1.62054	0.000	-1.95265	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.13968	0.13968	0.000	-0.97421	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.80331	0.80331	0.000	-6.09535	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.21452	0.21452	0.000	3.69525	60.00000	Averaged
119 Hexachloropropene	0.10269	0.10464	0.10464	0.000	1.90683	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.22778	0.22778	0.000	-0.76859	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.20687	0.20687	0.000	-1.50885	60.00000	Averaged
122 Safrole	0.18653	0.19005	0.19005	0.000	1.88792	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.40593	0.40593	0.000	-4.08036	60.00000	Averaged
124 Isosafrole	0.33959	0.31418	0.31418	0.000	-7.48212	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.32034	0.32034	0.000	4.43446	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36361	0.36361	0.000	-0.25712	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.88833	0.88833	0.000	-2.10279	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.93650	0.93650	0.000	-4.45102	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.26852	0.26852	0.000	-3.75827	60.00000	Averaged
136 1,3,5-Trinitrobenzene	42.39536	40.00000	0.12569	0.000	5.98839	60.00000	Linear
137 Phenacetin	0.26240	0.26838	0.26838	0.000	2.28059	60.00000	Averaged
138 Diallate	0.24056	0.23679	0.23679	0.000	-1.56564	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6b0704.d
Analysis Type:
Lab Sample ID: WBN100120-03.2
Method: /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m

Injection Date: 07-FEB-2010 13:45
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.25295	0.24767	0.24767	0.000	-2.08549	60.00000	Averaged
213 Trans Diallate	0.28301	0.27858	0.27858	0.000	-1.56564	60.00000	Averaged
140 4-Aminobiphenyl	0.53562	0.44549	0.44549	0.000	-16.82573	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06426	0.06426	0.000	3.78032	60.00000	Averaged
142 Pronamide	0.26319	0.27017	0.27017	0.000	2.65247	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.01387	0.01387	0.000	-40.94858	60.00000	Averaged
147 Methapyrilene	0.38600	0.38302	0.38302	0.000	-0.77216	60.00000	Averaged
148 Isodrin	0.09631	0.10145	0.10145	0.000	5.33667	60.00000	Averaged
149 Aramite	0.04420	0.04752	0.04752	0.000	7.50074	60.00000	Averaged
150 Kepone	0.06173	0.05423	0.05423	0.000	-12.15004	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33170	0.33170	0.000	4.52527	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.28720	0.28720	0.000	-1.40711	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.42787	0.42787	0.000	-18.90749	60.00000	Averaged
155 2-Acetylaminofluorene	43.32919	40.00000	0.35782	0.000	8.32297	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.50704	0.50704	0.000	5.84130	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.36594	0.36594	0.000	-0.97649	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0704.d
Lab Smp Id: WBN100120-03.2 Client Smp ID: APCVS
Inj Date : 07-FEB-2010 13:45
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100120-03.2|CCV|1|SVM|1|APCVS
Misc Info : |MSD8270|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.862	4.862	(1.000)	284240	40.0000	
* 29 Naphthalene-d8	136	6.138	6.138	(1.000)	1045541	40.0000	
* 46 Acenaphthene-d10	164	8.009	8.009	(1.000)	606152	40.0000	
* 67 Phenanthrene-d10	188	9.624	9.624	(1.000)	1050445	40.0000	
* 91 Chrysene-d12	240	12.641	12.641	(1.000)	813259	40.0000	
* 98 Perylene-d12	264	14.985	14.985	(1.000)	562144	40.0000	
209 Benzaldehyde	77	4.464	4.464	(0.918)	244666	40.0000	40.0(H)
16 Acetophenone	105	5.244	5.244	(1.079)	325791	40.0000	39.2(H)
189 Caprolactam	113	6.577	6.577	(1.071)	88334	40.0000	45.7(H)
208 1,1'-Biphenyl	154	7.377	7.377	(0.921)	690903	40.0000	38.0(H)
207 Atrazine	173	9.280	9.280	(0.964)	44430	40.0000	41.6(H)
77 Benzidine	184	11.064	11.064	(0.875)	166605	40.0000	20.8(H)
90 3,3'-Dichlorobenzidine	252	12.565	12.565	(0.994)	230775	40.0000	40.2(H)
102 1,4-Dioxane	88	2.528	2.528	(0.520)	97307	40.0000	37.4(H)
103 Methyl methacrylate	100	2.523	2.523	(0.519)	52623	40.0000	38.2(H)
104 Ethyl methacrylate	69	3.022	3.022	(0.622)	210508	40.0000	36.8(H)
105 2-Picoline	93	3.282	3.282	(0.675)	345411	40.0000	37.1
106 N-Nitrosomethylethylamine	88	3.348	3.348	(0.689)	130322	40.0000	35.9
107 Methyl methanesulfonate	80	3.575	3.575	(0.735)	143654	40.0000	38.2(H)
108 N-Nitrosodiethylamine	102	3.901	3.901	(0.802)	137427	40.0000	39.0(H)
109 Ethyl Methanesulfonate	79	4.138	4.138	(0.851)	175592	40.0000	37.9(H)
110 Pentachloroethane	167	4.602	4.602	(0.947)	91520	40.0000	40.6
111 N-Nitrosopyrrolidine	100	5.231	5.231	(1.076)	144823	40.0000	42.8(QH)
113 N-Nitrosomorpholine	56	5.262	5.262	(1.082)	193489	40.0000	40.1(H)
114 o-Toluidine	106	5.280	5.280	(1.086)	460622	40.0000	39.2(H)
115 N-Nitrosopiperidine	114	5.573	5.573	(0.908)	146040	40.0000	39.6(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.940	5.940	(0.968)	839897	40.0000	37.6(H)
118 2,6-Dichlorophenol	162	6.215	6.215	(1.012)	224286	40.0000	41.5(H)
119 Hexachloropropene	213	6.243	6.243	(1.017)	109409	40.0000	40.8
120 p-Phenylenediamine	108	6.579	6.579	(1.072)	238155	40.0000	39.7(H)
121 N-Nitrosodi-n-butylamine	84	6.541	6.541	(1.066)	216295	40.0000	39.4(QH)
122 Safrole	162	6.773	6.773	(1.103)	198702	40.0000	40.8(H)
123 1,2,4,5-Tetrachlorobenzene	216	7.058	7.058	(0.881)	246053	40.0000	38.4(H)
124 Isosafrole	162	7.328	7.328	(0.915)	190442	40.0000	37.0(H)
125 1,4-Naphthoquinone	158	7.598	7.598	(0.949)	194174	40.0000	41.8(H)
127 Pentachlorobenzene	250	8.182	8.182	(1.022)	220400	40.0000	39.9(H)
128 1-Naphthylamine	143	8.312	8.312	(1.038)	538466	40.0000	39.2(H)
129 2-Naphthylamine	143	8.398	8.398	(1.049)	567659	40.0000	38.2(H)
131 5-Nitro-o-toluidine	152	8.607	8.607	(1.075)	162765	40.0000	38.5(H)
136 1,3,5-Trinitrobenzene	75	9.005	9.005	(0.936)	132030	40.0000	42.4(H)
137 Phenacetin	108	9.046	9.046	(0.940)	281918	40.0000	40.9(Q)
138 Diallate	86	9.007	9.007	(0.936)	248740	40.0000	39.4
212 Cis Diallate	86	9.109	9.109	(0.947)	39025	6.00000	5.9
213 Trans Diallate	86	9.007	9.007	(0.936)	248740	34.0000	33.5
140 4-Aminobiphenyl	169	9.405	9.405	(0.977)	467967	40.0000	33.3(H)
141 Pentachloronitrobenzene	237	9.415	9.415	(0.978)	67505	40.0000	41.5(Q)
142 Pronamide	173	9.443	9.443	(0.981)	283798	40.0000	41.1(H)
146 4-Nitroquinoline-1-oxide	101	10.480	10.480	(1.089)	14573	40.0000	23.6
147 Methapyrilene	58	10.531	10.531	(1.094)	402344	40.0000	39.7(H)
148 Isodrin	193	10.766	10.766	(1.119)	106564	40.0000	42.1
149 Aramite	185	11.278	11.278	(1.172)	49913	40.0000	43.0
150 Kepone	272	11.943	11.943	(1.241)	56964	40.0000	35.1(H)
151 p-(Dimethylamino)azobenzene	120	11.477	11.477	(0.908)	269757	40.0000	41.8
152 Chlorobenzilate	251	11.515	11.515	(0.911)	233566	40.0000	39.4(H)
153 3,3'-Dimethylbenzidine	212	11.861	11.861	(0.938)	347971	40.0000	32.4(H)
155 2-Acetylaminofluorene	181	12.185	12.185	(0.964)	291004	40.0000	43.3(H)
157 7,12Dimethylbenz(a)anthracene	256	14.274	14.274	(0.953)	285031	40.0000	42.3(H)
158 3-Methylcholanthrene	268	15.505	15.505	(1.035)	205712	40.0000	39.6(QH)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s020710.b/s6b0704.d
Date : 07-FEB-2010 13:45
Client ID: APCVS
Sample Info: IWBN100120-03,2ICCV1|1SVM1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

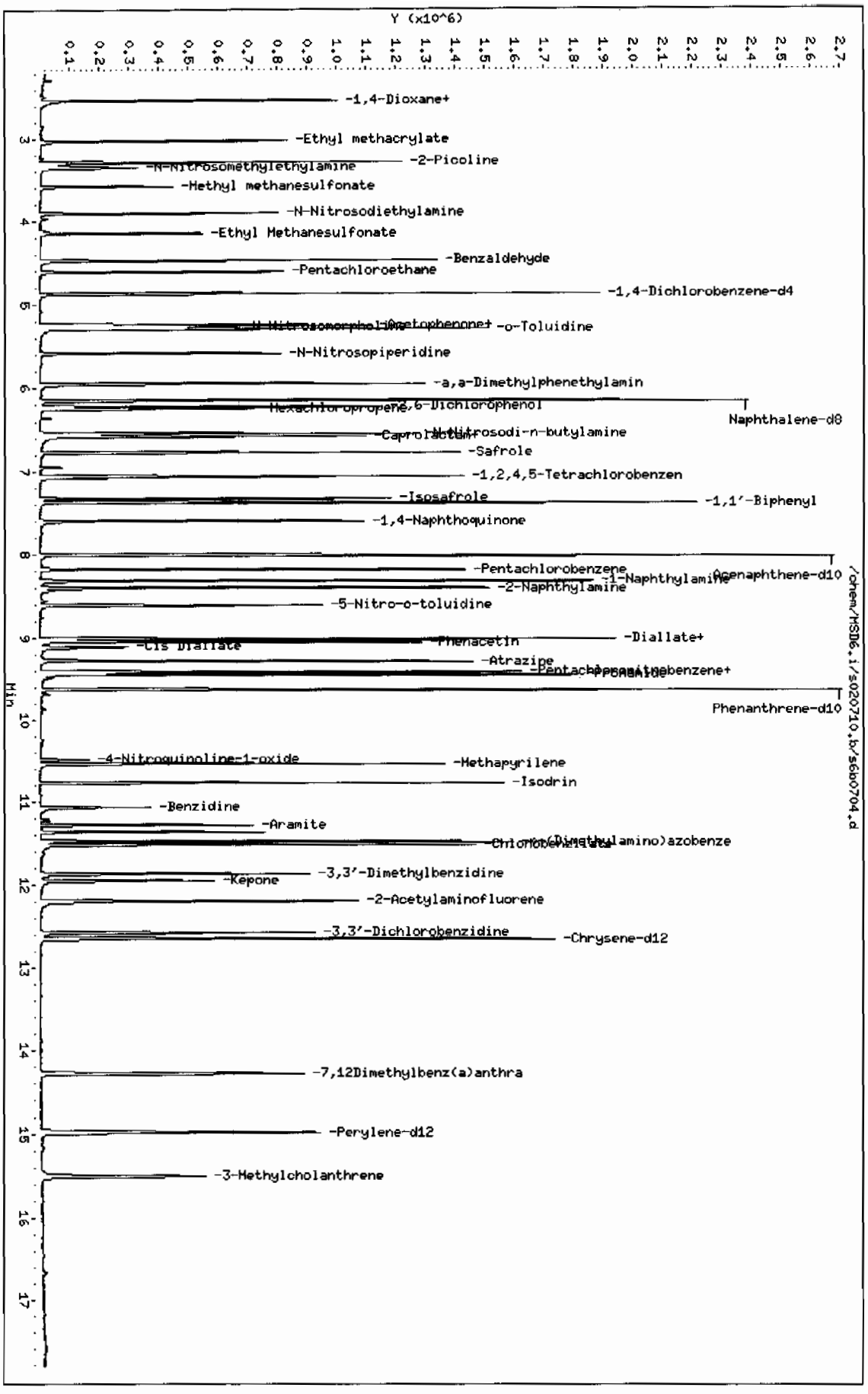

Page 1

Data File: /chem/MSD6.i/s020810.b/s6b0802.d
Report Date: 09-Feb-2010 07:32

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6b0802.d
Analysis Type:
Lab Sample ID: WBN100121-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m

Injection Date: 08-FEB-2010 14:04
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
|$	3 2-Fluorophenol	1.00169	0.92225	0.92225	0.000	-7.93068	60.00000	Averaged	
|$	5 Phenol-d5	1.26427	1.22069	1.22069	0.000	-3.44675	60.00000	Averaged	
|$	20 Nitrobenzene-d5	0.28296	0.29513	0.29513	0.000	4.30236	60.00000	Averaged	
|$	39 2-Fluorobiphenyl	1.03083	1.02743	1.02743	0.000	-0.32953	60.00000	Averaged	
|$	60 2,4,6-Tribromophenol	0.11675	0.11580	0.11580	0.000	-0.81448	60.00000	Averaged	
|$	81 p-Terphenyl-d14	0.64507	0.69082	0.69082	0.000	7.09308	60.00000	Averaged	
|	1 N-Methyl-N-nitrosomethylami	0.68098	0.56602	0.56602	0.000	-16.88177	60.00000	Averaged	
|	2 Pyridine	0.84757	0.59778	0.59778	0.000	-29.47206	60.00000	Averaged	
|	4 Aniline	0.52752	0.48852	0.48852	0.000	-7.39223	60.00000	Averaged	
|	6 Phenol	1.27120	1.27121	1.27121	0.001	0.00118	20.00000	Averaged	ccc
|	7 bis(2-Chloroethyl) ether	0.86081	0.77350	0.77350	0.000	-10.14222	60.00000	Averaged	
|	8 2-Chlorophenol	1.02109	0.99759	0.99759	0.000	-2.30136	60.00000	Averaged	
|	203 n-Decane	1.42254	1.26339	1.26339	0.000	-11.18777	60.00000	Averaged	
|	9 1,3-Dichlorobenzene	1.17550	1.21794	1.21794	0.000	3.61091	60.00000	Averaged	
|	11 1,4-Dichlorobenzene	1.19162	1.20984	1.20984	0.001	1.52917	20.00000	Averaged	ccc
|	13 1,2-Dichlorobenzene	1.11231	1.13542	1.13542	0.000	2.07776	60.00000	Averaged	
|	14 bis(2-Chloroisopropyl)ether	1.92182	1.87210	1.87210	0.000	-2.58714	60.00000	Averaged	
|	12 Benzyl alcohol	0.63436	0.54902	0.54902	0.000	-13.45348	60.00000	Averaged	
|	15 o-Cresol	0.83139	0.80422	0.80422	0.000	-3.26740	60.00000	Averaged	
|	18 m,p-Cresols	1.05346	1.05681	1.05681	0.000	0.31807	60.00000	Averaged	
|	17 N-Nitrosodipropylamine	0.70865	0.74729	0.74729	0.050	5.45224	60.00000	Averaged	spcc
|	19 Hexachloroethane	0.46100	0.47348	0.47348	0.000	2.70784	60.00000	Averaged	
|	21 Nitrobenzene	0.28519	0.29135	0.29135	0.000	2.15934	60.00000	Averaged	
|	22 Isophorone	0.50552	0.53308	0.53308	0.000	5.45206	60.00000	Averaged	
|	23 2-Nitrophenol	0.13154	0.13313	0.13313	0.001	1.20723	20.00000	Averaged	ccc
|	24 2,4-Dimethylphenol	0.21795	0.23960	0.23960	0.000	9.93249	60.00000	Averaged	
|	25 bis(2-Chloroethoxy)methane	0.29749	0.28407	0.28407	0.000	-4.51211	60.00000	Averaged	
|	26 2,4-Dichlorophenol	0.19769	0.21176	0.21176	0.001	7.11820	20.00000	Averaged	ccc
|	27 Benzoic acid	0.13453	0.16912	0.16912	0.000	25.71028	60.00000	Averaged	
|	28 1,2,4-Trichlorobenzene	0.24261	0.25438	0.25438	0.000	4.84834	60.00000	Averaged	
|	30 Naphthalene	0.79792	0.74674	0.74674	0.000	-6.41376	60.00000	Averaged	
|	204 alpha-Terpineol	0.21868	0.22019	0.22019	0.000	0.69245	60.00000	Averaged	
|	31 4-Chloroaniline	0.25646	0.21067	0.21067	0.000	-17.85413	60.00000	Averaged	
|	32 Hexachlorobutadiene	0.12634	0.14342	0.14342	0.001	13.51543	20.00000	Averaged	ccc
|	33 4-Chloro-3-methylphenol	0.19957	0.23040	0.23040	0.001	15.45290	20.00000	Averaged	ccc
|	34 2-Methylnaphthalene	0.48150	0.51252	0.51252	0.000	6.44206	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6b0802.d
Analysis Type:
Lab Sample ID: WBN100121-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m

Injection Date: 08-FEB-2010 14:04
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.48849	0.48849	0.000	3.71165	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.11534	0.11534	0.050	-28.61236	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.45287	0.45287	0.000	-5.47053	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.28271	0.28271	0.001	3.58144	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.30591	0.30591	0.000	5.24457	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.88616	0.88616	0.000	-1.35363	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.26881	0.26881	0.000	-12.53275	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.11224	0.11224	0.000	-50.10967	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.02745	1.02745	0.000	0.13168	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.23861	0.23861	0.000	-2.50667	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.30090	0.30090	0.000	-2.50073	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.44808	1.44808	0.000	0.25594	60.00000	Averaged	
47	Acenaphthene	0.90151	0.83909	0.83909	0.001	-6.92380	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	43.34159	40.00000	0.09428	0.050	8.35398	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.17273	1.17273	0.000	-3.62878	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.07872	1.07872	0.000	4.39062	60.00000	Averaged	
52	4-Nitrophenol	41.73486	40.00000	0.17351	0.050	4.33714	60.00000	Linear	spcc
53	Fluorene	0.99879	0.98141	0.98141	0.000	-1.74039	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.46851	0.46851	0.000	-0.72337	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	51.09492	40.00000	0.11859	0.000	27.73729	60.00000	Linear	
56	p-Nitroaniline	16.54678	40.00000	0.06048	0.000	-58.63306	60.00000	Linear	
133	Diphenylamine	0.48213	0.40470	0.40470	0.001	-16.05986	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.58894	0.58894	0.000	-3.96671	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.15343	0.15343	0.000	-2.79031	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16619	0.16619	0.000	0.52292	60.00000	Averaged	
65	Pentachlorophenol	43.02591	40.00000	0.09380	0.001	7.56477	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.44420	0.44420	0.000	0.55842	60.00000	Averaged	
68	Phenanthrene	0.82721	0.82108	0.82108	0.000	-0.74140	60.00000	Averaged	
69	Anthracene	0.82682	0.82611	0.82611	0.000	-0.08621	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	1.06191	1.06191	0.000	11.83470	60.00000	Averaged	
76	Fluoranthene	0.79242	0.84561	0.84561	0.001	6.71243	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.03984	1.03984	0.000	-5.48679	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.54278	0.54278	0.000	7.79993	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.84896	0.84896	0.000	-1.62773	60.00000	Averaged	
92	Chrysene	0.82690	0.81908	0.81908	0.000	-0.94544	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	44.00867	40.00000	0.76403	0.000	10.02168	60.00000	Wt Linear	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6b0802.d
Analysis Type:
Lab Sample ID: WBN100121-17.4 Quant Type: ISTD
Method: /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m

Injection Date: 08-FEB-2010 14:04
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.46651	1.46651	0.001	15.35796	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.94384	0.94384	0.000	6.63925	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	0.93548	0.93548	0.000	6.29128	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.86308	0.86308	0.001	12.89990	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	42.01674	40.00000	0.76760	0.000	5.04184	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	41.62001	40.00000	0.61936	0.000	4.05003	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.64055	0.64055	0.000	9.67790	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.15786	0.15786	0.000	-6.75293	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23927	0.23927	0.000	9.27711	60.00000	Averaged	
	143 Dinoseb	40.46724	40.00000	0.12626	0.000	1.16809	60.00000	Linear	
	173 Carbazole	0.65449	0.38470	0.38470	0.000	-41.22189	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.07143	0.07143	0.000	-43.88693	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57324	0.57324	0.000	3.76627	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.73676	0.73676	0.000	-18.12668	60.00000	Averaged	
	210 m-Toluidine	1.12396	0.93384	0.93384	0.000	-16.91486	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.58470	0.58470	0.000	-17.68852	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	32.35034	40.00000	0.23638	0.000	-19.12414	60.00000	Linear	
	26 Phthalic anhydride	47.87922	40.00000	0.09433	0.000	19.69805	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.18172	0.18172	0.000	-1.14131	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	25.89384	40.00000	0.07403	0.000	-35.26540	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29431	0.29431	0.000	4.43916	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23927	0.23927	0.000	9.27711	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	0.93966	0.93966	0.000	6.46576	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020810.b/s6b0802.d
Lab Smp Id: WBN100121-17.4 Client Smp ID: MEGACVS
Inj Date : 08-FEB-2010 14:04
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100121-17.4|CCV|1|SVM|1|MEGACVS
Misc Info : |MSD8270|WBN100205-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m
Meth Date : 09-Feb-2010 07:32 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.813	4.813	(1.000)	245875	40.0000	
* 29 Naphthalene-d8	136	6.090	6.090	(1.000)	949758	40.0000	
* 46 Acenaphthene-d10	164	7.960	7.960	(1.000)	514386	40.0000	
* 67 Phenanthrene-d10	188	9.571	9.571	(1.000)	876117	40.0000	
* 91 Chrysene-d12	240	12.580	12.580	(1.000)	731973	40.0000	
* 98 Perylene-d12	264	14.904	14.904	(1.000)	606320	40.0000	
$ 3 2-Fluorophenol	112	3.649	3.649	(0.758)	226758	40.0000	36.8
$ 5 Phenol-d5	99	4.429	4.429	(0.920)	300138	40.0000	38.6
$ 20 Nitrobenzene-d5	82	5.354	5.354	(0.879)	280304	40.0000	41.7
$ 39 2-Fluorobiphenyl	172	7.214	7.214	(0.906)	528498	40.0000	39.9
$ 60 2,4,6-Tribromophenol	329	8.809	8.809	(1.107)	59565	40.0000	39.7
$ 81 p-Terphenyl-d14	244	11.273	11.273	(0.896)	505663	40.0000	42.8
1 N-Methyl-N-nitrosomethylamine	74	2.688	2.688	(0.558)	139169	40.0000	33.2
2 Pyridine	79	2.726	2.726	(0.566)	146978	40.0000	28.2
4 Aniline	66	4.505	4.505	(0.936)	120116	40.0000	37.0
6 Phenol	94	4.441	4.441	(0.923)	312559	40.0000	40.0(Q)
7 bis(2-Chloroethyl) ether	63	4.541	4.541	(0.943)	190185	40.0000	35.9
8 2-Chlorophenol	128	4.617	4.617	(0.959)	245283	40.0000	39.1
203 n-Decane	43	4.615	4.615	(0.959)	310635	40.0000	35.5
9 1,3-Dichlorobenzene	146	4.762	4.762	(0.989)	299462	40.0000	41.4
11 1,4-Dichlorobenzene	146	4.831	4.831	(1.004)	297470	40.0000	40.6
13 1,2-Dichlorobenzene	146	4.979	4.979	(1.034)	279171	40.0000	40.8
14 bis(2-Chloroisopropyl)ether	45	5.045	5.045	(1.048)	460303	40.0000	39.0
12 Benzyl alcohol	108	4.928	4.928	(1.024)	134990	40.0000	34.6
15 o-Cresol	107	5.015	5.015	(1.042)	197738	40.0000	38.7
18 m,p-Cresols	107	5.170	5.170	(1.074)	259843	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.190	5.190	(1.078)	183740	40.0000	42.2
19 Hexachloroethane	117	5.308	5.308	(1.103)	116417	40.0000	41.1
21 Nitrobenzene	77	5.374	5.374	(0.882)	276711	40.0000	40.9
22 Isophorone	82	5.608	5.608	(0.921)	506294	40.0000	42.2
23 2-Nitrophenol	139	5.690	5.690	(0.934)	126444	40.0000	40.5
24 2,4-Dimethylphenol	122	5.703	5.703	(0.936)	227562	40.0000	44.0
25 bis(2-Chloroethoxy)methane	93	5.805	5.805	(0.953)	269797	40.0000	38.2
26 2,4-Dichlorophenol	162	5.932	5.932	(0.974)	201118	40.0000	42.8
27 Benzoic acid	105	5.815	5.815	(0.955)	160620	40.0000	50.3
28 1,2,4-Trichlorobenzene	180	6.021	6.021	(0.989)	241597	40.0000	41.9
30 Naphthalene	128	6.113	6.113	(1.004)	709222	40.0000	37.4
204 alpha-Terpineol	59	6.098	6.098	(1.001)	209130	40.0000	40.3
31 4-Chloroaniline	127	6.156	6.156	(1.011)	200085	40.0000	32.8
32 Hexachlorobutadiene	225	6.217	6.217	(1.021)	136210	40.0000	45.4
33 4-Chloro-3-methylphenol	107	6.643	6.643	(1.091)	218828	40.0000	46.2
34 2-Methylnaphthalene	142	6.834	6.834	(1.122)	486767	40.0000	42.6
35 1-Methylnaphthalene	142	6.941	6.941	(1.140)	463943	40.0000	41.5
36 Hexachlorocyclopentadiene	237	6.989	6.989	(0.878)	59329	40.0000	28.6
205 2,3-Dichloroaniline	161	7.135	7.135	(0.896)	232950	40.0000	37.8
37 2,4,6-Trichlorophenol	196	7.127	7.127	(0.895)	145424	40.0000	41.4
38 2,4,5-Trichlorophenol	196	7.168	7.168	(0.900)	157357	40.0000	42.1
40 2-Chloronaphthalene	162	7.359	7.359	(0.924)	455830	40.0000	39.4
42 o-Nitroaniline	65	7.466	7.466	(0.938)	138271	40.0000	35.0
41 m-Nitroaniline	138	7.912	7.912	(0.994)	57734	40.0000	20.0
43 Dimethylphthalate	163	7.647	7.647	(0.961)	528507	40.0000	40.0
44 2,6-Dinitrotoluene	165	7.721	7.721	(0.970)	122739	40.0000	39.0
50 2,4-Dinitrotoluene	165	8.156	8.156	(1.025)	154780	40.0000	39.0
45 Acenaphthylene	152	7.810	7.810	(0.981)	744871	40.0000	40.1
47 Acenaphthene	154	7.996	7.996	(1.004)	431617	40.0000	37.2
48 2,4-Dinitrophenol	184	8.024	8.024	(1.008)	48497	40.0000	43.3
49 Dibenzofuran	168	8.179	8.179	(1.028)	603236	40.0000	38.5
51 Diethylphthalate	149	8.396	8.396	(1.055)	554877	40.0000	41.8
52 4-Nitrophenol	139	8.077	8.077	(1.015)	89253	40.0000	41.7
53 Fluorene	166	8.549	8.549	(1.074)	504824	40.0000	39.3
54 4-Chlorophenylphenylether	204	8.534	8.534	(1.072)	240994	40.0000	39.7
55 2-Methyl-4,6-dinitrophenol	198	8.600	8.600	(0.899)	103902	40.0000	51.1
56 p-Nitroaniline	138	8.579	8.579	(1.078)	31109	40.0000	16.5
133 Diphenylamine	169	8.664	8.664	(0.905)	354568	40.0000	33.6
58 1,2-Diphenylhydrazine	77	8.709	8.709	(0.910)	515982	40.0000	38.4
61 4-Bromophenylphenylether	248	9.066	9.066	(0.947)	134426	40.0000	38.9
63 Hexachlorobenzene	284	9.143	9.143	(0.955)	145606	40.0000	40.2
65 Pentachlorophenol	266	9.352	9.352	(0.977)	82180	40.0000	43.0
206 n-Octadecane	57	9.392	9.392	(0.981)	389170	40.0000	40.2
68 Phenanthrene	178	9.596	9.596	(1.003)	719363	40.0000	39.7
69 Anthracene	178	9.652	9.652	(1.009)	723770	40.0000	40.0
72 Di-n-butylphthalate	149	10.154	10.154	(1.061)	930358	40.0000	44.7
76 Fluoranthene	202	10.883	10.883	(1.137)	740853	40.0000	42.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.135	11.135	(0.885)	761135	40.0000	37.8
85 Butylbenzylphthalate	149	11.803	11.803	(0.938)	397299	40.0000	43.1
89 Benzo(a)anthracene	228	12.560	12.560	(0.998)	621415	40.0000	39.3
92 Chrysene	228	12.616	12.616	(1.003)	599545	40.0000	39.6
93 bis(2-Ethylhexyl)phthalate	149	12.519	12.519	(0.995)	559246	40.0000	44.0
94 Di-n-octylphthalate	149	13.495	13.495	(0.905)	889177	40.0000	46.1
95 Benzo(b)fluoranthene	252	14.226	14.226	(0.955)	572267	40.0000	42.6
96 Benzo(k)fluoranthene	252	14.272	14.272	(0.958)	567198	40.0000	42.5
97 Benzo(a)pyrene	252	14.799	14.799	(0.993)	523304	40.0000	45.2
99 Indeno(1,2,3-cd)pyrene	276	16.889	16.889	(1.133)	465409	40.0000	42.0
100 Dibenzo(a,h)anthracene	278	16.912	16.912	(1.135)	375528	40.0000	41.6
101 Benzo(ghi)perylene	276	17.398	17.398	(1.167)	388378	40.0000	43.9(Q)
126 m-Dinitrobenzene	168	7.698	7.698	(0.967)	81202	40.0000	37.3
130 2,3,4,6-Tetrachlorophenol	232	8.304	8.304	(1.043)	123078	40.0000	43.7
143 Dinoseb	211	9.532	9.532	(0.996)	110622	40.0000	40.5
173 Carbazole	167	9.820	9.820	(1.026)	337042	40.0000	23.5
184 p-Benzoquinone	54	4.082	4.082	(0.848)	17564	40.0000	22.4
192 Methoxychlor	227	12.422	12.422	(0.987)	419595	40.0000	41.5
211 p-Toluidine	106	5.234	5.234	(1.087)	181150	40.0000	32.7
210 m-Toluidine	106	5.267	5.267	(1.094)	229609	40.0000	33.2
215 2-Ethoxyethanol	59	2.482	2.482	(0.516)	143764	40.0000	32.9
179 Dibenzo(a,e)pyrene	302	21.075	21.075	(1.414)	143323	40.0000	32.4
26 Phthalic anhydride	104	6.900	6.900	(1.133)	89588	40.0000	47.9
214 1,4-Dinitrobenzene	75	7.616	7.616	(0.957)	93473	40.0000	39.5
216 Methylenebis(2-chloroaniline)	231	12.504	12.504	(0.994)	54185	40.0000	25.9(Q)
M 225 Trichlorophenols	196				302781	80.0000	83.6
M 226 Tetrachlorophenols	232				123078	40.0000	43.7
M 227 Benzo(b,k)fluoranthene	252				1139465	80.0000	85.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s020810.b/s6b0802.d
Date : 08-FEB-2010 14:04
Client ID: MEGACVS
Sample Info: IWBN100121-17,4|CCV|1|SVM|1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

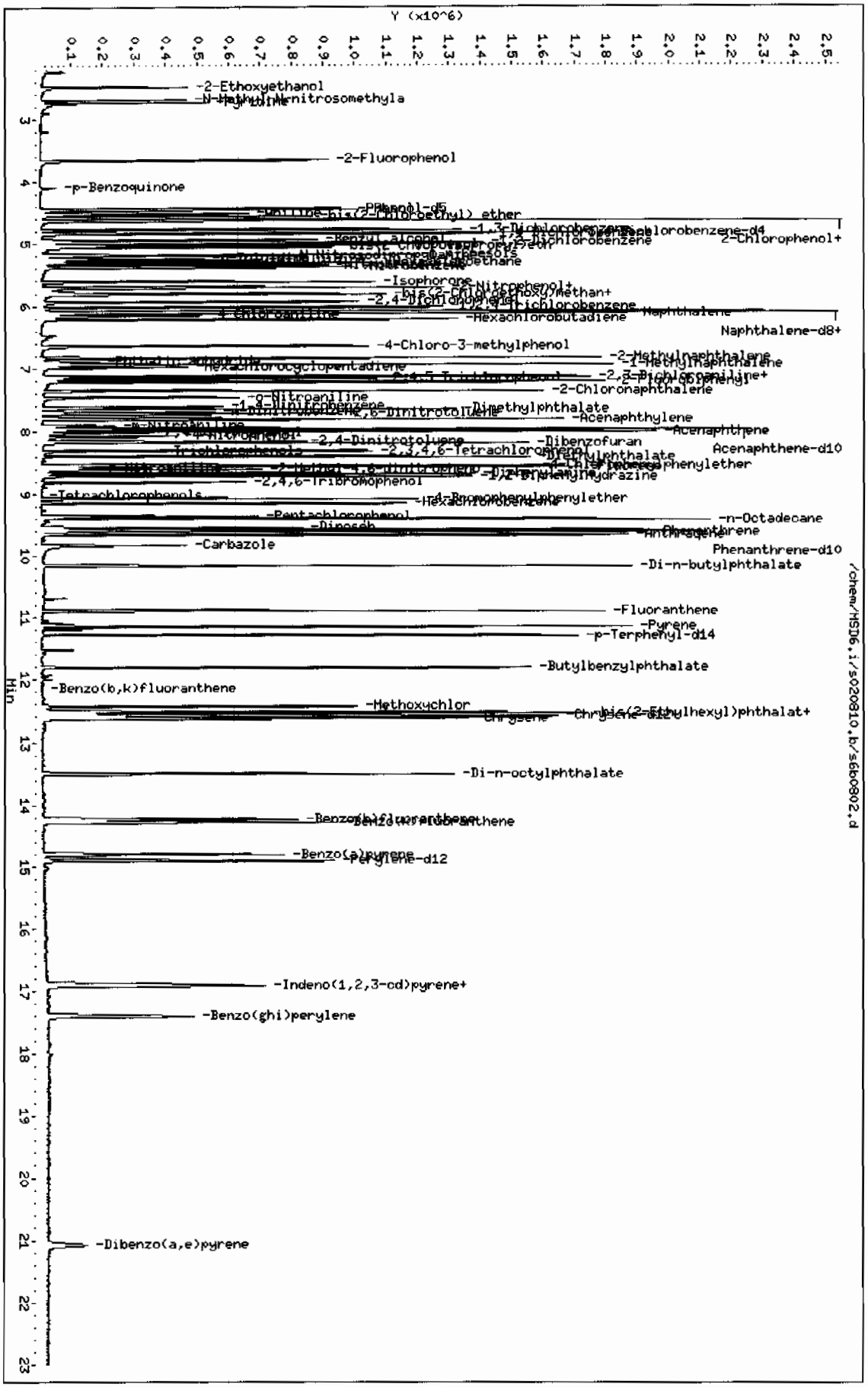

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 08-FEB-2010 14:37
Lab File ID: s6b0803.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100120-03.4 Quant Type: ISTD
Method: /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.82314	0.82314	0.000	-4.42788	60.00000	Averaged
16 Acetophenone	1.16908	1.10366	1.10366	0.000	-5.59537	60.00000	Averaged
189 Caprolactam	0.07388	0.07862	0.07862	0.000	6.42118	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.05337	1.05337	0.000	-12.31458	60.00000	Averaged
207 Atrazine	0.04063	0.03929	0.03929	0.000	-3.31856	60.00000	Averaged
77 Benzidine	0.39304	0.05986	0.05986	0.000	-84.77057	60.00000	Averaged <-
90 3,3'-Dichlorobenzidine	0.28252	0.24753	0.24753	0.000	-12.38297	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.33415	0.33415	0.000	-8.71679	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.17226	0.17226	0.000	-11.14911	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.67752	0.67752	0.000	-15.89918	60.00000	Averaged
105 2-Picoline	1.30872	1.15356	1.15356	0.000	-11.85598	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.44110	0.44110	0.000	-13.68588	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.46909	0.46909	0.000	-11.24554	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.45967	0.45967	0.000	-7.23784	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.55865	0.55865	0.000	-14.27561	60.00000	Averaged
110 Pentachloroethane	0.31681	0.30271	0.30271	0.000	-4.44857	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.48678	0.48678	0.000	2.23575	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65778	0.65778	0.000	-3.17715	60.00000	Averaged
114 o-Toluidine	1.65281	1.51274	1.51274	0.000	-8.47483	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.13570	0.13570	0.000	-3.79710	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.73752	0.73752	0.000	-13.78618	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.19630	0.19630	0.000	-5.11214	60.00000	Averaged
119 Hexachloropropene	0.10269	0.08866	0.08866	0.000	-13.66269	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.11110	0.11110	0.000	-51.59866	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.19477	0.19477	0.000	-7.27333	60.00000	Averaged
122 Safrole	0.18653	0.17605	0.17605	0.000	-5.61521	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.38926	0.38926	0.000	-8.01896	60.00000	Averaged
124 Isosafrole	0.33959	0.29660	0.29660	0.000	-12.65917	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.31795	0.31795	0.000	3.65461	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.34930	0.34930	0.000	-4.18010	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.71930	0.71930	0.000	-20.73112	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.79069	0.79069	0.000	-19.32776	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.24153	0.24153	0.000	-13.43112	60.00000	Averaged
136 1,3,5-Trinitrobenzene	37.58026	40.00000	0.11007	0.000	-6.04935	60.00000	Linear
137 Phenacetin	0.26240	0.24158	0.24158	0.000	-7.93384	60.00000	Averaged
138 Diallate	0.24056	0.22580	0.22580	0.000	-6.13621	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6b0803.d
Analysis Type:
Lab Sample ID: WBN100120-03.4 Quant Type: ISTD
Method: /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m

Injection Date: 08-FEB-2010 14:37
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
212 Cis Diallate	0.25295	0.23800	0.23800	0.000	-5.90963	60.00000	Averaged	
213 Trans Diallate	0.28301	0.26565	0.26565	0.000	-6.13621	60.00000	Averaged	
140 4-Aminobiphenyl	0.53562	0.37982	0.37982	0.000	-29.08639	60.00000	Averaged	
141 Pentachloronitrobenzene	0.06192	0.06329	0.06329	0.000	2.20501	60.00000	Averaged	
142 Pronamide	0.26319	0.25531	0.25531	0.000	-2.99346	60.00000	Averaged	
146 4-Nitroquinoline-1-oxide	0.02349	0.00801	0.00801	0.000	-65.88539	60.00000	Averaged	<-
147 Methapyrilene	0.38600	0.36754	0.36754	0.000	-4.78428	60.00000	Averaged	
148 Isodrin	0.09631	0.10251	0.10251	0.000	6.43586	60.00000	Averaged	
149 Aramite	0.04420	0.04911	0.04911	0.000	11.11733	60.00000	Averaged	
150 Kepone	0.06173	0.06220	0.06220	0.000	0.76100	60.00000	Averaged	
151 p-(Dimethylamino)azobenzene	0.31734	0.29477	0.29477	0.000	-7.11205	60.00000	Averaged	
152 Chlorobenzilate	0.29130	0.28838	0.28838	0.000	-1.00006	60.00000	Averaged	
153 3,3'-Dimethylbenzidine	0.52763	0.29795	0.29795	0.000	-43.53155	60.00000	Averaged	
155 2-Acetylaminofluorene	41.82599	40.00000	0.34380	0.000	4.56497	60.00000	Linear	
157 7,12Dimethylbenz(a)anthrace	0.47906	0.47470	0.47470	0.000	-0.90964	60.00000	Averaged	
158 3-Methylcholanthrene	0.36955	0.35909	0.35909	0.000	-2.83044	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020810.b/s6b0803.d
Lab Smp Id: WBN100120-03.4 Client Smp ID: APCVS
Inj Date : 08-FEB-2010 14:37
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100120-03.4|CCV|1|SVM|1|APCVS
Misc Info : |MSD8270|WBN100205-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020810.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 15:26 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.811	4.811	(1.000)	268690	40.0000	
* 29 Naphthalene-d8	136	6.087	6.087	(1.000)	977928	40.0000	
* 46 Acenaphthene-d10	164	7.955	7.955	(1.000)	565925	40.0000	
* 67 Phenanthrene-d10	188	9.571	9.571	(1.000)	984819	40.0000	
* 91 Chrysene-d12	240	12.575	12.575	(1.000)	809610	40.0000	
* 98 Perylene-d12	264	14.896	14.896	(1.000)	631228	40.0000	
209 Benzaldehyde	77	4.416	4.416	(0.918)	221169	40.0000	38.2
16 Acetophenone	105	5.196	5.196	(1.080)	296543	40.0000	37.8
189 Caprolactam	113	6.523	6.523	(1.072)	76889	40.0000	42.6
208 1,1'-Biphenyl	154	7.326	7.326	(0.921)	596130	40.0000	35.1
207 Atrazine	173	9.229	9.229	(0.964)	38690	40.0000	38.7
77 Benzidine	184	11.018	11.018	(0.876)	48461	40.0000	6.1
90 3,3'-Dichlorobenzidine	252	12.501	12.501	(0.994)	200404	40.0000	35.0
102 1,4-Dioxane	88	2.484	2.484	(0.516)	89783	40.0000	36.5
103 Methyl methacrylate	100	2.479	2.479	(0.515)	46285	40.0000	35.5
104 Ethyl methacrylate	69	2.976	2.976	(0.619)	182043	40.0000	33.6
105 2-Picoline	93	3.236	3.236	(0.673)	309950	40.0000	35.2
106 N-Nitrosomethylethylamine	88	3.302	3.302	(0.686)	118518	40.0000	34.5
107 Methyl methanesulfonate	80	3.527	3.527	(0.733)	126039	40.0000	35.5
108 N-Nitrosodiethylamine	102	3.853	3.853	(0.801)	123508	40.0000	37.1
109 Ethyl Methanesulfonate	79	4.090	4.090	(0.850)	150105	40.0000	34.3
110 Pentachloroethane	167	4.551	4.551	(0.946)	81336	40.0000	38.2
111 N-Nitrosopyrrolidine	100	5.183	5.183	(1.077)	130793	40.0000	40.9(Q)
113 N-Nitrosomorpholine	56	5.213	5.213	(1.084)	176739	40.0000	38.7
114 o-Toluidine	106	5.231	5.231	(1.087)	406458	40.0000	36.6
115 N-Nitrosopiperidine	114	5.522	5.522	(0.907)	132702	40.0000	38.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.889	5.889	(0.967)	721243	40.0000	34.5
118 2,6-Dichlorophenol	162	6.164	6.164	(1.013)	191964	40.0000	38.0
119 Hexachloropropene	213	6.192	6.192	(1.017)	86699	40.0000	34.5
120 p-Phenylenediamine	108	6.533	6.533	(1.073)	108651	40.0000	19.4
121 N-Nitrosodi-n-butylamine	84	6.490	6.490	(1.066)	190467	40.0000	37.1(Q)
122 Safrole	162	6.724	6.724	(1.105)	172166	40.0000	37.8
123 1,2,4,5-Tetrachlorobenzene	216	7.010	7.010	(0.881)	220291	40.0000	36.8
124 Isosafrole	162	7.280	7.280	(0.915)	167854	40.0000	34.9
125 1,4-Naphthoquinone	158	7.550	7.550	(0.949)	179934	40.0000	41.5
127 Pentachlorobenzene	250	8.128	8.128	(1.022)	197680	40.0000	38.3
128 1-Naphthylamine	143	8.261	8.261	(1.038)	407069	40.0000	31.7
129 2-Naphthylamine	143	8.348	8.348	(1.049)	447469	40.0000	32.3
131 5-Nitro-o-toluidine	152	8.554	8.554	(1.075)	136690	40.0000	34.6
136 1,3,5-Trinitrobenzene	75	8.959	8.959	(0.936)	108396	40.0000	37.6
137 Phenacetin	108	8.995	8.995	(0.940)	237910	40.0000	36.8(Q)
138 Diallate	86	8.959	8.959	(0.936)	222372	40.0000	37.5
212 Cis Diallate	86	9.059	9.059	(0.946)	35158	6.00000	5.6
213 Trans Diallate	86	8.959	8.959	(0.936)	222372	34.0000	31.9
140 4-Aminobiphenyl	169	9.354	9.354	(0.977)	374058	40.0000	28.4
141 Pentachloronitrobenzene	237	9.364	9.364	(0.978)	62327	40.0000	40.9(Q)
142 Pronamide	173	9.395	9.395	(0.982)	251434	40.0000	38.8
146 4-Nitroquinoline-1-oxide	101	10.429	10.429	(1.090)	7893	40.0000	13.6
147 Methapyrilene	58	10.483	10.483	(1.095)	361956	40.0000	38.1
148 Isodrin	193	10.715	10.715	(1.120)	100949	40.0000	42.6
149 Aramite	185	11.230	11.230	(1.173)	48369	40.0000	44.4
150 Kepone	272	11.884	11.884	(1.242)	61254	40.0000	40.3
151 p-(Dimethylamino)azobenzene	120	11.426	11.426	(0.909)	238648	40.0000	37.2
152 Chlorobenzilate	251	11.464	11.464	(0.912)	233478	40.0000	39.6
153 3,3'-Dimethylbenzidine	212	11.805	11.805	(0.939)	241221	40.0000	22.6
155 2-Acetylaminofluorene	181	12.126	12.126	(0.964)	278347	40.0000	41.8
157 7,12Dimethylbenz(a)anthracene	256	14.193	14.193	(0.953)	299645	40.0000	39.6
158 3-Methylcholanthrene	268	15.414	15.414	(1.035)	226668	40.0000	38.9(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s020810.b/s6b0803.d
Date : 08-FEB-2010 14:37
Client ID: APCVS
Sample Info: IWBM100120-03,4ICCVI1ISVMI1IAPCVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

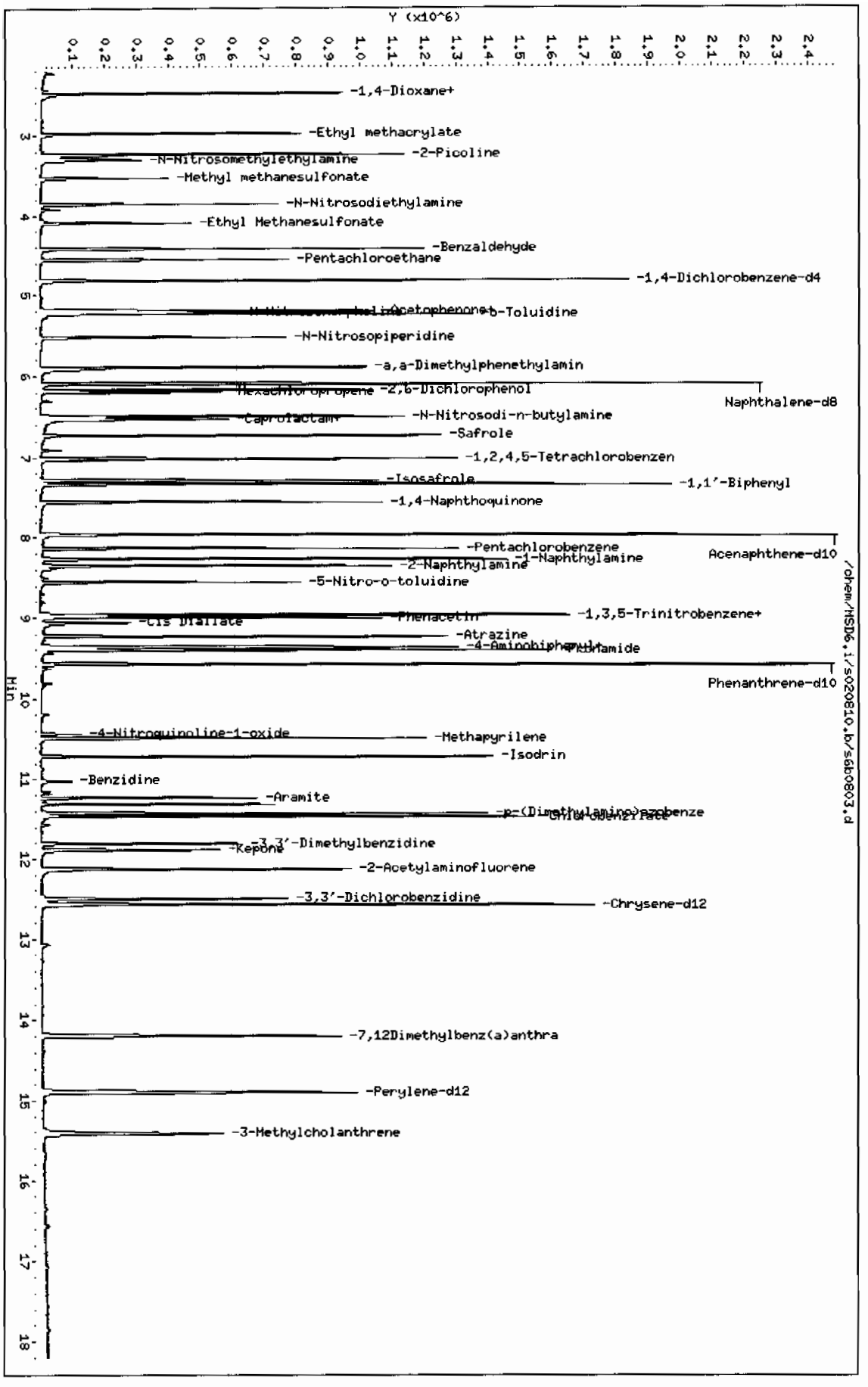

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Page 1

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

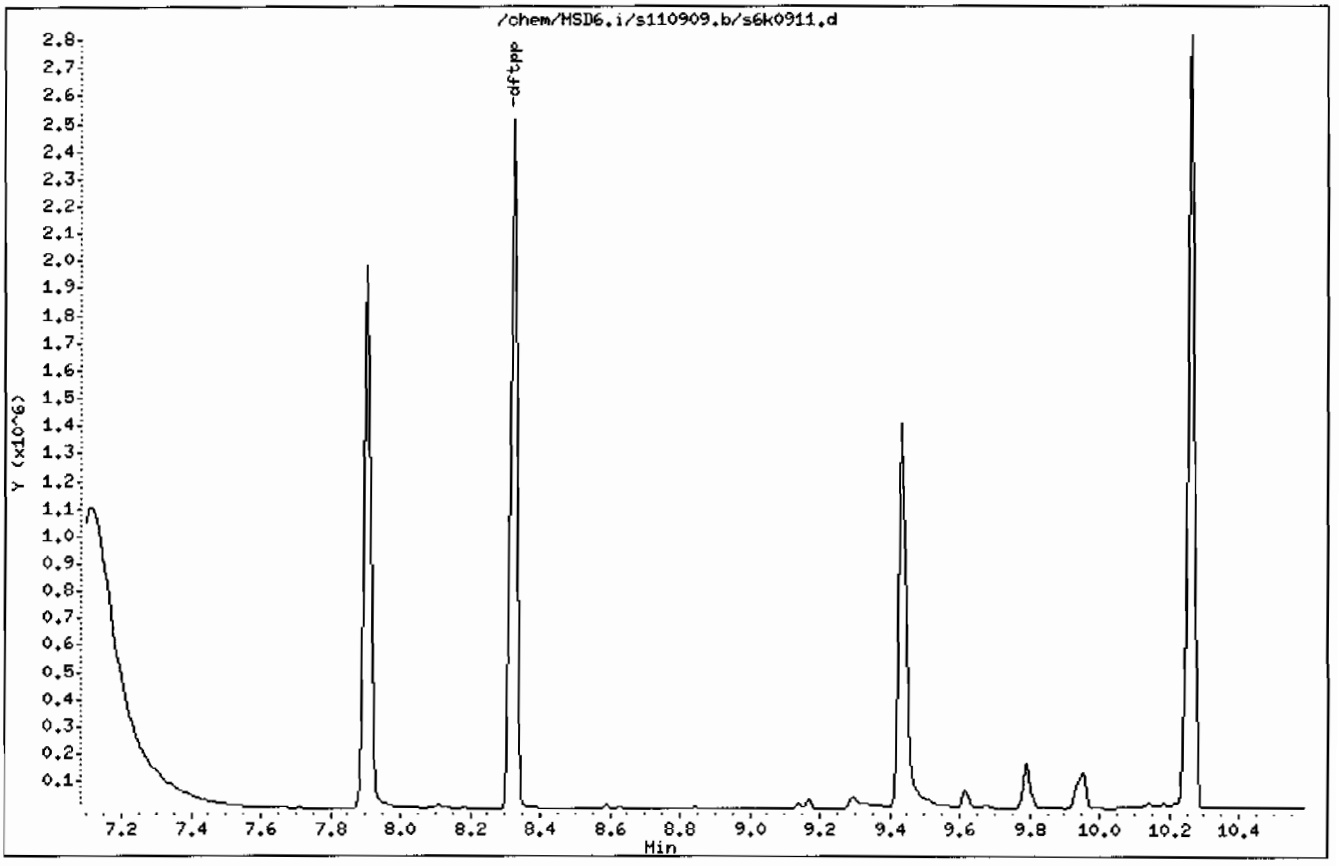

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

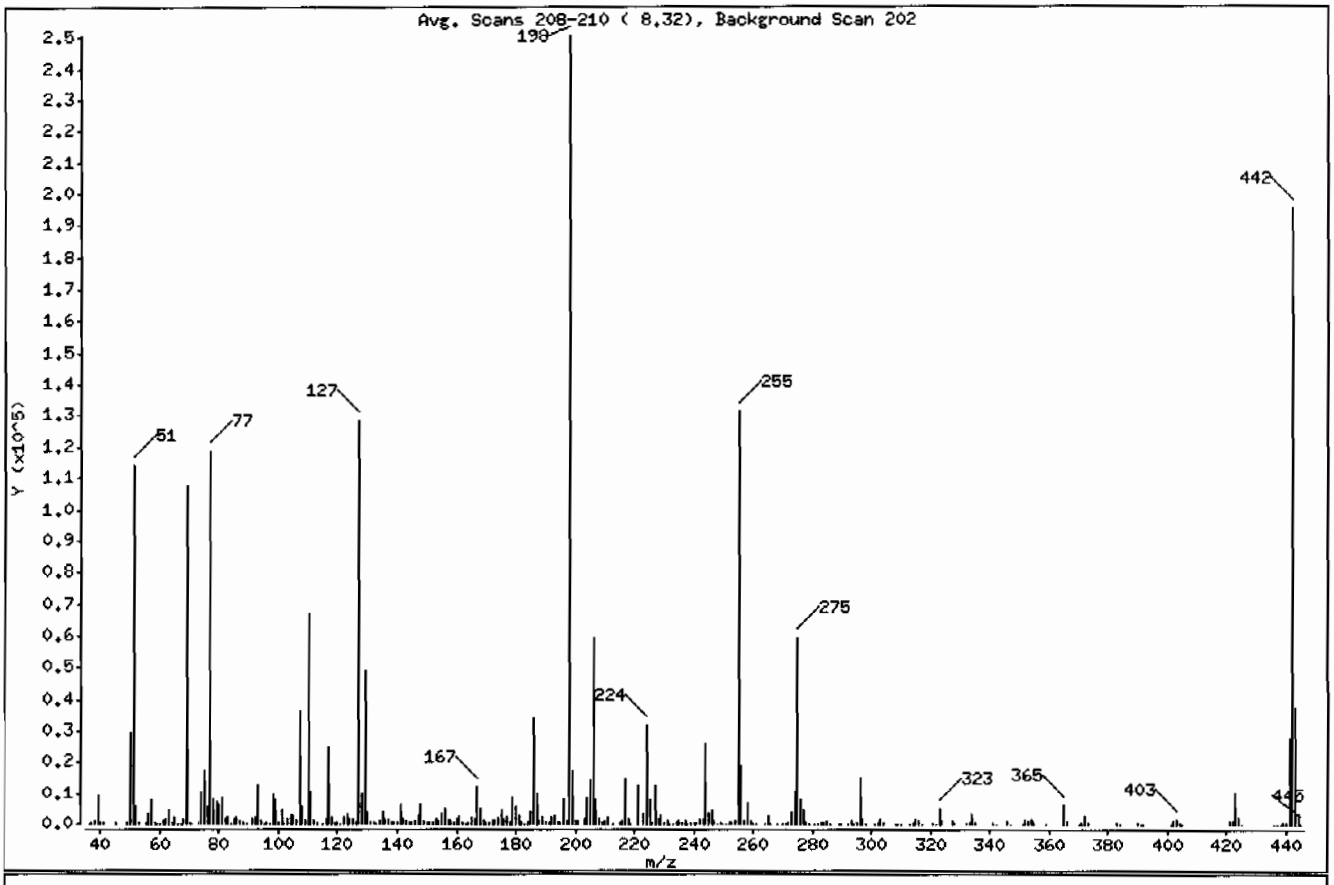

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d

Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202

Location of Maximum: 198.00

Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d

Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202

Location of Maximum: 198.00

Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	175	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Page 1

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

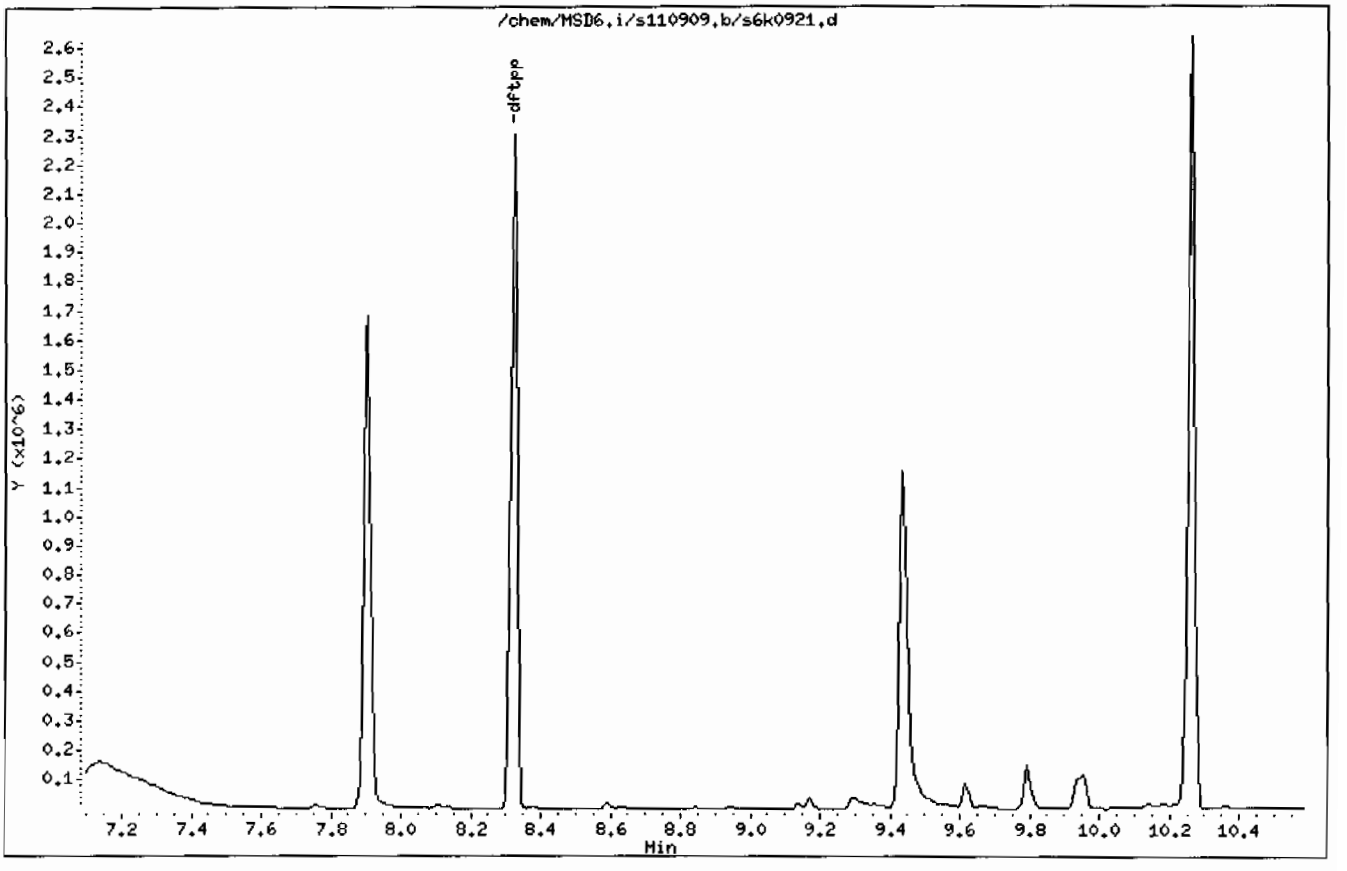

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

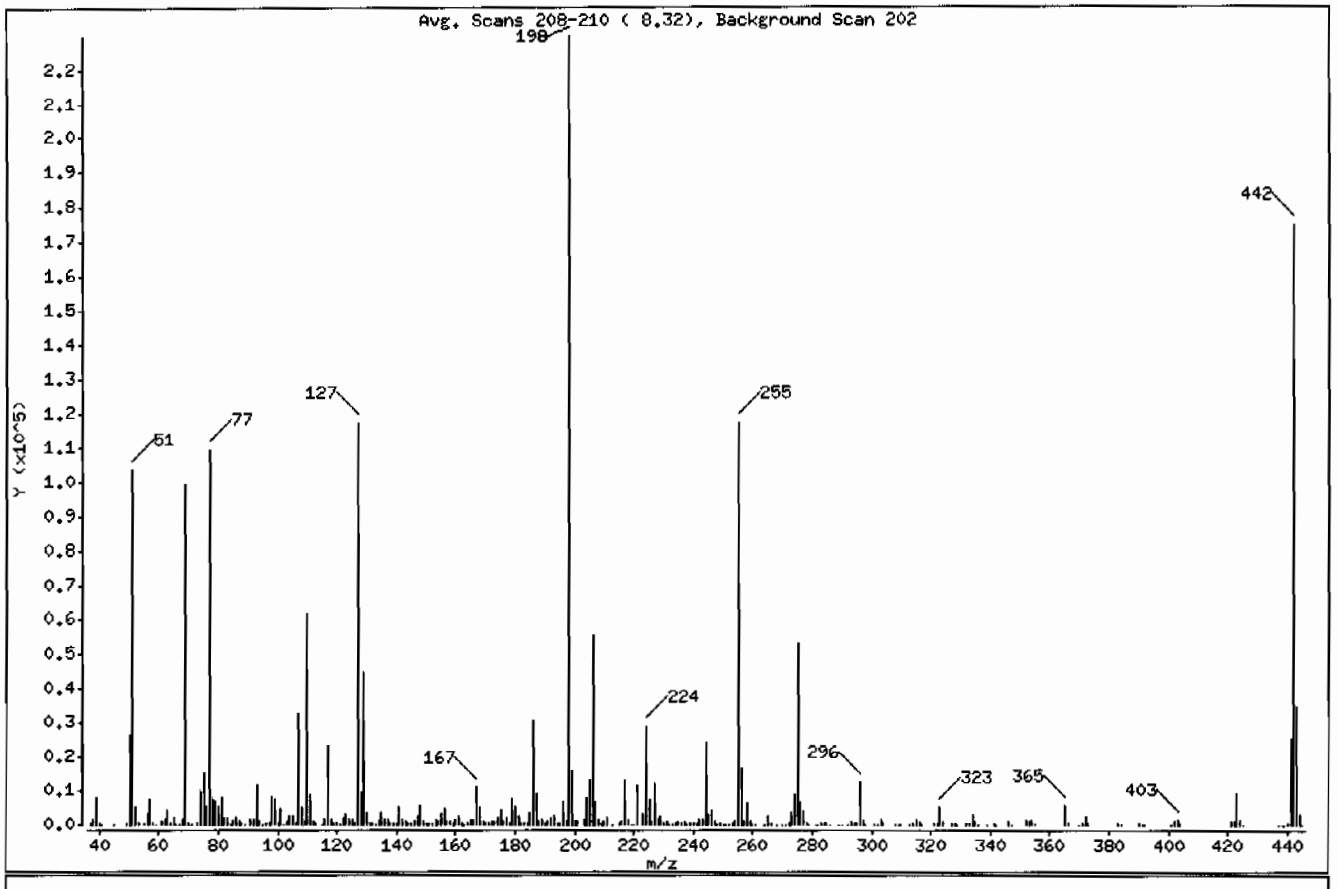

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d

Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202

Location of Maximum: 198.00

Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD6.i/s020710.b/s6b0702.d

Page 1

Date : 07-FEB-2010 13:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nagl

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

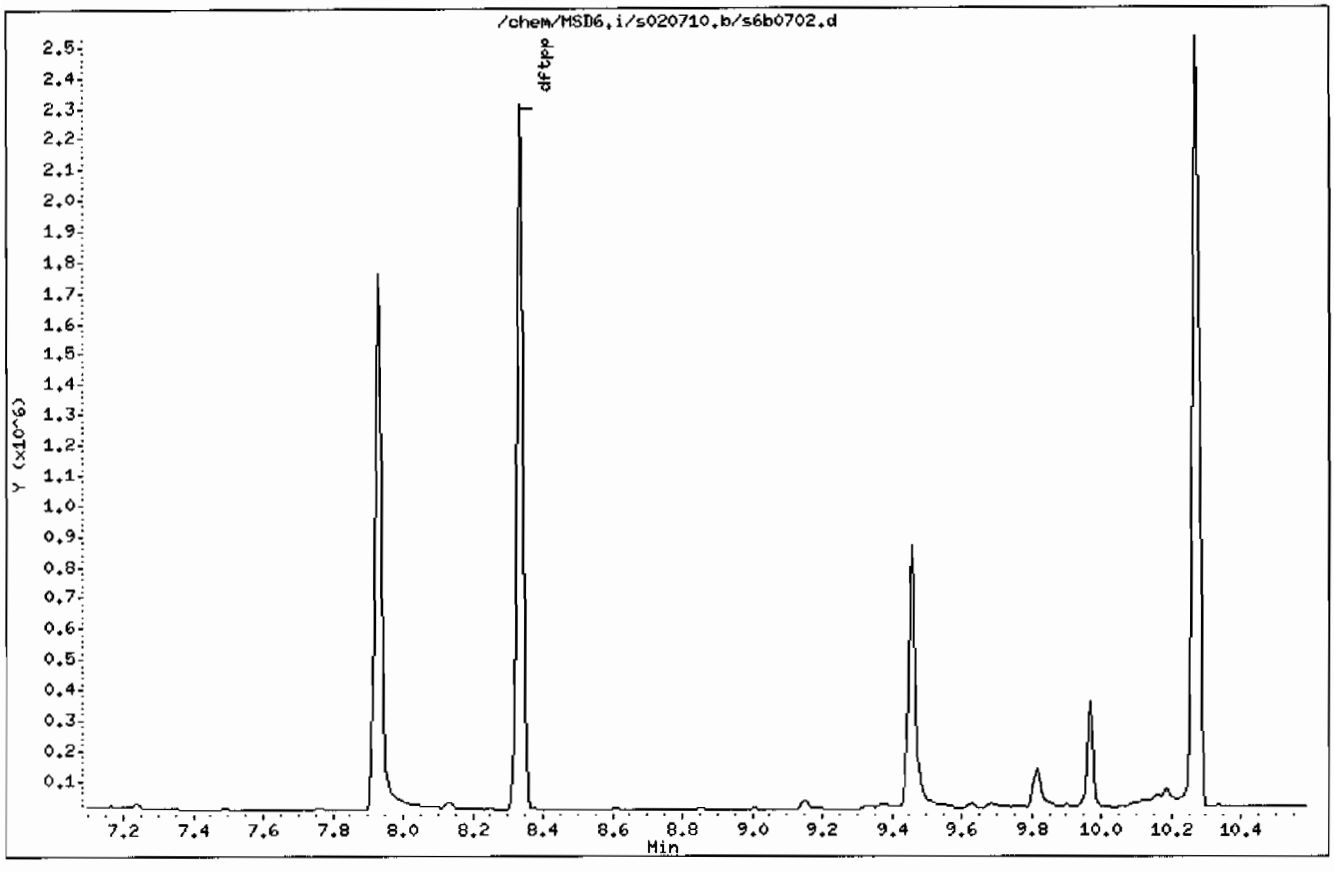

Data File: /chem/MSD6.i/s020710.b/s6b0702.d

Date : 07-FEB-2010 13:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

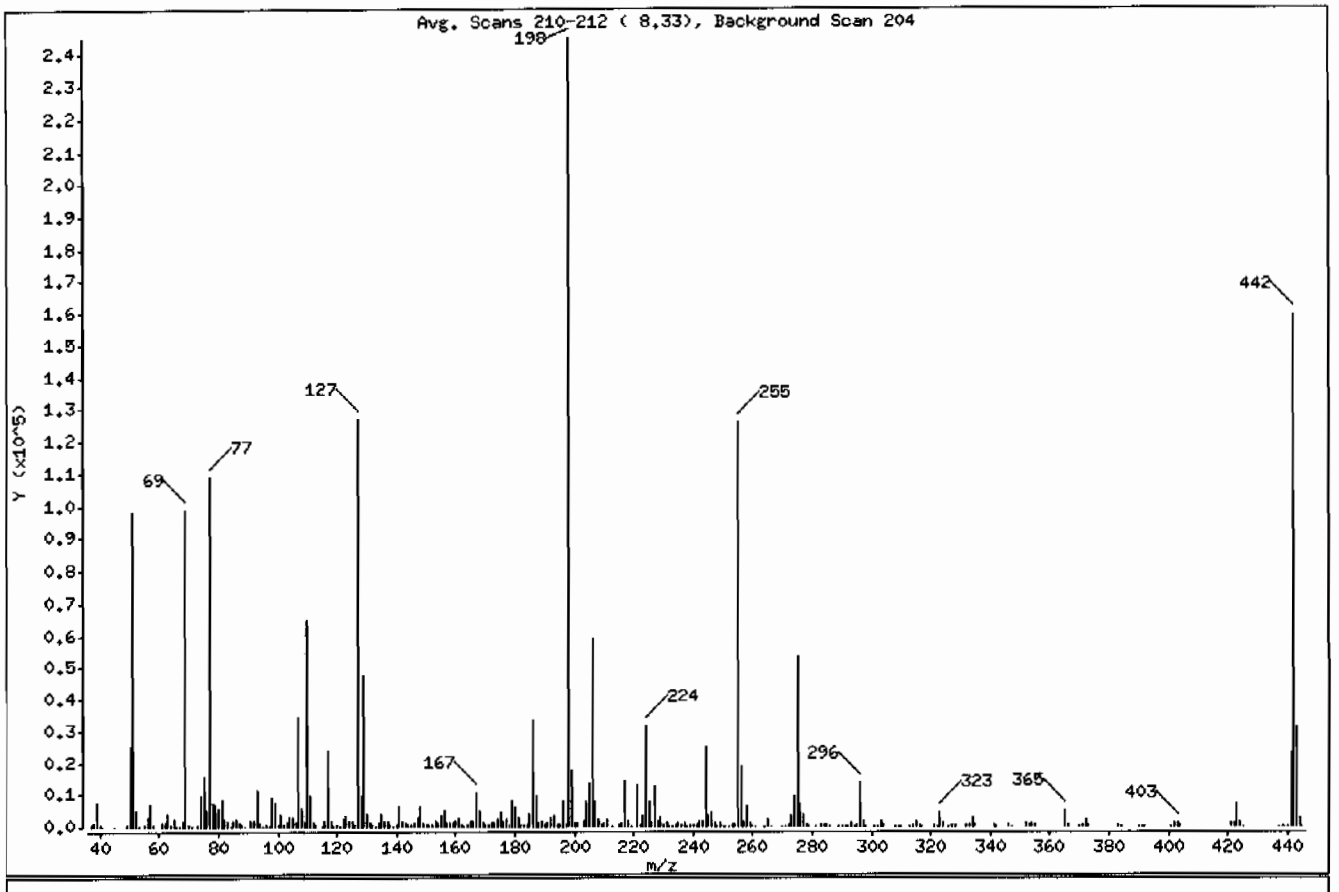

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	39.92
68	Less than 2.00% of mass 69	0.62 (1.55)
69	Mass 69 relative abundance	40.16
70	Less than 2.00% of mass 69	0.22 (0.56)
127	40.00 - 60.00% of mass 198	51.70
197	Less than 1.00% of mass 198	0.19
199	5.00 - 9.00% of mass 198	7.05
275	10.00 - 30.00% of mass 198	21.91
365	Greater than 1.00% of mass 198	2.06
441	Present, but less than mass 443	9.37
442	Greater than 40.00% of mass 198	65.16
443	17.00 - 23.00% of mass 442	12.60 (19.34)

Data File: /chem/MSD6.i/s020710.b/s6b0702.d

Date : 07-FEB-2010 13:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6b0702.d

Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	396	124.00	1556	199.00	17296	285.00	710
38.00	1162	125.00	1537	200.00	1330	286.00	109
39.00	7220	126.00	542	201.00	1241	289.00	225
40.00	325	127.00	126800	203.00	1489	290.00	93
41.00	192	128.00	9689	204.00	7995	291.00	43
45.00	198	129.00	47224	205.00	13644	292.00	220
49.00	582	130.00	4026	206.00	59184	293.00	939
50.00	24792	131.00	850	207.00	7930	294.00	277
51.00	97920	132.00	491	208.00	2041	295.00	308
52.00	4946	133.00	65	209.00	645	296.00	13350
53.00	233	134.00	1335	210.00	902	297.00	1722
55.00	413	135.00	3770	211.00	2310	298.00	45
56.00	3059	136.00	1528	213.00	191	301.00	140
57.00	6845	137.00	1807	215.00	588	302.00	236
58.00	285	138.00	389	216.00	1199	303.00	1577
61.00	1270	139.00	237	217.00	13990	304.00	444
62.00	1269	140.00	498	218.00	1807	308.00	182
63.00	3981	141.00	5952	219.00	174	309.00	155
64.00	497	142.00	1861	221.00	13181	310.00	203
65.00	2017	143.00	1287	222.00	567	313.00	102
66.00	175	144.00	330	223.00	3402	314.00	651
67.00	168	145.00	355	224.00	31336	315.00	1431
68.00	1525	146.00	1117	225.00	7844	316.00	834
69.00	98488	147.00	2684	226.00	943	317.00	117
70.00	549	148.00	6339	227.00	12406	321.00	366
71.00	86	149.00	1335	228.00	1644	322.00	212
73.00	576	150.00	355	229.00	2605	323.00	4323
74.00	9471	151.00	701	230.00	332	324.00	862
75.00	15766	152.00	525	231.00	1115	326.00	93
76.00	4997	153.00	1899	232.00	190	327.00	773
77.00	108632	154.00	1404	233.00	272	328.00	388
78.00	7198	155.00	3223	234.00	760	332.00	302
79.00	6895	156.00	5003	235.00	883	333.00	415
80.00	5378	157.00	972	236.00	565	334.00	2709
81.00	8221	158.00	1144	237.00	938	335.00	682

Data File: /chem/MSD6.i/s020710.b/s6b0702.d

Date : 07-FEB-2010 13:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6b0702.d
Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	2124	159.00	848	238.00	124	341.00	476
83.00	1802	160.00	1840	239.00	530	342.00	100
84.00	123	161.00	2733	240.00	395	346.00	738
85.00	1558	162.00	773	241.00	662	347.00	90
86.00	1991	163.00	228	242.00	1645	352.00	1165
87.00	992	164.00	336	243.00	1729	353.00	840
88.00	417	165.00	1960	244.00	24664	354.00	1147
89.00	160	166.00	1762	245.00	3343	355.00	289
91.00	1839	167.00	10568	246.00	4430	365.00	5061
92.00	1825	168.00	5052	247.00	933	366.00	700
93.00	11409	169.00	874	248.00	223	370.00	110
94.00	939	170.00	341	249.00	881	371.00	373
95.00	189	171.00	477	250.00	214	372.00	2179
96.00	602	172.00	1014	251.00	206	373.00	543
97.00	259	173.00	1320	252.00	239	383.00	521
98.00	8949	174.00	2471	253.00	472	384.00	132
99.00	7482	175.00	4682	254.00	843	390.00	254
100.00	644	176.00	1463	255.00	125536	391.00	223
101.00	4130	177.00	2108	256.00	18336	392.00	113
102.00	283	178.00	670	257.00	1485	401.00	116
103.00	1310	179.00	8161	258.00	6347	402.00	846
104.00	2737	180.00	5970	259.00	1090	403.00	1166
105.00	2636	181.00	2915	260.00	185	404.00	382
106.00	880	182.00	493	261.00	113	421.00	968
107.00	34216	183.00	293	264.00	169	422.00	952
108.00	5361	184.00	633	265.00	2374	423.00	7470
109.00	879	185.00	4024	266.00	272	424.00	1599
110.00	64664	186.00	33528	270.00	179	425.00	149
111.00	9559	187.00	9362	271.00	280	437.00	47
112.00	1129	188.00	959	272.00	339	438.00	126
113.00	390	189.00	1884	273.00	3582	439.00	152
115.00	168	190.00	310	274.00	9334	440.00	213
116.00	1723	191.00	1017	275.00	53728	441.00	22968
117.00	23688	192.00	2686	276.00	7260	442.00	159808
118.00	1768	193.00	3317	277.00	4170	443.00	30912

Data File: /chem/MSD6.i/s020710.b/s6b0702.d

Date : 07-FEB-2010 13:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6b0702.d

Spectrum: Avg. Scans 210-212 (8.33), Background Scan 204

Location of Maximum: 198.00

Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119.00	256	194.00	566	278.00	632	444.00	2789
120.00	442	195.00	454	279.00	154	445.00	132
121.00	108	196.00	7788	281.00	162		
122.00	2177	197.00	454	283.00	499		
123.00	3415	198.00	245248	284.00	427		

Data File: /chem/MSD6.i/s020810.b/s6b0801.d

Date : 08-FEB-2010 13:50

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

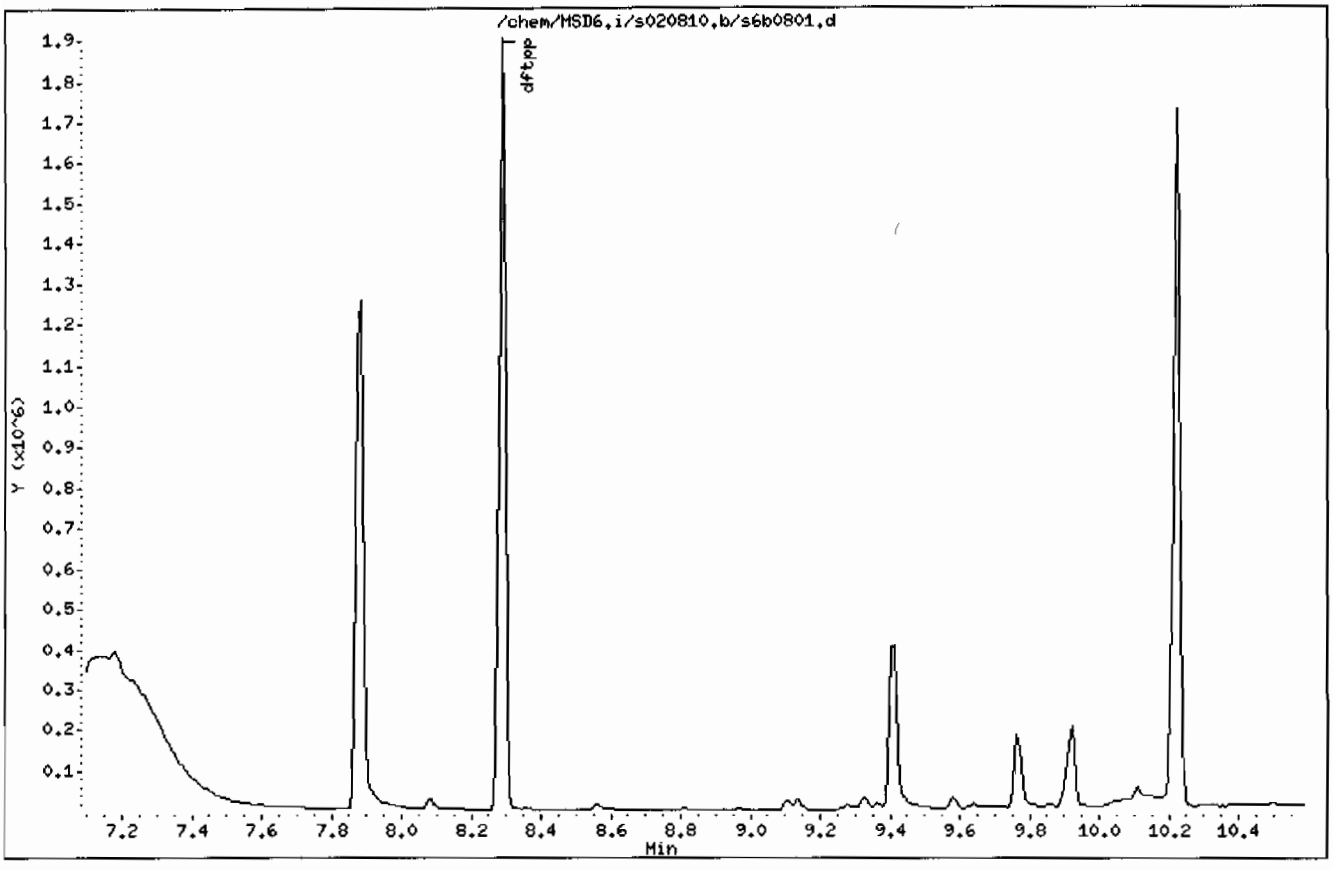

Data File: /chem/MSD6.i/s020810.b/s6b0801.d

Date : 08-FEB-2010 13:50

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

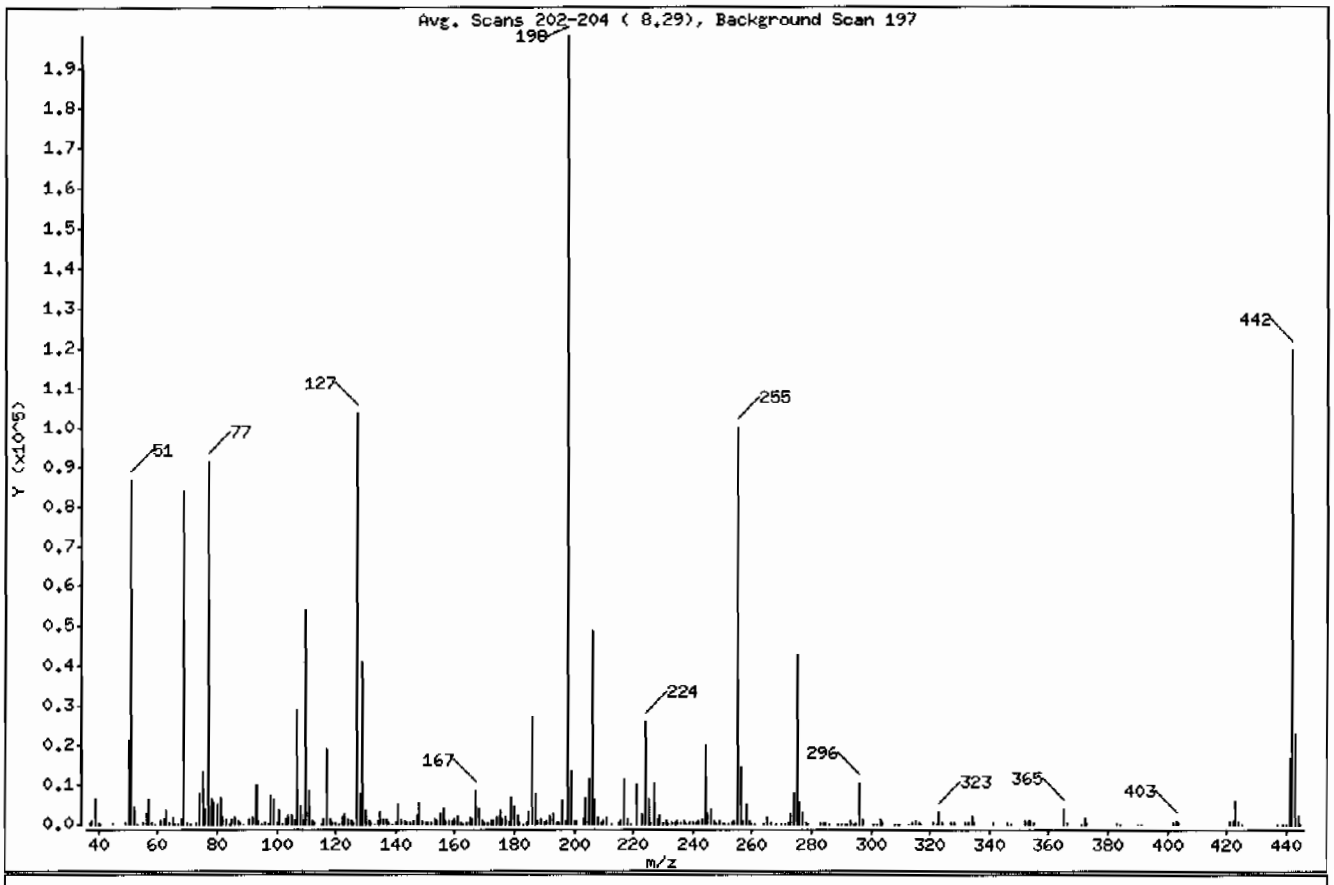

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.58
68	Less than 2.00% of mass 69	0.71 (1.68)
69	Mass 69 relative abundance	42.36
70	Less than 2.00% of mass 69	0.23 (0.55)
127	40.00 - 60.00% of mass 198	52.22
197	Less than 1.00% of mass 198	0.47
199	5.00 - 9.00% of mass 198	6.86
275	10.00 - 30.00% of mass 198	21.52
365	Greater than 1.00% of mass 198	2.11
441	Present, but less than mass 443	8.56
442	Greater than 40.00% of mass 198	60.14
443	17.00 - 23.00% of mass 442	11.78 (19.58)

Data File: /chem/MSD6.i/s020810.b/s6b0801.d

Date : 08-FEB-2010 13:50

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6b0801.d
Spectrum: Avg. Scans 202-204 (8.29), Background Scan 197
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	356	121.00	207	194.00	511	276.00	5689
38.00	1030	122.00	1779	195.00	272	277.00	3249
39.00	6222	123.00	2795	196.00	5849	278.00	537
40.00	320	124.00	1193	197.00	931	279.00	44
41.00	121	125.00	1136	198.00	198400	283.00	430
45.00	233	126.00	453	199.00	13603	284.00	275
49.00	488	127.00	103616	200.00	1032	285.00	586
50.00	21232	128.00	7854	201.00	907	286.00	91
51.00	86456	129.00	40824	203.00	1265	289.00	129
52.00	4349	130.00	3446	204.00	6636	290.00	159
53.00	203	131.00	705	205.00	11194	291.00	83
55.00	314	132.00	354	206.00	48592	292.00	172
56.00	2555	133.00	73	207.00	6436	293.00	708
57.00	6268	134.00	1107	208.00	1669	294.00	213
58.00	304	135.00	3017	209.00	554	295.00	278
59.00	45	136.00	1204	210.00	755	296.00	10717
61.00	1031	137.00	1440	211.00	1846	297.00	1430
62.00	1220	138.00	370	213.00	118	301.00	97
63.00	3510	139.00	211	215.00	482	302.00	194
64.00	515	140.00	442	216.00	935	303.00	1226
65.00	1786	141.00	4793	217.00	11454	304.00	273
66.00	155	142.00	1538	218.00	1426	308.00	116
67.00	32	143.00	1134	219.00	120	309.00	91
68.00	1413	144.00	277	221.00	9827	310.00	108
69.00	84040	145.00	276	223.00	2623	313.00	85
70.00	465	146.00	831	224.00	25840	314.00	542
71.00	43	147.00	2373	225.00	6447	315.00	1086
73.00	454	148.00	5345	226.00	627	316.00	627
74.00	7898	149.00	1139	227.00	10265	317.00	97
75.00	13329	150.00	301	228.00	1489	321.00	361
76.00	4291	151.00	606	229.00	2182	322.00	120
77.00	91368	152.00	390	230.00	293	323.00	3354
78.00	6311	153.00	1449	231.00	898	324.00	678
79.00	5588	154.00	1120	232.00	134	327.00	669
80.00	4905	155.00	2533	233.00	234	328.00	341

Data File: /chem/MSD6.i/s020810.b/s6b0801.d

Date : 08-FEB-2010 13:50

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6b0801.d

Spectrum: Avg. Scans 202-204 (8.29), Background Scan 197

Location of Maximum: 198.00

Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	6674	156.00	4275	234.00	582	332.00	279
82.00	1736	157.00	775	235.00	768	333.00	333
83.00	1571	158.00	907	236.00	484	334.00	2374
84.00	223	159.00	743	237.00	845	335.00	489
85.00	1186	160.00	1452	238.00	87	341.00	360
86.00	1746	161.00	2197	239.00	339	346.00	597
87.00	1006	162.00	580	240.00	299	347.00	91
88.00	324	163.00	218	241.00	600	352.00	998
89.00	196	164.00	261	242.00	1125	353.00	699
91.00	1464	165.00	1821	243.00	1366	354.00	1001
92.00	1719	166.00	1509	244.00	19872	355.00	231
93.00	9888	167.00	8746	245.00	2633	365.00	4196
94.00	822	168.00	4008	246.00	3769	366.00	607
95.00	167	169.00	770	247.00	740	371.00	213
96.00	486	170.00	317	248.00	160	372.00	1783
97.00	171	171.00	387	249.00	722	373.00	422
98.00	7482	172.00	764	250.00	44	383.00	449
99.00	6203	173.00	1088	251.00	164	384.00	102
100.00	531	174.00	1920	252.00	185	390.00	160
101.00	3555	175.00	3695	253.00	422	391.00	131
102.00	206	176.00	1150	254.00	766	402.00	648
103.00	1245	177.00	1784	255.00	99792	403.00	908
104.00	2278	178.00	641	256.00	14816	404.00	341
105.00	2272	179.00	6802	257.00	990	421.00	796
106.00	686	180.00	4738	258.00	5062	422.00	818
107.00	29000	181.00	2453	259.00	795	423.00	5760
108.00	4398	182.00	434	260.00	117	424.00	1119
109.00	842	183.00	178	261.00	145	425.00	44
110.00	54088	184.00	487	264.00	93	437.00	91
111.00	8518	185.00	3418	265.00	1983	439.00	150
112.00	959	186.00	27560	266.00	229	440.00	123
113.00	306	187.00	7882	268.00	8	441.00	16984
115.00	166	188.00	802	270.00	118	442.00	119328
116.00	1565	189.00	1546	271.00	212	443.00	23360
117.00	19368	190.00	292	272.00	262	444.00	2186

Data File: /chem/MSD6.i/s020810.b/s6b0801.d

Date : 08-FEB-2010 13:50

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100107-01|DFTPP|1|SVMF|1|DFTPP

Operator: nagi

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6b0801.d

Spectrum: Avg. Scans 202-204 (8.29), Background Scan 197

Location of Maximum: 198.00

Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1360	191.00	846	273.00	2852	445.00	104
119.00	262	192.00	2131	274.00	7752		
120.00	417	193.00	2595	275.00	42704		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033476**				
Client Sample:	**QC for batch 949131**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949131**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 14:13**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0705-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline	U	333	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033476**				
Client Sample:	**QC for batch 949131**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949131**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 14:13**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0705-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Aldol Condensate	3.47	383	ug/kg		JA

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0705.d
Lab Smp Id: 1202033476 Client Smp ID: SBLK01
Inj Date : 07-FEB-2010 14:13
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202033476|949132|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.859	4.862	(1.000)	290565	40.0000	
* 29 Naphthalene-d8	136	6.136	6.141	(1.000)	1069716	40.0000	
* 46 Acenaphthene-d10	164	8.006	8.011	(1.000)	601024	40.0000	
* 67 Phenanthrene-d10	188	9.619	9.622	(1.000)	1044062	40.0000	
* 91 Chrysene-d12	240	12.636	12.646	(1.000)	745794	40.0000	
* 98 Perylene-d12	264	14.980	14.990	(1.000)	480805	40.0000	
$ 3 2-Fluorophenol	112	3.707	3.697	(0.763)	518937	71.3178	2380
$ 5 Phenol-d5	99	4.472	4.474	(0.920)	651881	70.9815	2370
$ 20 Nitrobenzene-d5	82	5.397	5.404	(0.880)	301296	39.8165	1330
$ 39 2-Fluorobiphenyl	172	7.262	7.265	(0.907)	579268	37.3990	1250
$ 60 2,4,6-Tribromophenol	329	8.857	8.860	(1.106)	125737	71.6766	2390
$ 81 p-Terphenyl-d14	244	11.324	11.324	(0.896)	566470	47.0992	1570

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0705.d
Lab Smp Id: 1202033476 Client Smp ID: SBLK01
Inj Date : 07-FEB-2010 14:13
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202033476|949132|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.859	1728279	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Aldol Condensate					CAS #:		
3.473	496749	11.4969582	383	0		0	10

Data File: /chem/MSD6.i/s020710.b/s6b0705.d

Page 1

Date : 07-FEB-2010 14:13

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1202033476|949132|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

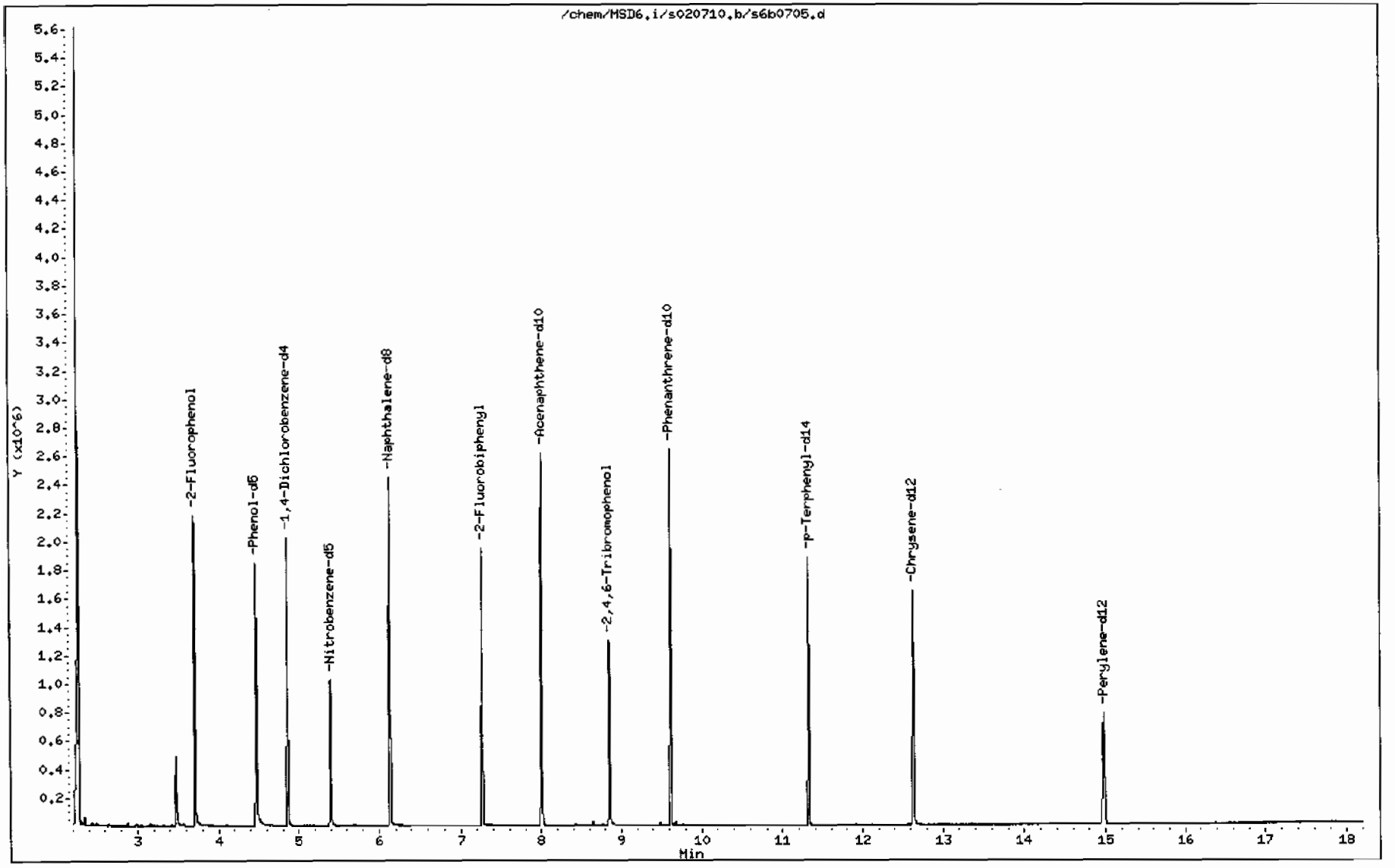

Data File: /chem/MSD6.i/s020710.b/s6b0705.d

Date : 07-FEB-2010 14:13

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |1202033476|949132|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	59	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7945	45	C6H12O2	116

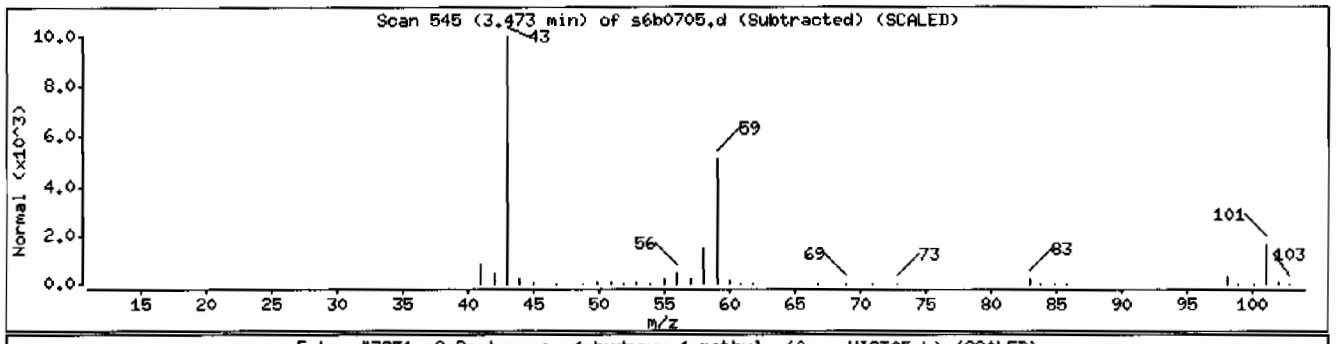

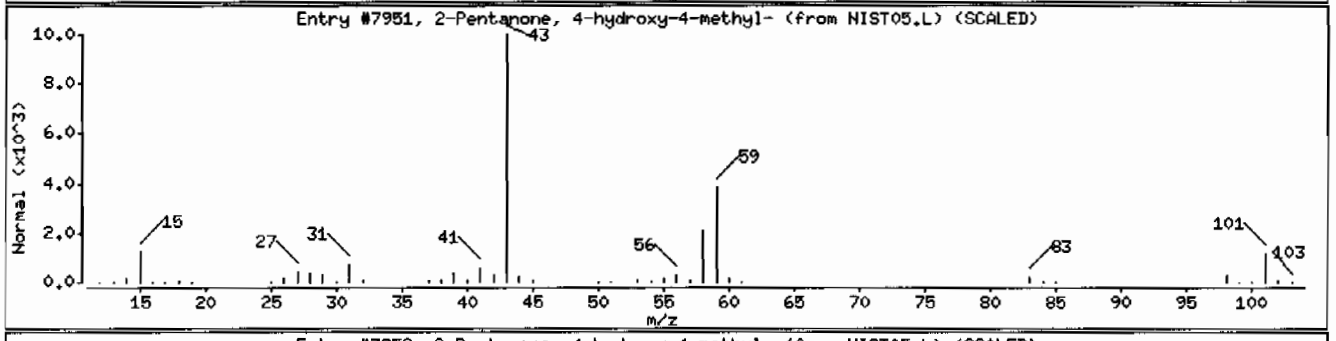

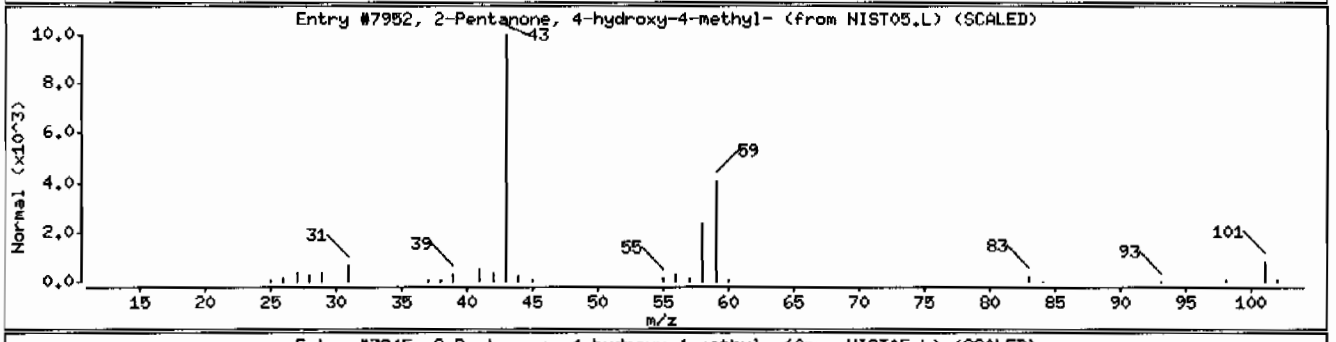

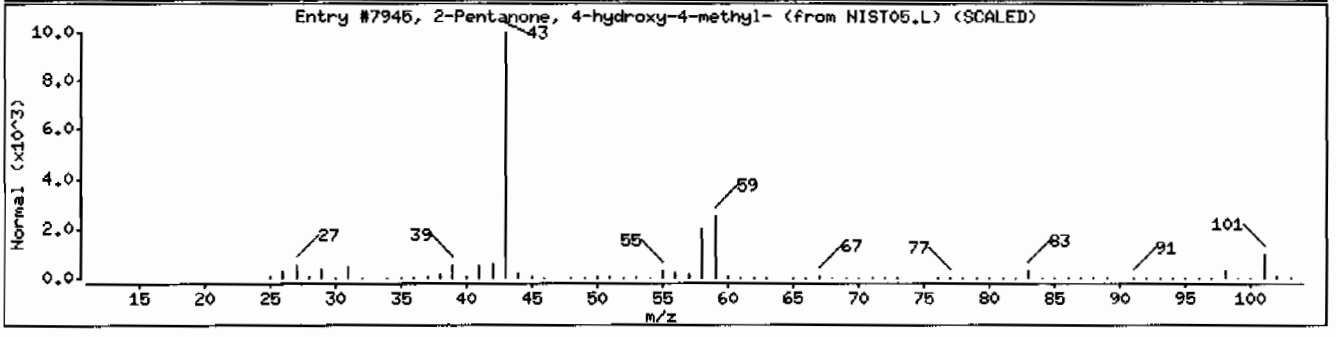

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033477**				
Client Sample:	**QC for batch 949131**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949131**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 14:41**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0706-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1010	ug/kg	66.7	333
108-95-2	Phenol		1240	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1220	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1320	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1300	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1420	ug/kg	66.7	333
83-32-9	Acenaphthene		1220	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1270	ug/kg	33.3	333
100-02-7	4-Nitrophenol		839	ug/kg	110	333
87-86-5	Pentachlorophenol		1190	ug/kg	83.3	333
129-00-0	Pyrene		1370	ug/kg	10.0	33.3
110-86-1	Pyridine		1170	ug/kg	66.7	333
62-53-3	Aniline		1040	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1150	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1320	ug/kg	66.7	333
100-51-6	Benzyl alcohol	J	291	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1350	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1240	ug/kg	66.7	333
95-48-7	o-Cresol		1220	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1440	ug/kg	100	333
67-72-1	Hexachloroethane		1330	ug/kg	66.7	333
98-95-3	Nitrobenzene		1260	ug/kg	66.7	333
78-59-1	Isophorone		1300	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1310	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1260	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1200	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1340	ug/kg	66.7	333
65-85-0	Benzoic acid		3250	ug/kg	167	667
91-20-3	Naphthalene		1190	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		902	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1460	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1380	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1240	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1280	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1240	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1350	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1140	ug/kg	66.7	333
	o-Nitroaniline					
99-09-2	3-Nitroaniline		1130	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033477**				
Client Sample:	**QC for batch 949131**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949131**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**949132**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/07/2010 14:41**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/04/2010 20:55**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s6b0706-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1300	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1240	ug/kg	33.3	333
208-96-8	Acenaphthylene		1320	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1240	ug/kg	127	667
132-64-9	Dibenzofuran		1240	ug/kg	66.7	333
84-66-2	Diethylphthalate		1350	ug/kg	66.7	333
86-73-7	Fluorene		1300	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1310	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1260	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1260	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1260	ug/kg	66.7	333
122-66-7	Azobenzene		1260	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1260	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1320	ug/kg	66.7	333
85-01-8	Phenanthrene		1300	ug/kg	10.0	33.3
120-12-7	Anthracene		1300	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1390	ug/kg	66.7	333
206-44-0	Fluoranthene		1360	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1430	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1290	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1000	ug/kg	100	333
218-01-9	Chrysene		1290	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1310	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1590	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1500	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1480	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1510	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1270	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1260	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1260	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1400	ug/kg	66.7	333

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0706.d
Lab Smp Id: 1202033477 Client Smp ID: SBLK01LCS
Inj Date : 07-FEB-2010 14:41
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202033477|949132|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1510.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.862	4.862	(1.000)	291659	40.0000	
* 29 Naphthalene-d8	136	6.138	6.141	(1.000)	1160363	40.0000	
* 46 Acenaphthene-d10	164	8.009	8.011	(1.000)	628390	40.0000	
* 67 Phenanthrene-d10	188	9.622	9.622	(1.000)	1099347	40.0000	
* 91 Chrysene-d12	240	12.644	12.646	(1.000)	807941	40.0000	
* 98 Perylene-d12	264	14.988	14.990	(1.000)	536868	40.0000	
$ 3 2-Fluorophenol	112	3.710	3.697	(0.763)	504435	69.0648	2300
$ 5 Phenol-d5	99	4.480	4.474	(0.921)	643327	69.7873	2330
$ 20 Nitrobenzene-d5	82	5.402	5.404	(0.880)	296983	36.1806	1210
$ 39 2-Fluorobiphenyl	172	7.265	7.265	(0.907)	582720	35.9835	1200
$ 60 2,4,6-Tribromophenol	329	8.862	8.860	(1.107)	130900	71.3702	2380
$ 81 p-Terphenyl-d14	244	11.324	11.324	(0.896)	582495	44.7062	1490

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.492	4.490	(0.924)	344242	37.1395	1240(Q)
8 2-Chlorophenol	128	4.666	4.665	(0.960)	271444	36.4586	1220
11 1,4-Dichlorobenzene	146	4.880	4.880	(1.004)	344304	39.6268	1320
17 N-Nitrosodipropylamine	70	5.234	5.239	(1.077)	201750	39.0449	1300(Q)
28 1,2,4-Trichlorobenzene	180	6.070	6.072	(0.989)	295287	41.9559	1400
33 4-Chloro-3-methylphenol	107	6.704	6.691	(1.092)	247236	42.7064	1420
47 Acenaphthene	154	8.044	8.047	(1.004)	517209	36.5196	1220
50 2,4-Dinitrotoluene	165	8.205	8.207	(1.024)	185358	38.2312	1270
52 4-Nitrophenol	139	8.139	8.123	(1.016)	56653	25.1841	839
65 Pentachlorophenol	266	9.408	9.405	(0.978)	82809	35.6095	1190
79 Pyrene	202	11.186	11.186	(0.885)	912365	41.0558	1370
2 Pyridine	79	2.811	2.777	(0.578)	217844	35.2495	1170
4 Aniline	66	4.548	4.553	(0.936)	120207	31.2518	1040
7 bis(2-Chloroethyl) ether	63	4.589	4.589	(0.944)	217160	34.5986	1150
9 1,3-Dichlorobenzene	146	4.811	4.811	(0.990)	339164	39.5706	1320
12 Benzyl alcohol	108	4.979	4.976	(1.024)	40412	8.73690	291(aR)
13 1,2-Dichlorobenzene	146	5.025	5.027	(1.034)	329273	40.5991	1350
14 bis(2-Chloroisopropyl)ether	45	5.091	5.096	(1.047)	519451	37.0694	1240
15 o-Cresol	107	5.068	5.063	(1.042)	221497	36.5384	1220
18 m,p-Cresols	107	5.216	5.218	(1.073)	331569	43.1659	1440
19 Hexachloroethane	117	5.356	5.359	(1.102)	134233	39.9342	1330
21 Nitrobenzene	77	5.422	5.425	(0.883)	312330	37.7524	1260
22 Isophorone	82	5.654	5.657	(0.921)	573949	39.1385	1300
23 2-Nitrophenol	139	5.736	5.738	(0.934)	150271	39.3793	1310
24 2,4-Dimethylphenol	122	5.754	5.754	(0.937)	238516	37.7244	1260
25 bis(2-Chloroethoxy)methane	93	5.851	5.853	(0.953)	310403	35.9680	1200
26 2,4-Dichlorophenol	162	5.986	5.983	(0.975)	230745	40.2368	1340
27 Benzoic acid	105	5.891	5.868	(0.960)	380951	97.6156	3250
30 Naphthalene	128	6.161	6.164	(1.004)	823930	35.5958	1190
31 4-Chloroaniline	127	6.205	6.205	(1.011)	201207	27.0454	902
32 Hexachlorobutadiene	225	6.266	6.268	(1.021)	161023	43.9352	1460
34 2-Methylnaphthalene	142	6.885	6.885	(1.122)	580169	41.5361	1380
36 Hexachlorocyclopentadiene	237	7.038	7.040	(0.879)	94766	37.3361	1240
37 2,4,6-Trichlorophenol	196	7.181	7.178	(0.897)	165163	38.5193	1280
38 2,4,5-Trichlorophenol	196	7.226	7.219	(0.902)	169540	37.1284	1240
40 2-Chloronaphthalene	162	7.410	7.410	(0.925)	572927	40.5973	1350
42 o-Nitroaniline	65	7.514	7.512	(0.938)	165339	34.2460	1140
41 m-Nitroaniline	138	7.958	7.958	(0.994)	120002	33.9542	1130
43 Dimethylphthalate	163	7.690	7.698	(0.960)	630070	39.0867	1300
44 2,6-Dinitrotoluene	165	7.769	7.772	(0.970)	142603	37.0886	1240
45 Acenaphthylene	152	7.858	7.861	(0.981)	897345	39.5465	1320
48 2,4-Dinitrophenol	184	8.072	8.072	(1.008)	46591	37.1817	1240
49 Dibenzofuran	168	8.228	8.230	(1.027)	712943	37.2936	1240
51 Diethylphthalate	149	8.447	8.447	(1.055)	658898	40.5885	1350
53 Fluorene	166	8.600	8.602	(1.074)	613074	39.0722	1300
54 4-Chlorophenylphenylether	204	8.582	8.584	(1.072)	290673	39.2072	1310
55 2-Methyl-4,6-dinitrophenol	198	8.651	8.653	(0.899)	91417	37.9450	1260

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	8.623	8.620	(1.077)	122911	37.7300	1260
133 Diphenylamine	169	8.715	8.714	(0.906)	502722	37.9390	1260
58 1,2-Diphenylhydrazine	77	8.758	8.760	(0.910)	634908	37.6691	1260
61 4-Bromophenylphenylether	248	9.115	9.114	(0.947)	164215	37.8553	1260
63 Hexachlorobenzene	284	9.196	9.193	(0.956)	179691	39.5457	1320
68 Phenanthrene	178	9.650	9.650	(1.003)	887532	39.0383	1300
69 Anthracene	178	9.703	9.706	(1.008)	887758	39.0667	1300
72 Di-n-butylphthalate	149	10.205	10.203	(1.061)	1084571	41.5596	1380
76 Fluoranthene	202	10.937	10.936	(1.137)	889052	40.8223	1360
85 Butylbenzylphthalate	149	11.854	11.856	(0.938)	436910	42.9604	1430
89 Benzo(a)anthracene	228	12.623	12.626	(0.998)	676125	38.7876	1290
90 3,3'-Dichlorobenzidine	252	12.565	12.565	(0.994)	171698	30.0887	1000
92 Chrysene	228	12.679	12.682	(1.003)	648482	38.8263	1290
93 bis(2-Ethylhexyl)phthalate	149	12.578	12.577	(0.995)	548968	39.1830	1310
94 Di-n-octylphthalate	149	13.564	13.563	(0.905)	812020	47.5905	1590
95 Benzo(b)fluoranthene	252	14.305	14.305	(0.954)	533500	44.9104	1500
96 Benzo(k)fluoranthene	252	14.354	14.353	(0.958)	525039	44.4477	1480
97 Benzo(a)pyrene	252	14.884	14.886	(0.993)	465321	45.3510	1510
99 Indeno(1,2,3-cd)pyrene	276	16.983	16.983	(1.133)	370882	38.1182	1270
100 Dibenzo(a,h)anthracene	278	17.006	17.008	(1.135)	300236	37.8428	1260
101 Benzo(ghi)perylene	276	17.500	17.500	(1.168)	296472	37.8218	1260(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.765	2.739	(0.569)	150385	30.2871	1010

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s020710.b/s6b0706.d
Date : 07-FEB-2010 14:41
Client ID: SBLK01LCS
Sample Info: I120203347719493213ISVMI1ILCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

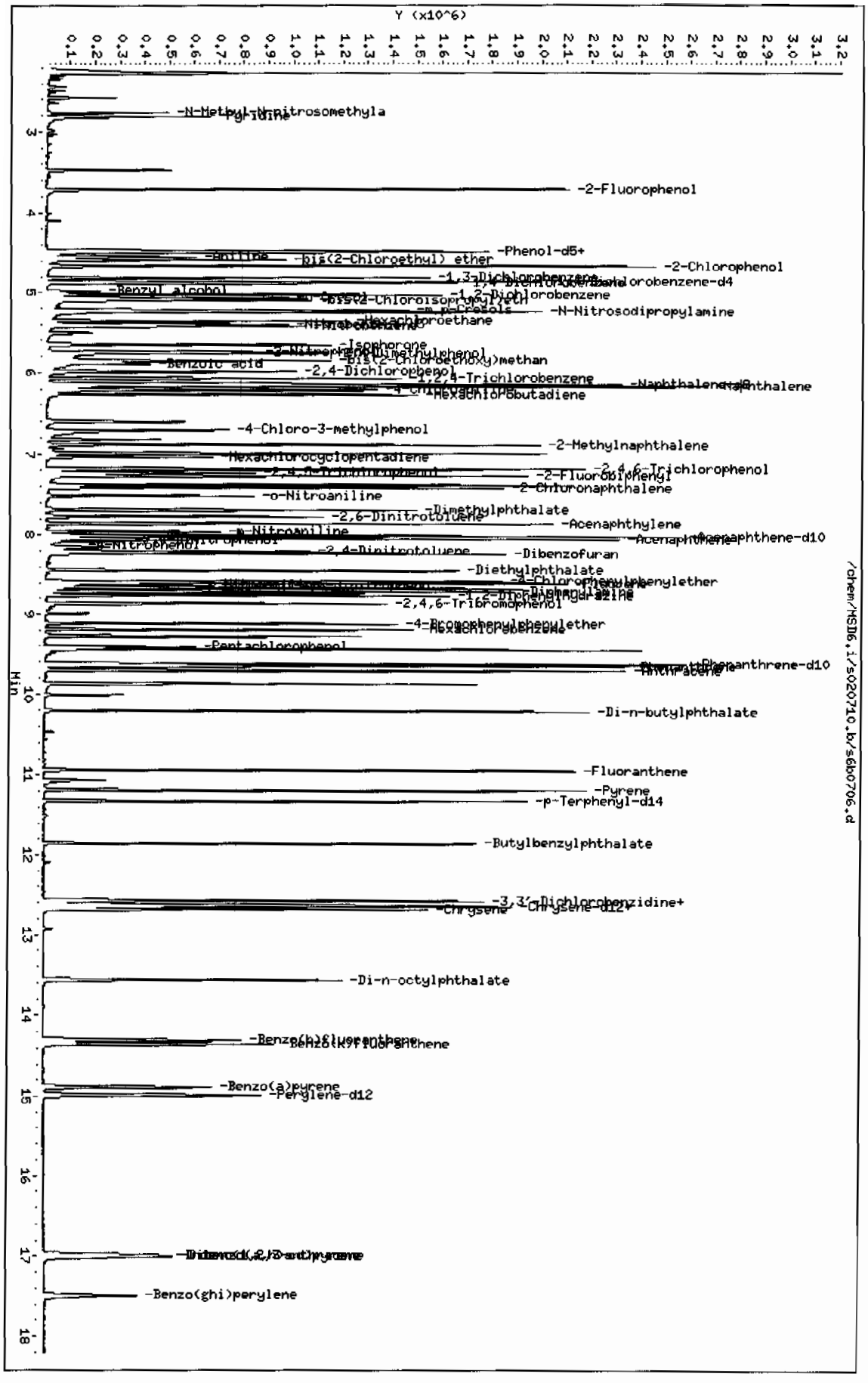

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 949131 **Verified by:** _____
Analyst: Alberto Velasco
Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202033476 MB	04-FEB-2010 20:55:00	30	1	0.03333
1202033477 LCS	04-FEB-2010 20:55:00	30	1	0.03333
245959001	04-FEB-2010 20:55:00	30.07	1	0.03326
245959002	04-FEB-2010 20:55:00	30.11	1	0.03321
245959003	04-FEB-2010 20:55:00	30.11	1	0.03321
245959004	04-FEB-2010 20:55:00	30.08	1	0.03324
245959005	04-FEB-2010 20:55:00	30.18	1	0.03313
245959006	04-FEB-2010 20:55:00	30.18	1	0.03313
245959007	04-FEB-2010 20:55:00	30.03	1	0.0333
245959008	04-FEB-2010 20:55:00	30.03	1	0.0333
245959009	04-FEB-2010 20:55:00	30.19	1	0.03312
245959010	04-FEB-2010 20:55:00	30.07	1	0.03326
245959012	04-FEB-2010 20:55:00	30.05	1	0.03328
246058001	04-FEB-2010 20:55:00	30.01	1	0.03332
246058002	04-FEB-2010 20:55:00	30.18	1	0.03313
246058003	04-FEB-2010 20:55:00	30.01	1	0.03332
246060001	04-FEB-2010 20:55:00	30.15	1	0.03317
246060002	04-FEB-2010 20:55:00	30.12	1	0.0332
246062001	04-FEB-2010 20:55:00	30.06	1	0.03327
1202033478 MS (246062001)	04-FEB-2010 20:55:00	30.03	1	0.0333
1202033479 MSD (246062001)	04-FEB-2010 20:55:00	30.02	1	0.03331
246062002	04-FEB-2010 20:55:00	30.19	1	0.03312

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202033477	BNA LCS w/o Benzidine 50ppm	UE100127-12	1	mL
LCS	1202033477	BENZIDINE LCS	UE100203-22	1	mL
MS	1202033478	BNA LCS w/o Benzidine 50ppm	UE100127-12	1	mL
MS	1202033478	BENZIDINE LCS	UE100203-22	1	mL
MSD	1202033479	BNA LCS w/o Benzidine 50ppm	UE100127-12	1	mL
MSD	1202033479	BENZIDINE LCS	UE100203-22	1	mL
SURR	All	BNA for all Surrogate	UE100203-10	1	mL
REGNT	All	Methylene Chloride	1262945-D	150	mL
REGNT	All	Acetone	1264558	150	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Verified By: AJS
Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909		1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909		1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909		1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909		1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909		1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909		1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909		1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909		1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909		1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909		1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909		1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909		1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909		1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909		1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909		1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909		1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909		1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909		1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909		1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909		1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909		1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909		1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909		1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909		1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909		1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909		1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909		1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909	1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909	1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909	1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909	1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909	1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909	1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909	1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909	1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909	1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909	1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909	1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909	1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 02/07/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1529 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100107-01 Internal Std ID: WBN100122-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s020710.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6b0701.d	WBN100107-01	nagl	07-FEB-2010 12:22	DFTPP	s020710	1.0	DFTPP	DUSE
s6b0702.d	WBN100107-01	nagl	07-FEB-2010 13:00	DFTPP	s020710	1.0	DFTPP	
s6b0703.d	WBN100121-17.4	nagl	07-FEB-2010 13:14	CCV	s020710	1.0	MEGACVS	283821
s6b0704.d	WBN100120-03.2	nagl	07-FEB-2010 13:45	CCV	s020710	1.0	APCVS	
s6b0705.d	1202033476	nagl	07-FEB-2010 14:13	949132	10-1510	1.0	MB	
s6b0706.d	1202033477	nagl	07-FEB-2010 14:41	949132	10-1510	1.0	LCS	failed <5%
s6b0707.d	245959001	nagl	07-FEB-2010 15:09	949132	10-1510	1.0	LANL	
s6b0708.d	245959002	nagl	07-FEB-2010 15:37	949132	10-1510	1.0	LANL	
s6b0709.d	245959003	nagl	07-FEB-2010 16:05	949132	10-1510	1.0	LANL	
s6b0710.d	245959004	nagl	07-FEB-2010 16:32	949132	10-1510	1.0	LANL	
s6b0711.d	245959005	nagl	07-FEB-2010 17:00	949132	10-1510	1.0	LANL	
s6b0712.d	245959006	nagl	07-FEB-2010 17:28	949132	10-1510	1.0	LANL	
s6b0713.d	245959007	nagl	07-FEB-2010 17:55	949132	10-1510	1.0	LANL	
s6b0714.d	245959008	nagl	07-FEB-2010 18:23	949132	10-1510	1.0	LANL	
s6b0715.d	245959009	nagl	07-FEB-2010 18:50	949132	10-1510	1.0	LANL	
s6b0716.d	245959010	nagl	07-FEB-2010 19:17	949132	10-1510	1.0	LANL	DUSE - failed IS - rr - see s6b0808
s6b0717.d	245959012	nagl	07-FEB-2010 19:44	949132	10-1510	1.0	LANL	
s6b0718.d	246058001	nagl	07-FEB-2010 20:12	949132	10-1530	1.0	LANL	
s6b0719.d	246058002	nagl	07-FEB-2010 20:39	949132	10-1530	1.0	LANL	

s6b0720.d	246058003	nagl	07-FEB-2010 21:06	949132	10-1530	1.0	LANL	
s6b0721.d	246060001	nagl	07-FEB-2010 21:33	949132	10-1531	1.0	LANL	
s6b0722.d	246060002	nagl	07-FEB-2010 22:00	949132	10-1531	1.0	LANL	
s6b0723.d	246062001	nagl	07-FEB-2010 22:27	949132	10-1532	1.0	LANL	
s6b0724.d	1202033478	nagl	07-FEB-2010 22:54	949132	10-1532	1.0	MS	DUSE - failed surr/spike - rr - see s6b0806
s6b0725.d	1202033479	nagl	07-FEB-2010 23:21	949132	10-1532	1.0	MSD	DUSE - failed spike - rr - see s6b0807
s6b0726.d	246062002	nagl	07-FEB-2010 23:48	949132	10-1532	1.0	LANL	
s6b0727.d	245679006	nagl	08-FEB-2010 00:15	947953	10-1449	1.0	LANL	DUSE - rr of s6b0522 - failed IS
s6b0728.d	245679009	nagl	08-FEB-2010 00:43	947953	10-1449	1.0	LANL	DUSE - rr of s6b0525 - failed IS
s6b0729.d	245679010	nagl	08-FEB-2010 01:10	947953	10-1449	1.0	LANL	DUSE - rr of s6b0526 - outside TUNE window
s6b0730.d	245679011	nagl	08-FEB-2010 01:37	947953	10-1449	1.0	LANL	DUSE - rr of s6b0528- outside TUNE window

Instrument Batch: /chem/MSD6.i/s020710.b Page: 1

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 02/08/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1529 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100107-01 Internal Std ID: WBN100205-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s020810.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6b0801.d	WBN100107-01	nagl	08-FEB-2010 13:50	DFTPP	s020810	1.0	DFTPP	
s6b0802.d	WBN100121-17.4	nagl	08-FEB-2010 14:04	CCV	s020810	1.0	MEGACVS	245875
s6b0803.d	WBN100120-03.4	nagl	08-FEB-2010 14:37	CCV	s020810	1.0	APCVS	
s6b0804.d	1202032302	nagl	08-FEB-2010 15:09	948647	10-1492	1.0	SBLK01	
s6b0805.d	1202032303	nagl	08-FEB-2010 15:36	948647	10-1492	1.0	SBLK01LCS	
s6b0806.d	1202033478	nagl	08-FEB-2010 16:04	949132	10-1532	1.0	MS	USE - rr of s6b0724
s6b0807.d	1202033479	nagl	08-FEB-2010 16:32	949132	10-1532	1.0	MSD	USE - rr of s6b0725
s6b0808.d	245959010	nagl	08-FEB-2010 17:00	949132	10-1510	1.0	LANL	USE - rr of s6b0716
s6b0809.d	245916001	nagl	08-FEB-2010 17:28	948647	10-1492	1.0	LANL	
s6b0810.d	245916002	nagl	08-FEB-2010 17:56	948647	10-1492	1.0	LANL	
s6b0811.d	245916003	nagl	08-FEB-2010 18:24	948647	10-1492	1.0	LANL	
s6b0812.d	245916004	nagl	08-FEB-2010 18:51	948647	10-1492	1.0	LANL	
s6b0813.d	245916005	nagl	08-FEB-2010 19:19	948647	10-1492	1.0	LANL	
s6b0814.d	245935001	nagl	08-FEB-2010 19:47	948647	10-1505	1.0	LANL	
s6b0815.d	1202032304	nagl	08-FEB-2010 20:15	948647	10-1505	1.0	MS	failed spike
s6b0816.d	1202032305	nagl	08-FEB-2010 20:43	948647	10-1505	1.0	MSD	failed spike - manual
s6b0817.d	245935002	nagl	08-FEB-2010 21:11	948647	10-1505	1.0	LANL	
s6b0818.d	245935003	nagl	08-FEB-2010 21:39	948647	10-1505	1.0	LANL	
s6b0819.d	245935004	nagl	08-FEB-2010 22:06	948647	10-1505	1.0	LANL	

s6b0820.d	245935005	nagl	08-FEB-2010 22:34	948647	10-1505	1.0	LANL	DUSE - failed IS - rr - see s6b1422
s6b0821.d	245935006	nagl	08-FEB-2010 23:01	948647	10-1505	1.0	LANL	
s6b0822.d	245935008	nagl	08-FEB-2010 23:28	948647	10-1505	1.0	LANL	
s6b0823.d	245935009	nagl	08-FEB-2010 23:56	948647	10-1505	1.0	LANL	DUSE - failed IS - rr - see s6b1423
s6b0824.d	245679010	nagl	09-FEB-2010 00:24	947953	10-1449	1.0	LANL	USE - rr of s6b0526
s6b0825.d	245679011	nagl	09-FEB-2010 00:51	947953	10-1449	1.0	LANL	DUSE - failed IS - rr of s6b0528

Instrument Batch: /chem/MSD6.i/s020810.b Page: 1

DER Report No.: 788971
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
949132	See Below		

Potentially affected work order(s)(SDG): 245959(10-1510),246058(10-1530),246060(10-1531),246062(10-1532)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS failed recovery for Benzyl alcohol. Please see the spike recovery report for the specific failures.	1. The failure represented less than 5% of the requested spike analyte list. That satisfied the clients acceptance criteria and the data were reported.
2. The MS/MSD failed RPD for Benzoic acid and bis(2-Chloroethoxy)methane. Please see the spike recovery report for the specific failures.	2. The MS and MSD pair passed recoveries for all analytes. Therefore, the data were reported un-qualified for the RPD value failure.

Originator's Name:

Nathan Greene 09-FEB-10

Data Validator/Group Leader:

Daniel Beacham 12-FEB-10

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0724.d
Lab Smp Id: 1202033478 Client Smp ID: RE52-10-12020MS
Inj Date : 07-FEB-2010 22:54
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202033478|949132|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 23 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1532.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.03000	weight of sample
M	888800.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.862	4.862	(1.000)	292020	40.0000	
* 29 Naphthalene-d8	136	6.141	6.141	(1.000)	1123847	40.0000	
* 46 Acenaphthene-d10	164	8.009	8.011	(1.000)	648742	40.0000	
* 67 Phenanthrene-d10	188	9.622	9.622	(1.000)	1128543	40.0000	
* 91 Chrysene-d12	240	12.641	12.646	(1.000)	696114	40.0000	
* 98 Perylene-d12	264	14.980	14.990	(1.000)	395588	40.0000	
$ 3 2-Fluorophenol	112	3.707	3.697	(0.763)	417790	57.1310	57.1
$ 5 Phenol-d5	99	4.479	4.474	(0.921)	511439	55.4117	55.4
$ 20 Nitrobenzene-d5	82	5.399	5.404	(0.879)	284116	35.7377	35.7
$ 39 2-Fluorobiphenyl	172	7.265	7.265	(0.907)	587666	35.1504	35.2
$ 60 2,4,6-Tribromophenol	329	8.865	8.860	(1.107)	42472	22.4304	22.4(R)
$ 81 p-Terphenyl-d14	244	11.324	11.324	(0.896)	614253	54.7170	54.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.495	4.490	(0.925)	256935	27.6859	27.7(Q)
8 2-Chlorophenol	128	4.668	4.665	(0.960)	258550	34.6839	34.7
11 1,4-Dichlorobenzene	146	4.877	4.880	(1.003)	314490	36.1507	36.2
17 N-Nitrosodipropylamine	70	5.234	5.239	(1.077)	199250	38.5134	38.5(Q)
28 1,2,4-Trichlorobenzene	180	6.072	6.072	(0.989)	280919	41.2114	41.2
47 Acenaphthene	154	8.044	8.047	(1.004)	543637	37.1814	37.2
50 2,4-Dinitrotoluene	165	8.207	8.207	(1.025)	202077	40.3720	40.4
79 Pyrene	202	11.186	11.186	(0.885)	953545	49.8020	49.8
2 Pyridine	79	2.808	2.777	(0.578)	148067	23.9292	23.9
4 Aniline	66	4.548	4.553	(0.936)	149574	38.8387	38.8(Q)
7 bis(2-Chloroethyl) ether	63	4.586	4.589	(0.943)	205861	32.7578	32.8
9 1,3-Dichlorobenzene	146	4.811	4.811	(0.990)	314104	36.6015	36.6
13 1,2-Dichlorobenzene	146	5.025	5.027	(1.034)	307547	37.8734	37.9
14 bis(2-Chloroisopropyl)ether	45	5.091	5.096	(1.047)	487363	34.7366	34.7
15 o-Cresol	107	5.078	5.063	(1.045)	136115	22.4259	22.4(Q)
18 m,p-Cresols	107	5.218	5.218	(1.073)	209736	27.2711	27.3(Q)
19 Hexachloroethane	117	5.356	5.359	(1.102)	113311	33.6683	33.7
21 Nitrobenzene	77	5.422	5.425	(0.883)	295584	36.8891	36.9
22 Isophorone	82	5.654	5.657	(0.921)	569551	40.1006	40.1
23 2-Nitrophenol	139	5.738	5.738	(0.934)	142993	38.6896	38.7
24 2,4-Dimethylphenol	122	5.759	5.754	(0.938)	86555	14.1346	14.1
25 bis(2-Chloroethoxy)methane	93	5.850	5.853	(0.953)	312541	37.3925	37.4
26 2,4-Dichlorophenol	162	5.998	5.983	(0.977)	250078	45.0250	45.0
27 Benzoic acid	105	5.896	5.868	(0.960)	302676	80.0783	80.1
30 Naphthalene	128	6.161	6.164	(1.003)	814325	36.3240	36.3
31 4-Chloroaniline	127	6.205	6.205	(1.010)	257809	35.7796	35.8
32 Hexachlorobutadiene	225	6.266	6.268	(1.020)	152880	43.0688	43.1
34 2-Methylnaphthalene	142	6.885	6.885	(1.121)	616506	45.5717	45.6
36 Hexachlorocyclopentadiene	237	7.038	7.040	(0.879)	43779	16.7070	16.7
37 2,4,6-Trichlorophenol	196	7.186	7.178	(0.897)	78692	17.7768	17.8(Q)
40 2-Chloronaphthalene	162	7.412	7.410	(0.926)	592711	40.6816	40.7
42 o-Nitroaniline	65	7.514	7.512	(0.938)	190004	38.1201	38.1
41 m-Nitroaniline	138	7.960	7.958	(0.994)	151437	41.5044	41.5
43 Dimethylphthalate	163	7.693	7.698	(0.961)	682463	41.0088	41.0
44 2,6-Dinitrotoluene	165	7.772	7.772	(0.970)	154212	38.8497	38.8
45 Acenaphthylene	152	7.858	7.861	(0.981)	939834	40.1197	40.1
48 2,4-Dinitrophenol	184	8.077	8.072	(1.009)	9887	19.1640	19.2(aQ)
49 Dibenzofuran	168	8.228	8.230	(1.027)	784942	39.7718	39.8
51 Diethylphthalate	149	8.444	8.447	(1.054)	710611	42.4008	42.4
53 Fluorene	166	8.600	8.602	(1.074)	668119	41.2445	41.2
54 4-Chlorophenylphenylether	204	8.584	8.584	(1.072)	318445	41.6057	41.6
55 2-Methyl-4,6-dinitrophenol	198	8.651	8.653	(0.899)	53349	24.6299	24.6
56 p-Nitroaniline	138	8.625	8.620	(1.077)	146381	42.4398	42.4
133 Diphenylamine	169	8.714	8.714	(0.906)	570748	41.9584	42.0
58 1,2-Diphenylhydrazine	77	8.758	8.760	(0.910)	694052	40.1128	40.1
61 4-Bromophenylphenylether	248	9.117	9.114	(0.948)	180940	40.6317	40.6
63 Hexachlorobenzene	284	9.196	9.193	(0.956)	198654	42.5880	42.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
68	Phenanthrene	178	9.650	9.650	(1.003)	977852	41.8984	41.9
69	Anthracene	178	9.706	9.706	(1.009)	985409	42.2421	42.2
72	Di-n-butylphthalate	149	10.203	10.203	(1.060)	1180774	44.0755	44.1
76	Fluoranthene	202	10.936	10.936	(1.137)	951720	42.5693	42.6
85	Butylbenzylphthalate	149	11.854	11.856	(0.938)	466200	53.2045	53.2
89	Benzo(a)anthracene	228	12.623	12.626	(0.999)	656610	43.7193	43.7
90	3,3'-Dichlorobenzidine	252	12.570	12.565	(0.994)	178788	36.3644	36.4
92	Chrysene	228	12.677	12.682	(1.003)	624271	43.3811	43.4
93	bis(2-Ethylhexyl)phthalate	149	12.575	12.577	(0.995)	603286	49.8651	49.9
94	Di-n-octylphthalate	149	13.558	13.563	(0.905)	889774	70.7714	70.8
95	Benzo(b)fluoranthene	252	14.300	14.305	(0.955)	456879	52.1961	52.2
96	Benzo(k)fluoranthene	252	14.346	14.353	(0.958)	461993	53.0783	53.1
97	Benzo(a)pyrene	252	14.878	14.886	(0.993)	389003	51.4531	51.4
99	Indeno(1,2,3-cd)pyrene	276	16.975	16.983	(1.133)	284262	39.5276	39.5
100	Dibenzo(a,h)anthracene	278	17.001	17.008	(1.135)	240316	40.8745	40.9
101	Benzo(ghi)perylene	276	17.488	17.500	(1.167)	221458	38.3420	38.3(Q)
1	N-Methyl-N-nitrosomethylamine	74	2.762	2.739	(0.568)	135862	27.3284	27.3

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s020710.b/s6b0724.d
Date : 07-FEB-2010 22:54
Client ID: RE52-10-12020MS
Sample Info: 1120203347819491321|1|SVM11|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

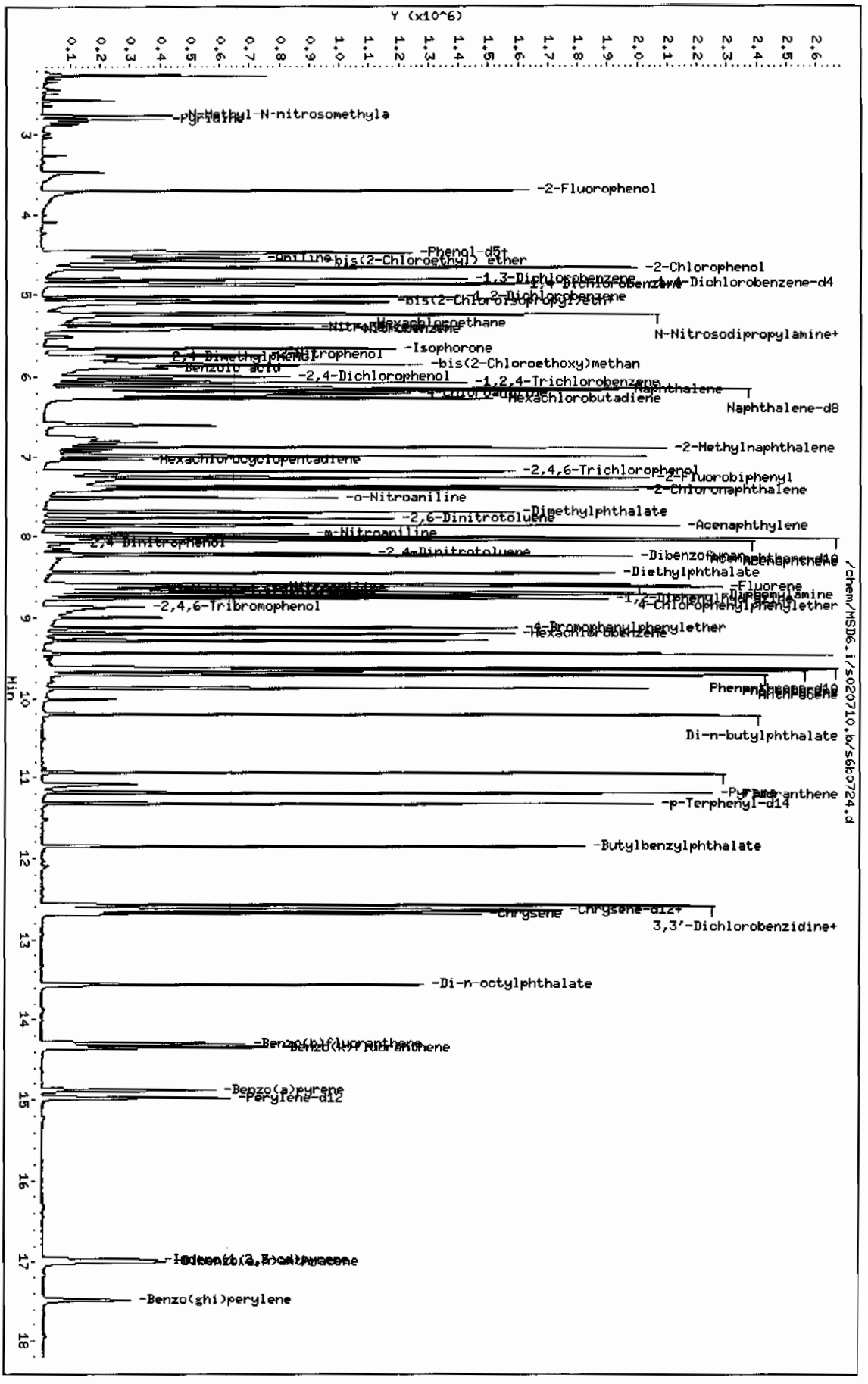

GEL Laboratories LLC

Data file : /chem/MSD6.i/s020710.b/s6b0725.d
Lab Smp Id: 1202033479 Client Smp ID: RE52-10-12020MSD
Inj Date : 07-FEB-2010 23:21
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202033479|949132|1|SVM|1|MS
Misc Info : |MSD8270_S|WBN100122-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020710.b/MSD6-M8270C-AQA-110909.m
Meth Date : 08-Feb-2010 08:45 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 24 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1532.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	888800.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	4.857	4.862	(1.000)	309939	40.0000	
* 29 Naphthalene-d8	136	6.138	6.141	(1.000)	1189860	40.0000	
* 46 Acenaphthene-d10	164	8.009	8.011	(1.000)	674731	40.0000	
* 67 Phenanthrene-d10	188	9.621	9.622	(1.000)	1173409	40.0000	
* 91 Chrysene-d12	240	12.641	12.646	(1.000)	698055	40.0000	
* 98 Perylene-d12	264	14.980	14.990	(1.000)	371329	40.0000	
$ 3 2-Fluorophenol	112	3.707	3.697	(0.763)	431880	55.6434	55.6
$ 5 Phenol-d5	99	4.479	4.474	(0.922)	556791	56.8377	56.8
$ 20 Nitrobenzene-d5	82	5.399	5.404	(0.880)	262519	31.1891	31.2
$ 39 2-Fluorobiphenyl	172	7.264	7.265	(0.907)	558115	32.0971	32.1
$ 60 2,4,6-Tribromophenol	329	8.862	8.860	(1.107)	112441	57.0953	57.1
$ 81 p-Terphenyl-d14	244	11.324	11.324	(0.896)	606749	53.8983	53.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	4.490	4.490	(0.924)	270296	27.4417	27.4(Q)
8 2-Chlorophenol	128	4.663	4.665	(0.960)	229553	29.0136	29.0
11 1,4-Dichlorobenzene	146	4.872	4.880	(1.003)	282499	30.5959	30.6
17 N-Nitrosodipropylamine	70	5.231	5.239	(1.077)	185635	33.8073	33.8(Q)
28 1,2,4-Trichlorobenzene	180	6.069	6.072	(0.989)	258245	35.7832	35.8
33 4-Chloro-3-methylphenol	107	6.712	6.691	(1.093)	134331	22.6285	22.6
47 Acenaphthene	154	8.044	8.047	(1.004)	525774	34.5746	34.6
50 2,4-Dinitrotoluene	165	8.207	8.207	(1.025)	197940	38.0223	38.0
52 4-Nitrophenol	139	8.164	8.123	(1.019)	21704	13.6704	13.7(Q)
65 Pentachlorophenol	266	9.410	9.405	(0.978)	37615	18.2395	18.2
79 Pyrene	202	11.186	11.186	(0.885)	937534	48.8296	48.8
2 Pyridine	79	2.821	2.777	(0.581)	147227	22.4179	22.4
4 Aniline	66	4.546	4.553	(0.936)	148259	36.2715	36.3(Q)
7 bis(2-Chloroethyl) ether	63	4.581	4.589	(0.943)	184703	27.6918	27.7
9 1,3-Dichlorobenzene	146	4.806	4.811	(0.990)	279116	30.6441	30.6
13 1,2-Dichlorobenzene	146	5.020	5.027	(1.034)	278473	32.3104	32.3
14 bis(2-Chloroisopropyl)ether	45	5.088	5.096	(1.048)	447178	30.0297	30.0
15 o-Cresol	107	5.068	5.063	(1.044)	199004	30.8918	30.9
18 m,p-Cresols	107	5.213	5.218	(1.073)	281604	34.4989	34.5
19 Hexachloroethane	117	5.351	5.359	(1.102)	101644	28.4556	28.4
21 Nitrobenzene	77	5.417	5.425	(0.883)	268740	31.6782	31.7
22 Isophorone	82	5.652	5.657	(0.921)	542312	36.0644	36.1
23 2-Nitrophenol	139	5.736	5.738	(0.934)	133692	34.1661	34.2
24 2,4-Dimethylphenol	122	5.766	5.754	(0.939)	138097	21.3004	21.3
25 bis(2-Chloroethoxy)methane	93	5.850	5.853	(0.953)	292501	33.0534	33.0
26 2,4-Dichlorophenol	162	5.996	5.983	(0.977)	233013	39.6250	39.6
27 Benzoic acid	105	5.891	5.868	(0.960)	346834	86.6702	86.7
30 Naphthalene	128	6.161	6.164	(1.004)	747801	31.5060	31.5
31 4-Chloroaniline	127	6.204	6.205	(1.011)	312294	40.9366	40.9
32 Hexachlorobutadiene	225	6.266	6.268	(1.021)	139163	37.0294	37.0
34 2-Methylnaphthalene	142	6.882	6.885	(1.121)	561745	39.2201	39.2
36 Hexachlorocyclopentadiene	237	7.038	7.040	(0.879)	38253	14.0359	14.0
37 2,4,6-Trichlorophenol	196	7.180	7.178	(0.897)	153240	33.2841	33.3
38 2,4,5-Trichlorophenol	196	7.231	7.219	(0.903)	155533	31.7216	31.7
40 2-Chloronaphthalene	162	7.410	7.410	(0.925)	566364	37.3760	37.4
42 o-Nitroaniline	65	7.514	7.512	(0.938)	185957	35.8712	35.9
41 m-Nitroaniline	138	7.958	7.958	(0.994)	157576	41.5234	41.5
43 Dimethylphthalate	163	7.690	7.698	(0.960)	658639	38.0528	38.0
44 2,6-Dinitrotoluene	165	7.769	7.772	(0.970)	148759	36.0325	36.0
45 Acenaphthylene	152	7.858	7.861	(0.981)	910430	37.3675	37.4
48 2,4-Dinitrophenol	184	8.077	8.072	(1.009)	20178	23.6498	23.6
49 Dibenzofuran	168	8.228	8.230	(1.027)	760247	37.0368	37.0
51 Diethylphthalate	149	8.447	8.447	(1.055)	685158	39.3074	39.3
53 Fluorene	166	8.600	8.602	(1.074)	649346	38.5416	38.5
54 4-Chlorophenylphenylether	204	8.582	8.584	(1.072)	310334	38.9842	39.0
55 2-Methyl-4,6-dinitrophenol	198	8.651	8.653	(0.899)	52193	23.5936	23.6
56 p-Nitroaniline	138	8.625	8.620	(1.077)	146883	41.1939	41.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	8.714	8.714	(0.906)	555842	39.3001	39.3
58 1,2-Diphenylhydrazine	77	8.758	8.760	(0.910)	683752	38.0066	38.0
61 4-Bromophenylphenylether	248	9.114	9.114	(0.947)	177135	38.2563	38.2
63 Hexachlorobenzene	284	9.193	9.193	(0.956)	193230	39.8413	39.8
68 Phenanthrene	178	9.650	9.650	(1.003)	967599	39.8738	39.9
69 Anthracene	178	9.703	9.706	(1.008)	965604	39.8104	39.8
72 Di-n-butylphthalate	149	10.202	10.203	(1.060)	1172792	42.1037	42.1
76 Fluoranthene	202	10.936	10.936	(1.137)	945491	40.6736	40.7
85 Butylbenzylphthalate	149	11.854	11.856	(0.938)	453592	51.6216	51.6
89 Benzo(a)anthracene	228	12.621	12.626	(0.998)	627777	41.6833	41.7
90 3,3'-Dichlorobenzidine	252	12.565	12.565	(0.994)	190222	38.5824	38.6
92 Chrysene	228	12.677	12.682	(1.003)	599964	41.5761	41.6
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.577	(0.995)	595067	49.0557	49.0
94 Di-n-octylphthalate	149	13.561	13.563	(0.905)	866657	73.4361	73.4(R)
95 Benzo(b)fluoranthene	252	14.300	14.305	(0.955)	417965	50.8699	50.9
96 Benzo(k)fluoranthene	252	14.348	14.353	(0.958)	420050	51.4123	51.4
97 Benzo(a)pyrene	252	14.878	14.886	(0.993)	349186	49.2039	49.2
99 Indeno(1,2,3-cd)pyrene	276	16.975	16.983	(1.133)	243048	36.2753	36.3
100 Dibenzo(a,h)anthracene	278	16.998	17.008	(1.135)	202554	36.9788	37.0
101 Benzo(ghi)perylene	276	17.490	17.500	(1.168)	184686	34.0645	34.1(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.775	2.739	(0.571)	126493	23.9728	24.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s020710.b/s6b0725.d
Date : 07-FEB-2010 23:21
Client ID: RES2-10-12020MSD
Sample Info: |12020334791949113211|SVM11|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

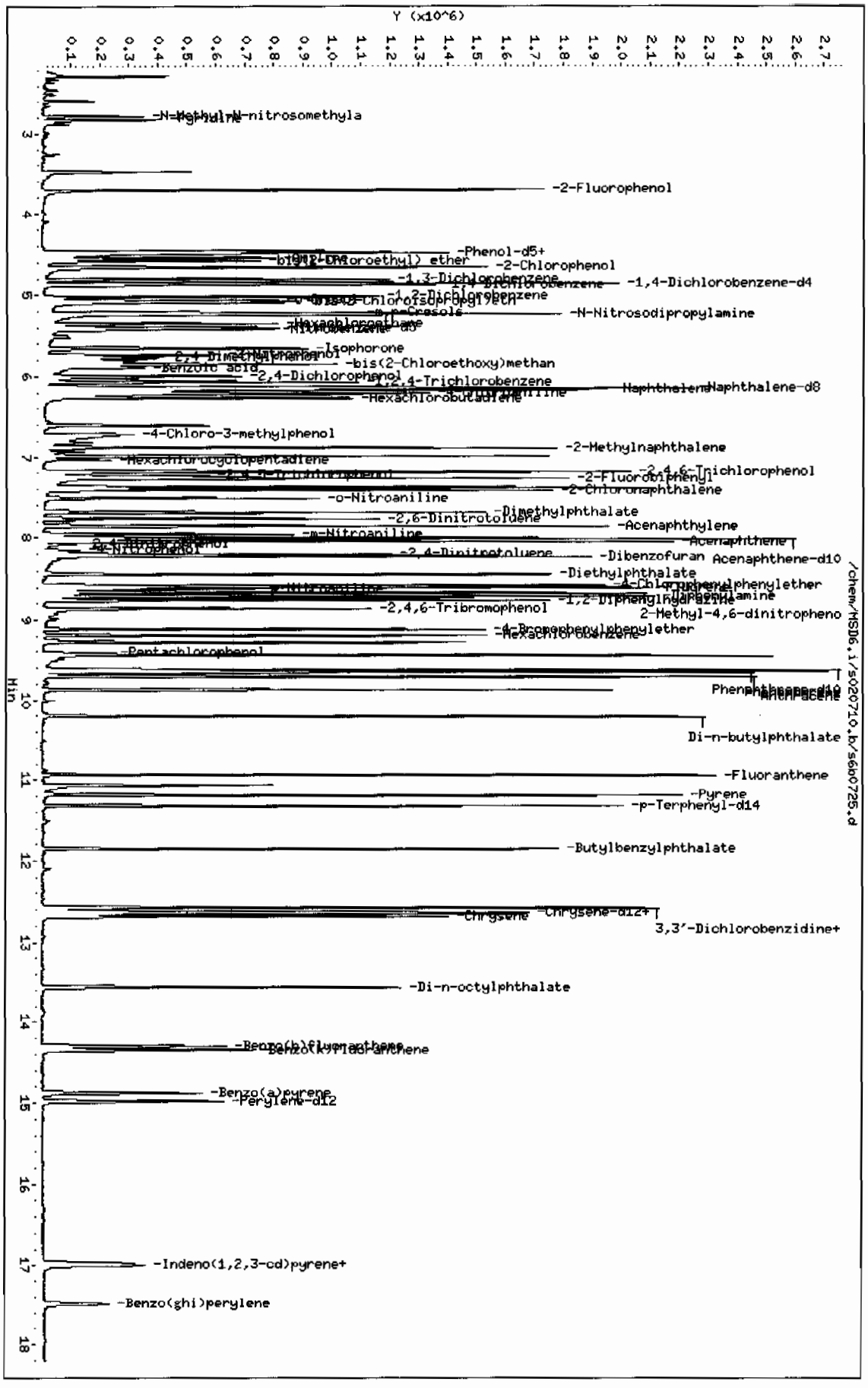

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1510

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	948572
Prep Batch Number:	948571

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
245959001	RE15-10-7309
245959002	RE15-10-7308
245959003	RE15-10-7315
245959004	RE15-10-7317
245959005	RE15-10-7319
245959006	RE15-10-7312
245959007	RE15-10-7313
245959008	RE15-10-7314
245959009	RE15-10-7316
245959010	RE15-10-7318
245959012	RE15-10-7324
1202032097	Method Blank (MB)
1202032098	Laboratory Control Sample (LCS)
1202032099	245959001(RE15-10-7309) Matrix Spike (MS)
1202032100	245959001(RE15-10-7309) Matrix Spike Duplicate (MSD)

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 245959001 (RE15-10-7309) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for RDX was 46.3%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported. Please see data exception report 793093.

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Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Samples 1202032097 (MB), 1202032098 (LCS), 245959001 (RE15-10-7309), 1202032099 (RE15-10-7309MS), 1202032100 (RE15-10-7309MSD) and 245959002 (RE15-10-7308) were re-analyzed due to failing acceptance criteria. The re-analysis passed acceptance criteria and is reported.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Sample 245959001 (RE15-10-7309) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 793093 was generated for this SDG.

The MS/MSD RPD for RDX was 46.3%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

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Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Maier **Date:** 02/24/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959001

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216085a

Date Analyzed: 18-FEB-10 10:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959001

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140124.wiff

Date Analyzed: 15-FEB-10 22:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7308

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959002

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216088a

Date Analyzed: 18-FEB-10 12:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7308

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959002

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140127.wiff

Date Analyzed: 15-FEB-10 23:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7315

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959003

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216092a

Date Analyzed: 18-FEB-10 14:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7315

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959003

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140128.wiff

Date Analyzed: 15-FEB-10 23:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7317

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959004

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216093a

Date Analyzed: 18-FEB-10 14:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7317

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959004

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140129.wiff

Date Analyzed: 15-FEB-10 23:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7319

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216094a

Date Analyzed: 18-FEB-10 15:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7319

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140133.wiff

Date Analyzed: 16-FEB-10 00:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7312

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959006

Sample Amount 2

Moisture: 29.4

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216095a

Date Analyzed: 18-FEB-10 15:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7312

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959006

Sample Amount 2

Moisture: 29.4

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140134.wiff

Date Analyzed: 16-FEB-10 01:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7313

Lab Code: GEI

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959007

Sample Amount 2

Moisture: 9.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216096a

Date Analyzed: 18-FEB-10 16:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7313

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959007

Sample Amount 2

Moisture: 9.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140135.wiff

Date Analyzed: 16-FEB-10 01:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7314

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959008

Sample Amount 2

Moisture: 32.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216097a

Date Analyzed: 18-FEB-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7314

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959008

Sample Amount 2

Moisture: 32.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140136.wiff

Date Analyzed: 16-FEB-10 01:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7316

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959009

Sample Amount 2

Moisture: 35.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216098a

Date Analyzed: 18-FEB-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7316

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959009

Sample Amount 2

Moisture: 35.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140137.wiff

Date Analyzed: 16-FEB-10 01:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7318

Lab Code: GEI

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959010

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216099a

Date Analyzed: 18-FEB-10 17:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7318

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959010

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140138.wiff

Date Analyzed: 16-FEB-10 02:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7324

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959012

Sample Amount 2

Moisture: 10.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216100a

Date Analyzed: 18-FEB-10 18:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7324

Lab Code: GEI

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959012

Sample Amount 2

Moisture: 10.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140139.wiff

Date Analyzed: 16-FEB-10 02:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1510

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245959001	RE15–10–7309	121	70 – 144	
245959001	RE15–10–7309	119	70 – 144	
245959002	RE15–10–7308	109	70 – 144	
245959002	RE15–10–7308	122	70 – 144	
245959003	RE15–10–7315	114	70 – 144	
245959003	RE15–10–7315	114	70 – 144	
245959004	RE15–10–7317	117	70 – 144	
245959004	RE15–10–7317	123	70 – 144	
245959005	RE15–10–7319	121	70 – 144	
245959005	RE15–10–7319	112	70 – 144	
245959006	RE15–10–7312	98.3	70 – 144	
245959006	RE15–10–7312	111	70 – 144	
245959007	RE15–10–7313	101	70 – 144	
245959007	RE15–10–7313	114	70 – 144	
245959008	RE15–10–7314	112	70 – 144	
245959008	RE15–10–7314	113	70 – 144	
245959009	RE15–10–7316	94.3	70 – 144	
245959009	RE15–10–7316	114	70 – 144	
245959010	RE15–10–7318	106	70 – 144	
245959010	RE15–10–7318	126	70 – 144	
245959012	RE15–10–7324	114	70 – 144	
245959012	RE15–10–7324	115	70 – 144	
1202032097	MB for batch 948571	110	70 – 144	
1202032097	MB for batch 948571	122	70 – 144	
1202032098	LCS for batch 948571	107	70 – 144	
1202032098	LCS for batch 948571	121	70 – 144	
1202032099	RE15–10–7309(245959001MS)	95.2	70 – 144	
1202032099	RE15–10–7309(245959001MS)	118	70 – 144	
1202032100	RE15–10–7309(245959001MSD)	104	70 – 144	
1202032100	RE15–10–7309(245959001MSD)	112	70 – 144	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1510

Extract Batch Code: 948571

Date Extracted: 10-FEB-10

GEL LCS ID: 1202032098

GEL LCSDUP ID:

Analysis Date/Time: 18-FEB-10 09:09

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4040	80.9					69 – 126
2,4,6-Trinitrotoluene	5000	4940	98.7					73 – 149
2,4-Dinitrotoluene	5000	5160	103					87 – 137
2,6-Dinitrotoluene	5000	4890	97.9					89 – 120
2-Amino-4,6-dinitrotoluene	5000	5150	103					90 – 130
4-Amino-2,6-dinitrotoluene	5000	4630	92.7					84 – 130
HMX	5000	4400	88					58 – 138
Nitrobenzene	5000	4280	85.6					71 – 122
PETN	5000	6050	121					64 – 137
RDX	5000	5220	104					81 – 137
Tetryl	5000	2570	51.5					51 – 112
m-Dinitrobenzene	5000	4810	96.2					83 – 122
m-Nitrotoluene	5000	4610	92.3					73 – 118
o-Nitrotoluene	5000	4930	98.7					72 – 119
p-Nitrotoluene	5000	4850	97					67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1510

Extract Batch Code: 948571

Date Extracted: 10-FEB-10

GEL LCS ID: 1202032098

GEL LCSDUP ID:

Analysis Date/Time: 15-FEB-10 21:43

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,6-Diamino-4-nitrotoluene	5000	4340	86.8					64 – 122
3,5-Dinitroaniline	5000	5060	101					70 – 127
TATB	7500	7510	100					28 – 162
2,4-Diamino-6-nitrotoluene	5000	3530	70.6					52 – 114
tris(o-cresyl) phosphate	5000	4950	99					84 – 119

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7309

Lab Code: GEL

GEL Job No (SDG) 10-1510

Extract Batch Code: 948571

Date Extracted: 10-FEB-10

GEL Spike ID: 1202032099

GEL SpikeDup ID: 1202032100

Analysis Date/Time: 18-FEB-10 11:07

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
m-Dinitrobenzene	5000	0	4970	99.4	5240	105	5.21	30	85 – 118
2,4,6-Trinitrotoluene	5000	0	4480	89.7	5690	114	23.7	30	76 – 144
2,6-Dinitrotoluene	5000	0	4910	98.2	4960	99.2	1.02	30	90 – 118
4-Amino-2,6-dinitrotoluene	5000	0	4190	83.8	5260	105	22.5	30	72 – 143
RDX	5000	0	3690	73.8	5910	118	46.3 *	30	59 – 152
PETN	5000	0	5760	115	6800	136	16.5	30	60 – 140
Nitrobenzene	5000	0	4170	83.4	4210	84.2	.93	30	70 – 122
HMX	5000	0	4120	82.4	3660	73.1	12	30	51 – 144
2-Amino-4,6-dinitrotoluene	5000	0	4830	96.5	5460	109	12.4	30	85 – 137
2,4-Dinitrotoluene	5000	0	4420	88.5	4640	92.9	4.86	30	86 – 135
1,3,5-Trinitrobenzene	5000	0	4770	95.4	5000	99.9	4.59	30	50 – 140
m-Nitrotoluene	5000	0	4410	88.2	4540	90.8	2.81	30	70 – 120
o-Nitrotoluene	5000	0	4740	94.9	4860	97.3	2.5	30	69 – 123
Tetryl	5000	0	3300	65.9	3380	67.6	2.55	30	36 – 124
p-Nitrotoluene	5000	0	4800	96	5000	100	4.12	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15--10--7309

Lab Code: GEI

GEL Job No (SDG) 10--1510

Extract Batch Code: 948571

Date Extracted: 10--FEB--10

GEL Spike ID: 1202032099

GEL SpikeDup ID: 1202032100

Analysis Date/Time: 15--FEB--10 22:45

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4--Diamino--6--nitrotoluene	5000	0	4200	84	3740	74.8	11.6	26	34 – 135
2,6--Diamino--4--nitrotoluene	5000	0	4120	82.4	4140	82.8	.484	30	55 – 130
TATB	7500	0	6980	93.1	7470	99.6	6.78	30	29 – 155
tris(o--cresyl) phosphate	5000	0	4890	97.8	4870	97.4	.41	30	72 – 127
3,5--Dinitroaniline	5000	0	5130	103	5100	102	.587	30	73 – 129

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:07

GEL Data File: EXP0216001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	509.816
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	531.163
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: Untitled, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216001a
Date: 16-Feb-2010
Time: 17:07:38
ID: XIBLK01
Vial: 1:1,A

MAT 2/17/10

HMX

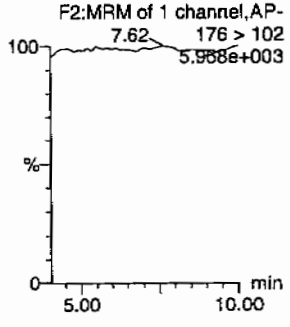

RDX

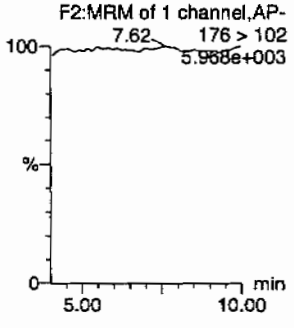

135-Trinitrobenzene

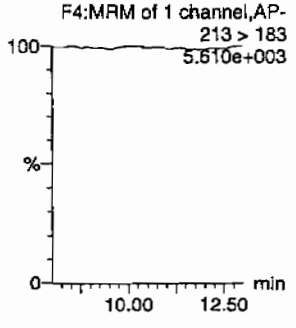

13-Dinitrobenzene-d4

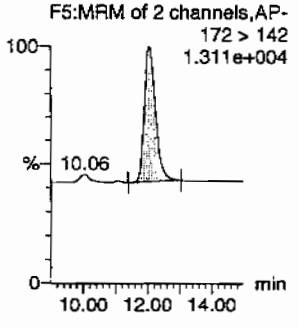

13-Dinitrobenzene

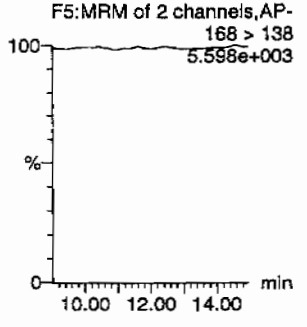

Tetryl

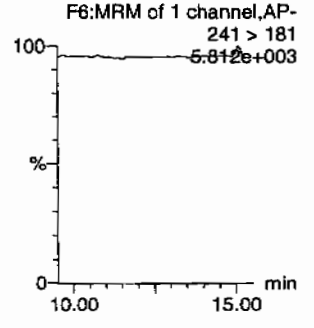

Nitrobenzene

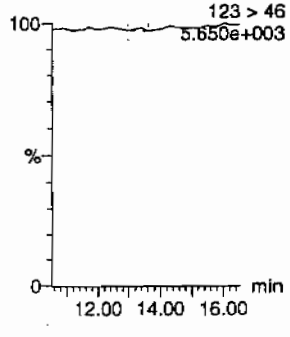

4-Amino-26-dinitrotoluene

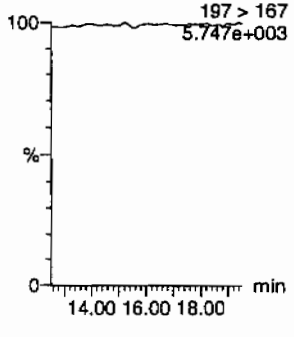

2-Amino-46-dinitrotoluene

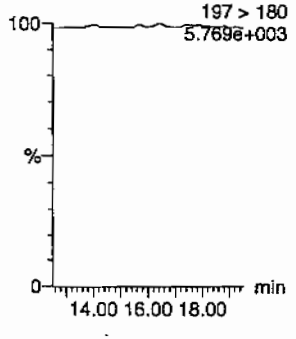

246-Trinitrotoluene

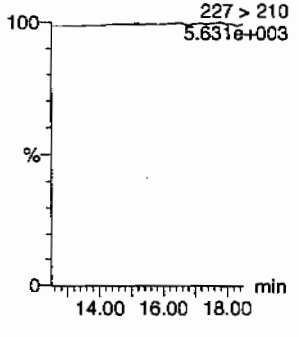

34-dinitrotoluene

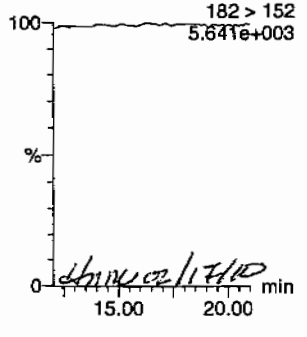

dhm 02/17/10

26-dinitrotoluene

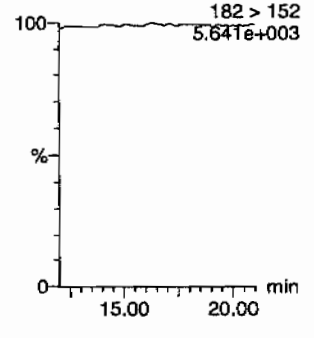

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

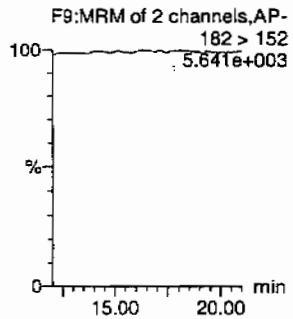

26-dinitrotoluene-d3

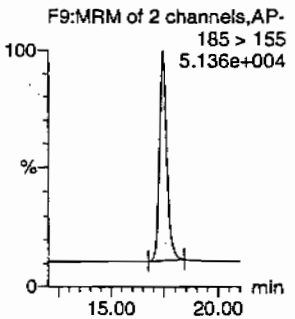

2-Nitrotoluene

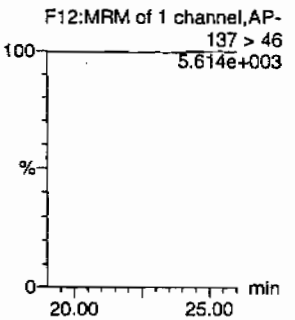

4-Nitrotoluene

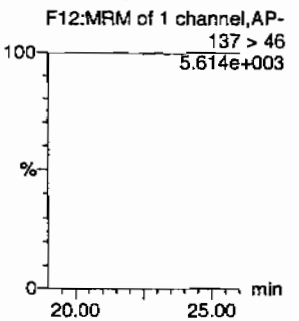

3-Nitrotoluene

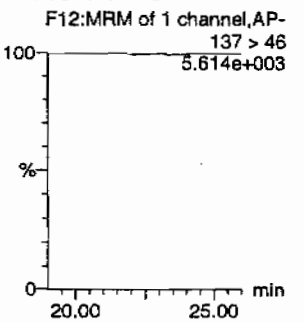

PETN

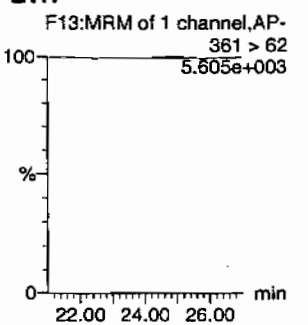

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3071.556									
XIBLK01	RDX	176 > 102			3071.556									
XIBLK01	135-Trinitrobenzene	213 > 183			3071.556									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	3071.556		3071.556	3071.556	bb			509.8160	102.0	2.0	413.3
XIBLK01	13-Dinitrobenzene	168 > 138			3071.556									
XIBLK01	Tetryl	241 > 181			3071.556									
XIBLK01	Nitrobenzene	123 > 46			3071.556			MM-	17-Feb-10	09:21:37				
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18493.566									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18493.566									
XIBLK01	246-Trinitrotoluene	227 > 210			18493.566									
XIBLK01	34-dinitrotoluene	182 > 152			18493.566									
XIBLK01	26-dinitrotoluene	182 > 152			18493.566									
XIBLK01	24-dinitrotoluene	182 > 152			18493.566									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.42	18493.566		18493.566	18493.566	bb			531.1631	106.2	6.2	1741.8
XIBLK01	2-Nitrotoluene	137 > 46			18493.566									
XIBLK01	4-Nitrotoluene	137 > 46			18493.566									
XIBLK01	3-Nitrotoluene	137 > 46			18493.566									
XIBLK01	PETN	361 > 62			18493.566									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:37

GEL Data File: EXP0216002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	540.968
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.887
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216002a
Date: 16-Feb-2010
Time: 17:37:26
ID: XIBLK01
Vial: 1:1,A

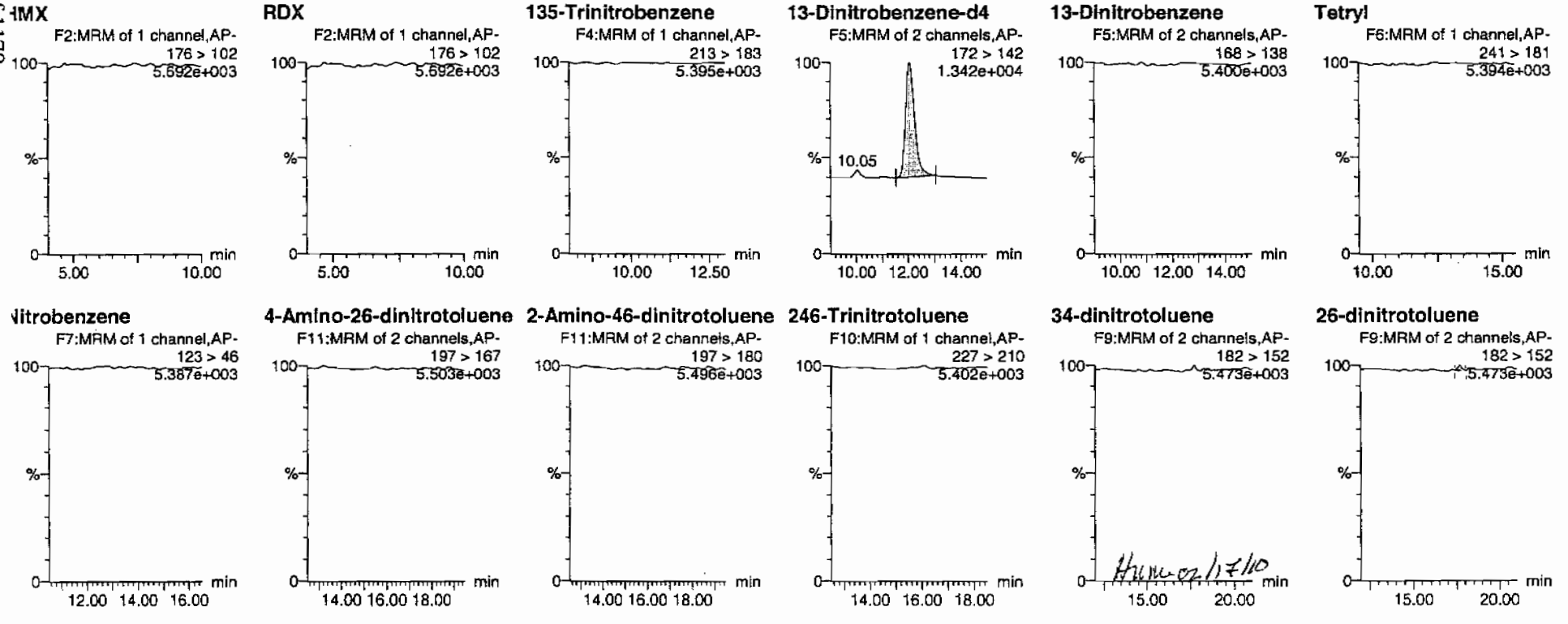

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

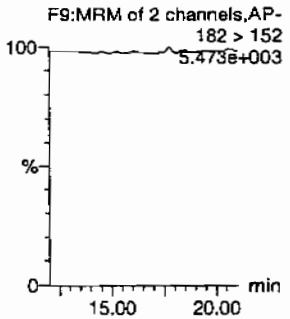

26-dinitrotoluene-d3

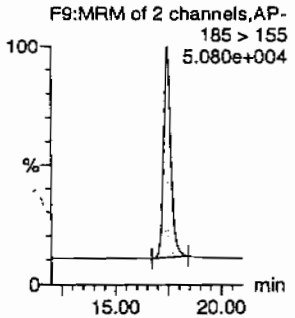

2-Nitrotoluene

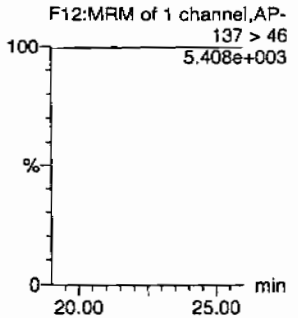

4-Nitrotoluene

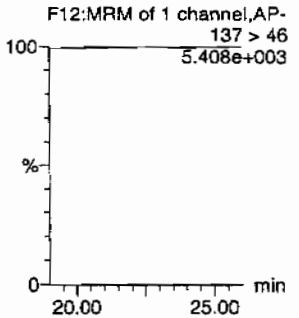

3-Nitrotoluene

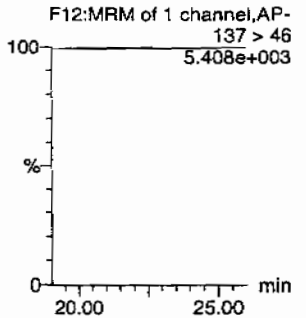

PETN

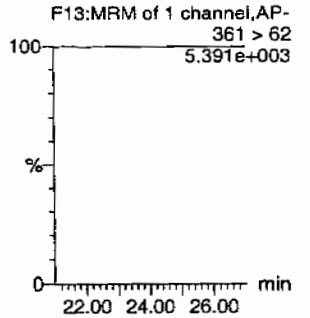

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3259.244									
XIBLK01	RDX	176 > 102			3259.244									
XIBLK01	135-Trinitrobenzene	213 > 183			3259.244									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	3259.244		3259.244	3259.244	bb			540.9684	108.2	8.2	243.5
XIBLK01	13-Dinitrobenzene	168 > 138			3259.244									
XIBLK01	Tetryl	241 > 181			3259.244									
XIBLK01	Nitrobenzene	123 > 46			3259.244									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18483.965									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18483.965									
XIBLK01	246-Trinitrotoluene	227 > 210			18483.965									
XIBLK01	34-dinitrotoluene	182 > 152			18483.965									
XIBLK01	26-dinitrotoluene	182 > 152			18483.965			MM-	17-Feb-10	09:24:48				
XIBLK01	24-dinitrotoluene	182 > 152			18483.965									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.44	18483.965		18483.965	18483.965	bb			530.8874	106.2	6.2	1863.8
XIBLK01	2-Nitrotoluene	137 > 46			18483.965									
XIBLK01	4-Nitrotoluene	137 > 46			18483.965									
XIBLK01	3-Nitrotoluene	137 > 46			18483.965									
XIBLK01	PETN	361 > 62			18483.965									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 14–FEB–10 14:17

GEL Data File: EXS02140001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.28
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ran 2/16/10

ample Name: "XIBLK01" Sample ID: "1|LER" File: "EXS02140001.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_6" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 2:17:17 PM

ified: No

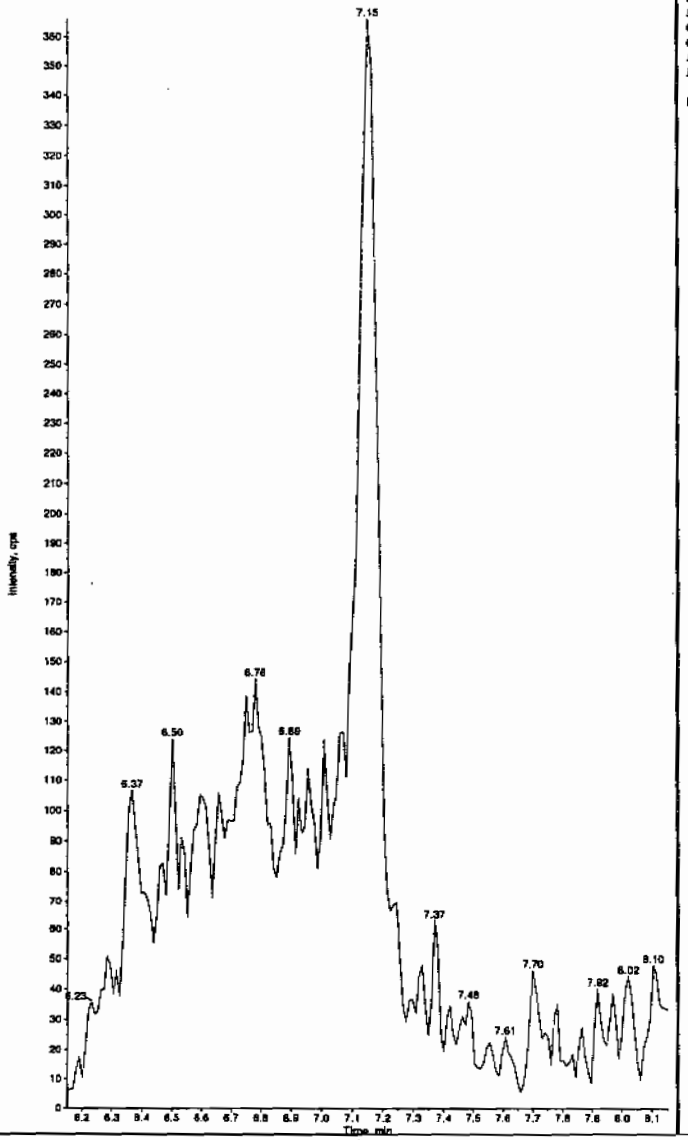

Sample Name: "XIBLK01" Sample ID: "1|LER" File: "EXS02140001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:17:17 PM

Modified: No

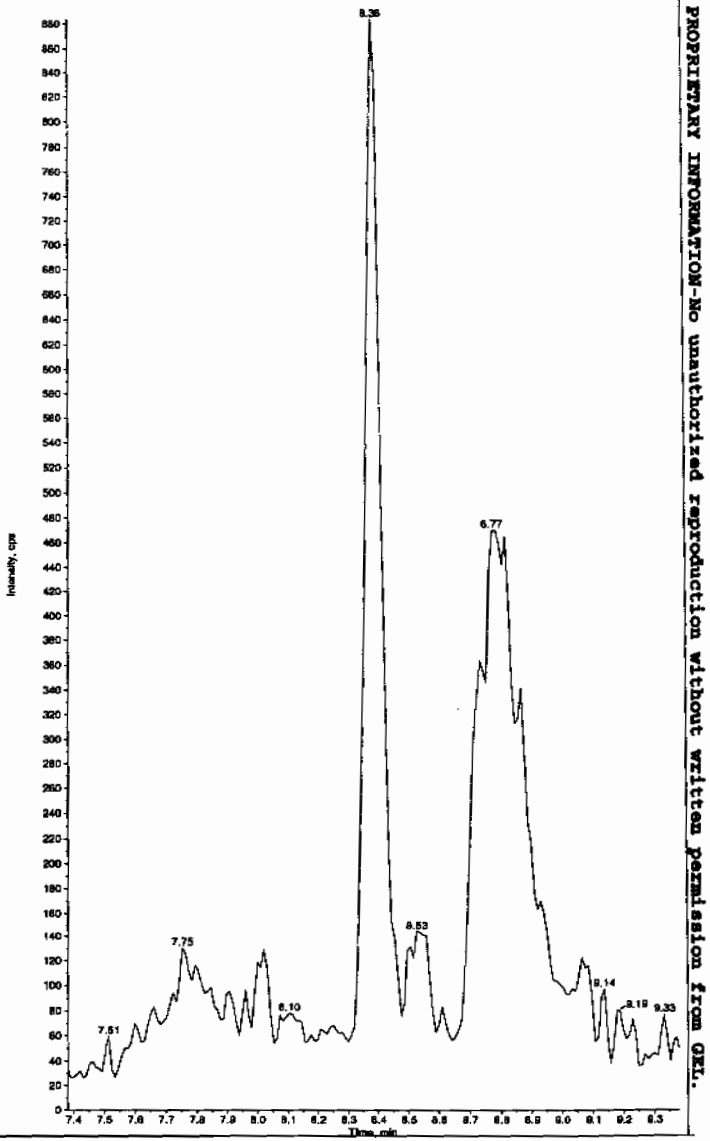

Hmc 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02140001.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 2:17:17 PM

ified: No

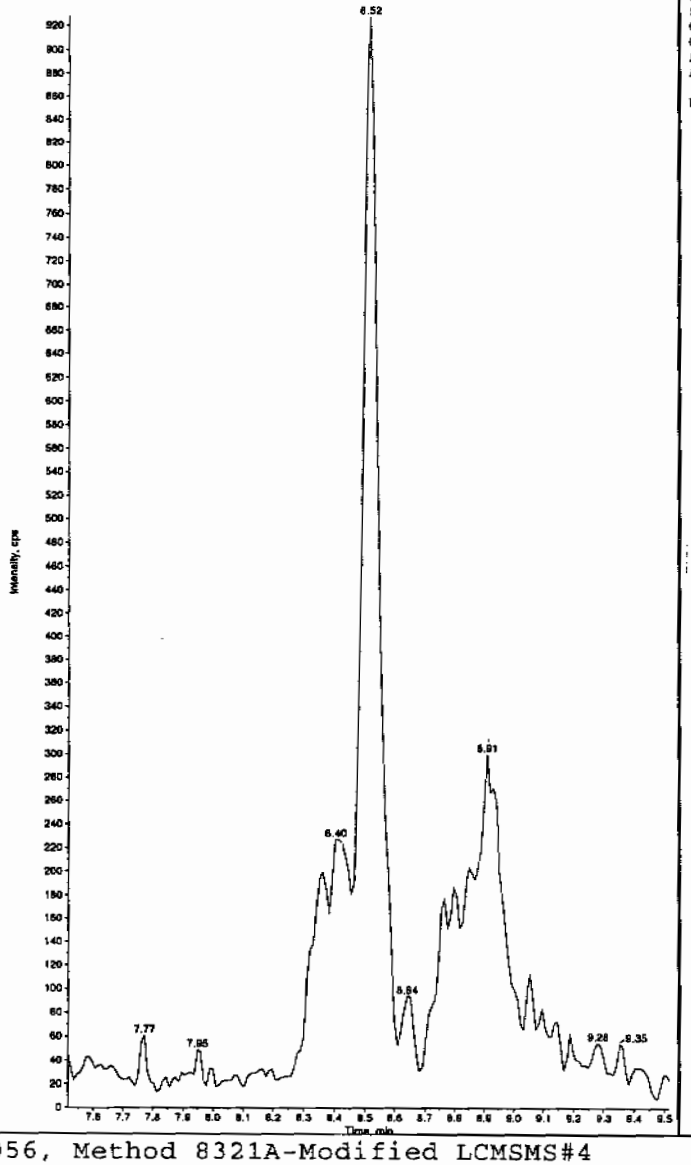

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02140001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:17:17 PM

Modified: No

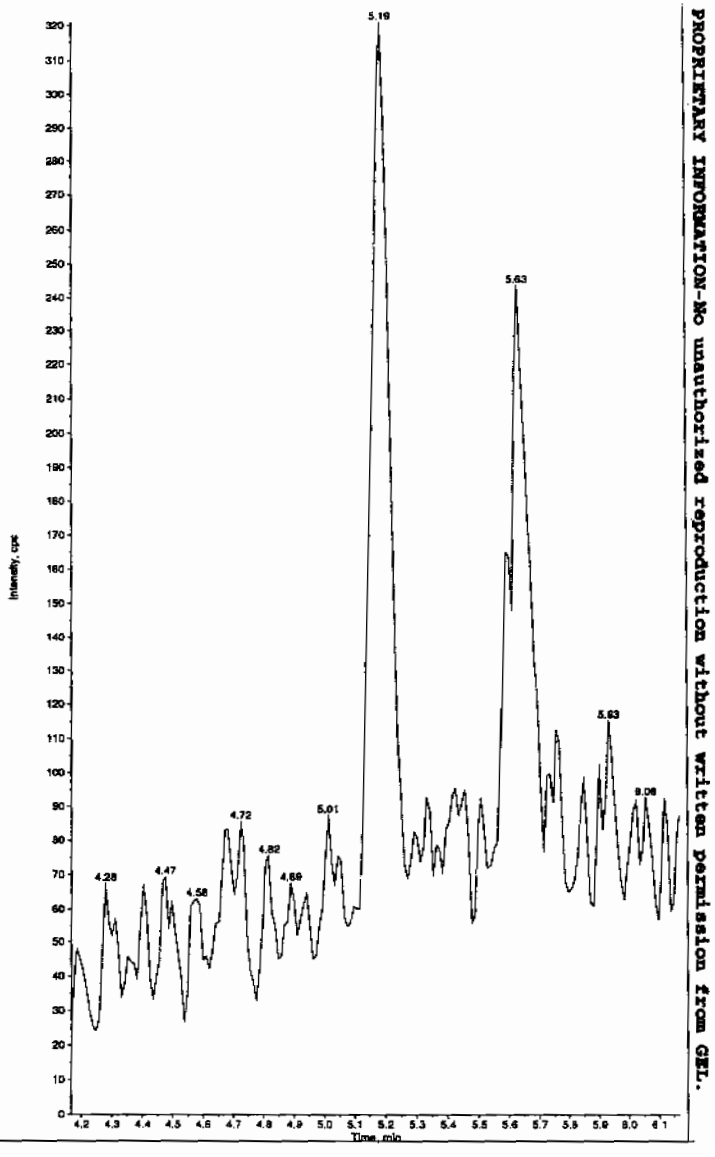

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ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140001.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00      ng/mL
. Date:         2/14/2010
. Time:         2:17:17 PM

ified:            No
```

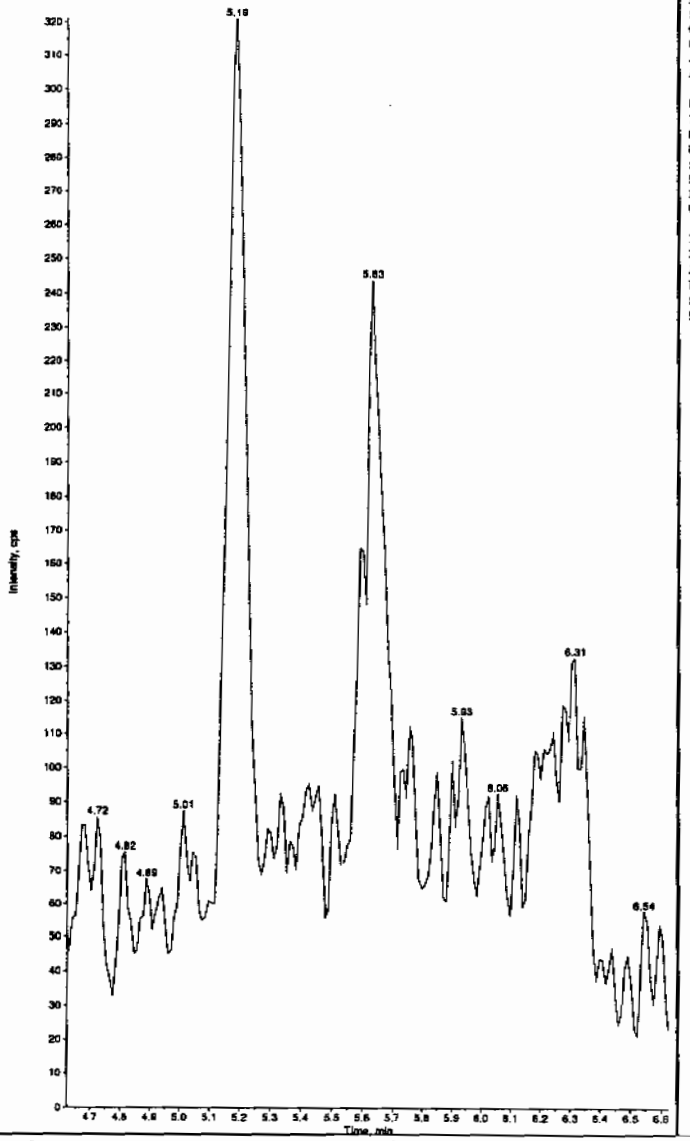

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     0.280      ng/mL
Acq. Date:         2/14/2010
Acq. Time:         2:17:17 PM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:        11.0    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     11.0    min
Area:          5.82e+004   counts
Height:        16205.034   cps
Start Time:         10.9    min
End Time:           11.2    min
```

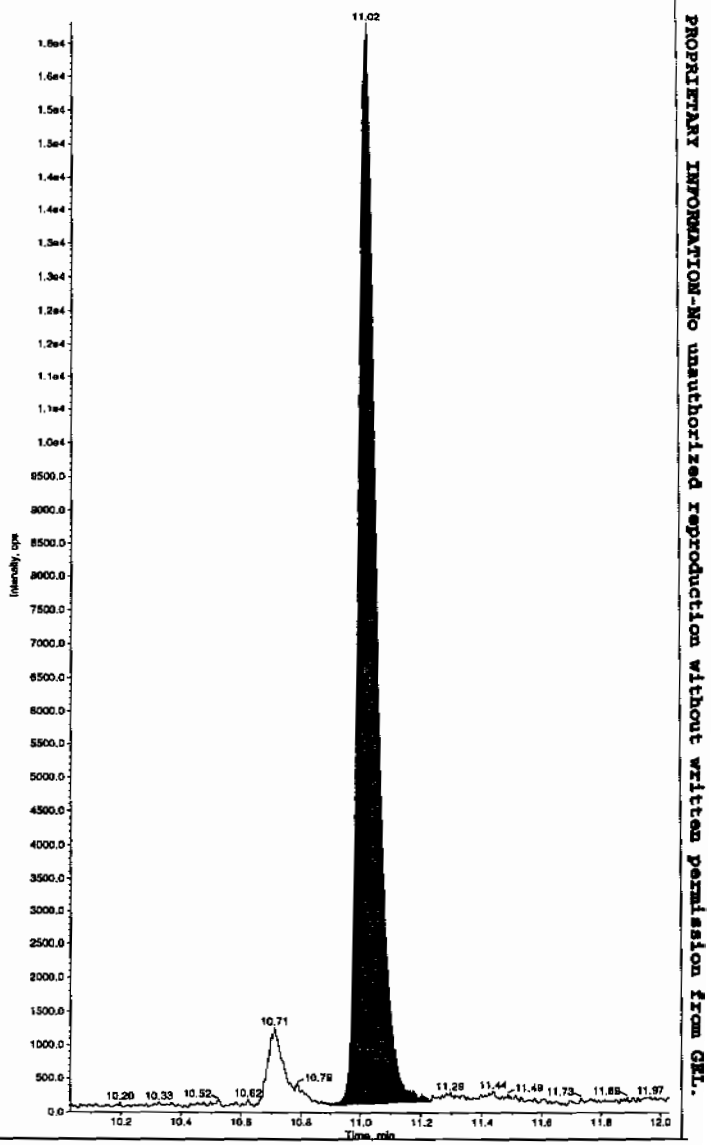

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 14-FEB-10 14:33

GEL Data File: EXS02140002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

Lcn 2/16/10

sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140002.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 2:33:05 PM

ified: No

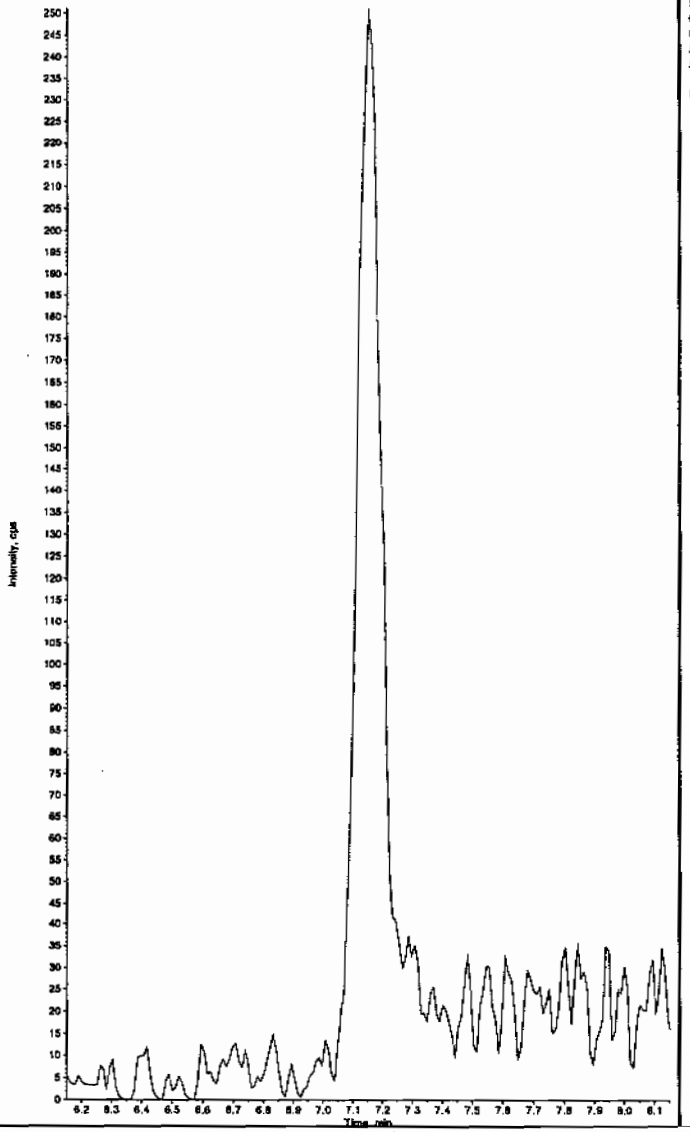

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:33:05 PM

Modified: No

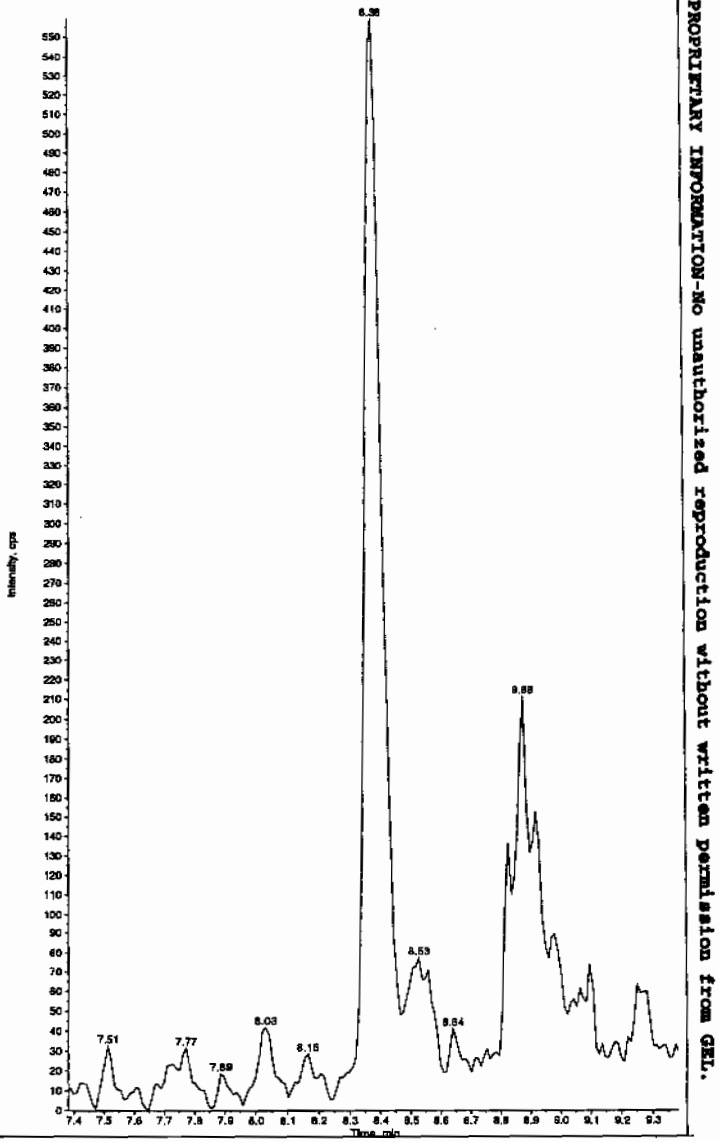

Hmm 02/17/10

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ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02140002.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 2:33:05 PM

ified: No

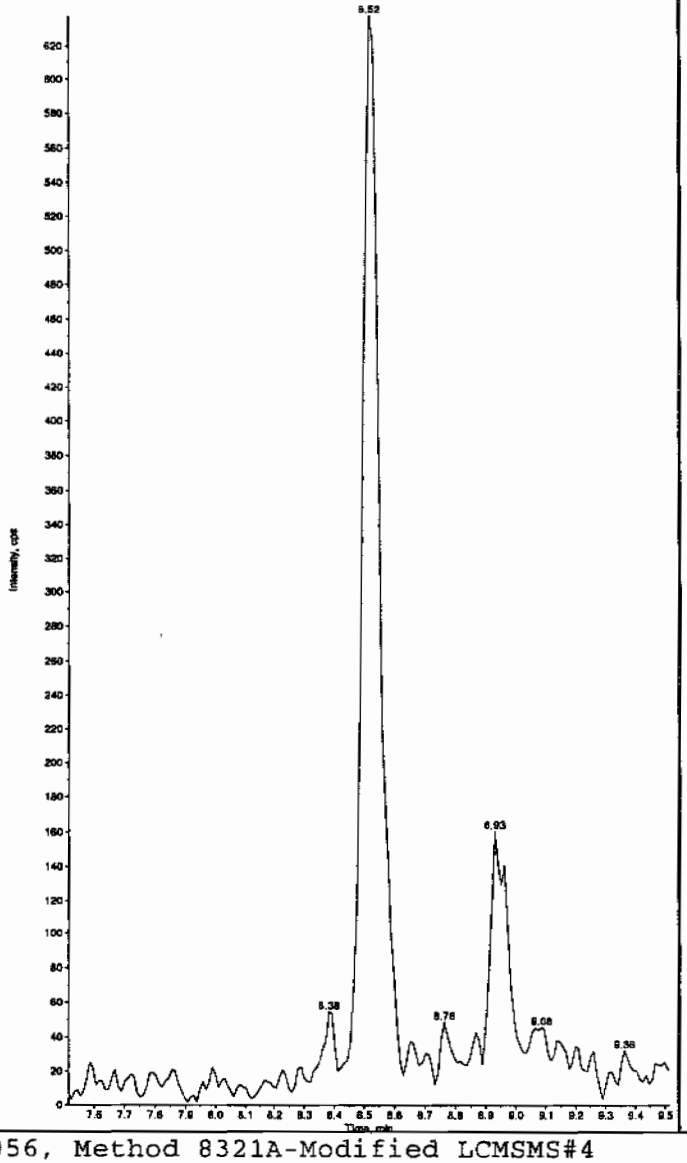

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02140002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:33:05 PM

Modified: No

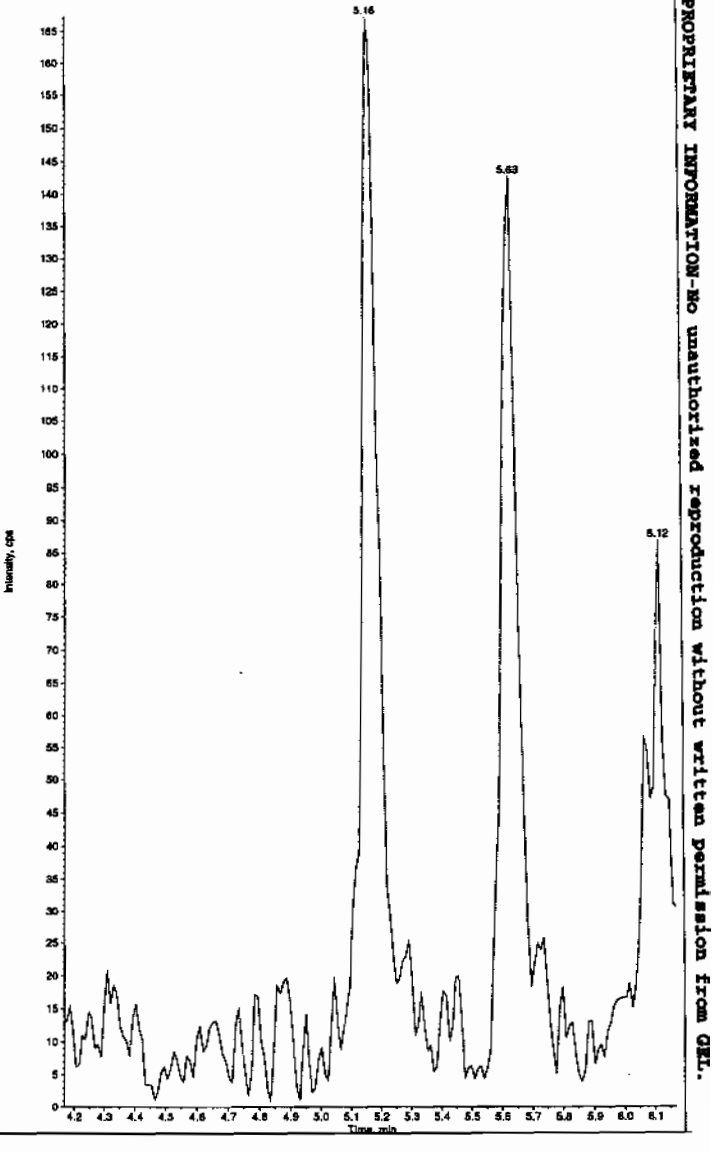

ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02140002.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	0.00 ng/mL
. Date:	2/14/2010
. Time:	2:33:05 PM
ified:	No

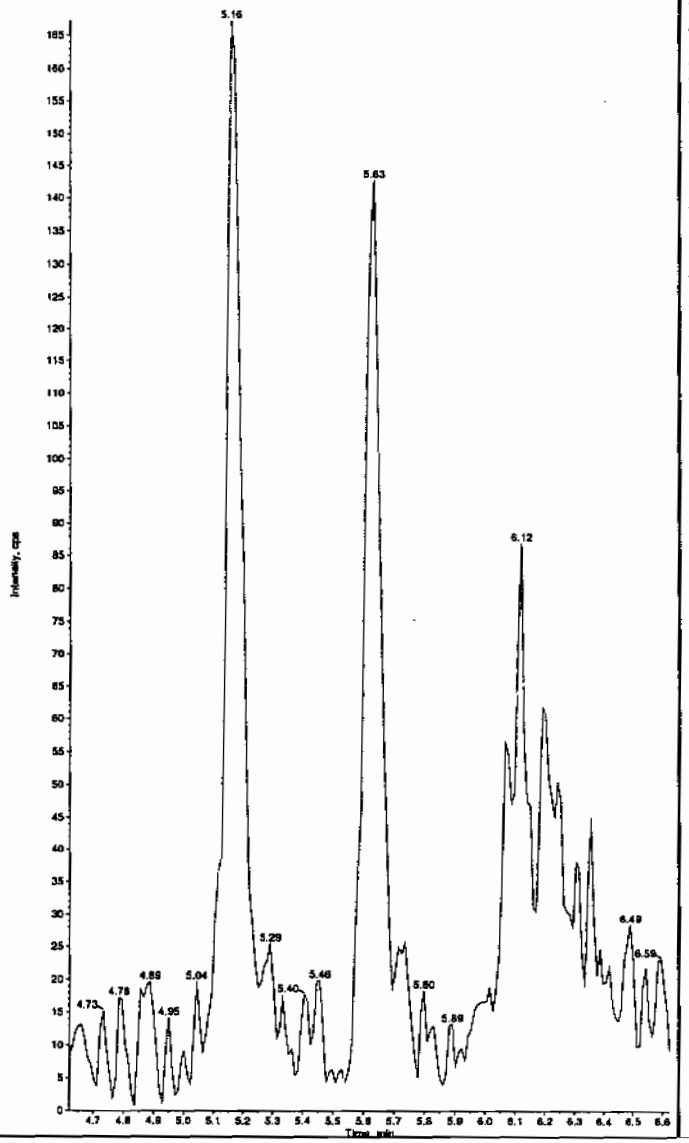

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02140002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	< 0
Acq. Date:	2/14/2010
Acq. Time:	2:33:05 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	11.0 min
Area:	6.15e+004 counts
Height:	14287.674 cps
Start Time:	10.9 min
End Time:	11.3 min

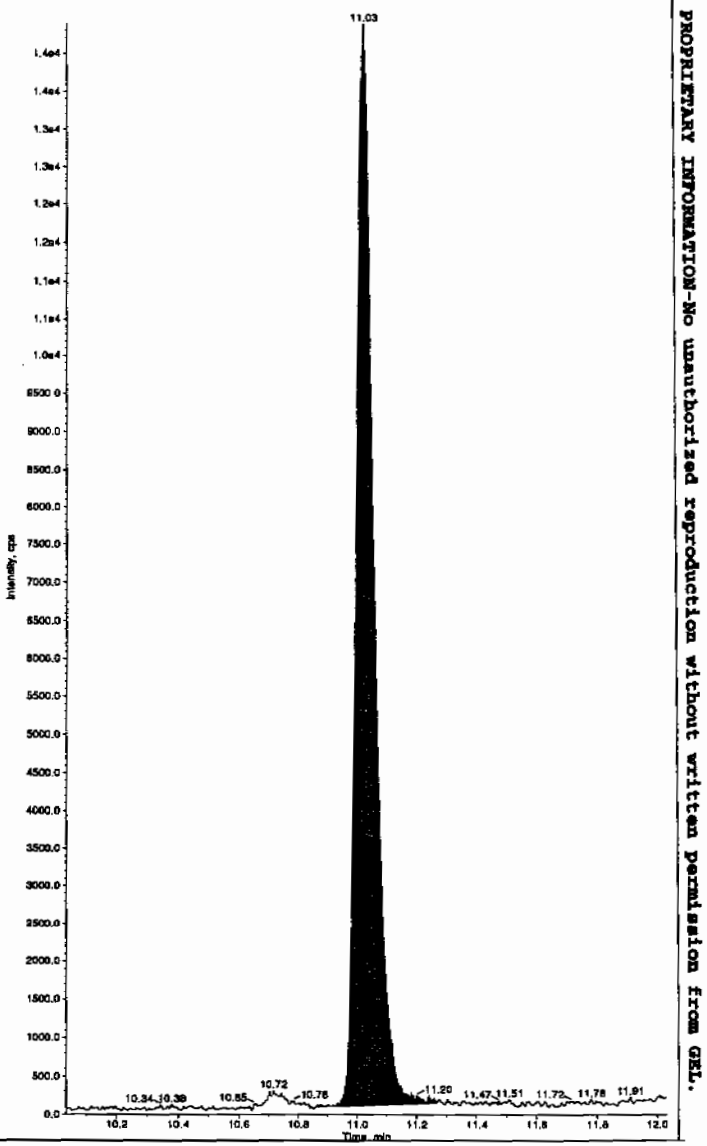

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 16-FEB-10 21:04

GEL Data File: EXP0216009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	570.463
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	494.232
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216009a
Date: 16-Feb-2010
Time: 21:04:59
ID: XIBLK02
Vial: 1:1,A

MTP 2/17/10

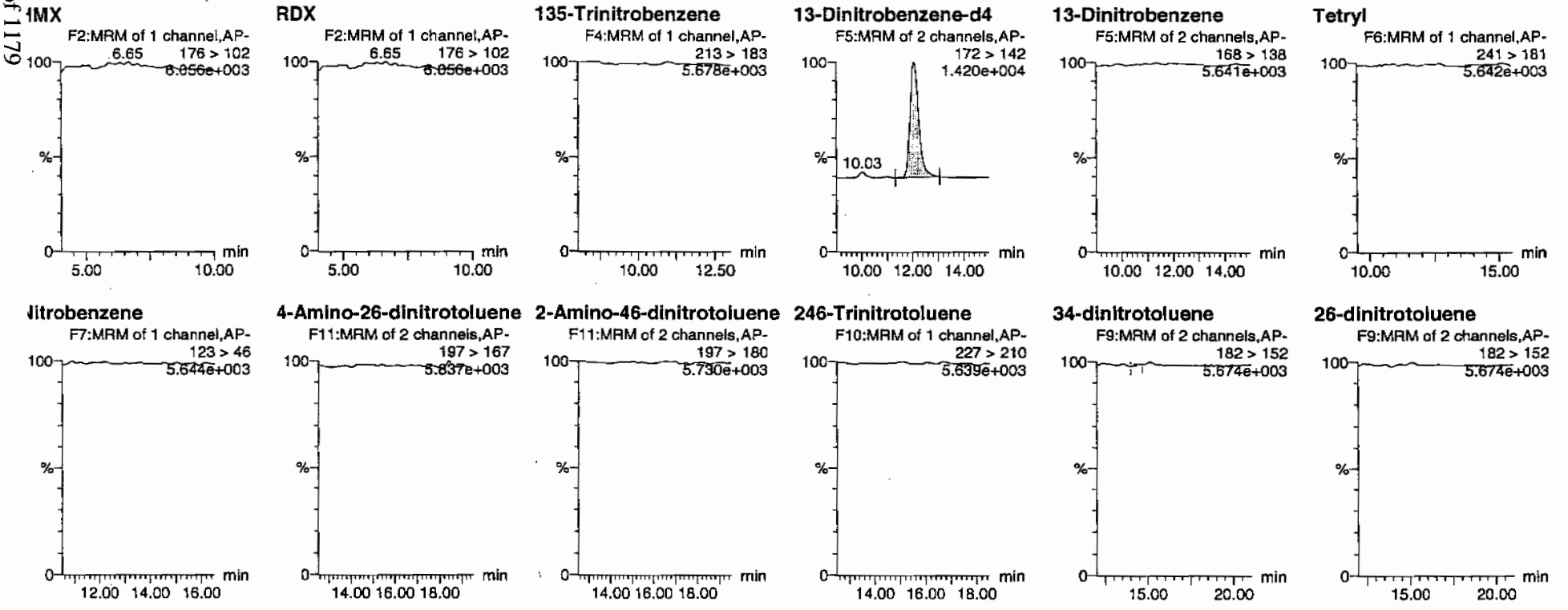

MM 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

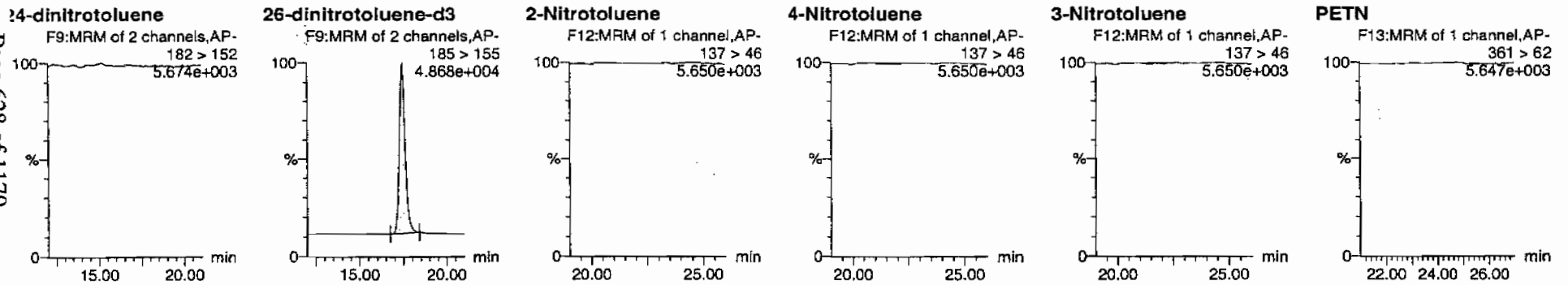

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3436.941									
XIBLK02	RDX	176 > 102			3436.941									
XIBLK02	135-Trinitrobenzene	213 > 183			3436.941									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.03	3436.941		3436.941	3436.941	bb			570.4625	114.1	14.1	178.7
XIBLK02	13-Dinitrobenzene	168 > 138			3436.941									
XIBLK02	Tetryl	241 > 181			3436.941									
XIBLK02	Nitrobenzene	123 > 46			3436.941									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			17207.732									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			17207.732									
XIBLK02	246-Trinitrotoluene	227 > 210			17207.732									
XIBLK02	34-dinitrotoluene	182 > 152			17207.732			MM-	17-Feb-10	09:24:35				
XIBLK02	26-dinitrotoluene	182 > 152			17207.732									
XIBLK02	24-dinitrotoluene	182 > 152			17207.732									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.42	17207.732		17207.732	17207.732	bb			494.2320	98.8	-1.2	2636.1
XIBLK02	2-Nitrotoluene	137 > 46			17207.732									
XIBLK02	4-Nitrotoluene	137 > 46			17207.732									
XIBLK02	3-Nitrotoluene	137 > 46			17207.732									
XIBLK02	PETN	361 > 62			17207.732									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 16-FEB-10 22:04

GEL Data File: EXP0216011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	445.165
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	575.243
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216011a
Date: 16-Feb-2010
Time: 22:04:12
ID: XIBLK03
Vial: 1:1,A

MMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.929e+003

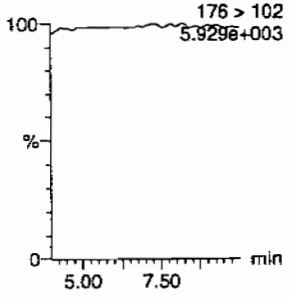

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.929e+003

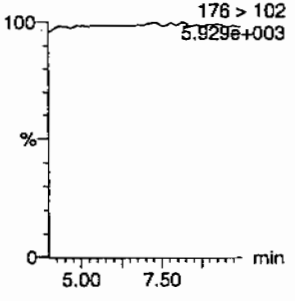

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.731e+003

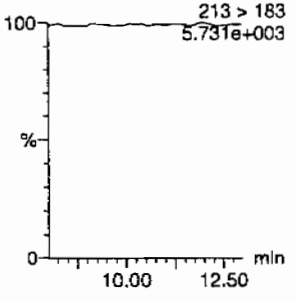

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.226e+004

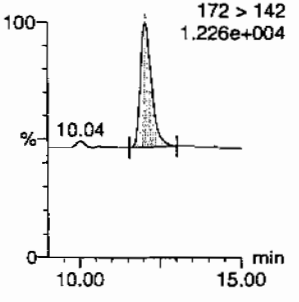

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.708e+003

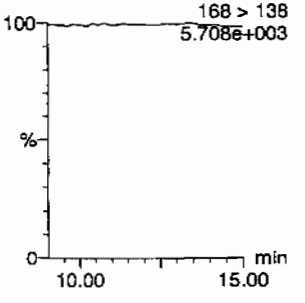

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.756e+003

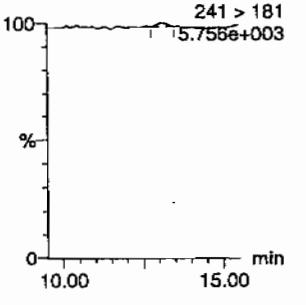

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.719e+003

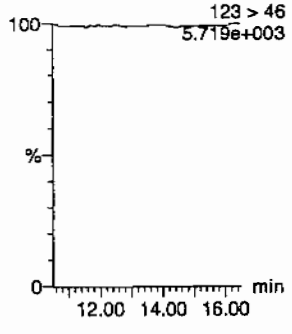

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.833e+003

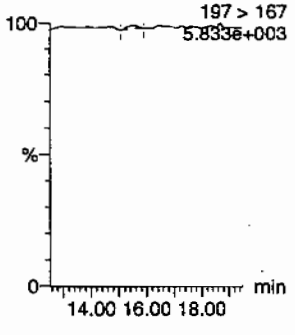

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.836e+003

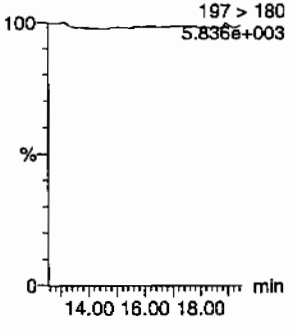

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.700e+003

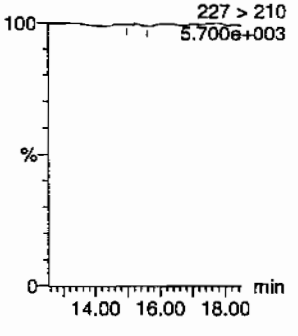

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.716e+003

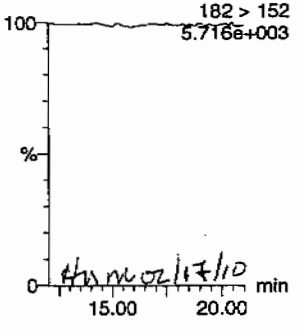

HM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.716e+003

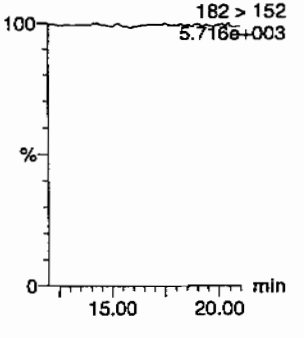

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

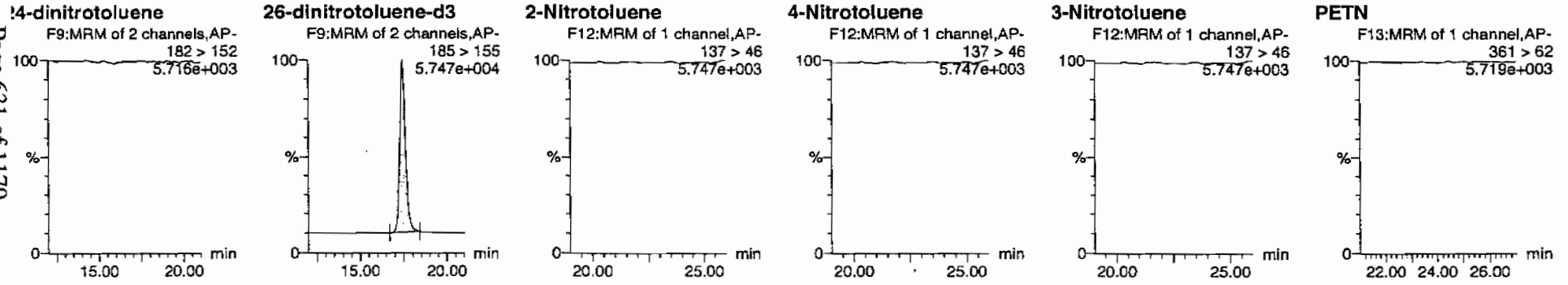

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			2682.047									
XIBLK03	RDX	176 > 102			2682.047									
XIBLK03	135-Trinitrobenzene	213 > 183			2682.047									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.06	2682.047		2682.047	2682.047	bb			445.1654	89.0	-11.0	160.3
XIBLK03	13-Dinitrobenzene	168 > 138			2682.047									
XIBLK03	Tetryl	241 > 181			2682.047			MM-	17-Feb-10	09:21:24				
XIBLK03	Nitrobenzene	123 > 46			2682.047									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			20028.289			MM-	17-Feb-10	09:22:49				
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			20028.289									
XIBLK03	246-Trinitrotoluene	227 > 210			20028.289			MM-	17-Feb-10	09:24:30				
XIBLK03	34-dinitrotoluene	182 > 152			20028.289									
XIBLK03	26-dinitrotoluene	182 > 152			20028.289									
XIBLK03	24-dinitrotoluene	182 > 152			20028.289									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.43	20028.289		20028.289	20028.289	bb			575.2427	115.0	15.0	1997.4
XIBLK03	2-Nitrotoluene	137 > 46			20028.289									
XIBLK03	4-Nitrotoluene	137 > 46			20028.289									
XIBLK03	3-Nitrotoluene	137 > 46			20028.289									
XIBLK03	PETN	361 > 62			20028.289									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1510
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 17-FEB-10 03:30
GEL Data File: EXP0216022a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	470.843
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.456
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216022a
Date: 17-Feb-2010
Time: 03:30:28
ID: XIBLK04
Vial: 1:1,A

MATT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.695e+003

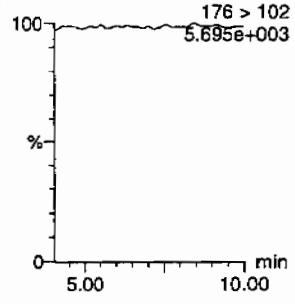

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.695e+003

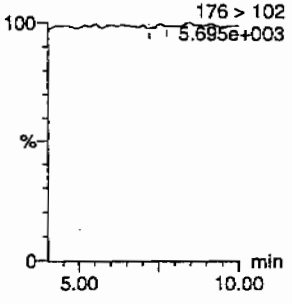

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.555e+003

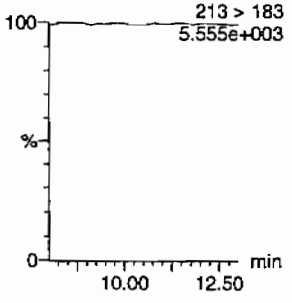

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.247e+004

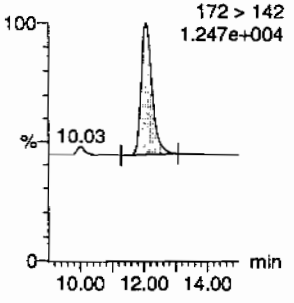

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.594e+003

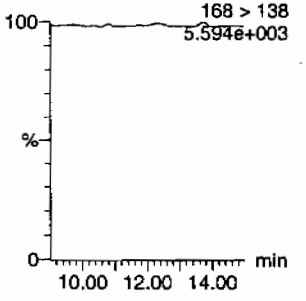

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.571e+003

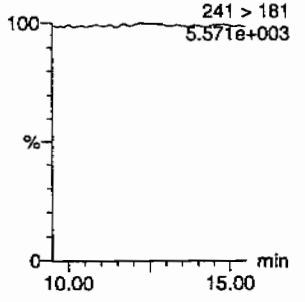

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.538e+003

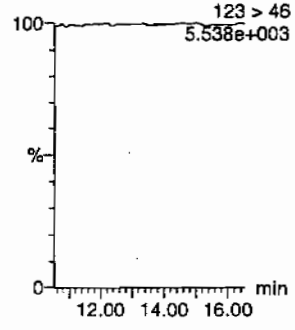

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.644e+003

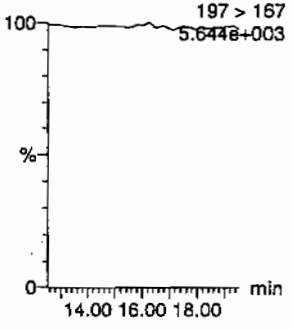

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.633e+003

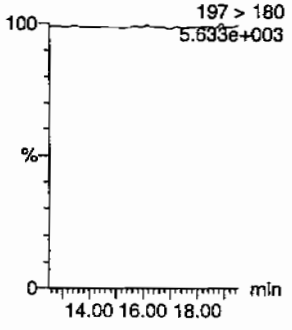

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.551e+003

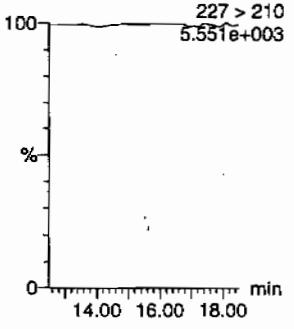

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.566e+003

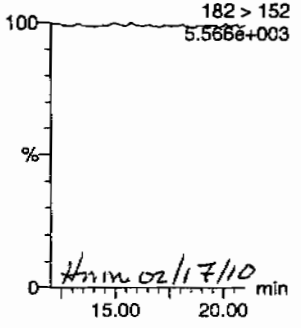

Hmm 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.566e+003

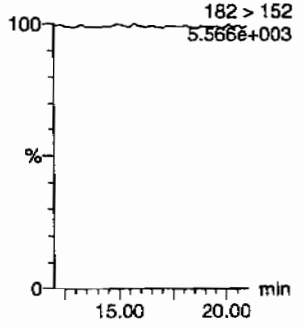

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.566e+003

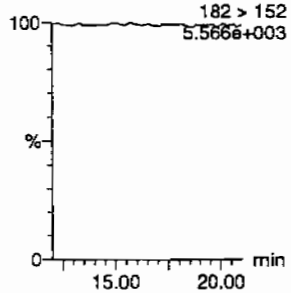

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.631e+004

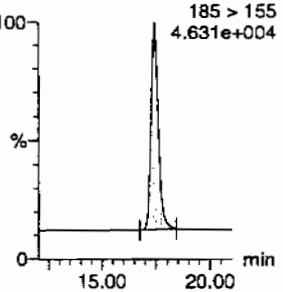

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.543e+003

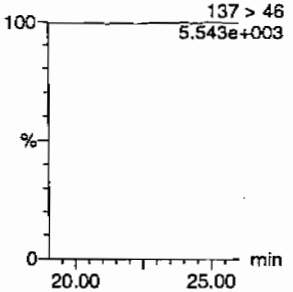

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.543e+003

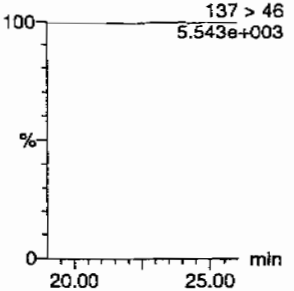

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.543e+003

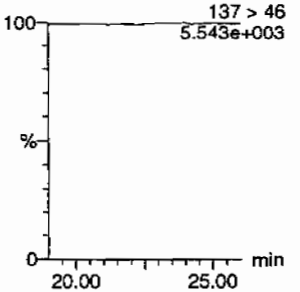

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.538e+003

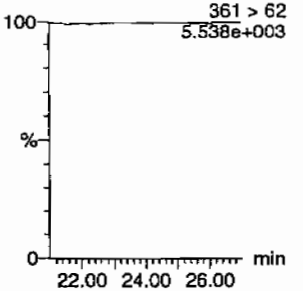

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			2836.752									
XIBLK04	RDX	176 > 102			2836.752			MM-	17-Feb-10	09:20:42				
XIBLK04	135-Trinitrobenzene	213 > 183			2836.752									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.07	2836.752		2836.752	2836.752	bb			470.8433	94.2	-5.8	187.3
XIBLK04	13-Dinitrobenzene	168 > 138			2836.752									
XIBLK04	Tetryl	241 > 181			2836.752									
XIBLK04	Nitrobenzene	123 > 46			2836.752									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			16310.284									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			16310.284									
XIBLK04	246-Trinitrotoluene	227 > 210			16310.284									
XIBLK04	34-dinitrotoluene	182 > 152			16310.284									
XIBLK04	26-dinitrotoluene	182 > 152			16310.284									
XIBLK04	24-dinitrotoluene	182 > 152			16310.284									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.44	16310.284		16310.284	16310.284	bb			468.4560	93.7	-6.3	1281.5
XIBLK04	2-Nitrotoluene	137 > 46			16310.284									
XIBLK04	4-Nitrotoluene	137 > 46			16310.284									
XIBLK04	3-Nitrotoluene	137 > 46			16310.284									
XIBLK04	PETN	361 > 62			16310.284									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 17-FEB-10 06:28

GEL Data File: EXP0216028a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	443.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	440.83
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216028a
Date: 17-Feb-2010
Time: 06:28:06
ID: XIBLK05
Vial: 1:1,A

MMT 2/17/10

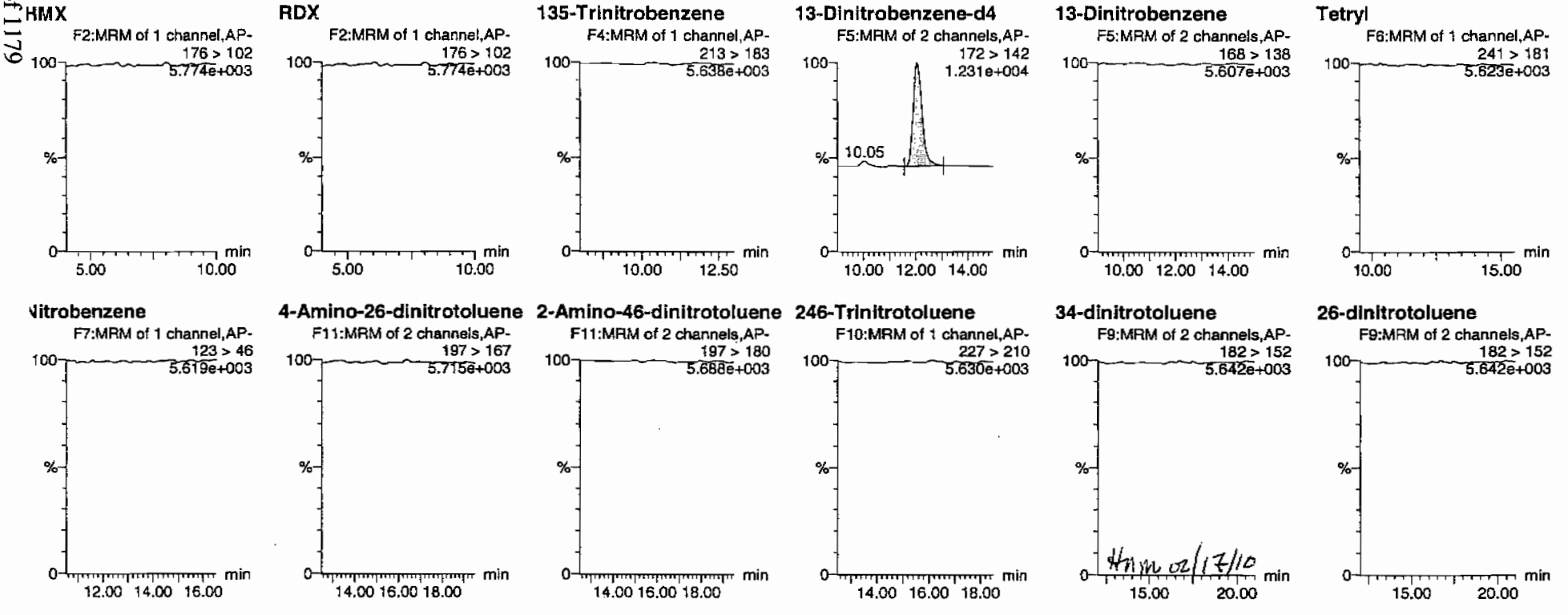

Hmm 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

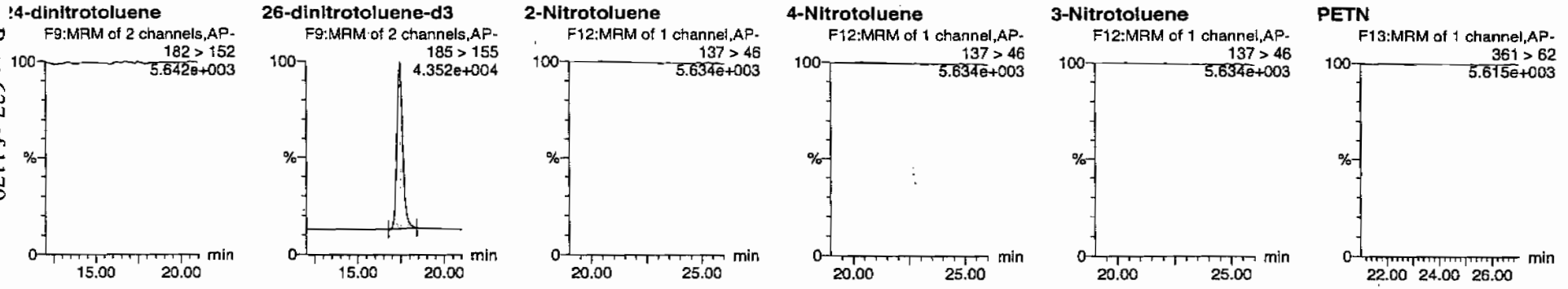

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			2670.289									
XIBLK05	RDX	176 > 102			2670.289									
XIBLK05	135-Trinitrobenzene	213 > 183			2670.289									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.07	2670.289		2670.289	2670.289	bb			443.2139	88.6	-11.4	203.6
XIBLK05	13-Dinitrobenzene	168 > 138			2670.289									
XIBLK05	Tetryl	241 > 181			2670.289									
XIBLK05	Nitrobenzene	123 > 46			2670.289									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			15348.437									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			15348.437									
XIBLK05	246-Trinitrotoluene	227 > 210			15348.437									
XIBLK05	34-dinitrotoluene	182 > 152			15348.437									
XIBLK05	26-dinitrotoluene	182 > 152			15348.437									
XIBLK05	24-dinitrotoluene	182 > 152			15348.437									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.44	15348.437		15348.437	15348.437	bb			440.8303	88.2	-11.8	1328.0
XIBLK05	2-Nitrotoluene	137 > 46			15348.437									
XIBLK05	4-Nitrotoluene	137 > 46			15348.437									
XIBLK05	3-Nitrotoluene	137 > 46			15348.437									
XIBLK05	PETN	361 > 62			15348.437									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 17–FEB–10 12:24

GEL Data File: EXP0216040a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	431.007
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	413.713
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216040a
Date: 17-Feb-2010
Time: 12:24:42
ID: XIBLK06
Vial: 1:1,A

MMM 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.698e+003

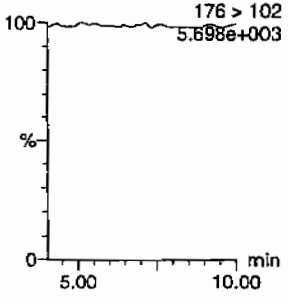

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.698e+003

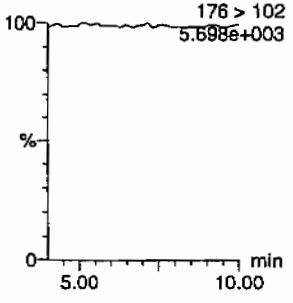

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.591e+003

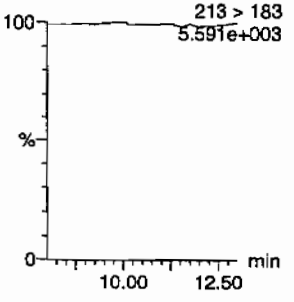

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.197e+004

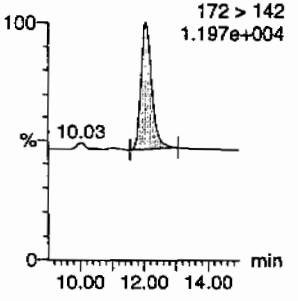

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.563e+003

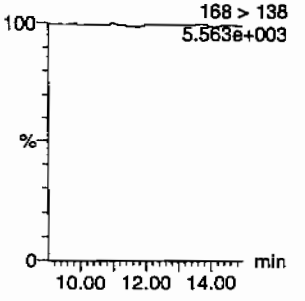

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.591e+003

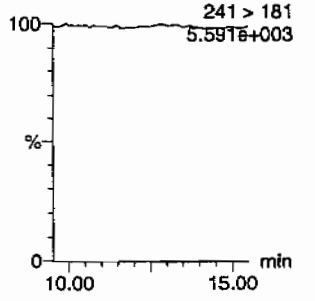

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.573e+003

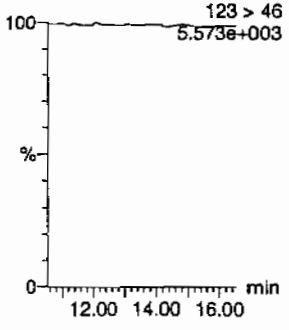

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.641e+003

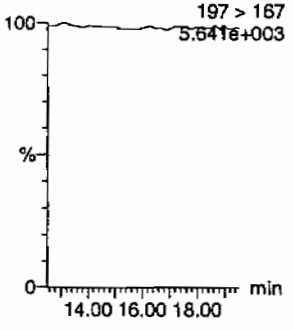

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.586e+003

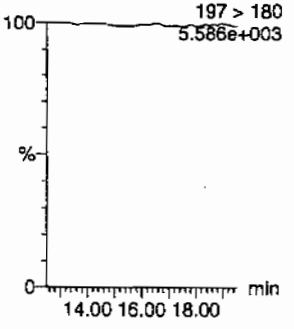

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.553e+003

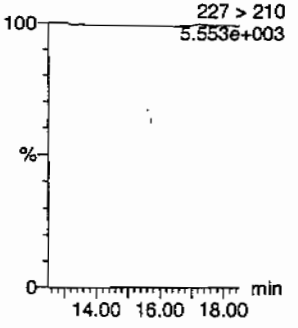

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.553e+003

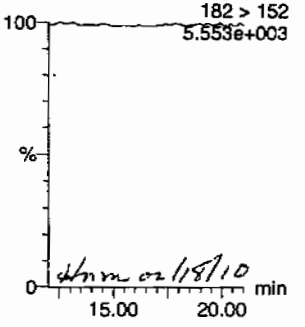

Hnm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.553e+003

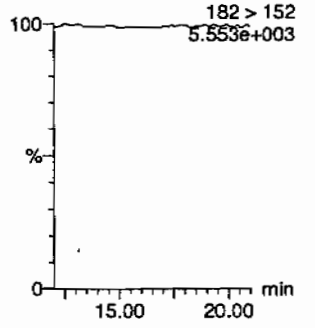

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

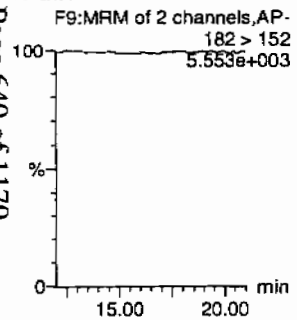

26-dinitrotoluene-d3

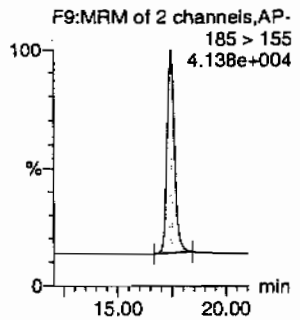

2-Nitrotoluene

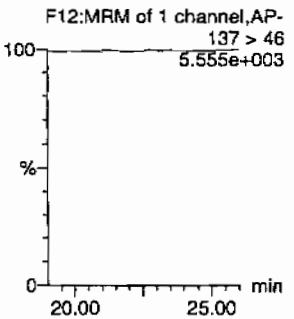

4-Nitrotoluene

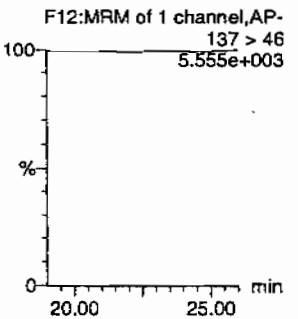

3-Nitrotoluene

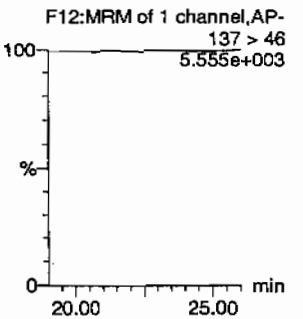

PETN

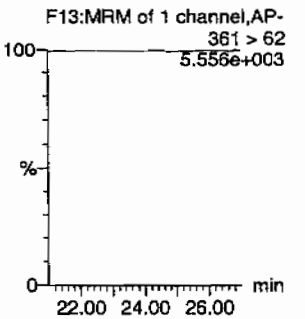

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK06	HMX	176 > 102			2596.742									
IBLK06	RDX	176 > 102			2596.742									
IBLK06	135-Trinitrobenzene	213 > 183			2596.742									
IBLK06	13-Dinitrobenzene-d4	172 > 142	12.03	2596.742		2596.742	2596.742	bb			431.0065	86.2	-13.8	277.6
IBLK06	13-Dinitrobenzene	168 > 138			2596.742									
IBLK06	Tetryl	241 > 181			2596.742									
IBLK06	Nitrobenzene	123 > 46			2596.742									
IBLK06	4-Amino-26-dinitrotoluene	197 > 167			14404.283									
IBLK06	2-Amino-46-dinitrotoluene	197 > 180			14404.283									
IBLK06	246-Trinitrotoluene	227 > 210			14404.283									
IBLK06	34-dinitrotoluene	182 > 152			14404.283									
IBLK06	26-dinitrotoluene	182 > 152			14404.283									
IBLK06	24-dinitrotoluene	182 > 152			14404.283									
IBLK06	26-dinitrotoluene-d3	185 > 155	17.44	14404.283		14404.283	14404.283	bb			413.7128	82.7	-17.3	1514.9
IBLK06	2-Nitrotoluene	137 > 46			14404.283									
IBLK06	4-Nitrotoluene	137 > 46			14404.283									
IBLK06	3-Nitrotoluene	137 > 46			14404.283									
IBLK06	PETN	361 > 62			14404.283									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 17-FEB-10 18:50

GEL Data File: EXP0216053a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	517.203
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	500.527
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216053a
Date: 17-Feb-2010
Time: 18:50:03
ID: XIBLK07
Vial: 1:1,A

MM 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.667e+003

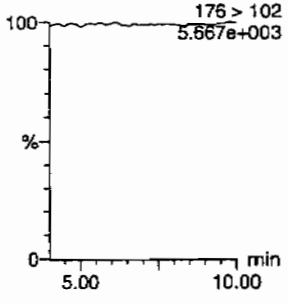

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.667e+003

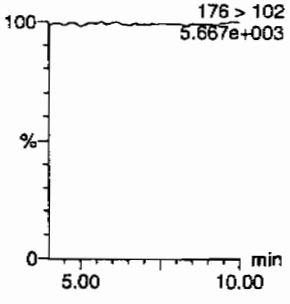

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.582e+003

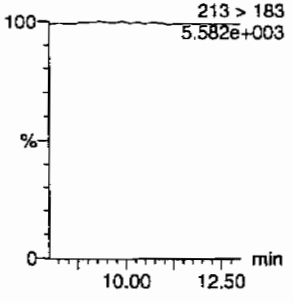

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.296e+004

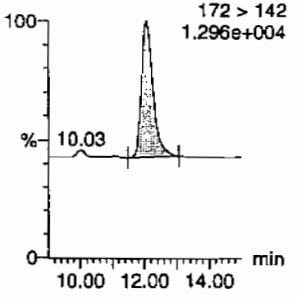

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.565e+003

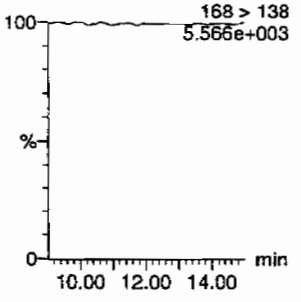

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.574e+003

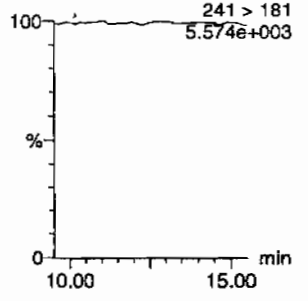

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.569e+003

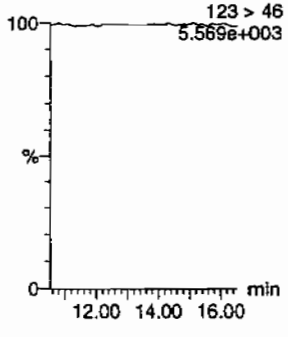

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.629e+003

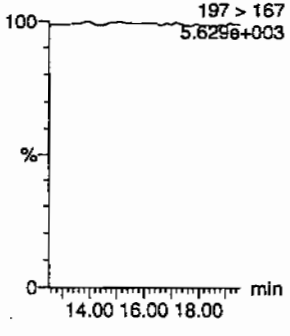

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.615e+003

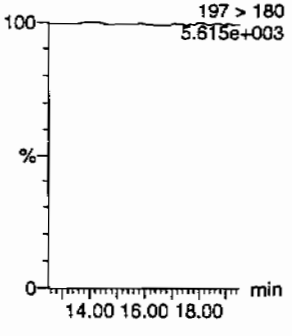

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.567e+003

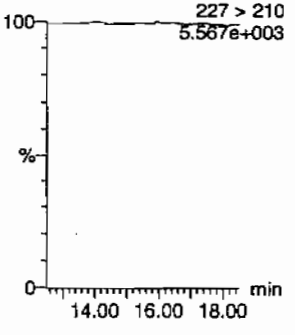

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

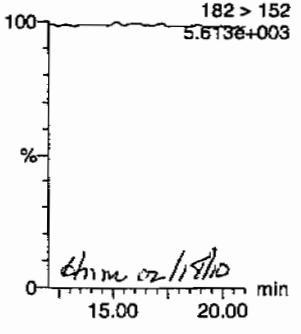

dhm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

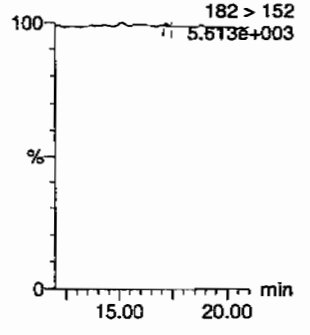

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

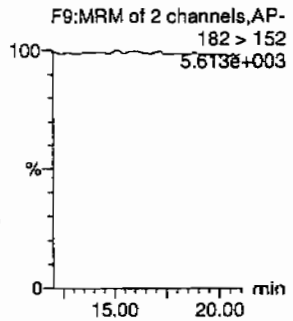

26-dinitrotoluene-d3

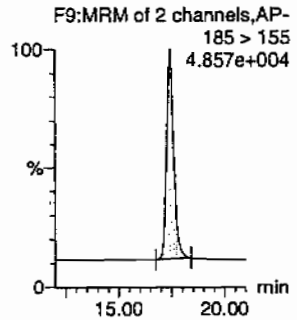

2-Nitrotoluene

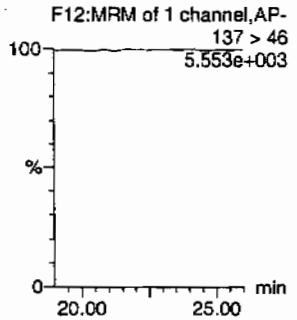

4-Nitrotoluene

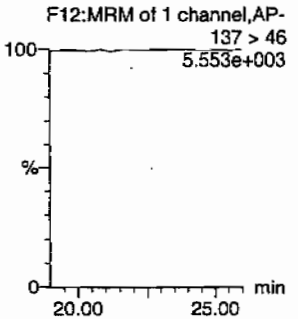

3-Nitrotoluene

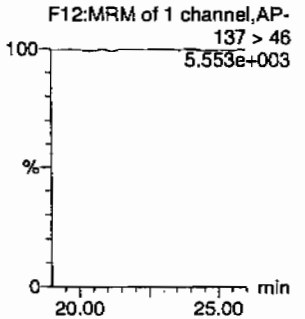

PETN

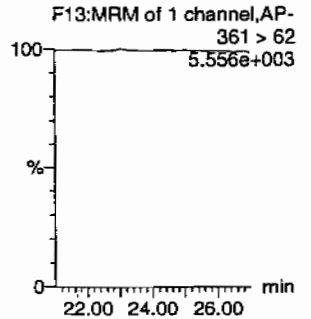

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3116.063									
XIBLK07	RDX	176 > 102			3116.063									
XIBLK07	135-Trinitrobenzene	213 > 183			3116.063									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.03	3116.063		3116.063	3116.063	bb			517.2033	103.4	3.4	364.9
XIBLK07	13-Dinitrobenzene	168 > 138			3116.063									
XIBLK07	Tetryl	241 > 181			3116.063									
XIBLK07	Nitrobenzene	123 > 46			3116.063									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			17426.895									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			17426.895									
XIBLK07	246-Trinitrotoluene	227 > 210			17426.895									
XIBLK07	34-dinitrotoluene	182 > 152			17426.895									
XIBLK07	26-dinitrotoluene	182 > 152			17426.895			MM-	18-Feb-10	08:48:46				
XIBLK07	24-dinitrotoluene	182 > 152			17426.895									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.42	17426.895		17426.895	17426.895	bb			500.5267	100.1	0.1	1075.7
XIBLK07	2-Nitrotoluene	137 > 46			17426.895									
XIBLK07	4-Nitrotoluene	137 > 46			17426.895									
XIBLK07	3-Nitrotoluene	137 > 46			17426.895									
XIBLK07	PETN	361 > 62			17426.895									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 18-FEB-10 01:14

GEL Data File: EXP0216066a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.508
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	477.827
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216066a
Date: 18-Feb-2010
Time: 01:14:55
ID: XIBLK08
Vial: 1:1,A

MM 2/18/10

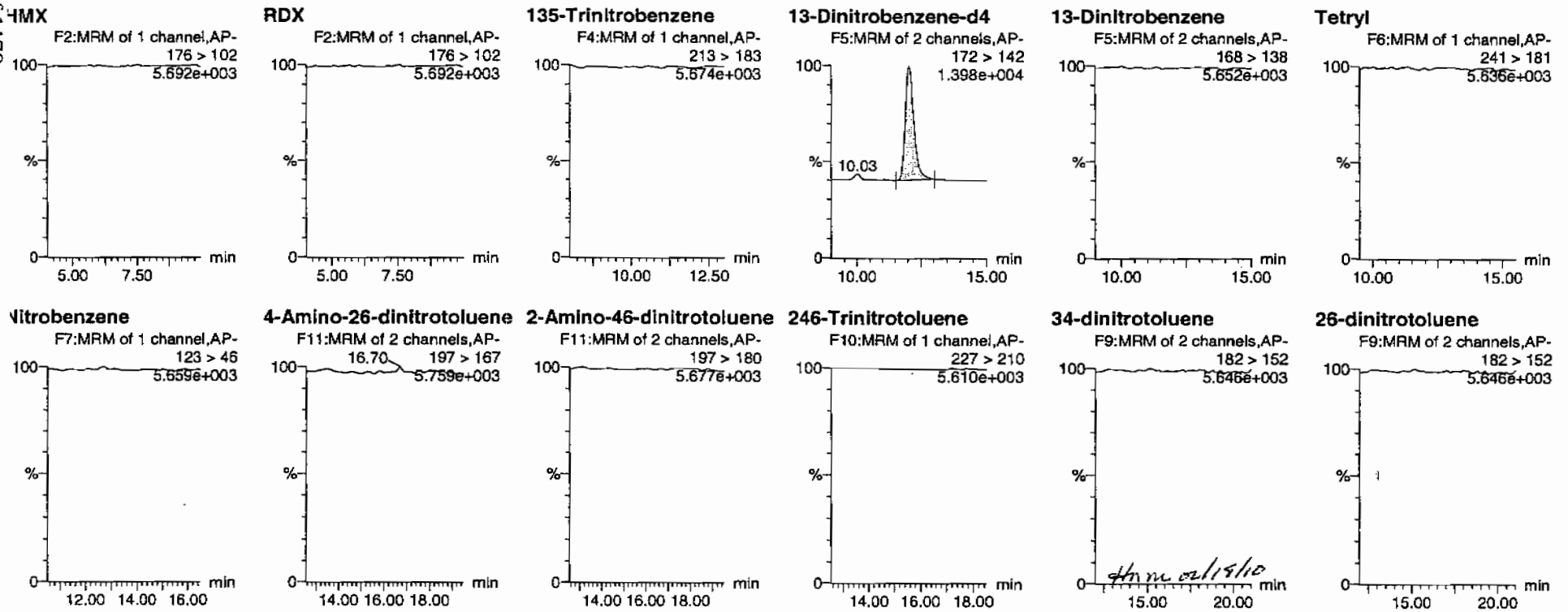

HM 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

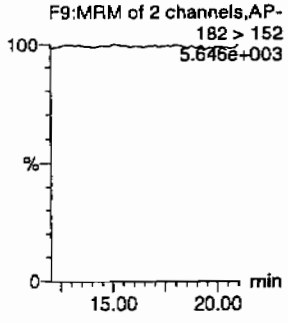

26-dinitrotoluene-d3

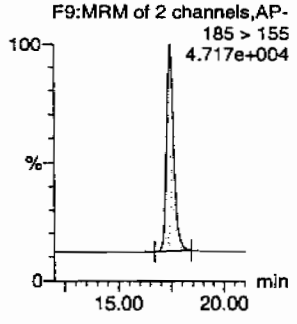

2-Nitrotoluene

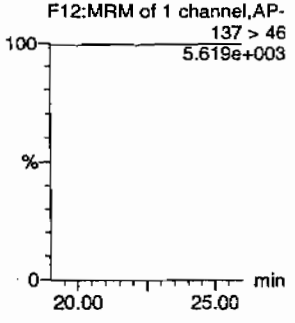

4-Nitrotoluene

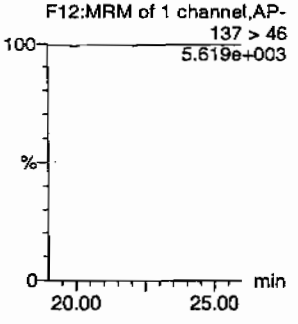

3-Nitrotoluene

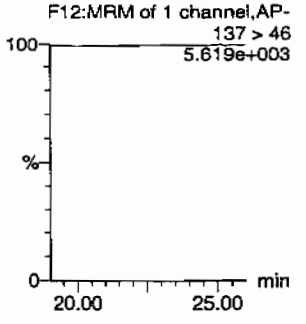

PETN

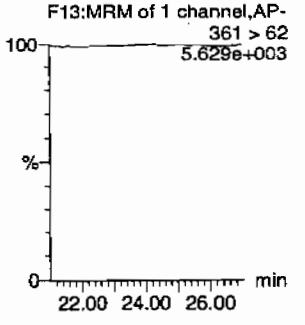

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3346.844									
XIBLK08	RDX	176 > 102			3346.844									
XIBLK08	135-Trinitrobenzene	213 > 183			3346.844									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.03	3346.844		3346.844	3346.844	bb			555.5083	111.1	11.1	89.0
XIBLK08	13-Dinitrobenzene	168 > 138			3346.844									
XIBLK08	Tetryl	241 > 181			3346.844									
XIBLK08	Nitrobenzene	123 > 46			3346.844									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			16636.555									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			16636.555									
XIBLK08	246-Trinitrotoluene	227 > 210			16636.555									
XIBLK08	34-dinitrotoluene	182 > 152			16636.555									
XIBLK08	26-dinitrotoluene	182 > 152			16636.555									
XIBLK08	24-dinitrotoluene	182 > 152			16636.555									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.43	16636.555		16636.555	16636.555	bb			477.8270	95.6	-4.4	925.6
XIBLK08	2-Nitrotoluene	137 > 46			16636.555									
XIBLK08	4-Nitrotoluene	137 > 46			16636.555									
XIBLK08	3-Nitrotoluene	137 > 46			16636.555									
XIBLK08	PETN	361 > 62			16636.555									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 18–FEB–10 02:43

GEL Data File: EXP0216069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	533.187
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	509.45
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216069a
Date: 18-Feb-2010
Time: 02:43:41
ID: XIBLK09
Vial: 1:1,F

MM 4/18/10

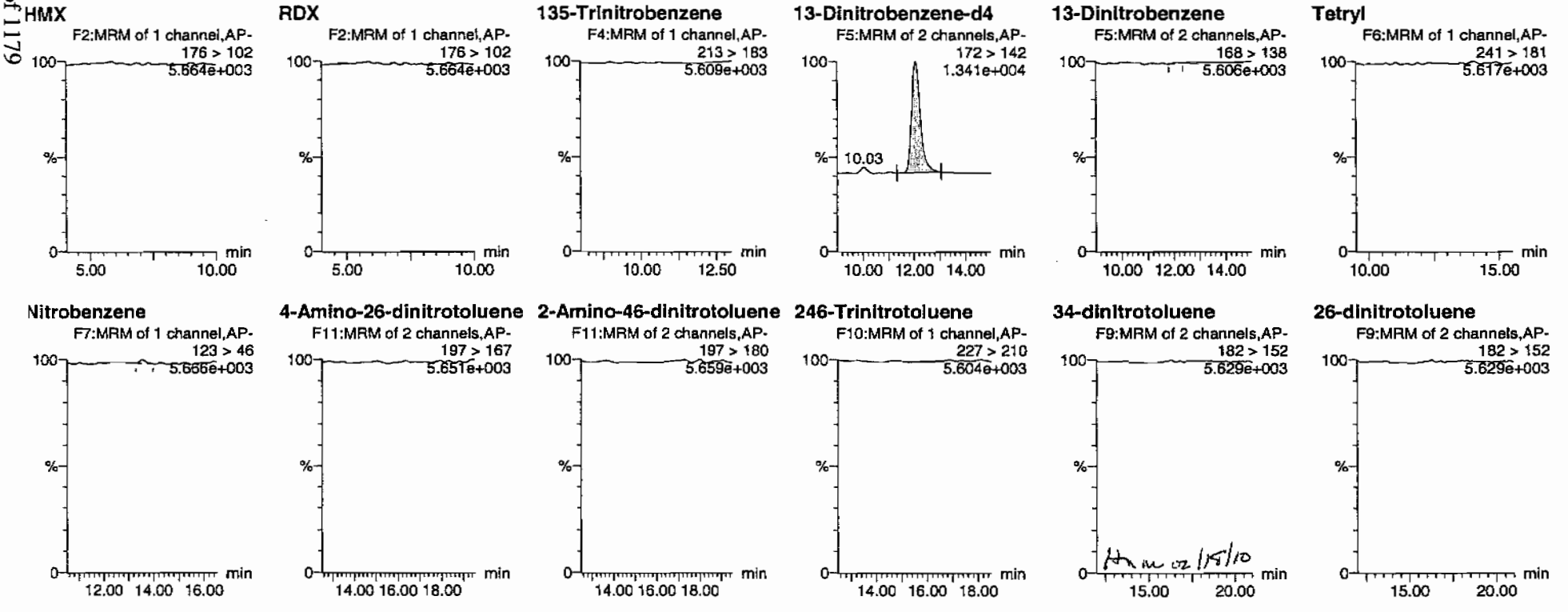

HM 02/15/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

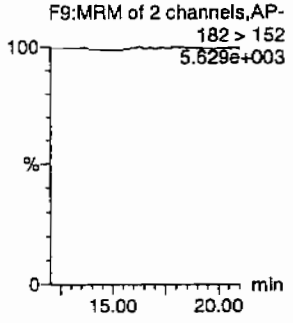

26-dinitrotoluene-d3

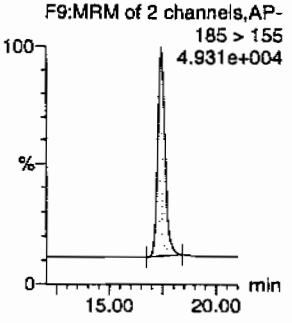

2-Nitrotoluene

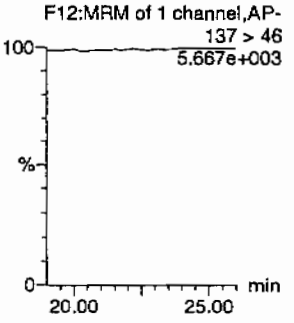

4-Nitrotoluene

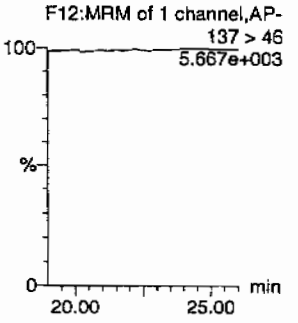

3-Nitrotoluene

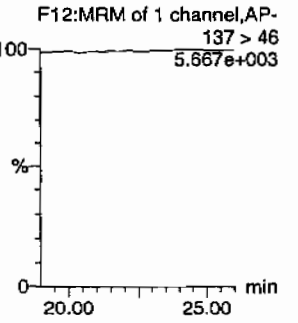

PETN

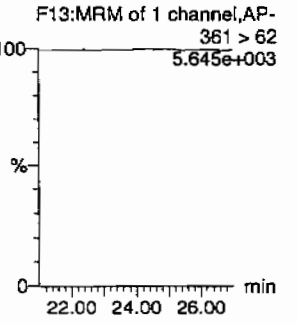

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3212.361									
XIBLK09	RDX	176 > 102			3212.361									
XIBLK09	135-Trinitrobenzene	213 > 183			3212.361									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.07	3212.361		3212.361	3212.361	bb			533.1868	106.6	6.6	611.4
XIBLK09	13-Dinitrobenzene	168 > 138			3212.361			MM-	18-Feb-10	08:42:49				
XIBLK09	Tetryl	241 > 181			3212.361									
XIBLK09	Nitrobenzene	123 > 46			3212.361			MM-	18-Feb-10	08:43:35				
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			17737.570									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			17737.570									
XIBLK09	246-Trinitrotoluene	227 > 210			17737.570									
XIBLK09	34-dinitrotoluene	182 > 152			17737.570									
XIBLK09	26-dinitrotoluene	182 > 152			17737.570									
XIBLK09	24-dinitrotoluene	182 > 152			17737.570									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.44	17737.570		17737.570	17737.570	bb			509.4498	101.9	1.9	1474.7
XIBLK09	2-Nitrotoluene	137 > 46			17737.570									
XIBLK09	4-Nitrotoluene	137 > 46			17737.570									
XIBLK09	3-Nitrotoluene	137 > 46			17737.570									
XIBLK09	PETN	361 > 62			17737.570									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 18-FEB-10 07:40

GEL Data File: EXP0216079a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	480.33
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	458.446
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216079a
Date: 18-Feb-2010
Time: 07:40:00
ID: XIBLK10
Vial: 1:1,A

MPP 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.828e+003

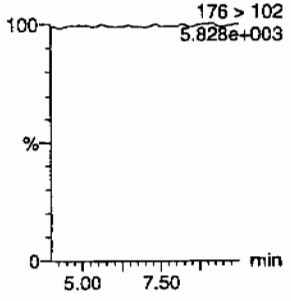

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.828e+003

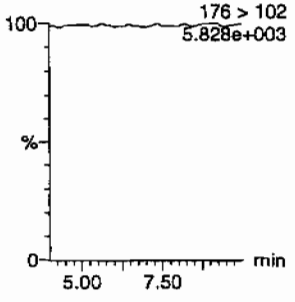

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.789e+003

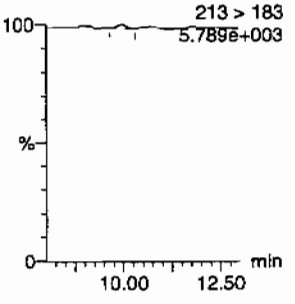

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.289e+004

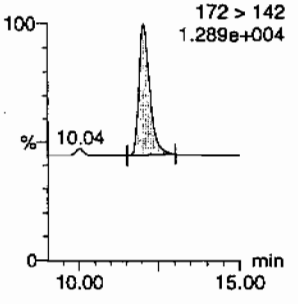

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.737e+003

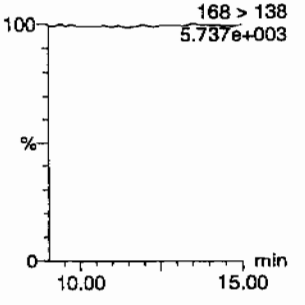

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.744e+003

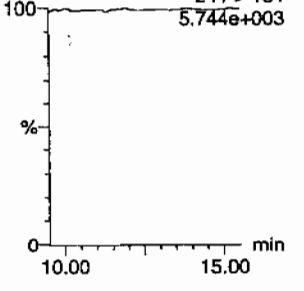

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.761e+003

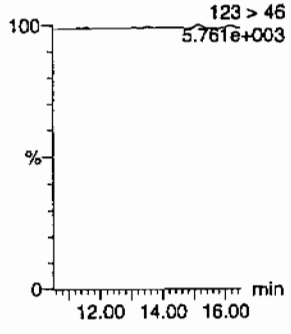

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.802e+003

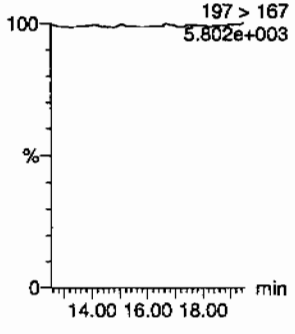

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.805e+003

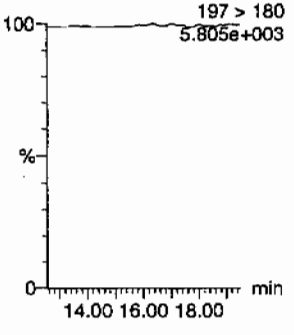

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.736e+003

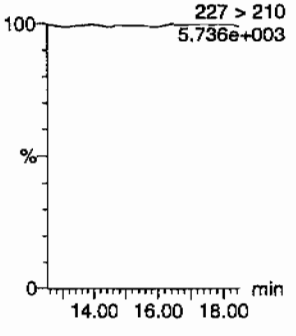

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

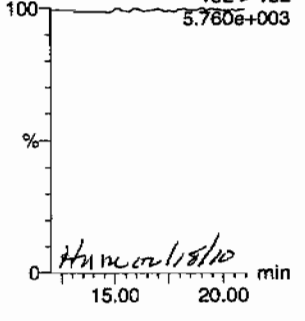

HM 2/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

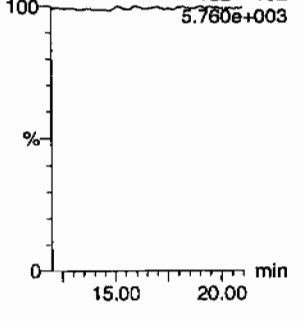

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

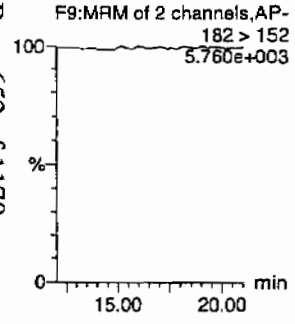

26-dinitrotoluene-d3

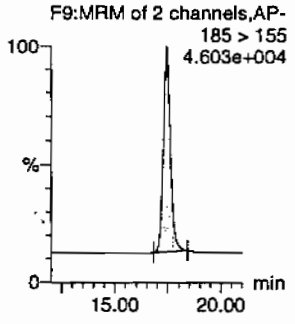

2-Nitrotoluene

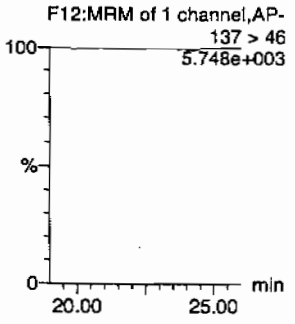

4-Nitrotoluene

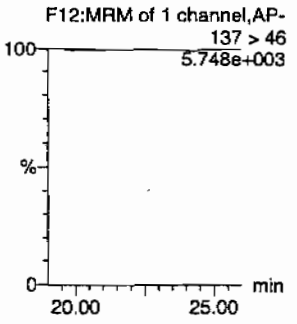

3-Nitrotoluene

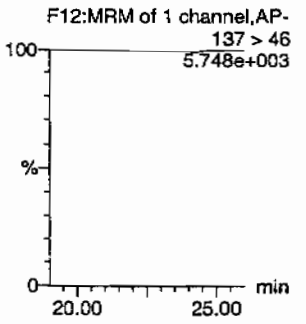

PETN

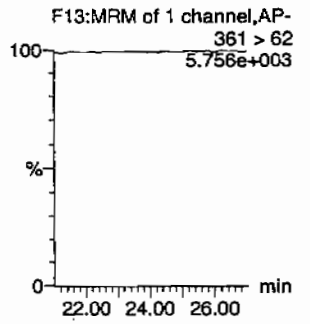

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			2893.907									
XIBLK10	RDX	176 > 102			2893.907									
XIBLK10	135-Trinitrobenzene	213 > 183			2893.907			MM-	18-Feb-10	08:42:38				
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.06	2893.907		2893.907	2893.907	bb			480.3299	96.1	-3.9	382.0
XIBLK10	13-Dinitrobenzene	168 > 138			2893.907									
XIBLK10	Tetryl	241 > 181			2893.907									
XIBLK10	Nitrobenzene	123 > 46			2893.907									
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			15961.760									
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			15961.760									
XIBLK10	246-Trinitrotoluene	227 > 210			15961.760									
XIBLK10	34-dinitrotoluene	182 > 152			15961.760									
XIBLK10	26-dinitrotoluene	182 > 152			15961.760									
XIBLK10	24-dinitrotoluene	182 > 152			15961.760									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.43	15961.760		15961.760	15961.760	bb			458.4458	91.7	-8.3	1442.8
XIBLK10	2-Nitrotoluene	137 > 46			15961.760									
XIBLK10	4-Nitrotoluene	137 > 46			15961.760									
XIBLK10	3-Nitrotoluene	137 > 46			15961.760									
XIBLK10	PETN	361 > 62			15961.760									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 18-FEB-10 13:05

GEL Data File: EXP0216090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	455.405
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	434.95
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216090a
Date: 18-Feb-2010
Time: 13:05:54
ID: XIBLK11
Vial: 1:1,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.534e+003

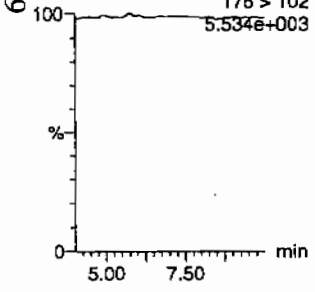

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.534e+003

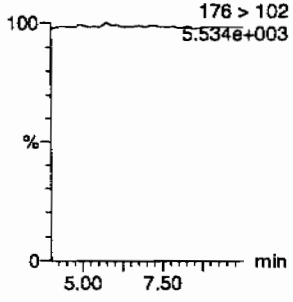

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.407e+003

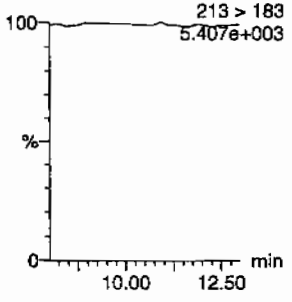

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.211e+004

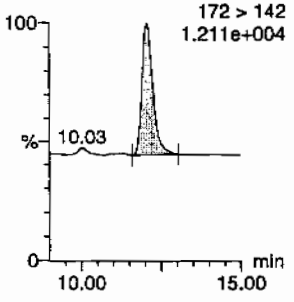

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.398e+003

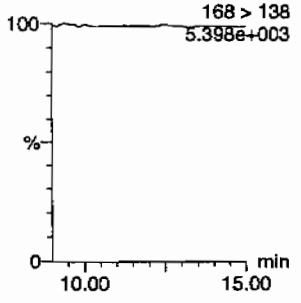

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.386e+003

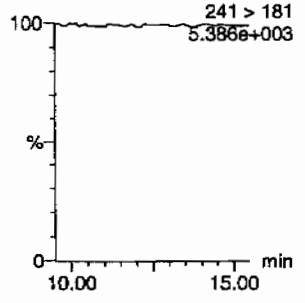

Nitrobenzene
F7:MRM of 1 channel,AP-
11.35
123 > 46
5.486e+003

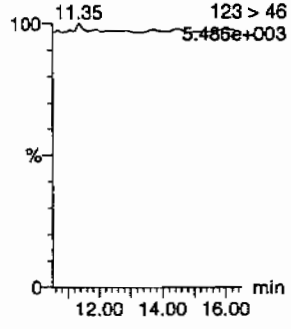

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.445e+003

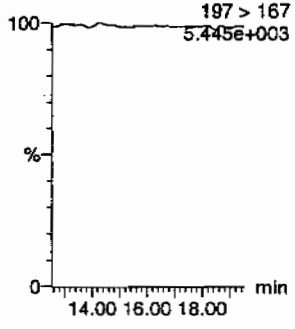

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.410e+003

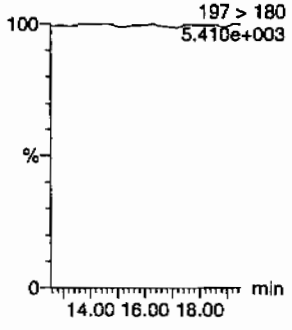

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.366e+003

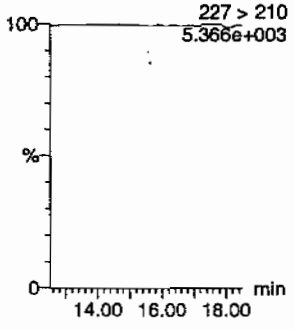

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.462e+003

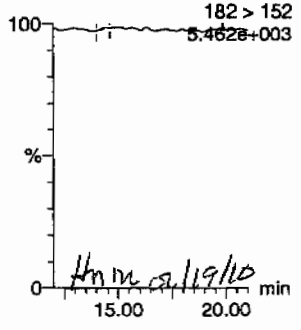

Hm m 2/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.462e+003

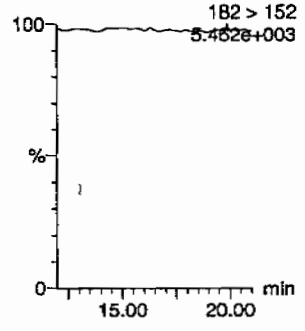

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.462e+003

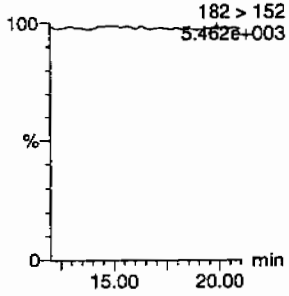

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.336e+004

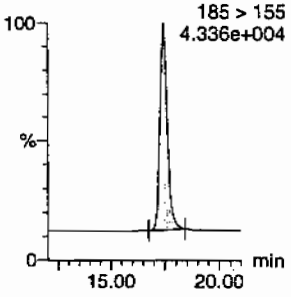

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.375e+003

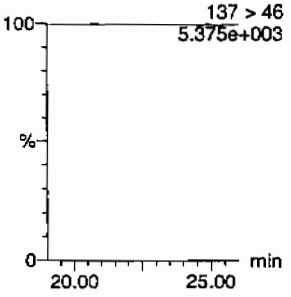

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.375e+003

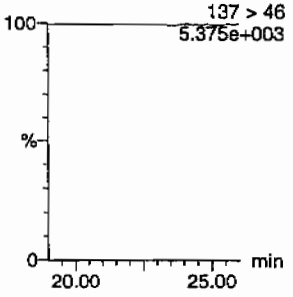

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.375e+003

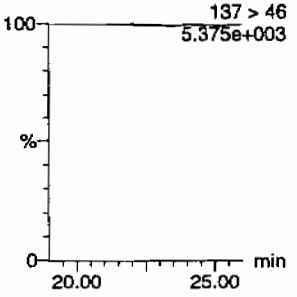

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.365e+003

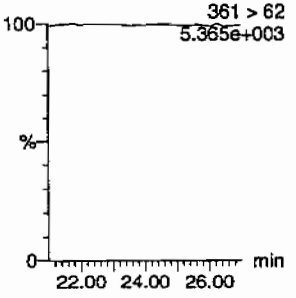

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			2743.740									
XIBLK11	RDX	176 > 102			2743.740									
XIBLK11	135-Trinitrobenzene	213 > 183			2743.740									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.06	2743.740		2743.740	2743.740	bb			455.4052	91.1	-8.9	327.5
XIBLK11	13-Dinitrobenzene	168 > 138			2743.740									
XIBLK11	Tetryl	241 > 181			2743.740									
XIBLK11	Nitrobenzene	123 > 46			2743.740									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			15143.687									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			15143.687									
XIBLK11	246-Trinitrotoluene	227 > 210			15143.687									
XIBLK11	34-dinitrotoluene	182 > 152			15143.687			MM-	19-Feb-10	08:42:41				
XIBLK11	26-dinitrotoluene	182 > 152			15143.687									
XIBLK11	24-dinitrotoluene	182 > 152			15143.687									
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.43	15143.687		15143.687	15143.687	bb			434.9496	87.0	-13.0	1161.5
XIBLK11	2-Nitrotoluene	137 > 46			15143.687									
XIBLK11	4-Nitrotoluene	137 > 46			15143.687									
XIBLK11	3-Nitrotoluene	137 > 46			15143.687									
XIBLK11	PETN	361 > 62			15143.687									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 18-FEB-10 19:00

GEL Data File: EXP0216102a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	463.109
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	440.854
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216102a
Date: 18-Feb-2010
Time: 19:00:50
ID: XIBLK12
Vial: 1:1,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.623e+003

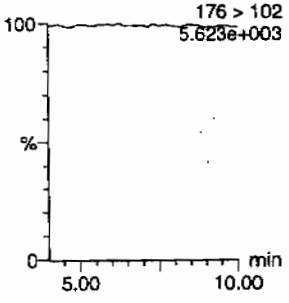

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.623e+003

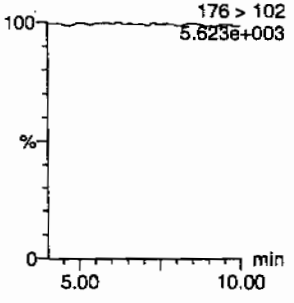

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.551e+003

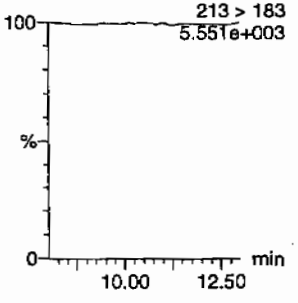

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.224e+004

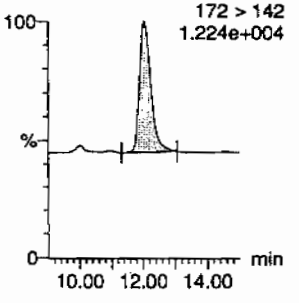

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.533e+003

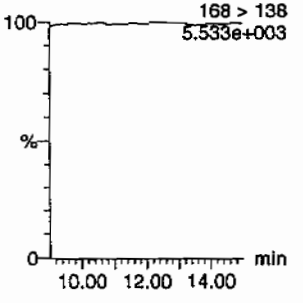

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.536e+003

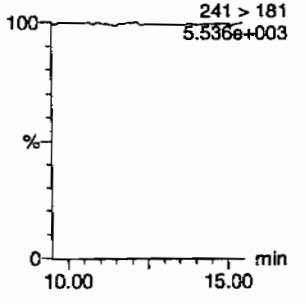

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.558e+003

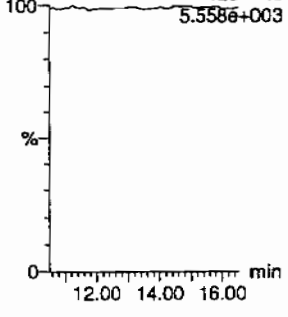

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.572e+003

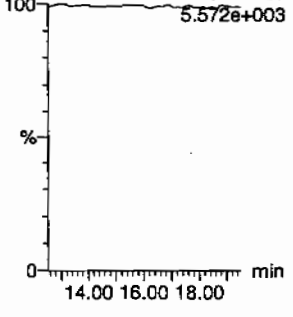

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.589e+003

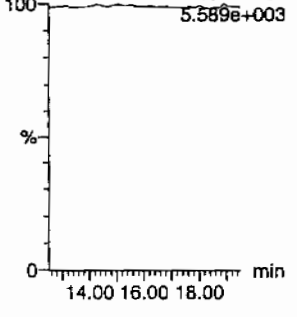

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.529e+003

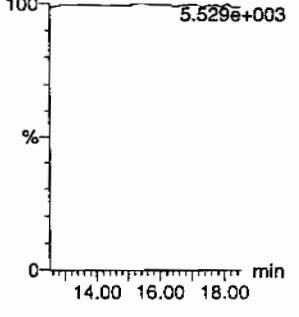

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.573e+003

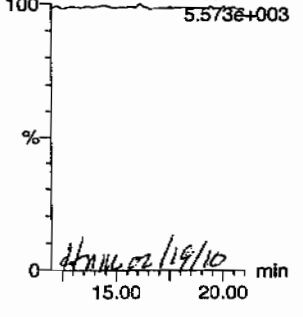

MM 2/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.573e+003

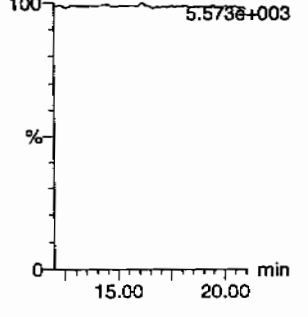

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

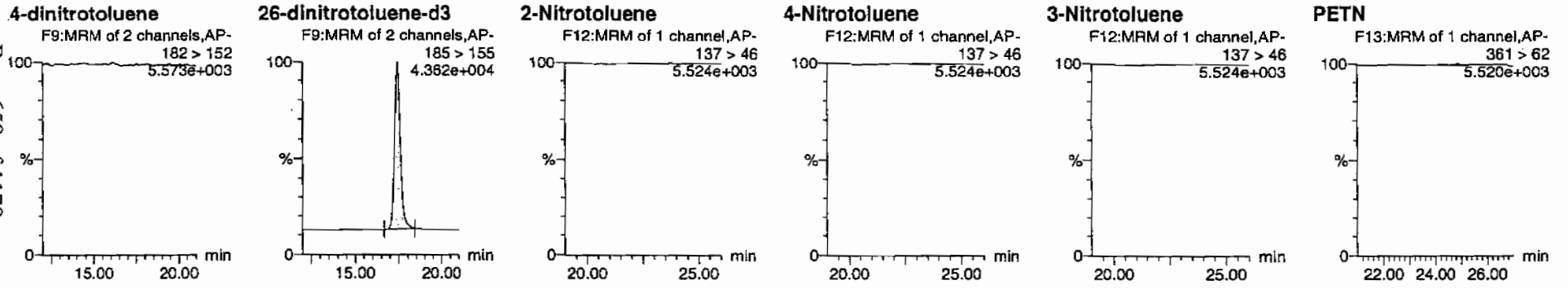

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			2790.156									
XIBLK12	RDX	176 > 102			2790.156									
XIBLK12	135-Trinitrobenzene	213 > 183			2790.156									
XIBLK12	13-Dinitrobenzene-d4	172 > 142	12.03	2790.156		2790.156	2790.156	bb			463.1093	92.6	-7.4	580.1
XIBLK12	13-Dinitrobenzene	168 > 138			2790.156									
XIBLK12	Tetryl	241 > 181			2790.156									
XIBLK12	Nitrobenzene	123 > 46			2790.156									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			15349.260									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			15349.260									
XIBLK12	246-Trinitrotoluene	227 > 210			15349.260									
XIBLK12	34-dinitrotoluene	182 > 152			15349.260									
XIBLK12	26-dinitrotoluene	182 > 152			15349.260									
XIBLK12	24-dinitrotoluene	182 > 152			15349.260									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.42	15349.260		15349.260	15349.260	bb			440.8539	88.2	-11.8	1191.0
XIBLK12	2-Nitrotoluene	137 > 46			15349.260									
XIBLK12	4-Nitrotoluene	137 > 46			15349.260									
XIBLK12	3-Nitrotoluene	137 > 46			15349.260									
XIBLK12	PETN	361 > 62			15349.260									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 14–FEB–10 16:38

GEL Data File: EXS02140010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	4.37
tris(o–cresyl) phosphate	0	8.68
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/16/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02140010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/14/2010
q. Time: 4:38:38 PM

dified: No

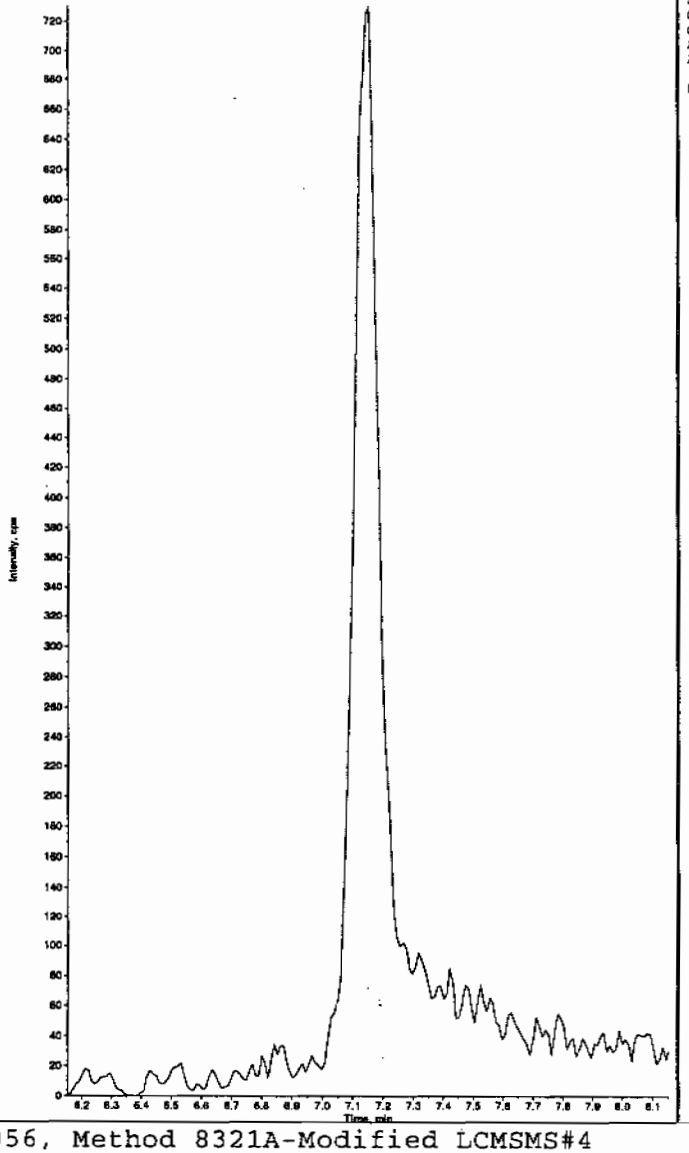

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02140010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:38:38 PM

Modified: No

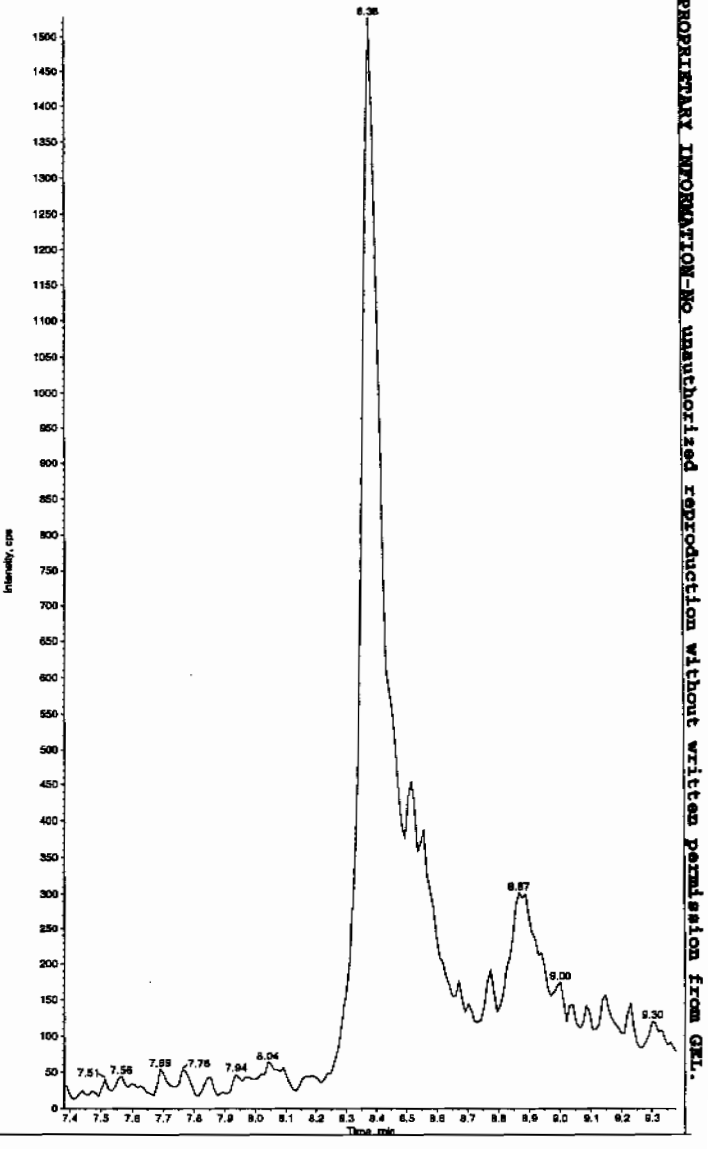

Hmm 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02140010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "

ple Index: 1
ple Type: Unknown
ncentration: N/A
lculated Conc: 4.37 ng/mL
q. Date: 2/14/2010
q. Time: 4:38:38 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.52 min
a: 7.18e+003 counts
ight: 1462.833 cps
rt Time: 8.44 min
Time: 8.75 min

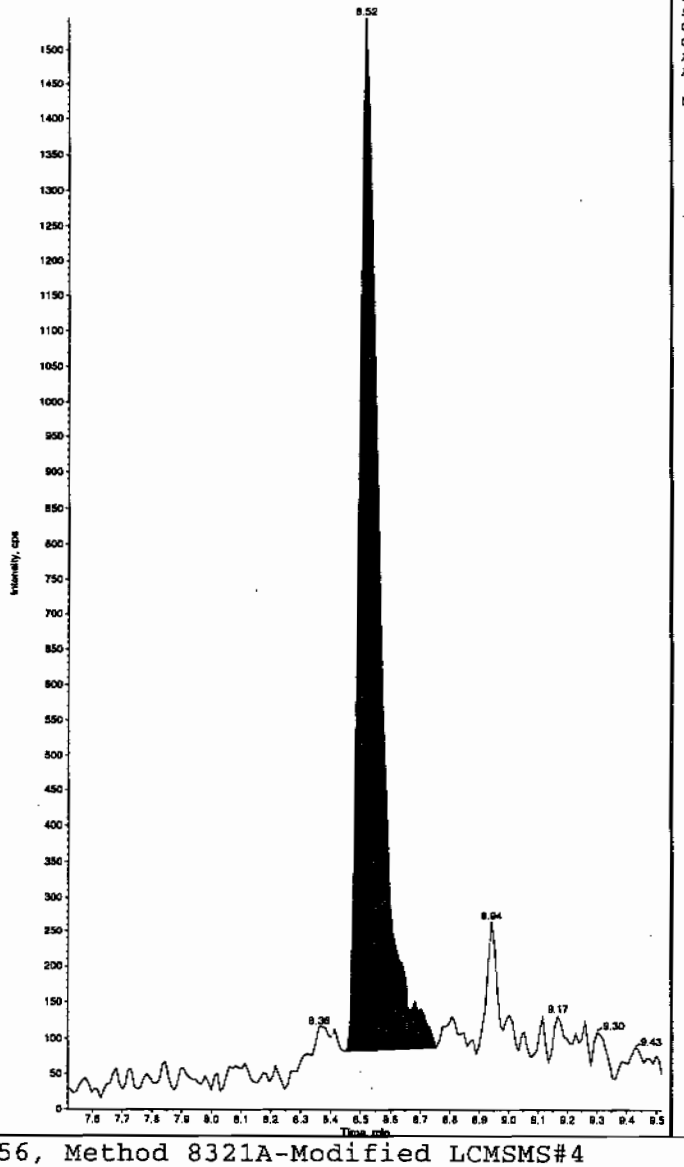

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02140010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:38:38 PM

Modified: No

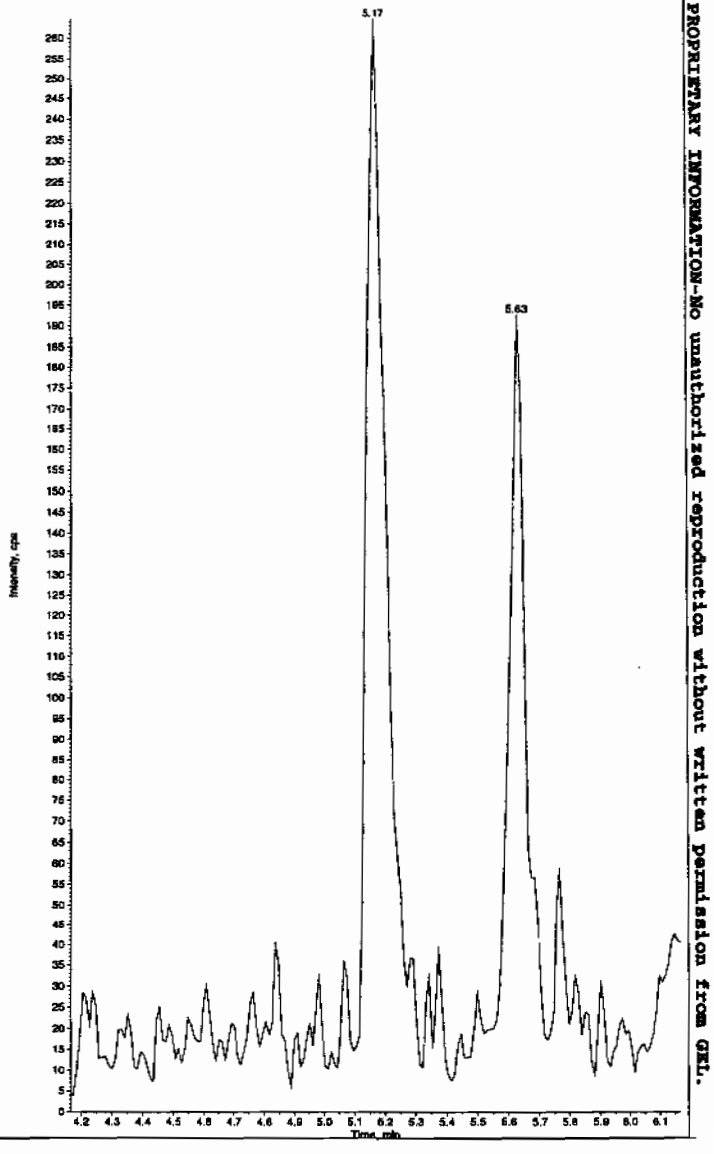

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02140010.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 4:38:38 PM

ified: No

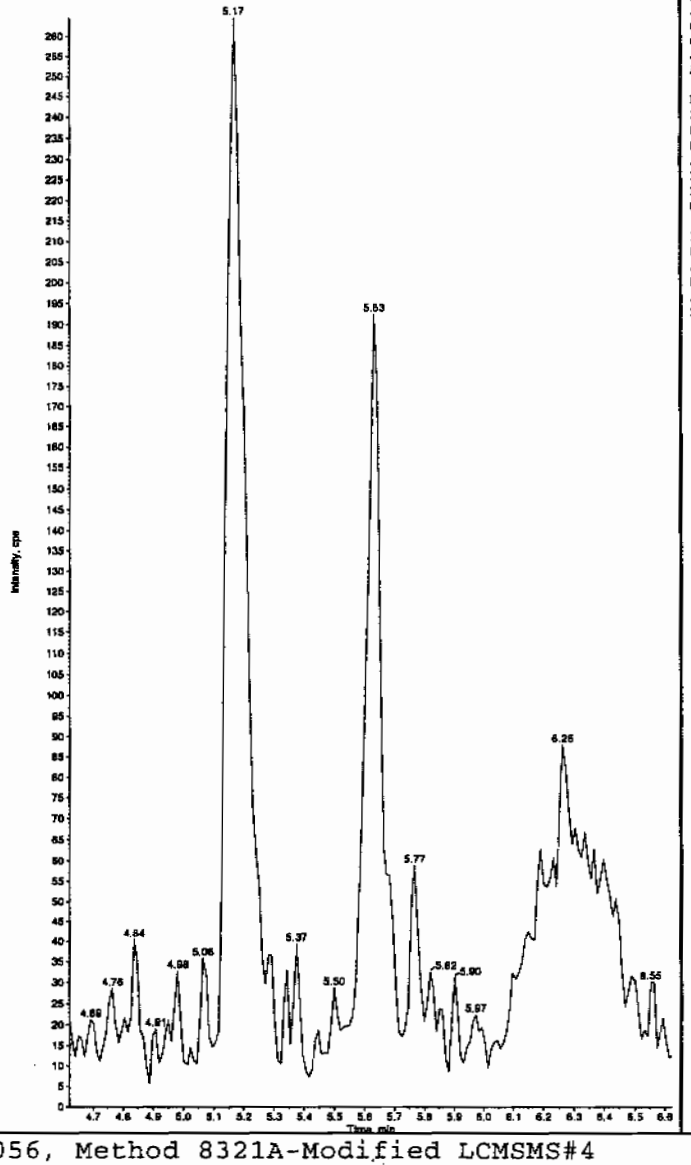

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02140010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 8.68 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:38:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.67e+005 counts
Height: 58148.289 cps
Start Time: 11.0 min
End Time: 11.4 min

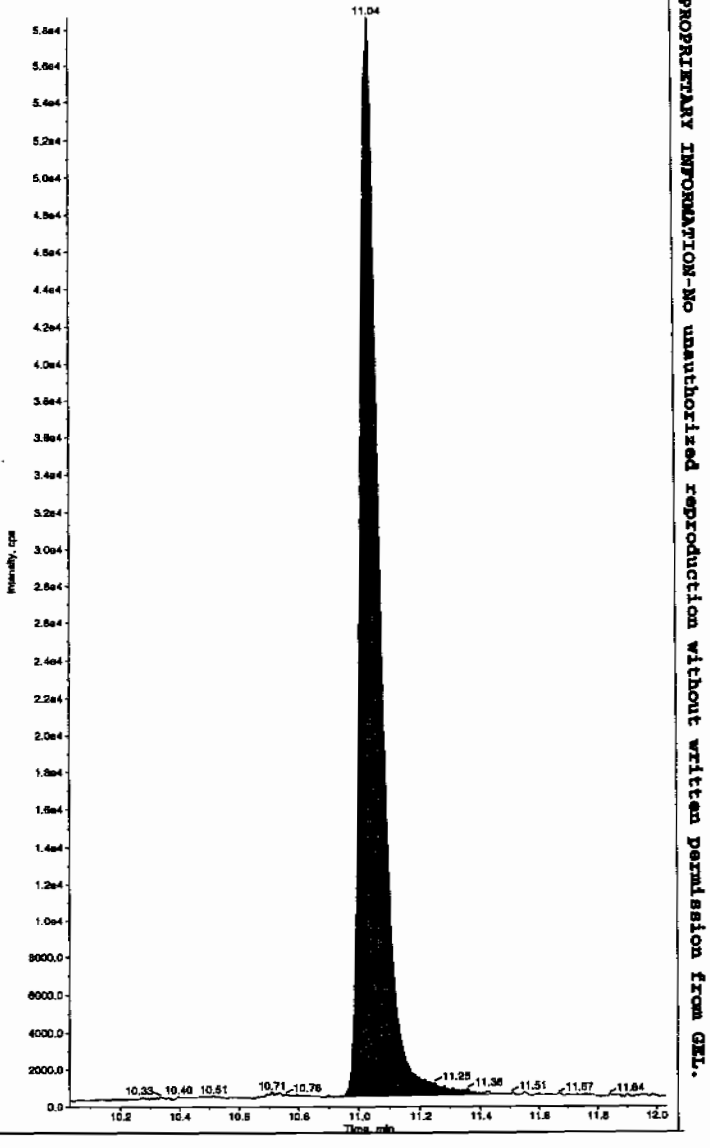

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 14-FEB-10 17:10

GEL Data File: EXS02140012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.62
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lcn 2/16/10

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02140012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/14/2010
q. Time: 5:10:02 PM

dified: No

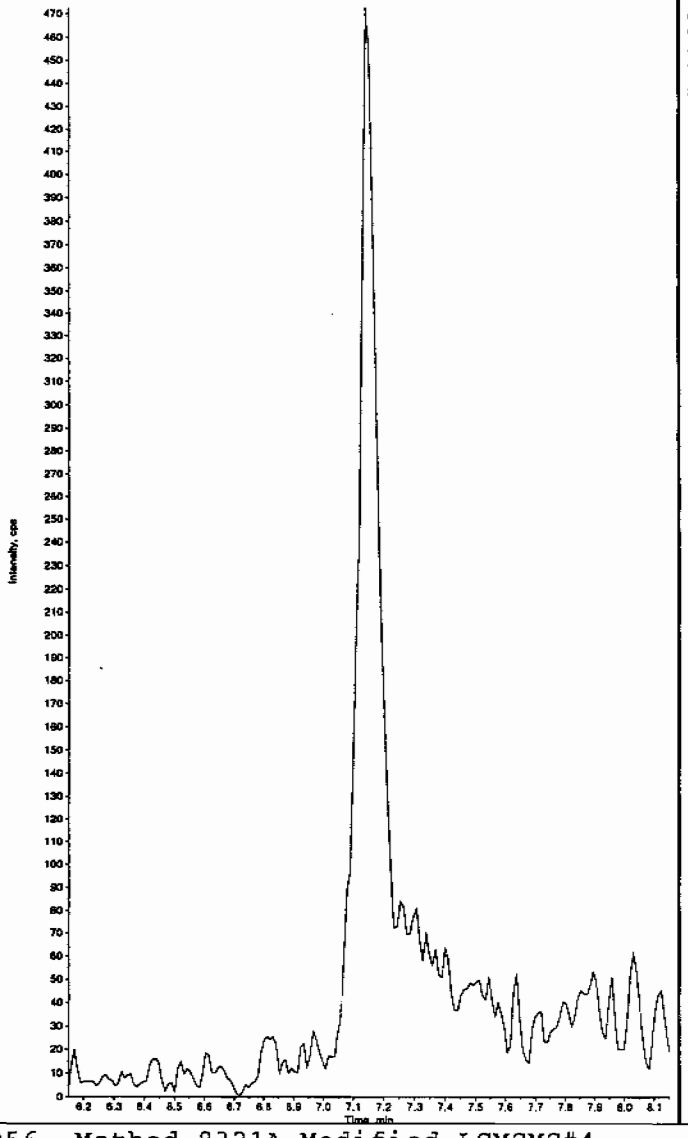

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02140012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:10:02 PM

Modified: No

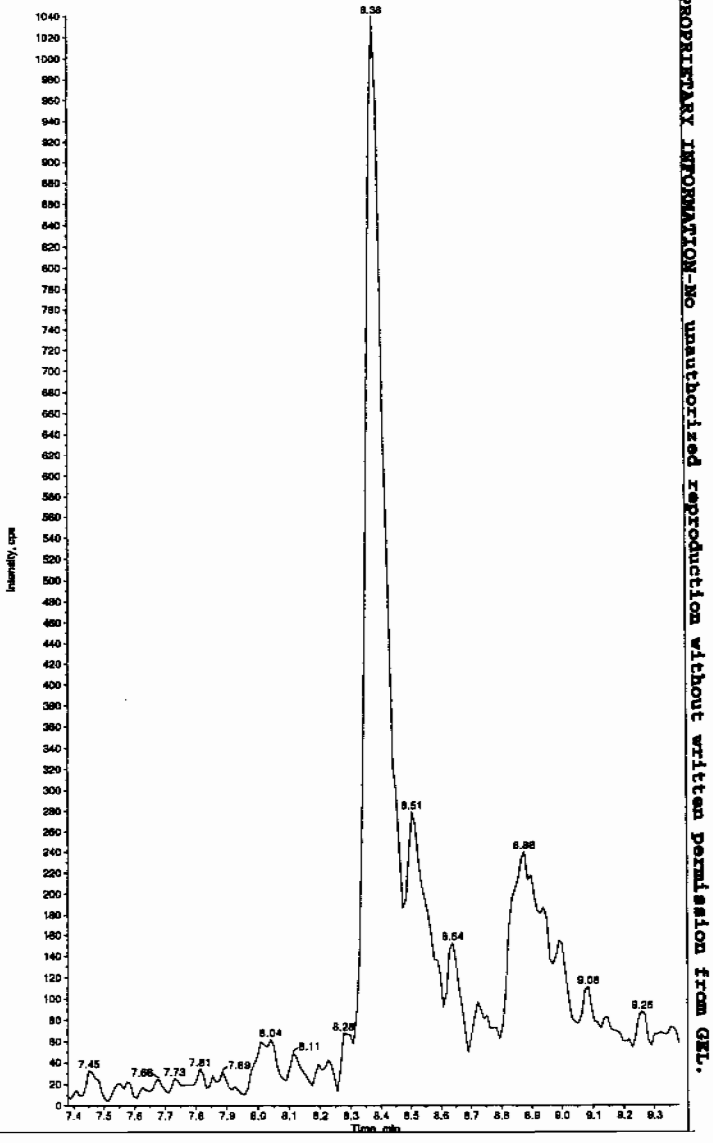

Hm 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02140012.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
icentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 5:10:02 PM
ified: No

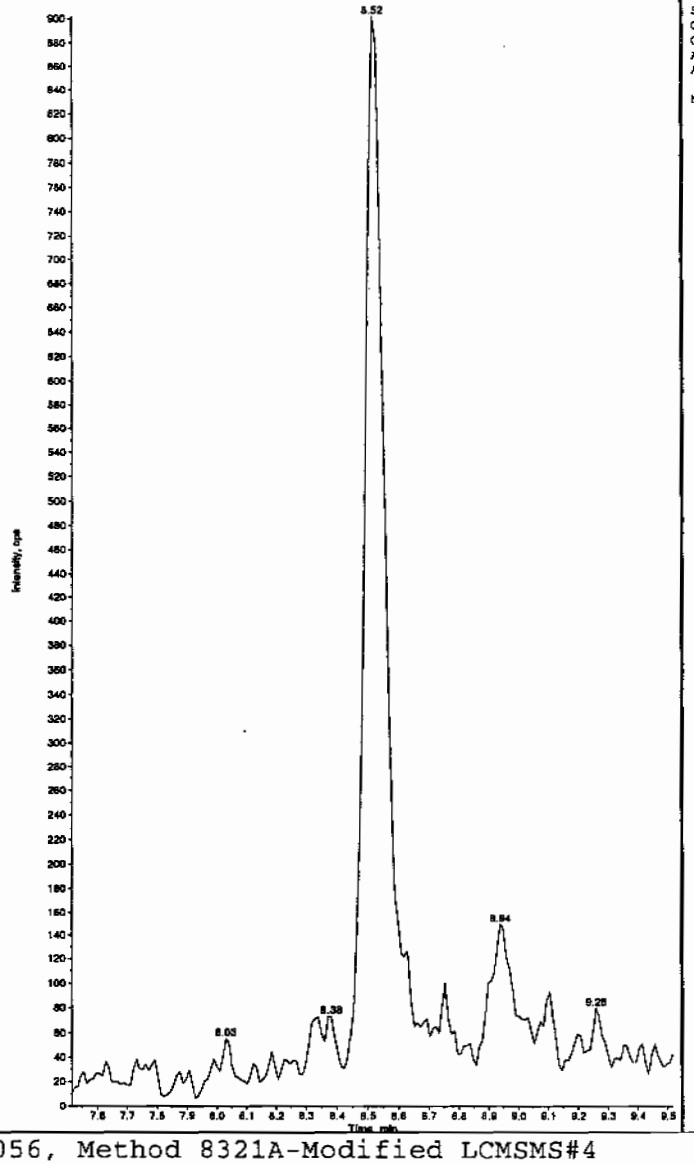

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02140012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:10:02 PM

Modified: No

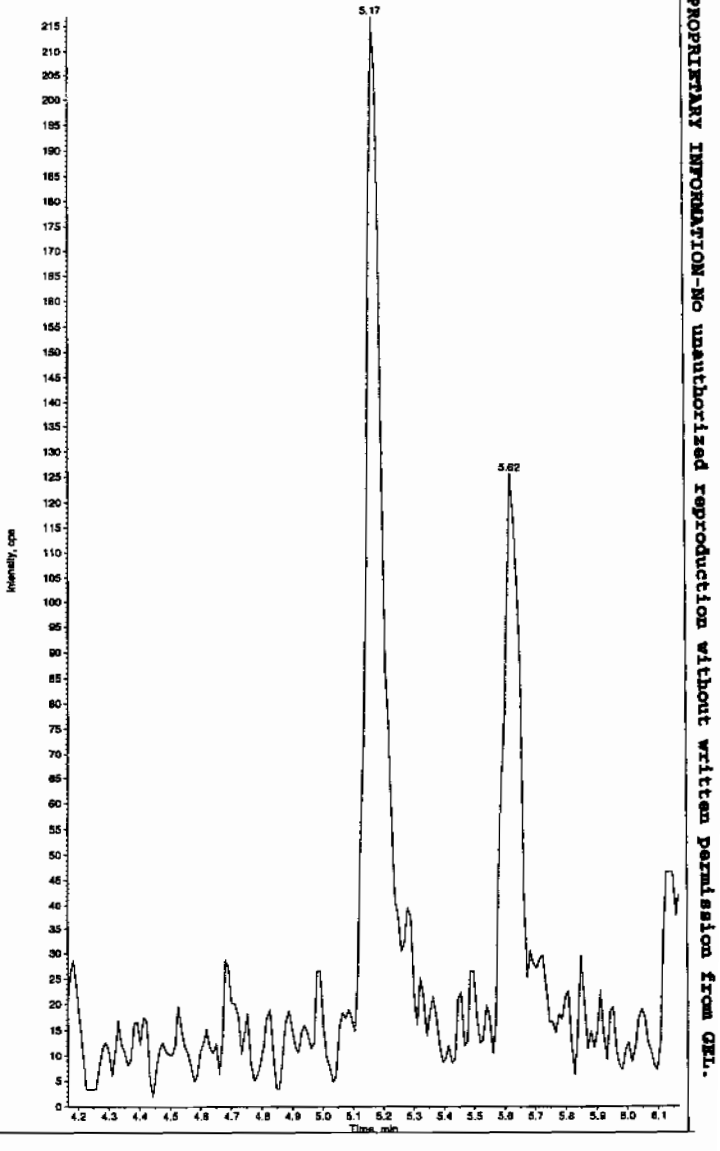

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02140012.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 5:10:02 PM
ified: No

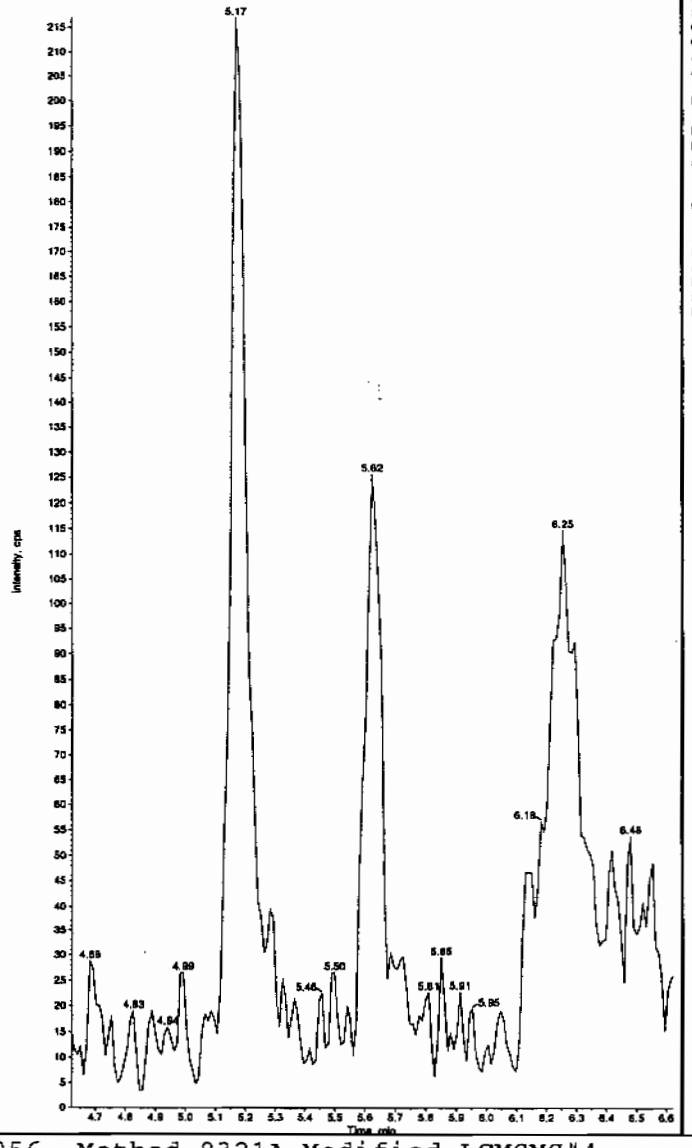

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02140012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	3.62	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	5:10:02 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.1	min
Area:	1.47e+005	counts
Height:	33661.640	cps
Start Time:	10.9	min
End Time:	11.3	min

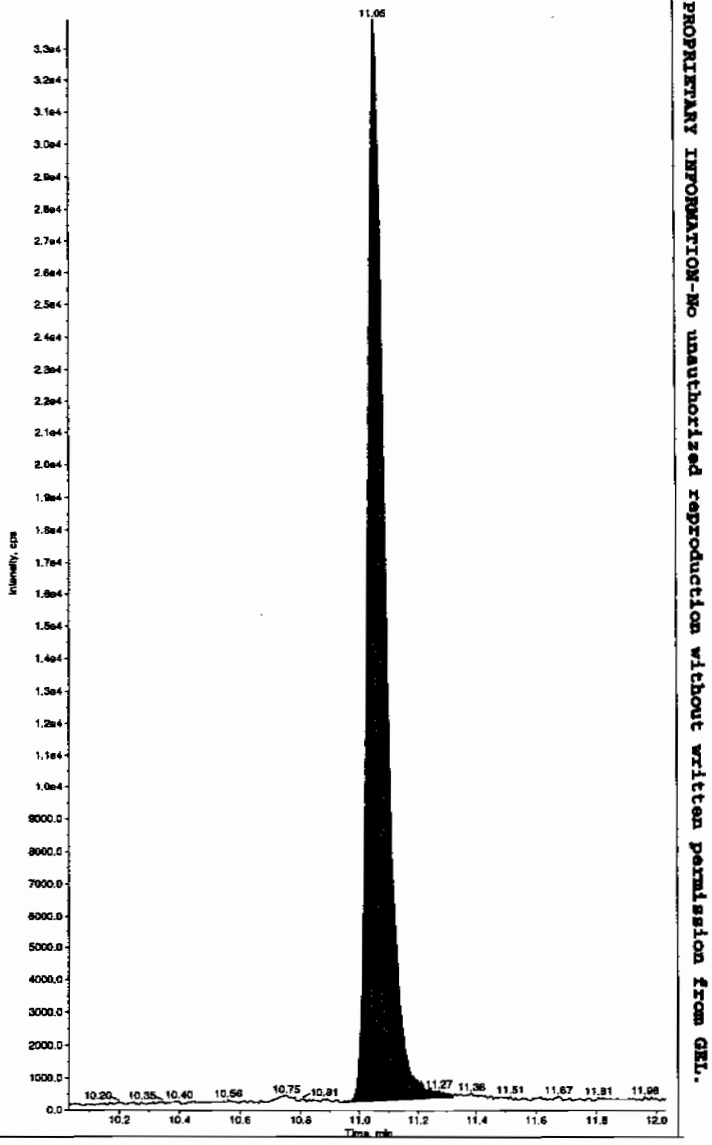

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 14–FEB–10 18:44

GEL Data File: EXS02140018.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.11
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0

LCM 2/17/10

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02140018.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No

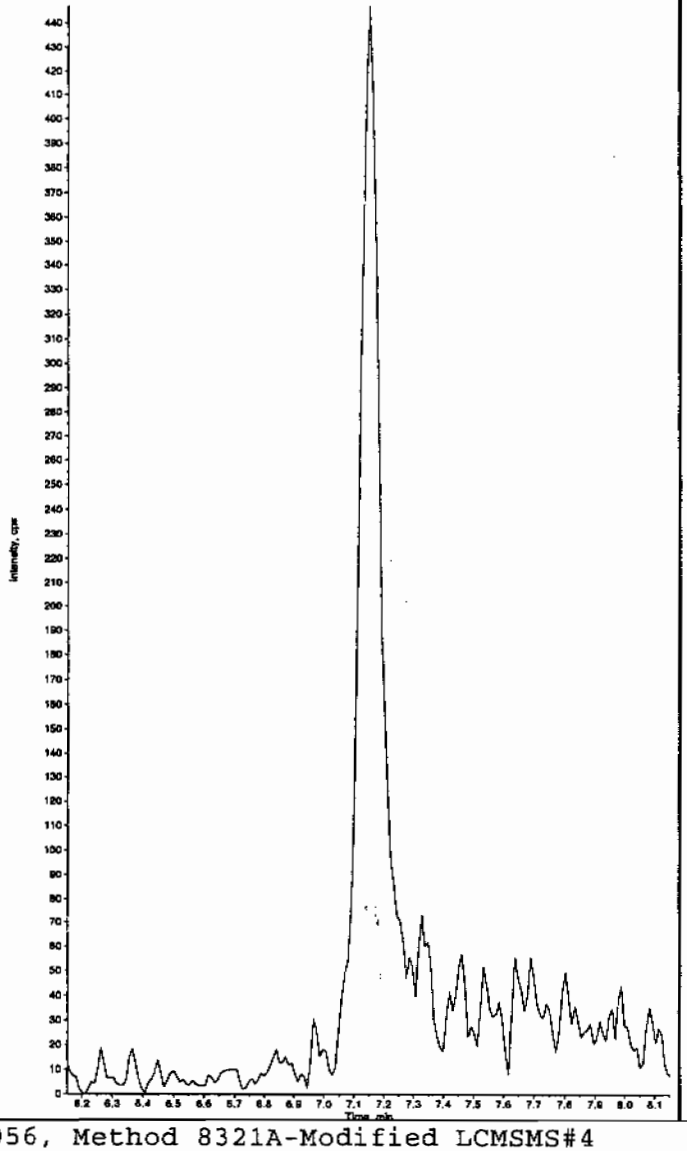

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02140018.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No

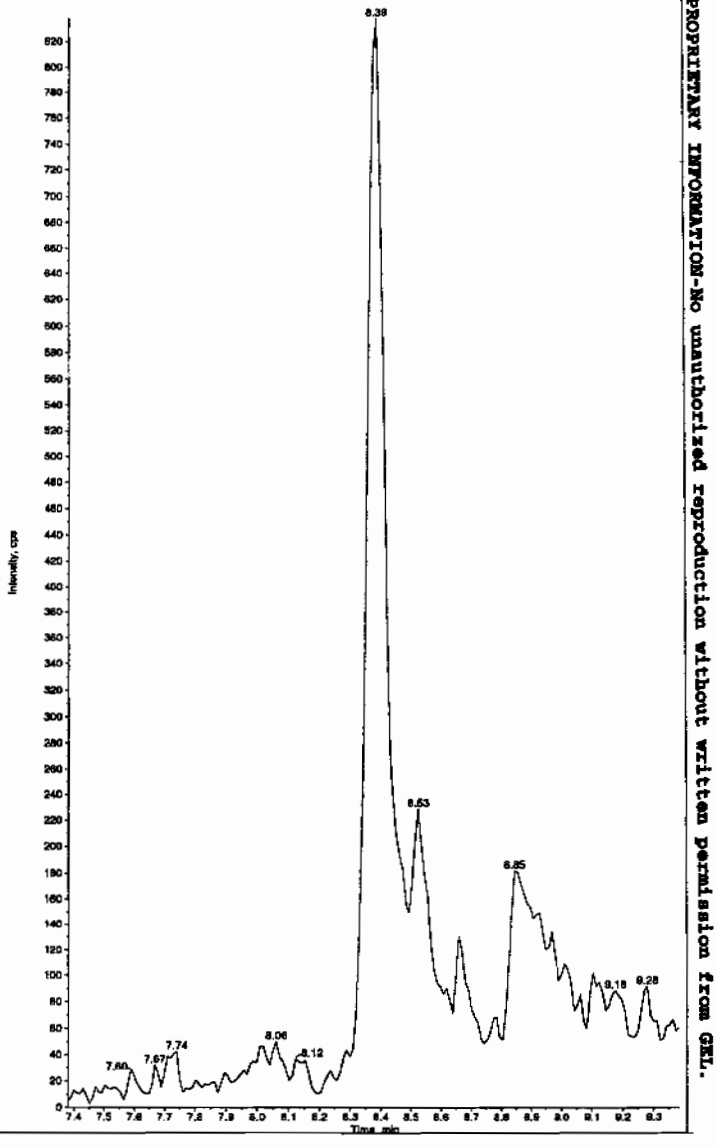

HMM 02/17/10

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ample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02140018.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 6:44:17 PM

ified: No

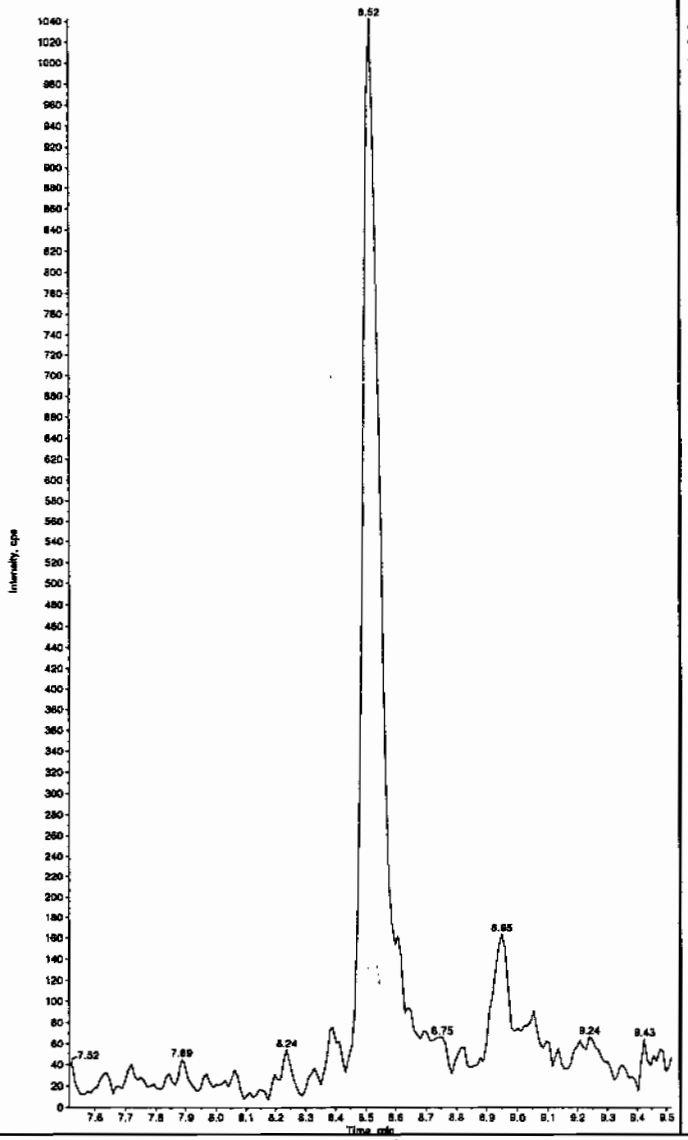

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02140018.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No

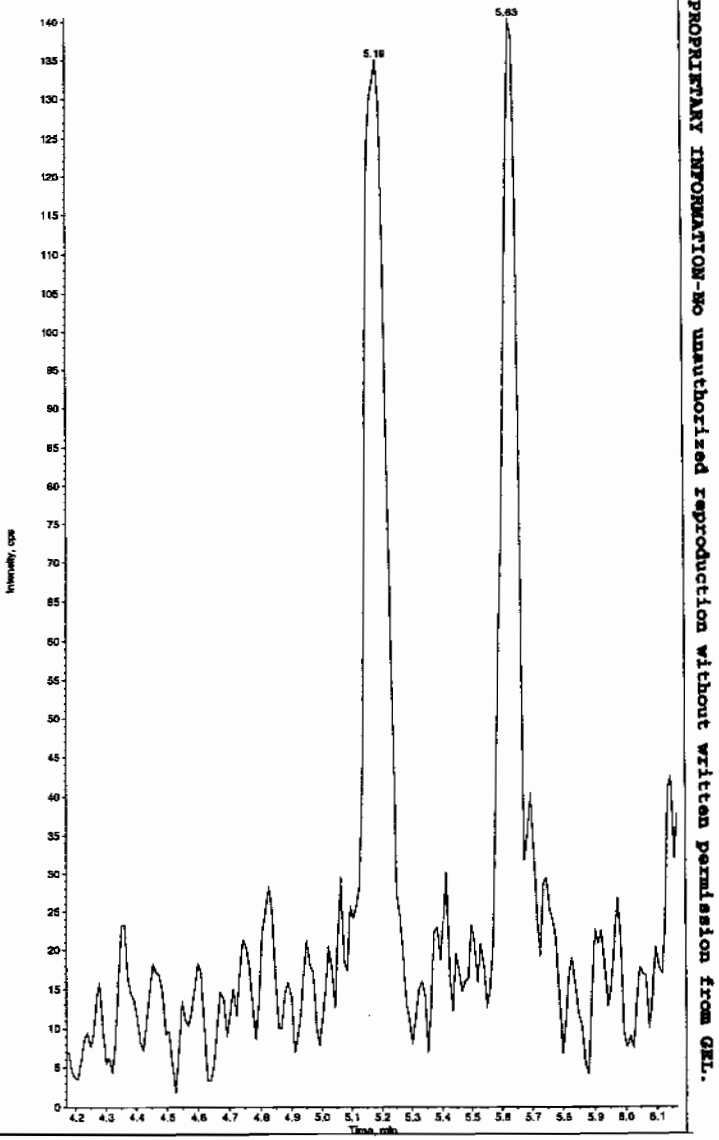

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mple Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02140018.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/45.0 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/14/2010
Time: 6:44:17 PM
fied: No

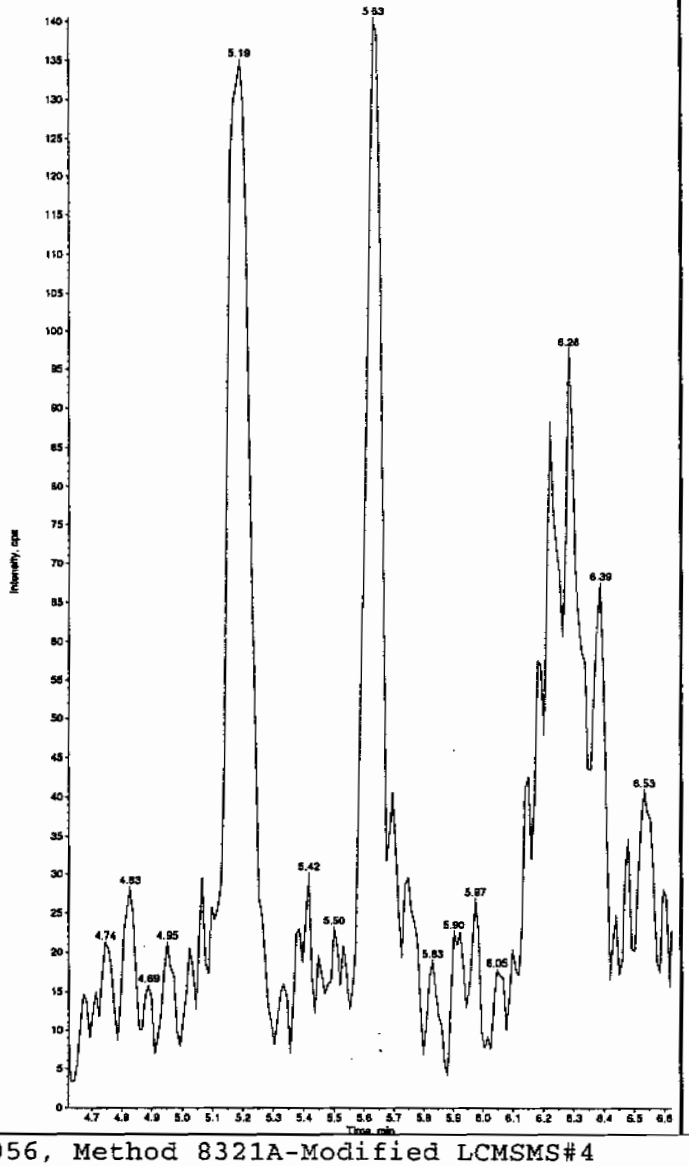

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02140018.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	3.11 ng/mL
Acq. Date:	2/14/2010
Acq. Time:	6:44:17 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	11.0 min
Area:	1.35e+005 counts
Height:	30021.994 cps
Start Time:	10.9 min
End Time:	11.3 min

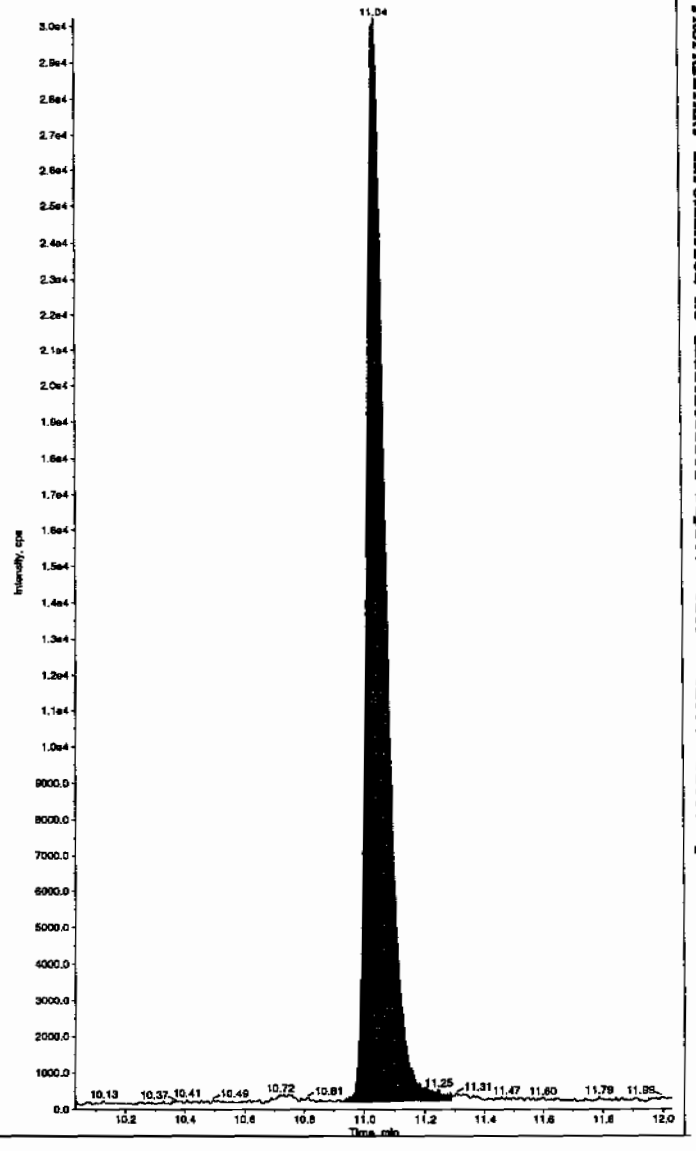

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 14–FEB–10 22:08

GEL Data File: EXS02140031.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.87
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Scan 2/17/10

ample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02140031.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
oncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 10:08:32 PM

ified: No

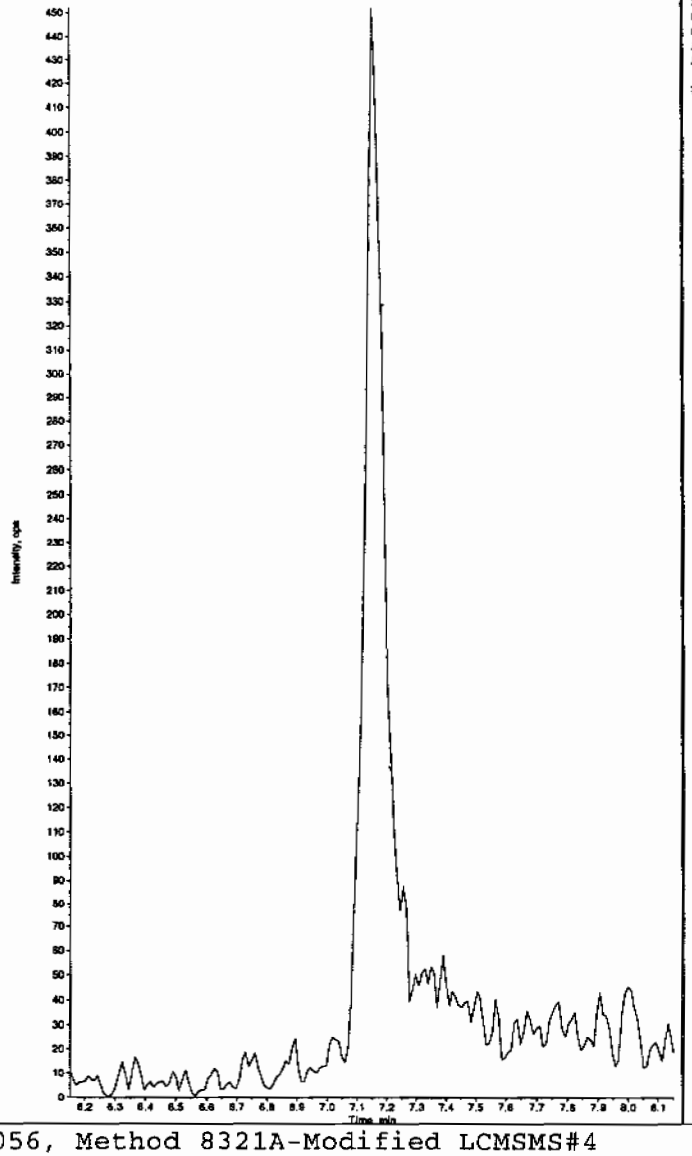

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02140031.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 10:08:32 PM

Modified: No

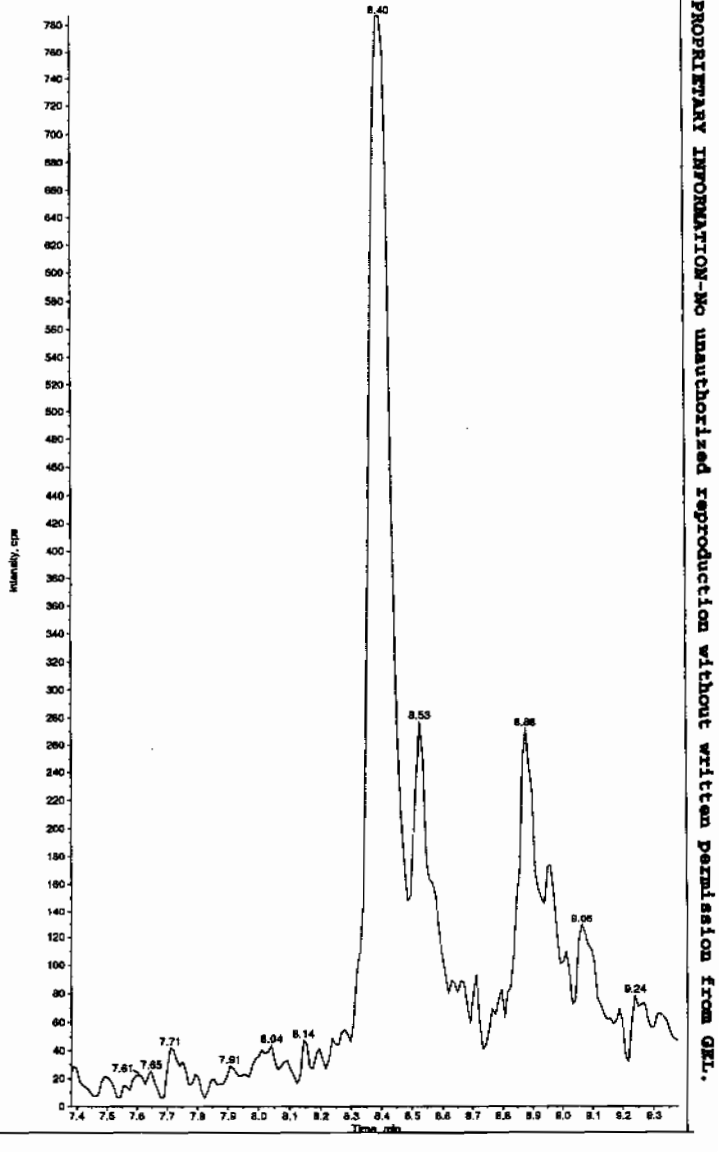

Hum 02/17/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02140031.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 10:08:32 PM

ified: No

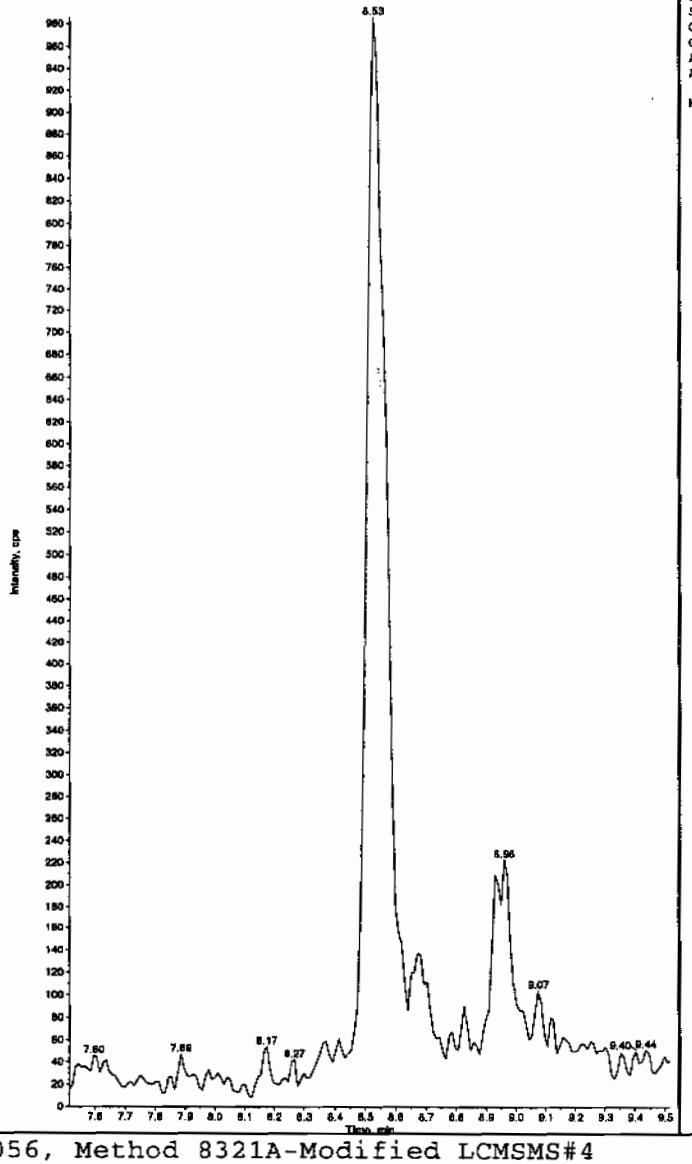

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02140031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 10:08:32 PM

Modified: No

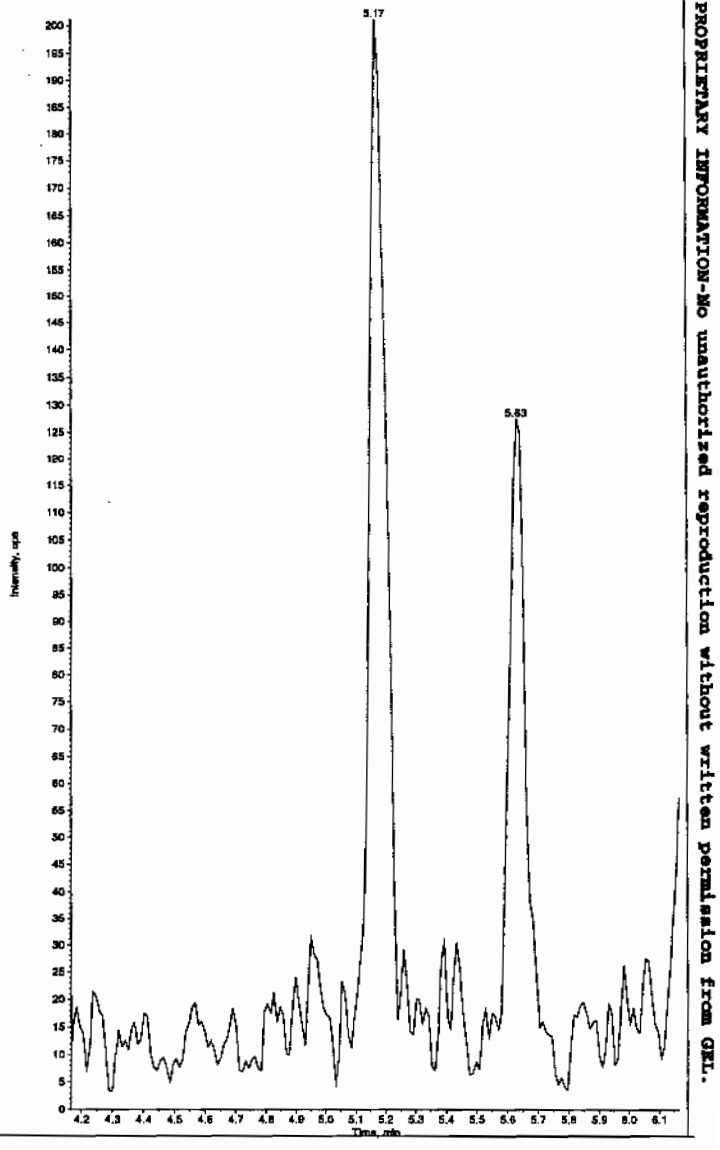

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02140031.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""

```
le Index:        1
le Type:       Unknown
entration:       N/A
ulated Conc:     0.00     ng/mL
 Date:        2/14/2010
 Time:        10:08:32 PM

fied:            No
```

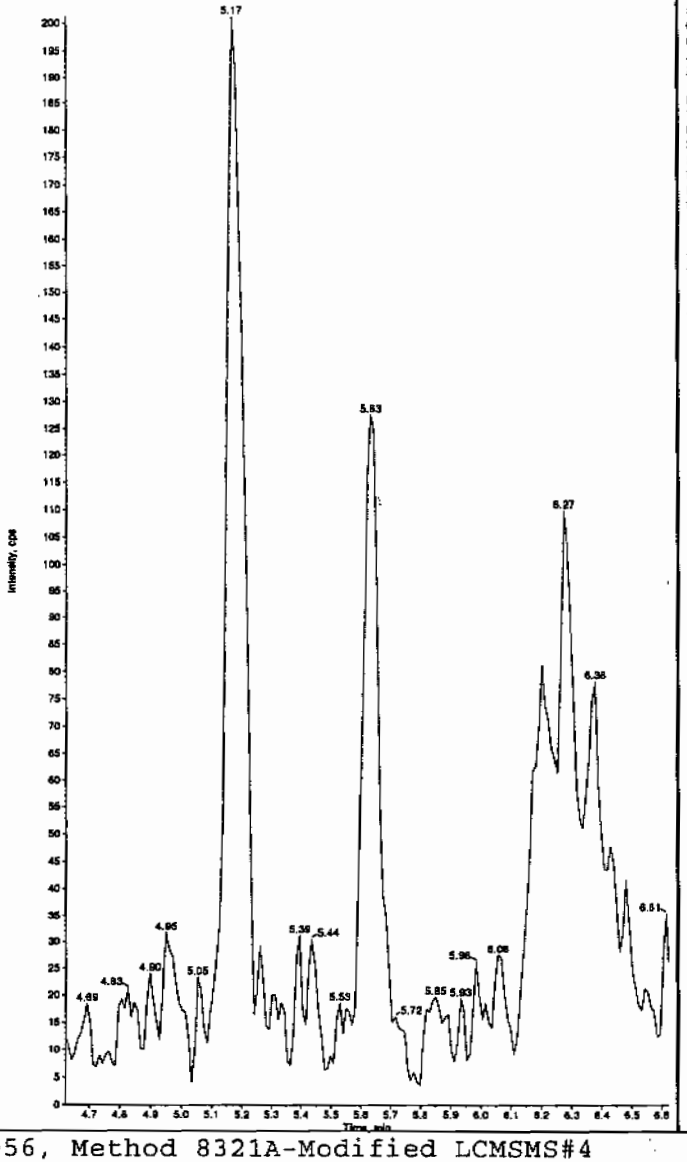

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02140031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     2.87     ng/mL
Acq. Date:        2/14/2010
Acq. Time:        10:08:32 PM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height:  1.00e4    cps
Min. Peak Width:     0.00    sec
Smoothing Width:   3         points
RT Window:          30.0     sec
Expected RT:        11.0     min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:     11.0     min
Area:          1.30e+005    counts
Height:          30448.900  cps
Start Time:         10.9     min
End Time:           11.3     min
```

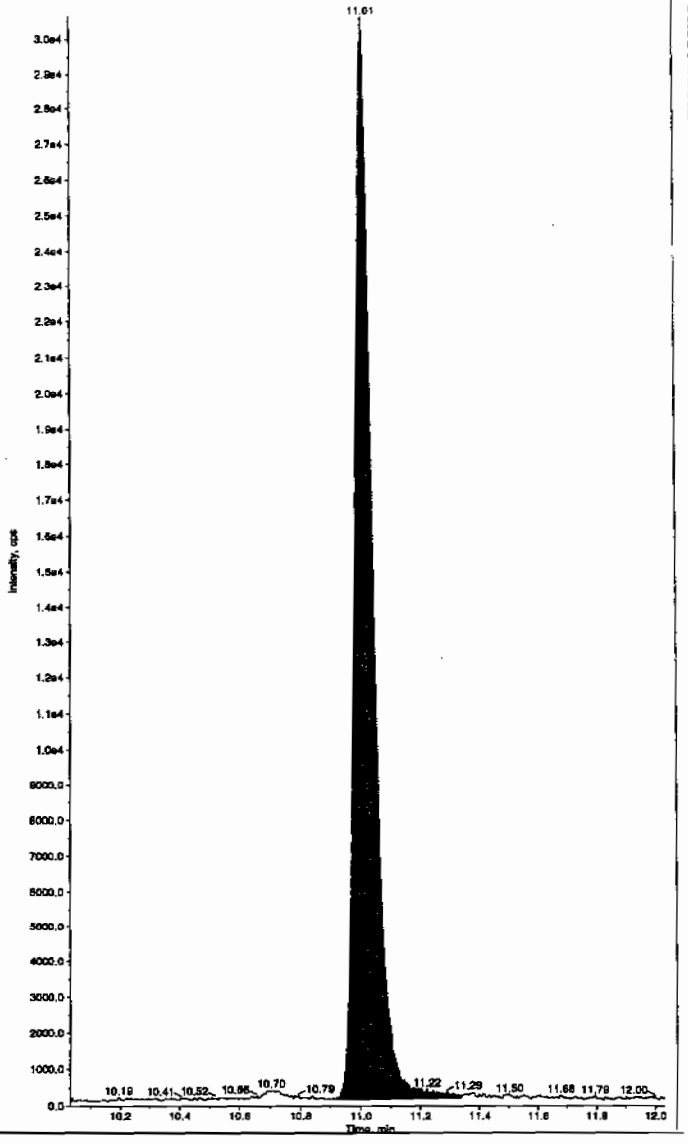

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 15–FEB–10 01:32

GEL Data File: EXS02140044.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.4
TATB	0	0
3,5–Dinitroaniline	0	0

Ser 2/17/10

mple Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140044.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 1:32:40 AM

ified: No

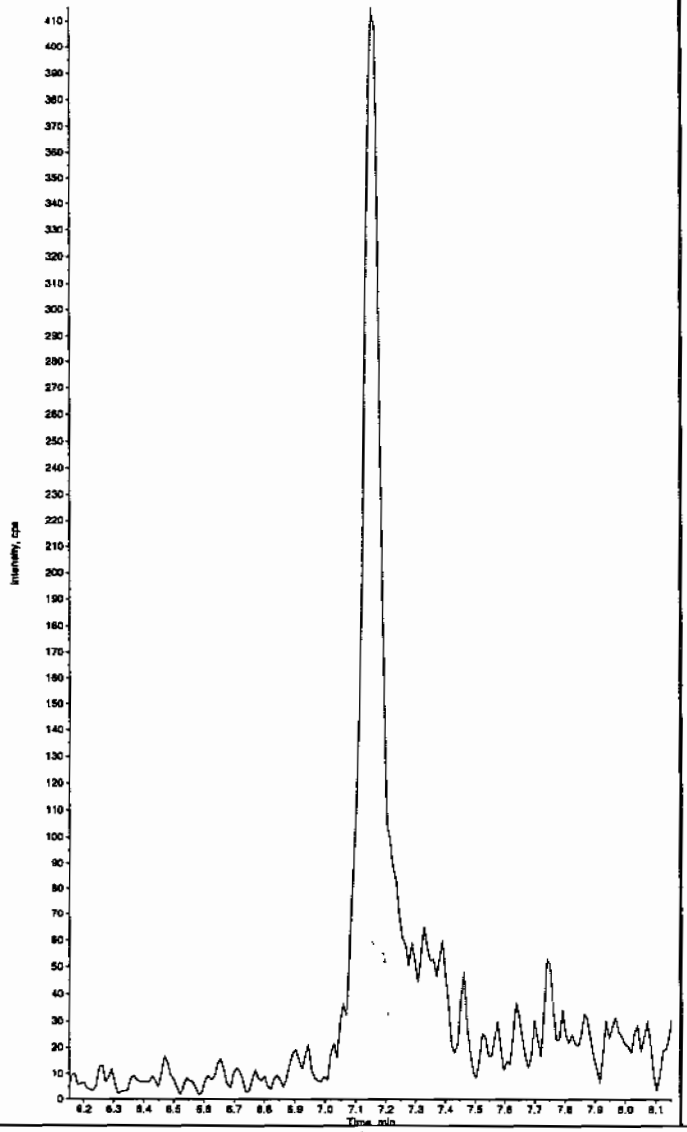

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:32:40 AM

Modified: No

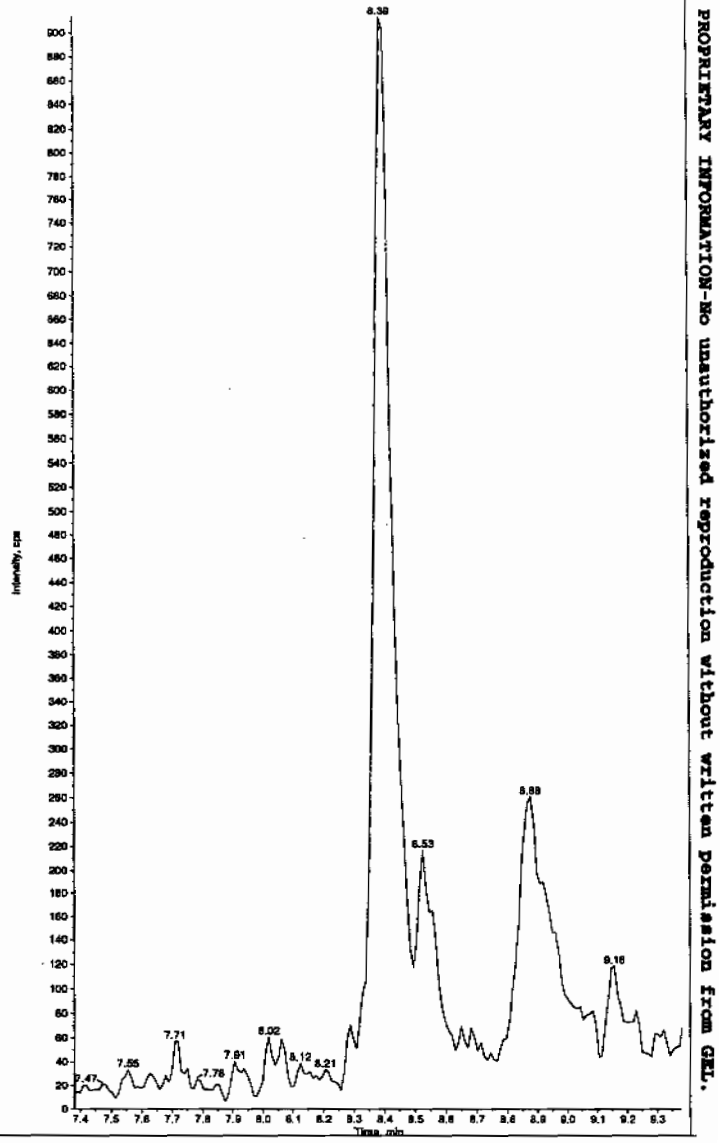

HMM 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02140044.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:32:40 AM
Modified: No

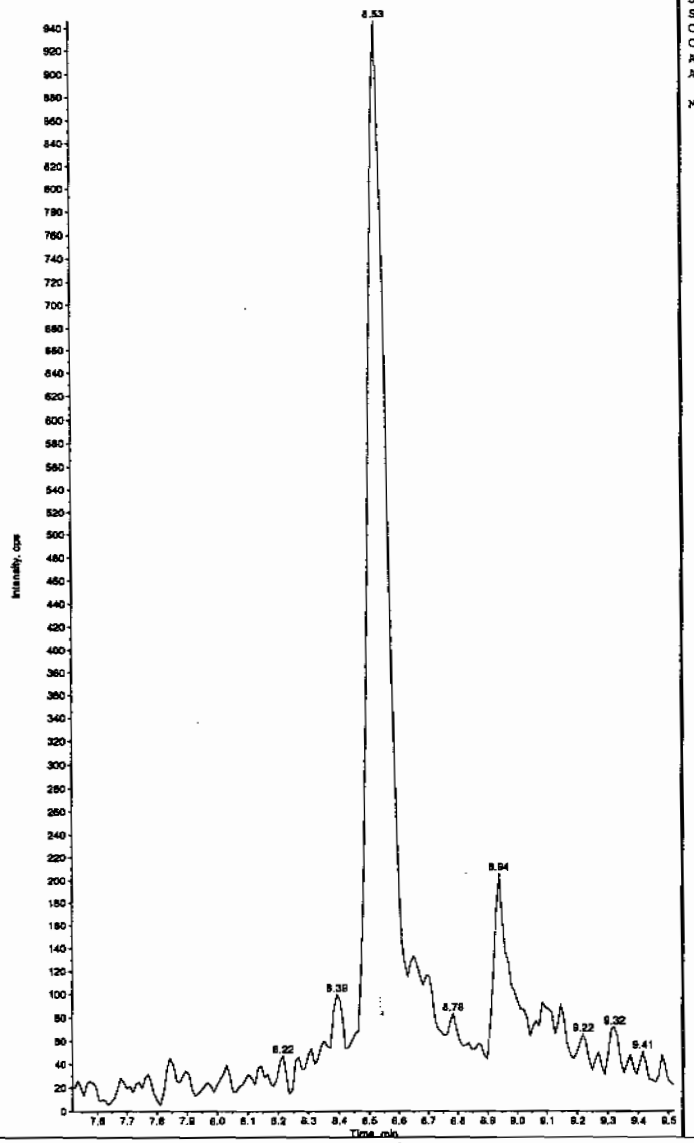

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02140044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:32:40 AM
Modified: No

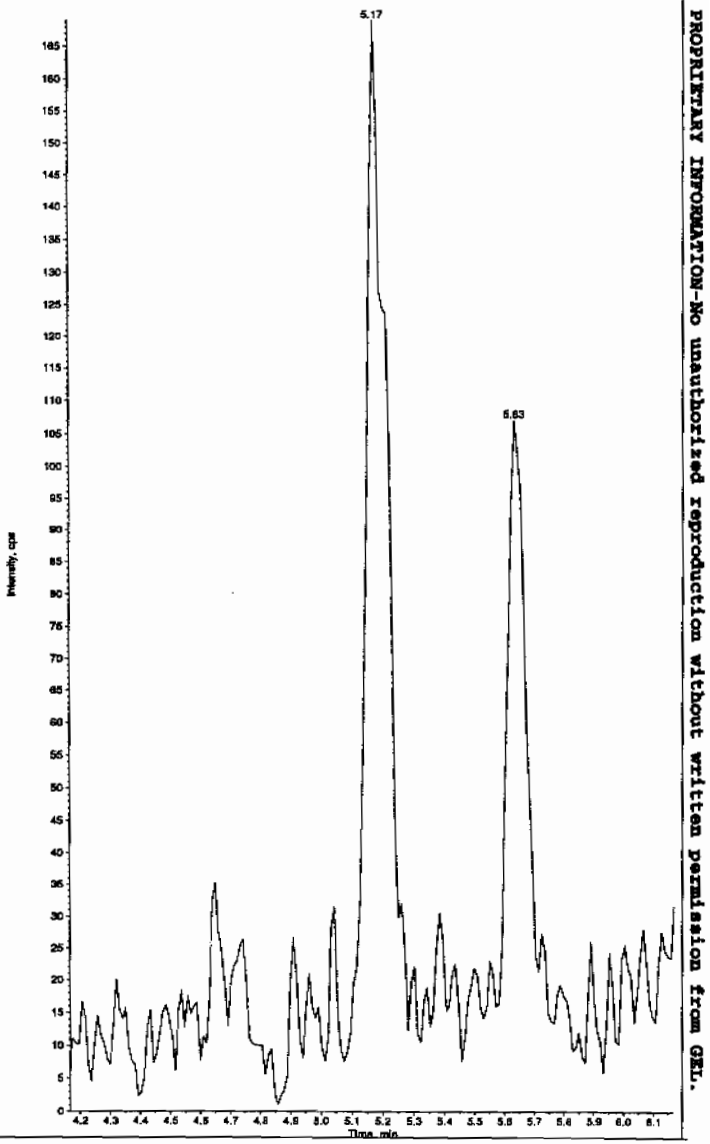

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK06" Sample ID: "1|LER" File: "EXS02140044.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 1:32:40 AM

ified: No

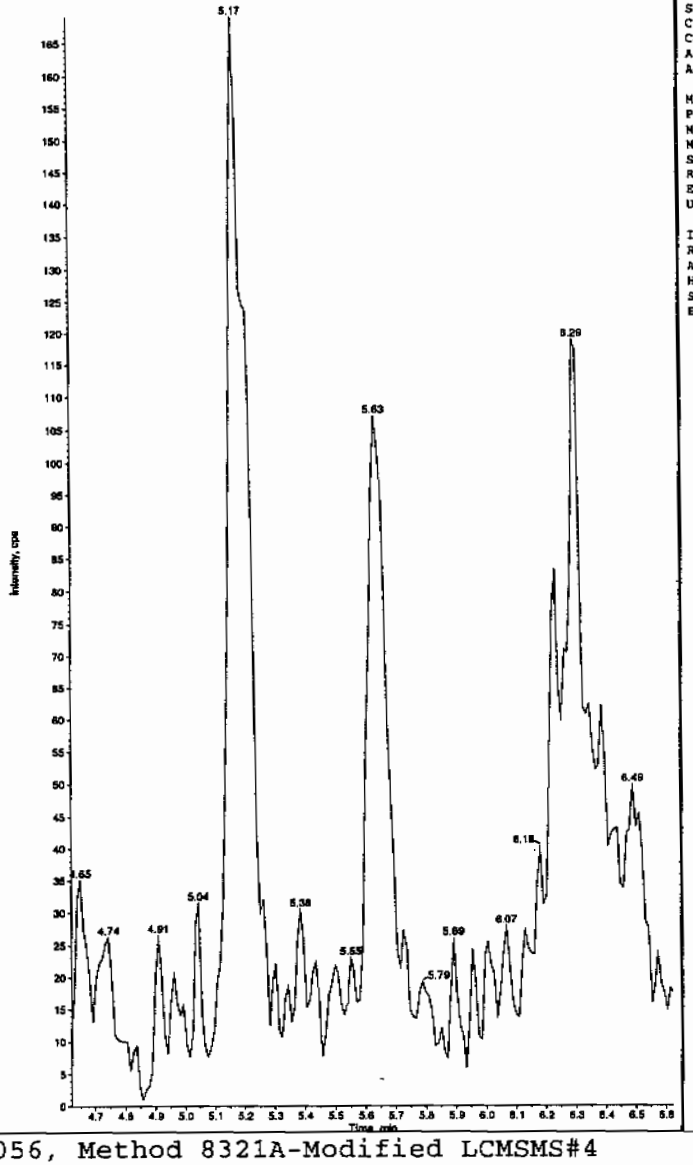

Sample Name: "XIBLK06" Sample ID: "1|LER" File: "EXS02140044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	2.40	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	1:32:40 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	1.18e+005	counts
Height:	27573.803	cps
Start Time:	10.9	min
End Time:	11.2	min

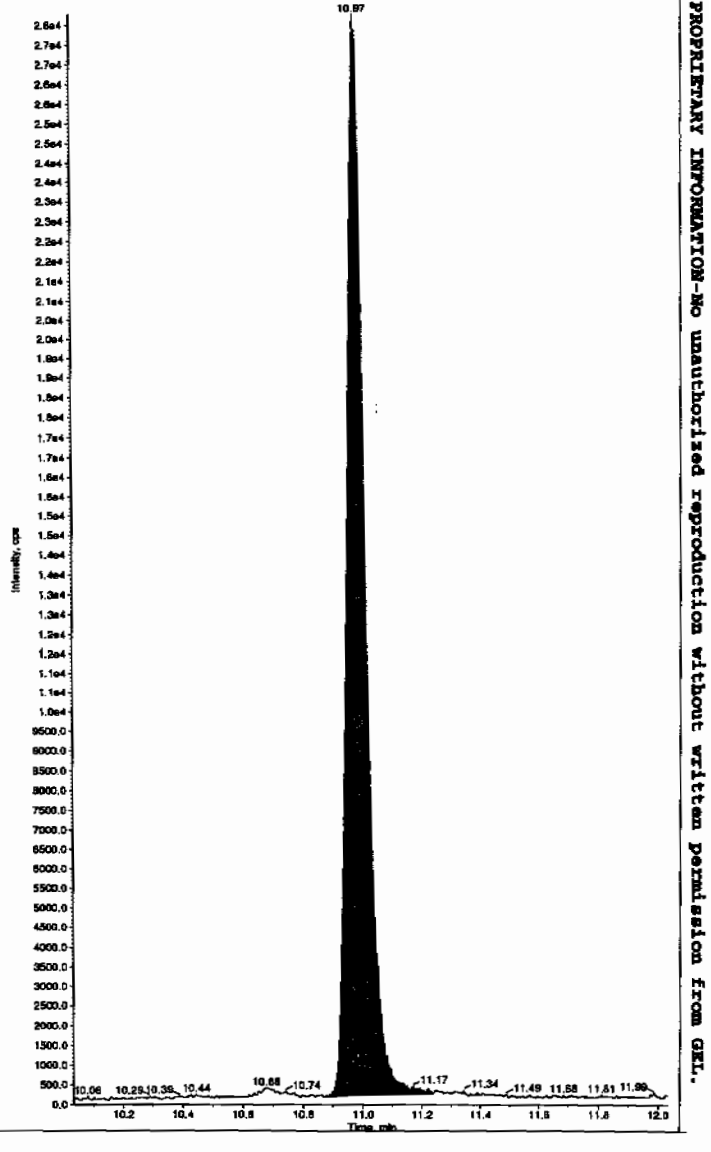

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 15-FEB-10 02:35

GEL Data File: EXS02140048.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.58
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ler 2/17/10

ample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 2:35:28 AM

ified: No

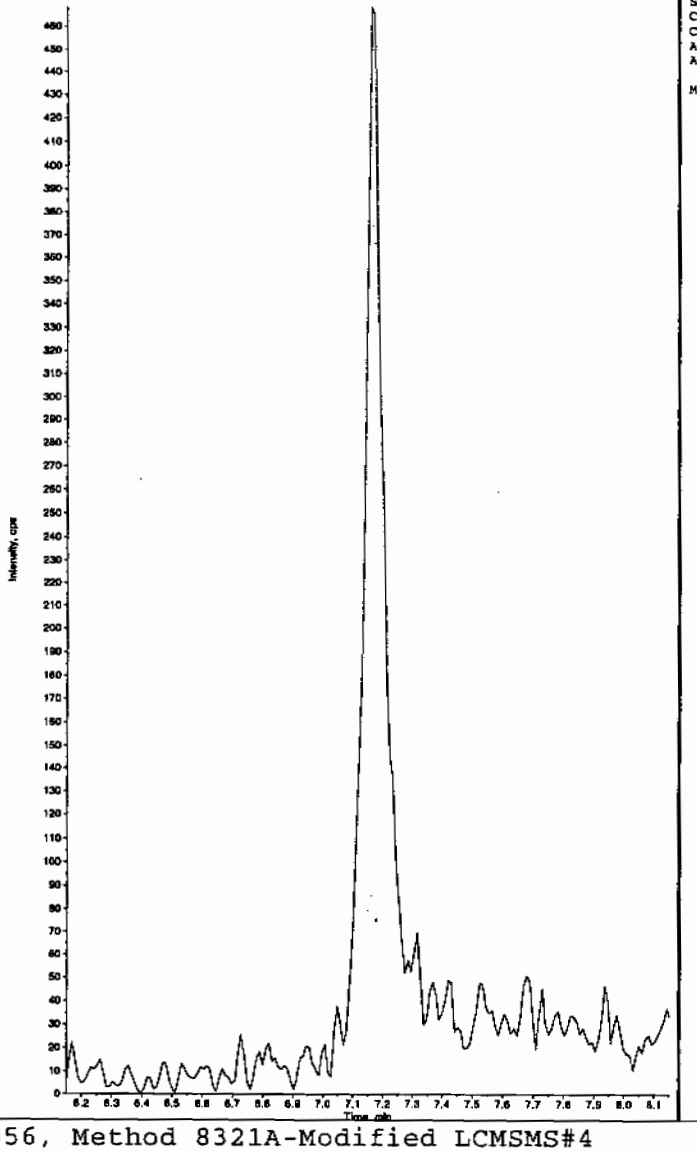

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:35:28 AM

Modified: No

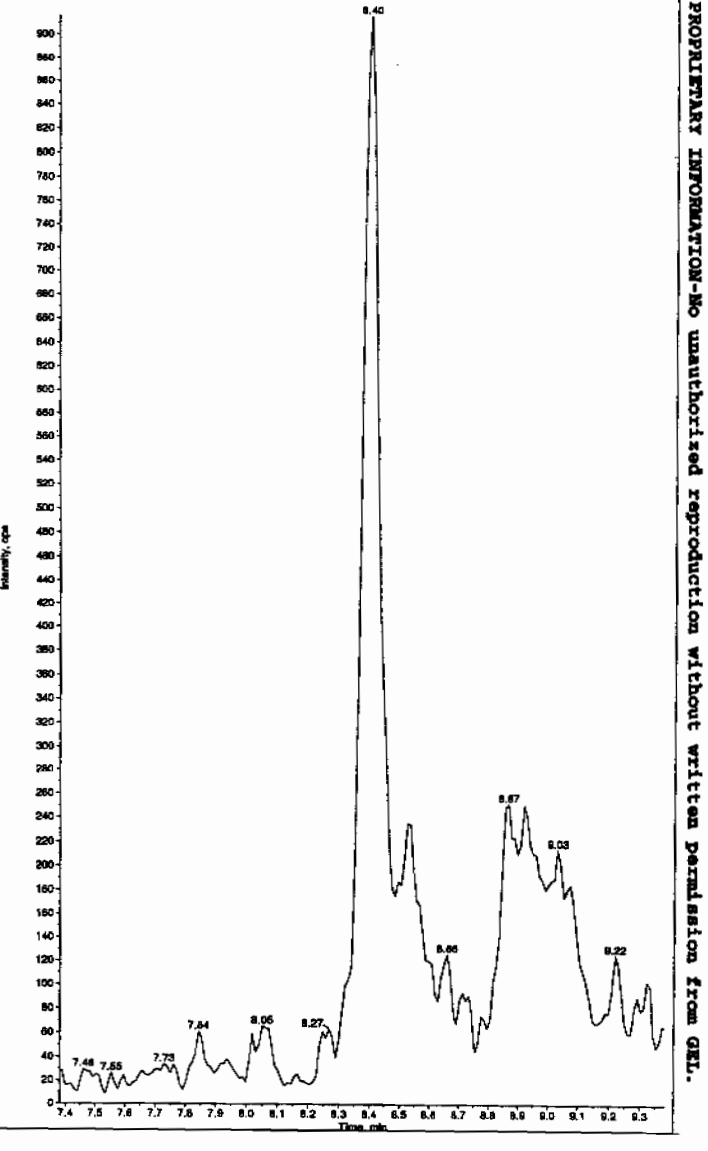

Hmm 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "1|LER" File: "EXS02140048.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 2:35:28 AM

dified: No

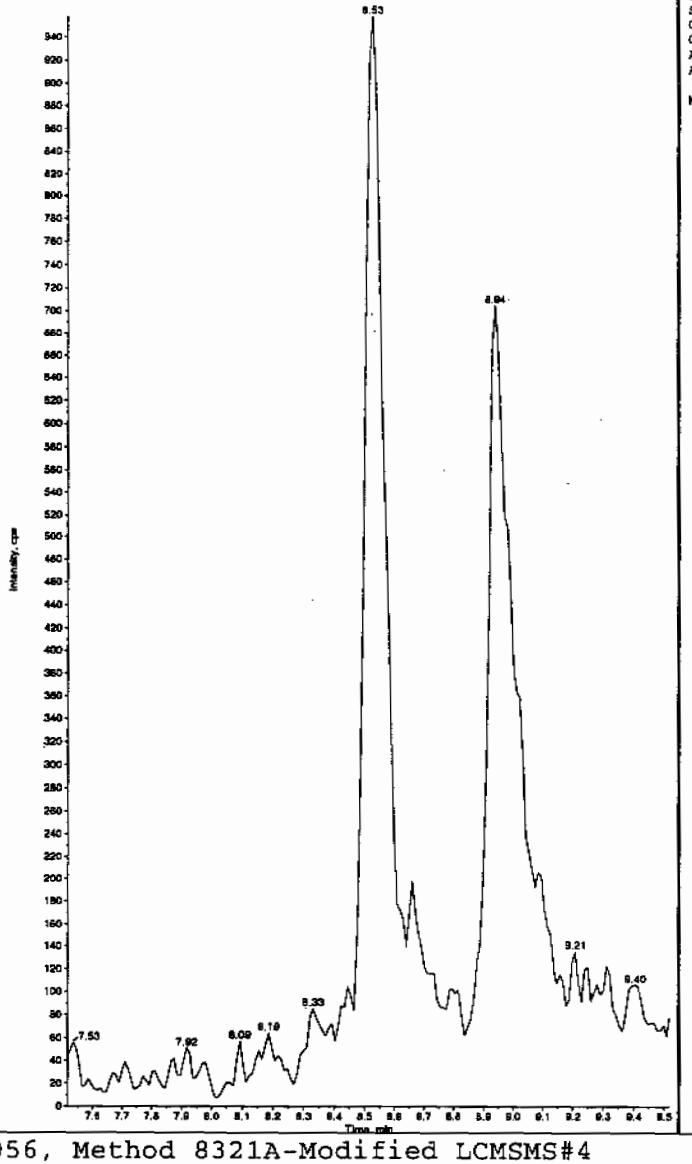

Sample Name: "XIBLK07" Sample ID: "1|LER" File: "EXS02140048.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:35:28 AM

Modified: No

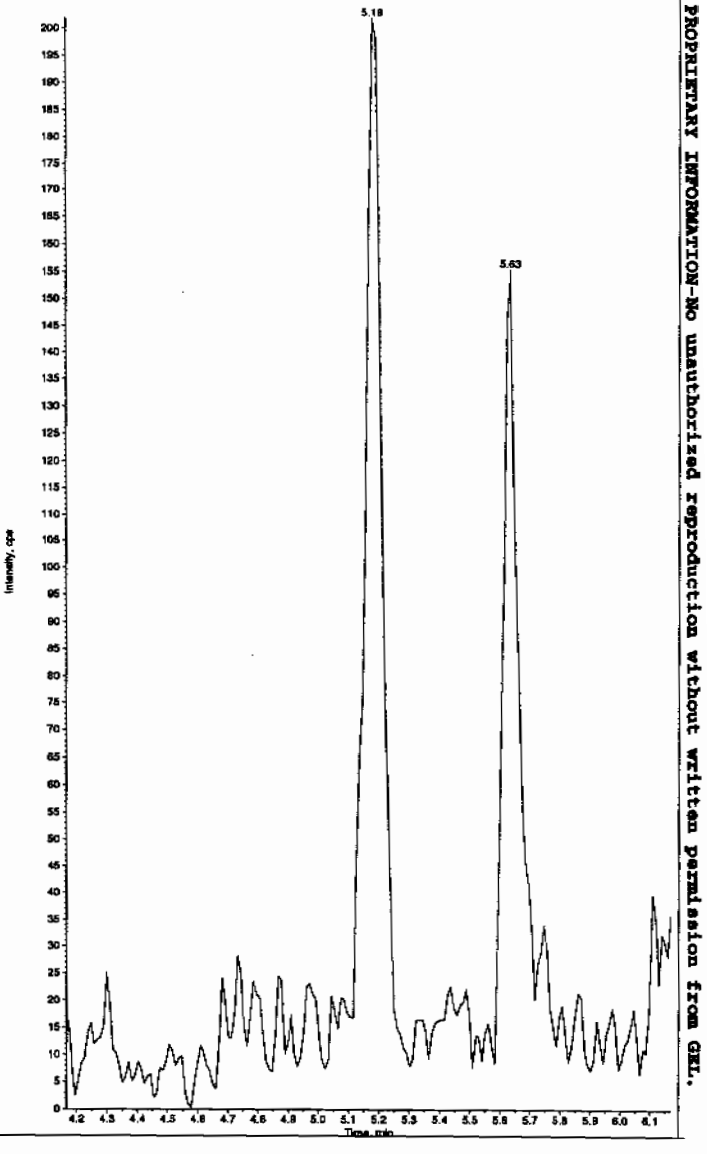

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 2:35:28 AM

ified: No

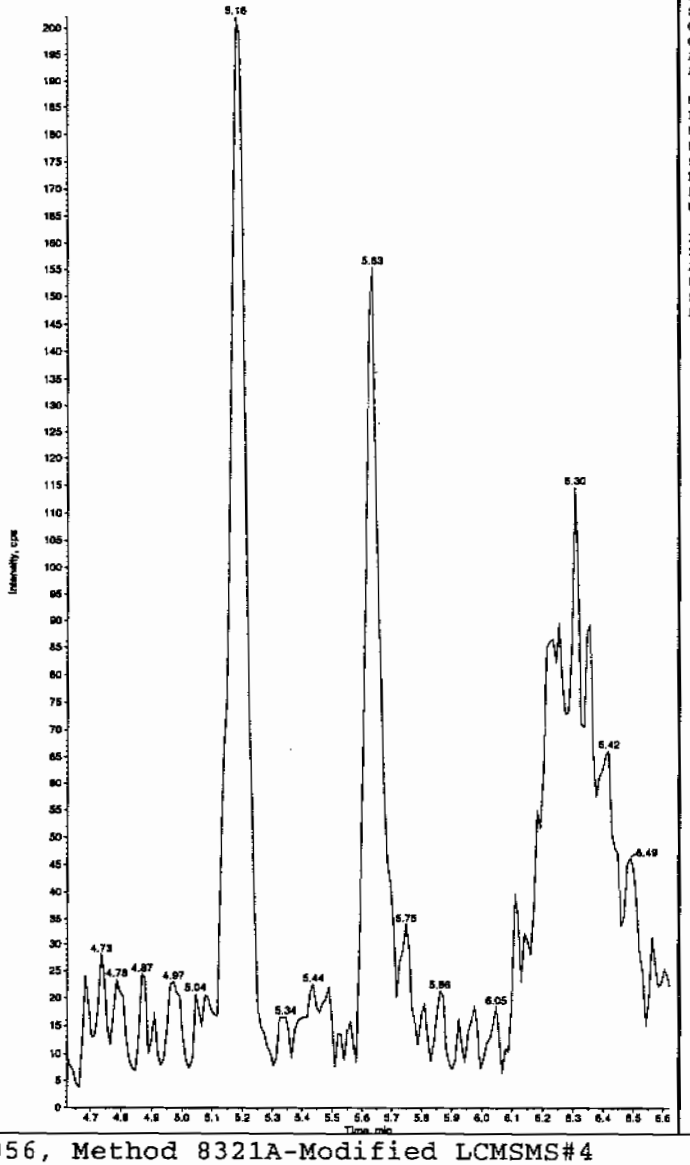

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.58 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:35:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 9.90e+004 counts
Height: 22617.477 cps
Start Time: 10.9 min
End Time: 11.3 min

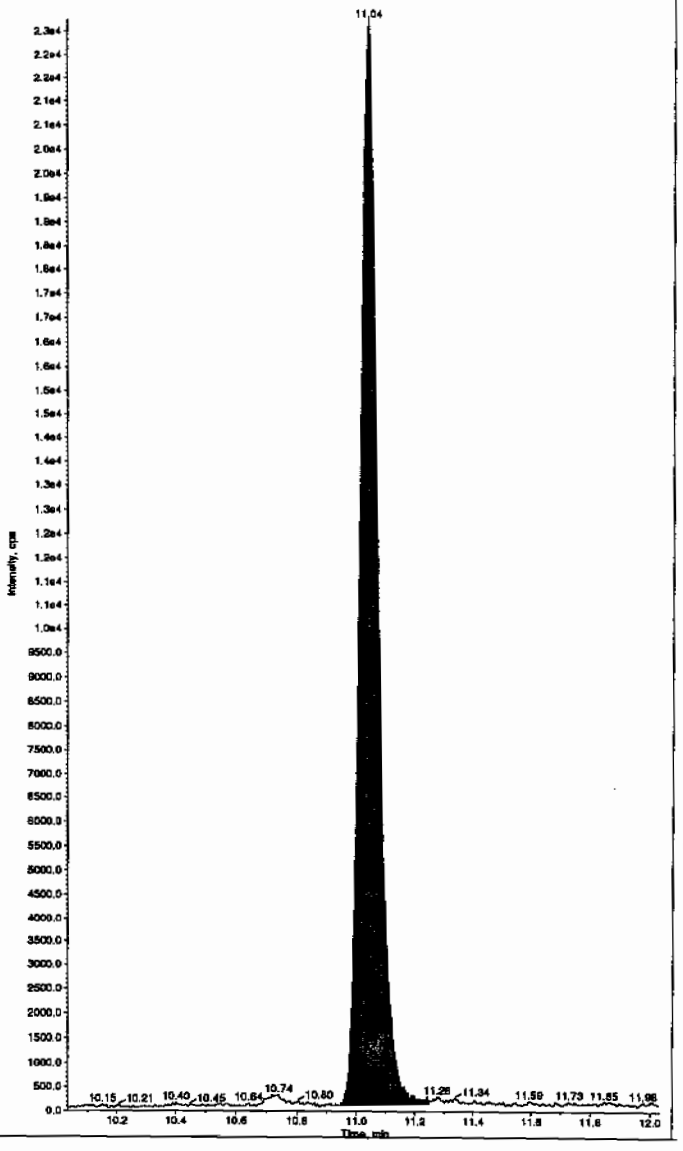

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 15–FEB–10 04:56

GEL Data File: EXS02140057.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.01
TATB	0	0

Lan 2/17/10

ample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02140057.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 4:56:50 AM
ified: No

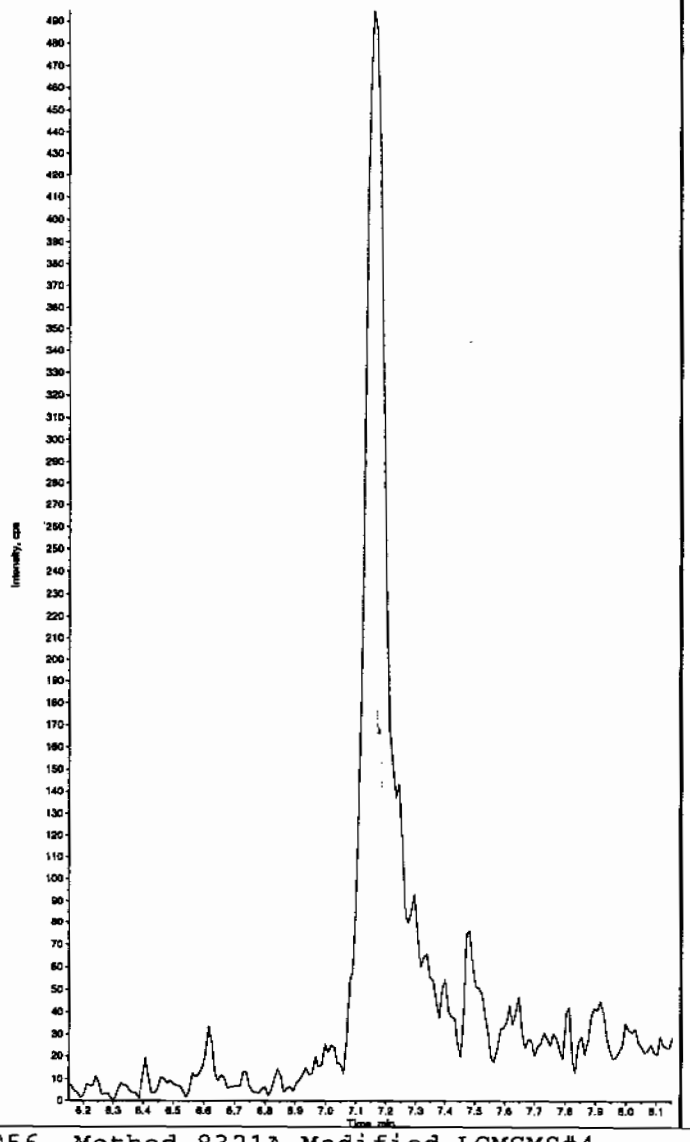

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:56:50 AM

Modified: No

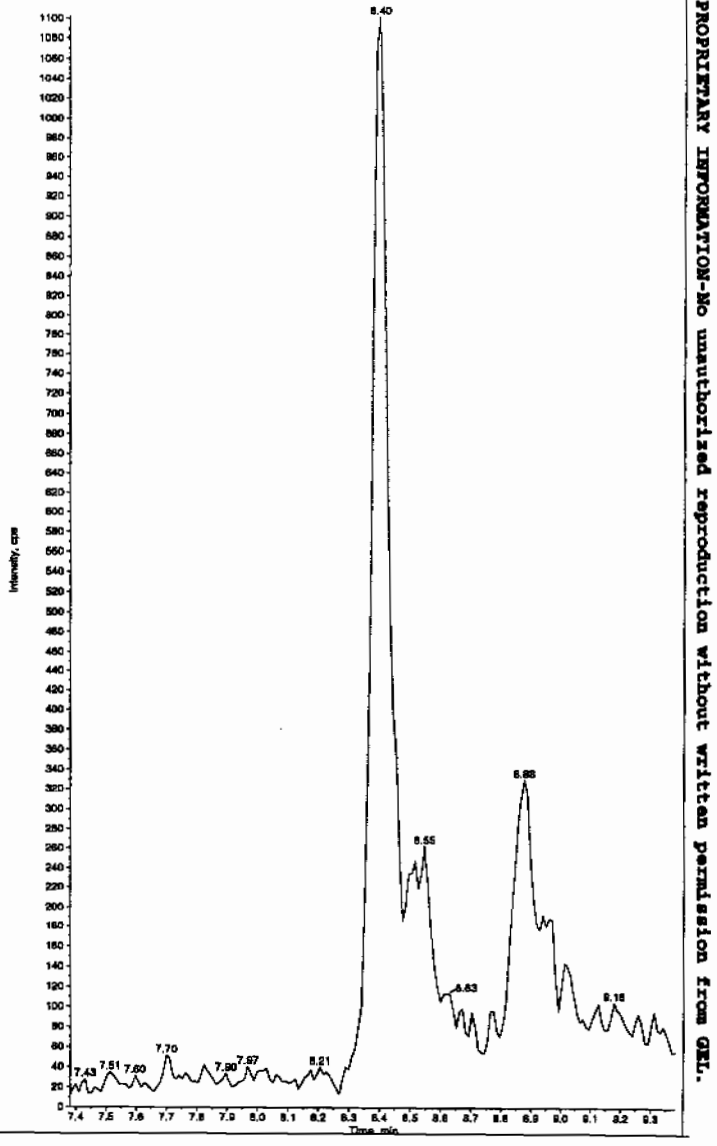

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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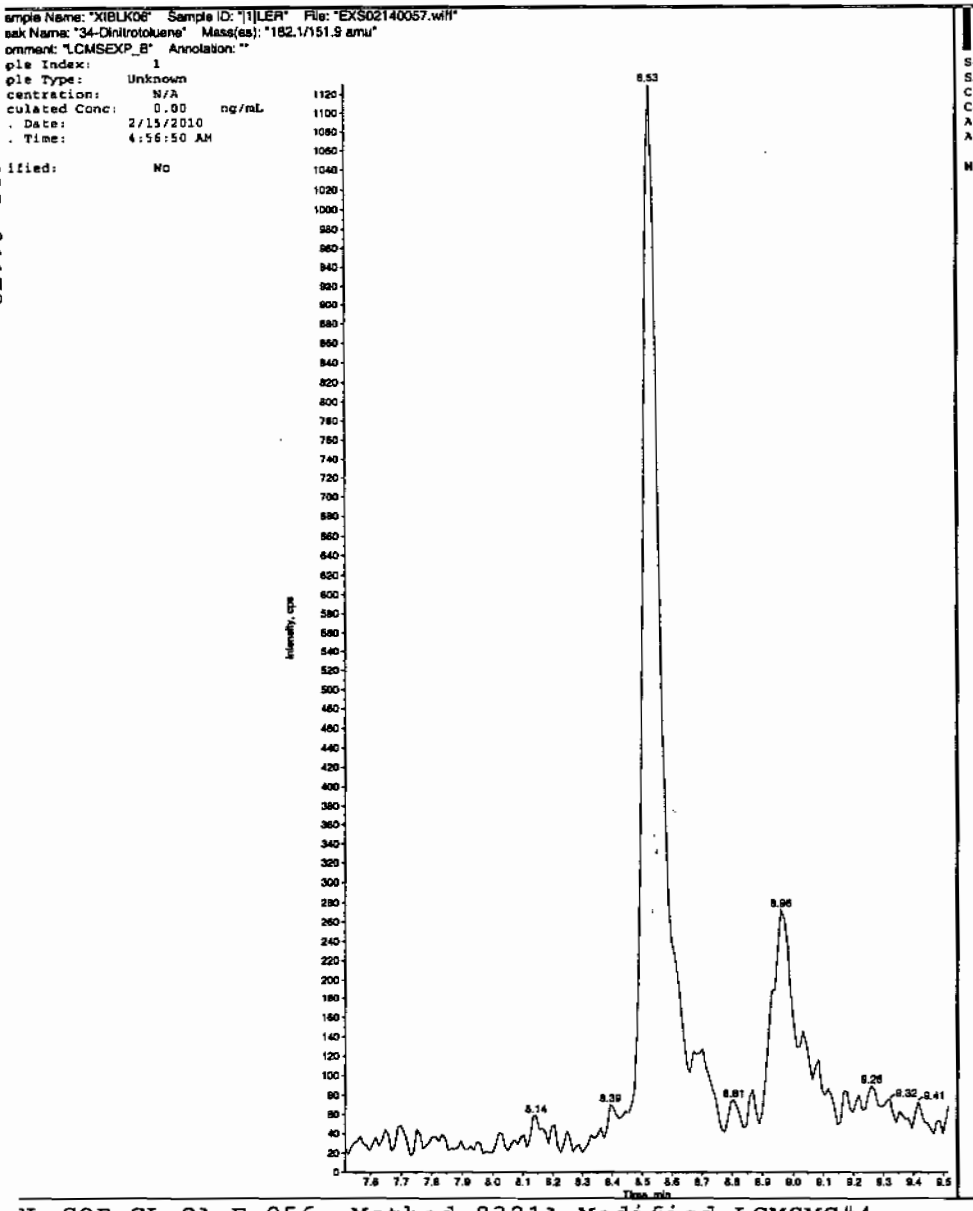

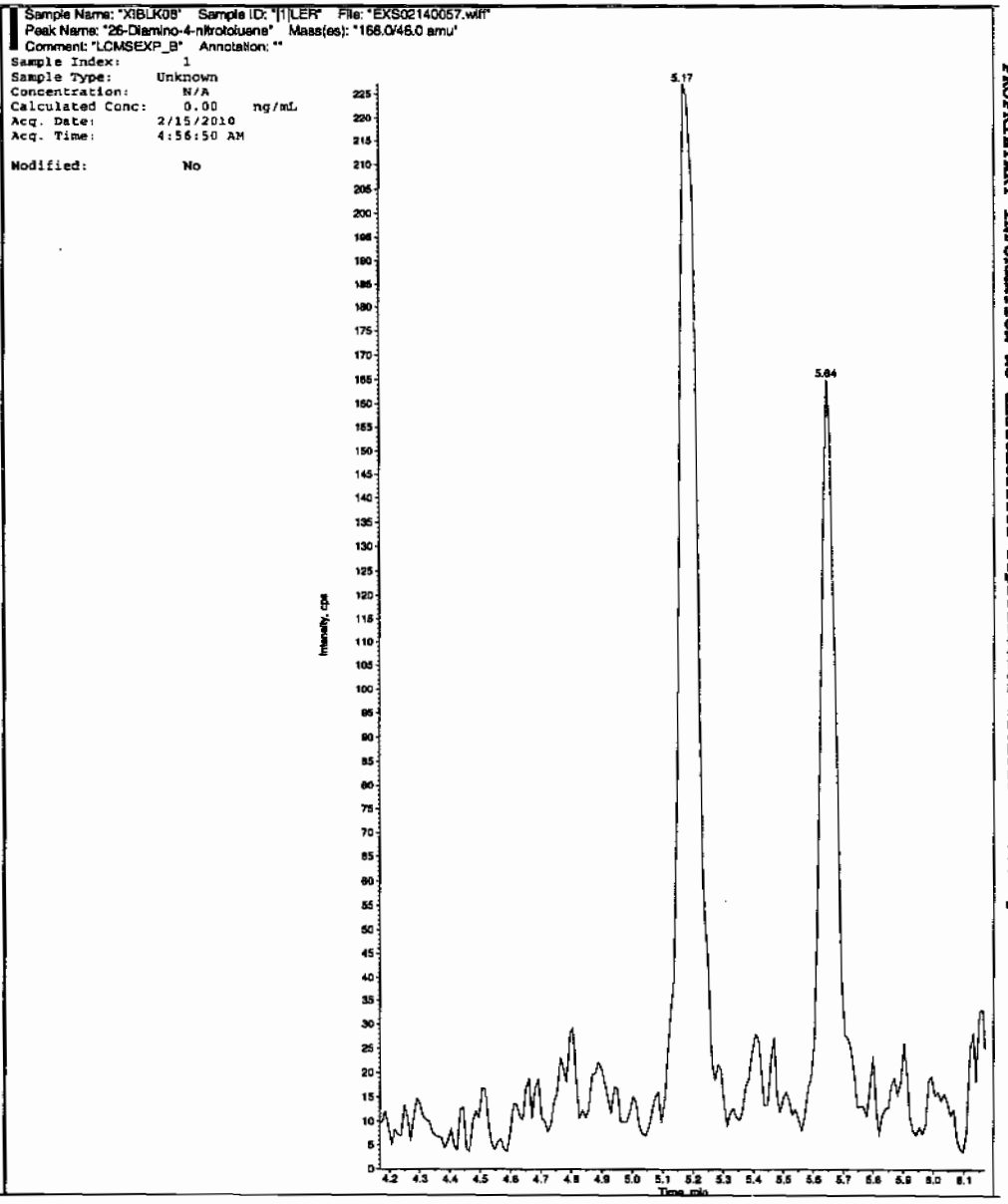

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	4:56:50 AM
Modified:	No

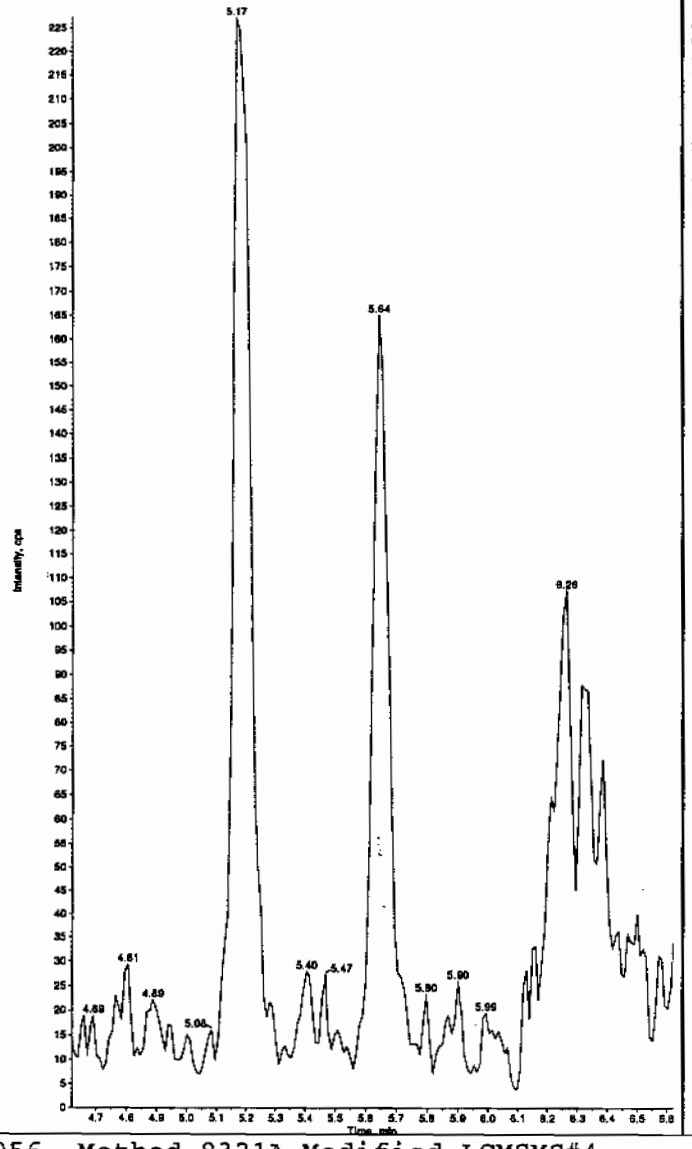

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	3.01 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	4:56:50 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	11.0 min
Area:	1.33e+005 counts
Height:	29666.075 cps
Start Time:	10.9 min
End Time:	11.4 min

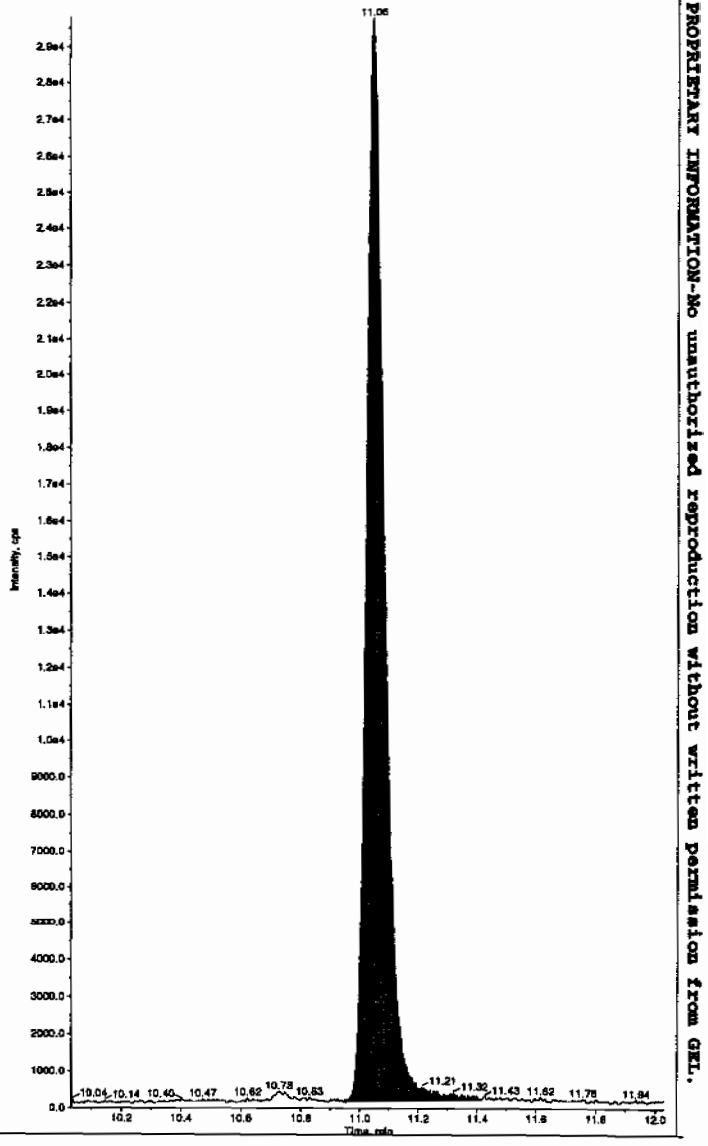

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 15–FEB–10 06:31

GEL Data File: EXS02140063.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.25
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lem 2/17/10

ample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02140063.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 6:31:02 AM

ified: No

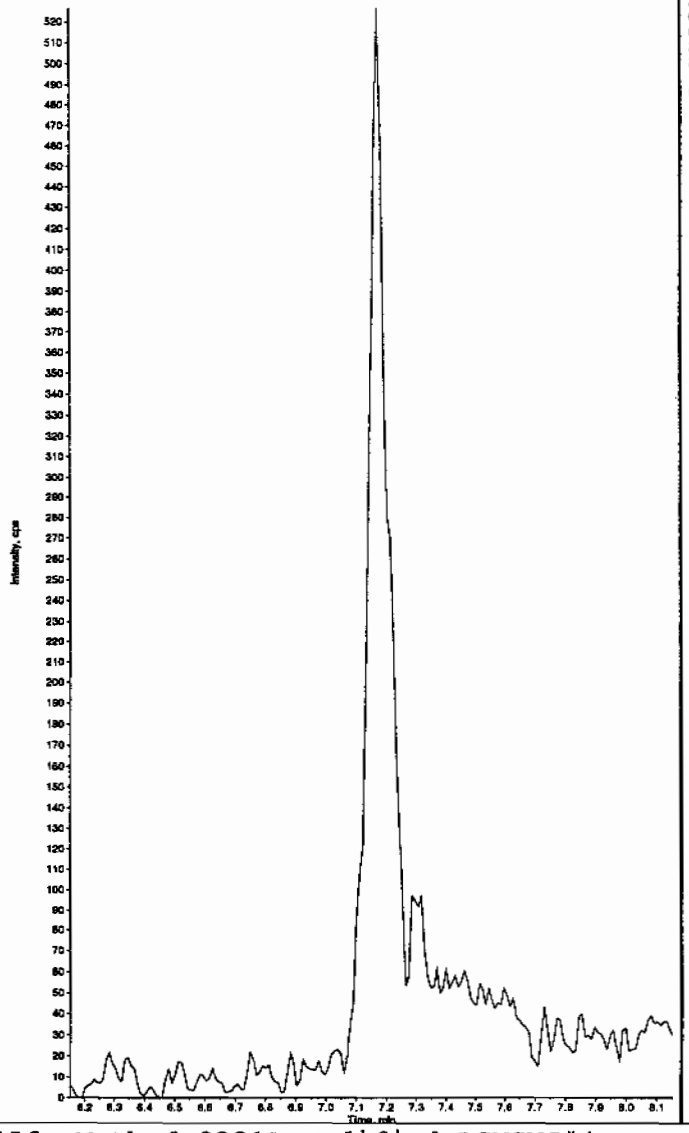

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02140063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No

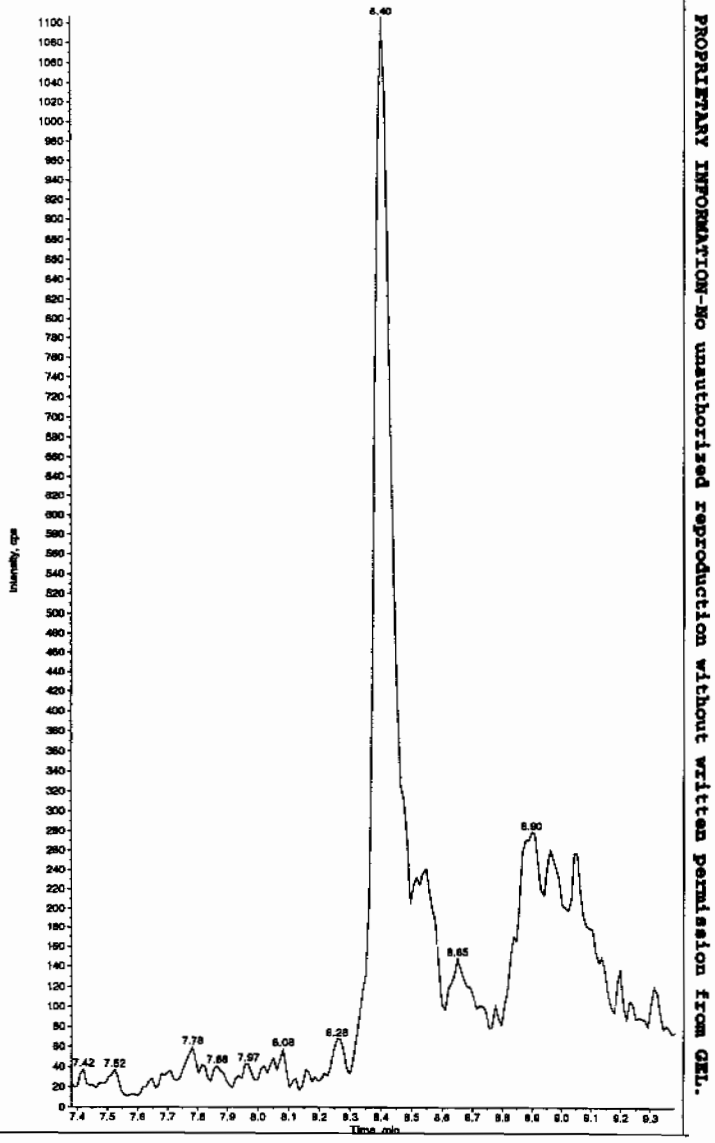

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02140063.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No

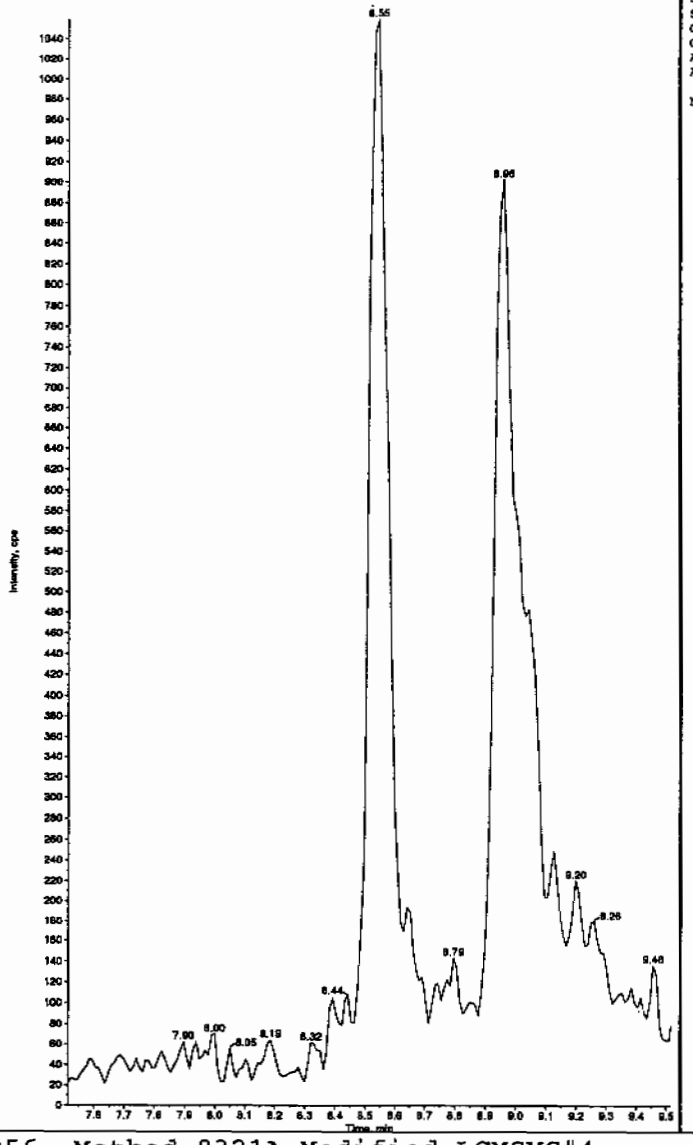

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02140063.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No

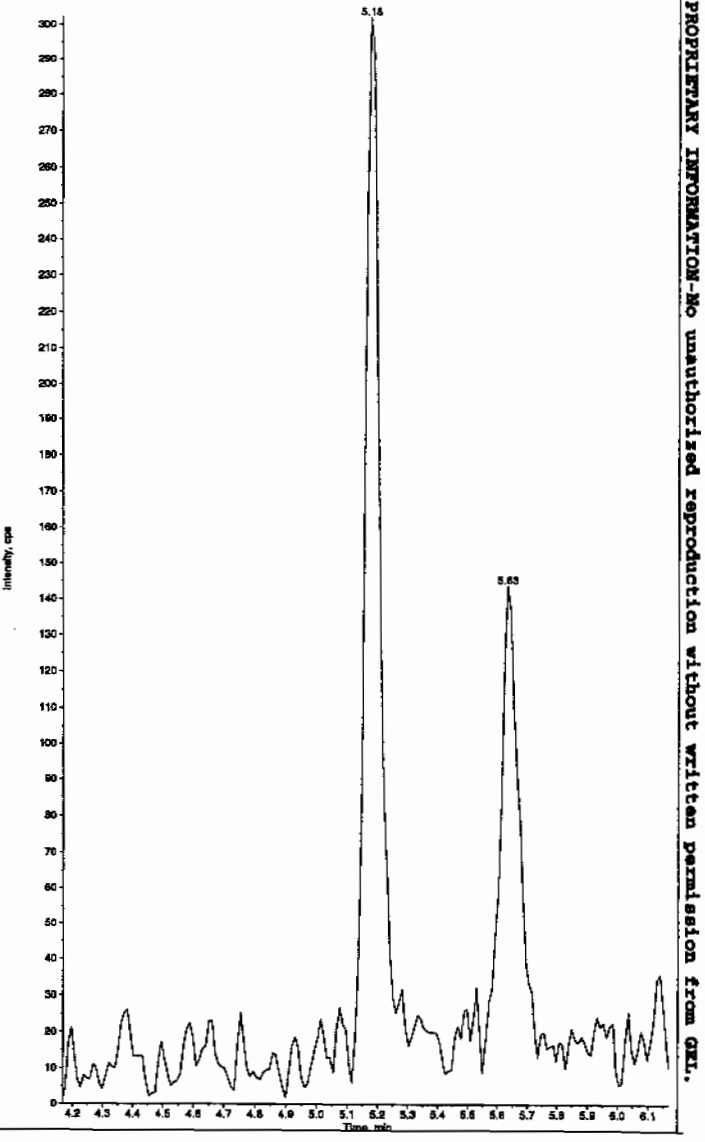

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02140063.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 6:31:02 AM

odified: No

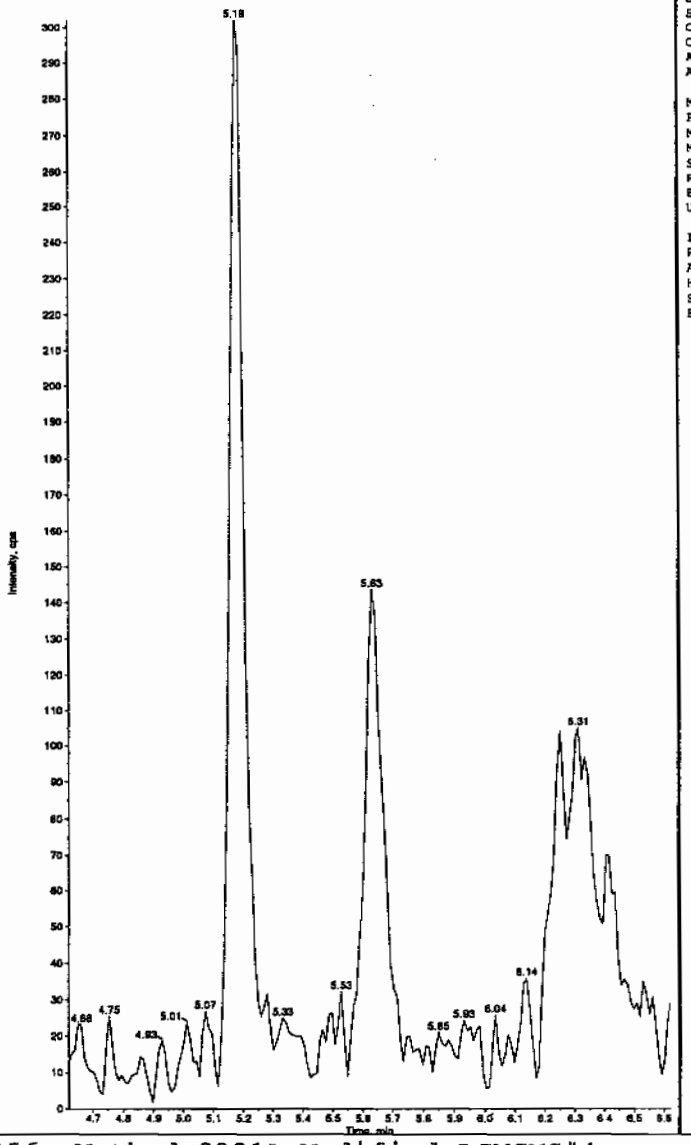

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02140063.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.25 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.15e+005 counts
Height: 25551.302 cps
Start Time: 10.9 min
End Time: 11.4 min

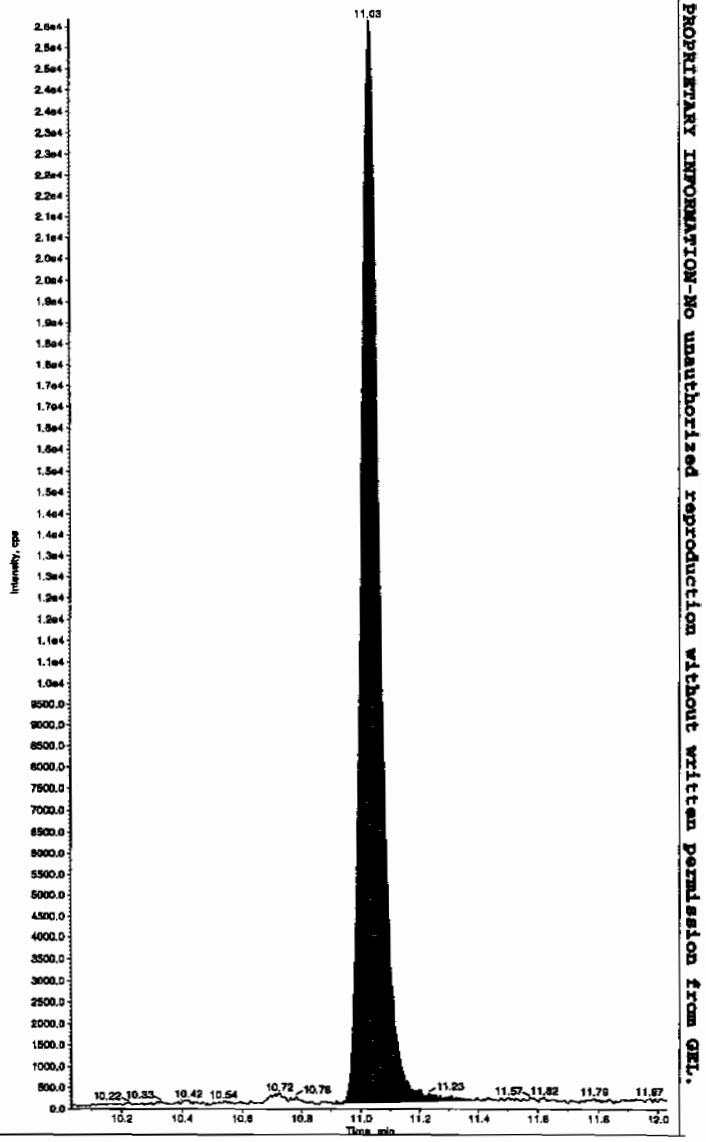

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 15-FEB-10 08:21

GEL Data File: EXS02140070.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.13

LCM 2/17/10

ample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02140070.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 8:21:01 AM

ified: No

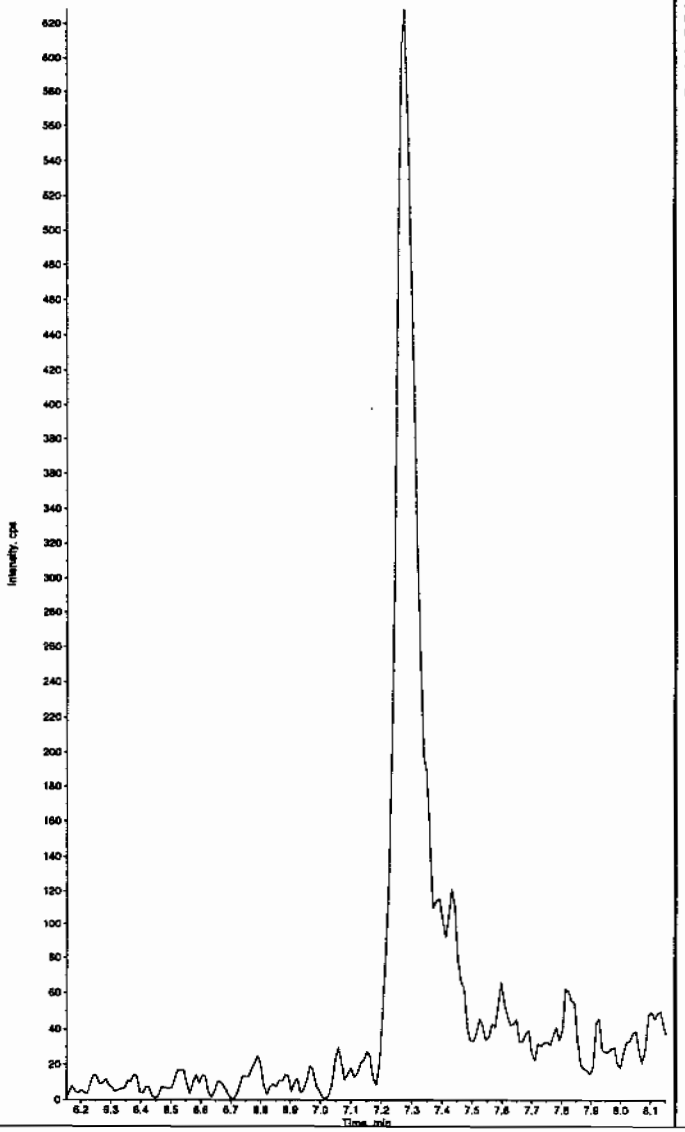

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02140070.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:21:01 AM

Modified: No

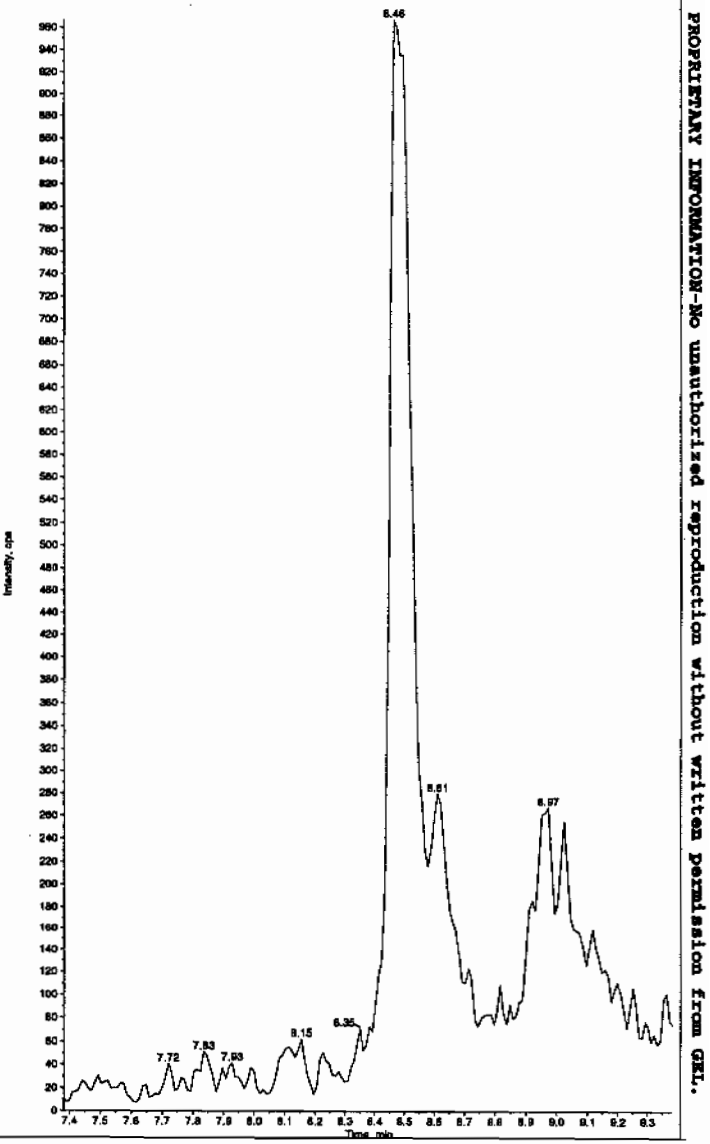

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02140070.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 8:21:01 AM

ified: No

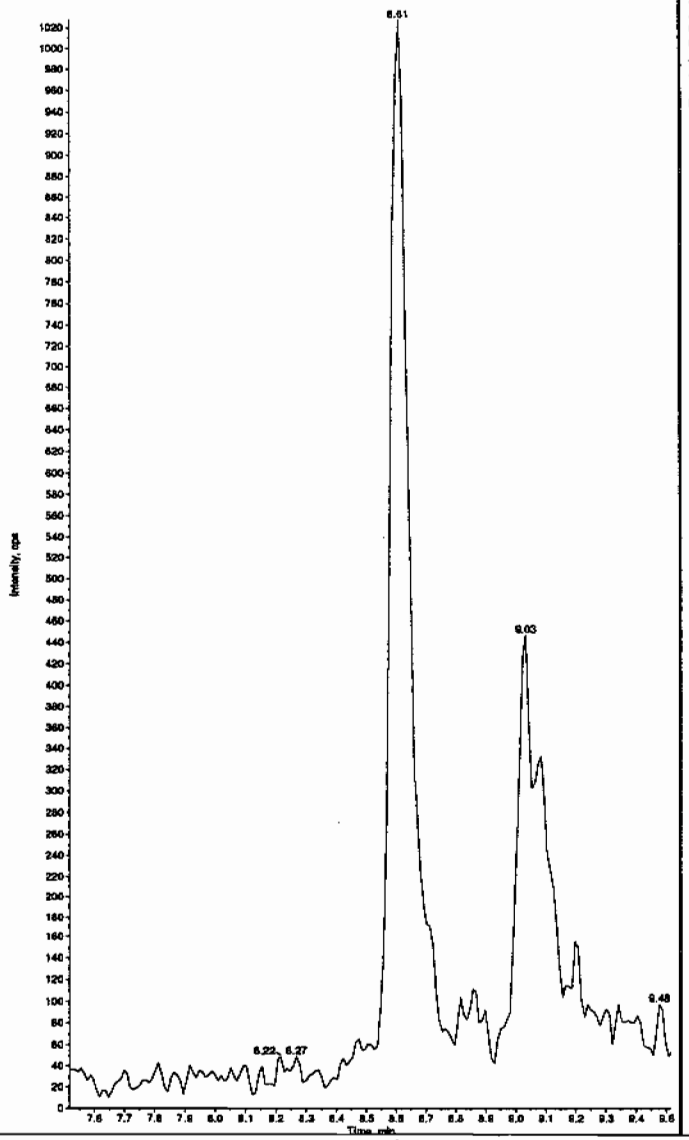

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02140070.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:21:01 AM

Modified: No

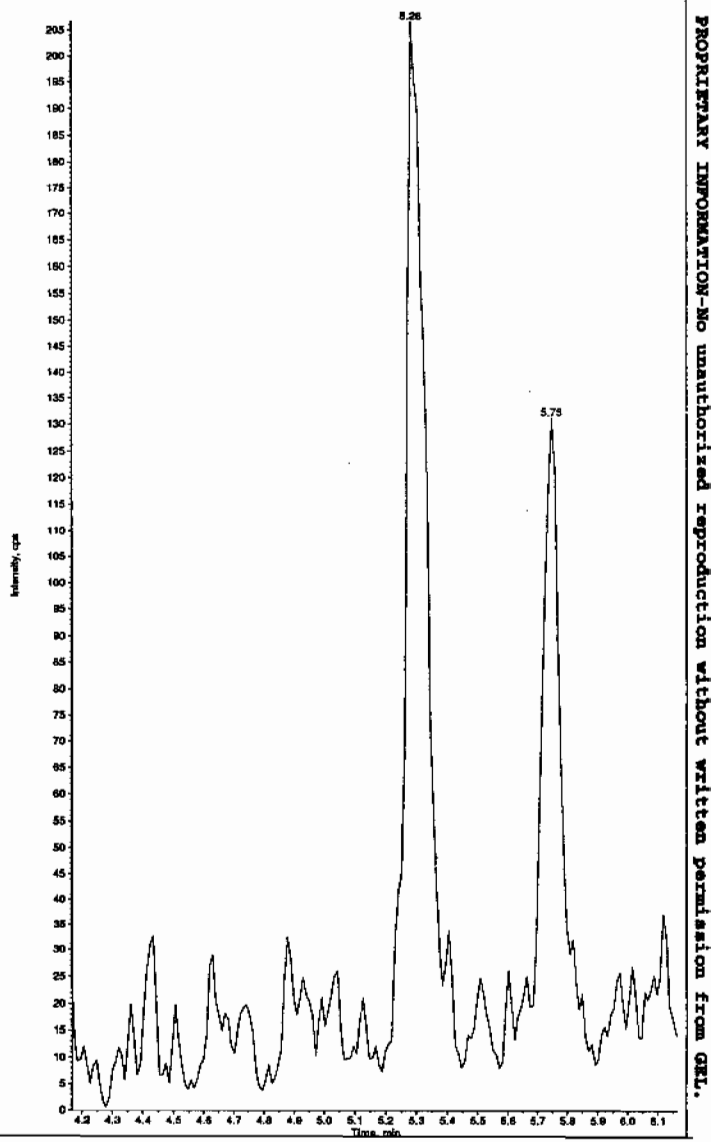

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK10" Sample ID: "1|LER" File: "EXS02140070.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 8:21:01 AM

ified: No

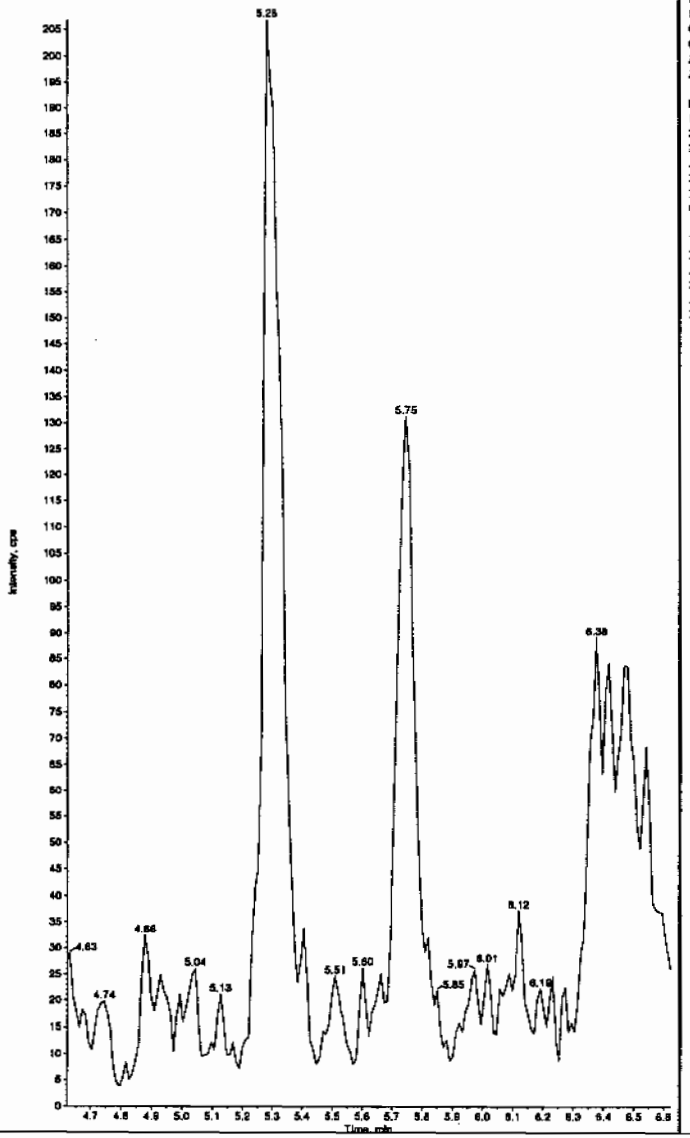

Sample Name: "XIBLK10" Sample ID: "1|LER" File: "EXS02140070.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	4.13	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	8:21:01 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.1	min
Area:	1.59e+005	counts
Height:	37511.536	cps
Start Time:	11.0	min
End Time:	11.3	min

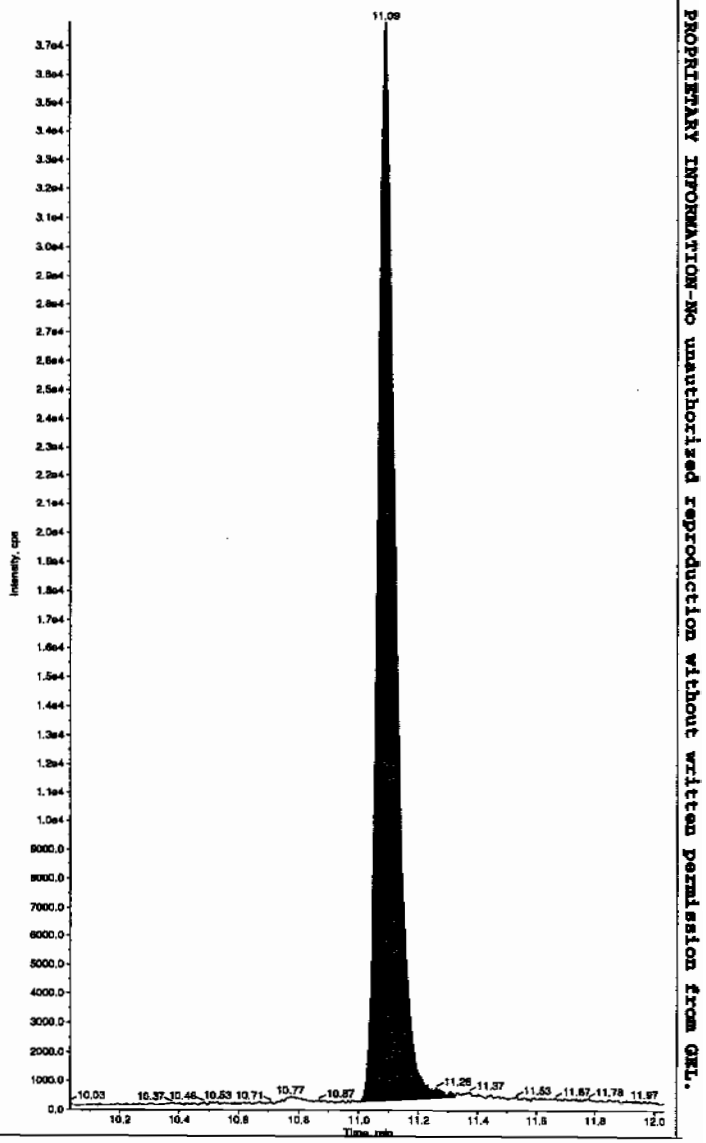

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 15–FEB–10 11:46

GEL Data File: EXS02140083.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.17
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcr 2/17/10

ample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02140083.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 11:46:26 AM
ified: No

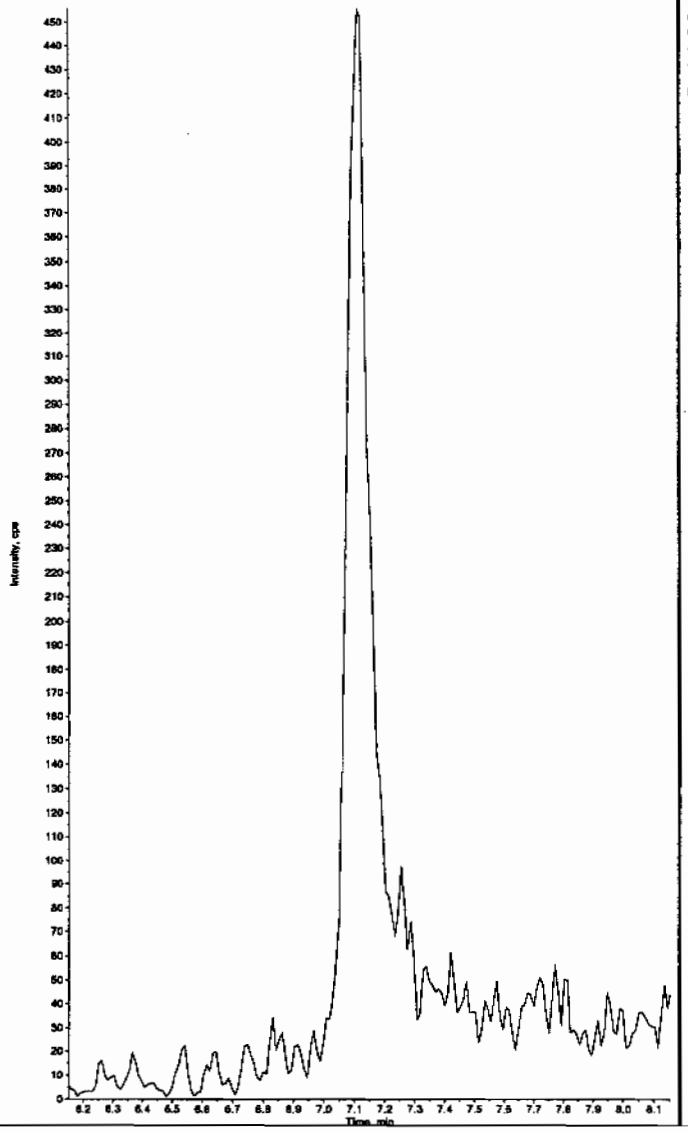

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02140083.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:46:26 AM

Modified: No

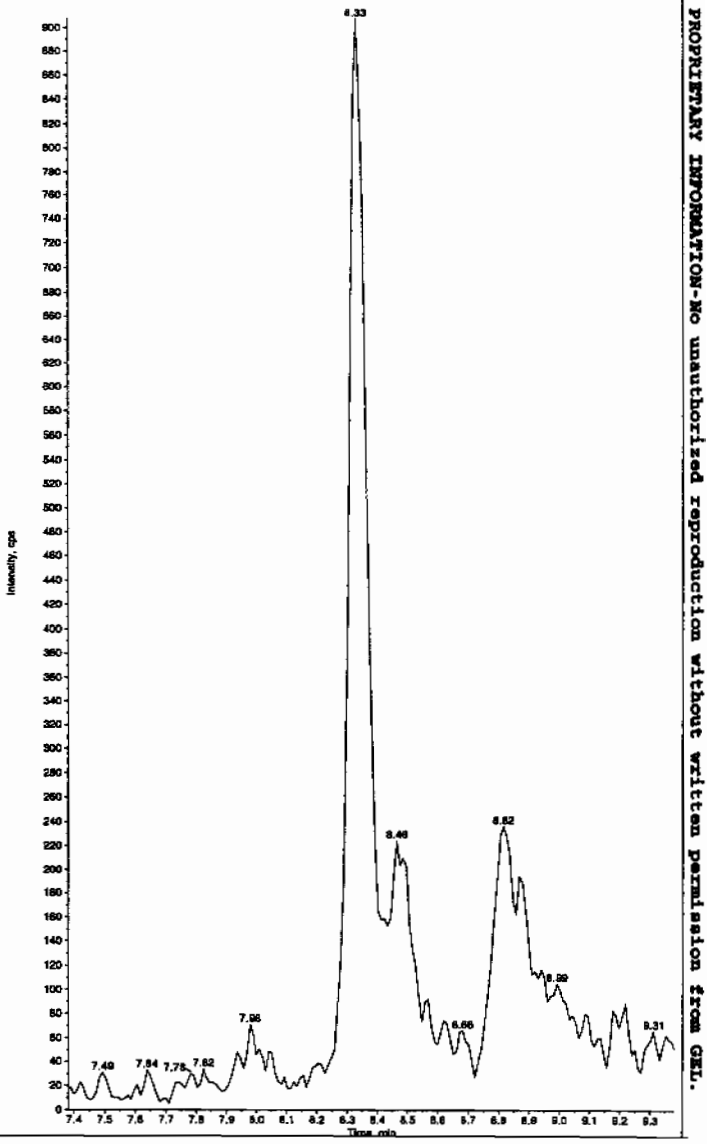

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ample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02140083.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: "
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 11:46:26 AM

ified: No

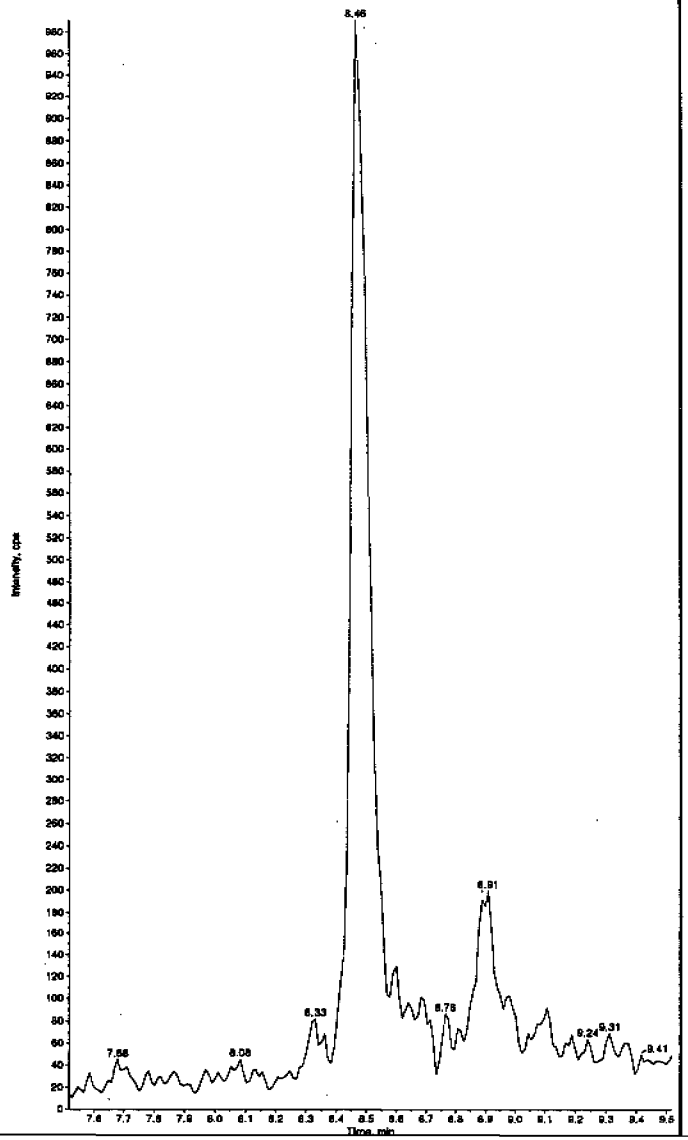

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02140083.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:46:26 AM

Modified: No

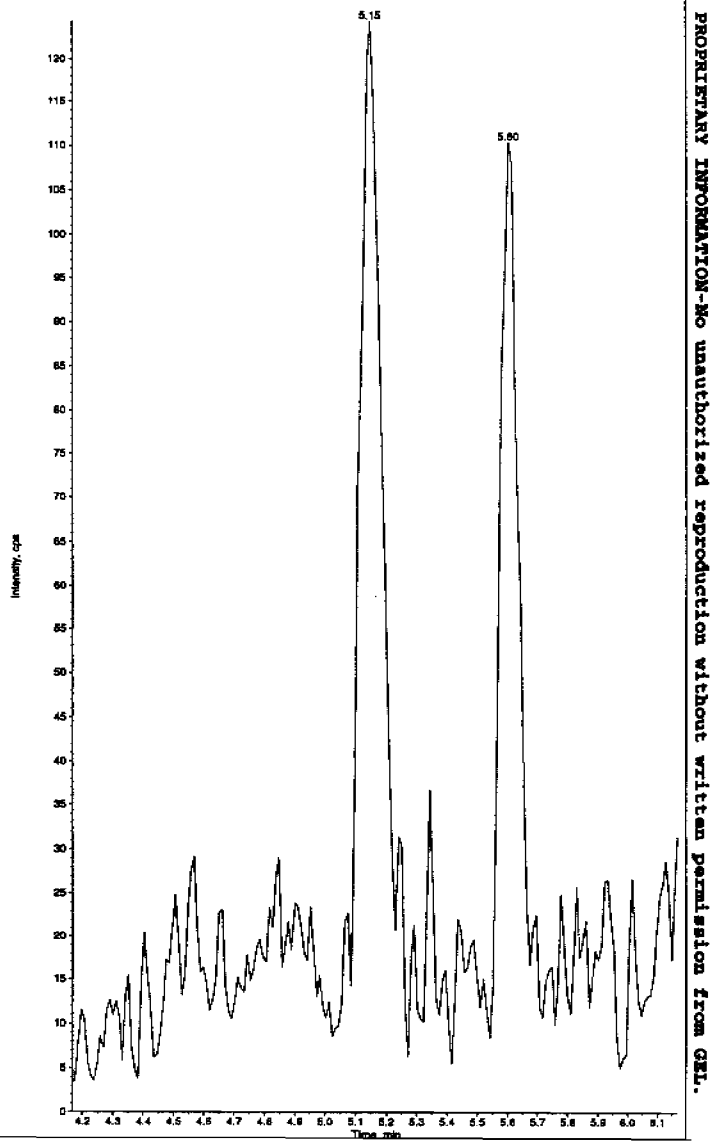

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02140083.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 11:46:26 AM

ified: No

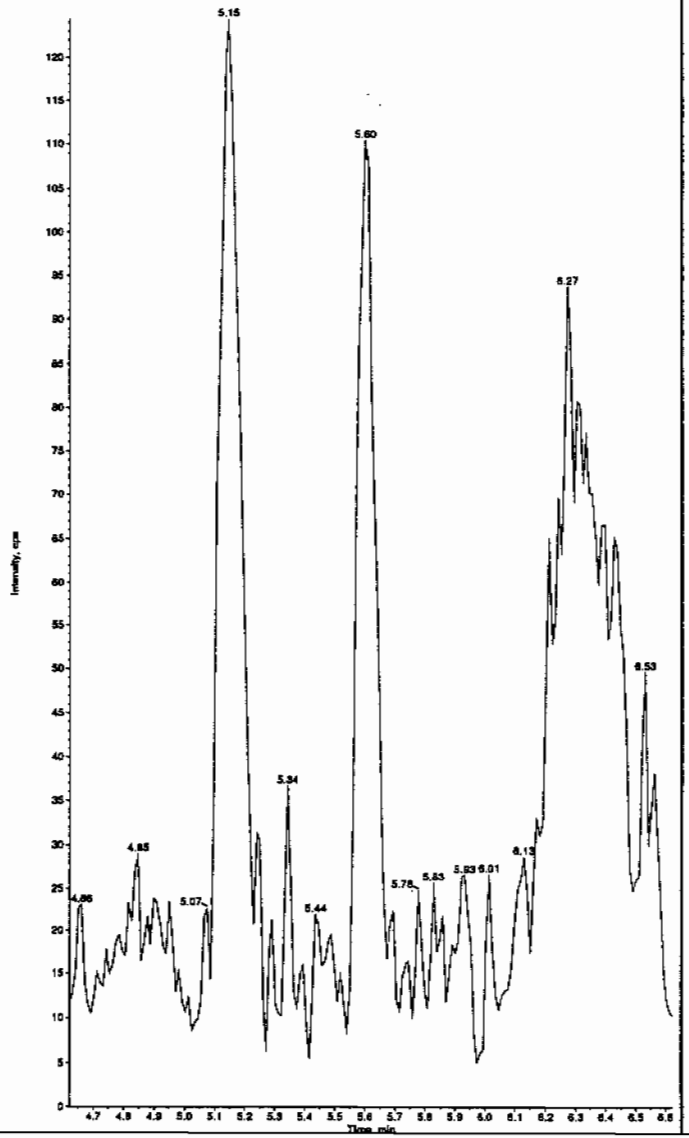

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02140083.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.17 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:46:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.37e+005 counts
Height: 32225.262 cps
Start Time: 10.8 min
End Time: 11.2 min

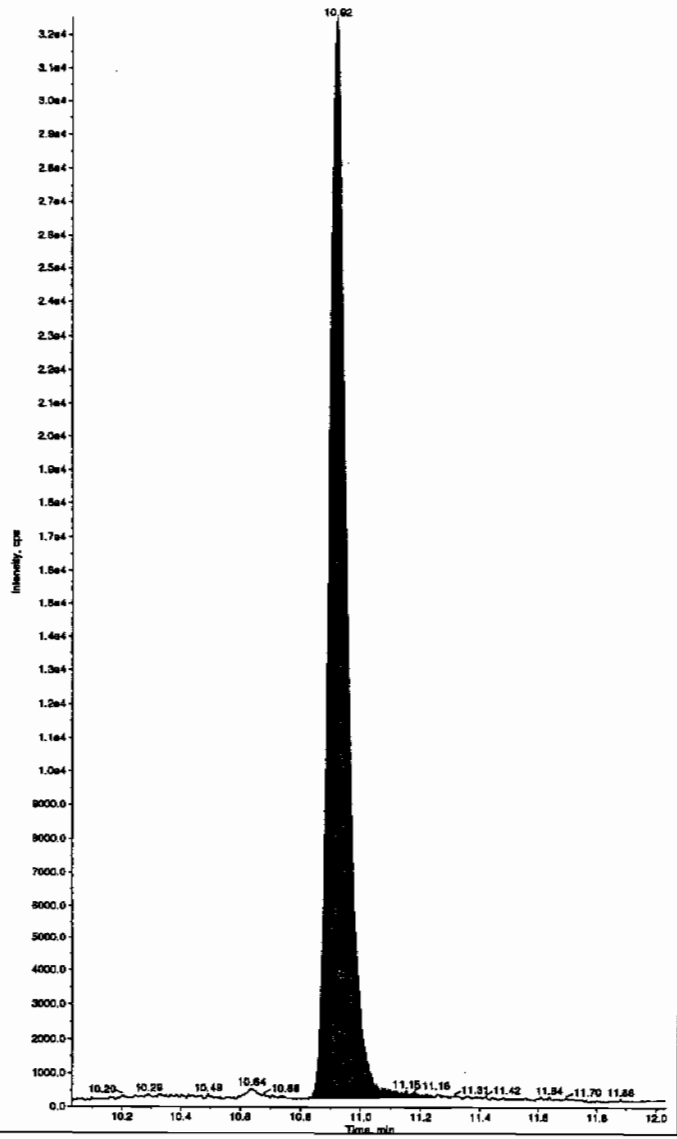

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 15-FEB-10 13:20

GEL Data File: EXS02140089.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
tris(o-cresyl) phosphate	0	1.15
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

Ler 2/17/10

mple Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02140089.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/15/2010
Time: 1:20:39 PM

fied: No

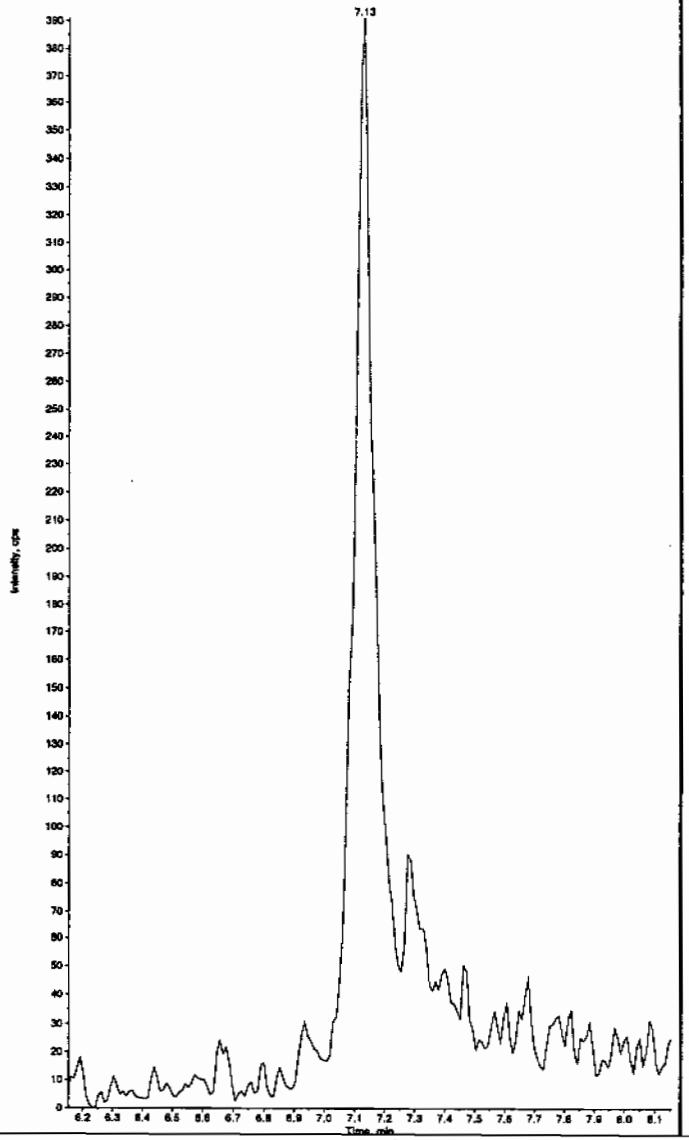

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02140089.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:20:39 PM

Modified: No

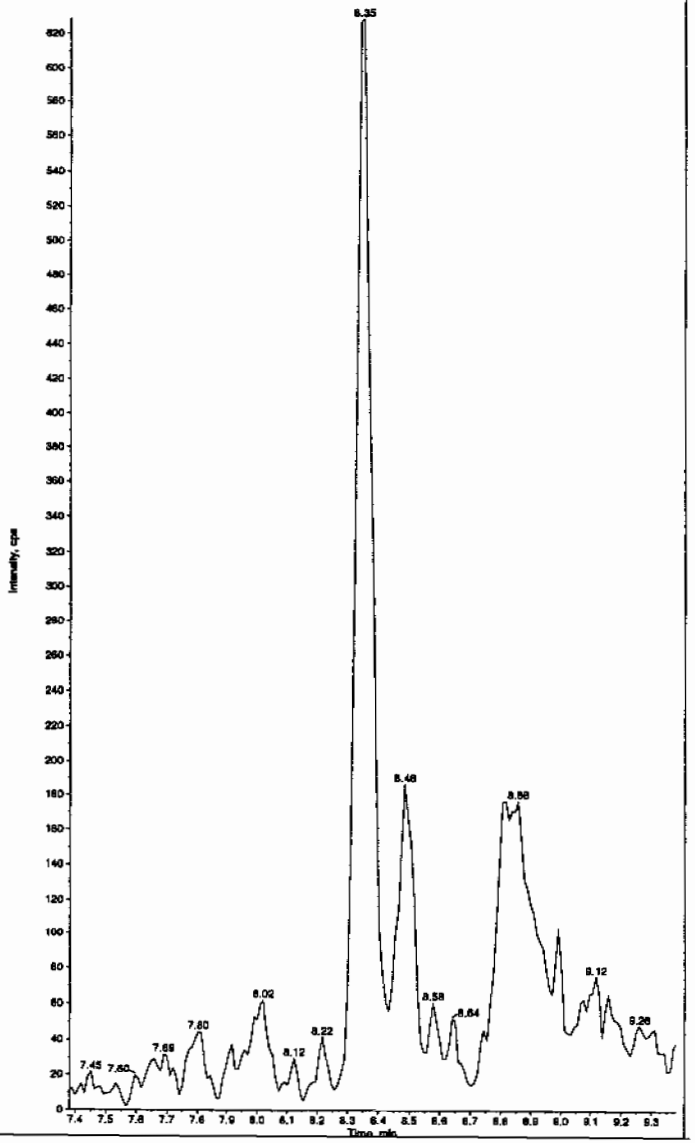

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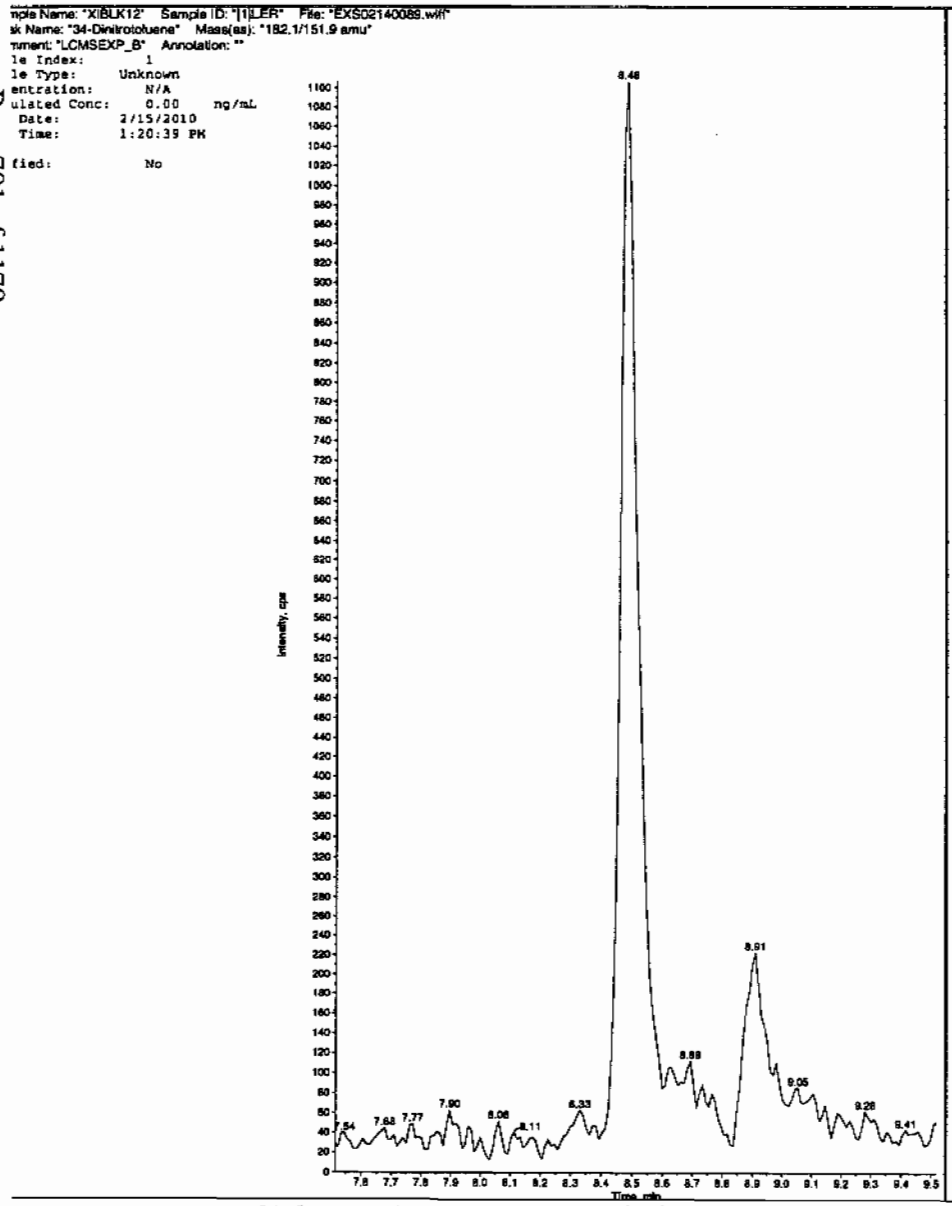

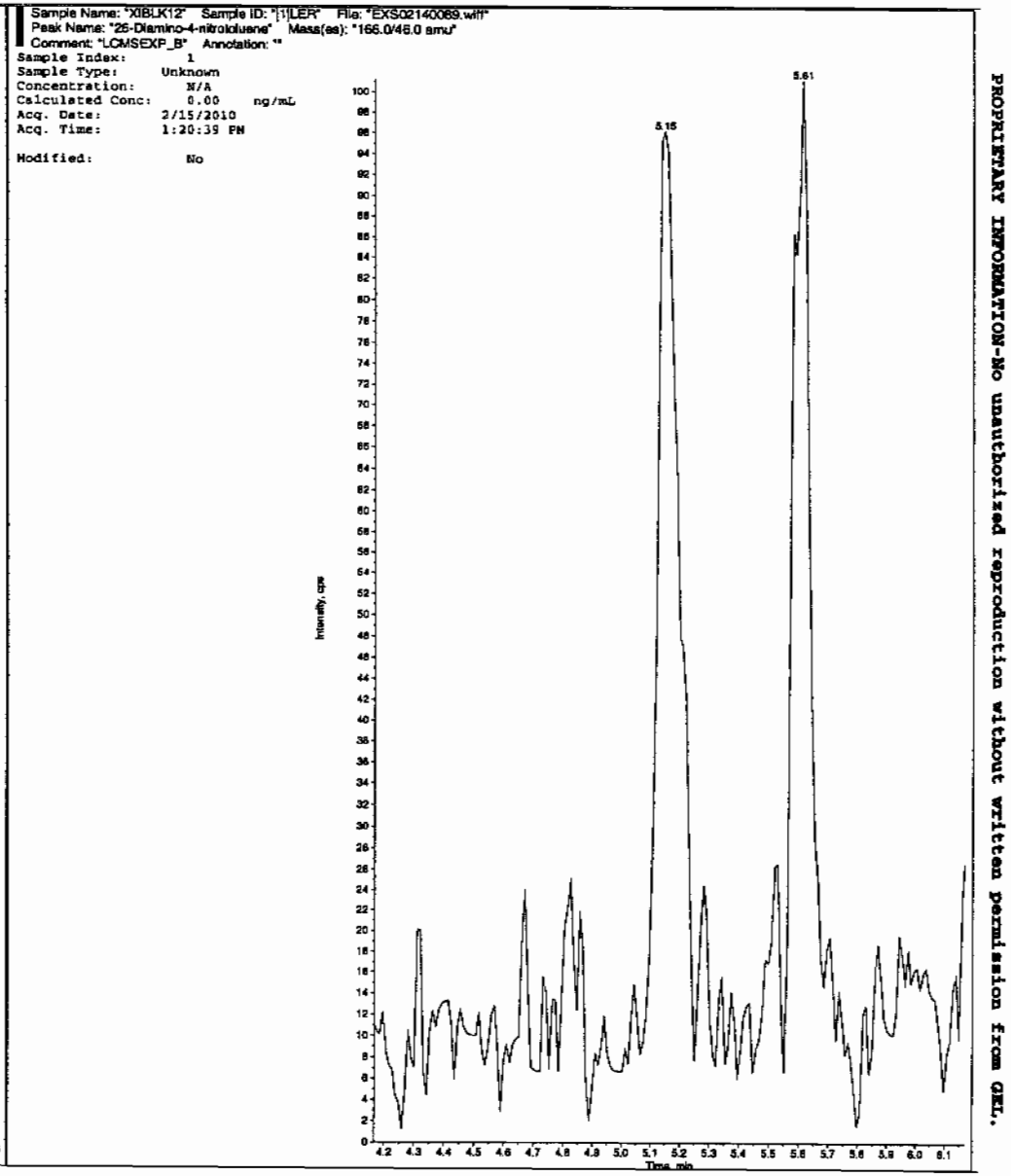

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS02140089.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 1:20:39 PM

ified: No

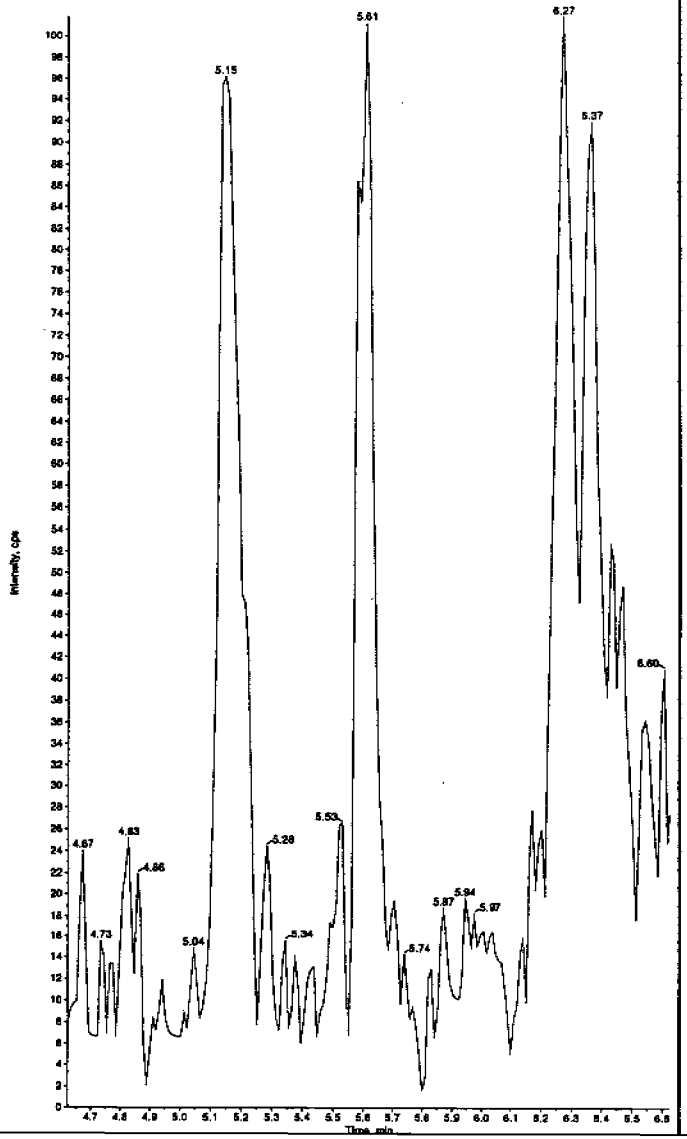

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS02140089.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	1.15	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	1:20:39 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	8.89e+004	counts
Height:	21230.875	cps
Start Time:	10.8	min
End Time:	11.2	min

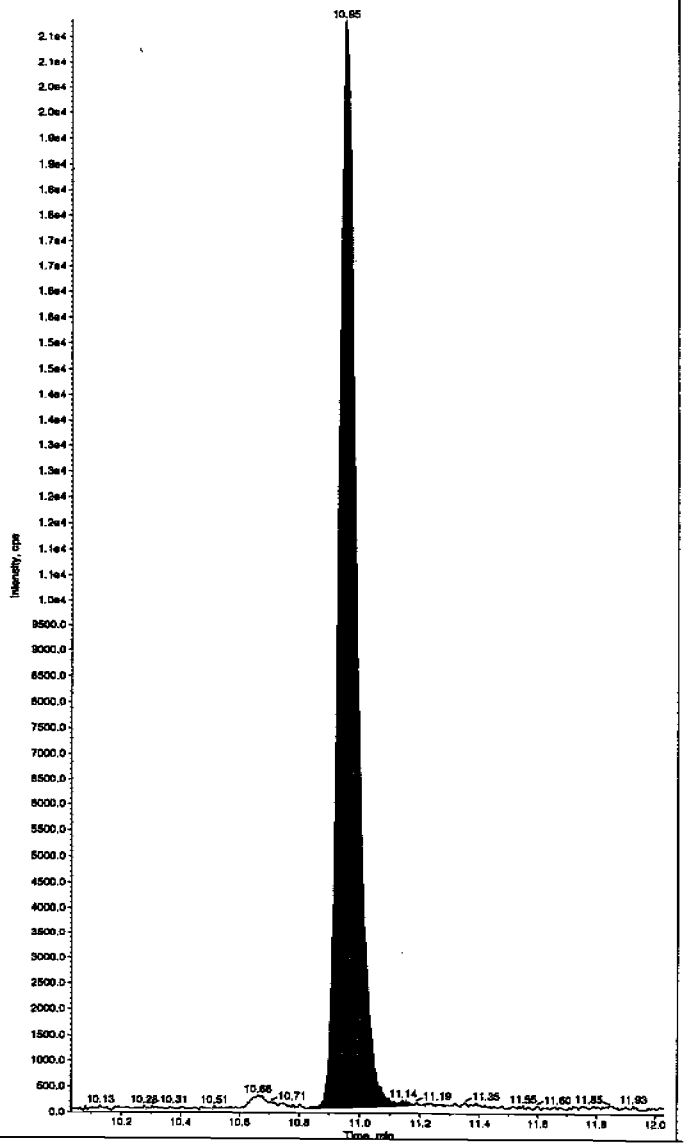

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 15–FEB–10 15:10

GEL Data File: EXS02140096.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.82
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Jen 2/17/10

mple Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02140096.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/15/2010
Time: 3:10:32 PM

fied: No

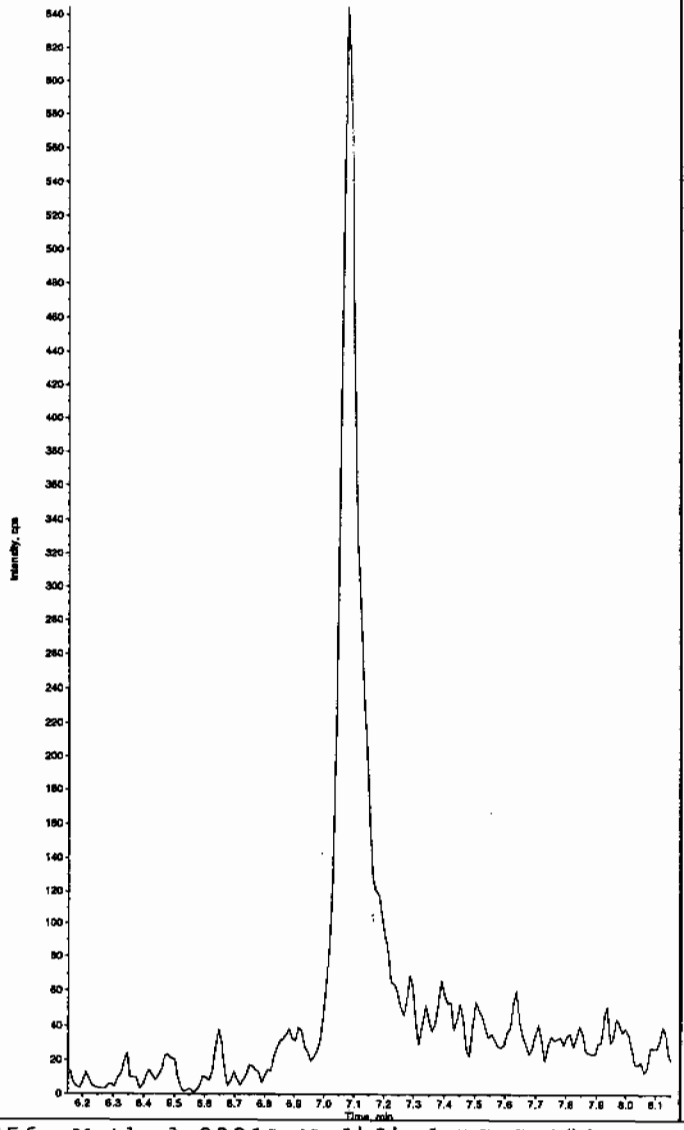

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02140096.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:10:32 PM

Modified: No

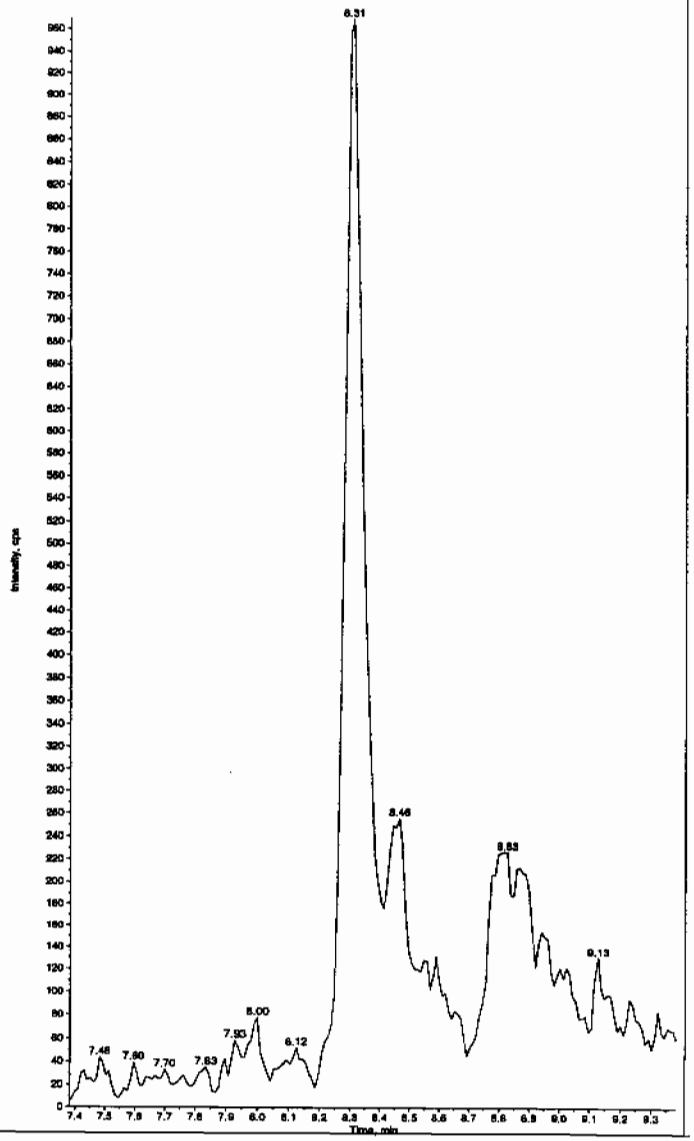

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02140096.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/15/2010
Time: 3:10:32 PM
fied: No

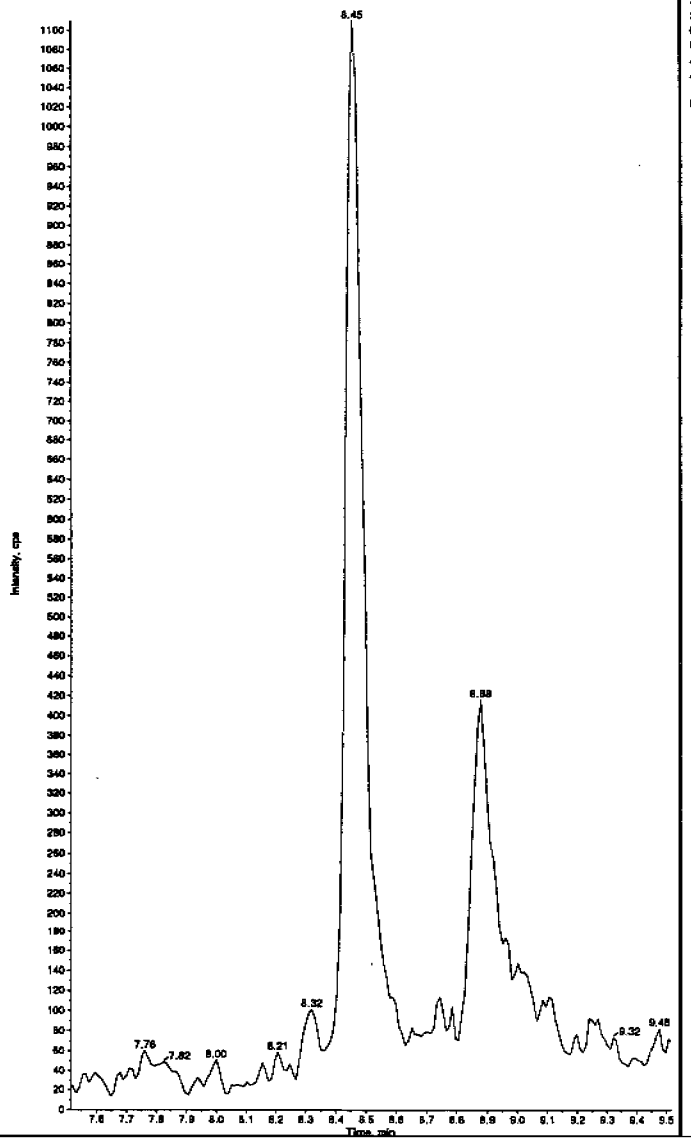

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02140096.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:10:32 PM

Modified: No

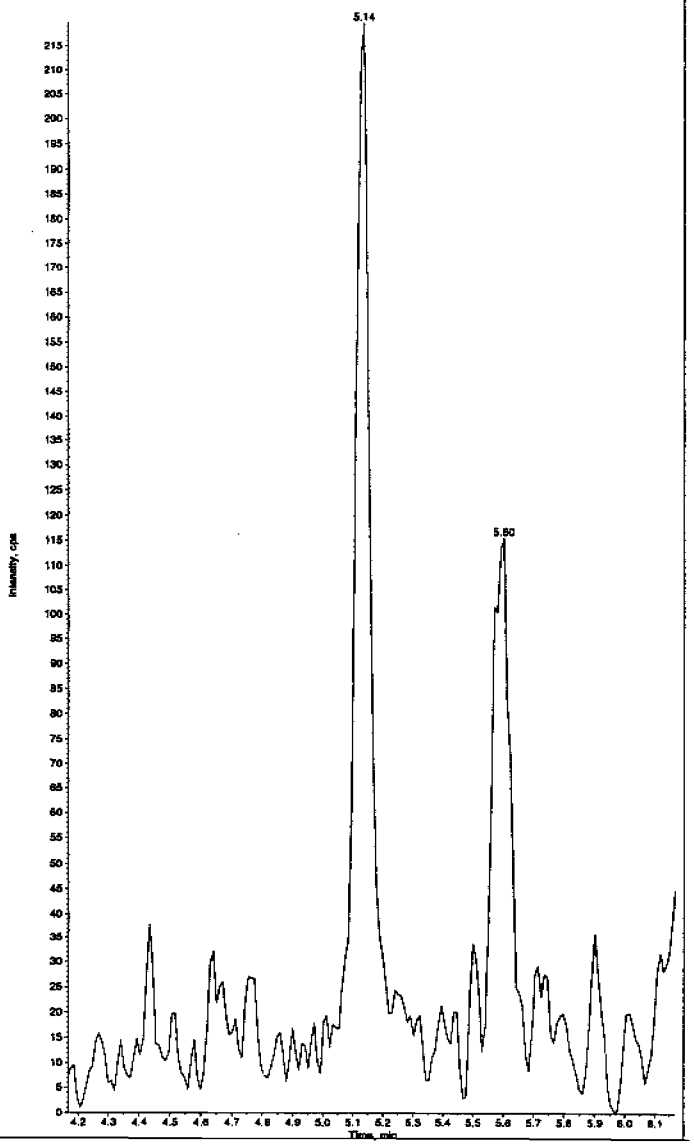

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mple Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02140096.wiff"
sk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/15/2010
Time: 3:10:32 PM

fied: No

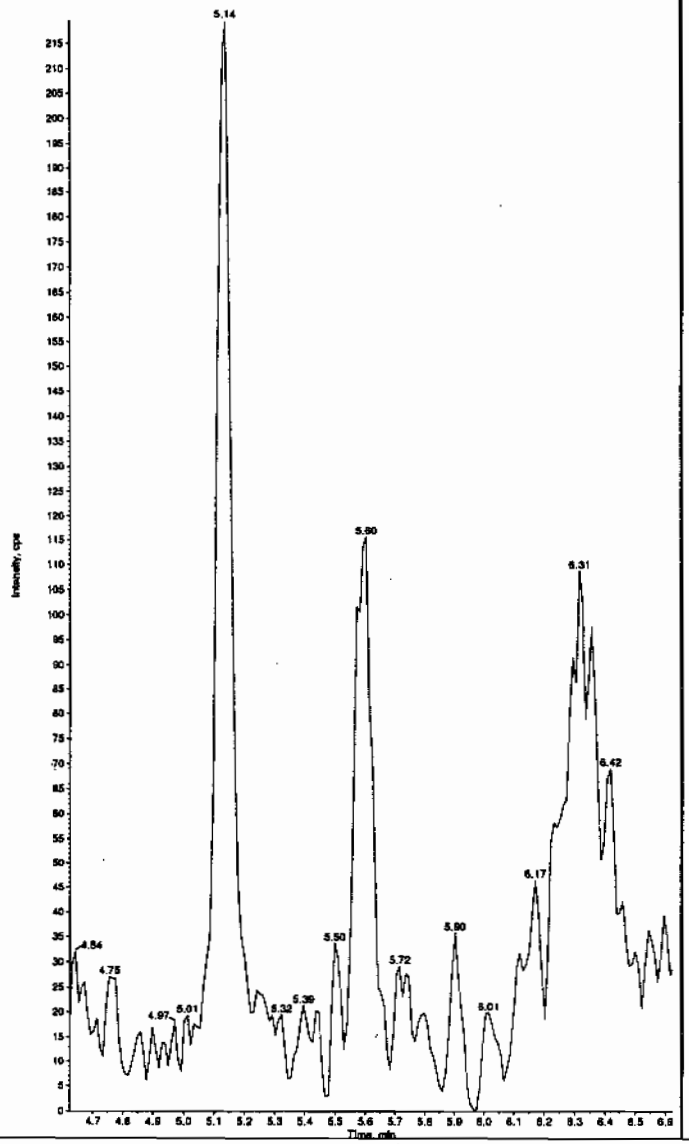

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02140096.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.82 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:10:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.52e+005 counts
Height: 364881.182 cps
Start Time: 10.8 min
End Time: 11.2 min

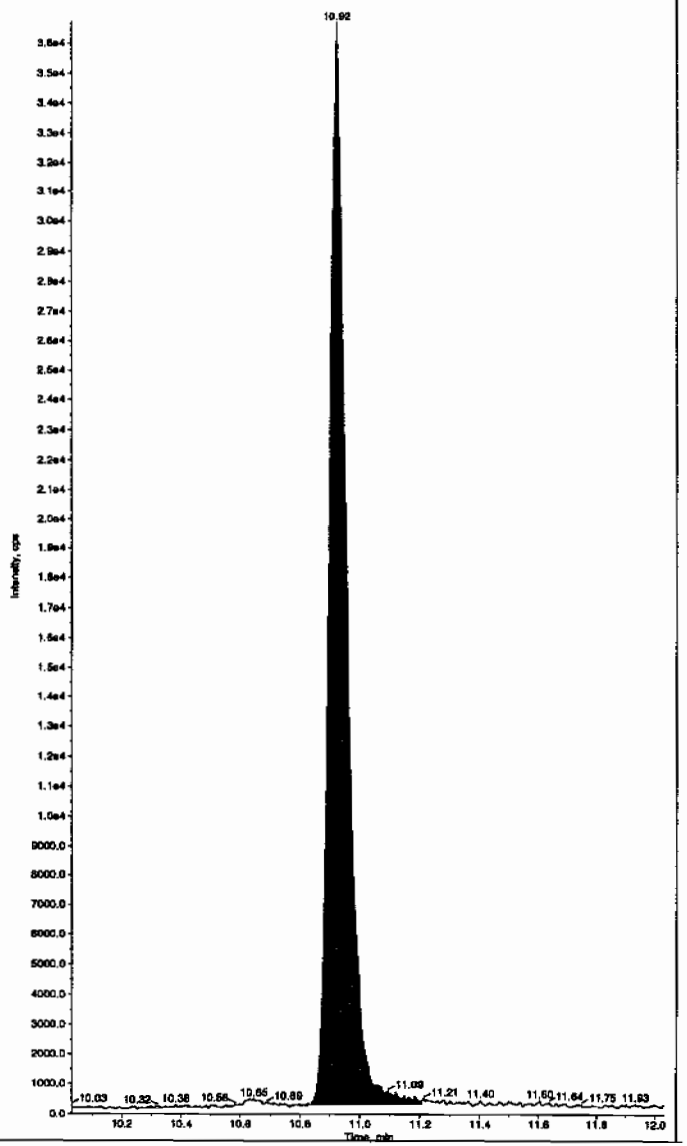

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 15–FEB–10 18:34

GEL Data File: EXS02140109.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.48
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sler 2/17/10

ample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02140109.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 6:34:38 PM

ified: No

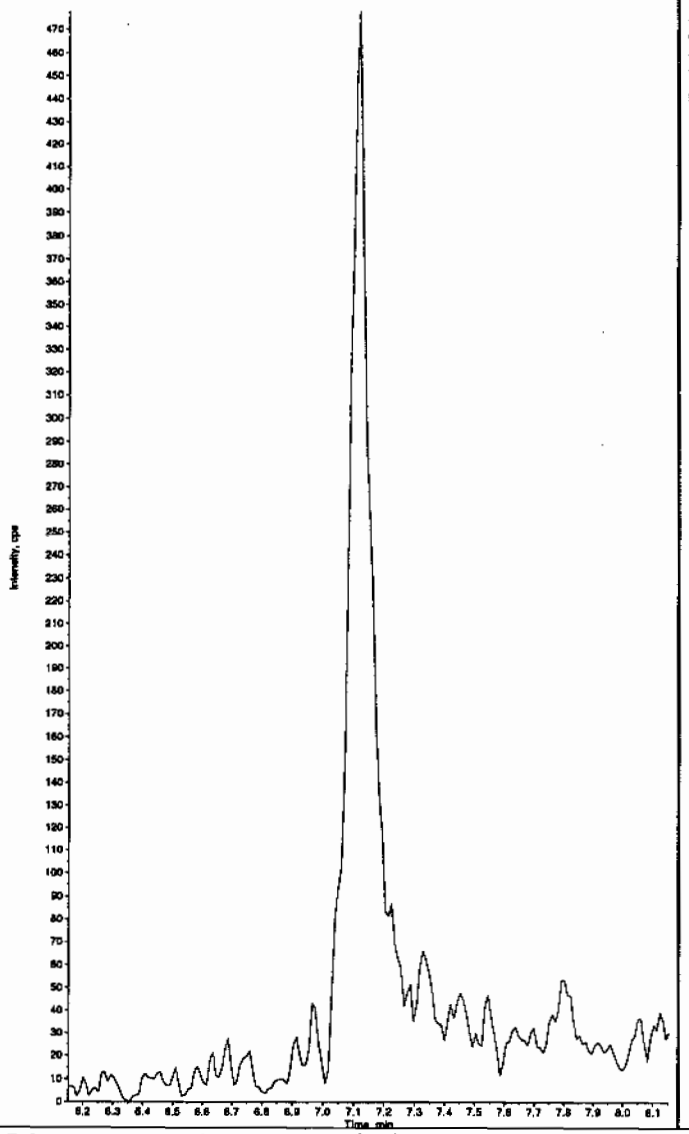

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02140109.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:34:38 PM

Modified: No

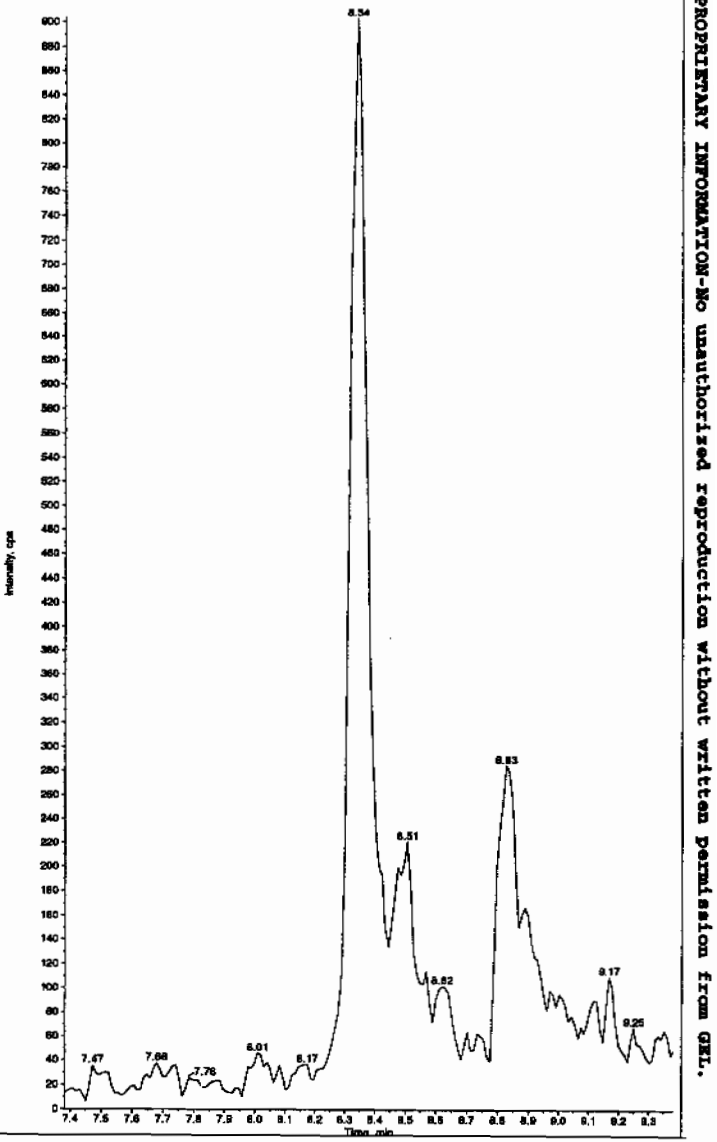

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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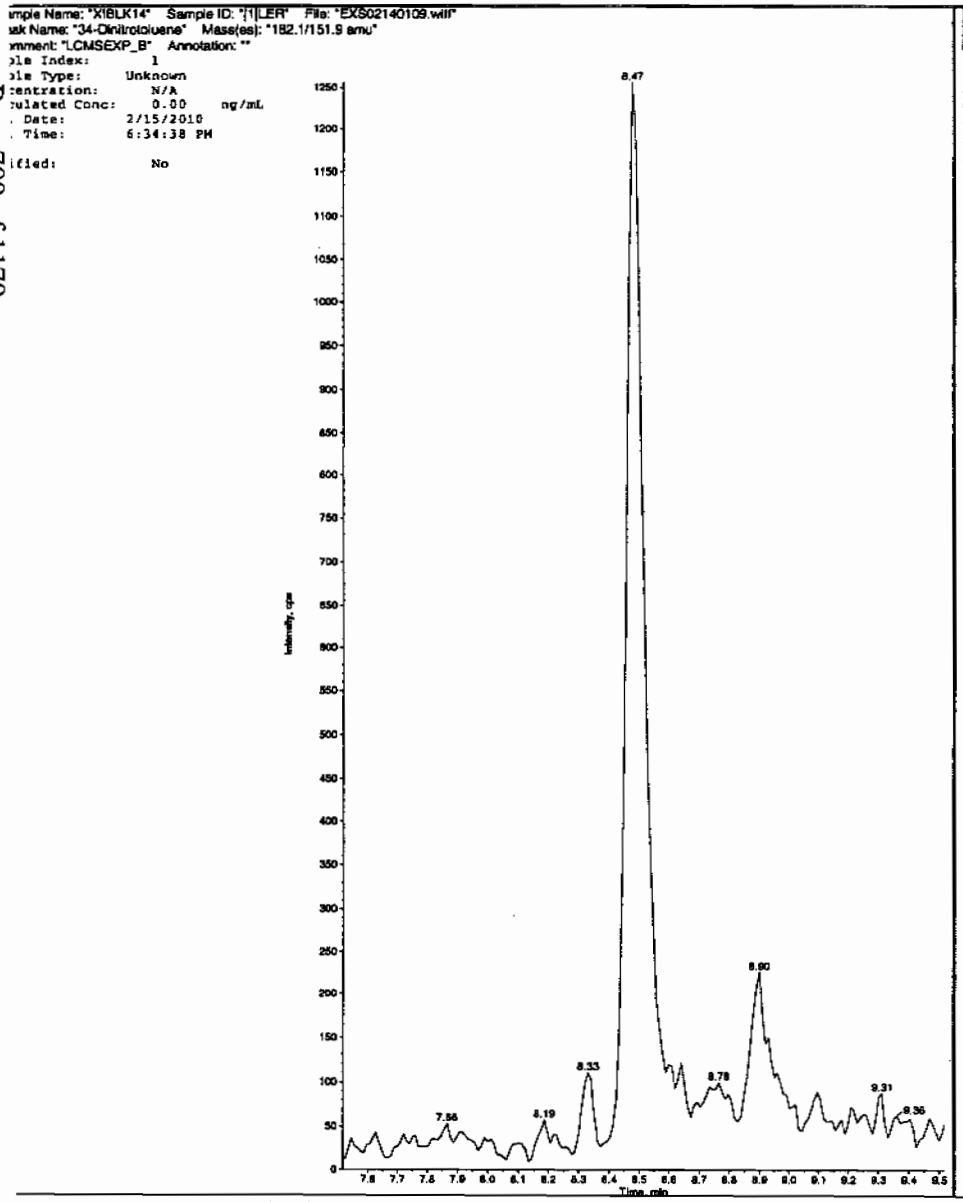

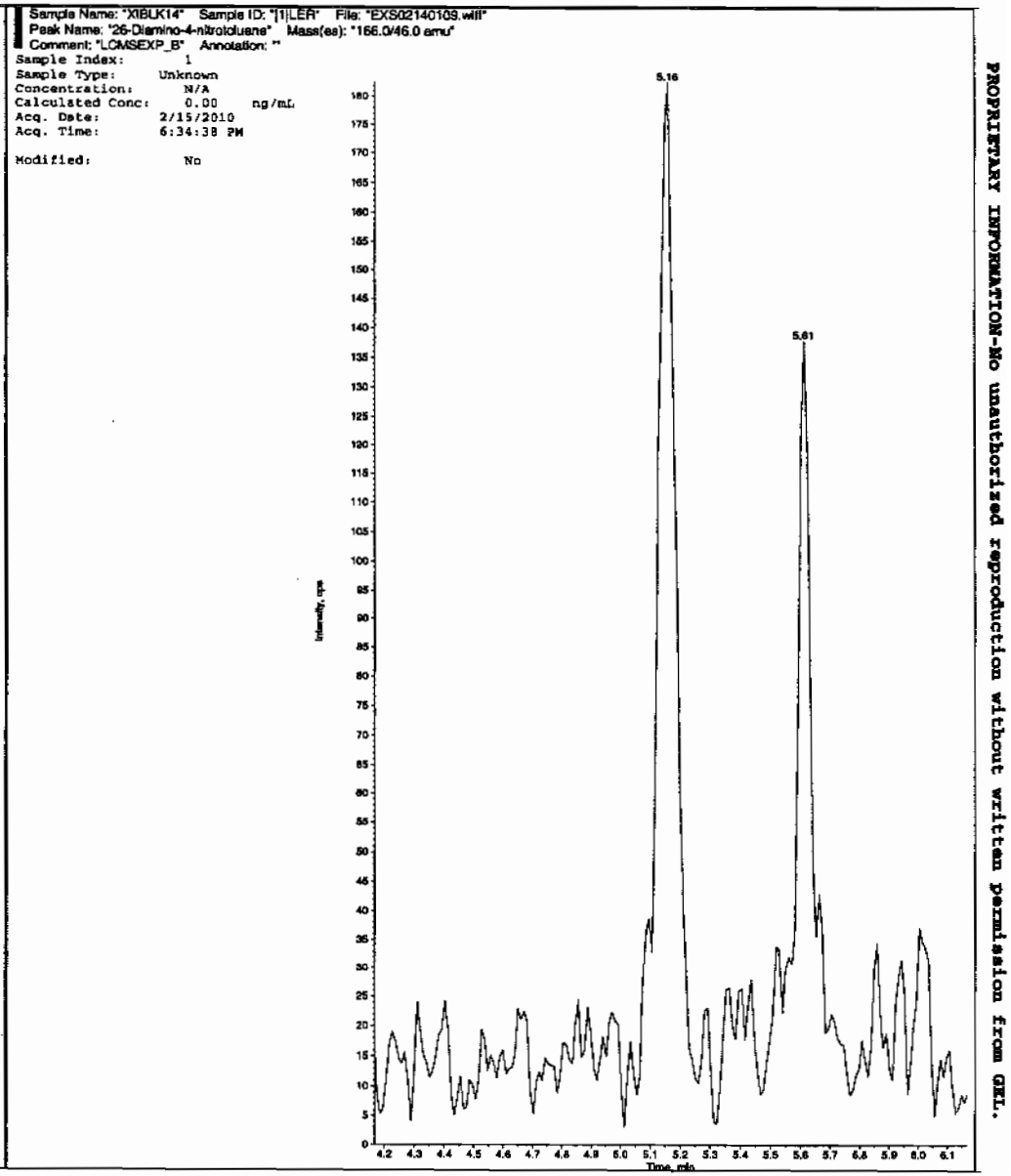

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mple Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02140109.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/15/2010
Time: 6:34:38 PM

fied: No

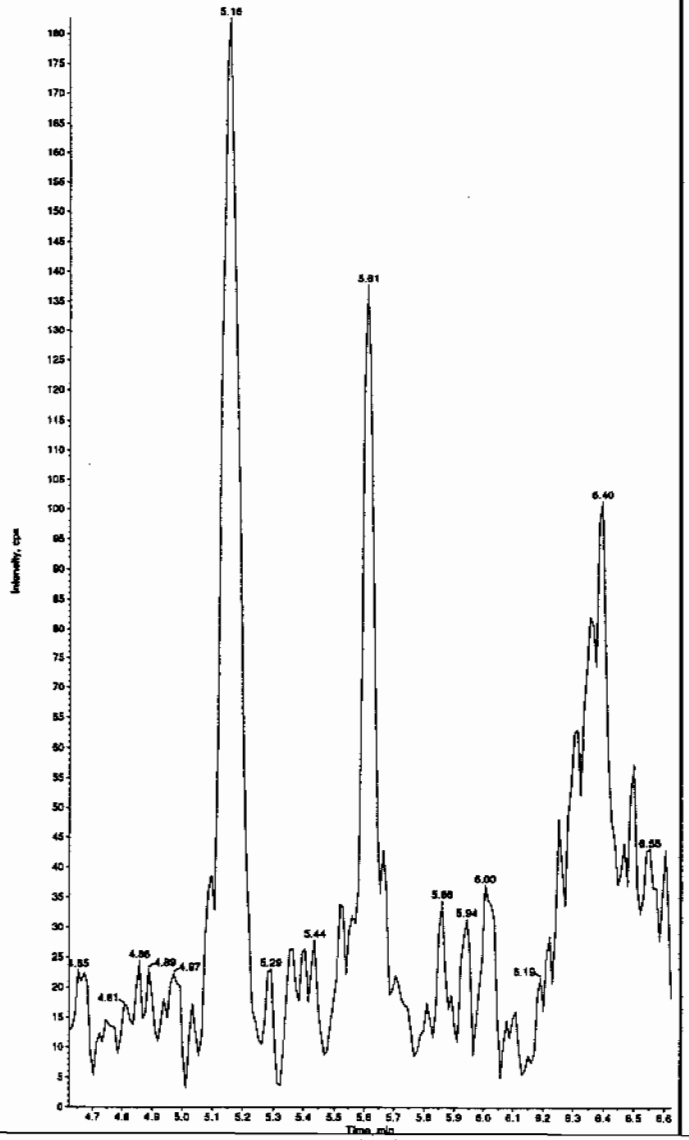

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02140109.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.48 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:34:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.44e+005 counts
Height: 34091.606 cps
Start Time: 10.8 min
End Time: 11.3 min

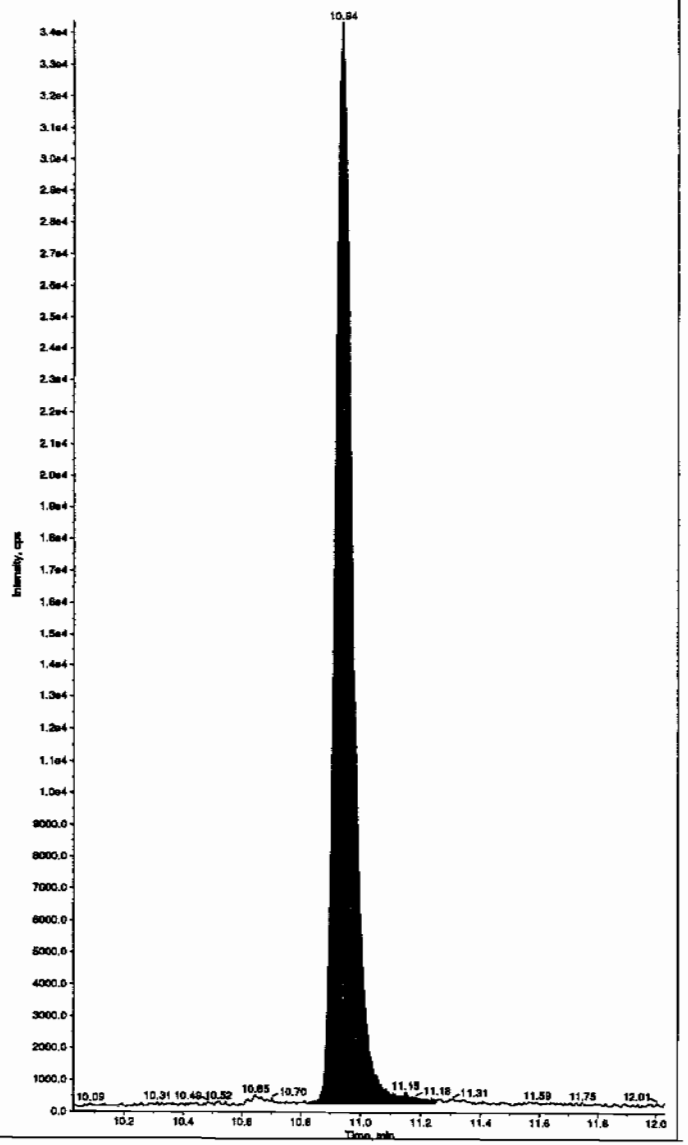

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 15–FEB–10 19:53

GEL Data File: EXS02140114.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.72
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Scen 2/17/10

mple Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02140114.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 7:53:07 PM

ified: No

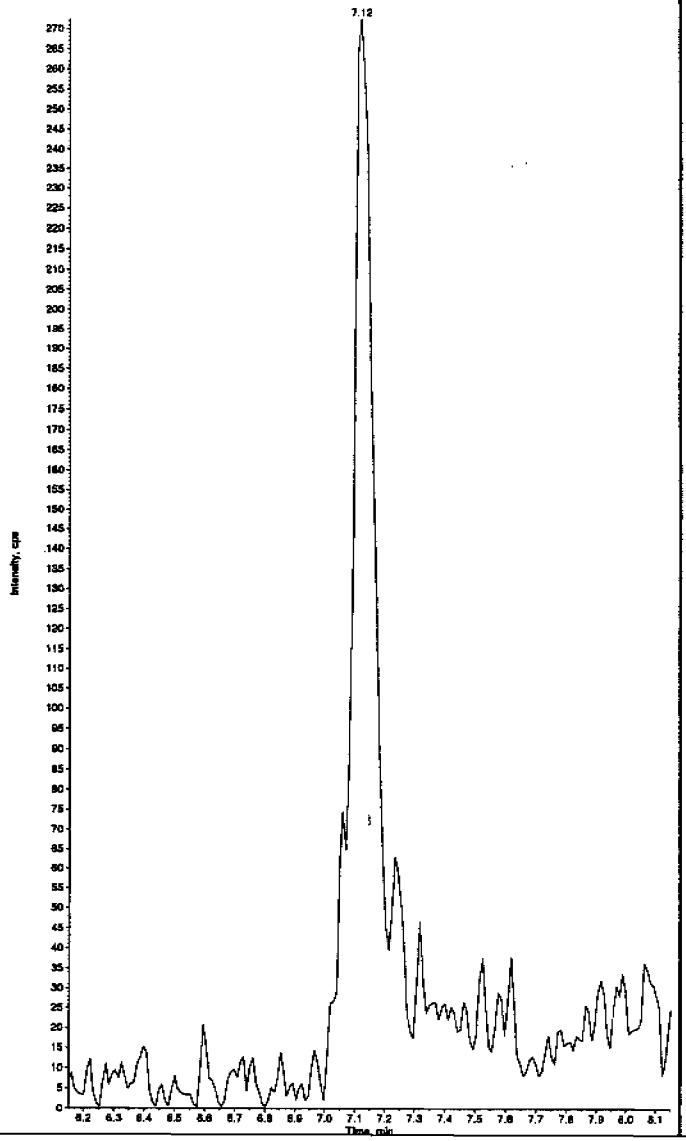

Sample Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02140114.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 7:53:07 PM

Modified: No

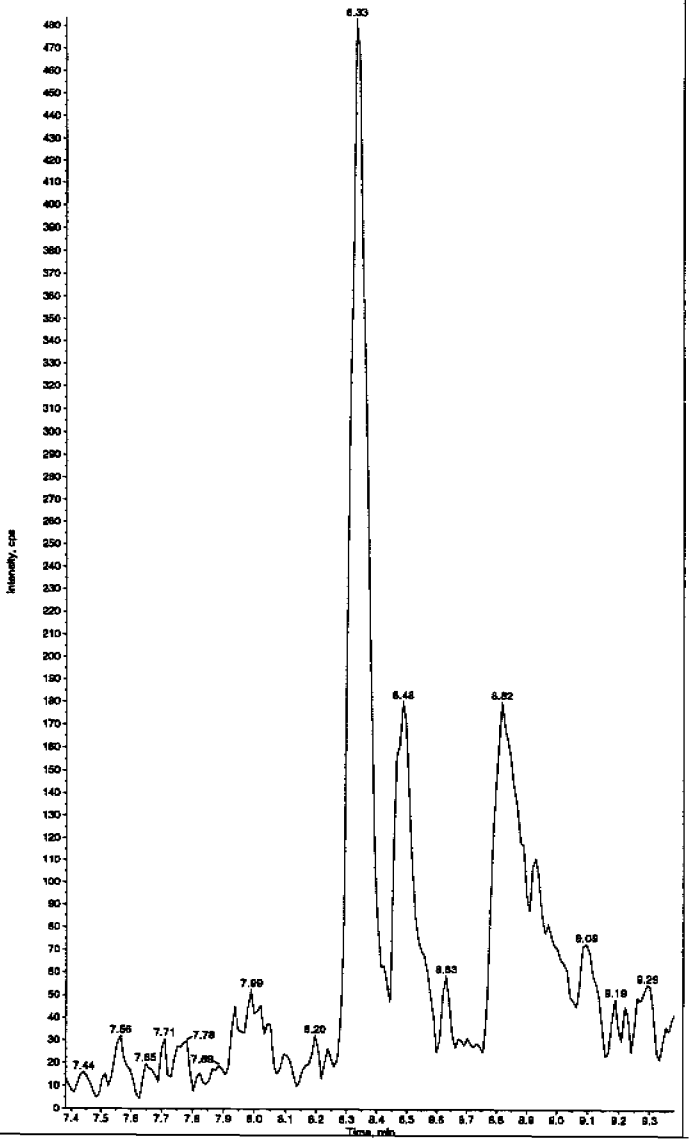

thm 02/17/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK15" Sample ID: "1|LER" File: "EXS02140114.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/15/2010
Time: 7:53:07 PM

fied: No

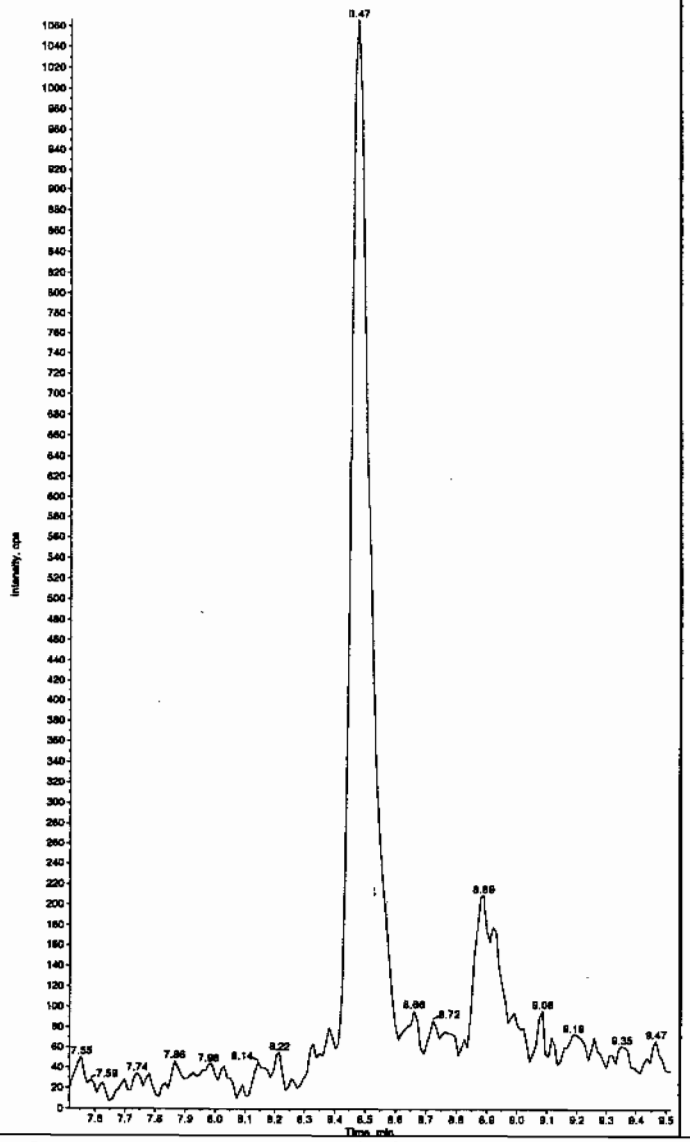

Sample Name: "XIBLK15" Sample ID: "1|LER" File: "EXS02140114.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/48.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 7:53:07 PM

Modified: No

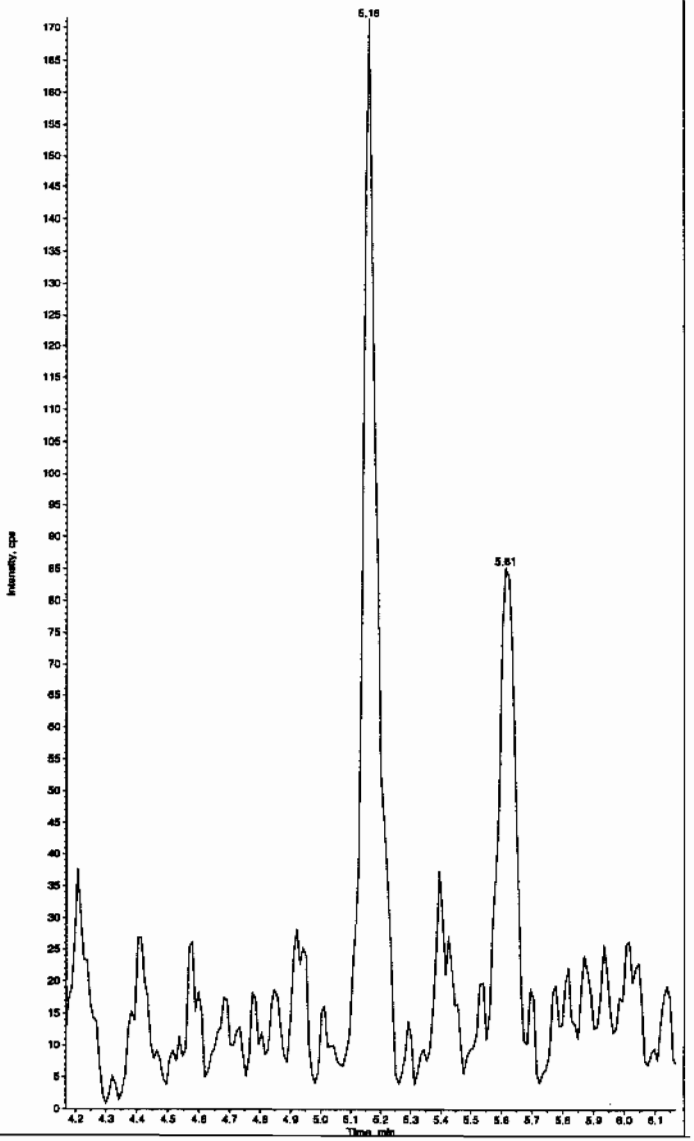

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02140114.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 2/15/2010
Time: 7:53:07 PM
fied: No

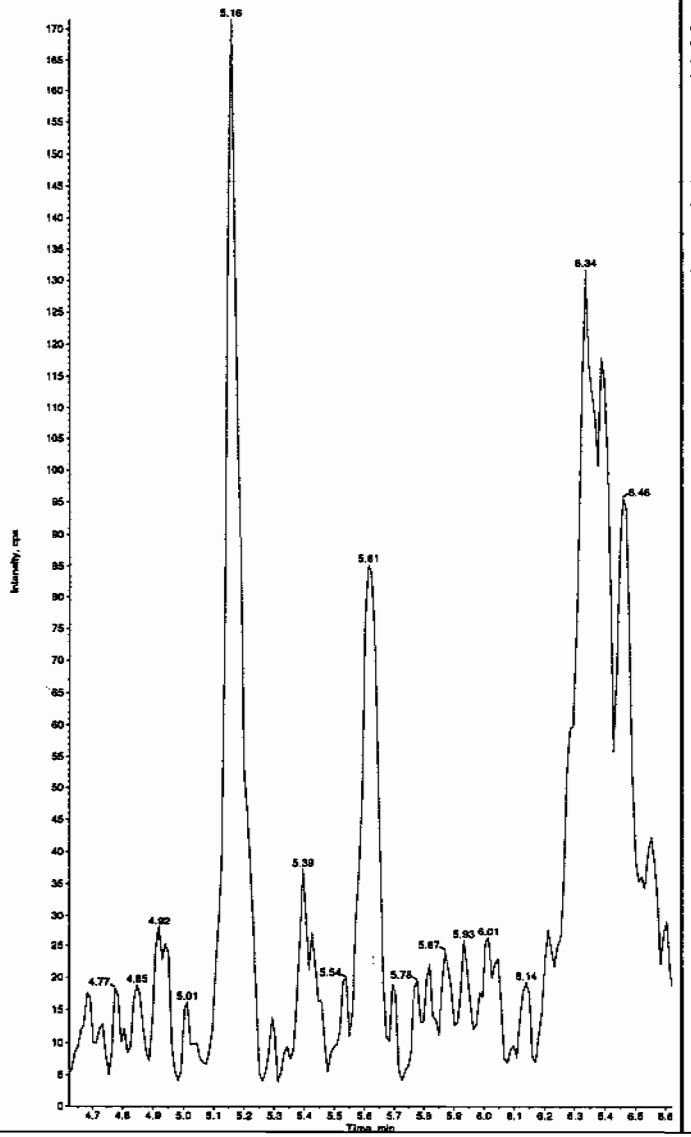

Sample Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02140114.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	1.72	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	7:53:07 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	1.02e+005	counts
Height:	24807.673	cps
Start Time:	10.8	min
End Time:	11.2	min

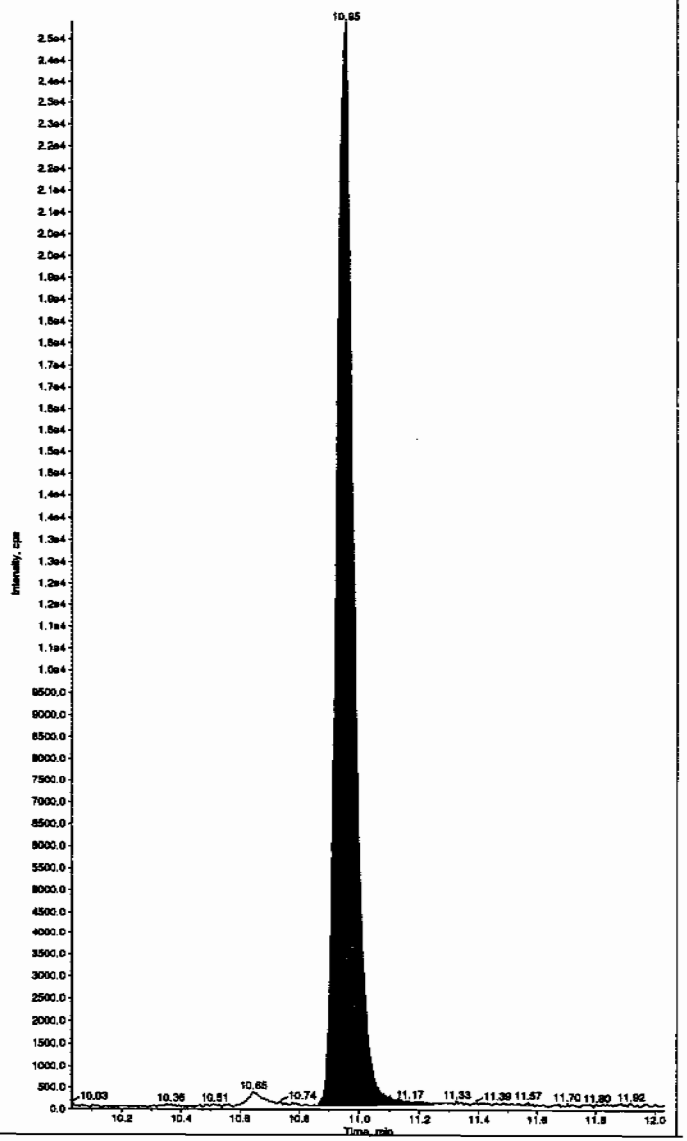

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1510

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 15-FEB-10 20:55

GEL Data File: EXS02140118.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.66
TATB	0	0
3,5-Dinitroaniline	0	0

Ran 2/17/10

ample Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS02140118.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 8:55:57 PM

ified: No

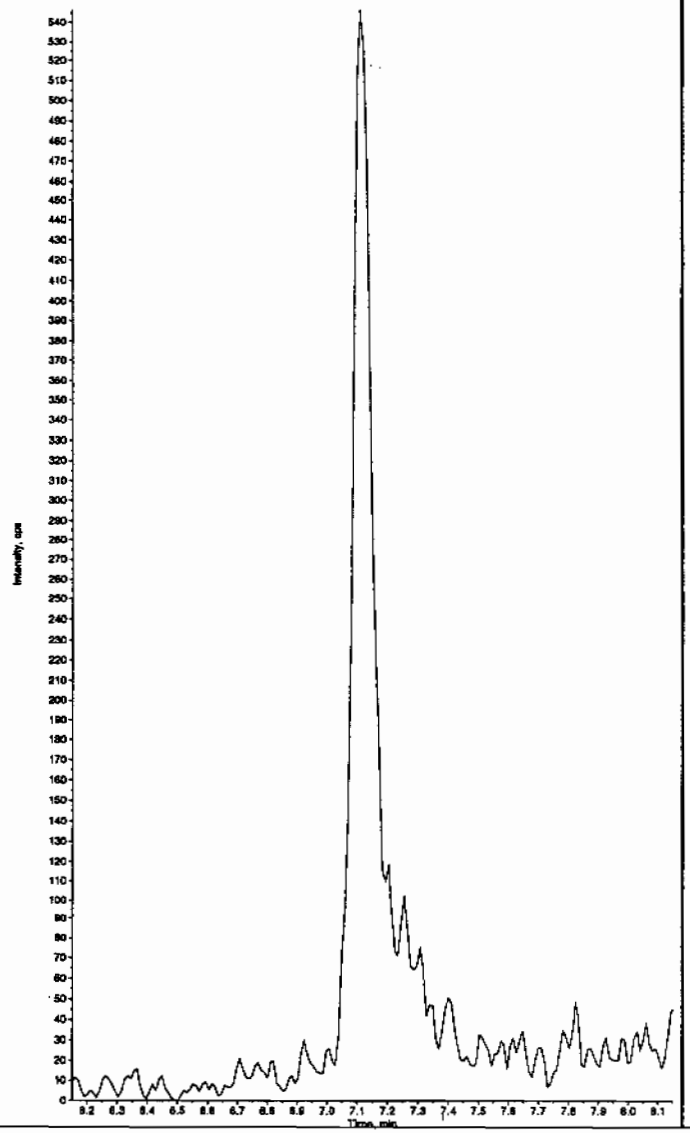

Sample Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS02140118.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:55:57 PM

Modified: No

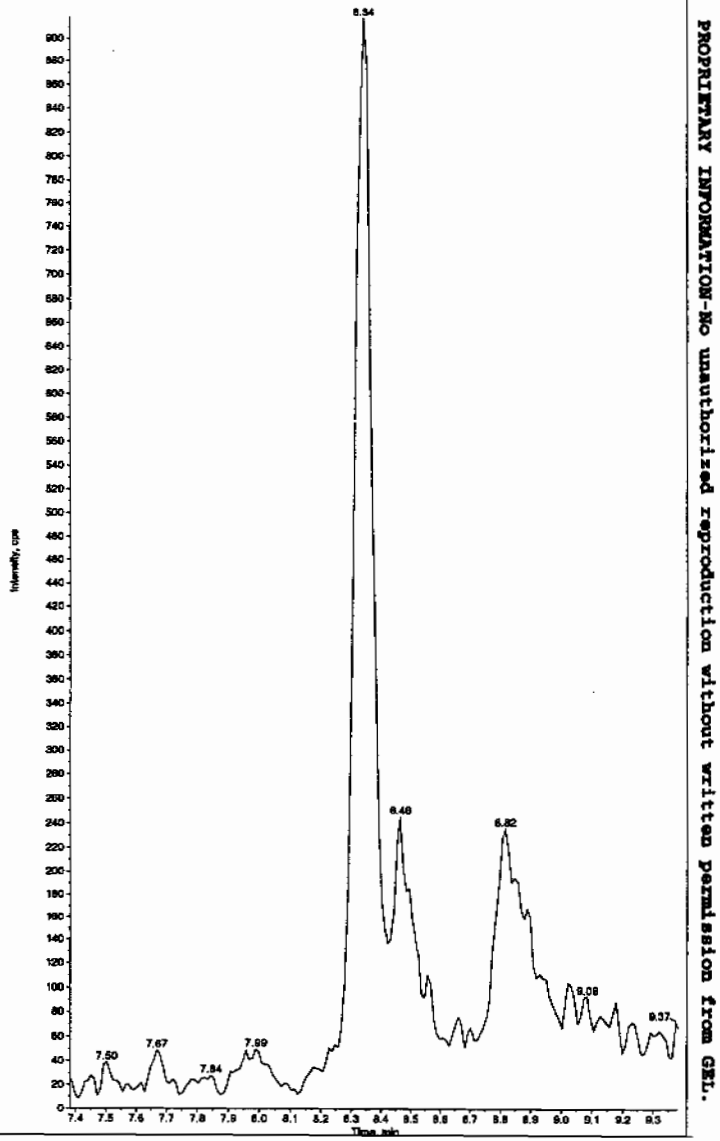

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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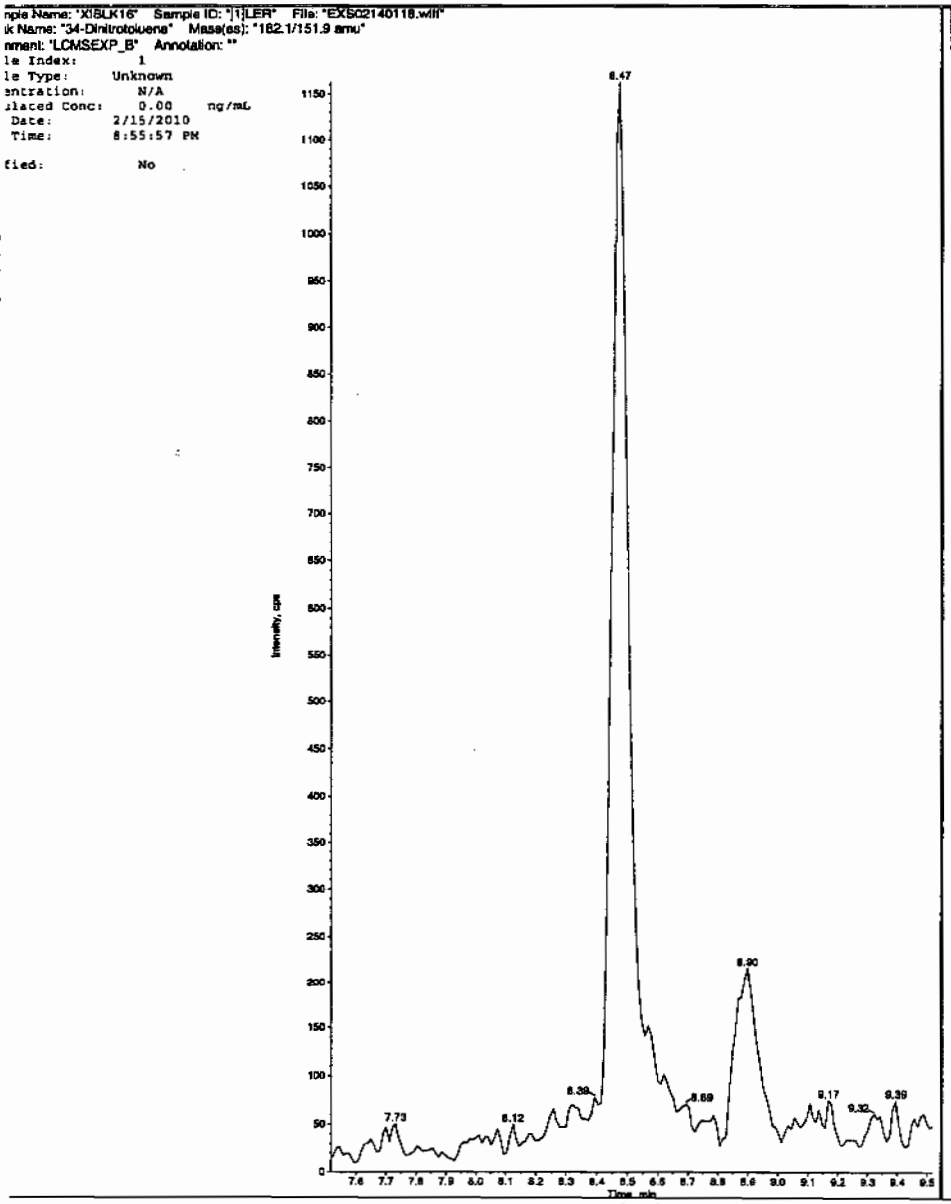

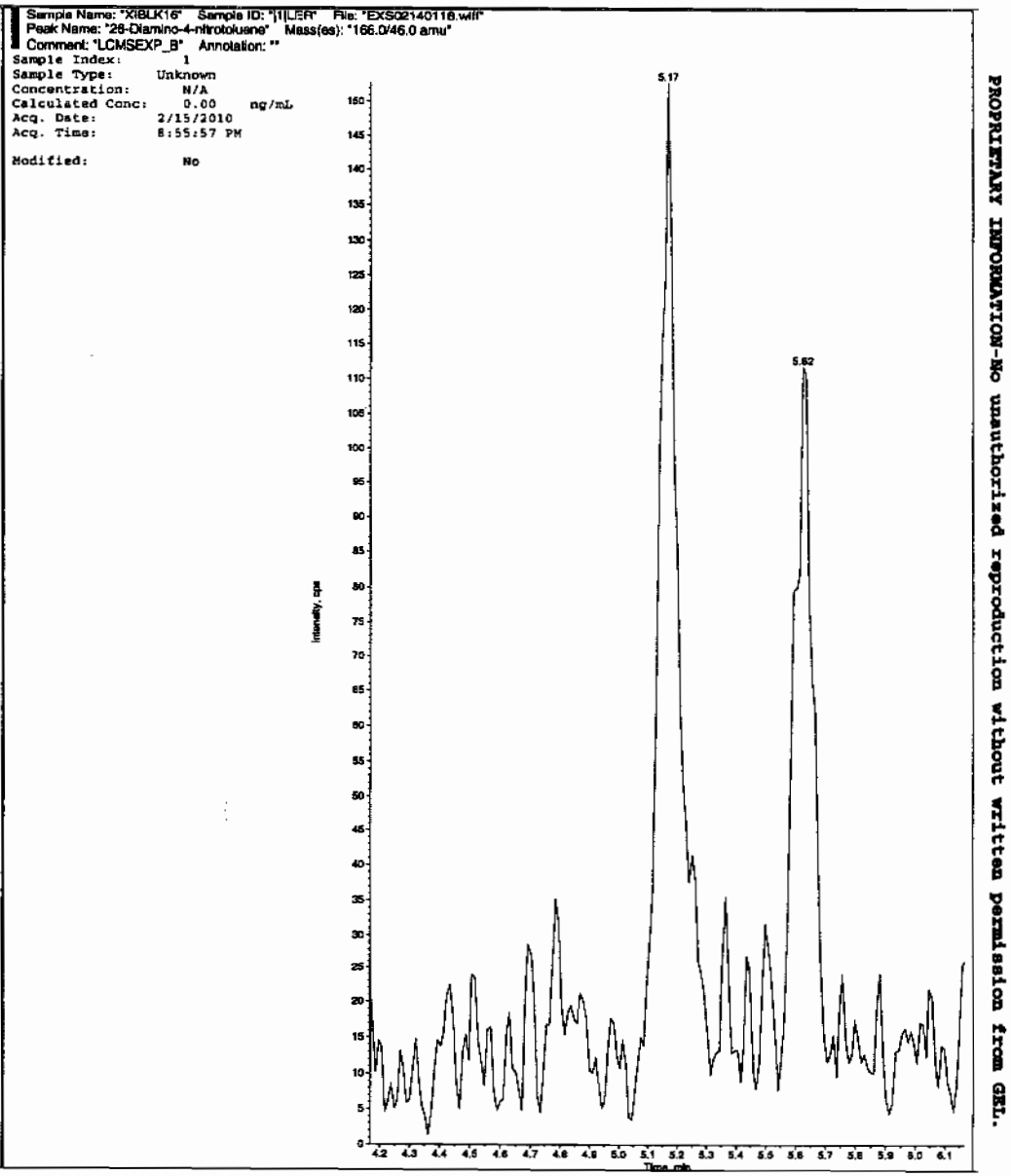

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS02140118.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 8:55:57 PM

ified: No

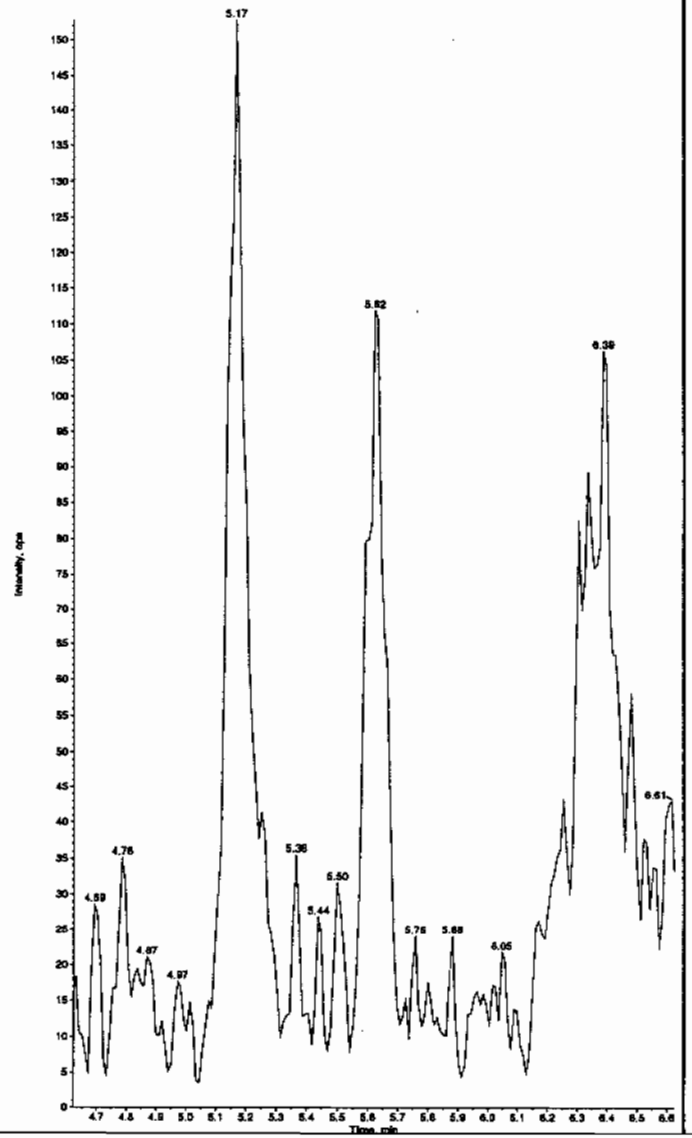

Sample Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS02140118.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	3.66	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	8:55:57 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.48e+005	counts
Height:	36222.885	cps
Start Time:	10.9	min
End Time:	11.2	min

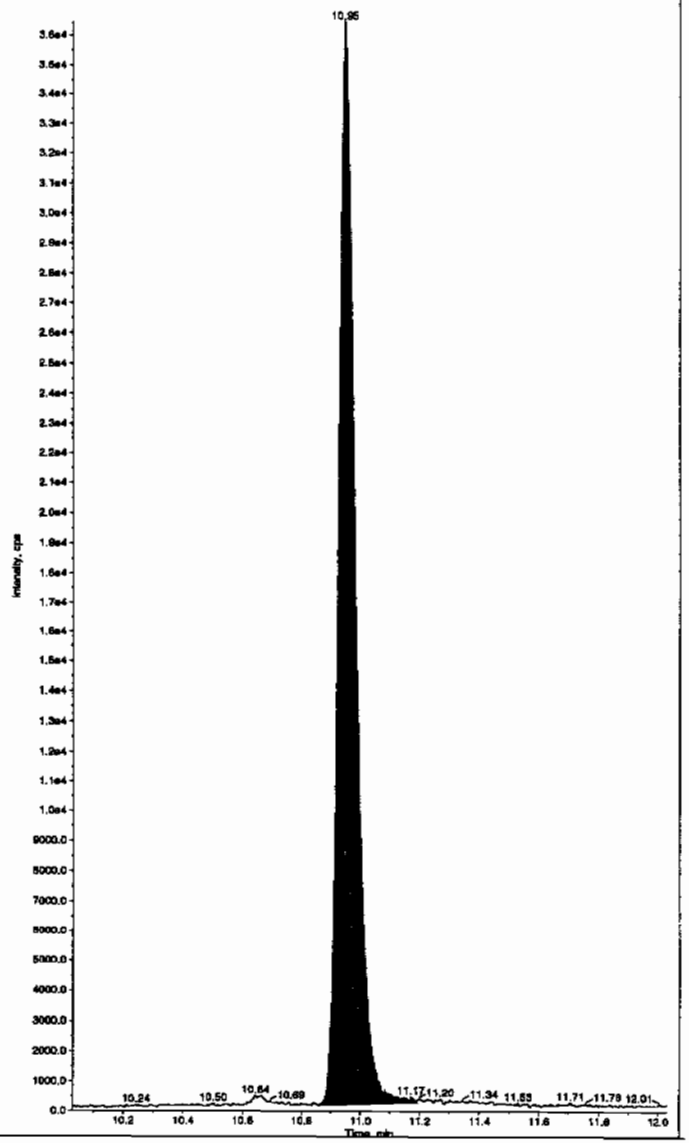

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 16–FEB–10 00:19

GEL Data File: EXS02140131.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.11
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/17/10

ample Name: "XIBLK17" Sample ID: "|1|LER" File: "EXS02140131.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 12:19:56 AM

ified: No

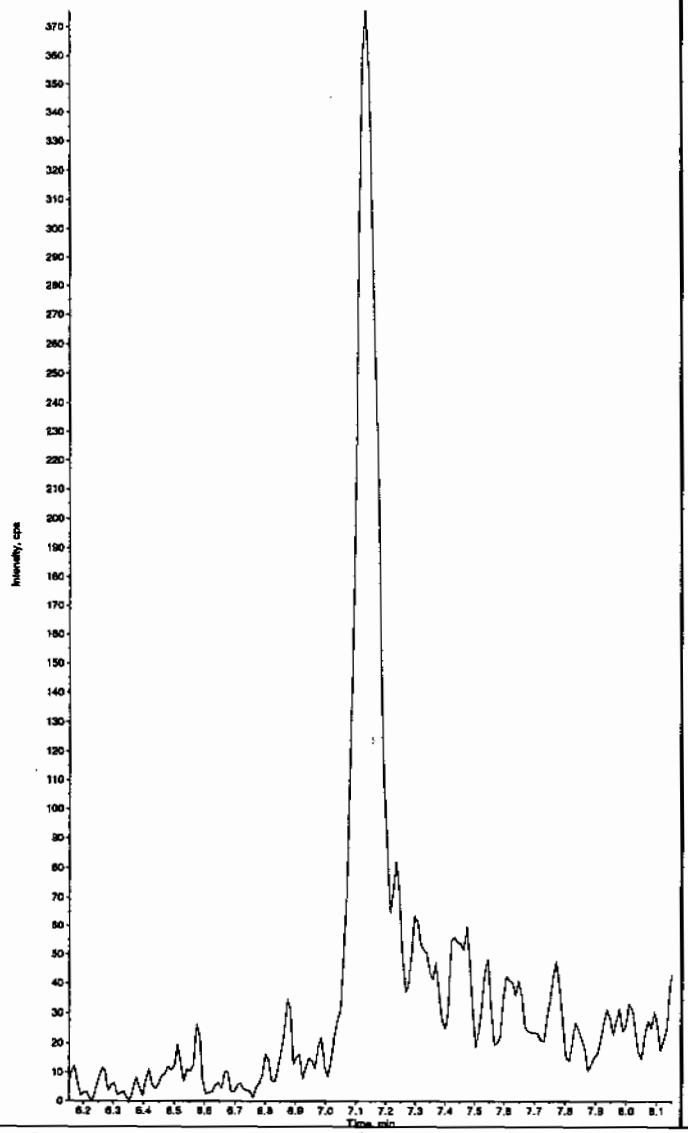

Sample Name: "XIBLK17" Sample ID: "|1|LER" File: "EXS02140131.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:19:56 AM

Modified: No

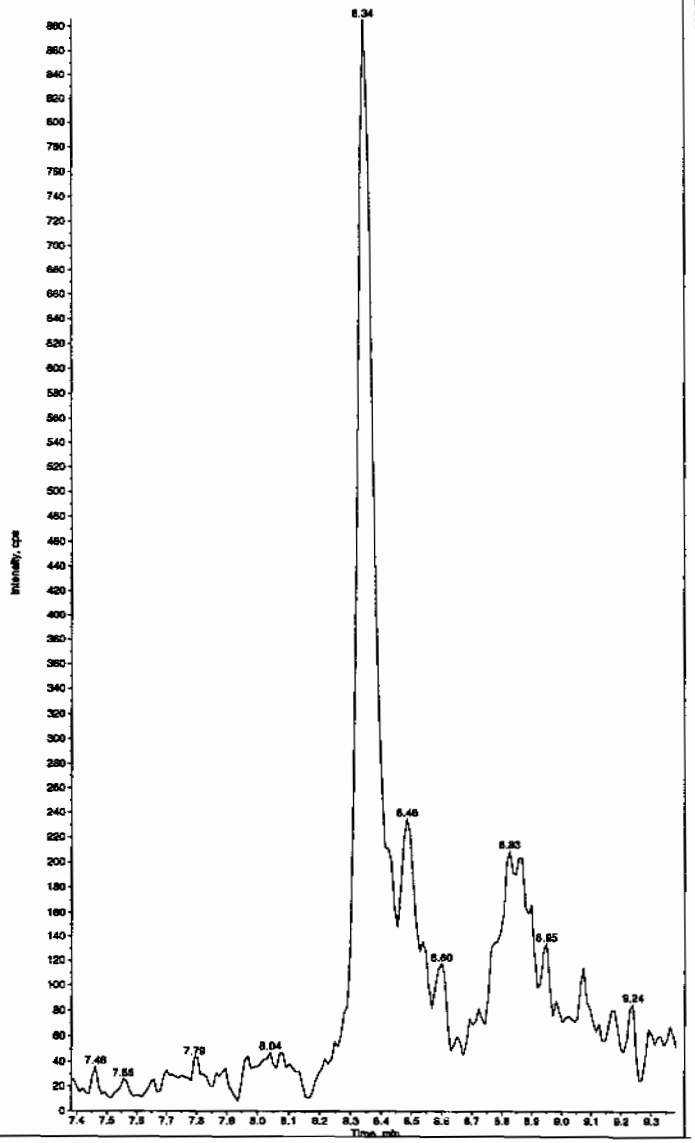

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 12:19:56 AM

ified: No

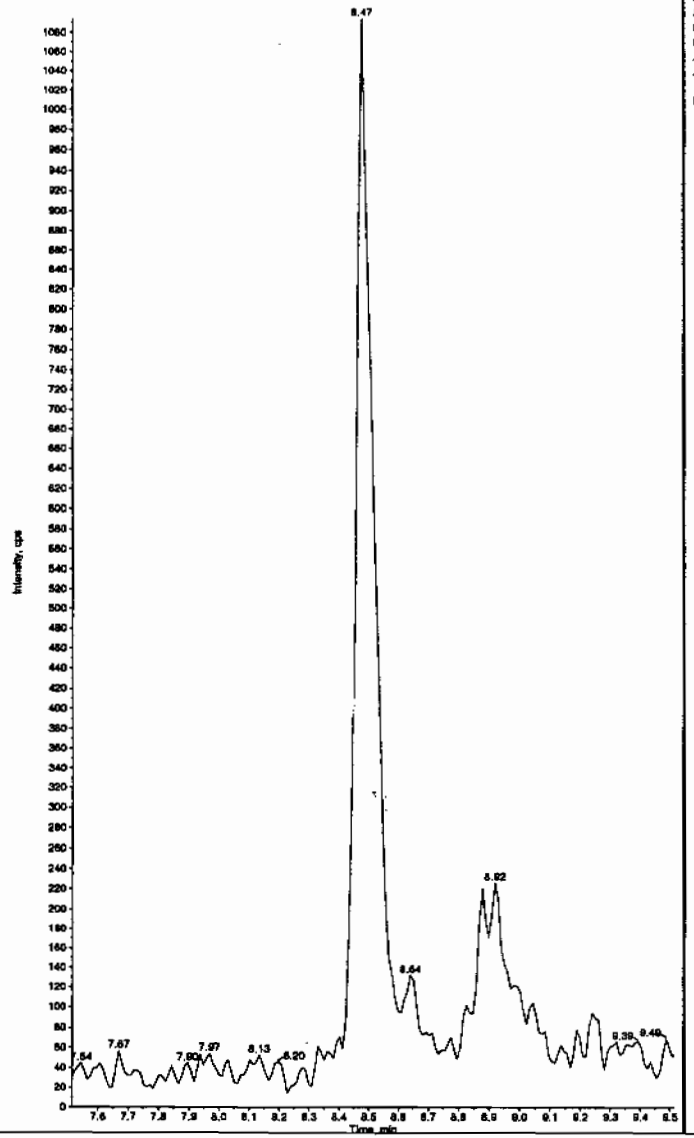

Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:19:56 AM

Modified: No

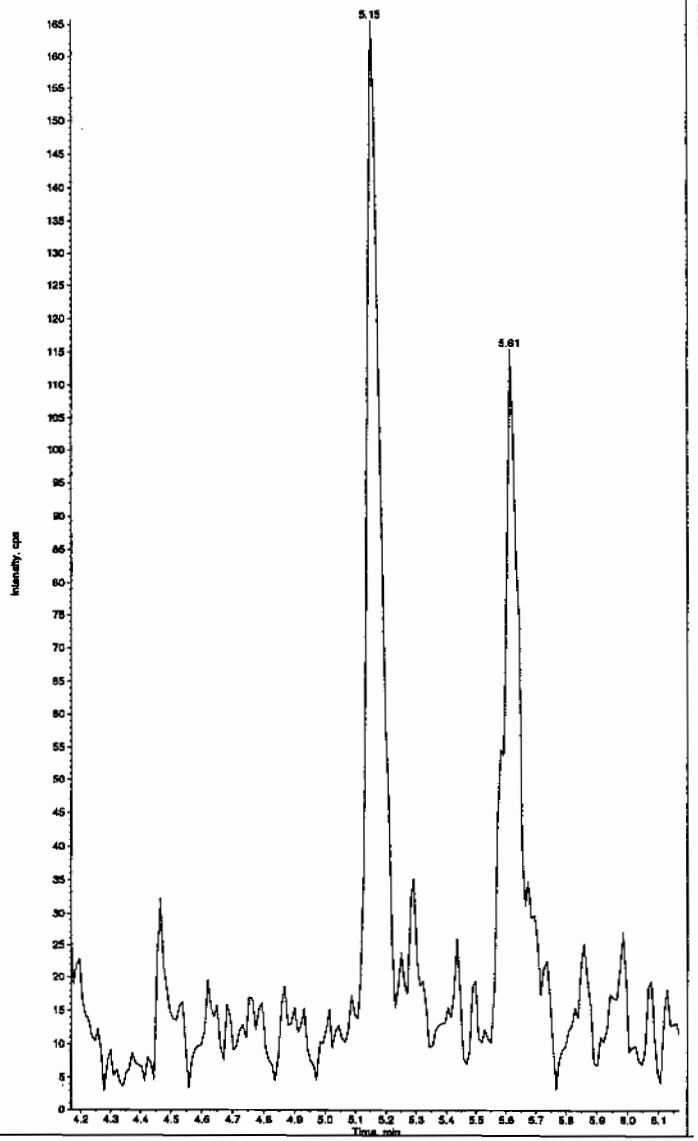

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
eak Name: "24-Diamino-5-nitrotoluene" Mass(as): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	0.00 ng/mL
. Date:	2/16/2010
. Time:	12:19:56 AM
ified:	No

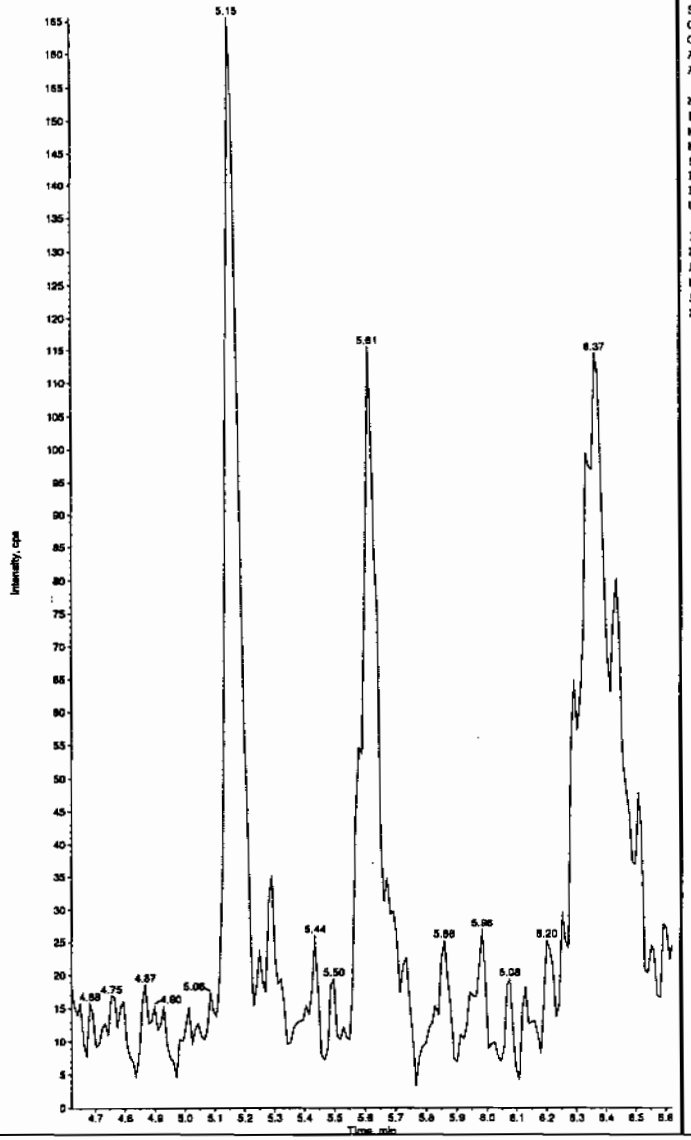

Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "368.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	4.11 ng/mL
Acq. Date:	2/16/2010
Acq. Time:	12:19:56 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	11.0 min
Area:	1.59e+005 counts
Height:	38067.039 cps
Start Time:	10.8 min
End Time:	11.3 min

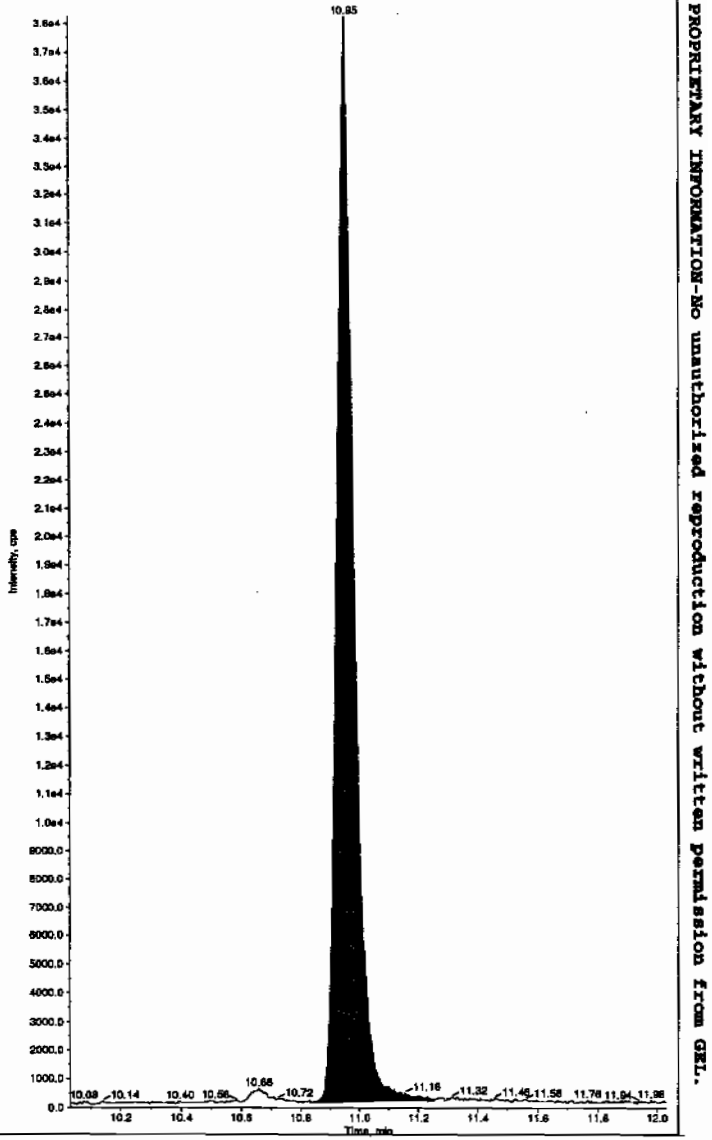

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1510

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 16–FEB–10 02:56

GEL Data File: EXS02140141.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.79
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/17/10

ample Name: "XIBLK18" Sample ID: "|1|LER" File: "EXS02140141.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 2:56:55 AM
ified: No

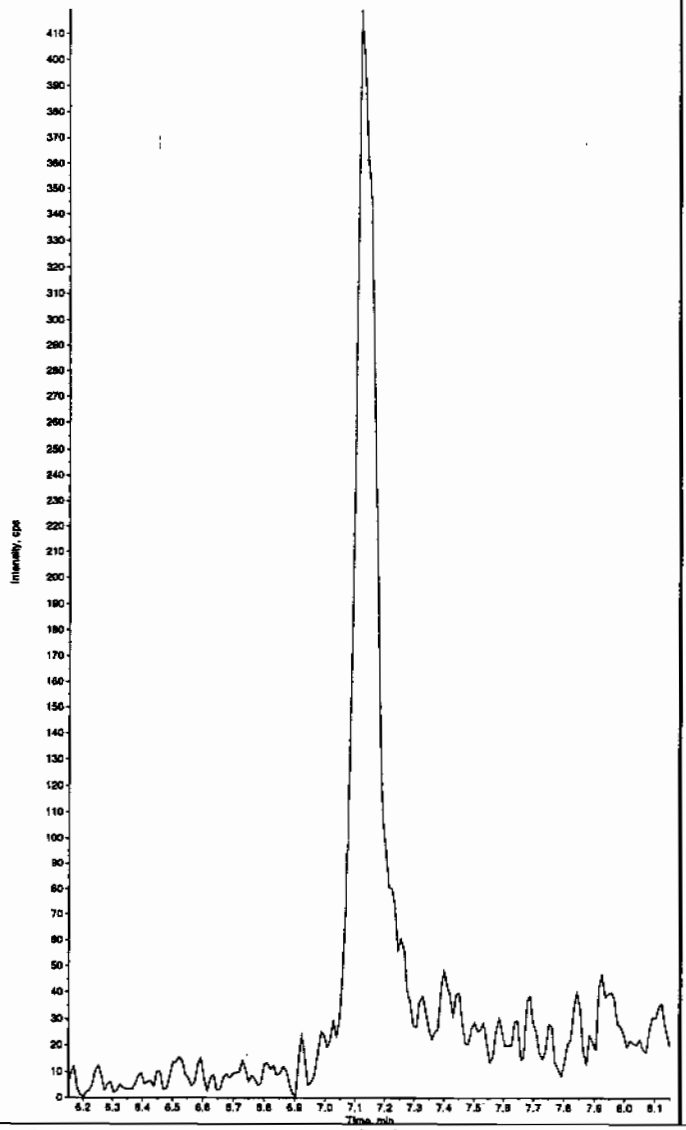

Sample Name: "XIBLK18" Sample ID: "|1|LER" File: "EXS02140141.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:56:55 AM

Modified: No

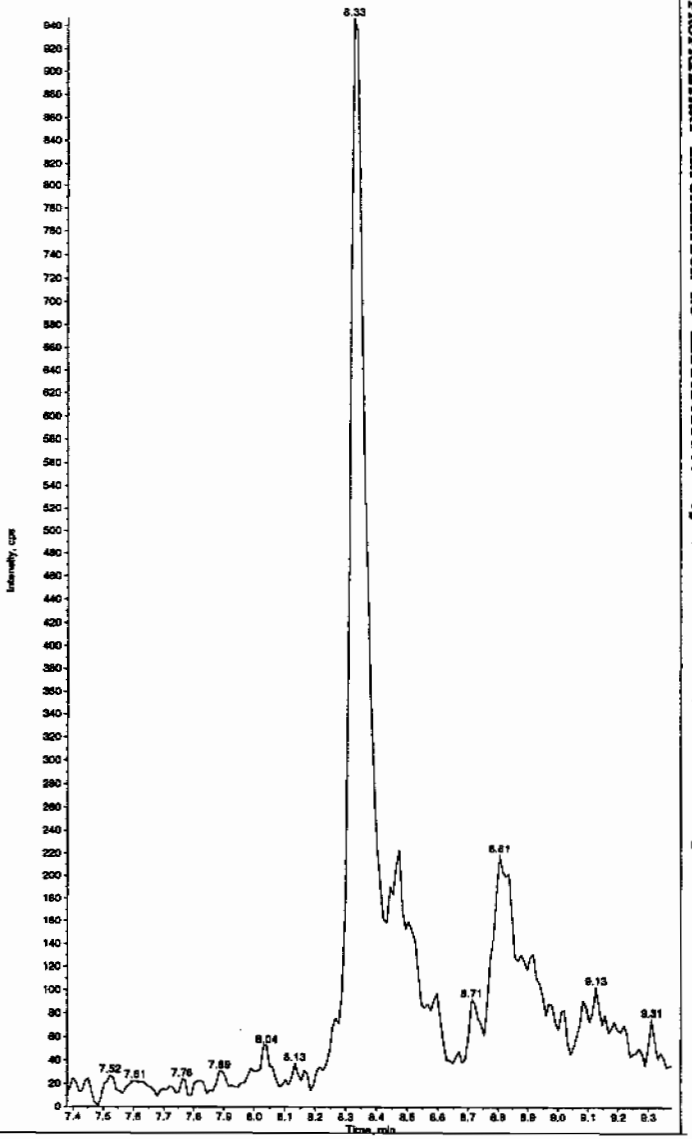

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK18" Sample ID: "[1]LER" File: "EXS02140141.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 2:56:55 AM
fied: No

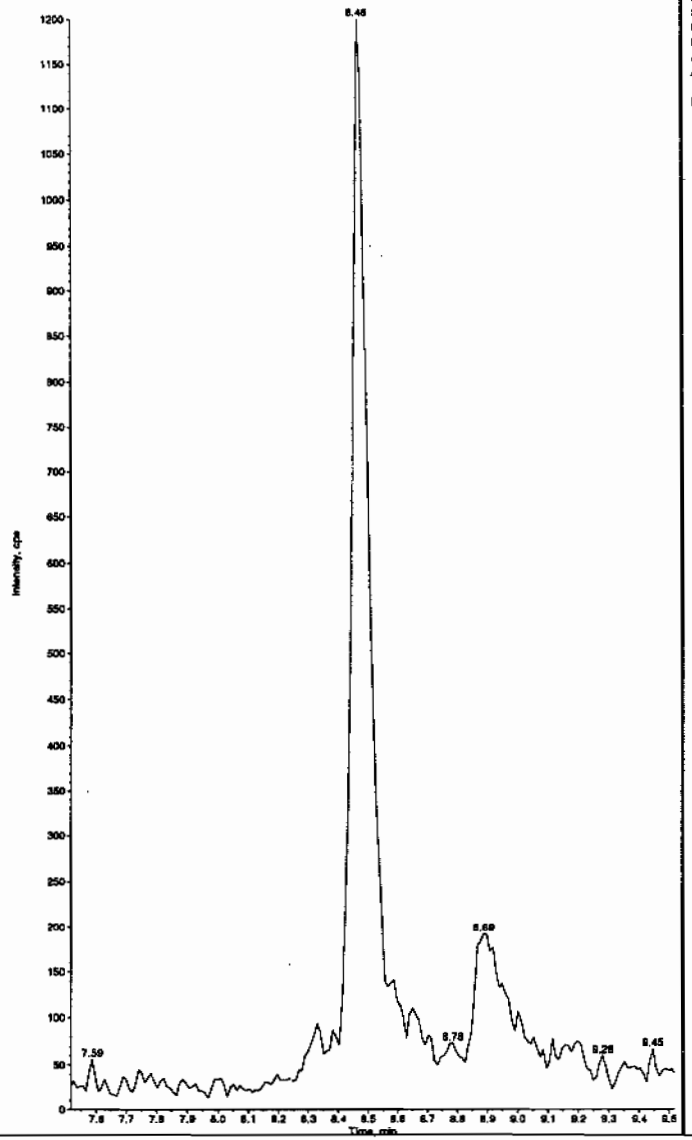

Sample Name: "XIBLK18" Sample ID: "[1]LER" File: "EXS02140141.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:56:55 AM

Modified: No

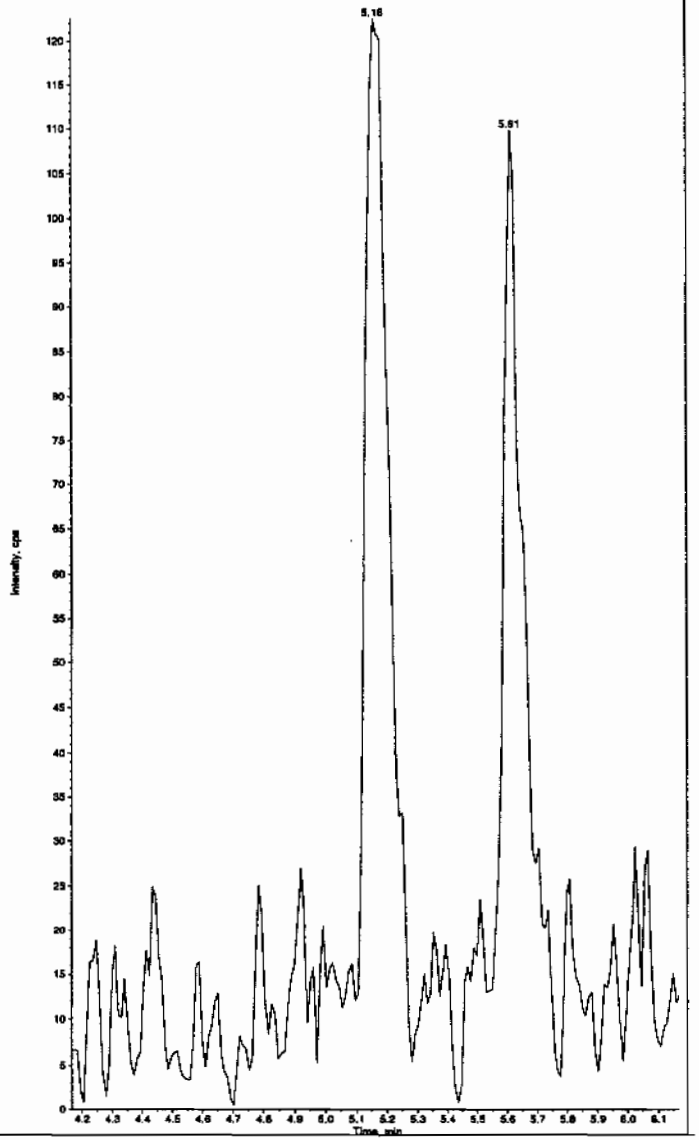

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mple Name: "XIBLK18" Sample ID: "[1]LER" File: "EXS02140141.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 2:56:55 AM

ified: No

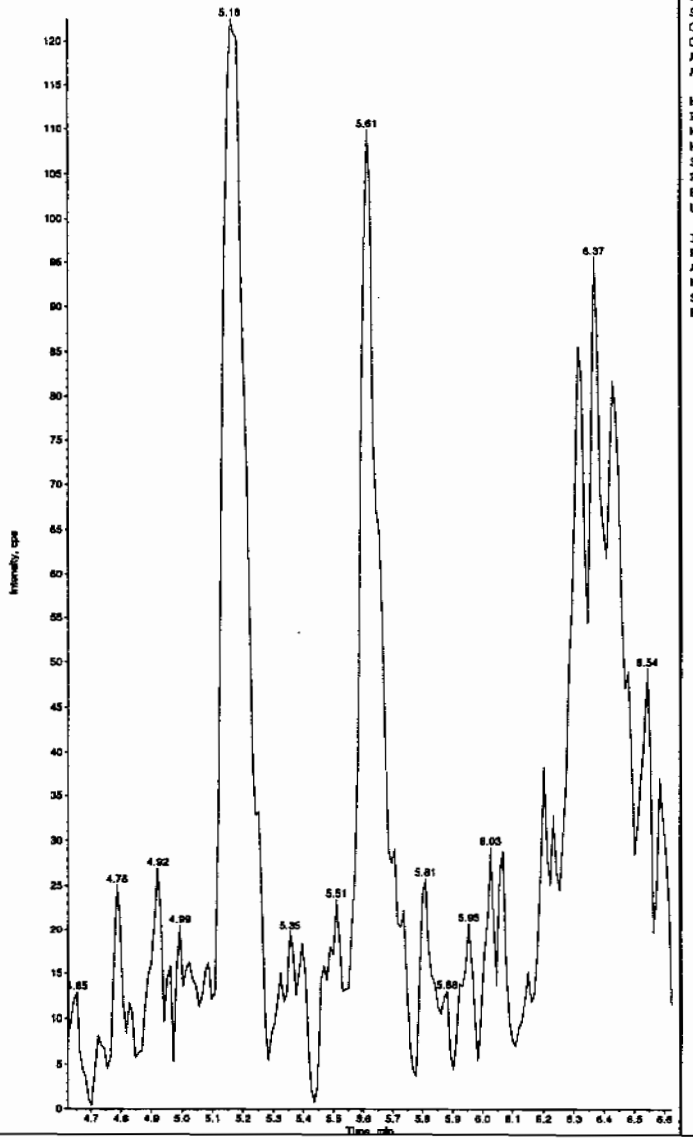

Sample Name: "XIBLK18" Sample ID: "[1]LER" File: "EXS02140141.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	3.79	ng/mL
Acq. Date:	2/16/2010	
Acq. Time:	2:56:55 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.51e+005	counts
Height:	35854.317	cps
Start Time:	10.8	min
End Time:	11.2	min

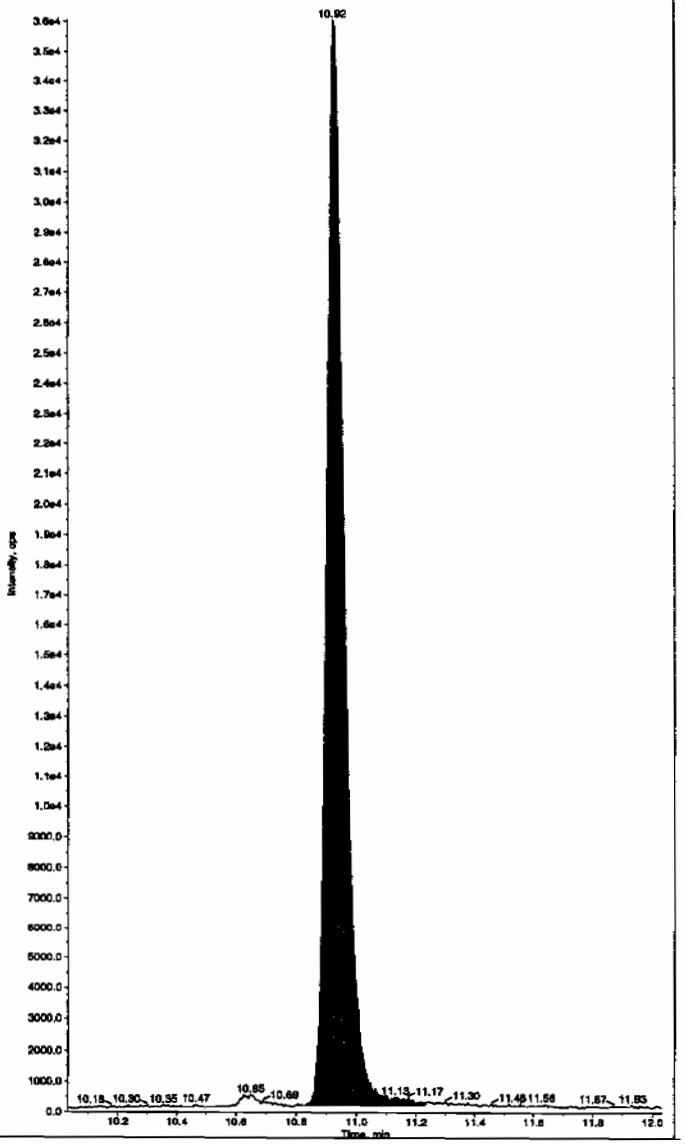

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

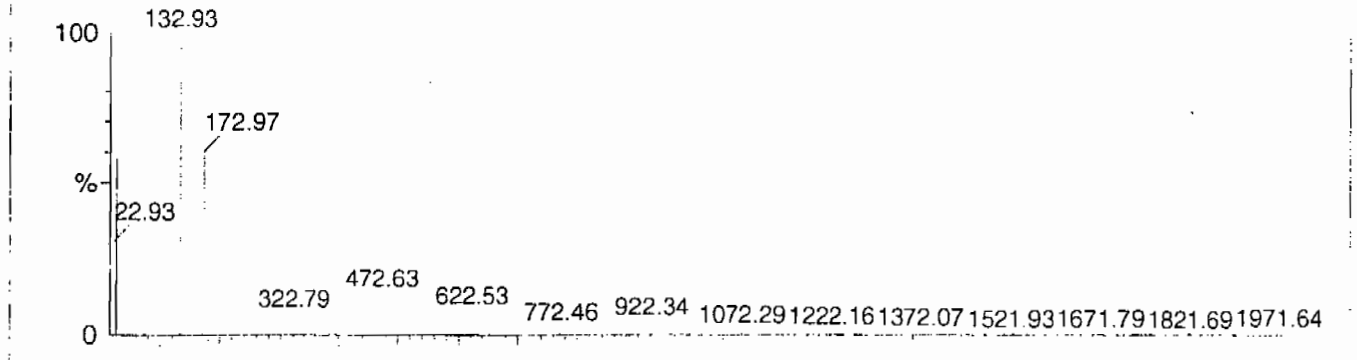

Reference file: Naics2

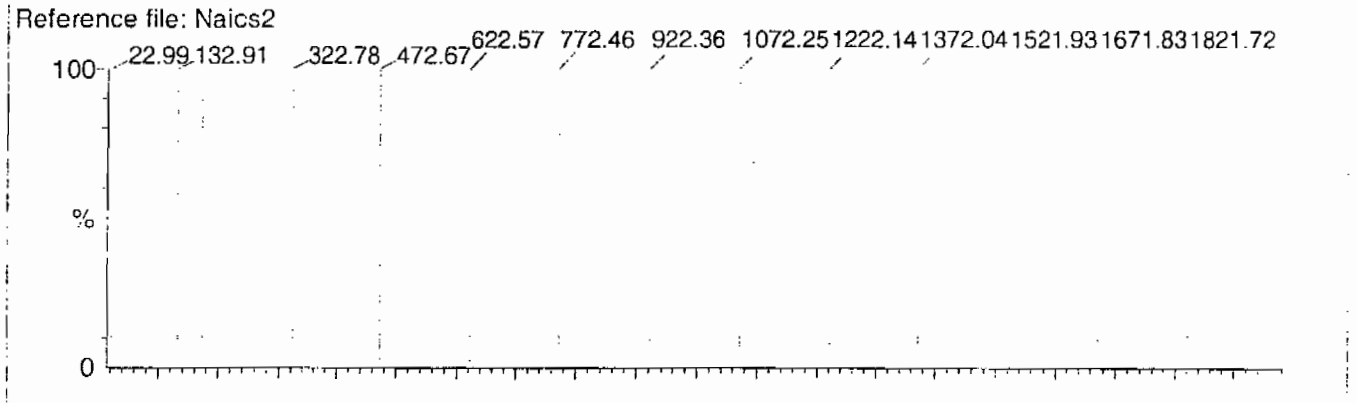

Mass difference (Raw - Ref mass)

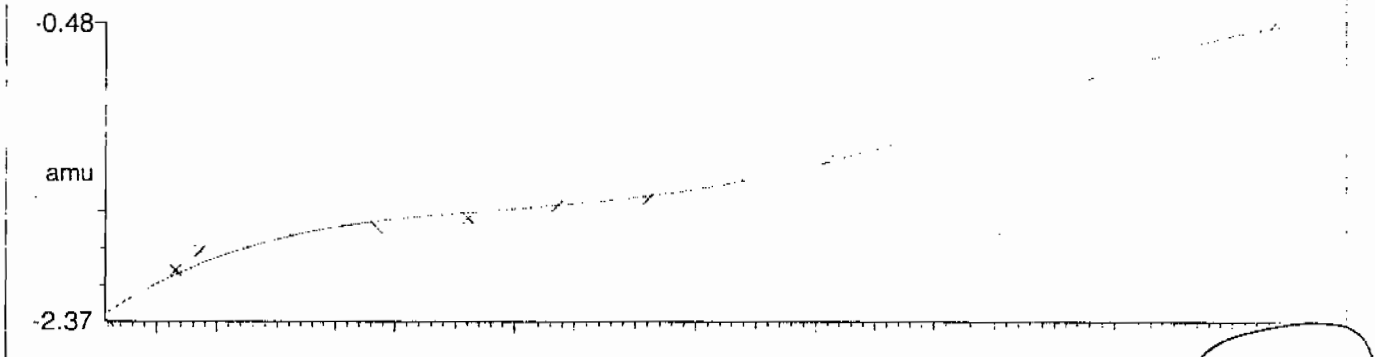

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

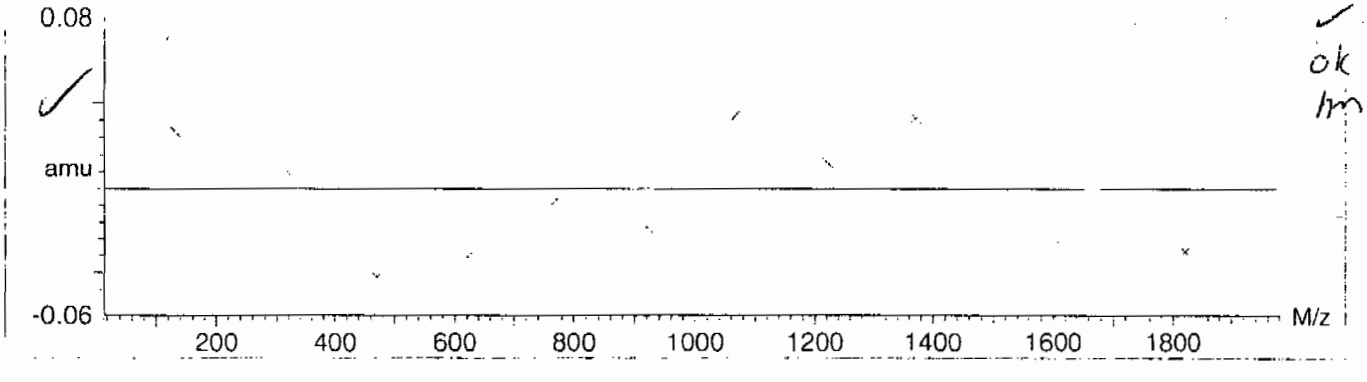

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

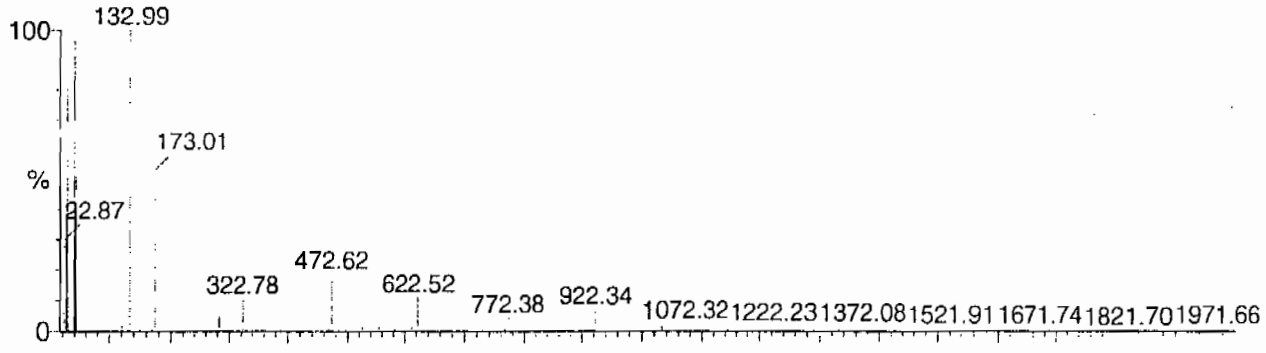

Reference file: Naics2

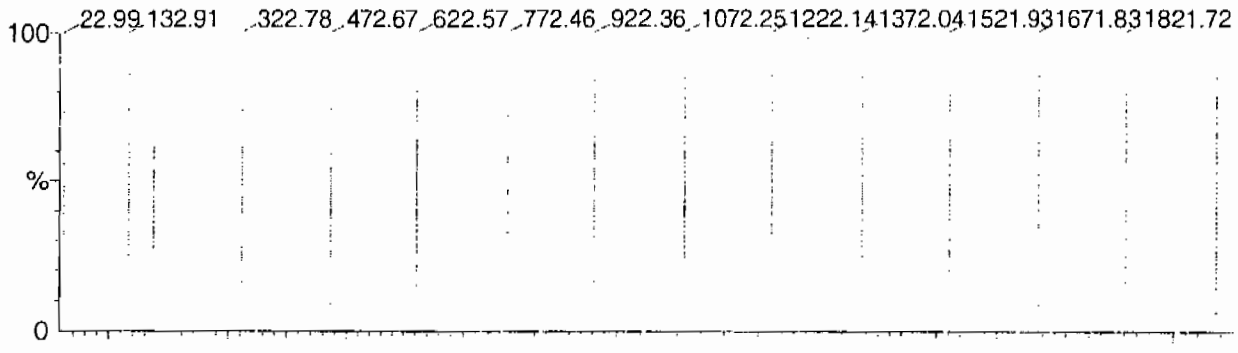

Mass difference (Raw - Ref mass)

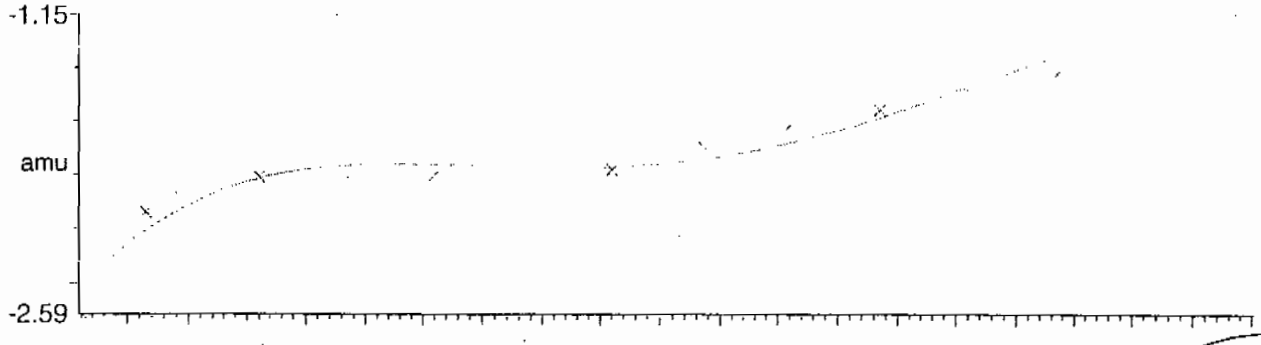

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

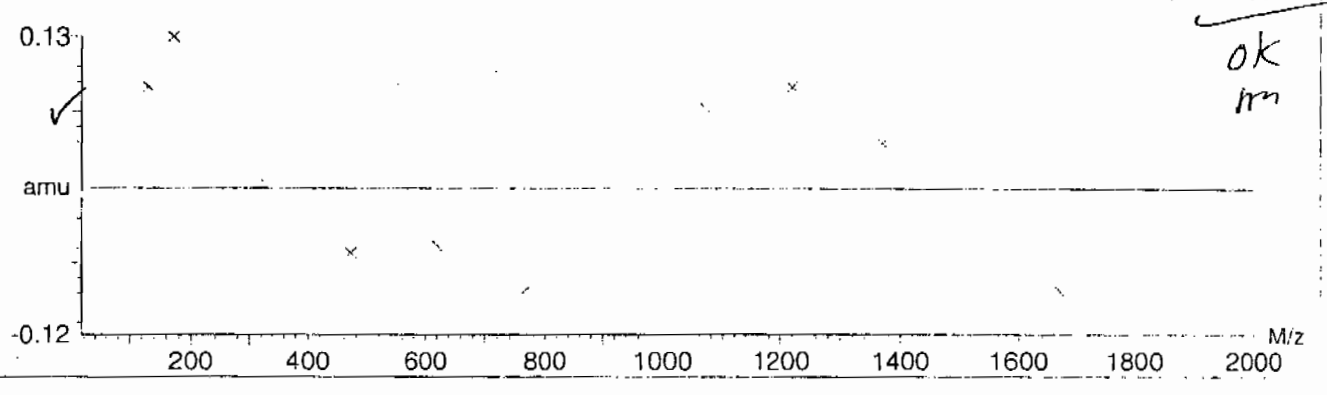

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

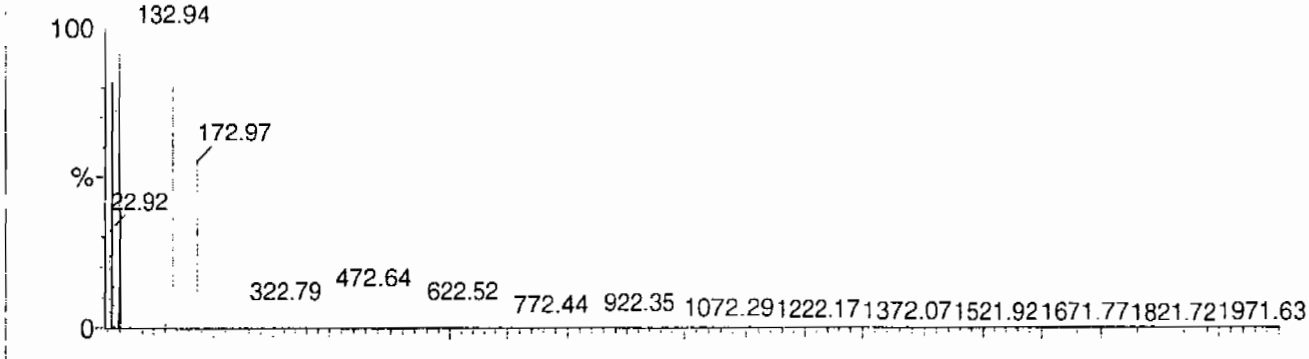

Reference file: Naics2

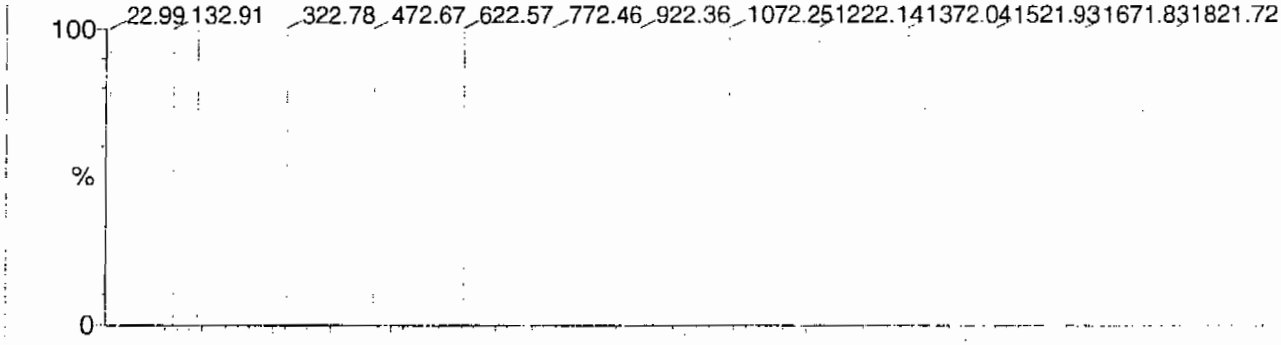

Mass difference (Raw - Ref mass)

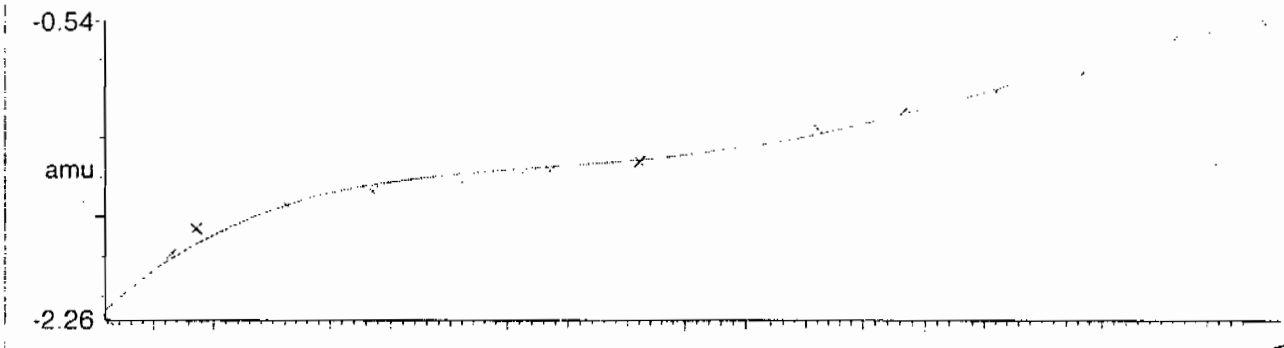

Residuals

Mean residual = 3.486639e-9 ± 0.040487

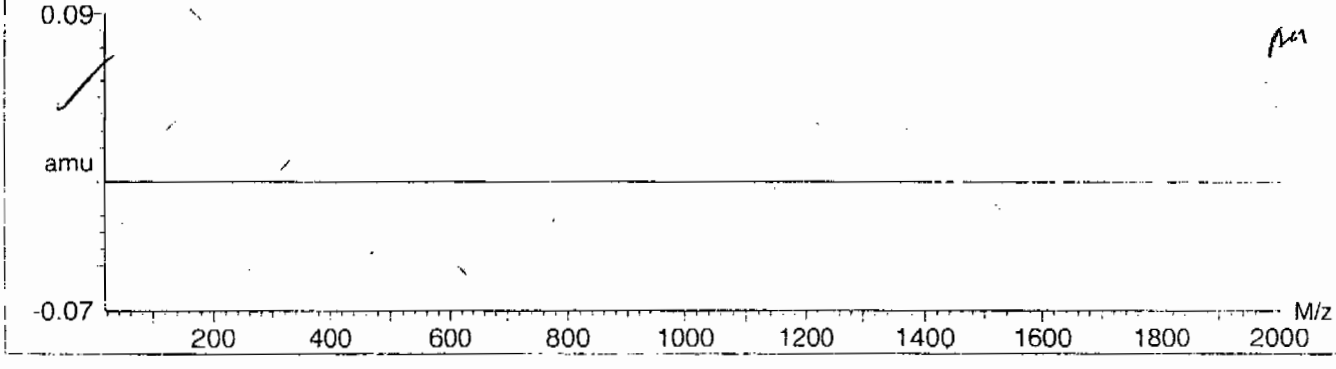

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

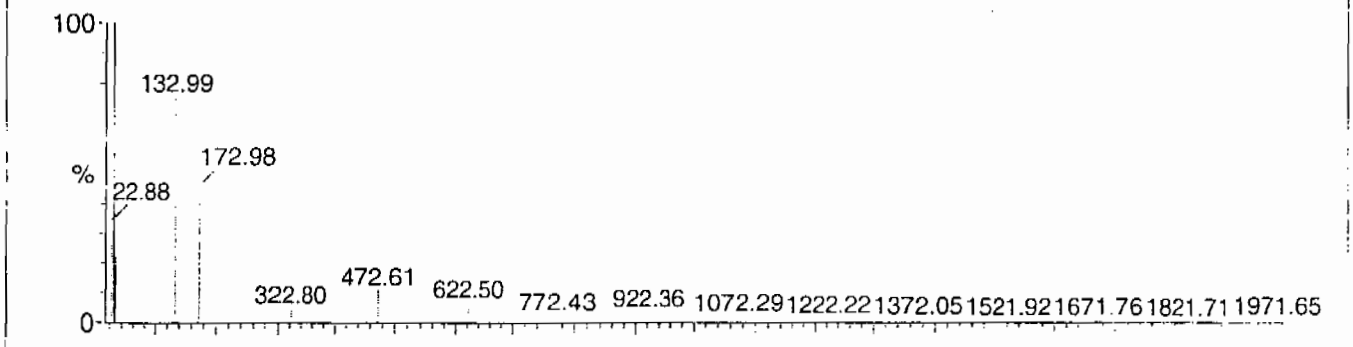

Reference file: Naics2

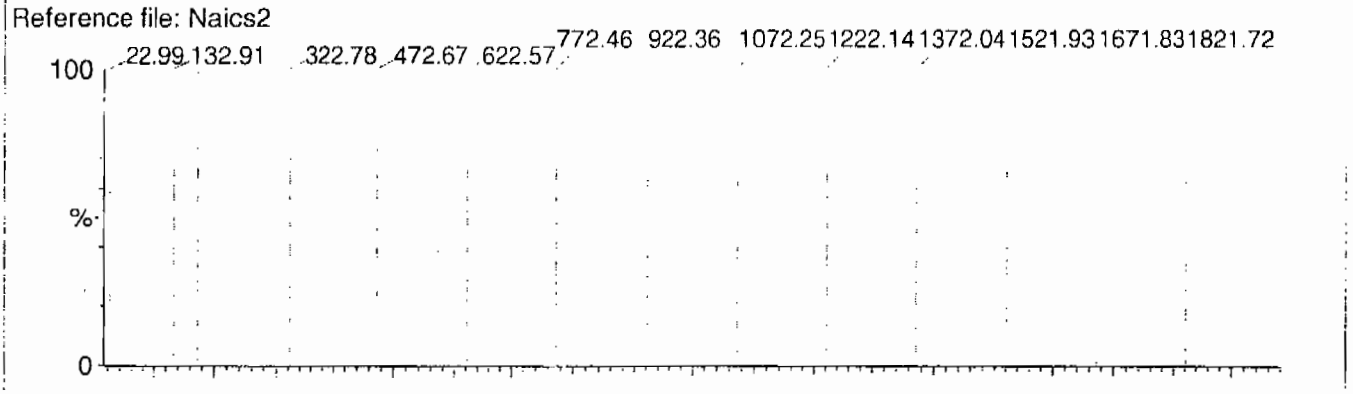

Mass difference (Raw - Ref mass)

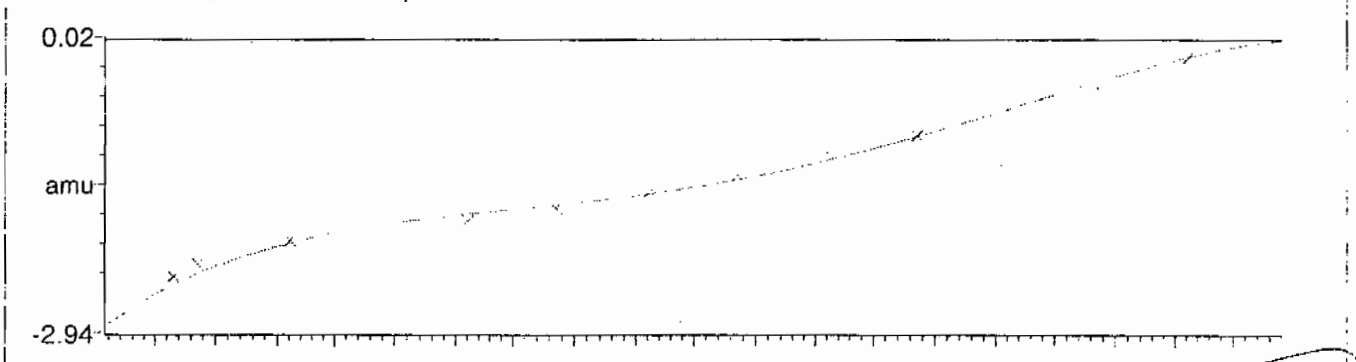

Residuals

Mean residual = 2.048910e-9 ± 0.057803

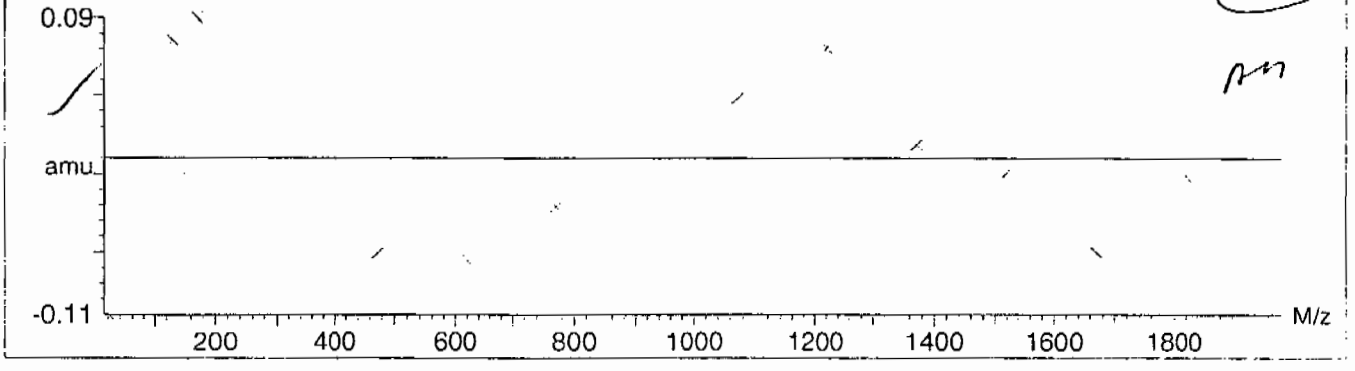

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

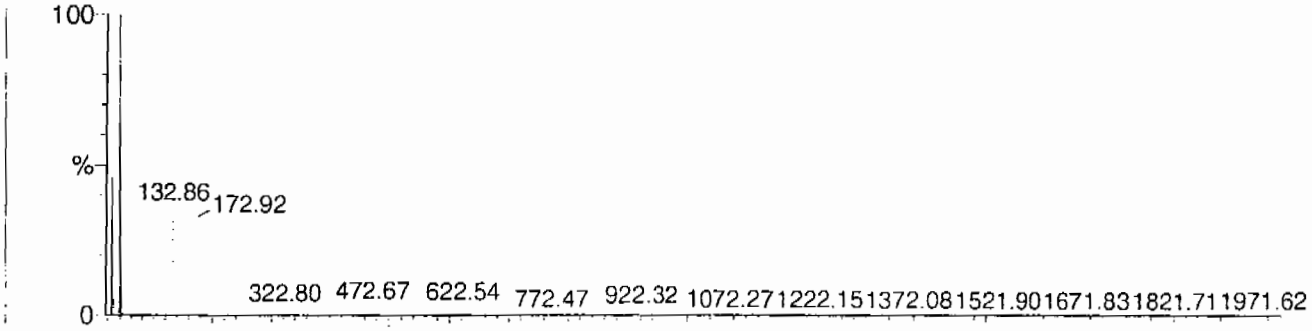

Reference file: Naics2

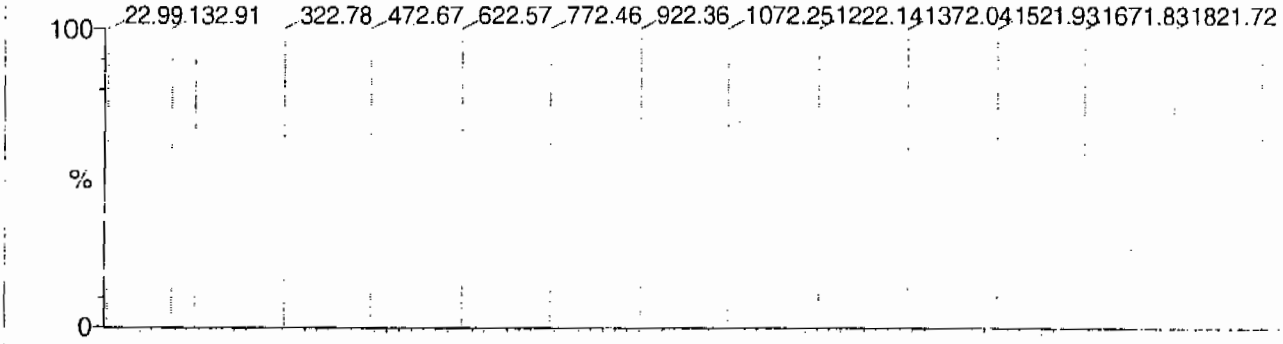

Mass difference (Raw - Ref mass)

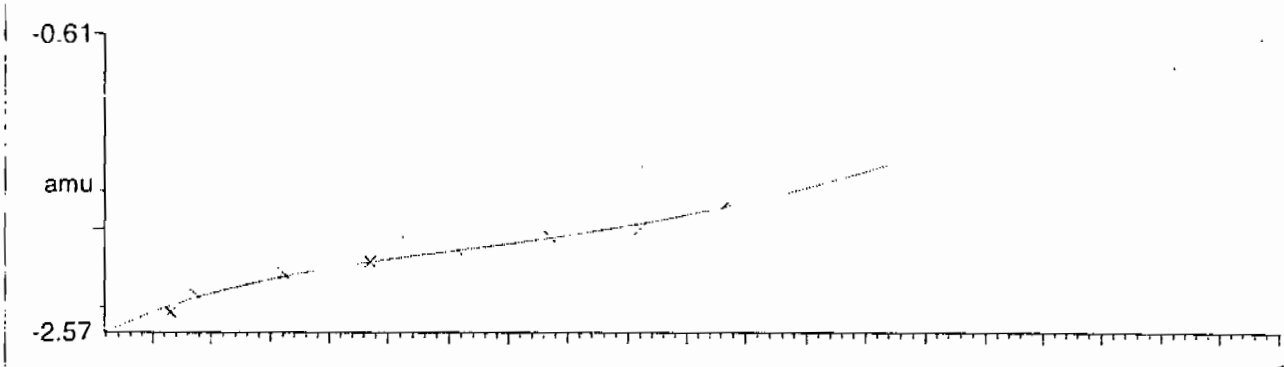

Residuals

Mean residual = -2.623502e-9 ± 0.025622

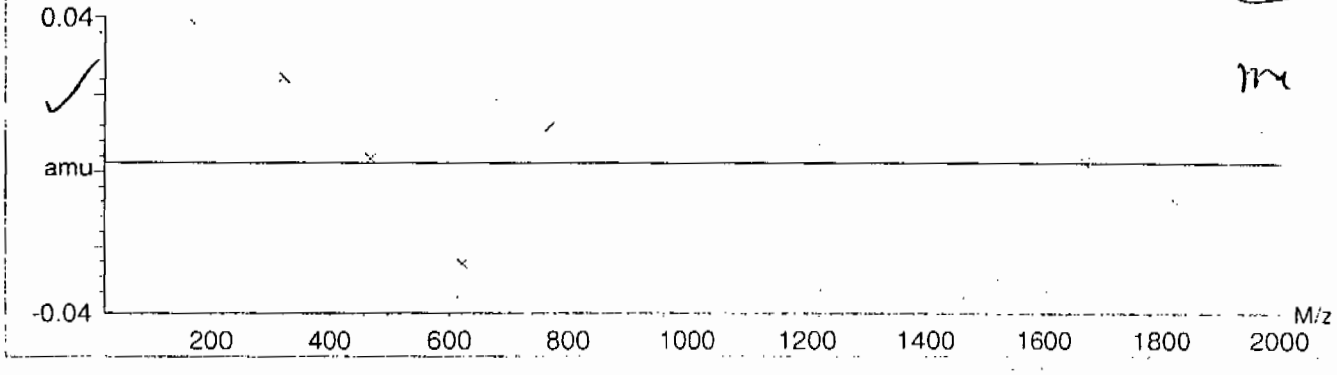

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

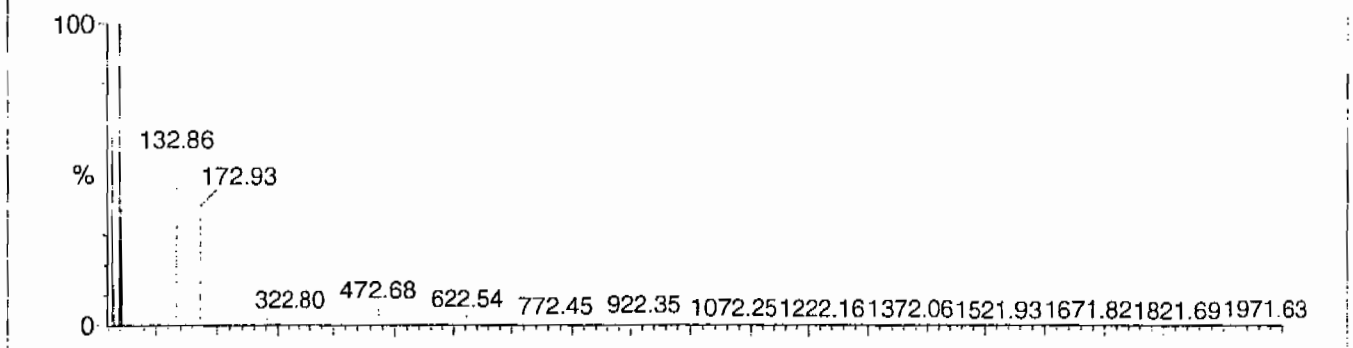

Reference file: Naics2

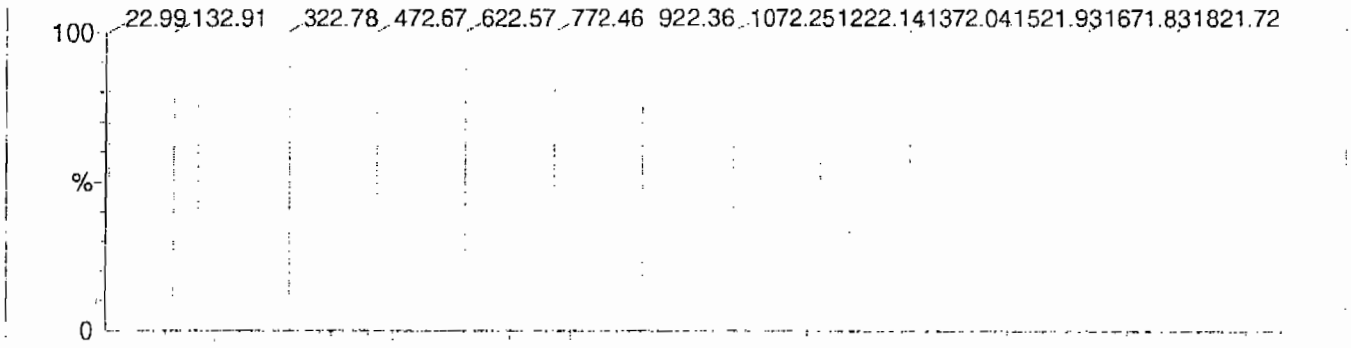

Mass difference (Raw - Ref mass)

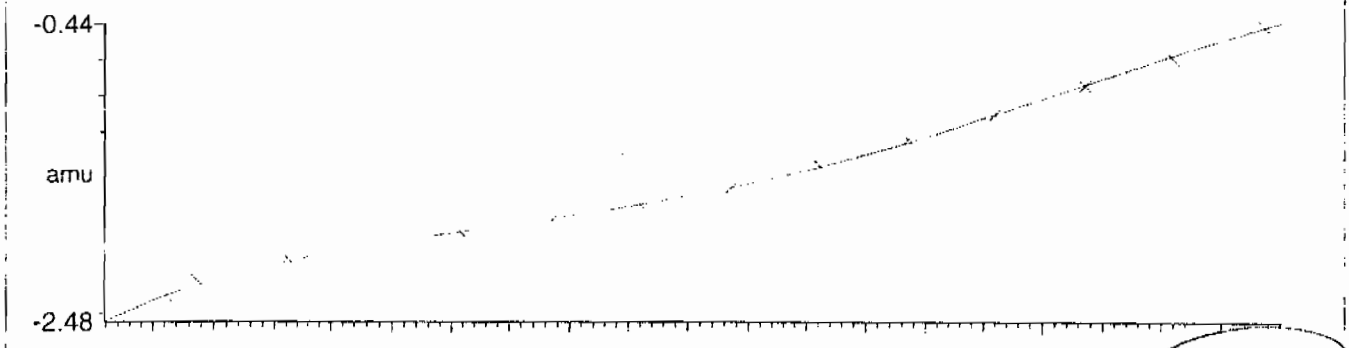

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

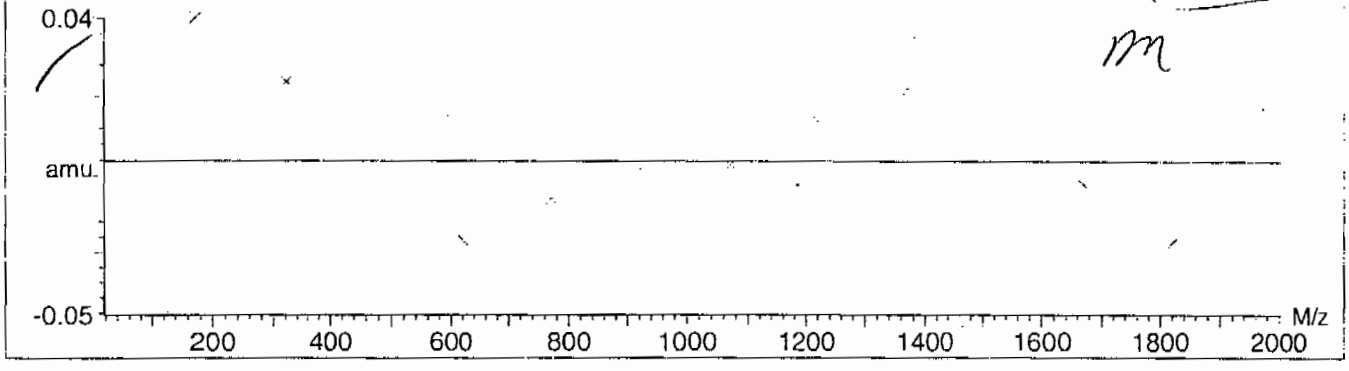

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Tue Feb 16 13:37:41 2010

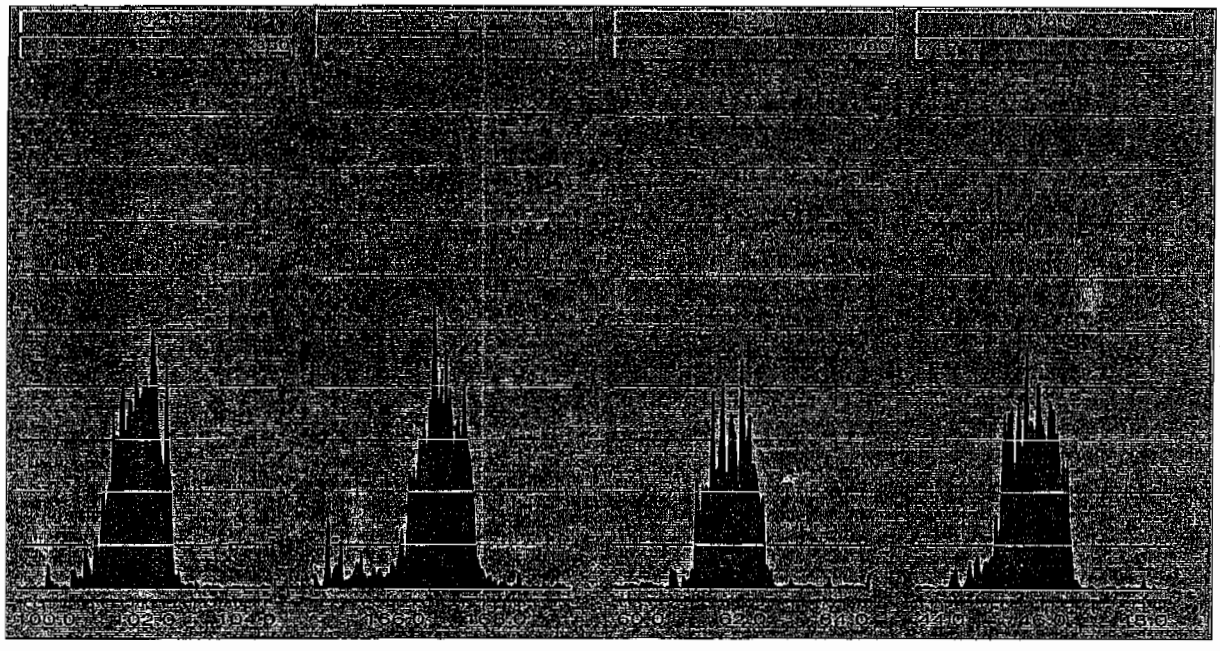

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1510

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3012.417	12.049	17408.567	17.428
Upper Limit			3916.1421	12.549	22631.1371	17.928
Lower Limit			2108.6919	11.549	12185.9969	16.928
MB for batch 948571	18–feb–10 08:39	EXP0216081a	2950.81	12.067	16299.5	17.422
LCS for batch 948571	18–feb–10 09:09	EXP0216082a	3438.84	12.064	19340.9	17.433
RE15–10–7309	18–feb–10 10:37	EXP0216085a	3763.55	12.067	17737.9	17.444
RE15–10–7309(245959001MS)	18–feb–10 11:07	EXP0216086a	3837.57	12.032	19410.3	17.444
RE15–10–7309(245959001MSD)	18–feb–10 11:36	EXP0216087a	3325.71	12.067	17062.5	17.444
RE15–10–7308	18–feb–10 12:06	EXP0216088a	3272.01	12.067	20230.5	17.444
RE15–10–7315	18–feb–10 14:04	EXP0216092a	3539.16	12.065	19876.5	17.434
RE15–10–7317	18–feb–10 14:34	EXP0216093a	3258.56	12.067	16497.4	17.422
RE15–10–7319	18–feb–10 15:03	EXP0216094a	3453.03	12.067	15458.2	17.423
RE15–10–7312	18–feb–10 15:33	EXP0216095a	2483.61	12.032	18433	17.422
RE15–10–7313	18–feb–10 16:03	EXP0216096a	3182.1	12.033	16679	17.422
RE15–10–7314	18–feb–10 16:32	EXP0216097a	2639.34	12.032	14875.8	17.422
RE15–10–7316	18–feb–10 17:02	EXP0216098a	2572.21	12.03	18481.3	17.411
RE15–10–7318	18–feb–10 17:32	EXP0216099a	2597.74	12.064	19528.1	17.433
RE15–10–7324	18–feb–10 18:01	EXP0216100a	3289.97	12.033	18809	17.422

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959001

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216085a

Date Analyzed: 18-FEB-10 10:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216085a
Date: 18-Feb-2010
Time: 10:37:58
ID: 245959001 | LANL | 948572 | Soils | 2 |
Vial: 2:5,E

MAP 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.651e+003

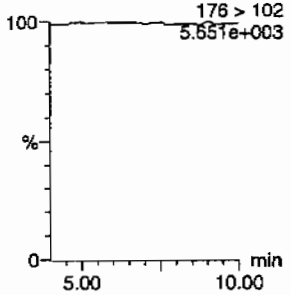

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.651e+003

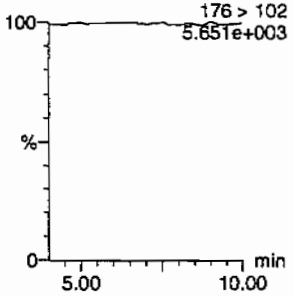

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.611e+003

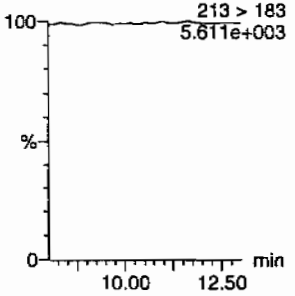

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.472e+004

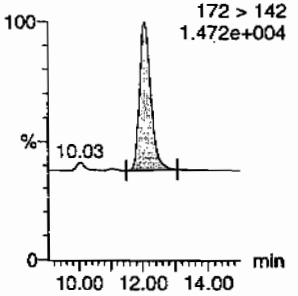

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.597e+003

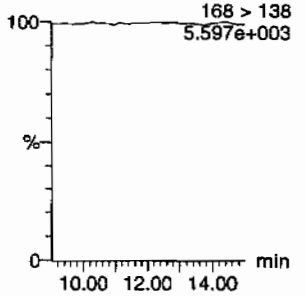

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.589e+003

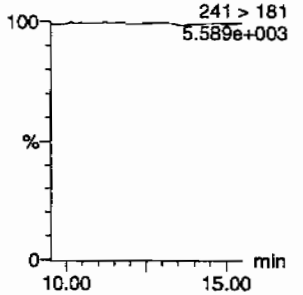

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.616e+003

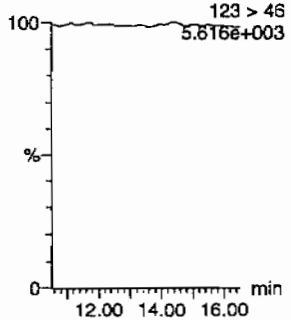

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.624e+003

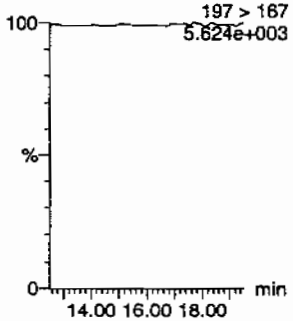

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.611e+003

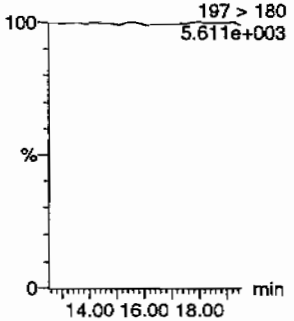

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.572e+003

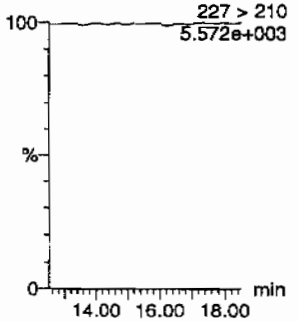

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.708e+004

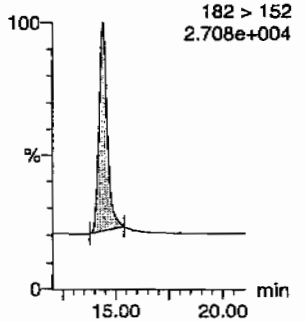

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.708e+004

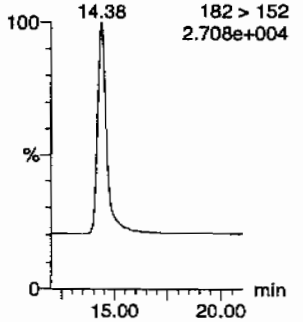

dtmm 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

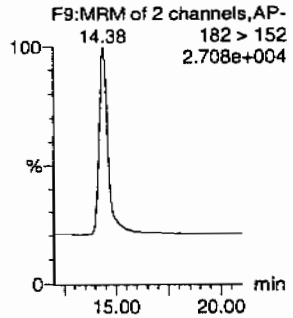

26-dinitrotoluene-d3

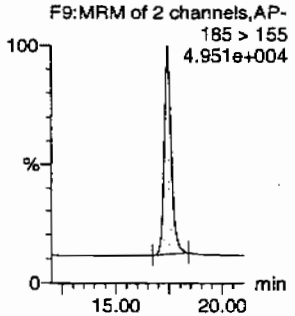

2-Nitrotoluene

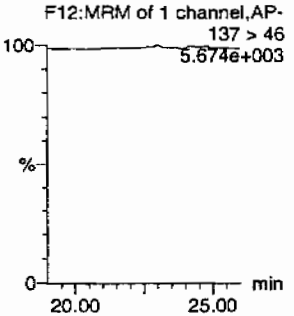

4-Nitrotoluene

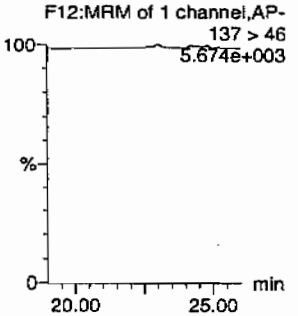

3-Nitrotoluene

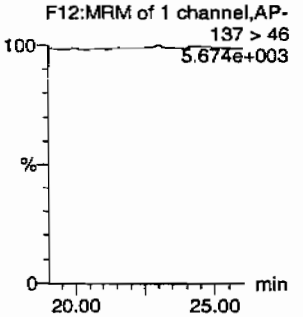

PETN

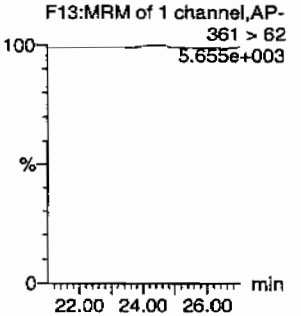

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245959001	HMX	176 > 102			3763.552									
245959001	RDX	176 > 102			3763.552									
245959001	135-Trinitrobenzene	213 > 183			3763.552									
245959001	13-Dinitrobenzene-d4	172 > 142	12.07	3763.552		3763.552	3763.552	bb			624.6734	124.9	24.9	236.0
245959001	13-Dinitrobenzene	168 > 138			3763.552									
245959001	Tetryl	241 > 181			3763.552									
245959001	Nitrobenzene	123 > 46			3763.552									
245959001	4-Amino-26-dinitrotoluene	197 > 167			17737.945									
245959001	2-Amino-46-dinitrotoluene	197 > 180			17737.945									
245959001	246-Trinitrotoluene	227 > 210			17737.945									
245959001	34-dinitrotoluene	182 > 152	14.38	9717.235	17737.945	9717.235	273.911	bb			302.3296	120.9	20.9	1249.4
245959001	26-dinitrotoluene	182 > 152			17737.945									
245959001	24-dinitrotoluene	182 > 152			17737.945									
245959001	26-dinitrotoluene-d3	185 > 155	17.44	17737.945		17737.945	17737.945	bb			509.4606	101.9	1.9	1362.0
245959001	2-Nitrotoluene	137 > 46			17737.945									
245959001	4-Nitrotoluene	137 > 46			17737.945									
245959001	3-Nitrotoluene	137 > 46			17737.945									
245959001	PETN	361 > 62			17737.945									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959001

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140124.wiff

Date Analyzed: 15-FEB-10 22:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/17/10

Sample Name: "245959001" Sample ID: "948572[2]LER" File: "EXS02140124.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 10:30:07 PM

dified: No

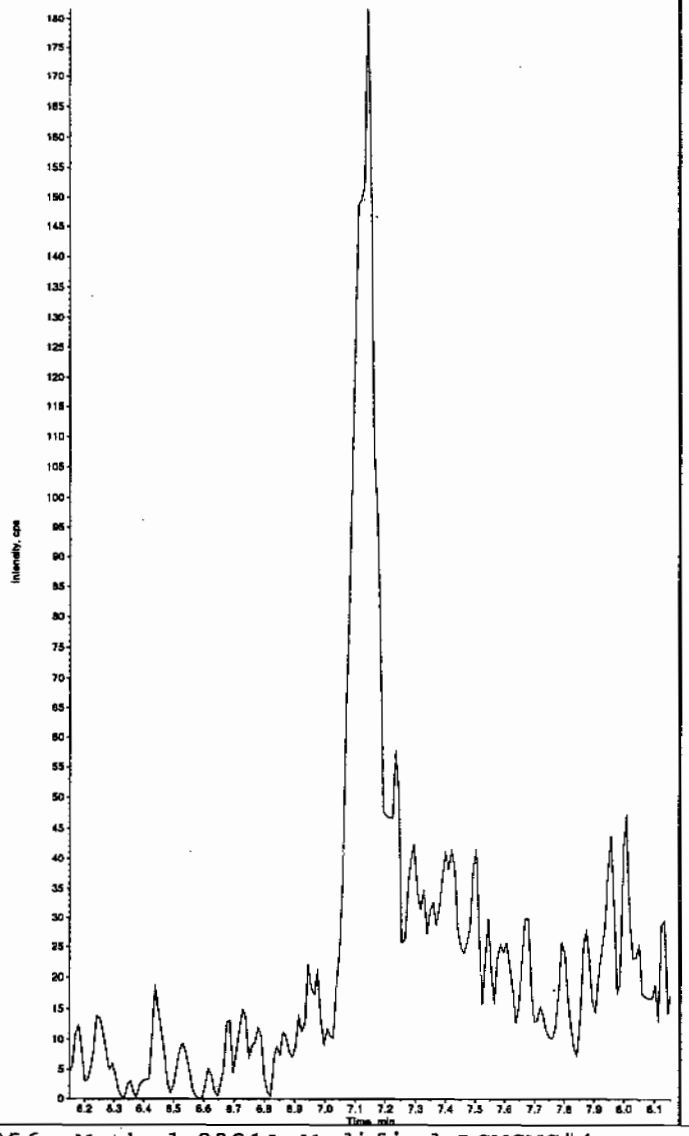

Sample Name: "245959001" Sample ID: "948572[2]LER" File: "EXS02140124.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 10:30:07 PM

Modified: Yes

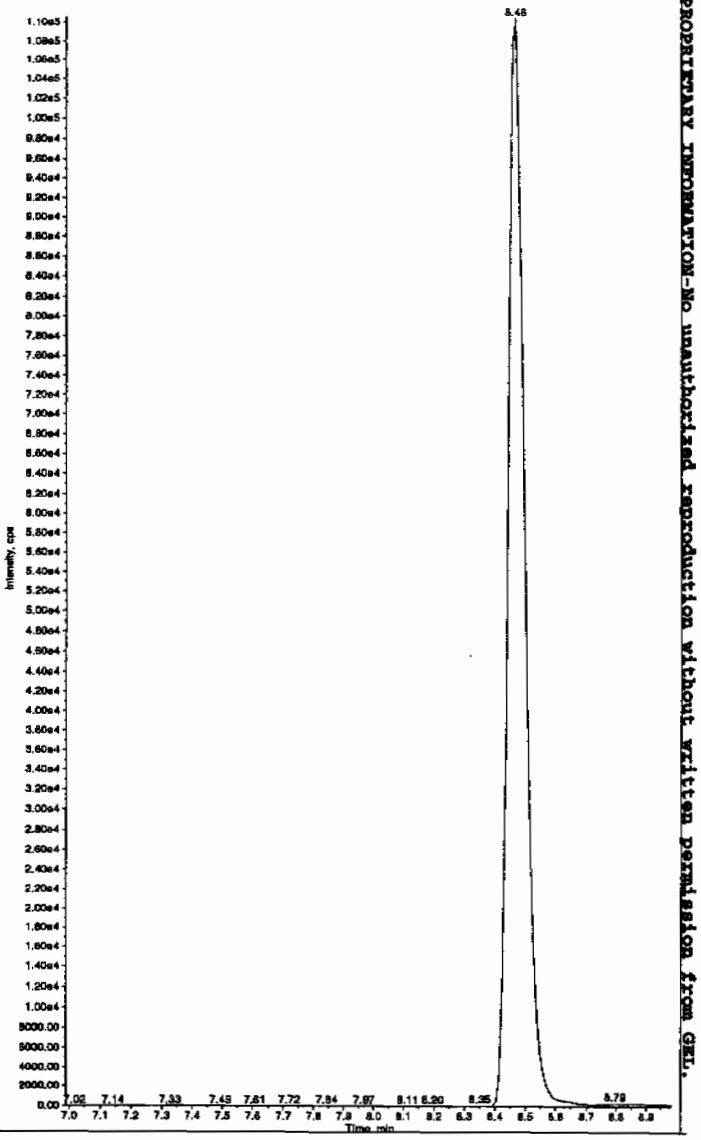

Hanson 2/17/10

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ample Name: "245959001" Sample ID: "948572|2|LER" File: "EXS02140124.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	298. ng/mL
. Date:	2/15/2010
. Time:	10:30:07 PM
ified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	1460.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	15.0 sec
ected RT:	8.52 min
Relative RT:	No
. Type:	Valley
ention Time:	8.45 min
a:	3.88e+006 counts
ght:	1005592.896 cps
rt Time:	8.34 min
Time:	8.83 min

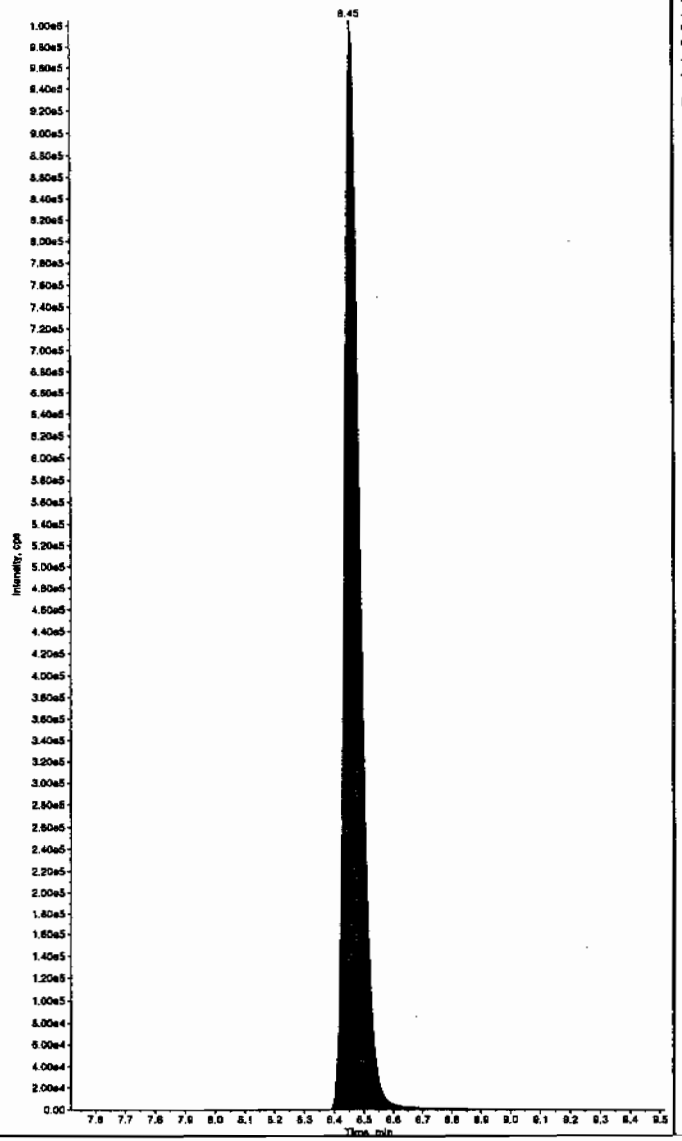

Sample Name: "245959001" Sample ID: "948572|2|LER" File: "EXS02140124.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	10:30:07 PM
Modified:	No

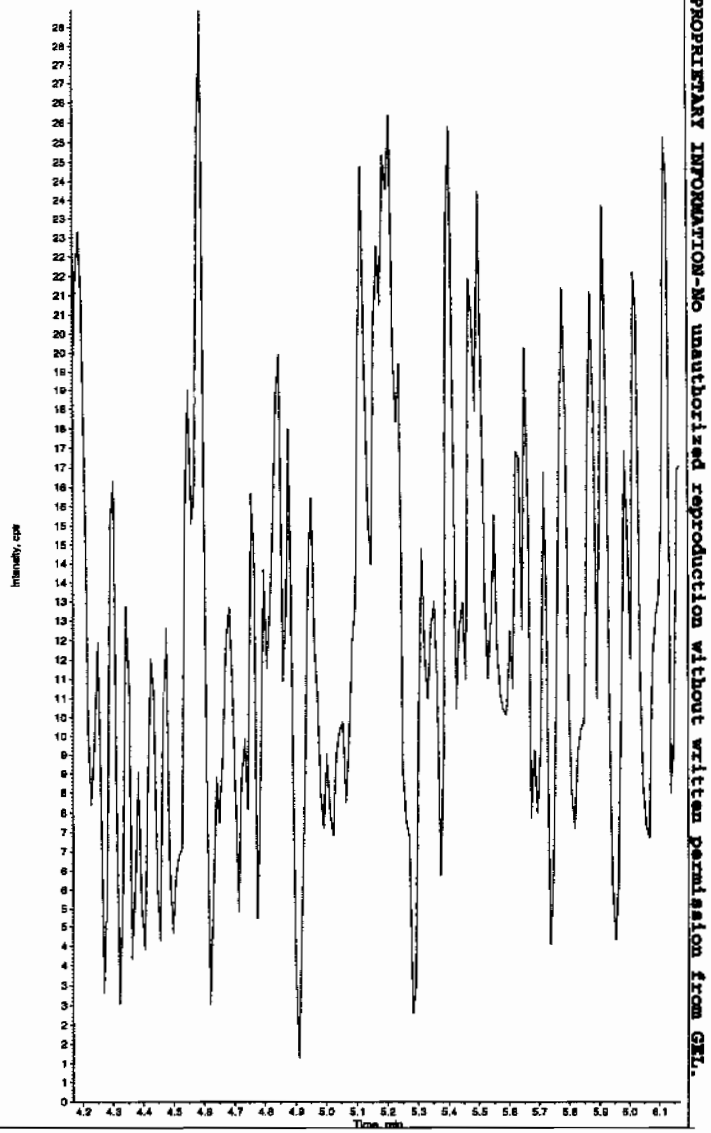

Sample Name: "245959001" Sample ID: "948572|2|LER" File: "EXS02140124.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 10:30:07 PM
dified: No

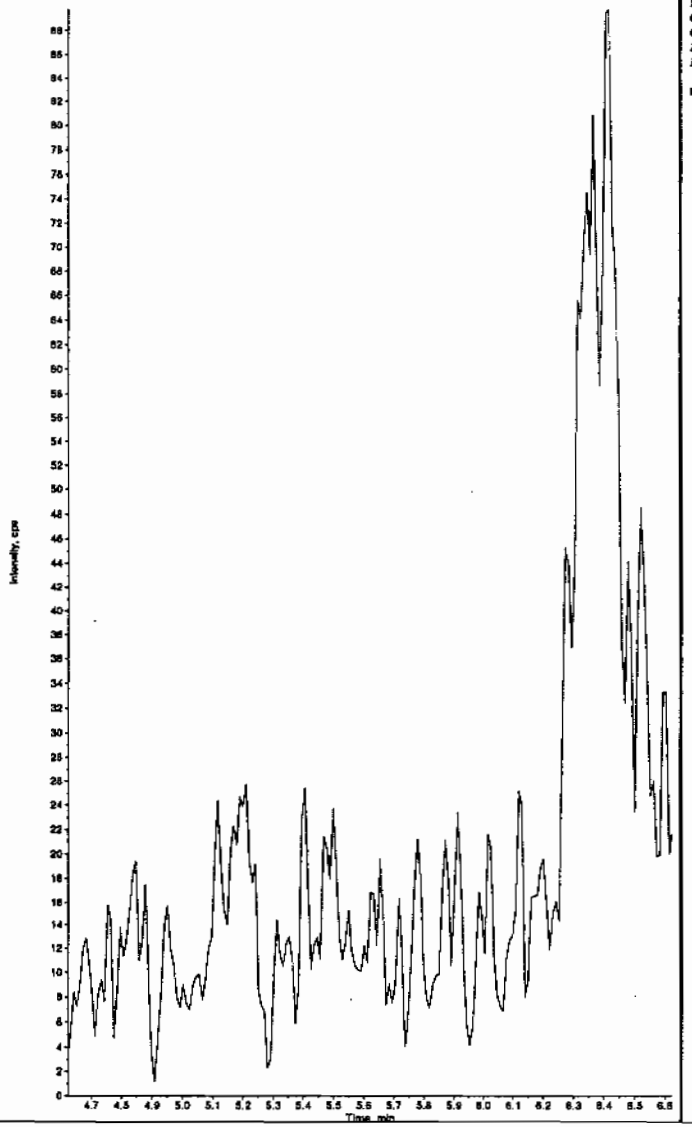

Sample Name: "245959001" Sample ID: "948572|2|LER" File: "EXS02140124.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 10:30:07 PM
Modified: No

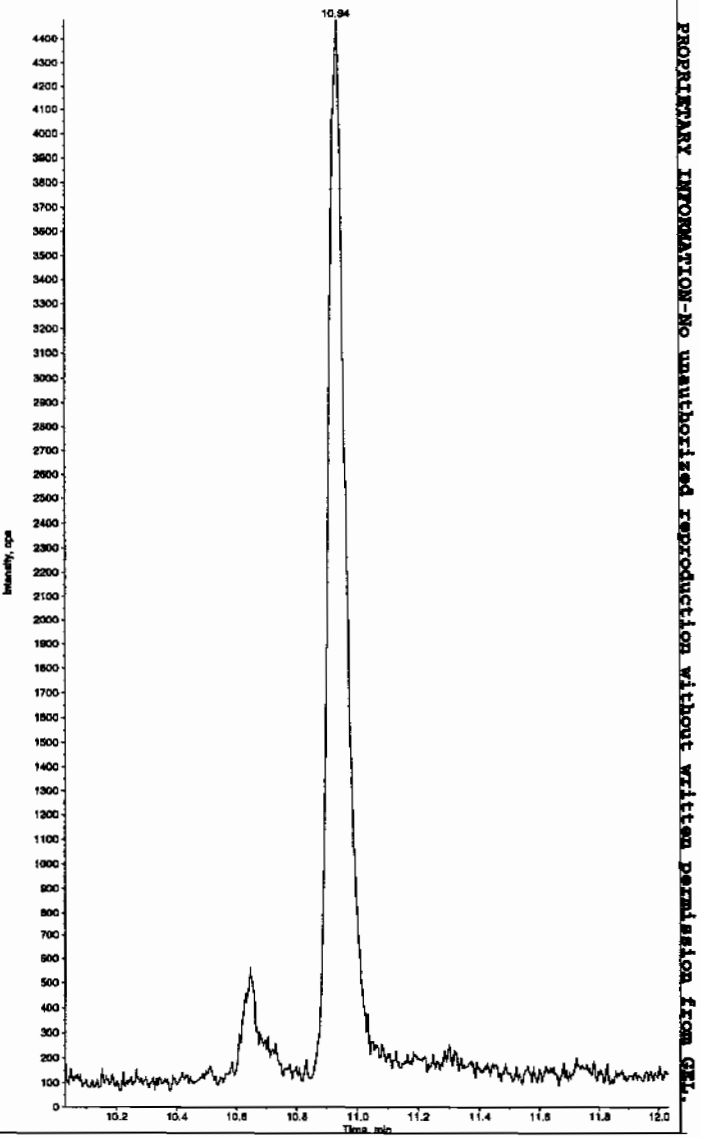

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7308

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959002

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216088a

Date Analyzed: 18-FEB-10 12:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216088a
Date: 18-Feb-2010
Time: 12:06:40
ID: 245959002 | LANL | 940572 | Solids | 2 |
Vial: 2:6,B

MGT 4/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.634e+003

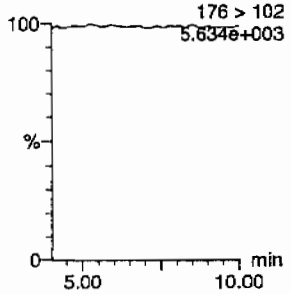

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.634e+003

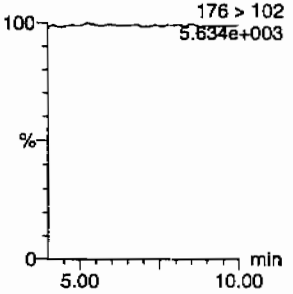

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.541e+003

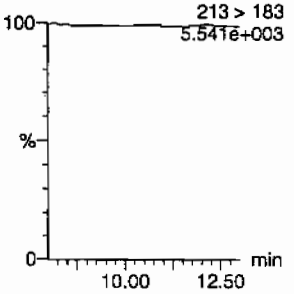

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.366e+004

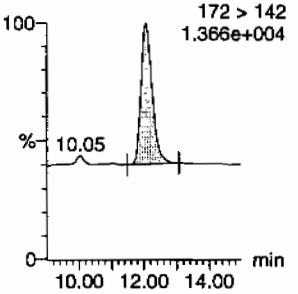

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.514e+003

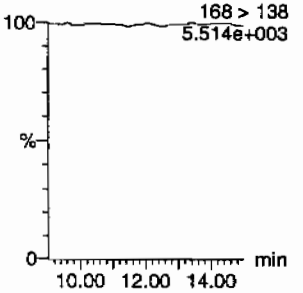

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.509e+003

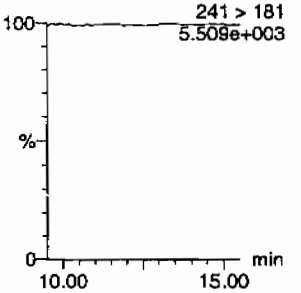

Nitrobenzene
F7:MRM of 1 channel,AP-
14.59
123 > 46
5.631e+003

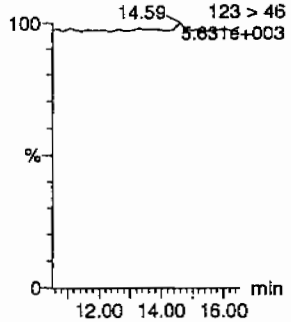

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.598e+003

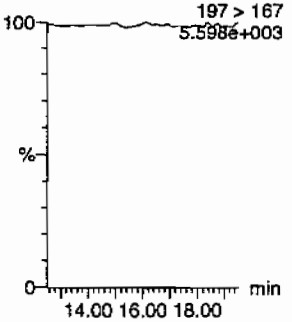

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.582e+003

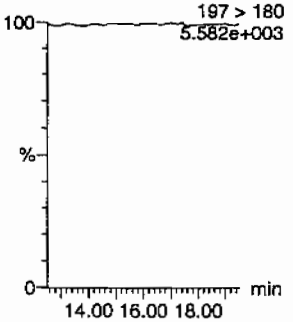

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.512e+003

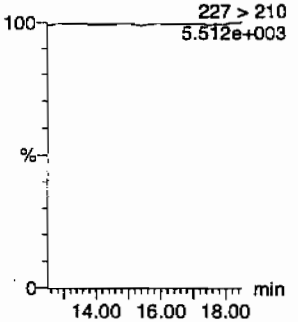

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.662e+004

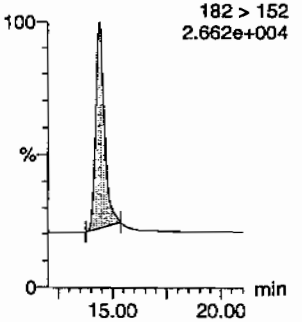

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.662e+004

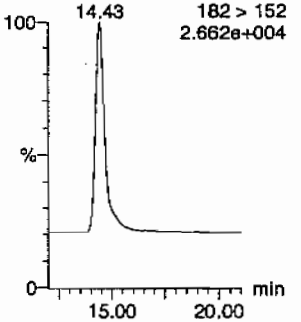

HMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

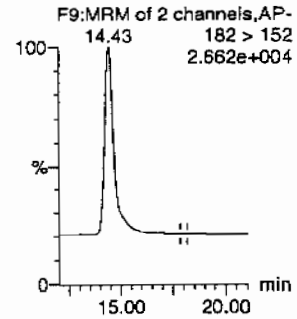

26-dinitrotoluene-d3

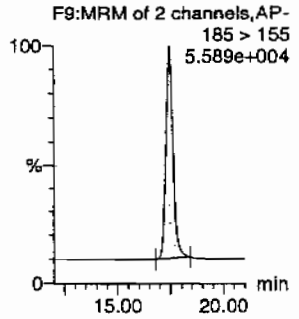

2-Nitrotoluene

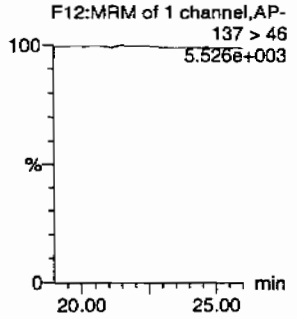

4-Nitrotoluene

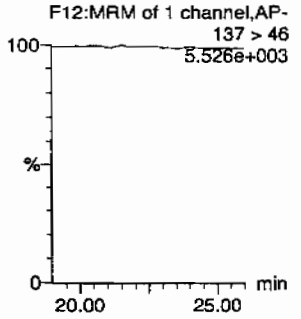

3-Nitrotoluene

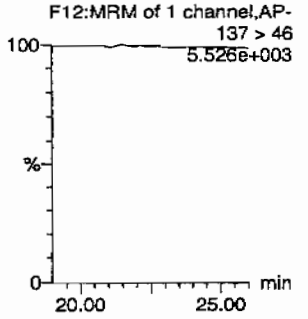

PETN

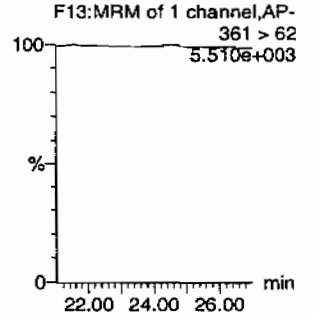

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245959002	HMX	176 > 102			3272.009									
245959002	RDX	176 > 102			3272.009									
245959002	135-Trinitrobenzene	213 > 183			3272.009									
245959002	13-Dinitrobenzene-d4	172 > 142	12.07	3272.009		3272.009	3272.009	bb			543.0872	108.6	8.6	212.7
245959002	13-Dinitrobenzene	168 > 138			3272.009									
245959002	Tetryl	241 > 181			3272.009									
245959002	Nitrobenzene	123 > 46			3272.009									
245959002	4-Amino-26-dinitrotoluene	197 > 167			20230.475									
245959002	2-Amino-46-dinitrotoluene	197 > 180			20230.475									
245959002	246-Trinitrotoluene	227 > 210			20230.475									
245959002	34-dinitrotoluene	182 > 152	14.43	9979.094	20230.475	9979.094	246.635	bb			272.2240	108.9	8.9	534.5
245959002	26-dinitrotoluene	182 > 152			20230.475									
245959002	24-dinitrotoluene	182 > 152			20230.475			MM-	19-Feb-10	08:46:44				
245959002	26-dinitrotoluene-d3	185 > 155	17.44	20230.475		20230.475	20230.475	bb			581.0498	116.2	16.2	1786.1
245959002	2-Nitrotoluene	137 > 46			20230.475									
245959002	4-Nitrotoluene	137 > 46			20230.475									
245959002	3-Nitrotoluene	137 > 46			20230.475									
245959002	PETN	361 > 62			20230.475									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7308

Lab Code: GEI

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959002

Sample Amount 2

Moisture: 22.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140127.wiff

Date Analyzed: 15-FEB-10 23:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Jan 2/17/10

Sample Name: "245959002" Sample ID: "948572|2|LER" File: "EXS02140127.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 11.0 ng/mL
q. Date: 2/15/2010
q. Time: 11:17:11 PM

dified: No
sc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.15 min
e Relative RT: No

:. Type: Valley
tention Time: 7.12 min
a: 1.19e+004 counts
ight: 2723.445 cps
rt Time: 7.01 min
l Time: 7.29 min

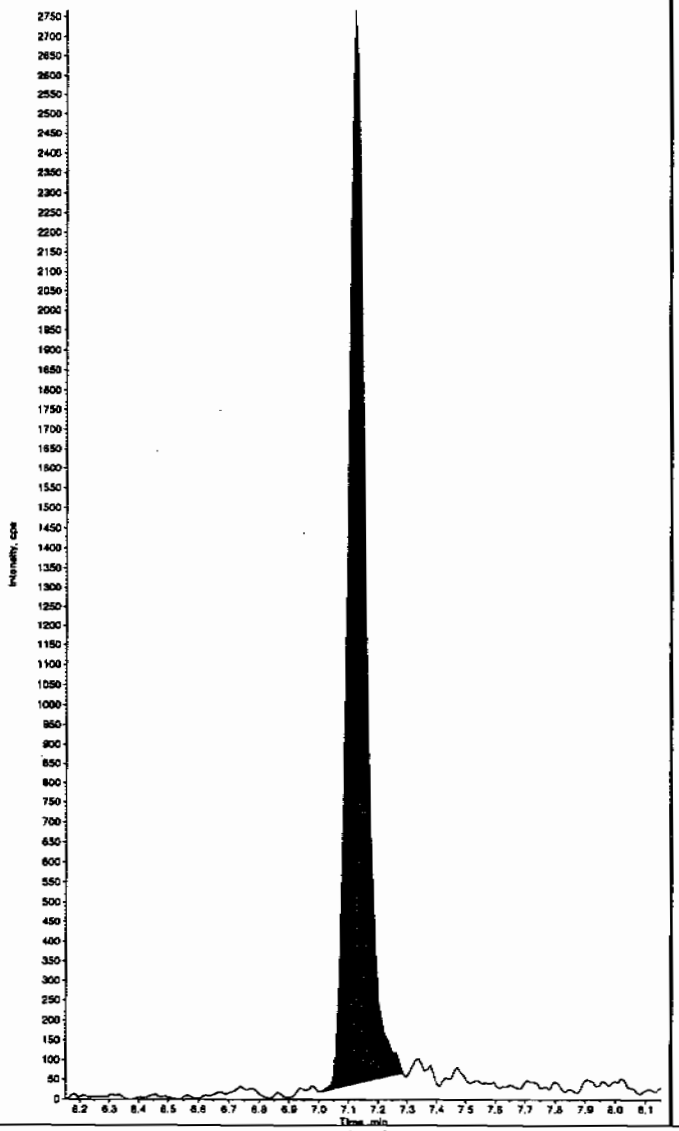

Sample Name: "245959002" Sample ID: "948572|2|LER" File: "EXS02140127.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:17:11 PM

Modified: Yes

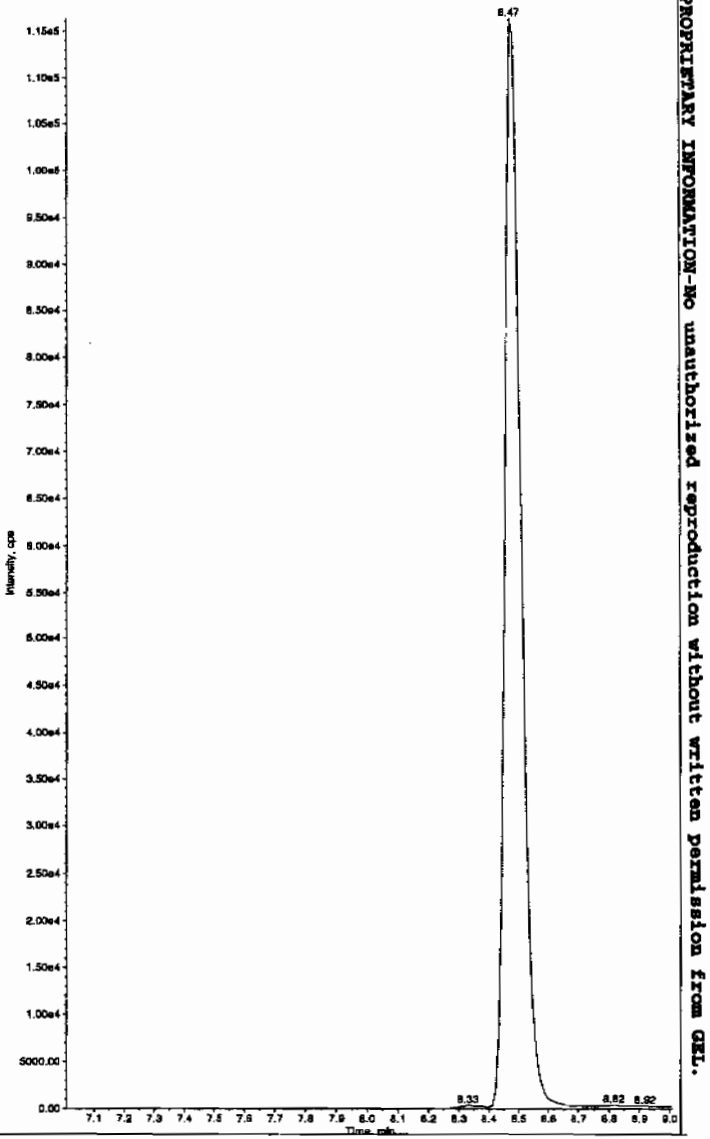

Hum 02/17/10

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ample Name: "245959002" Sample ID: "948572|2|LER" File: "EXS02140127.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 304. ng/mL
. Date: 2/15/2010
. Time: 11:17:11 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.47 min
a: 3.94e+006 counts
ght: 1054673.462 cps
rt Time: 8.37 min
Time: 8.84 min

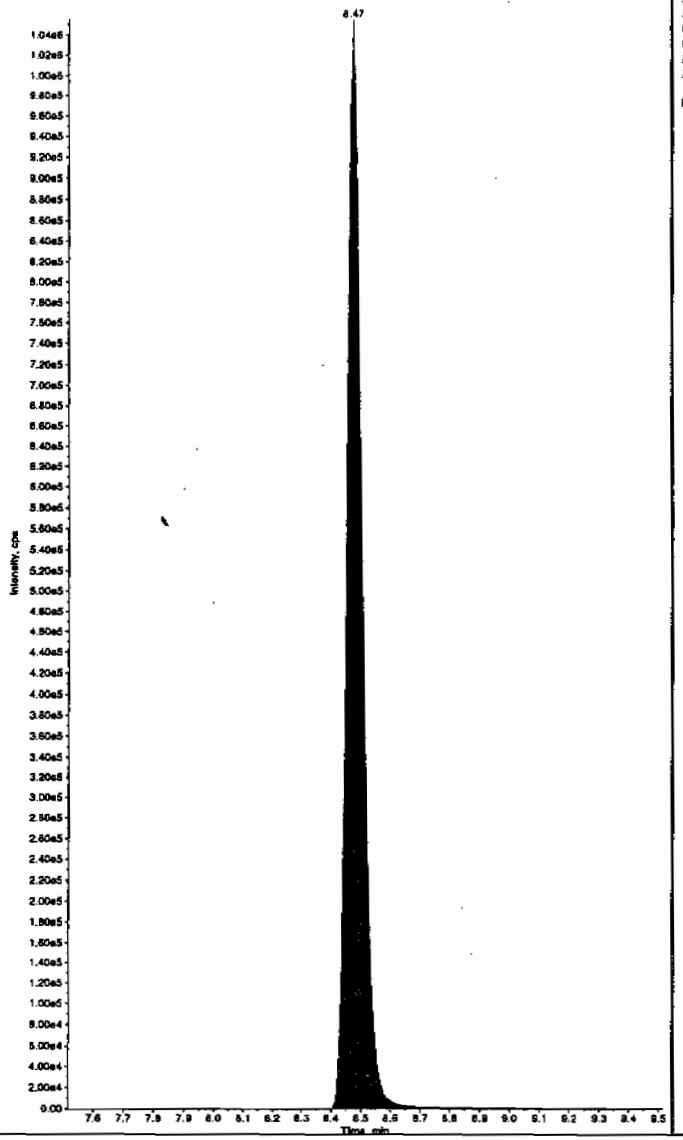

Sample Name: "245959002" Sample ID: "948572|2|LER" File: "EXS02140127.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:17:11 PM

Modified: No

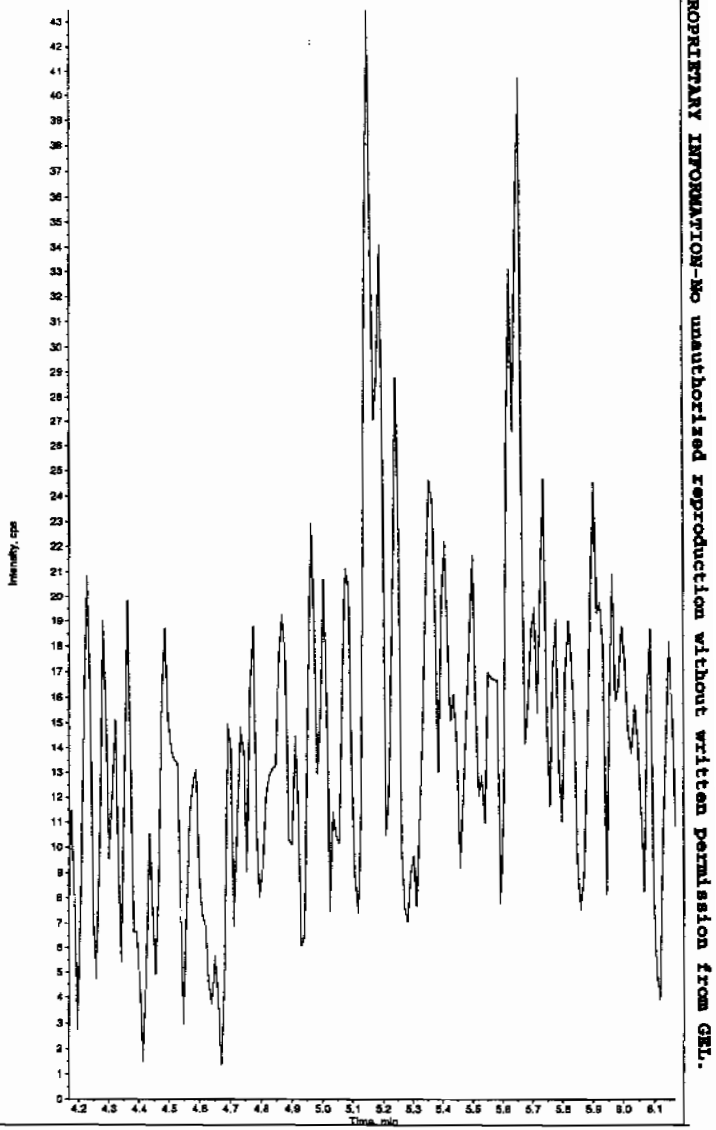

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Sample Name: "245959002" Sample ID: "948572|2|LER" File: "EXS02140127.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	0.00 ng/mL
q. Date:	2/15/2010
q. Time:	11:17:11 PM
dified:	No

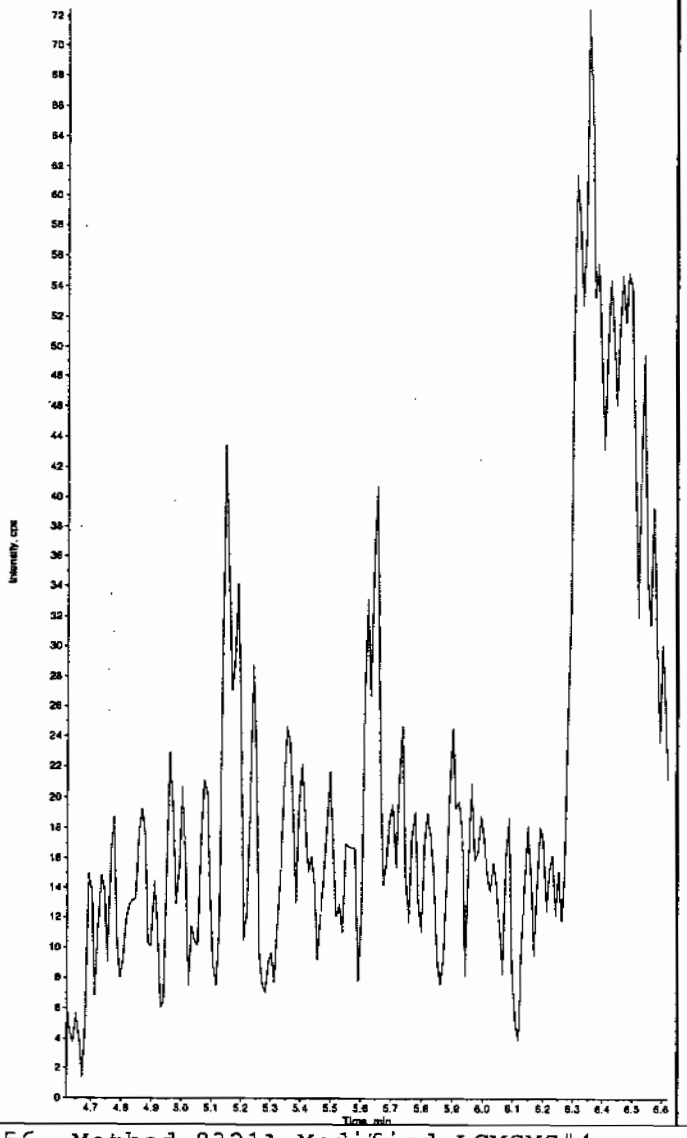

Sample Name: "245959002" Sample ID: "948572|2|LER" File: "EXS02140127.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.504 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	11:17:11 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	11.0 min
Area:	7.36e+004 counts
Height:	16430.483 cps
Start Time:	10.8 min
End Time:	11.2 min

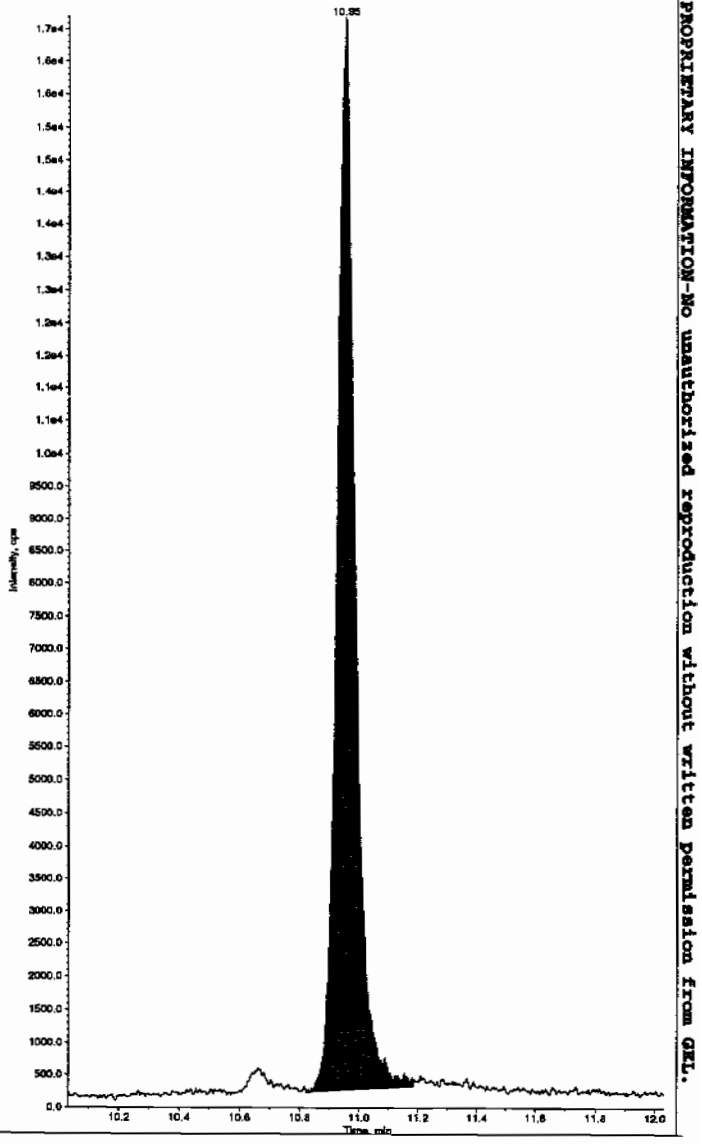

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7315

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959003

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216092a

Date Analyzed: 18-FEB-10 14:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216092a
Date: 18-Feb-2010
Time: 14:04:51
ID: 245959003 | LATAL | 948572 | SOLID | 2 |
Vial: 2:6,C

MATT 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.543e+003

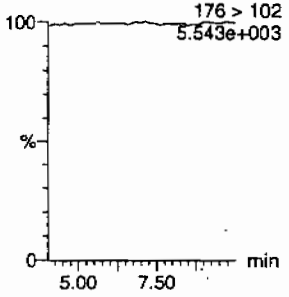

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.543e+003

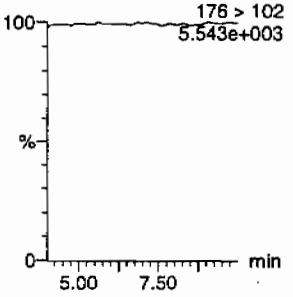

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.486e+003

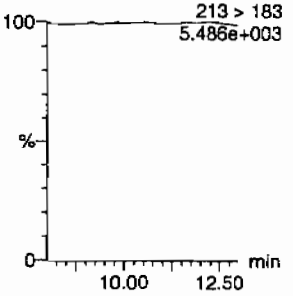

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.401e+004

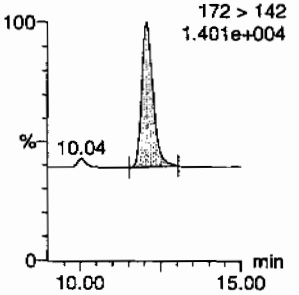

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.488e+003

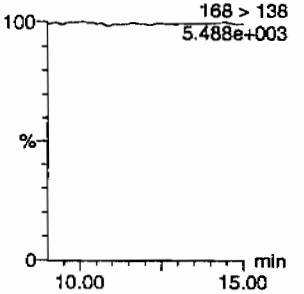

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.513e+003

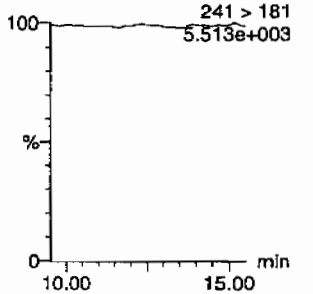

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.499e+003

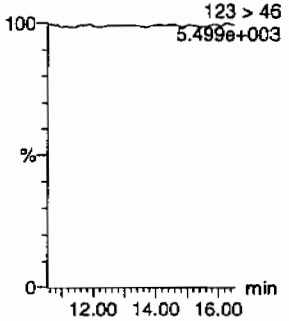

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.538e+003

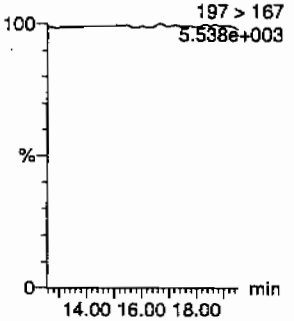

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.535e+003

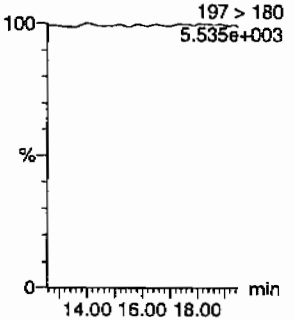

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.553e+003

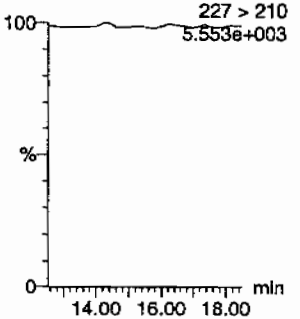

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.680e+004

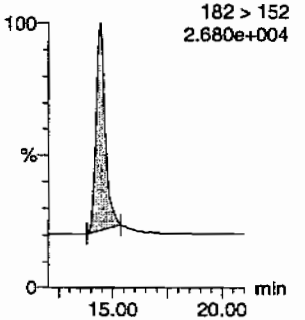

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.680e+004

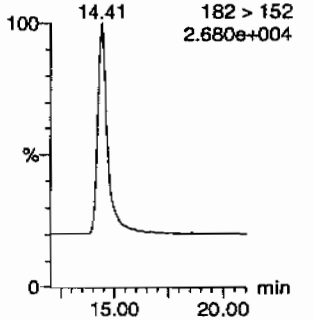

HMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

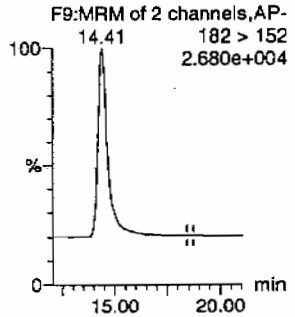

26-dinitrotoluene-d3

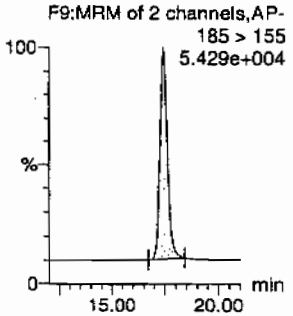

2-Nitrotoluene

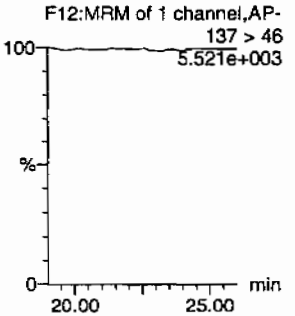

4-Nitrotoluene

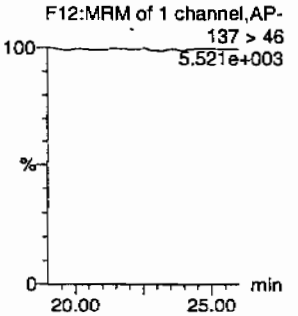

3-Nitrotoluene

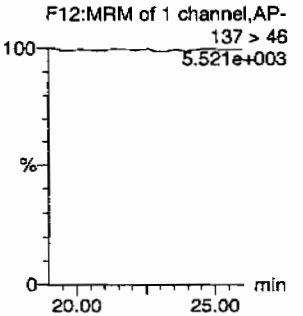

PETN

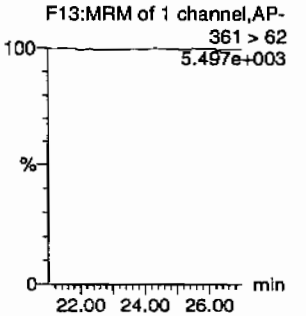

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245959003	HMX	176 > 102			3539.156									
245959003	RDX	176 > 102			3539.156									
245959003	135-Trinitrobenzene	213 > 183			3539.156									
245959003	13-Dinitrobenzene-d4	172 > 142	12.06	3539.156		3539.156	3539.156	bb			587.4282	117.5	17.5	120.4
245959003	13-Dinitrobenzene	168 > 138			3539.156									
245959003	Tetryl	241 > 181			3539.156									
245959003	Nitrobenzene	123 > 46			3539.156									
245959003	4-Amino-26-dinitrotoluene	197 > 167			19876.477									
245959003	2-Amino-46-dinitrotoluene	197 > 180			19876.477									
245959003	246-Trinitrotoluene	227 > 210			19876.477									
245959003	34-dinitrotoluene	182 > 152	14.41	10230.285	19876.477	10230.285	257.347	bb			284.0466	113.6	13.6	632.5
245959003	26-dinitrotoluene	182 > 152			19876.477									
245959003	24-dinitrotoluene	182 > 152			19876.477			MM-	19-Feb-10	08:46:20				
245959003	26-dinitrotoluene-d3	185 > 155	17.43	19876.477		19876.477	19876.477	bb			570.8824	114.2	14.2	2553.7
245959003	2-Nitrotoluene	137 > 46			19876.477									
245959003	4-Nitrotoluene	137 > 46			19876.477									
245959003	3-Nitrotoluene	137 > 46			19876.477									
245959003	PETN	361 > 62			19876.477									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7315

Lab Code: GEI

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959003

Sample Amount 2

Moisture: 8.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140128.wiff

Date Analyzed: 15-FEB-10 23:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dan 2/17/10

Sample Name: "245959003" Sample ID: "948572|2|LER" File: "EXS02140128.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 11:32:53 PM

dified: No

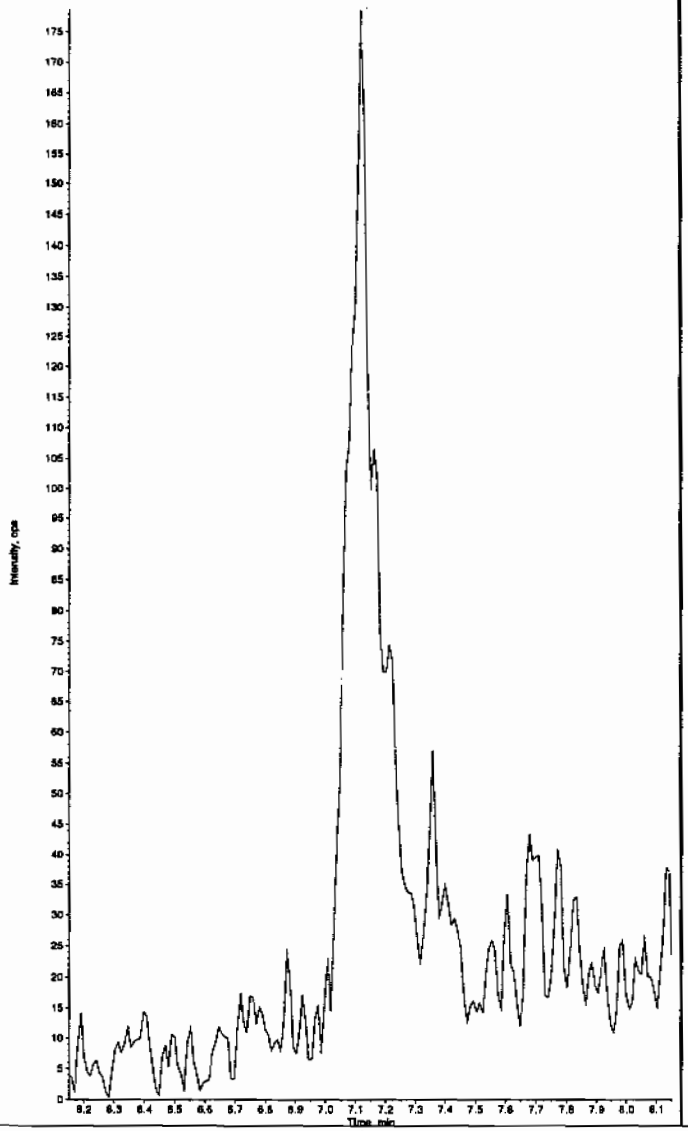

Sample Name: "245959003" Sample ID: "948572|2|LER" File: "EXS02140128.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:32:53 PM

Modified: Yes

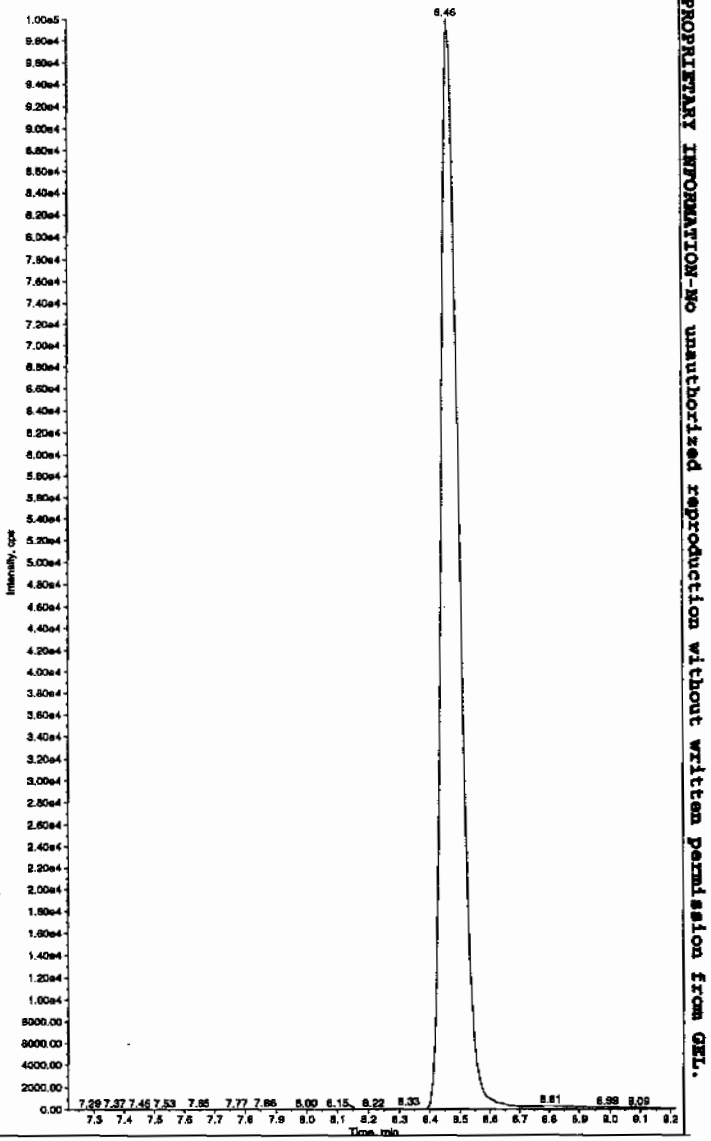

Hann. 02/17/10

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Sample Name: "245959003" Sample ID: "948572|2|LER" File: "EXS02140128.wiff"
Peak Name. "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 286. ng/mL
q. Date: 2/15/2010
q. Time: 11:32:53 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.52 min
e Relative RT: No

t. Type: Valley
tention Time: 8.46 min
ea: 3.73e+006 counts
ight: 942204.834 cps
art Time: 8.36 min
d Time: 8.77 min

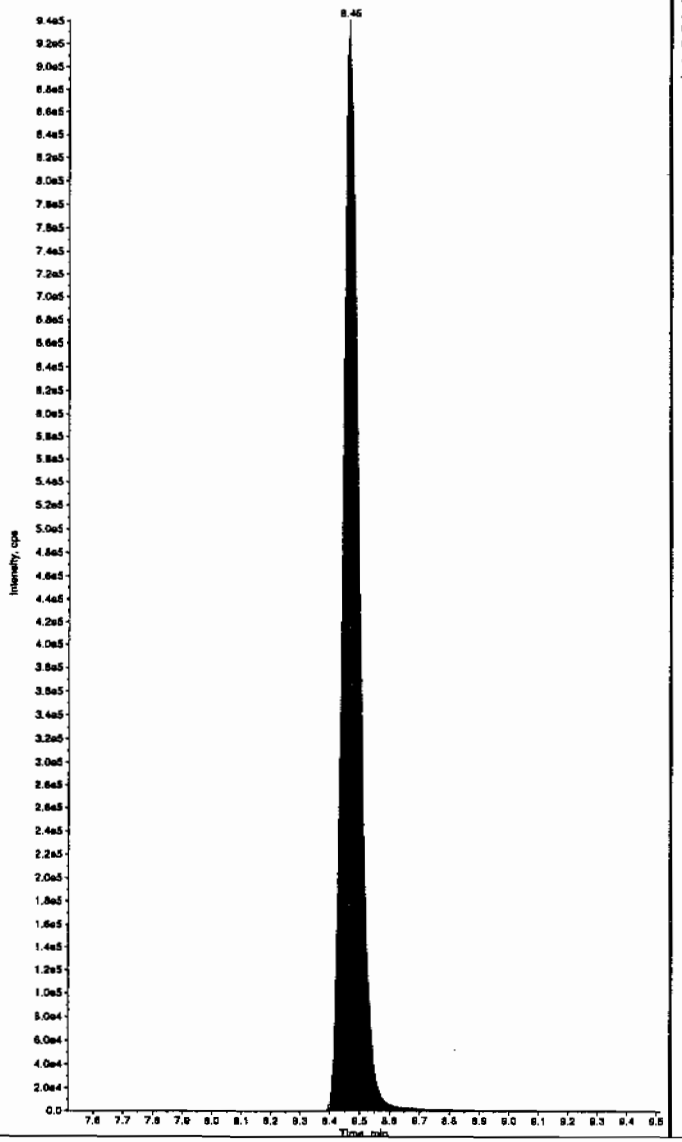

Sample Name: "245959003" Sample ID: "948572|2|LER" File: "EXS02140128.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:32:53 PM

Modified: No

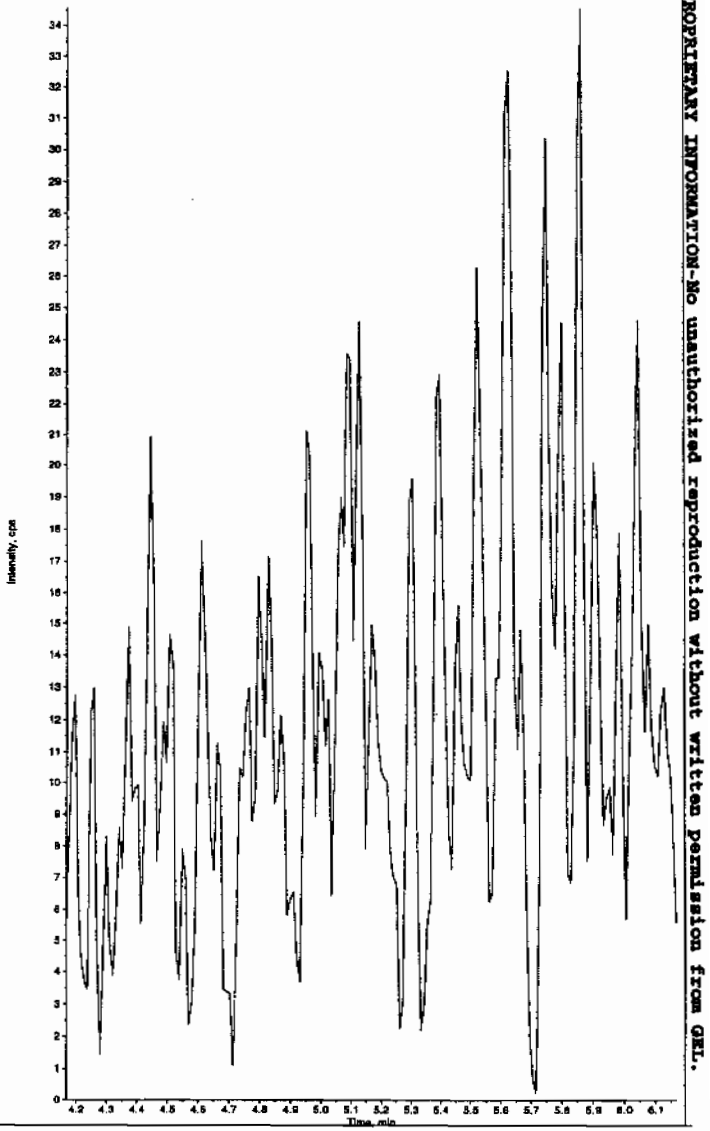

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Sample Name: "245959003" Sample ID: "948572|2|LER" File: "EXS02140128.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 11:32:53 PM

dified: No

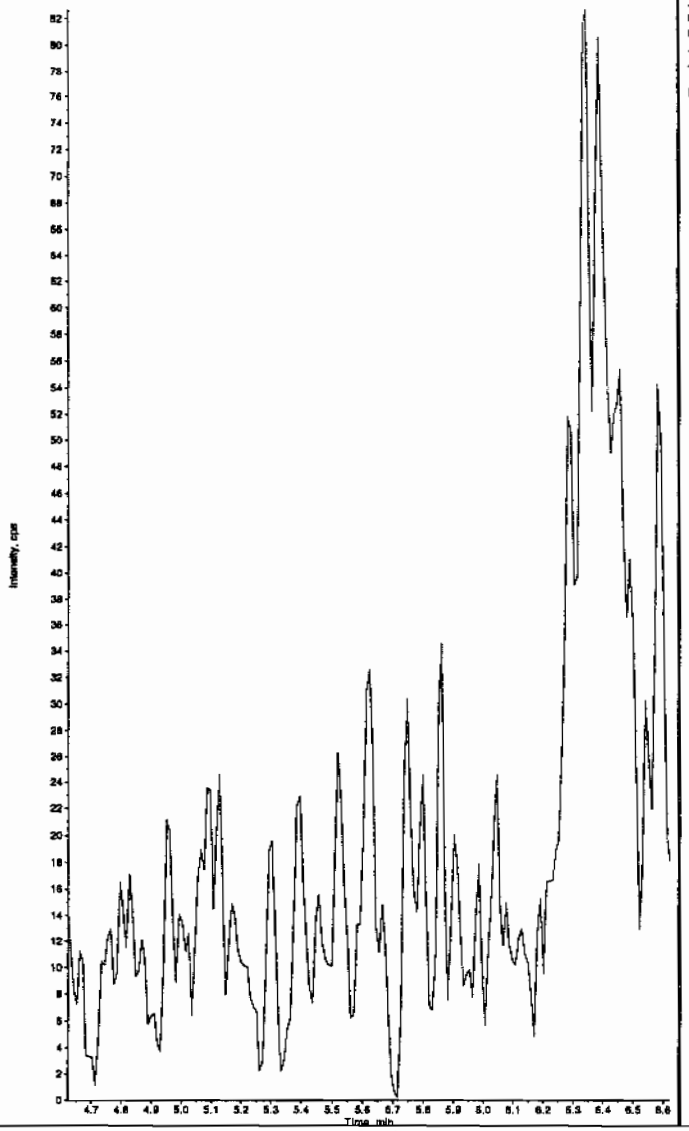

Sample Name: "245959003" Sample ID: "948572|2|LER" File: "EXS02140128.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:32:53 PM

Modified: No

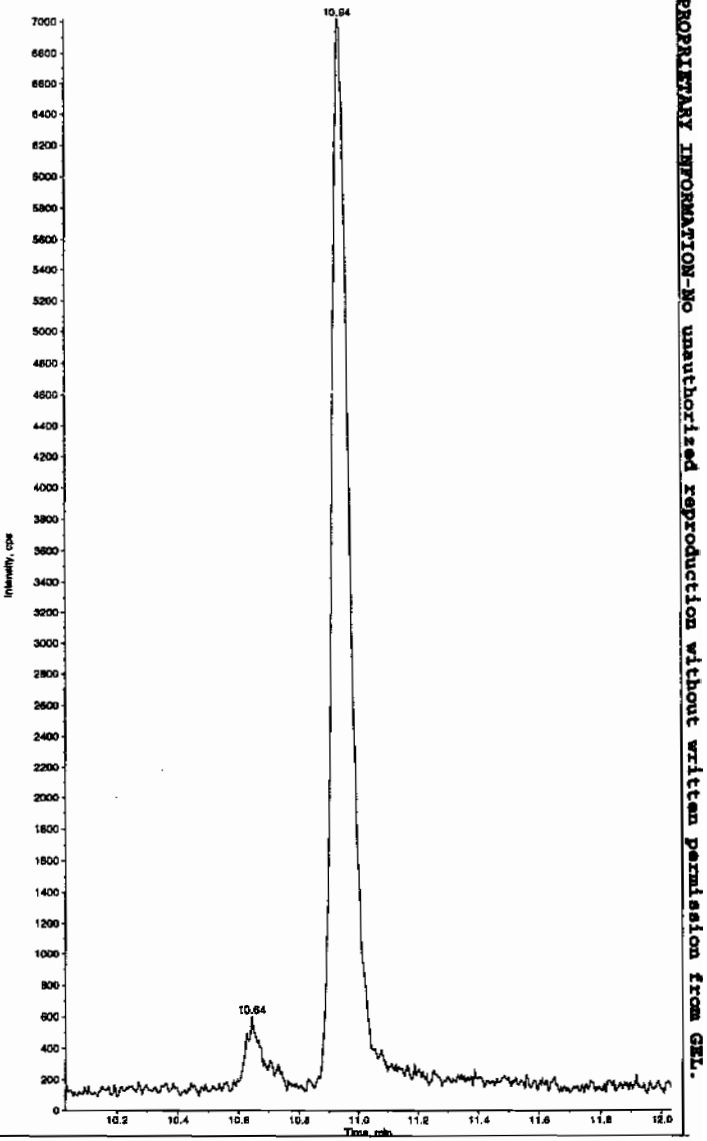

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7317

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959004

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216093a

Date Analyzed: 18-FEB-10 14:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216093a
Date: 18-Feb-2010
Time: 14:34:24
ID: 245959004 | LANL | 948572 | Solid | 2 |
Vial: 2:6,D

2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.540e+003

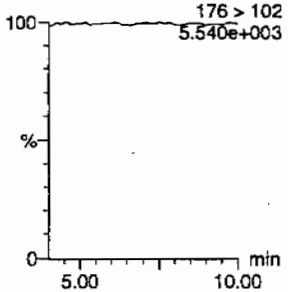

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.540e+003

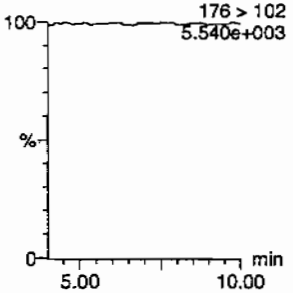

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.500e+003

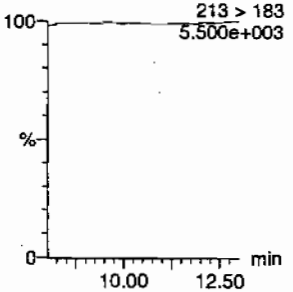

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.337e+004

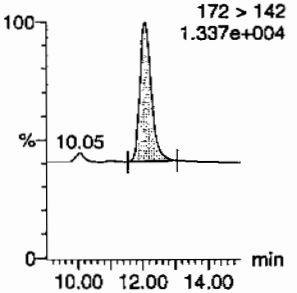

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.497e+003

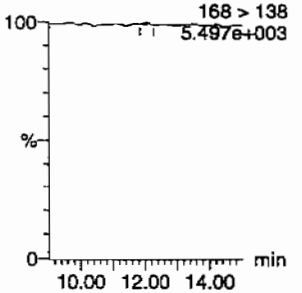

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.492e+003

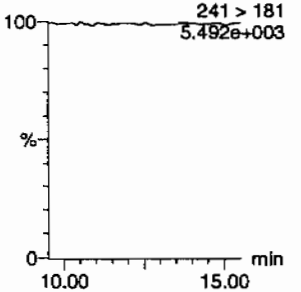

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.512e+003

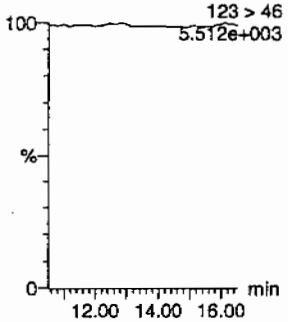

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.523e+003

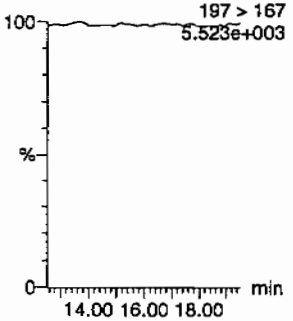

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.517e+003

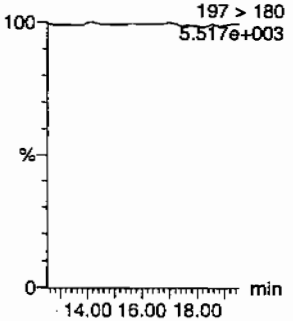

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.485e+003

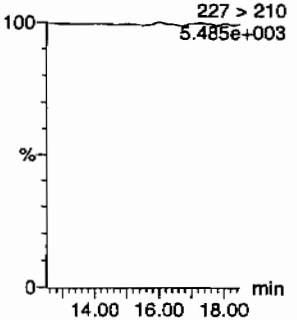

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.378e+004

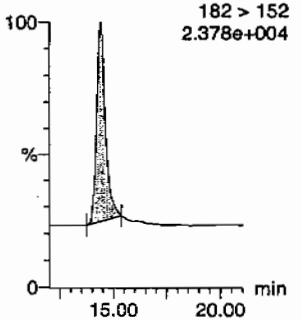

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.378e+004

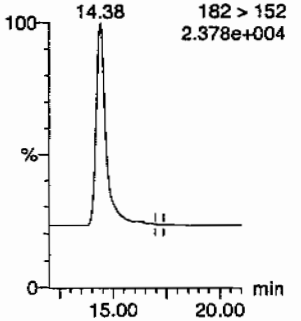

Hmm 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

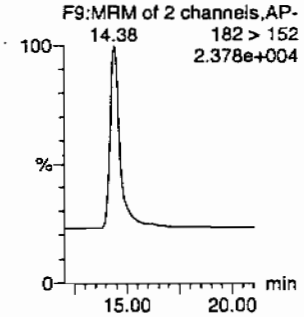

26-dinitrotoluene-d3

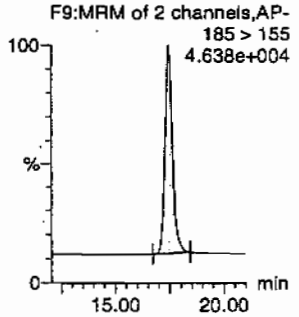

2-Nitrotoluene

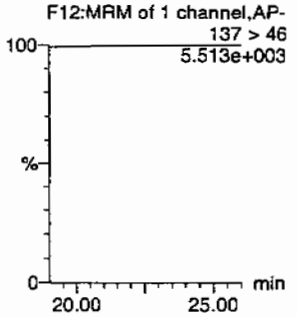

4-Nitrotoluene

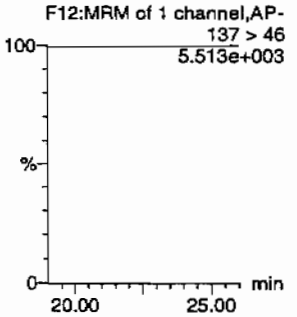

3-Nitrotoluene

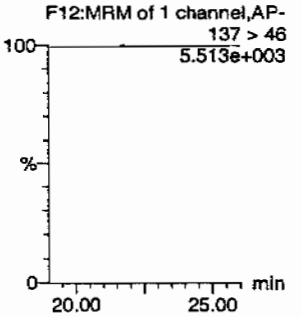

PETN

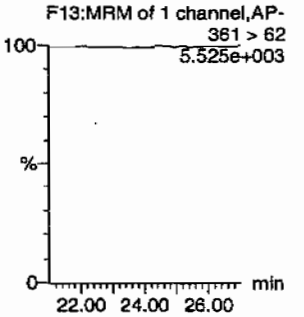

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245959004	HMX	176 > 102			3258.561									
245959004	RDX	176 > 102			3258.561									
245959004	135-Trinitrobenzene	213 > 183			3258.561									
245959004	13-Dinitrobenzene-d4	172 > 142	12.07	3258.561		3258.561	3258.561	bb			540.8551	108.2	8.2	298.7
245959004	13-Dinitrobenzene	168 > 138			3258.561			MM-	19-Feb-10	08:37:05				
245959004	Tetryl	241 > 181			3258.561									
245959004	Nitrobenzene	123 > 46			3258.561									
245959004	4-Amino-26-dinitrotoluene	197 > 167			16497.445									
245959004	2-Amino-46-dinitrotoluene	197 > 180			16497.445									
245959004	246-Trinitrotoluene	227 > 210			16497.445									
245959004	34-dinitrotoluene	182 > 152	14.38	8757.594	16497.445	8757.594	265.423	bb			292.9607	117.2	17.2	451.4
245959004	26-dinitrotoluene	182 > 152			16497.445			MM-	19-Feb-10	08:43:22				
245959004	24-dinitrotoluene	182 > 152			16497.445									
245959004	26-dinitrotoluene-d3	185 > 155	17.42	16497.445		16497.445	16497.445	bb			473.8315	94.8	-5.2	1510.0
245959004	2-Nitrotoluene	137 > 46			16497.445									
245959004	4-Nitrotoluene	137 > 46			16497.445									
245959004	3-Nitrotoluene	137 > 46			16497.445									
245959004	PETN	361 > 62			16497.445									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7317

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959004

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140129.wiff

Date Analyzed: 15-FEB-10 23:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

Sample Name: "245959004" Sample ID: "948572|2|LER" File: "EXS02140129.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
oncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 11:48:34 PM
dified: No

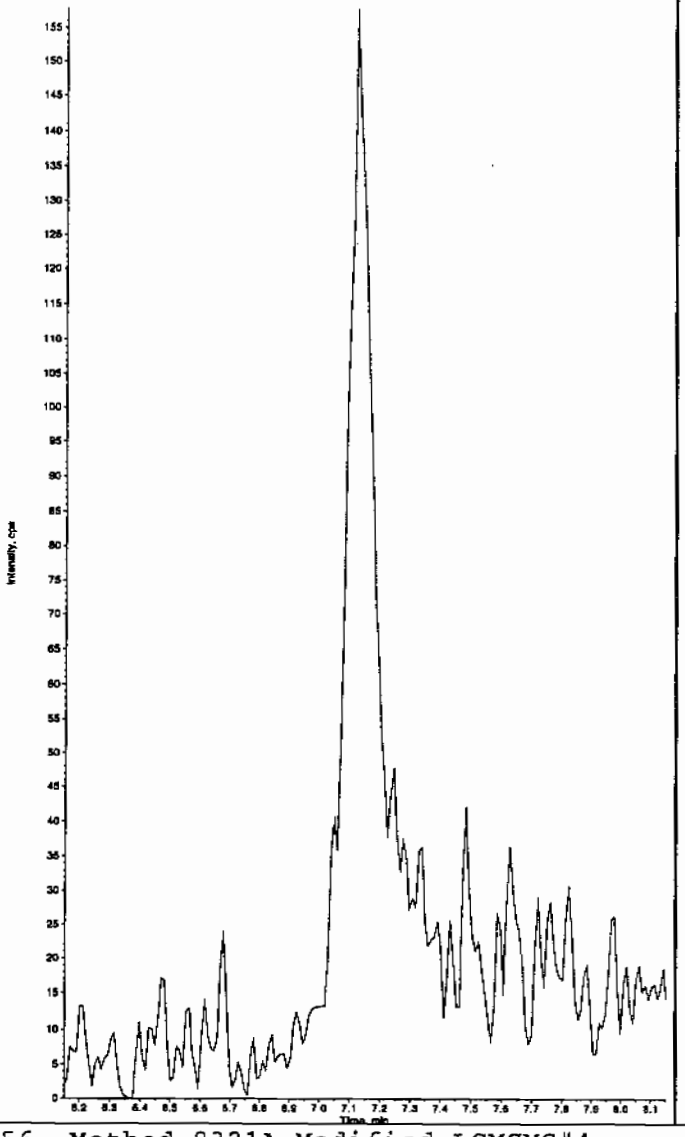

Sample Name: "245959004" Sample ID: "948572|2|LER" File: "EXS02140129.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:48:34 PM

Modified: Yes

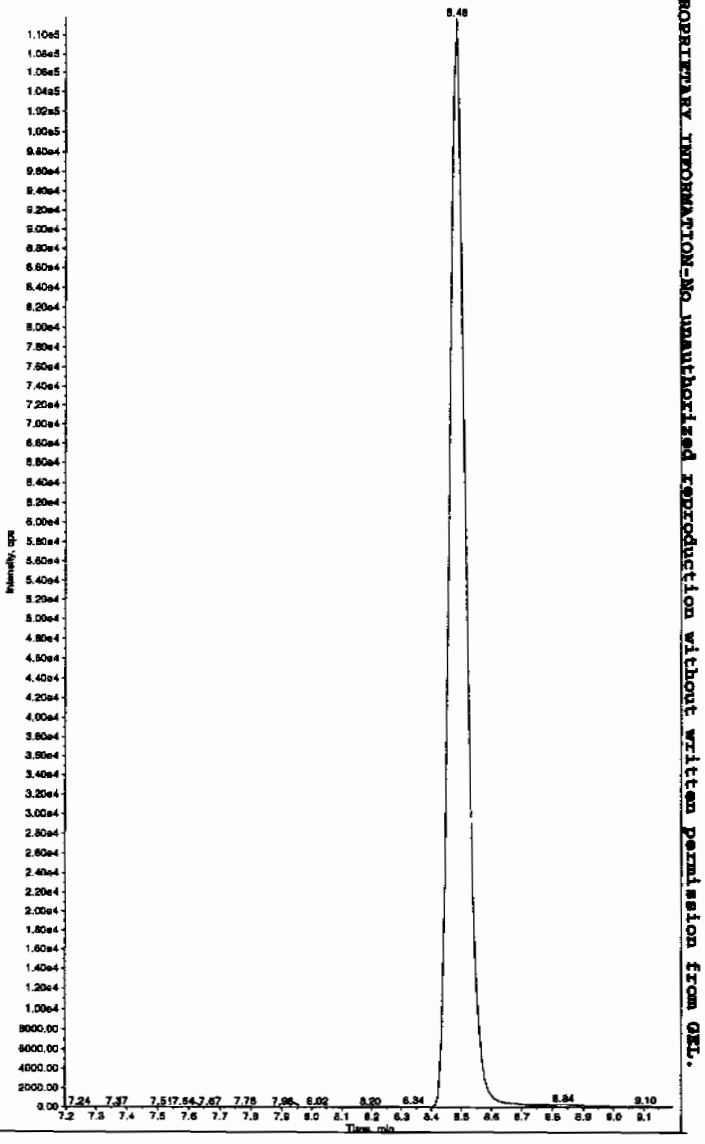

Hmc 02/17/10

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sample Name: "245959004" Sample ID: "948572|2|LER" File: "EXS02140129.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: "

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 307. ng/mL
. Date: 2/15/2010
. Time: 11:48:34 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.47 min
a: 3.98e+006 counts
ght: 1065910.278 cps
rt Time: 8.38 min
Time: 8.85 min

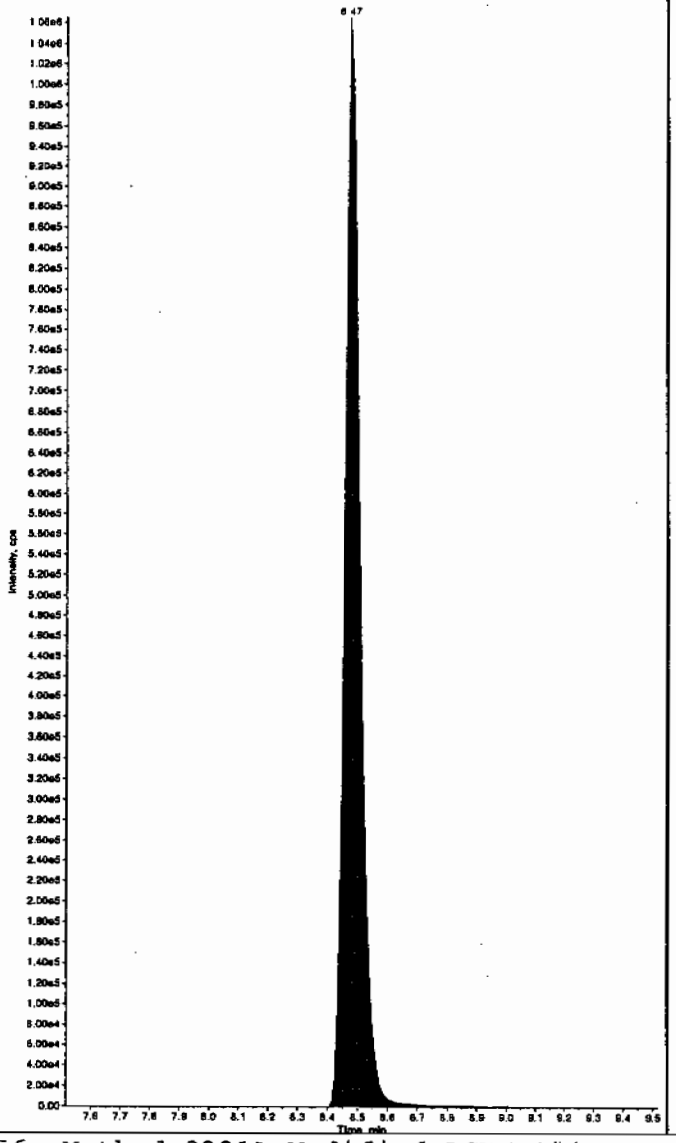

Sample Name: "245959004" Sample ID: "948572|2|LER" File: "EXS02140129.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:48:34 PM

Modified: No

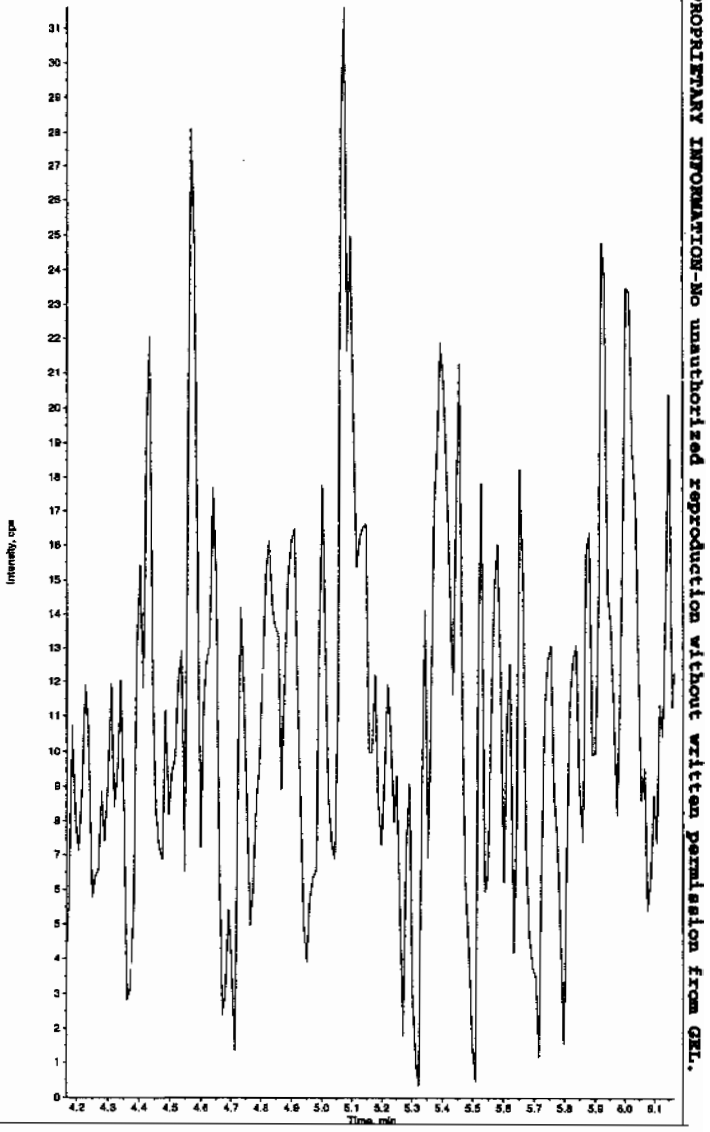

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ample Name: "245959004" Sample ID: "948572|2|LER" File: "EXS02140129.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 11:48:34 PM

ified: No

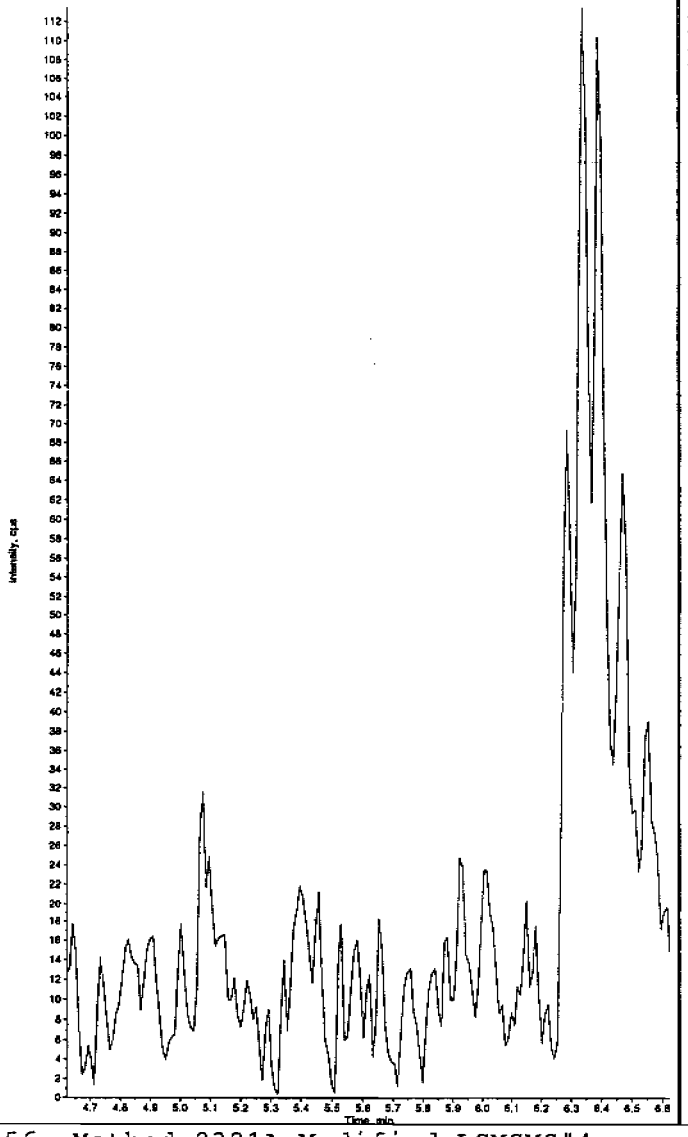

Sample Name: "245959004" Sample ID: "948572|2|LER" File: "EXS02140129.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:48:34 PM

Modified: No

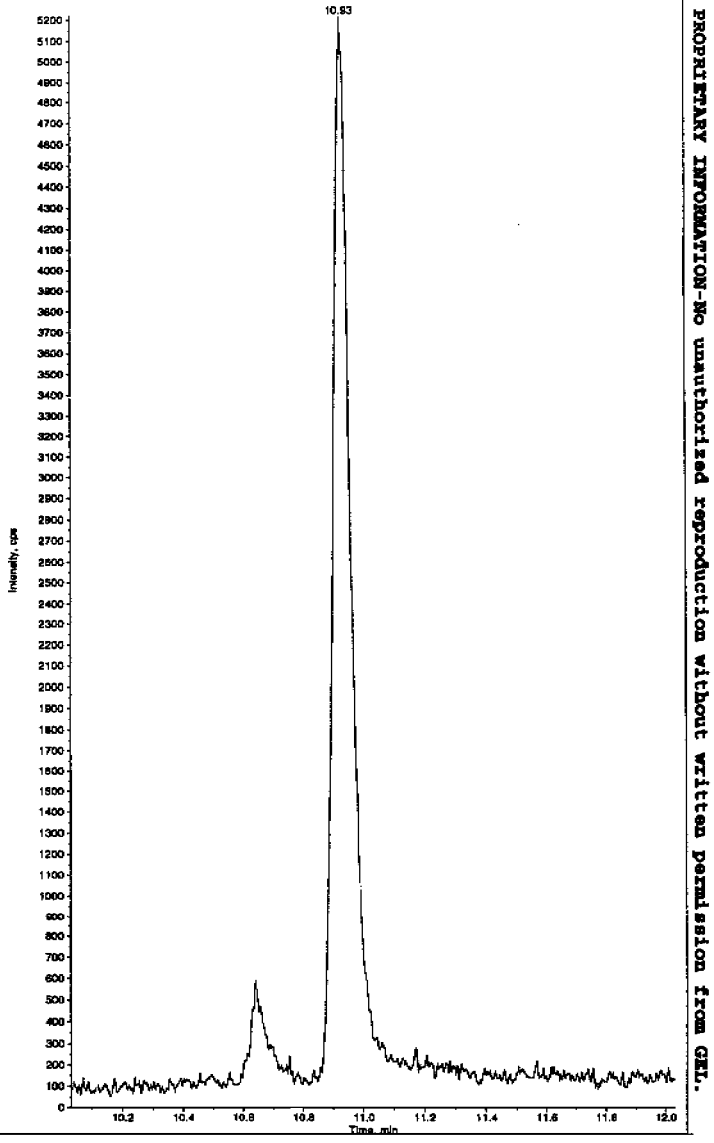

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7319

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216094a

Date Analyzed: 18-FEB-10 15:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216094a
Date: 18-Feb-2010
Time: 15:03:54
ID: 245959005
Vial: 2:6,E

LANE | 948572 | Soil | 2 |

MMD 4/19/10

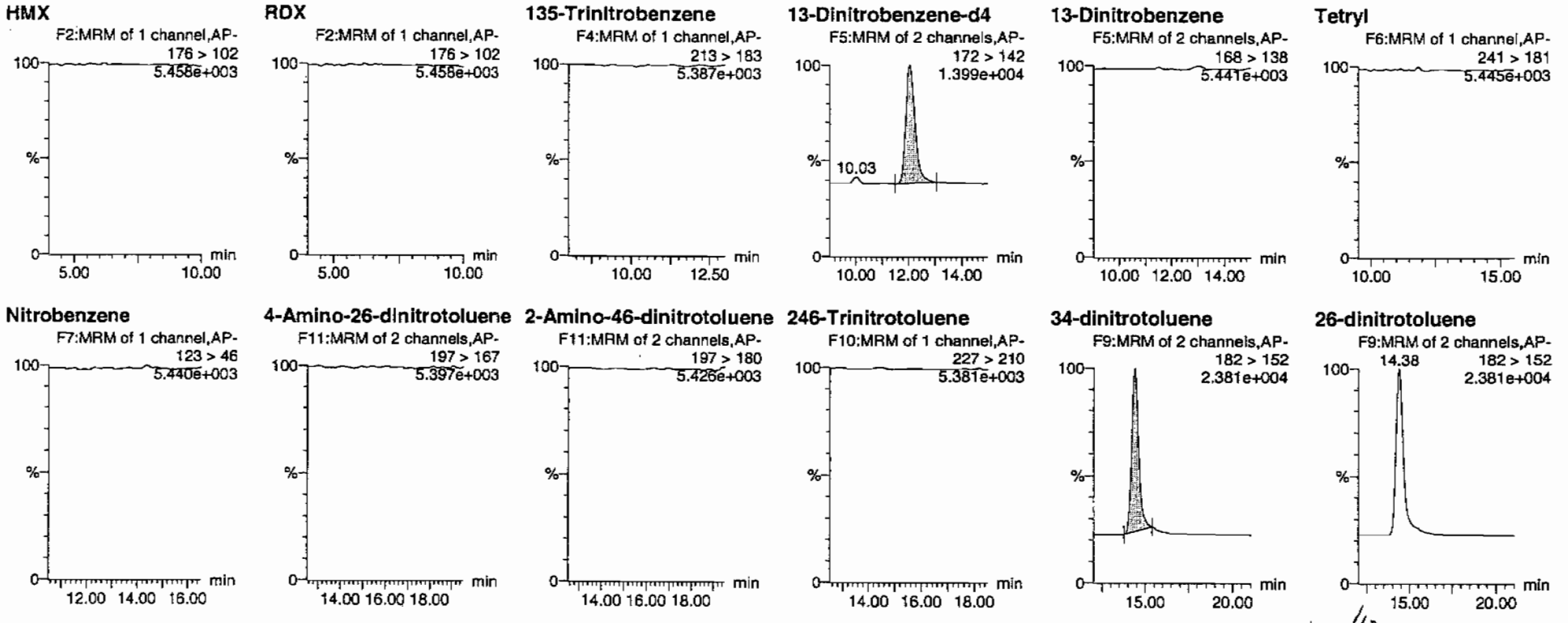

HMM 02/21/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

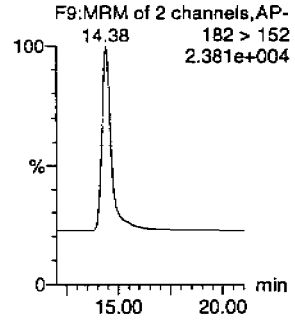

26-dinitrotoluene-d3

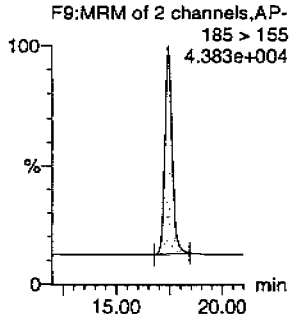

2-Nitrotoluene

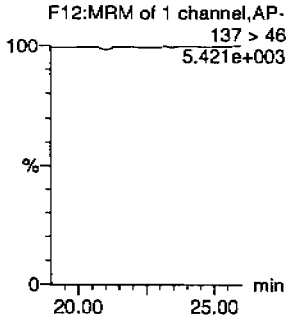

4-Nitrotoluene

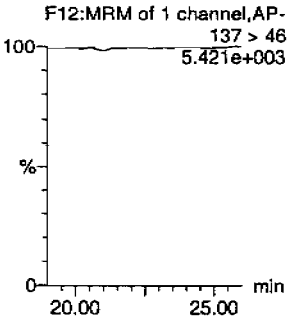

3-Nitrotoluene

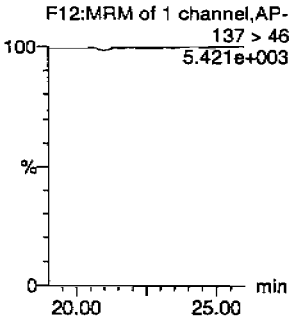

PETN

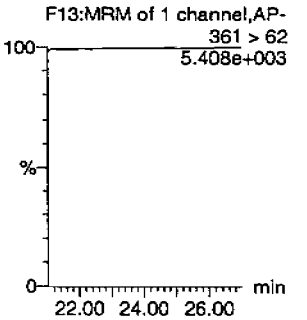

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245959005	HMX	176 > 102			3453.034									
245959005	RDX	176 > 102			3453.034									
245959005	135-Trinitrobenzene	213 > 183			3453.034									
245959005	13-Dinitrobenzene-d4	172 > 142	12.07	3453.034		3453.034	3453.034	bb			573.1337	114.6	14.6	787.2
245959005	13-Dinitrobenzene	168 > 138			3453.034									
245959005	Tetryl	241 > 181			3453.034									
245959005	Nitrobenzene	123 > 46			3453.034									
245959005	4-Amino-26-dinitrotoluene	197 > 167			15458.239									
245959005	2-Amino-46-dinitrotoluene	197 > 180			15458.239									
245959005	246-Trinitrotoluene	227 > 210			15458.239									
245959005	34-dinitrotoluene	182 > 152	14.38	8492.400	15458.239	8492.400	274.688	bb			303.1878	121.3	21.3	606.0
245959005	26-dinitrotoluene	182 > 152			15458.239									
245959005	24-dinitrotoluene	182 > 152			15458.239									
245959005	26-dinitrotoluene-d3	185 > 155	17.42	15458.239		15458.239	15458.239	bb			443.9840	88.8	-11.2	1375.8
245959005	2-Nitrotoluene	137 > 46			15458.239									
245959005	4-Nitrotoluene	137 > 46			15458.239									
245959005	3-Nitrotoluene	137 > 46			15458.239									
245959005	PETN	361 > 62			15458.239									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7319

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959005

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140133.wiff

Date Analyzed: 16-FEB-10 00:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Olen 2/17/10

ample Name: "245959005" Sample ID: "948572|2|LER" File: "EXS02140133.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 12:51:22 AM
ified: No

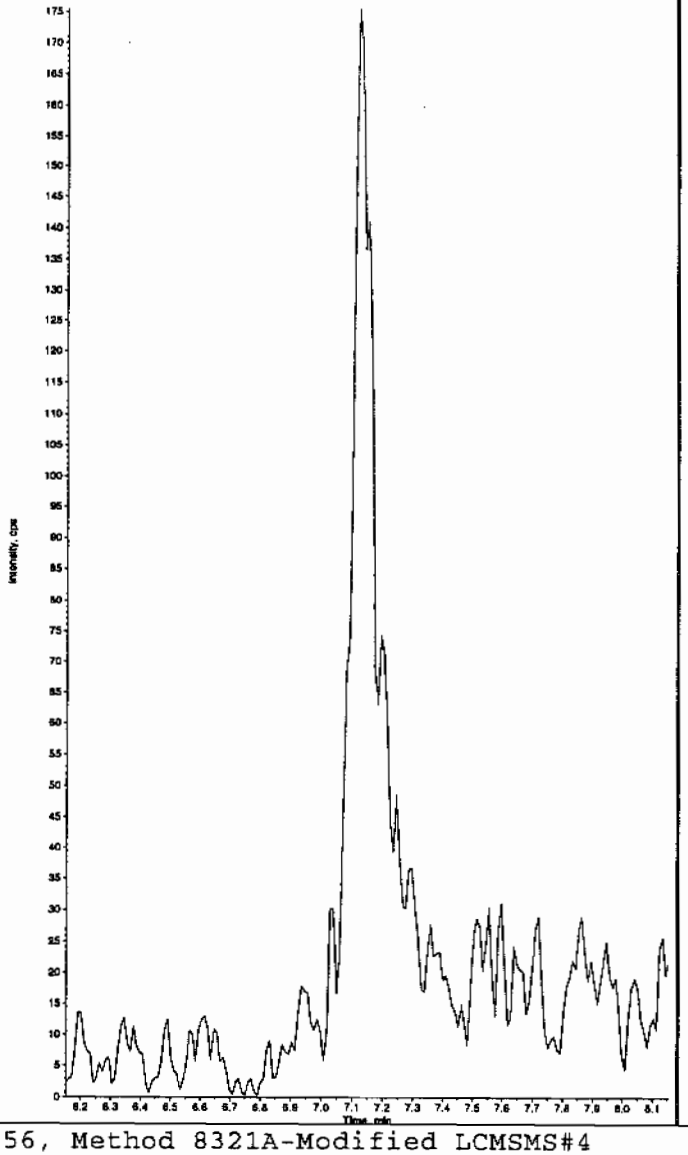

Sample Name: "245959005" Sample ID: "948572|2|LER" File: "EXS02140133.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:51:22 AM

Modified: Yes

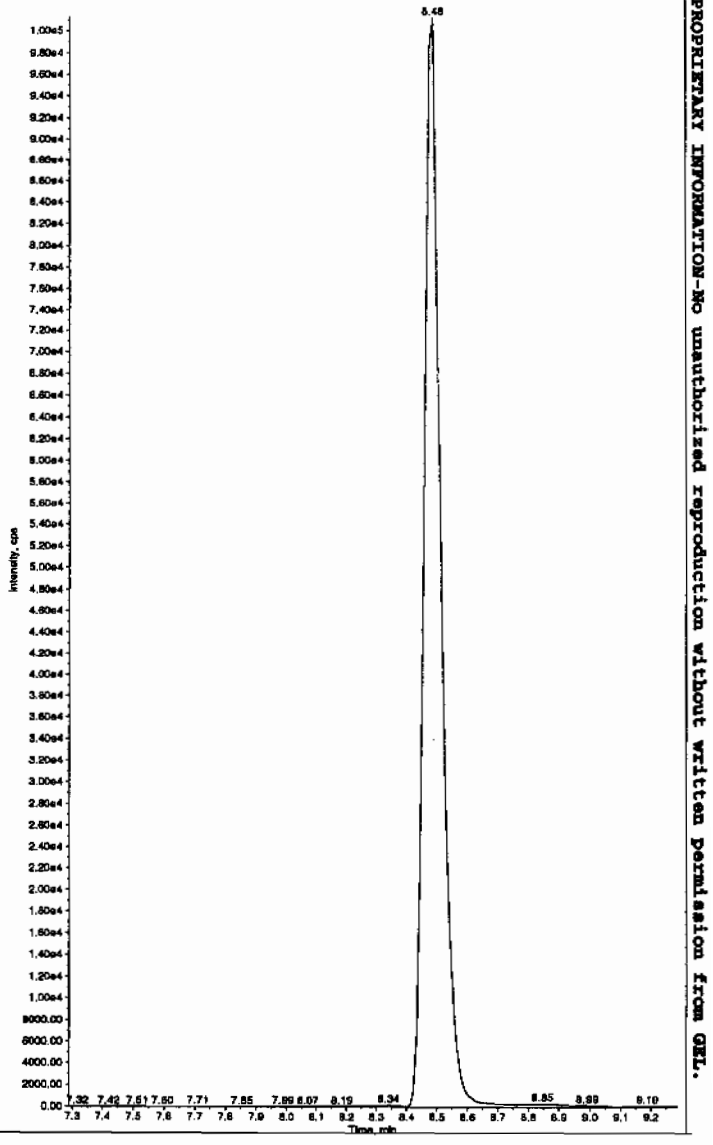

Hmc 02/17/10

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Sample Name: "245959005" Sample ID: "948572|2|LER" File: "EXS02140133.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 281. ng/mL
q. Date: 2/16/2010
q. Time: 12:51:22 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.52 min
e Relative RT: No

t. Type: Valley
tention Time: 8.47 min
ea: 3.67e+006 counts
ight: 962139.099 cps
art Time: 8.38 min
d Time: 8.88 min

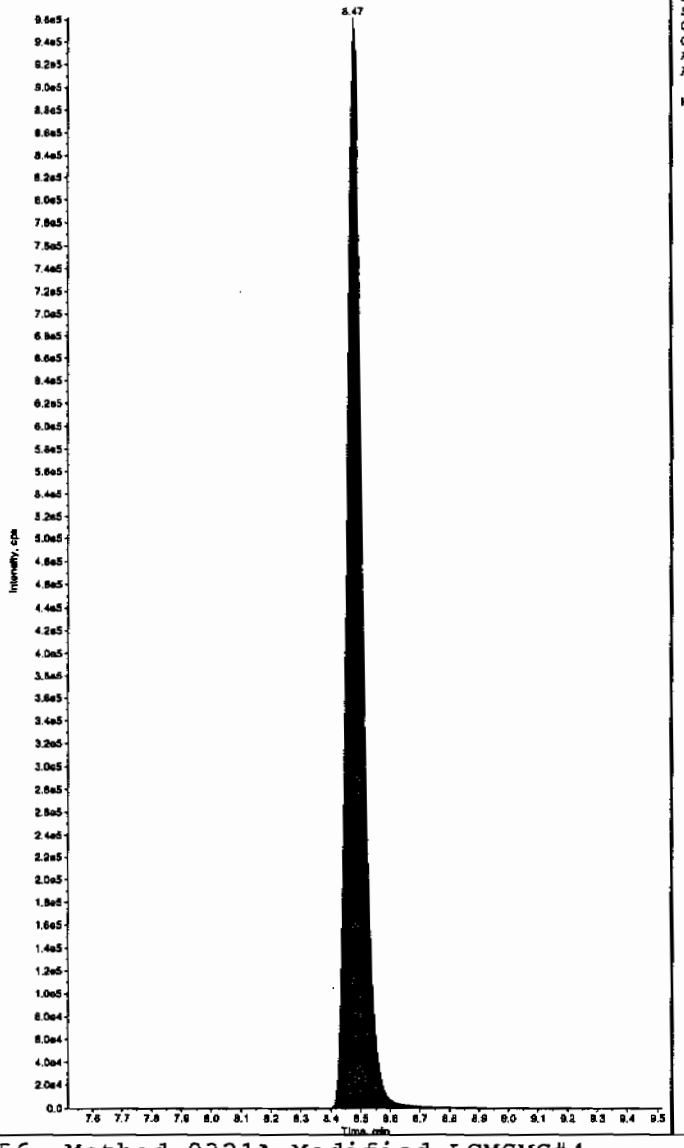

Sample Name: "245959005" Sample ID: "948572|2|LER" File: "EXS02140133.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:51:22 AM

Modified: No

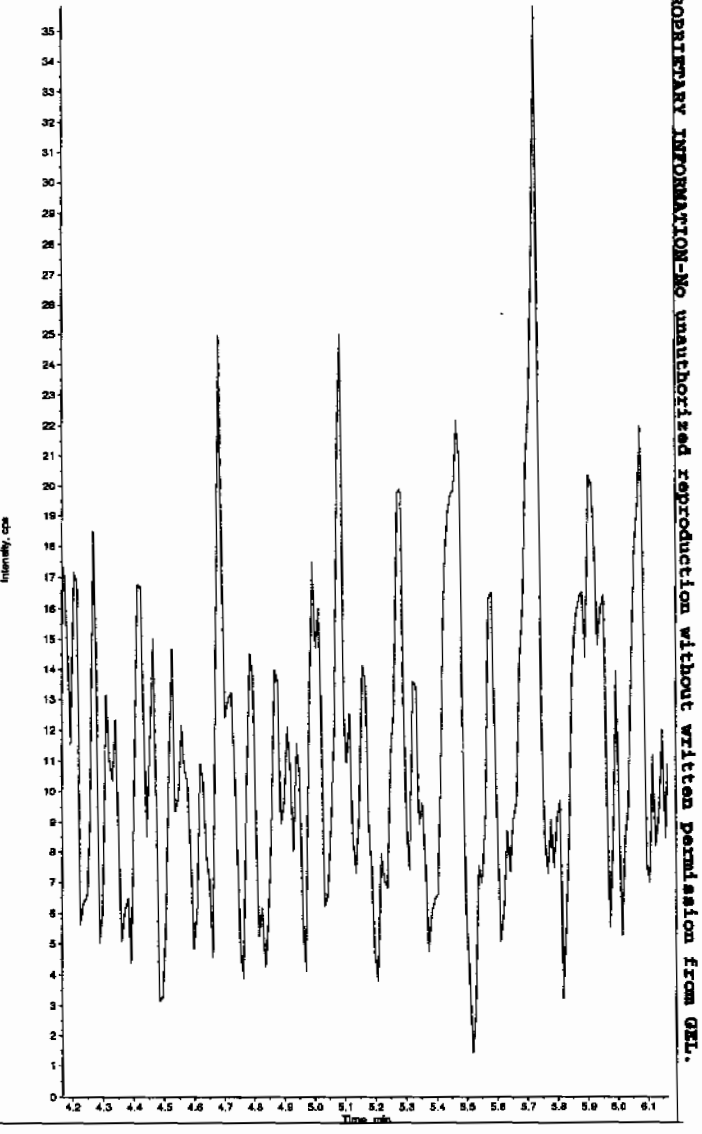

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Sample Name: "245959005" Sample ID: "948572|2|LER" File: "EXS02140133.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/16/2010
q. Time: 12:51:22 AM

dified: No

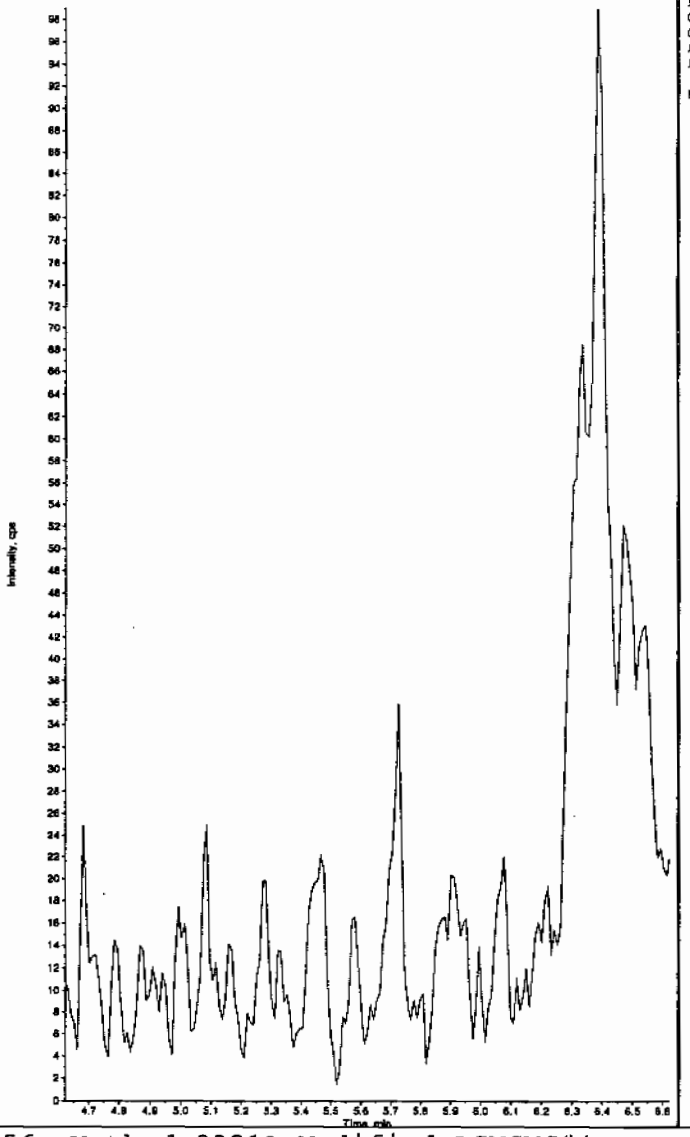

Sample Name: "245959005" Sample ID: "948572|2|LER" File: "EXS02140133.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:51:22 AM

Modified: No

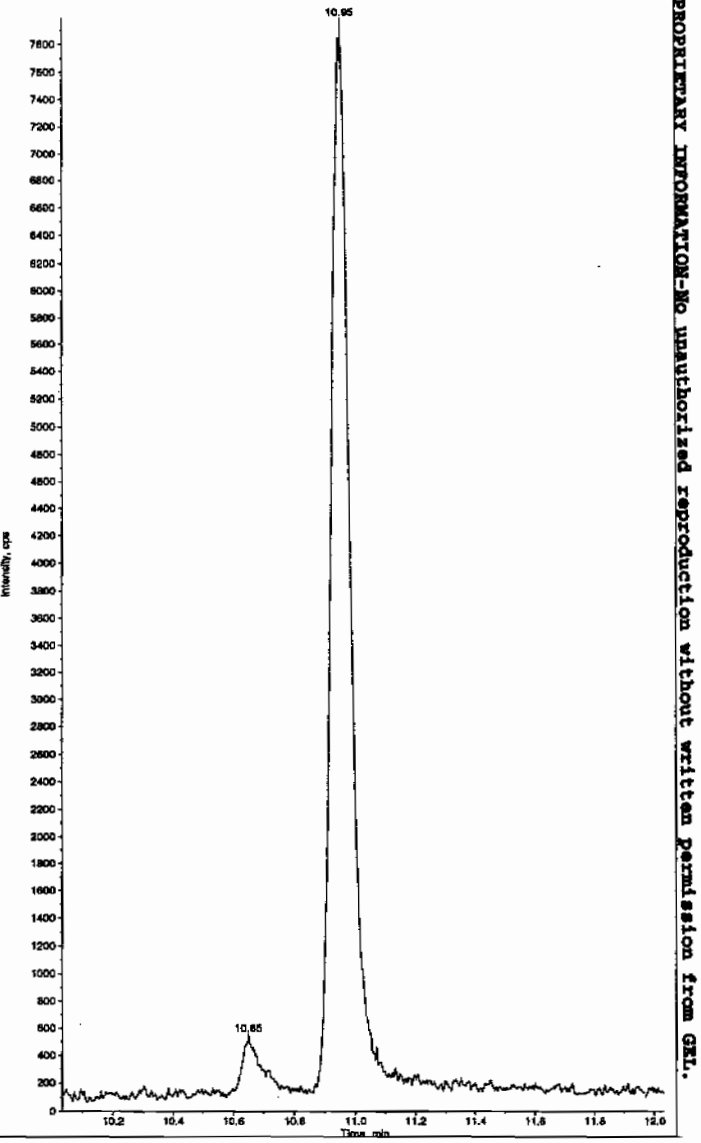

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7312

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959006

Sample Amount 2

Moisture: 29.4

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216095a

Date Analyzed: 18-FEB-10 15:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216095a
Date: 18-Feb-2010
Time: 15:33:31
ID: 245959006 | LANL | 948572 | Solids | 2 |
Vial: 2:6,F

MAP 4/19/10

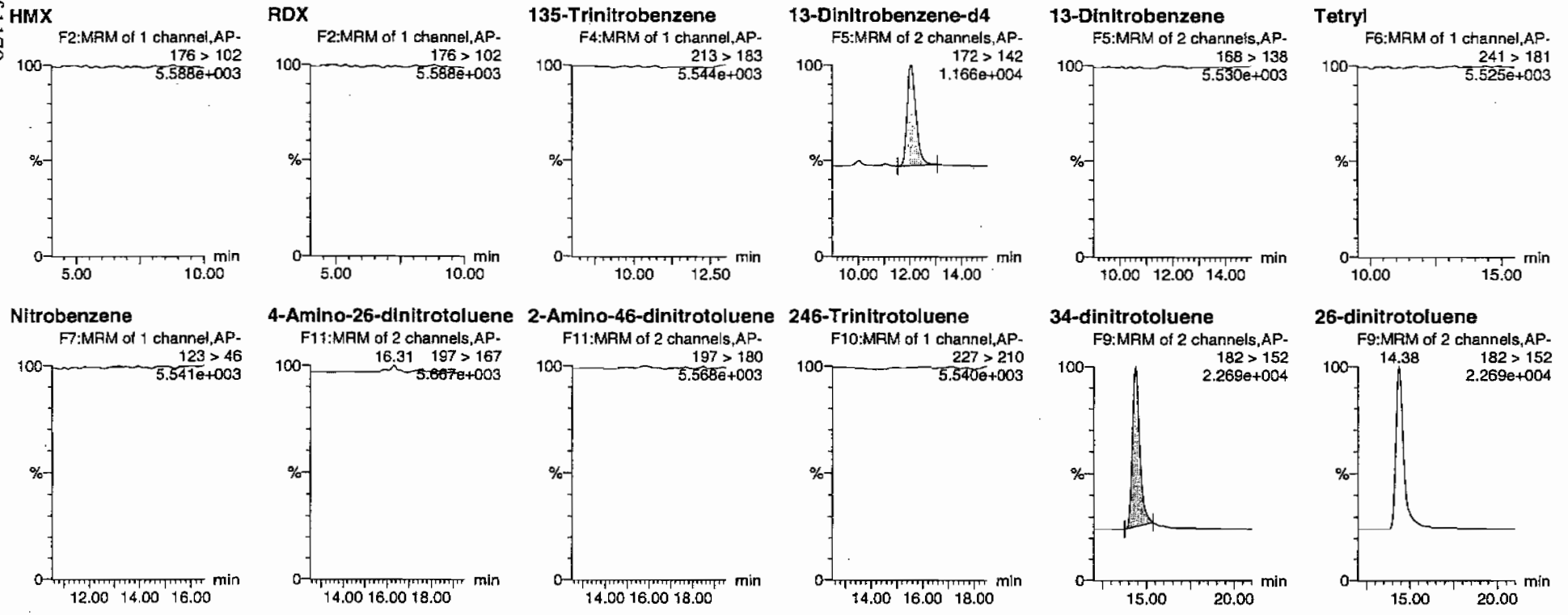

dmm 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

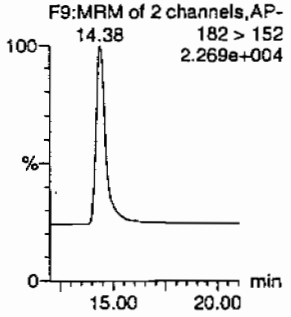

26-dinitrotoluene-d3

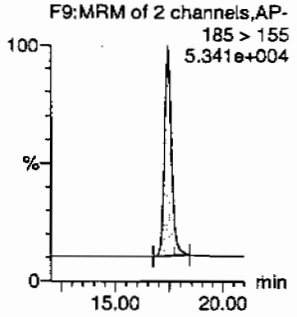

2-Nitrotoluene

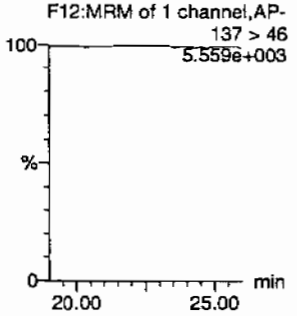

4-Nitrotoluene

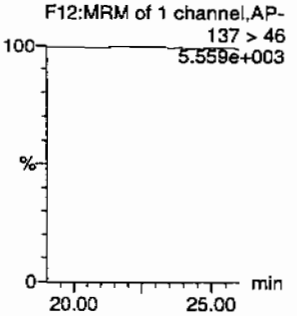

3-Nitrotoluene

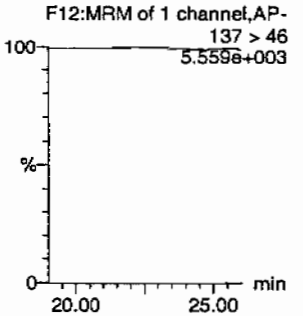

PETN

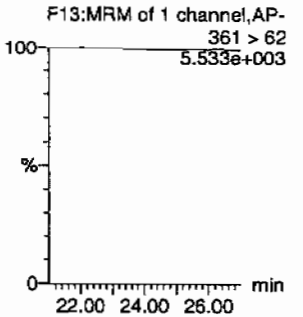

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245959006	HMX	176 > 102			2483.607									
245959006	RDX	176 > 102			2483.607									
245959006	135-Trinitrobenzene	213 > 183			2483.607									
245959006	13-Dinitrobenzene-d4	172 > 142	12.03	2483.607		2483.607	2483.607	bb			412.2284	82.4	-17.6	310.4
245959006	13-Dinitrobenzene	168 > 138			2483.607									
245959006	Tetryl	241 > 181			2483.607									
245959006	Nitrobenzene	123 > 46			2483.607									
245959006	4-Amino-26-dinitrotoluene	197 > 167			18433.021									
245959006	2-Amino-46-dinitrotoluene	197 > 180			18433.021									
245959006	246-Trinitrotoluene	227 > 210			18433.021									
245959006	34-dinitrotoluene	182 > 152	14.38	8204.434	18433.021	8204.434	222.547	bb			245.6368	98.3	-1.7	545.3
245959006	26-dinitrotoluene	182 > 152			18433.021									
245959006	24-dinitrotoluene	182 > 152			18433.021									
245959006	26-dinitrotoluene-d3	185 > 155	17.42	18433.021		18433.021	18433.021	bb			529.4242	105.9	5.9	3617.2
245959006	2-Nitrotoluene	137 > 46			18433.021									
245959006	4-Nitrotoluene	137 > 46			18433.021									
245959006	3-Nitrotoluene	137 > 46			18433.021									
245959006	PETN	361 > 62			18433.021									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7312

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959006

Sample Amount 2

Moisture: 29.4

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140134.wiff

Date Analyzed: 16-FEB-10 01:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ler 2/17/10

Sample Name: "245959006" Sample ID: "948572|2|LER" File: "EXS02140134.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 1:07:05 AM

odified: No

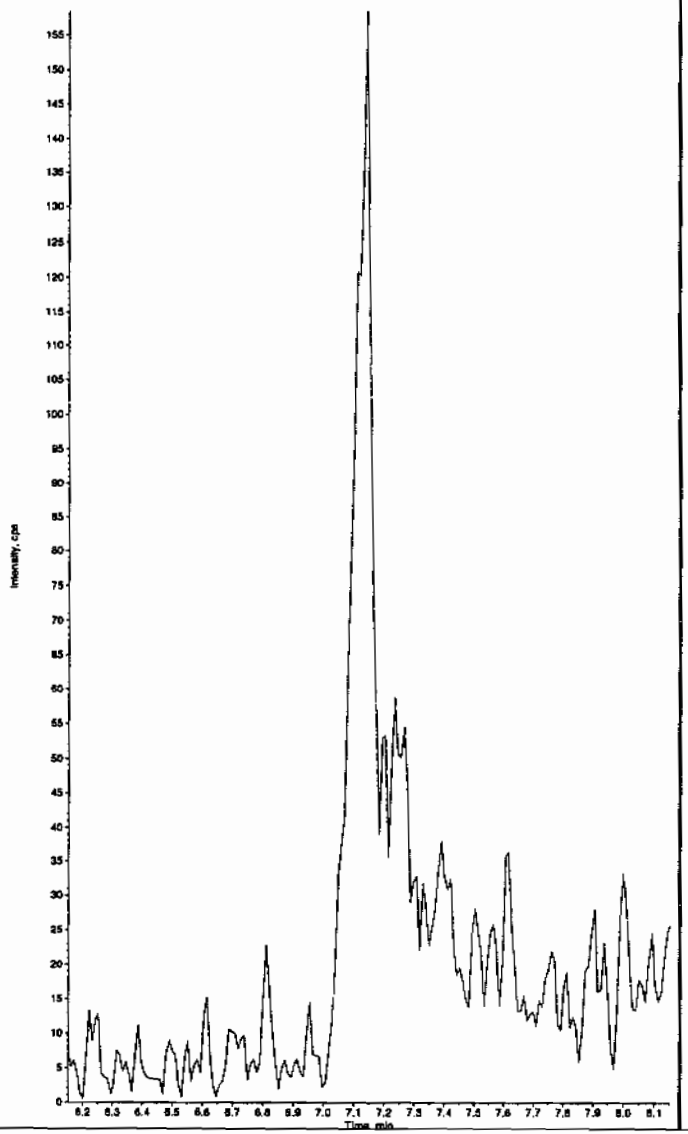

Sample Name: "245959006" Sample ID: "948572|2|LER" File: "EXS02140134.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:07:05 AM

Modified: Yes

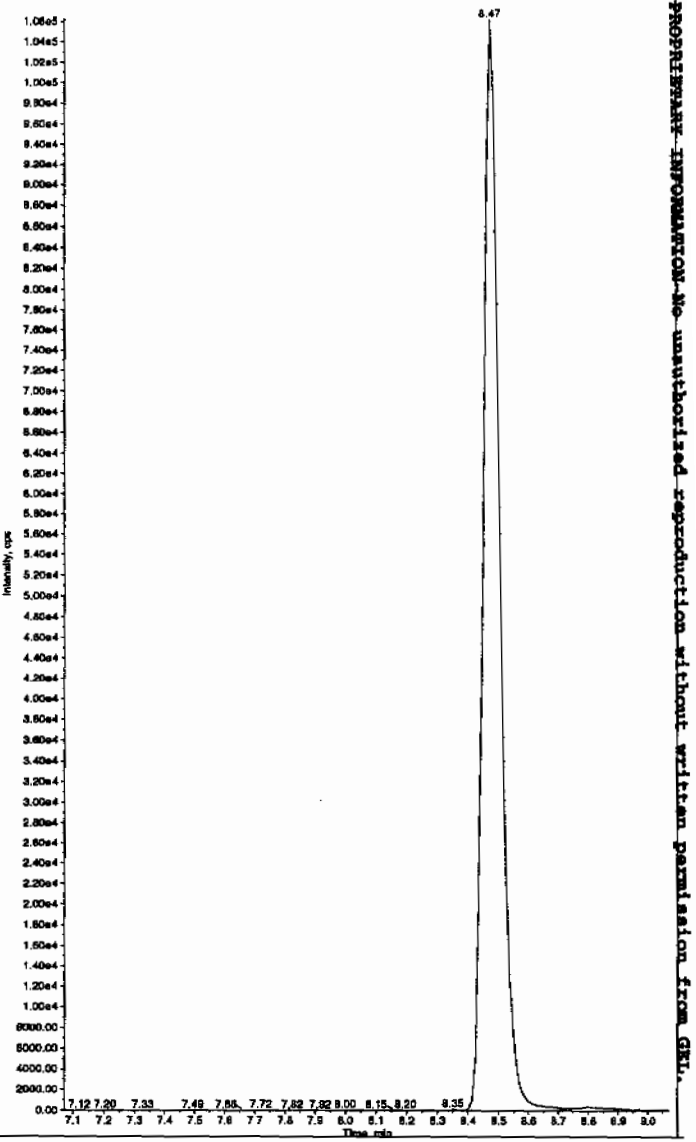

Hmm 02/17/10

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Sample Name: "245959006" Sample ID: "948572[2]LER" File: "EXS02140134.wiff"
Peak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index:	1
ample Type:	Unknown
ncentration:	N/A
lculated Conc:	278. ng/mL
cq. Date:	2/16/2010
cq. Time:	1:07:05 AM
odified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.52 min
e Relative RT:	No
t. Type:	Valley
tention Time:	8.47 min
ea:	3.63e+006 counts
ight:	949914.246 cps
art Time:	8.32 min
d Time:	8.78 min

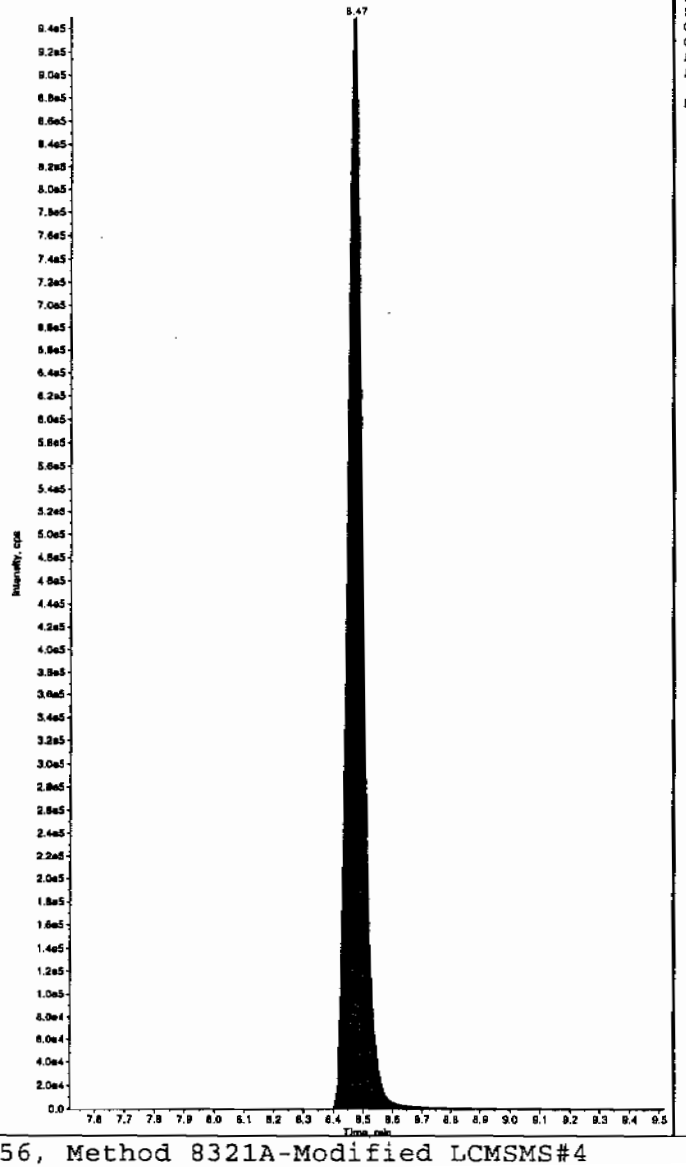

Sample Name: "245959006" Sample ID: "948572[2]LER" File: "EXS02140134.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/16/2010
Acq. Time:	1:07:05 AM
Modified:	No

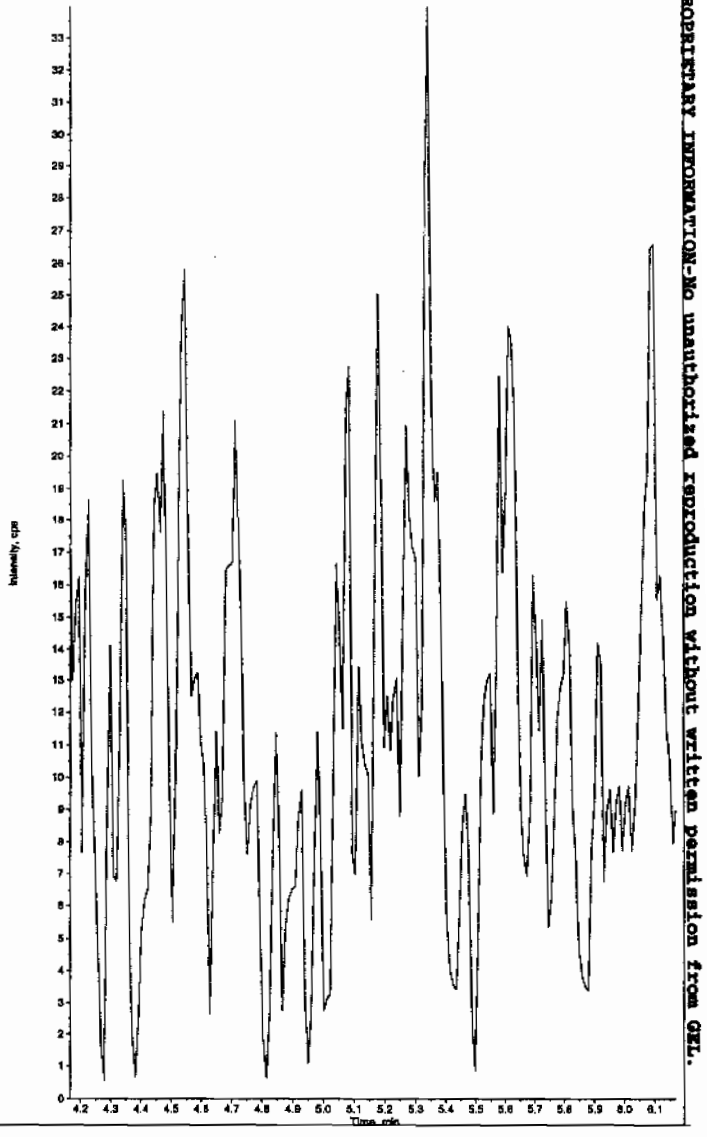

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Sample Name: "245959006" Sample ID: "948572|2|LER" File: "EXS02140134.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 1:07:05 AM

odified: No

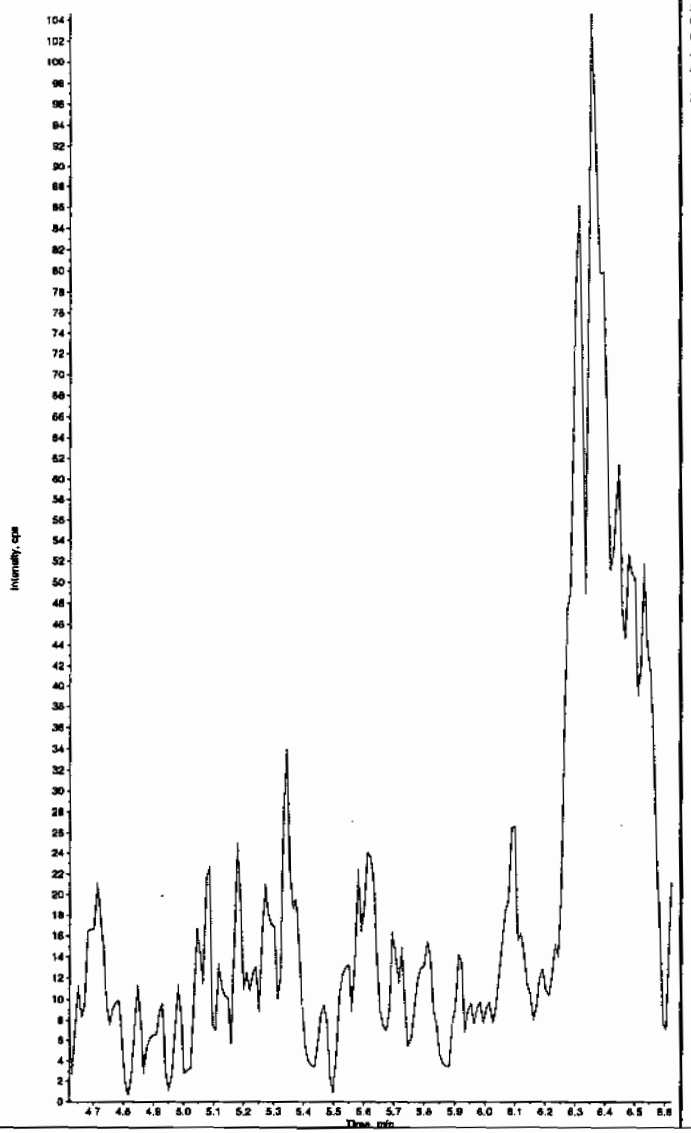

Sample Name: "245959006" Sample ID: "948572|2|LER" File: "EXS02140134.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:07:05 AM

Modified: No

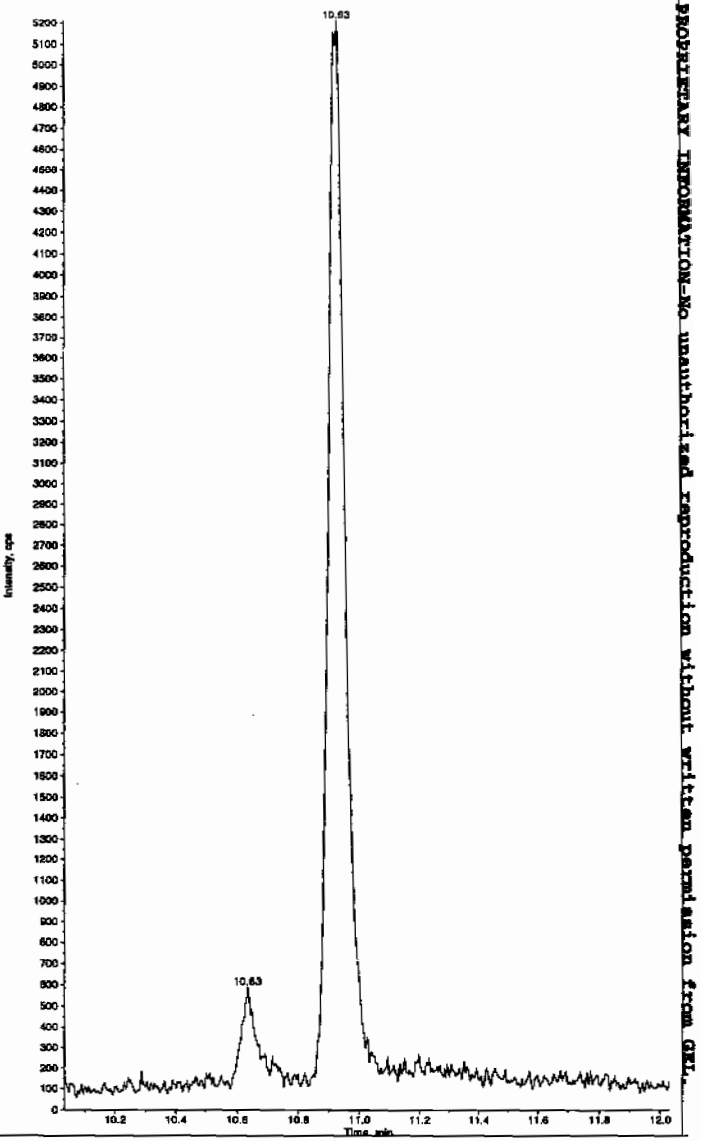

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7313

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959007

Sample Amount 2

Moisture: 9.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216096a

Date Analyzed: 18-FEB-10 16:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216096a
Date: 18-Feb-2010
Time: 16:03:00
ID: 245959007
Vial: 2:7,A

| LANL | 948572 | Solid | 2 |

4/19/10

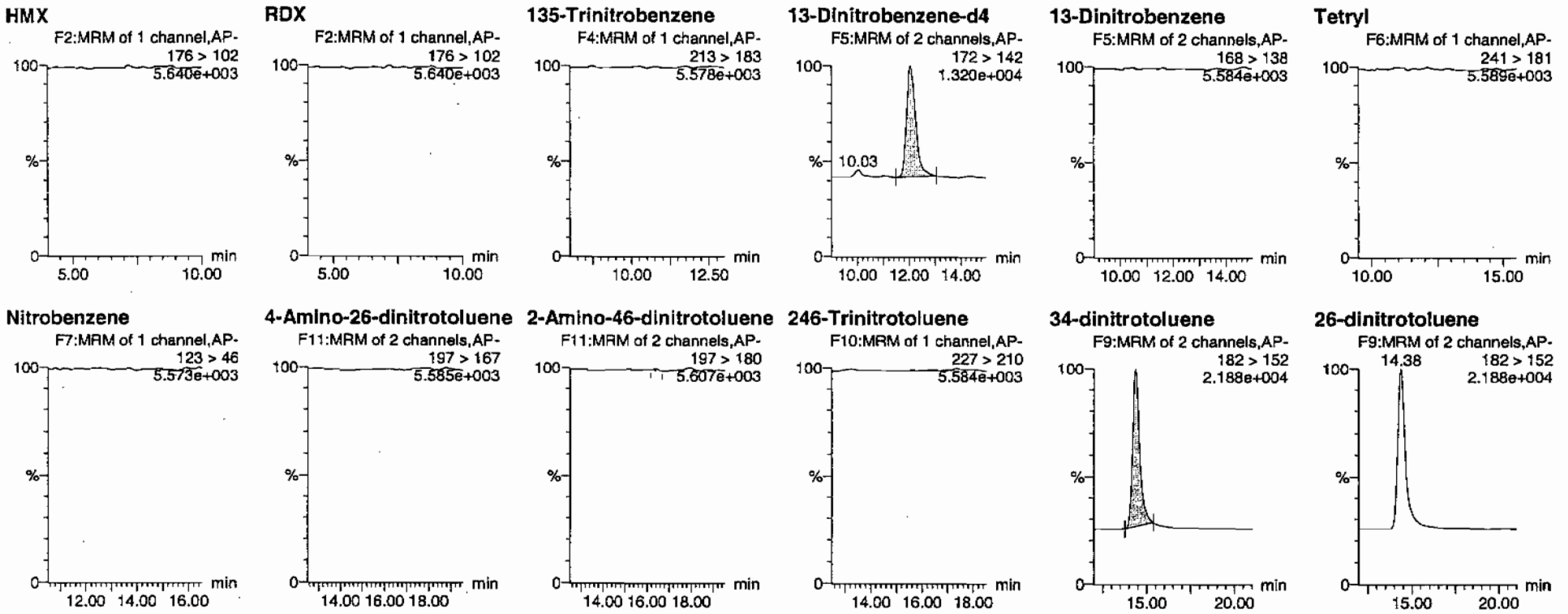

02/21/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

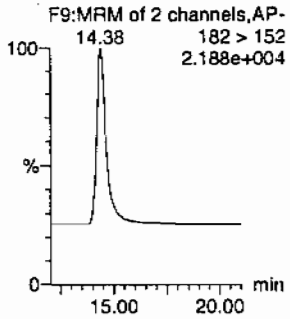

26-dinitrotoluene-d3

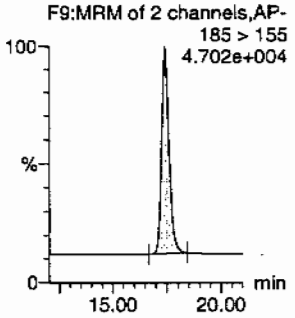

2-Nitrotoluene

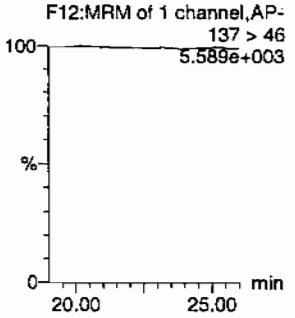

4-Nitrotoluene

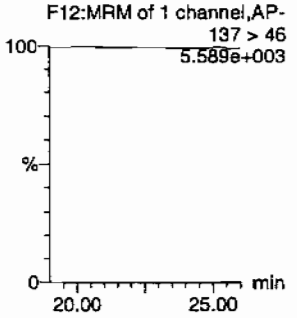

3-Nitrotoluene

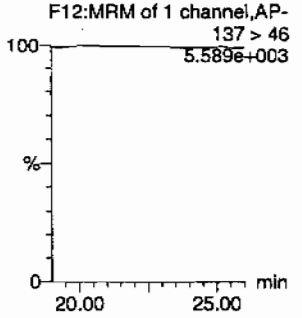

PETN

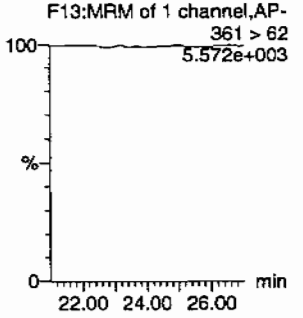

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245959007	HMX	176 > 102			3182.097									
245959007	RDX	176 > 102			3182.097									
245959007	135-Trinitrobenzene	213 > 183			3182.097									
245959007	13-Dinitrobenzene-d4	172 > 142	12.03	3182.097		3182.097	3182.097	bb			528.1636	105.6	5.6	298.5
245959007	13-Dinitrobenzene	168 > 138			3182.097									
245959007	Tetryl	241 > 181			3182.097									
245959007	Nitrobenzene	123 > 46			3182.097									
245959007	4-Amino-26-dinitrotoluene	197 > 167			16678.969									
245959007	2-Amino-46-dinitrotoluene	197 > 180			16678.969			MM-	19-Feb-10	08:41:58				
245959007	246-Trinitrotoluene	227 > 210			16678.969									
245959007	34-dinitrotoluene	182 > 152	14.38	7661.030	16678.969	7661.030	229.661	bb			253.4891	101.4	1.4	745.7
245959007	26-dinitrotoluene	182 > 152			16678.969									
245959007	24-dinitrotoluene	182 > 152			16678.969									
245959007	26-dinitrotoluene-d3	185 > 155	17.42	16678.969		16678.969	16678.969	bb			479.0452	95.8	-4.2	1845.7
245959007	2-Nitrotoluene	137 > 46			16678.969									
245959007	4-Nitrotoluene	137 > 46			16678.969									
245959007	3-Nitrotoluene	137 > 46			16678.969									
245959007	PETN	361 > 62			16678.969									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7313

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959007

Sample Amount 2

Moisture: 9.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140135.wiff

Date Analyzed: 16-FEB-10 01:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4--nitrotoluene	2000	U
618-87-1	3,5--Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

Sample Name: "245959007" Sample ID: "948572|2|LER" File: "EXS02140135.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 1:22:48 AM
odified: No

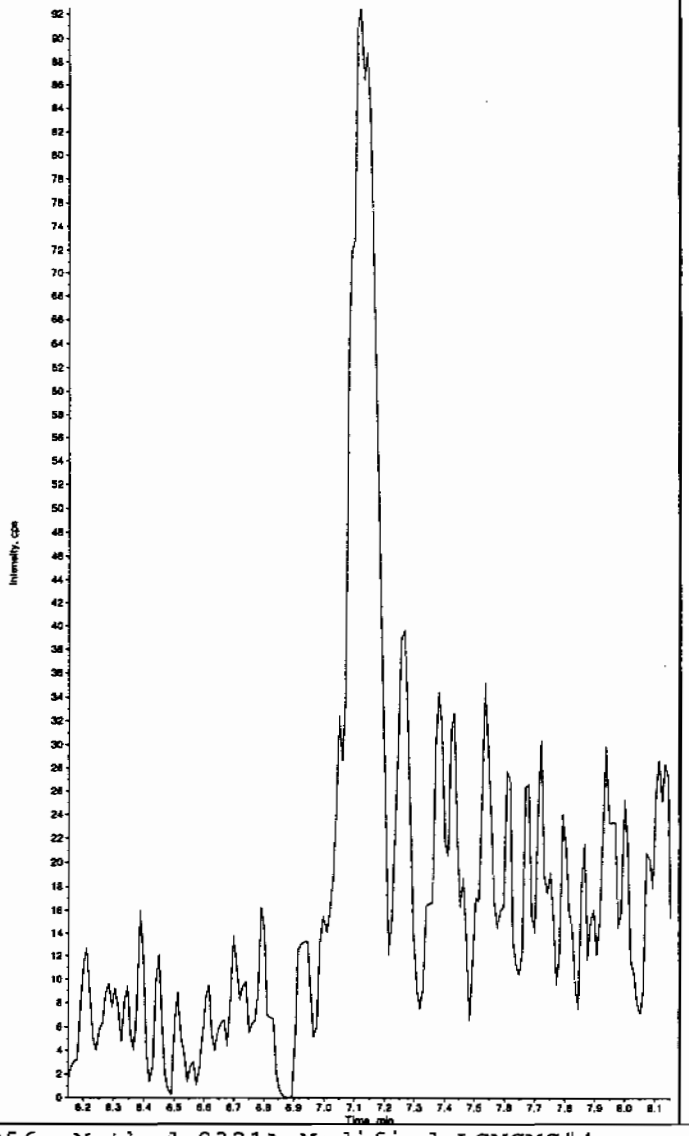

Sample Name: "245959007" Sample ID: "948572|2|LER" File: "EXS02140135.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:22:48 AM

Modified: Yes

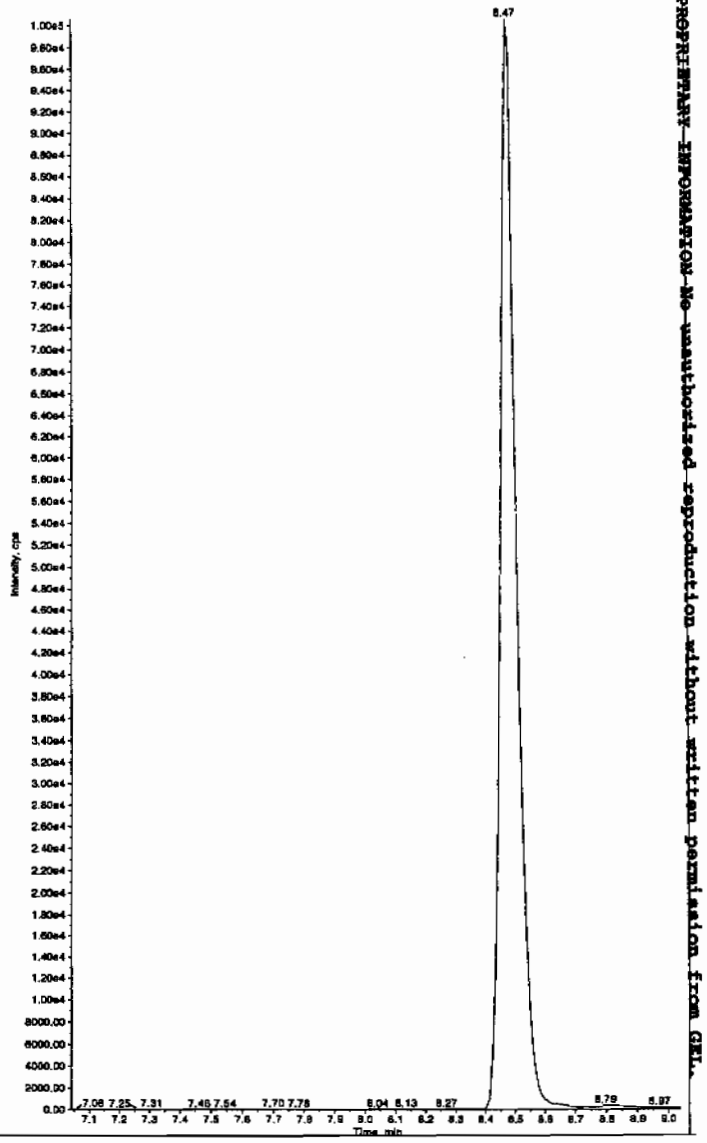

Hum 02/17/10

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Sample Name: "245959007" Sample ID: "948572|2|LER" File: "EXS02140135.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 286. ng/mL
cq. Date: 2/16/2010
cq. Time: 1:22:48 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.52 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.47 min
rea: 3.72e+006 counts
eight: 965195.618 cps
tart Time: 8.36 min
nd Time: 8.88 min

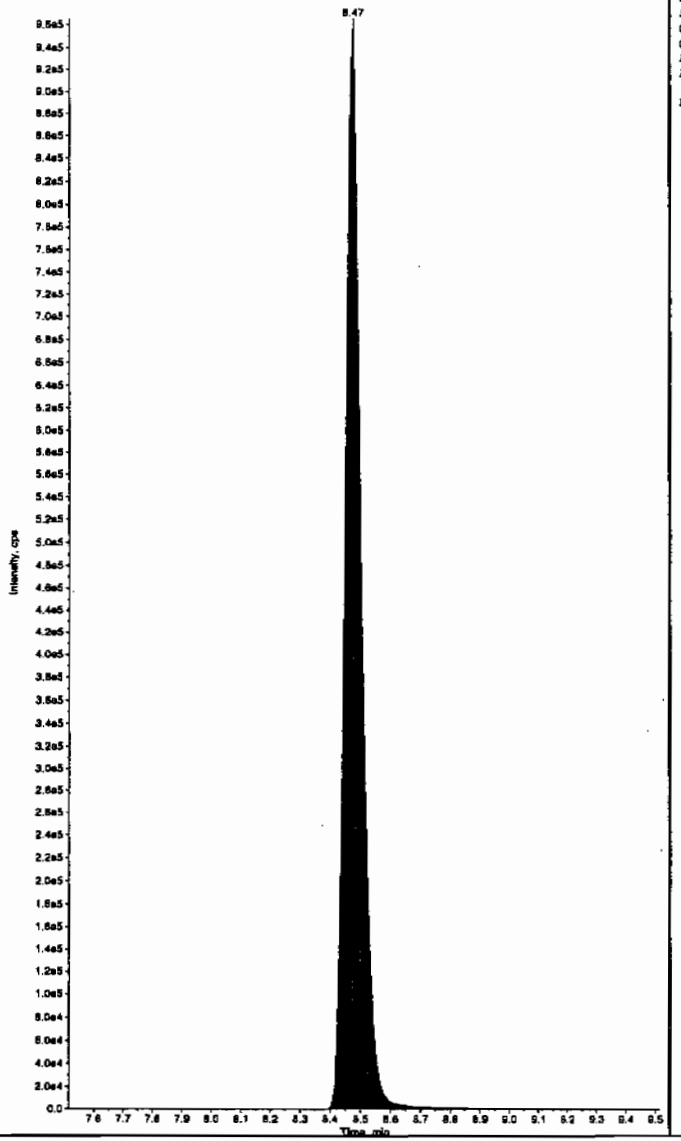

Sample Name: "245959007" Sample ID: "948572|2|LER" File: "EXS02140135.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:22:48 AM

Modified: No

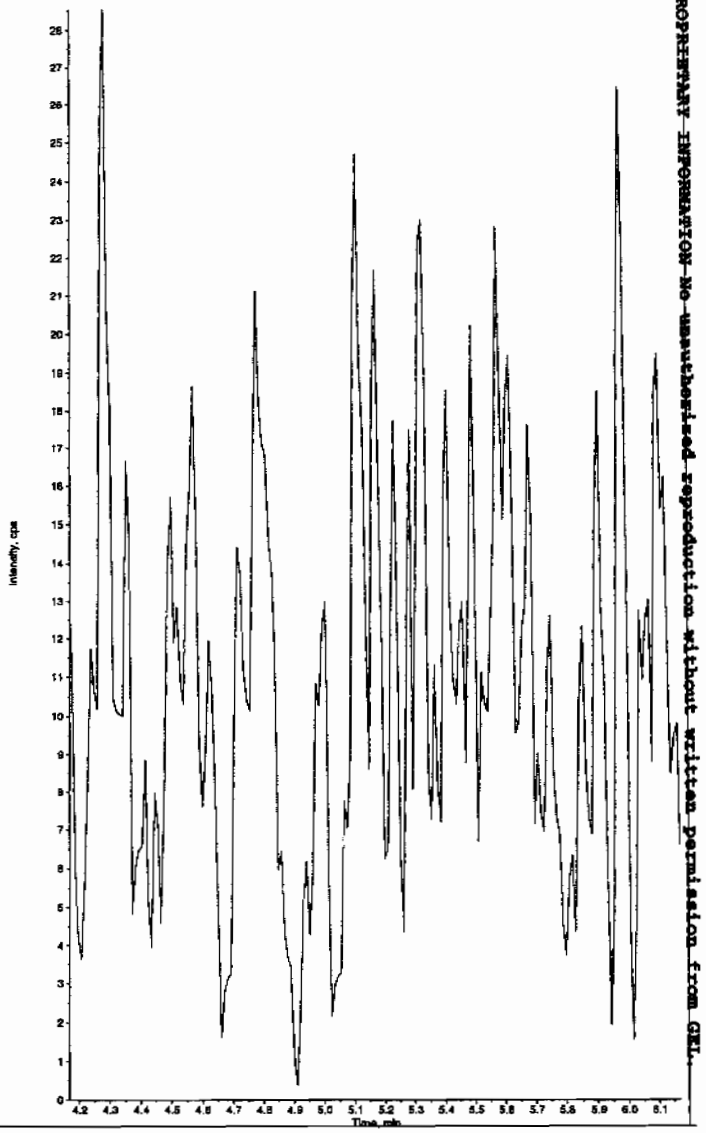

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Sample Name: "245959007" Sample ID: "948572|2|LER" File: "EXS02140135.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 1:22:48 AM

odified: No

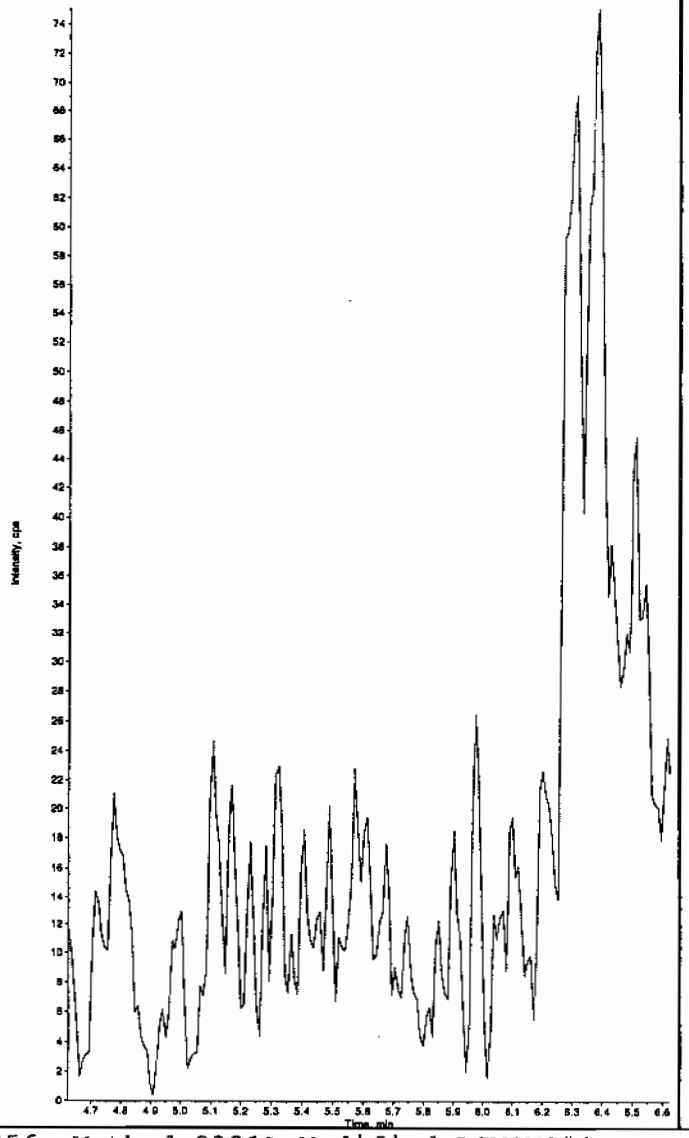

Sample Name: "245959007" Sample ID: "948572|2|LER" File: "EXS02140135.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:22:48 AM

Modified: No

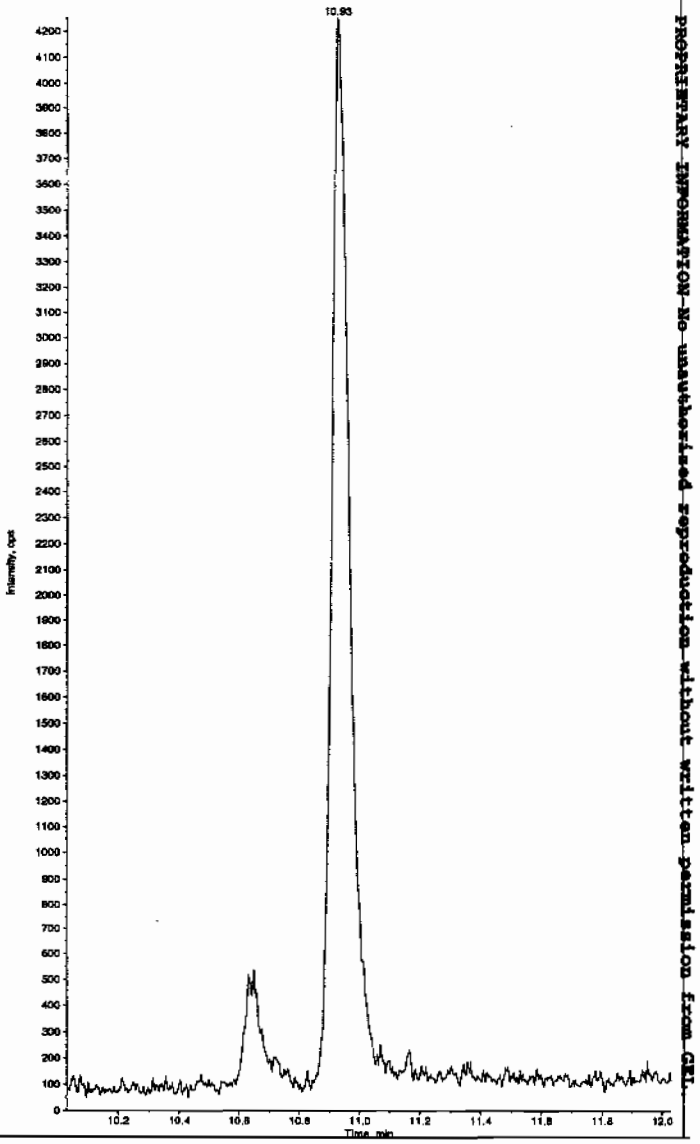

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7314

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959008

Sample Amount 2

Moisture: 32.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216097a

Date Analyzed: 18-FEB-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216097a
Date: 18-Feb-2010
Time: 16:32:45
ID: 245959008
Vial: 2:7,B

| LANL | 948572 | Soils | 2 |

LMA 2/19/10

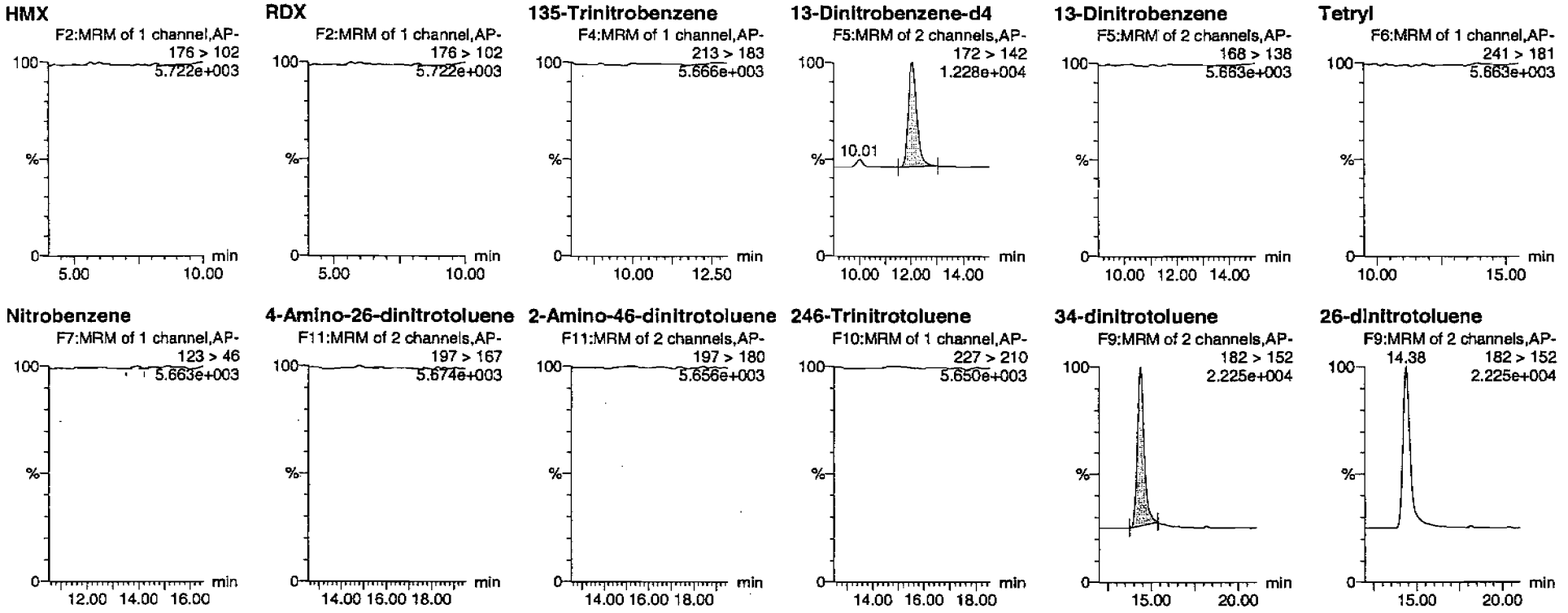

MMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

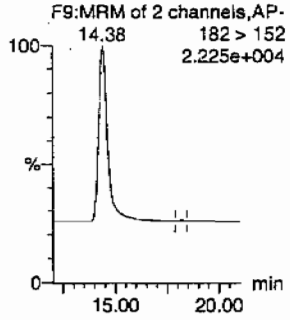

26-dinitrotoluene-d3

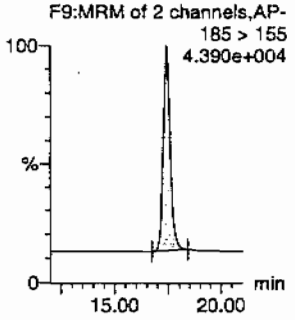

2-Nitrotoluene

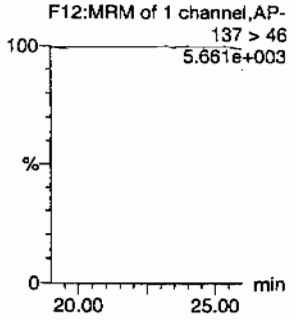

4-Nitrotoluene

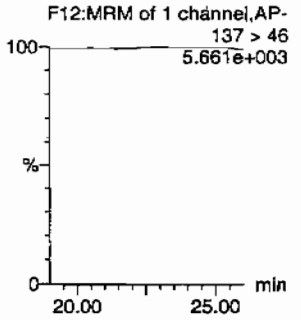

3-Nitrotoluene

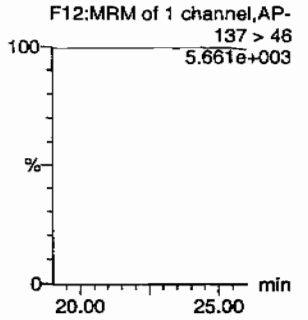

PETN

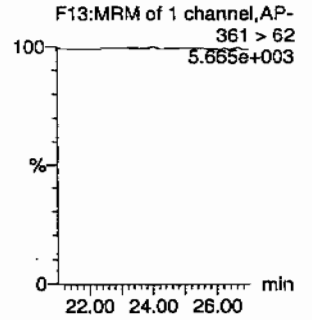

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245959008	HMX	176 > 102			2639.335									
245959008	RDX	176 > 102			2639.335									
245959008	135-Trinitrobenzene	213 > 183			2639.335									
245959008	13-Dinitrobenzene-d4	172 > 142	12.03	2639.335		2639.335	2639.335	bb			438.0761	87.6	-12.4	512.7
245959008	13-Dinitrobenzene	168 > 138			2639.335									
245959008	Tetryl	241 > 181			2639.335									
245959008	Nitrobenzene	123 > 46			2639.335			MM-	19-Feb-10	08:38:03				
245959008	4-Amino-26-dinitrotoluene	197 > 167			14875.780									
245959008	2-Amino-46-dinitrotoluene	197 > 180			14875.780									
245959008	246-Trinitrotoluene	227 > 210			14875.780									
245959008	34-dinitrotoluene	182 > 152	14.38	7571.647	14875.780	7571.647	254.496	bb			280.9001	112.4	12.4	603.3
245959008	26-dinitrotoluene	182 > 152			14875.780									
245959008	24-dinitrotoluene	182 > 152			14875.780			MM-	19-Feb-10	08:46:13				
245959008	26-dinitrotoluene-d3	185 > 155	17.42	14875.780		14875.780	14875.780	bb			427.2549	85.5	-14.5	1090.0
245959008	2-Nitrotoluene	137 > 46			14875.780									
245959008	4-Nitrotoluene	137 > 46			14875.780									
245959008	3-Nitrotoluene	137 > 46			14875.780									
245959008	PETN	361 > 62			14875.780									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7314

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959008

Sample Amount 2

Moisture: 32.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140136.wiff

Date Analyzed: 16-FEB-10 01:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

Sample Name: "245959008" Sample ID: "948572|2|LER" File: "EXS02140136.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 1:38:30 AM

odified: No

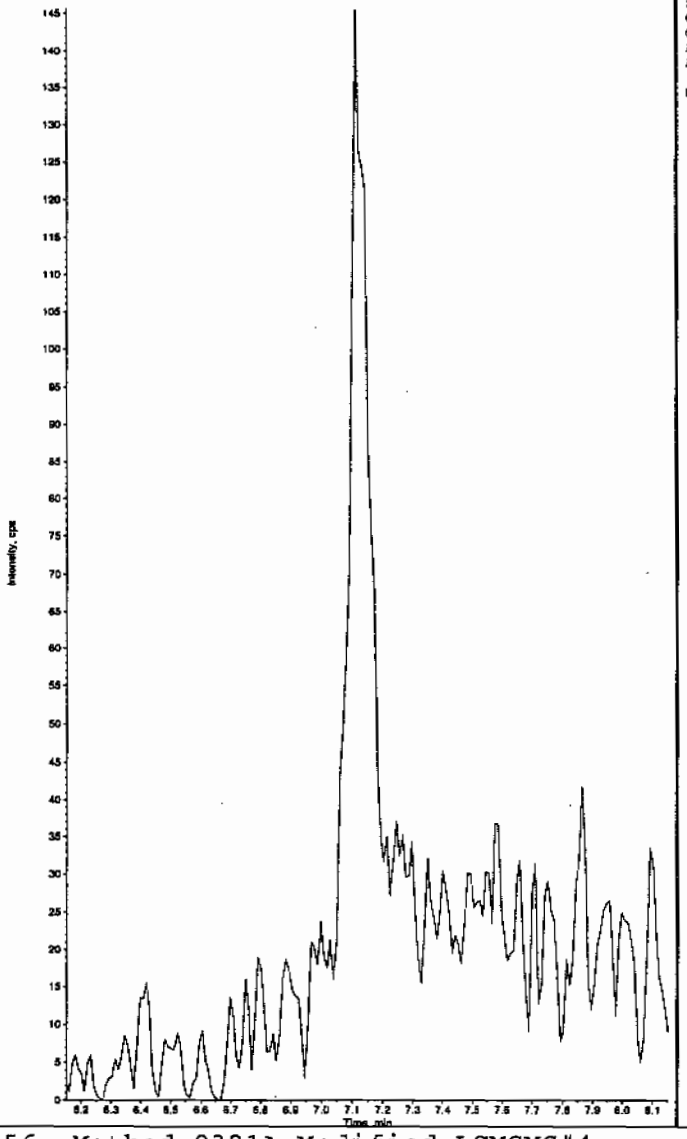

Sample Name: "245959008" Sample ID: "948572|2|LER" File: "EXS02140136.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:38:30 AM

Modified: Yes

Hwk 02/17/10

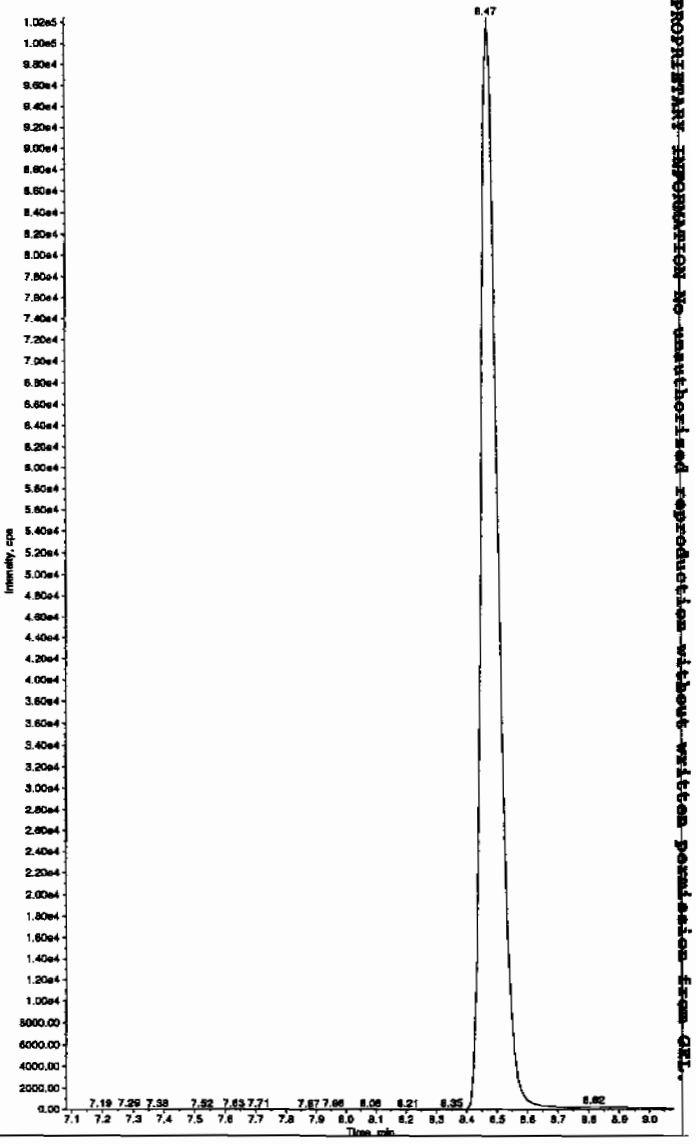

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Sample Name: "245959006" Sample ID: "948572|2|LER" File: "EXS02140136.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 283. ng/mL
cq. Date: 2/16/2010
cq. Time: 1:38:30 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.52 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.47 min
rea: 3.69e+006 counts
eight: 949535.889 cps
tart Time: 8.37 min
nd Time: 8.83 min

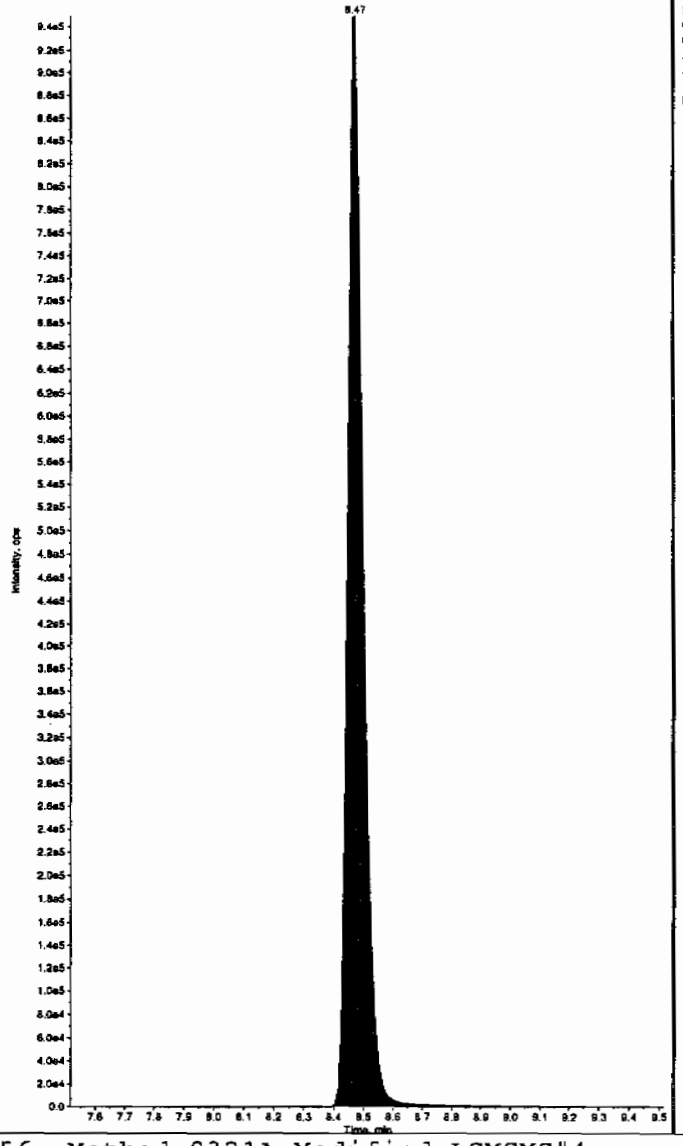

Sample Name: "245959008" Sample ID: "948572|2|LER" File: "EXS02140136.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:38:30 AM

Modified: No

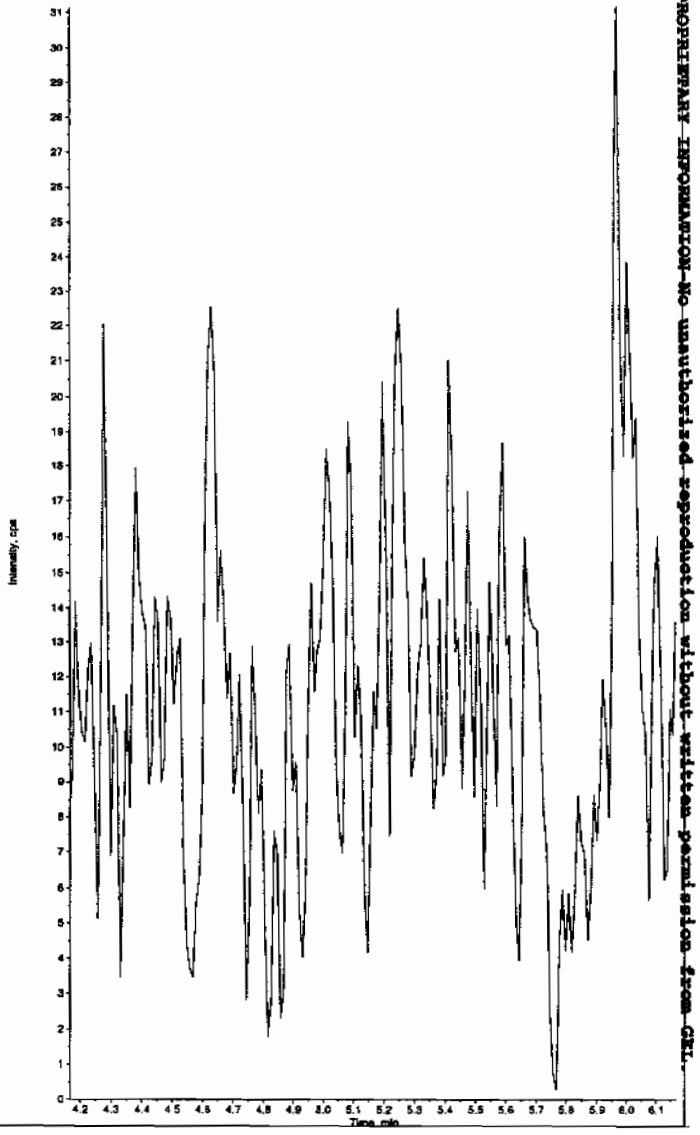

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Sample Name: "245959008" Sample ID: "948572|2|LER" File: "EXS02140136.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 1:38:30 AM

odified: No

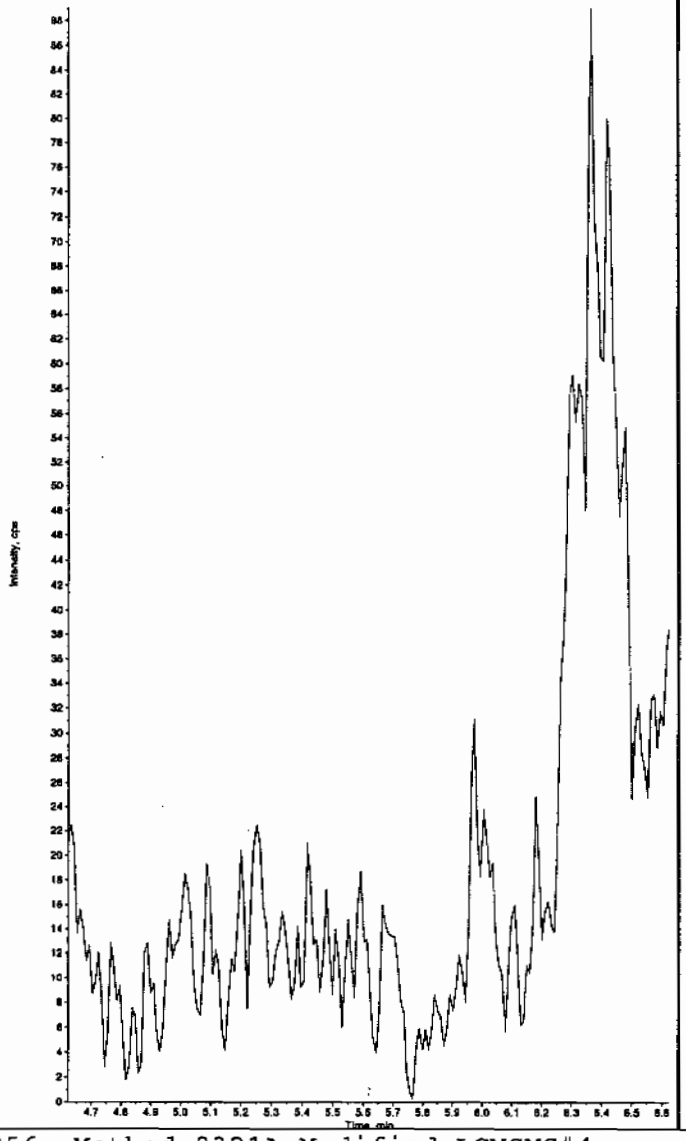

Sample Name: "245959008" Sample ID: "948572|2|LER" File: "EXS02140136.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:38:30 AM

Modified: No

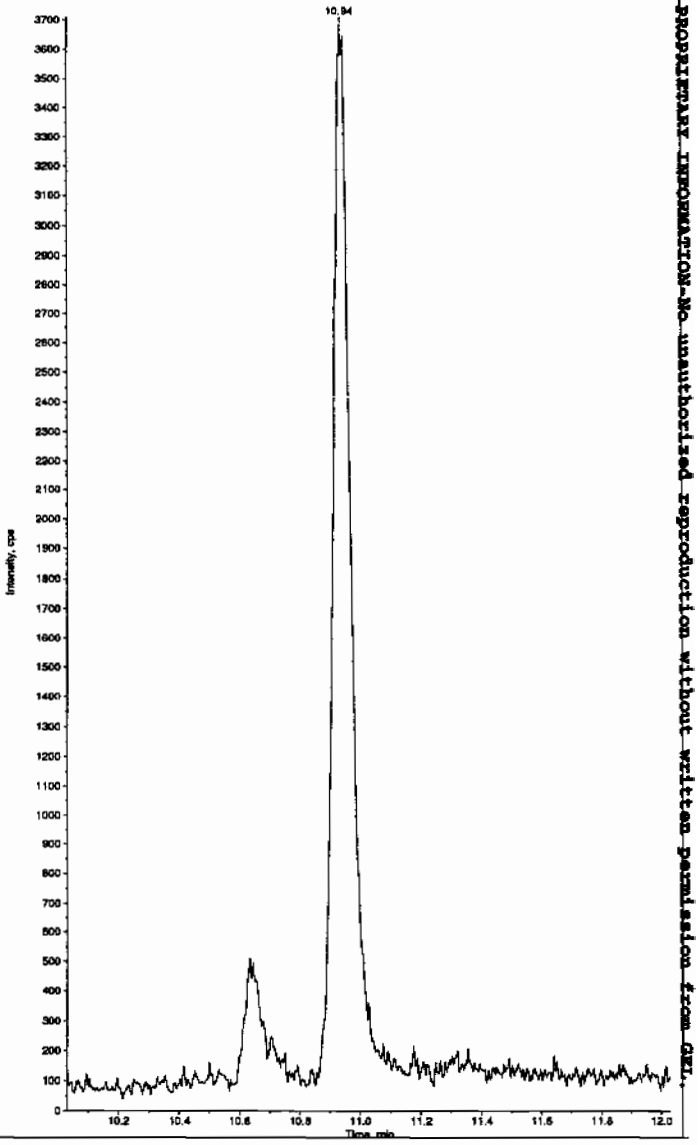

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7316

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959009

Sample Amount 2

Moisture: 35.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216098a

Date Analyzed: 18-FEB-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216098a
Date: 18-Feb-2010
Time: 17:02:31
ID: 245959009 | LANL | 940572 | Soil | 2 |
Vial: 2:7,C

MSP 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.515e+003

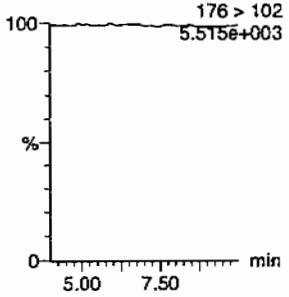

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.515e+003

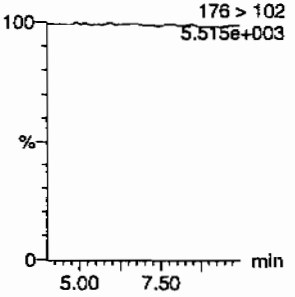

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
8.82
213 > 183
5.670e+003

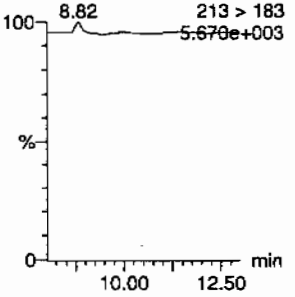

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.173e+004

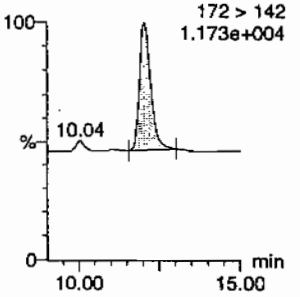

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.441e+003

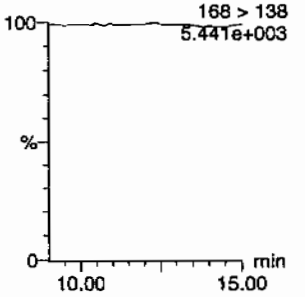

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.430e+003

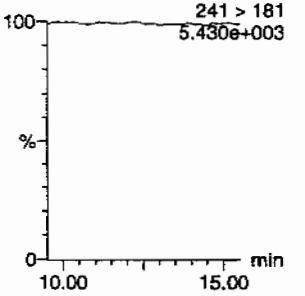

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.468e+003

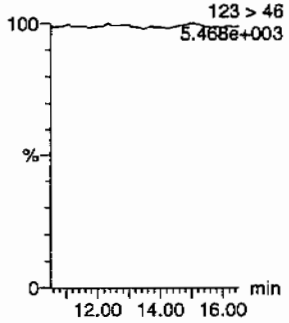

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.434e+003

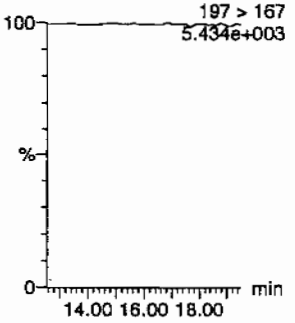

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.471e+003

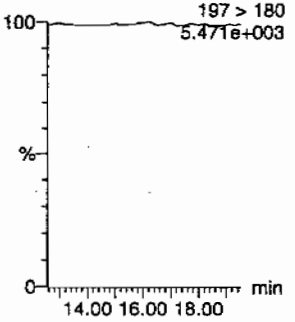

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.420e+003

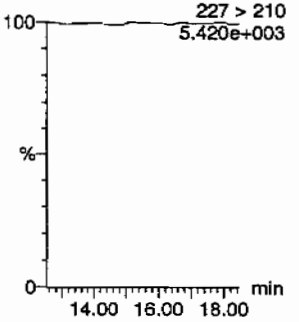

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.107e+004

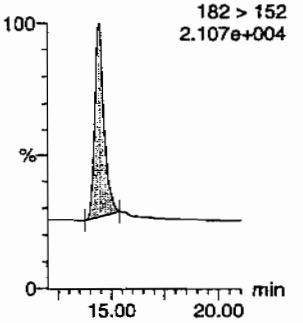

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.41
182 > 152
2.107e+004

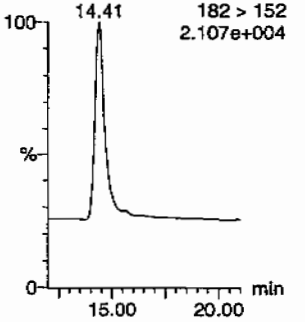

Hmc 02/21/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

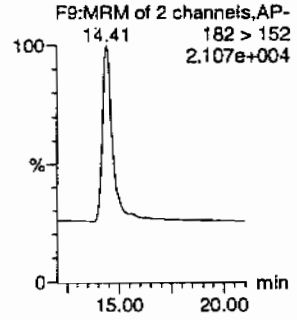

26-dinitrotoluene-d3

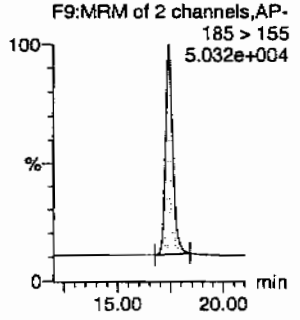

2-Nitrotoluene

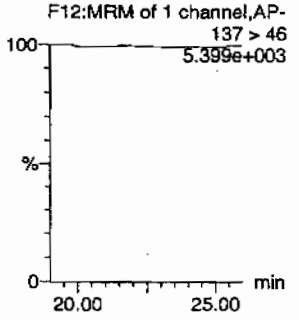

4-Nitrotoluene

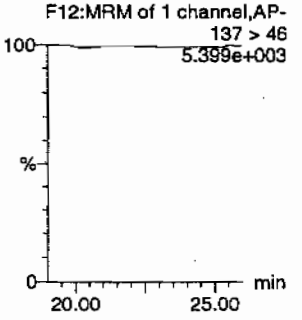

3-Nitrotoluene

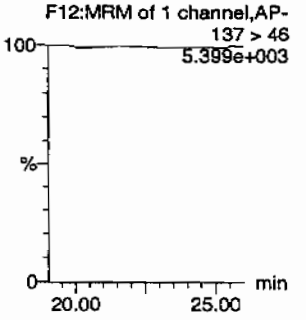

PETN

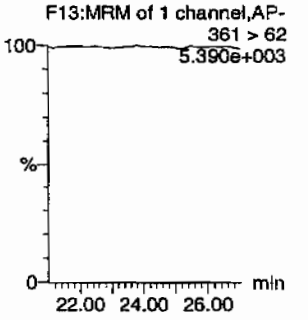

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245959009	HMX	176 > 102			2572.214									
245959009	RDX	176 > 102			2572.214									
245959009	135-Trinitrobenzene	213 > 183			2572.214									
245959009	13-Dinitrobenzene-d4	172 > 142	12.03	2572.214		2572.214	2572.214	bb			426.9354	85.4	-14.6	401.2
245959009	13-Dinitrobenzene	168 > 138			2572.214									
245959009	Tetryl	241 > 181			2572.214									
245959009	Nitrobenzene	123 > 46			2572.214									
245959009	4-Amino-26-dinitrotoluene	197 > 167			18481.332									
245959009	2-Amino-46-dinitrotoluene	197 > 180			18481.332									
245959009	246-Trinitrotoluene	227 > 210			18481.332									
245959009	34-dinitrotoluene	182 > 152	14.41	7892.857	18481.332	7892.857	213.536	bb			235.6906	94.3	-5.7	446.2
245959009	26-dinitrotoluene	182 > 152			18481.332									
245959009	24-dinitrotoluene	182 > 152			18481.332									
245959009	26-dinitrotoluene-d3	185 > 155	17.41	18481.332		18481.332	18481.332	bb			530.8118	106.2	6.2	1653.0
245959009	2-Nitrotoluene	137 > 46			18481.332									
245959009	4-Nitrotoluene	137 > 46			18481.332									
245959009	3-Nitrotoluene	137 > 46			18481.332									
245959009	PETN	361 > 62			18481.332									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7316

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959009

Sample Amount 2

Moisture: 35.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140137.wiff

Date Analyzed: 16-FEB-10 01:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 2/17/10

Sample Name: "245959009" Sample ID: "948572|2|LER" File: "EXS02140137.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 1:54:11 AM

odified: No

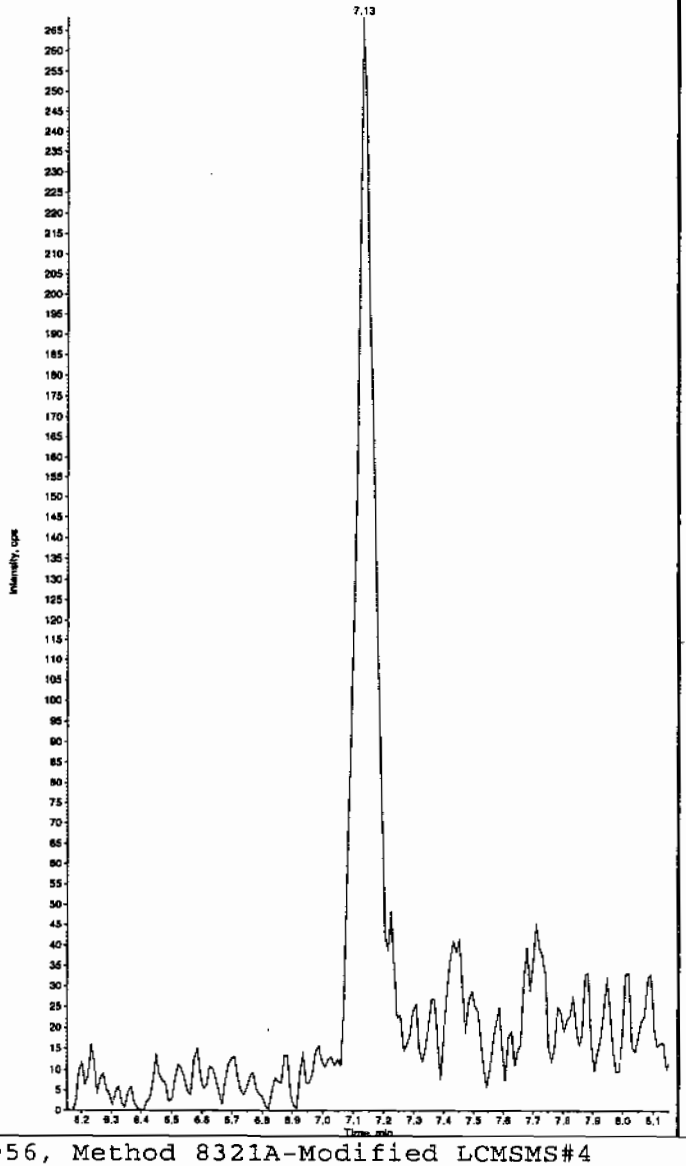

Sample Name: "245959009" Sample ID: "948572|2|LER" File: "EXS02140137.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:54:11 AM

Modified: Yes

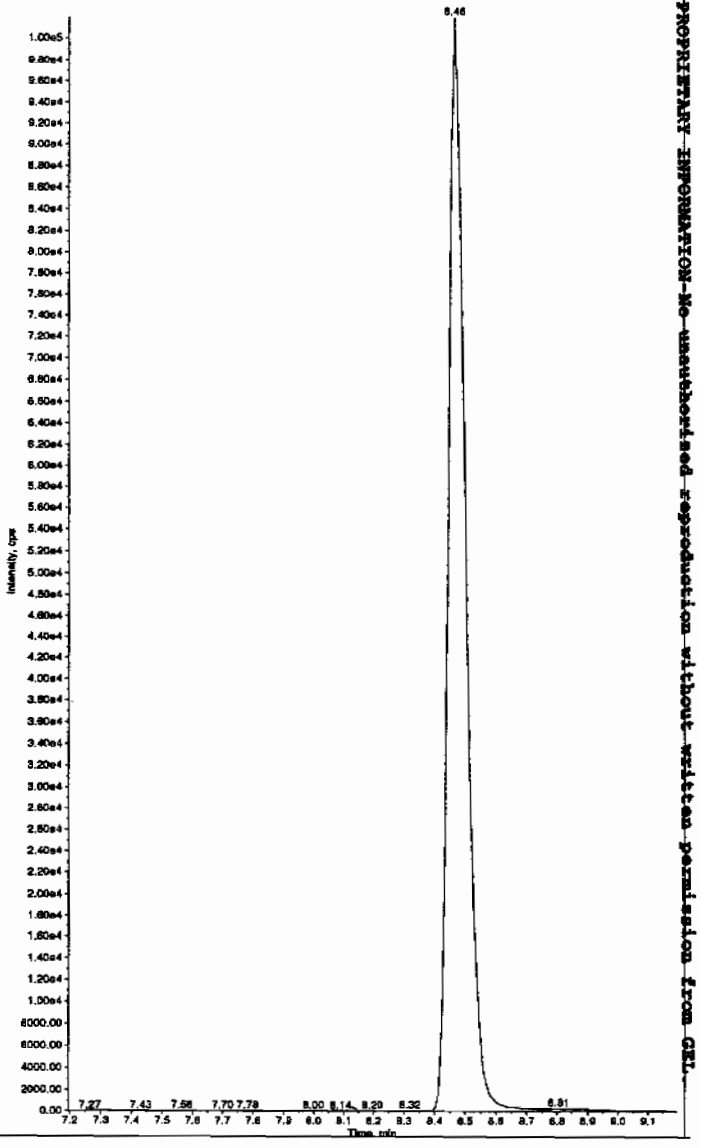

thm 02/17/10

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Sample Name: "245959009" Sample ID: "948572|2|LER" File: "EXS02140137.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 284. ng/mL
q. Date: 2/16/2010
q. Time: 1:54:11 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.52 min
e Relative RT: No

t. Type: Valley
tention Time: 8.46 min
ea: 3.70e+006 counts
ight: 897394.348 cps
art Time: 8.37 min
d Time: 8.84 min

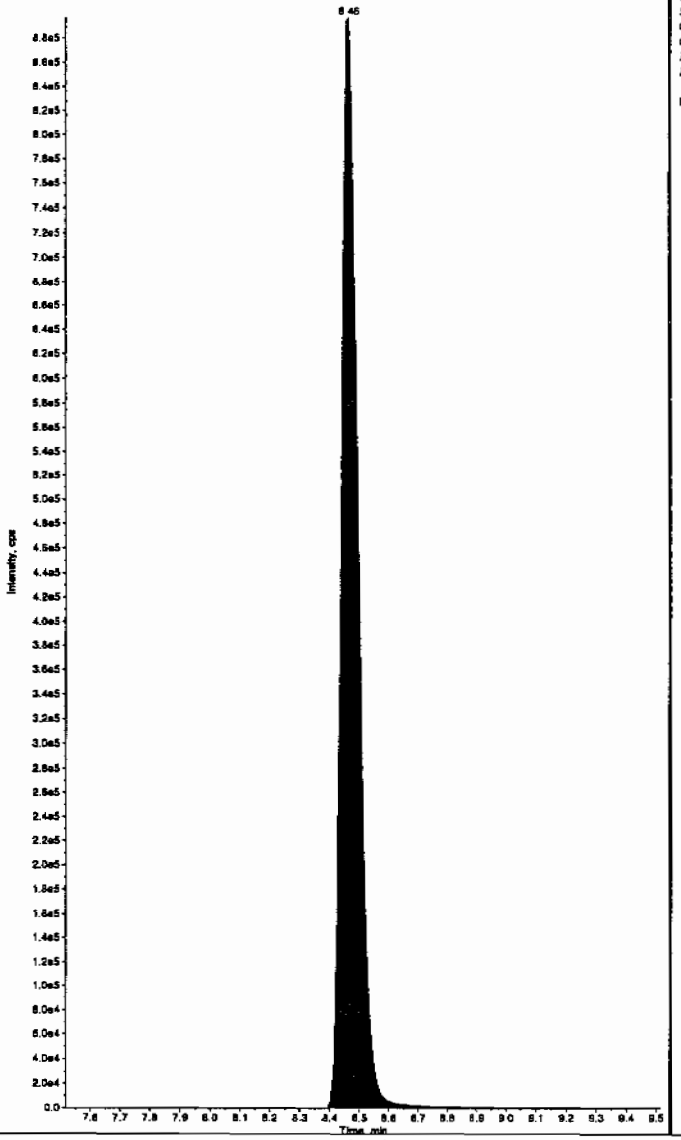

Sample Name: "245959009" Sample ID: "948572|2|LER" File: "EXS02140137.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:54:11 AM

Modified: No

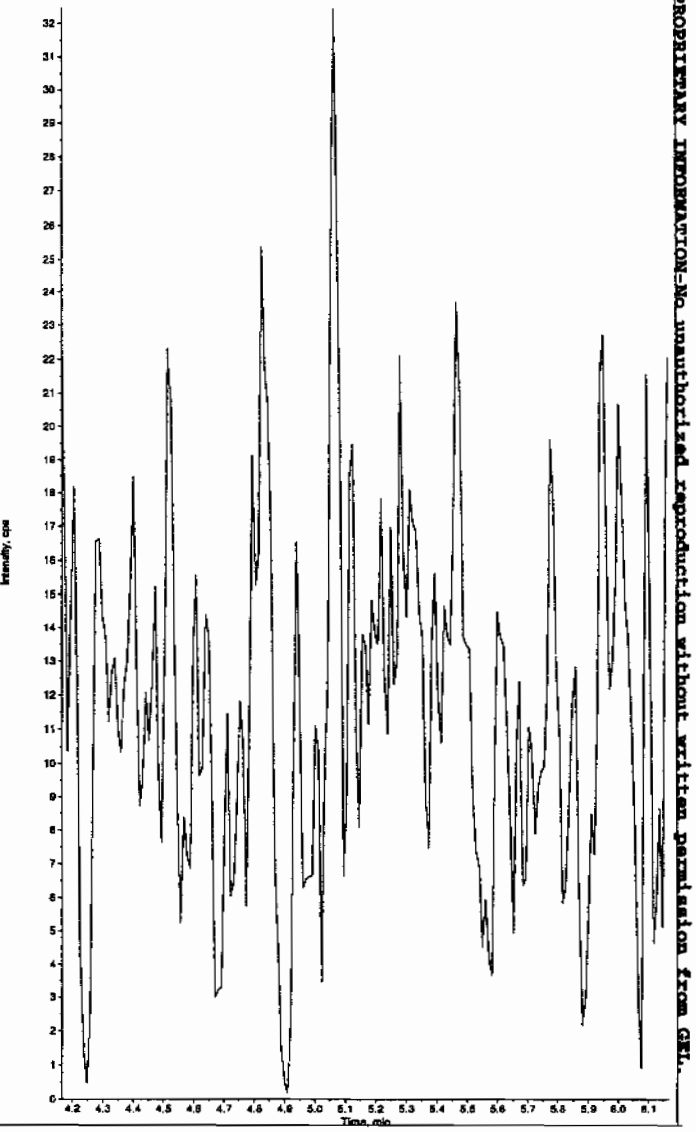

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245959009" Sample ID: "948572|2|LER" File: "EXS02140137.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:54:11 AM

Modified: No

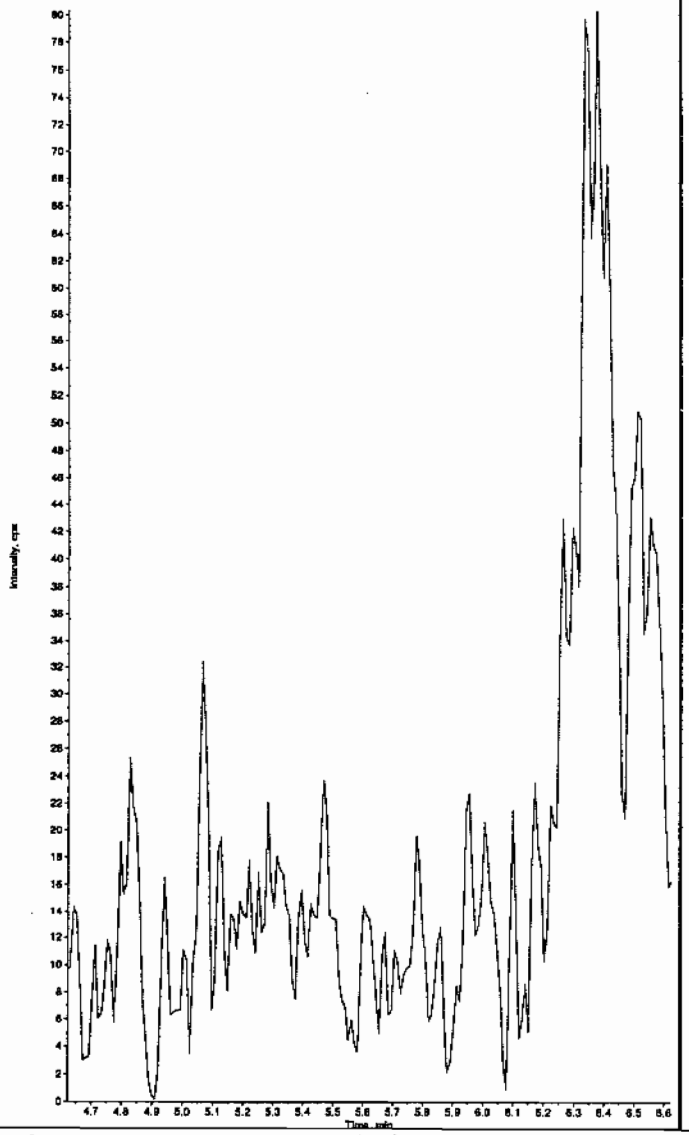

Sample Name: "245959009" Sample ID: "948572|2|LER" File: "EXS02140137.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:54:11 AM

Modified: No

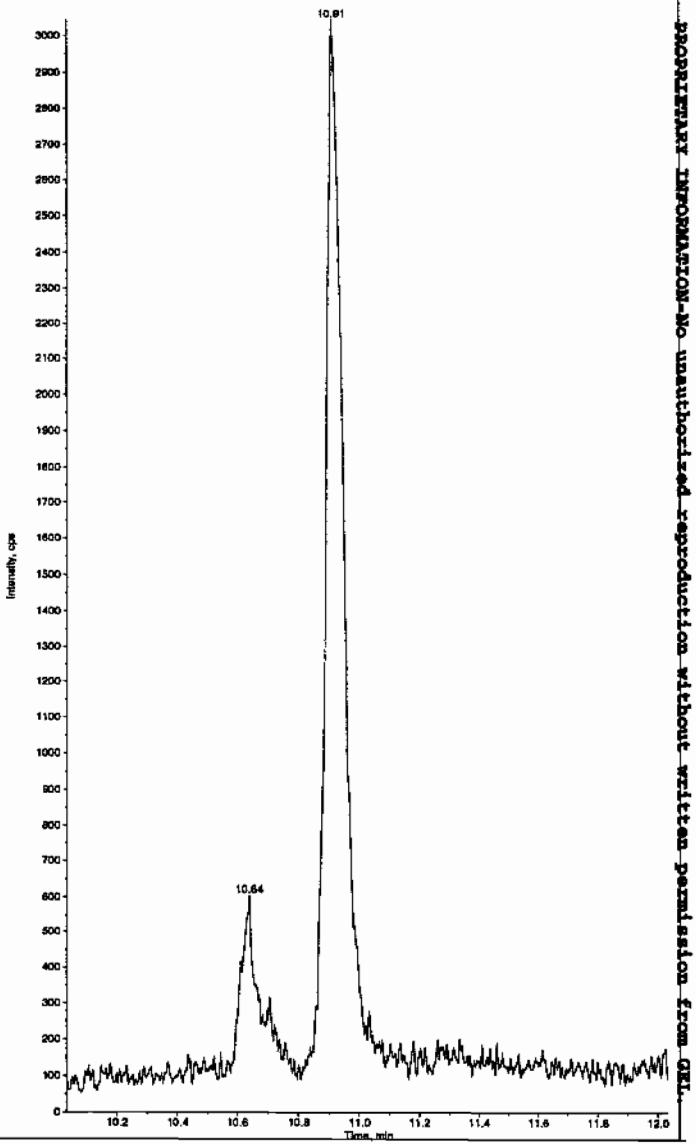

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7318

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959010

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216099a

Date Analyzed: 18-FEB-10 17:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216099a
Date: 18-Feb-2010
Time: 17:32:01
ID: 245959010
Vial: 2:7,D

LANL | 948572 | Soils | 2 |

MAP 4/9/10

HMX
F2:MRM of 1 channel,AP-176 > 102
5.726e+003

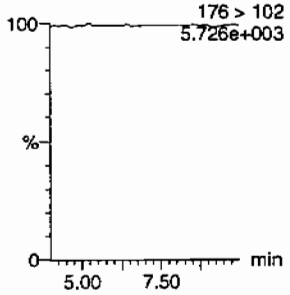

RDX
F2:MRM of 1 channel,AP-176 > 102
5.726e+003

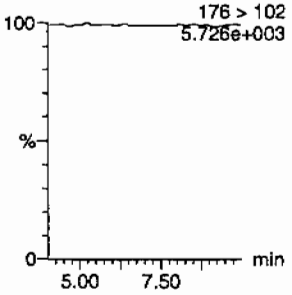

135-Trinitrobenzene
F4:MRM of 1 channel,AP-213 > 183
5.666e+003

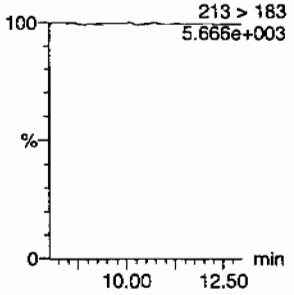

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-172 > 142
1.216e+004

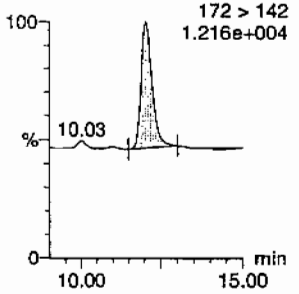

13-Dinitrobenzene
F5:MRM of 2 channels,AP-168 > 138
5.683e+003

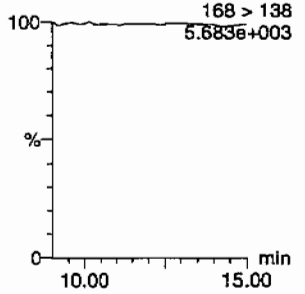

Tetryl
F6:MRM of 1 channel,AP-241 > 181
5.685e+003

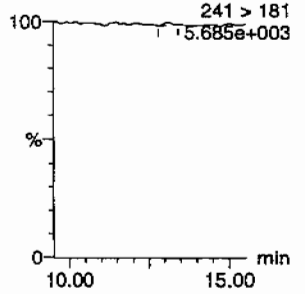

Nitrobenzene
F7:MRM of 1 channel,AP-123 > 46
5.688e+003

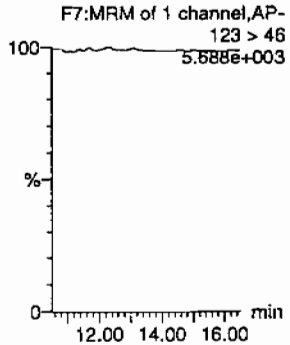

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-197 > 167
5.648e+003

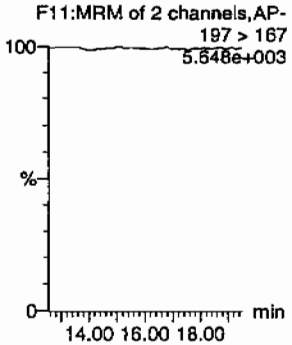

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-197 > 180
5.678e+003

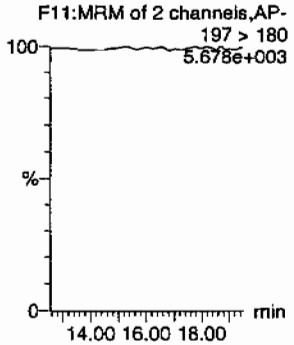

246-Trinitrotoluene
F10:MRM of 1 channel,AP-227 > 210
5.627e+003

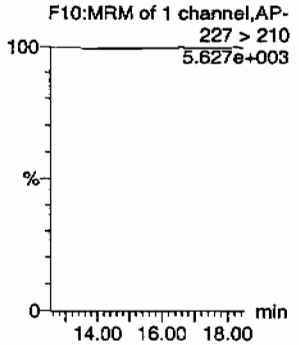

34-dinitrotoluene
F9:MRM of 2 channels,AP-182 > 152
2.566e+004

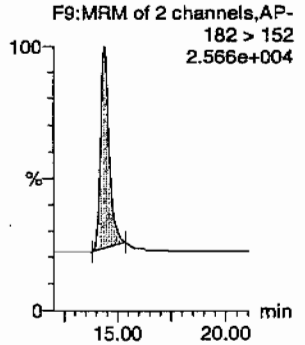

26-dinitrotoluene
F9:MRM of 2 channels,AP-182 > 152
2.566e+004

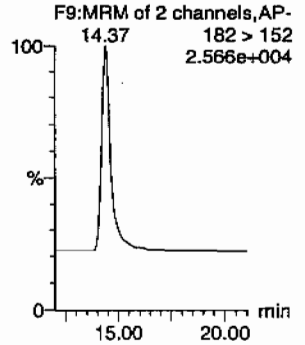

MMW 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.37 182 > 152
2.566e+004

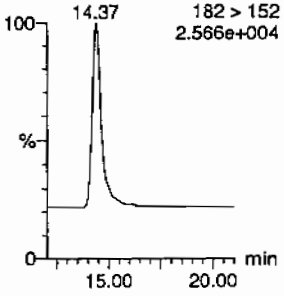

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.591e+004

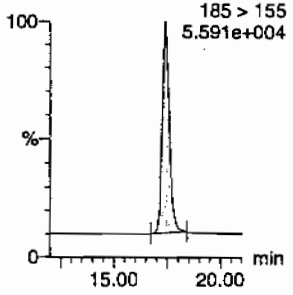

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.637e+003

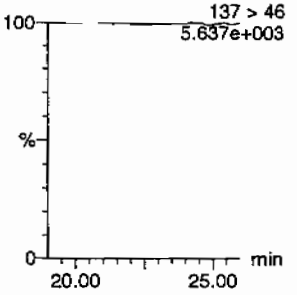

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.637e+003

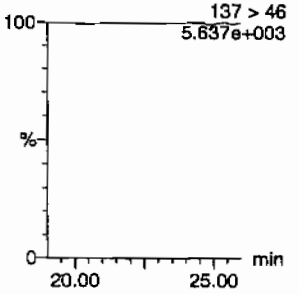

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.637e+003

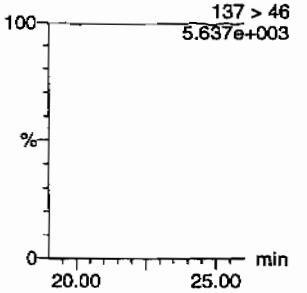

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.617e+003

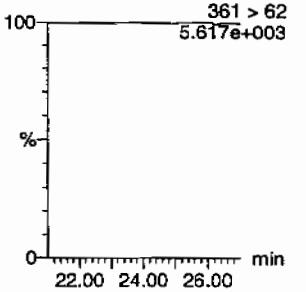

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245959010	HMX	176 > 102			2597.738									
245959010	RDX	176 > 102			2597.738									
245959010	135-Trinitrobenzene	213 > 183			2597.738									
245959010	13-Dinitrobenzene-d4	172 > 142	12.06	2597.738		2597.738	2597.738	bb			431.1719	86.2	-13.8	138.3
245959010	13-Dinitrobenzene	168 > 138			2597.738									
245959010	Tetryl	241 > 181			2597.738			MM-	19-Feb-10	08:37:17				
245959010	Nitrobenzene	123 > 46			2597.738									
245959010	4-Amino-26-dinitrotoluene	197 > 167			19528.068									
245959010	2-Amino-46-dinitrotoluene	197 > 180			19528.068									
245959010	246-Trinitrotoluene	227 > 210			19528.068									
245959010	34-dinitrotoluene	182 > 152	14.37	9380.629	19528.068	9380.629	240.183	bb			265.1026	106.0	6.0	532.6
245959010	26-dinitrotoluene	182 > 152			19528.068									
245959010	24-dinitrotoluene	182 > 152			19528.068									
245959010	26-dinitrotoluene-d3	185 > 155	17.43	19528.068		19528.068	19528.068	bb			560.8756	112.2	12.2	2055.5
245959010	2-Nitrotoluene	137 > 46			19528.068									
245959010	4-Nitrotoluene	137 > 46			19528.068									
245959010	3-Nitrotoluene	137 > 46			19528.068									
245959010	PETN	361 > 62			19528.068									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7318

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959010

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140138.wiff

Date Analyzed: 16-FEB-10 02:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

ample Name: "245959010" Sample ID: "948572|2|LER" File: "EXS02140138.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 2:09:52 AM

ified: No

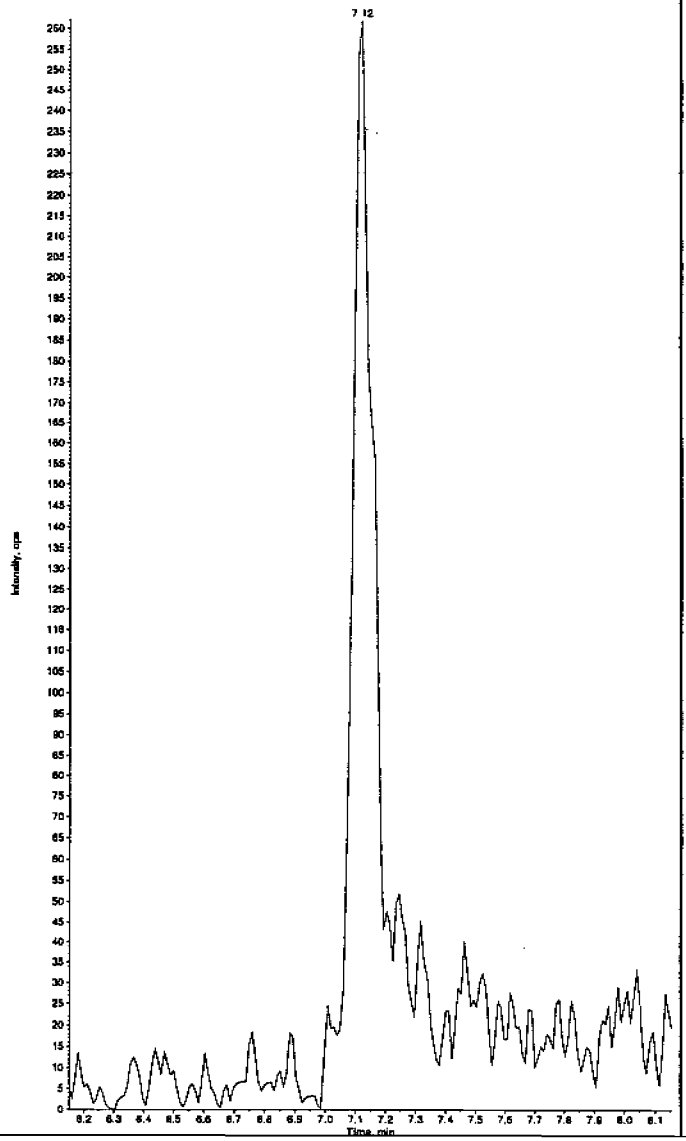

Sample Name: "245959010" Sample ID: "948572|2|LER" File: "EXS02140138.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:09:52 AM

Modified: Yes

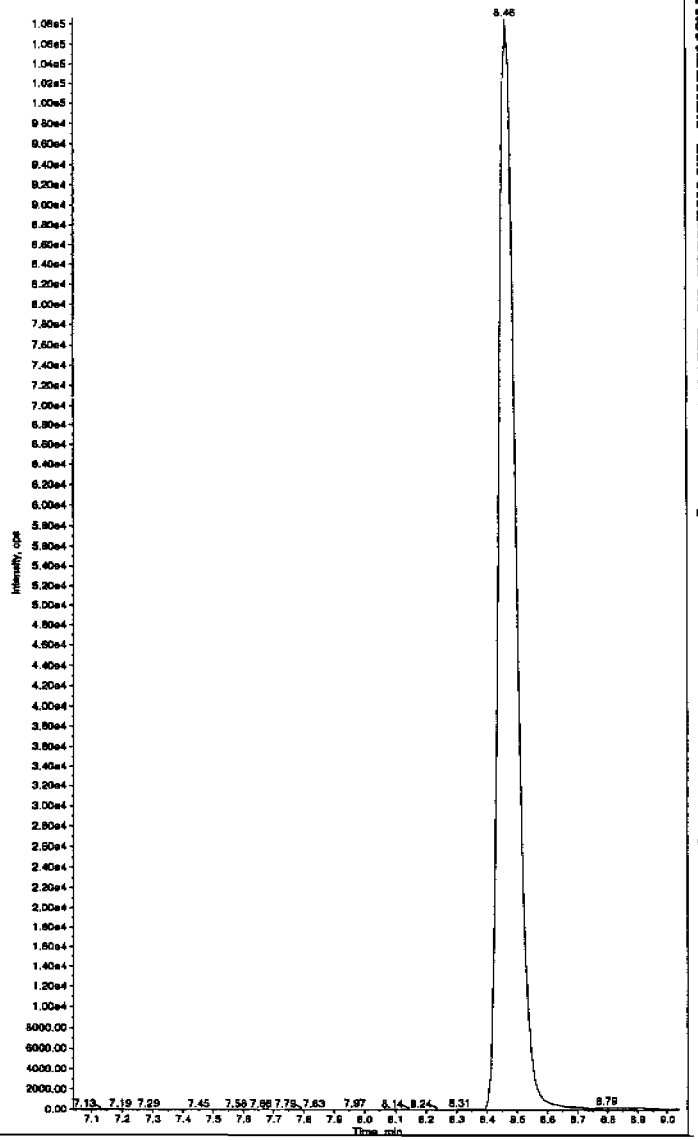

Hnm 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "245959010" Sample ID: "948572|2|LER" File: "EXS02140138.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	314. ng/mL
. Date:	2/16/2010
. Time:	2:09:52 AM
ified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	1460.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	15.0 sec
ected RT:	8.52 min
Relative RT:	No
. Type:	Valley
ention Time:	8.45 min
a:	4.08e+006 counts
ght:	1098852.173 cps
rt Time:	8.35 min
Time:	8.83 min

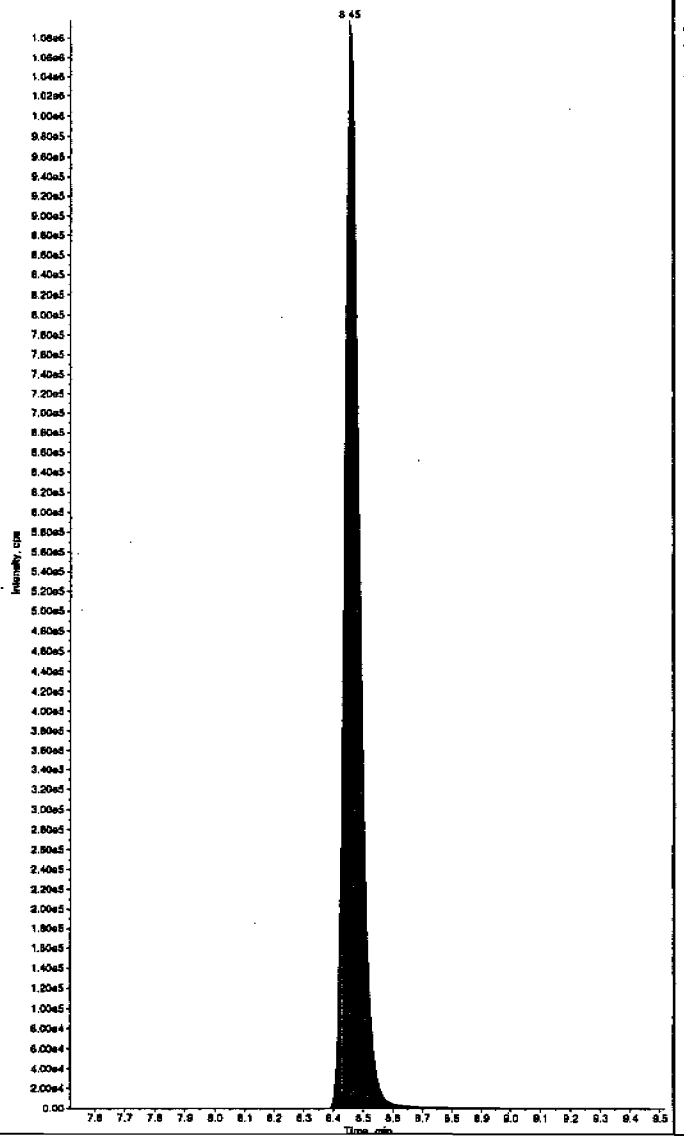

Sample Name: "245959010" Sample ID: "948572|2|LER" File: "EXS02140138.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/16/2010
Acq. Time:	2:09:52 AM
Modified:	No

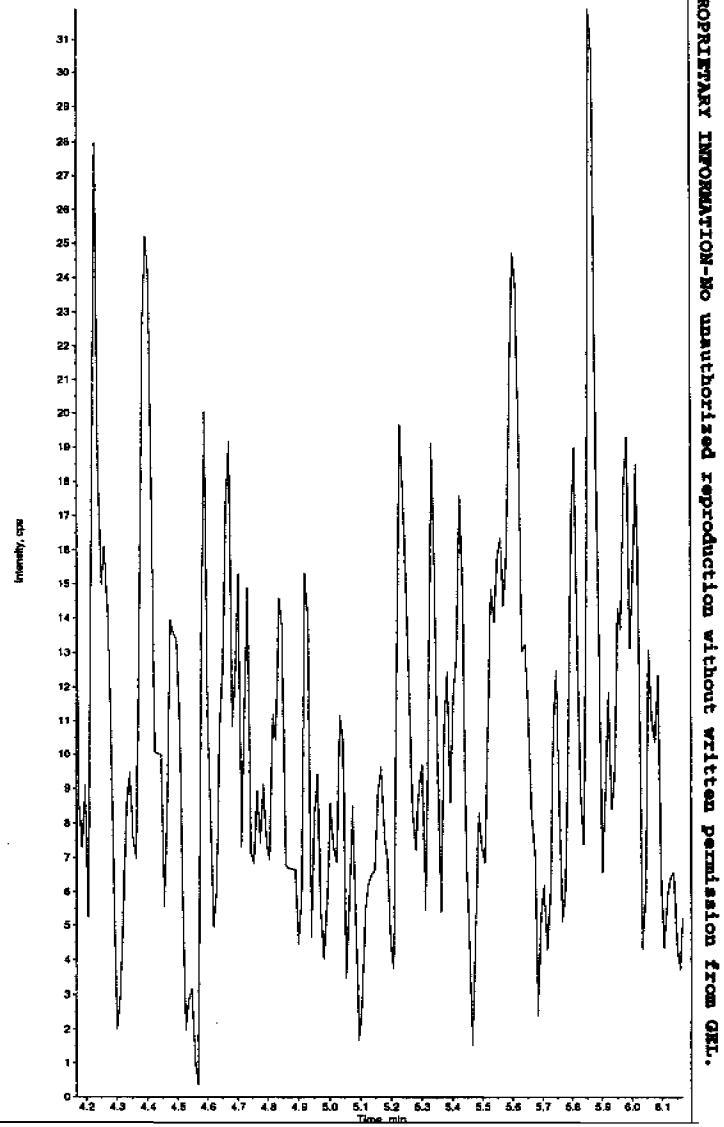

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "245959010" Sample ID: "948572|2|LER" File: "EXS02140138.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
Concentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 2:09:52 AM

ified: No

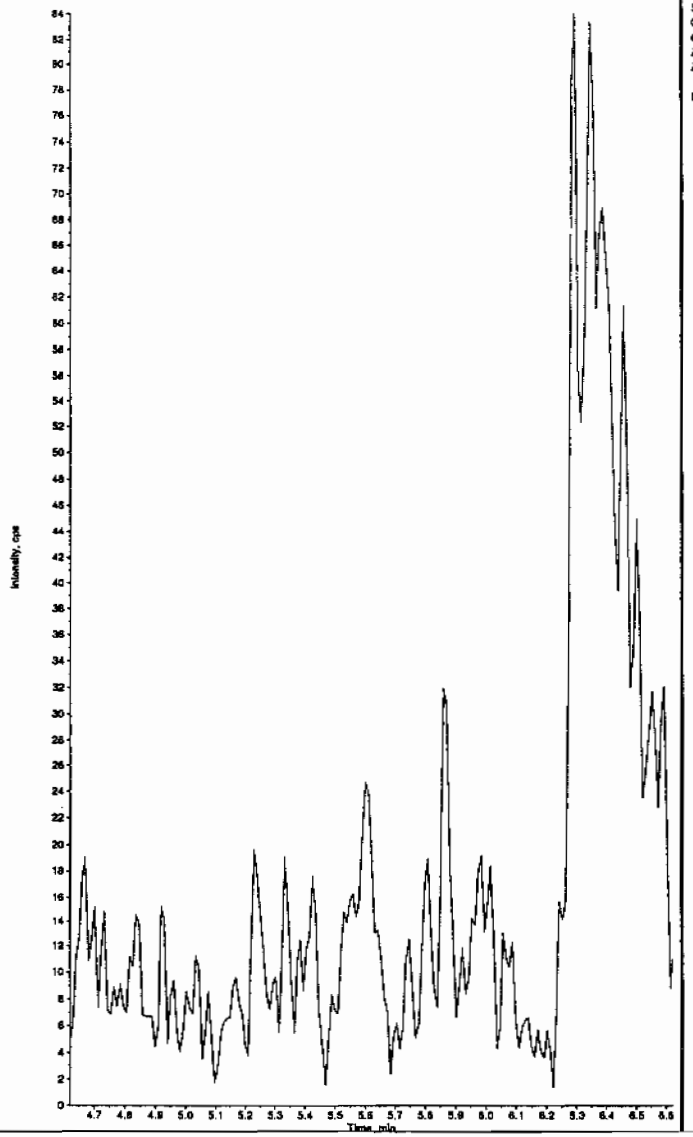

Sample Name: "245959010" Sample ID: "948572|2|LER" File: "EXS02140138.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:09:52 AM

Modified: No

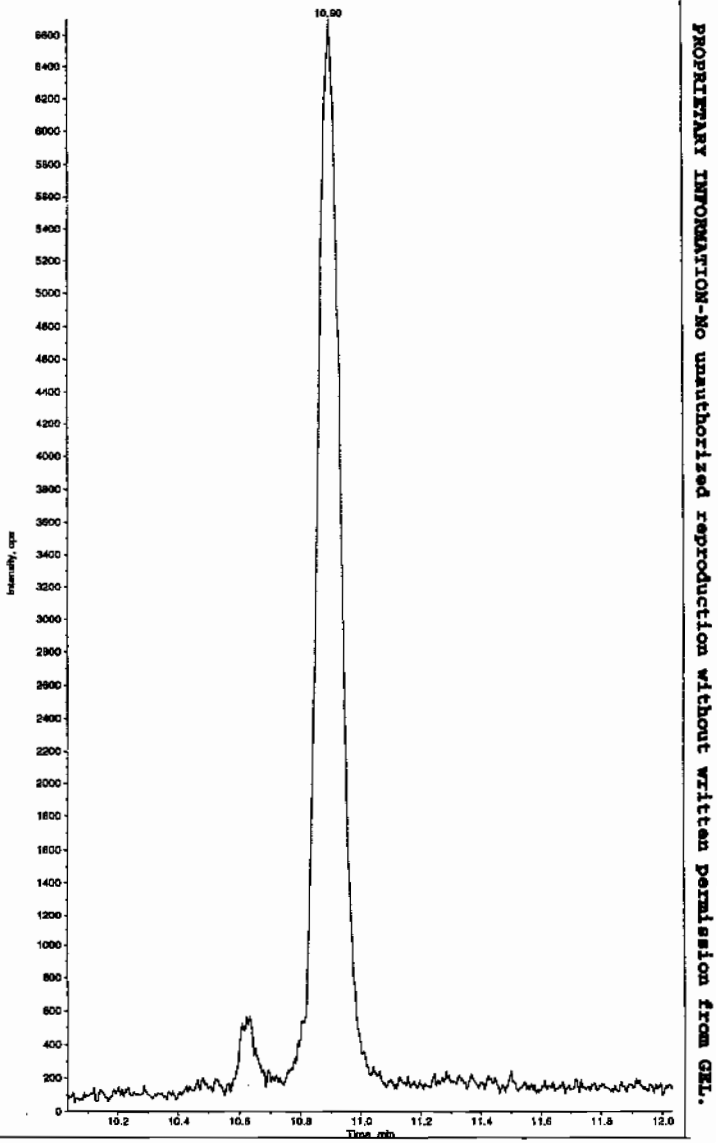

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7324

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959012

Sample Amount 2

Moisture: 10.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216100a

Date Analyzed: 18-FEB-10 18:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216100a
Date: 18-Feb-2010
Time: 18:01:31
ID: 245959012 | LANL | 948572 | Soil | 2 |
Vial: 2:7,E

MAP 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.532e+003

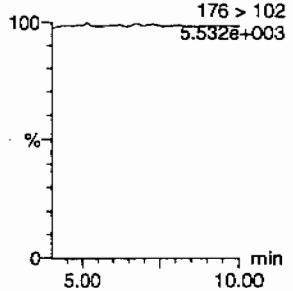

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.532e+003

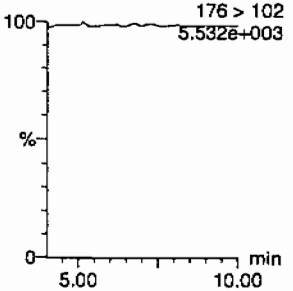

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.449e+003

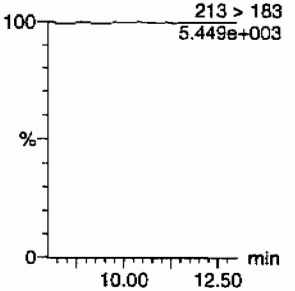

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.364e+004

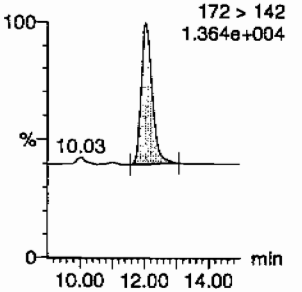

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.467e+003

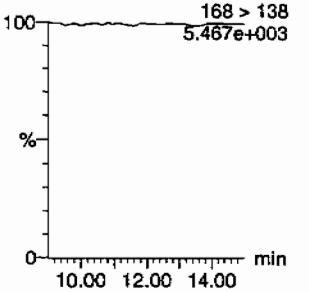

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.474e+003

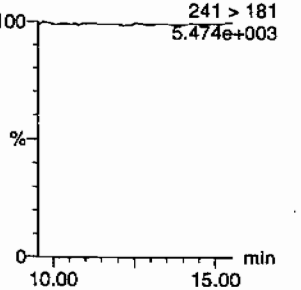

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.471e+003

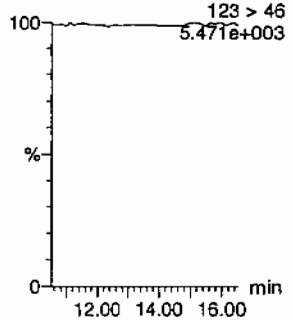

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.520e+003

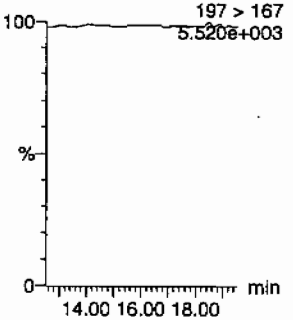

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.508e+003

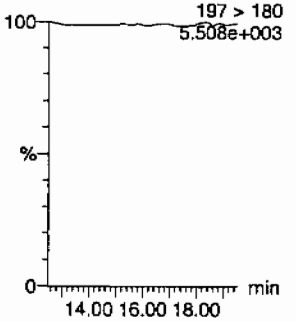

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.467e+003

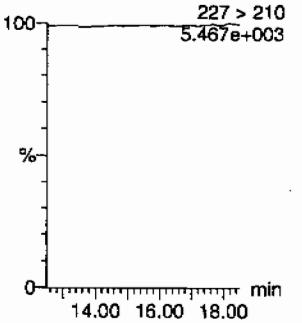

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.694e+004

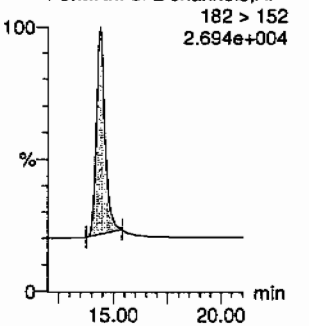

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.694e+004

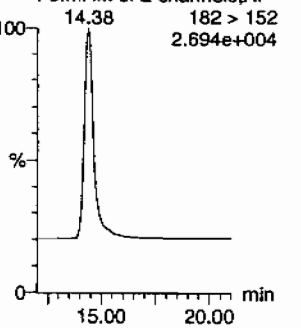

HMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

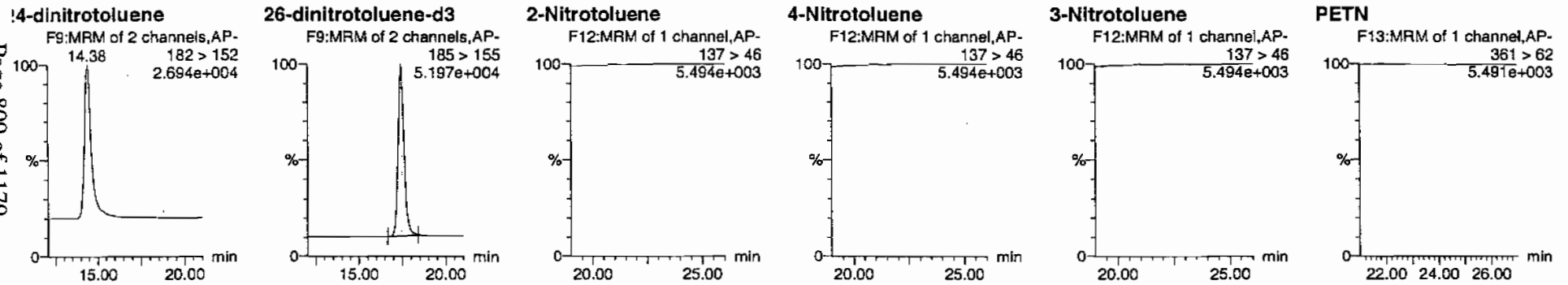

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245959012	HMX	176 > 102			3289.968									
245959012	RDX	176 > 102			3289.968									
245959012	135-Trinitrobenzene	213 > 183			3289.968									
245959012	13-Dinitrobenzene-d4	172 > 142	12.03	3289.968		3289.968	3289.968	bb			546.0680	109.2	9.2	542.4
245959012	13-Dinitrobenzene	168 > 138			3289.968									
245959012	Tetryl	241 > 181			3289.968									
245959012	Nitrobenzene	123 > 46			3289.968									
245959012	4-Amino-26-dinitrotoluene	197 > 167			18809.016									
245959012	2-Amino-46-dinitrotoluene	197 > 180			18809.016									
245959012	246-Trinitrotoluene	227 > 210			18809.016									
245959012	34-dinitrotoluene	182 > 152	14.38	9687.117	18809.016	9687.117	257.513	bb			284.2299	113.7	13.7	812.2
245959012	26-dinitrotoluene	182 > 152			18809.016									
245959012	24-dinitrotoluene	182 > 152			18809.016									
245959012	26-dinitrotoluene-d3	185 > 155	17.42	18809.016		18809.016	18809.016	bb			540.2233	108.0	8.0	1335.8
245959012	2-Nitrotoluene	137 > 46			18809.016									
245959012	4-Nitrotoluene	137 > 46			18809.016									
245959012	3-Nitrotoluene	137 > 46			18809.016									
245959012	PETN	361 > 62			18809.016									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7324

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 245959012

Sample Amount 2

Moisture: 10.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140139.wiff

Date Analyzed: 16-FEB-10 02:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lar 2/17/10

ample Name: "245959012" Sample ID: "948572|2|LER" File: "EXS02140139.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
uple Index: 1
uple Type: Unknown
icentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 2:25:32 AM

ified: No

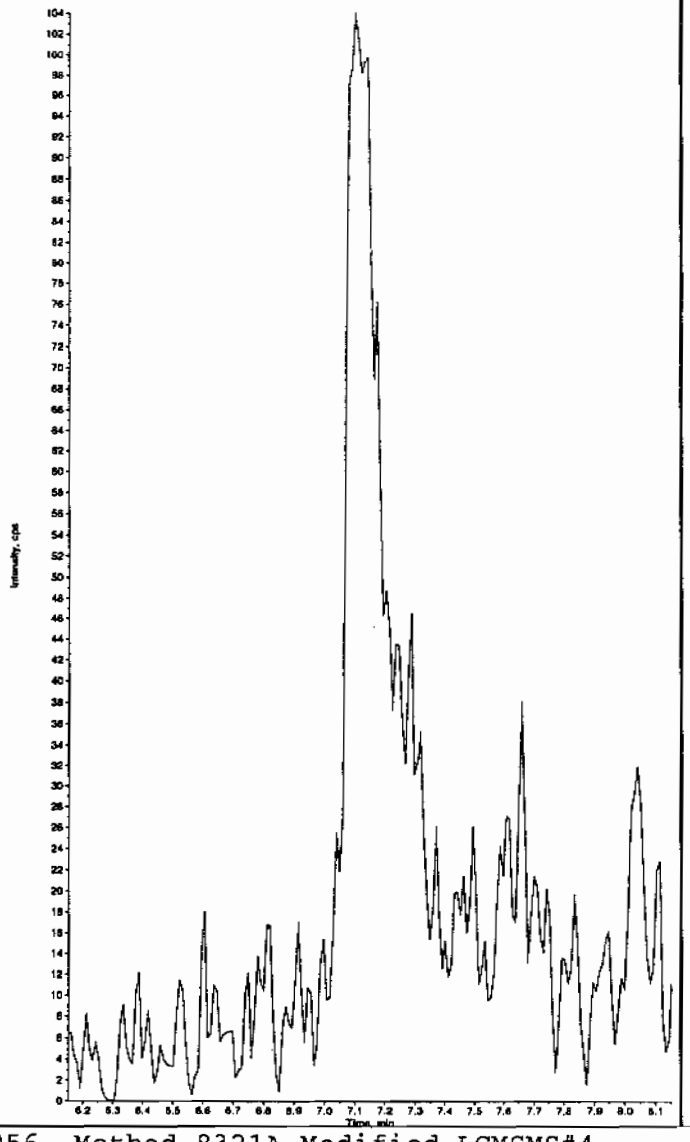

Sample Name: "245959012" Sample ID: "948572|2|LER" File: "EXS02140139.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:25:32 AM

Modified: Yes

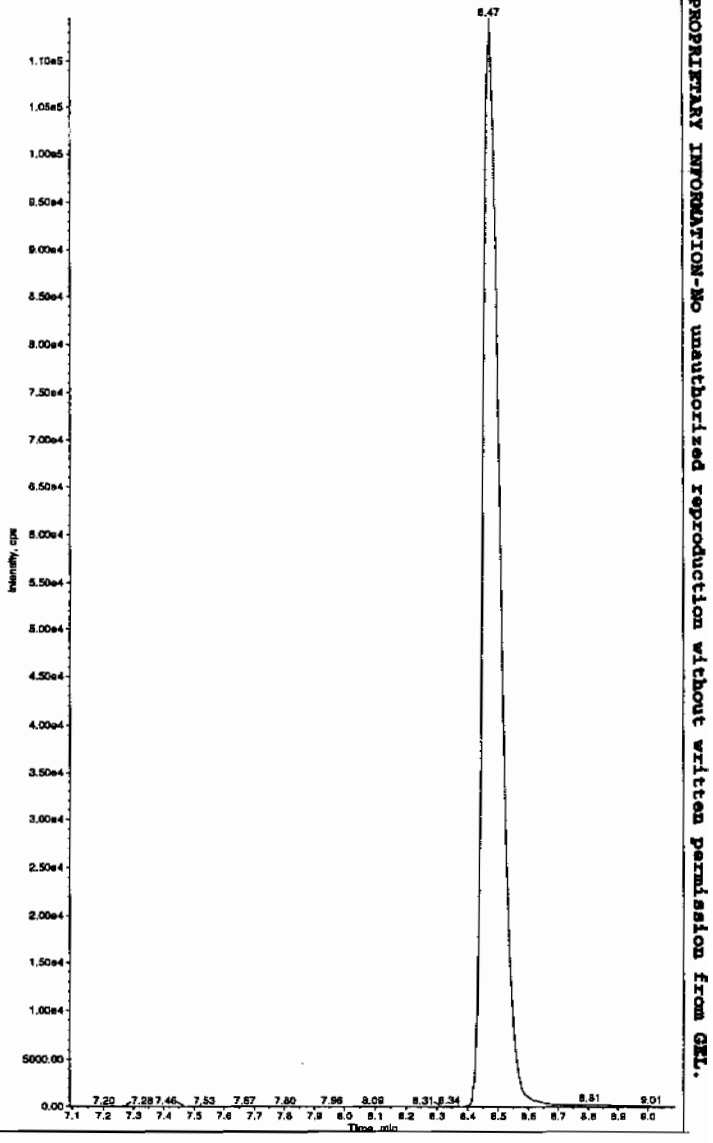

Hmk 02/17/10

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emple Name: "245959012" Sample ID: "948572|2|LER" File: "EXS02140139.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 287. ng/mL
. Date: 2/16/2010
. Time: 2:25:32 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.47 min
s: 3.73e+006 counts
ght: 1005143.188 cps
t Time: 8.37 min
Time: 8.97 min

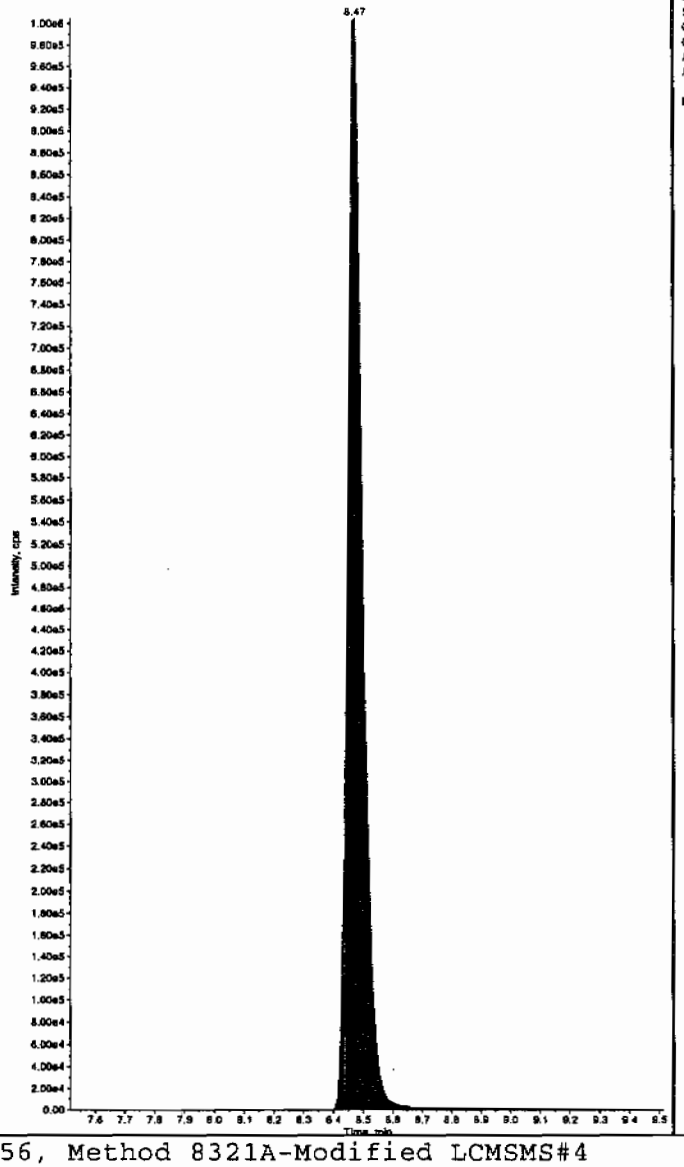

Sample Name: "245959012" Sample ID: "948572|2|LER" File: "EXS02140139.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:25:32 AM

Modified: No

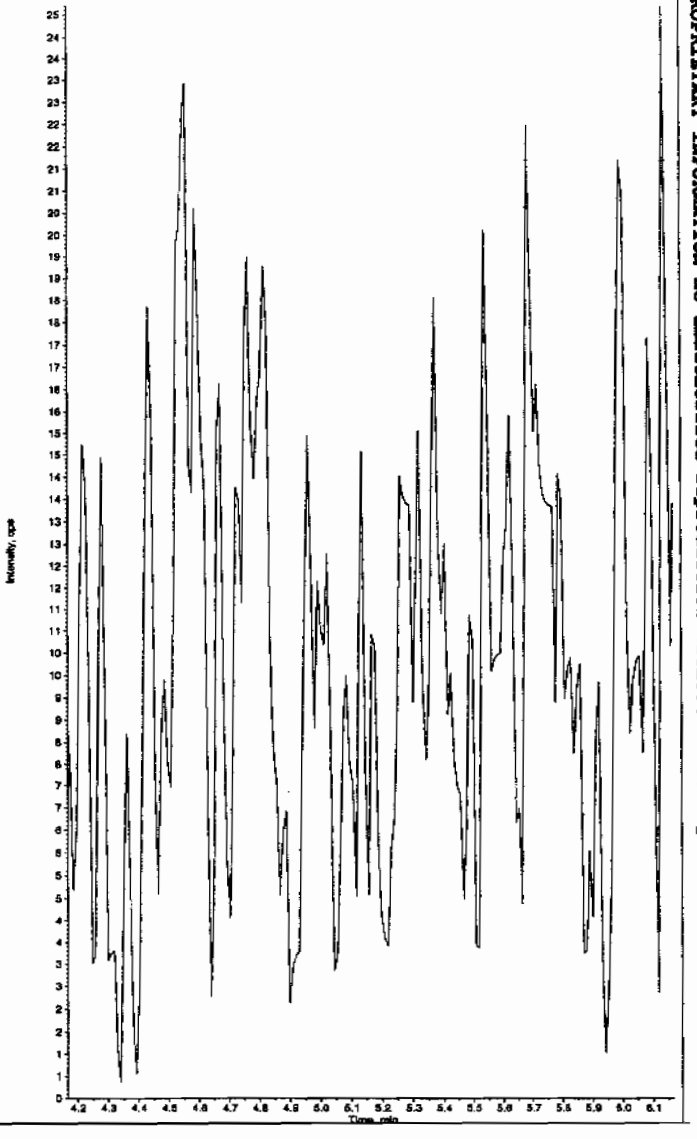

ample Name: "245959012" Sample ID: "948572|2|LER" File: "EXS02140139.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 2:25:32 AM

ified: No

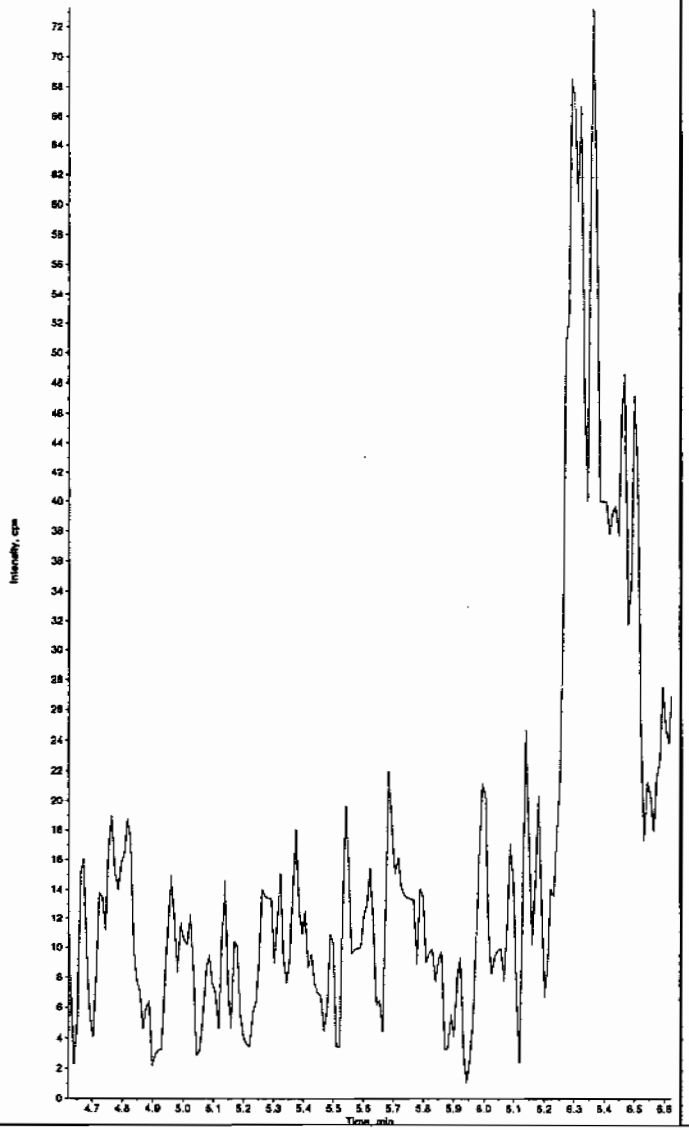

Sample Name: "245959012" Sample ID: "948572|2|LER" File: "EXS02140139.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:25:32 AM

Modified: No

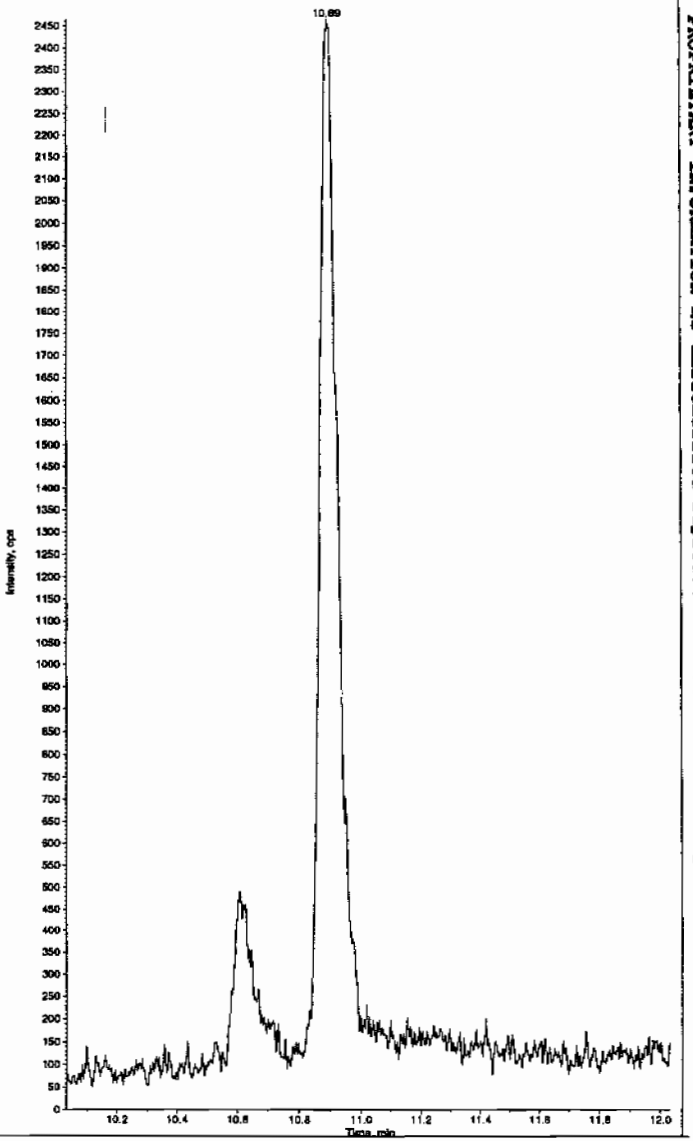

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10–1510

Lab Code: GEL

Run Date: 14–FEB–10,16–FEB–10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a			
Parmname									
1,3,5–Trinitrobenzene	3.974	4.275	3.998	3.443	3.801	3.743	3.872	7.253	
1,3–Dinitrobenzene–d4	6.479	6.269	6.407	6.397	5.489	5.109	6.025	9.613	
2,4,6–Trinitrotoluene	.311	.331	.325	.38	.335	.329	0.335	7.003	
2,4–Dinitrotoluene	.22	.247	.233	.258	.258	.262	0.246	6.788	
2,6–Dinitrotoluene	.926	1.085	1.036	1.071	1.113	1.126	1.060	6.868	
2,6–Dinitrotoluene–d3	37.517	35.811	37.549	35.639	32.457	29.93	34.817	8.699	
2–Amino–4,6–dinitrotoluene	.4	.452	.421	.427	.458	.435	0.432	4.923	
3,4–Dinitrotoluene	.812	.944	.904	1.008	.893	.876	0.906	7.276	
4–Amino–2,6–dinitrotoluene	.35	.323	.285	.352	.298	.312	0.320	8.491	
HMX	3.59	3.564	3.729	3.903	4.47	3.894	3.858	8.619	
Nitrobenzene	.831	.943	.785	.911	.849	.831	0.858	6.765	
RDX	2.28	2.16	2.79	2.593	3.02	2.717	2.593	12.46	
Tetryl	1.117	1.386	1.084	1.014	.989	.952	1.090	14.415	
m–Dinitrobenzene	.991	1.315	1.169	1.17	1.25	1.236	1.189	9.364	
m–Nitrotoluene	.078	.09	.083	.1	.095	.091	0.090	8.99	
o–Nitrotoluene	.139	.156	.146	.153	.159	.159	0.152	5.121	
p–Nitrotoluene	.072	.072	.076	.082	.083	.076	0.077	6.293	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1510

Lab Code: GEL

Run Date: 14-FEB-10,16-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a					
Parmname:											
PETN	2110.32	4458.8	14532.6	25000.7	38622.3	42985.8	1.84	-.0004443	26.645	.9992	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: Untitled, Time: Wed Feb 17 10:00:06 2010

Compound name: HMX
Response Factor: 3.85837
RRF SD: 0.33256, % Relative SD: 8.61918
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

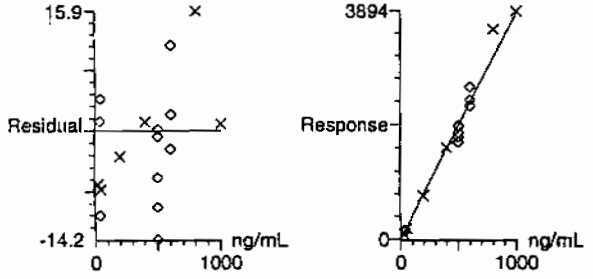

MPP
2/17/10

Compound name: RDX
Response Factor: 2.59344
RRF SD: 0.323138, % Relative SD: 12.4598
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

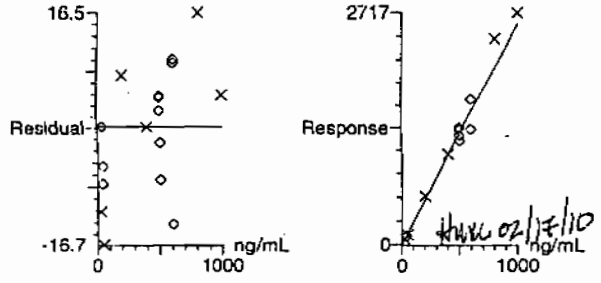

KWW 02/17/10

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ıtaset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ɔmpound name: 135-Trinitrobenzene
esponse Factor: 3.87255
RF SD: 0.280856, % Relative SD: 7.2525
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
ırve type: RF

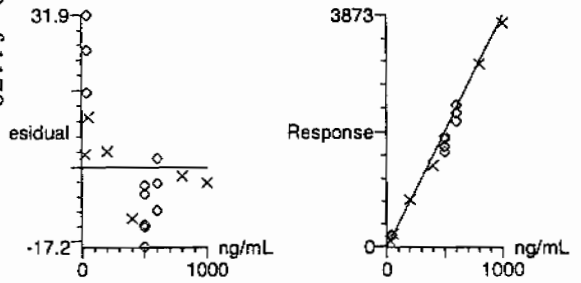

ompound name: 13-Dinitrobenzene-d4
esponse Factor: 6.02483
RF SD: 0.579171, % Relative SD: 9.61306
esponse type: External Std, Area
urve type: RF

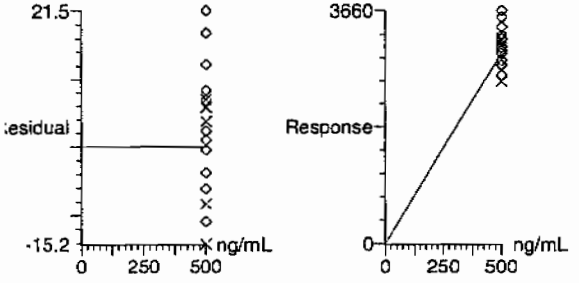

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 13-Dinitrobenzene
esponse Factor: 1.18852
RF SD: 0.111292, % Relative SD: 9.36391
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

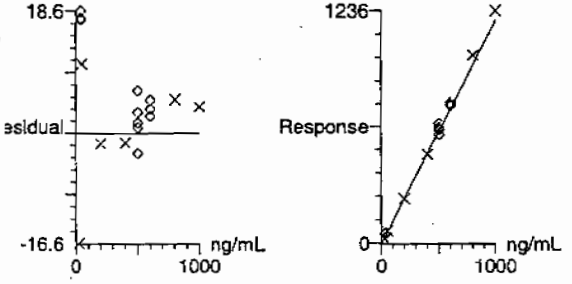

ompound name: Tetryl
esponse Factor: 1.09023
RF SD: 0.157158, % Relative SD: 14.4151
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

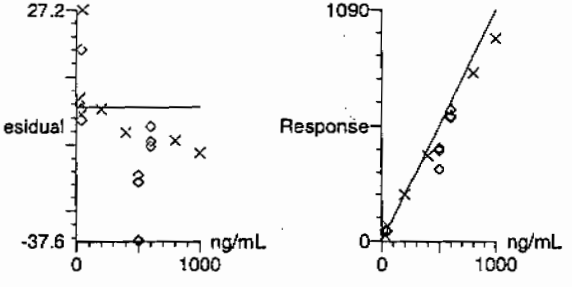

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: Nitrobenzene
esponse Factor: 0.858509
RF SD: 0.0580797, % Relative SD: 6.76517
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

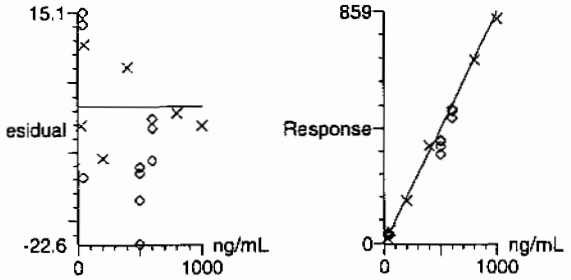

ompound name: 4-Amino-26-dinitrotoluene
esponse Factor: 0.320217
RF SD: 0.0271885, % Relative SD: 8.49063
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

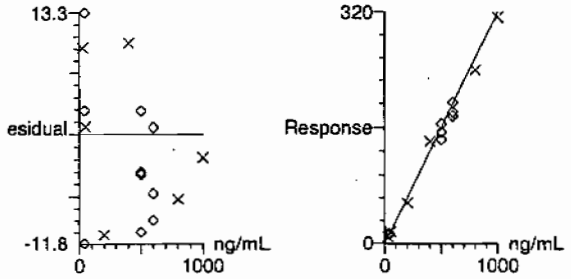

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 2-Amino-46-dinitrotoluene
esponse Factor: 0.432055
RF SD: 0.0212718, % Relative SD: 4.9234
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

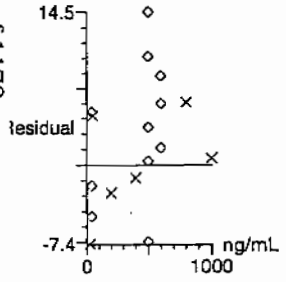

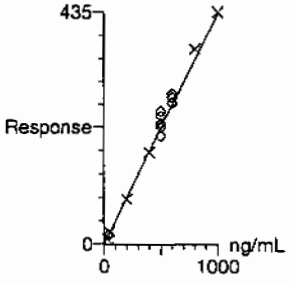

ompound name: 246-Trinitrotoluene
esponse Factor: 0.335255
RF SD: 0.0234791, % Relative SD: 7.00337
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

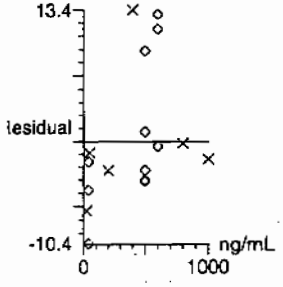

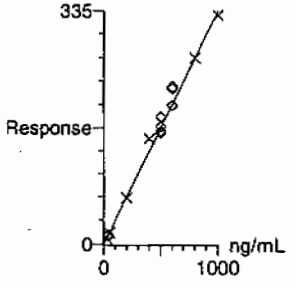

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 34-dinitrotoluene
esponse Factor: 0.906001
RF SD: 0.0659248, % Relative SD: 7.27646
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

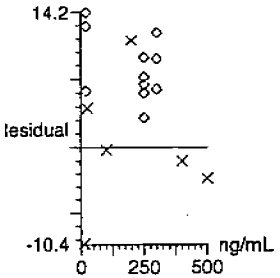

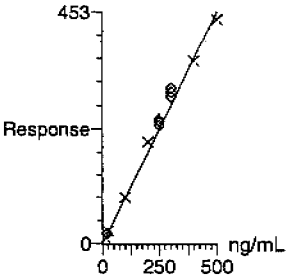

ompound name: 26-dinitrotoluene
esponse Factor: 1.05944
RF SD: 0.0727574, % Relative SD: 6.86754
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

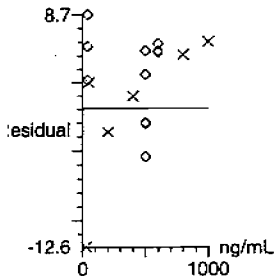

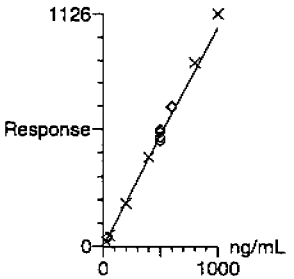

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Compound name: 24-dinitrotoluene
Response Factor: 0.24651
RRF SD: 0.0167341, % Relative SD: 6.78841
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

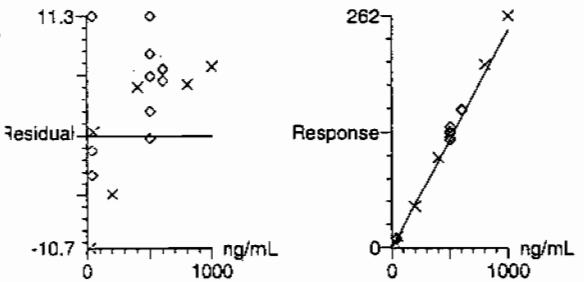

Compound name: 26-dinitrotoluene-d3
Response Factor: 34.8171
RRF SD: 3.02888, % Relative SD: 8.6994
Response type: External Std, Area
Curve type: RF

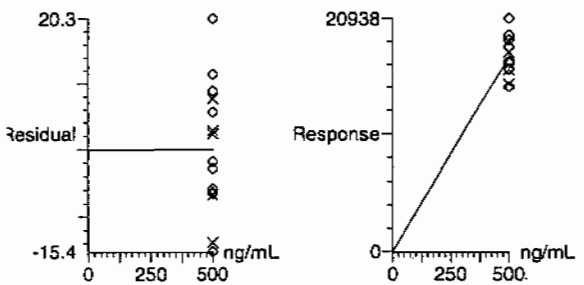

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ompound name: 2-Nitrotoluene
esponse Factor: 0.152194
RF SD: 0.0077939, % Relative SD: 5.12103
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

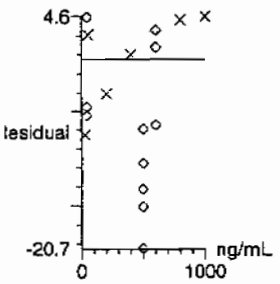

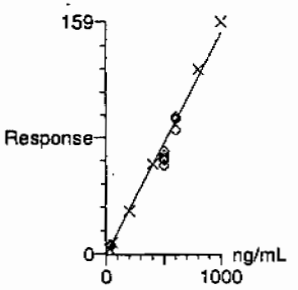

ompound name: 4-Nitrotoluene
esponse Factor: 0.0766512
RF SD: 0.00482394, % Relative SD: 6.29336
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

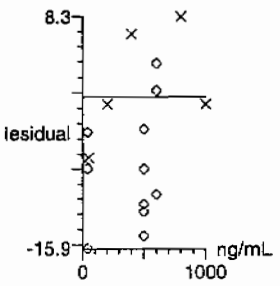

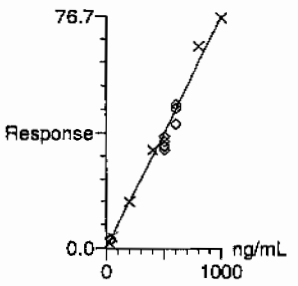

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ompound name: 3-Nitrotoluene
esponse Factor: 0.0894891
RF SD: 0.0080453, % Relative SD: 8.99027
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

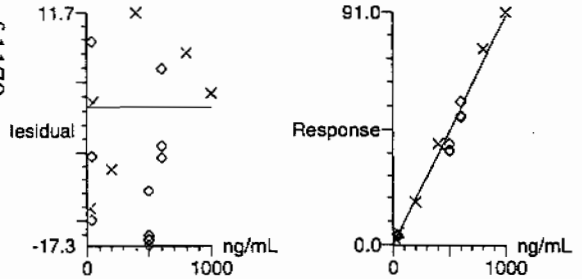

ompound name: PETN
oefficient of Determination: 0.999195
alibration curve: -0.000444334 * x^2 + 1.84022 * x + 26.6447
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

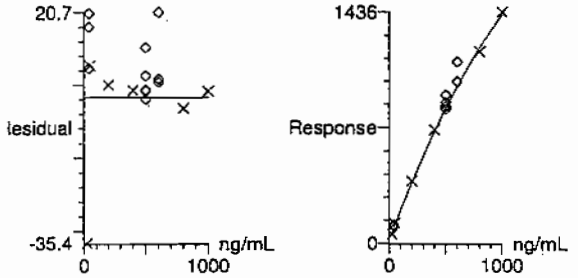

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0216010a

Analysis Date: 16-FEB-10 21:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	620.215	103	
1,3,5-Trinitrobenzene	600	544.138	91	
1,3-Dinitrobenzene-d4	500	505.15	101	
2,4,6-Trinitrotoluene	600	596.996	99	
2,4-Dinitrotoluene	600	637.037	106	
2,6-Dinitrotoluene	600	631.497	105	
2,6-Dinitrotoluene-d3	500	470.813	94	
2-Amino-4,6-dinitrotoluene	600	609.733	102	
3,4-Dinitrotoluene	300	318.405	106	
4-Amino-2,6-dinitrotoluene	600	544.592	91	
HMX	600	667.211	111	
Nitrobenzene	600	546.753	91	
PETN	600	622.003	104	
RDX	600	517.279	86	
Tetryl	600	535.085	89	
m-Dinitrobenzene	600	615.667	103	
m-Nitrotoluene	600	571.306	95	
o-Nitrotoluene	600	619.132	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216010a
Date: 16-Feb-2010
Time: 21:34:44
ID: WXX100216-07ICV
Vial: 1:1,B

MM 2/17/10

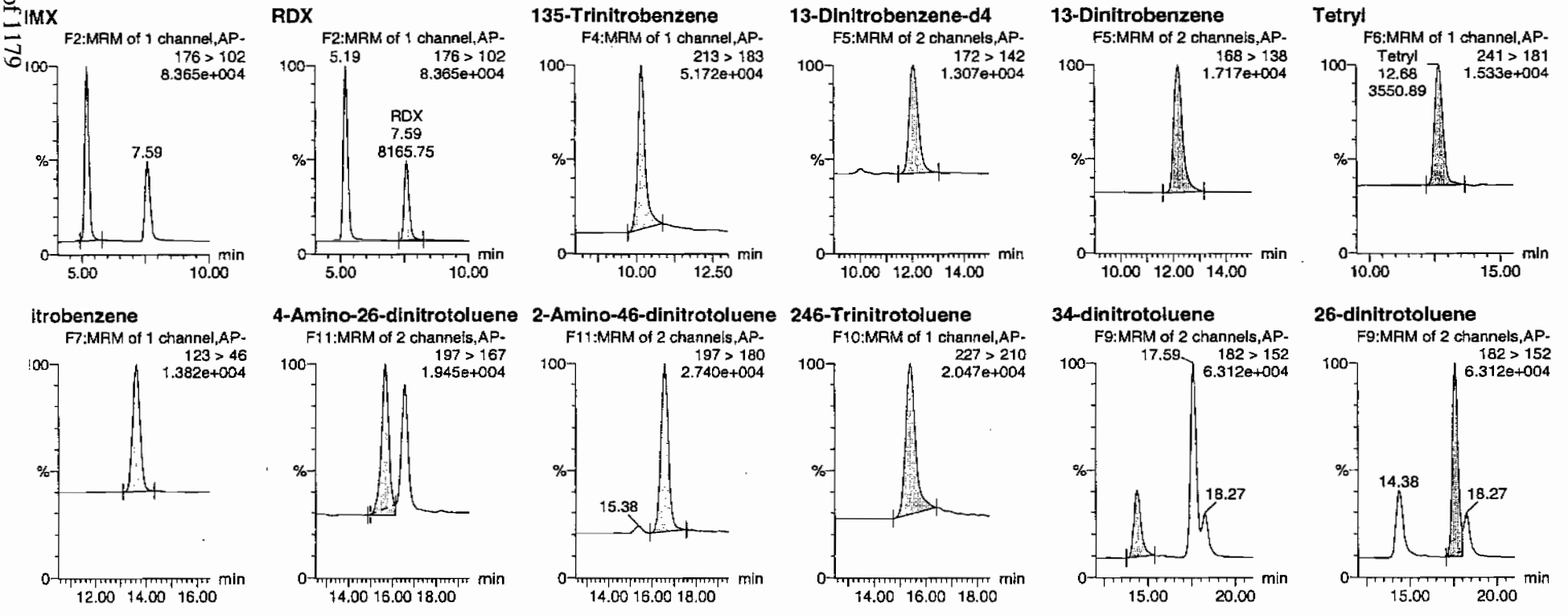

HMW 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

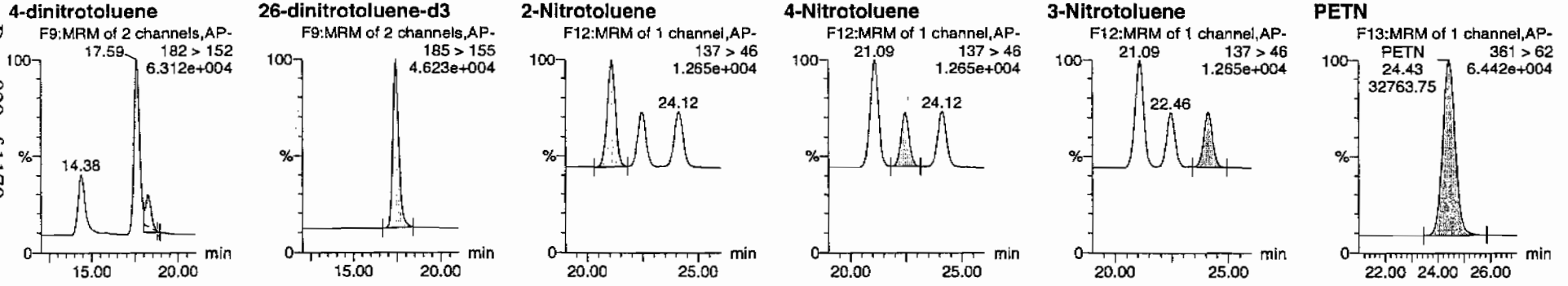

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100216-07ICV	HMX	176 > 102	5.19	15669.772	3043.441	15669.772	2574.351	db			667.2113	111.2	11.2	1616.5
VXX100216-07ICV	RDX	176 > 102	7.59	8165.754	3043.441	8165.754	1341.533	bb			517.2788	86.2	-13.8	736.8
VXX100216-07ICV	135-Trinitrobenzene	213 > 183	10.16	12826.263	3043.441	12826.263	2107.198	bb			544.1376	90.7	-9.3	1038.4
VXX100216-07ICV	13-Dinitrobenzene-d4	172 > 142	12.07	3043.441		3043.441	3043.441	bb			505.1495	101.0	1.0	83.9
VXX100216-07ICV	13-Dinitrobenzene	168 > 138	12.17	4453.971	3043.441	4453.971	731.733	bb			615.6672	102.6	2.6	397.6
VXX100216-07ICV	Tetryl	241 > 181	12.68	3550.885	3043.441	3550.885	583.367	bb			535.0850	89.2	-10.8	465.9
VXX100216-07ICV	Nitrobenzene	123 > 46	13.62	2857.135	3043.441	2857.135	469.392	bb			546.7525	91.1	-8.9	251.4
VXX100216-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.67	5717.246	16392.348	5717.246	174.388	MM	17-Feb-10	09:22:45	544.5918	90.8	-9.2	292.7
VXX100216-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.57	8636.743	16392.348	8636.743	263.438	bb			609.7334	101.6	1.6	597.0
VXX100216-07ICV	246-Trinitrotoluene	227 > 210	15.41	6561.721	16392.348	6561.721	200.146	bb			596.9963	99.5	-0.5	153.4
VXX100216-07ICV	34-dinitrotoluene	182 > 152	14.38	9457.581	16392.348	9457.581	288.475	bb			318.4052	106.1	6.1	368.9
VXX100216-07ICV	26-dinitrotoluene	182 > 152	17.59	21934.039	16392.348	21934.039	669.033	MM	17-Feb-10	09:25:41	631.4965	105.2	5.2	1072.7
VXX100216-07ICV	24-dinitrotoluene	182 > 152	18.27	5148.389	16392.348	5148.389	157.036	MM	17-Feb-10	09:54:19	637.0375	106.2	6.2	230.6
VXX100216-07ICV	26-dinitrotoluene-d3	185 > 155	17.42	16392.348		16392.348	16392.348	bb			470.8130	94.2	-5.8	1428.4
VXX100216-07ICV	2-Nitrotoluene	137 > 46	21.09	3089.247	16392.348	3089.247	94.228	bb			619.1324	103.2	3.2	357.3
VXX100216-07ICV	4-Nitrotoluene	137 > 46	22.46	1558.593	16392.348	1558.593	47.540	bb			620.2153	103.4	3.4	179.8
VXX100216-07ICV	3-Nitrotoluene	137 > 46	24.12	1676.139	16392.348	1676.139	51.126	bb			571.3062	95.2	-4.8	182.7
VXX100216-07ICV	PETN	361 > 62	24.43	32763.752	16392.348	32763.752	999.361	bb			622.0025	103.7	3.7	5170.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/16/10
Time of Injection: 2134
Standard Number: WXX100216-07ICV
Data File: EXP0216010a

HMX	111.2
RDX	86.2
135-TNB	90.7
13-DNB	102.6
Tetryl	89.2
Nitrobenzene	91.1
4A-26-DNT	90.8
2A-46-DNT	101.6
246-TNT	99.5
34-DNT(surr)	106.1
26-DNT	105.2
24-DNT	106.2
2-NT	103.2
4-NT	103.4
3-NT	95.2
PETN	103.7
Total	1585.9
Average	99.1

MDT 2/17/10

dmm 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1510

Lab Code: GEL

Run Date: 14-FEB-10,16-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02140003.wifl	EXS02140004.wifl	EXS02140005.wifl	EXS02140006.wifl	EXS02140007.wifl	EXS02140008.wifl	EXS02140009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	96700	195000	467000	994000	1380000	1900000	3740000	4600	1900	-.018	.9998	
2,6-Diamino-4-nitrotoluene	158000	309000	718000	1470000	2150000	2900000	6070000	29800	2750	.136	1	
3,4-Dinitrotoluene	338000	640000	1510000	3190000	4510000	6140000	11400000	-53500	13900	-2.42	.9993	
3,5-Dinitroaniline	340000	650000	1620000	3310000	4740000	6350000	11500000	-28100	6880	-.557	.9999	
TATB	71000	140000	338000	700000	1050000	1390000	2740000	-3590	1410	-.022	1	
tris(o-cresyl) phosphate	1250000	2440000	5720000	10800000	15500000	19900000	31700000	61600	23700	-3.92	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-3.59e+003			
a1	1.41e+003			
a2	-0.022			

Correlation coefficient 1.0000
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.81e+004			
a1	6.88e+003			
a2	-0.557			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.35e+004			
a1	1.39e+004			
a2	-2.42			

Correlation coefficient 0.9993
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.98e+004			
a1	2.75e+003			
a2	0.136			

Correlation coefficient 1.0000
Use Area

Lan 2/16/10

thmy 02/17/10

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	4.6e+003			
a1	1.9e+003			
a2	-0.0179			

Correlation coefficient 0.9998
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	6.16e+004			
a1	2.37e+004			
a2	-3.92			

Correlation coefficient 1.0000
Use Area

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021410.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): y = -0.557 x^2 + 6.88e+003 x + -2.81e+004 (r = 0.9999)

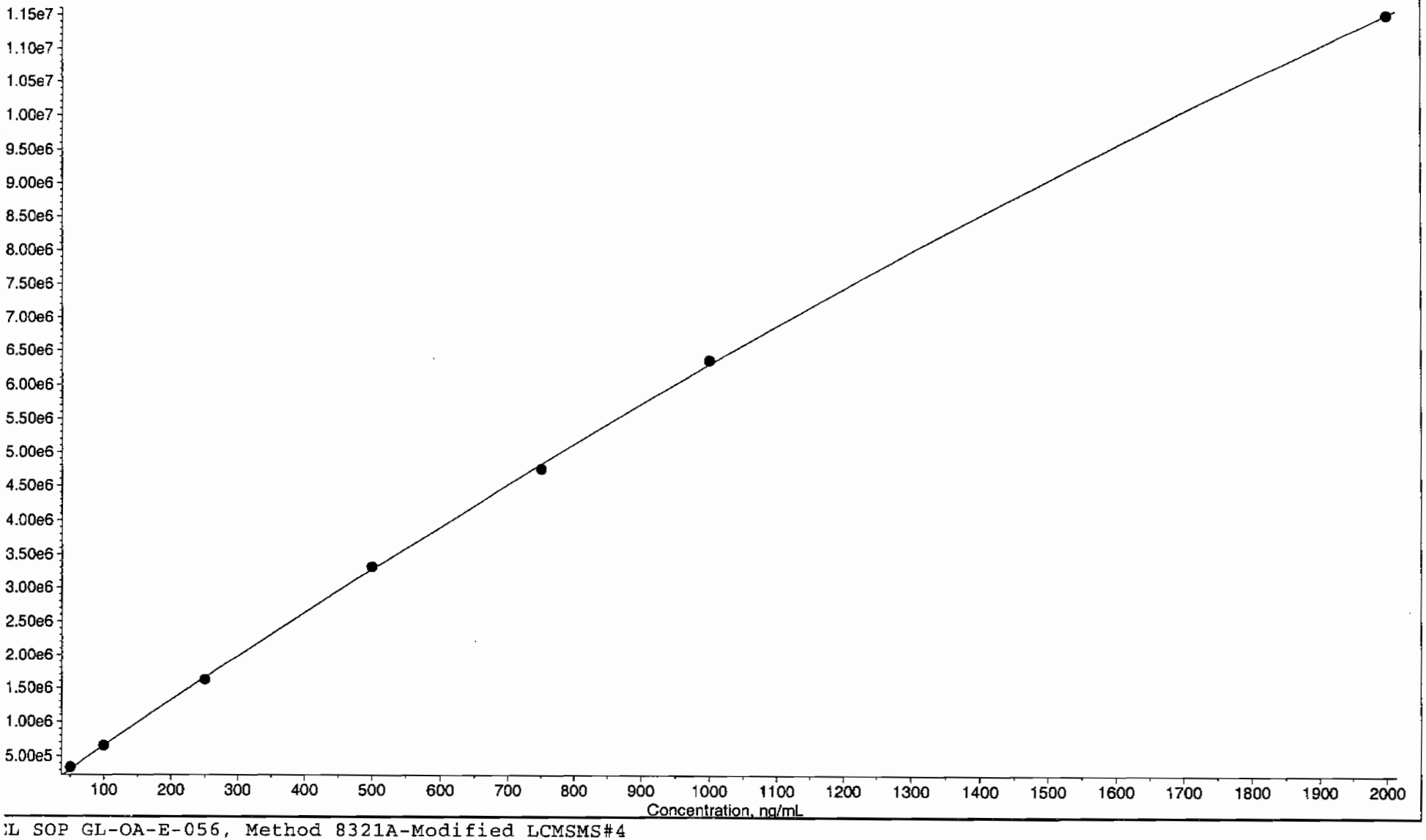

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

021410.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): y = -2.42 x^2 + 1.39e+004 x + -5.35e+004 (r = 0.9993)

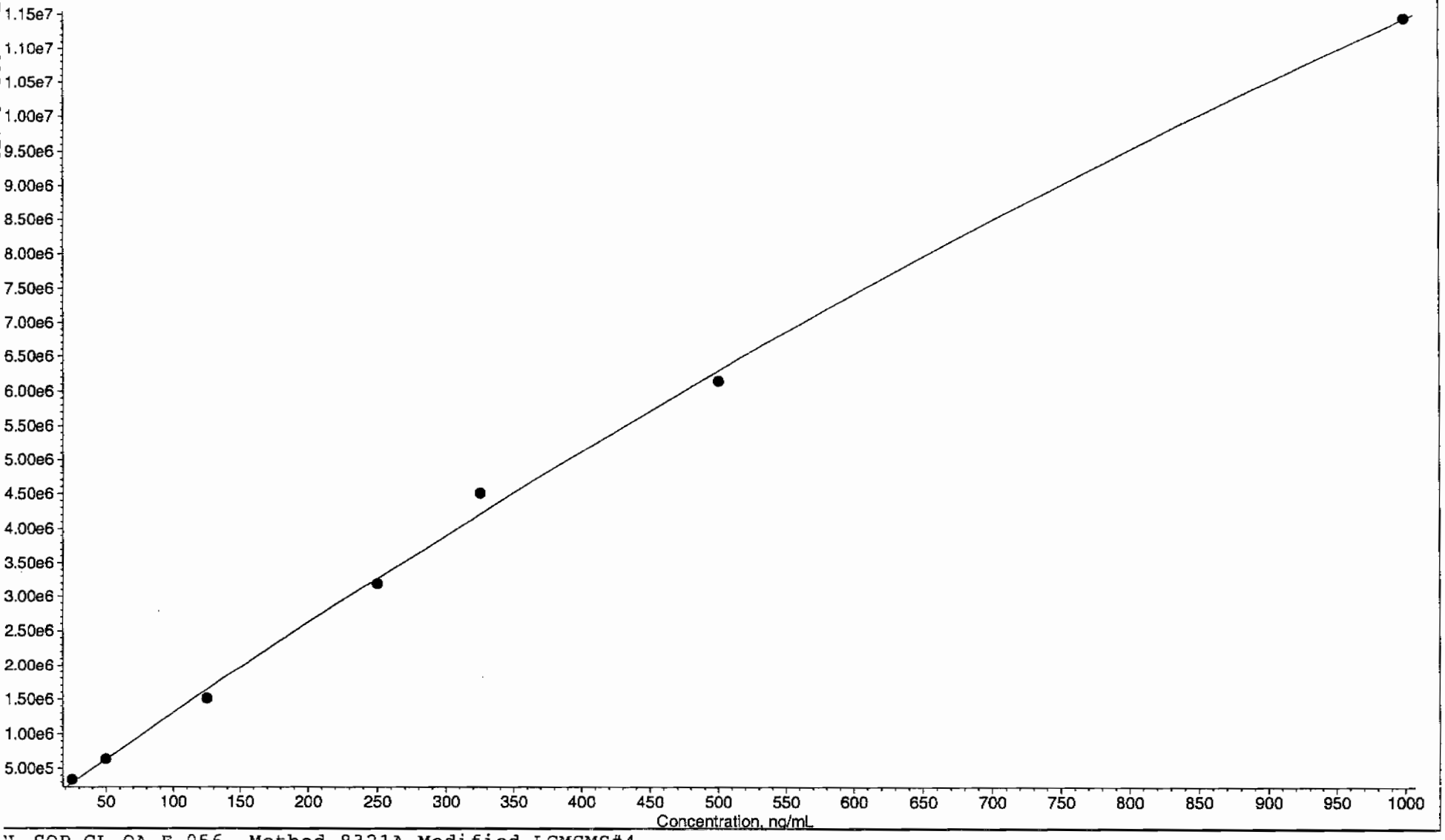

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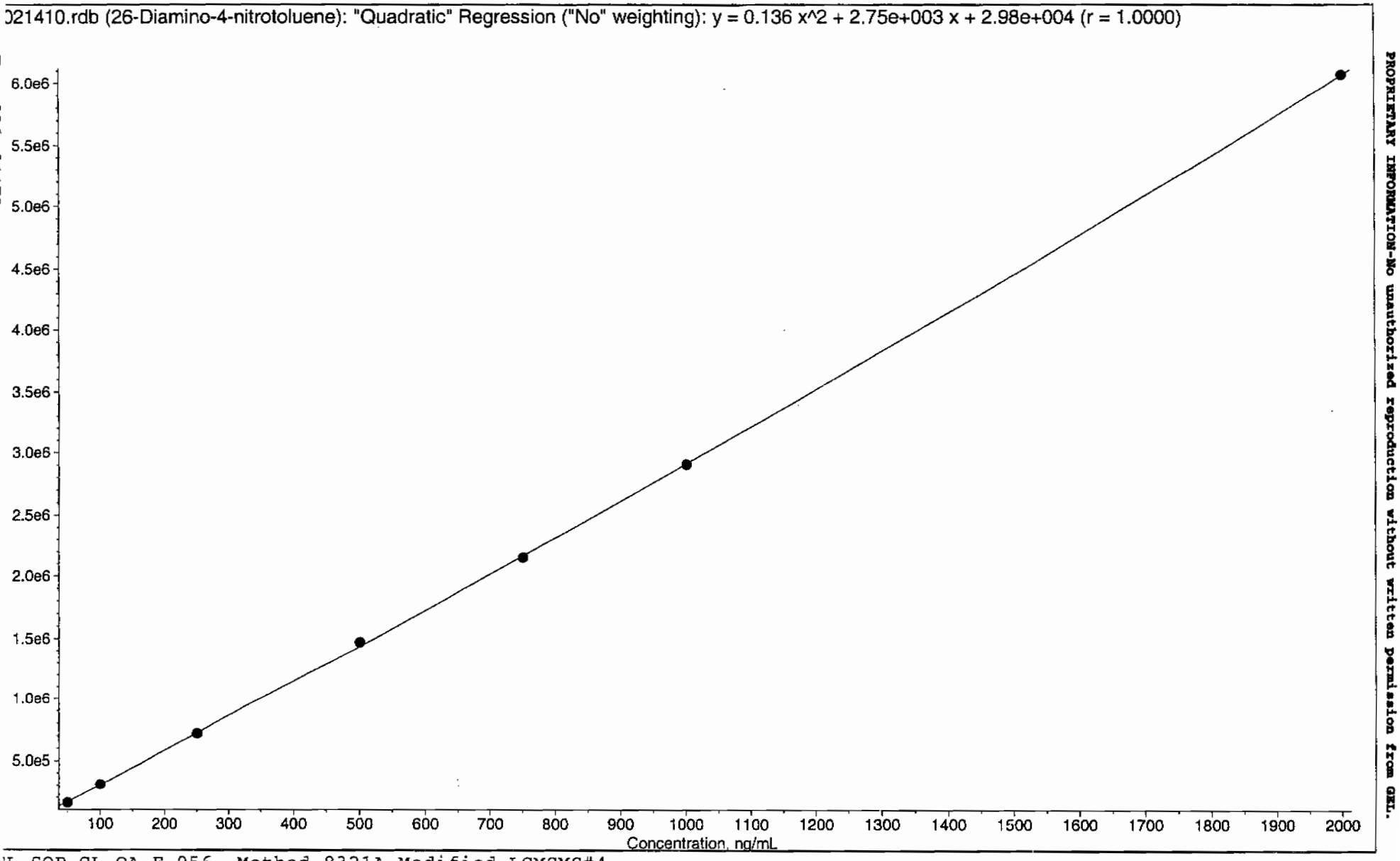

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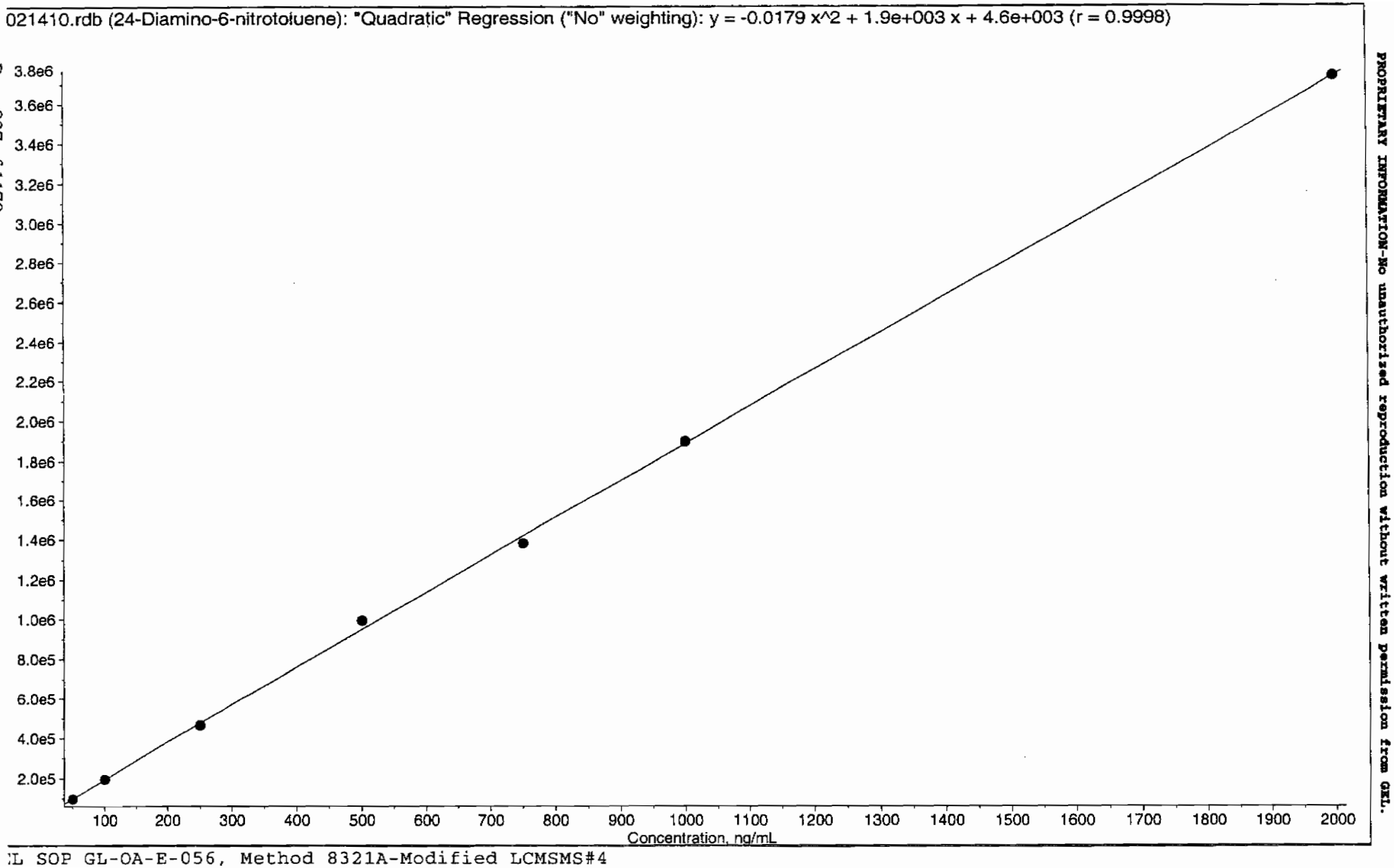

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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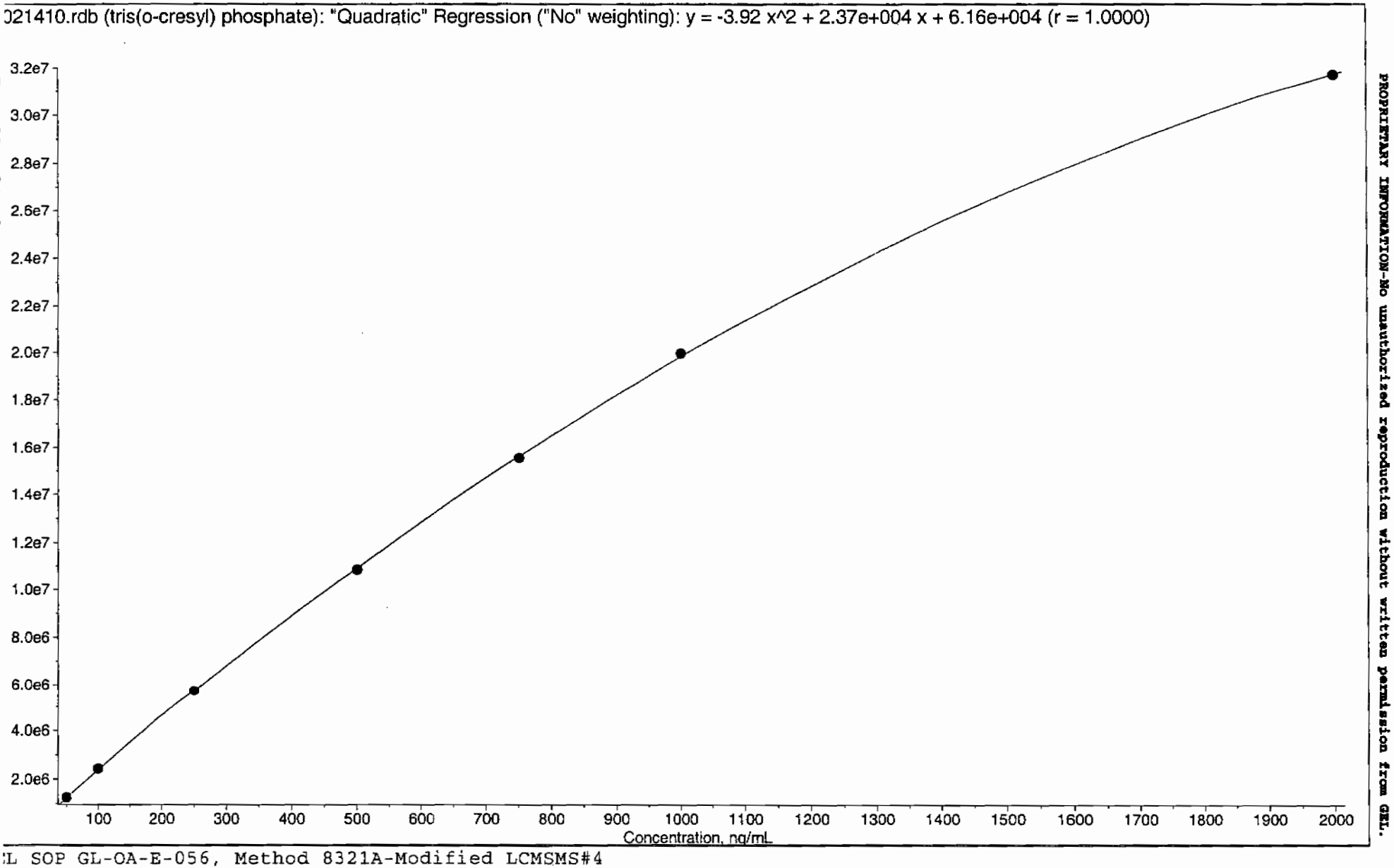

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

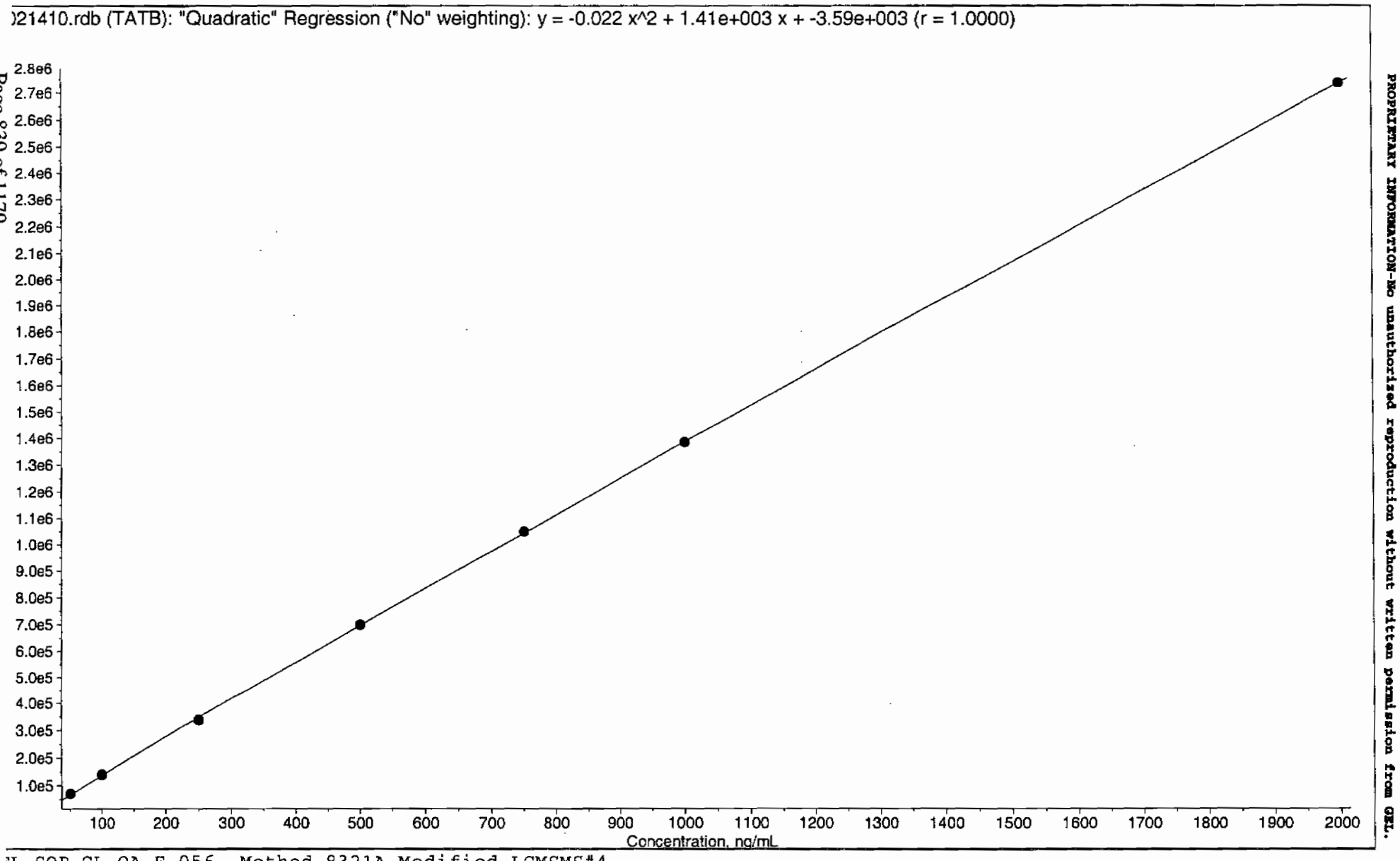

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02140011.wiff

Analysis Date: 14–FEB–10 16:54

LCMSMS ID: 1358

Column ID JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	528	106	
2,6–Diamino–4–nitrotoluene	500	535	107	
3,4–Dinitrotoluene	250	215	86	
3,5–Dinitroaniline	500	495	99	
TATB	500	501	100	
tris(o–cresyl) phosphate	500	493	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

RCW 2/16/10

mple Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 501. ng/mL
Date: 2/14/2010
Time: 4:54:20 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ention Time: 7.15 min
: 7.00e+005 counts
ght: 157149.979 cps
t Time: 7.02 min
Time: 7.97 min

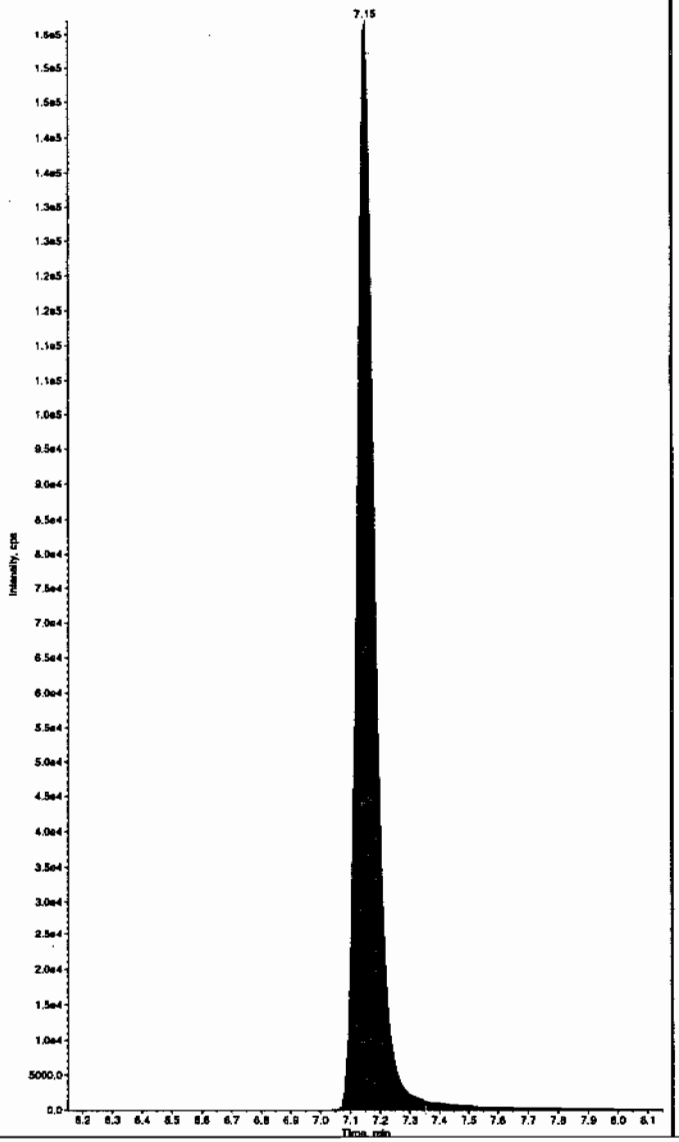

Sample Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 495. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:54:20 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.33 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 3.24e+006 counts
Height: 801950.012 cps
Start Time: 8.27 min
End Time: 8.47 min

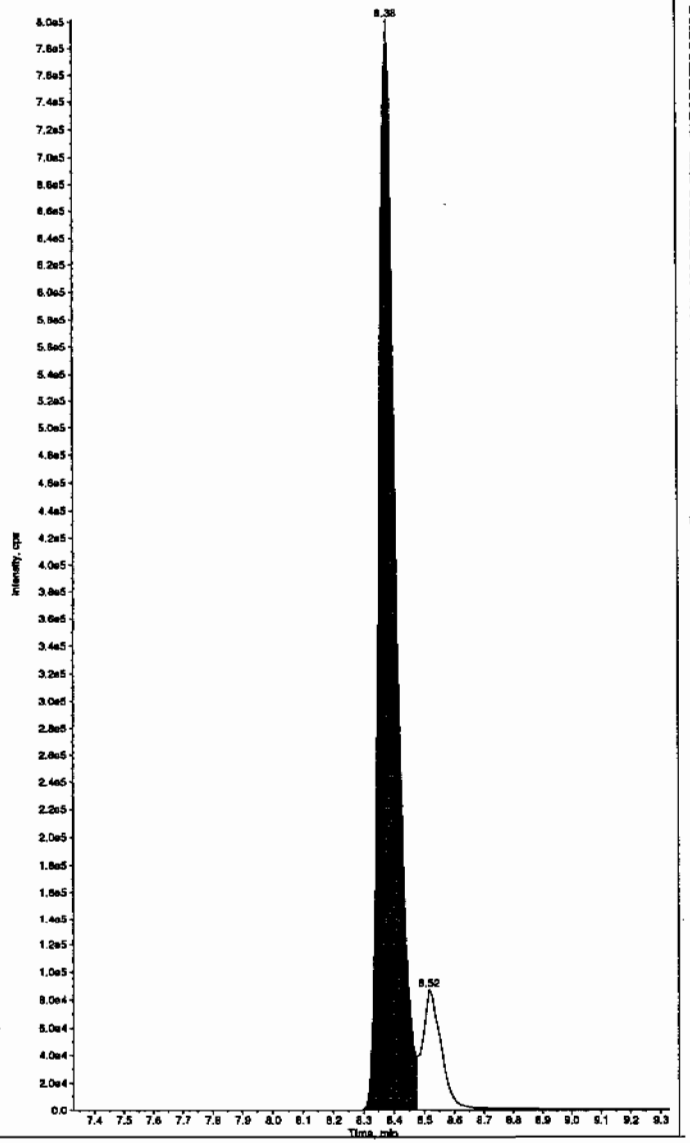

Hmm 02/17/10

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ample Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 215. ng/mL
. Date: 2/14/2010
. Time: 4:54:20 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.52 min
a: 2.82e+006 counts
ght: 710131.226 cps
rt Time: 8.44 min
Time: 8.69 min

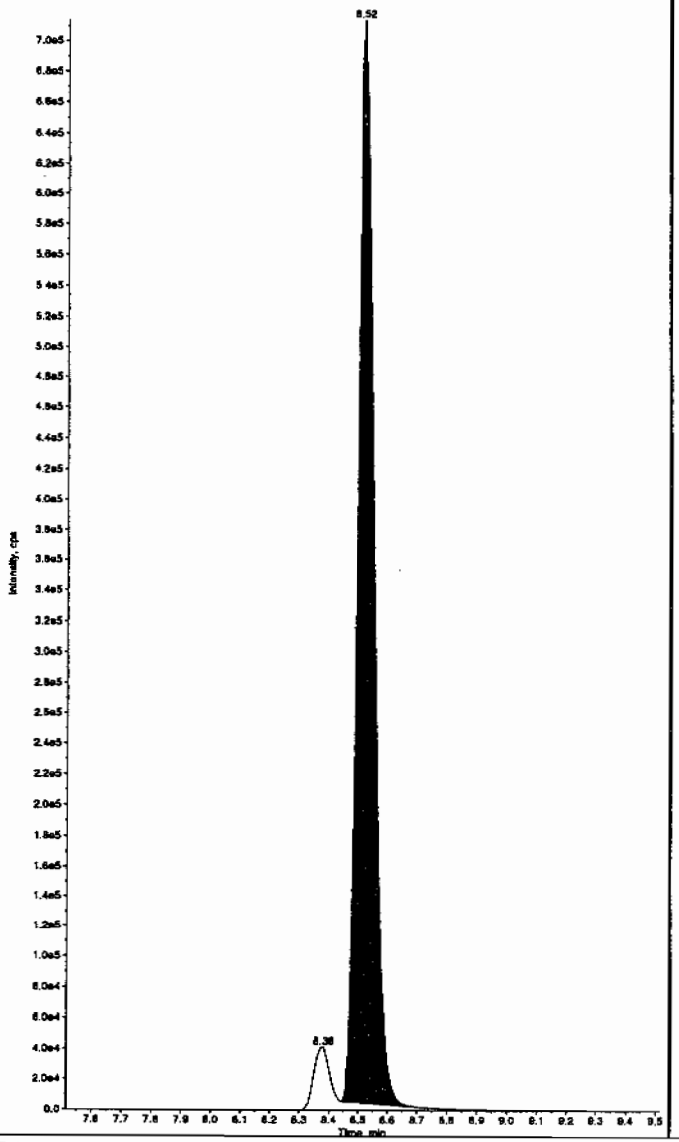

Sample Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 535. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:54:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 1.54e+006 counts
Height: 349934.875 cps
Start Time: 5.05 min
End Time: 5.47 min

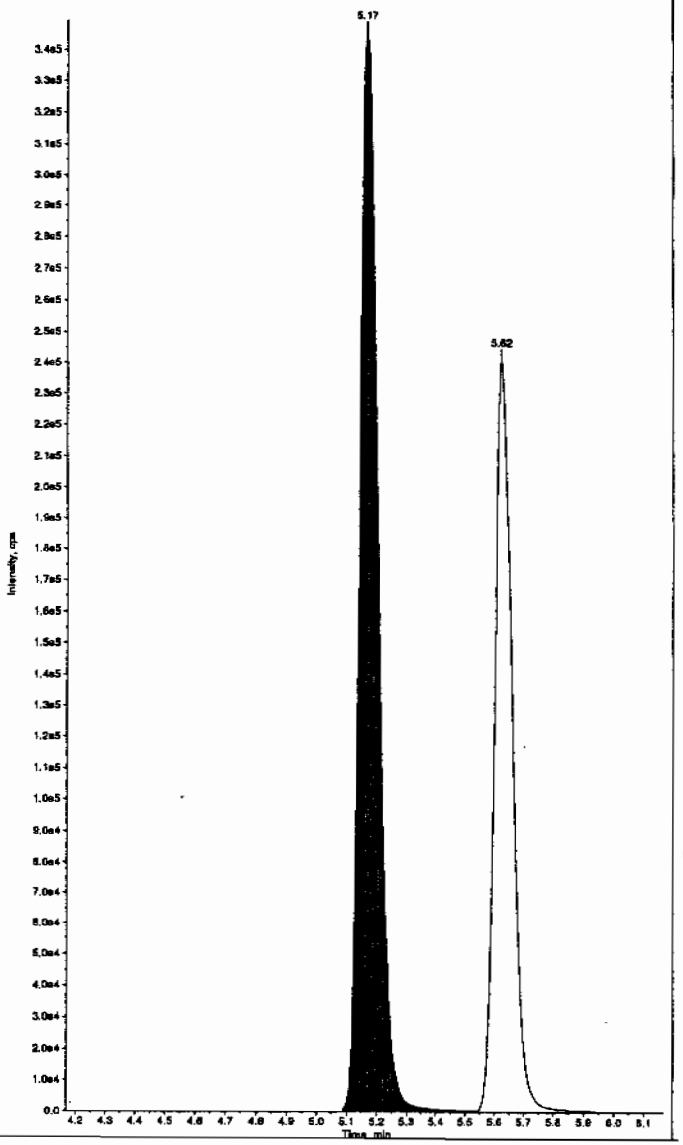

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mple Name: "WXX100214-26ICV" Sample ID: "1|LER" File: "EXS02140011.wiff"
sk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	528.	ng/mL
Date:	2/14/2010	
Time:	4:54:20 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	350.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
Window:	30.0	sec
cted RT:	5.62	min
Relative RT:	No	
Type:	Valley	
ntion Time:	5.62	min
:	1.00e+006	counts
ht:	244639.862	cps
t Time:	5.53	min
Time:	6.00	min

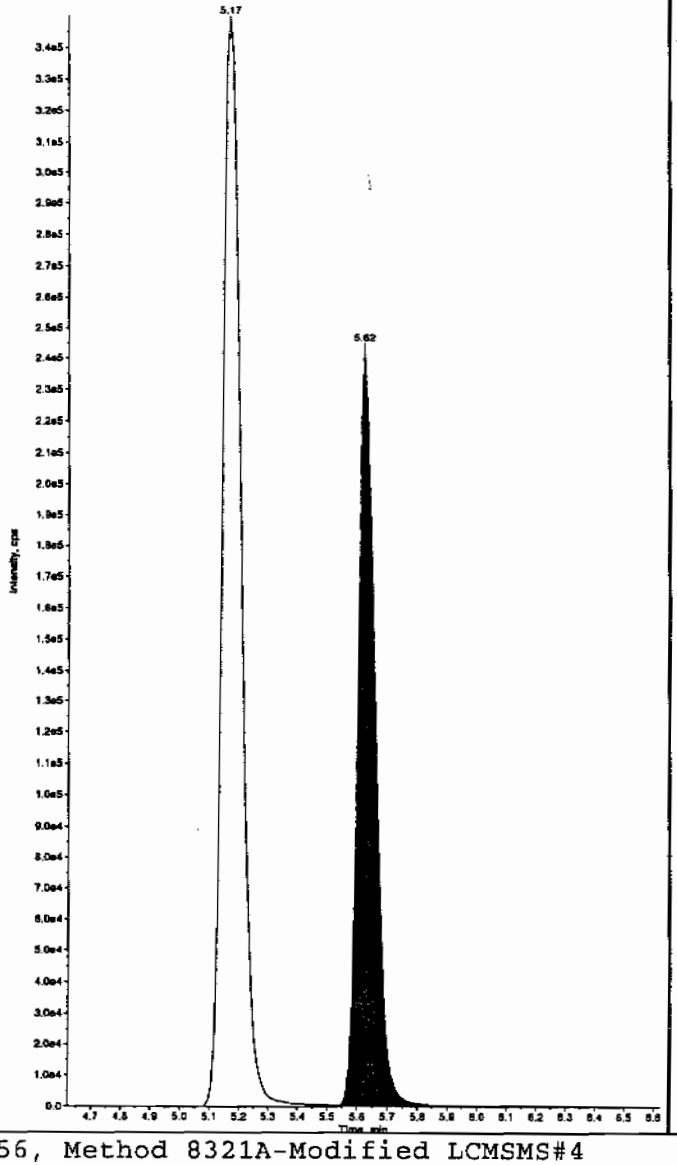

Sample Name: "WXX100214-26ICV" Sample ID: "1|LER" File: "EXS02140011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	493.	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	4:54:20 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	1.08e+007	counts
Height:	2432389.160	cps
Start Time:	10.9	min
End Time:	11.4	min

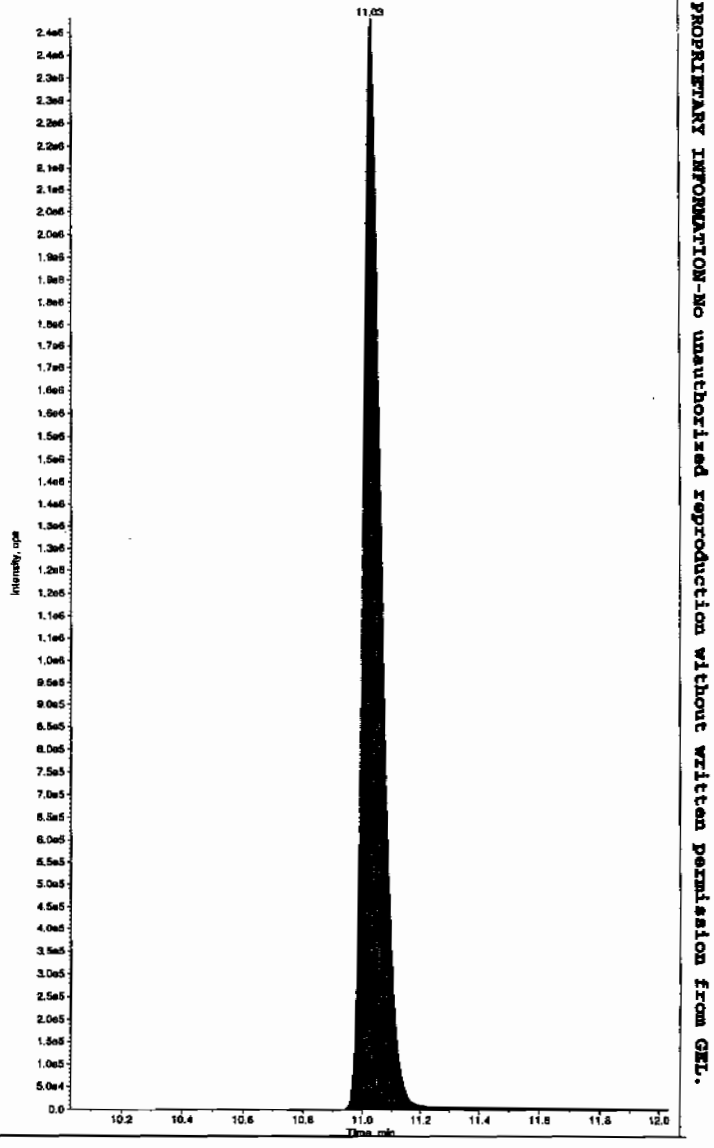

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1510

Lab Code: GEI **GEL Sample ID:** WXXCRI

GEL Data File EXP0216012a **Analysis Date:** 16–FEB–10 22:33

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m–Dinitrobenzene	40	46.913	117	
m–Nitrotoluene	40	43.185	108	
o–Nitrotoluene	40	41.818	105	
p–Nitrotoluene	40	36.985	92	
1,3,5–Trinitrobenzene	40	52.773	132	*
1,3–Dinitrobenzene–d4	500	467.275	93	
2,4,6–Trinitrotoluene	40	39.143	98	
2,4–Dinitrotoluene	40	38.529	96	
2,6–Dinitrotoluene	40	43.494	109	
2,6–Dinitrotoluene–d3	500	466.982	93	
2–Amino–4,6–dinitrotoluene	40	39.227	98	
3,4–Dinitrotoluene	20	22.552	113	
4–Amino–2,6–dinitrotoluene	40	41.012	103	
HMX	40	41.651	104	
Nitrobenzene	40	45.259	113	
PETN	40	42.843	107	
RDX	40	36.749	92	
Tetryl	40	39.776	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

)uantify Sample Report
;EL Laboratories, LLC / Analyst : Michael A. Penny

)ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216012a
)ate: 16-Feb-2010
ime: 22:33:56
): WXX100216-08CRI
ial: 1:1,C

MM 2/17/10

IMX

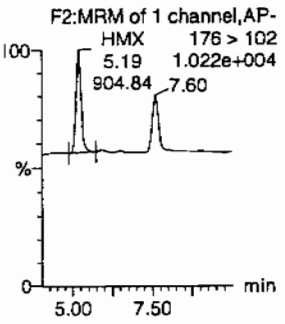

RDX

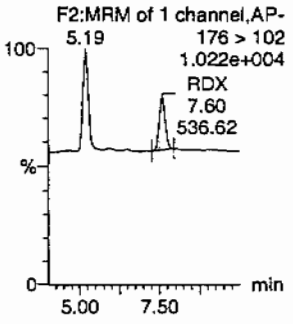

135-Trinitrobenzene

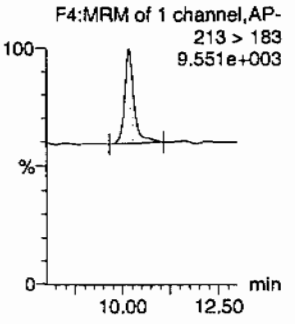

13-Dinitrobenzene-d4

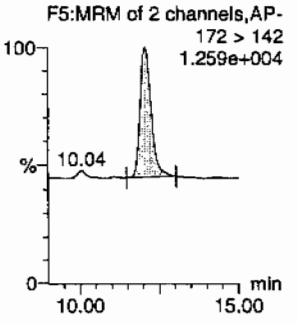

13-Dinitrobenzene

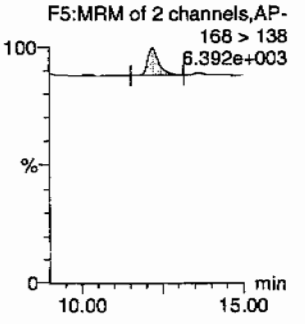

Tetryl

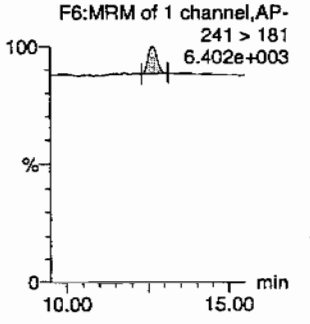

itrobenzene

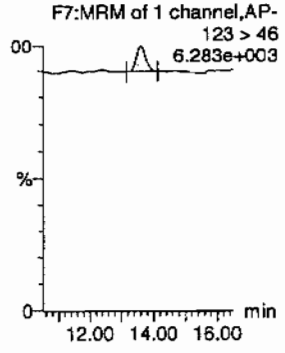

4-Amino-26-dinitrotoluene

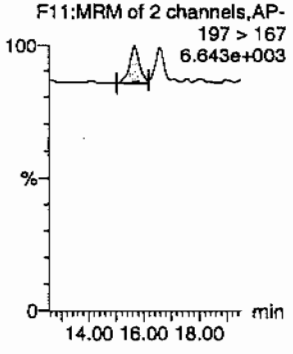

2-Amino-46-dinitrotoluene

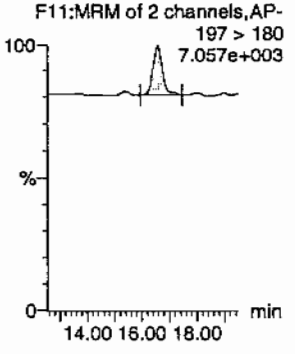

246-Trinitrotoluene

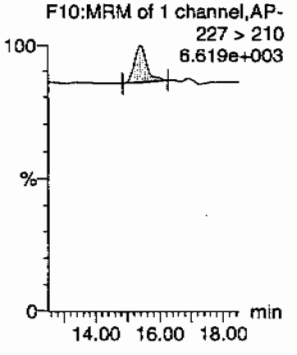

34-dinitrotoluene

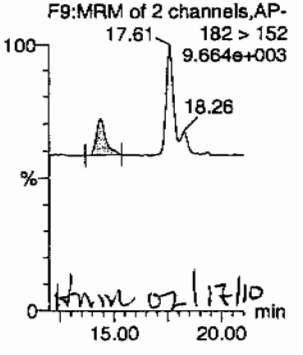

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26-dinitrotoluene

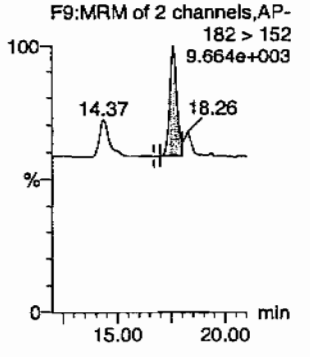

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

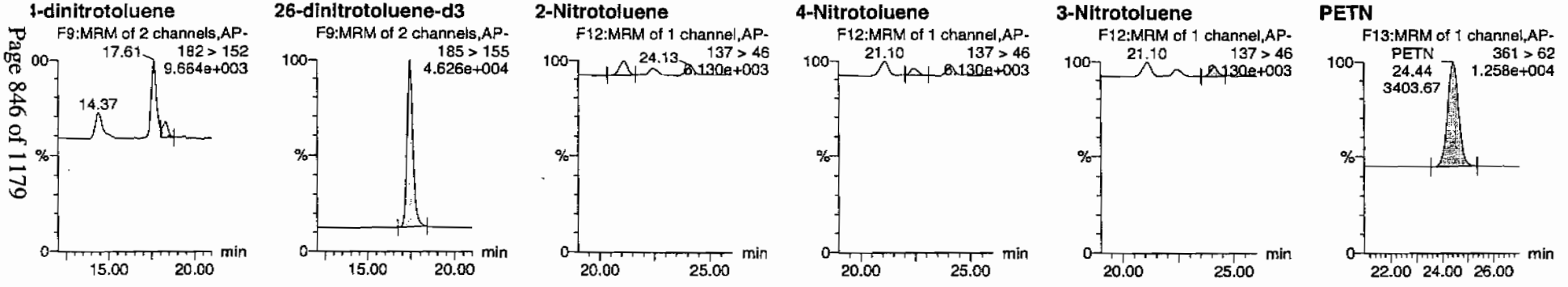

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100216-08CRI	HMX	176 > 102	5.19	904.843	2815.255	904.843	160.704	bb			41.6506	104.1	4.1	146.1
/XX100216-08CRI	RDX	176 > 102	7.60	536.624	2815.255	536.624	95.306	bb			36.7490	91.9	-8.1	78.6
/XX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1150.692	2815.255	1150.692	204.367	bb			52.7734	131.9	31.9	153.3
/XX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2815.255		2815.255	2815.255	bb			467.2753	93.5	-6.5	116.9
/XX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	313.940	2815.255	313.940	55.757	bb			46.9129	117.3	17.3	56.5
/XX100216-08CRI	Tetryl	241 > 181	12.66	244.166	2815.255	244.166	43.365	bb			39.7758	99.4	-0.6	26.2
/XX100216-08CRI	Nitrobenzene	123 > 46	13.61	218.774	2815.255	218.774	38.855	bb			45.2588	113.1	13.1	13.8
/XX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.67	427.054	16258.972	427.054	13.133	MM	17-Feb-10	09:22:56	41.0124	102.5	2.5	29.2
/XX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	551.120	16258.972	551.120	16.948	bb			39.2269	98.1	-1.9	56.9
/XX100216-08CRI	246-Trinitrotoluene	227 > 210	15.40	426.730	16258.972	426.730	13.123	bb			39.1431	97.9	-2.1	30.4
/XX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	664.397	16258.972	664.397	20.432	bb			22.5515	112.8	12.8	21.1
/XX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1498.403	16258.972	1498.403	46.079	MM	17-Feb-10	09:25:53	43.4940	108.7	8.7	65.6
/XX100216-08CRI	24-dinitrotoluene	182 > 152	18.26	308.850	16258.972	308.850	9.498	MM	17-Feb-10	09:54:26	38.5291	96.3	-3.7	13.0
/XX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16258.972		16258.972	16258.972	bb			466.9822	93.4	-6.6	1321.7
/XX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	206.957	16258.972	206.957	6.364	bb			41.8176	104.5	4.5	61.3
/XX100216-08CRI	4-Nitrotoluene	137 > 46	22.41	92.186	16258.972	92.186	2.835	bb			36.9848	92.5	-7.5	27.2
/XX100216-08CRI	3-Nitrotoluene	137 > 46	24.13	125.667	16258.972	125.667	3.865	bb			43.1845	108.0	8.0	39.5
/XX100216-08CRI	PETN	361 > 62	24.44	3403.665	16258.972	3403.665	104.670	bb			42.8433	107.1	7.1	656.3

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/16/10
Time of Injection	2233
Standard Number	WXX100216-08CRI
Data File	EXP0216012a

HMX	104.1
RDX	91.9
135-TNB	131.9
13-DNB	117.3
Tetryl	99.4
Nitrobenzene	113.1
4A-26-DNT	102.5
2A-46-DNT	98.1
246-TNT	97.9
34-DNT(surr)	112.8
26-DNT	108.7
24-DNT	96.3
2-NT	104.5
4-NT	92.5
3-NT	108.0
PETN	107.1
Total	1686.1
Average	105.4

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216021a

Analysis Date: 17-FEB-10 03:00

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	579.243	97	
1,3-Dinitrobenzene-d4	500	497.509	100	
2,4,6-Trinitrotoluene	600	668.453	111	
2,4-Dinitrotoluene	600	630.739	105	
2,6-Dinitrotoluene	600	632.433	105	
2,6-Dinitrotoluene-d3	500	485.976	97	
2-Amino-4,6-dinitrotoluene	600	634.785	106	
3,4-Dinitrotoluene	300	327.796	109	
4-Amino-2,6-dinitrotoluene	600	562.441	94	
HMX	600	585.906	98	
Nitrobenzene	600	587.781	98	
PETN	600	627.186	105	
RDX	600	656.37	109	
Tetryl	600	543.324	91	
m-Dinitrobenzene	600	630.615	105	
m-Nitrotoluene	600	562.285	94	
o-Nitrotoluene	600	556.59	93	
p-Nitrotoluene	600	538.033	90	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ıtaset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

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me: 03:00:59
: WXX100216-07CCV
al: 1:1,B

MT 2/17/10

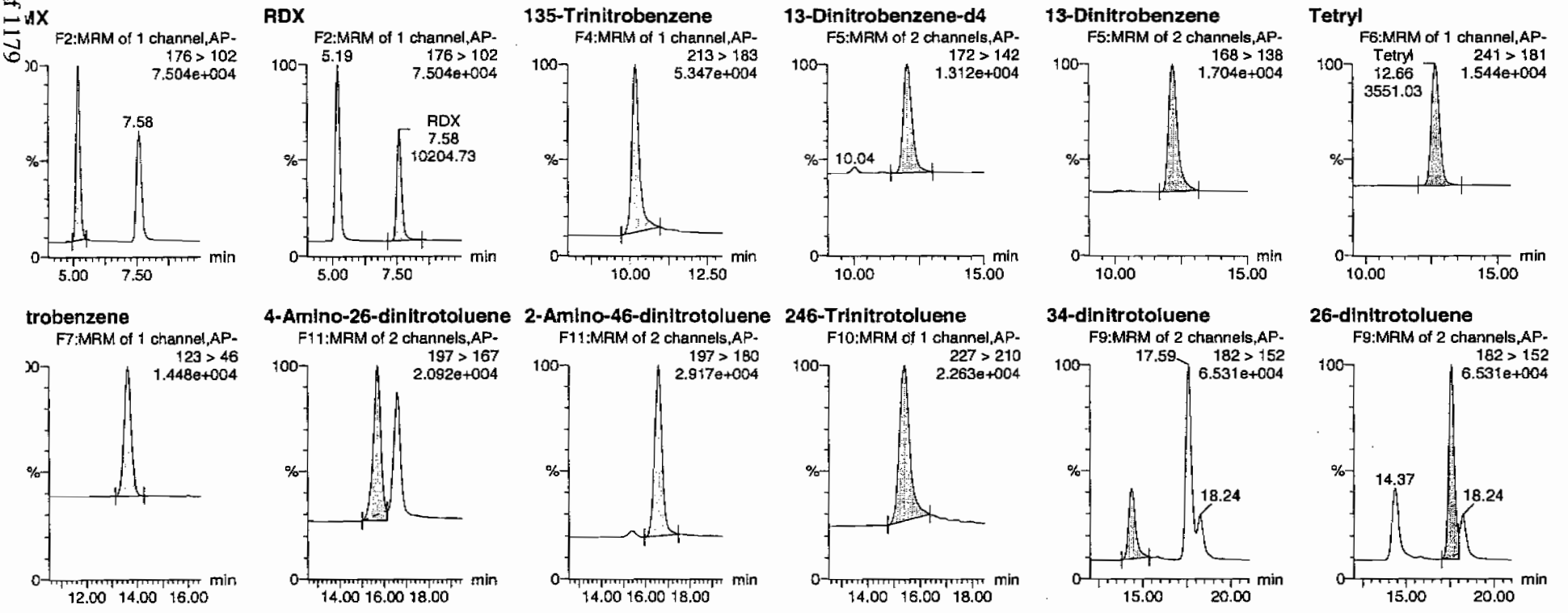

HMC 02/18/10

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

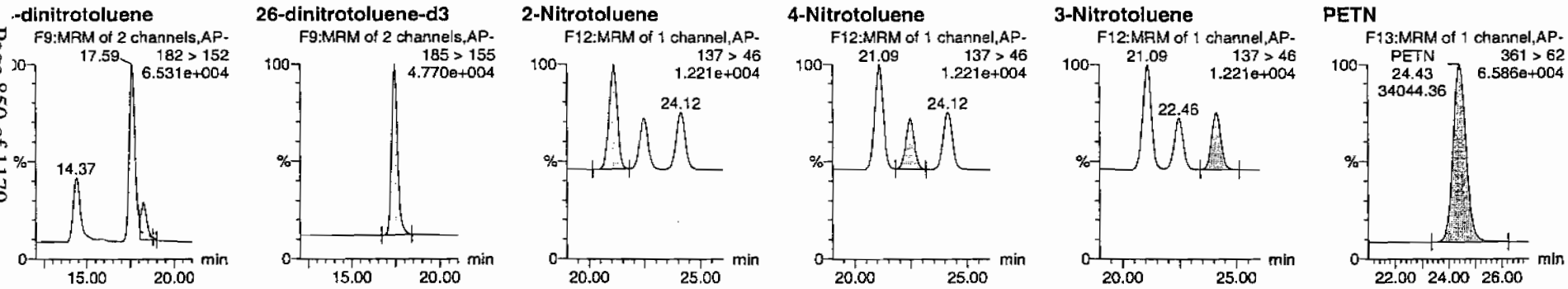

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-07CCV	HMX	176 > 102	5.19	13552.134	2997.406	13552.134	2260.644	bb			585.9057	97.7	-2.3	2331.3
XX100216-07CCV	RDX	176 > 102	7.58	10204.725	2997.406	10204.725	1702.259	bb			656.3705	109.4	9.4	1478.9
XX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13447.239	2997.406	13447.239	2243.146	bb			579.2434	96.5	-3.5	1192.4
XX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	2997.406		2997.406	2997.406	bb			497.5086	99.5	-0.5	158.4
XX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4493.104	2997.406	4493.104	749.499	bb			630.6152	105.1	5.1	503.7
XX100216-07CCV	Tetryl	241 > 181	12.66	3551.025	2997.406	3551.025	592.350	bb			543.3244	90.6	-9.4	473.6
XX100216-07CCV	Nitrobenzene	123 > 46	13.61	3025.073	2997.406	3025.073	504.615	bb			587.7805	98.0	-2.0	278.1
XX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	6094.788	16920.273	6094.788	180.103	MM	17-Feb-10	09:23:30	562.4405	93.7	-6.3	422.1
XX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9281.178	16920.273	9281.178	274.262	bb			634.7853	105.8	5.8	337.8
XX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7583.733	16920.273	7583.733	224.102	bb			668.4527	111.4	11.4	213.3
XX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10050.091	16920.273	10050.091	296.984	bb			327.7962	109.3	9.3	453.5
XX100216-07CCV	26-dinitrotoluene	182 > 152	17.59	22674.004	16920.273	22674.004	670.025	MM	17-Feb-10	09:26:18	632.4328	105.4	5.4	1271.5
XX100216-07CCV	24-dinitrotoluene	182 > 152	18.24	5261.653	16920.273	5261.653	155.484	MM	17-Feb-10	09:58:25	630.7389	105.1	5.1	273.4
XX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16920.273		16920.273	16920.273	bb			485.9758	97.2	-2.8	2036.1
XX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	2866.625	16920.273	2866.625	84.710	bb			556.5902	92.8	-7.2	705.7
XX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1395.615	16920.273	1395.615	41.241	bb			538.0334	89.7	-10.3	337.1
XX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1702.802	16920.273	1702.802	50.318	bb			562.2854	93.7	-6.3	379.3
XX100216-07CCV	PETN	361 > 62	24.43	34044.359	16920.273	34044.359	1006.023	bb			627.1860	104.5	4.5	7276.4

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 0300
Standard Number: WXX100216-07CCV
Data File: EXP0216021a

HMX	97.7
RDX	109.4
135-TNB	96.5
13-DNB	105.1
Tetryl	90.6
Nitrobenzene	98.0
4A-26-DNT	93.7
2A-46-DNT	105.8
246-TNT	111.4
34-DNT(surr)	109.3
26-DNT	105.4
24-DNT	105.1
2-NT	92.8
4-NT	89.7
3-NT	93.7
PETN	104.5
Total	1608.7
Average	100.5

LMT 2/17/10

Hmc 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216023a

Analysis Date: 17–FEB–10 03:59

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	49.744	124	
1,3–Dinitrobenzene–d4	500	479.66	96	
2,4,6–Trinitrotoluene	40	35.851	90	
2,4–Dinitrotoluene	40	39.455	99	
2,6–Dinitrotoluene	40	41.064	103	
2,6–Dinitrotoluene–d3	500	491.1	98	
2–Amino–4,6–dinitrotoluene	40	38.066	95	
3,4–Dinitrotoluene	20	21.18	106	
4–Amino–2,6–dinitrotoluene	40	45.31	113	
HMX	40	40.495	101	
Nitrobenzene	40	46.027	115	
PETN	40	46.88	117	
RDX	40	40.003	100	
Tetryl	40	46.382	116	
m–Dinitrobenzene	40	47.022	118	
m–Nitrotoluene	40	34.333	86	
o–Nitrotoluene	40	37.918	95	
p–Nitrotoluene	40	33.624	84	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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HMW 2/17/10

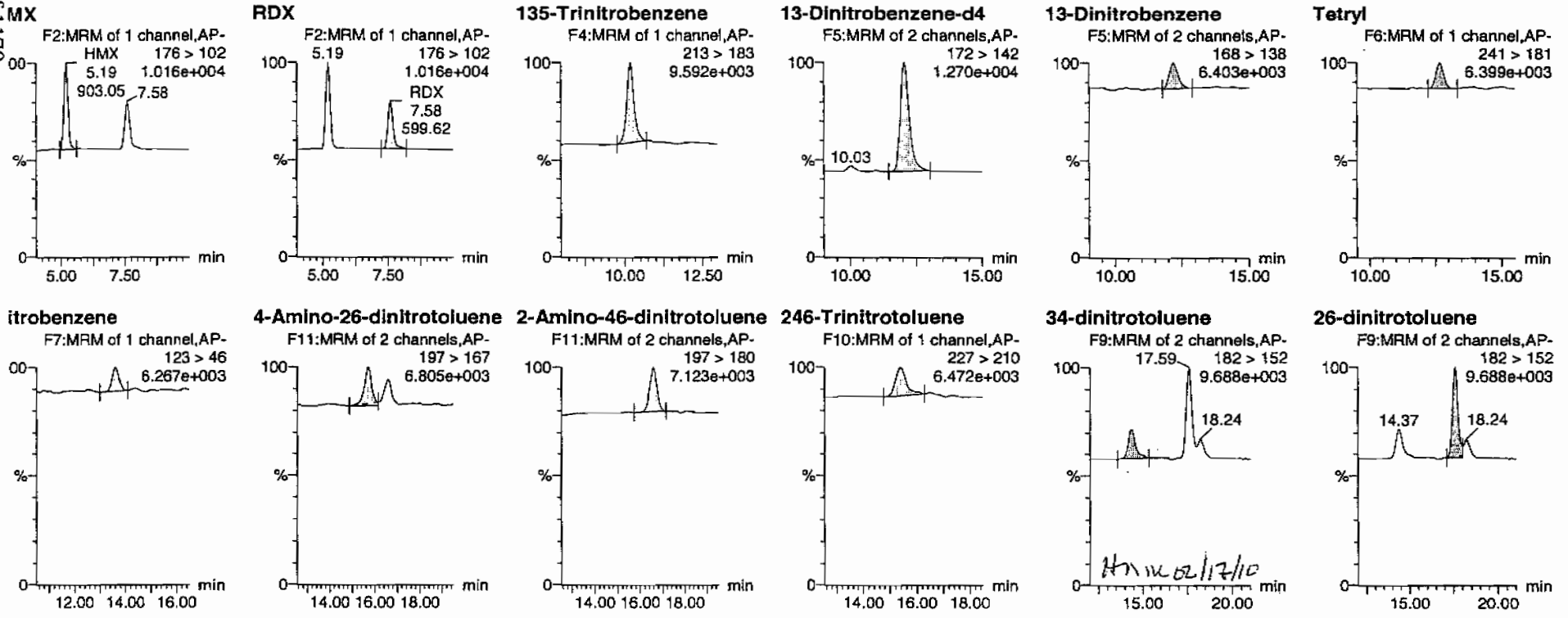

HMW 02/17/10

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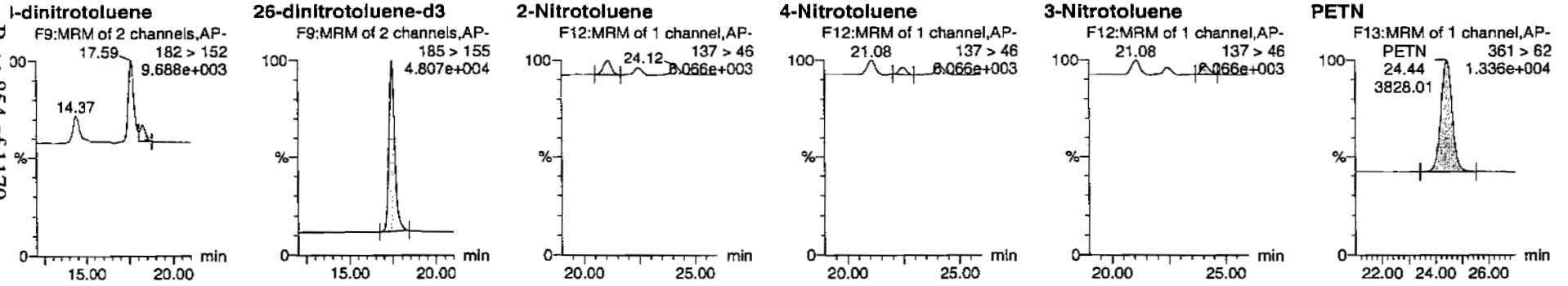

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100216-08CRI	HMX	176 > 102	5.19	903.051	2889.872	903.051	156.244	bb			40.4948	101.2	1.2	129.0
/XX100216-08CRI	RDX	176 > 102	7.58	599.618	2889.872	599.618	103.745	bb			40.0027	100.0	0.0	71.5
/XX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1113.391	2889.872	1113.391	192.637	bb			49.7442	124.4	24.4	149.0
/XX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2889.872		2889.872	2889.872	bb			479.6602	95.9	-4.1	417.1
/XX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	323.009	2889.872	323.009	55.886	bb			47.0218	117.6	17.6	49.9
/XX100216-08CRI	Tetryl	241 > 181	12.66	292.267	2889.872	292.267	50.567	bb			46.3823	116.0	16.0	23.4
/XX100216-08CRI	Nitrobenzene	123 > 46	13.61	228.386	2889.872	228.386	39.515	bb			46.0273	115.1	15.1	23.5
/XX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	496.172	17098.684	496.172	14.509	MM	17-Feb-10	09:23:37	45.3101	113.3	13.3	43.7
/XX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	562.424	17098.684	562.424	16.446	bb			38.0656	95.2	-4.8	54.4
/XX100216-08CRI	246-Trinitrotoluene	227 > 210	15.37	411.028	17098.684	411.028	12.019	bb			35.8512	89.6	-10.4	34.7
/XX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	656.211	17098.684	656.211	19.189	bb			21.1798	105.9	5.9	25.2
/XX100216-08CRI	26-dinitrotoluene	182 > 152	17.59	1487.743	17098.684	1487.743	43.505	MM	17-Feb-10	09:26:28	41.0638	102.7	2.7	76.0
/XX100216-08CRI	24-dinitrotoluene	182 > 152	18.24	332.609	17098.684	332.609	9.726	MM	17-Feb-10	09:58:34	39.4554	98.6	-1.4	15.9
/XX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	17098.684		17098.684	17098.684	bb			491.1000	98.2	-1.8	1844.2
/XX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	197.351	17098.684	197.351	5.771	bb			37.9183	94.8	-5.2	50.3
/XX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	88.137	17098.684	88.137	2.577	bb			33.6238	84.1	-15.9	24.1
/XX100216-08CRI	3-Nitrotoluene	137 > 46	24.12	105.069	17098.684	105.069	3.072	bb			34.3330	85.8	-14.2	27.3
/XX100216-08CRI	PETN	361 > 62	24.44	3828.005	17098.684	3828.005	111.939	bb			46.8804	117.2	17.2	698.1

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	0359
Standard Number	WXX100216-08CRI
Data File	EXP0216023a

HMX	101.2
RDX	100.0
135-TNB	124.4
13-DNB	117.6
Tetryl	116.0
Nitrobenzene	115.1
4A-26-DNT	113.3
2A-46-DNT	95.2
246-TNT	89.6
34-DNT(surr)	105.9
26-DNT	102.7
24-DNT	98.6
2-NT	94.8
4-NT	84.1
3-NT	85.8
PETN	117.2
Total	1661.5
Average	103.8

MFP 4/21/10

HMM 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216027a

Analysis Date: 17–FEB–10 05:58

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene	600	636.41	106	
2,6–Dinitrotoluene–d3	500	422.753	85	
2–Amino–4,6–dinitrotoluene	600	651.036	109	
3,4–Dinitrotoluene	300	336.279	112	
4–Amino–2,6–dinitrotoluene	600	604.644	101	
HMX	600	612.626	102	
Nitrobenzene	600	578.267	96	
PETN	600	723.944	121	*
RDX	600	659.537	110	
Tetryl	600	567.895	95	
m–Dinitrobenzene	600	622.089	104	
m–Nitrotoluene	600	628.032	105	
o–Nitrotoluene	600	608.219	101	
p–Nitrotoluene	600	603.723	101	
1,3,5–Trinitrobenzene	600	611.171	102	
1,3–Dinitrobenzene–d4	500	441.467	88	
2,4,6–Trinitrotoluene	600	677.667	113	
2,4–Dinitrotoluene	600	637.719	106	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MAT 2/17/10

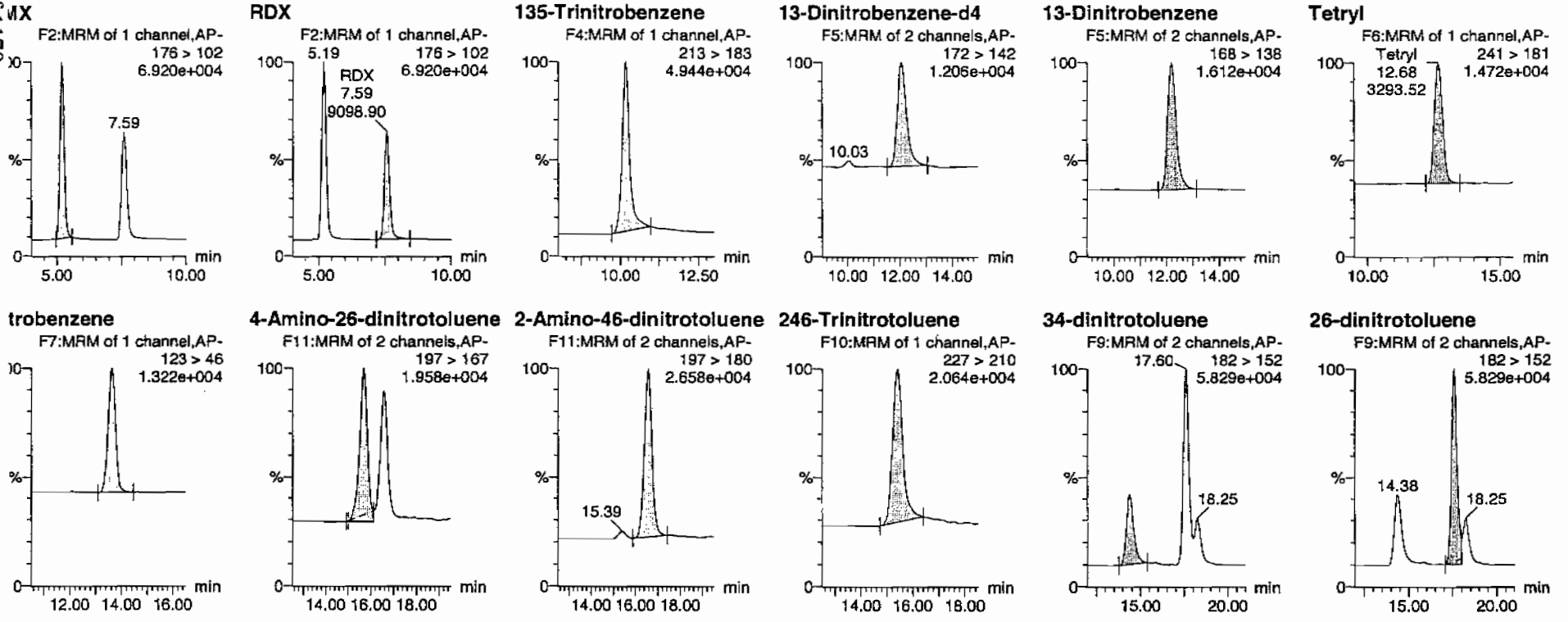

HMW 02/17/10

Page 857 of 1179

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

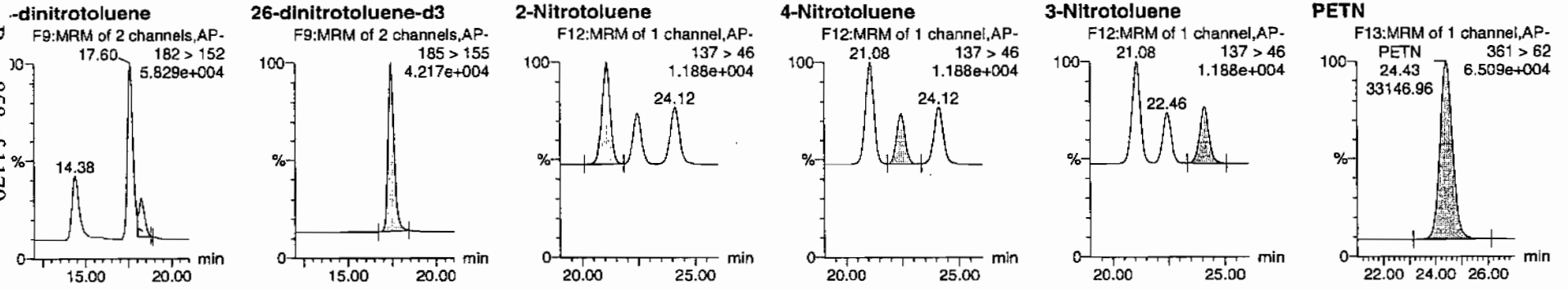

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-07CCV	HMX	176 > 102	5.19	12573.983	2659.764	12573.983	2363.740	bb			612.6259	102.1	2.1	1867.4
XX100216-07CCV	RDX	176 > 102	7.59	9098.897	2659.764	9098.897	1710.471	bb			659.5367	109.9	9.9	1136.2
XX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12590.188	2659.764	12590.188	2366.787	bb			611.1709	101.9	1.9	720.5
XX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2659.764		2659.764	2659.764	bb			441.4669	88.3	-11.7	384.7
XX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3933.075	2659.764	3933.075	739.365	bb			622.0892	103.7	3.7	572.6
XX100216-07CCV	Tetryl	241 > 181	12.68	3293.519	2659.764	3293.519	619.137	bb			567.8951	94.6	-5.4	186.1
XX100216-07CCV	Nitrobenzene	123 > 46	13.63	2640.866	2659.764	2640.866	496.447	bb			578.2667	96.4	-3.6	244.7
XX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5699.717	14719.028	5699.717	193.617	MM	17-Feb-10	09:24:07	604.6437	100.8	0.8	191.5
XX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8280.438	14719.028	8280.438	281.283	bb			651.0364	108.5	8.5	208.4
XX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	6688.060	14719.028	6688.060	227.191	bb			677.6666	112.9	12.9	176.3
XX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8968.860	14719.028	8968.860	304.669	bb			336.2788	112.1	12.1	355.9
XX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	19848.275	14719.028	19848.275	674.239	MM	17-Feb-10	09:27:00	636.4103	106.1	6.1	997.2
XX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4627.791	14719.028	4627.791	157.204	MM	17-Feb-10	09:59:44	637.7191	106.3	6.3	221.0
XX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14719.028		14719.028	14719.028	bb			422.7527	84.6	-15.4	873.5
XX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2725.003	14719.028	2725.003	92.567	bb			608.2189	101.4	1.4	310.4
XX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1362.278	14719.028	1362.278	46.276	bb			603.7228	100.6	0.6	155.4
XX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1654.478	14719.028	1654.478	56.202	bb			628.0322	104.7	4.7	174.3
XX100216-07CCV	PETN	361 > 62	24.43	33146.961	14719.028	33146.961	1125.990	bb			723.9440	120.7	20.7	4875.3

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 0558
Standard Number: WXX100216-07CCV
Data File: EXP0216027a

HMX		102.1
RDX		109.9
135-TNB		101.9
13-DNB		103.7
Tetryl		94.6
Nitrobenzene		96.4
4A-26-DNT		100.8
2A-46-DNT		108.5
246-TNT		112.9
34-DNT(surr)		112.1
26-DNT		106.1
24-DNT		106.3
2-NT		101.4
4-NT		100.6
3-NT		104.7
PETN		120.7
Total		1682.7
Average		105.2

MAP 2/17/10

Hmm 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1510

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216029a **Analysis Date:** 17-FEB-10 06:57

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	42.003	105	
3,4-Dinitrotoluene	20	22.85	114	
4-Amino-2,6-dinitrotoluene	40	35.28	88	
HMX	40	35.563	89	
Nitrobenzene	40	35.31	88	
PETN	40	48.188	120	
RDX	40	37.715	94	
Tetryl	40	38.583	96	
m-Dinitrobenzene	40	47.424	119	
m-Nitrotoluene	40	37.561	94	
o-Nitrotoluene	40	37.519	94	
p-Nitrotoluene	40	38.529	96	
1,3,5-Trinitrobenzene	40	46.171	115	
1,3-Dinitrobenzene-d4	500	512.607	103	
2,4,6-Trinitrotoluene	40	37.982	95	
2,4-Dinitrotoluene	40	44.51	111	
2,6-Dinitrotoluene	40	42.325	106	
2,6-Dinitrotoluene-d3	500	468.417	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MHP 2/17/10

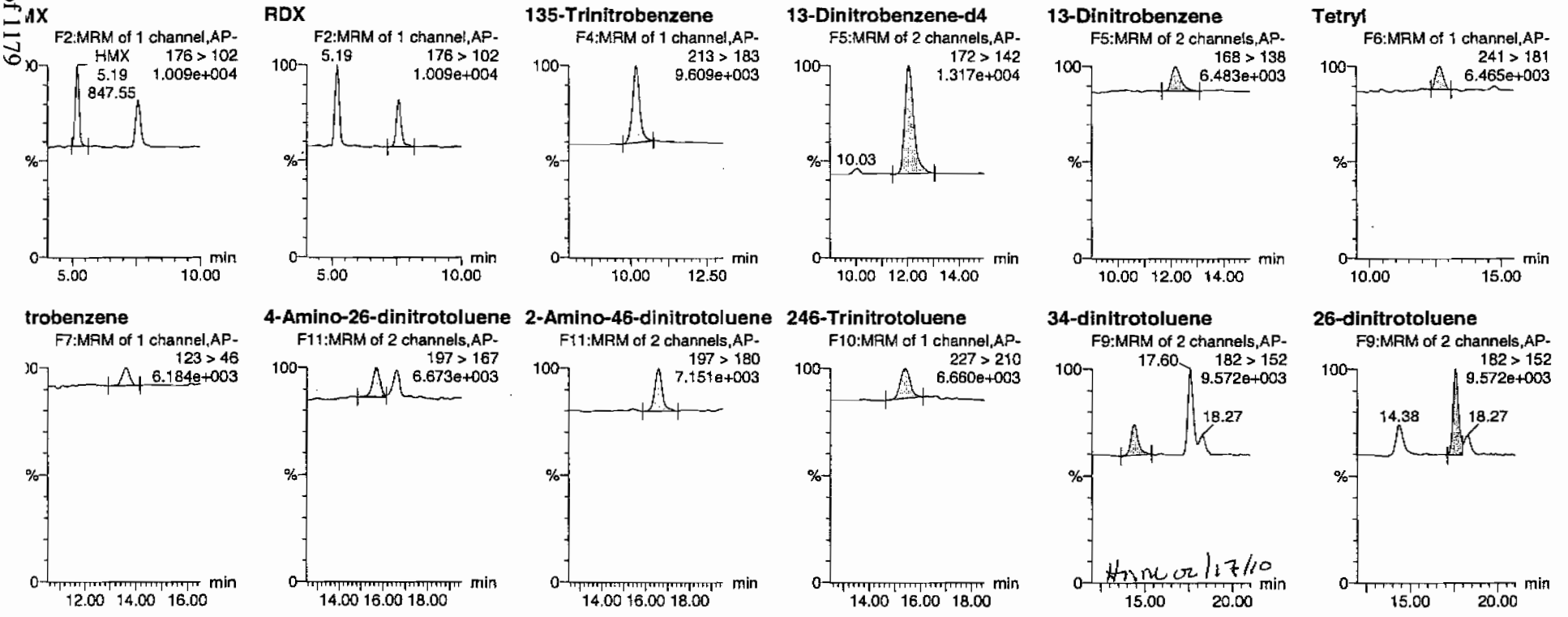

HMW 02/17/10

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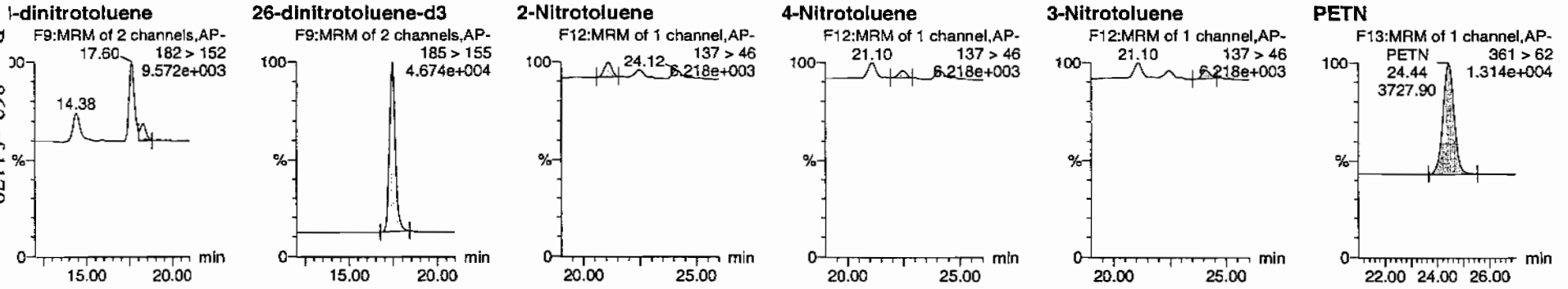

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-08CRI	HMX	176 > 102	5.19	847.548	3088.373	847.548	137.216	bb			35.5631	88.9	-11.1	67.2
XX100216-08CRI	RDX	176 > 102	7.59	604.150	3088.373	604.150	97.810	bb			37.7145	94.3	-5.7	40.2
XX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1104.404	3088.373	1104.404	178.800	bb			46.1713	115.4	15.4	242.0
XX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3088.373		3088.373	3088.373	bb			512.6073	102.5	2.5	183.7
XX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	348.146	3088.373	348.146	56.364	bb			47.4237	118.6	18.6	32.0
XX100216-08CRI	Tetryl	241 > 181	12.68	259.818	3088.373	259.818	42.064	bb			38.5825	96.5	-3.5	17.3
XX100216-08CRI	Nitrobenzene	123 > 46	13.63	187.241	3088.373	187.241	30.314	bb			35.3099	88.3	-11.7	24.4
XX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	368.489	16308.923	368.489	11.297	MM	17-Feb-10	09:24:15	35.2797	88.2	-11.8	20.6
XX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	591.929	16308.923	591.929	18.147	bb			42.0025	105.0	5.0	42.9
XX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	415.344	16308.923	415.344	12.734	bb			37.9820	95.0	-5.0	34.9
XX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	675.250	16308.923	675.250	20.702	bb			22.8497	114.2	14.2	40.8
XX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1462.626	16308.923	1462.626	44.841	MM	17-Feb-10	09:27:06	42.3254	105.8	5.8	114.5
XX100216-08CRI	24-dinitrotoluene	182 > 152	18.27	357.891	16308.923	357.891	10.972	MM	17-Feb-10	09:59:53	44.5103	111.3	11.3	25.2
XX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16308.923		16308.923	16308.923	bb			468.4169	93.7	-6.3	1631.2
XX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	186.251	16308.923	186.251	5.710	bb			37.5185	93.8	-6.2	60.9
XX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	96.329	16308.923	96.329	2.953	bb			38.5286	96.3	-3.7	29.1
XX100216-08CRI	3-Nitrotoluene	137 > 46	24.12	109.637	16308.923	109.637	3.361	bb			37.5605	93.9	-6.1	32.5
XX100216-08CRI	PETN	361 > 62	24.44	3727.896	16308.923	3727.896	114.290	bb			48.1882	120.5	20.5	1683.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	0657
Standard Number	WXX100216-08CRI
Data File	EXP0216029a

HMX	88.9
RDX	94.3
135-TNB	115.4
13-DNB	118.6
Tetryl	96.5
Nitrobenzene	88.3
4A-26-DNT	88.2
2A-46-DNT	105.0
246-TNT	95.0
34-DNT(surr)	114.2
26-DNT	105.8
24-DNT	111.3
2-NT	93.8
4-NT	96.3
3-NT	93.9
PETN	120.5
Total	1626.0
Average	101.6

MATT 4/17/10

HMM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0216039a

Analysis Date: 17–FEB–10 11:55

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o–Nitrotoluene	600	662.654	110	
p–Nitrotoluene	600	651.214	109	
1,3,5–Trinitrobenzene	600	585.479	98	
1,3–Dinitrobenzene–d4	500	387.961	78	*
2,4,6–Trinitrotoluene	600	707.346	118	
2,4–Dinitrotoluene	600	645.209	108	
2,6–Dinitrotoluene	600	613.479	102	
2,6–Dinitrotoluene–d3	500	403.474	81	
2–Amino–4,6–dinitrotoluene	600	628.06	105	
3,4–Dinitrotoluene	300	337.542	113	
4–Amino–2,6–dinitrotoluene	600	652.842	109	
HMX	600	593.956	99	
Nitrobenzene	600	632.339	105	
PETN	600	805.557	134	*
RDX	600	659.382	110	
Tetryl	600	551.825	92	
m–Dinitrobenzene	600	625.313	104	
m–Nitrotoluene	600	627.48	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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): WXX100216-07CCV
ial: 1:1,B

MM 4/8/10

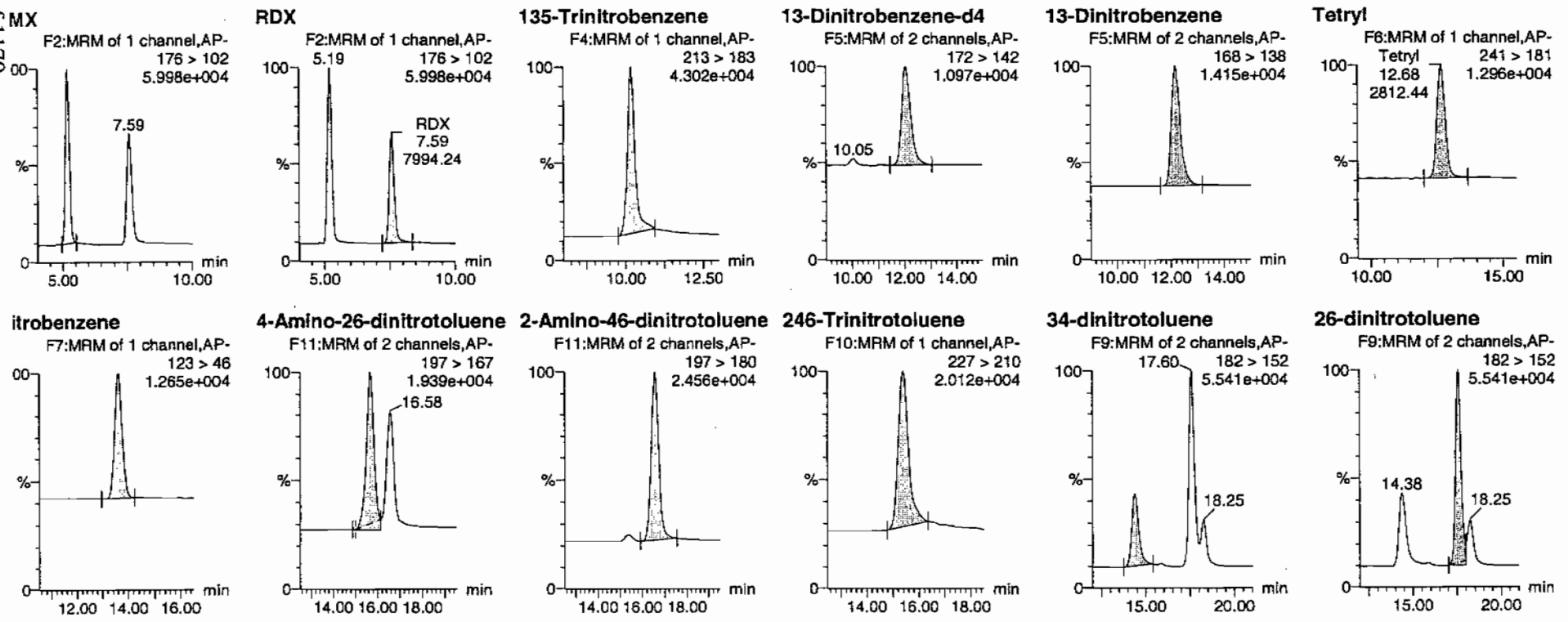

Thm 02/18/10

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Page 866 of 1179

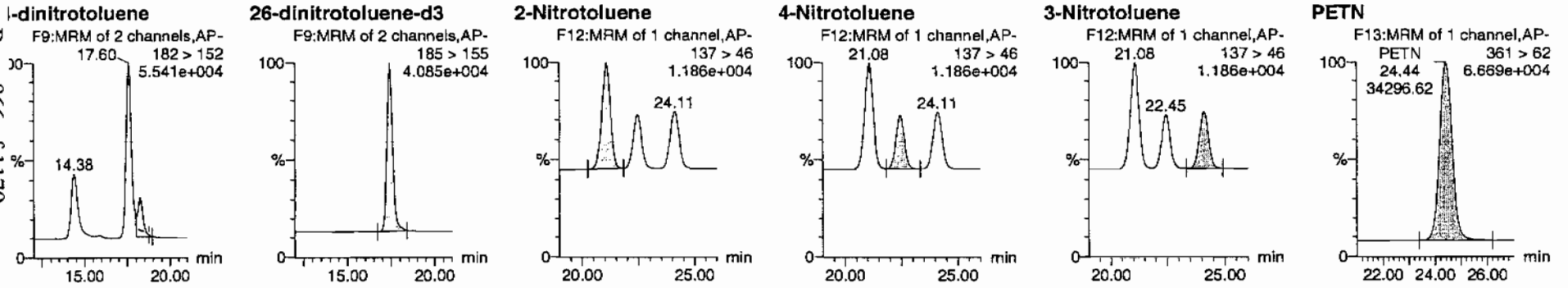

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-07CCV	HMX	176 > 102	5.19	10713.271	2337.401	10713.271	2291.706	bb			593.9562	99.0	-1.0	1627.0
XX100216-07CCV	RDX	176 > 102	7.59	7994.240	2337.401	7994.240	1710.070	bb			659.3823	109.9	9.9	1027.0
XX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	10599.146	2337.401	10599.146	2267.293	bb			585.4788	97.6	-2.4	1024.7
XX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2337.401		2337.401	2337.401	bb			387.9612	77.6	-22.4	133.1
XX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3474.301	2337.401	3474.301	743.197	bb			625.3134	104.2	4.2	284.5
XX100216-07CCV	Tetryl	241 > 181	12.68	2812.442	2337.401	2812.442	601.617	bb			551.8250	92.0	-8.0	285.9
XX100216-07CCV	Nitrobenzene	123 > 46	13.63	2537.805	2337.401	2537.805	542.869	bb			632.3390	105.4	5.4	222.2
XX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5873.420	14047.796	5873.420	209.051	MM	18-Feb-10	08:44:27	652.8422	108.8	8.8	505.6
XX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7623.921	14047.796	7623.921	271.356	bb			628.0603	104.7	4.7	448.6
XX100216-07CCV	246-Trinitrotoluene	227 > 210	15.38	6662.623	14047.796	6662.623	237.141	bb			707.3463	117.9	17.9	323.1
XX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8592.021	14047.796	8592.021	305.814	bb			337.5425	112.5	12.5	393.2
XX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18260.570	14047.796	18260.570	649.944	MM	18-Feb-10	08:47:58	613.4790	102.2	2.2	1068.9
XX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4468.623	14047.796	4468.623	159.051	MM	18-Feb-10	08:52:01	645.2089	107.5	7.5	245.7
XX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14047.796		14047.796	14047.796	bb			403.4739	80.7	-19.3	1385.8
XX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2833.500	14047.796	2833.500	100.852	bb			662.6544	110.4	10.4	243.8
XX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1402.429	14047.796	1402.429	49.916	bb			651.2139	108.5	8.5	120.3
XX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1577.640	14047.796	1577.640	56.153	bb			627.4798	104.6	4.6	127.1
XX100216-07CCV	PETN	361 > 62	24.44	34296.621	14047.796	34296.621	1220.712	bb			805.5575	134.3	34.3	5120.9

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 1155
Standard Number: WXX100216-07CCV
Data File: EXP0216039a

HMX	99.0
RDX	109.9
135-TNB	97.6
13-DNB	104.2
Tetryl	92.0
Nitrobenzene	105.4
4A-26-DNT	108.8
2A-46-DNT	104.7
246-TNT	117.9
34-DNT(surr)	112.5
26-DNT	102.2
24-DNT	107.5
2-NT	110.4
4-NT	108.5
3-NT	104.6
PETN	134.3
Total	1719.5
Average	107.5

MJH 2/18/10

Hm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1510

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216041a **Analysis Date:** 17-FEB-10 12:54

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	46.625	117	
1,3,5-Trinitrobenzene	40	49.958	125	
1,3-Dinitrobenzene-d4	500	436.567	87	
2,4,6-Trinitrotoluene	40	33.868	85	
2,4-Dinitrotoluene	40	48.789	122	
2,6-Dinitrotoluene	40	42.876	107	
2,6-Dinitrotoluene-d3	500	442.639	89	
2-Amino-4,6-dinitrotoluene	40	38.248	96	
3,4-Dinitrotoluene	20	20.64	103	
4-Amino-2,6-dinitrotoluene	40	36.085	90	
HMX	40	43.087	108	
Nitrobenzene	40	41.223	103	
PETN	40	49.973	125	
RDX	40	39.872	100	
Tetryl	40	51.62	129	
m-Dinitrobenzene	40	47.407	119	
m-Nitrotoluene	40	45.574	114	
o-Nitrotoluene	40	37.868	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MT 2/18/10

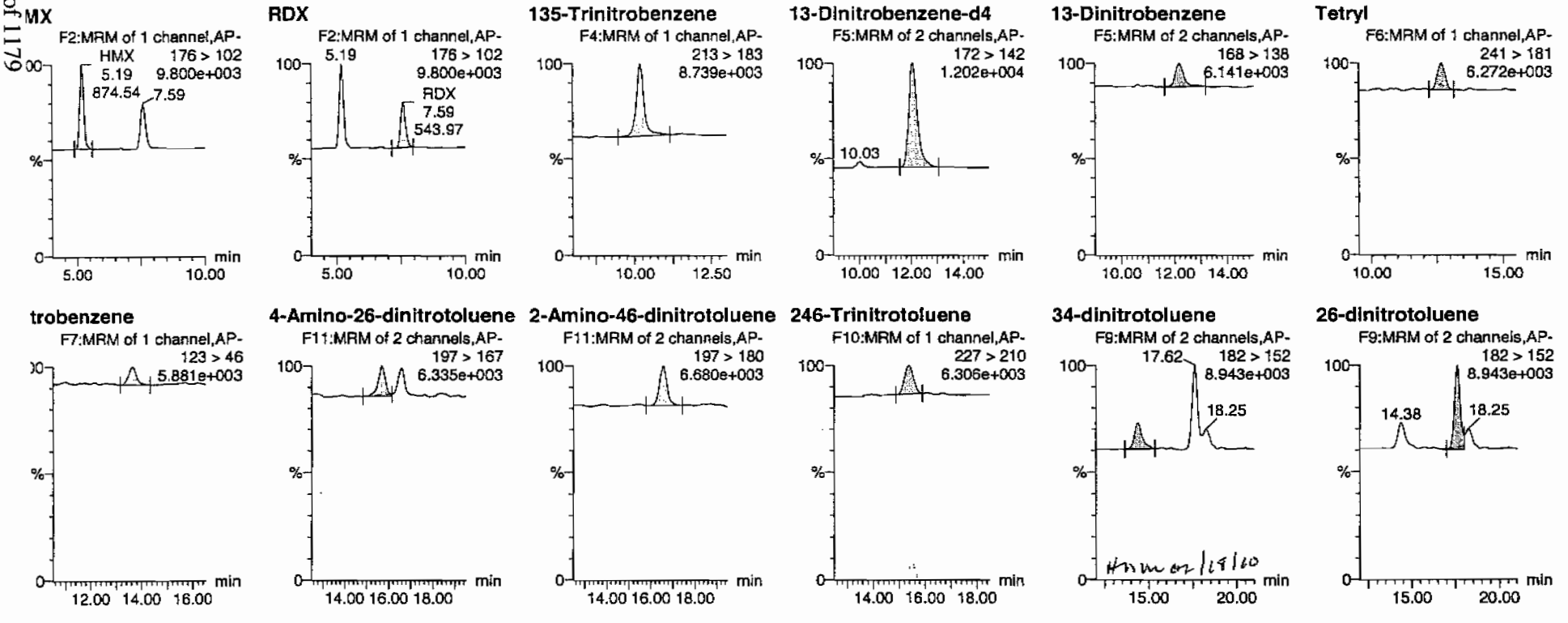

HMM 02/18/10

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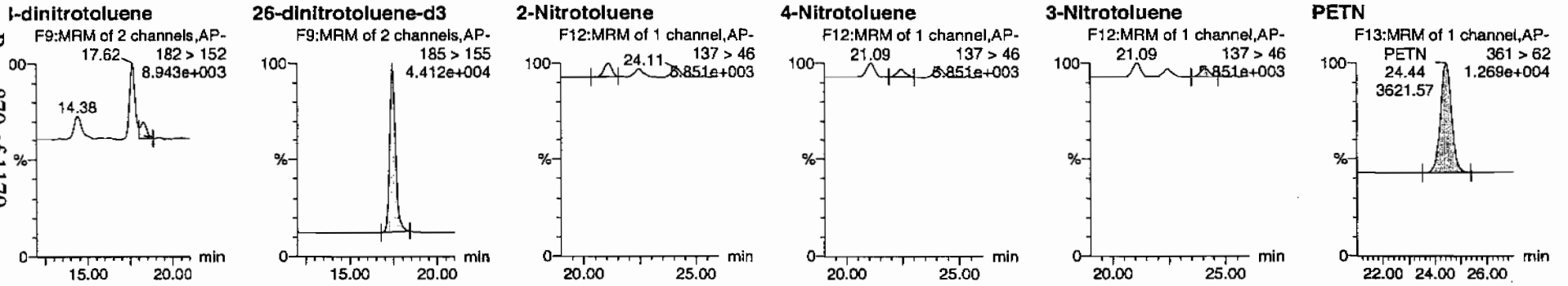

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-08CRI	HMX	176 > 102	5.19	874.541	2630.245	874.541	166.247	bb			43.0873	107.7	7.7	143.8
XX100216-08CRI	RDX	176 > 102	7.59	543.971	2630.245	543.971	103.407	bb			39.8724	99.7	-0.3	77.7
XX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1017.727	2630.245	1017.727	193.466	bb			49.9584	124.9	24.9	42.9
XX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2630.245		2630.245	2630.245	bb			436.5674	87.3	-12.7	269.0
XX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	296.395	2630.245	296.395	56.344	bb			47.4065	118.5	18.5	27.0
XX100216-08CRI	Tetryl	241 > 181	12.68	296.048	2630.245	296.048	56.278	bb			51.6199	129.0	29.0	24.9
XX100216-08CRI	Nitrobenzene	123 > 46	13.63	186.169	2630.245	186.169	35.390	bb			41.2227	103.1	3.1	18.2
XX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	356.159	15411.399	356.159	11.555	MM	18-Feb-10	08:44:35	36.0850	90.2	-9.8	23.5
XX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	509.352	15411.399	509.352	16.525	bb			38.2479	95.6	-4.4	62.5
XX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	349.977	15411.399	349.977	11.354	bb			33.8682	84.7	-15.3	59.5
XX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	576.394	15411.399	576.394	18.700	bb			20.6404	103.2	3.2	14.6
XX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1400.108	15411.399	1400.108	45.424	MM	18-Feb-10	08:48:09	42.8759	107.2	7.2	47.1
XX100216-08CRI	24-dinitrotoluene	182 > 152	18.25	370.708	15411.399	370.708	12.027	MM	18-Feb-10	08:51:46	48.7893	122.0	22.0	10.9
XX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15411.399		15411.399	15411.399	bb			442.6386	88.5	-11.5	1346.2
XX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	177.640	15411.399	177.640	5.763	bb			37.8679	94.7	-5.3	32.4
XX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	110.157	15411.399	110.157	3.574	bb			46.6252	116.6	16.6	18.9
XX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	125.706	15411.399	125.706	4.078	bb			45.5737	113.9	13.9	20.0
XX100216-08CRI	PETN	361 > 62	24.44	3621.569	15411.399	3621.569	117.496	bb			49.9729	124.9	24.9	470.4

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	1254
Standard Number	WXX100216-08CRI
Data File	EXP0216041a

HMX	107.7
RDX	99.7
135-TNB	124.9
13-DNB	118.5
Tetryl	129.0
Nitrobenzene	103.1
4A-26-DNT	90.2
2A-46-DNT	95.6
246-TNT	84.7
34-DNT(surr)	103.2
26-DNT	107.2
24-DNT	122.0
2-NT	94.7
4-NT	116.6
3-NT	113.9
PETN	124.9
Total	1735.9
Average	108.5

MPP 2/18/10

Hime 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1510

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216052a **Analysis Date:** 17-FEB-10 18:20

LCMSMS ID: 903 **Column ID** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	614.714	102	
m-Nitrotoluene	600	522.1	87	
o-Nitrotoluene	600	521.805	87	
p-Nitrotoluene	600	528.568	88	
1,3,5-Trinitrobenzene	600	586.393	98	
1,3-Dinitrobenzene-d4	500	469.603	94	
2,4,6-Trinitrotoluene	600	667.732	111	
2,4-Dinitrotoluene	600	640.278	107	
2,6-Dinitrotoluene	600	617.89	103	
2,6-Dinitrotoluene-d3	500	472.936	95	
2-Amino-4,6-dinitrotoluene	600	700.294	117	
3,4-Dinitrotoluene	300	322.55	108	
4-Amino-2,6-dinitrotoluene	600	558.036	93	
HMX	600	526.292	88	
Nitrobenzene	600	561.562	94	
PETN	600	685.593	114	
RDX	600	615.154	103	
Tetryl	600	581.072	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ıte: 17-Feb-2010
ne: 18:20:28
: WXX100216-07CCV
ıl: 1:1,B

MT 4/10/10

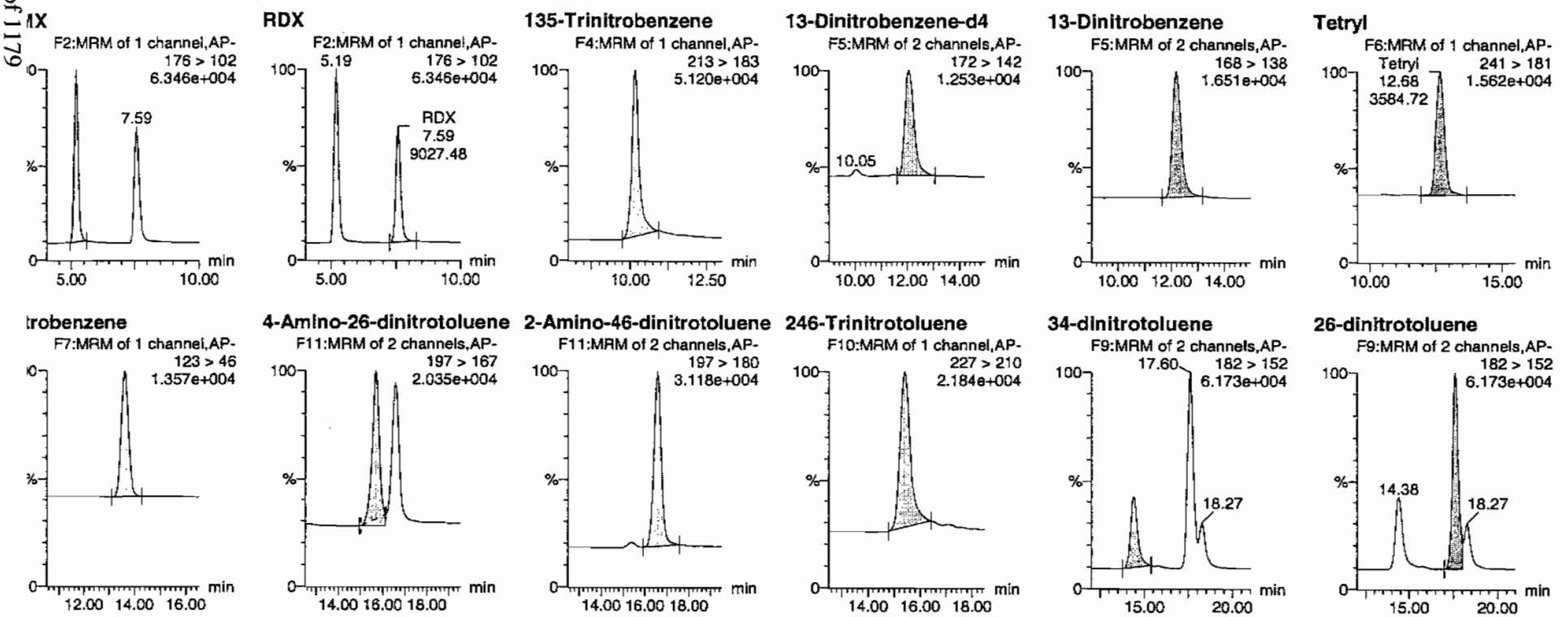

Hmm 02/18/10

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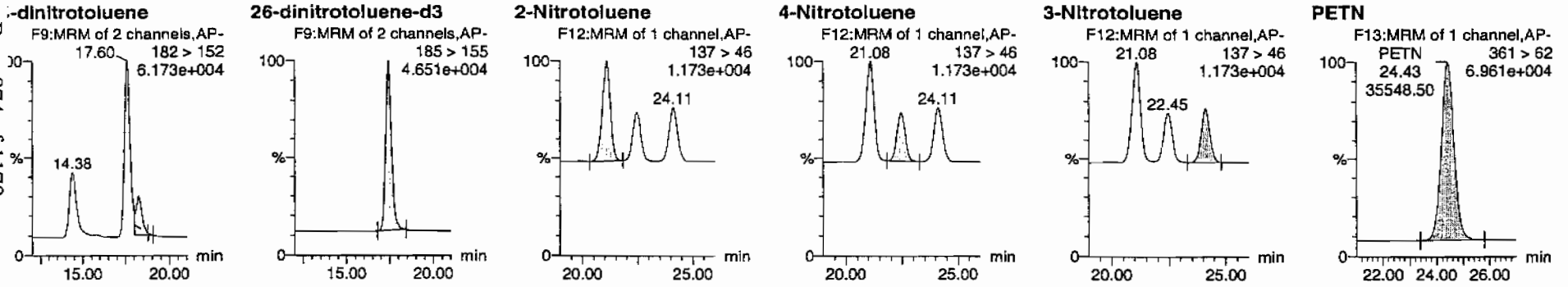

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-07CCV	HMX	176 > 102	5.19	11490.467	2829.281	11490.467	2030.634	bb			526.2925	87.7	-12.3	815.5
XX100216-07CCV	RDX	176 > 102	7.59	9027.476	2829.281	9027.476	1595.366	bb			615.1536	102.5	2.5	550.4
XX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12849.643	2829.281	12849.643	2270.832	bb			586.3926	97.7	-2.3	1070.5
XX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2829.281		2829.281	2829.281	bb			469.6033	93.9	-6.1	279.7
XX100216-07CCV	13-Dinitrobenzene	168 > 138	12.21	4134.145	2829.281	4134.145	730.600	bb			614.7141	102.5	2.5	343.4
XX100216-07CCV	Tetryl	241 > 181	12.68	3584.717	2829.281	3584.717	633.503	bb			581.0719	96.8	-3.2	310.8
XX100216-07CCV	Nitrobenzene	123 > 46	13.63	2728.030	2829.281	2728.030	482.107	bb			561.5623	93.6	-6.4	278.0
XX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5884.796	16466.256	5884.796	178.693	MM	18-Feb-10	08:45:27	558.0356	93.0	-7.0	329.4
XX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	9964.233	16466.256	9964.233	302.565	bb			700.2936	116.7	16.7	436.1
XX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7372.284	16466.256	7372.284	223.860	bb			667.7320	111.3	11.3	133.4
XX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	9623.878	16466.256	9623.878	292.230	bb			322.5496	107.5	7.5	471.5
XX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	21558.193	16466.256	21558.193	654.617	MM	18-Feb-10	08:48:43	617.8898	103.0	3.0	1307.8
XX100216-07CCV	24-dinitrotoluene	182 > 152	18.27	5197.906	16466.256	5197.906	157.835	MM	18-Feb-10	08:50:57	640.2777	106.7	6.7	288.4
XX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	16466.256		16466.256	16466.256	bb			472.9357	94.6	-5.4	1834.5
XX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2615.357	16466.256	2615.357	79.416	bb			521.8049	87.0	-13.0	493.9
XX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1334.272	16466.256	1334.272	40.515	bb			528.5675	88.1	-11.9	245.7
XX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1538.681	16466.256	1538.681	46.722	bb			522.1001	87.0	-13.0	271.2
XX100216-07CCV	PETN	361 > 62	24.43	35548.496	16466.256	35548.496	1079.435	bb			685.5926	114.3	14.3	8100.8

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 1820
Standard Number: WXX100216-07CCV
Data File: EXP0216052a

HMX	87.7
RDX	102.5
135-TNB	97.7
13-DNB	102.5
Tetryl	96.8
Nitrobenzene	93.6
4A-26-DNT	93.0
2A-46-DNT	116.7
246-TNT	111.3
34-DNT(surr)	107.5
26-DNT	103.0
24-DNT	106.7
2-NT	87.0
4-NT	88.1
3-NT	87.0
PETN	114.3
Total	1595.4
Average	99.7

MJP 2/18/10

Hmm 2/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1510

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216054a **Analysis Date:** 17–FEB–10 19:19

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	49.067	123	
1,3–Dinitrobenzene–d4	500	526.622	105	
2,4,6–Trinitrotoluene	40	45.215	113	
2,4–Dinitrotoluene	40	38.588	96	
2,6–Dinitrotoluene	40	43.371	108	
2,6–Dinitrotoluene–d3	500	482.623	97	
2–Amino–4,6–dinitrotoluene	40	45.806	115	
3,4–Dinitrotoluene	20	22.123	111	
4–Amino–2,6–dinitrotoluene	40	49.639	124	
HMX	40	43.201	108	
Nitrobenzene	40	41.456	104	
PETN	40	47.927	120	
RDX	40	45.793	114	
Tetryl	40	38.525	96	
m–Dinitrobenzene	40	46.393	116	
m–Nitrotoluene	40	35.588	89	
o–Nitrotoluene	40	43.751	109	
p–Nitrotoluene	40	34.462	86	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MM 2/18/10

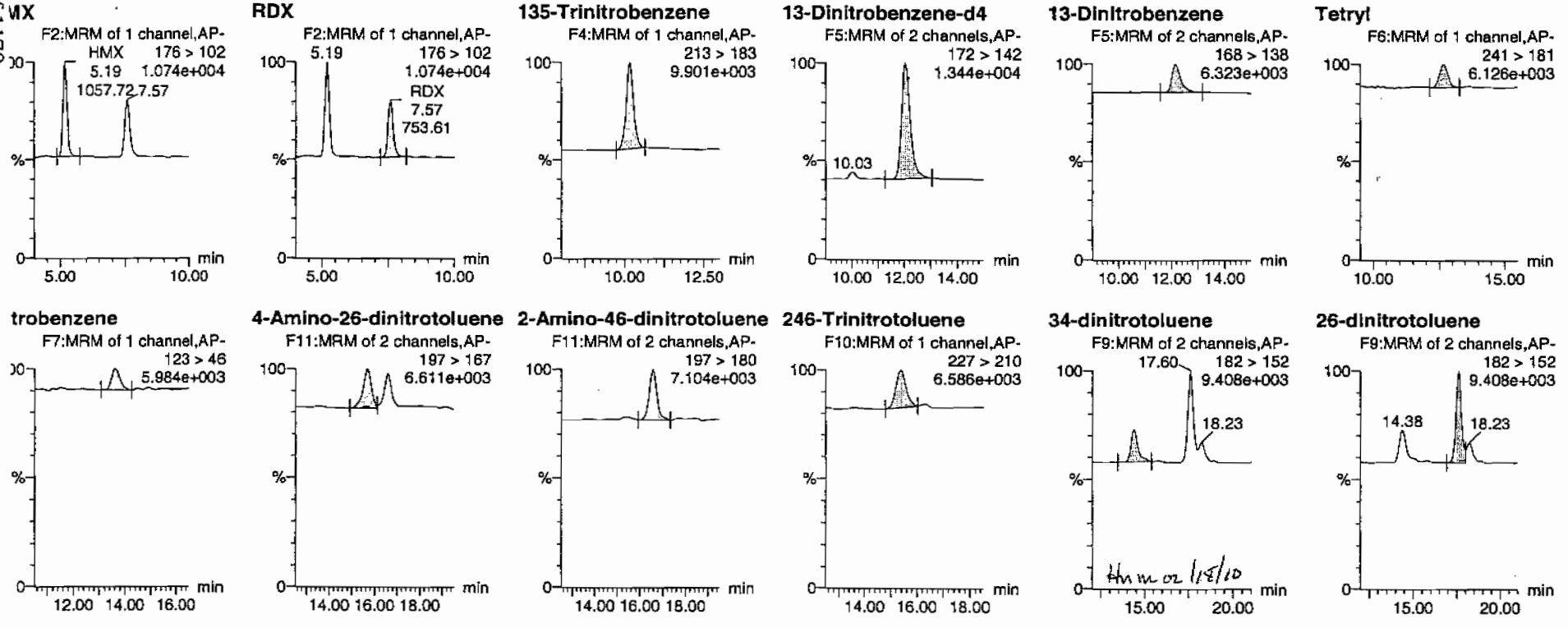

Hmm 02 1/18/10

Page 877 of 1179

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ıantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

:taset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

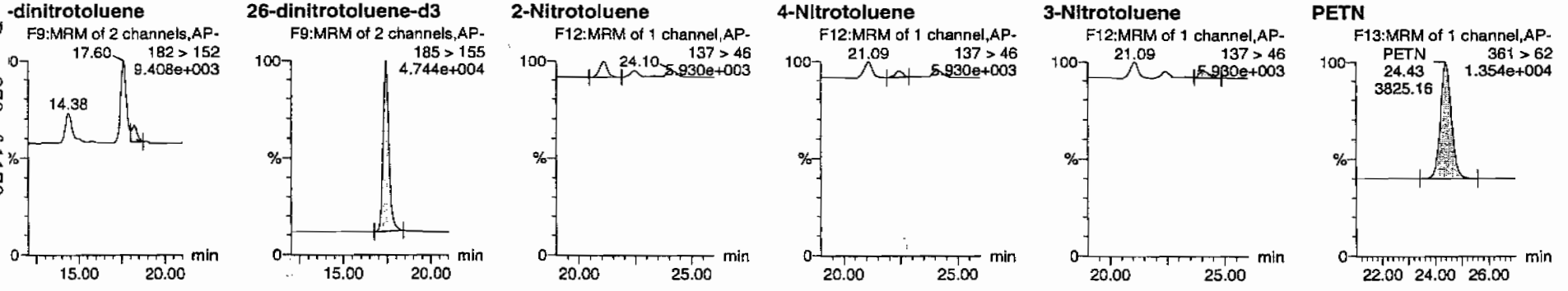

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-08CRI	HMX	176 > 102	5.19	1057.724	3172.809	1057.724	166.686	bb			43.2010	108.0	8.0	337.5
XX100216-08CRI	RDX	176 > 102	7.57	753.607	3172.809	753.607	118.760	bb			45.7925	114.5	14.5	206.1
XX100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1205.768	3172.809	1205.768	190.016	bb			49.0674	122.7	22.7	83.7
XX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3172.809		3172.809	3172.809	bb			526.6220	105.3	5.3	217.3
XX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	349.888	3172.809	349.888	55.139	bb			46.3926	116.0	16.0	58.6
XX100216-08CRI	Tetryl	241 > 181	12.68	266.522	3172.809	266.522	42.001	bb			38.5248	96.3	-3.7	16.4
XX100216-08CRI	Nitrobenzene	123 > 46	13.58	225.843	3172.809	225.843	35.590	bb			41.4560	103.6	3.6	30.2
XX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	534.191	16803.529	534.191	15.895	MM	18-Feb-10	08:45:35	49.6388	124.1	24.1	30.5
XX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	665.112	16803.529	665.112	19.791	bb			45.8063	114.5	14.5	84.8
XX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	509.430	16803.529	509.430	15.158	bb			45.2146	113.0	13.0	71.3
XX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	673.596	16803.529	673.596	20.043	bb			22.1228	110.6	10.6	46.6
XX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1544.212	16803.529	1544.212	45.949	MM	18-Feb-10	08:48:53	43.3711	108.4	8.4	133.2
XX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	319.681	16803.529	319.681	9.512	MM	18-Feb-10	08:50:42	38.5879	96.5	-3.5	27.1
XX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16803.529		16803.529	16803.529	bb			482.6227	96.5	-3.5	1788.6
XX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	223.779	16803.529	223.779	6.659	bb			43.7513	109.4	9.4	29.9
XX100216-08CRI	4-Nitrotoluene	137 > 46	22.42	88.774	16803.529	88.774	2.642	bb			34.4617	86.2	-13.8	12.3
XX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	107.030	16803.529	107.030	3.185	bb			35.5881	89.0	-11.0	12.7
XX100216-08CRI	PETN	361 > 62	24.43	3825.164	16803.529	3825.164	113.820	bb			47.9269	119.8	19.8	958.7

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	1919
Standard Number	WXX100216-08CRI
Data File	EXP0216054a

HMX	108.0
RDX	114.5
135-TNB	122.7
13-DNB	116.0
Tetryl	96.3
Nitrobenzene	103.6
4A-26-DNT	124.1
2A-46-DNT	114.5
246-TNT	113.0
34-DNT(surr)	110.6
26-DNT	108.4
24-DNT	96.5
2-NT	109.4
4-NT	86.2
3-NT	89.0
PETN	119.8
Total	1732.6
Average	108.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216065a

Analysis Date: 18-FEB-10 00:45

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	589.98	98	
1,3-Dinitrobenzene-d4	500	503.448	101	
2,4,6-Trinitrotoluene	600	674.628	112	
2,4-Dinitrotoluene	600	646.389	108	
2,6-Dinitrotoluene	600	642.938	107	
2,6-Dinitrotoluene-d3	500	484.848	97	
2-Amino-4,6-dinitrotoluene	600	685.308	114	
3,4-Dinitrotoluene	300	332.023	111	
4-Amino-2,6-dinitrotoluene	600	595.679	99	
HMX	600	685.513	114	
Nitrobenzene	600	619.311	103	
PETN	600	592.614	99	
RDX	600	694.615	116	
Tetryl	600	564.648	94	
m-Dinitrobenzene	600	607.21	101	
m-Nitrotoluene	600	591.803	99	
o-Nitrotoluene	600	604.859	101	
p-Nitrotoluene	600	605.824	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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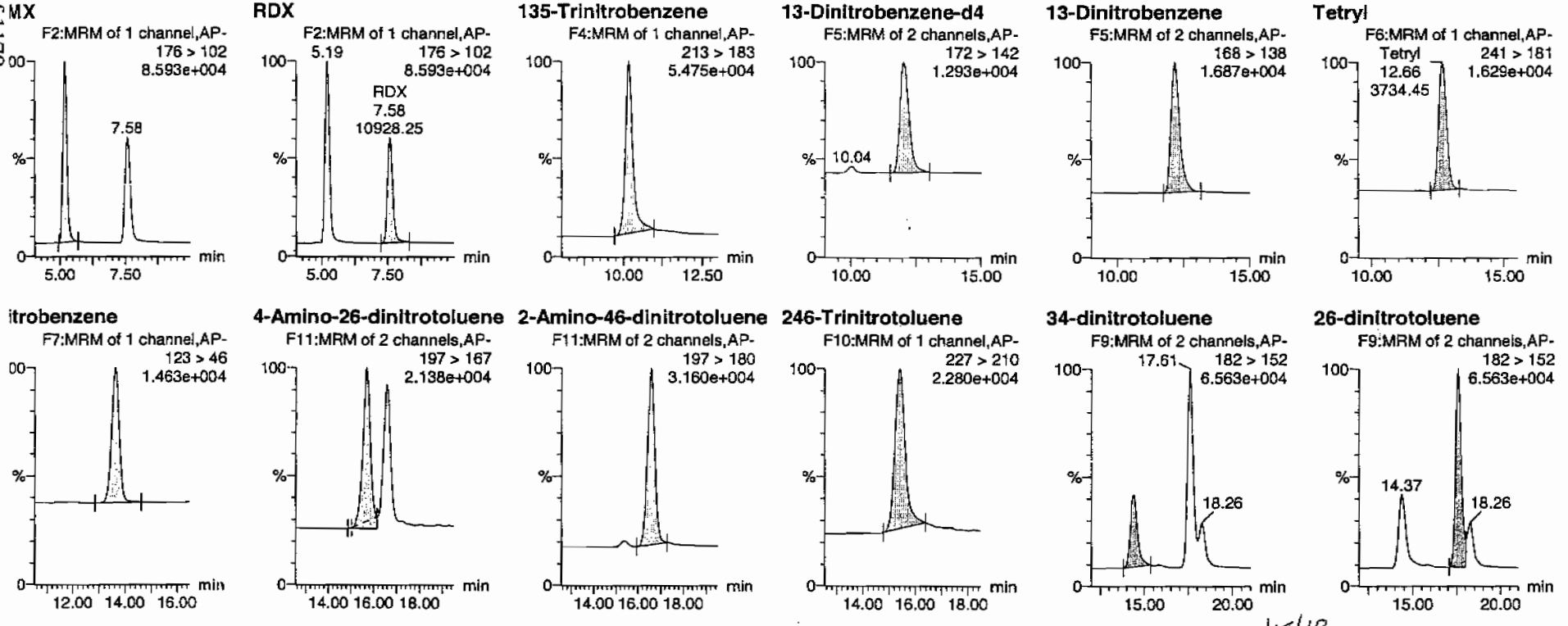

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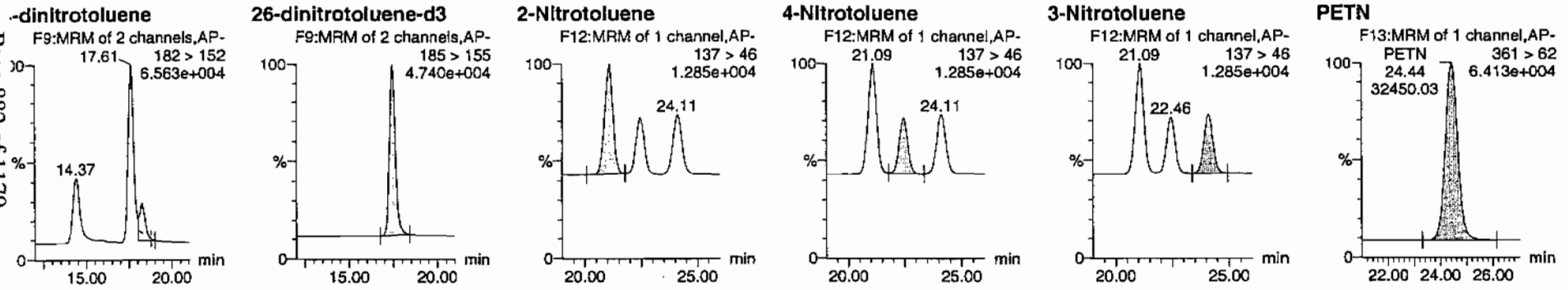

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-07CCV	HMX	176 > 102	5.19	16045.377	3033.191	16045.377	2644.966	bb			685.5131	114.3	14.3	4796.8
XX100216-07CCV	RDX	176 > 102	7.58	10928.254	3033.191	10928.254	1801.445	bb			694.6153	115.8	15.8	2791.9
XX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13860.002	3033.191	13860.002	2284.723	bb			589.9797	98.3	-1.7	651.9
XX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3033.191		3033.191	3033.191	bb			503.4482	100.7	0.7	211.0
XX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4377.993	3033.191	4377.993	721.681	bb			607.2099	101.2	1.2	1168.9
XX100216-07CCV	Tetryl	241 > 181	12.66	3734.446	3033.191	3734.446	615.597	bb			564.6476	94.1	-5.9	245.8
XX100216-07CCV	Nitrobenzene	123 > 46	13.61	3225.402	3033.191	3225.402	531.685	bb			619.3113	103.2	3.2	203.0
XX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6439.984	16881.000	6439.984	190.747	MM	18-Feb-10	08:45:48	595.6786	99.3	-0.7	289.6
XX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9996.612	16881.000	9996.612	296.091	bb			685.3080	114.2	14.2	311.7
XX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7636.027	16881.000	7636.027	226.172	bb			674.6279	112.4	12.4	330.2
XX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10156.054	16881.000	10156.054	300.813	bb			332.0230	110.7	10.7	270.1
XX100216-07CCV	26-dinitrotoluene	182 > 152	17.61	22997.145	16881.000	22997.145	681.155	MM	18-Feb-10	08:49:12	642.9383	107.2	7.2	748.4
XX100216-07CCV	24-dinitrotoluene	182 > 152	18.26	5379.695	16881.000	5379.695	159.342	MM	18-Feb-10	08:50:31	646.3895	107.7	7.7	160.4
XX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16881.000		16881.000	16881.000	bb			484.8478	97.0	-3.0	2282.6
XX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	3107.994	16881.000	3107.994	92.056	bb			604.8589	100.8	0.8	698.8
XX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1567.810	16881.000	1567.810	46.437	bb			605.8236	101.0	1.0	345.9
XX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1788.032	16881.000	1788.032	52.960	bb			591.8030	98.6	-1.4	366.6
XX100216-07CCV	PETN	361 > 62	24.44	32450.031	16881.000	32450.031	961.141	bb			592.6141	98.8	-1.2	10378.5

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 0045
Standard Number: WXX100216-07CCV
Data File: EXP0216065a

HMX		114.3
RDX		115.8
135-TNB		98.3
13-DNB		101.2
Tetryl		94.1
Nitrobenzene		103.2
4A-26-DNT		99.3
2A-46-DNT		114.2
246-TNT		112.4
34-DNT(surr)		110.7
26-DNT		107.2
24-DNT		107.7
2-NT		100.8
4-NT		101.0
3-NT		98.6
PETN		98.8
Total		1677.6
Average		104.9

MOT 2/18/10

HMM 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216067a

Analysis Date: 18-FEB-10 01:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	31.977	80	
Nitrobenzene	40	28.466	71	
PETN	40	44.163	110	
RDX	40	37.7	94	
Tetryl	40	40.159	100	
m-Dinitrobenzene	40	38.48	96	
m-Nitrotoluene	40	33.219	83	
o-Nitrotoluene	40	44.575	111	
p-Nitrotoluene	40	37.562	94	
1,3,5-Trinitrobenzene	40	50.874	127	
1,3-Dinitrobenzene-d4	500	574.253	115	
2,4,6-Trinitrotoluene	40	44.52	111	
2,4-Dinitrotoluene	40	35.748	89	
2,6-Dinitrotoluene	40	41.094	103	
2,6-Dinitrotoluene-d3	500	534.755	107	
2-Amino-4,6-dinitrotoluene	40	37.567	94	
3,4-Dinitrotoluene	20	20.903	105	
4-Amino-2,6-dinitrotoluene	40	37.482	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MTP 2/18/10

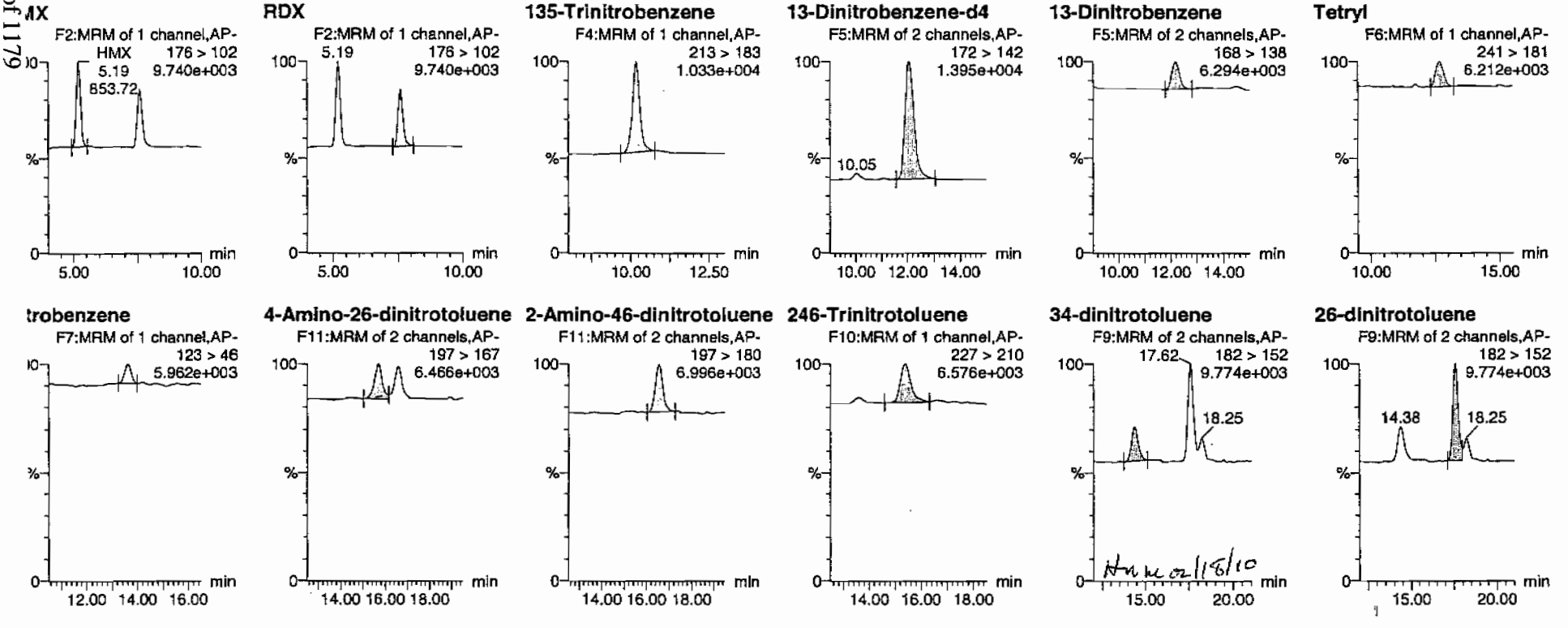

HMW 02/18/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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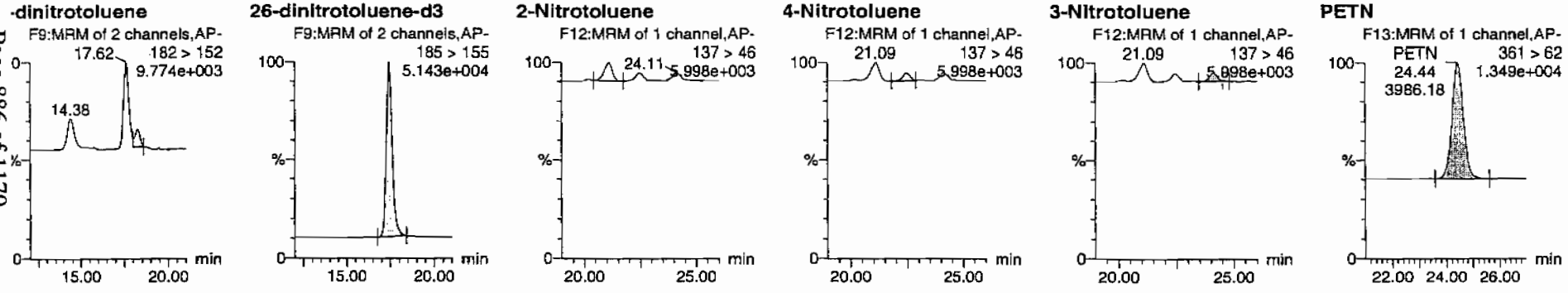

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
(X100216-08CRI	HMX	176 > 102	5.19	853.724	3459.779	853.724	123.378	bb			31.9768	79.9	-20.1	197.3
(X100216-08CRI	RDX	176 > 102	7.59	676.552	3459.779	676.552	97.774	bb			37.7004	94.3	-5.7	132.5
(X100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1363.239	3459.779	1363.239	197.012	bb			50.8741	127.2	27.2	225.1
(X100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3459.779		3459.779	3459.779	bb			574.2532	114.9	14.9	215.0
(X100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	316.458	3459.779	316.458	45.734	bb			38.4797	96.2	-3.8	49.6
(X100216-08CRI	Tetryl	241 > 181	12.68	302.953	3459.779	302.953	43.782	bb			40.1585	100.4	0.4	45.9
(X100216-08CRI	Nitrobenzene	123 > 46	13.58	169.101	3459.779	169.101	24.438	bb			28.4658	71.2	-28.8	16.7
(X100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	446.929	18618.615	446.929	12.002	MM	18-Feb-10	08:46:00	37.4815	93.7	-6.3	9.9
(X100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	604.400	18618.615	604.400	16.231	bb			37.5671	93.9	-6.1	115.4
(X100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	555.791	18618.615	555.791	14.926	bb			44.5204	111.3	11.3	29.1
(X100216-08CRI	34-dinitrotoluene	182 > 152	14.38	705.192	18618.615	705.192	18.938	bb			20.9026	104.5	4.5	30.4
(X100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1621.167	18618.615	1621.167	43.536	MM	18-Feb-10	08:49:18	41.0936	102.7	2.7	86.4
(X100216-08CRI	24-dinitrotoluene	182 > 152	18.25	328.140	18618.615	328.140	8.812	MM	18-Feb-10	08:50:18	35.7476	89.4	-10.6	18.8
(X100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	18618.615		18618.615	18618.615	bb			534.7547	107.0	7.0	729.5
(X100216-08CRI	2-Nitrotoluene	137 > 46	21.09	252.621	18618.615	252.621	6.784	bb			44.5753	111.4	11.4	39.4
(X100216-08CRI	4-Nitrotoluene	137 > 46	22.46	107.213	18618.615	107.213	2.879	bb			37.5622	93.9	-6.1	17.2
(X100216-08CRI	3-Nitrotoluene	137 > 46	24.11	110.695	18618.615	110.695	2.973	MM	18-Feb-10	08:53:07	33.2186	83.0	-17.0	17.0
(X100216-08CRI	PETN	361 > 62	24.44	3986.175	18618.615	3986.175	107.048	bb			44.1631	110.4	10.4	1704.1

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	0144
Standard Number	WXX100216-08CRI
Data File	EXP0216067a

HMX	79.9
RDX	94.3
135-TNB	127.2
13-DNB	96.2
Tetryl	100.4
Nitrobenzene	71.2
4A-26-DNT	93.7
2A-46-DNT	93.9
246-TNT	111.3
34-DNT(surr)	104.5
26-DNT	102.7
24-DNT	89.4
2-NT	111.4
4-NT	93.9
3-NT	83.0
PETN	110.4
Total	1563.4
Average	97.7

AMT 2/18/10

Hamm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216078a

Analysis Date: 18-FEB-10 07:10

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	600	615.257	103	
3,4-Dinitrotoluene	300	357.759	119	
4-Amino-2,6-dinitrotoluene	600	549.787	92	
HMX	600	519.274	87	
Nitrobenzene	600	504.757	84	
PETN	600	715.342	119	
RDX	600	628.868	105	
Tetryl	600	541.018	90	
m-Dinitrobenzene	600	590.189	98	
m-Nitrotoluene	600	537.034	90	
o-Nitrotoluene	600	576.847	96	
p-Nitrotoluene	600	589.034	98	
1,3,5-Trinitrobenzene	600	520.611	87	
1,3-Dinitrobenzene-d4	500	542.41	108	
2,4,6-Trinitrotoluene	600	648.856	108	
2,4-Dinitrotoluene	600	647.037	108	
2,6-Dinitrotoluene	600	629.886	105	
2,6-Dinitrotoluene-d3	500	468.716	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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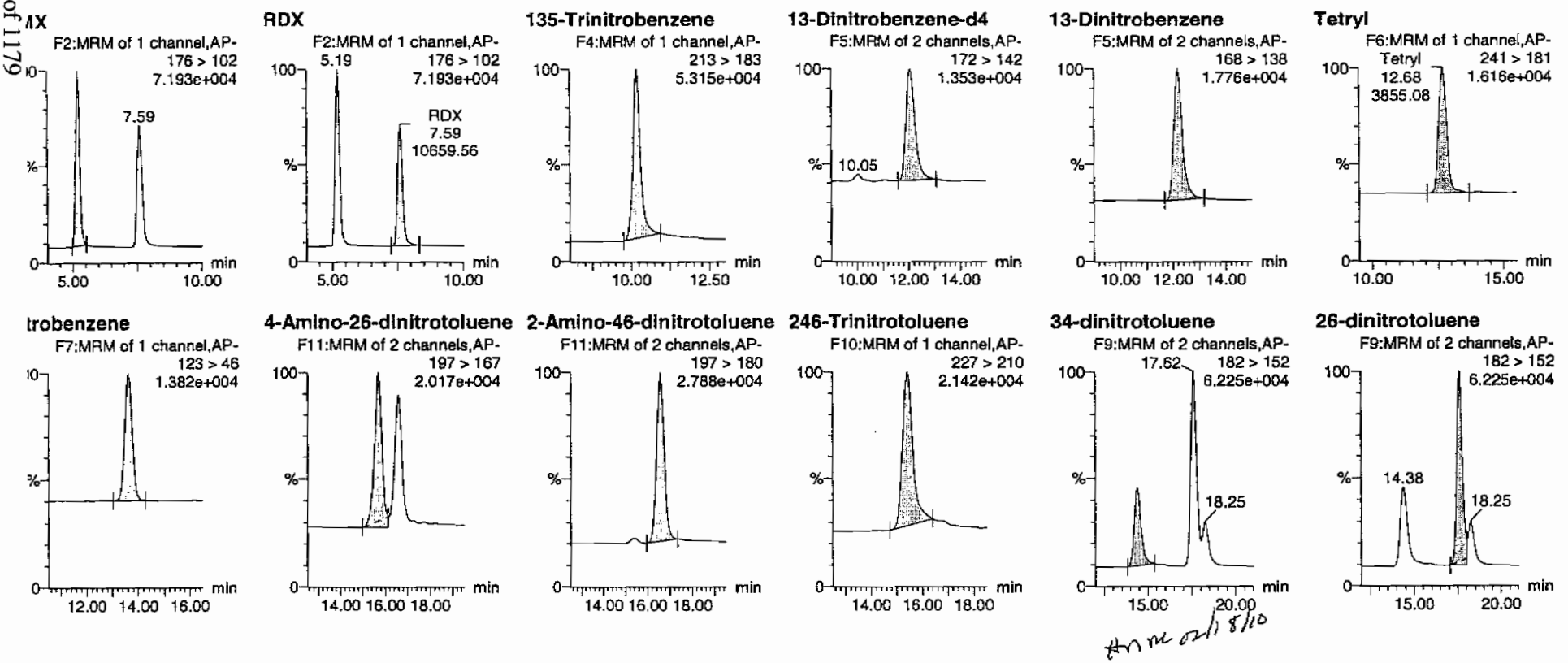

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ıantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

.taset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

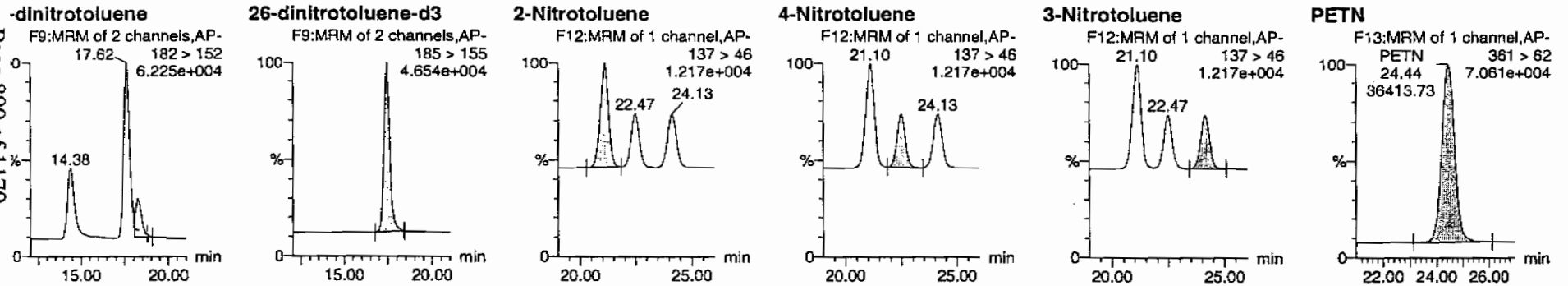

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
KX100216-07CCV	HMX	176 > 102	5.19	13094.961	3267.932	13094.961	2003.555	bb			519.2742	86.5	-13.5	2314.4
KX100216-07CCV	RDX	176 > 102	7.59	10659.564	3267.932	10659.564	1630.934	bb			628.8683	104.8	4.8	1607.8
KX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13176.895	3267.932	13176.895	2016.091	bb			520.6113	86.8	-13.2	844.8
KX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3267.932		3267.932	3267.932	bb			542.4105	108.5	8.5	247.9
KX100216-07CCV	13-Dinitrobenzene	168 > 138	12.21	4584.592	3267.932	4584.592	701.452	bb			590.1891	98.4	-1.6	710.8
KX100216-07CCV	Tetryl	241 > 181	12.68	3855.081	3267.932	3855.081	589.835	bb			541.0178	90.2	-9.8	423.8
KX100216-07CCV	Nitrobenzene	123 > 46	13.63	2832.244	3267.932	2832.244	433.339	bb			504.7572	84.1	-15.9	236.8
KX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5746.081	16319.334	5746.081	176.051	MM	18-Feb-10	08:46:17	549.7873	91.6	-8.4	542.5
KX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8676.166	16319.334	8676.166	265.825	bb			615.2570	102.5	2.5	836.2
KX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7099.956	16319.334	7099.956	217.532	bb			648.8559	108.1	8.1	417.5
KX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	10579.176	16319.334	10579.176	324.130	bb			357.7591	119.3	19.3	478.8
KX100216-07CCV	26-dinitrotoluene	182 > 152	17.62	21780.637	16319.334	21780.637	667.326	MM	18-Feb-10	08:49:35	629.8856	105.0	5.0	1206.0
KX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	5205.910	16319.334	5205.910	159.501	MM	18-Feb-10	08:50:07	647.0369	107.8	7.8	267.1
KX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	16319.334		16319.334	16319.334	bb			468.7159	93.7	-6.3	1228.6
KX100216-07CCV	2-Nitrotoluene	137 > 46	21.10	2865.436	16319.334	2865.436	87.793	bb			576.8466	96.1	-3.9	675.9
KX100216-07CCV	4-Nitrotoluene	137 > 46	22.47	1473.642	16319.334	1473.642	45.150	bb			589.0342	98.2	-1.8	344.1
KX100216-07CCV	3-Nitrotoluene	137 > 46	24.13	1568.570	16319.334	1568.570	48.059	bb			537.0337	89.5	-10.5	344.9
KX100216-07CCV	PETN	361 > 62	24.44	36413.730	16319.334	36413.730	1115.662	bb			715.3425	119.2	19.2	7773.8

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 0710
Standard Number: WXX100216-07CCV
Data File: EXP0216078a

HMX	86.5
RDX	104.8
135-TNB	86.8
13-DNB	98.4
Tetryl	90.2
Nitrobenzene	84.1
4A-26-DNT	91.6
2A-46-DNT	102.5
246-TNT	108.1
34-DNT(surr)	119.3
26-DNT	105.0
24-DNT	107.8
2-NT	96.1
4-NT	98.2
3-NT	89.5
PETN	119.2
Total	1588.1
Average	99.3

MTT 4/18/10

Hme 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216080a

Analysis Date: 18-FEB-10 08:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.403	121	
1,3-Dinitrobenzene-d4	500	494.727	99	
2,4,6-Trinitrotoluene	40	41.136	103	
2,4-Dinitrotoluene	40	38.771	97	
2,6-Dinitrotoluene	40	44.76	112	
2,6-Dinitrotoluene-d3	500	481.497	96	
2-Amino-4,6-dinitrotoluene	40	41.233	103	
3,4-Dinitrotoluene	20	22.678	113	
4-Amino-2,6-dinitrotoluene	40	37.418	94	
HMX	40	43.826	110	
Nitrobenzene	40	37.223	93	
PETN	40	54.239	136	*
RDX	40	42.015	105	
Tetryl	40	39.964	100	
m-Dinitrobenzene	40	45.818	115	
m-Nitrotoluene	40	40.759	102	
o-Nitrotoluene	40	45.987	115	
p-Nitrotoluene	40	51.62	129	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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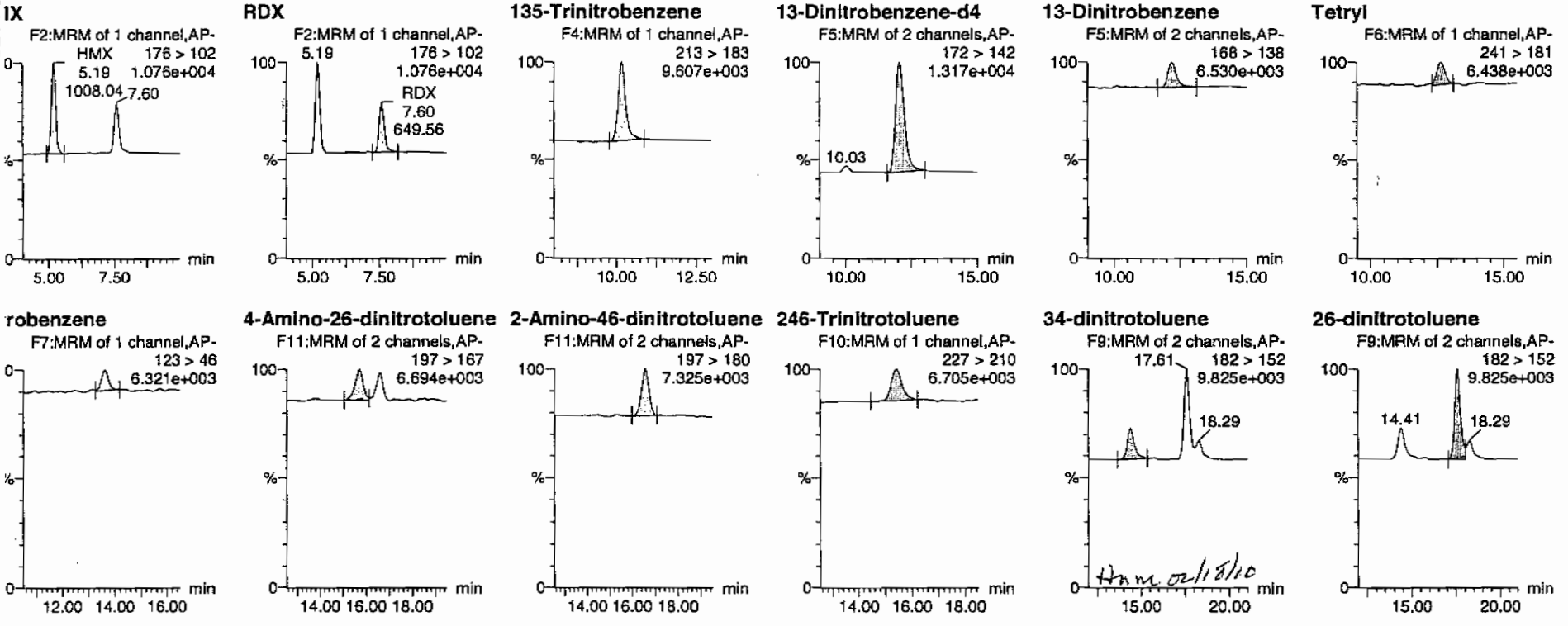

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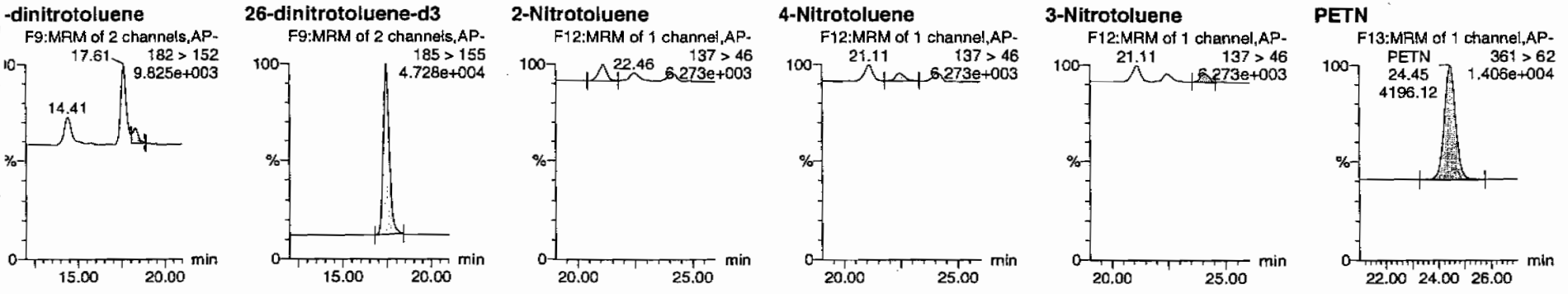

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-08CRI	HMX	176 > 102	5.19	1008.036	2980.646	1008.036	169.097	bb			43.8259	109.6	9.6	201.4
XX100216-08CRI	RDX	176 > 102	7.60	649.563	2980.646	649.563	108.963	bb			42.0150	105.0	5.0	111.9
XX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1117.398	2980.646	1117.398	187.442	bb			48.4029	121.0	21.0	143.8
XX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2980.646		2980.646	2980.646	bb			494.7268	98.9	-1.1	450.8
XX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	324.627	2980.646	324.627	54.456	bb			45.8182	114.5	14.5	34.8
XX100216-08CRI	Tetryl	241 > 181	12.66	259.731	2980.646	259.731	43.570	db			39.9636	99.9	-0.1	29.4
XX100216-08CRI	Nitrobenzene	123 > 46	13.61	190.499	2980.646	190.499	31.956	db			37.2226	93.1	-6.9	28.0
XX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	401.731	16764.338	401.731	11.982	MM	18-Feb-10	08:46:24	37.4175	93.5	-6.5	26.2
XX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.59	597.310	16764.338	597.310	17.815	bb			41.2330	103.1	3.1	68.2
XX100216-08CRI	246-Trinitrotoluene	227 > 210	15.44	462.397	16764.338	462.397	13.791	bb			41.1361	102.8	2.8	49.8
XX100216-08CRI	34-dinitrotoluene	182 > 152	14.41	688.876	16764.338	688.876	20.546	bb			22.6775	113.4	13.4	28.8
XX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1589.948	16764.338	1589.948	47.421	MM	18-Feb-10	08:49:42	44.7600	111.9	11.9	83.5
XX100216-08CRI	24-dinitrotoluene	182 > 152	18.29	320.451	16764.338	320.451	9.558	MM	18-Feb-10	08:50:00	38.7713	96.9	-3.1	15.9
XX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16764.338		16764.338	16764.338	bb			481.4971	96.3	-3.7	1198.5
XX100216-08CRI	2-Nitrotoluene	137 > 46	21.11	234.663	16764.338	234.663	6.999	bb			45.9865	115.0	15.0	54.3
XX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	132.665	16764.338	132.665	3.957	bb			51.6203	129.1	29.1	25.9
XX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	122.295	16764.338	122.295	3.647	bb			40.7589	101.9	1.9	25.8
XX100216-08CRI	PETN	361 > 62	24.45	4196.118	16764.338	4196.118	125.150	bb			54.2394	135.6	35.6	1668.2

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	0810
Standard Number	WXX100216-08CRI
Data File	EXP0216080a

HMX	109.6
RDX	105.0
135-TNB	121.0
13-DNB	114.5
Tetryl	99.9
Nitrobenzene	93.1
4A-26-DNT	93.5
2A-46-DNT	103.1
246-TNT	102.8
34-DNT(surr)	113.4
26-DNT	111.9
24-DNT	96.9
2-NT	115.0
4-NT	129.1
3-NT	101.9
PETN	135.6
Total	1746.3
Average	109.1

MTT 2/18/10

Hmc 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216089a

Analysis Date: 18-FEB-10 12:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	691.665	115	
2,4-Dinitrotoluene	600	659.229	110	
2,6-Dinitrotoluene	600	644.249	107	
2,6-Dinitrotoluene-d3	500	461.757	92	
2-Amino-4,6-dinitrotoluene	600	655.311	109	
3,4-Dinitrotoluene	300	351.733	117	
4-Amino-2,6-dinitrotoluene	600	586.497	98	
HMX	600	695.878	116	
Nitrobenzene	600	570.735	95	
PETN	600	765.325	128	*
RDX	600	762.426	127	*
Tetryl	600	584.833	97	
m-Dinitrobenzene	600	636.337	106	
m-Nitrotoluene	600	573.92	96	
o-Nitrotoluene	600	648.456	108	
p-Nitrotoluene	600	589.135	98	
1,3,5-Trinitrobenzene	600	575.828	96	
1,3-Dinitrobenzene-d4	500	495.598	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ıte: 18-Feb-2010
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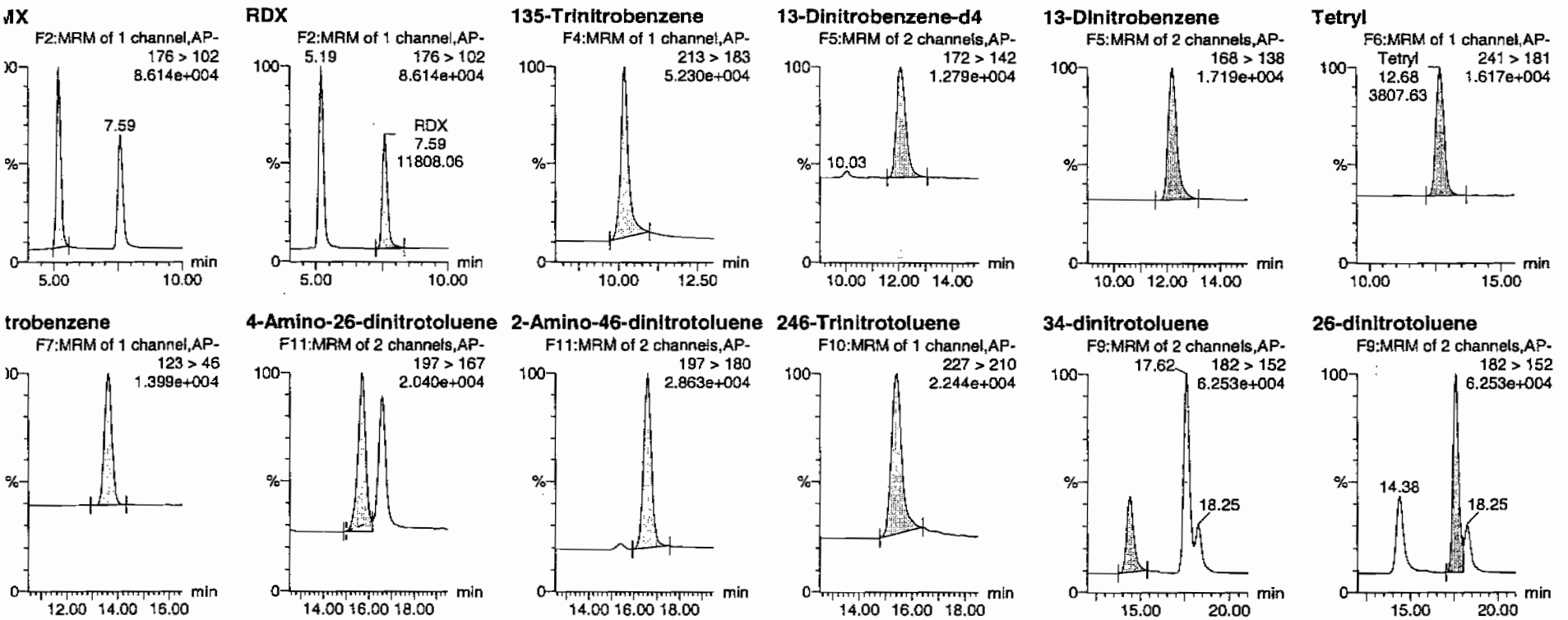

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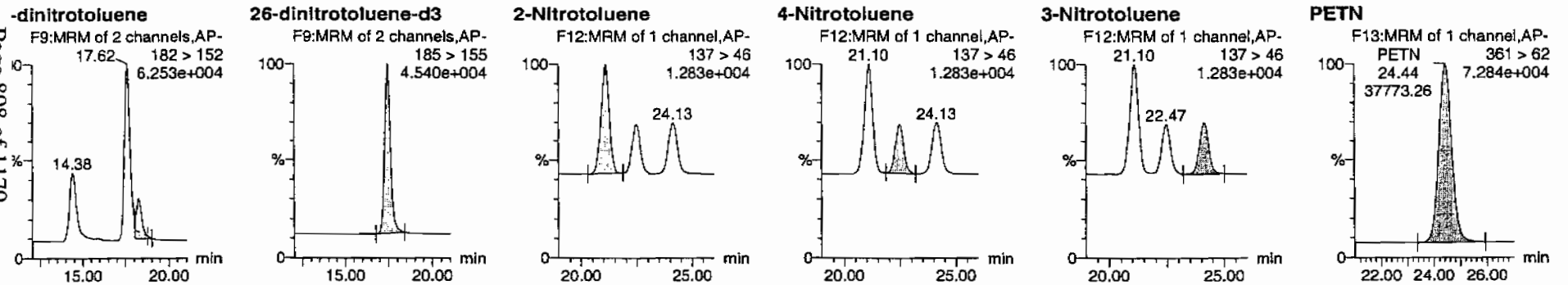

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-07CCV	HMX	176 > 102	5.19	16034.003	2985.895	16034.003	2684.958	bb			695.8778	116.0	16.0	2037.0
XX100216-07CCV	RDX	176 > 102	7.59	11808.064	2985.895	11808.064	1977.307	bb			762.4256	127.1	27.1	1280.5
XX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13316.616	2985.895	13316.616	2229.920	bb			575.8281	96.0	-4.0	890.3
XX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2985.895		2985.895	2985.895	bb			495.5981	99.1	-0.9	653.7
XX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4516.458	2985.895	4516.458	756.299	bb			636.3367	106.1	6.1	360.2
XX100216-07CCV	Tetryl	241 > 181	12.68	3807.633	2985.895	3807.633	637.603	bb			584.8326	97.5	-2.5	267.7
XX100216-07CCV	Nitrobenzene	123 > 46	13.63	2926.067	2985.895	2926.067	489.982	bb			570.7352	95.1	-4.9	316.4
XX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	6038.745	16077.056	6038.745	187.806	MM	19-Feb-10	08:38:58	586.4966	97.7	-2.3	179.9
XX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	9103.798	16077.056	9103.798	283.130	bb			655.3106	109.2	9.2	218.0
XX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7456.020	16077.056	7456.020	231.884	bb			691.6646	115.3	15.3	356.6
XX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	10246.576	16077.056	10246.576	318.671	bb			351.7334	117.2	17.2	267.6
XX100216-07CCV	26-dinitrotoluene	182 > 152	17.62	21946.574	16077.056	21946.574	682.543	MM	19-Feb-10	08:43:11	644.2490	107.4	7.4	711.3
XX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	5225.263	16077.056	5225.263	162.507	MM	19-Feb-10	08:46:54	659.2292	109.9	9.9	160.9
XX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	16077.056		16077.056	16077.056	bb			461.7573	92.4	-7.6	850.8
XX100216-07CCV	2-Nitrotoluene	137 > 46	21.10	3173.327	16077.056	3173.327	98.691	bb			648.4558	108.1	8.1	417.7
XX100216-07CCV	4-Nitrotoluene	137 > 46	22.47	1452.012	16077.056	1452.012	45.158	bb			589.1347	98.2	-1.8	190.0
XX100216-07CCV	3-Nitrotoluene	137 > 46	24.13	1651.421	16077.056	1651.421	51.360	bb			573.9200	95.7	-4.3	197.5
XX100216-07CCV	PETN	361 > 62	24.44	37773.258	16077.056	37773.258	1174.757	bb			765.3245	127.6	27.6	10691.0

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 1236
Standard Number: WXX100216-07CCV
Data File: EXP0216089a

HMX	116.0
RDX	127.1
135-TNB	96.0
13-DNB	106.1
Tetryl	97.5
Nitrobenzene	95.1
4A-26-DNT	97.7
2A-46-DNT	109.2
246-TNT	115.3
34-DNT(surr)	117.2
26-DNT	107.4
24-DNT	109.9
2-NT	108.1
4-NT	98.2
3-NT	95.7
PETN	127.6
Total	1724.1
Average	107.8

MDT 2/19/10

tm 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216091a

Analysis Date: 18-FEB-10 13:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	40	63.823	160	*
2,4-Dinitrotoluene	40	44.759	112	
2,6-Dinitrotoluene	40	43.488	109	
2,6-Dinitrotoluene-d3	500	500.11	100	
2-Amino-4,6-dinitrotoluene	40	42.691	107	
3,4-Dinitrotoluene	20	22.924	115	
4-Amino-2,6-dinitrotoluene	40	39.308	98	
HMX	40	45.096	113	
Nitrobenzene	40	40.389	101	
PETN	40	50.626	127	
RDX	40	44.527	111	
Tetryl	40	44.164	110	
m-Dinitrobenzene	40	38.138	95	
m-Nitrotoluene	40	37.355	93	
o-Nitrotoluene	40	34.55	86	
p-Nitrotoluene	40	31.551	79	
1,3,5-Trinitrobenzene	40	49.419	124	
1,3-Dinitrobenzene-d4	500	495.095	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MM 4/19/10

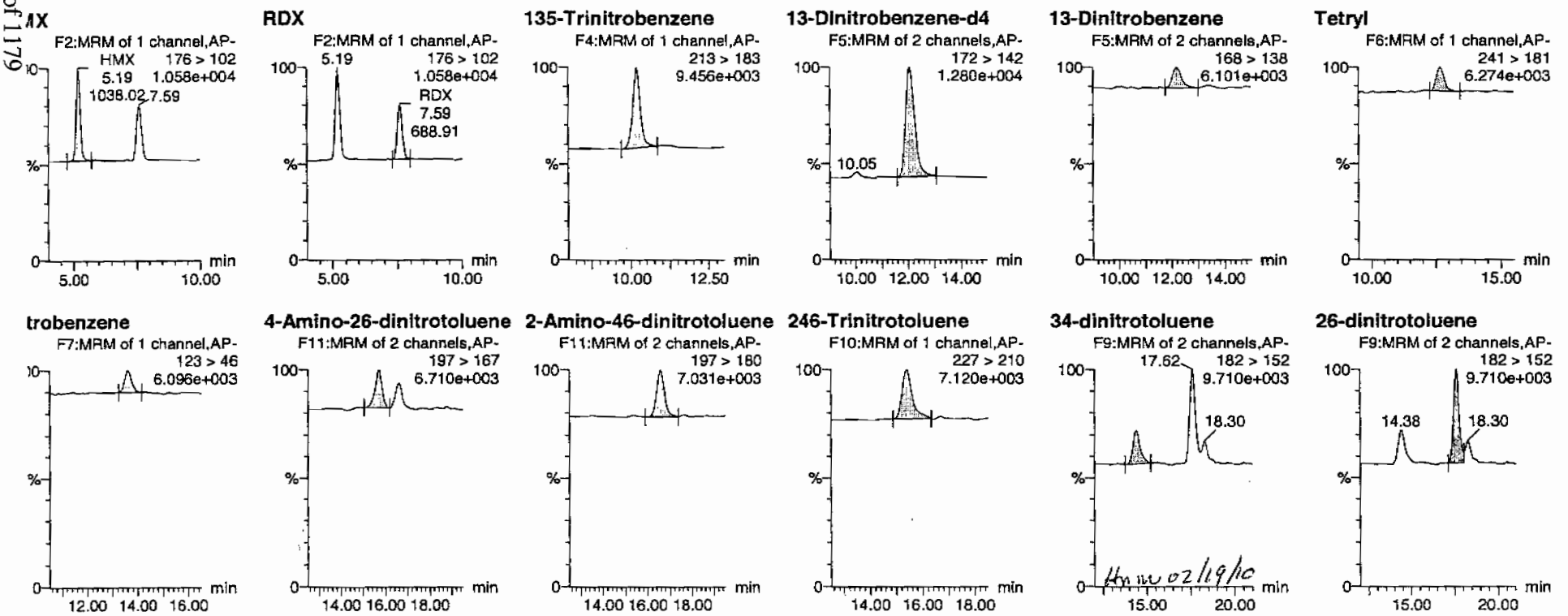

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antify Sample Report Printed: Fri Feb 19 08:50:21 2010, Page 22 of 97

:L Laboratories, LLC / Analyst : Michael A. Penny

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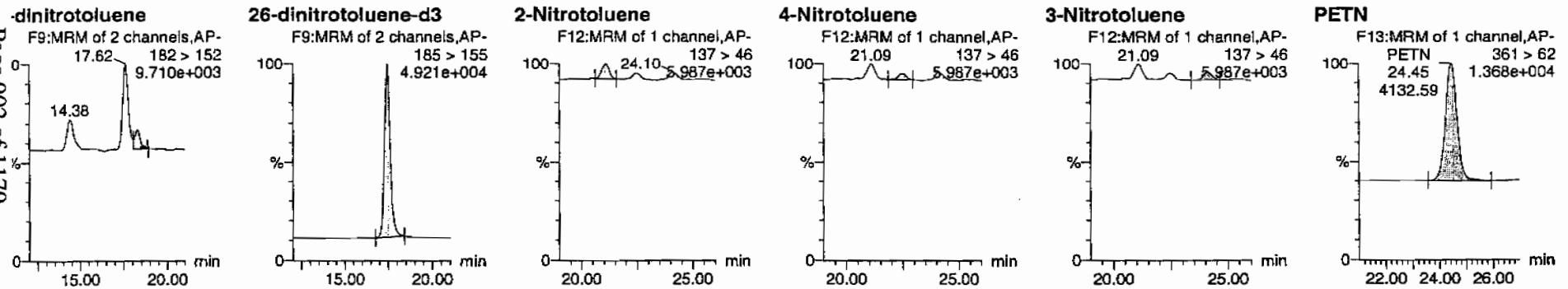

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XX100216-08CRI	HMX	176 > 102	5.19	1038.023	2982.866	1038.023	173.998	bb			45.0961	112.7	12.7	166.4
XX100216-08CRI	RDX	176 > 102	7.59	688.912	2982.866	688.912	115.478	bb			44.5270	111.3	11.3	97.9
XX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1141.707	2982.866	1141.707	191.378	bb			49.4191	123.5	23.5	56.1
XX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2982.866		2982.866	2982.866	bb			495.0953	99.0	-1.0	121.3
XX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	270.413	2982.866	270.413	45.328	bb			38.1380	95.3	-4.7	27.2
XX100216-08CRI	Tetryl	241 > 181	12.68	287.244	2982.866	287.244	48.149	bb			44.1640	110.4	10.4	28.0
XX100216-08CRI	Nitrobenzene	123 > 46	13.58	206.859	2982.866	206.859	34.675	bb			40.3892	101.0	1.0	31.0
XX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	438.338	17412.377	438.338	12.587	bb			39.3076	98.3	-1.7	36.6
XX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	642.342	17412.377	642.342	18.445	bb			42.6913	106.7	6.7	109.0
XX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	745.148	17412.377	745.148	21.397	bb			63.8233	159.6	59.6	80.8
XX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	723.283	17412.377	723.283	20.769	bb			22.9241	114.6	14.6	41.3
XX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1604.459	17412.377	1604.459	46.072	MM	19-Feb-10	08:43:19	43.4875	108.7	8.7	115.7
XX100216-08CRI	24-dinitrotoluene	182 > 152	18.30	384.242	17412.377	384.242	11.034	MM	19-Feb-10	08:46:31	44.7591	111.9	11.9	26.9
XX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	17412.377		17412.377	17412.377	bb			500.1098	100.0	0.0	2498.5
XX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	183.120	17412.377	183.120	5.258	bb			34.5501	86.4	-13.6	48.1
XX100216-08CRI	4-Nitrotoluene	137 > 46	22.47	84.222	17412.377	84.222	2.418	bb			31.5514	78.9	-21.1	19.4
XX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	116.415	17412.377	116.415	3.343	bb			37.3552	93.4	-6.6	24.4
XX100216-08CRI	PETN	361 > 62	24.45	4132.593	17412.377	4132.593	118.668	bb			50.6256	126.6	26.6	818.9

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	1335
Standard Number	WXX100216-08CRI
Data File	EXP0216091a

HMX	112.7
RDX	111.3
135-TNB	123.5
13-DNB	95.3
Tetryl	110.4
Nitrobenzene	101.0
4A-26-DNT	98.3
2A-46-DNT	106.7
246-TNT	159.6
34-DNT(surr)	114.6
26-DNT	108.7
24-DNT	111.9
2-NT	86.4
4-NT	78.9
3-NT	93.4
PETN	126.6
Total	1739.3
Average	108.7

MAP 2/19/10

HM M. 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216101a

Analysis Date: 18–FEB–10 18:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	788.92	131	*
Tetryl	600	597.56	100	
m–Dinitrobenzene	600	622.496	104	
m–Nitrotoluene	600	569.513	95	
o–Nitrotoluene	600	604.641	101	
p–Nitrotoluene	600	614.496	102	
1,3,5–Trinitrobenzene	600	636.536	106	
1,3–Dinitrobenzene–d4	500	417.68	84	
2,4,6–Trinitrotoluene	600	691.126	115	
2,4–Dinitrotoluene	600	637.013	106	
2,6–Dinitrotoluene	600	619.323	103	
2,6–Dinitrotoluene–d3	500	397.466	79	*
2–Amino–4,6–dinitrotoluene	600	648.012	108	
3,4–Dinitrotoluene	300	329.226	110	
4–Amino–2,6–dinitrotoluene	600	589.342	98	
HMX	600	661.47	110	
Nitrobenzene	600	556.503	93	
PETN	600	838.314	140	*

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MP 2/19/10

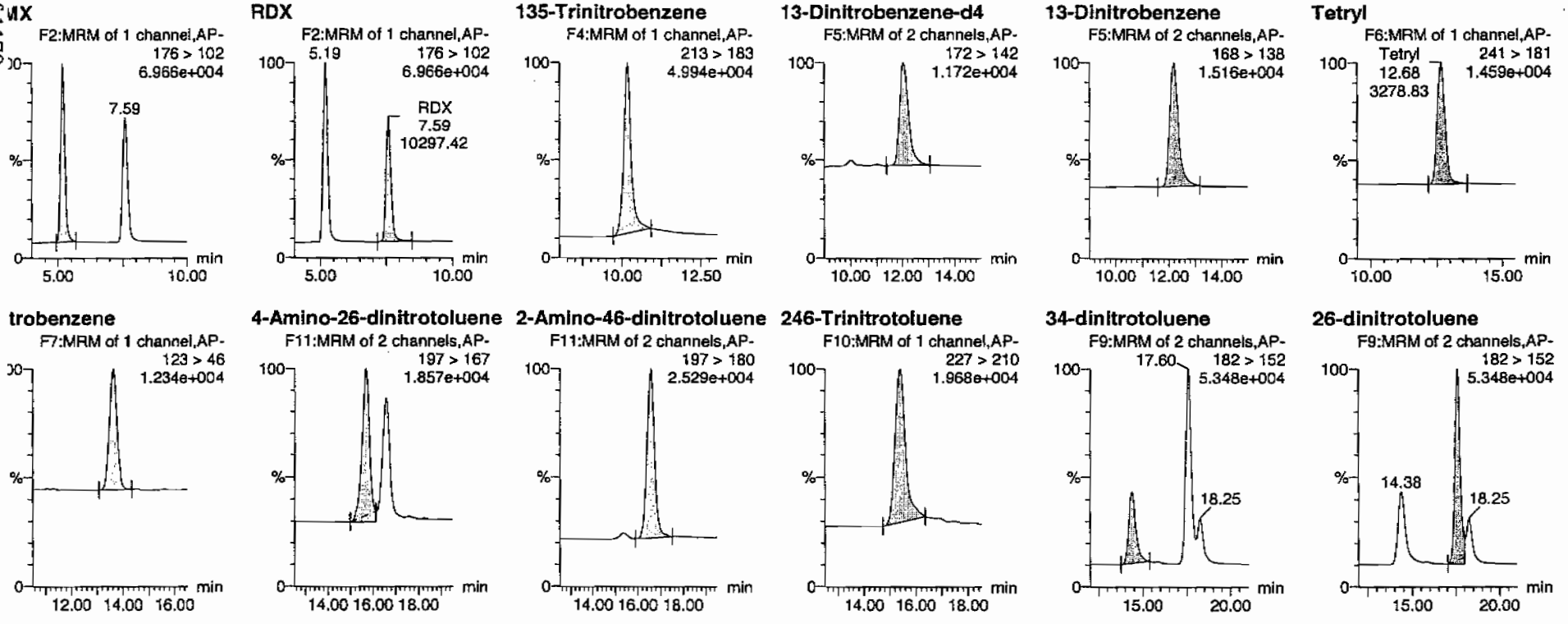

Hmc 02/19/10

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ıantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

ıtaset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

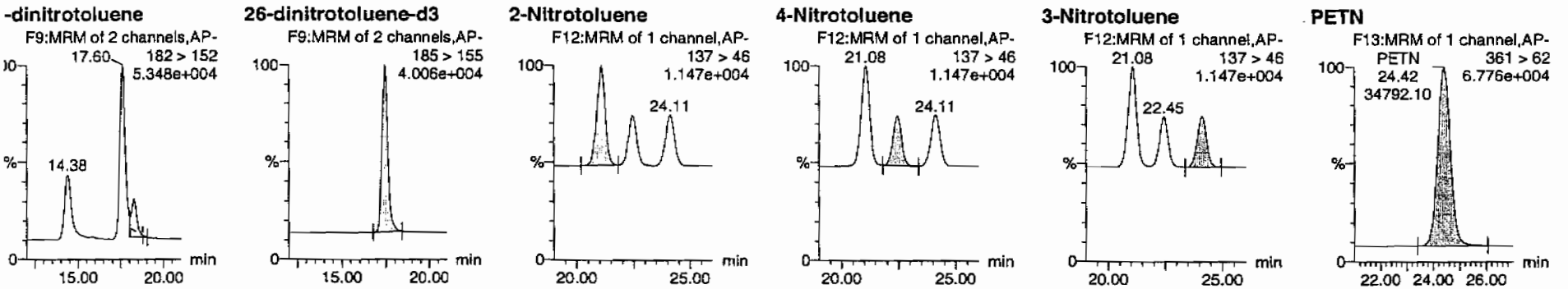

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100216-07CCV	HMX	176 > 102	5.19	12844.975	2516.453	12844.975	2552.198	bb			661.4698	110.2	10.2	805.0
XX100216-07CCV	RDX	176 > 102	7.59	10297.420	2516.453	10297.420	2046.019	bb			788.9199	131.5	31.5	562.4
XX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12406.179	2516.453	12406.179	2465.013	bb			636.5357	106.1	6.1	424.6
XX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2516.453		2516.453	2516.453	bb			417.6802	83.5	-16.5	330.0
XX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3723.589	2516.453	3723.589	739.849	bb			622.4958	103.7	3.7	190.3
XX100216-07CCV	Tetryl	241 > 181	12.68	3278.833	2516.453	3278.833	651.479	bb			597.5600	99.6	-0.4	372.1
XX100216-07CCV	Nitrobenzene	123 > 46	13.63	2404.535	2516.453	2404.535	477.763	bb			556.5026	92.8	-7.2	198.0
XX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5223.180	13838.627	5223.180	188.717	MM	19-Feb-10	08:39:12	589.3419	98.2	-1.8	189.6
XX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7748.987	13838.627	7748.987	279.977	bb			648.0120	108.0	8.0	493.7
XX100216-07CCV	246-Trinitrotoluene	227 > 210	15.38	6412.913	13838.627	6412.913	231.703	bb			691.1262	115.2	15.2	120.2
XX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8255.552	13838.627	8255.552	298.279	bb			329.2262	109.7	9.7	337.2
XX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18160.029	13838.627	18160.029	656.136	MM	19-Feb-10	08:43:33	619.3228	103.2	3.2	922.8
XX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4346.167	13838.627	4346.167	157.030	MM	19-Feb-10	08:46:08	637.0129	106.2	6.2	207.3
XX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	13838.627		13838.627	13838.627	bb			397.4663	79.5	-20.5	1774.9
XX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2546.937	13838.627	2546.937	92.023	bb			604.6405	100.8	0.8	226.0
XX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1303.650	13838.627	1303.650	47.102	bb			614.4959	102.4	2.4	112.4
XX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1410.576	13838.627	1410.576	50.965	bb			569.5129	94.9	-5.1	114.8
XX100216-07CCV	PETN	361 > 62	24.42	34792.098	13838.627	34792.098	1257.065	bb			838.3138	139.7	39.7	7852.2

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 1831
Standard Number: WXX100216-07CCV
Data File: EXP0216101a

HMX		110.2
RDX		131.5
135-TNB		106.1
13-DNB		109.7
Tetryl		99.6
Nitrobenzene		92.8
4A-26-DNT		98.2
2A-46-DNT		108.0
246-TNT		115.2
34-DNT(surr)		109.7
26-DNT		103.2
24-DNT		106.2
2-NT		100.8
4-NT		102.4
3-NT		94.9
PETN		139.7
Total		1728.2
Average		108.0

MAP 2/19/10

Hmm 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216103a

Analysis Date: 18-FEB-10 19:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	41.533	104	
Tetryl	40	53.24	133	*
m-Dinitrobenzene	40	46.745	117	
m-Nitrotoluene	40	40.745	102	
o-Nitrotoluene	40	34.511	86	
p-Nitrotoluene	40	26.865	67	*
1,3,5-Trinitrobenzene	40	58.779	147	*
1,3-Dinitrobenzene-d4	500	457.386	91	
2,4,6-Trinitrotoluene	40	46.527	116	
2,4-Dinitrotoluene	40	46.8	117	
2,6-Dinitrotoluene	40	41.187	103	
2,6-Dinitrotoluene-d3	500	451.82	90	
2-Amino-4,6-dinitrotoluene	40	40.759	102	
3,4-Dinitrotoluene	20	21.612	108	
4-Amino-2,6-dinitrotoluene	40	34.649	87	
HMX	40	46.441	116	
Nitrobenzene	40	31.128	78	
PETN	40	54.273	136	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

me: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216103a
te: 18-Feb-2010
ne: 19:30:18
WXX100216-08CRI
ıl: 1:1,C

MAT 2/19/10

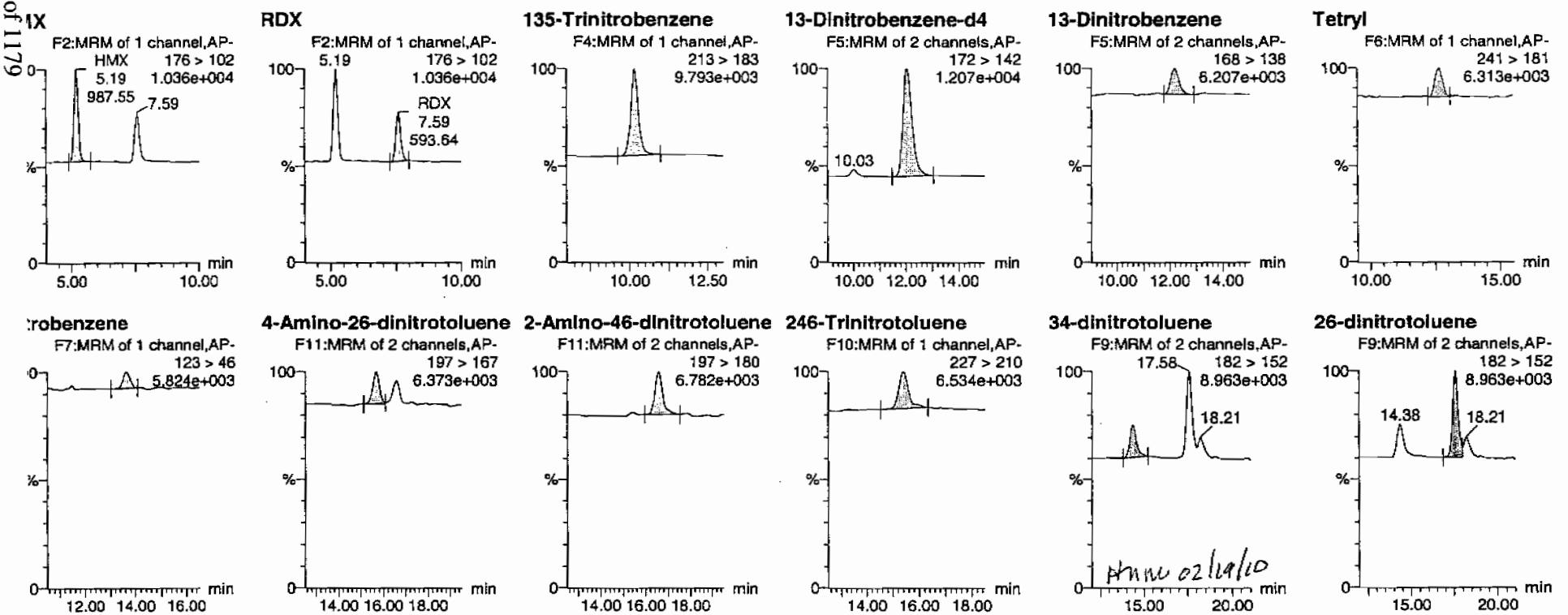

HMM 02/19/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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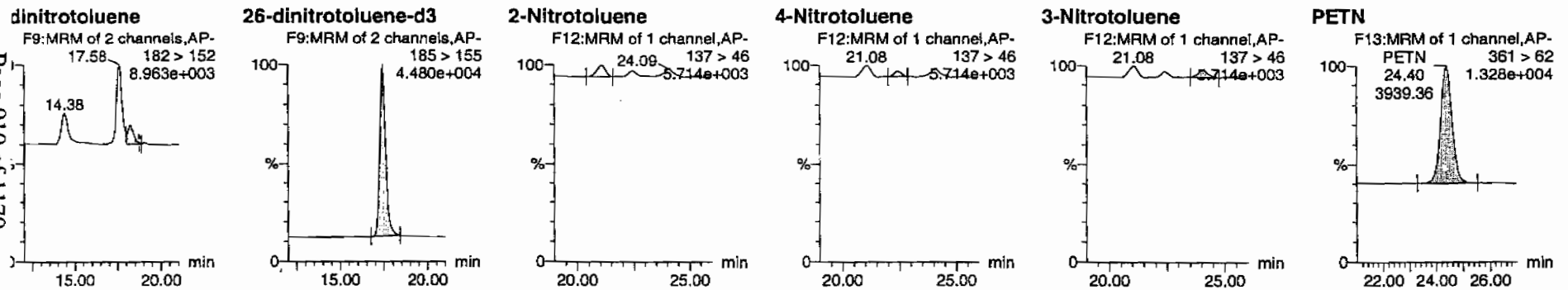

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
X100216-08CRI	HMX	176 > 102	5.19	987.551	2755.674	987.551	179.185	bb			46.4405	116.1	16.1	119.3
X100216-08CRI	RDX	176 > 102	7.59	593.639	2755.674	593.639	107.712	bb			41.5325	103.8	3.8	63.3
X100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1254.523	2755.674	1254.523	227.625	bb			58.7793	146.9	46.9	350.7
X100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2755.674		2755.674	2755.674	bb			457.3860	91.5	-8.5	182.7
X100216-08CRI	13-Dinitrobenzene	168 > 138	12.21	306.197	2755.674	306.197	55.558	bb			46.7452	116.9	16.9	25.3
X100216-08CRI	Tetryl	241 > 181	12.68	319.900	2755.674	319.900	58.044	bd			53.2399	133.1	33.1	42.4
X100216-08CRI	Nitrobenzene	123 > 46	13.63	147.282	2755.674	147.282	26.723	bb			31.1277	77.8	-22.2	24.2
X100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	349.075	15731.055	349.075	11.095	MM	19-Feb-10	08:39:18	34.6486	86.6	-13.4	44.9
X100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	554.050	15731.055	554.050	17.610	bb			40.7589	101.9	1.9	110.5
X100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	490.756	15731.055	490.756	15.598	bb			46.5268	116.3	16.3	47.2
X100216-08CRI	34-dinitrotoluene	182 > 152	14.38	616.030	15731.055	616.030	19.580	bb			21.6115	108.1	8.1	45.2
X100216-08CRI	26-dinitrotoluene	182 > 152	17.58	1372.843	15731.055	1372.843	43.635	MM	19-Feb-10	08:43:46	41.1867	103.0	3.0	119.6
X100216-08CRI	24-dinitrotoluene	182 > 152	18.21	362.966	15731.055	362.966	11.537	MM	19-Feb-10	08:46:00	46.7997	117.0	17.0	29.0
X100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15731.055		15731.055	15731.055	bb			451.8197	90.4	-9.6	848.8
X100216-08CRI	2-Nitrotoluene	137 > 46	21.08	165.251	15731.055	165.251	5.252	bb			34.5111	86.3	-13.7	27.1
X100216-08CRI	4-Nitrotoluene	137 > 46	22.43	64.787	15731.055	64.787	2.059	bb			26.8646	67.2	-32.8	12.7
X100216-08CRI	3-Nitrotoluene	137 > 46	24.09	114.719	15731.055	114.719	3.646	bb			40.7453	101.9	1.9	17.0
X100216-08CRI	PETN	361 > 62	24.40	3939.359	15731.055	3939.359	125.210	bb			54.2726	135.7	35.7	757.0

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	1930
Standard Number	WXX100216-08CRI
Data File	EXP0216103a

HMX	116.1
RDX	103.8
135-TNB	146.9
13-DNB	116.9
Tetryl	133.1
Nitrobenzene	77.8
4A-26-DNT	86.6
2A-46-DNT	101.9
246-TNT	116.3
34-DNT(surr)	108.1
26-DNT	103.0
24-DNT	117.0
2-NT	86.3
4-NT	67.2
3-NT	101.9
PETN	135.7
Total	1718.6
Average	107.4

MTP 2/19/10

Hmm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140013.wiff

Analysis Date: 14-FEB-10 17:25

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	109	109	
2,6-Diamino-4-nitrotoluene	100	106	106	
3,4-Dinitrotoluene	50	49.4	99	
3,5-Dinitroaniline	100	110	110	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lar 2/16/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: "

le Index: 1
le Type: QC
ntration: 100. ng/mL
lated Conc: 107. ng/mL
Date: 2/14/2010
Time: 5:25:46 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
tion Time: 7.14 min
: 1.48e+005 counts
t: 31993.717 cps
: Time: 7.04 min
Time: 7.66 min

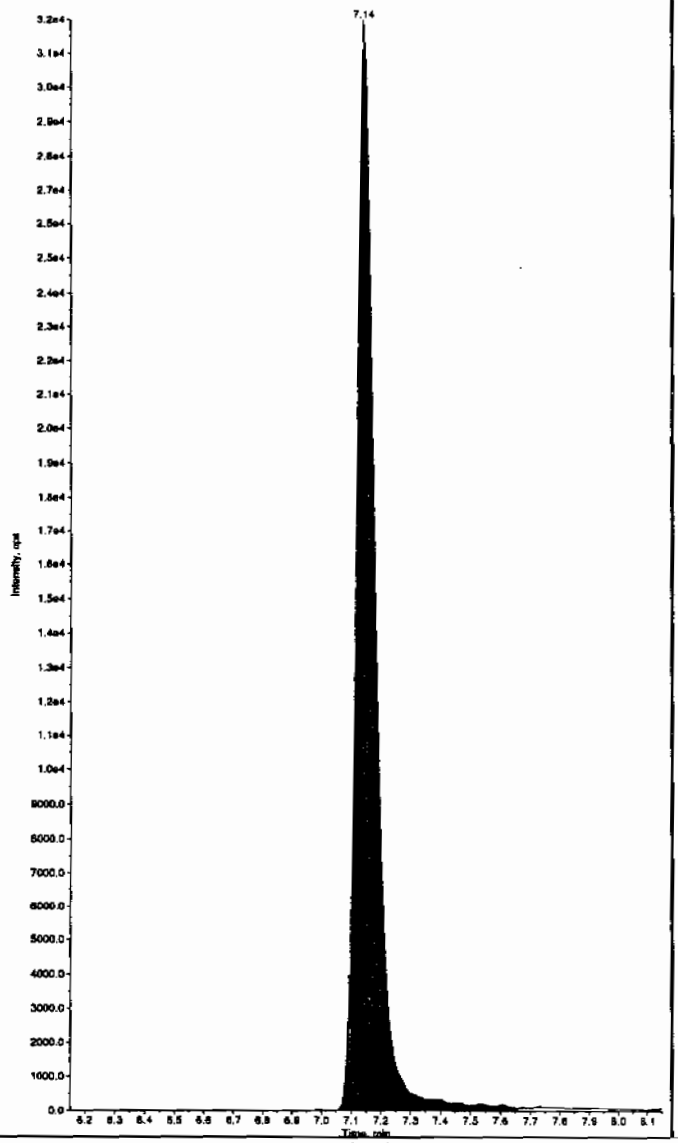

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:25:46 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.31 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 7.19e+005 counts
Height: 178883.347 cps
Start Time: 8.27 min
End Time: 8.47 min

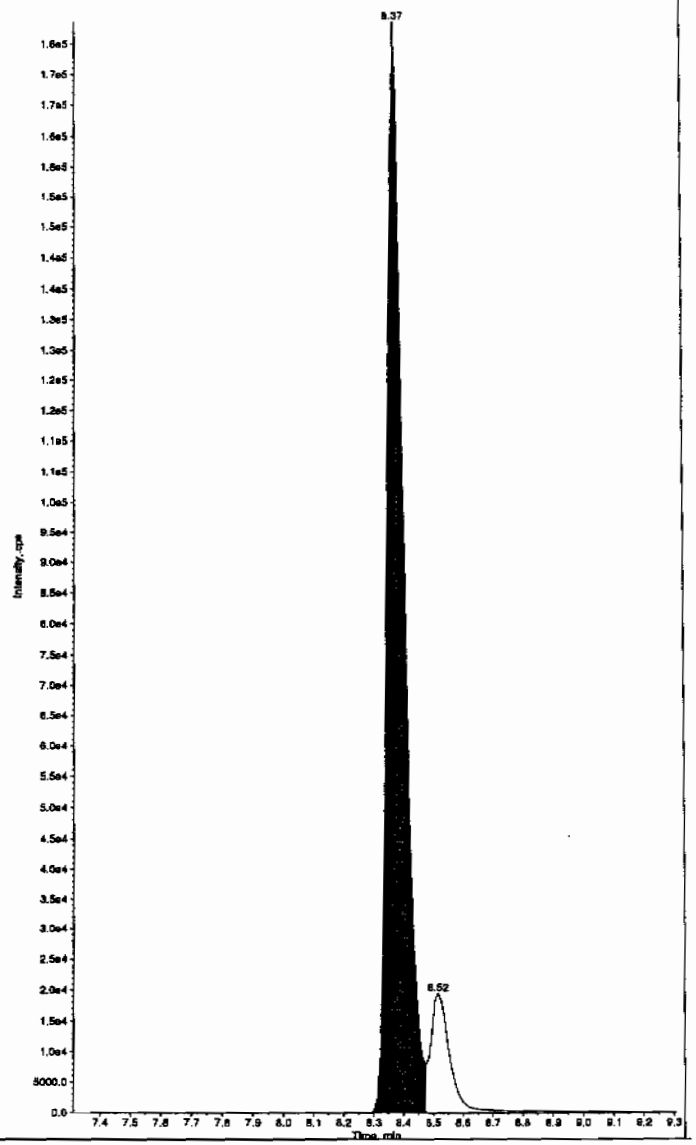

Hnm 02/17/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

.e Index: 1
.e Type: QC
ntration: 50.0 ng/mL
ilated Conc: 49.4 ng/mL
Date: 2/14/2010
Time: 5:25:46 PM

ified: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 15.0 sec
cted RT: 8.52 min
telative RT: No

Type: Valley
ation Time: 8.52 min
6.28e+005 counts
t: 158973.038 cps
. Time: 8.44 min
ime: 8.72 min

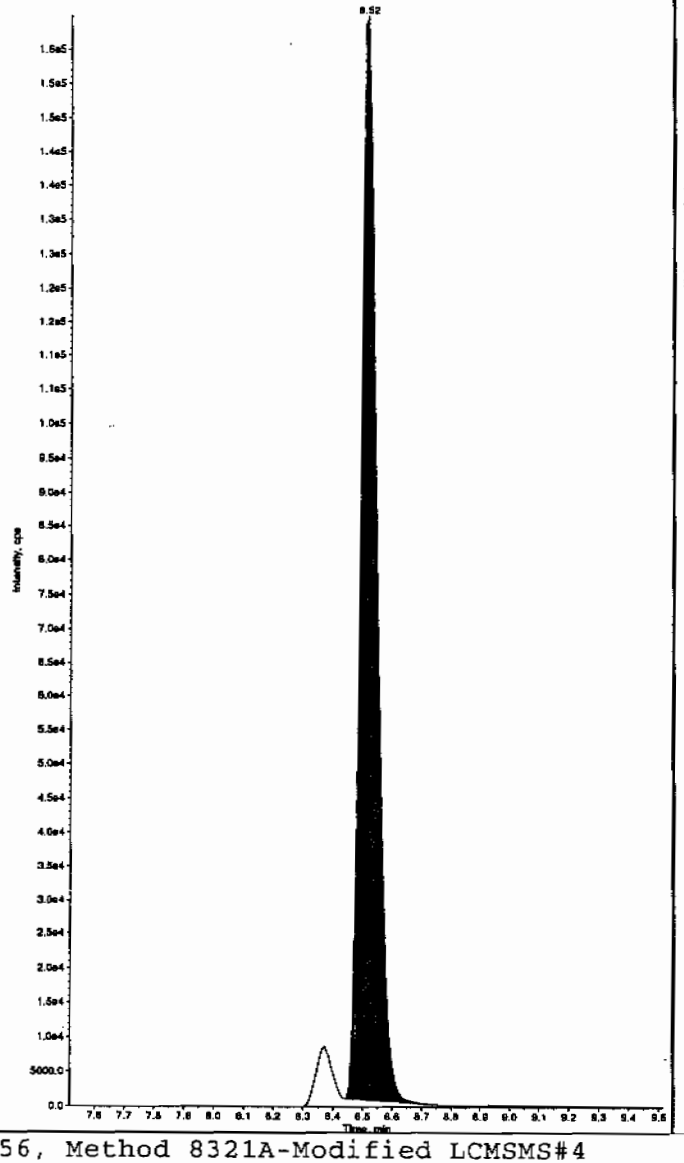

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:25:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 3.21e+005 counts
Height: 77740.822 cps
Start Time: 5.05 min
End Time: 5.47 min

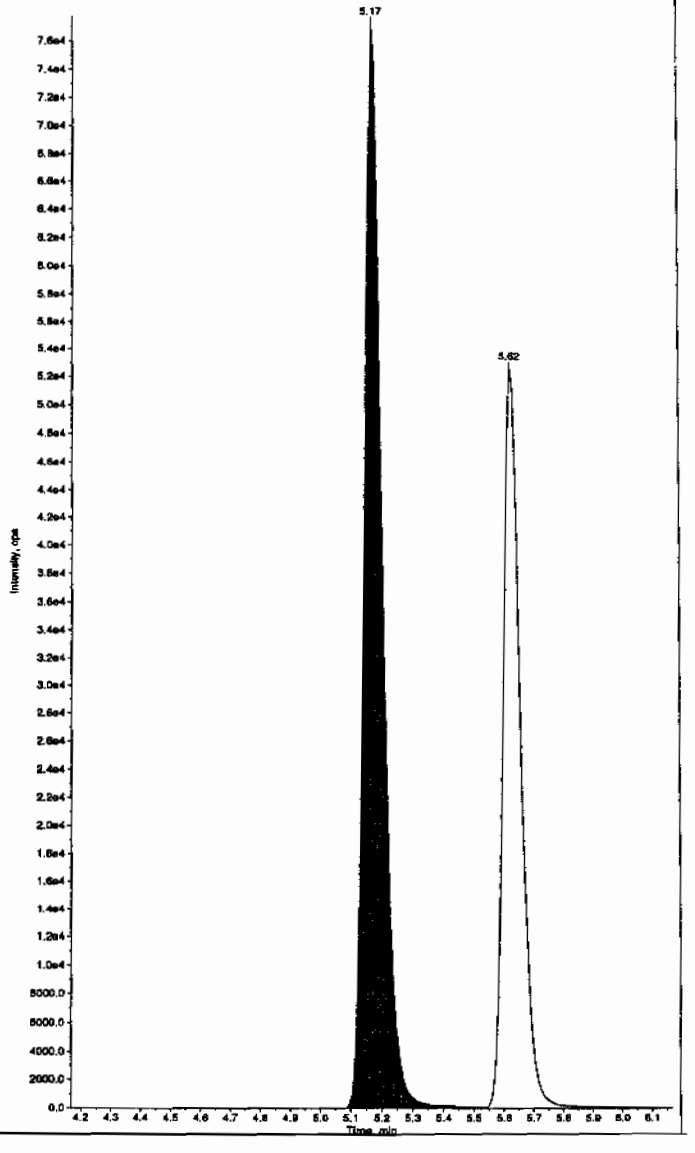

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 109. ng/mL
Date: 2/14/2010
Time: 5:25:46 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.62 min
2.11e+005 counts
t: 52875.557 cps
Time: 5.55 min
ime: 5.92 min

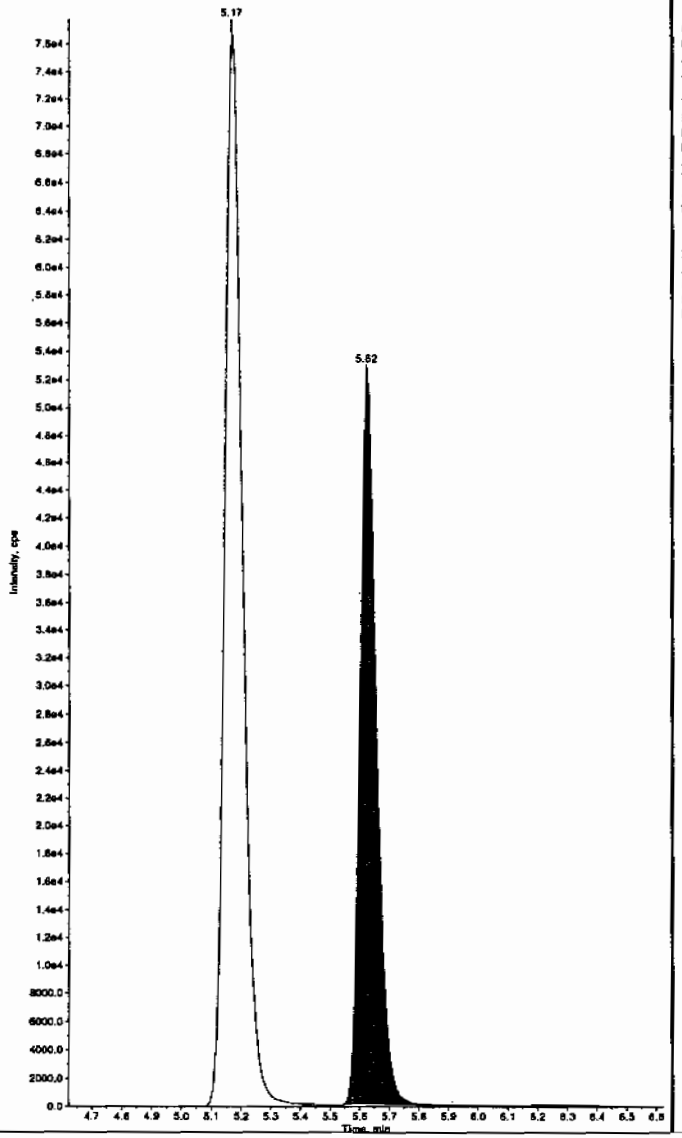

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:25:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.45e+006 counts
Height: 578146.423 cps
Start Time: 10.9 min
End Time: 11.3 min

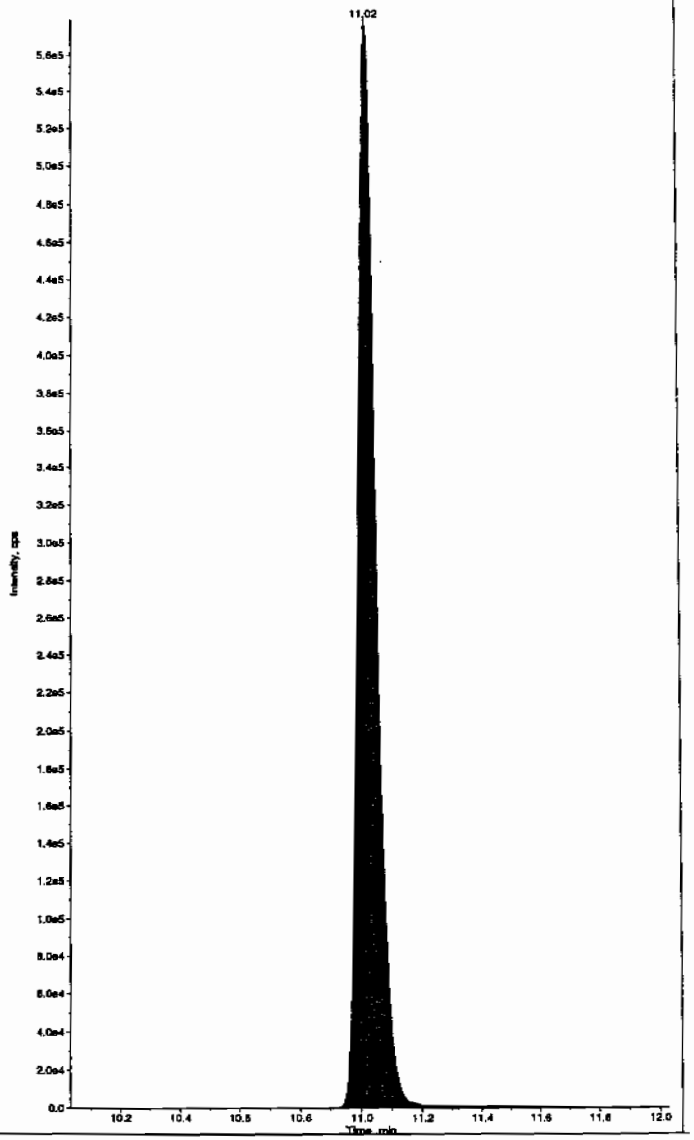

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140017.wiff

Analysis Date: 14-FEB-10 18:28

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	529	106	
2,6-Diamino-4-nitrotoluene	500	502	100	
3,4-Dinitrotoluene	250	236	95	
3,5-Dinitroaniline	500	494	99	
TATB	500	494	99	
tris(o-cresyl) phosphate	500	492	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 2/17/10

nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140017.wiff"
k Name: "TATB" Mass(as): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 494. ng/mL
Date: 2/14/2010
Time: 6:28:34 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.15 min
: 6.90e+005 counts
ht: 155690.552 cps
: Time: 7.02 min
Time: 7.73 min

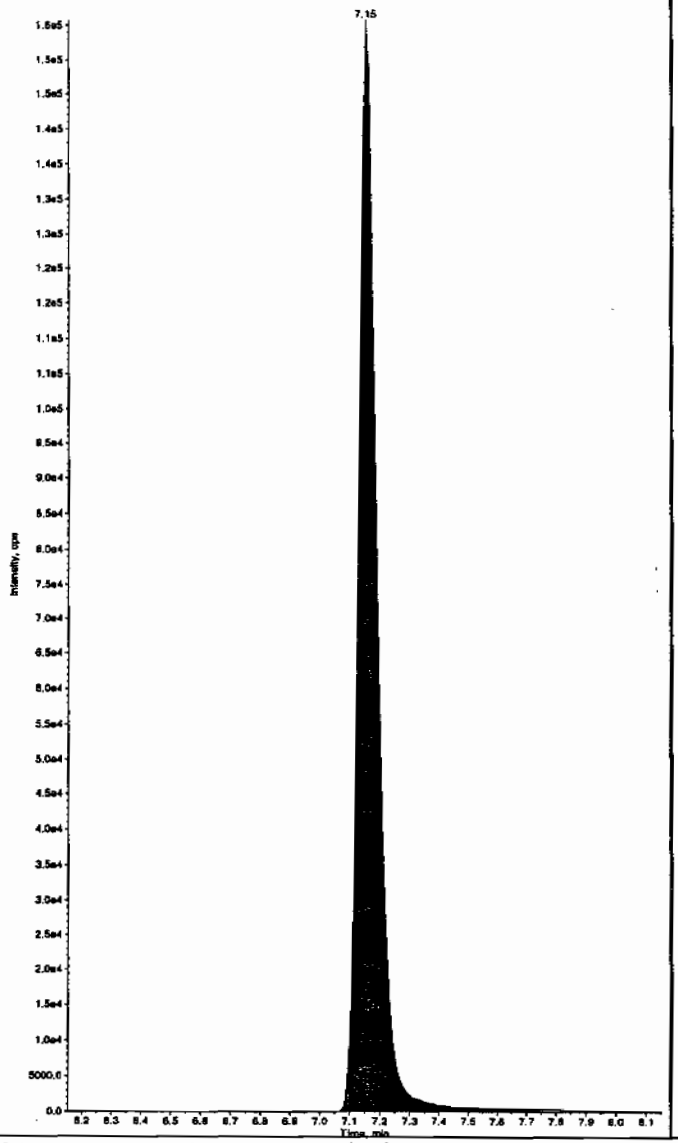

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140017.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 496. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:28:34 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.35 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 3.23e+006 counts
Height: 729419.128 cps
Start Time: 8.28 min
End Time: 8.48 min

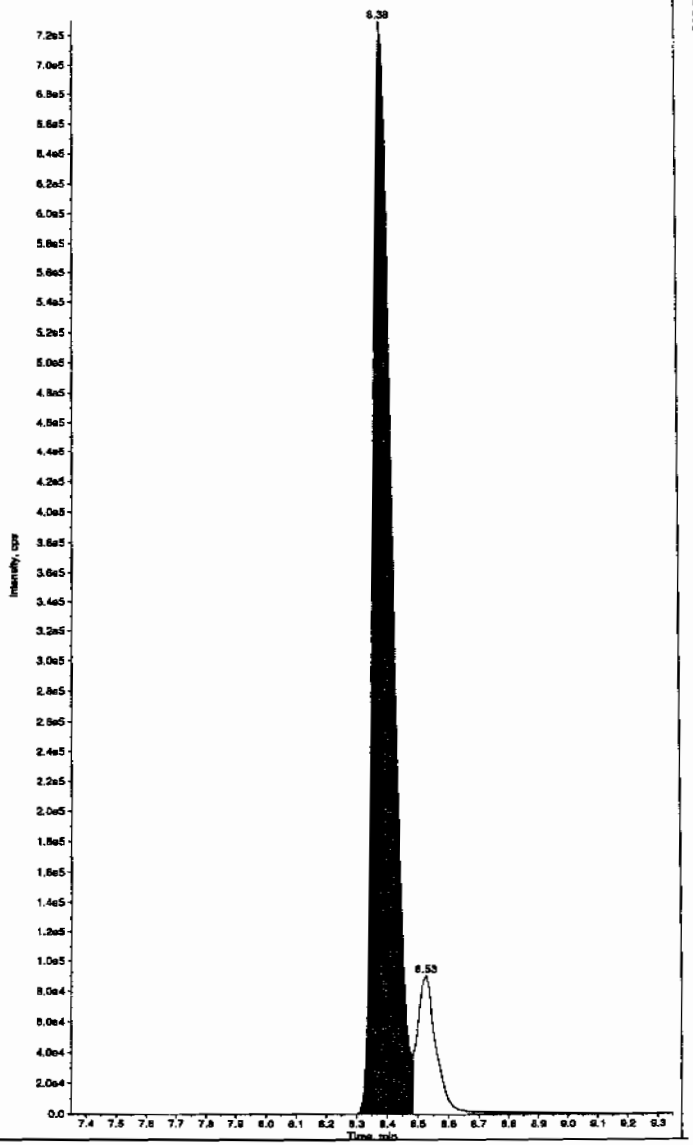

Hmm 02/17/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140017.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 236. ng/mL
Date: 2/14/2010
Time: 6:28:34 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.52 min
: 3.09e+006 counts
ht: 800964.783 cps
t Time: 8.44 min
Time: 8.69 min

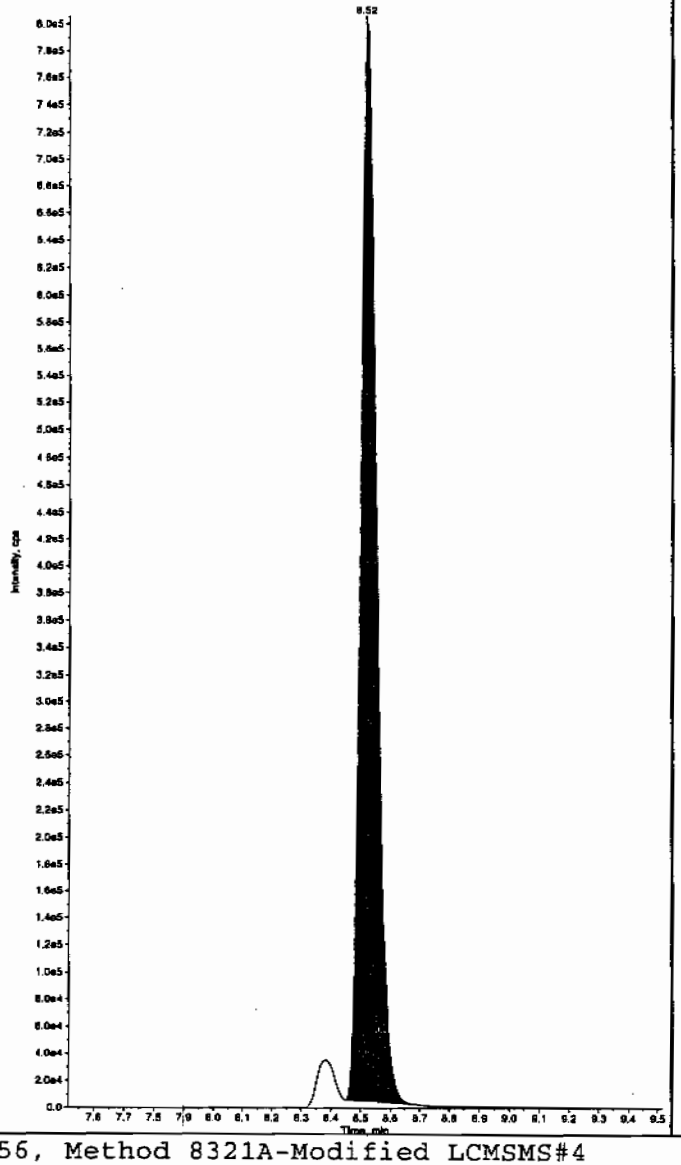

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:28:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 1.44e+006 counts
Height: 366188.293 cps
Start Time: 5.06 min
End Time: 5.47 min

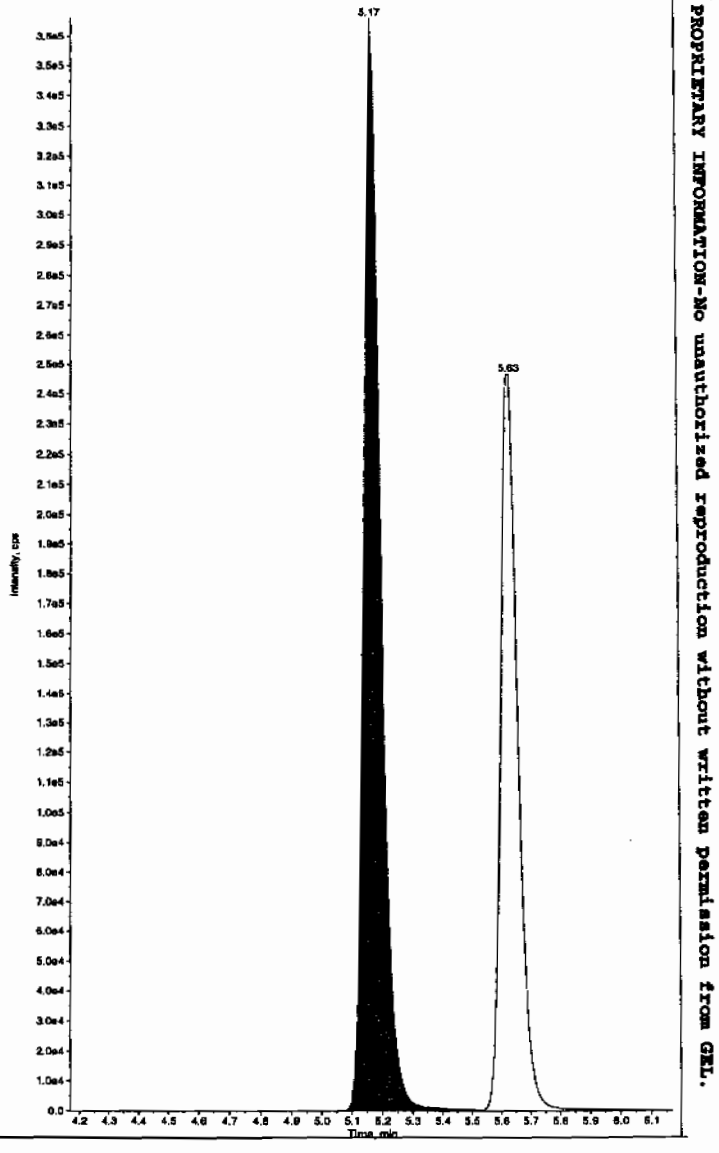

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ple Name: "WXX100214-26CCV" Sample ID: "j1|LER" File: "EXS02140017.wiff"
e Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:          QC
ntration:       500.     ng/mL
latsd Conc:     529.     ng/mL
Date:        2/14/2010
Time:        6:28:34 PM

ied:             No
 Algorithm: IntelliQuan - IQA
Peak Height: 350.00    cps
Peak Width:    0.00    sec
hing Width:  3         points
ndow:         30.0     sec
ted RT:        5.62    min
elative RT:    No

Type:         Valley
tion Time:     5.63    min
          1.01e+006   counts
t:         246633.606  cps
 Time:         5.53    min
ime:           6.08    min
```

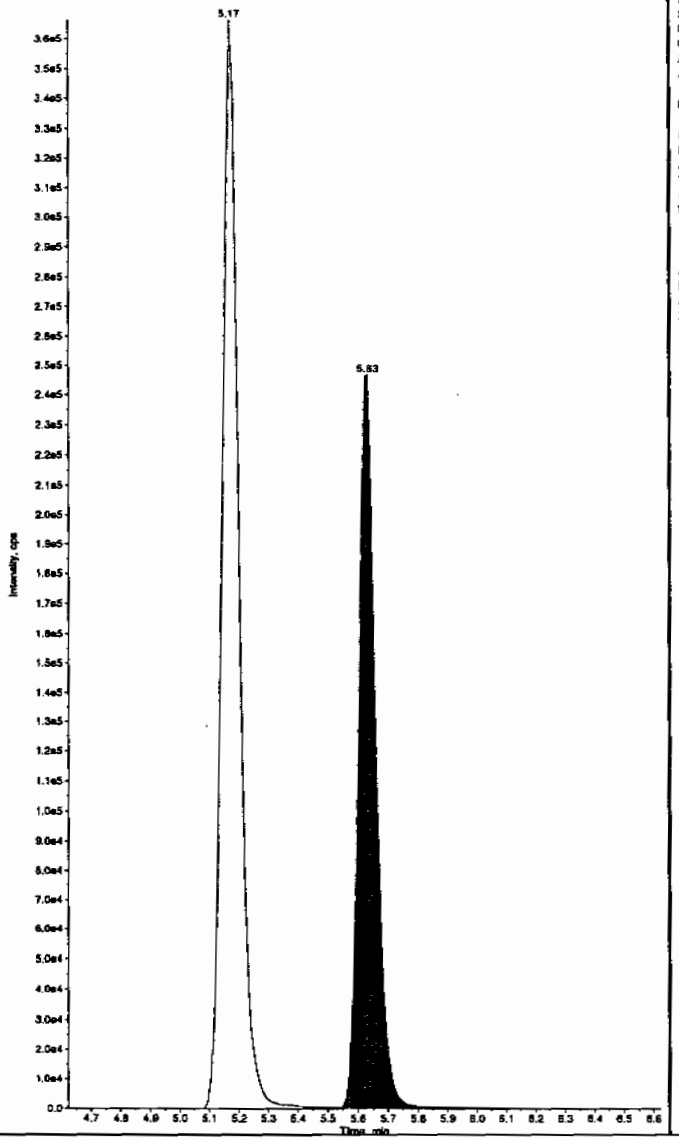

Sample Name: "WXX100214-26CCV" Sample ID: "j1|LER" File: "EXS02140017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.     ng/mL
Calculated Conc:   492.     ng/mL
Acq. Date:       2/14/2010
Acq. Time:       6:28:34 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       11.0     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    11.0     min
Area:        1.08e+007   counts
Height:      2512965.088  cps
Start Time:        10.9     min
End Time:          11.4     min
```

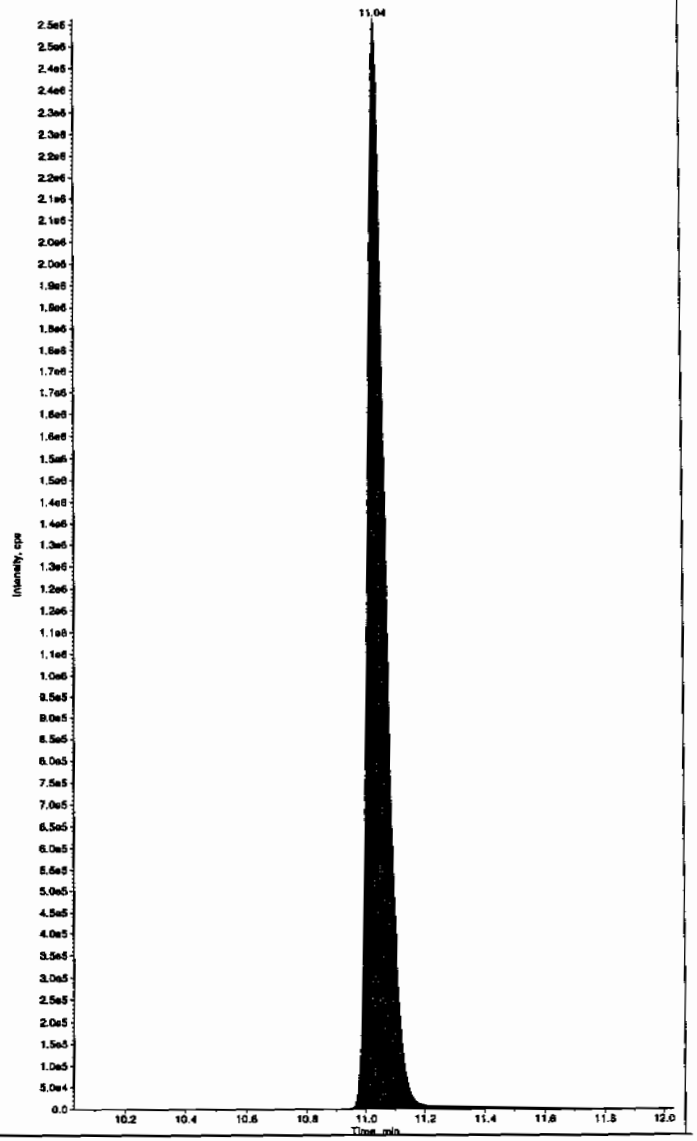

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140019.wiff

Analysis Date: 14–FEB–10 18:59

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	96.3	96	
2,6–Diamino–4–nitrotoluene	100	97.2	97	
3,4–Dinitrotoluene	50	48.7	97	
3,5–Dinitroaniline	100	100	100	
TATB	100	102	102	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scu 2/17/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

.e Index: 1
.e Type: QC
ntration: 100. ng/mL
lated Conc: 102. ng/mL
Date: 2/14/2010
Time: 6:59:59 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
lelative RT: No

Type: Valley
tion Time: 7.15 min
1.40e+005 counts
t: 31053.225 cps
Time: 7.00 min
Time: 7.71 min

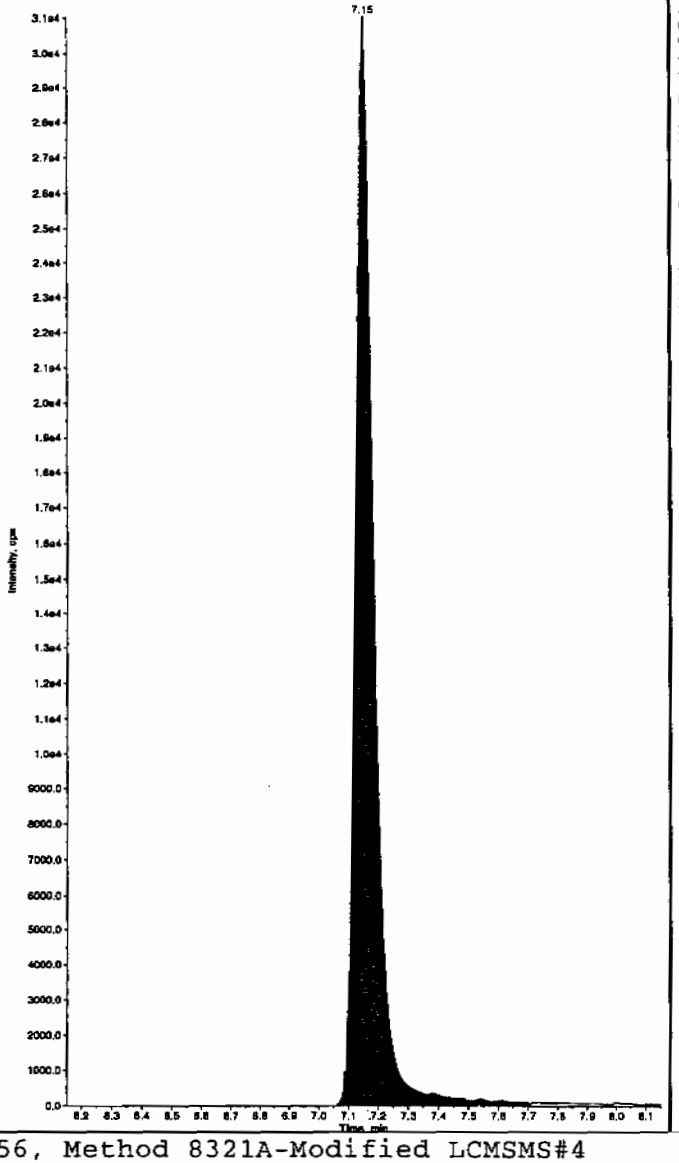

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:59:59 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.33 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 6.57e+005 counts
Height: 170540.771 cps
Start Time: 8.27 min
End Time: 8.48 min

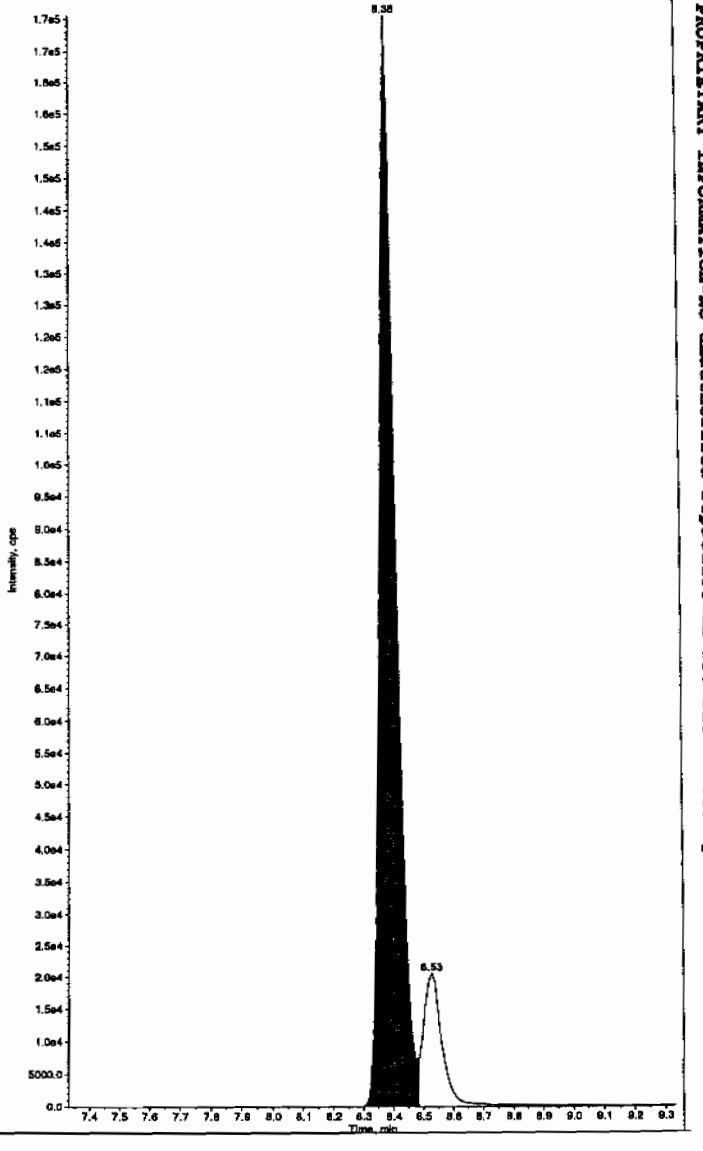

Hnm 02/17/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 48.7 ng/mL
Date: 2/14/2010
Time: 6:59:59 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.52 min
: 5.18e+005 counts
ht: 170261.276 cps
t Time: 8.45 min
Time: 8.71 min

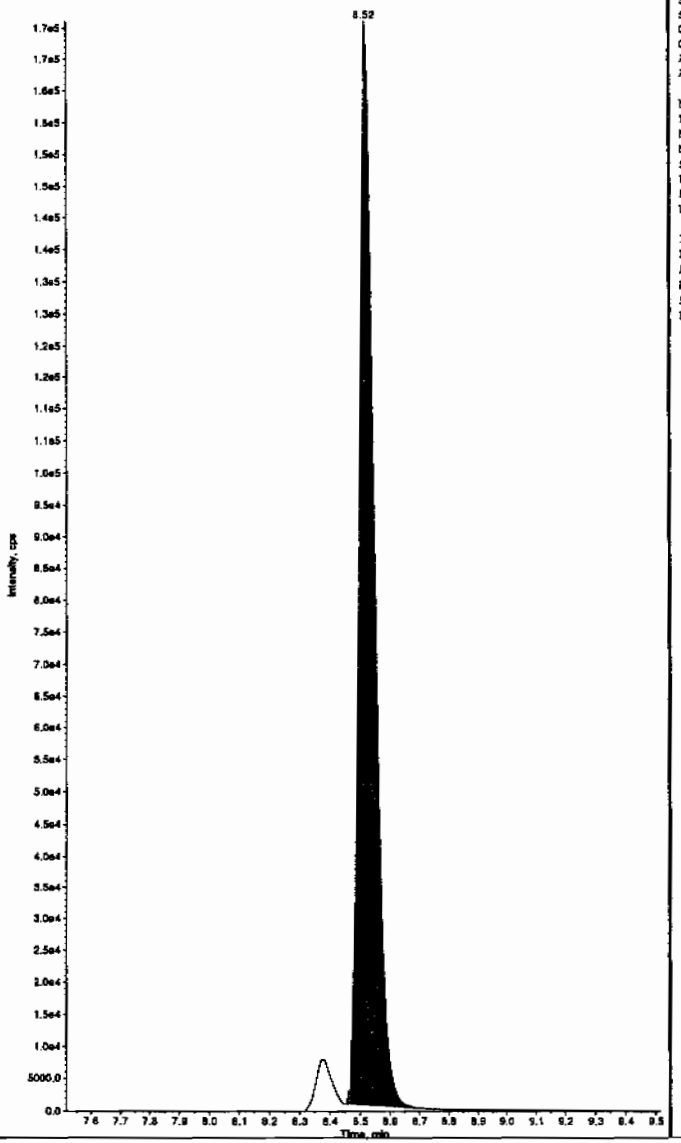

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.2 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:59:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 2.98e+005 counts
Height: 76182.060 cps
Start Time: 5.07 min
End Time: 5.47 min

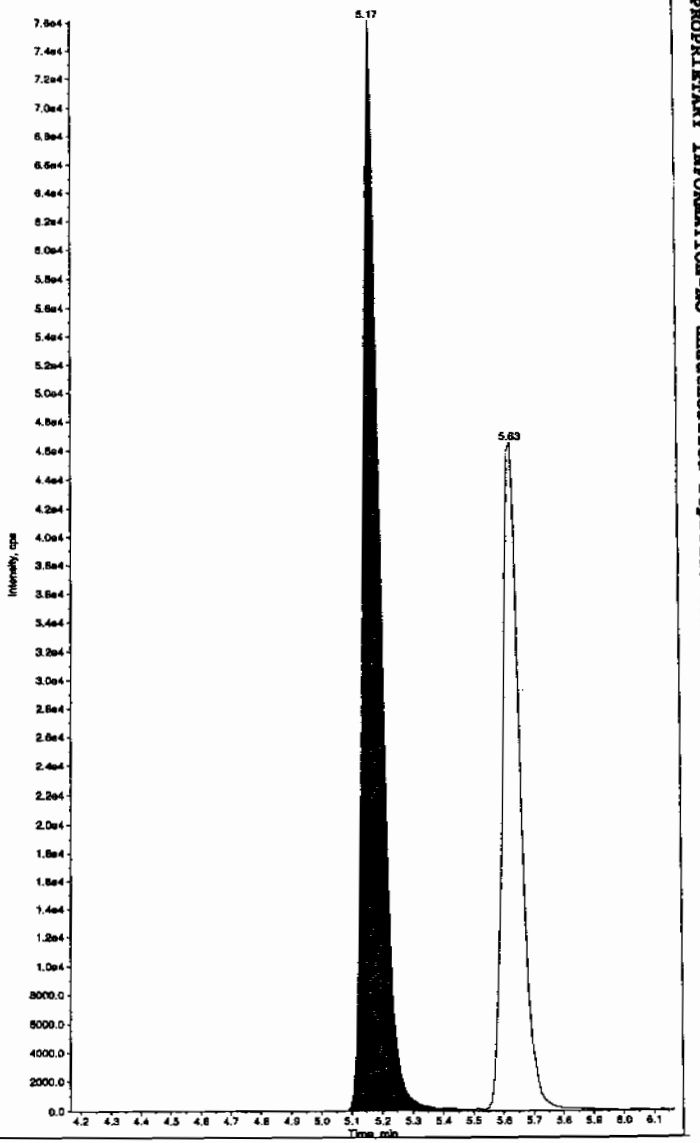

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
k Name: "24-Diamino-5-nitrotoluene" Mass(es): "165.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:           QC
ntration:       100.    ng/mL
lated Conc:      96.3   ng/mL
Date:        2/14/2010
Time:        6:59:59 PM

fied:            No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00   cps
Peak Width:    0.00   sec
hing Width:  3       points
ndow:         30.0    sec
ted RT:        5.62   min
elative RT:    No

Type:         Valley
tion Time:     5.63   min
          1.88e+005   counts
t:        46467.525   cps
Time:          5.54   min
ime:           5.96   min
```

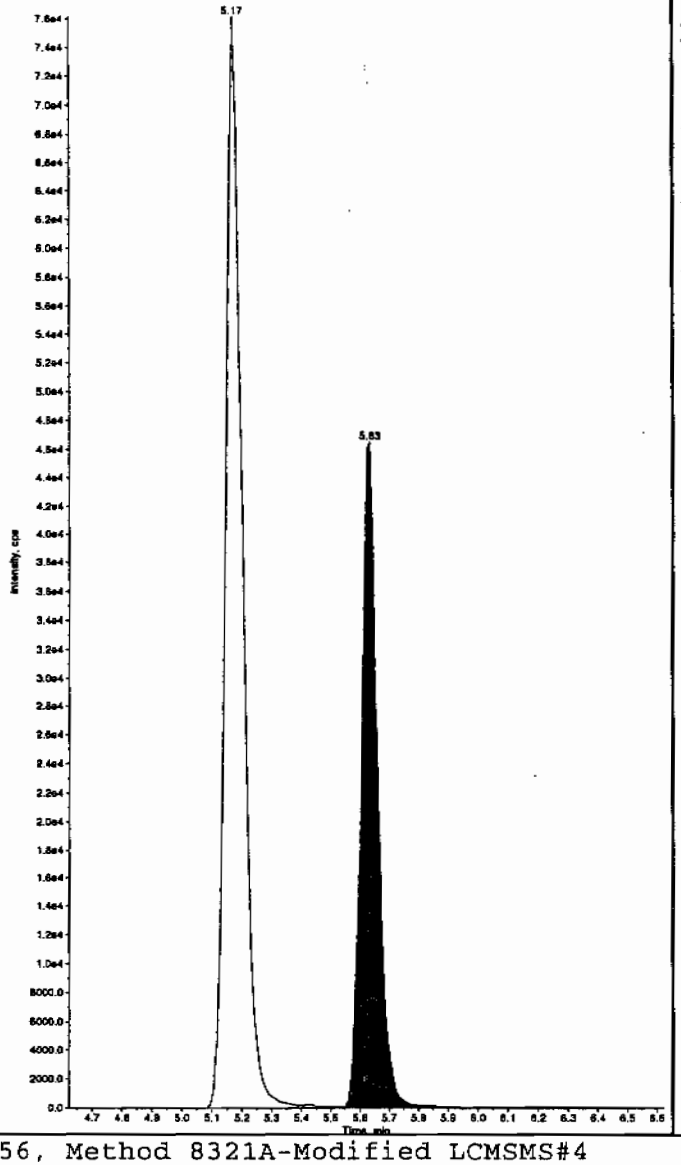

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.    ng/mL
Calculated Conc:     103.    ng/mL
Acq. Date:        2/14/2010
Acq. Time:        6:59:59 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:       11.0    min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    11.0    min
Area:        2.45e+006   counts
Height:        596099.792  cps
Start Time:        10.9    min
End Time:          11.4    min
```

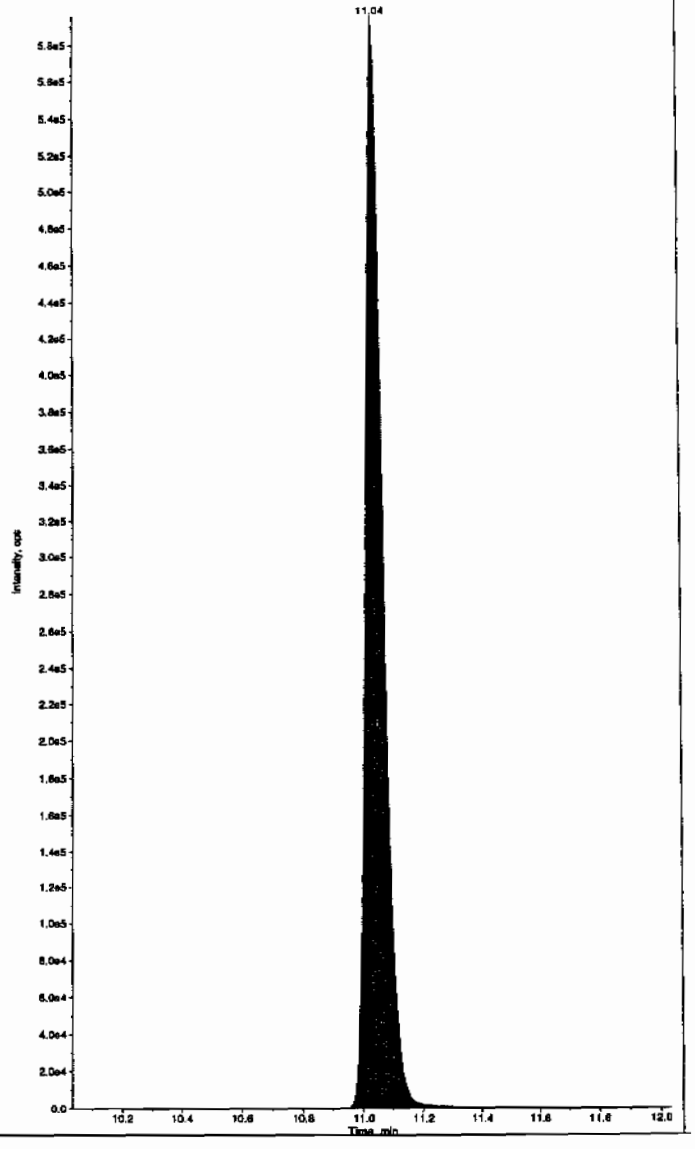

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140030.wiff

Analysis Date: 14-FEB-10 21:52

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	542	108	
2,6-Diamino-4-nitrotoluene	500	542	108	
3,4-Dinitrotoluene	250	258	103	
3,5-Dinitroaniline	500	507	101	
TATB	500	535	107	
tris(o-cresyl) phosphate	500	509	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ler 2/17/10

ple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140030.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: "
.e Index: 1
.e Type: QC
ntration: 500. ng/mL
lated Conc: 535. ng/mL
Date: 2/14/2010
Time: 9:52:48 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
lelative RT: No

Type: Valley
tion Time: 7.16 min
7.46e+005 counts
t: 169305.939 cps
. Time: 7.06 min
Time: 7.80 min

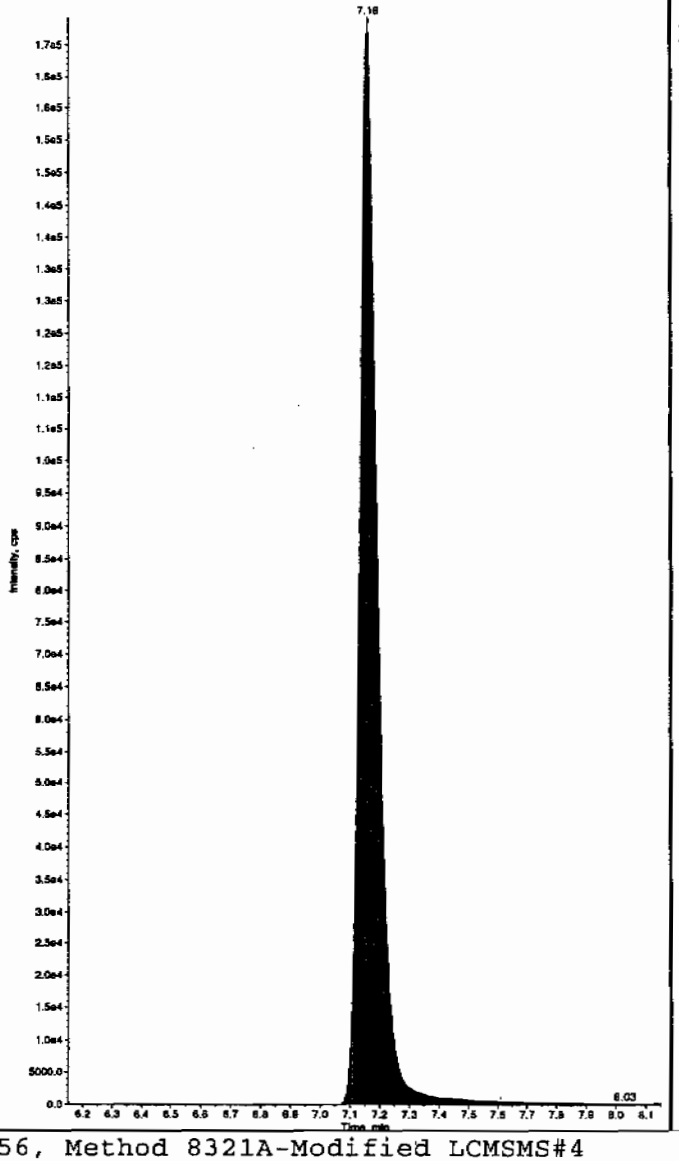

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140030.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 507. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 9:52:48 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 3.32e+006 counts
Height: 853150.391 cps
Start Time: 8.29 min
End Time: 8.48 min

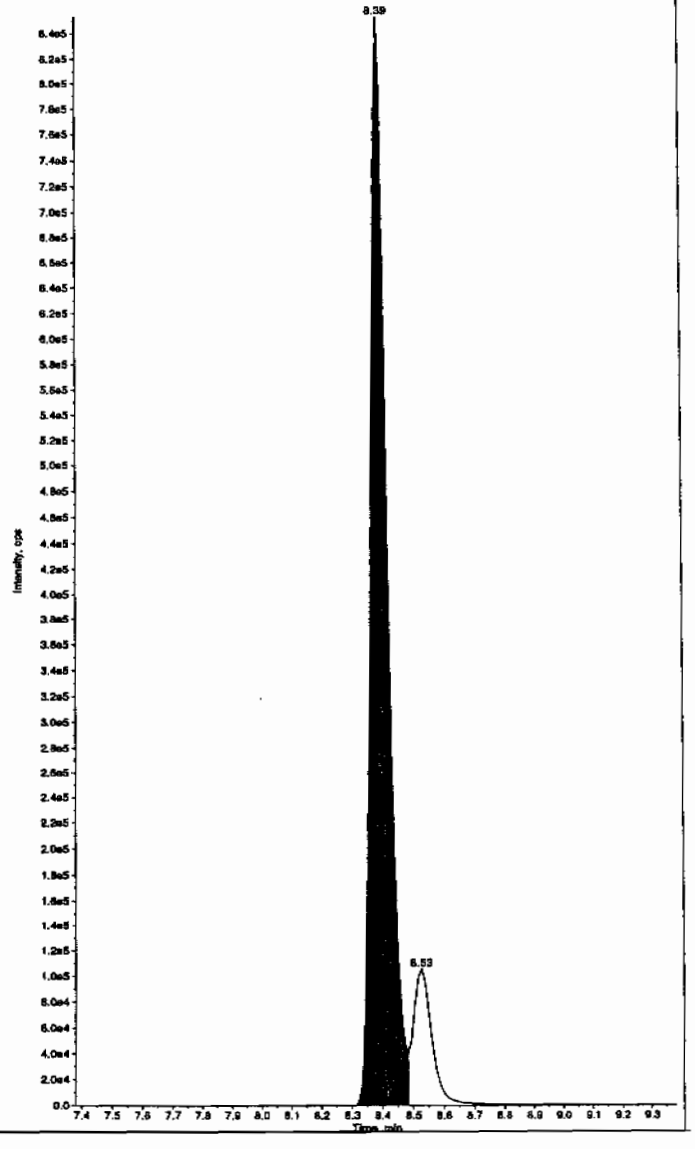

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ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
(Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 258. ng/mL
Date: 2/14/2010
Time: 9:52:48 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.52 min
elative RT: No

Type: Valley
tion Time: 8.52 min
3.37e+006 counts
t: 933019.775 cps
Time: 8.45 min
ime: 8.71 min

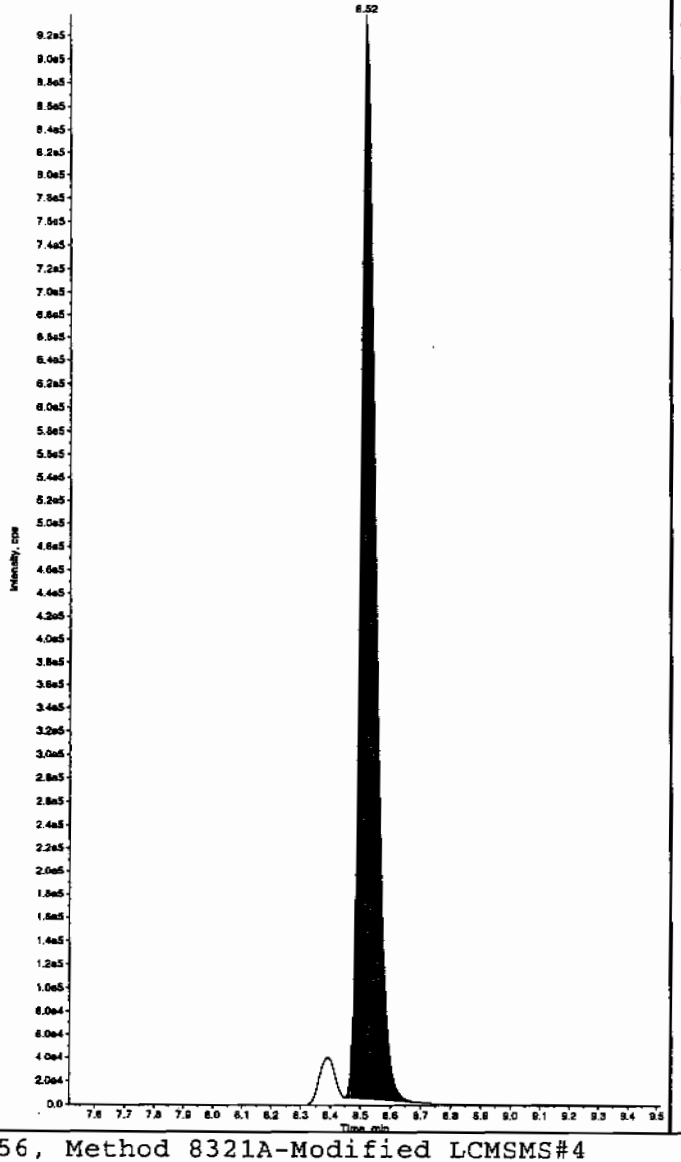

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 542. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 9:52:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 1.56e+006 counts
Height: 366078.552 cps
Start Time: 5.06 min
End Time: 5.47 min

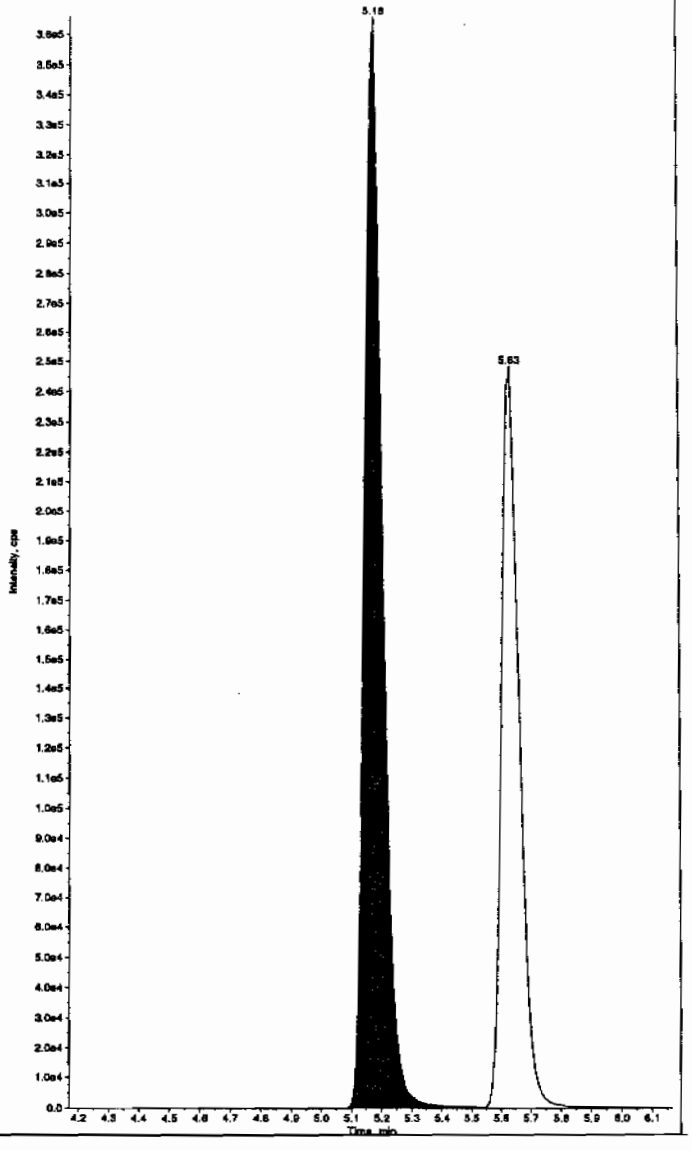

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ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 542. ng/mL
Date: 2/14/2010
Time: 9:52:48 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.63 min
1.03e+006 counts
t: 248229.034 cps
Time: 5.51 min
ime: 5.96 min

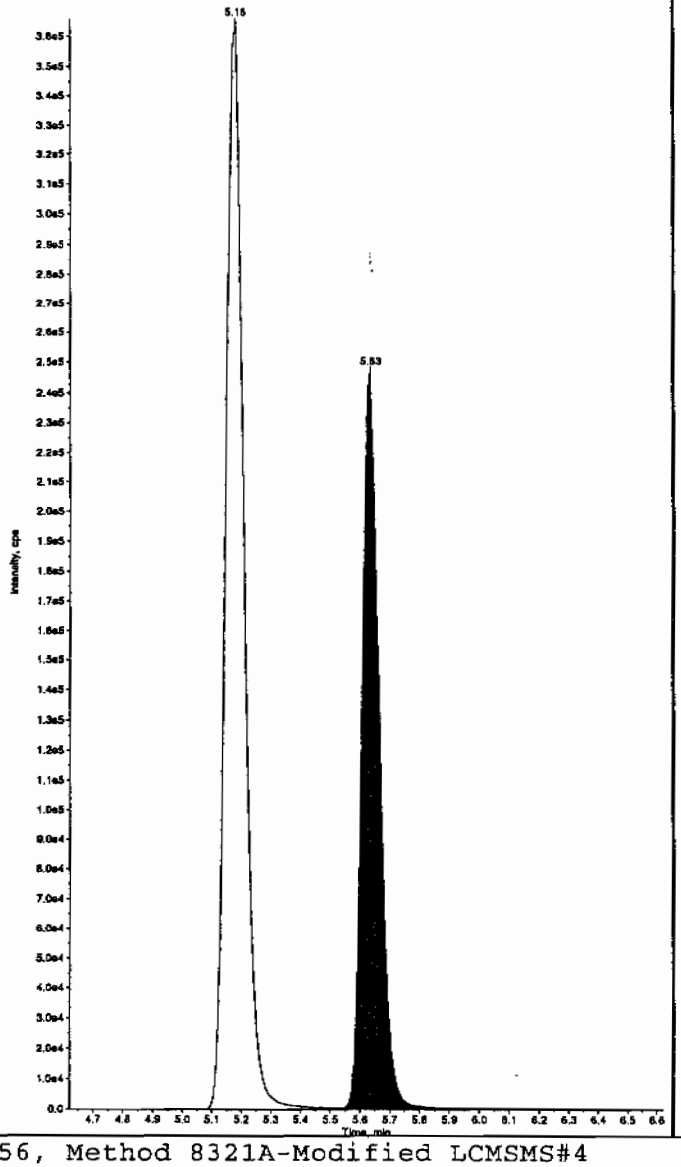

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 9:52:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.11e+007 counts
Height: 2459256.592 cps
Start Time: 10.9 min
End Time: 11.4 min

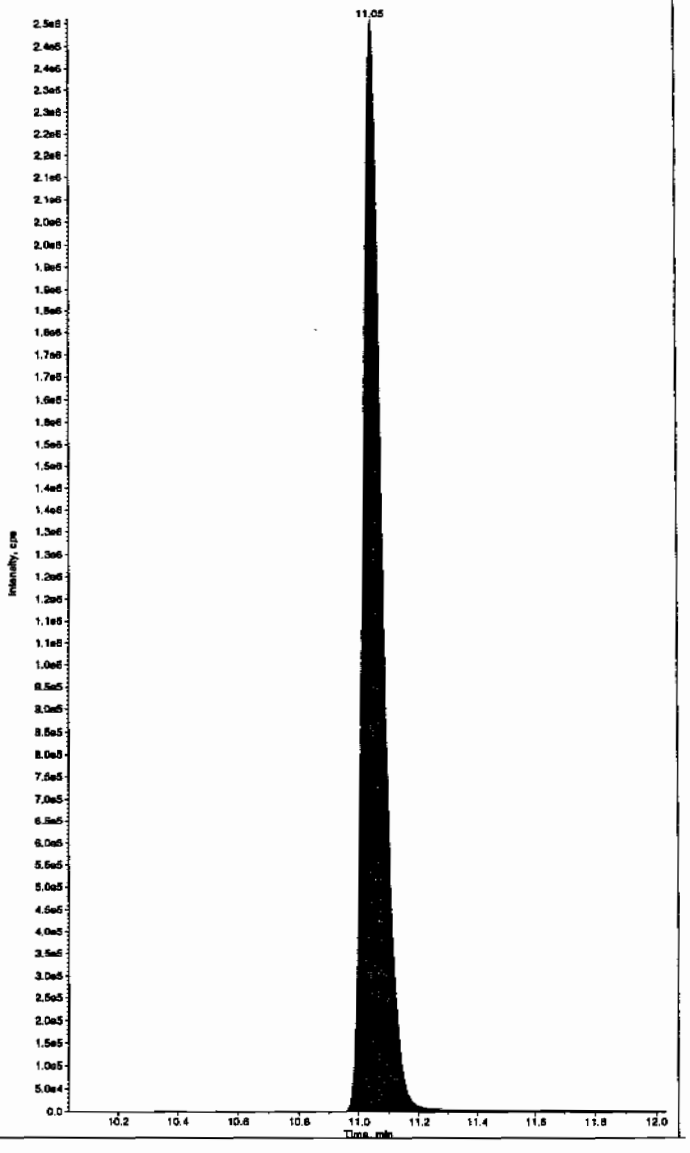

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140032.wiff

Analysis Date: 14–FEB–10 22:24

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	103	103	
2,6–Diamino–4–nitrotoluene	100	110	110	
3,4–Dinitrotoluene	50	52.2	104	
3,5–Dinitroaniline	100	113	113	
TATB	100	117	117	
tris(o–cresyl) phosphate	100	106	106	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcm 2/17/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
.e Index: 1
.e Type: QC
ncration: 100. ng/mL
lated Conc: 117. ng/mL
Date: 2/14/2010
Time: 10:24:15 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
cted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.16 min
1.61e+005 counts
t: 36881.176 cps
Time: 7.05 min
ime: 7.60 min

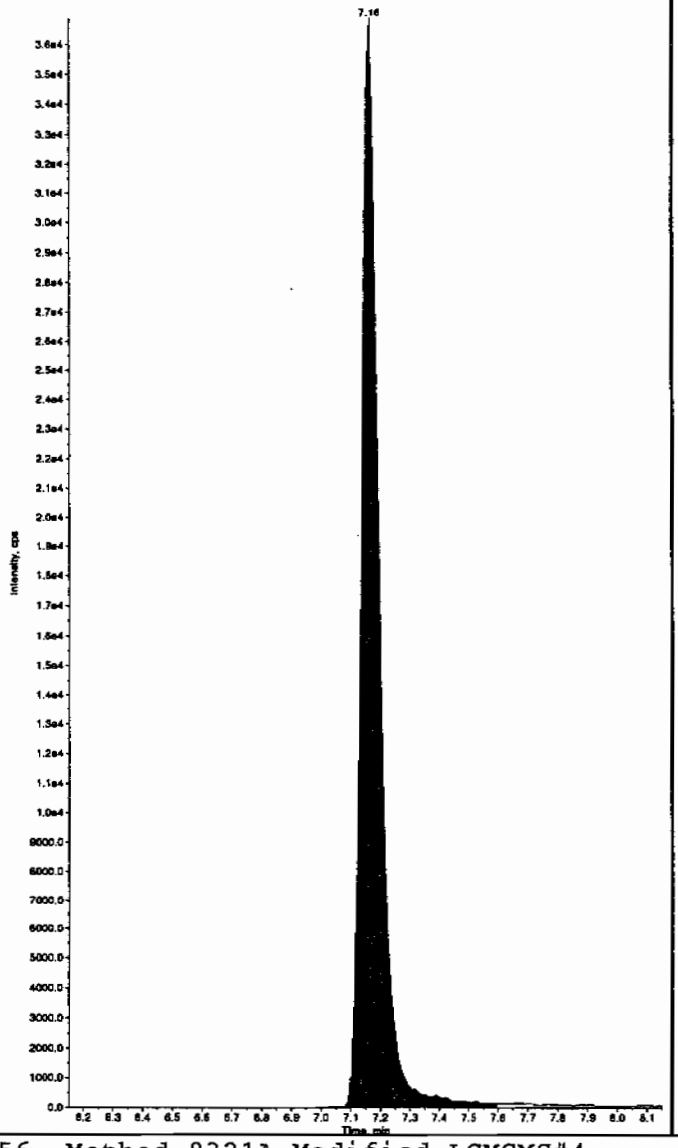

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 10:24:15 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.35 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 7.41e+005 counts
Height: 188161.407 cps
Start Time: 8.29 min
End Time: 8.48 min

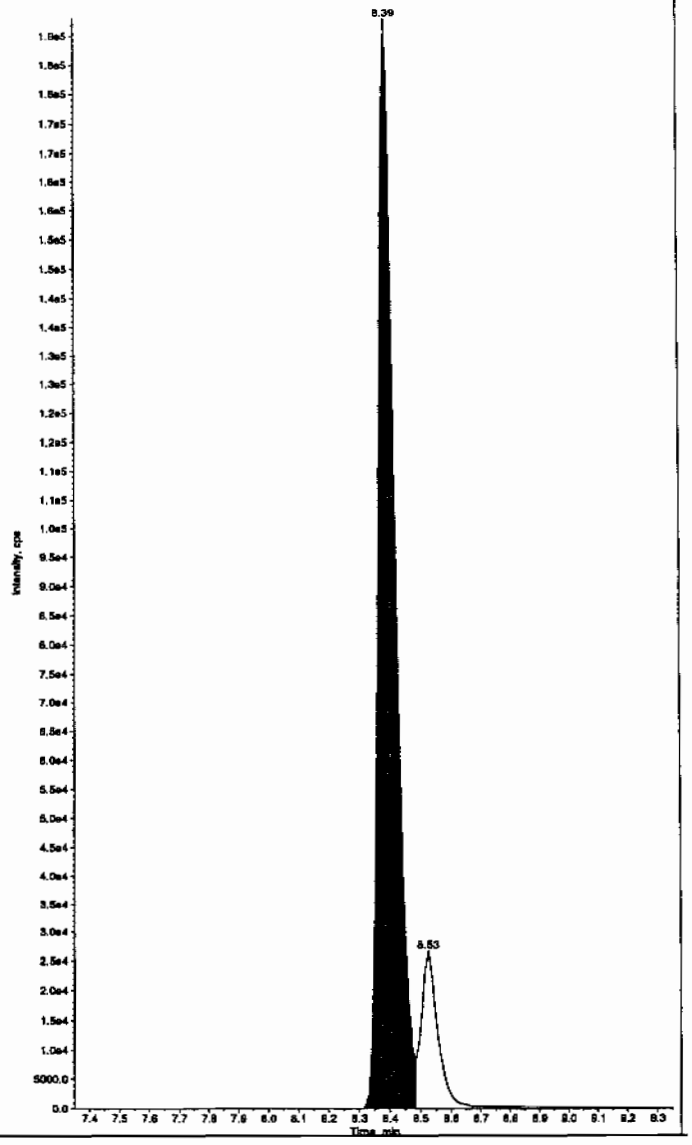

Hum 02/17/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 50.0 ng/mL
ilated Conc: 52.2 ng/mL
Date: 2/14/2010
Time: 10:24:15 PM

tied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ation Time: 8.52 min
: 6.66e+005 counts
t: 175696.732 cps
: Time: 8.45 min
Time: 8.69 min

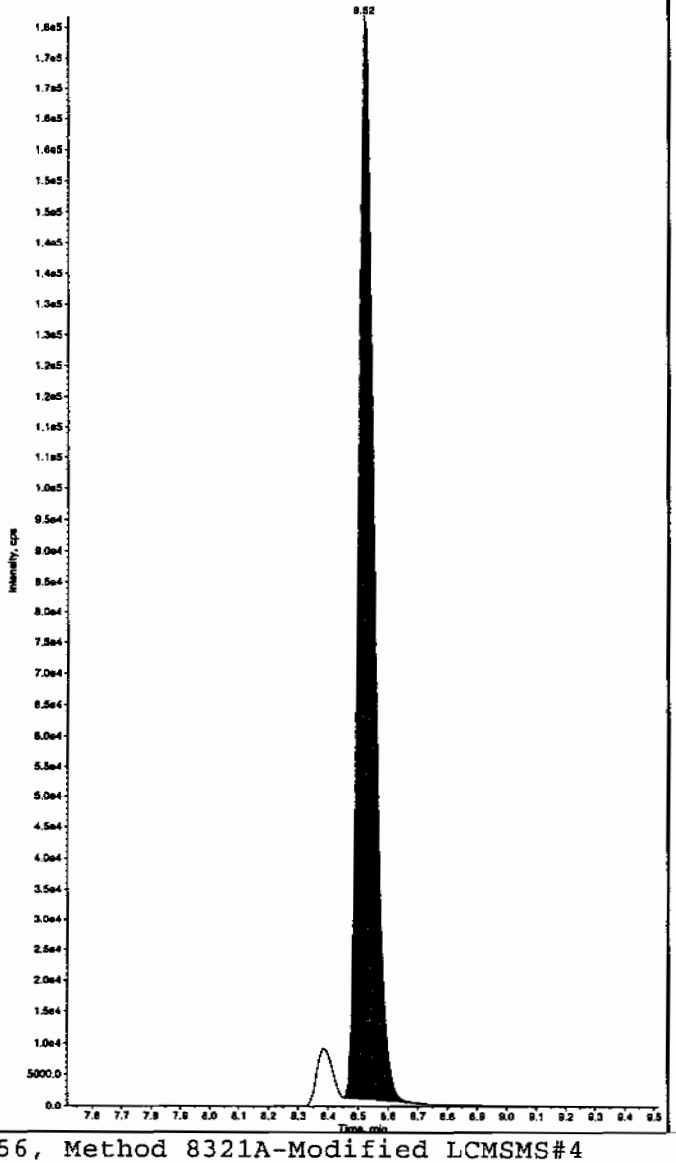

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 10:24:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 3.35e+005 counts
Height: 80867.615 cps
Start Time: 5.03 min
End Time: 5.44 min

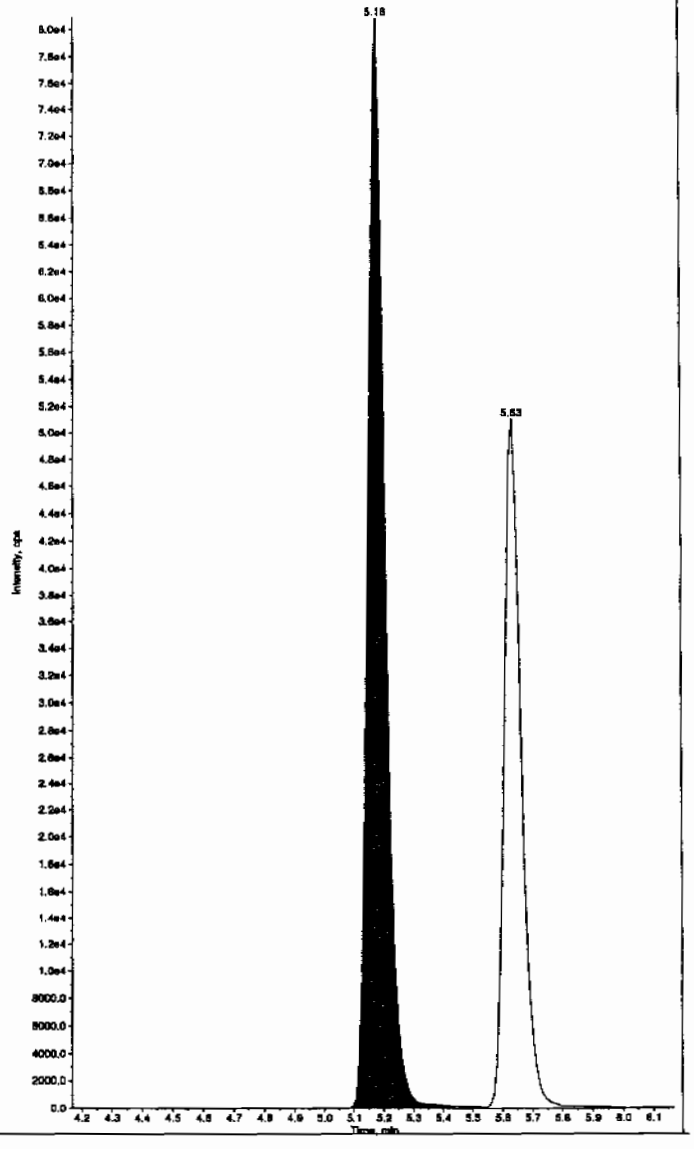

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ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: "
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 103. ng/mL
Date: 2/14/2010
Time: 10:24:15 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.63 min
2.00e+005 counts
t: 50953.758 cps
Time: 5.55 min
ime: 5.81 min

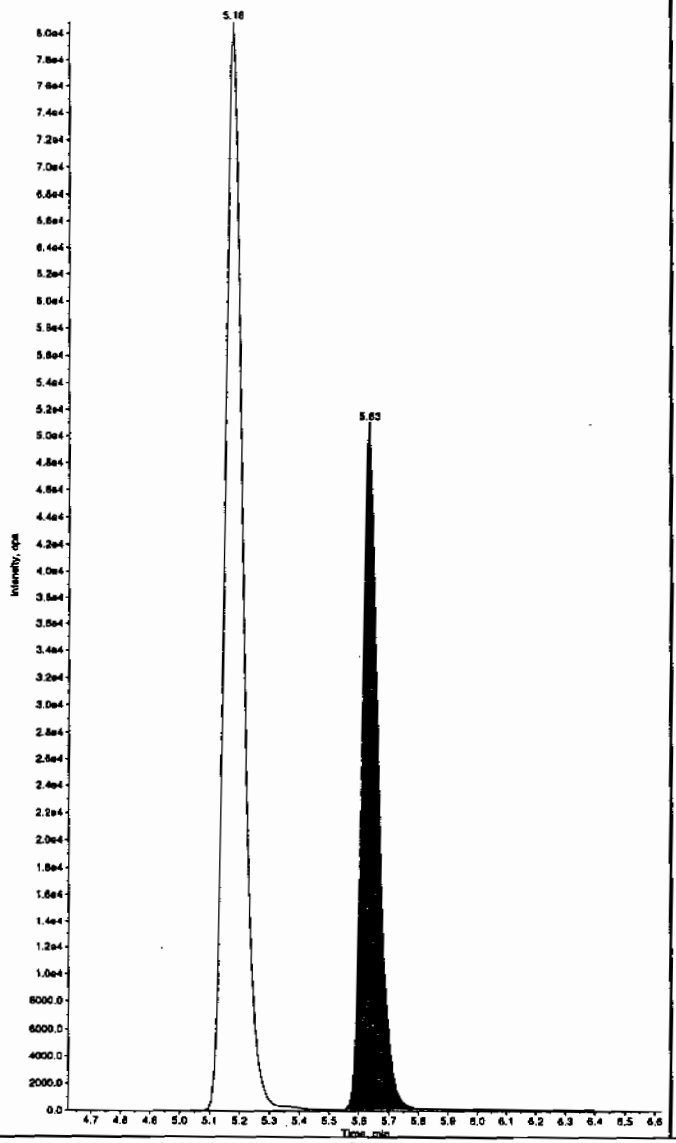

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 10:24:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.52e+006 counts
Height: 579455.627 cps
Start Time: 10.9 min
End Time: 11.4 min

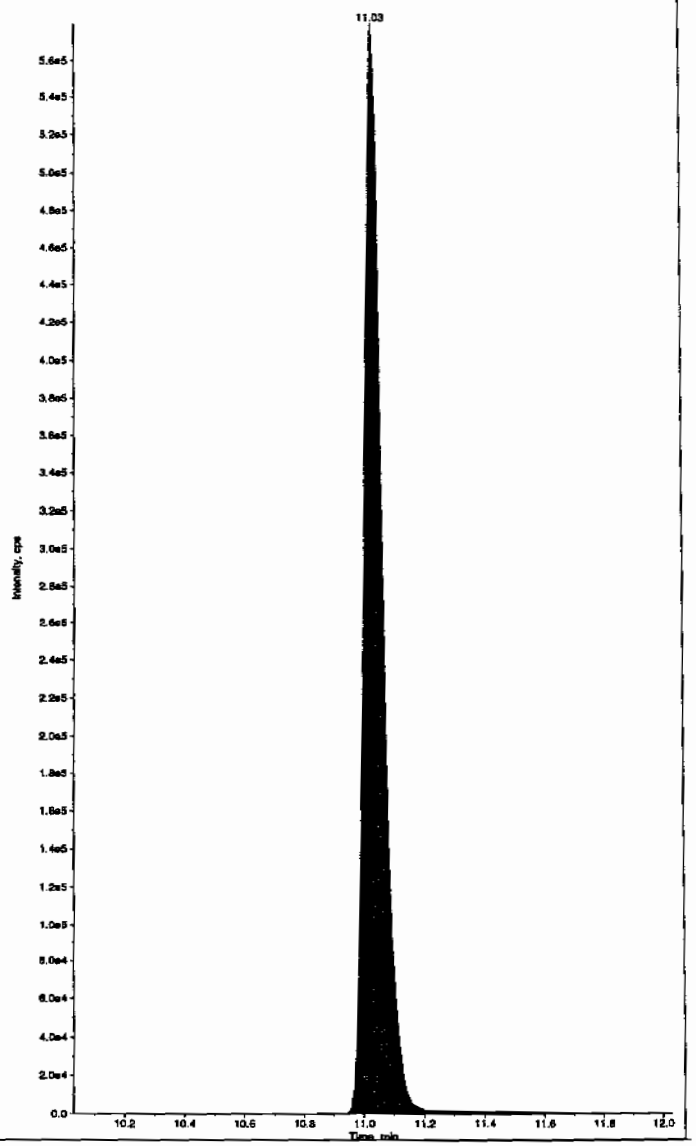

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140043.wiff

Analysis Date: 15-FEB-10 01:16

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	545	109	
2,6-Diamino-4-nitrotoluene	500	596	119	
3,4-Dinitrotoluene	250	240	96	
3,5-Dinitroaniline	500	533	107	
TATB	500	568	114	
tris(o-cresyl) phosphate	500	512	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lar 2/17/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
.e Index: 1
.e Type: QC
ncration: 500. ng/mL
ilated Conc: 568. ng/mL
Date: 2/15/2010
Time: 1:16:59 AM

ied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
lelative RT: No

Type: Valley
ction Time: 7.16 min
7.92e+005 counts
it: 174783.081 cps
Time: 7.00 min
ime: 7.68 min

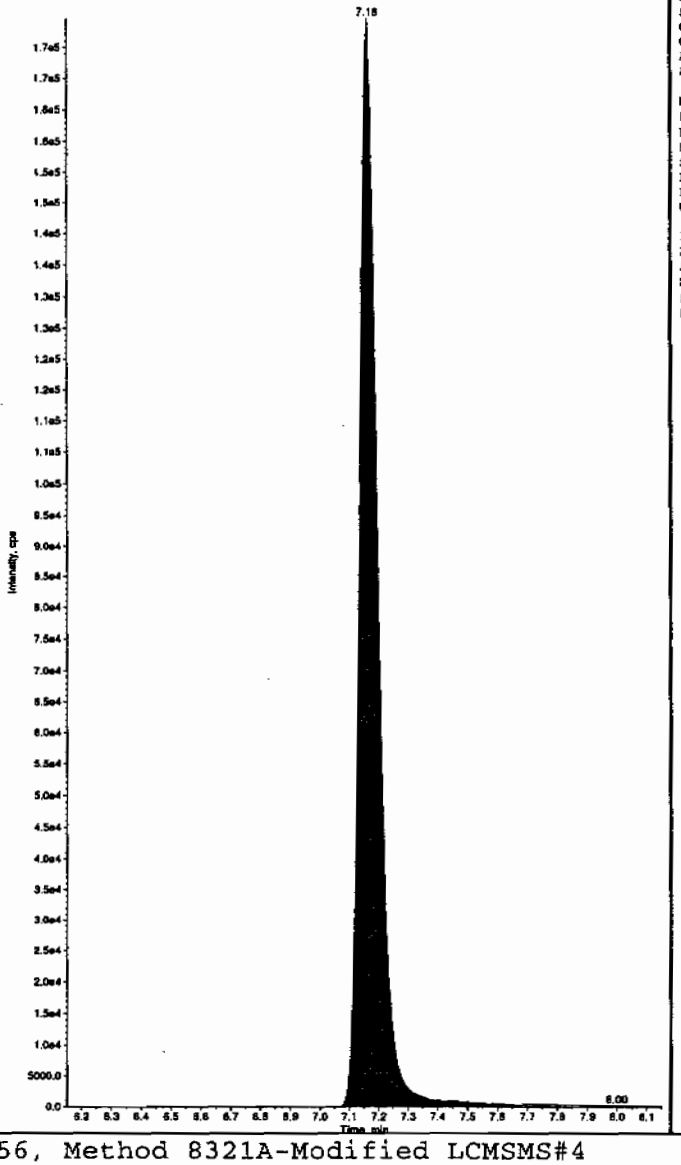

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 533. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:16:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 3.48e+006 counts
Height: 816873.230 cps
Start Time: 8.29 min
End Time: 8.48 min

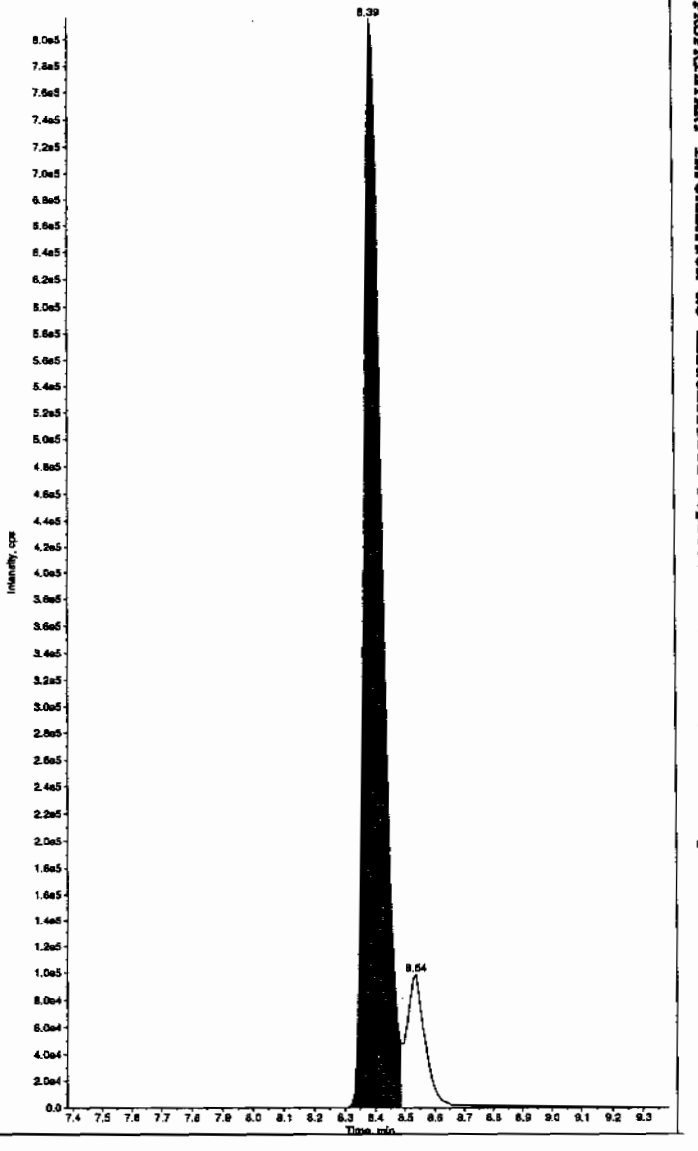

Hnm 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 250. ng/mL
lated Conc: 240. ng/mL
Date: 2/15/2010
Time: 1:16:59 AM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
indow: 15.0 sec
ted RT: 8.52 min
lelative RT: No

Type: Valley
ntion Time: 8.53 min
: 3.14e+006 counts
ht: 851432.373 cps
: Time: 8.45 min
Time: 8.70 min

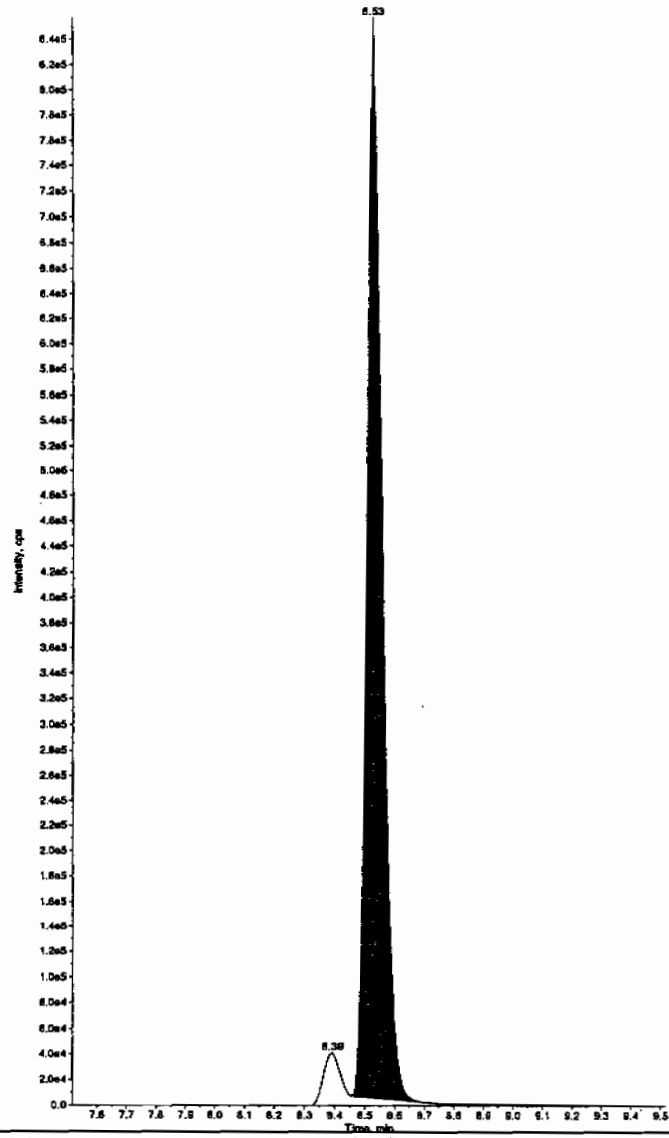

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 596. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:16:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.19 min
Area: 1.71e+006 counts
Height: 412978.729 cps
Start Time: 5.07 min
End Time: 5.46 min

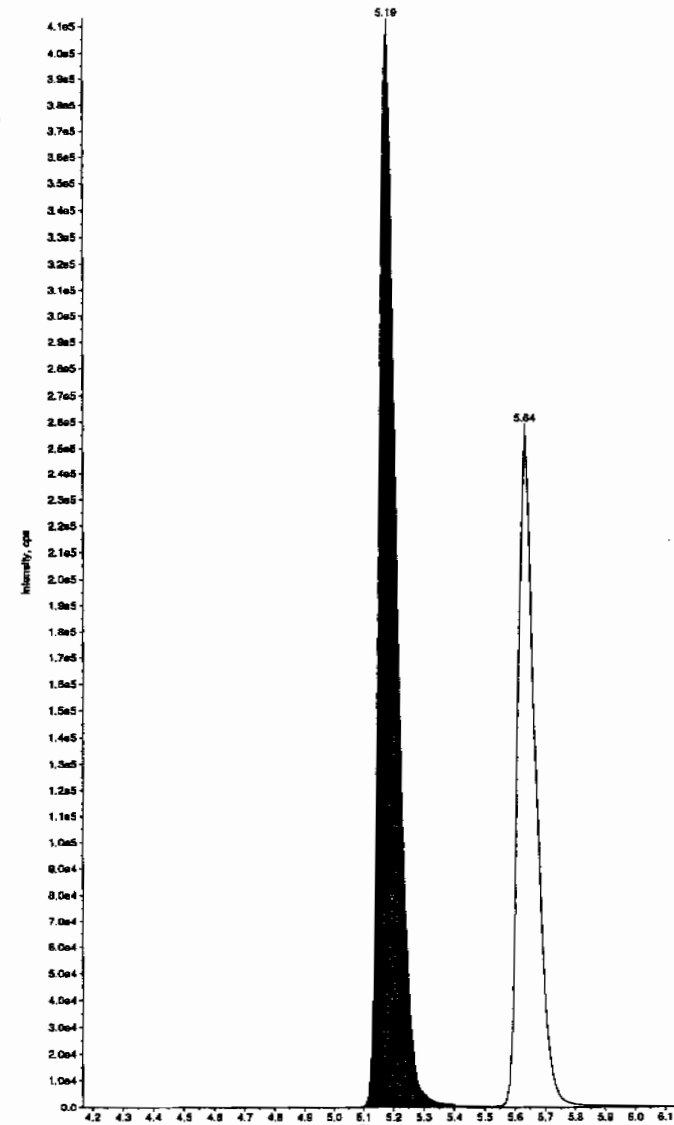

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Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 545. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:16:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.62 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.64 min
Area: 1.04e+006 counts
Height: 258986.603 cps
Start Time: 5.53 min
End Time: 6.07 min

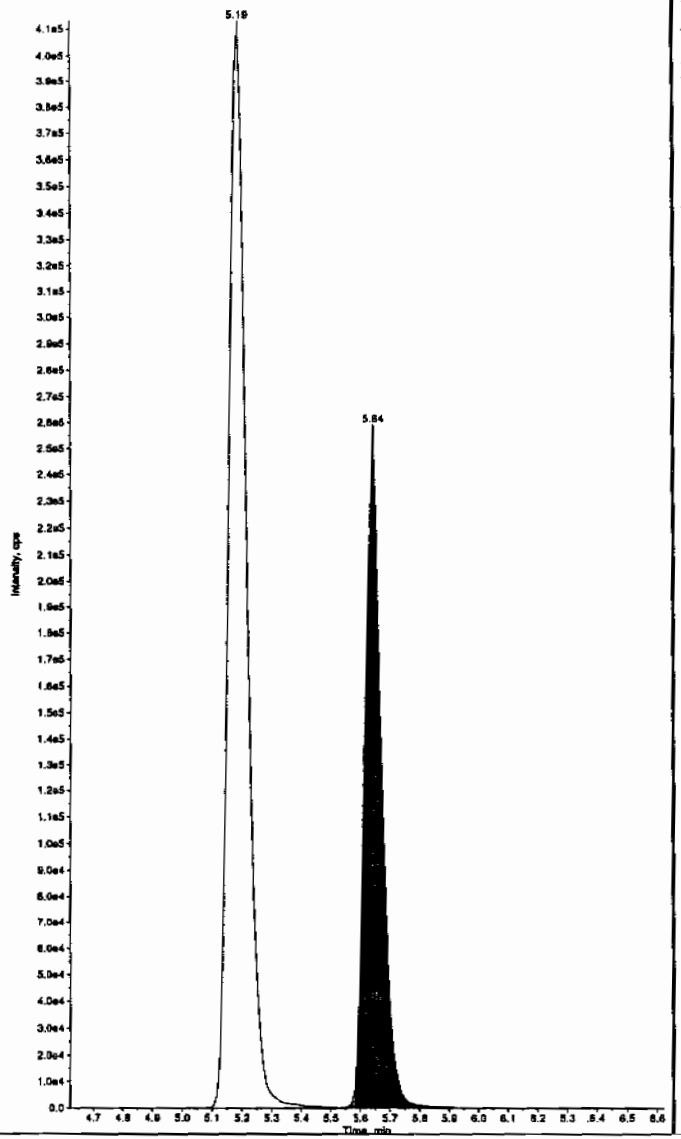

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 512. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:16:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.12e+007 counts
Height: 2579408.447 cps
Start Time: 10.9 min
End Time: 11.4 min

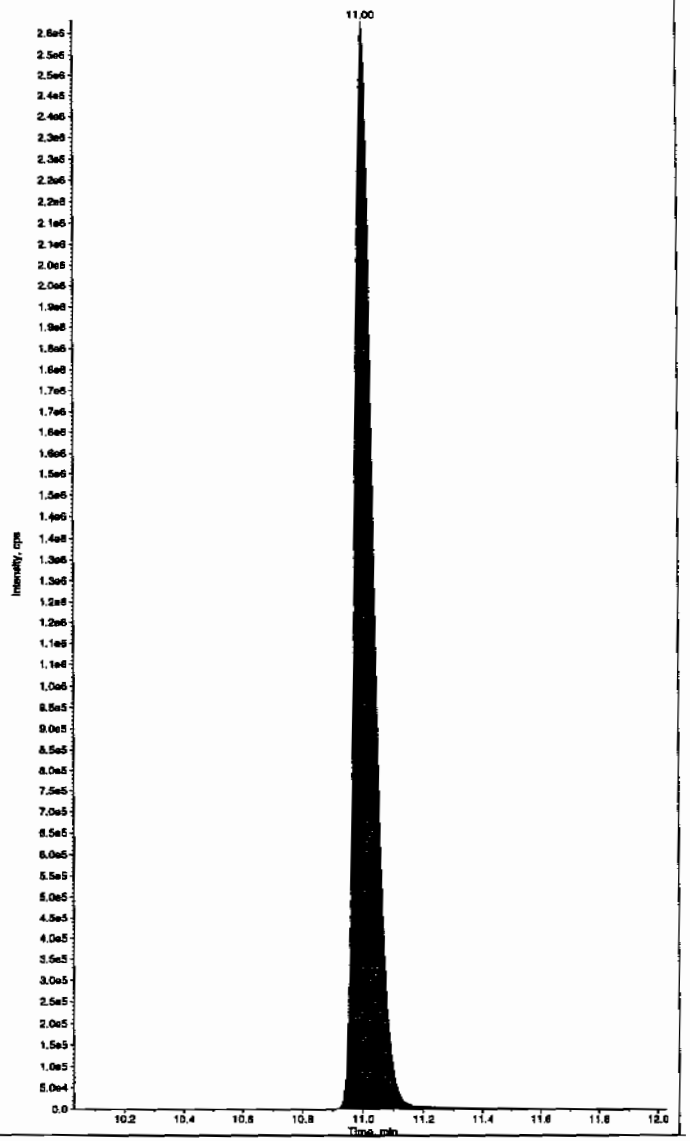

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140045.wiff

Analysis Date: 15-FEB-10 01:48

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	116	116	
2,6-Diamino-4-nitrotoluene	100	112	112	
3,4-Dinitrotoluene	50	52.3	105	
3,5-Dinitroaniline	100	120	120	
TATB	100	119	119	
tris(o-cresyl) phosphate	100	105	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Chan 2/16/10

nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
alated Conc: 119. ng/mL
Date: 2/15/2010
Time: 1:48:23 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.16 min
: 1.64e+005 counts
ht: 37362.991 cps
t Time: 7.02 min
Time: 7.72 min

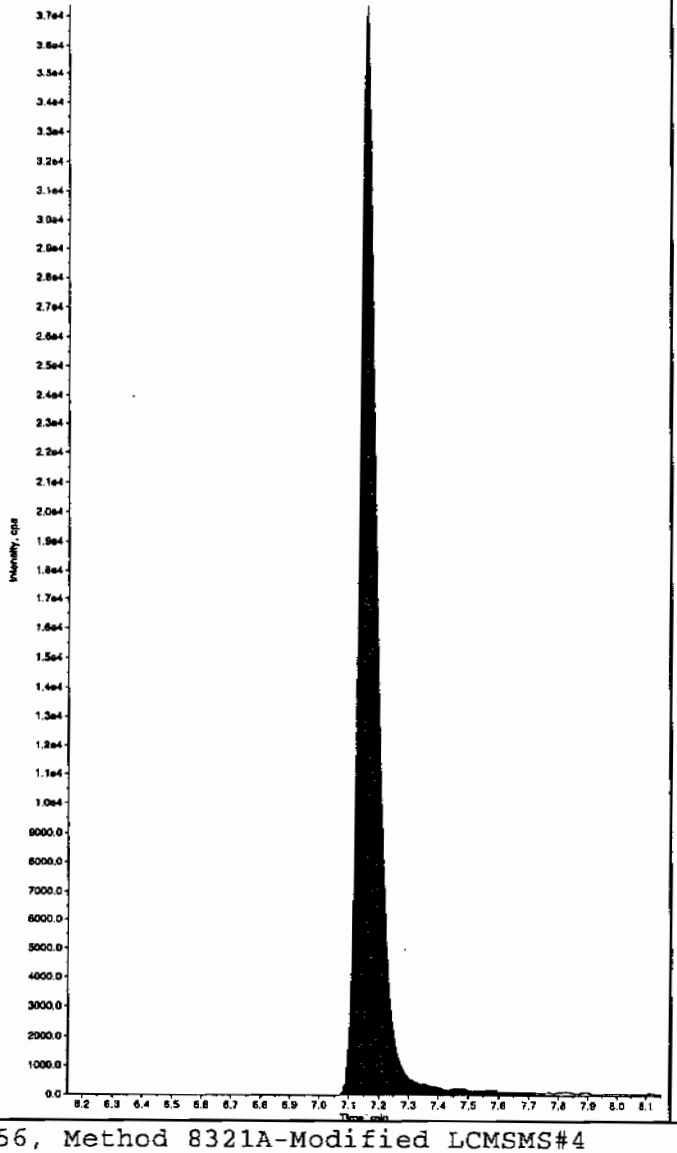

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 134. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:48:23 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.39 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 8.85e+005 counts
Height: 199205.399 cps
Start Time: 8.29 min
End Time: 8.79 min

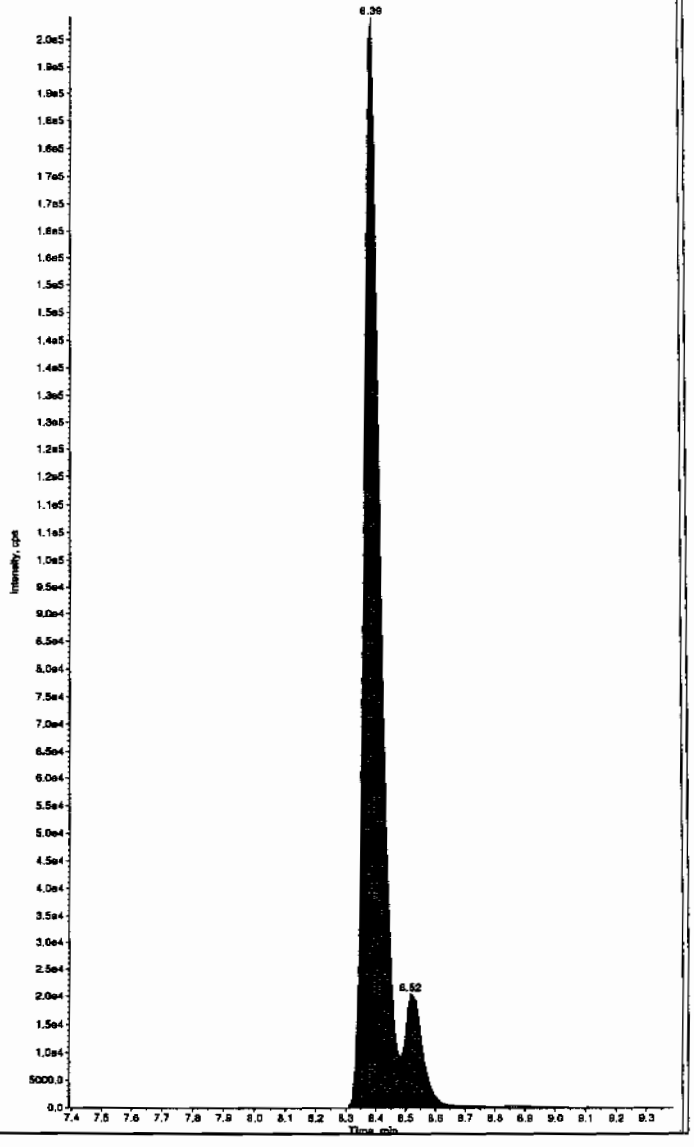

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after Clar 2/17/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	100.	ng/mL
lated Conc:	119.	ng/mL
Date:	2/15/2010	
Time:	1:48:23 AM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	30.0	sec
ted RT:	7.15	min
lative RT:	No	
Type:	Valley	
tion Time:	7.16	min
	1.64e+005	counts
t:	37362.991	cps
Time:	7.02	min
ime:	7.72	min

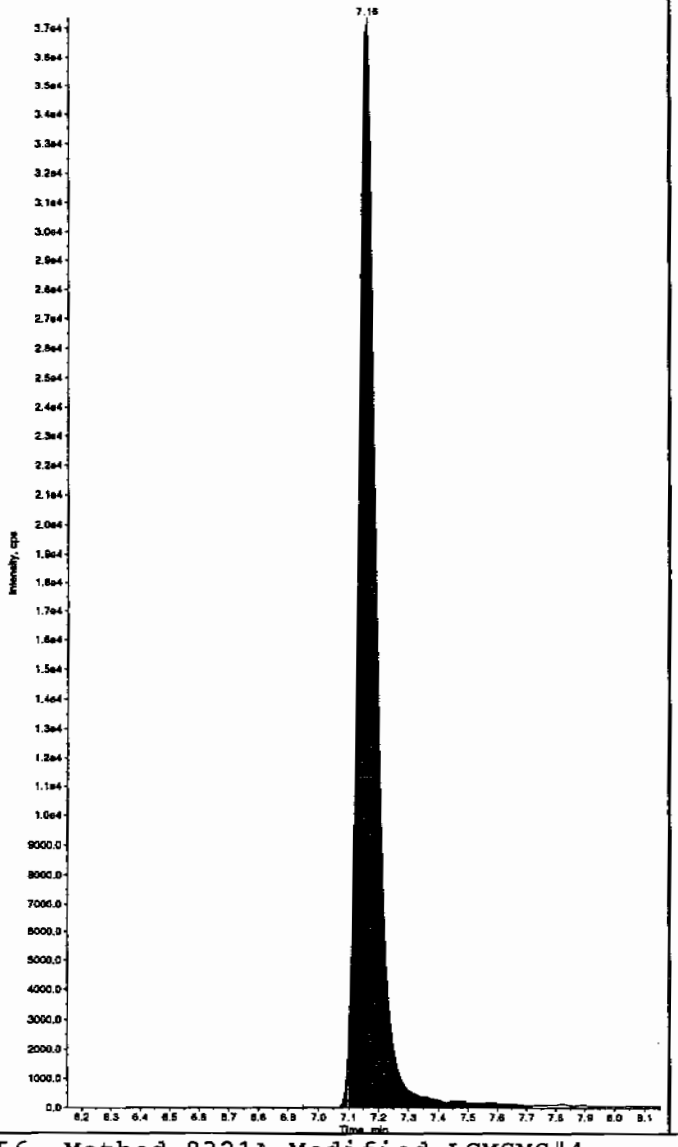

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	120.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	1:48:23 AM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.39	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.39	min
Area:	7.89e+005	counts
Height:	200516.350	cps
Start Time:	8.31	min
End Time:	8.48	min

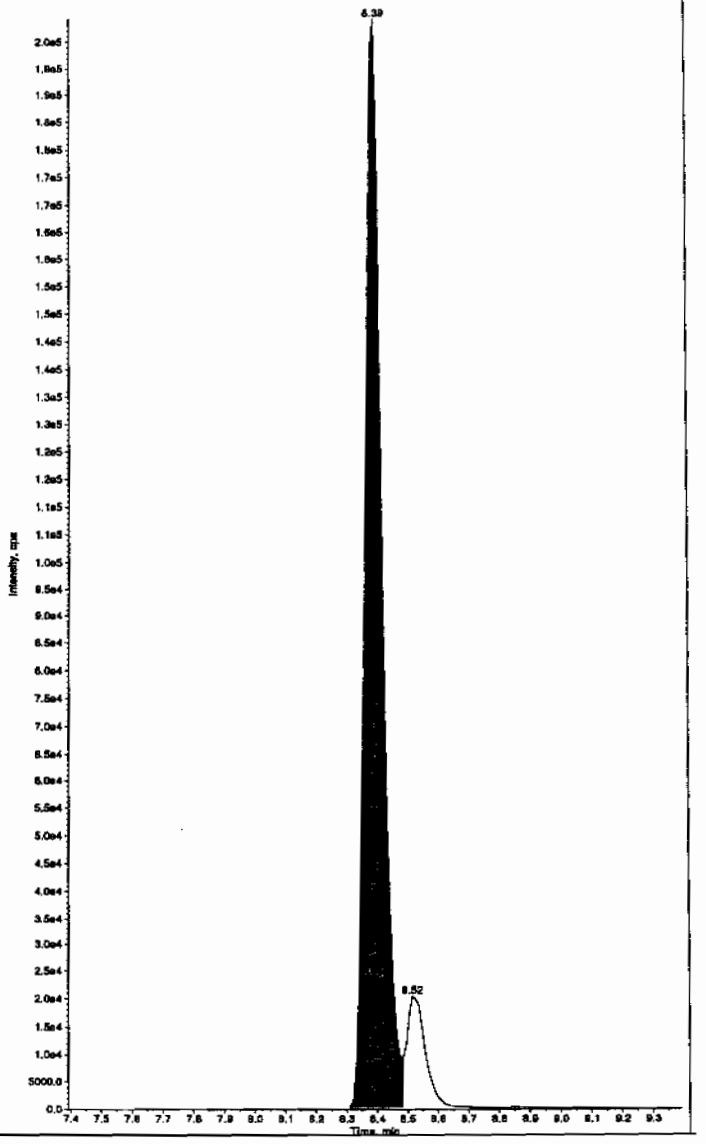

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140045.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:           QC
ntration:         50.0     ng/mL
lated Conc:       52.3     ng/mL
Date:         2/15/2010
Time:         1:48:23 AM

ied:              No
 Algorithm: IntelliQuan - IQA
Peak Height:1460.00    cps
Peak Width:       0.00   sec
ning Width:  3         points
ndow:           15.0     sec
ted RT:           8.52   min
elative RT:       No

Type:           Valley
tion Time:        8.52   min
            6.67e+005    counts
t:            176555.374  cps
 Time:            8.44   min
ime:              8.69   min
```

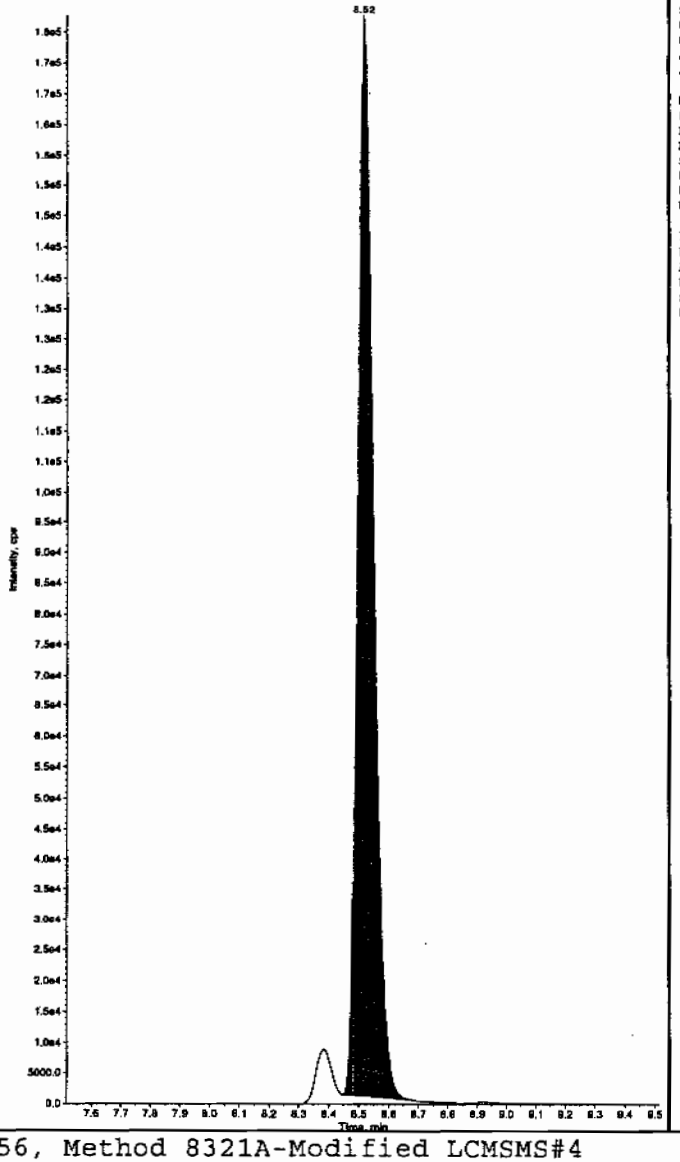

Sample Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140045.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       112.     ng/mL
Acq. Date:         2/15/2010
Acq. Time:         1:48:23 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        5.17    min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:     5.18    min
Area:          3.39e+005    counts
Height:        81798.973    cps
Start Time:         5.05    min
End Time:           5.43    min
```

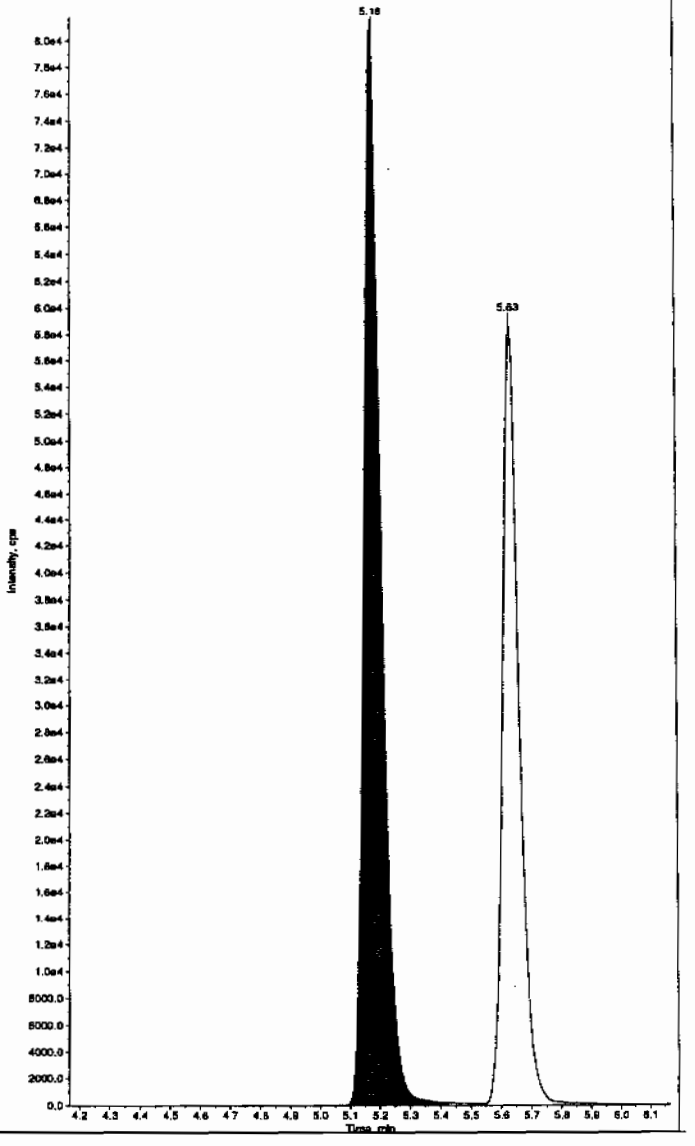

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
(Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: "

e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 116. ng/mL
Date: 2/15/2010
Time: 1:48:23 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.63 min
2.25e+005 counts
t: 59590.805 cps
Time: 5.54 min
ime: 6.03 min

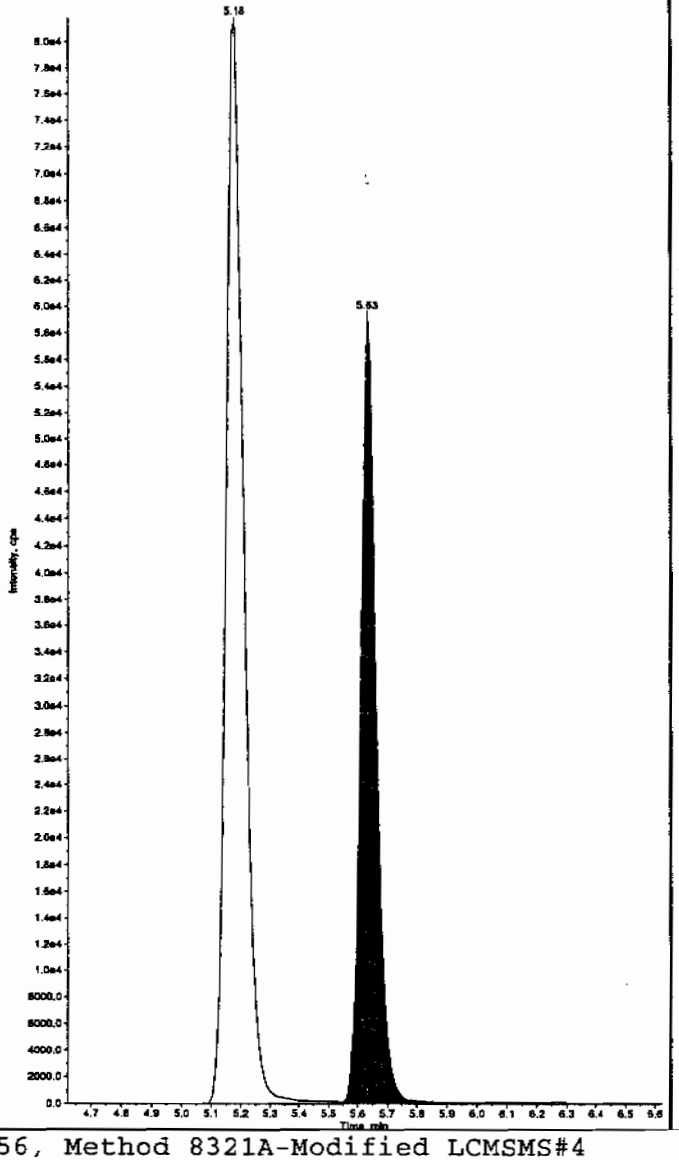

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:48:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.49e+006 counts
Height: 600676.575 cps
Start Time: 10.9 min
End Time: 11.3 min

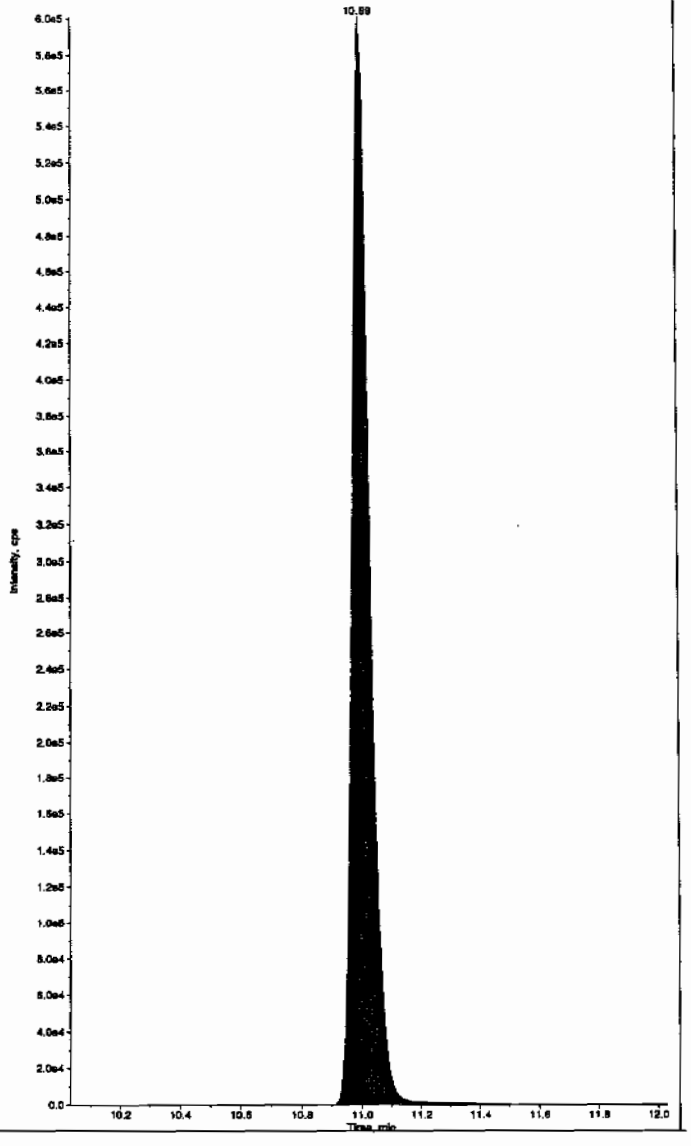

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140056.wiff

Analysis Date: 15-FEB-10 04:41

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	610	122	
2,6-Diamino-4-nitrotoluene	500	600	120	
3,4-Dinitrotoluene	250	253	101	
3,5-Dinitroaniline	500	551	110	
TATB	500	567	113	
tris(o-cresyl) phosphate	500	504	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/16/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
lated Conc: 567. ng/mL
Date: 2/15/2010
Time: 4:41:08 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ction Time: 7.17 min
: 7.91e+005 counts
t: 176303.864 cps
Time: 7.07 min
Time: 7.83 min

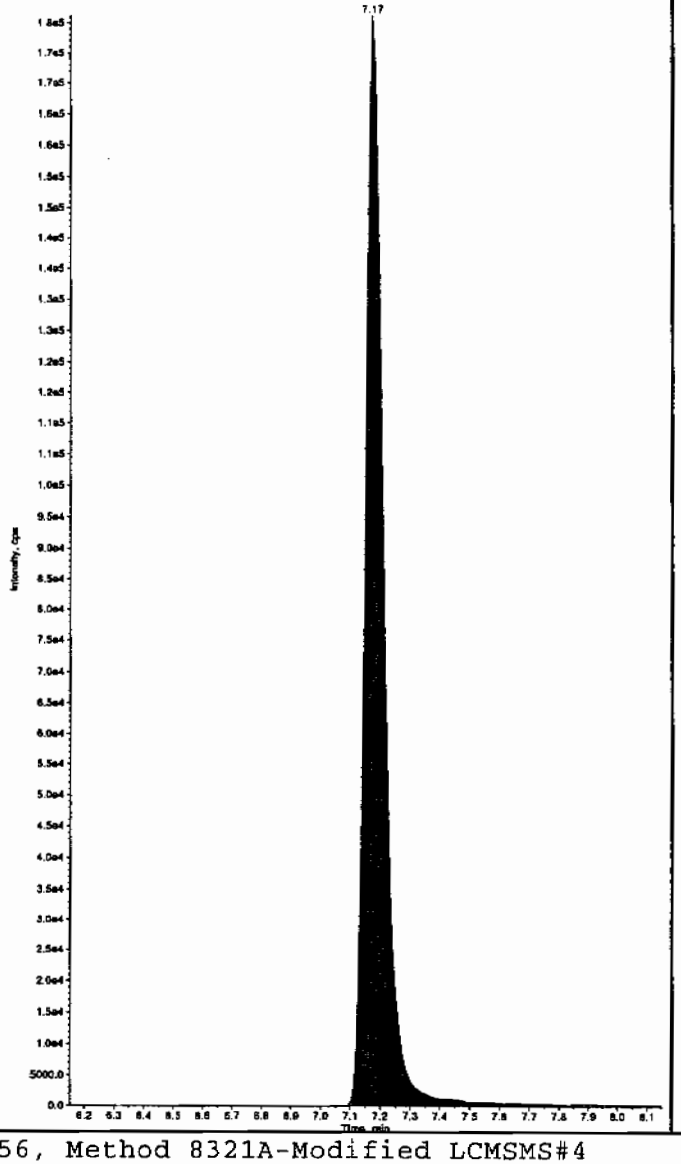

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:41:08 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 3.33e+006 counts
Height: 889455.078 cps
Start Time: 8.33 min
End Time: 8.48 min

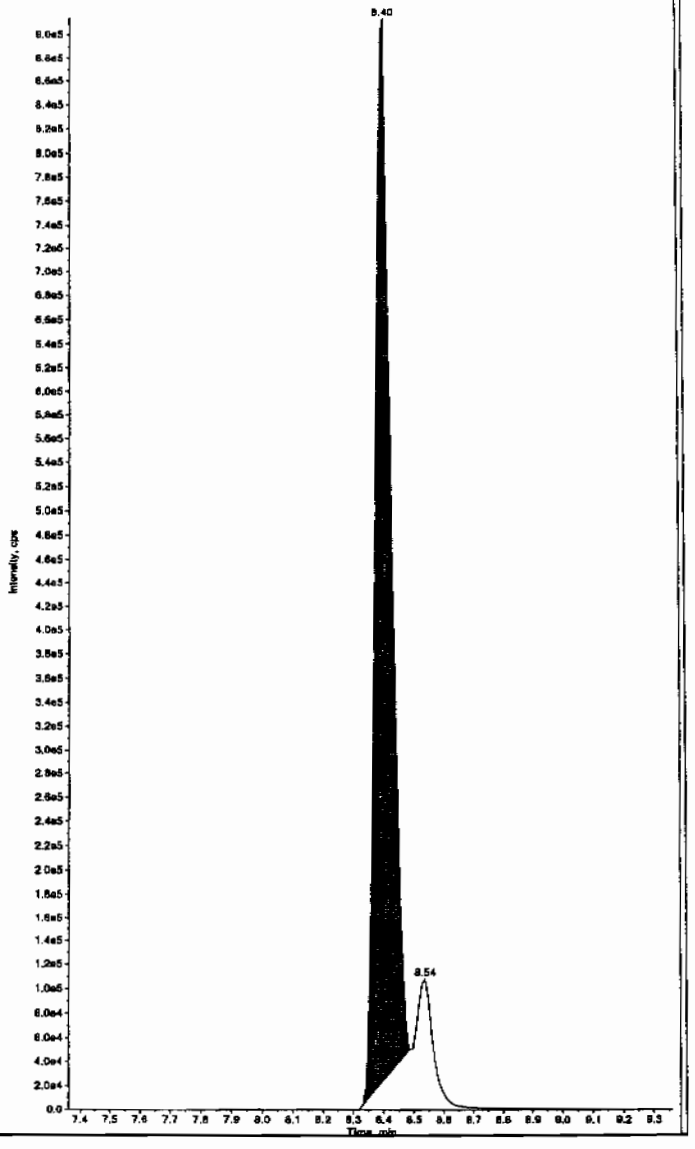

Hmm 02/17/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Dan 2/17/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 567. ng/mL
Date: 2/15/2010
Time: 4:41:08 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.17 min
7.91e+005 counts
t: 176303.864 cps
Time: 7.07 min
ime: 7.83 min

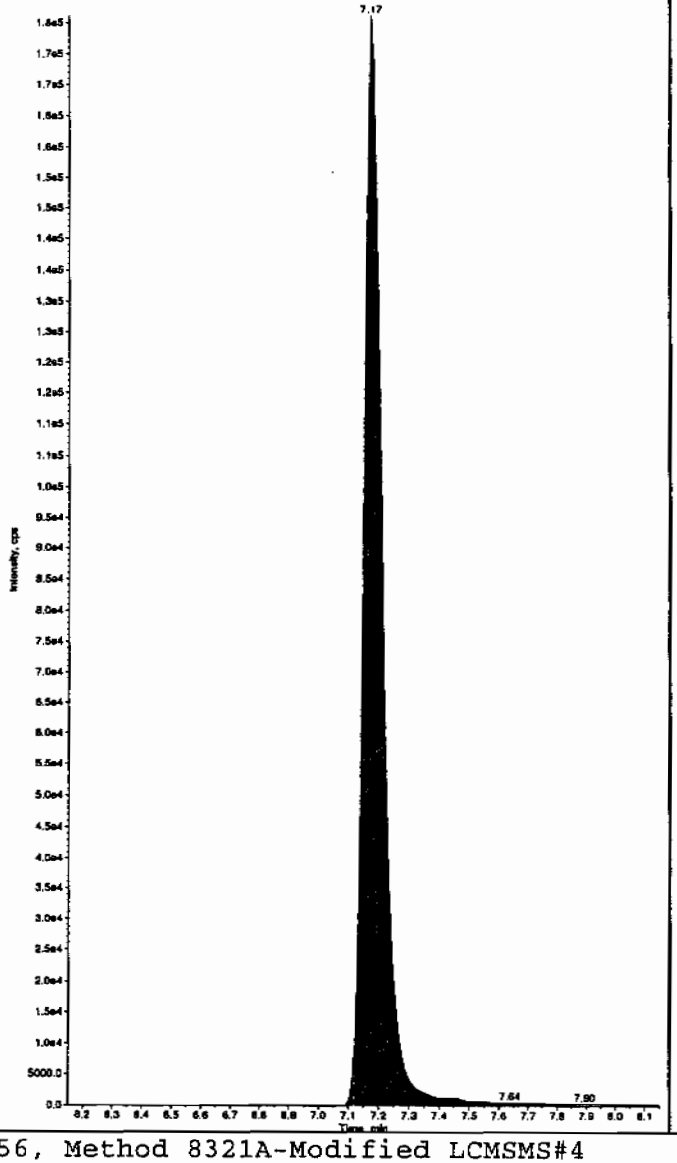

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 551. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:41:08 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.40 min
Area: 3.59e+006 counts
Height: 928191.725 cps
Start Time: 8.33 min
End Time: 8.50 min

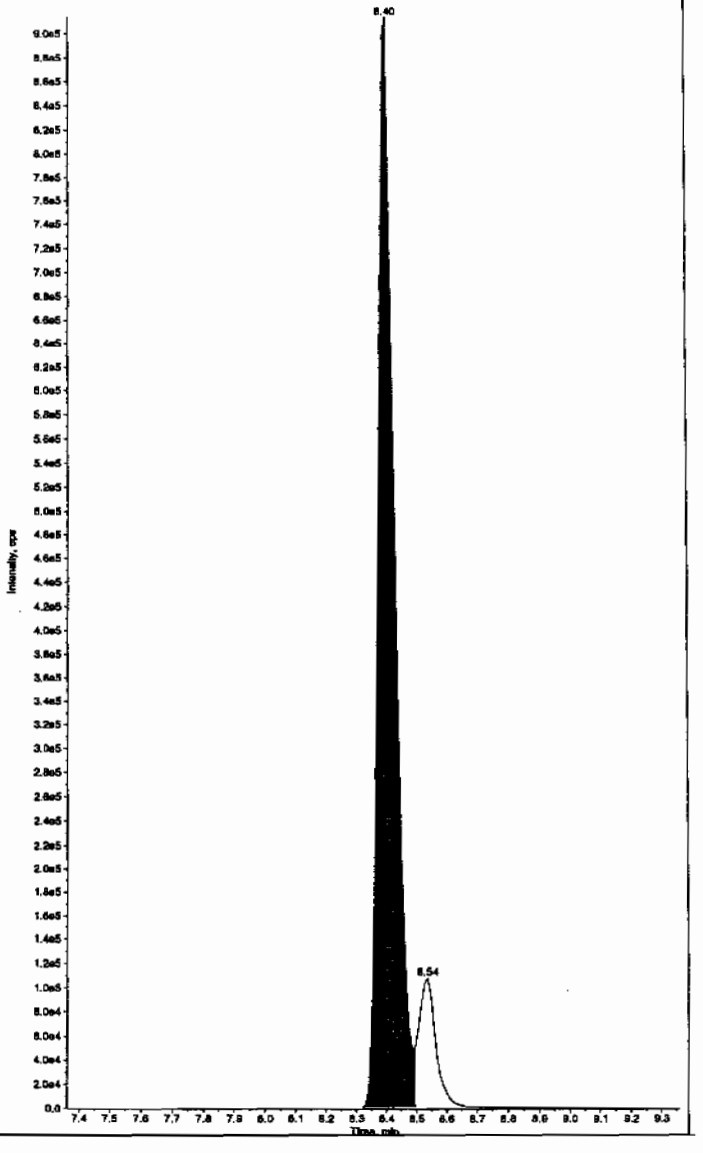

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140056.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 253. ng/mL
Date: 2/15/2010
Time: 4:41:08 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.53 min
: 3.31e+006 counts
ht: 904657.532 cps
t Time: 8.45 min
Time: 8.69 min

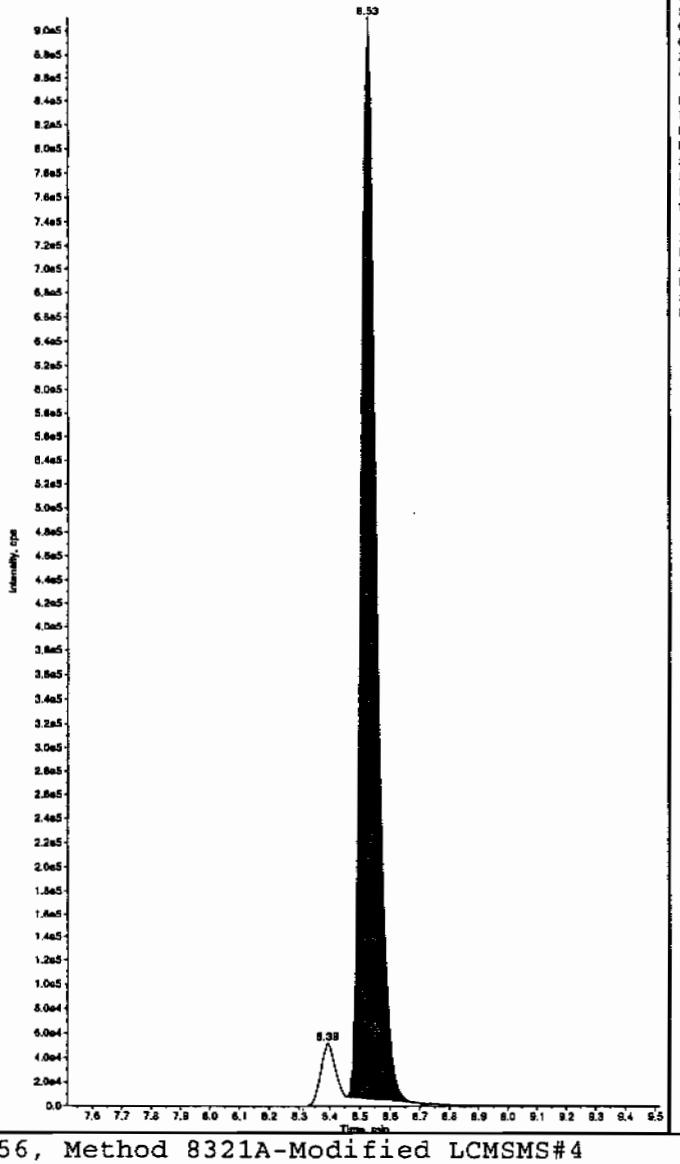

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140056.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 600. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:41:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 1.73e+006 counts
Height: 402197.998 cps
Start Time: 5.07 min
End Time: 5.49 min

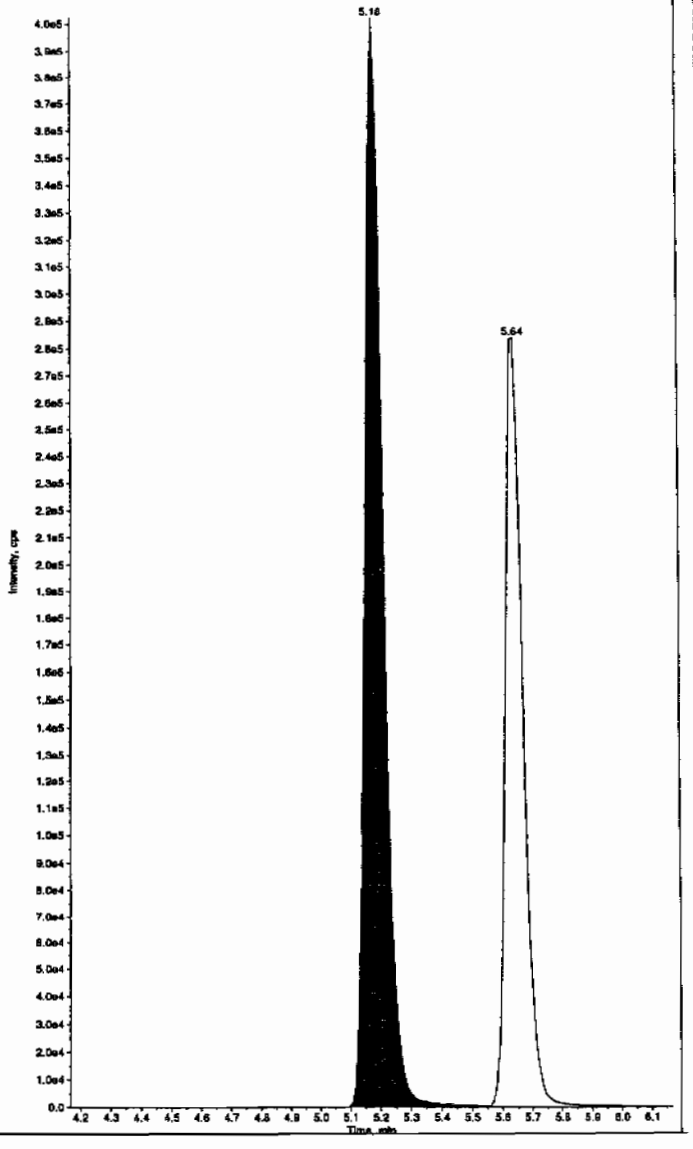

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 500. ng/mL
lated Conc: 610. ng/mL
Date: 2/15/2010
Time: 4:41:08 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
lative RT: No

Type: Valley
tion Time: 5.64 min
1.16e+006 counts
t: 283947.052 cps
Time: 5.54 min
ime: 5.13 min

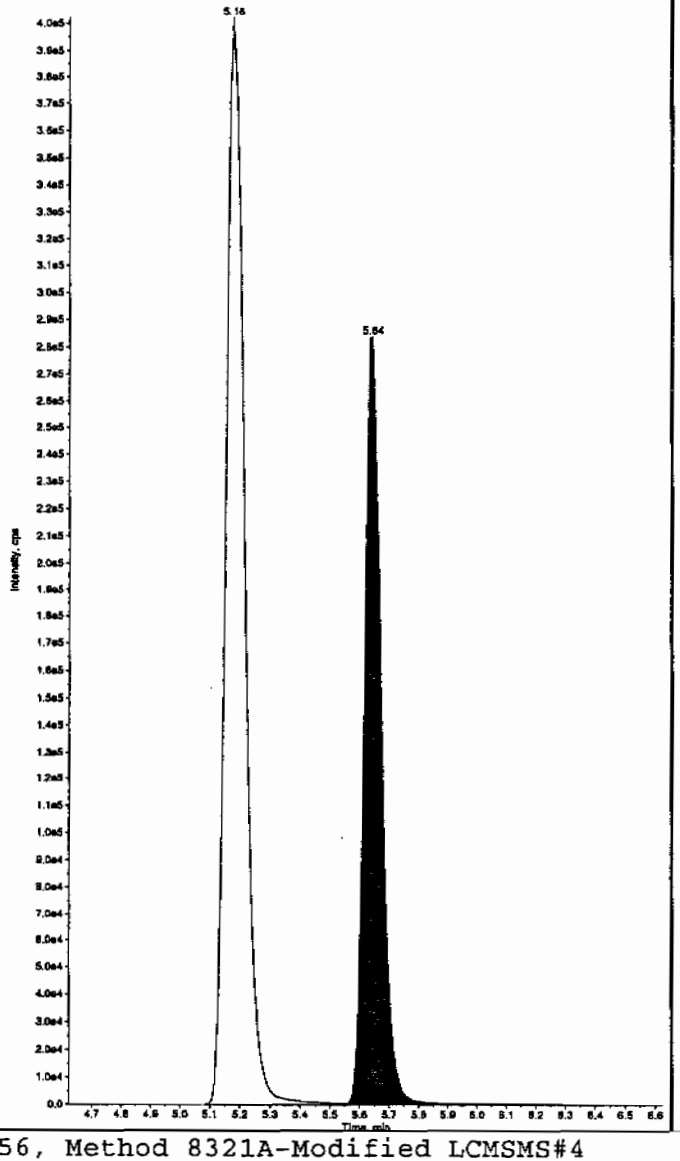

Sample Name: "WXX100214-25CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 504. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:41:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.10e+007 counts
Height: 2513603.516 cps
Start Time: 10.9 min
End Time: 11.4 min

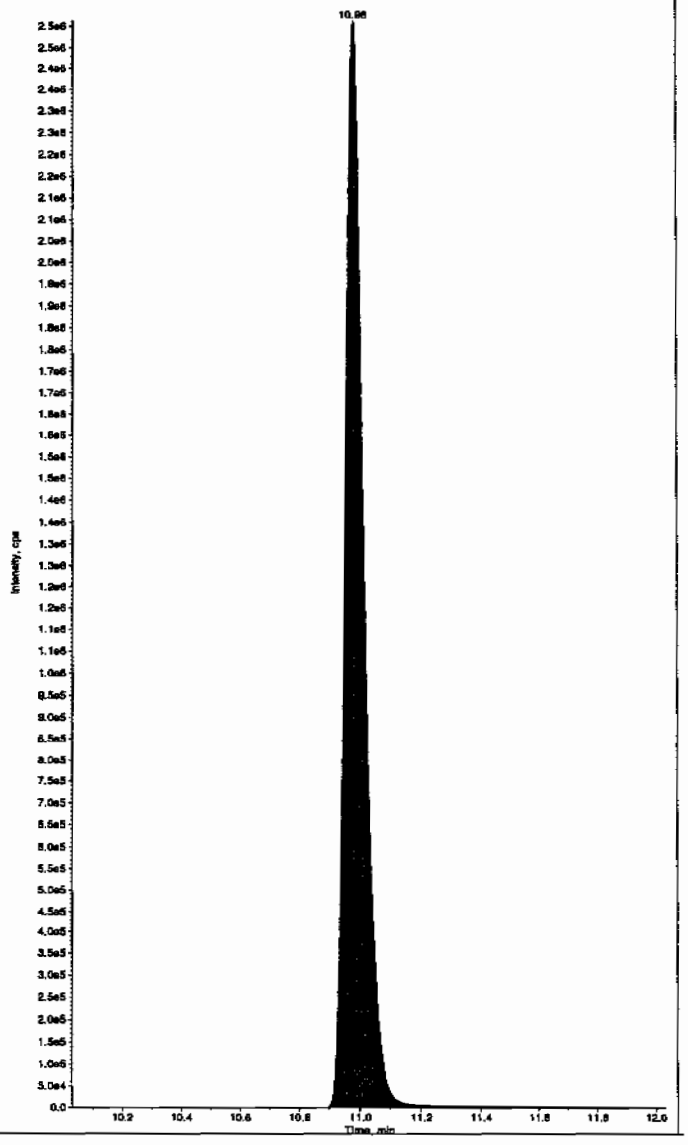

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140058.wiff

Analysis Date: 15-FEB-10 05:12

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	100	119	119	
3,4-Dinitrotoluene	50	54.2	108	
3,5-Dinitroaniline	100	116	116	
TATB	100	114	114	
tris(o-cresyl) phosphate	100	104	104	
2,4-Diamino-6-nitrotoluene	100	120	120	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ben 2/17/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
ntration: 100. ng/mL
ilated Conc: 114. ng/mL
Date: 2/15/2010
Time: 5:12:32 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 30.0 sec
cted RT: 7.15 min
lelative RT: No

Type: Valley
ition Time: 7.17 min
1.57e+005 counts
t: 35565.002 cps
Time: 7.06 min
ime: 7.63 min

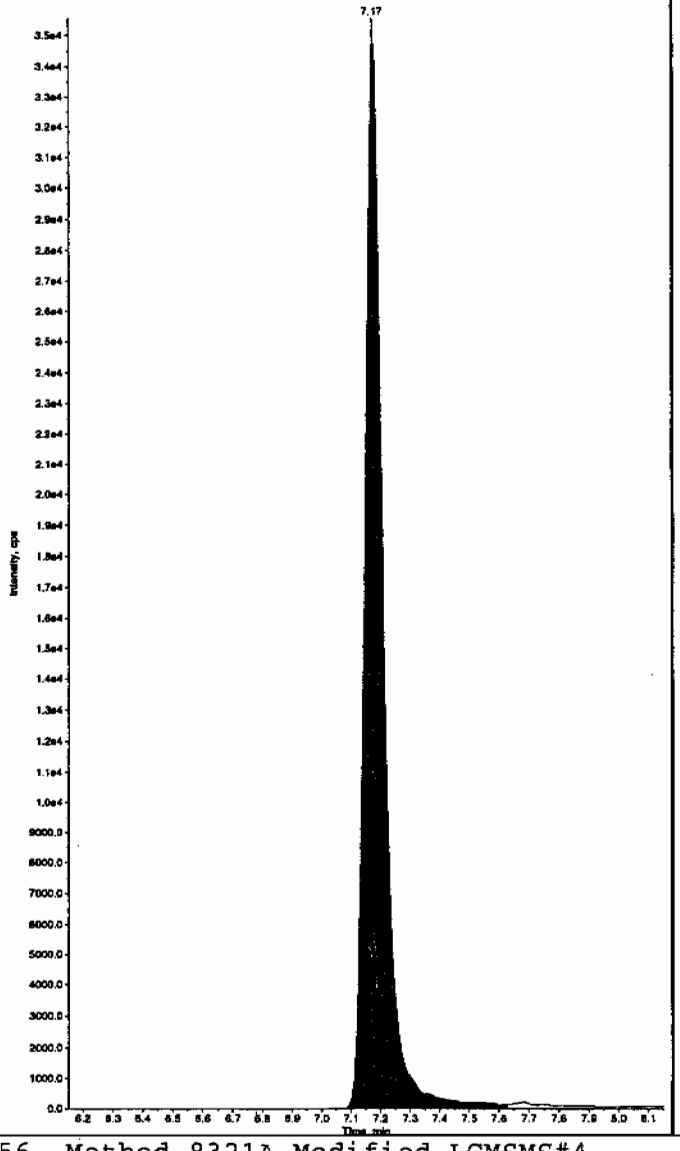

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 116. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 5:12:32 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.35 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 7.62e+005 counts
Height: 175270.462 cps
Start Time: 8.28 min
End Time: 8.48 min

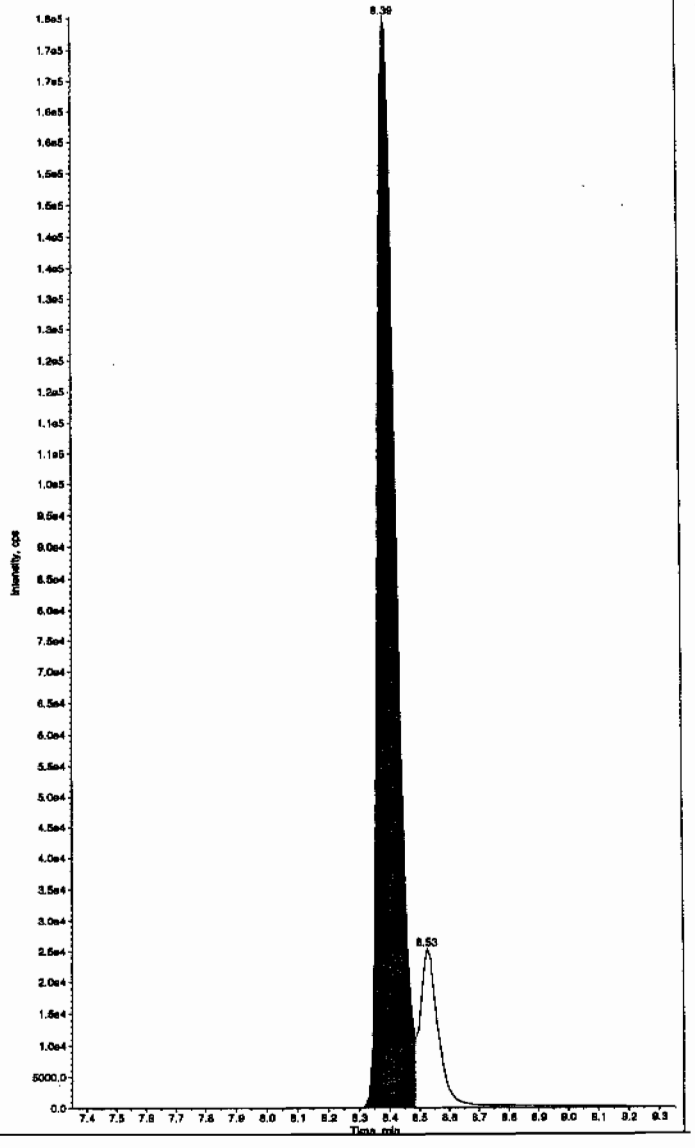

Hum 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ie Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140058.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCMSEXP_C" Annotation: ""

: Index: 1
: Type: QC
ntration: 50.0 ng/mL
lated Conc: 54.2 ng/mL
Date: 2/15/2010
Time: 5:12:32 AM

led: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
ing Width: 3 points
ndow: 15.0 sec
ted RT: 8.52 min
elative RT: No

Type: Valley
tion Time: 8.53 min
6.92e+005 counts
: 180945.206 cps
Time: 8.45 min
ime: 8.70 min

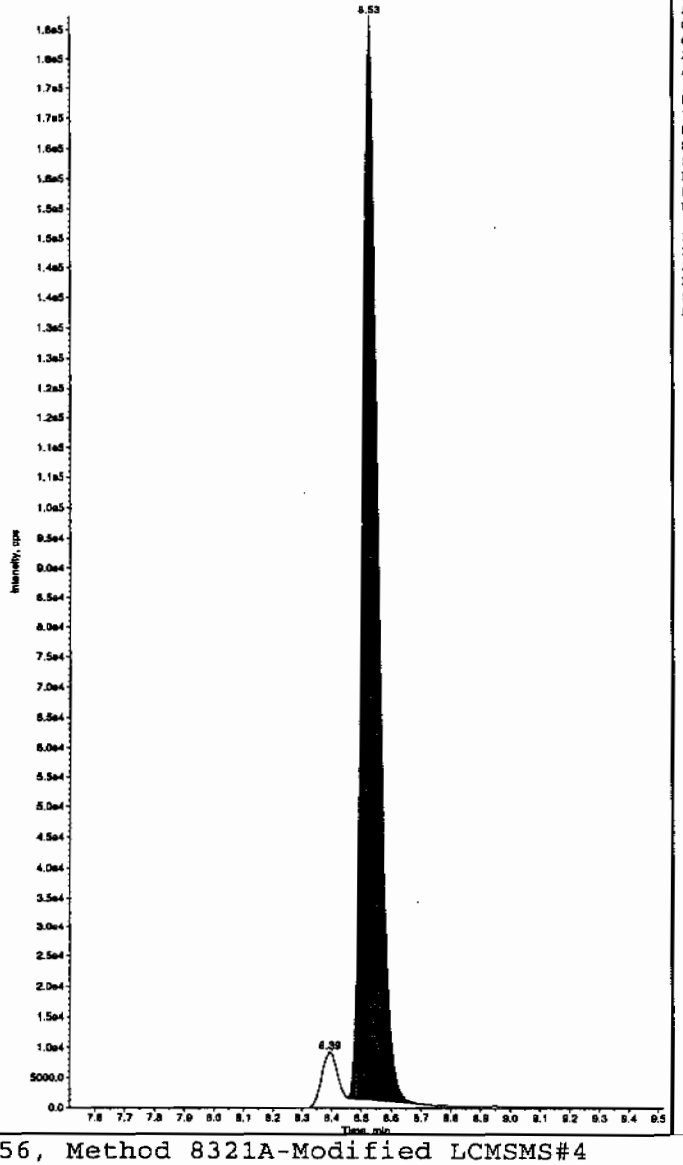

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140058.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 119. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 5:12:32 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 3.58e+005 counts
Height: 89463.539 cps
Start Time: 5.03 min
End Time: 5.47 min

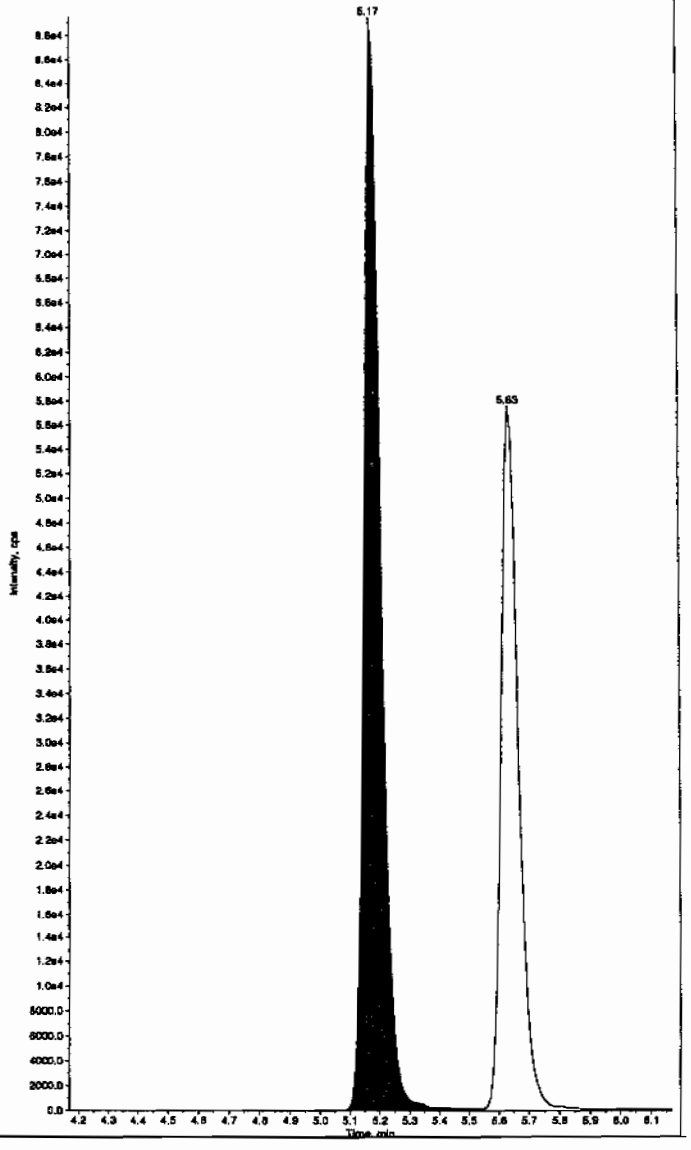

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ie Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 120. ng/mL
Date: 2/15/2010
Time: 5:12:32 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.63 min
2.32e+005 counts
: 57557.320 cps
Time: 5.52 min
ime: 5.94 min

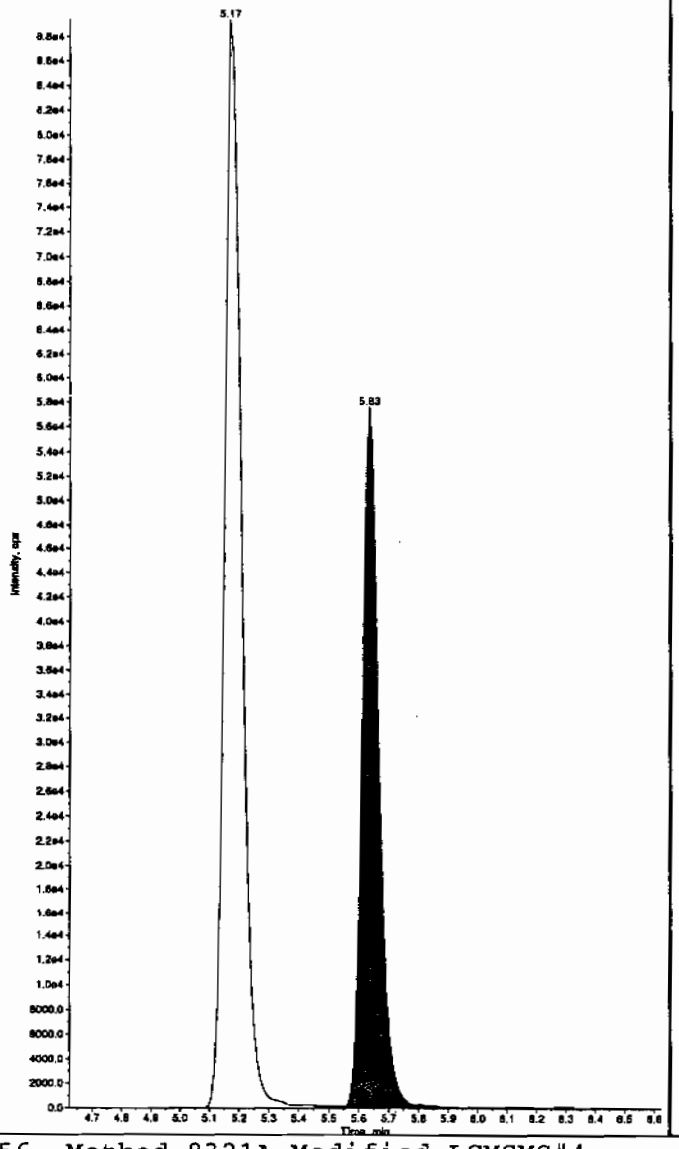

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 5:12:32 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.49e+006 counts
Height: 596468.140 cps
Start Time: 10.9 min
End Time: 11.3 min

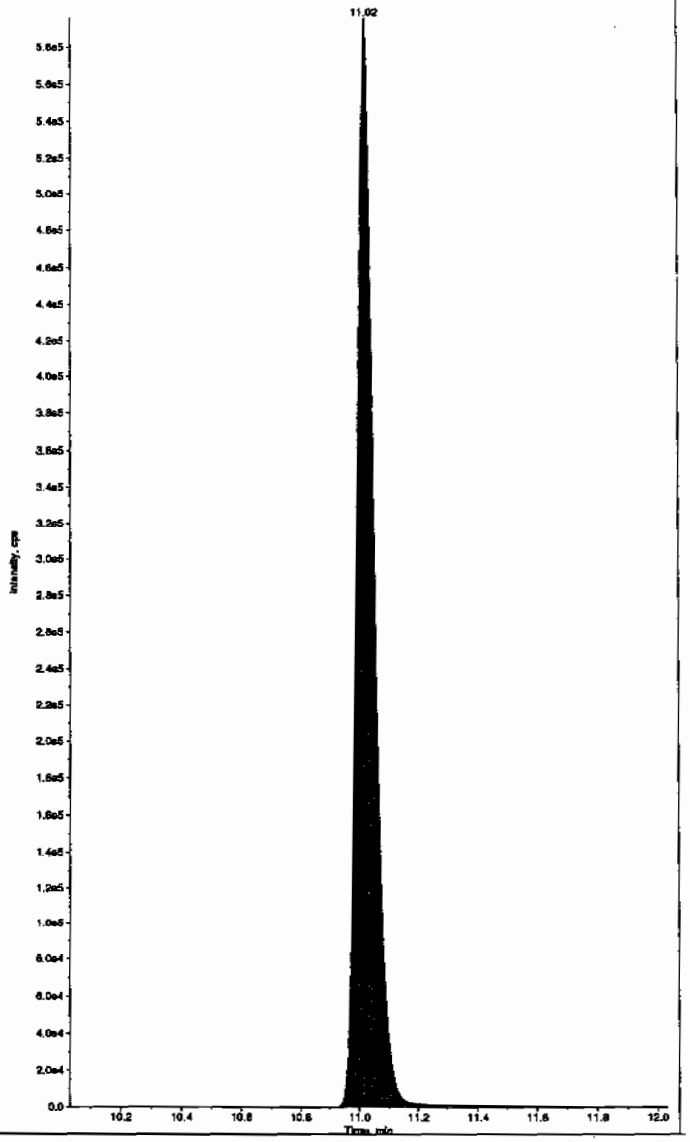

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1510

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXS02140069.wiff **Analysis Date:** 15–FEB–10 08:05

LCMSMS ID: 1358 **Column ID:** JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	528	106	
2,6–Diamino–4–nitrotoluene	500	562	112	
3,4–Dinitrotoluene	250	235	94	
3,5–Dinitroaniline	500	535	107	
TATB	500	530	106	
tris(o–cresyl) phosphate	500	505	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Ok 2/16/10

ple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140069.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
laced Conc: 530. ng/mL
Date: 2/15/2010
Time: 8:05:19 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
Relative RT: No

Type: Valley
tion Time: 7.24 min
7.39e+005 counts
t: 157983.017 cps
Time: 7.11 min
ime: 7.74 min

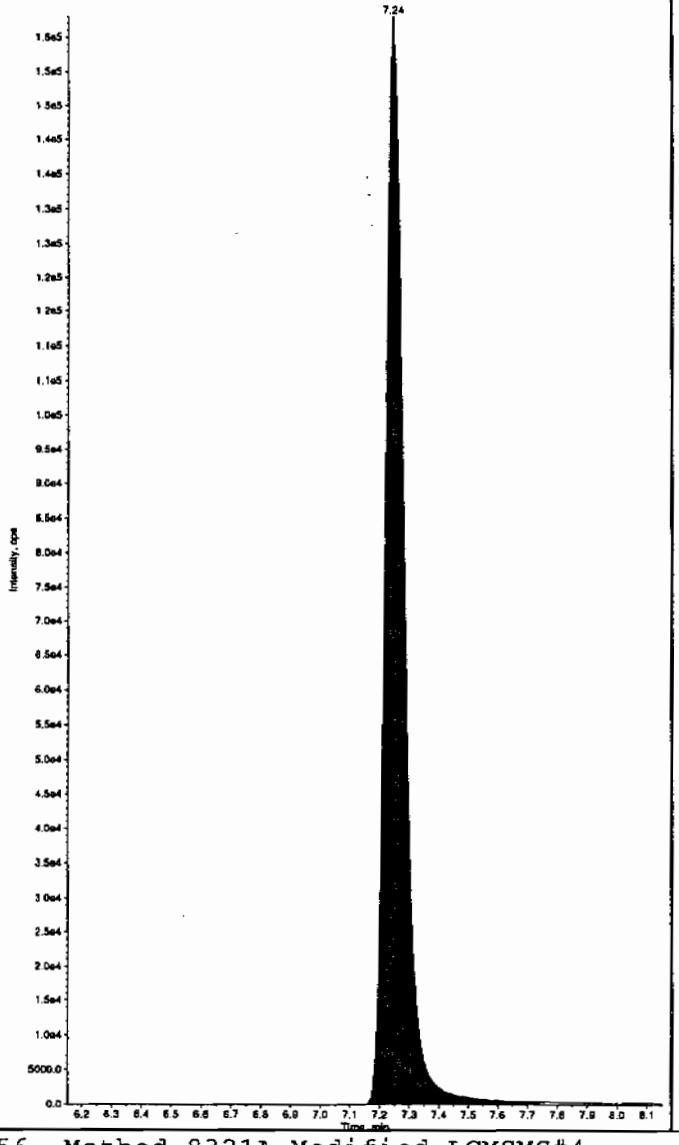

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140069.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 606. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:05:19 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.94e+006 counts
Height: 852661.560 cps
Start Time: 8.37 min
End Time: 8.98 min

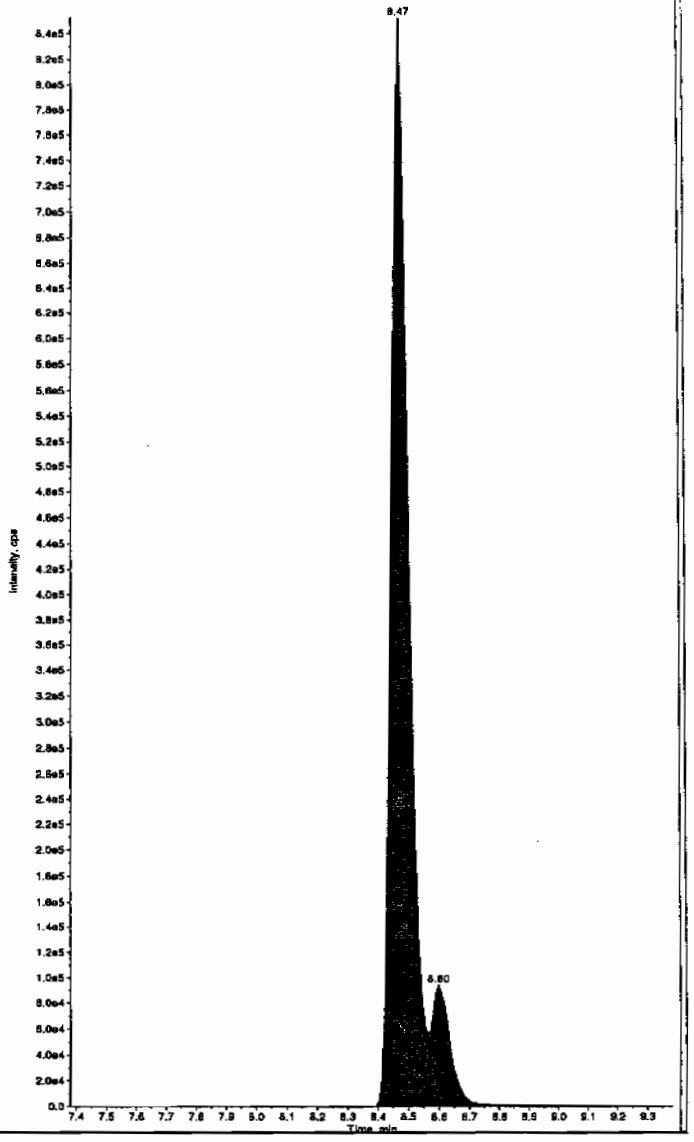

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Ran 2/17/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 530. ng/mL
Date: 2/15/2010
Time: 8:05:19 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.24 min
7.39e+005 counts
t: 157983.017 cps
Time: 7.11 min
ime: 7.74 min

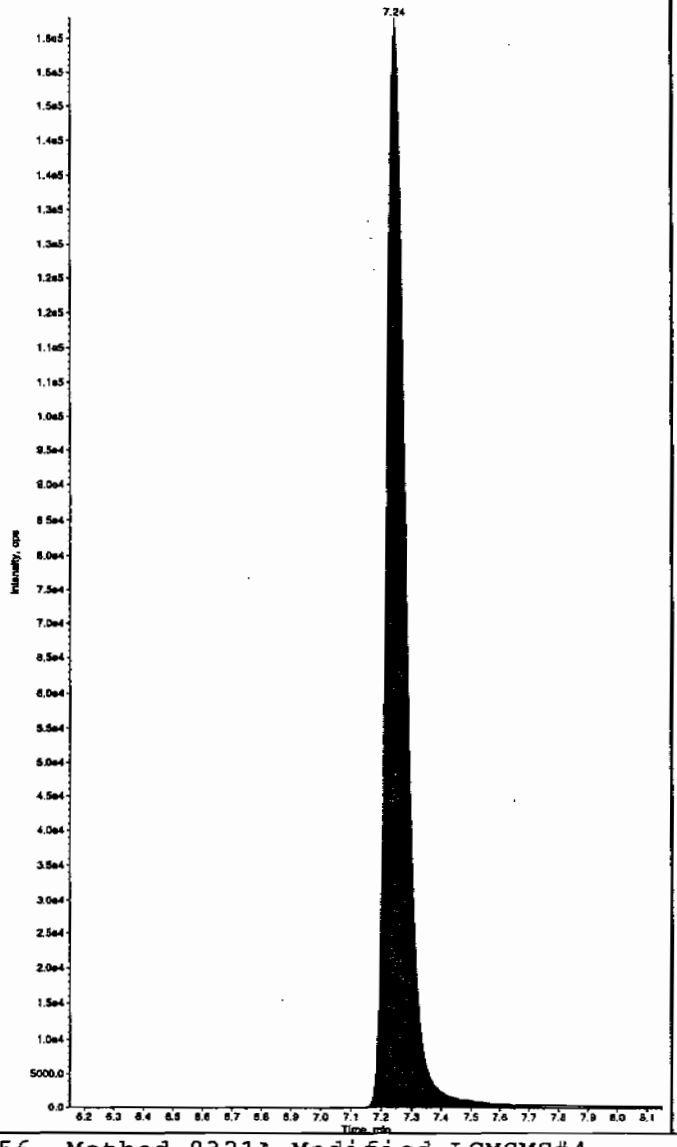

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 535. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:05:19 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.47 min
Area: 3.49e+006 counts
Height: 851320.508 cps
Start Time: 8.39 min
End Time: 8.57 min

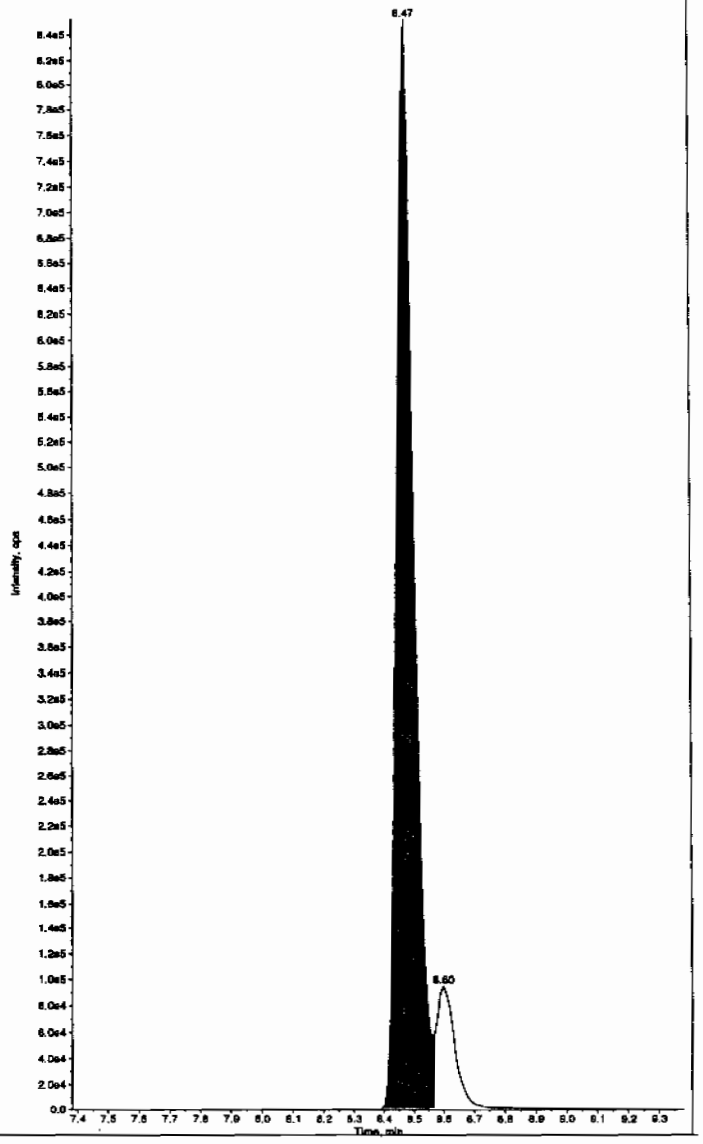

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

.e Index: 1
.e Type: QC
ntration: 250. ng/mL
lated Conc: 235. ng/mL
Date: 2/15/2010
Time: 8:05:19 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1450.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.52 min
lelative RT: No

Type: Valley
tion Time: 8.60 min
3.08e+006 counts
t: 817362.305 cps
Time: 8.53 min
Time: 8.76 min

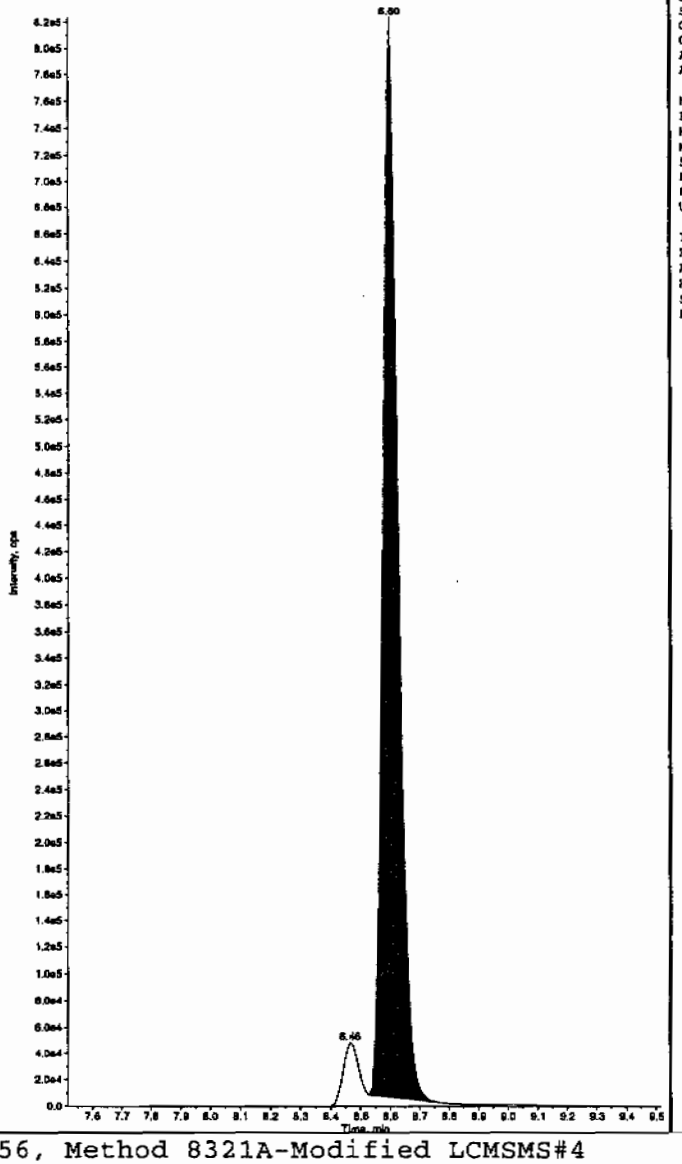

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 562. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:05:19 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.27 min
Area: 1.62e+006 counts
Height: 398750.732 cps
Start Time: 5.18 min
End Time: 5.56 min

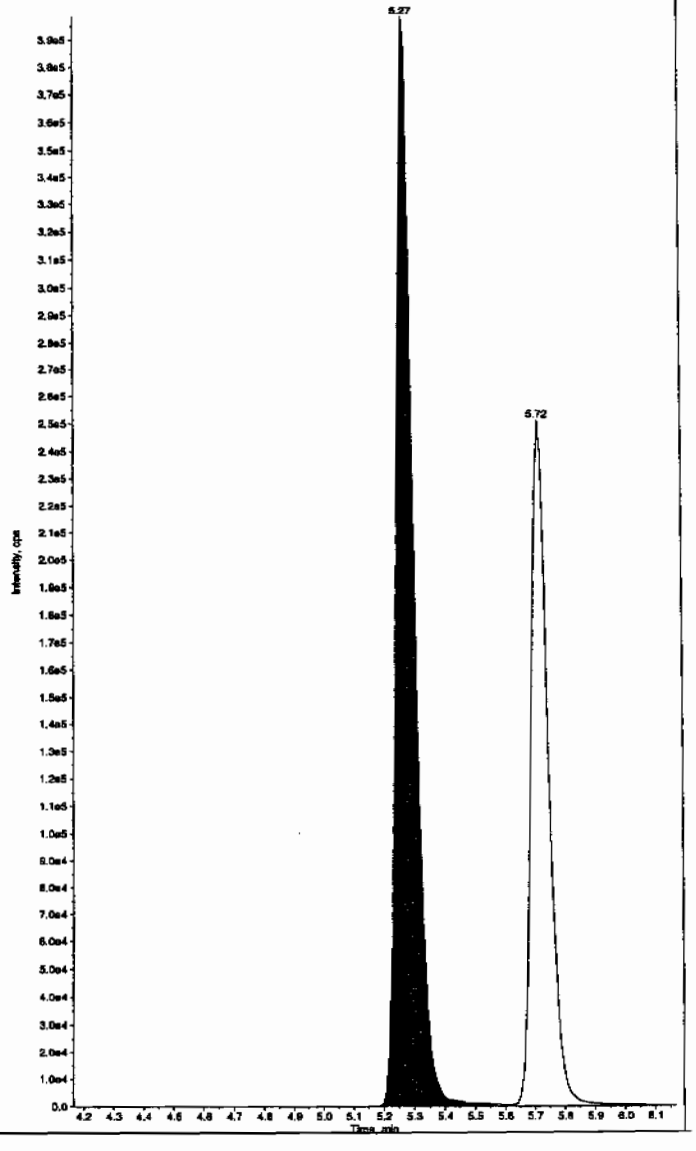

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ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
‹ Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 528. ng/mL
Date: 2/15/2010
Time: 8:05:19 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.72 min
1.00e+006 counts
t: 250381.897 cps
Time: 5.63 min
ime: 6.12 min

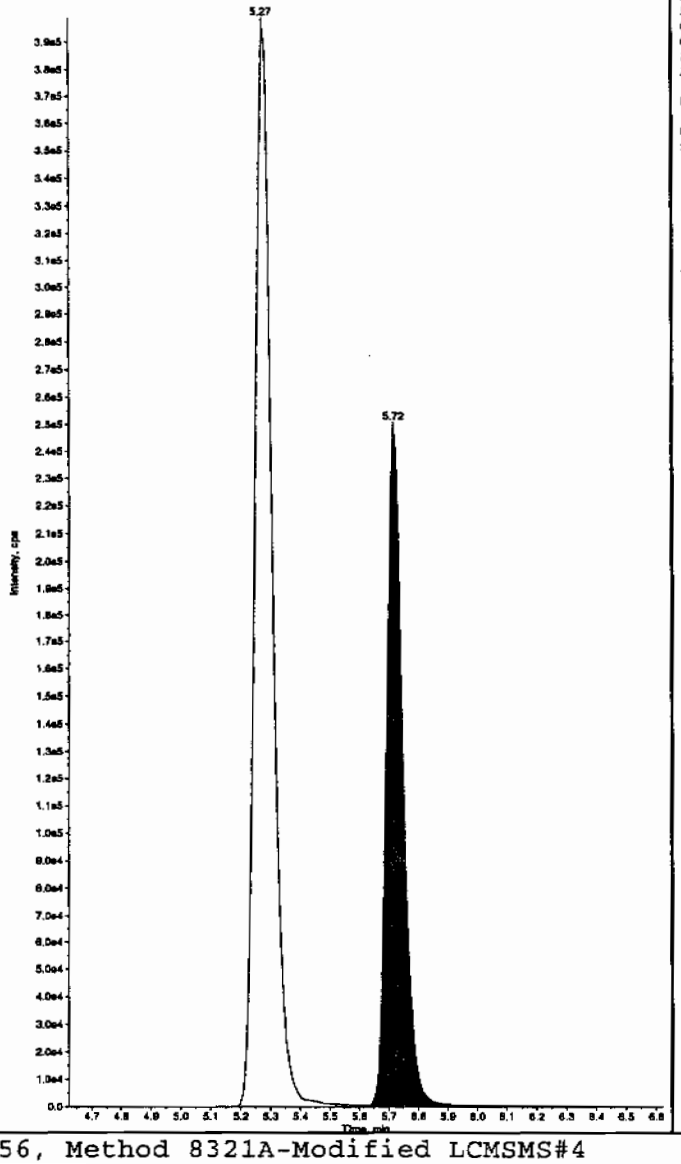

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:05:19 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.10e+007 counts
Height: 2532040.039 cps
Start Time: 10.9 min
End Time: 11.4 min

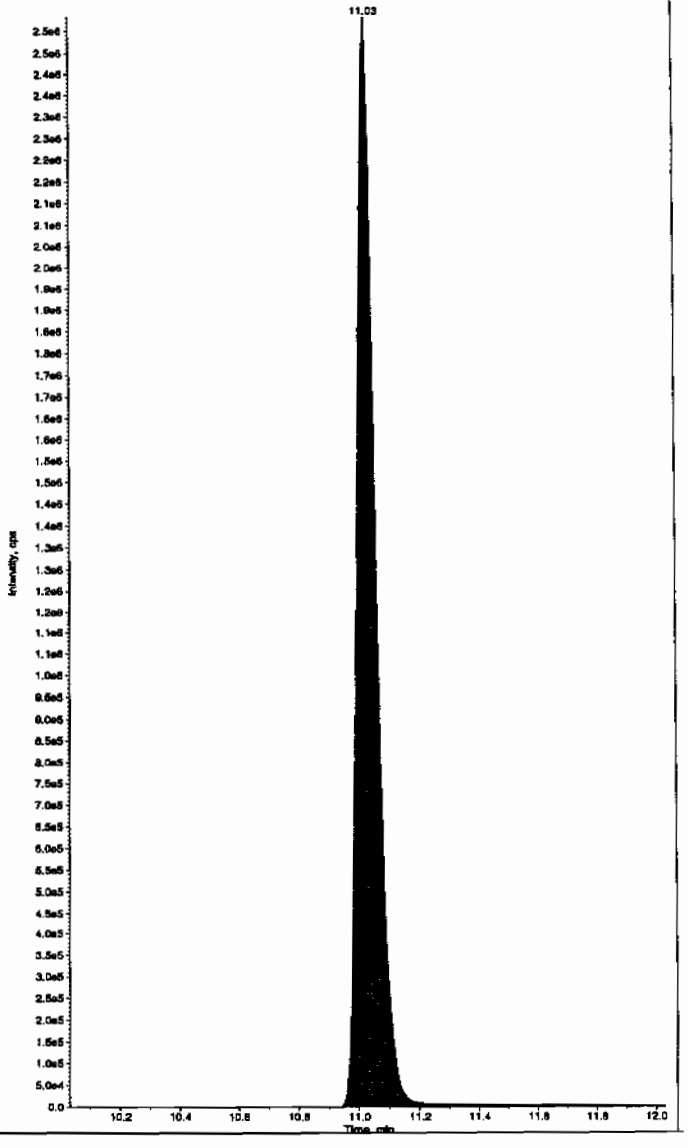

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140071.wiff

Analysis Date: 15-FEB-10 08:37

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	105	105	
2,6-Diamino-4-nitrotoluene	100	108	108	
3,4-Dinitrotoluene	50	51.3	103	
3,5-Dinitroaniline	100	115	115	
TATB	100	115	115	
tris(o-cresyl) phosphate	100	105	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 2/17/10

mple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140071.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 115. ng/mL
Date: 2/15/2010
Time: 8:37:22 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.17 min
: 1.58e+005 counts
ht: 35565.708 cps
t Time: 7.00 min
Time: 7.70 min

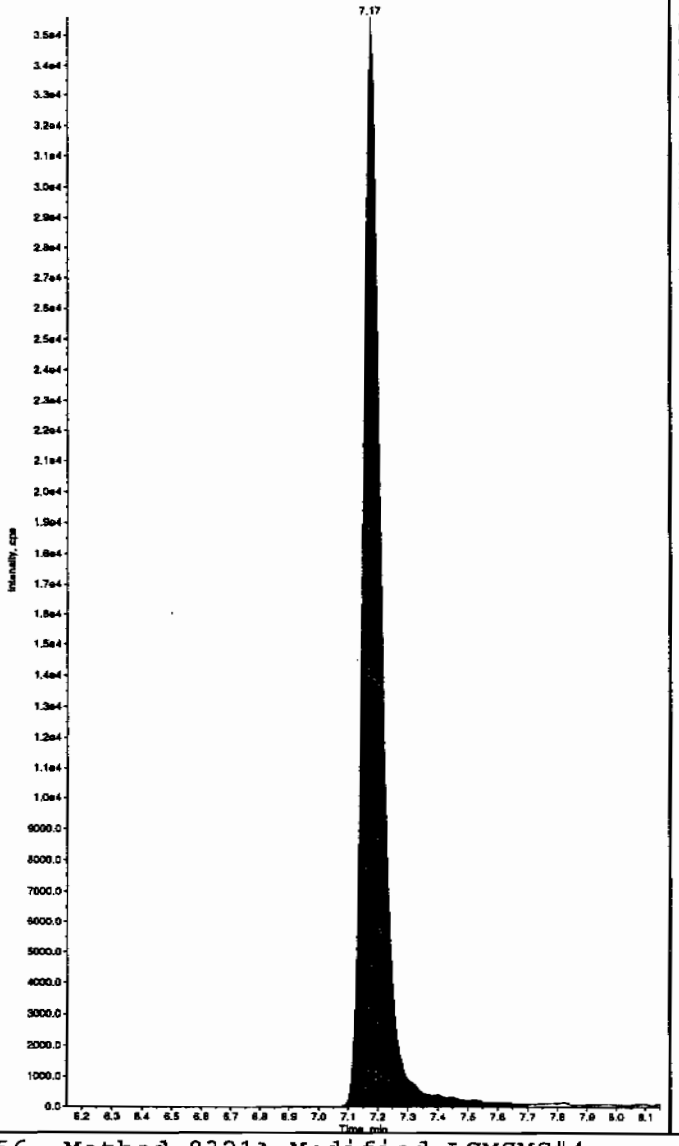

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140071.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 115. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:37:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 7.58e+005 counts
Height: 192459.656 cps
Start Time: 8.33 min
End Time: 8.53 min

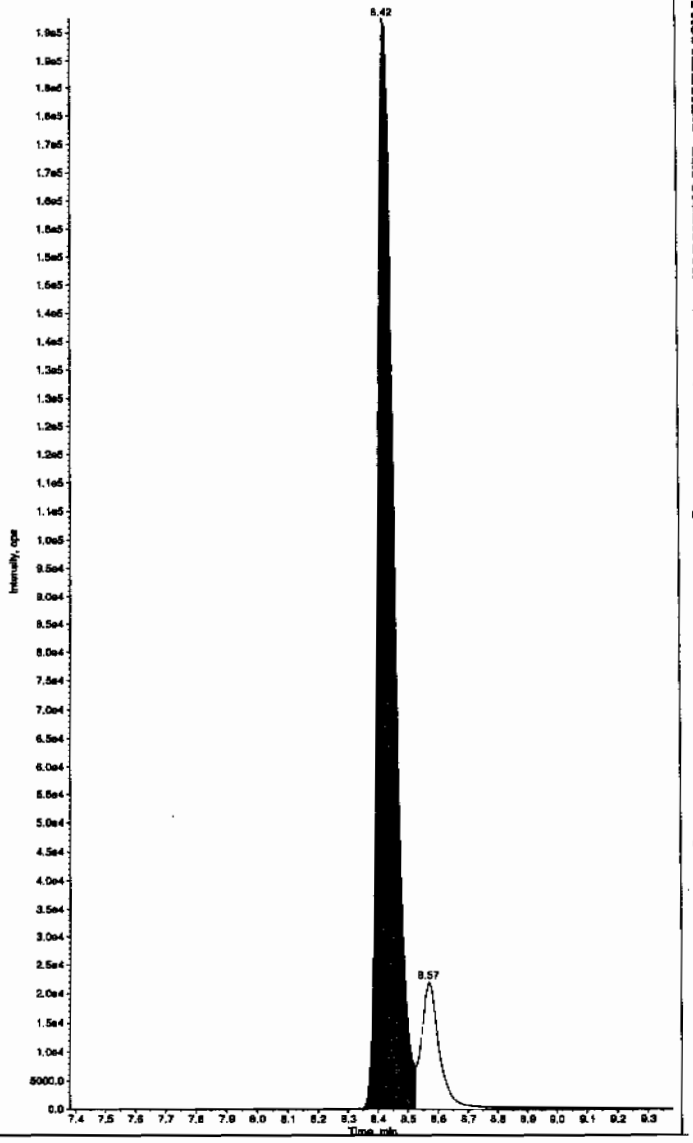

Thm 02/17/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140071.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 50.0 ng/mL
lated Conc: 51.3 ng/mL
Date: 2/15/2010
Time: 8:37:22 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ation Time: 8.57 min
: 6.53e+005 counts
t: 170073.959 cps
Time: 8.50 min
Time: 8.77 min

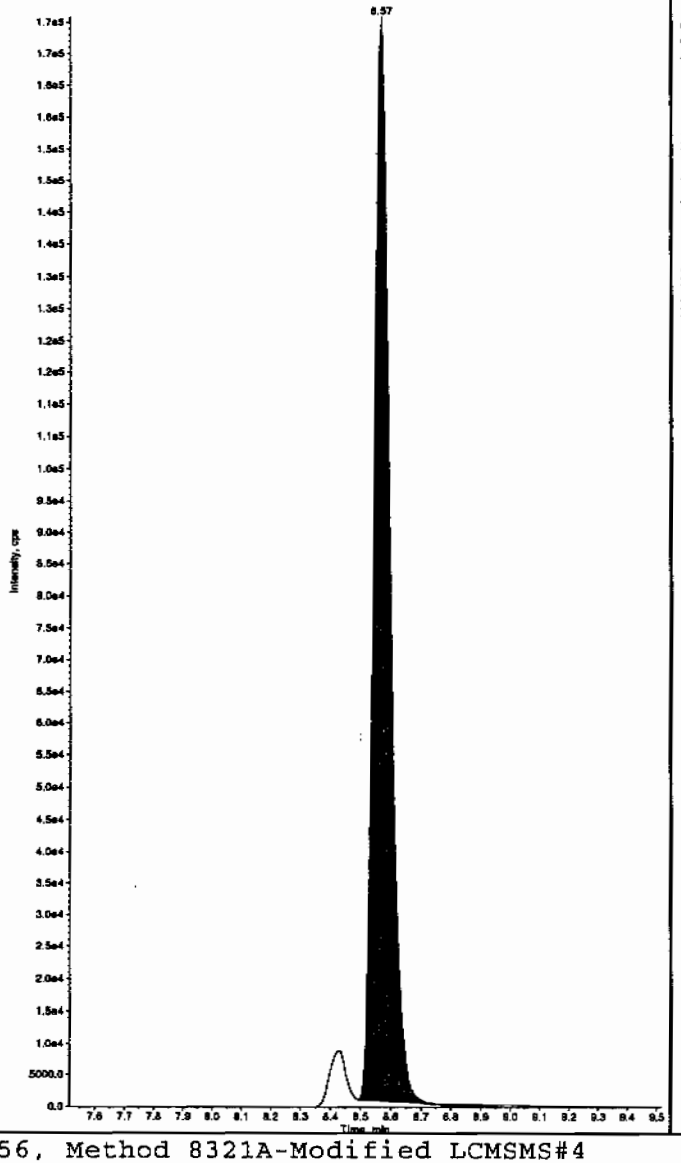

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140071.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:37:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.19 min
Area: 3.27e+005 counts
Height: 81858.810 cps
Start Time: 5.09 min
End Time: 5.44 min

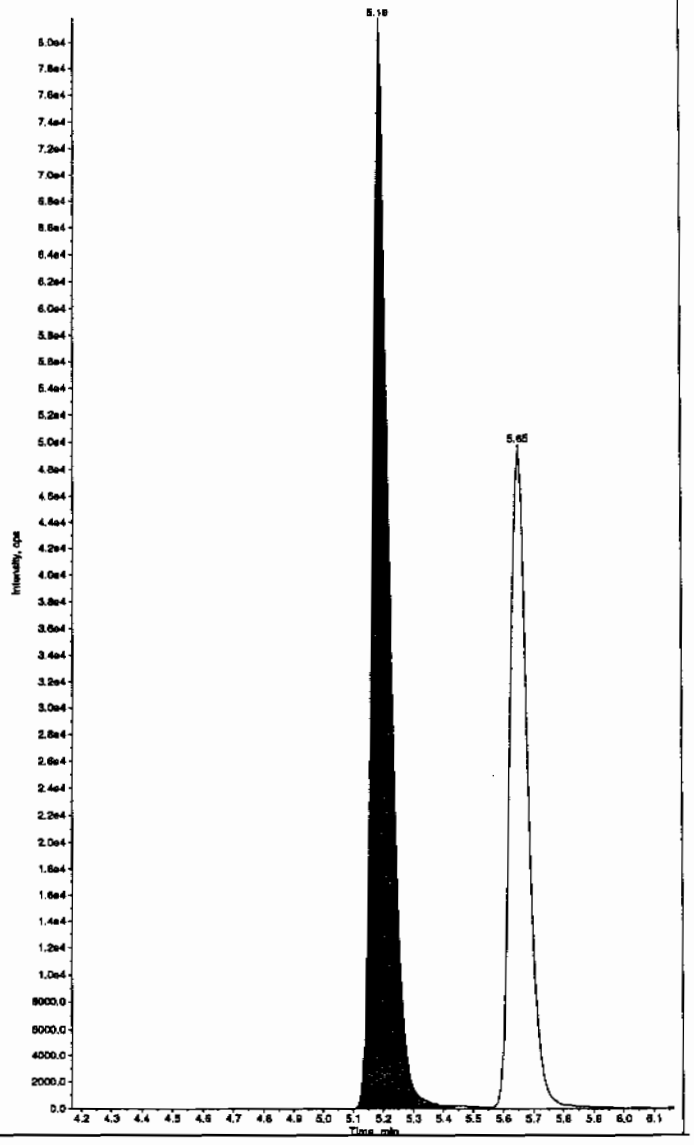

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nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140071.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 105. ng/mL
Date: 2/15/2010
Time: 8:37:22 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
Relative RT: No

Type: Valley
ntion Time: 5.65 min
: 2.03e+005 counts
ht: 49762.772 cps
t Time: 5.56 min
Time: 5.94 min

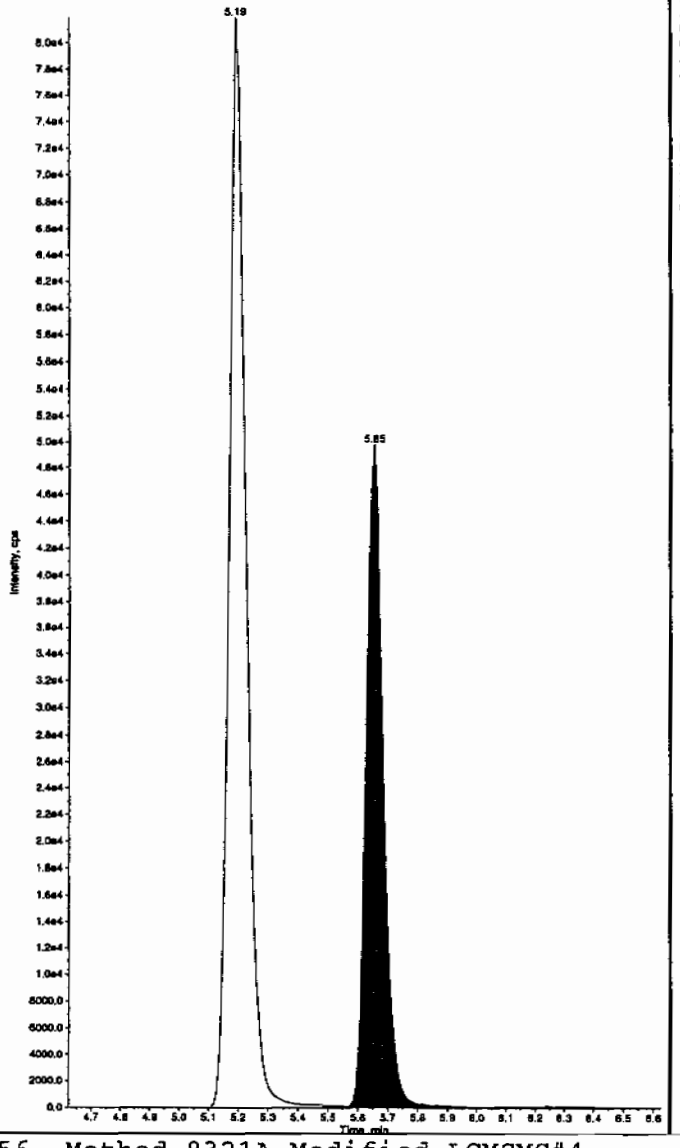

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140071.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:37:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.1 min
Area: 2.50e+006 counts
Height: 586815.979 cps
Start Time: 11.0 min
End Time: 11.4 min

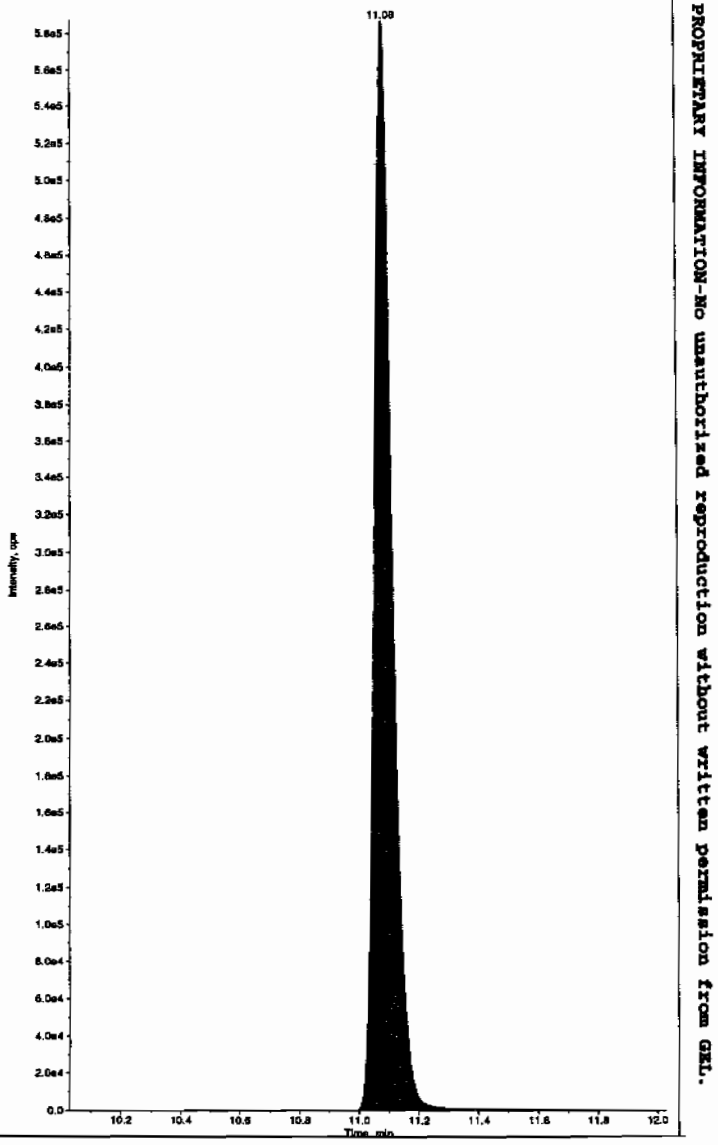

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140082.wiff

Analysis Date: 15-FEB-10 11:30

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	382	76	
2,6-Diamino-4-nitrotoluene	500	446	89	
3,4-Dinitrotoluene	250	230	92	
3,5-Dinitroaniline	500	505	101	
TATB	500	544	109	
tris(o-cresyl) phosphate	500	484	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/16/10

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140082.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 544. ng/mL
. Date: 2/15/2010
. Time: 11:30:42 AM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ention Time: 7.11 min
: 7.59e+005 counts
ght: 170763.657 cps
t Time: 6.96 min
Time: 7.70 min

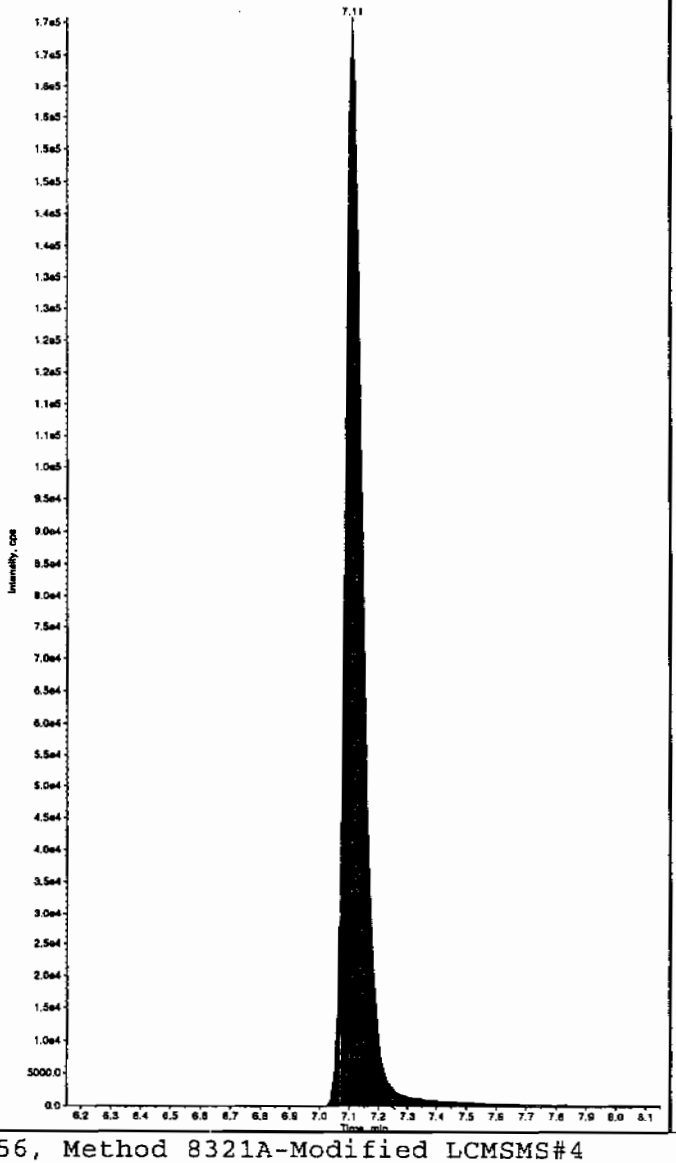

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140082.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 568. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:30:42 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.32 min
Area: 3.70e+006 counts
Height: 854710.266 cps
Start Time: 8.22 min
End Time: 8.76 min

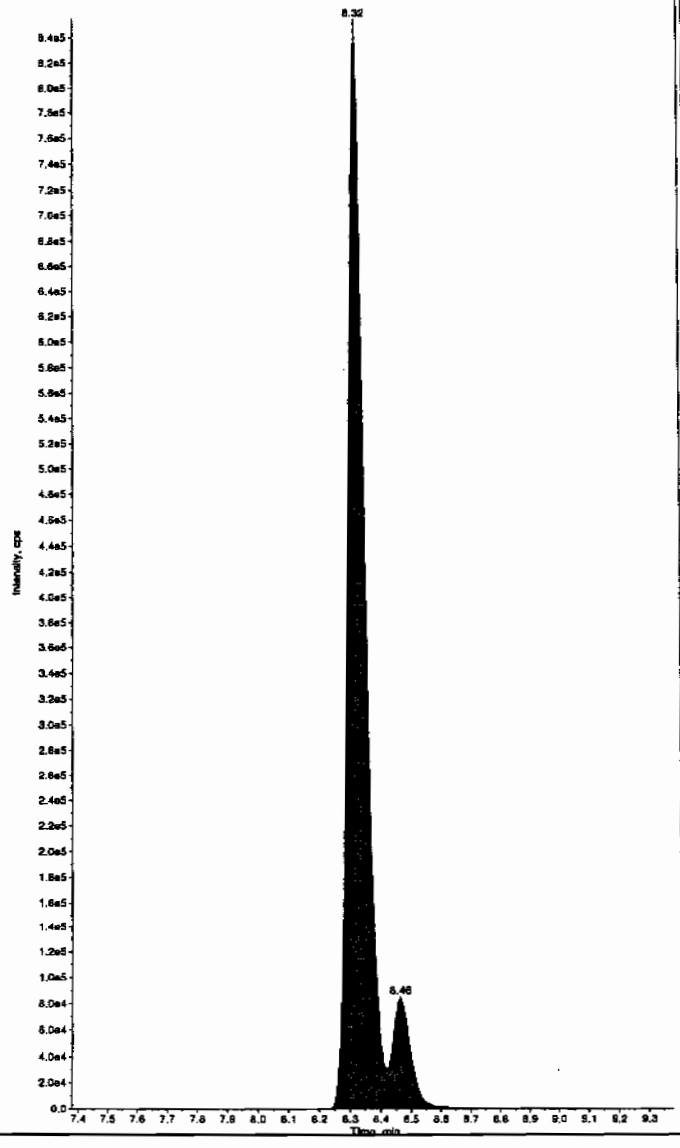

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after Scan 2/17/10

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140062.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 544. ng/mL
Date: 2/15/2010
Time: 11:30:42 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.11 min
: 7.59e+005 counts
ht: 170763.657 cps
t Time: 6.96 min
Time: 7.70 min

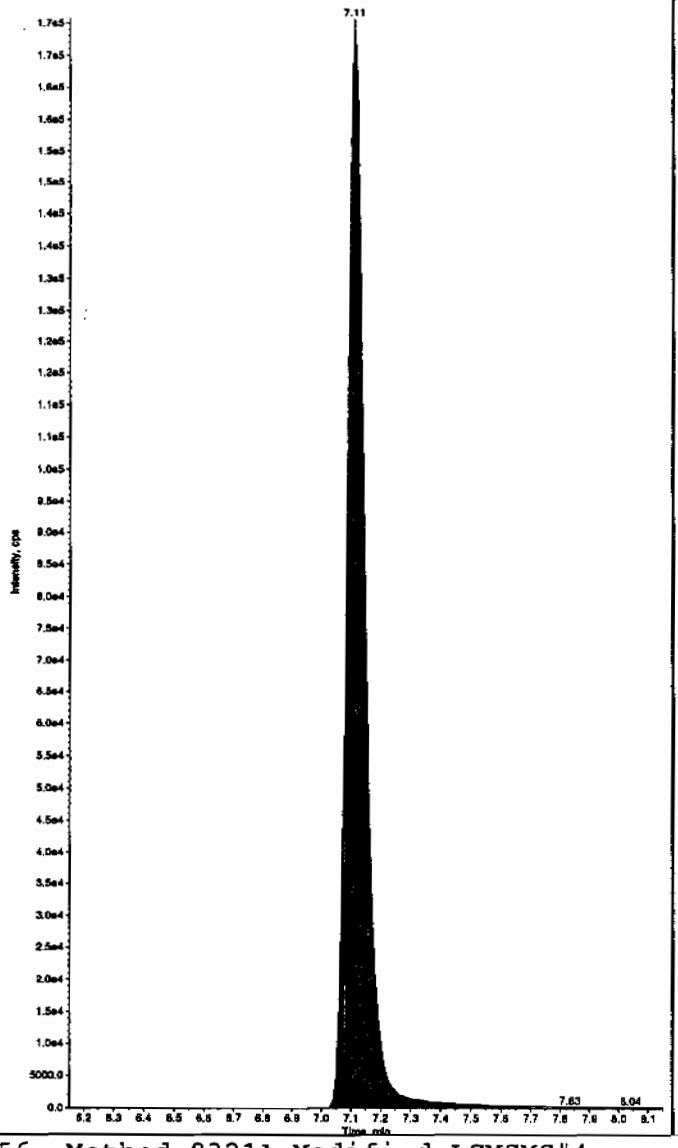

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140062.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:30:42 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.32 min
Area: 3.30e+006 counts
Height: 854396.496 cps
Start Time: 8.24 min
End Time: 8.42 min

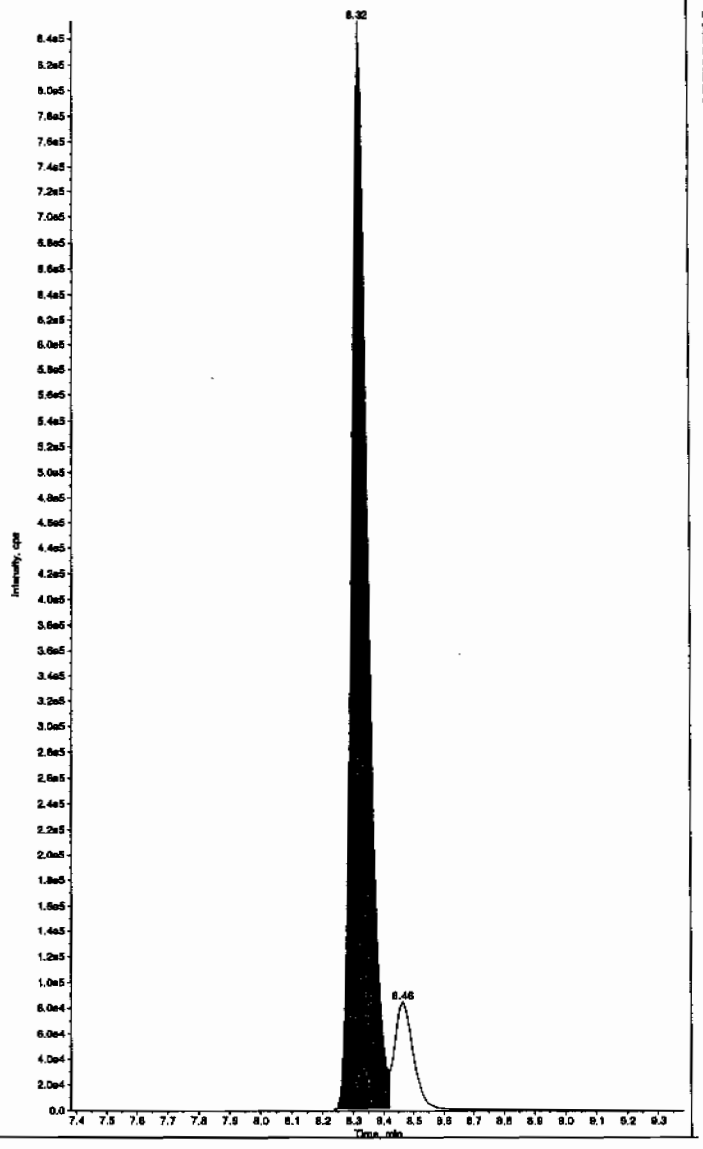

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ples Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140082.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:           QC
ntration:       250.     ng/mL
lated Conc:     230.     ng/mL
Date:        2/15/2010
Time:        11:30:42 AM

ied:             No
Algorithm: IntelliQuan - IQA
Peak Height:1460.00   cps
Peak Width:    0.00   sec
hing Width:  3        points
ndow:         15.0    sec
ted RT:        8.52   min
lelative RT:     No

Type:         Valley
tion Time:     8.46   min
          3.02e+006   counts
t:          800685.425  cps
. Time:        8.39   min
ime:           8.67   min
```

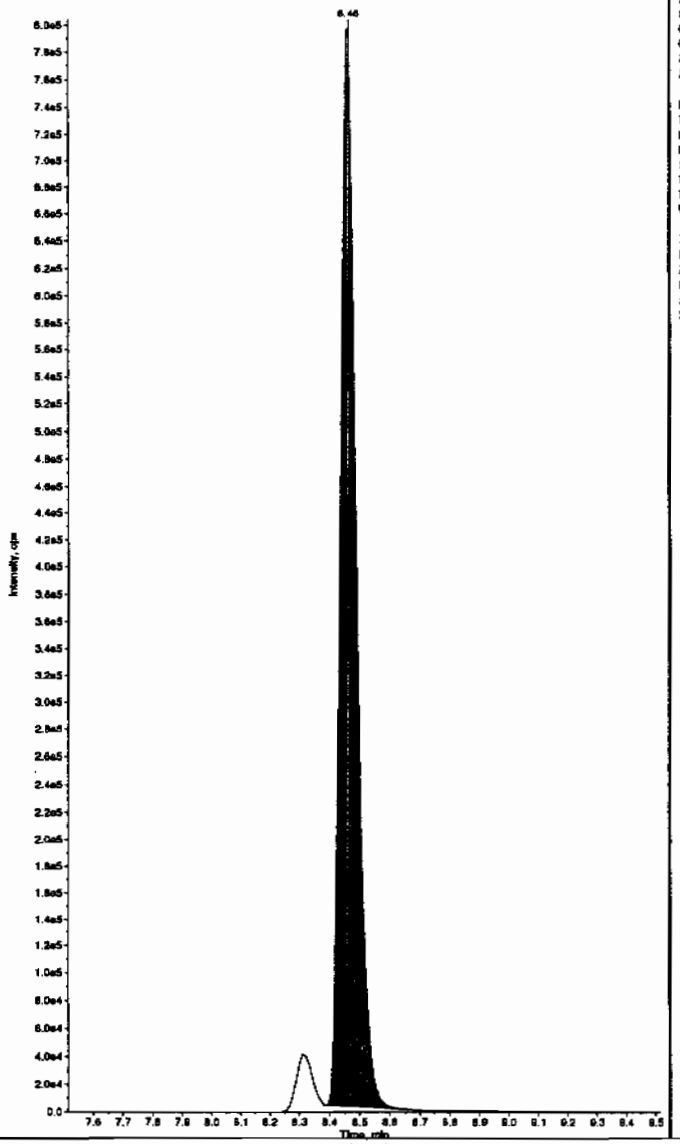

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140082.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     446.     ng/mL
Acq. Date:        2/15/2010
Acq. Time:        11:30:42 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.17   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:     5.15   min
Area:          1.28e+006   counts
Height:        310982.178  cps
Start Time:         5.03   min
End Time:           5.38   min
```

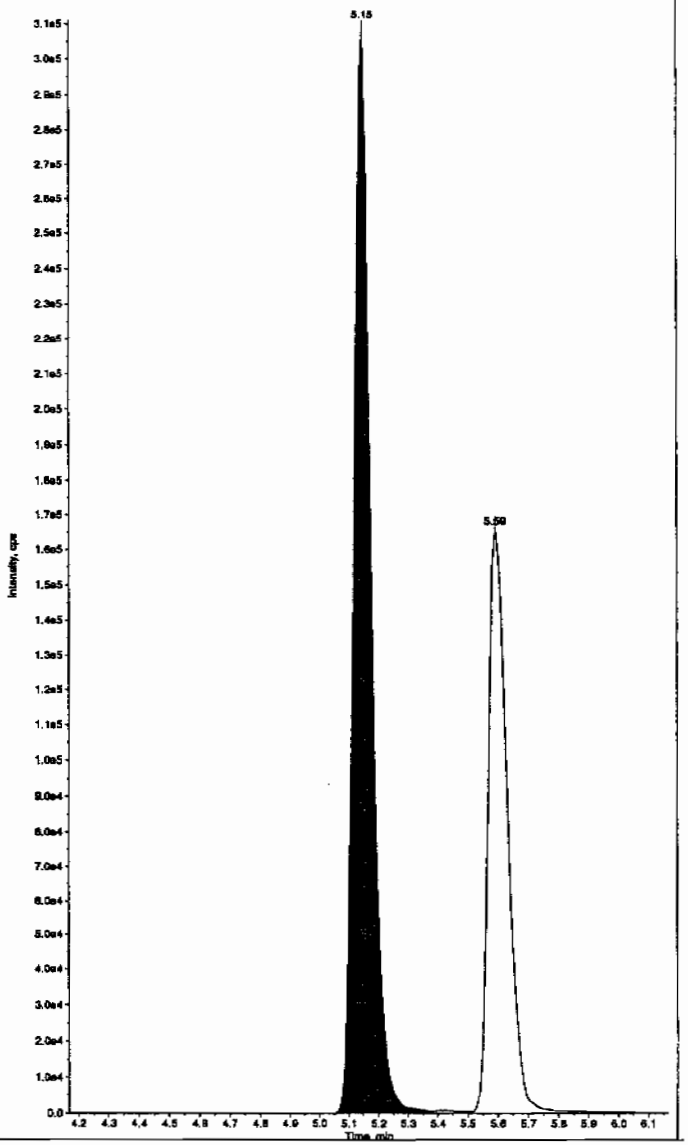

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ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140082.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:           QC
ntration:       500.     ng/mL
lated Conc:     382.     ng/mL
Date:        2/15/2010
Time:        11:30:42 AM

ied:             No
 Algorithm: IntelliQuan - IQA
Peak Height: 350.00    cps
Peak Width:    0.00    sec
hing Width:  3         points
ndow:         30.0     sec
ted RT:        5.62    min
elative RT:    No

Type:          Valley
tion Time:     5.59    min
          7.28e+005    counts
t:          166507.797  cps
 Time:         5.50    min
ime:           5.99    min
```

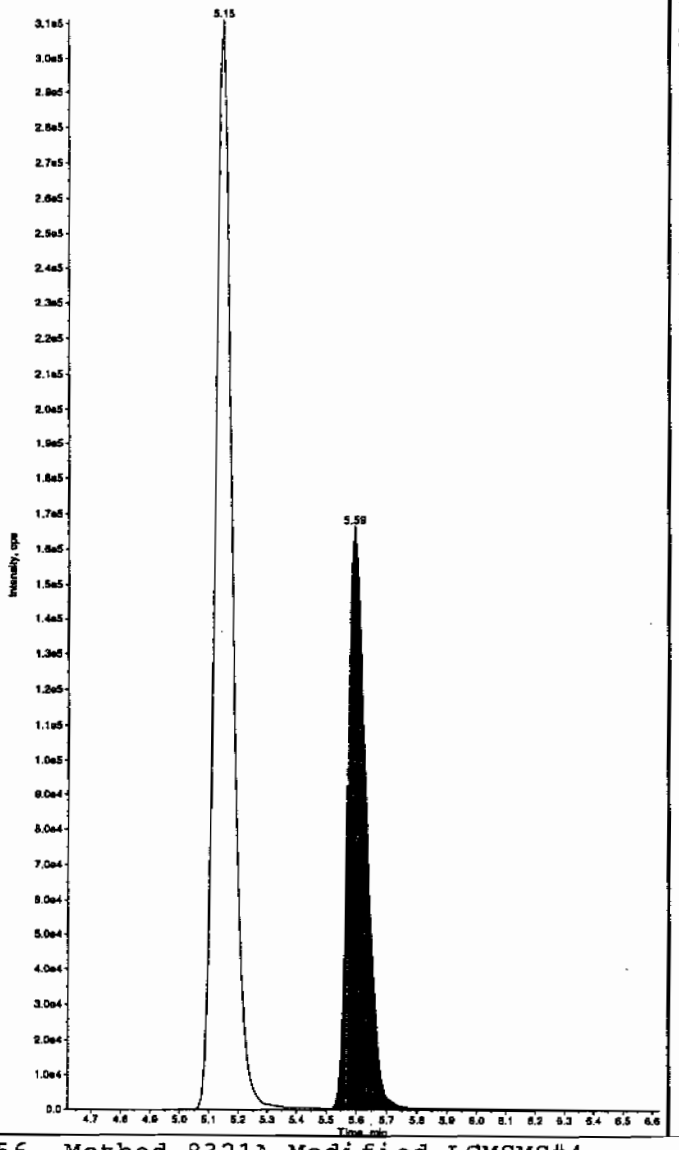

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140082.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     484.     ng/mL
Acq. Date:        2/15/2010
Acq. Time:        11:30:42 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:        11.0    min
Use Relative RT:    No

Int. Type:          Valley
Retention Time:      10.9   min
Area:          1.06e+007   counts
Height:        2501463.623 cps
Start Time:          10.8   min
End Time:            11.3   min
```

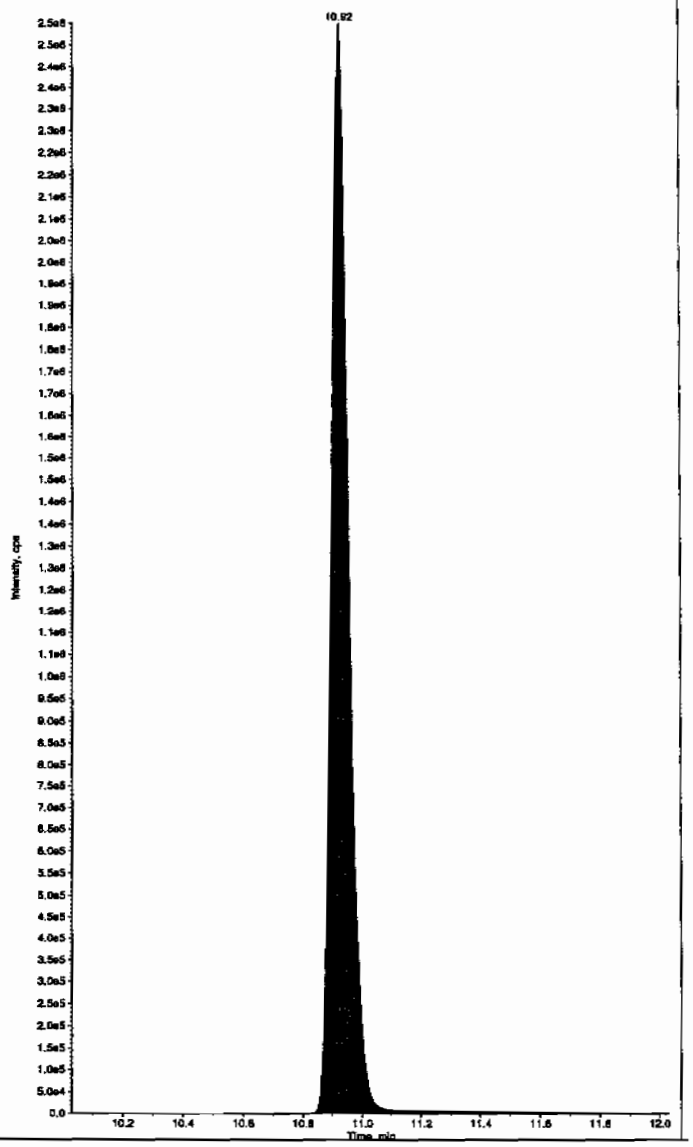

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140084.wiff

Analysis Date: 15-FEB-10 12:02

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	86.5	87	
2,6-Diamino-4-nitrotoluene	100	85.4	85	
3,4-Dinitrotoluene	50	51.9	104	
3,5-Dinitroaniline	100	108	108	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	99.7	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcr 2/16/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 100. ng/mL
lated Conc: 105. ng/mL
Date: 2/15/2010
Time: 12:02:09 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
lelative RT: No

Type: Valley
tion Time: 7.10 min
1.45e+005 counts
t: 32201.778 cps
Time: 6.96 min
Time: 7.67 min

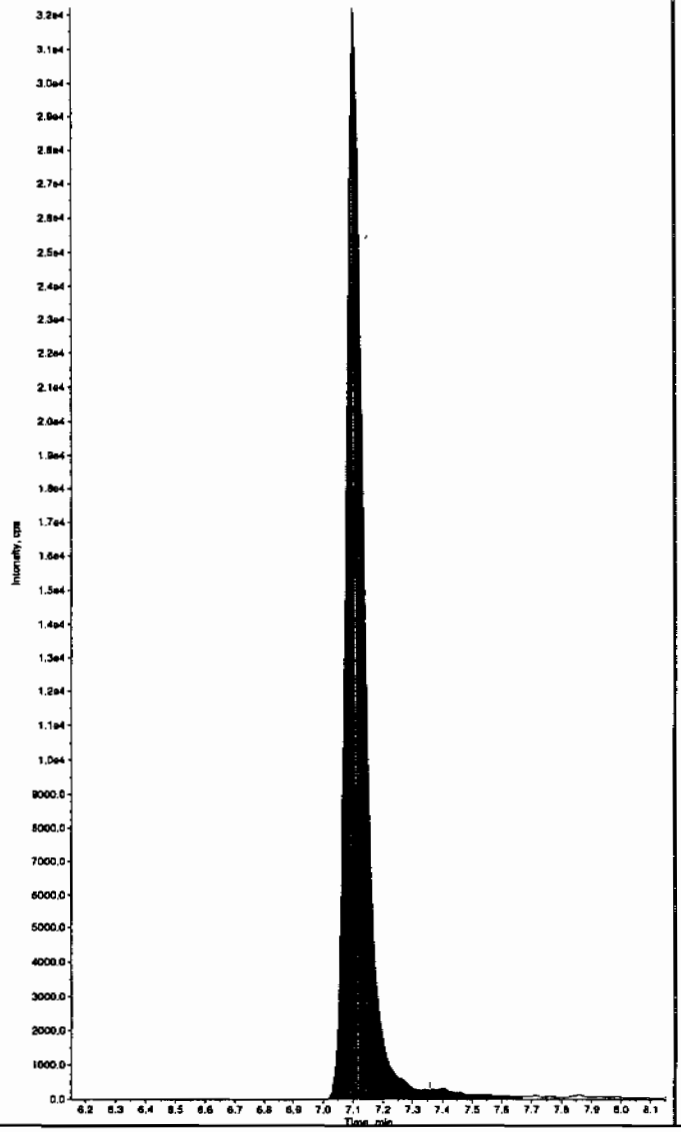

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 122. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 12:02:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 8.01e+005 counts
Height: 181292.480 cps
Start Time: 8.21 min
End Time: 8.67 min

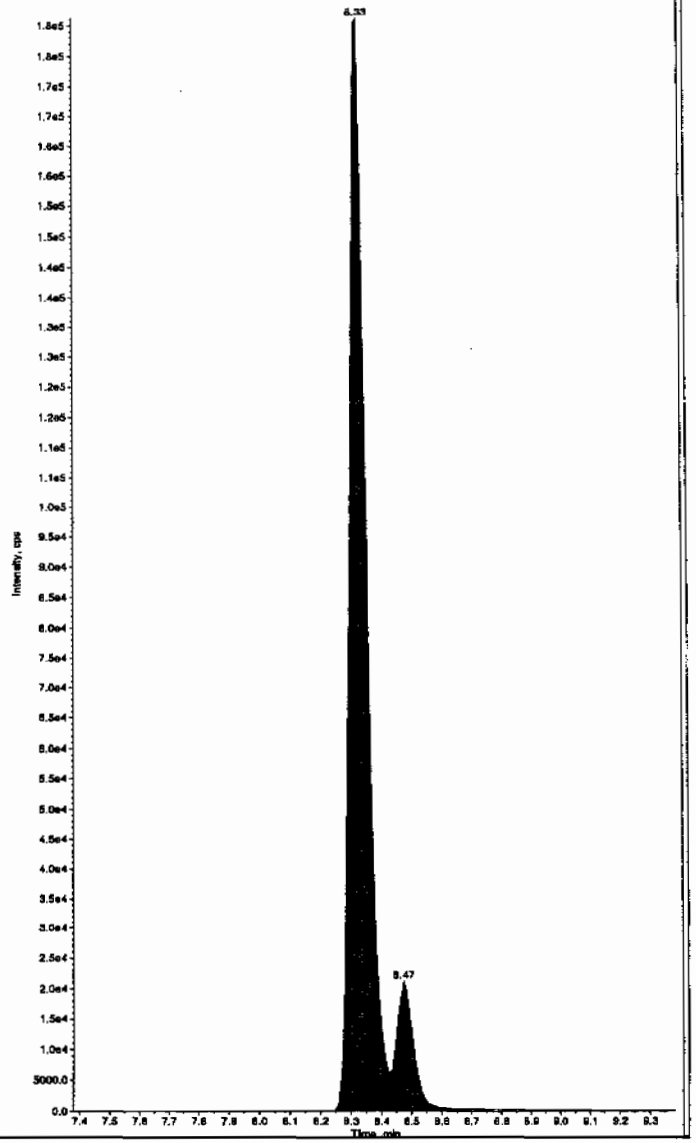

Hmm 02/17/10

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after Ran 2/17/10

le Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 105. ng/mL
Date: 2/15/2010
Time: 12:02:09 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.10 min
1.45e+005 counts
: 32201.778 cps
Time: 6.96 min
me: 7.67 min

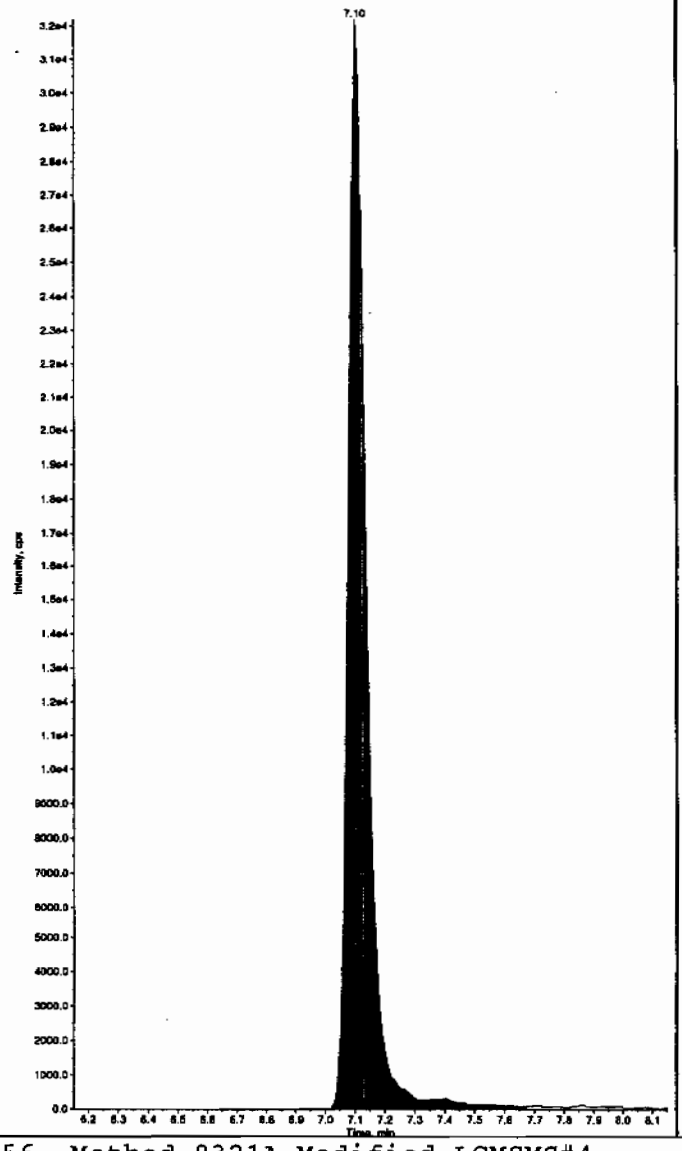

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 12:02:09 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.32 min
Area: 7.11e+005 counts
Height: 184152.898 cps
Start Time: 8.25 min
End Time: 8.43 min

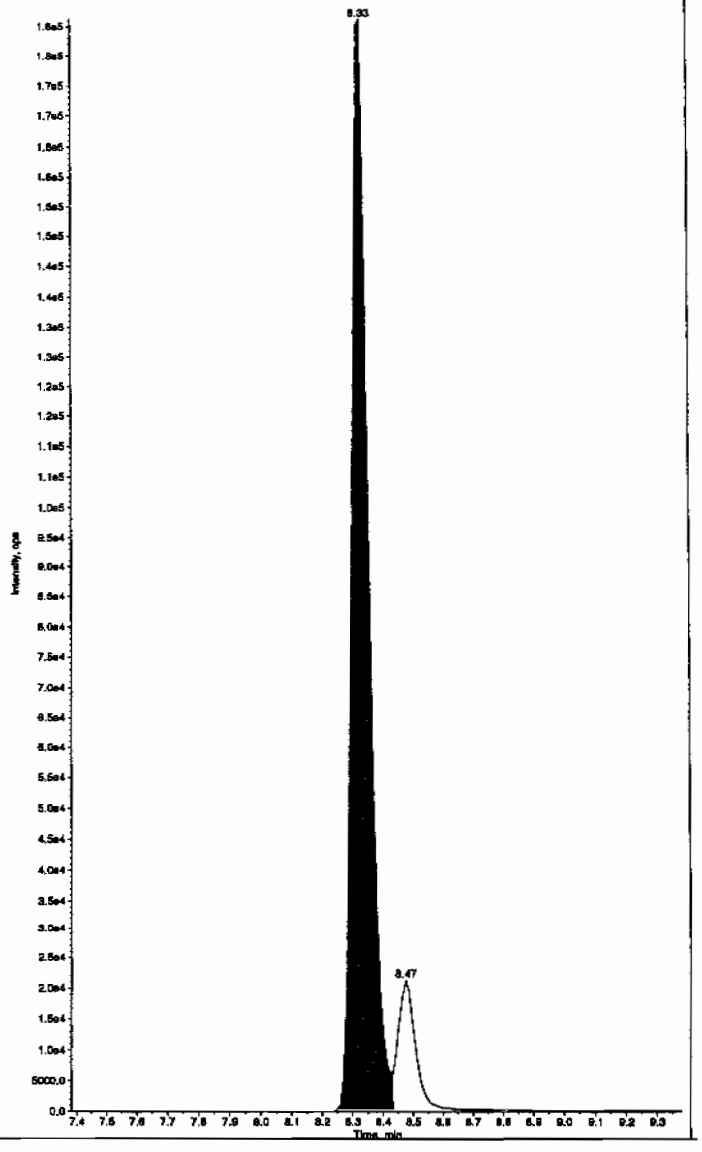

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140084.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: "

e Index:	1	
e Type:	QC	
ntration:	50.0	ng/mL
lated Conc:	51.9	ng/mL
Date:	2/15/2010	
Time:	12:02:09 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
ning Width:	3	points
ndow:	15.0	sec
ted RT:	8.52	min
elative RT:	No	
Type:	Valley	
tion Time:	8.46	min
	6.62e+005	counts
:	175993.423	cps
Time:	8.39	min
ime:	8.71	min

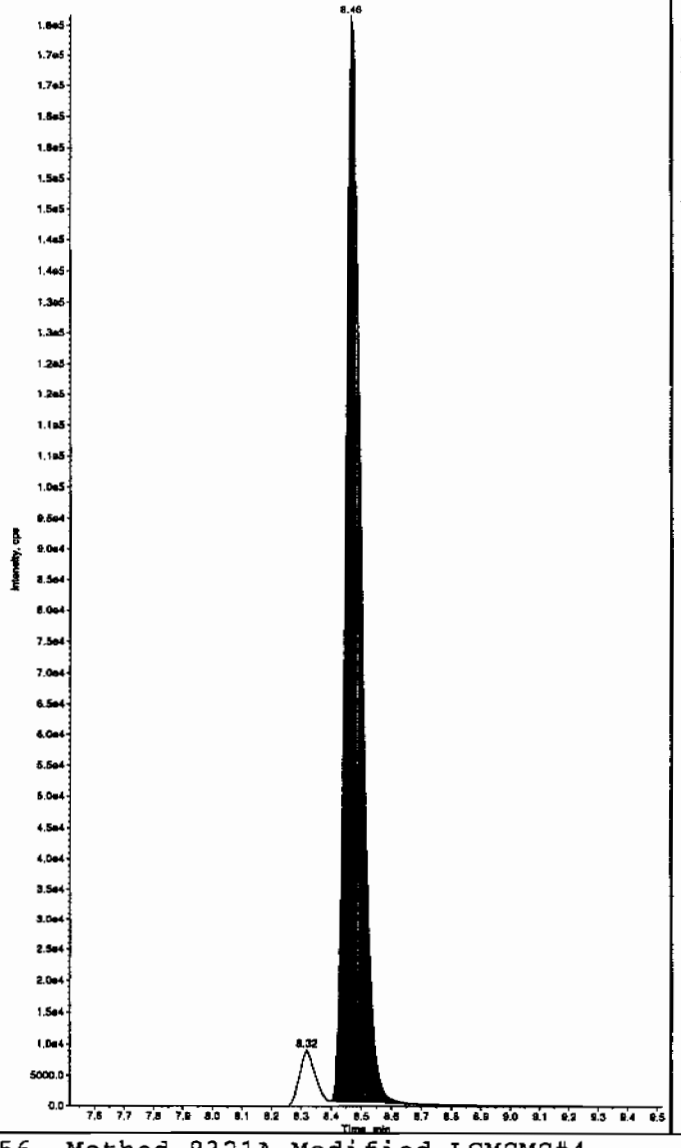

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140084.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	85.4	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	12:02:09 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.17	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.15	min
Area:	2.65e+005	counts
Height:	64570.175	cps
Start Time:	5.04	min
End Time:	5.43	min

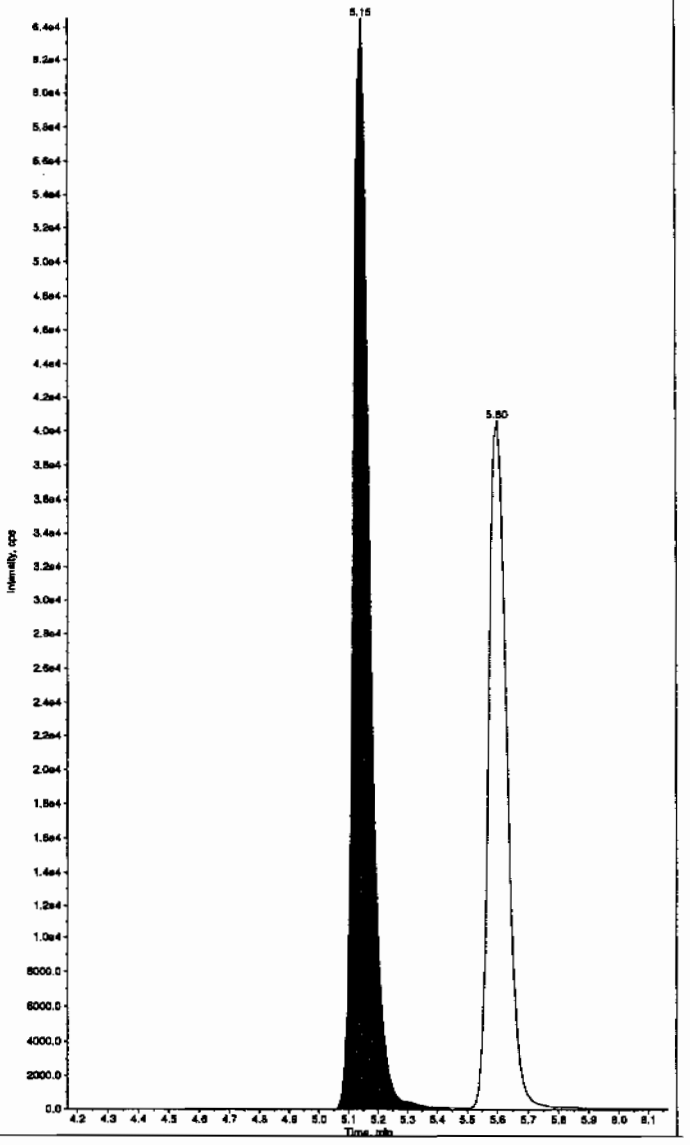

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pla Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 86.5 ng/mL
Date: 2/15/2010
Time: 12:02:09 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.60 min
1.69e+005 counts
t: 40582.321 cps
Time: 5.48 min
ime: 5.91 min

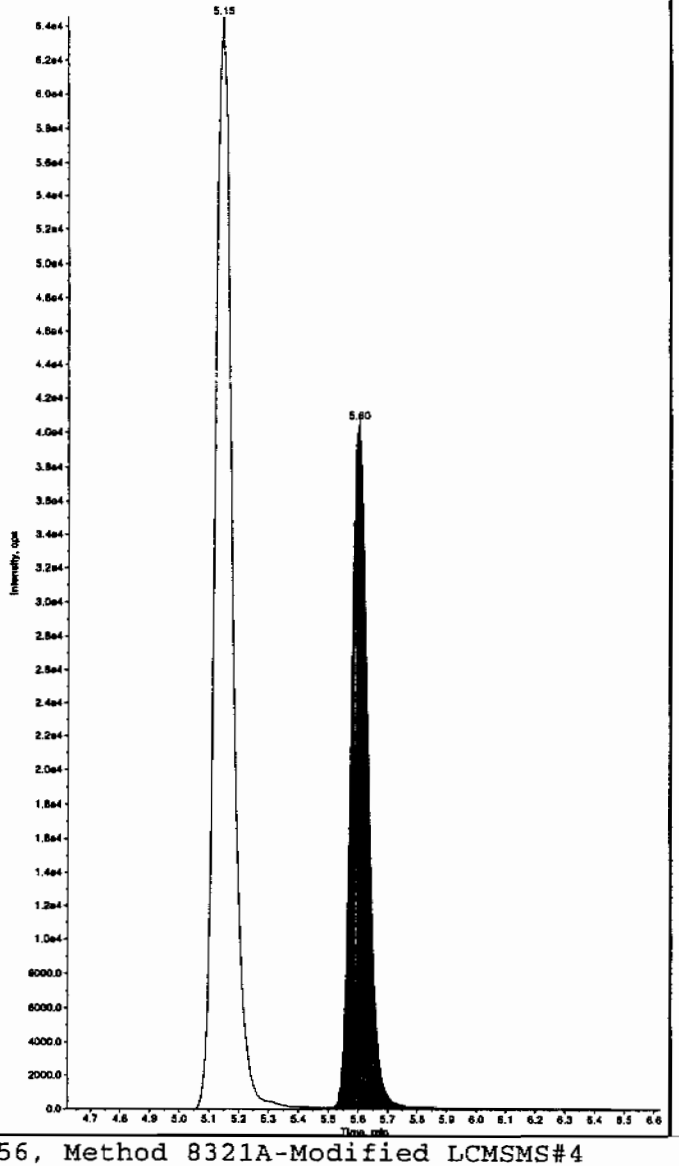

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.7 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 12:02:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.38e+006 counts
Height: 570133.118 cps
Start Time: 10.8 min
End Time: 11.3 min

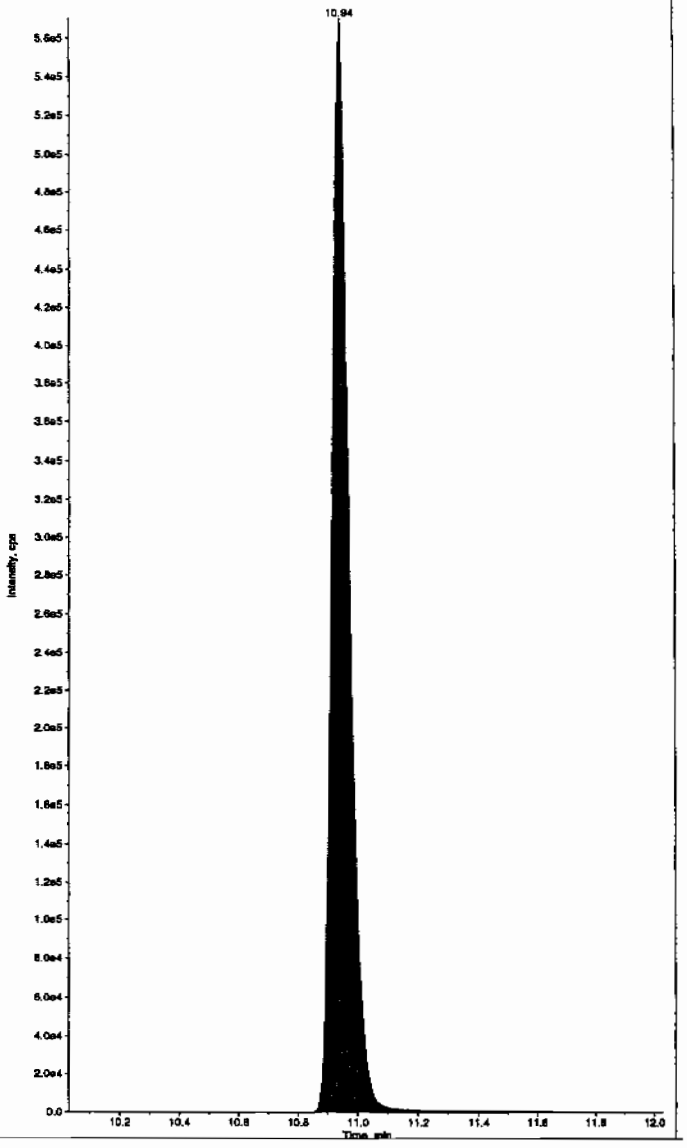

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1510

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXS02140095.wiff **Analysis Date:** 15–FEB–10 14:54

LCMSMS ID: 1358 **Column ID:** JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	406	81	
2,6–Diamino–4–nitrotoluene	500	351	70	
3,4–Dinitrotoluene	250	229	92	
3,5–Dinitroaniline	500	474	95	
TATB	500	538	108	
tris(o–cresyl) phosphate	500	486	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Sen 2/16/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
.e Index: 1
.e Type: QC
ntration: 500. ng/mL
lated Conc: 538. ng/mL
Date: 2/15/2010
Time: 2:54:50 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.09 min
7.51e+005 counts
t: 166678.818 cps
Time: 6.93 min
ime: 7.93 min

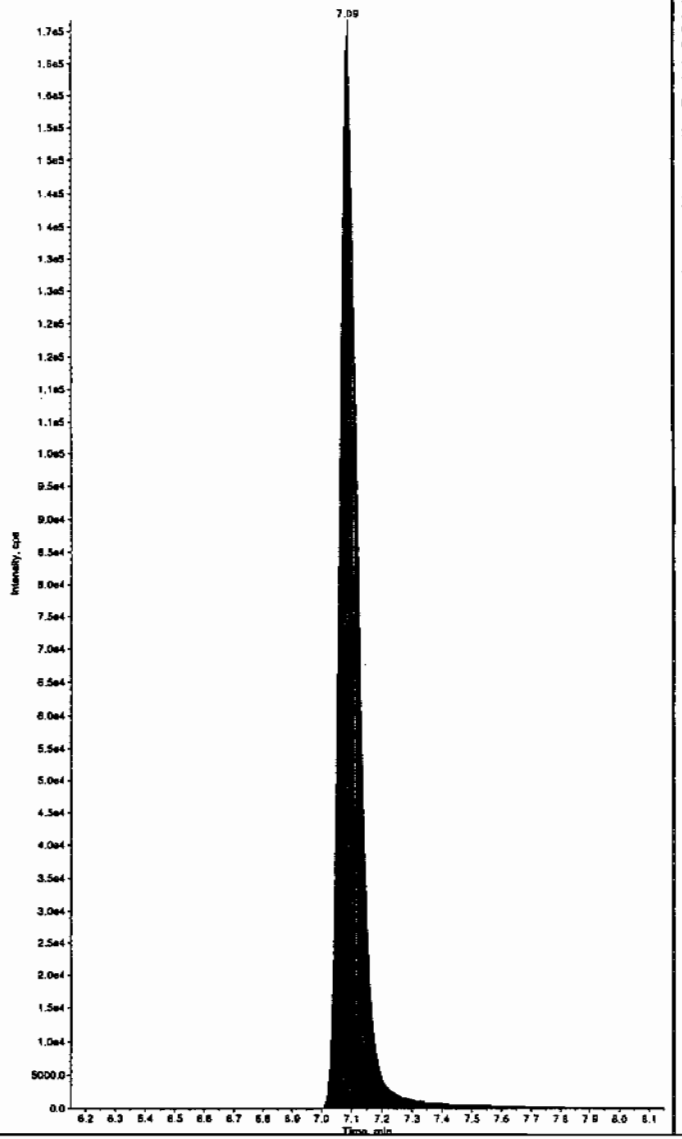

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 539. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:54:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 3.52e+006 counts
Height: 770573.181 cps
Start Time: 8.20 min
End Time: 8.73 min

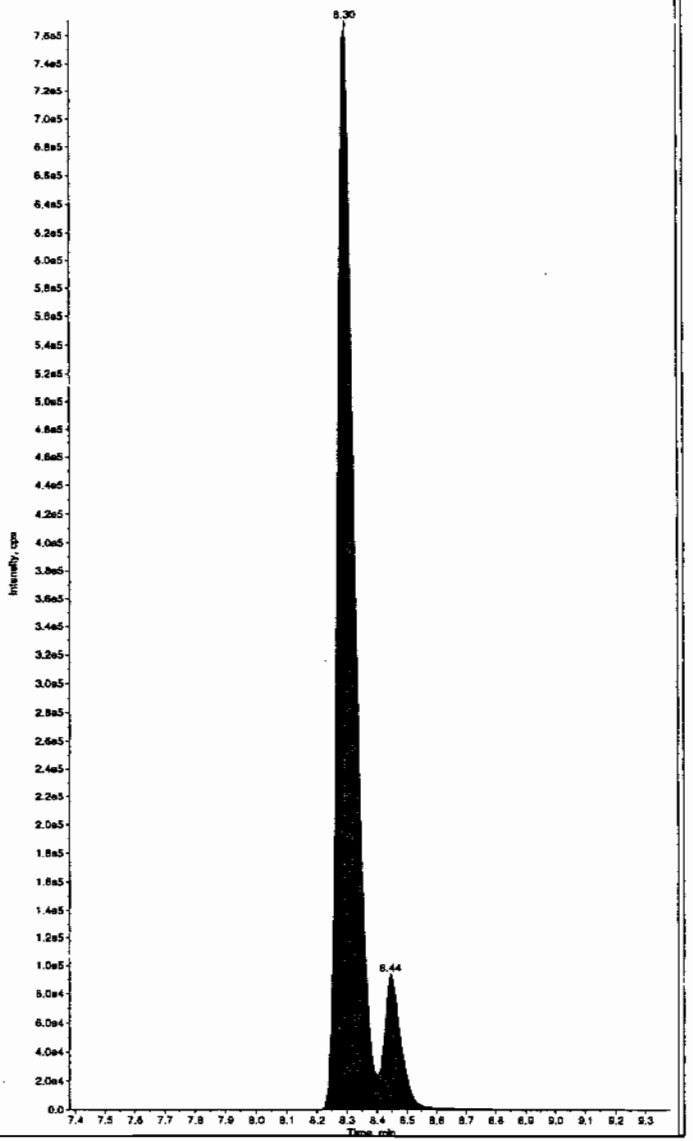

HMM 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Scan 2/17/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

de Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140095.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	500.	ng/mL
lated Conc:	538.	ng/mL
Date:	2/15/2010	
Time:	2:54:50 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
ning Width:	3	points
ndow:	30.0	sec
ted RT:	7.15	min
elative RT:	No	
Type:	Valley	
tion Time:	7.09	min
	7.51e+005	counts
t:	166678.818	cps
Time:	6.93	min
ime:	7.93	min

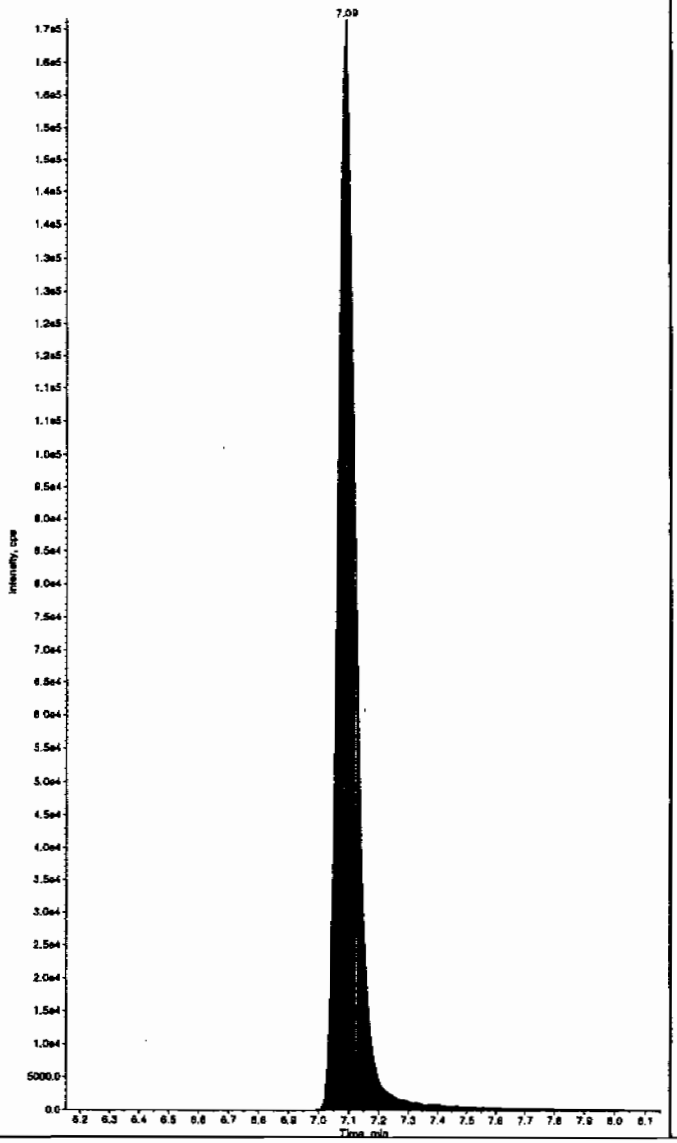

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140095.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	474.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	2:54:50 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.38	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.29	min
Area:	3.10e+006	counts
Height:	777397.363	cps
Start Time:	8.23	min
End Time:	8.40	min

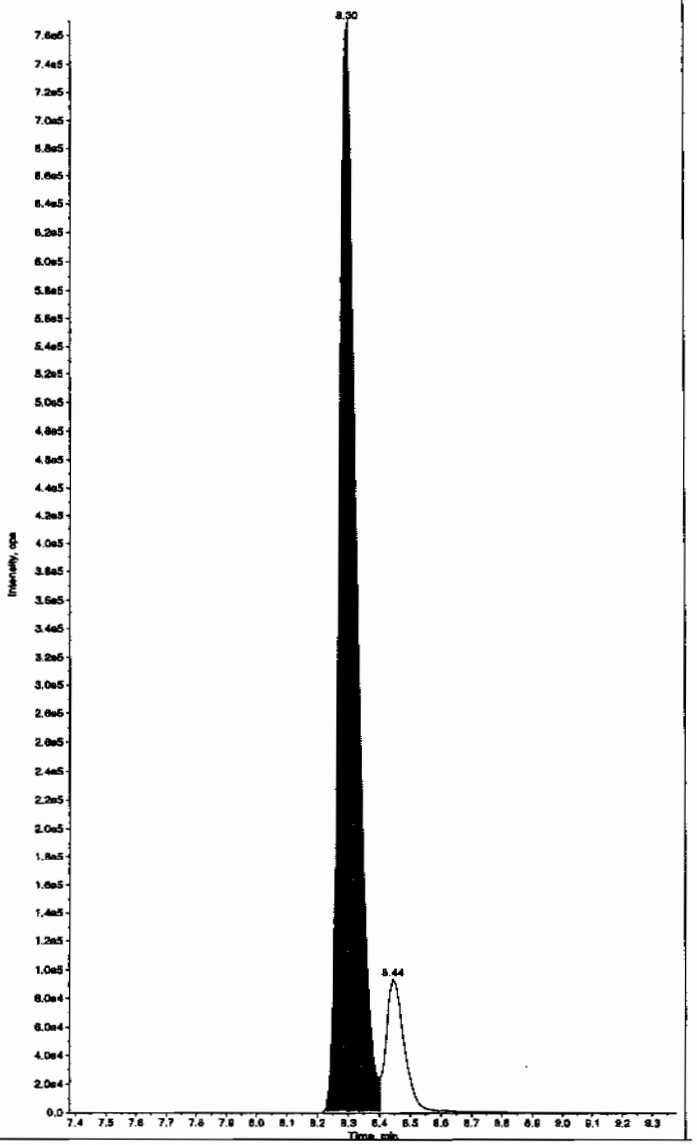

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
(Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 229. ng/mL
Date: 2/15/2010
Time: 2:54:50 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.52 min
elative RT: No

Type: Valley
tion Time: 8.44 min
3.01e+006 counts
t: 775746.094 cps
Time: 8.37 min
ime: 8.69 min

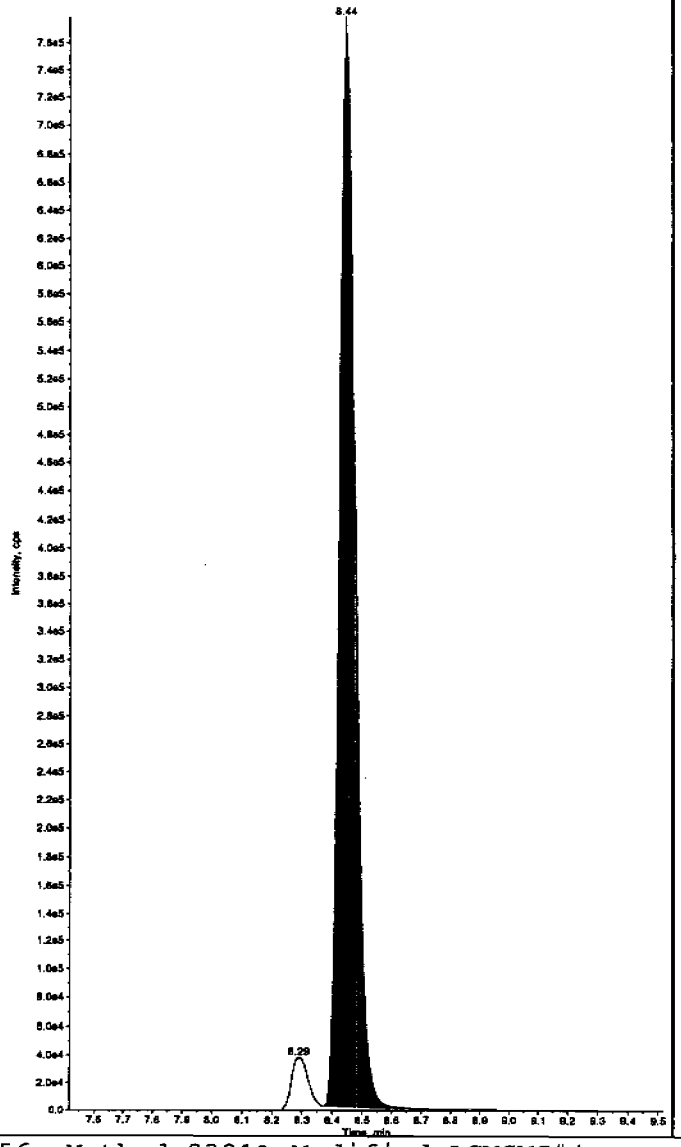

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 351. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:54:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.13 min
Area: 1.01e+006 counts
Height: 259674.561 cps
Start Time: 5.02 min
End Time: 5.42 min

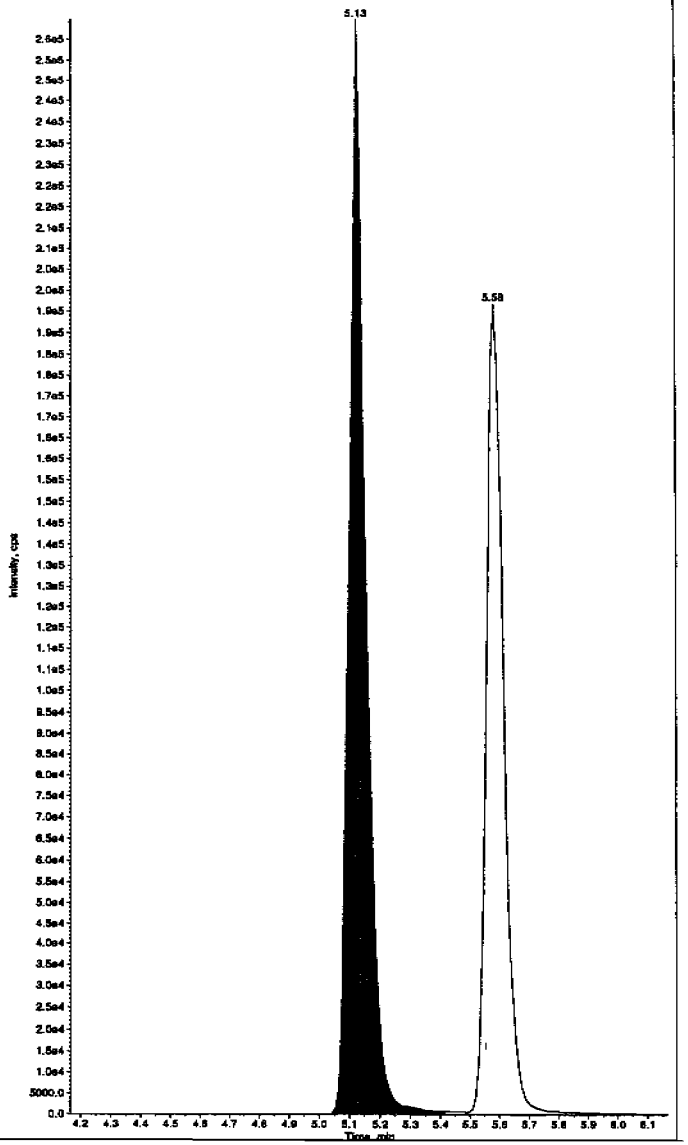

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 406. ng/mL
Date: 2/15/2010
Time: 2:54:50 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.58 min
7.73e+005 counts
t: 191881.760 cps
Time: 5.49 min
ime: 6.07 min

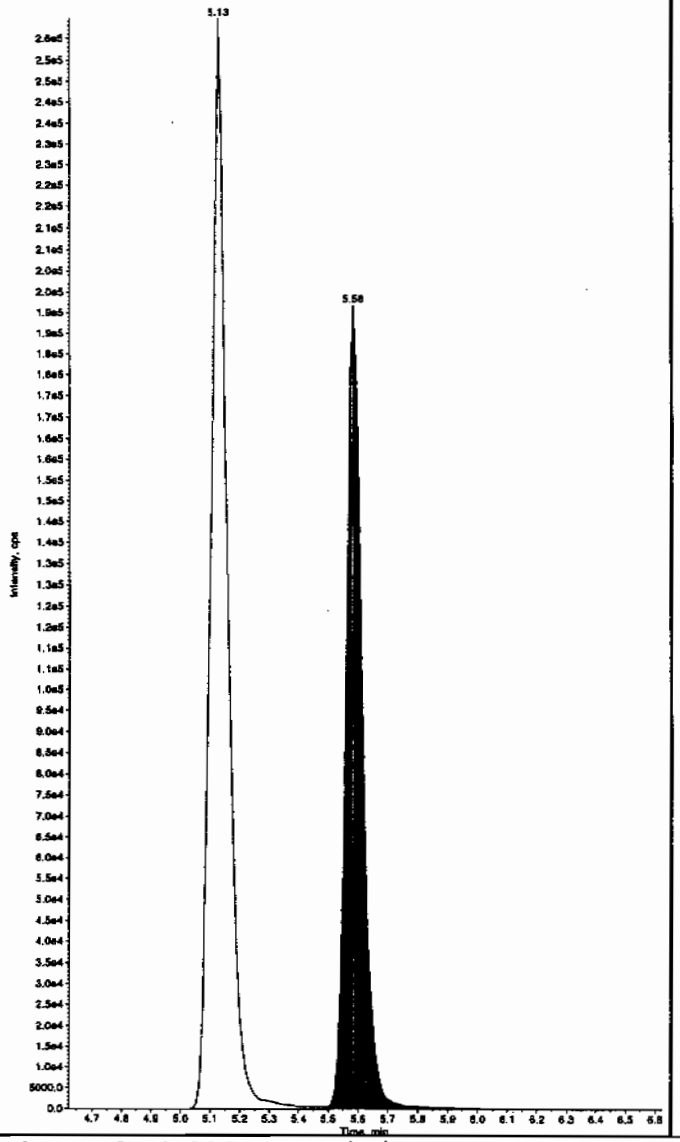

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
Peak Name: "bis(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 486. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:54:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.06e+007 counts
Height: 2562879.883 cps
Start Time: 10.8 min
End Time: 11.3 min

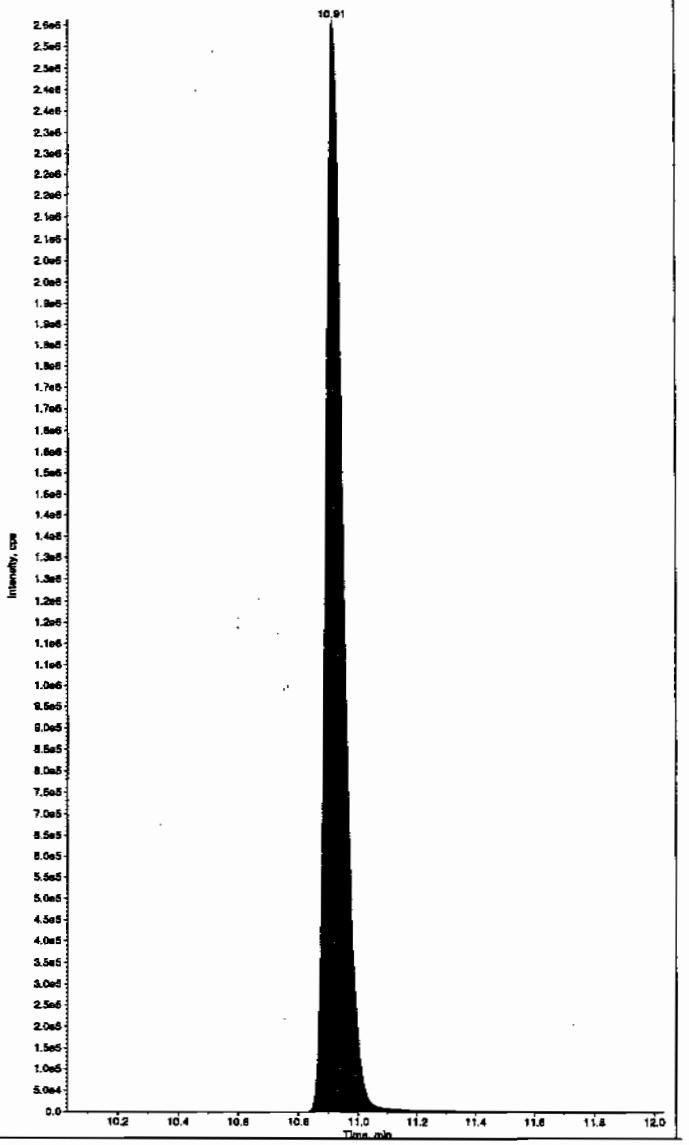

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140097.wiff

Analysis Date: 15–FEB–10 15:26

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	87.3	87	
2,6–Diamino–4–nitrotoluene	100	89.4	89	
3,4–Dinitrotoluene	50	51.7	103	
3,5–Dinitroaniline	100	105	105	
TATB	100	111	111	
tris(o–cresyl) phosphate	100	100	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/16/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 111. ng/mL
Date: 2/15/2010
Time: 3:26:15 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.09 min
1.54e+005 counts
t: 34696.198 cps
Time: 6.91 min
ime: 7.68 min

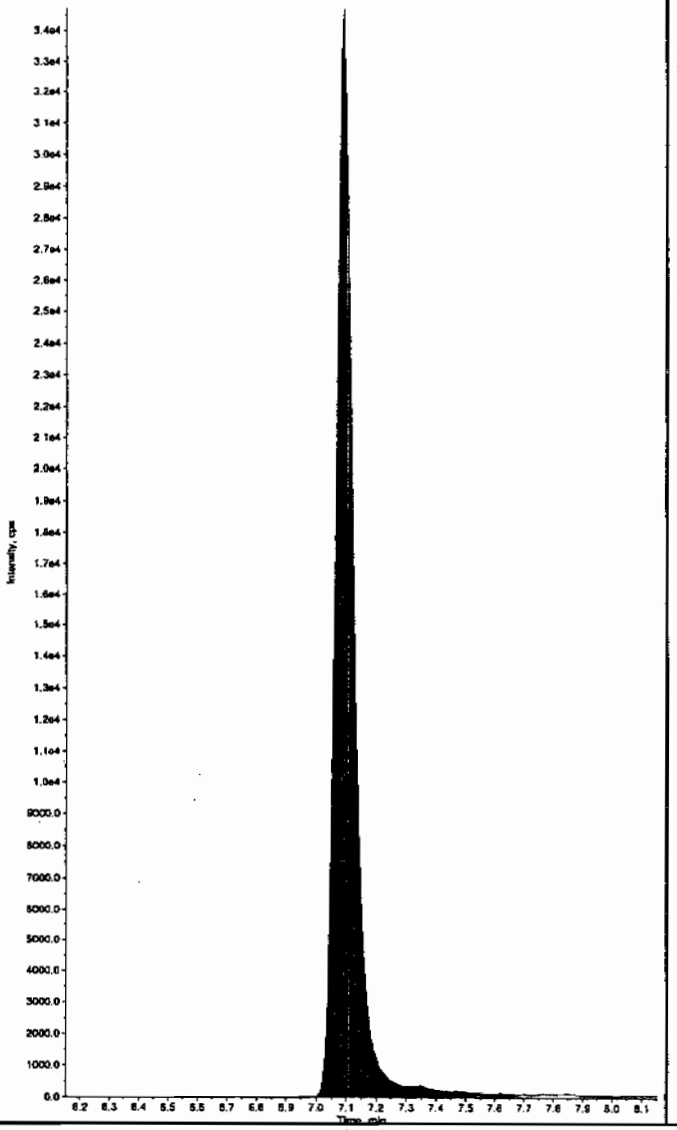

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 119. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:26:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.31 min
Area: 7.80e+005 counts
Height: 168751.770 cps
Start Time: 8.20 min
End Time: 8.70 min

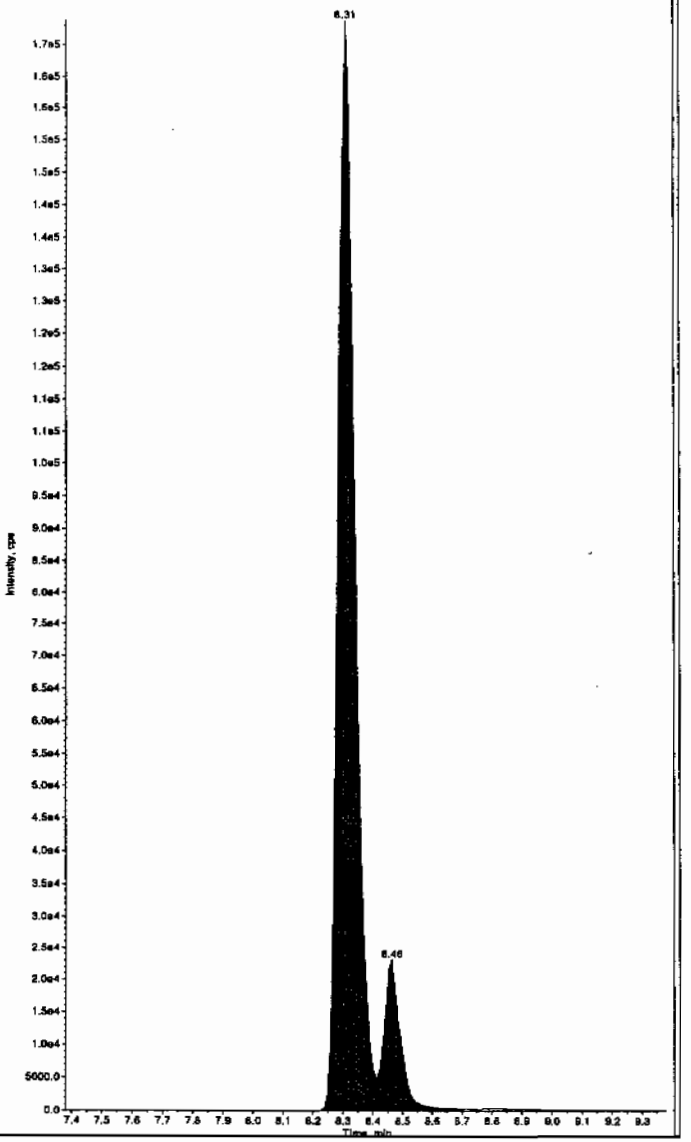

Hmm 02/17/10

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after Lan 2/17/10

ple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140097.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 111. ng/mL
Date: 2/15/2010
Time: 3:26:15 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.09 min
1.54e+005 counts
t: 34696.198 cps
Time: 6.91 min
ime: 7.68 min

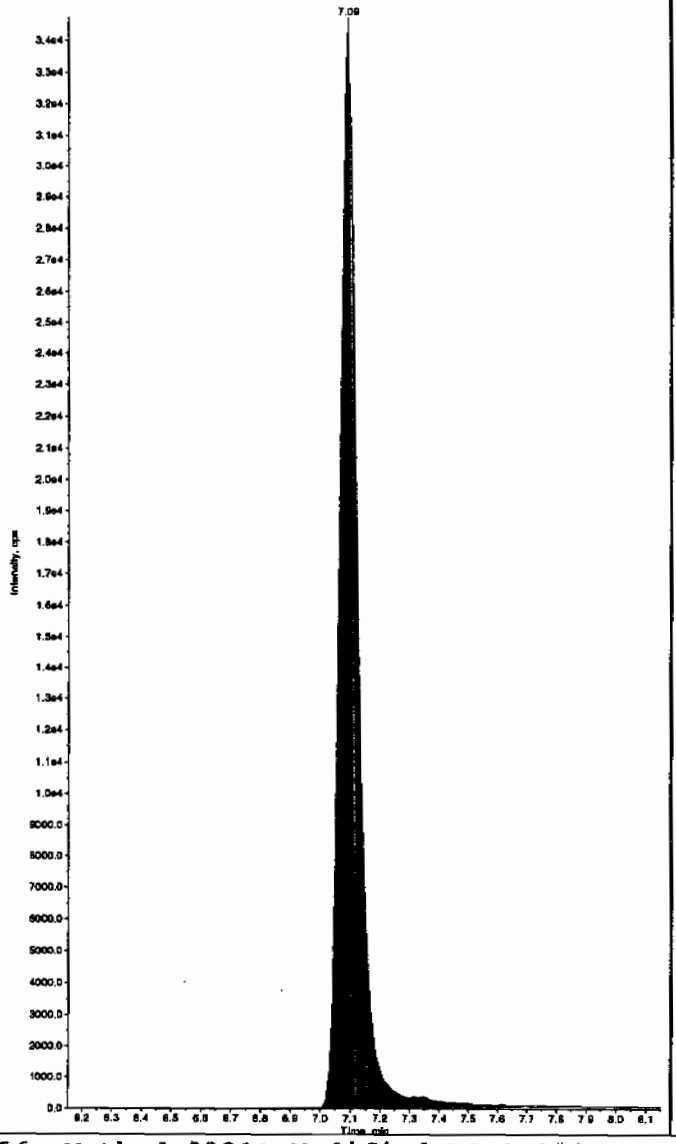

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:26:15 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.31 min
Area: 6.86e+005 counts
Height: 168745.419 cps
Start Time: 8.24 min
End Time: 8.41 min

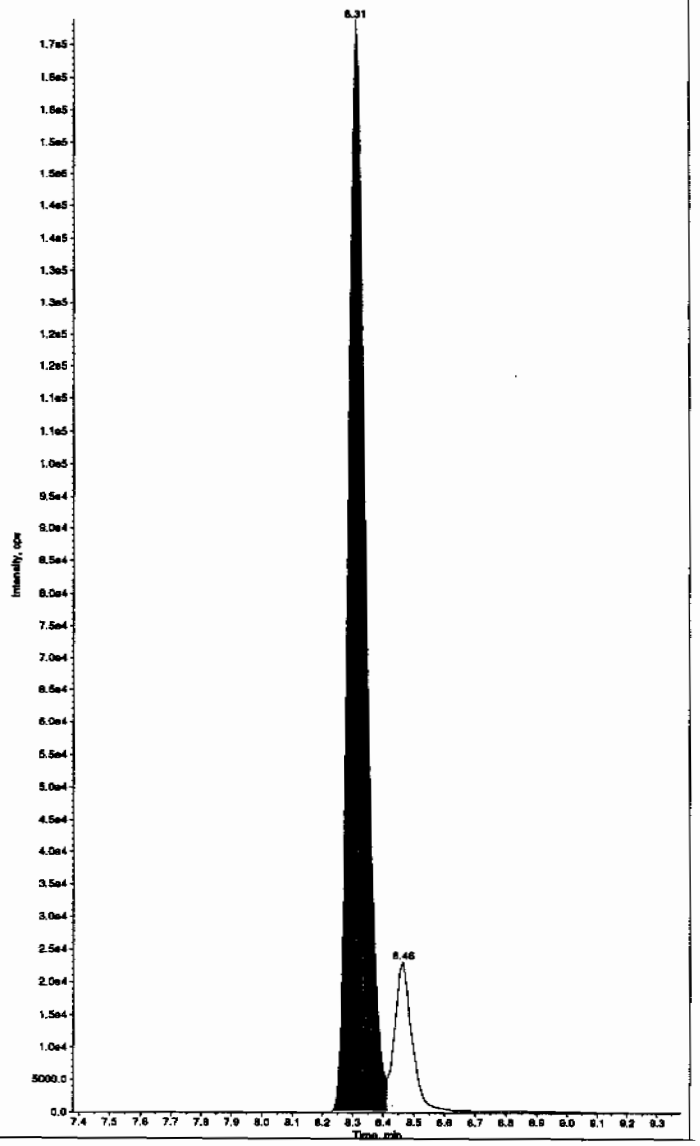

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
t Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 50.0 ng/mL
lated Conc: 51.7 ng/mL
Date: 2/15/2010
Time: 3:26:15 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.52 min
elative RT: No

Type: Valley
tion Time: 8.45 min
6.58e+005 counts
t: 174157.303 cps
Time: 8.38 min
ime: 8.78 min

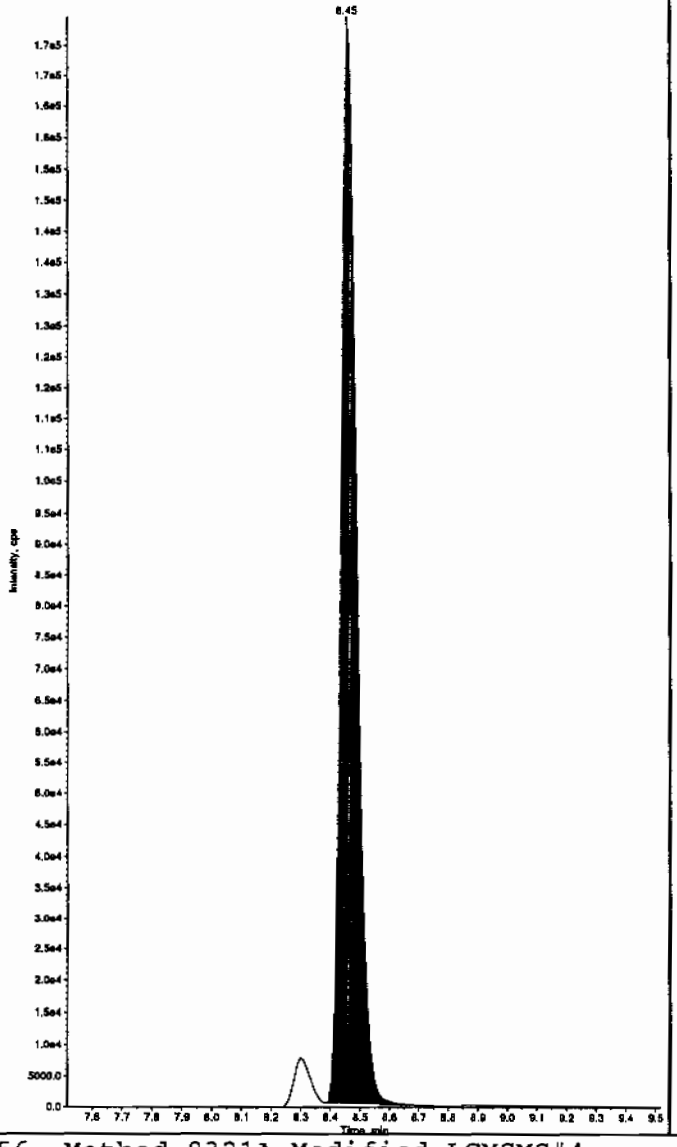

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 89.4 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:26:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.08 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.14 min
Area: 2.76e+005 counts
Height: 67901.466 cps
Start Time: 4.99 min
End Time: 5.44 min

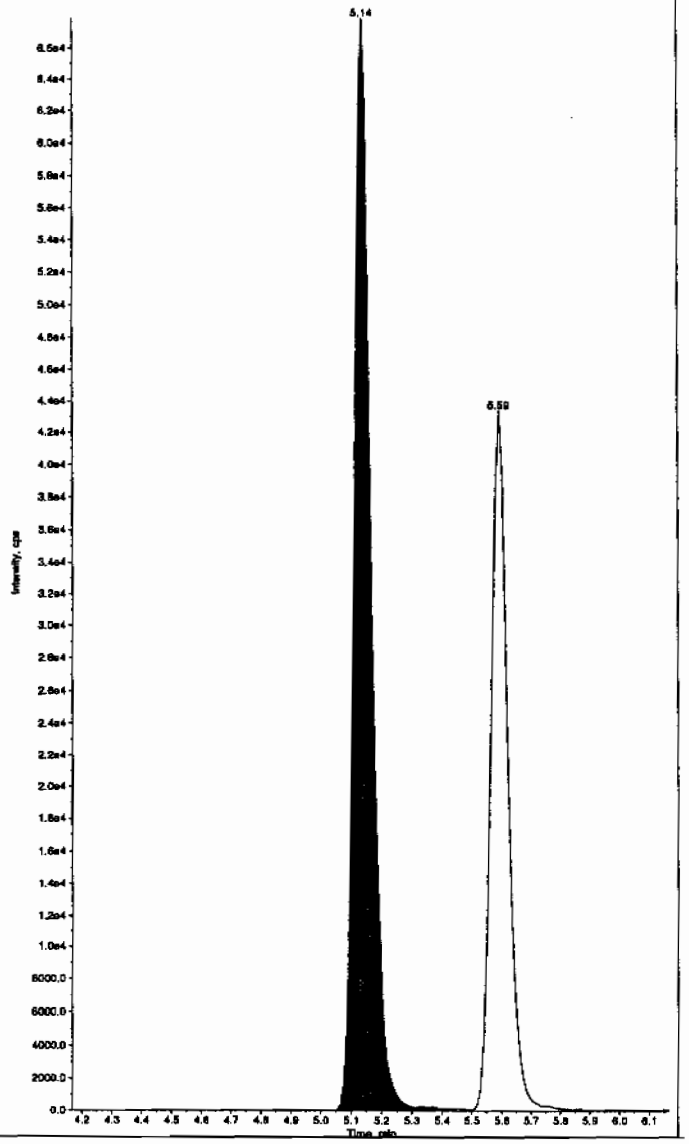

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
(Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 87.3 ng/mL
Date: 2/15/2010
Time: 3:26:15 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.59 min
1.70e+005 counts
t: 43341.713 cps
. Time: 5.49 min
ime: 5.90 min

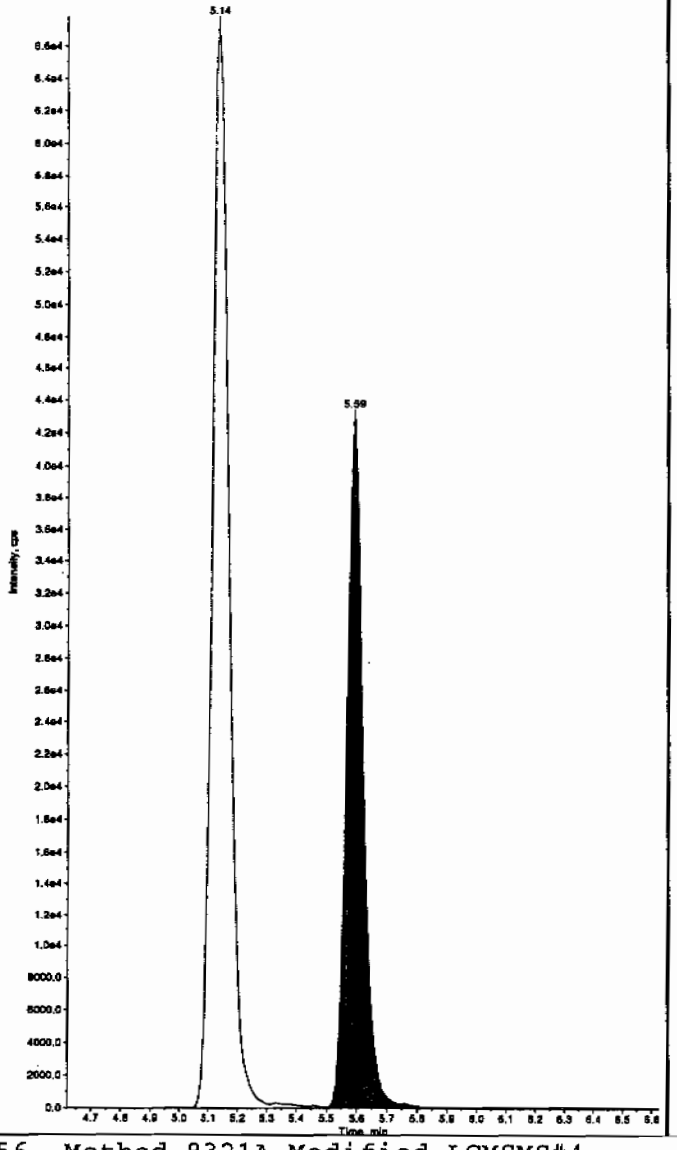

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:26:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.40e+006 counts
Height: 584071.228 cps
Start Time: 10.8 min
End Time: 11.3 min

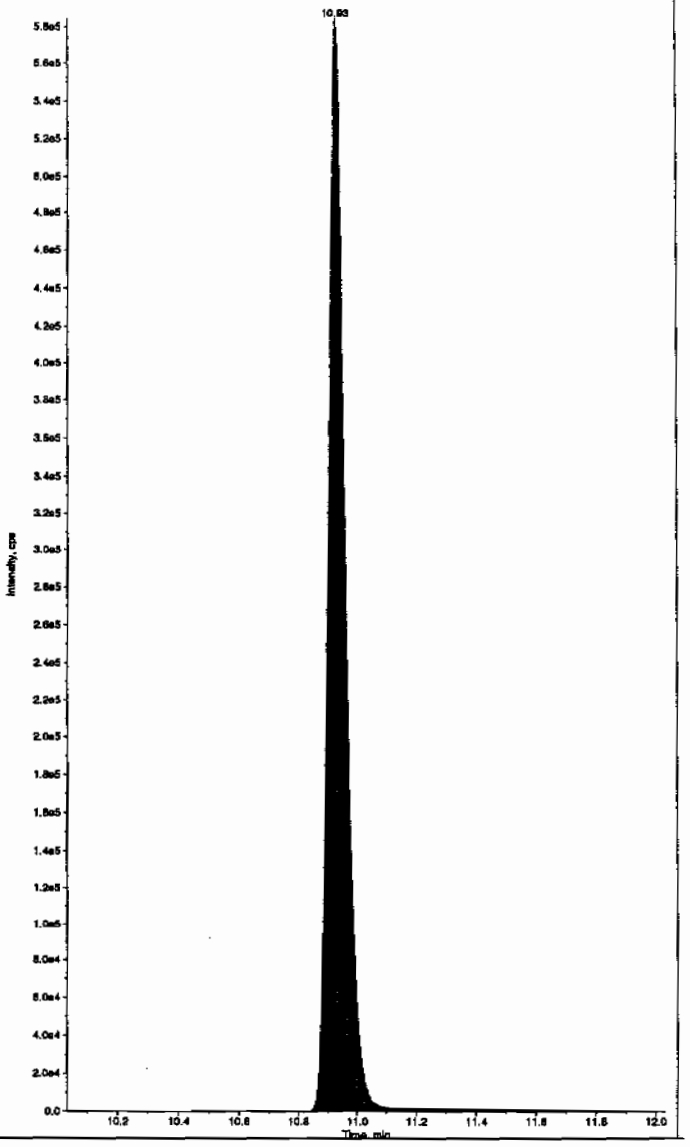

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140108.wiff

Analysis Date: 15-FEB-10 18:18

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	432	86	
2,6-Diamino-4-nitrotoluene	500	357	71	
3,4-Dinitrotoluene	250	240	96	
3,5-Dinitroaniline	500	517	103	
TATB	500	532	106	
tris(o-cresyl) phosphate	500	501	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before LOQ 2/16/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: "

e Index:	1	
e Type:	QC	
ntration:	500.	ng/mL
lated Conc:	532.	ng/mL
Date:	2/15/2010	
Time:	6:18:57 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	30.0	sec
ted RT:	7.15	min
elative RT:	No	
Type:	Valley	
tion Time:	7.12	min
	7.43e+005	counts
t:	166107.986	cps
Time:	6.97	min
ime:	7.80	min

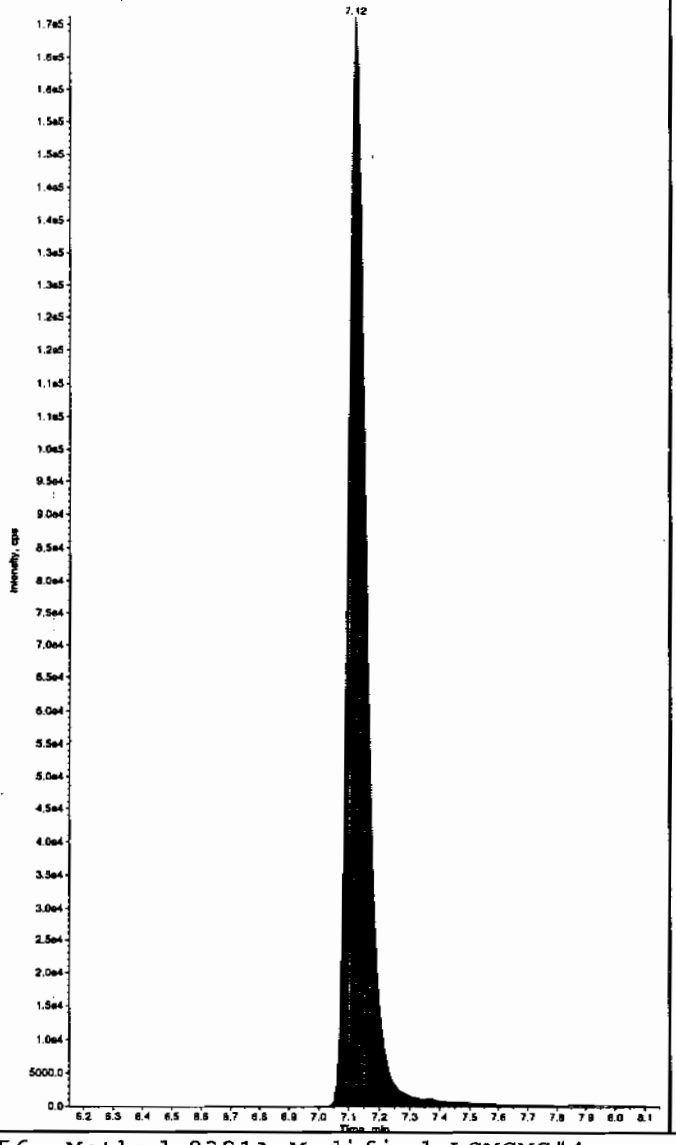

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	587.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	6:18:57 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.38	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.33	min
Area:	3.82e+006	counts
Height:	866099.243	cps
Start Time:	8.24	min
End Time:	8.84	min

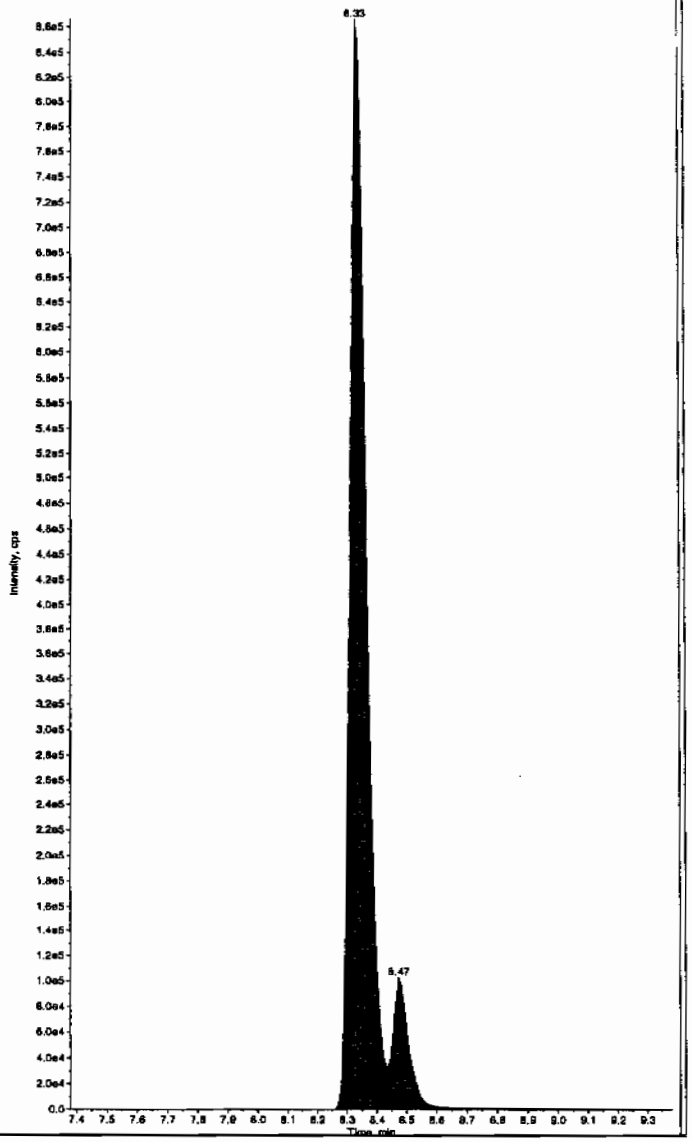

Hum 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Lan 2/17/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
lated Conc: 532. ng/mL
Date: 2/15/2010
Time: 6:18:57 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
indow: 30.0 sec
ted RT: 7.15 min
Relative RT: No

Type: Valley
tion Time: 7.12 min
: 7.43e+005 counts
t: 166107.986 cps
: Time: 6.97 min
Time: 7.80 min

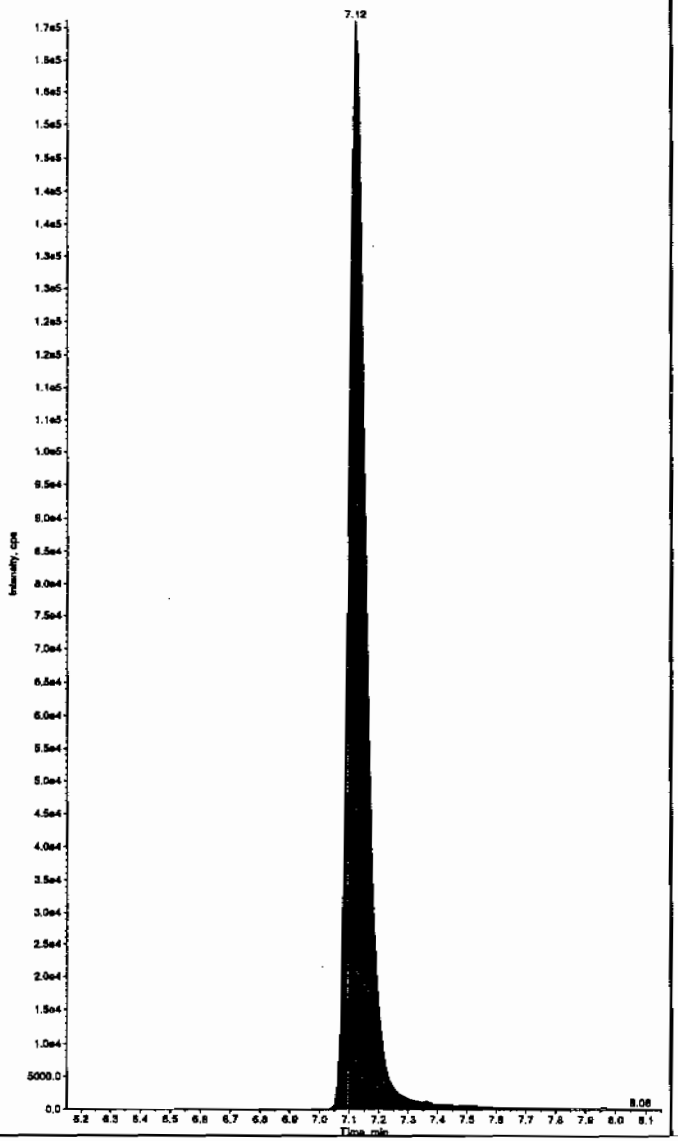

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 517. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:18:57 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.33 min
Area: 3.38e+006 counts
Height: 881961.174 cps
Start Time: 8.26 min
End Time: 8.43 min

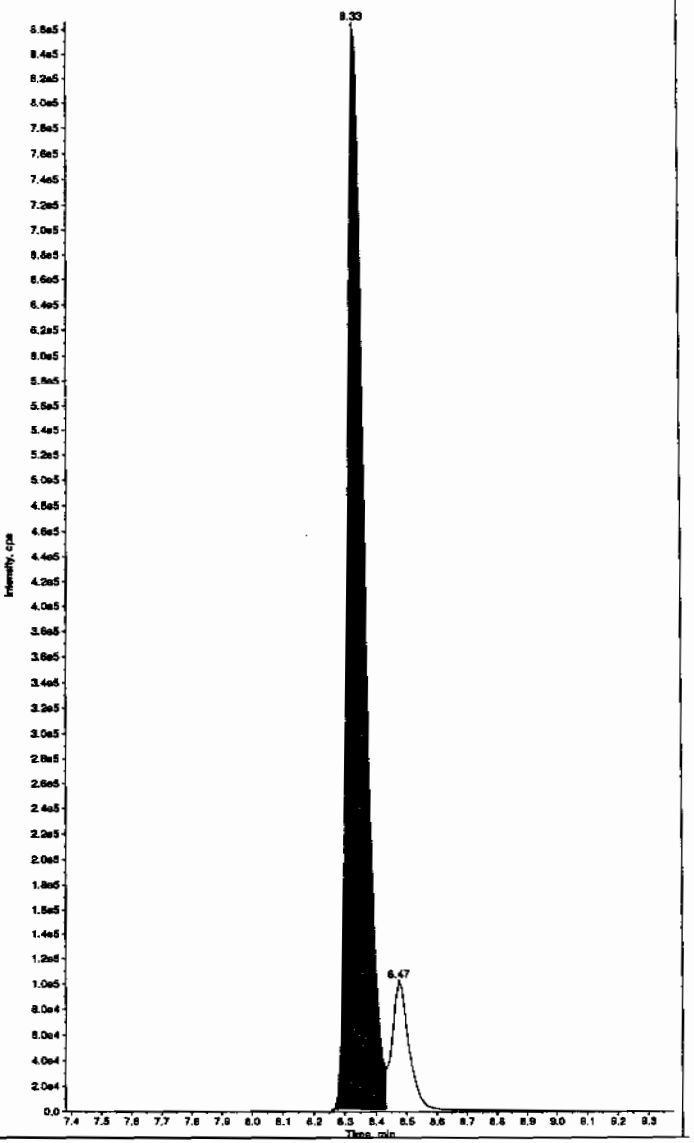

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140106.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 240. ng/mL
Date: 2/15/2010
Time: 6:18:57 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
cted RT: 8.52 min
lelative RT: No

Type: Valley
tion Time: 8.47 min
3.14e+006 counts
t: 834511.780 cps
Time: 8.40 min
ime: 8.68 min

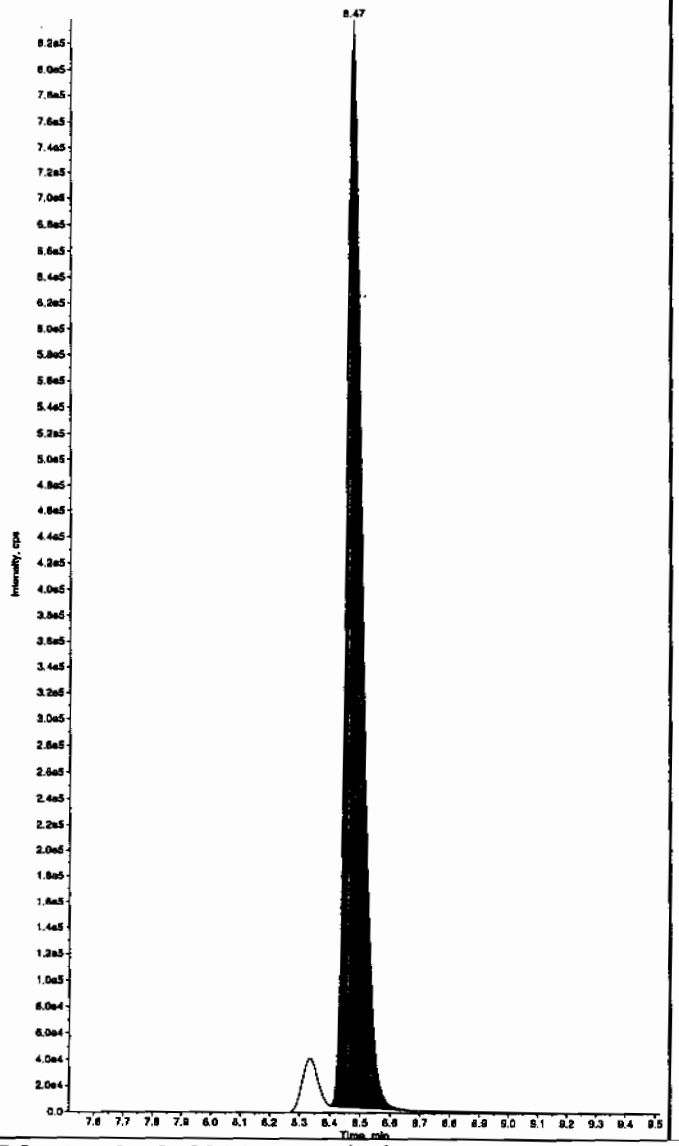

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140106.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 357. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:18:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.15 min
Area: 1.03e+006 counts
Height: 282050.995 cps
Start Time: 5.05 min
End Time: 5.45 min

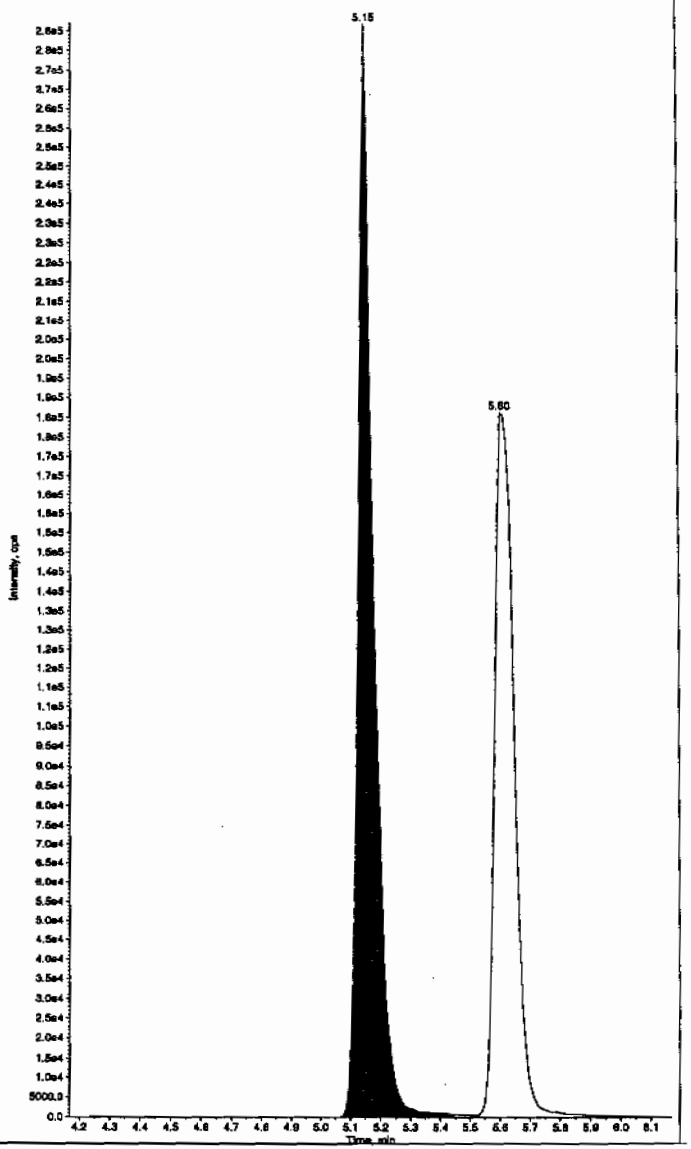

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ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:           QC
ntration:       500.    ng/mL
lated Conc:     432.    ng/mL
Date:        2/15/2010
Time:        6:18:57 PM

ied:             No
 Algorithm: IntelliQuan - IQA
Peak Height: 350.00   cps
Peak Width:    0.00   sec
hing Width:  3        points
ndow:         30.0    sec
ted RT:        5.62   min
elative RT:    No

Type:         Valley
tion Time:     5.60   min
        8.22e+005   counts
t:        181345.459  cps
. Time:        5.51   min
ime:           6.08   min
```

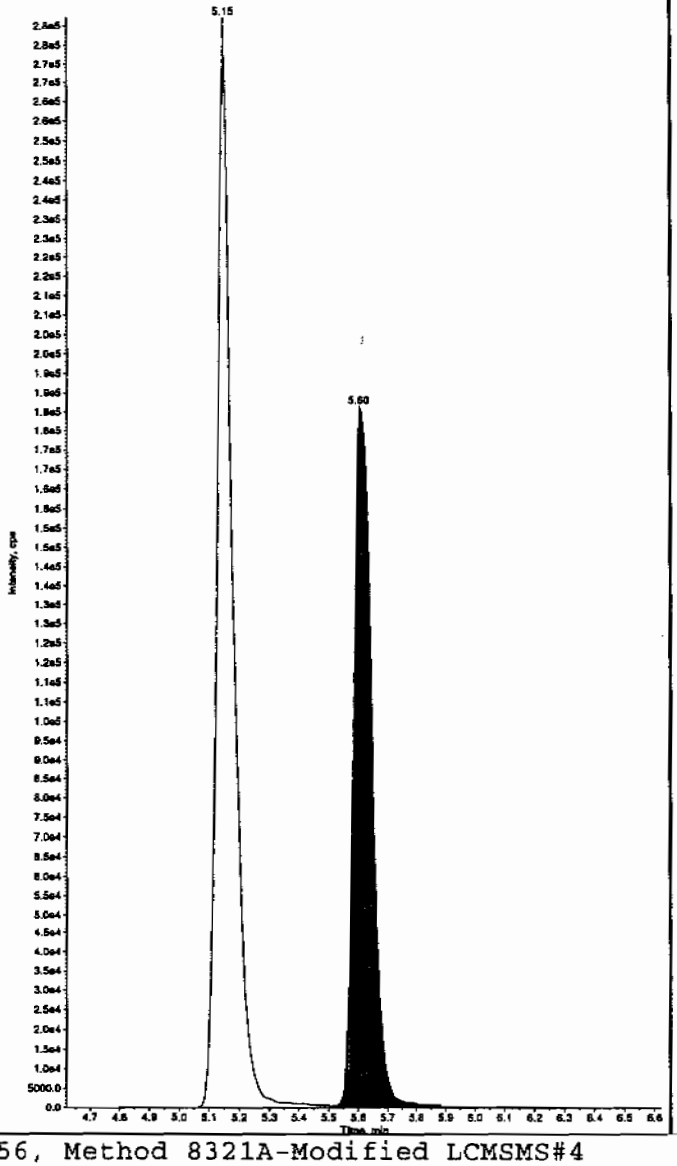

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     500.    ng/mL
Calculated Conc:   501.    ng/mL
Acq. Date:       2/15/2010
Acq. Time:       6:18:57 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       11.0    min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.9    min
Area:        1.09e+007   counts
Height:      2534437.988  cps
Start Time:        10.8    min
End Time:          11.3    min
```

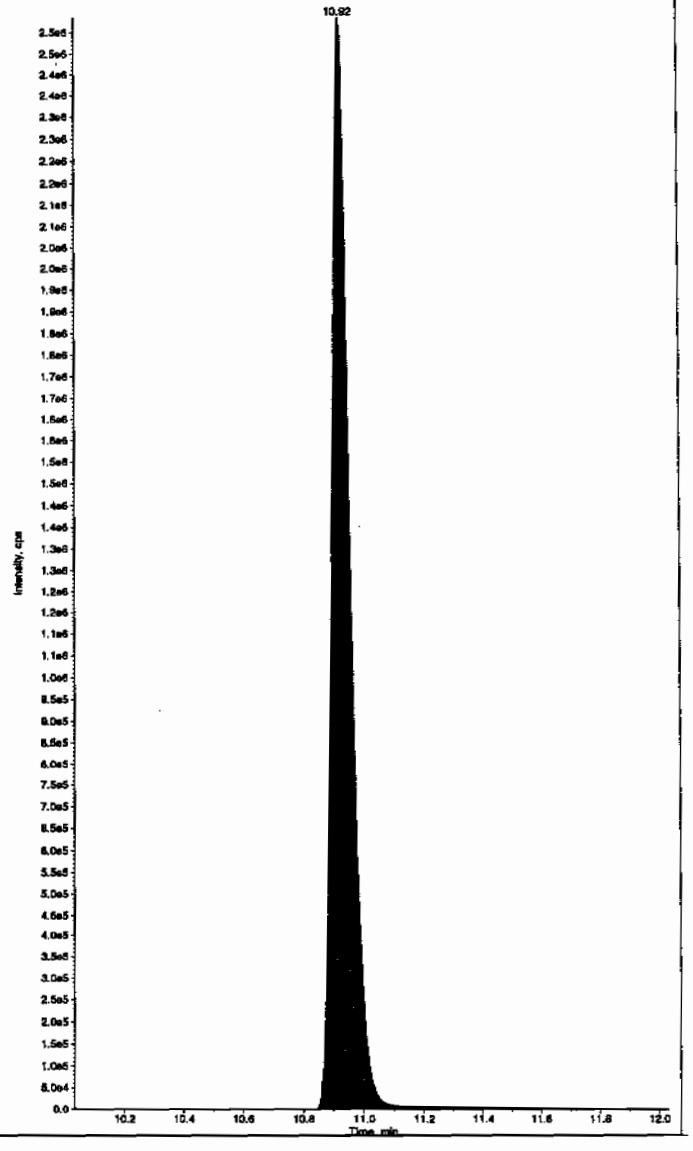

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140110.wiff

Analysis Date: 15-FEB-10 18:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	86.8	87	
2,6-Diamino-4-nitrotoluene	100	80.4	80	
3,4-Dinitrotoluene	50	51.8	104	
3,5-Dinitroaniline	100	105	105	
TATB	100	103	103	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Sun 2/16/10

nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 103. ng/mL
Date: 2/15/2010
Time: 6:50:19 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.12 min
: 1.42e+005 counts
ht: 32363.491 cps
t Time: 6.97 min
Time: 7.52 min

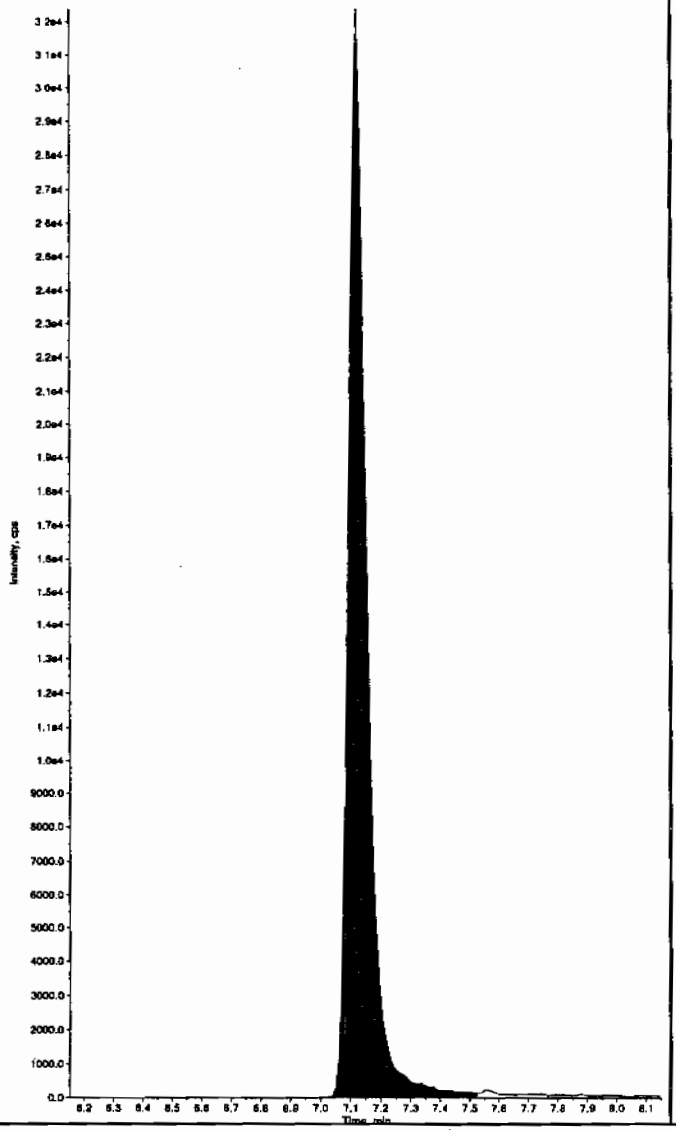

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 120. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:50:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 7.90e+005 counts
Height: 181960.892 cps
Start Time: 8.23 min
End Time: 8.71 min

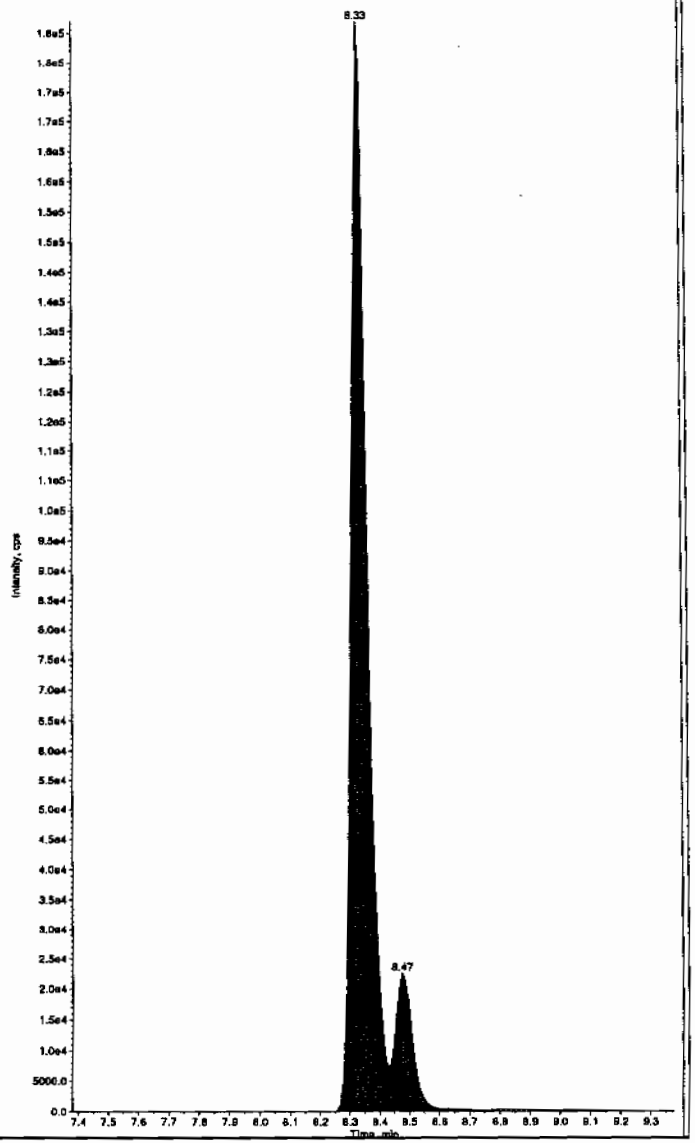

Hmc 02/17/10

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after Scan 2/17/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
lated Conc: 103. ng/mL
Date: 2/15/2010
Time: 6:50:19 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ation Time: 7.12 min
: 1.42e+005 counts
t: 32363.491 cps
: Time: 6.97 min
Time: 7.52 min

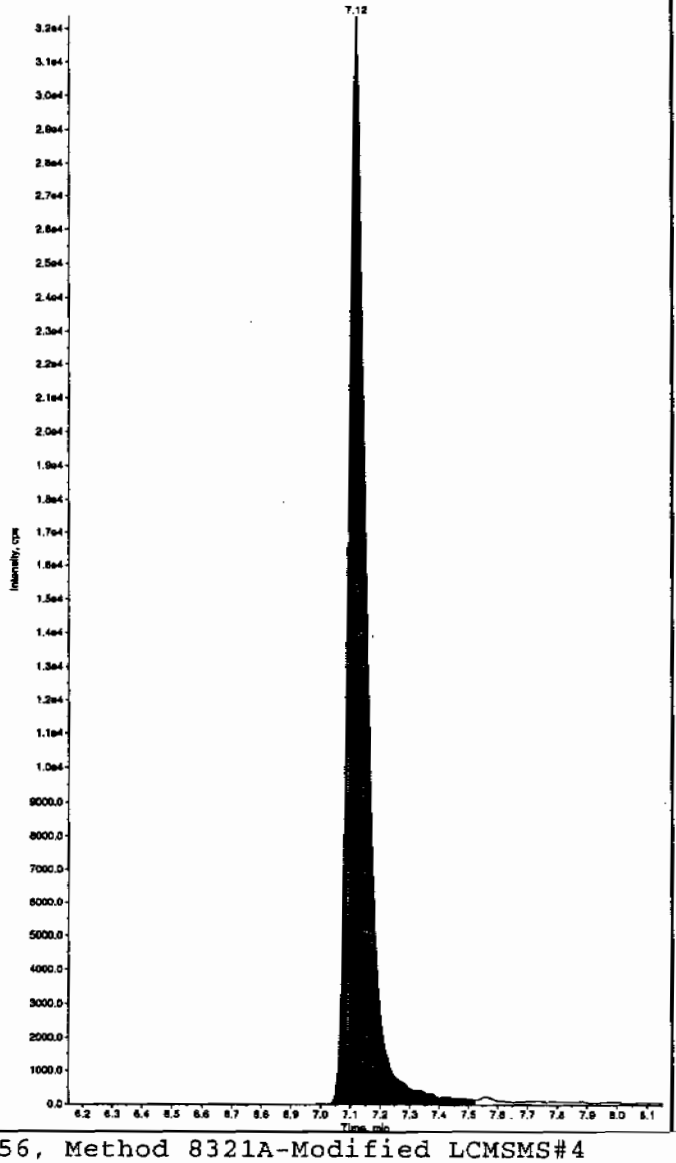

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:50:19 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.33 min
Area: 6.90e+005 counts
Height: 183805.920 cps
Start Time: 8.26 min
End Time: 8.43 min

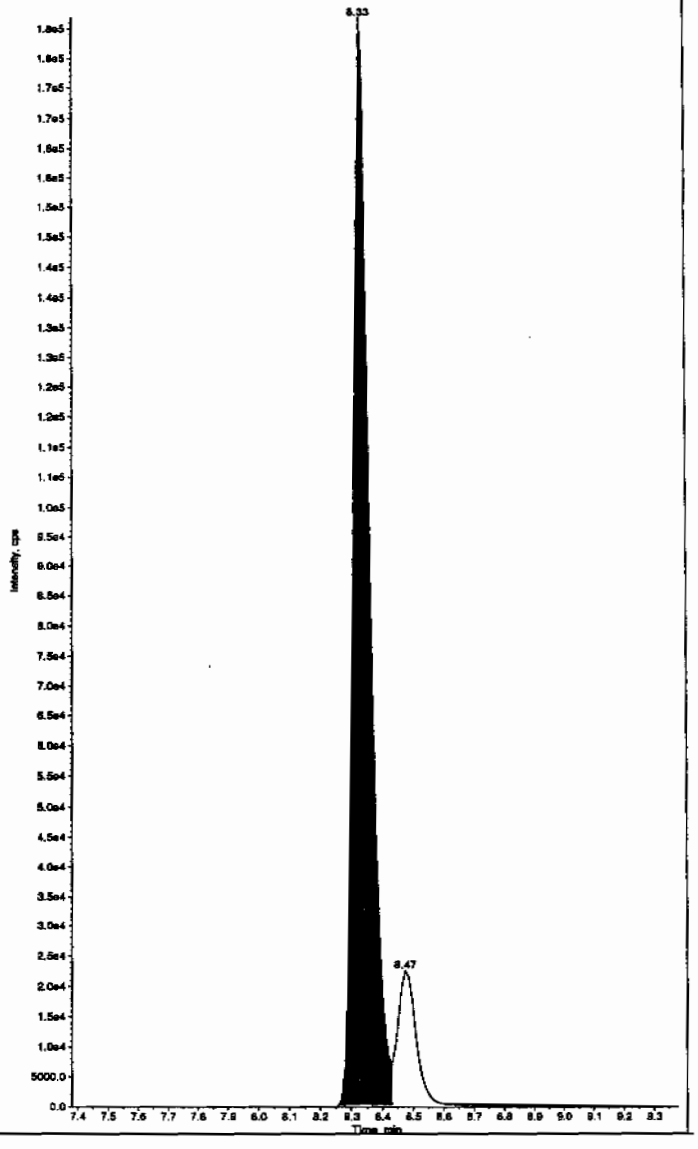

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
.e Index: 1
.e Type: QC
entration: 50.0 ng/mL
lated Conc: 51.8 ng/mL
Date: 2/15/2010
Time: 6:50:19 PM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
cted RT: 8.52 min
lelative RT: No

Type: Valley
tion Time: 8.47 min
6.59e+005 counts
t: 179250.198 cps
Time: 8.40 min
Time: 8.76 min

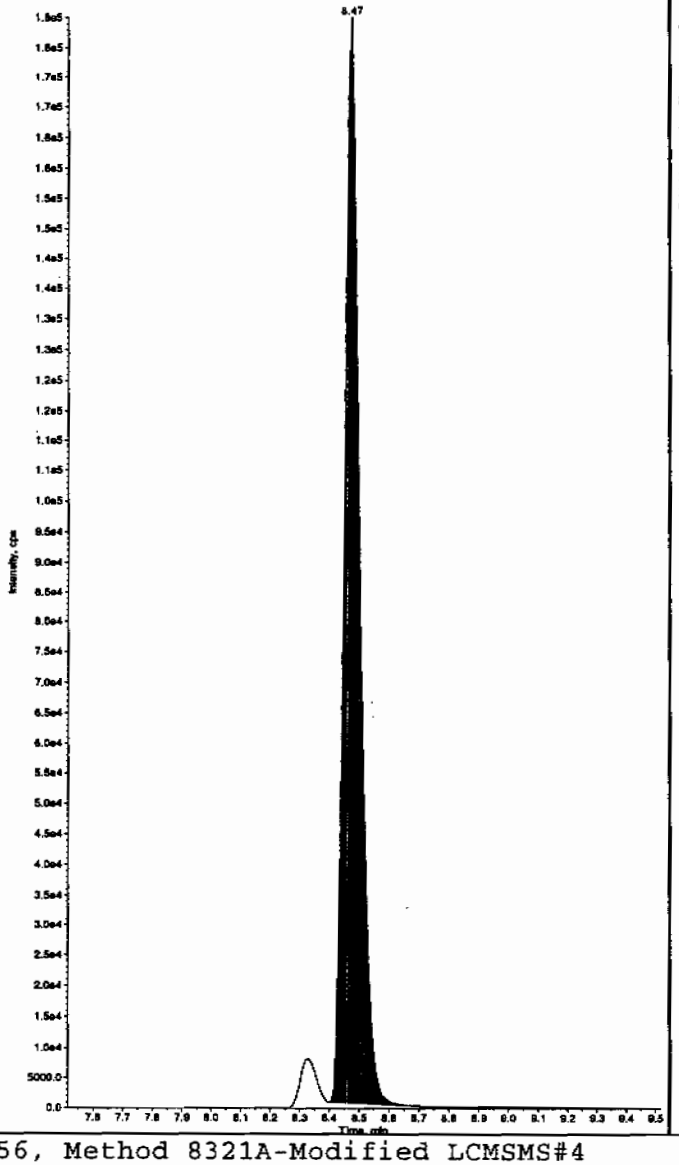

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 80.4 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:50:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 2.51e+005 counts
Height: 62693.035 cps
Start Time: 5.04 min
End Time: 5.43 min

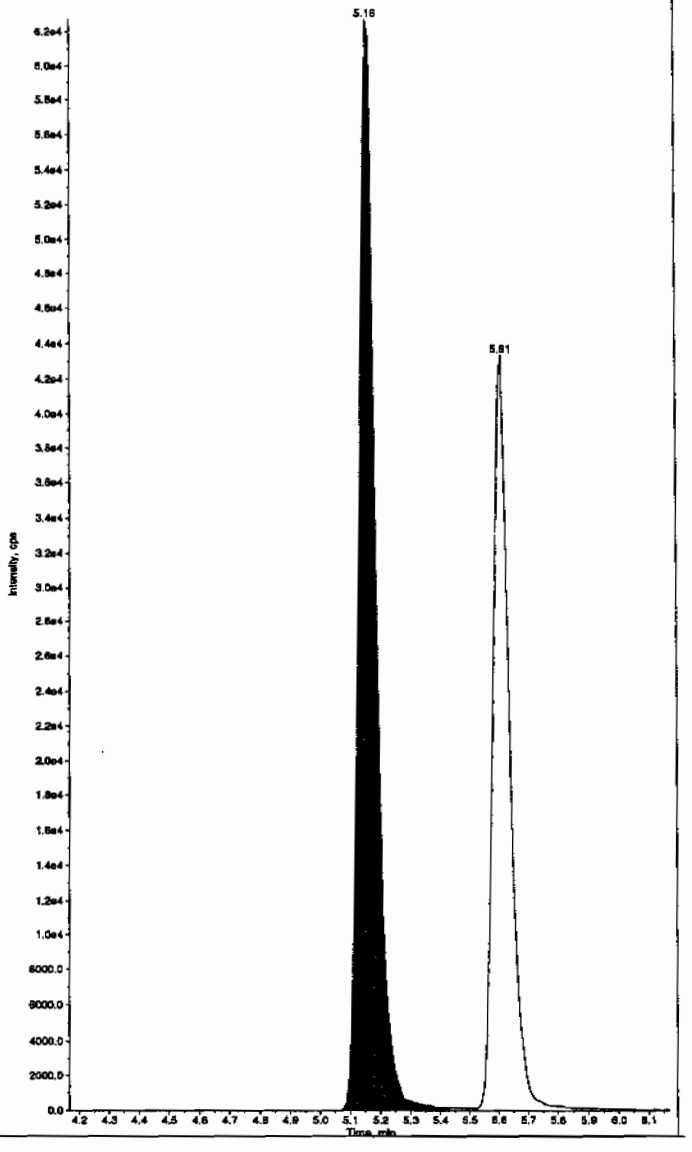

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ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	100.	ng/mL
lated Conc:	86.8	ng/mL
Date:	2/15/2010	
Time:	6:50:19 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	350.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	30.0	sec
ted RT:	5.62	min
lelative RT:	No	
Type:	Valley	
tion Time:	5.61	min
	1.70e+005	counts
t:	43332.111	cps
Time:	5.49	min
ime:	5.05	min

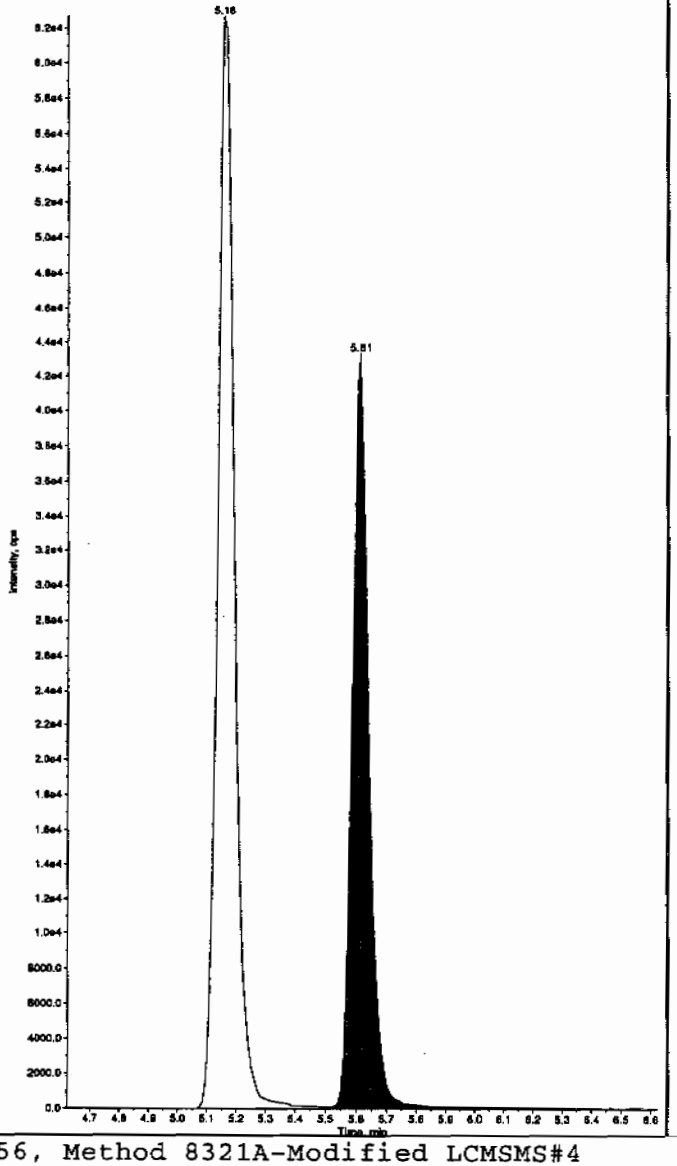

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	103.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	6:50:19 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	2.46e+006	counts
Height:	617461.487	cps
Start Time:	10.8	min
End Time:	11.3	min

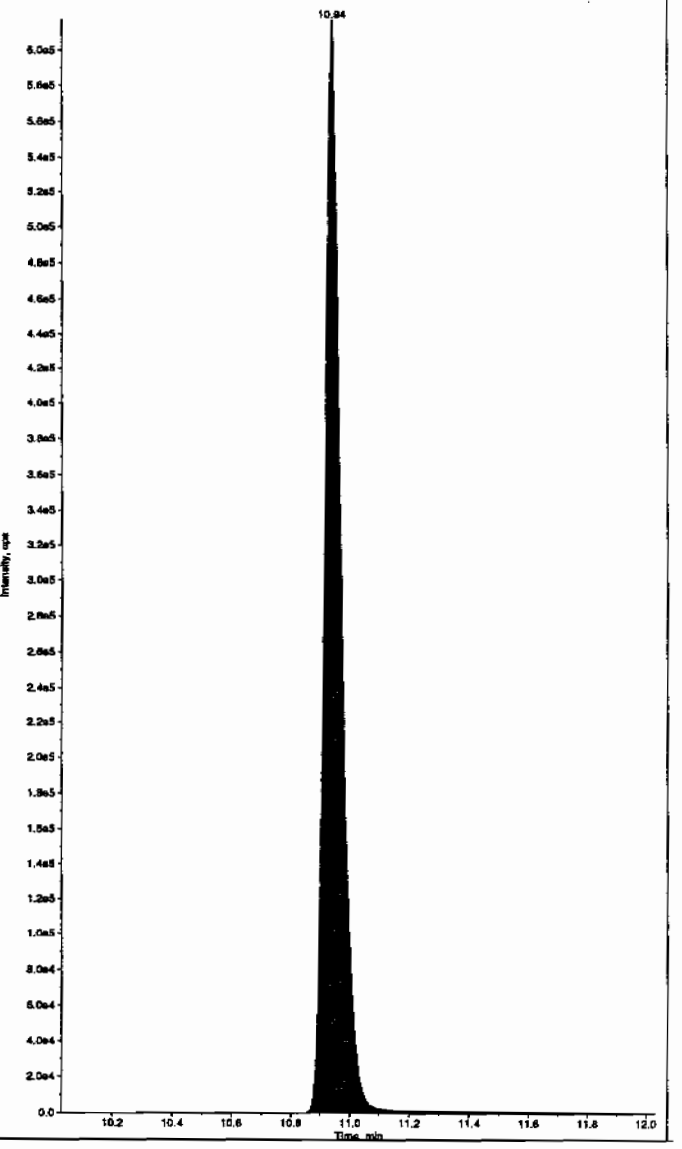

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140117.wiff

Analysis Date: 15-FEB-10 20:40

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	500	501	100	
2,4-Diamino-6-nitrotoluene	500	421	84	
2,6-Diamino-4-nitrotoluene	500	441	88	
3,4-Dinitrotoluene	250	243	97	
3,5-Dinitroaniline	500	488	98	
TATB	500	513	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lab 2/16/10

nple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140117.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 513. ng/mL
Date: 2/15/2010
Time: 8:40:16 PM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.12 min
: 7.16e+005 counts
ht: 160870.361 cps
t Time: 6.99 min
Time: 7.76 min

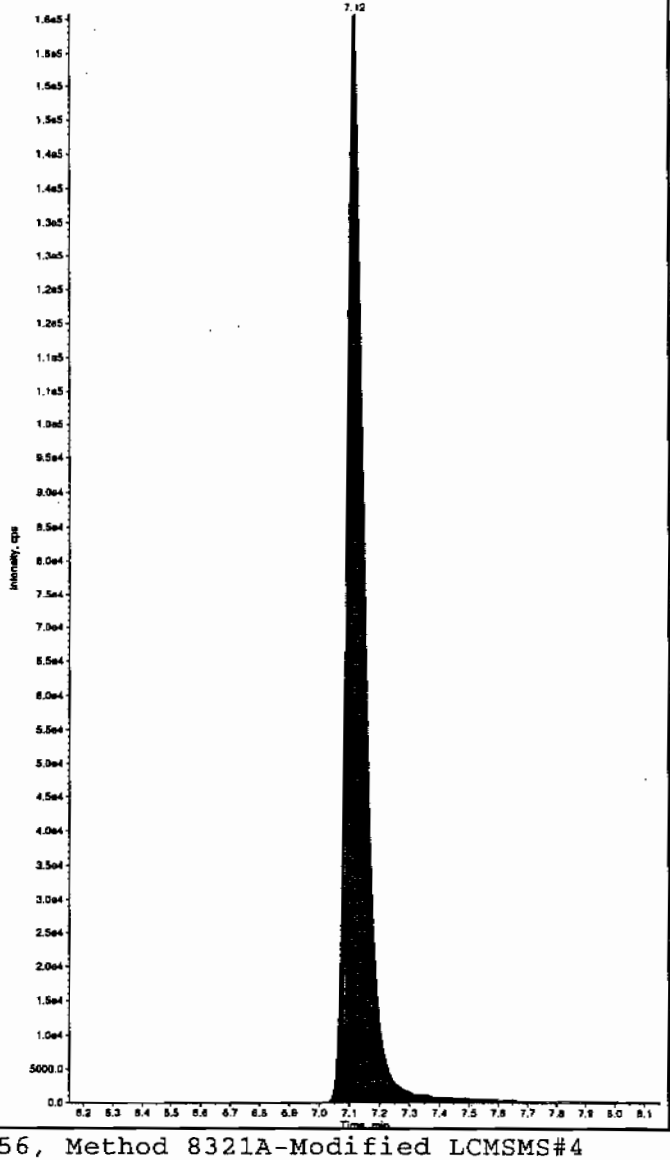

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140117.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 555. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:40:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 3.62e+006 counts
Height: 821561.584 cps
Start Time: 8.24 min
End Time: 8.78 min

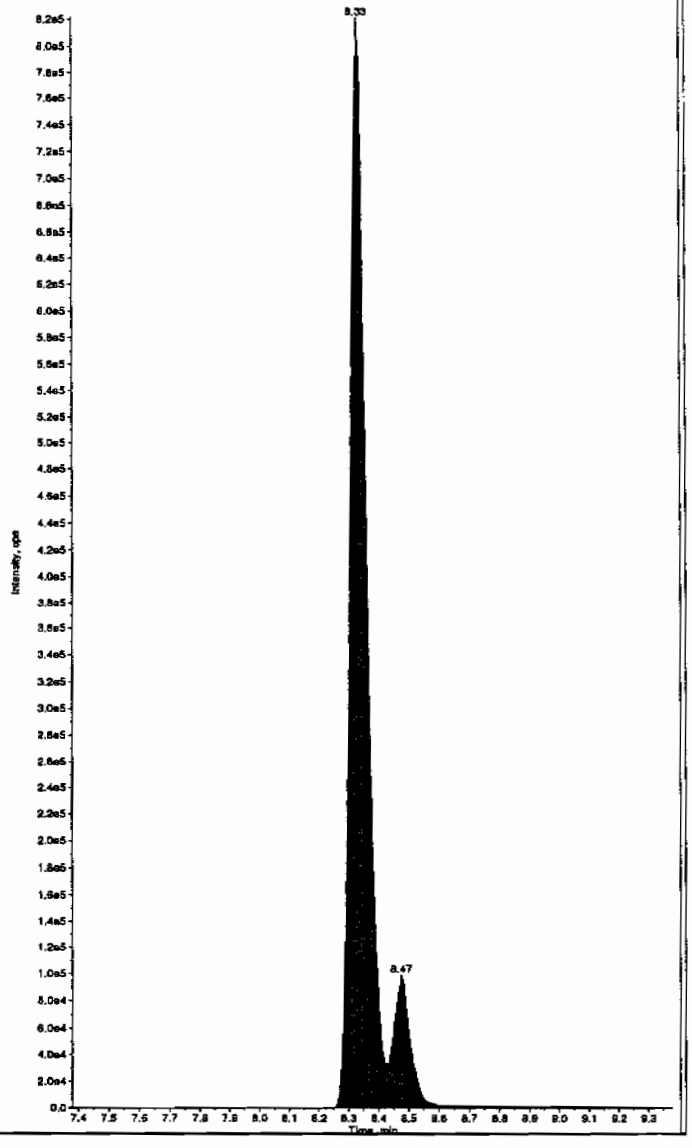

HMM 02/17/10

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after Ban 2/17/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 513. ng/mL
Date: 2/15/2010
Time: 8:40:16 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.12 min
7.16e+005 counts
t: 160870.361 cps
Time: 6.99 min
ime: 7.76 min

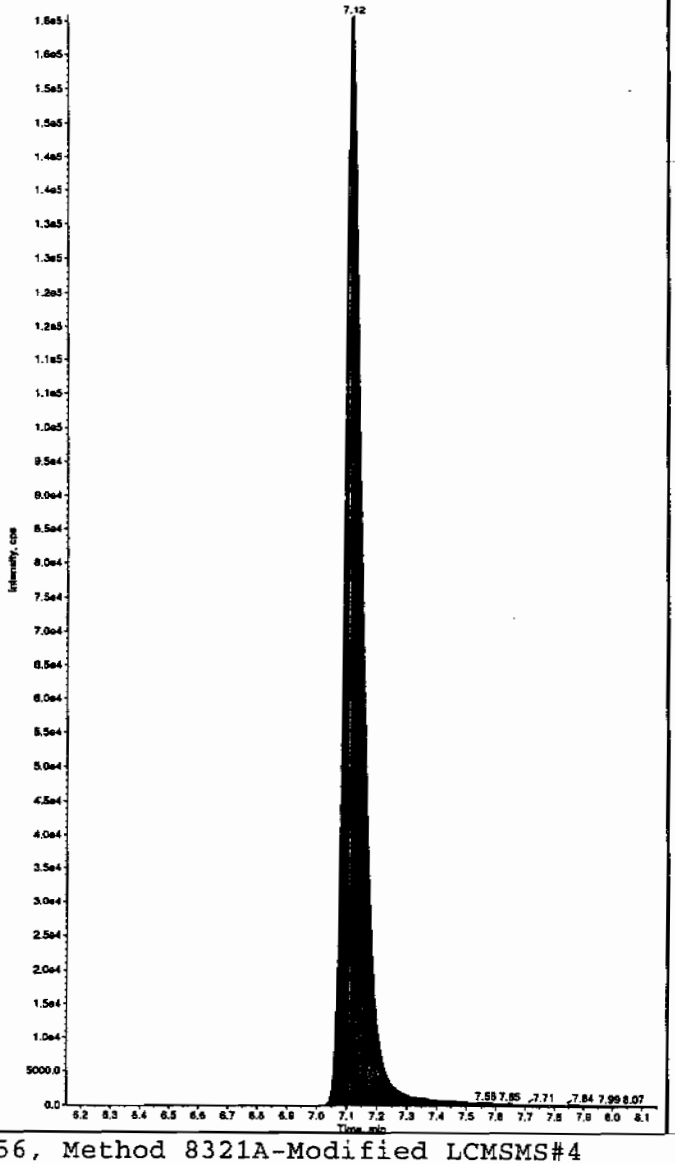

Sample Name: "WXX100214-25CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:40:16 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.33 min
Area: 3.19e+006 counts
Height: 824138.098 cps
Start Time: 8.26 min
End Time: 8.43 min

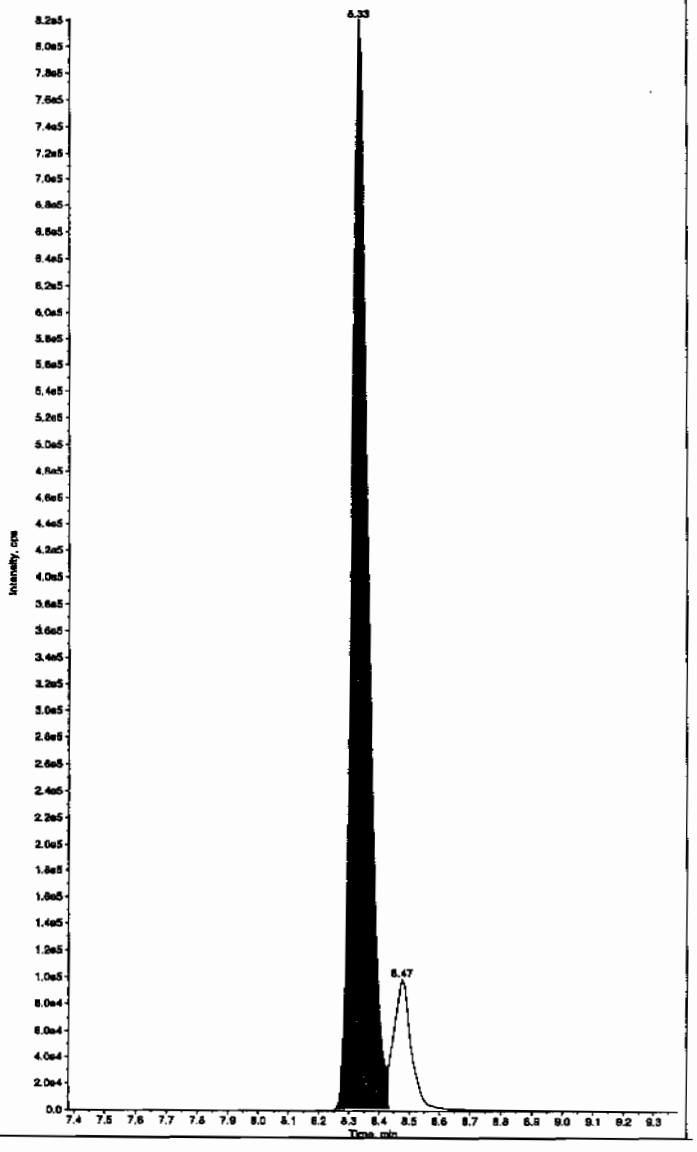

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: "
le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 243. ng/mL
Date: 2/15/2010
Time: 8:40:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
ctad RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.46 min
: 3.18e+006 counts
ht: 852304.749 cps
t Time: 8.39 min
Time: 8.68 min

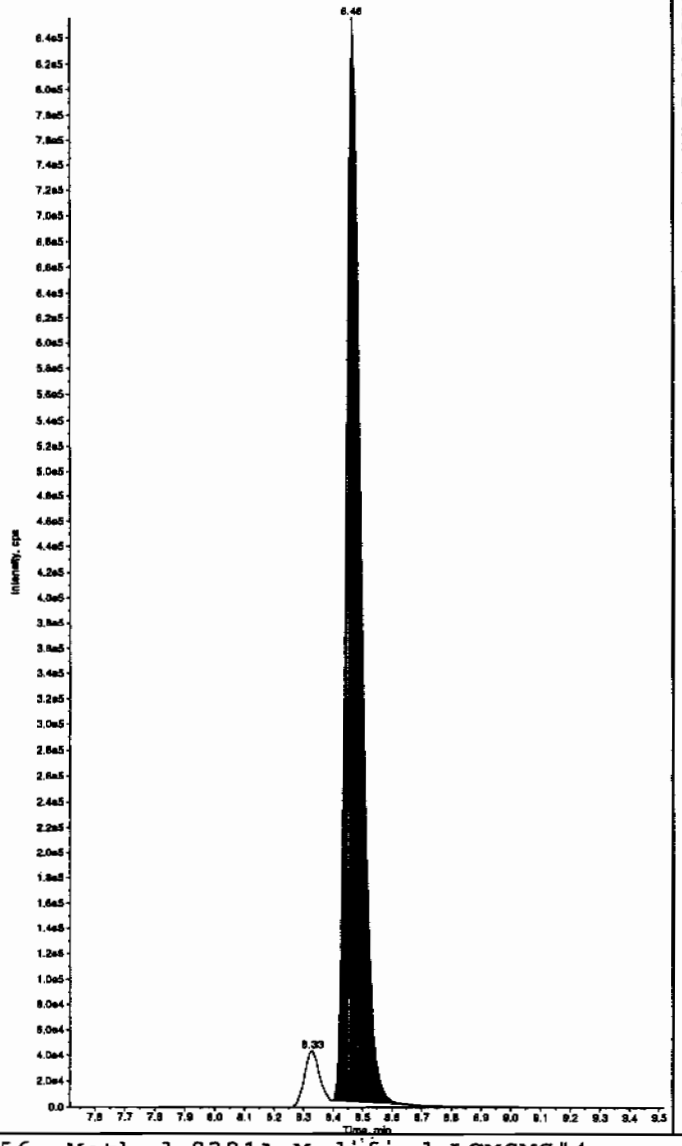

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 441. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:40:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 1.27e+006 counts
Height: 304163.300 cps
Start Time: 5.05 min
End Time: 5.43 min

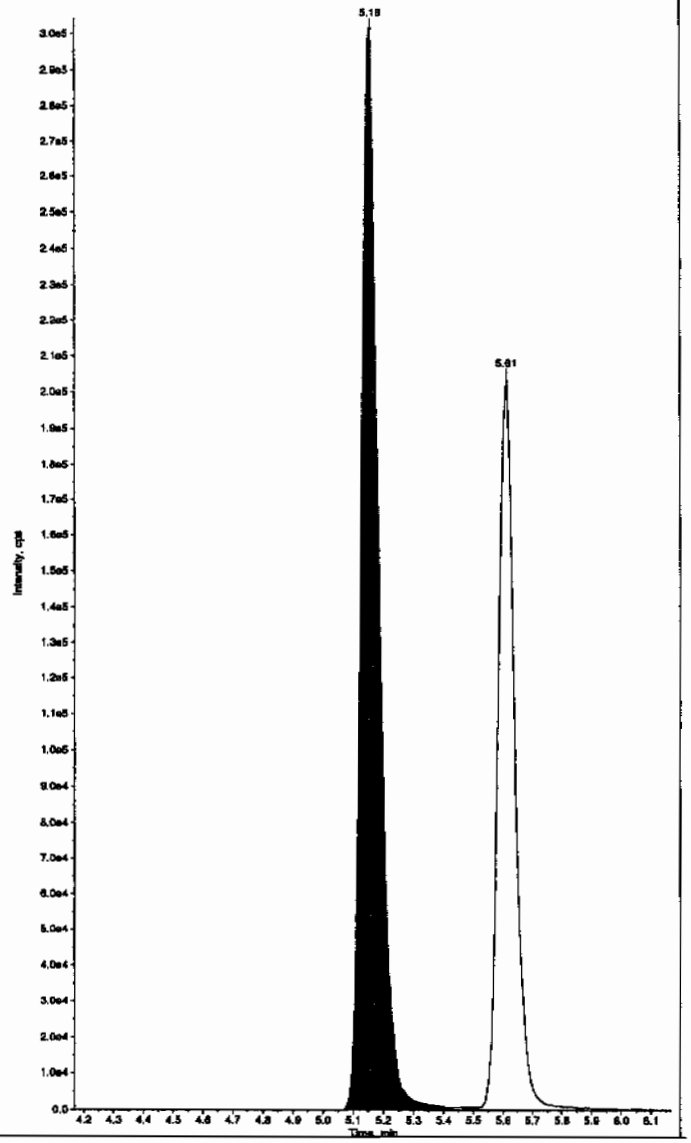

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140117.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: "

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 421. ng/mL
Date: 2/15/2010
Time: 8:40:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
Relative RT: No

Type: Valley
ntion Time: 5.61 min
: 8.03e+005 counts
ht: 206161.860 cps
t Time: 5.48 min
Time: 6.01 min

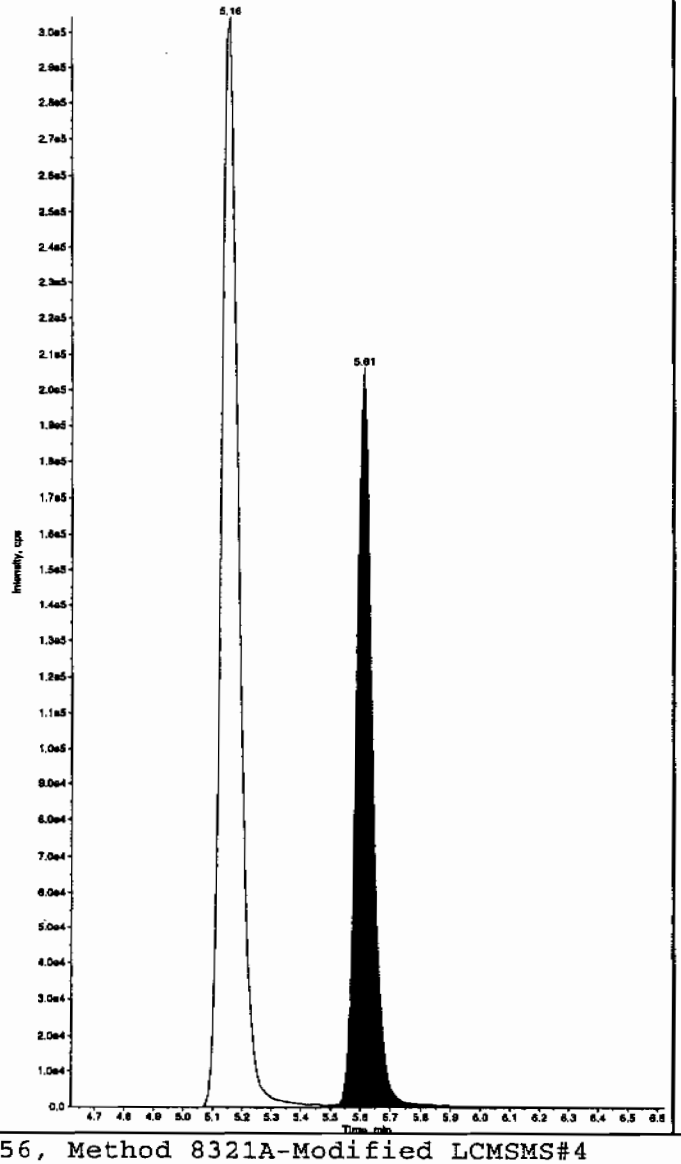

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140117.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:40:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.09e+007 counts
Height: 2489432.617 cps
Start Time: 10.8 min
End Time: 11.3 min

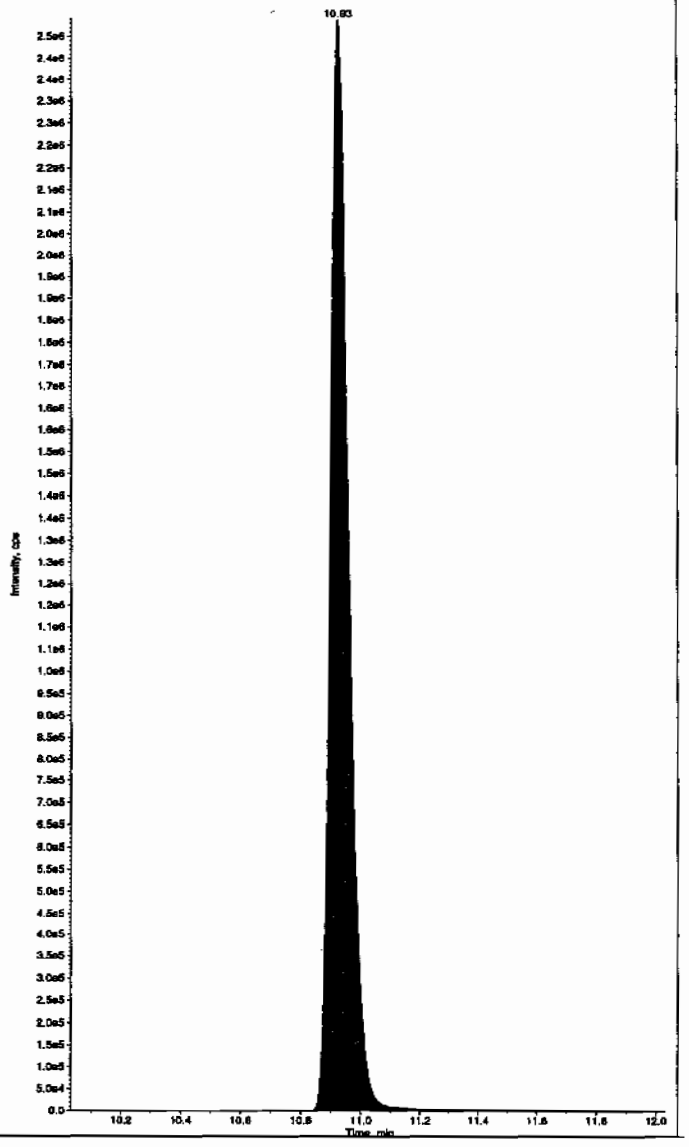

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140119.wiff

Analysis Date: 15-FEB-10 21:11

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	51	102	
3,5-Dinitroaniline	100	95.2	95	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	103	103	
2,4-Diamino-6-nitrotoluene	100	90.9	91	
2,6-Diamino-4-nitrotoluene	100	91.1	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before LCR 2/16/10

nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140119.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 107. ng/mL
Date: 2/15/2010
Time: 9:11:40 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 1.48e+005 counts
ht: 32873.001 cps
t Time: 7.03 min
Time: 7.59 min

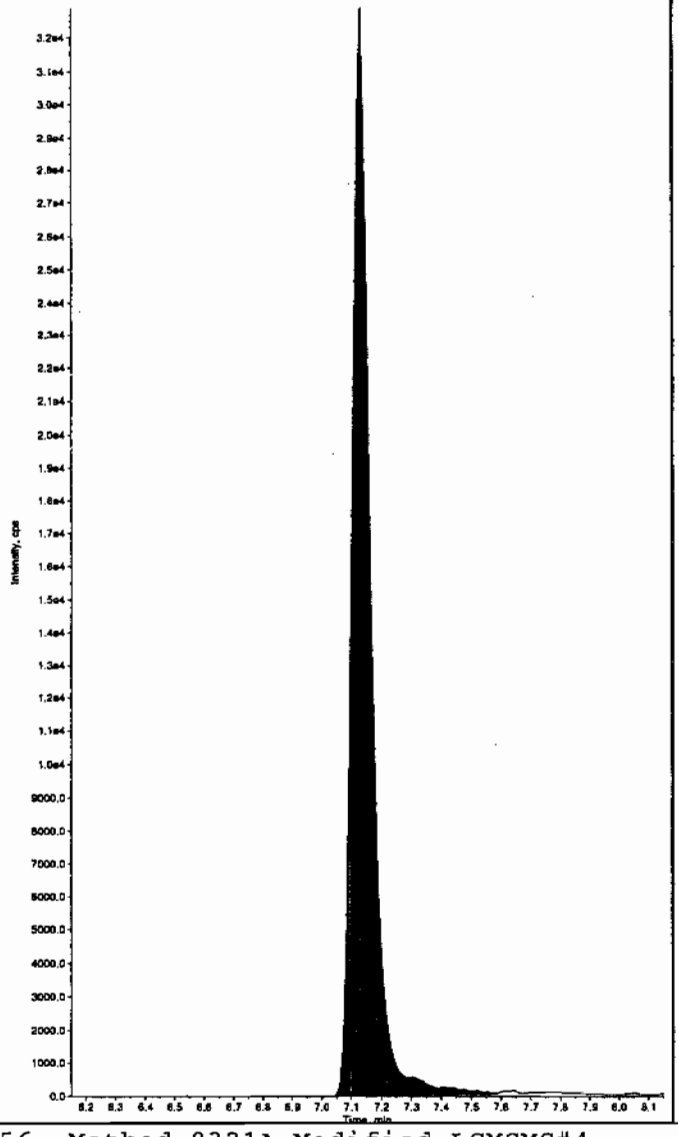

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140119.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:11:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 7.14e+005 counts
Height: 150470.718 cps
Start Time: 8.24 min
End Time: 8.72 min

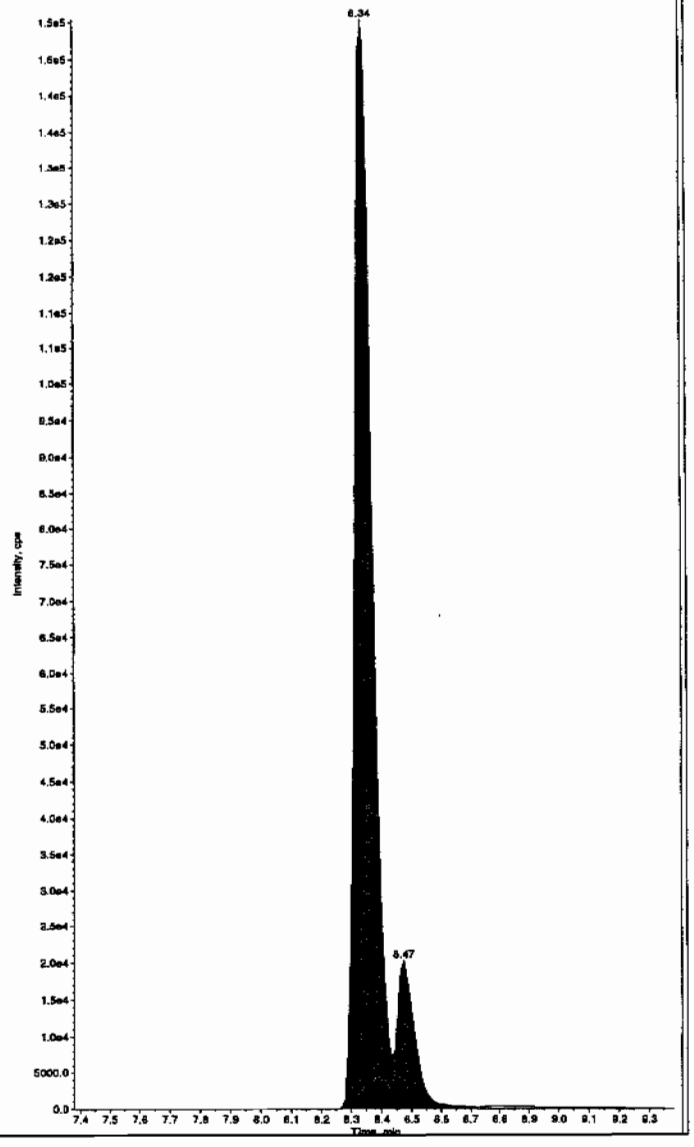

Amm 02/17/10

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Scan 2/17/10

nple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140119.wiff"
k Name: "TATB" Mass(as): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 107. ng/mL
Date: 2/15/2010
Time: 9:11:40 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ation Time: 7.13 min
: 1.48e+005 counts
t: 32873.001 cps
: Time: 7.03 min
Time: 7.59 min

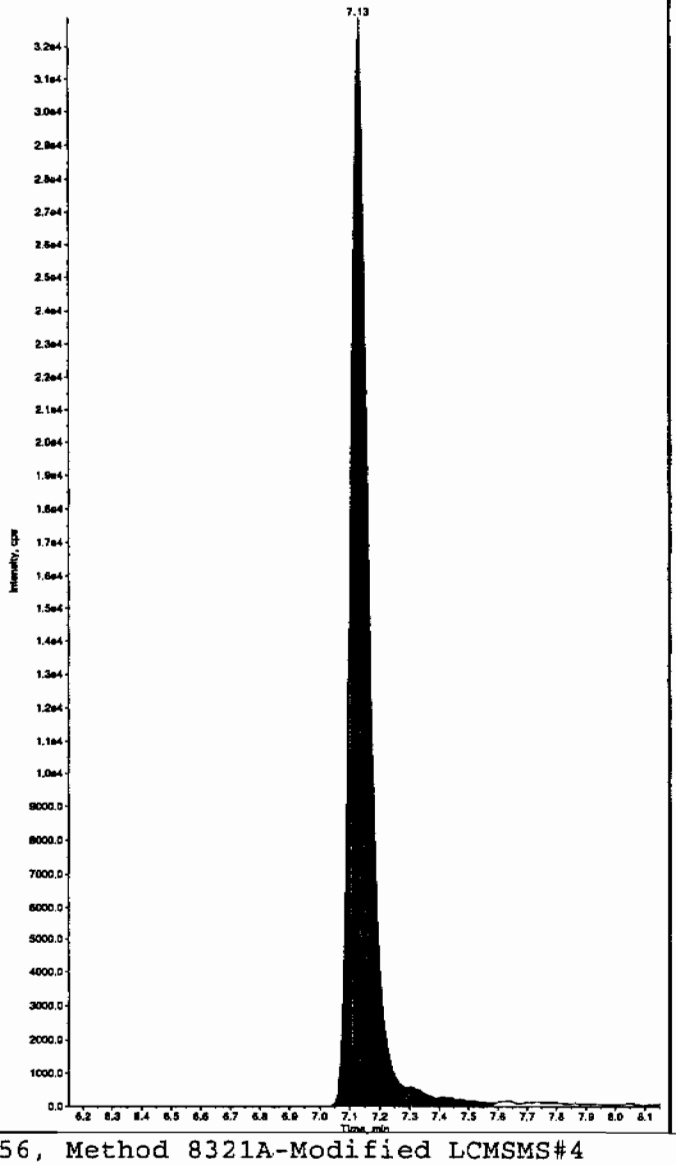

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140119.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.2 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:11:40 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 6.22e+005 counts
Height: 150177.739 cps
Start Time: 8.27 min
End Time: 8.43 min

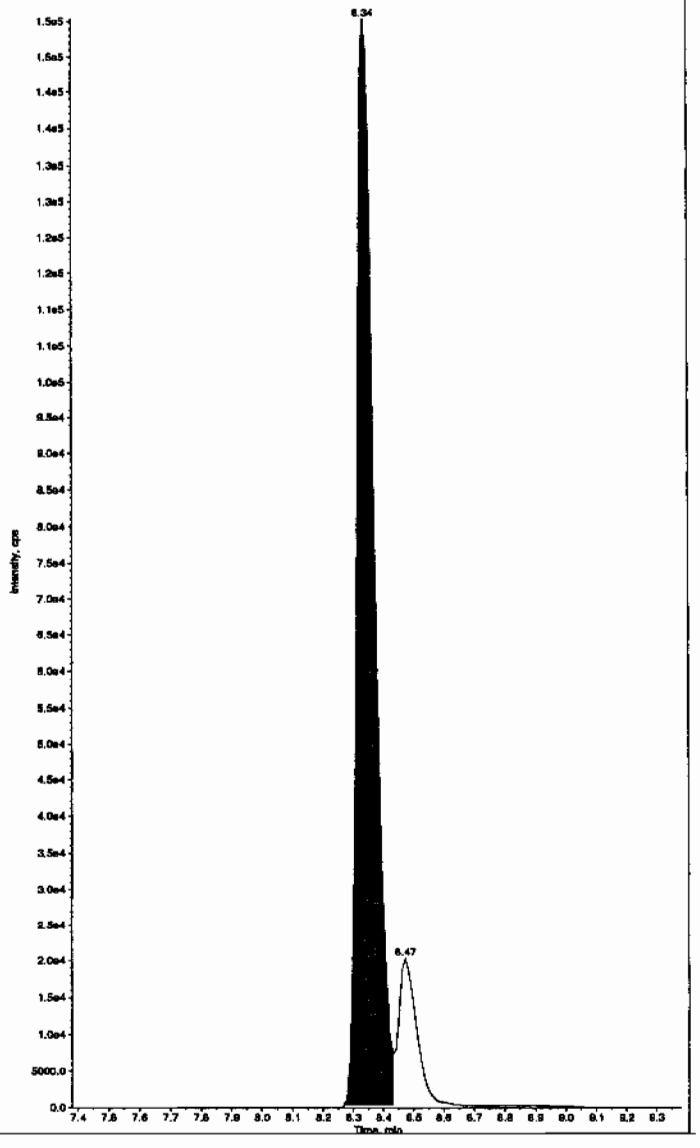

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mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140119.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:        1
le Type:        QC
entration:      50.0    ng/mL
ulated Conc:    51.0    ng/mL
 Date:        2/15/2010
 Time:        9:11:40 PM

fied:           No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
Window:        15.0    sec
cted RT:        8.52   min
 Relative RT:   No

 Type:        Valley
ntion Time:     8.47   min
:          6.50e+005   counts
ht:         182208.466  cps
t Time:         8.40   min
 Time:          8.67   min
```

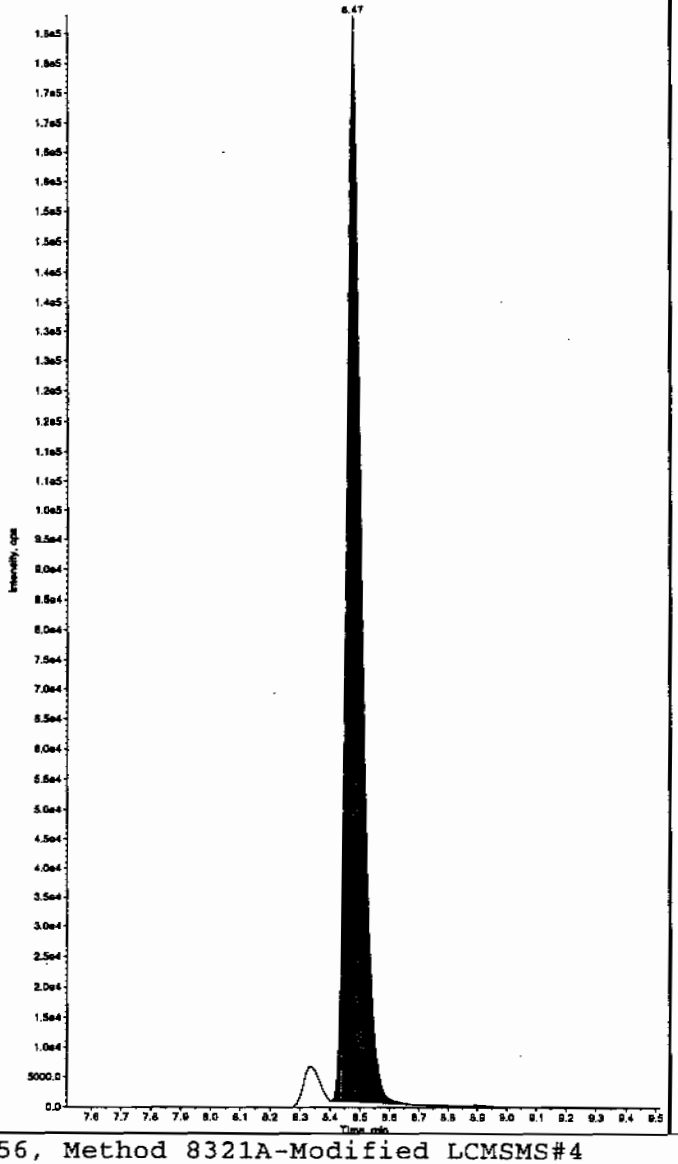

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140119.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.    ng/mL
Calculated Conc:    91.1    ng/mL
Acq. Date:        2/15/2010
Acq. Time:        9:11:40 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        5.17   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.16   min
Area:          2.81e+005   counts
Height:         70540.222  cps
Start Time:         5.04   min
End Time:           5.43   min
```

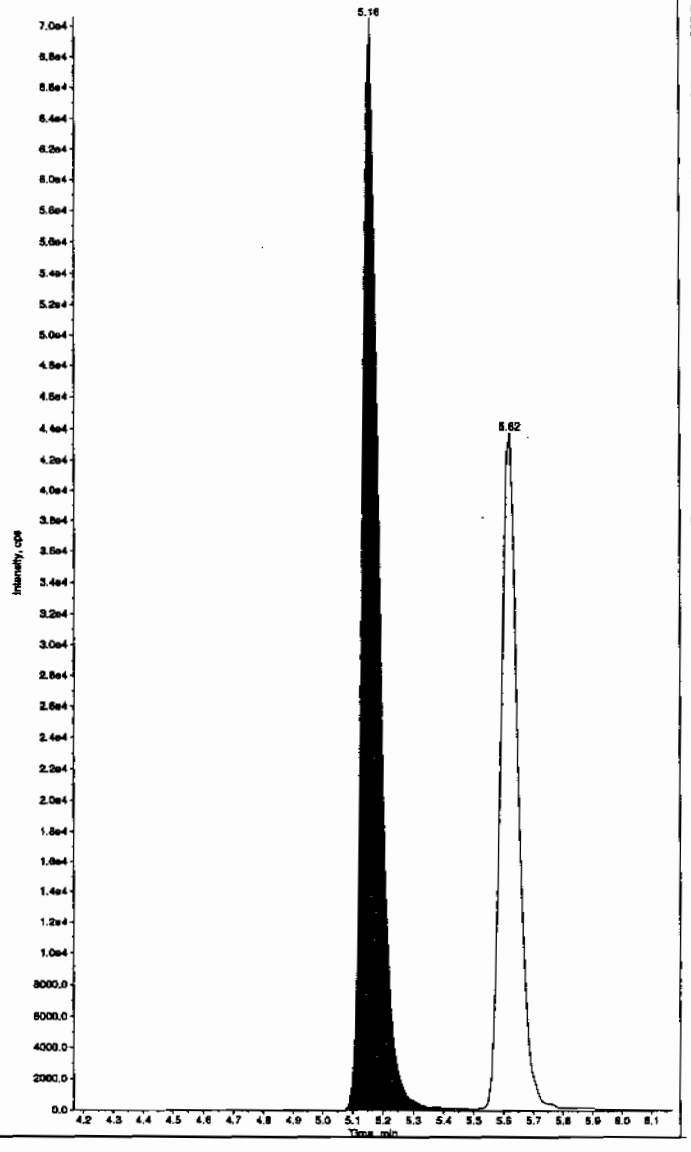

mple Name: "WXX100214-27CRI" Sample ID: "[1|LER" File: "EXS02140119.wiff"
ak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:         100.     ng/mL
ulated Conc:       90.9     ng/mL
 Date:         2/15/2010
 Time:         9:11:40 PM

fied:              No
:. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:          30.0    sec
cted RT:         5.62   min
 Relative RT:    No

 Type:         Valley
ntion Time:      5.62   min
:           1.77e+005   counts
ht:           43756.508  cps
t Time:          5.49   min
Time:            6.03   min
```

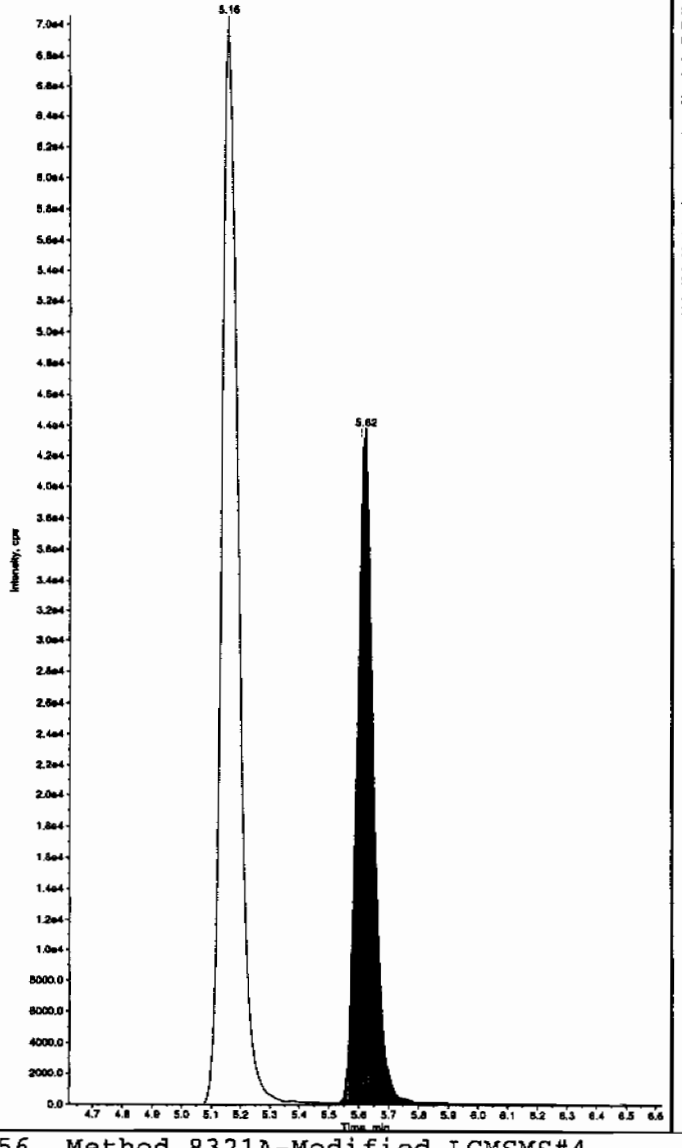

Sample Name: "WXX100214-27CRI" Sample ID: "[1|LER" File: "EXS02140119.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       103.     ng/mL
Acq. Date:         2/15/2010
Acq. Time:         9:11:40 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        11.0    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9    min
Area:          2.46e+006   counts
Height:          602911.377  cps
Start Time:         10.8    min
End Time:           11.3    min
```

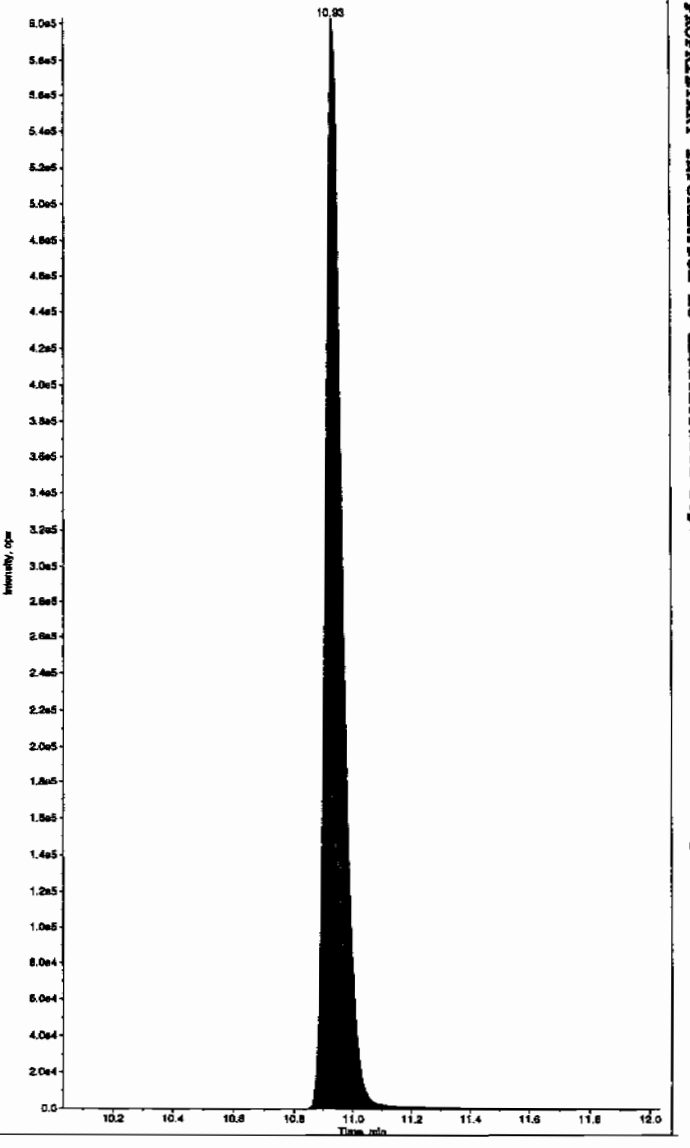

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140130.wiff

Analysis Date: 16–FEB–10 00:04

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	372	74	
2,6–Diamino–4–nitrotoluene	500	423	85	
3,4–Dinitrotoluene	250	233	93	
3,5–Dinitroaniline	500	479	96	
TATB	500	493	99	
tris(o–cresyl) phosphate	500	494	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcr 2/16/10

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:        QC
entration:      500.     ng/mL
ulated Conc:    493.     ng/mL
 Date:        2/16/2010
 Time:        12:04:15 AM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:        30.0    sec
cted RT:       7.15   min
 Relative RT:    No

 Type:        Valley
ntion Time:    7.12   min
:          6.89e+005  counts
ht:         160141.463  cps
t Time:        7.00   min
Time:          7.72   min
```

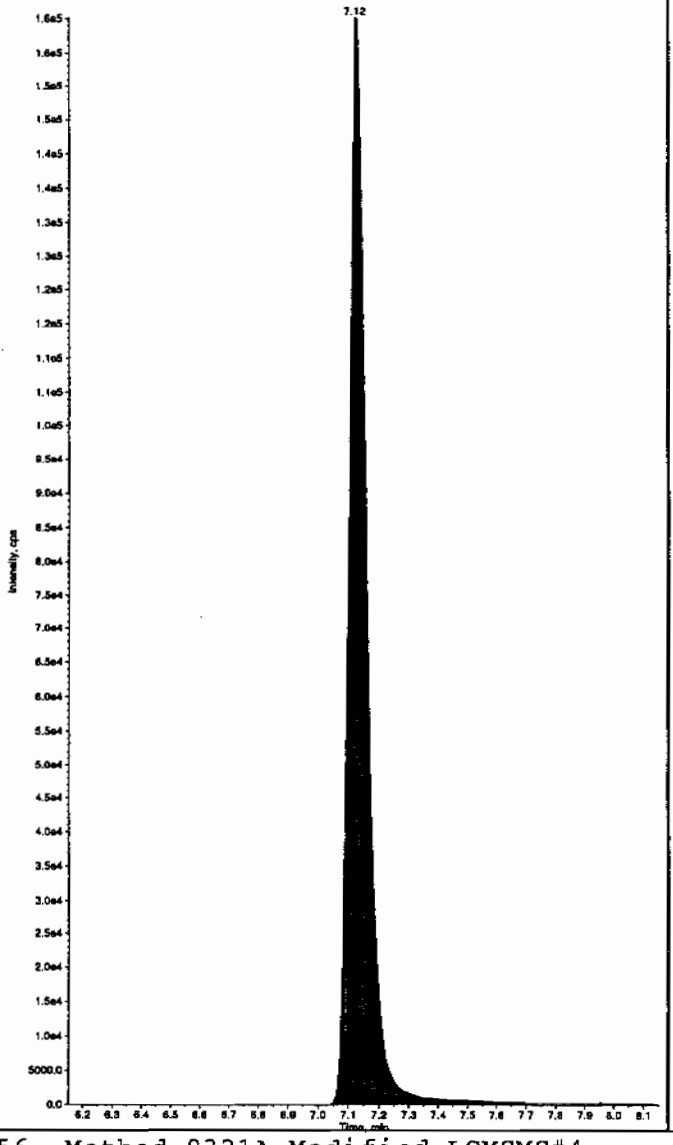

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    549.     ng/mL
Acq. Date:        2/16/2010
Acq. Time:        12:04:15 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         15.0    sec
Expected RT:        8.38   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.34   min
Area:          3.58e+006  counts
Height:         809851.135  cps
Start Time:         8.24   min
End Time:           8.76   min
```

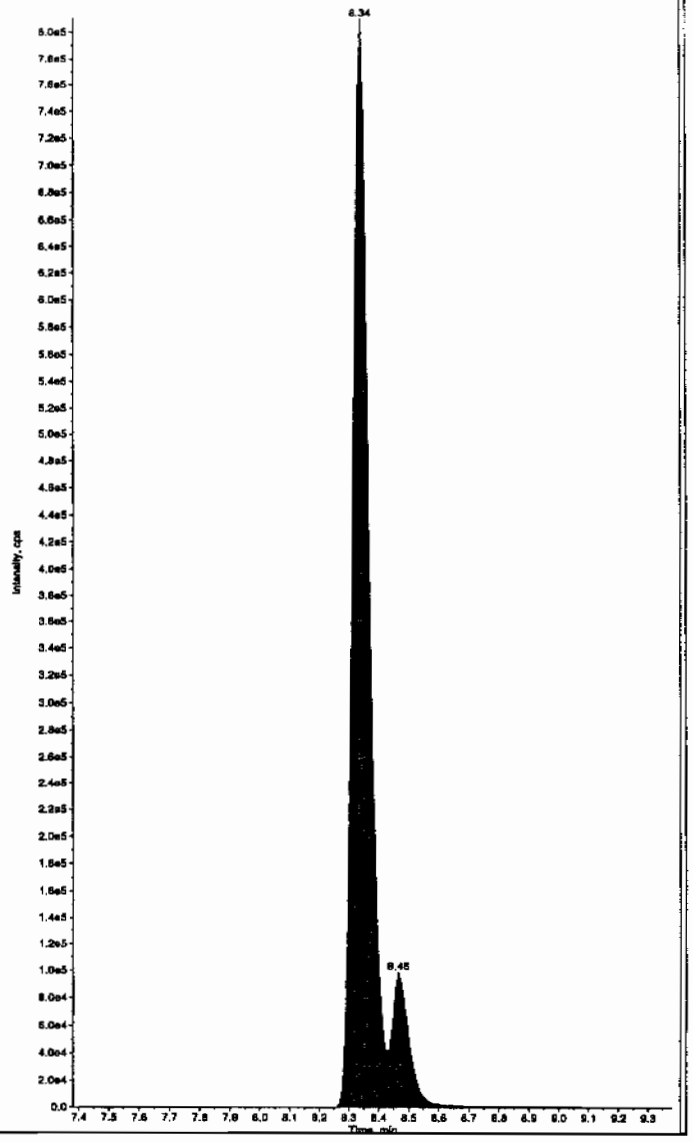

HTM 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Dan 2/17/10

umple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 493. ng/mL
. Date: 2/16/2010
. Time: 12:04:15 AM

.fied: No
:. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.12 min
: 5.89e+005 counts
ght: 160143.463 cps
t Time: 7.00 min
Time: 7.72 min

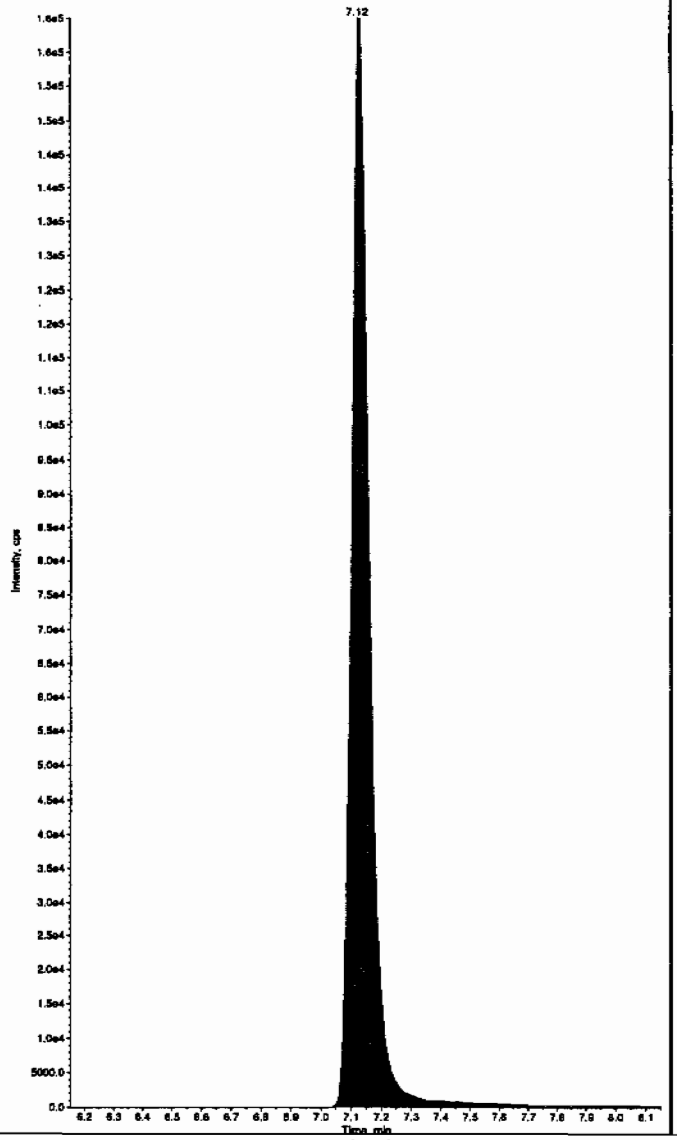

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 479. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:04:15 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 3.14e+006 counts
Height: 808302.605 cps
Start Time: 8.26 min
End Time: 8.42 min

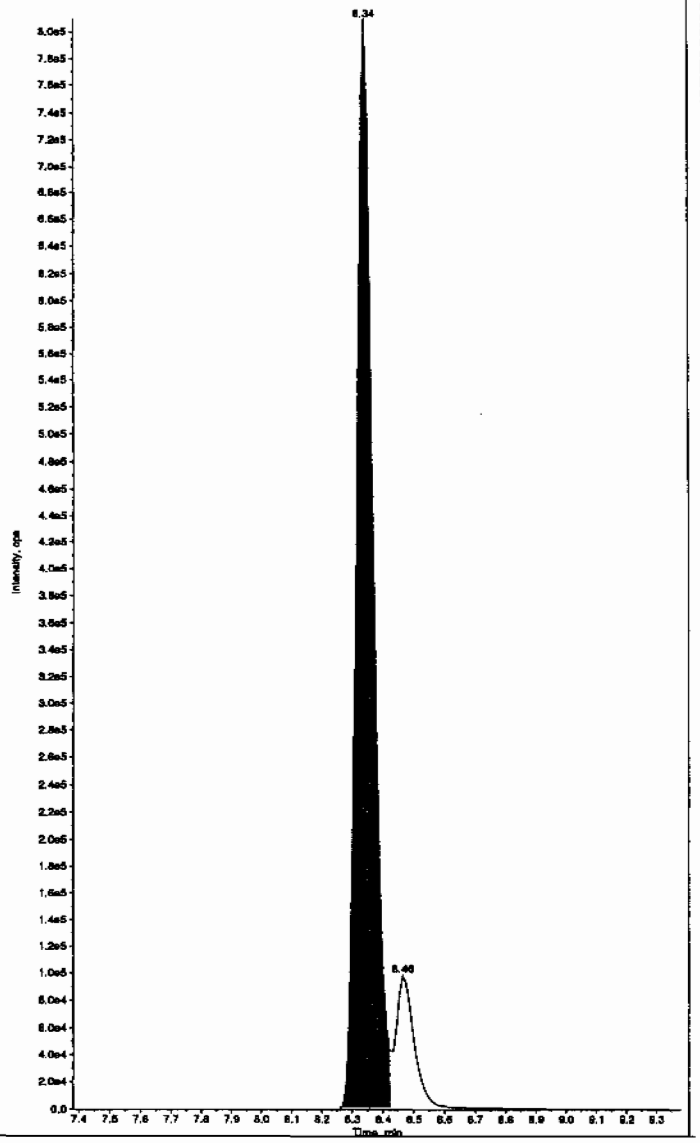

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 233. ng/mL
Date: 2/16/2010
Time: 12:04:15 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.46 min
: 3.05e+006 counts
ht: 864027.710 cps
t Time: 8.39 min
Time: 8.67 min

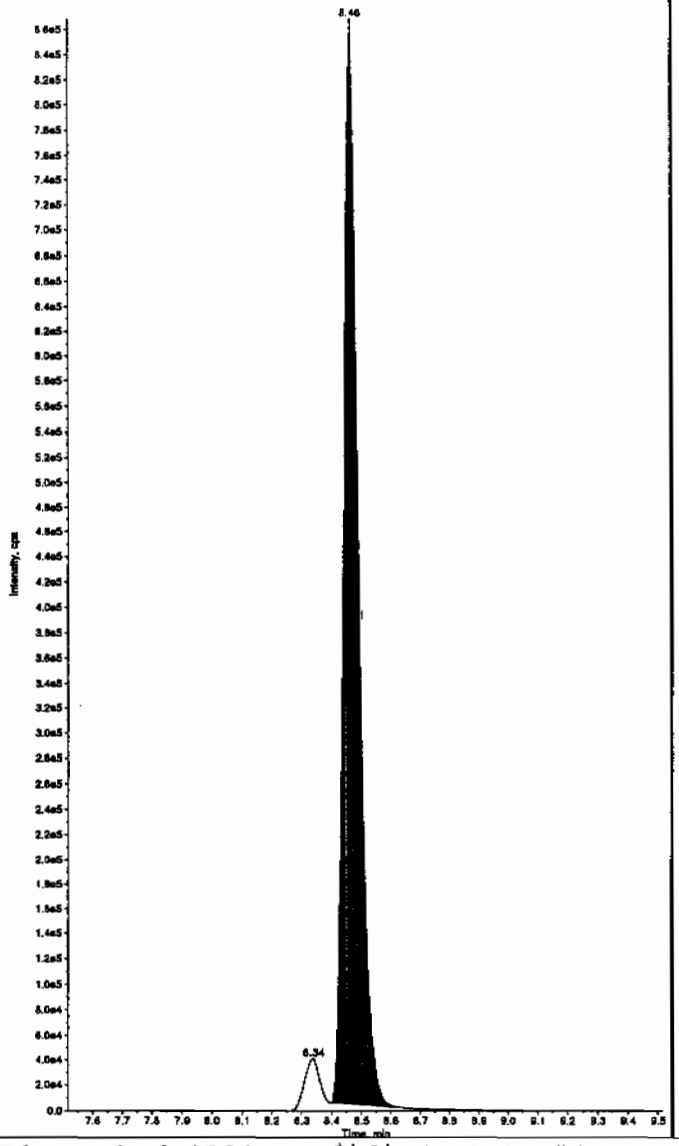

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 423. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:04:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 1.22e+006 counts
Height: 305994.171 cps
Start Time: 5.05 min
End Time: 5.43 min

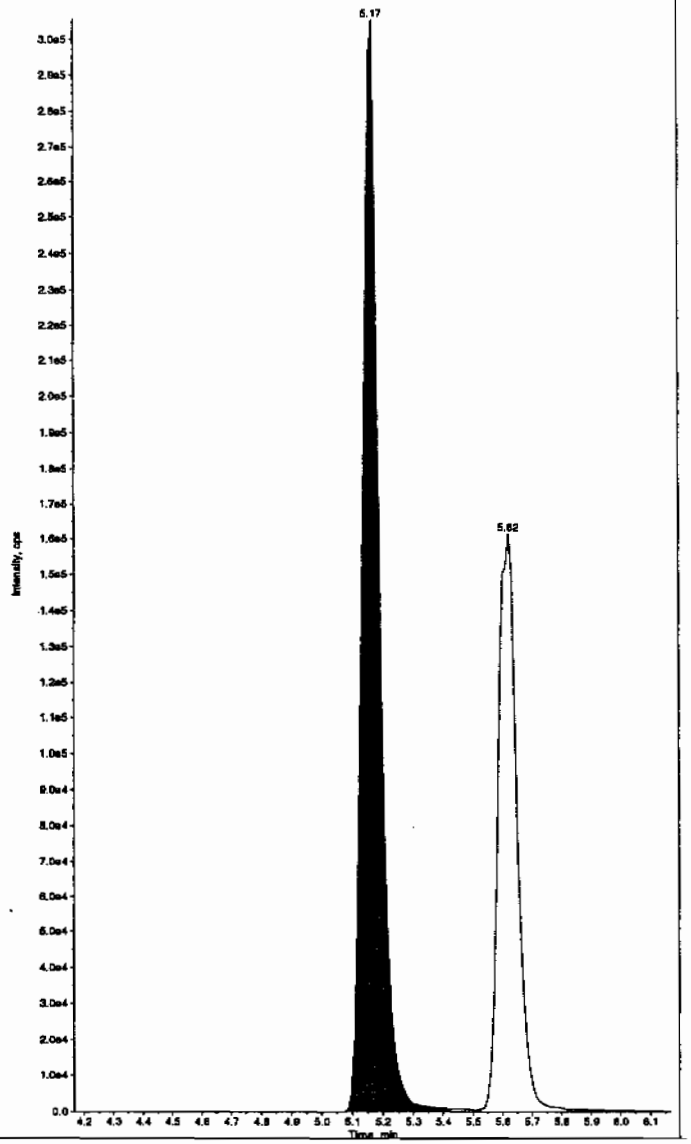

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mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
sk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 372. ng/mL
Date: 2/16/2010
Time: 12:04:15 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
Relative RT: No

Type: Valley
ntion Time: 5.62 min
: 7.10e+005 counts
ht: 160909.149 cps
t Time: 5.53 min
Time: 5.95 min

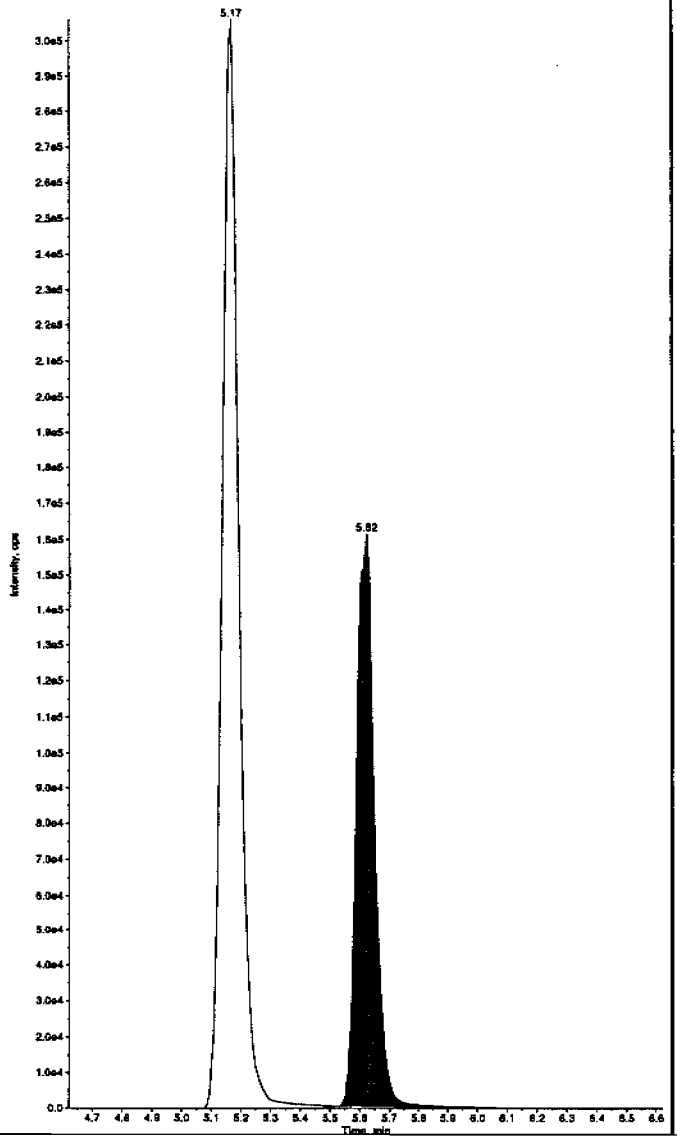

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 494. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:04:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.08e+007 counts
Height: 2531528.809 cps
Start Time: 10.8 min
End Time: 11.3 min

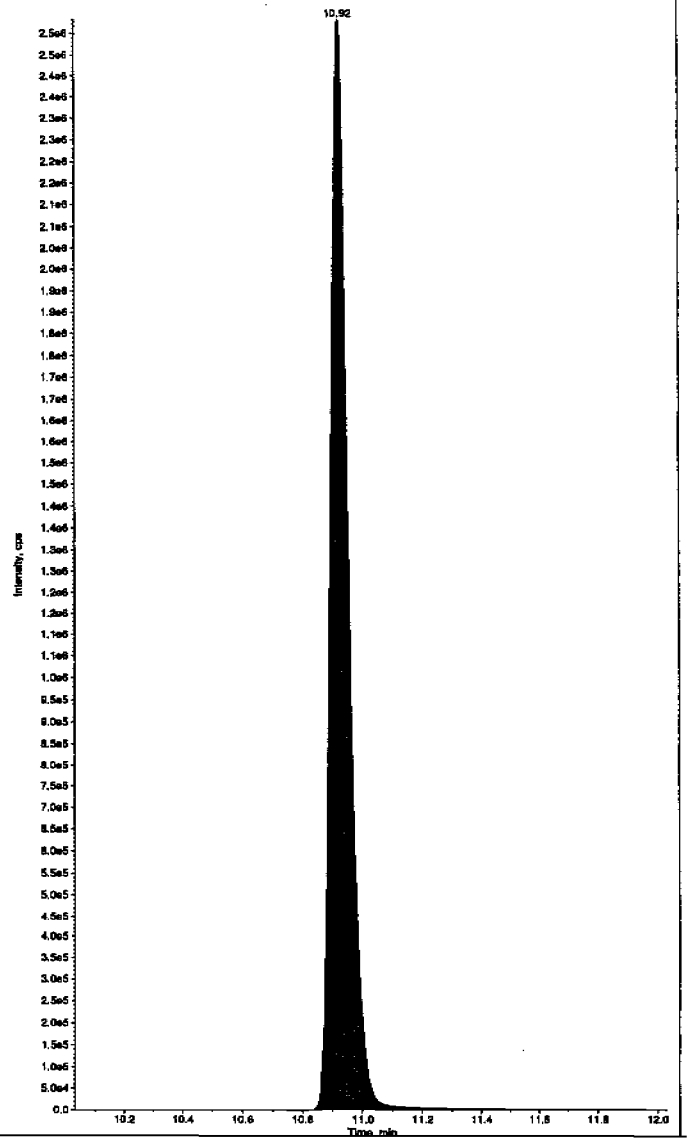

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140132.wiff

Analysis Date: 16–FEB–10 00:35

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	82	82	
2,6–Diamino–4–nitrotoluene	100	81.2	81	
3,4–Dinitrotoluene	50	47.5	95	
3,5–Dinitroaniline	100	98.2	98	
TATB	100	109	109	
tris(o–cresyl) phosphate	100	102	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcr 2/16/10

mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
entration: 100. ng/mL
ulated Conc: 109. ng/mL
Date: 2/16/2010
Time: 12:35:39 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 1.50e+005 counts
ht: 35240.875 cps
t Time: 7.01 min
Time: 7.60 min

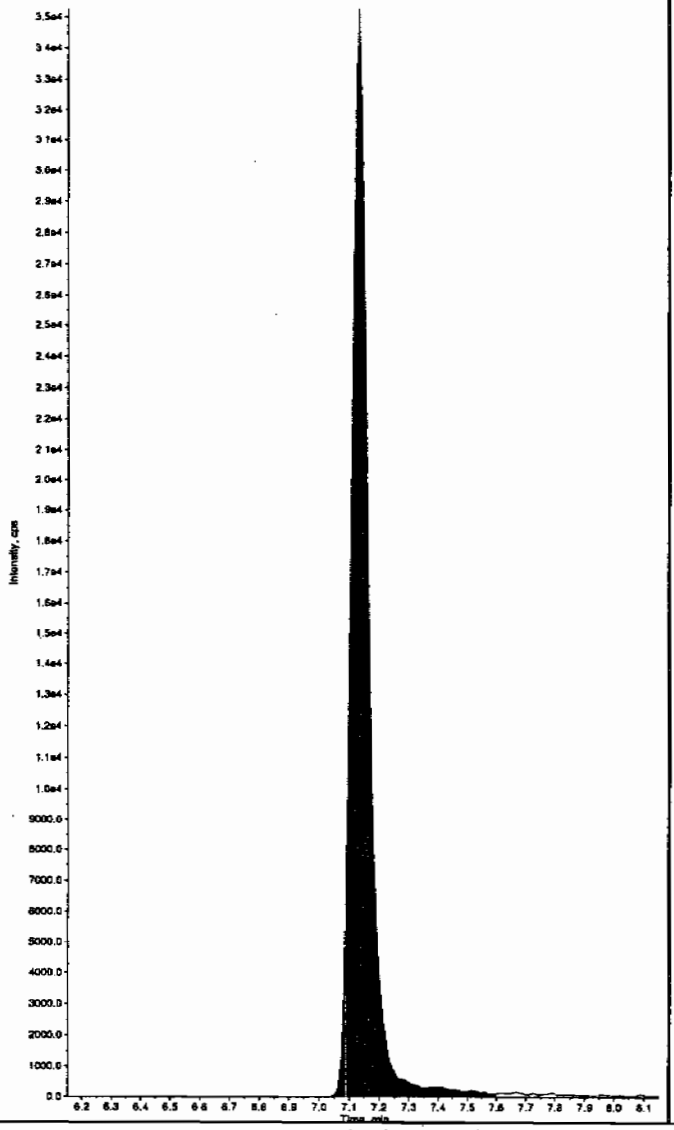

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:35:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 7.38e+005 counts
Height: 167485.062 cps
Start Time: 8.24 min
End Time: 8.71 min

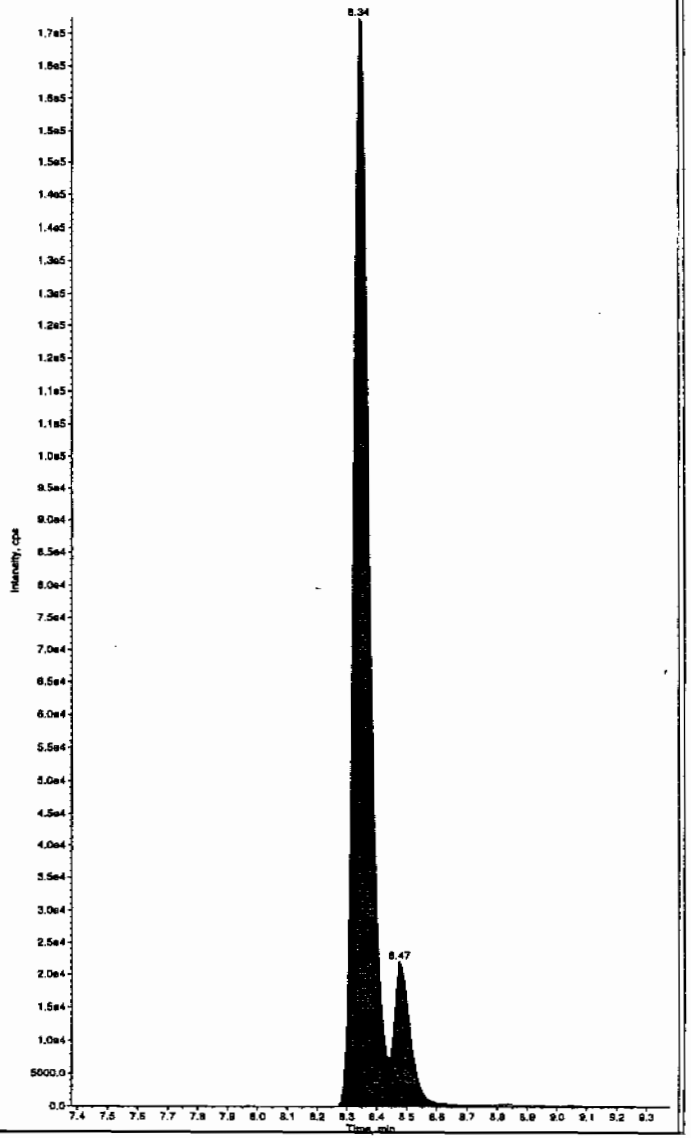

Anm 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Run 2/17/10

mple Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140132.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 109. ng/mL
Date: 2/16/2010
Time: 12:35:39 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 1.50e+005 counts
ht: 35240.875 cps
t Time: 7.01 min
Time: 7.60 min

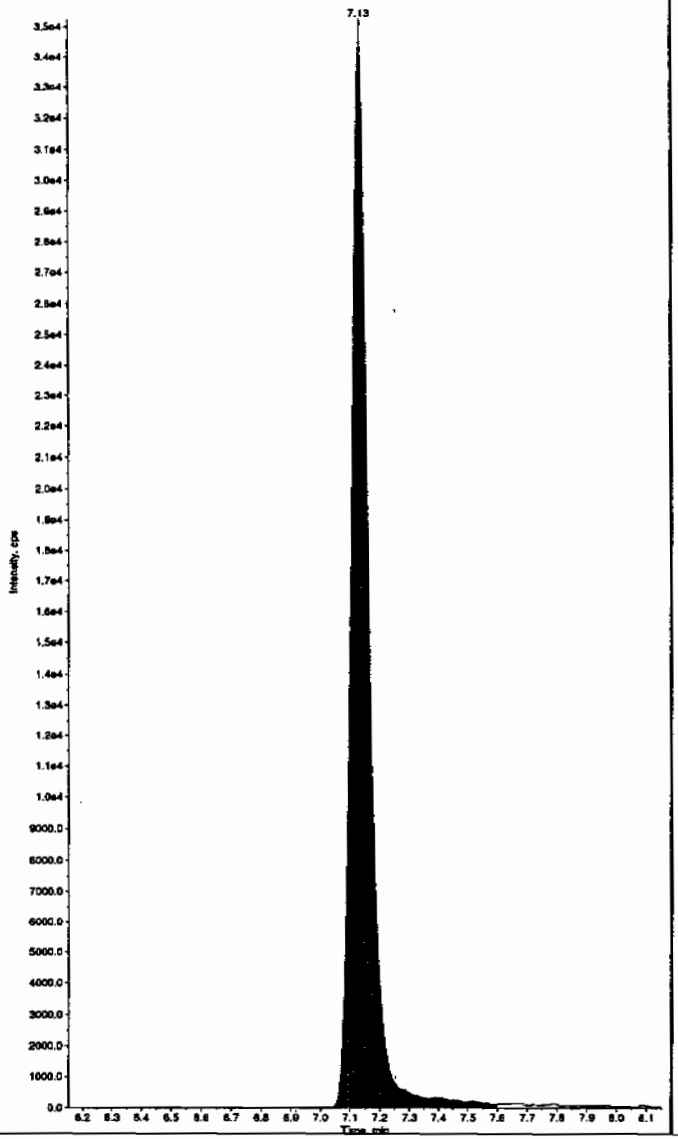

Sample Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140132.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.2 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:35:39 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 6.42e+005 counts
Height: 170297.548 cps
Start Time: 8.27 min
End Time: 8.43 min

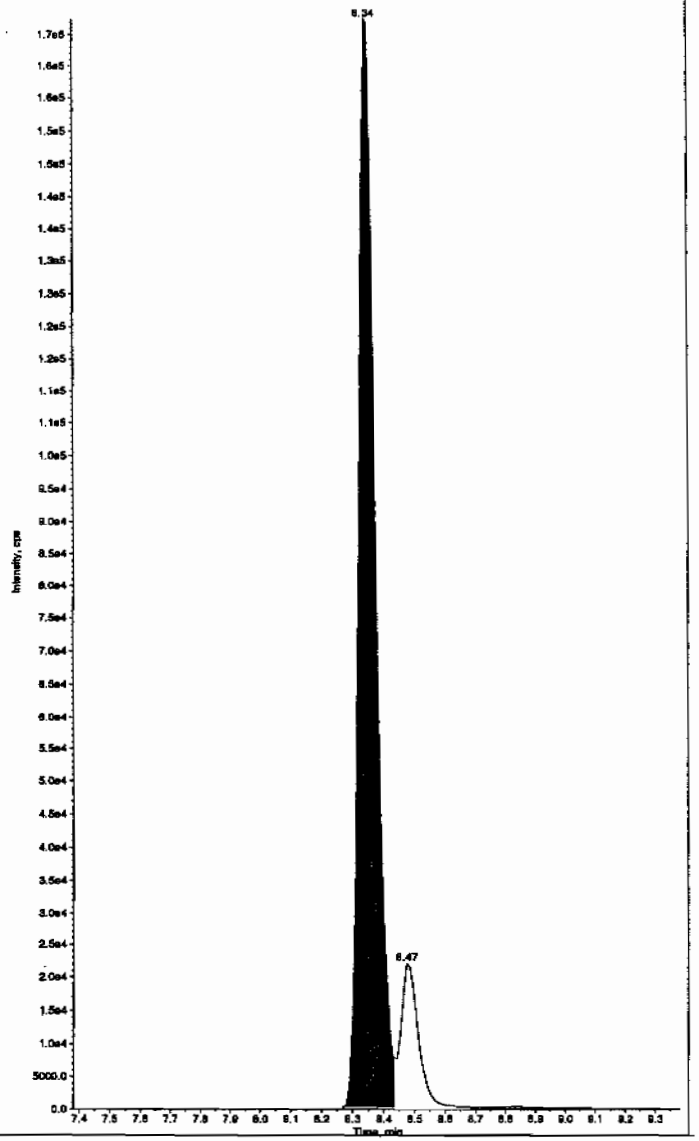

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
entration:       50.0    ng/mL
culated Conc:    47.5    ng/mL
  Date:        2/16/2010
  Time:        12:35:39 AM

fied:              No
. Algorithm: IntelliQuan - IQA
  Peak Height:1460.00   cps
  Peak Width:    0.00   sec
thing Width:  3        points
Window:         15.0    sec
cted RT:         8.52   min
 Relative RT:    No

 Type:         Valley
ntion Time:      8.47   min
:          6.01e+005   counts
ht:          158457.733  cps
t Time:          8.40   min
Time:            8.71   min
```

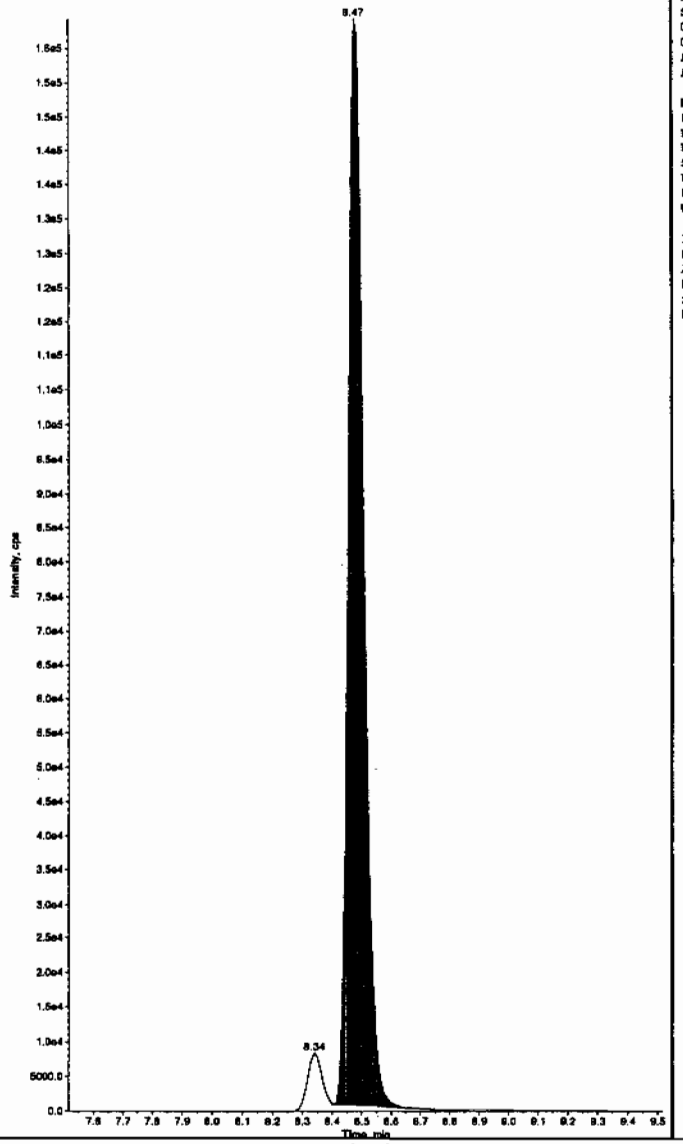

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.    ng/mL
Calculated Conc:     81.2    ng/mL
Acq. Date:        2/16/2010
Acq. Time:        12:35:39 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         5.17   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:      5.16   min
Area:          2.54e+005   counts
Height:        66551.041   cps
Start Time:          5.05   min
End Time:            5.45   min
```

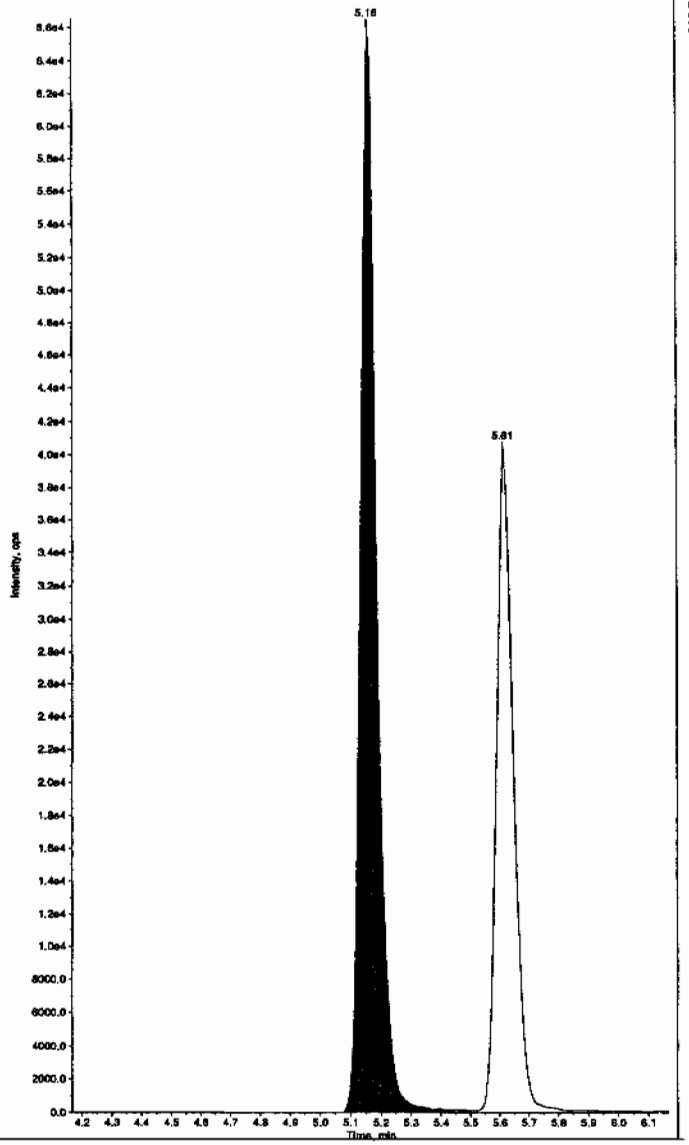

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140132.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:       100.     ng/mL
ulated Conc:     82.0     ng/mL
 Date:        2/16/2010
 Time:        12:35:39 AM

fied:             No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:          30.0    sec
cted RT:         5.62   min
Relative RT:     No

 Type:         Valley
ntion Time:      5.61   min
:            1.60e+005  counts
ht:          40674.870  cps
t Time:          5.52   min
Time:            5.84   min
```

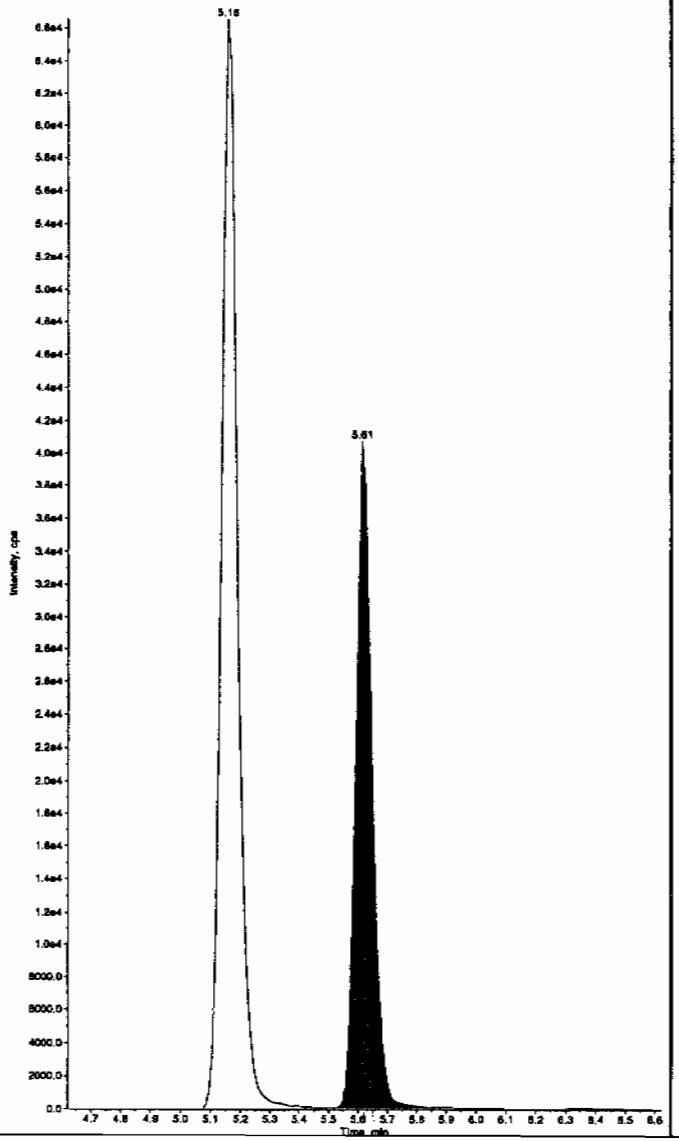

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140132.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     100.     ng/mL
Calculated Conc:   102.     ng/mL
Acq. Date:       2/16/2010
Acq. Time:       12:35:39 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       11.0     min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    11.0     min
Area:        2.44e+006    counts
Height:      600497.253   cps
Start Time:        10.8     min
End Time:          11.3     min
```

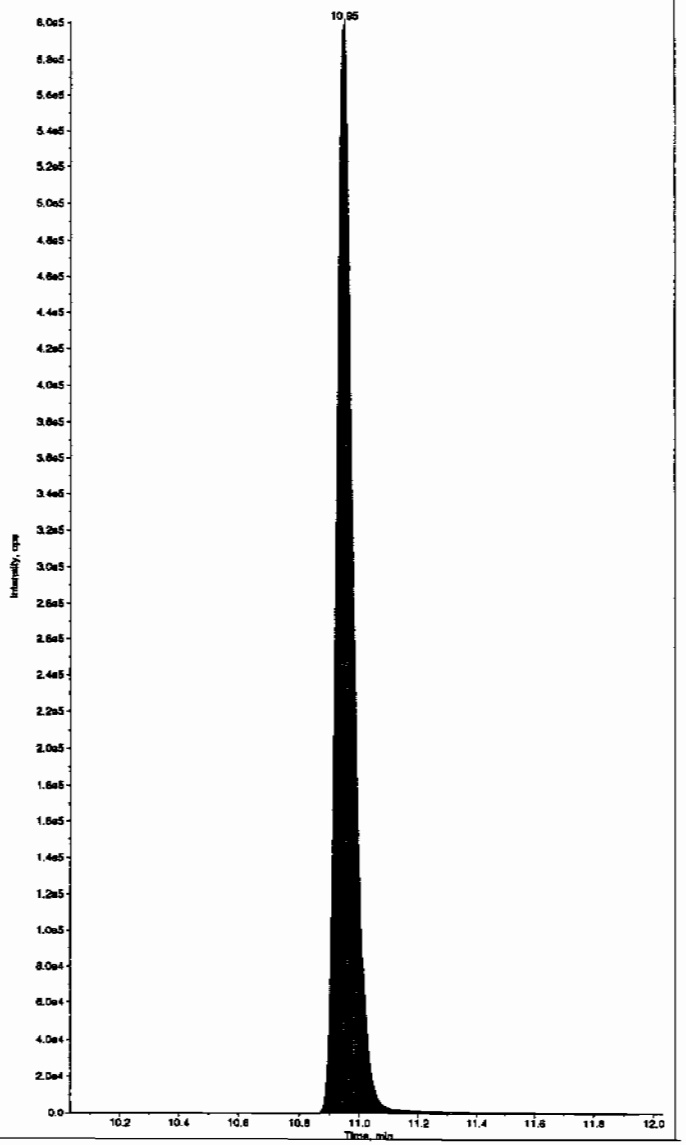

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140140.wiff

Analysis Date: 16–FEB–10 02:41

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	353	71	
2,6–Diamino–4–nitrotoluene	500	427	86	
3,4–Dinitrotoluene	250	244	98	
3,5–Dinitroaniline	500	466	93	
TATB	500	488	98	
tris(o–cresyl) phosphate	500	495	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/17/10

mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140140.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 488. ng/mL
. Date: 2/16/2010
. Time: 2:41:13 AM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

. Type: Valley
ention Time: 7.13 min
: 5.81e+005 counts
ght: 158684.143 cps
t Time: 7.00 min
Time: 7.87 min

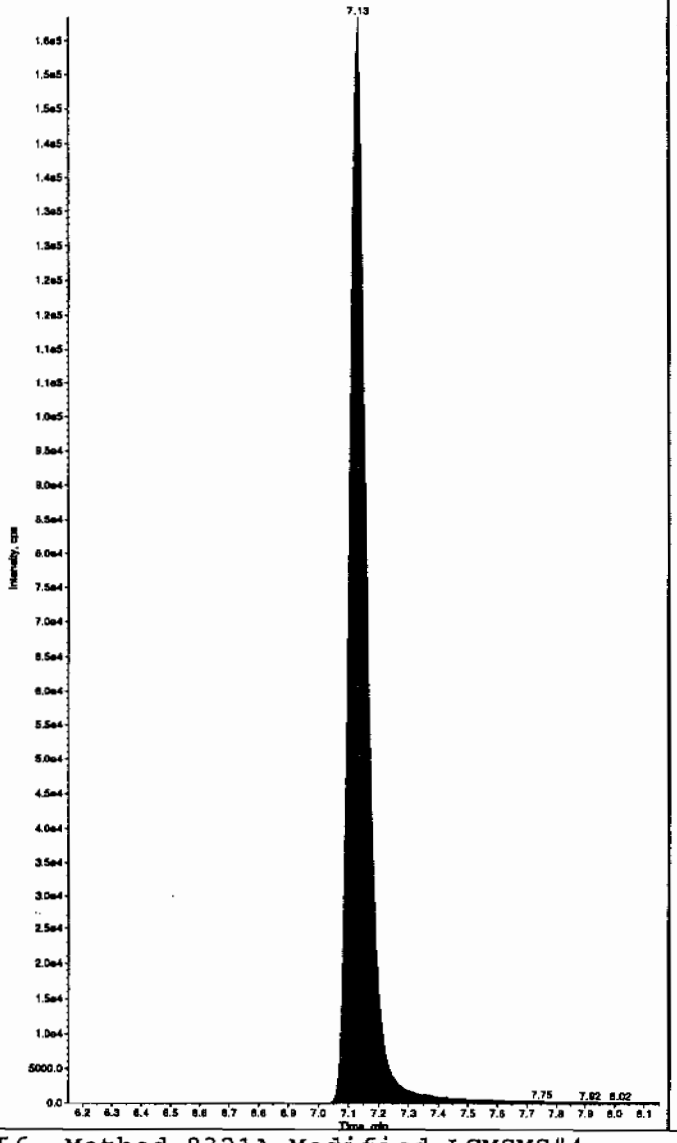

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140140.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 466. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:41:13 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.31 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 3.05e+006 counts
Height: 763088.074 cps
Start Time: 8.25 min
End Time: 8.43 min

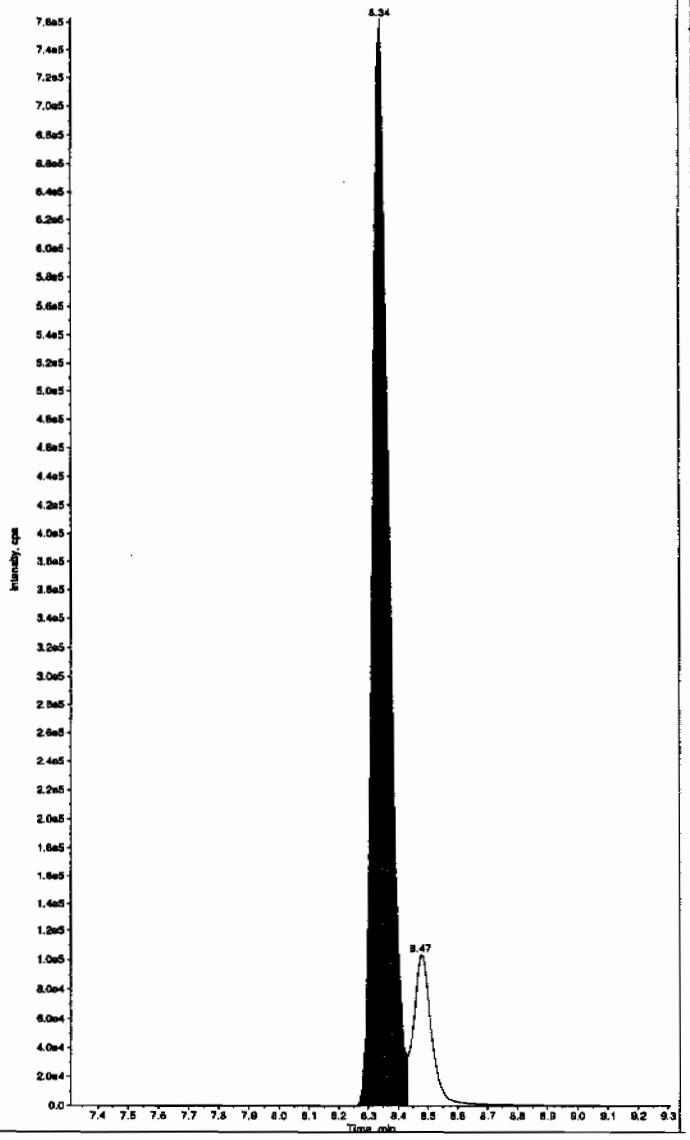

thm 02/17/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140140.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 244. ng/mL
Date: 2/16/2010
Time: 2:41:13 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.47 min
: 3.19e+006 counts
ht: 878645.752 cps
t Time: 8.40 min
Time: 8.69 min

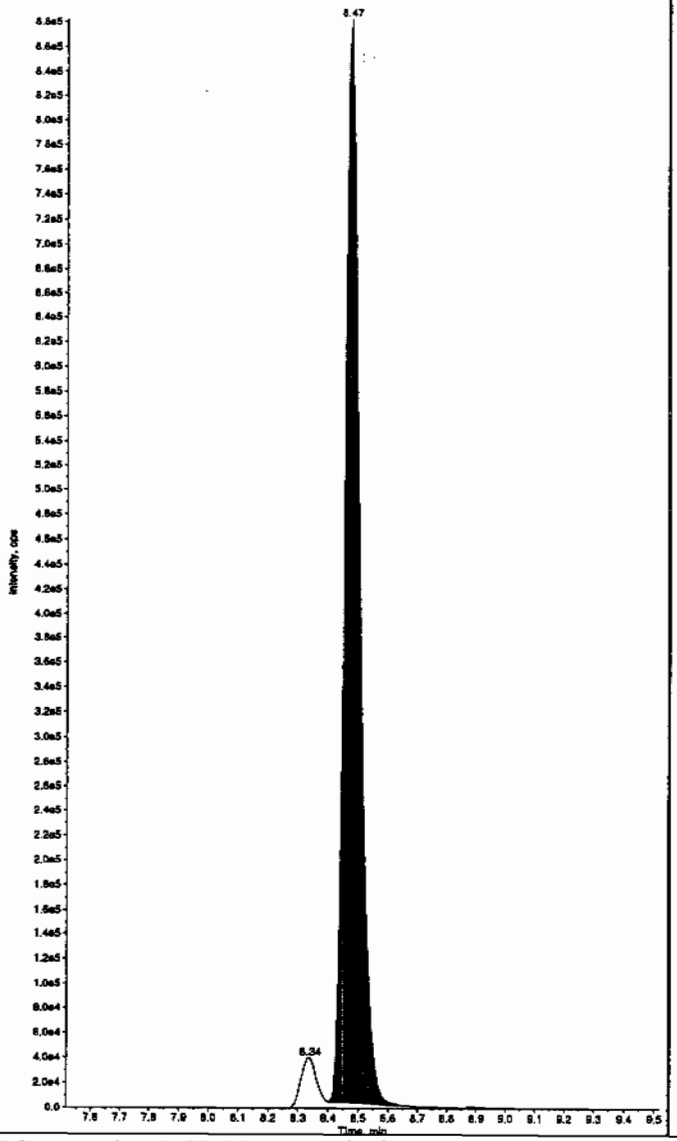

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140140.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 427. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:41:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 1.23e+006 counts
Height: 312667.969 cps
Start Time: 5.05 min
End Time: 5.46 min

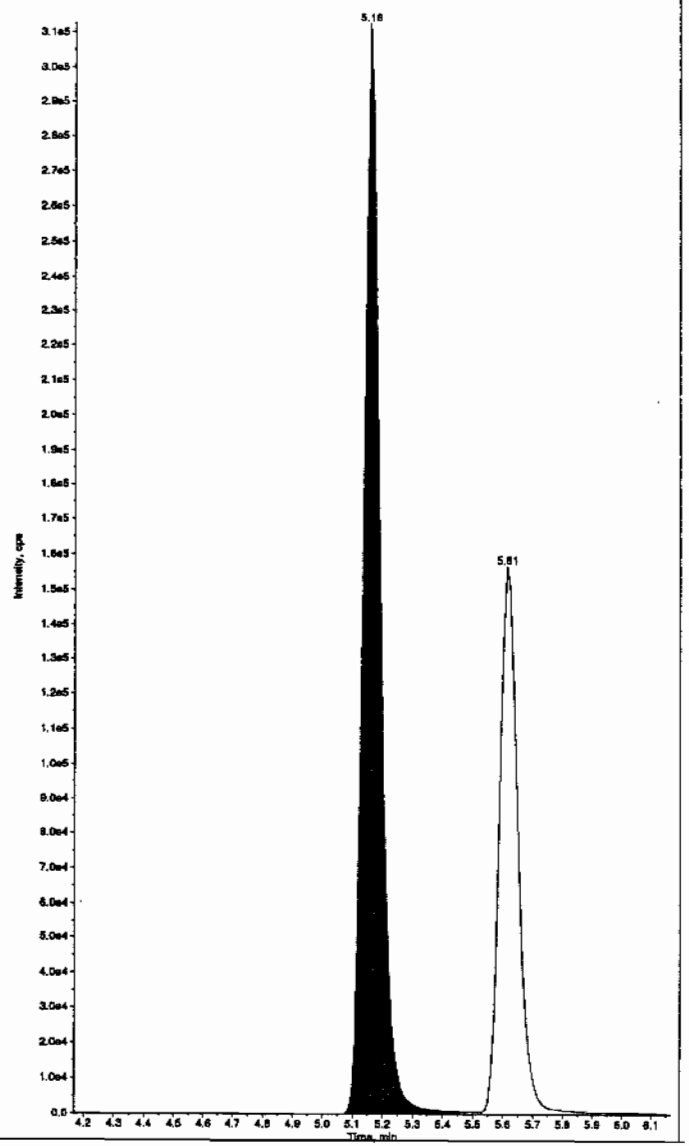

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mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140140.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:          QC
centration:       500.     ng/mL
culated Conc:     353.     ng/mL
. Date:        2/16/2010
. Time:        2:41:13 AM

lfied:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00   cps
. Peak Width:    0.00   sec
othing Width:  3        points
Window:         30.0    sec
cted RT:        5.62    min
 Relative RT:   No

. Type:        Valley
ention Time:    5.61    min
:          6.74e+005   counts
ght:        156523.148  cps
t Time:         5.53    min
 Time:          5.91    min
```

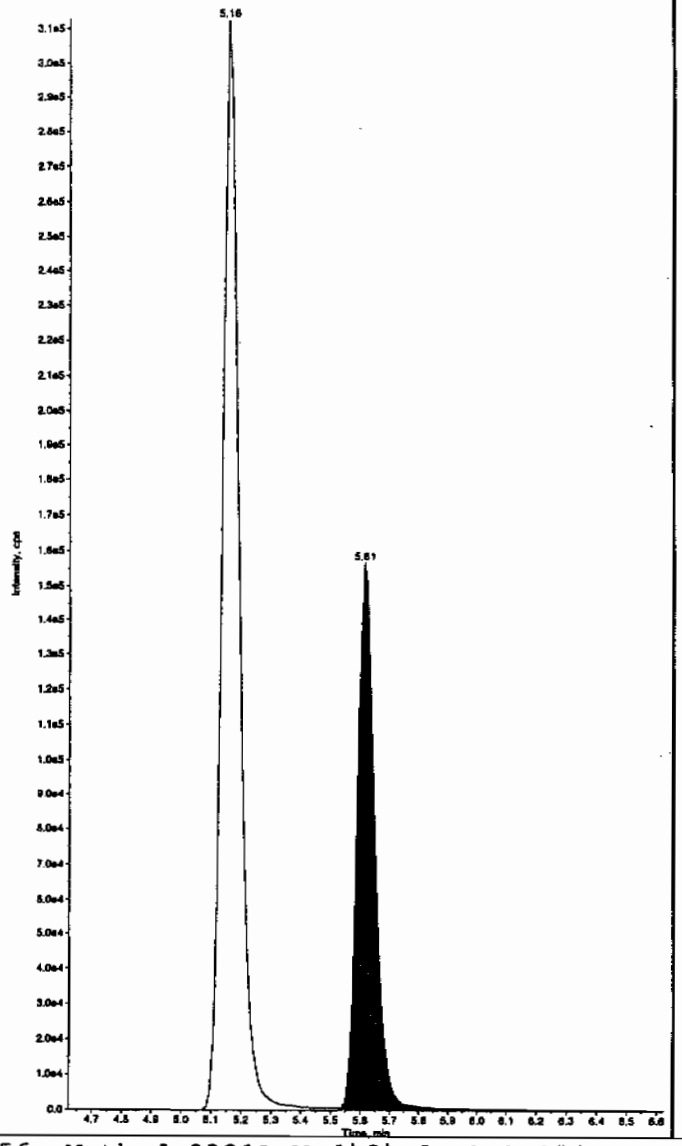

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140140.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     495.     ng/mL
Acq. Date:        2/16/2010
Acq. Time:        2:41:13 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:        11.0   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9   min
Area:          1.08e+007   counts
Height:        2518156.203 cps
Start Time:         10.8   min
End Time:           11.3   min
```

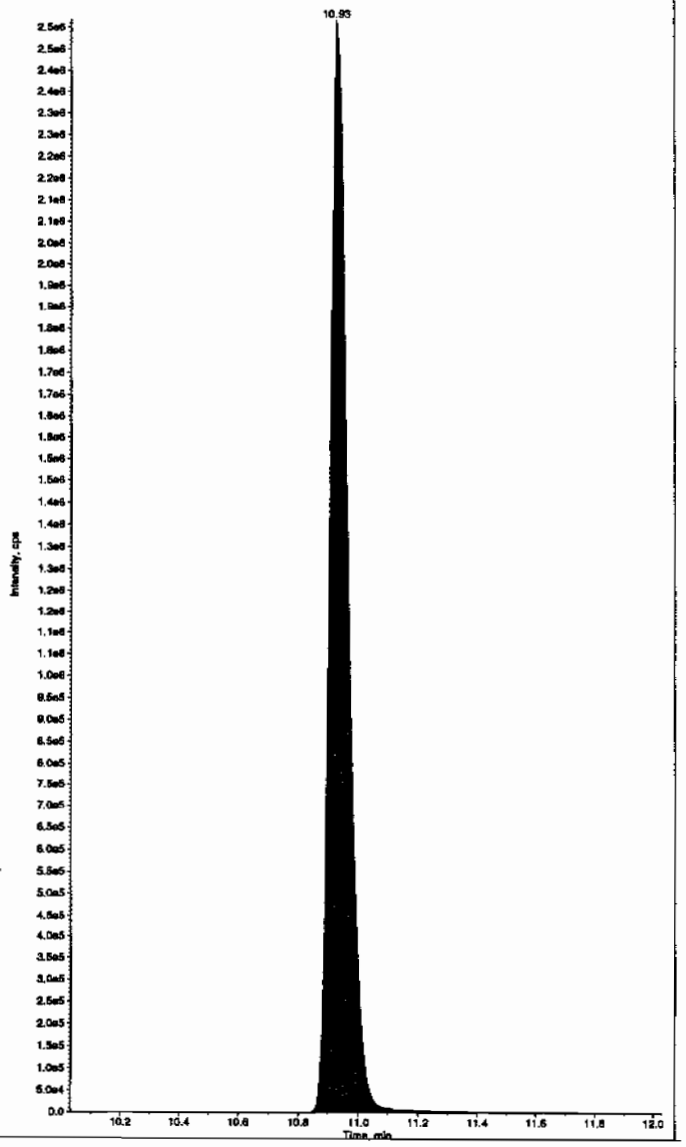

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1510

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140142.wiff

Analysis Date: 16–FEB–10 03:12

LCMSMS ID: 1358

Column ID JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	81.9	82	
2,6–Diamino–4–nitrotoluene	100	85.2	85	
3,4–Dinitrotoluene	50	49.5	99	
3,5–Dinitroaniline	100	105	105	
TATB	100	107	107	
tris(o–cresyl) phosphate	100	102	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/17/10

ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140142.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	107.	ng/mL
. Date:	2/16/2010	
. Time:	3:12:37 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
ected RT:	7.15	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.13	min
a:	1.47e+005	counts
ght:	34825.272	cps
rt Time:	6.96	min
Time:	7.72	min

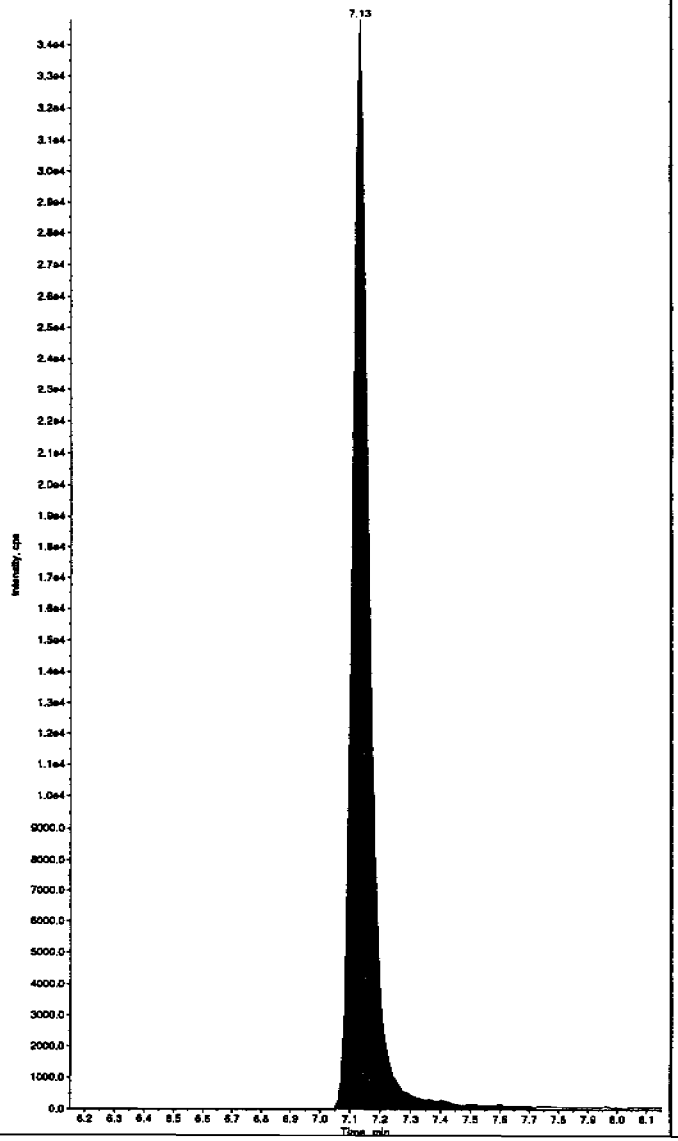

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140142.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	105.	ng/mL
Acq. Date:	2/16/2010	
Acq. Time:	3:12:37 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.29	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.34	min
Area:	6.90e+005	counts
Height:	182665.146	cps
Start Time:	8.25	min
End Time:	8.43	min

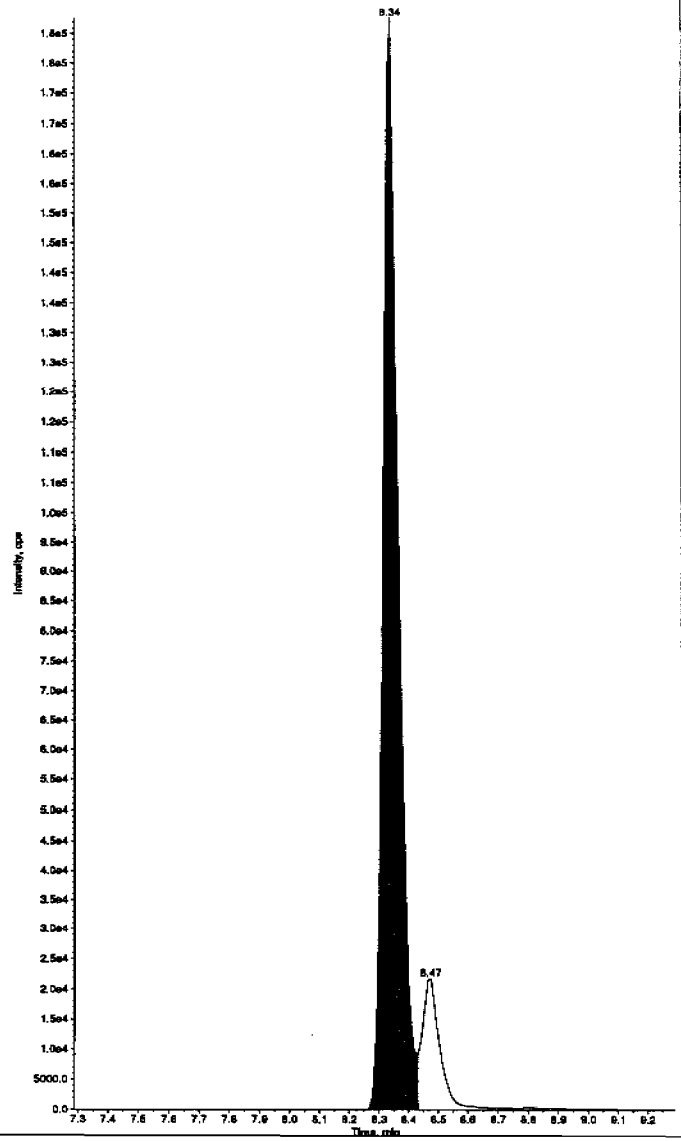

thm 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140142.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
centration:      50.0    ng/mL
culated Conc:    49.5    ng/mL
. Date:       2/16/2010
. Time:       3:12:37 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1450.00   cps
. Peak Width:    0.00   sec
oothing Width:  3       points
Window:         15.0    sec
ected RT:        8.52   min
 Relative RT:    No

. Type:        Valley
ention Time:     8.46   min
a:         6.29e+005   counts
ght:        169343.842  cps
rt Time:         8.40   min
 Time:           8.66   min
```

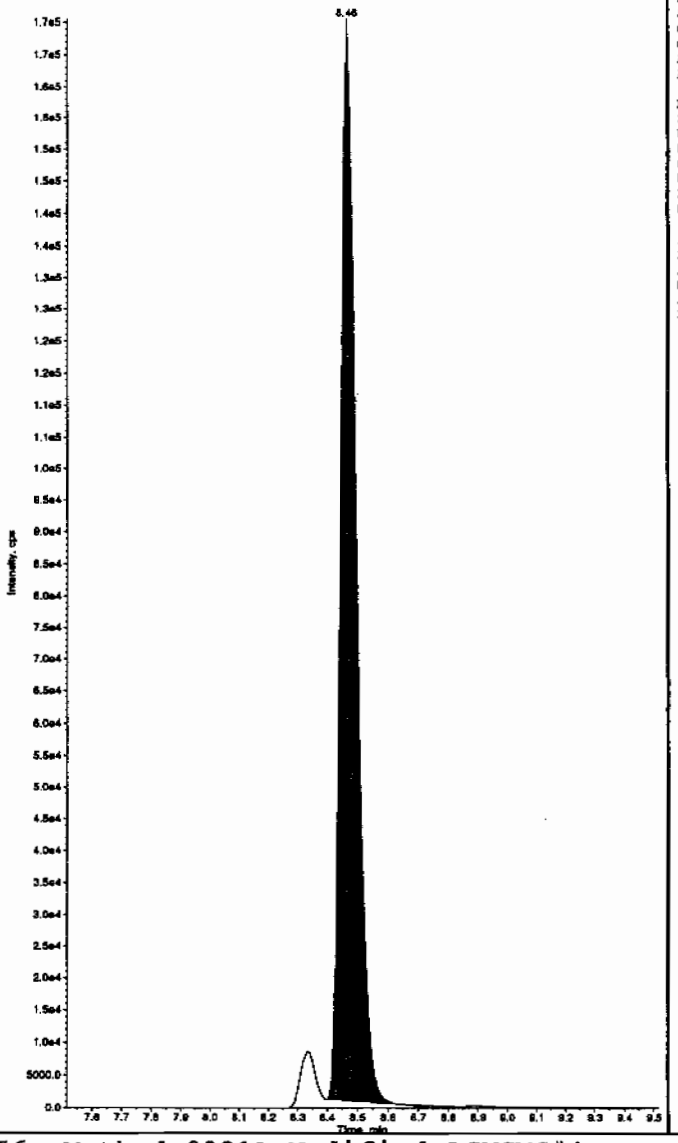

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140142.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.    ng/mL
Calculated Conc:     85.2   ng/mL
Acq. Date:       2/16/2010
Acq. Time:       3:12:37 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        5.17    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.16    min
Area:         2.65e+005     counts
Height:        68685.478    cps
Start Time:         5.00    min
End Time:           5.45    min
```

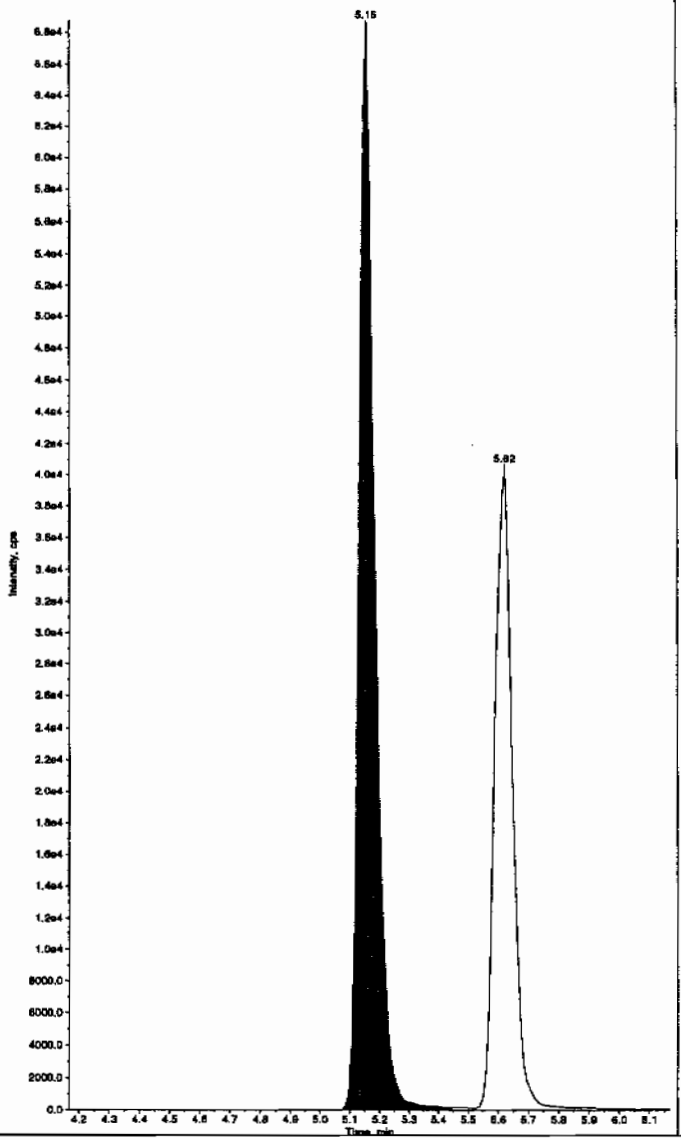

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ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140142.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         100.     ng/mL
culated Conc:       81.9     ng/mL
. Date:          2/16/2010
. Time:          3:12:37 AM

ified:              No
c. Algorithm:  IntelliQuan - IQA
. Peak Height:  350.00    cps
. Peak Width:     0.00    sec
oothing Width:  3         points
Window:           30.0    sec
ected RT:          5.62   min
 Relative RT:      No

. Type:          Valley
ention Time:       5.62   min
a:            1.60e+005   counts
ght:          40422.001   cps
rt Time:           5.54   min
 Time:             5.76   min
```

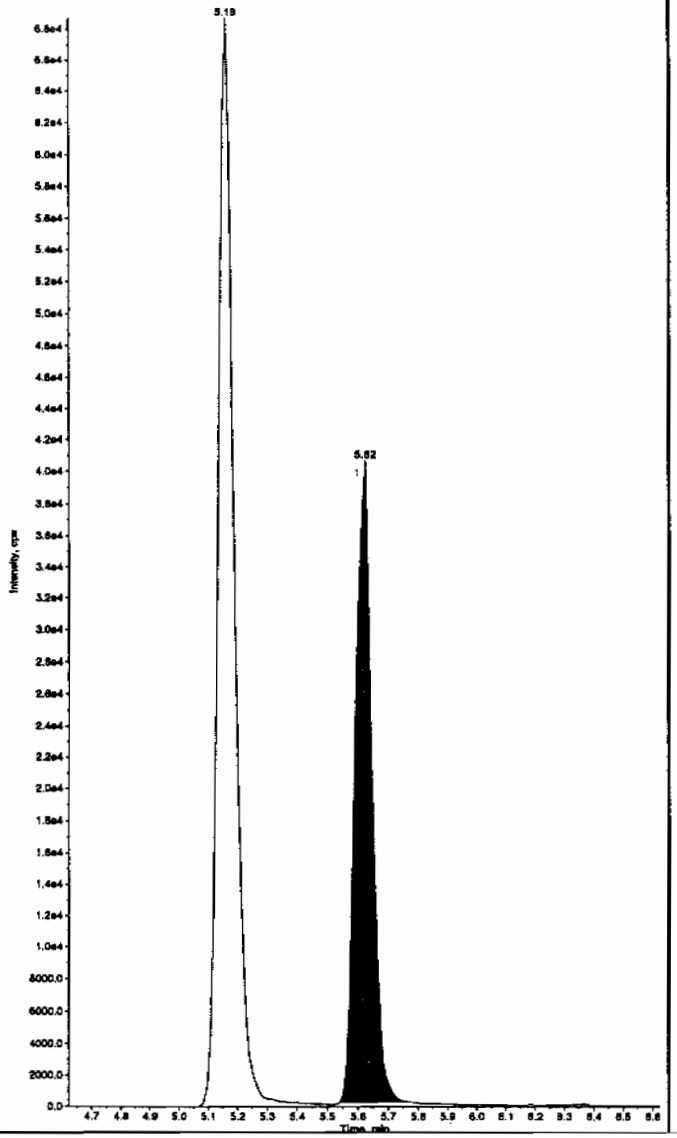

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140142.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       102.     ng/mL
Acq. Date:          2/16/2010
Acq. Time:          3:12:37 AM

Modified:              No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height:  1.00e4    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3          points
RT Window:           30.0    sec
Expected RT:         11.0    min
Use Relative RT:      No

Int. Type:          Valley
Retention Time:      10.9    min
Area:            2.44e+006   counts
Height:          597793.701  cps
Start Time:          10.8    min
End Time:            11.3    min
```

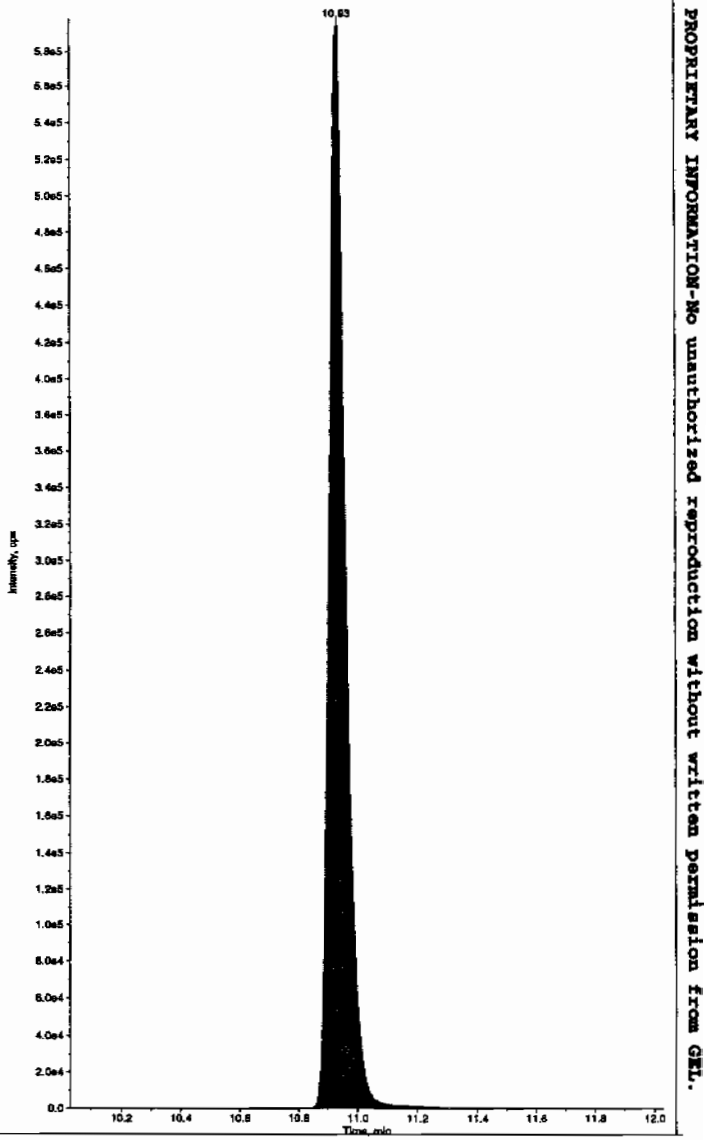

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948571

Lab Code: GEL

GEL Job No (SDG) 10–1510

Matrix: SOIL

GEL Sample ID: 1202032097

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03–FEB–10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216081a

Date Analyzed: 18–FEB–10 08:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118–96–7	2,4,6–Trinitrotoluene	500	U
121–14–2	2,4–Dinitrotoluene	500	U
121–82–4	RDX	500	U
19406–51–0	4–Amino–2,6–dinitrotoluene	500	U
2691–41–0	HMX	500	U
35572–78–2	2–Amino–4,6–dinitrotoluene	500	U
479–45–8	Tetryl	500	U
606–20–2	2,6–Dinitrotoluene	500	U
78–11–5	PETN	1000	U
88–72–2	o–Nitrotoluene	500	U
98–95–3	Nitrobenzene	500	U
99–08–1	m–Nitrotoluene	500	U
99–35–4	1,3,5–Trinitrobenzene	500	U
99–65–0	m–Dinitrobenzene	500	U
99–99–0	p–Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\021610expa.cdb, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216081a
Date: 18-Feb-2010
Time: 08:39:40
ID: 1202032097 | LANL | 948572 | Soil | MB | 2 |
Vial: 2:5,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.831e+003

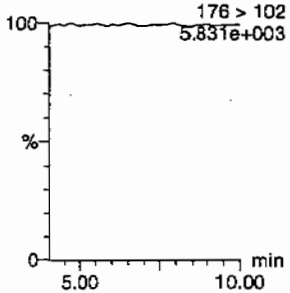

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.831e+003

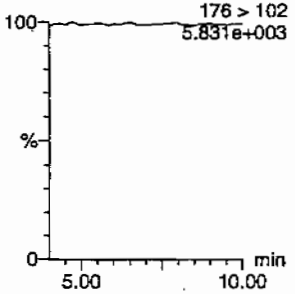

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.748e+003

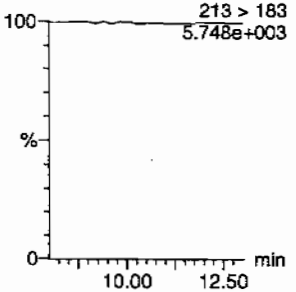

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.300e+004

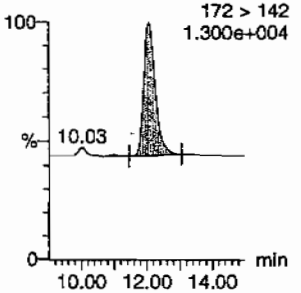

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.755e+003

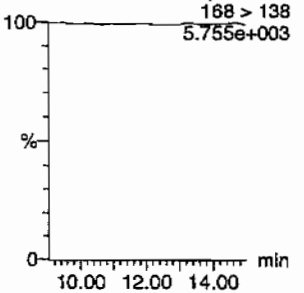

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.756e+003

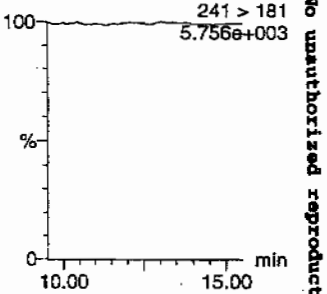

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.759e+003

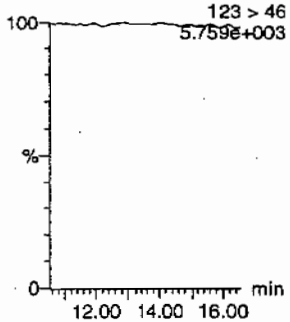

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.773e+003

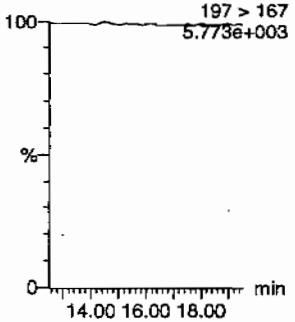

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.778e+003

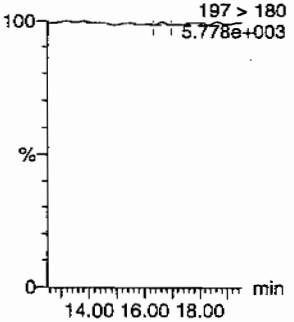

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.742e+003

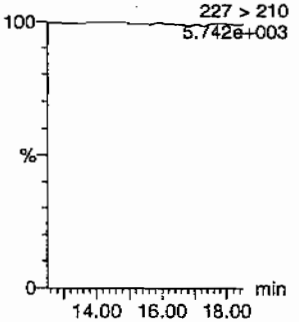

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.299e+004

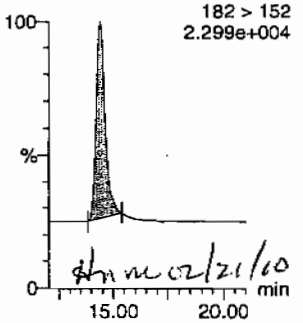

dhm 02/21/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.299e+004

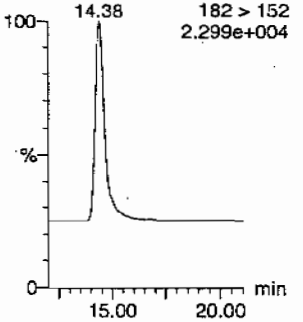

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

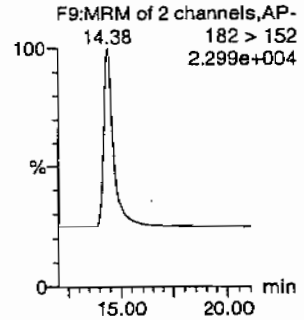

26-dinitrotoluene-d3

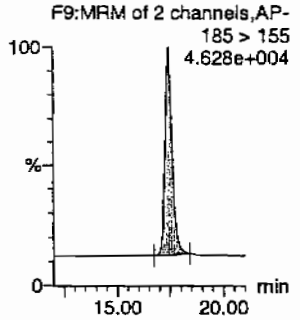

2-Nitrotoluene

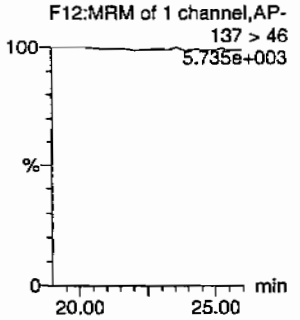

4-Nitrotoluene

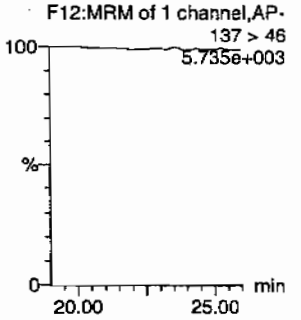

3-Nitrotoluene

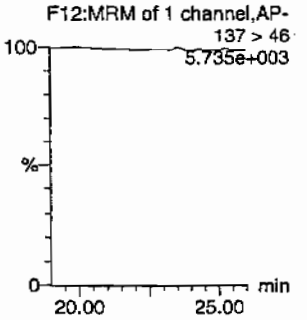

PETN

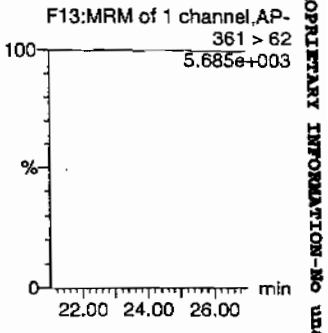

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202032097	HMX	176 > 102			2950.806									
1202032097	RDX	176 > 102			2950.806									
1202032097	135-Trinitrobenzene	213 > 183			2950.806									
1202032097	13-Dinitrobenzene-d4	172 > 142	12.07	2950.806		2950.806	2950.806	bb			489.7740	98.0	-2.0	453.0
1202032097	13-Dinitrobenzene	168 > 138			2950.806									
1202032097	Tetryl	241 > 181			2950.806									
1202032097	Nitrobenzene	123 > 46			2950.806									
1202032097	4-Amino-26-dinitrotoluene	197 > 167			16299.492									
1202032097	2-Amino-46-dinitrotoluene	197 > 180			16299.492			MM-	19-Feb-10	08:42:04				
1202032097	246-Trinitrotoluene	227 > 210			16299.492									
1202032097	34-dinitrotoluene	182 > 152	14.38	8140.966	16299.492	8140.966	249.731	bb			275.6406	110.3	10.3	334.4
1202032097	26-dinitrotoluene	182 > 152			16299.492									
1202032097	24-dinitrotoluene	182 > 152			16299.492									
1202032097	26-dinitrotoluene-d3	185 > 155	17.42	16299.492		16299.492	16299.492	bb			468.1460	93.6	-6.4	1292.8
1202032097	2-Nitrotoluene	137 > 46			16299.492									
1202032097	4-Nitrotoluene	137 > 46			16299.492									
1202032097	3-Nitrotoluene	137 > 46			16299.492									
1202032097	PETN	361 > 62			16299.492									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948571

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 1202032097

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140120.wiff

Date Analyzed: 15-FEB-10 21:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCL 2/17/10

Sample Name: "1202032097" Sample ID: "948572|2|LER" File: "EXS02140120.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 9:27:20 PM

dified: No

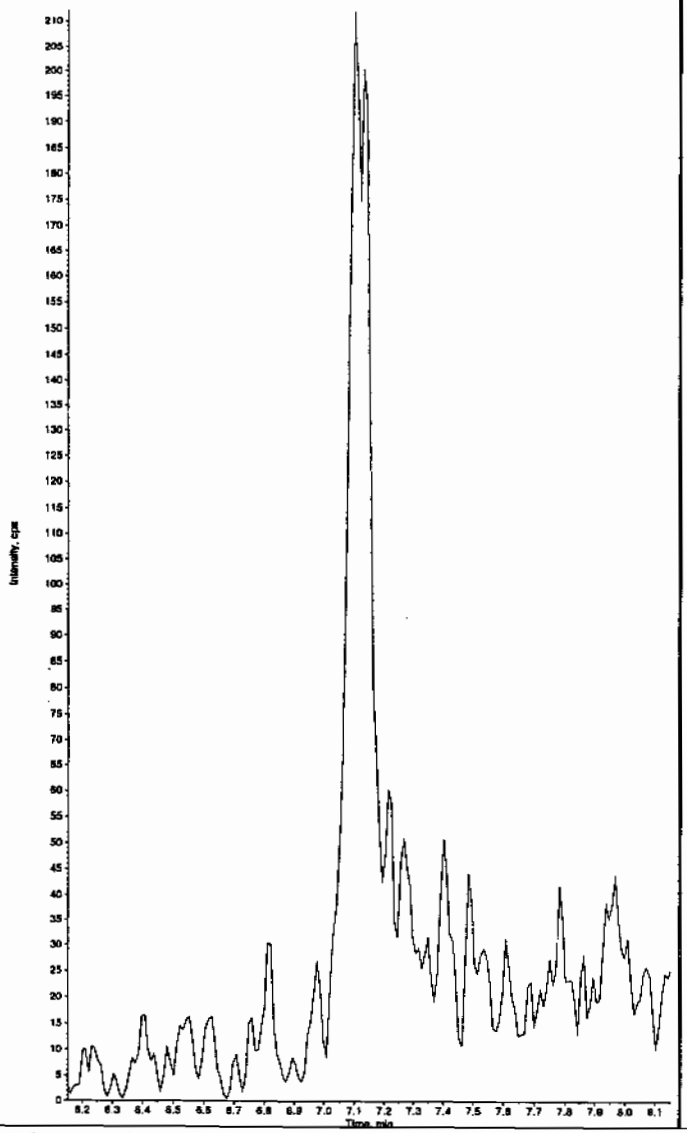

Sample Name: "1202032097" Sample ID: "948572|2|LER" File: "EXS02140120.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:27:20 PM

Modified: Yes

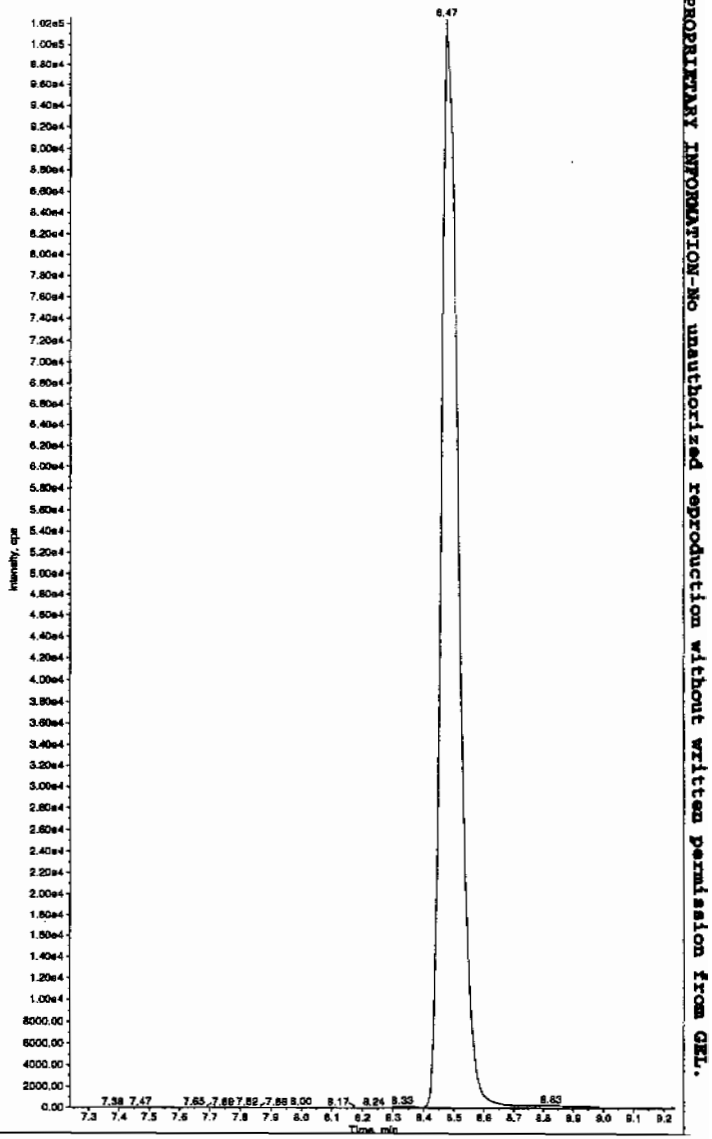

HMC 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Sample Name: "1202032097" Sample ID: "948572|2|LER" File: "EXS02140120.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 306. ng/mL
q. Date: 2/15/2010
q. Time: 9:27:20 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.52 min
e Relative RT: No

t. Type: Valley
tention Time: 8.47 min
ea: 3.97e+006 counts
ight: 991978.577 cps
art Time: 8.38 min
d Time: 8.87 min

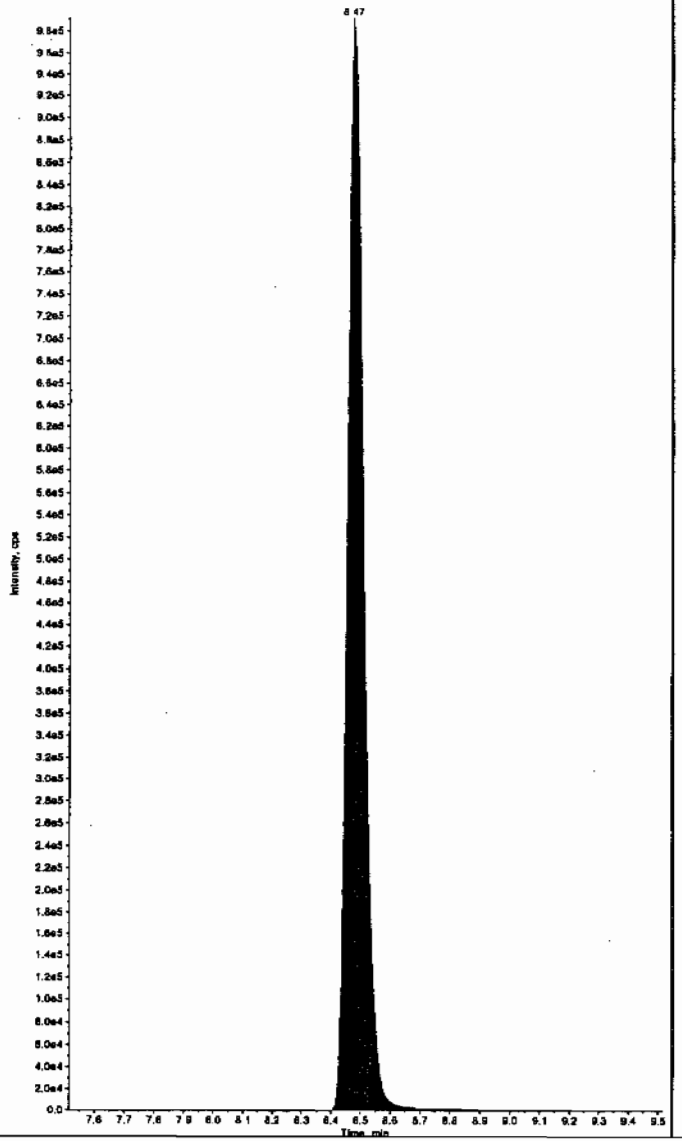

Sample Name: "1202032097" Sample ID: "948572|2|LER" File: "EXS02140120.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:27:20 PM

Modified: No

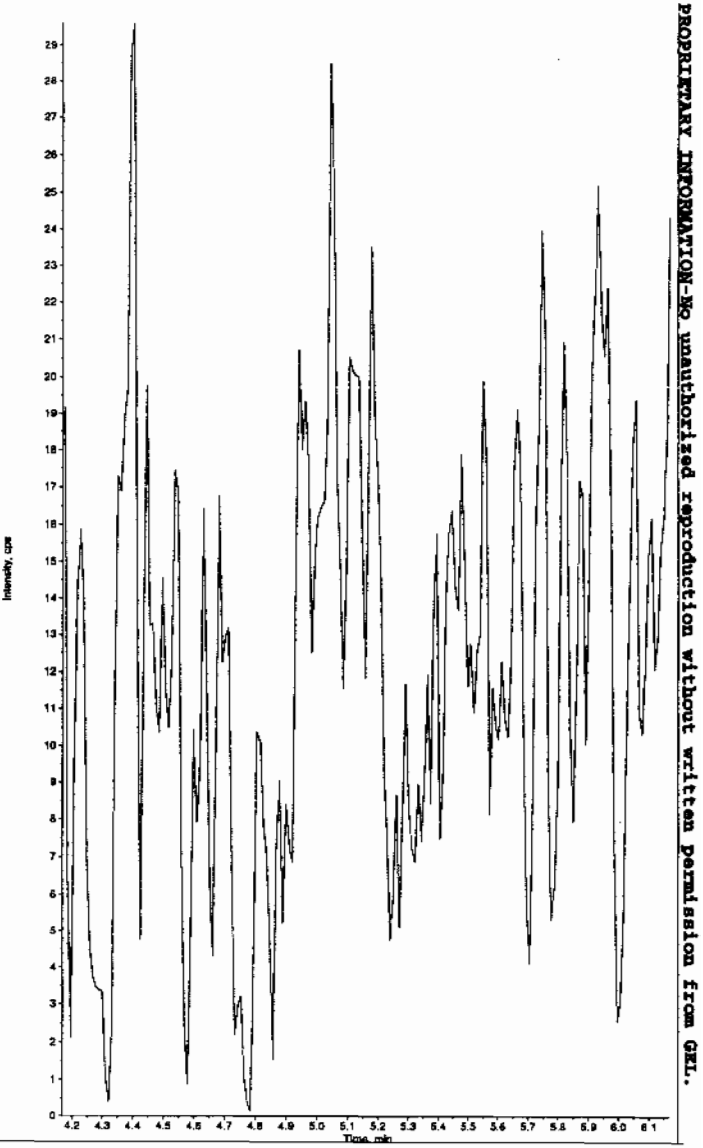

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Sample Name: "1202032097" Sample ID: "948572|2|LER" File: "EXS02140120.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
iculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 9:27:20 PM

ified: No

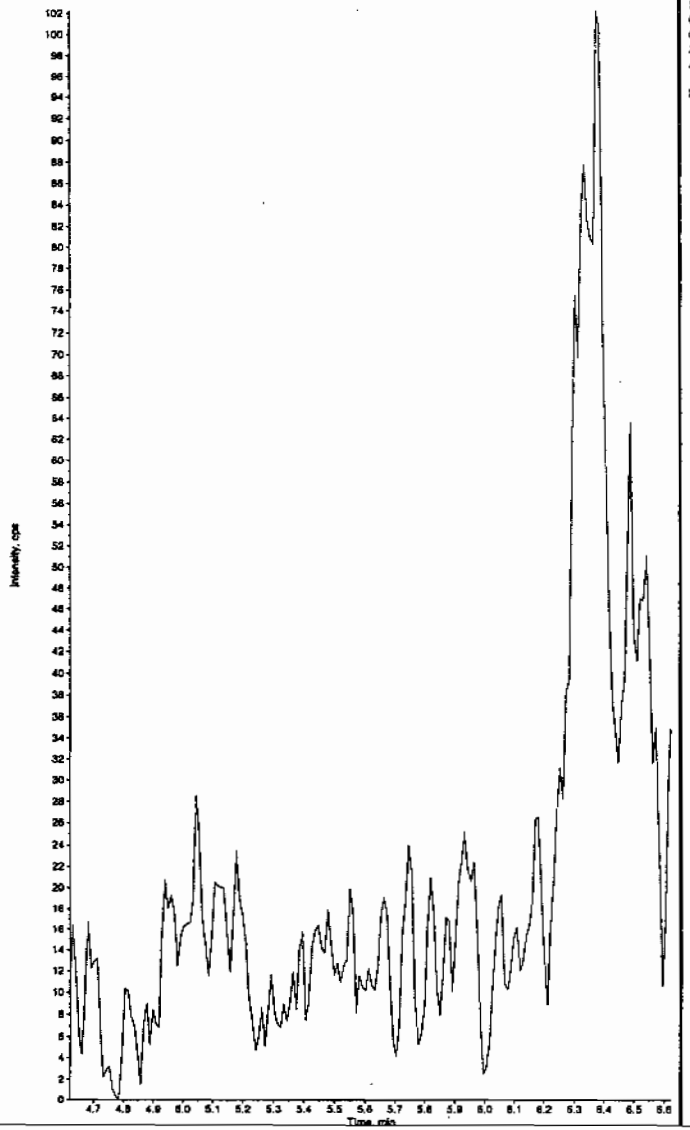

Sample Name: "1202032097" Sample ID: "948572|2|LER" File: "EXS02140120.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:27:20 PM

Modified: No

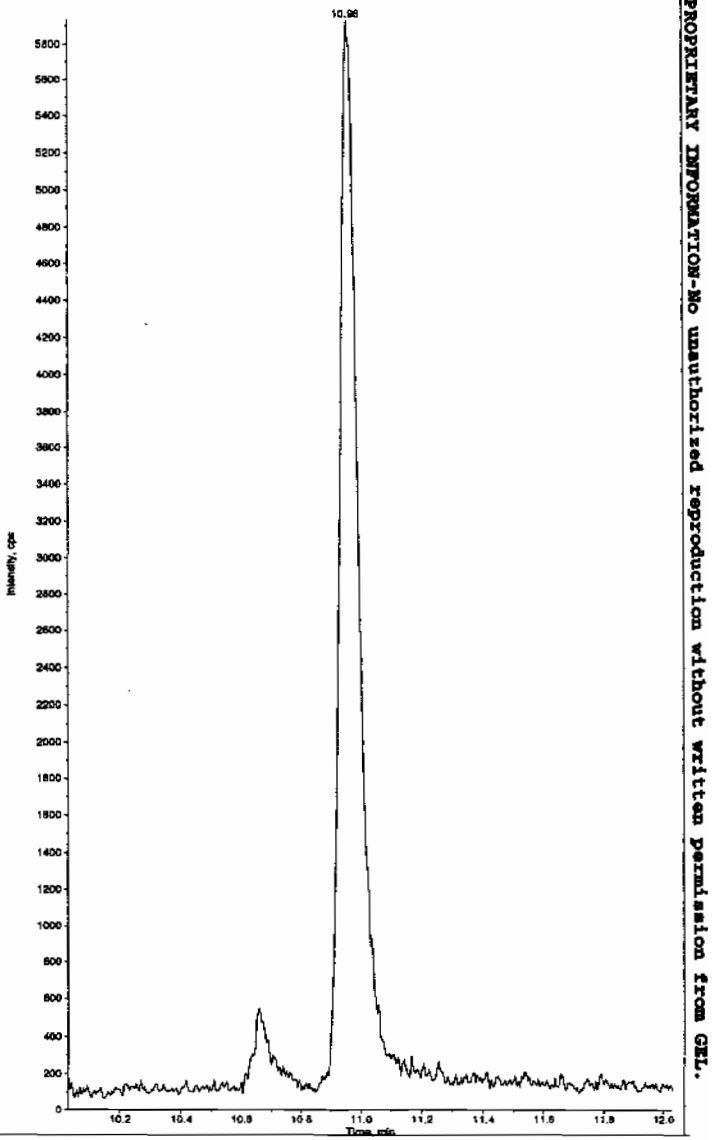

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948571

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 1202032098

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216082a

Date Analyzed: 18-FEB-10 09:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4940	
121-14-2	2,4-Dinitrotoluene	5160	
121-82-4	RDX	5220	
19406-51-0	4-Amino-2,6-dinitrotoluene	4630	
2691-41-0	HMX	4400	
35572-78-2	2-Amino-4,6-dinitrotoluene	5150	
479-45-8	Tetryl	2570	
606-20-2	2,6-Dinitrotoluene	4890	
78-11-5	PETN	6050	
88-72-2	o-Nitrotoluene	4930	
98-95-3	Nitrobenzene	4280	
99-08-1	m-Nitrotoluene	4610	
99-35-4	1,3,5-Trinitrobenzene	4040	
99-65-0	m-Dinitrobenzene	4810	
99-99-0	p-Nitrotoluene	4850	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216082a
Date: 18-Feb-2010
Time: 09:09:13
ID: 1202032098 | LANL | 948572 | Soils | LCS | 2 |
Vial: 2:5,B

MAP 2/19/10

HMX

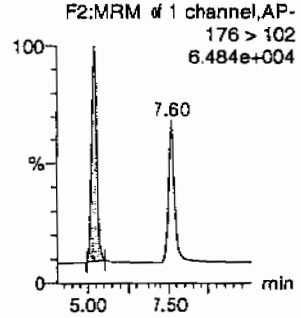

RDX

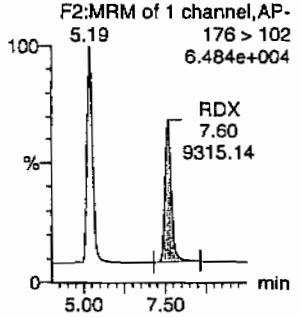

135-Trinitrobenzene

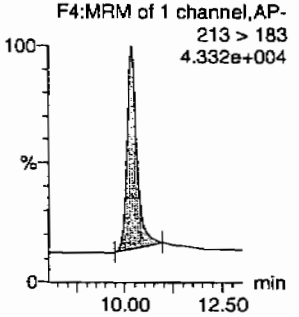

13-Dinitrobenzene-d4

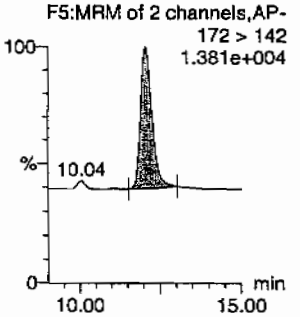

13-Dinitrobenzene

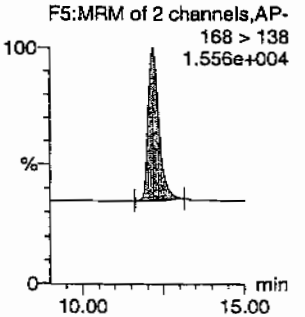

Tetryl

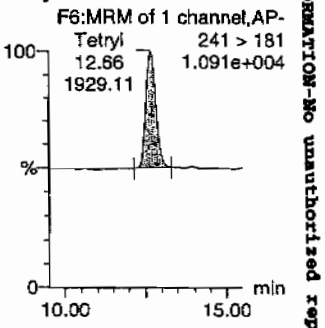

Nitrobenzene

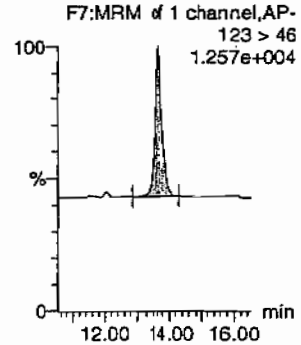

4-Amino-26-dinitrotoluene

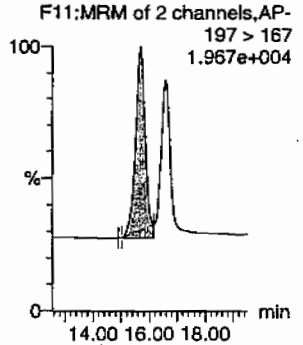

2-Amino-46-dinitrotoluene

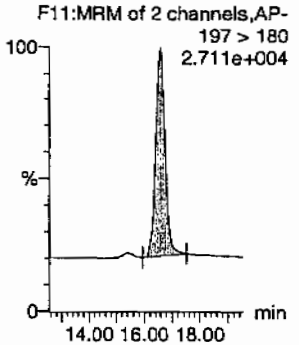

246-Trinitrotoluene

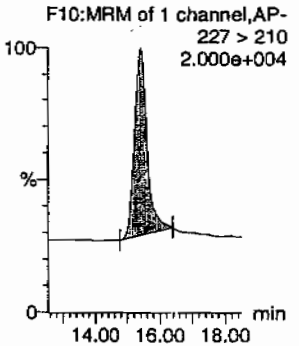

34-dinitrotoluene

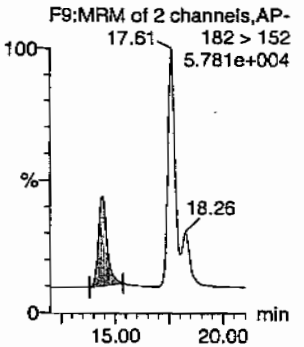

26-dinitrotoluene

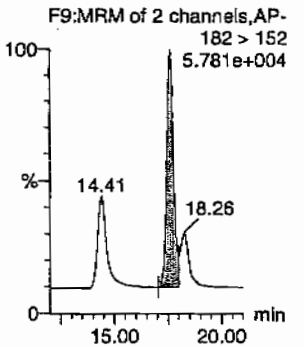

[illegible] 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

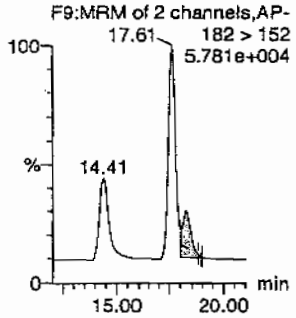

26-dinitrotoluene-d3

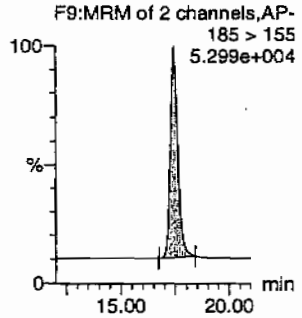

2-Nitrotoluene

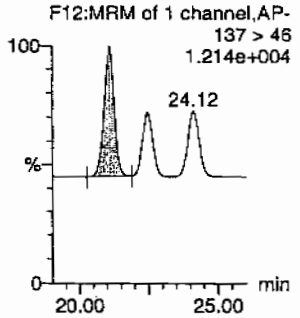

4-Nitrotoluene

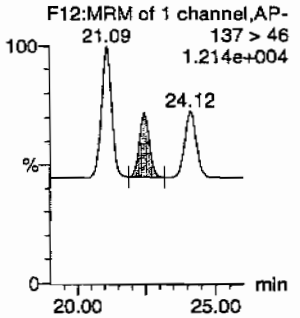

3-Nitrotoluene

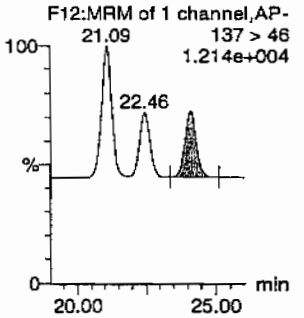

PETN

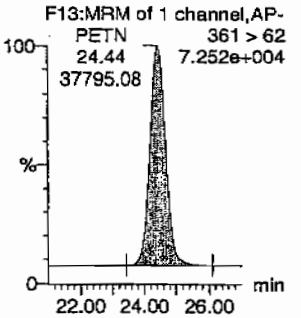

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Reps	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
1202032098	HMX	176 > 102	5.19	11681.736	3438.835	11681.736	1698.502	bb			440.2117	88.0	-12.0	2391.1
1202032098	RDX	176 > 102	7.60	9315.137	3438.835	9315.137	1354.403	bb			522.2413	104.4	4.4	1574.4
1202032098	135-Trinitrobenzene	213 > 183	10.18	10771.348	3438.835	10771.348	1566.133	bb			404.4196	80.9	-19.1	944.8
1202032098	13-Dinitrobenzene-d4	172 > 142	12.06	3438.835		3438.835	3438.835	bb			570.7769	114.2	14.2	133.4
1202032098	13-Dinitrobenzene	168 > 138	12.17	3931.205	3438.835	3931.205	571.590	bb			480.9256	96.2	-3.8	245.0
1202032098	Tetryl	241 > 181	12.66	1929.112	3438.835	1929.112	280.489	bb			257.2747	51.5	-48.5	190.1
1202032098	Nitrobenzene	123 > 46	13.61	2527.905	3438.835	2527.905	367.553	bb			428.1287	85.6	-14.4	147.6
1202032098	4-Amino-26-dinitrotoluene	197 > 167	15.70	5738.274	19340.863	5738.274	148.346	MM	19-Feb-10	08:38:17	463.2664	92.7	-7.3	232.0
1202032098	2-Amino-46-dinitrotoluene	197 > 180	16.57	8607.965	19340.863	8607.965	222.533	bb			515.0576	103.0	3.0	828.9
1202032098	246-Trinitrotoluene	227 > 210	15.40	6401.195	19340.863	6401.195	165.484	bb			493.6058	98.7	-1.3	520.9
1202032098	34-dinitrotoluene	182 > 152	14.41	9382.706	19340.863	9382.706	242.562	bb			267.7279	107.1	7.1	408.2
1202032098	26-dinitrotoluene	182 > 152	17.61	20058.307	19340.863	20058.307	518.547	MM	19-Feb-10	08:42:50	489.4541	97.9	-2.1	1079.7
1202032098	24-dinitrotoluene	182 > 152	18.26	4918.882	19340.863	4918.882	127.163	MM	19-Feb-10	08:47:30	515.8523	103.2	3.2	239.0
1202032098	26-dinitrotoluene-d3	185 > 155	17.43	19340.863		19340.863	19340.863	bb			555.4988	111.1	11.1	1345.0
1202032098	2-Nitrotoluene	137 > 46	21.09	2904.053	19340.863	2904.053	75.076	bb			493.2882	98.7	-1.3	465.1
1202032098	4-Nitrotoluene	137 > 46	22.46	1438.372	19340.863	1438.372	37.185	bb			485.1168	97.0	-3.0	228.7
1202032098	3-Nitrotoluene	137 > 46	24.12	1597.397	19340.863	1597.397	41.296	bb			461.4632	92.3	-7.7	235.7
1202032098	PETN	361 > 62	24.44	37795.078	19340.863	37795.078	977.078	bb			604.7973	121.0	21.0	14149.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948571

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 1202032098

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140121.wiff

Date Analyzed: 15-FEB-10 21:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7510	
59229-75-3	2,6-Diamino-4-nitrotoluene	4340	
618-87-1	3,5-Dinitroaniline	5060	
6629-29-4	2,4-Diamino-6-nitrotoluene	3530	
78-30-8	tris(o-cresyl) phosphate	4950	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "1202032098" Sample ID: "948572|2|LER" File: "EXS02140121.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index:	1
ample Type:	Unknown
oncentration:	N/A
alculated Conc:	353. ng/mL
cq. Date:	2/15/2010
cq. Time:	9:43:03 PM
odified:	No
roc. Algorithm:	IntelliQuan - IQA
in. Peak Height:	350.00 cps
in. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	5.62 min
e Relative RT:	No
t. Type:	Valley
tention Time:	5.62 min
ea:	6.74e+005 counts
ight:	154047.501 cps
art Time:	5.52 min
d Time:	6.10 min

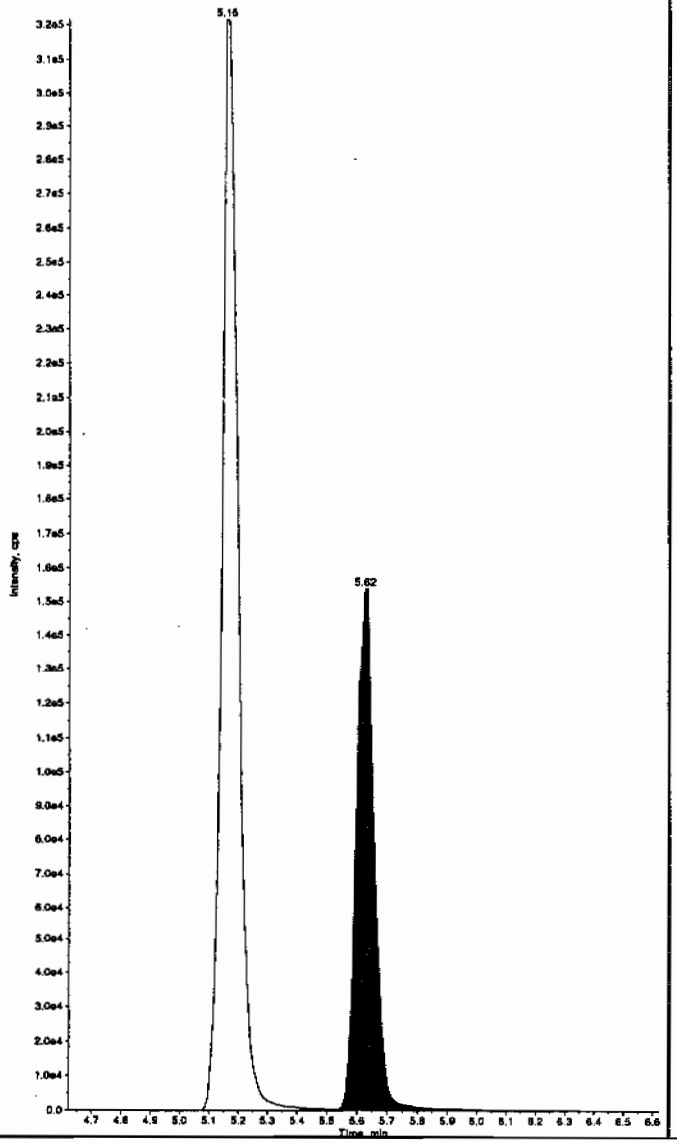

Sample Name: "1202032098" Sample ID: "948572|2|LER" File: "EXS02140121.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	495. ng/mL
Acq. Date:	2/15/2010
Acq. Time:	9:43:03 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	1.08e+007 counts
Height:	2481680.664 cps
Start Time:	10.8 min
End Time:	11.3 min

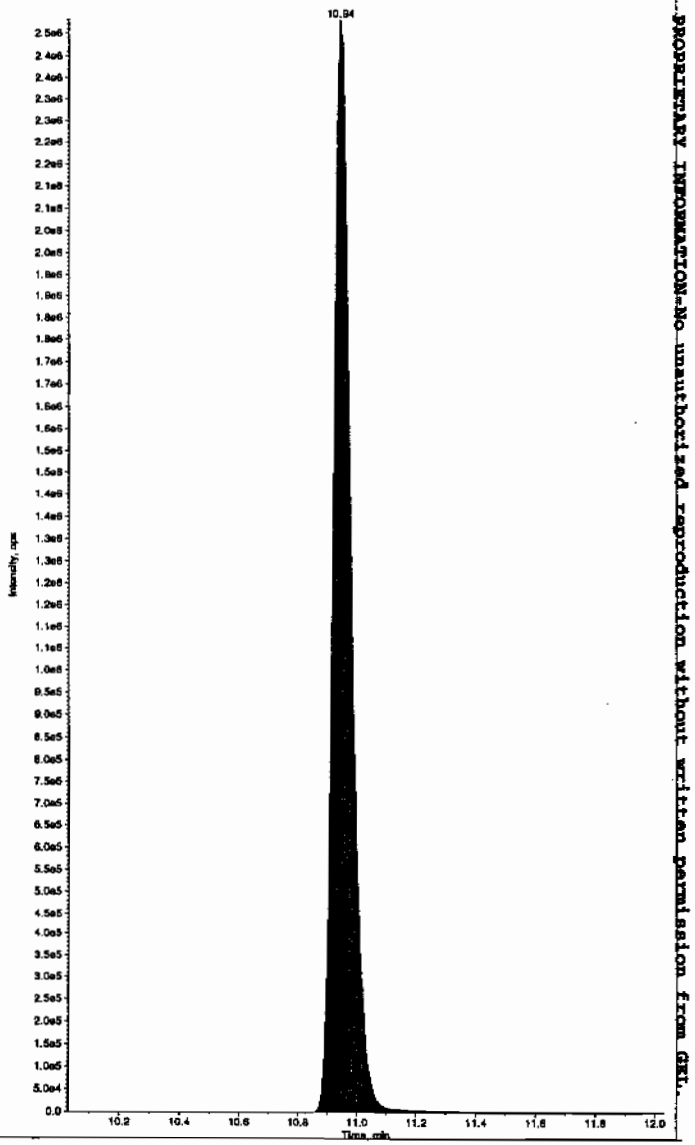

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Before Sen 2/16/10

Sample Name: "1202032098" Sample ID: "948572|2|LER" File: "EXS02140121.wlf"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 751. ng/mL
q. Date: 2/15/2010
q. Time: 9:43:03 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.15 min
e Relative RT: No

t. Type: Valley
tention Time: 7.13 min
ea: 1.05e+006 counts
ight: 233906.372 cps
art Time: 7.02 min
d Time: 7.77 min

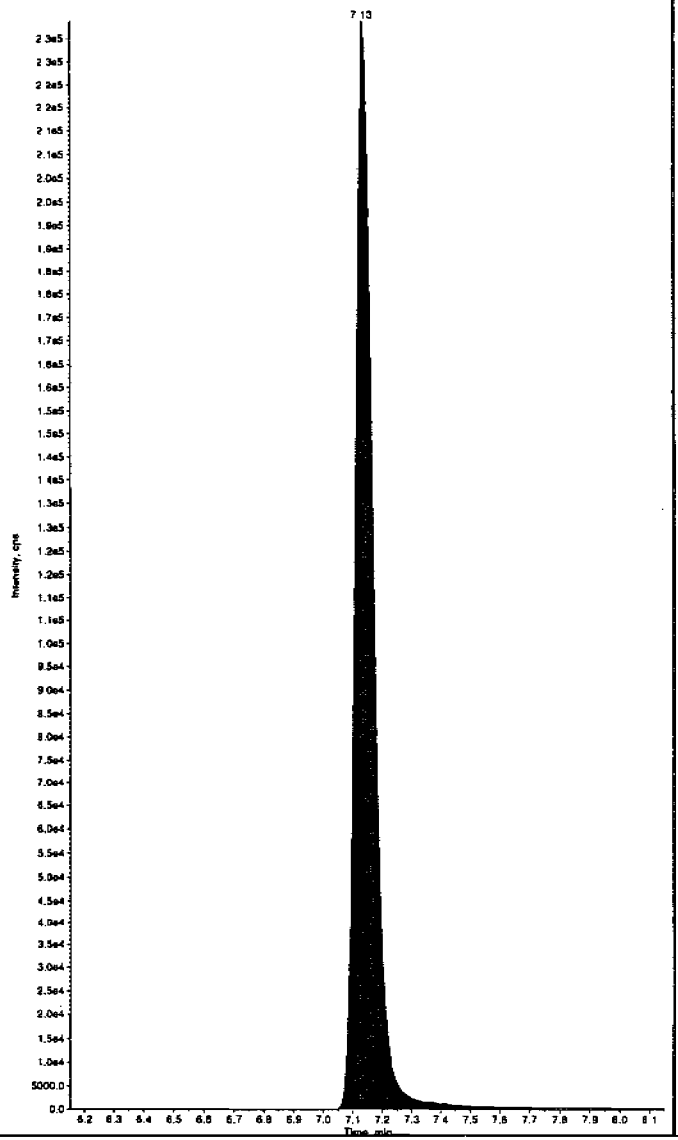

Sample Name: "1202032098" Sample ID: "948572|2|LER" File: "EXS02140121.wlf"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 570. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:43:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 3.71e+006 counts
Height: 888298.096 cps
Start Time: 8.28 min
End Time: 8.67 min

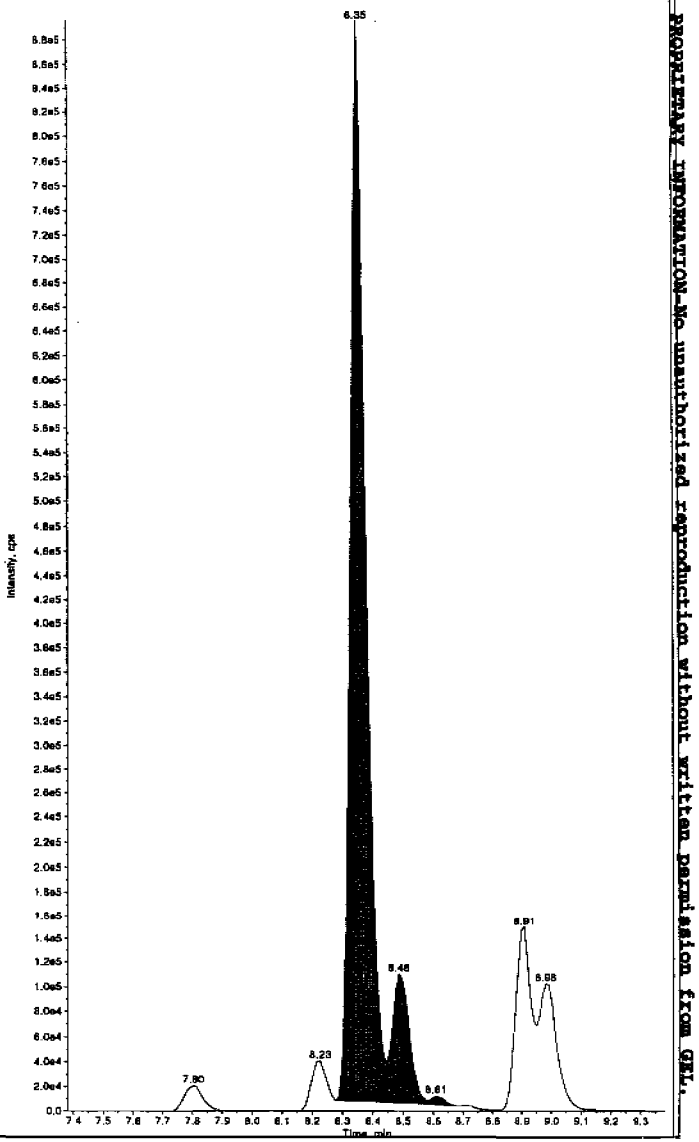

HM 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Lan 2/17/10

Sample Name: "1202032098" Sample ID: "948572[2]LER" File: "EXS02140121.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	751. ng/mL
q. Date:	2/15/2010
q. Time:	9:43:03 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.15 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.13 min
ea:	1.05e+006 counts
ight:	233906.372 cps
art Time:	7.02 min
i Time:	7.77 min

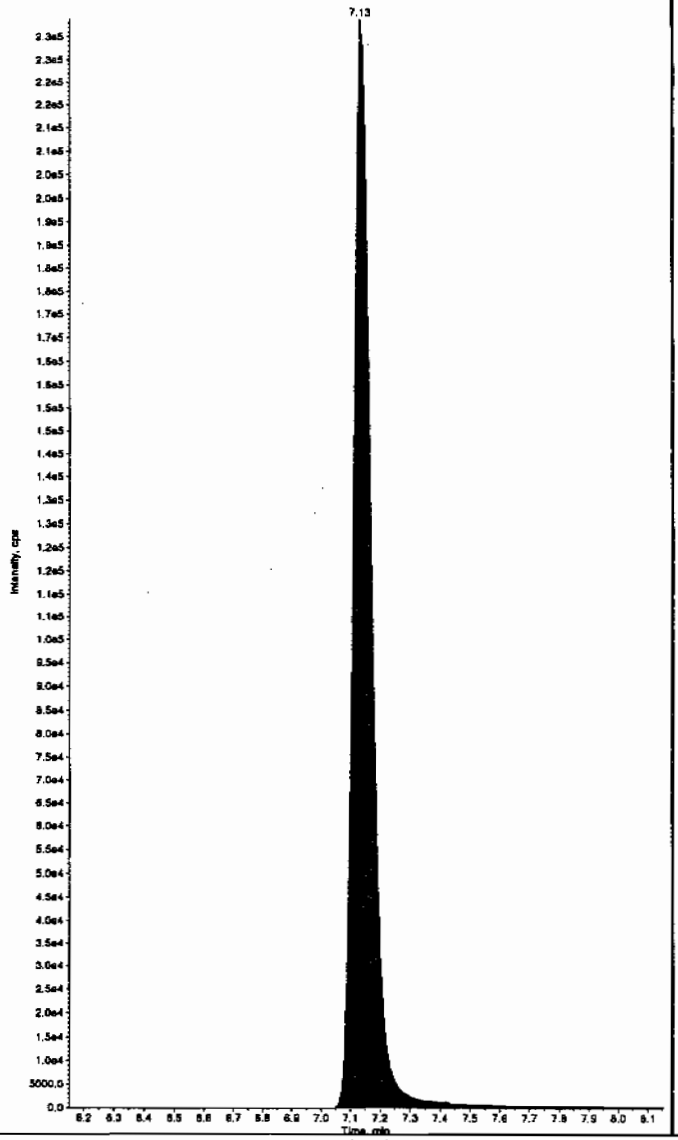

Sample Name: "1202032098" Sample ID: "948572[2]LER" File: "EXS02140121.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	506. ng/mL
Acq. Date:	2/15/2010
Acq. Time:	9:43:03 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.38 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.35 min
Area:	3.31e+006 counts
Height:	894442.410 cps
Start Time:	8.28 min
End Time:	8.44 min

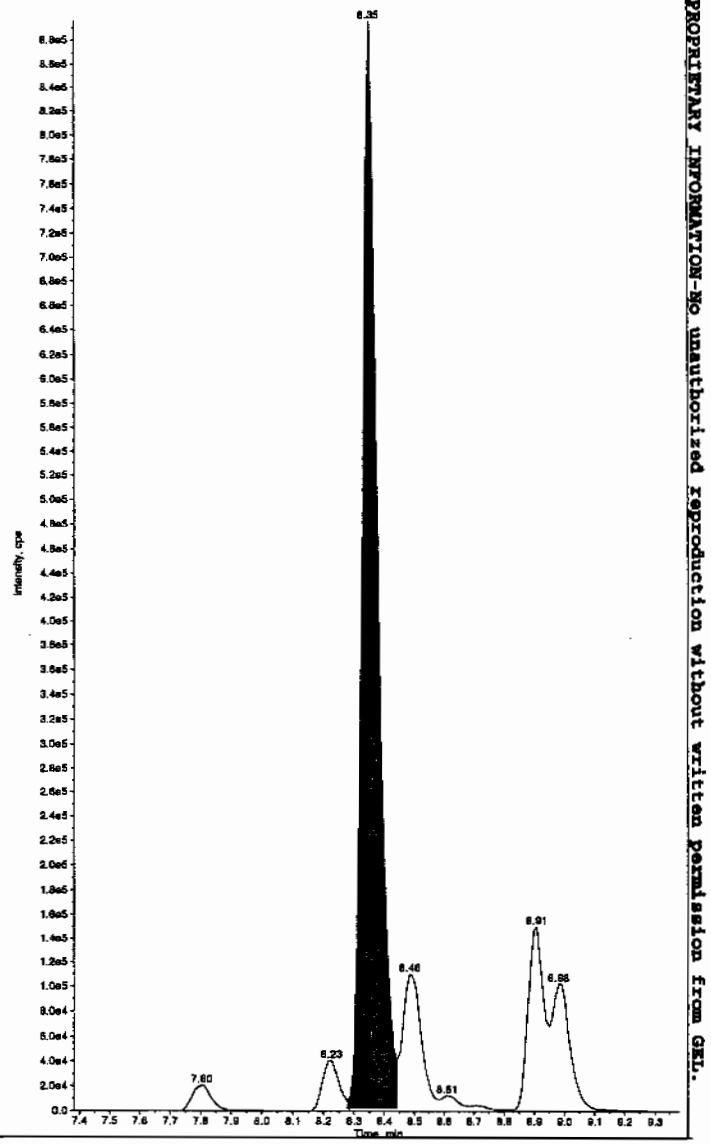

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Sample Name: "1202032098" Sample ID: "948572|2|LER" File: "EXS02140121.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 302. ng/mL
q. Date: 2/15/2010
q. Time: 9:43:03 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.52 min
e Relative RT: No

t. Type: Valley
tention Time: 8.48 min
ea: 3.92e+006 counts
ight: 1071929.077 cps
art Time: 8.41 min
d Time: 8.68 min

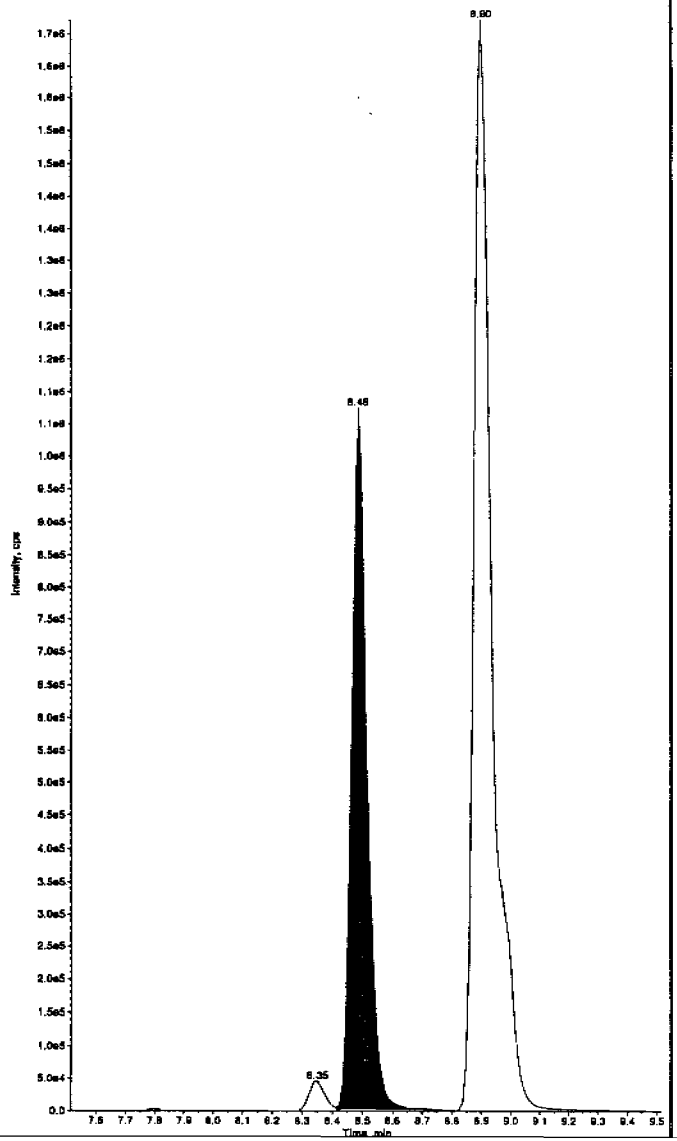

Sample Name: "1202032098" Sample ID: "948572|2|LER" File: "EXS02140121.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 434. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:43:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 1.25e+006 counts
Height: 321715.179 cps
Start Time: 5.06 min
End Time: 5.46 min

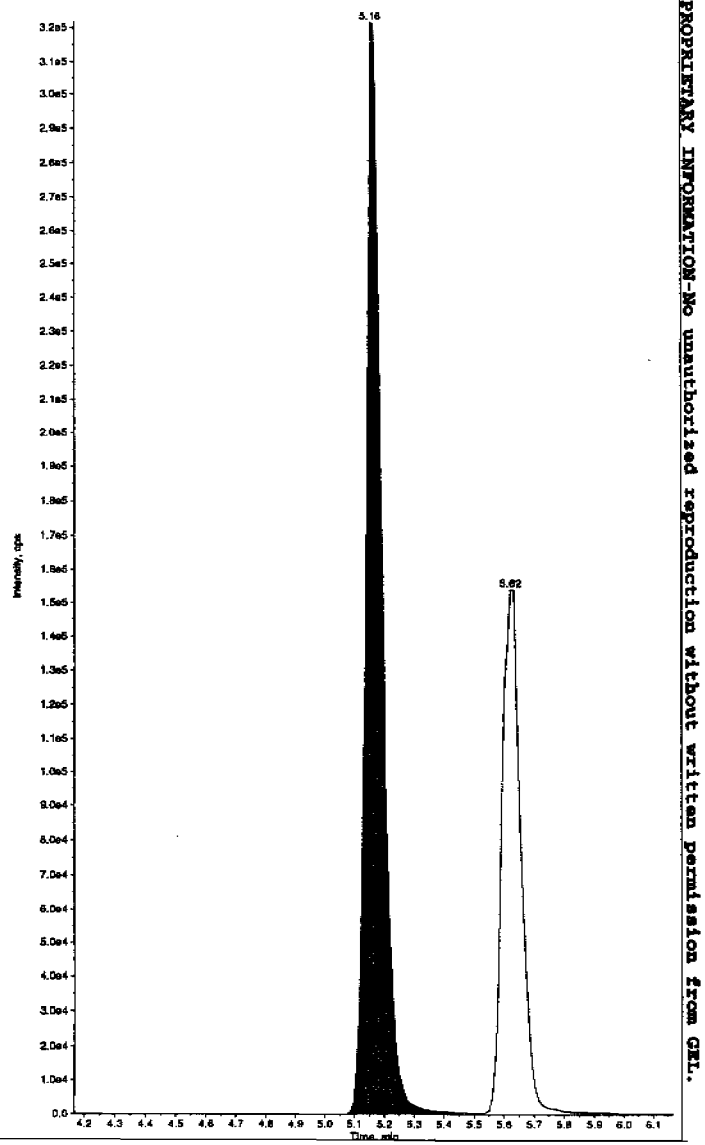

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309(245959001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 1202032099

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216086a

Date Analyzed: 18-FEB-10 11:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4480	
121-14-2	2,4-Dinitrotoluene	4420	
121-82-4	RDX	3690	
19406-51-0	4-Amino-2,6-dinitrotoluene	4190	
2691-41-0	HMX	4120	
35572-78-2	2-Amino-4,6-dinitrotoluene	4830	
479-45-8	Tetryl	3300	
606-20-2	2,6-Dinitrotoluene	4910	
78-11-5	PETN	5760	
88-72-2	o-Nitrotoluene	4740	
98-95-3	Nitrobenzene	4170	
99-08-1	m-Nitrotoluene	4410	
99-35-4	1,3,5-Trinitrobenzene	4770	
99-65-0	m-Dinitrobenzene	4970	
99-99-0	p-Nitrotoluene	4800	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216086a
Date: 18-Feb-2010
Time: 11:07:26
ID: 1202032099 | LANL | 948572 | Soil | 245959001 ug | 2 |
Vial: 2:5,F

MM 2/19/10

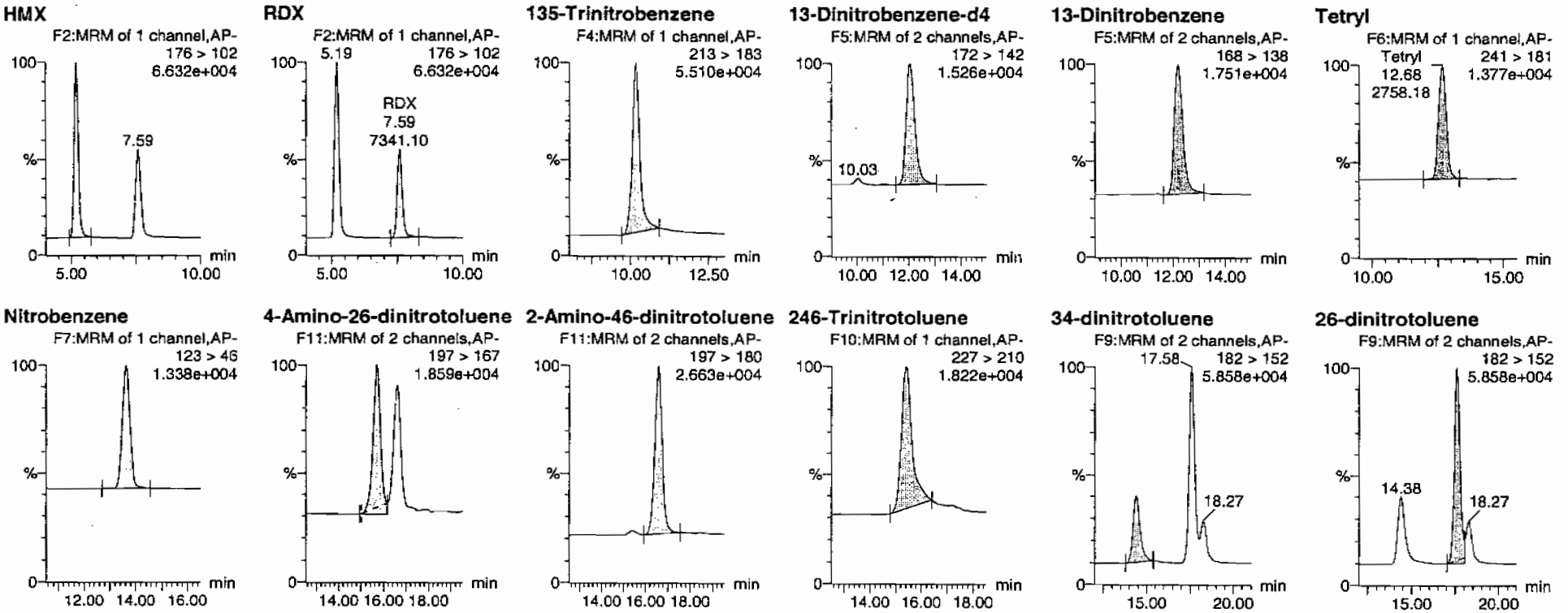

HMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

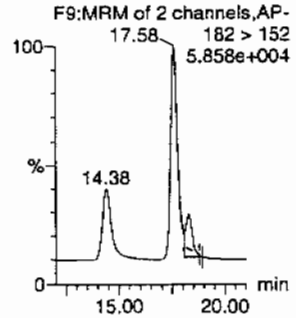

26-dinitrotoluene-d3

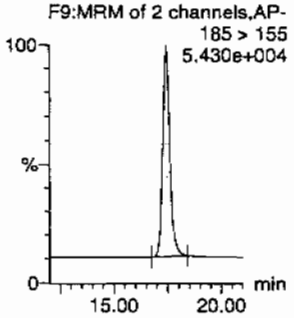

2-Nitrotoluene

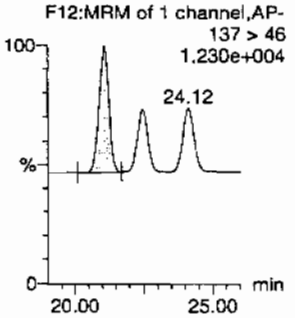

4-Nitrotoluene

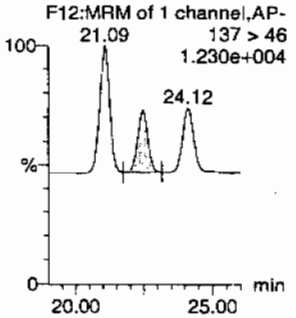

3-Nitrotoluene

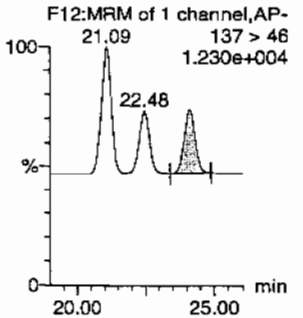

PETN

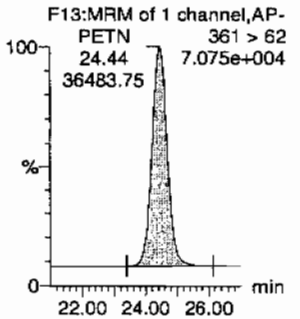

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032099	HMX	176 > 102	5.19	12206.928	3837.569	12206.928	1590.451	db			412.2074	82.4	-17.6	1696.6
1202032099	RDX	176 > 102	7.59	7341.104	3837.569	7341.104	956.478	bb			368.8064	73.8	-26.2	866.0
1202032099	135-Trinitrobenzene	213 > 183	10.18	14183.823	3837.569	14183.823	1848.022	bb			477.2112	95.4	-4.6	1333.0
1202032099	13-Dinitrobenzene-d4	172 > 142	12.03	3837.569		3837.569	3837.569	bb			636.9587	127.4	27.4	560.3
1202032099	13-Dinitrobenzene	168 > 138	12.20	4533.043	3837.569	4533.043	590.614	bb			496.9322	99.4	-0.6	426.7
1202032099	Tetryl	241 > 181	12.68	2758.181	3837.569	2758.181	359.366	bb			329.6231	65.9	-34.1	250.7
1202032099	Nitrobenzene	123 > 46	13.63	2747.401	3837.569	2747.401	357.961	bb			416.9565	83.4	-16.6	327.1
1202032099	4-Amino-26-dinitrotoluene	197 > 167	15.68	5209.237	19410.270	5209.237	134.188	MM	19-Feb-10	08:38:26	419.0520	83.8	-16.2	208.0
1202032099	2-Amino-46-dinitrotoluene	197 > 180	16.58	8093.038	19410.270	8093.038	208.473	bb			482.5153	96.5	-3.5	621.4
1202032099	246-Trinitrotoluene	227 > 210	15.41	5834.427	19410.270	5834.427	150.292	bb			448.2927	89.7	-10.3	108.7
1202032099	34-dinitrotoluene	182 > 152	14.38	8374.098	19410.270	8374.098	215.713	bb			238.0936	95.2	-4.8	298.8
1202032099	26-dinitrotoluene	182 > 152	17.58	20186.814	19410.270	20186.814	520.003	MM	19-Feb-10	08:42:56	490.8285	98.2	-1.8	897.7
1202032099	24-dinitrotoluene	182 > 152	18.27	4233.443	19410.270	4233.443	109.052	MM	19-Feb-10	08:47:10	442.3815	88.5	-11.5	180.0
1202032099	26-dinitrotoluene-d3	185 > 155	17.44	19410.270		19410.270	19410.270	bb			557.4923	111.5	11.5	17.9
1202032099	2-Nitrotoluene	137 > 46	21.09	2803.106	19410.270	2803.106	72.207	bb			474.4386	94.9	-5.1	817.9
1202032099	4-Nitrotoluene	137 > 46	22.48	1427.965	19410.270	1427.965	36.784	bb			479.8847	96.0	-4.0	402.7
1202032099	3-Nitrotoluene	137 > 46	24.12	1532.856	19410.270	1532.856	39.486	bb			441.2349	88.2	-11.8	411.4
1202032099	PETN	361 > 62	24.44	36483.754	19410.270	36483.754	939.805	bb			576.4604	115.3	15.3	3283.2

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309(245959001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 1202032099

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140125.wiff

Date Analyzed: 15-FEB-10 22:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6980	
59229-75-3	2,6-Diamino-4-nitrotoluene	4120	
618-87-1	3,5-Dinitroaniline	5130	
6629-29-4	2,4-Diamino-6-nitrotoluene	4200	
78-30-8	tris(o-cresyl) phosphate	4890	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Chem 2/16/10

Sample Name: "1202032099" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 698. ng/mL
q. Date: 2/15/2010
q. Time: 10:45:49 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.15 min
e Relative RT: No

t. Type: Valley
tention Time: 7.12 min
ea: 9.73e+005 counts
ight: 321469.818 cps
art Time: 7.02 min
d Time: 7.80 min

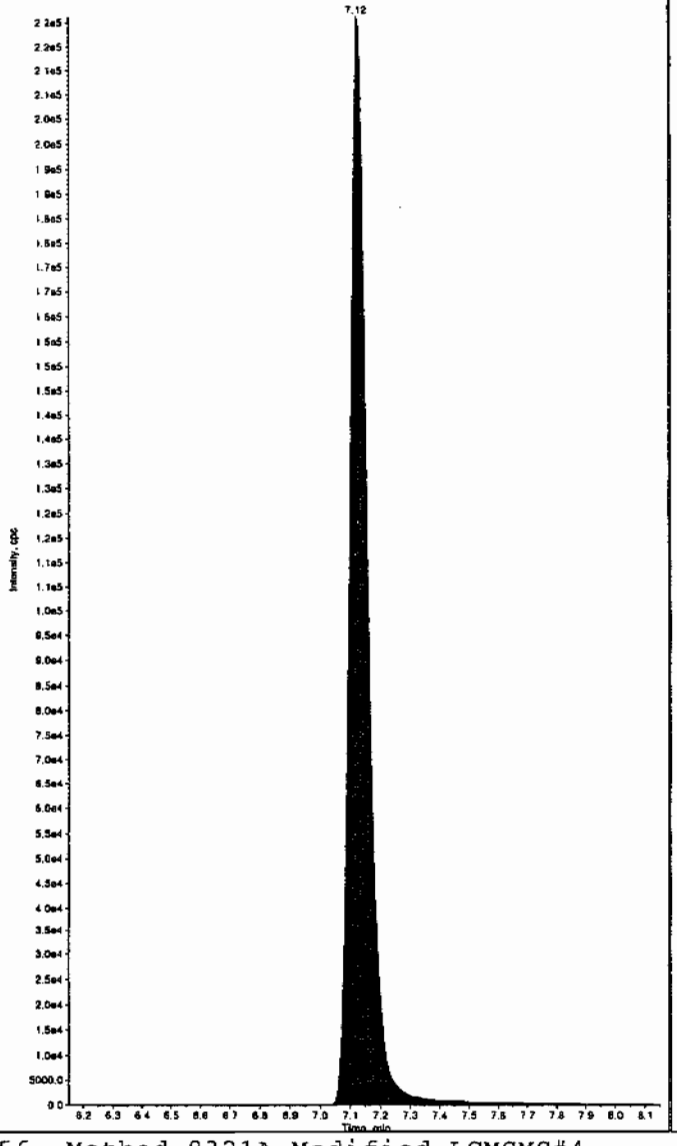

Sample Name: "1202032099" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 572. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 10:45:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 3.72e+006 counts
Height: 833237.793 cps
Start Time: 8.27 min
End Time: 8.65 min

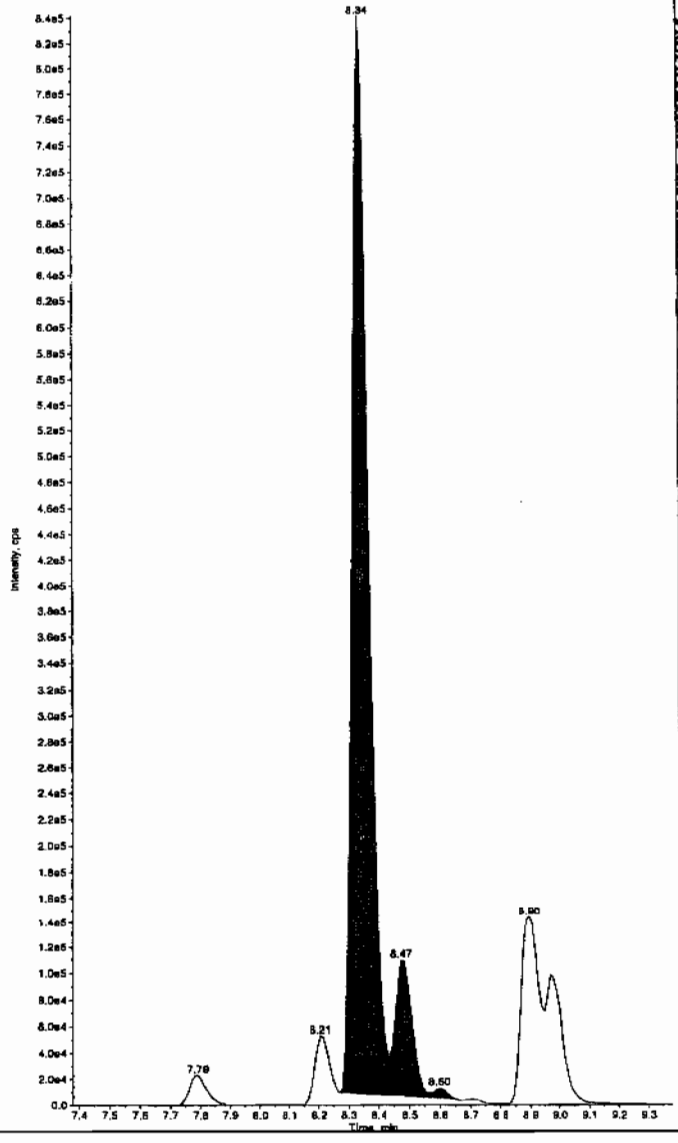

Hmm 02/17/10

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after [illegible] 2/17/10

Sample Name: "1202032099" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	698. ng/mL
q. Date:	2/15/2010
q. Time:	10:45:49 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.15 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.12 min
ea:	9.73e+005 counts
ight:	221469.818 cps
art Time:	7.02 min
d Time:	7.80 min

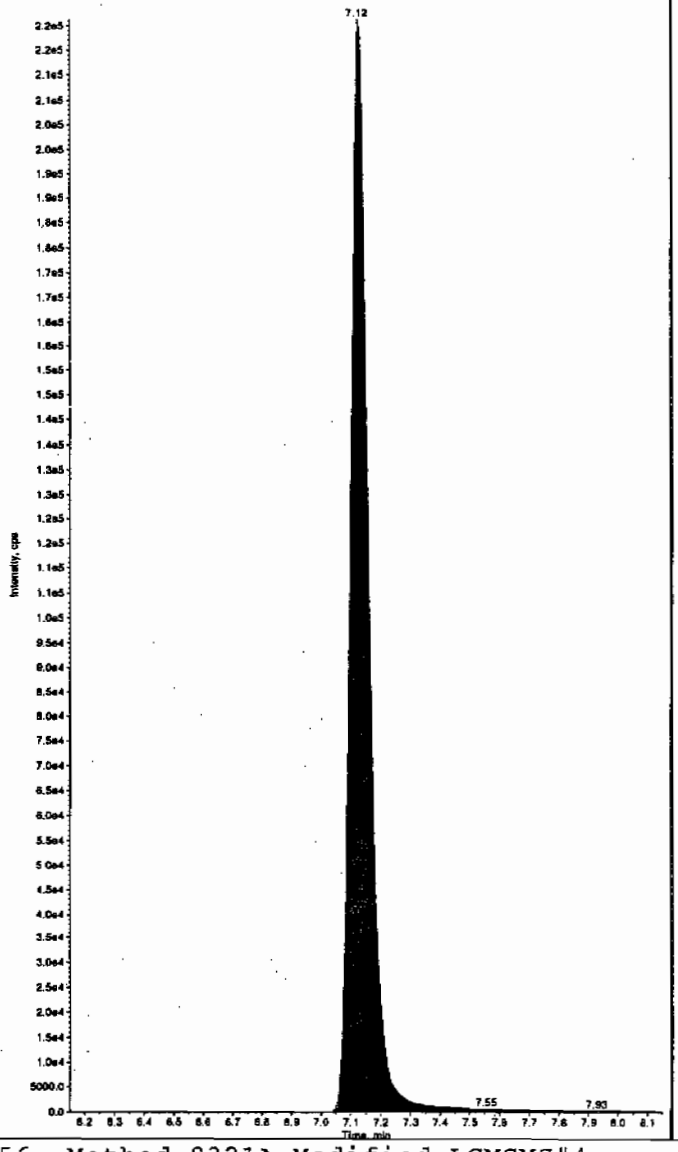

Sample Name: "1202032099" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	513. ng/mL
Acq. Date:	2/15/2010
Acq. Time:	10:45:49 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.38 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.34 min
Area:	3.35e+006 counts
Height:	842739.913 cps
Start Time:	8.27 min
End Time:	8.43 min

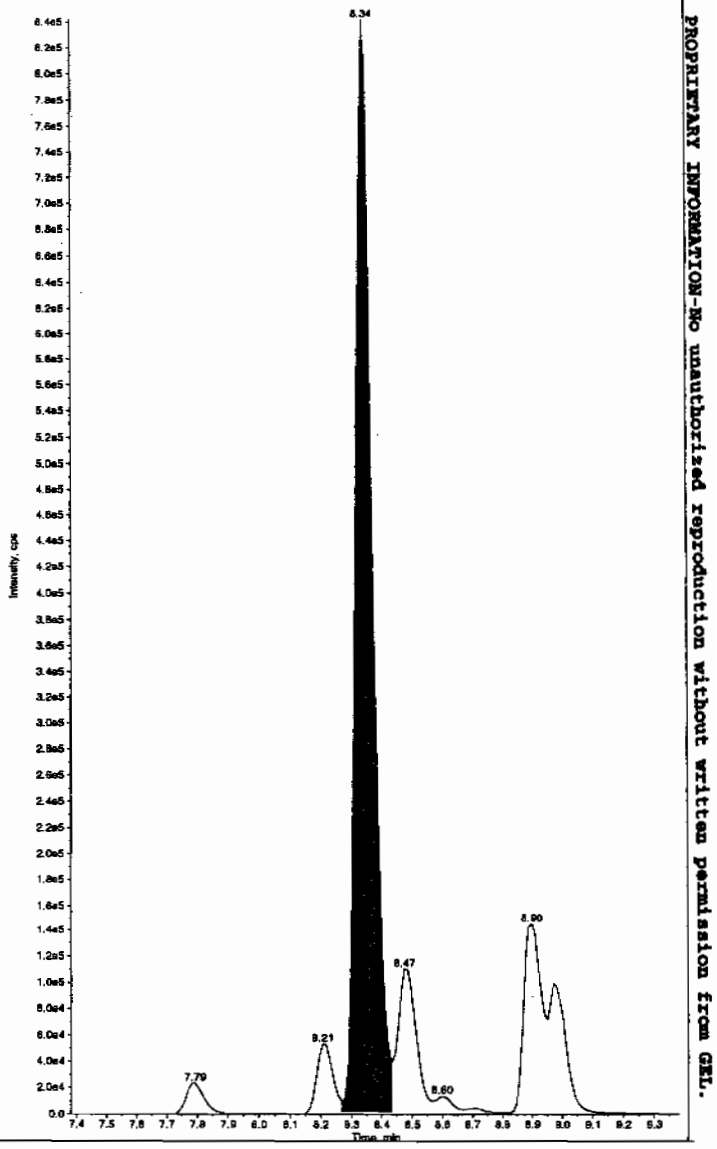

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

ample Name: "1202032099" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
icentration:      N/A
culated Conc:     294.     ng/mL
l. Date:        2/15/2010
l. Time:        10:45:49 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00   cps
. Peak Width:    0.00   sec
othing Width:  3        points
Window:         15.0    sec
ected RT:        8.52   min
 Relative RT:    No

. Type:         Valley
ention Time:     8.47   min
a:          3.82e+006   counts
ght:        1025770.020  cps
rt Time:         8.40   min
 Time:           8.67   min
```

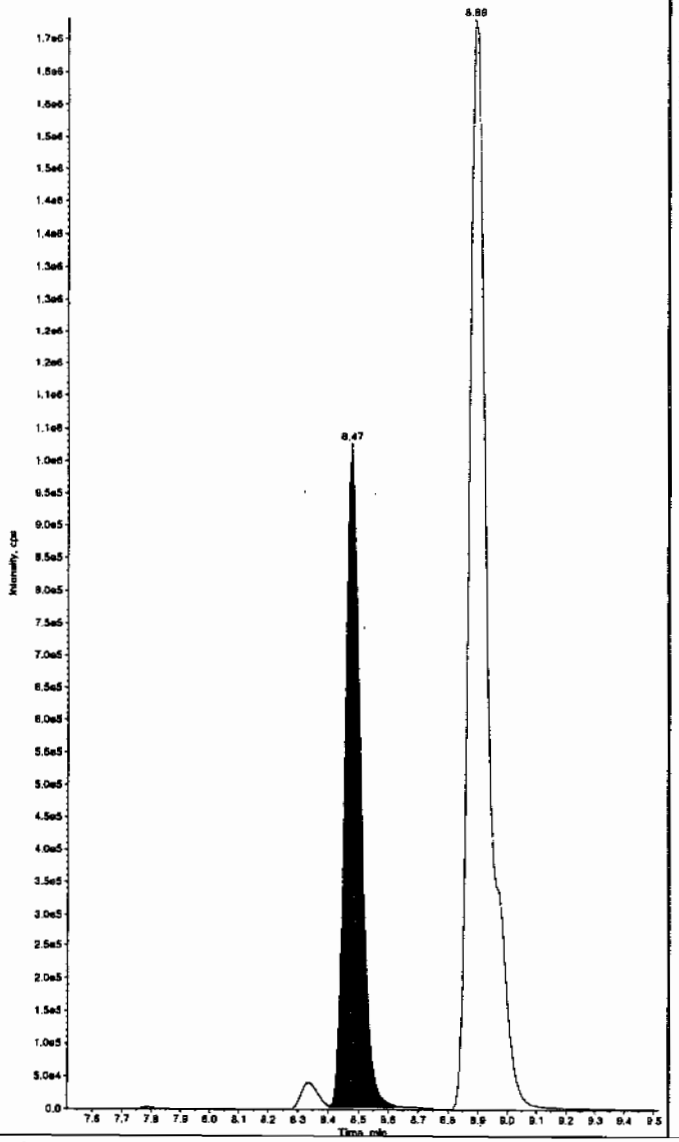

Sample Name: "1202032099" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     412.     ng/mL
Acq. Date:         2/15/2010
Acq. Time:         10:45:49 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.17   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.17   min
Area:          1.18e+006   counts
Height:        295000.397  cps
Start Time:         5.05   min
End Time:           5.44   min
```

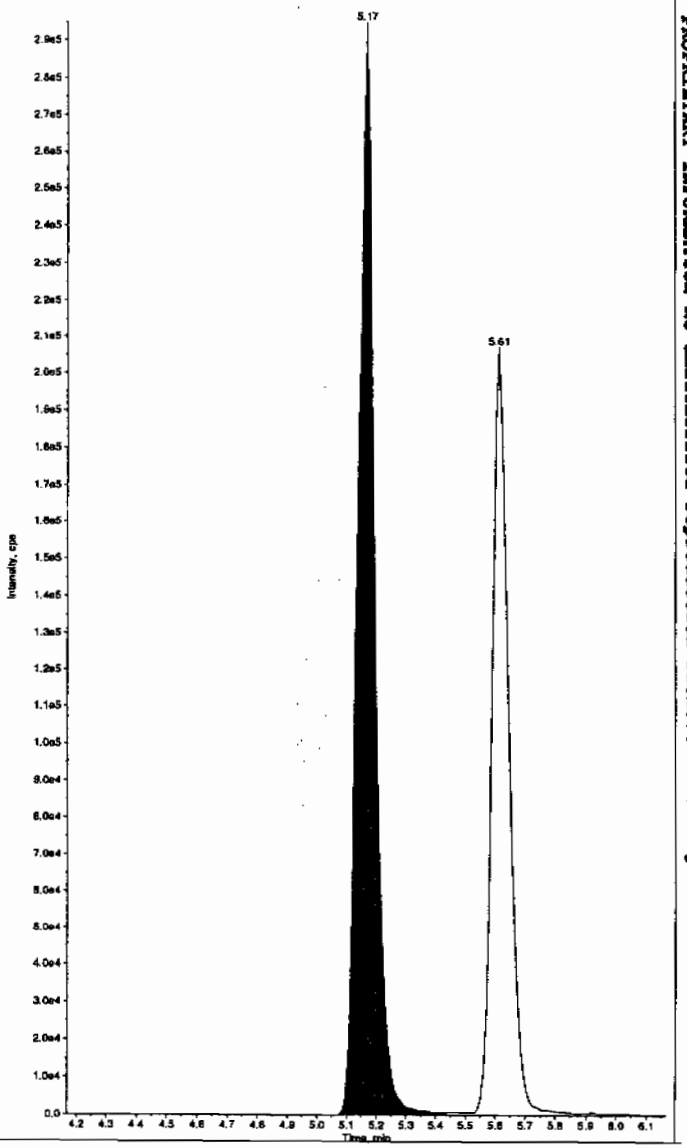

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Sample Name: "1202032099" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 420. ng/mL
q. Date: 2/15/2010
q. Time: 10:45:49 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.62 min
e Relative RT: No

t. Type: Valley
tention Time: 5.61 min
ea: 8.00e+005 counts
ight: 206819.321 cps
art Time: 5.53 min
d Time: 5.87 min

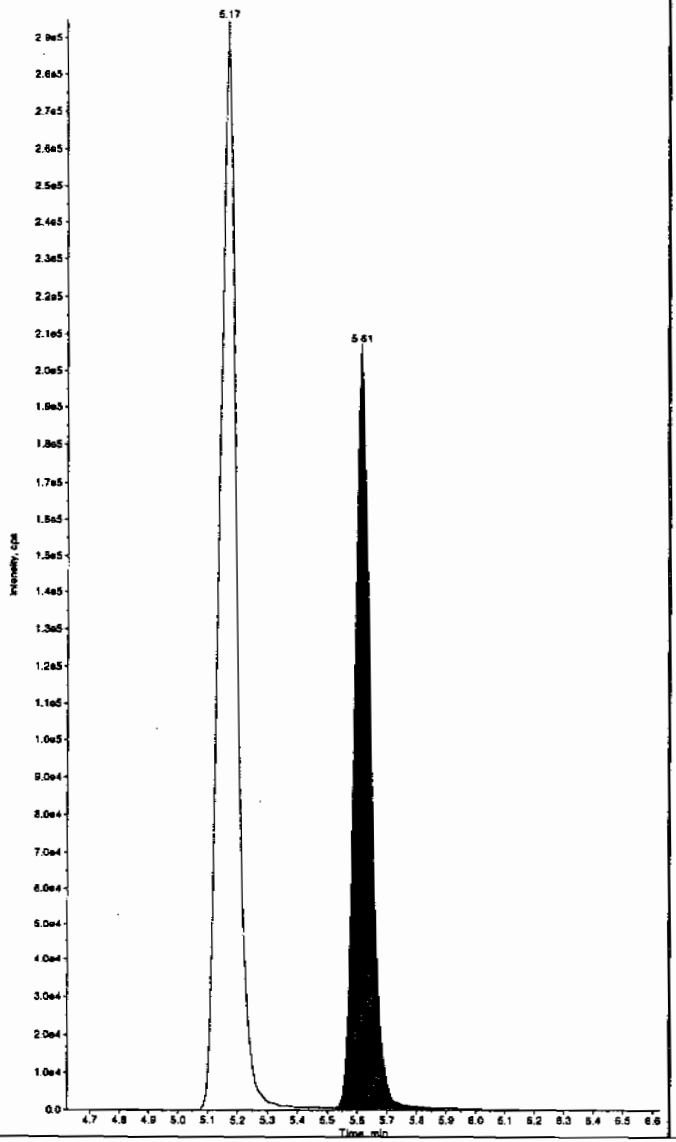

Sample Name: "1202032099" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 489. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 10:45:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.07e+007 counts
Height: 2576691.895 cps
Start Time: 10.8 min
End Time: 11.3 min

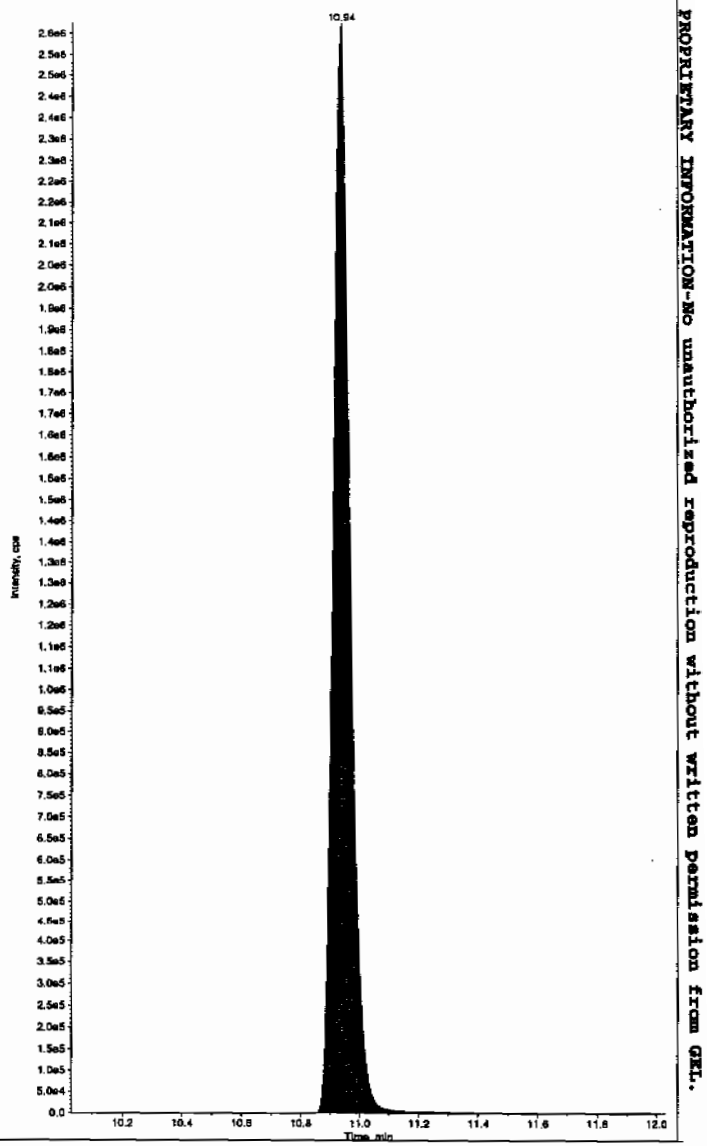

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309(245959001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 1202032100

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216087a

Date Analyzed: 18-FEB-10 11:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5690	
121-14-2	2,4-Dinitrotoluene	4640	
121-82-4	RDX	5910	
19406-51-0	4-Amino-2,6-dinitrotoluene	5260	
2691-41-0	HMX	3660	
35572-78-2	2-Amino-4,6-dinitrotoluene	5460	
479-45-8	Tetryl	3380	
606-20-2	2,6-Dinitrotoluene	4960	
78-11-5	PETN	6800	
88-72-2	o-Nitrotoluene	4860	
98-95-3	Nitrobenzene	4210	
99-08-1	m-Nitrotoluene	4540	
99-35-4	1,3,5-Trinitrobenzene	5000	
99-65-0	m-Dinitrobenzene	5240	
99-99-0	p-Nitrotoluene	5000	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216087a
Date: 18-Feb-2010
Time: 11:36:54
ID: 1202032100 | LANL | 948572 | Soils | 245959001 MSD | 2 |
Vial: 2:6,A

2/19/10

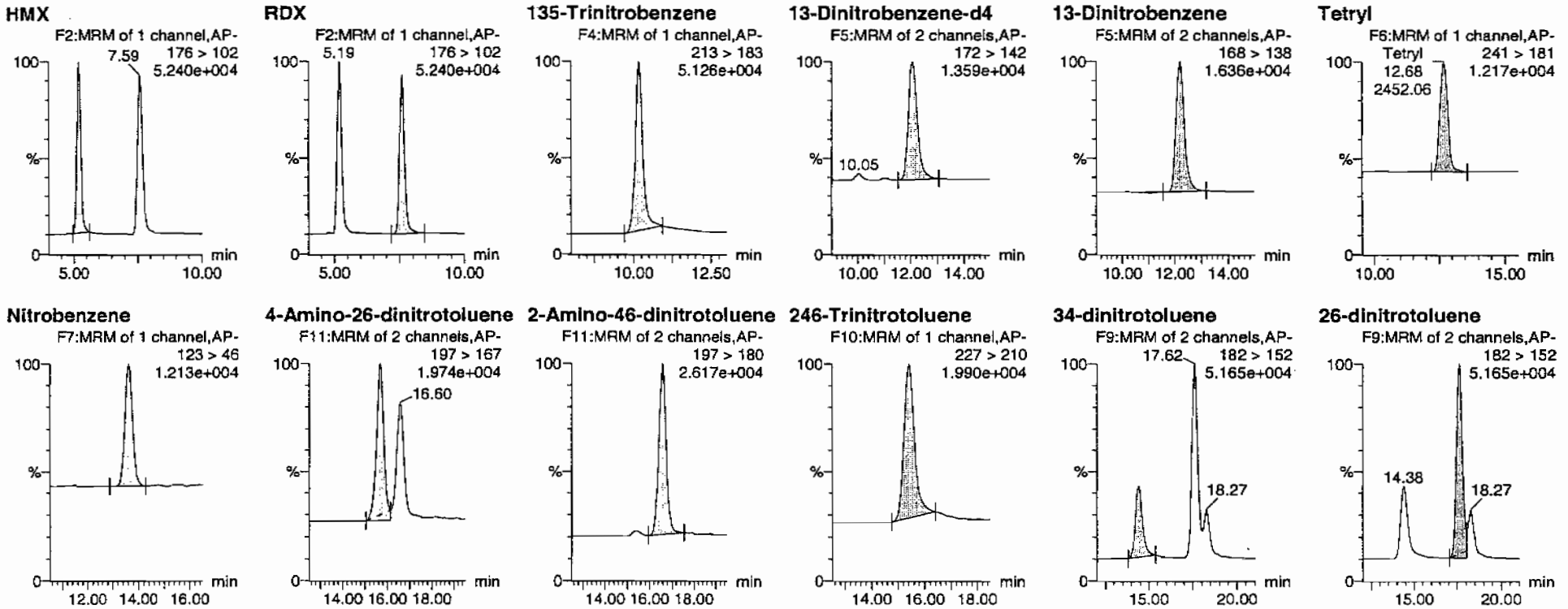

2/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

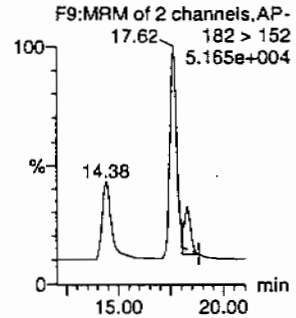

26-dinitrotoluene-d3

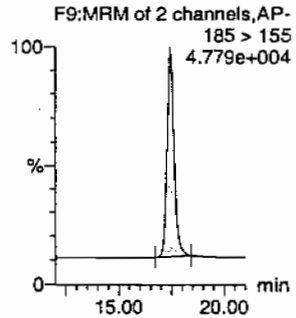

2-Nitrotoluene

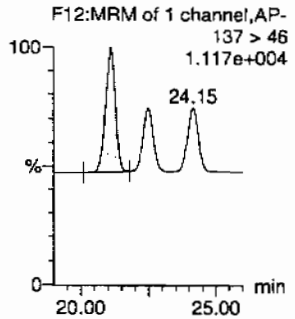

4-Nitrotoluene

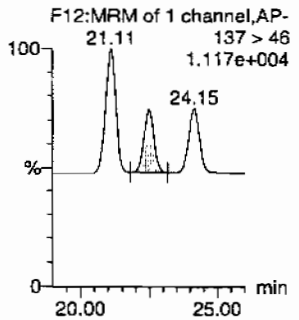

3-Nitrotoluene

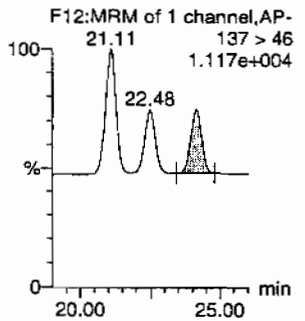

PETN

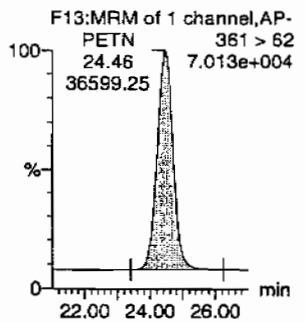

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032100	HMX	176 > 102	5.19	9382.814	3325.714	9382.814	1410.647	bb			365.6064	73.1	-26.9	1249.2
1202032100	RDX	176 > 102	7.59	10189.819	3325.714	10189.819	1531.975	bb			590.7107	118.1	18.1	1157.0
1202032100	135-Trinitrobenzene	213 > 183	10.18	12869.273	3325.714	12869.273	1934.814	bb			499.6232	99.9	-0.1	1118.6
1202032100	13-Dinitrobenzene-d4	172 > 142	12.07	3325.714		3325.714	3325.714	bb			552.0011	110.4	10.4	415.5
1202032100	13-Dinitrobenzene	168 > 138	12.20	4138.615	3325.714	4138.615	622.215	bb			523.5205	104.7	4.7	470.2
1202032100	Tetryl	241 > 181	12.68	2452.056	3325.714	2452.056	368.651	bb			338.1400	67.6	-32.4	239.8
1202032100	Nitrobenzene	123 > 46	13.63	2403.196	3325.714	2403.196	361.305	bb			420.8518	84.2	-15.8	333.9
1202032100	4-Amino-26-dinitrotoluene	197 > 167	15.71	5742.911	17062.541	5742.911	168.290	MM	19-Feb-10	08:38:41	525.5496	105.1	5.1	218.1
1202032100	2-Amino-46-dinitrotoluene	197 > 180	16.60	8055.035	17062.541	8055.035	236.044	bb			546.3297	109.3	9.3	387.7
1202032100	246-Trinitrotoluene	227 > 210	15.41	6504.671	17062.541	6504.671	190.613	bb			568.5605	113.7	13.7	501.3
1202032100	34-dinitrotoluene	182 > 152	14.38	8043.268	17062.541	8043.268	235.700	bb			260.1538	104.1	4.1	245.1
1202032100	26-dinitrotoluene	182 > 152	17.62	17926.650	17062.541	17926.650	525.322	MM	19-Feb-10	08:43:03	495.8485	99.2	-0.8	679.0
1202032100	24-dinitrotoluene	182 > 152	18.27	3906.811	17062.541	3906.811	114.485	MM	19-Feb-10	08:47:02	464.4228	92.9	-7.1	151.3
1202032100	26-dinitrotoluene-d3	185 > 155	17.44	17062.541		17062.541	17062.541	bb			490.0619	98.0	-2.0	1708.1
1202032100	2-Nitrotoluene	137 > 46	21.11	2526.494	17062.541	2526.494	74.036	bb			486.4594	97.3	-2.7	824.2
1202032100	4-Nitrotoluene	137 > 46	22.48	1308.081	17062.541	1308.081	38.332	bb			500.0828	100.0	0.0	418.8
1202032100	3-Nitrotoluene	137 > 46	24.15	1385.826	17062.541	1385.826	40.610	bb			453.8006	90.8	-9.2	421.8
1202032100	PETN	361 > 62	24.46	36599.246	17062.541	36599.246	1072.503	bb			679.9727	136.0	36.0	7831.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7309(245959001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1510

Matrix: SOIL

GEL Sample ID: 1202032100

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948571

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140126.wiff

Date Analyzed: 15-FEB-10 23:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7470	
59229-75-3	2,6-Diamino-4-nitrotoluene	4140	
618-87-1	3,5-Dinitroaniline	5100	
6629-29-4	2,4-Diamino-6-nitrotoluene	3740	
78-30-8	tris(o-cresyl) phosphate	4870	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Lau 2/16/10

Sample Name: "1202032100" Sample ID: "948572|2|LER" File: "EXS02140126.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 747. ng/mL
q. Date: 2/15/2010
q. Time: 11:01:31 PM

iified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.15 min
e Relative RT: No

.. Type: Valley
etention Time: 7.13 min
ea: 1.04e+006 counts
ight: 237068.640 cps
art Time: 7.01 min
d Time: 7.81 min

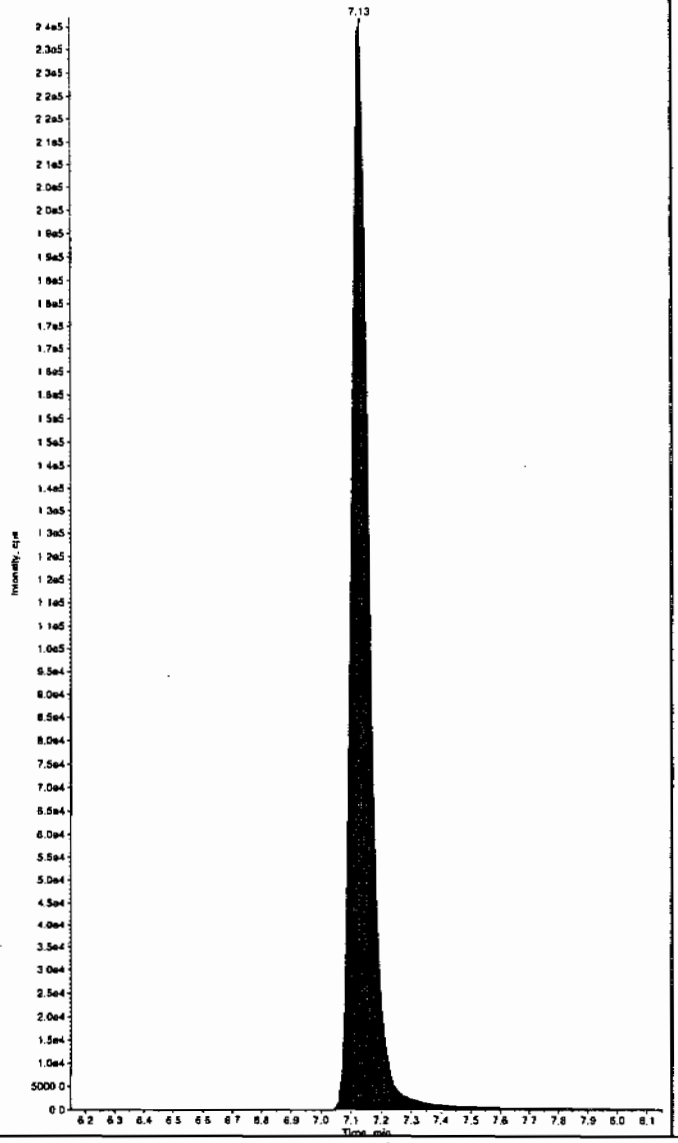

Sample Name: "1202032100" Sample ID: "948572|2|LER" File: "EXS02140126.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 562. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:01:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 3.66e+006 counts
Height: 823087.646 cps
Start Time: 8.28 min
End Time: 8.66 min

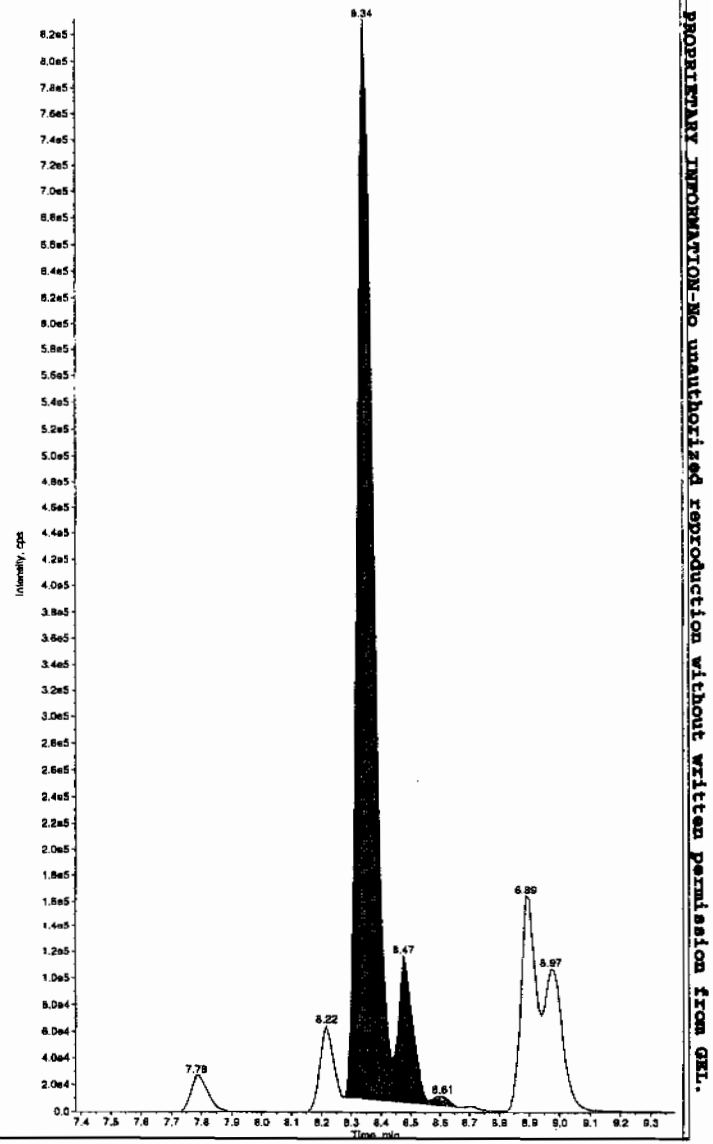

Hmc 02/17/10

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after Dan 2/17/10

Sample Name: "1202032100" Sample ID: "948572|2|LER" File: "EXS02140126.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	747. ng/mL
q. Date:	2/15/2010
q. Time:	11:01:31 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.15 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.13 min
ea:	1.04e+006 counts
ight:	237068.680 cps
art Time:	7.01 min
d Time:	7.80 min

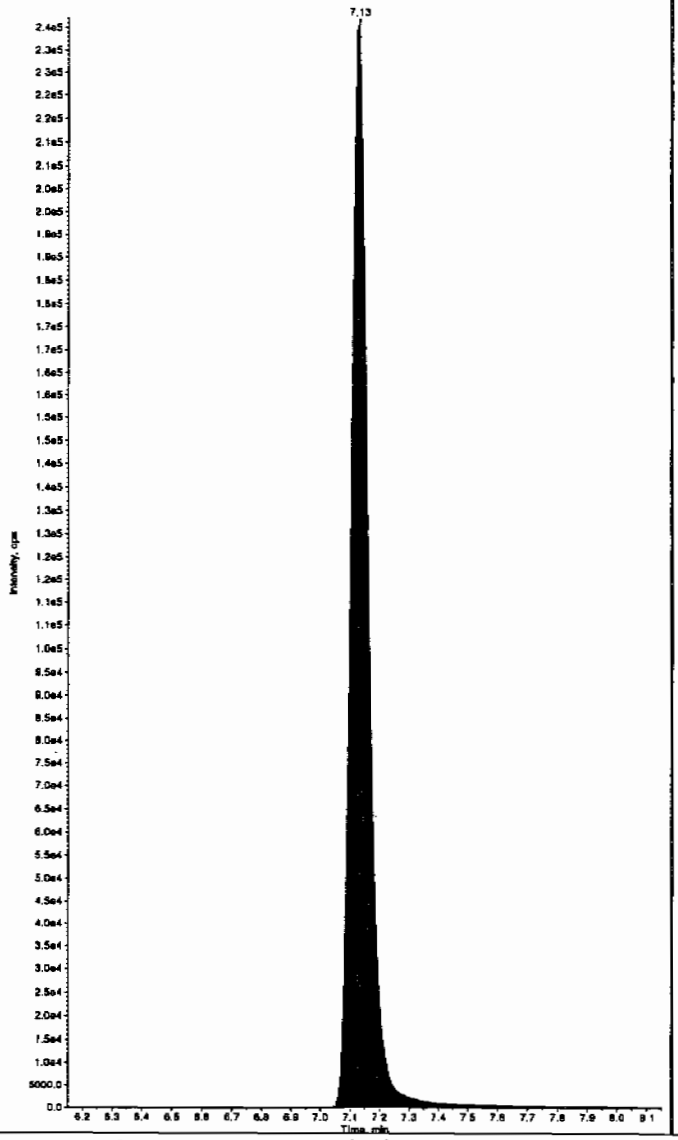

Sample Name: "1202032100" Sample ID: "948572|2|LER" File: "EXS02140126.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	510. ng/mL
Acq. Date:	2/15/2010
Acq. Time:	11:01:31 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.38 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.34 min
Area:	3.33e+006 counts
Height:	834727.910 cps
Start Time:	8.26 min
End Time:	8.44 min

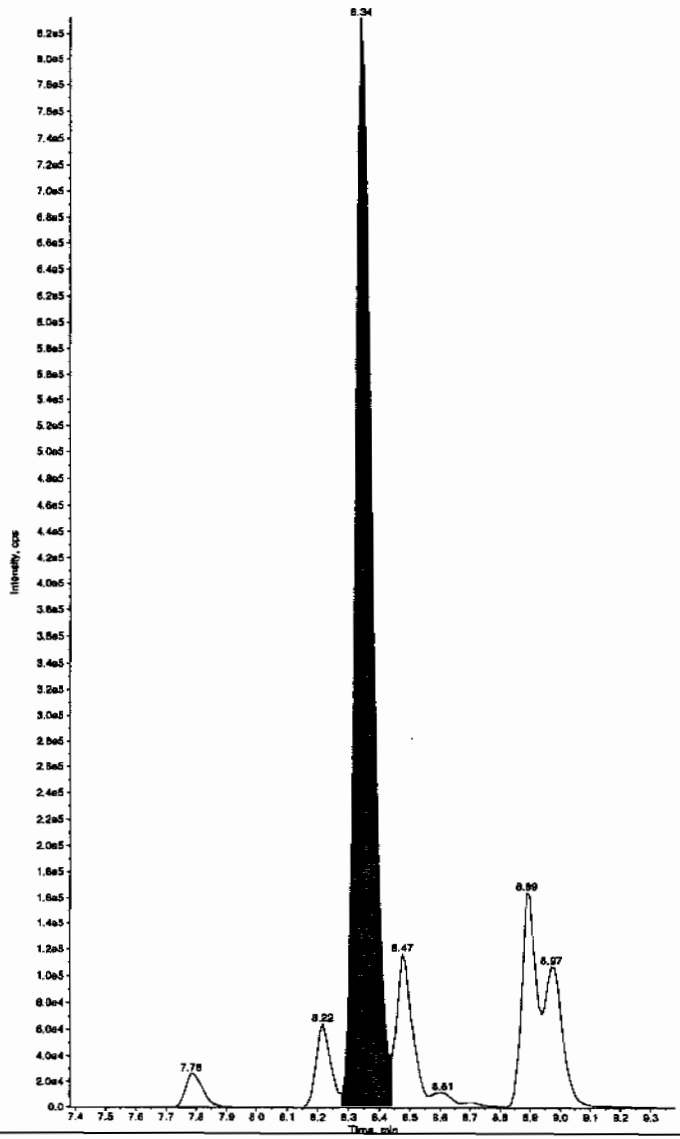

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Sample Name: "1202032100" Sample ID: "948572|2|LER" File: "EXS02140126.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
ncentration:	N/A
lculated Conc:	280. ng/mL
q. Date:	2/15/2010
q. Time:	11:01:31 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
ected RT:	8.52 min
Relative RT:	No
t. Type:	Valley
tention Time:	8.47 min
a:	3.65e+006 counts
ght:	975977.783 cps
rt Time:	8.40 min
d Time:	8.67 min

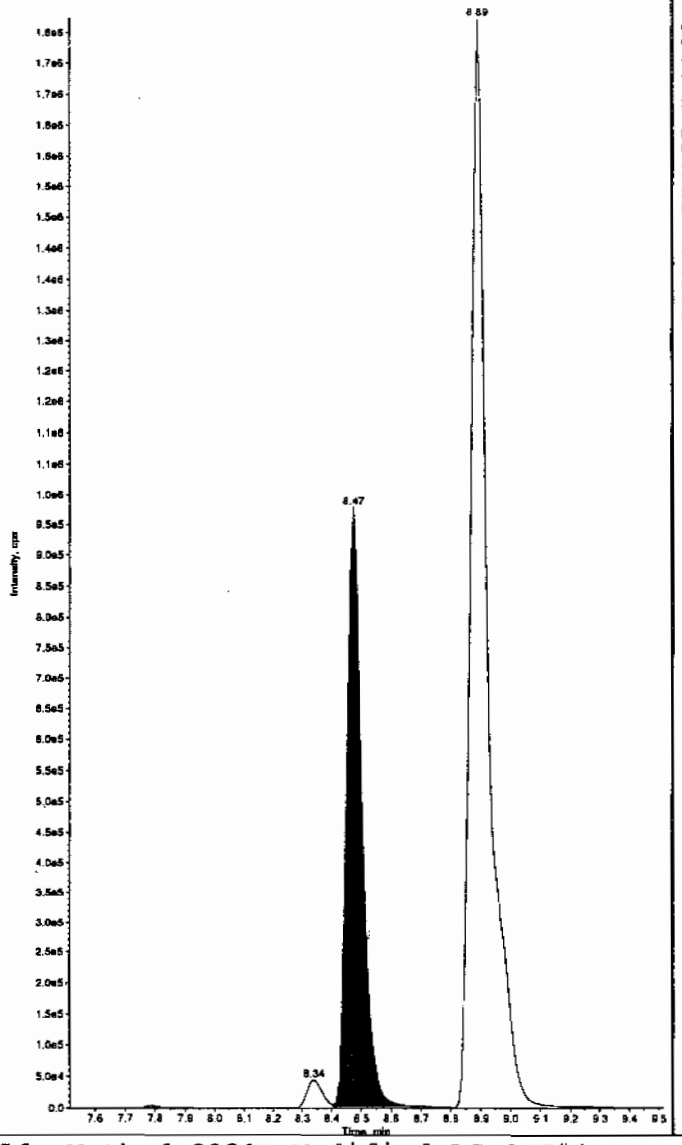

Sample Name: "1202032100" Sample ID: "948572|2|LER" File: "EXS02140126.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	414. ng/mL
Acq. Date:	2/15/2010
Acq. Time:	11:01:31 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.17 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.17 min
Area:	1.19e+006 counts
Height:	275642.761 cps
Start Time:	5.05 min
End Time:	5.45 min

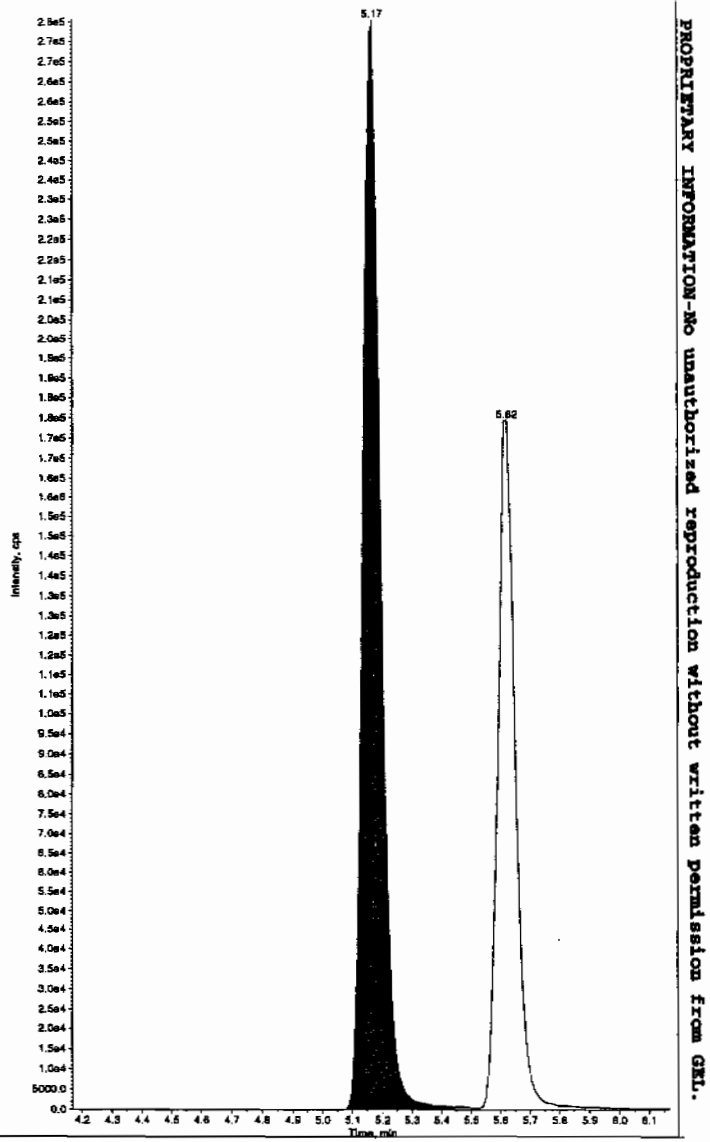

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Sample Name: "1202032100" Sample ID: "948572|2|LER" File: "EXS02140125.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
lculated Conc:	374. ng/mL
1. Date:	2/15/2010
1. Time:	11:01:31 PM
lified:	No
c. Algorithm:	IntelliQuan - IQA
1. Peak Height:	350.00 cps
1. Peak Width:	0.00 sec
othing Width:	3 points
Window:	30.0 sec
ected RT:	5.62 min
Relative RT:	No
Type:	Valley
ention Time:	5.62 min
a:	7.13e+005 counts
ght:	174254.425 cps
rt Time:	5.53 min
Time:	6.05 min

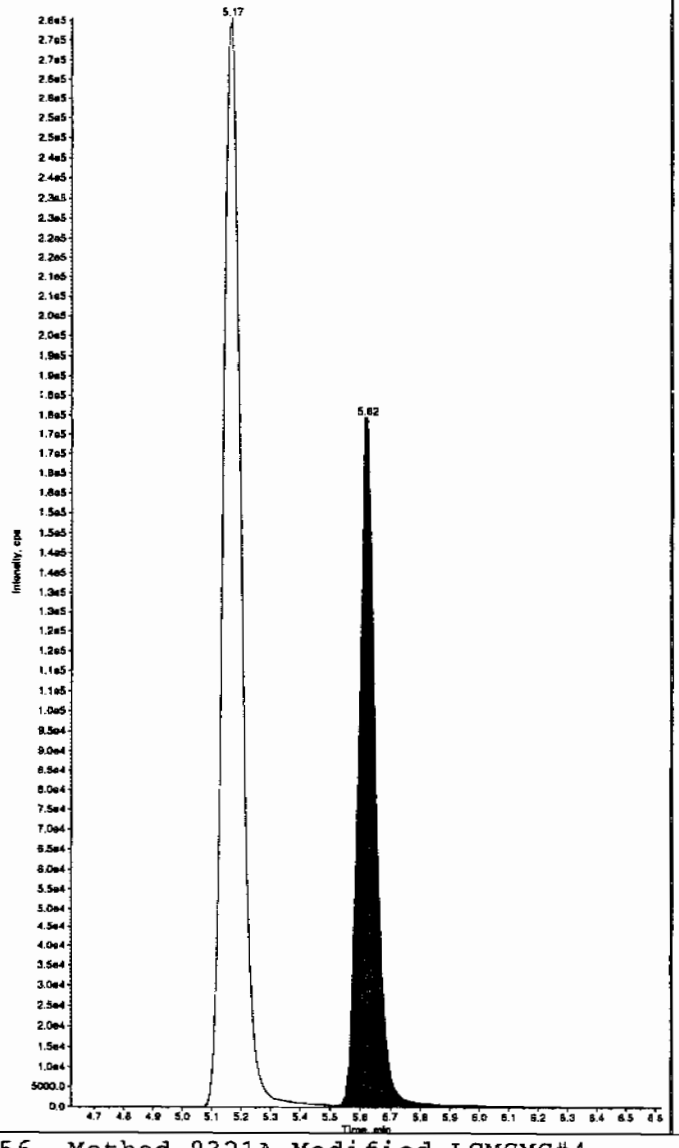

Sample Name: "1202032100" Sample ID: "948572|2|LER" File: "EXS02140126.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	487. ng/mL
Acq. Date:	2/15/2010
Acq. Time:	11:01:31 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	1.07e+007 counts
Height:	2471264.893 cps
Start Time:	10.8 min
End Time:	11.3 min

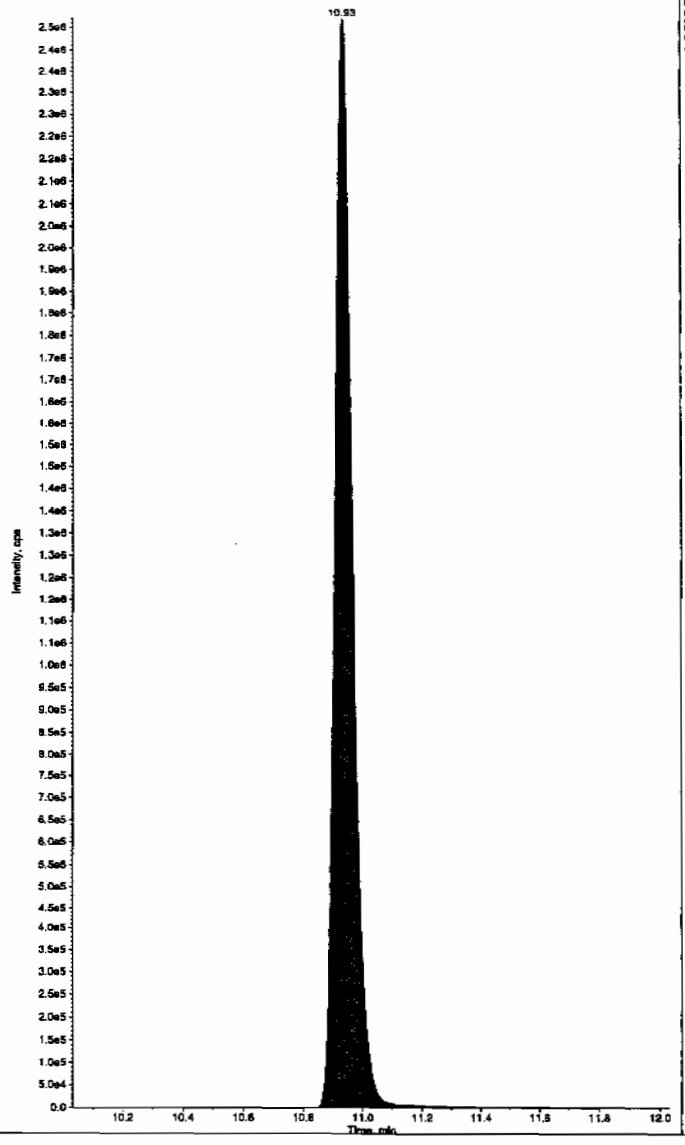

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 948571 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202032097 MB	10-FEB-2010 17:03:00	2	10	5
1202032098 LCS	10-FEB-2010 17:03:00	2	10	5
245955001	10-FEB-2010 17:03:00	2	10	5
245955002	10-FEB-2010 17:03:00	2	10	5
245959001	10-FEB-2010 17:03:00	2	10	5
1202032099 MS (245959001)	10-FEB-2010 17:03:00	2	10	5
1202032100 MSD (245959001)	10-FEB-2010 17:03:00	2	10	5
245959002	10-FEB-2010 17:03:00	2	10	5
245959003	10-FEB-2010 17:03:00	2	10	5
245959004	10-FEB-2010 17:03:00	2	10	5
245959005	10-FEB-2010 17:03:00	2	10	5
245959006	10-FEB-2010 17:03:00	2	10	5
245959007	10-FEB-2010 17:03:00	2	10	5
245959008	10-FEB-2010 17:03:00	2	10	5
245959009	10-FEB-2010 17:03:00	2	10	5
245959010	10-FEB-2010 17:03:00	2	10	5
245959012	10-FEB-2010 17:03:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202032098	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202032098	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MS	1202032099	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202032099	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MSD	1202032100	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202032100	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100204-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 02/16/10
Extr. Injection Volume: 50uL
Sequence Number: 021610expA
Initial Calibration Date: 02/16/10

Method: SW846 8321A-Modified
Int. Std.: UXX100128-01.3
Mobile Phase Lot#: 1269631, 1263794
Standard-Samp Reagent Lot#: 1260901, 1261217

Reviewed BY: HMK
Date: 02/21/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100216-07, WXX100219-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0216001a	XIBLK01	MAP	2/16/10 17:07			1		USE	B
EXP0216002a	XIBLK01	MAP	2/16/10 17:37			1		USE	B
EXP0216003a	WXXICAL-01	MAP	2/16/10 18:07			1		USE	I
EXP0216004a	WXXICAL-02	MAP	2/16/10 18:36			1		USE	I
EXP0216005a	WXXICAL-03	MAP	2/16/10 19:06			1		USE	I
EXP0216006a	WXXICAL-04	MAP	2/16/10 19:35			1		USE	I
EXP0216007a	WXXICAL-05	MAP	2/16/10 20:05			1		USE	I
EXP0216008a	WXXICAL-06	MAP	2/16/10 20:35			1		USE	I
EXP0216009a	XIBLK02	MAP	2/16/10 21:04			1		USE	B
EXP0216010a	WXXICV	MAP	2/16/10 21:34			1		USE	C
EXP0216011a	XIBLK03	MAP	2/16/10 22:04			1		USE	B
EXP0216012a	WXXCRI	MAP	2/16/10 22:33			1		USE	C
EXP0216013a	1202038759	MAP	2/16/10 23:03	951342	Various	2	LANL	USE	S
EXP0216014a	1202038760	MAP	2/16/10 23:33	951342	Various	2	LANL	USE	S
EXP0216015a	246569007	MAP	2/17/10 0:02	951342	10-1669	2	LANL	USE	S
EXP0216016a	1202038761	MAP	2/17/10 0:32	951342	10-1669	2	LANL	USE	S
EXP0216017a	1202038762	MAP	2/17/10 1:02	951342	10-1669	2	LANL	USE	S
EXP0216018a	246572005	MAP	2/17/10 1:32	951342	10-1678	2	LANL	USE	S
EXP0216019a	246580002	MAP	2/17/10 2:01	951342	10-1683	2	LANL	USE	S
EXP0216020a	246580003	MAP	2/17/10 2:31	951342	10-1683	2	LANL	USE	S
EXP0216021a	WXXCCV	MAP	2/17/10 3:00			1		USE	C
EXP0216022a	XIBLK04	MAP	2/17/10 3:30			1		USE	B
EXP0216023a	WXXCRI	MAP	2/17/10 3:59			1		USE	C
EXP0216024a	246595004	MAP	2/17/10 4:29	951342	10-1694	2	LANL	USE	S
EXP0216025a	1202038763	MAP	2/17/10 4:58	951342	10-1694	2	LANL	USE	S
EXP0216026a	1202038764	MAP	2/17/10 5:28	951342	10-1694	2	LANL	USE	S
EXP0216027a	WXXCCV	MAP	2/17/10 5:58			1		USE	C
EXP0216028a	XIBLK05	MAP	2/17/10 6:28			1		USE	B
EXP0216029a	WXXCRI	MAP	2/17/10 6:57			1		USE	C
EXP0216030a	1202030577	MAP	2/17/10 7:27	947919	Various	2	LANL	USE	S
EXP0216031a	1202030578	MAP	2/17/10 7:57	947919	Various	2	LANL	USE	S

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EXP0216032a	245908001	MAP	2/17/10 8:27	947919	10-1486	2	LANL	USE	S
EXP0216033a	1202030579	MAP	2/17/10 8:56	947919	10-1486	2	LANL	USE	S
EXP0216034a	1202030580	MAP	2/17/10 9:26	947919	10-1486	2	LANL	USE	S
EXP0216035a	245908002	MAP	2/17/10 9:56	947919	10-1486	2	LANL	USE	S
EXP0216036a	245908005	MAP	2/17/10 10:25	947919	10-1486	2	LANL	USE	S
EXP0216037a	245908006	MAP	2/17/10 10:55	947919	10-1486	2	LANL	USE	S
EXP0216038a	245912003	MAP	2/17/10 11:25	947919	10-1488	2	LANL	USE	S
EXP0216039a	WXXCCV	MAP	2/17/10 11:55			1		USE	C
EXP0216040a	XIBLK06	MAP	2/17/10 12:24			1		USE	B
EXP0216041a	WXXCRI	MAP	2/17/10 12:54			1		USE	C
EXP0216042a	1202038769	MAP	2/17/10 13:23	951349	Various	2	LANL	USE	S
EXP0216043a	1202038770	MAP	2/17/10 13:53	951349	Various	2	LANL	USE	S
EXP0216044a	246554001	MAP	2/17/10 14:23	951349	10-1665	2	LANL	USE	S
EXP0216045a	1202038771	MAP	2/17/10 14:52	951349	10-1665	2	LANL	USE	S
EXP0216046a	1202038772	MAP	2/17/10 15:22	951349	10-1665	2	LANL	USE	S
EXP0216047a	246554002	MAP	2/17/10 15:52	951349	10-1665	2	LANL	USE	S
EXP0216048a	246554003	MAP	2/17/10 16:21	951349	10-1665	2	LANL	USE	S
EXP0216049a	246554004	MAP	2/17/10 16:51	951349	10-1665	2	LANL	USE	S
EXP0216050a	246554005	MAP	2/17/10 17:20	951349	10-1665	2	LANL	USE	S
EXP0216051a	246554006	MAP	2/17/10 17:50	951349	10-1665	2	LANL	USE	S
EXP0216052a	WXXCCV	MAP	2/17/10 18:20			1		USE	C
EXP0216053a	XIBLK07	MAP	2/17/10 18:50			1		USE	B
EXP0216054a	WXXCRI	MAP	2/17/10 19:19			1		USE	C
EXP0216055a	246557001	MAP	2/17/10 19:49	951349	10-1666	2	LANL	USE	S
EXP0216056a	246562001	MAP	2/17/10 20:19	951349	10-1668	2	LANL	USE	S
EXP0216057a	246575003	MAP	2/17/10 20:49	951349	10-1675	2	LANL	USE	S
EXP0216058a	246575004	MAP	2/17/10 21:18	951349	10-1675	2	LANL	USE	S
EXP0216059a	246582002	MAP	2/17/10 21:48	951349	10-1685	2	LANL	USE	S
EXP0216060a	246582003	MAP	2/17/10 22:17	951349	10-1685	2	LANL	USE	S
EXP0216061a	246582004	MAP	2/17/10 22:47	951349	10-1685	2	LANL	USE	S
EXP0216062a	246582005	MAP	2/17/10 23:16	951349	10-1685	2	LANL	USE	S
EXP0216063a	246582006	MAP	2/17/10 23:46	951349	10-1685	2	LANL	USE	S
EXP0216064a	246582007	MAP	2/18/10 0:15	951349	10-1685	2	LANL	USE	S
EXP0216065a	WXXCCV	MAP	2/18/10 0:45			1		USE	C
EXP0216066a	XIBLK08	MAP	2/18/10 1:14			1		USE	B
EXP0216067a	WXXCRI	MAP	2/18/10 1:44			1		USE	C
EXP0216068a	246582008	MAP	2/18/10 2:14	951349	10-1685	2	LANL	USE	S
EXP0216069a	XIBLK09	MAP	2/18/10 2:43			1		USE	B
EXP0216070a	1202032097	MAP	2/18/10 3:13	948572	Various	2	LANL	DUSE	S

EXP0216071a	1202032098	MAP	2/18/10 3:43	948572	Various	2	LANL	DUSE	S
EXP0216072a	245955001	MAP	2/18/10 4:12	948572	10-1509	2	LANL	DUSE	S
EXP0216073a	245955002	MAP	2/18/10 4:42	948572	10-1509	2	LANL	DUSE	S
EXP0216074a	245959001	MAP	2/18/10 5:12	948572	10-1510	2	LANL	DUSE	S
EXP0216075a	1202032099	MAP	2/18/10 5:42	948572	10-1510	2	LANL	DUSE	S
EXP0216076a	1202032100	MAP	2/18/10 6:11	948572	10-1510	2	LANL	DUSE	S
EXP0216077a	245959002	MAP	2/18/10 6:41	948572	10-1510	2	LANL	DUSE	S
EXP0216078a	WXXCCV	MAP	2/18/10 7:10			1		USE	C
EXP0216079a	XIBLK10	MAP	2/18/10 7:40			1		USE	B
EXP0216080a	WXXCRI	MAP	2/18/10 8:10			1		USE	C
EXP0216081a	1202032097	MAP	2/18/10 8:39	948572	Various	2	LANL	USE	S
EXP0216082a	1202032098	MAP	2/18/10 9:09	948572	Various	2	LANL	USE	S
EXP0216083a	245955001	MAP	2/18/10 9:38	948572	10-1509	2	LANL	USE	S
EXP0216084a	245955002	MAP	2/18/10 10:08	948572	10-1509	2	LANL	USE	S
EXP0216085a	245959001	MAP	2/18/10 10:37	948572	10-1510	2	LANL	USE	S
EXP0216086a	1202032099	MAP	2/18/10 11:07	948572	10-1510	2	LANL	USE	S
EXP0216087a	1202032100	MAP	2/18/10 11:36	948572	10-1510	2	LANL	USE	S
EXP0216088a	245959002	MAP	2/18/10 12:06	948572	10-1510	2	LANL	USE	S
EXP0216089a	WXXCCV	MAP	2/18/10 12:36			1		USE	C
EXP0216090a	XIBLK11	MAP	2/18/10 13:05			1		USE	B
EXP0216091a	WXXCRI	MAP	2/18/10 13:35			1		USE	C
EXP0216092a	245959003	MAP	2/18/10 14:04	948572	10-1510	2	LANL	USE	S
EXP0216093a	245959004	MAP	2/18/10 14:34	948572	10-1510	2	LANL	USE	S
EXP0216094a	245959005	MAP	2/18/10 15:03	948572	10-1510	2	LANL	USE	S
EXP0216095a	245959006	MAP	2/18/10 15:33	948572	10-1510	2	LANL	USE	S
EXP0216096a	245959007	MAP	2/18/10 16:03	948572	10-1510	2	LANL	USE	S
EXP0216097a	245959008	MAP	2/18/10 16:32	948572	10-1510	2	LANL	USE	S
EXP0216098a	245959009	MAP	2/18/10 17:02	948572	10-1510	2	LANL	USE	S
EXP0216099a	245959010	MAP	2/18/10 17:32	948572	10-1510	2	LANL	USE	S
EXP0216100a	245959012	MAP	2/18/10 18:01	948572	10-1510	2	LANL	USE	S
EXP0216101a	WXXCCV	MAP	2/18/10 18:31			1		USE	C
EXP0216102a	XIBLK12	MAP	2/18/10 19:00			1		USE	B
EXP0216103a	WXXCRI	MAP	2/18/10 19:30			1		USE	C
EXP0216104a	1202023589	MAP	2/18/10 19:59	944915	Various	2	LANL	USE	S
EXP0216105a	1202023590	MAP	2/18/10 20:29	944915	Various	2	LANL	USE	S
EXP0216106a	245377001	MAP	2/18/10 20:58	944915	10-1378	2	LANL	USE	S
EXP0216107a	245377002	MAP	2/18/10 21:28	944915	10-1378	2	LANL	USE	S
EXP0216108a	245377003	MAP	2/18/10 21:57	944915	10-1378	2	LANL	USE	S
EXP0216109a	245377004	MAP	2/18/10 22:27	944915	10-1378	2	LANL	USE	S

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EXP0216110a	245377005	MAP	2/18/10 22:56	944915	10-1378	2	LANL	USE	S
EXP0216111a	245377006	MAP	2/18/10 23:26	944915	10-1378	2	LANL	USE	S
EXP0216112a	245377007	MAP	2/18/10 23:56	944915	10-1378	2	LANL	USE	S
EXP0216113a	245377008	MAP	2/19/10 0:25	944915	10-1378	2	LANL	USE	S
EXP0216114a	WXXCCV	MAP	2/19/10 0:55			1		USE	C
EXP0216115a	XIBLK13	MAP	2/19/10 1:24			1		USE	B
EXP0216116a	WXXCRI	MAP	2/19/10 1:54			1		USE	C
EXP0216117a	245377009	MAP	2/19/10 2:23	944915	10-1378	2	LANL	USE	S
EXP0216118a	245377010	MAP	2/19/10 2:53	944915	10-1378	2	LANL	USE	S
EXP0216119a	245396001	MAP	2/19/10 3:23	944915	10-1394	2	LANL	USE	S
EXP0216120a	1202023591	MAP	2/19/10 3:52	944915	10-1394	2	LANL	USE	S
EXP0216121a	1202023592	MAP	2/19/10 4:22	944915	10-1394	2	LANL	USE	S
EXP0216122a	245396002	MAP	2/19/10 4:52	944915	10-1394	2	LANL	USE	S
EXP0216123a	245396003	MAP	2/19/10 5:22	944915	10-1394	2	LANL	USE	S
EXP0216124a	245396004	MAP	2/19/10 5:51	944915	10-1394	2	LANL	USE	S
EXP0216125a	247033002	MAP	2/19/10 6:21	944915	10-1821	2	LANL	USE	S
EXP0216126a	WXXCCV	MAP	2/19/10 6:51			1		USE	C
EXP0216127a	XIBLK14	MAP	2/19/10 7:21			1		USE	B
EXP0216128a	WXXCRI	MAP	2/19/10 7:51			1		USE	C
EXP0216129a	1202032113	MAP	2/19/10 8:20	948579	Various	2	LANL	USE	S
EXP0216130a	1202032114	MAP	2/19/10 8:51	948579	Various	2	LANL	USE	S
EXP0216131a	245994001	MAP	2/19/10 9:20	948579	10-1516	2	LANL	USE	S
EXP0216132a	245994002	MAP	2/19/10 9:50	948579	10-1516	2	LANL	USE	S
EXP0216133a	245994003	MAP	2/19/10 10:19	948579	10-1516	2	LANL	USE	S
EXP0216134a	245994004	MAP	2/19/10 10:49	948579	10-1516	2	LANL	USE	S
EXP0216135a	245994005	MAP	2/19/10 11:18	948579	10-1516	2	LANL	USE	S
EXP0216136a	245994006	MAP	2/19/10 11:48	948579	10-1516	2	LANL	USE	S
EXP0216137a	245994007	MAP	2/19/10 12:18	948579	10-1516	2	LANL	USE	S
EXP0216138a	245994008	MAP	2/19/10 12:47	948579	10-1516	2	LANL	USE	S
EXP0216139a	WXXCCV	MAP	2/19/10 13:16			1		USE	C
EXP0216140a	XIBLK15	MAP	2/19/10 13:46			1		USE	B
EXP0216141a	WXXCRI	MAP	2/19/10 14:38			1		USE	C
EXP0216142a	245994009	MAP	2/19/10 15:08	948579	10-1516	2	LANL	USE	S
EXP0216143a	246006001	MAP	2/19/10 15:37	948579	10-1520	500	LANL	DUSE	S
EXP0216144a	246006001	MAP	2/19/10 16:07	948579	10-1520	2	LANL	USE	S
EXP0216145a	1202032115	MAP	2/19/10 16:37	948579	10-1520	2	LANL	USE	S
EXP0216146a	1202032116	MAP	2/19/10 17:07	948579	10-1520	2	LANL	USE	S
EXP0216147a	246006002	MAP	2/19/10 17:36	948579	10-1520	2	LANL	USE	S
EXP0216148a	246006003	MAP	2/19/10 18:06	948579	10-1520	2	LANL	USE	S

EXP0216149a	246006004	MAP	2/19/10 18:35	948579	10-1520	2	LANL	USE	S
EXP0216150a	246006005	MAP	2/19/10 19:05	948579	10-1520	2	LANL	USE	S
EXP0216151a	246006006	MAP	2/19/10 19:35	948579	10-1520	2	LANL	USE	S
EXP0216152a	WXXCCV	MAP	2/19/10 20:04			1		USE	C
EXP0216153a	XIBLK16	MAP	2/19/10 20:34			1		USE	B
EXP0216154a	WXXCRI	MAP	2/19/10 21:04			1		USE	C
EXP0216155a	246006007	MAP	2/19/10 21:34	948579	10-1520	2	LANL	USE	S
EXP0216156a	246006008	MAP	2/19/10 22:04	948579	10-1520	2	LANL	USE	S
EXP0216157a	246006009	MAP	2/19/10 22:34	948579	10-1520	2	LANL	USE	S
EXP0216158a	XIBLK17	MAP	2/19/10 23:03			1		USE	B
EXP0216159a	1202040417	MAP	2/19/10 23:33	952030	Various	2	LANL	USE	S
EXP0216160a	1202040418	MAP	2/20/10 0:03	952030	Various	2	LANL	USE	S
EXP0216161a	246707005	MAP	2/20/10 0:32	952030	10-1726	2	LANL	USE	S
EXP0216162a	1202040419	MAP	2/20/10 1:02	952030	10-1726	2	LANL	USE	S
EXP0216163a	1202040420	MAP	2/20/10 1:31	952030	10-1726	2	LANL	USE	S
EXP0216164a	246764004	MAP	2/20/10 2:01	952030	10-1721	2	LANL	USE	S
EXP0216165a	WXXCCV	MAP	2/20/10 2:30			1		USE	C
EXP0216166a	XIBLK18	MAP	2/20/10 3:00			1		USE	B
EXP0216167a	WXXCRI	MAP	2/20/10 3:30			1		USE	C
EXP0216168a	1202028657	MAP	2/20/10 3:59	947074	Various	2	LANL	USE	S
EXP0216169a	1202028658	MAP	2/20/10 4:29	947074	Various	2	LANL	USE	S
EXP0216170a	245789005	MAP	2/20/10 4:59	947074	10-1466	2	LANL	USE	S
EXP0216171a	245789009	MAP	2/20/10 5:28	947074	10-1466	2	LANL	USE	S
EXP0216172a	245789013	MAP	2/20/10 5:58	947074	10-1466	2	LANL	USE	S
EXP0216173a	245789017	MAP	2/20/10 6:28	947074	10-1466	2	LANL	USE	S
EXP0216174a	245809001	MAP	2/20/10 6:57	947074	10-1480	2	LANL	USE	S
EXP0216175a	1202028659	MAP	2/20/10 7:27	947074	10-1480	2	LANL	USE	S
EXP0216176a	1202028660	MAP	2/20/10 7:57	947074	10-1480	2	LANL	USE	S
EXP0216177a	WXXCCV	MAP	2/20/10 8:26			1		USE	C
EXP0216178a	XIBLK19	MAP	2/20/10 8:56			1		USE	B
EXP0216179a	WXXCRI	MAP	2/20/10 9:25			1		USE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/14/10
Extr. Injection Volume: 10uL
Sequence Number: 021410exs
Initial Calibration Date: 021410

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1263794, 1258141
Standard-Samp Reagent Lot# :1246195, 1253092

Reviewed By: [illegible]
Date: 02/17/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100214-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02140001.wiff	XIBLK01	LER	2/14/2010 14:17			1		USE	B
EXS02140002.wiff	XIBLK01	LER	2/14/2010 14:33			1		USE	B
EXS02140003.wiff	WXXICAL-19	LER	2/14/2010 14:48			1		USE	I
EXS02140004.wiff	WXXICAL-20	LER	2/14/2010 15:04			1		USE	I
EXS02140005.wiff	WXXICAL-21	LER	2/14/2010 15:20			1		USE	I
EXS02140006.wiff	WXXICAL-22	LER	2/14/2010 15:35			1		USE	I
EXS02140007.wiff	WXXICAL-23	LER	2/14/2010 15:51			1		USE	I
EXS02140008.wiff	WXXICAL-24	LER	2/14/2010 16:07			1		USE	I
EXS02140009.wiff	WXXICAL-25	LER	2/14/2010 16:22			1		USE	I
EXS02140010.wiff	XIBLK02	LER	2/14/2010 16:38			1		USE	B
EXS02140011.wiff	WXXICV	LER	2/14/2010 16:54			1		USE	C
EXS02140012.wiff	XIBLK03	LER	2/14/2010 17:10			1		USE	B
EXS02140013.wiff	WXXCRI	LER	2/14/2010 17:25			1		USE	C
EXS02140014.wiff	245387008	LER	2/14/2010 17:41	944907	10-1384	2	LANL	USE	S
EXS02140015.wiff	245387009	LER	2/14/2010 17:57	944907	10-1384	2	LANL	USE	S
EXS02140016.wiff	245387010	LER	2/14/2010 18:12	944907	10-1384	2	LANL	USE	S
EXS02140017.wiff	WXXCCV	LER	2/14/2010 18:28			1		USE	C
EXS02140018.wiff	XIBLK04	LER	2/14/2010 18:44			1		USE	B
EXS02140019.wiff	WXXCRI	LER	2/14/2010 18:59			1		USE	C
EXS02140020.wiff	1202030577	LER	2/14/2010 19:15	947919	VARIOUS	2	LANL	USE	S
EXS02140021.wiff	1202030578	LER	2/14/2010 19:31	947919	VARIOUS	2	LANL	USE	S
EXS02140022.wiff	245908001	LER	2/14/2010 19:47	947919	10-1486	2	LANL	USE	S
EXS02140023.wiff	1202030579	LER	2/14/2010 20:02	947919	10-1486	2	LANL	USE	S
EXS02140024.wiff	1202030580	LER	2/14/2010 20:18	947919	10-1486	2	LANL	USE	S
EXS02140025.wiff	245908002	LER	2/14/2010 20:34	947919	10-1486	2	LANL	USE	S
EXS02140026.wiff	245908003	LER	2/14/2010 20:49	947919	10-1486	2	LANL	USE	S
EXS02140027.wiff	245908004	LER	2/14/2010 21:05	947919	10-1486	2	LANL	USE	S
EXS02140028.wiff	245908005	LER	2/14/2010 21:21	947919	10-1486	2	LANL	USE	S
EXS02140029.wiff	245908006	LER	2/14/2010 21:37	947919	10-1486	2	LANL	USE	S
EXS02140030.wiff	WXXCCV	LER	2/14/2010 21:52			1		USE	C

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EXS02140031.wiff	XIBLK05	LER	2/14/2010 22:08			1		USE	B
EXS02140032.wiff	WXXCRI	LER	2/14/2010 22:24			1		USE	C
EXS02140033.wiff	245912001	LER	2/14/2010 22:39	947919	10-1488	2	LANL	USE	S
EXS02140034.wiff	245912002	LER	2/14/2010 22:55	947919	10-1488	2	LANL	USE	S
EXS02140035.wiff	245912003	LER	2/14/2010 23:11	947919	10-1488	2	LANL	USE	S
EXS02140036.wiff	245912004	LER	2/14/2010 23:27	947919	10-1488	2	LANL	USE	S
EXS02140037.wiff	245912005	LER	2/14/2010 23:42	947919	10-1488	2	LANL	USE	S
EXS02140038.wiff	245914001	LER	2/14/2010 23:58	947919	10-1490	2	LANL	USE	S
EXS02140039.wiff	245914002	LER	2/15/2010 0:14	947919	10-1490	2	LANL	USE	S
EXS02140040.wiff	245914003	LER	2/15/2010 0:29	947919	10-1490	2	LANL	USE	S
EXS02140041.wiff	245914004	LER	2/15/2010 0:45	947919	10-1490	2	LANL	USE	S
EXS02140042.wiff	245914005	LER	2/15/2010 1:01	947919	10-1490	2	LANL	USE	S
EXS02140043.wiff	WXXCCV	LER	2/15/2010 1:16			1		USE	C
EXS02140044.wiff	XIBLK06	LER	2/15/2010 1:32			1		USE	B
EXS02140045.wiff	WXXCRI	LER	2/15/2010 1:48			1		USE	C
EXS02140046.wiff	245914006	LER	2/15/2010 2:04	947919	10-1490	2	LANL	USE	S
EXS02140047.wiff	UXX100122-01.4	LER	2/15/2010 2:19	SCREEN	LIQUID	2	O2SI	USE	S
EXS02140048.wiff	XIBLK07	LER	2/15/2010 2:35			1		USE	B
EXS02140049.wiff	1202038759	LER	2/15/2010 2:51	951342	VARIOUS	2	LANL	USE	S
EXS02140050.wiff	1202038760	LER	2/15/2010 3:06	951342	VARIOUS	2	LANL	USE	S
EXS02140051.wiff	246569007	LER	2/15/2010 3:22	951342	10-1669	2	LANL	USE	S
EXS02140052.wiff	1202038761	LER	2/15/2010 3:38	951342	10-1669	2	LANL	USE	S
EXS02140053.wiff	1202038762	LER	2/15/2010 3:54	951342	10-1669	2	LANL	USE	S
EXS02140054.wiff	246572005	LER	2/15/2010 4:09	951342	10-1678	2	LANL	USE	S
EXS02140055.wiff	246580002	LER	2/15/2010 4:25	951342	10-1683	2	LANL	USE	S
EXS02140056.wiff	WXXCCV	LER	2/15/2010 4:41			1		USE	C
EXS02140057.wiff	XIBLK08	LER	2/15/2010 4:56			1		USE	B
EXS02140058.wiff	WXXCRI	LER	2/15/2010 5:12			1		USE	C
EXS02140059.wiff	246580003	LER	2/15/2010 5:28	951342	10-1683	2	LANL	USE	S
EXS02140060.wiff	246595004	LER	2/15/2010 5:43	951342	10-1694	2	LANL	USE	S
EXS02140061.wiff	1202038763	LER	2/15/2010 5:59	951342	10-1694	2	LANL	USE	S
EXS02140062.wiff	1202038764	LER	2/15/2010 6:15	951342	10-1694	2	LANL	USE	S
EXS02140063.wiff	XIBLK09	LER	2/15/2010 6:31			1		USE	B
EXS02140064.wiff	1202023631	LER	2/15/2010 6:46	944935	10-1392	2	LANL	USE	S
EXS02140065.wiff	1202023632	LER	2/15/2010 7:02	944935	10-1392	2	LANL	USE	S
EXS02140066.wiff	245394001	LER	2/15/2010 7:18	944935	10-1392	2	LANL	USE	S
EXS02140067.wiff	1202023633	LER	2/15/2010 7:33	944935	10-1392	2	LANL	USE	S

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EXS02140068.wiff	1202023634	LER	2/15/2010 7:49	944935	10-1392	2	LANL	USE	S
EXS02140069.wiff	WXXCCV	LER	2/15/2010 8:05			1		USE	C
EXS02140070.wiff	XIBLK10	LER	2/15/2010 8:21			1		USE	B
EXS02140071.wiff	WXXCRI	LER	2/15/2010 8:37			1		USE	C
EXS02140072.wiff	245394002	LER	2/15/2010 8:53	944935	10-1392	2	LANL	USE	S
EXS02140073.wiff	245394003	LER	2/15/2010 9:09	944935	10-1392	2	LANL	USE	S
EXS02140074.wiff	245394004	LER	2/15/2010 9:25	944935	10-1392	2	LANL	DUSE-RA	S
EXS02140075.wiff	245394005	LER	2/15/2010 9:40	944935	10-1392	2	LANL	USE	S
EXS02140076.wiff	245394006	LER	2/15/2010 9:56	944935	10-1392	2	LANL	USE	S
EXS02140077.wiff	245394007	LER	2/15/2010 10:12	944935	10-1392	2	LANL	USE	S
EXS02140078.wiff	245394008	LER	2/15/2010 10:27	944935	10-1392	2	LANL	USE	S
EXS02140079.wiff	245394009	LER	2/15/2010 10:43	944935	10-1392	2	LANL	USE	S
EXS02140080.wiff	245394010	LER	2/15/2010 10:59	944935	10-1392	2	LANL	USE	S
EXS02140081.wiff	245394011	LER	2/15/2010 11:15	944935	10-1392	2	LANL	USE	S
EXS02140082.wiff	WXXCCV	LER	2/15/2010 11:30			1		USE	C
EXS02140083.wiff	XIBLK11	LER	2/15/2010 11:46			1		USE	B
EXS02140084.wiff	WXXCRI	LER	2/15/2010 12:02			1		USE	C
EXS02140085.wiff	245394012	LER	2/15/2010 12:17	944935	10-1392	2	LANL	USE	S
EXS02140086.wiff	245394013	LER	2/15/2010 12:33	944935	10-1392	2	LANL	USE	S
EXS02140087.wiff	245394014	LER	2/15/2010 12:49	944935	10-1392	2	LANL	USE	S
EXS02140088.wiff	245394015	LER	2/15/2010 13:04	944935	10-1392	2	LANL	USE	S
EXS02140089.wiff	XIBLK12	LER	2/15/2010 13:20			1		USE	B
EXS02140090.wiff	1202032042	LER	2/15/2010 13:36	948561	VARIOUS	2	LANL	USE	S
EXS02140091.wiff	1202032043	LER	2/15/2010 13:52	948561	VARIOUS	2	LANL	USE	S
EXS02140092.wiff	245916001	LER	2/15/2010 14:07	948561	10-1492	2	LANL	USE	S
EXS02140093.wiff	1202032044	LER	2/15/2010 14:23	948561	10-1492	2	LANL	USE	S
EXS02140094.wiff	1202032045	LER	2/15/2010 14:39	948561	10-1492	2	LANL	USE	S
EXS02140095.wiff	WXXCCV	LER	2/15/2010 14:54			1		USE	C
EXS02140096.wiff	XIBLK13	LER	2/15/2010 15:10			1		USE	B
EXS02140097.wiff	WXXCRI	LER	2/15/2010 15:26			1		USE	C
EXS02140098.wiff	245916002	LER	2/15/2010 15:41	948561	10-1492	2	LANL	USE	S
EXS02140099.wiff	245916003	LER	2/15/2010 15:57	948561	10-1492	2	LANL	USE	S
EXS02140100.wiff	245916004	LER	2/15/2010 16:13	948561	10-1492	2	LANL	USE	S
EXS02140101.wiff	245916005	LER	2/15/2010 16:29	948561	10-1492	2	LANL	USE	S
EXS02140102.wiff	245947002	LER	2/15/2010 16:44	948561	10-1507	2	LANL	USE	S
EXS02140103.wiff	245947003	LER	2/15/2010 17:00	948561	10-1507	2	LANL	USE	S
EXS02140104.wiff	245947004	LER	2/15/2010 17:16	948561	10-1507	2	LANL	USE	S

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EXS02140105.wiff	245947005	LER	2/15/2010 17:31	948561	10-1507	2	LANL	USE	S
EXS02140106.wiff	245947006	LER	2/15/2010 17:47	948561	10-1507	2	LANL	USE	S
EXS02140107.wiff	245947007	LER	2/15/2010 18:03	948561	10-1507	2	LANL	USE	S
EXS02140108.wiff	WXXCCV	LER	2/15/2010 18:18			1		USE	C
EXS02140109.wiff	XIBLK14	LER	2/15/2010 18:34			1		USE	B
EXS02140110.wiff	WXXCRI	LER	2/15/2010 18:50			1		USE	C
EXS02140111.wiff	245947008	LER	2/15/2010 19:06	948561	10-1507	2	LANL	USE	S
EXS02140112.wiff	245947009	LER	2/15/2010 19:21	948561	10-1507	2	LANL	USE	S
EXS02140113.wiff	245947010	LER	2/15/2010 19:37	948561	10-1507	2	LANL	USE	S
EXS02140114.wiff	XIBLK15	LER	2/15/2010 19:53			1		USE	B
EXS02140115.wiff	245394004	LER	2/15/2010 20:08	944935	10-1392	2	LANL	USE	S
EXS02140116.wiff	245394003	LER	2/15/2010 20:24	944935	10-1392	10	LANL	USE	S
EXS02140117.wiff	WXXCCV	LER	2/15/2010 20:40			1		USE	C
EXS02140118.wiff	XIBLK16	LER	2/15/2010 20:55			1		USE	B
EXS02140119.wiff	WXXCRI	LER	2/15/2010 21:11			1		USE	C
EXS02140120.wiff	1202032097	LER	2/15/2010 21:27	948572	VARIOUS	2	LANL	USE	S
EXS02140121.wiff	1202032098	LER	2/15/2010 21:43	948572	VARIOUS	2	LANL	USE	S
EXS02140122.wiff	245955001	LER	2/15/2010 21:58	948572	10-1509	2	LANL	USE	S
EXS02140123.wiff	245955002	LER	2/15/2010 22:14	948572	10-1509	2	LANL	USE	S
EXS02140124.wiff	245959001	LER	2/15/2010 22:30	948572	10-1510	2	LANL	USE	S
EXS02140125.wiff	1202032099	LER	2/15/2010 22:45	948572	10-1510	2	LANL	USE	S
EXS02140126.wiff	1202032100	LER	2/15/2010 23:01	948572	10-1510	2	LANL	USE	S
EXS02140127.wiff	245959002	LER	2/15/2010 23:17	948572	10-1510	2	LANL	USE	S
EXS02140128.wiff	245959003	LER	2/15/2010 23:32	948572	10-1510	2	LANL	USE	S
EXS02140129.wiff	245959004	LER	2/15/2010 23:48	948572	10-1510	2	LANL	USE	S
EXS02140130.wiff	WXXCCV	LER	2/16/2010 0:04			1		USE	C
EXS02140131.wiff	XIBLK17	LER	2/16/2010 0:19			1		USE	B
EXS02140132.wiff	WXXCRI	LER	2/16/2010 0:35			1		USE	C
EXS02140133.wiff	245959005	LER	2/16/2010 0:51	948572	10-1510	2	LANL	USE	S
EXS02140134.wiff	245959006	LER	2/16/2010 1:07	948572	10-1510	2	LANL	USE	S
EXS02140135.wiff	245959007	LER	2/16/2010 1:22	948572	10-1510	2	LANL	USE	S
EXS02140136.wiff	245959008	LER	2/16/2010 1:38	948572	10-1510	2	LANL	USE	S
EXS02140137.wiff	245959009	LER	2/16/2010 1:54	948572	10-1510	2	LANL	USE	S
EXS02140138.wiff	245959010	LER	2/16/2010 2:09	948572	10-1510	2	LANL	USE	S
EXS02140139.wiff	245959012	LER	2/16/2010 2:25	948572	10-1510	2	LANL	USE	S
EXS02140140.wiff	WXXCCV	LER	2/16/2010 2:41			1		USE	C
EXS02140141.wiff	XIBLK18	LER	2/16/2010 2:56			1		USE	B

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EXS02140142.wiff	WXXCRI	LER	2/16/2010 3:12			1		USE	C
EXS02140143.wiff	1202032113	LER	2/16/2010 3:28	948579	VARIOUS	2	LANL	USE	S
EXS02140144.wiff	1202032114	LER	2/16/2010 3:43	948579	VARIOUS	2	LANL	USE	S
EXS02140145.wiff	245994001	LER	2/16/2010 3:59	948579	10-1516	2	LANL	USE	S
EXS02140146.wiff	245994002	LER	2/16/2010 4:15	948579	10-1516	2	LANL	USE	S
EXS02140147.wiff	245994003	LER	2/16/2010 4:31	948579	10-1516	2	LANL	USE	S
EXS02140148.wiff	245994004	LER	2/16/2010 4:46	948579	10-1516	2	LANL	USE	S
EXS02140149.wiff	245994005	LER	2/16/2010 5:02	948579	10-1516	2	LANL	USE	S
EXS02140150.wiff	245994006	LER	2/16/2010 5:18	948579	10-1516	2	LANL	USE	S
EXS02140151.wiff	245994007	LER	2/16/2010 5:33	948579	10-1516	2	LANL	USE	S
EXS02140152.wiff	245994008	LER	2/16/2010 5:49	948579	10-1516	2	LANL	USE	S
EXS02140153.wiff	WXXCCV	LER	2/16/2010 6:05			1		USE	C
EXS02140154.wiff	XIBLK19	LER	2/16/2010 6:21			1		USE	B
EXS02140155.wiff	WXXCRI	LER	2/16/2010 6:36			1		USE	C
EXS02140156.wiff	245994009	LER	2/16/2010 6:52	948579	10-1516	2	LANL	DUSE-RA	S
EXS02140157.wiff	246006001	LER	2/16/2010 7:08	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140158.wiff	1202032115	LER	2/16/2010 7:24	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140159.wiff	1202032116	LER	2/16/2010 7:39	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140160.wiff	246006002	LER	2/16/2010 7:55	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140161.wiff	246006003	LER	2/16/2010 8:11	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140162.wiff	246006004	LER	2/16/2010 8:27	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140163.wiff	246006005	LER	2/16/2010 8:42	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140164.wiff	246006006	LER	2/16/2010 8:58	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140165.wiff	246006007	LER	2/16/2010 9:14	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140166.wiff	WXXCCV	LER	2/16/2010 9:29			1		DUSE-RA	C
EXS02140167.wiff	XIBLK20	LER	2/16/2010 9:45			1		DUSE-RA	B
EXS02140168.wiff	WXXCRI	LER	2/16/2010 10:01			1		DUSE-RA	C

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 793093
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
948572	See Below		

Potentially affected work order(s)(SDG): 245955(10-1509),245959(10-1510)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS/MSD pair (1202032099/100) did not meet RPD acceptance limits for RDX at 46.3%. The acceptance limits are 0-30%.	1. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.

Originator's Name:
Michael Penny 19-FEB-10

Data Validator/Group Leader:
Herbert Maier 21-FEB-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1510

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	949033
Prep Batch Number:	949031

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
245959001	RE15-10-7309
245959002	RE15-10-7308
245959012	RE15-10-7324
1202033246	Method Blank (MB)
1202033247	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1512) was selected for the matrix spike and matrix spike duplicate analysis for this batch. However, the MS and MSD results were not reportable in this batch because the parent sample was re-extracted and reported in another batch.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction. .

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/1/10

Roadmap for LANL 10-1510 PCB

This roadmap was analyzed by yip00818 on 02-12-2010, 13:46.
This roadmap was reviewed by jim01140 on 02-16-2010, 09:06.
This roadmap was packaged by yml on 02-26-2010, 17:07.
This roadmap was validated by jim01140 on 03-01-2010, 09:22.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020510.b/028f2801.d	245959001	sample	05-FEB-2010	12:03	10-1510.sub	RE15-10-7309	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/029f2901.d	245959002	sample	05-FEB-2010	12:15	10-1510.sub	RE15-10-7308	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/030f3001.d	245959012	sample	05-FEB-2010	12:28	10-1510.sub	RE15-10-7324	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020510.b/028b2801.d	245959001	sample	05-FEB-2010	12:03	10-1510.sub	RE15-10-7309	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/029b2901.d	245959002	sample	05-FEB-2010	12:15	10-1510.sub	RE15-10-7308	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/030b3001.d	245959012	sample	05-FEB-2010	12:28	10-1510.sub	RE15-10-7324	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020510.b/012f1201-3.d	1202033246	mb	05-FEB-2010	08:52	10-1510.sub	PBLK01	1.00000	949033	
☐	N	/chem/ecd1a.i/020510.b/013f1301-3.d	1202033247	lcs	05-FEB-2010	09:02	10-1510.sub	PBLK01LCS	1.00000	949033	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020510.b/012b1201-3.d	1202033246	mb	05-FEB-2010	08:52	10-1510.sub	PBLK01	1.00000	949033	
☐	N	/chem/ecd1a.i/020510.b/013b1301-3.d	1202033247	lcs	05-FEB-2010	09:02	10-1510.sub	PBLK01LCS	1.00000	949033	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	22.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7308	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 12:15	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	1 CLP1	**Level:**	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.29	ug/kg	1.43	4.29	1
11104-28-2	Aroclor-1221	U	4.29	ug/kg	1.43	4.29	1
11141-16-5	Aroclor-1232	U	4.29	ug/kg	1.43	4.29	1
53469-21-9	Aroclor-1242	U	4.29	ug/kg	1.43	4.29	1
12672-29-6	Aroclor-1248	U	4.29	ug/kg	1.43	4.29	1
11097-69-1	Aroclor-1254	U	4.29	ug/kg	1.43	4.29	1
11096-82-5	Aroclor-1260	U	4.29	ug/kg	1.43	4.29	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 12:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.67	ug/kg	1.22	3.67	1
11104-28-2	Aroclor-1221	U	3.67	ug/kg	1.22	3.67	1
11141-16-5	Aroclor-1232	U	3.67	ug/kg	1.22	3.67	1
53469-21-9	Aroclor-1242	U	3.67	ug/kg	1.22	3.67	1
12672-29-6	Aroclor-1248	U	3.67	ug/kg	1.22	3.67	1
11097-69-1	Aroclor-1254	U	3.67	ug/kg	1.22	3.67	1
11096-82-5	Aroclor-1260	U	3.67	ug/kg	1.22	3.67	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959012	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7324	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 12:28	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	030f3001.d	**Column:**	1 CLP1	**Level:**	LOW
	030b3001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.24	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.24	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.24	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.24	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.24	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.24	3.71	1
11096-82-5	Aroclor-1260	U	3.71	ug/kg	1.24	3.71	1

QUALITY CONTROL SUMMARY

Surrogate Recovery Report

SDG Number: 10–1510

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202033246	MB for batch 949031	61	61	56	67
1202033247	LCS for batch 949031	63	62	61	67
245959001	RE15–10–7309	65	63	57	73
245959002	RE15–10–7308	62	61	57	65
245959012	RE15–10–7324	66	65	60	73

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1510
Client ID: LCS for batch 949031
Lab Sample ID: 1202033247
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/05/2010 09:02
Dilution: 1
Prep Batch ID: 949031
Batch ID: 949033

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	20.2	61	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	23.7	71	45-118

Method Blank Summary

SDG Number:	10-1510	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 949031	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202033246				
Column:	CLP2 CLP1	Prep Date:	02/04/2010 20:32	Analyzed:	02/05/10 08:52
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 949031	1202033247	013f1301-1.d 013b1301-1.d	02/05/10	0902
02 RE15-10-7309	245959001	028f2801.d 028b2801.d	02/05/10	1203
03 RE15-10-7308	245959002	029f2901.d 029b2901.d	02/05/10	1215
04 RE15-10-7324	245959012	030f3001.d 030b3001.d	02/05/10	1228

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1510	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245959002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	22.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7308	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 12:15	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	1 CLP1	**Level:**	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.29	ug/kg	1.43	4.29	1
11104-28-2	Aroclor-1221	U	4.29	ug/kg	1.43	4.29	1
11141-16-5	Aroclor-1232	U	4.29	ug/kg	1.43	4.29	1
53469-21-9	Aroclor-1242	U	4.29	ug/kg	1.43	4.29	1
12672-29-6	Aroclor-1248	U	4.29	ug/kg	1.43	4.29	1
11097-69-1	Aroclor-1254	U	4.29	ug/kg	1.43	4.29	1
11096-82-5	Aroclor-1260	U	4.29	ug/kg	1.43	4.29	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/029f2901.d
Lab Smp Id: 245959002 Client Smp ID: RE15-10-7308
Inj Date : 05-FEB-2010 12:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245959002|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7308|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	22.30290	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	49255734	123.557	5.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	37093393	114.728	4.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/029f2901.d

Date : 05-FEB-2010 12:15

Client ID: RE15-10-7308

Sample Info: |245959002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

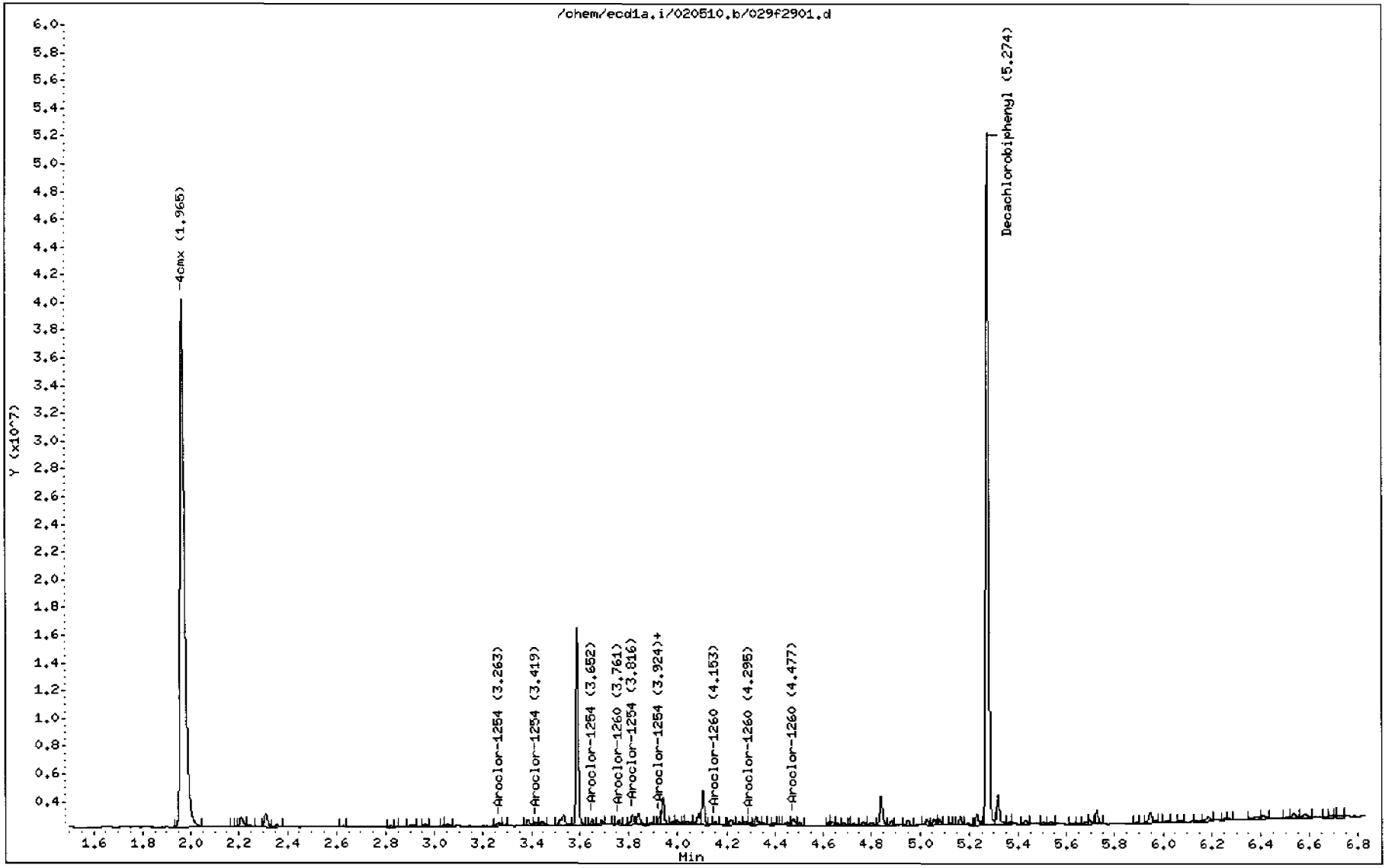

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/029b2901.d
Lab Smp Id: 245959002 Client Smp ID: RE15-10-7308
Inj Date : 05-FEB-2010 12:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245959002|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7308|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	22.30290	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	34956086	121.695	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	28491563	130.919	5.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/029b2901.d

Date : 05-FEB-2010 12:15

Client ID: RE15-10-7308

Sample Info: |245959002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

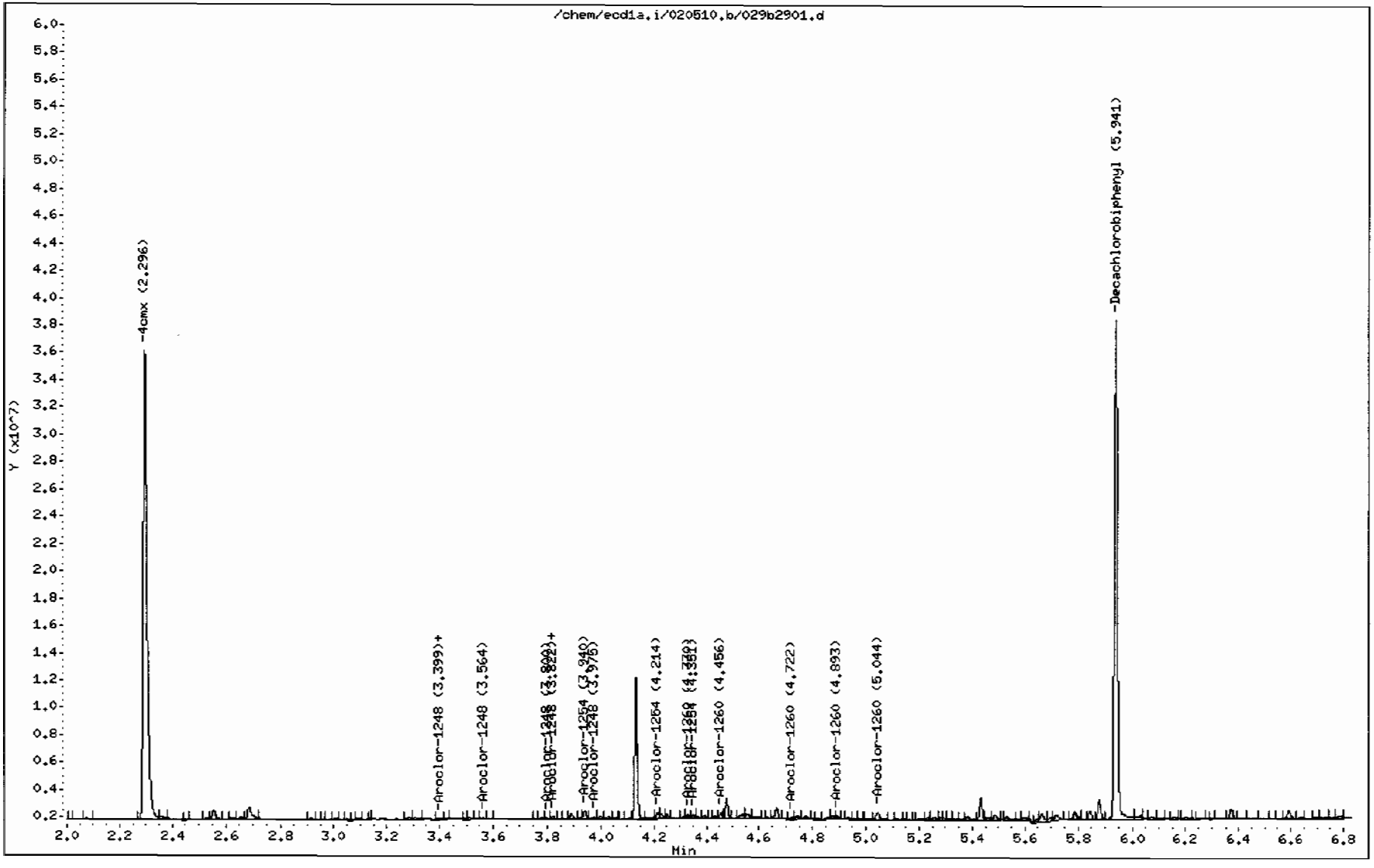

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7309**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 12:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**028f2801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.67	ug/kg	1.22	3.67	1
11104-28-2	Aroclor-1221	U	3.67	ug/kg	1.22	3.67	1
11141-16-5	Aroclor-1232	U	3.67	ug/kg	1.22	3.67	1
53469-21-9	Aroclor-1242	U	3.67	ug/kg	1.22	3.67	1
12672-29-6	Aroclor-1248	U	3.67	ug/kg	1.22	3.67	1
11097-69-1	Aroclor-1254	U	3.67	ug/kg	1.22	3.67	1
11096-82-5	Aroclor-1260	U	3.67	ug/kg	1.22	3.67	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/028f2801.d
Lab Smp Id: 245959001 Client Smp ID: RE15-10-7309
Inj Date : 05-FEB-2010 12:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245959001|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7309|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	9.83940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	51706429	129.704	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	36737024	113.626	4.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/028f2801.d

Date : 05-FEB-2010 12:03

Client ID: RE15-10-7309

Sample Info: |245959001|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

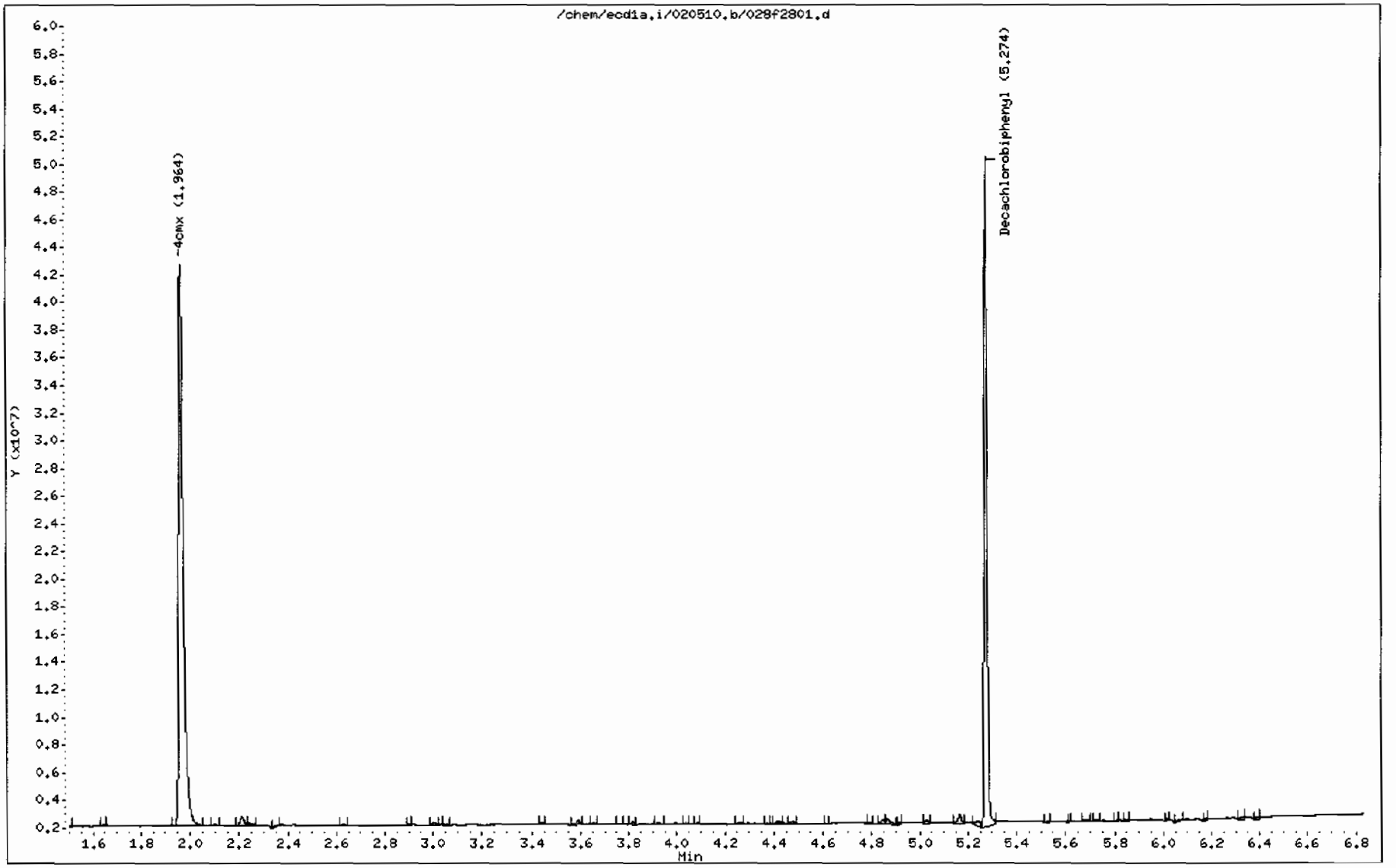

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/028b2801.d
Lab Smp Id: 245959001 Client Smp ID: RE15-10-7309
Inj Date : 05-FEB-2010 12:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245959001|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7309|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	9.83940	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	36444169	126.876	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.942	-0.002	31924780	146.694	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/028b2801.d

Date : 05-FEB-2010 12:03

Client ID: RE15-10-7309

Sample Info: |24595900|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

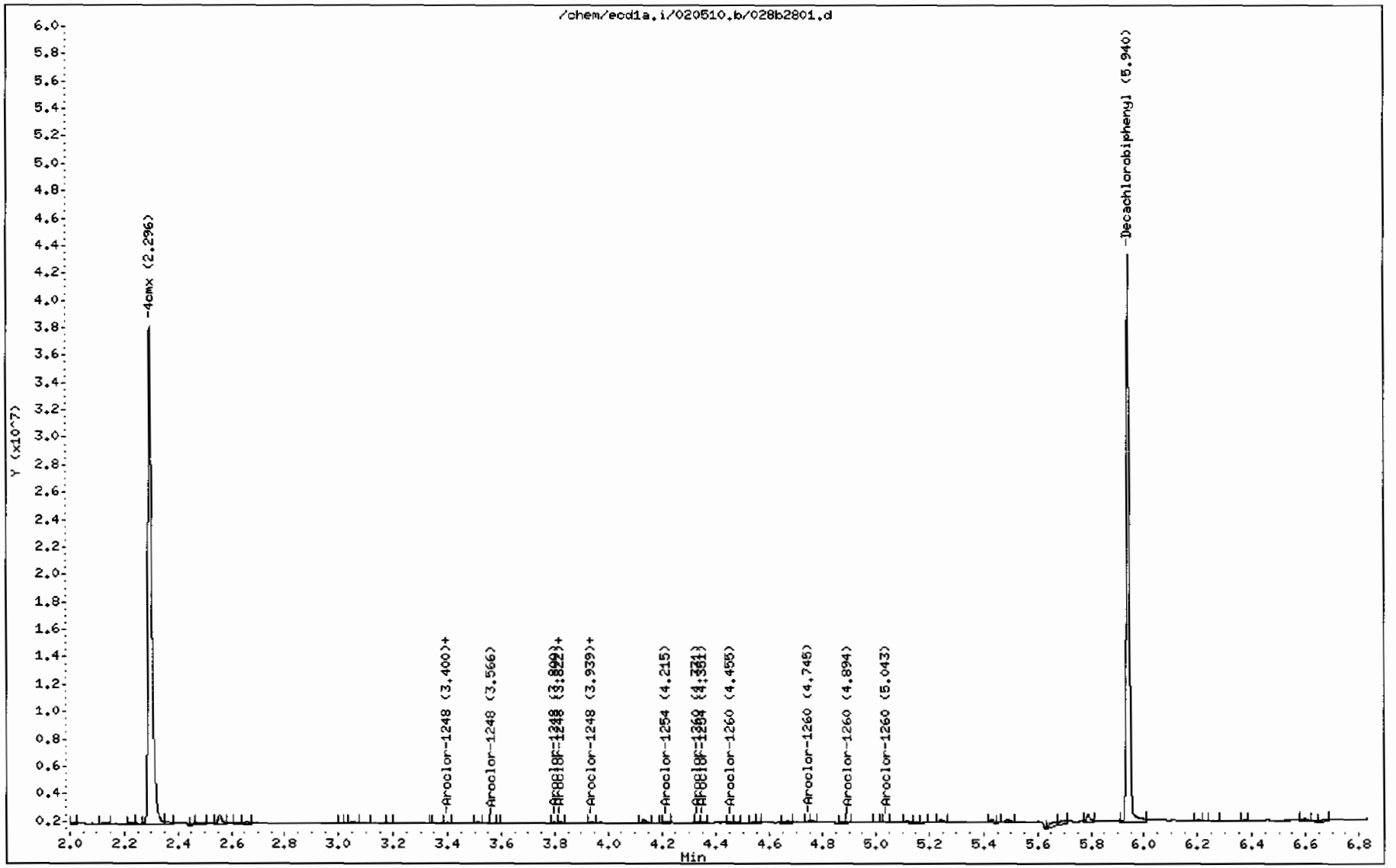

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245959012**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7324**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 12:28**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**030f3001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.71	ug/kg	1.24	3.71	1
11104-28-2	Aroclor-1221	U	3.71	ug/kg	1.24	3.71	1
11141-16-5	Aroclor-1232	U	3.71	ug/kg	1.24	3.71	1
53469-21-9	Aroclor-1242	U	3.71	ug/kg	1.24	3.71	1
12672-29-6	Aroclor-1248	U	3.71	ug/kg	1.24	3.71	1
11097-69-1	Aroclor-1254	U	3.71	ug/kg	1.24	3.71	1
11096-82-5	Aroclor-1260	U	3.71	ug/kg	1.24	3.71	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/030f3001.d
Lab Smp Id: 245959012 Client Smp ID: RE15-10-7324
Inj Date : 05-FEB-2010 12:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245959012|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7324|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	10.28410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	52335292	131.282	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	38833266	120.109	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/030f3001.d

Date : 05-FEB-2010 12:28

Client ID: RE15-10-7324

Sample Info: |245959012|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

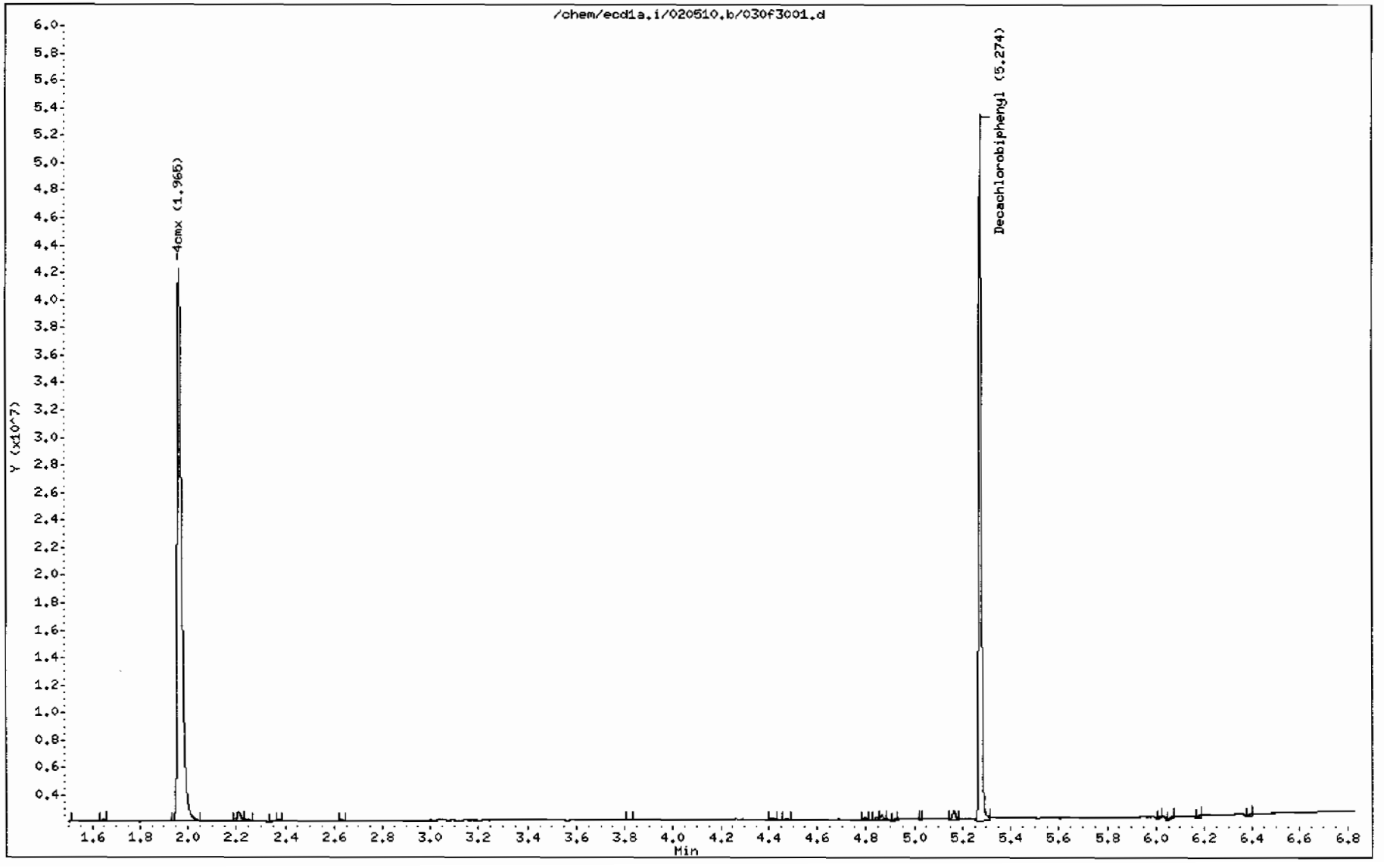

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/030b3001.d
Lab Smp Id: 245959012 Client Smp ID: RE15-10-7324
Inj Date : 05-FEB-2010 12:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245959012|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7324|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	10.28410	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	37108781	129.189	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	31713022	145.721	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/030b3001.d

Date : 05-FEB-2010 12:28

Client ID: RE15-10-7324

Sample Info: |245959012|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

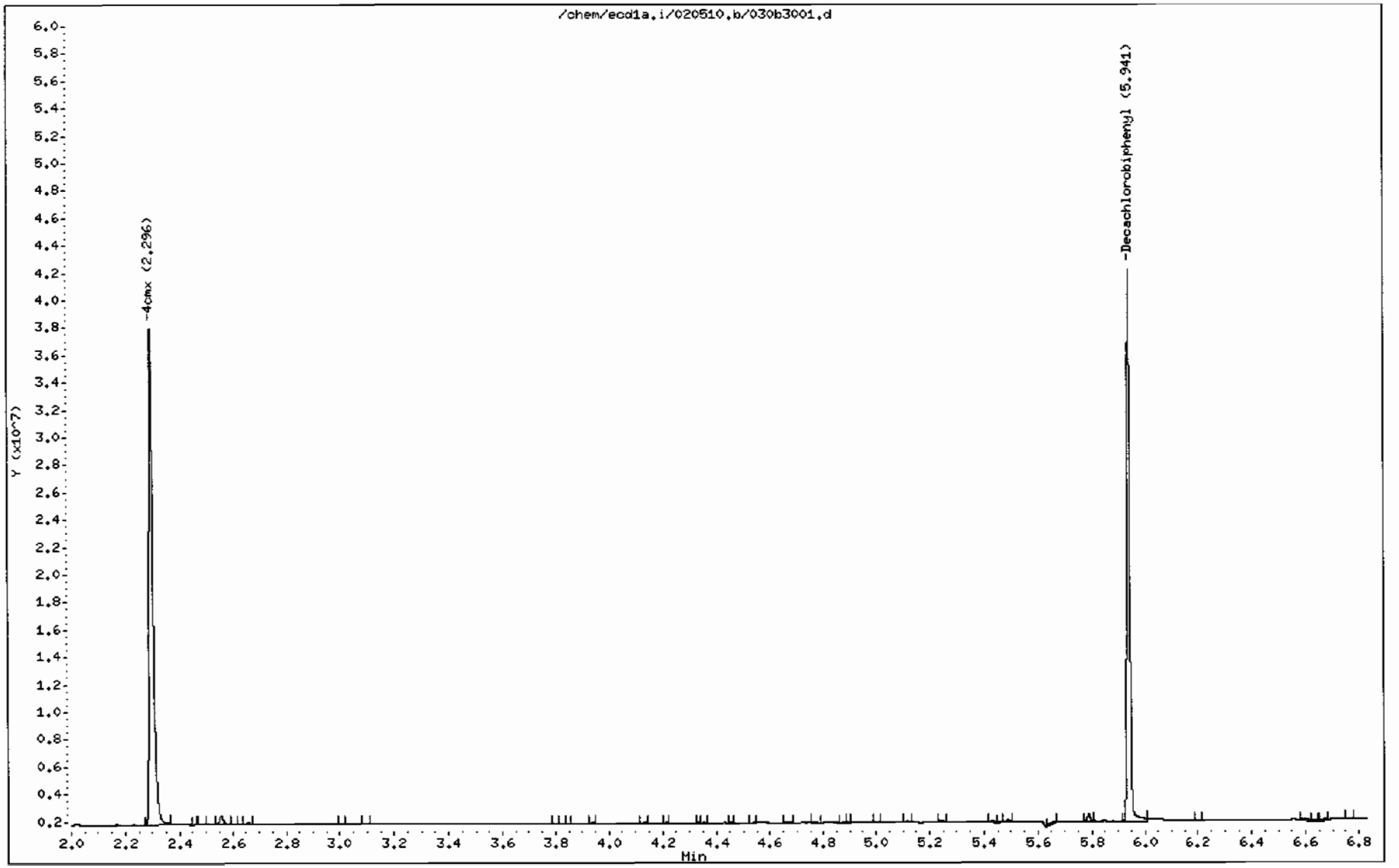

STANDARDS DATA

Report Date: 08-Feb-2010 09:31

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006f0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018f1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010f1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007f0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019f1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011f1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008f0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020f2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012f1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013f1301.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021f2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009f0901.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010f1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022f2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014f1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 15:29	AR1660	/chem/ecd1a.i/020510.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 14:05	AR1660	/chem/ecd1a.i/020510.b/038f3801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 12:40	AR1660	/chem/ecd1a.i/020510.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 10:51	AR1660	/chem/ecd1a.i/020510.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:20	AR1268	/chem/ecd1a.i/020510.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:59	AR1221	/chem/ecd1a.i/020510.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:48	AR1232	/chem/ecd1a.i/020510.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:38	AR1248	/chem/ecd1a.i/020510.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:27	AR1242	/chem/ecd1a.i/020510.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:17	AR1254	/chem/ecd1a.i/020510.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:06	AR1660	/chem/ecd1a.i/020510.b/002f0201.d

Report Date: 08-Feb-2010 09:45

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006b0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018b1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010b1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007b0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019b1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011b1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008b0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020b2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012b1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021b2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009b0901.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013b1301.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010b1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022b2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d

14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014b1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 15:29	AR1660	/chem/ecd1a.i/020510.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 14:05	AR1660	/chem/ecd1a.i/020510.b/038b3801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 12:40	AR1660	/chem/ecd1a.i/020510.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 10:51	AR1660	/chem/ecd1a.i/020510.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:38	AR1248	/chem/ecd1a.i/020510.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:20	AR1268	/chem/ecd1a.i/020510.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:59	AR1221	/chem/ecd1a.i/020510.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:48	AR1232	/chem/ecd1a.i/020510.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:09	AR1262	/chem/ecd1a.i/020510.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:27	AR1242	/chem/ecd1a.i/020510.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:17	AR1254	/chem/ecd1a.i/020510.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:06	AR1660	/chem/ecd1a.i/020510.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.419	2.389-2.449	1.466e+04
	2.707	2.677-2.737	1.832e+04
	2.788	2.758-2.818	1.202e+04
	2.826	2.796-2.856	7.180e+03
	3.036	3.006-3.066	9.290e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.077	2.047-2.107	4.301e+03
	2.170	2.140-2.200	2.440e+03
	2.195	2.165-2.225	1.027e+04
3 Aroclor-1232	2.421	2.391-2.451	6.849e+03
	2.709	2.679-2.739	8.426e+03
	2.789	2.759-2.819	5.627e+03
	3.038	3.008-3.068	3.983e+03
	3.291	3.261-3.321	3.858e+03
4 Aroclor-1242	2.420	2.390-2.450	1.166e+04
	2.708	2.678-2.738	1.345e+04
	2.826	2.796-2.856	5.506e+03
	3.037	3.007-3.067	7.245e+03
	3.290	3.260-3.320	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.088	3.058-3.118	7.848e+03
	3.240	3.210-3.270	6.870e+03
	3.291	3.261-3.321	1.331e+04
	3.422	3.392-3.452	1.101e+04
	3.655	3.625-3.685	7.455e+03
6 Aroclor-1254	3.266	3.236-3.296	1.249e+04
	3.421	3.391-3.451	1.672e+04
	3.655	3.625-3.685	2.071e+04
	3.818	3.788-3.848	1.569e+04
	3.926	3.896-3.956	1.517e+04
7 Aroclor-1260	3.762	3.732-3.792	1.764e+04
	3.925	3.895-3.955	2.666e+04
	4.155	4.125-4.185	1.592e+04
	4.297	4.267-4.327	1.655e+04
	4.477	4.447-4.507	3.714e+04
8 Aroclor-1262	3.763	3.733-3.793	1.500e+04
	3.926	3.896-3.956	2.038e+04
	4.156	4.126-4.186	2.520e+04
	4.299	4.269-4.329	2.299e+04
	4.478	4.448-4.508	4.717e+04
9 Aroclor-1268	4.663	4.633-4.693	5.248e+04
	4.686	4.656-4.716	4.812e+04
	4.799	4.769-4.829	3.703e+04
	5.001	4.971-5.031	1.629e+04
	5.167	5.137-5.197	1.083e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.965	1.935-1.995	3.986e+05
$ 12 Decachlorobiphenyl	5.275	5.245-5.305	3.233e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.192	3.162-3.222	1.248e+04
	3.275	3.245-3.305	8.547e+03
	3.339	3.309-3.369	5.291e+03
	3.565	3.535-3.595	6.814e+03
	3.641	3.611-3.671	6.405e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.492	2.462-2.522	3.640e+03
	2.586	2.556-2.616	2.329e+03
	2.627	2.597-2.657	8.119e+03
3 Aroclor-1232	2.895	2.865-2.925	5.892e+03
	3.193	3.163-3.223	6.222e+03
	3.276	3.246-3.306	4.345e+03
	3.567	3.537-3.597	3.111e+03
	3.800	3.770-3.830	3.193e+03
4 Aroclor-1242	3.192	3.162-3.222	1.059e+04
	3.275	3.245-3.305	8.054e+03
	3.566	3.536-3.596	5.962e+03
	3.800	3.770-3.830	6.057e+03
	3.828	3.798-3.858	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.401	3.371-3.431	8.054e+03
	3.566	3.536-3.596	9.874e+03
	3.800	3.770-3.830	1.122e+04
	3.827	3.797-3.857	1.248e+04
	3.965	3.935-3.995	1.210e+04
6 Aroclor-1254	3.401	3.371-3.431	6.435e+03
	3.824	3.794-3.854	1.156e+04
	3.940	3.910-3.970	1.243e+04
	4.216	4.186-4.246	1.688e+04
	4.353	4.323-4.383	1.244e+04
7 Aroclor-1260	4.332	4.302-4.362	1.264e+04
	4.457	4.427-4.487	1.522e+04
	4.722	4.692-4.752	1.165e+04
	4.896	4.866-4.926	1.205e+04
	5.043	5.013-5.073	2.607e+04
8 Aroclor-1262	4.457	4.427-4.487	1.356e+04
	4.723	4.693-4.753	1.889e+04
	4.897	4.867-4.927	1.747e+04
	5.044	5.014-5.074	3.453e+04
	5.257	5.227-5.287	2.487e+04
9 Aroclor-1268	5.255	5.225-5.285	3.626e+04
	5.283	5.253-5.313	3.358e+04
	5.433	5.403-5.463	2.598e+04
	5.598	5.568-5.628	1.135e+04
	5.790	5.760-5.820	6.708e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.296	2.266-2.326	2.872e+05
$ 12 Decachlorobiphenyl	5.942	5.912-5.972	2.176e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17274	15624	14668	13618	12110	14659	13.365
(2)	20414	18506	18422	17664	16607	18323	7.617
(3)	13811	12507	11857	11466	10478	12024	10.320
(4)	8094	7393	7100	6874	6439	7180	8.612
(5)	10520	9736	9158	8813	8222	9290	9.475
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	19303	18084	17596	17320	15881	17637	7.037
(2)	28906	27177	26621	26372	24235	26662	6.298
(3)	17466	16264	15774	15593	14511	15922	6.750
(4)	17694	16895	16482	16357	15325	16551	5.206
(5)	38673	37803	37114	37178	34909	37135	3.753
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25041	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor-1268(1)	55111	53385	52967	52495	48466	52485	4.676
(2)	51014	48609	47960	48222	44786	48118	4.620
(3)	39244	37391	36973	36968	34562	37028	4.505
(4)	17802	16531	16072	16029	15038	16294	6.158
(5)	113064	109648	108755	109096	100824	108277	4.162
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	416570	402663	398822	398666	376523	398649	3.607
$ 12 Decachlorobiphenyl	349811	330143	318231	316573	301823	323316	5.537

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	$\overline{RRF}$	% RSD
1 Aroclor-1016(1)	14228	12876	12485	11870	10964	12485	9.713
(2)	10308	9112	8344	7935	7035	8547	14.474
(3)	6330	5599	5139	4929	4456	5291	13.452
(4)	8280	7111	6551	6409	5718	6814	14.062
(5)	7890	6662	6193	5904	5375	6405	14.872
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	14858	13325	12348	11932	10758	12644	12.198
(2)	17461	15979	14935	14482	13243	15220	10.456
(3)	13572	12242	11423	10976	10040	11651	11.471
(4)	14023	12666	11806	11380	10392	12054	11.383
(5)	28927	27037	25880	25311	23188	26068	8.140
8 Aroclor-1262(1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268(1)	40076	37508	36193	35765	31736	36256	8.369
(2)	36699	34342	33454	33223	30195	33583	6.968
(3)	29294	26633	25688	25340	22957	25982	8.826
(4)	12990	11609	11161	10996	9978	11347	9.656
(5)	67306	67058	67598	69416	64002	67076	2.911
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	314910	295845	285456	280701	259306	287244	7.105
$ 12 Decachlorobiphenyl	251054	227132	210476	206848	192632	217628	10.274

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002F0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	12837.588	0.01	-12.4	15.0
(2)	18322.626	16881.446	0.01	-7.9	15.0
(3)	12023.655	10579.542	0.01	-12.0	15.0
(4)	7180.129	6340.762	0.01	-11.7	15.0
(5)	9289.783	8310.417	0.01	-10.5	15.0
Aroclor-1260	17636.550	17492.483	0.01	-0.8	15.0
(2)	26662.025	26719.248	0.01	0.2	15.0
(3)	15921.638	15874.558	0.01	-0.3	15.0
(4)	16550.665	16698.516	0.01	0.9	15.0
(5)	37135.384	38229.555	0.01	2.9	15.0
4cmx	398648.98	371361.76	0.01	-6.8	15.0
Decachlorobiphenyl	323316.27	306305.72	0.01	-5.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002B0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	11513.111	0.01	-7.8	15.0
(2)	8546.824	7680.091	0.01	-10.1	15.0
(3)	5290.741	4732.691	0.01	-10.5	15.0
(4)	6813.513	6037.895	0.01	-11.4	15.0
(5)	6404.782	5752.367	0.01	-10.2	15.0
Aroclor-1260	12644.310	12622.486	0.01	-0.2	15.0
(2)	15220.096	15319.189	0.01	0.6	15.0
(3)	11650.528	11665.669	0.01	0.1	15.0
(4)	12053.523	12022.139	0.01	-0.3	15.0
(5)	26068.381	27036.683	0.01	3.7	15.0
4cmx	287243.52	273128.74	0.01	-4.9	15.0
Decachlorobiphenyl	217628.16	208183.20	0.01	-4.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022F2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14089.870	0.01	-3.9	15.0
(2)	18322.626	18254.738	0.01	-0.4	15.0
(3)	12023.655	11539.563	0.01	-4.0	15.0
(4)	7180.129	6922.359	0.01	-3.6	15.0
(5)	9289.783	8923.226	0.01	-3.9	15.0
Aroclor-1260	17636.550	19002.908	0.01	7.7	15.0
(2)	26662.025	28995.739	0.01	8.8	15.0
(3)	15921.638	17302.329	0.01	8.7	15.0
(4)	16550.665	18016.442	0.01	8.8	15.0
(5)	37135.384	41342.662	0.01	11.3	15.0
4cmx	398648.98	405041.02	0.01	1.6	15.0
Decachlorobiphenyl	323316.27	329068.95	0.01	1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022B2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12553.097	0.01	0.5	15.0
(2)	8546.824	8166.106	0.01	-4.4	15.0
(3)	5290.741	5045.053	0.01	-4.6	15.0
(4)	6813.513	6628.314	0.01	-2.7	15.0
(5)	6404.782	6123.430	0.01	-4.4	15.0
Aroclor-1260	12644.310	13388.386	0.01	5.9	15.0
(2)	15220.096	16291.509	0.01	7.0	15.0
(3)	11650.528	12420.565	0.01	6.6	15.0
(4)	12053.523	12892.266	0.01	7.0	15.0
(5)	26068.381	28894.660	0.01	10.8	15.0
4cmx	287243.52	289912.86	0.01	0.9	15.0
Decachlorobiphenyl	217628.16	222287.65	0.01	2.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031F3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14012.608	0.01	-4.4	15.0
(2)	18322.626	18319.018	0.01	-0.0	15.0
(3)	12023.655	11547.801	0.01	-4.0	15.0
(4)	7180.129	6929.943	0.01	-3.5	15.0
(5)	9289.783	8939.715	0.01	-3.8	15.0
Aroclor-1260	17636.550	18972.127	0.01	7.6	15.0
(2)	26662.025	28835.947	0.01	8.2	15.0
(3)	15921.638	17204.186	0.01	8.0	15.0
(4)	16550.665	18148.577	0.01	9.6	15.0
(5)	37135.384	41262.622	0.01	11.1	15.0
4cmx	398648.98	404599.75	0.01	1.5	15.0
Decachlorobiphenyl	323316.27	326299.17	0.01	0.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031B3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12359.615	0.01	-1.0	15.0
(2)	8546.824	8069.931	0.01	-5.6	15.0
(3)	5290.741	4988.684	0.01	-5.7	15.0
(4)	6813.513	6345.906	0.01	-6.9	15.0
(5)	6404.782	6017.327	0.01	-6.0	15.0
Aroclor-1260	12644.310	13242.341	0.01	4.7	15.0
(2)	15220.096	16223.303	0.01	6.6	15.0
(3)	11650.528	12301.397	0.01	5.6	15.0
(4)	12053.523	12694.909	0.01	5.3	15.0
(5)	26068.381	28307.638	0.01	8.6	15.0
4cmx	287243.52	286907.88	0.01	-0.1	15.0
Decachlorobiphenyl	217628.16	219266.81	0.01	0.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	37136176	100.000	93.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	30630572	100.000	94.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.419	2.419	0.000	12837588	1000.00	876	80.00- 120.00	100.00
2.707	2.707	0.000	16881446	1000.00	921	111.50- 151.50	131.50
2.788	2.788	0.000	10579542	1000.00	880	62.41- 102.41	82.41
2.826	2.826	0.000	6340762	1000.00	883	29.39- 69.39	49.39
3.036	3.036	0.000	8310417	1000.00	894	44.74- 84.74	64.74
Average of Peak Amounts =					891		
7 Aroclor-1260					CAS #: 11096-82-5		
3.762	3.762	0.000	17492483	1000.00	992	80.00- 120.00	100.00
3.925	3.925	0.000	26719248	1000.00	1000	132.75- 172.75	152.75
4.155	4.155	0.000	15874558	1000.00	997	70.75- 110.75	90.75
4.297	4.297	0.000	16698516	1000.00	1010	75.46- 115.46	95.46
4.477	4.477	0.000	38229555	1000.00	1030	198.55- 238.55	218.55
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecdia.i/020510.b/002f0201.d
Date : 05-FEB-2010 07:06
Client ID: AR166001
Sample Info: IWAR100203-60 C1

Column phase: CLP1

Instrument: ecdia.i

Operator: YS1
Column diameter: 0.25

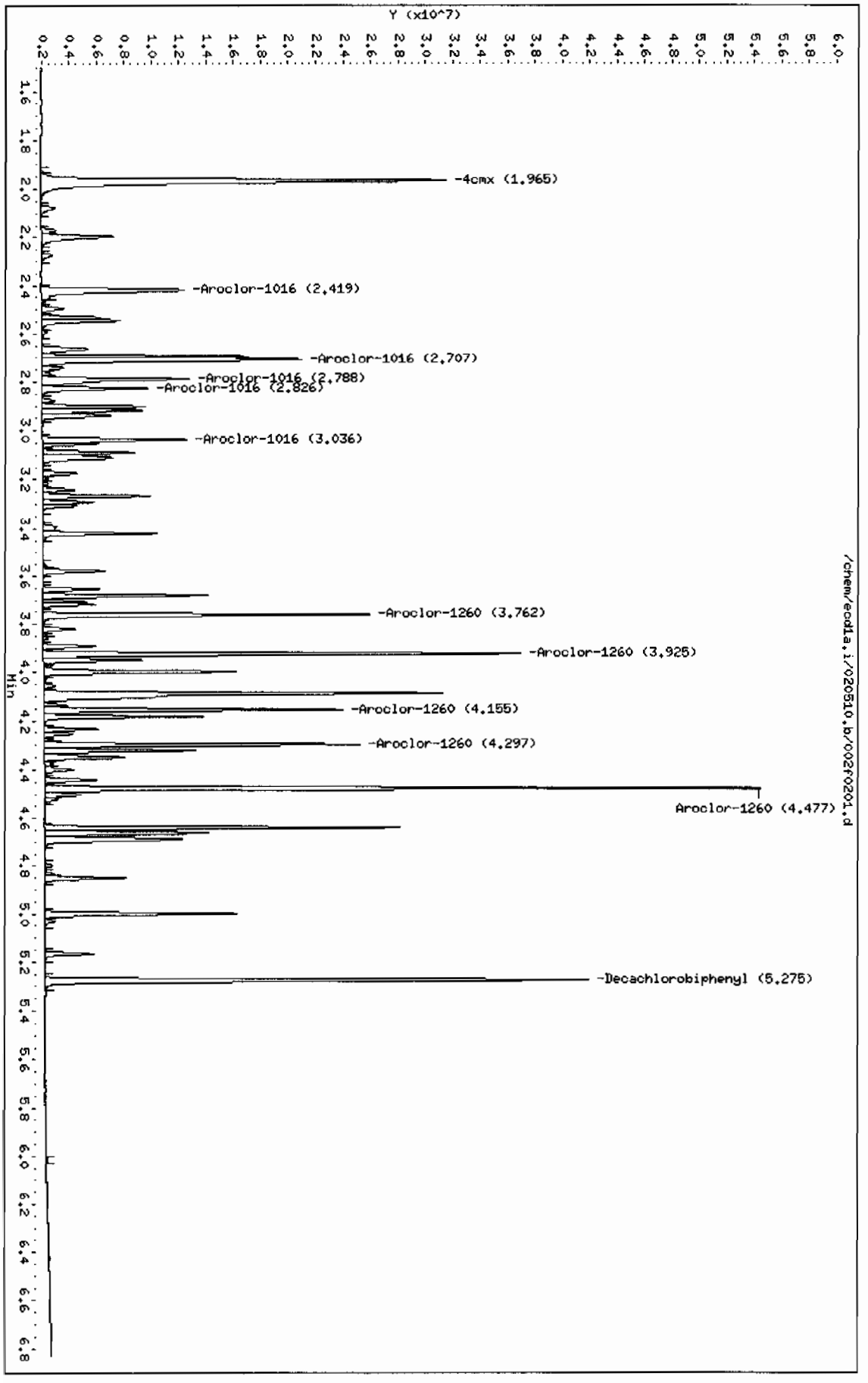

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	27312874	100.000	95.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.942	5.942	0.000	20818320	100.000	95.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	11513111	1000.00	922	80.00- 120.00	100.00(M)
3.275	3.275	0.000	7680091	1000.00	898	46.71- 86.71	66.71
3.339	3.339	0.000	4732691	1000.00	894	21.11- 61.11	41.11
3.565	3.565	0.000	6037895	1000.00	886	32.44- 72.44	52.44
3.641	3.641	0.000	5752367	1000.00	898	29.96- 69.96	49.96
Average of Peak Amounts					900		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.332	0.000	12622486	1000.00	998	80.00- 120.00	100.00
4.457	4.457	0.000	15319189	1000.00	1010	101.36- 141.36	121.36
4.722	4.722	0.000	11665669	1000.00	1000	72.42- 112.42	92.42
4.896	4.896	0.000	12022139	1000.00	997	75.24- 115.24	95.24
5.043	5.043	0.000	27036683	1000.00	1040	194.19- 234.19	214.19
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/002b0201.d

Date : 05-FEB-2010 07:06

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

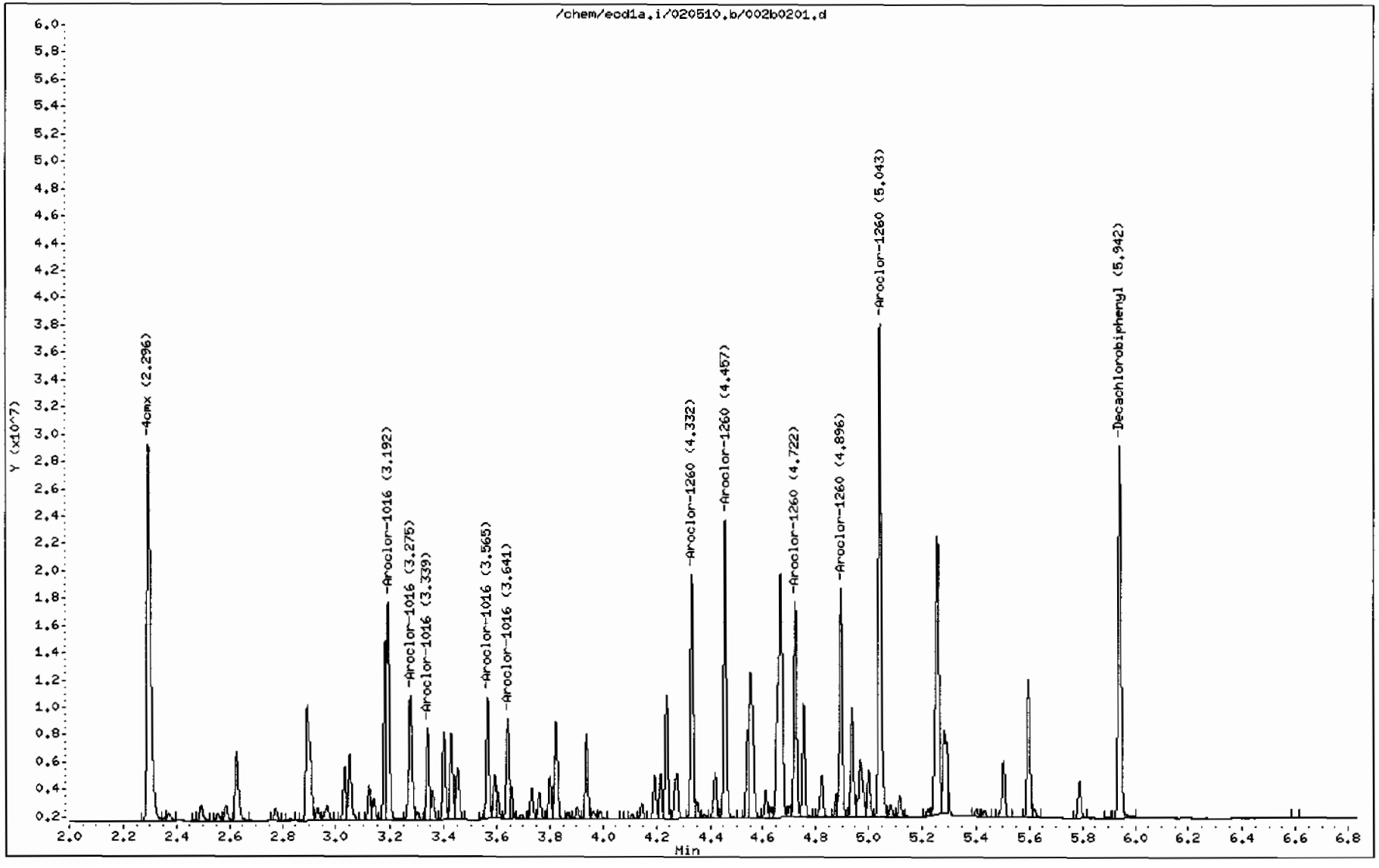

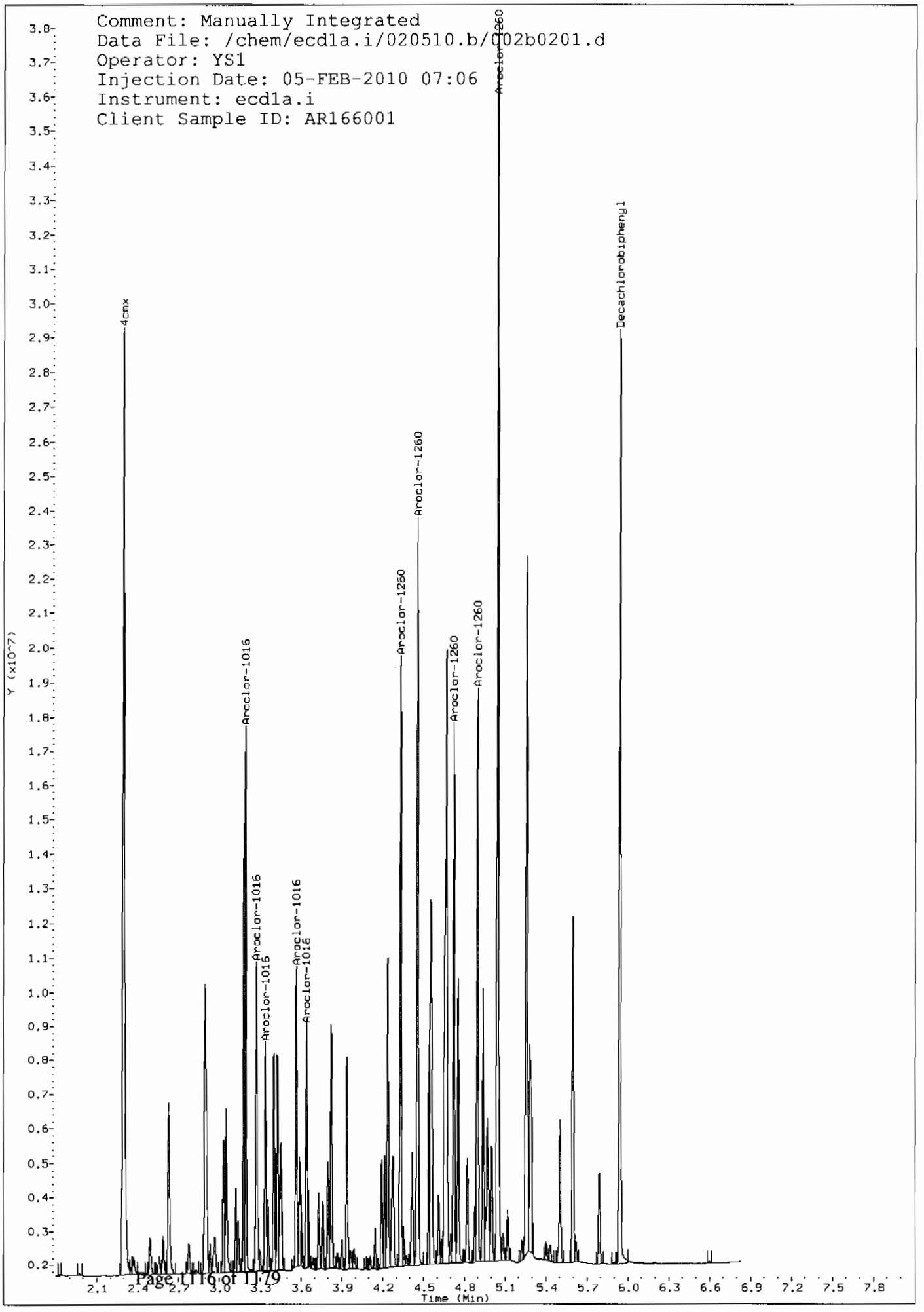
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

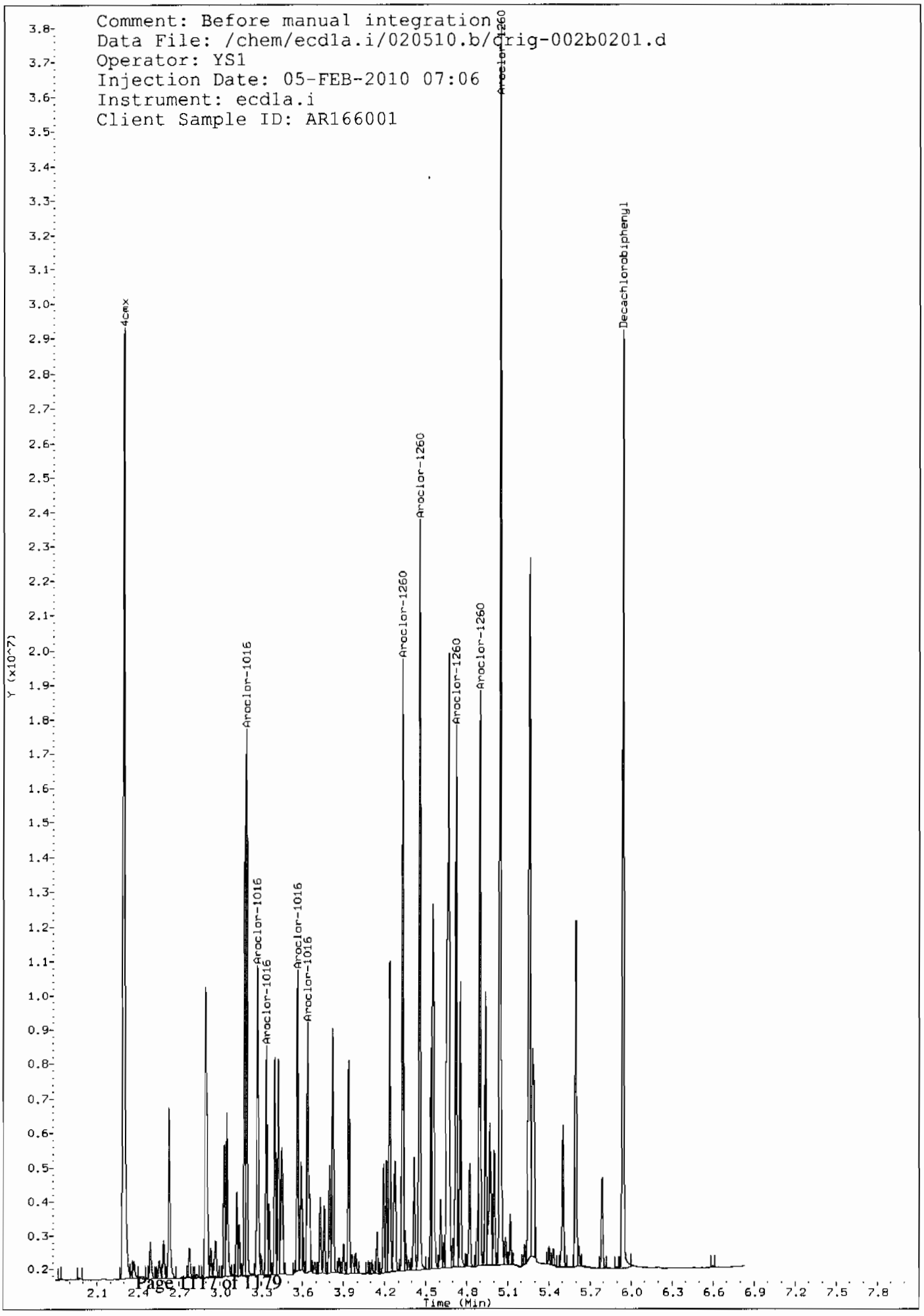
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.266	3.266	0.000	13316408	1000.00	1070	80.00- 120.00	100.00
3.421	3.421	0.000	18383138	1000.00	1100	118.05- 158.05	138.05
3.655	3.655	0.000	24035597	1000.00	1160	160.50- 200.50	180.50
3.818	3.818	0.000	18227087	1000.00	1160	116.88- 156.88	136.88
3.926	3.926	0.000	17340088	1000.00	1140	110.22- 150.22	130.22

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/020510.b/003f0301.d

Page 1

Date : 05-FEB-2010 07:17

Client ID: AR125401

Instrument: ecd1a.i

Sample Info: IWAR091216-54

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

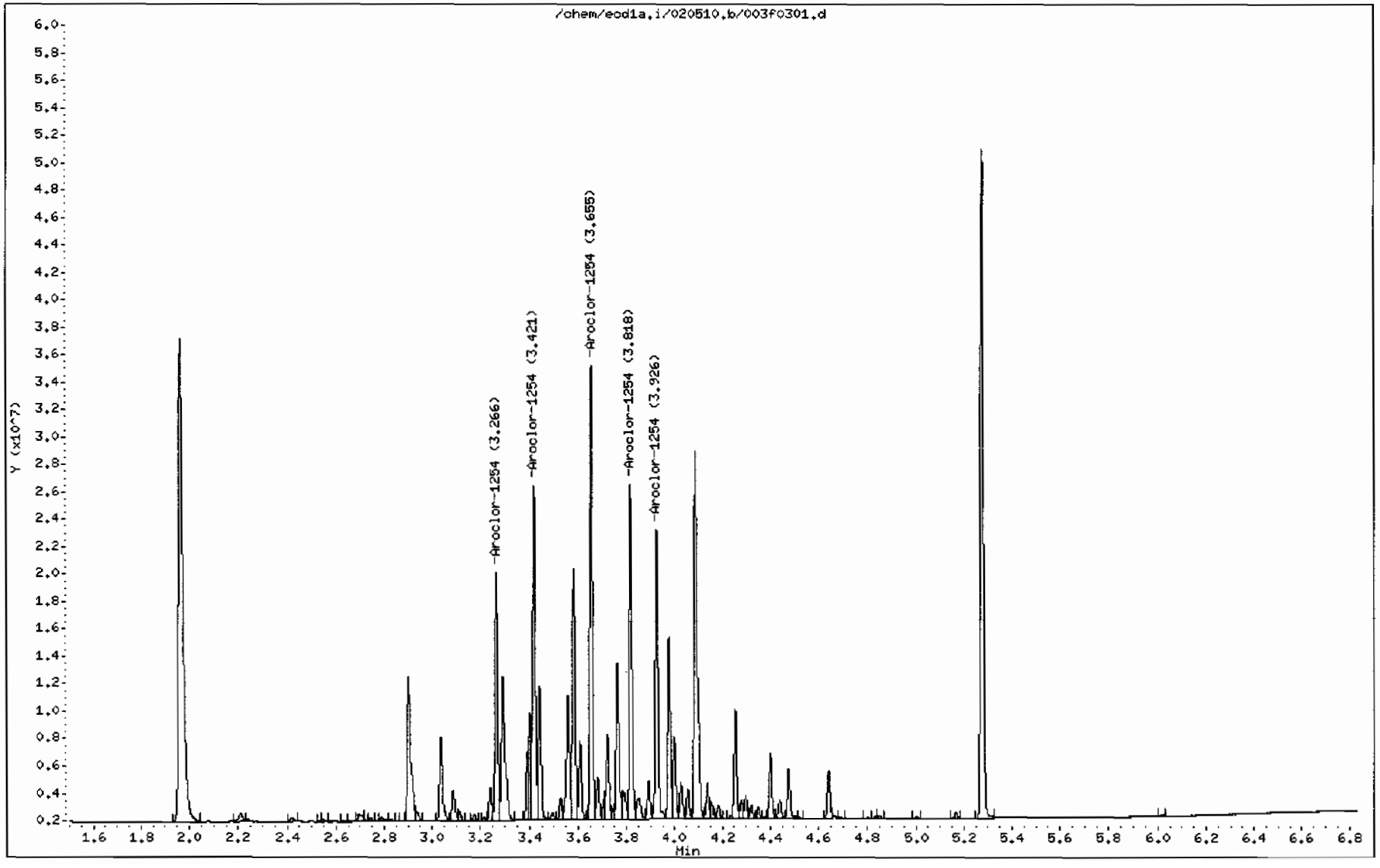

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.401	3.401	0.000	6210292	1000.00	965	80.00- 120.00	100.00
3.824	3.824	0.000	11223428	1000.00	971	160.72- 200.72	180.72
3.940	3.940	0.000	12385662	1000.00	996	179.44- 219.44	199.44
4.216	4.216	0.000	17124358	1000.00	1010	255.74- 295.74	275.74
4.353	4.353	0.000	12208508	1000.00	982	176.59- 216.59	196.59
Average of Peak Amounts =					986		

Data File: /chem/ecd1a.i/020510.b/003b0301.d
Date : 05-FEB-2010 07:17
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

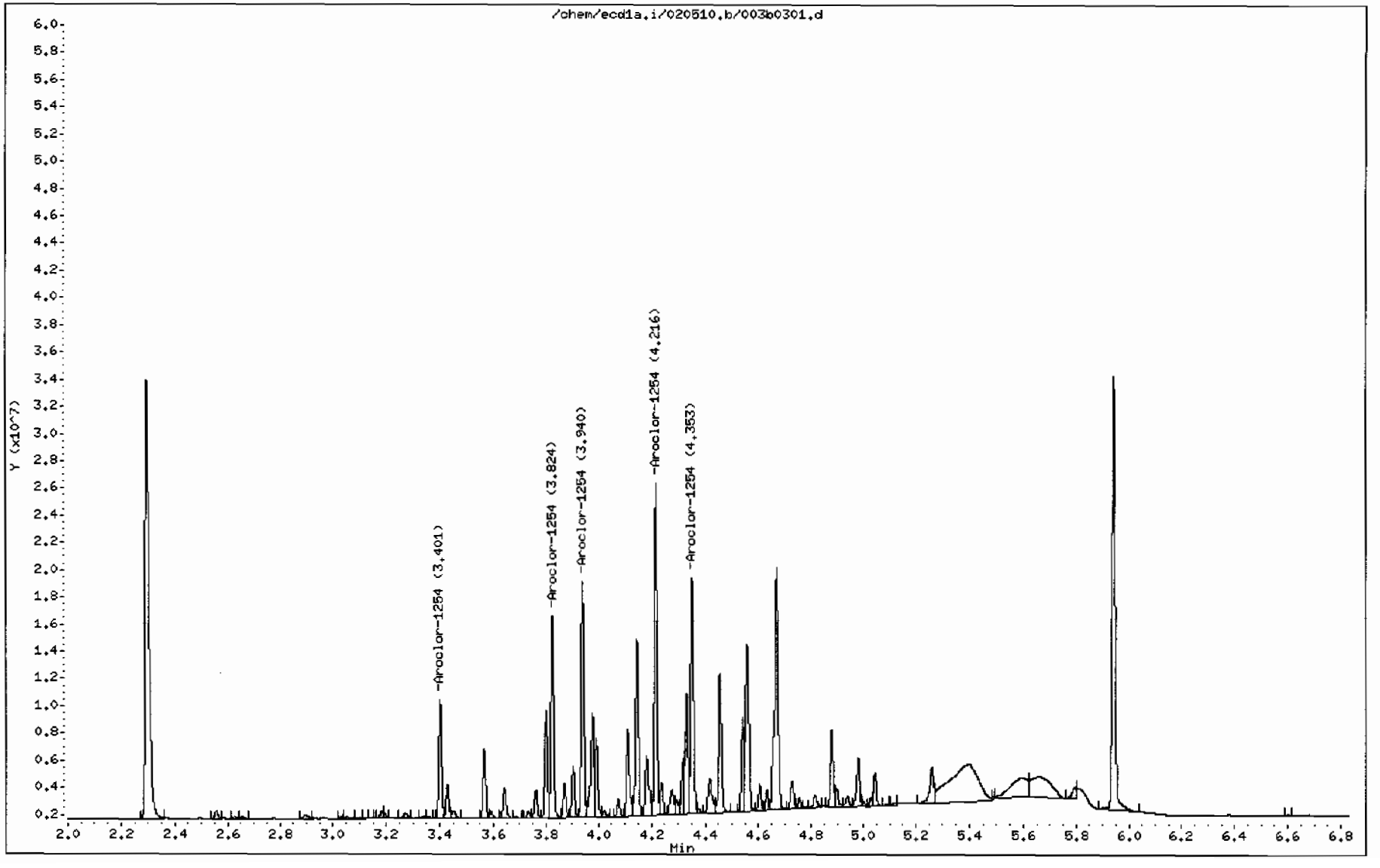

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.420	2.420	0.000	11255044	1000.00	965	80.00- 120.00	100.00
2.708	2.708	0.000	14293317	1000.00	1060	106.99- 146.99	126.99
2.826	2.826	0.000	5433097	1000.00	987	28.27- 68.27	48.27
3.037	3.037	0.000	7156483	1000.00	988	43.58- 83.58	63.58
3.290	3.290	0.000	6999007	1000.00	1030	42.19- 82.19	62.19

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/004f0401.d

Date : 05-FEB-2010 07:27

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

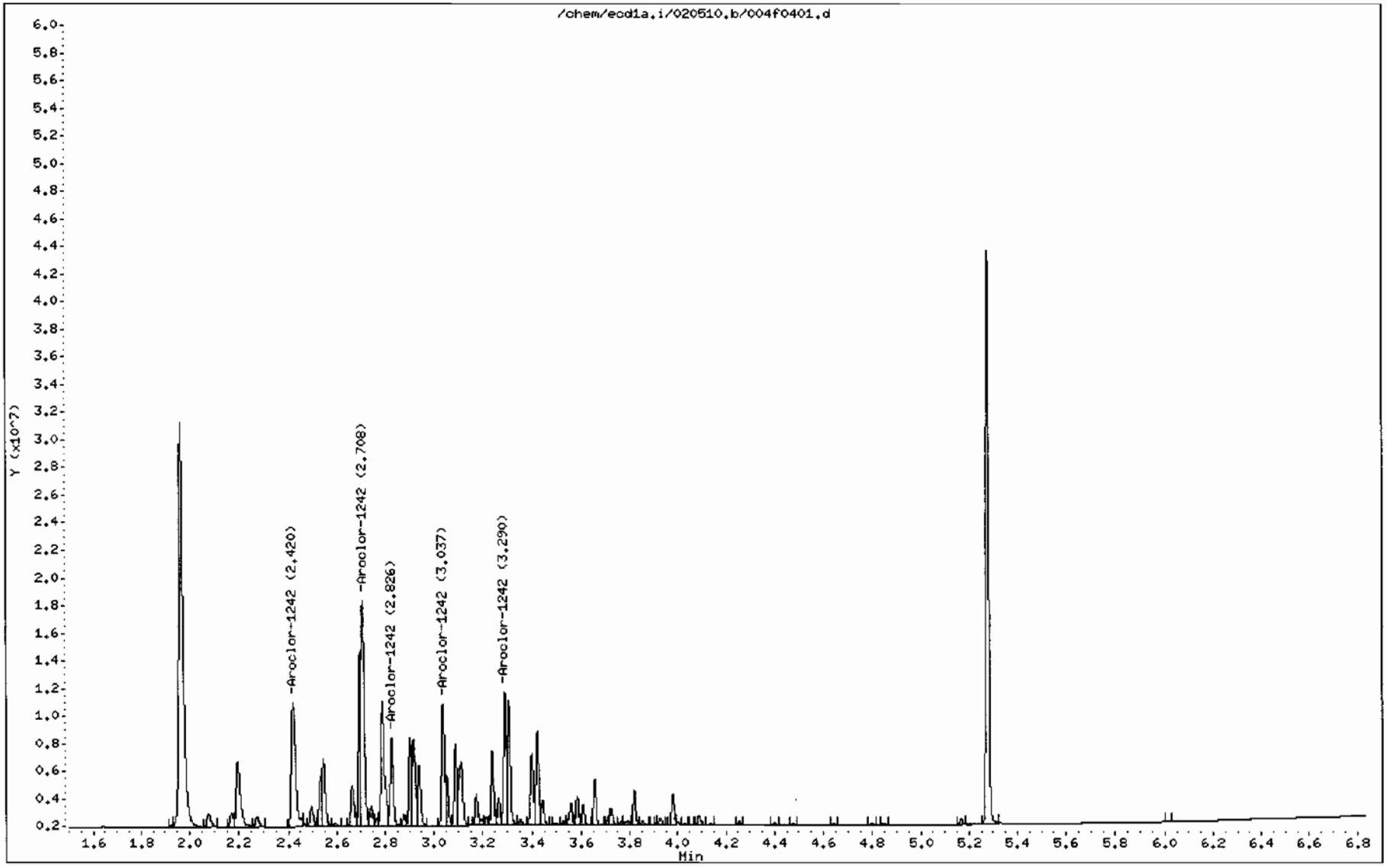

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.192	3.192	0.000	10109273	1000.00	955	80.00- 120.00	100.00
3.275	3.275	0.000	6573360	1000.00	816	45.02- 85.02	65.02
3.566	3.566	0.000	5197092	1000.00	872	31.41- 71.41	51.41
3.800	3.800	0.000	5378692	1000.00	888	33.21- 73.21	53.21
3.828	3.828	0.000	6016980	1000.00	898	39.52- 79.52	59.52
Average of Peak Amounts =					886		

Data File: /chem/ecd1a.i/020510.b/004b0401.d

Date : 05-FEB-2010 07:27

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

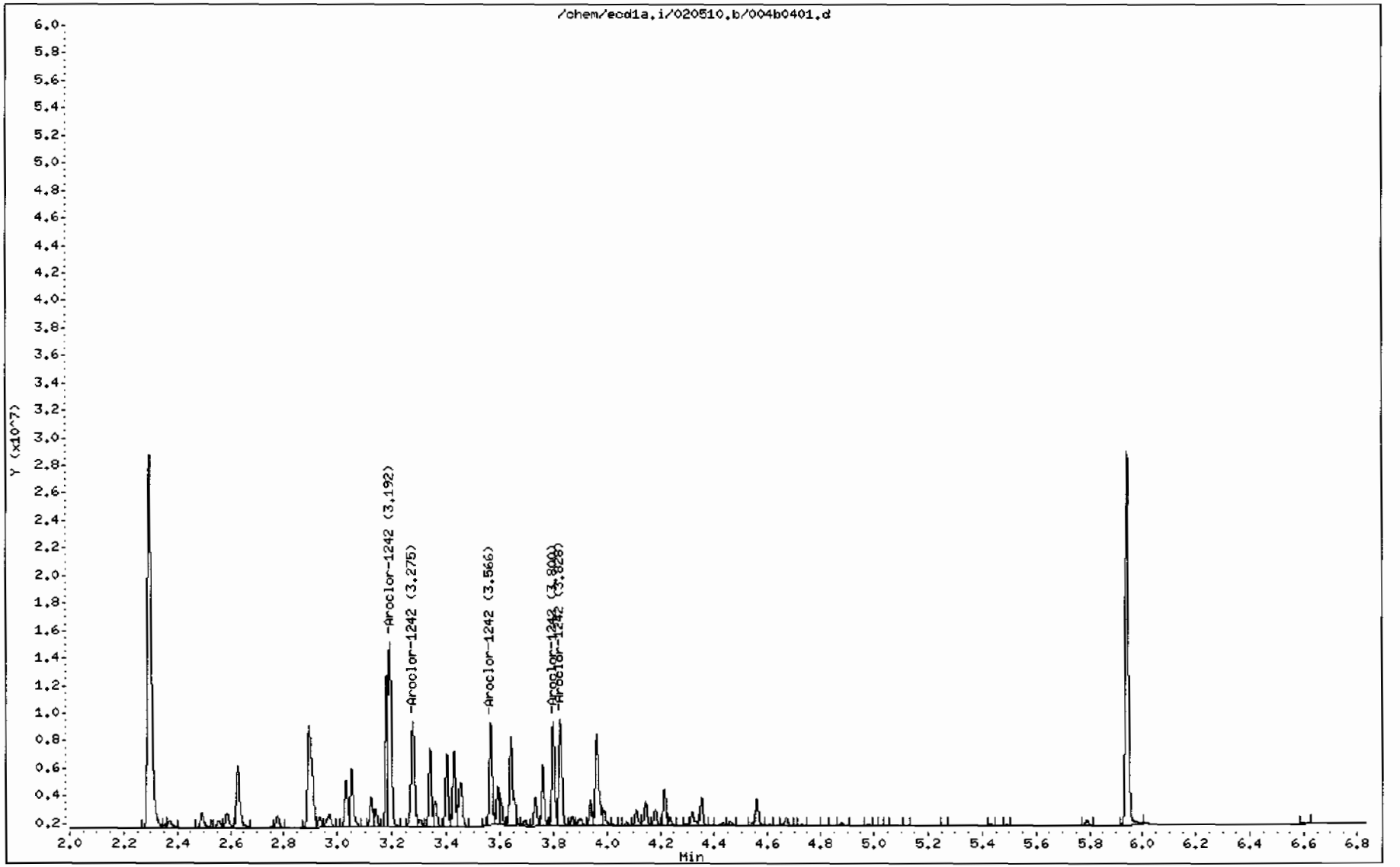

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.088	3.088	0.000	8241247	1000.00	1050	80.00- 120.00	100.00
3.240	3.240	0.000	7125731	1000.00	1040	66.46- 106.46	86.46
3.291	3.291	0.000	14052338	1000.00	1060	150.51- 190.51	170.51
3.422	3.422	0.000	11222456	1000.00	1020	116.17- 156.17	136.17
3.655	3.655	0.000	7182031	1000.00	963	67.15- 107.15	87.15

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/020510.b/005f0501.d

Page 1

Date : 05-FEB-2010 07:38

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR091217-48

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

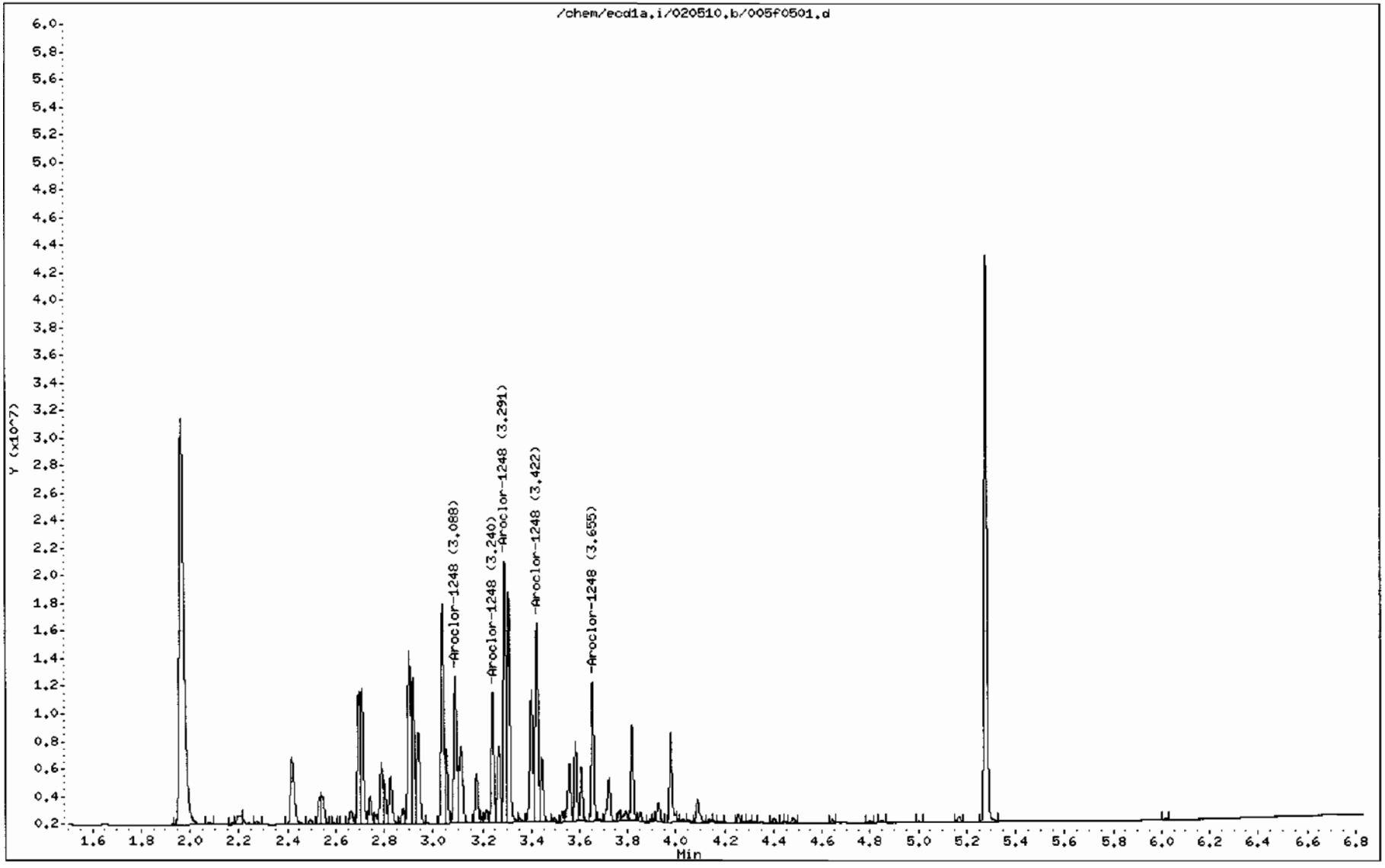

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.401	3.401	0.000	7358985	1000.00	914	80.00- 120.00	100.00
3.566	3.566	0.000	9216148	1000.00	933	105.24- 145.24	125.24
3.800	3.800	0.000	10436092	1000.00	930	121.81- 161.81	141.81
3.827	3.827	0.000	11626532	1000.00	931	137.99- 177.99	157.99
3.965	3.965	0.000	11178442	1000.00	924	131.90- 171.90	151.90

Average of Peak Amounts = 926

Data File: /chem/ecd1a.i/020510.b/005b0501.d

Date : 05-FEB-2010 07:38

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

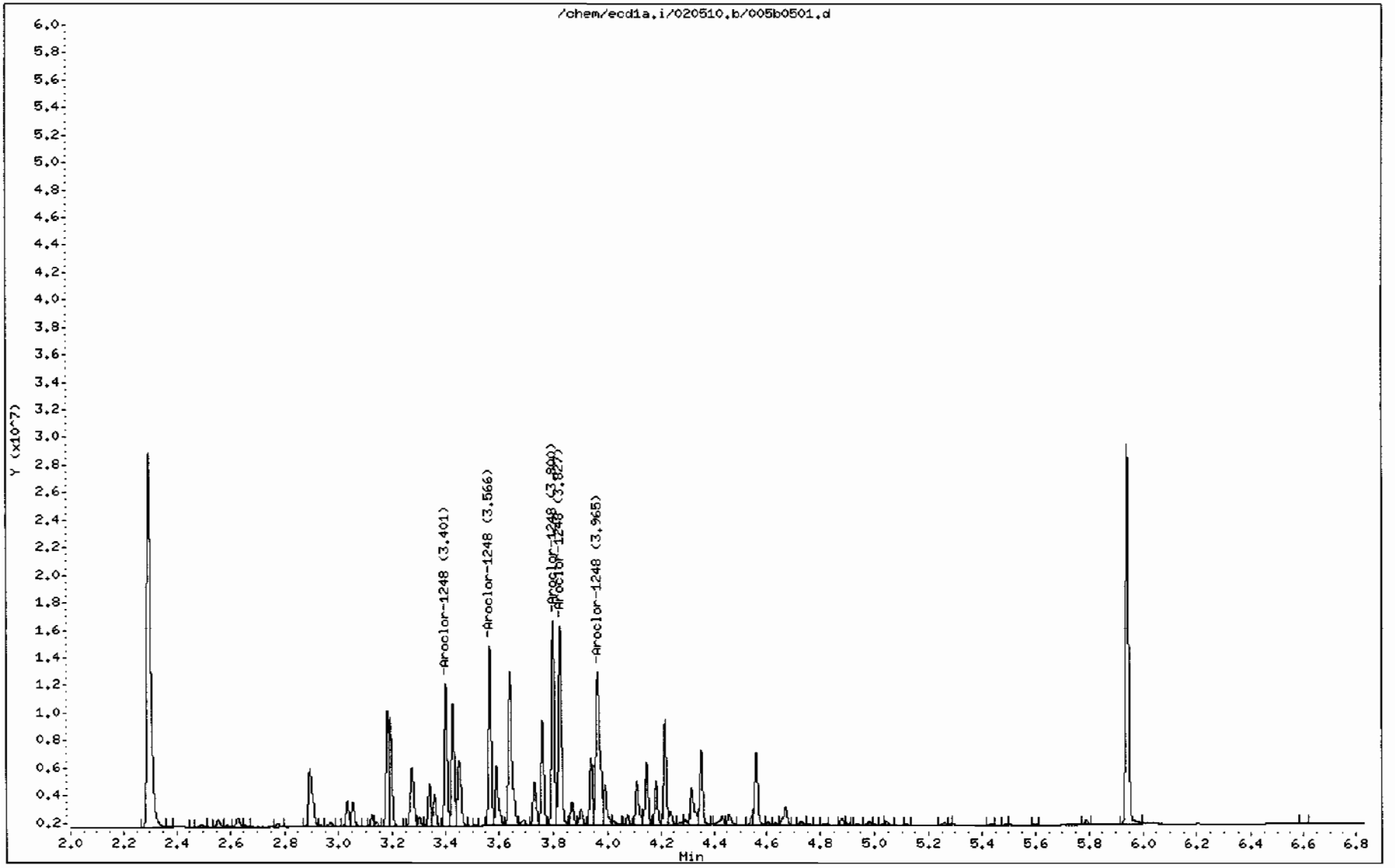

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.421	2.421	0.000	6684520	1000.00	976	80.00- 120.00	100.00
2.709	2.709	0.000	8973672	1000.00	1060	114.25- 154.25	134.25
2.789	2.789	0.000	5627474	1000.00	1000	64.19- 104.19	84.19
3.038	3.038	0.000	4163606	1000.00	1040	42.29- 82.29	62.29
3.291	3.291	0.000	3786517	1000.00	981	36.65- 76.65	56.65

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/006f0601.d

Page 1

Date : 05-FEB-2010 07:48

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

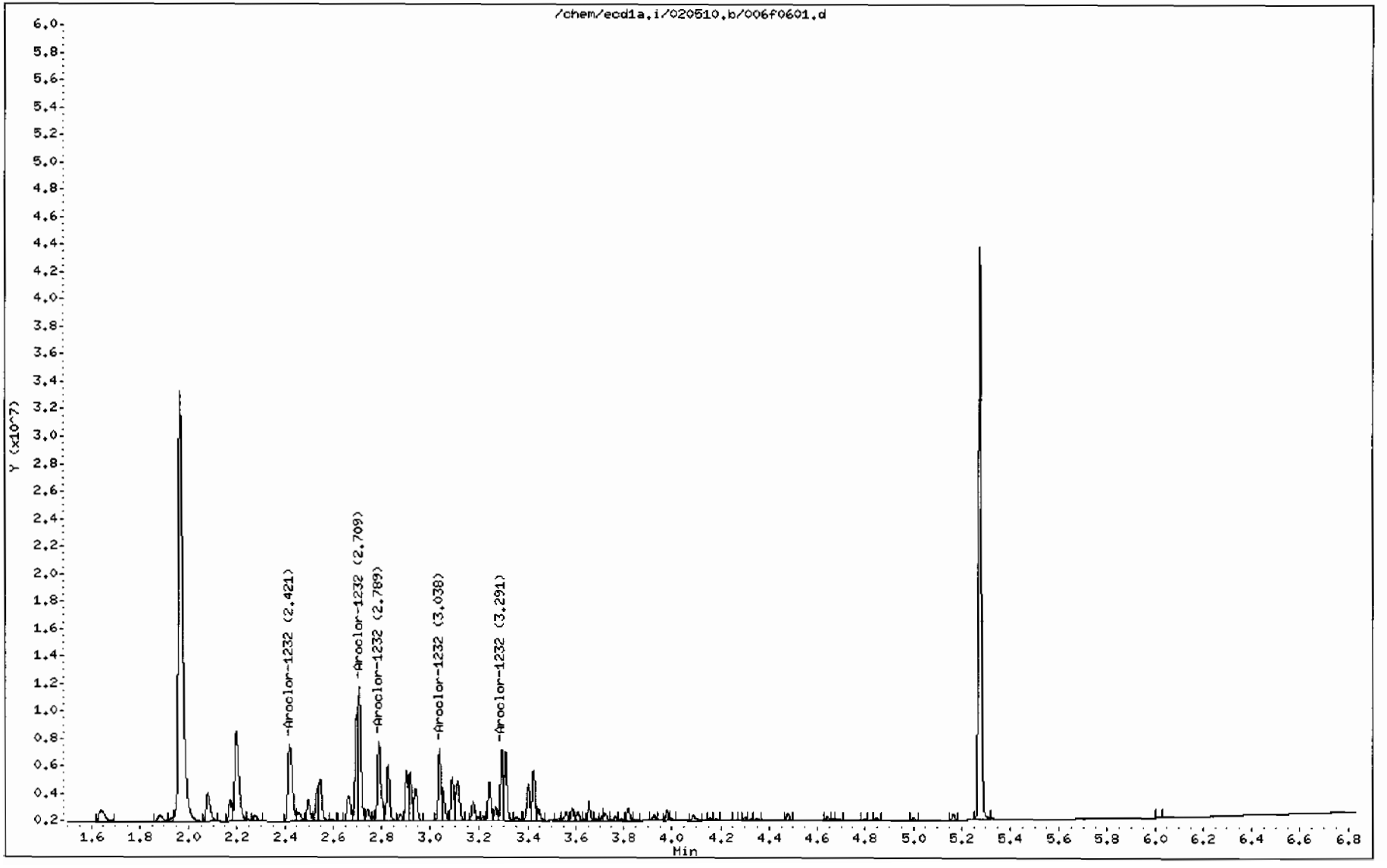

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.895	2.895	0.000	5518314	1000.00	937	80.00- 120.00	100.00
3.193	3.193	0.000	6067838	1000.00	975	89.96- 129.96	109.96
3.276	3.276	0.000	4176572	1000.00	961	55.69- 95.69	75.69
3.567	3.567	0.000	3101183	1000.00	997	36.20- 76.20	56.20
3.800	3.800	0.000	3042822	1000.00	953	35.14- 75.14	55.14
Average of Peak Amounts =					965		

Data File: /chem/ecd1a.i/020510.b/006b0601.d

Date : 05-FEB-2010 07:48

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

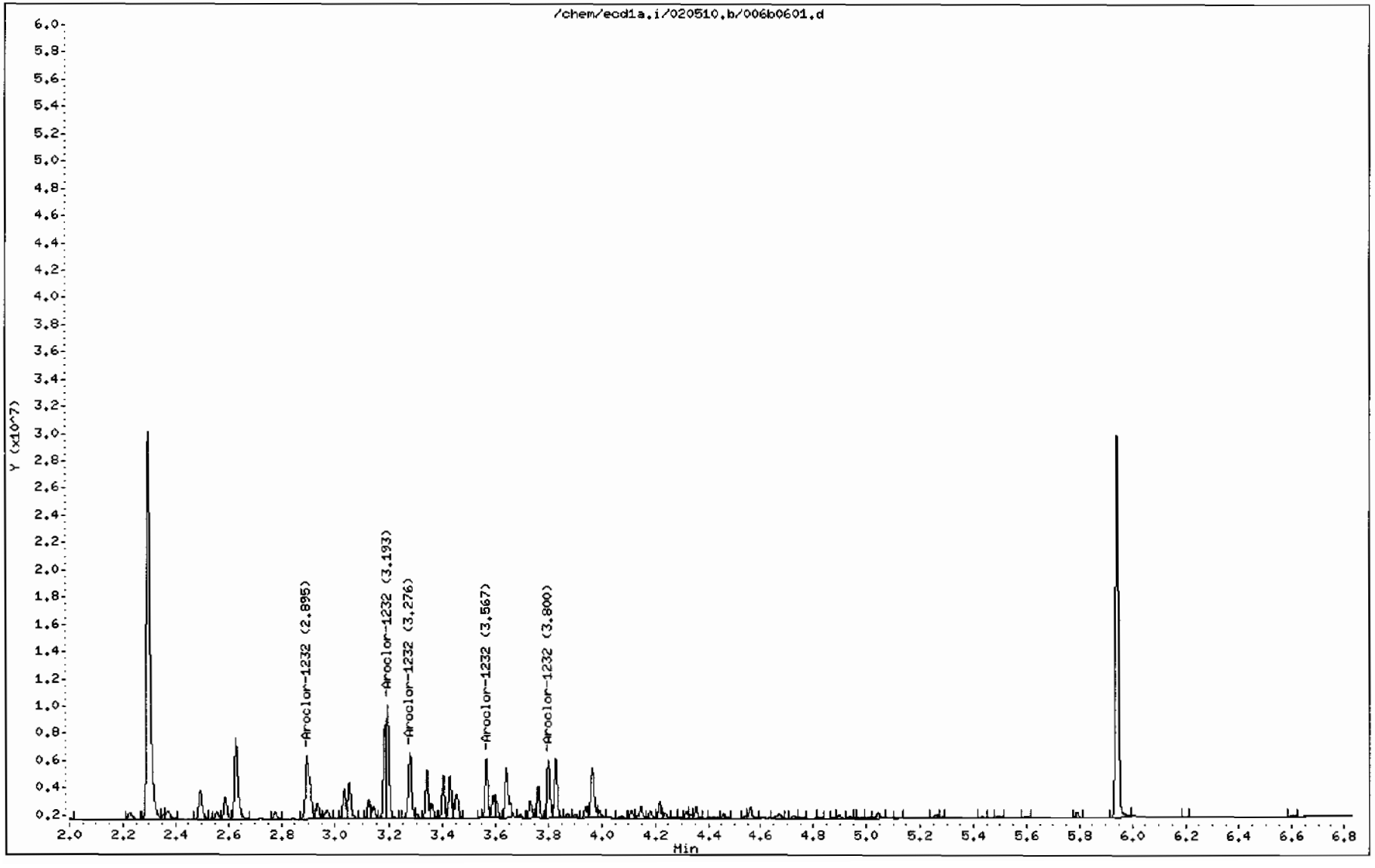

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 05-FEB-2010 07:59
Operator : YSI Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.077	2.077	0.000	4201820	1000.00	977	80.00- 120.00	100.00
2.170	2.170	0.000	2263486	1000.00	927	33.87- 73.87	53.87
2.195	2.195	0.000	10281522	1000.00	1000	224.69- 264.69	244.69
Average of Peak Amounts =					968		

Data File: /chem/ecd1a.i/020510.b/007f0701.d

Page 1

Date : 05-FEB-2010 07:59

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

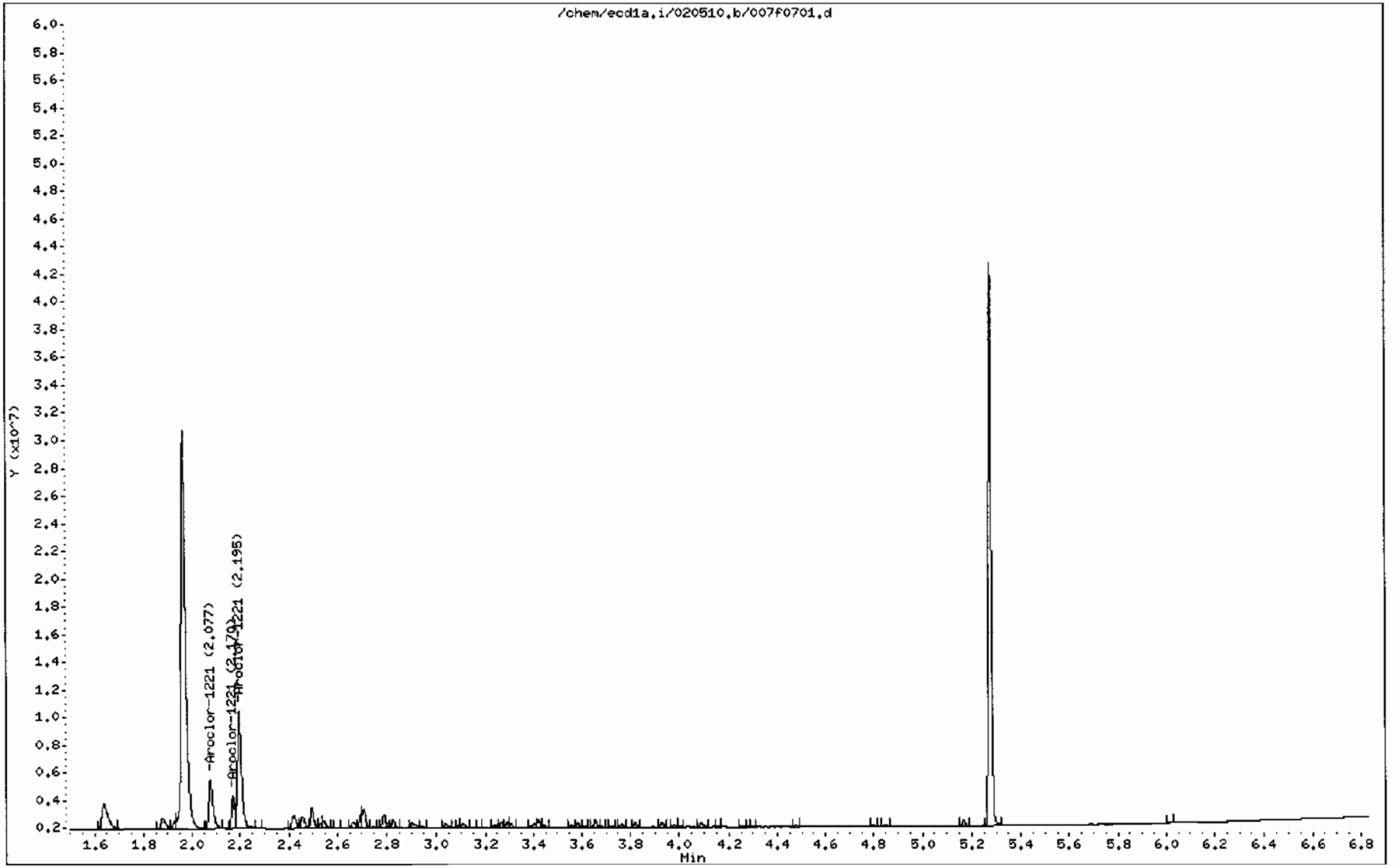

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.492	2.492	0.000	3283686	1000.00	902	80.00- 120.00	100.00
2.586	2.586	0.000	2130872	1000.00	915	44.89- 84.89	64.89
2.627	2.627	0.000	7321346	1000.00	902	202.96- 242.96	222.96
Average of Peak Amounts =					906		

Data File: /chem/ecd1a.i/020510.b/007b0701.d

Page 1

Date : 05-FEB-2010 07:59

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

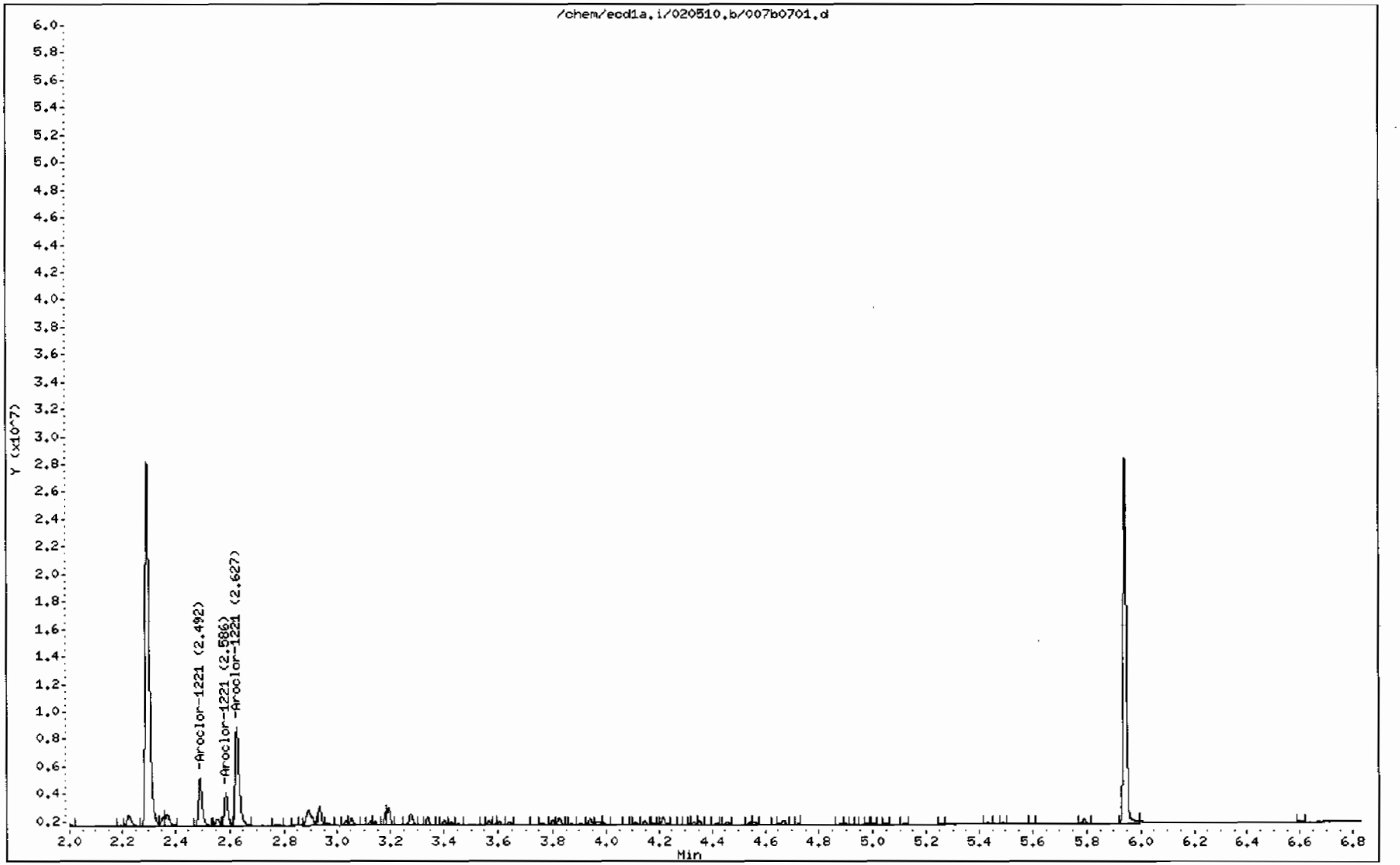

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022f2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	40504102	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32906895	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	14089870	1000.00	961	80.00- 120.00	100.00
2.707	2.707	0.000	18254738	1000.00	996	106.82- 146.82	129.56
2.787	2.788	-0.001	11539563	1000.00	960	60.66- 100.66	81.90
2.826	2.826	0.000	6922359	1000.00	964	28.59- 68.59	49.13
3.036	3.036	0.000	8923226	1000.00	960	42.97- 82.97	63.33
Average of Peak Amounts =					968		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	19002907	1000.00	1080	80.00- 120.00	100.00(M)
3.924	3.925	-0.001	28995739	1000.00	1090	132.12- 172.12	152.59
4.154	4.155	-0.001	17302329	1000.00	1090	70.53- 110.53	91.05
4.297	4.297	0.000	18016442	1000.00	1090	75.55- 115.55	94.81
4.476	4.477	-0.001	41342662	1000.00	1110	197.21- 237.21	217.56
Average of Peak Amounts =					1.09e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/022f2201.d

Date : 05-FEB-2010 10:51

Client ID: AR166002

Sample Info: IWAR100203-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

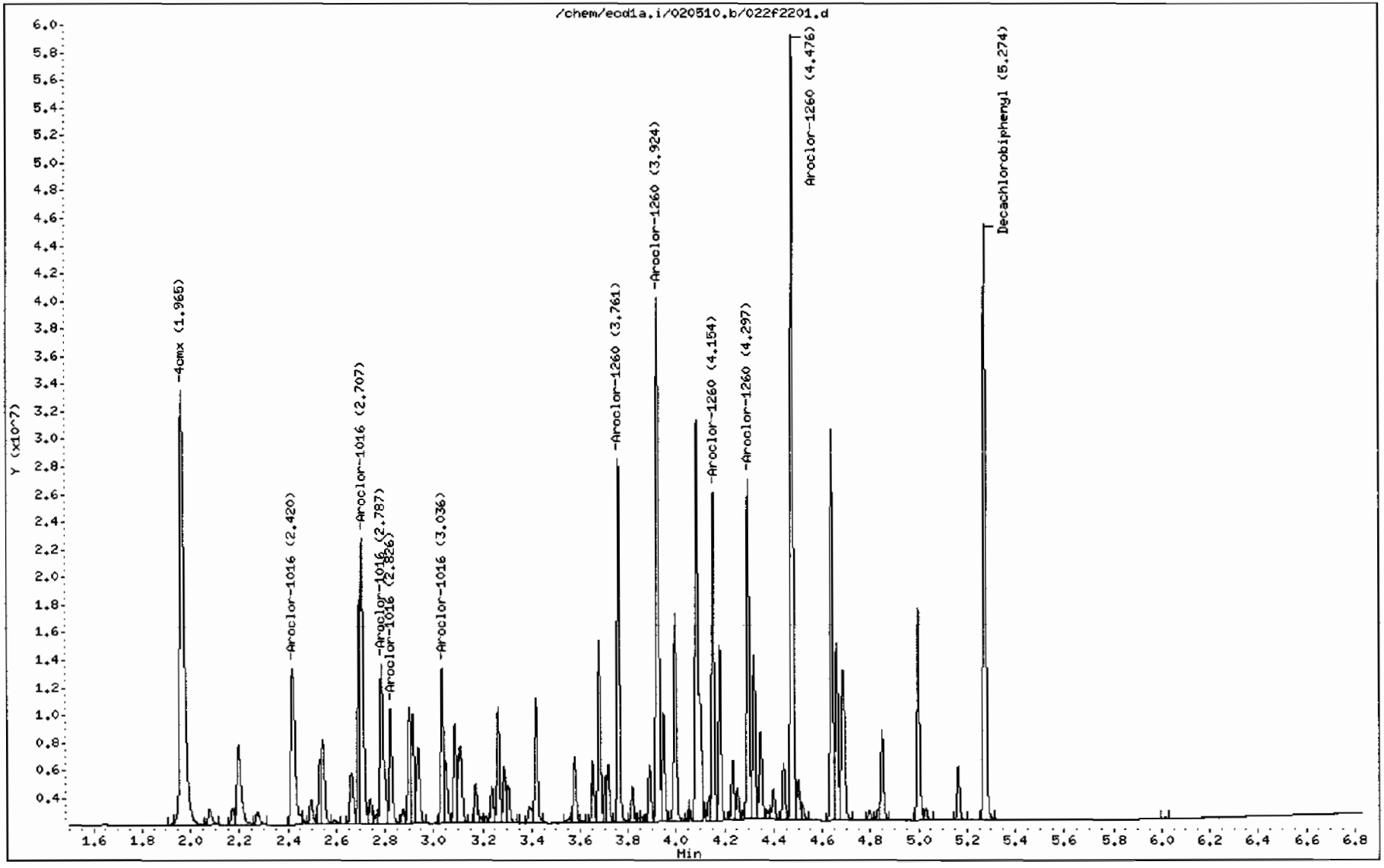

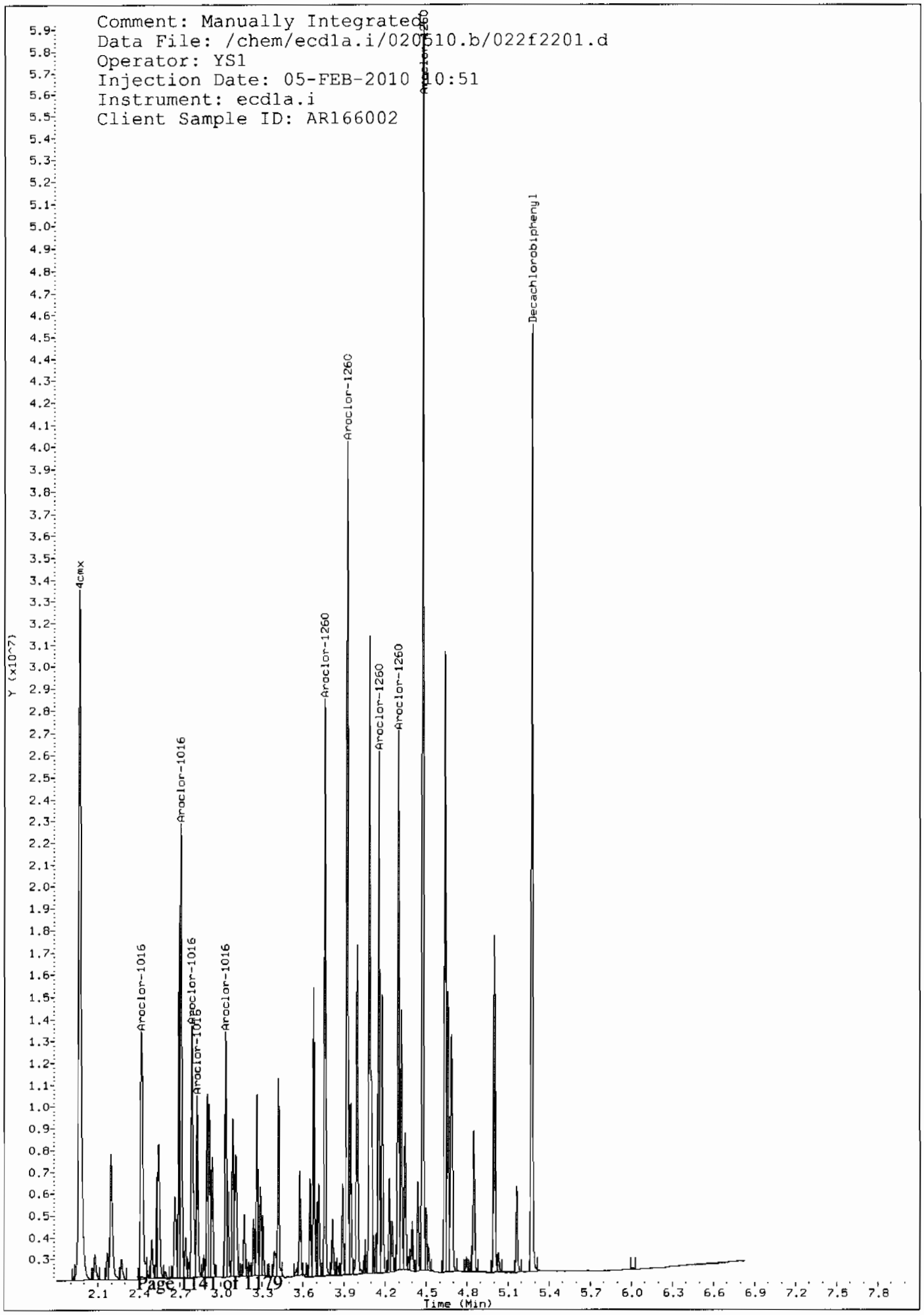
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

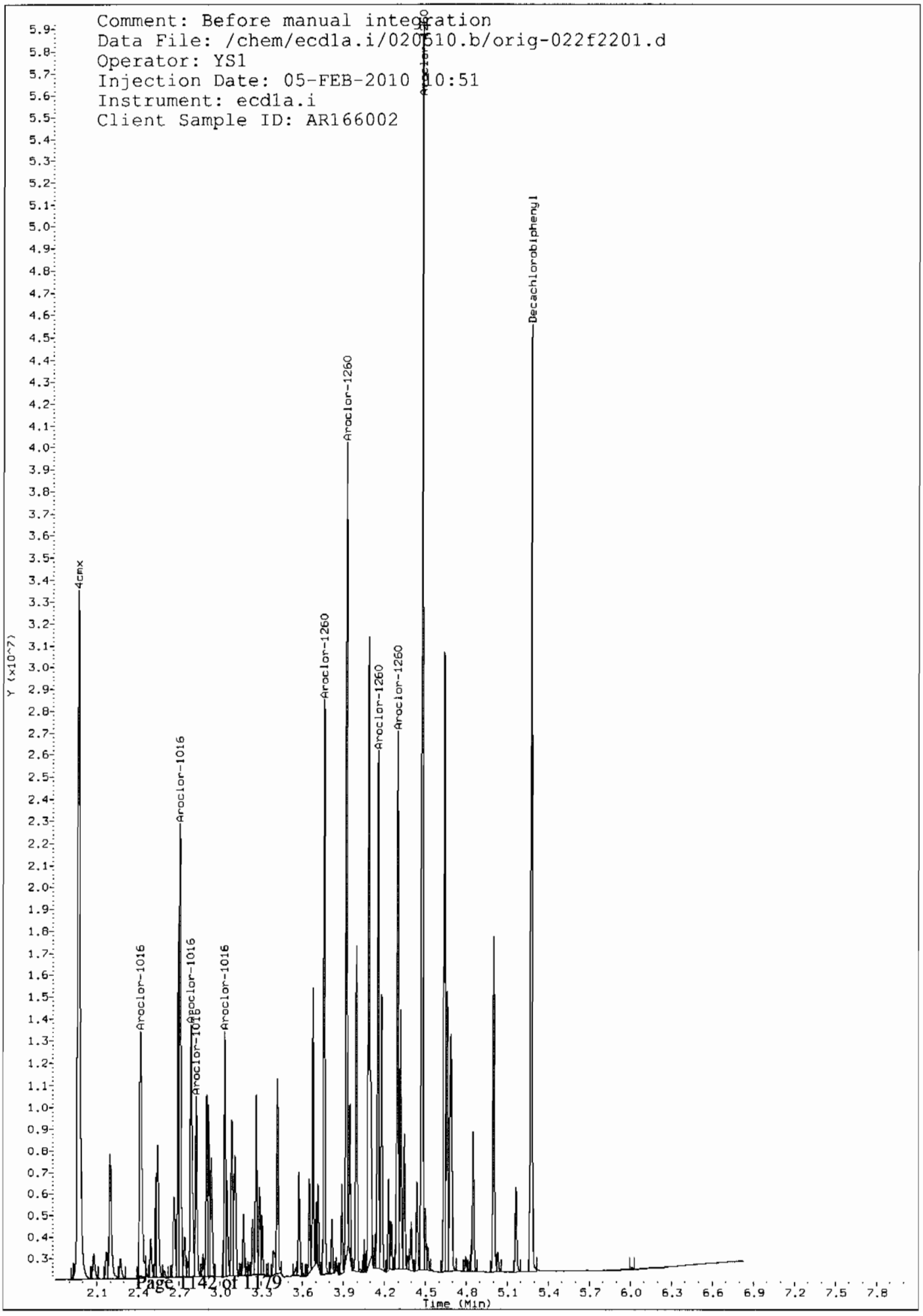
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022b2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	28991286	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	22228765	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12553096	1000.00	1000	80.00- 120.00	100.00
3.275	3.275	0.000	8166105	1000.00	955	45.05- 85.05	65.05
3.338	3.339	-0.001	5045053	1000.00	954	20.19- 60.19	40.19
3.565	3.565	0.000	6628313	1000.00	973	32.80- 72.80	52.80
3.641	3.641	0.000	6123429	1000.00	956	28.78- 68.78	48.78
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13388385	1000.00	1060	80.00- 120.00	100.00
4.456	4.457	-0.001	16291509	1000.00	1070	101.68- 141.68	121.68
4.722	4.722	0.000	12420564	1000.00	1070	72.77- 112.77	92.77
4.896	4.896	0.000	12892265	1000.00	1070	76.29- 116.29	96.29
5.042	5.043	-0.001	28894660	1000.00	1110	195.82- 235.82	215.82
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/020510.b/022b2201.d

Date : 05-FEB-2010 10:51

Client ID: AR166002

Sample Info: IWAR100203-60 02

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

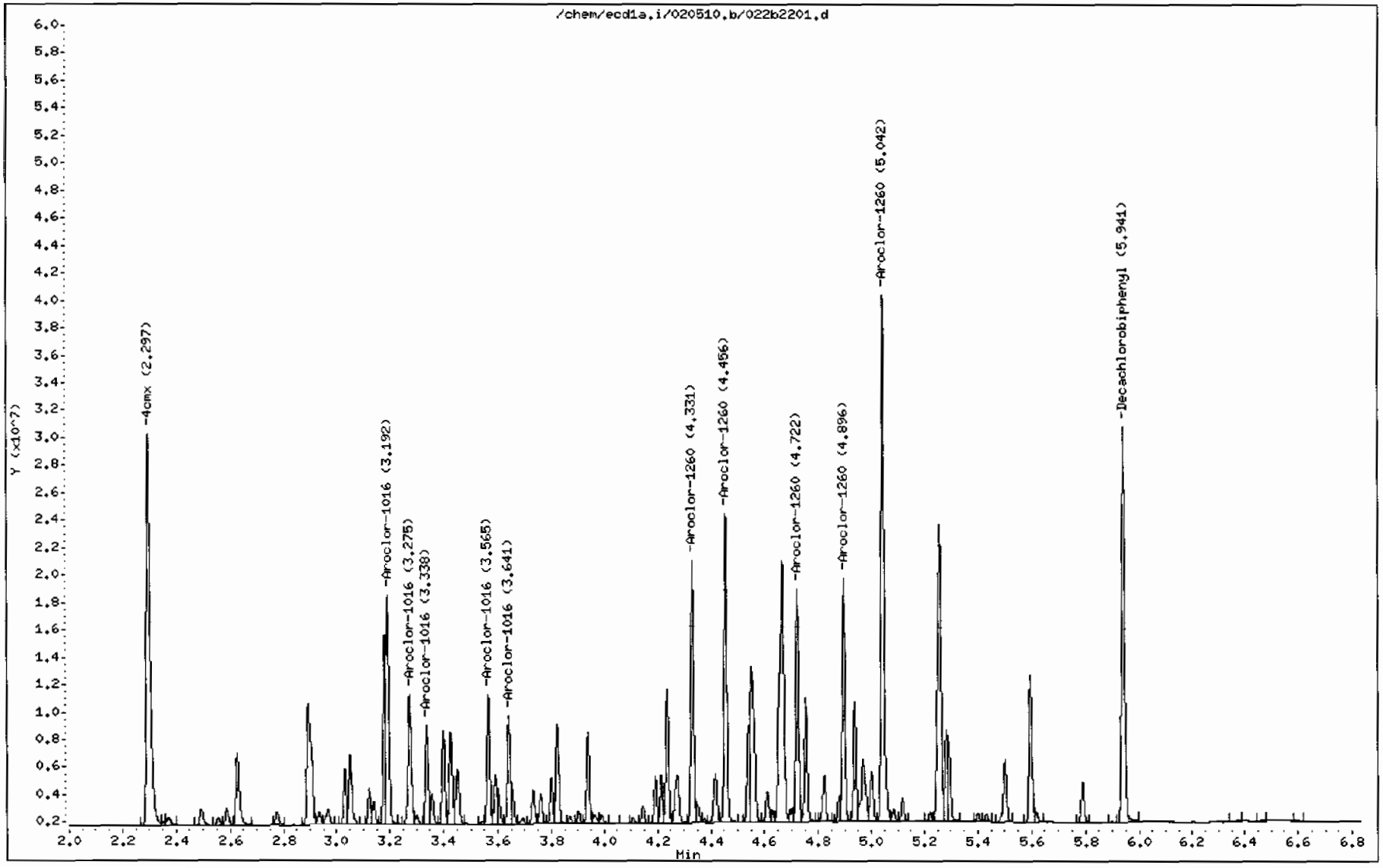

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031f3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.966	1.965	0.001	40459975	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32629917	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	14012607	1000.00	956	80.00- 120.00	100.00
2.708	2.707	0.001	18319018	1000.00	1000	110.73- 150.73	130.73
2.788	2.788	0.000	11547800	1000.00	960	62.41- 102.41	82.41
2.826	2.826	0.000	6929943	1000.00	965	29.46- 69.46	49.46
3.036	3.036	0.000	8939714	1000.00	962	43.80- 83.80	63.80
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	18972126	1000.00	1080	80.00- 120.00	100.00
3.924	3.925	-0.001	28835947	1000.00	1080	131.99- 171.99	151.99
4.154	4.155	-0.001	17204186	1000.00	1080	70.68- 110.68	90.68
4.297	4.297	0.000	18148577	1000.00	1100	75.66- 115.66	95.66
4.476	4.477	-0.001	41262621	1000.00	1110	197.49- 237.49	217.49
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd1a.i/020510.b/031f3101.d

Date : 05-FEB-2010 12:40

Client ID: AR166003

Sample Info: IWAR100203-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

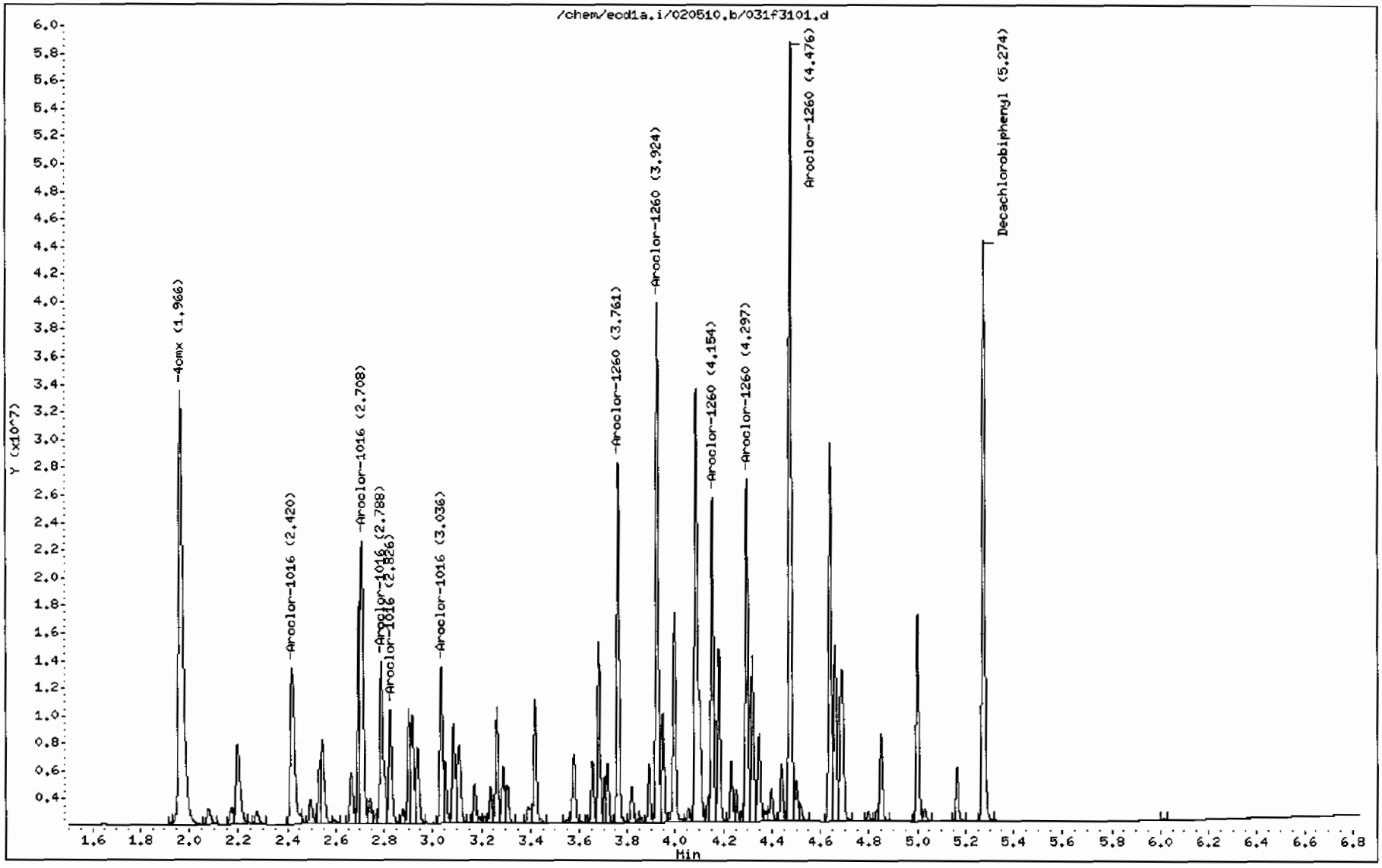

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031b3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	28690788	100.000	99.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	21926681	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12359615	1000.00	990	80.00- 120.00	100.00(M)
3.275	3.275	0.000	8069931	1000.00	944	45.29- 85.29	65.29
3.338	3.339	-0.001	4988684	1000.00	943	20.36- 60.36	40.36
3.565	3.565	0.000	6345906	1000.00	931	31.34- 71.34	51.34
3.641	3.641	0.000	6017327	1000.00	940	38.11- 78.11	58.11
Average of Peak Amounts =					950		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13242341	1000.00	1050	80.00- 120.00	100.00
4.456	4.457	-0.001	16223303	1000.00	1060	102.51- 142.51	122.51
4.722	4.722	0.000	12301397	1000.00	1060	72.89- 112.89	92.89
4.895	4.896	-0.001	12694909	1000.00	1050	75.87- 115.87	95.87
5.043	5.043	0.000	28307638	1000.00	1080	193.77- 233.77	213.77
Average of Peak Amounts =					1.06e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/031b3101.d

Date : 05-FEB-2010 12:40

Client ID: AR166003

Sample Info: |WAR100203-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

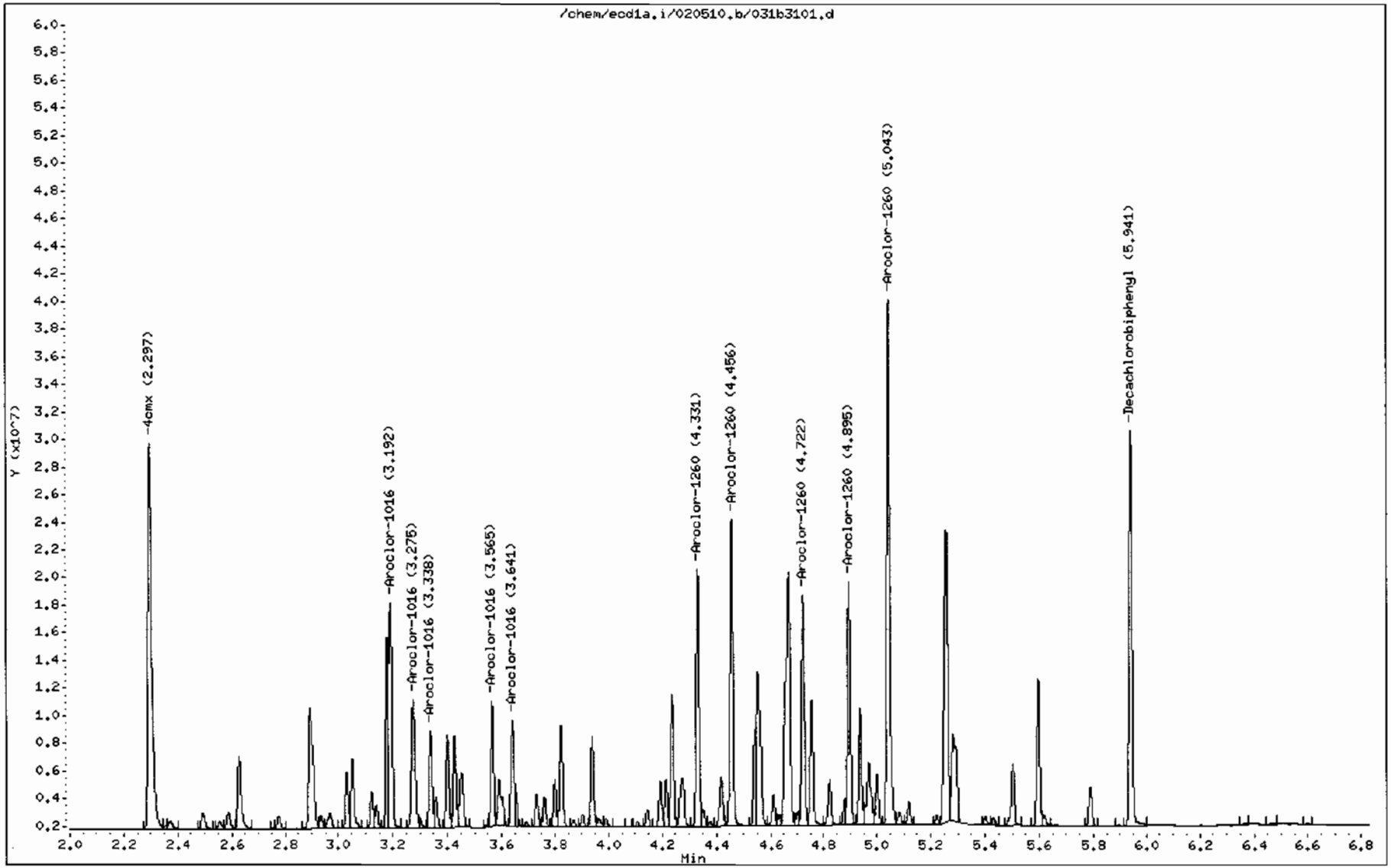

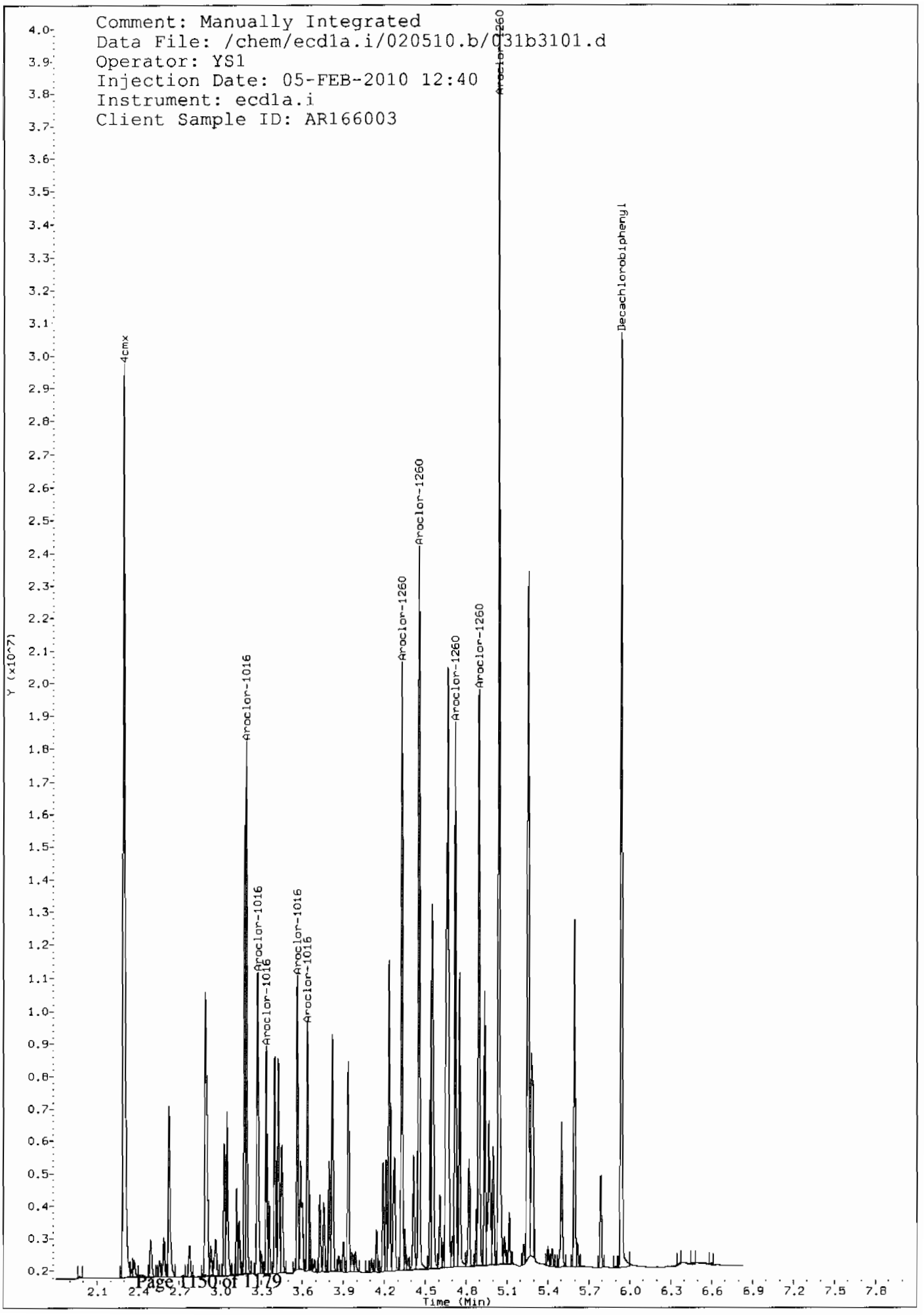
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

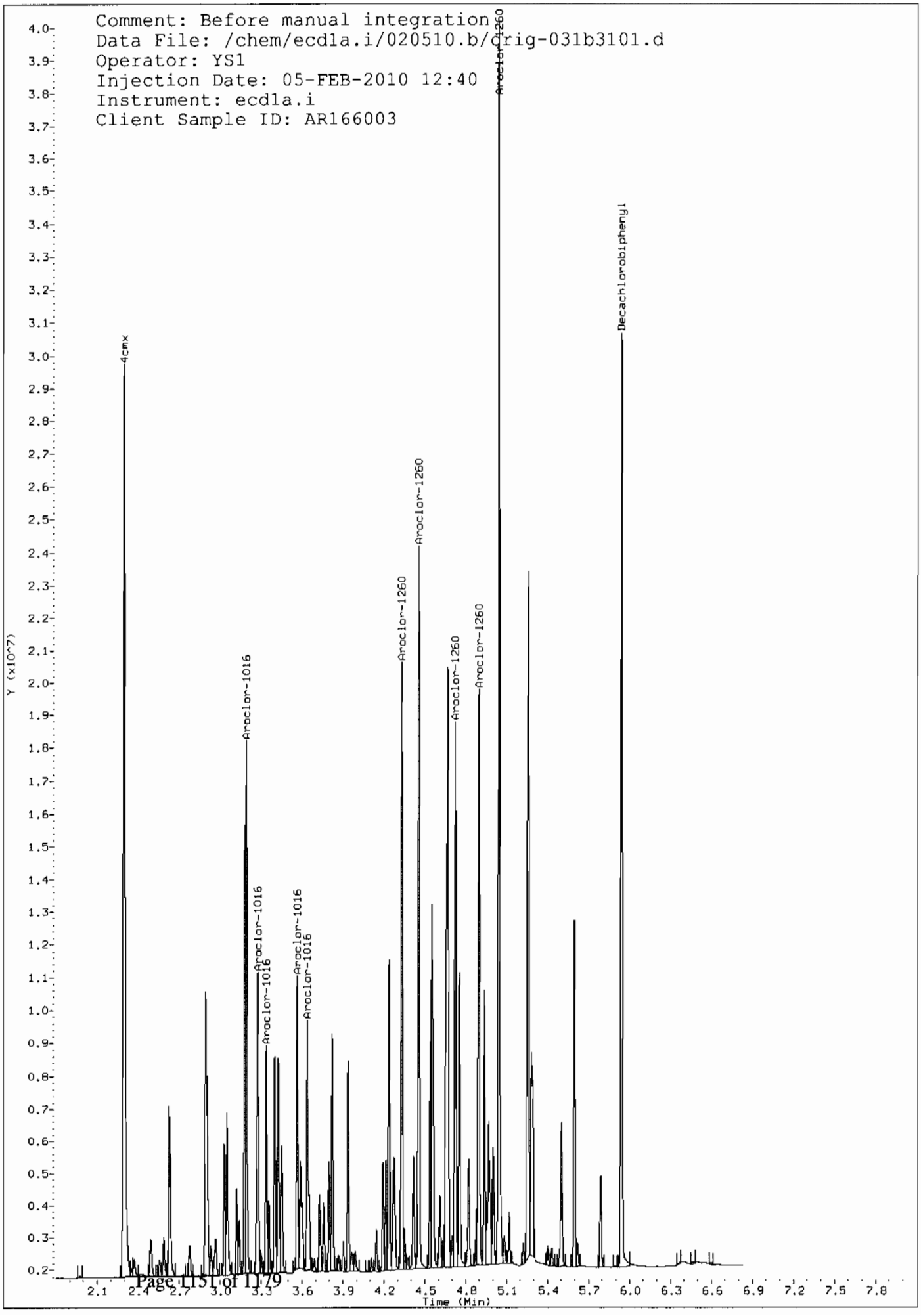
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	1.96	5.28
02	ZZZZZ	ZZZZZ	01/29/10	0622	1.97	5.28
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	1.96	5.28
11	AR166002	WAR100129-02	01/29/10	0757	1.97	5.28
12	AR166003	WAR100129-03	01/29/10	0807	1.97	5.28
13	AR166004	WAR100129-04	01/29/10	0818	1.97	5.28
14	AR166005	IAR100104-01	01/29/10	0859	1.97	5.29
15	AR166001	WAR100104-60	01/29/10	0909	1.97	5.28
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	1.97	5.28
18	ZZZZZ	ZZZZZ	01/29/10	0941	1.97	5.28
19	ZZZZZ	ZZZZZ	01/29/10	0951	1.97	5.28
20	ZZZZZ	ZZZZZ	01/29/10	1002	1.97	5.28
21	ZZZZZ	ZZZZZ	01/29/10	1014	1.97	5.28
22	ZZZZZ	ZZZZZ	01/29/10	1027	1.96	5.28
23	ZZZZZ	ZZZZZ	01/29/10	1040	1.97	5.28
24	ZZZZZ	ZZZZZ	01/29/10	1052	1.97	5.28
25	ZZZZZ	ZZZZZ	01/29/10	1105	1.97	5.28
26	ZZZZZ	ZZZZZ	01/29/10	1117	1.96	5.28
27	ZZZZZ	ZZZZZ	01/29/10	1130	1.96	5.28
28	AR166002	WAR100104-60	01/29/10	1142	1.97	5.28
29	PIBLK03	WAR100105-99	01/29/10	1153	1.97	5.28
30	ZZZZZ	ZZZZZ	01/29/10	1203	1.97	5.28
31	ZZZZZ	ZZZZZ	01/29/10	1216	1.97	5.28
32	ZZZZZ	ZZZZZ	01/29/10	1228	1.97	5.28

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	2.30	5.94
02	ZZZZZ	ZZZZZ	01/29/10	0622	2.30	5.94
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	2.30	5.94
11	AR166002	WAR100129-02	01/29/10	0757	2.30	5.94
12	AR166003	WAR100129-03	01/29/10	0807	2.30	5.94
13	AR166004	WAR100129-04	01/29/10	0818	2.30	5.94
14	AR166005	IAR100104-01	01/29/10	0859	2.30	5.95
15	AR166001	WAR100104-60	01/29/10	0909	2.30	5.95
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	2.30	5.94
18	ZZZZZ	ZZZZZ	01/29/10	0941	2.30	5.94
19	ZZZZZ	ZZZZZ	01/29/10	0951	2.30	5.94
20	ZZZZZ	ZZZZZ	01/29/10	1002	2.30	5.94
21	ZZZZZ	ZZZZZ	01/29/10	1014	2.30	5.94
22	ZZZZZ	ZZZZZ	01/29/10	1027	2.30	5.94
23	ZZZZZ	ZZZZZ	01/29/10	1040	2.30	5.94
24	ZZZZZ	ZZZZZ	01/29/10	1052	2.30	5.94
25	ZZZZZ	ZZZZZ	01/29/10	1105	2.30	5.94
26	ZZZZZ	ZZZZZ	01/29/10	1117	2.30	5.94
27	ZZZZZ	ZZZZZ	01/29/10	1130	2.30	5.94
28	AR166002	WAR100104-60	01/29/10	1142	2.30	5.94
29	PIBLK03	WAR100105-99	01/29/10	1153	2.30	5.94
30	ZZZZZ	ZZZZZ	01/29/10	1203	2.30	5.94
31	ZZZZZ	ZZZZZ	01/29/10	1216	2.30	5.94
32	ZZZZZ	ZZZZZ	01/29/10	1228	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobipheny1	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/05/10	0656	1.96	5.27
02	AR166001	WAR100203-60	02/05/10	0706	1.96	5.27
03	AR125401	WAR091216-54	02/05/10	0717		
04	AR124201	WAR091217-42	02/05/10	0727		
05	AR124801	WAR091217-48	02/05/10	0738		
06	AR123201	WAR100104-32	02/05/10	0748		
07	AR122101	WAR100104-21	02/05/10	0759		
08	AR166002	WAR100104-62	02/05/10	0809		
09	AR126801	WAR100107-68	02/05/10	0820		
10	DDTANALOGSTD	WAR091219-DD	02/05/10	0831		
11	PIBLK02	WAR100105-99	02/05/10	0841	1.97	5.28
12	PBLK01	1202033246	02/05/10	0852	1.97	5.28
13	PBLK01LCS	1202033247	02/05/10	0902	1.96	5.28
14	ZZZZZ	ZZZZZ	02/05/10	0913	1.96	5.28
15	ZZZZZ	ZZZZZ	02/05/10	0923	1.96	5.28
16	ZZZZZ	ZZZZZ	02/05/10	0936	1.96	5.27
17	ZZZZZ	ZZZZZ	02/05/10	0948	1.96	5.27
18	ZZZZZ	ZZZZZ	02/05/10	1001	1.96	5.27
19	ZZZZZ	ZZZZZ	02/05/10	1013	1.97	5.28
20	ZZZZZ	ZZZZZ	02/05/10	1026	1.96	5.28
21	ZZZZZ	ZZZZZ	02/05/10	1039	1.96	5.27
22	AR166002	WAR100203-60	02/05/10	1051	1.96	5.27
23	PIBLK03	WAR100105-99	02/05/10	1102	1.97	5.28
24	ZZZZZ	ZZZZZ	02/05/10	1112	1.97	5.28
25	ZZZZZ	ZZZZZ	02/05/10	1125	1.96	5.27
26	ZZZZZ	ZZZZZ	02/05/10	1137	1.96	5.27
27	ZZZZZ	ZZZZZ	02/05/10	1150	1.97	5.27
28	RE15-10-7309	245959001	02/05/10	1203	1.96	5.27
29	RE15-10-7308	245959002	02/05/10	1215	1.96	5.27
30	RE15-10-7324	245959012	02/05/10	1228	1.96	5.27
31	AR166003	WAR100203-60	02/05/10	1240	1.97	5.27
32	PIBLK04	WAR100105-99	02/05/10	1251	1.97	5.28

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1510

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/05/10	0656	2.29	5.94
02	AR166001	WAR100203-60	02/05/10	0706	2.30	5.94
03	AR125401	WAR091216-54	02/05/10	0717		
04	AR124201	WAR091217-42	02/05/10	0727		
05	AR124801	WAR091217-48	02/05/10	0738		
06	AR123201	WAR100104-32	02/05/10	0748		
07	AR123201	WAR100104-21	02/05/10	0759		
08	AR126201	WAR100104-62	02/05/10	0809		
09	AR126801	WAR100107-68	02/05/10	0820		
10	DDTANALOGSTD	WAR091219-DD	02/05/10	0831		
11	PIBLK02	WAR100105-99	02/05/10	0841	2.30	5.94
12	PBLK01	1202033246	02/05/10	0852	2.30	5.94
13	PBLK01LCS	1202033247	02/05/10	0902	2.29	5.94
14	ZZZZZ	ZZZZZ	02/05/10	0913	2.30	5.94
15	ZZZZZ	ZZZZZ	02/05/10	0923	2.30	5.94
16	ZZZZZ	ZZZZZ	02/05/10	0936	2.30	5.94
17	ZZZZZ	ZZZZZ	02/05/10	0948	2.30	5.94
18	ZZZZZ	ZZZZZ	02/05/10	1001	2.30	5.94
19	ZZZZZ	ZZZZZ	02/05/10	1013	2.30	5.94
20	ZZZZZ	ZZZZZ	02/05/10	1026	2.30	5.94
21	ZZZZZ	ZZZZZ	02/05/10	1039	2.30	5.94
22	AR166002	WAR100203-60	02/05/10	1051	2.30	5.94
23	PIBLK03	WAR100105-99	02/05/10	1102	2.30	5.94
24	ZZZZZ	ZZZZZ	02/05/10	1112	2.30	5.94
25	ZZZZZ	ZZZZZ	02/05/10	1125	2.30	5.94
26	ZZZZZ	ZZZZZ	02/05/10	1137	2.30	5.94
27	ZZZZZ	ZZZZZ	02/05/10	1150	2.30	5.94
28	RE15-10-7309	245959001	02/05/10	1203	2.30	5.94
29	RE15-10-7308	245959002	02/05/10	1215	2.30	5.94
30	RE15-10-7324	245959012	02/05/10	1228	2.30	5.94
31	AR166003	WAR100203-60	02/05/10	1240	2.30	5.94
32	PIBLK04	WAR100105-99	02/05/10	1251	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1510 **Client ID:** LCS for batch 949031

Lab Sample ID: 1202033247

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 09:02	**Analyzed:**	05–FEB–10 09:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.689
Column 1	1	2.42	2.39 – 2.45	20.2		ug/kg	
	2	2.71	2.68 – 2.74	20.8		ug/kg	
	3	2.79	2.76 – 2.82	20		ug/kg	
	4	2.83	2.8 – 2.86	20.2		ug/kg	
	5	3.04	3.01 – 3.07	20		ug/kg	
					20.2		
Column 2	1	3.19	3.16 – 3.22	20.9		ug/kg	
	2	3.27	3.24 – 3.3	20.3		ug/kg	
	3	3.34	3.31 – 3.37	19.5		ug/kg	
	4	3.57	3.53 – 3.59	19.8		ug/kg	
	5	3.64	3.61 – 3.67	20		ug/kg	
					20.1		
Aroclor–1260							.412
Column 1	1	3.76	3.73 – 3.79	23.2		ug/kg	
	2	3.93	3.89 – 3.95	23.4		ug/kg	
	3	4.16	4.12 – 4.18	23.7		ug/kg	
	4	4.3	4.27 – 4.33	23.9		ug/kg	
	5	4.48	4.45 – 4.51	24.4		ug/kg	
					23.7		
Column 2	1	4.33	4.3 – 4.36	22.9		ug/kg	
	2	4.46	4.43 – 4.49	23.5		ug/kg	
	3	4.72	4.69 – 4.75	23.7		ug/kg	
	4	4.9	4.87 – 4.93	23.4		ug/kg	
	5	5.04	5.01 – 5.07	24.6		ug/kg	
					23.6		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033246**				
Client Sample:	**QC for batch 949031**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949031**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 08:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/012f1201-3.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	48584892	121.874	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	36515828	112.942	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/012f1201-3.d

Page 1

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202033246|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

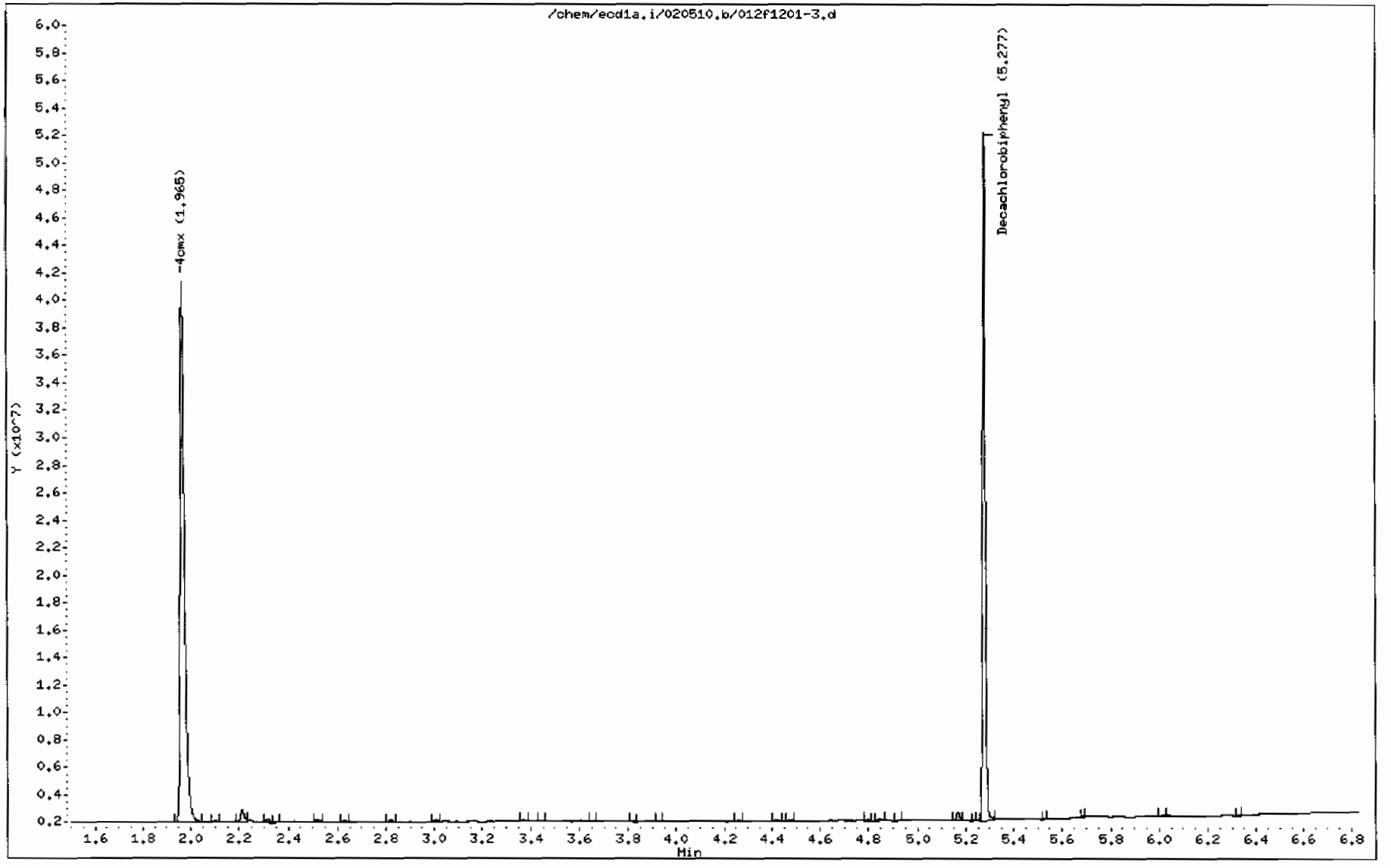

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/012b1201-3.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	34903615	121.512	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	29195934	134.155	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/012b1201-3.d

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Sample Info: |120203324611|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

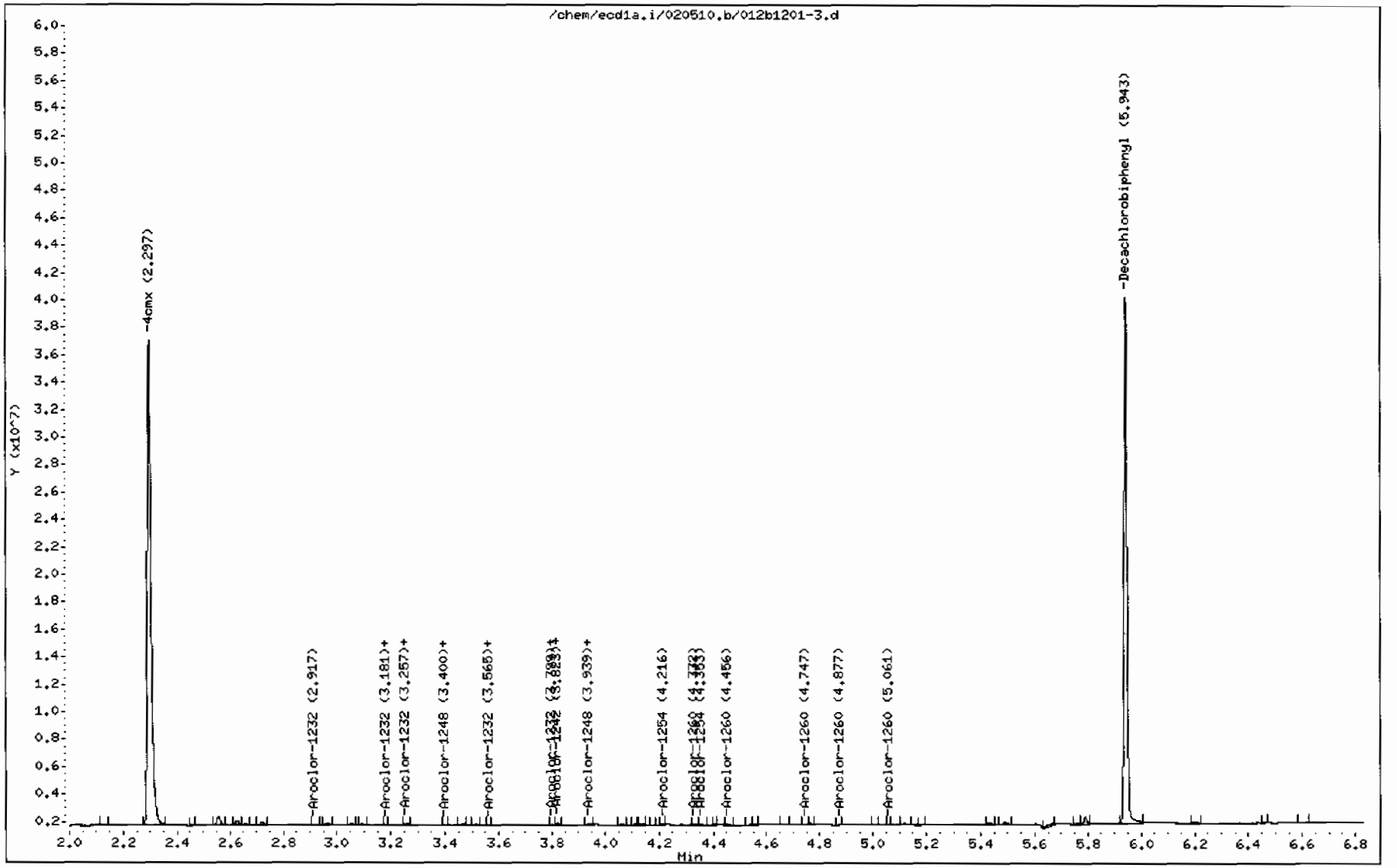

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1510**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033247**				
Client Sample:	**QC for batch 949031**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949031**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 09:02**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		20.2	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		23.7	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013f1301-3.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	50013903	125.458	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	39702847	122.799	4.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	8867856	604.950	20.2	80.00- 120.00	100.00
2.708	2.707	0.001	11431437	623.897	20.8	111.50- 151.50	128.91
2.789	2.788	0.001	7213810	599.968	20.0	62.41- 102.41	81.35
2.826	2.826	0.000	4356989	606.812	20.2	29.39- 69.39	49.13

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.037	3.036	0.001	5584390	601.132	20.0	44.74- 84.74	62.97
Average of Peak Concentrations =					20.2		
7 Aroclor-1260					CAS #: 11096-82-5		
3.763	3.762	0.001	12251339	694.656	23.2	80.00- 120.00	100.00
3.926	3.925	0.001	18755441	703.451	23.4	132.75- 172.75	153.09
4.156	4.155	0.001	11339517	712.208	23.7	70.75- 110.75	92.56
4.299	4.297	0.002	11864393	716.853	23.9	75.46- 115.46	96.84
4.478	4.477	0.001	27215780	732.880	24.4	198.55- 238.55	222.15
Average of Peak Concentrations =					23.7		

Data File: /chem/ecd1a.i/020510.b/013f1301-3.d
Date : 05-FEB-2010 09:02
Client ID: PBLK01LCS
Sample Info: 1120203324711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

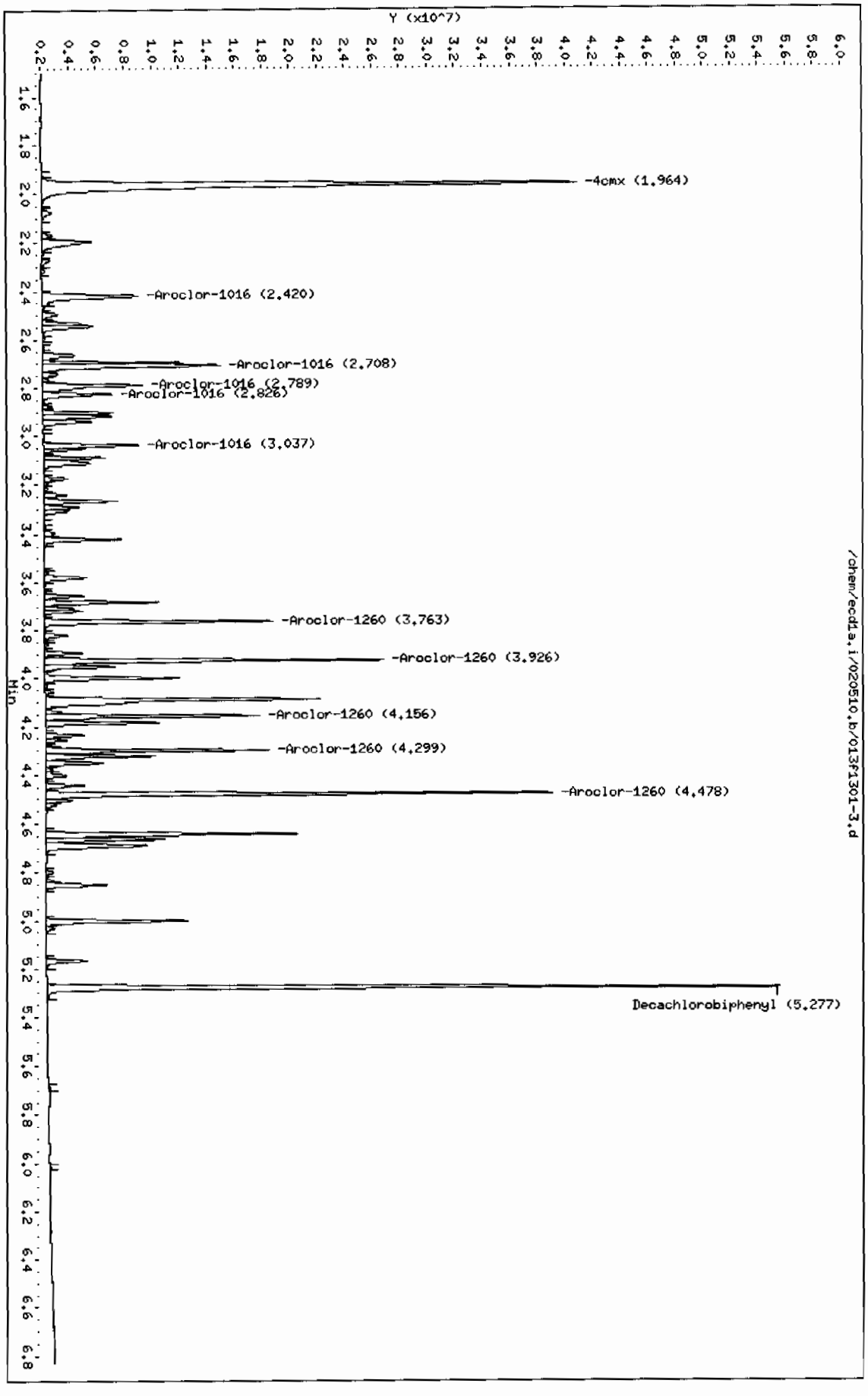

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013b1301-3.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1510.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.296	-0.001	35785063	124.581	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	29148749	133.938	4.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	7837768	627.787	20.9	80.00- 120.00	100.00(M)
3.275	3.275	0.000	5207354	609.274	20.3	46.71- 86.71	66.44
3.340	3.339	0.001	3101086	586.135	19.5	21.11- 61.11	39.57
3.566	3.565	0.001	4040701	593.042	19.8	32.44- 72.44	51.55

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.642	3.641	0.001	3840836	599.683	20.0	29.96- 69.96	49.00
Average of Peak Concentrations =					20.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.332	0.000	8683387	686.743	22.9	80.00- 120.00	100.00
4.457	4.457	0.000	10720030	704.334	23.5	101.36- 141.36	123.45
4.723	4.722	0.001	8290264	711.578	23.7	72.42- 112.42	95.47
4.896	4.896	0.000	8478479	703.403	23.4	75.24- 115.24	97.64
5.044	5.043	0.001	19273891	739.359	24.6	194.19- 234.19	221.96
Average of Peak Concentrations =					23.6		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/013b1301-3.d
Date : 05-FEB-2010 09:02
Client ID: PBLK01LCS
Sample Info: |120203324711|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

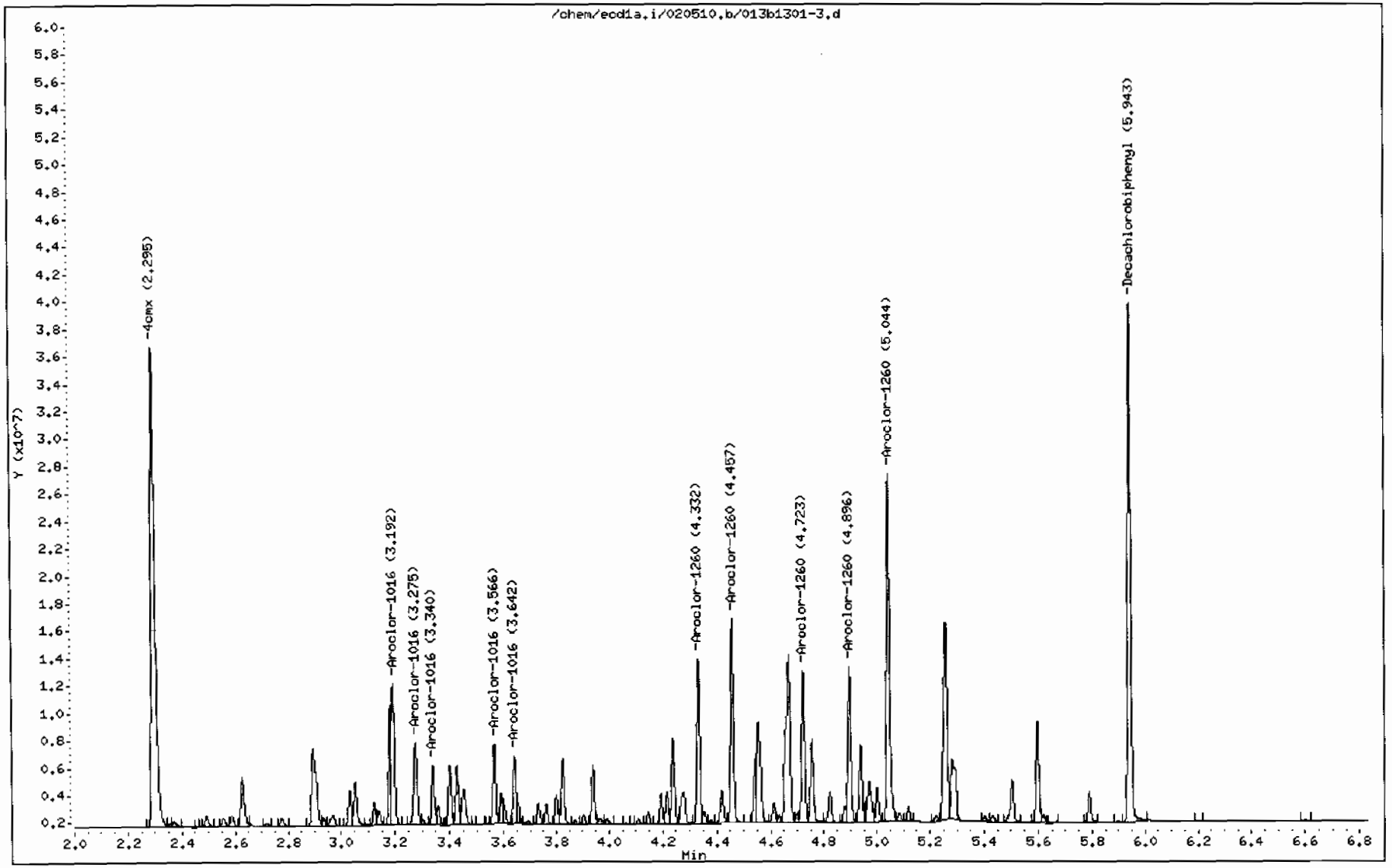

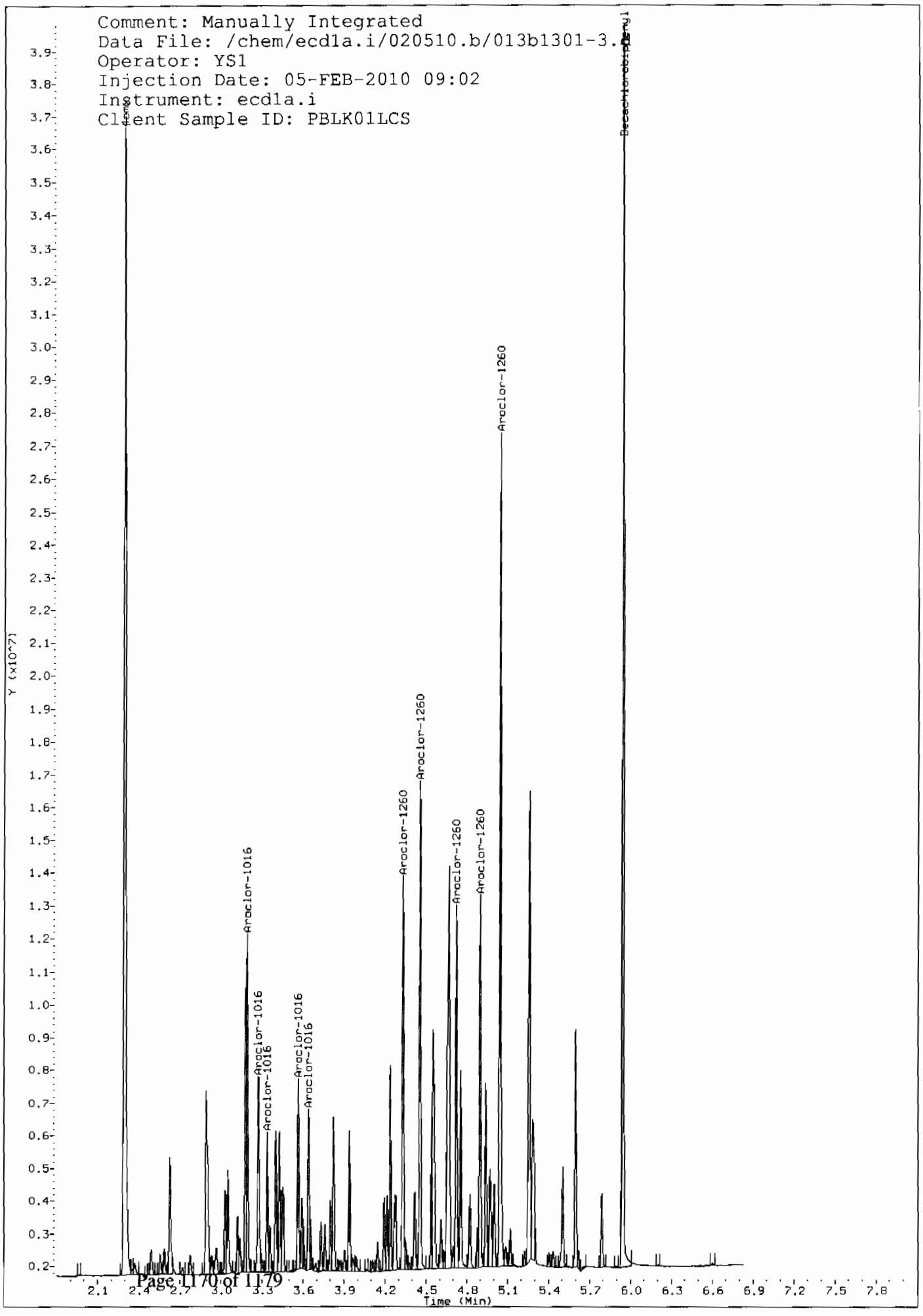
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/013b1301-3.
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

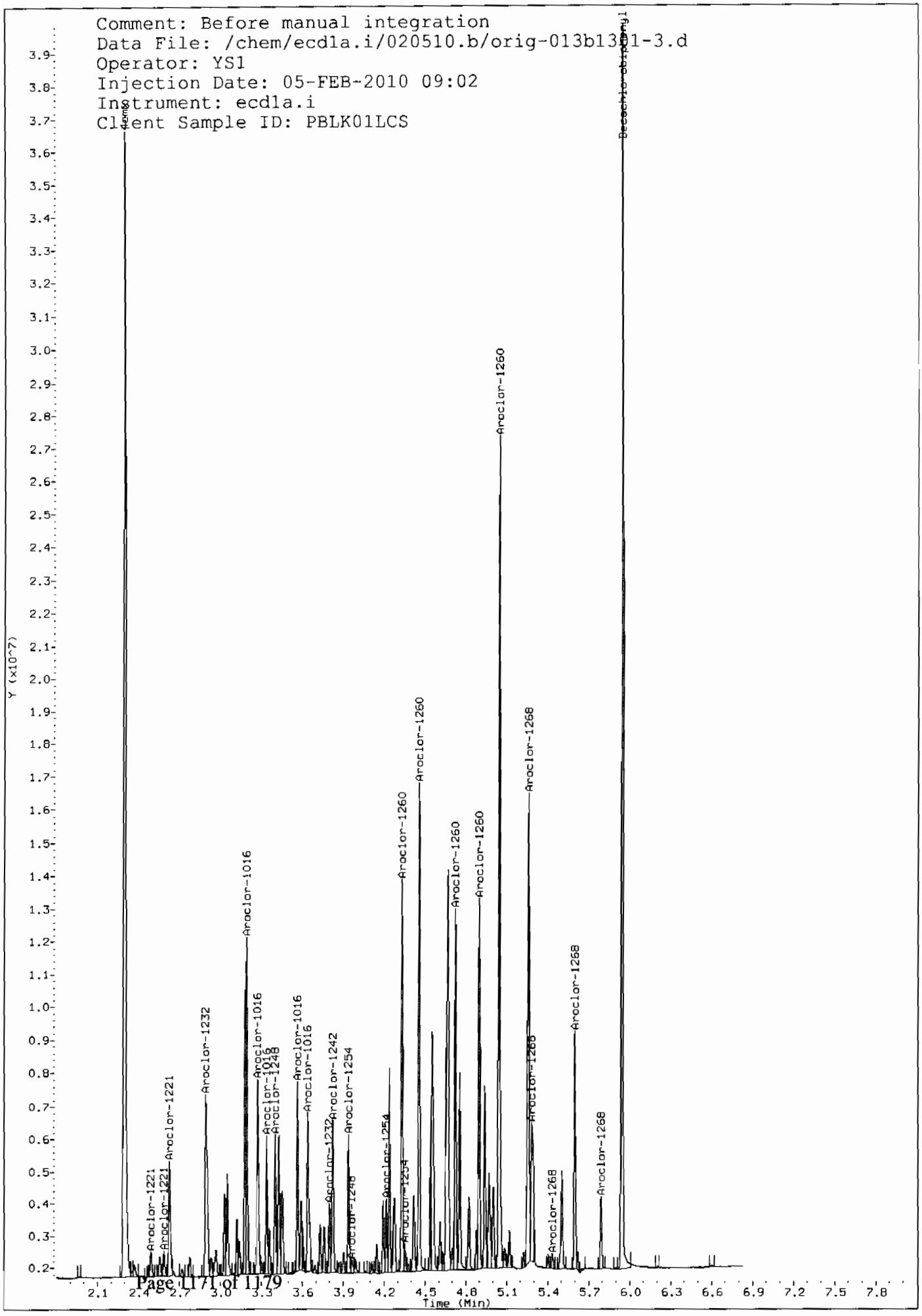
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-013b13001-3.d
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1268
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	29-JAN-2010 06:12		012910	1.0		CLEAN
002f0201.d	WAR100104-60 01	YS1	29-JAN-2010 06:22		012910	1.0		DUSE RE I-CAL
003f0301.d	WAR091216-54	YS1	29-JAN-2010 06:33		012910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	29-JAN-2010 06:43		012910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	29-JAN-2010 06:54		012910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	29-JAN-2010 07:04		012910	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	29-JAN-2010 07:15		012910	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	29-JAN-2010 07:25		012910	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	29-JAN-2010 07:36		012910	1.0		PATTERN ONLY
010f1001.d	WAR100129-01 60	YS1	29-JAN-2010 07:46		012910	1.0		AR1660 I-CAL LEVEL 1
011f1101.d	WAR100129-02 60	YS1	29-JAN-2010 07:57		012910	1.0		AR1660 I-CAL LEVEL 2
012f1201.d	WAR100129-03 60	YS1	29-JAN-2010 08:07		012910	1.0		AR1660 I-CAL LEVEL 3
013f1301.d	WAR100129-04 60	YS1	29-JAN-2010 08:18		012910	1.0		AR1660 I-CAL LEVEL 4
014f1401.d	IAR100104-01	YS1	29-JAN-2010 08:59		012910	1.0		AR1660 I-CAL LEVEL 5
015f1501.d	WAR100104-60 01	YS1	29-JAN-2010 09:09		012910	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091219-DDT	YS1	29-JAN-2010 09:20		012910	1.0		DDT ANALOG STANDARD
017f1701.d	WAR100105-99 02	YS1	29-JAN-2010 09:30		012910	1.0		CLEAN
018f1801.d	1202027001	YS1	29-JAN-2010 09:41	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	1202027002	YS1	29-JAN-2010 09:51	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245609001	YS1	29-JAN-2010 10:02	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245609002	YS1	29-JAN-2010 10:14	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	245609003	YS1	29-JAN-2010 10:27	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202027003	YS1	29-JAN-2010 10:40	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	1202027004	YS1	29-JAN-2010 10:52	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245609004	YS1	29-JAN-2010 11:05	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	245609005	YS1	29-JAN-2010 11:17	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245609006	YS1	29-JAN-2010 11:30	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	WAR100104-60 02	YS1	29-JAN-2010 11:42		012910	1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100105-99 03	YS1	29-JAN-2010 11:53		012910	1.0		CLEAN
030f3001.d	245609007	YS1	29-JAN-2010 12:03	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245609008	YS1	29-JAN-2010 12:16	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	245609009	YS1	29-JAN-2010 12:28	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	245609010	YS1	29-JAN-2010 12:41	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	245609011	YS1	29-JAN-2010 12:54	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	245609012	YS1	29-JAN-2010 13:06	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/012910.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	245609013	YS1	29-JAN-2010 13:19	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	245609014	YS1	29-JAN-2010 13:31	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	245609015	YS1	29-JAN-2010 13:44	946348	10-1416	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	245609016	YS1	29-JAN-2010 13:56	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100104-60 03	YS1	29-JAN-2010 14:09		012910	1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/08/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/020510.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	05-FEB-2010 06:56		020510	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	05-FEB-2010 07:06		020510	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091216-54	YS1	05-FEB-2010 07:17		020510	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	05-FEB-2010 07:27		020510	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	05-FEB-2010 07:38		020510	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	05-FEB-2010 07:48		020510	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	05-FEB-2010 07:59		020510	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	05-FEB-2010 08:09		020510	1.0		PASSED ON BOTH COLUMNS
009f0901.d	WAR100107-68	YS1	05-FEB-2010 08:20		020510	1.0		PASSED ON BOTH COLUMNS
010f1001.d	WAR091219-DDT	YS1	05-FEB-2010 08:31		020510	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100105-99 02	YS1	05-FEB-2010 08:41		020510	1.0		CLEAN
012f1201.d	1202033246	YS1	05-FEB-2010 08:52	949033	10-1462	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202033247	YS1	05-FEB-2010 09:02	949033	10-1462	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	245786001	YS1	05-FEB-2010 09:13	949033	10-1462	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	245795001	YS1	05-FEB-2010 09:23	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/020510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	245795002	YS1	05-FEB-2010 09:36	949033	10-1470	1.0	LANL	AR1268 RE TO CONFIRM
017f1701.d	245795003	YS1	05-FEB-2010 09:48	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	245795004	YS1	05-FEB-2010 10:01	949033	10-1470	1.0	LANL	AR1268 RE TO CONFIRM
019f1901.d	245795005	YS1	05-FEB-2010 10:13	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245795006	YS1	05-FEB-2010 10:26	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245795007	YS1	05-FEB-2010 10:39	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	WAR100203-60 02	YS1	05-FEB-2010 10:51		020510	1.0		PASSED ON BOTH COLUMNS
023f2301.d	WAR100105-99 03	YS1	05-FEB-2010 11:02		020510	1.0		CLEAN
024f2401.d	245795008	YS1	05-FEB-2010 11:12	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245803006	YS1	05-FEB-2010 11:25	949033	10-1473	1.0	LANL	AR1268 RE TO CONFIRM
026f2601.d	245803007	YS1	05-FEB-2010 11:37	949033	10-1473	1.0	LANL	AR1268 RE TO CONFIRM
027f2701.d	245803008	YS1	05-FEB-2010 11:50	949033	10-1473	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	245959001	YS1	05-FEB-2010 12:03	949033	10-1510	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	245959002	YS1	05-FEB-2010 12:15	949033	10-1510	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	245959012	YS1	05-FEB-2010 12:28	949033	10-1510	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	WAR100203-60 03	YS1	05-FEB-2010 12:40		020510	1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100105-99 04	YS1	05-FEB-2010 12:51		020510	1.0		CLEAN
033f3301.d	245969001	YS1	05-FEB-2010 13:01	949033	10-1512	1.0	LANL	RE RESULT DID NOT MATCH WITH MS/MSD
034f3401.d	1202033248	YS1	05-FEB-2010 13:14	949033	10-1512	1.0	QC A	DUSE
035f3501.d	1202033249	YS1	05-FEB-2010 13:27	949033	10-1512	1.0	QC A	DUSE
036f3601.d	245969002	YS1	05-FEB-2010 13:39	949033	10-1512	1.0	LANL	AR1268 RE TO CONFIRM

Instrument Batch: /chem/ecd1a.i/020510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
037f3701.d	245969003	YS1	05-FEB-2010 13:52	949033	10-1512	1.0	LANL	UPLOAD BOTH COLUMNS ,USE HIGHER
038f3801.d	WAR100203-60 04	YS1	05-FEB-2010 14:05		020510	1.0		PASSED ON BOTH COLUMNS
039f3901.d	WAR100105-99 05	YS1	05-FEB-2010 14:15		020510	1.0		CLEAN
040f4001.d	1202026314	YS1	05-FEB-2010 14:26	946047	020510	1.0	QC A	REPORT FROM ECD 8

041f4101.d	1202026315	YS1	05-FEB-2010 14:36	946047			1.0	QC A	REPORT FROM ECD 8
042f4201.d	243861001	YS1	05-FEB-2010 14:47	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
043f4301.d	243861002	YS1	05-FEB-2010 14:57	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
044f4401.d	243861003	YS1	05-FEB-2010 15:08	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
045f4501.d	243861004	YS1	05-FEB-2010 15:18	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
046f4601.d	WAR100203-60 05	YS1	05-FEB-2010 15:29		020510		1.0		PASSED ON BOTH COLUMNS
047f4701.d	WAR100105-99 06	YS1	05-FEB-2010 15:39		020510		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 949031 **Verified by:** _____

Analyst: Andrew Schwemin **Lab SOP:** GL–OA–E–010 REV# 18

Method: SW846 3550B **Instrument:** Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202033246 MB	04–FEB–2010 20:32:00	30	H2SO4/KMl2		2	9	1	0.03333
1202033247 LCS	04–FEB–2010 20:32:00	30	H2SO4/KMl2		2	9	1	0.03333
245786001	04–FEB–2010 20:32:00	30.05	H2SO4/KMl2		2	9	1	0.03328
245795001	04–FEB–2010 20:32:00	30.05	H2SO4/KMl2		2	9	1	0.03328
245795002	04–FEB–2010 20:32:00	30.19	H2SO4/KMl2		2	9	1	0.03312
245795003	04–FEB–2010 20:32:00	30.18	H2SO4/KMl2		2	9	1	0.03313
245795004	04–FEB–2010 20:32:00	30.01	H2SO4/KMl2		2	9	1	0.03332
245795005	04–FEB–2010 20:32:00	30.05	H2SO4/KMl2		2	9	1	0.03328
245795006	04–FEB–2010 20:32:00	30.03	H2SO4/KMl2		2	9	1	0.0333
245795007	04–FEB–2010 20:32:00	30.01	H2SO4/KMl2		2	9	1	0.03332
245795008	04–FEB–2010 20:32:00	30.02	H2SO4/KMl2		2	9	1	0.03331
245803006	04–FEB–2010 20:32:00	30.11	H2SO4/KMl2		2	9	1	0.03321
245803007	04–FEB–2010 20:32:00	30.04	H2SO4/KMl2		2	9	1	0.03329
245803008	04–FEB–2010 20:32:00	30.02	H2SO4/KMl2		2	9	1	0.03331
245959001	04–FEB–2010 20:32:00	30.19	H2SO4/KMl2		2	9	1	0.03312
245959002	04–FEB–2010 20:32:00	30.02	H2SO4/KMl2		2	9	1	0.03331
245959012	04–FEB–2010 20:32:00	30.03	H2SO4/KMl2		2	9	1	0.0333
245969001	04–FEB–2010 20:32:00	30.05	H2SO4/KMl2		2	9	1	0.03328
1202033248 MS (245969001)	04–FEB–2010 20:32:00	30.26	H2SO4/KMl2		2	9	1	0.03305
1202033249 MSD (245969001)	04–FEB–2010 20:32:00	30.04	H2SO4/KMl2		2	9	1	0.03329
245969002	04–FEB–2010 20:32:00	30.21	H2SO4/KMl2		2	9	1	0.0331
245969003	04–FEB–2010 20:32:00	30.11	H2SO4/KMl2		2	9	1	0.03321

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202033247	PCB Laboratory Control	WE100126–07	1	mL
MS	1202033248	PCB Laboratory Control	WE100126–07	1	mL
MSD	1202033249	PCB Laboratory Control	WE100126–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100108–15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/4/10
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL–OA–E–037

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1475

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	EPA:906.0	1	RE15-10-7952	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:AM-241	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:ISOPU	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:ISOU	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1475

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1475

REQUEST NUMBER: 10-1475

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7954	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7954	1	POLY	H3	Ice	R
RE15-10-7956	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7956	1	POLY	H3	Ice	R
RE15-10-7955	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7955	1	POLY	H3	Ice	R
RE15-10-7953	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7953	1	POLY	H3	Ice	R
RE15-10-7952	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7952	1	POLY	H3	Ice	R
RE15-10-8060	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8060	1	POLY	H3	Ice	R
RE15-10-8058	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8058	1	POLY	H3	Ice	R
RE15-10-8059	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8059	1	POLY	H3	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	1/28/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7952 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1400	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610745	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray moist tuff

SAMPLE COMMENTS: Hit tuff at 1.5 ft

LOCATION DESC: 8b-65 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1997 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 09:16 Am	(Printed Name) (Signature)	1/28/10 9:38
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7953 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610746	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0.8	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand

FD RE15-10-8060

SAMPLE COMMENTS: NA

LOCATION DESC: 8b - 46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1470 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:15AM	(Printed Name)	1/27/10 9:35
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7954 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1512	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610746	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 33 dpm
Beta/Gamma ≤ 3340 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:16Am	(Printed Name) Sherri Sherwood	1/27/10 0916
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7955 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1515	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610747	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown silty sand with some tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-35 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha = 5 **dpm**
Beta/Gamma = 4250 **dpm**

PID Ambient 0.0 / Reading 8.9 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLM cFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:16 AM	(Signature) Sherri Sherwood	0916
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7956 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1530	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610747	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff, tuff fragments

FR RE15-10-8082

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-35 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 44 **dpm**
Beta/Gamma ≤ 2910 **dpm**

PID Ambient 0.0 / Reading 7.1 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:15 AM	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8058 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	↓	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	✓	FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	✓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER 12m 1/26/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 LC	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-7947
brown sandy silt, rocks, some roots, pine needles

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-43 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 2300 **dpm**

PID Ambient 0.1 / Reading 1.5 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:21 Am	(Signature)	938
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8059 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1047	SUB-MEDIA:	TUFF 1	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	15-610742	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	2.5	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER 12m 1/26/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 LC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7946
Gray tuff

SAMPLE COMMENTS:
Tuff at 2 ft

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 2070 **dpm**

PID Ambient 0.1 / Reading 83 **ppm**

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:20 Am	(Printed Name) Sherri Sherwood	1/27/10 0920
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8060 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	15-610746	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.8	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER 73m 1/26/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 JC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7953

Brown sand

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 **dpm**
Beta/Gamma ≤ 7970 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:15AM	(Signature)	935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8081 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1028	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15- 610742	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	W	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7945 Rinsate

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = RS 01.26.10 **dpm**
Beta/Gamma = ____ **dpm**

PID RS 01.26.10 **Ambient Reading = ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:19Am	(Signature) Sherri Sherwood	0919
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8082 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1547	SUB-MEDIA:	OTHER	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	↓
LOCATION ID:	UNK	15-610747	FIELD QC TYPE:	FR	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	↓	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	↓	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1	↓	SW-846:6850	250 ML POLY	Ice	Y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7956

SAMPLE COMMENTS: Rinsate

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = _____ **dpm** TLM 1/26/10

Beta/Gamma = _____ **dpm**

PID ~~**Ambient Reading**~~ **= ppm** TLM 1/26/10

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) E Lujan	09:14AM	(Signature) Sherri Sherwood	0914
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7890	RE15-10-7886	RE15-10 7948
" " 7889	" " 7885	" " 7947
" " 7956	" " 7882	" " 8058
" " 7953	" " 7881	" " 7950
" " 8060	" " 7941	
" " 7954	" " 7942	
" " 7955	" " 7943	
" " 7952	" " 7944	
" " 7951	" " 8059	
" " 7949	" " 7946	
	" " 7945	

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8082

RE15-10-8081

Reason: Field Rinsate.

Print Last Name Lujan Signature [signature] Date 1/27/10

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7954	ARS Sample ID:	ARS2-10-00026-009
Sample Collection Date:	01/26/10 15:12	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 13:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	109.48	47.65	36.02	49.50		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	103.84	21.76	17.51	25.22		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	27.12	10.11	2.13	10.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	13.97	0.14	13.97		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.04	0.11	0.09	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.18	0.83	0.16	0.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.86	0.61	0.13	0.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.52	1.45	0.37	1.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	157.74	0.35	157.74		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	20.50	6.40	2.03	7.93		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.09	0.29	0.15	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.64

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7955	ARS Sample ID:	ARS2-10-00026-010
Sample Collection Date:	01/26/10 15:15	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	62.00	35.96	31.68	35.88		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	94.28	20.75	18.10	23.74		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.17	7.18	1.39	7.21		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.16	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.24	0.25	0.09	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.61	0.46	0.11	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.05	0.45	0.17	0.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.72	0.72	0.24	0.72		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.40	1.46	0.46	1.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	47.98	7.54	2.12	13.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.04	0.25	0.15	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.72

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00026
Client Sample ID: RE15-10-7956
Sample Collection Date: 01/26/10 15:30
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00026-011
Date Received: 01/27/10 00:00
Report Date: 01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	91.15	42.42	30.56	43.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	83.97	21.62	19.68	23.94		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	28.52	9.81	1.93	9.85		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.64	0.13	12.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.11	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	16.54	0.08	16.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	13.15	0.15	13.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.71	0.55	0.11	0.56		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.20	0.57	0.34	0.57		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.49	1.03	0.38	1.03		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	19.18	7.15	2.41	8.39		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.61	0.54	0.20	0.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.57

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-8060	ARS Sample ID:	ARS2-10-00026-012
Sample Collection Date:	01/26/10 14:57	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 19:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	182.81	54.21	38.20	57.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	223.82	30.34	18.71	40.86		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.72	6.49	1.13	6.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	7.37	0.07	7.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.26	0.17	0.05	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.13	0.15	0.05	0.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.32	0.36	0.09	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.62	0.36	0.16	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.94	0.98	0.20	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.64	1.34	0.49	1.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	88.93	10.00	2.90	22.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.69	0.70	0.31	0.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.51

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-1770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-8058	ARS Sample ID:	ARS2-10-00025-014
Sample Collection Date:	01/26/10 10:29	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	182.13	58.02	31.78	62.15		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	154.91	26.46	18.25	32.55		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-1.76	2369.70	4.25	2369.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.08	0.14	0.11	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.10	0.11	0.09	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.08	0.42	0.08	0.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.73	0.52	0.15	0.52		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.07	0.45	0.11	0.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.69	0.83	0.34	0.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.85	1.12	0.48	1.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	15.92	5.50	1.66	6.60		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.44	0.33	0.11	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.74

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-8059	ARS Sample ID:	ARS2-10-00025-015
Sample Collection Date:	01/26/10 10:47	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TOL	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	149.10	53.62	30.56	56.64		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	114.64	24.84	19.68	28.54		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	0.71	9.53	5.30	9.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.08	0.17	0.14	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.36	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.02	0.12	0.11	0.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.05	0.64	0.16	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.21	0.53	0.17	0.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.00	0.66	0.43	0.66		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.42	1.28	0.36	1.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	2.14	2.80	1.36	2.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.29	0.35	0.14	0.35		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.83

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1475 VALIDATION DATE: 3/5/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Gamma spec results that were rejected by the laboratory due to interference, low abundance, or no valid peak were qualified R,R5a. The duplicate results for Am-241; Bi-211; Cs-134; Cd-109; Ra-224; Sr-85; and Th-227 were also rejected by the laboratory. The rejections occurred in a QC sample, thus, no sample results were qualified.
2. Alpha spec analyte U-238 was detected in the MB associated with all samples <u>except</u> RE15-10-7956, -7953 and -8060. The alpha spec U-238 results for samples -7952 and -8059 were detects >5X but ≤50X the MB concentration and, thus, were qualified J,R4a. The alpha spec U-238 results for all other associated samples were detects >50X the MB concentration and, based on professional judgment, were not qualified.
3. The duplicate for alpha spec isotopic U that was associated with samples -7956, -7953 and -8060 was performed on a LANL sample from another RN. It should be noted that an MS was not analyzed for tritium. However, an LCS was analyzed and passed acceptance criteria. Thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/08/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 3/5/10

DATA VALIDATION COVER SHEET

5119-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☒	☐	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7954
Sample ID: 245808001
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 5.84%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.000204		0.0258	+/-0.00229	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00111		0.0181	+/-0.00367	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240	U	0.00443		0.0136	+/-0.00351	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		5.10		0.126	+/-0.405	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236		0.499		0.0803	+/-0.0669	0.100	pCi/g						
Uranium-238		27.9		0.086	+/-2.07	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.124		0.271	+/-0.0807	0.200	pCi/g		RXF2	02/11/10	2226	947554	5
Bismuth-211	UI	3.71	R,R5a	0.178	+/-0.179		pCi/g						
Bismuth-214		1.07		0.0641	+/-0.0584	0.200	pCi/g						
Cadmium-109	UI	4.21	R,R5a	0.885	+/-0.473		pCi/g						
Cerium-139	U	-0.000924		0.0286	+/-0.00934	0.050	pCi/g						
Cesium-134	UI	0.086	R,R5a	0.0526	+/-0.0227	0.100	pCi/g						
Cesium-137	U	-0.0144		0.0375	+/-0.0119	0.100	pCi/g						
Cobalt-60	U	-0.000189		0.0353	+/-0.0105	0.100	pCi/g						
Europium-152	U	0.00256		0.0879	+/-0.0261	0.200	pCi/g						
Lanthanum-140	U	-0.0504		0.0715	+/-0.0241		pCi/g						
Lead-212		1.63		0.0505	+/-0.0724	0.100	pCi/g						
Lead-214		1.29		0.062	+/-0.0707	0.100	pCi/g						
Mercury-203	U	0.0169		0.0387	+/-0.0121	0.100	pCi/g						
Potassium-40		32.9		0.256	+/-1.28	1.00	pCi/g						
Protactinium-234m		31.5		4.24	+/-2.79		pCi/g						
Radium-223	U	-0.0779		0.585	+/-0.192		pCi/g						
Radium-224	UI	4.27	R,R5a	0.574	+/-0.379		pCi/g						
Radium-226		1.07		0.0641	+/-0.0584		pCi/g						
Radium-228		1.56		0.119	+/-0.125	0.500	pCi/g						
Ruthenium-106	U	0.106		0.301	+/-0.0891	0.800	pCi/g						
Sodium-22	U	0.0144		0.0434	+/-0.0125	0.080	pCi/g						

AMF
3/5/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7954
Sample ID: 245808001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.0532	R,R5a	0.0355	+/-0.0108		pCi/g						
Thallium-208		0.496		0.031	+/-0.0285	0.080	pCi/g						
Thorium-227	U	0.233		0.365	+/-0.114		pCi/g						
Thorium-231	U	-0.0779		0.585	+/-0.192		pCi/g						
Thorium-234		24.4		1.99	+/-2.63	2.00	pCi/g						
Tin-113	U	-0.00103		0.0396	+/-0.0115	0.100	pCi/g						
Uranium-235		0.418		0.201	+/-0.0979	0.500	pCi/g						
Yttrium-88	U	0.0122		0.0293	+/-0.00828	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		79900		197	+/-5620	250	pCi/L		KXK2	02/09/10	0937	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	59.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	68.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

AMF
3/5/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7956
Sample ID: 245808002
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 6.14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00181		0.0192	+/-0.00148	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00656		0.0179	+/-0.00559	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240	U	0.00437		0.0134	+/-0.0041	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		7.74		0.429	+/-0.695	0.100	pCi/g		AYB1	02/22/10	1242	954559	4
Uranium-235/236		0.736		0.274	+/-0.137	0.100	pCi/g						
Uranium-238		35.0		0.293	+/-2.78	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0773		0.089	+/-0.0272	0.200	pCi/g		RXF2	02/11/10	2226	947554	6
Bismuth-211	UI	3.78	R,R5a	0.224	+/-0.230		pCi/g						
Bismuth-214		1.23		0.0806	+/-0.0888	0.200	pCi/g						
Cadmium-109	UI	3.87	R,R5a	0.776	+/-0.358		pCi/g						
Cerium-139	U	0.00512		0.0318	+/-0.0104	0.050	pCi/g						
Cesium-134	UI	0.121	R,R5a	0.0729	+/-0.0266	0.100	pCi/g						
Cesium-137	U	0.0196		0.0513	+/-0.019	0.100	pCi/g						
Cobalt-60	U	-0.0167		0.0462	+/-0.0143	0.100	pCi/g						
Europium-152	U	-0.00892		0.102	+/-0.0308	0.200	pCi/g						
Lanthanum-140	U	0.0476		0.107	+/-0.0341		pCi/g						
Lead-212		1.63		0.0578	+/-0.0895	0.100	pCi/g						
Lead-214		1.32		0.0766	+/-0.0871	0.100	pCi/g						
Mercury-203	U	0.0306		0.0465	+/-0.0144	0.100	pCi/g						
Potassium-40		30.5		0.383	+/-1.49	1.00	pCi/g						
Protactinium-234m		37.3		5.51	+/-4.21		pCi/g						
Radium-223	U	0.390		0.734	+/-0.233		pCi/g						
Radium-224	UI	4.52	R,R5a	0.658	+/-0.429		pCi/g						
Radium-226		1.23		0.0806	+/-0.0888		pCi/g						
Radium-228		1.50		0.158	+/-0.146	0.500	pCi/g						
Ruthenium-106	U	0.00643		0.392	+/-0.119	0.800	pCi/g						
Sodium-22	U	-0.0309		0.0523	+/-0.0175	0.080	pCi/g						
Strontium-85	UI	0.0603	R,R5a	0.0466	+/-0.0144		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7956
Sample ID: 245808002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.553	0.0431	+/-0.0378	0.080	pCi/g						
Thorium-227	U	0.0178	0.399	+/-0.136		pCi/g						
Thorium-231	U	0.390	0.734	+/-0.233		pCi/g						
Thorium-234		26.3	0.796	+/-2.50	2.00	pCi/g						
Tin-113	U	-0.0325	0.0485	+/-0.0149	0.100	pCi/g						
Uranium-235		0.561	0.230	+/-0.113	0.500	pCi/g						
Yttrium-88	U	-0.00405	0.0424	+/-0.0133	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.22E+05	239	+/-8570	250	pCi/L		KXK2	02/09/10	1000	948404	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7955
Sample ID: 245808003
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 18%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00884		0.017	+/-0.00346	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00123		0.0201	+/-0.00325	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240		0.0307		0.0151	+/-0.0068	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		7.34		0.166	+/-0.599	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236		0.822		0.106	+/-0.104	0.100	pCi/g						
Uranium-238		31.6		0.113	+/-2.45	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.186		0.268	+/-0.0809	0.200	pCi/g		RXF2	02/11/10	2227	947554	5
Bismuth-211	UI	3.08	R,R5a	0.160	+/-0.142		pCi/g						
Bismuth-214		0.896		0.0518	+/-0.0547	0.200	pCi/g						
Cadmium-109	UI	2.59	R,R5a	1.05	+/-0.424		pCi/g						
Cerium-139	U	0.0062		0.0287	+/-0.009	0.050	pCi/g						
Cesium-134	UI	0.069	R,R5a	0.0404	+/-0.0165	0.100	pCi/g						
Cesium-137		0.180		0.0295	+/-0.0173	0.100	pCi/g						
Cobalt-60	U	0.00104		0.0276	+/-0.00833	0.100	pCi/g						
Europium-152	U	-0.0191		0.0758	+/-0.0249	0.200	pCi/g						
Lanthanum-140	U	0.0397		0.0624	+/-0.0201		pCi/g						
Lead-212		1.26		0.0453	+/-0.051	0.100	pCi/g						
Lead-214		1.07		0.054	+/-0.0568	0.100	pCi/g						
Mercury-203	U	0.0231		0.0349	+/-0.0113	0.100	pCi/g						
Potassium-40		26.9		0.192	+/-1.09	1.00	pCi/g						
Protactinium-234m		95.6		3.13	+/-5.74		pCi/g						
Radium-223	U	0.313		0.515	+/-0.171		pCi/g						
Radium-224	UI	4.02	R,R5a	0.515	+/-0.328		pCi/g						
Radium-226		0.896		0.0518	+/-0.0547		pCi/g						
Radium-228		1.30		0.0905	+/-0.104	0.500	pCi/g						
Ruthenium-106	U	-0.081		0.229	+/-0.0707	0.800	pCi/g						
Sodium-22	U	-0.00575		0.0291	+/-0.0089	0.080	pCi/g						
Strontium-85	UI	0.0824	R,R5a	0.0336	+/-0.0103		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7955
Sample ID: 245808003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thallium-208		0.409		0.0266	+/-0.0245	0.080	pCi/g						
Thorium-227	UI	0.425	R,R5a	0.341	+/-0.112		pCi/g						
Thorium-231	U	0.313		0.515	+/-0.171		pCi/g						
Thorium-234		67.6		1.98	+/-6.08	2.00	pCi/g						
Tin-113	U	-0.00121		0.035	+/-0.0101	0.100	pCi/g						
Uranium-235		1.19		0.207	+/-0.134	0.500	pCi/g						
Yttrium-88	U	-0.00816		0.0227	+/-0.00726	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		1.89E+05		296	+/-13300	250	pCi/L		KXK2	02/09/10	1017	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	89.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	53.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7953
Sample ID: 245808004
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 14.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00966		0.0183	+/-0.00338	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.0021		0.0171	+/-0.00257	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240		0.0576		0.0129	+/-0.00903	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		43.4		0.658	+/-3.66	0.100	pCi/g		AYB1	02/22/10	1242	954559	4
Uranium-235/236		6.57		0.419	+/-0.703	0.100	pCi/g						
Uranium-238		291		0.449	+/-23.7	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	UI	1.13	R,R5a	0.384	+/-0.122	0.200	pCi/g		RXF2	02/11/10	2227	947554	6
Bismuth-211	UI	2.35	R,R5a	0.214	+/-0.141		pCi/g						
Bismuth-214		0.730		0.069	+/-0.0535	0.200	pCi/g						
Cadmium-109	UI	3.97	R,R5a	1.88	+/-0.654		pCi/g						
Cerium-139	UI	0.0606		0.045	+/-0.0142	0.050	pCi/g						
Cesium-134	UI	0.0813		0.0527	+/-0.0245	0.100	pCi/g						
Cesium-137		0.114		0.0394	+/-0.0179	0.100	pCi/g						
Cobalt-60	U	0.00823		0.0305	+/-0.00879	0.100	pCi/g						
Europium-152	U	-0.0199		0.107	+/-0.0398	0.200	pCi/g						
Lanthanum-140	U	0.00942		0.0634	+/-0.0217		pCi/g						
Lead-212		0.914		0.0644	+/-0.0433	0.100	pCi/g						
Lead-214		0.816		0.0746	+/-0.0533	0.100	pCi/g						
Mercury-203	U	0.0254		0.0475	+/-0.013	0.100	pCi/g						
Potassium-40		22.3		0.224	+/-0.918	1.00	pCi/g						
Protactinium-234m		227		3.71	+/-11.4		pCi/g						
Radium-223	U	-0.691		0.708	+/-0.214		pCi/g						
Radium-224	UI	2.38	R,R5a	0.732	+/-0.346		pCi/g						
Radium-226		0.730		0.069	+/-0.0535		pCi/g						
Radium-228		0.981		0.108	+/-0.0873	0.500	pCi/g						
Ruthenium-106	U	0.0433		0.326	+/-0.0947	0.800	pCi/g						
Sodium-22	U	-0.0102		0.0335	+/-0.0102	0.080	pCi/g						
Strontium-85	UI	0.054	R,R5a	0.0407	+/-0.0126		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7953
Sample ID: 245808004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thallium-208		0.320		0.0361	+/-0.0254	0.080	pCi/g						
Thorium-227	UI	1.54	R,R5a	0.534	+/-0.206		pCi/g						
Thorium-231	U	-0.691		0.708	+/-0.214		pCi/g						
Thorium-234		159		2.88	+/-14.0	2.00	pCi/g						
Tin-113	U	-0.0161		0.0474	+/-0.0137	0.100	pCi/g						
Uranium-235		2.74		0.312	+/-0.261	0.500	pCi/g						
Yttrium-88	U	0.012		0.0252	+/-0.00797	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		4.46E+05		478	+/-31300	250	pCi/L		KXK2	02/09/10	1029	948404	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	104	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	65.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7952
Sample ID: 245808005
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 6.69%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.000181		0.0158	+/-0.000996	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0036		0.0196	+/-0.00209	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240	U	0.0024		0.0148	+/-0.0038	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.634		0.097	+/-0.067	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236	U	0.038		0.0618	+/-0.0153	0.100	pCi/g						
Uranium-238		0.872	J,R4a	0.0662	+/-0.0848	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0521		0.383	+/-0.118	0.200	pCi/g		RXF2	02/12/10	1657	947554	5
Bismuth-211	UI	3.63	R,R5a	0.307	+/-0.257		pCi/g						
Bismuth-214		1.00		0.104	+/-0.0787	0.200	pCi/g						
Cadmium-109	UI	3.29	R,R5a	1.28	+/-0.592		pCi/g						
Cerium-139	U	0.0106		0.048	+/-0.0141	0.050	pCi/g						
Cesium-134	UI	0.104	R,R5a	0.0854	+/-0.0319	0.100	pCi/g						
Cesium-137	U	-0.0142		0.0576	+/-0.0174	0.100	pCi/g						
Cobalt-60	U	0.0019		0.0678	+/-0.0202	0.100	pCi/g						
Europium-152	U	-0.0696		0.149	+/-0.0494	0.200	pCi/g						
Lanthanum-140	U	0.0306		0.123	+/-0.0396		pCi/g						
Lead-212		1.67		0.0889	+/-0.0823	0.100	pCi/g						
Lead-214		1.26		0.107	+/-0.0954	0.100	pCi/g						
Mercury-203	U	0.000269		0.0652	+/-0.0188	0.100	pCi/g						
Potassium-40		35.9		0.490	+/-1.81	1.00	pCi/g						
Radium-223	U	-1.05		0.928	+/-0.313		pCi/g						
Radium-224	UI	4.58	R,R5a	1.01	+/-0.529		pCi/g						
Radium-226		1.00		0.104	+/-0.0787		pCi/g						
Radium-228		1.55		0.219	+/-0.186	0.500	pCi/g						
Ruthenium-106	U	0.189		0.508	+/-0.142	0.800	pCi/g						
Sodium-22	U	-0.0352		0.0701	+/-0.0226	0.080	pCi/g						
Strontium-85	U	0.0361		0.0585	+/-0.0186		pCi/g						
Thallium-208		0.483		0.0585	+/-0.041	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7952
Sample ID: 245808005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	U	-0.0531		0.583	+/-0.168		pCi/g						
Thorium-231	U	-1.05		0.928	+/-0.313		pCi/g						
Thorium-234	UI	3.49	R,R5a	3.15	+/-1.12	2.00	pCi/g						
Tin-113	U	-0.00559		0.0715	+/-0.0213	0.100	pCi/g						
Uranium-235	U	0.0934		0.356	+/-0.105	0.500	pCi/g						
Yttrium-88	U	0.0103		0.0498	+/-0.0143	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		335		157	+/-62.0	250	pCi/L		KXK2	02/09/10	1035	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	92.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8060
Sample ID: 245808006
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 14.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0153		0.0171	+/-0.00442	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00321		0.0175	+/-0.0024	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240		0.0631		0.0131	+/-0.00892	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		34.6		0.566	+/-2.86	0.100	pCi/g		AYB1	02/22/10	1242	954559	4
Uranium-235/236		4.69		0.361	+/-0.516	0.100	pCi/g						
Uranium-238		234		0.387	+/-18.5	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.243		0.462	+/-0.139	0.200	pCi/g		RXF2	02/12/10	1658	947554	6
Bismuth-211	UI	2.05	R,R5a	0.333	+/-0.224		pCi/g						
Bismuth-214		0.769		0.0964	+/-0.0786	0.200	pCi/g						
Cadmium-109	U	-2.23		2.75	+/-0.894		pCi/g						
Cerium-139	U	-0.0108		0.0619	+/-0.0192	0.050	pCi/g						
Cesium-134	U	0.0303		0.0846	+/-0.0246	0.100	pCi/g						
Cesium-137		0.162		0.0595	+/-0.0299	0.100	pCi/g						
Cobalt-60	U	-0.00421		0.0445	+/-0.0138	0.100	pCi/g						
Europium-152	U	-0.00641		0.157	+/-0.0468	0.200	pCi/g						
Lanthanum-140	U	0.000436		0.104	+/-0.0309		pCi/g						
Lead-212		0.963		0.0909	+/-0.0796	0.100	pCi/g						
Lead-214		0.714		0.116	+/-0.0802	0.100	pCi/g						
Mercury-203	U	0.00891		0.072	+/-0.0207	0.100	pCi/g						
Potassium-40		22.1		0.463	+/-1.17	1.00	pCi/g						
Protactinium-234m		242		6.47	+/-14.8		pCi/g						
Radium-223	U	0.514		1.09	+/-0.313		pCi/g						
Radium-224	UI	2.77	R,R5a	1.03	+/-0.523		pCi/g						
Radium-226		0.769		0.0964	+/-0.0786		pCi/g						
Radium-228		1.17		0.169	+/-0.128	0.500	pCi/g						
Ruthenium-106	U	0.171		0.545	+/-0.155	0.800	pCi/g						
Sodium-22	U	0.00728		0.060	+/-0.0178	0.080	pCi/g						
Strontium-85	U	0.0402		0.0618	+/-0.0169		pCi/g						

AMF
3/5/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8060
Sample ID: 245808006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.338	0.0525	+/-0.0412	0.080	pCi/g						
Thorium-227	U	0.267	0.722	+/-0.228		pCi/g						
Thorium-231	U	0.514	1.09	+/-0.313		pCi/g						
Thorium-234		166	3.48	+/-14.7	2.00	pCi/g						
Tin-113	U	0.0162	0.0749	+/-0.0206	0.100	pCi/g						
Uranium-235		2.96	0.449	+/-0.344	0.500	pCi/g						
Yttrium-88	U	-0.027	0.0417	+/-0.015	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3.98E+05	444	+/-28000	250	pCi/L		KXK2	02/09/10	1118	948404	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	79.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

AMF
3/5/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8058
Sample ID: 245808007
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 35.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241		0.0222		0.0159	+/-0.00527	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00119		0.0194	+/-0.00206	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240		0.051		0.0146	+/-0.00853	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		5.37		0.126	+/-0.425	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236		0.526		0.0805	+/-0.0693	0.100	pCi/g						
Uranium-238		24.3		0.0862	+/-1.80	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.344		0.505	+/-0.165	0.200	pCi/g		RXF2	02/12/10	1700	947554	5
Bismuth-211	UI	4.40	R,R5a	0.453	+/-0.329		pCi/g						
Bismuth-214		1.27		0.142	+/-0.120	0.200	pCi/g						
Cadmium-109	UI	3.82	R,R5a	1.98	+/-0.863		pCi/g						
Cerium-139	U	-0.0331		0.0665	+/-0.0214	0.050	pCi/g						
Cesium-134	U	0.0612		0.113	+/-0.0314	0.100	pCi/g						
Cesium-137		0.896		0.0876	+/-0.0685	0.100	pCi/g						
Cobalt-60	U	0.0127		0.0846	+/-0.0254	0.100	pCi/g						
Europium-152	U	0.199		0.230	+/-0.101	0.200	pCi/g						
Lanthanum-140	U	-0.101		0.172	+/-0.061		pCi/g						
Lead-212		1.61		0.121	+/-0.0893	0.100	pCi/g						
Lead-214		1.53		0.148	+/-0.121	0.100	pCi/g						
Mercury-203	U	-0.0267		0.0953	+/-0.029	0.100	pCi/g						
Potassium-40		22.5		0.490	+/-1.27	1.00	pCi/g						
Protactinium-234m		36.1		8.47	+/-5.29		pCi/g						
Radium-223	U	-1.29		1.43	+/-0.476		pCi/g						
Radium-224	UI	4.12	R,R5a	1.38	+/-0.865		pCi/g						
Radium-226		1.27		0.142	+/-0.120		pCi/g						
Radium-228		1.59		0.244	+/-0.200	0.500	pCi/g						
Ruthenium-106	U	-0.027		0.677	+/-0.211	0.800	pCi/g						
Sodium-22	U	-0.00812		0.0972	+/-0.0305	0.080	pCi/g						
Strontium-85	U	0.0833		0.093	+/-0.029		pCi/g						

AMF
3/5/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8058
Sample ID: 245808007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.459	0.0797	+/-0.0594	0.080	pCi/g						
Thorium-227	U	0.085	0.870	+/-0.271		pCi/g						
Thorium-231	U	-1.29	1.43	+/-0.476		pCi/g						
Thorium-234		22.8	3.75	+/-2.87	2.00	pCi/g						
Tin-113	U	0.00626	0.107	+/-0.032	0.100	pCi/g						
Uranium-235		0.870	0.472	+/-0.237	0.500	pCi/g						
Yttrium-88	U	-0.0438	0.044	+/-0.0198	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		4860	159	+/-370	250	pCi/L		KXK2	02/09/10	1124	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	97.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	71.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

AMF
3/5/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8059
Sample ID: 245808008
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 7.28%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00729		0.0181	+/-0.00291	0.050	pCi/g		AYB1	02/20/10	1458	954558	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00322		0.0175	+/-0.00186	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240	U	-1.28E-10		0.0132	+/-0.00152	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.638		0.162	+/-0.0801	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236	U	0.0238		0.103	+/-0.0139	0.100	pCi/g						
Uranium-238		0.957	J,R4a	0.111	+/-0.107	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0527		0.517	+/-0.149	0.200	pCi/g		RXF2	02/12/10	1737	947554	5
Bismuth-211	UI	3.58	R,R5a	0.408	+/-0.322		pCi/g						
Bismuth-214		0.987		0.148	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	3.32	R,R5a	2.03	+/-0.947		pCi/g						
Cerium-139	U	0.0237		0.063	+/-0.0184	0.050	pCi/g						
Cesium-134	UI	0.146	R,R5a	0.103	+/-0.034	0.100	pCi/g						
Cesium-137	U	0.00527		0.0783	+/-0.0232	0.100	pCi/g						
Cobalt-60	U	-0.0246		0.0719	+/-0.0239	0.100	pCi/g						
Europium-152	U	0.0311		0.204	+/-0.0722	0.200	pCi/g						
Lanthanum-140	U	-0.0255		0.147	+/-0.0554		pCi/g						
Lead-212		1.61		0.114	+/-0.116	0.100	pCi/g						
Lead-214		1.25		0.152	+/-0.117	0.100	pCi/g						
Mercury-203	U	0.0891		0.0994	+/-0.0274	0.100	pCi/g						
Potassium-40		34.6		0.618	+/-1.99	1.00	pCi/g						
Radium-223	U	-0.648		1.43	+/-0.441		pCi/g						
Radium-224	UI	4.67	R,R5a	1.30	+/-0.806		pCi/g						
Radium-226		0.987		0.148	+/-0.105		pCi/g						
Radium-228		1.50		0.256	+/-0.178	0.500	pCi/g						
Ruthenium-106	U	0.106		0.642	+/-0.192	0.800	pCi/g						
Sodium-22	U	-0.0114		0.0875	+/-0.0276	0.080	pCi/g						
Strontium-85	UI	0.117	R,R5a	0.0914	+/-0.0274		pCi/g						
Thallium-208		0.533		0.0689	+/-0.0524	0.080	pCi/g						

AMF
3/5/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8059
Sample ID: 245808008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.382	0.783	+/-0.239		pCi/g						
Thorium-231	U	-0.648	1.43	+/-0.441		pCi/g						
Thorium-234	U	0.849	4.08	+/-1.16	2.00	pCi/g						
Tin-113	U	-0.0307	0.0904	+/-0.0278	0.100	pCi/g						
Uranium-235	U	0.0349	0.477	+/-0.142	0.500	pCi/g						
Yttrium-88	U	0.0266	0.0665	+/-0.0177	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		744	161	+/-88.7	250	pCi/L		KXK2	02/09/10	1207	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	54.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

AMF
3/5/10

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1475

REQUEST NUMBER: 10-1475

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245808 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7954	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7954	1	POLY	H3	Ice	R
RE15-10-7956	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7956	1	POLY	H3	Ice	R
RE15-10-7955	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7955	1	POLY	H3	Ice	R
RE15-10-7953	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7953	1	POLY	H3	Ice	R
RE15-10-7952	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7952	1	POLY	H3	Ice	R
RE15-10-8060	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8060	1	POLY	H3	Ice	R
RE15-10-8058	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8058	1	POLY	H3	Ice	R
RE15-10-8059	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8059	1	POLY	H3	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	1/28/10	1400	Patricia Dover-Dent P. Dover-Dent	1-29-10	08:45
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1475
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010
TURNAROUND/REPORT DUE: 2/27/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	EPA:906.0	1	RE15-10-7952	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:AM-241	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:ISOPU	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:ISOU	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1475

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245808
SDG: 10-1475

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 29, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1475
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245808
SDG: 10-1475

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 4

Data Review Qualifier Flag Definition Sheet..... 18

Radiological Analysis..... 20
- Sample Data Summary.....33
- Quality Control Data.....59
- Raw Data..... 67
- Background and Efficiency Data.....641
- Standards Data.....776
- Runlogs.....811

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245808
SDG # : 10-1475

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 29, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 10-12C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245808001	RE15-10-7954
245808002	RE15-10-7956
245808003	RE15-10-7955
245808004	RE15-10-7953
245808005	RE15-10-7952
245808006	RE15-10-8060
245808007	RE15-10-8058
245808008	RE15-10-8059

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1475

REQUEST NUMBER: 10-1475

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245808 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7954	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7954	1	POLY	H3	Ice	R
RE15-10-7956	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7956	1	POLY	H3	Ice	R
RE15-10-7955	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7955	1	POLY	H3	Ice	R
RE15-10-7953	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7953	1	POLY	H3	Ice	R
RE15-10-7952	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7952	1	POLY	H3	Ice	R
RE15-10-8060	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8060	1	POLY	H3	Ice	R
RE15-10-8058	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8058	1	POLY	H3	Ice	R
RE15-10-8059	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8059	1	POLY	H3	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	1/28/10	1400	Patricia Dover / Dent P. Dover	1-29-10	08:45
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1475
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010
TURNAROUND/REPORT DUE: 2/27/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	EPA:906.0	1	RE15-10-7952	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:AM-241	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:ISOPU	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	HASL-300:ISOU	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1475

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1475

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1475**
Received By: Patricia Dover-Dent	**Date Received: January 29, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-6** **10-12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7419 11C	**7209 7849 7522 6C**
7209 7849 7500 5C	**7209 7849 7533 1C**
7209 7849 7452 2C	**7209 7849 7544 1C**
7209 7849 7474 1C	**7209 7849 7420 10C**
7209 7849 7441 4C	**7209 7849 7496 2C**
7209 7849 7463 3C	**7209 7849 7485 3C**
7209 7849 7430 10C	**7209 7849 7408 12C**
7209 7849 7511 6C	

PM (or PMA) review: Initials _____ Date 2/1/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

11

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MPS# 0263 7209 7849 7419
Mstr# 7209 7849 7393 0201

FRI - 29JAN A1
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ORIGIN ID: SAFA (505) 665-9938
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

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VALERIE DAVIS
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PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7452

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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Mstr# 7209 7849 7463 0201

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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MPS# 0263 7209 7849 7441
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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TRK# 0201 7209 7849 7463
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
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ACTWGT: 52.0 LB MAN
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR1A015QGWK0

6°C

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2 of 2
MPS# 0263 7209 7849 7511
Mstr# 7209 7849 7500 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-8968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

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°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR1A015ACNKO

6C

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FRI - 29JAN A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7522

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Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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REF: 68010AARDW01503500

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FRI - 29JAN A1
PRIORITY OVERNIGHT

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CHS

Part # 156148-434 NRIT V3 04-09

238 1 B 7544 01.29

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 68010AX49A08550000

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TRK# 0201 7209 7849 7544

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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REF: 68010AMR2A0515BYDO

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FRI - 29JAN A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7420

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

2c

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGWKO

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2 of 2

FRI - 29JAN A1
PRIORITY OVERNIGHT

MPSH 0203 7209 7849 7496
Mstr# 7209 7849 7485 0201

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 04-0

[redacted]

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B01BAMR1A015AGWKO

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TRK# 0201 7209 7849 7485
*** MASTER ***

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Form #19B148-404 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: [illegible] LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B01BAMR2A0015AGWKO

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2 of 3
MPS# 0263 7209 7849 7498
Mstr# 7209 7849 7485

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Form #19B148-404 NRIT V3 04-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1475

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	954558
Prep Batch Number:	947375

Sample ID	Client ID
245808001	RE15-10-7954
245808002	RE15-10-7956
245808003	RE15-10-7955
245808004	RE15-10-7953
245808005	RE15-10-7952
245808006	RE15-10-8060
245808007	RE15-10-8058
245808008	RE15-10-8059
1202046259	Method Blank (MB)
1202046260	245808002(RE15-10-7956) Sample Duplicate (DUP)
1202046261	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202046259 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245808002 (RE15-10-7956). The QC was from LANL work order 245808.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to low carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	950408
Prep Batch Number:	947375

Sample ID	Client ID
245808001	RE15-10-7954
245808002	RE15-10-7956
245808003	RE15-10-7955
245808004	RE15-10-7953
245808005	RE15-10-7952
245808006	RE15-10-8060
245808007	RE15-10-8058
245808008	RE15-10-8059
1202036746	Method Blank (MB)
1202036747	245808001(RE15-10-7954) Sample Duplicate (DUP)
1202036748	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202036746 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245808001 (RE15-10-7954). The QC was from LANL work order 245808.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	950409
Prep Batch Number:	947375

Sample ID	Client ID
245808001	RE15-10-7954
245808003	RE15-10-7955
245808005	RE15-10-7952
245808007	RE15-10-8058
245808008	RE15-10-8059
1202036749	Method Blank (MB)
1202036750	245808001(RE15-10-7954) Sample Duplicate (DUP)
1202036751	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202036749 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245808001 (RE15-10-7954). The QC was from LANL work order 245808.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 blank result is greater than 1.65 times the CSU but less than the MDC. The U-238 blank result is greater than 1.65 times the CSU but the sample results are greater than 5 times the blank result.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202036749 (MB) was recounted due to a suspected blank false positive.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-238 blank result is greater than the decision level but the sample results are greater than 5 times the blank result.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	954559
Prep Batch Number:	947375

Sample ID	Client ID
245808002	RE15-10-7956
245808004	RE15-10-7953
245808006	RE15-10-8060
1202046263	Method Blank (MB)
1202046264	246271002(RE16-10-1311) Sample Duplicate (DUP)
1202046265	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202046263 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246271002 (RE16-10-1311). The QC was from LANL work order 246271.

QC Information
All of the QC samples met the required acceptance limits.

CSU

The U238 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 245808002 (RE15-10-7956), 245808004 (RE15-10-7953) and 245808006 (RE15-10-8060) were reprepped with reduced aliquot size to reduce the effects of tailing from high levels of U238 in the samples.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202046263 (MB), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The U238 blank result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	947554
Prep Batch Number:	947375

Sample ID	Client ID
245808001	RE15-10-7954
245808002	RE15-10-7956
245808003	RE15-10-7955
245808004	RE15-10-7953
245808005	RE15-10-7952
245808006	RE15-10-8060
245808007	RE15-10-8058
245808008	RE15-10-8059

1202029817	Method Blank (MB)
1202029818	245808006(RE15-10-8060) Sample Duplicate (DUP)
1202029819	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, April 2009, May 2009, June 2009, August 2009, November 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245808006 (RE15-10-8060). The QC was from LANL work order 245808.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is greater than 1.65 times the CSU but less than the MDC for Co-60. 1202029817 (MB).

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Pa-234m was positively identified and added to samples 1202029818 (RE15-10-8060), 245808001

(RE15-10-7954), 245808002 (RE15-10-7956), 245808003 (RE15-10-7955), 245808004 (RE15-10-7953), 245808006 (RE15-10-8060) and 245808007 (RE15-10-8058).

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high peak-width.	Cadmium-109	245808008	RE15-10-8059
UI	Data rejected due to interference.	Bismuth-211	245808001	RE15-10-7954
			245808002	RE15-10-7956
			245808003	RE15-10-7955
			245808004	RE15-10-7953
			245808005	RE15-10-7952
			245808006	RE15-10-8060
			245808007	RE15-10-8058
			245808008	RE15-10-8059
			1202029818	RE15-10-8060(245808006DUP)
		Cadmium-109	245808001	RE15-10-7954
			245808002	RE15-10-7956
			245808003	RE15-10-7955
			245808004	RE15-10-7953
			245808005	RE15-10-7952
			245808007	RE15-10-8058
		Radium-224	245808001	RE15-10-7954
			245808002	RE15-10-7956
			245808003	RE15-10-7955
			245808004	RE15-10-7953
			245808005	RE15-10-7952
			245808006	RE15-10-8060
			245808007	RE15-10-8058
			245808008	RE15-10-8059
			1202029818	RE15-10-8060(245808006DUP)

UI	Data rejected due to low abundance.	Americium-241	245808004	RE15-10-7953
			1202029818	RE15-10-8060(245808006DUP)
		Cerium-139	245808004	RE15-10-7953
		Cesium-134	245808001	RE15-10-7954
			245808002	RE15-10-7956
			245808003	RE15-10-7955
			245808004	RE15-10-7953
			245808005	RE15-10-7952
			245808008	RE15-10-8059
			1202029818	RE15-10-8060(245808006DUP)
		Strontium-85	245808001	RE15-10-7954
			245808002	RE15-10-7956
			245808003	RE15-10-7955
			245808004	RE15-10-7953
			245808008	RE15-10-8059
			1202029818	RE15-10-8060(245808006DUP)
		Thorium-227	245808003	RE15-10-7955
			245808004	RE15-10-7953
			1202029818	RE15-10-8060(245808006DUP)
		Thorium-234	245808005	RE15-10-7952

Method/Analysis Information

Product: **H3**

Analytical Method: GL-RAD-A-002

Analytical Batch Number: 948404

Sample ID	Client ID
245808001	RE15-10-7954
245808002	RE15-10-7956
245808003	RE15-10-7955
245808004	RE15-10-7953
245808005	RE15-10-7952

245808006	RE15-10-8060
245808007	RE15-10-8058
245808008	RE15-10-8059
1202031688	Method Blank (MB)
1202031689	245808003(RE15-10-7955) Sample Duplicate (DUP)
1202031690	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245808003 (RE15-10-7955). The QC was from LANL work order 245808.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Paula Wilson 2/23/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1475 GEL Work Order: 245808

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID:	RE15-10-7954	Project:	LANL01004
Sample ID:	245808001	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	5.84%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000204	0.0258	+/-0.00229	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00111	0.0181	+/-0.00367	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240	U	0.00443	0.0136	+/-0.00351	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		5.10	0.126	+/-0.405	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236		0.499	0.0803	+/-0.0669	0.100	pCi/g						
Uranium-238		27.9	0.086	+/-2.07	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.124	0.271	+/-0.0807	0.200	pCi/g		RXF2	02/11/10	2226	947554	5
Bismuth-211	UI	3.71	0.178	+/-0.179		pCi/g						
Bismuth-214		1.07	0.0641	+/-0.0584	0.200	pCi/g						
Cadmium-109	UI	4.21	0.885	+/-0.473		pCi/g						
Cerium-139	U	-0.000924	0.0286	+/-0.00934	0.050	pCi/g						
Cesium-134	UI	0.086	0.0526	+/-0.0227	0.100	pCi/g						
Cesium-137	U	-0.0144	0.0375	+/-0.0119	0.100	pCi/g						
Cobalt-60	U	-0.000189	0.0353	+/-0.0105	0.100	pCi/g						
Europium-152	U	0.00256	0.0879	+/-0.0261	0.200	pCi/g						
Lanthanum-140	U	-0.0504	0.0715	+/-0.0241		pCi/g						
Lead-212		1.63	0.0505	+/-0.0724	0.100	pCi/g						
Lead-214		1.29	0.062	+/-0.0707	0.100	pCi/g						
Mercury-203	U	0.0169	0.0387	+/-0.0121	0.100	pCi/g						
Potassium-40		32.9	0.256	+/-1.28	1.00	pCi/g						
Protactinium-234m		31.5	4.24	+/-2.79		pCi/g						
Radium-223	U	-0.0779	0.585	+/-0.192		pCi/g						
Radium-224	UI	4.27	0.574	+/-0.379		pCi/g						
Radium-226		1.07	0.0641	+/-0.0584		pCi/g						
Radium-228		1.56	0.119	+/-0.125	0.500	pCi/g						
Ruthenium-106	U	0.106	0.301	+/-0.0891	0.800	pCi/g						
Sodium-22	U	0.0144	0.0434	+/-0.0125	0.080	pCi/g						

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7954
Sample ID: 245808001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0532	0.0355	+/-0.0108		pCi/g						
Thallium-208		0.496	0.031	+/-0.0285	0.080	pCi/g						
Thorium-227	U	0.233	0.365	+/-0.114		pCi/g						
Thorium-231	U	-0.0779	0.585	+/-0.192		pCi/g						
Thorium-234		24.4	1.99	+/-2.63	2.00	pCi/g						
Tin-113	U	-0.00103	0.0396	+/-0.0115	0.100	pCi/g						
Uranium-235		0.418	0.201	+/-0.0979	0.500	pCi/g						
Yttrium-88	U	0.0122	0.0293	+/-0.00828	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		79900	197	+/-5620	250	pCi/L		KXK2	02/09/10	0937	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	59.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	68.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7954
Sample ID: 245808001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7956
Sample ID: 245808002
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 6.14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00181	0.0192	+/-0.00148	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00656	0.0179	+/-0.00559	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240	U	0.00437	0.0134	+/-0.0041	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		7.74	0.429	+/-0.695	0.100	pCi/g		AYB1	02/22/10	1242	954559	4
Uranium-235/236		0.736	0.274	+/-0.137	0.100	pCi/g						
Uranium-238		35.0	0.293	+/-2.78	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0773	0.089	+/-0.0272	0.200	pCi/g		RXF2	02/11/10	2226	947554	6
Bismuth-211	UI	3.78	0.224	+/-0.230		pCi/g						
Bismuth-214		1.23	0.0806	+/-0.0888	0.200	pCi/g						
Cadmium-109	UI	3.87	0.776	+/-0.358		pCi/g						
Cerium-139	U	0.00512	0.0318	+/-0.0104	0.050	pCi/g						
Cesium-134	UI	0.121	0.0729	+/-0.0266	0.100	pCi/g						
Cesium-137	U	0.0196	0.0513	+/-0.019	0.100	pCi/g						
Cobalt-60	U	-0.0167	0.0462	+/-0.0143	0.100	pCi/g						
Europium-152	U	-0.00892	0.102	+/-0.0308	0.200	pCi/g						
Lanthanum-140	U	0.0476	0.107	+/-0.0341		pCi/g						
Lead-212		1.63	0.0578	+/-0.0895	0.100	pCi/g						
Lead-214		1.32	0.0766	+/-0.0871	0.100	pCi/g						
Mercury-203	U	0.0306	0.0465	+/-0.0144	0.100	pCi/g						
Potassium-40		30.5	0.383	+/-1.49	1.00	pCi/g						
Protactinium-234m		37.3	5.51	+/-4.21		pCi/g						
Radium-223	U	0.390	0.734	+/-0.233		pCi/g						
Radium-224	UI	4.52	0.658	+/-0.429		pCi/g						
Radium-226		1.23	0.0806	+/-0.0888		pCi/g						
Radium-228		1.50	0.158	+/-0.146	0.500	pCi/g						
Ruthenium-106	U	0.00643	0.392	+/-0.119	0.800	pCi/g						
Sodium-22	U	-0.0309	0.0523	+/-0.0175	0.080	pCi/g						
Strontium-85	UI	0.0603	0.0466	+/-0.0144		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7956
Sample ID: 245808002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.553	0.0431	+/-0.0378	0.080	pCi/g						
Thorium-227	U	0.0178	0.399	+/-0.136		pCi/g						
Thorium-231	U	0.390	0.734	+/-0.233		pCi/g						
Thorium-234		26.3	0.796	+/-2.50	2.00	pCi/g						
Tin-113	U	-0.0325	0.0485	+/-0.0149	0.100	pCi/g						
Uranium-235		0.561	0.230	+/-0.113	0.500	pCi/g						
Yttrium-88	U	-0.00405	0.0424	+/-0.0133	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.22E+05	239	+/-8570	250	pCi/L		KXK2	02/09/10	1000	948404	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7956
Sample ID: 245808002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID:	RE15-10-7955	Project:	LANL01004
Sample ID:	245808003	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	18%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00884	0.017	+/-0.00346	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00123	0.0201	+/-0.00325	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240		0.0307	0.0151	+/-0.0068	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		7.34	0.166	+/-0.599	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236		0.822	0.106	+/-0.104	0.100	pCi/g						
Uranium-238		31.6	0.113	+/-2.45	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.186	0.268	+/-0.0809	0.200	pCi/g		RXF2	02/11/10	2227	947554	5
Bismuth-211	UI	3.08	0.160	+/-0.142		pCi/g						
Bismuth-214		0.896	0.0518	+/-0.0547	0.200	pCi/g						
Cadmium-109	UI	2.59	1.05	+/-0.424		pCi/g						
Cerium-139	U	0.0062	0.0287	+/-0.009	0.050	pCi/g						
Cesium-134	UI	0.069	0.0404	+/-0.0165	0.100	pCi/g						
Cesium-137		0.180	0.0295	+/-0.0173	0.100	pCi/g						
Cobalt-60	U	0.00104	0.0276	+/-0.00833	0.100	pCi/g						
Europium-152	U	-0.0191	0.0758	+/-0.0249	0.200	pCi/g						
Lanthanum-140	U	0.0397	0.0624	+/-0.0201		pCi/g						
Lead-212		1.26	0.0453	+/-0.051	0.100	pCi/g						
Lead-214		1.07	0.054	+/-0.0568	0.100	pCi/g						
Mercury-203	U	0.0231	0.0349	+/-0.0113	0.100	pCi/g						
Potassium-40		26.9	0.192	+/-1.09	1.00	pCi/g						
Protactinium-234m		95.6	3.13	+/-5.74		pCi/g						
Radium-223	U	0.313	0.515	+/-0.171		pCi/g						
Radium-224	UI	4.02	0.515	+/-0.328		pCi/g						
Radium-226		0.896	0.0518	+/-0.0547		pCi/g						
Radium-228		1.30	0.0905	+/-0.104	0.500	pCi/g						
Ruthenium-106	U	-0.081	0.229	+/-0.0707	0.800	pCi/g						
Sodium-22	U	-0.00575	0.0291	+/-0.0089	0.080	pCi/g						
Strontium-85	UI	0.0824	0.0336	+/-0.0103		pCi/g						

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7955
Sample ID: 245808003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.409	0.0266	+/-0.0245	0.080	pCi/g						
Thorium-227	UI	0.425	0.341	+/-0.112		pCi/g						
Thorium-231	U	0.313	0.515	+/-0.171		pCi/g						
Thorium-234		67.6	1.98	+/-6.08	2.00	pCi/g						
Tin-113	U	-0.00121	0.035	+/-0.0101	0.100	pCi/g						
Uranium-235		1.19	0.207	+/-0.134	0.500	pCi/g						
Yttrium-88	U	-0.00816	0.0227	+/-0.00726	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.89E+05	296	+/-13300	250	pCi/L		KXK2	02/09/10	1017	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	89.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	53.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7955
Sample ID: 245808003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7953
Sample ID: 245808004
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 14.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00966	0.0183	+/-0.00338	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.0021	0.0171	+/-0.00257	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240		0.0576	0.0129	+/-0.00903	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		43.4	0.658	+/-3.66	0.100	pCi/g		AYB1	02/22/10	1242	954559	4
Uranium-235/236		6.57	0.419	+/-0.703	0.100	pCi/g						
Uranium-238		291	0.449	+/-23.7	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	UI	1.13	0.384	+/-0.122	0.200	pCi/g		RXF2	02/11/10	2227	947554	6
Bismuth-211	UI	2.35	0.214	+/-0.141		pCi/g						
Bismuth-214		0.730	0.069	+/-0.0535	0.200	pCi/g						
Cadmium-109	UI	3.97	1.88	+/-0.654		pCi/g						
Cerium-139	UI	0.0606	0.045	+/-0.0142	0.050	pCi/g						
Cesium-134	UI	0.0813	0.0527	+/-0.0245	0.100	pCi/g						
Cesium-137		0.114	0.0394	+/-0.0179	0.100	pCi/g						
Cobalt-60	U	0.00823	0.0305	+/-0.00879	0.100	pCi/g						
Europium-152	U	-0.0199	0.107	+/-0.0398	0.200	pCi/g						
Lanthanum-140	U	0.00942	0.0634	+/-0.0217		pCi/g						
Lead-212		0.914	0.0644	+/-0.0433	0.100	pCi/g						
Lead-214		0.816	0.0746	+/-0.0533	0.100	pCi/g						
Mercury-203	U	0.0254	0.0475	+/-0.013	0.100	pCi/g						
Potassium-40		22.3	0.224	+/-0.918	1.00	pCi/g						
Protactinium-234m		227	3.71	+/-11.4		pCi/g						
Radium-223	U	-0.691	0.708	+/-0.214		pCi/g						
Radium-224	UI	2.38	0.732	+/-0.346		pCi/g						
Radium-226		0.730	0.069	+/-0.0535		pCi/g						
Radium-228		0.981	0.108	+/-0.0873	0.500	pCi/g						
Ruthenium-106	U	0.0433	0.326	+/-0.0947	0.800	pCi/g						
Sodium-22	U	-0.0102	0.0335	+/-0.0102	0.080	pCi/g						
Strontium-85	UI	0.054	0.0407	+/-0.0126		pCi/g						

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Client Sample ID: RE15-10-7953
Sample ID: 245808004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.320	0.0361	+/-0.0254	0.080	pCi/g						
Thorium-227	UI	1.54	0.534	+/-0.206		pCi/g						
Thorium-231	U	-0.691	0.708	+/-0.214		pCi/g						
Thorium-234		159	2.88	+/-14.0	2.00	pCi/g						
Tin-113	U	-0.0161	0.0474	+/-0.0137	0.100	pCi/g						
Uranium-235		2.74	0.312	+/-0.261	0.500	pCi/g						
Yttrium-88	U	0.012	0.0252	+/-0.00797	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		4.46E+05	478	+/-31300	250	pCi/L		KXK2	02/09/10	1029	948404	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	104	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	65.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7953
Sample ID: 245808004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID:	RE15-10-7952	Project:	LANL01004
Sample ID:	245808005	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000181	0.0158	+/-0.000996	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0036	0.0196	+/-0.00209	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240	U	0.0024	0.0148	+/-0.0038	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.634	0.097	+/-0.067	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236	U	0.038	0.0618	+/-0.0153	0.100	pCi/g						
Uranium-238		0.872	0.0662	+/-0.0848	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0521	0.383	+/-0.118	0.200	pCi/g		RXF2	02/12/10	1657	947554	5
Bismuth-211	UI	3.63	0.307	+/-0.257		pCi/g						
Bismuth-214		1.00	0.104	+/-0.0787	0.200	pCi/g						
Cadmium-109	UI	3.29	1.28	+/-0.592		pCi/g						
Cerium-139	U	0.0106	0.048	+/-0.0141	0.050	pCi/g						
Cesium-134	UI	0.104	0.0854	+/-0.0319	0.100	pCi/g						
Cesium-137	U	-0.0142	0.0576	+/-0.0174	0.100	pCi/g						
Cobalt-60	U	0.0019	0.0678	+/-0.0202	0.100	pCi/g						
Europium-152	U	-0.0696	0.149	+/-0.0494	0.200	pCi/g						
Lanthanum-140	U	0.0306	0.123	+/-0.0396		pCi/g						
Lead-212		1.67	0.0889	+/-0.0823	0.100	pCi/g						
Lead-214		1.26	0.107	+/-0.0954	0.100	pCi/g						
Mercury-203	U	0.000269	0.0652	+/-0.0188	0.100	pCi/g						
Potassium-40		35.9	0.490	+/-1.81	1.00	pCi/g						
Radium-223	U	-1.05	0.928	+/-0.313		pCi/g						
Radium-224	UI	4.58	1.01	+/-0.529		pCi/g						
Radium-226		1.00	0.104	+/-0.0787		pCi/g						
Radium-228		1.55	0.219	+/-0.186	0.500	pCi/g						
Ruthenium-106	U	0.189	0.508	+/-0.142	0.800	pCi/g						
Sodium-22	U	-0.0352	0.0701	+/-0.0226	0.080	pCi/g						
Strontium-85	U	0.0361	0.0585	+/-0.0186		pCi/g						
Thallium-208		0.483	0.0585	+/-0.041	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7952
Sample ID: 245808005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0531	0.583	+/-0.168		pCi/g						
Thorium-231	U	-1.05	0.928	+/-0.313		pCi/g						
Thorium-234	UI	3.49	3.15	+/-1.12	2.00	pCi/g						
Tin-113	U	-0.00559	0.0715	+/-0.0213	0.100	pCi/g						
Uranium-235	U	0.0934	0.356	+/-0.105	0.500	pCi/g						
Yttrium-88	U	0.0103	0.0498	+/-0.0143	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		335	157	+/-62.0	250	pCi/L		KXK2	02/09/10	1035	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	92.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7952
Sample ID: 245808005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID:	RE15-10-8060	Project:	LANL01004
Sample ID:	245808006	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	14.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0153	0.0171	+/-0.00442	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00321	0.0175	+/-0.0024	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240		0.0631	0.0131	+/-0.00892	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		34.6	0.566	+/-2.86	0.100	pCi/g		AYB1	02/22/10	1242	954559	4
Uranium-235/236		4.69	0.361	+/-0.516	0.100	pCi/g						
Uranium-238		234	0.387	+/-18.5	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.243	0.462	+/-0.139	0.200	pCi/g		RXF2	02/12/10	1658	947554	6
Bismuth-211	UI	2.05	0.333	+/-0.224		pCi/g						
Bismuth-214		0.769	0.0964	+/-0.0786	0.200	pCi/g						
Cadmium-109	U	-2.23	2.75	+/-0.894		pCi/g						
Cerium-139	U	-0.0108	0.0619	+/-0.0192	0.050	pCi/g						
Cesium-134	U	0.0303	0.0846	+/-0.0246	0.100	pCi/g						
Cesium-137		0.162	0.0595	+/-0.0299	0.100	pCi/g						
Cobalt-60	U	-0.00421	0.0445	+/-0.0138	0.100	pCi/g						
Europium-152	U	-0.00641	0.157	+/-0.0468	0.200	pCi/g						
Lanthanum-140	U	0.000436	0.104	+/-0.0309		pCi/g						
Lead-212		0.963	0.0909	+/-0.0796	0.100	pCi/g						
Lead-214		0.714	0.116	+/-0.0802	0.100	pCi/g						
Mercury-203	U	0.00891	0.072	+/-0.0207	0.100	pCi/g						
Potassium-40		22.1	0.463	+/-1.17	1.00	pCi/g						
Protactinium-234m		242	6.47	+/-14.8		pCi/g						
Radium-223	U	0.514	1.09	+/-0.313		pCi/g						
Radium-224	UI	2.77	1.03	+/-0.523		pCi/g						
Radium-226		0.769	0.0964	+/-0.0786		pCi/g						
Radium-228		1.17	0.169	+/-0.128	0.500	pCi/g						
Ruthenium-106	U	0.171	0.545	+/-0.155	0.800	pCi/g						
Sodium-22	U	0.00728	0.060	+/-0.0178	0.080	pCi/g						
Strontium-85	U	0.0402	0.0618	+/-0.0169		pCi/g						

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8060
Sample ID: 245808006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.338	0.0525	+/-0.0412	0.080	pCi/g						
Thorium-227	U	0.267	0.722	+/-0.228		pCi/g						
Thorium-231	U	0.514	1.09	+/-0.313		pCi/g						
Thorium-234		166	3.48	+/-14.7	2.00	pCi/g						
Tin-113	U	0.0162	0.0749	+/-0.0206	0.100	pCi/g						
Uranium-235		2.96	0.449	+/-0.344	0.500	pCi/g						
Yttrium-88	U	-0.027	0.0417	+/-0.015	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3.98E+05	444	+/-28000	250	pCi/L		KXK2	02/09/10	1118	948404	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	79.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8060
Sample ID: 245808006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID:	RE15-10-8058	Project:	LANL01004
Sample ID:	245808007	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	35.9%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.0222	0.0159	+/-0.00527	0.050	pCi/g		AYB1	02/20/10	1337	954558	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00119	0.0194	+/-0.00206	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240		0.051	0.0146	+/-0.00853	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		5.37	0.126	+/-0.425	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236		0.526	0.0805	+/-0.0693	0.100	pCi/g						
Uranium-238		24.3	0.0862	+/-1.80	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.344	0.505	+/-0.165	0.200	pCi/g		RXF2	02/12/10	1700	947554	5
Bismuth-211	UI	4.40	0.453	+/-0.329		pCi/g						
Bismuth-214		1.27	0.142	+/-0.120	0.200	pCi/g						
Cadmium-109	UI	3.82	1.98	+/-0.863		pCi/g						
Cerium-139	U	-0.0331	0.0665	+/-0.0214	0.050	pCi/g						
Cesium-134	U	0.0612	0.113	+/-0.0314	0.100	pCi/g						
Cesium-137		0.896	0.0876	+/-0.0685	0.100	pCi/g						
Cobalt-60	U	0.0127	0.0846	+/-0.0254	0.100	pCi/g						
Europium-152	U	0.199	0.230	+/-0.101	0.200	pCi/g						
Lanthanum-140	U	-0.101	0.172	+/-0.061		pCi/g						
Lead-212		1.61	0.121	+/-0.0893	0.100	pCi/g						
Lead-214		1.53	0.148	+/-0.121	0.100	pCi/g						
Mercury-203	U	-0.0267	0.0953	+/-0.029	0.100	pCi/g						
Potassium-40		22.5	0.490	+/-1.27	1.00	pCi/g						
Protactinium-234m		36.1	8.47	+/-5.29		pCi/g						
Radium-223	U	-1.29	1.43	+/-0.476		pCi/g						
Radium-224	UI	4.12	1.38	+/-0.865		pCi/g						
Radium-226		1.27	0.142	+/-0.120		pCi/g						
Radium-228		1.59	0.244	+/-0.200	0.500	pCi/g						
Ruthenium-106	U	-0.027	0.677	+/-0.211	0.800	pCi/g						
Sodium-22	U	-0.00812	0.0972	+/-0.0305	0.080	pCi/g						
Strontium-85	U	0.0833	0.093	+/-0.029		pCi/g						

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8058
Sample ID: 245808007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.459	0.0797	+/-0.0594	0.080	pCi/g						
Thorium-227	U	0.085	0.870	+/-0.271		pCi/g						
Thorium-231	U	-1.29	1.43	+/-0.476		pCi/g						
Thorium-234		22.8	3.75	+/-2.87	2.00	pCi/g						
Tin-113	U	0.00626	0.107	+/-0.032	0.100	pCi/g						
Uranium-235		0.870	0.472	+/-0.237	0.500	pCi/g						
Yttrium-88	U	-0.0438	0.044	+/-0.0198	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		4860	159	+/-370	250	pCi/L		KXK2	02/09/10	1124	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	97.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	71.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis

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Client Sample ID: RE15-10-8058
Sample ID: 245808007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8059
Sample ID: 245808008
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 7.28%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00729	0.0181	+/-0.00291	0.050	pCi/g		AYB1	02/20/10	1458	954558	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00322	0.0175	+/-0.00186	0.050	pCi/g		AYB1	02/16/10	1433	950408	3
Plutonium-239/240	U	-1.28E-10	0.0132	+/-0.00152	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.638	0.162	+/-0.0801	0.100	pCi/g		AYB1	02/15/10	2111	950409	4
Uranium-235/236	U	0.0238	0.103	+/-0.0139	0.100	pCi/g						
Uranium-238		0.957	0.111	+/-0.107	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0527	0.517	+/-0.149	0.200	pCi/g		RXF2	02/12/10	1737	947554	5
Bismuth-211	UI	3.58	0.408	+/-0.322		pCi/g						
Bismuth-214		0.987	0.148	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	3.32	2.03	+/-0.947		pCi/g						
Cerium-139	U	0.0237	0.063	+/-0.0184	0.050	pCi/g						
Cesium-134	UI	0.146	0.103	+/-0.034	0.100	pCi/g						
Cesium-137	U	0.00527	0.0783	+/-0.0232	0.100	pCi/g						
Cobalt-60	U	-0.0246	0.0719	+/-0.0239	0.100	pCi/g						
Europium-152	U	0.0311	0.204	+/-0.0722	0.200	pCi/g						
Lanthanum-140	U	-0.0255	0.147	+/-0.0554		pCi/g						
Lead-212		1.61	0.114	+/-0.116	0.100	pCi/g						
Lead-214		1.25	0.152	+/-0.117	0.100	pCi/g						
Mercury-203	U	0.0891	0.0994	+/-0.0274	0.100	pCi/g						
Potassium-40		34.6	0.618	+/-1.99	1.00	pCi/g						
Radium-223	U	-0.648	1.43	+/-0.441		pCi/g						
Radium-224	UI	4.67	1.30	+/-0.806		pCi/g						
Radium-226		0.987	0.148	+/-0.105		pCi/g						
Radium-228		1.50	0.256	+/-0.178	0.500	pCi/g						
Ruthenium-106	U	0.106	0.642	+/-0.192	0.800	pCi/g						
Sodium-22	U	-0.0114	0.0875	+/-0.0276	0.080	pCi/g						
Strontium-85	UI	0.117	0.0914	+/-0.0274		pCi/g						
Thallium-208		0.533	0.0689	+/-0.0524	0.080	pCi/g						

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Report Date: February 23, 2010

Client Sample ID: RE15-10-8059
Sample ID: 245808008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.382	0.783	+/-0.239		pCi/g						
Thorium-231	U	-0.648	1.43	+/-0.441		pCi/g						
Thorium-234	U	0.849	4.08	+/-1.16	2.00	pCi/g						
Tin-113	U	-0.0307	0.0904	+/-0.0278	0.100	pCi/g						
Uranium-235	U	0.0349	0.477	+/-0.142	0.500	pCi/g						
Yttrium-88	U	0.0266	0.0665	+/-0.0177	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		744	161	+/-88.7	250	pCi/L		KXK2	02/09/10	1207	948404	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	54.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8059
Sample ID: 245808008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

QC Summary

Report Date: February 23, 2010
Page 1 of 7

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico
Contact: Ms. Joylene Valdez

Workorder: 245808

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 950408										
QC1202036747 245808001 DUP										
Plutonium-238	U	-0.00111	U	-0.00216	pCi/g	0.068		(0-1)	AYB1	02/16/1014:33
	TPU:	+/-0.00367		+/-0.00403						
	Yield:	96.4		97.1						
Plutonium-239/240	U	0.00443	U	0.00754	pCi/g	0.210		(0-1)		
	TPU:	+/-0.00351		+/-0.0039						
	Yield:	96.4		97.1						
QC1202036748 LCS										
Plutonium-238				8.07	pCi/g			(75%-125%)		
	TPU:			+/-0.586						
	Yield:			102						
Plutonium-239/240	41.8			43.2	pCi/g		103	(75%-125%)		
	TPU:			+/-2.67						
	Yield:			102						
QC1202036746 MB										
Plutonium-238			U	-1.99E-10	pCi/g					
	TPU:			+/-0.00236						
	Yield:			80.8						
Plutonium-239/240			U	-0.00167	pCi/g					
	TPU:			+/-0.00289						
	Yield:			80.8						
Batch 950409										
QC1202036750 245808001 DUP										
Uranium-233/234		5.10		4.49	pCi/g	0.395		(0-1)	AYB1	02/15/1021:12
	TPU:	+/-0.405		+/-0.363						
	Yield:	68.3		66.5						
Uranium-235/236		0.499		0.482	pCi/g	0.0639		(0-1)		
	TPU:	+/-0.0669		+/-0.066						
	Yield:	68.3		66.5						
Uranium-238		27.9		25.1	pCi/g	0.364		(0-1)		
	TPU:	+/-2.07		+/-1.87						
	Yield:	68.3		66.5						
QC1202036751 LCS										
Uranium-233/234				5.54	pCi/g			(75%-125%)		02/15/1021:12
	TPU:			+/-0.529						
	Yield:			98.8						
Uranium-235/236				0.327	pCi/g			(75%-125%)		
	TPU:			+/-0.0882						
	Yield:			98.8						
Uranium-238	5.75			5.52	pCi/g		96.1	(75%-125%)		
	TPU:			+/-0.528						
	Yield:			98.8						
QC1202036749 MB										
Uranium-233/234			U	0.00866	pCi/g					02/18/1017:13

QC Summary

Workorder: 245808

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 950409										
	TPU:			+/-0.00369						
	Yield:			99.2						
Uranium-235/236			U	0.00378	pCi/g					
	TPU:			+/-0.00269						
	Yield:			99.2						
Uranium-238				0.0291	pCi/g					
	TPU:			+/-0.00761						
	Yield:			99.2						
Batch 954558										
QC1202046260 245808002 DUP										
Americium-241	U	0.00181	U	0.0019	pCi/g	0.016		(0-1)	AYB1	02/20/1013:37
	TPU:	+/-0.00148		+/-0.00154						
	Yield:	79.6		78.9						
QC1202046261 LCS										
Americium-241	33.2			32.1	pCi/g		96.7	(75%-125%)		02/20/1013:39
	TPU:			+/-2.40						
	Yield:			85.5						
QC1202046259 MB										
Americium-241			U	-0.00503	pCi/g					02/20/1013:37
	TPU:			+/-0.00307						
	Yield:			83.4						
Batch 954559										
QC1202046264 246271002 DUP										
Uranium-233/234		0.993		0.804	pCi/g	0.542		(0-1)	AYB1	02/22/1012:42
	TPU:	+/-0.0932		+/-0.081						
	Yield:	102		89.5						
Uranium-235/236		0.0712	U	0.0544	pCi/g	0.237		(0-1)		
	TPU:	+/-0.0185		+/-0.0169						
	Yield:	102		89.5						
Uranium-238		0.868		0.832	pCi/g	0.106		(0-1)		
	TPU:	+/-0.0837		+/-0.0827						
	Yield:	102		89.5						
QC1202046265 LCS										
Uranium-233/234				6.49	pCi/g			(75%-125%)		02/22/1012:42
	TPU:			+/-0.596						
	Yield:			100						
Uranium-235/236				0.292	pCi/g			(75%-125%)		
	TPU:			+/-0.0811						
	Yield:			100						
Uranium-238	5.75			5.29	pCi/g		92	(75%-125%)		
	TPU:			+/-0.502						
	Yield:			100						
QC1202046263 MB										
Uranium-233/234			U	-0.00037	pCi/g					02/22/1012:42
	TPU:			+/-0.00327						
	Yield:			109						
Uranium-235/236			U	0.00	pCi/g					
	TPU:			+/-0.00209						
	Yield:			109						

QC Summary

Workorder: 245808

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 954559										
Uranium-238			U	0.0135	pCi/g					
	TPU:			+/-0.00541						
	Yield:			109						
Rad Gamma Spec										
Batch 947554										
QC1202029818 245808006 DUP										
Americium-241	U	0.243	UI	0.536	pCi/g	0.496		(0-1)	RXF2	02/12/1017:52
	TPU:	+/-0.139		+/-0.156						
Bismuth-211	UI	2.05	UI	2.27	pCi/g	0.244		(0-1)		
	TPU:	+/-0.224		+/-0.208						
Bismuth-214		0.769		0.689	pCi/g	0.278		(0-1)		
	TPU:	+/-0.0786		+/-0.0653						
Cadmium-109	U	-2.23	U	-0.951	pCi/g	0.303		(0-1)		
	TPU:	+/-0.894		+/-1.21						
Cerium-139	U	-0.0108	U	0.0265	pCi/g	0.459		(0-1)		
	TPU:	+/-0.0192		+/-0.0213						
Cesium-134	U	0.0303	UI	0.0896	pCi/g	0.618		(0-1)		
	TPU:	+/-0.0246		+/-0.0234						
Cesium-137		0.162		0.178	pCi/g	0.127		(0-1)		
	TPU:	+/-0.0299		+/-0.0319						
Cobalt-60	U	-0.00421	U	-0.00541	pCi/g	0.0215		(0-1)		
	TPU:	+/-0.0138		+/-0.014						
Europium-152	U	-0.00641	U	0.0496	pCi/g	0.290		(0-1)		
	TPU:	+/-0.0468		+/-0.0498						
Lanthanum-140	U	0.000436	U	-0.0857	pCi/g	0.648		(0-1)		
	TPU:	+/-0.0309		+/-0.0356						
Lead-212		0.963		1.02	pCi/g	0.191		(0-1)		
	TPU:	+/-0.0796		+/-0.0798						
Lead-214		0.714		0.788	pCi/g	0.237		(0-1)		
	TPU:	+/-0.0802		+/-0.0751						
Mercury-203	U	0.00891	U	0.0215	pCi/g	0.149		(0-1)		
	TPU:	+/-0.0207		+/-0.0214						
Potassium-40		22.1		23.0	pCi/g	0.182		(0-1)		
	TPU:	+/-1.17		+/-1.19						
Protactinium-234m		242		247	pCi/g	0.0779		(0-1)		
	TPU:	+/-14.8		+/-15.4						
Radium-223	U	0.514	U	-0.837	pCi/g	1.06		(0-1)		
	TPU:	+/-0.313		+/-0.322						
Radium-224	UI	2.77	UI	2.76	pCi/g	0.00379		(0-1)		
	TPU:	+/-0.523		+/-0.532						
Radium-226		0.769		0.689	pCi/g	0.278		(0-1)		
	TPU:	+/-0.0786		+/-0.0653						
Radium-228		1.17		1.01	pCi/g	0.327		(0-1)		
	TPU:	+/-0.128		+/-0.123						
Ruthenium-106	U	0.171	U	0.164	pCi/g	0.0114		(0-1)		
	TPU:	+/-0.155		+/-0.142						
Sodium-22	U	0.00728	U	-0.017	pCi/g	0.361		(0-1)		
	TPU:	+/-0.0178		+/-0.0159						
Strontium-85	U	0.0402	UI	0.0812	pCi/g	0.584		(0-1)		
	TPU:	+/-0.0169		+/-0.0182						

QC Summary

Workorder: 245808

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947554										
Thallium-208		0.338		0.275	pCi/g	0.415		(0-1)		
	TPU:	+/-0.0412		+/-0.0348						
Thorium-227	U	0.267	UI	1.19	pCi/g	0.923		(0-1)		
	TPU:	+/-0.228		+/-0.270						
Thorium-231	U	0.514	U	-0.837	pCi/g	1.06		(0-1)		
	TPU:	+/-0.313		+/-0.322						
Thorium-234		166		158	pCi/g	0.150		(0-1)		
	TPU:	+/-14.7		+/-13.9						
Tin-113	U	0.0162	U	0.0115	pCi/g	0.0559		(0-1)		
	TPU:	+/-0.0206		+/-0.0212						
Uranium-235		2.96		3.11	pCi/g	0.106		(0-1)		
	TPU:	+/-0.344		+/-0.347						
Yttrium-88	U	-0.027	U	0.0137	pCi/g	0.739		(0-1)		
	TPU:	+/-0.015		+/-0.0125						
QC1202029819 LCS										
Americium-241	15.9			13.5	pCi/g		84.9	(75%-125%)		02/12/1018:28
	TPU:			+/-0.602						
Bismuth-211				2.01	pCi/g					
	TPU:			+/-0.303						
Bismuth-214				0.713	pCi/g					
	TPU:			+/-0.114						
Cadmium-109				33.2	pCi/g					
	TPU:			+/-1.85						
Cerium-139			U	0.00524	pCi/g					
	TPU:			+/-0.0212						
Cesium-134			U	0.0929	pCi/g					
	TPU:			+/-0.0408						
Cesium-137	5.56			6.07	pCi/g		109	(75%-125%)		
	TPU:			+/-0.334						
Cobalt-60	6.41			6.73	pCi/g		105	(75%-125%)		
	TPU:			+/-0.323						
Europium-152			U	0.0363	pCi/g					
	TPU:			+/-0.0857						
Lanthanum-140			U	0.0102	pCi/g					
	TPU:			+/-0.0459						
Lead-212				1.02	pCi/g					
	TPU:			+/-0.120						
Lead-214				0.699	pCi/g					
	TPU:			+/-0.107						
Mercury-203			U	0.0448	pCi/g					
	TPU:			+/-0.0302						
Potassium-40			U	0.621	pCi/g					
	TPU:			+/-0.261						
Protactinium-234m			U	3.62	pCi/g					
	TPU:			+/-4.92						
Radium-223			U	-0.872	pCi/g					
	TPU:			+/-0.570						
Radium-224				4.09	pCi/g					
	TPU:			+/-0.651						
Radium-226				0.713	pCi/g					
	TPU:			+/-0.114						

QC Summary

Workorder: 245808

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947554										
Radium-228				0.769	pCi/g					
	TPU:			+/-0.233						
Ruthenium-106			U	0.757	pCi/g					
	TPU:			+/-0.285						
Sodium-22			U	-0.00132	pCi/g					
	TPU:			+/-0.0208						
Strontium-85			U	0.0552	pCi/g					
	TPU:			+/-0.0309						
Thallium-208				0.390	pCi/g					
	TPU:			+/-0.0552						
Thorium-227			U	-0.224	pCi/g					
	TPU:			+/-0.301						
Thorium-231			U	-0.872	pCi/g					
	TPU:			+/-0.570						
Thorium-234			U	0.385	pCi/g					
	TPU:			+/-0.823						
Tin-113			U	-0.0272	pCi/g					
	TPU:			+/-0.0383						
Uranium-235			U	-0.146	pCi/g					
	TPU:			+/-0.150						
Yttrium-88			U	-0.0228	pCi/g					
	TPU:			+/-0.0214						
QC1202029817 MB										
Americium-241			U	0.019	pCi/g					02/12/1017:51
	TPU:			+/-0.0256						
Bismuth-211			U	-0.0511	pCi/g					
	TPU:			+/-0.0446						
Bismuth-214			U	-0.0212	pCi/g					
	TPU:			+/-0.0198						
Cadmium-109			U	-0.0905	pCi/g					
	TPU:			+/-0.161						
Cerium-139			U	-0.00881	pCi/g					
	TPU:			+/-0.00544						
Cesium-134			U	0.001	pCi/g					
	TPU:			+/-0.00957						
Cesium-137			U	-0.0103	pCi/g					
	TPU:			+/-0.00876						
Cobalt-60			U	0.0149	pCi/g					
	TPU:			+/-0.00737						
Europium-152			U	-0.0332	pCi/g					
	TPU:			+/-0.0197						
Lanthanum-140			U	-0.0169	pCi/g					
	TPU:			+/-0.0135						
Lead-212			U	-0.00788	pCi/g					
	TPU:			+/-0.0134						
Lead-214			U	-0.0237	pCi/g					
	TPU:			+/-0.0165						
Mercury-203			U	0.0125	pCi/g					
	TPU:			+/-0.00802						
Potassium-40			U	-0.0292	pCi/g					
	TPU:			+/-0.112						

QC Summary

Workorder: 245808

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947554										
Protactinium-234m			U	0.532	pCi/g					
	TPU:			+/-1.07						
Radium-223			U	-0.139	pCi/g					
	TPU:			+/-0.132						
Radium-224			U	0.0415	pCi/g					
	TPU:			+/-0.140						
Radium-226			U	-0.0212	pCi/g					
	TPU:			+/-0.0198						
Radium-228			U	0.0563	pCi/g					
	TPU:			+/-0.038						
Ruthenium-106			U	0.0465	pCi/g					
	TPU:			+/-0.0704						
Sodium-22			U	0.00128	pCi/g					
	TPU:			+/-0.0076						
Strontium-85			U	-0.0805	pCi/g					
	TPU:			+/-0.014						
Thallium-208			U	-0.00786	pCi/g					
	TPU:			+/-0.0087						
Thorium-227			U	-0.195	pCi/g					
	TPU:			+/-0.0732						
Thorium-231			U	-0.139	pCi/g					
	TPU:			+/-0.132						
Thorium-234			U	0.112	pCi/g					
	TPU:			+/-0.341						
Tin-113			U	0.000491	pCi/g					
	TPU:			+/-0.00913						
Uranium-235			U	0.0196	pCi/g					
	TPU:			+/-0.0413						
Yttrium-88			U	-0.00331	pCi/g					
	TPU:			+/-0.00933						
Rad Liquid Scintillation										
Batch 948404										
QC1202031689 245808003 DUP										
Tritium		1.89E+05		1.85E+05	pCi/L	0.0785		(0-1)	KXK2	02/09/1013:32
	TPU:	+/-13300		+/-13000						
QC1202031690 LCS										
Tritium	5560			5840	pCi/L		105	(75%-125%)		02/09/1013:44
	TPU:			+/-482						
QC1202031688 MB										
Tritium			U	-107	pCi/L					02/09/1012:49
	TPU:			+/-38.7						

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported

QC Summary

Workorder: **245808**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 950408 Product: Pu Date: 2/17/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/17/10

Secondary Review Performed By: [signature] 2/18/10

2/15-2/26
UANL

PV

Plutonium Que Sheet

08-FEB-10

Batch #: 950408 Analyst: AYB1 First Client Due Date:26-FEB-10 Internal Due Date:15-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: B75 - A Expiration Date: 01/8/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: — Expiration Date: — Vol: —

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 2/10/10 Initials: AYB Pipet ID: 2971058 Balance ID: 50410272. Witness: JEH 2-11-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g/l/f)	Pu Det #
245808001-1	RE15-10-7954	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	1	1	1.256	38
245808002-1	RE15-10-7956	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	2	2	1.254	39
245808003-1	RE15-10-7955	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	3	3	1.252	40
245808004-1	RE15-10-7953	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	4	4	1.254	41
245808005-1	RE15-10-7952	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	5	5	1.252	42
245808006-1	RE15-10-8060	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	6	6	1.255	43
245808007-1	RE15-10-8058	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	7	7	1.253	44
245808008-1	RE15-10-8059	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	8	8	1.257	45
1202036746-1	MB for batch 950408	MB		.05 pCi/g	SOIL	QC ACCOUNT		9	9	1	46
1202036747-1	RE15-10-7954(245808001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	26-JAN-10	10	10	1.253	47
1202036748-1	LCS for batch 950408	LCS		.05 pCi/g	SOIL	QC ACCOUNT		11	11	0.101	48

SRM 0244-B exp: 04/30/20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION Circle One

Data Reviewed By: 2/17/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 950408

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202036747	DUP	Plutonium-238	1.25 g	-0.00216	0.00403	0.0176	-.00000000	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00754	0.0039	0.0133	-.001336	pCi/g	NO
1202036748	LCS	Plutonium-238	0.101 g	8.07	0.586	0.223	-.00000000	pCi/g	NO
		Plutonium-239/240	0.101 g	43.2	2.67	0.168	-.01653465	pCi/g	NO
1202036746	MB	Plutonium-238	1.00 g	-1.99E-10	0.00236	0.0273	-.00000000	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.00167	0.00289	0.0205	-.00167	pCi/g	NO
245808001	RE15-10-7954	Plutonium-238	1.26 g	-0.00111	0.00367	0.0181	-.00000000	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00443	0.00351	0.0136	-.00132540	pCi/g	NO
245808002	RE15-10-7956	Plutonium-238	1.25 g	0.00656	0.00559	0.0179	-.00000000	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00437	0.0041	0.0134	-.001336	pCi/g	NO
245808003	RE15-10-7955	Plutonium-238	1.25 g	0.00123	0.00325	0.0201	-.00000000	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0307	0.0068	0.0151	-.001336	pCi/g	NO
245808004	RE15-10-7953	Plutonium-238	1.25 g	-0.0021	0.00257	0.0171	-.00000000	pCi/g	YES
		Plutonium-239/240	1.25 g	0.0576	0.00903	0.0129	-.001336	pCi/g	NO
245808005	RE15-10-7952	Plutonium-238	1.25 g	0.0036	0.00209	0.0196	-.00000000	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0024	0.0038	0.0148	-.001336	pCi/g	NO
245808006	RE15-10-8060	Plutonium-238	1.26 g	0.00321	0.0024	0.0175	-.00000000	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0631	0.00892	0.0131	-.00132540	pCi/g	NO
245808007	RE15-10-8058	Plutonium-238	1.25 g	-0.00119	0.00206	0.0194	-.00000000	pCi/g	YES
		Plutonium-239/240	1.25 g	0.051	0.00853	0.0146	-.001336	pCi/g	NO
245808008	RE15-10-8059	Plutonium-238	1.26 g	0.00322	0.00186	0.0175	-.00000000	pCi/g	NO
		Plutonium-239/240	1.26 g	-1.28E-10	0.00152	0.0132	-.00132540	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 038	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245808001_PU	DETECTOR S/N : 72532	BKG FILE : B038.CNF;1113
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 33.6391	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W038.CNF;321
% YIELD : 96.372		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2581E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5737.217	4.934	5.000	-1.000	6.000	2.6925	100.0000	-1.12E-03	3.72E-03	6.93E-03	1.69E-02	3.72E-03
PU-238	5499.000	5447.052	78.947	5.000	-1.000	6.000	2.9312	99.90000	-1.11E-03	3.67E-03	7.55E-03	1.81E-02	3.67E-03
PU-9/0	5155.000	5164.007	4.934	7.000	4.000	3.000	2.0604	99.90000	4.43E-03	3.51E-03	5.31E-03	1.36E-02	3.50E-03
PU242	4890.000	4886.390	47.778	1098.000	1096.000	2.000	1.4142	100.0000	1.21E+00	7.08E-02	3.64E-03	1.03E-02	3.67E-02
PU-244	4589.000	4539.464	4.934	6.000	6.000	0.000	3.7241	99.90000	6.64E-03	2.73E-03	9.59E-03	2.22E-02	2.71E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

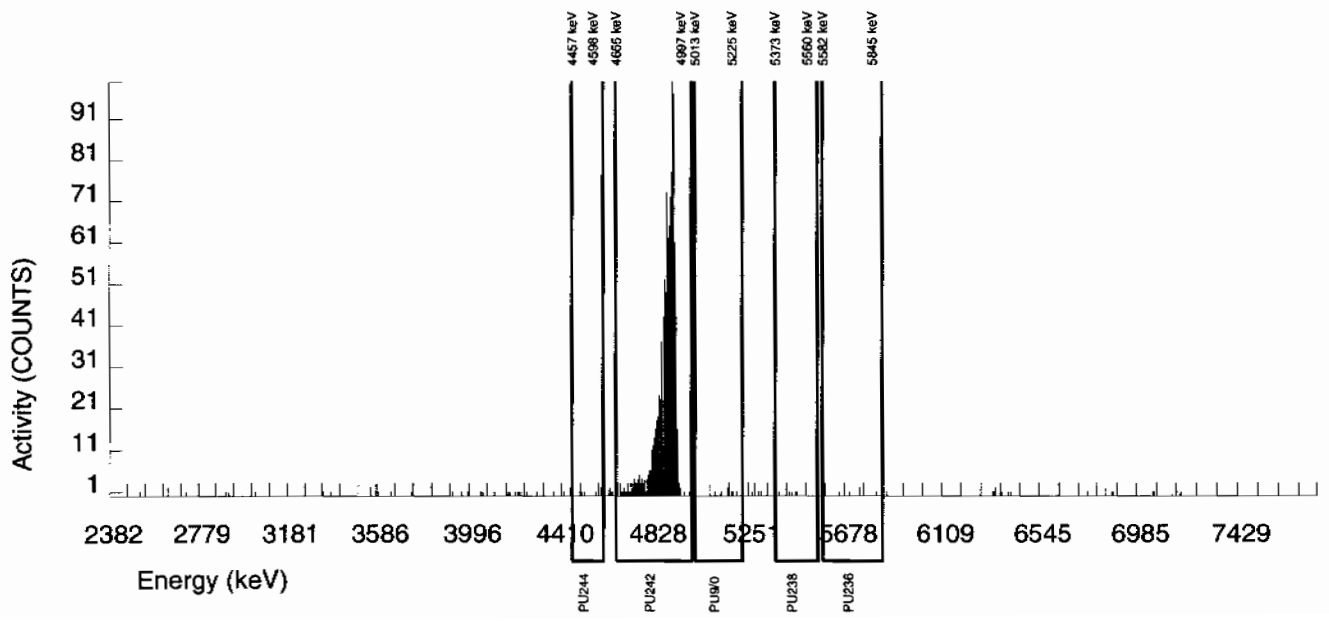

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 039	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245808002_PU	DETECTOR S/N : 45-149BB2	BKG FILE : B039.CNF;1113
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 35.7920	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W039.CNF;298
% YIELD : 91.898		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1068E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.902	13.434	13.000	3.000	10.000	2.6925	100.0000	3.32E-03	5.32E-03	6.84E-03	1.66E-02	5.31E-03
PU-238	5499.000	5445.841	61.142	16.000	6.000	10.000	2.9312	99.90000	6.56E-03	5.59E-03	7.45E-03	1.79E-02	5.58E-03
PU-9/0	5155.000	5171.987	9.807	9.000	4.000	5.000	2.0604	99.90000	4.37E-03	4.10E-03	5.24E-03	1.34E-02	4.09E-03
PU242	4890.000	4879.726	45.538	1115.000	1112.000	3.000	1.7321	100.0000	1.21E+00	7.07E-02	4.40E-03	1.18E-02	3.65E-02
PU-244	4589.000	4534.728	19.615	19.000	18.000	1.000	3.7241	99.90000	1.97E-02	4.99E-03	9.47E-03	2.19E-02	4.89E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

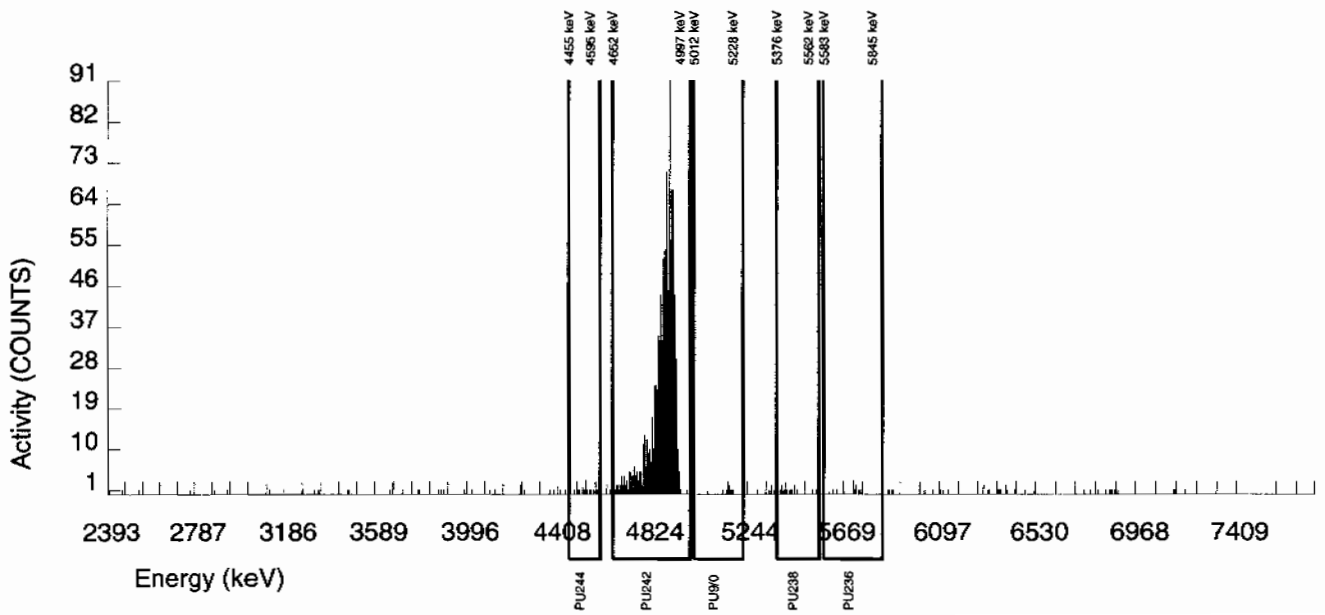

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 040	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245808003_PU	DETECTOR S/N : 78773	BKG FILE : B040.CNF;1116
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 32.1221	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W040.CNF;317
% YIELD : 91.254		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0851E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5736.663	166.228	5.000	3.000	2.000	2.6925	100.0000	3.74E-03	3.30E-03	7.69E-03	1.87E-02	3.30E-03
PU-238	5499.000	5471.284	58.058	4.000	1.000	3.000	2.9312	99.90000	1.23E-03	3.25E-03	8.38E-03	2.01E-02	3.25E-03
PU-9/0	5155.000	5145.156	8.868	27.000	25.000	2.000	2.0604	99.90000	3.07E-02	6.80E-03	5.89E-03	1.51E-02	6.62E-03
PU242	4890.000	4883.489	45.732	994.000	991.000	3.000	1.7321	100.0000	1.22E+00	7.31E-02	4.95E-03	1.32E-02	3.88E-02
PU-244	4589.000	4535.708	112.448	2.000	0.000	2.000	3.7241	99.90000	0.00E+00	2.46E-03	1.06E-02	2.46E-02	2.46E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

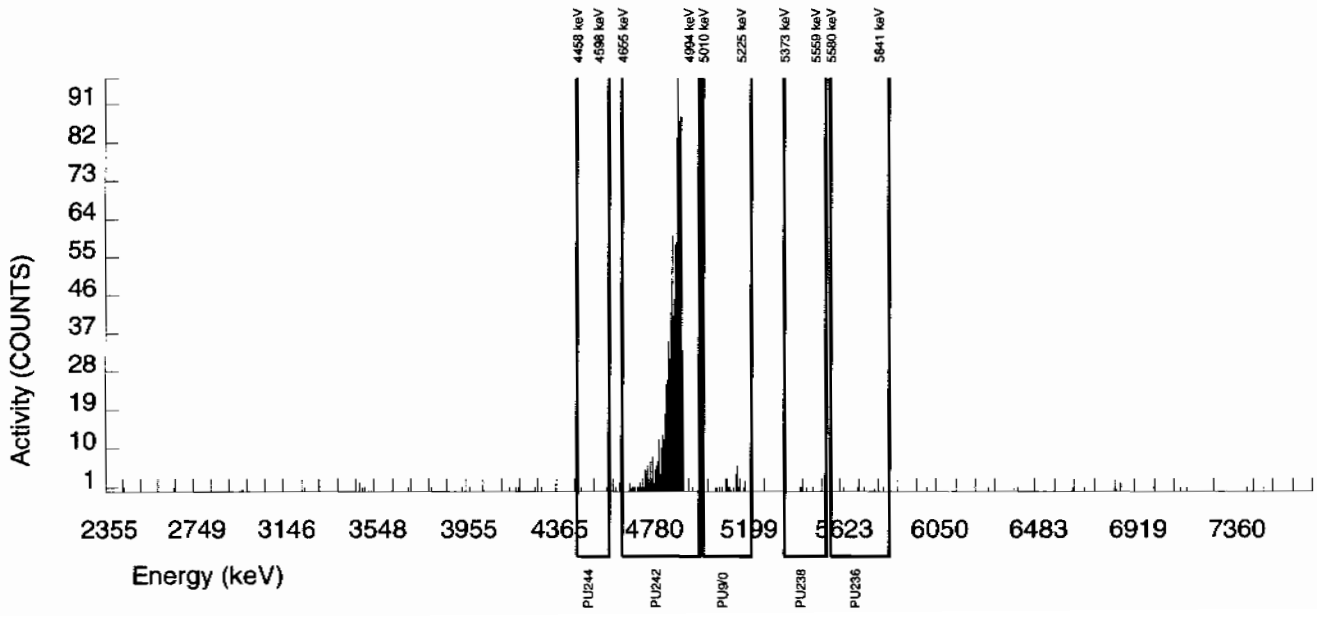

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 041	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245808004_PU	DETECTOR S/N : 78205	BKG FILE : B041.CNF;1109
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 33.0982	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W041.CNF;321
% YIELD : 103.756		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.5077E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5768.101	99.000	5.000	1.000	4.000	2.6925	100.0000	1.06E-03	3.18E-03	6.55E-03	1.59E-02	3.18E-03
PU-238	5499.000	5524.072	44.550	2.000	-2.000	4.000	2.9312	99.90000	-2.10E-03	2.57E-03	7.14E-03	1.71E-02	2.57E-03
PU-9/0	5155.000	5154.420	35.253	61.000	55.000	6.000	2.0604	99.90000	5.76E-02	9.03E-03	5.02E-03	1.29E-02	8.57E-03
PU242	4890.000	4883.723	35.482	1164.000	1161.000	3.000	1.7321	100.0000	1.21E+00	6.99E-02	4.21E-03	1.13E-02	3.57E-02
PU-244	4589.000	4563.306	0.000	8.000	6.000	2.000	3.7241	99.90000	6.28E-03	3.33E-03	9.07E-03	2.10E-02	3.31E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

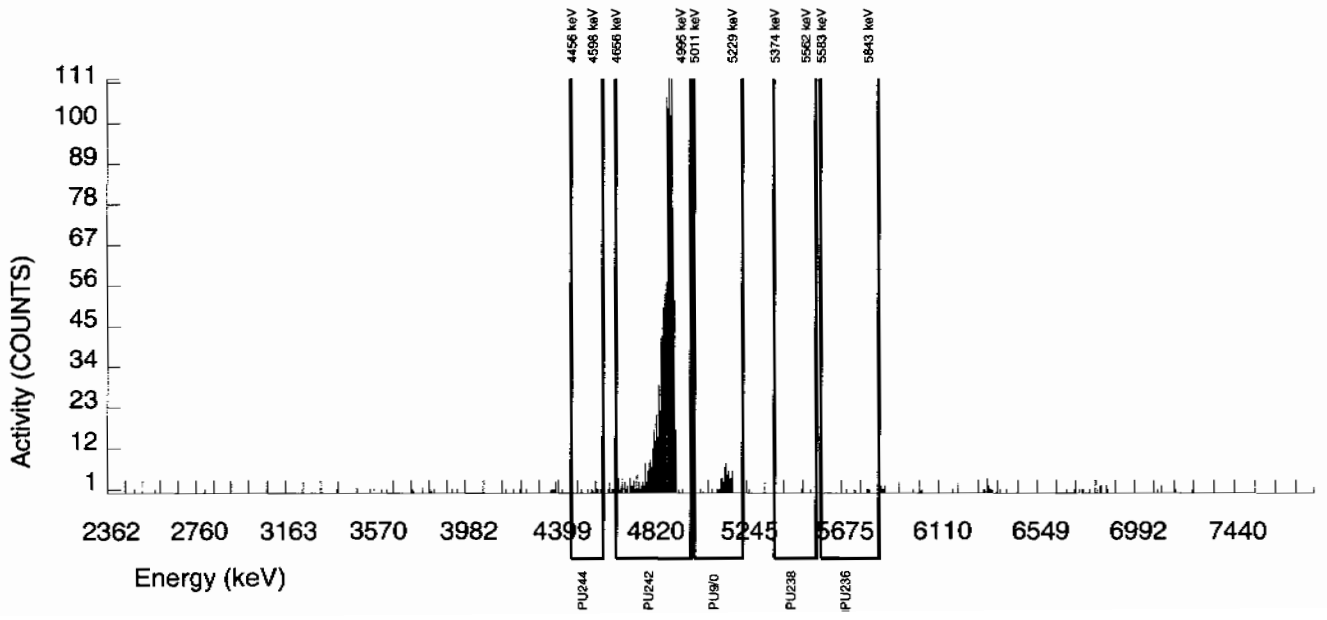

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 042	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245808005_PU	DETECTOR S/N : 78793	BKG FILE : B042.CNF;1108
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 33.2094	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W042.CNF;294
% YIELD : 90.405		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0564E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5751.647	146.730	5.000	2.000	3.000	2.6925	100.0000	2.43E-03	3.44E-03	7.51E-03	1.83E-02	3.44E-03
PU-238	5499.000	5452.641	88.038	3.000	3.000	0.000	2.9312	99.90000	3.60E-03	2.09E-03	8.18E-03	1.96E-02	2.08E-03
PU-9/0	5155.000	5145.309	0.000	6.000	2.000	4.000	2.0604	99.90000	2.40E-03	3.80E-03	5.75E-03	1.48E-02	3.79E-03
PU242	4890.000	4885.981	40.410	1018.000	1015.000	3.000	1.7321	100.0000	1.22E+00	7.26E-02	4.83E-03	1.29E-02	3.83E-02
PU-244	4589.000	4534.941	4.891	9.000	7.000	2.000	3.7241	99.90000	8.40E-03	4.00E-03	1.04E-02	2.40E-02	3.98E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

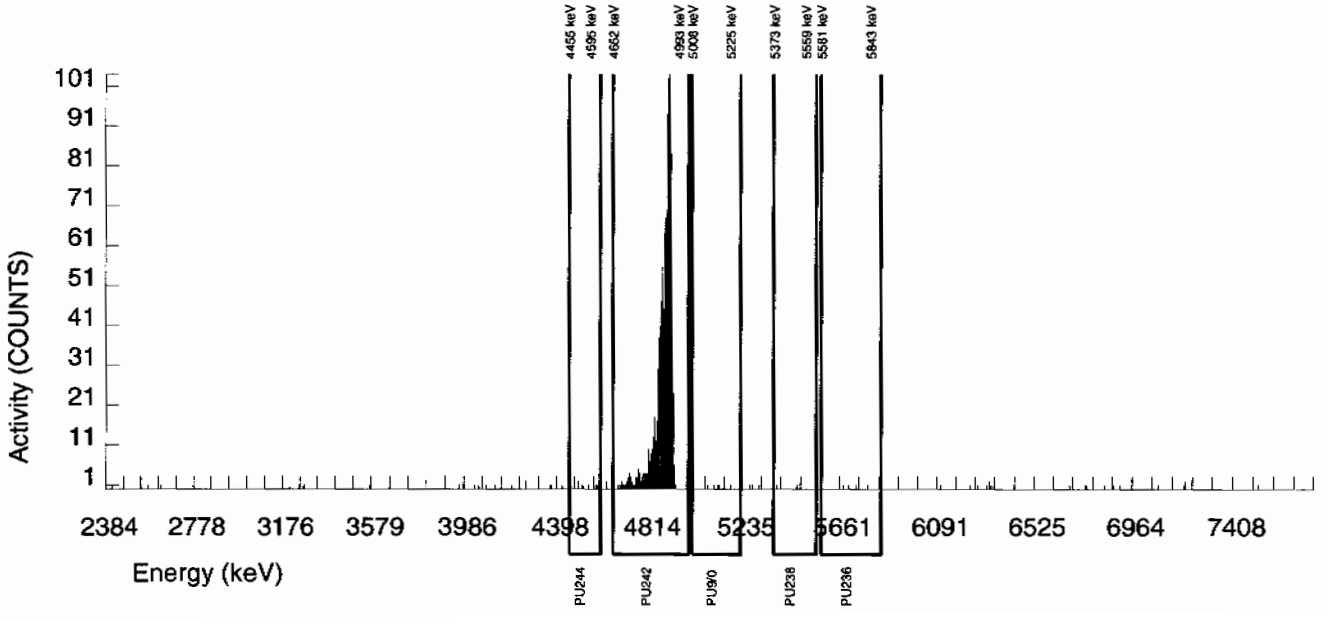

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 043	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245808006_PU	DETECTOR S/N : 76543	BKG FILE : B043.CNF;1106
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 33.6471	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:23	BKG LIVE TIME(SEC) : 59999.99
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W043.CNF;286
% YIELD : 99.865		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3762E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5742.258	0.000	4.000	1.000	3.000	2.6925	100.0000	1.08E-03	2.87E-03	6.69E-03	1.63E-02	2.87E-03
PU-238	5499.000	5451.783	108.854	4.000	3.000	1.000	2.9312	99.90000	3.21E-03	2.40E-03	7.29E-03	1.75E-02	2.39E-03
PU-9/0	5155.000	5155.102	28.708	60.000	59.000	1.000	2.0604	99.90000	6.31E-02	8.92E-03	5.13E-03	1.31E-02	8.35E-03
PU242	4890.000	4885.491	46.221	1139.000	1136.000	3.000	1.7321	100.0000	1.21E+00	7.02E-02	4.30E-03	1.15E-02	3.61E-02
PU-244	4589.000	4537.938	0.000	14.000	12.000	2.000	3.7241	99.90000	1.28E-02	4.32E-03	9.26E-03	2.14E-02	4.28E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

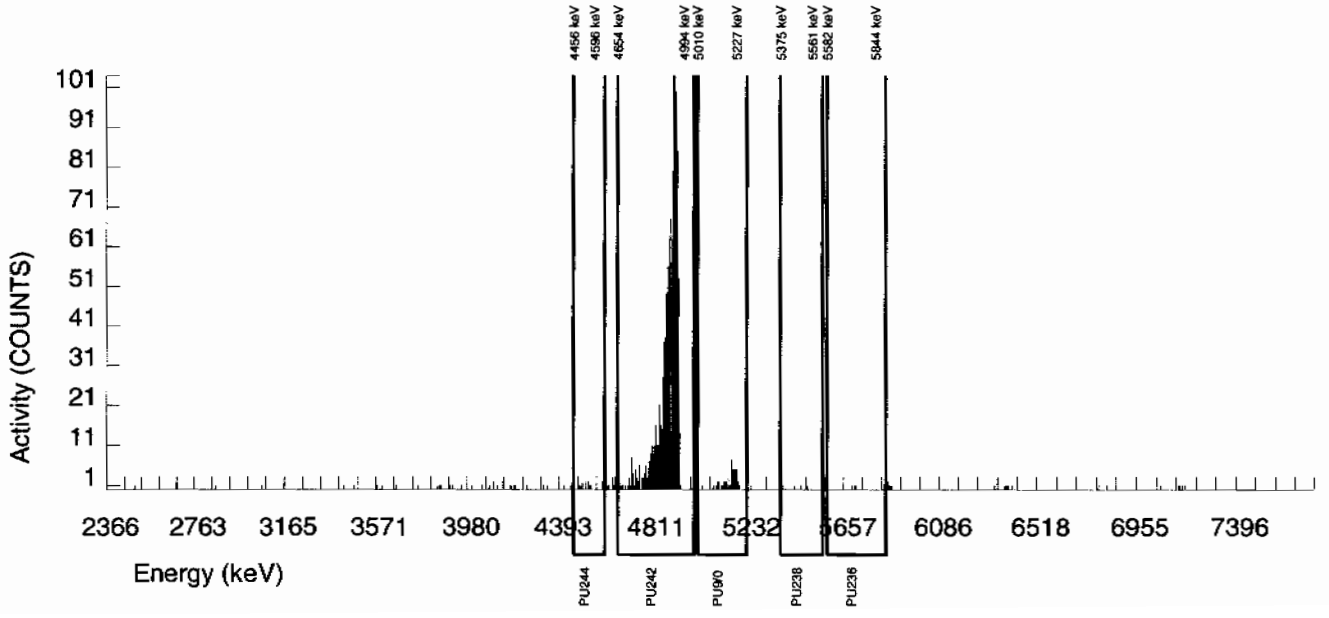

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 044	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245808007_PU	DETECTOR S/N : 79459	BKG FILE : B044.CNF;1116
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 34.2824	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:23	BKG LIVE TIME(SEC) : 59999.99
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W044.CNF;307
% YIELD : 88.524		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9928E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5789.578	68.304	3.000	1.000	2.000	2.6925	100.0000	1.20E-03	2.69E-03	7.42E-03	1.81E-02	2.69E-03
PU-238	5499.000	5466.717	0.000	1.000	-1.000	2.000	2.9312	99.90000	-1.19E-03	2.06E-03	8.09E-03	1.94E-02	2.05E-03
PU-9/0	5155.000	5145.442	45.444	45.000	43.000	2.000	2.0604	99.90000	5.10E-02	8.53E-03	5.68E-03	1.46E-02	8.13E-03
PU242	4890.000	4885.453	37.380	1029.000	1026.000	3.000	1.7321	100.0000	1.22E+00	7.23E-02	4.77E-03	1.28E-02	3.81E-02
PU-244	4589.000	4535.137	117.533	11.000	11.000	0.000	3.7241	99.90000	1.30E-02	3.99E-03	1.03E-02	2.38E-02	3.93E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

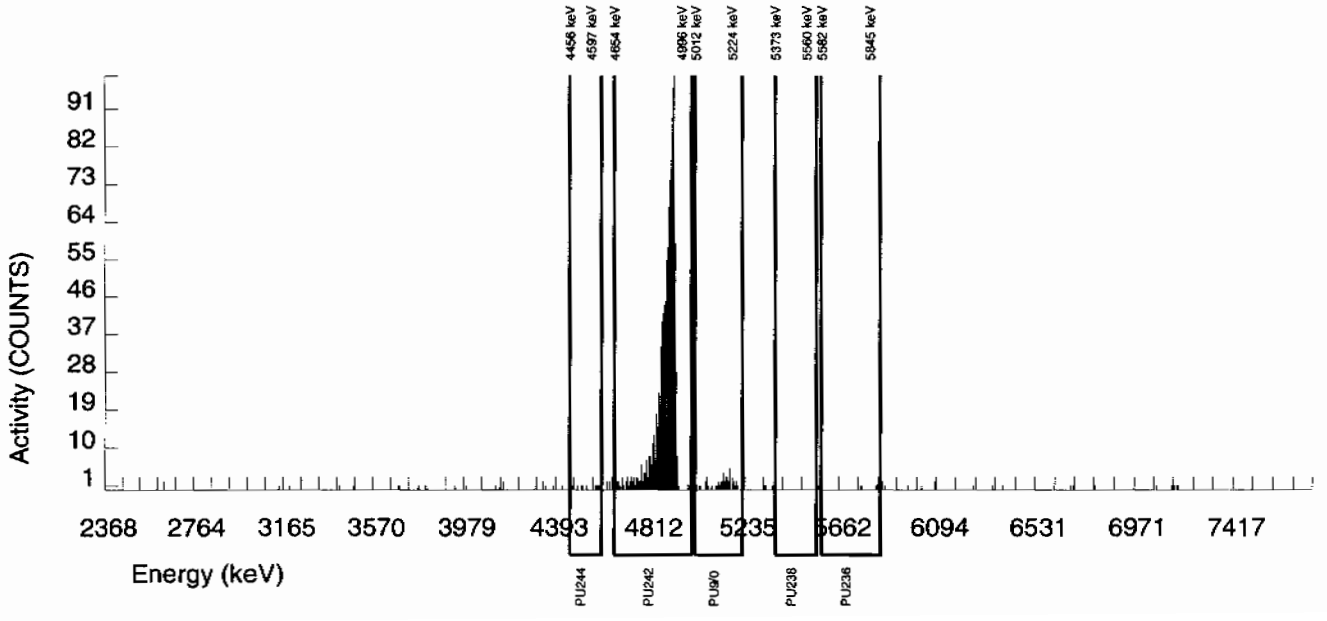

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 045	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245808008_PU	DETECTOR S/N : 78783	BKG FILE : B045.CNF;1105
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 33.6564	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:23	BKG LIVE TIME(SEC) : 59999.99
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W045.CNF;298
% YIELD : 99.486		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3634E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5816.784	0.000	2.000	-3.000	5.000	2.6925	100.0000	-3.26E-03	2.87E-03	6.70E-03	1.63E-02	2.87E-03
PU-238	5499.000	5432.019	103.779	3.000	3.000	0.000	2.9312	99.90000	3.22E-03	1.86E-03	7.31E-03	1.75E-02	1.86E-03
PU-9/0	5155.000	5172.046	4.942	1.000	0.000	1.000	2.0604	99.90000	-1.28E-10	1.52E-03	5.14E-03	1.32E-02	1.52E-03
PU242	4890.000	4881.682	39.334	1135.000	1132.000	3.000	1.7321	100.0000	1.21E+00	7.02E-02	4.31E-03	1.15E-02	3.61E-02
PU-244	4589.000	4542.850	113.663	5.000	5.000	0.000	3.7241	99.90000	5.36E-03	2.41E-03	9.28E-03	2.15E-02	2.40E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

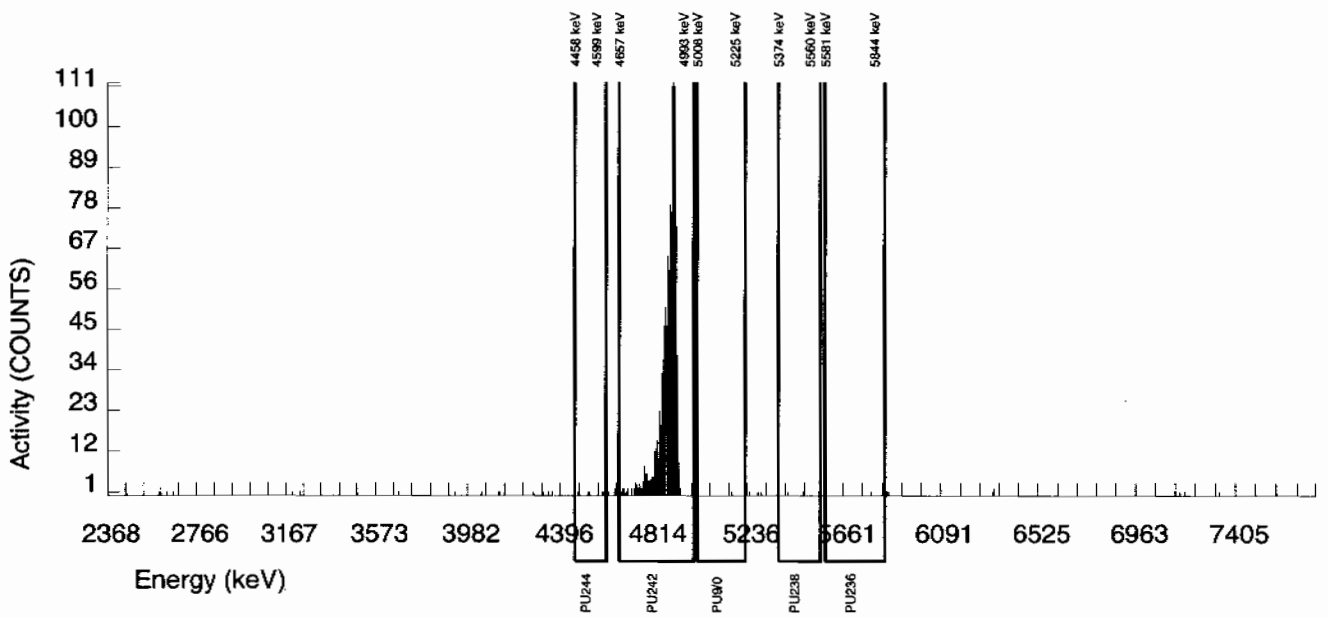

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408
SAMPLE ID : S1202036746_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 10-FEB-2010 00:00:00
ANALYST : AYB1
% YIELD : 80.813

CHAMBER : 046
DETECTOR S/N : 76544
AVERAGE %EFFICIENCY : 33.4175
COUNT DATE : 16-FEB-2010 14:33:23
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B046.CNF;1116
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W046.CNF;289
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.7321E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.416	0.000	0.000	-6.000	6.000	2.6925	100.0000	-1.01E-02	4.43E-03	1.04E-02	2.54E-02	4.43E-03
PU-238	5499.000	5435.316	4.894	1.000	0.000	1.000	2.9312	99.90000	-1.99E-10	2.36E-03	1.14E-02	2.73E-02	2.36E-03
PU-9/0	5155.000	5175.916	4.894	1.000	-1.000	2.000	2.0604	99.90000	-1.67E-03	2.89E-03	8.00E-03	2.05E-02	2.89E-03
PU242	4890.000	4883.043	29.323	916.000	913.000	3.000	1.7321	100.0000	1.52E+00	9.38E-02	6.72E-03	1.80E-02	5.06E-02
PU-244	4589.000	4540.249	0.000	7.000	7.000	0.000	3.7241	99.90000	1.17E-02	4.46E-03	1.45E-02	3.35E-02	4.42E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

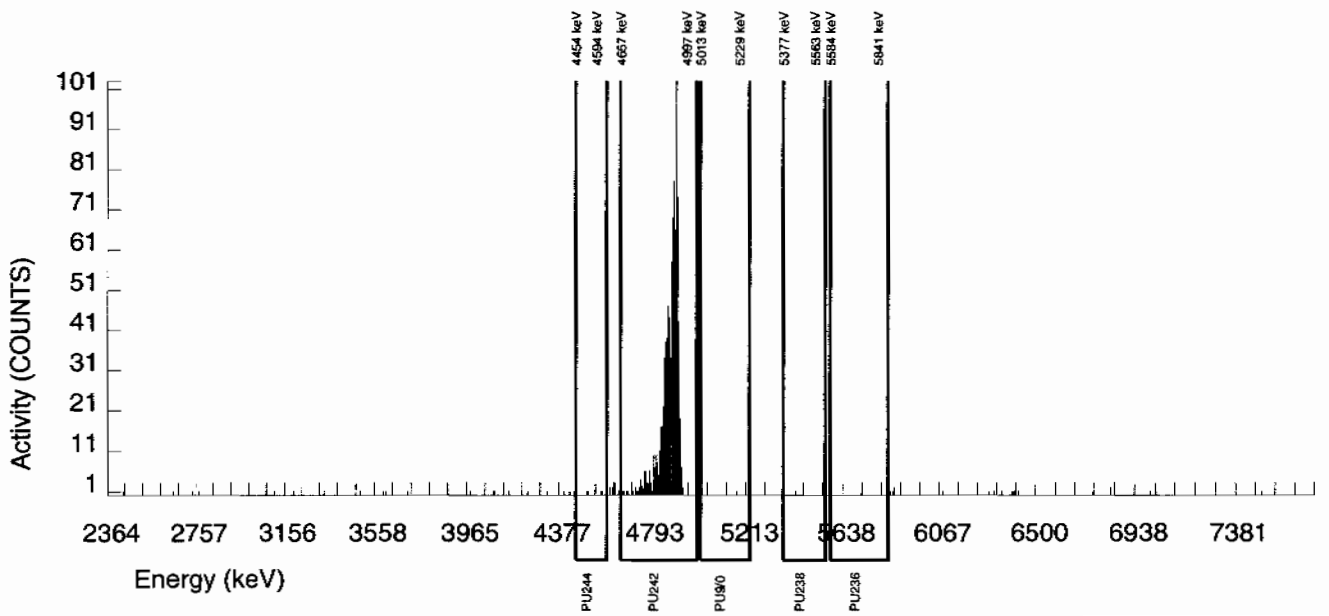

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 047	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202036747_PU	DETECTOR S/N : 46-089B1	BKG FILE : B047.CNF;1111
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 34.3991	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:23	BKG LIVE TIME(SEC) : 59999.99
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W047.CNF;303
% YIELD : 97.081		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2821E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5699.781	24.841	10.000	2.000	8.000	2.6925	100.0000	2.18E-03	4.64E-03	6.74E-03	1.64E-02	4.63E-03
PU-238	5499.000	5439.067	4.968	6.000	-2.000	8.000	2.9312	99.90000	-2.16E-03	4.03E-03	7.35E-03	1.76E-02	4.03E-03
PU-9/0	5155.000	5155.402	163.948	10.000	7.000	3.000	2.0604	99.90000	7.54E-03	3.90E-03	5.17E-03	1.33E-02	3.89E-03
PU242	4890.000	4877.226	48.476	1136.000	1129.000	7.000	2.6458	100.0000	1.22E+00	7.06E-02	6.63E-03	1.62E-02	3.64E-02
PU-244	4589.000	4533.708	118.614	8.000	6.000	2.000	3.7241	99.90000	6.47E-03	3.42E-03	9.34E-03	2.16E-02	3.41E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

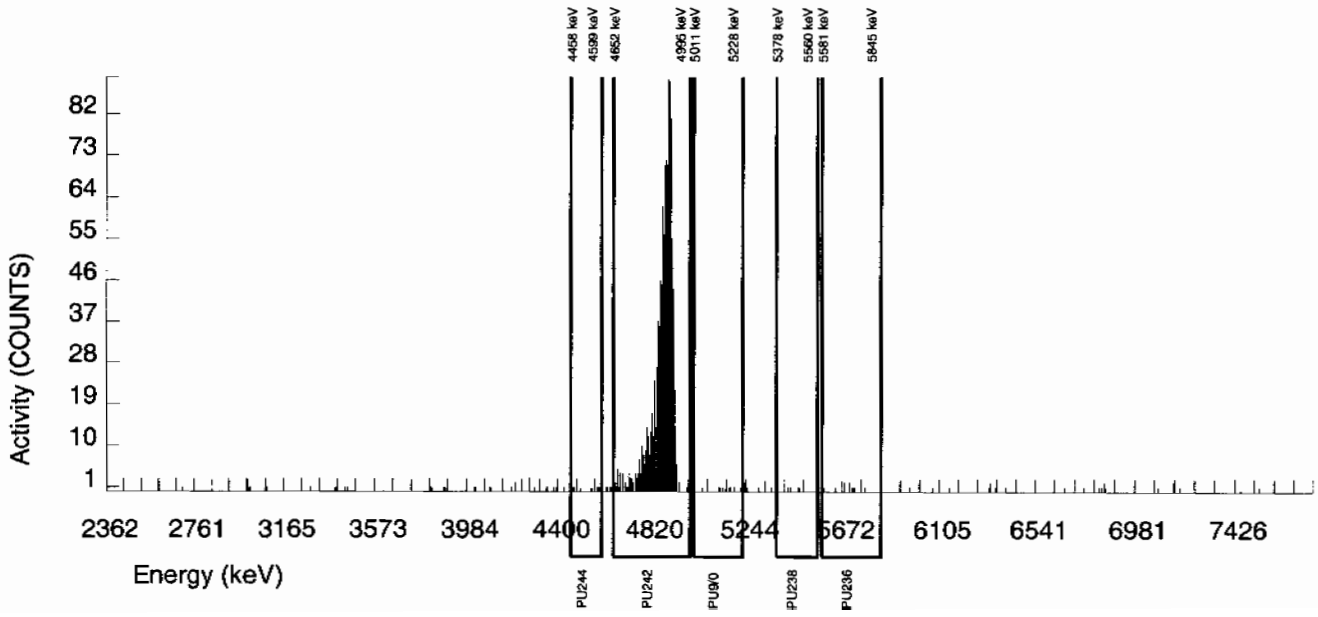

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950408	CHAMBER : 048	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202036748_PU	DETECTOR S/N : 42483	BKG FILE : B048.CNF;1112
SAMPLE QTY : 0.101 G	AVERAGE %EFFICIENCY : 32.0990	BKG DATE : 14-FEB-2010
SAMPLE DATE : 10-FEB-2010 00:00:00	COUNT DATE : 16-FEB-2010 14:33:23	BKG LIVE TIME(SEC) : 59999.99
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W048.CNF;316
% YIELD : 102.102		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.4518E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5732.146	88.810	7.000	-4.000	11.000	2.6925	100.0000	-5.47E-02	5.80E-02	8.52E-02	2.07E-01	5.80E-02
PU-238	5499.000	5493.757	47.993	606.000	592.000	14.000	2.9312	99.90000	8.07E+00	5.86E-01	9.29E-02	2.23E-01	3.39E-01
PU-9/0	5155.000	5148.432	47.778	3181.000	3170.000	11.000	2.0604	99.90000	4.32E+01	2.67E+00	6.53E-02	1.68E-01	7.70E-01
PU242	4890.000	4885.161	49.738	1115.000	1108.000	7.000	2.6458	100.0000	1.51E+01	1.00E+00	8.38E-02	2.04E-01	4.56E-01
PU-244	4589.000	4554.176	64.140	10.000	10.000	0.000	3.7241	99.90000	1.36E-01	4.38E-02	1.18E-01	2.73E-01	4.31E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

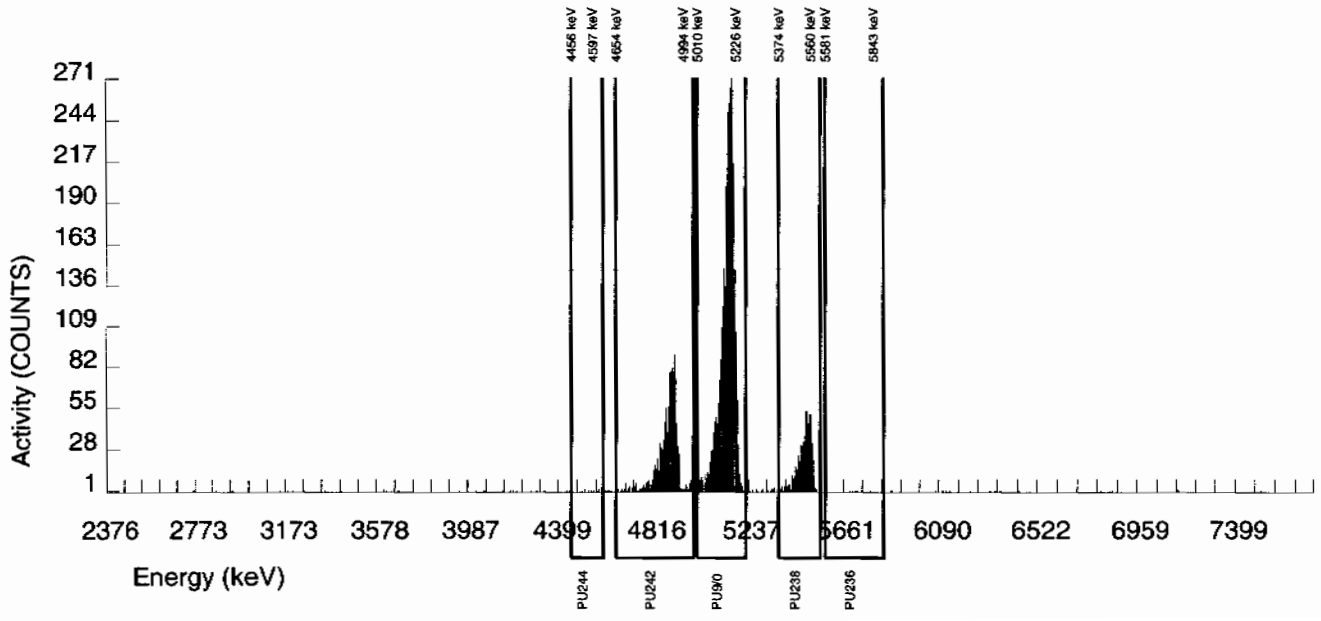

Radiochemistry Batch Checklist, Rev10

Batch# 952409 Product: U Date: 2/19/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly stamped.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) needed reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If RER/P, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/23/2010

Primary Review Performed By: Denise Green 2/19/10

Secondary Review Performed By: JdM 2/19/10

2/26
LANL

Uranium Que Sheet

08-FEB-10

Batch #: 950409 Analyst: AYB1 First Client Due Date:26-FEB-10 Internal Due Date:15-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 2/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: — Expiration Date: — Vol: —

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 2/11/10 Initials: AYB Pipet ID: 29710058 Balance ID: 50410272 Witness: JEH 2-11-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
245808001-1	RE15-10-7954	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	1	1	0.509	115
~~245808002-1~~	~~RE15-10-7956~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~26-JAN-10~~	~~2~~	~~2~~	~~0.505~~	~~116~~ 119
245808003-1	RE15-10-7955	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	3	3	0.506	117
~~245808004-1~~	~~RE15-10-7953~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~26-JAN-10~~	~~4~~	~~4~~	~~0.508~~	~~118~~
245808005-1	RE15-10-7952	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	5	5	0.513	120
~~245808006-1~~	~~RE15-10-8060~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~26-JAN-10~~	~~6~~	~~6~~	~~0.511~~	~~121~~
245808007-1	RE15-10-8058	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	7	7	0.505	122
245808008-1	RE15-10-8059	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	8	8	0.500	123
1202036749-1	MB for batch 950409	MB		.1 pCi/g	SOIL	QC ACCOUNT		9	9	1	11 ~~124~~
1202036750-1	RE15-10-7954(245808001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	26-JAN-10	10	10	0.503	125
1202036751-1	LCS for batch 950409	LCS		.1 pCi/g	SOIL	QC ACCOUNT		11	11	0.103	126

SRM 0244-A exp: 10/3/20

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 2/19/10

Blank Correction Report

Batch ID 950409

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202036750	DUP	Uranium-233/234	0.503 g	4.49	0.363	0.131	.017216700	pCi/g	NO
		Uranium-235/236	0.503 g	0.482	0.066	0.0837	.007514911	pCi/g	NO
		Uranium-238	0.503 g	25.1	1.87	0.0897	.057852883	pCi/g	NO
1202036751	LCS	Uranium-233/234	0.103 g	5.54	0.529	0.445	.084077670	pCi/g	NO
		Uranium-235/236	0.103 g	0.327	0.0882	0.284	.036699029	pCi/g	NO
		Uranium-238	0.103 g	5.52	0.528	0.304	.282524272	pCi/g	NO
1202036749	MB	Uranium-233/234	1.00 g	0.00866	0.00369	0.0386	.00866	pCi/g	YES
		Uranium-235/236	1.00 g	0.00378	0.00269	0.0246	.00378	pCi/g	YES
		Uranium-238	1.00 g	0.0291	0.00761	0.0264	.0291	pCi/g	YES
245808001	RE15-10-7954	Uranium-233/234	0.509 g	5.10	0.405	0.126	.017013752	pCi/g	NO
		Uranium-235/236	0.509 g	0.499	0.0669	0.0803	.007426326	pCi/g	NO
		Uranium-238	0.509 g	27.9	2.07	0.086	.057170923	pCi/g	NO
245808003	RE15-10-7955	Uranium-233/234	0.506 g	7.34	0.599	0.166	.017114625	pCi/g	NO
		Uranium-235/236	0.506 g	0.822	0.104	0.106	.007470356	pCi/g	NO
		Uranium-238	0.506 g	31.6	2.45	0.113	.057509881	pCi/g	NO
245808005	RE15-10-7952	Uranium-233/234	0.513 g	0.634	0.067	0.097	.016881092	pCi/g	NO
		Uranium-235/236	0.513 g	0.038	0.0153	0.0618	.007368421	pCi/g	NO
		Uranium-238	0.513 g	0.872	0.0848	0.0662	.056725146	pCi/g	NO
245808007	RE15-10-8058	Uranium-233/234	0.505 g	5.37	0.425	0.126	.017148515	pCi/g	NO
		Uranium-235/236	0.505 g	0.526	0.0693	0.0805	.007485149	pCi/g	NO
		Uranium-238	0.505 g	24.3	1.80	0.0862	.057623762	pCi/g	NO
245808008	RE15-10-8059	Uranium-233/234	0.500 g	0.638	0.0801	0.162	.01732	pCi/g	NO
		Uranium-235/236	0.500 g	0.0238	0.0139	0.103	.00756	pCi/g	YES
		Uranium-238	0.500 g	0.957	0.107	0.111	.0582	pCi/g	NO

2/19/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950409
SAMPLE ID : S0245808001_UU
SAMPLE QTY : 0.509 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : AYB1
% YIELD : 68.349

CHAMBER : 115
DETECTOR S/N : 79995
AVERAGE %EFFICIENCY : 25.9560
COUNT DATE : 15-FEB-2010 21:11:40
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B115.CNF;454
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W115.CNF;147
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 3.0801E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5292.514	60.674	801.000	799.000	2.000	1.4142	100.0000	3.99E+00	3.23E-01	1.64E-02	4.63E-02	1.41E-01
U-3/4	4763.020	4750.914	53.738	1026.000	1022.191	3.000	4.8416	100.0000	5.10E+00	4.05E-01	5.62E-02	1.26E-01	1.60E-01
U-235	4391.000	4402.635	107.883	82.000	81.000	1.000	2.2152	80.90000	4.99E-01	6.69E-02	3.18E-02	8.03E-02	5.62E-02
U-238	4184.730	4181.881	54.481	5601.000	5600.000	1.000	3.1208	100.0000	2.79E+01	2.07E+00	3.62E-02	8.60E-02	3.73E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

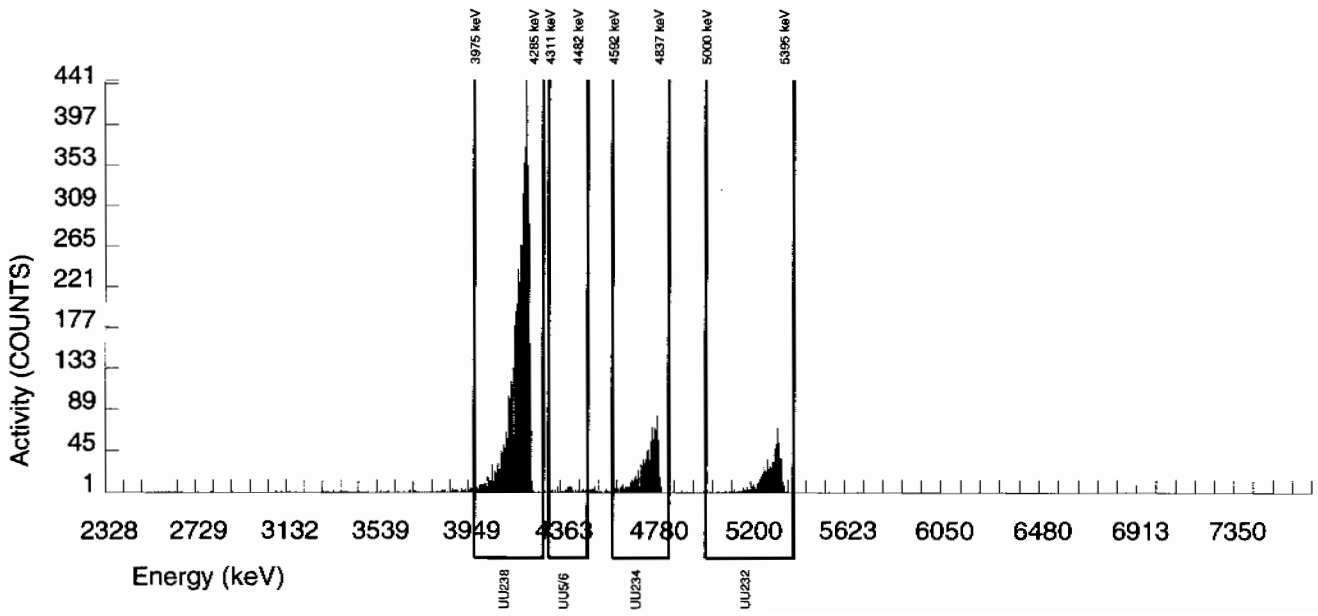

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950409	CHAMBER : 117	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245808003_UU	DETECTOR S/N : 33450	BKG FILE : B117.CNF;452
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 25.0873	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 21:11:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W117.CNF;119
% YIELD : 53.900		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.4289E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5279.695	76.438	622.000	609.000	13.000	3.6056	100.0000	4.01E+00	3.47E-01	5.52E-02	1.28E-01	1.66E-01
U-3/4	4763.020	4743.678	74.147	1117.000	1114.384	2.000	4.8416	100.0000	7.34E+00	5.99E-01	7.42E-02	1.66E-01	2.20E-01
U-235	4391.000	4399.772	68.675	103.000	101.000	2.000	2.2152	80.90000	8.22E-01	1.04E-01	4.19E-02	1.06E-01	8.34E-02
U-238	4184.730	4171.574	77.818	4808.000	4807.000	1.000	3.1208	100.0000	3.16E+01	2.45E+00	4.78E-02	1.13E-01	4.57E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

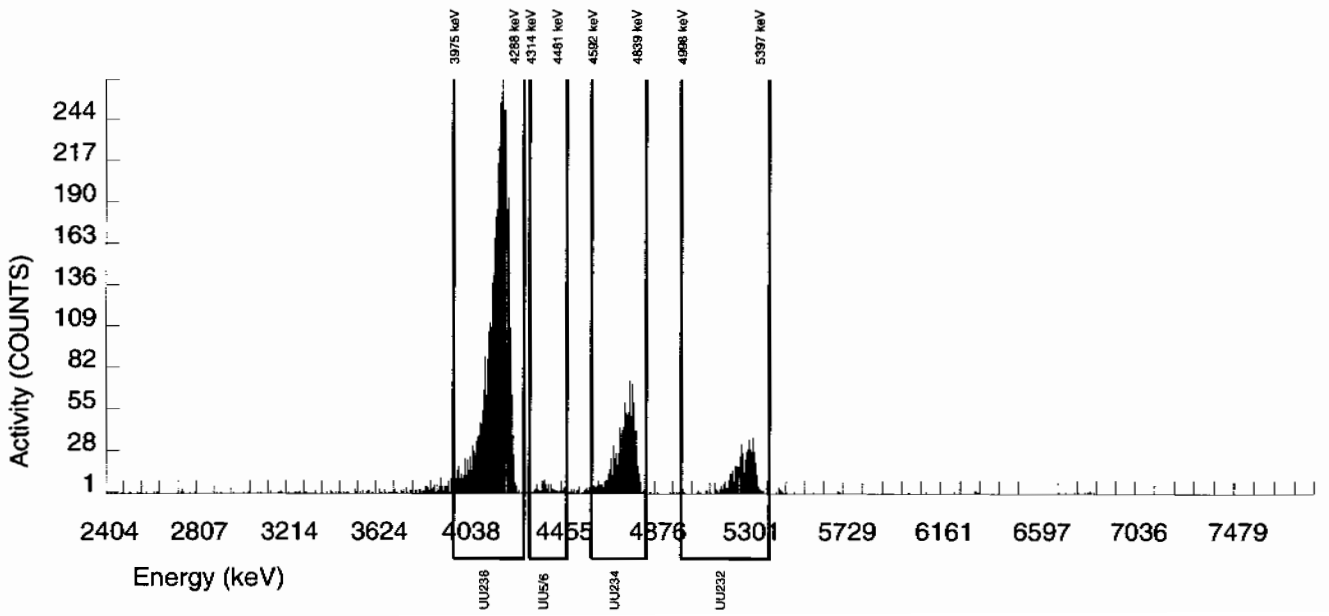

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950409	CHAMBER : 120	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245808005_UU	DETECTOR S/N : 74430	BKG FILE : B120.CNF;464
SAMPLE QTY : 0.513 G	AVERAGE %EFFICIENCY : 25.9820	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 21:11:49	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W120.CNF;126
% YIELD : 87.936		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9628E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5306.706	40.225	1031.000	1029.000	2.000	1.4142	100.0000	3.96E+00	3.07E-01	1.26E-02	3.57E-02	1.24E-01
U-3/4	4763.020	4754.479	55.906	167.000	164.959	1.000	4.8416	100.0000	6.34E-01	6.70E-02	4.33E-02	9.70E-02	4.97E-02
U-235	4391.000	4392.245	4.933	9.000	8.000	1.000	2.2152	80.90000	3.80E-02	1.53E-02	2.45E-02	6.18E-02	1.50E-02
U-238	4184.730	4189.013	38.054	227.000	227.000	0.000	3.1208	100.0000	8.72E-01	8.48E-02	2.79E-02	6.62E-02	5.79E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

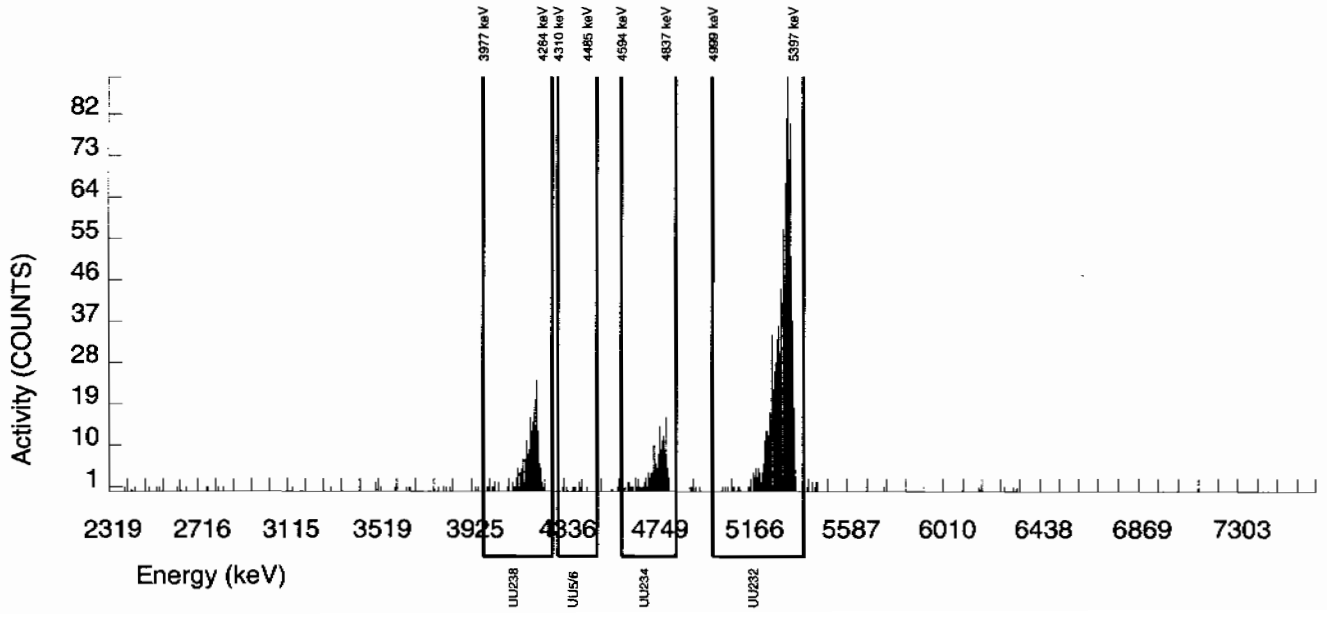

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950409	CHAMBER : 122	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245808007_UU	DETECTOR S/N : 75546	BKG FILE : B122.CNF;448
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 24.9662	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 21:11:54	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W122.CNF;120
% YIELD : 71.414		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.2182E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.545	67.683	807.000	803.000	4.000	2.0000	100.0000	4.02E+00	3.26E-01	2.33E-02	6.01E-02	1.43E-01
U-3/4	4763.020	4756.229	57.830	1075.000	1074.187	0.000	4.8416	100.0000	5.37E+00	4.25E-01	5.63E-02	1.26E-01	1.64E-01
U-235	4391.000	4405.343	26.253	86.000	85.000	1.000	2.2152	80.90000	5.26E-01	6.93E-02	3.19E-02	8.05E-02	5.77E-02
U-238	4184.730	4180.827	54.373	4853.000	4853.000	0.000	3.1208	100.0000	2.43E+01	1.80E+00	3.63E-02	8.62E-02	3.49E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

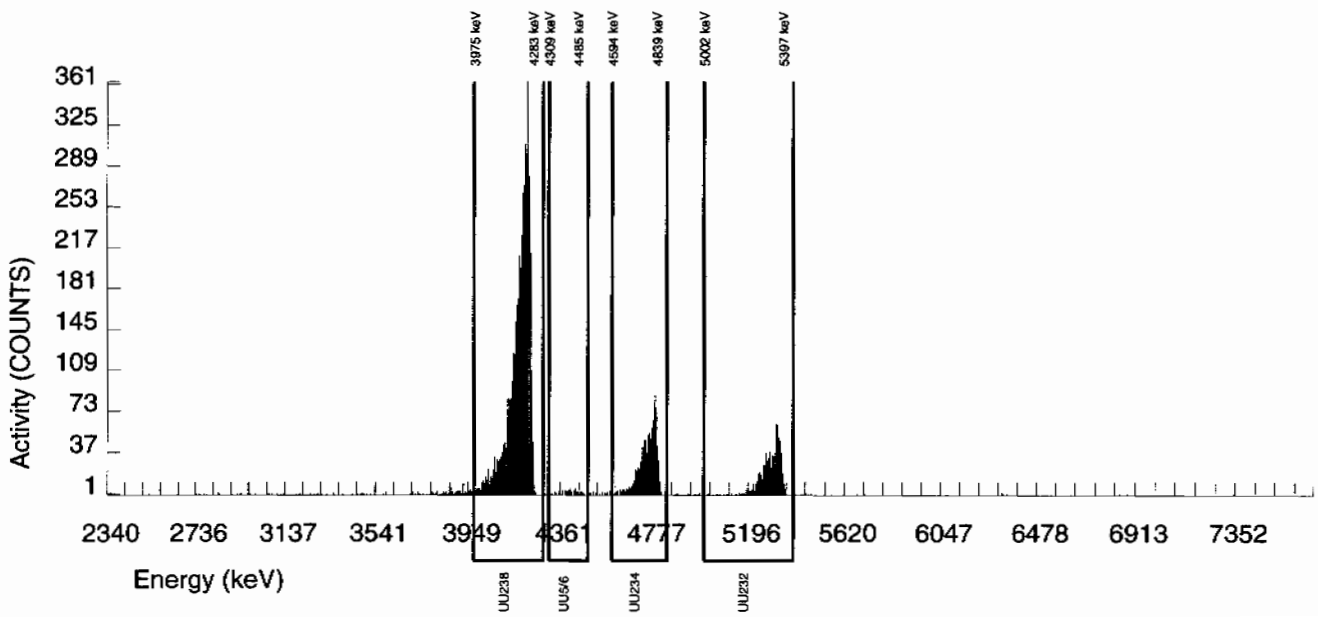

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950409	CHAMBER : 123	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245808008_UU	DETECTOR S/N : 45-142V3	BKG FILE : B123.CNF;446
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 25.9975	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 21:11:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W123.CNF;116
% YIELD : 53.977		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.4324E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.925	55.905	644.000	632.000	12.000	3.4641	100.0000	4.06E+00	3.48E-01	5.17E-02	1.21E-01	1.65E-01
U-3/4	4763.020	4763.550	85.379	100.000	99.360	0.000	4.8416	100.0000	6.38E-01	8.01E-02	7.23E-02	1.62E-01	6.40E-02
U-235	4391.000	4428.842	54.663	3.000	3.000	0.000	2.2152	80.90000	2.38E-02	1.39E-02	4.09E-02	1.03E-01	1.37E-02
U-238	4184.730	4187.244	70.192	149.000	149.000	0.000	3.1208	100.0000	9.57E-01	1.07E-01	4.66E-02	1.11E-01	7.84E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

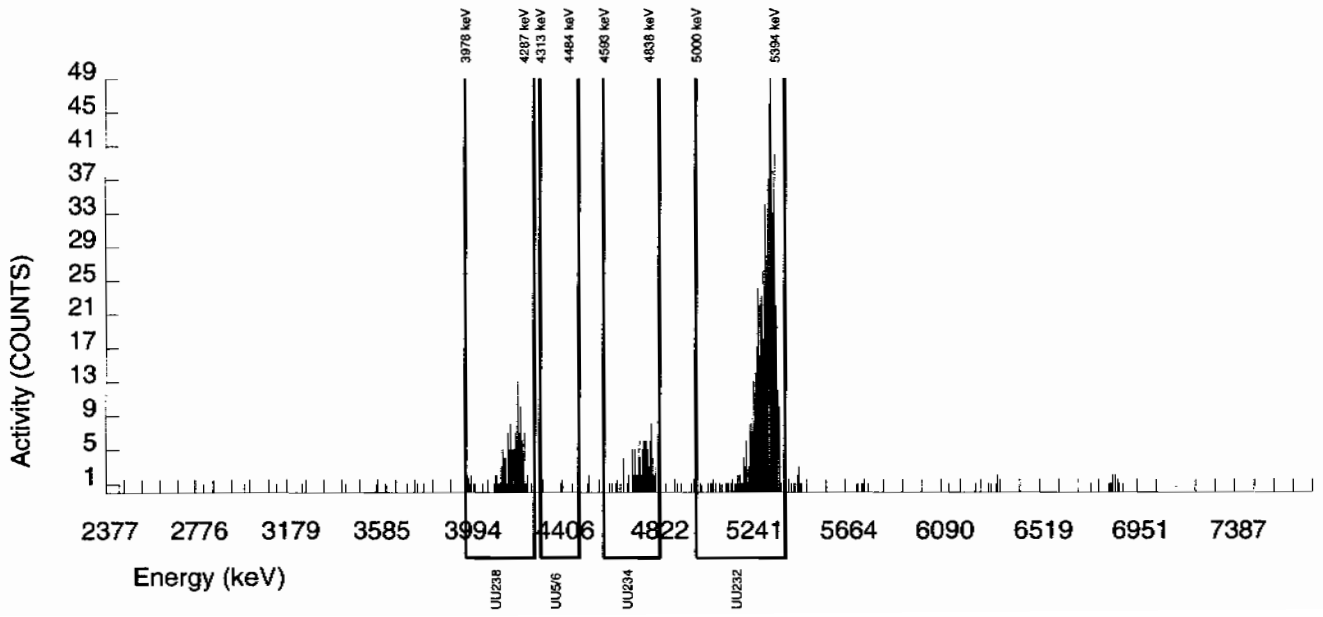

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950409	CHAMBER : 011	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202036749_UU	DETECTOR S/N : 72531	BKG FILE : B011.CNF;1116
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 29.6489	BKG DATE : 14-FEB-2010
SAMPLE DATE : 11-FEB-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:01	BKG LIVE TIME(SEC) : 59999.99
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W011.CNF;313
% YIELD : 99.234		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5044E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4700E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.625	65.145	1331.000	1325.000	6.000	2.4495	100.0000	2.03E+00	1.51E-01	8.72E-03	2.16E-02	5.60E-02
U-3/4	4763.020	4735.147	219.798	7.000	5.659	0.000	4.8416	100.0000	8.66E-03	3.69E-03	1.72E-02	3.86E-02	3.64E-03
U-235	4391.000	4387.263	124.885	2.000	2.000	0.000	2.2152	80.90000	3.78E-03	2.69E-03	9.75E-03	2.46E-02	2.68E-03
U-238	4184.730	4173.710	44.959	21.000	19.000	2.000	3.1208	100.0000	2.91E-02	7.61E-03	1.11E-02	2.64E-02	7.34E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

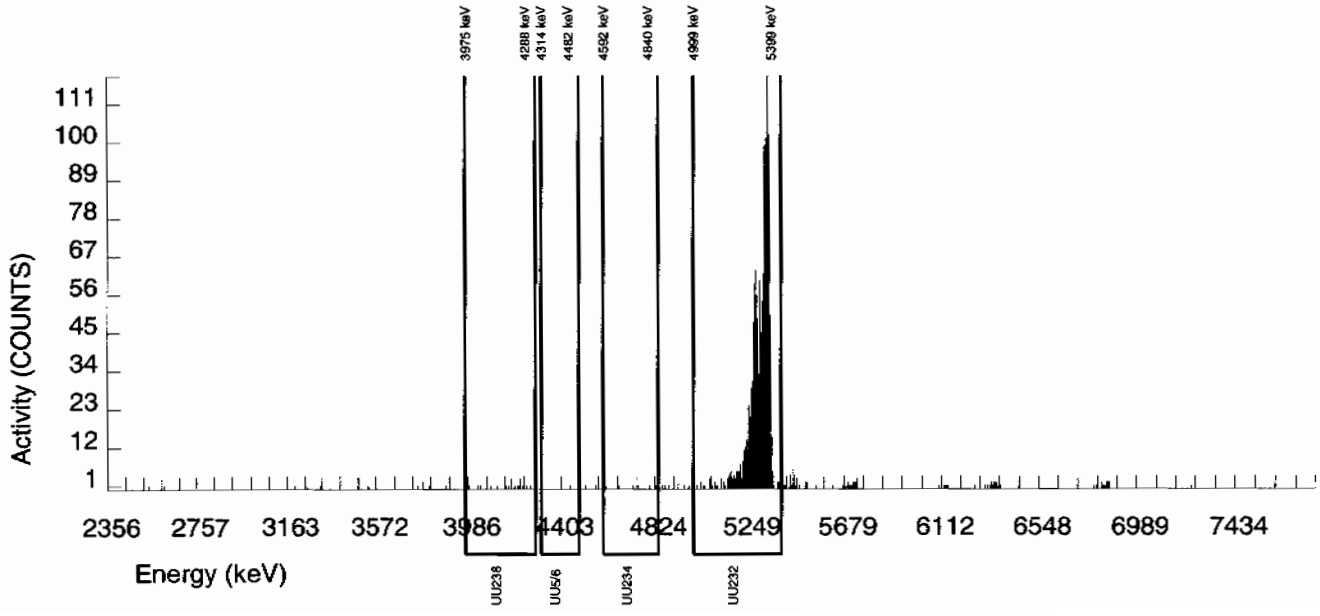

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950409	CHAMBER : 125	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202036750_UU	DETECTOR S/N : 75547	BKG FILE : B125.CNF;452
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 25.8749	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 21:12:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W125.CNF;130
% YIELD : 66.504		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.9969E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.306	64.335	776.000	775.000	1.000	1.0000	100.0000	4.04E+00	3.29E-01	1.21E-02	3.83E-02	1.45E-01
U-3/4	4763.020	4757.623	67.503	864.000	863.216	0.000	4.8416	100.0000	4.49E+00	3.63E-01	5.86E-02	1.31E-01	1.53E-01
U-235	4391.000	4409.703	145.006	75.000	75.000	0.000	2.2152	80.90000	4.82E-01	6.60E-02	3.32E-02	8.37E-02	5.57E-02
U-238	4184.730	4183.470	60.322	4817.000	4817.000	0.000	3.1208	100.0000	2.51E+01	1.87E+00	3.78E-02	8.97E-02	3.61E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

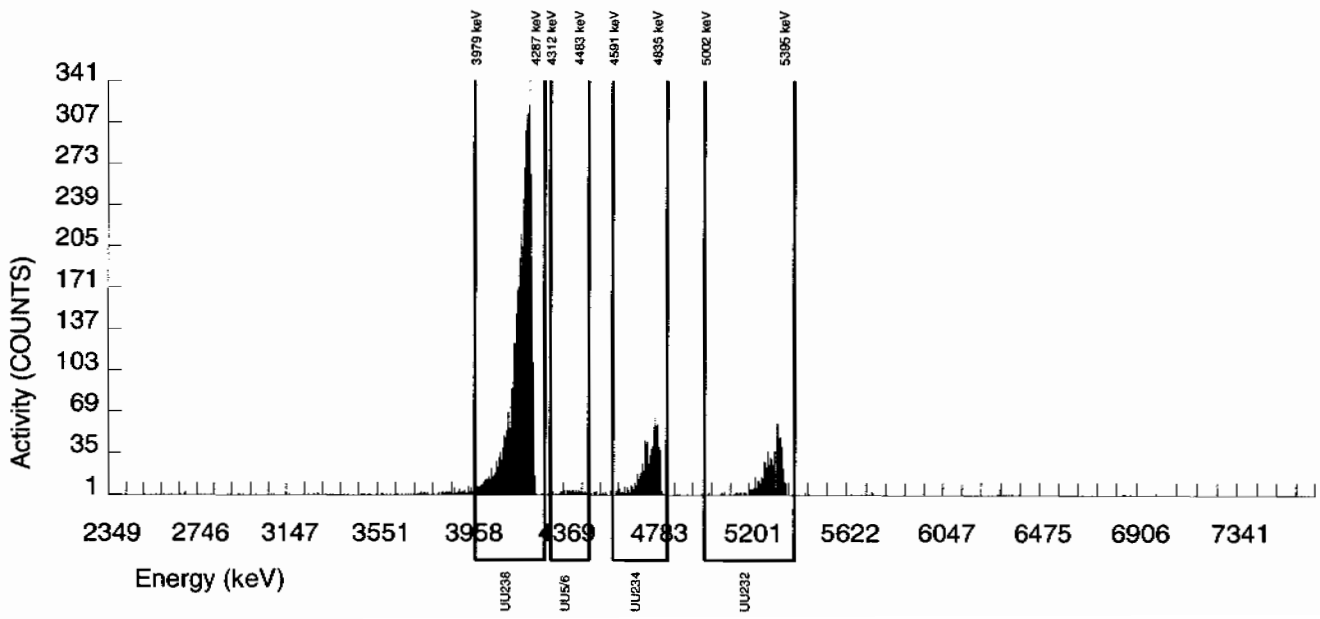

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950409
SAMPLE ID : S1202036751_UU
SAMPLE QTY : 0.103 G
SAMPLE DATE : 11-FEB-2010 00:00:00
ANALYST : AYB1
% YIELD : 98.833

CHAMBER : 126
DETECTOR S/N : 75548
AVERAGE %EFFICIENCY : 25.0717
COUNT DATE : 15-FEB-2010 21:12:05
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B126.CNF;451
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W126.CNF;132
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5044E+00 dpm
RESULTS : 4.4519E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5322.349	33.664	1118.000	1116.000	2.000	1.4142	100.0000	1.97E+01	1.62E+00	5.81E-02	1.64E-01	5.91E-01
U-3/4	4763.020	4774.793	59.361	316.000	313.871	1.000	4.8416	100.0000	5.54E+00	5.29E-01	1.99E-01	4.45E-01	3.14E-01
U-235	4391.000	4392.277	48.980	15.000	15.000	0.000	2.2152	80.90000	3.27E-01	8.82E-02	1.12E-01	2.84E-01	8.45E-02
U-238	4184.730	4197.652	31.132	315.000	313.000	2.000	3.1208	100.0000	5.52E+00	5.28E-01	1.28E-01	3.04E-01	3.14E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

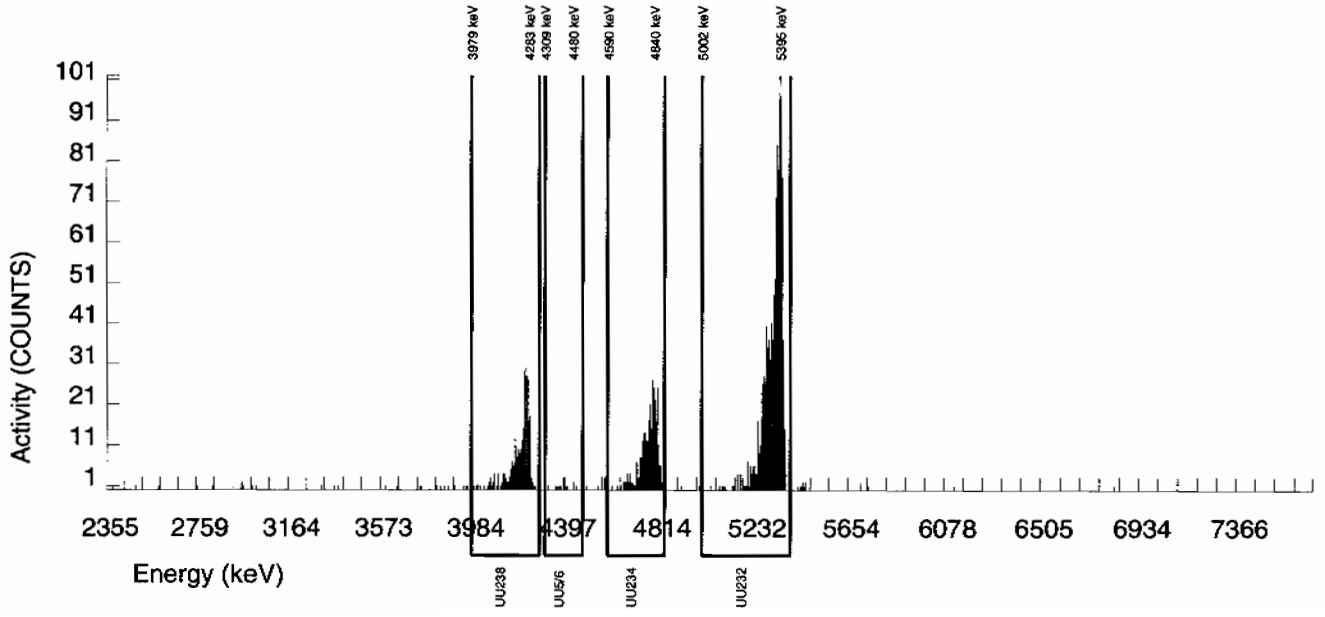

Radiochemistry Batch Checklist, Rev10

Batch# 954558 Product: Am Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/21/10

Secondary Review Performed By: [signature] 2/22/10

LANL

2/20 - 2/26

Am/Cm Que Sheet

17-FEB-10

Batch #: 954558 Analyst: AYB1 First Client Due Date: 26-FEB-10 Internal Due Date20-FEB-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-SS Expiration Date: 05/11/10 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): — / — Expiration Date: — / — Vol(s): — / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 2/18/10 Initials: MTB Pipet ID: 20710058 Balance ID: 50410272 Witness: JEH 2-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245808001-2	RE15-10-7954	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	1	1	1.251	228
245808002-2	RE15-10-7956	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	2	2	1.261	229
245808003-2	RE15-10-7955	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	3	3	1.257	230
245808004-2	RE15-10-7953	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	4	4	1.267	235
245808005-2	RE15-10-7952	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	5	5	1.262	236
245808006-2	RE15-10-8060	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	6	6	1.258	239
245808007-2	RE15-10-8058	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	7	7	1.252	240
245808008-2	RE15-10-8059	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	8	8	1.263	241
1202046259-1	MB for batch 954558	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		9	9	1	238
1202046260-2	RE15-10-7956(245808002DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	26-JAN-10	10	10	1.251	244
1202046261-1	LCS for batch 954558	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		11	11	0.103	198

SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011 ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/21/10

2/22/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 954558

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202046260	DUP	Americium-241	1.25 g	0.0019	0.00154	0.0198	-.004024	pCi/g	NO
1202046261	LCS	Americium-241	0.103 g	32.1	2.40	0.320	-.04883495	pCi/g	NO
1202046259	MB	Americium-241	1.00 g	-0.00503	0.00307	0.0219	-.00503	pCi/g	NO
245808001	RE15-10-7954	Americium-241	1.25 g	-0.000204	0.00229	0.0258	-.004024	pCi/g	NO
245808002	RE15-10-7956	Americium-241	1.26 g	0.00181	0.00148	0.0192	-.00399206	pCi/g	NO
245808003	RE15-10-7955	Americium-241	1.26 g	0.00884	0.00346	0.017	-.00399206	pCi/g	NO
245808004	RE15-10-7953	Americium-241	1.27 g	0.00966	0.00338	0.0183	-.00396063	pCi/g	NO
245808005	RE15-10-7952	Americium-241	1.26 g	0.000181	0.000996	0.0158	-.00399206	pCi/g	NO
245808006	RE15-10-8060	Americium-241	1.26 g	0.0153	0.00442	0.0171	-.00399206	pCi/g	NO
245808007	RE15-10-8058	Americium-241	1.25 g	0.0222	0.00527	0.0159	-.004024	pCi/g	NO
245808008	RE15-10-8059	Americium-241	1.26 g	0.00729	0.00291	0.0181	-.00399206	pCi/g	NO

SDM 2/22/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558	CHAMBER : 228	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245808001_AM	DETECTOR S/N : 79421	BKG FILE : B228.CNF;80
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 37.1363	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W228.CNF;28
% YIELD : 59.868		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.7461E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5527.172	4.969	2.000	-0.126	1.000	2.8409	99.94000	-2.04E-04	2.29E-03	1.07E-02	2.58E-02	2.29E-03
AM243	5270.000	5288.820	53.001	647.000	647.000	0.000	0.0000	99.78000	1.05E+00	7.79E-02	0.00E+00	4.40E-03	4.13E-02
CM-242	6102.000	6049.707	69.572	4.000	4.000	0.000	4.3413	100.0000	7.23E-03	3.65E-03	1.64E-02	3.71E-02	3.62E-03
CM-3/4	5795.020	5743.901	94.419	3.000	3.000	0.000	5.1799	100.0000	4.87E-03	2.83E-03	1.95E-02	4.34E-02	2.81E-03
CM-5/6	5386.000	5383.040	14.287	7.000	7.000	0.000	14.2480	86.09000	1.32E-02	5.05E-03	6.24E-02	1.30E-01	4.98E-03
CM-247	4946.000	4895.222	173.930	5.000	5.000	0.000	13.7917	79.30000	1.02E-02	4.61E-03	6.55E-02	1.37E-01	4.57E-03
CM-248	5078.600	5079.843	7.454	8.000	8.000	0.000	19.5080	91.00000	1.42E-02	5.11E-03	8.08E-02	1.66E-01	5.03E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

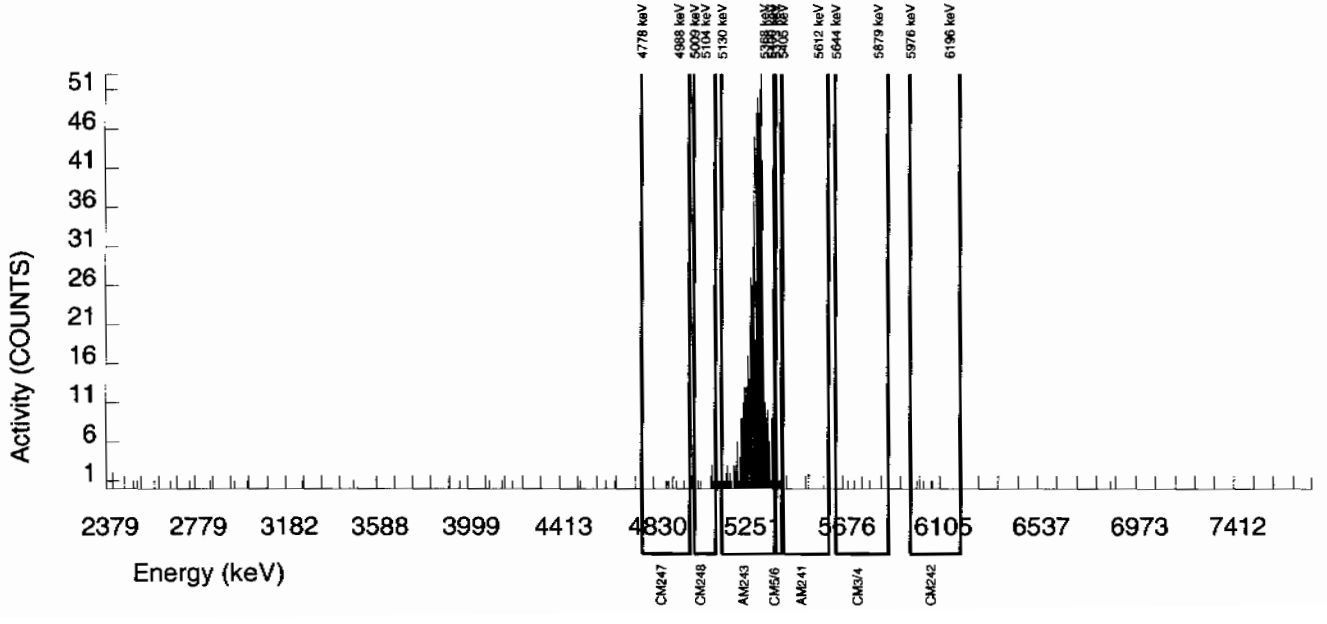

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558	CHAMBER : 229	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245808002_AM	DETECTOR S/N : 79422	BKG FILE : B229.CNF;80
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 37.2509	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W229.CNF;28
% YIELD : 79.609		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3218E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5484.119	0.000	3.000	1.498	0.000	2.8409	99.94000	1.81E-03	1.48E-03	7.97E-03	1.92E-02	1.48E-03
AM243	5270.000	5284.972	39.245	864.000	863.000	1.000	1.0000	99.78000	1.04E+00	7.17E-02	2.81E-03	8.89E-03	3.55E-02
CM-242	6102.000	6065.885	59.364	3.000	2.000	1.000	4.3413	100.0000	2.69E-03	2.69E-03	1.22E-02	2.76E-02	2.69E-03
CM-3/4	5795.020	5763.319	0.000	0.000	-2.000	2.000	5.1799	100.0000	-2.42E-03	2.09E-03	1.45E-02	3.23E-02	2.09E-03
CM-5/6	5386.000	5374.248	0.000	14.000	14.000	0.000	14.2480	86.09000	1.96E-02	5.36E-03	4.64E-02	9.65E-02	5.24E-03
CM-247	4946.000	4904.643	168.197	7.000	6.000	1.000	13.7917	79.30000	9.11E-03	4.33E-03	4.87E-02	1.02E-01	4.30E-03
CM-248	5078.600	5065.521	0.000	12.000	12.000	0.000	19.5080	91.00000	1.59E-02	4.68E-03	6.01E-02	1.24E-01	4.59E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

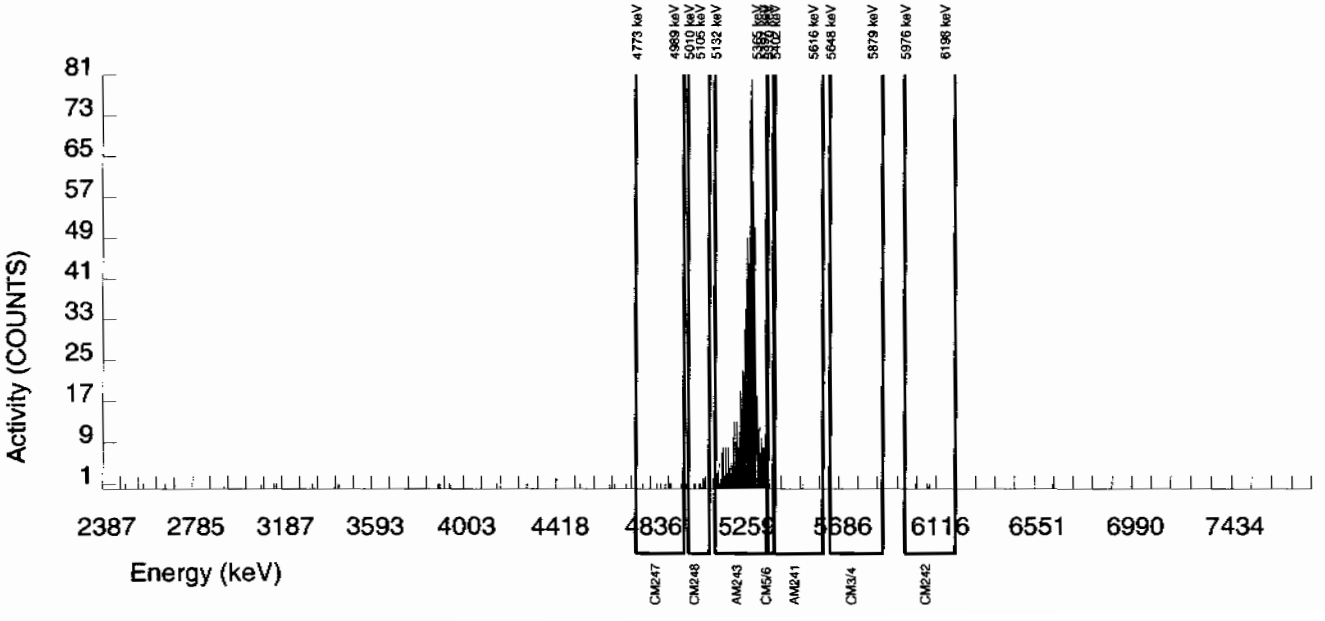

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558
SAMPLE ID : S0245808003_AM
SAMPLE QTY : 1.257 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : AYB1
% YIELD : 89.680

CHAMBER : 230
DETECTOR S/N : 79423
AVERAGE %EFFICIENCY : 37.5123
COUNT DATE : 20-FEB-2010 13:37:17
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B230.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W230.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.6156E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5530.452	98.783	11.000	8.296	1.000	2.8409	99.94000	8.84E-03	3.46E-03	7.04E-03	1.70E-02	3.42E-03
AM243	5270.000	5281.953	37.108	979.000	979.000	0.000	0.0000	99.78000	1.05E+00	6.98E-02	0.00E+00	2.89E-03	3.34E-02
CM-242	6102.000	6054.385	4.939	1.000	1.000	0.000	4.3413	100.0000	1.19E-03	1.19E-03	1.08E-02	2.44E-02	1.19E-03
CM-3/4	5795.020	5756.418	118.539	3.000	2.000	1.000	5.1799	100.0000	2.14E-03	2.14E-03	1.28E-02	2.86E-02	2.14E-03
CM-5/6	5386.000	5379.230	0.000	12.000	12.000	0.000	14.2480	86.09000	1.48E-02	4.37E-03	4.10E-02	8.54E-02	4.29E-03
CM-247	4946.000	4870.247	123.479	7.000	7.000	0.000	13.7917	79.30000	9.40E-03	3.60E-03	4.31E-02	8.98E-02	3.55E-03
CM-248	5078.600	5058.074	61.585	10.000	10.000	0.000	19.5080	91.00000	1.17E-02	3.76E-03	5.31E-02	1.09E-01	3.70E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

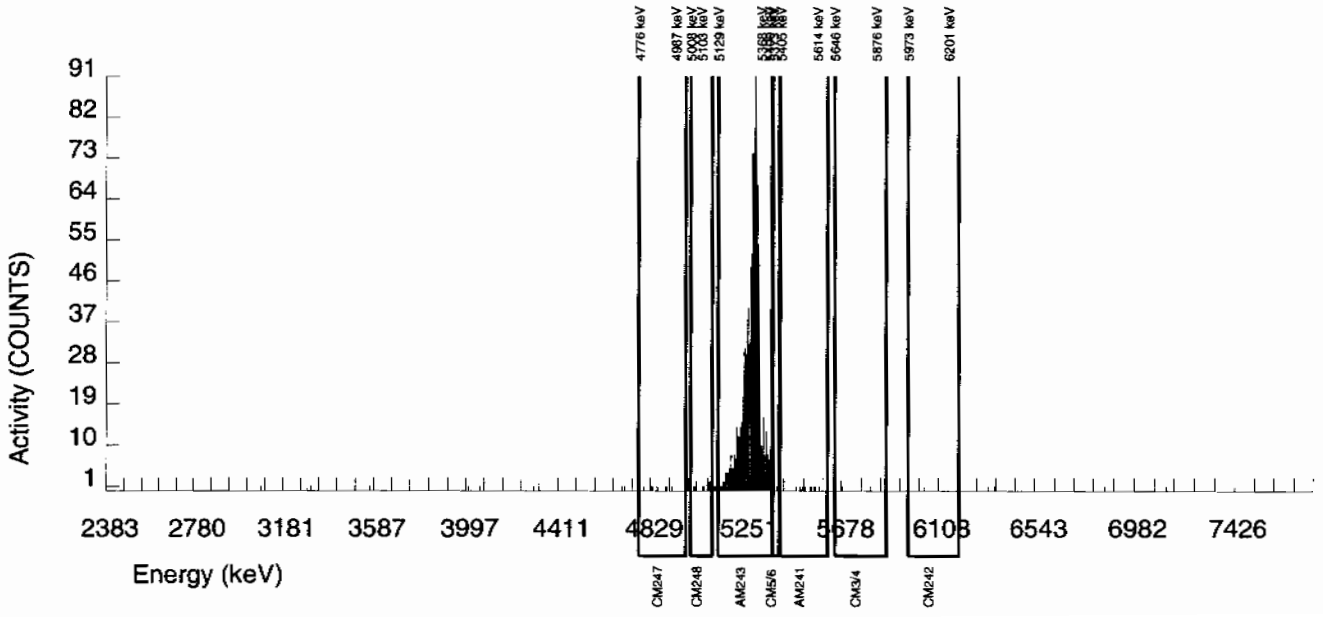

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558	CHAMBER : 235	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245808004_AM	DETECTOR S/N : 79428	BKG FILE : B235.CNF;80
SAMPLE QTY : 1.267 G	AVERAGE %EFFICIENCY : 37.6823	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W235.CNF;28
% YIELD : 82.345		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4016E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5495.771	10.866	10.000	8.429	0.000	2.8409	99.94000	9.66E-03	3.38E-03	7.58E-03	1.83E-02	3.33E-03
AM243	5270.000	5278.494	36.271	904.000	903.000	1.000	1.0000	99.78000	1.04E+00	7.21E-02	2.67E-03	8.45E-03	3.45E-02
CM-242	6102.000	6075.772	4.897	1.000	1.000	0.000	4.3413	100.0000	1.28E-03	1.28E-03	1.16E-02	2.62E-02	1.28E-03
CM-3/4	5795.020	5762.360	146.309	3.000	3.000	0.000	5.1799	100.0000	3.45E-03	2.00E-03	1.38E-02	3.07E-02	1.99E-03
CM-5/6	5386.000	5373.549	0.000	5.000	5.000	0.000	14.2480	86.09000	6.65E-03	3.00E-03	4.41E-02	9.18E-02	2.98E-03
CM-247	4946.000	4903.610	0.000	6.000	5.000	1.000	13.7917	79.30000	7.22E-03	3.85E-03	4.64E-02	9.66E-02	3.82E-03
CM-248	5078.600	5071.535	0.000	14.000	14.000	0.000	19.5080	91.00000	1.76E-02	4.83E-03	5.71E-02	1.18E-01	4.71E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

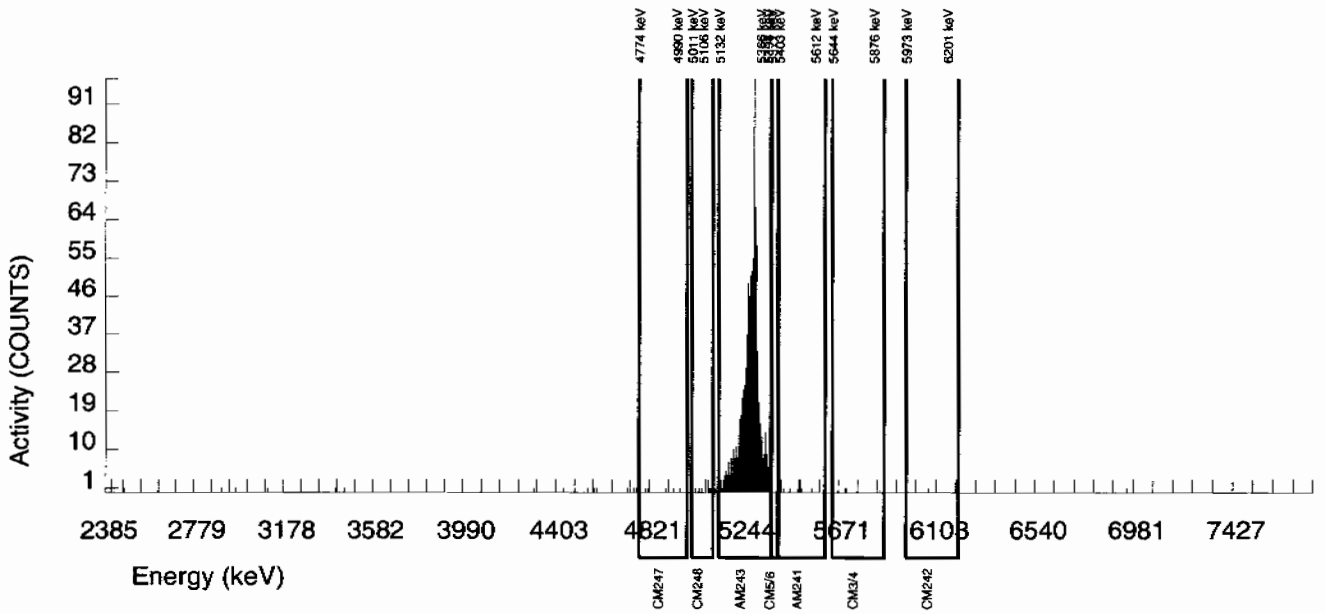

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558	CHAMBER : 236	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245808005_AM	DETECTOR S/N : 79429	BKG FILE : B236.CNF;80
SAMPLE QTY : 1.262 G	AVERAGE %EFFICIENCY : 38.6953	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W236.CNF;28
% YIELD : 92.799		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7066E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5521.112	73.504	2.000	0.182	0.000	2.8409	99.94000	1.81E-04	9.96E-04	6.57E-03	1.58E-02	9.95E-04
AM243	5270.000	5277.359	39.949	1047.000	1045.000	2.000	1.4142	99.78000	1.04E+00	6.86E-02	3.28E-03	9.25E-03	3.23E-02
CM-242	6102.000	6038.848	78.405	4.000	4.000	0.000	4.3413	100.0000	4.44E-03	2.23E-03	1.00E-02	2.28E-02	2.22E-03
CM-3/4	5795.020	5756.959	137.208	5.000	5.000	0.000	5.1799	100.0000	4.98E-03	2.25E-03	1.20E-02	2.66E-02	2.23E-03
CM-5/6	5386.000	5378.411	9.596	8.000	8.000	0.000	14.2480	86.09000	9.24E-03	3.31E-03	3.83E-02	7.97E-02	3.27E-03
CM-247	4946.000	4888.510	0.000	6.000	5.000	1.000	13.7917	79.30000	6.27E-03	3.34E-03	4.02E-02	8.38E-02	3.32E-03
CM-248	5078.600	5062.124	0.000	18.000	18.000	0.000	19.5080	91.00000	1.97E-02	4.77E-03	4.96E-02	1.02E-01	4.63E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

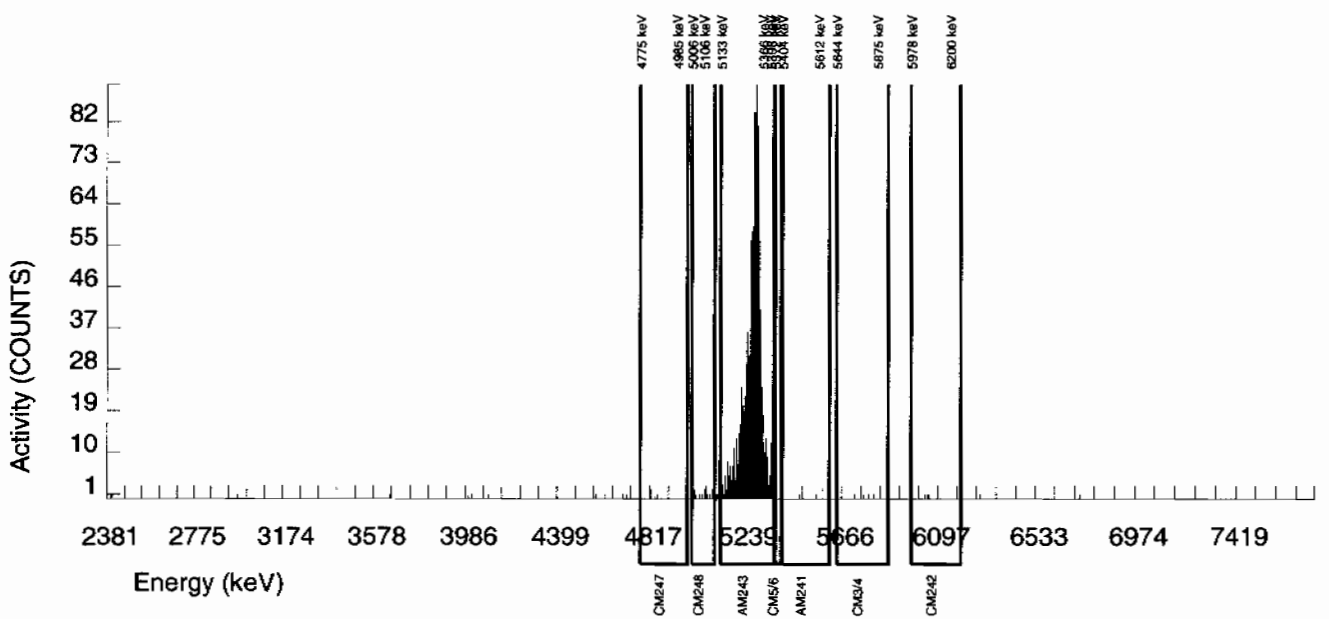

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558
SAMPLE ID : S0245808006_AM
SAMPLE QTY : 1.258 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : AYB1
% YIELD : 88.498

CHAMBER : 239
DETECTOR S/N : 79432
AVERAGE %EFFICIENCY : 37.8194
COUNT DATE : 20-FEB-2010 13:37:41
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B239.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W239.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5811E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5502.639	68.648	17.000	14.305	1.000	2.8409	99.94000	1.53E-02	4.42E-03	7.07E-03	1.71E-02	4.32E-03
AM243	5270.000	5282.690	32.747	976.000	974.000	2.000	1.4142	99.78000	1.04E+00	7.14E-02	3.53E-03	9.96E-03	3.35E-02
CM-242	6102.000	6084.432	0.000	0.000	0.000	0.000	4.3413	100.0000	0.00E+00	1.20E-03	1.08E-02	2.45E-02	1.19E-03
CM-3/4	5795.020	5778.928	53.986	2.000	2.000	0.000	5.1799	100.0000	2.15E-03	1.52E-03	1.29E-02	2.87E-02	1.52E-03
CM-5/6	5386.000	5376.265	0.000	15.000	15.000	0.000	14.2480	86.09000	1.86E-02	4.94E-03	4.12E-02	8.57E-02	4.81E-03
CM-247	4946.000	4928.128	9.202	9.000	7.000	2.000	13.7917	79.30000	9.44E-03	4.51E-03	4.33E-02	9.02E-02	4.47E-03
CM-248	5078.600	5073.218	52.291	21.000	21.000	0.000	19.5080	91.00000	2.47E-02	5.59E-03	5.34E-02	1.10E-01	5.39E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

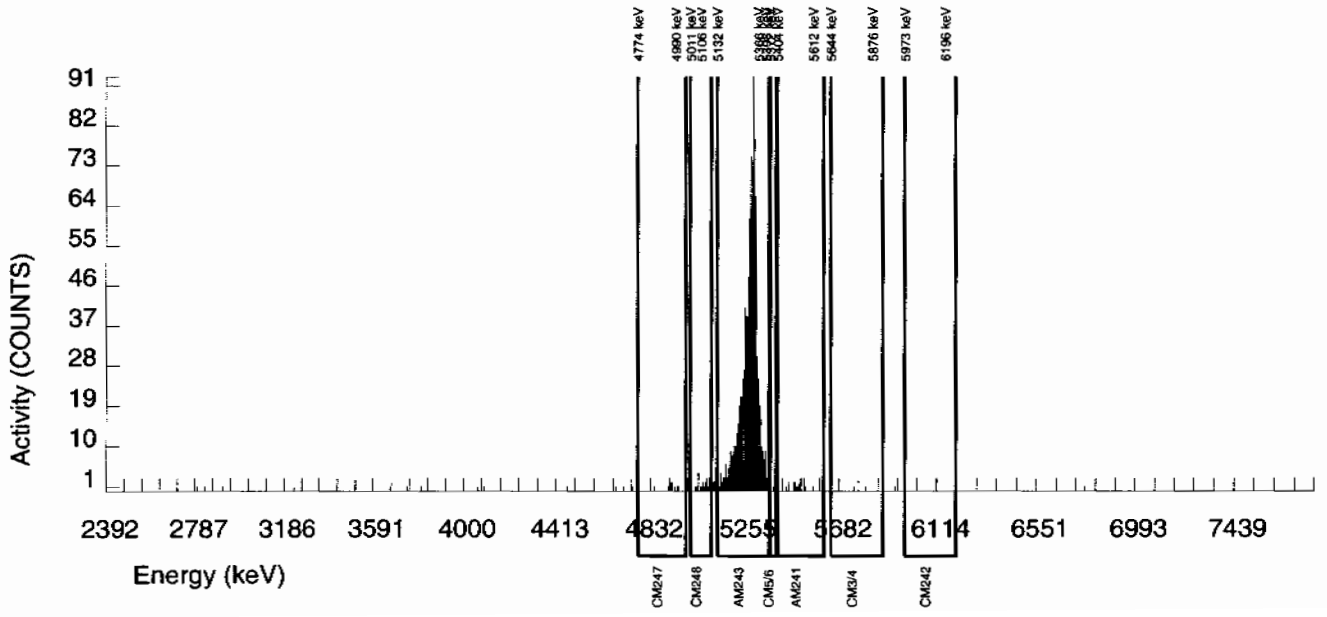

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558
SAMPLE ID : S0245808007_AM
SAMPLE QTY : 1.252 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : AYB1
% YIELD : 97.749

CHAMBER : 240
DETECTOR S/N : 79433
AVERAGE %EFFICIENCY : 36.8412
COUNT DATE : 20-FEB-2010 13:37:44
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B240.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W240.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.8509E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.350	58.905	26.000	22.176	2.000	2.8409	99.94000	2.22E-02	5.27E-03	6.61E-03	1.59E-02	5.12E-03
AM243	5270.000	5283.698	41.348	1048.000	1048.000	0.000	0.0000	99.78000	1.05E+00	6.90E-02	0.00E+00	2.71E-03	3.24E-02
CM-242	6102.000	6006.272	49.139	5.000	5.000	0.000	4.3413	100.0000	5.58E-03	2.52E-03	1.01E-02	2.29E-02	2.49E-03
CM-3/4	5795.020	5782.109	4.914	1.000	1.000	0.000	5.1799	100.0000	1.00E-03	1.00E-03	1.20E-02	2.68E-02	1.00E-03
CM-5/6	5386.000	5376.102	0.000	13.000	13.000	0.000	14.2480	86.09000	1.51E-02	4.27E-03	3.85E-02	8.01E-02	4.18E-03
CM-247	4946.000	4863.694	146.802	6.000	6.000	0.000	13.7917	79.30000	7.56E-03	3.12E-03	4.04E-02	8.43E-02	3.09E-03
CM-248	5078.600	5079.933	30.620	14.000	14.000	0.000	19.5080	91.00000	1.54E-02	4.20E-03	4.98E-02	1.03E-01	4.11E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

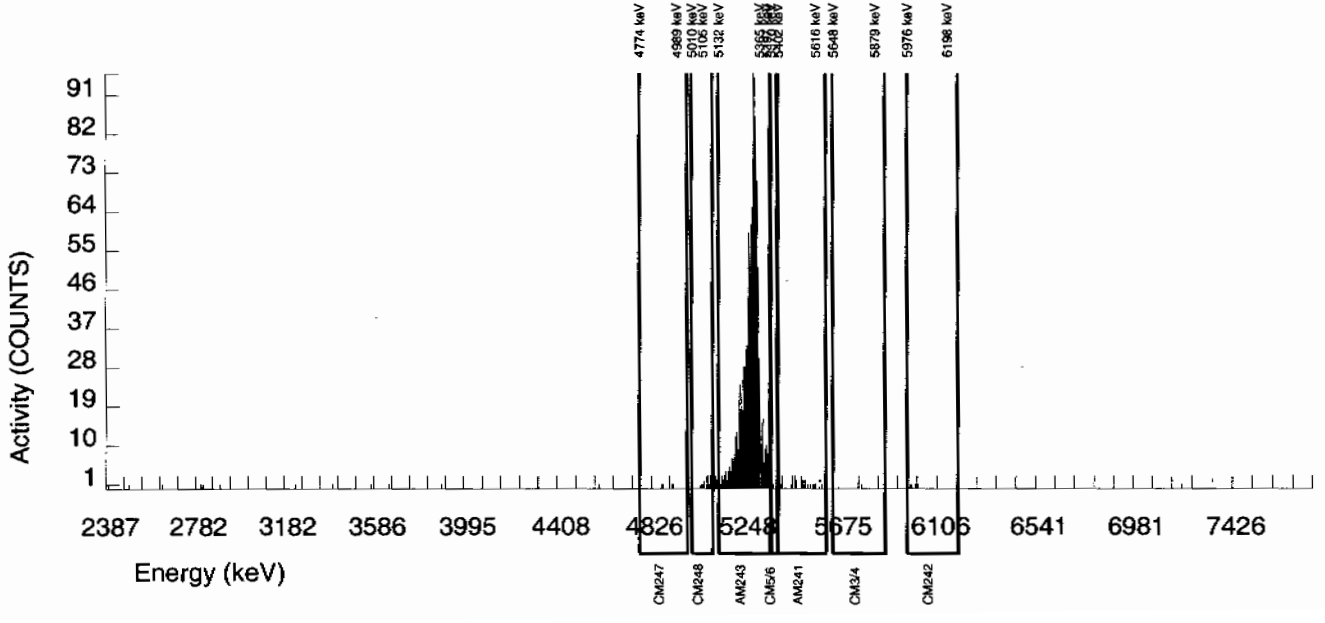

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558	CHAMBER : 241	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245808008_AM	DETECTOR S/N : 79434	BKG FILE : B241.CNF;80
SAMPLE QTY : 1.263 G	AVERAGE %EFFICIENCY : 37.1962	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 14:58:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W241.CNF;28
% YIELD : 84.345		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4600E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5494.292	122.980	8.000	6.411	0.000	2.8409	99.94000	7.29E-03	2.91E-03	7.52E-03	1.81E-02	2.88E-03
AM243	5270.000	5285.417	34.964	913.000	913.000	0.000	0.0000	99.78000	1.04E+00	7.21E-02	0.00E+00	3.09E-03	3.44E-02
CM-242	6102.000	6087.860	4.919	2.000	2.000	0.000	4.3413	100.0000	2.54E-03	1.80E-03	1.15E-02	2.60E-02	1.80E-03
CM-3/4	5795.020	5813.191	4.919	1.000	-1.000	2.000	5.1799	100.0000	-1.14E-03	1.98E-03	1.37E-02	3.05E-02	1.97E-03
CM-5/6	5386.000	5378.052	0.000	17.000	17.000	0.000	14.2480	86.09000	2.24E-02	5.61E-03	4.38E-02	9.11E-02	5.44E-03
CM-247	4946.000	4913.283	186.930	7.000	5.000	2.000	13.7917	79.30000	7.17E-03	4.32E-03	4.60E-02	9.59E-02	4.30E-03
CM-248	5078.600	5080.072	0.000	16.000	16.000	0.000	19.5080	91.00000	2.00E-02	5.14E-03	5.67E-02	1.17E-01	5.00E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

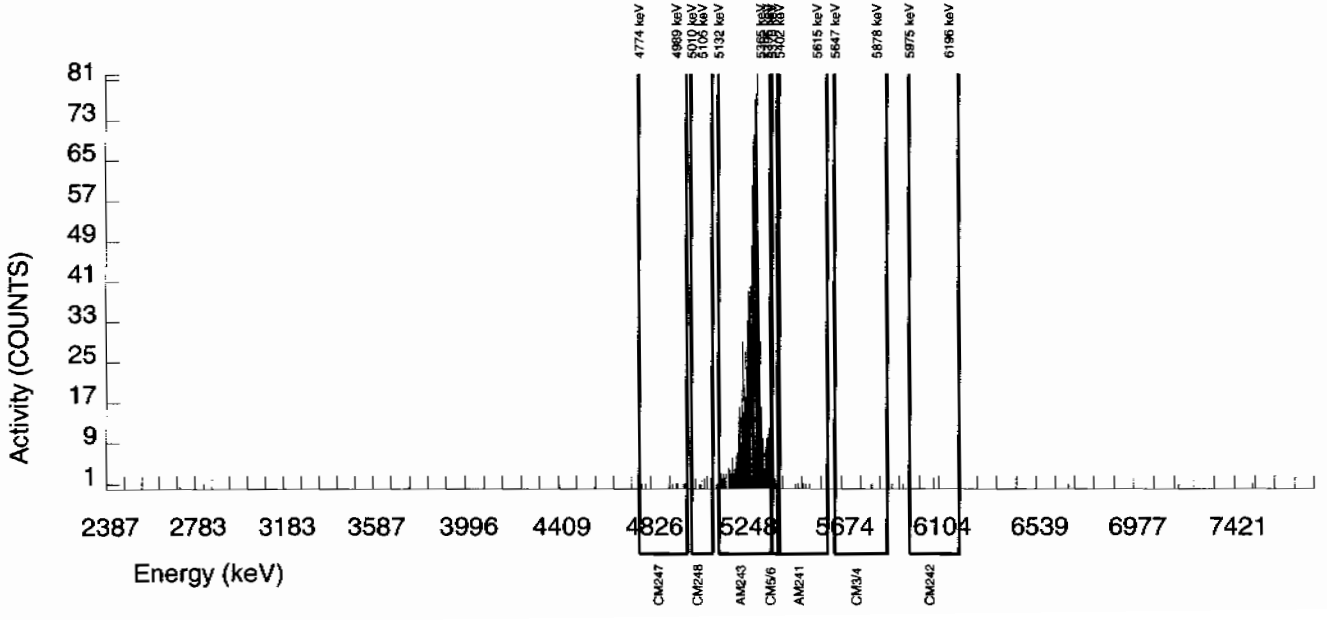

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558
SAMPLE ID : S1202046259_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 18-FEB-2010 00:00:00
ANALYST : AYB1
% YIELD : 83.400

CHAMBER : 238
DETECTOR S/N : 79431
AVERAGE %EFFICIENCY : 39.3479
COUNT DATE : 20-FEB-2010 13:37:39
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B238.CNF;82
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W238.CNF;30
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4324E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3153E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3153E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5489.111	44.223	2.000	-3.662	4.000	2.8409	99.94000	-5.03E-03	3.07E-03	9.08E-03	2.19E-02	3.07E-03
AM243	5270.000	5281.004	46.562	956.000	955.000	1.000	1.0000	99.78000	1.31E+00	8.83E-02	3.20E-03	1.01E-02	4.26E-02
CM-242	6102.000	6087.979	0.000	0.000	0.000	0.000	4.3413	100.0000	0.00E+00	1.39E-03	1.39E-02	3.14E-02	1.39E-03
CM-3/4	5795.020	5760.180	4.914	3.000	3.000	0.000	5.1799	100.0000	4.12E-03	2.39E-03	1.65E-02	3.68E-02	2.38E-03
CM-5/6	5386.000	5379.938	0.000	10.000	10.000	0.000	14.2480	86.09000	1.59E-02	5.13E-03	5.28E-02	1.10E-01	5.04E-03
CM-247	4946.000	4898.285	0.000	10.000	10.000	0.000	13.7917	79.30000	1.73E-02	5.57E-03	5.55E-02	1.16E-01	5.47E-03
CM-248	5078.600	5069.758	41.705	23.000	23.000	0.000	19.5080	91.00000	3.47E-02	7.52E-03	6.85E-02	1.41E-01	7.23E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

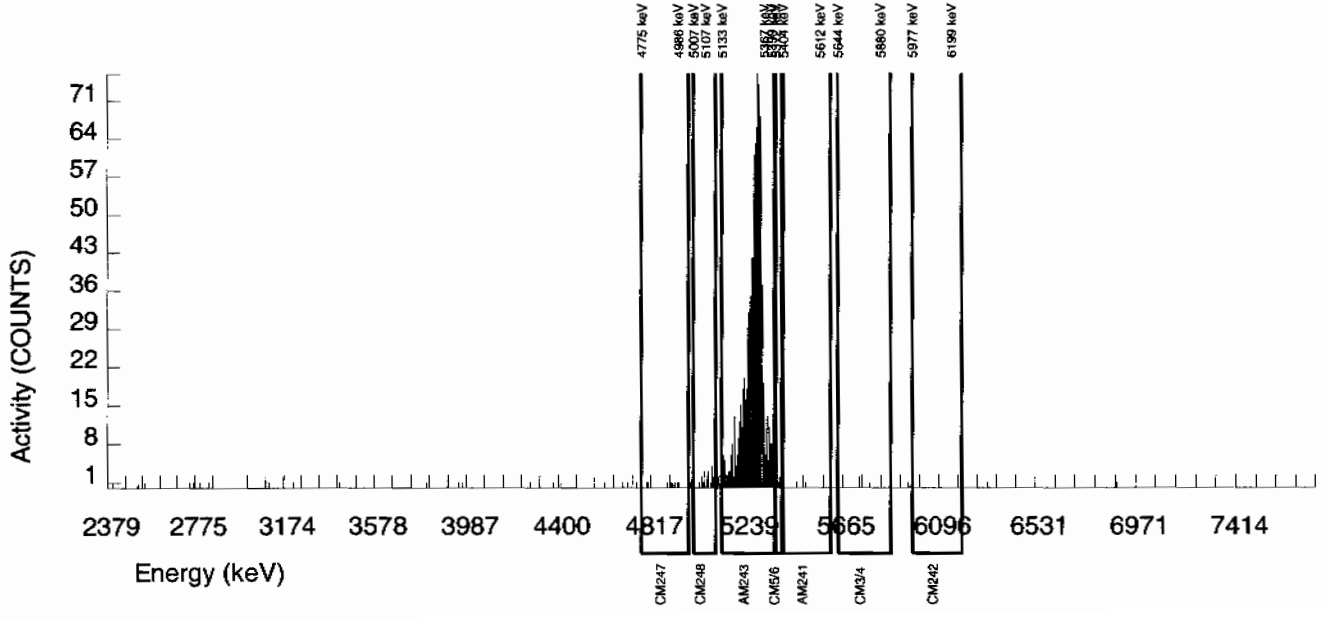

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558
SAMPLE ID : S1202046260_AM
SAMPLE QTY : 1.251 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : AYB1
% YIELD : 78.860

CHAMBER : 244
DETECTOR S/N : 79437
AVERAGE %EFFICIENCY : 36.7768
COUNT DATE : 20-FEB-2010 13:37:55
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B244.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W244.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.3000E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.263	88.598	3.000	1.531	0.000	2.8409	99.94000	1.90E-03	1.54E-03	8.21E-03	1.98E-02	1.54E-03
AM243	5270.000	5285.286	52.846	844.000	844.000	0.000	0.0000	99.78000	1.05E+00	7.27E-02	0.00E+00	3.37E-03	3.61E-02
CM-242	6102.000	6063.704	103.364	4.000	4.000	0.000	4.3413	100.0000	5.54E-03	2.79E-03	1.25E-02	2.84E-02	2.77E-03
CM-3/4	5795.020	5852.086	44.299	2.000	0.000	2.000	5.1799	100.0000	0.00E+00	2.49E-03	1.50E-02	3.33E-02	2.49E-03
CM-5/6	5386.000	5378.430	0.000	16.000	16.000	0.000	14.2480	86.09000	2.31E-02	5.93E-03	4.78E-02	9.95E-02	5.77E-03
CM-247	4946.000	4873.946	172.273	3.000	3.000	0.000	13.7917	79.30000	4.70E-03	2.73E-03	5.02E-02	1.05E-01	2.71E-03
CM-248	5078.600	5053.443	73.831	11.000	11.000	0.000	19.5080	91.00000	1.50E-02	4.61E-03	6.19E-02	1.28E-01	4.52E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

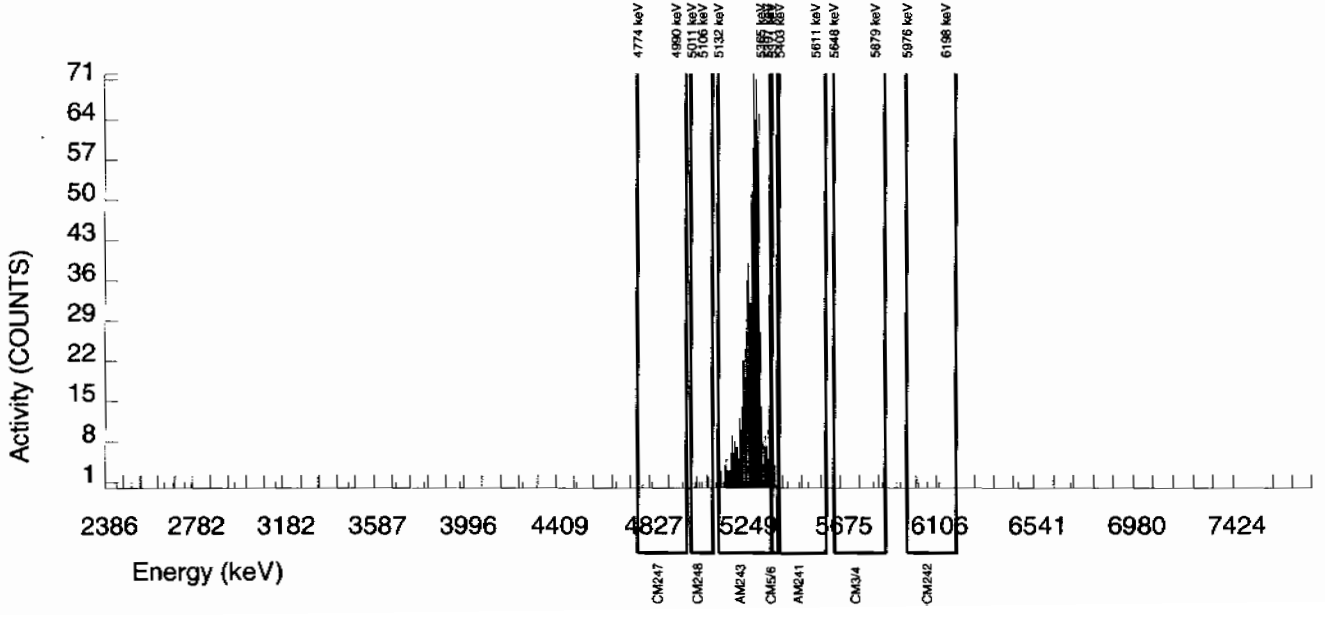

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954558	CHAMBER : 198	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202046261_AM	DETECTOR S/N : 78895	BKG FILE : B198.CNF;100
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 25.4320	BKG DATE : 14-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:39:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W198.CNF;49
% YIELD : 85.528		CAL DATE : 22-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.4945E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5498.834	34.029	1598.000	1594.899	2.000	2.8409	99.94000	3.21E+01	2.40E+00	1.33E-01	3.20E-01	8.04E-01
AM243	5270.000	5283.467	32.669	633.000	633.000	0.000	0.0000	99.78000	1.28E+01	1.03E+00	0.00E+00	5.46E-02	5.07E-01
CM-242	6102.000	6047.179	9.903	7.000	3.000	4.000	4.3413	100.0000	6.11E-02	6.77E-02	2.03E-01	4.61E-01	6.75E-02
CM-3/4	5795.020	5799.824	44.480	17.000	11.000	6.000	5.1799	100.0000	2.21E-01	9.77E-02	2.42E-01	5.39E-01	9.65E-02
CM-5/6	5386.000	5383.068	0.000	15.000	15.000	0.000	14.2480	86.09000	3.50E-01	9.38E-02	7.74E-01	1.61E+00	9.05E-02
CM-247	4946.000	4833.092	64.368	2.000	1.000	1.000	13.7917	79.30000	2.54E-02	4.40E-02	8.13E-01	1.70E+00	4.39E-02
CM-248	5078.600	5080.044	39.611	3.000	3.000	0.000	19.5080	91.00000	6.63E-02	3.86E-02	1.00E+00	2.07E+00	3.83E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

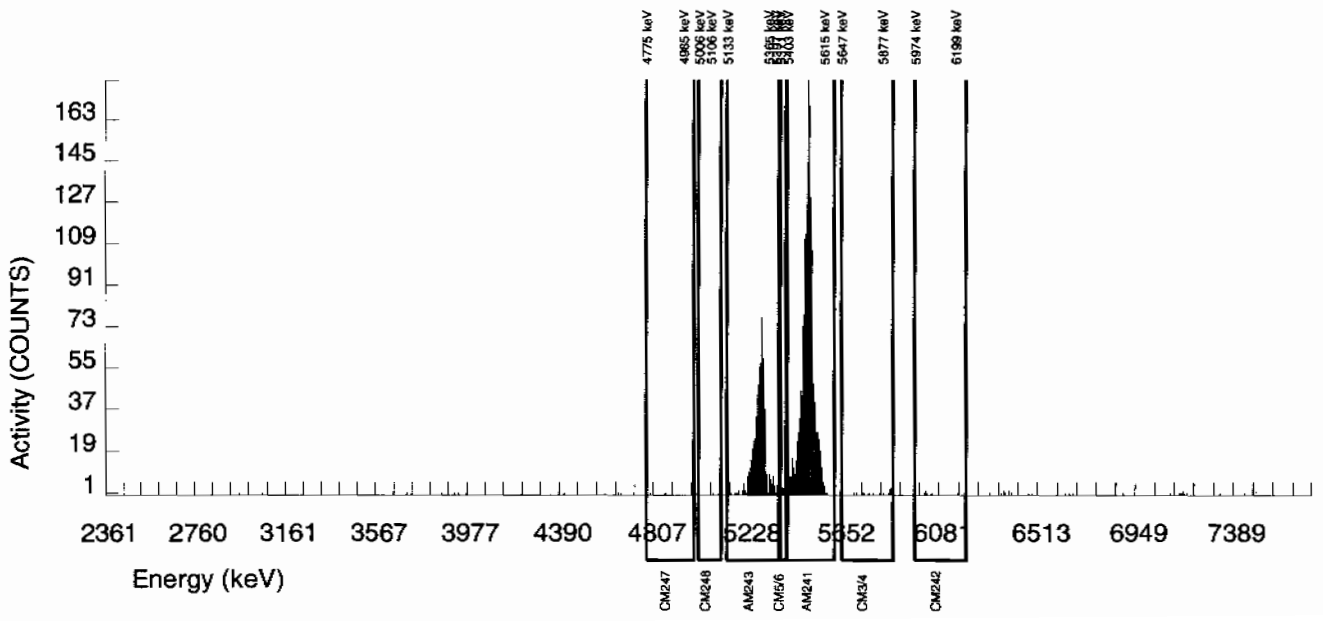

Radiochemistry Batch Checklist, Rev10

Batch# 454559 Product: U Date: 2/23/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Jodi M. 2/23/10

Secondary Review Performed By: [illegible] 2/23/10

2/20 2/26

LANL

Uranium Que Sheet

17-FEB-10

Batch #: 954559 **Analyst:** AYB1 **First Client Due Date:** 26-FEB-10 **Internal Due Date** 20-FEB-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/09/10 **Vol:** 0.1 ml

LCS Isotope: U-238 **LCS Code:** — **Expiration Date:** — **Vol:** —

Spike Isotope: U-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 2/18/10 **Initials:** AYB **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** JEH 2-18-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/ml)	U Det #
245808002-2	RE15-10-7956	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	1	1	0.106	144
245808004-2	RE15-10-7953	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	2	2	0.106	145
245808006-2	RE15-10-8060	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	3	3	0.102	146
246271002-2	RE16-10-1311	SAMPLE		.1 pCi/g	SOIL	LANL010	30-JAN-10	4	4	0.500	147
1202046263-1	MB for batch 954559	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		5	5	1	148
1202046264-2	RE16-10-1311(246271002DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	30-JAN-10	6	6	0.501	150
1202046265-1	LCS for batch 954559	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		7	7	0.108	151

SRM 0244-A Exp 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: **LEACH or DIGESTION**
Circle One

Data Reviewed By: JoLM 2/23/10

Blank Correction Report

Batch ID 954559

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202046264	DUP	Uranium-233/234	0.501 g	0.804	0.081	0.101	-.00073852	pCi/g	NO
		Uranium-235/236	0.501 g	0.0544	0.0169	0.0644	0	pCi/g	NO
		Uranium-238	0.501 g	0.832	0.0827	0.0689	.026946108	pCi/g	NO
1202046265	LCS	Uranium-233/234	0.108 g	6.49	0.596	0.425	-.00342593	pCi/g	NO
		Uranium-235/236	0.108 g	0.292	0.0811	0.271	0	pCi/g	NO
		Uranium-238	0.108 g	5.29	0.502	0.290	.125	pCi/g	NO
1202046263	MB	Uranium-233/234	1.00 g	-0.00037	0.00327	0.0425	-.00037	pCi/g	NO
		Uranium-235/236	1.00 g	0.00	0.00209	0.0271	0	pCi/g	NO
		Uranium-238	1.00 g	0.0135	0.00541	0.029	.0135	pCi/g	YES
245808002	RE15-10-7956	Uranium-233/234	0.106 g	7.74	0.695	0.429	-.00349057	pCi/g	NO
		Uranium-235/236	0.106 g	0.736	0.137	0.274	0	pCi/g	NO
		Uranium-238	0.106 g	35.0	2.78	0.293	.127358491	pCi/g	NO
245808004	RE15-10-7953	Uranium-233/234	0.106 g	43.4	3.66	0.658	-.00349057	pCi/g	NO
		Uranium-235/236	0.106 g	6.57	0.703	0.419	0	pCi/g	NO
		Uranium-238	0.106 g	291	23.7	0.449	.127358491	pCi/g	NO
245808006	RE15-10-8060	Uranium-233/234	0.102 g	34.6	2.86	0.566	-.00362745	pCi/g	NO
		Uranium-235/236	0.102 g	4.69	0.516	0.361	0	pCi/g	NO
		Uranium-238	0.102 g	234	18.5	0.387	.132352941	pCi/g	NO
246271002	RE16-10-1311	Uranium-233/234	0.500 g	0.993	0.0932	0.0908	-.00074	pCi/g	NO
		Uranium-235/236	0.500 g	0.0712	0.0185	0.0579	0	pCi/g	NO
		Uranium-238	0.500 g	0.868	0.0837	0.062	.027	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954559
SAMPLE ID : S0245808002_UU
SAMPLE QTY : 0.106 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : AYB1
% YIELD : 99.383

CHAMBER : 144
DETECTOR S/N : 75551
AVERAGE %EFFICIENCY : 25.1386
COUNT DATE : 22-FEB-2010 12:42:39
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B144.CNF;397
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W144.CNF;108
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.4786E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.175	61.971	1128.000	1125.000	3.000	1.7321	100.0000	1.92E+01	1.57E+00	6.85E-02	1.83E-01	5.72E-01
U-3/4	4763.020	4756.740	62.446	458.000	454.861	2.000	4.8416	100.0000	7.74E+00	6.95E-01	1.92E-01	4.29E-01	3.64E-01
U-235	4391.000	4406.612	118.637	35.000	35.000	0.000	2.2152	80.90000	7.36E-01	1.37E-01	1.08E-01	2.74E-01	1.24E-01
U-238	4184.730	4187.376	35.414	2055.000	2055.000	0.000	3.1208	100.0000	3.50E+01	2.78E+00	1.23E-01	2.93E-01	7.71E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

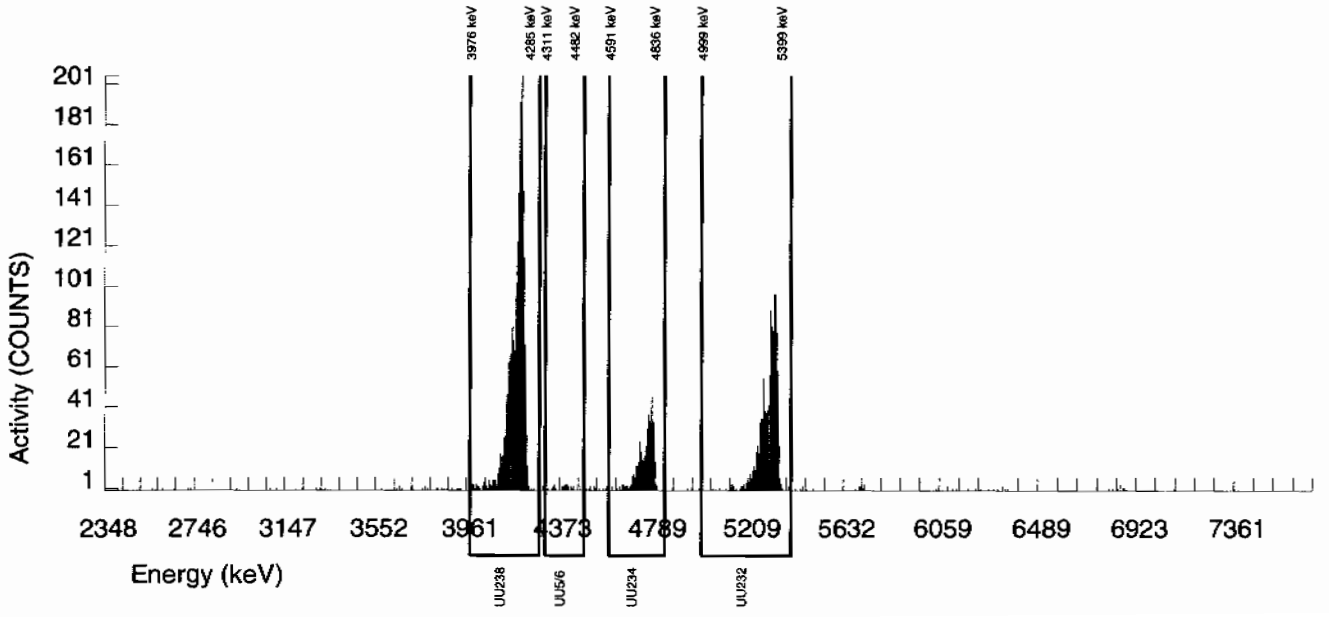

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954559
SAMPLE ID : S0245808004_UU
SAMPLE QTY : 0.106 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : AYB1
% YIELD : 65.383

CHAMBER : 145
DETECTOR S/N : 72526
AVERAGE %EFFICIENCY : 24.9308
COUNT DATE : 22-FEB-2010 12:42:41
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B145.CNF;395
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W145.CNF;113
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 2.9464E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5282.886	76.997	737.000	734.000	3.000	1.7321	100.0000	1.92E+01	1.70E+00	1.05E-01	2.81E-01	7.10E-01
U-3/4	4763.020	4741.287	69.712	1664.000	1663.257	0.000	4.8416	100.0000	4.34E+01	3.66E+00	2.94E-01	6.58E-01	1.06E+00
U-235	4391.000	4406.116	111.704	204.000	204.000	0.000	2.2152	80.90000	6.57E+00	7.03E-01	1.66E-01	4.19E-01	4.60E-01
U-238	4184.730	4169.660	72.684	11155.000	11155.000	0.000	3.1208	100.0000	2.91E+02	2.37E+01	1.89E-01	4.49E-01	2.75E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

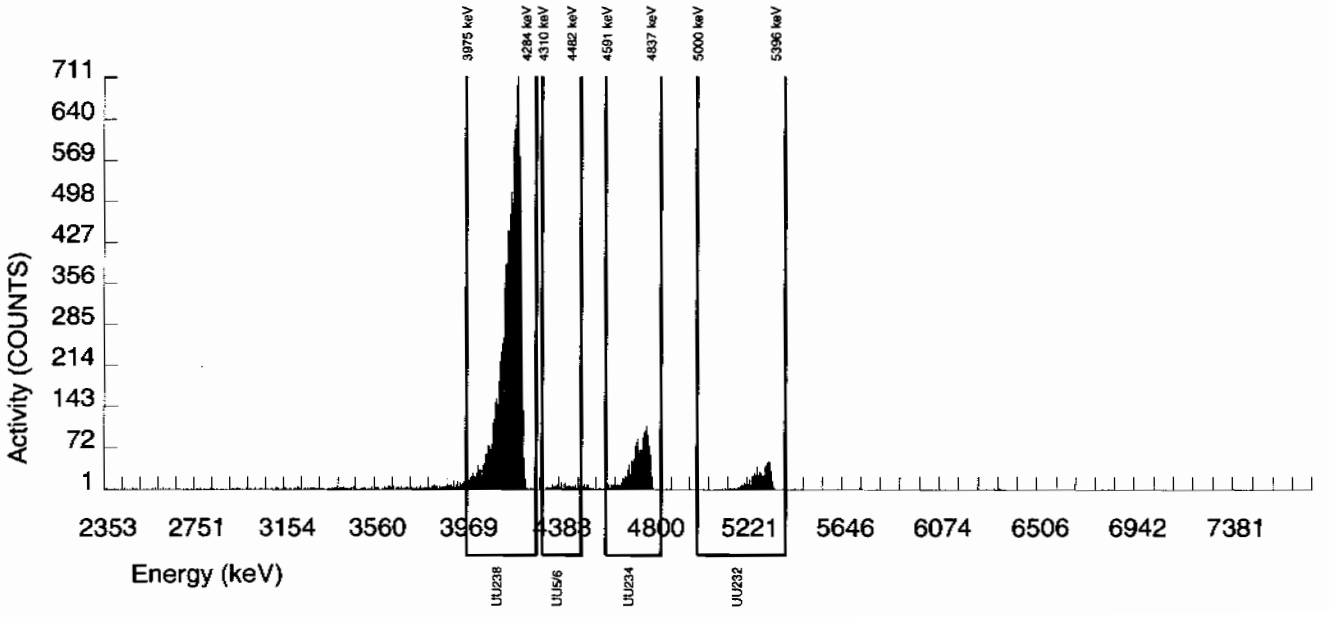

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954559
SAMPLE ID : S0245808006_UU
SAMPLE QTY : 0.102 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : AYB1
% YIELD : 79.540

CHAMBER : 146
DETECTOR S/N : 72527
AVERAGE %EFFICIENCY : 24.7373
COUNT DATE : 22-FEB-2010 12:42:44
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B146.CNF;400
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W146.CNF;115
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 3.5844E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5286.989	87.992	893.000	886.000	7.000	2.6458	100.0000	1.99E+01	1.70E+00	1.38E-01	3.37E-01	6.74E-01
U-3/4	4763.020	4744.570	66.374	1541.000	1540.103	0.000	4.8416	100.0000	3.46E+01	2.86E+00	2.53E-01	5.66E-01	8.81E-01
U-235	4391.000	4399.838	73.489	169.000	169.000	0.000	2.2152	80.90000	4.69E+00	5.16E-01	1.43E-01	3.61E-01	3.61E-01
U-238	4184.730	4173.756	64.793	10435.000	10435.000	0.000	3.1208	100.0000	2.34E+02	1.85E+01	1.63E-01	3.87E-01	2.29E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

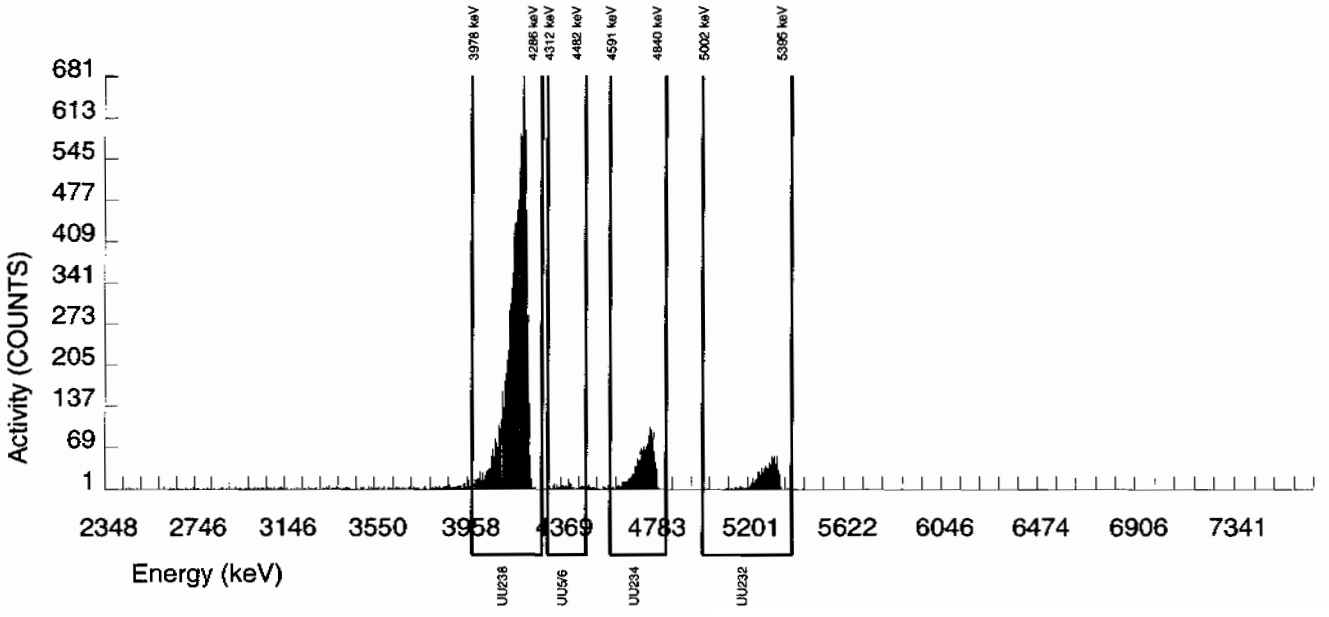

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954559	CHAMBER : 147	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246271002_UU	DETECTOR S/N : 75550	BKG FILE : B147.CNF;400
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 24.4814	BKG DATE : 21-FEB-2010
SAMPLE DATE : 30-JAN-2010 00:00:00	COUNT DATE : 22-FEB-2010 12:42:46	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W147.CNF;114
% YIELD : 102.233		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5059E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.6065E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.685	31.963	1129.000	1127.000	2.000	1.4142	100.0000	4.06E+00	3.16E-01	1.18E-02	3.34E-02	1.21E-01
U-3/4	4763.020	4762.587	31.520	278.000	275.859	1.000	4.8416	100.0000	9.93E-01	9.32E-02	4.05E-02	9.08E-02	6.00E-02
U-235	4391.000	4407.789	5.542	16.000	16.000	0.000	2.2152	80.90000	7.12E-02	1.85E-02	2.29E-02	5.79E-02	1.78E-02
U-238	4184.730	4194.383	46.463	241.000	241.000	0.000	3.1208	100.0000	8.67E-01	8.37E-02	2.61E-02	6.20E-02	5.59E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

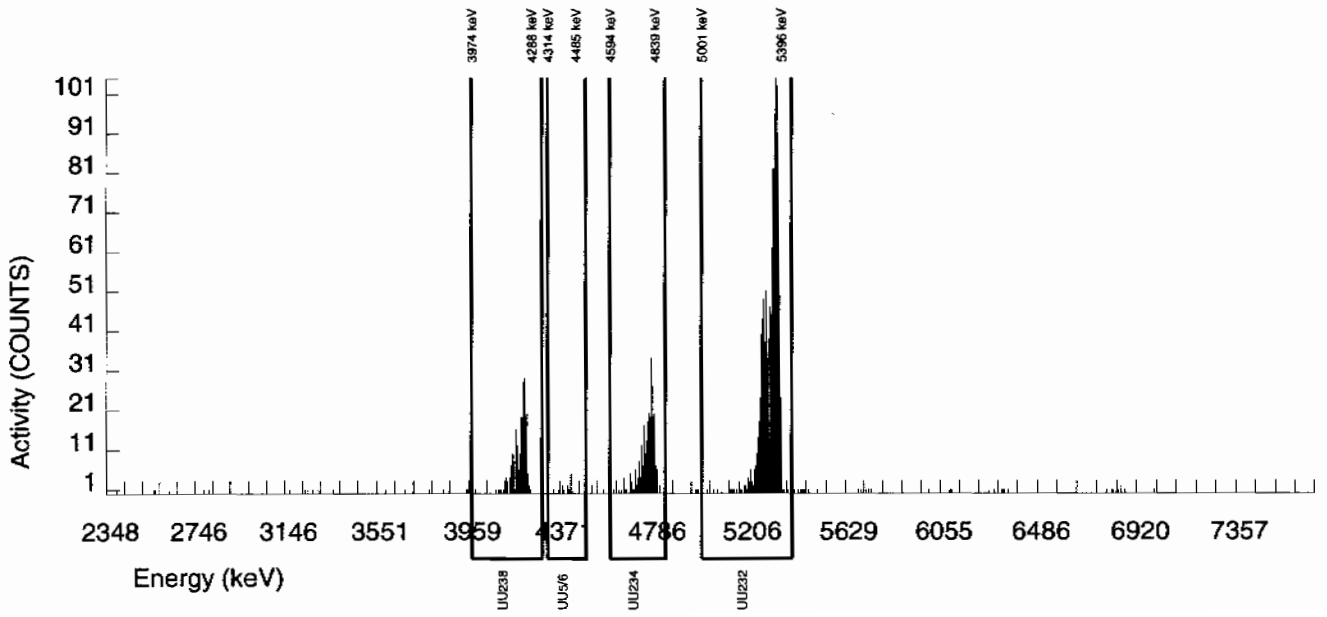

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954559
SAMPLE ID : S1202046263_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 18-FEB-2010 00:00:00
ANALYST : AYB1
% YIELD : 108.905

CHAMBER : 148
DETECTOR S/N : 74429
AVERAGE %EFFICIENCY : 24.5720
COUNT DATE : 22-FEB-2010 12:42:49
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B148.CNF;399
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W148.CNF;129
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5036E+00 dpm
RESULTS : 4.9046E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.875	36.006	1208.000	1205.000	3.000	1.7321	100.0000	2.03E+00	1.53E-01	6.78E-03	1.81E-02	5.86E-02
U-3/4	4763.020	4739.190	108.704	3.000	-0.220	2.000	4.8416	100.0000	-3.70E-04	3.27E-03	1.90E-02	4.25E-02	3.27E-03
U-235	4391.000	4398.767	0.000	0.000	0.000	0.000	2.2152	80.90000	0.00E+00	2.09E-03	1.07E-02	2.71E-02	2.08E-03
U-238	4184.730	4150.028	4.941	9.000	8.000	1.000	3.1208	100.0000	1.35E-02	5.41E-03	1.22E-02	2.90E-02	5.32E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

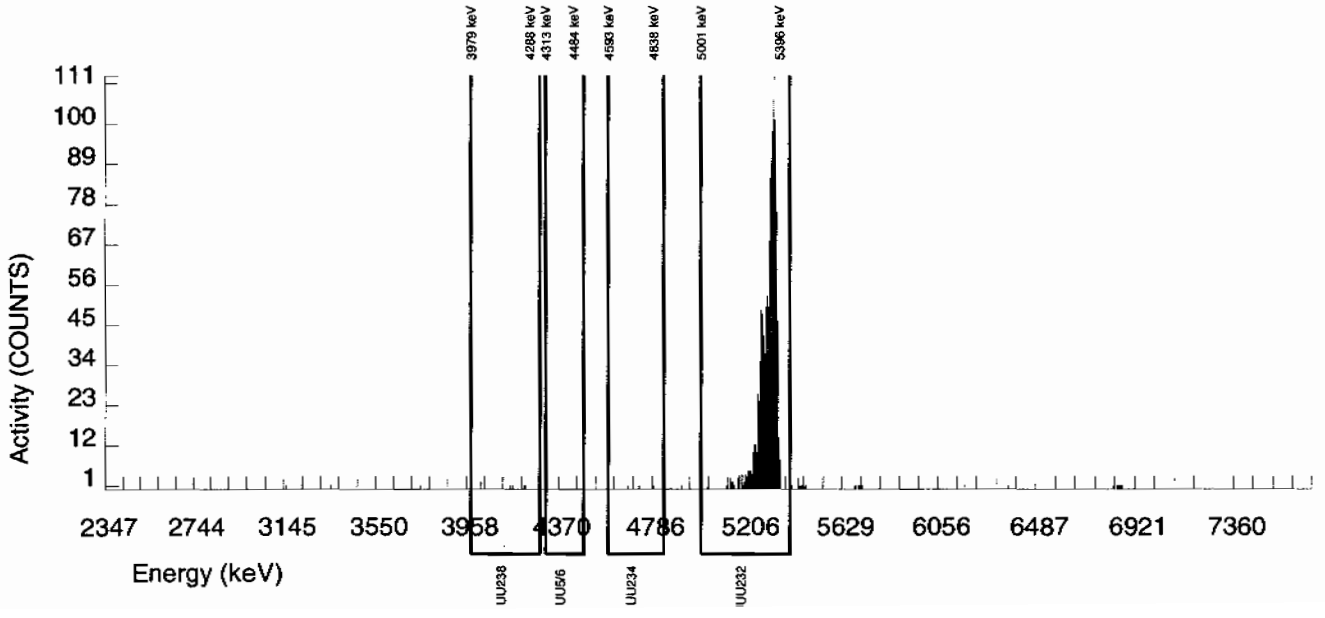

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954559	CHAMBER : 150	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202046264_UU	DETECTOR S/N : 75552	BKG FILE : B150.CNF;404
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 25.1049	BKG DATE : 21-FEB-2010
SAMPLE DATE : 30-JAN-2010 00:00:00	COUNT DATE : 22-FEB-2010 12:42:54	BKG LIVE TIME(SEC) : 60000.00
ANALYST : AYB1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W150.CNF;122
% YIELD : 89.521		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5059E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0337E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.051	30.926	1015.000	1012.000	3.000	1.7321	100.0000	4.05E+00	3.15E-01	1.61E-02	4.31E-02	1.28E-01
U-3/4	4763.020	4766.223	24.600	204.000	200.976	2.000	4.8416	100.0000	8.04E-01	8.10E-02	4.51E-02	1.01E-01	5.73E-02
U-235	4391.000	4393.222	4.954	11.000	11.000	0.000	2.2152	80.90000	5.44E-02	1.69E-02	2.55E-02	6.44E-02	1.64E-02
U-238	4184.730	4197.955	26.163	208.000	208.000	0.000	3.1208	100.0000	8.32E-01	8.27E-02	2.90E-02	6.89E-02	5.77E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

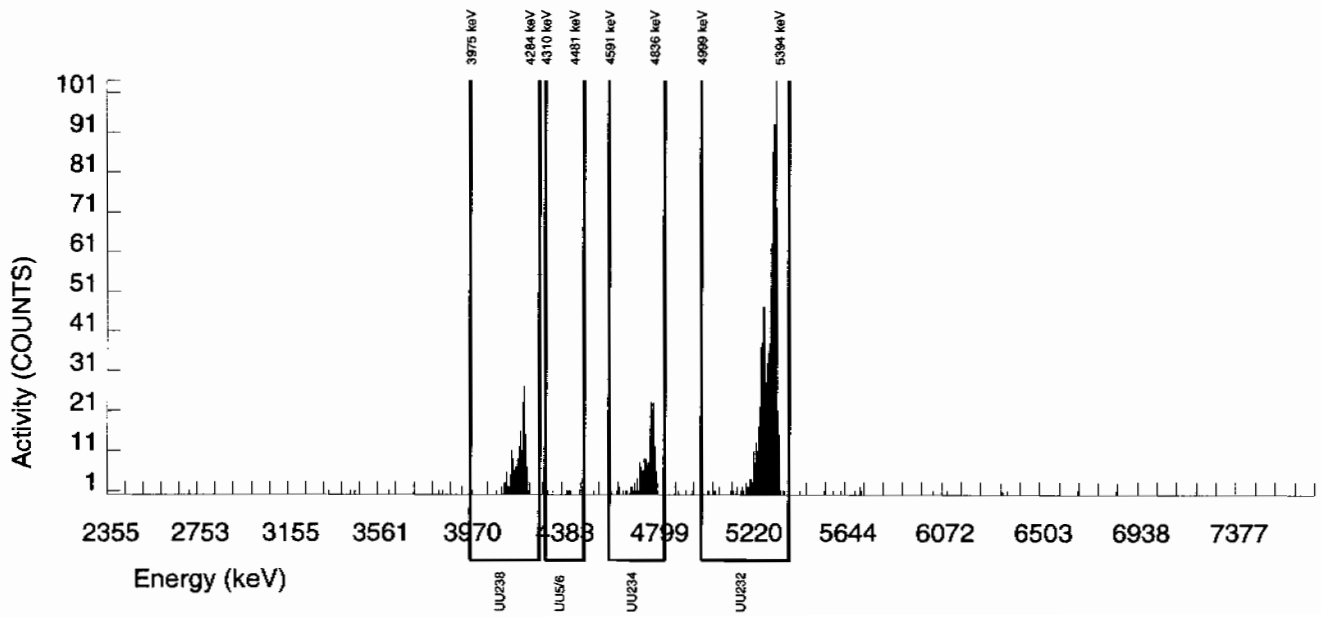

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954559
SAMPLE ID : S1202046265_UU
SAMPLE QTY : 0.108 G
SAMPLE DATE : 18-FEB-2010 00:00:00
ANALYST : AYB1
% YIELD : 100.310

CHAMBER : 151
DETECTOR S/N : 75556
AVERAGE %EFFICIENCY : 24.6627
COUNT DATE : 22-FEB-2010 12:42:56
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B151.CNF;399
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W151.CNF;120
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5036E+00 dpm
RESULTS : 4.5175E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.268	31.563	1116.000	1114.000	2.000	1.4142	100.0000	1.88E+01	1.54E+00	5.55E-02	1.57E-01	5.64E-01
U-3/4	4763.020	4761.569	33.548	387.000	384.872	1.000	4.8416	100.0000	6.49E+00	5.96E-01	1.90E-01	4.25E-01	3.32E-01
U-235	4391.000	4393.153	14.112	14.000	14.000	0.000	2.2152	80.90000	2.92E-01	8.11E-02	1.07E-01	2.71E-01	7.80E-02
U-238	4184.730	4192.905	24.315	314.000	314.000	0.000	3.1208	100.0000	5.29E+00	5.02E-01	1.22E-01	2.90E-01	2.99E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

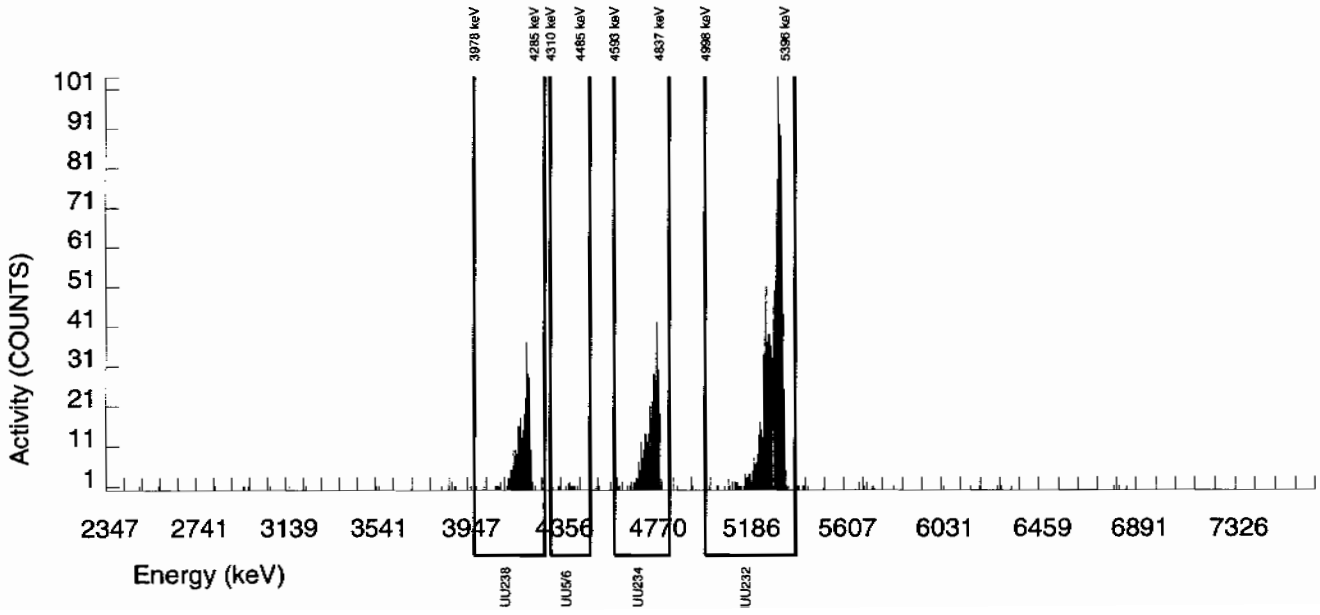

Radiochemistry Batch Checklist, Rev10

Batch# 947554 Product: γS Date: 2/15/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity; if greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/15/10

Secondary Review Performed By: [signature] 2/16/10

2/26

Gamma Spec Que Sheet I.G. - 2/9/10

02/01/2010

Batch #:947554 **Analyst:** RXF2 **First Client DueDate**02/26/2010 **Internal Due Date:** 02/15/2010

V

Gamma Spike Isotope: Mixed Gamma **Spike Code:** NA **Expiration Date:** NA **Vol:** NA **Nominal Concentration:** NA

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 ml **Nominal Concentration:** Am^{241} 15.91; Cs^{137} 5.562; Co^{60} 6.411

Initials: K **Prep Date:** 2/2/10 **Library:** Solid **Witness:** NA

Page 118 of 817

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1/B/F)	Detector	Sealing Date/Time (if Applicable)
245808001-1	RE15-10-7954	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K	Can	149.809	4	2/2/10
245808002-1	RE15-10-7956	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		136.574	17	
245808003-1	RE15-10-7955	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		149.854	18	
245808004-1	RE15-10-7953	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		169.141	19	
245808005-1	RE15-10-7952	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		141.695	10	
245808006-1	RE15-10-8060	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		167.461	11	
245808007-1	RE15-10-8058	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		100.792	23	
245808008-1	RE15-10-8059	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		131.013	15	
1202029817-1	MB	MB		QC ACCOUNT	SOIL	2/2/10	K		169.389	12	
1202029818-1	DUP RE15-10-~~7954~~ 8060 (245808007) 6	DUP		QC ACCOUNT	SOIL	26-JAN-10 12:00:00	K		169.389	22	
1202029819-1	LCS MLP 2/15/10 K 2/3/10	LCS		QC ACCOUNT	SOIL	2/2/10	K		155.44	20	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 2/15/10

dates V 2/16/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
947554	245808001	SAMPLE	11-FEB-10		Americium-241	0.1238	0.2708	0.200
947554	245808002	SAMPLE	11-FEB-10					
947554	245808003	SAMPLE	11-FEB-10		Americium-241	0.1862	0.2676	0.200
947554	245808004	SAMPLE	11-FEB-10					
947554	245808005	SAMPLE	12-FEB-10		Americium-241	0.05206	0.3828	0.200
947554	245808006	SAMPLE	12-FEB-10		Americium-241	0.243	0.4622	0.200
					Cerium-139	-0.01078	0.06188	0.050
947554	245808007	SAMPLE	12-FEB-10		Americium-241	0.3443	0.5049	0.200
					Cerium-139	-0.03305	0.06648	0.050
					Cesium-134	0.06119	0.1125	0.100
					Europium-152	0.1992	0.2301	0.200
					Sodium-22	-0.00812	0.09719	0.080
					Tin-113	0.00626	0.1065	0.100
947554	245808008	SAMPLE	12-FEB-10		Americium-241	-0.05271	0.5171	0.200
					Cerium-139	0.02368	0.06299	0.050
					Europium-152	0.03107	0.2044	0.200
					Sodium-22	-0.01137	0.08751	0.080
					Thorium-234	0.849	4.078	2.00
947554	1202029817	MB	12-FEB-10					
947554	1202029818	DUP	12-FEB-10		Cerium-139	0.02647	0.06892	0.050
947554	1202029819	LCS	12-FEB-10		Cerium-139	0.00524	0.07249	0.050
					Cesium-134	0.09293	0.1491	0.100
					Europium-152	0.03627	0.2791	0.200
					Mercury-203	0.04482	0.1096	0.100
					Potassium-40	0.621	1.002	1.00
					Ruthenium-106	0.7569	1.025	0.800
					Thorium-234	0.3851	2.739	2.00
					Tin-113	-0.02722	0.1285	0.100
					Uranium-235	-0.1458	0.5022	0.500

GEL QUALS

Batch ID: 947554

Report run on: February 15, 2010 6:16 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245808001-1 11-FEB-2010 22:26	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.712			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.206			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.08598		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.269			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.05318			
245808002-1 11-FEB-2010 22:26	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.781			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.871			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.121		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.517			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.06027			
245808003-1 11-FEB-2010 22:27	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.078			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.585			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.06902		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.016			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08241			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		.4254			
245808004-1 11-FEB-2010 22:27	Americium-241	UI	UI	UI	Data rejected due to low abundance.		1.126		.2	.2
	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.346			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.969			
	Cerium-139	UI	UI	UI	Data rejected due to low abundance.		.06062		.05	.05
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.08131		.1	.1

GEL QUALS

Batch ID: 947554

Report run on: February 15, 2010 6:16 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245808004-1 11-FEB-2010 22:27	Radium-224	UI	UI	UI	Data rejected due to interference.		2.377			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.05396			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		1.543			
245808005-1 12-FEB-2010 16:57	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.633			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.292			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1039		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.584			
	Thorium-234	UI	UI	UI	Data rejected due to low abundance.		3.487		2	2
245808006-1 12-FEB-2010 16:58	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.054			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.765			
245808007-1 12-FEB-2010 17:00	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.401			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.818			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.122			
245808008-1 12-FEB-2010 17:37	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.583			
	Cadmium-109	UI	UI	UI	Data rejected due to high peak-width.		3.324			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1464		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.669			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1169			
1202029818-1 DUP 12-FEB-2010 17:52	Americium-241	UI	UI	UI	Data rejected due to low abundance.		.5361		.2	.2

GEL QUALS

Batch ID: 947554

Report run on: February 15, 2010 6:16 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
1202029818-1 DUP 12-FEB-2010 17:52	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.265			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.0896		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.757			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08123			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		1.186			

Gamma Review Report based on Result > MDA for Batch:947554

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808001	26-JAN-10 12:00	11-FEB-10 22:26	16.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.562	0.1251	pCi/g	0.1189	N	911.2	3	1.742	IDENTIFIED	5.872		
Americium-243	INT	0.2809	0.02832	pCi/g	0.07363	N	74.81	1	0.8856	IDENTIFIED	8.297		
Annihilation Rad.		0.1158	0.02021	pCi/g	0.02539	N	510.8	1	2.081	IDENTIFIED	17.22		
Bismuth-211	INT	3.712	0.1787	pCi/g	0.178	Y	351.8	4	1.307	IDENTIFIED	3.434	✓ VI	
Bismuth-212	NR	0.935	0.1492	pCi/g	0.2555	N	727.4	1	1.36	IDENTIFIED	15.5		
Bismuth-214	✓	1.068	0.05842	pCi/g	0.06411	0.200	609.3	4	1.482	IDENTIFIED	4.054		
Cadmium-109	INT	4.206	0.4729	pCi/g	0.8849	Y	87.21	3	1.295	IDENTIFIED	9.52	✓ VI	
Cerium-143		949	137	pCi/g	0	N	0	12	0	SHORT_HLIF	0		
Cesium-134	LA	0.08598	0.02274	pCi/g	0.05264	0.100	0	12	0	FAIL_ABUND	0	UI	Data rejected due to low abundance.
Europium-155	HE	0.1221	0.04125	pCi/g	0.1142	N	105.5	1	0.9031	IDENTIFIED	33.52		
Gadolinium-153	LA	0.2963	0.04209	pCi/g	0.1002	N	0	12	0	FAIL_ABUND	0		
Gold-195	LA	0.8637	0.1227	pCi/g	0.2965	N	0	12	0	FAIL_ABUND	0		
Gross Gamma		12.85	1.322	pCi/g	3.037	N		0					
Iodine-123	HE	1.91E+07	1.06E+07	pCi/g	0	N	0	12	0	SHORT_HLIF	0		
Iodine-133	HE	2727	4987	pCi/g	0	N	0	12	0	SHORT_HLIF	0		
Iodine-135		2.35E+16	0	pCi/g	0	N	0	12	0	SHORT_HLIF	0		
Krypton-85	HE	10.22	2.07	pCi/g	6.831	N	0	12	0	NOT_IDENTI	0		
Lead-212	✓	1.627	0.07239	pCi/g	0.05046	0.100	238.6	4	1.104	IDENTIFIED	1.916		
Lead-214	✓	1.291	0.0707	pCi/g	0.06204	0.100	351.8	4	1.307	IDENTIFIED	3.434		
Lutetium-177	INT	3.161	0.5012	pCi/g	1.06	N	209.1	1	1.168	IDENTIFIED	15.51		
Neptunium-237	INT	1.211	0.1849	pCi/g	0.2617	N	87.21	3	1.295	IDENTIFIED	9.52		
Niobium-95	INT	0.152	0.02392	pCi/g	0.03665	N	767	1	2.227	IDENTIFIED	15.42		
Polonium-212	NR	1.627	0.07239	pCi/g	0.05046	N	238.6	4	1.104	IDENTIFIED	1.916		
Polonium-214	NR	1.291	0.0707	pCi/g	0.06204	N	351.8	4	1.307	IDENTIFIED	3.434		
Polonium-216	NR	1.627	0.07239	pCi/g	0.05046	N	238.6	4	1.104	IDENTIFIED	1.916		
Polonium-218	NR	1.291	0.0707	pCi/g	0.06204	N	351.8	4	1.307	IDENTIFIED	3.434		
Potassium-40	✓	32.9	1.28	pCi/g	0.2564	1.00	1461	1	2.019	IDENTIFIED	1.586		
Protactinium-234m	NR ✓	31.5	2.789	pCi/g	4.238	N	1001	1	1.644	IDENTIFIED	7.589		
Radium-224	INT	4.269	0.3791	pCi/g	0.5742	Y	241.6	1	1.734	IDENTIFIED	8.231	✓ VI	
Radium-226	✓	1.068	0.05842	pCi/g	0.06411	Y	609.3	4	1.482	IDENTIFIED	4.054		
Radium-228	✓	1.562	0.1251	pCi/g	0.1189	0.500	911.2	3	1.742	IDENTIFIED	5.872		
Rhenium-183	HE	0.1343	0.03844	pCi/g	0.1145	N	0	12	0	FAIL_ABUND	0		
Strontium-85	LA	0.05318	0.01077	pCi/g	0.03554	Y	0	12	0	NOT_IDENTI	0	UI	Data rejected due to low abundance.
Thallium-208	✓	0.4959	0.02849	pCi/g	0.03097	0.080	583.3	1	1.408	IDENTIFIED	4.808		
Thorium-228	NR	1.654	0.07359	pCi/g	0.05129	N	238.6	4	1.104	IDENTIFIED	1.916		
Thorium-230	NR	1.068	0.05842	pCi/g	0.06411	N	609.3	4	1.482	IDENTIFIED	4.054		
Thorium-232	NR	1.562	0.1251	pCi/g	0.1189	N	911.2	3	1.742	IDENTIFIED	5.872		
Thorium-234	✓	24.39	2.633	pCi/g	1.989	2.00	63.24	2	1.044	IDENTIFIED	4.317		
Tin-126	INT	0.4125	0.04638	pCi/g	0.08747	N	87.21	3	1.295	IDENTIFIED	9.52		
Titanium-44	LA	0.3228	0.02538	pCi/g	0.05321	N	0	12	0	FAIL_ABUND	0		
Total Uranium		72.764	7.83E-06	ug/g	2.9608	N		0					
Uranium-231	NR	3.821	0.9653	pCi/g	1.449	N	94.54	1	1.399	IDENTIFIED	24.73		
Uranium-234	NR	1.068	0.05842	pCi/g	0.06411	N	609.3	4	1.482	IDENTIFIED	4.054		
Uranium-235	✓	0.4179	0.09792	pCi/g	0.2013	0.500	143.6	1	1.018	IDENTIFIED	21.92		
Uranium-238	NR	24.39	2.633	pCi/g	1.989	N	63.24	2	1.044	IDENTIFIED	4.317		
Zirconium-97		6.82E+06	2.12E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808002	26-JAN-10 12:00	11-FEB-10 22:26	16.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.504	0.146	pCi/g	0.1582	N	910.7	3	1.425	IDENTIFIED	7.875	☐	
Americium-243	INT	0.3652	0.02543	pCi/g	0.0462	N	74.84	1	0.9169	IDENTIFIED	4.965	☐	
Annihilation Rad.		0.1401	0.02888	pCi/g	0.0325	N	510.9	1	1.733	IDENTIFIED	20.12	☐	
Bismuth-210	HE	0.8585	0.2805	pCi/g	0.6631	N	46.63	3	0.8327	IDENTIFIED	32.23	☐	
Bismuth-211	INT	3.781	0.2301	pCi/g	0.2238	Y	351.8	4	1.19	IDENTIFIED	3.91	☑ UI	
Bismuth-212	NR	1.556	0.1732	pCi/g	0.3216	N	726.7	1	1.106	IDENTIFIED	9.931	☐	
Bismuth-214	✓	1.226	0.08879	pCi/g	0.08059	0.200	609	4	1.439	IDENTIFIED	5.155	☐	
Cadmium-109	INT	3.871	0.3579	pCi/g	0.7755	Y	87.2	3	1.188	IDENTIFIED	7.855	☑ UI	
Cerium-141	HE	0.08779	0.02352	pCi/g	0.07504	N	0	14	0	NOT_IDENTI	0	☐	
Cerium-143		1090	162.8	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.121	0.02658	pCi/g	0.07294	0.100	0	14	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2261	0.05921	pCi/g	0.1836	N	0	14	0	NOT_IDENTI	0	☐	
Europium-155	INT	0.2064	0.04684	pCi/g	0.1085	N	105.3	1	1.485	IDENTIFIED	22.05	☐	
Gadolinium-153	LA	0.3112	0.03774	pCi/g	0.09151	N	0	14	0	FAIL_ABUND	0	☐	
Gold-195	LA	0.9072	0.11	pCi/g	0.2828	N	0	14	0	FAIL_ABUND	0	☐	
Gross Gamma		13.77	1.384	pCi/g	6.055	N		0				☐	
Krypton-85	HE	11.58	2.769	pCi/g	8.948	N	0	14	0	NOT_IDENTI	0	☐	
Lead-210	HE	0.8585	0.2805	pCi/g	0.6631	N	46.63	3	0.8327	IDENTIFIED	32.23	☐	
Lead-212	✓	1.63	0.08953	pCi/g	0.05779	0.100	238.6	4	1.012	IDENTIFIED	2.177	☐	
Lead-214	✓	1.315	0.08707	pCi/g	0.07658	0.100	351.8	4	1.19	IDENTIFIED	3.91	☐	
Lutetium-177	INT	3.055	0.5424	pCi/g	1.252	N	209.2	1	1.032	IDENTIFIED	17.2	☐	
Neptunium-237	INT	1.115	0.1545	pCi/g	0.2224	N	87.2	3	1.188	IDENTIFIED	7.855	☐	
Niobium-95	INT	0.1409	0.02302	pCi/g	0.05358	N	765.9	1	1.501	IDENTIFIED	15.75	☐	
Polonium-210	HE	0.8585	0.28	pCi/g	0.6631	N	46.63	3	0.8327	IDENTIFIED	32.23	☐	
Polonium-212	NR	1.63	0.08953	pCi/g	0.05779	N	238.6	4	1.012	IDENTIFIED	2.177	☐	
Polonium-214	NR	1.315	0.08707	pCi/g	0.07658	N	351.8	4	1.19	IDENTIFIED	3.91	☐	
Polonium-216	NR	1.63	0.08953	pCi/g	0.05779	N	238.6	4	1.012	IDENTIFIED	2.177	☐	
Polonium-218	NR	1.315	0.08707	pCi/g	0.07658	N	351.8	4	1.19	IDENTIFIED	3.91	☐	
Potassium-40	✓	30.48	1.489	pCi/g	0.3831	1.00	1460	1	2.081	IDENTIFIED	2.036	☐	
Protactinium-234m	✓	37.31	4.208	pCi/g	5.509	N	1000	1	1.807	IDENTIFIED	10.1	☐	
Radium-224	INT	4.517	0.4292	pCi/g	0.6581	Y	241.6	1	1.657	IDENTIFIED	8.354	☑ UI	
Radium-226	✓	1.226	0.08879	pCi/g	0.08059	Y	609	4	1.439	IDENTIFIED	5.155	☐	
Radium-228	✓	1.504	0.146	pCi/g	0.1582	0.500	910.7	3	1.425	IDENTIFIED	7.875	☐	
Rhenium-183	HE	0.17	0.04907	pCi/g	0.1319	N	0	14	0	FAIL_ABUND	0	☐	
Sodium-24	HE	2.21E+06	1.31E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.06027	0.01441	pCi/g	0.04656	Y	0	14	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		3.47E+17	0	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.553	0.03776	pCi/g	0.04306	0.080	582.8	1	1.303	IDENTIFIED	4.925	☐	
Thorium-228	NR	1.658	0.09101	pCi/g	0.05875	N	238.6	4	1.012	IDENTIFIED	2.177	☐	
Thorium-230	NR	1.226	0.08879	pCi/g	0.08059	N	609	4	1.439	IDENTIFIED	5.155	☐	
Thorium-232	NR	1.504	0.146	pCi/g	0.1582	N	910.7	3	1.425	IDENTIFIED	7.875	☐	
Thorium-234	✓	26.29	2.503	pCi/g	0.7961	2.00	63.28	2	0.9458	IDENTIFIED	1.873	☐	
Tin-126	INT	0.3797	0.0351	pCi/g	0.07596	N	87.2	3	1.188	IDENTIFIED	7.855	☐	
Titanium-44	LA	0.3789	0.02254	pCi/g	0.04099	N	0	14	0	FAIL_ABUND	0	☐	
Total Uranium		78.483	7.45E-06	ug/g	1.1862	N		0				☐	
Uranium-231	LA	2.946	0.5346	pCi/g	1.439	N	0	14	0	FAIL_ABUND	0	☐	
Uranium-234	NR	1.226	0.08879	pCi/g	0.08059	N	609	4	1.439	IDENTIFIED	5.155	☐	
Uranium-235	✓	0.5606	0.1133	pCi/g	0.2298	0.500	143.7	1	0.8978	IDENTIFIED	18	☐	
Uranium-238	NR	26.29	2.503	pCi/g	0.7961	N	63.28	2	0.9458	IDENTIFIED	1.873	☐	
Zirconium-97		1.11E+07	2.71E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808003	26-JAN-10 12:00	11-FEB-10 22:27	16.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-227	HE	0.4254	0.1104	pCi/g	0.3405	N	0	19	0	FAIL_ABUND	0	☐	
Actinium-228	NR	1.297	0.1042	pCi/g	0.09046	N	910.9	3	1.893	IDENTIFIED	4.537	☐	
Americium-243	INT	0.3063	0.03251	pCi/g	0.08055	N	74.96	1	1.185	IDENTIFIED	9.756	☐	

Annihilation Rad.		0.08863	0.01664	pCi/g	0.02191	N	510.8	1	1.763	IDENTIFIED	18.48	☐		
Barium-137m	NR	0.17	0.01632	pCi/g	0.02788	N	661.4	2	1.548	IDENTIFIED	8.812	☐		
Bismuth-211	INT	3.078	0.1423	pCi/g	0.1598	Y	352	4	1.334	IDENTIFIED	3.328	☑	UI	
Bismuth-212	NR	0.6041	0.107	pCi/g	0.2109	N	727.3	1	1.66	IDENTIFIED	17	☐		
Bismuth-214	✓	0.8958	0.05473	pCi/g	0.05176	0.200	609.2	4	1.596	IDENTIFIED	4.169	☐		
Cadmium-109	INT	2.585	0.4236	pCi/g	1.053	Y	87.46	3	1.142	IDENTIFIED	15.72	☑	UI	
Cerium-141	LA	0.263	0.02363	pCi/g	0.07574	N	0	19	0	NOT_IDENTI	0	☐		
Cerium-143		915.1	128.7	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.06902	0.01648	pCi/g	0.04036	0.100	0	19	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✓	0.1797	0.01726	pCi/g	0.02947	0.100	661.4	2	1.548	IDENTIFIED	8.812	☐		
Gadolinium-153	LA	0.8189	0.05337	pCi/g	0.123	N	0	19	0	FAIL_ABUND	0	☐		
Gold-195	LA	2.388	0.1556	pCi/g	0.3668	N	0	19	0	FAIL_ABUND	0	☐		
Gross Gamma		16.96	1.326	pCi/g	3.182	N		0				☐		
Iodine-133	HE	3199	4080	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐		
Iodine-135		2.03E+16	0	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐		
Krypton-85	LA	15.84	1.984	pCi/g	6.465	N	0	19	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.257	0.051	pCi/g	0.04531	0.100	238.7	4	1.184	IDENTIFIED	1.922	☐		
Lead-214	✓	1.071	0.05684	pCi/g	0.05398	0.100	352	4	1.334	IDENTIFIED	3.328	☐		
Lutetium-177	INT	2.203	0.4045	pCi/g	1.009	N	209.3	1	1.079	IDENTIFIED	18.16	☐		
Molybdenum-99	HE	16.47	4.8	pCi/g	14.63	N	0	19	0	NOT_IDENTI	0	☐		
Neptunium-237	INT	0.7447	0.1442	pCi/g	0.3486	N	87.46	3	1.142	IDENTIFIED	15.72	☐		
Niobium-95	INT	0.3766	0.02773	pCi/g	0.03204	N	766.3	1	1.762	IDENTIFIED	5.766	☐		
Niobium-95m	HE	0.1143	0.03366	pCi/g	0.1065	N	0	19	0	NOT_IDENTI	0	☐		
Niobium-97		2.98E+05	1.02E+05	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.257	0.051	pCi/g	0.04531	N	238.7	4	1.184	IDENTIFIED	1.922	☐		
Polonium-214	NR	1.071	0.05684	pCi/g	0.05398	N	352	4	1.334	IDENTIFIED	3.328	☐		
Polonium-216	NR	1.257	0.051	pCi/g	0.04531	N	238.7	4	1.184	IDENTIFIED	1.922	☐		
Polonium-218	NR	1.071	0.05684	pCi/g	0.05398	N	352	4	1.334	IDENTIFIED	3.328	☐		
Potassium-40	✓	26.9	1.086	pCi/g	0.1919	1.00	1460	1	2.31	IDENTIFIED	1.377	☐		
Protactinium-234m	✓	95.56	5.741	pCi/g	3.134	N	1001	1	2.036	IDENTIFIED	2.64	☐		
Radium-224	INT	4.016	0.3281	pCi/g	0.5149	Y	241.8	1	1.945	IDENTIFIED	7.679	☑	UI	
Radium-226	✓	0.8958	0.05473	pCi/g	0.05176	Y	609.2	4	1.596	IDENTIFIED	4.169	☐		
Radium-228	✓	1.297	0.1042	pCi/g	0.09046	0.500	910.9	3	1.893	IDENTIFIED	4.537	☐		
Rhenium-183	LA	0.2412	0.04611	pCi/g	0.1184	N	0	19	0	FAIL_ABUND	0	☐		
Strontium-85	LA	0.08241	0.01032	pCi/g	0.03364	Y	0	19	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m		1.69E+17	0	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4086	0.02446	pCi/g	0.02663	0.080	583.1	1	1.524	IDENTIFIED	4.525	☐		
Thorium-227	LA	0.4254	0.1123	pCi/g	0.3405	Y	0	19	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Thorium-228	NR	1.278	0.05185	pCi/g	0.04606	N	238.7	4	1.184	IDENTIFIED	1.922	☐		
Thorium-230	NR	0.8958	0.05473	pCi/g	0.05176	N	609.2	4	1.596	IDENTIFIED	4.169	☐		
Thorium-232	NR	1.297	0.1042	pCi/g	0.09046	N	910.9	3	1.893	IDENTIFIED	4.537	☐		
Thorium-234	✓	67.62	6.082	pCi/g	1.982	2.00	63.45	2	0.9815	IDENTIFIED	1.775	☐		
Tin-126	INT	0.2536	0.04155	pCi/g	0.1039	N	87.46	3	1.142	IDENTIFIED	15.72	☐		
Titanium-44	LA	0.3285	0.02257	pCi/g	0.058	N	0	19	0	FAIL_ABUND	0	☐		
Total Uranium		201.72	1.81E-05	ug/g	2.9501	N		0				☐		
Tungsten-181	LA	4.033	0.2506	pCi/g	0.7075	N	0	19	0	NOT_IDENTI	0	☐		
Uranium-231	NR	7.054	0.8286	pCi/g	1.627	N	94.9	1	0.9719	IDENTIFIED	11.02	☐		
Uranium-234	NR	0.8958	0.05473	pCi/g	0.05176	N	609.2	4	1.596	IDENTIFIED	4.169	☐		
Uranium-235	✓	1.194	0.1343	pCi/g	0.2065	0.500	143.9	1	1.227	IDENTIFIED	7.803	☐		
Uranium-238	NR	67.62	6.082	pCi/g	1.982	N	63.45	2	0.9815	IDENTIFIED	1.775	☐		
Zirconium-97		1.35E+07	1.92E+06	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808004	26-JAN-10 12:00	11-FEB-10 22:27	16.4	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)		Qual	Qual Comment
Actinium-227	LA	1.543	0.1919	pCi/g	0.5339	N	0	23	0	FAIL_ABUND	0	☐	
Actinium-228	NR	0.9813	0.08726	pCi/g	0.1079	N	911.5	3	1.629	IDENTIFIED	6.863	☐	
Americium-241	LA	1.126	0.1224	pCi/g	0.3836	0.200	0	23	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.

Americium-243	INT	0.639	0.07007	pCi/g	0.1259	N	74.83	1	2.152	IDENTIFIED	10.22	☐		
Annihilation Rad.		0.09909	0.02249	pCi/g	0.02887	N	510.8	1	1.712	IDENTIFIED	22.5	☐		
Barium-137m	NR	0.1075	0.01693	pCi/g	0.03723	N	661.7	2	1.468	IDENTIFIED	15.49	☐		
Bismuth-211	INT	2.346	0.1405	pCi/g	0.2141	Y	351.7	4	1.525	IDENTIFIED	5.069	☑ UI		
Bismuth-212	HE	0.524	0.1164	pCi/g	0.3025	N	727.1	1	1.536	IDENTIFIED	21.83	☐		
Bismuth-214	✓	0.7295	0.05353	pCi/g	0.06899	0.200	609.2	4	1.581	IDENTIFIED	6.195	☐		
Cadmium-109	INT	3.969	0.6542	pCi/g	1.876	Y	87.59	3	1.352	IDENTIFIED	15.87	☑ UI		
Cerium-139	LA	0.06062	0.01417	pCi/g	0.04495	0.050	0	23	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Cerium-141	LA	0.7223	0.04017	pCi/g	0.1215	N	0	23	0	NOT_IDENTI	0	☐		
Cerium-143		1451	191.5	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.08131	0.02448	pCi/g	0.05273	0.100	0	23	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.	
Cesium-137	✓	0.1136	0.0179	pCi/g	0.03936	0.100	661.7	2	1.468	IDENTIFIED	15.49	☐		
Gadolinium-153	LA	1.833	0.0931	pCi/g	0.2088	N	0	23	0	FAIL_ABUND	0	☐		
Gold-195	LA	5.344	0.2714	pCi/g	0.5824	N	0	23	0	FAIL_ABUND	0	☐		
Gross Gamma		27.93	1.505	pCi/g	8.1	N		0				☐		
Krypton-85	HE	10.37	2.417	pCi/g	7.812	N	0	23	0	NOT_IDENTI	0	☐		
Lead-212	✓	0.9139	0.04326	pCi/g	0.06437	0.100	238.5	4	1.377	IDENTIFIED	3.064	☐		
Lead-214	✓	0.8159	0.05331	pCi/g	0.07462	0.100	351.7	4	1.525	IDENTIFIED	5.069	☐		
Lutetium-177	HE	2.353	0.4902	pCi/g	1.407	N	209.3	1	1.878	IDENTIFIED	20.65	☐		
Molybdenum-99	HE	23.88	6.707	pCi/g	20.5	N	0	23	0	NOT_IDENTI	0	☐		
Neptunium-237	INT	1.143	0.2223	pCi/g	0.5487	N	87.59	3	1.352	IDENTIFIED	15.87	☐		
Niobium-95	INT	0.8571	0.04347	pCi/g	0.04316	N	766.5	1	1.946	IDENTIFIED	3.634	☐		
Niobium-95m	LA	0.3391	0.04976	pCi/g	0.1569	N	0	23	0	NOT_IDENTI	0	☐		
Niobium-97	HE	1.26E+05	1.35E+05	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Polonium-212	NR	0.9139	0.04326	pCi/g	0.06437	N	238.5	4	1.377	IDENTIFIED	3.064	☐		
Polonium-214	NR	0.8159	0.05331	pCi/g	0.07462	N	351.7	4	1.525	IDENTIFIED	5.069	☐		
Polonium-216	NR	0.9139	0.04326	pCi/g	0.06437	N	238.5	4	1.377	IDENTIFIED	3.064	☐		
Polonium-218	NR	0.8159	0.05331	pCi/g	0.07462	N	351.7	4	1.525	IDENTIFIED	5.069	☐		
Potassium-40	✓	22.26	0.9183	pCi/g	0.2239	1.00	1461	1	2.128	IDENTIFIED	1.776	☐		
Protactinium-234	HE	0.5595	0.1344	pCi/g	0.3385	N	0	23	0	FAIL_ABUND	0	☐		
Protactinium-234m	✓	226.5	11.36	pCi/g	3.713	N	1001	1	1.893	IDENTIFIED	1.877	☐		
Radium-224	INT	2.377	0.3456	pCi/g	0.7319	Y	241.4	1	1.703	IDENTIFIED	14.26	☑ UI		
Radium-226	✓	0.7295	0.05353	pCi/g	0.06899	Y	609.2	4	1.581	IDENTIFIED	6.195	☐		
Radium-228	✓	0.9813	0.08726	pCi/g	0.1079	0.500	911.5	3	1.629	IDENTIFIED	6.863	☐		
Rhenium-183	LA	0.6302	0.06992	pCi/g	0.1894	N	0	23	0	FAIL_ABUND	0	☐		
Rubidium-84	HE	0.09529	0.02308	pCi/g	0.08174	N	0	23	0	NOT_IDENTI	0	☐		
Strontium-85	LA	0.05396	0.01258	pCi/g	0.04065	Y	0	23	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.	
Tellurium-125m	LA	40.98	6.393	pCi/g	20.04	N	0	23	0	NOT_IDENTI	0	☐		
Thallium-208	✓	0.3198	0.02535	pCi/g	0.0361	0.080	583.3	1	1.545	IDENTIFIED	7.16	☐		
Thorium-227	LA	1.543	0.2055	pCi/g	0.5339	Y	0	23	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.	
Thorium-228	NR	0.9291	0.04398	pCi/g	0.06543	N	238.5	4	1.377	IDENTIFIED	3.064	☐		
Thorium-230	NR	0.7295	0.05353	pCi/g	0.06899	N	609.2	4	1.581	IDENTIFIED	6.195	☐		
Thorium-232	NR	0.9813	0.08726	pCi/g	0.1079	N	911.5	3	1.629	IDENTIFIED	6.863	☐		
Thorium-234	✓	158.5	13.97	pCi/g	2.883	2.00	63.29	2	1.249	IDENTIFIED	1.088	☐		
Tin-126	INT	0.3893	0.06417	pCi/g	0.1849	N	87.59	3	1.352	IDENTIFIED	15.87	☐		
Titanium-44	LA	0.1709	0.02335	pCi/g	0.08383	N	0	23	0	FAIL_ABUND	0	☐		
Total Uranium		472.66	4.16E-05	ug/g	4.2913	N		0				☐		
Tungsten-181	LA	24.37	0.9735	pCi/g	1.274	N	0	23	0	NOT_IDENTI	0	☐		
Uranium-231	LA	30.69	1.736	pCi/g	3.46	N	0	23	0	FAIL_ABUND	0	☐		
Uranium-234	NR	0.7295	0.05353	pCi/g	0.06899	N	609.2	4	1.581	IDENTIFIED	6.195	☐		
Uranium-235	✓	2.736	0.2607	pCi/g	0.312	0.500	143.8	1	1.165	IDENTIFIED	5.008	☐		
Uranium-238	NR	158.5	13.97	pCi/g	2.883	N	63.29	2	1.249	IDENTIFIED	1.088	☐		
Xenon-127	LA	0.1272	0.02131	pCi/g	0.0678	N	0	23	0	FAIL_ABUND	0	☐		
Zirconium-97		1.29E+07	2.43E+06	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808005	26-JAN-10 12:00	12-FEB-10 16:57	17.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

MLP 2/15/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808005	26-JAN-10 12:00	12-FEB-10 16:57	17.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.553	0.1862	pCi/g	0.2186	N	910.3	3	1.762	IDENTIFIED	10.28	☐	
Americium-243	INT	0.4019	0.05113	pCi/g	0.102	N	74.56	1	1.3	IDENTIFIED	11.48	☐	
Annihilation Rad.	HE	0.08086	0.03181	pCi/g	0.04627	N	510.2	1	1.828	IDENTIFIED	39.21	☐	
Bismuth-211	INT	3.633	0.2574	pCi/g	0.3068	Y	351.4	4	1.254	IDENTIFIED	6.076	☑ VI	
Bismuth-212	HE	1.018	0.1965	pCi/g	0.6321	N	0	15	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.003	0.07867	pCi/g	0.1035	0.200	608.7	4	1.292	IDENTIFIED	6.854	☐	
Cadmium-109	INT	3.292	0.5917	pCi/g	1.276	Y	87.04	3	1.374	IDENTIFIED	17.07	☑ VI	
Cerium-143		3915	529.9	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1039	0.0319	pCi/g	0.08535	0.100	0	15	0	FAIL_ABUND	0	☑ VI	
Cesium-135	INT	0.5007	0.1114	pCi/g	0.2328	N	270	1	1.751	IDENTIFIED	21.87	☐	
Gross Gamma		9.766	1.447	pCi/g	3.116	N		0				☐	
Iodine-123	HE	2.45E+07	3.72E+07	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Iodine-133	HE	23660	14650	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.668	0.08226	pCi/g	0.0889	0.100	238.3	4	1.139	IDENTIFIED	3.156	☐	
Lead-214	✓	1.264	0.09542	pCi/g	0.1069	0.100	351.4	4	1.254	IDENTIFIED	6.076	☐	
Lutetium-177	HE	3.09	0.897	pCi/g	2.434	N	0	15	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	0.9472	0.1963	pCi/g	0.3766	N	87.04	3	1.374	IDENTIFIED	17.07	☐	
Niobium-95	HE	0.08698	0.03142	pCi/g	0.06709	N	767.1	1	1.135	IDENTIFIED	35.96	☐	
Niobium-95m	HE	0.3258	0.06685	pCi/g	0.2296	N	0	15	0	NOT_IDENTI	0	☐	
Niobium-97	HE	2.18E+05	3.22E+05	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.668	0.08226	pCi/g	0.0889	N	238.3	4	1.139	IDENTIFIED	3.156	☐	
Polonium-214	NR	1.264	0.09542	pCi/g	0.1069	N	351.4	4	1.254	IDENTIFIED	6.076	☐	
Polonium-216	NR	1.668	0.08226	pCi/g	0.0889	N	238.3	4	1.139	IDENTIFIED	3.156	☐	
Polonium-218	NR	1.264	0.09542	pCi/g	0.1069	N	351.4	4	1.254	IDENTIFIED	6.076	☐	
Potassium-40	✓	35.87	1.808	pCi/g	0.4903	1.00	1459	1	2.124	IDENTIFIED	2.615	☐	
Radium-224	INT	4.584	0.5289	pCi/g	1.011	Y	241.4	1	1.616	IDENTIFIED	11.12	☑ VI	
Radium-226	✓	1.003	0.07867	pCi/g	0.1035	Y	608.7	4	1.292	IDENTIFIED	6.854	☐	
Radium-228	✓	1.553	0.1862	pCi/g	0.2186	0.500	910.3	3	1.762	IDENTIFIED	10.28	☐	
Rhenium-188	HE	0.342	0.1289	pCi/g	0.2557	N	154	1	1.848	IDENTIFIED	37.58	☐	
Sodium-24	HE	8.31E+05	3.08E+06	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Technetium-99m		1.73E+18	0	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4826	0.04103	pCi/g	0.05847	0.080	582.7	1	1.32	IDENTIFIED	7.809	☐	
Thorium-228	NR	1.696	0.08368	pCi/g	0.09043	N	238.3	4	1.139	IDENTIFIED	3.156	☐	
Thorium-230	NR	1.003	0.07867	pCi/g	0.1035	N	608.7	4	1.292	IDENTIFIED	6.854	☐	
Thorium-232	NR	1.553	0.1862	pCi/g	0.2186	N	910.3	3	1.762	IDENTIFIED	10.28	☐	
Thorium-234	LA	3.487	1.118	pCi/g	3.15	2.00	0	15	0	FAIL_ABUND	0	☑ VI	
Tin-126	INT	0.3225	0.05797	pCi/g	0.126	N	87.04	3	1.374	IDENTIFIED	17.07	☐	
Titanium-44	LA	0.3921	0.03201	pCi/g	0.07641	N	0	15	0	FAIL_ABUND	0	☐	
Total Uranium		10.416	3.33E-06	ug/g	4.6897	N		0				☐	
Tungsten-181	HE	1.06	0.3295	pCi/g	0.7643	N	0	15	0	FAIL_ABUND	0	☐	
Uranium-234	NR	1.003	0.07867	pCi/g	0.1035	N	608.7	4	1.292	IDENTIFIED	6.854	☐	
Uranium-238	HE	3.487	1.118	pCi/g	3.15	N	0	15	0	FAIL_ABUND	0	☐	
Zirconium-97		3.65E+07	8.23E+06	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.553	0.1862	pCi/g	0.2186	N	910.3	3	1.762	IDENTIFIED	10.28	☐	
Americium-243	INT	0.4019	0.05113	pCi/g	0.102	N	74.56	1	1.3	IDENTIFIED	11.48	☐	
Annihilation Rad.	HE	0.08086	0.03181	pCi/g	0.04627	N	510.2	1	1.828	IDENTIFIED	39.21	☐	
Bismuth-211	INT	3.633	0.2574	pCi/g	0.3068	Y	351.4	4	1.254	IDENTIFIED	6.076	☑ VI	
Bismuth-212	HE	1.018	0.1965	pCi/g	0.6321	N	0	15	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.003	0.07867	pCi/g	0.1035	0.200	608.7	4	1.292	IDENTIFIED	6.854	☐	
Cadmium-109	INT	3.292	0.5917	pCi/g	1.276	Y	87.04	3	1.374	IDENTIFIED	17.07	☑ VI	
Cerium-143		2396	355.1	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1039	0.0319	pCi/g	0.08535	0.100	0	15	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		9.809	1.451	pCi/g	3.116	N		0				☐	
Iodine-123	HE	2.45E+07	3.72E+07	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Iodine-133	HE	23660	14650	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.668	0.08226	pCi/g	0.0889	0.100	238.3	4	1.139	IDENTIFIED	3.156	☐	
Lead-214	✓	1.264	0.09542	pCi/g	0.1069	0.100	351.4	4	1.254	IDENTIFIED	6.076	☐	
Lutetium-177	HE	3.09	0.897	pCi/g	2.434	N	0	15	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	0.9472	0.1963	pCi/g	0.3766	N	87.04	3	1.374	IDENTIFIED	17.07	☐	
Niobium-95	HE	0.08698	0.03142	pCi/g	0.06709	N	767.1	1	1.135	IDENTIFIED	35.96	☐	
Niobium-95m	HE	0.3258	0.06685	pCi/g	0.2296	N	0	15	0	NOT_IDENTI	0	☐	
Niobium-97	HE	2.18E+05	3.22E+05	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.668	0.08226	pCi/g	0.0889	N	238.3	4	1.139	IDENTIFIED	3.156	☐	
Polonium-214	NR	1.264	0.09542	pCi/g	0.1069	N	351.4	4	1.254	IDENTIFIED	6.076	☐	
Polonium-216	NR	1.668	0.08226	pCi/g	0.0889	N	238.3	4	1.139	IDENTIFIED	3.156	☐	
Polonium-218	NR	1.264	0.09542	pCi/g	0.1069	N	351.4	4	1.254	IDENTIFIED	6.076	☐	
Potassium-40	✓ LA	33.33	1.685	pCi/g	4.085	1.00	0	15	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Radium-224		4.584	0.5289	pCi/g	1.011	Y	241.4	1	1.616	IDENTIFIED	11.12	☐	
Radium-226		1.003	0.07867	pCi/g	0.1035	Y	608.7	4	1.292	IDENTIFIED	6.854	☐	
Radium-228		1.553	0.1862	pCi/g	0.2186	0.500	910.3	3	1.762	IDENTIFIED	10.28	☐	
Rhenium-188	HE	0.342	0.1289	pCi/g	0.2557	N	154	1	1.848	IDENTIFIED	37.58	☐	
Sodium-24	HE	8.31E+05	3.08E+06	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Technetium-99m		1.73E+18	0	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	
Thallium-208		0.4826	0.04103	pCi/g	0.05847	0.080	582.7	1	1.32	IDENTIFIED	7.809	☐	
Thorium-228		1.696	0.08368	pCi/g	0.09043	N	238.3	4	1.139	IDENTIFIED	3.156	☐	
Thorium-230		1.003	0.07867	pCi/g	0.1035	N	608.7	4	1.292	IDENTIFIED	6.854	☐	
Thorium-232		1.553	0.1862	pCi/g	0.2186	N	910.3	3	1.762	IDENTIFIED	10.28	☐	
Thorium-234		3.487	1.118	pCi/g	3.15	2.00	0	15	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Tin-126		0.3225	0.05797	pCi/g	0.126	N	87.04	3	1.374	IDENTIFIED	17.07	☐	
Titanium-44		0.1559	0.02417	pCi/g	0.07641	N	0	15	0	NOT_IDENTI	0	☐	
Total Uranium		10.416	3.33E-06	ug/g	4.6897	N		0				☐	
Uranium-234		1.003	0.07867	pCi/g	0.1035	N	608.7	4	1.292	IDENTIFIED	6.854	☐	
Uranium-238	HE	3.487	1.118	pCi/g	3.15	N	0	15	0	FAIL_ABUND	0	☐	
Zirconium-97		3.65E+07	8.23E+06	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

MLP 2/15/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808006	26-JAN-10 12:00	12-FEB-10 16:58	17.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.169	0.1275	pCi/g	0.1688	N	911.5	3	1.724	IDENTIFIED	9.052	☐	
Americium-243	HE	0.266	0.05985	pCi/g	0.1748	N	74.96	1	0.7617	IDENTIFIED	22.13	☐	
Annihilation Rad.	HE	0.07612	0.02987	pCi/g	0.04451	N	511.3	1	1.874	IDENTIFIED	38.88	☐	
Barium-137m	NR	0.1536	0.02832	pCi/g	0.05629	N	661.7	2	1.4	IDENTIFIED	17.82	☐	
Bismuth-211	INT	2.054	0.2242	pCi/g	0.3327	Y	351.9	4	1.198	IDENTIFIED	8.714	☑ VI	
Bismuth-212	HE	0.4842	0.2026	pCi/g	0.4596	N	727.3	1	1.471	IDENTIFIED	41.48	☐	
Bismuth-214	✓	0.7687	0.07856	pCi/g	0.09642	0.200	609.7	4	1.402	IDENTIFIED	8.517	☐	
Cerium-141	HE	0.1972	0.04451	pCi/g	0.1528	N	0	12	0	NOT_IDENTI	0	☐	
Cerium-143		589.6	217	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.1623	0.02994	pCi/g	0.0595	0.100	661.7	2	1.4	IDENTIFIED	17.82	☐	
Gadolinium-153	LA	1.83	0.1272	pCi/g	0.2852	N	0	12	0	FAIL_ABUND	0	☐	
Gold-195	LA	5.34	0.371	pCi/g	0.8787	N	0	12	0	FAIL_ABUND	0	☐	

Gross Gamma		28.3	2.225	pCi/g	7.365	N		0				☐
Iodine-135		3.49E+17	0	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐
Lead-212	✓	0.9631	0.07956	pCi/g	0.09085	0.100	238.6	4	0.9873	IDENTIFIED	4.384	☐
Lead-214	✓	0.7143	0.08019	pCi/g	0.116	0.100	351.9	4	1.198	IDENTIFIED	8.714	☐
Niobium-95	INT	0.8339	0.06191	pCi/g	0.06768	N	766.6	1	1.483	IDENTIFIED	5.594	☐
Polonium-212	NR	0.9631	0.07956	pCi/g	0.09085	N	238.6	4	0.9873	IDENTIFIED	4.384	☐
Polonium-214	NR	0.7143	0.08019	pCi/g	0.116	N	351.9	4	1.198	IDENTIFIED	8.714	☐
Polonium-216	NR	0.9631	0.07956	pCi/g	0.09085	N	238.6	4	0.9873	IDENTIFIED	4.384	☐
Polonium-218	NR	0.7143	0.08019	pCi/g	0.116	N	351.9	4	1.198	IDENTIFIED	8.714	☐
Potassium-40	✓	22.11	1.173	pCi/g	0.463	1.00	1461	1	1.84	IDENTIFIED	3.079	☐
Protactinium-234	HE	0.6059	0.199	pCi/g	0.54	N	0	12	0	FAIL_ABUND	0	☐
Protactinium-234m	✓	241.9	14.75	pCi/g	6.468	N	1001	1	1.571	IDENTIFIED	2.983	☐
Radium-224	INT	2.765	0.5231	pCi/g	1.034	Y	241.6	1	1.574	IDENTIFIED	17.69	☑ VI
Radium-226	✓	0.7687	0.07856	pCi/g	0.09642	Y	609.7	4	1.402	IDENTIFIED	8.517	☐
Radium-228	✓	1.169	0.1275	pCi/g	0.1688	0.500	911.5	3	1.724	IDENTIFIED	9.052	☐
Rhenium-183	LA	0.7126	0.1164	pCi/g	0.2859	N	0	12	0	FAIL_ABUND	0	☐
Rubidium-84	HE	0.1073	0.0411	pCi/g	0.07317	N	880.7	1	1.049	IDENTIFIED	37.99	☐
Sodium-24	HE	2.32E+05	2.74E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐
Technetium-99m		1.44E+19	0	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐
Tellurium-125m	HE	40.84	7.952	pCi/g	27.39	N	0	12	0	NOT_IDENTI	0	☐
Thallium-200	HE	1068	882.5	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.3379	0.04121	pCi/g	0.05249	0.080	583.3	1	1.385	IDENTIFIED	10.94	☐
Thorium-228	NR	0.9798	0.08094	pCi/g	0.09242	N	238.6	4	0.9873	IDENTIFIED	4.384	☐
Thorium-230	NR	0.7686	0.07856	pCi/g	0.09641	N	609.7	4	1.402	IDENTIFIED	8.517	☐
Thorium-232	NR	1.169	0.1275	pCi/g	0.1688	N	911.5	3	1.724	IDENTIFIED	9.052	☐
Thorium-234	✓	166.4	14.66	pCi/g	3.483	2.00	63.22	2	0.9938	IDENTIFIED	1.373	☐
Titanium-44	HE	0.1328	0.03252	pCi/g	0.1031	N	0	12	0	FAIL_ABUND	0	☐
Total Uranium		496.51	4.36E-05	ug/g	5.185	N		0				☐
Uranium-231	NR	25.18	2.84	pCi/g	3.697	N	94.71	1	1.21	IDENTIFIED	10.34	☐
Uranium-234	NR	0.7686	0.07856	pCi/g	0.09641	N	609.7	4	1.402	IDENTIFIED	8.517	☐
Uranium-235	✓	2.961	0.3441	pCi/g	0.4489	0.500	143.8	1	1.037	IDENTIFIED	7.542	☐
Uranium-238	NR	166.4	14.66	pCi/g	3.483	N	63.22	2	0.9938	IDENTIFIED	1.373	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808007	26-JAN-10 12:00	12-FEB-10 17:00	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.592	0.2002	pCi/g	0.2439	N	910.1	3	1.948	IDENTIFIED	11.17	☐	
Americium-243	INT	0.3487	0.05806	pCi/g	0.1467	N	74.58	1	1.134	IDENTIFIED	16.04	☐	
Annihilation Rad.		0.1595	0.04438	pCi/g	0.05963	N	510.4	1	1.448	IDENTIFIED	27.68	☐	
Barium-137m	NR	0.8478	0.06477	pCi/g	0.08287	N	661	2	1.431	IDENTIFIED	7.199	☐	
Bismuth-211	INT	4.401	0.3291	pCi/g	0.4526	Y	351.3	4	1.375	IDENTIFIED	6.73	☑ VI	
Bismuth-212	HE	1.024	0.3665	pCi/g	0.8483	N	0	16	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.273	0.1197	pCi/g	0.1419	0.200	608.7	4	1.673	IDENTIFIED	8.624	☐	
Cadmium-109	INT	3.818	0.8625	pCi/g	1.983	Y	87.13	3	1.408	IDENTIFIED	22.07	☑ VI	
Cerium-141	HE	0.1828	0.05148	pCi/g	0.1608	N	0	16	0	NOT_IDENTI	0	☐	
Cerium-143		4630	685.7	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.4594	0.1516	pCi/g	0.3432	N	269.6	1	1.279	IDENTIFIED	32.79	☐	
Cesium-137	✓	0.8962	0.0685	pCi/g	0.0876	0.100	661	2	1.431	IDENTIFIED	7.199	☐	
Gadolinium-153	HE	0.3473	0.08921	pCi/g	0.2253	N	0	16	0	FAIL_ABUND	0	☐	
Gold-195	HE	1.013	0.2603	pCi/g	0.6437	N	0	16	0	FAIL_ABUND	0	☐	
Gross Gamma		11.58	1.525	pCi/g	4.343	N		0				☐	
Iodine-133	HE	867.4	22100	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Iodine-135		2.67E+17	0	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.613	0.08927	pCi/g	0.121	0.100	238.4	4	1.226	IDENTIFIED	4.21	☐	
Lead-214	✓	1.531	0.1212	pCi/g	0.1479	0.100	351.3	4	1.375	IDENTIFIED	6.73	☐	
Neptunium-237	HE	1.099	0.2728	pCi/g	0.5825	N	87.13	3	1.408	IDENTIFIED	22.07	☐	
Niobium-95	HE	0.1117	0.04758	pCi/g	0.09154	N	766.6	1	1.713	IDENTIFIED	42.45	☐	
Niobium-95m	LA	0.7245	0.1135	pCi/g	0.3649	N	0	16	0	NOT_IDENTI	0	☐	

Niobium-97		5.88E+06	7.99E+05	pCi/g	0	N	0	16	0	SHORT_HLIF	0		☐
Polonium-212	NR	1.613	0.08927	pCi/g	0.121	N	238.4	4	1.226	IDENTIFIED	4.21		☐
Polonium-214	NR	1.531	0.1212	pCi/g	0.1479	N	351.3	4	1.375	IDENTIFIED	6.73		☐
Polonium-216	NR	1.613	0.08927	pCi/g	0.121	N	238.4	4	1.226	IDENTIFIED	4.21		☐
Polonium-218	NR	1.531	0.1212	pCi/g	0.1479	N	351.3	4	1.375	IDENTIFIED	6.73		☐
Potassium-40	✓	22.5	1.267	pCi/g	0.4898	1.00	1459	1	2.059	IDENTIFIED	4.213		☐
Protactinium-234m	✓	36.11	5.286	pCi/g	8.468	N	999.9	1	1.818	IDENTIFIED	13.84		☐
Radium-224	INT	4.122	0.8649	pCi/g	1.377	Y	241.3	1	1.777	IDENTIFIED	20.79		☑ VI
Radium-226	✓	1.273	0.1197	pCi/g	0.1419	Y	608.7	4	1.673	IDENTIFIED	8.624		☐
Radium-228	✓	1.592	0.2002	pCi/g	0.2439	0.500	910.1	3	1.948	IDENTIFIED	11.17		☐
Silver-110m	LA	0.2093	0.03485	pCi/g	0.122	N	0	16	0	NOT_IDENTI	0		☐
Sodium-24	HE	7.13E+05	5.03E+06	pCi/g	0	N	0	16	0	SHORT_HLIF	0		☐
Thallium-200	HE	510.5	1209	pCi/g	0	N	0	16	0	SHORT_HLIF	0		☐
Thallium-208	✓	0.4586	0.05935	pCi/g	0.07968	0.080	582.7	1	1.328	IDENTIFIED	12.53		☐
Thorium-228	NR	1.641	0.09081	pCi/g	0.123	N	238.4	4	1.226	IDENTIFIED	4.21		☐
Thorium-230	NR	1.273	0.1197	pCi/g	0.1419	N	608.7	4	1.673	IDENTIFIED	8.624		☐
Thorium-232	NR	1.592	0.2002	pCi/g	0.2439	N	910.1	3	1.948	IDENTIFIED	11.17		☐
Thorium-234	✓	22.81	2.868	pCi/g	3.747	2.00	63.2	2	1.027	IDENTIFIED	8.773		☐
Tin-126	INT	0.3741	0.08451	pCi/g	0.1954	N	87.13	3	1.408	IDENTIFIED	22.07		☐
Titanium-44	LA	0.3914	0.04074	pCi/g	0.1147	N	0	16	0	FAIL_ABUND	0		☐
Total Uranium		68.262	8.53E-06	ug/g	5.5782	N		0					☐
Tungsten-181	LA	2.147	0.3939	pCi/g	1.251	N	0	16	0	NOT_IDENTI	0		☐
Uranium-231	HE	5.999	1.699	pCi/g	4.073	N	0	16	0	FAIL_ABUND	0		☐
Uranium-234	NR	1.273	0.1197	pCi/g	0.1419	N	608.7	4	1.673	IDENTIFIED	8.624		☐
Uranium-235	✓	0.8698	0.2368	pCi/g	0.4722	0.500	143.2	1	1.462	IDENTIFIED	26		☐
Uranium-238	NR	22.81	2.868	pCi/g	3.747	N	63.2	2	1.027	IDENTIFIED	8.773		☐
Zirconium-97		5.98E+07	1.23E+07	pCi/g	0	N	0	16	0	SHORT_HLIF	0		☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245808008	26-JAN-10 12:00	12-FEB-10 17:37	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	NR	1.5	0.178	pCi/g	0.2561	N	911	3	1.873	IDENTIFIED	10.31	☐	
Americium-243	INT	0.4079	0.06674	pCi/g	0.1339	N	74.99	1	1.602	IDENTIFIED	15.31	☐	
Annihilation Rad.	HE	0.08912	0.04064	pCi/g	0.05941	N	511	1	1.873	IDENTIFIED	45.39	☐	
Bismuth-211	INT	3.583	0.3219	pCi/g	0.4084	Y	352	4	1.358	IDENTIFIED	7.484	☑ VI	
Bismuth-214	✓	0.9865	0.1049	pCi/g	0.1481	0.200	609.5	4	1.424	IDENTIFIED	9.404	☐	
Cadmium-109	PW	3.324	0.9465	pCi/g	2.028	Y	86.82	3	4.154	IDENTIFIED	27.8	☑ UI	Data rejected due to high peak-width.
Cerium-143		2087	391.6	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1464	0.03396	pCi/g	0.1025	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		9.454	1.669	pCi/g	3.816	N		0				☐	
Krypton-85	HE	22.29	5.232	pCi/g	17.42	N	0	9	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.607	0.1163	pCi/g	0.1143	0.100	238.8	4	1.412	IDENTIFIED	4.118	☐	
Lead-214	✓	1.247	0.1166	pCi/g	0.1516	0.100	352	4	1.358	IDENTIFIED	7.484	☐	
Lutetium-177	HE	3.248	0.983	pCi/g	3.111	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.9564	0.2896	pCi/g	0.5488	N	86.82	3	4.154	IDENTIFIED	27.8	☐	
Niobium-95m	HE	0.3125	0.09439	pCi/g	0.3041	N	0	9	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.607	0.1163	pCi/g	0.1143	N	238.8	4	1.412	IDENTIFIED	4.118	☐	
Polonium-214	NR	1.247	0.1166	pCi/g	0.1516	N	352	4	1.358	IDENTIFIED	7.484	☐	
Polonium-216	NR	1.607	0.1163	pCi/g	0.1143	N	238.8	4	1.412	IDENTIFIED	4.118	☐	
Polonium-218	NR	1.247	0.1166	pCi/g	0.1516	N	352	4	1.358	IDENTIFIED	7.484	☐	
Potassium-40	✓	34.56	1.993	pCi/g	0.6177	1.00	1460	1	2.199	IDENTIFIED	3.022	☐	
Radium-224	INT	4.669	0.8058	pCi/g	1.3	Y	241.7	1	1.854	IDENTIFIED	16.35	☑ VI	
Radium-226	✓	0.9865	0.1049	pCi/g	0.1481	Y	609.5	4	1.424	IDENTIFIED	9.404	☐	
Radium-228	✓	1.5	0.178	pCi/g	0.2561	0.500	911	3	1.873	IDENTIFIED	10.31	☐	
Strontium-85	LA	0.1169	0.02743	pCi/g	0.09135	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		6.32E+18	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5333	0.05238	pCi/g	0.06894	0.080	583.4	1	1.526	IDENTIFIED	8.688	☐	
Thorium-228	NR	1.634	0.1183	pCi/g	0.1163	N	238.8	4	1.412	IDENTIFIED	4.118	☐	

Thorium-230	NR	0.9865	0.1049	pCi/g	0.1481	N	609.5	4	1.424	IDENTIFIED	9.404	☐	
Thorium-232	NR	1.5	0.178	pCi/g	0.2561	N	911	3	1.873	IDENTIFIED	10.31	☐	
Tin-126	HE	0.3257	0.09273	pCi/g	0.2114	N	86.82	3	4.154	IDENTIFIED	27.8	☐	
Titanium-44	LA	0.3023	0.0385	pCi/g	0.109	N	0	9	0	FAIL_ABUND	0	☐	
Uranium-234	NR	0.9865	0.1049	pCi/g	0.1481	N	609.5	4	1.424	IDENTIFIED	9.404	☐	
Zirconium-97		5.51E+07	1.03E+07	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202029817		12-FEB-10 17:51	0	MB	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Niobium-97 HE	101.2	258.1	pCi/g	0	N	0	1	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202029818	26-JAN-10 12:00	12-FEB-10 17:52	17.2	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-227	HE	1.186	0.2638	pCi/g	0.7927	N	0	21	0	NOT_IDENTI	0	☐	
Actinium-228	NR	1.005	0.1232	pCi/g	0.1714	N	911	3	1.749	IDENTIFIED	10.31	☐	
Americium-241	LA	0.5361	0.1564	pCi/g	0.5309	0.200	0	21	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Americium-243	INT	0.359	0.05949	pCi/g	0.1908	N	74.93	1	0.8874	IDENTIFIED	16.06	☐	
Annihilation Rad.	HE	0.07602	0.034	pCi/g	0.04501	N	511.2	1	2.735	IDENTIFIED	44.45	☐	
Barium-137m	NR	0.1684	0.03014	pCi/g	0.05686	N	661.5	2	1.367	IDENTIFIED	17.11	☐	
Bismuth-211	INT	2.265	0.2076	pCi/g	0.3303	Y	352	4	1.439	IDENTIFIED	7.087	☑ UI	
Bismuth-212	HE	0.7393	0.1833	pCi/g	0.4407	N	727.8	1	1.224	IDENTIFIED	24.06	☐	
Bismuth-214	✓	0.6886	0.06533	pCi/g	0.1028	0.200	609.4	4	1.609	IDENTIFIED	7.496	☐	
Cerium-141	LA	0.6667	0.05984	pCi/g	0.1896	N	0	21	0	NOT_IDENTI	0	☐	
Cerium-143		1502	294	pCi/g	0	N	0	21	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.0896	0.02335	pCi/g	0.07963	0.100	0	21	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.178	0.03186	pCi/g	0.06011	0.100	661.5	2	1.367	IDENTIFIED	17.11	☐	
Gadolinium-153	LA	2.132	0.1414	pCi/g	0.3113	N	0	21	0	FAIL_ABUND	0	☐	
Gold-195	LA	6.22	0.4126	pCi/g	0.9008	N	0	21	0	FAIL_ABUND	0	☐	
Gross Gamma		27.91	1.899	pCi/g	5.664	N		0				☐	
Krypton-85	HE	15.49	3.479	pCi/g	12.38	N	0	21	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.024	0.07982	pCi/g	0.09937	0.100	238.7	4	1.35	IDENTIFIED	4.139	☐	
Lead-214	✓	0.7879	0.07509	pCi/g	0.1109	0.100	352	4	1.439	IDENTIFIED	7.087	☐	
Molybdenum-99	HE	47.47	12.89	pCi/g	39.24	N	0	21	0	NOT_IDENTI	0	☐	
Niobium-95	INT	0.9437	0.06888	pCi/g	0.06053	N	766.4	1	1.891	IDENTIFIED	4.833	☐	
Niobium-97	HE	5.66E+05	4.24E+05	pCi/g	0	N	0	21	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.024	0.07982	pCi/g	0.09937	N	238.7	4	1.35	IDENTIFIED	4.139	☐	
Polonium-214	NR	0.7879	0.07509	pCi/g	0.1109	N	352	4	1.439	IDENTIFIED	7.087	☐	
Polonium-216	NR	1.024	0.07982	pCi/g	0.09937	N	238.7	4	1.35	IDENTIFIED	4.139	☐	
Polonium-218	NR	0.7879	0.07509	pCi/g	0.1109	N	352	4	1.439	IDENTIFIED	7.087	☐	
Potassium-40	✓	22.97	1.191	pCi/g	0.3854	1.00	1461	1	2.743	IDENTIFIED	2.432	☐	
Protactinium-234m	✓	246.6	15.4	pCi/g	4.981	N	1001	1	2.161	IDENTIFIED	2.483	☐	
Radium-224	INT	2.757	0.5322	pCi/g	1.129	Y	241.4	1	1.713	IDENTIFIED	18.26	☑ UI	
Radium-226	✓	0.6886	0.06533	pCi/g	0.1028	Y	609.4	4	1.609	IDENTIFIED	7.496	☐	
Radium-228	✓	1.005	0.1232	pCi/g	0.1714	0.500	911	3	1.749	IDENTIFIED	10.31	☐	
Rhenium-183	LA	0.8409	0.117	pCi/g	0.2955	N	0	21	0	FAIL_ABUND	0	☐	
Rubidium-84	HE	0.1466	0.03428	pCi/g	0.1252	N	0	21	0	NOT_IDENTI	0	☐	
Strontium-85	LA	0.08123	0.01824	pCi/g	0.06492	Y	0	21	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		2.20E+18	0	pCi/g	0	N	0	21	0	SHORT_HLIF	0	☐	
Tellurium-125m	HE	42.28	9.487	pCi/g	30.23	N	0	21	0	NOT_IDENTI	0	☐	
Thallium-200	HE	212.2	806.4	pCi/g	0	N	0	21	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.2748	0.03482	pCi/g	0.0547	0.080	583.4	1	1.553	IDENTIFIED	11.45	☐	
Thorium-227	LA	1.186	0.2698	pCi/g	0.7927	Y	0	21	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Thorium-228	NR	1.042	0.08121	pCi/g	0.1011	N	238.7	4	1.35	IDENTIFIED	4.139	☐	
Thorium-230	NR	0.6886	0.06532	pCi/g	0.1028	N	609.4	4	1.609	IDENTIFIED	7.496	☐	
Thorium-232	NR	1.005	0.1232	pCi/g	0.1714	N	911	3	1.749	IDENTIFIED	10.31	☐	

Thorium-234	✓	157.8	13.94	pCi/g	3.978	2.00	63.26	2	1.029	IDENTIFIED	1.505	☐
Titanium-44	HE	0.1624	0.03669	pCi/g	0.1177	N	0	21	0	FAIL_ABUND	0	☐
Total Uranium		470.92	4.15E-05	ug/g	5.9215	N		0				☐
Tungsten-181		6.392	0.4348	pCi/g	1.352	N	0	21	0	NOT_IDENTI	0	☐
Uranium-231		22.63	2.988	pCi/g	4.294	N	94.7	1	1.192	IDENTIFIED	12.42	☐
Uranium-234		0.6886	0.06532	pCi/g	0.1028	N	609.4	4	1.609	IDENTIFIED	7.496	☐
Uranium-235	✓	3.107	0.3466	pCi/g	0.5003	0.500	143.9	1	1.149	IDENTIFIED	6.831	☐
Uranium-238		157.8	13.94	pCi/g	3.978	N	63.26	2	1.029	IDENTIFIED	1.505	☐
Xenon-127	HE	0.1384	0.03274	pCi/g	0.1055	N	0	21	0	FAIL_ABUND	0	☐
Zirconium-97		3.69E+07	7.94E+06	pCi/g	0	N	0	21	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202029819		12-FEB-10 18:28	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	HE	0.7688	0.2329	pCi/g	0.466	N	911.2	3	1.131	IDENTIFIED	29.67	☐	
Americium-241	✓	13.5	0.602	pCi/g	0.4163	0.200	59.65	1	1.055	IDENTIFIED	2.138	☐	
Annihilation Rad.	HE	0.09397	0.04721	pCi/g	0.08296	N	510.8	1	2.094	IDENTIFIED	50.03	☐	
Barium-137m		5.743	0.3154	pCi/g	0.1118	N	661.7	2	1.414	IDENTIFIED	2.232	☐	
Bismuth-211		2.009	0.3026	pCi/g	0.5691	Y	351.7	4	1.38	IDENTIFIED	14.28	☐	
Bismuth-214		0.7127	0.1139	pCi/g	0.1895	0.200	609.5	4	1.412	IDENTIFIED	14.98	☐	
Cadmium-109		33.21	1.85	pCi/g	1.841	Y	88.1	2	1.151	IDENTIFIED	2.949	☐	
Cerium-143	HE	57.85	14.83	pCi/g	46.7	N	0	10	0	FAIL_ABUND	0	☐	
Cesium-137	✓	6.071	0.3338	pCi/g	0.1182	0.100	661.7	2	1.414	IDENTIFIED	2.232	☐	
Cobalt-57		0.232	0.03151	pCi/g	0.0603	N	122.2	1	0.9451	IDENTIFIED	12.92	☐	
Cobalt-60	✓	6.725	0.3234	pCi/g	0.06859	0.100	1333	1	1.829	IDENTIFIED	2.364	☐	
Gross Gamma		27.16	2.836	pCi/g	4.754	N		0				☐	
Iodine-123	HE	10340	16530	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-133		342.2	161.2	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.83E+10	4.88E+10	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212		1.018	0.1204	pCi/g	0.1576	0.100	238.6	4	1.142	IDENTIFIED	10.56	☐	
Lead-214		0.6987	0.1068	pCi/g	0.2041	0.100	351.7	4	1.38	IDENTIFIED	14.28	☐	
Lutetium-177	HE	2.205	0.6841	pCi/g	1.913	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237		4.175	0.5323	pCi/g	0.9801	N	0	10	0	NOT_IDENTI	0	☐	
Niobium-97	HE	977.7	1451	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212		1.018	0.1204	pCi/g	0.1576	N	238.6	4	1.142	IDENTIFIED	10.56	☐	
Polonium-214		0.6987	0.1068	pCi/g	0.2041	N	351.7	4	1.38	IDENTIFIED	14.28	☐	
Polonium-216		1.018	0.1204	pCi/g	0.1576	N	238.6	4	1.142	IDENTIFIED	10.56	☐	
Polonium-218		0.6987	0.1068	pCi/g	0.2041	N	351.7	4	1.38	IDENTIFIED	14.28	☐	
Radium-224		4.094	0.6511	pCi/g	2.272	Y	0	10	0	NOT_IDENTI	0	☐	
Radium-226		0.7127	0.1139	pCi/g	0.1895	Y	609.5	4	1.412	IDENTIFIED	14.98	☐	
Radium-228		0.7688	0.2329	pCi/g	0.466	0.500	911.2	3	1.131	IDENTIFIED	29.67	☐	
Technetium-99m	HE	3.67E+10	1.53E+11	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208		0.3898	0.05519	pCi/g	0.1053	0.080	583.3	1	1.399	IDENTIFIED	13.19	☐	
Thorium-228		1.029	0.1217	pCi/g	0.1593	N	238.6	4	1.142	IDENTIFIED	10.56	☐	
Thorium-230		0.7127	0.1139	pCi/g	0.1895	N	609.5	4	1.412	IDENTIFIED	14.98	☐	
Thorium-232	HE	0.7688	0.2329	pCi/g	0.466	N	911.2	3	1.131	IDENTIFIED	29.67	☐	
Tin-126		3.286	0.183	pCi/g	0.1826	N	88.1	2	1.151	IDENTIFIED	2.949	☐	
Uranium-234		0.7127	0.1139	pCi/g	0.1895	N	609.5	4	1.412	IDENTIFIED	14.98	☐	
Zirconium-97	HE	6771	23490	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
947554	245808007	SAMPLE	12-FEB-10	Polonium-210	12.15	4.17	pCi/g	7.307	N
				Potassium-40	22.5	1.267	pCi/g	0.245	1.00
				Protactinium-234m	36.11	5.286	pCi/g	4.237	N
				Radium-224	4.122	0.8649	pCi/g	0.6887	Y
				Radium-226	1.273	0.1197	pCi/g	0.071	Y
				Radium-228	1.592	0.2002	pCi/g	0.122	0.500
				Sodium-24	7.13E+05	5.03E+06	pCi/g	0	N
				Strontium-85	0.08328	0.029	pCi/g	0.04655	Y
				Thallium-200	510.5	1209	pCi/g	0	N
				Thallium-208	0.4586	0.05935	pCi/g	0.03986	0.080
				Thorium-234	22.81	2.868	pCi/g	1.875	2.00
				Uranium-231	5.999	1.699	pCi/g	2.038	N
				Uranium-235	0.8698	0.2368	pCi/g	0.2362	0.500
				Uranium-238	22.81	2.868	pCi/g	1.875	N
				Zirconium-97	5.98E+07	1.23E+07	pCi/g	0	N
947554	245808008	SAMPLE	12-FEB-10	Bismuth-211	3.583	0.3219	pCi/g	0.2043	Y
				Bismuth-214	0.9865	0.1049	pCi/g	0.07407	0.200
				Cadmium-109	3.324	0.9465	pCi/g	1.014	Y
				Cerium-143	2087	391.6	pCi/g	0	N
				Cesium-134	0.1464	0.03396	pCi/g	0.05126	0.100
				Gross Gamma	9.454	1.669	pCi/g	1.849	N
				Krypton-85	22.29	5.232	pCi/g	8.717	N
				Lead-212	1.607	0.1163	pCi/g	0.05719	0.100
				Lead-214	1.247	0.1166	pCi/g	0.07583	0.100
				Mercury-203	0.08906	0.02744	pCi/g	0.04974	0.100
				Potassium-40	34.56	1.993	pCi/g	0.309	1.00
				Radium-224	4.669	0.8058	pCi/g	0.6505	Y
				Radium-226	0.9865	0.1049	pCi/g	0.07407	Y
				Radium-228	1.5	0.178	pCi/g	0.1281	0.500
				Strontium-85	0.1169	0.02743	pCi/g	0.0457	Y
				Technetium-99m	6.32E+18	0	pCi/g	0	N
				Thallium-208	0.5333	0.05238	pCi/g	0.03449	0.080
				Yttrium-91	30.84	13.63	pCi/g	24.02	N
				Zirconium-97	5.51E+07	1.03E+07	pCi/g	0	N
947554	1202029817	MB	12-FEB-10	Niobium-97	101.2	258.1	pCi/g	0	N
				Yttrium-91	6.499	2.682	pCi/g	5.83	N
~~947554~~	~~1202029818~~	~~DUP~~	~~12-FEB-10~~	~~Americium-241~~	~~0.5361~~	~~0.1564~~	~~pCi/g~~	~~0.2656~~	~~0.200~~

MLP 2/15/10

MLP 2/15/10

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:26:41.26

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*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808001.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:26:17
Sample ID         : G245808001           Sample quantity  : 1.49809E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:04.97  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.24*	2286	2217	1.04	126.51	122	9	1.06E-01	4.3	
2	2	74.81	808	1645	0.89	149.66	146	15	3.74E-02	8.3	1.26E+00
3	2	77.09	1480	1911	1.06	154.22	146	15	6.85E-02	5.4	
4	4	83.96	480	2401	1.37	167.96	162	32	2.22E-02	17.8	1.66E+00
5	4	87.21	916	2302	1.30	174.47	162	32	4.24E-02	9.5	
6	4	89.94	788	2226	1.28	179.92	162	32	3.65E-02	11.1	
7	4	92.58*	8414	1754	1.14	185.19	162	32	3.90E-01	1.4	
8	4	94.54	466	1852	1.40	189.11	162	32	2.16E-02	24.7	
9	0	98.62	618	1901	1.03	197.28	194	9	2.86E-02	13.4	
10	0	105.54	185	1329	0.90	211.13	208	7	8.56E-03	33.5	
11	0	112.36	475	2205	1.01	224.77	220	10	2.20E-02	19.1	
12	0	128.98	212	1119	0.89	258.01	255	6	9.82E-03	25.9	
13	0	143.58	336	1572	1.02	287.21	283	9	1.56E-02	21.9	
14	0	163.13	195	1049	1.44	326.33	323	7	9.03E-03	28.4	
15	0	185.80*	1961	1346	1.19	371.66	367	10	9.08E-02	4.3	
16	0	205.27	164	837	1.16	410.60	407	7	7.61E-03	30.3	
17	0	209.08	398	1053	1.17	418.22	414	9	1.84E-02	15.5	
18	5	238.62*	4192	671	1.10	477.31	470	20	1.94E-01	1.9	2.06E+00
19	5	241.58*	966	902	1.73	483.24	470	20	4.47E-02	8.2	
20	0	257.86	171	858	1.17	515.78	511	10	7.93E-03	32.9	
21	0	270.22	380	649	1.37	540.51	536	9	1.76E-02	13.2	
22	0	277.01	249	849	0.96	554.10	548	12	1.15E-02	24.3	
23	0	295.16	1196	831	1.17	590.41	584	12	5.54E-02	5.6	
24	0	300.10	256	704	1.09	600.27	596	10	1.18E-02	20.4	
25	0	328.03	237	672	1.44	656.14	651	11	1.10E-02	22.2	
26	0	338.32*	825	587	1.26	676.73	672	10	3.82E-02	6.6	
27	0	351.83*	2086	679	1.31	703.75	697	13	9.66E-02	3.4	
28	0	409.91	108	341	1.40	819.91	816	8	4.99E-03	31.3	
29	0	438.77	40	374	1.34	877.64	871	9	1.85E-03	88.7	
30	0	462.88	232	302	1.55	925.86	921	9	1.08E-02	15.0	
31	0	510.79*	379	582	2.08	1021.68	1014	16	1.75E-02	17.2	
32	0	583.29*	1227	432	1.41	1166.68	1160	15	5.68E-02	4.8	
33	0	609.34*	1401	390	1.48	1218.78	1213	13	6.49E-02	4.1	
34	0	727.38	269	343	1.36	1454.85	1450	13	1.24E-02	15.5	
35	0	767.02	294	394	2.23	1534.12	1528	14	1.36E-02	15.4	
36	0	786.53	59	326	1.58	1573.14	1566	12	2.74E-03	62.7	
37	0	795.21	146	295	1.78	1590.50	1584	14	6.77E-03	26.2	
38	0	837.88	185	370	4.01	1675.83	1667	23	8.56E-03	28.1	

Sample ID : G245808001 Acquisition date : 11-FEB-2010 22:26:17

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	860.63	173	160	1.20	1721.34	1717	10	8.00E-03	15.7	
40	0	911.24*	856	292	1.74	1822.54	1816	17	3.96E-02	5.9	
41	0	934.07	115	162	1.36	1868.20	1862	11	5.31E-03	23.4	
42	3	965.06	167	133	1.89	1930.17	1926	18	7.73E-03	13.1	1.85E+00
43	3	969.11*	528	170	1.72	1938.27	1926	18	2.44E-02	6.8	
44	0	1000.97*	479	202	1.64	2001.98	1997	12	2.22E-02	7.6	
45	0	1120.20*	287	252	2.15	2240.42	2233	14	1.33E-02	13.4	
46	0	1237.42	229	252	2.37	2474.82	2466	15	1.06E-02	16.5	
47	0	1377.93	70	80	1.95	2755.78	2750	10	3.23E-03	25.6	
48	0	1460.89*	4516	95	2.02	2921.66	2911	19	2.09E-01	1.6	
49	0	1631.31	40	27	1.77	3262.42	3256	12	1.86E-03	30.3	
50	0	1730.26	55	31	2.59	3460.27	3453	15	2.57E-03	25.4	
51	0	1764.73*	296	37	2.19	3529.18	3518	21	1.37E-02	8.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 04:26:44

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:26:17
Sample ID : G245808001 Sample quantity : 149.81 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:04.97 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.290E+01	2.561E+00	2.547E-01	1.810E-02	129.190
NB-95	+	765.79	*	1.520E-01	4.784E-02	3.581E-02	2.232E-03	4.244
CD-109	+	88.03	*	4.206E+00	9.458E-01	8.214E-01	9.872E-02	5.120
SN-126	+	64.28		9.656E+00	1.865E+00	6.863E-01	1.182E-01	14.070
	+	86.94		1.715E+00	7.937E-01	3.412E-01	1.439E-01	5.027
	+	87.57	*	4.125E-01	9.277E-02	8.119E-02	9.736E-03	5.081
EU-155		48.70		-5.417E+00	3.485E+00	5.659E+00	6.520E-01	-0.957
		60.01		4.583E+00	5.105E+00	7.900E+00	9.597E-01	0.580
	+	86.54		4.971E-01	1.120E-01	9.959E-02	1.193E-02	4.991
	+	105.31	*	1.221E-01	8.250E-02	1.064E-01	9.278E-03	1.147
LU-177	+	112.95		5.396E+00	2.103E+00	1.909E+00	1.478E-01	2.827
	+	208.36	*	3.161E+00	1.002E+00	1.004E+00	6.588E-02	3.149
TL-208	+	277.35		7.052E-01	3.517E-01	3.061E-01	3.382E-02	2.304
	+	510.84		5.361E-01	1.924E-01	1.137E-01	1.141E-02	4.716
	+	583.14	*	4.959E-01	5.698E-02	3.006E-02	1.891E-03	16.498
	+	860.37		6.648E-01	2.163E-01	2.531E-01	2.111E-02	2.626
BI-211		72.87		3.749E+00	2.541E+00	3.900E+00	4.472E-01	0.961
	+	351.07	*	3.712E+00	3.574E-01	1.706E-01	1.153E-02	21.755
BI-212	+	727.18	*	9.350E-01	2.985E-01	2.493E-01	1.906E-02	3.751
	+	785.46		1.324E+00	1.662E+00	1.626E+00	1.058E-01	0.814
		1620.62		9.208E-01	6.736E-01	1.231E+00	8.036E-02	0.748
PB-212	+	74.81		1.733E+00	3.851E-01	4.180E-01	6.179E-02	4.145
	+	77.11		1.749E+00	2.750E-01	2.308E-01	2.647E-02	7.579
	+	87.30		1.908E+00	4.696E-01	3.772E-01	5.884E-02	5.058
	+	238.63	*	1.627E+00	1.448E-01	4.793E-02	3.849E-03	33.946
	+	300.09		1.534E+00	6.406E-01	6.262E-01	5.513E-02	2.449
PO-212	+	74.81		1.733E+00	3.851E-01	4.180E-01	6.179E-02	4.145
	+	77.11		1.749E+00	2.750E-01	2.308E-01	2.647E-02	7.579
	+	87.30		1.908E+00	4.696E-01	3.772E-01	5.884E-02	5.058
		115.19		1.492E+00	2.332E+00	3.495E+00	2.630E-01	0.427
	+	238.63	*	1.627E+00	1.448E-01	4.793E-02	3.849E-03	33.946
	+	300.09		1.534E+00	6.406E-01	6.262E-01	5.513E-02	2.449
BI-214	+	609.31	*	1.068E+00	1.168E-01	6.229E-02	4.577E-03	17.144
	+	1120.29		1.170E+00	3.320E-01	2.765E-01	2.576E-02	4.231

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1764.49		1.643E+00	2.835E-01	1.465E-01	8.931E-03	11.213
PB-214	+	74.81		2.986E+00	6.413E-01	7.203E-01	9.825E-02	4.145
	+	77.11		2.998E+00	5.239E-01	3.956E-01	5.448E-02	7.579
	+	87.30		3.269E+00	7.770E-01	6.462E-01	9.201E-02	5.058
	+	241.98		2.251E+00	4.193E-01	2.887E-01	2.516E-02	7.797
	+	295.21		1.259E+00	1.820E-01	1.131E-01	1.027E-02	11.135
	+	351.92	*	1.291E+00	1.414E-01	5.948E-02	5.074E-03	21.709
PO-214	+	74.81		2.986E+00	6.413E-01	7.203E-01	9.825E-02	4.145
	+	77.11		2.998E+00	5.239E-01	3.956E-01	5.448E-02	7.579
	+	87.30		3.269E+00	7.770E-01	6.462E-01	9.201E-02	5.058
	+	241.98		2.251E+00	4.193E-01	2.887E-01	2.516E-02	7.797
	+	295.21		1.259E+00	1.820E-01	1.131E-01	1.027E-02	11.135
	+	351.92	*	1.291E+00	1.414E-01	5.948E-02	5.074E-03	21.709
PO-216	+	74.81		1.733E+00	3.851E-01	4.180E-01	6.179E-02	4.145
	+	77.11		1.749E+00	2.750E-01	2.308E-01	2.647E-02	7.579
	+	87.30		1.908E+00	4.696E-01	3.772E-01	5.884E-02	5.058
	+	238.63	*	1.627E+00	1.448E-01	4.793E-02	3.849E-03	33.946
	+	300.09		1.534E+00	6.406E-01	6.262E-01	5.513E-02	2.449
PO-218	+	74.81		2.986E+00	6.413E-01	7.203E-01	9.825E-02	4.145
	+	77.11		2.998E+00	5.239E-01	3.956E-01	5.448E-02	7.579
	+	87.30		3.269E+00	7.770E-01	6.462E-01	9.201E-02	5.058
	+	241.98		2.251E+00	4.193E-01	2.887E-01	2.516E-02	7.797
	+	295.21		1.259E+00	1.820E-01	1.131E-01	1.027E-02	11.135
	+	351.92	*	1.291E+00	1.414E-01	5.948E-02	5.074E-03	21.709
RA-224	+	240.98	*	4.269E+00	7.581E-01	5.456E-01	3.637E-02	7.824
RA-226	+	609.31	*	1.068E+00	1.168E-01	6.229E-02	4.577E-03	17.144
	+	1120.29		1.170E+00	3.320E-01	2.765E-01	2.576E-02	4.231
	+	1764.49		1.643E+00	2.835E-01	1.465E-01	8.931E-03	11.213
AC-228	+	338.32		1.618E+00	6.948E-01	1.929E-01	7.877E-02	8.388
	+	911.07	*	1.562E+00	2.503E-01	1.167E-01	1.272E-02	13.383
	+	969.11		1.703E+00	4.551E-01	2.069E-01	4.771E-02	8.232
RA-228	+	338.32		1.618E+00	6.948E-01	1.929E-01	7.877E-02	8.388
	+	911.07	*	1.562E+00	2.503E-01	1.167E-01	1.272E-02	13.383
	+	969.11		1.703E+00	4.551E-01	2.069E-01	4.771E-02	8.232
TH-228	+	74.81		1.762E+00	3.557E-01	4.250E-01	4.890E-02	4.145
	+	77.11		1.778E+00	2.796E-01	2.346E-01	2.691E-02	7.579
	+	87.30		1.940E+00	4.362E-01	3.835E-01	4.591E-02	5.058
	+	238.63	*	1.654E+00	1.472E-01	4.872E-02	3.913E-03	33.945
	+	300.09		1.559E+00	1.119E+00	6.365E-01	3.757E-01	2.449
TH-229	+	85.43		5.174E-01	1.939E-01	1.892E-01	2.239E-02	2.735
	+	88.47		5.632E-01	1.267E-01	1.092E-01	1.298E-02	5.157
	+	100.00		7.131E-01	2.026E-01	1.813E-01	1.700E-02	3.933
		193.63	*	-2.658E-03	2.827E-01	4.534E-01	2.942E-02	-0.006
		210.97		6.993E-01	4.812E-01	7.130E-01	4.687E-02	0.981
TH-230	+	609.31	*	1.068E+00	1.168E-01	6.229E-02	4.577E-03	17.144
	+	1120.29		1.170E+00	3.320E-01	2.764E-01	2.575E-02	4.231
	+	1764.49		1.643E+00	2.835E-01	1.465E-01	8.931E-03	11.213
U-231	+	84.21		1.875E+01	7.028E+00	7.023E+00	8.256E-01	2.670
	+	92.29		1.145E+02	1.280E+01	2.491E+00	2.711E-01	45.970

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	95.87	*	3.821E+00	1.931E+00	1.347E+00	1.362E-01	2.836
		108.00		5.638E-01	2.198E+00	2.603E+00	2.155E-01	0.217
TH-232	+	338.32		1.618E+00	2.379E-01	1.929E-01	1.212E-02	8.388
	+	911.07	*	1.562E+00	2.503E-01	1.167E-01	1.272E-02	13.383
	+	969.11		1.703E+00	4.551E-01	2.069E-01	4.771E-02	8.232
PA-234M	+	766.42		3.962E+01	2.341E+01	1.011E+01	5.093E+00	3.920
	+	1001.03	*	3.150E+01	5.578E+00	4.169E+00	3.801E-01	7.555
TH-234	+	63.29	*	2.439E+01	5.266E+00	1.833E+00	3.626E-01	13.308
	+	92.38		2.382E+01	4.629E+00	5.175E-01	9.963E-02	46.023
U-234	+	609.31	*	1.068E+00	1.168E-01	6.229E-02	4.577E-03	17.144
	+	1120.29		1.170E+00	3.320E-01	2.764E-01	2.575E-02	4.231
	+	1764.49		1.643E+00	2.835E-01	1.465E-01	8.931E-03	11.213
U-235	+	89.95		4.643E+00	1.802E+00	1.072E+00	3.405E-01	4.332
	+	93.35		2.863E+01	8.280E+00	6.148E-01	1.765E-01	46.573
	+	105.00		1.196E+00	8.772E-01	1.054E+00	3.148E-01	1.134
	+	143.76	*	4.179E-01	1.958E-01	1.890E-01	3.133E-02	2.211
	+	163.35		5.676E-01	3.390E-01	4.254E-01	7.730E-02	1.334
	+	185.71		5.321E-01	5.712E-02	3.810E-02	2.457E-03	13.965
	+	205.31		5.455E-01	3.455E-01	4.470E-01	8.152E-02	1.220
NP-237	+	86.50	*	1.211E+00	3.697E-01	2.429E-01	5.787E-02	4.988
	+	95.87		2.676E+00	1.486E+00	9.436E-01	2.377E-01	2.836
U-238	+	63.29	*	2.439E+01	5.266E+00	1.833E+00	3.626E-01	13.308
	+	92.38		2.382E+01	2.663E+00	5.175E-01	5.620E-02	46.023
AM-243	+	74.67	*	2.809E-01	5.664E-02	6.810E-02	7.799E-03	4.125
	+	86.72		4.543E+01	1.022E+01	9.072E+00	1.082E+00	5.007
		117.66		-1.024E+00	2.307E+00	3.581E+00	2.614E-01	-0.286
	+	142.18		3.510E+01	1.556E+01	1.609E+01	1.053E+00	2.181
ANH-511	+	511.00	*	1.158E-01	4.041E-02	2.456E-02	1.374E-03	4.715

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.462E-03	1.787E-01	2.913E-01	1.930E-02	-0.005
NA-22		1274.54	*	1.437E-02	2.493E-02	4.294E-02	2.807E-03	0.335
NA-24		1368.53	*	-1.149E+00	2.493E-02	Half-Life too short		
AL-26		1129.67		1.070E+00	1.031E+00	1.748E+00	1.128E-01	0.612
		1808.65	*	-5.779E-03	1.354E-02	2.064E-02	1.224E-03	-0.280
TI-44		67.85		-2.740E-02	3.749E-02	5.930E-02	6.895E-03	-0.462
	+	78.38	*	3.228E-01	5.075E-02	4.927E-02	5.666E-03	6.551
SC-46		889.25	*	-6.355E-03	2.218E-02	3.598E-02	2.910E-03	-0.177
	+	1120.51		2.026E-01	5.590E-02	7.242E-02	4.744E-03	2.797
V-48		944.10		-1.553E-01	5.589E-01	9.029E-01	7.218E-02	-0.172
		983.50	*	-2.706E-02	4.382E-02	6.915E-02	5.357E-03	-0.391
		1312.09		-2.388E-02	4.736E-02	7.661E-02	5.162E-03	-0.312
CR-51		320.08	*	9.416E-02	1.945E-01	3.302E-01	2.325E-02	0.285
MN-52		744.21		2.074E-01	1.684E-01	2.941E-01	1.746E-02	0.705
		848.13		4.196E+00	5.144E+00	7.771E+00	5.781E-01	0.540
	+	935.52		4.896E-01	2.328E-01	3.173E-01	2.552E-02	1.543

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1246.25		7.786E-01	5.164E+00	8.714E+00	5.547E-01	0.089
		1333.61		2.648E+00	3.113E+00	5.471E+00	3.749E-01	0.484
		1434.06	*	-4.136E-03	1.547E-01	2.400E-01	1.638E-02	-0.017
MN-54		834.83	*	2.444E-02	2.416E-02	3.679E-02	2.663E-03	0.664
CO-56		846.75	*	-1.443E-02	2.609E-02	3.593E-02	2.666E-03	-0.402
		977.42		-3.056E-01	1.727E+00	2.796E+00	2.177E-01	-0.109
		1037.82		-3.558E-02	1.773E-01	2.850E-01	2.243E-02	-0.125
		1175.09		4.012E-01	1.416E+00	2.312E+00	1.377E-01	0.174
	+	1238.25		2.669E-01	8.969E-02	1.073E-01	7.142E-03	2.488
		1360.21		-3.270E-02	4.883E-01	8.086E-01	5.542E-02	-0.040
		1771.40		2.368E-02	1.230E-01	1.775E-01	1.078E-02	0.133
CO-57		122.06	*	2.668E-03	1.456E-02	2.403E-02	1.668E-03	0.111
		136.48		-6.114E-02	1.196E-01	1.932E-01	1.437E-02	-0.316
CO-58		810.76	*	-7.210E-03	2.079E-02	3.387E-02	2.338E-03	-0.213
FE-59	+	142.65		5.509E+00	2.442E+00	2.842E+00	1.858E-01	1.938
		192.34		-1.116E-01	5.358E-01	8.549E-01	1.040E-01	-0.131
		1099.22	*	-3.899E-02	5.485E-02	8.451E-02	6.458E-03	-0.461
		1291.56		-1.590E-02	7.116E-02	1.175E-01	9.492E-03	-0.135
CO-60		1173.22		-5.708E-03	2.753E-02	4.384E-02	2.607E-03	-0.130
		1332.49	*	-1.891E-04	2.097E-02	3.494E-02	2.394E-03	-0.005
ZN-65		1115.52	*	-2.513E-03	6.211E-02	8.634E-02	5.711E-03	-0.029
GE-68		1077.35	*	4.157E-01	7.609E-01	1.267E+00	8.853E-02	0.328
AS-73		53.44	*	-1.277E-01	9.967E-01	1.652E+00	2.161E-01	-0.077
AS-74		595.88	*	-1.131E-02	5.267E-02	8.365E-02	4.416E-03	-0.135
		634.78		1.154E-02	2.055E-01	3.290E-01	1.664E-02	0.035
SE-75		66.05		-2.596E+00	4.243E+00	6.322E+00	8.297E-01	-0.411
		96.73		9.073E-01	6.902E-01	8.418E-01	1.221E-01	1.078
		121.11		-1.953E-03	7.852E-02	1.290E-01	1.295E-02	-0.015
		136.00		-1.283E-02	2.252E-02	3.633E-02	2.435E-03	-0.353
		198.60		3.162E-01	1.053E+00	1.635E+00	1.262E-01	0.193
		264.65	*	1.461E-02	2.510E-02	4.020E-02	2.704E-03	0.363
		279.53		2.713E-02	6.197E-02	9.379E-02	6.622E-03	0.289
		303.91		-1.767E-01	1.199E+00	1.763E+00	1.765E-01	-0.100
		400.65		5.659E-02	1.472E-01	2.328E-01	2.096E-02	0.243
BR-77	+	87.88		1.364E+03	3.068E+02	3.441E+02	4.135E+01	3.965
		200.40		-1.307E+02	1.451E+02	2.146E+02	1.400E+01	-0.609
	+	239.00		3.931E+02	3.021E+01	3.110E+01	2.072E+00	12.642
		249.79		-4.350E+00	4.953E+01	8.390E+01	5.602E+00	-0.052
		281.68		1.564E+01	7.724E+01	1.158E+02	7.693E+00	0.135
		297.23		2.588E+02	6.727E+01	8.722E+01	5.739E+00	2.967
		303.76		-2.257E+01	1.524E+02	2.241E+02	1.467E+01	-0.101
	+	439.47		8.706E+01	1.546E+02	2.051E+02	1.163E+01	0.425
		484.57		-9.386E+01	1.832E+02	2.918E+02	1.647E+01	-0.322
		520.65	*	7.961E+00	8.193E+00	1.382E+01	7.698E-01	0.576
		574.64		-6.432E+01	1.713E+02	2.708E+02	1.457E+01	-0.238
		578.91		3.367E+01	7.795E+01	1.123E+02	6.022E+00	0.300
		585.48		1.564E+03	2.086E+02	3.612E+02	1.925E+01	4.331
		755.35		9.177E+01	1.354E+02	2.323E+02	1.414E+01	0.395
		817.79		-1.548E+01	1.004E+02	1.650E+02	1.152E+01	-0.094

---- Non-Identified Nuclides ----

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SR-82		698.33		-4.512E+00	1.847E+01	3.065E+01	1.634E+00	-0.147
		776.49	*	-2.814E-01	2.132E-01	3.313E-01	2.114E-02	-0.849
		1395.20		3.611E-01	5.906E+00	9.855E+00	6.747E-01	0.037
RB-83		520.41	*	3.533E-02	3.676E-02	6.197E-02	3.451E-03	0.570
		529.64		-3.760E-05	5.779E-02	9.353E-02	5.185E-03	0.000
		552.65		-7.841E-02	1.131E-01	1.768E-01	9.669E-03	-0.443
RB-84		881.50	*	2.244E-02	3.997E-02	6.766E-02	5.388E-03	0.332
KR-85		513.99	*	1.022E+01	4.141E+00	6.609E+00	3.692E-01	1.546
SR-85		513.99	*	5.318E-02	2.155E-02	3.439E-02	1.921E-03	1.546
RB-86		1076.63	*	1.670E-01	5.035E-01	8.302E-01	5.804E-02	0.201
Y-88		898.02		-2.545E-02	2.318E-02	3.577E-02	2.960E-03	-0.711
		1836.01	*	1.215E-02	1.655E-02	2.922E-02	1.705E-03	0.416
ZR-88		392.90	*	-3.233E-03	1.586E-02	2.601E-02	1.464E-03	-0.124
Y-91		1204.90	*	3.478E+00	1.200E+01	1.954E+01	1.198E+00	0.178
NB-94		702.63	*	1.309E-02	1.832E-02	3.155E-02	1.699E-03	0.415
		871.10		-1.396E-02	1.851E-02	2.925E-02	2.281E-03	-0.477
NB-95M		235.69	*	5.463E-02	7.640E-02	1.102E-01	9.044E-03	0.496
ZR-95		724.18		2.440E-02	5.901E-02	8.788E-02	5.929E-03	0.278
		756.15	*	4.214E-02	3.877E-02	6.752E-02	4.917E-03	0.624
NB-97		657.90	*	-2.264E-01	3.877E-02	Half-Life too short		
		1024.50		1.987E+00	3.877E-02	Half-Life too short		
ZR-97		254.15		2.945E+00	3.877E-02	Half-Life too short		
		355.39		-1.910E+00	3.877E-02	Half-Life too short		
		507.63	*	6.816E+00	3.877E-02	Half-Life too short		
		602.52		1.229E+01	3.877E-02	Half-Life too short		
		1021.30		2.991E-01	3.877E-02	Half-Life too short		
		1147.95		5.148E+00	3.877E-02	Half-Life too short		
		1362.66		-4.114E+00	3.877E-02	Half-Life too short		
		1750.46		2.119E+00	3.877E-02	Half-Life too short		
MO-99		140.51		-1.004E+01	2.455E+01	3.414E+01	9.260E+00	-0.294
		181.06		-5.627E+00	1.490E+01	2.106E+01	3.656E+00	-0.267
		366.43		2.980E+01	6.529E+01	1.099E+02	6.572E+00	0.271
		739.58	*	-7.581E+00	9.672E+00	1.552E+01	2.144E+00	-0.488
		778.00		-4.733E+01	2.695E+01	3.938E+01	2.522E+00	-1.202
TC-99M		140.51	*	-4.841E+11	2.695E+01	Half-Life too short		
RH-101		127.23		1.672E-02	2.070E-02	3.098E-02	2.104E-03	0.540
		198.01	*	4.815E-04	1.919E-02	2.960E-02	1.928E-03	0.016
		325.23		2.097E-02	1.307E-01	1.937E-01	1.240E-02	0.108
RH-102		418.52		-2.526E-03	1.499E-01	2.465E-01	1.396E-02	-0.010
		475.06	*	6.383E-03	1.601E-02	2.652E-02	1.499E-03	0.241
		631.29		-4.987E-03	3.057E-02	4.843E-02	2.461E-03	-0.103
		697.49		1.055E-02	3.940E-02	6.682E-02	3.556E-03	0.158
	+	766.84		3.770E-01	1.187E-01	1.399E-01	8.737E-03	2.695
		1046.59		4.138E-02	6.594E-02	1.107E-01	8.036E-03	0.374
		1112.84		1.128E-02	1.603E-01	2.246E-01	1.490E-02	0.050
RU-103		497.08	*	6.008E-03	2.256E-02	3.706E-02	4.657E-03	0.162
	+	610.33		1.182E+01	2.037E+00	1.599E+00	2.431E-01	7.393
RH-106	+	511.85		5.799E-01	2.024E-01	2.268E-01	1.268E-02	2.558
		621.84	*	1.059E-01	1.785E-01	2.927E-01	3.344E-02	0.362

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		1050.47		-8.719E-01	1.332E+00	2.084E+00	1.506E-01	-0.418
RU-106	+	511.85		5.799E-01	2.024E-01	2.268E-01	1.268E-02	2.558
		621.84	*	1.059E-01	1.782E-01	2.927E-01	1.504E-02	0.362
		1050.47		-8.719E-01	1.332E+00	2.084E+00	1.506E-01	-0.418
AG-108M		433.93	*	-2.680E-03	1.947E-02	2.781E-02	1.718E-03	-0.096
		614.37		3.228E-03	2.377E-02	3.346E-02	1.916E-03	0.096
		722.95		3.260E-05	2.541E-02	3.697E-02	2.275E-03	0.001
AG-110M		657.75	*	-2.181E-02	1.922E-02	3.083E-02	1.647E-03	-0.708
		677.61		9.428E-02	1.698E-01	2.916E-01	1.596E-02	0.323
		706.67		-4.397E-02	1.175E-01	1.939E-01	1.126E-02	-0.227
		763.93		2.849E-01	1.040E-01	1.718E-01	1.124E-02	1.658
		884.67		-3.394E-02	2.852E-02	4.389E-02	3.648E-03	-0.773
		937.48		1.504E-02	6.930E-02	9.997E-02	8.362E-03	0.150
		1384.27		4.892E-02	9.565E-02	1.537E-01	1.099E-02	0.318
IN-111		171.28		-2.673E-01	7.919E-01	1.268E+00	8.084E-02	-0.211
		245.39	*	4.414E-01	8.783E-01	1.259E+00	8.399E-02	0.351
IN-113M		391.69	*	-1.027E-03	2.306E-02	3.804E-02	2.292E-03	-0.027
SN-113		391.69	*	-1.027E-03	2.306E-02	3.804E-02	2.292E-03	-0.027
IN-114M		190.27	*	4.002E-02	1.118E-01	1.617E-01	1.046E-02	0.248
CD-115		260.90		7.597E+00	1.219E+02	1.827E+02	1.220E+01	0.042
		492.35		-1.651E+01	2.975E+01	4.723E+01	2.659E+00	-0.350
		527.90	*	3.063E+00	8.850E+00	1.454E+01	8.070E-01	0.211
SN-117M		156.02		-5.001E-01	1.387E+00	2.233E+00	1.432E-01	-0.224
		158.56	*	3.229E-02	3.482E-02	5.499E-02	3.518E-03	0.587
SB-122		563.90	*	1.605E+00	1.670E+00	2.795E+00	1.516E-01	0.574
		692.80		-2.132E+01	3.245E+01	5.287E+01	2.782E+00	-0.403
I-123		159.00	*	1.914E+01	3.245E+01	Half-Life too short		
		528.96		5.207E+02	3.245E+01	Half-Life too short		
TE-123M		159.00	*	1.621E-02	1.787E-02	2.653E-02	1.715E-03	0.611
I-124		602.71	*	3.767E-01	5.087E-01	7.808E-01	4.095E-02	0.482
		722.78		2.660E-02	3.349E+00	4.875E+00	2.754E-01	0.005
		1325.50		1.937E+00	2.410E+01	4.039E+01	2.752E+00	0.048
		1376.25		5.643E+01	2.530E+01	4.267E+01	2.924E+00	1.322
		1509.49		1.677E+01	1.054E+01	1.938E+01	1.307E+00	0.865
		1691.02		-9.827E-02	2.339E+00	3.803E+00	2.411E-01	-0.026
SB-124		602.71		1.764E-02	2.382E-02	3.656E-02	1.918E-03	0.482
		645.85		1.204E-01	2.699E-01	4.632E-01	2.703E-02	0.260
		709.31		-6.001E-01	1.712E+00	2.595E+00	1.420E-01	-0.231
		713.82		5.368E-01	8.893E-01	1.524E+00	1.534E-01	0.352
		722.78		1.805E-03	2.273E-01	3.309E-01	1.962E-02	0.005
	+	968.20		1.782E+01	2.782E+00	4.289E+00	3.366E-01	4.154
		1045.16		5.460E-01	1.471E+00	2.436E+00	1.772E-01	0.224
		1325.50		1.404E-01	1.747E+00	2.928E+00	1.995E-01	0.048
		1368.21		-8.014E-01	9.347E-01	1.446E+00	1.796E-01	-0.554
		1436.60		-5.059E-01	2.051E+00	3.108E+00	2.120E-01	-0.163
		1691.02	*	-1.573E-03	3.745E-02	6.089E-02	4.137E-03	-0.026
SB-125		427.89	*	6.402E-03	4.882E-02	8.059E-02	4.771E-03	0.079
	+	463.38		6.429E-01	1.975E-01	2.915E-01	1.938E-02	2.205
		600.56		2.819E-02	9.880E-02	1.604E-01	1.001E-02	0.176

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		635.90		6.077E-02	1.457E-01	2.373E-01	1.463E-02	0.256
TE-125M		109.28	*	7.255E+00	8.208E+00	9.921E+00	9.849E-01	0.731
I-126		388.63		2.997E-02	1.156E-01	1.928E-01	1.093E-02	0.155
		666.33	*	-7.874E-02	1.082E-01	1.768E-01	8.721E-03	-0.445
		753.82		4.036E-01	8.607E-01	1.464E+00	8.882E-02	0.276
SB-126		223.80		-2.823E-01	2.501E+00	3.966E+00	2.627E-01	-0.071
		278.60		2.362E+00	1.558E+00	2.437E+00	1.620E-01	0.969
	+	296.50		1.356E+01	1.767E+00	2.068E+00	1.362E-01	6.556
		414.70		1.826E-02	4.636E-02	7.190E-02	4.068E-03	0.254
		415.30		1.211E+00	3.703E+00	5.966E+00	3.376E-01	0.203
		555.20		7.513E-01	2.383E+00	3.896E+00	2.127E-01	0.193
		573.80		9.068E-02	6.127E-01	9.923E-01	5.342E-02	0.091
		593.00		-1.890E-02	5.499E-01	8.811E-01	4.665E-02	-0.021
		656.30		-1.745E+00	1.934E+00	3.133E+00	1.540E-01	-0.557
		666.33		-3.301E-02	4.538E-02	7.412E-02	3.656E-03	-0.445
		675.00		-7.280E-02	1.168E+00	1.959E+00	9.870E-02	-0.037
		695.00		-2.407E-02	4.402E-02	7.209E-02	3.814E-03	-0.334
		697.00		6.568E-02	1.489E-01	2.544E-01	1.352E-02	0.258
		720.50	*	4.794E-02	8.898E-02	1.443E-01	8.109E-03	0.332
		856.80		7.568E-02	3.056E-01	4.453E-01	3.373E-02	0.170
		989.30		8.821E-01	7.840E-01	1.350E+00	1.040E-01	0.653
		1034.80		-7.331E-01	5.209E+00	8.404E+00	6.186E-01	-0.087
		1213.00		-4.710E-01	3.312E+00	5.281E+00	3.261E-01	-0.089
SB-127		61.10		1.177E+02	7.568E+01	1.165E+02	1.671E+01	1.011
		252.40		-3.384E-01	3.002E+00	4.715E+00	1.971E+00	-0.072
		290.80		-9.638E+00	1.591E+01	2.301E+01	2.342E+00	-0.419
		411.60		7.467E+00	9.458E+00	1.411E+01	2.067E+00	0.529
		444.90		-1.875E+00	6.742E+00	1.092E+01	1.219E+00	-0.172
		473.00		-2.545E-01	1.181E+00	1.910E+00	2.202E-01	-0.133
		543.00		3.151E+00	1.181E+01	1.929E+01	2.536E+00	0.163
		603.60		9.142E+00	9.349E+00	1.376E+01	1.503E+00	0.665
		685.20	*	-4.660E-01	9.457E-01	1.553E+00	1.487E-01	-0.300
		698.50		-7.436E+00	1.033E+01	1.670E+01	2.444E+00	-0.445
		722.20		-7.089E-01	2.357E+01	3.424E+01	3.280E+00	-0.021
		783.80		4.252E+00	3.154E+00	4.818E+00	5.528E-01	0.883
XE-127		57.60		-1.114E+00	6.274E+00	1.060E+01	1.327E+00	-0.105
		145.22		1.022E+00	4.569E-01	6.995E-01	4.552E-02	1.461
		172.10		7.879E-03	6.906E-02	1.118E-01	7.132E-03	0.070
		202.84	*	-6.255E-03	3.006E-02	4.247E-02	2.776E-03	-0.147
		374.96		3.483E-02	1.079E-01	1.807E-01	1.060E-02	0.193
I-131		80.18		-5.629E-01	5.031E+00	5.989E+00	6.950E-01	-0.094
		284.30		-1.009E-01	8.697E-01	1.461E+00	1.055E-01	-0.069
		364.48	*	2.024E-02	7.095E-02	1.189E-01	7.928E-03	0.170
		636.97		-3.760E-01	9.485E-01	1.483E+00	8.671E-02	-0.253
		722.89		1.755E-02	4.829E+00	7.027E+00	4.041E-01	0.002
TE-132		49.72		-1.183E+01	3.431E+01	5.798E+01	8.279E+00	-0.204
	+	111.76		1.143E+02	4.530E+01	4.721E+01	5.036E+00	2.421
		116.30		1.559E+01	2.400E+01	3.593E+01	3.718E+00	0.434
		228.16	*	2.782E-01	5.317E-01	8.541E-01	1.282E-01	0.326

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133		53.15		-4.259E-01	4.283E+00	7.103E+00	9.299E-01	-0.060
		79.62		-7.289E-02	1.262E+00	1.506E+00	2.567E-01	-0.048
		81.00		-5.342E-03	9.427E-02	1.124E-01	1.985E-02	-0.048
	+	276.40		6.970E-01	3.515E-01	3.524E-01	4.712E-02	1.978
		302.84		5.433E-02	8.110E-02	1.230E-01	1.482E-02	0.442
		356.01	*	-1.668E-02	2.562E-02	3.620E-02	4.241E-03	-0.461
		383.85		-7.183E-02	1.591E-01	2.588E-01	2.806E-02	-0.278
I-133	+	510.53		3.608E+00	1.591E-01	Half-Life too short		
		529.87	*	2.727E-03	1.591E-01	Half-Life too short		
		706.58		-2.569E-01	1.591E-01	Half-Life too short		
		856.28		-1.099E-01	1.591E-01	Half-Life too short		
		875.33		2.683E-02	1.591E-01	Half-Life too short		
	+	1236.41		5.852E+00	1.591E-01	Half-Life too short		
		1298.22		1.898E-01	1.591E-01	Half-Life too short		
CS-134		475.35		7.365E-01	1.039E+00	1.740E+00	9.838E-02	0.423
		563.23		1.218E-01	2.034E-01	3.359E-01	1.866E-02	0.363
		569.32		-2.012E-02	1.197E-01	1.818E-01	1.016E-02	-0.111
		604.70		3.896E-03	2.142E-02	3.026E-02	1.595E-03	0.129
	+	795.84	*	8.598E-02	4.548E-02	5.148E-02	3.470E-03	1.670
		801.93		-3.204E-02	2.537E-01	3.625E-01	2.469E-02	-0.088
		1038.57		1.396E-01	2.195E+00	3.583E+00	2.626E-01	0.039
		1167.94		-7.868E-01	1.482E+00	2.318E+00	1.393E-01	-0.339
		1365.15		4.712E-01	6.199E-01	1.088E+00	7.984E-02	0.433
CS-135		268.24	*	7.068E-02	9.181E-02	1.406E-01	1.172E-02	0.503
I-135		288.45		2.250E+11	9.181E-02	Half-Life too short		
		417.63		2.694E+11	9.181E-02	Half-Life too short		
		546.56		-7.109E+09	9.181E-02	Half-Life too short		
	+	836.80		1.603E+12	9.181E-02	Half-Life too short		
		1038.76		-1.687E+10	9.181E-02	Half-Life too short		
		1124.00		1.405E+11	9.181E-02	Half-Life too short		
		1131.51		7.292E+10	9.181E-02	Half-Life too short		
		1260.41	*	2.352E+10	9.181E-02	Half-Life too short		
		1457.56		1.564E+13	9.181E-02	Half-Life too short		
		1678.03		1.145E+11	9.181E-02	Half-Life too short		
		1706.46		1.671E+11	9.181E-02	Half-Life too short		
		1791.20		-1.502E+11	9.181E-02	Half-Life too short		
CS-136		66.91		-5.664E-01	7.320E-01	1.080E+00	1.871E-01	-0.525
	+	86.29		5.796E+00	1.416E+00	1.491E+00	2.273E-01	3.886
		153.22		4.497E-01	4.019E-01	6.667E-01	5.163E-02	0.674
	+	163.89		1.384E+00	7.947E-01	1.123E+00	8.663E-02	1.232
		176.55		1.655E-02	2.224E-01	3.592E-01	2.536E-02	0.046
		273.65		1.506E-01	3.589E-01	4.015E-01	2.964E-02	0.375
		340.57		1.889E-01	8.188E-02	1.297E-01	8.569E-03	1.457
		818.51		-8.646E-03	3.937E-02	6.445E-02	4.514E-03	-0.134
		1048.07	*	-2.267E-02	6.723E-02	1.072E-01	8.236E-03	-0.211
		1235.34		7.853E-01	4.461E-01	6.989E-01	7.191E-02	1.124
BA-137M		661.65	*	-1.366E-02	2.248E-02	3.453E-02	1.684E-03	-0.396
CS-137		661.65	*	-1.444E-02	2.376E-02	3.650E-02	1.791E-03	-0.396
CE-139		165.85	*	-9.242E-04	1.868E-02	2.690E-02	1.709E-03	-0.034

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	+	162.64		9.769E-01	5.599E-01	7.920E-01	5.572E-02	1.234
		304.84		7.189E-02	7.668E-01	1.139E+00	3.126E-01	0.063
		423.70		7.075E-01	1.115E+00	1.838E+00	5.836E-01	0.385
		537.32	*	-4.288E-02	1.587E-01	2.527E-01	8.206E-02	-0.170
LA-140	+	328.77		6.200E-01	2.784E-01	3.139E-01	2.201E-02	1.975
		432.53		-1.678E-01	1.337E+00	1.911E+00	1.202E-01	-0.088
		487.03		6.970E-02	7.818E-02	1.318E-01	8.465E-03	0.529
		751.79		-1.031E+00	1.009E+00	1.601E+00	1.168E-01	-0.644
		815.85		-6.729E-03	1.748E-01	2.892E-01	2.357E-02	-0.023
		867.82		6.740E-01	8.256E-01	1.382E+00	1.141E-01	0.488
		919.63		-4.855E-01	1.906E+00	2.656E+00	2.723E-01	-0.183
		925.24		7.103E-01	7.136E-01	1.224E+00	1.062E-01	0.580
		1596.49	*	-5.041E-02	4.816E-02	7.115E-02	4.686E-03	-0.709
CE-141		145.44	*	6.309E-02	4.081E-02	6.170E-02	4.141E-03	1.023
CE-143		57.37		-7.181E-04	4.081E-02	Half-Life too short		
		231.56		-2.218E-04	4.081E-02	Half-Life too short		
		293.26	*	9.490E-04	4.081E-02	Half-Life too short		
	+	350.59		5.960E-02	4.081E-02	Half-Life too short		
		490.36		-1.109E-03	4.081E-02	Half-Life too short		
		664.57		-6.062E-04	4.081E-02	Half-Life too short		
		721.93		9.288E-04	4.081E-02	Half-Life too short		
CE-144		80.11		-2.378E-01	2.061E+00	2.453E+00	2.835E-01	-0.097
		133.54	*	-5.890E-02	1.193E-01	1.926E-01	2.807E-02	-0.306
PM-144		476.78		2.654E-03	3.703E-02	6.055E-02	4.130E-03	0.044
		618.01		-6.879E-03	1.876E-02	2.878E-02	1.597E-03	-0.239
		696.49	*	9.574E-03	1.756E-02	3.011E-02	1.600E-03	0.318
		778.57		-2.009E+00	1.341E+00	1.920E+00	1.232E-01	-1.046
PR-144		696.49	*	6.492E-01	1.190E+00	2.042E+00	1.084E-01	0.318
		1489.15		-6.147E+00	5.997E+00	8.925E+00	6.042E-01	-0.689
PM-146		453.90	*	1.212E-02	2.336E-02	3.895E-02	3.324E-03	0.311
		633.02		-2.588E-01	7.798E-01	1.216E+00	4.464E-01	-0.213
		735.90		1.645E-02	8.407E-02	1.379E-01	3.844E-02	0.119
		747.13		-4.035E-02	5.245E-02	8.421E-02	1.060E-02	-0.479
ND-147	+	91.11		1.274E+00	3.224E-01	5.765E-01	6.761E-02	2.209
		319.41		2.011E-01	1.822E+00	3.061E+00	1.974E-01	0.066
	+	439.89		2.573E+00	4.568E+00	6.056E+00	3.437E-01	0.425
		531.02	*	-2.008E-01	3.383E-01	5.314E-01	7.127E-02	-0.378
PM-149		285.90	*	-2.706E+01	7.332E+01	1.221E+02	1.775E+01	-0.222
EU-152		121.78		4.672E-03	4.206E-02	6.930E-02	5.906E-03	0.067
		244.69		4.424E-02	1.945E-01	2.757E-01	1.839E-02	0.160
		344.27	*	2.564E-03	5.220E-02	8.424E-02	5.830E-03	0.030
		443.98		-3.073E-01	5.184E-01	8.295E-01	4.706E-02	-0.371
		778.89		-1.129E-01	1.570E-01	2.269E-01	1.456E-02	-0.498
		867.32		4.199E-01	4.673E-01	7.645E-01	5.916E-02	0.549
	+	964.01		6.206E-01	1.697E-01	3.184E-01	2.507E-02	1.949
		1085.78		-9.402E-02	2.339E-01	3.704E-01	2.557E-02	-0.254
		1112.02		5.067E-02	2.033E-01	3.140E-01	2.085E-02	0.161
		1407.95		1.222E-01	1.037E-01	1.790E-01	1.225E-02	0.683
GD-153		69.67		-7.307E-02	1.283E+00	2.126E+00	2.455E-01	-0.034

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	83.37		4.069E+01	1.525E+01	1.881E+01	2.202E+00	2.163
	+	97.43	*	2.963E-01	8.417E-02	9.323E-02	9.152E-03	3.178
		103.18		-4.654E-02	9.070E-02	1.042E-01	9.273E-03	-0.447
EU-154		123.07		-8.777E-03	2.980E-02	4.863E-02	4.922E-03	-0.180
		247.94		-5.489E-02	2.050E-01	3.046E-01	3.076E-02	-0.180
		591.81		1.234E-01	3.336E-01	5.443E-01	5.164E-02	0.227
		723.30		-2.173E-02	1.080E-01	1.552E-01	1.081E-02	-0.140
		756.87		5.274E-01	4.156E-01	7.256E-01	7.486E-02	0.727
		873.19		-4.149E-02	1.594E-01	2.592E-01	3.033E-02	-0.160
		996.32		1.561E-01	2.264E-01	3.346E-01	5.796E-02	0.466
		1004.76		1.111E-01	1.389E-01	2.068E-01	2.254E-02	0.537
		1274.45	*	1.935E-02	7.058E-02	1.197E-01	1.174E-02	0.162
TB-160	+	86.79		1.345E+00	3.025E-01	3.468E-01	4.139E-02	3.878
		197.04		-5.255E-02	3.350E-01	5.150E-01	3.352E-02	-0.102
		215.65		4.433E-02	4.199E-01	6.712E-01	4.426E-02	0.066
		298.57		1.543E-01	9.033E-02	1.080E-01	7.100E-03	1.429
		879.36	*	3.128E-03	7.896E-02	1.304E-01	1.034E-02	0.024
		962.29		2.478E-01	3.463E-01	5.128E-01	4.044E-02	0.483
	+	966.15		4.318E-01	1.181E-01	2.652E-01	2.085E-02	1.628
		1177.93		1.866E-02	2.774E-01	3.810E-01	2.276E-02	0.049
		1271.85		7.139E-02	4.294E-01	7.245E-01	4.717E-02	0.099
HO-166M		80.57		-1.873E-02	2.617E-01	3.120E-01	3.610E-02	-0.060
	+	184.41		3.991E-01	4.284E-02	4.557E-02	2.935E-03	8.758
		280.46		2.039E-02	4.748E-02	7.186E-02	4.774E-03	0.284
	+	410.95		2.487E-01	1.561E-01	2.292E-01	1.296E-02	1.085
		711.68	*	-1.157E-02	3.313E-02	5.465E-02	3.008E-03	-0.212
		752.31		-1.272E-01	1.498E-01	2.400E-01	1.451E-02	-0.530
		810.29		-8.669E-03	3.088E-02	5.049E-02	3.469E-03	-0.172
TM-171		51.35		-2.073E+00	3.801E+01	6.463E+01	8.370E+00	-0.032
		52.39		1.725E+00	1.932E+01	3.216E+01	4.206E+00	0.054
		59.40		1.309E+01	2.794E+01	4.300E+01	5.243E+00	0.304
		66.72	*	-1.269E+01	2.455E+01	3.670E+01	4.291E+00	-0.346
LU-176	+	88.36		9.785E-01	2.200E-01	2.447E-01	2.917E-02	3.998
		201.83		-9.639E-03	1.785E-02	2.491E-02	1.627E-03	-0.387
		306.84	*	-6.657E-03	1.259E-02	2.077E-02	1.356E-03	-0.320
		401.10		-1.736E+00	3.881E+00	5.969E+00	3.367E-01	-0.291
LU-177M		52.97		-9.349E-02	1.956E+00	3.247E+00	4.251E-01	-0.029
		54.07		3.648E-01	9.912E-01	1.657E+00	2.161E-01	0.220
		61.30		3.201E+00	1.545E+00	2.388E+00	2.881E-01	1.341
		121.62		2.432E-02	2.168E-01	3.572E-01	2.488E-02	0.068
		147.16		-1.099E-01	4.014E-01	5.785E-01	3.754E-02	-0.190
		171.86		-5.853E-03	2.717E-01	4.386E-01	2.797E-02	-0.013
		218.09		-3.683E-01	4.806E-01	7.482E-01	4.941E-02	-0.492
	+	268.79		2.272E+00	6.164E-01	7.679E-01	5.121E-02	2.958
		319.02		-5.878E-02	1.325E-01	2.185E-01	1.409E-02	-0.269
		367.43		-1.182E-01	4.952E-01	8.151E-01	4.861E-02	-0.145
		413.65	*	-5.177E-03	1.067E-01	1.538E-01	8.701E-03	-0.034
HF-181		56.28		-4.080E-01	1.015E+00	1.707E+00	2.176E-01	-0.239
		57.53		-1.762E-01	5.284E-01	8.896E-01	1.115E-01	-0.198

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		65.20		1.195E+00	8.731E-01	1.350E+00	1.591E-01	0.885
		133.02		1.144E-02	4.057E-02	6.371E-02	4.252E-03	0.179
		136.25		-1.618E-01	2.670E-01	4.304E-01	2.850E-02	-0.376
		345.85		2.949E-02	1.159E-01	1.717E-01	1.067E-02	0.172
		482.03	*	-2.573E-03	2.444E-02	3.735E-02	2.109E-03	-0.069
W-181		56.28		-1.559E-01	3.914E-01	6.582E-01	8.391E-02	-0.237
		57.53		-6.825E-02	2.040E-01	3.434E-01	4.303E-02	-0.199
		65.20	*	4.575E-01	3.343E-01	5.167E-01	6.091E-02	0.885
TA-182		67.75		-7.332E-02	9.037E-02	1.426E-01	1.659E-02	-0.514
	+	100.10		6.931E-01	1.969E-01	1.943E-01	1.818E-02	3.568
		152.43		-2.406E-02	1.920E-01	3.112E-01	2.004E-02	-0.077
		222.10		2.180E-02	1.980E-01	3.160E-01	2.091E-02	0.069
	+	1001.68		1.399E+01	2.377E+00	3.492E+00	2.660E-01	4.007
	+	1121.28		5.578E-01	1.539E-01	1.969E-01	1.288E-02	2.833
		1189.05		-1.161E-01	1.888E-01	2.937E-01	1.773E-02	-0.395
		1221.42	*	3.084E-02	1.225E-01	2.078E-01	1.293E-02	0.148
		1230.97		-1.888E-01	3.302E-01	4.607E-01	2.892E-02	-0.410
RE-183		57.98		3.600E-02	2.092E-01	3.402E-01	4.236E-02	0.106
		59.32		5.037E-02	1.166E-01	1.793E-01	2.189E-02	0.281
		67.20		-1.778E-01	1.766E-01	2.597E-01	3.028E-02	-0.685
	+	162.32	*	1.343E-01	7.689E-02	1.078E-01	6.867E-03	1.246
	+	208.81		2.493E+00	7.906E-01	9.988E-01	6.557E-02	2.496
		291.72		-1.646E-01	5.447E-01	7.986E-01	5.275E-02	-0.206
RE-184		57.98		1.316E-01	7.646E-01	1.244E+00	1.548E-01	0.106
		59.32		1.840E-01	4.257E-01	6.548E-01	7.994E-02	0.281
		67.20		-6.496E-01	6.454E-01	9.487E-01	1.107E-01	-0.685
		161.27		4.462E-02	2.273E-01	3.305E-01	2.108E-02	0.135
		216.55		1.257E-02	1.489E-01	2.377E-01	1.568E-02	0.053
		252.85	*	7.659E-04	1.332E-01	1.997E-01	1.334E-02	0.004
		318.01		-2.081E-01	2.292E-01	3.720E-01	2.401E-02	-0.559
		792.07		-1.272E-01	9.161E-01	8.686E-01	5.736E-02	-0.146
		903.28		2.899E-01	5.982E-01	9.528E-01	7.818E-02	0.304
		920.93		-1.749E-01	2.648E-01	4.068E-01	3.303E-02	-0.430
OS-185		59.72		2.319E-01	3.087E-01	4.769E-01	5.802E-02	0.486
		61.14		2.812E-01	1.683E-01	2.609E-01	3.151E-02	1.078
		69.30		1.258E-02	2.308E-01	3.829E-01	4.427E-02	0.033
		592.07		-2.307E-01	1.410E+00	2.245E+00	1.190E-01	-0.103
		646.12	*	8.823E-03	2.285E-02	3.913E-02	1.950E-03	0.225
		717.42		-1.806E-01	4.926E-01	8.112E-01	4.526E-02	-0.223
		874.81		6.779E-02	3.208E-01	5.346E-01	4.200E-02	0.127
		880.27		6.832E-02	4.439E-01	7.370E-01	5.855E-02	0.093
RE-188		155.03	*	6.580E-02	9.964E-02	1.640E-01	1.053E-02	0.401
		477.96		2.807E-01	1.709E+00	2.805E+00	1.585E-01	0.100
		633.10		-5.847E-01	1.584E+00	2.483E+00	1.259E-01	-0.235
W-188	+	63.58		9.942E+02	1.464E+02	1.187E+02	1.413E+01	8.375
		227.08		2.781E+00	7.426E+00	1.192E+01	7.905E-01	0.233
		290.67	*	-2.645E+00	4.337E+00	6.277E+00	4.148E-01	-0.421
IR-192	+	295.96		9.729E-01	1.272E-01	1.544E-01	1.029E-02	6.303
		308.46		-2.414E-02	5.052E-02	8.347E-02	5.491E-03	-0.289

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		316.51	*	-4.358E-03	1.761E-02	2.926E-02	1.900E-03	-0.149
		468.07		-1.087E-02	3.851E-02	5.734E-02	3.765E-03	-0.190
		604.41		1.520E-01	2.911E-01	4.188E-01	4.637E-02	0.363
		612.46		7.916E-01	4.476E-01	6.848E-01	4.875E-02	1.156
AU-195		65.12		2.605E-01	1.566E-01	2.421E-01	2.855E-02	1.076
		66.83		-4.405E-02	8.124E-02	1.214E-01	1.418E-02	-0.363
	+	75.70		9.139E-01	1.843E-01	2.903E-01	3.325E-02	3.149
	+	98.88	*	8.637E-01	2.454E-01	2.760E-01	2.639E-02	3.130
	+	129.76		3.579E+00	1.871E+00	2.883E+00	1.942E-01	1.241
TL-200		367.94	*	-2.866E-04	1.871E+00	Half-Life too short		
		579.30		2.266E-03	1.871E+00	Half-Life too short		
		828.27		-1.487E-03	1.871E+00	Half-Life too short		
		1205.75		2.878E-03	1.871E+00	Half-Life too short		
TL-201		68.90		-1.201E+00	5.005E+00	8.393E+00	9.719E-01	-0.143
		70.82		3.973E-01	3.124E+00	4.684E+00	5.390E-01	0.085
		80.30		-6.874E-01	6.674E+00	7.948E+00	9.188E-01	-0.086
		135.34		-9.612E+00	1.990E+01	3.218E+01	2.135E+00	-0.299
		167.43	*	-1.447E+00	5.598E+00	8.556E+00	5.439E-01	-0.169
TL-202		68.90		-8.501E-02	3.542E-01	5.941E-01	6.879E-02	-0.143
		70.82		2.804E-02	2.205E-01	3.306E-01	3.805E-02	0.085
		80.30		-4.854E-02	4.713E-01	5.612E-01	6.488E-02	-0.086
	+	439.56	*	3.032E-02	5.384E-02	7.159E-02	4.061E-03	0.424
HG-203		70.83		1.192E-01	9.012E-01	1.351E+00	2.107E-01	0.088
		72.87		7.614E-01	5.216E-01	7.921E-01	1.205E-01	0.961
	+	82.60		3.076E+00	1.199E+00	1.389E+00	2.199E-01	2.215
		279.20	*	1.692E-02	2.417E-02	3.690E-02	2.569E-03	0.459
BI-207		72.80		2.019E-01	1.480E-01	2.271E-01	2.604E-02	0.889
	+	74.97		5.043E-01	1.017E-01	1.504E-01	1.722E-02	3.353
	+	84.90		5.242E-01	1.965E-01	2.330E-01	2.749E-02	2.250
		569.67		-4.645E-03	1.879E-02	2.846E-02	1.537E-03	-0.163
		1063.62	*	5.844E-03	3.012E-02	4.939E-02	3.513E-03	0.118
		1770.23		1.973E-01	2.302E-01	3.710E-01	2.254E-02	0.532
TL-207		81.07		-1.105E-02	2.078E-01	2.478E-01	2.872E-02	-0.045
	+	83.78		3.456E-01	1.295E-01	1.596E-01	1.872E-02	2.166
	+	94.90		6.212E-01	3.139E-01	2.877E-01	2.965E-02	2.159
		122.32		8.265E-02	1.007E+00	1.658E+00	1.275E-01	0.050
	+	144.24		1.354E+00	6.030E-01	7.094E-01	5.547E-02	1.909
		154.21		3.865E-01	2.270E-01	3.794E-01	2.861E-02	1.019
	+	269.46		5.286E-01	1.437E-01	1.896E-01	1.308E-02	2.788
		323.87	*	-7.793E-02	3.836E-01	5.596E-01	9.367E-02	-0.139
	+	338.28		6.756E+00	1.157E+00	1.366E+00	1.476E-01	4.947
		445.03		-3.698E-01	1.219E+00	1.973E+00	2.012E-01	-0.187
PO-209		260.50		1.422E+00	5.828E+00	8.795E+00	5.873E-01	0.162
		262.80		-1.231E-01	1.614E+01	2.413E+01	1.611E+00	-0.005
		896.60	*	1.515E+00	3.934E+00	6.603E+00	5.419E-01	0.229
BI-210		46.50	*	6.029E+00	5.909E+00	9.734E+00	8.483E-01	0.619
PB-210		46.50	*	6.029E+00	5.909E+00	9.734E+00	8.483E-01	0.619
PO-210		46.50	*	6.029E+00	5.904E+00	9.734E+00	7.561E-01	0.619
PB-211		404.84	*	2.452E-01	6.008E-01	8.578E-01	5.346E-01	0.286

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.08		3.054E-01	1.109E+00	1.815E+00	1.122E+00	0.168
		831.96		5.379E-01	7.750E-01	1.059E+00	6.614E-01	0.508
PO-215		81.07		-1.105E-02	2.078E-01	2.478E-01	2.872E-02	-0.045
	+	83.78		3.456E-01	1.295E-01	1.596E-01	1.872E-02	2.166
	+	94.90		6.212E-01	3.139E-01	2.877E-01	2.965E-02	2.159
		122.32		8.265E-02	1.007E+00	1.658E+00	1.275E-01	0.050
	+	144.24		1.354E+00	6.030E-01	7.094E-01	5.547E-02	1.909
		154.21		3.865E-01	2.270E-01	3.794E-01	2.861E-02	1.019
	+	269.46		5.286E-01	1.437E-01	1.896E-01	1.308E-02	2.788
		323.87	*	-7.793E-02	3.836E-01	5.596E-01	9.367E-02	-0.139
	+	338.28		6.756E+00	1.157E+00	1.366E+00	1.476E-01	4.947
		445.03		-3.698E-01	1.219E+00	1.973E+00	2.012E-01	-0.187
RN-219	+	271.23		6.782E-01	1.880E-01	2.420E-01	2.116E-02	2.803
		401.81	*	-1.571E-01	2.407E-01	3.661E-01	4.957E-02	-0.429
RN-220		549.76	*	-3.256E+00	1.429E+01	2.282E+01	1.250E+00	-0.143
RA-223		81.07		-1.105E-02	2.078E-01	2.478E-01	2.872E-02	-0.045
	+	83.78		3.456E-01	1.295E-01	1.596E-01	1.872E-02	2.166
	+	94.90		6.212E-01	3.139E-01	2.877E-01	2.965E-02	2.159
		122.32		8.265E-02	1.007E+00	1.658E+00	1.275E-01	0.050
	+	144.24		1.354E+00	6.030E-01	7.094E-01	5.547E-02	1.909
		154.21		3.865E-01	2.270E-01	3.794E-01	2.861E-02	1.019
	+	269.46		5.286E-01	1.437E-01	1.896E-01	1.308E-02	2.788
		323.87	*	-7.793E-02	3.836E-01	5.596E-01	9.367E-02	-0.139
	+	338.28		6.756E+00	1.157E+00	1.366E+00	1.476E-01	4.947
		445.03		-3.698E-01	1.219E+00	1.973E+00	2.012E-01	-0.187
AC-227		79.80		-1.460E-01	1.596E+00	1.902E+00	4.343E-01	-0.077
		236.00		1.936E-01	1.426E-01	2.083E-01	2.281E-02	0.930
		256.20	*	2.325E-01	2.261E-01	3.475E-01	4.986E-02	0.669
		286.10		-1.694E-01	7.906E-01	1.324E+00	1.588E-01	-0.128
	+	299.80		2.842E+00	1.252E+00	1.444E+00	2.393E-01	1.969
		304.40		-3.782E-02	1.052E+00	1.555E+00	2.730E-01	-0.024
		334.20		-7.673E-01	1.467E+00	1.918E+00	3.549E-01	-0.400
TH-227		79.80		-1.460E-01	1.596E+00	1.902E+00	4.393E-01	-0.077
	+	94.00		4.969E+00	2.701E+00	3.894E+00	8.795E-01	1.276
		236.00		1.936E-01	1.423E-01	2.083E-01	2.006E-02	0.930
		256.20	*	2.325E-01	2.272E-01	3.475E-01	5.984E-02	0.669
		286.10		-1.694E-01	8.084E-01	1.324E+00	1.326E+00	-0.128
	+	299.80		2.842E+00	1.252E+00	1.444E+00	2.393E-01	1.969
		304.40		-3.782E-02	1.052E+00	1.555E+00	2.730E-01	-0.024
		334.20		-7.673E-01	1.467E+00	1.918E+00	3.549E-01	-0.400
PA-231		283.67	*	1.713E-01	7.813E-01	1.325E+00	1.874E-01	0.129
	+	301.29		1.137E+00	4.804E-01	5.665E-01	6.170E-02	2.007
TH-231		81.07		-1.105E-02	2.078E-01	2.478E-01	2.872E-02	-0.045
	+	83.78		3.456E-01	1.295E-01	1.596E-01	1.872E-02	2.166
	+	94.90		6.212E-01	3.139E-01	2.877E-01	2.965E-02	2.159
		122.32		8.265E-02	1.007E+00	1.658E+00	1.275E-01	0.050
	+	144.24		1.354E+00	6.030E-01	7.094E-01	5.547E-02	1.909
		154.21		3.865E-01	2.270E-01	3.794E-01	2.861E-02	1.019
	+	269.46		5.286E-01	1.437E-01	1.896E-01	1.308E-02	2.788

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-7.793E-02	3.836E-01	5.596E-01	9.367E-02	-0.139
	+	338.28		6.756E+00	1.157E+00	1.366E+00	1.476E-01	4.947
		445.03		-3.698E-01	1.219E+00	1.973E+00	2.012E-01	-0.187
PA-233	+	75.28		1.471E+01	3.506E+00	4.453E+00	7.615E-01	3.305
	+	86.59		8.076E+00	2.740E+00	2.080E+00	5.835E-01	3.883
	+	300.12		7.923E-01	3.415E-01	4.024E-01	5.548E-02	1.969
		311.98	*	1.115E-02	3.288E-02	5.567E-02	3.796E-03	0.200
		340.50		1.068E+00	4.449E-01	6.039E-01	1.394E-01	1.768
		398.62		8.211E-01	1.121E+00	1.864E+00	4.813E-01	0.440
		415.76		2.148E-01	8.859E-01	1.469E+00	3.019E-01	0.146
PA-234	+	63.00		2.843E+01	5.563E+00	3.556E+00	6.246E-01	7.997
	+	94.67		4.431E-01	2.274E-01	2.210E-01	3.020E-02	2.005
	+	98.44		3.481E-01	2.159E-01	1.119E-01	6.260E-02	3.112
	+	99.86		1.805E+00	5.127E-01	5.306E-01	4.987E-02	3.401
	+	111.00		5.290E-01	2.110E-01	2.041E-01	2.371E-02	2.591
		131.20		2.387E-02	6.814E-02	1.007E-01	6.754E-03	0.237
		152.70		1.074E-01	1.824E-01	2.989E-01	4.799E-02	0.359
	+	186.00		1.437E+01	4.578E+00	1.842E+00	5.654E-01	7.798
		226.40		-1.462E-02	2.313E-01	3.669E-01	4.402E-02	-0.040
		227.20		7.363E-02	2.469E-01	3.954E-01	2.623E-02	0.186
		248.90		-2.950E-02	4.369E-01	6.885E-01	1.497E-01	-0.043
	+	293.70		6.045E+00	1.201E+00	8.699E-01	1.425E-01	6.949
		369.80		-4.315E-02	4.572E-01	7.558E-01	1.577E-01	-0.057
		568.70		-1.542E-01	6.040E-01	9.131E-01	4.936E-02	-0.169
		569.50		-3.037E-03	1.649E-01	2.519E-01	1.361E-02	-0.012
		574.00		1.317E-01	8.078E-01	1.309E+00	7.047E-02	0.101
		699.00		-4.723E-01	3.898E-01	6.049E-01	1.079E-01	-0.781
		706.10		-2.202E-01	5.885E-01	9.578E-01	4.222E-01	-0.230
		733.00		-4.300E-02	2.309E-01	3.312E-01	7.040E-02	-0.130
		742.81		1.009E+00	1.052E+00	1.414E+00	9.466E-01	0.713
	+	796.30		1.669E+00	9.808E-01	9.935E-01	2.632E-01	1.680
		805.60		2.315E-01	5.406E-01	9.076E-01	2.740E-01	0.255
		819.60		-1.228E-01	6.233E-01	1.019E+00	3.842E-01	-0.120
		826.30		8.611E-02	4.538E-01	7.557E-01	3.361E-01	0.114
		831.60		2.164E-01	3.737E-01	5.510E-01	1.623E-01	0.393
		876.40		-2.715E-01	5.400E-01	7.392E-01	7.594E-01	-0.367
		880.51		1.675E-02	1.585E-01	2.625E-01	2.086E-02	0.064
		883.24		-2.636E-02	1.630E-01	2.648E-01	1.778E-01	-0.100
		899.00		-5.036E-01	5.159E-01	7.246E-01	3.162E-01	-0.695
		925.00		4.639E-01	6.902E-01	1.169E+00	9.464E-02	0.397
		926.50		6.548E-02	1.107E-01	1.751E-01	4.396E-02	0.374
		946.00	*	-2.256E-03	1.793E-01	2.935E-01	5.425E-02	-0.008
		949.00		1.964E-01	2.720E-01	4.522E-01	3.602E-02	0.434
		980.50		2.722E-01	4.219E-01	7.115E-01	5.527E-02	0.383
		1394.10		-3.755E-01	6.428E-01	9.384E-01	6.088E-01	-0.400
NP-236	+	94.67		3.361E-01	1.698E-01	1.679E-01	1.738E-02	2.002
	+	98.44		2.632E-01	7.477E-02	8.457E-02	8.150E-03	3.112
	+	111.00		4.001E-01	1.560E-01	1.544E-01	1.227E-02	2.591
		160.31	*	-3.101E-02	5.083E-02	7.204E-02	4.600E-03	-0.430

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		6.015E-01	1.709E-01	1.844E-01	1.742E-02	3.262
		117.00	*	3.423E-02	1.219E-01	1.811E-01	1.332E-02	0.189
	+	209.75		1.940E+00	6.151E-01	7.745E-01	5.088E-02	2.505
		228.18		6.660E-02	1.287E-01	2.073E-01	1.376E-02	0.321
	+	277.60		3.401E-01	1.669E-01	1.685E-01	1.121E-02	2.018
		334.30		-4.610E-01	8.271E-01	1.084E+00	6.853E-02	-0.425
AM-241		59.54	*	1.238E-01	1.613E-01	2.493E-01	3.147E-02	0.496
CM-243	+	99.55		6.190E-01	1.759E-01	1.897E-01	1.793E-02	3.262
		103.76	*	-1.341E-02	7.124E-02	9.596E-02	8.461E-03	-0.140
		117.00		3.522E-02	1.254E-01	1.863E-01	1.371E-02	0.189
	+	209.75		1.913E+00	6.064E-01	7.636E-01	5.016E-02	2.505
		228.18		6.730E-02	1.301E-01	2.095E-01	1.390E-02	0.321
	+	277.60		3.429E-01	1.683E-01	1.699E-01	1.130E-02	2.018
AM-246		798.80		-1.845E-02	8.880E-02	1.263E-01	8.461E-03	-0.146
		1036.00		-2.010E-01	1.713E-01	2.591E-01	1.905E-02	-0.776
		1062.04		6.884E-02	1.297E-01	2.164E-01	1.542E-02	0.318
		1078.86	*	4.157E-02	8.661E-02	1.438E-01	1.002E-02	0.289
CM-247	+	278.00		1.410E+00	6.922E-01	6.891E-01	4.583E-02	2.047
		287.40		2.330E-01	6.311E-01	1.074E+00	7.111E-02	0.217
		402.60	*	-1.108E-02	2.036E-02	3.294E-02	1.859E-03	-0.336
CF-249		252.85		2.857E-03	4.968E-01	7.450E-01	4.976E-02	0.004
		333.44		6.648E-02	1.304E-01	1.440E-01	9.119E-03	0.462
		387.95	*	6.946E-03	2.094E-02	3.502E-02	1.990E-03	0.198
CF-251		176.60	*	4.098E-03	7.121E-02	1.150E-01	7.359E-03	0.036
		227.00		1.119E-01	2.195E-01	3.535E-01	2.345E-02	0.317
		285.00		-8.567E-01	9.038E-01	1.479E+00	9.805E-02	-0.579

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808001       *
* Acquisition date : 11-FEB-2010 22:26:17 Detector SN#    :                 *
* Detector ID       : GAM04                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 06:00:04.97      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245808001           Analyst initials: RXF2           *
* Batch Number      : 947554               Sample Quantity : 1.4981E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.290E+01	2.509E+00	2.564E-01	0.000E+00
NB-95	1.520E-01	4.688E-02	3.665E-02	0.000E+00
CD-109	4.206E+00	9.269E-01	8.849E-01	0.000E+00
SN-126	4.125E-01	9.091E-02	8.747E-02	0.000E+00
EU-155	1.221E-01	8.085E-02	1.142E-01	0.000E+00
LU-177	3.161E+00	9.823E-01	1.060E+00	0.000E+00
TL-208	4.959E-01	5.584E-02	3.097E-02	0.000E+00
BI-211	3.712E+00	3.502E-01	1.780E-01	0.000E+00
BI-212	9.350E-01	2.925E-01	2.555E-01	0.000E+00
PB-212	1.627E+00	1.419E-01	5.046E-02	0.000E+00
PO-212	1.627E+00	1.419E-01	5.046E-02	0.000E+00
BI-214	1.068E+00	1.145E-01	6.411E-02	0.000E+00
PB-214	1.291E+00	1.386E-01	6.204E-02	0.000E+00
PO-214	1.291E+00	1.386E-01	6.204E-02	0.000E+00
PO-216	1.627E+00	1.419E-01	5.046E-02	0.000E+00
PO-218	1.291E+00	1.386E-01	6.204E-02	0.000E+00
RA-224	4.269E+00	7.430E-01	5.742E-01	0.000E+00
RA-226	1.068E+00	1.145E-01	6.411E-02	0.000E+00
AC-228	1.562E+00	2.453E-01	1.189E-01	0.000E+00
RA-228	1.562E+00	2.453E-01	1.189E-01	0.000E+00
TH-228	1.654E+00	1.442E-01	5.129E-02	0.000E+00
TH-229	-2.658E-03	2.771E-01	4.796E-01	0.000E+00
TH-230	1.068E+00	1.145E-01	6.411E-02	0.000E+00
U-231	3.821E+00	1.892E+00	1.449E+00	0.000E+00
TH-232	1.562E+00	2.453E-01	1.189E-01	0.000E+00
PA-234M	3.150E+01	5.466E+00	4.238E+00	0.000E+00
TH-234	2.439E+01	5.161E+00	1.989E+00	0.000E+00
U-234	1.068E+00	1.145E-01	6.411E-02	0.000E+00
U-235	4.179E-01	1.919E-01	2.013E-01	0.000E+00
NP-237	1.211E+00	3.623E-01	2.617E-01	0.000E+00
U-238	2.439E+01	5.161E+00	1.989E+00	0.000E+00
AM-243	2.809E-01	5.551E-02	7.363E-02	0.000E+00
ANH-511	1.158E-01	3.961E-02	2.539E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error)	Ided	MDA (pCi/GRAM	)	
BE-7	-1.462E-03	1.752E-01		3.016E-01	0.000E+00	NOT IDENT.
NA-22	1.437E-02	2.444E-02		4.338E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.790E+06		0.000E+00	0.000E+00	SHORT HLIF
AL-26	-5.779E-03	1.326E-02		2.067E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.974E-02		5.321E-02	0.000E+00	FAIL ABUN
SC-46	-6.355E-03	2.174E-02		3.668E-02	0.000E+00	FAIL ABUN
V-48	-2.706E-02	4.294E-02		7.032E-02	0.000E+00	NOT IDENT.
CR-51	9.416E-02	1.906E-01		3.452E-01	0.000E+00	NOT IDENT.
MN-52	-4.136E-03	1.516E-01		2.418E-01	0.000E+00	FAIL ABUN
MN-54	2.444E-02	2.367E-02		3.757E-02	0.000E+00	NOT IDENT.
CO-56	-1.443E-02	2.557E-02		3.668E-02	0.000E+00	FAIL ABUN
CO-57	2.668E-03	1.427E-02		2.569E-02	0.000E+00	NOT IDENT.
CO-58	-7.210E-03	2.037E-02		3.461E-02	0.000E+00	NOT IDENT.
FE-59	-3.899E-02	5.375E-02		8.571E-02	0.000E+00	FAIL ABUN
CO-60	-1.891E-04	2.055E-02		3.526E-02	0.000E+00	NOT IDENT.
ZN-65	-2.513E-03	6.086E-02		8.752E-02	0.000E+00	NOT IDENT.
GE-68	4.157E-01	7.457E-01		1.286E+00	0.000E+00	NOT IDENT.
AS-73	-1.277E-01	9.768E-01		1.800E+00	0.000E+00	NOT IDENT.
AS-74	-1.131E-02	5.162E-02		8.614E-02	0.000E+00	NOT IDENT.
SE-75	1.461E-02	2.459E-02		4.222E-02	0.000E+00	NOT IDENT.
BR-77	7.961E+00	8.029E+00		1.428E+01	0.000E+00	FAIL ABUN
SR-82	-2.814E-01	2.089E-01		3.389E-01	0.000E+00	NOT IDENT.
RB-83	3.533E-02	3.602E-02		6.403E-02	0.000E+00	NOT IDENT.
RB-84	2.244E-02	3.918E-02		6.900E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	4.058E+00		6.831E+00	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.112E-02		3.554E-02	0.000E+00	NOT IDENT.
RB-86	1.670E-01	4.934E-01		8.424E-01	0.000E+00	NOT IDENT.
Y-88	1.215E-02	1.622E-02		2.925E-02	0.000E+00	NOT IDENT.
ZR-88	-3.233E-03	1.554E-02		2.706E-02	0.000E+00	NOT IDENT.
Y-91	3.478E+00	1.176E+01		1.977E+01	0.000E+00	NOT IDENT.
NB-94	1.309E-02	1.795E-02		3.235E-02	0.000E+00	NOT IDENT.
NB-95M	5.463E-02	7.487E-02		1.160E-01	0.000E+00	NOT IDENT.
ZR-95	4.214E-02	3.800E-02		6.912E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.079E+05		0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.155E+06		0.000E+00	0.000E+00	SHORT HLIF
MO-99	-7.581E+00	9.479E+00		1.590E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.163E+18		0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.815E-04	1.880E-02		3.130E-02	0.000E+00	NOT IDENT.
RH-102	6.383E-03	1.569E-02		2.746E-02	0.000E+00	FAIL ABUN
RU-103	6.008E-03	2.211E-02		3.834E-02	0.000E+00	FAIL ABUN
RH-106	1.059E-01	1.749E-01		3.011E-01	0.000E+00	FAIL ABUN
RU-106	1.059E-01	1.746E-01		3.011E-01	0.000E+00	FAIL ABUN
AG-108M	-2.680E-03	1.908E-02		2.886E-02	0.000E+00	NOT IDENT.
AG-110M	-2.181E-02	1.884E-02		3.167E-02	0.000E+00	NOT IDENT.
IN-111	4.414E-01	8.608E-01		1.324E+00	0.000E+00	NOT IDENT.
IN-113M	-1.027E-03	2.260E-02		3.957E-02	0.000E+00	NOT IDENT.
SN-113	-1.027E-03	2.260E-02		3.957E-02	0.000E+00	NOT IDENT.
IN-114M	4.002E-02	1.095E-01		1.711E-01	0.000E+00	NOT IDENT.
CD-115	3.063E+00	8.673E+00		1.502E+01	0.000E+00	NOT IDENT.
SN-117M	3.229E-02	3.412E-02		5.845E-02	0.000E+00	NOT IDENT.
SB-122	1.605E+00	1.637E+00		2.882E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.068E+07		0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.621E-02	1.751E-02		2.820E-02	0.000E+00	NOT IDENT.
I-124	3.767E-01	4.985E-01		8.039E-01	0.000E+00	NOT IDENT.
SB-124	-1.573E-03	3.670E-02		6.107E-02	0.000E+00	FAIL ABUN
SB-125	6.402E-03	4.784E-02		8.367E-02	0.000E+00	FAIL ABUN
TE-125M	7.255E+00	8.044E+00		1.063E+01	0.000E+00	NOT IDENT.
I-126	-7.874E-02	1.061E-01		1.816E-01	0.000E+00	NOT IDENT.
SB-126	4.794E-02	8.720E-02		1.479E-01	0.000E+00	FAIL ABUN
SB-127	-4.660E-01	9.268E-01		1.594E+00	0.000E+00	NOT IDENT.
XE-127	-6.255E-03	2.946E-02		4.489E-02	0.000E+00	NOT IDENT.
I-131	2.024E-02	6.953E-02		1.239E-01	0.000E+00	NOT IDENT.
TE-132	2.782E-01	5.210E-01		9.001E-01	0.000E+00	FAIL ABUN
BA-133	-1.668E-02	2.511E-02		3.775E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	9.774E+03		0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.457E-02		5.264E-02	0.000E+00	FAIL ABUN
CS-135	7.068E-02	8.997E-02		1.476E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.100E+17		0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.267E-02	6.588E-02		1.088E-01	0.000E+00	FAIL ABUN
BA-137M	-1.366E-02	2.203E-02		3.547E-02	0.000E+00	NOT IDENT.
CS-137	-1.444E-02	2.329E-02		3.749E-02	0.000E+00	NOT IDENT.
CE-139	-9.242E-04	1.831E-02		2.857E-02	0.000E+00	NOT IDENT.

BA-140	-4.288E-02	1.556E-01	2.609E-01	0.000E+00	FAIL ABUN
LA-140	-5.041E-02	4.720E-02	7.147E-02	0.000E+00	FAIL ABUN
CE-141	6.309E-02	3.999E-02	6.570E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.684E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.890E-02	1.169E-01	2.055E-01	0.000E+00	NOT IDENT.
PM-144	9.574E-03	1.720E-02	3.089E-02	0.000E+00	NOT IDENT.
PR-144	6.492E-01	1.167E+00	2.095E+00	0.000E+00	NOT IDENT.
PM-146	1.212E-02	2.289E-02	4.037E-02	0.000E+00	NOT IDENT.
ND-147	-2.008E-01	3.315E-01	5.487E-01	0.000E+00	FAIL ABUN
PM-149	-2.706E+01	7.185E+01	1.280E+02	0.000E+00	NOT IDENT.
EU-152	2.564E-03	5.115E-02	8.791E-02	0.000E+00	FAIL ABUN
GD-153	0.000E+00	8.249E-02	1.002E-01	0.000E+00	FAIL ABUN
EU-154	1.935E-02	6.917E-02	1.210E-01	0.000E+00	NOT IDENT.
TB-160	3.128E-03	7.738E-02	1.330E-01	0.000E+00	FAIL ABUN
HO-166M	-1.157E-02	3.247E-02	5.603E-02	0.000E+00	FAIL ABUN
TM-171	-1.269E+01	2.406E+01	3.978E+01	0.000E+00	NOT IDENT.
LU-176	-6.657E-03	1.234E-02	2.174E-02	0.000E+00	FAIL ABUN
LU-177M	-5.177E-03	1.046E-01	1.598E-01	0.000E+00	FAIL ABUN
HF-181	-2.573E-03	2.395E-02	3.867E-02	0.000E+00	NOT IDENT.
W-181	4.575E-01	3.276E-01	5.604E-01	0.000E+00	NOT IDENT.
TA-182	3.084E-02	1.201E-01	2.102E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	7.535E-02	1.145E-01	0.000E+00	FAIL ABUN
RE-184	7.659E-04	1.305E-01	2.099E-01	0.000E+00	NOT IDENT.
OS-185	8.823E-03	2.239E-02	4.021E-02	0.000E+00	NOT IDENT.
RE-188	6.580E-02	9.765E-02	1.744E-01	0.000E+00	NOT IDENT.
W-188	-2.645E+00	4.251E+00	6.577E+00	0.000E+00	FAIL ABUN
IR-192	-4.358E-03	1.726E-02	3.059E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.405E-01	2.965E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.971E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.447E+00	5.486E+00	9.082E+00	0.000E+00	NOT IDENT.
TL-202	3.032E-02	5.276E-02	7.428E-02	0.000E+00	FAIL ABUN
HG-203	1.692E-02	2.369E-02	3.870E-02	0.000E+00	FAIL ABUN
BI-207	5.844E-03	2.952E-02	5.013E-02	0.000E+00	FAIL ABUN
TL-207	-7.793E-02	3.759E-01	5.848E-01	0.000E+00	FAIL ABUN
PO-209	1.515E+00	3.856E+00	6.731E+00	0.000E+00	NOT IDENT.
BI-210	6.029E+00	5.791E+00	1.063E+01	0.000E+00	NOT IDENT.
PB-210	6.029E+00	5.791E+00	1.063E+01	0.000E+00	NOT IDENT.
PO-210	6.029E+00	5.786E+00	1.063E+01	0.000E+00	NOT IDENT.
PB-211	2.452E-01	5.888E-01	8.917E-01	0.000E+00	NOT IDENT.
PO-215	-7.793E-02	3.759E-01	5.848E-01	0.000E+00	FAIL ABUN
RN-219	-1.571E-01	2.359E-01	3.807E-01	0.000E+00	FAIL ABUN
RN-220	-3.256E+00	1.400E+01	2.355E+01	0.000E+00	NOT IDENT.
RA-223	-7.793E-02	3.759E-01	5.848E-01	0.000E+00	FAIL ABUN
AC-227	2.325E-01	2.216E-01	3.652E-01	0.000E+00	FAIL ABUN
TH-227	2.325E-01	2.227E-01	3.652E-01	0.000E+00	FAIL ABUN
PA-231	1.713E-01	7.657E-01	1.389E+00	0.000E+00	FAIL ABUN
TH-231	-7.793E-02	3.759E-01	5.848E-01	0.000E+00	FAIL ABUN
PA-233	1.115E-02	3.222E-02	5.823E-02	0.000E+00	FAIL ABUN
PA-234	-2.256E-03	1.757E-01	2.988E-01	0.000E+00	FAIL ABUN
NP-236	-3.101E-02	4.981E-02	7.655E-02	0.000E+00	FAIL ABUN
NP-239	3.423E-02	1.195E-01	1.938E-01	0.000E+00	FAIL ABUN
AM-241	1.238E-01	1.581E-01	2.708E-01	0.000E+00	NOT IDENT.
CM-243	-1.341E-02	6.981E-02	1.030E-01	0.000E+00	FAIL ABUN
AM-246	4.157E-02	8.488E-02	1.459E-01	0.000E+00	NOT IDENT.
CM-247	-1.108E-02	1.995E-02	3.425E-02	0.000E+00	FAIL ABUN
CF-249	6.946E-03	2.052E-02	3.644E-02	0.000E+00	NOT IDENT.
CF-251	4.098E-03	6.979E-02	1.219E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:26:42.77

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808001.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:26:17
Sample ID         : G245808001           Sample quantity  : 1.49809E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:04.97  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	4516	10.67*	1.075E+00	3.290E+01	3.290E+01	7.78
NB-95	765.79	294	99.81*	1.938E+00	1.270E-01	1.520E-01	31.48
CD-109	88.03	916	3.72*	5.014E+00	4.103E+00	4.206E+00	22.49
SN-126	64.28	2286	9.60	2.060E+00	9.656E+00	9.656E+00	19.31
	86.94	916	8.90	5.014E+00	1.715E+00	1.715E+00	46.28
	87.57	916	37.00*	5.014E+00	4.125E-01	4.125E-01	22.49
EU-155	48.70	------	4.60	4.576E-01	------ Line Not Found		------
	60.01	------	1.11	1.630E+00	------ Line Not Found		------
	86.54	916	30.90	5.014E+00	4.940E-01	4.971E-01	22.52
	105.31	185	20.70*	6.154E+00	1.213E-01	1.221E-01	67.59
LU-177	112.95	475	6.40	6.353E+00	9.753E-01	5.396E+00	38.98
	208.36	398	11.00*	5.288E+00	5.714E-01	3.161E+00	31.71
TL-208	277.35	249	6.80	4.330E+00	7.052E-01	7.052E-01	49.87
	510.84	379	21.60	2.731E+00	5.361E-01	5.361E-01	35.88
	583.14	1227	84.20*	2.454E+00	4.959E-01	4.959E-01	11.49
	860.37	173	12.46	1.744E+00	6.648E-01	6.648E-01	32.54
BI-211	72.87	------	1.27	3.384E+00	------ Line Not Found		------
	351.07	2086	12.94*	3.627E+00	3.712E+00	3.712E+00	9.63
BI-212	727.18	269	11.80*	2.033E+00	9.350E-01	9.350E-01	31.92
	785.46	59	1.97	1.895E+00	1.324E+00	1.324E+00	125.54
	1620.62	------	2.75	9.985E-01	------ Line Not Found		------
PB-212	74.81	808	10.70	3.639E+00	1.733E+00	1.733E+00	22.22
	77.11	1480	18.00	3.926E+00	1.749E+00	1.749E+00	15.72
	87.30	916	8.00	5.014E+00	1.908E+00	1.908E+00	24.61
	238.63	4192	44.60*	4.826E+00	1.627E+00	1.627E+00	8.90
	300.09	256	3.41	4.082E+00	1.534E+00	1.534E+00	41.77
PO-212	74.81	808	10.70	3.639E+00	1.733E+00	1.733E+00	22.22
	77.11	1480	18.00	3.926E+00	1.749E+00	1.749E+00	15.72
	87.30	916	8.00	5.014E+00	1.908E+00	1.908E+00	24.61
	115.19	------	0.60	6.408E+00	------ Line Not Found		------
	238.63	4192	44.60*	4.826E+00	1.627E+00	1.627E+00	8.90
	300.09	256	3.41	4.082E+00	1.534E+00	1.534E+00	41.77

Sample ID : G245808001 Acquisition date : 11-FEB-2010 22:26:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
BI-214	609.31	1401	46.30*	2.367E+00	1.068E+00	1.068E+00	10.94
	1120.29	287	15.10	1.358E+00	1.170E+00	1.170E+00	28.38
	1764.49	296	15.80	9.529E-01	1.643E+00	1.643E+00	17.26
PB-214	74.81	808	6.21	3.639E+00	2.986E+00	2.986E+00	21.48
	77.11	1480	10.50	3.926E+00	2.998E+00	2.998E+00	17.47
	87.30	916	4.67	5.014E+00	3.269E+00	3.269E+00	23.77
	241.98	966	7.49	4.783E+00	2.251E+00	2.251E+00	18.62
	295.21	1196	19.20	4.132E+00	1.259E+00	1.259E+00	14.45
	351.92	2086	37.20*	3.627E+00	1.291E+00	1.291E+00	10.95
PO-214	74.81	808	6.21	3.639E+00	2.986E+00	2.986E+00	21.48
	77.11	1480	10.50	3.926E+00	2.998E+00	2.998E+00	17.47
	87.30	916	4.67	5.014E+00	3.269E+00	3.269E+00	23.77
	241.98	966	7.49	4.783E+00	2.251E+00	2.251E+00	18.62
	295.21	1196	19.20	4.132E+00	1.259E+00	1.259E+00	14.45
	351.92	2086	37.20*	3.627E+00	1.291E+00	1.291E+00	10.95
PO-216	74.81	808	10.70	3.639E+00	1.733E+00	1.733E+00	22.22
	77.11	1480	18.00	3.926E+00	1.749E+00	1.749E+00	15.72
	87.30	916	8.00	5.014E+00	1.908E+00	1.908E+00	24.61
	238.63	4192	44.60*	4.826E+00	1.627E+00	1.627E+00	8.90
	300.09	256	3.41	4.082E+00	1.534E+00	1.534E+00	41.77
PO-218	74.81	808	6.21	3.639E+00	2.986E+00	2.986E+00	21.48
	77.11	1480	10.50	3.926E+00	2.998E+00	2.998E+00	17.47
	87.30	916	4.67	5.014E+00	3.269E+00	3.269E+00	23.77
	241.98	966	7.49	4.783E+00	2.251E+00	2.251E+00	18.62
	295.21	1196	19.20	4.132E+00	1.259E+00	1.259E+00	14.45
	351.92	2086	37.20*	3.627E+00	1.291E+00	1.291E+00	10.95
RA-224	240.98	966	3.95*	4.783E+00	4.269E+00	4.269E+00	17.76
RA-226	609.31	1401	46.30*	2.367E+00	1.068E+00	1.068E+00	10.94
	1120.29	287	15.10	1.358E+00	1.170E+00	1.170E+00	28.38
	1764.49	296	15.80	9.529E-01	1.643E+00	1.643E+00	17.26
AC-228	338.32	825	11.40	3.734E+00	1.618E+00	1.618E+00	42.95
	911.07	856	27.70*	1.652E+00	1.562E+00	1.562E+00	16.02
	969.11	528	16.60	1.559E+00	1.703E+00	1.703E+00	26.72
RA-228	338.32	825	11.40	3.734E+00	1.618E+00	1.618E+00	42.95
	911.07	856	27.70*	1.652E+00	1.562E+00	1.562E+00	16.02
	969.11	528	16.60	1.559E+00	1.703E+00	1.703E+00	26.72
TH-228	74.81	808	10.70	3.639E+00	1.733E+00	1.762E+00	20.19
	77.11	1480	18.00	3.926E+00	1.749E+00	1.778E+00	15.72
	87.30	916	8.00	5.014E+00	1.908E+00	1.940E+00	22.49
	238.63	4192	44.60*	4.826E+00	1.627E+00	1.654E+00	8.90
	300.09	256	3.41	4.082E+00	1.534E+00	1.559E+00	71.77
TH-229	85.43	480	16.50	4.700E+00	5.174E-01	5.174E-01	37.48
	88.47	916	27.10	5.014E+00	5.632E-01	5.632E-01	22.49
	100.00	618	12.40	5.840E+00	7.131E-01	7.131E-01	28.41
	193.63	------	4.59*	5.557E+00	------	Line Not Found	------
	210.97	------	3.26	5.257E+00	------	Line Not Found	------
TH-230	609.31	1401	46.30*	2.367E+00	1.068E+00	1.068E+00	10.94
	1120.29	287	15.10	1.358E+00	1.170E+00	1.170E+00	28.38
	1764.49	296	15.80	9.529E-01	1.643E+00	1.643E+00	17.26

Sample ID : G245808001 Acquisition date : 11-FEB-2010 22:26:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-231	84.21	480	7.00	4.700E+00	1.219E+00	1.875E+01	37.48
	92.29	8414	17.30	5.454E+00	7.448E+00	1.145E+02	11.18
	95.87	466	28.00*	5.591E+00	2.485E-01	3.821E+00	50.53
	108.00	------	13.10	6.237E+00	------	Line Not Found	------
TH-232	338.32	825	11.40	3.734E+00	1.618E+00	1.618E+00	14.70
	911.07	856	27.70*	1.652E+00	1.562E+00	1.562E+00	16.02
	969.11	528	16.60	1.559E+00	1.703E+00	1.703E+00	26.72
PA-234M	766.42	294	0.32	1.938E+00	3.962E+01	3.962E+01	59.08
	1001.03	479	0.84*	1.511E+00	3.150E+01	3.150E+01	17.71
TH-234	63.29	2286	3.80*	2.060E+00	2.439E+01	2.439E+01	21.59
	92.38	8414	5.41	5.454E+00	2.382E+01	2.382E+01	19.43
U-234	609.31	1401	46.30*	2.367E+00	1.068E+00	1.068E+00	10.94
	1120.29	287	15.10	1.358E+00	1.170E+00	1.170E+00	28.38
	1764.49	296	15.80	9.529E-01	1.643E+00	1.643E+00	17.26
U-235	89.95	788	2.70	5.250E+00	4.643E+00	4.643E+00	38.81
	93.35	8414	4.50	5.454E+00	2.863E+01	2.863E+01	28.92
	105.00	185	2.10	6.154E+00	1.196E+00	1.196E+00	73.37
	143.76	336	10.50*	6.401E+00	4.179E-01	4.179E-01	46.86
	163.35	195	4.70	6.107E+00	5.676E-01	5.676E-01	59.71
	185.71	1961	54.00	5.699E+00	5.321E-01	5.321E-01	10.73
	205.31	164	4.70	5.353E+00	5.455E-01	5.455E-01	63.34
NP-237	86.50	916	12.60*	5.014E+00	1.211E+00	1.211E+00	30.52
	95.87	466	2.60	5.591E+00	2.676E+00	2.676E+00	55.55
U-238	63.29	2286	3.80*	2.060E+00	2.439E+01	2.439E+01	21.59
	92.38	8414	5.41	5.454E+00	2.382E+01	2.382E+01	11.18
AM-243	74.67	808	66.00*	3.639E+00	2.809E-01	2.809E-01	20.16
	86.72	916	0.34	5.014E+00	4.543E+01	4.543E+01	22.49
	117.66	------	0.55	6.445E+00	------	Line Not Found	------
	142.18	336	0.13	6.401E+00	3.510E+01	3.510E+01	44.32
ANH-511	511.00	379	100.00*	2.731E+00	1.158E-01	1.158E-01	34.90

Flag: "*" = Keyline

Sample ID : G245808001 Acquisition date : 11-FEB-2010 22:26:17

Total number of lines in spectrum 51
Number of unidentified lines 4
Number of lines tentatively identified by NID 47 92.16%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.290E+01	3.290E+01	0.256E+01	7.78	
NB-95	64.02D	1.20	1.270E-01	1.520E-01	0.478E-01	31.48	
CD-109	464.00D	1.03	4.103E+00	4.206E+00	0.946E+00	22.49	
SN-126	1.00E+05Y	1.00	4.125E-01	4.125E-01	0.928E-01	22.49	
EU-155	4.96Y	1.01	1.213E-01	1.221E-01	0.825E-01	67.59	
LU-177	6.71D	5.53	5.714E-01	3.161E+00	1.002E+00	31.71	
TL-208	1.41E+10Y	1.00	4.959E-01	4.959E-01	0.570E-01	11.49	
BI-211	7.04E+08Y	1.00	3.712E+00	3.712E+00	0.357E+00	9.63	
BI-212	1.41E+10Y	1.00	9.350E-01	9.350E-01	2.985E-01	31.92	
PB-212	1.41E+10Y	1.00	1.627E+00	1.627E+00	0.145E+00	8.90	
PO-212	1.41E+10Y	1.00	1.627E+00	1.627E+00	0.145E+00	8.90	
BI-214	1600.00Y	1.00	1.068E+00	1.068E+00	0.117E+00	10.94	
PB-214	1600.00Y	1.00	1.291E+00	1.291E+00	0.141E+00	10.95	
PO-214	1600.00Y	1.00	1.291E+00	1.291E+00	0.141E+00	10.95	
PO-216	1.41E+10Y	1.00	1.627E+00	1.627E+00	0.145E+00	8.90	
PO-218	1600.00Y	1.00	1.291E+00	1.291E+00	0.141E+00	10.95	
RA-224	1.41E+10Y	1.00	4.269E+00	4.269E+00	0.758E+00	17.76	
RA-226	1600.00Y	1.00	1.068E+00	1.068E+00	0.117E+00	10.94	
AC-228	1.41E+10Y	1.00	1.562E+00	1.562E+00	0.250E+00	16.02	
RA-228	1.41E+10Y	1.00	1.562E+00	1.562E+00	0.250E+00	16.02	
TH-228	1.91Y	1.02	1.627E+00	1.654E+00	0.147E+00	8.90	
TH-229	7340.00Y	1.00	5.632E-01	5.632E-01	1.267E-01	22.49	K
TH-230	4.47E+09Y	1.00	1.068E+00	1.068E+00	0.117E+00	10.94	
U-231	4.20D	15.4	2.485E-01	3.821E+00	1.931E+00	50.53	
TH-232	1.41E+10Y	1.00	1.562E+00	1.562E+00	0.250E+00	16.02	
PA-234M	4.47E+09Y	1.00	3.150E+01	3.150E+01	0.558E+01	17.71	
TH-234	4.47E+09Y	1.00	2.439E+01	2.439E+01	0.527E+01	21.59	
U-234	4.47E+09Y	1.00	1.068E+00	1.068E+00	0.117E+00	10.94	
U-235	7.04E+08Y	1.00	4.179E-01	4.179E-01	1.958E-01	46.86	
NP-237	2.14E+06Y	1.00	1.211E+00	1.211E+00	0.370E+00	30.52	
U-238	4.47E+09Y	1.00	2.439E+01	2.439E+01	0.527E+01	21.59	
AM-243	7380.00Y	1.00	2.809E-01	2.809E-01	0.566E-01	20.16	
ANH-511	1.00E+09Y	1.00	1.158E-01	1.158E-01	0.404E-01	34.90	
	Total Activity :		1.501E+02	1.564E+02			

Grand Total Activity : 1.501E+02 1.564E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245808001 Acquisition date : 11-FEB-2010 22:26:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.98	212	1119	0.89	258.01	255	6	9.82E-03	51.8	6.50E+00	T
0	257.86	171	858	1.17	515.78	511	10	7.93E-03	65.7	4.56E+00	
0	270.22	380	649	1.37	540.51	536	9	1.76E-02	26.3	4.41E+00	T
0	328.03	237	672	1.44	656.14	651	11	1.10E-02	44.3	3.82E+00	T
0	409.91	108	341	1.40	819.91	816	8	4.99E-03	62.5	3.23E+00	T
0	438.77	40	374	1.34	877.64	871	9	1.85E-03	****	3.07E+00	T
0	462.88	232	302	1.55	925.86	921	9	1.08E-02	30.0	2.95E+00	T
0	795.21	146	295	1.78	1590.50	1584	14	6.77E-03	52.5	1.88E+00	T
0	837.88	185	370	4.01	1675.83	1667	23	8.56E-03	56.3	1.79E+00	T
0	934.07	115	162	1.36	1868.20	1862	11	5.31E-03	46.9	1.61E+00	T
3	965.06	167	133	1.89	1930.17	1926	18	7.73E-03	26.2	1.56E+00	T
0	1237.42	229	252	2.37	2474.82	2466	15	1.06E-02	32.9	1.24E+00	T
0	1377.93	70	80	1.95	2755.78	2750	10	3.23E-03	51.2	1.13E+00	
0	1631.31	40	27	1.77	3262.42	3256	12	1.86E-03	60.5	9.94E-01	
0	1730.26	55	31	2.59	3460.27	3453	15	2.57E-03	50.8	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:26:48.24

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808001.CNF;1 *
* Acquisition date  : 11-FEB-2010 22:26:17  Detector SN#     :             *
* Detector ID       : GAM04                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 06:00:04.97          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245808001            Analyst initials: RXF2         *
* Batch Number      : 947554                Sample Quantity : 1.49809E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.290E+01	2.561E+00	2.547E-01	1.810E-02	129.190
NB-95	1.520E-01	4.784E-02	3.581E-02	2.232E-03	4.244
CD-109	4.206E+00	9.458E-01	8.214E-01	9.872E-02	5.120
SN-126	4.125E-01	9.277E-02	8.119E-02	9.736E-03	5.081
EU-155	1.221E-01	8.250E-02	1.064E-01	9.278E-03	1.147
LU-177	3.161E+00	1.002E+00	1.004E+00	6.588E-02	3.149
TL-208	4.959E-01	5.698E-02	3.006E-02	1.891E-03	16.498
BI-211	3.712E+00	3.574E-01	1.706E-01	1.153E-02	21.755
BI-212	9.350E-01	2.985E-01	2.493E-01	1.906E-02	3.751
PB-212	1.627E+00	1.448E-01	4.793E-02	3.849E-03	33.946
PO-212	1.627E+00	1.448E-01	4.793E-02	3.849E-03	33.946
BI-214	1.068E+00	1.168E-01	6.229E-02	4.577E-03	17.144
PB-214	1.291E+00	1.414E-01	5.948E-02	5.074E-03	21.709
PO-214	1.291E+00	1.414E-01	5.948E-02	5.074E-03	21.709
PO-216	1.627E+00	1.448E-01	4.793E-02	3.849E-03	33.946
PO-218	1.291E+00	1.414E-01	5.948E-02	5.074E-03	21.709
RA-224	4.269E+00	7.581E-01	5.456E-01	3.637E-02	7.824
RA-226	1.068E+00	1.168E-01	6.229E-02	4.577E-03	17.144

Sample ID : G245808001 Acquisition date : 11-FEB-2010 22:26:17

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.562E+00	2.503E-01	1.167E-01	1.272E-02	13.383
RA-228	1.562E+00	2.503E-01	1.167E-01	1.272E-02	13.383
TH-228	1.654E+00	1.472E-01	4.872E-02	3.913E-03	33.945
TH-229	5.632E-01	1.267E-01	4.534E-01	2.942E-02	1.242
TH-230	1.068E+00	1.168E-01	6.229E-02	4.577E-03	17.144
U-231	3.821E+00	1.931E+00	1.347E+00	1.362E-01	2.836
TH-232	1.562E+00	2.503E-01	1.167E-01	1.272E-02	13.383
PA-234M	3.150E+01	5.578E+00	4.169E+00	3.801E-01	7.555
TH-234	2.439E+01	5.266E+00	1.833E+00	3.626E-01	13.308
U-234	1.068E+00	1.168E-01	6.229E-02	4.577E-03	17.144
U-235	4.179E-01	1.958E-01	1.890E-01	3.133E-02	2.211
NP-237	1.211E+00	3.697E-01	2.429E-01	5.787E-02	4.988
U-238	2.439E+01	5.266E+00	1.833E+00	3.626E-01	13.308
AM-243	2.809E-01	5.664E-02	6.810E-02	7.799E-03	4.125
ANH-511	1.158E-01	4.041E-02	2.456E-02	1.374E-03	4.715

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.462E-03		1.787E-01	2.913E-01	1.930E-02	-0.005
NA-22	1.437E-02		2.493E-02	4.294E-02	2.807E-03	0.335
NA-24	-1.149E+00		9.134E-01	Half-Life too short		
AL-26	-5.779E-03		1.354E-02	2.064E-02	1.224E-03	-0.280
TI-44	3.228E-01	+	5.075E-02	4.927E-02	5.666E-03	6.551
SC-46	-6.355E-03		2.218E-02	3.598E-02	2.910E-03	-0.177
V-48	-2.706E-02		4.382E-02	6.915E-02	5.357E-03	-0.391
CR-51	9.416E-02		1.945E-01	3.302E-01	2.325E-02	0.285
MN-52	-4.136E-03		1.547E-01	2.400E-01	1.638E-02	-0.017
MN-54	2.444E-02		2.416E-02	3.679E-02	2.663E-03	0.664
CO-56	-1.443E-02		2.609E-02	3.593E-02	2.666E-03	-0.402
CO-57	2.668E-03		1.456E-02	2.403E-02	1.668E-03	0.111
CO-58	-7.210E-03		2.079E-02	3.387E-02	2.338E-03	-0.213
FE-59	-3.899E-02		5.485E-02	8.451E-02	6.458E-03	-0.461
CO-60	-1.891E-04		2.097E-02	3.494E-02	2.394E-03	-0.005
ZN-65	-2.513E-03		6.211E-02	8.634E-02	5.711E-03	-0.029
GE-68	4.157E-01		7.609E-01	1.267E+00	8.853E-02	0.328
AS-73	-1.277E-01		9.967E-01	1.652E+00	2.161E-01	-0.077
AS-74	-1.131E-02		5.267E-02	8.365E-02	4.416E-03	-0.135
SE-75	1.461E-02		2.510E-02	4.020E-02	2.704E-03	0.363
BR-77	7.961E+00		8.193E+00	1.382E+01	7.698E-01	0.576
SR-82	-2.814E-01		2.132E-01	3.313E-01	2.114E-02	-0.849
RB-83	3.533E-02		3.676E-02	6.197E-02	3.451E-03	0.570
RB-84	2.244E-02		3.997E-02	6.766E-02	5.388E-03	0.332
KR-85	1.022E+01		4.141E+00	6.609E+00	3.692E-01	1.546
SR-85	5.318E-02		2.155E-02	3.439E-02	1.921E-03	1.546
RB-86	1.670E-01		5.035E-01	8.302E-01	5.804E-02	0.201
Y-88	1.215E-02		1.655E-02	2.922E-02	1.705E-03	0.416

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-88	-3.233E-03		1.586E-02	2.601E-02	1.464E-03	-0.124
Y-91	3.478E+00		1.200E+01	1.954E+01	1.198E+00	0.178
NB-94	1.309E-02		1.832E-02	3.155E-02	1.699E-03	0.415
NB-95M	5.463E-02		7.640E-02	1.102E-01	9.044E-03	0.496
ZR-95	4.214E-02		3.877E-02	6.752E-02	4.917E-03	0.624
NB-97	-2.264E-01		1.061E-01	Half-Life too short		
ZR-97	6.816E+00		2.120E+00	Half-Life too short		
MO-99	-7.581E+00		9.672E+00	1.552E+01	2.144E+00	-0.488
TC-99M	-4.841E+11		5.932E+11	Half-Life too short		
RH-101	4.815E-04		1.919E-02	2.960E-02	1.928E-03	0.016
RH-102	6.383E-03		1.601E-02	2.652E-02	1.499E-03	0.241
RU-103	6.008E-03		2.256E-02	3.706E-02	4.657E-03	0.162
RH-106	1.059E-01		1.785E-01	2.927E-01	3.344E-02	0.362
RU-106	1.059E-01		1.782E-01	2.927E-01	1.504E-02	0.362
AG-108M	-2.680E-03		1.947E-02	2.781E-02	1.718E-03	-0.096
AG-110M	-2.181E-02		1.922E-02	3.083E-02	1.647E-03	-0.708
IN-111	4.414E-01		8.783E-01	1.259E+00	8.399E-02	0.351
IN-113M	-1.027E-03		2.306E-02	3.804E-02	2.292E-03	-0.027
SN-113	-1.027E-03		2.306E-02	3.804E-02	2.292E-03	-0.027
IN-114M	4.002E-02		1.118E-01	1.617E-01	1.046E-02	0.248
CD-115	3.063E+00		8.850E+00	1.454E+01	8.070E-01	0.211
SN-117M	3.229E-02		3.482E-02	5.499E-02	3.518E-03	0.587
SB-122	1.605E+00		1.670E+00	2.795E+00	1.516E-01	0.574
I-123	1.914E+01		1.055E+01	Half-Life too short		
TE-123M	1.621E-02		1.787E-02	2.653E-02	1.715E-03	0.611
I-124	3.767E-01		5.087E-01	7.808E-01	4.095E-02	0.482
SB-124	-1.573E-03		3.745E-02	6.089E-02	4.137E-03	-0.026
SB-125	6.402E-03		4.882E-02	8.059E-02	4.771E-03	0.079
TE-125M	7.255E+00		8.208E+00	9.921E+00	9.849E-01	0.731
I-126	-7.874E-02		1.082E-01	1.768E-01	8.721E-03	-0.445
SB-126	4.794E-02		8.898E-02	1.443E-01	8.109E-03	0.332
SB-127	-4.660E-01		9.457E-01	1.553E+00	1.487E-01	-0.300
XE-127	-6.255E-03		3.006E-02	4.247E-02	2.776E-03	-0.147
I-131	2.024E-02		7.095E-02	1.189E-01	7.928E-03	0.170
TE-132	2.782E-01		5.317E-01	8.541E-01	1.282E-01	0.326
BA-133	-1.668E-02		2.562E-02	3.620E-02	4.241E-03	-0.461
I-133	2.727E-03		4.987E-03	Half-Life too short		
CS-134	8.598E-02	+	4.548E-02	5.148E-02	3.470E-03	1.670
CS-135	7.068E-02		9.181E-02	1.406E-01	1.172E-02	0.503
I-135	2.352E+10		5.611E+10	Half-Life too short		
CS-136	-2.267E-02		6.723E-02	1.072E-01	8.236E-03	-0.211
BA-137M	-1.366E-02		2.248E-02	3.453E-02	1.684E-03	-0.396
CS-137	-1.444E-02		2.376E-02	3.650E-02	1.791E-03	-0.396
CE-139	-9.242E-04		1.868E-02	2.690E-02	1.709E-03	-0.034
BA-140	-4.288E-02		1.587E-01	2.527E-01	8.206E-02	-0.170
LA-140	-5.041E-02		4.816E-02	7.115E-02	4.686E-03	-0.709
CE-141	6.309E-02		4.081E-02	6.170E-02	4.141E-03	1.023
CE-143	9.490E-04		1.370E-04	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-144	-5.890E-02		1.193E-01	1.926E-01	2.807E-02	-0.306
PM-144	9.574E-03		1.756E-02	3.011E-02	1.600E-03	0.318
PR-144	6.492E-01		1.190E+00	2.042E+00	1.084E-01	0.318
PM-146	1.212E-02		2.336E-02	3.895E-02	3.324E-03	0.311
ND-147	-2.008E-01		3.383E-01	5.314E-01	7.127E-02	-0.378
PM-149	-2.706E+01		7.332E+01	1.221E+02	1.775E+01	-0.222
EU-152	2.564E-03		5.220E-02	8.424E-02	5.830E-03	0.030
GD-153	2.963E-01	+	8.417E-02	9.323E-02	9.152E-03	3.178
EU-154	1.935E-02		7.058E-02	1.197E-01	1.174E-02	0.162
TB-160	3.128E-03		7.896E-02	1.304E-01	1.034E-02	0.024
HO-166M	-1.157E-02		3.313E-02	5.465E-02	3.008E-03	-0.212
TM-171	-1.269E+01		2.455E+01	3.670E+01	4.291E+00	-0.346
LU-176	-6.657E-03		1.259E-02	2.077E-02	1.356E-03	-0.320
LU-177M	-5.177E-03		1.067E-01	1.538E-01	8.701E-03	-0.034
HF-181	-2.573E-03		2.444E-02	3.735E-02	2.109E-03	-0.069
W-181	4.575E-01		3.343E-01	5.167E-01	6.091E-02	0.885
TA-182	3.084E-02		1.225E-01	2.078E-01	1.293E-02	0.148
RE-183	1.343E-01	+	7.689E-02	1.078E-01	6.867E-03	1.246
RE-184	7.659E-04		1.332E-01	1.997E-01	1.334E-02	0.004
OS-185	8.823E-03		2.285E-02	3.913E-02	1.950E-03	0.225
RE-188	6.580E-02		9.964E-02	1.640E-01	1.053E-02	0.401
W-188	-2.645E+00		4.337E+00	6.277E+00	4.148E-01	-0.421
IR-192	-4.358E-03		1.761E-02	2.926E-02	1.900E-03	-0.149
AU-195	8.637E-01	+	2.454E-01	2.760E-01	2.639E-02	3.130
TL-200	-2.866E-04		3.046E-04	Half-Life too short		
TL-201	-1.447E+00		5.598E+00	8.556E+00	5.439E-01	-0.169
TL-202	3.032E-02	+	5.384E-02	7.159E-02	4.061E-03	0.424
HG-203	1.692E-02		2.417E-02	3.690E-02	2.569E-03	0.459
BI-207	5.844E-03		3.012E-02	4.939E-02	3.513E-03	0.118
TL-207	-7.793E-02		3.836E-01	5.596E-01	9.367E-02	-0.139
PO-209	1.515E+00		3.934E+00	6.603E+00	5.419E-01	0.229
BI-210	6.029E+00		5.909E+00	9.734E+00	8.483E-01	0.619
PB-210	6.029E+00		5.909E+00	9.734E+00	8.483E-01	0.619
PO-210	6.029E+00		5.904E+00	9.734E+00	7.561E-01	0.619
PB-211	2.452E-01		6.008E-01	8.578E-01	5.346E-01	0.286
PO-215	-7.793E-02		3.836E-01	5.596E-01	9.367E-02	-0.139
RN-219	-1.571E-01		2.407E-01	3.661E-01	4.957E-02	-0.429
RN-220	-3.256E+00		1.429E+01	2.282E+01	1.250E+00	-0.143
RA-223	-7.793E-02		3.836E-01	5.596E-01	9.367E-02	-0.139
AC-227	2.325E-01		2.261E-01	3.475E-01	4.986E-02	0.669
TH-227	2.325E-01		2.272E-01	3.475E-01	5.984E-02	0.669
PA-231	1.713E-01		7.813E-01	1.325E+00	1.874E-01	0.129
TH-231	-7.793E-02		3.836E-01	5.596E-01	9.367E-02	-0.139
PA-233	1.115E-02		3.288E-02	5.567E-02	3.796E-03	0.200
PA-234	-2.256E-03		1.793E-01	2.935E-01	5.425E-02	-0.008
NP-236	-3.101E-02		5.083E-02	7.204E-02	4.600E-03	-0.430
NP-239	3.423E-02		1.219E-01	1.811E-01	1.332E-02	0.189
AM-241	1.238E-01		1.613E-01	2.493E-01	3.147E-02	0.496

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.341E-02		7.124E-02	9.596E-02	8.461E-03	-0.140
AM-246	4.157E-02		8.661E-02	1.438E-01	1.002E-02	0.289
CM-247	-1.108E-02		2.036E-02	3.294E-02	1.859E-03	-0.336
CF-249	6.946E-03		2.094E-02	3.502E-02	1.990E-03	0.198
CF-251	4.098E-03		7.121E-02	1.150E-01	7.359E-03	0.036

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245808001           *
* Acquisition date  : 11-FEB-2010 22:26:17 Detector SN#     :               *
* Detector ID       : GAM04                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 06:00:04.97      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245808001           Analyst initials: RXF2           *
* Batch Number      : 947554               Sample Quantity : 1.4981E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.290E+01	2.509E+00	1.283E-01	1.280E+00
NB-95	1.520E-01	4.688E-02	1.833E-02	2.392E-02
CD-109	4.206E+00	9.269E-01	4.427E-01	4.729E-01
SN-126	4.125E-01	9.091E-02	4.376E-02	4.638E-02
EU-155	1.221E-01	8.085E-02	5.713E-02	4.125E-02
LU-177	3.161E+00	9.823E-01	5.304E-01	5.012E-01
TL-208	4.959E-01	5.584E-02	1.549E-02	2.849E-02
BI-211	3.712E+00	3.502E-01	8.904E-02	1.787E-01
BI-212	9.350E-01	2.925E-01	1.278E-01	1.492E-01
PB-212	1.627E+00	1.419E-01	2.524E-02	7.239E-02
PO-212	1.627E+00	1.419E-01	2.524E-02	7.239E-02
BI-214	1.068E+00	1.145E-01	3.207E-02	5.842E-02
PB-214	1.291E+00	1.386E-01	3.104E-02	7.070E-02
PO-214	1.291E+00	1.386E-01	3.104E-02	7.070E-02
PO-216	1.627E+00	1.419E-01	2.524E-02	7.239E-02
PO-218	1.291E+00	1.386E-01	3.104E-02	7.070E-02
RA-224	4.269E+00	7.430E-01	2.873E-01	3.791E-01
RA-226	1.068E+00	1.145E-01	3.207E-02	5.842E-02
AC-228	1.562E+00	2.453E-01	5.949E-02	1.251E-01
RA-228	1.562E+00	2.453E-01	5.949E-02	1.251E-01
TH-228	1.654E+00	1.442E-01	2.566E-02	7.359E-02
TH-229	-2.658E-03	2.771E-01	2.400E-01	1.414E-01
TH-230	1.068E+00	1.145E-01	3.207E-02	5.842E-02
U-231	3.821E+00	1.892E+00	7.247E-01	9.653E-01
TH-232	1.562E+00	2.453E-01	5.949E-02	1.251E-01
PA-234M	3.150E+01	5.466E+00	2.120E+00	2.789E+00
TH-234	2.439E+01	5.161E+00	9.951E-01	2.633E+00
U-234	1.068E+00	1.145E-01	3.207E-02	5.842E-02
U-235	4.179E-01	1.919E-01	1.007E-01	9.792E-02
NP-237	1.211E+00	3.623E-01	1.309E-01	1.849E-01
U-238	2.439E+01	5.161E+00	9.951E-01	2.633E+00
AM-243	2.809E-01	5.551E-02	3.684E-02	2.832E-02
ANH-511	1.158E-01	3.961E-02	1.270E-02	2.021E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.462E-03	1.752E-01	1.509E-01	8.937E-02	NOT IDENT.
NA-22	1.437E-02	2.444E-02	2.170E-02	1.247E-02	NOT IDENT.
NA-24	-1.149E+06	1.790E+06	0.000E+00	9.134E+05	SHORT HLIF
AL-26	-5.779E-03	1.326E-02	1.034E-02	6.768E-03	NOT IDENT.
TI-44	3.228E-01	4.974E-02	2.662E-02	2.538E-02	FAIL ABUN
SC-46	-6.355E-03	2.174E-02	1.835E-02	1.109E-02	FAIL ABUN
V-48	-2.706E-02	4.294E-02	3.518E-02	2.191E-02	NOT IDENT.
CR-51	9.416E-02	1.906E-01	1.727E-01	9.723E-02	NOT IDENT.
MN-52	-4.136E-03	1.516E-01	1.210E-01	7.733E-02	FAIL ABUN
MN-54	2.444E-02	2.367E-02	1.880E-02	1.208E-02	NOT IDENT.
CO-56	-1.443E-02	2.557E-02	1.835E-02	1.305E-02	FAIL ABUN
CO-57	2.668E-03	1.427E-02	1.285E-02	7.282E-03	NOT IDENT.
CO-58	-7.210E-03	2.037E-02	1.731E-02	1.039E-02	NOT IDENT.
FE-59	-3.899E-02	5.375E-02	4.288E-02	2.743E-02	FAIL ABUN
CO-60	-1.891E-04	2.055E-02	1.764E-02	1.048E-02	NOT IDENT.
ZN-65	-2.513E-03	6.086E-02	4.379E-02	3.105E-02	NOT IDENT.
GE-68	4.157E-01	7.457E-01	6.434E-01	3.805E-01	NOT IDENT.
AS-73	-1.277E-01	9.768E-01	9.003E-01	4.983E-01	NOT IDENT.
AS-74	-1.131E-02	5.162E-02	4.310E-02	2.633E-02	NOT IDENT.
SE-75	1.461E-02	2.459E-02	2.112E-02	1.255E-02	NOT IDENT.
BR-77	7.961E+00	8.029E+00	7.145E+00	4.096E+00	FAIL ABUN
SR-82	-2.814E-01	2.089E-01	1.696E-01	1.066E-01	NOT IDENT.
RB-83	3.533E-02	3.602E-02	3.203E-02	1.838E-02	NOT IDENT.
RB-84	2.244E-02	3.918E-02	3.452E-02	1.999E-02	NOT IDENT.
KR-85	1.022E+01	4.058E+00	3.418E+00	2.070E+00	NOT IDENT.
SR-85	5.318E-02	2.112E-02	1.778E-02	1.077E-02	NOT IDENT.
RB-86	1.670E-01	4.934E-01	4.214E-01	2.517E-01	NOT IDENT.
Y-88	1.215E-02	1.622E-02	1.463E-02	8.276E-03	NOT IDENT.
ZR-88	-3.233E-03	1.554E-02	1.354E-02	7.930E-03	NOT IDENT.
Y-91	3.478E+00	1.176E+01	9.891E+00	6.001E+00	NOT IDENT.
NB-94	1.309E-02	1.795E-02	1.619E-02	9.158E-03	NOT IDENT.
NB-95M	5.463E-02	7.487E-02	5.806E-02	3.820E-02	NOT IDENT.
ZR-95	4.214E-02	3.800E-02	3.458E-02	1.939E-02	NOT IDENT.
NB-97	-2.264E+05	2.079E+05	0.000E+00	1.061E+05	SHORT HLIF
ZR-97	6.816E+06	4.155E+06	0.000E+00	2.120E+06	SHORT HLIF
MO-99	-7.581E+00	9.479E+00	7.956E+00	4.836E+00	NOT IDENT.
TC-99M	-4.841E+17	1.163E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.815E-04	1.880E-02	1.566E-02	9.594E-03	NOT IDENT.
RH-102	6.383E-03	1.569E-02	1.374E-02	8.005E-03	FAIL ABUN
RU-103	6.008E-03	2.211E-02	1.918E-02	1.128E-02	FAIL ABUN
RH-106	1.059E-01	1.749E-01	1.506E-01	8.926E-02	FAIL ABUN
RU-106	1.059E-01	1.746E-01	1.506E-01	8.909E-02	FAIL ABUN
AG-108M	-2.680E-03	1.908E-02	1.444E-02	9.737E-03	NOT IDENT.
AG-110M	-2.181E-02	1.884E-02	1.584E-02	9.611E-03	NOT IDENT.
IN-111	4.414E-01	8.608E-01	6.625E-01	4.392E-01	NOT IDENT.
IN-113M	-1.027E-03	2.260E-02	1.980E-02	1.153E-02	NOT IDENT.
SN-113	-1.027E-03	2.260E-02	1.980E-02	1.153E-02	NOT IDENT.
IN-114M	4.002E-02	1.095E-01	8.561E-02	5.588E-02	NOT IDENT.
CD-115	3.063E+00	8.673E+00	7.515E+00	4.425E+00	NOT IDENT.
SN-117M	3.229E-02	3.412E-02	2.924E-02	1.741E-02	NOT IDENT.
SB-122	1.605E+00	1.637E+00	1.442E+00	8.350E-01	NOT IDENT.
I-123	1.914E+07	2.068E+07	0.000E+00	1.055E+07	SHORT HLIF
TE-123M	1.621E-02	1.751E-02	1.411E-02	8.936E-03	NOT IDENT.
I-124	3.767E-01	4.985E-01	4.022E-01	2.543E-01	NOT IDENT.
SB-124	-1.573E-03	3.670E-02	3.055E-02	1.873E-02	FAIL ABUN
SB-125	6.402E-03	4.784E-02	4.186E-02	2.441E-02	FAIL ABUN
TE-125M	7.255E+00	8.044E+00	5.320E+00	4.104E+00	NOT IDENT.
I-126	-7.874E-02	1.061E-01	9.083E-02	5.412E-02	NOT IDENT.
SB-126	4.794E-02	8.720E-02	7.400E-02	4.449E-02	FAIL ABUN
SB-127	-4.660E-01	9.268E-01	7.974E-01	4.729E-01	NOT IDENT.
XE-127	-6.255E-03	2.946E-02	2.246E-02	1.503E-02	NOT IDENT.
I-131	2.024E-02	6.953E-02	6.198E-02	3.547E-02	NOT IDENT.
TE-132	2.782E-01	5.210E-01	4.503E-01	2.658E-01	FAIL ABUN
BA-133	-1.668E-02	2.511E-02	1.889E-02	1.281E-02	FAIL ABUN
I-133	2.727E+03	9.774E+03	0.000E+00	4.987E+03	SHORT HLIF
CS-134	8.598E-02	4.457E-02	2.633E-02	2.274E-02	FAIL ABUN
CS-135	7.068E-02	8.997E-02	7.386E-02	4.590E-02	NOT IDENT.
I-135	2.352E+16	1.100E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.267E-02	6.588E-02	5.446E-02	3.361E-02	FAIL ABUN
BA-137M	-1.366E-02	2.203E-02	1.774E-02	1.124E-02	NOT IDENT.
CS-137	-1.444E-02	2.329E-02	1.876E-02	1.188E-02	NOT IDENT.
CE-139	-9.242E-04	1.831E-02	1.429E-02	9.339E-03	NOT IDENT.

BA-140	-4.288E-02	1.556E-01	1.305E-01	7.937E-02	FAIL ABUN
LA-140	-5.041E-02	4.720E-02	3.576E-02	2.408E-02	FAIL ABUN
CE-141	6.309E-02	3.999E-02	3.287E-02	2.041E-02	NOT IDENT.
CE-143	9.490E+02	2.684E+02	0.000E+00	1.370E+02	SHORT HLIF
CE-144	-5.890E-02	1.169E-01	1.028E-01	5.963E-02	NOT IDENT.
PM-144	9.574E-03	1.720E-02	1.546E-02	8.778E-03	NOT IDENT.
PR-144	6.492E-01	1.167E+00	1.048E+00	5.952E-01	NOT IDENT.
PM-146	1.212E-02	2.289E-02	2.020E-02	1.168E-02	NOT IDENT.
ND-147	-2.008E-01	3.315E-01	2.745E-01	1.691E-01	FAIL ABUN
PM-149	-2.706E+01	7.185E+01	6.402E+01	3.666E+01	NOT IDENT.
EU-152	2.564E-03	5.115E-02	4.398E-02	2.610E-02	FAIL ABUN
GD-153	2.963E-01	8.249E-02	5.013E-02	4.209E-02	FAIL ABUN
EU-154	1.935E-02	6.917E-02	6.051E-02	3.529E-02	NOT IDENT.
TB-160	3.128E-03	7.738E-02	6.654E-02	3.948E-02	FAIL ABUN
HO-166M	-1.157E-02	3.247E-02	2.803E-02	1.656E-02	FAIL ABUN
TM-171	-1.269E+01	2.406E+01	1.990E+01	1.227E+01	NOT IDENT.
LU-176	-6.657E-03	1.234E-02	1.087E-02	6.295E-03	FAIL ABUN
LU-177M	-5.177E-03	1.046E-01	7.994E-02	5.336E-02	FAIL ABUN
HF-181	-2.573E-03	2.395E-02	1.935E-02	1.222E-02	NOT IDENT.
W-181	4.575E-01	3.276E-01	2.804E-01	1.671E-01	NOT IDENT.
TA-182	3.084E-02	1.201E-01	1.052E-01	6.127E-02	FAIL ABUN
RE-183	1.343E-01	7.535E-02	5.727E-02	3.844E-02	FAIL ABUN
RE-184	7.659E-04	1.305E-01	1.050E-01	6.658E-02	NOT IDENT.
OS-185	8.823E-03	2.239E-02	2.012E-02	1.142E-02	NOT IDENT.
RE-188	6.580E-02	9.765E-02	8.726E-02	4.982E-02	NOT IDENT.
W-188	-2.645E+00	4.251E+00	3.290E+00	2.169E+00	FAIL ABUN
IR-192	-4.358E-03	1.726E-02	1.531E-02	8.805E-03	FAIL ABUN
AU-195	8.637E-01	2.405E-01	1.483E-01	1.227E-01	FAIL ABUN
TL-200	-2.866E+02	5.971E+02	0.000E+00	3.046E+02	SHORT HLIF
TL-201	-1.447E+00	5.486E+00	4.544E+00	2.799E+00	NOT IDENT.
TL-202	3.032E-02	5.276E-02	3.716E-02	2.692E-02	FAIL ABUN
HG-203	1.692E-02	2.369E-02	1.936E-02	1.208E-02	FAIL ABUN
BI-207	5.844E-03	2.952E-02	2.508E-02	1.506E-02	FAIL ABUN
TL-207	-7.793E-02	3.759E-01	2.926E-01	1.918E-01	FAIL ABUN
PO-209	1.515E+00	3.856E+00	3.368E+00	1.967E+00	NOT IDENT.
BI-210	6.029E+00	5.791E+00	5.320E+00	2.955E+00	NOT IDENT.
PB-210	6.029E+00	5.791E+00	5.320E+00	2.955E+00	NOT IDENT.
PO-210	6.029E+00	5.786E+00	5.320E+00	2.952E+00	NOT IDENT.
PB-211	2.452E-01	5.888E-01	4.461E-01	3.004E-01	NOT IDENT.
PO-215	-7.793E-02	3.759E-01	2.926E-01	1.918E-01	FAIL ABUN
RN-219	-1.571E-01	2.359E-01	1.904E-01	1.204E-01	FAIL ABUN
RN-220	-3.256E+00	1.400E+01	1.178E+01	7.143E+00	NOT IDENT.
RA-223	-7.793E-02	3.759E-01	2.926E-01	1.918E-01	FAIL ABUN
AC-227	2.325E-01	2.216E-01	1.827E-01	1.131E-01	FAIL ABUN
TH-227	2.325E-01	2.227E-01	1.827E-01	1.136E-01	FAIL ABUN
PA-231	1.713E-01	7.657E-01	6.948E-01	3.907E-01	FAIL ABUN
TH-231	-7.793E-02	3.759E-01	2.926E-01	1.918E-01	FAIL ABUN
PA-233	1.115E-02	3.222E-02	2.913E-02	1.644E-02	FAIL ABUN
PA-234	-2.256E-03	1.757E-01	1.495E-01	8.963E-02	FAIL ABUN
NP-236	-3.101E-02	4.981E-02	3.830E-02	2.541E-02	FAIL ABUN
NP-239	3.423E-02	1.195E-01	9.695E-02	6.096E-02	FAIL ABUN
AM-241	1.238E-01	1.581E-01	1.355E-01	8.065E-02	NOT IDENT.
CM-243	-1.341E-02	6.981E-02	5.152E-02	3.562E-02	FAIL ABUN
AM-246	4.157E-02	8.488E-02	7.299E-02	4.330E-02	NOT IDENT.
CM-247	-1.108E-02	1.995E-02	1.713E-02	1.018E-02	FAIL ABUN
CF-249	6.946E-03	2.052E-02	1.823E-02	1.047E-02	NOT IDENT.
CF-251	4.098E-03	6.979E-02	6.099E-02	3.561E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	921.7474
46.50	921.7474
46.50	921.7474
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49.72	977.0201
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52.39	1022.6074
52.97	1045.9861
53.15	1060.4249
53.44	1077.8096
54.07	1056.1202
56.28	1178.1989
56.28	1178.2091
57.37	0.0000
57.53	1227.8586
57.53	1227.8658
57.60	1216.6412
57.98	1203.3931
57.98	1203.3931
59.32	1244.1710
59.32	1244.1710
59.40	1244.4252
59.54	1223.6344
59.72	1237.4747
60.01	1238.3884
61.10	1285.7745
61.14	1285.9034
61.30	1286.4225
63.00	1373.5271
63.29	1374.5074
63.29	1374.5074
63.58	1375.4860
64.28	1396.6351
65.12	1353.7256
65.20	1353.9865
65.20	1353.9865
66.05	1434.9697
66.72	1453.4603
66.83	1453.8462
66.91	1482.5050
67.20	1521.3833
67.20	1521.3833
67.75	1513.3370
67.85	1513.6952
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68.90	1531.5248
69.30	1513.9188
69.67	1556.9395
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70.82	1580.5824
70.83	1580.6177
72.80	1669.8660
72.87	1670.1263
72.87	1670.1263
74.67	1755.2107
74.81	1755.7559
74.81	1755.7559
74.81	1755.7559
74.81	1755.7559
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74.97	1756.3691
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77.11	1764.5662

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79.80	1746.8933
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80.30	1748.7236
80.30	1748.7236
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81.07	1751.5409
81.07	1751.5409
81.07	1751.5409
81.07	1751.5409
82.60	1508.0913
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83.78	1511.7347
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83.78	1511.7347
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84.90	1515.1809
85.43	1516.7928
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86.50	1520.0498
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86.59	1520.3212
86.72	1520.7159
86.79	1520.9215
86.94	1521.3821
87.30	1522.4760
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87.30	1522.4760
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87.88	1524.2196
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88.36	1525.6671
88.47	1525.9961
89.95	1530.4126
91.11	1533.8505
92.29	1537.3293
92.38	1537.5925
92.38	1537.5925
93.35	1540.4301
94.00	1542.3298
94.67	1544.2544
94.67	1544.2709
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94.90	1544.9370
94.90	1544.9370
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97.43	1290.1533
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98.44	1190.1232
98.88	1191.0800
99.55	1192.5339
99.55	1192.5339
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100.10	1172.0256
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103.76	1215.6260
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105.31	1200.4391
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109.28	1258.6737

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117.00	1079.8225
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121.62	1062.3403
121.78	1064.6061
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122.32	1078.5338
122.32	1078.5338
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136.25	1119.9735
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144.24	1002.5046
144.24	1002.5046
144.24	1002.5046
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154.21	1000.5626
154.21	1000.5626
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156.02	1088.1482
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162.32	1014.4761
162.64	1026.5601
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163.89	951.2046
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171.86	942.0386
172.10	942.3156
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176.60	939.9861
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184.41	937.9263
185.71	912.0873
186.00	912.3935
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205.31	838.2745

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209.75	838.9559
210.97	848.4697
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227.20	786.4584
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238.63	705.4059
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241.98	707.7119
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268.79	601.3809
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269.46	571.7970
269.46	571.7970
269.46	571.7970
271.23	528.4243
273.65	529.5625
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277.35	537.4417
277.60	537.5605
277.60	537.5605
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284.30	545.3382
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286.10	545.2726
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300.09	503.5955
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300.09	503.5955
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387.95	383.9870
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391.69	373.2040
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398.62	364.1171
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404.84	409.4932
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415.30	361.5819

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439.56	344.2997
439.89	344.3725
443.98	363.6727
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445.03	347.6895
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468.07	331.6324
473.00	338.0898
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476.78	330.5664
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513.99	256.5519
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529.87	0.0000
531.02	307.6799
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543.00	286.0668
546.56	0.0000
549.76	288.1523
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563.90	284.8391
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569.32	308.4323
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569.67	316.0877
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602.71	290.0010
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609.31	309.0133
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618.01	281.3822
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621.84	249.5732
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633.10	262.0931
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661.65	282.3221
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666.33	307.4760
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695.00	264.3819
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696.49	225.8384
697.00	233.2653
697.49	237.9256
698.33	259.2253
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699.00	293.4435
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706.58	0.0000
706.67	292.5546
709.31	259.5195
711.68	264.4182
713.82	228.4389
717.42	256.6881
720.50	238.6266
721.93	0.0000
722.20	257.8214
722.78	254.7819
722.78	254.7819
722.89	254.7886
722.95	254.7953
723.30	267.2663
724.18	262.7009
727.18	237.1948
733.00	238.7014
735.90	235.3431
739.58	285.3414
742.81	246.2455
744.21	246.3862
747.13	273.0432
751.79	256.5805
752.31	253.8031
753.82	222.7999
755.35	217.2703
756.15	203.1687
756.87	196.6098
763.93	194.3246
765.79	222.9287
766.42	260.9344
766.84	260.9814
776.49	249.5972
778.00	256.3110
778.57	258.6212
778.89	234.3044
783.80	226.1103
785.46	244.7375
792.07	230.0332

795.84	210.2154
796.30	210.2528
798.80	237.0433
801.93	229.3086
805.60	199.4422
810.29	196.9028
810.76	197.9031
815.85	172.1724
817.79	172.2984
818.51	167.5051
819.60	174.3530
826.30	201.0114
828.27	0.0000
831.60	178.3830
831.96	168.6742
834.83	217.5646
836.80	0.0000
846.75	226.6781
848.13	189.2694
856.28	0.0000
856.80	184.9584
860.37	200.6033
867.32	163.8959
867.82	167.6218
871.10	197.4365
873.19	182.7643
874.81	178.9143
875.33	0.0000
876.40	201.7638
879.36	193.0671
880.27	195.1098
880.51	195.1291
881.50	179.3429
883.24	200.2739
884.67	225.1767
889.25	197.7222
896.60	165.3597
898.02	210.2943
899.00	214.3544
903.28	192.2086
911.07	189.2261
911.07	189.2261
911.07	189.2261
919.63	184.0942
920.93	203.1504
925.00	189.1291
925.24	180.0882
926.50	193.7548
935.52	178.3660
937.48	173.4311
944.10	208.5851
946.00	209.7290
949.00	189.6571
962.29	217.3229
964.01	202.1586
966.15	189.7191
968.20	189.8508
969.11	189.9053
969.11	189.9053
969.11	189.9053
977.42	193.4943
980.50	174.2209
983.50	202.0885
989.30	161.3581
996.32	151.0781
1001.03	185.6953
1001.68	178.8558
1004.76	168.7047
1021.30	0.0000
1024.50	0.0000
1034.80	162.6650
1036.00	198.1919
1037.82	176.3855
1038.57	173.2949
1038.76	0.0000
1045.16	180.9742
1046.59	168.4919
1048.07	189.5109

1050.47	193.8435
1050.47	193.8435
1062.04	165.0876
1063.62	176.7445
1076.63	191.1724
1077.35	189.1037
1078.86	190.2480
1085.78	192.7618
1099.22	195.6617
1112.02	204.1370
1112.84	217.0941
1115.52	217.2629
1120.29	212.9242
1120.29	212.9242
1120.29	212.9242
1120.29	212.9242
1120.51	212.9436
1121.28	199.7917
1124.00	0.0000
1129.67	186.6847
1131.51	0.0000
1147.95	0.0000
1167.94	212.6045
1173.22	221.6109
1175.09	219.5567
1177.93	224.0854
1189.05	231.3264
1204.90	234.5327
1205.75	0.0000
1213.00	270.2036
1221.42	258.7180
1230.97	264.9141
1235.34	241.5385
1236.41	0.0000
1238.25	254.3701
1246.25	216.1282
1260.41	0.0000
1271.85	174.8195
1274.45	162.8448
1274.54	152.6089
1291.56	152.3549
1298.22	0.0000
1312.09	137.1899
1325.50	115.9731
1325.50	115.9731
1332.49	107.6798
1333.61	88.8135
1360.21	78.9439
1362.66	0.0000
1365.15	71.4233
1368.21	99.1165
1368.53	0.0000
1376.25	86.7609
1384.27	90.5797
1394.10	85.3605
1395.20	81.5483
1407.95	71.2148
1434.06	59.0714
1436.60	57.1683
1457.56	0.0000
1460.81	56.5226
1489.15	71.6099
1509.49	56.1743
1596.49	75.3601
1620.62	45.4523
1678.03	0.0000
1691.02	38.9556
1691.02	38.9556
1706.46	0.0000
1750.46	0.0000
1764.49	32.2576
1764.49	32.2576
1764.49	32.2576
1764.49	32.2576
1770.23	23.2161
1771.40	30.3666
1791.20	0.0000
1808.65	31.4893

1836.01	27.4367

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245808001

Total Uranium Activity	7.2764E+01	ug/g
Total Uranium Counting Unc.	1.5354E+01	ug/g
Total Uranium Tpu	7.8338E-06	ug/g
Total Uranium Mda	2.9608E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID  : G245808001       *
*   ANALYST       : RXF2                      DETECTOR   : GAM04            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE: 11-FEB-2010 22:26:17.17    SAMPLE ALQT:  149.809 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.285E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.322E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.037E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.496E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:27:40.32

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808002.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:26:46
Sample ID         : G245808002           Sample quantity  : 1.36574E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:30.99  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.63*	239	1838	0.83	92.89	90	7	1.11E-02	32.2	
2	0	63.28*	7390	3459	0.95	126.21	121	9	3.42E-01	1.9	
3	3	72.95	215	1579	1.04	145.55	143	15	9.95E-03	26.5	9.18E-01
4	3	74.84*	1788	2290	0.92	149.32	143	15	8.28E-02	5.0	
5	3	77.11*	2735	2201	0.94	153.86	143	15	1.27E-01	3.4	
6	9	84.03*	869	2259	1.53	167.71	164	29	4.02E-02	9.4	5.43E+00
7	9	87.20	1024	2137	1.19	174.05	164	29	4.74E-02	7.9	
8	9	89.99	938	2288	1.28	179.64	164	29	4.34E-02	9.6	
9	9	92.61*	10959	1433	1.08	184.87	164	29	5.07E-01	1.1	
10	9	94.36	511	1408	1.24	188.38	164	29	2.37E-02	22.1	
11	0	98.67	658	1524	1.17	197.01	193	8	3.05E-02	11.0	
12	0	105.32	295	1315	1.49	210.31	207	8	1.37E-02	22.1	
13	0	112.97	333	1298	0.90	225.61	222	6	1.54E-02	18.0	
14	0	128.50	219	1379	0.88	256.69	253	9	1.01E-02	31.2	
15	0	143.71*	359	1163	0.90	287.12	283	8	1.66E-02	18.0	
16	0	163.02	192	939	1.03	325.74	323	8	8.90E-03	28.5	
17	0	185.74*	1996	1146	1.07	371.21	366	11	9.24E-02	4.2	
18	0	205.40*	170	776	0.75	410.54	407	8	7.86E-03	30.5	
19	0	209.23	294	753	1.03	418.21	415	8	1.36E-02	17.2	
20	4	238.57*	3193	477	1.01	476.91	470	21	1.48E-01	2.2	1.82E+00
21	4	241.64	776	708	1.66	483.06	470	21	3.59E-02	8.4	
22	0	258.23	165	775	2.32	516.25	511	12	7.63E-03	34.6	
23	0	270.40	336	798	1.54	540.59	535	13	1.56E-02	18.3	
24	0	277.29	94	377	1.04	554.38	552	6	4.34E-03	34.3	
25	0	295.05*	916	455	1.16	589.92	585	9	4.24E-02	5.5	
26	0	299.88	211	547	0.73	599.58	595	10	9.77E-03	21.9	
27	0	327.80	171	375	1.15	655.44	652	8	7.91E-03	21.0	
28	0	338.12*	636	537	1.07	676.10	670	12	2.94E-02	8.5	
29	0	351.76*	1553	495	1.19	703.40	699	11	7.19E-02	3.9	
30	0	409.46	113	349	2.38	818.85	814	10	5.23E-03	32.3	
31	0	462.63	137	314	1.10	925.23	921	10	6.36E-03	25.7	
32	0	510.94*	314	525	1.73	1021.91	1014	18	1.46E-02	20.1	
33	0	582.84*	921	267	1.30	1165.78	1161	11	4.26E-02	4.9	
34	0	609.04*	1076	375	1.44	1218.20	1211	15	4.98E-02	5.2	
35	0	661.11*	29	215	1.09	1322.41	1318	9	1.35E-03	97.0	
36	0	683.76	39	148	1.25	1367.74	1365	8	1.79E-03	56.6	
37	0	726.74	294	148	1.11	1453.74	1448	11	1.36E-02	9.9	
38	0	742.59	72	163	2.08	1485.47	1481	10	3.33E-03	35.4	

Sample ID : G245808002 Acquisition date : 11-FEB-2010 22:26:46

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	3	765.88	179	179	1.50	1532.09	1527	14	8.27E-03	15.7	1.57E+00
40	3	768.18	91	138	1.41	1536.68	1527	14	4.23E-03	28.4	
41	0	785.73	83	184	1.63	1571.80	1566	12	3.86E-03	34.4	
42	0	794.43	134	189	1.60	1589.22	1585	11	6.23E-03	21.5	
43	0	860.27	154	164	1.64	1720.98	1714	15	7.11E-03	19.9	
44	0	910.72*	537	247	1.43	1821.94	1814	15	2.49E-02	7.9	
45	2	963.93	140	129	1.93	1928.43	1922	21	6.47E-03	18.0	1.97E+00
46	2	968.46*	361	100	1.82	1937.50	1922	21	1.67E-02	7.9	
47	0	1000.32	370	199	1.81	2001.27	1994	17	1.72E-02	10.1	
48	0	1119.13	225	230	1.65	2239.06	2232	16	1.04E-02	16.4	
49	0	1153.85	76	160	1.60	2308.56	2300	15	3.50E-03	38.4	
50	0	1236.94	131	198	1.11	2474.86	2468	14	6.08E-03	24.4	
51	0	1377.20	60	51	1.94	2755.62	2748	12	2.79E-03	27.0	
52	0	1459.83*	2763	55	2.08	2921.03	2911	20	1.28E-01	2.0	
53	0	1508.44	27	33	1.47	3018.32	3014	9	1.25E-03	43.1	
54	0	1588.95	55	90	5.60	3179.49	3170	20	2.55E-03	44.4	
55	0	1620.17	17	35	1.42	3242.00	3235	10	7.95E-04	68.8	
56	0	1763.61*	164	26	2.01	3529.16	3522	16	7.61E-03	11.1	
57	0	1846.61	24	15	1.28	3695.33	3690	10	1.11E-03	36.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 04:27:44

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:26:46
Sample ID : G245808002 Sample quantity : 136.57 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:30.99 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.048E+01	2.977E+00	3.821E-01	3.392E-02	79.777
NB-95	+	765.79	*	1.409E-01	4.605E-02	5.277E-02	4.609E-03	2.670
CD-109	+	88.03	*	3.871E+00	7.158E-01	7.337E-01	7.163E-02	5.275
SN-126	+	64.28		1.041E+01	1.708E+00	2.799E-01	4.468E-02	37.184
	+	86.94		1.578E+00	7.020E-01	2.982E-01	1.241E-01	5.293
	+	87.57	*	3.797E-01	7.021E-02	7.186E-02	7.013E-03	5.283
BA-137M	+	661.65	*	1.852E-02	3.598E-02	4.762E-02	4.012E-03	0.389
CS-137	+	661.65	*	1.958E-02	3.803E-02	5.034E-02	4.249E-03	0.389
EU-155		48.70		-2.059E-01	3.716E-01	5.675E-01	5.700E-02	-0.363
		60.01		1.382E+00	1.787E+00	2.734E+00	2.750E-01	0.506
	+	86.54		4.575E-01	8.479E-02	8.633E-02	8.487E-03	5.299
	+	105.31	*	2.064E-01	9.368E-02	1.030E-01	1.107E-02	2.003
LU-177	+	112.95		4.242E+00	1.599E+00	2.048E+00	2.277E-01	2.071
	+	208.36	*	3.055E+00	1.085E+00	1.203E+00	1.058E-01	2.539
TL-208	+	277.35		3.539E-01	2.472E-01	3.864E-01	4.920E-02	0.916
	+	510.84		6.487E-01	2.728E-01	1.470E-01	1.796E-02	4.413
	+	583.14	*	5.530E-01	7.552E-02	4.218E-02	3.990E-03	13.111
	+	860.37		9.057E-01	3.709E-01	3.241E-01	3.049E-02	2.794
BI-210	+	46.50	*	8.585E-01	5.611E-01	6.204E-01	6.730E-02	1.384
PB-210	+	46.50	*	8.585E-01	5.611E-01	6.204E-01	6.730E-02	1.384
PO-210	+	46.50	*	8.585E-01	5.600E-01	6.204E-01	6.268E-02	1.384
BI-211	+	72.87		2.278E+00	1.228E+00	2.258E+00	2.208E-01	1.009
	+	351.07	*	3.781E+00	4.601E-01	2.172E-01	2.027E-02	17.406
BI-212	+	727.18	*	1.556E+00	3.464E-01	3.164E-01	3.175E-02	4.919
	+	785.46		2.856E+00	1.982E+00	2.171E+00	1.903E-01	1.315
	+	1620.62		7.988E-01	1.101E+00	1.409E+00	1.214E-01	0.567
PB-212	+	74.81		2.253E+00	3.778E-01	2.689E-01	3.635E-02	8.376
	+	77.11		2.053E+00	2.443E-01	1.606E-01	1.566E-02	12.783
	+	87.30		1.756E+00	3.692E-01	3.321E-01	4.640E-02	5.287
	+	238.63	*	1.630E+00	1.791E-01	5.568E-02	5.613E-03	29.283
	+	300.09		1.697E+00	7.662E-01	7.353E-01	8.007E-02	2.308
PO-212	+	74.81		2.253E+00	3.778E-01	2.689E-01	3.635E-02	8.376
	+	77.11		2.053E+00	2.443E-01	1.606E-01	1.566E-02	12.783
	+	87.30		1.756E+00	3.692E-01	3.321E-01	4.640E-02	5.287

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		115.19		2.798E+00	2.526E+00	3.839E+00	4.322E-01	0.729
	+	238.63	*	1.630E+00	1.791E-01	5.568E-02	5.613E-03	29.283
	+	300.09		1.697E+00	7.662E-01	7.353E-01	8.007E-02	2.308
BI-214	+	609.31	*	1.226E+00	1.776E-01	7.902E-02	8.037E-03	15.516
	+	1120.29		1.397E+00	4.826E-01	3.610E-01	3.859E-02	3.871
	+	1764.49		1.419E+00	3.365E-01	2.028E-01	1.715E-02	6.995
PB-214	+	74.81		3.882E+00	6.122E-01	4.634E-01	5.678E-02	8.376
	+	77.11		3.519E+00	4.973E-01	2.753E-01	3.406E-02	12.783
	+	87.30		3.008E+00	6.027E-01	5.689E-01	7.074E-02	5.287
	+	241.98		2.382E+00	4.720E-01	3.357E-01	3.574E-02	7.097
	+	295.21		1.290E+00	2.023E-01	1.355E-01	1.505E-02	9.521
	+	351.92	*	1.315E+00	1.741E-01	7.431E-02	7.941E-03	17.697
PO-214	+	74.81		3.882E+00	6.122E-01	4.634E-01	5.678E-02	8.376
	+	77.11		3.519E+00	4.973E-01	2.753E-01	3.406E-02	12.783
	+	87.30		3.008E+00	6.027E-01	5.689E-01	7.074E-02	5.287
	+	241.98		2.382E+00	4.720E-01	3.357E-01	3.574E-02	7.097
	+	295.21		1.290E+00	2.023E-01	1.355E-01	1.505E-02	9.521
	+	351.92	*	1.315E+00	1.741E-01	7.431E-02	7.941E-03	17.697
PO-216	+	74.81		2.253E+00	3.778E-01	2.689E-01	3.635E-02	8.376
	+	77.11		2.053E+00	2.443E-01	1.606E-01	1.566E-02	12.783
	+	87.30		1.756E+00	3.692E-01	3.321E-01	4.640E-02	5.287
	+	238.63	*	1.630E+00	1.791E-01	5.568E-02	5.613E-03	29.283
	+	300.09		1.697E+00	7.662E-01	7.353E-01	8.007E-02	2.308
PO-218	+	74.81		3.882E+00	6.122E-01	4.634E-01	5.678E-02	8.376
	+	77.11		3.519E+00	4.973E-01	2.753E-01	3.406E-02	12.783
	+	87.30		3.008E+00	6.027E-01	5.689E-01	7.074E-02	5.287
	+	241.98		2.382E+00	4.720E-01	3.357E-01	3.574E-02	7.097
	+	295.21		1.290E+00	2.023E-01	1.355E-01	1.505E-02	9.521
	+	351.92	*	1.315E+00	1.741E-01	7.431E-02	7.941E-03	17.697
RA-224	+	240.98	*	4.517E+00	8.583E-01	6.342E-01	5.735E-02	7.123
RA-226	+	609.31	*	1.226E+00	1.776E-01	7.902E-02	8.037E-03	15.516
	+	1120.29		1.397E+00	4.826E-01	3.610E-01	3.859E-02	3.871
	+	1764.49		1.419E+00	3.365E-01	2.028E-01	1.715E-02	6.995
AC-228	+	338.32		1.697E+00	7.582E-01	2.384E-01	9.856E-02	7.117
	+	911.07	*	1.504E+00	2.920E-01	1.563E-01	1.773E-02	9.621
	+	969.11		1.787E+00	5.041E-01	2.788E-01	6.517E-02	6.411
RA-228	+	338.32		1.697E+00	7.582E-01	2.384E-01	9.856E-02	7.117
	+	911.07	*	1.504E+00	2.920E-01	1.563E-01	1.773E-02	9.621
	+	969.11		1.787E+00	5.041E-01	2.788E-01	6.517E-02	6.411
TH-228	+	74.81		2.290E+00	3.199E-01	2.734E-01	2.686E-02	8.376
	+	77.11		2.087E+00	2.484E-01	1.633E-01	1.592E-02	12.783
	+	87.30		1.785E+00	3.301E-01	3.376E-01	3.294E-02	5.287
	+	238.63	*	1.658E+00	1.820E-01	5.660E-02	5.707E-03	29.283
	+	300.09		1.725E+00	1.273E+00	7.475E-01	4.437E-01	2.308
TH-229	+	85.43		7.183E-01	1.520E-01	1.601E-01	1.561E-02	4.485
	+	88.47		5.183E-01	9.586E-02	9.839E-02	9.625E-03	5.268
	+	100.00		7.490E-01	1.817E-01	1.659E-01	1.718E-02	4.516
		193.63	*	-6.187E-02	3.182E-01	5.106E-01	4.416E-02	-0.121
		210.97		8.890E-01	5.320E-01	8.012E-01	7.066E-02	1.110

Sample ID : G245808002 Acquisition date : 11-FEB-2010 22:26:46

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	+	609.31	*	1.226E+00	1.776E-01	7.902E-02	8.037E-03	15.516
	+	1120.29		1.397E+00	4.826E-01	3.610E-01	3.859E-02	3.871
	+	1764.49		1.419E+00	3.365E-01	2.028E-01	1.715E-02	6.995
TH-232	+	338.32		1.697E+00	3.258E-01	2.384E-01	2.148E-02	7.117
	+	911.07	*	1.504E+00	2.920E-01	1.563E-01	1.773E-02	9.621
	+	969.11		1.787E+00	5.041E-01	2.788E-01	6.517E-02	6.411
PA-234M	+	766.42		3.673E+01	2.194E+01	1.377E+01	6.989E+00	2.668
	+	1001.03	*	3.731E+01	8.416E+00	5.454E+00	5.473E-01	6.841
TH-234	+	63.29	*	2.629E+01	5.006E+00	7.489E-01	1.398E-01	35.109
	+	92.38		2.813E+01	5.319E+00	4.991E-01	9.365E-02	56.368
U-234	+	609.31	*	1.226E+00	1.776E-01	7.902E-02	8.037E-03	15.516
	+	1120.29		1.397E+00	4.826E-01	3.610E-01	3.859E-02	3.871
	+	1764.49		1.419E+00	3.365E-01	2.028E-01	1.715E-02	6.995
U-235	+	89.95		4.796E+00	1.756E+00	9.922E-01	3.098E-01	4.834
	+	93.35		3.382E+01	9.661E+00	6.020E-01	1.715E-01	56.184
	+	105.00		2.021E+00	1.084E+00	1.008E+00	3.073E-01	2.005
	+	143.76	*	5.606E-01	2.265E-01	2.193E-01	4.021E-02	2.556
	+	163.35		7.185E-01	4.324E-01	4.912E-01	9.361E-02	1.463
	+	185.71		7.039E-01	8.397E-02	4.267E-02	3.654E-03	16.496
	+	205.31		7.367E-01	4.713E-01	5.134E-01	9.829E-02	1.435
NP-237	+	86.50	*	1.115E+00	3.089E-01	2.104E-01	4.801E-02	5.300
		95.87		2.063E+00	8.873E-01	9.549E-01	2.407E-01	2.161
U-238	+	63.29	*	2.629E+01	5.006E+00	7.489E-01	1.398E-01	35.109
	+	92.38		2.813E+01	2.880E+00	4.991E-01	4.975E-02	56.368
AM-243	+	74.67	*	3.652E-01	5.086E-02	4.359E-02	4.256E-03	8.378
	+	86.72		4.181E+01	7.731E+00	7.893E+00	7.699E-01	5.296
		117.66		-1.783E+00	2.383E+00	3.867E+00	4.415E-01	-0.461
		142.18		2.044E+01	1.316E+01	1.994E+01	2.057E+00	1.025
ANH-511	+	511.00	*	1.401E-01	5.776E-02	3.176E-02	2.837E-03	4.411

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.700E-02	2.194E-01	3.575E-01	3.402E-02	-0.076
NA-22		1274.54	*	-3.094E-02	3.505E-02	5.204E-02	4.384E-03	-0.595
NA-24		1368.53	*	2.206E+00	3.505E-02	Half-Life too short		
AL-26		1129.67		-3.632E-01	1.376E+00	2.199E+00	1.837E-01	-0.165
		1808.65	*	5.775E-03	1.845E-02	3.153E-02	2.643E-03	0.183
TI-44		67.85		6.177E-03	1.801E-02	3.066E-02	3.019E-03	0.201
	+	78.38	*	3.789E-01	4.509E-02	3.870E-02	3.771E-03	9.790
SC-46		889.25	*	8.499E-03	2.781E-02	4.687E-02	4.103E-03	0.181
	+	1120.51		2.420E-01	8.202E-02	9.641E-02	8.090E-03	2.510
V-48		944.10		-3.848E-01	7.255E-01	1.156E+00	1.012E-01	-0.333
		983.50	*	-9.251E-04	5.817E-02	9.542E-02	8.323E-03	-0.010
		1312.09		-1.203E-02	6.179E-02	1.023E-01	8.680E-03	-0.118
CR-51		320.08	*	-1.482E-01	2.403E-01	3.950E-01	3.773E-02	-0.375
MN-52		744.21		2.236E-01	2.425E-01	3.753E-01	3.262E-02	0.596
		848.13		-4.500E+00	5.570E+00	8.779E+00	7.717E-01	-0.513

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		935.52		9.263E-02	2.270E-01	3.826E-01	3.348E-02	0.242
		1246.25		-4.749E+00	6.756E+00	1.038E+01	8.668E-01	-0.458
		1333.61		-2.867E-01	4.300E+00	7.169E+00	6.111E-01	-0.040
		1434.06	*	7.436E-02	1.897E-01	3.268E-01	2.817E-02	0.228
MN-54		834.83	*	6.216E-03	2.909E-02	4.887E-02	4.297E-03	0.127
CO-56		846.75	*	-7.610E-03	2.785E-02	4.553E-02	4.002E-03	-0.167
		977.42		-1.003E-01	2.305E+00	3.777E+00	3.297E-01	-0.027
		1037.82		-1.363E-01	2.313E-01	3.631E-01	3.302E-02	-0.375
		1175.09		-1.839E-01	1.794E+00	2.884E+00	2.358E-01	-0.064
	+	1238.25		2.323E-01	1.150E-01	1.333E-01	1.145E-02	1.743
		1360.21		7.965E-02	6.843E-01	1.155E+00	9.886E-02	0.069
		1771.40		1.269E-02	1.569E-01	2.239E-01	1.891E-02	0.057
CO-57		122.06	*	5.294E-03	1.563E-02	2.602E-02	3.048E-03	0.203
		136.48		-3.723E-02	1.316E-01	2.148E-01	2.418E-02	-0.173
CO-58		810.76	*	-7.720E-03	2.949E-02	4.846E-02	4.267E-03	-0.159
FE-59	+	142.65		7.391E+00	2.766E+00	3.310E+00	3.402E-01	2.233
		192.34		4.031E-01	5.980E-01	9.802E-01	1.317E-01	0.411
		1099.22	*	3.026E-02	7.361E-02	1.226E-01	1.125E-02	0.247
		1291.56		4.691E-02	9.200E-02	1.531E-01	1.475E-02	0.306
CO-60		1173.22		4.301E-02	3.526E-02	6.079E-02	4.965E-03	0.708
		1332.49	*	-1.674E-02	2.867E-02	4.595E-02	3.916E-03	-0.364
ZN-65		1115.52	*	3.069E-02	7.526E-02	1.093E-01	9.206E-03	0.281
GE-68		1077.35	*	6.283E-01	9.581E-01	1.621E+00	1.384E-01	0.388
AS-73		53.44	*	1.695E-01	1.921E-01	3.209E-01	3.210E-02	0.528
AS-74		595.88	*	4.656E-02	7.171E-02	1.192E-01	1.050E-02	0.391
		634.78		1.066E-01	2.746E-01	4.497E-01	3.873E-02	0.237
SE-75		66.05		-2.514E+00	1.955E+00	2.877E+00	3.309E-01	-0.874
		96.73		1.182E+00	6.217E-01	7.691E-01	1.128E-01	1.537
		121.11		-8.872E-02	8.535E-02	1.363E-01	1.865E-02	-0.651
		136.00		-2.907E-03	2.483E-02	4.072E-02	4.403E-03	-0.071
		198.60		-2.074E-01	1.220E+00	1.843E+00	1.775E-01	-0.113
		264.65	*	-6.547E-03	3.214E-02	4.473E-02	4.109E-03	-0.146
		279.53		5.339E-02	7.516E-02	1.157E-01	1.098E-02	0.461
		303.91		4.783E-01	1.392E+00	2.106E+00	2.505E-01	0.227
		400.65		-6.944E-02	1.682E-01	2.742E-01	3.018E-02	-0.253
BR-77	+	87.88		1.256E+03	2.322E+02	2.946E+02	2.875E+01	4.263
		200.40		-1.083E+02	1.648E+02	2.467E+02	2.151E+01	-0.439
	+	239.00		3.940E+02	3.950E+01	3.607E+01	3.258E+00	10.923
		249.79		-1.376E+01	6.270E+01	9.882E+01	8.983E+00	-0.139
		281.68		1.217E+01	8.919E+01	1.413E+02	1.298E+01	0.086
		297.23		1.632E+02	7.724E+01	9.499E+01	8.720E+00	1.718
		303.76		6.082E+01	1.770E+02	2.678E+02	2.456E+01	0.227
		439.47		-2.034E+01	1.432E+02	2.347E+02	2.045E+01	-0.087
		484.57		-1.855E+02	2.235E+02	3.500E+02	3.110E+01	-0.530
		520.65	*	-1.480E+00	1.103E+01	1.785E+01	1.595E+00	-0.083
		574.64		-1.079E+02	2.240E+02	3.532E+02	3.136E+01	-0.306
		578.91		7.264E+00	1.025E+02	1.455E+02	1.290E+01	0.050
		585.48		7.233E+02	2.381E+02	3.804E+02	3.366E+01	1.901
		755.35		1.313E+01	1.893E+02	3.182E+02	2.773E+01	0.041

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		817.79		1.432E+02	1.513E+02	2.636E+02	2.317E+01	0.543
SR-82		698.33		2.098E+00	2.696E+01	4.558E+01	3.903E+00	0.046
		776.49	*	-3.776E-01	2.958E-01	4.592E-01	4.019E-02	-0.822
		1395.20		1.287E+00	7.784E+00	1.317E+01	1.132E+00	0.098
RB-83		520.41	*	-1.090E-02	4.879E-02	7.864E-02	7.028E-03	-0.139
		529.64		-5.287E-02	7.681E-02	1.206E-01	1.078E-02	-0.438
		552.65		-1.461E-02	1.393E-01	2.247E-01	2.005E-02	-0.065
RB-84		881.50	*	6.753E-02	5.699E-02	9.972E-02	8.740E-03	0.677
KR-85		513.99	*	1.158E+01	5.538E+00	8.746E+00	7.813E-01	1.324
SR-85		513.99	*	6.027E-02	2.882E-02	4.551E-02	4.066E-03	1.324
RB-86		1076.63	*	6.464E-01	6.359E-01	1.096E+00	9.359E-02	0.590
Y-88		898.02		-7.564E-03	3.254E-02	5.060E-02	4.444E-03	-0.150
		1836.01	*	-4.046E-03	2.655E-02	4.246E-02	3.541E-03	-0.095
ZR-88		392.90	*	-3.008E-03	2.051E-02	3.388E-02	2.854E-03	-0.089
Y-91		1204.90	*	-3.733E+00	1.593E+01	2.538E+01	2.094E+00	-0.147
NB-94		702.63	*	6.002E-03	2.508E-02	4.268E-02	3.661E-03	0.141
		871.10		1.918E-02	2.505E-02	4.323E-02	3.794E-03	0.444
NB-95M		235.69	*	-3.439E-03	8.804E-02	1.247E-01	1.273E-02	-0.028
ZR-95		724.18		3.655E-02	8.021E-02	1.207E-01	1.133E-02	0.303
		756.15	*	3.791E-04	5.388E-02	9.032E-02	8.654E-03	0.004
NB-97		657.90	*	-3.060E-02	5.388E-02	Half-Life too short		
		1024.50		-1.007E+01	5.388E-02	Half-Life too short		
ZR-97		254.15		-1.907E+00	5.388E-02	Half-Life too short		
		355.39		-3.726E+00	5.388E-02	Half-Life too short		
		507.63	*	1.106E+01	5.388E-02	Half-Life too short		
		602.52		-1.234E+00	5.388E-02	Half-Life too short		
		1021.30		-6.793E+00	5.388E-02	Half-Life too short		
		1147.95		-3.595E+00	5.388E-02	Half-Life too short		
		1362.66		-1.408E+01	5.388E-02	Half-Life too short		
		1750.46		-2.923E+00	5.388E-02	Half-Life too short		
MO-99		140.51		7.185E+00	2.703E+01	3.879E+01	1.098E+01	0.185
		181.06		-7.368E+00	1.720E+01	2.437E+01	4.445E+00	-0.302
		366.43		2.887E+01	7.825E+01	1.323E+02	1.158E+01	0.218
		739.58	*	1.808E+00	1.341E+01	1.979E+01	3.011E+00	0.091
		778.00		-5.372E+01	3.729E+01	5.533E+01	4.844E+00	-0.971
TC-99M		140.51	*	3.469E+11	3.729E+01	Half-Life too short		
RH-101	+	127.23		5.050E-02	3.199E-02	3.245E-02	3.690E-03	1.556
		198.01	*	6.725E-03	2.205E-02	3.374E-02	2.933E-03	0.199
		325.23		1.331E-02	1.571E-01	2.338E-01	2.125E-02	0.057
RH-102		418.52		1.477E-01	1.846E-01	3.148E-01	2.706E-02	0.469
		475.06	*	-1.826E-02	1.938E-02	3.025E-02	2.679E-03	-0.604
		631.29		-2.654E-02	3.916E-02	6.039E-02	5.214E-03	-0.439
		697.49		-3.617E-02	5.789E-02	9.475E-02	8.112E-03	-0.382
	+	766.84		3.495E-01	1.142E-01	1.919E-01	1.676E-02	1.821
		1046.59		5.193E-02	8.546E-02	1.447E-01	1.246E-02	0.359
		1112.84		-1.233E-01	1.965E-01	2.597E-01	2.187E-02	-0.475
RU-103		497.08	*	2.916E-03	2.947E-02	4.838E-02	6.938E-03	0.060
	+	610.33		1.357E+01	2.670E+00	2.053E+00	3.438E-01	6.611
RH-106	+	511.85		7.017E-01	2.892E-01	2.884E-01	2.576E-02	2.433

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		621.84	*	6.428E-03	2.386E-01	3.843E-01	5.150E-02	0.017
		1050.47		1.810E-01	1.713E+00	2.816E+00	2.424E-01	0.064
RU-106	+	511.85		7.017E-01	2.892E-01	2.884E-01	2.576E-02	2.433
		621.84	*	6.428E-03	2.386E-01	3.843E-01	3.338E-02	0.017
		1050.47		1.810E-01	1.713E+00	2.816E+00	2.424E-01	0.064
AG-108M		433.93	*	1.780E-02	2.199E-02	3.741E-02	3.376E-03	0.476
		614.37		-1.532E-02	3.120E-02	4.219E-02	3.823E-03	-0.363
		722.95		-2.130E-02	3.309E-02	4.615E-02	4.142E-03	-0.461
AG-110M		657.75	*	-1.250E-02	2.853E-02	3.841E-02	3.347E-03	-0.325
		677.61		3.037E-01	2.230E-01	3.807E-01	3.326E-02	0.798
		706.67		5.433E-02	1.529E-01	2.614E-01	2.308E-02	0.208
		763.93		3.996E-01	1.565E-01	2.558E-01	2.295E-02	1.562
		884.67		1.506E-04	3.714E-02	6.152E-02	5.557E-03	0.002
		937.48		-1.078E-01	8.537E-02	1.293E-01	1.171E-02	-0.834
		1384.27		1.414E-01	1.114E-01	1.976E-01	1.744E-02	0.716
IN-111		171.28		1.062E-01	8.887E-01	1.449E+00	1.216E-01	0.073
		245.39	*	4.943E-01	1.005E+00	1.453E+00	1.318E-01	0.340
IN-113M		391.69	*	-3.246E-02	2.980E-02	4.719E-02	4.101E-03	-0.688
SN-113		391.69	*	-3.246E-02	2.980E-02	4.719E-02	4.101E-03	-0.688
IN-114M		190.27	*	-4.430E-03	1.270E-01	1.826E-01	1.573E-02	-0.024
CD-115		260.90		-3.511E+01	1.506E+02	2.095E+02	1.915E+01	-0.168
		492.35		1.597E+00	3.971E+01	6.508E+01	5.793E+00	0.025
		527.90	*	3.824E-01	1.217E+01	1.983E+01	1.773E+00	0.019
SN-117M		156.02		-9.876E-01	1.572E+00	2.522E+00	2.322E-01	-0.392
		158.56	*	-2.193E-02	3.895E-02	5.945E-02	5.344E-03	-0.369
SB-122		563.90	*	1.500E+00	2.120E+00	3.544E+00	3.156E-01	0.423
		692.80		2.309E+01	4.541E+01	7.823E+01	6.685E+00	0.295
I-123		159.00	*	-3.834E+00	4.541E+01	Half-Life too short		
		528.96		-1.513E+03	4.541E+01	Half-Life too short		
TE-123M		159.00	*	-3.245E-03	2.020E-02	2.926E-02	2.633E-03	-0.111
I-124		602.71	*	2.731E-01	6.789E-01	9.814E-01	8.618E-02	0.278
		722.78		-2.973E+00	4.371E+00	6.078E+00	5.251E-01	-0.489
		1325.50		9.413E+00	3.166E+01	5.416E+01	4.609E+00	0.174
	+	1376.25		6.492E+01	3.550E+01	5.189E+01	4.449E+00	1.251
	+	1509.49		1.753E+01	1.517E+01	2.560E+01	2.214E+00	0.685
		1691.02		3.543E+00	3.165E+00	5.882E+00	5.031E-01	0.602
SB-124		602.71		1.279E-02	3.178E-02	4.595E-02	4.036E-03	0.278
		645.85		-9.457E-02	3.768E-01	5.956E-01	5.397E-02	-0.159
		709.31		-5.195E-02	2.234E+00	3.483E+00	2.995E-01	-0.015
		713.82		-1.401E-01	1.226E+00	2.051E+00	2.469E-01	-0.068
		722.78		-2.018E-01	2.967E-01	4.125E-01	3.640E-02	-0.489
	+	968.20		1.870E+01	3.373E+00	5.174E+00	4.520E-01	3.613
		1045.16		1.158E+00	1.861E+00	3.154E+00	2.718E-01	0.367
		1325.50		6.823E-01	2.295E+00	3.926E+00	3.341E-01	0.174
		1368.21		1.554E+00	1.293E+00	2.259E+00	3.036E-01	0.688
		1436.60		1.799E+00	2.645E+00	4.655E+00	4.014E-01	0.386
		1691.02	*	5.672E-02	5.069E-02	9.416E-02	8.378E-03	0.602
SB-125		427.89	*	1.526E-02	6.225E-02	1.038E-01	9.157E-03	0.147
	+	463.38		5.441E-01	2.843E-01	3.610E-01	3.422E-02	1.507

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		600.56		-8.373E-02	1.321E-01	2.059E-01	1.939E-02	-0.407
		635.90		-1.810E-02	1.998E-01	3.191E-01	2.968E-02	-0.057
TE-125M		109.28	*	1.978E+00	8.287E+00	9.890E+00	1.216E+00	0.200
I-126		388.63		1.054E-01	1.473E-01	2.508E-01	2.122E-02	0.420
		666.33	*	8.846E-02	1.684E-01	2.435E-01	2.056E-02	0.363
		753.82		8.055E-01	1.191E+00	2.057E+00	1.792E-01	0.392
SB-126		223.80		-2.725E+00	2.935E+00	4.547E+00	4.058E-01	-0.599
	+	278.60		2.530E+00	1.753E+00	2.915E+00	2.676E-01	0.868
	+	296.50		1.389E+01	1.998E+00	2.338E+00	2.147E-01	5.940
		414.70		-2.526E-02	5.993E-02	8.494E-02	7.283E-03	-0.297
		415.30		-2.165E+00	4.478E+00	6.996E+00	6.002E-01	-0.309
		555.20		3.602E-01	2.989E+00	4.876E+00	4.350E-01	0.074
		573.80		-5.663E-01	8.048E-01	1.253E+00	1.113E-01	-0.452
		593.00		-3.512E-01	7.620E-01	1.201E+00	1.059E-01	-0.293
		656.30		-2.977E+00	3.018E+00	3.866E+00	3.272E-01	-0.770
		666.33		3.709E-02	7.060E-02	1.021E-01	8.618E-03	0.363
		675.00		1.842E+00	1.543E+00	2.617E+00	2.219E-01	0.704
		695.00		-1.693E-02	6.182E-02	1.029E-01	8.802E-03	-0.164
		697.00		-1.944E-01	2.188E-01	3.532E-01	3.023E-02	-0.550
		720.50	*	-3.770E-02	1.336E-01	1.920E-01	1.657E-02	-0.196
		856.80		-3.130E-01	4.074E-01	5.472E-01	4.807E-02	-0.572
		989.30		5.121E-02	1.018E+00	1.676E+00	1.461E-01	0.031
		1034.80		1.149E+00	7.037E+00	1.162E+01	1.005E+00	0.099
		1213.00		1.509E+00	4.233E+00	6.957E+00	5.757E-01	0.217
SB-127		61.10		2.730E+01	2.765E+01	4.280E+01	5.421E+00	0.638
		252.40		1.830E+00	3.752E+00	5.657E+00	2.390E+00	0.323
		290.80		-5.960E+00	1.838E+01	2.705E+01	3.249E+00	-0.220
		411.60		1.196E+01	1.155E+01	1.754E+01	2.806E+00	0.682
		444.90		3.879E+00	8.306E+00	1.393E+01	1.811E+00	0.278
		473.00		-5.370E-02	1.441E+00	2.359E+00	3.159E-01	-0.023
		543.00		7.278E+00	1.550E+01	2.567E+01	3.829E+00	0.283
		603.60		-3.990E+00	1.255E+01	1.727E+01	2.245E+00	-0.231
	+	685.20	*	1.260E+00	1.433E+00	2.224E+00	2.609E-01	0.567
		698.50		3.016E+00	1.484E+01	2.522E+01	4.058E+00	0.120
		722.20		-2.547E+01	3.112E+01	4.272E+01	4.955E+00	-0.596
		783.80		5.293E+00	4.082E+00	6.364E+00	8.208E-01	0.832
XE-127		57.60		-2.411E+00	1.787E+00	2.962E+00	2.975E-01	-0.814
		145.22		9.730E-01	5.631E-01	8.179E-01	8.245E-02	1.190
		172.10		2.753E-02	7.704E-02	1.263E-01	1.062E-02	0.218
		202.84	*	-1.584E-03	3.393E-02	4.855E-02	4.244E-03	-0.033
		374.96		-1.250E-02	1.344E-01	2.232E-01	1.930E-02	-0.056
I-131		80.18		2.731E+00	3.665E+00	4.512E+00	4.421E-01	0.605
		284.30		-1.148E-01	1.045E+00	1.764E+00	1.697E-01	-0.065
		364.48	*	9.733E-02	8.291E-02	1.436E-01	1.328E-02	0.678
		636.97		-1.229E+00	1.336E+00	2.031E+00	1.847E-01	-0.605
		722.89		-4.318E+00	6.303E+00	8.761E+00	7.625E-01	-0.493
TE-132		49.72		-9.077E-01	4.477E+00	6.892E+00	8.511E-01	-0.132
	+	111.76		8.987E+01	3.449E+01	4.961E+01	6.543E+00	1.811
		116.30		-8.200E-01	2.597E+01	3.851E+01	5.172E+00	-0.021

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		228.16	*	-5.159E-01	6.132E-01	9.448E-01	1.527E-01	-0.546
BA-133		53.15		6.038E-01	8.025E-01	1.339E+00	1.340E-01	0.451
		79.62		2.197E-01	9.080E-01	1.103E+00	1.752E-01	0.199
		81.00		6.549E-03	7.030E-02	8.498E-02	1.403E-02	0.077
	+	276.40		3.498E-01	2.457E-01	4.103E-01	6.067E-02	0.853
		302.84		-1.776E-02	9.368E-02	1.383E-01	1.888E-02	-0.128
		356.01	*	5.745E-03	3.071E-02	4.562E-02	6.095E-03	0.126
		383.85		-7.213E-02	1.988E-01	3.259E-01	4.088E-02	-0.221
I-133	+	510.53		4.368E+00	1.988E-01	Half-Life too short		
		529.87	*	-1.003E-02	1.988E-01	Half-Life too short		
		706.58		3.277E-01	1.988E-01	Half-Life too short		
		856.28		-1.486E+00	1.988E-01	Half-Life too short		
		875.33		-2.078E-01	1.988E-01	Half-Life too short		
	+	1236.41		5.094E+00	1.988E-01	Half-Life too short		
		1298.22		-7.172E-02	1.988E-01	Half-Life too short		
CS-134		475.35		-1.184E+00	1.270E+00	1.984E+00	1.758E-01	-0.597
		563.23		2.079E-01	2.557E-01	4.295E-01	3.859E-02	0.484
		569.32		4.658E-02	1.425E-01	2.342E-01	2.109E-02	0.199
		604.70		3.773E-04	2.845E-02	4.007E-02	3.523E-03	0.009
	+	795.84	*	1.210E-01	5.317E-02	7.189E-02	6.352E-03	1.684
		801.93		-4.306E-01	3.296E-01	4.656E-01	4.110E-02	-0.925
		1038.57		-1.562E+00	2.834E+00	4.461E+00	3.851E-01	-0.350
		1167.94		-4.560E-01	1.967E+00	3.139E+00	2.572E-01	-0.145
		1365.15		-5.784E-01	8.577E-01	1.351E+00	1.210E-01	-0.428
CS-135		268.24	*	2.261E-01	1.184E-01	1.772E-01	1.849E-02	1.276
I-135		288.45		7.176E+09	1.184E-01	Half-Life too short		
		417.63		-3.478E+10	1.184E-01	Half-Life too short		
		546.56		3.750E+10	1.184E-01	Half-Life too short		
		836.80		4.896E+11	1.184E-01	Half-Life too short		
		1038.76		-2.415E+11	1.184E-01	Half-Life too short		
		1124.00		1.515E+11	1.184E-01	Half-Life too short		
		1131.51		1.565E+11	1.184E-01	Half-Life too short		
		1260.41	*	-7.069E+10	1.184E-01	Half-Life too short		
		1457.56		3.451E+13	1.184E-01	Half-Life too short		
		1678.03		1.155E+10	1.184E-01	Half-Life too short		
		1706.46		-8.104E+11	1.184E-01	Half-Life too short		
		1791.20		7.692E+10	1.184E-01	Half-Life too short		
CS-136		66.91		-2.903E-01	3.510E-01	5.225E-01	8.446E-02	-0.556
	+	86.29		5.334E+00	1.110E+00	1.232E+00	1.680E-01	4.329
		153.22		7.110E-01	4.586E-01	7.678E-01	7.968E-02	0.926
	+	163.89		1.752E+00	1.014E+00	1.284E+00	1.228E-01	1.365
		176.55		-7.399E-02	2.500E-01	4.021E-01	3.606E-02	-0.184
		273.65		3.215E-01	4.117E-01	4.780E-01	4.641E-02	0.673
		340.57		1.245E-01	9.291E-02	1.448E-01	1.337E-02	0.860
		818.51		2.371E-02	5.976E-02	1.016E-01	8.936E-03	0.233
		1048.07	*	-3.376E-02	8.858E-02	1.412E-01	1.268E-02	-0.239
		1235.34		6.955E-01	7.103E-01	9.494E-01	1.105E-01	0.733
CE-139		165.85	*	5.115E-03	2.079E-02	3.047E-02	2.541E-03	0.168
BA-140	+	162.64		1.237E+00	7.147E-01	9.198E-01	8.399E-02	1.344

---- Non-Identified Nuclides ----

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		304.84		2.434E-01	9.112E-01	1.370E+00	3.864E-01	0.178
		423.70		-1.441E+00	1.552E+00	2.202E+00	7.138E-01	-0.654
		537.32	*	-4.865E-03	1.970E-01	3.199E-01	1.063E-01	-0.015
LA-140	+	328.77		6.054E-01	2.609E-01	3.750E-01	3.574E-02	1.614
		432.53		-8.788E-01	1.526E+00	2.455E+00	2.233E-01	-0.358
		487.03		-8.599E-02	9.888E-02	1.545E-01	1.454E-02	-0.557
		751.79		-9.294E-03	1.402E+00	2.349E+00	2.260E-01	-0.004
		815.85		1.098E-01	2.587E-01	4.403E-01	4.300E-02	0.249
		867.82		-2.973E-01	1.217E+00	1.801E+00	1.662E-01	-0.165
		919.63		5.256E-01	2.236E+00	3.740E+00	4.022E-01	0.141
		925.24		6.948E-01	8.974E-01	1.544E+00	1.434E-01	0.450
		1596.49	*	4.756E-02	6.827E-02	1.069E-01	9.229E-03	0.445
CE-141		145.44	*	8.779E-02	4.704E-02	7.164E-02	7.307E-03	1.225
CE-143		57.37		-9.412E-04	4.704E-02	Half-Life too short		
		231.56		-2.267E-03	4.704E-02	Half-Life too short		
		293.26	*	1.090E-03	4.704E-02	Half-Life too short		
	+	350.59		6.072E-02	4.704E-02	Half-Life too short		
		490.36		2.273E-03	4.704E-02	Half-Life too short		
		664.57		9.493E-04	4.704E-02	Half-Life too short		
		721.93		-1.731E-03	4.704E-02	Half-Life too short		
CE-144		80.11		1.114E+00	1.498E+00	1.845E+00	1.797E-01	0.604
		133.54	*	-1.373E-01	1.398E-01	2.107E-01	3.574E-02	-0.652
PM-144		476.78		-3.342E-02	4.549E-02	7.185E-02	6.933E-03	-0.465
		618.01		1.437E-02	2.333E-02	3.867E-02	3.459E-03	0.371
		696.49	*	-2.424E-02	2.617E-02	4.217E-02	3.610E-03	-0.575
		778.57		-1.938E+00	1.812E+00	2.663E+00	2.332E-01	-0.728
PR-144		696.49	*	-1.644E+00	1.775E+00	2.860E+00	2.447E-01	-0.575
		1489.15		-2.753E-01	8.037E+00	1.330E+01	1.149E+00	-0.021
PM-146		453.90	*	7.719E-03	2.931E-02	4.874E-02	5.291E-03	0.158
		633.02		6.213E-02	1.005E+00	1.618E+00	6.047E-01	0.038
		735.90		-3.724E-03	1.136E-01	1.800E-01	5.150E-02	-0.021
		747.13		-2.224E-02	7.676E-02	1.096E-01	1.544E-02	-0.203
ND-147	+	91.11		1.316E+00	2.868E-01	5.328E-01	5.611E-02	2.469
		319.41		-1.572E+00	2.218E+00	3.633E+00	3.313E-01	-0.433
		439.89		1.364E+00	4.190E+00	7.003E+00	6.105E-01	0.195
		531.02	*	1.239E-01	4.276E-01	7.049E-01	1.067E-01	0.176
PM-149		285.90	*	-4.196E+01	8.658E+01	1.440E+02	2.285E+01	-0.291
EU-152		121.78		-1.622E-02	4.559E-02	7.468E-02	9.475E-03	-0.217
		244.69		2.147E-01	2.188E-01	3.226E-01	2.924E-02	0.666
		344.27	*	-8.919E-03	6.160E-02	9.922E-02	9.386E-03	-0.090
		443.98		1.540E-01	6.372E-01	1.061E+00	9.266E-02	0.145
		778.89		-1.375E-01	2.157E-01	3.138E-01	2.747E-02	-0.438
		867.32		1.465E-01	6.898E-01	1.010E+00	8.867E-02	0.145
	+	964.01		7.951E-01	2.953E-01	4.189E-01	3.661E-02	1.898
		1085.78		2.011E-01	3.005E-01	5.089E-01	4.331E-02	0.395
		1112.02		-1.181E-01	2.790E-01	3.766E-01	3.172E-02	-0.314
		1407.95		1.495E-01	1.401E-01	2.507E-01	2.157E-02	0.596
GD-153		69.67		1.067E+00	7.661E-01	1.187E+00	1.166E-01	0.899
	+	83.37		5.649E+01	1.195E+01	1.520E+01	1.480E+00	3.718

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	97.43	*	3.112E-01	7.549E-02	8.675E-02	8.868E-03	3.587
		103.18		2.096E-02	7.207E-02	9.946E-02	1.048E-02	0.211
EU-154		123.07		1.643E-02	3.182E-02	5.308E-02	7.327E-03	0.310
		247.94		4.523E-02	2.498E-01	3.560E-01	4.210E-02	0.127
		591.81		-2.246E-01	4.672E-01	7.349E-01	8.688E-02	-0.306
		723.30		-8.019E-02	1.388E-01	1.946E-01	1.858E-02	-0.412
		756.87		-6.049E-02	5.746E-01	9.577E-01	1.154E-01	-0.063
		873.19		-1.342E-03	2.219E-01	3.677E-01	4.542E-02	-0.004
		996.32		-9.593E-02	3.172E-01	4.376E-01	7.792E-02	-0.219
		1004.76		2.177E-02	1.825E-01	2.616E-01	3.059E-02	0.083
		1274.45	*	-5.209E-02	9.566E-02	1.456E-01	1.625E-02	-0.358
TB-160	+	86.79		1.238E+00	2.289E-01	2.920E-01	2.848E-02	4.240
		197.04		-7.616E-03	3.829E-01	5.813E-01	5.048E-02	-0.013
		215.65		2.510E-02	4.675E-01	7.510E-01	6.653E-02	0.033
	+	298.57		2.503E-01	1.120E-01	1.331E-01	1.221E-02	1.881
		879.36	*	1.005E-01	1.119E-01	1.935E-01	1.696E-02	0.519
		962.29		5.940E-01	5.108E-01	7.567E-01	6.614E-02	0.785
		966.15		1.079E+00	2.080E-01	3.730E-01	3.260E-02	2.892
		1177.93		-2.294E-01	2.917E-01	4.486E-01	3.670E-02	-0.511
		1271.85		-3.034E-02	5.399E-01	8.641E-01	7.266E-02	-0.035
HO-166M		80.57		1.729E-01	1.911E-01	2.361E-01	2.300E-02	0.732
	+	184.41		5.280E-01	6.298E-02	5.704E-02	4.876E-03	9.256
		280.46		2.359E-02	5.853E-02	8.913E-02	8.184E-03	0.265
	+	410.95		3.650E-01	2.377E-01	2.847E-01	2.434E-02	1.282
		711.68	*	-2.182E-02	4.439E-02	7.292E-02	6.275E-03	-0.299
		752.31		8.531E-02	2.056E-01	3.513E-01	3.059E-02	0.243
		810.29		-1.710E-02	4.385E-02	7.153E-02	6.285E-03	-0.239
TM-171		51.35		-6.001E+00	5.656E+00	9.476E+00	9.486E-01	-0.633
		52.39		1.464E+00	3.318E+00	5.522E+00	5.525E-01	0.265
		59.40		1.315E+01	9.322E+00	1.433E+01	1.444E+00	0.918
		66.72	*	-1.047E+01	1.167E+01	1.743E+01	1.721E+00	-0.600
LU-176	+	88.36		9.005E-01	1.665E-01	2.096E-01	2.049E-02	4.296
		201.83		-6.466E-03	2.027E-02	2.870E-02	2.506E-03	-0.225
		306.84	*	-6.337E-03	1.498E-02	2.490E-02	2.281E-03	-0.255
		401.10		-3.773E+00	4.418E+00	7.062E+00	5.992E-01	-0.534
LU-177M		52.97		2.527E-01	3.604E-01	6.013E-01	6.015E-02	0.420
		54.07		2.293E-01	2.051E-01	3.428E-01	3.430E-02	0.669
		61.30		1.623E+00	5.997E-01	9.268E-01	9.282E-02	1.751
		121.62		-1.048E-01	2.346E-01	3.834E-01	4.478E-02	-0.273
		147.16		3.480E-01	4.500E-01	6.738E-01	6.690E-02	0.517
		171.86		2.010E-01	3.021E-01	4.990E-01	4.193E-02	0.403
		218.09		-2.225E-01	5.462E-01	8.635E-01	7.668E-02	-0.258
		268.79		1.803E+00	6.312E-01	9.632E-01	8.824E-02	1.872
		319.02		-7.516E-02	1.593E-01	2.634E-01	2.402E-02	-0.285
		367.43		-1.241E-01	5.974E-01	9.888E-01	8.643E-02	-0.125
		413.65	*	-5.705E-04	1.276E-01	1.855E-01	1.589E-02	-0.003
HF-181		56.28		-3.791E-01	2.563E-01	4.233E-01	4.244E-02	-0.896
		57.53		-2.098E-01	1.493E-01	2.470E-01	2.481E-02	-0.850
		65.20		6.325E-01	3.914E-01	6.088E-01	6.029E-02	1.039

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		133.02		-2.645E-02	4.822E-02	6.970E-02	7.651E-03	-0.380
		136.25		-5.206E-02	2.937E-01	4.809E-01	5.169E-02	-0.108
		345.85		-6.406E-02	1.249E-01	1.979E-01	1.772E-02	-0.324
		482.03	*	-1.265E-03	2.899E-02	4.740E-02	4.208E-03	-0.027
W-181		56.28		-1.461E-01	9.885E-02	1.633E-01	1.637E-02	-0.894
		57.53		-8.108E-02	5.761E-02	9.532E-02	9.572E-03	-0.851
		65.20	*	2.422E-01	1.499E-01	2.331E-01	2.308E-02	1.039
TA-182		67.75		-2.070E-03	4.532E-02	7.342E-02	7.231E-03	-0.028
	+	100.10		7.280E-01	1.766E-01	1.861E-01	1.929E-02	3.911
		152.43		6.922E-02	2.137E-01	3.520E-01	3.346E-02	0.197
		222.10		1.294E-01	2.279E-01	3.706E-01	3.303E-02	0.349
	+	1001.68		1.657E+01	3.645E+00	4.503E+00	3.918E-01	3.681
		1121.28		4.905E-01	1.594E-01	2.581E-01	2.165E-02	1.900
		1189.05		4.278E-03	2.541E-01	4.111E-01	3.376E-02	0.010
		1221.42	*	8.926E-02	1.540E-01	2.562E-01	2.125E-02	0.348
		1230.97		2.780E-01	4.335E-01	6.319E-01	5.256E-02	0.440
RE-183		57.98		-3.315E-02	6.265E-02	9.940E-02	9.990E-03	-0.334
		59.32		5.437E-02	3.867E-02	5.944E-02	5.989E-03	0.915
		67.20		-4.241E-02	8.512E-02	1.285E-01	1.267E-02	-0.330
	+	162.32	*	1.700E-01	9.814E-02	1.262E-01	1.093E-02	1.347
	+	208.81		2.409E+00	8.555E-01	1.150E+00	1.011E-01	2.096
		291.72		-2.420E-01	6.357E-01	9.330E-01	8.569E-02	-0.259
RE-184		57.98		-1.212E-01	2.290E-01	3.633E-01	3.651E-02	-0.334
		59.32		1.985E-01	1.412E-01	2.171E-01	2.187E-02	0.915
		67.20		-1.550E-01	3.110E-01	4.696E-01	4.631E-02	-0.330
		161.27		6.036E-02	2.527E-01	3.708E-01	3.245E-02	0.163
		216.55		5.958E-02	1.648E-01	2.671E-01	2.368E-02	0.223
		252.85	*	9.098E-02	1.632E-01	2.362E-01	2.151E-02	0.385
		318.01		-1.433E-01	2.794E-01	4.615E-01	4.211E-02	-0.311
		792.07		1.393E+00	1.050E+00	1.365E+00	1.197E-01	1.020
		903.28		7.409E-02	8.918E-01	1.287E+00	1.125E-01	0.058
		920.93		-4.120E-01	3.466E-01	5.284E-01	4.624E-02	-0.780
OS-185		59.72		1.525E-01	1.053E-01	1.617E-01	1.629E-02	0.943
		61.14		6.890E-02	6.186E-02	9.611E-02	9.631E-03	0.717
		69.30		1.593E-01	1.364E-01	2.113E-01	2.075E-02	0.754
		592.07		-6.962E-01	1.922E+00	3.044E+00	2.686E-01	-0.229
		646.12	*	-6.776E-03	3.185E-02	5.045E-02	4.308E-03	-0.134
		717.42		7.011E-02	6.913E-01	1.168E+00	1.007E-01	0.060
		874.81		-3.832E-02	4.471E-01	7.373E-01	6.467E-02	-0.052
		880.27		8.987E-01	6.149E-01	1.088E+00	9.541E-02	0.826
RE-188		155.03	*	1.318E-01	1.120E-01	1.871E-01	1.739E-02	0.704
		477.96		1.229E+00	2.072E+00	3.484E+00	3.089E-01	0.353
		633.10		1.027E-01	2.056E+00	3.311E+00	2.855E-01	0.031
W-188	+	63.58		1.072E+03	1.140E+02	6.512E+01	6.477E+00	16.456
		227.08		8.078E+00	8.494E+00	1.392E+01	1.246E+00	0.580
		290.67	*	-1.626E+00	5.013E+00	7.379E+00	6.778E-01	-0.220
IR-192	+	295.96		9.966E-01	1.437E-01	1.801E-01	1.664E-02	5.534
		308.46		-5.295E-02	5.973E-02	9.737E-02	8.957E-03	-0.544
		316.51	*	7.750E-03	2.132E-02	3.633E-02	3.324E-03	0.213

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		468.07		-1.940E-02	5.216E-02	7.329E-02	6.919E-03	-0.265
		604.41		-4.486E-02	3.874E-01	5.407E-01	7.095E-02	-0.083
		612.46		3.090E-01	5.494E-01	8.021E-01	8.023E-02	0.385
AU-195		65.12		3.055E-01	7.711E-02	1.167E-01	1.156E-02	2.619
		66.83		-3.582E-02	3.905E-02	5.831E-02	5.753E-03	-0.614
	+	75.70		1.188E+00	1.655E-01	2.160E-01	2.108E-02	5.500
	+	98.88	*	9.072E-01	2.201E-01	2.682E-01	2.762E-02	3.383
	+	129.76		4.471E+00	2.832E+00	3.232E+00	3.621E-01	1.383
TL-200		367.94	*	-3.034E-04	2.832E+00	Half-Life too short		
		579.30		2.057E-03	2.832E+00	Half-Life too short		
		828.27		-4.351E-03	2.832E+00	Half-Life too short		
		1205.75		6.548E-04	2.832E+00	Half-Life too short		
TL-201		68.90		1.513E+00	2.782E+00	4.540E+00	4.462E-01	0.333
		70.82		3.536E-01	1.780E+00	2.720E+00	2.666E-01	0.130
		80.30		6.191E+00	4.820E+00	6.005E+00	5.849E-01	1.031
		135.34		9.592E+00	2.179E+01	3.618E+01	3.912E+00	0.265
		167.43	*	1.503E+00	6.688E+00	9.789E+00	8.174E-01	0.153
TL-202		68.90		1.071E-01	1.969E-01	3.213E-01	3.158E-02	0.333
		70.82		2.495E-02	1.256E-01	1.920E-01	1.882E-02	0.130
		80.30		4.371E-01	3.403E-01	4.240E-01	4.130E-02	1.031
		439.56	*	-5.142E-03	4.997E-02	8.203E-02	7.149E-03	-0.063
HG-203		70.83		1.019E-01	5.136E-01	7.848E-01	1.129E-01	0.130
	+	72.87		4.627E-01	2.536E-01	4.938E-01	6.906E-02	0.937
	+	82.60		4.271E+00	1.013E+00	1.074E+00	1.554E-01	3.977
		279.20	*	3.056E-02	2.884E-02	4.488E-02	4.224E-03	0.681
BI-207	+	72.80		1.329E-01	7.158E-02	1.408E-01	1.377E-02	0.944
	+	74.97		6.556E-01	9.129E-02	1.081E-01	1.055E-02	6.066
	+	84.90		7.277E-01	1.540E-01	1.925E-01	1.876E-02	3.780
		569.67		1.906E-02	2.203E-02	3.703E-02	3.293E-03	0.515
		1063.62	*	1.163E-02	4.120E-02	6.832E-02	5.857E-03	0.170
		1770.23		5.721E-02	2.860E-01	4.201E-01	3.548E-02	0.136
TL-207		81.07		7.261E-03	1.552E-01	1.873E-01	1.824E-02	0.039
	+	83.78		4.798E-01	1.015E-01	1.309E-01	1.276E-02	3.664
	+	94.90		6.367E-01	2.889E-01	2.635E-01	2.660E-02	2.416
		122.32		5.372E-01	1.083E+00	1.807E+00	2.200E-01	0.297
	+	144.24		1.817E+00	6.844E-01	8.435E-01	9.310E-02	2.154
		154.21		4.388E-01	2.574E-01	4.315E-01	4.383E-02	1.017
	+	269.46		6.213E-01	2.345E-01	2.337E-01	2.180E-02	2.659
		323.87	*	3.900E-01	4.667E-01	7.112E-01	1.276E-01	0.548
	+	338.28		7.085E+00	1.496E+00	1.611E+00	2.028E-01	4.399
		445.03		6.761E-01	1.502E+00	2.519E+00	3.067E-01	0.268
PO-209		260.50		3.111E+00	7.187E+00	1.031E+01	9.421E-01	0.302
		262.80		4.840E+00	1.916E+01	2.728E+01	2.494E+00	0.177
		896.60	*	6.061E-01	5.380E+00	8.957E+00	7.832E-01	0.068
PB-211		404.84	*	7.550E-01	8.208E-01	1.038E+00	6.504E-01	0.727
		427.08		2.867E-01	1.397E+00	2.308E+00	1.434E+00	0.124
		831.96		-9.799E-02	9.250E-01	1.527E+00	9.573E-01	-0.064
PO-215		81.07		7.261E-03	1.552E-01	1.873E-01	1.824E-02	0.039
	+	83.78		4.798E-01	1.015E-01	1.309E-01	1.276E-02	3.664

---- Non-Identified Nuclides ----

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	+	94.90		6.367E-01	2.889E-01	2.635E-01	2.660E-02	2.416
		122.32		5.372E-01	1.083E+00	1.807E+00	2.200E-01	0.297
	+	144.24		1.817E+00	6.844E-01	8.435E-01	9.310E-02	2.154
		154.21		4.388E-01	2.574E-01	4.315E-01	4.383E-02	1.017
	+	269.46		6.213E-01	2.345E-01	2.337E-01	2.180E-02	2.659
		323.87	*	3.900E-01	4.667E-01	7.112E-01	1.276E-01	0.548
	+	338.28		7.085E+00	1.496E+00	1.611E+00	2.028E-01	4.399
		445.03		6.761E-01	1.502E+00	2.519E+00	3.067E-01	0.268
RN-219	+	271.23		7.971E-01	3.039E-01	2.901E-01	3.125E-02	2.748
		401.81	*	-2.674E-01	2.732E-01	4.306E-01	6.439E-02	-0.621
RN-220		549.76	*	-9.866E+00	1.859E+01	2.934E+01	2.620E+00	-0.336
RA-223		81.07		7.261E-03	1.552E-01	1.873E-01	1.824E-02	0.039
	+	83.78		4.798E-01	1.015E-01	1.309E-01	1.276E-02	3.664
	+	94.90		6.367E-01	2.889E-01	2.635E-01	2.660E-02	2.416
		122.32		5.372E-01	1.083E+00	1.807E+00	2.200E-01	0.297
	+	144.24		1.817E+00	6.844E-01	8.435E-01	9.310E-02	2.154
		154.21		4.388E-01	2.574E-01	4.315E-01	4.383E-02	1.017
	+	269.46		6.213E-01	2.345E-01	2.337E-01	2.180E-02	2.659
		323.87	*	3.900E-01	4.667E-01	7.112E-01	1.276E-01	0.548
	+	338.28		7.085E+00	1.496E+00	1.611E+00	2.028E-01	4.399
		445.03		6.761E-01	1.502E+00	2.519E+00	3.067E-01	0.268
AC-227		79.80		3.355E-01	1.157E+00	1.406E+00	3.089E-01	0.239
		236.00		1.548E-01	1.652E-01	2.414E-01	3.023E-02	0.641
		256.20	*	1.782E-02	2.724E-01	3.851E-01	6.021E-02	0.046
		286.10		-3.006E-01	9.322E-01	1.562E+00	2.120E-01	-0.193
	+	299.80		3.145E+00	1.487E+00	1.703E+00	3.026E-01	1.847
		304.40		3.257E-01	1.239E+00	1.866E+00	3.489E-01	0.175
		334.20		9.604E-01	1.583E+00	2.394E+00	4.692E-01	0.401
TH-227		79.80		3.355E-01	1.157E+00	1.406E+00	3.127E-01	0.239
	+	94.00		5.094E+00	2.526E+00	3.994E+00	8.938E-01	1.275
		236.00		1.548E-01	1.650E-01	2.414E-01	2.748E-02	0.641
		256.20	*	1.782E-02	2.724E-01	3.851E-01	7.050E-02	0.046
		286.10		-3.006E-01	9.791E-01	1.562E+00	1.568E+00	-0.193
	+	299.80		3.145E+00	1.487E+00	1.703E+00	3.026E-01	1.847
		304.40		3.257E-01	1.239E+00	1.866E+00	3.489E-01	0.175
		334.20		9.604E-01	1.583E+00	2.394E+00	4.692E-01	0.401
PA-231		283.67	*	4.137E-02	9.372E-01	1.590E+00	2.467E-01	0.026
	+	301.29		1.258E+00	5.737E-01	6.500E-01	8.216E-02	1.936
TH-231		81.07		7.261E-03	1.552E-01	1.873E-01	1.824E-02	0.039
	+	83.78		4.798E-01	1.015E-01	1.309E-01	1.276E-02	3.664
	+	94.90		6.367E-01	2.889E-01	2.635E-01	2.660E-02	2.416
		122.32		5.372E-01	1.083E+00	1.807E+00	2.200E-01	0.297
	+	144.24		1.817E+00	6.844E-01	8.435E-01	9.310E-02	2.154
		154.21		4.388E-01	2.574E-01	4.315E-01	4.383E-02	1.017
	+	269.46		6.213E-01	2.345E-01	2.337E-01	2.180E-02	2.659
		323.87	*	3.900E-01	4.667E-01	7.112E-01	1.276E-01	0.548
	+	338.28		7.085E+00	1.496E+00	1.611E+00	2.028E-01	4.399
		445.03		6.761E-01	1.502E+00	2.519E+00	3.067E-01	0.268
U-231	+	84.21		2.604E+01	5.509E+00	7.099E+00	6.918E-01	3.668

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		1.353E+02	1.385E+01	6.431E+00	6.406E-01	21.040
		95.87	*	2.946E+00	1.069E+00	1.364E+00	1.383E-01	2.161
		108.00		-2.932E+00	1.999E+00	2.555E+00	2.763E-01	-1.148
PA-233	+	75.28		1.913E+01	3.605E+00	3.262E+00	5.225E-01	5.864
	+	86.59		7.432E+00	2.335E+00	1.752E+00	4.766E-01	4.242
	+	300.12		8.769E-01	4.067E-01	4.730E-01	7.190E-02	1.854
		311.98	*	2.773E-02	4.026E-02	6.923E-02	6.493E-03	0.401
		340.50		7.404E-01	4.570E-01	6.721E-01	1.611E-01	1.102
		398.62		7.981E-01	1.396E+00	2.340E+00	6.220E-01	0.341
		415.76		-6.786E-01	1.072E+00	1.711E+00	3.685E-01	-0.397
PA-234	+	63.00		3.065E+01	5.120E+00	1.878E+00	3.058E-01	16.320
	+	94.67		4.542E-01	2.100E-01	2.193E-01	2.952E-02	2.071
	+	98.44		3.656E-01	2.202E-01	1.080E-01	6.057E-02	3.385
	+	99.86		1.895E+00	4.598E-01	5.065E-01	5.244E-02	3.742
		111.00		8.386E-02	1.365E-01	2.057E-01	2.856E-02	0.408
		131.20		4.026E-02	7.521E-02	1.125E-01	1.249E-02	0.358
		152.70		1.272E-01	2.085E-01	3.441E-01	6.021E-02	0.370
	+	186.00		1.901E+01	6.136E+00	2.332E+00	7.275E-01	8.150
		226.40		2.914E-01	2.668E-01	4.361E-01	5.851E-02	0.668
		227.20		2.809E-01	2.813E-01	4.617E-01	4.133E-02	0.608
		248.90		-1.342E-01	5.125E-01	8.054E-01	1.820E-01	-0.167
	+	293.70		6.192E+00	1.287E+00	1.041E+00	1.830E-01	5.950
		369.80		6.324E-03	5.521E-01	9.210E-01	2.009E-01	0.007
		568.70		-3.379E-01	7.278E-01	1.151E+00	1.023E-01	-0.294
		569.50		1.752E-01	1.944E-01	3.273E-01	2.910E-02	0.535
		574.00		-8.925E-01	1.071E+00	1.654E+00	1.469E-01	-0.540
		699.00		4.788E-01	5.380E-01	9.281E-01	1.769E-01	0.516
		706.10		-2.154E-01	7.713E-01	1.272E+00	5.672E-01	-0.169
		733.00		6.797E-02	2.792E-01	4.488E-01	9.970E-02	0.151
	+	742.81		1.913E+00	1.867E+00	1.828E+00	1.229E+00	1.046
		796.30		2.076E+00	9.747E-01	1.347E+00	3.650E-01	1.541
		805.60		3.201E-01	7.516E-01	1.270E+00	3.898E-01	0.252
		819.60		-6.912E-01	9.652E-01	1.484E+00	5.650E-01	-0.466
		826.30		-3.085E-01	6.091E-01	9.587E-01	4.293E-01	-0.322
		831.60		-1.849E-01	4.775E-01	7.733E-01	2.312E-01	-0.239
		876.40		-6.890E-01	9.689E-01	1.033E+00	1.062E+00	-0.667
		880.51		3.161E-01	2.210E-01	3.906E-01	3.424E-02	0.809
		883.24		-1.179E-01	2.324E-01	3.507E-01	2.358E-01	-0.336
		899.00		-3.857E-01	6.896E-01	1.021E+00	4.467E-01	-0.378
		925.00		4.795E-01	8.670E-01	1.475E+00	1.291E-01	0.325
		926.50		1.002E-01	1.280E-01	2.169E-01	5.493E-02	0.462
		946.00	*	7.950E-02	2.409E-01	4.031E-01	7.589E-02	0.197
		949.00		5.218E-01	3.498E-01	6.178E-01	5.404E-02	0.845
		980.50		-1.167E-01	5.646E-01	9.157E-01	7.990E-02	-0.127
		1394.10		-1.563E-02	7.824E-01	1.304E+00	8.485E-01	-0.012
NP-236	+	94.67		3.445E-01	1.563E-01	1.670E-01	1.684E-02	2.063
	+	98.44		2.764E-01	6.706E-02	8.167E-02	8.392E-03	3.385
		111.00		6.343E-02	1.031E-01	1.556E-01	1.711E-02	0.408
		160.31	*	1.601E-02	5.497E-02	8.085E-02	7.143E-03	0.198

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		6.318E-01	1.533E-01	1.782E-01	1.842E-02	3.546
		117.00	*	-1.365E-01	1.203E-01	1.927E-01	2.192E-02	-0.708
	+	209.75		1.875E+00	6.656E-01	8.973E-01	7.903E-02	2.089
		228.18		-1.274E-01	1.479E-01	2.292E-01	2.053E-02	-0.556
	+	277.60		1.707E-01	1.182E-01	1.979E-01	1.816E-02	0.862
		334.30		5.384E-01	8.920E-01	1.356E+00	1.225E-01	0.397
AM-241		59.54	*	7.731E-02	5.449E-02	8.364E-02	8.880E-03	0.924
CM-243	+	99.55		6.502E-01	1.577E-01	1.834E-01	1.895E-02	3.546
		103.76	*	6.125E-02	6.188E-02	9.454E-02	9.992E-03	0.648
		117.00		-1.404E-01	1.238E-01	1.983E-01	2.255E-02	-0.708
	+	209.75		1.848E+00	6.562E-01	8.847E-01	7.792E-02	2.089
		228.18		-1.287E-01	1.494E-01	2.316E-01	2.075E-02	-0.556
	+	277.60		1.721E-01	1.192E-01	1.995E-01	1.831E-02	0.862
AM-246		798.80		2.571E-02	1.127E-01	1.663E-01	1.460E-02	0.155
		1036.00		1.763E-02	2.222E-01	3.652E-01	3.155E-02	0.048
		1062.04		7.576E-02	1.764E-01	2.951E-01	2.531E-02	0.257
		1078.86	*	2.199E-03	1.118E-01	1.823E-01	1.556E-02	0.012
CM-247	+	278.00		7.077E-01	4.903E-01	8.266E-01	7.587E-02	0.856
		287.40		-1.949E-01	7.473E-01	1.255E+00	1.152E-01	-0.155
		402.60	*	-2.507E-02	2.453E-02	3.888E-02	3.303E-03	-0.645
CF-249		252.85		3.394E-01	6.090E-01	8.814E-01	8.025E-02	0.385
		333.44		9.564E-02	1.238E-01	1.778E-01	1.608E-02	0.538
		387.95	*	3.905E-02	2.704E-02	4.696E-02	3.979E-03	0.832
CF-251		176.60	*	-2.099E-02	8.015E-02	1.290E-01	1.092E-02	-0.163
		227.00		2.466E-01	2.516E-01	4.127E-01	3.694E-02	0.598
		285.00		3.607E-02	1.074E+00	1.821E+00	1.672E-01	0.020

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808002      *
* Acquisition date : 11-FEB-2010 22:26:46 Detector SN#     :               *
* Detector ID        : GAM17               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 06:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 06:00:30.99     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245808002           Analyst initials: RXF2          *
* Batch Number       : 947554               Sample Quantity : 1.3657E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.048E+01	2.918E+00	3.831E-01	0.000E+00
NB-95	1.409E-01	4.513E-02	5.358E-02	0.000E+00
CD-109	3.871E+00	7.015E-01	7.755E-01	0.000E+00
SN-126	3.797E-01	6.881E-02	7.596E-02	0.000E+00
BA-137M	1.852E-02	3.526E-02	4.849E-02	0.000E+00
CS-137	1.958E-02	3.727E-02	5.126E-02	0.000E+00
EU-155	2.064E-01	9.180E-02	1.085E-01	0.000E+00
LU-177	3.055E+00	1.063E+00	1.252E+00	0.000E+00
TL-208	5.530E-01	7.401E-02	4.306E-02	0.000E+00
BI-210	8.585E-01	5.498E-01	6.631E-01	0.000E+00
PB-210	8.585E-01	5.498E-01	6.631E-01	0.000E+00
PO-210	8.585E-01	5.488E-01	6.631E-01	0.000E+00
BI-211	3.781E+00	4.509E-01	2.238E-01	0.000E+00
BI-212	1.556E+00	3.394E-01	3.216E-01	0.000E+00
PB-212	1.630E+00	1.755E-01	5.779E-02	0.000E+00
PO-212	1.630E+00	1.755E-01	5.779E-02	0.000E+00
BI-214	1.226E+00	1.740E-01	8.059E-02	0.000E+00
PB-214	1.315E+00	1.707E-01	7.658E-02	0.000E+00
PO-214	1.315E+00	1.707E-01	7.658E-02	0.000E+00
PO-216	1.630E+00	1.755E-01	5.779E-02	0.000E+00
PO-218	1.315E+00	1.707E-01	7.658E-02	0.000E+00
RA-224	4.517E+00	8.411E-01	6.581E-01	0.000E+00
RA-226	1.226E+00	1.740E-01	8.059E-02	0.000E+00
AC-228	1.504E+00	2.861E-01	1.582E-01	0.000E+00
RA-228	1.504E+00	2.861E-01	1.582E-01	0.000E+00
TH-228	1.658E+00	1.784E-01	5.875E-02	0.000E+00
TH-229	-6.187E-02	3.119E-01	5.320E-01	0.000E+00
TH-230	1.226E+00	1.740E-01	8.059E-02	0.000E+00
TH-232	1.504E+00	2.861E-01	1.582E-01	0.000E+00
PA-234M	3.731E+01	8.247E+00	5.509E+00	0.000E+00
TH-234	2.629E+01	4.905E+00	7.961E-01	0.000E+00
U-234	1.226E+00	1.740E-01	8.059E-02	0.000E+00
U-235	5.606E-01	2.220E-01	2.298E-01	0.000E+00
NP-237	1.115E+00	3.027E-01	2.224E-01	0.000E+00

U-238	2.629E+01	4.905E+00	7.961E-01	0.000E+00
AM-243	3.652E-01	4.984E-02	4.620E-02	0.000E+00
ANH-511	1.401E-01	5.660E-02	3.250E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-2.700E-02	2.150E-01	3.663E-01	0.000E+00	NOT IDENT.
NA-22	-3.094E-02	3.435E-02	5.232E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.564E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	5.775E-03	1.808E-02	3.148E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.419E-02	4.099E-02	0.000E+00	FAIL ABUN
SC-46	8.499E-03	2.726E-02	4.745E-02	0.000E+00	FAIL ABUN
V-48	-9.251E-04	5.700E-02	9.642E-02	0.000E+00	NOT IDENT.
CR-51	-1.482E-01	2.355E-01	4.078E-01	0.000E+00	NOT IDENT.
MN-52	7.436E-02	1.859E-01	3.278E-01	0.000E+00	NOT IDENT.
MN-54	6.216E-03	2.851E-02	4.954E-02	0.000E+00	NOT IDENT.
CO-56	-7.610E-03	2.730E-02	4.614E-02	0.000E+00	FAIL ABUN
CO-57	5.294E-03	1.531E-02	2.734E-02	0.000E+00	NOT IDENT.
CO-58	-7.720E-03	2.890E-02	4.915E-02	0.000E+00	NOT IDENT.
FE-59	3.026E-02	7.213E-02	1.236E-01	0.000E+00	FAIL ABUN
CO-60	-1.674E-02	2.810E-02	4.616E-02	0.000E+00	NOT IDENT.
ZN-65	3.069E-02	7.376E-02	1.102E-01	0.000E+00	NOT IDENT.
GE-68	6.283E-01	9.389E-01	1.635E+00	0.000E+00	NOT IDENT.
AS-73	1.695E-01	1.883E-01	3.421E-01	0.000E+00	NOT IDENT.
AS-74	4.656E-02	7.028E-02	1.216E-01	0.000E+00	NOT IDENT.
SE-75	-6.547E-03	3.150E-02	4.634E-02	0.000E+00	NOT IDENT.
BR-77	-1.480E+00	1.081E+01	1.826E+01	0.000E+00	FAIL ABUN
SR-82	-3.776E-01	2.899E-01	4.662E-01	0.000E+00	NOT IDENT.
RB-83	-1.090E-02	4.782E-02	8.044E-02	0.000E+00	NOT IDENT.
RB-84	6.753E-02	5.585E-02	1.010E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	5.427E+00	8.948E+00	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.824E-02	4.656E-02	0.000E+00	NOT IDENT.
RB-86	6.464E-01	6.232E-01	1.106E+00	0.000E+00	NOT IDENT.
Y-88	-4.046E-03	2.602E-02	4.238E-02	0.000E+00	NOT IDENT.
ZR-88	-3.008E-03	2.010E-02	3.484E-02	0.000E+00	NOT IDENT.
Y-91	-3.733E+00	1.561E+01	2.554E+01	0.000E+00	NOT IDENT.
NB-94	6.002E-03	2.458E-02	4.341E-02	0.000E+00	NOT IDENT.
NB-95M	-3.439E-03	8.628E-02	1.294E-01	0.000E+00	NOT IDENT.
ZR-95	3.791E-04	5.281E-02	9.173E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.020E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	5.306E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.808E+00	1.314E+01	2.010E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.280E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	6.725E-03	2.160E-02	3.514E-02	0.000E+00	FAIL ABUN
RH-102	-1.826E-02	1.899E-02	3.100E-02	0.000E+00	FAIL ABUN
RU-103	2.916E-03	2.888E-02	4.953E-02	0.000E+00	FAIL ABUN
RH-106	6.428E-03	2.339E-01	3.917E-01	0.000E+00	FAIL ABUN
RU-106	6.428E-03	2.339E-01	3.917E-01	0.000E+00	FAIL ABUN
AG-108M	1.780E-02	2.155E-02	3.840E-02	0.000E+00	NOT IDENT.
AG-110M	-1.250E-02	2.796E-02	3.911E-02	0.000E+00	NOT IDENT.
IN-111	4.943E-01	9.849E-01	1.507E+00	0.000E+00	NOT IDENT.
IN-113M	-3.246E-02	2.921E-02	4.854E-02	0.000E+00	NOT IDENT.
SN-113	-3.246E-02	2.921E-02	4.854E-02	0.000E+00	NOT IDENT.
IN-114M	-4.430E-03	1.245E-01	1.903E-01	0.000E+00	NOT IDENT.
CD-115	3.824E-01	1.192E+01	2.028E+01	0.000E+00	NOT IDENT.
SN-117M	-2.193E-02	3.817E-02	6.217E-02	0.000E+00	NOT IDENT.
SB-122	1.500E+00	2.077E+00	3.619E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.339E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.245E-03	1.979E-02	3.059E-02	0.000E+00	NOT IDENT.
I-124	2.731E-01	6.653E-01	1.001E+00	0.000E+00	FAIL ABUN
SB-124	5.672E-02	4.968E-02	9.414E-02	0.000E+00	FAIL ABUN
SB-125	1.526E-02	6.100E-02	1.066E-01	0.000E+00	FAIL ABUN
TE-125M	1.978E+00	8.122E+00	1.041E+01	0.000E+00	NOT IDENT.
I-126	8.846E-02	1.650E-01	2.479E-01	0.000E+00	NOT IDENT.
SB-126	-3.770E-02	1.310E-01	1.952E-01	0.000E+00	FAIL ABUN
SB-127	1.260E+00	1.405E+00	2.263E+00	0.000E+00	FAIL ABUN
XE-127	-1.584E-03	3.325E-02	5.054E-02	0.000E+00	NOT IDENT.
I-131	9.733E-02	8.125E-02	1.479E-01	0.000E+00	NOT IDENT.
TE-132	-5.159E-01	6.010E-01	9.815E-01	0.000E+00	FAIL ABUN
BA-133	5.745E-03	3.009E-02	4.700E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.311E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.210E-02	7.294E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.161E-01	1.836E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.442E+17	0.000E+00	0.000E+00	SHORT HLIF

CS-136	-3.376E-02	8.681E-02	1.425E-01	0.000E+00	FAIL ABUN
CE-139	5.115E-03	2.038E-02	3.184E-02	0.000E+00	NOT IDENT.
BA-140	-4.865E-03	1.931E-01	3.270E-01	0.000E+00	FAIL ABUN
LA-140	4.756E-02	6.690E-02	1.070E-01	0.000E+00	FAIL ABUN
CE-141	0.000E+00	4.610E-02	7.504E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.190E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.373E-01	1.370E-01	2.210E-01	0.000E+00	NOT IDENT.
PM-144	-2.424E-02	2.564E-02	4.290E-02	0.000E+00	NOT IDENT.
PR-144	-1.644E+00	1.739E+00	2.909E+00	0.000E+00	NOT IDENT.
PM-146	7.719E-03	2.872E-02	4.999E-02	0.000E+00	NOT IDENT.
ND-147	1.239E-01	4.191E-01	7.208E-01	0.000E+00	FAIL ABUN
PM-149	-4.196E+01	8.485E+01	1.490E+02	0.000E+00	NOT IDENT.
EU-152	-8.919E-03	6.037E-02	1.023E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	7.398E-02	9.151E-02	0.000E+00	FAIL ABUN
EU-154	-5.209E-02	9.375E-02	1.464E-01	0.000E+00	NOT IDENT.
TB-160	1.005E-01	1.096E-01	1.960E-01	0.000E+00	FAIL ABUN
HO-166M	-2.182E-02	4.350E-02	7.415E-02	0.000E+00	FAIL ABUN
TM-171	-1.047E+01	1.143E+01	1.851E+01	0.000E+00	NOT IDENT.
LU-176	-6.337E-03	1.468E-02	2.572E-02	0.000E+00	FAIL ABUN
LU-177M	-5.705E-04	1.250E-01	1.906E-01	0.000E+00	NOT IDENT.
HF-181	-1.265E-03	2.841E-02	4.856E-02	0.000E+00	NOT IDENT.
W-181	2.422E-01	1.469E-01	2.477E-01	0.000E+00	NOT IDENT.
TA-182	8.926E-02	1.509E-01	2.578E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	9.617E-02	1.319E-01	0.000E+00	FAIL ABUN
RE-184	9.098E-02	1.600E-01	2.449E-01	0.000E+00	NOT IDENT.
OS-185	-6.776E-03	3.121E-02	5.140E-02	0.000E+00	NOT IDENT.
RE-188	1.318E-01	1.098E-01	1.958E-01	0.000E+00	NOT IDENT.
W-188	-1.626E+00	4.913E+00	7.632E+00	0.000E+00	FAIL ABUN
IR-192	7.750E-03	2.090E-02	3.751E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.157E-01	2.828E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	7.146E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.503E+00	6.554E+00	1.023E+01	0.000E+00	NOT IDENT.
TL-202	-5.142E-03	4.897E-02	8.418E-02	0.000E+00	NOT IDENT.
HG-203	3.056E-02	2.826E-02	4.645E-02	0.000E+00	FAIL ABUN
BI-207	1.163E-02	4.037E-02	6.894E-02	0.000E+00	FAIL ABUN
TL-207	3.900E-01	4.574E-01	7.341E-01	0.000E+00	FAIL ABUN
PO-209	6.061E-01	5.272E+00	9.068E+00	0.000E+00	NOT IDENT.
PB-211	7.550E-01	8.044E-01	1.067E+00	0.000E+00	NOT IDENT.
PO-215	3.900E-01	4.574E-01	7.341E-01	0.000E+00	FAIL ABUN
RN-219	-2.674E-01	2.678E-01	4.427E-01	0.000E+00	FAIL ABUN
RN-220	-9.866E+00	1.822E+01	2.998E+01	0.000E+00	NOT IDENT.
RA-223	3.900E-01	4.574E-01	7.341E-01	0.000E+00	FAIL ABUN
AC-227	1.782E-02	2.670E-01	3.992E-01	0.000E+00	FAIL ABUN
TH-227	1.782E-02	2.670E-01	3.992E-01	0.000E+00	FAIL ABUN
PA-231	4.137E-02	9.184E-01	1.645E+00	0.000E+00	FAIL ABUN
TH-231	3.900E-01	4.574E-01	7.341E-01	0.000E+00	FAIL ABUN
U-231	0.000E+00	1.048E+00	1.439E+00	0.000E+00	FAIL ABUN
PA-233	2.773E-02	3.946E-02	7.151E-02	0.000E+00	FAIL ABUN
PA-234	7.950E-02	2.361E-01	4.077E-01	0.000E+00	FAIL ABUN
NP-236	1.601E-02	5.387E-02	8.453E-02	0.000E+00	FAIL ABUN
NP-239	-1.365E-01	1.179E-01	2.026E-01	0.000E+00	FAIL ABUN
AM-241	7.731E-02	5.340E-02	8.901E-02	0.000E+00	NOT IDENT.
CM-243	6.125E-02	6.064E-02	9.962E-02	0.000E+00	FAIL ABUN
AM-246	2.199E-03	1.095E-01	1.839E-01	0.000E+00	NOT IDENT.
CM-247	-2.507E-02	2.404E-02	3.996E-02	0.000E+00	FAIL ABUN
CF-249	3.905E-02	2.649E-02	4.830E-02	0.000E+00	NOT IDENT.
CF-251	-2.099E-02	7.855E-02	1.347E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:27:41.62

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808002.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:26:46
Sample ID         : G245808002           Sample quantity  : 1.36574E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:30.99  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2763	10.67*	7.782E-01	3.048E+01	3.048E+01	9.77
NB-95	765.79	179	99.81*	1.393E+00	1.178E-01	1.409E-01	32.68
CD-109	88.03	1024	3.72*	6.676E+00	3.776E+00	3.871E+00	18.49
SN-126	64.28	7390	9.60	6.776E+00	1.041E+01	1.041E+01	16.41
	86.94	1024	8.90	6.676E+00	1.578E+00	1.578E+00	44.48
	87.57	1024	37.00*	6.676E+00	3.797E-01	3.797E-01	18.49
BA-137M	661.65	29	89.98*	1.605E+00	1.850E-02	1.852E-02	194.26
CS-137	661.65	29	85.12*	1.605E+00	1.956E-02	1.958E-02	194.26
EU-155	48.70	------	4.60	6.416E+00	------	Line Not Found	------
	60.01	------	1.11	6.736E+00	------	Line Not Found	------
	86.54	1024	30.90	6.676E+00	4.546E-01	4.575E-01	18.53
	105.31	295	20.70*	6.372E+00	2.051E-01	2.064E-01	45.39
LU-177	112.95	333	6.40	6.222E+00	7.668E-01	4.242E+00	37.70
	208.36	294	11.00*	4.433E+00	5.522E-01	3.055E+00	35.51
TL-208	277.35	94	6.80	3.569E+00	3.539E-01	3.539E-01	69.84
	510.84	314	21.60	2.056E+00	6.487E-01	6.487E-01	42.05
	583.14	921	84.20*	1.812E+00	5.530E-01	5.530E-01	13.66
	860.37	154	12.46	1.247E+00	9.057E-01	9.057E-01	40.95
BI-210	46.50	239	4.05*	6.318E+00	8.573E-01	8.585E-01	65.36
PB-210	46.50	239	4.05*	6.318E+00	8.573E-01	8.585E-01	65.36
PO-210	46.50	239	4.05*	6.318E+00	8.573E-01	8.585E-01	65.24
BI-211	72.87	215	1.27	6.803E+00	2.278E+00	2.278E+00	53.88
	351.07	1553	12.94*	2.908E+00	3.781E+00	3.781E+00	12.17
BI-212	727.18	294	11.80*	1.465E+00	1.556E+00	1.556E+00	22.25
	785.46	83	1.97	1.359E+00	2.856E+00	2.856E+00	69.39
	1620.62	17	2.75	7.162E-01	7.988E-01	7.988E-01	137.82
PB-212	74.81	1788	10.70	6.795E+00	2.253E+00	2.253E+00	16.77
	77.11	2735	18.00	6.782E+00	2.053E+00	2.053E+00	11.90
	87.30	1024	8.00	6.676E+00	1.756E+00	1.756E+00	21.02
	238.63	3193	44.60*	4.023E+00	1.630E+00	1.630E+00	10.98
	300.09	211	3.41	3.342E+00	1.697E+00	1.697E+00	45.14
PO-212	74.81	1788	10.70	6.795E+00	2.253E+00	2.253E+00	16.77

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	2735	18.00	6.782E+00	2.053E+00	2.053E+00	11.90
	87.30	1024	8.00	6.676E+00	1.756E+00	1.756E+00	21.02
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	3193	44.60*	4.023E+00	1.630E+00	1.630E+00	10.98
	300.09	211	3.41	3.342E+00	1.697E+00	1.697E+00	45.14
BI-214	609.31	1076	46.30*	1.737E+00	1.226E+00	1.226E+00	14.48
	1120.29	225	15.10	9.778E-01	1.397E+00	1.397E+00	34.53
	1764.49	164	15.80	6.717E-01	1.419E+00	1.419E+00	23.72
PB-214	74.81	1788	6.21	6.795E+00	3.882E+00	3.882E+00	15.77
	77.11	2735	10.50	6.782E+00	3.519E+00	3.519E+00	14.13
	87.30	1024	4.67	6.676E+00	3.008E+00	3.008E+00	20.04
	241.98	776	7.49	3.983E+00	2.382E+00	2.382E+00	19.81
	295.21	916	19.20	3.389E+00	1.290E+00	1.290E+00	15.68
	351.92	1553	37.20*	2.908E+00	1.315E+00	1.315E+00	13.24
PO-214	74.81	1788	6.21	6.795E+00	3.882E+00	3.882E+00	15.77
	77.11	2735	10.50	6.782E+00	3.519E+00	3.519E+00	14.13
	87.30	1024	4.67	6.676E+00	3.008E+00	3.008E+00	20.04
	241.98	776	7.49	3.983E+00	2.382E+00	2.382E+00	19.81
	295.21	916	19.20	3.389E+00	1.290E+00	1.290E+00	15.68
	351.92	1553	37.20*	2.908E+00	1.315E+00	1.315E+00	13.24
PO-216	74.81	1788	10.70	6.795E+00	2.253E+00	2.253E+00	16.77
	77.11	2735	18.00	6.782E+00	2.053E+00	2.053E+00	11.90
	87.30	1024	8.00	6.676E+00	1.756E+00	1.756E+00	21.02
	238.63	3193	44.60*	4.023E+00	1.630E+00	1.630E+00	10.98
	300.09	211	3.41	3.342E+00	1.697E+00	1.697E+00	45.14
PO-218	74.81	1788	6.21	6.795E+00	3.882E+00	3.882E+00	15.77
	77.11	2735	10.50	6.782E+00	3.519E+00	3.519E+00	14.13
	87.30	1024	4.67	6.676E+00	3.008E+00	3.008E+00	20.04
	241.98	776	7.49	3.983E+00	2.382E+00	2.382E+00	19.81
	295.21	916	19.20	3.389E+00	1.290E+00	1.290E+00	15.68
	351.92	1553	37.20*	2.908E+00	1.315E+00	1.315E+00	13.24
RA-224	240.98	776	3.95*	3.983E+00	4.517E+00	4.517E+00	19.00
RA-226	609.31	1076	46.30*	1.737E+00	1.226E+00	1.226E+00	14.48
	1120.29	225	15.10	9.778E-01	1.397E+00	1.397E+00	34.53
	1764.49	164	15.80	6.717E-01	1.419E+00	1.419E+00	23.72
AC-228	338.32	636	11.40	3.012E+00	1.697E+00	1.697E+00	44.69
	911.07	537	27.70*	1.182E+00	1.504E+00	1.504E+00	19.41
	969.11	361	16.60	1.116E+00	1.787E+00	1.787E+00	28.21
RA-228	338.32	636	11.40	3.012E+00	1.697E+00	1.697E+00	44.69
	911.07	537	27.70*	1.182E+00	1.504E+00	1.504E+00	19.41
	969.11	361	16.60	1.116E+00	1.787E+00	1.787E+00	28.21
TH-228	74.81	1788	10.70	6.795E+00	2.253E+00	2.290E+00	13.97
	77.11	2735	18.00	6.782E+00	2.053E+00	2.087E+00	11.90
	87.30	1024	8.00	6.676E+00	1.756E+00	1.785E+00	18.49
	238.63	3193	44.60*	4.023E+00	1.630E+00	1.658E+00	10.98
	300.09	211	3.41	3.342E+00	1.697E+00	1.725E+00	73.78
TH-229	85.43	869	16.50	6.716E+00	7.183E-01	7.183E-01	21.16
	88.47	1024	27.10	6.676E+00	5.183E-01	5.183E-01	18.49
	100.00	658	12.40	6.494E+00	7.490E-01	7.490E-01	24.26

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	193.63	------	4.59*	4.678E+00	------ Line Not Found		------
	210.97	------	3.26	4.407E+00	------ Line Not Found		------
TH-230	609.31	1076	46.30*	1.737E+00	1.226E+00	1.226E+00	14.48
	1120.29	225	15.10	9.778E-01	1.397E+00	1.397E+00	34.53
	1764.49	164	15.80	6.717E-01	1.419E+00	1.419E+00	23.72
TH-232	338.32	636	11.40	3.012E+00	1.697E+00	1.697E+00	19.20
	911.07	537	27.70*	1.182E+00	1.504E+00	1.504E+00	19.41
	969.11	361	16.60	1.116E+00	1.787E+00	1.787E+00	28.21
PA-234M	766.42	179	0.32	1.393E+00	3.673E+01	3.673E+01	59.73
	1001.03	370	0.84*	1.083E+00	3.731E+01	3.731E+01	22.55
TH-234	63.29	7390	3.80*	6.776E+00	2.629E+01	2.629E+01	19.04
	92.38	10959	5.41	6.596E+00	2.813E+01	2.813E+01	18.91
U-234	609.31	1076	46.30*	1.737E+00	1.226E+00	1.226E+00	14.48
	1120.29	225	15.10	9.778E-01	1.397E+00	1.397E+00	34.53
	1764.49	164	15.80	6.717E-01	1.419E+00	1.419E+00	23.72
U-235	89.95	938	2.70	6.636E+00	4.796E+00	4.796E+00	36.61
	93.35	10959	4.50	6.596E+00	3.382E+01	3.382E+01	28.56
	105.00	295	2.10	6.372E+00	2.021E+00	2.021E+00	53.62
	143.76	359	10.50*	5.593E+00	5.606E-01	5.606E-01	40.41
	163.35	192	4.70	5.217E+00	7.185E-01	7.185E-01	60.18
	185.71	1996	54.00	4.810E+00	7.039E-01	7.039E-01	11.93
	205.31	170	4.70	4.491E+00	7.367E-01	7.367E-01	63.98
NP-237	86.50	1024	12.60*	6.676E+00	1.115E+00	1.115E+00	27.71
	95.87	------	2.60	6.543E+00	------ Line Not Found		------
U-238	63.29	7390	3.80*	6.776E+00	2.629E+01	2.629E+01	19.04
	92.38	10959	5.41	6.596E+00	2.813E+01	2.813E+01	10.24
AM-243	74.67	1788	66.00*	6.795E+00	3.652E-01	3.652E-01	13.92
	86.72	1024	0.34	6.676E+00	4.181E+01	4.181E+01	18.49
	117.66	------	0.55	6.127E+00	------ Line Not Found		------
	142.18	------	0.13	5.624E+00	------ Line Not Found		------
ANH-511	511.00	314	100.00*	2.056E+00	1.401E-01	1.401E-01	41.22

Flag: "*" = Keyline

Sample ID : G245808002 Acquisition date : 11-FEB-2010 22:26:46

Total number of lines in spectrum 57
Number of unidentified lines 5
Number of lines tentatively identified by NID 52 91.23%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.048E+01	3.048E+01	0.298E+01	9.77	
NB-95	64.02D	1.20	1.178E-01	1.409E-01	0.460E-01	32.68	
CD-109	464.00D	1.03	3.776E+00	3.871E+00	0.716E+00	18.49	
SN-126	1.00E+05Y	1.00	3.797E-01	3.797E-01	0.702E-01	18.49	
BA-137M	30.17Y	1.00	1.850E-02	1.852E-02	3.598E-02	194.26	
CS-137	30.17Y	1.00	1.956E-02	1.958E-02	3.803E-02	194.26	
EU-155	4.96Y	1.01	2.051E-01	2.064E-01	0.937E-01	45.39	
LU-177	6.71D	5.53	5.522E-01	3.055E+00	1.085E+00	35.51	
TL-208	1.41E+10Y	1.00	5.530E-01	5.530E-01	0.755E-01	13.66	
BI-210	22.26Y	1.00	8.573E-01	8.585E-01	5.611E-01	65.36	
PB-210	22.26Y	1.00	8.573E-01	8.585E-01	5.611E-01	65.36	
PO-210	22.26Y	1.00	8.573E-01	8.585E-01	5.600E-01	65.24	
BI-211	7.04E+08Y	1.00	3.781E+00	3.781E+00	0.460E+00	12.17	
BI-212	1.41E+10Y	1.00	1.556E+00	1.556E+00	0.346E+00	22.25	
PB-212	1.41E+10Y	1.00	1.630E+00	1.630E+00	0.179E+00	10.98	
PO-212	1.41E+10Y	1.00	1.630E+00	1.630E+00	0.179E+00	10.98	
BI-214	1600.00Y	1.00	1.226E+00	1.226E+00	0.178E+00	14.48	
PB-214	1600.00Y	1.00	1.315E+00	1.315E+00	0.174E+00	13.24	
PO-214	1600.00Y	1.00	1.315E+00	1.315E+00	0.174E+00	13.24	
PO-216	1.41E+10Y	1.00	1.630E+00	1.630E+00	0.179E+00	10.98	
PO-218	1600.00Y	1.00	1.315E+00	1.315E+00	0.174E+00	13.24	
RA-224	1.41E+10Y	1.00	4.517E+00	4.517E+00	0.858E+00	19.00	
RA-226	1600.00Y	1.00	1.226E+00	1.226E+00	0.178E+00	14.48	
AC-228	1.41E+10Y	1.00	1.504E+00	1.504E+00	0.292E+00	19.41	
RA-228	1.41E+10Y	1.00	1.504E+00	1.504E+00	0.292E+00	19.41	
TH-228	1.91Y	1.02	1.630E+00	1.658E+00	0.182E+00	10.98	
TH-229	7340.00Y	1.00	5.183E-01	5.183E-01	0.959E-01	18.49	K
TH-230	4.47E+09Y	1.00	1.226E+00	1.226E+00	0.178E+00	14.48	
TH-232	1.41E+10Y	1.00	1.504E+00	1.504E+00	0.292E+00	19.41	
PA-234M	4.47E+09Y	1.00	3.731E+01	3.731E+01	0.842E+01	22.55	
TH-234	4.47E+09Y	1.00	2.629E+01	2.629E+01	0.501E+01	19.04	
U-234	4.47E+09Y	1.00	1.226E+00	1.226E+00	0.178E+00	14.48	
U-235	7.04E+08Y	1.00	5.606E-01	5.606E-01	2.265E-01	40.41	
NP-237	2.14E+06Y	1.00	1.115E+00	1.115E+00	0.309E+00	27.71	
U-238	4.47E+09Y	1.00	2.629E+01	2.629E+01	0.501E+01	19.04	
AM-243	7380.00Y	1.00	3.652E-01	3.652E-01	0.509E-01	13.92	
ANH-511	1.00E+09Y	1.00	1.401E-01	1.401E-01	0.578E-01	41.22	
	Total Activity :		1.610E+02	1.637E+02			

Grand Total Activity : 1.610E+02 1.637E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245808002
Acquisition date : 11-FEB-2010 22:26:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
9	94.36	511	1408	1.24	188.38	164	29	2.37E-02	44.2	6.57E+00	T
0	128.50	219	1379	0.88	256.69	253	9	1.01E-02	62.3	5.90E+00	T
0	258.23	165	775	2.32	516.25	511	12	7.63E-03	69.2	3.78E+00	
0	270.40	336	798	1.54	540.59	535	13	1.56E-02	36.6	3.64E+00	T
0	327.80	171	375	1.15	655.44	652	8	7.91E-03	42.0	3.10E+00	T
0	409.46	113	349	2.38	818.85	814	10	5.23E-03	64.5	2.53E+00	T
0	462.63	137	314	1.10	925.23	921	10	6.36E-03	51.4	2.26E+00	T
0	683.76	39	148	1.25	1367.74	1365	8	1.79E-03	****	1.55E+00	T
0	742.59	72	163	2.08	1485.47	1481	10	3.33E-03	70.8	1.43E+00	T
3	768.18	91	138	1.41	1536.68	1527	14	4.23E-03	56.9	1.39E+00	
0	794.43	134	189	1.60	1589.22	1585	11	6.23E-03	43.0	1.34E+00	T
2	963.93	140	129	1.93	1928.43	1922	21	6.47E-03	36.1	1.12E+00	T
0	1153.85	76	160	1.60	2308.56	2300	15	3.50E-03	76.8	9.51E-01	
0	1236.94	131	198	1.11	2474.86	2468	14	6.08E-03	48.8	8.95E-01	T
0	1377.20	60	51	1.94	2755.62	2748	12	2.79E-03	54.0	8.17E-01	T
0	1508.44	27	33	1.47	3018.32	3014	9	1.25E-03	86.1	7.58E-01	T
0	1588.95	55	90	5.60	3179.49	3170	20	2.55E-03	88.7	7.27E-01	
0	1846.61	24	15	1.28	3695.33	3690	10	1.11E-03	72.9	6.50E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:27:47.62

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808002.CNF;1 *
* Acquisition date  : 11-FEB-2010 22:26:46  Detector SN#     :             *
* Detector ID       : GAM17                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 06:00:30.99          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245808002            Analyst initials: RXF2         *
* Batch Number      : 947554                Sample Quantity : 1.36574E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.048E+01	2.977E+00	3.821E-01	3.392E-02	79.777
NB-95	1.409E-01	4.605E-02	5.277E-02	4.609E-03	2.670
CD-109	3.871E+00	7.158E-01	7.337E-01	7.163E-02	5.275
SN-126	3.797E-01	7.021E-02	7.186E-02	7.013E-03	5.283
BA-137M	1.852E-02	3.598E-02	4.762E-02	4.012E-03	0.389
CS-137	1.958E-02	3.803E-02	5.034E-02	4.249E-03	0.389
EU-155	2.064E-01	9.368E-02	1.030E-01	1.107E-02	2.003
LU-177	3.055E+00	1.085E+00	1.203E+00	1.058E-01	2.539
TL-208	5.530E-01	7.552E-02	4.218E-02	3.990E-03	13.111
BI-210	8.585E-01	5.611E-01	6.204E-01	6.730E-02	1.384
PB-210	8.585E-01	5.611E-01	6.204E-01	6.730E-02	1.384
PO-210	8.585E-01	5.600E-01	6.204E-01	6.268E-02	1.384
BI-211	3.781E+00	4.601E-01	2.172E-01	2.027E-02	17.406
BI-212	1.556E+00	3.464E-01	3.164E-01	3.175E-02	4.919
PB-212	1.630E+00	1.791E-01	5.568E-02	5.613E-03	29.283
PO-212	1.630E+00	1.791E-01	5.568E-02	5.613E-03	29.283
BI-214	1.226E+00	1.776E-01	7.902E-02	8.037E-03	15.516
PB-214	1.315E+00	1.741E-01	7.431E-02	7.941E-03	17.697

Sample ID : G245808002 Acquisition date : 11-FEB-2010 22:26:46

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	1.315E+00	1.741E-01	7.431E-02	7.941E-03	17.697
PO-216	1.630E+00	1.791E-01	5.568E-02	5.613E-03	29.283
PO-218	1.315E+00	1.741E-01	7.431E-02	7.941E-03	17.697
RA-224	4.517E+00	8.583E-01	6.342E-01	5.735E-02	7.123
RA-226	1.226E+00	1.776E-01	7.902E-02	8.037E-03	15.516
AC-228	1.504E+00	2.920E-01	1.563E-01	1.773E-02	9.621
RA-228	1.504E+00	2.920E-01	1.563E-01	1.773E-02	9.621
TH-228	1.658E+00	1.820E-01	5.660E-02	5.707E-03	29.283
TH-229	5.183E-01	9.586E-02	5.106E-01	4.416E-02	1.015
TH-230	1.226E+00	1.776E-01	7.902E-02	8.037E-03	15.516
TH-232	1.504E+00	2.920E-01	1.563E-01	1.773E-02	9.621
PA-234M	3.731E+01	8.416E+00	5.454E+00	5.473E-01	6.841
TH-234	2.629E+01	5.006E+00	7.489E-01	1.398E-01	35.109
U-234	1.226E+00	1.776E-01	7.902E-02	8.037E-03	15.516
U-235	5.606E-01	2.265E-01	2.193E-01	4.021E-02	2.556
NP-237	1.115E+00	3.089E-01	2.104E-01	4.801E-02	5.300
U-238	2.629E+01	5.006E+00	7.489E-01	1.398E-01	35.109
AM-243	3.652E-01	5.086E-02	4.359E-02	4.256E-03	8.378
ANH-511	1.401E-01	5.776E-02	3.176E-02	2.837E-03	4.411

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.700E-02		2.194E-01	3.575E-01	3.402E-02	-0.076
NA-22	-3.094E-02		3.505E-02	5.204E-02	4.384E-03	-0.595
NA-24	2.206E+00		1.308E+00	Half-Life too short		
AL-26	5.775E-03		1.845E-02	3.153E-02	2.643E-03	0.183
TI-44	3.789E-01	+	4.509E-02	3.870E-02	3.771E-03	9.790
SC-46	8.499E-03		2.781E-02	4.687E-02	4.103E-03	0.181
V-48	-9.251E-04		5.817E-02	9.542E-02	8.323E-03	-0.010
CR-51	-1.482E-01		2.403E-01	3.950E-01	3.773E-02	-0.375
MN-52	7.436E-02		1.897E-01	3.268E-01	2.817E-02	0.228
MN-54	6.216E-03		2.909E-02	4.887E-02	4.297E-03	0.127
CO-56	-7.610E-03		2.785E-02	4.553E-02	4.002E-03	-0.167
CO-57	5.294E-03		1.563E-02	2.602E-02	3.048E-03	0.203
CO-58	-7.720E-03		2.949E-02	4.846E-02	4.267E-03	-0.159
FE-59	3.026E-02		7.361E-02	1.226E-01	1.125E-02	0.247
CO-60	-1.674E-02		2.867E-02	4.595E-02	3.916E-03	-0.364
ZN-65	3.069E-02		7.526E-02	1.093E-01	9.206E-03	0.281
GE-68	6.283E-01		9.581E-01	1.621E+00	1.384E-01	0.388
AS-73	1.695E-01		1.921E-01	3.209E-01	3.210E-02	0.528
AS-74	4.656E-02		7.171E-02	1.192E-01	1.050E-02	0.391
SE-75	-6.547E-03		3.214E-02	4.473E-02	4.109E-03	-0.146
BR-77	-1.480E+00		1.103E+01	1.785E+01	1.595E+00	-0.083
SR-82	-3.776E-01		2.958E-01	4.592E-01	4.019E-02	-0.822
RB-83	-1.090E-02		4.879E-02	7.864E-02	7.028E-03	-0.139
RB-84	6.753E-02		5.699E-02	9.972E-02	8.740E-03	0.677

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
KR-85	1.158E+01		5.538E+00	8.746E+00	7.813E-01	1.324
SR-85	6.027E-02		2.882E-02	4.551E-02	4.066E-03	1.324
RB-86	6.464E-01		6.359E-01	1.096E+00	9.359E-02	0.590
Y-88	-4.046E-03		2.655E-02	4.246E-02	3.541E-03	-0.095
ZR-88	-3.008E-03		2.051E-02	3.388E-02	2.854E-03	-0.089
Y-91	-3.733E+00		1.593E+01	2.538E+01	2.094E+00	-0.147
NB-94	6.002E-03		2.508E-02	4.268E-02	3.661E-03	0.141
NB-95M	-3.439E-03		8.804E-02	1.247E-01	1.273E-02	-0.028
ZR-95	3.791E-04		5.388E-02	9.032E-02	8.654E-03	0.004
NB-97	-3.060E-02		1.541E-01	Half-Life too short		
ZR-97	1.106E+01		2.707E+00	Half-Life too short		
MO-99	1.808E+00		1.341E+01	1.979E+01	3.011E+00	0.091
TC-99M	3.469E+11		6.529E+11	Half-Life too short		
RH-101	6.725E-03		2.205E-02	3.374E-02	2.933E-03	0.199
RH-102	-1.826E-02		1.938E-02	3.025E-02	2.679E-03	-0.604
RU-103	2.916E-03		2.947E-02	4.838E-02	6.938E-03	0.060
RH-106	6.428E-03		2.386E-01	3.843E-01	5.150E-02	0.017
RU-106	6.428E-03		2.386E-01	3.843E-01	3.338E-02	0.017
AG-108M	1.780E-02		2.199E-02	3.741E-02	3.376E-03	0.476
AG-110M	-1.250E-02		2.853E-02	3.841E-02	3.347E-03	-0.325
IN-111	4.943E-01		1.005E+00	1.453E+00	1.318E-01	0.340
IN-113M	-3.246E-02		2.980E-02	4.719E-02	4.101E-03	-0.688
SN-113	-3.246E-02		2.980E-02	4.719E-02	4.101E-03	-0.688
IN-114M	-4.430E-03		1.270E-01	1.826E-01	1.573E-02	-0.024
CD-115	3.824E-01		1.217E+01	1.983E+01	1.773E+00	0.019
SN-117M	-2.193E-02		3.895E-02	5.945E-02	5.344E-03	-0.369
SB-122	1.500E+00		2.120E+00	3.544E+00	3.156E-01	0.423
I-123	-3.834E+00		1.193E+01	Half-Life too short		
TE-123M	-3.245E-03		2.020E-02	2.926E-02	2.633E-03	-0.111
I-124	2.731E-01		6.789E-01	9.814E-01	8.618E-02	0.278
SB-124	5.672E-02		5.069E-02	9.416E-02	8.378E-03	0.602
SB-125	1.526E-02		6.225E-02	1.038E-01	9.157E-03	0.147
TE-125M	1.978E+00		8.287E+00	9.890E+00	1.216E+00	0.200
I-126	8.846E-02		1.684E-01	2.435E-01	2.056E-02	0.363
SB-126	-3.770E-02		1.336E-01	1.920E-01	1.657E-02	-0.196
SB-127	1.260E+00	+	1.433E+00	2.224E+00	2.609E-01	0.567
XE-127	-1.584E-03		3.393E-02	4.855E-02	4.244E-03	-0.033
I-131	9.733E-02		8.291E-02	1.436E-01	1.328E-02	0.678
TE-132	-5.159E-01		6.132E-01	9.448E-01	1.527E-01	-0.546
BA-133	5.745E-03		3.071E-02	4.562E-02	6.095E-03	0.126
I-133	-1.003E-02		6.691E-03	Half-Life too short		
CS-134	1.210E-01	+	5.317E-02	7.189E-02	6.352E-03	1.684
CS-135	2.261E-01		1.184E-01	1.772E-01	1.849E-02	1.276
I-135	-7.069E+10		7.358E+10	Half-Life too short		
CS-136	-3.376E-02		8.858E-02	1.412E-01	1.268E-02	-0.239
CE-139	5.115E-03		2.079E-02	3.047E-02	2.541E-03	0.168
BA-140	-4.865E-03		1.970E-01	3.199E-01	1.063E-01	-0.015
LA-140	4.756E-02		6.827E-02	1.069E-01	9.229E-03	0.445

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-141	8.779E-02		4.704E-02	7.164E-02	7.307E-03	1.225
CE-143	1.090E-03		1.628E-04	Half-Life too short		
CE-144	-1.373E-01		1.398E-01	2.107E-01	3.574E-02	-0.652
PM-144	-2.424E-02		2.617E-02	4.217E-02	3.610E-03	-0.575
PR-144	-1.644E+00		1.775E+00	2.860E+00	2.447E-01	-0.575
PM-146	7.719E-03		2.931E-02	4.874E-02	5.291E-03	0.158
ND-147	1.239E-01		4.276E-01	7.049E-01	1.067E-01	0.176
PM-149	-4.196E+01		8.658E+01	1.440E+02	2.285E+01	-0.291
EU-152	-8.919E-03		6.160E-02	9.922E-02	9.386E-03	-0.090
GD-153	3.112E-01	+	7.549E-02	8.675E-02	8.868E-03	3.587
EU-154	-5.209E-02		9.566E-02	1.456E-01	1.625E-02	-0.358
TB-160	1.005E-01		1.119E-01	1.935E-01	1.696E-02	0.519
HO-166M	-2.182E-02		4.439E-02	7.292E-02	6.275E-03	-0.299
TM-171	-1.047E+01		1.167E+01	1.743E+01	1.721E+00	-0.600
LU-176	-6.337E-03		1.498E-02	2.490E-02	2.281E-03	-0.255
LU-177M	-5.705E-04		1.276E-01	1.855E-01	1.589E-02	-0.003
HF-181	-1.265E-03		2.899E-02	4.740E-02	4.208E-03	-0.027
W-181	2.422E-01		1.499E-01	2.331E-01	2.308E-02	1.039
TA-182	8.926E-02		1.540E-01	2.562E-01	2.125E-02	0.348
RE-183	1.700E-01	+	9.814E-02	1.262E-01	1.093E-02	1.347
RE-184	9.098E-02		1.632E-01	2.362E-01	2.151E-02	0.385
OS-185	-6.776E-03		3.185E-02	5.045E-02	4.308E-03	-0.134
RE-188	1.318E-01		1.120E-01	1.871E-01	1.739E-02	0.704
W-188	-1.626E+00		5.013E+00	7.379E+00	6.778E-01	-0.220
IR-192	7.750E-03		2.132E-02	3.633E-02	3.324E-03	0.213
AU-195	9.072E-01	+	2.201E-01	2.682E-01	2.762E-02	3.383
TL-200	-3.034E-04		3.646E-04	Half-Life too short		
TL-201	1.503E+00		6.688E+00	9.789E+00	8.174E-01	0.153
TL-202	-5.142E-03		4.997E-02	8.203E-02	7.149E-03	-0.063
HG-203	3.056E-02		2.884E-02	4.488E-02	4.224E-03	0.681
BI-207	1.163E-02		4.120E-02	6.832E-02	5.857E-03	0.170
TL-207	3.900E-01		4.667E-01	7.112E-01	1.276E-01	0.548
PO-209	6.061E-01		5.380E+00	8.957E+00	7.832E-01	0.068
PB-211	7.550E-01		8.208E-01	1.038E+00	6.504E-01	0.727
PO-215	3.900E-01		4.667E-01	7.112E-01	1.276E-01	0.548
RN-219	-2.674E-01		2.732E-01	4.306E-01	6.439E-02	-0.621
RN-220	-9.866E+00		1.859E+01	2.934E+01	2.620E+00	-0.336
RA-223	3.900E-01		4.667E-01	7.112E-01	1.276E-01	0.548
AC-227	1.782E-02		2.724E-01	3.851E-01	6.021E-02	0.046
TH-227	1.782E-02		2.724E-01	3.851E-01	7.050E-02	0.046
PA-231	4.137E-02		9.372E-01	1.590E+00	2.467E-01	0.026
TH-231	3.900E-01		4.667E-01	7.112E-01	1.276E-01	0.548
U-231	2.946E+00		1.069E+00	1.364E+00	1.383E-01	2.161
PA-233	2.773E-02		4.026E-02	6.923E-02	6.493E-03	0.401
PA-234	7.950E-02		2.409E-01	4.031E-01	7.589E-02	0.197
NP-236	1.601E-02		5.497E-02	8.085E-02	7.143E-03	0.198
NP-239	-1.365E-01		1.203E-01	1.927E-01	2.192E-02	-0.708
AM-241	7.731E-02		5.449E-02	8.364E-02	8.880E-03	0.924

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	6.125E-02		6.188E-02	9.454E-02	9.992E-03	0.648
AM-246	2.199E-03		1.118E-01	1.823E-01	1.556E-02	0.012
CM-247	-2.507E-02		2.453E-02	3.888E-02	3.303E-03	-0.645
CF-249	3.905E-02		2.704E-02	4.696E-02	3.979E-03	0.832
CF-251	-2.099E-02		8.015E-02	1.290E-01	1.092E-02	-0.163

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245808002            *
* Acquisition date : 11-FEB-2010 22:26:46 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:30.99     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245808002           Analyst initials: RXF2            *
* Batch Number     : 947554               Sample Quantity : 1.3657E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.048E+01	2.918E+00	1.917E-01	1.489E+00
NB-95	1.409E-01	4.513E-02	2.681E-02	2.302E-02
CD-109	3.871E+00	7.015E-01	3.880E-01	3.579E-01
SN-126	3.797E-01	6.881E-02	3.800E-02	3.510E-02
BA-137M	1.852E-02	3.526E-02	2.426E-02	1.799E-02
CS-137	1.958E-02	3.727E-02	2.565E-02	1.902E-02
EU-155	2.064E-01	9.180E-02	5.430E-02	4.684E-02
LU-177	3.055E+00	1.063E+00	6.264E-01	5.424E-01
TL-208	5.530E-01	7.401E-02	2.154E-02	3.776E-02
BI-210	8.585E-01	5.498E-01	3.317E-01	2.805E-01
PB-210	8.585E-01	5.498E-01	3.317E-01	2.805E-01
PO-210	8.585E-01	5.488E-01	3.317E-01	2.800E-01
BI-211	3.781E+00	4.509E-01	1.120E-01	2.301E-01
BI-212	1.556E+00	3.394E-01	1.609E-01	1.732E-01
PB-212	1.630E+00	1.755E-01	2.891E-02	8.953E-02
PO-212	1.630E+00	1.755E-01	2.891E-02	8.953E-02
BI-214	1.226E+00	1.740E-01	4.032E-02	8.879E-02
PB-214	1.315E+00	1.707E-01	3.831E-02	8.707E-02
PO-214	1.315E+00	1.707E-01	3.831E-02	8.707E-02
PO-216	1.630E+00	1.755E-01	2.891E-02	8.953E-02
PO-218	1.315E+00	1.707E-01	3.831E-02	8.707E-02
RA-224	4.517E+00	8.411E-01	3.293E-01	4.292E-01
RA-226	1.226E+00	1.740E-01	4.032E-02	8.879E-02
AC-228	1.504E+00	2.861E-01	7.915E-02	1.460E-01
RA-228	1.504E+00	2.861E-01	7.915E-02	1.460E-01
TH-228	1.658E+00	1.784E-01	2.939E-02	9.101E-02
TH-229	-6.187E-02	3.119E-01	2.662E-01	1.591E-01
TH-230	1.226E+00	1.740E-01	4.032E-02	8.879E-02
TH-232	1.504E+00	2.861E-01	7.915E-02	1.460E-01
PA-234M	3.731E+01	8.247E+00	2.756E+00	4.208E+00
TH-234	2.629E+01	4.905E+00	3.983E-01	2.503E+00
U-234	1.226E+00	1.740E-01	4.032E-02	8.879E-02
U-235	5.606E-01	2.220E-01	1.150E-01	1.133E-01
NP-237	1.115E+00	3.027E-01	1.113E-01	1.545E-01

U-238	2.629E+01	4.905E+00	3.983E-01	2.503E+00
AM-243	3.652E-01	4.984E-02	2.312E-02	2.543E-02
ANH-511	1.401E-01	5.660E-02	1.626E-02	2.888E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.700E-02	2.150E-01	1.833E-01	1.097E-01	NOT IDENT.
NA-22	-3.094E-02	3.435E-02	2.618E-02	1.753E-02	NOT IDENT.
NA-24	2.206E+06	2.564E+06	0.000E+00	1.308E+06	SHORT HLIF
AL-26	5.775E-03	1.808E-02	1.575E-02	9.224E-03	NOT IDENT.
TI-44	3.789E-01	4.419E-02	2.051E-02	2.254E-02	FAIL ABUN
SC-46	8.499E-03	2.726E-02	2.374E-02	1.391E-02	FAIL ABUN
V-48	-9.251E-04	5.700E-02	4.824E-02	2.908E-02	NOT IDENT.
CR-51	-1.482E-01	2.355E-01	2.040E-01	1.201E-01	NOT IDENT.
MN-52	7.436E-02	1.859E-01	1.640E-01	9.486E-02	NOT IDENT.
MN-54	6.216E-03	2.851E-02	2.479E-02	1.454E-02	NOT IDENT.
CO-56	-7.610E-03	2.730E-02	2.308E-02	1.393E-02	FAIL ABUN
CO-57	5.294E-03	1.531E-02	1.368E-02	7.814E-03	NOT IDENT.
CO-58	-7.720E-03	2.890E-02	2.459E-02	1.474E-02	NOT IDENT.
FE-59	3.026E-02	7.213E-02	6.184E-02	3.680E-02	FAIL ABUN
CO-60	-1.674E-02	2.810E-02	2.309E-02	1.434E-02	NOT IDENT.
ZN-65	3.069E-02	7.376E-02	5.514E-02	3.763E-02	NOT IDENT.
GE-68	6.283E-01	9.389E-01	8.182E-01	4.791E-01	NOT IDENT.
AS-73	1.695E-01	1.883E-01	1.712E-01	9.606E-02	NOT IDENT.
AS-74	4.656E-02	7.028E-02	6.083E-02	3.586E-02	NOT IDENT.
SE-75	-6.547E-03	3.150E-02	2.318E-02	1.607E-02	NOT IDENT.
BR-77	-1.480E+00	1.081E+01	9.135E+00	5.513E+00	FAIL ABUN
SR-82	-3.776E-01	2.899E-01	2.332E-01	1.479E-01	NOT IDENT.
RB-83	-1.090E-02	4.782E-02	4.024E-02	2.440E-02	NOT IDENT.
RB-84	6.753E-02	5.585E-02	5.052E-02	2.849E-02	NOT IDENT.
KR-85	1.158E+01	5.427E+00	4.477E+00	2.769E+00	NOT IDENT.
SR-85	6.027E-02	2.824E-02	2.329E-02	1.441E-02	NOT IDENT.
RB-86	6.464E-01	6.232E-01	5.532E-01	3.180E-01	NOT IDENT.
Y-88	-4.046E-03	2.602E-02	2.120E-02	1.328E-02	NOT IDENT.
ZR-88	-3.008E-03	2.010E-02	1.743E-02	1.026E-02	NOT IDENT.
Y-91	-3.733E+00	1.561E+01	1.278E+01	7.964E+00	NOT IDENT.
NB-94	6.002E-03	2.458E-02	2.172E-02	1.254E-02	NOT IDENT.
NB-95M	-3.439E-03	8.628E-02	6.475E-02	4.402E-02	NOT IDENT.
ZR-95	3.791E-04	5.281E-02	4.589E-02	2.694E-02	NOT IDENT.
NB-97	-3.060E+04	3.020E+05	0.000E+00	1.541E+05	SHORT HLIF
ZR-97	1.106E+07	5.306E+06	0.000E+00	2.707E+06	SHORT HLIF
MO-99	1.808E+00	1.314E+01	1.006E+01	6.706E+00	NOT IDENT.
TC-99M	3.469E+17	1.280E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	6.725E-03	2.160E-02	1.758E-02	1.102E-02	FAIL ABUN
RH-102	-1.826E-02	1.899E-02	1.551E-02	9.688E-03	FAIL ABUN
RU-103	2.916E-03	2.888E-02	2.478E-02	1.473E-02	FAIL ABUN
RH-106	6.428E-03	2.339E-01	1.960E-01	1.193E-01	FAIL ABUN
RU-106	6.428E-03	2.339E-01	1.960E-01	1.193E-01	FAIL ABUN
AG-108M	1.780E-02	2.155E-02	1.921E-02	1.099E-02	NOT IDENT.
AG-110M	-1.250E-02	2.796E-02	1.957E-02	1.427E-02	NOT IDENT.
IN-111	4.943E-01	9.849E-01	7.542E-01	5.025E-01	NOT IDENT.
IN-113M	-3.246E-02	2.921E-02	2.428E-02	1.490E-02	NOT IDENT.
SN-113	-3.246E-02	2.921E-02	2.428E-02	1.490E-02	NOT IDENT.
IN-114M	-4.430E-03	1.245E-01	9.523E-02	6.350E-02	NOT IDENT.
CD-115	3.824E-01	1.192E+01	1.015E+01	6.084E+00	NOT IDENT.
SN-117M	-2.193E-02	3.817E-02	3.110E-02	1.947E-02	NOT IDENT.
SB-122	1.500E+00	2.077E+00	1.811E+00	1.060E+00	NOT IDENT.
I-123	-3.834E+06	2.339E+07	0.000E+00	1.193E+07	SHORT HLIF
TE-123M	-3.245E-03	1.979E-02	1.531E-02	1.010E-02	NOT IDENT.
I-124	2.731E-01	6.653E-01	5.009E-01	3.394E-01	FAIL ABUN
SB-124	5.672E-02	4.968E-02	4.710E-02	2.535E-02	FAIL ABUN
SB-125	1.526E-02	6.100E-02	5.333E-02	3.112E-02	FAIL ABUN
TE-125M	1.978E+00	8.122E+00	5.209E+00	4.144E+00	NOT IDENT.
I-126	8.846E-02	1.650E-01	1.240E-01	8.421E-02	NOT IDENT.
SB-126	-3.770E-02	1.310E-01	9.765E-02	6.682E-02	FAIL ABUN
SB-127	1.260E+00	1.405E+00	1.132E+00	7.167E-01	FAIL ABUN
XE-127	-1.584E-03	3.325E-02	2.529E-02	1.697E-02	NOT IDENT.
I-131	9.733E-02	8.125E-02	7.400E-02	4.146E-02	NOT IDENT.
TE-132	-5.159E-01	6.010E-01	4.910E-01	3.066E-01	FAIL ABUN
BA-133	5.745E-03	3.009E-02	2.351E-02	1.535E-02	FAIL ABUN
I-133	-1.003E+04	1.311E+04	0.000E+00	6.691E+03	SHORT HLIF
CS-134	1.210E-01	5.210E-02	3.649E-02	2.658E-02	FAIL ABUN
CS-135	2.261E-01	1.161E-01	9.183E-02	5.921E-02	NOT IDENT.
I-135	-7.069E+16	1.442E+17	0.000E+00	0.000E+00	SHORT HLIF

CS-136	-3.376E-02	8.681E-02	7.128E-02	4.429E-02	FAIL ABUN
CE-139	5.115E-03	2.038E-02	1.593E-02	1.040E-02	NOT IDENT.
BA-140	-4.865E-03	1.931E-01	1.636E-01	9.851E-02	FAIL ABUN
LA-140	4.756E-02	6.690E-02	5.355E-02	3.413E-02	FAIL ABUN
CE-141	8.779E-02	4.610E-02	3.754E-02	2.352E-02	NOT IDENT.
CE-143	1.090E+03	3.190E+02	0.000E+00	1.628E+02	SHORT HLIF
CE-144	-1.373E-01	1.370E-01	1.106E-01	6.992E-02	NOT IDENT.
PM-144	-2.424E-02	2.564E-02	2.146E-02	1.308E-02	NOT IDENT.
PR-144	-1.644E+00	1.739E+00	1.455E+00	8.873E-01	NOT IDENT.
PM-146	7.719E-03	2.872E-02	2.501E-02	1.465E-02	NOT IDENT.
ND-147	1.239E-01	4.191E-01	3.606E-01	2.138E-01	FAIL ABUN
PM-149	-4.196E+01	8.485E+01	7.452E+01	4.329E+01	NOT IDENT.
EU-152	-8.919E-03	6.037E-02	5.118E-02	3.080E-02	FAIL ABUN
GD-153	3.112E-01	7.398E-02	4.578E-02	3.774E-02	FAIL ABUN
EU-154	-5.209E-02	9.375E-02	7.326E-02	4.783E-02	NOT IDENT.
TB-160	1.005E-01	1.096E-01	9.804E-02	5.594E-02	FAIL ABUN
HO-166M	-2.182E-02	4.350E-02	3.710E-02	2.220E-02	FAIL ABUN
TM-171	-1.047E+01	1.143E+01	9.263E+00	5.834E+00	NOT IDENT.
LU-176	-6.337E-03	1.468E-02	1.287E-02	7.492E-03	FAIL ABUN
LU-177M	-5.705E-04	1.250E-01	9.535E-02	6.379E-02	NOT IDENT.
HF-181	-1.265E-03	2.841E-02	2.430E-02	1.450E-02	NOT IDENT.
W-181	2.422E-01	1.469E-01	1.239E-01	7.493E-02	NOT IDENT.
TA-182	8.926E-02	1.509E-01	1.290E-01	7.698E-02	FAIL ABUN
RE-183	1.700E-01	9.617E-02	6.601E-02	4.907E-02	FAIL ABUN
RE-184	9.098E-02	1.600E-01	1.225E-01	8.162E-02	NOT IDENT.
OS-185	-6.776E-03	3.121E-02	2.571E-02	1.592E-02	NOT IDENT.
RE-188	1.318E-01	1.098E-01	9.795E-02	5.601E-02	NOT IDENT.
W-188	-1.626E+00	4.913E+00	3.818E+00	2.507E+00	FAIL ABUN
IR-192	7.750E-03	2.090E-02	1.877E-02	1.066E-02	FAIL ABUN
AU-195	9.072E-01	2.157E-01	1.415E-01	1.100E-01	FAIL ABUN
TL-200	-3.034E+02	7.146E+02	0.000E+00	3.646E+02	SHORT HLIF
TL-201	1.503E+00	6.554E+00	5.116E+00	3.344E+00	NOT IDENT.
TL-202	-5.142E-03	4.897E-02	4.211E-02	2.499E-02	NOT IDENT.
HG-203	3.056E-02	2.826E-02	2.324E-02	1.442E-02	FAIL ABUN
BI-207	1.163E-02	4.037E-02	3.449E-02	2.060E-02	FAIL ABUN
TL-207	3.900E-01	4.574E-01	3.673E-01	2.334E-01	FAIL ABUN
PO-209	6.061E-01	5.272E+00	4.537E+00	2.690E+00	NOT IDENT.
PB-211	7.550E-01	8.044E-01	5.338E-01	4.104E-01	NOT IDENT.
PO-215	3.900E-01	4.574E-01	3.673E-01	2.334E-01	FAIL ABUN
RN-219	-2.674E-01	2.678E-01	2.215E-01	1.366E-01	FAIL ABUN
RN-220	-9.866E+00	1.822E+01	1.500E+01	9.297E+00	NOT IDENT.
RA-223	3.900E-01	4.574E-01	3.673E-01	2.334E-01	FAIL ABUN
AC-227	1.782E-02	2.670E-01	1.997E-01	1.362E-01	FAIL ABUN
TH-227	1.782E-02	2.670E-01	1.997E-01	1.362E-01	FAIL ABUN
PA-231	4.137E-02	9.184E-01	8.232E-01	4.686E-01	FAIL ABUN
TH-231	3.900E-01	4.574E-01	3.673E-01	2.334E-01	FAIL ABUN
U-231	2.946E+00	1.048E+00	7.199E-01	5.346E-01	FAIL ABUN
PA-233	2.773E-02	3.946E-02	3.578E-02	2.013E-02	FAIL ABUN
PA-234	7.950E-02	2.361E-01	2.040E-01	1.204E-01	FAIL ABUN
NP-236	1.601E-02	5.387E-02	4.229E-02	2.749E-02	FAIL ABUN
NP-239	-1.365E-01	1.179E-01	1.014E-01	6.017E-02	FAIL ABUN
AM-241	7.731E-02	5.340E-02	4.453E-02	2.724E-02	NOT IDENT.
CM-243	6.125E-02	6.064E-02	4.984E-02	3.094E-02	FAIL ABUN
AM-246	2.199E-03	1.095E-01	9.202E-02	5.588E-02	NOT IDENT.
CM-247	-2.507E-02	2.404E-02	1.999E-02	1.226E-02	FAIL ABUN
CF-249	3.905E-02	2.649E-02	2.417E-02	1.352E-02	NOT IDENT.
CF-251	-2.099E-02	7.855E-02	6.738E-02	4.008E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	1381.9510
46.50	1381.9510
46.50	1381.9510
48.70	1592.0969
49.72	1657.3342
51.35	1834.3529
52.39	1799.1024
52.97	1817.2848
53.15	1818.1896
53.44	1817.1082
54.07	1808.3566
56.28	2068.2090
56.28	2068.2212
57.37	0.0000
57.53	2146.3584
57.53	2146.3711
57.60	2146.7527
57.98	2101.1101
57.98	2101.1101
59.32	2014.5184
59.32	2014.5184
59.40	2014.9342
59.54	2015.6648
59.72	2016.5973
60.01	2132.1609
61.10	2242.0776
61.14	2242.3013
61.30	2278.3206
63.00	2047.7568
63.29	2049.2283
63.29	2049.2283
63.58	2050.6997
64.28	1831.5153
65.12	1949.4902
65.20	1949.8669
65.20	1949.8669
66.05	1982.8240
66.72	1991.2802
66.83	2011.5836
66.91	2011.9678
67.20	2009.4067
67.20	2009.4067
67.75	2019.6835
67.85	1981.2358
68.90	2025.1655
68.90	2025.1655
69.30	1979.5988
69.67	1968.0480
70.82	2139.5999
70.82	2139.5999
70.83	2139.6489
72.80	2097.5969
72.87	2097.9202
72.87	2097.9202
74.67	2106.3972
74.81	2107.0437
74.81	2107.0437
74.81	2107.0437
74.81	2107.0437
74.81	2107.0437
74.81	2107.0437
74.81	2107.0437
74.97	2107.7979
75.28	2109.2346
75.70	2111.1982
77.11	2117.7117
77.11	2117.7117

77.11	2117.7117
77.11	2117.7117
77.11	2117.7117
77.11	2117.7117
77.11	2117.7117
78.38	2014.8281
79.62	1940.1313
79.80	1940.8733
79.80	1940.8733
80.11	1895.9728
80.18	1896.2604
80.30	1807.0657
80.30	1807.0657
80.57	1854.3124
81.00	1945.8046
81.07	1946.0883
81.07	1946.0883
81.07	1946.0883
81.07	1946.0883
82.60	1975.5272
83.37	1718.8519
83.78	1720.3193
83.78	1720.3193
83.78	1720.3193
83.78	1720.3193
84.21	1721.8345
84.90	1724.2609
85.43	1726.1213
86.29	1729.1326
86.50	1729.8615
86.54	1729.9957
86.59	1730.1780
86.72	1730.6287
86.79	1730.8589
86.94	1731.3864
87.30	1732.6426
87.30	1732.6426
87.30	1732.6426
87.30	1732.6426
87.30	1732.6426
87.30	1732.6426
87.30	1732.6426
87.57	1733.5729
87.88	1734.6470
88.03	1735.1648
88.36	1736.2965
88.47	1736.6801
89.95	1741.7533
91.11	1745.6948
92.29	1749.6843
92.38	1749.9912
92.38	1749.9912
93.35	1753.2518
94.00	1755.4192
94.67	1757.6345
94.67	1757.6537
94.90	1758.4209
94.90	1758.4209
94.90	1758.4209
94.90	1758.4209
95.87	1070.7145
95.87	1070.7145
96.73	1072.4457
97.43	1073.8387
98.44	1054.7213
98.44	1054.7213
98.88	1055.5785
99.55	975.0348
99.55	975.0348
99.86	975.5883
100.00	975.8361
100.10	976.0206
103.18	973.4021
103.76	966.8231
105.00	1004.0984
105.31	1004.6468
108.00	1214.6847
109.28	1119.7504

111.00	1205.1096
111.00	1205.1096
111.76	1223.9612
112.95	1197.5253
115.19	1009.1607
116.30	1018.2716
117.00	1051.9215
117.00	1051.9215
117.66	1015.2065
121.11	953.5301
121.62	930.8676
121.78	931.1051
122.06	884.5992
122.32	884.9628
122.32	884.9628
122.32	884.9628
122.32	884.9628
123.07	871.3315
127.23	892.7792
129.76	997.1514
131.20	939.8512
133.02	967.7761
133.54	975.3934
135.34	855.9053
136.00	883.7036
136.25	884.0277
136.48	888.3218
140.51	868.4209
140.51	0.0000
142.18	926.4310
142.65	943.6838
143.76	913.8747
144.24	907.9233
144.24	907.9233
144.24	907.9233
144.24	907.9233
145.22	869.7209
145.44	828.9893
147.16	786.8520
152.43	817.6269
152.70	833.2642
153.22	791.9044
154.21	782.7223
154.21	782.7223
154.21	782.7223
154.21	782.7223
155.03	801.0208
156.02	878.0832
158.56	802.5354
159.00	0.0000
159.00	785.6807
160.31	735.9108
161.27	772.5095
162.32	754.9330
162.64	764.5684
163.35	797.4198
163.89	790.7114
165.85	724.0513
167.43	719.2554
171.28	714.3850
171.86	678.2101
172.10	700.4337
176.55	729.6044
176.60	729.6537
181.06	752.1621
184.41	737.6237
185.71	676.9290
186.00	677.1615
190.27	657.5104
192.34	626.3229
193.63	676.7458
197.04	661.0140
198.01	635.7917
198.60	664.3422
200.40	706.4568
201.83	677.6123
202.84	662.0670
205.31	647.5213

208.36	623.4317
208.81	623.7390
209.75	606.3028
209.75	606.3028
210.97	592.2949
215.65	582.0332
216.55	566.0409
218.09	622.2186
222.10	603.7490
223.80	684.8538
226.40	580.7880
227.00	578.9122
227.08	578.9598
227.20	570.1083
228.16	635.4366
228.18	635.4482
228.18	635.4482
231.56	0.0000
235.69	619.4469
236.00	619.6429
236.00	619.6429
238.63	549.5941
238.63	549.5941
238.63	549.5941
238.63	549.5941
239.00	549.7922
240.98	550.8622
241.98	551.3973
241.98	551.3973
241.98	551.3973
244.69	429.1144
245.39	443.0347
247.94	447.5380
248.90	471.8860
249.79	473.4269
252.40	440.5208
252.85	432.4713
252.85	432.4713
254.15	0.0000
256.20	464.8206
256.20	464.8206
260.50	483.9673
260.90	499.7086
262.80	443.4219
264.65	461.5223
268.24	450.8472
268.79	458.0348
269.46	467.0208
269.46	467.0208
269.46	467.0208
269.46	467.0208
271.23	467.7650
273.65	391.8154
276.40	427.8414
277.35	484.3561
277.60	479.4504
277.60	479.4504
278.00	478.4883
278.60	449.7500
279.20	438.7424
279.53	438.8643
280.46	444.8533
281.68	448.6200
283.67	434.9783
284.30	447.5782
285.00	433.7157
285.90	440.2409
286.10	434.1277
286.10	434.1277
287.40	431.0741
288.45	0.0000
290.67	424.6442
290.80	424.6880
291.72	430.7097
293.26	0.0000
293.70	411.5004
295.21	427.7051
295.21	427.7051

295.21	427.7051
295.96	406.5773
296.50	406.7582
297.23	407.0087
298.57	407.4679
299.80	386.4111
299.80	386.4111
300.09	386.5100
300.09	386.5100
300.09	386.5100
300.09	386.5100
300.12	386.5166
301.29	388.3253
302.84	375.9086
303.76	363.2737
303.91	363.3169
304.40	364.9018
304.40	364.9018
304.84	362.1577
306.84	389.5652
308.46	407.1904
311.98	373.1217
316.51	353.6279
318.01	387.6399
319.02	377.9585
319.41	383.5257
320.08	395.5463
323.87	358.9762
323.87	358.9762
323.87	358.9762
323.87	358.9762
325.23	394.4202
328.77	377.9297
333.44	339.9646
334.20	350.0912
334.20	350.0912
334.30	350.1203
338.28	368.8904
338.28	368.8904
338.28	368.8904
338.28	368.8904
338.32	368.9026
338.32	368.9026
338.32	368.9026
340.50	342.9080
340.57	342.9250
344.27	340.9177
345.85	350.8621
350.59	0.0000
351.07	369.4631
351.92	355.9042
351.92	355.9042
351.92	355.9042
355.39	0.0000
356.01	328.9365
364.48	283.9499
366.43	319.1833
367.43	339.1974
367.94	0.0000
369.80	324.6678
374.96	338.1684
383.85	336.4531
387.95	300.1245
388.63	314.6073
391.69	349.7620
391.69	349.7620
392.90	322.2393
398.62	299.4115
400.65	317.1725
401.10	335.5904
401.81	335.7497
402.60	341.7167
404.84	266.0457
410.95	274.8815
411.60	268.7835
413.65	278.4814
414.70	294.2374
415.30	288.1230

415.76	294.0509
417.63	0.0000
418.52	253.6087
423.70	307.3018
427.08	284.4244
427.89	283.5892
432.53	304.1059
433.93	257.0931
439.47	271.8235
439.56	271.8361
439.89	255.0868
443.98	257.7148
444.90	246.9521
445.03	246.9711
445.03	246.9711
445.03	246.9711
445.03	246.9711
453.90	257.2874
463.38	248.7266
468.07	270.3422
473.00	243.0887
475.06	257.5175
475.35	258.5742
476.78	259.8000
477.59	244.7510
477.96	223.5595
482.03	235.2427
484.57	236.6051
487.03	247.1083
490.36	0.0000
492.35	253.9811
497.08	249.5475
507.63	0.0000
510.53	0.0000
510.84	234.9841
511.00	235.0050
511.85	235.1163
511.85	235.1163
513.99	218.0465
513.99	218.0465
520.41	235.1883
520.65	235.2160
527.90	242.3860
528.96	0.0000
529.64	253.0261
529.87	0.0000
531.02	215.6987
537.32	225.8350
543.00	224.4166
546.56	0.0000
549.76	233.6325
552.65	212.9051
555.20	206.8563
563.23	207.7117
563.90	214.1442
568.70	246.5496
569.32	225.3665
569.50	206.2493
569.67	209.4568
573.80	236.5322
574.00	239.7491
574.64	230.2383
578.91	213.6414
579.30	0.0000
583.14	228.0091
585.48	229.7760
591.81	240.8164
592.07	237.6182
593.00	243.1045
595.88	214.3647
600.56	252.6454
602.52	0.0000
602.71	214.4328
602.71	214.4328
603.60	250.8542
604.41	249.2227
604.70	249.2578
609.31	222.2731

609.31	222.2731
609.31	222.2731
609.31	222.2731
610.33	222.3795
612.46	194.5945
614.37	219.1157
618.01	194.8908
621.84	211.6073
621.84	211.6073
631.29	200.4969
633.02	190.7904
633.10	190.8010
634.78	186.5601
635.90	198.7365
636.97	229.5951
645.85	199.6535
646.12	198.5724
656.30	207.4751
657.75	191.6420
657.90	0.0000
661.65	259.5278
661.65	259.5278
664.57	0.0000
666.33	201.2923
666.33	201.2923
675.00	154.2350
677.61	151.0551
685.20	206.5732
692.80	200.0493
695.00	223.6965
696.49	250.9126
696.49	250.9126
697.00	248.2654
697.49	243.7976
698.33	234.8569
698.50	231.2625
699.00	205.1036
702.63	219.9043
706.10	218.4239
706.58	0.0000
706.67	202.1591
709.31	206.9200
711.68	210.7654
713.82	203.6836
717.42	211.2809
720.50	214.2883
721.93	0.0000
722.20	208.3597
722.78	200.8037
722.78	200.8037
722.89	200.8145
722.95	199.2931
723.30	199.3251
724.18	210.0547
727.18	164.5972
733.00	171.8719
735.90	180.1082
739.58	168.5091
742.81	181.3112
744.21	171.9010
747.13	185.9361
751.79	196.7598
752.31	183.8661
753.82	179.3553
755.35	195.1905
756.15	190.6305
756.87	190.6858
763.93	188.7535
765.79	207.1624
766.42	207.2169
766.84	207.2495
776.49	208.0499
778.00	208.4863
778.57	199.5818
778.89	190.7697
783.80	171.5348
785.46	186.3147
792.07	159.5742

795.84	155.1105
796.30	155.1387
798.80	158.4249
801.93	191.5980
805.60	165.1306
810.29	172.9922
810.76	170.1870
815.85	153.4650
817.79	146.9435
818.51	154.5714
819.60	177.4035
826.30	160.7315
828.27	0.0000
831.60	185.8308
831.96	182.9953
834.83	192.7335
836.80	0.0000
846.75	145.6691
848.13	149.5787
856.28	0.0000
856.80	155.5094
860.37	139.6581
867.32	140.0121
867.82	153.1438
871.10	130.5341
873.19	148.0507
874.81	153.9458
875.33	0.0000
876.40	186.0047
879.36	149.3492
880.27	133.8762
880.51	135.8267
881.50	142.6682
883.24	163.1519
884.67	147.6879
889.25	124.5719
896.60	136.6060
898.02	139.6031
899.00	155.2773
903.28	161.3785
911.07	144.1648
911.07	144.1648
911.07	144.1648
919.63	137.7065
920.93	167.2898
925.00	128.1084
925.24	123.1903
926.50	117.3295
935.52	143.4070
937.48	174.1824
944.10	155.7274
946.00	155.8271
949.00	128.1654
962.29	159.6719
964.01	136.7993
966.15	136.8963
968.20	136.9866
969.11	146.6989
969.11	146.6989
969.11	146.6989
977.42	146.4313
980.50	147.5850
983.50	144.7137
989.30	132.9056
996.32	142.9637
1001.03	135.4329
1001.68	135.4624
1004.76	134.9219
1021.30	0.0000
1024.50	0.0000
1034.80	123.6114
1036.00	127.7466
1037.82	136.0003
1038.57	133.9872
1038.76	0.0000
1045.16	119.9136
1046.59	120.9903
1048.07	143.6162

1050.47	128.3264
1050.47	128.3264
1062.04	132.9053
1063.62	141.2144
1076.63	119.0093
1077.35	126.2831
1078.86	143.9410
1085.78	121.4161
1099.22	141.6977
1112.02	149.9121
1112.84	151.6907
1115.52	132.6165
1120.29	156.2172
1120.29	156.2172
1120.29	156.2172
1120.29	156.2172
1120.51	156.2245
1121.28	185.2757
1124.00	0.0000
1129.67	166.1083
1131.51	0.0000
1147.95	0.0000
1167.94	159.4409
1173.22	133.0688
1175.09	159.7632
1177.93	174.8186
1189.05	173.2245
1204.90	190.0935
1205.75	0.0000
1213.00	184.0671
1221.42	156.4343
1230.97	164.0562
1235.34	189.5178
1236.41	0.0000
1238.25	184.2524
1246.25	161.8411
1260.41	0.0000
1271.85	113.7348
1274.45	118.1883
1274.54	129.1374
1291.56	92.3385
1298.22	0.0000
1312.09	99.4614
1325.50	85.0184
1325.50	85.0184
1332.49	96.2770
1333.61	86.1204
1360.21	66.1898
1362.66	0.0000
1365.15	76.5380
1368.21	52.6822
1368.53	0.0000
1376.25	54.2853
1384.27	47.2664
1394.10	59.2240
1395.20	61.1226
1407.95	67.9131
1434.06	52.2070
1436.60	51.2886
1457.56	0.0000
1460.81	55.4040
1489.15	48.0794
1509.49	44.7150
1596.49	35.4609
1620.62	42.4369
1678.03	0.0000
1691.02	21.1060
1691.02	21.1060
1706.46	0.0000
1750.46	0.0000
1764.49	25.5056
1764.49	25.5056
1764.49	25.5056
1764.49	25.5056
1770.23	17.5098
1771.40	21.0167
1791.20	0.0000
1808.65	19.5543

1836.01 36.2148

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245808002

Total Uranium Activity	7.8483E+01	ug/g
Total Uranium Counting Unc.	1.4594E+01	ug/g
Total Uranium Tpu	7.4459E-06	ug/g
Total Uranium Mda	1.1862E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                               GROSS GAMMA REPORT                          *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID  : G245808002       *
*   ANALYST       : RXF2                      DETECTOR   : GAM17            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE: 11-FEB-2010 22:26:46.04    SAMPLE ALQT:  136.574 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.377E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.384E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 6.055E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.990E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:28:39.78

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808003.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:27:19
Sample ID         : G245808003           Sample quantity  : 1.49854E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:07.44  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.45*	9563	5353	0.98	126.03	121	10	4.43E-01	1.8	
2	2	74.96	1194	4445	1.18	149.04	142	16	5.53E-02	9.8	2.21E+00
3	2	77.28	2017	3787	1.06	153.67	142	16	9.34E-02	5.4	
4	0	84.21*	756	5865	1.55	167.54	164	8	3.50E-02	18.0	
5	2	87.46	726	5110	1.14	174.02	171	22	3.36E-02	15.7	4.08E+00
6	2	90.16	1123	4881	1.24	179.43	171	22	5.20E-02	10.5	
7	2	92.76*	29986	3959	1.16	184.63	171	22	1.39E+00	0.7	
8	2	94.90	1093	2602	0.97	188.90	171	22	5.06E-02	11.0	
9	0	98.73	2158	3264	1.15	196.56	193	9	9.99E-02	5.3	
10	0	105.63	223	2510	1.16	210.36	208	7	1.03E-02	37.9	
11	9	111.34	469	2521	1.27	221.77	219	10	2.17E-02	17.9	1.40E+00
12	9	112.99	1601	2441	0.95	225.06	219	10	7.41E-02	5.6	
13	0	128.58	104	1794	1.05	256.24	255	6	4.80E-03	65.2	
14	0	131.64	307	1868	0.85	262.35	260	7	1.42E-02	24.1	
15	0	143.93*	1234	2364	1.23	286.92	283	9	5.71E-02	7.8	
16	0	163.58*	459	2093	1.07	326.20	322	9	2.13E-02	18.9	
17	0	185.89*	6446	2024	1.14	370.81	366	10	2.98E-01	1.8	
18	0	205.50*	456	1422	1.24	410.03	406	8	2.11E-02	15.6	
19	0	209.32*	381	1366	1.08	417.65	414	8	1.76E-02	18.2	
20	5	238.73*	4562	937	1.18	476.47	469	21	2.11E-01	1.9	1.77E+00
21	5	241.75	1282	1389	1.94	482.51	469	21	5.93E-02	7.7	
22	0	258.32	642	1638	1.57	515.62	508	15	2.97E-02	14.3	
23	0	270.29	251	1204	1.78	539.56	535	10	1.16E-02	26.6	
24	0	277.20	106	1058	1.28	553.38	550	9	4.88E-03	56.4	
25	0	295.29*	1396	1161	1.28	589.55	583	12	6.46E-02	5.8	
26	0	300.23	332	926	1.24	599.42	595	10	1.54E-02	18.0	
27	0	327.86	295	918	1.87	654.65	649	11	1.37E-02	20.7	
28	0	338.25*	927	1104	1.36	675.45	668	13	4.29E-02	8.3	
29	0	352.02*	2600	1022	1.33	702.96	698	13	1.20E-01	3.3	
30	0	409.27	153	628	1.67	817.44	813	10	7.10E-03	31.5	
31	0	462.87	276	730	1.37	924.61	919	13	1.28E-02	21.1	
32	0	510.78*	458	907	1.76	1020.39	1013	16	2.12E-02	18.5	
33	0	583.13*	1621	668	1.52	1165.06	1158	16	7.50E-02	4.5	
34	0	609.20*	1894	745	1.60	1217.18	1209	17	8.77E-02	4.2	
35	0	661.35	657	621	1.55	1321.45	1313	14	3.04E-02	8.8	
36	0	727.28*	285	454	1.66	1453.28	1447	12	1.32E-02	17.0	
37	0	742.23	170	571	1.34	1483.18	1478	13	7.88E-03	30.0	
38	0	766.29*	1205	634	1.76	1531.28	1522	18	5.58E-02	5.8	

Sample ID : G245808003 Acquisition date : 11-FEB-2010 22:27:19

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	786.12*	199	386	1.55	1570.93	1566	10	9.23E-03	20.7	
40	0	794.66*	195	398	1.87	1588.01	1582	13	9.01E-03	23.4	
41	0	859.70	247	326	1.56	1718.06	1710	14	1.15E-02	16.7	
42	0	910.86*	1196	329	1.89	1820.36	1812	15	5.54E-02	4.5	
43	1	964.64	253	265	2.07	1927.90	1922	21	1.17E-02	14.5	6.07E-01
44	1	968.66*	647	234	1.91	1935.94	1922	21	2.99E-02	6.4	
45	0	1000.66*	2469	320	2.04	1999.93	1992	16	1.14E-01	2.6	
46	0	1119.54*	386	421	1.82	2237.64	2228	18	1.79E-02	13.9	
47	0	1237.93	150	329	1.58	2474.39	2468	12	6.94E-03	25.6	
48	0	1377.35	150	191	2.75	2753.19	2741	19	6.95E-03	23.5	
49	0	1409.87	90	169	1.38	2818.24	2807	23	4.19E-03	39.6	
50	0	1460.09*	6508	212	2.31	2918.66	2906	22	3.01E-01	1.4	
51	0	1509.63	63	112	1.80	3017.75	3012	14	2.92E-03	37.8	
52	8	1587.70	88	103	2.97	3173.86	3167	25	4.08E-03	26.5	1.86E+00
53	8	1593.45	42	83	2.80	3185.38	3167	25	1.92E-03	49.7	
54	0	1728.65	102	92	2.98	3455.75	3447	21	4.74E-03	25.1	
55	0	1763.63*	391	50	2.47	3525.71	3515	20	1.81E-02	7.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 04:28:43

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:27:19
Sample ID : G245808003 Sample quantity : 149.85 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:07.44 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.690E+01	2.172E+00	1.906E-01	1.446E-02	141.159
NB-95	+	765.79	*	3.766E-01	5.546E-02	3.130E-02	2.863E-03	12.032
CD-109	+	88.03	*	2.585E+00	8.472E-01	9.772E-01	9.034E-02	2.646
SN-126	+	64.28		2.677E+01	4.064E+00	6.676E-01	9.869E-02	40.092
	+	86.94		1.054E+00	5.488E-01	4.550E-01	1.887E-01	2.317
	+	87.57	*	2.536E-01	8.309E-02	9.646E-02	8.888E-03	2.629
BA-137M	+	661.65	*	1.700E-01	3.264E-02	2.714E-02	2.069E-03	6.263
CS-137	+	661.65	*	1.797E-01	3.452E-02	2.869E-02	2.192E-03	6.263
EU-155		48.70		-1.392E+00	2.541E+00	4.255E+00	3.228E-01	-0.327
		60.01		7.284E+00	5.153E+00	7.866E+00	6.002E-01	0.926
	+	86.54		3.056E-01	1.002E-01	1.327E-01	1.222E-02	2.303
	+	105.31	*	1.169E-01	8.894E-02	1.163E-01	8.314E-03	1.005
LU-177	+	112.95		1.444E+01	1.866E+00	2.148E+00	1.384E-01	6.725
	+	208.36	*	2.203E+00	8.091E-01	9.552E-01	5.181E-02	2.306
TL-208	+	277.35		2.069E-01	2.345E-01	2.790E-01	2.930E-02	0.742
	+	510.84		4.103E-01	1.578E-01	9.811E-02	1.043E-02	4.182
	+	583.14	*	4.086E-01	4.893E-02	2.585E-02	2.026E-03	15.811
	+	860.37		5.684E-01	2.005E-01	1.935E-01	2.165E-02	2.937
BI-211		72.87		3.114E+00	2.516E+00	4.199E+00	3.467E-01	0.741
	+	351.07	*	3.078E+00	2.846E-01	1.532E-01	9.832E-03	20.094
BI-212	+	727.18	*	6.041E-01	2.140E-01	2.058E-01	2.050E-02	2.934
	+	785.46		2.692E+00	1.142E+00	1.273E+00	1.203E-01	2.116
		1620.62		7.020E-01	5.080E-01	9.119E-01	6.166E-02	0.770
PB-212	+	74.81		1.889E+00	4.382E-01	4.577E-01	5.736E-02	4.128
	+	77.11		1.780E+00	2.445E-01	2.560E-01	2.170E-02	6.953
	+	87.30		1.173E+00	4.018E-01	4.469E-01	6.070E-02	2.625
	+	238.63	*	1.257E+00	1.020E-01	4.304E-02	3.075E-03	29.215
	+	300.09		1.358E+00	5.021E-01	5.446E-01	4.472E-02	2.494
PO-212	+	74.81		1.889E+00	4.382E-01	4.577E-01	5.736E-02	4.128
	+	77.11		1.780E+00	2.445E-01	2.560E-01	2.170E-02	6.953
	+	87.30		1.173E+00	4.018E-01	4.469E-01	6.070E-02	2.625
		115.19		7.983E+00	2.704E+00	4.046E+00	2.549E-01	1.973
	+	238.63	*	1.257E+00	1.020E-01	4.304E-02	3.075E-03	29.215
	+	300.09		1.358E+00	5.021E-01	5.446E-01	4.472E-02	2.494

Sample ID : G245808003 Acquisition date : 11-FEB-2010 22:27:19

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-214	+	609.31	*	8.958E-01	1.095E-01	5.029E-02	4.492E-03	17.813
	+	1120.29		9.139E-01	2.681E-01	1.944E-01	1.861E-02	4.701
	+	1764.49		1.218E+00	1.911E-01	1.076E-01	6.542E-03	11.322
PB-214	+	74.81		3.255E+00	7.319E-01	7.886E-01	8.804E-02	4.128
	+	77.11		3.052E+00	4.794E-01	4.389E-01	5.003E-02	6.953
	+	87.30		2.009E+00	6.763E-01	7.655E-01	9.183E-02	2.625
	+	241.98		2.118E+00	3.658E-01	2.587E-01	2.046E-02	8.186
	+	295.21		1.005E+00	1.438E-01	9.860E-02	8.365E-03	10.196
	+	351.92	*	1.071E+00	1.137E-01	5.175E-02	4.281E-03	20.691
PO-214	+	74.81		3.255E+00	7.319E-01	7.886E-01	8.804E-02	4.128
	+	77.11		3.052E+00	4.794E-01	4.389E-01	5.003E-02	6.953
	+	87.30		2.009E+00	6.763E-01	7.655E-01	9.183E-02	2.625
	+	241.98		2.118E+00	3.658E-01	2.587E-01	2.046E-02	8.186
	+	295.21		1.005E+00	1.438E-01	9.860E-02	8.365E-03	10.196
	+	351.92	*	1.071E+00	1.137E-01	5.175E-02	4.281E-03	20.691
PO-216	+	74.81		1.889E+00	4.382E-01	4.577E-01	5.736E-02	4.128
	+	77.11		1.780E+00	2.445E-01	2.560E-01	2.170E-02	6.953
	+	87.30		1.173E+00	4.018E-01	4.469E-01	6.070E-02	2.625
	+	238.63	*	1.257E+00	1.020E-01	4.304E-02	3.075E-03	29.215
	+	300.09		1.358E+00	5.021E-01	5.446E-01	4.472E-02	2.494
PO-218	+	74.81		3.255E+00	7.319E-01	7.886E-01	8.804E-02	4.128
	+	77.11		3.052E+00	4.794E-01	4.389E-01	5.003E-02	6.953
	+	87.30		2.009E+00	6.763E-01	7.655E-01	9.183E-02	2.625
	+	241.98		2.118E+00	3.658E-01	2.587E-01	2.046E-02	8.186
	+	295.21		1.005E+00	1.438E-01	9.860E-02	8.365E-03	10.196
	+	351.92	*	1.071E+00	1.137E-01	5.175E-02	4.281E-03	20.691
RA-224	+	240.98	*	4.016E+00	6.561E-01	4.892E-01	2.725E-02	8.209
RA-226	+	609.31	*	8.958E-01	1.095E-01	5.029E-02	4.492E-03	17.813
	+	1120.29		9.139E-01	2.681E-01	1.944E-01	1.861E-02	4.701
	+	1764.49		1.218E+00	1.911E-01	1.076E-01	6.542E-03	11.322
AC-228	+	338.32		1.217E+00	5.357E-01	1.691E-01	6.893E-02	7.197
	+	911.07	*	1.297E+00	2.083E-01	8.878E-02	1.176E-02	14.611
	+	969.11		1.232E+00	3.343E-01	1.565E-01	3.747E-02	7.874
RA-228	+	338.32		1.217E+00	5.357E-01	1.691E-01	6.893E-02	7.197
	+	911.07	*	1.297E+00	2.083E-01	8.878E-02	1.176E-02	14.611
	+	969.11		1.232E+00	3.343E-01	1.565E-01	3.747E-02	7.874
TH-228	+	74.81		1.921E+00	4.082E-01	4.653E-01	3.921E-02	4.128
	+	77.11		1.810E+00	2.486E-01	2.603E-01	2.206E-02	6.953
	+	87.30		1.192E+00	3.907E-01	4.543E-01	4.175E-02	2.625
	+	238.63	*	1.278E+00	1.037E-01	4.375E-02	3.126E-03	29.215
	+	300.09		1.381E+00	9.538E-01	5.536E-01	3.263E-01	2.494
TH-229	+	85.43		6.251E-01	2.325E-01	2.511E-01	2.270E-02	2.489
	+	88.47		3.462E-01	1.134E-01	1.301E-01	1.192E-02	2.661
	+	100.00		1.971E+00	2.569E-01	1.937E-01	1.459E-02	10.174
		193.63	*	1.969E-01	2.509E-01	4.251E-01	2.276E-02	0.463
		210.97		1.185E+00	4.390E-01	6.546E-01	3.559E-02	1.810
TH-230	+	609.31	*	8.958E-01	1.095E-01	5.029E-02	4.492E-03	17.813
	+	1120.29		9.139E-01	2.681E-01	1.944E-01	1.861E-02	4.701
	+	1764.49		1.218E+00	1.911E-01	1.076E-01	6.541E-03	11.322

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-231	+	84.21		2.266E+01	8.428E+00	9.221E+00	8.248E-01	2.458
	+	92.29		3.206E+02	2.742E+01	2.993E+00	2.548E-01	107.088
	+	95.87	*	7.054E+00	1.657E+00	1.513E+00	1.212E-01	4.662
		108.00		-4.247E-01	2.585E+00	2.918E+00	1.984E-01	-0.146
TH-232	+	338.32		1.217E+00	2.139E-01	1.691E-01	9.782E-03	7.197
	+	911.07	*	1.297E+00	2.083E-01	8.878E-02	1.176E-02	14.611
	+	969.11		1.232E+00	3.343E-01	1.565E-01	3.747E-02	7.874
PA-234M	+	766.42		9.819E+01	5.118E+01	8.168E+00	4.152E+00	12.022
	+	1001.03	*	9.556E+01	1.148E+01	3.082E+00	3.325E-01	31.000
TH-234	+	63.29	*	6.762E+01	1.216E+01	1.826E+00	3.219E-01	37.029
	+	92.38		6.665E+01	1.203E+01	6.218E-01	1.121E-01	107.191
U-234	+	609.31	*	8.958E-01	1.095E-01	5.029E-02	4.492E-03	17.813
	+	1120.29		9.139E-01	2.681E-01	1.944E-01	1.861E-02	4.701
	+	1764.49		1.218E+00	1.911E-01	1.076E-01	6.541E-03	11.322
U-235	+	89.95		5.168E+00	1.930E+00	1.281E+00	3.963E-01	4.034
	+	93.35		8.013E+01	2.244E+01	7.401E-01	2.068E-01	108.276
	+	105.00		1.145E+00	9.304E-01	1.129E+00	3.324E-01	1.014
	+	143.76	*	1.194E+00	2.685E-01	1.939E-01	3.140E-02	6.158
	+	163.35		1.019E+00	4.265E-01	4.137E-01	7.372E-02	2.464
	+	185.71		1.303E+00	8.440E-02	3.761E-02	2.000E-03	34.649
	+	205.31		1.106E+00	3.984E-01	4.367E-01	7.799E-02	2.532
NP-237	+	86.50	*	7.447E-01	2.884E-01	3.235E-01	7.299E-02	2.302
	+	95.87		4.939E+00	1.627E+00	1.060E+00	2.588E-01	4.662
U-238	+	63.29	*	6.762E+01	1.216E+01	1.826E+00	3.219E-01	37.029
	+	92.38		6.665E+01	5.701E+00	6.218E-01	5.285E-02	107.191
AM-243	+	74.67	*	3.063E-01	6.502E-02	7.449E-02	6.216E-03	4.112
	+	86.72		2.792E+01	9.150E+00	1.209E+01	1.106E+00	2.309
		117.66		-3.893E+00	2.573E+00	3.806E+00	2.341E-01	-1.023
		142.18		3.757E+01	1.303E+01	1.898E+01	1.046E+00	1.979
ANH-511	+	511.00	*	8.863E-02	3.327E-02	2.120E-02	1.400E-03	4.181

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-7.856E-03	1.505E-01	2.479E-01	1.796E-02	-0.032
NA-22		1274.54	*	-5.750E-03	1.779E-02	2.878E-02	1.958E-03	-0.200
NA-24		1368.53	*	-1.334E-01	1.779E-02	Half-Life too short		
AL-26		1129.67		2.456E-01	7.564E-01	1.224E+00	8.176E-02	0.201
		1808.65	*	7.869E-03	1.118E-02	1.945E-02	1.135E-03	0.405
TI-44		67.85		-9.955E-02	4.427E-02	6.169E-02	4.961E-03	-1.614
	+	78.38	*	3.285E-01	4.513E-02	5.370E-02	4.592E-03	6.118
SC-46		889.25	*	-1.294E-02	1.727E-02	2.727E-02	3.041E-03	-0.475
	+	1120.51		1.583E-01	4.524E-02	5.154E-02	3.560E-03	3.071
V-48		944.10		5.064E-01	4.450E-01	7.491E-01	7.929E-02	0.676
		983.50	*	-1.274E-02	3.290E-02	5.234E-02	5.177E-03	-0.243
		1312.09		-1.308E-03	3.582E-02	5.855E-02	4.265E-03	-0.022
CR-51		320.08	*	-7.177E-02	1.815E-01	2.891E-01	1.861E-02	-0.248
MN-52		744.21		5.143E-01	1.659E-01	2.594E-01	2.287E-02	1.983

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		848.13		-2.084E-01	3.599E+00	5.895E+00	6.167E-01	-0.035
		935.52		1.749E-01	1.335E-01	2.261E-01	2.425E-02	0.774
		1246.25		7.109E-02	3.934E+00	6.080E+00	3.909E-01	0.012
		1333.61		-2.073E+00	2.965E+00	4.127E+00	3.117E-01	-0.502
		1434.06	*	6.503E-02	1.128E-01	1.895E-01	1.396E-02	0.343
MN-54		834.83	*	-1.093E-02	1.713E-02	2.748E-02	2.815E-03	-0.398
CO-56		846.75	*	-8.971E-03	1.801E-02	2.898E-02	3.025E-03	-0.310
		977.42		3.889E-01	1.380E+00	2.157E+00	2.158E-01	0.180
		1037.82		-1.480E-02	1.257E-01	2.094E-01	1.940E-02	-0.071
		1175.09		7.432E-01	9.859E-01	1.675E+00	9.297E-02	0.444
	+	1238.25		1.006E-01	5.203E-02	7.169E-02	4.778E-03	1.404
		1360.21		-7.791E-02	4.062E-01	6.555E-01	4.926E-02	-0.119
		1771.40		-5.914E-02	9.654E-02	1.229E-01	7.426E-03	-0.481
CO-57		122.06	*	-2.843E-03	1.583E-02	2.532E-02	1.500E-03	-0.112
		136.48		5.724E-02	1.325E-01	2.023E-01	1.324E-02	0.283
CO-58		810.76	*	-3.374E-02	1.806E-02	2.719E-02	2.684E-03	-1.241
FE-59	+	142.65		1.574E+01	2.604E+00	3.195E+00	1.758E-01	4.927
		192.34		-4.925E-01	4.836E-01	7.886E-01	9.145E-02	-0.624
		1099.22	*	-2.225E-02	3.910E-02	6.356E-02	5.232E-03	-0.350
		1291.56		-3.620E-03	5.185E-02	8.476E-02	7.124E-03	-0.043
CO-60		1173.22		1.259E-03	1.942E-02	3.222E-02	1.781E-03	0.039
		1332.49	*	1.043E-03	1.665E-02	2.732E-02	2.064E-03	0.038
ZN-65		1115.52	*	-9.553E-03	4.637E-02	6.523E-02	4.595E-03	-0.146
GE-68		1077.35	*	6.532E-02	5.117E-01	8.580E-01	6.816E-02	0.076
AS-73		53.44	*	-9.423E-02	8.379E-01	1.407E+00	1.116E-01	-0.067
AS-74		595.88	*	-7.103E-02	4.709E-02	6.858E-02	4.928E-03	-1.036
		634.78		6.300E-02	1.699E-01	2.769E-01	2.061E-02	0.228
SE-75		66.05		-9.337E+00	4.551E+00	6.327E+00	6.267E-01	-1.476
		96.73		3.039E+00	8.938E-01	1.012E+00	1.334E-01	3.003
		121.11		-1.250E-02	8.512E-02	1.363E-01	1.272E-02	-0.092
		136.00		2.796E-03	2.678E-02	3.801E-02	2.165E-03	0.074
		198.60		-1.180E+00	9.720E-01	1.497E+00	1.016E-01	-0.788
		264.65	*	1.734E-02	2.814E-02	3.483E-02	1.992E-03	0.498
		279.53		4.364E-02	5.943E-02	8.660E-02	5.350E-03	0.504
		303.91		-1.088E-02	1.110E+00	1.568E+00	1.492E-01	-0.007
		400.65		7.212E-02	1.152E-01	1.955E-01	1.781E-02	0.369
BR-77	+	87.88		8.389E+02	2.749E+02	3.865E+02	3.571E+01	2.171
		200.40		1.207E+02	1.386E+02	2.077E+02	1.119E+01	0.581
	+	239.00		3.039E+02	2.054E+01	2.397E+01	1.334E+00	12.675
		249.79		2.555E+01	4.791E+01	7.956E+01	4.459E+00	0.321
		281.68		2.255E+01	7.269E+01	1.045E+02	5.966E+00	0.216
		297.23		3.778E+02	6.560E+01	8.091E+01	4.645E+00	4.669
		303.76		-3.275E+00	1.411E+02	1.993E+02	1.146E+01	-0.016
		439.47		-2.169E+00	9.651E+01	1.602E+02	9.764E+00	-0.014
		484.57		1.416E+01	1.562E+02	2.580E+02	1.656E+01	0.055
		520.65	*	3.759E+00	6.952E+00	1.157E+01	7.720E-01	0.325
		574.64		-2.489E+02	1.513E+02	2.234E+02	1.573E+01	-1.114
		578.91		6.831E+01	6.557E+01	9.605E+01	6.791E+00	0.711
		585.48		1.868E+03	2.106E+02	3.097E+02	2.203E+01	6.033

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		755.35		1.259E+01	1.112E+02	1.851E+02	1.663E+01	0.068
		817.79		8.239E+00	8.747E+01	1.446E+02	1.441E+01	0.057
SR-82		698.33		-1.710E+01	1.610E+01	2.591E+01	2.110E+00	-0.660
		776.49	*	-1.190E-01	1.835E-01	2.966E-01	2.762E-02	-0.401
		1395.20		-3.849E+00	4.803E+00	7.434E+00	5.540E-01	-0.518
RB-83		520.41	*	1.576E-02	3.085E-02	5.132E-02	3.422E-03	0.307
		529.64		1.070E-02	4.711E-02	7.758E-02	5.224E-03	0.138
		552.65		-6.589E-02	9.130E-02	1.450E-01	9.994E-03	-0.454
RB-84		881.50	*	4.049E-02	3.360E-02	5.690E-02	6.271E-03	0.712
KR-85		513.99	*	1.584E+01	3.968E+00	6.255E+00	4.144E-01	2.532
SR-85		513.99	*	8.241E-02	2.065E-02	3.255E-02	2.156E-03	2.532
RB-86		1076.63	*	-5.014E-04	3.444E-01	5.746E-01	4.574E-02	-0.001
Y-88		898.02		4.204E-03	1.833E-02	3.019E-02	3.423E-03	0.139
		1836.01	*	-8.161E-03	1.453E-02	2.271E-02	1.294E-03	-0.359
ZR-88		392.90	*	4.704E-03	1.380E-02	2.333E-02	1.342E-03	0.202
Y-91		1204.90	*	4.349E+00	7.938E+00	1.337E+01	7.905E-01	0.325
NB-94		702.63	*	1.242E-02	1.544E-02	2.632E-02	2.159E-03	0.472
		871.10		-9.066E-03	1.459E-02	2.323E-02	2.519E-03	-0.390
NB-95M		235.69	*	1.143E-01	6.732E-02	1.011E-01	7.421E-03	1.130
ZR-95		724.18		7.730E-02	5.046E-02	7.641E-02	7.085E-03	1.012
		756.15	*	2.205E-02	3.355E-02	5.432E-02	5.344E-03	0.406
NB-97		657.90	*	2.978E-01	3.355E-02	Half-Life too short		
		1024.50		-2.011E+01	3.355E-02	Half-Life too short		
ZR-97		254.15		2.627E+00	3.355E-02	Half-Life too short		
		355.39		7.706E+00	3.355E-02	Half-Life too short		
		507.63	*	1.352E+01	3.355E-02	Half-Life too short		
		602.52		-8.927E+00	3.355E-02	Half-Life too short		
		1021.30		1.144E+00	3.355E-02	Half-Life too short		
		1147.95		-5.880E+00	3.355E-02	Half-Life too short		
		1362.66		-3.729E+00	3.355E-02	Half-Life too short		
		1750.46		-8.792E+00	3.355E-02	Half-Life too short		
MO-99		140.51		3.501E+00	2.593E+01	3.598E+01	9.675E+00	0.097
		181.06		1.364E+00	1.433E+01	2.126E+01	3.610E+00	0.064
		366.43		3.742E+01	5.319E+01	9.111E+01	5.264E+00	0.411
		739.58	*	1.647E+01	9.599E+00	1.429E+01	2.180E+00	1.153
		778.00		-2.937E+01	2.404E+01	3.592E+01	3.354E+00	-0.818
TC-99M		140.51	*	1.691E+11	2.404E+01	Half-Life too short		
RH-101	+	127.23		1.558E-02	2.033E-02	3.109E-02	1.796E-03	0.501
		198.01	*	-1.381E-02	1.745E-02	2.714E-02	1.459E-03	-0.509
		325.23		6.008E-02	1.179E-01	1.685E-01	9.736E-03	0.357
RH-102		418.52		9.603E-02	1.289E-01	2.189E-01	1.301E-02	0.439
		475.06	*	7.602E-03	1.345E-02	2.253E-02	1.431E-03	0.337
		631.29		-4.854E-03	2.473E-02	3.953E-02	2.934E-03	-0.123
		697.49		-2.966E-02	3.513E-02	5.705E-02	4.638E-03	-0.520
	+	766.84		9.343E-01	1.376E-01	1.447E-01	1.326E-02	6.454
		1046.59		-2.770E-02	4.765E-02	7.776E-02	6.709E-03	-0.356
		1112.84		6.070E-02	1.083E-01	1.589E-01	1.128E-02	0.382
RU-103		497.08	*	-1.373E-02	1.873E-02	2.994E-02	3.888E-03	-0.458
	+	610.33		9.915E+00	1.792E+00	1.201E+00	1.926E-01	8.255

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-106	+	511.85		4.439E-01	1.666E-01	1.896E-01	1.253E-02	2.342
		621.84	*	-8.104E-02	1.415E-01	2.228E-01	2.803E-02	-0.364
		1050.47		7.868E-01	9.484E-01	1.633E+00	1.396E-01	0.482
RU-106	+	511.85		4.439E-01	1.666E-01	1.896E-01	1.253E-02	2.342
		621.84	*	-8.104E-02	1.413E-01	2.228E-01	1.640E-02	-0.364
		1050.47		7.868E-01	9.484E-01	1.633E+00	1.396E-01	0.482
AG-108M		433.93	*	2.634E-03	1.474E-02	2.462E-02	1.608E-03	0.107
		614.37		2.040E-02	1.947E-02	2.838E-02	2.187E-03	0.719
		722.95		-7.178E-03	2.100E-02	2.962E-02	2.619E-03	-0.242
AG-110M		657.75	*	2.054E-02	1.831E-02	2.772E-02	2.187E-03	0.741
		677.61		-3.948E-02	1.333E-01	2.209E-01	1.792E-02	-0.179
		706.67		2.083E-03	9.725E-02	1.624E-01	1.382E-02	0.013
		763.93		1.064E+00	1.480E-01	2.048E-01	1.915E-02	5.193
		884.67		1.209E-03	2.259E-02	3.701E-02	4.179E-03	0.033
		937.48		-6.048E-02	5.035E-02	7.720E-02	8.451E-03	-0.783
		1384.27		8.816E-02	7.269E-02	1.109E-01	8.600E-03	0.795
IN-111		171.28		-4.932E-01	7.465E-01	1.244E+00	6.546E-02	-0.396
		245.39	*	-7.576E-01	8.034E-01	1.123E+00	6.276E-02	-0.675
IN-113M		391.69	*	-1.208E-03	2.012E-02	3.367E-02	2.065E-03	-0.036
SN-113		391.69	*	-1.208E-03	2.012E-02	3.367E-02	2.065E-03	-0.036
IN-114M		190.27	*	3.278E-02	1.018E-01	1.514E-01	8.081E-03	0.217
CD-115		260.90		9.504E+01	1.095E+02	1.611E+02	9.096E+00	0.590
		492.35		-1.144E+00	2.465E+01	4.050E+01	2.622E+00	-0.028
		527.90	*	-3.892E-01	7.415E+00	1.211E+01	8.136E-01	-0.032
SN-117M		156.02		-6.262E-01	1.304E+00	2.194E+00	1.172E-01	-0.285
		158.56	*	-1.288E-02	3.560E-02	5.285E-02	2.809E-03	-0.244
SB-122		563.90	*	3.415E-01	1.374E+00	2.251E+00	1.568E-01	0.152
		692.80		2.314E+01	2.801E+01	4.788E+01	3.860E+00	0.483
I-123		159.00	*	-2.337E+00	2.801E+01	Half-Life too short		
		528.96		6.128E+02	2.801E+01	Half-Life too short		
TE-123M		159.00	*	-1.977E-03	1.730E-02	2.581E-02	1.393E-03	-0.077
I-124		602.71	*	-3.647E-01	4.879E-01	6.201E-01	4.484E-02	-0.588
		722.78		-1.123E+00	2.763E+00	3.884E+00	3.300E-01	-0.289
		1325.50		9.885E+00	1.854E+01	3.110E+01	2.321E+00	0.318
	+	1376.25		6.102E+01	2.903E+01	3.229E+01	2.418E+00	1.890
	+	1509.49		1.522E+01	1.156E+01	1.533E+01	1.098E+00	0.993
		1691.02		8.224E-01	1.772E+00	3.036E+00	1.958E-01	0.271
SB-124		602.71		-1.708E-02	2.284E-02	2.903E-02	2.100E-03	-0.588
		645.85		-1.890E-01	2.352E-01	3.660E-01	2.967E-02	-0.516
		709.31		-1.814E-01	1.272E+00	2.112E+00	1.753E-01	-0.086
		713.82		-4.509E-01	7.513E-01	1.225E+00	1.453E-01	-0.368
		722.78		-7.621E-02	1.875E-01	2.636E-01	2.290E-02	-0.289
	+	968.20		1.289E+01	2.102E+00	2.982E+00	3.033E-01	4.323
		1045.16		-1.012E+00	1.028E+00	1.644E+00	1.424E-01	-0.616
		1325.50		7.165E-01	1.344E+00	2.254E+00	1.682E-01	0.318
		1368.21		-1.270E-01	8.208E-01	1.123E+00	1.436E-01	-0.113
		1436.60		-3.199E-01	1.556E+00	2.492E+00	1.835E-01	-0.128
		1691.02	*	1.316E-02	2.837E-02	4.860E-02	3.353E-03	0.271
SB-125		427.89	*	-5.444E-05	4.028E-02	6.704E-02	4.189E-03	-0.001

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	463.38		4.891E-01	2.096E-01	2.366E-01	1.696E-02	2.067
		600.56		4.634E-02	9.437E-02	1.371E-01	1.092E-02	0.338
		635.90		1.115E-01	1.213E-01	2.010E-01	1.658E-02	0.555
TE-125M		109.28	*	9.000E+00	9.696E+00	1.126E+01	9.900E-01	0.800
I-126		388.63		9.280E-03	9.877E-02	1.660E-01	9.542E-03	0.056
		666.33	*	2.419E-02	9.788E-02	1.432E-01	1.101E-02	0.169
		753.82		5.147E-01	6.973E-01	1.183E+00	1.060E-01	0.435
SB-126		223.80		-1.932E+00	2.181E+00	3.544E+00	1.948E-01	-0.545
	+	278.60		1.480E+00	1.672E+00	2.152E+00	1.227E-01	0.687
	+	296.50		1.082E+01	1.393E+00	1.671E+00	9.589E-02	6.480
		414.70		1.606E-02	4.188E-02	6.161E-02	3.644E-03	0.261
		415.30		1.056E+00	3.351E+00	5.141E+00	3.043E-01	0.205
		555.20		1.652E+00	1.931E+00	3.226E+00	2.229E-01	0.512
		573.80		-8.052E-01	5.286E-01	8.108E-01	5.705E-02	-0.993
		593.00		-2.806E-01	4.440E-01	7.021E-01	5.031E-02	-0.400
		656.30		3.212E-02	1.840E+00	2.670E+00	2.026E-01	0.012
		666.33		1.014E-02	4.104E-02	6.004E-02	4.615E-03	0.169
		675.00		-6.477E-01	9.257E-01	1.513E+00	1.181E-01	-0.428
		695.00		1.342E-02	3.740E-02	6.314E-02	5.111E-03	0.213
		697.00		-6.568E-02	1.328E-01	2.183E-01	1.774E-02	-0.301
		720.50	*	-1.841E-02	8.050E-02	1.142E-01	9.669E-03	-0.161
		856.80		1.289E-01	2.624E-01	3.783E-01	4.012E-02	0.341
		989.30		-5.078E-01	5.938E-01	9.214E-01	9.014E-02	-0.551
		1034.80		-3.681E+00	4.060E+00	6.246E+00	5.546E-01	-0.589
		1213.00		3.512E-01	2.130E+00	3.535E+00	2.125E-01	0.099
SB-127		61.10		1.469E+02	7.770E+01	1.174E+02	1.283E+01	1.251
		252.40		-3.519E+00	3.401E+00	4.253E+00	1.771E+00	-0.827
		290.80		-4.604E+00	1.483E+01	2.082E+01	2.006E+00	-0.221
		411.60		6.597E+00	8.140E+00	1.208E+01	1.782E+00	0.546
		444.90		-2.641E+00	5.555E+00	9.075E+00	1.035E+00	-0.291
		473.00		-2.851E-01	9.978E-01	1.633E+00	1.939E-01	-0.175
		543.00		-6.063E+00	9.794E+00	1.560E+01	2.146E+00	-0.389
		603.60		-1.006E+01	8.709E+00	1.076E+01	1.292E+00	-0.936
		685.20	*	-2.688E-01	7.763E-01	1.283E+00	1.453E-01	-0.209
		698.50		-8.663E+00	8.972E+00	1.437E+01	2.281E+00	-0.603
		722.20		-5.822E+00	1.952E+01	2.760E+01	3.171E+00	-0.211
		783.80		7.744E+00	2.832E+00	4.216E+00	5.632E-01	1.837
XE-127		57.60		-2.917E+00	6.057E+00	1.008E+01	7.771E-01	-0.289
	+	145.22		4.052E+00	6.703E-01	8.050E-01	4.401E-02	5.034
		172.10		-4.160E-02	6.451E-02	1.075E-01	5.659E-03	-0.387
		202.84	*	1.410E-02	2.773E-02	4.117E-02	2.222E-03	0.343
		374.96		-1.186E-02	8.910E-02	1.493E-01	8.611E-03	-0.079
I-131		80.18		-5.377E+00	6.056E+00	6.888E+00	6.012E-01	-0.781
		284.30		-3.102E-01	8.076E-01	1.300E+00	8.303E-02	-0.239
		364.48	*	6.393E-02	5.838E-02	1.008E-01	6.521E-03	0.634
		636.97		1.986E-02	7.957E-01	1.281E+00	1.028E-01	0.016
		722.89		-1.454E+00	3.989E+00	5.619E+00	4.813E-01	-0.259
TE-132		49.72		2.771E+00	2.681E+01	4.531E+01	4.807E+00	0.061
	+	111.76		9.029E+01	3.351E+01	5.958E+01	5.792E+00	1.515

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		116.30		7.617E+00	2.720E+01	3.922E+01	3.737E+00	0.194
		228.16	*	1.744E-01	4.605E-01	7.656E-01	1.113E-01	0.228
BA-133		53.15		-8.175E-01	3.575E+00	5.996E+00	4.758E-01	-0.136
		79.62		-1.330E+00	1.320E+00	1.723E+00	2.624E-01	-0.772
		81.00		9.210E-02	1.121E-01	1.319E-01	2.102E-02	0.698
	+	276.40		2.045E-01	2.323E-01	2.957E-01	3.820E-02	0.692
		302.84		8.540E-02	7.513E-02	1.096E-01	1.275E-02	0.779
		356.01	*	1.209E-02	2.293E-02	3.252E-02	3.756E-03	0.372
		383.85		-3.981E-02	1.344E-01	2.237E-01	2.427E-02	-0.178
I-133	+	510.53		2.763E+00	1.344E-01	Half-Life too short		
		529.87	*	3.199E-03	1.344E-01	Half-Life too short		
		706.58		1.427E-02	1.344E-01	Half-Life too short		
		856.28		-6.456E-02	1.344E-01	Half-Life too short		
		875.33		-2.068E-01	1.344E-01	Half-Life too short		
		1236.41		2.036E+00	1.344E-01	Half-Life too short		
		1298.22		-4.576E-02	1.344E-01	Half-Life too short		
CS-134		475.35		4.269E-01	8.764E-01	1.466E+00	9.311E-02	0.291
		563.23		8.543E-02	1.654E-01	2.731E-01	1.930E-02	0.313
		569.32		1.221E-01	9.924E-02	1.585E-01	1.133E-02	0.770
		604.70		-2.049E-02	1.943E-02	2.429E-02	1.766E-03	-0.844
	+	795.84	*	6.902E-02	3.296E-02	3.948E-02	3.818E-03	1.748
		801.93		-3.532E-01	2.330E-01	3.045E-01	2.970E-02	-1.160
		1038.57		5.538E-01	1.552E+00	2.635E+00	2.318E-01	0.210
		1167.94		-3.567E-02	1.082E+00	1.790E+00	1.015E-01	-0.020
		1365.15		-5.401E-01	5.356E-01	7.570E-01	6.022E-02	-0.713
CS-135		268.24	*	1.249E-01	8.606E-02	1.278E-01	9.663E-03	0.977
I-135		288.45		2.429E+11	8.606E-02	Half-Life too short		
		417.63		6.153E+10	8.606E-02	Half-Life too short		
		546.56		4.653E+10	8.606E-02	Half-Life too short		
		836.80		3.426E+11	8.606E-02	Half-Life too short		
		1038.76		6.879E+10	8.606E-02	Half-Life too short		
		1124.00		4.032E+11	8.606E-02	Half-Life too short		
		1131.51		8.201E+10	8.606E-02	Half-Life too short		
		1260.41	*	2.026E+10	8.606E-02	Half-Life too short		
		1457.56		3.596E+13	8.606E-02	Half-Life too short		
		1678.03		5.313E+10	8.606E-02	Half-Life too short		
		1706.46		-9.836E+10	8.606E-02	Half-Life too short		
		1791.20		3.781E+10	8.606E-02	Half-Life too short		
CS-136		66.91		-1.546E+00	8.080E-01	1.101E+00	1.662E-01	-1.405
	+	86.29		3.563E+00	1.216E+00	1.668E+00	2.199E-01	2.136
		153.22		4.148E-01	3.828E-01	6.587E-01	4.535E-02	0.630
	+	163.89		2.486E+00	9.565E-01	1.175E+00	8.025E-02	2.117
		176.55		-4.198E-02	2.051E-01	3.438E-01	2.084E-02	-0.122
		273.65		3.168E-02	3.514E-01	3.626E-01	2.363E-02	0.087
		340.57		3.952E-01	7.930E-02	1.232E-01	7.580E-03	3.208
		818.51		-1.443E-02	3.555E-02	5.761E-02	5.753E-03	-0.250
		1048.07	*	-2.687E-03	4.786E-02	7.987E-02	7.160E-03	-0.034
		1235.34		5.547E-01	3.361E-01	5.025E-01	5.166E-02	1.104
CE-139		165.85	*	6.197E-03	1.800E-02	2.705E-02	1.420E-03	0.229

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-140	+	162.64		1.754E+00	6.727E-01	8.180E-01	4.959E-02	2.145
		304.84		3.035E-01	7.217E-01	1.029E+00	2.806E-01	0.295
		423.70		-1.644E-02	8.904E-01	1.482E+00	4.716E-01	-0.011
		537.32	*	9.928E-02	1.301E-01	2.109E-01	6.898E-02	0.471
LA-140	+	328.77		5.183E-01	2.176E-01	2.582E-01	1.673E-02	2.008
		432.53		2.176E-01	9.954E-01	1.665E+00	1.104E-01	0.131
		487.03		3.324E-02	6.773E-02	1.131E-01	8.067E-03	0.294
		751.79		4.200E-02	8.134E-01	1.352E+00	1.328E-01	0.031
		815.85		-7.040E-02	1.498E-01	2.421E-01	2.616E-02	-0.291
		867.82		4.105E-01	6.576E-01	1.054E+00	1.176E-01	0.390
		919.63		-4.509E-01	1.371E+00	2.151E+00	2.718E-01	-0.210
		925.24		2.793E-02	5.451E-01	8.895E-01	1.007E-01	0.031
		1596.49	*	3.969E-02	4.013E-02	6.207E-02	4.258E-03	0.639
CE-141		145.44	*	2.630E-01	4.725E-02	7.112E-02	4.060E-03	3.698
CE-143		57.37		-8.254E-04	4.725E-02	Half-Life too short		
		231.56		-1.144E-03	4.725E-02	Half-Life too short		
		293.26	*	9.151E-04	4.725E-02	Half-Life too short		
	+	350.59		4.944E-02	4.725E-02	Half-Life too short		
		490.36		5.727E-04	4.725E-02	Half-Life too short		
		664.57		5.406E-03	4.725E-02	Half-Life too short		
		721.93		-3.941E-04	4.725E-02	Half-Life too short		
CE-144		80.11		-2.239E+00	2.480E+00	2.820E+00	2.441E-01	-0.794
		133.54	*	5.089E-02	1.374E-01	1.964E-01	2.777E-02	0.259
PM-144		476.78		-6.976E-03	3.073E-02	5.035E-02	3.736E-03	-0.139
		618.01		6.807E-03	1.512E-02	2.336E-02	1.778E-03	0.291
		696.49	*	-8.384E-03	1.579E-02	2.593E-02	2.105E-03	-0.323
		778.57		-1.051E+00	1.155E+00	1.697E+00	1.586E-01	-0.619
PR-144		696.49	*	-5.686E-01	1.071E+00	1.758E+00	1.427E-01	-0.323
		1489.15		-2.863E+00	4.742E+00	7.330E+00	5.296E-01	-0.391
PM-146		453.90	*	1.039E-02	1.968E-02	3.304E-02	2.940E-03	0.315
		633.02		-2.596E-01	6.370E-01	9.983E-01	3.705E-01	-0.260
		735.90		-3.521E-02	7.894E-02	1.096E-01	3.137E-02	-0.321
		747.13		2.743E-02	4.603E-02	6.751E-02	9.579E-03	0.406
ND-147	+	91.11		1.418E+00	3.260E-01	7.710E-01	7.252E-02	1.839
		319.41		-7.435E-01	1.698E+00	2.702E+00	1.561E-01	-0.275
		439.89		-2.664E-01	2.841E+00	4.705E+00	2.871E-01	-0.057
		531.02	*	2.230E-02	2.730E-01	4.474E-01	6.242E-02	0.050
PM-149		285.90	*	-3.856E+01	6.860E+01	1.096E+02	1.551E+01	-0.352
EU-152		121.78		-2.632E-02	4.602E-02	7.304E-02	5.629E-03	-0.360
		244.69		2.049E-01	1.722E-01	2.568E-01	1.434E-02	0.798
		344.27	*	-1.906E-02	4.984E-02	7.262E-02	4.739E-03	-0.263
		443.98		2.158E-02	4.212E-01	6.999E-01	4.289E-02	0.031
		778.89		-9.357E-02	1.325E-01	1.967E-01	1.839E-02	-0.476
		867.32		3.218E-01	3.739E-01	5.884E-01	6.344E-02	0.547
	+	964.01		5.545E-01	1.700E-01	2.402E-01	2.461E-02	2.308
		1085.78		-9.147E-02	1.591E-01	2.586E-01	2.004E-02	-0.354
		1112.02		1.362E-01	1.501E-01	2.245E-01	1.598E-02	0.607
		1407.95		4.465E-02	7.933E-02	1.328E-01	9.864E-03	0.336
GD-153		69.67		2.256E+00	1.507E+00	2.277E+00	1.848E-01	0.991

---- Non-Identified Nuclides ----

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	+	83.37		4.916E+01	1.828E+01	2.187E+01	1.943E+00	2.248
	+	97.43	*	8.189E-01	1.067E-01	1.144E-01	8.946E-03	7.157
		103.18		1.841E-02	9.902E-02	1.135E-01	8.186E-03	0.162
EU-154		123.07		7.522E-03	3.200E-02	5.151E-02	4.871E-03	0.146
		247.94		3.023E-01	1.948E-01	2.912E-01	2.743E-02	1.038
		591.81		-1.522E-01	2.915E-01	4.340E-01	4.616E-02	-0.351
		723.30		-9.381E-03	8.887E-02	1.268E-01	1.195E-02	-0.074
		756.87		3.561E-01	3.684E-01	5.849E-01	7.171E-02	0.609
		873.19		-7.416E-02	1.288E-01	2.053E-01	2.859E-02	-0.361
		996.32		9.151E-01	2.652E-01	3.482E-01	6.367E-02	2.628
		1004.76		7.422E-01	1.538E-01	2.196E-01	2.700E-02	3.380
		1274.45	*	-8.730E-03	4.928E-02	8.024E-02	8.015E-03	-0.109
TB-160	+	86.79		8.268E-01	2.709E-01	3.847E-01	3.520E-02	2.149
		197.04		1.946E-02	2.792E-01	4.669E-01	2.508E-02	0.042
		215.65		2.176E-02	3.651E-01	6.066E-01	3.311E-02	0.036
		298.57		1.688E-01	8.097E-02	9.187E-02	5.277E-03	1.837
		879.36	*	4.085E-02	6.424E-02	1.074E-01	1.179E-02	0.380
		962.29		7.777E-01	2.889E-01	4.257E-01	4.373E-02	1.827
		966.15		1.155E+00	1.633E-01	2.307E-01	2.354E-02	5.006
		1177.93		6.289E-02	1.583E-01	2.657E-01	1.484E-02	0.237
		1271.85		-3.443E-02	2.895E-01	4.729E-01	3.195E-02	-0.073
HO-166M		80.57		-1.035E-02	3.126E-01	3.638E-01	3.160E-02	-0.028
	+	184.41		9.774E-01	6.331E-02	5.828E-02	3.097E-03	16.770
		280.46		1.930E-02	4.484E-02	6.477E-02	3.694E-03	0.298
		410.95		1.717E-01	1.261E-01	1.916E-01	1.128E-02	0.896
		711.68	*	-1.306E-02	2.726E-02	4.473E-02	3.728E-03	-0.292
		752.31		9.405E-02	1.198E-01	2.035E-01	1.820E-02	0.462
		810.29		-4.239E-02	2.669E-02	4.086E-02	4.023E-03	-1.038
TM-171		51.35		-1.617E+01	3.110E+01	5.199E+01	4.121E+00	-0.311
		52.39		-8.275E+00	1.584E+01	2.645E+01	2.102E+00	-0.313
		59.40		2.867E+01	2.787E+01	4.243E+01	3.221E+00	0.676
		66.72	*	-4.539E+01	2.623E+01	3.711E+01	2.967E+00	-1.223
LU-176	+	88.36		6.014E-01	1.971E-01	2.793E-01	2.564E-02	2.154
		201.83		2.490E-04	1.658E-02	2.434E-02	1.313E-03	0.010
		306.84	*	2.811E-03	1.205E-02	1.892E-02	1.090E-03	0.149
		401.10		2.652E+00	3.001E+00	5.126E+00	2.980E-01	0.517
LU-177M		52.97		-6.543E-01	1.629E+00	2.725E+00	2.163E-01	-0.240
		54.07		-1.704E-01	8.511E-01	1.427E+00	1.128E-01	-0.119
		61.30		4.397E+00	1.583E+00	2.418E+00	1.869E-01	1.818
		121.62		-1.405E-01	2.373E-01	3.766E-01	2.234E-02	-0.373
		147.16		-6.888E-02	4.218E-01	5.909E-01	3.216E-02	-0.117
		171.86		-2.335E-01	2.561E-01	4.246E-01	2.235E-02	-0.550
		218.09		1.326E-01	4.148E-01	6.921E-01	3.786E-02	0.192
		268.79		8.292E-01	4.394E-01	6.607E-01	3.746E-02	1.255
		319.02		-5.334E-02	1.222E-01	1.946E-01	1.123E-02	-0.274
		367.43		-1.832E-01	4.080E-01	6.791E-01	3.922E-02	-0.270
		413.65	*	-5.386E-02	9.277E-02	1.315E-01	7.770E-03	-0.409
HF-181		56.28		6.965E-02	9.446E-01	1.586E+00	1.236E-01	0.044
		57.53		-1.561E-01	5.066E-01	8.454E-01	6.519E-02	-0.185

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		65.20		1.053E+01	1.309E+00	1.704E+00	1.351E-01	6.182
	+	133.02		9.748E-02	4.740E-02	6.537E-02	3.698E-03	1.491
		136.25		6.029E-02	3.174E-01	4.514E-01	2.527E-02	0.134
		345.85		-1.362E-02	1.000E-01	1.469E-01	8.501E-03	-0.093
		482.03	*	-5.888E-03	1.977E-02	3.229E-02	2.067E-03	-0.182
W-181		56.28		2.790E-02	3.643E-01	6.117E-01	4.765E-02	0.046
		57.53		-6.045E-02	1.955E-01	3.263E-01	2.516E-02	-0.185
		65.20	*	4.033E+00	5.012E-01	6.524E-01	5.174E-02	6.182
TA-182		67.75		-2.076E-01	1.054E-01	1.482E-01	1.191E-02	-1.401
	+	100.10		1.916E+00	2.497E-01	2.389E-01	1.796E-02	8.021
		152.43		1.133E-01	1.968E-01	3.141E-01	1.690E-02	0.361
		222.10		7.259E-02	1.697E-01	2.834E-01	1.555E-02	0.256
	+	1001.68		4.245E+01	4.638E+00	4.160E+00	3.971E-01	10.205
		1121.28		4.245E-01	8.866E-02	1.409E-01	9.710E-03	3.012
		1189.05		-7.933E-03	1.280E-01	2.110E-01	1.207E-02	-0.038
		1221.42	*	1.936E-02	8.573E-02	1.425E-01	8.716E-03	0.136
		1230.97		-1.783E-02	2.408E-01	3.372E-01	2.103E-02	-0.053
RE-183		57.98		4.462E-02	2.032E-01	3.262E-01	2.506E-02	0.137
		59.32		1.112E-01	1.161E-01	1.766E-01	1.342E-02	0.629
		67.20		-2.876E-01	1.871E-01	2.662E-01	2.133E-02	-1.081
	+	162.32	*	2.412E-01	9.221E-02	1.115E-01	5.885E-03	2.163
	+	208.81		1.738E+00	6.381E-01	8.741E-01	4.743E-02	1.988
		291.72		-5.627E-01	5.150E-01	7.020E-01	4.023E-02	-0.801
RE-184		57.98		1.631E-01	7.428E-01	1.192E+00	9.159E-02	0.137
		59.32		4.060E-01	4.239E-01	6.450E-01	4.901E-02	0.629
		67.20		-1.051E+00	6.836E-01	9.725E-01	7.795E-02	-1.081
		161.27		3.979E-02	2.157E-01	3.237E-01	1.712E-02	0.123
		216.55		-3.741E-02	1.289E-01	2.126E-01	1.161E-02	-0.176
		252.85	*	-2.357E-01	1.306E-01	1.761E-01	9.891E-03	-1.339
		318.01		8.066E-03	2.132E-01	3.438E-01	1.985E-02	0.023
		792.07		1.420E+00	7.597E-01	7.987E-01	7.633E-02	1.777
		903.28		8.253E-02	5.118E-01	7.221E-01	8.106E-02	0.114
		920.93		-7.822E-02	2.046E-01	3.279E-01	3.593E-02	-0.239
OS-185		59.72		3.500E-01	3.098E-01	4.720E-01	3.590E-02	0.742
		61.14		3.476E-01	1.720E-01	2.627E-01	2.027E-02	1.323
		69.30		5.345E-01	2.704E-01	4.097E-01	3.319E-02	1.305
		592.07		-8.227E-01	1.161E+00	1.776E+00	1.272E-01	-0.463
		646.12	*	-1.391E-02	1.993E-02	3.116E-02	2.343E-03	-0.446
		717.42		1.784E-01	4.055E-01	6.847E-01	5.765E-02	0.261
		874.81		-4.243E-01	2.677E-01	4.037E-01	4.404E-02	-1.051
		880.27		1.970E-01	3.635E-01	6.055E-01	6.660E-02	0.325
RE-188		155.03	*	2.630E-02	9.359E-02	1.594E-01	8.532E-03	0.165
		477.96		4.022E-01	1.421E+00	2.363E+00	1.506E-01	0.170
		633.10		-5.998E-01	1.290E+00	2.040E+00	1.517E-01	-0.294
W-188	+	63.58		2.756E+03	2.375E+02	1.489E+02	1.170E+01	18.516
		227.08		9.158E+00	6.380E+00	1.081E+01	5.959E-01	0.847
		290.67	*	-1.245E+00	4.047E+00	5.683E+00	3.255E-01	-0.219
IR-192	+	295.96		7.767E-01	1.002E-01	1.221E-01	7.119E-03	6.362
		308.46		9.686E-03	4.542E-02	7.377E-02	4.298E-03	0.131

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		316.51	*	1.015E-02	1.635E-02	2.677E-02	1.553E-03	0.379
		468.07		-2.859E-03	3.464E-02	4.945E-02	3.524E-03	-0.058
		604.41		-3.488E-01	2.697E-01	3.299E-01	4.009E-02	-1.057
		612.46		1.956E+00	4.327E-01	6.604E-01	5.793E-02	2.961
AU-195		65.12		2.231E+00	2.539E-01	3.134E-01	2.485E-02	7.118
		66.83		-1.793E-01	8.799E-02	1.234E-01	9.870E-03	-1.454
	+	75.70		9.964E-01	2.115E-01	2.870E-01	2.410E-02	3.472
	+	98.88	*	2.388E+00	3.112E-01	3.414E-01	2.612E-02	6.994
	+	129.76		1.379E+00	1.800E+00	2.912E+00	1.666E-01	0.474
TL-200		367.94	*	-1.114E-04	1.800E+00	Half-Life too short		
		579.30		8.382E-03	1.800E+00	Half-Life too short		
		828.27		-8.009E-04	1.800E+00	Half-Life too short		
		1205.75		4.632E-04	1.800E+00	Half-Life too short		
TL-201		68.90		9.466E+00	5.884E+00	8.909E+00	7.202E-01	1.063
		70.82		4.858E+00	3.392E+00	5.114E+00	4.176E-01	0.950
		80.30		-2.741E+00	7.949E+00	9.181E+00	7.960E-01	-0.299
		135.34		4.013E+00	2.337E+01	3.324E+01	1.866E+00	0.121
		167.43	*	4.195E+00	5.654E+00	8.563E+00	4.495E-01	0.490
TL-202		68.90		6.699E-01	4.164E-01	6.305E-01	5.097E-02	1.063
		70.82		3.428E-01	2.394E-01	3.610E-01	2.947E-02	0.950
		80.30		-1.935E-01	5.612E-01	6.482E-01	5.620E-02	-0.299
		439.56	*	-1.903E-03	3.358E-02	5.567E-02	3.394E-03	-0.034
HG-203		70.83		1.412E+00	9.896E-01	1.475E+00	1.966E-01	0.957
		72.87		6.324E-01	5.148E-01	8.528E-01	1.106E-01	0.741
		82.60		2.873E+00	1.125E+00	1.607E+00	2.230E-01	1.788
		279.20	*	2.313E-02	2.265E-02	3.327E-02	2.018E-03	0.695
BI-207		72.80		1.511E-01	1.464E-01	2.443E-01	2.016E-02	0.619
	+	74.97		5.498E-01	1.167E-01	1.525E-01	1.275E-02	3.606
	+	84.90		6.334E-01	2.356E-01	2.780E-01	2.501E-02	2.279
		569.67		1.825E-02	1.538E-02	2.453E-02	1.719E-03	0.744
		1063.62	*	9.431E-03	2.403E-02	3.740E-02	3.087E-03	0.252
		1770.23		-3.522E-02	1.872E-01	2.543E-01	1.538E-02	-0.139
TL-207		81.07		2.056E-01	2.458E-01	2.910E-01	2.538E-02	0.706
	+	83.78		4.176E-01	1.553E-01	1.863E-01	1.660E-02	2.242
	+	94.90		1.147E+00	2.694E-01	4.340E-01	3.532E-02	2.642
		122.32		8.096E-03	1.094E+00	1.755E+00	1.192E-01	0.005
	+	144.24		3.869E+00	6.615E-01	8.098E-01	5.651E-02	4.778
		154.21		1.696E-01	2.126E-01	3.646E-01	2.426E-02	0.465
	+	269.46		2.430E-01	1.300E-01	1.575E-01	9.354E-03	1.543
		323.87	*	3.134E-01	3.426E-01	4.923E-01	8.127E-02	0.636
	+	338.28		5.082E+00	9.988E-01	1.055E+00	1.111E-01	4.816
		445.03		-7.219E-01	1.011E+00	1.637E+00	1.713E-01	-0.441
PO-209		260.50		1.003E+01	5.385E+00	8.119E+00	4.582E-01	1.235
		262.80		-7.559E+00	1.438E+01	2.025E+01	1.144E+00	-0.373
		896.60	*	1.302E+00	3.218E+00	5.335E+00	6.018E-01	0.244
BI-210		46.50	*	-1.613E+00	3.970E+00	6.424E+00	4.970E-01	-0.251
PB-210		46.50	*	-1.613E+00	3.970E+00	6.424E+00	4.970E-01	-0.251
PO-210		46.50	*	-1.613E+00	3.970E+00	6.424E+00	4.273E-01	-0.251
PB-211		404.84	*	-3.516E-01	5.200E-01	6.657E-01	4.150E-01	-0.528

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.08		3.171E-01	9.225E-01	1.515E+00	9.368E-01	0.209
		831.96		3.595E-01	5.850E-01	9.081E-01	5.712E-01	0.396
PO-215		81.07		2.056E-01	2.458E-01	2.910E-01	2.538E-02	0.706
	+	83.78		4.176E-01	1.553E-01	1.863E-01	1.660E-02	2.242
	+	94.90		1.147E+00	2.694E-01	4.340E-01	3.532E-02	2.642
		122.32		8.096E-03	1.094E+00	1.755E+00	1.192E-01	0.005
	+	144.24		3.869E+00	6.615E-01	8.098E-01	5.651E-02	4.778
		154.21		1.696E-01	2.126E-01	3.646E-01	2.426E-02	0.465
	+	269.46		2.430E-01	1.300E-01	1.575E-01	9.354E-03	1.543
		323.87	*	3.134E-01	3.426E-01	4.923E-01	8.127E-02	0.636
	+	338.28		5.082E+00	9.988E-01	1.055E+00	1.111E-01	4.816
		445.03		-7.219E-01	1.011E+00	1.637E+00	1.713E-01	-0.441
RN-219	+	271.23		3.118E-01	1.676E-01	2.034E-01	1.630E-02	1.533
		401.81	*	2.586E-01	1.851E-01	3.150E-01	4.289E-02	0.821
RN-220		549.76	*	-4.459E+00	1.191E+01	1.917E+01	1.317E+00	-0.233
RA-223		81.07		2.056E-01	2.458E-01	2.910E-01	2.538E-02	0.706
	+	83.78		4.176E-01	1.553E-01	1.863E-01	1.660E-02	2.242
	+	94.90		1.147E+00	2.694E-01	4.340E-01	3.532E-02	2.642
		122.32		8.096E-03	1.094E+00	1.755E+00	1.192E-01	0.005
	+	144.24		3.869E+00	6.615E-01	8.098E-01	5.651E-02	4.778
		154.21		1.696E-01	2.126E-01	3.646E-01	2.426E-02	0.465
	+	269.46		2.430E-01	1.300E-01	1.575E-01	9.354E-03	1.543
		323.87	*	3.134E-01	3.426E-01	4.923E-01	8.127E-02	0.636
	+	338.28		5.082E+00	9.988E-01	1.055E+00	1.111E-01	4.816
		445.03		-7.219E-01	1.011E+00	1.637E+00	1.713E-01	-0.441
AC-227		79.80		-1.856E+00	1.952E+00	2.176E+00	4.681E-01	-0.853
		236.00		4.913E-01	1.368E-01	2.018E-01	2.082E-02	2.434
		256.20	*	4.254E-01	2.209E-01	3.240E-01	4.500E-02	1.313
		286.10		-3.793E-01	7.408E-01	1.187E+00	1.367E-01	-0.320
	+	299.80		2.517E+00	9.954E-01	1.177E+00	1.915E-01	2.138
		304.40		1.085E-02	9.880E-01	1.397E+00	2.414E-01	0.008
		334.20		3.865E-01	1.250E+00	1.646E+00	3.016E-01	0.235
TH-227		79.80		-1.856E+00	1.953E+00	2.176E+00	4.741E-01	-0.853
	+	94.00		9.173E+00	2.830E+00	6.308E+00	1.365E+00	1.454
		236.00		4.913E-01	1.344E-01	2.018E-01	1.796E-02	2.434
		256.20	*	4.254E-01	2.245E-01	3.240E-01	5.456E-02	1.313
		286.10		-3.793E-01	8.314E-01	1.187E+00	1.189E+00	-0.320
	+	299.80		2.517E+00	9.954E-01	1.177E+00	1.915E-01	2.138
		304.40		1.085E-02	9.880E-01	1.397E+00	2.414E-01	0.008
		334.20		3.865E-01	1.250E+00	1.646E+00	3.016E-01	0.235
PA-231		283.67	*	-4.897E-01	7.616E-01	1.170E+00	1.608E-01	-0.418
	+	301.29		1.007E+00	3.778E-01	4.670E-01	4.868E-02	2.156
TH-231		81.07		2.056E-01	2.458E-01	2.910E-01	2.538E-02	0.706
	+	83.78		4.176E-01	1.553E-01	1.863E-01	1.660E-02	2.242
	+	94.90		1.147E+00	2.694E-01	4.340E-01	3.532E-02	2.642
		122.32		8.096E-03	1.094E+00	1.755E+00	1.192E-01	0.005
	+	144.24		3.869E+00	6.615E-01	8.098E-01	5.651E-02	4.778
		154.21		1.696E-01	2.126E-01	3.646E-01	2.426E-02	0.465
	+	269.46		2.430E-01	1.300E-01	1.575E-01	9.354E-03	1.543

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	3.134E-01	3.426E-01	4.923E-01	8.127E-02	0.636
	+	338.28		5.082E+00	9.988E-01	1.055E+00	1.111E-01	4.816
		445.03		-7.219E-01	1.011E+00	1.637E+00	1.713E-01	-0.441
PA-233	+	75.28		1.604E+01	3.968E+00	4.461E+00	6.786E-01	3.597
	+	86.59		4.964E+00	2.058E+00	2.317E+00	6.253E-01	2.143
	+	300.12		7.017E-01	2.699E-01	3.281E-01	4.402E-02	2.138
		311.98	*	-1.612E-02	2.966E-02	4.714E-02	2.888E-03	-0.342
		340.50		1.929E+00	5.602E-01	5.644E-01	1.296E-01	3.418
		398.62		-4.779E-01	9.379E-01	1.535E+00	3.969E-01	-0.311
		415.76		4.349E-01	7.941E-01	1.264E+00	2.607E-01	0.344
PA-234	+	63.00		7.882E+01	1.222E+01	4.393E+00	6.623E-01	17.940
	+	94.67		8.180E-01	2.056E-01	3.679E-01	4.450E-02	2.223
	+	98.44		9.623E-01	5.450E-01	1.383E-01	7.696E-02	6.959
	+	99.86		4.988E+00	6.502E-01	6.600E-01	4.979E-02	7.558
	+	111.00		4.178E-01	1.562E-01	2.449E-01	2.628E-02	1.706
	+	131.20		1.520E-01	7.391E-02	1.071E-01	6.095E-03	1.419
		152.70		1.438E-01	1.890E-01	3.006E-01	4.707E-02	0.478
	+	186.00		3.519E+01	1.080E+01	2.295E+00	6.994E-01	15.328
		226.40		2.433E-01	2.013E-01	3.375E-01	3.853E-02	0.721
		227.20		2.655E-01	2.128E-01	3.596E-01	1.982E-02	0.738
		248.90		4.801E-01	4.167E-01	6.592E-01	1.413E-01	0.728
		293.70		3.892E+00	7.466E-01	7.193E-01	1.155E-01	5.410
		369.80		-2.697E-01	3.788E-01	6.190E-01	1.288E-01	-0.436
		568.70		6.250E-01	5.028E-01	8.037E-01	5.627E-02	0.778
		569.50		1.716E-01	1.368E-01	2.186E-01	1.532E-02	0.785
		574.00		-1.174E+00	7.029E-01	1.071E+00	7.539E-02	-1.096
		699.00		-1.075E-01	3.247E-01	5.358E-01	1.011E-01	-0.201
		706.10		1.170E-01	4.806E-01	8.031E-01	3.575E-01	0.146
		733.00		1.277E-01	1.890E-01	2.766E-01	6.144E-02	0.462
	+	742.81		1.803E+00	1.625E+00	1.286E+00	8.646E-01	1.402
		796.30		1.238E+00	6.142E-01	7.648E-01	2.095E-01	1.618
		805.60		1.180E+00	5.873E-01	8.221E-01	2.548E-01	1.435
		819.60		-1.880E-01	5.594E-01	9.021E-01	3.461E-01	-0.208
		826.30		-1.735E-01	3.865E-01	6.126E-01	2.760E-01	-0.283
		831.60		-1.077E-02	2.818E-01	4.628E-01	1.404E-01	-0.023
		876.40		-7.882E-02	3.824E-01	6.066E-01	6.250E-01	-0.130
		880.51		1.240E-01	1.298E-01	2.187E-01	2.406E-02	0.567
		883.24		1.325E-01	1.576E-01	2.203E-01	1.488E-01	0.602
		899.00		-2.169E-02	3.686E-01	6.003E-01	2.660E-01	-0.036
		925.00		2.165E-01	5.187E-01	8.579E-01	9.346E-02	0.252
		926.50		-4.171E-02	8.088E-02	1.278E-01	3.339E-02	-0.326
		946.00	*	2.238E-01	1.468E-01	2.412E-01	4.758E-02	0.928
		949.00		3.219E-02	2.066E-01	3.375E-01	3.544E-02	0.095
		980.50		5.220E-02	3.197E-01	5.212E-01	5.184E-02	0.100
		1394.10		-5.288E-02	4.842E-01	7.810E-01	5.072E-01	-0.068
NP-236	+	94.67		6.204E-01	1.458E-01	2.805E-01	2.292E-02	2.212
	+	98.44		7.274E-01	9.482E-02	1.045E-01	8.051E-03	6.958
	+	111.00		3.160E-01	1.151E-01	1.853E-01	1.219E-02	1.706
		160.31	*	-1.792E-02	4.774E-02	7.078E-02	3.750E-03	-0.253

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		1.663E+00	2.167E-01	2.292E-01	1.736E-02	7.256
		117.00	*	-6.923E-02	1.373E-01	1.945E-01	1.204E-02	-0.356
	+	209.75		1.352E+00	4.965E-01	6.844E-01	3.717E-02	1.975
		228.18		4.143E-02	1.116E-01	1.858E-01	1.025E-02	0.223
	+	277.60		9.980E-02	1.127E-01	1.446E-01	8.237E-03	0.690
		334.30		1.986E-01	7.069E-01	9.307E-01	5.383E-02	0.213
AM-241		59.54	*	1.862E-01	1.617E-01	2.463E-01	2.042E-02	0.756
CM-243	+	99.55		1.711E+00	2.230E-01	2.358E-01	1.787E-02	7.256
		103.76	*	5.084E-02	9.162E-02	1.061E-01	7.598E-03	0.479
		117.00		-7.123E-02	1.413E-01	2.001E-01	1.238E-02	-0.356
	+	209.75		1.333E+00	4.895E-01	6.747E-01	3.664E-02	1.975
		228.18		4.186E-02	1.128E-01	1.878E-01	1.036E-02	0.223
	+	277.60		1.006E-01	1.137E-01	1.458E-01	8.305E-03	0.690
AM-246		798.80		-4.781E-02	7.527E-02	1.032E-01	9.971E-03	-0.463
		1036.00		-9.307E-02	1.203E-01	1.945E-01	1.722E-02	-0.478
		1062.04		-1.767E-02	1.037E-01	1.572E-01	1.304E-02	-0.112
		1078.86	*	4.363E-02	5.739E-02	9.849E-02	7.790E-03	0.443
CM-247	+	278.00		4.139E-01	4.676E-01	5.998E-01	3.417E-02	0.690
		287.40		6.514E-01	5.890E-01	9.804E-01	5.608E-02	0.664
		402.60	*	2.330E-02	1.711E-02	2.808E-02	1.635E-03	0.830
CF-249		252.85		-8.795E-01	4.873E-01	6.570E-01	3.690E-02	-1.339
		333.44		9.695E-02	1.162E-01	1.231E-01	7.117E-03	0.788
		387.95	*	-1.023E-02	1.789E-02	2.955E-02	1.699E-03	-0.346
CF-251		176.60	*	-1.223E-02	6.570E-02	1.102E-01	5.819E-03	-0.111
		227.00		2.760E-01	1.889E-01	3.203E-01	1.765E-02	0.862
		285.00		-5.779E-01	8.399E-01	1.341E+00	7.666E-02	-0.431

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808003      *
* Acquisition date : 11-FEB-2010 22:27:19 Detector SN#     :               *
* Detector ID        : GAM18               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 06:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 06:00:07.44     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245808003           Analyst initials: RXF2          *
* Batch Number       : 947554               Sample Quantity : 1.4985E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :     0.000            MSD Isotope     :                 *
* LCS DPM          :     0.000            LCS Isotope     :                 *
* LCSD DPM         :     0.000            LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.690E+01	2.129E+00	1.919E-01	0.000E+00
NB-95	3.766E-01	5.435E-02	3.204E-02	0.000E+00
CD-109	2.585E+00	8.302E-01	1.053E+00	0.000E+00
SN-126	2.536E-01	8.143E-02	1.039E-01	0.000E+00
BA-137M	1.700E-01	3.199E-02	2.788E-02	0.000E+00
CS-137	1.797E-01	3.383E-02	2.947E-02	0.000E+00
EU-155	1.169E-01	8.716E-02	1.248E-01	0.000E+00
LU-177	2.203E+00	7.929E-01	1.009E+00	0.000E+00
TL-208	4.086E-01	4.795E-02	2.663E-02	0.000E+00
BI-211	3.078E+00	2.789E-01	1.598E-01	0.000E+00
BI-212	6.041E-01	2.097E-01	2.109E-01	0.000E+00
PB-212	1.257E+00	9.997E-02	4.531E-02	0.000E+00
PO-212	1.257E+00	9.997E-02	4.531E-02	0.000E+00
BI-214	8.958E-01	1.073E-01	5.176E-02	0.000E+00
PB-214	1.071E+00	1.114E-01	5.398E-02	0.000E+00
PO-214	1.071E+00	1.114E-01	5.398E-02	0.000E+00
PO-216	1.257E+00	9.997E-02	4.531E-02	0.000E+00
PO-218	1.071E+00	1.114E-01	5.398E-02	0.000E+00
RA-224	4.016E+00	6.430E-01	5.149E-01	0.000E+00
RA-226	8.958E-01	1.073E-01	5.176E-02	0.000E+00
AC-228	1.297E+00	2.042E-01	9.046E-02	0.000E+00
RA-228	1.297E+00	2.042E-01	9.046E-02	0.000E+00
TH-228	1.278E+00	1.016E-01	4.606E-02	0.000E+00
TH-229	1.969E-01	2.459E-01	4.498E-01	0.000E+00
TH-230	8.958E-01	1.073E-01	5.176E-02	0.000E+00
U-231	7.054E+00	1.624E+00	1.627E+00	0.000E+00
TH-232	1.297E+00	2.042E-01	9.046E-02	0.000E+00
PA-234M	9.556E+01	1.125E+01	3.134E+00	0.000E+00
TH-234	6.762E+01	1.192E+01	1.982E+00	0.000E+00
U-234	8.958E-01	1.073E-01	5.176E-02	0.000E+00
U-235	1.194E+00	2.631E-01	2.065E-01	0.000E+00
NP-237	7.447E-01	2.826E-01	3.486E-01	0.000E+00
U-238	6.762E+01	1.192E+01	1.982E+00	0.000E+00
AM-243	3.063E-01	6.371E-02	8.055E-02	0.000E+00

ANH-511	8.863E-02	3.260E-02	2.191E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-7.856E-03	1.475E-01	2.566E-01	0.000E+00	NOT IDENT.
NA-22	-5.750E-03	1.744E-02	2.908E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.581E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	7.869E-03	1.095E-02	1.947E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.423E-02	5.800E-02	0.000E+00	FAIL ABUN
SC-46	-1.294E-02	1.693E-02	2.780E-02	0.000E+00	FAIL ABUN
V-48	-1.274E-02	3.224E-02	5.323E-02	0.000E+00	NOT IDENT.
CR-51	-7.177E-02	1.779E-01	3.023E-01	0.000E+00	NOT IDENT.
MN-52	6.503E-02	1.105E-01	1.909E-01	0.000E+00	NOT IDENT.
MN-54	-1.093E-02	1.679E-02	2.807E-02	0.000E+00	NOT IDENT.
CO-56	-8.971E-03	1.765E-02	2.958E-02	0.000E+00	FAIL ABUN
CO-57	-2.843E-03	1.552E-02	2.708E-02	0.000E+00	NOT IDENT.
CO-58	-3.374E-02	1.770E-02	2.778E-02	0.000E+00	NOT IDENT.
FE-59	-2.225E-02	3.832E-02	6.446E-02	0.000E+00	FAIL ABUN
CO-60	1.043E-03	1.632E-02	2.757E-02	0.000E+00	NOT IDENT.
ZN-65	-9.553E-03	4.544E-02	6.613E-02	0.000E+00	NOT IDENT.
GE-68	6.532E-02	5.015E-01	8.706E-01	0.000E+00	NOT IDENT.
AS-73	-9.423E-02	8.212E-01	1.533E+00	0.000E+00	NOT IDENT.
AS-74	-7.103E-02	4.614E-02	7.063E-02	0.000E+00	NOT IDENT.
SE-75	1.734E-02	2.758E-02	3.658E-02	0.000E+00	NOT IDENT.
BR-77	3.759E+00	6.813E+00	1.196E+01	0.000E+00	FAIL ABUN
SR-82	-1.190E-01	1.799E-01	3.035E-01	0.000E+00	NOT IDENT.
RB-83	1.576E-02	3.024E-02	5.302E-02	0.000E+00	NOT IDENT.
RB-84	4.049E-02	3.293E-02	5.803E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	3.888E+00	6.465E+00	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.023E-02	3.364E-02	0.000E+00	NOT IDENT.
RB-86	-5.014E-04	3.375E-01	5.830E-01	0.000E+00	NOT IDENT.
Y-88	-8.161E-03	1.424E-02	2.273E-02	0.000E+00	NOT IDENT.
ZR-88	4.704E-03	1.353E-02	2.427E-02	0.000E+00	NOT IDENT.
Y-91	4.349E+00	7.780E+00	1.353E+01	0.000E+00	NOT IDENT.
NB-94	1.242E-02	1.513E-02	2.700E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	6.597E-02	1.065E-01	0.000E+00	NOT IDENT.
ZR-95	2.205E-02	3.288E-02	5.561E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.001E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.756E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	0.000E+00	9.407E+00	1.463E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.228E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.381E-02	1.710E-02	2.870E-02	0.000E+00	FAIL ABUN
RH-102	7.602E-03	1.318E-02	2.333E-02	0.000E+00	FAIL ABUN
RU-103	-1.373E-02	1.835E-02	3.097E-02	0.000E+00	FAIL ABUN
RH-106	-8.104E-02	1.387E-01	2.292E-01	0.000E+00	FAIL ABUN
RU-106	-8.104E-02	1.385E-01	2.292E-01	0.000E+00	FAIL ABUN
AG-108M	2.634E-03	1.444E-02	2.555E-02	0.000E+00	NOT IDENT.
AG-110M	2.054E-02	1.795E-02	2.848E-02	0.000E+00	NOT IDENT.
IN-111	-7.576E-01	7.873E-01	1.182E+00	0.000E+00	NOT IDENT.
IN-113M	-1.208E-03	1.972E-02	3.503E-02	0.000E+00	NOT IDENT.
SN-113	-1.208E-03	1.972E-02	3.503E-02	0.000E+00	NOT IDENT.
IN-114M	3.278E-02	9.978E-02	1.602E-01	0.000E+00	NOT IDENT.
CD-115	-3.892E-01	7.266E+00	1.250E+01	0.000E+00	NOT IDENT.
SN-117M	-1.288E-02	3.489E-02	5.617E-02	0.000E+00	NOT IDENT.
SB-122	3.415E-01	1.346E+00	2.321E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.003E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.977E-03	1.695E-02	2.744E-02	0.000E+00	NOT IDENT.
I-124	-3.647E-01	4.781E-01	6.384E-01	0.000E+00	FAIL ABUN
SB-124	1.316E-02	2.781E-02	4.874E-02	0.000E+00	FAIL ABUN
SB-125	-5.444E-05	3.948E-02	6.960E-02	0.000E+00	FAIL ABUN
TE-125M	9.000E+00	9.502E+00	1.207E+01	0.000E+00	NOT IDENT.
I-126	2.419E-02	9.593E-02	1.471E-01	0.000E+00	NOT IDENT.
SB-126	-1.841E-02	7.889E-02	1.171E-01	0.000E+00	FAIL ABUN
SB-127	-2.688E-01	7.608E-01	1.317E+00	0.000E+00	NOT IDENT.
XE-127	1.410E-02	2.718E-02	4.351E-02	0.000E+00	FAIL ABUN
I-131	6.393E-02	5.722E-02	1.050E-01	0.000E+00	NOT IDENT.
TE-132	1.744E-01	4.512E-01	8.069E-01	0.000E+00	FAIL ABUN
BA-133	1.209E-02	2.248E-02	3.391E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	7.997E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	3.230E-02	4.036E-02	0.000E+00	FAIL ABUN
CS-135	1.249E-01	8.434E-02	1.342E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.841E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.687E-03	4.691E-02	8.109E-02	0.000E+00	FAIL ABUN
CE-139	6.197E-03	1.764E-02	2.872E-02	0.000E+00	NOT IDENT.

BA-140	9.928E-02	1.275E-01	2.177E-01	0.000E+00	FAIL ABUN
LA-140	3.969E-02	3.933E-02	6.235E-02	0.000E+00	FAIL ABUN
CE-141	0.000E+00	4.631E-02	7.574E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.522E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.089E-02	1.347E-01	2.096E-01	0.000E+00	NOT IDENT.
PM-144	-8.384E-03	1.547E-02	2.660E-02	0.000E+00	NOT IDENT.
PR-144	-5.686E-01	1.049E+00	1.804E+00	0.000E+00	NOT IDENT.
PM-146	1.039E-02	1.929E-02	3.426E-02	0.000E+00	NOT IDENT.
ND-147	2.230E-02	2.675E-01	4.620E-01	0.000E+00	FAIL ABUN
PM-149	-3.856E+01	6.723E+01	1.149E+02	0.000E+00	NOT IDENT.
EU-152	-1.906E-02	4.885E-02	7.579E-02	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.046E-01	1.230E-01	0.000E+00	FAIL ABUN
EU-154	-8.730E-03	4.829E-02	8.107E-02	0.000E+00	NOT IDENT.
TB-160	4.085E-02	6.296E-02	1.095E-01	0.000E+00	FAIL ABUN
HO-166M	-1.306E-02	2.672E-02	4.586E-02	0.000E+00	FAIL ABUN
TM-171	-4.539E+01	2.570E+01	4.022E+01	0.000E+00	NOT IDENT.
LU-176	2.811E-03	1.181E-02	1.980E-02	0.000E+00	FAIL ABUN
LU-177M	-5.386E-02	9.092E-02	1.367E-01	0.000E+00	NOT IDENT.
HF-181	-5.888E-03	1.937E-02	3.342E-02	0.000E+00	FAIL ABUN
W-181	0.000E+00	4.912E-01	7.075E-01	0.000E+00	NOT IDENT.
TA-182	1.936E-02	8.402E-02	1.441E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	9.037E-02	1.184E-01	0.000E+00	FAIL ABUN
RE-184	-2.357E-01	1.280E-01	1.851E-01	0.000E+00	NOT IDENT.
OS-185	-1.391E-02	1.953E-02	3.202E-02	0.000E+00	NOT IDENT.
RE-188	2.630E-02	9.172E-02	1.696E-01	0.000E+00	NOT IDENT.
W-188	-1.245E+00	3.966E+00	5.955E+00	0.000E+00	FAIL ABUN
IR-192	1.015E-02	1.602E-02	2.800E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.050E-01	3.668E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.910E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	4.195E+00	5.541E+00	9.090E+00	0.000E+00	NOT IDENT.
TL-202	-1.903E-03	3.291E-02	5.776E-02	0.000E+00	NOT IDENT.
HG-203	2.313E-02	2.220E-02	3.489E-02	0.000E+00	NOT IDENT.
BI-207	9.431E-03	2.355E-02	3.796E-02	0.000E+00	FAIL ABUN
TL-207	3.134E-01	3.357E-01	5.146E-01	0.000E+00	FAIL ABUN
PO-209	1.302E+00	3.154E+00	5.439E+00	0.000E+00	NOT IDENT.
BI-210	-1.613E+00	3.891E+00	7.019E+00	0.000E+00	NOT IDENT.
PB-210	-1.613E+00	3.891E+00	7.019E+00	0.000E+00	NOT IDENT.
PO-210	-1.613E+00	3.891E+00	7.019E+00	0.000E+00	NOT IDENT.
PB-211	-3.516E-01	5.096E-01	6.921E-01	0.000E+00	NOT IDENT.
PO-215	3.134E-01	3.357E-01	5.146E-01	0.000E+00	FAIL ABUN
RN-219	2.586E-01	1.814E-01	3.276E-01	0.000E+00	FAIL ABUN
RN-220	-4.459E+00	1.167E+01	1.978E+01	0.000E+00	NOT IDENT.
RA-223	3.134E-01	3.357E-01	5.146E-01	0.000E+00	FAIL ABUN
AC-227	0.000E+00	2.164E-01	3.405E-01	0.000E+00	FAIL ABUN
TH-227	0.000E+00	2.201E-01	3.405E-01	0.000E+00	FAIL ABUN
PA-231	-4.897E-01	7.464E-01	1.227E+00	0.000E+00	FAIL ABUN
TH-231	3.134E-01	3.357E-01	5.146E-01	0.000E+00	FAIL ABUN
PA-233	-1.612E-02	2.907E-02	4.931E-02	0.000E+00	FAIL ABUN
PA-234	2.238E-01	1.439E-01	2.455E-01	0.000E+00	FAIL ABUN
NP-236	-1.792E-02	4.679E-02	7.521E-02	0.000E+00	FAIL ABUN
NP-239	-6.923E-02	1.345E-01	2.081E-01	0.000E+00	FAIL ABUN
AM-241	1.862E-01	1.585E-01	2.676E-01	0.000E+00	NOT IDENT.
CM-243	5.084E-02	8.979E-02	1.139E-01	0.000E+00	FAIL ABUN
AM-246	4.363E-02	5.624E-02	9.993E-02	0.000E+00	NOT IDENT.
CM-247	2.330E-02	1.677E-02	2.919E-02	0.000E+00	FAIL ABUN
CF-249	-1.023E-02	1.753E-02	3.075E-02	0.000E+00	NOT IDENT.
CF-251	-1.223E-02	6.439E-02	1.168E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:28:40.98

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808003.CNF;1
Sample date      : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:27:19
Sample ID        : G245808003           Sample quantity  : 1.49854E+02 GRAM
Detector name    : GAM18                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:07.44  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : RXF2
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 947554               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	6508	10.67*	1.893E+00	2.690E+01	2.690E+01	8.07
NB-95	765.79	1205	99.81*	3.202E+00	3.148E-01	3.766E-01	14.72
CD-109	88.03	726	3.72*	6.463E+00	2.522E+00	2.585E+00	32.77
SN-126	64.28	9563	9.60	3.107E+00	2.677E+01	2.677E+01	15.18
	86.94	726	8.90	6.463E+00	1.054E+00	1.054E+00	52.06
	87.57	726	37.00*	6.463E+00	2.536E-01	2.536E-01	32.77
BA-137M	661.65	657	89.98*	3.588E+00	1.698E-01	1.700E-01	19.20
CS-137	661.65	657	85.12*	3.588E+00	1.795E-01	1.797E-01	19.21
EU-155	48.70	------	4.60	9.095E-01	------ Line Not Found		------
	60.01	------	1.11	2.537E+00	------ Line Not Found		------
	86.54	726	30.90	6.463E+00	3.036E-01	3.056E-01	32.79
	105.31	223	20.70*	7.738E+00	1.161E-01	1.169E-01	76.09
LU-177	112.95	1601	6.40	8.001E+00	2.611E+00	1.444E+01	12.92
	208.36	381	11.00*	7.257E+00	3.982E-01	2.203E+00	36.73
TL-208	277.35	106	6.80	6.260E+00	2.069E-01	2.069E-01	113.32
	510.84	458	21.60	4.310E+00	4.103E-01	4.103E-01	38.45
	583.14	1621	84.20*	3.934E+00	4.086E-01	4.086E-01	11.97
	860.37	247	12.46	2.917E+00	5.684E-01	5.684E-01	35.27
BI-211	72.87	------	1.27	4.622E+00	------ Line Not Found		------
	351.07	2600	12.94*	5.450E+00	3.078E+00	3.078E+00	9.25
BI-212	727.18	285	11.80*	3.337E+00	6.041E-01	6.041E-01	35.42
	785.46	199	1.97	3.137E+00	2.692E+00	2.692E+00	42.43
	1620.62	------	2.75	1.770E+00	------ Line Not Found		------
PB-212	74.81	1194	10.70	4.931E+00	1.889E+00	1.889E+00	23.19
	77.11	2017	18.00	5.257E+00	1.780E+00	1.780E+00	13.74
	87.30	726	8.00	6.463E+00	1.173E+00	1.173E+00	34.26
	238.63	4562	44.60*	6.792E+00	1.257E+00	1.257E+00	8.11
	300.09	332	3.41	5.983E+00	1.358E+00	1.358E+00	36.97
PO-212	74.81	1194	10.70	4.931E+00	1.889E+00	1.889E+00	23.19
	77.11	2017	18.00	5.257E+00	1.780E+00	1.780E+00	13.74
	87.30	726	8.00	6.463E+00	1.173E+00	1.173E+00	34.26
	115.19	------	0.60	8.058E+00	------ Line Not Found		------

Sample ID : G245808003 Acquisition date : 11-FEB-2010 22:27:19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	238.63	4562	44.60*	6.792E+00	1.257E+00	1.257E+00	8.11
	300.09	332	3.41	5.983E+00	1.358E+00	1.358E+00	36.97
BI-214	609.31	1894	46.30*	3.812E+00	8.958E-01	8.958E-01	12.22
	1120.29	386	15.10	2.335E+00	9.139E-01	9.139E-01	29.34
	1764.49	391	15.80	1.695E+00	1.218E+00	1.218E+00	15.69
PB-214	74.81	1194	6.21	4.931E+00	3.255E+00	3.255E+00	22.48
	77.11	2017	10.50	5.257E+00	3.052E+00	3.052E+00	15.71
	87.30	726	4.67	6.463E+00	2.009E+00	2.009E+00	33.66
	241.98	1282	7.49	6.747E+00	2.118E+00	2.118E+00	17.27
	295.21	1396	19.20	6.040E+00	1.005E+00	1.005E+00	14.30
	351.92	2600	37.20*	5.450E+00	1.071E+00	1.071E+00	10.62
PO-214	74.81	1194	6.21	4.931E+00	3.255E+00	3.255E+00	22.48
	77.11	2017	10.50	5.257E+00	3.052E+00	3.052E+00	15.71
	87.30	726	4.67	6.463E+00	2.009E+00	2.009E+00	33.66
	241.98	1282	7.49	6.747E+00	2.118E+00	2.118E+00	17.27
	295.21	1396	19.20	6.040E+00	1.005E+00	1.005E+00	14.30
	351.92	2600	37.20*	5.450E+00	1.071E+00	1.071E+00	10.62
PO-216	74.81	1194	10.70	4.931E+00	1.889E+00	1.889E+00	23.19
	77.11	2017	18.00	5.257E+00	1.780E+00	1.780E+00	13.74
	87.30	726	8.00	6.463E+00	1.173E+00	1.173E+00	34.26
	238.63	4562	44.60*	6.792E+00	1.257E+00	1.257E+00	8.11
	300.09	332	3.41	5.983E+00	1.358E+00	1.358E+00	36.97
PO-218	74.81	1194	6.21	4.931E+00	3.255E+00	3.255E+00	22.48
	77.11	2017	10.50	5.257E+00	3.052E+00	3.052E+00	15.71
	87.30	726	4.67	6.463E+00	2.009E+00	2.009E+00	33.66
	241.98	1282	7.49	6.747E+00	2.118E+00	2.118E+00	17.27
	295.21	1396	19.20	6.040E+00	1.005E+00	1.005E+00	14.30
	351.92	2600	37.20*	5.450E+00	1.071E+00	1.071E+00	10.62
RA-224	240.98	1282	3.95*	6.747E+00	4.016E+00	4.016E+00	16.34
RA-226	609.31	1894	46.30*	3.812E+00	8.958E-01	8.958E-01	12.22
	1120.29	386	15.10	2.335E+00	9.139E-01	9.139E-01	29.34
	1764.49	391	15.80	1.695E+00	1.218E+00	1.218E+00	15.69
AC-228	338.32	927	11.40	5.581E+00	1.217E+00	1.217E+00	44.01
	911.07	1196	27.70*	2.780E+00	1.297E+00	1.297E+00	16.06
	969.11	647	16.60	2.640E+00	1.232E+00	1.232E+00	27.13
RA-228	338.32	927	11.40	5.581E+00	1.217E+00	1.217E+00	44.01
	911.07	1196	27.70*	2.780E+00	1.297E+00	1.297E+00	16.06
	969.11	647	16.60	2.640E+00	1.232E+00	1.232E+00	27.13
TH-228	74.81	1194	10.70	4.931E+00	1.889E+00	1.921E+00	21.26
	77.11	2017	18.00	5.257E+00	1.780E+00	1.810E+00	13.74
	87.30	726	8.00	6.463E+00	1.173E+00	1.192E+00	32.77
	238.63	4562	44.60*	6.792E+00	1.257E+00	1.278E+00	8.11
	300.09	332	3.41	5.983E+00	1.358E+00	1.381E+00	69.08
TH-229	85.43	756	16.50	6.120E+00	6.251E-01	6.251E-01	37.19
	88.47	726	27.10	6.463E+00	3.462E-01	3.462E-01	32.77
	100.00	2158	12.40	7.372E+00	1.971E+00	1.971E+00	13.04
	193.63	------	4.59*	7.519E+00	------ Line Not Found		------
	210.97	------	3.26	7.230E+00	------ Line Not Found		------
TH-230	609.31	1894	46.30*	3.812E+00	8.958E-01	8.958E-01	12.22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1120.29	386	15.10	2.335E+00	9.139E-01	9.139E-01	29.34
	1764.49	391	15.80	1.695E+00	1.218E+00	1.218E+00	15.69
U-231	84.21	756	7.00	6.120E+00	1.473E+00	2.266E+01	37.19
	92.29	29986	17.30	6.943E+00	2.084E+01	3.206E+02	8.55
	95.87	1093	28.00*	7.109E+00	4.587E-01	7.054E+00	23.49
	108.00	------	13.10	7.835E+00	------ Line Not Found		------
TH-232	338.32	927	11.40	5.581E+00	1.217E+00	1.217E+00	17.58
	911.07	1196	27.70*	2.780E+00	1.297E+00	1.297E+00	16.06
	969.11	647	16.60	2.640E+00	1.232E+00	1.232E+00	27.13
PA-234M	766.42	1205	0.32	3.202E+00	9.819E+01	9.819E+01	52.12
	1001.03	2469	0.84*	2.568E+00	9.556E+01	9.556E+01	12.02
TH-234	63.29	9563	3.80*	3.107E+00	6.762E+01	6.762E+01	17.99
	92.38	29986	5.41	6.943E+00	6.665E+01	6.665E+01	18.05
U-234	609.31	1894	46.30*	3.812E+00	8.958E-01	8.958E-01	12.22
	1120.29	386	15.10	2.335E+00	9.139E-01	9.139E-01	29.34
	1764.49	391	15.80	1.695E+00	1.218E+00	1.218E+00	15.69
U-235	89.95	1123	2.70	6.720E+00	5.168E+00	5.168E+00	37.33
	93.35	29986	4.50	6.943E+00	8.013E+01	8.013E+01	28.00
	105.00	223	2.10	7.738E+00	1.145E+00	1.145E+00	81.27
	143.76	1234	10.50*	8.221E+00	1.194E+00	1.194E+00	22.49
	163.35	459	4.70	8.001E+00	1.019E+00	1.019E+00	41.85
	185.71	6446	54.00	7.649E+00	1.303E+00	1.303E+00	6.48
	205.31	456	4.70	7.320E+00	1.106E+00	1.106E+00	36.03
NP-237	86.50	726	12.60*	6.463E+00	7.447E-01	7.447E-01	38.72
	95.87	1093	2.60	7.109E+00	4.939E+00	4.939E+00	32.93
U-238	63.29	9563	3.80*	3.107E+00	6.762E+01	6.762E+01	17.99
	92.38	29986	5.41	6.943E+00	6.665E+01	6.665E+01	8.55
AM-243	74.67	1194	66.00*	4.931E+00	3.063E-01	3.063E-01	21.23
	86.72	726	0.34	6.463E+00	2.792E+01	2.792E+01	32.77
	117.66	------	0.55	8.112E+00	------ Line Not Found		------
	142.18	------	0.13	8.232E+00	------ Line Not Found		------
ANH-511	511.00	458	100.00*	4.310E+00	8.863E-02	8.863E-02	37.54

Flag: "*" = Keyline

Sample ID : G245808003 Acquisition date : 11-FEB-2010 22:27:19

Total number of lines in spectrum 55
Number of unidentified lines 6
Number of lines tentatively identified by NID 49 89.09%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.690E+01	2.690E+01	0.217E+01	8.07	
NB-95	64.02D	1.20	3.148E-01	3.766E-01	0.555E-01	14.72	
CD-109	464.00D	1.03	2.522E+00	2.585E+00	0.847E+00	32.77	
SN-126	1.00E+05Y	1.00	2.536E-01	2.536E-01	0.831E-01	32.77	
BA-137M	30.17Y	1.00	1.698E-01	1.700E-01	0.326E-01	19.20	
CS-137	30.17Y	1.00	1.795E-01	1.797E-01	0.345E-01	19.21	
EU-155	4.96Y	1.01	1.161E-01	1.169E-01	0.889E-01	76.09	
LU-177	6.71D	5.53	3.982E-01	2.203E+00	0.809E+00	36.73	
TL-208	1.41E+10Y	1.00	4.086E-01	4.086E-01	0.489E-01	11.97	
BI-211	7.04E+08Y	1.00	3.078E+00	3.078E+00	0.285E+00	9.25	
BI-212	1.41E+10Y	1.00	6.041E-01	6.041E-01	2.140E-01	35.42	
PB-212	1.41E+10Y	1.00	1.257E+00	1.257E+00	0.102E+00	8.11	
PO-212	1.41E+10Y	1.00	1.257E+00	1.257E+00	0.102E+00	8.11	
BI-214	1600.00Y	1.00	8.958E-01	8.958E-01	1.095E-01	12.22	
PB-214	1600.00Y	1.00	1.071E+00	1.071E+00	0.114E+00	10.62	
PO-214	1600.00Y	1.00	1.071E+00	1.071E+00	0.114E+00	10.62	
PO-216	1.41E+10Y	1.00	1.257E+00	1.257E+00	0.102E+00	8.11	
PO-218	1600.00Y	1.00	1.071E+00	1.071E+00	0.114E+00	10.62	
RA-224	1.41E+10Y	1.00	4.016E+00	4.016E+00	0.656E+00	16.34	
RA-226	1600.00Y	1.00	8.958E-01	8.958E-01	1.095E-01	12.22	
AC-228	1.41E+10Y	1.00	1.297E+00	1.297E+00	0.208E+00	16.06	
RA-228	1.41E+10Y	1.00	1.297E+00	1.297E+00	0.208E+00	16.06	
TH-228	1.91Y	1.02	1.257E+00	1.278E+00	0.104E+00	8.11	
TH-229	7340.00Y	1.00	3.462E-01	3.462E-01	1.134E-01	32.77	K
TH-230	4.47E+09Y	1.00	8.958E-01	8.958E-01	1.095E-01	12.22	
U-231	4.20D	15.4	4.587E-01	7.054E+00	1.657E+00	23.49	
TH-232	1.41E+10Y	1.00	1.297E+00	1.297E+00	0.208E+00	16.06	
PA-234M	4.47E+09Y	1.00	9.556E+01	9.556E+01	1.148E+01	12.02	
TH-234	4.47E+09Y	1.00	6.762E+01	6.762E+01	1.216E+01	17.99	
U-234	4.47E+09Y	1.00	8.958E-01	8.958E-01	1.095E-01	12.22	
U-235	7.04E+08Y	1.00	1.194E+00	1.194E+00	0.269E+00	22.49	
NP-237	2.14E+06Y	1.00	7.447E-01	7.447E-01	2.884E-01	38.72	
U-238	4.47E+09Y	1.00	6.762E+01	6.762E+01	1.216E+01	17.99	
AM-243	7380.00Y	1.00	3.063E-01	3.063E-01	0.650E-01	21.23	
ANH-511	1.00E+09Y	1.00	8.863E-02	8.863E-02	3.327E-02	37.54	
	Total Activity :		2.886E+02	2.972E+02			

Grand Total Activity : 2.886E+02 2.972E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245808003 Acquisition date : 11-FEB-2010 22:27:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
9	111.34	469	2521	1.27	221.77	219	10	2.17E-02	35.8	7.95E+00	T
0	128.58	104	1794	1.05	256.24	255	6	4.80E-03	****	8.24E+00	T
0	131.64	307	1868	0.85	262.35	260	7	1.42E-02	48.3	8.26E+00	T
0	258.32	642	1638	1.57	515.62	508	15	2.97E-02	28.6	6.51E+00	
0	270.29	251	1204	1.78	539.56	535	10	1.16E-02	53.2	6.35E+00	T
0	327.86	295	918	1.87	654.65	649	11	1.37E-02	41.5	5.68E+00	T
0	409.27	153	628	1.67	817.44	813	10	7.10E-03	63.1	4.97E+00	
0	462.87	276	730	1.37	924.61	919	13	1.28E-02	42.3	4.60E+00	T
0	742.23	170	571	1.34	1483.18	1478	13	7.88E-03	60.1	3.28E+00	T
0	794.66	195	398	1.87	1588.01	1582	13	9.01E-03	46.8	3.11E+00	T
1	964.64	253	265	2.07	1927.90	1922	21	1.17E-02	28.9	2.65E+00	T
0	1237.93	150	329	1.58	2474.39	2468	12	6.94E-03	51.3	2.15E+00	T
0	1377.35	150	191	2.75	2753.19	2741	19	6.95E-03	47.0	1.98E+00	T
0	1409.87	90	169	1.38	2818.24	2807	23	4.19E-03	79.3	1.94E+00	
0	1509.63	63	112	1.80	3017.75	3012	14	2.92E-03	75.6	1.85E+00	T
8	1587.70	88	103	2.97	3173.86	3167	25	4.08E-03	53.1	1.79E+00	
8	1593.45	42	83	2.80	3185.38	3167	25	1.92E-03	99.5	1.79E+00	
0	1728.65	102	92	2.98	3455.75	3447	21	4.74E-03	50.3	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:28:47.12

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808003.CNF;1 *
* Acquisition date  : 11-FEB-2010 22:27:19  Detector SN#     :             *
* Detector ID       : GAM18                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 06:00:07.44          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245808003            Analyst initials: RXF2         *
* Batch Number      : 947554                Sample Quantity : 1.49854E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.690E+01	2.172E+00	1.906E-01	1.446E-02	141.159
NB-95	3.766E-01	5.546E-02	3.130E-02	2.863E-03	12.032
CD-109	2.585E+00	8.472E-01	9.772E-01	9.034E-02	2.646
SN-126	2.536E-01	8.309E-02	9.646E-02	8.888E-03	2.629
BA-137M	1.700E-01	3.264E-02	2.714E-02	2.069E-03	6.263
CS-137	1.797E-01	3.452E-02	2.869E-02	2.192E-03	6.263
EU-155	1.169E-01	8.894E-02	1.163E-01	8.314E-03	1.005
LU-177	2.203E+00	8.091E-01	9.552E-01	5.181E-02	2.306
TL-208	4.086E-01	4.893E-02	2.585E-02	2.026E-03	15.811
BI-211	3.078E+00	2.846E-01	1.532E-01	9.832E-03	20.094
BI-212	6.041E-01	2.140E-01	2.058E-01	2.050E-02	2.934
PB-212	1.257E+00	1.020E-01	4.304E-02	3.075E-03	29.215
PO-212	1.257E+00	1.020E-01	4.304E-02	3.075E-03	29.215
BI-214	8.958E-01	1.095E-01	5.029E-02	4.492E-03	17.813
PB-214	1.071E+00	1.137E-01	5.175E-02	4.281E-03	20.691
PO-214	1.071E+00	1.137E-01	5.175E-02	4.281E-03	20.691
PO-216	1.257E+00	1.020E-01	4.304E-02	3.075E-03	29.215
PO-218	1.071E+00	1.137E-01	5.175E-02	4.281E-03	20.691

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	4.016E+00	6.561E-01	4.892E-01	2.725E-02	8.209
RA-226	8.958E-01	1.095E-01	5.029E-02	4.492E-03	17.813
AC-228	1.297E+00	2.083E-01	8.878E-02	1.176E-02	14.611
RA-228	1.297E+00	2.083E-01	8.878E-02	1.176E-02	14.611
TH-228	1.278E+00	1.037E-01	4.375E-02	3.126E-03	29.215
TH-229	3.462E-01	1.134E-01	4.251E-01	2.276E-02	0.814
TH-230	8.958E-01	1.095E-01	5.029E-02	4.492E-03	17.813
U-231	7.054E+00	1.657E+00	1.513E+00	1.212E-01	4.662
TH-232	1.297E+00	2.083E-01	8.878E-02	1.176E-02	14.611
PA-234M	9.556E+01	1.148E+01	3.082E+00	3.325E-01	31.000
TH-234	6.762E+01	1.216E+01	1.826E+00	3.219E-01	37.029
U-234	8.958E-01	1.095E-01	5.029E-02	4.492E-03	17.813
U-235	1.194E+00	2.685E-01	1.939E-01	3.140E-02	6.158
NP-237	7.447E-01	2.884E-01	3.235E-01	7.299E-02	2.302
U-238	6.762E+01	1.216E+01	1.826E+00	3.219E-01	37.029
AM-243	3.063E-01	6.502E-02	7.449E-02	6.216E-03	4.112
ANH-511	8.863E-02	3.327E-02	2.120E-02	1.400E-03	4.181

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.856E-03		1.505E-01	2.479E-01	1.796E-02	-0.032
NA-22	-5.750E-03		1.779E-02	2.878E-02	1.958E-03	-0.200
NA-24	-1.334E-01		8.067E-01	Half-Life too short		
AL-26	7.869E-03		1.118E-02	1.945E-02	1.135E-03	0.405
TI-44	3.285E-01	+	4.513E-02	5.370E-02	4.592E-03	6.118
SC-46	-1.294E-02		1.727E-02	2.727E-02	3.041E-03	-0.475
V-48	-1.274E-02		3.290E-02	5.234E-02	5.177E-03	-0.243
CR-51	-7.177E-02		1.815E-01	2.891E-01	1.861E-02	-0.248
MN-52	6.503E-02		1.128E-01	1.895E-01	1.396E-02	0.343
MN-54	-1.093E-02		1.713E-02	2.748E-02	2.815E-03	-0.398
CO-56	-8.971E-03		1.801E-02	2.898E-02	3.025E-03	-0.310
CO-57	-2.843E-03		1.583E-02	2.532E-02	1.500E-03	-0.112
CO-58	-3.374E-02		1.806E-02	2.719E-02	2.684E-03	-1.241
FE-59	-2.225E-02		3.910E-02	6.356E-02	5.232E-03	-0.350
CO-60	1.043E-03		1.665E-02	2.732E-02	2.064E-03	0.038
ZN-65	-9.553E-03		4.637E-02	6.523E-02	4.595E-03	-0.146
GE-68	6.532E-02		5.117E-01	8.580E-01	6.816E-02	0.076
AS-73	-9.423E-02		8.379E-01	1.407E+00	1.116E-01	-0.067
AS-74	-7.103E-02		4.709E-02	6.858E-02	4.928E-03	-1.036
SE-75	1.734E-02		2.814E-02	3.483E-02	1.992E-03	0.498
BR-77	3.759E+00		6.952E+00	1.157E+01	7.720E-01	0.325
SR-82	-1.190E-01		1.835E-01	2.966E-01	2.762E-02	-0.401
RB-83	1.576E-02		3.085E-02	5.132E-02	3.422E-03	0.307
RB-84	4.049E-02		3.360E-02	5.690E-02	6.271E-03	0.712
KR-85	1.584E+01		3.968E+00	6.255E+00	4.144E-01	2.532
SR-85	8.241E-02		2.065E-02	3.255E-02	2.156E-03	2.532

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-86	-5.014E-04		3.444E-01	5.746E-01	4.574E-02	-0.001
Y-88	-8.161E-03		1.453E-02	2.271E-02	1.294E-03	-0.359
ZR-88	4.704E-03		1.380E-02	2.333E-02	1.342E-03	0.202
Y-91	4.349E+00		7.938E+00	1.337E+01	7.905E-01	0.325
NB-94	1.242E-02		1.544E-02	2.632E-02	2.159E-03	0.472
NB-95M	1.143E-01		6.732E-02	1.011E-01	7.421E-03	1.130
ZR-95	2.205E-02		3.355E-02	5.432E-02	5.344E-03	0.406
NB-97	2.978E-01		1.021E-01	Half-Life too short		
ZR-97	1.352E+01		1.917E+00	Half-Life too short		
MO-99	1.647E+01		9.599E+00	1.429E+01	2.180E+00	1.153
TC-99M	1.691E+11		6.266E+11	Half-Life too short		
RH-101	-1.381E-02		1.745E-02	2.714E-02	1.459E-03	-0.509
RH-102	7.602E-03		1.345E-02	2.253E-02	1.431E-03	0.337
RU-103	-1.373E-02		1.873E-02	2.994E-02	3.888E-03	-0.458
RH-106	-8.104E-02		1.415E-01	2.228E-01	2.803E-02	-0.364
RU-106	-8.104E-02		1.413E-01	2.228E-01	1.640E-02	-0.364
AG-108M	2.634E-03		1.474E-02	2.462E-02	1.608E-03	0.107
AG-110M	2.054E-02		1.831E-02	2.772E-02	2.187E-03	0.741
IN-111	-7.576E-01		8.034E-01	1.123E+00	6.276E-02	-0.675
IN-113M	-1.208E-03		2.012E-02	3.367E-02	2.065E-03	-0.036
SN-113	-1.208E-03		2.012E-02	3.367E-02	2.065E-03	-0.036
IN-114M	3.278E-02		1.018E-01	1.514E-01	8.081E-03	0.217
CD-115	-3.892E-01		7.415E+00	1.211E+01	8.136E-01	-0.032
SN-117M	-1.288E-02		3.560E-02	5.285E-02	2.809E-03	-0.244
SB-122	3.415E-01		1.374E+00	2.251E+00	1.568E-01	0.152
I-123	-2.337E+00		1.022E+01	Half-Life too short		
TE-123M	-1.977E-03		1.730E-02	2.581E-02	1.393E-03	-0.077
I-124	-3.647E-01		4.879E-01	6.201E-01	4.484E-02	-0.588
SB-124	1.316E-02		2.837E-02	4.860E-02	3.353E-03	0.271
SB-125	-5.444E-05		4.028E-02	6.704E-02	4.189E-03	-0.001
TE-125M	9.000E+00		9.696E+00	1.126E+01	9.900E-01	0.800
I-126	2.419E-02		9.788E-02	1.432E-01	1.101E-02	0.169
SB-126	-1.841E-02		8.050E-02	1.142E-01	9.669E-03	-0.161
SB-127	-2.688E-01		7.763E-01	1.283E+00	1.453E-01	-0.209
XE-127	1.410E-02		2.773E-02	4.117E-02	2.222E-03	0.343
I-131	6.393E-02		5.838E-02	1.008E-01	6.521E-03	0.634
TE-132	1.744E-01		4.605E-01	7.656E-01	1.113E-01	0.228
BA-133	1.209E-02		2.293E-02	3.252E-02	3.756E-03	0.372
I-133	3.199E-03		4.080E-03	Half-Life too short		
CS-134	6.902E-02	+	3.296E-02	3.948E-02	3.818E-03	1.748
CS-135	1.249E-01		8.606E-02	1.278E-01	9.663E-03	0.977
I-135	2.026E+10		4.001E+10	Half-Life too short		
CS-136	-2.687E-03		4.786E-02	7.987E-02	7.160E-03	-0.034
CE-139	6.197E-03		1.800E-02	2.705E-02	1.420E-03	0.229
BA-140	9.928E-02		1.301E-01	2.109E-01	6.898E-02	0.471
LA-140	3.969E-02		4.013E-02	6.207E-02	4.258E-03	0.639
CE-141	2.630E-01		4.725E-02	7.112E-02	4.060E-03	3.698
CE-143	9.151E-04		1.287E-04	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-144	5.089E-02		1.374E-01	1.964E-01	2.777E-02	0.259
PM-144	-8.384E-03		1.579E-02	2.593E-02	2.105E-03	-0.323
PR-144	-5.686E-01		1.071E+00	1.758E+00	1.427E-01	-0.323
PM-146	1.039E-02		1.968E-02	3.304E-02	2.940E-03	0.315
ND-147	2.230E-02		2.730E-01	4.474E-01	6.242E-02	0.050
PM-149	-3.856E+01		6.860E+01	1.096E+02	1.551E+01	-0.352
EU-152	-1.906E-02		4.984E-02	7.262E-02	4.739E-03	-0.263
GD-153	8.189E-01	+	1.067E-01	1.144E-01	8.946E-03	7.157
EU-154	-8.730E-03		4.928E-02	8.024E-02	8.015E-03	-0.109
TB-160	4.085E-02		6.424E-02	1.074E-01	1.179E-02	0.380
HO-166M	-1.306E-02		2.726E-02	4.473E-02	3.728E-03	-0.292
TM-171	-4.539E+01		2.623E+01	3.711E+01	2.967E+00	-1.223
LU-176	2.811E-03		1.205E-02	1.892E-02	1.090E-03	0.149
LU-177M	-5.386E-02		9.277E-02	1.315E-01	7.770E-03	-0.409
HF-181	-5.888E-03		1.977E-02	3.229E-02	2.067E-03	-0.182
W-181	4.033E+00		5.012E-01	6.524E-01	5.174E-02	6.182
TA-182	1.936E-02		8.573E-02	1.425E-01	8.716E-03	0.136
RE-183	2.412E-01	+	9.221E-02	1.115E-01	5.885E-03	2.163
RE-184	-2.357E-01		1.306E-01	1.761E-01	9.891E-03	-1.339
OS-185	-1.391E-02		1.993E-02	3.116E-02	2.343E-03	-0.446
RE-188	2.630E-02		9.359E-02	1.594E-01	8.532E-03	0.165
W-188	-1.245E+00		4.047E+00	5.683E+00	3.255E-01	-0.219
IR-192	1.015E-02		1.635E-02	2.677E-02	1.553E-03	0.379
AU-195	2.388E+00	+	3.112E-01	3.414E-01	2.612E-02	6.994
TL-200	-1.114E-04		2.505E-04	Half-Life too short		
TL-201	4.195E+00		5.654E+00	8.563E+00	4.495E-01	0.490
TL-202	-1.903E-03		3.358E-02	5.567E-02	3.394E-03	-0.034
HG-203	2.313E-02		2.265E-02	3.327E-02	2.018E-03	0.695
BI-207	9.431E-03		2.403E-02	3.740E-02	3.087E-03	0.252
TL-207	3.134E-01		3.426E-01	4.923E-01	8.127E-02	0.636
PO-209	1.302E+00		3.218E+00	5.335E+00	6.018E-01	0.244
BI-210	-1.613E+00		3.970E+00	6.424E+00	4.970E-01	-0.251
PB-210	-1.613E+00		3.970E+00	6.424E+00	4.970E-01	-0.251
PO-210	-1.613E+00		3.970E+00	6.424E+00	4.273E-01	-0.251
PB-211	-3.516E-01		5.200E-01	6.657E-01	4.150E-01	-0.528
PO-215	3.134E-01		3.426E-01	4.923E-01	8.127E-02	0.636
RN-219	2.586E-01		1.851E-01	3.150E-01	4.289E-02	0.821
RN-220	-4.459E+00		1.191E+01	1.917E+01	1.317E+00	-0.233
RA-223	3.134E-01		3.426E-01	4.923E-01	8.127E-02	0.636
AC-227	4.254E-01		2.209E-01	3.240E-01	4.500E-02	1.313
TH-227	4.254E-01		2.245E-01	3.240E-01	5.456E-02	1.313
PA-231	-4.897E-01		7.616E-01	1.170E+00	1.608E-01	-0.418
TH-231	3.134E-01		3.426E-01	4.923E-01	8.127E-02	0.636
PA-233	-1.612E-02		2.966E-02	4.714E-02	2.888E-03	-0.342
PA-234	2.238E-01		1.468E-01	2.412E-01	4.758E-02	0.928
NP-236	-1.792E-02		4.774E-02	7.078E-02	3.750E-03	-0.253
NP-239	-6.923E-02		1.373E-01	1.945E-01	1.204E-02	-0.356
AM-241	1.862E-01		1.617E-01	2.463E-01	2.042E-02	0.756

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.084E-02		9.162E-02	1.061E-01	7.598E-03	0.479
AM-246	4.363E-02		5.739E-02	9.849E-02	7.790E-03	0.443
CM-247	2.330E-02		1.711E-02	2.808E-02	1.635E-03	0.830
CF-249	-1.023E-02		1.789E-02	2.955E-02	1.699E-03	-0.346
CF-251	-1.223E-02		6.570E-02	1.102E-01	5.819E-03	-0.111

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245808003           *
* Acquisition date  : 11-FEB-2010 22:27:19 Detector SN#     :               *
* Detector ID       : GAM18                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 06:00:07.44      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245808003           Analyst initials: RXF2           *
* Batch Number      : 947554               Sample Quantity : 1.4985E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.690E+01	2.129E+00	9.598E-02	1.086E+00
NB-95	3.766E-01	5.435E-02	1.603E-02	2.773E-02
CD-109	2.585E+00	8.302E-01	5.267E-01	4.236E-01
SN-126	2.536E-01	8.143E-02	5.199E-02	4.155E-02
BA-137M	1.700E-01	3.199E-02	1.395E-02	1.632E-02
CS-137	1.797E-01	3.383E-02	1.474E-02	1.726E-02
EU-155	1.169E-01	8.716E-02	6.242E-02	4.447E-02
LU-177	2.203E+00	7.929E-01	5.047E-01	4.045E-01
TL-208	4.086E-01	4.795E-02	1.332E-02	2.446E-02
BI-211	3.078E+00	2.789E-01	7.994E-02	1.423E-01
BI-212	6.041E-01	2.097E-01	1.055E-01	1.070E-01
PB-212	1.257E+00	9.997E-02	2.267E-02	5.100E-02
PO-212	1.257E+00	9.997E-02	2.267E-02	5.100E-02
BI-214	8.958E-01	1.073E-01	2.590E-02	5.473E-02
PB-214	1.071E+00	1.114E-01	2.700E-02	5.684E-02
PO-214	1.071E+00	1.114E-01	2.700E-02	5.684E-02
PO-216	1.257E+00	9.997E-02	2.267E-02	5.100E-02
PO-218	1.071E+00	1.114E-01	2.700E-02	5.684E-02
RA-224	4.016E+00	6.430E-01	2.576E-01	3.281E-01
RA-226	8.958E-01	1.073E-01	2.590E-02	5.473E-02
AC-228	1.297E+00	2.042E-01	4.526E-02	1.042E-01
RA-228	1.297E+00	2.042E-01	4.526E-02	1.042E-01
TH-228	1.278E+00	1.016E-01	2.305E-02	5.185E-02
TH-229	1.969E-01	2.459E-01	2.250E-01	1.255E-01
TH-230	8.958E-01	1.073E-01	2.590E-02	5.473E-02
U-231	7.054E+00	1.624E+00	8.139E-01	8.286E-01
TH-232	1.297E+00	2.042E-01	4.526E-02	1.042E-01
PA-234M	9.556E+01	1.125E+01	1.568E+00	5.741E+00
TH-234	6.762E+01	1.192E+01	9.915E-01	6.082E+00
U-234	8.958E-01	1.073E-01	2.590E-02	5.473E-02
U-235	1.194E+00	2.631E-01	1.033E-01	1.343E-01
NP-237	7.447E-01	2.826E-01	1.744E-01	1.442E-01
U-238	6.762E+01	1.192E+01	9.915E-01	6.082E+00
AM-243	3.063E-01	6.371E-02	4.030E-02	3.251E-02

ANH-511	8.863E-02	3.260E-02	1.096E-02	1.664E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-7.856E-03	1.475E-01	1.284E-01	7.525E-02	NOT IDENT.
NA-22	-5.750E-03	1.744E-02	1.455E-02	8.897E-03	NOT IDENT.
NA-24	-1.334E+05	1.581E+06	0.000E+00	8.067E+05	SHORT HLIF
AL-26	7.869E-03	1.095E-02	9.742E-03	5.588E-03	NOT IDENT.
TI-44	3.285E-01	4.423E-02	2.902E-02	2.257E-02	FAIL ABUN
SC-46	-1.294E-02	1.693E-02	1.391E-02	8.636E-03	FAIL ABUN
V-48	-1.274E-02	3.224E-02	2.663E-02	1.645E-02	NOT IDENT.
CR-51	-7.177E-02	1.779E-01	1.512E-01	9.074E-02	NOT IDENT.
MN-52	6.503E-02	1.105E-01	9.550E-02	5.640E-02	NOT IDENT.
MN-54	-1.093E-02	1.679E-02	1.404E-02	8.565E-03	NOT IDENT.
CO-56	-8.971E-03	1.765E-02	1.480E-02	9.003E-03	FAIL ABUN
CO-57	-2.843E-03	1.552E-02	1.355E-02	7.917E-03	NOT IDENT.
CO-58	-3.374E-02	1.770E-02	1.390E-02	9.031E-03	NOT IDENT.
FE-59	-2.225E-02	3.832E-02	3.225E-02	1.955E-02	FAIL ABUN
CO-60	1.043E-03	1.632E-02	1.379E-02	8.327E-03	NOT IDENT.
ZN-65	-9.553E-03	4.544E-02	3.308E-02	2.318E-02	NOT IDENT.
GE-68	6.532E-02	5.015E-01	4.356E-01	2.559E-01	NOT IDENT.
AS-73	-9.423E-02	8.212E-01	7.669E-01	4.190E-01	NOT IDENT.
AS-74	-7.103E-02	4.614E-02	3.533E-02	2.354E-02	NOT IDENT.
SE-75	1.734E-02	2.758E-02	1.830E-02	1.407E-02	NOT IDENT.
BR-77	3.759E+00	6.813E+00	5.982E+00	3.476E+00	FAIL ABUN
SR-82	-1.190E-01	1.799E-01	1.518E-01	9.177E-02	NOT IDENT.
RB-83	1.576E-02	3.024E-02	2.653E-02	1.543E-02	NOT IDENT.
RB-84	4.049E-02	3.293E-02	2.903E-02	1.680E-02	NOT IDENT.
KR-85	1.584E+01	3.888E+00	3.235E+00	1.984E+00	NOT IDENT.
SR-85	8.241E-02	2.023E-02	1.683E-02	1.032E-02	NOT IDENT.
RB-86	-5.014E-04	3.375E-01	2.917E-01	1.722E-01	NOT IDENT.
Y-88	-8.161E-03	1.424E-02	1.137E-02	7.263E-03	NOT IDENT.
ZR-88	4.704E-03	1.353E-02	1.214E-02	6.902E-03	NOT IDENT.
Y-91	4.349E+00	7.780E+00	6.768E+00	3.969E+00	NOT IDENT.
NB-94	1.242E-02	1.513E-02	1.351E-02	7.719E-03	NOT IDENT.
NB-95M	1.143E-01	6.597E-02	5.329E-02	3.366E-02	NOT IDENT.
ZR-95	2.205E-02	3.288E-02	2.782E-02	1.677E-02	NOT IDENT.
NB-97	2.978E+05	2.001E+05	0.000E+00	1.021E+05	SHORT HLIF
ZR-97	1.352E+07	3.756E+06	0.000E+00	1.917E+06	SHORT HLIF
MO-99	1.647E+01	9.407E+00	7.321E+00	4.800E+00	NOT IDENT.
TC-99M	1.691E+17	1.228E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.381E-02	1.710E-02	1.436E-02	8.726E-03	FAIL ABUN
RH-102	7.602E-03	1.318E-02	1.167E-02	6.724E-03	FAIL ABUN
RU-103	-1.373E-02	1.835E-02	1.549E-02	9.363E-03	FAIL ABUN
RH-106	-8.104E-02	1.387E-01	1.147E-01	7.077E-02	FAIL ABUN
RU-106	-8.104E-02	1.385E-01	1.147E-01	7.065E-02	FAIL ABUN
AG-108M	2.634E-03	1.444E-02	1.278E-02	7.369E-03	NOT IDENT.
AG-110M	2.054E-02	1.795E-02	1.425E-02	9.157E-03	NOT IDENT.
IN-111	-7.576E-01	7.873E-01	5.912E-01	4.017E-01	NOT IDENT.
IN-113M	-1.208E-03	1.972E-02	1.752E-02	1.006E-02	NOT IDENT.
SN-113	-1.208E-03	1.972E-02	1.752E-02	1.006E-02	NOT IDENT.
IN-114M	3.278E-02	9.978E-02	8.014E-02	5.091E-02	NOT IDENT.
CD-115	-3.892E-01	7.266E+00	6.255E+00	3.707E+00	NOT IDENT.
SN-117M	-1.288E-02	3.489E-02	2.810E-02	1.780E-02	NOT IDENT.
SB-122	3.415E-01	1.346E+00	1.161E+00	6.868E-01	NOT IDENT.
I-123	-2.337E+06	2.003E+07	0.000E+00	1.022E+07	SHORT HLIF
TE-123M	-1.977E-03	1.695E-02	1.373E-02	8.648E-03	NOT IDENT.
I-124	-3.647E-01	4.781E-01	3.194E-01	2.439E-01	FAIL ABUN
SB-124	1.316E-02	2.781E-02	2.439E-02	1.419E-02	FAIL ABUN
SB-125	-5.444E-05	3.948E-02	3.482E-02	2.014E-02	FAIL ABUN
TE-125M	9.000E+00	9.502E+00	6.037E+00	4.848E+00	NOT IDENT.
I-126	2.419E-02	9.593E-02	7.358E-02	4.894E-02	NOT IDENT.
SB-126	-1.841E-02	7.889E-02	5.857E-02	4.025E-02	FAIL ABUN
SB-127	-2.688E-01	7.608E-01	6.589E-01	3.882E-01	NOT IDENT.
XE-127	1.410E-02	2.718E-02	2.177E-02	1.387E-02	FAIL ABUN
I-131	6.393E-02	5.722E-02	5.256E-02	2.919E-02	NOT IDENT.
TE-132	1.744E-01	4.512E-01	4.037E-01	2.302E-01	FAIL ABUN
BA-133	1.209E-02	2.248E-02	1.696E-02	1.147E-02	FAIL ABUN
I-133	3.199E+03	7.997E+03	0.000E+00	4.080E+03	SHORT HLIF
CS-134	6.902E-02	3.230E-02	2.019E-02	1.648E-02	FAIL ABUN
CS-135	1.249E-01	8.434E-02	6.715E-02	4.303E-02	NOT IDENT.
I-135	2.026E+16	7.841E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.687E-03	4.691E-02	4.057E-02	2.393E-02	FAIL ABUN
CE-139	6.197E-03	1.764E-02	1.437E-02	9.002E-03	NOT IDENT.

BA-140	9.928E-02	1.275E-01	1.089E-01	6.506E-02	FAIL ABUN
LA-140	3.969E-02	3.933E-02	3.119E-02	2.007E-02	FAIL ABUN
CE-141	2.630E-01	4.631E-02	3.789E-02	2.363E-02	NOT IDENT.
CE-143	9.151E+02	2.522E+02	0.000E+00	1.287E+02	SHORT HLIF
CE-144	5.089E-02	1.347E-01	1.048E-01	6.872E-02	NOT IDENT.
PM-144	-8.384E-03	1.547E-02	1.331E-02	7.894E-03	NOT IDENT.
PR-144	-5.686E-01	1.049E+00	9.024E-01	5.353E-01	NOT IDENT.
PM-146	1.039E-02	1.929E-02	1.714E-02	9.840E-03	NOT IDENT.
ND-147	2.230E-02	2.675E-01	2.312E-01	1.365E-01	FAIL ABUN
PM-149	-3.856E+01	6.723E+01	5.749E+01	3.430E+01	NOT IDENT.
EU-152	-1.906E-02	4.885E-02	3.792E-02	2.492E-02	FAIL ABUN
GD-153	8.189E-01	1.046E-01	6.152E-02	5.337E-02	FAIL ABUN
EU-154	-8.730E-03	4.829E-02	4.056E-02	2.464E-02	NOT IDENT.
TB-160	4.085E-02	6.296E-02	5.478E-02	3.212E-02	FAIL ABUN
HO-166M	-1.306E-02	2.672E-02	2.294E-02	1.363E-02	FAIL ABUN
TM-171	-4.539E+01	2.570E+01	2.012E+01	1.311E+01	NOT IDENT.
LU-176	2.811E-03	1.181E-02	9.908E-03	6.027E-03	FAIL ABUN
LU-177M	-5.386E-02	9.092E-02	6.838E-02	4.639E-02	NOT IDENT.
HF-181	-5.888E-03	1.937E-02	1.672E-02	9.885E-03	FAIL ABUN
W-181	4.033E+00	4.912E-01	3.540E-01	2.506E-01	NOT IDENT.
TA-182	1.936E-02	8.402E-02	7.210E-02	4.287E-02	FAIL ABUN
RE-183	2.412E-01	9.037E-02	5.926E-02	4.611E-02	FAIL ABUN
RE-184	-2.357E-01	1.280E-01	9.263E-02	6.531E-02	NOT IDENT.
OS-185	-1.391E-02	1.953E-02	1.602E-02	9.963E-03	NOT IDENT.
RE-188	2.630E-02	9.172E-02	8.483E-02	4.679E-02	NOT IDENT.
W-188	-1.245E+00	3.966E+00	2.979E+00	2.023E+00	FAIL ABUN
IR-192	1.015E-02	1.602E-02	1.401E-02	8.175E-03	FAIL ABUN
AU-195	2.388E+00	3.050E-01	1.835E-01	1.556E-01	FAIL ABUN
TL-200	-1.114E+02	4.910E+02	0.000E+00	2.505E+02	SHORT HLIF
TL-201	4.195E+00	5.541E+00	4.548E+00	2.827E+00	NOT IDENT.
TL-202	-1.903E-03	3.291E-02	2.890E-02	1.679E-02	NOT IDENT.
HG-203	2.313E-02	2.220E-02	1.746E-02	1.132E-02	NOT IDENT.
BI-207	9.431E-03	2.355E-02	1.899E-02	1.202E-02	FAIL ABUN
TL-207	3.134E-01	3.357E-01	2.574E-01	1.713E-01	FAIL ABUN
PO-209	1.302E+00	3.154E+00	2.721E+00	1.609E+00	NOT IDENT.
BI-210	-1.613E+00	3.891E+00	3.512E+00	1.985E+00	NOT IDENT.
PB-210	-1.613E+00	3.891E+00	3.512E+00	1.985E+00	NOT IDENT.
PO-210	-1.613E+00	3.891E+00	3.512E+00	1.985E+00	NOT IDENT.
PB-211	-3.516E-01	5.096E-01	3.463E-01	2.600E-01	NOT IDENT.
PO-215	3.134E-01	3.357E-01	2.574E-01	1.713E-01	FAIL ABUN
RN-219	2.586E-01	1.814E-01	1.639E-01	9.254E-02	FAIL ABUN
RN-220	-4.459E+00	1.167E+01	9.896E+00	5.956E+00	NOT IDENT.
RA-223	3.134E-01	3.357E-01	2.574E-01	1.713E-01	FAIL ABUN
AC-227	4.254E-01	2.164E-01	1.704E-01	1.104E-01	FAIL ABUN
TH-227	4.254E-01	2.201E-01	1.704E-01	1.123E-01	FAIL ABUN
PA-231	-4.897E-01	7.464E-01	6.139E-01	3.808E-01	FAIL ABUN
TH-231	3.134E-01	3.357E-01	2.574E-01	1.713E-01	FAIL ABUN
PA-233	-1.612E-02	2.907E-02	2.467E-02	1.483E-02	FAIL ABUN
PA-234	2.238E-01	1.439E-01	1.228E-01	7.341E-02	FAIL ABUN
NP-236	-1.792E-02	4.679E-02	3.763E-02	2.387E-02	FAIL ABUN
NP-239	-6.923E-02	1.345E-01	1.041E-01	6.865E-02	FAIL ABUN
AM-241	1.862E-01	1.585E-01	1.339E-01	8.085E-02	NOT IDENT.
CM-243	5.084E-02	8.979E-02	5.699E-02	4.581E-02	FAIL ABUN
AM-246	4.363E-02	5.624E-02	5.000E-02	2.869E-02	NOT IDENT.
CM-247	2.330E-02	1.677E-02	1.460E-02	8.556E-03	FAIL ABUN
CF-249	-1.023E-02	1.753E-02	1.539E-02	8.946E-03	NOT IDENT.
CF-251	-1.223E-02	6.439E-02	5.845E-02	3.285E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	2080.4272
46.50	2080.4272
46.50	2080.4272
48.70	2144.9312
49.72	2141.1721
51.35	2287.7996
52.39	2357.8157
52.97	2396.6982
53.15	2401.9800
53.44	2431.0466
54.07	2482.4871
56.28	2695.2737
56.28	2695.3035
57.37	0.0000
57.53	2881.3982
57.53	2881.4138
57.60	2914.4924
57.98	2866.4221
57.98	2866.4221
59.32	2939.8394
59.32	2939.8394
59.40	2940.6667
59.54	2942.1128
59.72	2967.7329
60.01	2970.7456
61.10	3156.1836
61.14	3156.6208
61.30	3158.3608
63.00	3028.2683
63.29	3031.2261
63.29	3031.2261
63.58	3034.1758
64.28	2869.4849
65.12	3011.3118
65.20	3012.1064
65.20	3012.1064
66.05	3160.4709
66.72	3183.0864
66.83	3262.9873
66.91	3263.8218
67.20	3223.8779
67.20	3223.8779
67.75	3409.0750
67.85	3487.7493
68.90	3074.2429
68.90	3074.2429
69.30	3104.1082
69.67	3243.5618
70.82	3424.8386
70.82	3424.8386
70.83	3424.9468
72.80	3810.4487
72.87	3811.2659
72.87	3811.2659
74.67	3831.9910
74.81	3833.5950
74.81	3833.5950
74.81	3833.5950
74.81	3833.5950
74.81	3833.5950
74.81	3833.5950
74.81	3833.5950
74.97	3835.4185
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75.70	3843.7483
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77.11	3859.6907

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77.11	3859.6907
77.11	3859.6907
77.11	3859.6907
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79.80	4175.6650
79.80	4175.6650
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80.30	4074.2175
80.57	4077.3440
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81.07	3912.7188
81.07	3912.7188
81.07	3912.7188
81.07	3912.7188
82.60	4079.5713
83.37	4231.1323
83.78	4369.9819
83.78	4369.9819
83.78	4369.9819
83.78	4369.9819
84.21	4375.1406
84.90	4446.8164
85.43	4453.2178
86.29	4463.5723
86.50	4466.0879
86.54	4466.5596
86.59	4467.1660
86.72	4468.7158
86.79	4469.5244
86.94	4471.3438
87.30	3523.9712
87.30	3523.9712
87.30	3523.9712
87.30	3523.9712
87.30	3523.9712
87.30	3523.9712
87.30	3523.9712
87.57	3541.7136
87.88	3544.6265
88.03	3546.0474
88.36	3549.1379
88.47	3550.1680
89.95	3563.9863
91.11	3574.7319
92.29	3585.6018
92.38	3586.4365
92.38	3586.4365
93.35	3595.2993
94.00	3601.2317
94.67	3607.2527
94.67	3607.3059
94.90	3609.3840
94.90	3609.3840
94.90	3609.3840
94.90	3609.3840
95.87	2595.4873
95.87	2595.4873
96.73	2601.0552
97.43	2605.5271
98.44	2300.7271
98.44	2300.7271
98.88	2303.1960
99.55	2306.9443
99.55	2306.9443
99.86	2123.4768
100.00	2124.1992
100.10	2124.7258
103.18	2189.4045
103.76	2201.8975
105.00	2217.8137
105.31	2263.9375
108.00	2549.9233
109.28	2618.3071

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111.00	2689.6438
111.76	2613.5281
112.95	2620.4124
115.19	2091.9937
116.30	2144.2781
117.00	2101.8145
117.00	2101.8145
117.66	2150.5483
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121.62	1974.1426
121.78	1974.8007
122.06	1937.4668
122.32	1938.5065
122.32	1938.5065
122.32	1938.5065
122.32	1938.5065
123.07	1896.3494
127.23	1966.9563
129.76	1928.3456
131.20	1935.5273
133.02	1927.2603
133.54	1824.5504
135.34	1837.6923
136.00	1875.6232
136.25	1876.5176
136.48	1852.2227
140.51	1907.0829
140.51	0.0000
142.18	2024.5420
142.65	2002.2655
143.76	1858.3759
144.24	1860.0073
144.24	1860.0073
144.24	1860.0073
144.24	1860.0073
145.22	1733.9379
145.44	1734.6433
147.16	1769.4747
152.43	1754.6868
152.70	1741.5259
153.22	1725.6204
154.21	1719.8336
154.21	1719.8336
154.21	1719.8336
154.21	1719.8336
155.03	1761.7905
156.02	1780.6349
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161.27	1682.1591
162.32	1650.9952
162.64	1664.6792
163.35	1606.9998
163.89	1608.4457
165.85	1640.6636
167.43	1537.3621
171.28	1630.6650
171.86	1643.9182
172.10	1613.8380
176.55	1556.1287
176.60	1556.2461
181.06	1623.6555
184.41	1640.8110
185.71	1602.1583
186.00	1602.8606
190.27	1349.1759
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193.63	1346.7024
197.04	1400.2571
198.01	1447.2858
198.60	1507.7272
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202.84	1443.4374
205.31	1498.5364

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209.75	1280.1392
210.97	1233.3118
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216.55	1257.4684
218.09	1222.4001
222.10	1209.4675
223.80	1335.6980
226.40	1203.5465
227.00	1167.3569
227.08	1167.4753
227.20	1182.3146
228.16	1230.7327
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228.18	1230.7615
231.56	0.0000
235.69	1189.9644
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236.00	1206.2330
238.63	1128.1023
238.63	1128.1023
238.63	1128.1023
238.63	1128.1023
239.00	1128.6145
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241.98	1132.7560
241.98	1132.7560
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247.94	919.1852
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249.79	997.7880
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256.20	971.9568
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264.65	907.8640
268.24	975.6189
268.79	976.2280
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269.46	999.9789
269.46	999.9789
269.46	999.9789
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277.60	935.6103
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279.53	937.9943
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283.67	946.2787
284.30	933.0335
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286.10	949.4880
286.10	949.4880
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293.26	0.0000
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295.21	867.5662

295.21	867.5662
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296.50	795.9133
297.23	796.5100
298.57	797.6230
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299.80	798.6328
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300.09	819.2706
300.09	819.2706
300.09	819.2706
300.12	819.2941
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303.91	829.2968
304.40	829.7121
304.40	829.7121
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306.84	809.2714
308.46	791.7728
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323.87	710.1351
323.87	710.1351
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334.20	720.6831
334.30	720.7532
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338.28	767.5583
338.28	767.5583
338.28	767.5583
338.32	767.5902
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338.32	767.5902
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340.57	744.4484
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351.92	730.3412
351.92	730.3412
355.39	0.0000
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391.69	681.4551
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415.30	643.5545

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439.56	599.1756
439.89	596.4465
443.98	566.4811
444.90	586.1500
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445.03	598.7435
445.03	598.7435
445.03	598.7435
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511.85	553.7362
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513.99	543.0475
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529.87	0.0000
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552.65	525.8887
555.20	459.1901
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568.70	513.2917
569.32	512.4352
569.50	508.2909
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602.71	555.7881
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609.31	522.4906
609.31	522.4906
609.31	522.4906
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621.84	453.8174
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661.65	507.9990
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666.33	457.0659
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685.20	457.4855
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696.49	526.6806
697.00	527.7552
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698.50	541.2897
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722.78	463.9600
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911.07	309.8755
911.07	309.8755
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968.20	297.9153
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969.11	311.6120
969.11	311.6120
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1038.76	0.0000
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1046.59	304.8518
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1050.47	263.2636
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1063.62	272.9343
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1078.86	253.6605
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1112.84	293.8525
1115.52	376.0071
1120.29	311.3320
1120.29	311.3320
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1120.29	311.3320
1120.51	311.3547
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1124.00	0.0000
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1147.95	0.0000
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1173.22	339.7126
1175.09	324.3359
1177.93	333.4118
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1205.75	0.0000
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1230.97	385.1667
1235.34	408.2809
1236.41	0.0000
1238.25	355.7275
1246.25	325.8246
1260.41	0.0000
1271.85	238.9380
1274.45	243.1395
1274.54	250.1811
1291.56	232.2702
1298.22	0.0000
1312.09	217.4333
1325.50	192.7837
1325.50	192.7837
1332.49	198.2897
1333.61	192.2161
1360.21	162.7832
1362.66	0.0000
1365.15	173.3320
1368.21	148.1796
1368.53	0.0000
1376.25	151.1074
1384.27	121.6256
1394.10	152.9063
1395.20	174.8027
1407.95	167.0647
1434.06	125.1467
1436.60	141.0197
1457.56	0.0000
1460.81	98.2460
1489.15	121.6657
1509.49	115.4739
1596.49	90.4267
1620.62	89.7844
1678.03	0.0000
1691.02	65.7814
1691.02	65.7814
1706.46	0.0000
1750.46	0.0000
1764.49	55.0304
1764.49	55.0304
1764.49	55.0304
1764.49	55.0304
1770.23	62.2108
1771.40	67.5617
1791.20	0.0000
1808.65	54.4548

1836.01 90.2901

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245808003

Total Uranium Activity	2.0172E+02	ug/g
Total Uranium Counting Unc.	3.5462E+01	ug/g
Total Uranium Tpu	1.8093E-05	ug/g
Total Uranium Mda	2.9501E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID   : G245808003      *
*   ANALYST       : RXF2                      DETECTOR    : GAM18           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE: 11-FEB-2010 22:27:19.07    SAMPLE ALQT:  149.854 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.696E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.326E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.182E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.575E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:29:38.59

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808004.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:27:52
Sample ID         : G245808004           Sample quantity  : 1.69141E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:09.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.29*	29501	17029	1.25	126.45	120	13	1.37E+00	1.1	
2	5	74.83	2890	19515	2.15	149.50	142	17	1.34E-01	10.2	6.84E+00
3	5	77.20	1196	9070	1.03	154.25	142	17	5.54E-02	13.1	
4	7	84.34*	3615	21458	2.63	168.51	162	33	1.67E-01	8.3	6.27E+01
5	7	87.59	1191	11867	1.35	175.00	162	33	5.51E-02	15.9	
6	7	92.64*	72591	10036	1.39	185.09	162	33	3.36E+00	0.4	
7	0	98.53*	4885	6409	1.28	196.87	194	9	2.26E-01	3.3	
8	0	112.68	5824	9283	1.41	225.15	219	14	2.70E-01	3.8	
9	0	131.49	451	3202	1.50	262.73	260	7	2.09E-02	21.4	
10	0	143.83*	2576	3880	1.17	287.39	283	10	1.19E-01	5.0	
11	0	163.42	1066	3449	1.34	326.55	322	10	4.93E-02	10.8	
12	0	185.67*	12505	3932	1.31	371.02	365	14	5.79E-01	1.4	
13	0	205.33	1019	1987	1.34	410.30	406	9	4.72E-02	8.5	
14	0	209.31	346	1589	1.88	418.27	415	8	1.60E-02	20.6	
15	2	238.51*	2765	1386	1.38	476.62	470	18	1.28E-01	3.1	2.33E+00
16	2	241.39	632	1669	1.70	482.39	470	18	2.92E-02	14.3	
17	0	258.10	895	1359	1.25	515.78	511	10	4.14E-02	8.4	
18	0	269.82	182	1251	1.41	539.20	535	9	8.42E-03	35.8	
19	0	294.95	1056	1094	1.36	589.43	585	10	4.89E-02	6.6	
20	0	299.94	200	951	1.24	599.40	595	9	9.26E-03	28.7	
21	0	338.23	477	1023	1.35	675.93	672	10	2.21E-02	13.4	
22	0	351.75*	1554	1034	1.52	702.95	697	13	7.20E-02	5.1	
23	0	462.79	152	705	1.01	924.92	920	11	7.03E-03	34.8	
24	0	510.80*	381	1006	1.71	1020.91	1012	19	1.76E-02	22.5	
25	0	568.32*	425	779	2.65	1135.90	1128	15	1.97E-02	15.6	
26	0	583.28*	930	657	1.55	1165.80	1159	16	4.30E-02	7.2	
27	0	609.22*	1125	679	1.58	1217.67	1211	16	5.21E-02	6.2	
28	0	661.66	300	497	1.47	1322.51	1317	11	1.39E-02	15.5	
29	0	727.05	178	381	1.54	1453.28	1449	10	8.22E-03	21.8	
30	0	742.64	539	576	1.32	1484.44	1476	14	2.50E-02	10.4	
31	0	766.54	1963	596	1.95	1532.24	1524	17	9.09E-02	3.6	
32	0	786.25	305	354	1.65	1571.65	1567	10	1.41E-02	12.9	
33	0	795.08	164	469	3.45	1589.30	1582	15	7.58E-03	29.9	
34	0	860.71	132	203	2.12	1720.56	1716	10	6.10E-03	22.0	
35	0	911.52	641	270	1.63	1822.17	1816	15	2.97E-02	6.9	
36	0	946.18	153	252	1.92	1891.47	1887	12	7.10E-03	22.1	
37	2	964.71	100	258	2.02	1928.53	1922	23	4.65E-03	31.7	9.30E-01
38	2	969.19*	338	189	1.77	1937.51	1922	23	1.56E-02	10.0	

Sample ID : G245808004 Acquisition date : 11-FEB-2010 22:27:52

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1001.28*	4131	293	1.89	2001.68	1994	18	1.91E-01	1.9	
40	0	1120.47	253	411	2.17	2240.09	2231	22	1.17E-02	21.3	
41	0	1193.73	113	210	1.92	2386.63	2378	15	5.23E-03	29.5	
42	0	1238.26	126	313	2.21	2475.71	2471	17	5.83E-03	33.6	
43	0	1378.10	90	71	2.17	2755.49	2751	10	4.18E-03	20.5	
44	0	1461.10*	3751	101	2.13	2921.55	2911	20	1.74E-01	1.8	
45	0	1588.55	37	98	1.40	3176.59	3171	14	1.73E-03	57.8	
46	0	1730.12	54	26	1.62	3459.92	3454	11	2.50E-03	23.7	
47	0	1738.80	66	39	1.58	3477.28	3472	13	3.06E-03	24.5	
48	0	1765.01*	207	39	1.97	3529.74	3522	16	9.58E-03	10.6	
49	0	1831.37	46	46	1.88	3662.56	3654	14	2.14E-03	34.2	
50	0	1875.84	44	45	1.76	3751.58	3742	20	2.05E-03	39.9	
51	0	1911.49	39	11	1.41	3822.95	3817	12	1.83E-03	23.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 04:29:41

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:27:52
Sample ID : G245808004 Sample quantity : 169.14 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:09.65 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.226E+01	1.837E+00	2.211E-01	1.647E-02	100.677
NB-95	+	765.79	*	8.571E-01	8.694E-02	4.170E-02	2.947E-03	20.553
CD-109	+	88.03	*	3.969E+00	1.308E+00	1.696E+00	1.519E-01	2.340
SN-126	+	64.28		6.272E+01	9.257E+00	9.842E-01	1.437E-01	63.726
	+	86.94		1.618E+00	8.445E-01	6.988E-01	2.894E-01	2.316
	+	87.57	*	3.893E-01	1.283E-01	1.671E-01	1.490E-02	2.330
BA-137M	+	661.65	*	1.075E-01	3.387E-02	3.580E-02	2.085E-03	3.002
CS-137	+	661.65	*	1.136E-01	3.581E-02	3.784E-02	2.213E-03	3.002
LU-177	+	112.95		5.434E+01	5.432E+00	3.133E+00	2.040E-01	17.346
	+	208.36	*	2.353E+00	9.804E-01	1.305E+00	7.165E-02	1.803
TL-208		277.35		1.204E-01	2.306E-01	3.917E-01	4.133E-02	0.307
	+	510.84		4.588E-01	2.117E-01	1.274E-01	1.301E-02	3.601
	+	583.14	*	3.198E-01	5.070E-02	3.457E-02	2.351E-03	9.251
	+	860.37		4.264E-01	1.914E-01	2.419E-01	2.166E-02	1.763
BI-211		72.87		2.072E+01	4.298E+00	6.543E+00	5.127E-01	3.167
	+	351.07	*	2.346E+00	2.810E-01	2.018E-01	1.288E-02	11.626
BI-212	+	727.18	*	5.240E-01	2.328E-01	2.917E-01	2.429E-02	1.796
	+	785.46		5.773E+00	1.546E+00	1.936E+00	1.416E-01	2.981
		1620.62		7.796E-01	6.038E-01	1.088E+00	7.263E-02	0.717
PB-212	+	74.81		3.941E+00	9.396E-01	6.967E-01	8.543E-02	5.657
	+	77.11		9.262E-01	2.531E-01	3.965E-01	3.203E-02	2.336
	+	87.30		1.800E+00	6.202E-01	7.747E-01	1.037E-01	2.324
	+	238.63	*	9.139E-01	8.653E-02	5.993E-02	4.326E-03	15.249
	+	300.09		1.017E+00	5.901E-01	7.541E-01	6.229E-02	1.349
PO-212	+	74.81		3.941E+00	9.396E-01	6.967E-01	8.543E-02	5.657
	+	77.11		9.262E-01	2.531E-01	3.965E-01	3.203E-02	2.336
	+	87.30		1.800E+00	6.202E-01	7.747E-01	1.037E-01	2.324
		115.19		4.410E+01	4.968E+00	6.695E+00	4.262E-01	6.587
	+	238.63	*	9.139E-01	8.653E-02	5.993E-02	4.326E-03	15.249
	+	300.09		1.017E+00	5.901E-01	7.541E-01	6.229E-02	1.349
BI-214	+	609.31	*	7.295E-01	1.071E-01	6.616E-02	5.202E-03	11.027
	+	1120.29		8.520E-01	3.710E-01	2.126E-01	1.945E-02	4.008
	+	1764.49		9.409E-01	2.070E-01	1.502E-01	9.100E-03	6.266
PB-214	+	74.81		6.791E+00	1.572E+00	1.200E+00	1.303E-01	5.657

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		1.588E+00	4.504E-01	6.796E-01	7.547E-02	2.336
	+	87.30		3.084E+00	1.044E+00	1.327E+00	1.562E-01	2.324
	+	241.98		1.254E+00	3.712E-01	3.549E-01	2.831E-02	3.532
	+	295.21		9.431E-01	1.486E-01	1.390E-01	1.186E-02	6.786
	+	351.92	*	8.159E-01	1.066E-01	7.032E-02	5.798E-03	11.603
PO-214	+	74.81		6.791E+00	1.572E+00	1.200E+00	1.303E-01	5.657
	+	77.11		1.588E+00	4.504E-01	6.796E-01	7.547E-02	2.336
	+	87.30		3.084E+00	1.044E+00	1.327E+00	1.562E-01	2.324
	+	241.98		1.254E+00	3.712E-01	3.549E-01	2.831E-02	3.532
	+	295.21		9.431E-01	1.486E-01	1.390E-01	1.186E-02	6.786
	+	351.92	*	8.159E-01	1.066E-01	7.032E-02	5.798E-03	11.603
PO-216	+	74.81		3.941E+00	9.396E-01	6.967E-01	8.543E-02	5.657
	+	77.11		9.262E-01	2.531E-01	3.965E-01	3.203E-02	2.336
	+	87.30		1.800E+00	6.202E-01	7.747E-01	1.037E-01	2.324
	+	238.63	*	9.139E-01	8.653E-02	5.993E-02	4.326E-03	15.249
	+	300.09		1.017E+00	5.901E-01	7.541E-01	6.229E-02	1.349
PO-218	+	74.81		6.791E+00	1.572E+00	1.200E+00	1.303E-01	5.657
	+	77.11		1.588E+00	4.504E-01	6.796E-01	7.547E-02	2.336
	+	87.30		3.084E+00	1.044E+00	1.327E+00	1.562E-01	2.324
	+	241.98		1.254E+00	3.712E-01	3.549E-01	2.831E-02	3.532
	+	295.21		9.431E-01	1.486E-01	1.390E-01	1.186E-02	6.786
	+	351.92	*	8.159E-01	1.066E-01	7.032E-02	5.798E-03	11.603
RA-224	+	240.98	*	2.377E+00	6.912E-01	6.817E-01	3.863E-02	3.487
RA-226	+	609.31	*	7.295E-01	1.071E-01	6.616E-02	5.202E-03	11.027
	+	1120.29		8.520E-01	3.710E-01	2.126E-01	1.945E-02	4.008
	+	1764.49		9.409E-01	2.070E-01	1.502E-01	9.100E-03	6.266
AC-228	+	338.32		7.937E-01	3.869E-01	2.361E-01	9.622E-02	3.362
	+	911.07	*	9.813E-01	1.745E-01	1.048E-01	1.186E-02	9.360
	+	969.11		9.098E-01	2.791E-01	1.849E-01	4.285E-02	4.921
RA-228	+	338.32		7.937E-01	3.869E-01	2.361E-01	9.622E-02	3.362
	+	911.07	*	9.813E-01	1.745E-01	1.048E-01	1.186E-02	9.360
	+	969.11		9.098E-01	2.791E-01	1.849E-01	4.285E-02	4.921
TH-228	+	74.81		4.007E+00	8.799E-01	7.082E-01	5.678E-02	5.657
	+	77.11		9.416E-01	2.573E-01	4.030E-01	3.256E-02	2.336
	+	87.30		1.830E+00	6.034E-01	7.876E-01	7.005E-02	2.324
	+	238.63	*	9.291E-01	8.796E-02	6.093E-02	4.398E-03	15.249
	+	300.09		1.034E+00	8.510E-01	7.666E-01	4.518E-01	1.349
TH-229	+	85.43		2.746E+00	5.157E-01	3.829E-01	3.339E-02	7.173
	+	88.47		5.315E-01	1.752E-01	2.262E-01	2.011E-02	2.349
	+	100.00		4.412E+00	4.482E-01	3.084E-01	2.321E-02	14.303
		193.63	*	1.700E-01	3.785E-01	6.133E-01	3.310E-02	0.277
		210.97		5.078E-01	6.096E-01	8.698E-01	4.789E-02	0.584
TH-230	+	609.31	*	7.295E-01	1.071E-01	6.616E-02	5.202E-03	11.027
	+	1120.29		8.520E-01	3.710E-01	2.126E-01	1.945E-02	4.008
	+	1764.49		9.409E-01	2.070E-01	1.502E-01	9.100E-03	6.266
TH-232	+	338.32		7.937E-01	2.170E-01	2.361E-01	1.365E-02	3.362
	+	911.07	*	9.813E-01	1.745E-01	1.048E-01	1.186E-02	9.360
	+	969.11		9.098E-01	2.791E-01	1.849E-01	4.285E-02	4.921
PA-234M	+	766.42		2.235E+02	1.140E+02	1.088E+01	5.495E+00	20.537

Sample ID : G245808004 Acquisition date : 11-FEB-2010 22:27:52

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1001.03	*	2.265E+02	2.273E+01	3.619E+00	3.369E-01	62.571
TH-234	+	63.29	*	1.585E+02	2.794E+01	2.582E+00	4.517E-01	61.378
	+	92.38		1.556E+02	2.794E+01	1.099E+00	1.974E-01	141.533
U-234	+	609.31	*	7.295E-01	1.071E-01	6.616E-02	5.202E-03	11.027
	+	1120.29		8.520E-01	3.710E-01	2.126E-01	1.945E-02	4.008
	+	1764.49		9.409E-01	2.070E-01	1.502E-01	9.100E-03	6.266
U-235		89.95		5.708E+01	1.773E+01	3.231E+00	9.975E-01	17.665
	+	93.35		1.870E+02	5.227E+01	1.313E+00	3.664E-01	142.445
		105.00		-5.619E-01	1.184E+00	1.840E+00	5.417E-01	-0.305
	+	143.76	*	2.736E+00	5.213E-01	2.861E-01	4.639E-02	9.561
	+	163.35		2.663E+00	7.447E-01	6.258E-01	1.115E-01	4.255
	+	185.71		2.910E+00	1.758E-01	5.343E-02	2.855E-03	54.463
	+	205.31		2.895E+00	7.152E-01	6.393E-01	1.143E-01	4.528
NP-237	+	86.50	*	1.143E+00	4.446E-01	4.958E-01	1.113E-01	2.306
		95.87		2.149E+01	5.522E+00	2.195E+00	5.358E-01	9.787
U-238	+	63.29	*	1.585E+02	2.794E+01	2.582E+00	4.517E-01	61.378
	+	92.38		1.556E+02	1.302E+01	1.099E+00	9.179E-02	141.533
AM-243	+	74.67	*	6.390E-01	1.401E-01	1.133E-01	8.983E-03	5.641
	+	86.72		4.287E+01	1.413E+01	1.855E+01	1.640E+00	2.311
		117.66		-7.875E-01	4.127E+00	5.866E+00	3.644E-01	-0.134
		142.18		1.680E+02	2.143E+01	3.083E+01	1.716E+00	5.450
ANH-511	+	511.00	*	9.909E-02	4.497E-02	2.753E-02	1.624E-03	3.600

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.325E-01	2.015E-01	3.432E-01	2.330E-02	0.677
NA-22		1274.54	*	-1.015E-02	2.038E-02	3.289E-02	2.194E-03	-0.309
NA-24		1368.53	*	-6.996E-01	2.038E-02	Half-Life too short		
AL-26		1129.67		3.206E-01	9.065E-01	1.338E+00	8.255E-02	0.240
		1808.65	*	-1.860E-03	1.232E-02	1.970E-02	1.150E-03	-0.094
TI-44		67.85		-7.325E-02	8.674E-02	8.884E-02	6.782E-03	-0.824
	+	78.38	*	1.709E-01	4.671E-02	7.553E-02	6.165E-03	2.263
SC-46		889.25	*	-2.249E-02	2.132E-02	3.246E-02	2.820E-03	-0.693
	+	1120.51		1.476E-01	6.350E-02	5.655E-02	3.567E-03	2.609
V-48		944.10		1.595E+00	6.368E-01	1.001E+00	8.430E-02	1.594
		983.50	*	-1.641E-02	3.974E-02	6.241E-02	5.017E-03	-0.263
		1312.09		-3.409E-02	3.961E-02	6.208E-02	4.418E-03	-0.549
CR-51		320.08	*	3.180E-01	2.390E-01	4.108E-01	2.658E-02	0.774
MN-52		744.21		1.547E+00	2.674E-01	4.297E-01	2.921E-02	3.600
		848.13		-1.358E+00	4.777E+00	7.630E+00	6.204E-01	-0.178
		935.52		1.426E-01	1.589E-01	2.661E-01	2.262E-02	0.536
		1246.25		-6.818E-02	4.455E+00	6.368E+00	4.025E-01	-0.011
		1333.61		-2.331E-01	2.692E+00	4.434E+00	3.267E-01	-0.053
		1434.06	*	2.076E-01	1.346E-01	2.441E-01	1.761E-02	0.850
MN-54		834.83	*	1.190E-03	2.187E-02	3.547E-02	2.821E-03	0.034
CO-56		846.75	*	5.094E-03	2.326E-02	3.795E-02	3.079E-03	0.134
		977.42		-3.721E-01	1.641E+00	2.444E+00	1.980E-01	-0.152

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1037.82		-3.428E-02	1.466E-01	2.429E-01	1.932E-02	-0.141
		1175.09		1.100E+00	1.106E+00	1.923E+00	1.058E-01	0.572
	+	1238.25		1.205E-01	8.141E-02	8.235E-02	5.409E-03	1.464
		1360.21		3.960E-01	4.203E-01	7.415E-01	5.440E-02	0.534
		1771.40		2.207E-02	1.159E-01	1.670E-01	1.007E-02	0.132
CO-57		122.06	*	2.113E-02	2.414E-02	3.962E-02	2.364E-03	0.533
		136.48		1.236E-01	2.035E-01	3.078E-01	2.032E-02	0.402
CO-58		810.76	*	-2.422E-02	2.312E-02	3.567E-02	2.734E-03	-0.679
FE-59	+	142.65		3.607E+01	4.128E+00	4.968E+00	2.762E-01	7.260
		192.34		-7.691E-01	8.325E-01	1.139E+00	1.322E-01	-0.676
		1099.22	*	-1.889E-02	4.326E-02	7.072E-02	5.308E-03	-0.267
		1291.56		1.841E-02	5.764E-02	9.735E-02	8.061E-03	0.189
CO-60		1173.22		3.761E-03	2.174E-02	3.652E-02	2.001E-03	0.103
		1332.49	*	8.234E-03	1.759E-02	3.000E-02	2.211E-03	0.274
ZN-65		1115.52	*	-5.961E-03	4.657E-02	6.646E-02	4.249E-03	-0.090
GE-68		1077.35	*	3.511E-01	5.972E-01	1.027E+00	7.104E-02	0.342
AS-73		53.44	*	-1.752E-01	1.028E+00	1.696E+00	1.254E-01	-0.103
AS-74		595.88	*	4.941E-02	5.809E-02	9.784E-02	5.796E-03	0.505
		634.78		1.815E-01	2.262E-01	3.802E-01	2.234E-02	0.477
SE-75		66.05		2.169E+01	7.128E+00	1.014E+01	9.731E-01	2.139
		96.73		1.846E+01	2.831E+00	1.847E+00	2.429E-01	9.996
		121.11		1.099E-01	1.304E-01	2.136E-01	2.001E-02	0.515
		136.00		4.540E-02	4.037E-02	5.829E-02	3.357E-03	0.779
		198.60		-3.597E+00	1.433E+00	2.104E+00	1.436E-01	-1.709
		264.65	*	-3.654E-02	3.768E-02	4.684E-02	2.724E-03	-0.780
		279.53		7.849E-02	6.830E-02	1.172E-01	7.340E-03	0.670
		303.91		4.781E-01	1.448E+00	2.139E+00	2.043E-01	0.224
		400.65		5.063E-02	1.560E-01	2.618E-01	2.350E-02	0.193
BR-77	+	87.88		1.288E+03	4.246E+02	6.172E+02	5.523E+01	2.087
		200.40		1.138E+02	2.087E+02	2.964E+02	1.612E+01	0.384
	+	239.00		2.209E+02	1.842E+01	2.507E+01	1.418E+00	8.811
		249.79		2.968E+01	6.878E+01	1.108E+02	6.321E+00	0.268
		281.68		-9.925E+01	8.922E+01	1.418E+02	8.219E+00	-0.700
		297.23		3.180E+02	8.263E+01	9.606E+01	5.584E+00	3.311
		303.76		5.764E+01	1.840E+02	2.718E+02	1.581E+01	0.212
		439.47		-2.324E+01	1.295E+02	2.140E+02	1.229E+01	-0.109
		484.57		-1.387E+02	2.038E+02	3.299E+02	1.932E+01	-0.420
		520.65	*	3.345E+00	9.775E+00	1.629E+01	9.631E-01	0.205
		574.64		1.028E+01	2.349E+02	3.160E+02	1.875E+01	0.033
		578.91		5.827E+01	8.815E+01	1.291E+02	7.661E+00	0.451
		585.48		1.177E+03	2.053E+02	3.351E+02	1.987E+01	3.511
		755.35		-1.166E+01	1.578E+02	2.558E+02	1.774E+01	-0.046
		817.79		7.745E+01	1.123E+02	1.870E+02	1.445E+01	0.414
SR-82		698.33		-2.418E+01	2.171E+01	3.396E+01	2.121E+00	-0.712
		776.49	*	-2.500E-01	2.569E-01	4.013E-01	2.890E-02	-0.623
		1395.20		-1.156E+00	5.140E+00	8.356E+00	6.087E-01	-0.138
RB-83		520.41	*	2.487E-02	4.413E-02	7.214E-02	4.265E-03	0.345
		529.64		-2.189E-02	6.653E-02	1.086E-01	6.430E-03	-0.202
		552.65		1.655E-02	1.224E-01	2.023E-01	1.201E-02	0.082

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-84		881.50	*	9.529E-02	4.615E-02	7.934E-02	6.810E-03	1.201
KR-85		513.99	*	1.037E+01	4.834E+00	7.451E+00	4.399E-01	1.392
SR-85		513.99	*	5.396E-02	2.515E-02	3.877E-02	2.289E-03	1.392
RB-86		1076.63	*	2.509E-01	3.927E-01	6.769E-01	4.690E-02	0.371
Y-88		898.02		1.774E-02	2.255E-02	3.762E-02	3.330E-03	0.472
		1836.01	*	1.201E-02	1.594E-02	2.510E-02	1.433E-03	0.478
ZR-88		392.90	*	-9.280E-03	1.885E-02	3.101E-02	1.727E-03	-0.299
Y-91		1204.90	*	-8.111E+00	9.096E+00	1.449E+01	8.461E-01	-0.560
NB-94		702.63	*	1.453E-02	2.083E-02	3.471E-02	2.186E-03	0.419
		871.10		-1.561E-02	1.954E-02	3.033E-02	2.560E-03	-0.515
NB-95M		235.69	*	3.391E-01	9.951E-02	1.461E-01	1.082E-02	2.322
ZR-95		724.18		2.772E-02	6.405E-02	9.204E-02	6.911E-03	0.301
		756.15	*	-1.845E-02	4.561E-02	7.301E-02	5.844E-03	-0.253
NB-97		657.90	*	1.257E-01	4.561E-02	Half-Life too short		
		1024.50		3.108E+00	4.561E-02	Half-Life too short		
ZR-97		254.15		-1.348E+01	4.561E-02	Half-Life too short		
		355.39		-8.149E-01	4.561E-02	Half-Life too short		
		507.63	*	1.288E+01	4.561E-02	Half-Life too short		
		602.52		4.072E+00	4.561E-02	Half-Life too short		
		1021.30		-5.155E+00	4.561E-02	Half-Life too short		
		1147.95		2.647E+00	4.561E-02	Half-Life too short		
		1362.66		5.042E+00	4.561E-02	Half-Life too short		
		1750.46		2.820E+00	4.561E-02	Half-Life too short		
MO-99		140.51		-2.404E+01	3.816E+01	5.277E+01	1.420E+01	-0.456
		181.06		2.795E+00	2.227E+01	3.142E+01	5.336E+00	0.089
		366.43		-6.696E+00	7.266E+01	1.211E+02	6.892E+00	-0.055
		739.58	*	2.388E+01	1.341E+01	1.978E+01	2.810E+00	1.207
		778.00		-3.720E+01	3.186E+01	4.937E+01	3.565E+00	-0.754
TC-99M		140.51	*	-1.163E+12	3.186E+01	Half-Life too short		
RH-101		127.23		1.151E-02	3.365E-02	4.812E-02	2.808E-03	0.239
		198.01	*	-6.556E-02	2.582E-02	3.809E-02	2.066E-03	-1.721
		325.23		-8.920E-03	1.360E-01	2.276E-01	1.321E-02	-0.039
RH-102		418.52		6.654E-02	1.752E-01	2.942E-01	1.668E-02	0.226
		475.06	*	-8.227E-04	1.826E-02	3.019E-02	1.762E-03	-0.027
		631.29		-2.104E-02	3.261E-02	5.215E-02	3.068E-03	-0.404
		697.49		-5.052E-02	4.690E-02	7.346E-02	4.582E-03	-0.688
	+	766.84		2.126E+00	2.157E-01	2.416E-01	1.711E-02	8.799
		1046.59		1.994E-03	5.605E-02	9.409E-02	6.885E-03	0.021
		1112.84		2.024E-03	1.169E-01	1.686E-01	1.083E-02	0.012
RU-103		497.08	*	2.536E-02	2.569E-02	4.334E-02	5.496E-03	0.585
	+	610.33		8.075E+00	1.600E+00	1.329E+00	2.054E-01	6.077
RH-106	+	511.85		4.963E-01	2.252E-01	2.178E-01	1.285E-02	2.279
		621.84	*	4.329E-02	1.894E-01	3.127E-01	3.685E-02	0.138
		1050.47		-7.529E-01	1.107E+00	1.792E+00	1.303E-01	-0.420
RU-106	+	511.85		4.963E-01	2.252E-01	2.178E-01	1.285E-02	2.279
		621.84	*	4.329E-02	1.894E-01	3.127E-01	1.844E-02	0.138
		1050.47		-7.529E-01	1.107E+00	1.792E+00	1.303E-01	-0.420
AG-108M		433.93	*	-1.975E-02	1.968E-02	3.171E-02	1.975E-03	-0.623
		614.37		-1.168E-02	2.554E-02	3.541E-02	2.263E-03	-0.330

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.95		5.861E-03	2.778E-02	3.951E-02	2.758E-03	0.148
AG-110M		657.75	*	9.387E-03	2.441E-02	3.515E-02	2.181E-03	0.267
		677.61		-1.803E-01	1.820E-01	2.856E-01	1.814E-02	-0.631
		706.67		-8.208E-02	1.316E-01	2.098E-01	1.399E-02	-0.391
		763.93		1.689E+00	1.994E-01	2.961E-01	2.173E-02	5.705
		884.67		-5.402E-03	3.061E-02	4.902E-02	4.365E-03	-0.110
		937.48		-7.778E-02	5.984E-02	8.939E-02	7.867E-03	-0.870
		1384.27		6.437E-02	7.660E-02	1.187E-01	9.007E-03	0.542
IN-111		171.28		-4.763E-01	1.163E+00	1.867E+00	9.800E-02	-0.255
		245.39	*	-6.826E-01	1.187E+00	1.627E+00	9.250E-02	-0.420
IN-113M		391.69	*	-1.605E-02	2.733E-02	4.484E-02	2.676E-03	-0.358
SN-113		391.69	*	-1.605E-02	2.733E-02	4.484E-02	2.676E-03	-0.358
IN-114M		190.27	*	-2.157E-01	1.582E-01	2.149E-01	1.155E-02	-1.004
CD-115		260.90		2.068E+02	1.590E+02	2.288E+02	1.314E+01	0.904
		492.35		-4.790E+01	3.623E+01	5.586E+01	3.280E+00	-0.857
		527.90	*	4.511E+00	1.048E+01	1.750E+01	1.036E+00	0.258
SN-117M		156.02		3.858E-01	2.047E+00	3.320E+00	1.780E-01	0.116
		158.56	*	-3.918E-02	5.761E-02	8.035E-02	4.277E-03	-0.488
SB-122		563.90	*	3.012E+00	2.150E+00	3.234E+00	1.920E-01	0.931
		692.80		4.175E+01	3.829E+01	6.461E+01	3.994E+00	0.646
I-123		159.00	*	-2.358E+01	3.829E+01	Half-Life too short		
		528.96		-5.461E+02	3.829E+01	Half-Life too short		
TE-123M		159.00	*	-1.994E-02	2.800E-02	3.903E-02	2.108E-03	-0.511
I-124		602.71	*	2.890E-01	5.613E-01	8.159E-01	4.829E-02	0.354
		722.78		8.861E-01	3.664E+00	5.220E+00	3.413E-01	0.170
		1325.50		-1.594E+00	1.905E+01	3.139E+01	2.286E+00	-0.051
		1376.25		4.662E+01	2.170E+01	3.599E+01	2.632E+00	1.296
		1509.49		1.759E+01	1.004E+01	1.829E+01	1.287E+00	0.962
		1691.02		-1.944E-01	2.037E+00	3.299E+00	2.110E-01	-0.059
SB-124		602.71		1.353E-02	2.628E-02	3.820E-02	2.262E-03	0.354
		645.85		4.944E-02	3.086E-01	5.077E-01	3.348E-02	0.097
		709.31		-2.810E-01	1.733E+00	2.808E+00	1.791E-01	-0.100
		713.82		-2.853E-02	1.006E+00	1.638E+00	1.733E-01	-0.017
		722.78		6.013E-02	2.487E-01	3.542E-01	2.403E-02	0.170
	+	968.20		9.518E+00	2.066E+00	3.062E+00	2.509E-01	3.108
		1045.16		5.329E-01	1.244E+00	2.125E+00	1.559E-01	0.251
		1325.50		-1.155E-01	1.381E+00	2.275E+00	1.657E-01	-0.051
		1368.21		-2.455E-01	7.874E-01	1.272E+00	1.614E-01	-0.193
		1436.60		1.125E+00	1.807E+00	3.110E+00	2.242E-01	0.362
		1691.02	*	-3.111E-03	3.261E-02	5.280E-02	3.616E-03	-0.059
SB-125		427.89	*	6.853E-02	5.492E-02	9.406E-02	5.600E-03	0.729
	+	463.38		3.571E-01	2.496E-01	3.055E-01	2.069E-02	1.169
		600.56		-5.387E-02	1.065E-01	1.718E-01	1.171E-02	-0.313
		635.90		-5.131E-03	1.650E-01	2.699E-01	1.850E-02	-0.019
TE-125M		109.28	*	4.098E+01	1.279E+01	1.823E+01	1.612E+00	2.248
I-126		388.63		5.641E-02	1.324E-01	2.229E-01	1.244E-02	0.253
		666.33	*	8.352E-02	1.303E-01	1.900E-01	1.116E-02	0.440
		753.82		7.240E-01	9.918E-01	1.652E+00	1.143E-01	0.438
SB-126		223.80		-3.196E+00	3.106E+00	4.875E+00	2.720E-01	-0.656

---- Non-Identified Nuclides ----

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		278.60		1.634E+00	1.659E+00	2.841E+00	1.645E-01	0.575
		296.50		8.809E+00	1.618E+00	1.948E+00	1.133E-01	4.521
		414.70		-1.154E-03	4.879E-02	8.111E-02	4.588E-03	-0.014
		415.30		-2.949E-01	4.084E+00	6.780E+00	3.837E-01	-0.043
		555.20		1.349E-01	2.664E+00	4.392E+00	2.607E-01	0.031
		573.80		-1.804E-01	7.880E-01	1.110E+00	6.587E-02	-0.162
		593.00		-1.099E-01	6.066E-01	9.899E-01	5.866E-02	-0.111
		656.30		2.822E-01	2.505E+00	3.562E+00	2.078E-01	0.079
		666.33		3.501E-02	5.464E-02	7.965E-02	4.680E-03	0.440
		675.00		4.938E-01	1.278E+00	2.115E+00	1.264E-01	0.233
		695.00		-4.462E-02	5.151E-02	8.138E-02	5.052E-03	-0.548
		697.00		-1.966E-01	1.778E-01	2.781E-01	1.733E-02	-0.707
		720.50	*	8.745E-02	9.741E-02	1.549E-01	1.008E-02	0.565
		856.80		-3.710E-01	3.277E-01	4.209E-01	3.472E-02	-0.881
		989.30		-2.319E-01	6.888E-01	1.085E+00	8.658E-02	-0.214
		1034.80		-6.123E-01	4.324E+00	7.198E+00	5.371E-01	-0.085
		1213.00		-1.635E+00	2.417E+00	3.894E+00	2.310E-01	-0.420
SB-127		61.10		3.266E+03	3.733E+02	2.120E+02	2.288E+01	15.408
		252.40		-7.733E+00	5.534E+00	5.947E+00	2.477E+00	-1.300
		290.80		-1.858E+00	1.938E+01	2.832E+01	2.742E+00	-0.066
		411.60		7.475E+00	9.222E+00	1.556E+01	2.279E+00	0.480
		444.90		6.101E+00	7.626E+00	1.288E+01	1.444E+00	0.474
		473.00		-6.573E-02	1.341E+00	2.217E+00	2.575E-01	-0.030
		543.00		-3.268E+00	1.334E+01	2.180E+01	2.907E+00	-0.150
		603.60		3.345E-01	9.929E+00	1.412E+01	1.591E+00	0.024
		685.20	*	-1.613E-01	1.071E+00	1.739E+00	1.757E-01	-0.093
		698.50		-1.333E+01	1.211E+01	1.872E+01	2.806E+00	-0.712
		722.20		1.160E+01	2.553E+01	3.674E+01	3.722E+00	0.316
		783.80		1.016E+01	3.819E+00	5.718E+00	6.832E-01	1.777
XE-127		57.60		2.480E+01	9.207E+00	1.341E+01	1.005E+00	1.850
	+	145.22		9.286E+00	1.063E+00	1.246E+00	6.879E-02	7.450
		172.10		1.848E-02	1.007E-01	1.630E-01	8.565E-03	0.113
		202.84	*	1.272E-01	4.263E-02	6.282E-02	3.427E-03	2.025
		374.96		9.169E-02	1.229E-01	2.086E-01	1.179E-02	0.439
I-131		80.18		2.605E+00	1.060E+01	1.103E+01	9.225E-01	0.236
		284.30		-9.301E-02	1.063E+00	1.786E+00	1.154E-01	-0.052
		364.48	*	-2.927E-02	7.902E-02	1.308E-01	8.368E-03	-0.224
		636.97		-2.098E-01	1.065E+00	1.732E+00	1.138E-01	-0.121
		722.89		1.172E+00	5.281E+00	7.515E+00	4.980E-01	0.156
TE-132		49.72		-3.855E+01	2.959E+01	4.801E+01	4.874E+00	-0.803
	+	111.76		1.151E+03	1.419E+02	9.670E+01	9.445E+00	11.905
		116.30		1.328E+02	4.276E+01	6.104E+01	5.842E+00	2.176
		228.16	*	6.350E-01	6.657E-01	1.075E+00	1.567E-01	0.591
BA-133		53.15		1.400E+00	4.354E+00	7.210E+00	5.325E-01	0.194
		79.62		9.388E-01	2.646E+00	2.757E+00	4.140E-01	0.341
		81.00		1.807E-01	2.026E-01	2.110E-01	3.319E-02	0.857
		276.40		1.403E-01	2.352E-01	3.897E-01	5.050E-02	0.360
		302.84		3.783E-02	9.872E-02	1.460E-01	1.703E-02	0.259
		356.01	*	-6.269E-03	2.961E-02	4.273E-02	4.925E-03	-0.147

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		383.85		-4.943E-02	1.844E-01	3.053E-01	3.288E-02	-0.162
I-133	+	510.53		3.090E+00	1.844E-01	Half-Life too short		
		529.87	*	-3.396E-03	1.844E-01	Half-Life too short		
		706.58		-4.605E-01	1.844E-01	Half-Life too short		
		856.28		-1.214E+00	1.844E-01	Half-Life too short		
		875.33		2.157E-03	1.844E-01	Half-Life too short		
		1236.41		3.004E+00	1.844E-01	Half-Life too short		
		1298.22		-7.154E-03	1.844E-01	Half-Life too short		
CS-134		475.35		2.133E-01	1.192E+00	1.984E+00	1.158E-01	0.108
		563.23		2.258E-01	2.634E-01	3.884E-01	2.352E-02	0.581
	+	569.32		7.936E-01	2.518E-01	2.683E-01	1.638E-02	2.958
		604.70		1.487E-02	2.205E-02	3.227E-02	1.920E-03	0.461
	+	795.84	*	8.131E-02	4.896E-02	5.101E-02	3.836E-03	1.594
		801.93		-5.167E-01	3.003E-01	3.690E-01	2.797E-02	-1.400
		1038.57		-1.929E-01	1.810E+00	3.018E+00	2.238E-01	-0.064
		1167.94		-1.634E-01	1.173E+00	1.943E+00	1.081E-01	-0.084
		1365.15		-4.152E-01	5.410E-01	8.424E-01	6.561E-02	-0.493
CS-135		268.24	*	1.703E-01	1.147E-01	1.740E-01	1.328E-02	0.979
I-135		288.45		-3.717E+11	1.147E-01	Half-Life too short		
		417.63		-1.059E+11	1.147E-01	Half-Life too short		
		546.56		1.192E+11	1.147E-01	Half-Life too short		
		836.80		1.593E+11	1.147E-01	Half-Life too short		
		1038.76		-3.555E+10	1.147E-01	Half-Life too short		
		1124.00		1.505E+12	1.147E-01	Half-Life too short		
		1131.51		-4.995E+10	1.147E-01	Half-Life too short		
		1260.41	*	-6.322E+10	1.147E-01	Half-Life too short		
		1457.56		8.995E+12	1.147E-01	Half-Life too short		
		1678.03		1.721E+11	1.147E-01	Half-Life too short		
		1706.46		-1.475E+11	1.147E-01	Half-Life too short		
		1791.20		-6.893E+10	1.147E-01	Half-Life too short		
CS-136		66.91		-5.292E+00	1.455E+00	1.563E+00	2.328E-01	-3.386
	+	86.29		5.469E+00	1.877E+00	2.678E+00	3.475E-01	2.042
		153.22		-2.721E-02	5.950E-01	9.628E-01	6.651E-02	-0.028
	+	163.89		6.495E+00	1.469E+00	1.790E+00	1.220E-01	3.629
		176.55		1.390E-01	3.238E-01	5.255E-01	3.186E-02	0.264
		273.65		-2.245E-01	3.455E-01	4.980E-01	3.286E-02	-0.451
		340.57		2.740E-01	9.567E-02	1.490E-01	9.158E-03	1.839
		818.51		3.193E-02	4.542E-02	7.566E-02	5.864E-03	0.422
		1048.07	*	2.963E-03	5.573E-02	9.364E-02	7.238E-03	0.032
		1235.34		5.488E-01	3.359E-01	5.237E-01	5.353E-02	1.048
CE-139		165.85	*	6.062E-02	2.834E-02	4.140E-02	2.161E-03	1.465
BA-140	+	162.64		4.583E+00	1.026E+00	1.270E+00	7.685E-02	3.609
		304.84		7.549E-02	9.590E-01	1.406E+00	3.837E-01	0.054
		423.70		-8.184E-01	1.328E+00	2.044E+00	6.492E-01	-0.400
		537.32	*	9.493E-02	1.739E-01	2.868E-01	9.333E-02	0.331
LA-140		328.77		1.575E-01	1.951E-01	3.273E-01	2.126E-02	0.481
		432.53		-1.720E+00	1.342E+00	2.141E+00	1.357E-01	-0.803
		487.03		4.446E-02	8.903E-02	1.493E-01	9.888E-03	0.298
		751.79		-3.037E-01	1.164E+00	1.874E+00	1.502E-01	-0.162

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		815.85		-1.646E-01	1.974E-01	3.071E-01	2.703E-02	-0.536
		867.82		7.097E-01	8.606E-01	1.363E+00	1.208E-01	0.521
		919.63		-8.688E-01	1.880E+00	2.659E+00	2.835E-01	-0.327
		925.24		1.493E+00	7.787E-01	1.332E+00	1.217E-01	1.121
		1596.49	*	9.421E-03	4.333E-02	6.281E-02	4.250E-03	0.150
CE-141		145.44	*	7.223E-01	8.033E-02	1.115E-01	6.419E-03	6.480
CE-143		57.37		7.017E-03	8.033E-02	Half-Life too short		
		231.56		-7.587E-03	8.033E-02	Half-Life too short		
		293.26	*	1.451E-03	8.033E-02	Half-Life too short		
	+	350.59		3.768E-02	8.033E-02	Half-Life too short		
		490.36		2.309E-04	8.033E-02	Half-Life too short		
		664.57		4.056E-03	8.033E-02	Half-Life too short		
		721.93		1.555E-04	8.033E-02	Half-Life too short		
CE-144		80.11		9.468E-01	4.339E+00	4.515E+00	3.741E-01	0.210
		133.54	*	2.425E-01	2.156E-01	3.080E-01	4.363E-02	0.787
PM-144		476.78		4.107E-02	4.173E-02	7.081E-02	4.941E-03	0.580
		618.01		-4.484E-03	2.031E-02	3.061E-02	1.912E-03	-0.146
		696.49	*	-2.511E-02	2.118E-02	3.302E-02	2.057E-03	-0.760
		778.57		-8.148E-01	1.537E+00	2.374E+00	1.717E-01	-0.343
PR-144		696.49	*	-1.703E+00	1.436E+00	2.239E+00	1.394E-01	-0.760
		1489.15		-9.686E-01	4.807E+00	7.769E+00	5.506E-01	-0.125
PM-146		453.90	*	1.185E-02	2.672E-02	4.481E-02	3.859E-03	0.264
		633.02		6.023E-01	8.557E-01	1.387E+00	5.110E-01	0.434
		735.90		-2.436E-02	1.155E-01	1.604E-01	4.506E-02	-0.152
		747.13		-7.831E-03	6.750E-02	9.423E-02	1.227E-02	-0.083
ND-147		91.11		7.052E+01	6.556E+00	1.479E+00	1.366E-01	47.673
		319.41		2.070E+00	2.253E+00	3.848E+00	2.237E-01	0.538
		439.89		-2.964E+00	3.830E+00	6.215E+00	3.572E-01	-0.477
		531.02	*	6.252E-02	3.783E-01	6.268E-01	8.508E-02	0.100
PM-149		285.90	*	4.086E+01	8.958E+01	1.518E+02	2.153E+01	0.269
EU-152		121.78		7.432E-02	6.983E-02	1.146E-01	8.875E-03	0.648
		244.69		8.607E-02	2.545E-01	3.579E-01	2.034E-02	0.241
		344.27	*	-1.992E-02	7.968E-02	1.005E-01	6.541E-03	-0.198
		443.98		1.586E-01	5.795E-01	9.689E-01	5.577E-02	0.164
		778.89		-3.526E-02	1.768E-01	2.770E-01	2.003E-02	-0.127
		867.32		3.193E-01	4.942E-01	7.489E-01	6.283E-02	0.426
	+	964.01		3.112E-01	1.991E-01	2.576E-01	2.122E-02	1.208
		1085.78		1.002E-01	1.868E-01	3.205E-01	2.181E-02	0.313
		1112.02		1.273E-01	1.611E-01	2.453E-01	1.578E-02	0.519
		1407.95		2.429E-02	8.759E-02	1.473E-01	1.070E-02	0.165
GD-153		69.67		6.942E+00	2.710E+00	3.342E+00	2.572E-01	2.077
	+	83.37		2.160E+02	4.056E+01	3.497E+01	2.987E+00	6.177
	+	97.43	*	1.833E+00	1.862E-01	1.893E-01	1.472E-02	9.684
		103.18		-6.918E-02	1.267E-01	1.798E-01	1.302E-02	-0.385
EU-154		123.07		7.503E-03	4.893E-02	7.975E-02	7.566E-03	0.094
		247.94		2.799E-01	2.611E-01	4.100E-01	3.886E-02	0.683
		591.81		-6.711E-02	4.009E-01	6.164E-01	6.072E-02	-0.109
		723.30		5.024E-02	1.150E-01	1.654E-01	1.274E-02	0.304
		756.87		3.107E-02	4.844E-01	7.891E-01	8.554E-02	0.039

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		873.19		-1.177E-01	1.706E-01	2.658E-01	3.227E-02	-0.443
		996.32		2.032E-01	2.209E-01	3.216E-01	5.605E-02	0.632
		1004.76		1.863E+00	2.704E-01	3.581E-01	3.959E-02	5.202
		1274.45	*	-2.481E-02	5.677E-02	9.190E-02	9.096E-03	-0.270
EU-155		48.70		-4.309E+00	2.675E+00	4.339E+00	3.043E-01	-0.993
		60.01		4.346E+01	8.007E+00	1.115E+01	8.386E-01	3.898
	+	86.54		4.691E-01	1.547E-01	2.276E-01	2.027E-02	2.061
		105.31	*	-1.019E-01	1.258E-01	1.878E-01	1.351E-02	-0.542
TB-160	+	86.79		1.269E+00	4.184E-01	6.105E-01	5.400E-02	2.079
		197.04		6.635E-02	4.167E-01	6.720E-01	3.641E-02	0.099
		215.65		2.720E-01	5.386E-01	8.716E-01	4.824E-02	0.312
	+	298.57		1.501E-01	8.658E-02	1.202E-01	6.987E-03	1.249
		879.36	*	2.605E-02	8.978E-02	1.466E-01	1.254E-02	0.178
		962.29		4.093E-01	3.087E-01	4.621E-01	3.814E-02	0.886
	+	966.15		2.165E-01	1.385E-01	2.041E-01	1.677E-02	1.061
		1177.93		4.302E-02	1.784E-01	3.005E-01	1.663E-02	0.143
		1271.85		-1.340E-01	3.361E-01	5.456E-01	3.615E-02	-0.246
HO-166M		80.57		2.450E-01	5.541E-01	5.783E-01	4.812E-02	0.424
	+	184.41		2.182E+00	1.318E-01	9.755E-02	5.204E-03	22.372
		280.46		-1.804E-02	5.327E-02	8.910E-02	5.161E-03	-0.202
		410.95		1.619E-01	1.426E-01	2.437E-01	1.375E-02	0.664
		711.68	*	2.092E-02	3.675E-02	6.106E-02	3.911E-03	0.343
		752.31		3.753E-02	1.722E-01	2.821E-01	1.946E-02	0.133
		810.29		-4.240E-02	3.508E-02	5.373E-02	4.101E-03	-0.789
TM-171		51.35		2.965E+01	3.584E+01	5.952E+01	4.341E+00	0.498
		52.39		5.216E+00	1.893E+01	3.134E+01	2.304E+00	0.166
		59.40		1.792E+02	4.125E+01	5.884E+01	4.426E+00	3.046
		66.72	*	-1.733E+02	4.053E+01	5.290E+01	4.022E+00	-3.276
LU-176	+	88.36		9.233E-01	3.044E-01	4.467E-01	3.978E-02	2.067
		201.83		2.205E-02	2.448E-02	3.499E-02	1.907E-03	0.630
		306.84	*	-3.812E-03	1.538E-02	2.569E-02	1.494E-03	-0.148
		401.10		1.131E+00	4.026E+00	6.752E+00	3.783E-01	0.167
LU-177M		52.97		2.569E-01	1.979E+00	3.273E+00	2.415E-01	0.078
		54.07		-3.837E-01	1.062E+00	1.749E+00	1.297E-01	-0.219
		61.30		8.724E+01	7.062E+00	4.633E+00	3.486E-01	18.828
		121.62		3.740E-01	3.596E-01	5.910E-01	3.533E-02	0.633
		147.16		2.241E-01	6.214E-01	8.861E-01	4.864E-02	0.253
		171.86		6.024E-02	3.972E-01	6.426E-01	3.375E-02	0.094
		218.09		-2.806E-01	6.101E-01	9.702E-01	5.383E-02	-0.289
	+	268.79		9.244E-01	6.631E-01	8.912E-01	5.139E-02	1.037
		319.02		1.266E-01	1.614E-01	2.750E-01	1.598E-02	0.460
		367.43		2.991E-01	5.493E-01	9.292E-01	5.284E-02	0.322
		413.65	*	-8.015E-02	1.068E-01	1.741E-01	9.842E-03	-0.460
HF-181		56.28		-6.839E-01	1.279E+00	2.031E+00	1.517E-01	-0.337
		57.53		1.967E+00	7.696E-01	1.122E+00	8.403E-02	1.754
		65.20		6.364E+01	5.085E+00	2.983E+00	2.257E-01	21.334
		133.02		1.444E-01	7.018E-02	1.023E-01	5.857E-03	1.410
		136.25		5.062E-01	4.775E-01	6.889E-01	3.903E-02	0.735
		345.85		-8.831E-03	1.393E-01	2.023E-01	1.166E-02	-0.044

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		482.03	*	-3.295E-02	2.601E-02	4.129E-02	2.416E-03	-0.798
W-181		56.28		-2.439E-01	4.932E-01	7.834E-01	5.850E-02	-0.311
		57.53		7.580E-01	2.970E-01	4.329E-01	3.243E-02	1.751
		65.20	*	2.437E+01	1.947E+00	1.142E+00	8.644E-02	21.334
TA-182		67.75		-4.216E-01	1.837E-01	2.131E-01	1.626E-02	-1.978
		100.10		3.405E+00	3.481E-01	3.924E-01	2.949E-02	8.677
		152.43		7.722E-02	2.852E-01	4.634E-01	2.508E-02	0.167
		222.10		-2.301E-01	2.477E-01	3.898E-01	2.172E-02	-0.590
	+	1001.68		1.006E+02	8.753E+00	7.450E+00	5.845E-01	13.502
	+	1121.28		4.063E-01	1.748E-01	1.548E-01	9.744E-03	2.625
		1189.05		-9.729E-02	1.661E-01	2.281E-01	1.291E-02	-0.427
		1221.42	*	1.528E-02	9.967E-02	1.669E-01	1.006E-02	0.092
		1230.97		-3.838E-01	2.487E-01	3.482E-01	2.138E-02	-1.102
RE-183		57.98		1.072E+00	3.026E-01	4.375E-01	3.280E-02	2.449
		59.32		7.128E-01	1.708E-01	2.444E-01	1.838E-02	2.917
		67.20		-1.166E+00	3.084E-01	3.794E-01	2.889E-02	-3.073
	+	162.32	*	6.302E-01	1.398E-01	1.743E-01	9.183E-03	3.615
	+	208.81		1.856E+00	7.732E-01	1.145E+00	6.291E-02	1.621
		291.72		8.283E-01	6.779E-01	1.025E+00	5.952E-02	0.808
RE-184		57.98		3.917E+00	1.106E+00	1.599E+00	1.199E-01	2.449
		59.32		2.603E+00	6.239E-01	8.924E-01	6.712E-02	2.917
		67.20		-4.260E+00	1.127E+00	1.386E+00	1.056E-01	-3.073
		161.27		1.080E+00	3.597E-01	5.289E-01	2.794E-02	2.042
		216.55		1.044E-01	1.897E-01	3.072E-01	1.702E-02	0.340
		252.85	*	-2.834E-01	1.873E-01	2.481E-01	1.418E-02	-1.143
		318.01		3.236E-02	2.798E-01	4.706E-01	2.735E-02	0.069
		792.07		2.139E-01	1.036E+00	9.827E-01	7.270E-02	0.218
		903.28		4.210E-02	5.417E-01	8.526E-01	7.477E-02	0.049
		920.93		-7.134E-02	2.664E-01	4.237E-01	3.656E-02	-0.168
OS-185		59.72		2.370E+00	4.704E-01	6.615E-01	4.977E-02	3.582
		61.14		7.809E+00	6.492E-01	4.813E-01	3.621E-02	16.223
		69.30		7.376E-01	5.645E-01	5.980E-01	4.594E-02	1.233
		592.07		-2.769E-01	1.653E+00	2.542E+00	1.506E-01	-0.109
		646.12	*	-4.528E-03	2.612E-02	4.248E-02	2.488E-03	-0.107
		717.42		-2.754E-01	5.494E-01	8.781E-01	5.685E-02	-0.314
		874.81		1.114E-01	3.420E-01	5.600E-01	4.755E-02	0.199
		880.27		3.083E-01	4.995E-01	8.251E-01	7.068E-02	0.374
RE-188		155.03	*	1.366E-01	1.458E-01	2.385E-01	1.282E-02	0.573
		477.96		2.463E+00	1.912E+00	3.270E+00	1.911E-01	0.753
		633.10		1.303E+00	1.697E+00	2.850E+00	1.676E-01	0.457
W-188	+	63.58		6.458E+03	5.067E+02	1.991E+02	1.502E+01	32.437
		227.08		1.231E+01	9.237E+00	1.512E+01	8.462E-01	0.815
		290.67	*	-2.035E+00	5.308E+00	7.690E+00	4.466E-01	-0.265
IR-192	+	295.96		7.286E-01	1.057E-01	1.424E-01	8.411E-03	5.115
		308.46		2.893E-02	6.051E-02	1.026E-01	6.035E-03	0.282
		316.51	*	-1.688E-02	2.159E-02	3.557E-02	2.078E-03	-0.475
		468.07		-2.024E-02	4.719E-02	6.661E-02	4.466E-03	-0.304
		604.41		1.003E-01	3.041E-01	4.382E-01	5.000E-02	0.229
		612.46		1.270E+00	5.035E-01	7.779E-01	5.956E-02	1.633

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AU-195		65.12		1.233E+01	9.778E-01	5.429E-01	4.107E-02	22.706
		66.83		-5.961E-01	1.349E-01	1.750E-01	1.331E-02	-3.406
	+	75.70		2.079E+00	4.559E-01	4.096E-01	3.273E-02	5.075
	+	98.88	*	5.344E+00	5.429E-01	5.282E-01	4.031E-02	10.116
		129.76		5.851E+00	3.057E+00	4.449E+00	2.573E-01	1.315
TL-200		367.94	*	-5.479E-06	3.057E+00	Half-Life too short		
		579.30		2.386E-03	3.057E+00	Half-Life too short		
		828.27		-3.254E-03	3.057E+00	Half-Life too short		
		1205.75		-7.694E-04	3.057E+00	Half-Life too short		
TL-201		68.90		1.161E+01	1.235E+01	1.304E+01	9.996E-01	0.891
		70.82		2.653E+01	5.441E+00	7.624E+00	5.902E-01	3.480
		80.30		4.127E+00	1.409E+01	1.467E+01	1.218E+00	0.281
		135.34		1.680E+01	3.569E+01	5.107E+01	2.901E+00	0.329
		167.43	*	-2.655E+00	8.895E+00	1.248E+01	6.519E-01	-0.213
TL-202		68.90		8.216E-01	8.740E-01	9.225E-01	7.074E-02	0.891
		70.82		1.872E+00	3.840E-01	5.380E-01	4.165E-02	3.480
		80.30		2.913E-01	9.945E-01	1.036E+00	8.597E-02	0.281
		439.56	*	-1.123E-02	4.502E-02	7.421E-02	4.262E-03	-0.151
HG-203		70.83		5.939E+00	1.662E+00	2.199E+00	2.874E-01	2.700
		72.87		4.209E+00	9.690E-01	1.329E+00	1.688E-01	3.167
		82.60		1.040E+01	2.487E+00	2.620E+00	3.578E-01	3.971
		279.20	*	2.538E-02	2.598E-02	4.447E-02	2.735E-03	0.571
BI-207		72.80		1.468E+00	2.763E-01	3.807E-01	2.982E-02	3.856
	+	74.97		1.147E+00	2.516E-01	2.268E-01	1.802E-02	5.058
	+	84.90		2.783E+00	5.225E-01	4.476E-01	3.883E-02	6.216
	+	569.67		1.235E-01	3.915E-02	4.106E-02	2.437E-03	3.009
		1063.62	*	2.701E-02	2.634E-02	4.529E-02	3.216E-03	0.596
		1770.23		1.213E-01	2.251E-01	3.414E-01	2.059E-02	0.355
TL-207		81.07		4.527E-01	4.444E-01	4.665E-01	3.899E-02	0.970
	+	83.78		1.835E+00	3.445E-01	2.963E-01	2.542E-02	6.191
		94.90		2.330E+01	1.941E+00	8.870E-01	7.141E-02	26.269
		122.32		9.989E-01	1.665E+00	2.726E+00	1.862E-01	0.366
	+	144.24		8.865E+00	1.085E+00	1.225E+00	8.601E-02	7.237
		154.21		2.013E-01	3.323E-01	5.418E-01	3.616E-02	0.372
	+	269.46		2.151E-01	1.544E-01	2.079E-01	1.254E-02	1.035
		323.87	*	-6.910E-01	4.272E-01	6.651E-01	1.099E-01	-1.039
	+	338.28		3.314E+00	9.518E-01	1.223E+00	1.287E-01	2.711
		445.03		1.234E+00	1.382E+00	2.340E+00	2.397E-01	0.528
PO-209		260.50		2.163E+01	7.903E+00	1.169E+01	6.710E-01	1.851
		262.80		1.254E+01	2.039E+01	2.885E+01	1.659E+00	0.435
		896.60	*	1.374E+00	3.975E+00	6.514E+00	5.727E-01	0.211
BI-210		46.50	*	-5.539E+00	3.677E+00	5.899E+00	4.496E-01	-0.939
PB-210		46.50	*	-5.539E+00	3.677E+00	5.899E+00	4.496E-01	-0.939
PO-210		46.50	*	-5.539E+00	3.670E+00	5.899E+00	3.845E-01	-0.939
PB-211		404.84	*	-3.098E-01	5.824E-01	9.012E-01	5.616E-01	-0.344
		427.08		5.031E-01	1.271E+00	2.070E+00	1.279E+00	0.243
		831.96		-1.831E-01	7.653E-01	1.157E+00	7.242E-01	-0.158
PO-215		81.07		4.527E-01	4.444E-01	4.665E-01	3.899E-02	0.970
	+	83.78		1.835E+00	3.445E-01	2.963E-01	2.542E-02	6.191

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		94.90		2.330E+01	1.941E+00	8.870E-01	7.141E-02	26.269
		122.32		9.989E-01	1.665E+00	2.726E+00	1.862E-01	0.366
	+	144.24		8.865E+00	1.085E+00	1.225E+00	8.601E-02	7.237
		154.21		2.013E-01	3.323E-01	5.418E-01	3.616E-02	0.372
	+	269.46		2.151E-01	1.544E-01	2.079E-01	1.254E-02	1.035
		323.87	*	-6.910E-01	4.272E-01	6.651E-01	1.099E-01	-1.039
	+	338.28		3.314E+00	9.518E-01	1.223E+00	1.287E-01	2.711
		445.03		1.234E+00	1.382E+00	2.340E+00	2.397E-01	0.528
RN-219	+	271.23		2.760E-01	1.986E-01	2.695E-01	2.179E-02	1.024
		401.81	*	1.411E-01	2.467E-01	4.155E-01	5.619E-02	0.340
RN-220		549.76	*	-1.138E+01	1.614E+01	2.597E+01	1.541E+00	-0.438
RA-223		81.07		4.527E-01	4.444E-01	4.665E-01	3.899E-02	0.970
	+	83.78		1.835E+00	3.445E-01	2.963E-01	2.542E-02	6.191
		94.90		2.330E+01	1.941E+00	8.870E-01	7.141E-02	26.269
		122.32		9.989E-01	1.665E+00	2.726E+00	1.862E-01	0.366
	+	144.24		8.865E+00	1.085E+00	1.225E+00	8.601E-02	7.237
		154.21		2.013E-01	3.323E-01	5.418E-01	3.616E-02	0.372
	+	269.46		2.151E-01	1.544E-01	2.079E-01	1.254E-02	1.035
		323.87	*	-6.910E-01	4.272E-01	6.651E-01	1.099E-01	-1.039
	+	338.28		3.314E+00	9.518E-01	1.223E+00	1.287E-01	2.711
		445.03		1.234E+00	1.382E+00	2.340E+00	2.397E-01	0.528
AC-227		79.80		5.418E-01	3.350E+00	3.481E+00	7.437E-01	0.156
		236.00		1.225E+00	2.234E-01	2.955E-01	3.063E-02	4.145
		256.20	*	1.543E+00	3.837E-01	4.982E-01	6.940E-02	3.097
		286.10		4.748E-01	9.678E-01	1.642E+00	1.898E-01	0.289
	+	299.80		1.886E+00	1.125E+00	1.497E+00	2.438E-01	1.260
		304.40		2.900E-03	1.303E+00	1.906E+00	3.299E-01	0.002
		334.20		3.244E-01	1.604E+00	2.351E+00	4.310E-01	0.138
TH-227		79.80		5.418E-01	3.350E+00	3.481E+00	7.533E-01	0.156
	+	94.00		6.011E+02	1.303E+02	1.034E+01	2.234E+00	58.126
		236.00		1.225E+00	2.140E-01	2.955E-01	2.647E-02	4.145
		256.20	*	1.543E+00	4.109E-01	4.982E-01	8.407E-02	3.097
		286.10		4.748E-01	1.077E+00	1.642E+00	1.645E+00	0.289
	+	299.80		1.886E+00	1.125E+00	1.497E+00	2.438E-01	1.260
		304.40		2.900E-03	1.303E+00	1.906E+00	3.299E-01	0.002
		334.20		3.244E-01	1.604E+00	2.351E+00	4.310E-01	0.138
PA-231		283.67	*	-3.524E-01	1.007E+00	1.624E+00	2.238E-01	-0.217
	+	301.29		7.543E-01	4.401E-01	5.959E-01	6.234E-02	1.266
TH-231		81.07		4.527E-01	4.444E-01	4.665E-01	3.899E-02	0.970
	+	83.78		1.835E+00	3.445E-01	2.963E-01	2.542E-02	6.191
		94.90		2.330E+01	1.941E+00	8.870E-01	7.141E-02	26.269
		122.32		9.989E-01	1.665E+00	2.726E+00	1.862E-01	0.366
	+	144.24		8.865E+00	1.085E+00	1.225E+00	8.601E-02	7.237
		154.21		2.013E-01	3.323E-01	5.418E-01	3.616E-02	0.372
	+	269.46		2.151E-01	1.544E-01	2.079E-01	1.254E-02	1.035
		323.87	*	-6.910E-01	4.272E-01	6.651E-01	1.099E-01	-1.039
	+	338.28		3.314E+00	9.518E-01	1.223E+00	1.287E-01	2.711
		445.03		1.234E+00	1.382E+00	2.340E+00	2.397E-01	0.528
U-231	+	84.21		9.956E+01	1.870E+01	1.604E+01	1.382E+00	6.207

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		7.482E+02	6.260E+01	1.388E+01	1.161E+00	53.893
		95.87	*	3.069E+01	3.472E+00	3.135E+00	2.490E-01	9.787
		108.00		-7.718E-01	3.257E+00	4.638E+00	3.181E-01	-0.166
PA-233	+	75.28		3.347E+01	8.482E+00	6.610E+00	9.909E-01	5.063
	+	86.59		7.621E+00	3.171E+00	3.690E+00	9.923E-01	2.065
	+	300.12		5.257E-01	3.099E-01	4.179E-01	5.619E-02	1.258
		311.98	*	7.885E-03	3.952E-02	6.662E-02	4.113E-03	0.118
		340.50		1.341E+00	5.259E-01	6.784E-01	1.558E-01	1.976
		398.62		-1.483E-02	1.277E+00	2.127E+00	5.489E-01	-0.007
		415.76		-2.456E-01	1.003E+00	1.655E+00	3.401E-01	-0.148
PA-234	+	63.00		1.847E+02	2.786E+01	5.875E+00	8.769E-01	31.437
		94.67		2.495E+01	3.027E+00	7.296E-01	8.778E-02	34.195
	+	98.44		2.154E+00	1.207E+00	2.150E-01	1.196E-01	10.019
	+	99.86		1.116E+01	1.134E+00	1.059E+00	7.980E-02	10.546
		111.00		3.634E+00	4.703E-01	4.285E-01	4.614E-02	8.480
	+	131.20		2.405E-01	1.040E-01	1.644E-01	9.462E-03	1.463
		152.70		7.444E-03	2.727E-01	4.417E-01	6.921E-02	0.017
	+	186.00		7.856E+01	2.404E+01	3.590E+00	1.094E+00	21.883
		226.40		4.646E-01	2.891E-01	4.688E-01	5.372E-02	0.991
		227.20		4.000E-01	3.074E-01	5.028E-01	2.815E-02	0.796
		248.90		3.831E-01	5.741E-01	9.203E-01	1.975E-01	0.416
	+	293.70		4.527E+00	9.434E-01	8.923E-01	1.435E-01	5.073
		369.80		1.795E-01	5.216E-01	8.760E-01	1.821E-01	0.205
	+	568.70		4.020E+00	1.274E+00	1.376E+00	8.167E-02	2.922
	+	569.50		1.096E+00	3.475E-01	3.676E-01	2.182E-02	2.983
		574.00		-1.823E-01	1.048E+00	1.480E+00	8.782E-02	-0.123
		699.00		-3.048E-01	4.416E-01	6.976E-01	1.265E-01	-0.437
		706.10		-1.409E-01	6.572E-01	1.059E+00	4.680E-01	-0.133
		733.00		-7.981E-02	3.048E-01	4.038E-01	8.686E-02	-0.198
	+	742.81		7.965E+00	5.587E+00	2.104E+00	1.410E+00	3.785
	+	796.30		1.578E+00	1.033E+00	9.900E-01	2.644E-01	1.594
		805.60		7.805E-01	6.389E-01	1.011E+00	3.070E-01	0.772
		819.60		1.383E-01	7.226E-01	1.177E+00	4.452E-01	0.118
		826.30		9.419E-02	4.918E-01	7.995E-01	3.565E-01	0.118
		831.60		-4.689E-02	3.749E-01	6.034E-01	1.789E-01	-0.078
		876.40		-5.440E-01	7.589E-01	7.909E-01	8.130E-01	-0.688
		880.51		2.625E-01	1.763E-01	2.993E-01	2.565E-02	0.877
		883.24		2.654E-01	2.511E-01	3.026E-01	2.034E-01	0.877
		899.00		1.915E-01	4.590E-01	7.424E-01	3.248E-01	0.258
		925.00		1.527E+00	7.533E-01	1.293E+00	1.111E-01	1.181
		926.50		1.641E-01	1.184E-01	1.892E-01	4.781E-02	0.867
	+	946.00	*	5.595E-01	2.689E-01	3.293E-01	6.148E-02	1.699
		949.00		5.425E-01	2.902E-01	4.455E-01	3.733E-02	1.218
		980.50		4.259E-01	3.788E-01	6.407E-01	5.171E-02	0.665
		1394.10		4.524E-01	6.044E-01	9.260E-01	6.012E-01	0.489
NP-236		94.67		1.906E+01	1.568E+00	5.549E-01	4.482E-02	34.354
	+	98.44		1.628E+00	1.654E-01	1.625E-01	1.247E-02	10.019
		111.00		2.748E+00	2.689E-01	3.241E-01	2.153E-02	8.480
		160.31	*	-2.008E-02	7.741E-02	1.089E-01	5.766E-03	-0.184

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		3.722E+00	3.781E-01	3.599E-01	2.723E-02	10.340
		117.00	*	2.759E-01	2.083E-01	3.021E-01	1.889E-02	0.914
	+	209.75		1.444E+00	6.016E-01	8.898E-01	4.893E-02	1.623
		228.18		1.524E-01	1.602E-01	2.608E-01	1.461E-02	0.585
		277.60		7.324E-02	1.115E-01	1.901E-01	1.100E-02	0.385
		334.30		1.967E-01	9.087E-01	1.333E+00	7.720E-02	0.148
AM-241		59.54	*	1.126E+00	2.448E-01	3.429E-01	2.824E-02	3.282
CM-243	+	99.55		3.830E+00	3.891E-01	3.704E-01	2.803E-02	10.340
		103.76	*	1.106E-01	1.158E-01	1.674E-01	1.204E-02	0.661
		117.00		2.839E-01	2.144E-01	3.108E-01	1.944E-02	0.914
	+	209.75		1.424E+00	5.931E-01	8.772E-01	4.824E-02	1.623
		228.18		1.540E-01	1.619E-01	2.635E-01	1.477E-02	0.585
		277.60		7.384E-02	1.125E-01	1.916E-01	1.109E-02	0.385
AM-246		798.80		3.590E-02	9.348E-02	1.336E-01	1.000E-02	0.269
		1036.00		-1.304E-01	1.373E-01	2.184E-01	1.626E-02	-0.597
		1062.04		9.855E-02	1.094E-01	1.907E-01	1.358E-02	0.517
		1078.86	*	2.179E-02	6.851E-02	1.164E-01	8.028E-03	0.187
CM-247		278.00		4.347E-01	4.636E-01	7.934E-01	4.592E-02	0.548
		287.40		-1.365E-01	7.748E-01	1.299E+00	7.540E-02	-0.105
		402.60	*	1.124E-02	2.198E-02	3.706E-02	2.079E-03	0.303
CF-249		252.85		-1.057E+00	6.989E-01	9.255E-01	5.289E-02	-1.143
		333.44		4.410E-02	1.179E-01	1.738E-01	1.007E-02	0.254
		387.95	*	1.746E-02	2.402E-02	4.073E-02	2.275E-03	0.429
CF-251		176.60	*	4.216E-02	1.037E-01	1.683E-01	8.892E-03	0.251
		227.00		3.666E-01	2.734E-01	4.474E-01	2.504E-02	0.819
		285.00		4.654E-01	1.102E+00	1.870E+00	1.085E-01	0.249

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808004      *
* Acquisition date : 11-FEB-2010 22:27:52 Detector SN#     :               *
* Detector ID        : GAM19               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 06:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 06:00:09.65     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245808004           Analyst initials: RXF2          *
* Batch Number       : 947554               Sample Quantity : 1.6914E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :     0.000            MSD Isotope     :                 *
* LCS DPM          :     0.000            LCS Isotope     :                 *
* LCSD DPM         :     0.000            LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.226E+01	1.800E+00	2.239E-01	0.000E+00
NB-95	8.571E-01	8.520E-02	4.316E-02	0.000E+00
CD-109	3.969E+00	1.282E+00	1.876E+00	0.000E+00
SN-126	3.893E-01	1.258E-01	1.849E-01	0.000E+00
BA-137M	1.075E-01	3.319E-02	3.723E-02	0.000E+00
CS-137	1.136E-01	3.509E-02	3.936E-02	0.000E+00
LU-177	2.353E+00	9.608E-01	1.407E+00	0.000E+00
TL-208	3.198E-01	4.968E-02	3.610E-02	0.000E+00
BI-211	2.346E+00	2.754E-01	2.141E-01	0.000E+00
BI-212	5.240E-01	2.282E-01	3.025E-01	0.000E+00
PB-212	9.139E-01	8.480E-02	6.437E-02	0.000E+00
PO-212	9.139E-01	8.480E-02	6.437E-02	0.000E+00
BI-214	7.295E-01	1.049E-01	6.899E-02	0.000E+00
PB-214	8.159E-01	1.045E-01	7.462E-02	0.000E+00
PO-214	8.159E-01	1.045E-01	7.462E-02	0.000E+00
PO-216	9.139E-01	8.480E-02	6.437E-02	0.000E+00
PO-218	8.159E-01	1.045E-01	7.462E-02	0.000E+00
RA-224	2.377E+00	6.773E-01	7.319E-01	0.000E+00
RA-226	7.295E-01	1.049E-01	6.899E-02	0.000E+00
AC-228	9.813E-01	1.710E-01	1.079E-01	0.000E+00
RA-228	9.813E-01	1.710E-01	1.079E-01	0.000E+00
TH-228	9.291E-01	8.620E-02	6.543E-02	0.000E+00
TH-229	1.700E-01	3.709E-01	6.629E-01	0.000E+00
TH-230	7.295E-01	1.049E-01	6.899E-02	0.000E+00
TH-232	9.813E-01	1.710E-01	1.079E-01	0.000E+00
PA-234M	2.265E+02	2.227E+01	3.713E+00	0.000E+00
TH-234	1.585E+02	2.738E+01	2.883E+00	0.000E+00
U-234	7.295E-01	1.049E-01	6.899E-02	0.000E+00
U-235	2.736E+00	5.109E-01	3.120E-01	0.000E+00
NP-237	1.143E+00	4.357E-01	5.487E-01	0.000E+00
U-238	1.585E+02	2.738E+01	2.883E+00	0.000E+00
AM-243	6.390E-01	1.373E-01	1.259E-01	0.000E+00
ANH-511	9.909E-02	4.407E-02	2.887E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	2.325E-01	1.974E-01	3.607E-01	0.000E+00	NOT IDENT.
NA-22	-1.015E-02	1.997E-02	3.347E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.498E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.860E-03	1.207E-02	1.980E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.577E-02	8.383E-02	0.000E+00	FAIL ABUN
SC-46	-2.249E-02	2.089E-02	3.343E-02	0.000E+00	FAIL ABUN
V-48	-1.641E-02	3.894E-02	6.405E-02	0.000E+00	NOT IDENT.
CR-51	3.180E-01	2.342E-01	4.372E-01	0.000E+00	NOT IDENT.
MN-52	2.076E-01	1.319E-01	2.474E-01	0.000E+00	NOT IDENT.
MN-54	1.190E-03	2.143E-02	3.660E-02	0.000E+00	NOT IDENT.
CO-56	5.094E-03	2.279E-02	3.915E-02	0.000E+00	FAIL ABUN
CO-57	2.113E-02	2.365E-02	4.341E-02	0.000E+00	NOT IDENT.
CO-58	-2.422E-02	2.266E-02	3.685E-02	0.000E+00	NOT IDENT.
FE-59	-1.889E-02	4.240E-02	7.232E-02	0.000E+00	FAIL ABUN
CO-60	8.234E-03	1.723E-02	3.047E-02	0.000E+00	NOT IDENT.
ZN-65	-5.961E-03	4.564E-02	6.793E-02	0.000E+00	NOT IDENT.
GE-68	3.511E-01	5.853E-01	1.051E+00	0.000E+00	NOT IDENT.
AS-73	-1.752E-01	1.007E+00	1.903E+00	0.000E+00	NOT IDENT.
AS-74	4.941E-02	5.693E-02	1.021E-01	0.000E+00	NOT IDENT.
SE-75	-3.654E-02	3.693E-02	5.015E-02	0.000E+00	NOT IDENT.
BR-77	3.345E+00	9.580E+00	1.707E+01	0.000E+00	FAIL ABUN
SR-82	-2.500E-01	2.517E-01	4.152E-01	0.000E+00	NOT IDENT.
RB-83	2.487E-02	4.325E-02	7.560E-02	0.000E+00	NOT IDENT.
RB-84	0.000E+00	4.523E-02	8.174E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	4.738E+00	7.812E+00	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.465E-02	4.065E-02	0.000E+00	NOT IDENT.
RB-86	2.509E-01	3.848E-01	6.926E-01	0.000E+00	NOT IDENT.
Y-88	1.201E-02	1.562E-02	2.522E-02	0.000E+00	NOT IDENT.
ZR-88	-9.280E-03	1.847E-02	3.279E-02	0.000E+00	NOT IDENT.
Y-91	-8.111E+00	8.915E+00	1.477E+01	0.000E+00	NOT IDENT.
NB-94	1.453E-02	2.041E-02	3.603E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	9.752E-02	1.569E-01	0.000E+00	NOT IDENT.
ZR-95	-1.845E-02	4.470E-02	7.560E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.643E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.762E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	0.000E+00	1.315E+01	2.050E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.817E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-6.556E-02	2.530E-02	4.113E-02	0.000E+00	NOT IDENT.
RH-102	-8.227E-04	1.789E-02	3.173E-02	0.000E+00	FAIL ABUN
RU-103	2.536E-02	2.517E-02	4.549E-02	0.000E+00	FAIL ABUN
RH-106	4.329E-02	1.856E-01	3.258E-01	0.000E+00	FAIL ABUN
RU-106	4.329E-02	1.856E-01	3.258E-01	0.000E+00	FAIL ABUN
AG-108M	-1.975E-02	1.929E-02	3.343E-02	0.000E+00	NOT IDENT.
AG-110M	9.387E-03	2.392E-02	3.656E-02	0.000E+00	NOT IDENT.
IN-111	-6.826E-01	1.164E+00	1.746E+00	0.000E+00	NOT IDENT.
IN-113M	-1.605E-02	2.678E-02	4.742E-02	0.000E+00	NOT IDENT.
SN-113	-1.605E-02	2.678E-02	4.742E-02	0.000E+00	NOT IDENT.
IN-114M	-2.157E-01	1.550E-01	2.324E-01	0.000E+00	NOT IDENT.
CD-115	4.511E+00	1.027E+01	1.834E+01	0.000E+00	NOT IDENT.
SN-117M	-3.918E-02	5.645E-02	8.737E-02	0.000E+00	NOT IDENT.
SB-122	3.012E+00	2.107E+00	3.381E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.245E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.994E-02	2.744E-02	4.243E-02	0.000E+00	NOT IDENT.
I-124	2.890E-01	5.501E-01	8.511E-01	0.000E+00	NOT IDENT.
SB-124	-3.111E-03	3.196E-02	5.320E-02	0.000E+00	FAIL ABUN
SB-125	6.853E-02	5.382E-02	9.920E-02	0.000E+00	FAIL ABUN
TE-125M	0.000E+00	1.253E+01	2.004E+01	0.000E+00	NOT IDENT.
I-126	8.352E-02	1.277E-01	1.975E-01	0.000E+00	NOT IDENT.
SB-126	8.745E-02	9.546E-02	1.606E-01	0.000E+00	NOT IDENT.
SB-127	-1.613E-01	1.050E+00	1.806E+00	0.000E+00	NOT IDENT.
XE-127	0.000E+00	4.178E-02	6.780E-02	0.000E+00	FAIL ABUN
I-131	-2.927E-02	7.744E-02	1.386E-01	0.000E+00	NOT IDENT.
TE-132	6.350E-01	6.524E-01	1.156E+00	0.000E+00	FAIL ABUN
BA-133	-6.269E-03	2.902E-02	4.532E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.133E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.798E-02	5.273E-02	0.000E+00	FAIL ABUN
CS-135	1.703E-01	1.124E-01	1.862E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.849E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.963E-03	5.462E-02	9.591E-02	0.000E+00	FAIL ABUN
CE-139	0.000E+00	2.778E-02	4.495E-02	0.000E+00	NOT IDENT.
BA-140	9.493E-02	1.704E-01	3.003E-01	0.000E+00	FAIL ABUN
LA-140	9.421E-03	4.246E-02	6.342E-02	0.000E+00	NOT IDENT.

CE-141	0.000E+00	7.873E-02	1.215E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.753E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.425E-01	2.112E-01	3.366E-01	0.000E+00	NOT IDENT.
PM-144	-2.511E-02	2.075E-02	3.428E-02	0.000E+00	NOT IDENT.
PR-144	-1.703E+00	1.407E+00	2.325E+00	0.000E+00	NOT IDENT.
PM-146	1.185E-02	2.619E-02	4.717E-02	0.000E+00	NOT IDENT.
ND-147	6.252E-02	3.708E-01	6.565E-01	0.000E+00	NOT IDENT.
PM-149	4.086E+01	8.779E+01	1.621E+02	0.000E+00	NOT IDENT.
EU-152	-1.992E-02	7.809E-02	1.067E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.825E-01	2.088E-01	0.000E+00	FAIL ABUN
EU-154	-2.481E-02	5.563E-02	9.350E-02	0.000E+00	NOT IDENT.
EU-155	-1.019E-01	1.233E-01	2.067E-01	0.000E+00	FAIL ABUN
TB-160	2.605E-02	8.799E-02	1.510E-01	0.000E+00	FAIL ABUN
HO-166M	2.092E-02	3.602E-02	6.335E-02	0.000E+00	FAIL ABUN
TM-171	-1.733E+02	3.972E+01	5.899E+01	0.000E+00	NOT IDENT.
LU-176	-3.812E-03	1.507E-02	2.738E-02	0.000E+00	FAIL ABUN
LU-177M	-8.015E-02	1.047E-01	1.838E-01	0.000E+00	FAIL ABUN
HF-181	-3.295E-02	2.549E-02	4.338E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	1.908E+00	1.274E+00	0.000E+00	NOT IDENT.
TA-182	1.528E-02	9.768E-02	1.701E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.370E-01	1.894E-01	0.000E+00	FAIL ABUN
RE-184	-2.834E-01	1.836E-01	2.659E-01	0.000E+00	NOT IDENT.
OS-185	-4.528E-03	2.560E-02	4.421E-02	0.000E+00	NOT IDENT.
RE-188	1.366E-01	1.428E-01	2.595E-01	0.000E+00	NOT IDENT.
W-188	-2.035E+00	5.202E+00	8.209E+00	0.000E+00	FAIL ABUN
IR-192	-1.688E-02	2.116E-02	3.787E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	5.320E-01	5.824E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	6.707E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.655E+00	8.717E+00	1.354E+01	0.000E+00	NOT IDENT.
TL-202	-1.123E-02	4.412E-02	7.820E-02	0.000E+00	NOT IDENT.
HG-203	2.538E-02	2.546E-02	4.753E-02	0.000E+00	NOT IDENT.
BI-207	2.701E-02	2.581E-02	4.637E-02	0.000E+00	FAIL ABUN
TL-207	-6.910E-01	4.186E-01	7.076E-01	0.000E+00	FAIL ABUN
PO-209	1.374E+00	3.895E+00	6.707E+00	0.000E+00	NOT IDENT.
BI-210	-5.539E+00	3.603E+00	6.645E+00	0.000E+00	NOT IDENT.
PB-210	-5.539E+00	3.603E+00	6.645E+00	0.000E+00	NOT IDENT.
PO-210	-5.539E+00	3.597E+00	6.645E+00	0.000E+00	NOT IDENT.
PB-211	-3.098E-01	5.707E-01	9.521E-01	0.000E+00	NOT IDENT.
PO-215	-6.910E-01	4.186E-01	7.076E-01	0.000E+00	FAIL ABUN
RN-219	1.411E-01	2.417E-01	4.390E-01	0.000E+00	FAIL ABUN
RN-220	-1.138E+01	1.582E+01	2.717E+01	0.000E+00	NOT IDENT.
RA-223	-6.910E-01	4.186E-01	7.076E-01	0.000E+00	FAIL ABUN
AC-227	0.000E+00	3.761E-01	5.339E-01	0.000E+00	FAIL ABUN
TH-227	0.000E+00	4.027E-01	5.339E-01	0.000E+00	FAIL ABUN
PA-231	-3.524E-01	9.865E-01	1.735E+00	0.000E+00	FAIL ABUN
TH-231	-6.910E-01	4.186E-01	7.076E-01	0.000E+00	FAIL ABUN
U-231	0.000E+00	3.403E+00	3.460E+00	0.000E+00	FAIL ABUN
PA-233	7.885E-03	3.873E-02	7.096E-02	0.000E+00	FAIL ABUN
PA-234	0.000E+00	2.635E-01	3.385E-01	0.000E+00	FAIL ABUN
NP-236	-2.008E-02	7.587E-02	1.183E-01	0.000E+00	FAIL ABUN
NP-239	2.759E-01	2.042E-01	3.314E-01	0.000E+00	FAIL ABUN
AM-241	0.000E+00	2.399E-01	3.836E-01	0.000E+00	NOT IDENT.
CM-243	1.106E-01	1.135E-01	1.843E-01	0.000E+00	FAIL ABUN
AM-246	2.179E-02	6.714E-02	1.191E-01	0.000E+00	NOT IDENT.
CM-247	1.124E-02	2.154E-02	3.916E-02	0.000E+00	NOT IDENT.
CF-249	1.746E-02	2.354E-02	4.309E-02	0.000E+00	NOT IDENT.
CF-251	4.216E-02	1.017E-01	1.824E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:29:39.77

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808004.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 11-FEB-2010 22:27:52
Sample ID         : G245808004           Sample quantity  : 1.69141E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:09.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	3751	10.67*	1.168E+00	2.226E+01	2.226E+01	8.25
NB-95	765.79	1963	99.81*	2.031E+00	7.164E-01	8.571E-01	10.14
CD-109	88.03	1191	3.72*	6.115E+00	3.872E+00	3.969E+00	32.97
SN-126	64.28	29501	9.60	3.625E+00	6.272E+01	6.272E+01	14.76
	86.94	1191	8.90	6.115E+00	1.618E+00	1.618E+00	52.18
	87.57	1191	37.00*	6.115E+00	3.893E-01	3.893E-01	32.97
BA-137M	661.65	300	89.98*	2.301E+00	1.073E-01	1.075E-01	31.52
CS-137	661.65	300	85.12*	2.301E+00	1.135E-01	1.136E-01	31.52
LU-177	112.95	5824	6.40	6.854E+00	9.821E+00	5.434E+01	10.00
	208.36	346	11.00*	5.473E+00	4.253E-01	2.353E+00	41.66
TL-208	277.35	------	6.80	4.511E+00	------ Line Not Found		------
	510.84	381	21.60	2.842E+00	4.588E-01	4.588E-01	46.14
	583.14	930	84.20*	2.554E+00	3.198E-01	3.198E-01	15.85
	860.37	132	12.46	1.836E+00	4.264E-01	4.264E-01	44.90
BI-211	72.87	------	1.27	4.857E+00	------ Line Not Found		------
	351.07	1554	12.94*	3.788E+00	2.346E+00	2.346E+00	11.98
BI-212	727.18	178	11.80*	2.125E+00	5.240E-01	5.240E-01	44.44
	785.46	305	1.97	1.987E+00	5.773E+00	5.773E+00	26.77
	1620.62	------	2.75	1.085E+00	------ Line Not Found		------
PB-212	74.81	2890	10.70	5.070E+00	3.941E+00	3.941E+00	23.84
	77.11	1196	18.00	5.308E+00	9.262E-01	9.262E-01	27.33
	87.30	1191	8.00	6.115E+00	1.800E+00	1.800E+00	34.45
	238.63	2765	44.60*	5.017E+00	9.139E-01	9.139E-01	9.47
	300.09	200	3.41	4.262E+00	1.017E+00	1.017E+00	58.00
PO-212	74.81	2890	10.70	5.070E+00	3.941E+00	3.941E+00	23.84
	77.11	1196	18.00	5.308E+00	9.262E-01	9.262E-01	27.33
	87.30	1191	8.00	6.115E+00	1.800E+00	1.800E+00	34.45
	115.19	------	0.60	6.866E+00	------ Line Not Found		------
	238.63	2765	44.60*	5.017E+00	9.139E-01	9.139E-01	9.47
	300.09	200	3.41	4.262E+00	1.017E+00	1.017E+00	58.00
BI-214	609.31	1125	46.30*	2.465E+00	7.295E-01	7.295E-01	14.67
	1120.29	253	15.10	1.455E+00	8.520E-01	8.520E-01	43.54

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	207	15.80	1.029E+00	9.409E-01	9.409E-01	21.99
PB-214	74.81	2890	6.21	5.070E+00	6.791E+00	6.791E+00	23.15
	77.11	1196	10.50	5.308E+00	1.588E+00	1.588E+00	28.37
	87.30	1191	4.67	6.115E+00	3.084E+00	3.084E+00	33.86
	241.98	632	7.49	4.976E+00	1.254E+00	1.254E+00	29.61
	295.21	1056	19.20	4.315E+00	9.431E-01	9.431E-01	15.76
	351.92	1554	37.20*	3.788E+00	8.159E-01	8.159E-01	13.07
PO-214	74.81	2890	6.21	5.070E+00	6.791E+00	6.791E+00	23.15
	77.11	1196	10.50	5.308E+00	1.588E+00	1.588E+00	28.37
	87.30	1191	4.67	6.115E+00	3.084E+00	3.084E+00	33.86
	241.98	632	7.49	4.976E+00	1.254E+00	1.254E+00	29.61
	295.21	1056	19.20	4.315E+00	9.431E-01	9.431E-01	15.76
	351.92	1554	37.20*	3.788E+00	8.159E-01	8.159E-01	13.07
PO-216	74.81	2890	10.70	5.070E+00	3.941E+00	3.941E+00	23.84
	77.11	1196	18.00	5.308E+00	9.262E-01	9.262E-01	27.33
	87.30	1191	8.00	6.115E+00	1.800E+00	1.800E+00	34.45
	238.63	2765	44.60*	5.017E+00	9.139E-01	9.139E-01	9.47
	300.09	200	3.41	4.262E+00	1.017E+00	1.017E+00	58.00
PO-218	74.81	2890	6.21	5.070E+00	6.791E+00	6.791E+00	23.15
	77.11	1196	10.50	5.308E+00	1.588E+00	1.588E+00	28.37
	87.30	1191	4.67	6.115E+00	3.084E+00	3.084E+00	33.86
	241.98	632	7.49	4.976E+00	1.254E+00	1.254E+00	29.61
	295.21	1056	19.20	4.315E+00	9.431E-01	9.431E-01	15.76
	351.92	1554	37.20*	3.788E+00	8.159E-01	8.159E-01	13.07
RA-224	240.98	632	3.95*	4.976E+00	2.377E+00	2.377E+00	29.07
RA-226	609.31	1125	46.30*	2.465E+00	7.295E-01	7.295E-01	14.67
	1120.29	253	15.10	1.455E+00	8.520E-01	8.520E-01	43.54
	1764.49	207	15.80	1.029E+00	9.409E-01	9.409E-01	21.99
AC-228	338.32	477	11.40	3.901E+00	7.937E-01	7.937E-01	48.74
	911.07	641	27.70*	1.746E+00	9.813E-01	9.813E-01	17.79
	969.11	338	16.60	1.653E+00	9.098E-01	9.098E-01	30.68
RA-228	338.32	477	11.40	3.901E+00	7.937E-01	7.937E-01	48.74
	911.07	641	27.70*	1.746E+00	9.813E-01	9.813E-01	17.79
	969.11	338	16.60	1.653E+00	9.098E-01	9.098E-01	30.68
TH-228	74.81	2890	10.70	5.070E+00	3.941E+00	4.007E+00	21.96
	77.11	1196	18.00	5.308E+00	9.262E-01	9.416E-01	27.33
	87.30	1191	8.00	6.115E+00	1.800E+00	1.830E+00	32.97
	238.63	2765	44.60*	5.017E+00	9.139E-01	9.291E-01	9.47
	300.09	200	3.41	4.262E+00	1.017E+00	1.034E+00	82.28
TH-229	85.43	3615	16.50	5.902E+00	2.746E+00	2.746E+00	18.78
	88.47	1191	27.10	6.115E+00	5.315E-01	5.315E-01	32.97
	100.00	4885	12.40	6.606E+00	4.412E+00	4.412E+00	10.16
	193.63	------	4.59*	5.744E+00	------	Line Not Found	------
	210.97	------	3.26	5.445E+00	------	Line Not Found	------
TH-230	609.31	1125	46.30*	2.465E+00	7.295E-01	7.295E-01	14.67
	1120.29	253	15.10	1.455E+00	8.520E-01	8.520E-01	43.54
	1764.49	207	15.80	1.029E+00	9.409E-01	9.409E-01	21.99
TH-232	338.32	477	11.40	3.901E+00	7.937E-01	7.937E-01	27.34
	911.07	641	27.70*	1.746E+00	9.813E-01	9.813E-01	17.79

Sample ID : G245808004 Acquisition date : 11-FEB-2010 22:27:52

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	969.11	338	16.60	1.653E+00	9.098E-01	9.098E-01	30.68
PA-234M	766.42	1963	0.32	2.031E+00	2.235E+02	2.235E+02	51.02
	1001.03	4131	0.84*	1.607E+00	2.265E+02	2.265E+02	10.04
TH-234	63.29	29501	3.80*	3.625E+00	1.585E+02	1.585E+02	17.63
	92.38	72591	5.41	6.381E+00	1.556E+02	1.556E+02	17.96
U-234	609.31	1125	46.30*	2.465E+00	7.295E-01	7.295E-01	14.67
	1120.29	253	15.10	1.455E+00	8.520E-01	8.520E-01	43.54
	1764.49	207	15.80	1.029E+00	9.409E-01	9.409E-01	21.99
U-235	89.95	------	2.70	6.249E+00	------ Line Not Found		------
	93.35	72591	4.50	6.381E+00	1.870E+02	1.870E+02	27.95
	105.00	------	2.10	6.763E+00	------ Line Not Found		------
	143.76	2576	10.50*	6.635E+00	2.736E+00	2.736E+00	19.06
	163.35	1066	4.70	6.298E+00	2.663E+00	2.663E+00	27.97
	185.71	12505	54.00	5.888E+00	2.910E+00	2.910E+00	6.04
	205.31	1019	4.70	5.540E+00	2.895E+00	2.895E+00	24.71
NP-237	86.50	1191	12.60*	6.115E+00	1.143E+00	1.143E+00	38.89
	95.87	------	2.60	6.515E+00	------ Line Not Found		------
U-238	63.29	29501	3.80*	3.625E+00	1.585E+02	1.585E+02	17.63
	92.38	72591	5.41	6.381E+00	1.556E+02	1.556E+02	8.37
AM-243	74.67	2890	66.00*	5.070E+00	6.390E-01	6.390E-01	21.93
	86.72	1191	0.34	6.115E+00	4.287E+01	4.287E+01	32.97
	117.66	------	0.55	6.871E+00	------ Line Not Found		------
	142.18	------	0.13	6.659E+00	------ Line Not Found		------
ANH-511	511.00	381	100.00*	2.842E+00	9.909E-02	9.909E-02	45.39

Flag: "*" = Keyline

Sample ID : G245808004 Acquisition date : 11-FEB-2010 22:27:52

Total number of lines in spectrum 51
Number of unidentified lines 9
Number of lines tentatively identified by NID 42 82.35%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.226E+01	2.226E+01	0.184E+01	8.25	
NB-95	64.02D	1.20	7.164E-01	8.571E-01	0.869E-01	10.14	
CD-109	464.00D	1.03	3.872E+00	3.969E+00	1.308E+00	32.97	
SN-126	1.00E+05Y	1.00	3.893E-01	3.893E-01	1.283E-01	32.97	
BA-137M	30.17Y	1.00	1.073E-01	1.075E-01	0.339E-01	31.52	
CS-137	30.17Y	1.00	1.135E-01	1.136E-01	0.358E-01	31.52	
LU-177	6.71D	5.53	4.253E-01	2.353E+00	0.980E+00	41.66	
TL-208	1.41E+10Y	1.00	3.198E-01	3.198E-01	0.507E-01	15.85	
BI-211	7.04E+08Y	1.00	2.346E+00	2.346E+00	0.281E+00	11.98	
BI-212	1.41E+10Y	1.00	5.240E-01	5.240E-01	2.328E-01	44.44	
PB-212	1.41E+10Y	1.00	9.139E-01	9.139E-01	0.865E-01	9.47	
PO-212	1.41E+10Y	1.00	9.139E-01	9.139E-01	0.865E-01	9.47	
BI-214	1600.00Y	1.00	7.295E-01	7.295E-01	1.071E-01	14.67	
PB-214	1600.00Y	1.00	8.159E-01	8.159E-01	1.066E-01	13.07	
PO-214	1600.00Y	1.00	8.159E-01	8.159E-01	1.066E-01	13.07	
PO-216	1.41E+10Y	1.00	9.139E-01	9.139E-01	0.865E-01	9.47	
PO-218	1600.00Y	1.00	8.159E-01	8.159E-01	1.066E-01	13.07	
RA-224	1.41E+10Y	1.00	2.377E+00	2.377E+00	0.691E+00	29.07	
RA-226	1600.00Y	1.00	7.295E-01	7.295E-01	1.071E-01	14.67	
AC-228	1.41E+10Y	1.00	9.813E-01	9.813E-01	1.745E-01	17.79	
RA-228	1.41E+10Y	1.00	9.813E-01	9.813E-01	1.745E-01	17.79	
TH-228	1.91Y	1.02	9.139E-01	9.291E-01	0.880E-01	9.47	
TH-229	7340.00Y	1.00	5.315E-01	5.315E-01	1.752E-01	32.97	K
TH-230	4.47E+09Y	1.00	7.295E-01	7.295E-01	1.071E-01	14.67	
TH-232	1.41E+10Y	1.00	9.813E-01	9.813E-01	1.745E-01	17.79	
PA-234M	4.47E+09Y	1.00	2.265E+02	2.265E+02	0.227E+02	10.04	
TH-234	4.47E+09Y	1.00	1.585E+02	1.585E+02	0.279E+02	17.63	
U-234	4.47E+09Y	1.00	7.295E-01	7.295E-01	1.071E-01	14.67	
U-235	7.04E+08Y	1.00	2.736E+00	2.736E+00	0.521E+00	19.06	
NP-237	2.14E+06Y	1.00	1.143E+00	1.143E+00	0.445E+00	38.89	
U-238	4.47E+09Y	1.00	1.585E+02	1.585E+02	0.279E+02	17.63	
AM-243	7380.00Y	1.00	6.390E-01	6.390E-01	1.401E-01	21.93	
ANH-511	1.00E+09Y	1.00	9.909E-02	9.909E-02	4.497E-02	45.39	
	Total Activity :		5.939E+02	5.961E+02			

Grand Total Activity : 5.939E+02 5.961E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245808004 Acquisition date : 11-FEB-2010 22:27:52

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	131.49	451	3202	1.50	262.73	260	7	2.09E-02	42.9	6.80E+00	T
0	258.10	895	1359	1.25	515.78	511	10	4.14E-02	16.8	4.75E+00	
0	269.82	182	1251	1.41	539.20	535	9	8.42E-03	71.5	4.60E+00	T
0	462.79	152	705	1.01	924.92	920	11	7.03E-03	69.6	3.07E+00	T
0	568.32	425	779	2.65	1135.90	1128	15	1.97E-02	31.1	2.61E+00	T
0	742.64	539	576	1.32	1484.44	1476	14	2.50E-02	20.7	2.09E+00	T
0	795.08	164	469	3.45	1589.30	1582	15	7.58E-03	59.7	1.97E+00	T
0	946.18	153	252	1.92	1891.47	1887	12	7.10E-03	44.3	1.69E+00	T
2	964.71	100	258	2.02	1928.53	1922	23	4.65E-03	63.4	1.66E+00	T
0	1193.73	113	210	1.92	2386.63	2378	15	5.23E-03	59.0	1.38E+00	
0	1238.26	126	313	2.21	2475.71	2471	17	5.83E-03	67.2	1.34E+00	T
0	1378.10	90	71	2.17	2755.49	2751	10	4.18E-03	41.0	1.22E+00	
0	1588.55	37	98	1.40	3176.59	3171	14	1.73E-03	****	1.10E+00	
0	1730.12	54	26	1.62	3459.92	3454	11	2.50E-03	47.4	1.04E+00	
0	1738.80	66	39	1.58	3477.28	3472	13	3.06E-03	49.1	1.04E+00	
0	1831.37	46	46	1.88	3662.56	3654	14	2.14E-03	68.4	1.01E+00	
0	1875.84	44	45	1.76	3751.58	3742	20	2.05E-03	79.9	9.97E-01	
0	1911.49	39	11	1.41	3822.95	3817	12	1.83E-03	47.0	9.89E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 04:29:45.12

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808004.CNF;1 *
* Acquisition date  : 11-FEB-2010 22:27:52  Detector SN#     :             *
* Detector ID       : GAM19                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 06:00:09.65          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245808004            Analyst initials: RXF2         *
* Batch Number      : 947554                Sample Quantity : 1.69141E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :                *
* LCS ID           : 1032-A               LCS Isotope      :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.226E+01	1.837E+00	2.211E-01	1.647E-02	100.677
NB-95	8.571E-01	8.694E-02	4.170E-02	2.947E-03	20.553
CD-109	3.969E+00	1.308E+00	1.696E+00	1.519E-01	2.340
SN-126	3.893E-01	1.283E-01	1.671E-01	1.490E-02	2.330
BA-137M	1.075E-01	3.387E-02	3.580E-02	2.085E-03	3.002
CS-137	1.136E-01	3.581E-02	3.784E-02	2.213E-03	3.002
LU-177	2.353E+00	9.804E-01	1.305E+00	7.165E-02	1.803
TL-208	3.198E-01	5.070E-02	3.457E-02	2.351E-03	9.251
BI-211	2.346E+00	2.810E-01	2.018E-01	1.288E-02	11.626
BI-212	5.240E-01	2.328E-01	2.917E-01	2.429E-02	1.796
PB-212	9.139E-01	8.653E-02	5.993E-02	4.326E-03	15.249
PO-212	9.139E-01	8.653E-02	5.993E-02	4.326E-03	15.249
BI-214	7.295E-01	1.071E-01	6.616E-02	5.202E-03	11.027
PB-214	8.159E-01	1.066E-01	7.032E-02	5.798E-03	11.603
PO-214	8.159E-01	1.066E-01	7.032E-02	5.798E-03	11.603
PO-216	9.139E-01	8.653E-02	5.993E-02	4.326E-03	15.249
PO-218	8.159E-01	1.066E-01	7.032E-02	5.798E-03	11.603
RA-224	2.377E+00	6.912E-01	6.817E-01	3.863E-02	3.487

Sample ID : G245808004 Acquisition date : 11-FEB-2010 22:27:52

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	7.295E-01	1.071E-01	6.616E-02	5.202E-03	11.027
AC-228	9.813E-01	1.745E-01	1.048E-01	1.186E-02	9.360
RA-228	9.813E-01	1.745E-01	1.048E-01	1.186E-02	9.360
TH-228	9.291E-01	8.796E-02	6.093E-02	4.398E-03	15.249
TH-229	5.315E-01	1.752E-01	6.133E-01	3.310E-02	0.867
TH-230	7.295E-01	1.071E-01	6.616E-02	5.202E-03	11.027
TH-232	9.813E-01	1.745E-01	1.048E-01	1.186E-02	9.360
PA-234M	2.265E+02	2.273E+01	3.619E+00	3.369E-01	62.571
TH-234	1.585E+02	2.794E+01	2.582E+00	4.517E-01	61.378
U-234	7.295E-01	1.071E-01	6.616E-02	5.202E-03	11.027
U-235	2.736E+00	5.213E-01	2.861E-01	4.639E-02	9.561
NP-237	1.143E+00	4.446E-01	4.958E-01	1.113E-01	2.306
U-238	1.585E+02	2.794E+01	2.582E+00	4.517E-01	61.378
AM-243	6.390E-01	1.401E-01	1.133E-01	8.983E-03	5.641
ANH-511	9.909E-02	4.497E-02	2.753E-02	1.624E-03	3.600

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.325E-01		2.015E-01	3.432E-01	2.330E-02	0.677
NA-22	-1.015E-02		2.038E-02	3.289E-02	2.194E-03	-0.309
NA-24	-6.996E-01		7.640E-01	Half-Life too short		
AL-26	-1.860E-03		1.232E-02	1.970E-02	1.150E-03	-0.094
TI-44	1.709E-01	+	4.671E-02	7.553E-02	6.165E-03	2.263
SC-46	-2.249E-02		2.132E-02	3.246E-02	2.820E-03	-0.693
V-48	-1.641E-02		3.974E-02	6.241E-02	5.017E-03	-0.263
CR-51	3.180E-01		2.390E-01	4.108E-01	2.658E-02	0.774
MN-52	2.076E-01		1.346E-01	2.441E-01	1.761E-02	0.850
MN-54	1.190E-03		2.187E-02	3.547E-02	2.821E-03	0.034
CO-56	5.094E-03		2.326E-02	3.795E-02	3.079E-03	0.134
CO-57	2.113E-02		2.414E-02	3.962E-02	2.364E-03	0.533
CO-58	-2.422E-02		2.312E-02	3.567E-02	2.734E-03	-0.679
FE-59	-1.889E-02		4.326E-02	7.072E-02	5.308E-03	-0.267
CO-60	8.234E-03		1.759E-02	3.000E-02	2.211E-03	0.274
ZN-65	-5.961E-03		4.657E-02	6.646E-02	4.249E-03	-0.090
GE-68	3.511E-01		5.972E-01	1.027E+00	7.104E-02	0.342
AS-73	-1.752E-01		1.028E+00	1.696E+00	1.254E-01	-0.103
AS-74	4.941E-02		5.809E-02	9.784E-02	5.796E-03	0.505
SE-75	-3.654E-02		3.768E-02	4.684E-02	2.724E-03	-0.780
BR-77	3.345E+00		9.775E+00	1.629E+01	9.631E-01	0.205
SR-82	-2.500E-01		2.569E-01	4.013E-01	2.890E-02	-0.623
RB-83	2.487E-02		4.413E-02	7.214E-02	4.265E-03	0.345
RB-84	9.529E-02		4.615E-02	7.934E-02	6.810E-03	1.201
KR-85	1.037E+01		4.834E+00	7.451E+00	4.399E-01	1.392
SR-85	5.396E-02		2.515E-02	3.877E-02	2.289E-03	1.392
RB-86	2.509E-01		3.927E-01	6.769E-01	4.690E-02	0.371
Y-88	1.201E-02		1.594E-02	2.510E-02	1.433E-03	0.478

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-88	-9.280E-03		1.885E-02	3.101E-02	1.727E-03	-0.299
Y-91	-8.111E+00		9.096E+00	1.449E+01	8.461E-01	-0.560
NB-94	1.453E-02		2.083E-02	3.471E-02	2.186E-03	0.419
NB-95M	3.391E-01		9.951E-02	1.461E-01	1.082E-02	2.322
ZR-95	-1.845E-02		4.561E-02	7.301E-02	5.844E-03	-0.253
NB-97	1.257E-01		1.348E-01	Half-Life too short		
ZR-97	1.288E+01		2.429E+00	Half-Life too short		
MO-99	2.388E+01		1.341E+01	1.978E+01	2.810E+00	1.207
TC-99M	-1.163E+12		9.268E+11	Half-Life too short		
RH-101	-6.556E-02		2.582E-02	3.809E-02	2.066E-03	-1.721
RH-102	-8.227E-04		1.826E-02	3.019E-02	1.762E-03	-0.027
RU-103	2.536E-02		2.569E-02	4.334E-02	5.496E-03	0.585
RH-106	4.329E-02		1.894E-01	3.127E-01	3.685E-02	0.138
RU-106	4.329E-02		1.894E-01	3.127E-01	1.844E-02	0.138
AG-108M	-1.975E-02		1.968E-02	3.171E-02	1.975E-03	-0.623
AG-110M	9.387E-03		2.441E-02	3.515E-02	2.181E-03	0.267
IN-111	-6.826E-01		1.187E+00	1.627E+00	9.250E-02	-0.420
IN-113M	-1.605E-02		2.733E-02	4.484E-02	2.676E-03	-0.358
SN-113	-1.605E-02		2.733E-02	4.484E-02	2.676E-03	-0.358
IN-114M	-2.157E-01		1.582E-01	2.149E-01	1.155E-02	-1.004
CD-115	4.511E+00		1.048E+01	1.750E+01	1.036E+00	0.258
SN-117M	-3.918E-02		5.761E-02	8.035E-02	4.277E-03	-0.488
SB-122	3.012E+00		2.150E+00	3.234E+00	1.920E-01	0.931
I-123	-2.358E+01		1.656E+01	Half-Life too short		
TE-123M	-1.994E-02		2.800E-02	3.903E-02	2.108E-03	-0.511
I-124	2.890E-01		5.613E-01	8.159E-01	4.829E-02	0.354
SB-124	-3.111E-03		3.261E-02	5.280E-02	3.616E-03	-0.059
SB-125	6.853E-02		5.492E-02	9.406E-02	5.600E-03	0.729
TE-125M	4.098E+01		1.279E+01	1.823E+01	1.612E+00	2.248
I-126	8.352E-02		1.303E-01	1.900E-01	1.116E-02	0.440
SB-126	8.745E-02		9.741E-02	1.549E-01	1.008E-02	0.565
SB-127	-1.613E-01		1.071E+00	1.739E+00	1.757E-01	-0.093
XE-127	1.272E-01		4.263E-02	6.282E-02	3.427E-03	2.025
I-131	-2.927E-02		7.902E-02	1.308E-01	8.368E-03	-0.224
TE-132	6.350E-01		6.657E-01	1.075E+00	1.567E-01	0.591
BA-133	-6.269E-03		2.961E-02	4.273E-02	4.925E-03	-0.147
I-133	-3.396E-03		5.783E-03	Half-Life too short		
CS-134	8.131E-02	+	4.896E-02	5.101E-02	3.836E-03	1.594
CS-135	1.703E-01		1.147E-01	1.740E-01	1.328E-02	0.979
I-135	-6.322E+10		4.515E+10	Half-Life too short		
CS-136	2.963E-03		5.573E-02	9.364E-02	7.238E-03	0.032
CE-139	6.062E-02		2.834E-02	4.140E-02	2.161E-03	1.465
BA-140	9.493E-02		1.739E-01	2.868E-01	9.333E-02	0.331
LA-140	9.421E-03		4.333E-02	6.281E-02	4.250E-03	0.150
CE-141	7.223E-01		8.033E-02	1.115E-01	6.419E-03	6.480
CE-143	1.451E-03		1.915E-04	Half-Life too short		
CE-144	2.425E-01		2.156E-01	3.080E-01	4.363E-02	0.787
PM-144	-2.511E-02		2.118E-02	3.302E-02	2.057E-03	-0.760

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	-1.703E+00		1.436E+00	2.239E+00	1.394E-01	-0.760
PM-146	1.185E-02		2.672E-02	4.481E-02	3.859E-03	0.264
ND-147	6.252E-02		3.783E-01	6.268E-01	8.508E-02	0.100
PM-149	4.086E+01		8.958E+01	1.518E+02	2.153E+01	0.269
EU-152	-1.992E-02		7.968E-02	1.005E-01	6.541E-03	-0.198
GD-153	1.833E+00	+	1.862E-01	1.893E-01	1.472E-02	9.684
EU-154	-2.481E-02		5.677E-02	9.190E-02	9.096E-03	-0.270
EU-155	-1.019E-01		1.258E-01	1.878E-01	1.351E-02	-0.542
TB-160	2.605E-02		8.978E-02	1.466E-01	1.254E-02	0.178
HO-166M	2.092E-02		3.675E-02	6.106E-02	3.911E-03	0.343
TM-171	-1.733E+02		4.053E+01	5.290E+01	4.022E+00	-3.276
LU-176	-3.812E-03		1.538E-02	2.569E-02	1.494E-03	-0.148
LU-177M	-8.015E-02		1.068E-01	1.741E-01	9.842E-03	-0.460
HF-181	-3.295E-02		2.601E-02	4.129E-02	2.416E-03	-0.798
W-181	2.437E+01		1.947E+00	1.142E+00	8.644E-02	21.334
TA-182	1.528E-02		9.967E-02	1.669E-01	1.006E-02	0.092
RE-183	6.302E-01	+	1.398E-01	1.743E-01	9.183E-03	3.615
RE-184	-2.834E-01		1.873E-01	2.481E-01	1.418E-02	-1.143
OS-185	-4.528E-03		2.612E-02	4.248E-02	2.488E-03	-0.107
RE-188	1.366E-01		1.458E-01	2.385E-01	1.282E-02	0.573
W-188	-2.035E+00		5.308E+00	7.690E+00	4.466E-01	-0.265
IR-192	-1.688E-02		2.159E-02	3.557E-02	2.078E-03	-0.475
AU-195	5.344E+00	+	5.429E-01	5.282E-01	4.031E-02	10.116
TL-200	-5.479E-06		3.422E-04	Half-Life too short		
TL-201	-2.655E+00		8.895E+00	1.248E+01	6.519E-01	-0.213
TL-202	-1.123E-02		4.502E-02	7.421E-02	4.262E-03	-0.151
HG-203	2.538E-02		2.598E-02	4.447E-02	2.735E-03	0.571
BI-207	2.701E-02		2.634E-02	4.529E-02	3.216E-03	0.596
TL-207	-6.910E-01		4.272E-01	6.651E-01	1.099E-01	-1.039
PO-209	1.374E+00		3.975E+00	6.514E+00	5.727E-01	0.211
BI-210	-5.539E+00		3.677E+00	5.899E+00	4.496E-01	-0.939
PB-210	-5.539E+00		3.677E+00	5.899E+00	4.496E-01	-0.939
PO-210	-5.539E+00		3.670E+00	5.899E+00	3.845E-01	-0.939
PB-211	-3.098E-01		5.824E-01	9.012E-01	5.616E-01	-0.344
PO-215	-6.910E-01		4.272E-01	6.651E-01	1.099E-01	-1.039
RN-219	1.411E-01		2.467E-01	4.155E-01	5.619E-02	0.340
RN-220	-1.138E+01		1.614E+01	2.597E+01	1.541E+00	-0.438
RA-223	-6.910E-01		4.272E-01	6.651E-01	1.099E-01	-1.039
AC-227	1.543E+00		3.837E-01	4.982E-01	6.940E-02	3.097
TH-227	1.543E+00		4.109E-01	4.982E-01	8.407E-02	3.097
PA-231	-3.524E-01		1.007E+00	1.624E+00	2.238E-01	-0.217
TH-231	-6.910E-01		4.272E-01	6.651E-01	1.099E-01	-1.039
U-231	3.069E+01		3.472E+00	3.135E+00	2.490E-01	9.787
PA-233	7.885E-03		3.952E-02	6.662E-02	4.113E-03	0.118
PA-234	5.595E-01	+	2.689E-01	3.293E-01	6.148E-02	1.699
NP-236	-2.008E-02		7.741E-02	1.089E-01	5.766E-03	-0.184
NP-239	2.759E-01		2.083E-01	3.021E-01	1.889E-02	0.914
AM-241	1.126E+00		2.448E-01	3.429E-01	2.824E-02	3.282

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.106E-01		1.158E-01	1.674E-01	1.204E-02	0.661
AM-246	2.179E-02		6.851E-02	1.164E-01	8.028E-03	0.187
CM-247	1.124E-02		2.198E-02	3.706E-02	2.079E-03	0.303
CF-249	1.746E-02		2.402E-02	4.073E-02	2.275E-03	0.429
CF-251	4.216E-02		1.037E-01	1.683E-01	8.892E-03	0.251

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245808004           *
* Acquisition date  : 11-FEB-2010 22:27:52 Detector SN#     :               *
* Detector ID       : GAM19                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 06:00:09.65      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245808004           Analyst initials: RXF2           *
* Batch Number      : 947554               Sample Quantity : 1.6914E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.226E+01	1.800E+00	1.120E-01	9.183E-01
NB-95	8.571E-01	8.520E-02	2.159E-02	4.347E-02
CD-109	3.969E+00	1.282E+00	9.387E-01	6.542E-01
SN-126	3.893E-01	1.258E-01	9.248E-02	6.417E-02
BA-137M	1.075E-01	3.319E-02	1.863E-02	1.693E-02
CS-137	1.136E-01	3.509E-02	1.969E-02	1.790E-02
LU-177	2.353E+00	9.608E-01	7.041E-01	4.902E-01
TL-208	3.198E-01	4.968E-02	1.806E-02	2.535E-02
BI-211	2.346E+00	2.754E-01	1.071E-01	1.405E-01
BI-212	5.240E-01	2.282E-01	1.513E-01	1.164E-01
PB-212	9.139E-01	8.480E-02	3.220E-02	4.326E-02
PO-212	9.139E-01	8.480E-02	3.220E-02	4.326E-02
BI-214	7.295E-01	1.049E-01	3.451E-02	5.353E-02
PB-214	8.159E-01	1.045E-01	3.733E-02	5.331E-02
PO-214	8.159E-01	1.045E-01	3.733E-02	5.331E-02
PO-216	9.139E-01	8.480E-02	3.220E-02	4.326E-02
PO-218	8.159E-01	1.045E-01	3.733E-02	5.331E-02
RA-224	2.377E+00	6.773E-01	3.662E-01	3.456E-01
RA-226	7.295E-01	1.049E-01	3.451E-02	5.353E-02
AC-228	9.813E-01	1.710E-01	5.397E-02	8.726E-02
RA-228	9.813E-01	1.710E-01	5.397E-02	8.726E-02
TH-228	9.291E-01	8.620E-02	3.274E-02	4.398E-02
TH-229	1.700E-01	3.709E-01	3.316E-01	1.892E-01
TH-230	7.295E-01	1.049E-01	3.451E-02	5.353E-02
TH-232	9.813E-01	1.710E-01	5.397E-02	8.726E-02
PA-234M	2.265E+02	2.227E+01	1.857E+00	1.136E+01
TH-234	1.585E+02	2.738E+01	1.442E+00	1.397E+01
U-234	7.295E-01	1.049E-01	3.451E-02	5.353E-02
U-235	2.736E+00	5.109E-01	1.561E-01	2.607E-01
NP-237	1.143E+00	4.357E-01	2.745E-01	2.223E-01
U-238	1.585E+02	2.738E+01	1.442E+00	1.397E+01
AM-243	6.390E-01	1.373E-01	6.298E-02	7.007E-02
ANH-511	9.909E-02	4.407E-02	1.444E-02	2.249E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.325E-01	1.974E-01	1.805E-01	1.007E-01	NOT IDENT.
NA-22	-1.015E-02	1.997E-02	1.674E-02	1.019E-02	NOT IDENT.
NA-24	-6.996E+05	1.498E+06	0.000E+00	7.640E+05	SHORT HLIF
AL-26	-1.860E-03	1.207E-02	9.906E-03	6.158E-03	NOT IDENT.
TI-44	1.709E-01	4.577E-02	4.194E-02	2.335E-02	FAIL ABUN
SC-46	-2.249E-02	2.089E-02	1.672E-02	1.066E-02	FAIL ABUN
V-48	-1.641E-02	3.894E-02	3.205E-02	1.987E-02	NOT IDENT.
CR-51	3.180E-01	2.342E-01	2.187E-01	1.195E-01	NOT IDENT.
MN-52	2.076E-01	1.319E-01	1.238E-01	6.731E-02	NOT IDENT.
MN-54	1.190E-03	2.143E-02	1.831E-02	1.094E-02	NOT IDENT.
CO-56	5.094E-03	2.279E-02	1.959E-02	1.163E-02	FAIL ABUN
CO-57	2.113E-02	2.365E-02	2.172E-02	1.207E-02	NOT IDENT.
CO-58	-2.422E-02	2.266E-02	1.844E-02	1.156E-02	NOT IDENT.
FE-59	-1.889E-02	4.240E-02	3.618E-02	2.163E-02	FAIL ABUN
CO-60	8.234E-03	1.723E-02	1.525E-02	8.793E-03	NOT IDENT.
ZN-65	-5.961E-03	4.564E-02	3.399E-02	2.328E-02	NOT IDENT.
GE-68	3.511E-01	5.853E-01	5.257E-01	2.986E-01	NOT IDENT.
AS-73	-1.752E-01	1.007E+00	9.521E-01	5.139E-01	NOT IDENT.
AS-74	4.941E-02	5.693E-02	5.108E-02	2.904E-02	NOT IDENT.
SE-75	-3.654E-02	3.693E-02	2.509E-02	1.884E-02	NOT IDENT.
BR-77	3.345E+00	9.580E+00	8.541E+00	4.888E+00	FAIL ABUN
SR-82	-2.500E-01	2.517E-01	2.077E-01	1.284E-01	NOT IDENT.
RB-83	2.487E-02	4.325E-02	3.782E-02	2.206E-02	NOT IDENT.
RB-84	9.529E-02	4.523E-02	4.089E-02	2.308E-02	NOT IDENT.
KR-85	1.037E+01	4.738E+00	3.908E+00	2.417E+00	NOT IDENT.
SR-85	5.396E-02	2.465E-02	2.034E-02	1.258E-02	NOT IDENT.
RB-86	2.509E-01	3.848E-01	3.465E-01	1.963E-01	NOT IDENT.
Y-88	1.201E-02	1.562E-02	1.262E-02	7.972E-03	NOT IDENT.
ZR-88	-9.280E-03	1.847E-02	1.641E-02	9.426E-03	NOT IDENT.
Y-91	-8.111E+00	8.915E+00	7.391E+00	4.548E+00	NOT IDENT.
NB-94	1.453E-02	2.041E-02	1.802E-02	1.041E-02	NOT IDENT.
NB-95M	3.391E-01	9.752E-02	7.851E-02	4.976E-02	NOT IDENT.
ZR-95	-1.845E-02	4.470E-02	3.782E-02	2.280E-02	NOT IDENT.
NB-97	1.257E+05	2.643E+05	0.000E+00	1.348E+05	SHORT HLIF
ZR-97	1.288E+07	4.762E+06	0.000E+00	2.429E+06	SHORT HLIF
MO-99	2.388E+01	1.315E+01	1.025E+01	6.707E+00	NOT IDENT.
TC-99M	-1.163E+18	1.817E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-6.556E-02	2.530E-02	2.058E-02	1.291E-02	NOT IDENT.
RH-102	-8.227E-04	1.789E-02	1.588E-02	9.129E-03	FAIL ABUN
RU-103	2.536E-02	2.517E-02	2.276E-02	1.284E-02	FAIL ABUN
RH-106	4.329E-02	1.856E-01	1.630E-01	9.470E-02	FAIL ABUN
RU-106	4.329E-02	1.856E-01	1.630E-01	9.468E-02	FAIL ABUN
AG-108M	-1.975E-02	1.929E-02	1.673E-02	9.842E-03	NOT IDENT.
AG-110M	9.387E-03	2.392E-02	1.829E-02	1.220E-02	NOT IDENT.
IN-111	-6.826E-01	1.164E+00	8.734E-01	5.937E-01	NOT IDENT.
IN-113M	-1.605E-02	2.678E-02	2.373E-02	1.366E-02	NOT IDENT.
SN-113	-1.605E-02	2.678E-02	2.373E-02	1.366E-02	NOT IDENT.
IN-114M	-2.157E-01	1.550E-01	1.163E-01	7.910E-02	NOT IDENT.
CD-115	4.511E+00	1.027E+01	9.174E+00	5.241E+00	NOT IDENT.
SN-117M	-3.918E-02	5.645E-02	4.371E-02	2.880E-02	NOT IDENT.
SB-122	3.012E+00	2.107E+00	1.691E+00	1.075E+00	NOT IDENT.
I-123	-2.358E+07	3.245E+07	0.000E+00	1.656E+07	SHORT HLIF
TE-123M	-1.994E-02	2.744E-02	2.123E-02	1.400E-02	NOT IDENT.
I-124	2.890E-01	5.501E-01	4.258E-01	2.807E-01	NOT IDENT.
SB-124	-3.111E-03	3.196E-02	2.662E-02	1.631E-02	FAIL ABUN
SB-125	6.853E-02	5.382E-02	4.963E-02	2.746E-02	FAIL ABUN
TE-125M	4.098E+01	1.253E+01	1.003E+01	6.393E+00	NOT IDENT.
I-126	8.352E-02	1.277E-01	9.883E-02	6.517E-02	NOT IDENT.
SB-126	8.745E-02	9.546E-02	8.035E-02	4.870E-02	NOT IDENT.
SB-127	-1.613E-01	1.050E+00	9.036E-01	5.355E-01	NOT IDENT.
XE-127	1.272E-01	4.178E-02	3.392E-02	2.131E-02	FAIL ABUN
I-131	-2.927E-02	7.744E-02	6.934E-02	3.951E-02	NOT IDENT.
TE-132	6.350E-01	6.524E-01	5.783E-01	3.329E-01	FAIL ABUN
BA-133	-6.269E-03	2.902E-02	2.268E-02	1.481E-02	NOT IDENT.
I-133	-3.396E+03	1.133E+04	0.000E+00	5.783E+03	SHORT HLIF
CS-134	8.131E-02	4.798E-02	2.638E-02	2.448E-02	FAIL ABUN
CS-135	1.703E-01	1.124E-01	9.314E-02	5.735E-02	NOT IDENT.
I-135	-6.322E+16	8.849E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.963E-03	5.462E-02	4.798E-02	2.787E-02	FAIL ABUN
CE-139	6.062E-02	2.778E-02	2.249E-02	1.417E-02	NOT IDENT.
BA-140	9.493E-02	1.704E-01	1.502E-01	8.694E-02	FAIL ABUN
LA-140	9.421E-03	4.246E-02	3.173E-02	2.166E-02	NOT IDENT.

CE-141	7.223E-01	7.873E-02	6.079E-02	4.017E-02	NOT IDENT.
CE-143	1.451E+03	3.753E+02	0.000E+00	1.915E+02	SHORT HLIF
CE-144	2.425E-01	2.112E-01	1.684E-01	1.078E-01	NOT IDENT.
PM-144	-2.511E-02	2.075E-02	1.715E-02	1.059E-02	NOT IDENT.
PR-144	-1.703E+00	1.407E+00	1.163E+00	7.180E-01	NOT IDENT.
PM-146	1.185E-02	2.619E-02	2.360E-02	1.336E-02	NOT IDENT.
ND-147	6.252E-02	3.708E-01	3.284E-01	1.892E-01	NOT IDENT.
PM-149	4.086E+01	8.779E+01	8.110E+01	4.479E+01	NOT IDENT.
EU-152	-1.992E-02	7.809E-02	5.339E-02	3.984E-02	FAIL ABUN
GD-153	1.833E+00	1.825E-01	1.044E-01	9.310E-02	FAIL ABUN
EU-154	-2.481E-02	5.563E-02	4.678E-02	2.838E-02	NOT IDENT.
EU-155	-1.019E-01	1.233E-01	1.034E-01	6.289E-02	FAIL ABUN
TB-160	2.605E-02	8.799E-02	7.555E-02	4.489E-02	FAIL ABUN
HO-166M	2.092E-02	3.602E-02	3.169E-02	1.838E-02	FAIL ABUN
TM-171	-1.733E+02	3.972E+01	2.951E+01	2.026E+01	NOT IDENT.
LU-176	-3.812E-03	1.507E-02	1.370E-02	7.690E-03	FAIL ABUN
LU-177M	-8.015E-02	1.047E-01	9.196E-02	5.342E-02	FAIL ABUN
HF-181	-3.295E-02	2.549E-02	2.170E-02	1.301E-02	NOT IDENT.
W-181	2.437E+01	1.908E+00	6.376E-01	9.735E-01	NOT IDENT.
TA-182	1.528E-02	9.768E-02	8.509E-02	4.983E-02	FAIL ABUN
RE-183	6.302E-01	1.370E-01	9.476E-02	6.992E-02	FAIL ABUN
RE-184	-2.834E-01	1.836E-01	1.330E-01	9.367E-02	NOT IDENT.
OS-185	-4.528E-03	2.560E-02	2.212E-02	1.306E-02	NOT IDENT.
RE-188	1.366E-01	1.428E-01	1.298E-01	7.288E-02	NOT IDENT.
W-188	-2.035E+00	5.202E+00	4.107E+00	2.654E+00	FAIL ABUN
IR-192	-1.688E-02	2.116E-02	1.894E-02	1.080E-02	FAIL ABUN
AU-195	5.344E+00	5.320E-01	2.914E-01	2.714E-01	FAIL ABUN
TL-200	-5.479E+00	6.707E+02	0.000E+00	3.422E+02	SHORT HLIF
TL-201	-2.655E+00	8.717E+00	6.776E+00	4.448E+00	NOT IDENT.
TL-202	-1.123E-02	4.412E-02	3.912E-02	2.251E-02	NOT IDENT.
HG-203	2.538E-02	2.546E-02	2.378E-02	1.299E-02	NOT IDENT.
BI-207	2.701E-02	2.581E-02	2.320E-02	1.317E-02	FAIL ABUN
TL-207	-6.910E-01	4.186E-01	3.540E-01	2.136E-01	FAIL ABUN
PO-209	1.374E+00	3.895E+00	3.355E+00	1.987E+00	NOT IDENT.
BI-210	-5.539E+00	3.603E+00	3.324E+00	1.838E+00	NOT IDENT.
PB-210	-5.539E+00	3.603E+00	3.324E+00	1.838E+00	NOT IDENT.
PO-210	-5.539E+00	3.597E+00	3.324E+00	1.835E+00	NOT IDENT.
PB-211	-3.098E-01	5.707E-01	4.763E-01	2.912E-01	NOT IDENT.
PO-215	-6.910E-01	4.186E-01	3.540E-01	2.136E-01	FAIL ABUN
RN-219	1.411E-01	2.417E-01	2.197E-01	1.233E-01	FAIL ABUN
RN-220	-1.138E+01	1.582E+01	1.359E+01	8.070E+00	NOT IDENT.
RA-223	-6.910E-01	4.186E-01	3.540E-01	2.136E-01	FAIL ABUN
AC-227	1.543E+00	3.761E-01	2.671E-01	1.919E-01	FAIL ABUN
TH-227	1.543E+00	4.027E-01	2.671E-01	2.055E-01	FAIL ABUN
PA-231	-3.524E-01	9.865E-01	8.681E-01	5.033E-01	FAIL ABUN
TH-231	-6.910E-01	4.186E-01	3.540E-01	2.136E-01	FAIL ABUN
U-231	3.069E+01	3.403E+00	1.731E+00	1.736E+00	FAIL ABUN
PA-233	7.885E-03	3.873E-02	3.550E-02	1.976E-02	FAIL ABUN
PA-234	5.595E-01	2.635E-01	1.693E-01	1.344E-01	FAIL ABUN
NP-236	-2.008E-02	7.587E-02	5.920E-02	3.871E-02	FAIL ABUN
NP-239	2.759E-01	2.042E-01	1.658E-01	1.042E-01	FAIL ABUN
AM-241	1.126E+00	2.399E-01	1.919E-01	1.224E-01	NOT IDENT.
CM-243	1.106E-01	1.135E-01	9.220E-02	5.791E-02	FAIL ABUN
AM-246	2.179E-02	6.714E-02	5.957E-02	3.426E-02	NOT IDENT.
CM-247	1.124E-02	2.154E-02	1.959E-02	1.099E-02	NOT IDENT.
CF-249	1.746E-02	2.354E-02	2.156E-02	1.201E-02	NOT IDENT.
CF-251	4.216E-02	1.017E-01	9.126E-02	5.187E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	6884.3652
46.50	6884.3652
46.50	6884.3652
48.70	7486.3853
49.72	7801.8066
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56.28	10118.9590
56.28	10108.8877
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57.53	9826.8857
57.53	9826.9150
57.60	9827.6387
57.98	9771.8223
57.98	9771.8223
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59.32	10409.1797
59.40	10410.0654
59.54	10411.6357
59.72	10413.6289
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61.10	10999.5557
61.14	11000.0020
61.30	11329.1533
63.00	10679.0352
63.29	10682.2344
63.29	10682.2344
63.58	10685.4238
64.28	10693.0977
65.12	10224.6250
65.20	10225.4512
65.20	10225.4512
66.05	10901.5947
66.72	11094.9521
66.83	11096.1865
66.91	11128.0918
67.20	11131.2949
67.20	11131.2949
67.75	11006.0518
67.85	10545.5732
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68.90	10556.4912
69.30	10560.6563
69.67	10346.5625
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70.82	10250.5947
70.83	10654.6113
72.80	11565.6719
72.87	12037.8809
72.87	12037.8809
74.67	12058.3672
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74.81	12059.9756
74.81	12059.9756
74.81	12059.9756
74.81	12059.9756
74.81	12059.9756
74.81	12059.9756
74.97	12061.7666
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75.70	12069.9883
77.11	12085.7900
77.11	12085.7900

77.11	12085.7900
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77.11	12085.7900
77.11	12085.7900
77.11	12085.7900
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79.62	12514.7891
79.80	12516.8291
79.80	12516.8291
80.11	12520.3408
80.18	12521.1006
80.30	12522.4766
80.30	12522.4766
80.57	12525.5137
81.00	12530.3545
81.07	12531.1133
81.07	12531.1133
81.07	12531.1133
81.07	12531.1133
82.60	12637.0098
83.37	12027.8213
83.78	12032.1855
83.78	12032.1855
83.78	12032.1855
83.78	12032.1855
84.21	12036.7314
84.90	12044.0039
85.43	12049.5498
86.29	12058.5498
86.50	12060.7314
86.54	12061.1406
86.59	12061.6865
86.72	12063.0498
86.79	12063.7314
86.94	12065.3223
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87.30	12069.0498
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87.30	12069.0498
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88.03	12076.5957
88.36	12080.0049
88.47	12081.1416
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92.29	12120.0518
92.38	12120.9609
92.38	12120.9609
93.35	12130.6885
94.00	12137.1885
94.67	12143.8252
94.67	12143.8701
94.90	12146.1885
94.90	12146.1885
94.90	12146.1885
94.90	12146.1885
95.87	6765.4526
95.87	6765.4526
96.73	6770.1836
97.43	6774.0039
98.44	6779.4937
98.44	6779.5190
98.88	5940.9092
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99.55	5425.1377
99.86	5464.1338
100.00	5464.7451
100.10	5465.1934
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103.76	5444.7822
105.00	5878.6279
105.31	5970.6865
108.00	6176.0562
109.28	6177.0786

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111.00	6147.0703
111.76	5211.5410
112.95	5216.1416
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117.00	4200.2236
117.00	4200.2236
117.66	4253.6816
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121.62	4005.8955
121.78	4006.3511
122.06	4037.3201
122.32	4077.6082
122.32	4077.6082
122.32	4077.6082
122.32	4077.6082
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127.23	4075.3213
129.76	4082.3997
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133.02	3695.5378
133.54	3727.0344
135.34	3650.8628
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136.25	3557.2410
136.48	3638.7695
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144.24	3359.7178
144.24	3359.7178
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145.44	3083.0332
147.16	3160.8865
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152.70	3206.6995
153.22	3206.6741
154.21	3128.9209
154.21	3128.9209
154.21	3128.9209
154.21	3128.9209
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159.00	0.0000
159.00	3189.2495
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161.27	3039.9063
162.32	3079.4138
162.64	3091.9722
163.35	2901.5486
163.89	2716.2515
165.85	2715.9670
167.43	2756.2126
171.28	2783.0105
171.86	2716.2747
172.10	2719.8640
176.55	2684.7986
176.60	2688.1055
181.06	2694.8848
184.41	2712.0271
185.71	2437.7136
186.00	2438.1089
190.27	2304.0425
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193.63	2149.2815
197.04	2133.5989
198.01	2385.3171
198.60	2404.5994
200.40	2110.5552
201.83	2112.1343
202.84	2088.7847
205.31	2341.7451

208.36	1713.5007
208.81	1760.3582
209.75	1857.6841
209.75	1857.6841
210.97	1897.4637
215.65	1791.3383
216.55	1771.2432
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222.10	1796.0142
223.80	1796.4130
226.40	1610.7570
227.00	1645.5165
227.08	1645.5846
227.20	1644.5695
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228.18	1645.3523
228.18	1645.3523
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236.00	1530.0511
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238.63	1519.0643
238.63	1519.0643
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241.98	1473.7903
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252.85	1440.0256
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256.20	1270.0183
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260.90	1236.7539
262.80	1180.2234
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268.24	1227.8604
268.79	1216.1334
269.46	1224.3148
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269.46	1224.3148
271.23	1205.3949
273.65	1291.0271
276.40	1183.4813
277.35	1170.5817
277.60	1170.7080
277.60	1170.7080
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278.60	1153.0968
279.20	1137.0834
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281.68	1232.6222
283.67	1149.2443
284.30	1122.3127
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285.90	1089.4479
286.10	1089.5503
286.10	1089.5503
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290.80	1107.7875
291.72	1083.9285
293.26	0.0000
293.70	1054.4276
295.21	1118.9440
295.21	1118.9440

295.21	1118.9440
295.96	971.7735
296.50	971.9945
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299.80	1014.4468
299.80	1014.4468
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300.09	1014.5687
300.09	1014.5687
300.12	1014.5823
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303.76	958.1114
303.91	958.1753
304.40	994.9924
304.40	994.9924
304.84	989.0596
306.84	1001.7788
308.46	960.2441
311.98	941.4059
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318.01	938.1467
319.02	908.1262
319.41	905.5012
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323.87	1059.3495
323.87	1059.3495
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323.87	1059.3495
325.23	970.3532
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334.20	937.2859
334.30	937.3230
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338.28	930.7135
338.28	930.7135
338.32	930.7258
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338.32	930.7258
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345.85	882.5103
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351.07	828.9122
351.92	829.1727
351.92	829.1727
351.92	829.1727
355.39	0.0000
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364.48	773.9717
366.43	752.0219
367.43	723.2078
367.94	0.0000
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374.96	715.7599
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388.63	711.6641
391.69	759.7329
391.69	759.7329
392.90	746.7955
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400.65	707.9806
401.10	704.2931
401.81	680.7299
402.60	678.0647
404.84	710.9014
410.95	631.4201
411.60	641.0834
413.65	725.4024
414.70	678.9379
415.30	685.7533

415.76	694.4438
417.63	0.0000
418.52	669.3044
423.70	676.1896
427.08	625.2364
427.89	582.3055
432.53	673.3527
433.93	659.2667
439.47	626.8018
439.56	626.8257
439.89	647.0806
443.98	608.4620
444.90	585.5266
445.03	583.6227
445.03	583.6227
445.03	583.6227
445.03	583.6227
453.90	610.3830
463.38	581.2061
468.07	624.0852
473.00	612.0813
475.06	619.2788
475.35	609.6105
476.78	564.1619
477.59	552.6213
477.96	541.9803
482.03	592.3398
484.57	559.6500
487.03	531.7675
490.36	0.0000
492.35	624.4836
497.08	525.5481
507.63	0.0000
510.53	0.0000
510.84	516.8791
511.00	516.9016
511.85	517.0268
511.85	517.0268
513.99	531.1241
513.99	531.1241
520.41	521.1673
520.65	540.0396
527.90	533.2632
528.96	0.0000
529.64	556.2512
529.87	0.0000
531.02	523.8538
537.32	502.0241
543.00	543.4913
546.56	0.0000
549.76	540.5469
552.65	499.2057
555.20	513.4930
563.23	533.5894
563.90	508.7424
568.70	558.3586
569.32	504.5068
569.50	504.5315
569.67	491.2346
573.80	508.4574
574.00	508.4822
574.64	506.2347
578.91	472.4267
579.30	0.0000
583.14	467.2856
585.48	459.8887
591.81	484.9502
592.07	484.9855
593.00	475.5521
595.88	449.7610
600.56	512.7778
602.52	0.0000
602.71	461.9924
602.71	461.9924
603.60	480.5885
604.41	468.9280
604.70	452.1534
609.31	481.6466

609.31	481.6466
609.31	481.6466
609.31	481.6466
610.33	481.7747
612.46	451.3776
614.37	458.3470
618.01	428.8400
621.84	424.4523
621.84	424.4523
631.29	441.7332
633.02	401.2876
633.10	401.2972
634.78	404.5103
635.90	438.1763
636.97	445.4212
645.85	422.9738
646.12	433.1970
656.30	425.7813
657.75	427.6376
657.90	0.0000
661.65	463.5287
661.65	463.5287
664.57	0.0000
666.33	394.3994
666.33	394.3994
675.00	394.2094
677.61	421.1709
685.20	427.0873
692.80	414.4644
695.00	477.6100
696.49	488.1046
696.49	488.1046
697.00	486.0982
697.49	484.0914
698.33	491.4095
698.50	491.4328
699.00	481.1655
702.63	444.3718
706.10	473.6990
706.58	0.0000
706.67	486.1792
709.31	441.9700
711.68	398.7231
713.82	410.3182
717.42	421.0367
720.50	368.4165
721.93	0.0000
722.20	380.6763
722.78	391.1043
722.78	391.1043
722.89	391.1135
722.95	391.1227
723.30	377.3043
724.18	405.0820
727.18	452.1409
733.00	478.7661
735.90	475.6201
739.58	430.8516
742.81	418.9944
744.21	400.0012
747.13	424.6371
751.79	422.2964
752.31	406.6646
753.82	389.0288
755.35	420.5395
756.15	430.0348
756.87	409.1754
763.93	401.7887
765.79	422.5793
766.42	422.6384
766.84	422.6777
776.49	457.2279
778.00	467.8910
778.57	441.6665
778.89	432.3492
783.80	405.3215
785.46	486.2153
792.07	374.4227

795.84	355.7341
796.30	325.5040
798.80	332.7188
801.93	424.5546
805.60	307.8235
810.29	358.9626
810.76	341.0008
815.85	311.6859
817.79	267.2701
818.51	274.7386
819.60	303.4491
826.30	318.7573
828.27	0.0000
831.60	352.0915
831.96	348.9324
834.83	348.0762
836.80	0.0000
846.75	304.1345
848.13	323.4318
856.28	0.0000
856.80	311.8968
860.37	258.9802
867.32	238.8369
867.82	234.4566
871.10	294.9469
873.19	290.7825
874.81	274.7750
875.33	0.0000
876.40	344.6596
879.36	333.0457
880.27	324.5099
880.51	289.0699
881.50	281.5988
883.24	281.7012
884.67	322.6538
889.25	262.6693
896.60	232.8697
898.02	227.5462
899.00	237.3003
903.28	238.7039
911.07	217.3263
911.07	217.3263
911.07	217.3263
919.63	270.7703
920.93	286.0043
925.00	271.0571
925.24	271.0693
926.50	288.4892
935.52	216.2085
937.48	267.3748
944.10	208.5872
946.00	241.3277
949.00	216.0507
962.29	223.8834
964.01	217.4036
966.15	217.4911
968.20	217.5785
969.11	217.6174
969.11	217.6174
969.11	217.6174
977.42	214.9455
980.50	185.2110
983.50	225.8858
989.30	204.1777
996.32	194.1910
1001.03	201.6935
1001.68	201.7204
1004.76	165.1392
1021.30	0.0000
1024.50	0.0000
1034.80	172.5124
1036.00	192.8505
1037.82	186.4571
1038.57	184.6354
1038.76	0.0000
1045.16	198.7193
1046.59	200.6208
1048.07	193.2757

1050.47	207.2383
1050.47	207.2383
1062.04	174.2917
1063.62	165.0715
1076.63	173.8135
1077.35	179.4140
1078.86	187.8380
1085.78	173.1716
1099.22	193.1781
1112.02	158.7342
1112.84	181.2051
1115.52	192.5223
1120.29	184.5192
1120.29	184.5192
1120.29	184.5192
1120.29	184.5192
1120.51	184.5272
1121.28	184.5512
1124.00	0.0000
1129.67	181.7332
1131.51	0.0000
1147.95	0.0000
1167.94	203.0147
1173.22	210.7593
1175.09	195.6965
1177.93	213.7602
1189.05	209.5530
1204.90	238.4684
1205.75	0.0000
1213.00	240.6877
1221.42	251.4961
1230.97	272.2486
1235.34	199.6882
1236.41	0.0000
1238.25	224.3451
1246.25	177.0896
1260.41	0.0000
1271.85	167.1111
1274.45	167.1748
1274.54	169.1035
1291.56	137.7632
1298.22	0.0000
1312.09	146.9037
1325.50	109.4366
1325.50	109.4366
1332.49	104.7041
1333.61	113.4485
1360.21	73.0194
1362.66	0.0000
1365.15	102.3041
1368.21	97.4772
1368.53	0.0000
1376.25	97.0375
1384.27	70.3506
1394.10	79.2631
1395.20	95.9105
1407.95	104.9189
1434.06	73.8220
1436.60	84.6807
1457.56	0.0000
1460.81	64.2277
1489.15	60.5185
1509.49	77.6064
1596.49	55.2366
1620.62	57.5798
1678.03	0.0000
1691.02	44.8594
1691.02	44.8594
1706.46	0.0000
1750.46	0.0000
1764.49	50.4276
1764.49	50.4276
1764.49	50.4276
1764.49	50.4276
1770.23	37.0752
1771.40	40.6110
1791.20	0.0000
1808.65	36.2177

1836.01 28.4777

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245808004

Total Uranium Activity	4.7266E+02	ug/g
Total Uranium Counting Unc.	8.1451E+01	ug/g
Total Uranium Tpu	4.1557E-05	ug/g
Total Uranium Mda	4.2913E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID   : G245808004      *
*   ANALYST       : RXF2                      DETECTOR    : GAM19           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE: 11-FEB-2010 22:27:52.35    SAMPLE ALQT:  169.141 GRAM    *
*                                                                           *
*****************************************************************************
```

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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.793E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.505E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 8.100E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 4.029E+00
```

VAX/VMS Nuclide Identification Report Generated 15-FEB-2010 16:35:11.88

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808005.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:57:44
Sample ID         : G245808005           Sample quantity  : 1.41695E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.19  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.21*	113	375	1.49	126.58	123	7	1.57E-02	30.5	
2	3	74.56*	386	486	1.30	149.26	144	13	5.37E-02	11.5	2.38E+00
3	3	76.80	598	292	0.91	153.74	144	13	8.31E-02	6.1	
4	4	83.76*	78	376	1.07	167.64	163	29	1.08E-02	41.0	1.11E+01
5	4	87.04*	237	474	1.37	174.20	163	29	3.29E-02	17.1	
6	4	89.61	193	393	1.17	179.34	163	29	2.68E-02	18.6	
7	0	128.69	76	314	0.93	257.41	254	7	1.05E-02	40.5	
8	0	153.97	106	395	1.85	307.94	302	11	1.48E-02	37.6	
9	0	185.45*	181	410	0.91	370.85	365	10	2.52E-02	22.9	
10	0	208.93	120	336	1.14	417.78	414	9	1.67E-02	28.9	
11	3	238.27*	1437	208	1.14	476.41	470	19	2.00E-01	3.2	1.52E+00
12	3	241.39	347	256	1.62	482.65	470	19	4.82E-02	11.1	
13	0	270.01	142	218	1.75	539.84	536	11	1.97E-02	21.9	
14	0	294.81	459	181	1.24	589.41	584	11	6.37E-02	7.4	
15	0	299.92*	108	209	1.60	599.61	595	11	1.50E-02	27.8	
16	0	337.80	272	190	1.26	675.32	671	9	3.78E-02	10.9	
17	0	351.36*	691	230	1.25	702.43	695	14	9.59E-02	6.1	
18	0	462.27	101	168	1.50	924.11	917	14	1.40E-02	29.0	
19	0	510.22*	90	192	1.83	1019.96	1013	15	1.24E-02	39.2	
20	0	582.68*	403	123	1.32	1164.81	1159	14	5.60E-02	7.8	
21	0	608.69*	444	102	1.29	1216.81	1211	13	6.17E-02	6.9	
22	0	726.67*	98	62	1.36	1452.68	1449	10	1.36E-02	18.9	
23	0	767.09	56	87	1.13	1533.48	1527	12	7.76E-03	36.0	
24	0	794.36	59	66	1.62	1588.02	1583	12	8.19E-03	30.5	
25	0	860.11	41	62	1.36	1719.48	1714	10	5.74E-03	38.9	
26	0	910.25*	283	99	1.76	1819.74	1810	18	3.93E-02	10.3	
27	0	968.59*	139	134	1.43	1936.40	1929	15	1.93E-02	20.8	
28	0	1119.18*	117	72	2.04	2237.56	2230	18	1.63E-02	19.5	
29	0	1376.60*	25	39	1.38	2752.46	2747	14	3.47E-03	57.0	
30	0	1459.26*	1601	21	2.12	2917.84	2907	21	2.22E-01	2.6	
31	0	1589.30	35	20	7.23	3178.00	3168	19	4.82E-03	37.4	
32	0	1727.62*	28	4	0.93	3454.78	3447	15	3.85E-03	26.3	
33	0	1762.87*	87	7	1.74	3525.31	3519	14	1.21E-02	13.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 15-FEB-2010 16:35:15

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:57:44
Sample ID : G245808005 Sample quantity : 141.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.19 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 2.00 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.587E+01	3.616E+00	4.882E-01	4.205E-02	73.468
NB-95	+	765.79	*	8.698E-02	6.285E-02	6.587E-02	4.597E-03	1.320
CD-109	+	88.03	*	3.292E+00	1.183E+00	1.199E+00	1.359E-01	2.746
SN-126	+	64.28		1.380E+00	8.753E-01	1.026E+00	1.753E-01	1.346
	+	86.94		1.341E+00	7.256E-01	4.968E-01	2.086E-01	2.699
	+	87.57	*	3.225E-01	1.159E-01	1.183E-01	1.339E-02	2.727
CS-135	+	268.24	*	5.007E-01	2.227E-01	2.236E-01	1.807E-02	2.239
RE-188	+	155.03	*	3.420E-01	2.578E-01	2.428E-01	1.380E-02	1.408
		477.96		1.652E+00	2.691E+00	4.545E+00	2.992E-01	0.363
		633.10		1.353E+00	2.491E+00	4.339E+00	2.299E-01	0.312
TL-208		277.35		1.569E-01	3.411E-01	5.809E-01	6.336E-02	0.270
	+	510.84		3.744E-01	2.962E-01	2.085E-01	2.191E-02	1.796
	+	583.14	*	4.826E-01	8.206E-02	5.707E-02	3.835E-03	8.456
	+	860.37		4.774E-01	3.747E-01	4.186E-01	4.087E-02	1.141
BI-211	+	72.87		2.089E+01	5.314E+00	5.501E+00	6.049E-01	3.797
	+	351.07	*	3.633E+00	5.148E-01	2.963E-01	2.160E-02	12.261
PB-212	+	74.81		2.479E+00	6.720E-01	5.862E-01	8.439E-02	4.229
	+	77.11		2.125E+00	3.469E-01	3.150E-01	3.444E-02	6.746
	+	87.30		1.492E+00	5.566E-01	5.495E-01	8.291E-02	2.715
	+	238.63	*	1.668E+00	1.645E-01	8.517E-02	6.461E-03	19.579
	+	300.09		1.929E+00	1.085E+00	1.045E+00	9.184E-02	1.846
PO-212	+	74.81		2.479E+00	6.720E-01	5.862E-01	8.439E-02	4.229
	+	77.11		2.125E+00	3.469E-01	3.150E-01	3.444E-02	6.746
	+	87.30		1.492E+00	5.566E-01	5.495E-01	8.291E-02	2.715
		115.19		-1.815E+00	3.410E+00	5.380E+00	3.849E-01	-0.337
	+	238.63	*	1.668E+00	1.645E-01	8.517E-02	6.461E-03	19.579
	+	300.09		1.929E+00	1.085E+00	1.045E+00	9.184E-02	1.846
BI-214	+	609.31	*	1.003E+00	1.573E-01	1.011E-01	7.697E-03	9.921
	+	1120.29		1.455E+00	5.848E-01	5.300E-01	5.180E-02	2.745
	+	1764.49		1.495E+00	4.149E-01	2.850E-01	1.903E-02	5.245
PB-214	+	74.81		4.272E+00	1.132E+00	1.010E+00	1.335E-01	4.229
	+	77.11		3.642E+00	6.563E-01	5.400E-01	7.196E-02	6.746
	+	87.30		2.556E+00	9.396E-01	9.413E-01	1.288E-01	2.715
	+	241.98		2.418E+00	5.741E-01	5.128E-01	4.266E-02	4.715

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.434E+00	2.475E-01	1.822E-01	1.646E-02	7.867
	+	351.92	*	1.264E+00	1.908E-01	1.033E-01	9.262E-03	12.236
PO-214	+	74.81		4.272E+00	1.132E+00	1.010E+00	1.335E-01	4.229
	+	77.11		3.642E+00	6.563E-01	5.400E-01	7.196E-02	6.746
	+	87.30		2.556E+00	9.396E-01	9.413E-01	1.288E-01	2.715
	+	241.98		2.418E+00	5.741E-01	5.128E-01	4.266E-02	4.715
	+	295.21		1.434E+00	2.475E-01	1.822E-01	1.646E-02	7.867
	+	351.92	*	1.264E+00	1.908E-01	1.033E-01	9.262E-03	12.236
PO-216	+	74.81		2.479E+00	6.720E-01	5.862E-01	8.439E-02	4.229
	+	77.11		2.125E+00	3.469E-01	3.150E-01	3.444E-02	6.746
	+	87.30		1.492E+00	5.566E-01	5.495E-01	8.291E-02	2.715
	+	238.63	*	1.668E+00	1.645E-01	8.517E-02	6.461E-03	19.579
	+	300.09		1.929E+00	1.085E+00	1.045E+00	9.184E-02	1.846
PO-218	+	74.81		4.272E+00	1.132E+00	1.010E+00	1.335E-01	4.229
	+	77.11		3.642E+00	6.563E-01	5.400E-01	7.196E-02	6.746
	+	87.30		2.556E+00	9.396E-01	9.413E-01	1.288E-01	2.715
	+	241.98		2.418E+00	5.741E-01	5.128E-01	4.266E-02	4.715
	+	295.21		1.434E+00	2.475E-01	1.822E-01	1.646E-02	7.867
	+	351.92	*	1.264E+00	1.908E-01	1.033E-01	9.262E-03	12.236
RA-224	+	240.98	*	4.584E+00	1.058E+00	9.691E-01	5.949E-02	4.731
RA-226	+	609.31	*	1.003E+00	1.573E-01	1.011E-01	7.697E-03	9.921
	+	1120.29		1.455E+00	5.848E-01	5.300E-01	5.180E-02	2.745
	+	1764.49		1.495E+00	4.149E-01	2.850E-01	1.903E-02	5.245
AC-228	+	338.32		1.581E+00	7.334E-01	3.666E-01	1.499E-01	4.313
	+	911.07	*	1.553E+00	3.724E-01	2.155E-01	2.659E-02	7.209
	+	969.11		1.357E+00	6.487E-01	4.918E-01	1.163E-01	2.760
RA-228	+	338.32		1.581E+00	7.334E-01	3.666E-01	1.499E-01	4.313
	+	911.07	*	1.553E+00	3.724E-01	2.155E-01	2.659E-02	7.209
	+	969.11		1.357E+00	6.487E-01	4.918E-01	1.163E-01	2.760
TH-228	+	74.81		2.522E+00	6.423E-01	5.963E-01	6.564E-02	4.229
	+	77.11		2.161E+00	3.529E-01	3.204E-01	3.503E-02	6.746
	+	87.30		1.518E+00	5.455E-01	5.590E-01	6.316E-02	2.715
	+	238.63	*	1.696E+00	1.674E-01	8.664E-02	6.573E-03	19.579
	+	300.09		1.962E+00	1.591E+00	1.063E+00	6.274E-01	1.846
TH-230	+	609.31	*	1.003E+00	1.573E-01	1.011E-01	7.697E-03	9.921
	+	1120.29		1.455E+00	5.848E-01	5.300E-01	5.180E-02	2.745
	+	1764.49		1.495E+00	4.149E-01	2.850E-01	1.903E-02	5.245
TH-232	+	338.32		1.581E+00	3.616E-01	3.666E-01	2.457E-02	4.313
	+	911.07	*	1.553E+00	3.724E-01	2.155E-01	2.659E-02	7.209
	+	969.11		1.357E+00	6.487E-01	4.918E-01	1.163E-01	2.760
U-234	+	609.31	*	1.003E+00	1.573E-01	1.011E-01	7.697E-03	9.921
	+	1120.29		1.455E+00	5.848E-01	5.300E-01	5.180E-02	2.745
	+	1764.49		1.495E+00	4.149E-01	2.850E-01	1.903E-02	5.245
NP-237	+	86.50	*	9.472E-01	3.926E-01	3.535E-01	8.309E-02	2.679
		95.87		-5.330E-01	1.030E+00	1.454E+00	3.633E-01	-0.367
AM-243	+	74.67	*	4.019E-01	1.023E-01	9.547E-02	1.046E-02	4.210
	+	86.72		3.552E+01	1.277E+01	1.321E+01	1.488E+00	2.689
		117.66		-2.826E+00	3.584E+00	5.612E+00	3.894E-01	-0.504
		142.18		-1.969E+00	1.764E+01	2.796E+01	1.669E+00	-0.070

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	8.086E-02	6.362E-02	4.504E-02	2.885E-03	1.795

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.001E-01	2.870E-01	4.756E-01	3.537E-02	0.210
NA-22		1274.54	*	-3.517E-02	4.522E-02	6.958E-02	5.389E-03	-0.505
NA-24		1368.53	*	8.307E-01	4.522E-02	Half-Life too short		
AL-26		1129.67		1.446E-01	1.837E+00	3.040E+00	2.132E-01	0.048
		1808.65	*	-1.044E-02	2.211E-02	3.090E-02	1.959E-03	-0.338
TI-44		67.85		7.471E-03	5.401E-02	9.006E-02	1.017E-02	0.083
	+	78.38	*	3.921E-01	6.402E-02	7.160E-02	7.834E-03	5.477
SC-46		889.25	*	-2.969E-02	3.819E-02	5.761E-02	5.702E-03	-0.515
	+	1120.51		2.534E-01	1.005E-01	1.244E-01	8.936E-03	2.036
V-48		944.10		-6.993E-01	9.838E-01	1.490E+00	1.443E-01	-0.469
		983.50	*	-5.423E-03	8.135E-02	1.312E-01	1.213E-02	-0.041
		1312.09		2.964E-02	7.036E-02	1.229E-01	1.026E-02	0.241
CR-51		320.08	*	3.812E-01	3.465E-01	6.065E-01	4.381E-02	0.629
MN-52		744.21		-3.916E-02	2.756E-01	4.511E-01	2.943E-02	-0.087
		848.13		3.464E+00	8.244E+00	1.401E+01	1.242E+00	0.247
		935.52		-1.702E-01	3.428E-01	5.334E-01	5.215E-02	-0.319
		1246.25		-8.977E-01	1.047E+01	1.733E+01	1.262E+00	-0.052
		1333.61		5.348E-01	6.679E+00	1.117E+01	9.701E-01	0.048
		1434.06	*	-3.483E-02	2.700E-01	4.364E-01	3.688E-02	-0.080
MN-54		834.83	*	5.971E-04	3.756E-02	6.178E-02	5.278E-03	0.010
CO-56		846.75	*	1.123E-02	3.909E-02	6.568E-02	5.800E-03	0.171
		977.42		-9.297E-01	3.240E+00	5.124E+00	4.776E-01	-0.181
		1037.82		-1.248E-02	3.474E-01	5.593E-01	5.029E-02	-0.022
		1175.09		2.768E+00	2.396E+00	4.346E+00	2.692E-01	0.637
		1238.25		1.561E-01	1.020E-01	1.855E-01	1.384E-02	0.841
		1360.21		6.153E-01	9.480E-01	1.690E+00	1.460E-01	0.364
		1771.40		-5.863E-02	1.781E-01	2.641E-01	1.750E-02	-0.222
CO-57		122.06	*	-6.748E-03	2.444E-02	3.914E-02	2.582E-03	-0.172
		136.48		3.725E-02	1.953E-01	3.174E-01	2.220E-02	0.117
CO-58		810.76	*	4.666E-03	3.688E-02	6.137E-02	4.911E-03	0.076
FE-59		142.65		8.455E-01	2.769E+00	4.461E+00	2.658E-01	0.190
		192.34		-9.173E-01	9.343E-01	1.399E+00	1.645E-01	-0.656
		1099.22	*	-1.681E-02	9.887E-02	1.564E-01	1.305E-02	-0.107
		1291.56		-6.328E-02	1.330E-01	2.108E-01	1.951E-02	-0.300
CO-60		1173.22		2.631E-03	4.913E-02	8.250E-02	5.087E-03	0.032
		1332.49	*	1.900E-03	4.044E-02	6.737E-02	5.854E-03	0.028
ZN-65		1115.52	*	6.093E-02	1.124E-01	1.656E-01	1.206E-02	0.368
GE-68		1077.35	*	7.529E-02	1.290E+00	2.090E+00	1.655E-01	0.036
AS-73		53.44	*	3.555E-02	1.448E+00	2.426E+00	3.210E-01	0.015
AS-74		595.88	*	-3.105E-03	8.753E-02	1.468E-01	8.389E-03	-0.021
		634.78		4.262E-02	3.315E-01	5.607E-01	2.959E-02	0.076
SE-75		66.05		7.431E-01	6.253E+00	9.364E+00	1.206E+00	0.079
		96.73		-2.978E-01	8.505E-01	1.220E+00	1.727E-01	-0.244

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.11		5.393E-02	1.308E-01	2.155E-01	2.111E-02	0.250
		136.00		-1.109E-02	3.721E-02	5.921E-02	3.677E-03	-0.187
		198.60		1.221E+00	1.741E+00	2.803E+00	1.985E-01	0.436
		264.65	*	8.707E-05	4.456E-02	6.873E-02	4.384E-03	0.001
		279.53		-3.149E-02	9.903E-02	1.627E-01	1.115E-02	-0.194
		303.91		5.949E-01	2.055E+00	3.066E+00	3.073E-01	0.194
		400.65		5.170E-02	2.280E-01	3.779E-01	3.691E-02	0.137
BR-77	+	87.88		1.304E+03	4.688E+02	6.134E+02	6.955E+01	2.126
		200.40		-4.412E+01	2.900E+02	4.548E+02	2.623E+01	-0.097
	+	239.00		4.926E+02	4.329E+01	6.606E+01	4.044E+00	7.457
		249.79		-5.652E+01	1.097E+02	1.798E+02	1.116E+01	-0.314
		281.68		-4.038E+01	1.422E+02	2.337E+02	1.505E+01	-0.173
		297.23		2.307E+02	1.195E+02	1.576E+02	1.029E+01	1.464
		303.76		1.214E+02	3.196E+02	4.799E+02	3.150E+01	0.253
		439.47		3.771E+01	2.351E+02	3.860E+02	2.595E+01	0.098
		484.57		2.909E+02	3.766E+02	6.414E+02	4.202E+01	0.453
		520.65	*	-5.134E+00	1.810E+01	2.843E+01	1.803E+00	-0.181
		574.64		-1.299E+02	3.439E+02	5.647E+02	3.342E+01	-0.230
		578.91		1.607E+01	1.633E+02	2.421E+02	1.423E+01	0.066
		585.48		7.367E+02	3.369E+02	5.787E+02	3.366E+01	1.273
		755.35		1.223E+02	2.878E+02	4.917E+02	3.322E+01	0.249
		817.79		-1.195E+02	2.242E+02	3.504E+02	2.853E+01	-0.341
SR-82		698.33		8.136E-01	3.400E+01	5.667E+01	3.180E+00	0.014
		776.49	*	-4.241E-01	3.950E-01	5.893E-01	4.248E-02	-0.720
		1395.20		-8.750E+00	1.218E+01	1.830E+01	1.567E+00	-0.478
RB-83		520.41	*	-2.537E-02	6.571E-02	1.023E-01	6.492E-03	-0.248
		529.64		8.818E-02	9.678E-02	1.659E-01	1.043E-02	0.531
		552.65		5.721E-02	1.706E-01	2.806E-01	1.714E-02	0.204
RB-84		881.50	*	2.910E-03	7.489E-02	1.229E-01	1.192E-02	0.024
KR-85		513.99	*	6.884E+00	7.081E+00	1.087E+01	6.941E-01	0.634
SR-85		513.99	*	3.608E-02	3.711E-02	5.695E-02	3.638E-03	0.634
RB-86		1076.63	*	-1.260E-01	9.025E-01	1.434E+00	1.138E-01	-0.088
Y-88		898.02		2.142E-02	4.239E-02	7.214E-02	7.329E-03	0.297
		1836.01	*	1.027E-02	2.860E-02	4.986E-02	3.059E-03	0.206
ZR-88		392.90	*	1.911E-02	2.823E-02	4.808E-02	3.267E-03	0.398
Y-91		1204.90	*	-8.220E+00	2.231E+01	3.630E+01	2.411E+00	-0.226
NB-94		702.63	*	-1.868E-02	3.071E-02	4.870E-02	2.773E-03	-0.384
		871.10		2.385E-02	3.044E-02	5.338E-02	5.035E-03	0.447
NB-95M		235.69	*	3.258E-01	1.337E-01	2.199E-01	1.706E-02	1.481
ZR-95		724.18		2.234E-01	1.137E-01	1.906E-01	1.359E-02	1.172
		756.15	*	5.728E-02	6.879E-02	1.208E-01	9.489E-03	0.474
NB-97		657.90	*	2.178E-01	6.879E-02	Half-Life too short		
		1024.50		6.085E+00	6.879E-02	Half-Life too short		
ZR-97		254.15		-5.057E+00	6.879E-02	Half-Life too short		
		355.39		-3.705E+00	6.879E-02	Half-Life too short		
		507.63	*	3.647E+01	6.879E-02	Half-Life too short		
		602.52		4.892E+01	6.879E-02	Half-Life too short		
		1021.30		3.532E-01	6.879E-02	Half-Life too short		
		1147.95		-2.540E+01	6.879E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1362.66		3.972E+01	6.879E-02	Half-Life too short		
		1750.46		-3.939E+00	6.879E-02	Half-Life too short		
MO-99		140.51		6.268E+00	4.310E+01	6.920E+01	1.868E+01	0.091
		181.06		-6.801E-01	3.009E+01	4.241E+01	7.240E+00	-0.016
		366.43		-7.950E+01	1.274E+02	2.009E+02	1.360E+01	-0.396
		739.58	*	1.363E+01	1.764E+01	3.087E+01	4.340E+00	0.441
		778.00		-7.136E+00	5.358E+01	8.692E+01	6.296E+00	-0.082
TC-99M		140.51	*	1.733E+12	5.358E+01	Half-Life too short		
RH-101	+	127.23		4.419E-02	3.590E-02	4.895E-02	3.129E-03	0.903
		198.01	*	-3.624E-03	3.181E-02	4.938E-02	2.836E-03	-0.073
		325.23		-1.157E-01	2.046E-01	3.282E-01	2.185E-02	-0.353
RH-102		418.52		2.090E-02	2.555E-01	4.185E-01	2.833E-02	0.050
		475.06	*	1.835E-03	2.568E-02	4.171E-02	2.751E-03	0.044
		631.29		4.232E-02	4.637E-02	8.294E-02	4.413E-03	0.510
		697.49		-4.273E-03	7.174E-02	1.189E-01	6.650E-03	-0.036
	+	766.84		2.142E-01	1.548E-01	1.995E-01	1.396E-02	1.074
		1046.59		-8.335E-02	1.228E-01	1.866E-01	1.567E-02	-0.447
		1112.84		-1.477E-01	2.920E-01	3.774E-01	2.763E-02	-0.391
RU-103		497.08	*	-2.573E-02	4.095E-02	6.269E-02	8.134E-03	-0.410
	+	610.33		1.124E+01	2.312E+00	2.550E+00	3.909E-01	4.408
RH-106	+	511.85		4.055E-01	3.191E-01	3.509E-01	2.246E-02	1.156
		621.84	*	1.892E-01	2.836E-01	4.970E-01	5.745E-02	0.381
		1050.47		1.684E+00	2.455E+00	4.198E+00	3.502E-01	0.401
RU-106	+	511.85		4.055E-01	3.191E-01	3.509E-01	2.246E-02	1.156
		621.84	*	1.892E-01	2.830E-01	4.970E-01	2.699E-02	0.381
		1050.47		1.684E+00	2.455E+00	4.198E+00	3.502E-01	0.401
AG-108M		433.93	*	-2.907E-03	3.034E-02	4.899E-02	3.513E-03	-0.059
		614.37		1.247E-02	3.599E-02	5.454E-02	3.289E-03	0.229
		722.95		3.072E-02	4.505E-02	6.938E-02	4.551E-03	0.443
AG-110M		657.75	*	7.802E-03	2.948E-02	5.027E-02	2.723E-03	0.155
		677.61		5.853E-02	2.851E-01	4.825E-01	2.709E-02	0.121
		706.67		9.722E-02	2.001E-01	3.440E-01	2.105E-02	0.283
		763.93		1.487E-01	1.750E-01	2.734E-01	1.979E-02	0.544
		884.67		1.879E-03	4.966E-02	8.148E-02	8.167E-03	0.023
		937.48		-1.879E-01	1.206E-01	1.663E-01	1.669E-02	-1.130
		1384.27		4.969E-02	1.735E-01	2.596E-01	2.292E-02	0.191
IN-111		171.28		-1.817E-01	1.548E+00	2.453E+00	1.349E-01	-0.074
		245.39	*	1.143E+00	1.701E+00	2.628E+00	1.623E-01	0.435
IN-113M		391.69	*	-5.594E-03	4.263E-02	6.918E-02	4.933E-03	-0.081
SN-113		391.69	*	-5.594E-03	4.263E-02	6.918E-02	4.933E-03	-0.081
IN-114M		190.27	*	5.605E-02	1.827E-01	2.797E-01	1.586E-02	0.200
CD-115		260.90		-2.144E+02	2.252E+02	3.593E+02	2.262E+01	-0.597
		492.35		6.148E+01	6.464E+01	1.111E+02	7.235E+00	0.553
		527.90	*	1.940E+00	1.921E+01	3.105E+01	1.955E+00	0.062
SN-117M		156.02		-3.043E-02	2.463E+00	3.506E+00	1.985E-01	-0.009
		158.56	*	4.619E-02	5.881E-02	8.780E-02	4.924E-03	0.526
SB-122		563.90	*	9.270E-01	3.335E+00	5.437E+00	3.270E-01	0.170
		692.80		3.798E+01	6.849E+01	1.185E+02	6.526E+00	0.320
I-123		159.00	*	2.446E+01	6.849E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		528.96		2.650E+03	6.849E+01	Half-Life too short		
TE-123M		159.00	*	8.660E-03	2.637E-02	4.083E-02	2.319E-03	0.212
I-124		602.71	*	8.519E-01	9.036E-01	1.444E+00	8.148E-02	0.590
		722.78		4.090E+00	6.622E+00	1.014E+01	6.175E-01	0.403
		1325.50		-1.128E+01	5.174E+01	8.387E+01	7.190E+00	-0.134
	+	1376.25		6.122E+01	6.999E+01	8.824E+01	7.593E+00	0.694
		1509.49		-3.300E+00	2.330E+01	3.753E+01	3.069E+00	-0.088
		1691.02		-2.781E+00	4.687E+00	6.620E+00	4.761E-01	-0.420
SB-124		602.71		3.587E-02	3.804E-02	6.080E-02	3.432E-03	0.590
		645.85		1.546E-01	4.955E-01	8.466E-01	5.052E-02	0.183
		709.31		1.405E+00	2.632E+00	4.544E+00	2.646E-01	0.309
		713.82		-3.273E-01	1.487E+00	2.426E+00	2.492E-01	-0.135
		722.78		2.496E-01	4.042E-01	6.190E-01	3.930E-02	0.403
	+	968.20		1.431E+01	6.095E+00	7.694E+00	7.253E-01	1.860
		1045.16		-2.792E+00	2.682E+00	3.876E+00	3.264E-01	-0.720
		1325.50		-7.350E-01	3.373E+00	5.466E+00	4.686E-01	-0.134
		1368.21		1.988E-01	1.476E+00	2.383E+00	3.211E-01	0.083
		1436.60		-1.252E+00	3.212E+00	4.959E+00	4.186E-01	-0.253
		1691.02	*	-4.003E-02	6.747E-02	9.529E-02	7.240E-03	-0.420
SB-125		427.89	*	8.828E-03	8.341E-02	1.367E-01	9.516E-03	0.065
	+	463.38		8.240E-01	4.825E-01	5.379E-01	4.034E-02	1.532
		600.56		-1.141E-03	1.583E-01	2.660E-01	1.753E-02	-0.004
		635.90		-1.502E-01	2.387E-01	3.799E-01	2.409E-02	-0.395
TE-125M		109.28	*	5.640E+00	9.035E+00	1.506E+01	1.446E+00	0.375
I-126		388.63		1.298E-01	2.100E-01	3.563E-01	2.421E-02	0.364
		666.33	*	5.495E-02	1.986E-01	3.375E-01	1.693E-02	0.163
		753.82		2.602E-01	1.555E+00	2.608E+00	1.753E-01	0.100
SB-126		223.80		-1.218E+00	4.128E+00	6.888E+00	4.124E-01	-0.177
		278.60		8.815E-01	2.440E+00	4.143E+00	2.659E-01	0.213
	+	296.50		1.604E+01	2.582E+00	3.365E+00	2.195E-01	4.768
		414.70		3.241E-02	7.387E-02	1.239E-01	8.395E-03	0.262
		415.30		2.787E+00	6.167E+00	1.035E+01	7.013E-01	0.269
		555.20		-4.533E+00	4.042E+00	5.810E+00	3.537E-01	-0.780
		573.80		-5.663E-01	1.033E+00	1.674E+00	9.923E-02	-0.338
		593.00		-2.811E-02	9.263E-01	1.555E+00	8.930E-02	-0.018
		656.30		1.062E-01	3.209E+00	5.376E+00	2.691E-01	0.020
		666.33		2.307E-02	8.337E-02	1.417E-01	7.109E-03	0.163
		675.00		-3.380E-01	2.105E+00	3.470E+00	1.795E-01	-0.097
		695.00		4.878E-02	8.248E-02	1.429E-01	7.927E-03	0.341
		697.00		7.874E-03	2.839E-01	4.734E-01	2.644E-02	0.017
		720.50	*	-3.612E-02	1.688E-01	2.596E-01	1.569E-02	-0.139
		856.80		1.674E-01	6.011E-01	8.805E-01	7.992E-02	0.190
		989.30		-4.231E-01	1.491E+00	2.354E+00	2.161E-01	-0.180
		1034.80		-4.872E+00	1.083E+01	1.676E+01	1.436E+00	-0.291
		1213.00		1.939E+00	5.864E+00	1.002E+01	6.778E-01	0.194
SB-127		61.10		-2.347E+01	1.243E+02	1.834E+02	2.672E+01	-0.128
		252.40		2.219E+00	5.788E+00	9.759E+00	4.078E+00	0.227
		290.80		6.107E+00	2.978E+01	4.429E+01	4.586E+00	0.138
		411.60		-5.480E+00	1.613E+01	2.570E+01	3.929E+00	-0.213

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		444.90		-2.629E+00	1.248E+01	1.993E+01	2.379E+00	-0.132
		473.00		-1.552E+00	2.311E+00	3.541E+00	4.332E-01	-0.438
		543.00		1.162E+01	2.194E+01	3.650E+01	4.978E+00	0.318
		603.60		1.082E+01	1.649E+01	2.562E+01	2.906E+00	0.422
		685.20	*	5.120E-01	1.729E+00	2.946E+00	2.929E-01	0.174
		698.50		3.722E+00	2.042E+01	3.440E+01	5.129E+00	0.108
		722.20		3.291E+01	4.635E+01	7.155E+01	7.225E+00	0.460
		783.80		5.818E+00	5.457E+00	9.601E+00	1.172E+00	0.606
XE-127		57.60		1.109E-01	9.336E+00	1.559E+01	1.982E+00	0.007
		145.22		1.360E-02	7.128E-01	1.135E+00	6.691E-02	0.012
		172.10		4.296E-02	1.128E-01	1.828E-01	1.007E-02	0.235
		202.84	*	-2.069E-02	4.431E-02	7.385E-02	4.276E-03	-0.280
		374.96		3.516E-02	1.828E-01	3.035E-01	2.059E-02	0.116
I-131		80.18		1.149E+00	7.498E+00	8.862E+00	9.775E-01	0.130
		284.30		-1.002E+00	1.566E+00	2.520E+00	1.780E-01	-0.397
		364.48	*	7.665E-02	1.269E-01	2.157E-01	1.591E-02	0.355
		636.97		-8.046E-01	1.579E+00	2.536E+00	1.530E-01	-0.317
		722.89		5.979E+00	9.068E+00	1.394E+01	8.630E-01	0.429
TE-132		49.72		3.277E+01	6.234E+01	1.063E+02	1.564E+01	0.308
		111.76		-1.209E+01	4.523E+01	7.278E+01	7.712E+00	-0.166
		116.30		-3.306E+01	4.086E+01	6.343E+01	6.535E+00	-0.521
		228.16	*	3.270E-01	9.818E-01	1.677E+00	2.498E-01	0.195
BA-133		53.15		5.557E-01	6.227E+00	1.046E+01	1.385E+00	0.053
		79.62		1.829E-01	1.761E+00	2.074E+00	3.456E-01	0.088
		81.00		-1.011E-02	1.160E-01	1.555E-01	2.687E-02	-0.065
		276.40		3.726E-01	3.603E-01	5.859E-01	7.761E-02	0.636
		302.84		7.493E-02	1.399E-01	2.120E-01	2.556E-02	0.353
		356.01	*	-4.285E-03	4.410E-02	6.315E-02	7.619E-03	-0.068
		383.85		-2.445E-01	2.884E-01	4.459E-01	5.097E-02	-0.548
I-133	+	510.53		4.376E+00	2.884E-01	Half-Life too short		
		529.87	*	2.366E-02	2.884E-01	Half-Life too short		
		706.58		1.030E+00	2.884E-01	Half-Life too short		
		856.28		4.630E-01	2.884E-01	Half-Life too short		
		875.33		-5.670E-01	2.884E-01	Half-Life too short		
		1236.41		4.282E+00	2.884E-01	Half-Life too short		
		1298.22		-1.199E+00	2.884E-01	Half-Life too short		
CS-134		475.35		-7.088E-02	1.722E+00	2.773E+00	1.829E-01	-0.026
		563.23		1.054E-01	3.392E-01	5.544E-01	3.403E-02	0.190
		569.32		4.727E-02	1.855E-01	3.018E-01	1.851E-02	0.157
		604.70		4.038E-03	3.262E-02	4.832E-02	2.732E-03	0.084
	+	795.84	*	1.039E-01	6.379E-02	8.387E-02	6.465E-03	1.239
		801.93		-2.375E-01	4.091E-01	5.896E-01	4.617E-02	-0.403
		1038.57		3.078E+00	4.075E+00	7.016E+00	5.975E-01	0.439
		1167.94		-1.692E+00	2.608E+00	4.136E+00	2.595E-01	-0.409
		1365.15		-1.410E+00	1.121E+00	1.504E+00	1.357E-01	-0.937
I-135		288.45		3.832E+12	1.121E+00	Half-Life too short		
		417.63		-5.511E+11	1.121E+00	Half-Life too short		
		546.56		7.030E+11	1.121E+00	Half-Life too short		
		836.80		3.111E+12	1.121E+00	Half-Life too short		

---- Non-Identified Nuclides ----

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		1038.76		3.023E+12	1.121E+00	Half-Life too short		
		1124.00		-5.364E+12	1.121E+00	Half-Life too short		
		1131.51		-1.829E+12	1.121E+00	Half-Life too short		
		1260.41	*	-5.230E+11	1.121E+00	Half-Life too short		
	+	1457.56		3.163E+14	1.121E+00	Half-Life too short		
		1678.03		1.598E+12	1.121E+00	Half-Life too short		
		1706.46		1.532E+12	1.121E+00	Half-Life too short		
		1791.20		8.300E+11	1.121E+00	Half-Life too short		
CS-136		66.91		3.036E-01	1.134E+00	1.708E+00	2.926E-01	0.178
	+	86.29		4.699E+00	1.748E+00	2.247E+00	3.311E-01	2.091
	+	153.22		1.436E+00	1.084E+00	1.148E+00	8.226E-02	1.250
		163.89		5.812E-01	1.091E+00	1.784E+00	1.252E-01	0.326
		176.55		5.701E-02	3.861E-01	6.184E-01	3.893E-02	0.092
		273.65		-5.004E-01	5.099E-01	6.983E-01	4.984E-02	-0.717
		340.57		9.601E-02	1.446E-01	2.194E-01	1.543E-02	0.438
		818.51		-4.768E-02	7.530E-02	1.164E-01	9.507E-03	-0.410
		1048.07	*	-3.270E-02	1.292E-01	2.050E-01	1.795E-02	-0.160
		1235.34		8.437E-01	7.514E-01	1.333E+00	1.440E-01	0.633
BA-137M		661.65	*	-1.343E-02	3.292E-02	5.334E-02	2.632E-03	-0.252
CS-137		661.65	*	-1.420E-02	3.480E-02	5.639E-02	2.798E-03	-0.252
CE-139		165.85	*	1.060E-02	2.814E-02	4.567E-02	2.495E-03	0.232
BA-140		162.64		-2.021E-01	7.602E-01	1.199E+00	7.532E-02	-0.169
		304.84		7.812E-01	1.339E+00	2.020E+00	5.547E-01	0.387
		423.70		1.327E+00	1.982E+00	3.293E+00	1.053E+00	0.403
		537.32	*	3.073E-02	2.662E-01	4.300E-01	1.402E-01	0.071
LA-140		328.77		2.417E-01	3.039E-01	5.221E-01	3.803E-02	0.463
		432.53		5.385E-01	2.136E+00	3.531E+00	2.567E-01	0.153
		487.03		-2.962E-03	1.464E-01	2.358E-01	1.704E-02	-0.013
		751.79		-3.187E-01	1.729E+00	2.819E+00	2.208E-01	-0.113
		815.85		-1.965E-01	3.277E-01	5.084E-01	4.649E-02	-0.387
		867.82		-8.704E-01	1.451E+00	2.238E+00	2.187E-01	-0.389
		919.63		-1.500E-01	2.986E+00	4.846E+00	5.686E-01	-0.031
		925.24		-1.311E+00	1.157E+00	1.644E+00	1.703E-01	-0.797
		1596.49	*	3.064E-02	7.915E-02	1.231E-01	9.549E-03	0.249
CE-141		145.44	*	-1.842E-03	6.360E-02	1.021E-01	6.247E-03	-0.018
CE-143		57.37		7.627E-04	6.360E-02	Half-Life too short		
		231.56		-4.017E-03	6.360E-02	Half-Life too short		
	+	293.26	*	3.915E-03	6.360E-02	Half-Life too short		
	+	350.59		8.258E-02	6.360E-02	Half-Life too short		
		490.36		-5.452E-03	6.360E-02	Half-Life too short		
		664.57		5.673E-04	6.360E-02	Half-Life too short		
		721.93		4.502E-03	6.360E-02	Half-Life too short		
CE-144		80.11		6.484E-01	2.882E+00	3.424E+00	3.758E-01	0.189
		133.54	*	4.561E-02	1.931E-01	3.144E-01	4.518E-02	0.145
PM-144		476.78		-2.321E-02	6.062E-02	9.503E-02	7.236E-03	-0.244
		618.01		-1.215E-03	2.899E-02	4.849E-02	2.834E-03	-0.025
		696.49	*	-6.879E-04	3.263E-02	5.423E-02	3.027E-03	-0.013
		778.57		-1.494E+00	2.201E+00	3.403E+00	2.470E-01	-0.439
PR-144		696.49	*	-4.667E-02	2.214E+00	3.679E+00	2.051E-01	-0.013

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		1489.15		-1.320E+01	1.207E+01	1.642E+01	1.356E+00	-0.804
PM-146		453.90	*	4.983E-04	3.907E-02	6.338E-02	5.854E-03	0.008
		633.02		5.926E-01	1.222E+00	2.088E+00	7.673E-01	0.284
		735.90		-1.340E-02	1.287E-01	2.114E-01	5.920E-02	-0.063
		747.13		3.777E-02	7.927E-02	1.363E-01	1.757E-02	0.277
ND-147	+	91.11		9.882E-01	3.852E-01	5.748E-01	6.408E-02	1.719
		319.41		2.168E+00	3.359E+00	5.755E+00	3.820E-01	0.377
		439.89		1.808E+00	5.940E+00	9.848E+00	6.623E-01	0.184
		531.02	*	1.524E-01	5.846E-01	9.559E-01	1.313E-01	0.159
PM-149		285.90	*	-5.009E+01	1.564E+02	2.561E+02	3.705E+01	-0.196
EU-152		121.78		-1.271E-07	6.918E-02	1.121E-01	9.239E-03	0.000
		244.69		2.722E-01	3.119E-01	4.876E-01	3.008E-02	0.558
		344.27	*	-6.955E-02	9.884E-02	1.434E-01	1.057E-02	-0.485
		443.98		-3.133E-01	8.584E-01	1.356E+00	9.101E-02	-0.231
		778.89		-2.138E-01	2.564E-01	3.910E-01	2.839E-02	-0.547
		867.32		-5.085E-01	7.750E-01	1.188E+00	1.109E-01	-0.428
		964.01		2.312E-01	3.832E-01	5.718E-01	5.417E-02	0.404
		1085.78		7.491E-02	4.203E-01	6.876E-01	5.353E-02	0.109
		1112.02		-3.161E-02	3.950E-01	5.407E-01	3.966E-02	-0.058
		1407.95		1.151E-01	1.894E-01	3.336E-01	2.844E-02	0.345
GD-153		69.67		2.220E-01	2.132E+00	3.182E+00	3.549E-01	0.070
	+	83.37		1.989E+01	1.647E+01	2.571E+01	2.849E+00	0.774
		97.43	*	4.754E-02	8.521E-02	1.281E-01	1.193E-02	0.371
		103.18		-9.738E-02	1.008E-01	1.574E-01	1.330E-02	-0.619
EU-154		123.07		1.986E-02	4.883E-02	8.037E-02	7.943E-03	0.247
		247.94		-2.408E-01	3.371E-01	5.266E-01	5.154E-02	-0.457
		591.81		1.158E-01	5.624E-01	9.594E-01	9.351E-02	0.121
		723.30		1.255E-01	1.950E-01	2.986E-01	2.188E-02	0.420
		756.87		1.781E-01	7.329E-01	1.235E+00	1.326E-01	0.144
		873.19		-1.307E-01	2.809E-01	4.388E-01	5.646E-02	-0.298
		996.32		-2.160E-01	3.965E-01	6.083E-01	1.095E-01	-0.355
		1004.76		-6.407E-02	2.065E-01	3.239E-01	3.858E-02	-0.198
		1274.45	*	-9.972E-02	1.262E-01	1.936E-01	2.062E-02	-0.515
EU-155		48.70		4.953E+00	5.236E+00	9.038E+00	1.086E+00	0.548
		60.01		4.132E-01	7.454E+00	1.118E+01	1.377E+00	0.037
	+	86.54		3.888E-01	1.398E-01	1.864E-01	2.110E-02	2.086
		105.31	*	7.354E-02	1.016E-01	1.703E-01	1.412E-02	0.432
TB-160	+	86.79		1.059E+00	3.806E-01	5.072E-01	5.714E-02	2.087
		197.04		-3.570E-01	5.601E-01	8.475E-01	4.861E-02	-0.421
		215.65		4.854E-01	6.585E-01	1.147E+00	6.780E-02	0.423
	+	298.57		2.864E-01	1.602E-01	1.845E-01	1.206E-02	1.552
		879.36	*	1.105E-01	1.388E-01	2.421E-01	2.335E-02	0.456
		962.29		3.241E-01	7.071E-01	1.043E+00	9.901E-02	0.311
		966.15		1.150E+00	3.623E-01	5.996E-01	5.666E-02	1.917
		1177.93		-1.352E-01	3.952E-01	6.423E-01	4.006E-02	-0.211
		1271.85		3.279E-01	7.153E-01	1.240E+00	9.540E-02	0.264
HO-166M		80.57		5.195E-02	3.675E-01	4.339E-01	4.766E-02	0.120
	+	184.41		1.114E-01	5.151E-02	6.292E-02	3.533E-03	1.771
		280.46		-3.677E-02	7.579E-02	1.234E-01	7.934E-03	-0.298

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		410.95		7.479E-02	2.185E-01	3.641E-01	2.469E-02	0.205
		711.68	*	-6.394E-02	5.642E-02	8.513E-02	4.996E-03	-0.751
		752.31		9.655E-02	2.439E-01	4.167E-01	2.789E-02	0.232
		810.29		-6.269E-03	5.447E-02	8.877E-02	7.072E-03	-0.071
TM-171		51.35		1.303E+01	5.799E+01	9.795E+01	1.288E+01	0.133
		52.39		-3.885E-01	2.862E+01	4.790E+01	6.344E+00	-0.008
		59.40		6.369E+00	4.079E+01	6.149E+01	7.638E+00	0.104
		66.72	*	1.997E+01	3.659E+01	5.578E+01	6.354E+00	0.358
LU-176	+	88.36		5.970E-01	2.317E-01	3.599E-01	4.048E-02	1.659
		201.83		-1.603E-02	2.575E-02	4.264E-02	2.465E-03	-0.376
		306.84	*	-9.887E-03	2.094E-02	3.381E-02	2.224E-03	-0.292
		401.10		-5.629E-01	5.889E+00	9.561E+00	6.493E-01	-0.059
LU-177		112.95		1.689E+00	1.905E+00	3.202E+00	2.357E-01	0.528
	+	208.36	*	3.090E+00	1.794E+00	2.326E+00	1.359E-01	1.329
LU-177M		52.97		-9.478E-01	2.912E+00	4.810E+00	6.372E-01	-0.197
		54.07		-3.334E-01	1.434E+00	2.375E+00	3.133E-01	-0.140
	+	61.30		3.757E+00	2.336E+00	3.280E+00	3.968E-01	1.145
		121.62		-5.665E-02	3.620E-01	5.827E-01	3.856E-02	-0.097
		147.16		-2.488E-01	6.261E-01	9.882E-01	5.784E-02	-0.252
		171.86		-7.816E-02	4.482E-01	7.081E-01	3.898E-02	-0.110
		218.09		-7.327E-01	7.611E-01	1.233E+00	7.318E-02	-0.594
	+	268.79		2.539E+00	1.122E+00	1.395E+00	8.863E-02	1.820
		319.02		1.582E-01	2.291E-01	3.937E-01	2.611E-02	0.402
		367.43		-8.311E-01	8.082E-01	1.235E+00	8.367E-02	-0.673
		413.65	*	-4.128E-02	1.584E-01	2.537E-01	1.719E-02	-0.163
HF-181		56.28		3.493E-01	1.508E+00	2.540E+00	3.281E-01	0.138
		57.53		1.161E-01	7.792E-01	1.308E+00	1.664E-01	0.089
	+	65.20		2.788E+00	1.734E+00	1.877E+00	2.169E-01	1.485
		133.02		3.190E-02	6.678E-02	1.049E-01	6.513E-03	0.304
		136.25		-4.697E-02	4.447E-01	7.135E-01	4.367E-02	-0.066
		345.85		-1.152E-01	2.030E-01	2.797E-01	1.881E-02	-0.412
		482.03	*	-5.190E-03	3.883E-02	6.203E-02	4.071E-03	-0.084
W-181		56.28		1.336E-01	5.771E-01	9.721E-01	1.256E-01	0.137
		57.53		4.455E-02	2.986E-01	5.011E-01	6.377E-02	0.089
	+	65.20	*	1.060E+00	6.590E-01	7.136E-01	8.245E-02	1.485
TA-182		67.75		1.617E-02	1.307E-01	2.179E-01	2.461E-02	0.074
		100.10		-4.038E-03	1.775E-01	2.899E-01	2.576E-02	-0.014
	+	152.43		6.685E-01	5.039E-01	5.106E-01	2.929E-02	1.309
		222.10		-8.617E-02	3.112E-01	5.196E-01	3.103E-02	-0.166
		1001.68		1.670E+00	2.051E+00	3.553E+00	3.205E-01	0.470
		1121.28		2.245E-01	1.794E-01	3.136E-01	2.248E-02	0.716
		1189.05		4.729E-02	3.141E-01	5.316E-01	3.404E-02	0.089
		1221.42	*	-1.454E-03	2.207E-01	3.682E-01	2.539E-02	-0.004
		1230.97		-2.510E-01	5.653E-01	9.144E-01	6.441E-02	-0.274
RE-183		57.98		-9.253E-03	2.976E-01	4.960E-01	6.275E-02	-0.019
		59.32		2.039E-02	1.711E-01	2.575E-01	3.202E-02	0.079
		67.20		1.242E-01	2.472E-01	3.991E-01	4.528E-02	0.311
		162.32	*	-4.021E-02	1.022E-01	1.603E-01	8.864E-03	-0.251
	+	208.81		2.286E+00	1.327E+00	1.728E+00	1.010E-01	1.323

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		291.72		-1.784E-01	9.227E-01	1.332E+00	8.656E-02	-0.134
RE-184		57.98		-3.368E-02	1.083E+00	1.806E+00	2.285E-01	-0.019
		59.32		7.415E-02	6.224E-01	9.365E-01	1.165E-01	0.079
		67.20		4.521E-01	8.997E-01	1.452E+00	1.648E-01	0.311
		161.27		-7.448E-02	3.195E-01	5.051E-01	2.805E-02	-0.147
		216.55		1.117E-01	2.370E-01	4.084E-01	2.418E-02	0.273
		252.85	*	1.132E-01	2.125E-01	3.651E-01	2.276E-02	0.310
		318.01		-6.005E-02	4.117E-01	6.767E-01	4.486E-02	-0.089
		792.07		1.004E+00	1.174E+00	1.821E+00	1.375E-01	0.551
		903.28		-1.615E-01	1.130E+00	1.565E+00	1.577E-01	-0.103
		920.93		2.557E-01	4.173E-01	7.191E-01	7.132E-02	0.356
OS-185		59.72		1.454E-01	4.512E-01	6.851E-01	8.473E-02	0.212
		61.14		-4.647E-02	2.462E-01	3.633E-01	4.404E-02	-0.128
		69.30		4.141E-02	3.863E-01	5.769E-01	6.449E-02	0.072
		592.07		1.601E-01	2.306E+00	3.898E+00	2.242E-01	0.041
		646.12	*	8.261E-04	4.194E-02	7.025E-02	3.609E-03	0.012
		717.42		5.944E-01	8.502E-01	1.484E+00	8.877E-02	0.401
		874.81		-5.059E-01	5.722E-01	8.549E-01	8.144E-02	-0.592
		880.27		1.876E-01	7.978E-01	1.331E+00	1.287E-01	0.141
W-188	+	63.58		1.431E+02	8.897E+01	1.170E+02	1.375E+01	1.223
		227.08		1.069E+01	1.186E+01	2.072E+01	1.247E+00	0.516
		290.67	*	5.041E-01	7.344E+00	1.081E+01	7.021E-01	0.047
IR-192	+	295.96		1.115E+00	1.798E-01	2.617E-01	1.728E-02	4.260
		308.46		-6.825E-02	8.396E-02	1.309E-01	8.701E-03	-0.521
		316.51	*	-9.194E-03	3.124E-02	5.091E-02	3.384E-03	-0.181
		468.07		4.591E-02	6.981E-02	1.049E-01	7.776E-03	0.438
		604.41		1.246E-01	4.536E-01	6.815E-01	7.675E-02	0.183
		612.46		-1.076E-01	6.553E-01	9.407E-01	6.936E-02	-0.114
AU-195	+	65.12		4.877E-01	3.032E-01	3.316E-01	3.834E-02	1.471
		66.83		3.104E-02	1.231E-01	1.854E-01	2.110E-02	0.167
	+	75.70		1.890E+00	3.086E-01	5.189E-01	5.676E-02	3.643
		98.88	*	1.528E-01	2.223E-01	3.725E-01	3.380E-02	0.410
	+	129.76		3.921E+00	3.185E+00	4.565E+00	2.880E-01	0.859
TL-200		367.94	*	-4.221E-04	3.185E+00	Half-Life too short		
		579.30		8.495E-03	3.185E+00	Half-Life too short		
		828.27		1.765E-02	3.185E+00	Half-Life too short		
		1205.75		1.575E-03	3.185E+00	Half-Life too short		
TL-201		68.90		3.819E+00	9.178E+00	1.475E+01	1.653E+00	0.259
		70.82		4.091E+00	5.326E+00	8.160E+00	9.046E-01	0.501
		80.30		1.625E+00	1.097E+01	1.295E+01	1.422E+00	0.125
		135.34		-2.444E+01	3.819E+01	5.982E+01	3.676E+00	-0.409
		167.43	*	4.703E-01	1.027E+01	1.643E+01	8.984E-01	0.029
TL-202		68.90		2.402E-01	5.774E-01	9.281E-01	1.040E-01	0.259
		70.82		2.567E-01	3.341E-01	5.120E-01	5.675E-02	0.501
		80.30		1.020E-01	6.882E-01	8.130E-01	8.925E-02	0.125
		439.56	*	1.412E-02	6.950E-02	1.145E-01	7.696E-03	0.123
HG-203		70.83		1.031E+00	1.332E+00	2.034E+00	3.109E-01	0.507
	+	72.87		4.286E+00	1.172E+00	1.280E+00	1.903E-01	3.348
	+	82.60		1.516E+00	1.266E+00	1.953E+00	3.005E-01	0.776

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		279.20	*	2.688E-04	3.753E-02	6.267E-02	4.229E-03	0.004
BI-207	+	72.80		1.218E+00	3.099E-01	3.579E-01	3.937E-02	3.403
	+	74.97		7.215E-01	1.836E-01	2.550E-01	2.791E-02	2.830
	+	84.90		2.558E-01	2.117E-01	3.275E-01	3.654E-02	0.781
		569.67		3.813E-03	2.862E-02	4.614E-02	2.752E-03	0.083
		1063.62	*	-2.543E-02	5.392E-02	8.286E-02	6.745E-03	-0.307
		1770.23		-4.822E-01	4.170E-01	4.892E-01	3.246E-02	-0.986
TL-207		81.07		-2.604E-02	2.556E-01	3.423E-01	3.765E-02	-0.076
	+	83.78		1.686E-01	1.396E-01	2.134E-01	2.369E-02	0.790
		94.90		5.597E-02	2.468E-01	3.654E-01	3.568E-02	0.153
		122.32		4.752E-02	1.678E+00	2.721E+00	2.009E-01	0.017
		144.24		1.196E-01	6.790E-01	1.088E+00	7.975E-02	0.110
	+	154.21		7.739E-01	5.842E-01	6.216E-01	4.308E-02	1.245
	+	269.46		5.891E-01	2.606E-01	3.275E-01	2.161E-02	1.799
		323.87	*	-1.046E+00	6.249E-01	8.947E-01	1.506E-01	-1.169
	+	338.28		6.603E+00	1.618E+00	2.382E+00	2.633E-01	2.772
		445.03		-4.024E-01	1.996E+00	3.191E+00	3.448E-01	-0.126
PO-209		260.50		-4.575E+00	8.588E+00	1.401E+01	8.818E-01	-0.327
		262.80		6.153E+00	2.404E+01	4.074E+01	2.571E+00	0.151
		896.60	*	3.435E+00	7.541E+00	1.279E+01	1.290E+00	0.269
BI-210		46.50	*	5.090E+00	8.293E+00	1.423E+01	1.396E+00	0.358
PB-210		46.50	*	5.090E+00	8.293E+00	1.423E+01	1.396E+00	0.358
PO-210		46.50	*	5.090E+00	8.290E+00	1.423E+01	1.277E+00	0.358
PB-211		404.84	*	-2.476E-01	8.536E-01	1.345E+00	8.395E-01	-0.184
		427.08		-5.241E-01	1.953E+00	3.077E+00	1.905E+00	-0.170
		831.96		1.394E-01	1.224E+00	2.023E+00	1.267E+00	0.069
BI-212	+	727.18	*	1.018E+00	3.930E-01	6.199E-01	4.959E-02	1.641
		785.46		1.916E+00	1.826E+00	3.225E+00	2.388E-01	0.594
		1620.62		1.602E+00	1.196E+00	2.328E+00	1.775E-01	0.688
PO-215		81.07		-2.604E-02	2.556E-01	3.423E-01	3.765E-02	-0.076
	+	83.78		1.686E-01	1.396E-01	2.134E-01	2.369E-02	0.790
		94.90		5.597E-02	2.468E-01	3.654E-01	3.568E-02	0.153
		122.32		4.752E-02	1.678E+00	2.721E+00	2.009E-01	0.017
		144.24		1.196E-01	6.790E-01	1.088E+00	7.975E-02	0.110
	+	154.21		7.739E-01	5.842E-01	6.216E-01	4.308E-02	1.245
	+	269.46		5.891E-01	2.606E-01	3.275E-01	2.161E-02	1.799
		323.87	*	-1.046E+00	6.249E-01	8.947E-01	1.506E-01	-1.169
	+	338.28		6.603E+00	1.618E+00	2.382E+00	2.633E-01	2.772
		445.03		-4.024E-01	1.996E+00	3.191E+00	3.448E-01	-0.126
RN-219	+	271.23		7.558E-01	3.368E-01	4.049E-01	3.451E-02	1.866
		401.81	*	-5.824E-02	3.707E-01	5.993E-01	8.424E-02	-0.097
RN-220		549.76	*	-9.240E+00	2.297E+01	3.544E+01	2.173E+00	-0.261
RA-223		81.07		-2.604E-02	2.556E-01	3.423E-01	3.765E-02	-0.076
	+	83.78		1.686E-01	1.396E-01	2.134E-01	2.369E-02	0.790
		94.90		5.597E-02	2.468E-01	3.654E-01	3.568E-02	0.153
		122.32		4.752E-02	1.678E+00	2.721E+00	2.009E-01	0.017
		144.24		1.196E-01	6.790E-01	1.088E+00	7.975E-02	0.110
	+	154.21		7.739E-01	5.842E-01	6.216E-01	4.308E-02	1.245
	+	269.46		5.891E-01	2.606E-01	3.275E-01	2.161E-02	1.799

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-1.046E+00	6.249E-01	8.947E-01	1.506E-01	-1.169
	+	338.28		6.603E+00	1.618E+00	2.382E+00	2.633E-01	2.772
		445.03		-4.024E-01	1.996E+00	3.191E+00	3.448E-01	-0.126
AC-227		79.80		3.920E-01	2.225E+00	2.634E+00	5.938E-01	0.149
		236.00		1.132E+00	2.835E-01	4.585E-01	4.869E-02	2.469
		256.20	*	-5.313E-02	3.359E-01	5.589E-01	7.913E-02	-0.095
		286.10		-4.298E-01	1.369E+00	2.243E+00	2.671E-01	-0.192
	+	299.80		3.575E+00	2.073E+00	2.428E+00	4.021E-01	1.473
		304.40		6.630E-01	1.777E+00	2.665E+00	4.682E-01	0.249
		334.20		-1.507E-01	2.430E+00	3.508E+00	6.537E-01	-0.043
TH-227		79.80		3.920E-01	2.225E+00	2.634E+00	6.007E-01	0.149
		94.00		2.120E+00	2.018E+00	3.405E+00	7.605E-01	0.623
		236.00		1.132E+00	2.773E-01	4.585E-01	4.241E-02	2.469
		256.20	*	-5.313E-02	3.359E-01	5.589E-01	9.537E-02	-0.095
		286.10		-4.298E-01	1.434E+00	2.243E+00	2.248E+00	-0.192
	+	299.80		3.575E+00	2.073E+00	2.428E+00	4.021E-01	1.473
		304.40		6.630E-01	1.777E+00	2.665E+00	4.682E-01	0.249
		334.20		-1.507E-01	2.430E+00	3.508E+00	6.537E-01	-0.043
TH-229	+	85.43		7.233E-01	2.600E-01	3.277E-01	3.666E-02	2.207
	+	88.47		3.437E-01	1.334E-01	2.066E-01	2.318E-02	1.663
		100.00		1.641E-03	1.822E-01	2.980E-01	2.653E-02	0.006
		193.63	*	-1.780E-02	4.656E-01	7.356E-01	4.195E-02	-0.024
		210.97		8.881E-01	7.372E-01	1.173E+00	6.883E-02	0.757
PA-231		283.67	*	-7.371E-01	1.348E+00	2.178E+00	3.064E-01	-0.338
	+	301.29		1.430E+00	8.096E-01	9.578E-01	1.043E-01	1.493
TH-231		81.07		-2.604E-02	2.556E-01	3.423E-01	3.765E-02	-0.076
	+	83.78		1.686E-01	1.396E-01	2.134E-01	2.369E-02	0.790
		94.90		5.597E-02	2.468E-01	3.654E-01	3.568E-02	0.153
		122.32		4.752E-02	1.678E+00	2.721E+00	2.009E-01	0.017
		144.24		1.196E-01	6.790E-01	1.088E+00	7.975E-02	0.110
	+	154.21		7.739E-01	5.842E-01	6.216E-01	4.308E-02	1.245
	+	269.46		5.891E-01	2.606E-01	3.275E-01	2.161E-02	1.799
		323.87	*	-1.046E+00	6.249E-01	8.947E-01	1.506E-01	-1.169
	+	338.28		6.603E+00	1.618E+00	2.382E+00	2.633E-01	2.772
		445.03		-4.024E-01	1.996E+00	3.191E+00	3.448E-01	-0.126
U-231	+	84.21		1.025E+01	8.485E+00	1.300E+01	1.446E+00	0.788
		92.29		9.326E+00	3.141E+00	5.458E+00	5.618E-01	1.709
		95.87	*	-8.527E-01	1.636E+00	2.326E+00	2.229E-01	-0.367
		108.00		-1.461E+00	2.790E+00	4.445E+00	3.499E-01	-0.329
PA-233	+	75.28		2.105E+01	5.987E+00	7.770E+00	1.302E+00	2.710
	+	86.59		6.314E+00	2.779E+00	3.029E+00	8.414E-01	2.085
	+	300.12		9.967E-01	5.705E-01	6.859E-01	9.449E-02	1.453
		311.98	*	1.051E-02	5.561E-02	9.218E-02	6.379E-03	0.114
		340.50		5.122E-01	6.432E-01	9.689E-01	2.249E-01	0.529
		398.62		3.266E-01	1.800E+00	2.974E+00	7.760E-01	0.110
		415.76		4.258E-01	1.447E+00	2.400E+00	5.012E-01	0.177
PA-234	+	63.00		4.064E+00	2.581E+00	3.529E+00	6.175E-01	1.152
		94.67		2.004E-01	1.765E-01	2.698E-01	3.577E-02	0.743
		98.44		7.139E-02	1.022E-01	1.515E-01	8.464E-02	0.471

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		99.86		2.388E-02	4.624E-01	7.574E-01	6.758E-02	0.032
		111.00		-3.974E-02	1.773E-01	2.858E-01	3.245E-02	-0.139
		131.20		5.549E-02	1.081E-01	1.600E-01	1.002E-02	0.347
	+	152.70		6.351E-01	4.878E-01	4.946E-01	7.806E-02	1.284
	+	186.00		4.011E+00	2.211E+00	2.339E+00	7.138E-01	1.715
		226.40		2.693E-01	3.711E-01	6.423E-01	7.494E-02	0.419
		227.20		1.971E-01	3.968E-01	6.827E-01	4.109E-02	0.289
		248.90		-8.376E-01	7.683E-01	1.189E+00	2.568E-01	-0.704
	+	293.70		6.882E+00	1.514E+00	1.612E+00	2.636E-01	4.268
		369.80		9.114E-02	7.266E-01	1.202E+00	2.539E-01	0.076
		568.70		1.166E-01	9.459E-01	1.523E+00	9.098E-02	0.077
		569.50		4.910E-02	2.550E-01	4.130E-01	2.463E-02	0.119
		574.00		-5.843E-01	1.330E+00	2.174E+00	1.288E-01	-0.269
		699.00		-1.672E-01	6.495E-01	1.059E+00	1.898E-01	-0.158
		706.10		4.971E-01	1.023E+00	1.719E+00	7.587E-01	0.289
		733.00		1.496E-01	3.585E-01	5.405E-01	1.157E-01	0.277
		742.81		-3.711E-01	1.290E+00	2.047E+00	1.371E+00	-0.181
	+	796.30		2.015E+00	1.341E+00	1.554E+00	4.158E-01	1.297
		805.60		5.979E-01	9.691E-01	1.647E+00	5.015E-01	0.363
		819.60		-6.139E-01	1.154E+00	1.766E+00	6.697E-01	-0.348
		826.30		-4.558E-01	8.687E-01	1.327E+00	5.930E-01	-0.343
		831.60		-7.270E-02	6.324E-01	1.029E+00	3.067E-01	-0.071
		876.40		-4.933E-01	9.547E-01	1.249E+00	1.285E+00	-0.395
		880.51		4.368E-02	2.820E-01	4.676E-01	4.522E-02	0.093
		883.24		-3.835E-02	2.936E-01	4.729E-01	3.186E-01	-0.081
		899.00		-3.403E-01	8.539E-01	1.324E+00	5.830E-01	-0.257
		925.00		-1.221E+00	1.072E+00	1.524E+00	1.506E-01	-0.801
		926.50		-2.067E-01	1.737E-01	2.349E-01	6.043E-02	-0.880
		946.00	*	-5.372E-02	3.054E-01	4.886E-01	9.415E-02	-0.110
		949.00		1.812E-01	4.590E-01	7.717E-01	7.438E-02	0.235
		980.50		2.649E-01	7.637E-01	1.277E+00	1.185E-01	0.207
		1394.10		-8.264E-01	1.309E+00	1.798E+00	1.170E+00	-0.460
PA-234M	+	766.42		2.251E+01	1.978E+01	2.107E+01	1.064E+01	1.068
		1001.03	*	4.489E+00	4.632E+00	8.104E+00	8.365E-01	0.554
TH-234	+	63.29	*	3.487E+00	2.237E+00	2.940E+00	5.794E-01	1.186
		92.38		1.734E+00	6.444E-01	1.012E+00	1.916E-01	1.713
U-235	+	89.95		3.449E+00	1.684E+00	1.897E+00	5.984E-01	1.819
		93.35		1.964E+00	8.627E-01	1.194E+00	3.404E-01	1.645
		105.00		5.266E-01	1.006E+00	1.655E+00	4.922E-01	0.318
		143.76	*	9.336E-02	2.090E-01	3.377E-01	5.523E-02	0.276
		163.35		-2.992E-02	4.335E-01	6.902E-01	1.235E-01	-0.043
	+	185.71		1.485E-01	6.868E-02	8.619E-02	4.851E-03	1.723
		205.31		2.570E-01	5.228E-01	8.012E-01	1.441E-01	0.321
NP-236		94.67		1.533E-01	1.332E-01	2.048E-01	2.009E-02	0.749
		98.44		5.398E-02	7.127E-02	1.145E-01	1.047E-02	0.471
		111.00		-3.006E-02	1.341E-01	2.162E-01	1.633E-02	-0.139
		160.31	*	-5.584E-02	7.129E-02	1.096E-01	6.108E-03	-0.509
U-238	+	63.29	*	3.487E+00	2.237E+00	2.940E+00	5.794E-01	1.186
		92.38		1.734E+00	5.825E-01	1.012E+00	1.040E-01	1.713

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.361E-01	1.513E-01	2.552E-01	2.289E-02	0.533
		117.00	*	-2.591E-01	1.839E-01	2.773E-01	1.940E-02	-0.934
	+	209.75		1.766E+00	1.025E+00	1.338E+00	7.834E-02	1.320
		228.18		6.895E-02	2.057E-01	3.517E-01	2.120E-02	0.196
		277.60		1.267E-01	1.623E-01	2.806E-01	1.799E-02	0.452
		334.30		-5.308E-02	1.378E+00	1.994E+00	1.334E-01	-0.027
AM-241		59.54	*	5.206E-02	2.360E-01	3.568E-01	4.582E-02	0.146
CM-243		99.55		1.400E-01	1.557E-01	2.626E-01	2.356E-02	0.533
		103.76	*	2.916E-02	9.093E-02	1.503E-01	1.259E-02	0.194
		117.00		-2.666E-01	1.892E-01	2.853E-01	1.996E-02	-0.934
	+	209.75		1.741E+00	1.011E+00	1.319E+00	7.724E-02	1.320
		228.18		6.968E-02	2.079E-01	3.554E-01	2.142E-02	0.196
		277.60		1.277E-01	1.637E-01	2.829E-01	1.814E-02	0.452
AM-246		798.80		-8.752E-02	1.453E-01	1.913E-01	1.474E-02	-0.457
		1036.00		-1.918E-01	3.270E-01	4.991E-01	4.269E-02	-0.384
		1062.04		-2.211E-01	2.466E-01	3.626E-01	2.961E-02	-0.610
		1078.86	*	-9.014E-02	1.524E-01	2.312E-01	1.826E-02	-0.390
CM-247		278.00		2.741E-01	6.855E-01	1.165E+00	7.475E-02	0.235
		287.40		1.711E-01	1.100E+00	1.848E+00	1.196E-01	0.093
		402.60	*	2.873E-03	3.281E-02	5.388E-02	3.658E-03	0.053
CF-249		252.85		4.213E-01	7.907E-01	1.358E+00	8.469E-02	0.310
		333.44		6.106E-02	1.769E-01	2.632E-01	1.760E-02	0.232
		387.95	*	3.449E-02	3.716E-02	6.405E-02	4.352E-03	0.539
CF-251		176.60	*	1.869E-02	1.193E-01	1.912E-01	1.060E-02	0.098
		227.00		3.444E-01	3.483E-01	6.102E-01	3.671E-02	0.564
		285.00		-1.456E-01	1.531E+00	2.539E+00	1.640E-01	-0.057

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808005      *
* Acquisition date : 12-FEB-2010 16:57:44 Detector SN#     :               *
* Detector ID        : GAM10               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 2.000         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.19     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245808005           Analyst initials: RXF2          *
* Batch Number       : 947554               Sample Quantity : 1.4170E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.587E+01	3.544E+00	4.903E-01	0.000E+00
NB-95	8.698E-02	6.159E-02	6.709E-02	0.000E+00
CD-109	3.292E+00	1.160E+00	1.276E+00	0.000E+00
SN-126	3.225E-01	1.136E-01	1.260E-01	0.000E+00
CS-135	5.007E-01	2.183E-01	2.328E-01	0.000E+00
RE-188	3.420E-01	2.527E-01	2.557E-01	0.000E+00
TL-208	4.826E-01	8.042E-02	5.847E-02	0.000E+00
BI-211	3.633E+00	5.046E-01	3.068E-01	0.000E+00
PB-212	1.668E+00	1.612E-01	8.890E-02	0.000E+00
PO-212	1.668E+00	1.612E-01	8.890E-02	0.000E+00
BI-214	1.003E+00	1.542E-01	1.035E-01	0.000E+00
PB-214	1.264E+00	1.870E-01	1.069E-01	0.000E+00
PO-214	1.264E+00	1.870E-01	1.069E-01	0.000E+00
PO-216	1.668E+00	1.612E-01	8.890E-02	0.000E+00
PO-218	1.264E+00	1.870E-01	1.069E-01	0.000E+00
RA-224	4.584E+00	1.037E+00	1.011E+00	0.000E+00
RA-226	1.003E+00	1.542E-01	1.035E-01	0.000E+00
AC-228	1.553E+00	3.650E-01	2.186E-01	0.000E+00
RA-228	1.553E+00	3.650E-01	2.186E-01	0.000E+00
TH-228	1.696E+00	1.640E-01	9.043E-02	0.000E+00
TH-230	1.003E+00	1.542E-01	1.035E-01	0.000E+00
TH-232	1.553E+00	3.650E-01	2.186E-01	0.000E+00
U-234	1.003E+00	1.542E-01	1.035E-01	0.000E+00
NP-237	9.472E-01	3.847E-01	3.766E-01	0.000E+00
AM-243	4.019E-01	1.002E-01	1.020E-01	0.000E+00
ANH-511	8.086E-02	6.235E-02	4.627E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.001E-01	2.813E-01	4.893E-01	0.000E+00	NOT IDENT.

NA-22	-3.517E-02	4.432E-02	7.009E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.043E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.044E-02	2.167E-02	3.089E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.274E-02	7.641E-02	0.000E+00	FAIL ABUN
SC-46	-2.969E-02	3.743E-02	5.849E-02	0.000E+00	FAIL ABUN
V-48	-5.423E-03	7.972E-02	1.329E-01	0.000E+00	NOT IDENT.
CR-51	3.812E-01	3.396E-01	6.292E-01	0.000E+00	NOT IDENT.
MN-52	-3.483E-02	2.646E-01	4.385E-01	0.000E+00	NOT IDENT.
MN-54	5.971E-04	3.681E-02	6.281E-02	0.000E+00	NOT IDENT.
CO-56	1.123E-02	3.831E-02	6.675E-02	0.000E+00	NOT IDENT.
CO-57	-6.748E-03	2.395E-02	4.141E-02	0.000E+00	NOT IDENT.
CO-58	4.666E-03	3.614E-02	6.243E-02	0.000E+00	NOT IDENT.
FE-59	-1.681E-02	9.689E-02	1.580E-01	0.000E+00	NOT IDENT.
CO-60	1.900E-03	3.963E-02	6.780E-02	0.000E+00	NOT IDENT.
ZN-65	6.093E-02	1.102E-01	1.673E-01	0.000E+00	NOT IDENT.
GE-68	7.529E-02	1.265E+00	2.113E+00	0.000E+00	NOT IDENT.
AS-73	3.555E-02	1.419E+00	2.608E+00	0.000E+00	NOT IDENT.
AS-74	-3.105E-03	8.578E-02	1.504E-01	0.000E+00	NOT IDENT.
SE-75	8.707E-05	4.367E-02	7.159E-02	0.000E+00	NOT IDENT.
BR-77	-5.134E+00	1.774E+01	2.919E+01	0.000E+00	FAIL ABUN
SR-82	-4.241E-01	3.871E-01	6.000E-01	0.000E+00	NOT IDENT.
RB-83	-2.537E-02	6.440E-02	1.051E-01	0.000E+00	NOT IDENT.
RB-84	2.910E-03	7.339E-02	1.248E-01	0.000E+00	NOT IDENT.
KR-85	6.884E+00	6.940E+00	1.116E+01	0.000E+00	NOT IDENT.
SR-85	3.608E-02	3.637E-02	5.850E-02	0.000E+00	NOT IDENT.
RB-86	-1.260E-01	8.844E-01	1.450E+00	0.000E+00	NOT IDENT.
Y-88	1.027E-02	2.803E-02	4.982E-02	0.000E+00	NOT IDENT.
ZR-88	1.911E-02	2.767E-02	4.966E-02	0.000E+00	NOT IDENT.
Y-91	-8.220E+00	2.186E+01	3.662E+01	0.000E+00	NOT IDENT.
NB-94	-1.868E-02	3.010E-02	4.970E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.310E-01	2.296E-01	0.000E+00	NOT IDENT.
ZR-95	5.728E-02	6.742E-02	1.231E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.306E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.612E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.363E+01	1.728E+01	3.147E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.168E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.624E-03	3.118E-02	5.173E-02	0.000E+00	FAIL ABUN
RH-102	1.835E-03	2.516E-02	4.291E-02	0.000E+00	FAIL ABUN
RU-103	-2.573E-02	4.013E-02	6.444E-02	0.000E+00	FAIL ABUN
RH-106	1.892E-01	2.780E-01	5.084E-01	0.000E+00	FAIL ABUN
RU-106	1.892E-01	2.773E-01	5.084E-01	0.000E+00	FAIL ABUN
AG-108M	-2.907E-03	2.973E-02	5.050E-02	0.000E+00	NOT IDENT.
AG-110M	7.802E-03	2.889E-02	5.137E-02	0.000E+00	NOT IDENT.
IN-111	1.143E+00	1.667E+00	2.742E+00	0.000E+00	NOT IDENT.
IN-113M	-5.594E-03	4.178E-02	7.147E-02	0.000E+00	NOT IDENT.
SN-113	-5.594E-03	4.178E-02	7.147E-02	0.000E+00	NOT IDENT.
IN-114M	5.605E-02	1.791E-01	2.933E-01	0.000E+00	NOT IDENT.
CD-115	1.940E+00	1.883E+01	3.188E+01	0.000E+00	NOT IDENT.
SN-117M	4.619E-02	5.764E-02	9.241E-02	0.000E+00	NOT IDENT.
SB-122	9.270E-01	3.268E+00	5.574E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.298E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	8.660E-03	2.584E-02	4.296E-02	0.000E+00	NOT IDENT.
I-124	8.519E-01	8.856E-01	1.479E+00	0.000E+00	FAIL ABUN
SB-124	-4.003E-02	6.612E-02	9.539E-02	0.000E+00	FAIL ABUN
SB-125	8.828E-03	8.174E-02	1.409E-01	0.000E+00	FAIL ABUN
TE-125M	5.640E+00	8.855E+00	1.596E+01	0.000E+00	NOT IDENT.
I-126	5.495E-02	1.946E-01	3.448E-01	0.000E+00	NOT IDENT.
SB-126	-3.612E-02	1.654E-01	2.648E-01	0.000E+00	FAIL ABUN
SB-127	5.120E-01	1.694E+00	3.008E+00	0.000E+00	NOT IDENT.
XE-127	-2.069E-02	4.343E-02	7.733E-02	0.000E+00	NOT IDENT.
I-131	7.665E-02	1.243E-01	2.232E-01	0.000E+00	NOT IDENT.
TE-132	3.270E-01	9.621E-01	1.752E+00	0.000E+00	NOT IDENT.
BA-133	-4.285E-03	4.321E-02	6.537E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.872E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.252E-02	8.535E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	1.086E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.270E-02	1.267E-01	2.074E-01	0.000E+00	FAIL ABUN
BA-137M	-1.343E-02	3.226E-02	5.450E-02	0.000E+00	NOT IDENT.
CS-137	-1.420E-02	3.410E-02	5.761E-02	0.000E+00	NOT IDENT.
CE-139	1.060E-02	2.758E-02	4.802E-02	0.000E+00	NOT IDENT.
BA-140	3.073E-02	2.609E-01	4.413E-01	0.000E+00	NOT IDENT.
LA-140	3.064E-02	7.756E-02	1.233E-01	0.000E+00	NOT IDENT.
CE-141	-1.842E-03	6.232E-02	1.076E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.039E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.561E-02	1.892E-01	3.321E-01	0.000E+00	NOT IDENT.
PM-144	-6.879E-04	3.198E-02	5.535E-02	0.000E+00	NOT IDENT.
PR-144	-4.667E-02	2.170E+00	3.755E+00	0.000E+00	NOT IDENT.
PM-146	4.983E-04	3.829E-02	6.527E-02	0.000E+00	NOT IDENT.

ND-147	1.524E-01	5.729E-01	9.812E-01	0.000E+00	FAIL ABUN
PM-149	-5.009E+01	1.533E+02	2.663E+02	0.000E+00	NOT IDENT.
EU-152	-6.955E-02	9.686E-02	1.485E-01	0.000E+00	NOT IDENT.
GD-153	4.754E-02	8.351E-02	1.361E-01	0.000E+00	FAIL ABUN
EU-154	-9.972E-02	1.237E-01	1.950E-01	0.000E+00	NOT IDENT.
EU-155	7.354E-02	9.957E-02	1.807E-01	0.000E+00	FAIL ABUN
TB-160	1.105E-01	1.360E-01	2.459E-01	0.000E+00	FAIL ABUN
HO-166M	-6.394E-02	5.529E-02	8.684E-02	0.000E+00	FAIL ABUN
TM-171	1.997E+01	3.585E+01	5.971E+01	0.000E+00	NOT IDENT.
LU-176	-9.887E-03	2.052E-02	3.511E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.758E+00	2.434E+00	0.000E+00	FAIL ABUN
LU-177M	-4.128E-02	1.552E-01	2.618E-01	0.000E+00	FAIL ABUN
HF-181	-5.190E-03	3.806E-02	6.380E-02	0.000E+00	FAIL ABUN
W-181	0.000E+00	6.458E-01	7.643E-01	0.000E+00	FAIL ABUN
TA-182	-1.454E-03	2.163E-01	3.713E-01	0.000E+00	FAIL ABUN
RE-183	-4.021E-02	1.001E-01	1.686E-01	0.000E+00	FAIL ABUN
RE-184	1.132E-01	2.083E-01	3.806E-01	0.000E+00	NOT IDENT.
OS-185	8.261E-04	4.110E-02	7.181E-02	0.000E+00	NOT IDENT.
W-188	5.041E-01	7.197E+00	1.124E+01	0.000E+00	FAIL ABUN
IR-192	-9.194E-03	3.061E-02	5.282E-02	0.000E+00	FAIL ABUN
AU-195	1.528E-01	2.178E-01	3.957E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.459E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	4.703E-01	1.007E+01	1.727E+01	0.000E+00	NOT IDENT.
TL-202	1.412E-02	6.811E-02	1.180E-01	0.000E+00	NOT IDENT.
HG-203	2.688E-04	3.678E-02	6.520E-02	0.000E+00	FAIL ABUN
BI-207	-2.543E-02	5.284E-02	8.379E-02	0.000E+00	FAIL ABUN
TL-207	-1.046E+00	6.124E-01	9.280E-01	0.000E+00	FAIL ABUN
PO-209	3.435E+00	7.391E+00	1.298E+01	0.000E+00	NOT IDENT.
BI-210	5.090E+00	8.127E+00	1.534E+01	0.000E+00	NOT IDENT.
PB-210	5.090E+00	8.127E+00	1.534E+01	0.000E+00	NOT IDENT.
PO-210	5.090E+00	8.124E+00	1.534E+01	0.000E+00	NOT IDENT.
PB-211	-2.476E-01	8.366E-01	1.388E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.851E-01	6.321E-01	0.000E+00	FAIL ABUN
PO-215	-1.046E+00	6.124E-01	9.280E-01	0.000E+00	FAIL ABUN
RN-219	-5.824E-02	3.633E-01	6.188E-01	0.000E+00	FAIL ABUN
RN-220	-9.240E+00	2.251E+01	3.636E+01	0.000E+00	NOT IDENT.
RA-223	-1.046E+00	6.124E-01	9.280E-01	0.000E+00	FAIL ABUN
AC-227	-5.313E-02	3.292E-01	5.825E-01	0.000E+00	FAIL ABUN
TH-227	-5.313E-02	3.292E-01	5.825E-01	0.000E+00	FAIL ABUN
TH-229	-1.780E-02	4.563E-01	7.711E-01	0.000E+00	FAIL ABUN
PA-231	-7.371E-01	1.321E+00	2.265E+00	0.000E+00	FAIL ABUN
TH-231	-1.046E+00	6.124E-01	9.280E-01	0.000E+00	FAIL ABUN
U-231	-8.527E-01	1.603E+00	2.473E+00	0.000E+00	FAIL ABUN
PA-233	1.051E-02	5.450E-02	9.568E-02	0.000E+00	FAIL ABUN
PA-234	-5.372E-02	2.992E-01	4.954E-01	0.000E+00	FAIL ABUN
PA-234M	4.489E+00	4.539E+00	8.207E+00	0.000E+00	FAIL ABUN
TH-234	0.000E+00	2.192E+00	3.150E+00	0.000E+00	FAIL ABUN
U-235	9.336E-02	2.049E-01	3.561E-01	0.000E+00	FAIL ABUN
NP-236	-5.584E-02	6.986E-02	1.153E-01	0.000E+00	NOT IDENT.
U-238	0.000E+00	2.192E+00	3.150E+00	0.000E+00	FAIL ABUN
NP-239	-2.591E-01	1.802E-01	2.936E-01	0.000E+00	FAIL ABUN
AM-241	5.206E-02	2.313E-01	3.828E-01	0.000E+00	NOT IDENT.
CM-243	2.916E-02	8.911E-02	1.595E-01	0.000E+00	FAIL ABUN
AM-246	-9.014E-02	1.493E-01	2.338E-01	0.000E+00	NOT IDENT.
CM-247	2.873E-03	3.215E-02	5.563E-02	0.000E+00	NOT IDENT.
CF-249	3.449E-02	3.641E-02	6.618E-02	0.000E+00	NOT IDENT.
CF-251	1.869E-02	1.169E-01	2.008E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 15-FEB-2010 16:35:12.87

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808005.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:57:44
Sample ID         : G245808005           Sample quantity  : 1.41695E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.19  0.0%
Energy tolerance : 2.00000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1601	10.67*	1.108E+00	3.587E+01	3.587E+01	10.08
NB-95	765.79	56	99.81*	2.056E+00	7.216E-02	8.698E-02	72.26
CD-109	88.03	237	3.72*	5.257E+00	3.208E+00	3.292E+00	35.95
SN-126	64.28	113	9.60	2.266E+00	1.380E+00	1.380E+00	63.42
	86.94	237	8.90	5.257E+00	1.341E+00	1.341E+00	54.11
	87.57	237	37.00*	5.257E+00	3.225E-01	3.225E-01	35.95
CS-135	268.24	142	16.00*	4.697E+00	5.007E-01	5.007E-01	44.48
RE-188	155.03	106	15.00*	6.524E+00	2.879E-01	3.420E-01	75.38
	477.96	------	1.04	3.088E+00	------ Line Not Found		------
	633.10	------	1.26	2.448E+00	------ Line Not Found		------
TL-208	277.35	------	6.80	4.610E+00	------ Line Not Found		------
	510.84	90	21.60	2.932E+00	3.744E-01	3.744E-01	79.12
	583.14	403	84.20*	2.629E+00	4.826E-01	4.826E-01	17.00
	860.37	41	12.46	1.841E+00	4.774E-01	4.774E-01	78.49
BI-211	72.87	386	1.27	3.858E+00	2.089E+01	2.089E+01	25.44
	351.07	691	12.94*	3.891E+00	3.633E+00	3.633E+00	14.17
PB-212	74.81	386	10.70	3.858E+00	2.479E+00	2.479E+00	27.11
	77.11	598	18.00	4.145E+00	2.125E+00	2.125E+00	16.33
	87.30	237	8.00	5.257E+00	1.492E+00	1.492E+00	37.31
	238.63	1437	44.60*	5.119E+00	1.668E+00	1.668E+00	9.87
	300.09	108	3.41	4.361E+00	1.929E+00	1.929E+00	56.25
PO-212	74.81	386	10.70	3.858E+00	2.479E+00	2.479E+00	27.11
	77.11	598	18.00	4.145E+00	2.125E+00	2.125E+00	16.33
	87.30	237	8.00	5.257E+00	1.492E+00	1.492E+00	37.31
	115.19	------	0.60	6.657E+00	------ Line Not Found		------
	238.63	1437	44.60*	5.119E+00	1.668E+00	1.668E+00	9.87
	300.09	108	3.41	4.361E+00	1.929E+00	1.929E+00	56.25
BI-214	609.31	444	46.30*	2.533E+00	1.003E+00	1.003E+00	15.68
	1120.29	117	15.10	1.417E+00	1.455E+00	1.455E+00	40.20
	1764.49	87	15.80	9.769E-01	1.495E+00	1.495E+00	27.76
PB-214	74.81	386	6.21	3.858E+00	4.272E+00	4.272E+00	26.50
	77.11	598	10.50	4.145E+00	3.642E+00	3.642E+00	18.02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	237	4.67	5.257E+00	2.556E+00	2.556E+00	36.76
	241.98	347	7.49	5.074E+00	2.418E+00	2.418E+00	23.75
	295.21	459	19.20	4.415E+00	1.434E+00	1.434E+00	17.26
	351.92	691	37.20*	3.891E+00	1.264E+00	1.264E+00	15.10
PO-214	74.81	386	6.21	3.858E+00	4.272E+00	4.272E+00	26.50
	77.11	598	10.50	4.145E+00	3.642E+00	3.642E+00	18.02
	87.30	237	4.67	5.257E+00	2.556E+00	2.556E+00	36.76
	241.98	347	7.49	5.074E+00	2.418E+00	2.418E+00	23.75
	295.21	459	19.20	4.415E+00	1.434E+00	1.434E+00	17.26
	351.92	691	37.20*	3.891E+00	1.264E+00	1.264E+00	15.10
PO-216	74.81	386	10.70	3.858E+00	2.479E+00	2.479E+00	27.11
	77.11	598	18.00	4.145E+00	2.125E+00	2.125E+00	16.33
	87.30	237	8.00	5.257E+00	1.492E+00	1.492E+00	37.31
	238.63	1437	44.60*	5.119E+00	1.668E+00	1.668E+00	9.87
	300.09	108	3.41	4.361E+00	1.929E+00	1.929E+00	56.25
PO-218	74.81	386	6.21	3.858E+00	4.272E+00	4.272E+00	26.50
	77.11	598	10.50	4.145E+00	3.642E+00	3.642E+00	18.02
	87.30	237	4.67	5.257E+00	2.556E+00	2.556E+00	36.76
	241.98	347	7.49	5.074E+00	2.418E+00	2.418E+00	23.75
	295.21	459	19.20	4.415E+00	1.434E+00	1.434E+00	17.26
	351.92	691	37.20*	3.891E+00	1.264E+00	1.264E+00	15.10
RA-224	240.98	347	3.95*	5.074E+00	4.584E+00	4.584E+00	23.08
RA-226	609.31	444	46.30*	2.533E+00	1.003E+00	1.003E+00	15.68
	1120.29	117	15.10	1.417E+00	1.455E+00	1.455E+00	40.20
	1764.49	87	15.80	9.769E-01	1.495E+00	1.495E+00	27.76
AC-228	338.32	272	11.40	4.004E+00	1.581E+00	1.581E+00	46.38
	911.07	283	27.70*	1.741E+00	1.553E+00	1.553E+00	23.98
	969.11	139	16.60	1.637E+00	1.357E+00	1.357E+00	47.79
RA-228	338.32	272	11.40	4.004E+00	1.581E+00	1.581E+00	46.38
	911.07	283	27.70*	1.741E+00	1.553E+00	1.553E+00	23.98
	969.11	139	16.60	1.637E+00	1.357E+00	1.357E+00	47.79
TH-228	74.81	386	10.70	3.858E+00	2.479E+00	2.522E+00	25.47
	77.11	598	18.00	4.145E+00	2.125E+00	2.161E+00	16.33
	87.30	237	8.00	5.257E+00	1.492E+00	1.518E+00	35.95
	238.63	1437	44.60*	5.119E+00	1.668E+00	1.696E+00	9.87
	300.09	108	3.41	4.361E+00	1.929E+00	1.962E+00	81.05
TH-230	609.31	444	46.30*	2.533E+00	1.003E+00	1.003E+00	15.68
	1120.29	117	15.10	1.417E+00	1.455E+00	1.455E+00	40.20
	1764.49	87	15.80	9.769E-01	1.495E+00	1.495E+00	27.76
TH-232	338.32	272	11.40	4.004E+00	1.581E+00	1.581E+00	22.87
	911.07	283	27.70*	1.741E+00	1.553E+00	1.553E+00	23.98
	969.11	139	16.60	1.637E+00	1.357E+00	1.357E+00	47.79
U-234	609.31	444	46.30*	2.533E+00	1.003E+00	1.003E+00	15.68
	1120.29	117	15.10	1.417E+00	1.455E+00	1.455E+00	40.20
	1764.49	87	15.80	9.769E-01	1.495E+00	1.495E+00	27.76
NP-237	86.50	237	12.60*	5.257E+00	9.472E-01	9.472E-01	41.45
	95.87	------	2.60	5.933E+00	------ Line Not Found		------
AM-243	74.67	386	66.00*	3.858E+00	4.019E-01	4.019E-01	25.44
	86.72	237	0.34	5.257E+00	3.552E+01	3.552E+01	35.95

Sample ID : G245808005 Acquisition date : 12-FEB-2010 16:57:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	117.66	------	0.55	6.694E+00	------	Line Not Found	------
	142.18	------	0.13	6.676E+00	------	Line Not Found	------
ANH-511	511.00	90	100.00*	2.932E+00	8.086E-02	8.086E-02	78.68

Flag: "*" = Keyline

Sample ID : G245808005 Acquisition date : 12-FEB-2010 16:57:44

Total number of lines in spectrum 33
Number of unidentified lines 2
Number of lines tentatively identified by NID 31 93.94%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.587E+01	3.587E+01	0.362E+01	10.08	
NB-95	64.02D	1.21	7.216E-02	8.698E-02	6.285E-02	72.26	
CD-109	464.00D	1.03	3.208E+00	3.292E+00	1.183E+00	35.95	
SN-126	1.00E+05Y	1.00	3.225E-01	3.225E-01	1.159E-01	35.95	
CS-135	2.30E+06Y	1.00	5.007E-01	5.007E-01	2.227E-01	44.48	
RE-188	69.40D	1.19	2.879E-01	3.420E-01	2.578E-01	75.38	
TL-208	1.41E+10Y	1.00	4.826E-01	4.826E-01	0.821E-01	17.00	
BI-211	7.04E+08Y	1.00	3.633E+00	3.633E+00	0.515E+00	14.17	
PB-212	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.165E+00	9.87	
PO-212	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.165E+00	9.87	
BI-214	1600.00Y	1.00	1.003E+00	1.003E+00	0.157E+00	15.68	
PB-214	1600.00Y	1.00	1.264E+00	1.264E+00	0.191E+00	15.10	
PO-214	1600.00Y	1.00	1.264E+00	1.264E+00	0.191E+00	15.10	
PO-216	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.165E+00	9.87	
PO-218	1600.00Y	1.00	1.264E+00	1.264E+00	0.191E+00	15.10	
RA-224	1.41E+10Y	1.00	4.584E+00	4.584E+00	1.058E+00	23.08	
RA-226	1600.00Y	1.00	1.003E+00	1.003E+00	0.157E+00	15.68	
AC-228	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.372E+00	23.98	
RA-228	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.372E+00	23.98	
TH-228	1.91Y	1.02	1.668E+00	1.696E+00	0.167E+00	9.87	
TH-230	4.47E+09Y	1.00	1.003E+00	1.003E+00	0.157E+00	15.68	
TH-232	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.372E+00	23.98	
U-234	4.47E+09Y	1.00	1.003E+00	1.003E+00	0.157E+00	15.68	
NP-237	2.14E+06Y	1.00	9.472E-01	9.472E-01	3.926E-01	41.45	
AM-243	7380.00Y	1.00	4.019E-01	4.019E-01	1.023E-01	25.44	
ANH-511	1.00E+09Y	1.00	8.086E-02	8.086E-02	6.362E-02	78.68	
	Total Activity :		6.953E+01	6.971E+01			

Grand Total Activity : 6.953E+01 6.971E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245808005 Acquisition date : 12-FEB-2010 16:57:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	83.76	78	376	1.07	167.64	163	29	1.08E-02	82.0	4.94E+00	T
4	89.61	193	393	1.17	179.34	163	29	2.68E-02	37.2	5.48E+00	T
0	128.69	76	314	0.93	257.41	254	7	1.05E-02	81.0	6.76E+00	T
0	185.45	181	410	0.91	370.85	365	10	2.52E-02	45.9	5.99E+00	T
0	208.93	120	336	1.14	417.78	414	9	1.67E-02	57.8	5.58E+00	T
0	462.27	101	168	1.50	924.11	917	14	1.40E-02	58.1	3.17E+00	T
0	726.67	98	62	1.36	1452.68	1449	10	1.36E-02	37.8	2.16E+00	T
0	794.36	59	66	1.62	1588.02	1583	12	8.19E-03	60.9	1.99E+00	T
0	1376.60	25	39	1.38	2752.46	2747	14	3.47E-03	****	1.16E+00	T
0	1589.30	35	20	7.23	3178.00	3168	19	4.82E-03	74.7	1.04E+00	
0	1727.62	28	4	0.93	3454.78	3447	15	3.85E-03	52.7	9.87E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 15-FEB-2010 16:35:19.98

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808005.CNF;1 *
* Acquisition date  : 12-FEB-2010 16:57:44  Detector SN#     :             *
* Detector ID       : GAM10                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 2.00000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.19          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245808005            Analyst initials: RXF2         *
* Batch Number      : 947554                Sample Quantity : 1.41695E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08.8MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.587E+01	3.616E+00	4.882E-01	4.205E-02	73.468
NB-95	8.698E-02	6.285E-02	6.587E-02	4.597E-03	1.320
CD-109	3.292E+00	1.183E+00	1.199E+00	1.359E-01	2.746
SN-126	3.225E-01	1.159E-01	1.183E-01	1.339E-02	2.727
CS-135	5.007E-01	2.227E-01	2.236E-01	1.807E-02	2.239
RE-188	3.420E-01	2.578E-01	2.428E-01	1.380E-02	1.408
TL-208	4.826E-01	8.206E-02	5.707E-02	3.835E-03	8.456
BI-211	3.633E+00	5.148E-01	2.963E-01	2.160E-02	12.261
PB-212	1.668E+00	1.645E-01	8.517E-02	6.461E-03	19.579
PO-212	1.668E+00	1.645E-01	8.517E-02	6.461E-03	19.579
BI-214	1.003E+00	1.573E-01	1.011E-01	7.697E-03	9.921
PB-214	1.264E+00	1.908E-01	1.033E-01	9.262E-03	12.236
PO-214	1.264E+00	1.908E-01	1.033E-01	9.262E-03	12.236
PO-216	1.668E+00	1.645E-01	8.517E-02	6.461E-03	19.579
PO-218	1.264E+00	1.908E-01	1.033E-01	9.262E-03	12.236
RA-224	4.584E+00	1.058E+00	9.691E-01	5.949E-02	4.731
RA-226	1.003E+00	1.573E-01	1.011E-01	7.697E-03	9.921
AC-228	1.553E+00	3.724E-01	2.155E-01	2.659E-02	7.209

Sample ID : G245808005 Acquisition date : 12-FEB-2010 16:57:44

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.553E+00	3.724E-01	2.155E-01	2.659E-02	7.209
TH-228	1.696E+00	1.674E-01	8.664E-02	6.573E-03	19.579
TH-230	1.003E+00	1.573E-01	1.011E-01	7.697E-03	9.921
TH-232	1.553E+00	3.724E-01	2.155E-01	2.659E-02	7.209
U-234	1.003E+00	1.573E-01	1.011E-01	7.697E-03	9.921
NP-237	9.472E-01	3.926E-01	3.535E-01	8.309E-02	2.679
AM-243	4.019E-01	1.023E-01	9.547E-02	1.046E-02	4.210
ANH-511	8.086E-02	6.362E-02	4.504E-02	2.885E-03	1.795

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.001E-01		2.870E-01	4.756E-01	3.537E-02	0.210
NA-22	-3.517E-02		4.522E-02	6.958E-02	5.389E-03	-0.505
NA-24	8.307E-01		3.083E+00	Half-Life too short		
AL-26	-1.044E-02		2.211E-02	3.090E-02	1.959E-03	-0.338
TI-44	3.921E-01	+	6.402E-02	7.160E-02	7.834E-03	5.477
SC-46	-2.969E-02		3.819E-02	5.761E-02	5.702E-03	-0.515
V-48	-5.423E-03		8.135E-02	1.312E-01	1.213E-02	-0.041
CR-51	3.812E-01		3.465E-01	6.065E-01	4.381E-02	0.629
MN-52	-3.483E-02		2.700E-01	4.364E-01	3.688E-02	-0.080
MN-54	5.971E-04		3.756E-02	6.178E-02	5.278E-03	0.010
CO-56	1.123E-02		3.909E-02	6.568E-02	5.800E-03	0.171
CO-57	-6.748E-03		2.444E-02	3.914E-02	2.582E-03	-0.172
CO-58	4.666E-03		3.688E-02	6.137E-02	4.911E-03	0.076
FE-59	-1.681E-02		9.887E-02	1.564E-01	1.305E-02	-0.107
CO-60	1.900E-03		4.044E-02	6.737E-02	5.854E-03	0.028
ZN-65	6.093E-02		1.124E-01	1.656E-01	1.206E-02	0.368
GE-68	7.529E-02		1.290E+00	2.090E+00	1.655E-01	0.036
AS-73	3.555E-02		1.448E+00	2.426E+00	3.210E-01	0.015
AS-74	-3.105E-03		8.753E-02	1.468E-01	8.389E-03	-0.021
SE-75	8.707E-05		4.456E-02	6.873E-02	4.384E-03	0.001
BR-77	-5.134E+00		1.810E+01	2.843E+01	1.803E+00	-0.181
SR-82	-4.241E-01		3.950E-01	5.893E-01	4.248E-02	-0.720
RB-83	-2.537E-02		6.571E-02	1.023E-01	6.492E-03	-0.248
RB-84	2.910E-03		7.489E-02	1.229E-01	1.192E-02	0.024
KR-85	6.884E+00		7.081E+00	1.087E+01	6.941E-01	0.634
SR-85	3.608E-02		3.711E-02	5.695E-02	3.638E-03	0.634
RB-86	-1.260E-01		9.025E-01	1.434E+00	1.138E-01	-0.088
Y-88	1.027E-02		2.860E-02	4.986E-02	3.059E-03	0.206
ZR-88	1.911E-02		2.823E-02	4.808E-02	3.267E-03	0.398
Y-91	-8.220E+00		2.231E+01	3.630E+01	2.411E+00	-0.226
NB-94	-1.868E-02		3.071E-02	4.870E-02	2.773E-03	-0.384
NB-95M	3.258E-01		1.337E-01	2.199E-01	1.706E-02	1.481
ZR-95	5.728E-02		6.879E-02	1.208E-01	9.489E-03	0.474
NB-97	2.178E-01		3.217E-01	Half-Life too short		
ZR-97	3.647E+01		8.225E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	1.363E+01		1.764E+01	3.087E+01	4.340E+00	0.441
TC-99M	1.733E+12		5.961E+12	Half-Life too short		
RH-101	-3.624E-03		3.181E-02	4.938E-02	2.836E-03	-0.073
RH-102	1.835E-03		2.568E-02	4.171E-02	2.751E-03	0.044
RU-103	-2.573E-02		4.095E-02	6.269E-02	8.134E-03	-0.410
RH-106	1.892E-01		2.836E-01	4.970E-01	5.745E-02	0.381
RU-106	1.892E-01		2.830E-01	4.970E-01	2.699E-02	0.381
AG-108M	-2.907E-03		3.034E-02	4.899E-02	3.513E-03	-0.059
AG-110M	7.802E-03		2.948E-02	5.027E-02	2.723E-03	0.155
IN-111	1.143E+00		1.701E+00	2.628E+00	1.623E-01	0.435
IN-113M	-5.594E-03		4.263E-02	6.918E-02	4.933E-03	-0.081
SN-113	-5.594E-03		4.263E-02	6.918E-02	4.933E-03	-0.081
IN-114M	5.605E-02		1.827E-01	2.797E-01	1.586E-02	0.200
CD-115	1.940E+00		1.921E+01	3.105E+01	1.955E+00	0.062
SN-117M	4.619E-02		5.881E-02	8.780E-02	4.924E-03	0.526
SB-122	9.270E-01		3.335E+00	5.437E+00	3.270E-01	0.170
I-123	2.446E+01		3.724E+01	Half-Life too short		
TE-123M	8.660E-03		2.637E-02	4.083E-02	2.319E-03	0.212
I-124	8.519E-01		9.036E-01	1.444E+00	8.148E-02	0.590
SB-124	-4.003E-02		6.747E-02	9.529E-02	7.240E-03	-0.420
SB-125	8.828E-03		8.341E-02	1.367E-01	9.516E-03	0.065
TE-125M	5.640E+00		9.035E+00	1.506E+01	1.446E+00	0.375
I-126	5.495E-02		1.986E-01	3.375E-01	1.693E-02	0.163
SB-126	-3.612E-02		1.688E-01	2.596E-01	1.569E-02	-0.139
SB-127	5.120E-01		1.729E+00	2.946E+00	2.929E-01	0.174
XE-127	-2.069E-02		4.431E-02	7.385E-02	4.276E-03	-0.280
I-131	7.665E-02		1.269E-01	2.157E-01	1.591E-02	0.355
TE-132	3.270E-01		9.818E-01	1.677E+00	2.498E-01	0.195
BA-133	-4.285E-03		4.410E-02	6.315E-02	7.619E-03	-0.068
I-133	2.366E-02		1.465E-02	Half-Life too short		
CS-134	1.039E-01	+	6.379E-02	8.387E-02	6.465E-03	1.239
I-135	-5.230E+11		5.541E+11	Half-Life too short		
CS-136	-3.270E-02		1.292E-01	2.050E-01	1.795E-02	-0.160
BA-137M	-1.343E-02		3.292E-02	5.334E-02	2.632E-03	-0.252
CS-137	-1.420E-02		3.480E-02	5.639E-02	2.798E-03	-0.252
CE-139	1.060E-02		2.814E-02	4.567E-02	2.495E-03	0.232
BA-140	3.073E-02		2.662E-01	4.300E-01	1.402E-01	0.071
LA-140	3.064E-02		7.915E-02	1.231E-01	9.549E-03	0.249
CE-141	-1.842E-03		6.360E-02	1.021E-01	6.247E-03	-0.018
CE-143	3.915E-03	+	5.299E-04	Half-Life too short		
CE-144	4.561E-02		1.931E-01	3.144E-01	4.518E-02	0.145
PM-144	-6.879E-04		3.263E-02	5.423E-02	3.027E-03	-0.013
PR-144	-4.667E-02		2.214E+00	3.679E+00	2.051E-01	-0.013
PM-146	4.983E-04		3.907E-02	6.338E-02	5.854E-03	0.008
ND-147	1.524E-01		5.846E-01	9.559E-01	1.313E-01	0.159
PM-149	-5.009E+01		1.564E+02	2.561E+02	3.705E+01	-0.196
EU-152	-6.955E-02		9.884E-02	1.434E-01	1.057E-02	-0.485
GD-153	4.754E-02		8.521E-02	1.281E-01	1.193E-02	0.371

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154	-9.972E-02		1.262E-01	1.936E-01	2.062E-02	-0.515
EU-155	7.354E-02		1.016E-01	1.703E-01	1.412E-02	0.432
TB-160	1.105E-01		1.388E-01	2.421E-01	2.335E-02	0.456
HO-166M	-6.394E-02		5.642E-02	8.513E-02	4.996E-03	-0.751
TM-171	1.997E+01		3.659E+01	5.578E+01	6.354E+00	0.358
LU-176	-9.887E-03		2.094E-02	3.381E-02	2.224E-03	-0.292
LU-177	3.090E+00	+	1.794E+00	2.326E+00	1.359E-01	1.329
LU-177M	-4.128E-02		1.584E-01	2.537E-01	1.719E-02	-0.163
HF-181	-5.190E-03		3.883E-02	6.203E-02	4.071E-03	-0.084
W-181	1.060E+00	+	6.590E-01	7.136E-01	8.245E-02	1.485
TA-182	-1.454E-03		2.207E-01	3.682E-01	2.539E-02	-0.004
RE-183	-4.021E-02		1.022E-01	1.603E-01	8.864E-03	-0.251
RE-184	1.132E-01		2.125E-01	3.651E-01	2.276E-02	0.310
OS-185	8.261E-04		4.194E-02	7.025E-02	3.609E-03	0.012
W-188	5.041E-01		7.344E+00	1.081E+01	7.021E-01	0.047
IR-192	-9.194E-03		3.124E-02	5.091E-02	3.384E-03	-0.181
AU-195	1.528E-01		2.223E-01	3.725E-01	3.380E-02	0.410
TL-200	-4.221E-04		7.445E-04	Half-Life too short		
TL-201	4.703E-01		1.027E+01	1.643E+01	8.984E-01	0.029
TL-202	1.412E-02		6.950E-02	1.145E-01	7.696E-03	0.123
HG-203	2.688E-04		3.753E-02	6.267E-02	4.229E-03	0.004
BI-207	-2.543E-02		5.392E-02	8.286E-02	6.745E-03	-0.307
TL-207	-1.046E+00		6.249E-01	8.947E-01	1.506E-01	-1.169
PO-209	3.435E+00		7.541E+00	1.279E+01	1.290E+00	0.269
BI-210	5.090E+00		8.293E+00	1.423E+01	1.396E+00	0.358
PB-210	5.090E+00		8.293E+00	1.423E+01	1.396E+00	0.358
PO-210	5.090E+00		8.290E+00	1.423E+01	1.277E+00	0.358
PB-211	-2.476E-01		8.536E-01	1.345E+00	8.395E-01	-0.184
BI-212	1.018E+00	+	3.930E-01	6.199E-01	4.959E-02	1.641
PO-215	-1.046E+00		6.249E-01	8.947E-01	1.506E-01	-1.169
RN-219	-5.824E-02		3.707E-01	5.993E-01	8.424E-02	-0.097
RN-220	-9.240E+00		2.297E+01	3.544E+01	2.173E+00	-0.261
RA-223	-1.046E+00		6.249E-01	8.947E-01	1.506E-01	-1.169
AC-227	-5.313E-02		3.359E-01	5.589E-01	7.913E-02	-0.095
TH-227	-5.313E-02		3.359E-01	5.589E-01	9.537E-02	-0.095
TH-229	-1.780E-02		4.656E-01	7.356E-01	4.195E-02	-0.024
PA-231	-7.371E-01		1.348E+00	2.178E+00	3.064E-01	-0.338
TH-231	-1.046E+00		6.249E-01	8.947E-01	1.506E-01	-1.169
U-231	-8.527E-01		1.636E+00	2.326E+00	2.229E-01	-0.367
PA-233	1.051E-02		5.561E-02	9.218E-02	6.379E-03	0.114
PA-234	-5.372E-02		3.054E-01	4.886E-01	9.415E-02	-0.110
PA-234M	4.489E+00		4.632E+00	8.104E+00	8.365E-01	0.554
TH-234	3.487E+00	+	2.237E+00	2.940E+00	5.794E-01	1.186
U-235	9.336E-02		2.090E-01	3.377E-01	5.523E-02	0.276
NP-236	-5.584E-02		7.129E-02	1.096E-01	6.108E-03	-0.509
U-238	3.487E+00	+	2.237E+00	2.940E+00	5.794E-01	1.186
NP-239	-2.591E-01		1.839E-01	2.773E-01	1.940E-02	-0.934
AM-241	5.206E-02		2.360E-01	3.568E-01	4.582E-02	0.146

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.916E-02		9.093E-02	1.503E-01	1.259E-02	0.194
AM-246	-9.014E-02		1.524E-01	2.312E-01	1.826E-02	-0.390
CM-247	2.873E-03		3.281E-02	5.388E-02	3.658E-03	0.053
CF-249	3.449E-02		3.716E-02	6.405E-02	4.352E-03	0.539
CF-251	1.869E-02		1.193E-01	1.912E-01	1.060E-02	0.098

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245808005            *
* Acquisition date : 12-FEB-2010 16:57:44 Detector SN#    :                 *
* Detector ID      : GAM10                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 2.000           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.19     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245808005           Analyst initials: RXF2            *
* Batch Number     : 947554               Sample Quantity : 1.4170E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.587E+01	3.544E+00	2.453E-01	1.808E+00
NB-95	8.698E-02	6.159E-02	3.357E-02	3.142E-02
CD-109	3.292E+00	1.160E+00	6.385E-01	5.917E-01
SN-126	3.225E-01	1.136E-01	6.302E-02	5.797E-02
CS-135	5.007E-01	2.183E-01	1.165E-01	1.114E-01
RE-188	3.420E-01	2.527E-01	1.279E-01	1.289E-01
TL-208	4.826E-01	8.042E-02	2.925E-02	4.103E-02
BI-211	3.633E+00	5.046E-01	1.535E-01	2.574E-01
PB-212	1.668E+00	1.612E-01	4.447E-02	8.226E-02
PO-212	1.668E+00	1.612E-01	4.447E-02	8.226E-02
BI-214	1.003E+00	1.542E-01	5.179E-02	7.867E-02
PB-214	1.264E+00	1.870E-01	5.350E-02	9.542E-02
PO-214	1.264E+00	1.870E-01	5.350E-02	9.542E-02
PO-216	1.668E+00	1.612E-01	4.447E-02	8.226E-02
PO-218	1.264E+00	1.870E-01	5.350E-02	9.542E-02
RA-224	4.584E+00	1.037E+00	5.059E-01	5.289E-01
RA-226	1.003E+00	1.542E-01	5.179E-02	7.867E-02
AC-228	1.553E+00	3.650E-01	1.094E-01	1.862E-01
RA-228	1.553E+00	3.650E-01	1.094E-01	1.862E-01
TH-228	1.696E+00	1.640E-01	4.524E-02	8.368E-02
TH-230	1.003E+00	1.542E-01	5.179E-02	7.867E-02
TH-232	1.553E+00	3.650E-01	1.094E-01	1.862E-01
U-234	1.003E+00	1.542E-01	5.179E-02	7.867E-02
NP-237	9.472E-01	3.847E-01	1.884E-01	1.963E-01
AM-243	4.019E-01	1.002E-01	5.102E-02	5.113E-02
ANH-511	8.086E-02	6.235E-02	2.315E-02	3.181E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	1.001E-01	2.813E-01	2.448E-01	1.435E-01 NOT IDENT.

NA-22	-3.517E-02	4.432E-02	3.506E-02	2.261E-02	NOT IDENT.
NA-24	8.307E+05	6.043E+06	0.000E+00	3.083E+06	SHORT HLIF
AL-26	-1.044E-02	2.167E-02	1.545E-02	1.106E-02	NOT IDENT.
TI-44	3.921E-01	6.274E-02	3.823E-02	3.201E-02	FAIL ABUN
SC-46	-2.969E-02	3.743E-02	2.926E-02	1.910E-02	FAIL ABUN
V-48	-5.423E-03	7.972E-02	6.647E-02	4.067E-02	NOT IDENT.
CR-51	3.812E-01	3.396E-01	3.148E-01	1.733E-01	NOT IDENT.
MN-52	-3.483E-02	2.646E-01	2.194E-01	1.350E-01	NOT IDENT.
MN-54	5.971E-04	3.681E-02	3.142E-02	1.878E-02	NOT IDENT.
CO-56	1.123E-02	3.831E-02	3.339E-02	1.955E-02	NOT IDENT.
CO-57	-6.748E-03	2.395E-02	2.072E-02	1.222E-02	NOT IDENT.
CO-58	4.666E-03	3.614E-02	3.124E-02	1.844E-02	NOT IDENT.
FE-59	-1.681E-02	9.689E-02	7.907E-02	4.943E-02	NOT IDENT.
CO-60	1.900E-03	3.963E-02	3.392E-02	2.022E-02	NOT IDENT.
ZN-65	6.093E-02	1.102E-01	8.369E-02	5.622E-02	NOT IDENT.
GE-68	7.529E-02	1.265E+00	1.057E+00	6.452E-01	NOT IDENT.
AS-73	3.555E-02	1.419E+00	1.305E+00	7.242E-01	NOT IDENT.
AS-74	-3.105E-03	8.578E-02	7.523E-02	4.376E-02	NOT IDENT.
SE-75	8.707E-05	4.367E-02	3.581E-02	2.228E-02	NOT IDENT.
BR-77	-5.134E+00	1.774E+01	1.460E+01	9.052E+00	FAIL ABUN
SR-82	-4.241E-01	3.871E-01	3.002E-01	1.975E-01	NOT IDENT.
RB-83	-2.537E-02	6.440E-02	5.256E-02	3.286E-02	NOT IDENT.
RB-84	2.910E-03	7.339E-02	6.245E-02	3.745E-02	NOT IDENT.
KR-85	6.884E+00	6.940E+00	5.584E+00	3.541E+00	NOT IDENT.
SR-85	3.608E-02	3.637E-02	2.927E-02	1.856E-02	NOT IDENT.
RB-86	-1.260E-01	8.844E-01	7.255E-01	4.512E-01	NOT IDENT.
Y-88	1.027E-02	2.803E-02	2.493E-02	1.430E-02	NOT IDENT.
ZR-88	1.911E-02	2.767E-02	2.485E-02	1.412E-02	NOT IDENT.
Y-91	-8.220E+00	2.186E+01	1.832E+01	1.115E+01	NOT IDENT.
NB-94	-1.868E-02	3.010E-02	2.486E-02	1.536E-02	NOT IDENT.
NB-95M	3.258E-01	1.310E-01	1.149E-01	6.685E-02	NOT IDENT.
ZR-95	5.728E-02	6.742E-02	6.158E-02	3.440E-02	NOT IDENT.
NB-97	2.178E+05	6.306E+05	0.000E+00	3.217E+05	SHORT HLIF
ZR-97	3.647E+07	1.612E+07	0.000E+00	8.225E+06	SHORT HLIF
MO-99	1.363E+01	1.728E+01	1.574E+01	8.819E+00	NOT IDENT.
TC-99M	1.733E+18	1.168E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.624E-03	3.118E-02	2.588E-02	1.591E-02	FAIL ABUN
RH-102	1.835E-03	2.516E-02	2.147E-02	1.284E-02	FAIL ABUN
RU-103	-2.573E-02	4.013E-02	3.224E-02	2.047E-02	FAIL ABUN
RH-106	1.892E-01	2.780E-01	2.544E-01	1.418E-01	FAIL ABUN
RU-106	1.892E-01	2.773E-01	2.544E-01	1.415E-01	FAIL ABUN
AG-108M	-2.907E-03	2.973E-02	2.527E-02	1.517E-02	NOT IDENT.
AG-110M	7.802E-03	2.889E-02	2.570E-02	1.474E-02	NOT IDENT.
IN-111	1.143E+00	1.667E+00	1.372E+00	8.505E-01	NOT IDENT.
IN-113M	-5.594E-03	4.178E-02	3.576E-02	2.131E-02	NOT IDENT.
SN-113	-5.594E-03	4.178E-02	3.576E-02	2.131E-02	NOT IDENT.
IN-114M	5.605E-02	1.791E-01	1.467E-01	9.137E-02	NOT IDENT.
CD-115	1.940E+00	1.883E+01	1.595E+01	9.606E+00	NOT IDENT.
SN-117M	4.619E-02	5.764E-02	4.623E-02	2.941E-02	NOT IDENT.
SB-122	9.270E-01	3.268E+00	2.789E+00	1.667E+00	NOT IDENT.
I-123	2.446E+07	7.298E+07	0.000E+00	3.724E+07	SHORT HLIF
TE-123M	8.660E-03	2.584E-02	2.149E-02	1.318E-02	NOT IDENT.
I-124	8.519E-01	8.856E-01	7.397E-01	4.518E-01	FAIL ABUN
SB-124	-4.003E-02	6.612E-02	4.772E-02	3.374E-02	FAIL ABUN
SB-125	8.828E-03	8.174E-02	7.050E-02	4.170E-02	FAIL ABUN
TE-125M	5.640E+00	8.855E+00	7.986E+00	4.518E+00	NOT IDENT.
I-126	5.495E-02	1.946E-01	1.725E-01	9.928E-02	NOT IDENT.
SB-126	-3.612E-02	1.654E-01	1.325E-01	8.438E-02	FAIL ABUN
SB-127	5.120E-01	1.694E+00	1.505E+00	8.643E-01	NOT IDENT.
XE-127	-2.069E-02	4.343E-02	3.869E-02	2.216E-02	NOT IDENT.
I-131	7.665E-02	1.243E-01	1.117E-01	6.343E-02	NOT IDENT.
TE-132	3.270E-01	9.621E-01	8.765E-01	4.909E-01	NOT IDENT.
BA-133	-4.285E-03	4.321E-02	3.270E-02	2.205E-02	NOT IDENT.
I-133	2.366E+04	2.872E+04	0.000E+00	1.465E+04	SHORT HLIF
CS-134	1.039E-01	6.252E-02	4.270E-02	3.190E-02	FAIL ABUN
I-135	-5.230E+17	1.086E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.270E-02	1.267E-01	1.037E-01	6.462E-02	FAIL ABUN
BA-137M	-1.343E-02	3.226E-02	2.727E-02	1.646E-02	NOT IDENT.
CS-137	-1.420E-02	3.410E-02	2.882E-02	1.740E-02	NOT IDENT.
CE-139	1.060E-02	2.758E-02	2.403E-02	1.407E-02	NOT IDENT.
BA-140	3.073E-02	2.609E-01	2.208E-01	1.331E-01	NOT IDENT.
LA-140	3.064E-02	7.756E-02	6.171E-02	3.957E-02	NOT IDENT.
CE-141	-1.842E-03	6.232E-02	5.383E-02	3.180E-02	NOT IDENT.
CE-143	3.915E+03	1.039E+03	0.000E+00	5.299E+02	SHORT HLIF
CE-144	4.561E-02	1.892E-01	1.661E-01	9.653E-02	NOT IDENT.
PM-144	-6.879E-04	3.198E-02	2.769E-02	1.632E-02	NOT IDENT.
PR-144	-4.667E-02	2.170E+00	1.878E+00	1.107E+00	NOT IDENT.
PM-146	4.983E-04	3.829E-02	3.266E-02	1.954E-02	NOT IDENT.

ND-147	1.524E-01	5.729E-01	4.909E-01	2.923E-01	FAIL ABUN
PM-149	-5.009E+01	1.533E+02	1.332E+02	7.819E+01	NOT IDENT.
EU-152	-6.955E-02	9.686E-02	7.432E-02	4.942E-02	NOT IDENT.
GD-153	4.754E-02	8.351E-02	6.809E-02	4.261E-02	FAIL ABUN
EU-154	-9.972E-02	1.237E-01	9.757E-02	6.312E-02	NOT IDENT.
EU-155	7.354E-02	9.957E-02	9.038E-02	5.080E-02	FAIL ABUN
TB-160	1.105E-01	1.360E-01	1.230E-01	6.940E-02	FAIL ABUN
HO-166M	-6.394E-02	5.529E-02	4.345E-02	2.821E-02	FAIL ABUN
TM-171	1.997E+01	3.585E+01	2.987E+01	1.829E+01	NOT IDENT.
LU-176	-9.887E-03	2.052E-02	1.756E-02	1.047E-02	FAIL ABUN
LU-177	3.090E+00	1.758E+00	1.218E+00	8.970E-01	FAIL ABUN
LU-177M	-4.128E-02	1.552E-01	1.310E-01	7.919E-02	FAIL ABUN
HF-181	-5.190E-03	3.806E-02	3.192E-02	1.942E-02	FAIL ABUN
W-181	1.060E+00	6.458E-01	3.824E-01	3.295E-01	FAIL ABUN
TA-182	-1.454E-03	2.163E-01	1.858E-01	1.104E-01	FAIL ABUN
RE-183	-4.021E-02	1.001E-01	8.434E-02	5.109E-02	FAIL ABUN
RE-184	1.132E-01	2.083E-01	1.904E-01	1.063E-01	NOT IDENT.
OS-185	8.261E-04	4.110E-02	3.593E-02	2.097E-02	NOT IDENT.
W-188	5.041E-01	7.197E+00	5.624E+00	3.672E+00	FAIL ABUN
IR-192	-9.194E-03	3.061E-02	2.643E-02	1.562E-02	FAIL ABUN
AU-195	1.528E-01	2.178E-01	1.980E-01	1.111E-01	FAIL ABUN
TL-200	-4.221E+02	1.459E+03	0.000E+00	7.445E+02	SHORT HLIF
TL-201	4.703E-01	1.007E+01	8.639E+00	5.137E+00	NOT IDENT.
TL-202	1.412E-02	6.811E-02	5.902E-02	3.475E-02	NOT IDENT.
HG-203	2.688E-04	3.678E-02	3.262E-02	1.877E-02	FAIL ABUN
BI-207	-2.543E-02	5.284E-02	4.192E-02	2.696E-02	FAIL ABUN
TL-207	-1.046E+00	6.124E-01	4.643E-01	3.125E-01	FAIL ABUN
PO-209	3.435E+00	7.391E+00	6.493E+00	3.771E+00	NOT IDENT.
BI-210	5.090E+00	8.127E+00	7.675E+00	4.146E+00	NOT IDENT.
PB-210	5.090E+00	8.127E+00	7.675E+00	4.146E+00	NOT IDENT.
PO-210	5.090E+00	8.124E+00	7.675E+00	4.145E+00	NOT IDENT.
PB-211	-2.476E-01	8.366E-01	6.945E-01	4.268E-01	NOT IDENT.
BI-212	1.018E+00	3.851E-01	3.162E-01	1.965E-01	FAIL ABUN
PO-215	-1.046E+00	6.124E-01	4.643E-01	3.125E-01	FAIL ABUN
RN-219	-5.824E-02	3.633E-01	3.096E-01	1.854E-01	FAIL ABUN
RN-220	-9.240E+00	2.251E+01	1.819E+01	1.148E+01	NOT IDENT.
RA-223	-1.046E+00	6.124E-01	4.643E-01	3.125E-01	FAIL ABUN
AC-227	-5.313E-02	3.292E-01	2.914E-01	1.679E-01	FAIL ABUN
TH-227	-5.313E-02	3.292E-01	2.914E-01	1.680E-01	FAIL ABUN
TH-229	-1.780E-02	4.563E-01	3.858E-01	2.328E-01	FAIL ABUN
PA-231	-7.371E-01	1.321E+00	1.133E+00	6.741E-01	FAIL ABUN
TH-231	-1.046E+00	6.124E-01	4.643E-01	3.125E-01	FAIL ABUN
U-231	-8.527E-01	1.603E+00	1.237E+00	8.179E-01	FAIL ABUN
PA-233	1.051E-02	5.450E-02	4.787E-02	2.781E-02	FAIL ABUN
PA-234	-5.372E-02	2.992E-01	2.479E-01	1.527E-01	FAIL ABUN
PA-234M	4.489E+00	4.539E+00	4.106E+00	2.316E+00	FAIL ABUN
TH-234	3.487E+00	2.192E+00	1.576E+00	1.118E+00	FAIL ABUN
U-235	9.336E-02	2.049E-01	1.782E-01	1.045E-01	FAIL ABUN
NP-236	-5.584E-02	6.986E-02	5.770E-02	3.564E-02	NOT IDENT.
U-238	3.487E+00	2.192E+00	1.576E+00	1.118E+00	FAIL ABUN
NP-239	-2.591E-01	1.802E-01	1.469E-01	9.193E-02	FAIL ABUN
AM-241	5.206E-02	2.313E-01	1.915E-01	1.180E-01	NOT IDENT.
CM-243	2.916E-02	8.911E-02	7.981E-02	4.547E-02	FAIL ABUN
AM-246	-9.014E-02	1.493E-01	1.170E-01	7.618E-02	NOT IDENT.
CM-247	2.873E-03	3.215E-02	2.783E-02	1.640E-02	NOT IDENT.
CF-249	3.449E-02	3.641E-02	3.311E-02	1.858E-02	NOT IDENT.
CF-251	1.869E-02	1.169E-01	1.004E-01	5.966E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	293.2238
46.50	293.2238
46.50	293.2238
48.70	286.7125
49.72	303.1571
51.35	301.6770
52.39	309.9091
52.97	321.5188
53.15	301.2130
53.44	302.3642
54.07	306.5717
56.28	304.5040
56.28	304.5065
57.37	0.0000
57.53	312.0107
57.53	312.0120
57.60	318.6427
57.98	323.6382
57.98	323.6382
59.32	319.9532
59.32	319.9532
59.40	320.0135
59.54	320.1195
59.72	316.0046
60.01	327.5640
61.10	342.6149
61.14	342.6461
61.30	342.7730
63.00	327.4546
63.29	327.1940
63.29	327.1940
63.58	327.4089
64.28	373.7498
65.12	378.7568
65.20	378.8238
65.20	378.8238
66.05	345.0348
66.72	346.9818
66.83	365.7878
66.91	365.8517
67.20	356.2836
67.20	356.2836
67.75	379.9902
67.85	380.0726
68.90	372.6407
68.90	372.6407
69.30	395.2577
69.67	399.9191
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74.81	392.5045
74.81	392.5045
74.97	392.6313
75.28	392.8787
75.70	393.2120
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77.11	370.7845

77.11	370.7845
77.11	370.7845
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77.11	370.7845
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80.18	364.1522
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80.30	364.2366
80.57	364.4280
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81.07	377.6323
81.07	377.6323
81.07	377.6323
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83.78	352.7628
83.78	352.7628
84.21	353.0481
84.90	353.5067
85.43	353.8571
86.29	354.4222
86.50	354.5612
86.54	354.5865
86.59	354.6190
86.72	354.7057
86.79	354.7490
86.94	354.8483
87.30	355.0849
87.30	355.0849
87.30	355.0849
87.30	355.0849
87.30	355.0849
87.30	355.0849
87.30	355.0849
87.57	355.2600
87.88	355.4622
88.03	355.5598
88.36	355.7746
88.47	355.8450
89.95	356.8020
91.11	357.5459
92.29	358.2971
92.38	358.3549
92.38	358.3549
93.35	358.9688
94.00	359.3786
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94.67	335.9817
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94.90	366.5343
94.90	366.5343
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95.87	362.5800
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98.44	319.4988
98.88	319.5336
99.55	303.5425
99.55	303.5425
99.86	341.5359
100.00	341.6175
100.10	341.6769
103.18	339.3138
103.76	299.4987
105.00	298.0430
105.31	294.0672
108.00	344.0484
109.28	305.2900

111.00	335.2709
111.00	335.2709
111.76	351.3073
112.95	297.6491
115.19	324.8766
116.30	321.2262
117.00	342.5845
117.00	342.5845
117.66	325.0435
121.11	296.0573
121.62	312.1531
121.78	301.6427
122.06	320.8248
122.32	312.4727
122.32	312.4727
122.32	312.4727
122.32	312.4727
123.07	294.7910
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131.20	291.2637
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133.54	305.6646
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136.00	315.3383
136.25	312.2043
136.48	299.3366
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140.51	0.0000
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142.65	327.9726
143.76	325.1797
144.24	335.2097
144.24	335.2097
144.24	335.2097
144.24	335.2097
145.22	330.1743
145.44	341.2056
147.16	335.3910
152.43	264.8291
152.70	264.9194
153.22	265.0928
154.21	265.4199
154.21	265.4199
154.21	265.4199
154.21	265.4199
155.03	262.3722
156.02	262.6953
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161.27	272.2016
162.32	288.1871
162.64	280.4753
163.35	285.1889
163.89	267.4673
165.85	280.4337
167.43	271.9694
171.28	274.3292
171.86	273.3849
172.10	251.9911
176.55	277.1335
176.60	277.1484
181.06	282.5439
184.41	292.1927
185.71	302.9377
186.00	303.0344
190.27	264.3154
192.34	299.3476
193.63	258.0956
197.04	296.2004
198.01	275.5718
198.60	251.3101
200.40	286.7523
201.83	298.5623
202.84	300.6274
205.31	271.3403

208.36	301.7996
208.81	274.2486
209.75	241.4978
209.75	241.4978
210.97	236.1383
215.65	224.6332
216.55	240.8301
218.09	270.5645
222.10	251.9674
223.80	263.1201
226.40	242.2444
227.00	228.9167
227.08	231.6276
227.20	246.9193
228.16	244.4476
228.18	244.4518
228.18	244.4518
231.56	0.0000
235.69	233.1473
236.00	233.2161
236.00	233.2161
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238.63	248.6658
238.63	248.6658
238.63	248.6658
239.00	248.7494
240.98	249.2009
241.98	249.4288
241.98	249.4288
241.98	249.4288
244.69	182.5134
245.39	187.0109
247.94	225.9310
248.90	239.0801
249.79	219.1028
252.40	199.3946
252.85	197.6356
252.85	197.6356
254.15	0.0000
256.20	200.0601
256.20	200.0601
260.50	208.2115
260.90	219.3921
262.80	192.8608
264.65	198.1217
268.24	187.7941
268.79	201.3036
269.46	210.3675
269.46	210.3675
269.46	210.3675
269.46	210.3675
271.23	211.9881
273.65	226.0797
276.40	183.8278
277.35	199.9280
277.60	187.7655
277.60	187.7655
278.00	202.8527
278.60	186.0419
279.20	194.5931
279.53	203.1097
280.46	199.5005
281.68	178.0325
283.67	184.9254
284.30	184.0771
285.00	173.7915
285.90	182.4247
286.10	184.3449
286.10	184.3449
287.40	176.0183
288.45	0.0000
290.67	170.0289
290.80	162.4540
291.72	173.2099
293.26	0.0000
293.70	173.4826
295.21	156.9292
295.21	156.9292

295.21	156.9292
295.96	121.9590
296.50	122.0098
297.23	122.0801
298.57	122.2090
299.80	159.0240
299.80	159.0240
300.09	159.0596
300.09	159.0596
300.09	159.0596
300.09	159.0596
300.12	159.0621
301.29	165.3302
302.84	153.2690
303.76	153.3765
303.91	153.3960
304.40	144.2450
304.40	144.2450
304.84	133.5501
306.84	154.7011
308.46	152.9686
311.98	136.9796
316.51	159.7103
318.01	164.7342
319.02	138.6753
319.41	142.5947
320.08	132.9612
323.87	198.5402
323.87	198.5402
323.87	198.5402
323.87	198.5402
325.23	185.1004
328.77	164.0933
333.44	164.6470
334.20	177.2908
334.20	177.2908
334.30	177.3019
338.28	184.1008
338.28	184.1008
338.28	184.1008
338.28	184.1008
338.32	184.1065
338.32	184.1065
338.32	184.1065
340.50	163.9041
340.57	163.9117
344.27	175.1389
345.85	156.6138
350.59	0.0000
351.07	146.8641
351.92	146.9521
351.92	146.9521
351.92	146.9521
355.39	0.0000
356.01	143.3826
364.48	128.1875
366.43	139.3881
367.43	143.4953
367.94	0.0000
369.80	116.5859
374.96	125.0539
383.85	160.2711
387.95	123.0660
388.63	125.1546
391.69	143.7518
391.69	143.7518
392.90	117.3338
398.62	112.6402
400.65	117.9111
401.10	123.0725
401.81	129.2838
402.60	122.1613
404.84	132.6120
410.95	120.7330
411.60	134.2014
413.65	125.0674
414.70	107.5658
415.30	107.6055

415.76	108.6706
417.63	0.0000
418.52	114.0367
423.70	108.1545
427.08	128.1725
427.89	113.6404
432.53	113.9547
433.93	119.2794
439.47	106.0226
439.56	104.9789
439.89	103.9488
443.98	112.6181
444.90	105.3055
445.03	105.3146
445.03	105.3146
445.03	105.3146
445.03	105.3146
453.90	105.8533
463.38	108.9781
468.07	97.3147
473.00	120.9074
475.06	95.3366
475.35	101.7797
476.78	105.0760
477.59	89.0322
477.96	82.6138
482.03	96.7772
484.57	86.1426
487.03	108.9014
490.36	0.0000
492.35	88.6690
497.08	119.2467
507.63	0.0000
510.53	0.0000
510.84	114.6571
511.00	114.6667
511.85	115.3719
511.85	115.3719
513.99	91.0006
513.99	91.0006
520.41	103.1567
520.65	103.1682
527.90	92.5364
528.96	0.0000
529.64	77.1820
529.87	0.0000
531.02	87.1657
537.32	89.6567
543.00	81.0312
546.56	0.0000
549.76	86.8728
552.65	71.3809
555.20	99.3889
563.23	91.9322
563.90	93.0837
568.70	95.5472
569.32	92.2025
569.50	92.2100
569.67	92.2175
573.80	100.0626
574.00	100.0707
574.64	100.1032
578.91	97.8967
579.30	0.0000
583.14	105.0344
585.48	84.6038
591.81	89.0972
592.07	89.1092
593.00	88.2378
595.88	89.2671
600.56	94.9355
602.52	0.0000
602.71	74.6225
602.71	74.6225
603.60	82.2722
604.41	88.3995
604.70	88.4113
609.31	92.5694

609.31	92.5694
609.31	92.5694
609.31	92.5694
610.33	88.6379
612.46	81.0743
614.37	73.4902
618.01	89.2537
621.84	73.7383
621.84	73.7383
631.29	62.0159
633.02	70.4002
633.10	70.4039
634.78	73.2370
635.90	86.2589
636.97	79.8041
645.85	88.4989
646.12	93.1665
656.30	73.9275
657.75	69.2919
657.90	0.0000
661.65	94.7319
661.65	94.7319
664.57	0.0000
666.33	96.7989
666.33	96.7989
675.00	88.6666
677.61	79.3201
685.20	69.1522
692.80	77.9220
695.00	82.7498
696.49	91.3641
696.49	91.3641
697.00	90.4332
697.49	90.4495
698.33	91.4344
698.50	85.7263
699.00	88.6020
702.63	93.5043
706.10	85.0367
706.58	0.0000
706.67	84.1006
709.31	76.5371
711.68	96.7193
713.82	76.6758
717.42	71.9879
720.50	94.9010
721.93	0.0000
722.20	76.9336
722.78	80.1575
722.78	80.1575
722.89	80.1615
722.95	80.1636
723.30	86.5898
724.18	81.8063
727.18	94.4303
733.00	57.9478
735.90	66.7174
739.58	60.0353
742.81	78.5320
744.21	70.8150
747.13	59.2412
751.79	72.9694
752.31	64.2259
753.82	75.9472
755.35	72.0940
756.15	67.2447
756.87	75.0618
763.93	70.0517
765.79	83.1427
766.42	96.8610
766.84	96.8755
776.49	90.3559
778.00	69.7710
778.57	80.5986
778.89	84.5387
783.80	77.8023
785.46	78.8359
792.07	80.6757

795.84	54.4092
796.30	52.7682
798.80	74.2749
801.93	78.0790
805.60	64.5319
810.29	66.6320
810.76	63.6594
815.85	67.7626
817.79	67.8107
818.51	67.8290
819.60	67.8556
826.30	85.0228
828.27	0.0000
831.60	82.1782
831.96	79.1813
834.83	83.2756
836.80	0.0000
846.75	66.4995
848.13	59.4753
856.28	0.0000
856.80	70.7776
860.37	60.7427
867.32	67.9929
867.82	66.9894
871.10	45.7262
873.19	65.0797
874.81	72.2376
875.33	0.0000
876.40	70.2415
879.36	55.0270
880.27	66.2568
880.51	66.2616
881.50	70.3628
883.24	71.4253
884.67	66.3552
889.25	69.5257
896.60	63.5485
898.02	62.5533
899.00	72.8322
903.28	66.7726
911.07	71.0653
911.07	71.0653
911.07	71.0653
919.63	59.9060
920.93	47.5318
925.00	64.1509
925.24	64.1555
926.50	70.3923
935.52	78.9057
937.48	94.5391
944.10	71.8385
946.00	67.7152
949.00	63.6092
962.29	92.5020
964.01	94.3000
966.15	122.3234
968.20	117.5070
969.11	117.5398
969.11	117.5398
969.11	117.5398
977.42	74.7077
980.50	62.1401
983.50	67.4703
989.30	69.7044
996.32	78.3233
1001.03	54.0580
1001.68	55.1281
1004.76	61.5471
1021.30	0.0000
1024.50	0.0000
1034.80	73.8886
1036.00	76.0581
1037.82	70.7405
1038.57	55.7477
1038.76	0.0000
1045.16	77.3402
1046.59	72.0021
1048.07	67.7312

1050.47	58.0975
1050.47	58.0975
1062.04	77.7270
1063.62	66.9618
1076.63	66.1320
1077.35	60.7250
1078.86	72.6858
1085.78	61.9597
1099.22	66.5639
1112.02	71.1858
1112.84	82.1558
1115.52	69.4286
1120.29	84.5233
1120.29	84.5233
1120.29	84.5233
1120.29	84.5233
1120.51	84.5308
1121.28	84.5496
1124.00	0.0000
1129.67	73.0405
1131.51	0.0000
1147.95	0.0000
1167.94	80.6385
1173.22	74.2578
1175.09	59.4349
1177.93	78.0698
1189.05	68.0484
1204.90	100.1645
1205.75	0.0000
1213.00	85.3680
1221.42	90.2578
1230.97	111.2156
1235.34	89.6423
1236.41	0.0000
1238.25	80.2651
1246.25	81.3774
1260.41	0.0000
1271.85	46.6692
1274.45	64.8097
1274.54	64.8097
1291.56	58.3888
1298.22	0.0000
1312.09	25.0140
1325.50	47.2973
1325.50	47.2973
1332.49	41.5758
1333.61	40.6208
1360.21	25.3081
1362.66	0.0000
1365.15	37.0321
1368.21	19.8953
1368.53	0.0000
1376.25	20.1002
1384.27	26.8516
1394.10	38.2684
1395.20	41.2224
1407.95	30.5169
1434.06	23.7686
1436.60	22.7913
1457.56	0.0000
1460.81	21.9212
1489.15	33.0900
1509.49	32.2318
1596.49	10.5557
1620.62	11.3455
1678.03	0.0000
1691.02	15.6940
1691.02	15.6940
1706.46	0.0000
1750.46	0.0000
1764.49	12.7373
1764.49	12.7373
1764.49	12.7373
1764.49	12.7373
1770.23	19.1272
1771.40	10.6287
1791.20	0.0000
1808.65	9.6339

1836.01	8.6074

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245808005

Total Uranium Activity	1.0416E+01	ug/g
Total Uranium Counting Unc.	6.5218E+00	ug/g
Total Uranium Tpu	3.3274E-06	ug/g
Total Uranium Mda	4.6897E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID   : G245808005      *
*   ANALYST       : RXF2                      DETECTOR    : GAM10           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME  :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 16:57:44.75    SAMPLE ALQT:  141.695 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.766E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.447E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.116E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.509E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:59:06.40

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808006.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:58:17
Sample ID         : G245808006           Sample quantity  : 1.67461E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:05.38  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947554                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	52.81	123	2679	1.28	104.48	102	6	1.71E-02	66.7	
2	0	63.22*	12053	4739	0.99	125.32	120	9	1.67E+00	1.4	
3	0	74.96*	455	3832	0.76	148.82	146	6	6.32E-02	22.1	
4	0	76.95	347	2952	0.63	152.80	152	5	4.82E-02	24.1	
5	4	83.39*	324	3796	0.97	165.70	163	9	4.50E-02	31.4	3.89E+00
6	4	84.37*	575	3818	1.07	167.65	163	9	7.99E-02	17.8	
7	4	92.56*	27014	3354	0.99	184.05	180	13	3.75E+00	0.7	9.23E+00
8	4	94.71	1302	2203	1.21	188.35	180	13	1.81E-01	10.3	
9	0	98.53	1762	2372	0.90	195.99	192	8	2.45E-01	5.4	
10	4	111.22	363	1870	1.05	221.39	218	10	5.04E-02	19.5	2.25E+00
11	4	112.78*	1269	1488	0.77	224.52	218	10	1.76E-01	5.5	
12	0	131.59	223	1333	1.11	262.16	259	8	3.09E-02	29.2	
13	0	143.80*	976	1336	1.04	286.60	283	9	1.35E-01	7.5	
14	0	163.29	416	1166	1.05	325.61	322	9	5.77E-02	15.6	
15	0	185.70*	4939	994	1.06	370.46	365	10	6.86E-01	1.9	
16	0	205.28	481	563	0.98	409.66	407	7	6.69E-02	9.3	
17	0	209.35	86	449	0.93	417.81	415	6	1.19E-02	40.7	
18	5	238.60*	999	346	0.99	476.33	471	16	1.39E-01	4.4	1.23E+00
19	5	241.58	252	497	1.57	482.31	471	16	3.50E-02	17.7	
20	0	258.27	340	508	1.02	515.71	512	10	4.73E-02	13.6	
21	0	270.26*	116	411	0.81	539.70	535	9	1.62E-02	33.1	
22	0	295.15	348	403	0.98	589.53	585	10	4.84E-02	12.1	
23	0	338.49*	197	326	1.14	676.26	671	10	2.73E-02	18.7	
24	0	351.89*	465	331	1.20	703.07	698	10	6.46E-02	8.7	
25	0	462.93	81	208	1.13	925.30	921	11	1.13E-02	36.4	
26	0	511.27*	100	249	1.87	1022.05	1017	15	1.39E-02	38.9	
27	0	583.28*	338	210	1.39	1166.13	1159	15	4.69E-02	10.9	
28	0	609.66*	408	170	1.40	1218.93	1213	14	5.66E-02	8.5	
29	0	661.70	148	147	1.40	1323.07	1318	11	2.06E-02	17.8	
30	0	727.34*	57	139	1.47	1454.42	1450	10	7.87E-03	41.5	
31	0	743.14	180	164	0.88	1486.04	1481	10	2.51E-02	15.3	
32	0	766.57	655	175	1.48	1532.92	1528	12	9.10E-02	5.6	
33	0	786.87	109	143	1.35	1573.53	1568	11	1.51E-02	23.7	
34	0	880.70*	43	64	1.05	1761.28	1756	9	5.91E-03	38.0	
35	0	883.54	29	44	0.95	1766.96	1764	7	4.02E-03	42.3	
36	0	911.54*	265	65	1.72	1822.99	1817	14	3.68E-02	9.1	
37	0	946.43	58	72	2.02	1892.81	1888	11	7.99E-03	31.4	
38	0	969.30	145	74	1.17	1938.56	1933	11	2.01E-02	14.2	

Sample ID : G245808006 Acquisition date : 12-FEB-2010 16:58:17

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1001.33*	1531	110	1.57	2002.64	1994	16	2.13E-01	3.0	
40	0	1120.54	103	54	1.42	2241.17	2235	14	1.44E-02	17.9	
41	0	1461.19*	1289	51	1.84	2922.67	2913	18	1.79E-01	3.1	
42	0	1737.96	22	6	1.37	3476.30	3471	9	3.06E-03	29.8	
43	0	1765.11*	79	5	2.32	3530.61	3524	16	1.10E-02	13.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:59:09

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:58:17
Sample ID : G245808006 Sample quantity : 167.46 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:05.38 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.211E+01	2.347E+00	4.574E-01	3.955E-02	48.328
AS-73	+	53.44	*	1.227E+00	1.638E+00	2.073E+00	1.557E-01	0.592
RB-84	+	881.50	*	1.073E-01	8.221E-02	7.108E-02	7.004E-03	1.509
NB-95	+	765.79	*	8.339E-01	1.238E-01	6.546E-02	6.389E-03	12.740
BA-137M	+	661.65	*	1.536E-01	5.664E-02	5.418E-02	5.127E-03	2.834
CS-137	+	661.65	*	1.623E-01	5.988E-02	5.728E-02	5.429E-03	2.834
LU-177	+	112.95		3.564E+01	4.939E+00	5.113E+00	4.342E-01	6.972
	+	208.36	*	1.823E+00	1.499E+00	2.201E+00	2.576E-01	0.828
TL-208		277.35		4.073E-01	3.784E-01	6.263E-01	1.111E-01	0.650
	+	510.84		3.524E-01	2.781E-01	1.967E-01	2.666E-02	1.792
	+	583.14	*	3.379E-01	8.242E-02	5.033E-02	5.435E-03	6.713
		860.37		3.856E-01	2.479E-01	4.544E-01	4.733E-02	0.849
BI-211		72.87		4.502E+00	5.651E+00	8.283E+00	6.579E-01	0.544
	+	351.07	*	2.054E+00	4.484E-01	3.140E-01	4.143E-02	6.540
BI-212	+	727.18	*	4.842E-01	4.052E-01	4.438E-01	4.850E-02	1.091
	+	785.46		5.943E+00	2.871E+00	3.147E+00	3.083E-01	1.888
		1620.62		1.481E-01	9.208E-01	1.569E+00	1.317E-01	0.094
PB-212	+	74.81		1.641E+00	7.541E-01	9.702E-01	1.200E-01	1.691
	+	77.11		7.197E-01	3.524E-01	5.102E-01	4.240E-02	1.411
		87.30		1.147E-01	7.881E-01	1.133E+00	1.555E-01	0.101
	+	238.63	*	9.631E-01	1.591E-01	8.473E-02	1.187E-02	11.366
		300.09		1.003E+00	7.901E-01	1.194E+00	1.913E-01	0.840
PO-212	+	74.81		1.641E+00	7.541E-01	9.702E-01	1.200E-01	1.691
	+	77.11		7.197E-01	3.524E-01	5.102E-01	4.240E-02	1.411
		87.30		1.147E-01	7.881E-01	1.133E+00	1.555E-01	0.101
		115.19		5.973E+00	5.338E+00	8.378E+00	7.099E-01	0.713
	+	238.63	*	9.631E-01	1.591E-01	8.473E-02	1.187E-02	11.366
		300.09		1.003E+00	7.901E-01	1.194E+00	1.913E-01	0.840
BI-214	+	609.31	*	7.687E-01	1.571E-01	9.257E-02	1.046E-02	8.304
	+	1120.29		1.002E+00	3.740E-01	3.458E-01	3.734E-02	2.898
	+	1764.49		1.045E+00	2.887E-01	1.786E-01	1.472E-02	5.850
PB-214	+	74.81		2.827E+00	1.289E+00	1.672E+00	1.835E-01	1.691
	+	77.11		1.234E+00	6.114E-01	8.747E-01	9.861E-02	1.411
		87.30		1.964E-01	1.350E+00	1.941E+00	2.359E-01	0.101

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		1.458E+00	5.578E-01	5.105E-01	7.437E-02	2.856
	+	295.21		9.098E-01	2.649E-01	1.911E-01	3.116E-02	4.761
	+	351.92	*	7.143E-01	1.604E-01	1.095E-01	1.549E-02	6.526
PO-214	+	74.81		2.827E+00	1.289E+00	1.672E+00	1.835E-01	1.691
	+	77.11		1.234E+00	6.114E-01	8.747E-01	9.861E-02	1.411
		87.30		1.964E-01	1.350E+00	1.941E+00	2.359E-01	0.101
	+	241.98		1.458E+00	5.578E-01	5.105E-01	7.437E-02	2.856
	+	295.21		9.098E-01	2.649E-01	1.911E-01	3.116E-02	4.761
	+	351.92	*	7.143E-01	1.604E-01	1.095E-01	1.549E-02	6.526
PO-216	+	74.81		1.641E+00	7.541E-01	9.702E-01	1.200E-01	1.691
	+	77.11		7.197E-01	3.524E-01	5.102E-01	4.240E-02	1.411
		87.30		1.147E-01	7.881E-01	1.133E+00	1.555E-01	0.101
	+	238.63	*	9.631E-01	1.591E-01	8.473E-02	1.187E-02	11.366
		300.09		1.003E+00	7.901E-01	1.194E+00	1.913E-01	0.840
PO-218	+	74.81		2.827E+00	1.289E+00	1.672E+00	1.835E-01	1.691
	+	77.11		1.234E+00	6.114E-01	8.747E-01	9.861E-02	1.411
		87.30		1.964E-01	1.350E+00	1.941E+00	2.359E-01	0.101
	+	241.98		1.458E+00	5.578E-01	5.105E-01	7.437E-02	2.856
	+	295.21		9.098E-01	2.649E-01	1.911E-01	3.116E-02	4.761
	+	351.92	*	7.143E-01	1.604E-01	1.095E-01	1.549E-02	6.526
RA-224	+	240.98	*	2.765E+00	1.046E+00	9.646E-01	1.292E-01	2.866
RA-226	+	609.31	*	7.687E-01	1.571E-01	9.257E-02	1.046E-02	8.304
	+	1120.29		1.002E+00	3.740E-01	3.458E-01	3.734E-02	2.898
	+	1764.49		1.045E+00	2.887E-01	1.786E-01	1.472E-02	5.850
AC-228	+	338.32		9.579E-01	5.432E-01	3.372E-01	1.435E-01	2.841
	+	911.07	*	1.169E+00	2.550E-01	1.642E-01	1.999E-02	7.120
	+	969.11		1.126E+00	4.165E-01	3.639E-01	8.624E-02	3.095
RA-228	+	338.32		9.579E-01	5.432E-01	3.372E-01	1.435E-01	2.841
	+	911.07	*	1.169E+00	2.550E-01	1.642E-01	1.999E-02	7.120
	+	969.11		1.126E+00	4.165E-01	3.639E-01	8.624E-02	3.095
TH-228	+	74.81		1.669E+00	7.513E-01	9.869E-01	8.075E-02	1.691
	+	77.11		7.322E-01	3.585E-01	5.190E-01	4.313E-02	1.411
		87.30		1.166E-01	8.016E-01	1.153E+00	1.083E-01	0.101
	+	238.63	*	9.798E-01	1.619E-01	8.620E-02	1.207E-02	11.366
		300.09		1.020E+00	1.000E+00	1.214E+00	7.350E-01	0.840
TH-230	+	609.31	*	7.686E-01	1.571E-01	9.257E-02	1.046E-02	8.304
	+	1120.29		1.002E+00	3.740E-01	3.458E-01	3.734E-02	2.898
	+	1764.49		1.045E+00	2.887E-01	1.786E-01	1.472E-02	5.850
U-231	+	84.21		4.797E+01	1.758E+01	2.223E+01	2.010E+00	2.158
	+	92.29		8.554E+02	7.913E+01	8.280E+00	7.586E-01	103.309
	+	95.87	*	2.518E+01	5.680E+00	3.358E+00	3.008E-01	7.499
		108.00		5.844E-01	4.602E+00	7.112E+00	6.090E-01	0.082
TH-232	+	338.32		9.579E-01	3.816E-01	3.372E-01	4.547E-02	2.841
	+	911.07	*	1.169E+00	2.550E-01	1.642E-01	1.999E-02	7.120
	+	969.11		1.126E+00	4.165E-01	3.639E-01	8.624E-02	3.095
PA-234M	+	766.42		2.158E+02	1.126E+02	1.826E+01	9.304E+00	11.815
	+	1001.03	*	2.419E+02	2.950E+01	6.311E+00	6.713E-01	38.335
TH-234	+	63.29	*	1.664E+02	2.931E+01	3.127E+00	5.439E-01	53.231
	+	92.38		1.588E+02	2.920E+01	1.536E+00	2.818E-01	103.354

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-234	+	609.31	*	7.686E-01	1.571E-01	9.257E-02	1.046E-02	8.304
	+	1120.29		1.002E+00	3.740E-01	3.458E-01	3.734E-02	2.898
	+	1764.49		1.045E+00	2.887E-01	1.786E-01	1.472E-02	5.850
U-235		89.95		-2.331E-01	2.391E+00	3.417E+00	1.061E+00	-0.068
	+	93.35		1.909E+02	5.387E+01	1.839E+00	5.180E-01	103.807
		105.00		1.329E+00	1.452E+00	2.429E+00	7.251E-01	0.547
	+	143.76	*	2.961E+00	6.881E-01	4.125E-01	7.292E-02	7.179
	+	163.35		2.991E+00	1.101E+00	8.957E-01	1.751E-01	3.339
	+	185.71		3.328E+00	3.742E-01	7.675E-02	8.139E-03	43.363
	+	205.31		3.975E+00	1.105E+00	8.798E-01	1.810E-01	4.518
U-238	+	63.29	*	1.664E+02	2.931E+01	3.127E+00	5.439E-01	53.231
	+	92.38		1.588E+02	1.469E+01	1.536E+00	1.406E-01	103.354
AM-243	+	74.67	*	2.660E-01	1.197E-01	1.577E-01	1.276E-02	1.687
		86.72		1.043E+01	1.851E+01	2.678E+01	2.499E+00	0.390
		117.66		-5.556E+00	4.851E+00	8.029E+00	6.791E-01	-0.692
		142.18		5.365E+01	2.598E+01	4.074E+01	3.633E+00	1.317
ANH-511	+	511.00	*	7.612E-02	5.974E-02	4.249E-02	4.544E-03	1.791

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.065E-02	3.230E-01	5.338E-01	6.042E-02	-0.114
NA-22		1274.54	*	7.276E-03	3.562E-02	5.905E-02	4.849E-03	0.123
NA-24		1368.53	*	2.317E-01	3.562E-02	Half-Life too short		
AL-26		1129.67		-6.201E-01	1.236E+00	1.930E+00	1.630E-01	-0.321
		1808.65	*	2.392E-02	2.301E-02	4.445E-02	3.628E-03	0.538
TI-44		67.85		2.761E-02	7.038E-02	1.119E-01	8.476E-03	0.247
	+	78.38	*	1.328E-01	6.503E-02	9.314E-02	7.851E-03	1.426
SC-46		889.25	*	3.194E-03	3.657E-02	5.843E-02	5.755E-03	0.055
	+	1120.51		1.745E-01	6.411E-02	9.187E-02	7.835E-03	1.900
V-48		944.10		9.983E-01	9.310E-01	1.503E+00	1.454E-01	0.664
		983.50	*	7.477E-02	6.369E-02	1.152E-01	1.093E-02	0.649
		1312.09		5.363E-02	6.148E-02	1.098E-01	9.052E-03	0.488
CR-51		320.08	*	1.258E-01	3.824E-01	6.205E-01	9.005E-02	0.203
MN-52	+	744.21		1.748E+00	5.611E-01	7.795E-01	7.574E-02	2.242
		848.13		-1.677E-01	7.818E+00	1.315E+01	1.295E+00	-0.013
		935.52		1.757E-01	2.566E-01	4.512E-01	4.381E-02	0.389
		1246.25		6.187E-01	6.963E+00	1.144E+01	9.340E-01	0.054
		1333.61		-8.334E-01	4.583E+00	7.241E+00	5.985E-01	-0.115
		1434.06	*	1.018E-01	2.651E-01	4.463E-01	3.739E-02	0.228
MN-54		834.83	*	-6.443E-03	3.186E-02	5.300E-02	5.219E-03	-0.122
CO-56		846.75	*	1.715E-03	3.433E-02	5.803E-02	5.717E-03	0.030
		977.42		-7.978E-01	2.513E+00	4.073E+00	3.876E-01	-0.196
		1037.82		-2.657E-02	2.195E-01	3.591E-01	3.446E-02	-0.074
		1175.09		8.423E-01	1.767E+00	2.963E+00	2.381E-01	0.284
		1238.25		1.251E-01	7.592E-02	1.373E-01	1.155E-02	0.912
		1360.21		-3.550E-02	7.718E-01	1.240E+00	1.029E-01	-0.029
		1771.40		2.891E-02	1.039E-01	1.670E-01	1.375E-02	0.173

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	2.204E-02	3.190E-02	5.484E-02	4.639E-03	0.402
		136.48		-1.534E-01	2.663E-01	4.230E-01	3.974E-02	-0.363
CO-58		810.76	*	1.062E-02	3.717E-02	6.072E-02	5.979E-03	0.175
FE-59	+	142.65		3.946E+01	6.924E+00	7.399E+00	6.608E-01	5.333
		192.34		-7.476E-01	1.034E+00	1.665E+00	2.497E-01	-0.449
		1099.22	*	-1.298E-02	7.189E-02	1.165E-01	1.095E-02	-0.111
		1291.56		2.753E-02	8.880E-02	1.494E-01	1.410E-02	0.184
CO-60		1173.22		3.802E-02	3.400E-02	5.996E-02	4.817E-03	0.634
		1332.49	*	-4.207E-03	2.762E-02	4.383E-02	3.622E-03	-0.096
ZN-65		1115.52	*	-1.782E-02	7.784E-02	1.076E-01	9.235E-03	-0.166
GE-68		1077.35	*	5.465E-01	9.488E-01	1.646E+00	1.462E-01	0.332
AS-74		595.88	*	-7.466E-03	9.255E-02	1.511E-01	1.537E-02	-0.049
		634.78		-1.844E-01	3.773E-01	5.961E-01	5.831E-02	-0.309
SE-75		66.05		-1.155E+01	7.624E+00	1.064E+01	1.011E+00	-1.085
		96.73		5.028E+00	1.642E+00	2.051E+00	2.834E-01	2.452
		121.11		3.516E-02	1.737E-01	2.963E-01	3.287E-02	0.119
		136.00		5.471E-04	5.266E-02	8.001E-02	7.044E-03	0.007
		198.60		-1.660E+00	1.929E+00	3.057E+00	3.656E-01	-0.543
		264.65	*	1.059E-02	4.543E-02	7.086E-02	1.042E-02	0.149
		279.53		-3.324E-02	1.095E-01	1.744E-01	2.731E-02	-0.191
		303.91		-6.465E-01	1.981E+00	3.125E+00	5.194E-01	-0.207
		400.65		-5.510E-02	2.254E-01	3.763E-01	4.813E-02	-0.146
BR-77		87.88		-5.675E+02	7.018E+02	9.895E+02	9.371E+01	-0.574
		200.40		-1.230E+02	3.157E+02	5.146E+02	5.819E+01	-0.239
	+	239.00		2.845E+02	4.525E+01	4.934E+01	6.556E+00	5.766
		249.79		-6.086E+01	1.205E+02	1.917E+02	2.657E+01	-0.318
		281.68		-4.709E+01	1.582E+02	2.516E+02	3.881E+01	-0.187
		297.23		-2.178E+01	1.053E+02	1.488E+02	2.233E+01	-0.146
		303.76		-1.733E+02	3.114E+02	4.849E+02	7.176E+01	-0.357
		439.47		3.542E+01	2.365E+02	4.002E+02	4.316E+01	0.089
		484.57		-1.219E+02	3.953E+02	6.478E+02	6.974E+01	-0.188
		520.65	*	-3.359E+00	1.888E+01	3.101E+01	3.304E+00	-0.108
		574.64		-1.250E+02	3.737E+02	6.028E+02	6.233E+01	-0.207
		578.91		4.609E+01	1.593E+02	2.355E+02	2.427E+01	0.196
		585.48		1.035E+03	3.578E+02	5.966E+02	6.118E+01	1.735
		755.35		2.449E+02	3.031E+02	5.124E+02	4.991E+01	0.478
		817.79		1.888E+02	2.273E+02	3.856E+02	3.792E+01	0.490
SR-82		698.33		9.050E+00	3.643E+01	5.987E+01	5.742E+00	0.151
		776.49	*	-8.417E-02	3.985E-01	6.299E-01	6.160E-02	-0.134
		1395.20		3.758E-02	8.191E+00	1.322E+01	1.103E+00	0.003
RB-83		520.41	*	6.501E-03	6.759E-02	1.127E-01	1.201E-02	0.058
		529.64		-1.789E-02	9.854E-02	1.614E-01	1.714E-02	-0.111
		552.65		-3.710E-02	1.887E-01	3.078E-01	3.229E-02	-0.121
KR-85		513.99	*	7.673E+00	6.440E+00	1.126E+01	1.203E+00	0.682
SR-85		513.99	*	4.021E-02	3.375E-02	5.901E-02	6.303E-03	0.682
RB-86		1076.63	*	-2.183E-01	6.634E-01	1.062E+00	9.434E-02	-0.206
Y-88		898.02		-2.485E-02	3.286E-02	5.143E-02	5.082E-03	-0.483
		1836.01	*	-2.703E-02	3.002E-02	4.152E-02	3.371E-03	-0.651
ZR-88		392.90	*	2.219E-02	2.822E-02	4.931E-02	5.259E-03	0.450

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91		1204.90	*	-1.523E+01	1.512E+01	2.238E+01	1.811E+00	-0.681
NB-94		702.63	*	-1.047E-02	3.400E-02	5.397E-02	5.183E-03	-0.194
		871.10		-1.966E-02	2.484E-02	3.865E-02	3.809E-03	-0.509
NB-95M		235.69	*	-2.624E-02	1.305E-01	1.885E-01	2.632E-02	-0.139
ZR-95		724.18		3.539E-02	1.008E-01	1.467E-01	1.516E-02	0.241
		756.15	*	-6.860E-03	7.369E-02	1.178E-01	1.240E-02	-0.058
NB-97		657.90	*	-5.347E-01	7.369E-02	Half-Life too short		
		1024.50		9.192E+00	7.369E-02	Half-Life too short		
ZR-97		254.15		6.991E+01	7.369E-02	Half-Life too short		
		355.39		-5.425E+00	7.369E-02	Half-Life too short		
		507.63	*	-1.655E+00	7.369E-02	Half-Life too short		
		602.52		-2.613E+01	7.369E-02	Half-Life too short		
		1021.30		1.661E+00	7.369E-02	Half-Life too short		
		1147.95		1.499E+01	7.369E-02	Half-Life too short		
		1362.66		2.526E+01	7.369E-02	Half-Life too short		
		1750.46		-2.754E+01	7.369E-02	Half-Life too short		
MO-99		140.51		5.184E+01	6.147E+01	9.248E+01	2.568E+01	0.561
		181.06		-3.807E+00	3.628E+01	5.382E+01	1.032E+01	-0.071
		366.43		7.343E+00	1.477E+02	2.343E+02	2.839E+01	0.031
		739.58	*	1.341E+01	2.489E+01	3.649E+01	5.775E+00	0.368
		778.00		-2.682E+01	5.778E+01	8.957E+01	8.764E+00	-0.299
TC-99M		140.51	*	1.435E+13	5.778E+01	Half-Life too short		
RH-101		127.23		1.432E-02	4.063E-02	6.637E-02	5.668E-03	0.216
		198.01	*	-2.528E-02	3.488E-02	5.565E-02	6.228E-03	-0.454
		325.23		-1.079E-01	2.175E-01	3.382E-01	4.746E-02	-0.319
RH-102		418.52		-9.016E-02	2.491E-01	4.117E-01	4.426E-02	-0.219
		475.06	*	1.896E-02	2.837E-02	4.883E-02	5.264E-03	0.388
		631.29		1.744E-02	5.399E-02	8.988E-02	8.826E-03	0.194
		697.49		3.708E-02	7.771E-02	1.294E-01	1.240E-02	0.287
	+	766.84		2.054E+00	3.050E-01	4.076E-01	3.980E-02	5.039
		1046.59		-2.137E-02	8.150E-02	1.313E-01	1.196E-02	-0.163
		1112.84		2.377E-01	1.823E-01	3.181E-01	2.733E-02	0.747
RU-103		497.08	*	-9.243E-04	3.919E-02	6.514E-02	1.012E-02	-0.014
	+	610.33		8.611E+00	2.101E+00	2.162E+00	3.775E-01	3.982
RH-106	+	511.85		3.817E-01	2.996E-01	3.411E-01	3.647E-02	1.119
		621.84	*	1.708E-01	3.106E-01	5.233E-01	7.447E-02	0.326
		1050.47		-1.241E+00	1.723E+00	2.645E+00	2.401E-01	-0.469
RU-106	+	511.85		3.817E-01	2.996E-01	3.411E-01	3.647E-02	1.119
		621.84	*	1.708E-01	3.101E-01	5.233E-01	5.191E-02	0.326
		1050.47		-1.241E+00	1.723E+00	2.645E+00	2.401E-01	-0.469
AG-108M		433.93	*	-1.753E-02	3.004E-02	4.890E-02	5.406E-03	-0.359
		614.37		1.470E-02	3.717E-02	5.520E-02	5.680E-03	0.266
		722.95		3.044E-02	4.409E-02	6.602E-02	6.579E-03	0.461
CD-109		88.03	*	-2.226E+00	1.789E+00	2.493E+00	2.364E-01	-0.893
AG-110M		657.75	*	-2.521E-02	3.782E-02	5.039E-02	4.910E-03	-0.500
		677.61		-5.575E-02	2.918E-01	4.676E-01	4.555E-02	-0.119
		706.67		-3.019E-03	2.060E-01	3.330E-01	3.273E-02	-0.009
		763.93		8.088E-01	2.305E-01	3.830E-01	3.820E-02	2.111
	+	884.67		4.976E-02	4.236E-02	7.958E-02	8.034E-03	0.625

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		937.48		-3.250E-02	8.753E-02	1.416E-01	1.413E-02	-0.230
		1384.27		-1.732E-02	1.154E-01	1.823E-01	1.564E-02	-0.095
IN-111		171.28		-1.092E+00	1.944E+00	3.188E+00	3.172E-01	-0.343
		245.39	*	4.303E-01	1.906E+00	2.803E+00	3.821E-01	0.153
IN-113M		391.69	*	1.621E-02	4.120E-02	7.093E-02	7.715E-03	0.229
SN-113		391.69	*	1.621E-02	4.120E-02	7.093E-02	7.715E-03	0.229
IN-114M		190.27	*	1.102E-01	1.982E-01	3.187E-01	3.448E-02	0.346
CD-115		260.90		-5.330E+00	2.667E+02	3.856E+02	5.579E+01	-0.014
		492.35		-5.352E+01	6.147E+01	9.664E+01	1.039E+01	-0.554
		527.90	*	4.157E+00	1.934E+01	3.242E+01	3.444E+00	0.128
SN-117M		156.02		-8.520E-01	2.876E+00	4.783E+00	4.478E-01	-0.178
		158.56	*	-3.205E-02	7.248E-02	1.143E-01	1.081E-02	-0.280
SB-122		563.90	*	-7.396E-01	3.458E+00	5.629E+00	5.864E-01	-0.131
		692.80		7.219E+01	7.444E+01	1.272E+02	1.218E+01	0.567
I-123		159.00	*	-4.689E+01	7.444E+01	Half-Life too short		
		528.96		2.153E+03	7.444E+01	Half-Life too short		
TE-123M		159.00	*	-1.660E-02	3.615E-02	5.344E-02	5.084E-03	-0.311
I-124		602.71	*	-5.232E-01	9.044E-01	1.374E+00	1.389E-01	-0.381
		722.78		4.435E+00	6.508E+00	9.740E+00	9.411E-01	0.455
		1325.50		9.106E+00	3.524E+01	5.892E+01	4.865E+00	0.155
		1376.25		2.902E+01	3.180E+01	5.684E+01	4.731E+00	0.510
		1509.49		3.816E+01	1.882E+01	3.757E+01	3.162E+00	1.016
		1691.02		-1.679E-01	3.971E+00	6.537E+00	5.451E-01	-0.026
SB-124		602.71		-2.202E-02	3.807E-02	5.785E-02	5.848E-03	-0.381
		645.85		1.620E-02	4.663E-01	7.620E-01	7.711E-02	0.021
		709.31		-2.034E+00	2.813E+00	4.321E+00	4.159E-01	-0.471
		713.82		6.544E-01	1.630E+00	2.702E+00	3.455E-01	0.242
		722.78		2.707E-01	3.972E-01	5.944E-01	5.842E-02	0.455
	+	968.20		1.188E+01	3.558E+00	5.521E+00	5.280E-01	2.151
		1045.16		1.237E+00	1.704E+00	3.019E+00	2.751E-01	0.410
		1325.50		5.935E-01	2.297E+00	3.840E+00	3.171E-01	0.155
		1368.21		-1.492E-02	1.328E+00	2.142E+00	2.844E-01	-0.007
		1436.60		2.255E-01	3.427E+00	5.555E+00	4.655E-01	0.041
		1691.02	*	-2.417E-03	5.716E-02	9.410E-02	8.177E-03	-0.026
SB-125		427.89	*	5.889E-02	8.621E-02	1.494E-01	1.629E-02	0.394
	+	463.38		5.579E-01	4.108E-01	4.740E-01	5.375E-02	1.177
		600.56		1.028E-01	1.623E-01	2.756E-01	2.942E-02	0.373
		635.90		-1.161E-01	2.663E-01	4.223E-01	4.387E-02	-0.275
TE-125M		109.28	*	4.084E+01	1.590E+01	2.497E+01	2.564E+00	1.636
I-126		388.63		-1.390E-01	2.054E-01	3.359E-01	3.644E-02	-0.414
		666.33	*	3.609E-02	2.306E-01	3.306E-01	3.134E-02	0.109
		753.82		1.596E+00	1.622E+00	2.770E+00	2.697E-01	0.576
SB-126		223.80		-5.346E+00	4.729E+00	7.375E+00	9.211E-01	-0.725
		278.60		2.928E+00	2.747E+00	4.569E+00	7.058E-01	0.641
	+	296.50		1.018E+01	2.895E+00	3.079E+00	4.625E-01	3.307
		414.70		2.746E-02	7.426E-02	1.274E-01	1.368E-02	0.216
		415.30		4.651E+00	6.099E+00	1.064E+01	1.143E+00	0.437
		555.20		6.695E-01	4.034E+00	6.681E+00	6.998E-01	0.100
		573.80		-6.126E-01	1.161E+00	1.850E+00	1.914E-01	-0.331

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		593.00		-3.258E-01	9.547E-01	1.532E+00	1.562E-01	-0.213
		656.30		2.511E+00	3.776E+00	5.709E+00	5.440E-01	0.440
		666.33		1.515E-02	9.681E-02	1.388E-01	1.316E-02	0.109
		675.00		1.733E+00	2.016E+00	3.456E+00	3.287E-01	0.502
		695.00		-4.488E-02	8.914E-02	1.398E-01	1.339E-02	-0.321
		697.00		-2.756E-02	3.041E-01	4.898E-01	4.696E-02	-0.056
		720.50	*	4.502E-02	1.581E-01	2.600E-01	2.511E-02	0.173
		856.80		-6.996E-01	4.502E-01	6.605E-01	6.509E-02	-1.059
		989.30		-7.791E-01	1.090E+00	1.689E+00	1.597E-01	-0.461
		1034.80		-6.736E-01	7.278E+00	1.195E+01	1.097E+00	-0.056
		1213.00		-5.667E+00	4.181E+00	5.950E+00	4.825E-01	-0.952
SN-126	+	64.28		6.588E+01	9.707E+00	2.362E+00	3.426E-01	27.894
		86.94		5.239E-01	7.312E-01	1.015E+00	4.212E-01	0.516
		87.57	*	-1.377E-01	1.739E-01	2.453E-01	2.314E-02	-0.561
SB-127		61.10		3.244E+02	1.572E+02	2.327E+02	2.515E+01	1.394
		252.40		-5.033E+00	6.747E+00	1.005E+01	4.385E+00	-0.501
		290.80		-1.292E+01	3.327E+01	4.650E+01	7.997E+00	-0.278
		411.60		-7.950E+00	1.642E+01	2.698E+01	4.696E+00	-0.295
		444.90		1.108E+00	1.275E+01	2.148E+01	3.142E+00	0.052
		473.00		-4.084E-01	2.312E+00	3.825E+00	5.703E-01	-0.107
		543.00		4.647E+00	2.418E+01	4.036E+01	6.495E+00	0.115
		603.60		-1.260E+01	1.770E+01	2.374E+01	3.348E+00	-0.531
		685.20	*	-6.487E-01	1.768E+00	2.789E+00	3.541E-01	-0.233
		698.50		3.796E+00	2.221E+01	3.633E+01	6.108E+00	0.104
		722.20		4.099E+01	4.644E+01	7.040E+01	8.860E+00	0.582
		783.80		7.326E+00	6.448E+00	9.788E+00	1.351E+00	0.748
XE-127		57.60		-7.833E-01	1.028E+01	1.637E+01	1.178E+00	-0.048
	+	145.22		1.018E+01	1.787E+00	1.683E+00	1.516E-01	6.049
		172.10		-1.495E-01	1.448E-01	2.335E-01	2.332E-02	-0.640
		202.84	*	2.091E-02	5.703E-02	8.539E-02	9.760E-03	0.245
		374.96		-1.844E-02	2.009E-01	3.157E-01	3.677E-02	-0.058
I-131		80.18		-2.838E+00	1.188E+01	1.489E+01	1.293E+00	-0.191
		284.30		-4.374E-01	1.693E+00	2.695E+00	4.211E-01	-0.162
		364.48	*	-3.165E-02	1.422E-01	2.224E-01	2.794E-02	-0.142
		636.97		-1.310E+00	1.895E+00	2.916E+00	2.975E-01	-0.449
		722.89		6.110E+00	8.888E+00	1.331E+01	1.294E+00	0.459
TE-132		49.72		2.839E+01	4.256E+01	6.380E+01	6.972E+00	0.445
	+	111.76		2.327E+02	9.443E+01	1.592E+02	1.806E+01	1.462
		116.30		-6.586E+01	6.304E+01	9.344E+01	1.057E+01	-0.705
		228.16	*	8.741E-01	1.118E+00	1.859E+00	3.464E-01	0.470
BA-133	+	53.15		5.103E+00	6.815E+00	8.761E+00	6.604E-01	0.582
		79.62		-1.273E+00	2.778E+00	3.457E+00	5.249E-01	-0.368
		81.00		1.150E-01	1.858E-01	2.694E-01	4.288E-02	0.427
		276.40		2.262E-01	3.678E-01	6.050E-01	1.163E-01	0.374
		302.84		-1.544E-01	1.412E-01	2.106E-01	3.780E-02	-0.733
		356.01	*	3.211E-02	4.510E-02	6.639E-02	1.071E-02	0.484
		383.85		-6.108E-02	2.787E-01	4.676E-01	6.753E-02	-0.131
I-133	+	510.53		4.121E+00	2.787E-01	Half-Life too short		
		529.87	*	-8.625E-03	2.787E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.58		-1.248E-01	2.787E-01	Half-Life too short		
		856.28		-3.959E+00	2.787E-01	Half-Life too short		
		875.33		2.924E-01	2.787E-01	Half-Life too short		
		1236.41		1.106E+00	2.787E-01	Half-Life too short		
		1298.22		7.489E-01	2.787E-01	Half-Life too short		
CS-134		475.35		1.332E+00	1.847E+00	3.186E+00	3.434E-01	0.418
		563.23		-4.851E-02	3.455E-01	5.648E-01	5.925E-02	-0.086
		569.32		-3.661E-02	2.002E-01	3.244E-01	3.399E-02	-0.113
		604.70		-3.304E-03	3.350E-02	4.770E-02	4.821E-03	-0.069
		795.84	*	3.029E-02	4.927E-02	8.191E-02	8.080E-03	0.370
		801.93		-2.834E-01	4.170E-01	6.336E-01	6.247E-02	-0.447
		1038.57		-7.454E-01	2.619E+00	4.207E+00	3.852E-01	-0.177
		1167.94		-1.674E+00	1.858E+00	2.768E+00	2.238E-01	-0.605
		1365.15		1.745E-01	9.500E-01	1.571E+00	1.369E-01	0.111
CS-135		268.24	*	-1.529E-02	1.757E-01	2.525E-01	3.962E-02	-0.061
I-135		288.45		3.928E+12	1.757E-01	Half-Life too short		
		417.63		1.447E+12	1.757E-01	Half-Life too short		
		546.56		-3.100E+11	1.757E-01	Half-Life too short		
		836.80		2.562E+12	1.757E-01	Half-Life too short		
		1038.76		-1.188E+12	1.757E-01	Half-Life too short		
		1124.00		3.825E+12	1.757E-01	Half-Life too short		
		1131.51		-7.768E+11	1.757E-01	Half-Life too short		
		1260.41	*	3.493E+11	1.757E-01	Half-Life too short		
		1457.56		2.941E+13	1.757E-01	Half-Life too short		
		1678.03		4.724E+11	1.757E-01	Half-Life too short		
		1706.46		4.903E+11	1.757E-01	Half-Life too short		
		1791.20		-1.018E+12	1.757E-01	Half-Life too short		
CS-136		66.91		-2.862E+00	1.476E+00	1.973E+00	2.930E-01	-1.450
		86.29		-4.874E-02	2.449E+00	3.513E+00	4.674E-01	-0.014
		153.22		-5.908E-03	8.397E-01	1.409E+00	1.440E-01	-0.004
	+	163.89		7.564E+00	2.492E+00	2.859E+00	3.026E-01	2.645
		176.55		2.282E-02	4.726E-01	7.874E-01	8.355E-02	0.029
		273.65		-2.425E-01	5.336E-01	7.476E-01	1.159E-01	-0.324
		340.57		1.644E-01	1.492E-01	2.235E-01	3.028E-02	0.735
		818.51		4.004E-02	7.697E-02	1.279E-01	1.259E-02	0.313
		1048.07	*	-4.219E-02	8.610E-02	1.353E-01	1.278E-02	-0.312
		1235.34		-2.974E-01	5.492E-01	8.564E-01	9.858E-02	-0.347
CE-139		165.85	*	-1.078E-02	3.848E-02	5.710E-02	5.549E-03	-0.189
BA-140	+	162.64		5.343E+00	1.752E+00	2.006E+00	2.016E-01	2.663
		304.84		-1.879E-01	1.347E+00	2.146E+00	6.540E-01	-0.088
		423.70		6.668E-01	1.876E+00	3.193E+00	1.055E+00	0.209
		537.32	*	-1.048E-01	2.803E-01	4.502E-01	1.517E-01	-0.233
LA-140		328.77		3.667E-01	3.188E-01	5.294E-01	7.515E-02	0.693
		432.53		-1.600E+00	2.169E+00	3.500E+00	3.891E-01	-0.457
		487.03		9.576E-02	1.399E-01	2.411E-01	2.699E-02	0.397
		751.79		-1.241E+00	1.917E+00	2.938E+00	3.102E-01	-0.422
		815.85		4.842E-02	3.328E-01	5.380E-01	5.764E-02	0.090
		867.82		-4.330E-01	1.107E+00	1.794E+00	1.840E-01	-0.241
		919.63		5.211E-01	2.539E+00	4.236E+00	4.913E-01	0.123

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		925.24		1.785E+00	1.234E+00	2.234E+00	2.286E-01	0.799
		1596.49	*	4.358E-04	6.174E-02	1.030E-01	8.666E-03	0.004
CE-141		145.44	*	1.972E-01	8.901E-02	1.404E-01	1.287E-02	1.405
CE-143		57.37		2.026E-04	8.901E-02	Half-Life too short		
		231.56		9.113E-04	8.901E-02	Half-Life too short		
		293.26	*	5.896E-04	8.901E-02	Half-Life too short		
	+	350.59		4.669E-02	8.901E-02	Half-Life too short		
		490.36		-8.042E-03	8.901E-02	Half-Life too short		
		664.57		1.718E-03	8.901E-02	Half-Life too short		
		721.93		3.290E-03	8.901E-02	Half-Life too short		
CE-144		80.11		-1.214E+00	4.590E+00	5.749E+00	4.945E-01	-0.211
		133.54	*	1.831E-01	2.763E-01	4.260E-01	6.647E-02	0.430
PM-144		476.78		2.263E-02	6.645E-02	1.127E-01	1.289E-02	0.201
		618.01		2.494E-03	2.995E-02	4.925E-02	5.007E-03	0.051
		696.49	*	-1.085E-02	3.549E-02	5.639E-02	5.407E-03	-0.192
		778.57		-1.545E+00	2.323E+00	3.543E+00	3.468E-01	-0.436
PR-144		696.49	*	-7.358E-01	2.407E+00	3.826E+00	3.667E-01	-0.192
		1489.15		1.299E+00	6.682E+00	1.159E+01	9.747E-01	0.112
PM-146		453.90	*	4.483E-02	4.104E-02	7.181E-02	9.004E-03	0.624
		633.02		-6.535E-02	1.355E+00	2.206E+00	8.308E-01	-0.030
		735.90		-4.857E-02	1.671E-01	2.637E-01	7.632E-02	-0.184
		747.13		3.342E-02	9.650E-02	1.413E-01	2.082E-02	0.237
ND-147	+	91.11		9.113E+01	9.038E+00	1.706E+00	1.691E-01	53.411
		319.41		3.244E+00	3.649E+00	6.040E+00	8.612E-01	0.537
		439.89		-2.599E+00	5.999E+00	9.837E+00	1.061E+00	-0.264
		531.02	*	-4.657E-01	5.864E-01	9.161E-01	1.482E-01	-0.508
PM-149		285.90	*	-4.751E+01	1.675E+02	2.660E+02	5.335E+01	-0.179
EU-152		121.78		7.119E-02	9.241E-02	1.590E-01	1.555E-02	0.448
		244.69		-2.001E-01	3.591E-01	5.061E-01	6.878E-02	-0.395
		344.27	*	-6.412E-03	9.353E-02	1.482E-01	2.009E-02	-0.043
		443.98		6.586E-02	8.603E-01	1.449E+00	1.564E-01	0.045
		778.89		-1.537E-01	2.673E-01	4.107E-01	4.019E-02	-0.374
		867.32		-3.099E-01	6.052E-01	9.708E-01	9.568E-02	-0.319
		964.01		3.492E-01	2.610E-01	4.265E-01	4.087E-02	0.819
		1085.78		1.224E-01	2.839E-01	4.877E-01	4.299E-02	0.251
		1112.02		2.960E-01	2.418E-01	4.378E-01	3.765E-02	0.676
		1407.95		1.029E-01	1.168E-01	2.149E-01	1.796E-02	0.479
GD-153		69.67		5.417E-01	2.690E+00	4.261E+00	3.281E-01	0.127
	+	83.37		5.302E+01	3.362E+01	4.656E+01	4.164E+00	1.139
	+	97.43	*	1.830E+00	2.543E-01	2.592E-01	2.303E-02	7.063
		103.18		-1.149E-01	1.392E-01	2.344E-01	2.034E-02	-0.490
EU-154		123.07		-1.203E-02	6.484E-02	1.096E-01	1.233E-02	-0.110
		247.94		1.055E-01	3.588E-01	5.902E-01	9.274E-02	0.179
		591.81		-9.748E-02	5.719E-01	9.288E-01	1.197E-01	-0.105
		723.30		6.835E-02	1.913E-01	2.784E-01	2.918E-02	0.246
		756.87		5.354E-02	7.956E-01	1.285E+00	1.646E-01	0.042
		873.19		3.196E-02	2.290E-01	3.797E-01	4.990E-02	0.084
		996.32		4.212E-01	3.555E-01	5.685E-01	1.033E-01	0.741
		1004.76		5.623E-01	2.323E-01	3.978E-01	4.854E-02	1.414

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.45	*	2.280E-02	9.963E-02	1.655E-01	1.820E-02	0.138
EU-155		48.70		-8.700E-01	3.096E+00	4.944E+00	3.998E-01	-0.176
		60.01		1.097E+01	9.001E+00	1.344E+01	9.587E-01	0.817
		86.54		4.407E-02	2.028E-01	2.921E-01	2.742E-02	0.151
		105.31	*	4.866E-02	1.438E-01	2.474E-01	2.159E-02	0.197
TB-160		86.79		3.427E-01	5.519E-01	7.991E-01	7.462E-02	0.429
		197.04		-1.643E-02	5.993E-01	9.804E-01	1.093E-01	-0.017
		215.65		-2.874E-01	7.460E-01	1.208E+00	1.459E-01	-0.238
		298.57		5.266E-02	1.160E-01	1.703E-01	2.548E-02	0.309
	+	879.36	*	2.091E-01	1.602E-01	2.413E-01	2.378E-02	0.866
		962.29		-1.357E-01	4.703E-01	7.217E-01	6.922E-02	-0.188
		966.15		1.994E-01	2.030E-01	3.197E-01	3.060E-02	0.624
		1177.93		-3.361E-01	2.877E-01	4.174E-01	3.358E-02	-0.805
		1271.85		1.181E-01	5.853E-01	9.705E-01	7.957E-02	0.122
HO-166M		80.57		-7.108E-02	5.868E-01	7.374E-01	6.377E-02	-0.096
	+	184.41		2.496E+00	2.807E-01	1.438E-01	1.517E-02	17.355
		280.46		-7.753E-02	8.408E-02	1.289E-01	1.992E-02	-0.601
		410.95		4.465E-02	2.280E-01	3.880E-01	4.163E-02	0.115
		711.68	*	2.645E-02	5.853E-02	9.737E-02	9.377E-03	0.272
		752.31		-1.897E-01	2.756E-01	4.212E-01	4.100E-02	-0.450
		810.29		1.786E-02	5.432E-02	8.905E-02	8.751E-03	0.201
TM-171	+	51.35		3.819E+01	5.100E+01	6.832E+01	5.284E+00	0.559
	+	52.39		2.130E+01	2.844E+01	3.744E+01	2.852E+00	0.569
		59.40		6.174E+01	4.758E+01	7.116E+01	5.062E+00	0.868
		66.72	*	-1.056E+02	4.661E+01	6.372E+01	4.782E+00	-1.657
LU-176		88.36		-4.732E-01	4.739E-01	5.777E-01	5.462E-02	-0.819
		201.83		5.068E-02	3.314E-02	5.124E-02	5.831E-03	0.989
		306.84	*	6.207E-04	2.395E-02	3.846E-02	5.654E-03	0.016
		401.10		9.507E-01	5.816E+00	9.907E+00	1.060E+00	0.096
LU-177M	+	52.97		2.300E+00	3.072E+00	3.990E+00	3.014E-01	0.577
	+	54.07		1.303E+00	1.741E+00	2.120E+00	1.579E-01	0.615
		61.30		9.446E+00	2.868E+00	4.314E+00	3.106E-01	2.189
		121.62		3.841E-01	4.781E-01	8.235E-01	6.958E-02	0.466
		147.16		-6.645E-01	8.437E-01	1.240E+00	1.124E-01	-0.536
		171.86		-5.255E-01	5.667E-01	9.177E-01	9.154E-02	-0.573
		218.09		-5.755E-01	8.504E-01	1.359E+00	1.657E-01	-0.423
	+	268.79		1.734E+00	1.176E+00	1.331E+00	1.983E-01	1.303
		319.02		2.805E-01	2.512E-01	4.184E-01	5.970E-02	0.670
		367.43		4.369E-01	9.269E-01	1.500E+00	1.810E-01	0.291
		413.65	*	-1.373E-01	1.607E-01	2.586E-01	2.777E-02	-0.531
HF-181		56.28		-2.208E+00	1.717E+00	2.451E+00	1.784E-01	-0.901
		57.53		-9.778E-02	8.596E-01	1.368E+00	9.849E-02	-0.072
		65.20		-7.614E-03	1.529E+00	2.230E+00	1.653E-01	-0.003
	+	133.02		2.191E-01	1.293E-01	1.427E-01	1.237E-02	1.535
		136.25		-1.276E-01	5.939E-01	9.533E-01	8.343E-02	-0.134
		345.85		5.786E-02	1.871E-01	3.019E-01	3.969E-02	0.192
		482.03	*	-1.270E-02	4.162E-02	6.827E-02	7.352E-03	-0.186
W-181		56.28		-8.431E-01	6.572E-01	9.383E-01	6.829E-02	-0.899
		57.53		-3.783E-02	3.293E-01	5.239E-01	3.773E-02	-0.072

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		65.20	*	-2.894E-03	5.810E-01	8.476E-01	6.283E-02	-0.003
TA-182		67.75		3.251E-02	1.695E-01	2.687E-01	2.034E-02	0.121
		100.10		8.812E-01	2.792E-01	4.452E-01	3.907E-02	1.979
		152.43		-1.738E-01	3.929E-01	6.519E-01	6.023E-02	-0.267
		222.10		1.782E-01	3.543E-01	5.899E-01	7.316E-02	0.302
	+	1001.68		1.079E+02	1.200E+01	1.307E+01	1.227E+00	8.257
	+	1121.28		4.798E-01	1.762E-01	2.524E-01	2.151E-02	1.901
		1189.05		-2.877E-01	2.487E-01	3.623E-01	2.922E-02	-0.794
		1221.42	*	3.739E-02	1.548E-01	2.578E-01	2.095E-02	0.145
		1230.97		3.437E-02	3.551E-01	5.843E-01	4.756E-02	0.059
RE-183		57.98		-1.692E-01	3.350E-01	5.292E-01	3.799E-02	-0.320
		59.32		2.424E-01	1.990E-01	2.974E-01	2.117E-02	0.815
		67.20		-2.158E-01	3.008E-01	4.690E-01	3.534E-02	-0.460
	+	162.32	*	7.126E-01	2.327E-01	2.636E-01	2.527E-02	2.703
	+	208.81		1.348E+00	1.109E+00	1.708E+00	2.003E-01	0.789
		291.72		-5.203E-01	1.032E+00	1.431E+00	2.170E-01	-0.364
RE-184		57.98		-6.160E-01	1.219E+00	1.927E+00	1.383E-01	-0.320
		59.32		8.816E-01	7.239E-01	1.082E+00	7.699E-02	0.815
		67.20		-7.852E-01	1.095E+00	1.707E+00	1.286E-01	-0.460
		161.27		2.998E-01	4.544E-01	6.960E-01	6.645E-02	0.431
		216.55		-1.397E-01	2.622E-01	4.219E-01	5.112E-02	-0.331
		252.85	*	-1.064E-05	2.358E-01	3.834E-01	5.379E-02	0.000
		318.01		1.568E-01	4.419E-01	7.182E-01	1.028E-01	0.218
		792.07		-1.214E+00	1.235E+00	1.560E+00	1.529E-01	-0.778
		903.28		2.086E-01	8.313E-01	1.419E+00	1.394E-01	0.147
		920.93		-4.806E-03	3.895E-01	6.510E-01	6.358E-02	-0.007
OS-185		59.72		5.645E-01	5.385E-01	8.025E-01	5.715E-02	0.703
		61.14		6.637E-01	3.079E-01	4.623E-01	3.325E-02	1.436
		69.30		4.003E-01	4.799E-01	7.662E-01	5.881E-02	0.522
		592.07		-5.348E-01	2.380E+00	3.852E+00	3.930E-01	-0.139
		646.12	*	7.377E-03	3.866E-02	6.384E-02	6.162E-03	0.116
		717.42		-4.637E-01	8.894E-01	1.384E+00	1.336E-01	-0.335
		874.81		2.764E-01	5.128E-01	7.971E-01	7.855E-02	0.347
	+	880.27		1.159E+00	8.883E-01	1.324E+00	1.305E-01	0.876
RE-188		155.03	*	8.973E-02	1.994E-01	3.376E-01	3.149E-02	0.266
		477.96		-1.015E+00	3.070E+00	5.034E+00	5.425E-01	-0.202
		633.10		-1.484E-01	2.794E+00	4.547E+00	4.456E-01	-0.033
W-188	+	63.58		6.830E+03	5.328E+02	3.036E+02	2.223E+01	22.496
		227.08		2.283E+01	1.369E+01	2.316E+01	2.932E+00	0.986
		290.67	*	-5.968E+00	8.279E+00	1.129E+01	1.716E+00	-0.528
IR-192	+	295.96		7.074E-01	2.013E-01	2.284E-01	3.444E-02	3.097
		308.46		-1.451E-02	9.624E-02	1.532E-01	2.247E-02	-0.095
		316.51	*	-2.257E-02	3.459E-02	5.333E-02	7.666E-03	-0.423
		468.07		8.922E-02	7.055E-02	1.121E-01	1.266E-02	0.796
		604.41		-1.392E-01	4.732E-01	6.619E-01	9.291E-02	-0.210
		612.46		7.560E-01	6.961E-01	1.085E+00	1.209E-01	0.697
AU-195		65.12		4.457E-01	2.656E-01	3.982E-01	2.950E-02	1.119
		66.83		-3.274E-01	1.550E-01	2.132E-01	1.601E-02	-1.536
	+	75.70		8.676E-01	3.904E-01	5.155E-01	4.218E-02	1.683

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	98.88	*	5.340E+00	7.420E-01	7.988E-01	7.047E-02	6.686
		129.76		2.299E+00	3.868E+00	5.983E+00	5.142E-01	0.384
TL-200		367.94	*	1.068E-03	3.868E+00	Half-Life too short		
		579.30		-8.803E-03	3.868E+00	Half-Life too short		
		828.27		-9.215E-03	3.868E+00	Half-Life too short		
		1205.75		-2.061E-03	3.868E+00	Half-Life too short		
TL-201		68.90		1.736E+01	1.202E+01	1.931E+01	1.477E+00	0.899
		70.82		-1.049E+01	7.365E+00	1.130E+01	8.799E-01	-0.928
		80.30		-3.395E+00	1.742E+01	2.185E+01	1.884E+00	-0.155
		135.34		1.254E+01	5.400E+01	8.260E+01	7.209E+00	0.152
		167.43	*	-7.782E+00	1.446E+01	2.123E+01	2.077E+00	-0.367
TL-202		68.90		1.092E+00	7.562E-01	1.215E+00	9.289E-02	0.899
		70.82		-6.581E-01	4.620E-01	7.090E-01	5.520E-02	-0.928
		80.30		-2.131E-01	1.093E+00	1.371E+00	1.182E-01	-0.155
		439.56	*	6.957E-03	6.985E-02	1.179E-01	1.272E-02	0.059
HG-203		70.83		-2.597E+00	1.855E+00	2.816E+00	3.687E-01	-0.922
		72.87		9.238E-01	1.163E+00	1.700E+00	2.170E-01	0.544
	+	82.60		4.042E+00	2.599E+00	3.382E+00	4.700E-01	1.195
		279.20	*	8.907E-03	4.142E-02	6.744E-02	1.053E-02	0.132
BI-207		72.80		2.508E-01	3.297E-01	4.832E-01	3.835E-02	0.519
	+	74.97		4.775E-01	2.149E-01	2.905E-01	2.358E-02	1.644
	+	84.90		1.197E+00	4.385E-01	5.816E-01	5.303E-02	2.058
		569.67		-1.328E-02	3.131E-02	5.003E-02	5.192E-03	-0.266
		1063.62	*	2.306E-02	4.524E-02	7.772E-02	6.981E-03	0.297
		1770.23		4.579E-02	2.382E-01	3.651E-01	3.005E-02	0.125
TL-207		81.07		2.804E-01	4.089E-01	5.955E-01	5.181E-02	0.471
	+	83.78		4.494E-01	2.850E-01	4.014E-01	3.609E-02	1.120
	+	94.90		3.653E+00	8.242E-01	7.210E-01	6.495E-02	5.067
		122.32		1.158E+00	2.185E+00	3.746E+00	3.408E-01	0.309
	+	144.24		9.596E+00	1.734E+00	1.927E+00	1.920E-01	4.978
		154.21		5.326E-01	4.526E-01	7.750E-01	7.828E-02	0.687
	+	269.46		4.023E-01	2.730E-01	3.221E-01	4.845E-02	1.249
		323.87	*	5.144E-01	6.250E-01	1.024E+00	2.142E-01	0.502
	+	338.28		4.000E+00	1.632E+00	1.983E+00	3.193E-01	2.017
		445.03		2.379E-01	2.042E+00	3.446E+00	4.728E-01	0.069
PO-209		260.50		6.277E+00	1.035E+01	1.543E+01	2.230E+00	0.407
		262.80		-2.496E+01	2.946E+01	4.024E+01	5.864E+00	-0.620
		896.60	*	-2.272E+00	5.600E+00	9.053E+00	8.913E-01	-0.251
BI-210		46.50	*	-1.675E+00	4.142E+00	6.621E+00	6.164E-01	-0.253
PB-210		46.50	*	-1.675E+00	4.142E+00	6.621E+00	6.164E-01	-0.253
PO-210		46.50	*	-1.675E+00	4.141E+00	6.621E+00	5.581E-01	-0.253
PB-211		404.84	*	-6.044E-01	9.180E-01	1.362E+00	8.581E-01	-0.444
		427.08		7.442E-02	1.914E+00	3.226E+00	2.015E+00	0.023
		831.96		-1.970E-01	1.130E+00	1.767E+00	1.110E+00	-0.112
PO-215		81.07		2.804E-01	4.089E-01	5.955E-01	5.181E-02	0.471
	+	83.78		4.494E-01	2.850E-01	4.014E-01	3.609E-02	1.120
	+	94.90		3.653E+00	8.242E-01	7.210E-01	6.495E-02	5.067
		122.32		1.158E+00	2.185E+00	3.746E+00	3.408E-01	0.309
	+	144.24		9.596E+00	1.734E+00	1.927E+00	1.920E-01	4.978

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		5.326E-01	4.526E-01	7.750E-01	7.828E-02	0.687
	+	269.46		4.023E-01	2.730E-01	3.221E-01	4.845E-02	1.249
		323.87	*	5.144E-01	6.250E-01	1.024E+00	2.142E-01	0.502
	+	338.28		4.000E+00	1.632E+00	1.983E+00	3.193E-01	2.017
		445.03		2.379E-01	2.042E+00	3.446E+00	4.728E-01	0.069
RN-219	+	271.23		5.161E-01	3.514E-01	4.030E-01	6.476E-02	1.281
		401.81	*	2.096E-01	3.567E-01	6.172E-01	1.007E-01	0.340
RN-220		549.76	*	-1.979E+01	2.628E+01	4.144E+01	4.354E+00	-0.478
RA-223		81.07		2.804E-01	4.089E-01	5.955E-01	5.181E-02	0.471
	+	83.78		4.494E-01	2.850E-01	4.014E-01	3.609E-02	1.120
	+	94.90		3.653E+00	8.242E-01	7.210E-01	6.495E-02	5.067
		122.32		1.158E+00	2.185E+00	3.746E+00	3.408E-01	0.309
	+	144.24		9.596E+00	1.734E+00	1.927E+00	1.920E-01	4.978
		154.21		5.326E-01	4.526E-01	7.750E-01	7.828E-02	0.687
	+	269.46		4.023E-01	2.730E-01	3.221E-01	4.845E-02	1.249
		323.87	*	5.144E-01	6.250E-01	1.024E+00	2.142E-01	0.502
	+	338.28		4.000E+00	1.632E+00	1.983E+00	3.193E-01	2.017
		445.03		2.379E-01	2.042E+00	3.446E+00	4.728E-01	0.069
AC-227		79.80		-1.247E+00	3.529E+00	4.400E+00	9.452E-01	-0.283
		236.00		-7.500E-02	2.367E-01	3.397E-01	5.350E-02	-0.221
		256.20	*	2.668E-01	4.552E-01	6.749E-01	1.286E-01	0.395
		286.10		-4.058E-01	1.466E+00	2.331E+00	4.263E-01	-0.174
		299.80		1.326E+00	1.485E+00	2.200E+00	4.689E-01	0.603
		304.40		-4.323E-01	1.746E+00	2.765E+00	6.083E-01	-0.156
		334.20		-4.383E-01	2.347E+00	3.280E+00	7.255E-01	-0.134
TH-227		79.80		-1.247E+00	3.529E+00	4.400E+00	9.574E-01	-0.283
	+	94.00		2.923E+01	8.811E+00	1.110E+01	2.438E+00	2.632
		236.00		-7.500E-02	2.367E-01	3.397E-01	5.048E-02	-0.221
		256.20	*	2.668E-01	4.559E-01	6.749E-01	1.438E-01	0.395
		286.10		-4.058E-01	1.521E+00	2.331E+00	2.358E+00	-0.174
		299.80		1.326E+00	1.485E+00	2.200E+00	4.689E-01	0.603
		304.40		-4.323E-01	1.746E+00	2.765E+00	6.083E-01	-0.156
		334.20		-4.383E-01	2.347E+00	3.280E+00	7.255E-01	-0.134
TH-229	+	85.43		1.181E+00	4.328E-01	5.549E-01	5.093E-02	2.129
		88.47		-2.708E-01	2.726E-01	3.324E-01	3.139E-02	-0.815
	+	100.00		4.397E+00	6.110E-01	4.713E-01	4.137E-02	9.331
		193.63	*	-6.900E-02	5.337E-01	8.795E-01	9.657E-02	-0.078
		210.97		4.298E-01	8.131E-01	1.223E+00	1.447E-01	0.351
PA-231		283.67	*	9.822E-01	1.432E+00	2.361E+00	4.678E-01	0.416
		301.29		4.438E-01	5.334E-01	8.800E-01	1.516E-01	0.504
TH-231		81.07		2.804E-01	4.089E-01	5.955E-01	5.181E-02	0.471
	+	83.78		4.494E-01	2.850E-01	4.014E-01	3.609E-02	1.120
	+	94.90		3.653E+00	8.242E-01	7.210E-01	6.495E-02	5.067
		122.32		1.158E+00	2.185E+00	3.746E+00	3.408E-01	0.309
	+	144.24		9.596E+00	1.734E+00	1.927E+00	1.920E-01	4.978
		154.21		5.326E-01	4.526E-01	7.750E-01	7.828E-02	0.687
	+	269.46		4.023E-01	2.730E-01	3.221E-01	4.845E-02	1.249
		323.87	*	5.144E-01	6.250E-01	1.024E+00	2.142E-01	0.502
	+	338.28		4.000E+00	1.632E+00	1.983E+00	3.193E-01	2.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		2.379E-01	2.042E+00	3.446E+00	4.728E-01	0.069
PA-233	+	75.28		1.393E+01	6.515E+00	8.392E+00	1.266E+00	1.660
		86.59		1.492E+00	3.310E+00	4.751E+00	1.285E+00	0.314
		300.12		5.241E-01	4.124E-01	6.177E-01	1.187E-01	0.849
		311.98	*	8.748E-03	6.281E-02	1.013E-01	1.486E-02	0.086
		340.50		8.006E-01	6.770E-01	9.828E-01	2.550E-01	0.815
		398.62		-2.178E-01	1.843E+00	3.098E+00	8.478E-01	-0.070
		415.76		6.496E-01	1.468E+00	2.516E+00	5.658E-01	0.258
PA-234	+	63.00		1.940E+02	2.922E+01	8.936E+00	1.323E+00	21.710
	+	94.67		2.606E+00	6.322E-01	5.467E-01	6.935E-02	4.767
	+	98.44		2.147E+00	1.220E+00	3.237E-01	1.807E-01	6.631
	+	99.86		1.113E+01	1.546E+00	1.287E+00	1.131E-01	8.646
	+	111.00		9.302E-01	3.792E-01	5.352E-01	6.430E-02	1.738
	+	131.20		3.378E-01	1.993E-01	2.325E-01	2.005E-02	1.453
		152.70		-8.141E-02	3.728E-01	6.218E-01	1.080E-01	-0.131
	+	186.00		8.986E+01	2.879E+01	6.284E+00	2.000E+00	14.301
		226.40		5.846E-01	4.205E-01	7.034E-01	1.133E-01	0.831
		227.20		6.625E-01	4.541E-01	7.666E-01	9.711E-02	0.864
		248.90		2.042E-01	8.084E-01	1.326E+00	3.300E-01	0.154
	+	293.70		4.367E+00	1.404E+00	1.280E+00	2.724E-01	3.413
		369.80		-4.236E-01	8.837E-01	1.353E+00	3.152E-01	-0.313
		568.70		-2.022E-01	1.005E+00	1.627E+00	1.690E-01	-0.124
		569.50		-8.975E-02	2.792E-01	4.490E-01	4.660E-02	-0.200
		574.00		-5.148E-01	1.469E+00	2.368E+00	2.449E-01	-0.217
		699.00		1.286E-01	7.266E-01	1.189E+00	2.322E-01	0.108
		706.10		-6.830E-02	1.020E+00	1.642E+00	7.357E-01	-0.042
		733.00		2.030E-01	4.509E-01	6.550E-01	1.482E-01	0.310
	+	742.81		7.722E+00	5.714E+00	3.581E+00	2.412E+00	2.157
		796.30		1.064E+00	9.697E-01	1.592E+00	4.370E-01	0.668
		805.60		9.855E-01	1.047E+00	1.711E+00	5.306E-01	0.576
		819.60		-4.122E-01	1.176E+00	1.808E+00	6.927E-01	-0.228
		826.30		-3.228E-01	7.751E-01	1.173E+00	5.277E-01	-0.275
		831.60		-1.599E-01	5.792E-01	9.004E-01	2.721E-01	-0.178
		876.40		5.983E-01	9.401E-01	1.142E+00	1.176E+00	0.524
	+	880.51		4.126E-01	3.161E-01	4.683E-01	4.614E-02	0.881
	+	883.24		2.870E-01	3.102E-01	4.672E-01	3.149E-01	0.614
		899.00		-3.134E-01	6.602E-01	1.038E+00	4.565E-01	-0.302
		925.00		1.529E+00	1.149E+00	2.070E+00	2.019E-01	0.739
		926.50		3.526E-01	1.881E-01	3.139E-01	8.062E-02	1.123
	+	946.00	*	6.059E-01	3.981E-01	5.258E-01	1.013E-01	1.152
		949.00		5.101E-01	4.483E-01	7.228E-01	6.976E-02	0.706
		980.50		-3.235E-01	6.334E-01	1.010E+00	9.594E-02	-0.320
		1394.10		6.668E-01	8.964E-01	1.423E+00	9.258E-01	0.468
NP-236	+	94.67		1.977E+00	4.459E-01	4.152E-01	3.746E-02	4.761
	+	98.44		1.623E+00	2.255E-01	2.447E-01	2.164E-02	6.631
	+	111.00		7.036E-01	2.805E-01	4.048E-01	3.448E-02	1.738
		160.31	*	-7.456E-02	1.016E-01	1.484E-01	1.412E-02	-0.502
NP-237		86.50	*	7.803E-02	4.941E-01	7.106E-01	1.608E-01	0.110
	+	95.87		1.574E+01	5.079E+00	2.644E+00	6.546E-01	5.951

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		3.709E+00	5.154E-01	4.919E-01	4.327E-02	7.541
		117.00	*	-4.867E-01	2.602E-01	4.005E-01	3.389E-02	-1.215
	+	209.75		1.042E+00	8.568E-01	1.293E+00	1.522E-01	0.806
		228.18		2.050E-01	2.324E-01	3.895E-01	4.954E-02	0.526
		277.60		1.516E-01	1.825E-01	3.021E-01	4.651E-02	0.502
		334.30		-2.755E-01	1.328E+00	1.855E+00	2.533E-01	-0.149
AM-241		59.54	*	2.430E-01	2.786E-01	4.142E-01	3.255E-02	0.587
CM-243	+	99.55		3.817E+00	5.304E-01	5.062E-01	4.453E-02	7.541
		103.76	*	1.296E-02	1.275E-01	2.188E-01	1.895E-02	0.059
		117.00		-5.007E-01	2.677E-01	4.121E-01	3.487E-02	-1.215
	+	209.75		1.027E+00	8.448E-01	1.274E+00	1.500E-01	0.806
		228.18		2.072E-01	2.349E-01	3.937E-01	5.006E-02	0.526
		277.60		1.528E-01	1.840E-01	3.046E-01	4.689E-02	0.502
AM-246		798.80		-1.024E-01	1.479E-01	2.251E-01	2.209E-02	-0.455
		1036.00		-4.934E-02	2.160E-01	3.496E-01	3.208E-02	-0.141
		1062.04		-2.989E-02	1.904E-01	3.106E-01	2.793E-02	-0.096
		1078.86	*	1.488E-01	1.064E-01	1.962E-01	1.740E-02	0.758
CM-247		278.00		5.601E-01	7.446E-01	1.231E+00	1.898E-01	0.455
		287.40		-7.992E-02	1.191E+00	1.914E+00	2.925E-01	-0.042
		402.60	*	-1.734E-03	3.210E-02	5.410E-02	5.790E-03	-0.032
CF-249		252.85		-3.960E-05	8.771E-01	1.426E+00	2.001E-01	0.000
		333.44		6.305E-02	1.698E-01	2.466E-01	3.377E-02	0.256
		387.95	*	-1.693E-02	3.635E-02	6.019E-02	6.554E-03	-0.281
CF-251		176.60	*	3.260E-03	1.459E-01	2.429E-01	2.474E-02	0.013
		227.00		6.623E-01	4.018E-01	6.796E-01	8.601E-02	0.974
		285.00		-1.260E+00	1.694E+00	2.622E+00	4.022E-01	-0.480

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808006      *
* Acquisition date : 12-FEB-2010 16:58:17 Detector SN#     :               *
* Detector ID        : GAM11               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:05.38     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245808006           Analyst initials: RXF2          *
* Batch Number       : 947554               Sample Quantity : 1.6746E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.211E+01	2.300E+00	4.630E-01	0.000E+00
AS-73	1.227E+00	1.605E+00	2.320E+00	0.000E+00
RB-84	1.073E-01	8.056E-02	7.317E-02	0.000E+00
NB-95	8.339E-01	1.214E-01	6.768E-02	0.000E+00
BA-137M	1.536E-01	5.551E-02	5.629E-02	0.000E+00
CS-137	1.623E-01	5.868E-02	5.950E-02	0.000E+00
LU-177	1.823E+00	1.469E+00	2.370E+00	0.000E+00
TL-208	3.379E-01	8.077E-02	5.249E-02	0.000E+00
BI-211	2.054E+00	4.394E-01	3.327E-01	0.000E+00
BI-212	4.842E-01	3.971E-01	4.596E-01	0.000E+00
PB-212	9.631E-01	1.559E-01	9.085E-02	0.000E+00
PO-212	9.631E-01	1.559E-01	9.085E-02	0.000E+00
BI-214	7.687E-01	1.540E-01	9.642E-02	0.000E+00
PB-214	7.143E-01	1.572E-01	1.160E-01	0.000E+00
PO-214	7.143E-01	1.572E-01	1.160E-01	0.000E+00
PO-216	9.631E-01	1.559E-01	9.085E-02	0.000E+00
PO-218	7.143E-01	1.572E-01	1.160E-01	0.000E+00
RA-224	2.765E+00	1.025E+00	1.034E+00	0.000E+00
RA-226	7.687E-01	1.540E-01	9.642E-02	0.000E+00
AC-228	1.169E+00	2.499E-01	1.688E-01	0.000E+00
RA-228	1.169E+00	2.499E-01	1.688E-01	0.000E+00
TH-228	9.798E-01	1.586E-01	9.242E-02	0.000E+00
TH-230	7.686E-01	1.540E-01	9.641E-02	0.000E+00
U-231	2.518E+01	5.566E+00	3.697E+00	0.000E+00
TH-232	1.169E+00	2.499E-01	1.688E-01	0.000E+00
PA-234M	2.419E+02	2.891E+01	6.468E+00	0.000E+00
TH-234	1.664E+02	2.872E+01	3.483E+00	0.000E+00
U-234	7.686E-01	1.540E-01	9.641E-02	0.000E+00
U-235	2.961E+00	6.744E-01	4.489E-01	0.000E+00
U-238	1.664E+02	2.872E+01	3.483E+00	0.000E+00
AM-243	2.660E-01	1.173E-01	1.748E-01	0.000E+00
ANH-511	7.612E-02	5.855E-02	4.451E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-6.065E-02	3.165E-01	5.603E-01	0.000E+00	NOT IDENT.
NA-22	7.276E-03	3.490E-02	6.004E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.379E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.392E-02	2.255E-02	4.467E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.373E-02	1.031E-01	0.000E+00	FAIL ABUN
SC-46	3.194E-03	3.584E-02	6.012E-02	0.000E+00	FAIL ABUN
V-48	7.477E-02	6.241E-02	1.181E-01	0.000E+00	NOT IDENT.
CR-51	1.258E-01	3.747E-01	6.593E-01	0.000E+00	NOT IDENT.
MN-52	1.018E-01	2.598E-01	4.520E-01	0.000E+00	FAIL ABUN
MN-54	-6.443E-03	3.123E-02	5.465E-02	0.000E+00	NOT IDENT.
CO-56	1.715E-03	3.364E-02	5.981E-02	0.000E+00	NOT IDENT.
CO-57	2.204E-02	3.126E-02	5.997E-02	0.000E+00	NOT IDENT.
CO-58	1.062E-02	3.642E-02	6.267E-02	0.000E+00	NOT IDENT.
FE-59	-1.298E-02	7.045E-02	1.190E-01	0.000E+00	FAIL ABUN
CO-60	-4.207E-03	2.707E-02	4.450E-02	0.000E+00	NOT IDENT.
ZN-65	-1.782E-02	7.628E-02	1.099E-01	0.000E+00	NOT IDENT.
GE-68	5.465E-01	9.298E-01	1.683E+00	0.000E+00	NOT IDENT.
AS-74	-7.466E-03	9.070E-02	1.575E-01	0.000E+00	NOT IDENT.
SE-75	1.059E-02	4.452E-02	7.573E-02	0.000E+00	NOT IDENT.
BR-77	-3.359E+00	1.851E+01	3.246E+01	0.000E+00	FAIL ABUN
SR-82	-8.417E-02	3.905E-01	6.510E-01	0.000E+00	NOT IDENT.
RB-83	6.501E-03	6.623E-02	1.179E-01	0.000E+00	NOT IDENT.
KR-85	7.673E+00	6.311E+00	1.179E+01	0.000E+00	NOT IDENT.
SR-85	4.021E-02	3.308E-02	6.179E-02	0.000E+00	NOT IDENT.
RB-86	-2.183E-01	6.502E-01	1.086E+00	0.000E+00	NOT IDENT.
Y-88	-2.703E-02	2.942E-02	4.171E-02	0.000E+00	NOT IDENT.
ZR-88	2.219E-02	2.766E-02	5.207E-02	0.000E+00	NOT IDENT.
Y-91	-1.523E+01	1.482E+01	2.280E+01	0.000E+00	NOT IDENT.
NB-94	-1.047E-02	3.332E-02	5.596E-02	0.000E+00	NOT IDENT.
NB-95M	-2.624E-02	1.278E-01	2.021E-01	0.000E+00	NOT IDENT.
ZR-95	-6.860E-03	7.222E-02	1.218E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.047E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.293E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.341E+01	2.439E+01	3.777E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.686E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.528E-02	3.418E-02	5.999E-02	0.000E+00	NOT IDENT.
RH-102	1.896E-02	2.781E-02	5.126E-02	0.000E+00	FAIL ABUN
RU-103	-9.243E-04	3.841E-02	6.828E-02	0.000E+00	FAIL ABUN
RH-106	1.708E-01	3.044E-01	5.447E-01	0.000E+00	FAIL ABUN
RU-106	1.708E-01	3.039E-01	5.447E-01	0.000E+00	FAIL ABUN
AG-108M	-1.753E-02	2.944E-02	5.148E-02	0.000E+00	NOT IDENT.
CD-109	-2.226E+00	1.753E+00	2.752E+00	0.000E+00	NOT IDENT.
AG-110M	-2.521E-02	3.706E-02	5.235E-02	0.000E+00	FAIL ABUN
IN-111	4.303E-01	1.867E+00	3.003E+00	0.000E+00	NOT IDENT.
IN-113M	1.621E-02	4.038E-02	7.491E-02	0.000E+00	NOT IDENT.
SN-113	1.621E-02	4.038E-02	7.491E-02	0.000E+00	NOT IDENT.
IN-114M	1.102E-01	1.942E-01	3.440E-01	0.000E+00	NOT IDENT.
CD-115	4.157E+00	1.895E+01	3.392E+01	0.000E+00	NOT IDENT.
SN-117M	-3.205E-02	7.103E-02	1.241E-01	0.000E+00	NOT IDENT.
SB-122	-7.396E-01	3.389E+00	5.877E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.001E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.660E-02	3.543E-02	5.798E-02	0.000E+00	NOT IDENT.
I-124	-5.232E-01	8.863E-01	1.432E+00	0.000E+00	NOT IDENT.
SB-124	-2.417E-03	5.601E-02	9.478E-02	0.000E+00	FAIL ABUN
SB-125	5.889E-02	8.448E-02	1.573E-01	0.000E+00	FAIL ABUN
TE-125M	0.000E+00	1.559E+01	2.739E+01	0.000E+00	NOT IDENT.
I-126	3.609E-02	2.259E-01	3.434E-01	0.000E+00	NOT IDENT.
SB-126	4.502E-02	1.549E-01	2.694E-01	0.000E+00	FAIL ABUN
SN-126	-1.377E-01	1.704E-01	2.708E-01	0.000E+00	FAIL ABUN
SB-127	-6.487E-01	1.733E+00	2.894E+00	0.000E+00	NOT IDENT.
XE-127	2.091E-02	5.589E-02	9.200E-02	0.000E+00	FAIL ABUN
I-131	-3.165E-02	1.393E-01	2.353E-01	0.000E+00	NOT IDENT.
TE-132	8.741E-01	1.095E+00	1.996E+00	0.000E+00	FAIL ABUN
BA-133	3.211E-02	4.420E-02	7.032E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.877E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.029E-02	4.828E-02	8.458E-02	0.000E+00	NOT IDENT.
CS-135	-1.529E-02	1.722E-01	2.698E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.746E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.219E-02	8.438E-02	1.385E-01	0.000E+00	FAIL ABUN
CE-139	-1.078E-02	3.771E-02	6.188E-02	0.000E+00	NOT IDENT.
BA-140	-1.048E-01	2.747E-01	4.708E-01	0.000E+00	FAIL ABUN
LA-140	4.358E-04	6.051E-02	1.040E-01	0.000E+00	NOT IDENT.
CE-141	0.000E+00	8.723E-02	1.528E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	4.253E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.831E-01	2.708E-01	4.646E-01	0.000E+00	NOT IDENT.
PM-144	-1.085E-02	3.478E-02	5.849E-02	0.000E+00	NOT IDENT.
PR-144	-7.358E-01	2.359E+00	3.968E+00	0.000E+00	NOT IDENT.
PM-146	4.483E-02	4.022E-02	7.549E-02	0.000E+00	NOT IDENT.
ND-147	-4.657E-01	5.747E-01	9.584E-01	0.000E+00	FAIL ABUN
PM-149	-4.751E+01	1.641E+02	2.837E+02	0.000E+00	NOT IDENT.
EU-152	-6.412E-03	9.166E-02	1.571E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	2.492E-01	2.852E-01	0.000E+00	FAIL ABUN
EU-154	2.280E-02	9.763E-02	1.683E-01	0.000E+00	NOT IDENT.
EU-155	4.866E-02	1.409E-01	2.717E-01	0.000E+00	NOT IDENT.
TB-160	2.091E-01	1.570E-01	2.484E-01	0.000E+00	FAIL ABUN
HO-166M	2.645E-02	5.736E-02	1.009E-01	0.000E+00	FAIL ABUN
TM-171	-1.056E+02	4.568E+01	7.088E+01	0.000E+00	FAIL ABUN
LU-176	6.207E-04	2.347E-02	4.092E-02	0.000E+00	NOT IDENT.
LU-177M	-1.373E-01	1.575E-01	2.726E-01	0.000E+00	FAIL ABUN
HF-181	-1.270E-02	4.079E-02	7.163E-02	0.000E+00	FAIL ABUN
W-181	-2.894E-03	5.694E-01	9.434E-01	0.000E+00	NOT IDENT.
TA-182	3.739E-02	1.517E-01	2.626E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	2.281E-01	2.859E-01	0.000E+00	FAIL ABUN
RE-184	-1.064E-05	2.311E-01	4.103E-01	0.000E+00	NOT IDENT.
OS-185	7.377E-03	3.789E-02	6.637E-02	0.000E+00	FAIL ABUN
RE-188	8.973E-02	1.954E-01	3.666E-01	0.000E+00	NOT IDENT.
W-188	-5.968E+00	8.114E+00	1.204E+01	0.000E+00	FAIL ABUN
IR-192	-2.257E-02	3.390E-02	5.669E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	7.271E-01	8.787E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.730E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-7.782E+00	1.417E+01	2.300E+01	0.000E+00	NOT IDENT.
TL-202	6.957E-03	6.845E-02	1.241E-01	0.000E+00	NOT IDENT.
HG-203	8.907E-03	4.059E-02	7.197E-02	0.000E+00	FAIL ABUN
BI-207	2.306E-02	4.434E-02	7.950E-02	0.000E+00	FAIL ABUN
TL-207	5.144E-01	6.125E-01	1.088E+00	0.000E+00	FAIL ABUN
PO-209	-2.272E+00	5.488E+00	9.313E+00	0.000E+00	NOT IDENT.
BI-210	-1.675E+00	4.059E+00	7.438E+00	0.000E+00	NOT IDENT.
PB-210	-1.675E+00	4.059E+00	7.438E+00	0.000E+00	NOT IDENT.
PO-210	-1.675E+00	4.058E+00	7.438E+00	0.000E+00	NOT IDENT.
PB-211	-6.044E-01	8.997E-01	1.437E+00	0.000E+00	NOT IDENT.
PO-215	5.144E-01	6.125E-01	1.088E+00	0.000E+00	FAIL ABUN
RN-219	2.096E-01	3.496E-01	6.513E-01	0.000E+00	FAIL ABUN
RN-220	-1.979E+01	2.576E+01	4.330E+01	0.000E+00	NOT IDENT.
RA-223	5.144E-01	6.125E-01	1.088E+00	0.000E+00	FAIL ABUN
AC-227	2.668E-01	4.461E-01	7.220E-01	0.000E+00	NOT IDENT.
TH-227	2.668E-01	4.468E-01	7.220E-01	0.000E+00	FAIL ABUN
TH-229	-6.900E-02	5.230E-01	9.489E-01	0.000E+00	FAIL ABUN
PA-231	9.822E-01	1.404E+00	2.518E+00	0.000E+00	NOT IDENT.
TH-231	5.144E-01	6.125E-01	1.088E+00	0.000E+00	FAIL ABUN
PA-233	8.748E-03	6.155E-02	1.077E-01	0.000E+00	FAIL ABUN
PA-234	0.000E+00	3.901E-01	5.400E-01	0.000E+00	FAIL ABUN
NP-236	-7.456E-02	9.955E-02	1.610E-01	0.000E+00	FAIL ABUN
NP-237	7.803E-02	4.842E-01	7.846E-01	0.000E+00	FAIL ABUN
NP-239	-4.867E-01	2.550E-01	4.385E-01	0.000E+00	FAIL ABUN
AM-241	2.430E-01	2.731E-01	4.622E-01	0.000E+00	NOT IDENT.
CM-243	1.296E-02	1.250E-01	2.404E-01	0.000E+00	FAIL ABUN
AM-246	1.488E-01	1.043E-01	2.006E-01	0.000E+00	NOT IDENT.
CM-247	-1.734E-03	3.146E-02	5.708E-02	0.000E+00	NOT IDENT.
CF-249	-1.693E-02	3.562E-02	6.358E-02	0.000E+00	NOT IDENT.
CF-251	3.260E-03	1.430E-01	2.627E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:59:07.38

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808006.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:58:17
Sample ID         : G245808006           Sample quantity  : 1.67461E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:05.38  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1289	10.67*	1.225E+00	2.211E+01	2.211E+01	10.62
AS-73	53.44	123	10.30*	2.540E+00	1.057E+00	1.227E+00	133.55
RB-84	881.50	43	67.70*	1.889E+00	7.460E-02	1.073E-01	76.62
NB-95	765.79	655	99.81*	2.126E+00	6.918E-01	8.339E-01	14.85
BA-137M	661.65	148	89.98*	2.403E+00	1.534E-01	1.536E-01	36.88
CS-137	661.65	148	85.12*	2.403E+00	1.622E-01	1.623E-01	36.89
LU-177	112.95	1269	6.40	7.410E+00	6.000E+00	3.564E+01	13.86
	208.36	86	11.00*	5.702E+00	3.069E-01	1.823E+00	82.24
TL-208	277.35	------	6.80	4.676E+00	------ Line Not Found		------
	510.84	100	21.60	2.952E+00	3.524E-01	3.524E-01	78.92
	583.14	338	84.20*	2.661E+00	3.379E-01	3.379E-01	24.39
	860.37	------	12.46	1.927E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	5.576E+00	------ Line Not Found		------
	351.07	465	12.94*	3.922E+00	2.054E+00	2.054E+00	21.84
BI-212	727.18	57	11.80*	2.222E+00	4.842E-01	4.842E-01	83.67
	785.46	109	1.97	2.080E+00	5.943E+00	5.943E+00	48.31
	1620.62	------	2.75	1.134E+00	------ Line Not Found		------
PB-212	74.81	455	10.70	5.806E+00	1.641E+00	1.641E+00	45.96
	77.11	347	18.00	6.007E+00	7.197E-01	7.197E-01	48.96
	87.30	------	8.00	6.795E+00	------ Line Not Found		------
	238.63	999	44.60*	5.211E+00	9.631E-01	9.631E-01	16.52
	300.09	------	3.41	4.414E+00	------ Line Not Found		------
PO-212	74.81	455	10.70	5.806E+00	1.641E+00	1.641E+00	45.96
	77.11	347	18.00	6.007E+00	7.197E-01	7.197E-01	48.96
	87.30	------	8.00	6.795E+00	------ Line Not Found		------
	115.19	------	0.60	7.407E+00	------ Line Not Found		------
	238.63	999	44.60*	5.211E+00	9.631E-01	9.631E-01	16.52
	300.09	------	3.41	4.414E+00	------ Line Not Found		------
BI-214	609.31	408	46.30*	2.568E+00	7.686E-01	7.687E-01	20.44
	1120.29	103	15.10	1.531E+00	1.002E+00	1.002E+00	37.32
	1764.49	79	15.80	1.071E+00	1.045E+00	1.045E+00	27.63
PB-214	74.81	455	6.21	5.806E+00	2.827E+00	2.827E+00	45.61

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	347	10.50	6.007E+00	1.234E+00	1.234E+00	49.55
	87.30	------	4.67	6.795E+00	------ Line Not Found		------
	241.98	252	7.49	5.165E+00	1.458E+00	1.458E+00	38.25
	295.21	348	19.20	4.468E+00	9.098E-01	9.098E-01	29.12
	351.92	465	37.20*	3.922E+00	7.143E-01	7.143E-01	22.45
PO-214	74.81	455	6.21	5.806E+00	2.827E+00	2.827E+00	45.61
	77.11	347	10.50	6.007E+00	1.234E+00	1.234E+00	49.55
	87.30	------	4.67	6.795E+00	------ Line Not Found		------
	241.98	252	7.49	5.165E+00	1.458E+00	1.458E+00	38.25
	295.21	348	19.20	4.468E+00	9.098E-01	9.098E-01	29.12
	351.92	465	37.20*	3.922E+00	7.143E-01	7.143E-01	22.45
PO-216	74.81	455	10.70	5.806E+00	1.641E+00	1.641E+00	45.96
	77.11	347	18.00	6.007E+00	7.197E-01	7.197E-01	48.96
	87.30	------	8.00	6.795E+00	------ Line Not Found		------
	238.63	999	44.60*	5.211E+00	9.631E-01	9.631E-01	16.52
	300.09	------	3.41	4.414E+00	------ Line Not Found		------
PO-218	74.81	455	6.21	5.806E+00	2.827E+00	2.827E+00	45.61
	77.11	347	10.50	6.007E+00	1.234E+00	1.234E+00	49.55
	87.30	------	4.67	6.795E+00	------ Line Not Found		------
	241.98	252	7.49	5.165E+00	1.458E+00	1.458E+00	38.25
	295.21	348	19.20	4.468E+00	9.098E-01	9.098E-01	29.12
	351.92	465	37.20*	3.922E+00	7.143E-01	7.143E-01	22.45
RA-224	240.98	252	3.95*	5.165E+00	2.765E+00	2.765E+00	37.84
RA-226	609.31	408	46.30*	2.568E+00	7.686E-01	7.687E-01	20.44
	1120.29	103	15.10	1.531E+00	1.002E+00	1.002E+00	37.32
	1764.49	79	15.80	1.071E+00	1.045E+00	1.045E+00	27.63
AC-228	338.32	197	11.40	4.037E+00	9.579E-01	9.579E-01	56.71
	911.07	265	27.70*	1.833E+00	1.169E+00	1.169E+00	21.82
	969.11	145	16.60	1.738E+00	1.126E+00	1.126E+00	36.98
RA-228	338.32	197	11.40	4.037E+00	9.579E-01	9.579E-01	56.71
	911.07	265	27.70*	1.833E+00	1.169E+00	1.169E+00	21.82
	969.11	145	16.60	1.738E+00	1.126E+00	1.126E+00	36.98
TH-228	74.81	455	10.70	5.806E+00	1.641E+00	1.669E+00	45.01
	77.11	347	18.00	6.007E+00	7.197E-01	7.322E-01	48.96
	87.30	------	8.00	6.795E+00	------ Line Not Found		------
	238.63	999	44.60*	5.211E+00	9.631E-01	9.798E-01	16.52
	300.09	------	3.41	4.414E+00	------ Line Not Found		------
TH-230	609.31	408	46.30*	2.568E+00	7.686E-01	7.686E-01	20.44
	1120.29	103	15.10	1.531E+00	1.002E+00	1.002E+00	37.32
	1764.49	79	15.80	1.071E+00	1.045E+00	1.045E+00	27.63
U-231	84.21	575	7.00	6.613E+00	2.784E+00	4.797E+01	36.64
	92.29	27014	17.30	7.050E+00	4.964E+01	8.554E+02	9.25
	95.87	1302	28.00*	7.131E+00	1.461E+00	2.518E+01	22.56
	108.00	------	13.10	7.392E+00	------ Line Not Found		------
TH-232	338.32	197	11.40	4.037E+00	9.579E-01	9.579E-01	39.84
	911.07	265	27.70*	1.833E+00	1.169E+00	1.169E+00	21.82
	969.11	145	16.60	1.738E+00	1.126E+00	1.126E+00	36.98
PA-234M	766.42	655	0.32	2.126E+00	2.158E+02	2.158E+02	52.16
	1001.03	1531	0.84*	1.689E+00	2.419E+02	2.419E+02	12.19

Sample ID : G245808006 Acquisition date : 12-FEB-2010 16:58:17

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-234	63.29	12053	3.80*	4.272E+00	1.664E+02	1.664E+02	17.61
	92.38	27014	5.41	7.050E+00	1.588E+02	1.588E+02	18.39
U-234	609.31	408	46.30*	2.568E+00	7.686E-01	7.686E-01	20.44
	1120.29	103	15.10	1.531E+00	1.002E+00	1.002E+00	37.32
	1764.49	79	15.80	1.071E+00	1.045E+00	1.045E+00	27.63
U-235	89.95	------	2.70	6.934E+00	------ Line Not Found		------
	93.35	27014	4.50	7.050E+00	1.909E+02	1.909E+02	28.23
	105.00	------	2.10	7.364E+00	------ Line Not Found		------
	143.76	976	10.50*	7.034E+00	2.961E+00	2.961E+00	23.24
	163.35	416	4.70	6.631E+00	2.991E+00	2.991E+00	36.83
	185.71	4939	54.00	6.160E+00	3.328E+00	3.328E+00	11.24
	205.31	481	4.70	5.777E+00	3.975E+00	3.975E+00	27.79
U-238	63.29	12053	3.80*	4.272E+00	1.664E+02	1.664E+02	17.61
	92.38	27014	5.41	7.050E+00	1.588E+02	1.588E+02	9.25
AM-243	74.67	455	66.00*	5.806E+00	2.660E-01	2.660E-01	45.00
	86.72	------	0.34	6.761E+00	------ Line Not Found		------
	117.66	------	0.55	7.397E+00	------ Line Not Found		------
	142.18	------	0.13	7.065E+00	------ Line Not Found		------
ANH-511	511.00	100	100.00*	2.952E+00	7.612E-02	7.612E-02	78.48

Flag: "*" = Keyline

Sample ID : G245808006 Acquisition date : 12-FEB-2010 16:58:17

Total number of lines in spectrum 43
Number of unidentified lines 2
Number of lines tentatively identified by NID 41 95.35%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.211E+01	2.211E+01	0.235E+01	10.62	
AS-73	80.30D	1.16	1.057E+00	1.227E+00	1.638E+00	133.55	
RB-84	32.90D	1.44	7.460E-02	1.073E-01	0.822E-01	76.62	
NB-95	64.02D	1.21	6.918E-01	8.339E-01	1.238E-01	14.85	
BA-137M	30.17Y	1.00	1.534E-01	1.536E-01	0.566E-01	36.88	
CS-137	30.17Y	1.00	1.622E-01	1.623E-01	0.599E-01	36.89	
LU-177	6.71D	5.94	3.069E-01	1.823E+00	1.499E+00	82.24	
TL-208	1.41E+10Y	1.00	3.379E-01	3.379E-01	0.824E-01	24.39	
BI-211	7.04E+08Y	1.00	2.054E+00	2.054E+00	0.448E+00	21.84	
BI-212	1.41E+10Y	1.00	4.842E-01	4.842E-01	4.052E-01	83.67	
PB-212	1.41E+10Y	1.00	9.631E-01	9.631E-01	1.591E-01	16.52	
PO-212	1.41E+10Y	1.00	9.631E-01	9.631E-01	1.591E-01	16.52	
BI-214	1600.00Y	1.00	7.686E-01	7.687E-01	1.571E-01	20.44	
PB-214	1600.00Y	1.00	7.143E-01	7.143E-01	1.604E-01	22.45	
PO-214	1600.00Y	1.00	7.143E-01	7.143E-01	1.604E-01	22.45	
PO-216	1.41E+10Y	1.00	9.631E-01	9.631E-01	1.591E-01	16.52	
PO-218	1600.00Y	1.00	7.143E-01	7.143E-01	1.604E-01	22.45	
RA-224	1.41E+10Y	1.00	2.765E+00	2.765E+00	1.046E+00	37.84	
RA-226	1600.00Y	1.00	7.686E-01	7.687E-01	1.571E-01	20.44	
AC-228	1.41E+10Y	1.00	1.169E+00	1.169E+00	0.255E+00	21.82	
RA-228	1.41E+10Y	1.00	1.169E+00	1.169E+00	0.255E+00	21.82	
TH-228	1.91Y	1.02	9.631E-01	9.798E-01	1.619E-01	16.52	
TH-230	4.47E+09Y	1.00	7.686E-01	7.686E-01	1.571E-01	20.44	
U-231	4.20D	17.2	1.461E+00	2.518E+01	0.568E+01	22.56	
TH-232	1.41E+10Y	1.00	1.169E+00	1.169E+00	0.255E+00	21.82	
PA-234M	4.47E+09Y	1.00	2.419E+02	2.419E+02	0.295E+02	12.19	
TH-234	4.47E+09Y	1.00	1.664E+02	1.664E+02	0.293E+02	17.61	
U-234	4.47E+09Y	1.00	7.686E-01	7.686E-01	1.571E-01	20.44	
U-235	7.04E+08Y	1.00	2.961E+00	2.961E+00	0.688E+00	23.24	
U-238	4.47E+09Y	1.00	1.664E+02	1.664E+02	0.293E+02	17.61	
AM-243	7380.00Y	1.00	2.660E-01	2.660E-01	1.197E-01	45.00	
ANH-511	1.00E+09Y	1.00	7.612E-02	7.612E-02	5.974E-02	78.48	
	Total Activity :		6.223E+02	6.479E+02			

Grand Total Activity : 6.223E+02 6.479E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245808006 Acquisition date : 12-FEB-2010 16:58:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	83.39	324	3796	0.97	165.70	163	9	4.50E-02	62.8	6.55E+00	T
0	98.53	1762	2372	0.90	195.99	192	8	2.45E-01	10.7	7.24E+00	T
4	111.22	363	1870	1.05	221.39	218	10	5.04E-02	39.0	7.41E+00	T
0	131.59	223	1333	1.11	262.16	259	8	3.09E-02	58.4	7.25E+00	T
0	258.27	340	508	1.02	515.71	512	10	4.73E-02	27.2	4.92E+00	
0	270.26	116	411	0.81	539.70	535	9	1.62E-02	66.2	4.77E+00	T
0	462.93	81	208	1.13	925.30	921	11	1.13E-02	72.7	3.19E+00	T
0	743.14	180	164	0.88	1486.04	1481	10	2.51E-02	30.6	2.18E+00	T
0	883.54	29	44	0.95	1766.96	1764	7	4.02E-03	84.5	1.88E+00	T
0	946.43	58	72	2.02	1892.81	1888	11	7.99E-03	62.8	1.77E+00	T
0	1737.96	22	6	1.37	3476.30	3471	9	3.06E-03	59.6	1.08E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:59:12.18

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808006.CNF;1  *
* Acquisition date : 12-FEB-2010 16:58:17  Detector SN#     :               *
* Detector ID      : GAM11                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:05.38         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245808006            Analyst initials: RXF2           *
* Batch Number     : 947554                Sample Quantity : 1.67461E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.211E+01	2.347E+00	4.574E-01	3.955E-02	48.328
AS-73	1.227E+00	1.638E+00	2.073E+00	1.557E-01	0.592
RB-84	1.073E-01	8.221E-02	7.108E-02	7.004E-03	1.509
NB-95	8.339E-01	1.238E-01	6.546E-02	6.389E-03	12.740
BA-137M	1.536E-01	5.664E-02	5.418E-02	5.127E-03	2.834
CS-137	1.623E-01	5.988E-02	5.728E-02	5.429E-03	2.834
LU-177	1.823E+00	1.499E+00	2.201E+00	2.576E-01	0.828
TL-208	3.379E-01	8.242E-02	5.033E-02	5.435E-03	6.713
BI-211	2.054E+00	4.484E-01	3.140E-01	4.143E-02	6.540
BI-212	4.842E-01	4.052E-01	4.438E-01	4.850E-02	1.091
PB-212	9.631E-01	1.591E-01	8.473E-02	1.187E-02	11.366
PO-212	9.631E-01	1.591E-01	8.473E-02	1.187E-02	11.366
BI-214	7.687E-01	1.571E-01	9.257E-02	1.046E-02	8.304
PB-214	7.143E-01	1.604E-01	1.095E-01	1.549E-02	6.526
PO-214	7.143E-01	1.604E-01	1.095E-01	1.549E-02	6.526
PO-216	9.631E-01	1.591E-01	8.473E-02	1.187E-02	11.366
PO-218	7.143E-01	1.604E-01	1.095E-01	1.549E-02	6.526
RA-224	2.765E+00	1.046E+00	9.646E-01	1.292E-01	2.866

Sample ID : G245808006 Acquisition date : 12-FEB-2010 16:58:17

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	7.687E-01	1.571E-01	9.257E-02	1.046E-02	8.304
AC-228	1.169E+00	2.550E-01	1.642E-01	1.999E-02	7.120
RA-228	1.169E+00	2.550E-01	1.642E-01	1.999E-02	7.120
TH-228	9.798E-01	1.619E-01	8.620E-02	1.207E-02	11.366
TH-230	7.686E-01	1.571E-01	9.257E-02	1.046E-02	8.304
U-231	2.518E+01	5.680E+00	3.358E+00	3.008E-01	7.499
TH-232	1.169E+00	2.550E-01	1.642E-01	1.999E-02	7.120
PA-234M	2.419E+02	2.950E+01	6.311E+00	6.713E-01	38.335
TH-234	1.664E+02	2.931E+01	3.127E+00	5.439E-01	53.231
U-234	7.686E-01	1.571E-01	9.257E-02	1.046E-02	8.304
U-235	2.961E+00	6.881E-01	4.125E-01	7.292E-02	7.179
U-238	1.664E+02	2.931E+01	3.127E+00	5.439E-01	53.231
AM-243	2.660E-01	1.197E-01	1.577E-01	1.276E-02	1.687
ANH-511	7.612E-02	5.974E-02	4.249E-02	4.544E-03	1.791

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.065E-02		3.230E-01	5.338E-01	6.042E-02	-0.114
NA-22	7.276E-03		3.562E-02	5.905E-02	4.849E-03	0.123
NA-24	2.317E-01		2.744E+00	Half-Life too short		
AL-26	2.392E-02		2.301E-02	4.445E-02	3.628E-03	0.538
TI-44	1.328E-01	+	6.503E-02	9.314E-02	7.851E-03	1.426
SC-46	3.194E-03		3.657E-02	5.843E-02	5.755E-03	0.055
V-48	7.477E-02		6.369E-02	1.152E-01	1.093E-02	0.649
CR-51	1.258E-01		3.824E-01	6.205E-01	9.005E-02	0.203
MN-52	1.018E-01		2.651E-01	4.463E-01	3.739E-02	0.228
MN-54	-6.443E-03		3.186E-02	5.300E-02	5.219E-03	-0.122
CO-56	1.715E-03		3.433E-02	5.803E-02	5.717E-03	0.030
CO-57	2.204E-02		3.190E-02	5.484E-02	4.639E-03	0.402
CO-58	1.062E-02		3.717E-02	6.072E-02	5.979E-03	0.175
FE-59	-1.298E-02		7.189E-02	1.165E-01	1.095E-02	-0.111
CO-60	-4.207E-03		2.762E-02	4.383E-02	3.622E-03	-0.096
ZN-65	-1.782E-02		7.784E-02	1.076E-01	9.235E-03	-0.166
GE-68	5.465E-01		9.488E-01	1.646E+00	1.462E-01	0.332
AS-74	-7.466E-03		9.255E-02	1.511E-01	1.537E-02	-0.049
SE-75	1.059E-02		4.543E-02	7.086E-02	1.042E-02	0.149
BR-77	-3.359E+00		1.888E+01	3.101E+01	3.304E+00	-0.108
SR-82	-8.417E-02		3.985E-01	6.299E-01	6.160E-02	-0.134
RB-83	6.501E-03		6.759E-02	1.127E-01	1.201E-02	0.058
KR-85	7.673E+00		6.440E+00	1.126E+01	1.203E+00	0.682
SR-85	4.021E-02		3.375E-02	5.901E-02	6.303E-03	0.682
RB-86	-2.183E-01		6.634E-01	1.062E+00	9.434E-02	-0.206
Y-88	-2.703E-02		3.002E-02	4.152E-02	3.371E-03	-0.651
ZR-88	2.219E-02		2.822E-02	4.931E-02	5.259E-03	0.450
Y-91	-1.523E+01		1.512E+01	2.238E+01	1.811E+00	-0.681
NB-94	-1.047E-02		3.400E-02	5.397E-02	5.183E-03	-0.194

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	-2.624E-02		1.305E-01	1.885E-01	2.632E-02	-0.139
ZR-95	-6.860E-03		7.369E-02	1.178E-01	1.240E-02	-0.058
NB-97	-5.347E-01		4.106E-01	Half-Life too short		
ZR-97	-1.655E+00		6.596E+00	Half-Life too short		
MO-99	1.341E+01		2.489E+01	3.649E+01	5.775E+00	0.368
TC-99M	1.435E+13		8.601E+12	Half-Life too short		
RH-101	-2.528E-02		3.488E-02	5.565E-02	6.228E-03	-0.454
RH-102	1.896E-02		2.837E-02	4.883E-02	5.264E-03	0.388
RU-103	-9.243E-04		3.919E-02	6.514E-02	1.012E-02	-0.014
RH-106	1.708E-01		3.106E-01	5.233E-01	7.447E-02	0.326
RU-106	1.708E-01		3.101E-01	5.233E-01	5.191E-02	0.326
AG-108M	-1.753E-02		3.004E-02	4.890E-02	5.406E-03	-0.359
CD-109	-2.226E+00		1.789E+00	2.493E+00	2.364E-01	-0.893
AG-110M	-2.521E-02		3.782E-02	5.039E-02	4.910E-03	-0.500
IN-111	4.303E-01		1.906E+00	2.803E+00	3.821E-01	0.153
IN-113M	1.621E-02		4.120E-02	7.093E-02	7.715E-03	0.229
SN-113	1.621E-02		4.120E-02	7.093E-02	7.715E-03	0.229
IN-114M	1.102E-01		1.982E-01	3.187E-01	3.448E-02	0.346
CD-115	4.157E+00		1.934E+01	3.242E+01	3.444E+00	0.128
SN-117M	-3.205E-02		7.248E-02	1.143E-01	1.081E-02	-0.280
SB-122	-7.396E-01		3.458E+00	5.629E+00	5.864E-01	-0.131
I-123	-4.689E+01		5.108E+01	Half-Life too short		
TE-123M	-1.660E-02		3.615E-02	5.344E-02	5.084E-03	-0.311
I-124	-5.232E-01		9.044E-01	1.374E+00	1.389E-01	-0.381
SB-124	-2.417E-03		5.716E-02	9.410E-02	8.177E-03	-0.026
SB-125	5.889E-02		8.621E-02	1.494E-01	1.629E-02	0.394
TE-125M	4.084E+01		1.590E+01	2.497E+01	2.564E+00	1.636
I-126	3.609E-02		2.306E-01	3.306E-01	3.134E-02	0.109
SB-126	4.502E-02		1.581E-01	2.600E-01	2.511E-02	0.173
SN-126	-1.377E-01		1.739E-01	2.453E-01	2.314E-02	-0.561
SB-127	-6.487E-01		1.768E+00	2.789E+00	3.541E-01	-0.233
XE-127	2.091E-02		5.703E-02	8.539E-02	9.760E-03	0.245
I-131	-3.165E-02		1.422E-01	2.224E-01	2.794E-02	-0.142
TE-132	8.741E-01		1.118E+00	1.859E+00	3.464E-01	0.470
BA-133	3.211E-02		4.510E-02	6.639E-02	1.071E-02	0.484
I-133	-8.625E-03		1.468E-02	Half-Life too short		
CS-134	3.029E-02		4.927E-02	8.191E-02	8.080E-03	0.370
CS-135	-1.529E-02		1.757E-01	2.525E-01	3.962E-02	-0.061
I-135	3.493E+11		3.952E+11	Half-Life too short		
CS-136	-4.219E-02		8.610E-02	1.353E-01	1.278E-02	-0.312
CE-139	-1.078E-02		3.848E-02	5.710E-02	5.549E-03	-0.189
BA-140	-1.048E-01		2.803E-01	4.502E-01	1.517E-01	-0.233
LA-140	4.358E-04		6.174E-02	1.030E-01	8.666E-03	0.004
CE-141	1.972E-01		8.901E-02	1.404E-01	1.287E-02	1.405
CE-143	5.896E-04		2.170E-04	Half-Life too short		
CE-144	1.831E-01		2.763E-01	4.260E-01	6.647E-02	0.430
PM-144	-1.085E-02		3.549E-02	5.639E-02	5.407E-03	-0.192
PR-144	-7.358E-01		2.407E+00	3.826E+00	3.667E-01	-0.192

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	4.483E-02		4.104E-02	7.181E-02	9.004E-03	0.624
ND-147	-4.657E-01		5.864E-01	9.161E-01	1.482E-01	-0.508
PM-149	-4.751E+01		1.675E+02	2.660E+02	5.335E+01	-0.179
EU-152	-6.412E-03		9.353E-02	1.482E-01	2.009E-02	-0.043
GD-153	1.830E+00	+	2.543E-01	2.592E-01	2.303E-02	7.063
EU-154	2.280E-02		9.963E-02	1.655E-01	1.820E-02	0.138
EU-155	4.866E-02		1.438E-01	2.474E-01	2.159E-02	0.197
TB-160	2.091E-01	+	1.602E-01	2.413E-01	2.378E-02	0.866
HO-166M	2.645E-02		5.853E-02	9.737E-02	9.377E-03	0.272
TM-171	-1.056E+02		4.661E+01	6.372E+01	4.782E+00	-1.657
LU-176	6.207E-04		2.395E-02	3.846E-02	5.654E-03	0.016
LU-177M	-1.373E-01		1.607E-01	2.586E-01	2.777E-02	-0.531
HF-181	-1.270E-02		4.162E-02	6.827E-02	7.352E-03	-0.186
W-181	-2.894E-03		5.810E-01	8.476E-01	6.283E-02	-0.003
TA-182	3.739E-02		1.548E-01	2.578E-01	2.095E-02	0.145
RE-183	7.126E-01	+	2.327E-01	2.636E-01	2.527E-02	2.703
RE-184	-1.064E-05		2.358E-01	3.834E-01	5.379E-02	0.000
OS-185	7.377E-03		3.866E-02	6.384E-02	6.162E-03	0.116
RE-188	8.973E-02		1.994E-01	3.376E-01	3.149E-02	0.266
W-188	-5.968E+00		8.279E+00	1.129E+01	1.716E+00	-0.528
IR-192	-2.257E-02		3.459E-02	5.333E-02	7.666E-03	-0.423
AU-195	5.340E+00	+	7.420E-01	7.988E-01	7.047E-02	6.686
TL-200	1.068E-03		8.825E-04	Half-Life too short		
TL-201	-7.782E+00		1.446E+01	2.123E+01	2.077E+00	-0.367
TL-202	6.957E-03		6.985E-02	1.179E-01	1.272E-02	0.059
HG-203	8.907E-03		4.142E-02	6.744E-02	1.053E-02	0.132
BI-207	2.306E-02		4.524E-02	7.772E-02	6.981E-03	0.297
TL-207	5.144E-01		6.250E-01	1.024E+00	2.142E-01	0.502
PO-209	-2.272E+00		5.600E+00	9.053E+00	8.913E-01	-0.251
BI-210	-1.675E+00		4.142E+00	6.621E+00	6.164E-01	-0.253
PB-210	-1.675E+00		4.142E+00	6.621E+00	6.164E-01	-0.253
PO-210	-1.675E+00		4.141E+00	6.621E+00	5.581E-01	-0.253
PB-211	-6.044E-01		9.180E-01	1.362E+00	8.581E-01	-0.444
PO-215	5.144E-01		6.250E-01	1.024E+00	2.142E-01	0.502
RN-219	2.096E-01		3.567E-01	6.172E-01	1.007E-01	0.340
RN-220	-1.979E+01		2.628E+01	4.144E+01	4.354E+00	-0.478
RA-223	5.144E-01		6.250E-01	1.024E+00	2.142E-01	0.502
AC-227	2.668E-01		4.552E-01	6.749E-01	1.286E-01	0.395
TH-227	2.668E-01		4.559E-01	6.749E-01	1.438E-01	0.395
TH-229	-6.900E-02		5.337E-01	8.795E-01	9.657E-02	-0.078
PA-231	9.822E-01		1.432E+00	2.361E+00	4.678E-01	0.416
TH-231	5.144E-01		6.250E-01	1.024E+00	2.142E-01	0.502
PA-233	8.748E-03		6.281E-02	1.013E-01	1.486E-02	0.086
PA-234	6.059E-01	+	3.981E-01	5.258E-01	1.013E-01	1.152
NP-236	-7.456E-02		1.016E-01	1.484E-01	1.412E-02	-0.502
NP-237	7.803E-02		4.941E-01	7.106E-01	1.608E-01	0.110
NP-239	-4.867E-01		2.602E-01	4.005E-01	3.389E-02	-1.215
AM-241	2.430E-01		2.786E-01	4.142E-01	3.255E-02	0.587

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.296E-02		1.275E-01	2.188E-01	1.895E-02	0.059
AM-246	1.488E-01		1.064E-01	1.962E-01	1.740E-02	0.758
CM-247	-1.734E-03		3.210E-02	5.410E-02	5.790E-03	-0.032
CF-249	-1.693E-02		3.635E-02	6.019E-02	6.554E-03	-0.281
CF-251	3.260E-03		1.459E-01	2.429E-01	2.474E-02	0.013

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245808006            *
* Acquisition date : 12-FEB-2010 16:58:17 Detector SN#     :                *
* Detector ID      : GAM11                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:05.38     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G245808006           Analyst initials: RXF2           *
* Batch Number     : 947554               Sample Quantity : 1.6746E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.211E+01	2.300E+00	2.316E-01	1.173E+00
AS-73	1.227E+00	1.605E+00	1.161E+00	8.191E-01
RB-84	1.073E-01	8.056E-02	3.660E-02	4.110E-02
NB-95	8.339E-01	1.214E-01	3.386E-02	6.191E-02
BA-137M	1.536E-01	5.551E-02	2.816E-02	2.832E-02
CS-137	1.623E-01	5.868E-02	2.977E-02	2.994E-02
LU-177	1.823E+00	1.469E+00	1.185E+00	7.496E-01
TL-208	3.379E-01	8.077E-02	2.626E-02	4.121E-02
BI-211	2.054E+00	4.394E-01	1.665E-01	2.242E-01
BI-212	4.842E-01	3.971E-01	2.299E-01	2.026E-01
PB-212	9.631E-01	1.559E-01	4.545E-02	7.956E-02
PO-212	9.631E-01	1.559E-01	4.545E-02	7.956E-02
BI-214	7.687E-01	1.540E-01	4.824E-02	7.856E-02
PB-214	7.143E-01	1.572E-01	5.803E-02	8.019E-02
PO-214	7.143E-01	1.572E-01	5.803E-02	8.019E-02
PO-216	9.631E-01	1.559E-01	4.545E-02	7.956E-02
PO-218	7.143E-01	1.572E-01	5.803E-02	8.019E-02
RA-224	2.765E+00	1.025E+00	5.173E-01	5.231E-01
RA-226	7.687E-01	1.540E-01	4.824E-02	7.856E-02
AC-228	1.169E+00	2.499E-01	8.445E-02	1.275E-01
RA-228	1.169E+00	2.499E-01	8.445E-02	1.275E-01
TH-228	9.798E-01	1.586E-01	4.624E-02	8.094E-02
TH-230	7.686E-01	1.540E-01	4.824E-02	7.856E-02
U-231	2.518E+01	5.566E+00	1.849E+00	2.840E+00
TH-232	1.169E+00	2.499E-01	8.445E-02	1.275E-01
PA-234M	2.419E+02	2.891E+01	3.236E+00	1.475E+01
TH-234	1.664E+02	2.872E+01	1.742E+00	1.466E+01
U-234	7.686E-01	1.540E-01	4.824E-02	7.856E-02
U-235	2.961E+00	6.744E-01	2.246E-01	3.441E-01
U-238	1.664E+02	2.872E+01	1.742E+00	1.466E+01
AM-243	2.660E-01	1.173E-01	8.746E-02	5.985E-02
ANH-511	7.612E-02	5.855E-02	2.227E-02	2.987E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.065E-02	3.165E-01	2.803E-01	1.615E-01	NOT IDENT.
NA-22	7.276E-03	3.490E-02	3.004E-02	1.781E-02	NOT IDENT.
NA-24	2.317E+05	5.379E+06	0.000E+00	2.744E+06	SHORT HLIF
AL-26	2.392E-02	2.255E-02	2.235E-02	1.151E-02	NOT IDENT.
TI-44	1.328E-01	6.373E-02	5.160E-02	3.252E-02	FAIL ABUN
SC-46	3.194E-03	3.584E-02	3.008E-02	1.829E-02	FAIL ABUN
V-48	7.477E-02	6.241E-02	5.910E-02	3.184E-02	NOT IDENT.
CR-51	1.258E-01	3.747E-01	3.299E-01	1.912E-01	NOT IDENT.
MN-52	1.018E-01	2.598E-01	2.261E-01	1.326E-01	FAIL ABUN
MN-54	-6.443E-03	3.123E-02	2.734E-02	1.593E-02	NOT IDENT.
CO-56	1.715E-03	3.364E-02	2.992E-02	1.716E-02	NOT IDENT.
CO-57	2.204E-02	3.126E-02	3.000E-02	1.595E-02	NOT IDENT.
CO-58	1.062E-02	3.642E-02	3.135E-02	1.858E-02	NOT IDENT.
FE-59	-1.298E-02	7.045E-02	5.955E-02	3.595E-02	FAIL ABUN
CO-60	-4.207E-03	2.707E-02	2.226E-02	1.381E-02	NOT IDENT.
ZN-65	-1.782E-02	7.628E-02	5.500E-02	3.892E-02	NOT IDENT.
GE-68	5.465E-01	9.298E-01	8.421E-01	4.744E-01	NOT IDENT.
AS-74	-7.466E-03	9.070E-02	7.880E-02	4.627E-02	NOT IDENT.
SE-75	1.059E-02	4.452E-02	3.789E-02	2.271E-02	NOT IDENT.
BR-77	-3.359E+00	1.851E+01	1.624E+01	9.442E+00	FAIL ABUN
SR-82	-8.417E-02	3.905E-01	3.257E-01	1.993E-01	NOT IDENT.
RB-83	6.501E-03	6.623E-02	5.901E-02	3.379E-02	NOT IDENT.
KR-85	7.673E+00	6.311E+00	5.898E+00	3.220E+00	NOT IDENT.
SR-85	4.021E-02	3.308E-02	3.091E-02	1.688E-02	NOT IDENT.
RB-86	-2.183E-01	6.502E-01	5.431E-01	3.317E-01	NOT IDENT.
Y-88	-2.703E-02	2.942E-02	2.087E-02	1.501E-02	NOT IDENT.
ZR-88	2.219E-02	2.766E-02	2.605E-02	1.411E-02	NOT IDENT.
Y-91	-1.523E+01	1.482E+01	1.140E+01	7.561E+00	NOT IDENT.
NB-94	-1.047E-02	3.332E-02	2.800E-02	1.700E-02	NOT IDENT.
NB-95M	-2.624E-02	1.278E-01	1.011E-01	6.523E-02	NOT IDENT.
ZR-95	-6.860E-03	7.222E-02	6.096E-02	3.685E-02	NOT IDENT.
NB-97	-5.347E+05	8.047E+05	0.000E+00	4.106E+05	SHORT HLIF
ZR-97	-1.655E+06	1.293E+07	0.000E+00	6.596E+06	SHORT HLIF
MO-99	1.341E+01	2.439E+01	1.890E+01	1.245E+01	NOT IDENT.
TC-99M	1.435E+19	1.686E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.528E-02	3.418E-02	3.001E-02	1.744E-02	NOT IDENT.
RH-102	1.896E-02	2.781E-02	2.565E-02	1.419E-02	FAIL ABUN
RU-103	-9.243E-04	3.841E-02	3.416E-02	1.960E-02	FAIL ABUN
RH-106	1.708E-01	3.044E-01	2.725E-01	1.553E-01	FAIL ABUN
RU-106	1.708E-01	3.039E-01	2.725E-01	1.551E-01	FAIL ABUN
AG-108M	-1.753E-02	2.944E-02	2.575E-02	1.502E-02	NOT IDENT.
CD-109	-2.226E+00	1.753E+00	1.377E+00	8.944E-01	NOT IDENT.
AG-110M	-2.521E-02	3.706E-02	2.619E-02	1.891E-02	FAIL ABUN
IN-111	4.303E-01	1.867E+00	1.502E+00	9.528E-01	NOT IDENT.
IN-113M	1.621E-02	4.038E-02	3.748E-02	2.060E-02	NOT IDENT.
SN-113	1.621E-02	4.038E-02	3.748E-02	2.060E-02	NOT IDENT.
IN-114M	1.102E-01	1.942E-01	1.721E-01	9.910E-02	NOT IDENT.
CD-115	4.157E+00	1.895E+01	1.697E+01	9.669E+00	NOT IDENT.
SN-117M	-3.205E-02	7.103E-02	6.208E-02	3.624E-02	NOT IDENT.
SB-122	-7.396E-01	3.389E+00	2.940E+00	1.729E+00	NOT IDENT.
I-123	-4.689E+07	1.001E+08	0.000E+00	5.108E+07	SHORT HLIF
TE-123M	-1.660E-02	3.543E-02	2.901E-02	1.808E-02	NOT IDENT.
I-124	-5.232E-01	8.863E-01	7.164E-01	4.522E-01	NOT IDENT.
SB-124	-2.417E-03	5.601E-02	4.742E-02	2.858E-02	FAIL ABUN
SB-125	5.889E-02	8.448E-02	7.870E-02	4.310E-02	FAIL ABUN
TE-125M	4.084E+01	1.559E+01	1.370E+01	7.952E+00	NOT IDENT.
I-126	3.609E-02	2.259E-01	1.718E-01	1.153E-01	NOT IDENT.
SB-126	4.502E-02	1.549E-01	1.348E-01	7.904E-02	FAIL ABUN
SN-126	-1.377E-01	1.704E-01	1.355E-01	8.694E-02	FAIL ABUN
SB-127	-6.487E-01	1.733E+00	1.448E+00	8.841E-01	NOT IDENT.
XE-127	2.091E-02	5.589E-02	4.603E-02	2.852E-02	FAIL ABUN
I-131	-3.165E-02	1.393E-01	1.177E-01	7.108E-02	NOT IDENT.
TE-132	8.741E-01	1.095E+00	9.984E-01	5.589E-01	FAIL ABUN
BA-133	3.211E-02	4.420E-02	3.518E-02	2.255E-02	FAIL ABUN
I-133	-8.625E+03	2.877E+04	0.000E+00	1.468E+04	SHORT HLIF
CS-134	3.029E-02	4.828E-02	4.232E-02	2.463E-02	NOT IDENT.
CS-135	-1.529E-02	1.722E-01	1.350E-01	8.784E-02	NOT IDENT.
I-135	3.493E+17	7.746E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.219E-02	8.438E-02	6.930E-02	4.305E-02	FAIL ABUN
CE-139	-1.078E-02	3.771E-02	3.096E-02	1.924E-02	NOT IDENT.
BA-140	-1.048E-01	2.747E-01	2.355E-01	1.402E-01	FAIL ABUN
LA-140	4.358E-04	6.051E-02	5.203E-02	3.087E-02	NOT IDENT.
CE-141	1.972E-01	8.723E-02	7.644E-02	4.451E-02	NOT IDENT.

CE-143	5.896E+02	4.253E+02	0.000E+00	2.170E+02	SHORT HLIF
CE-144	1.831E-01	2.708E-01	2.324E-01	1.382E-01	NOT IDENT.
PM-144	-1.085E-02	3.478E-02	2.926E-02	1.774E-02	NOT IDENT.
PR-144	-7.358E-01	2.359E+00	1.985E+00	1.204E+00	NOT IDENT.
PM-146	4.483E-02	4.022E-02	3.777E-02	2.052E-02	NOT IDENT.
ND-147	-4.657E-01	5.747E-01	4.795E-01	2.932E-01	FAIL ABUN
PM-149	-4.751E+01	1.641E+02	1.419E+02	8.373E+01	NOT IDENT.
EU-152	-6.412E-03	9.166E-02	7.861E-02	4.677E-02	NOT IDENT.
GD-153	1.830E+00	2.492E-01	1.427E-01	1.272E-01	FAIL ABUN
EU-154	2.280E-02	9.763E-02	8.420E-02	4.981E-02	NOT IDENT.
EU-155	4.866E-02	1.409E-01	1.359E-01	7.191E-02	NOT IDENT.
TB-160	2.091E-01	1.570E-01	1.243E-01	8.010E-02	FAIL ABUN
HO-166M	2.645E-02	5.736E-02	5.049E-02	2.926E-02	FAIL ABUN
TM-171	-1.056E+02	4.568E+01	3.546E+01	2.330E+01	FAIL ABUN
LU-176	6.207E-04	2.347E-02	2.047E-02	1.197E-02	NOT IDENT.
LU-177M	-1.373E-01	1.575E-01	1.364E-01	8.035E-02	FAIL ABUN
HF-181	-1.270E-02	4.079E-02	3.584E-02	2.081E-02	FAIL ABUN
W-181	-2.894E-03	5.694E-01	4.720E-01	2.905E-01	NOT IDENT.
TA-182	3.739E-02	1.517E-01	1.314E-01	7.740E-02	FAIL ABUN
RE-183	7.126E-01	2.281E-01	1.430E-01	1.164E-01	FAIL ABUN
RE-184	-1.064E-05	2.311E-01	2.053E-01	1.179E-01	NOT IDENT.
OS-185	7.377E-03	3.789E-02	3.320E-02	1.933E-02	FAIL ABUN
RE-188	8.973E-02	1.954E-01	1.834E-01	9.969E-02	NOT IDENT.
W-188	-5.968E+00	8.114E+00	6.022E+00	4.140E+00	FAIL ABUN
IR-192	-2.257E-02	3.390E-02	2.836E-02	1.729E-02	FAIL ABUN
AU-195	5.340E+00	7.271E-01	4.396E-01	3.710E-01	FAIL ABUN
TL-200	1.068E+03	1.730E+03	0.000E+00	8.825E+02	SHORT HLIF
TL-201	-7.782E+00	1.417E+01	1.151E+01	7.231E+00	NOT IDENT.
TL-202	6.957E-03	6.845E-02	6.207E-02	3.493E-02	NOT IDENT.
HG-203	8.907E-03	4.059E-02	3.601E-02	2.071E-02	FAIL ABUN
BI-207	2.306E-02	4.434E-02	3.977E-02	2.262E-02	FAIL ABUN
TL-207	5.144E-01	6.125E-01	5.443E-01	3.125E-01	FAIL ABUN
PO-209	-2.272E+00	5.488E+00	4.659E+00	2.800E+00	NOT IDENT.
BI-210	-1.675E+00	4.059E+00	3.721E+00	2.071E+00	NOT IDENT.
PB-210	-1.675E+00	4.059E+00	3.721E+00	2.071E+00	NOT IDENT.
PO-210	-1.675E+00	4.058E+00	3.721E+00	2.071E+00	NOT IDENT.
PB-211	-6.044E-01	8.997E-01	7.191E-01	4.590E-01	NOT IDENT.
PO-215	5.144E-01	6.125E-01	5.443E-01	3.125E-01	FAIL ABUN
RN-219	2.096E-01	3.496E-01	3.258E-01	1.784E-01	FAIL ABUN
RN-220	-1.979E+01	2.576E+01	2.166E+01	1.314E+01	NOT IDENT.
RA-223	5.144E-01	6.125E-01	5.443E-01	3.125E-01	FAIL ABUN
AC-227	2.668E-01	4.461E-01	3.612E-01	2.276E-01	NOT IDENT.
TH-227	2.668E-01	4.468E-01	3.612E-01	2.280E-01	FAIL ABUN
TH-229	-6.900E-02	5.230E-01	4.747E-01	2.668E-01	FAIL ABUN
PA-231	9.822E-01	1.404E+00	1.260E+00	7.161E-01	NOT IDENT.
TH-231	5.144E-01	6.125E-01	5.443E-01	3.125E-01	FAIL ABUN
PA-233	8.748E-03	6.155E-02	5.388E-02	3.140E-02	FAIL ABUN
PA-234	6.059E-01	3.901E-01	2.701E-01	1.990E-01	FAIL ABUN
NP-236	-7.456E-02	9.955E-02	8.056E-02	5.079E-02	FAIL ABUN
NP-237	7.803E-02	4.842E-01	3.926E-01	2.470E-01	FAIL ABUN
NP-239	-4.867E-01	2.550E-01	2.194E-01	1.301E-01	FAIL ABUN
AM-241	2.430E-01	2.731E-01	2.312E-01	1.393E-01	NOT IDENT.
CM-243	1.296E-02	1.250E-01	1.203E-01	6.377E-02	FAIL ABUN
AM-246	1.488E-01	1.043E-01	1.004E-01	5.319E-02	NOT IDENT.
CM-247	-1.734E-03	3.146E-02	2.856E-02	1.605E-02	NOT IDENT.
CF-249	-1.693E-02	3.562E-02	3.181E-02	1.817E-02	NOT IDENT.
CF-251	3.260E-03	1.430E-01	1.315E-01	7.295E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	1517.0380
46.50	1517.0380
46.50	1517.0380
48.70	1648.2186
49.72	1620.2598
51.35	1741.2192
52.39	1766.4469
52.97	2004.3711
53.15	2005.5472
53.44	2185.2021
54.07	2241.7131
56.28	2485.1501
56.28	2485.1753
57.37	0.0000
57.53	2485.8142
57.53	2485.8308
57.60	2486.3523
57.98	2585.2627
57.98	2585.2627
59.32	2526.6431
59.32	2526.6431
59.40	2527.2549
59.54	2617.5876
59.72	2619.0044
60.01	2654.6221
61.10	2766.6208
61.14	2766.9448
61.30	2768.2500
63.00	2381.1768
63.29	2383.1733
63.29	2383.1733
63.58	2385.1699
64.28	1934.6808
65.12	1991.5973
65.20	2147.4131
65.20	2147.4131
66.05	2166.4419
66.72	2406.8455
66.83	2407.6062
66.91	2408.1294
67.20	2260.0291
67.20	2260.0291
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67.85	2309.4146
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68.90	2372.0190
69.30	2529.7910
69.67	2658.5054
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70.83	3031.1868
72.80	3015.2539
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72.87	3015.8008
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74.81	3324.6667
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74.97	3326.0378
75.28	2894.8259
75.70	2897.9375
77.11	2815.4202
77.11	2815.4202

77.11	2815.4202
77.11	2815.4202
77.11	2815.4202
77.11	2815.4202
77.11	2815.4202
78.38	2790.9490
79.62	2866.6516
79.80	2867.9290
79.80	2867.9290
80.11	2886.9172
80.18	2887.4128
80.30	2888.2573
80.30	2888.2573
80.57	2897.3738
81.00	2821.8652
81.07	2822.3486
81.07	2822.3486
81.07	2822.3486
81.07	2822.3486
82.60	3021.1216
83.37	3266.5383
83.78	3269.7532
83.78	3269.7532
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83.78	3269.7532
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84.90	3278.4492
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86.54	3330.4575
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87.57	3672.2432
87.88	3674.8811
88.03	3759.2839
88.36	3736.8582
88.47	3737.7900
89.95	3785.6226
91.11	3777.4656
92.29	3152.0825
92.38	3152.7058
92.38	3152.7058
93.35	3159.4849
94.00	3164.0044
94.67	3168.6213
94.67	3168.6602
94.90	3170.2380
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94.90	3170.2380
94.90	3170.2380
95.87	1408.4708
95.87	1408.4708
96.73	1411.0963
97.43	1413.2036
98.44	1406.2349
98.44	1406.2434
98.88	1407.5555
99.55	1193.8495
99.55	1193.8495
99.86	1194.6339
100.00	1194.9825
100.10	1197.7550
103.18	1295.5598
103.76	1245.6628
105.00	1207.3809
105.31	1260.5978
108.00	1455.8301
109.28	1355.9092

111.00	1527.3477
111.00	1527.3477
111.76	1529.6083
112.95	1533.1310
115.19	1165.7760
116.30	1185.0857
117.00	1174.7034
117.00	1174.7034
117.66	1097.9919
121.11	986.4093
121.62	947.1730
121.78	947.4490
122.06	946.1873
122.32	946.6335
122.32	946.6335
122.32	946.6335
122.32	946.6335
123.07	990.8109
127.23	950.2390
129.76	947.2931
131.20	942.1145
133.02	871.1407
133.54	871.9167
135.34	862.5105
136.00	870.1864
136.25	887.7484
136.48	920.3463
140.51	872.6830
140.51	0.0000
142.18	967.3196
142.65	961.2816
143.76	854.1954
144.24	854.8566
144.24	854.8566
144.24	854.8566
144.24	854.8566
145.22	762.1339
145.44	792.4033
147.16	835.6126
152.43	802.5590
152.70	790.0207
153.22	774.0906
154.21	710.7343
154.21	710.7343
154.21	710.7343
154.21	710.7343
155.03	740.2453
156.02	766.3258
158.56	736.0564
159.00	0.0000
159.00	725.6763
160.31	753.6154
161.27	695.9963
162.32	699.8825
162.64	716.0820
163.35	716.8311
163.89	717.4006
165.85	727.4336
167.43	733.3289
171.28	721.3200
171.86	735.1559
172.10	735.4089
176.55	683.8179
176.60	683.8690
181.06	681.3678
184.41	598.7851
185.71	599.8354
186.00	600.0632
190.27	499.4614
192.34	572.0295
193.63	548.6249
197.04	530.4878
198.01	560.5430
198.60	564.8848
200.40	550.4525
201.83	462.3264
202.84	520.5933
205.31	525.1663

208.36	500.3394
208.81	452.9385
209.75	429.5918
209.75	429.5918
210.97	436.2089
215.65	437.6713
216.55	438.1425
218.09	444.9738
222.10	420.8390
223.80	486.3921
226.40	394.5439
227.00	390.7571
227.08	390.7924
227.20	404.0447
228.16	415.6694
228.18	409.5797
228.18	409.5797
231.56	0.0000
235.69	401.2851
236.00	407.5766
236.00	407.5766
238.63	356.8377
238.63	356.8377
238.63	356.8377
238.63	356.8377
239.00	356.9825
240.98	357.7625
241.98	358.1579
241.98	358.1579
241.98	358.1579
244.69	378.8858
245.39	343.4308
247.94	340.7424
248.90	334.8533
249.79	352.8664
252.40	371.5938
252.85	348.7967
252.85	348.7967
254.15	0.0000
256.20	370.9899
256.20	370.9899
260.50	293.7015
260.90	303.2988
262.80	333.9696
264.65	304.4707
268.24	350.1483
268.79	356.7129
269.46	313.4015
269.46	313.4015
269.46	313.4015
269.46	313.4015
271.23	312.8954
273.65	324.8508
276.40	317.7197
277.35	307.3081
277.60	320.2363
277.60	320.2363
278.00	311.7925
278.60	293.7506
279.20	313.2323
279.53	330.5022
280.46	330.8030
281.68	293.5616
283.67	245.6455
284.30	275.9792
285.00	296.6634
285.90	277.4860
286.10	280.7780
286.10	280.7780
287.40	283.2950
288.45	0.0000
290.67	310.7539
290.80	291.2683
291.72	301.2912
293.26	0.0000
293.70	282.2759
295.21	247.2744
295.21	247.2744

295.21	247.2744
295.96	247.4499
296.50	251.9372
297.23	309.4091
298.57	252.4260
299.80	246.1487
299.80	246.1487
300.09	229.8029
300.09	229.8029
300.09	229.8029
300.09	229.8029
300.12	229.8071
301.29	251.9649
302.84	300.5962
303.76	272.3045
303.91	260.2603
304.40	255.9862
304.40	255.9862
304.84	258.2887
306.84	255.4539
308.46	264.6533
311.98	252.2231
316.51	264.3557
318.01	240.2358
319.02	211.5080
319.41	219.3765
320.08	240.6753
323.87	215.7664
323.87	215.7664
323.87	215.7664
323.87	215.7664
325.23	271.9858
328.77	230.1579
333.44	206.2845
334.20	226.7220
334.20	226.7220
334.30	226.7425
338.28	221.8478
338.28	221.8478
338.28	221.8478
338.28	221.8478
338.32	221.8558
338.32	221.8558
338.32	221.8558
340.50	226.2315
340.57	226.2477
344.27	227.5187
345.85	209.5905
350.59	0.0000
351.07	234.5205
351.92	234.6831
351.92	234.6831
351.92	234.6831
355.39	0.0000
356.01	186.0765
364.48	233.6036
366.43	228.1740
367.43	210.9670
367.94	0.0000
369.80	238.0739
374.96	205.2223
383.85	213.0941
387.95	211.1089
388.63	209.4508
391.69	192.2193
391.69	192.2193
392.90	177.3193
398.62	186.0928
400.65	184.5868
401.10	176.6217
401.81	165.1128
402.60	180.3902
404.84	206.6261
410.95	203.9522
411.60	211.2404
413.65	204.3506
414.70	167.5692
415.30	154.1207

415.76	166.7953
417.63	0.0000
418.52	172.5458
423.70	159.5806
427.08	184.4984
427.89	171.8725
432.53	197.0618
433.93	185.3812
439.47	163.1757
439.56	163.1839
439.89	175.1426
443.98	161.8391
444.90	160.1009
445.03	160.1142
445.03	160.1142
445.03	160.1142
445.03	160.1142
453.90	152.7438
463.38	157.4318
468.07	142.0315
473.00	172.4832
475.06	164.2654
475.35	161.4783
476.78	174.7837
477.59	183.3362
477.96	185.2616
482.03	170.6569
484.57	167.1556
487.03	137.1478
490.36	0.0000
492.35	153.7413
497.08	154.1961
507.63	0.0000
510.53	0.0000
510.84	144.9460
511.00	144.9599
511.85	145.0359
511.85	145.0359
513.99	145.2225
513.99	145.2225
520.41	155.4381
520.65	167.0500
527.90	140.6192
528.96	0.0000
529.64	143.6731
529.87	0.0000
531.02	149.6199
537.32	157.9757
543.00	159.4781
546.56	0.0000
549.76	175.8153
552.65	143.6385
555.20	121.1870
563.23	154.3956
563.90	162.3734
568.70	163.8066
569.32	165.8482
569.50	171.8227
569.67	171.8385
573.80	168.2522
574.00	162.2936
574.64	158.3692
578.91	126.1956
579.30	0.0000
583.14	117.0821
585.48	117.0281
591.81	132.7130
592.07	134.7443
593.00	132.7976
595.88	137.0334
600.56	125.2563
602.52	0.0000
602.71	153.7163
602.71	153.7163
603.60	153.7859
604.41	142.5188
604.70	132.8216
609.31	111.6315

609.31	111.6315
609.31	111.6315
609.31	111.6315
610.33	111.6885
612.46	107.3435
614.37	109.0778
618.01	128.4494
621.84	126.6641
621.84	126.6641
631.29	131.3867
633.02	134.5860
633.10	134.5900
634.78	140.8757
635.90	140.9551
636.97	148.2363
645.85	112.7123
646.12	106.5205
656.30	99.7881
657.75	134.8088
657.90	0.0000
661.65	126.1069
661.65	126.1069
664.57	0.0000
666.33	137.0497
666.33	137.0497
675.00	96.5090
677.61	121.8375
685.20	110.6877
692.80	122.7261
695.00	155.6851
696.49	154.7329
696.49	154.7329
697.00	146.2923
697.49	137.8433
698.33	142.1419
698.50	142.1501
699.00	145.3660
702.63	150.9313
706.10	134.1403
706.58	0.0000
706.67	134.1749
709.31	143.9360
711.68	116.3447
713.82	117.5262
717.42	131.6372
720.50	122.1757
721.93	0.0000
722.20	108.1151
722.78	109.8594
722.78	109.8594
722.89	109.8656
722.95	109.8688
723.30	123.6199
724.18	116.7986
727.18	124.6979
733.00	125.8894
735.90	158.6504
739.58	140.1007
742.81	135.3264
744.21	117.8611
747.13	95.4524
751.79	131.5166
752.31	133.7242
753.82	103.3496
755.35	107.7737
756.15	127.4153
756.87	128.5439
763.93	113.6453
765.79	122.4863
766.42	142.2113
766.84	142.2351
776.49	119.7576
778.00	125.3346
778.57	129.7647
778.89	128.6829
783.80	121.6799
785.46	153.5287
792.07	157.5013

795.84	125.1835
796.30	108.5872
798.80	144.1949
801.93	127.7255
805.60	99.0005
810.29	88.0481
810.76	90.2944
815.85	88.2506
817.79	79.3766
818.51	83.8737
819.60	98.4575
826.30	96.4849
828.27	0.0000
831.60	100.0652
831.96	100.0815
834.83	99.0725
836.80	0.0000
846.75	85.9731
848.13	93.2658
856.28	0.0000
856.80	108.1256
860.37	68.2434
867.32	65.6930
867.82	61.1424
871.10	66.7034
873.19	59.9507
874.81	56.4289
875.33	0.0000
876.40	51.8868
879.36	65.6968
880.27	84.0599
880.51	84.0677
881.50	36.6982
883.24	93.3368
884.67	85.7340
889.25	80.5167
896.60	66.4418
898.02	75.7099
899.00	71.1197
903.28	74.0117
911.07	64.0238
911.07	64.0238
911.07	64.0238
919.63	61.0230
920.93	77.2978
925.00	79.2808
925.24	76.4906
926.50	63.4611
935.52	58.9902
937.48	71.2147
944.10	59.4894
946.00	64.2310
949.00	67.4377
962.29	93.3713
964.01	66.2283
966.15	88.3704
968.20	118.4418
969.11	101.4201
969.11	101.4201
969.11	101.4201
977.42	75.1021
980.50	81.8449
983.50	53.3518
989.30	66.8247
996.32	57.4204
1001.03	73.8098
1001.68	73.8268
1004.76	55.9892
1021.30	0.0000
1024.50	0.0000
1034.80	53.3350
1036.00	53.3564
1037.82	48.5352
1038.57	47.5764
1038.76	0.0000
1045.16	37.9526
1046.59	52.5735
1048.07	55.5221

1050.47	62.3906
1050.47	62.3906
1062.04	70.4602
1063.62	67.5580
1076.63	62.9313
1077.35	50.1608
1078.86	39.3613
1085.78	45.3666
1099.22	60.4222
1112.02	46.7453
1112.84	47.2565
1115.52	64.7207
1120.29	58.8358
1120.29	58.8358
1120.29	58.8358
1120.29	58.8358
1120.51	58.8387
1121.28	58.8531
1124.00	0.0000
1129.67	60.0088
1131.51	0.0000
1147.95	0.0000
1167.94	67.8081
1173.22	43.5879
1175.09	53.7557
1177.93	78.1655
1189.05	82.5029
1204.90	80.8477
1205.75	0.0000
1213.00	88.2214
1221.42	67.8724
1230.97	64.9688
1235.34	99.1266
1236.41	0.0000
1238.25	68.2075
1246.25	55.9354
1260.41	0.0000
1271.85	53.2163
1274.45	54.3004
1274.54	54.3004
1291.56	35.6751
1298.22	0.0000
1312.09	27.4371
1325.50	31.7754
1325.50	31.7754
1332.49	32.8966
1333.61	32.9072
1360.21	33.1434
1362.66	0.0000
1365.15	31.0461
1368.21	30.0002
1368.53	0.0000
1376.25	26.8433
1384.27	29.0514
1394.10	17.2602
1395.20	25.8984
1407.95	12.9920
1434.06	32.6997
1436.60	37.0829
1457.56	0.0000
1460.81	32.9224
1489.15	12.8937
1509.49	17.5868
1596.49	17.9555
1620.62	19.9567
1678.03	0.0000
1691.02	16.4134
1691.02	16.4134
1706.46	0.0000
1750.46	0.0000
1764.49	8.4089
1764.49	8.4089
1764.49	8.4089
1764.49	8.4089
1770.23	5.0516
1771.40	3.3686
1791.20	0.0000
1808.65	8.9121

1836.01 24.8962

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245808006

Total Uranium Activity	4.9651E+02	ug/g
Total Uranium Counting Unc.	8.5455E+01	ug/g
Total Uranium Tpu	4.3600E-05	ug/g
Total Uranium Mda	5.1850E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID  : G245808006       *
*   ANALYST       : RXF2                      DETECTOR   : GAM11            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 16:58:17.05    SAMPLE ALQT:  167.461 GRAM    *
*                                                                           *
*****************************************************************************
```

GROSS GAMMA ACTIVITY (pCi/GRAM) : 2.830E+01
GROSS GAMMA ERROR (pCi/GRAM) : 2.225E+00
GROSS GAMMA MDA (pCi/GRAM) : 7.365E+00
GROSS GAMMA DLC (pCi/GRAM) : 3.640E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:00:53.20

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808007.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:00:15
Sample ID         : G245808007           Sample quantity  : 1.00792E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.71  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.20*	600	600	1.03	126.41	122	10	8.33E-02	8.8	
2	2	74.58*	249	494	1.13	149.16	145	14	3.46E-02	16.0	1.25E+00
3	2	77.01	441	447	1.12	154.02	145	14	6.12E-02	9.4	
4	1	87.13*	194	564	1.41	174.26	163	31	2.69E-02	22.1	5.56E+00
5	1	92.48*	1871	425	1.21	184.97	163	31	2.60E-01	3.0	
6	0	98.69	163	439	1.11	197.37	193	10	2.27E-02	25.4	
7	0	143.21*	152	366	1.46	286.42	281	11	2.11E-02	26.0	
8	0	185.62*	465	277	1.21	371.24	367	10	6.46E-02	8.4	
9	3	238.35*	896	179	1.23	476.70	469	21	1.24E-01	4.2	1.16E+00
10	3	241.27	201	265	1.78	482.54	469	21	2.79E-02	20.8	
11	0	269.65	83	191	1.28	539.29	535	10	1.16E-02	32.8	
12	0	294.66*	345	172	1.36	589.31	582	13	4.79E-02	9.6	
13	0	299.54	63	141	0.93	599.07	595	9	8.77E-03	36.0	
14	0	337.83	188	169	1.50	675.66	670	13	2.61E-02	16.0	
15	0	351.30*	527	167	1.37	702.60	695	13	7.31E-02	6.7	
16	0	463.03*	43	109	1.14	926.05	920	11	6.01E-03	50.2	
17	0	510.37*	109	133	1.45	1020.74	1014	15	1.51E-02	27.7	
18	0	582.68*	236	129	1.33	1165.36	1158	15	3.28E-02	12.5	
19	0	608.67*	347	105	1.67	1217.34	1210	16	4.82E-02	8.6	
20	0	660.95	418	107	1.43	1321.90	1314	14	5.80E-02	7.2	
21	0	726.69	61	85	1.42	1453.38	1445	15	8.46E-03	35.6	
22	0	766.64*	44	69	1.71	1533.27	1527	13	6.17E-03	42.4	
23	0	860.26	70	23	1.83	1720.52	1713	18	9.69E-03	20.0	
24	0	910.10*	181	45	1.95	1820.19	1813	14	2.51E-02	11.2	
25	0	968.64	83	96	1.94	1937.28	1929	18	1.15E-02	31.1	
26	0	999.92*	114	28	1.82	1999.83	1993	14	1.58E-02	13.8	
27	0	1119.79	64	40	1.89	2239.59	2232	15	8.90E-03	25.1	
28	0	1459.44*	643	15	2.06	2918.88	2909	18	8.93E-02	4.2	
29	0	1763.39*	52	15	1.95	3526.79	3519	15	7.18E-03	21.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 19:00:55

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:00:15
Sample ID : G245808007 Sample quantity : 100.79 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.71 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.250E+01	2.535E+00	4.939E-01	3.695E-02	45.543
NB-95	+	765.79	*	1.117E-01	9.515E-02	9.214E-02	6.192E-03	1.213
CD-109	+	88.03	*	3.818E+00	1.725E+00	1.983E+00	1.936E-01	1.925
SN-126	+	64.28		9.029E+00	2.097E+00	1.362E+00	2.073E-01	6.629
	+	86.94		1.555E+00	9.431E-01	8.196E-01	3.409E-01	1.898
	+	87.57	*	3.741E-01	1.690E-01	1.955E-01	1.902E-02	1.914
CS-135	+	268.24	*	4.594E-01	3.033E-01	3.444E-01	2.631E-02	1.334
BA-137M	+	661.65	*	8.478E-01	1.295E-01	8.338E-02	4.259E-03	10.168
CS-137	+	661.65	*	8.962E-01	1.370E-01	8.814E-02	4.527E-03	10.168
TL-208		277.35		5.388E-01	5.333E-01	8.927E-01	9.433E-02	0.604
	+	510.84		7.383E-01	4.155E-01	2.775E-01	2.819E-02	2.661
	+	583.14	*	4.586E-01	1.187E-01	8.013E-02	5.202E-03	5.722
	+	860.37		1.296E+00	5.308E-01	5.230E-01	4.727E-02	2.479
BI-211		72.87		1.013E+01	6.164E+00	9.443E+00	8.330E-01	1.073
	+	351.07	*	4.401E+00	6.582E-01	4.545E-01	2.961E-02	9.684
PB-212	+	74.81		2.151E+00	7.439E-01	9.013E-01	1.163E-01	2.386
	+	77.11		2.121E+00	4.415E-01	5.050E-01	4.544E-02	4.199
	+	87.30		1.730E+00	8.007E-01	9.073E-01	1.264E-01	1.907
	+	238.63	*	1.613E+00	1.785E-01	1.213E-01	8.723E-03	13.292
	+	300.09		1.768E+00	1.283E+00	1.686E+00	1.400E-01	1.049
PO-212	+	74.81		2.151E+00	7.439E-01	9.013E-01	1.163E-01	2.386
	+	77.11		2.121E+00	4.415E-01	5.050E-01	4.544E-02	4.199
	+	87.30		1.730E+00	8.007E-01	9.073E-01	1.264E-01	1.907
		115.19		-6.202E+00	5.629E+00	8.889E+00	5.671E-01	-0.698
	+	238.63	*	1.613E+00	1.785E-01	1.213E-01	8.723E-03	13.292
	+	300.09		1.768E+00	1.283E+00	1.686E+00	1.400E-01	1.049
BI-214	+	609.31	*	1.273E+00	2.395E-01	1.427E-01	1.073E-02	8.917
	+	1120.29		1.255E+00	6.412E-01	5.855E-01	5.441E-02	2.144
	+	1764.49		1.393E+00	6.154E-01	2.828E-01	1.758E-02	4.927
PB-214	+	74.81		3.706E+00	1.264E+00	1.553E+00	1.797E-01	2.386
	+	77.11		3.635E+00	8.059E-01	8.657E-01	1.021E-01	4.199
	+	87.30		2.964E+00	1.359E+00	1.554E+00	1.927E-01	1.907
	+	241.98		2.174E+00	9.203E-01	7.307E-01	5.811E-02	2.975
	+	295.21		1.694E+00	3.564E-01	2.533E-01	2.171E-02	6.688

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.531E+00	2.425E-01	1.485E-01	1.240E-02	10.308
PO-214	+	74.81		3.706E+00	1.264E+00	1.553E+00	1.797E-01	2.386
	+	77.11		3.635E+00	8.059E-01	8.657E-01	1.021E-01	4.199
	+	87.30		2.964E+00	1.359E+00	1.554E+00	1.927E-01	1.907
	+	241.98		2.174E+00	9.203E-01	7.307E-01	5.811E-02	2.975
	+	295.21		1.694E+00	3.564E-01	2.533E-01	2.171E-02	6.688
	+	351.92	*	1.531E+00	2.425E-01	1.485E-01	1.240E-02	10.308
PO-216	+	74.81		2.151E+00	7.439E-01	9.013E-01	1.163E-01	2.386
	+	77.11		2.121E+00	4.415E-01	5.050E-01	4.544E-02	4.199
	+	87.30		1.730E+00	8.007E-01	9.073E-01	1.264E-01	1.907
	+	238.63	*	1.613E+00	1.785E-01	1.213E-01	8.723E-03	13.292
	+	300.09		1.768E+00	1.283E+00	1.686E+00	1.400E-01	1.049
PO-218	+	74.81		3.706E+00	1.264E+00	1.553E+00	1.797E-01	2.386
	+	77.11		3.635E+00	8.059E-01	8.657E-01	1.021E-01	4.199
	+	87.30		2.964E+00	1.359E+00	1.554E+00	1.927E-01	1.907
	+	241.98		2.174E+00	9.203E-01	7.307E-01	5.811E-02	2.975
	+	295.21		1.694E+00	3.564E-01	2.533E-01	2.171E-02	6.688
	+	351.92	*	1.531E+00	2.425E-01	1.485E-01	1.240E-02	10.308
RA-224	+	240.98	*	4.122E+00	1.730E+00	1.381E+00	7.780E-02	2.985
RA-226	+	609.31	*	1.273E+00	2.395E-01	1.427E-01	1.073E-02	8.917
	+	1120.29		1.255E+00	6.412E-01	5.855E-01	5.441E-02	2.144
	+	1764.49		1.393E+00	6.154E-01	2.828E-01	1.758E-02	4.927
AC-228	+	338.32		1.730E+00	8.969E-01	5.129E-01	2.092E-01	3.373
	+	911.07	*	1.592E+00	4.004E-01	2.456E-01	2.834E-02	6.481
	+	969.11		1.293E+00	8.577E-01	5.283E-01	1.230E-01	2.447
RA-228	+	338.32		1.730E+00	8.969E-01	5.129E-01	2.092E-01	3.373
	+	911.07	*	1.592E+00	4.004E-01	2.456E-01	2.834E-02	6.481
	+	969.11		1.293E+00	8.577E-01	5.283E-01	1.230E-01	2.447
TH-228	+	74.81		2.188E+00	7.290E-01	9.169E-01	8.218E-02	2.386
	+	77.11		2.157E+00	4.491E-01	5.137E-01	4.622E-02	4.199
	+	87.30		1.760E+00	7.953E-01	9.230E-01	8.959E-02	1.907
	+	238.63	*	1.641E+00	1.816E-01	1.234E-01	8.874E-03	13.292
	+	300.09		1.799E+00	1.675E+00	1.715E+00	1.011E+00	1.049
TH-230	+	609.31	*	1.273E+00	2.395E-01	1.427E-01	1.073E-02	8.917
	+	1120.29		1.255E+00	6.412E-01	5.855E-01	5.441E-02	2.144
	+	1764.49		1.393E+00	6.153E-01	2.828E-01	1.758E-02	4.927
TH-232	+	338.32		1.730E+00	5.633E-01	5.129E-01	3.029E-02	3.373
	+	911.07	*	1.592E+00	4.004E-01	2.456E-01	2.834E-02	6.481
	+	969.11		1.293E+00	8.577E-01	5.283E-01	1.230E-01	2.447
PA-234M	+	766.42		2.891E+01	2.855E+01	2.455E+01	1.239E+01	1.178
	+	1001.03	*	3.611E+01	1.057E+01	8.531E+00	8.139E-01	4.233
TH-234	+	63.29	*	2.281E+01	5.737E+00	3.744E+00	6.747E-01	6.093
	+	92.38		2.311E+01	4.436E+00	1.264E+00	2.306E-01	18.273
U-234	+	609.31	*	1.273E+00	2.395E-01	1.427E-01	1.073E-02	8.917
	+	1120.29		1.255E+00	6.412E-01	5.855E-01	5.441E-02	2.144
	+	1764.49		1.393E+00	6.153E-01	2.828E-01	1.758E-02	4.927
U-235		89.95		1.030E+01	3.805E+00	3.526E+00	1.096E+00	2.921
	+	93.35		2.778E+01	7.988E+00	1.506E+00	4.228E-01	18.445
		105.00		1.521E+00	1.672E+00	2.645E+00	7.798E-01	0.575

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	143.76	*	8.698E-01	4.736E-01	4.729E-01	7.648E-02	1.839
		163.35		1.030E+00	6.893E-01	1.151E+00	2.046E-01	0.895
	+	185.71		5.838E-01	1.032E-01	9.532E-02	4.991E-03	6.124
		205.31		3.823E-02	7.650E-01	1.238E+00	2.211E-01	0.031
NP-237	+	86.50	*	1.099E+00	5.457E-01	5.825E-01	1.327E-01	1.886
		95.87		3.748E+00	2.292E+00	2.546E+00	6.252E-01	1.472
U-238	+	63.29	*	2.281E+01	5.737E+00	3.744E+00	6.747E-01	6.093
	+	92.38		2.311E+01	2.487E+00	1.264E+00	1.130E-01	18.273
AM-243	+	74.67	*	3.487E-01	1.161E-01	1.467E-01	1.304E-02	2.377
	+	86.72		4.119E+01	1.861E+01	2.178E+01	2.103E+00	1.892
		117.66		-8.126E+00	5.659E+00	8.763E+00	5.427E-01	-0.927
	+	142.18		7.306E+01	3.819E+01	3.916E+01	2.132E+00	1.866
ANH-511	+	511.00	*	1.595E-01	8.876E-02	5.995E-02	3.482E-03	2.660

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.408E-04	4.771E-01	7.857E-01	5.340E-02	0.001
NA-22		1274.54	*	-8.124E-03	6.106E-02	9.798E-02	6.580E-03	-0.083
NA-24		1368.53	*	7.129E-01	6.106E-02	Half-Life too short		
AL-26		1129.67		-4.271E-01	2.201E+00	3.537E+00	2.253E-01	-0.121
		1808.65	*	1.764E-02	2.720E-02	5.327E-02	3.202E-03	0.331
TI-44		67.85		-4.327E-02	8.932E-02	1.286E-01	1.120E-02	-0.336
	+	78.38	*	3.914E-01	8.147E-02	1.147E-01	1.039E-02	3.413
SC-46		889.25	*	-8.704E-04	5.172E-02	8.602E-02	7.685E-03	-0.010
	+	1120.51		2.187E-01	1.107E-01	1.508E-01	9.823E-03	1.450
V-48		944.10		3.707E-01	1.320E+00	2.252E+00	1.962E-01	0.165
		983.50	*	-6.195E-03	9.985E-02	1.643E-01	1.367E-02	-0.038
		1312.09		2.126E-02	1.152E-01	1.919E-01	1.365E-02	0.111
CR-51		320.08	*	1.088E-01	5.286E-01	8.963E-01	5.877E-02	0.121
MN-52		744.21		3.589E-01	4.561E-01	7.834E-01	4.988E-02	0.458
		848.13		2.520E+00	1.171E+01	1.995E+01	1.628E+00	0.126
		935.52		2.645E-01	4.585E-01	8.010E-01	7.042E-02	0.330
		1246.25		-1.257E+01	1.338E+01	1.956E+01	1.252E+00	-0.642
		1333.61		-3.366E+00	8.715E+00	1.337E+01	9.813E-01	-0.252
		1434.06	*	-7.113E-02	4.151E-01	6.523E-01	4.719E-02	-0.109
MN-54		834.83	*	8.078E-03	5.025E-02	8.519E-02	6.745E-03	0.095
CO-56		846.75	*	6.736E-02	5.474E-02	1.008E-01	8.196E-03	0.669
		977.42		5.199E-01	3.844E+00	5.829E+00	4.887E-01	0.089
		1037.82		8.820E-03	3.790E-01	6.275E-01	5.144E-02	0.014
		1175.09		1.920E-01	3.148E+00	5.188E+00	2.937E-01	0.037
		1238.25		2.032E-01	1.302E-01	2.393E-01	1.592E-02	0.849
		1360.21		5.848E-01	1.284E+00	2.226E+00	1.630E-01	0.263
		1771.40		-2.710E-01	3.268E-01	4.471E-01	2.766E-02	-0.606
CO-57		122.06	*	-1.199E-02	3.504E-02	5.680E-02	3.349E-03	-0.211
		136.48		-8.646E-02	3.025E-01	4.726E-01	3.073E-02	-0.183
CO-58		810.76	*	-7.651E-02	4.947E-02	6.852E-02	5.148E-03	-1.117
FE-59	+	142.65		1.159E+01	6.059E+00	7.231E+00	3.932E-01	1.603

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		192.34		-3.113E-01	1.417E+00	2.190E+00	2.533E-01	-0.142
		1099.22	*	-3.139E-04	1.124E-01	1.848E-01	1.423E-02	-0.002
		1291.56		-7.852E-02	1.839E-01	2.841E-01	2.359E-02	-0.276
CO-60		1173.22		3.596E-02	6.327E-02	1.093E-01	6.167E-03	0.329
		1332.49	*	1.274E-02	5.072E-02	8.532E-02	6.263E-03	0.149
ZN-65		1115.52	*	1.249E-01	1.330E-01	2.133E-01	1.409E-02	0.585
GE-68		1077.35	*	-4.489E-01	1.579E+00	2.514E+00	1.800E-01	-0.179
AS-73		53.44	*	1.200E+00	1.709E+00	2.935E+00	2.591E-01	0.409
AS-74		595.88	*	-3.358E-02	1.252E-01	1.987E-01	1.096E-02	-0.169
		634.78		1.019E-01	5.644E-01	8.714E-01	4.613E-02	0.117
SE-75		66.05		-1.519E+01	9.637E+00	1.300E+01	1.365E+00	-1.168
		96.73		3.727E+00	1.841E+00	2.192E+00	2.939E-01	1.700
		121.11		8.227E-02	1.913E-01	3.199E-01	2.984E-02	0.257
		136.00		-1.269E-02	5.499E-02	8.927E-02	5.041E-03	-0.142
		198.60		5.881E-01	2.577E+00	4.209E+00	2.842E-01	0.140
		264.65	*	2.928E-02	7.073E-02	1.018E-01	5.923E-03	0.288
		279.53		-1.578E-01	1.547E-01	2.476E-01	1.557E-02	-0.637
		303.91		9.298E-01	3.185E+00	4.765E+00	4.571E-01	0.195
		400.65		1.262E-01	3.598E-01	6.101E-01	5.551E-02	0.207
BR-77	+	87.88		1.513E+03	6.838E+02	1.001E+03	9.767E+01	1.512
		200.40		1.197E+02	4.275E+02	6.997E+02	3.743E+01	0.171
	+	239.00		4.766E+02	4.825E+01	8.632E+01	4.853E+00	5.521
		249.79		-1.005E+01	1.664E+02	2.656E+02	1.510E+01	-0.038
		281.68		-6.937E+00	2.301E+02	3.874E+02	2.258E+01	-0.018
		297.23		5.747E+02	2.060E+02	2.753E+02	1.617E+01	2.088
		303.76		1.779E+02	4.951E+02	7.443E+02	4.381E+01	0.239
		439.47		2.700E+01	3.804E+02	6.318E+02	3.697E+01	0.043
		484.57		2.610E+02	5.809E+02	9.867E+02	5.768E+01	0.265
		520.65	*	6.011E+00	2.591E+01	4.325E+01	2.503E+00	0.139
		574.64		-2.913E+02	5.360E+02	7.771E+02	4.362E+01	-0.375
		578.91		3.000E+02	2.438E+02	3.899E+02	2.181E+01	0.770
		585.48		1.269E+03	5.507E+02	9.325E+02	5.189E+01	1.360
		755.35		3.647E+02	4.097E+02	7.137E+02	4.673E+01	0.511
		817.79		-1.654E+01	3.060E+02	5.094E+02	3.878E+01	-0.032
SR-82		698.33		-4.808E+00	5.110E+01	8.179E+01	4.620E+00	-0.059
		776.49	*	-2.127E-01	5.270E-01	8.526E-01	5.882E-02	-0.249
		1395.20		7.456E+00	1.579E+01	2.735E+01	1.993E+00	0.273
RB-83		520.41	*	3.442E-02	9.561E-02	1.611E-01	9.326E-03	0.214
		529.64		-6.229E-02	1.523E-01	2.415E-01	1.392E-02	-0.258
		552.65		-6.739E-02	2.637E-01	4.216E-01	2.402E-02	-0.160
RB-84		881.50	*	-3.505E-02	1.005E-01	1.618E-01	1.421E-02	-0.217
KR-85		513.99	*	1.589E+01	1.107E+01	1.785E+01	1.036E+00	0.890
SR-85		513.99	*	8.328E-02	5.800E-02	9.354E-02	5.428E-03	0.890
RB-86		1076.63	*	-5.713E-01	1.102E+00	1.706E+00	1.223E-01	-0.335
Y-88		898.02		-2.786E-02	5.080E-02	7.932E-02	7.253E-03	-0.351
		1836.01	*	-4.376E-02	3.962E-02	4.443E-02	2.616E-03	-0.985
ZR-88		392.90	*	-2.811E-03	4.457E-02	7.380E-02	4.261E-03	-0.038
Y-91		1204.90	*	1.398E+01	2.557E+01	4.409E+01	2.631E+00	0.317
NB-94		702.63	*	1.273E-02	4.852E-02	7.999E-02	4.571E-03	0.159

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.10		1.591E-02	4.286E-02	7.415E-02	6.368E-03	0.215
NB-95M		235.69	*	7.245E-01	2.270E-01	3.660E-01	2.700E-02	1.980
ZR-95		724.18		2.214E-01	1.727E-01	2.717E-01	1.920E-02	0.815
		756.15	*	6.574E-02	9.651E-02	1.652E-01	1.268E-02	0.398
NB-97		657.90	*	5.878E+00	9.651E-02	Half-Life too short		
		1024.50		-5.041E+01	9.651E-02	Half-Life too short		
ZR-97		254.15		1.261E+01	9.651E-02	Half-Life too short		
		355.39		-3.884E+01	9.651E-02	Half-Life too short		
		507.63	*	5.978E+01	9.651E-02	Half-Life too short		
		602.52		-5.048E+01	9.651E-02	Half-Life too short		
		1021.30		7.959E+01	9.651E-02	Half-Life too short		
		1147.95		-7.577E+00	9.651E-02	Half-Life too short		
		1362.66		-5.876E+01	9.651E-02	Half-Life too short		
		1750.46		1.225E+01	9.651E-02	Half-Life too short		
MO-99		140.51		-2.479E+00	7.108E+01	1.009E+02	2.711E+01	-0.025
		181.06		1.306E+00	4.565E+01	6.490E+01	1.100E+01	0.020
		366.43		-8.915E+01	2.046E+02	3.323E+02	1.947E+01	-0.268
		739.58	*	-5.391E+00	3.072E+01	4.864E+01	6.807E+00	-0.111
		778.00		-6.355E+00	7.569E+01	1.261E+02	8.734E+00	-0.050
TC-99M		140.51	*	-6.887E+11	7.569E+01	Half-Life too short		
RH-101		127.23		2.418E-02	4.236E-02	7.116E-02	4.086E-03	0.340
		198.01	*	3.233E-02	4.608E-02	7.681E-02	4.094E-03	0.421
		325.23		1.827E-01	3.075E-01	5.309E-01	3.137E-02	0.344
RH-102		418.52		-2.468E-01	4.172E-01	6.650E-01	3.875E-02	-0.371
		475.06	*	8.919E-03	4.191E-02	7.004E-02	4.100E-03	0.127
		631.29		-1.060E-03	7.546E-02	1.223E-01	6.502E-03	-0.009
		697.49		-7.600E-02	1.110E-01	1.681E-01	9.477E-03	-0.452
	+	766.84		2.752E-01	2.344E-01	2.987E-01	2.013E-02	0.921
		1046.59		3.304E-03	1.502E-01	2.485E-01	1.882E-02	0.013
		1112.84		1.273E-02	3.111E-01	4.420E-01	2.932E-02	0.029
RU-103		497.08	*	-7.317E-03	5.733E-02	9.328E-02	1.181E-02	-0.078
		610.33		1.283E+01	2.693E+00	3.757E+00	5.742E-01	3.416
RH-106	+	511.85		7.997E-01	4.451E-01	5.762E-01	3.346E-02	1.388
		621.84	*	-2.704E-02	4.219E-01	6.812E-01	7.856E-02	-0.040
		1050.47		-3.948E-01	3.154E+00	5.135E+00	3.863E-01	-0.077
RU-106	+	511.85		7.997E-01	4.451E-01	5.762E-01	3.346E-02	1.388
		621.84	*	-2.704E-02	4.218E-01	6.812E-01	3.660E-02	-0.040
		1050.47		-3.948E-01	3.154E+00	5.135E+00	3.863E-01	-0.077
AG-108M		433.93	*	-2.311E-02	4.193E-02	6.647E-02	4.214E-03	-0.348
		614.37		-7.368E-03	5.423E-02	7.472E-02	4.439E-03	-0.099
		722.95		1.415E-02	7.121E-02	1.012E-01	6.579E-03	0.140
AG-110M		657.75	*	2.093E-01	6.970E-02	1.227E-01	6.818E-03	1.706
		677.61		1.679E-01	4.081E-01	6.850E-01	3.920E-02	0.245
		706.67		3.400E-02	2.875E-01	4.686E-01	2.870E-02	0.073
		763.93		4.451E-01	2.817E-01	4.583E-01	3.208E-02	0.971
		884.67		1.148E-02	6.770E-02	1.146E-01	1.045E-02	0.100
		937.48		-1.483E-01	1.594E-01	2.398E-01	2.178E-02	-0.618
		1384.27		1.754E-02	2.394E-01	3.918E-01	2.972E-02	0.045
IN-111		171.28		6.731E-01	2.268E+00	3.736E+00	1.916E-01	0.180

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	3.266E-01	2.702E+00	3.814E+00	2.159E-01	0.086
IN-113M		391.69	*	6.261E-03	6.400E-02	1.070E-01	6.593E-03	0.059
SN-113		391.69	*	6.261E-03	6.400E-02	1.070E-01	6.593E-03	0.059
IN-114M		190.27	*	6.604E-02	2.895E-01	4.158E-01	2.192E-02	0.159
CD-115		260.90		-1.881E+02	3.514E+02	5.444E+02	3.127E+01	-0.346
		492.35		3.797E+01	9.624E+01	1.628E+02	9.503E+00	0.233
		527.90	*	-6.921E+00	2.919E+01	4.694E+01	2.709E+00	-0.147
SN-117M		156.02		-2.685E+00	3.573E+00	5.642E+00	2.952E-01	-0.476
		158.56	*	-3.959E-02	8.596E-02	1.374E-01	7.139E-03	-0.288
SB-122		563.90	*	-2.433E+00	5.166E+00	8.128E+00	4.598E-01	-0.299
		692.80		-3.226E+00	1.001E+02	1.611E+02	8.967E+00	-0.020
I-123		159.00	*	-5.604E+01	1.001E+02	Half-Life too short		
		528.96		-4.999E+03	1.001E+02	Half-Life too short		
TE-123M		159.00	*	-1.980E-02	4.081E-02	6.515E-02	3.438E-03	-0.304
I-124		602.71	*	-8.895E-01	1.413E+00	1.825E+00	1.000E-01	-0.487
		722.78		1.123E+00	1.045E+01	1.470E+01	8.857E-01	0.076
		1325.50		-1.237E+01	6.852E+01	1.087E+02	7.895E+00	-0.114
		1376.25		6.588E+01	6.100E+01	1.119E+02	8.180E+00	0.589
		1509.49		2.070E+01	2.768E+01	5.019E+01	3.559E+00	0.412
		1691.02		-7.031E+00	7.315E+00	9.683E+00	6.321E-01	-0.726
SB-124		602.71		-3.744E-02	5.948E-02	7.683E-02	4.212E-03	-0.487
		645.85		-1.347E-01	6.742E-01	1.072E+00	6.471E-02	-0.126
		709.31		-1.680E+00	3.952E+00	6.118E+00	3.558E-01	-0.275
		713.82		-5.184E-03	2.382E+00	3.838E+00	3.938E-01	-0.001
		722.78		6.853E-02	6.378E-01	8.968E-01	5.640E-02	0.076
	+	968.20		1.364E+01	8.548E+00	9.083E+00	7.701E-01	1.501
		1045.16		-7.107E-01	3.260E+00	5.248E+00	3.984E-01	-0.135
		1325.50		-8.058E-01	4.465E+00	7.083E+00	5.144E-01	-0.114
		1368.21		2.497E-01	2.412E+00	3.973E+00	5.038E-01	0.063
		1436.60		-3.409E+00	5.130E+00	7.322E+00	5.294E-01	-0.466
		1691.02	*	-1.012E-01	1.053E-01	1.394E-01	9.716E-03	-0.726
SB-125		427.89	*	1.085E-01	1.299E-01	2.262E-01	1.376E-02	0.480
	+	463.38		5.711E-01	5.746E-01	7.317E-01	4.985E-02	0.780
		600.56		-4.224E-02	2.504E-01	3.773E-01	2.431E-02	-0.112
		635.90		9.917E-02	3.737E-01	6.203E-01	3.944E-02	0.160
TE-125M		109.28	*	-1.906E+01	1.524E+01	2.390E+01	2.134E+00	-0.797
I-126		388.63		-3.642E-02	3.308E-01	5.464E-01	3.160E-02	-0.067
		666.33	*	-1.869E-01	3.605E-01	4.725E-01	2.445E-02	-0.395
		753.82		7.124E-01	2.194E+00	3.637E+00	2.373E-01	0.196
SB-126		223.80		-1.087E+00	6.434E+00	1.027E+01	5.671E-01	-0.106
		278.60		9.874E-01	3.810E+00	6.503E+00	3.783E-01	0.152
		296.50		1.601E+01	3.605E+00	5.246E+00	3.080E-01	3.051
		414.70		9.510E-02	1.228E-01	2.128E-01	1.238E-02	0.447
		415.30		5.545E+00	1.012E+01	1.733E+01	1.009E+00	0.320
		555.20		4.015E-01	5.818E+00	9.564E+00	5.440E-01	0.042
		573.80		-1.272E+00	1.669E+00	2.465E+00	1.384E-01	-0.516
		593.00		-1.081E+00	1.365E+00	2.060E+00	1.139E-01	-0.525
		656.30		2.360E+00	6.094E+00	8.919E+00	4.591E-01	0.265
		666.33		-7.847E-02	1.514E-01	1.984E-01	1.027E-02	-0.395

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		675.00		-2.290E+00	3.112E+00	4.680E+00	2.481E-01	-0.489
		695.00		-3.944E-03	1.177E-01	1.894E-01	1.060E-02	-0.021
		697.00		-2.670E-02	4.268E-01	6.851E-01	3.856E-02	-0.039
		720.50	*	9.891E-02	2.734E-01	3.964E-01	2.375E-02	0.249
		856.80		4.479E-01	7.476E-01	1.166E+00	9.704E-02	0.384
		989.30		-2.545E-01	1.945E+00	3.176E+00	2.623E-01	-0.080
		1034.80		-7.012E+00	1.209E+01	1.854E+01	1.432E+00	-0.378
		1213.00		-2.627E+00	6.621E+00	1.035E+01	6.260E-01	-0.254
SB-127		61.10		5.470E+02	1.940E+02	3.014E+02	3.573E+01	1.814
		252.40		9.625E-01	8.859E+00	1.426E+01	5.948E+00	0.067
		290.80		1.619E+01	4.344E+01	6.555E+01	6.534E+00	0.247
		411.60		1.531E+00	2.622E+01	4.363E+01	6.496E+00	0.035
		444.90		-1.495E+00	2.122E+01	3.491E+01	4.008E+00	-0.043
		473.00		-2.307E-01	3.500E+00	5.740E+00	6.799E-01	-0.040
		543.00		6.792E+00	3.577E+01	5.933E+01	7.972E+00	0.114
		603.60		-9.709E+00	2.525E+01	3.375E+01	3.802E+00	-0.288
		685.20	*	-9.124E-01	2.661E+00	4.154E+00	4.150E-01	-0.220
		698.50		8.606E-01	3.138E+01	5.075E+01	7.573E+00	0.017
		722.20		6.984E+00	7.216E+01	1.014E+02	1.020E+01	0.069
		783.80		4.323E+00	7.668E+00	1.339E+01	1.607E+00	0.323
XE-127		57.60		2.236E+00	1.338E+01	2.075E+01	1.817E+00	0.108
		145.22		2.251E+00	1.139E+00	1.796E+00	9.691E-02	1.253
		172.10		9.334E-02	1.703E-01	2.834E-01	1.456E-02	0.329
		202.84	*	-6.320E-02	7.185E-02	1.114E-01	5.981E-03	-0.567
		374.96		-9.763E-03	2.790E-01	4.638E-01	2.706E-02	-0.021
I-131		80.18		1.199E+00	1.314E+01	1.404E+01	1.296E+00	0.085
		284.30		2.184E+00	2.447E+00	4.296E+00	2.794E-01	0.508
		364.48	*	-9.544E-02	2.010E-01	3.259E-01	2.136E-02	-0.293
		636.97		6.970E-01	2.494E+00	4.147E+00	2.512E-01	0.168
		722.89		2.388E+00	1.433E+01	2.029E+01	1.243E+00	0.118
TE-132		49.72		-1.035E+02	6.756E+01	1.058E+02	1.192E+01	-0.978
		111.76		1.153E+02	7.608E+01	1.302E+02	1.306E+01	0.886
		116.30		-8.652E+01	6.729E+01	1.048E+02	1.026E+01	-0.826
		228.16	*	-7.180E-01	1.524E+00	2.388E+00	3.512E-01	-0.301
BA-133		53.15		5.207E+00	7.285E+00	1.252E+01	1.104E+00	0.416
		79.62		5.515E-01	3.102E+00	3.335E+00	5.177E-01	0.165
		81.00		5.924E-02	2.338E-01	2.525E-01	4.093E-02	0.235
		276.40		3.096E-01	5.509E-01	8.737E-01	1.133E-01	0.354
		302.84		1.738E-01	2.129E-01	3.295E-01	3.855E-02	0.528
		356.01	*	-5.879E-02	6.946E-02	9.299E-02	1.079E-02	-0.632
		383.85		-2.571E-01	4.245E-01	6.785E-01	7.378E-02	-0.379
I-133	+	510.53		8.643E+00	4.245E-01	Half-Life too short		
		529.87	*	8.674E-04	4.245E-01	Half-Life too short		
		706.58		4.246E-01	4.245E-01	Half-Life too short		
		856.28		2.074E+00	4.245E-01	Half-Life too short		
		875.33		-2.064E-01	4.245E-01	Half-Life too short		
		1236.41		5.204E+00	4.245E-01	Half-Life too short		
		1298.22		4.560E-01	4.245E-01	Half-Life too short		
CS-134		475.35		1.099E+00	2.711E+00	4.590E+00	2.687E-01	0.239

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		563.23		3.142E-01	5.063E-01	8.654E-01	5.005E-02	0.363
		569.32		1.414E-01	2.884E-01	4.771E-01	2.773E-02	0.296
		604.70		4.864E-02	4.783E-02	7.534E-02	4.147E-03	0.646
		795.84	*	6.119E-02	6.278E-02	1.133E-01	8.273E-03	0.540
		801.93		-2.533E-01	5.348E-01	8.489E-01	6.275E-02	-0.298
		1038.57		-1.259E+00	4.745E+00	7.586E+00	5.823E-01	-0.166
		1167.94		-3.233E-01	3.439E+00	5.581E+00	3.199E-01	-0.058
		1365.15		3.675E-01	1.624E+00	2.678E+00	2.083E-01	0.137
I-135		288.45		-9.763E+12	1.624E+00	Half-Life too short		
		417.63		-4.056E+12	1.624E+00	Half-Life too short		
		546.56		2.107E+12	1.624E+00	Half-Life too short		
		836.80		3.071E+12	1.624E+00	Half-Life too short		
		1038.76		-1.430E+12	1.624E+00	Half-Life too short		
		1124.00		-8.008E+11	1.624E+00	Half-Life too short		
		1131.51		-9.463E+10	1.624E+00	Half-Life too short		
		1260.41	*	2.671E+11	1.624E+00	Half-Life too short		
		1457.56		1.847E+14	1.624E+00	Half-Life too short		
		1678.03		-2.712E+12	1.624E+00	Half-Life too short		
		1706.46		-8.173E+11	1.624E+00	Half-Life too short		
		1791.20		3.949E+11	1.624E+00	Half-Life too short		
CS-136		66.91		-2.631E+00	1.736E+00	2.313E+00	3.581E-01	-1.137
	+	86.29		5.450E+00	2.517E+00	3.509E+00	4.752E-01	1.553
		153.22		9.561E-01	1.049E+00	1.742E+00	1.186E-01	0.549
		163.89		2.536E+00	1.684E+00	2.897E+00	1.949E-01	0.875
		176.55		4.526E-02	5.815E-01	9.476E-01	5.652E-02	0.048
		273.65		-7.455E-01	8.344E-01	1.077E+00	7.129E-02	-0.692
		340.57		2.193E-01	2.179E-01	3.401E-01	2.132E-02	0.645
		818.51		-8.963E-03	1.073E-01	1.782E-01	1.361E-02	-0.050
		1048.07	*	-2.327E-02	1.621E-01	2.634E-01	2.100E-02	-0.088
		1235.34		1.008E+00	9.960E-01	1.751E+00	1.800E-01	0.575
CE-139		165.85	*	-3.305E-02	4.286E-02	6.661E-02	3.396E-03	-0.496
BA-140		162.64		8.983E-01	1.217E+00	2.040E+00	1.212E-01	0.440
		304.84		-2.774E-01	2.199E+00	3.186E+00	8.700E-01	-0.087
		423.70		2.942E-01	3.173E+00	5.283E+00	1.679E+00	0.056
		537.32	*	-4.447E-01	4.403E-01	6.229E-01	2.025E-01	-0.714
LA-140		328.77		4.396E-01	4.623E-01	8.097E-01	5.340E-02	0.543
		432.53		-5.411E+00	3.052E+00	4.334E+00	2.794E-01	-1.248
		487.03		-2.006E-01	2.173E-01	3.321E-01	2.194E-02	-0.604
		751.79		1.605E+00	2.509E+00	4.285E+00	3.287E-01	0.374
		815.85		8.195E-02	4.332E-01	7.391E-01	6.423E-02	0.111
		867.82		5.527E-01	2.136E+00	3.195E+00	2.871E-01	0.173
		919.63		3.468E+00	3.989E+00	7.182E+00	7.828E-01	0.483
		925.24		-5.618E-01	1.607E+00	2.541E+00	2.391E-01	-0.221
		1596.49	*	-1.010E-01	1.219E-01	1.730E-01	1.187E-02	-0.584
CE-141		145.44	*	1.828E-01	1.030E-01	1.611E-01	9.086E-03	1.135
CE-143		57.37		-5.200E-04	1.030E-01	Half-Life too short		
		231.56		4.577E-03	1.030E-01	Half-Life too short		
	+	293.26	*	4.630E-03	1.030E-01	Half-Life too short		
	+	350.59		1.001E-01	1.030E-01	Half-Life too short		

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		490.36		3.509E-03	1.030E-01	Half-Life too short		
		664.57		4.417E-03	1.030E-01	Half-Life too short		
		721.93		2.578E-03	1.030E-01	Half-Life too short		
CE-144		80.11		5.477E-01	5.081E+00	5.434E+00	4.981E-01	0.101
		133.54	*	1.635E-01	2.871E-01	4.800E-01	6.779E-02	0.341
PM-144		476.78		4.253E-02	9.689E-02	1.643E-01	1.148E-02	0.259
		618.01		-5.192E-03	4.044E-02	6.492E-02	3.746E-03	-0.080
		696.49	*	-1.355E-02	4.957E-02	7.810E-02	4.394E-03	-0.174
		778.57		-3.105E-01	2.991E+00	4.975E+00	3.452E-01	-0.062
PR-144		696.49	*	-9.195E-01	3.363E+00	5.298E+00	2.978E-01	-0.174
		1489.15		-1.054E+01	1.395E+01	1.868E+01	1.333E+00	-0.564
PM-146		453.90	*	-2.240E-03	6.200E-02	1.021E-01	8.843E-03	-0.022
		633.02		-4.489E-01	2.074E+00	3.084E+00	1.133E+00	-0.146
		735.90		-3.111E-02	2.118E-01	3.357E-01	9.390E-02	-0.093
		747.13		-7.590E-02	1.276E-01	1.923E-01	2.462E-02	-0.395
ND-147	+	91.11		1.326E+01	1.505E+00	1.577E+00	1.551E-01	8.410
		319.41		3.557E+00	5.066E+00	8.813E+00	5.208E-01	0.404
		439.89		-1.539E+00	9.706E+00	1.588E+01	9.298E-01	-0.097
		531.02	*	8.797E-01	8.772E-01	1.535E+00	2.073E-01	0.573
PM-149		285.90	*	-7.014E+00	2.320E+02	3.903E+02	5.542E+01	-0.018
EU-152		121.78		-1.834E-02	1.018E-01	1.662E-01	1.278E-02	-0.110
		244.69		2.800E-02	5.108E-01	7.174E-01	4.058E-02	0.039
		344.27	*	1.992E-01	2.029E-01	2.310E-01	1.531E-02	0.862
		443.98		2.408E-01	1.406E+00	2.349E+00	1.375E-01	0.102
		778.89		1.747E-02	3.491E-01	5.886E-01	4.084E-02	0.030
		867.32		1.950E-01	1.127E+00	1.665E+00	1.418E-01	0.117
		964.01		6.961E-01	4.722E-01	7.814E-01	6.658E-02	0.891
		1085.78		-1.105E-01	5.010E-01	8.037E-01	5.656E-02	-0.137
		1112.02		-1.424E-01	4.448E-01	5.921E-01	3.936E-02	-0.241
		1407.95		1.023E-01	2.365E-01	4.079E-01	2.966E-02	0.251
GD-153		69.67		3.650E+00	3.103E+00	4.764E+00	4.162E-01	0.766
		83.37		5.053E+01	2.701E+01	4.183E+01	3.927E+00	1.208
	+	97.43	*	3.473E-01	1.784E-01	2.253E-01	1.841E-02	1.541
		103.18		-1.423E-01	1.783E-01	2.458E-01	1.836E-02	-0.579
EU-154		123.07		-8.159E-02	7.165E-02	1.115E-01	1.052E-02	-0.732
		247.94		-2.297E-01	5.681E-01	7.680E-01	7.269E-02	-0.299
		591.81		-7.411E-01	8.519E-01	1.277E+00	1.228E-01	-0.580
		723.30		2.359E-01	2.965E-01	4.492E-01	3.267E-02	0.525
		756.87		9.730E-02	1.021E+00	1.656E+00	1.755E-01	0.059
		873.19		-6.429E-02	3.733E-01	6.112E-01	7.487E-02	-0.105
		996.32		8.352E-01	5.985E-01	9.869E-01	1.733E-01	0.846
		1004.76		5.609E-02	3.031E-01	4.441E-01	4.995E-02	0.126
		1274.45	*	-2.605E-02	1.700E-01	2.721E-01	2.702E-02	-0.096
EU-155		48.70		-7.931E+00	5.491E+00	8.708E+00	7.024E-01	-0.911
		60.01		9.376E+00	1.043E+01	1.583E+01	1.375E+00	0.592
	+	86.54		4.509E-01	2.038E-01	2.889E-01	2.808E-02	1.561
		105.31	*	1.509E-01	1.585E-01	2.701E-01	1.992E-02	0.559
TB-160	+	86.79		1.228E+00	5.548E-01	7.889E-01	7.623E-02	1.556
		197.04		4.780E-01	8.017E-01	1.331E+00	7.083E-02	0.359

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		215.65		7.350E-01	1.048E+00	1.745E+00	9.536E-02	0.421
	+	298.57		2.625E-01	1.898E-01	2.686E-01	1.578E-02	0.977
		879.36	*	4.600E-02	1.809E-01	3.093E-01	2.705E-02	0.149
		962.29		1.189E+00	8.299E-01	1.386E+00	1.183E-01	0.858
		966.15		1.073E+00	4.234E-01	7.263E-01	6.173E-02	1.477
		1177.93		2.358E-01	5.167E-01	8.838E-01	5.028E-02	0.267
		1271.85		1.435E-01	1.010E+00	1.653E+00	1.103E-01	0.087
HO-166M		80.57		9.489E-02	6.459E-01	6.927E-01	6.369E-02	0.137
	+	184.41		4.378E-01	7.739E-02	1.178E-01	6.158E-03	3.716
		280.46		-7.516E-02	1.201E-01	1.963E-01	1.143E-02	-0.383
		410.95		1.382E-01	3.626E-01	6.145E-01	3.572E-02	0.225
		711.68	*	-2.130E-02	8.315E-02	1.308E-01	7.654E-03	-0.163
		752.31		3.522E-01	3.667E-01	6.427E-01	4.176E-02	0.548
		810.29		-9.566E-02	7.096E-02	1.008E-01	7.537E-03	-0.949
TM-171		51.35		-1.885E+01	6.409E+01	1.066E+02	9.268E+00	-0.177
		52.39		1.158E+01	3.258E+01	5.541E+01	4.868E+00	0.209
		59.40		5.834E+01	5.714E+01	8.712E+01	7.568E+00	0.670
		66.72	*	-8.681E+01	5.551E+01	7.530E+01	6.548E+00	-1.153
LU-176	+	88.36		8.873E-01	4.009E-01	5.923E-01	5.742E-02	1.498
		201.83		-6.037E-02	4.203E-02	6.331E-02	3.394E-03	-0.954
		306.84	*	-1.490E-02	3.392E-02	5.563E-02	3.277E-03	-0.268
		401.10		3.294E+00	9.290E+00	1.576E+01	9.130E-01	0.209
LU-177		112.95		7.939E+00	3.263E+00	5.737E+00	3.762E-01	1.384
		208.36	*	1.069E+00	1.919E+00	3.172E+00	1.716E-01	0.337
LU-177M		52.97		2.068E+00	3.342E+00	5.728E+00	5.049E-01	0.361
		54.07		8.621E-02	1.750E+00	2.945E+00	2.603E-01	0.029
		61.30		1.335E+01	3.655E+00	5.833E+00	5.067E-01	2.289
		121.62		-3.029E-02	5.277E-01	8.659E-01	5.118E-02	-0.035
		147.16		8.208E-02	1.023E+00	1.471E+00	7.892E-02	0.056
		171.86		2.551E-01	6.605E-01	1.092E+00	5.607E-02	0.234
		218.09		-4.699E-01	1.225E+00	1.937E+00	1.062E-01	-0.243
	+	268.79		2.329E+00	1.533E+00	2.069E+00	1.196E-01	1.126
		319.02		2.488E-01	3.483E-01	6.064E-01	3.581E-02	0.410
		367.43		-3.287E-01	1.304E+00	2.141E+00	1.254E-01	-0.154
		413.65	*	4.356E-02	2.648E-01	4.434E-01	2.580E-02	0.098
HF-181		56.28		-7.949E-01	1.951E+00	3.228E+00	2.842E-01	-0.246
		57.53		7.563E-02	1.123E+00	1.736E+00	1.521E-01	0.044
		65.20		5.650E+00	2.072E+00	3.288E+00	2.856E-01	1.718
		133.02		-6.845E-03	9.670E-02	1.582E-01	8.879E-03	-0.043
		136.25		-2.722E-01	6.882E-01	1.070E+00	5.938E-02	-0.254
		345.85		1.236E-01	3.322E-01	4.713E-01	2.780E-02	0.262
		482.03	*	2.435E-02	6.282E-02	1.062E-01	6.210E-03	0.229
W-181		56.28		-3.029E-01	7.468E-01	1.236E+00	1.088E-01	-0.245
		57.53		2.875E-02	4.304E-01	6.650E-01	5.827E-02	0.043
		65.20	*	2.147E+00	7.877E-01	1.250E+00	1.086E-01	1.718
TA-182		67.75		-1.239E-01	2.157E-01	3.091E-01	2.691E-02	-0.401
	+	100.10		8.143E-01	4.183E-01	4.712E-01	3.688E-02	1.728
		152.43		3.856E-01	4.952E-01	8.188E-01	4.327E-02	0.471
		222.10		-4.701E-01	5.086E-01	7.809E-01	4.303E-02	-0.602

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1001.68		1.239E+01	3.989E+00	7.375E+00	5.988E-01	1.680
	+	1121.28		6.011E-01	3.044E-01	4.067E-01	2.645E-02	1.478
		1189.05		-3.858E-01	4.370E-01	6.487E-01	3.764E-02	-0.595
		1221.42	*	9.701E-02	2.378E-01	4.060E-01	2.492E-02	0.239
		1230.97		-5.454E-01	7.000E-01	1.057E+00	6.596E-02	-0.516
RE-183		57.98		2.694E-01	4.467E-01	6.713E-01	5.870E-02	0.401
		59.32		2.402E-01	2.396E-01	3.651E-01	3.173E-02	0.658
		67.20		-5.565E-01	3.985E-01	5.463E-01	4.754E-02	-1.019
		162.32	*	1.067E-01	1.613E-01	2.696E-01	1.387E-02	0.396
		208.81		4.350E-01	1.409E+00	2.305E+00	1.248E-01	0.189
		291.72		1.016E+00	1.377E+00	2.130E+00	1.248E-01	0.477
RE-184		57.98		9.807E-01	1.626E+00	2.444E+00	2.137E-01	0.401
		59.32		8.736E-01	8.716E-01	1.328E+00	1.154E-01	0.658
		67.20		-2.025E+00	1.450E+00	1.988E+00	1.730E-01	-1.019
		161.27		-1.666E-03	5.101E-01	8.311E-01	4.287E-02	-0.002
		216.55		3.037E-01	3.675E-01	6.154E-01	3.367E-02	0.493
		252.85	*	5.836E-03	3.275E-01	5.250E-01	2.993E-02	0.011
		318.01		4.019E-01	6.137E-01	1.065E+00	6.288E-02	0.377
		792.07		1.552E+00	1.425E+00	2.581E+00	1.849E-01	0.602
		903.28		9.512E-01	1.446E+00	2.270E+00	2.057E-01	0.419
		920.93		4.321E-01	5.875E-01	1.047E+00	9.337E-02	0.413
OS-185		59.72		6.174E-01	6.354E-01	9.669E-01	8.397E-02	0.639
		61.14		1.020E+00	3.831E-01	6.077E-01	5.279E-02	1.678
		69.30		3.051E-01	5.686E-01	8.541E-01	7.456E-02	0.357
		592.07		-2.934E+00	3.484E+00	5.245E+00	2.902E-01	-0.559
		646.12	*	-1.006E-02	5.651E-02	9.003E-02	4.698E-03	-0.112
		717.42		-4.566E-01	1.375E+00	2.085E+00	1.239E-01	-0.219
		874.81		-1.398E-01	7.595E-01	1.243E+00	1.076E-01	-0.113
		880.27		9.440E-02	1.030E+00	1.732E+00	1.518E-01	0.055
RE-188		155.03	*	-1.192E-01	2.511E-01	4.018E-01	2.108E-02	-0.297
		477.96		-2.042E-01	4.551E+00	7.471E+00	4.372E-01	-0.027
		633.10		-7.404E-01	4.278E+00	6.412E+00	3.401E-01	-0.115
W-188	+	63.58		9.361E+02	1.833E+02	2.321E+02	2.016E+01	4.033
		227.08		5.173E+00	1.833E+01	2.989E+01	1.657E+00	0.173
		290.67	*	4.075E+00	1.054E+01	1.593E+01	9.330E-01	0.256
IR-192	+	295.96		1.317E+00	2.650E-01	3.790E-01	2.259E-02	3.476
		308.46		-4.204E-02	1.363E-01	2.252E-01	1.342E-02	-0.187
		316.51	*	-1.039E-02	4.737E-02	7.851E-02	4.658E-03	-0.132
		468.07		3.028E-02	1.079E-01	1.584E-01	1.067E-02	0.191
		604.41		4.889E-01	6.462E-01	9.904E-01	1.108E-01	0.494
		612.46		1.150E+00	1.008E+00	1.607E+00	1.172E-01	0.716
AU-195		65.12		1.171E+00	3.725E-01	5.932E-01	5.153E-02	1.974
		66.83		-2.830E-01	1.844E-01	2.506E-01	2.180E-02	-1.129
	+	75.70		1.137E+00	3.787E-01	6.904E-01	6.165E-02	1.648
	+	98.88	*	1.013E+00	5.205E-01	6.440E-01	5.138E-02	1.573
		129.76		1.263E+00	3.967E+00	6.592E+00	3.747E-01	0.192
TL-200		367.94	*	5.105E-04	3.967E+00	Half-Life too short		
		579.30		3.944E-02	3.967E+00	Half-Life too short		
		828.27		-1.918E-02	3.967E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1205.75		6.433E-03	3.967E+00	Half-Life too short		
TL-201		68.90		4.337E+00	1.558E+01	2.165E+01	1.889E+00	0.200
		70.82		1.050E+01	8.153E+00	1.254E+01	1.099E+00	0.837
		80.30		1.180E+00	1.922E+01	2.048E+01	1.880E+00	0.058
		135.34		-5.596E+01	5.762E+01	9.058E+01	5.043E+00	-0.618
		167.43	*	-2.433E+01	1.576E+01	2.348E+01	1.199E+00	-1.036
TL-202		68.90		2.728E-01	9.797E-01	1.362E+00	1.188E-01	0.200
		70.82		6.582E-01	5.113E-01	7.864E-01	6.891E-02	0.837
		80.30		7.406E-02	1.206E+00	1.285E+00	1.179E-01	0.058
		439.56	*	5.290E-03	1.125E-01	1.865E-01	1.091E-02	0.028
HG-203		70.83		2.615E+00	2.049E+00	3.122E+00	4.277E-01	0.838
		72.87		2.078E+00	1.282E+00	1.938E+00	2.584E-01	1.073
		82.60		4.075E+00	2.458E+00	3.236E+00	4.596E-01	1.259
		279.20	*	-2.673E-02	5.800E-02	9.563E-02	5.907E-03	-0.280
BI-207		72.80		5.269E-01	3.578E-01	5.461E-01	4.816E-02	0.965
	+	74.97		6.260E-01	2.084E-01	3.515E-01	3.128E-02	1.781
		84.90		7.606E-01	3.549E-01	5.405E-01	5.138E-02	1.407
		569.67		2.649E-02	4.422E-02	7.372E-02	4.153E-03	0.359
		1063.62	*	-7.216E-03	5.893E-02	9.562E-02	7.025E-03	-0.075
		1770.23		-1.766E+00	8.387E-01	8.506E-01	5.266E-02	-2.076
TL-207		81.07		1.314E-01	5.152E-01	5.568E-01	5.138E-02	0.236
		83.78		4.074E-01	2.266E-01	3.505E-01	3.301E-02	1.162
		94.90		3.003E+00	5.969E-01	7.892E-01	6.733E-02	3.805
		122.32		-1.276E+00	2.400E+00	3.857E+00	2.609E-01	-0.331
	+	144.24		2.819E+00	1.478E+00	1.707E+00	1.182E-01	1.651
		154.21		1.712E-01	5.631E-01	9.301E-01	6.113E-02	0.184
	+	269.46		5.404E-01	3.559E-01	4.825E-01	2.917E-02	1.120
		323.87	*	-1.289E+00	9.526E-01	1.439E+00	2.383E-01	-0.895
	+	338.28		7.223E+00	2.436E+00	3.108E+00	3.291E-01	2.324
		445.03		-2.681E-01	3.391E+00	5.574E+00	5.742E-01	-0.048
PO-209		260.50		-5.363E+00	1.350E+01	2.110E+01	1.211E+00	-0.254
		262.80		7.386E+00	3.720E+01	6.014E+01	3.459E+00	0.123
		896.60	*	-1.618E+00	8.729E+00	1.423E+01	1.292E+00	-0.114
BI-210		46.50	*	1.215E+01	8.353E+00	1.458E+01	1.135E+00	0.833
PB-210		46.50	*	1.215E+01	8.353E+00	1.458E+01	1.135E+00	0.833
PO-210		46.50	*	1.215E+01	8.339E+00	1.458E+01	9.781E-01	0.833
PB-211		404.84	*	-1.385E+00	1.586E+00	2.065E+00	1.287E+00	-0.671
		427.08		2.373E+00	3.335E+00	5.202E+00	3.215E+00	0.456
		831.96		9.421E-01	1.646E+00	2.715E+00	1.699E+00	0.347
BI-212	+	727.18	*	1.024E+00	7.330E-01	8.537E-01	6.776E-02	1.199
		785.46		1.501E+00	2.586E+00	4.524E+00	3.190E-01	0.332
		1620.62		7.672E-01	1.730E+00	3.081E+00	2.090E-01	0.249
PO-215		81.07		1.314E-01	5.152E-01	5.568E-01	5.138E-02	0.236
		83.78		4.074E-01	2.266E-01	3.505E-01	3.301E-02	1.162
		94.90		3.003E+00	5.969E-01	7.892E-01	6.733E-02	3.805
		122.32		-1.276E+00	2.400E+00	3.857E+00	2.609E-01	-0.331
	+	144.24		2.819E+00	1.478E+00	1.707E+00	1.182E-01	1.651
		154.21		1.712E-01	5.631E-01	9.301E-01	6.113E-02	0.184
	+	269.46		5.404E-01	3.559E-01	4.825E-01	2.917E-02	1.120

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-1.289E+00	9.526E-01	1.439E+00	2.383E-01	-0.895
	+	338.28		7.223E+00	2.436E+00	3.108E+00	3.291E-01	2.324
		445.03		-2.681E-01	3.391E+00	5.574E+00	5.742E-01	-0.048
RN-219		271.23		6.792E-01	4.029E-01	6.221E-01	5.037E-02	1.092
		401.81	*	2.612E-02	5.724E-01	9.530E-01	1.296E-01	0.027
RN-220		549.76	*	-1.702E+01	3.599E+01	5.654E+01	3.226E+00	-0.301
RA-223		81.07		1.314E-01	5.152E-01	5.568E-01	5.138E-02	0.236
		83.78		4.074E-01	2.266E-01	3.505E-01	3.301E-02	1.162
		94.90		3.003E+00	5.969E-01	7.892E-01	6.733E-02	3.805
		122.32		-1.276E+00	2.400E+00	3.857E+00	2.609E-01	-0.331
	+	144.24		2.819E+00	1.478E+00	1.707E+00	1.182E-01	1.651
		154.21		1.712E-01	5.631E-01	9.301E-01	6.113E-02	0.184
	+	269.46		5.404E-01	3.559E-01	4.825E-01	2.917E-02	1.120
		323.87	*	-1.289E+00	9.526E-01	1.439E+00	2.383E-01	-0.895
	+	338.28		7.223E+00	2.436E+00	3.108E+00	3.291E-01	2.324
		445.03		-2.681E-01	3.391E+00	5.574E+00	5.742E-01	-0.048
AC-227		79.80		6.070E-01	3.927E+00	4.214E+00	9.153E-01	0.144
		236.00		2.527E+00	5.071E-01	7.822E-01	8.092E-02	3.230
		256.20	*	8.499E-02	5.411E-01	8.733E-01	1.216E-01	0.097
		286.10		-1.449E+00	2.135E+00	3.363E+00	3.895E-01	-0.431
	+	299.80		3.277E+00	2.421E+00	3.454E+00	5.634E-01	0.949
		304.40		-5.596E-01	2.906E+00	4.188E+00	7.257E-01	-0.134
		334.20		2.291E-01	3.495E+00	5.117E+00	9.399E-01	0.045
TH-227		79.80		6.070E-01	3.927E+00	4.214E+00	9.268E-01	0.144
		94.00		6.743E+01	1.551E+01	9.736E+00	2.122E+00	6.925
		236.00		2.527E+00	4.896E-01	7.822E-01	6.987E-02	3.230
		256.20	*	8.499E-02	5.411E-01	8.733E-01	1.473E-01	0.097
		286.10		-1.449E+00	2.576E+00	3.363E+00	3.369E+00	-0.431
	+	299.80		3.277E+00	2.421E+00	3.454E+00	5.634E-01	0.949
		304.40		-5.596E-01	2.906E+00	4.188E+00	7.257E-01	-0.134
		334.20		2.291E-01	3.495E+00	5.117E+00	9.399E-01	0.045
TH-229		85.43		1.021E+00	3.608E-01	5.536E-01	5.286E-02	1.845
	+	88.47		5.108E-01	2.308E-01	3.399E-01	3.287E-02	1.503
	+	100.00		8.343E-01	4.286E-01	4.906E-01	3.846E-02	1.701
		193.63	*	-1.808E-01	7.068E-01	1.131E+00	5.989E-02	-0.160
		210.97		5.820E-01	1.023E+00	1.694E+00	9.195E-02	0.344
PA-231		283.67	*	2.587E+00	2.105E+00	3.708E+00	5.115E-01	0.698
		301.29		1.262E+00	8.809E-01	1.403E+00	1.473E-01	0.899
TH-231		81.07		1.314E-01	5.152E-01	5.568E-01	5.138E-02	0.236
		83.78		4.074E-01	2.266E-01	3.505E-01	3.301E-02	1.162
		94.90		3.003E+00	5.969E-01	7.892E-01	6.733E-02	3.805
		122.32		-1.276E+00	2.400E+00	3.857E+00	2.609E-01	-0.331
	+	144.24		2.819E+00	1.478E+00	1.707E+00	1.182E-01	1.651
		154.21		1.712E-01	5.631E-01	9.301E-01	6.113E-02	0.184
	+	269.46		5.404E-01	3.559E-01	4.825E-01	2.917E-02	1.120
		323.87	*	-1.289E+00	9.526E-01	1.439E+00	2.383E-01	-0.895
	+	338.28		7.223E+00	2.436E+00	3.108E+00	3.291E-01	2.324
		445.03		-2.681E-01	3.391E+00	5.574E+00	5.742E-01	-0.048
U-231		84.21		2.889E+01	1.388E+01	2.156E+01	2.038E+00	1.340

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		1.245E+02	1.340E+01	1.519E+01	1.359E+00	8.200
		95.87	*	5.999E+00	3.397E+00	4.075E+00	3.418E-01	1.472
		108.00		-6.954E+00	4.508E+00	6.986E+00	4.882E-01	-0.995
PA-233	+	75.28		1.827E+01	6.509E+00	1.076E+01	1.669E+00	1.697
	+	86.59		7.323E+00	3.796E+00	4.690E+00	1.274E+00	1.562
	+	300.12		9.137E-01	6.697E-01	9.631E-01	1.297E-01	0.949
		311.98	*	3.924E-02	8.932E-02	1.533E-01	9.586E-03	0.256
		340.50		1.123E+00	9.875E-01	1.506E+00	3.464E-01	0.746
		398.62		4.624E-01	2.976E+00	4.986E+00	1.289E+00	0.093
		415.76		3.110E-01	2.413E+00	4.031E+00	8.300E-01	0.077
PA-234	+	63.00		2.659E+01	6.231E+00	6.822E+00	1.060E+00	3.897
		94.67		2.428E+00	4.652E-01	6.329E-01	7.826E-02	3.836
	+	98.44		4.073E-01	3.069E-01	2.607E-01	1.452E-01	1.562
	+	99.86		2.111E+00	1.085E+00	1.268E+00	9.961E-02	1.665
		111.00		4.768E-01	3.018E-01	5.162E-01	5.583E-02	0.924
		131.20		1.637E-01	1.454E-01	2.486E-01	1.405E-02	0.659
		152.70		4.265E-01	4.717E-01	7.767E-01	1.214E-01	0.549
	+	186.00		1.576E+01	5.488E+00	4.307E+00	1.312E+00	3.659
		226.40		4.175E-01	5.645E-01	9.379E-01	1.072E-01	0.445
		227.20		1.189E-01	6.038E-01	9.807E-01	5.439E-02	0.121
		248.90		-6.521E-01	1.192E+00	1.767E+00	3.792E-01	-0.369
	+	293.70		8.132E+00	2.039E+00	2.356E+00	3.795E-01	3.451
		369.80		7.167E-01	1.204E+00	2.061E+00	4.294E-01	0.348
		568.70		7.280E-01	1.410E+00	2.336E+00	1.317E-01	0.312
		569.50		2.450E-01	3.931E-01	6.565E-01	3.699E-02	0.373
		574.00		-9.872E-01	2.058E+00	3.121E+00	1.753E-01	-0.316
		699.00		8.365E-01	1.025E+00	1.749E+00	3.136E-01	0.478
		706.10		1.616E-01	1.451E+00	2.361E+00	1.042E+00	0.068
		733.00		5.397E-02	5.846E-01	8.208E-01	1.754E-01	0.066
		742.81		2.040E+00	2.447E+00	3.550E+00	2.377E+00	0.575
		796.30		7.390E-01	1.190E+00	2.073E+00	5.523E-01	0.356
		805.60		8.049E-01	1.293E+00	2.249E+00	6.822E-01	0.358
		819.60		-7.430E-01	1.622E+00	2.552E+00	9.652E-01	-0.291
		826.30		-6.955E-01	1.066E+00	1.586E+00	7.073E-01	-0.438
		831.60		5.630E-01	8.062E-01	1.406E+00	4.165E-01	0.401
		876.40		-5.196E-01	1.204E+00	1.710E+00	1.758E+00	-0.304
		880.51		-6.478E-02	3.785E-01	6.204E-01	5.439E-02	-0.104
		883.24		-2.204E-01	4.139E-01	6.075E-01	4.085E-01	-0.363
		899.00		-5.621E-01	1.096E+00	1.680E+00	7.359E-01	-0.335
		925.00		-4.412E-01	1.516E+00	2.417E+00	2.147E-01	-0.183
		926.50		-1.950E-01	2.318E-01	3.371E-01	8.550E-02	-0.579
		946.00	*	1.767E-01	3.829E-01	6.636E-01	1.248E-01	0.266
		949.00		-2.081E-01	5.434E-01	8.627E-01	7.477E-02	-0.241
		980.50		-2.851E-02	8.993E-01	1.485E+00	1.240E-01	-0.019
		1394.10		1.694E-01	1.636E+00	2.686E+00	1.744E+00	0.063
NP-236		94.67		1.865E+00	3.138E-01	4.817E-01	4.127E-02	3.872
	+	98.44		3.079E-01	1.582E-01	1.971E-01	1.584E-02	1.562
		111.00		3.606E-01	2.262E-01	3.905E-01	2.624E-02	0.924
		160.31	*	-2.268E-02	1.147E-01	1.854E-01	9.587E-03	-0.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		7.038E-01	3.616E-01	4.354E-01	3.437E-02	1.617
		117.00	*	-3.533E-01	2.866E-01	4.485E-01	2.799E-02	-0.788
		209.75		3.880E-01	1.067E+00	1.750E+00	9.488E-02	0.222
		228.18		-1.496E-01	3.189E-01	5.006E-01	2.780E-02	-0.299
		277.60		3.306E-01	2.525E-01	4.306E-01	2.504E-02	0.768
		334.30		1.811E-01	1.983E+00	2.909E+00	1.719E-01	0.062
AM-241		59.54	*	3.443E-01	3.308E-01	5.044E-01	4.693E-02	0.683
CM-243	+	99.55		7.243E-01	3.721E-01	4.481E-01	3.537E-02	1.617
		103.76	*	7.464E-02	1.610E-01	2.374E-01	1.760E-02	0.314
		117.00		-3.635E-01	2.949E-01	4.615E-01	2.880E-02	-0.788
		209.75		3.826E-01	1.052E+00	1.726E+00	9.355E-02	0.222
		228.18		-1.512E-01	3.223E-01	5.059E-01	2.809E-02	-0.299
		277.60		3.333E-01	2.546E-01	4.342E-01	2.525E-02	0.768
AM-246		798.80		-2.246E-01	1.917E-01	2.866E-01	2.086E-02	-0.784
		1036.00		-8.221E-02	3.584E-01	5.752E-01	4.434E-02	-0.143
		1062.04		-1.604E-01	2.739E-01	4.184E-01	3.083E-02	-0.383
		1078.86	*	-1.194E-02	1.770E-01	2.892E-01	2.063E-02	-0.041
CM-247		278.00		1.039E+00	1.018E+00	1.795E+00	1.044E-01	0.579
		287.40		-1.748E+00	1.841E+00	2.641E+00	1.544E-01	-0.662
		402.60	*	4.503E-03	5.128E-02	8.559E-02	4.962E-03	0.053
CF-249		252.85		2.171E-02	1.218E+00	1.953E+00	1.114E-01	0.011
		333.44		-2.460E-02	2.594E-01	3.749E-01	2.215E-02	-0.066
		387.95	*	-9.432E-03	5.591E-02	9.202E-02	5.325E-03	-0.103
CF-251		176.60	*	1.398E-02	1.796E-01	2.927E-01	1.513E-02	0.048
		227.00		3.246E-01	5.325E-01	8.821E-01	4.890E-02	0.368
		285.00		4.293E-02	2.350E+00	3.964E+00	2.315E-01	0.011

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808007      *
* Acquisition date : 12-FEB-2010 17:00:15 Detector SN#     :               *
* Detector ID        : GAM23               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.71     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245808007           Analyst initials: RXF2          *
* Batch Number       : 947554               Sample Quantity : 1.0079E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.250E+01	2.484E+00	4.898E-01	0.000E+00
NB-95	1.117E-01	9.325E-02	9.154E-02	0.000E+00
CD-109	3.818E+00	1.691E+00	1.983E+00	0.000E+00
SN-126	3.741E-01	1.656E-01	1.954E-01	0.000E+00
CS-135	4.594E-01	2.972E-01	3.432E-01	0.000E+00
BA-137M	8.478E-01	1.269E-01	8.287E-02	0.000E+00
CS-137	8.962E-01	1.343E-01	8.760E-02	0.000E+00
TL-208	4.586E-01	1.163E-01	7.968E-02	0.000E+00
BI-211	4.401E+00	6.450E-01	4.526E-01	0.000E+00
PB-212	1.613E+00	1.750E-01	1.210E-01	0.000E+00
PO-212	1.613E+00	1.750E-01	1.210E-01	0.000E+00
BI-214	1.273E+00	2.347E-01	1.419E-01	0.000E+00
PB-214	1.531E+00	2.376E-01	1.479E-01	0.000E+00
PO-214	1.531E+00	2.376E-01	1.479E-01	0.000E+00
PO-216	1.613E+00	1.750E-01	1.210E-01	0.000E+00
PO-218	1.531E+00	2.376E-01	1.479E-01	0.000E+00
RA-224	4.122E+00	1.695E+00	1.377E+00	0.000E+00
RA-226	1.273E+00	2.347E-01	1.419E-01	0.000E+00
AC-228	1.592E+00	3.924E-01	2.439E-01	0.000E+00
RA-228	1.592E+00	3.924E-01	2.439E-01	0.000E+00
TH-228	1.641E+00	1.780E-01	1.230E-01	0.000E+00
TH-230	1.273E+00	2.347E-01	1.419E-01	0.000E+00
TH-232	1.592E+00	3.924E-01	2.439E-01	0.000E+00
PA-234M	3.611E+01	1.036E+01	8.468E+00	0.000E+00
TH-234	2.281E+01	5.622E+00	3.747E+00	0.000E+00
U-234	1.273E+00	2.347E-01	1.419E-01	0.000E+00
U-235	8.698E-01	4.641E-01	4.722E-01	0.000E+00
NP-237	1.099E+00	5.347E-01	5.825E-01	0.000E+00
U-238	2.281E+01	5.622E+00	3.747E+00	0.000E+00
AM-243	3.487E-01	1.138E-01	1.467E-01	0.000E+00
ANH-511	1.595E-01	8.698E-02	5.963E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	4.408E-04	4.675E-01	7.817E-01	0.000E+00	NOT IDENT.
NA-22	-8.124E-03	5.984E-02	9.719E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.851E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.764E-02	2.666E-02	5.279E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.984E-02	1.147E-01	0.000E+00	FAIL ABUN
SC-46	-8.704E-04	5.068E-02	8.542E-02	0.000E+00	FAIL ABUN
V-48	-6.195E-03	9.786E-02	1.631E-01	0.000E+00	NOT IDENT.
CR-51	1.088E-01	5.180E-01	8.928E-01	0.000E+00	NOT IDENT.
MN-52	-7.113E-02	4.068E-01	6.468E-01	0.000E+00	NOT IDENT.
MN-54	8.078E-03	4.925E-02	8.461E-02	0.000E+00	NOT IDENT.
CO-56	6.736E-02	5.364E-02	1.001E-01	0.000E+00	NOT IDENT.
CO-57	-1.199E-02	3.434E-02	5.674E-02	0.000E+00	NOT IDENT.
CO-58	-7.651E-02	4.848E-02	6.806E-02	0.000E+00	NOT IDENT.
FE-59	-3.139E-04	1.101E-01	1.834E-01	0.000E+00	FAIL ABUN
CO-60	1.274E-02	4.970E-02	8.462E-02	0.000E+00	NOT IDENT.
ZN-65	1.249E-01	1.304E-01	2.117E-01	0.000E+00	NOT IDENT.
GE-68	-4.489E-01	1.547E+00	2.495E+00	0.000E+00	NOT IDENT.
AS-73	1.200E+00	1.675E+00	2.939E+00	0.000E+00	NOT IDENT.
AS-74	-3.358E-02	1.226E-01	1.976E-01	0.000E+00	NOT IDENT.
SE-75	2.928E-02	6.932E-02	1.014E-01	0.000E+00	NOT IDENT.
BR-77	6.011E+00	2.539E+01	4.301E+01	0.000E+00	FAIL ABUN
SR-82	-2.127E-01	5.165E-01	8.470E-01	0.000E+00	NOT IDENT.
RB-83	3.442E-02	9.370E-02	1.602E-01	0.000E+00	NOT IDENT.
RB-84	-3.505E-02	9.847E-02	1.607E-01	0.000E+00	NOT IDENT.
KR-85	1.589E+01	1.084E+01	1.775E+01	0.000E+00	NOT IDENT.
SR-85	8.328E-02	5.684E-02	9.304E-02	0.000E+00	NOT IDENT.
RB-86	-5.713E-01	1.080E+00	1.693E+00	0.000E+00	NOT IDENT.
Y-88	-4.376E-02	3.883E-02	4.403E-02	0.000E+00	NOT IDENT.
ZR-88	-2.811E-03	4.368E-02	7.347E-02	0.000E+00	NOT IDENT.
Y-91	1.398E+01	2.505E+01	4.375E+01	0.000E+00	NOT IDENT.
NB-94	1.273E-02	4.754E-02	7.949E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	2.225E-01	3.649E-01	0.000E+00	NOT IDENT.
ZR-95	6.574E-02	9.458E-02	1.641E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.566E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.416E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-5.391E+00	3.010E+01	4.833E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.935E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.233E-02	4.516E-02	7.661E-02	0.000E+00	NOT IDENT.
RH-102	8.919E-03	4.107E-02	6.968E-02	0.000E+00	FAIL ABUN
RU-103	-7.317E-03	5.618E-02	9.279E-02	0.000E+00	NOT IDENT.
RH-106	-2.704E-02	4.134E-01	6.772E-01	0.000E+00	FAIL ABUN
RU-106	-2.704E-02	4.134E-01	6.772E-01	0.000E+00	FAIL ABUN
AG-108M	-2.311E-02	4.109E-02	6.615E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	6.831E-02	1.220E-01	0.000E+00	NOT IDENT.
IN-111	3.266E-01	2.648E+00	3.802E+00	0.000E+00	NOT IDENT.
IN-113M	6.261E-03	6.272E-02	1.065E-01	0.000E+00	NOT IDENT.
SN-113	6.261E-03	6.272E-02	1.065E-01	0.000E+00	NOT IDENT.
IN-114M	6.604E-02	2.837E-01	4.148E-01	0.000E+00	NOT IDENT.
CD-115	-6.921E+00	2.861E+01	4.669E+01	0.000E+00	NOT IDENT.
SN-117M	-3.959E-02	8.424E-02	1.371E-01	0.000E+00	NOT IDENT.
SB-122	-2.433E+00	5.063E+00	8.083E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.132E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.980E-02	3.999E-02	6.503E-02	0.000E+00	NOT IDENT.
I-124	-8.895E-01	1.385E+00	1.815E+00	0.000E+00	NOT IDENT.
SB-124	-1.012E-01	1.032E-01	1.381E-01	0.000E+00	FAIL ABUN
SB-125	1.085E-01	1.273E-01	2.251E-01	0.000E+00	FAIL ABUN
TE-125M	-1.906E+01	1.494E+01	2.388E+01	0.000E+00	NOT IDENT.
I-126	-1.869E-01	3.533E-01	4.697E-01	0.000E+00	NOT IDENT.
SB-126	9.891E-02	2.679E-01	3.939E-01	0.000E+00	NOT IDENT.
SB-127	-9.124E-01	2.608E+00	4.129E+00	0.000E+00	NOT IDENT.
XE-127	-6.320E-02	7.041E-02	1.111E-01	0.000E+00	NOT IDENT.
I-131	-9.544E-02	1.970E-01	3.245E-01	0.000E+00	NOT IDENT.
TE-132	-7.180E-01	1.494E+00	2.381E+00	0.000E+00	NOT IDENT.
BA-133	-5.879E-02	6.807E-02	9.260E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.332E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.119E-02	6.153E-02	1.125E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.507E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.327E-02	1.589E-01	2.614E-01	0.000E+00	FAIL ABUN
CE-139	-3.305E-02	4.200E-02	6.648E-02	0.000E+00	NOT IDENT.
BA-140	-4.447E-01	4.315E-01	6.195E-01	0.000E+00	NOT IDENT.
LA-140	-1.010E-01	1.195E-01	1.715E-01	0.000E+00	NOT IDENT.
CE-141	0.000E+00	1.009E-01	1.608E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.344E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.635E-01	2.814E-01	4.794E-01	0.000E+00	NOT IDENT.

PM-144	-1.355E-02	4.858E-02	7.761E-02	0.000E+00	NOT IDENT.
PR-144	-9.195E-01	3.296E+00	5.265E+00	0.000E+00	NOT IDENT.
PM-146	-2.240E-03	6.076E-02	1.016E-01	0.000E+00	NOT IDENT.
ND-147	8.797E-01	8.597E-01	1.526E+00	0.000E+00	FAIL ABUN
PM-149	-7.014E+00	2.274E+02	3.889E+02	0.000E+00	NOT IDENT.
EU-152	1.992E-01	1.988E-01	2.301E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.749E-01	2.253E-01	0.000E+00	FAIL ABUN
EU-154	-2.605E-02	1.666E-01	2.699E-01	0.000E+00	NOT IDENT.
EU-155	1.509E-01	1.553E-01	2.700E-01	0.000E+00	FAIL ABUN
TB-160	4.600E-02	1.773E-01	3.071E-01	0.000E+00	FAIL ABUN
HO-166M	-2.130E-02	8.149E-02	1.300E-01	0.000E+00	FAIL ABUN
TM-171	-8.681E+01	5.440E+01	7.535E+01	0.000E+00	NOT IDENT.
LU-176	-1.490E-02	3.324E-02	5.542E-02	0.000E+00	FAIL ABUN
LU-177	1.069E+00	1.881E+00	3.163E+00	0.000E+00	NOT IDENT.
LU-177M	4.356E-02	2.595E-01	4.413E-01	0.000E+00	FAIL ABUN
HF-181	2.435E-02	6.157E-02	1.056E-01	0.000E+00	NOT IDENT.
W-181	0.000E+00	7.720E-01	1.251E+00	0.000E+00	NOT IDENT.
TA-182	9.701E-02	2.331E-01	4.028E-01	0.000E+00	FAIL ABUN
RE-183	1.067E-01	1.580E-01	2.691E-01	0.000E+00	NOT IDENT.
RE-184	5.836E-03	3.209E-01	5.233E-01	0.000E+00	NOT IDENT.
OS-185	-1.006E-02	5.538E-02	8.949E-02	0.000E+00	NOT IDENT.
RE-188	-1.192E-01	2.461E-01	4.011E-01	0.000E+00	NOT IDENT.
W-188	4.075E+00	1.033E+01	1.587E+01	0.000E+00	FAIL ABUN
IR-192	-1.039E-02	4.643E-02	7.821E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	5.101E-01	6.437E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.370E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.433E+01	1.545E+01	2.344E+01	0.000E+00	NOT IDENT.
TL-202	5.290E-03	1.102E-01	1.856E-01	0.000E+00	NOT IDENT.
HG-203	-2.673E-02	5.684E-02	9.529E-02	0.000E+00	NOT IDENT.
BI-207	-7.216E-03	5.775E-02	9.490E-02	0.000E+00	FAIL ABUN
TL-207	-1.289E+00	9.336E-01	1.434E+00	0.000E+00	FAIL ABUN
PO-209	-1.618E+00	8.555E+00	1.413E+01	0.000E+00	NOT IDENT.
BI-210	1.215E+01	8.186E+00	1.460E+01	0.000E+00	NOT IDENT.
PB-210	1.215E+01	8.186E+00	1.460E+01	0.000E+00	NOT IDENT.
PO-210	1.215E+01	8.173E+00	1.460E+01	0.000E+00	NOT IDENT.
PB-211	-1.385E+00	1.554E+00	2.055E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.184E-01	8.483E-01	0.000E+00	FAIL ABUN
PO-215	-1.289E+00	9.336E-01	1.434E+00	0.000E+00	FAIL ABUN
RN-219	2.612E-02	5.609E-01	9.486E-01	0.000E+00	NOT IDENT.
RN-220	-1.702E+01	3.527E+01	5.622E+01	0.000E+00	NOT IDENT.
RA-223	-1.289E+00	9.336E-01	1.434E+00	0.000E+00	FAIL ABUN
AC-227	8.499E-02	5.302E-01	8.704E-01	0.000E+00	FAIL ABUN
TH-227	8.499E-02	5.303E-01	8.704E-01	0.000E+00	FAIL ABUN
TH-229	-1.808E-01	6.927E-01	1.128E+00	0.000E+00	FAIL ABUN
PA-231	2.587E+00	2.063E+00	3.694E+00	0.000E+00	NOT IDENT.
TH-231	-1.289E+00	9.336E-01	1.434E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	3.329E+00	4.073E+00	0.000E+00	FAIL ABUN
PA-233	3.924E-02	8.754E-02	1.527E-01	0.000E+00	FAIL ABUN
PA-234	1.767E-01	3.752E-01	6.589E-01	0.000E+00	FAIL ABUN
NP-236	-2.268E-02	1.124E-01	1.850E-01	0.000E+00	FAIL ABUN
NP-239	-3.533E-01	2.808E-01	4.480E-01	0.000E+00	FAIL ABUN
AM-241	3.443E-01	3.242E-01	5.049E-01	0.000E+00	NOT IDENT.
CM-243	7.464E-02	1.577E-01	2.373E-01	0.000E+00	FAIL ABUN
AM-246	-1.194E-02	1.734E-01	2.870E-01	0.000E+00	NOT IDENT.
CM-247	4.503E-03	5.025E-02	8.520E-02	0.000E+00	NOT IDENT.
CF-249	-9.432E-03	5.479E-02	9.161E-02	0.000E+00	NOT IDENT.
CF-251	1.398E-02	1.760E-01	2.921E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:00:54.10

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808007.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:00:15
Sample ID         : G245808007           Sample quantity  : 1.00792E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.71  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	643	10.67*	9.974E-01	2.250E+01	2.250E+01	11.27
NB-95	765.79	44	99.81*	1.789E+00	9.270E-02	1.117E-01	85.16
CD-109	88.03	194	3.72*	5.219E+00	3.721E+00	3.818E+00	45.18
SN-126	64.28	600	9.60	2.577E+00	9.029E+00	9.029E+00	23.23
	86.94	194	8.90	5.219E+00	1.555E+00	1.555E+00	60.64
	87.57	194	37.00*	5.219E+00	3.741E-01	3.741E-01	45.18
CS-135	268.24	83	16.00*	4.229E+00	4.594E-01	4.594E-01	66.02
BA-137M	661.65	418	89.98*	2.042E+00	8.469E-01	8.478E-01	15.28
CS-137	661.65	418	85.12*	2.042E+00	8.952E-01	8.962E-01	15.29
TL-208	277.35	------	6.80	4.140E+00	------ Line Not Found		------
	510.84	109	21.60	2.546E+00	7.383E-01	7.383E-01	56.28
	583.14	236	84.20*	2.278E+00	4.586E-01	4.586E-01	25.89
	860.37	70	12.46	1.609E+00	1.296E+00	1.296E+00	40.94
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	527	12.94*	3.443E+00	4.401E+00	4.401E+00	14.95
PB-212	74.81	249	10.70	4.029E+00	2.151E+00	2.151E+00	34.58
	77.11	441	18.00	4.299E+00	2.121E+00	2.121E+00	20.82
	87.30	194	8.00	5.219E+00	1.730E+00	1.730E+00	46.28
	238.63	896	44.60*	4.638E+00	1.613E+00	1.613E+00	11.07
	300.09	63	3.41	3.901E+00	1.768E+00	1.768E+00	72.53
PO-212	74.81	249	10.70	4.029E+00	2.151E+00	2.151E+00	34.58
	77.11	441	18.00	4.299E+00	2.121E+00	2.121E+00	20.82
	87.30	194	8.00	5.219E+00	1.730E+00	1.730E+00	46.28
	115.19	------	0.60	6.293E+00	------ Line Not Found		------
	238.63	896	44.60*	4.638E+00	1.613E+00	1.613E+00	11.07
	300.09	63	3.41	3.901E+00	1.768E+00	1.768E+00	72.53
BI-214	609.31	347	46.30*	2.194E+00	1.273E+00	1.273E+00	18.82
	1120.29	64	15.10	1.258E+00	1.255E+00	1.255E+00	51.08
	1764.49	52	15.80	8.743E-01	1.393E+00	1.393E+00	44.16
PB-214	74.81	249	6.21	4.029E+00	3.706E+00	3.706E+00	34.11
	77.11	441	10.50	4.299E+00	3.635E+00	3.635E+00	22.17
	87.30	194	4.67	5.219E+00	2.964E+00	2.964E+00	45.84

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	201	7.49	4.597E+00	2.174E+00	2.174E+00	42.34
	295.21	345	19.20	3.951E+00	1.694E+00	1.694E+00	21.04
	351.92	527	37.20*	3.443E+00	1.531E+00	1.531E+00	15.84
PO-214	74.81	249	6.21	4.029E+00	3.706E+00	3.706E+00	34.11
	77.11	441	10.50	4.299E+00	3.635E+00	3.635E+00	22.17
	87.30	194	4.67	5.219E+00	2.964E+00	2.964E+00	45.84
	241.98	201	7.49	4.597E+00	2.174E+00	2.174E+00	42.34
	295.21	345	19.20	3.951E+00	1.694E+00	1.694E+00	21.04
	351.92	527	37.20*	3.443E+00	1.531E+00	1.531E+00	15.84
PO-216	74.81	249	10.70	4.029E+00	2.151E+00	2.151E+00	34.58
	77.11	441	18.00	4.299E+00	2.121E+00	2.121E+00	20.82
	87.30	194	8.00	5.219E+00	1.730E+00	1.730E+00	46.28
	238.63	896	44.60*	4.638E+00	1.613E+00	1.613E+00	11.07
	300.09	63	3.41	3.901E+00	1.768E+00	1.768E+00	72.53
PO-218	74.81	249	6.21	4.029E+00	3.706E+00	3.706E+00	34.11
	77.11	441	10.50	4.299E+00	3.635E+00	3.635E+00	22.17
	87.30	194	4.67	5.219E+00	2.964E+00	2.964E+00	45.84
	241.98	201	7.49	4.597E+00	2.174E+00	2.174E+00	42.34
	295.21	345	19.20	3.951E+00	1.694E+00	1.694E+00	21.04
	351.92	527	37.20*	3.443E+00	1.531E+00	1.531E+00	15.84
RA-224	240.98	201	3.95*	4.597E+00	4.122E+00	4.122E+00	41.97
RA-226	609.31	347	46.30*	2.194E+00	1.273E+00	1.273E+00	18.82
	1120.29	64	15.10	1.258E+00	1.255E+00	1.255E+00	51.08
	1764.49	52	15.80	8.743E-01	1.393E+00	1.393E+00	44.16
AC-228	338.32	188	11.40	3.551E+00	1.730E+00	1.730E+00	51.85
	911.07	181	27.70*	1.527E+00	1.592E+00	1.592E+00	25.15
	969.11	83	16.60	1.441E+00	1.293E+00	1.293E+00	66.33
RA-228	338.32	188	11.40	3.551E+00	1.730E+00	1.730E+00	51.85
	911.07	181	27.70*	1.527E+00	1.592E+00	1.592E+00	25.15
	969.11	83	16.60	1.441E+00	1.293E+00	1.293E+00	66.33
TH-228	74.81	249	10.70	4.029E+00	2.151E+00	2.188E+00	33.32
	77.11	441	18.00	4.299E+00	2.121E+00	2.157E+00	20.82
	87.30	194	8.00	5.219E+00	1.730E+00	1.760E+00	45.18
	238.63	896	44.60*	4.638E+00	1.613E+00	1.641E+00	11.07
	300.09	63	3.41	3.901E+00	1.768E+00	1.799E+00	93.09
TH-230	609.31	347	46.30*	2.194E+00	1.273E+00	1.273E+00	18.82
	1120.29	64	15.10	1.258E+00	1.255E+00	1.255E+00	51.08
	1764.49	52	15.80	8.743E-01	1.393E+00	1.393E+00	44.16
TH-232	338.32	188	11.40	3.551E+00	1.730E+00	1.730E+00	32.57
	911.07	181	27.70*	1.527E+00	1.592E+00	1.592E+00	25.15
	969.11	83	16.60	1.441E+00	1.293E+00	1.293E+00	66.33
PA-234M	766.42	44	0.32	1.789E+00	2.891E+01	2.891E+01	98.75
	1001.03	114	0.84*	1.398E+00	3.611E+01	3.611E+01	29.28
TH-234	63.29	600	3.80*	2.577E+00	2.281E+01	2.281E+01	25.15
	92.38	1871	5.41	5.575E+00	2.311E+01	2.311E+01	19.20
U-234	609.31	347	46.30*	2.194E+00	1.273E+00	1.273E+00	18.82
	1120.29	64	15.10	1.258E+00	1.255E+00	1.255E+00	51.08
	1764.49	52	15.80	8.743E-01	1.393E+00	1.393E+00	44.16
U-235	89.95	------	2.70	5.418E+00	------	Line Not Found	------

Sample ID : G245808007 Acquisition date : 12-FEB-2010 17:00:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	93.35	1871	4.50	5.575E+00	2.778E+01	2.778E+01	28.76
	105.00	------	2.10	6.104E+00	------ Line Not Found		------
	143.76	152	10.50*	6.196E+00	8.698E-01	8.698E-01	54.45
	163.35	------	4.70	5.886E+00	------ Line Not Found		------
	185.71	465	54.00	5.492E+00	5.838E-01	5.838E-01	17.68
	205.31	------	4.70	5.150E+00	------ Line Not Found		------
NP-237	86.50	194	12.60*	5.219E+00	1.099E+00	1.099E+00	49.67
	95.87	------	2.60	5.757E+00	------ Line Not Found		------
U-238	63.29	600	3.80*	2.577E+00	2.281E+01	2.281E+01	25.15
	92.38	1871	5.41	5.575E+00	2.311E+01	2.311E+01	10.76
AM-243	74.67	249	66.00*	4.029E+00	3.487E-01	3.487E-01	33.30
	86.72	194	0.34	5.219E+00	4.119E+01	4.119E+01	45.18
	117.66	------	0.55	6.314E+00	------ Line Not Found		------
	142.18	152	0.13	6.196E+00	7.306E+01	7.306E+01	52.27
ANH-511	511.00	109	100.00*	2.546E+00	1.595E-01	1.595E-01	55.66

Flag: "*" = Keyline

Sample ID : G245808007 Acquisition date : 12-FEB-2010 17:00:15

Total number of lines in spectrum 29
Number of unidentified lines 0
Number of lines tentatively identified by NID 29 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.250E+01	2.250E+01	0.253E+01	11.27	
NB-95	64.02D	1.21	9.270E-02	1.117E-01	0.952E-01	85.16	
CD-109	464.00D	1.03	3.721E+00	3.818E+00	1.725E+00	45.18	
SN-126	1.00E+05Y	1.00	3.741E-01	3.741E-01	1.690E-01	45.18	
CS-135	2.30E+06Y	1.00	4.594E-01	4.594E-01	3.033E-01	66.02	
BA-137M	30.17Y	1.00	8.469E-01	8.478E-01	1.295E-01	15.28	
CS-137	30.17Y	1.00	8.952E-01	8.962E-01	1.370E-01	15.29	
TL-208	1.41E+10Y	1.00	4.586E-01	4.586E-01	1.187E-01	25.89	
BI-211	7.04E+08Y	1.00	4.401E+00	4.401E+00	0.658E+00	14.95	
PB-212	1.41E+10Y	1.00	1.613E+00	1.613E+00	0.179E+00	11.07	
PO-212	1.41E+10Y	1.00	1.613E+00	1.613E+00	0.179E+00	11.07	
BI-214	1600.00Y	1.00	1.273E+00	1.273E+00	0.239E+00	18.82	
PB-214	1600.00Y	1.00	1.531E+00	1.531E+00	0.242E+00	15.84	
PO-214	1600.00Y	1.00	1.531E+00	1.531E+00	0.242E+00	15.84	
PO-216	1.41E+10Y	1.00	1.613E+00	1.613E+00	0.179E+00	11.07	
PO-218	1600.00Y	1.00	1.531E+00	1.531E+00	0.242E+00	15.84	
RA-224	1.41E+10Y	1.00	4.122E+00	4.122E+00	1.730E+00	41.97	
RA-226	1600.00Y	1.00	1.273E+00	1.273E+00	0.239E+00	18.82	
AC-228	1.41E+10Y	1.00	1.592E+00	1.592E+00	0.400E+00	25.15	
RA-228	1.41E+10Y	1.00	1.592E+00	1.592E+00	0.400E+00	25.15	
TH-228	1.91Y	1.02	1.613E+00	1.641E+00	0.182E+00	11.07	
TH-230	4.47E+09Y	1.00	1.273E+00	1.273E+00	0.239E+00	18.82	
TH-232	1.41E+10Y	1.00	1.592E+00	1.592E+00	0.400E+00	25.15	
PA-234M	4.47E+09Y	1.00	3.611E+01	3.611E+01	1.057E+01	29.28	
TH-234	4.47E+09Y	1.00	2.281E+01	2.281E+01	0.574E+01	25.15	
U-234	4.47E+09Y	1.00	1.273E+00	1.273E+00	0.239E+00	18.82	
U-235	7.04E+08Y	1.00	8.698E-01	8.698E-01	4.736E-01	54.45	
NP-237	2.14E+06Y	1.00	1.099E+00	1.099E+00	0.546E+00	49.67	
U-238	4.47E+09Y	1.00	2.281E+01	2.281E+01	0.574E+01	25.15	
AM-243	7380.00Y	1.00	3.487E-01	3.487E-01	1.161E-01	33.30	
ANH-511	1.00E+09Y	1.00	1.595E-01	1.595E-01	0.888E-01	55.66	
	Total Activity :		1.430E+02	1.431E+02			

Grand Total Activity : 1.430E+02 1.431E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245808007 Acquisition date : 12-FEB-2010 17:00:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.69	163	439	1.11	197.37	193	10	2.27E-02	50.7	5.89E+00	T
0	463.03	43	109	1.14	926.05	920	11	6.01E-03	****	2.76E+00	T
0	726.69	61	85	1.42	1453.38	1445	15	8.46E-03	71.2	1.88E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:00:58.74

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808007.CNF;1  *
* Acquisition date : 12-FEB-2010 17:00:15  Detector SN#     :              *
* Detector ID      : GAM23                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.71         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245808007            Analyst initials: RXF2           *
* Batch Number     : 947554                Sample Quantity : 1.00792E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.250E+01	2.535E+00	4.939E-01	3.695E-02	45.543
NB-95	1.117E-01	9.515E-02	9.214E-02	6.192E-03	1.213
CD-109	3.818E+00	1.725E+00	1.983E+00	1.936E-01	1.925
SN-126	3.741E-01	1.690E-01	1.955E-01	1.902E-02	1.914
CS-135	4.594E-01	3.033E-01	3.444E-01	2.631E-02	1.334
BA-137M	8.478E-01	1.295E-01	8.338E-02	4.259E-03	10.168
CS-137	8.962E-01	1.370E-01	8.814E-02	4.527E-03	10.168
TL-208	4.586E-01	1.187E-01	8.013E-02	5.202E-03	5.722
BI-211	4.401E+00	6.582E-01	4.545E-01	2.961E-02	9.684
PB-212	1.613E+00	1.785E-01	1.213E-01	8.723E-03	13.292
PO-212	1.613E+00	1.785E-01	1.213E-01	8.723E-03	13.292
BI-214	1.273E+00	2.395E-01	1.427E-01	1.073E-02	8.917
PB-214	1.531E+00	2.425E-01	1.485E-01	1.240E-02	10.308
PO-214	1.531E+00	2.425E-01	1.485E-01	1.240E-02	10.308
PO-216	1.613E+00	1.785E-01	1.213E-01	8.723E-03	13.292
PO-218	1.531E+00	2.425E-01	1.485E-01	1.240E-02	10.308
RA-224	4.122E+00	1.730E+00	1.381E+00	7.780E-02	2.985
RA-226	1.273E+00	2.395E-01	1.427E-01	1.073E-02	8.917

Sample ID : G245808007 Acquisition date : 12-FEB-2010 17:00:15

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.592E+00	4.004E-01	2.456E-01	2.834E-02	6.481
RA-228	1.592E+00	4.004E-01	2.456E-01	2.834E-02	6.481
TH-228	1.641E+00	1.816E-01	1.234E-01	8.874E-03	13.292
TH-230	1.273E+00	2.395E-01	1.427E-01	1.073E-02	8.917
TH-232	1.592E+00	4.004E-01	2.456E-01	2.834E-02	6.481
PA-234M	3.611E+01	1.057E+01	8.531E+00	8.139E-01	4.233
TH-234	2.281E+01	5.737E+00	3.744E+00	6.747E-01	6.093
U-234	1.273E+00	2.395E-01	1.427E-01	1.073E-02	8.917
U-235	8.698E-01	4.736E-01	4.729E-01	7.648E-02	1.839
NP-237	1.099E+00	5.457E-01	5.825E-01	1.327E-01	1.886
U-238	2.281E+01	5.737E+00	3.744E+00	6.747E-01	6.093
AM-243	3.487E-01	1.161E-01	1.467E-01	1.304E-02	2.377
ANH-511	1.595E-01	8.876E-02	5.995E-02	3.482E-03	2.660

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.408E-04		4.771E-01	7.857E-01	5.340E-02	0.001
NA-22	-8.124E-03		6.106E-02	9.798E-02	6.580E-03	-0.083
NA-24	7.129E-01		5.026E+00	Half-Life too short		
AL-26	1.764E-02		2.720E-02	5.327E-02	3.202E-03	0.331
TI-44	3.914E-01	+	8.147E-02	1.147E-01	1.039E-02	3.413
SC-46	-8.704E-04		5.172E-02	8.602E-02	7.685E-03	-0.010
V-48	-6.195E-03		9.985E-02	1.643E-01	1.367E-02	-0.038
CR-51	1.088E-01		5.286E-01	8.963E-01	5.877E-02	0.121
MN-52	-7.113E-02		4.151E-01	6.523E-01	4.719E-02	-0.109
MN-54	8.078E-03		5.025E-02	8.519E-02	6.745E-03	0.095
CO-56	6.736E-02		5.474E-02	1.008E-01	8.196E-03	0.669
CO-57	-1.199E-02		3.504E-02	5.680E-02	3.349E-03	-0.211
CO-58	-7.651E-02		4.947E-02	6.852E-02	5.148E-03	-1.117
FE-59	-3.139E-04		1.124E-01	1.848E-01	1.423E-02	-0.002
CO-60	1.274E-02		5.072E-02	8.532E-02	6.263E-03	0.149
ZN-65	1.249E-01		1.330E-01	2.133E-01	1.409E-02	0.585
GE-68	-4.489E-01		1.579E+00	2.514E+00	1.800E-01	-0.179
AS-73	1.200E+00		1.709E+00	2.935E+00	2.591E-01	0.409
AS-74	-3.358E-02		1.252E-01	1.987E-01	1.096E-02	-0.169
SE-75	2.928E-02		7.073E-02	1.018E-01	5.923E-03	0.288
BR-77	6.011E+00		2.591E+01	4.325E+01	2.503E+00	0.139
SR-82	-2.127E-01		5.270E-01	8.526E-01	5.882E-02	-0.249
RB-83	3.442E-02		9.561E-02	1.611E-01	9.326E-03	0.214
RB-84	-3.505E-02		1.005E-01	1.618E-01	1.421E-02	-0.217
KR-85	1.589E+01		1.107E+01	1.785E+01	1.036E+00	0.890
SR-85	8.328E-02		5.800E-02	9.354E-02	5.428E-03	0.890
RB-86	-5.713E-01		1.102E+00	1.706E+00	1.223E-01	-0.335
Y-88	-4.376E-02		3.962E-02	4.443E-02	2.616E-03	-0.985
ZR-88	-2.811E-03		4.457E-02	7.380E-02	4.261E-03	-0.038
Y-91	1.398E+01		2.557E+01	4.409E+01	2.631E+00	0.317

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	1.273E-02		4.852E-02	7.999E-02	4.571E-03	0.159
NB-95M	7.245E-01		2.270E-01	3.660E-01	2.700E-02	1.980
ZR-95	6.574E-02		9.651E-02	1.652E-01	1.268E-02	0.398
NB-97	5.878E+00		7.990E-01	Half-Life too short		
ZR-97	5.978E+01		1.233E+01	Half-Life too short		
MO-99	-5.391E+00		3.072E+01	4.864E+01	6.807E+00	-0.111
TC-99M	-6.887E+11		9.871E+12	Half-Life too short		
RH-101	3.233E-02		4.608E-02	7.681E-02	4.094E-03	0.421
RH-102	8.919E-03		4.191E-02	7.004E-02	4.100E-03	0.127
RU-103	-7.317E-03		5.733E-02	9.328E-02	1.181E-02	-0.078
RH-106	-2.704E-02		4.219E-01	6.812E-01	7.856E-02	-0.040
RU-106	-2.704E-02		4.218E-01	6.812E-01	3.660E-02	-0.040
AG-108M	-2.311E-02		4.193E-02	6.647E-02	4.214E-03	-0.348
AG-110M	2.093E-01		6.970E-02	1.227E-01	6.818E-03	1.706
IN-111	3.266E-01		2.702E+00	3.814E+00	2.159E-01	0.086
IN-113M	6.261E-03		6.400E-02	1.070E-01	6.593E-03	0.059
SN-113	6.261E-03		6.400E-02	1.070E-01	6.593E-03	0.059
IN-114M	6.604E-02		2.895E-01	4.158E-01	2.192E-02	0.159
CD-115	-6.921E+00		2.919E+01	4.694E+01	2.709E+00	-0.147
SN-117M	-3.959E-02		8.596E-02	1.374E-01	7.139E-03	-0.288
SB-122	-2.433E+00		5.166E+00	8.128E+00	4.598E-01	-0.299
I-123	-5.604E+01		5.775E+01	Half-Life too short		
TE-123M	-1.980E-02		4.081E-02	6.515E-02	3.438E-03	-0.304
I-124	-8.895E-01		1.413E+00	1.825E+00	1.000E-01	-0.487
SB-124	-1.012E-01		1.053E-01	1.394E-01	9.716E-03	-0.726
SB-125	1.085E-01		1.299E-01	2.262E-01	1.376E-02	0.480
TE-125M	-1.906E+01		1.524E+01	2.390E+01	2.134E+00	-0.797
I-126	-1.869E-01		3.605E-01	4.725E-01	2.445E-02	-0.395
SB-126	9.891E-02		2.734E-01	3.964E-01	2.375E-02	0.249
SB-127	-9.124E-01		2.661E+00	4.154E+00	4.150E-01	-0.220
XE-127	-6.320E-02		7.185E-02	1.114E-01	5.981E-03	-0.567
I-131	-9.544E-02		2.010E-01	3.259E-01	2.136E-02	-0.293
TE-132	-7.180E-01		1.524E+00	2.388E+00	3.512E-01	-0.301
BA-133	-5.879E-02		6.946E-02	9.299E-02	1.079E-02	-0.632
I-133	8.674E-04		2.210E-02	Half-Life too short		
CS-134	6.119E-02		6.278E-02	1.133E-01	8.273E-03	0.540
I-135	2.671E+11		7.686E+11	Half-Life too short		
CS-136	-2.327E-02		1.621E-01	2.634E-01	2.100E-02	-0.088
CE-139	-3.305E-02		4.286E-02	6.661E-02	3.396E-03	-0.496
BA-140	-4.447E-01		4.403E-01	6.229E-01	2.025E-01	-0.714
LA-140	-1.010E-01		1.219E-01	1.730E-01	1.187E-02	-0.584
CE-141	1.828E-01		1.030E-01	1.611E-01	9.086E-03	1.135
CE-143	4.630E-03	+	6.857E-04	Half-Life too short		
CE-144	1.635E-01		2.871E-01	4.800E-01	6.779E-02	0.341
PM-144	-1.355E-02		4.957E-02	7.810E-02	4.394E-03	-0.174
PR-144	-9.195E-01		3.363E+00	5.298E+00	2.978E-01	-0.174
PM-146	-2.240E-03		6.200E-02	1.021E-01	8.843E-03	-0.022
ND-147	8.797E-01		8.772E-01	1.535E+00	2.073E-01	0.573

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-7.014E+00		2.320E+02	3.903E+02	5.542E+01	-0.018
EU-152	1.992E-01		2.029E-01	2.310E-01	1.531E-02	0.862
GD-153	3.473E-01	+	1.784E-01	2.253E-01	1.841E-02	1.541
EU-154	-2.605E-02		1.700E-01	2.721E-01	2.702E-02	-0.096
EU-155	1.509E-01		1.585E-01	2.701E-01	1.992E-02	0.559
TB-160	4.600E-02		1.809E-01	3.093E-01	2.705E-02	0.149
HO-166M	-2.130E-02		8.315E-02	1.308E-01	7.654E-03	-0.163
TM-171	-8.681E+01		5.551E+01	7.530E+01	6.548E+00	-1.153
LU-176	-1.490E-02		3.392E-02	5.563E-02	3.277E-03	-0.268
LU-177	1.069E+00		1.919E+00	3.172E+00	1.716E-01	0.337
LU-177M	4.356E-02		2.648E-01	4.434E-01	2.580E-02	0.098
HF-181	2.435E-02		6.282E-02	1.062E-01	6.210E-03	0.229
W-181	2.147E+00		7.877E-01	1.250E+00	1.086E-01	1.718
TA-182	9.701E-02		2.378E-01	4.060E-01	2.492E-02	0.239
RE-183	1.067E-01		1.613E-01	2.696E-01	1.387E-02	0.396
RE-184	5.836E-03		3.275E-01	5.250E-01	2.993E-02	0.011
OS-185	-1.006E-02		5.651E-02	9.003E-02	4.698E-03	-0.112
RE-188	-1.192E-01		2.511E-01	4.018E-01	2.108E-02	-0.297
W-188	4.075E+00		1.054E+01	1.593E+01	9.330E-01	0.256
IR-192	-1.039E-02		4.737E-02	7.851E-02	4.658E-03	-0.132
AU-195	1.013E+00	+	5.205E-01	6.440E-01	5.138E-02	1.573
TL-200	5.105E-04		1.209E-03	Half-Life too short		
TL-201	-2.433E+01		1.576E+01	2.348E+01	1.199E+00	-1.036
TL-202	5.290E-03		1.125E-01	1.865E-01	1.091E-02	0.028
HG-203	-2.673E-02		5.800E-02	9.563E-02	5.907E-03	-0.280
BI-207	-7.216E-03		5.893E-02	9.562E-02	7.025E-03	-0.075
TL-207	-1.289E+00		9.526E-01	1.439E+00	2.383E-01	-0.895
PO-209	-1.618E+00		8.729E+00	1.423E+01	1.292E+00	-0.114
BI-210	1.215E+01		8.353E+00	1.458E+01	1.135E+00	0.833
PB-210	1.215E+01		8.353E+00	1.458E+01	1.135E+00	0.833
PO-210	1.215E+01		8.339E+00	1.458E+01	9.781E-01	0.833
PB-211	-1.385E+00		1.586E+00	2.065E+00	1.287E+00	-0.671
BI-212	1.024E+00	+	7.330E-01	8.537E-01	6.776E-02	1.199
PO-215	-1.289E+00		9.526E-01	1.439E+00	2.383E-01	-0.895
RN-219	2.612E-02		5.724E-01	9.530E-01	1.296E-01	0.027
RN-220	-1.702E+01		3.599E+01	5.654E+01	3.226E+00	-0.301
RA-223	-1.289E+00		9.526E-01	1.439E+00	2.383E-01	-0.895
AC-227	8.499E-02		5.411E-01	8.733E-01	1.216E-01	0.097
TH-227	8.499E-02		5.411E-01	8.733E-01	1.473E-01	0.097
TH-229	-1.808E-01		7.068E-01	1.131E+00	5.989E-02	-0.160
PA-231	2.587E+00		2.105E+00	3.708E+00	5.115E-01	0.698
TH-231	-1.289E+00		9.526E-01	1.439E+00	2.383E-01	-0.895
U-231	5.999E+00		3.397E+00	4.075E+00	3.418E-01	1.472
PA-233	3.924E-02		8.932E-02	1.533E-01	9.586E-03	0.256
PA-234	1.767E-01		3.829E-01	6.636E-01	1.248E-01	0.266
NP-236	-2.268E-02		1.147E-01	1.854E-01	9.587E-03	-0.122
NP-239	-3.533E-01		2.866E-01	4.485E-01	2.799E-02	-0.788
AM-241	3.443E-01		3.308E-01	5.044E-01	4.693E-02	0.683

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	7.464E-02		1.610E-01	2.374E-01	1.760E-02	0.314
AM-246	-1.194E-02		1.770E-01	2.892E-01	2.063E-02	-0.041
CM-247	4.503E-03		5.128E-02	8.559E-02	4.962E-03	0.053
CF-249	-9.432E-03		5.591E-02	9.202E-02	5.325E-03	-0.103
CF-251	1.398E-02		1.796E-01	2.927E-01	1.513E-02	0.048

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245808007           *
* Acquisition date  : 12-FEB-2010 17:00:15 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.71      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245808007           Analyst initials: RXF2           *
* Batch Number      : 947554               Sample Quantity : 1.0079E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.250E+01	2.484E+00	2.450E-01	1.267E+00
NB-95	1.117E-01	9.325E-02	4.580E-02	4.758E-02
CD-109	3.818E+00	1.691E+00	9.919E-01	8.625E-01
SN-126	3.741E-01	1.656E-01	9.778E-02	8.451E-02
CS-135	4.594E-01	2.972E-01	1.717E-01	1.516E-01
BA-137M	8.478E-01	1.269E-01	4.146E-02	6.477E-02
CS-137	8.962E-01	1.343E-01	4.383E-02	6.850E-02
TL-208	4.586E-01	1.163E-01	3.986E-02	5.935E-02
BI-211	4.401E+00	6.450E-01	2.264E-01	3.291E-01
PB-212	1.613E+00	1.750E-01	6.051E-02	8.927E-02
PO-212	1.613E+00	1.750E-01	6.051E-02	8.927E-02
BI-214	1.273E+00	2.347E-01	7.100E-02	1.197E-01
PB-214	1.531E+00	2.376E-01	7.400E-02	1.212E-01
PO-214	1.531E+00	2.376E-01	7.400E-02	1.212E-01
PO-216	1.613E+00	1.750E-01	6.051E-02	8.927E-02
PO-218	1.531E+00	2.376E-01	7.400E-02	1.212E-01
RA-224	4.122E+00	1.695E+00	6.887E-01	8.649E-01
RA-226	1.273E+00	2.347E-01	7.100E-02	1.197E-01
AC-228	1.592E+00	3.924E-01	1.220E-01	2.002E-01
RA-228	1.592E+00	3.924E-01	1.220E-01	2.002E-01
TH-228	1.641E+00	1.780E-01	6.156E-02	9.081E-02
TH-230	1.273E+00	2.347E-01	7.099E-02	1.197E-01
TH-232	1.592E+00	3.924E-01	1.220E-01	2.002E-01
PA-234M	3.611E+01	1.036E+01	4.237E+00	5.286E+00
TH-234	2.281E+01	5.622E+00	1.875E+00	2.868E+00
U-234	1.273E+00	2.347E-01	7.099E-02	1.197E-01
U-235	8.698E-01	4.641E-01	2.362E-01	2.368E-01
NP-237	1.099E+00	5.347E-01	2.914E-01	2.728E-01
U-238	2.281E+01	5.622E+00	1.875E+00	2.868E+00
AM-243	3.487E-01	1.138E-01	7.341E-02	5.806E-02
ANH-511	1.595E-01	8.698E-02	2.983E-02	4.438E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	4.408E-04	4.675E-01	3.911E-01	2.385E-01	NOT IDENT.
NA-22	-8.124E-03	5.984E-02	4.863E-02	3.053E-02	NOT IDENT.
NA-24	7.129E+05	9.851E+06	0.000E+00	5.026E+06	SHORT HLIF
AL-26	1.764E-02	2.666E-02	2.641E-02	1.360E-02	NOT IDENT.
TI-44	3.914E-01	7.984E-02	5.738E-02	4.074E-02	FAIL ABUN
SC-46	-8.704E-04	5.068E-02	4.274E-02	2.586E-02	FAIL ABUN
V-48	-6.195E-03	9.786E-02	8.159E-02	4.993E-02	NOT IDENT.
CR-51	1.088E-01	5.180E-01	4.467E-01	2.643E-01	NOT IDENT.
MN-52	-7.113E-02	4.068E-01	3.236E-01	2.075E-01	NOT IDENT.
MN-54	8.078E-03	4.925E-02	4.233E-02	2.513E-02	NOT IDENT.
CO-56	6.736E-02	5.364E-02	5.006E-02	2.737E-02	NOT IDENT.
CO-57	-1.199E-02	3.434E-02	2.839E-02	1.752E-02	NOT IDENT.
CO-58	-7.651E-02	4.848E-02	3.405E-02	2.473E-02	NOT IDENT.
FE-59	-3.139E-04	1.101E-01	9.175E-02	5.618E-02	FAIL ABUN
CO-60	1.274E-02	4.970E-02	4.234E-02	2.536E-02	NOT IDENT.
ZN-65	1.249E-01	1.304E-01	1.059E-01	6.651E-02	NOT IDENT.
GE-68	-4.489E-01	1.547E+00	1.248E+00	7.894E-01	NOT IDENT.
AS-73	1.200E+00	1.675E+00	1.470E+00	8.544E-01	NOT IDENT.
AS-74	-3.358E-02	1.226E-01	9.885E-02	6.258E-02	NOT IDENT.
SE-75	2.928E-02	6.932E-02	5.074E-02	3.537E-02	NOT IDENT.
BR-77	6.011E+00	2.539E+01	2.152E+01	1.295E+01	FAIL ABUN
SR-82	-2.127E-01	5.165E-01	4.237E-01	2.635E-01	NOT IDENT.
RB-83	3.442E-02	9.370E-02	8.017E-02	4.781E-02	NOT IDENT.
RB-84	-3.505E-02	9.847E-02	8.038E-02	5.024E-02	NOT IDENT.
KR-85	1.589E+01	1.084E+01	8.881E+00	5.533E+00	NOT IDENT.
SR-85	8.328E-02	5.684E-02	4.655E-02	2.900E-02	NOT IDENT.
RB-86	-5.713E-01	1.080E+00	8.472E-01	5.510E-01	NOT IDENT.
Y-88	-4.376E-02	3.883E-02	2.203E-02	1.981E-02	NOT IDENT.
ZR-88	-2.811E-03	4.368E-02	3.676E-02	2.229E-02	NOT IDENT.
Y-91	1.398E+01	2.505E+01	2.189E+01	1.278E+01	NOT IDENT.
NB-94	1.273E-02	4.754E-02	3.977E-02	2.426E-02	NOT IDENT.
NB-95M	7.245E-01	2.225E-01	1.825E-01	1.135E-01	NOT IDENT.
ZR-95	6.574E-02	9.458E-02	8.212E-02	4.825E-02	NOT IDENT.
NB-97	5.878E+06	1.566E+06	0.000E+00	7.990E+05	SHORT HLIF
ZR-97	5.978E+07	2.416E+07	0.000E+00	1.233E+07	SHORT HLIF
MO-99	-5.391E+00	3.010E+01	2.418E+01	1.536E+01	NOT IDENT.
TC-99M	-6.887E+17	1.935E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.233E-02	4.516E-02	3.833E-02	2.304E-02	NOT IDENT.
RH-102	8.919E-03	4.107E-02	3.486E-02	2.095E-02	FAIL ABUN
RU-103	-7.317E-03	5.618E-02	4.642E-02	2.866E-02	NOT IDENT.
RH-106	-2.704E-02	4.134E-01	3.388E-01	2.109E-01	FAIL ABUN
RU-106	-2.704E-02	4.134E-01	3.388E-01	2.109E-01	FAIL ABUN
AG-108M	-2.311E-02	4.109E-02	3.309E-02	2.096E-02	NOT IDENT.
AG-110M	2.093E-01	6.831E-02	6.101E-02	3.485E-02	NOT IDENT.
IN-111	3.266E-01	2.648E+00	1.902E+00	1.351E+00	NOT IDENT.
IN-113M	6.261E-03	6.272E-02	5.330E-02	3.200E-02	NOT IDENT.
SN-113	6.261E-03	6.272E-02	5.330E-02	3.200E-02	NOT IDENT.
IN-114M	6.604E-02	2.837E-01	2.075E-01	1.447E-01	NOT IDENT.
CD-115	-6.921E+00	2.861E+01	2.336E+01	1.460E+01	NOT IDENT.
SN-117M	-3.959E-02	8.424E-02	6.860E-02	4.298E-02	NOT IDENT.
SB-122	-2.433E+00	5.063E+00	4.044E+00	2.583E+00	NOT IDENT.
I-123	-5.604E+07	1.132E+08	0.000E+00	5.775E+07	SHORT HLIF
TE-123M	-1.980E-02	3.999E-02	3.253E-02	2.040E-02	NOT IDENT.
I-124	-8.895E-01	1.385E+00	9.079E-01	7.066E-01	NOT IDENT.
SB-124	-1.012E-01	1.032E-01	6.910E-02	5.265E-02	FAIL ABUN
SB-125	1.085E-01	1.273E-01	1.126E-01	6.495E-02	FAIL ABUN
TE-125M	-1.906E+01	1.494E+01	1.195E+01	7.620E+00	NOT IDENT.
I-126	-1.869E-01	3.533E-01	2.350E-01	1.803E-01	NOT IDENT.
SB-126	9.891E-02	2.679E-01	1.971E-01	1.367E-01	NOT IDENT.
SB-127	-9.124E-01	2.608E+00	2.066E+00	1.331E+00	NOT IDENT.
XE-127	-6.320E-02	7.041E-02	5.560E-02	3.592E-02	NOT IDENT.
I-131	-9.544E-02	1.970E-01	1.623E-01	1.005E-01	NOT IDENT.
TE-132	-7.180E-01	1.494E+00	1.191E+00	7.622E-01	NOT IDENT.
BA-133	-5.879E-02	6.807E-02	4.633E-02	3.473E-02	NOT IDENT.
I-133	8.674E+02	4.332E+04	0.000E+00	2.210E+04	SHORT HLIF
CS-134	6.119E-02	6.153E-02	5.630E-02	3.139E-02	NOT IDENT.
I-135	2.671E+17	1.507E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.327E-02	1.589E-01	1.308E-01	8.106E-02	FAIL ABUN
CE-139	-3.305E-02	4.200E-02	3.326E-02	2.143E-02	NOT IDENT.
BA-140	-4.447E-01	4.315E-01	3.099E-01	2.201E-01	NOT IDENT.
LA-140	-1.010E-01	1.195E-01	8.582E-02	6.096E-02	NOT IDENT.
CE-141	1.828E-01	1.009E-01	8.047E-02	5.148E-02	NOT IDENT.
CE-143	4.630E+03	1.344E+03	0.000E+00	6.857E+02	SHORT HLIF
CE-144	1.635E-01	2.814E-01	2.398E-01	1.436E-01	NOT IDENT.

PM-144	-1.355E-02	4.858E-02	3.883E-02	2.479E-02	NOT IDENT.
PR-144	-9.195E-01	3.296E+00	2.634E+00	1.681E+00	NOT IDENT.
PM-146	-2.240E-03	6.076E-02	5.083E-02	3.100E-02	NOT IDENT.
ND-147	8.797E-01	8.597E-01	7.636E-01	4.386E-01	FAIL ABUN
PM-149	-7.014E+00	2.274E+02	1.946E+02	1.160E+02	NOT IDENT.
EU-152	1.992E-01	1.988E-01	1.151E-01	1.014E-01	NOT IDENT.
GD-153	3.473E-01	1.749E-01	1.127E-01	8.921E-02	FAIL ABUN
EU-154	-2.605E-02	1.666E-01	1.350E-01	8.501E-02	NOT IDENT.
EU-155	1.509E-01	1.553E-01	1.351E-01	7.923E-02	FAIL ABUN
TB-160	4.600E-02	1.773E-01	1.537E-01	9.046E-02	FAIL ABUN
HO-166M	-2.130E-02	8.149E-02	6.501E-02	4.158E-02	FAIL ABUN
TM-171	-8.681E+01	5.440E+01	3.770E+01	2.775E+01	NOT IDENT.
LU-176	-1.490E-02	3.324E-02	2.773E-02	1.696E-02	FAIL ABUN
LU-177	1.069E+00	1.881E+00	1.583E+00	9.596E-01	NOT IDENT.
LU-177M	4.356E-02	2.595E-01	2.208E-01	1.324E-01	FAIL ABUN
HF-181	2.435E-02	6.157E-02	5.285E-02	3.141E-02	NOT IDENT.
W-181	2.147E+00	7.720E-01	6.257E-01	3.939E-01	NOT IDENT.
TA-182	9.701E-02	2.331E-01	2.015E-01	1.189E-01	FAIL ABUN
RE-183	1.067E-01	1.580E-01	1.346E-01	8.064E-02	NOT IDENT.
RE-184	5.836E-03	3.209E-01	2.618E-01	1.637E-01	NOT IDENT.
OS-185	-1.006E-02	5.538E-02	4.477E-02	2.825E-02	NOT IDENT.
RE-188	-1.192E-01	2.461E-01	2.007E-01	1.256E-01	NOT IDENT.
W-188	4.075E+00	1.033E+01	7.942E+00	5.271E+00	FAIL ABUN
IR-192	-1.039E-02	4.643E-02	3.913E-02	2.369E-02	FAIL ABUN
AU-195	1.013E+00	5.101E-01	3.220E-01	2.603E-01	FAIL ABUN
TL-200	5.105E+02	2.370E+03	0.000E+00	1.209E+03	SHORT HLIF
TL-201	-2.433E+01	1.545E+01	1.172E+01	7.882E+00	NOT IDENT.
TL-202	5.290E-03	1.102E-01	9.285E-02	5.623E-02	NOT IDENT.
HG-203	-2.673E-02	5.684E-02	4.767E-02	2.900E-02	NOT IDENT.
BI-207	-7.216E-03	5.775E-02	4.748E-02	2.946E-02	FAIL ABUN
TL-207	-1.289E+00	9.336E-01	7.173E-01	4.763E-01	FAIL ABUN
PO-209	-1.618E+00	8.555E+00	7.070E+00	4.365E+00	NOT IDENT.
BI-210	1.215E+01	8.186E+00	7.307E+00	4.177E+00	NOT IDENT.
PB-210	1.215E+01	8.186E+00	7.307E+00	4.177E+00	NOT IDENT.
PO-210	1.215E+01	8.173E+00	7.307E+00	4.170E+00	NOT IDENT.
PB-211	-1.385E+00	1.554E+00	1.028E+00	7.931E-01	NOT IDENT.
BI-212	1.024E+00	7.184E-01	4.244E-01	3.665E-01	FAIL ABUN
PO-215	-1.289E+00	9.336E-01	7.173E-01	4.763E-01	FAIL ABUN
RN-219	2.612E-02	5.609E-01	4.746E-01	2.862E-01	NOT IDENT.
RN-220	-1.702E+01	3.527E+01	2.813E+01	1.799E+01	NOT IDENT.
RA-223	-1.289E+00	9.336E-01	7.173E-01	4.763E-01	FAIL ABUN
AC-227	8.499E-02	5.302E-01	4.355E-01	2.705E-01	FAIL ABUN
TH-227	8.499E-02	5.303E-01	4.355E-01	2.706E-01	FAIL ABUN
TH-229	-1.808E-01	6.927E-01	5.642E-01	3.534E-01	FAIL ABUN
PA-231	2.587E+00	2.063E+00	1.848E+00	1.053E+00	NOT IDENT.
TH-231	-1.289E+00	9.336E-01	7.173E-01	4.763E-01	FAIL ABUN
U-231	5.999E+00	3.329E+00	2.038E+00	1.699E+00	FAIL ABUN
PA-233	3.924E-02	8.754E-02	7.641E-02	4.466E-02	FAIL ABUN
PA-234	1.767E-01	3.752E-01	3.296E-01	1.914E-01	FAIL ABUN
NP-236	-2.268E-02	1.124E-01	9.256E-02	5.733E-02	FAIL ABUN
NP-239	-3.533E-01	2.808E-01	2.242E-01	1.433E-01	FAIL ABUN
AM-241	3.443E-01	3.242E-01	2.526E-01	1.654E-01	NOT IDENT.
CM-243	7.464E-02	1.577E-01	1.187E-01	8.048E-02	FAIL ABUN
AM-246	-1.194E-02	1.734E-01	1.436E-01	8.848E-02	NOT IDENT.
CM-247	4.503E-03	5.025E-02	4.263E-02	2.564E-02	NOT IDENT.
CF-249	-9.432E-03	5.479E-02	4.583E-02	2.795E-02	NOT IDENT.
CF-251	1.398E-02	1.760E-01	1.461E-01	8.980E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	310.7796
46.50	310.7796
46.50	310.7796
48.70	400.9014
49.72	407.9853
51.35	359.9366
52.39	350.5371
52.97	345.3995
53.15	341.8487
53.44	343.8446
54.07	378.0797
56.28	420.8062
56.28	420.8080
57.37	0.0000
57.53	414.9108
57.53	414.9116
57.60	410.0465
57.98	395.0645
57.98	395.0645
59.32	400.3403
59.32	400.3403
59.40	400.3907
59.54	400.4792
59.72	403.5498
60.01	403.7339
61.10	429.6059
61.14	465.1882
61.30	465.3041
63.00	452.2228
63.29	452.4220
63.29	452.4220
63.58	452.6222
64.28	422.7707
65.12	454.6053
65.20	454.6592
65.20	454.6592
66.05	532.8504
66.72	534.8696
66.83	534.9592
66.91	538.0115
67.20	538.2400
67.20	538.2400
67.75	510.2429
67.85	510.3178
68.90	485.2436
68.90	485.2436
69.30	481.4001
69.67	451.6488
70.82	470.4246
70.82	470.4246
70.83	470.4323
72.80	566.6942
72.87	566.7493
72.87	566.7493
74.67	509.9908
74.81	510.0897
74.81	510.0897
74.81	510.0897
74.81	510.0897
74.81	510.0897
74.81	510.0897
74.81	510.0897
74.97	510.2010
75.28	510.4193
75.70	510.7118
77.11	511.6924
77.11	511.6924

77.11	511.6924
77.11	511.6924
77.11	511.6924
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79.62	482.9899
79.80	483.1042
79.80	483.1042
80.11	483.3038
80.18	483.3484
80.30	483.4240
80.30	483.4240
80.57	483.5965
81.00	483.8697
81.07	483.9143
81.07	483.9143
81.07	483.9143
81.07	483.9143
82.60	473.4274
83.37	478.4827
83.78	478.7368
83.78	478.7368
83.78	478.7368
83.78	478.7368
84.21	479.0023
84.90	479.4245
85.43	479.7474
86.29	480.2708
86.50	480.3988
86.54	480.4218
86.59	480.4523
86.72	480.5326
86.79	480.5727
86.94	480.6644
87.30	480.8821
87.30	480.8821
87.30	480.8821
87.30	480.8821
87.30	480.8821
87.30	480.8821
87.30	480.8821
87.57	481.0445
87.88	481.2318
88.03	481.3215
88.36	481.5183
88.47	481.5852
89.95	482.4678
91.11	483.1555
92.29	483.8490
92.38	483.9025
92.38	483.9025
93.35	484.4699
94.00	484.8481
94.67	485.2331
94.67	485.2360
94.90	333.4009
94.90	333.4009
94.90	333.4009
94.90	333.4009
95.87	333.7854
95.87	333.7854
96.73	334.1253
97.43	334.3995
98.44	330.1217
98.44	330.1230
98.88	328.7332
99.55	304.0424
99.55	304.0424
99.86	327.5469
100.00	327.5995
100.10	327.6392
103.18	374.1975
103.76	333.7082
105.00	327.2257
105.31	333.5046
108.00	446.6569
109.28	462.0619

111.00	386.9247
111.00	386.9247
111.76	399.0961
112.95	356.0847
115.19	441.2111
116.30	427.8301
117.00	395.3628
117.00	395.3628
117.66	389.6717
121.11	291.3027
121.62	303.4329
121.78	305.4782
122.06	305.5658
122.32	307.6440
122.32	307.6440
122.32	307.6440
122.32	307.6440
123.07	326.8715
127.23	279.0536
129.76	316.9851
131.20	285.1850
133.02	331.1155
133.54	297.9529
135.34	342.9856
136.00	311.8162
136.25	324.0430
136.48	316.0109
140.51	310.7061
140.51	0.0000
142.18	307.9302
142.65	303.5816
143.76	314.9066
144.24	290.5602
144.24	290.5602
144.24	290.5602
144.24	290.5602
145.22	267.9474
145.44	268.0015
147.16	299.5195
152.43	291.8935
152.70	283.7385
153.22	277.6980
154.21	311.9093
154.21	311.9093
154.21	311.9093
154.21	311.9093
155.03	335.8293
156.02	331.9962
158.56	311.0309
159.00	0.0000
159.00	315.2829
160.31	317.7086
161.27	305.5421
162.32	295.4479
162.64	296.5653
163.35	261.4669
163.89	259.5110
165.85	304.6510
167.43	308.1768
171.28	253.8048
171.86	252.8822
172.10	252.9320
176.55	282.1717
176.60	282.1820
181.06	279.6123
184.41	285.4185
185.71	266.2677
186.00	266.3292
190.27	251.0941
192.34	271.8828
193.63	268.9611
197.04	256.8660
198.01	252.7871
198.60	271.0377
200.40	266.0614
201.83	321.9643
202.84	311.5009
205.31	297.0535

208.36	271.9202
208.81	273.0841
209.75	259.2820
209.75	259.2820
210.97	234.7435
215.65	218.2436
216.55	212.9768
218.09	254.3347
222.10	269.1592
223.80	240.1389
226.40	212.2666
227.00	211.2654
227.08	223.2569
227.20	223.2757
228.16	239.7690
228.18	239.7723
228.18	239.7723
231.56	0.0000
235.69	231.3529
236.00	224.3891
236.00	224.3891
238.63	209.6363
238.63	209.6363
238.63	209.6363
238.63	209.6363
239.00	209.6873
240.98	209.9627
241.98	210.1012
241.98	210.1012
241.98	210.1012
244.69	195.7080
245.39	183.4498
247.94	190.8207
248.90	199.5265
249.79	181.3194
252.40	184.9458
252.85	186.1071
252.85	186.1071
254.15	0.0000
256.20	188.7234
256.20	188.7234
260.50	190.3476
260.90	192.6241
262.80	173.9004
264.65	167.8506
268.24	182.5392
268.79	175.4406
269.46	177.3033
269.46	177.3033
269.46	177.3033
269.46	177.3033
271.23	175.7038
273.65	219.0549
276.40	183.7050
277.35	169.8312
277.60	158.6078
277.60	158.6078
278.00	172.8234
278.60	190.8932
279.20	202.6730
279.53	219.8293
280.46	210.9371
281.68	188.5388
283.67	149.0217
284.30	157.2096
285.00	168.1198
285.90	161.8801
286.10	182.9010
286.10	182.9010
287.40	188.7887
288.45	0.0000
290.67	137.5442
290.80	137.5535
291.72	142.1647
293.26	0.0000
293.70	151.4140
295.21	122.7508
295.21	122.7508

295.21	122.7508
295.96	122.8052
296.50	122.8431
297.23	122.8942
298.57	122.9881
299.80	161.0617
299.80	161.0617
300.09	167.1664
300.09	167.1664
300.09	167.1664
300.09	167.1664
300.12	167.1686
301.29	149.0317
302.84	138.5088
303.76	149.2411
303.91	149.2530
304.40	166.0525
304.40	166.0525
304.84	161.5210
306.84	166.5860
308.46	167.6532
311.98	151.4588
316.51	149.9970
318.01	136.3074
319.02	130.8525
319.41	131.8019
320.08	142.9152
323.87	189.4073
323.87	189.4073
323.87	189.4073
323.87	189.4073
325.23	150.7113
328.77	151.9262
333.44	148.5898
334.20	145.5535
334.20	145.5535
334.30	145.5612
338.28	143.3843
338.28	143.3843
338.28	143.3843
338.28	143.3843
338.32	143.3862
338.32	143.3862
338.32	143.3862
340.50	142.9302
340.57	142.9339
344.27	102.7383
345.85	136.4722
350.59	0.0000
351.07	136.8411
351.92	120.3344
351.92	120.3344
351.92	120.3344
355.39	0.0000
356.01	151.9059
364.48	149.0951
366.43	142.6297
367.43	138.9197
367.94	0.0000
369.80	120.1601
374.96	121.4141
383.85	138.1359
387.95	129.8176
388.63	137.4978
391.69	127.1796
391.69	127.1796
392.90	130.1230
398.62	124.7188
400.65	116.1952
401.10	116.2203
401.81	121.0627
402.60	120.1462
404.84	146.2499
410.95	133.1552
411.60	136.0912
413.65	133.3203
414.70	114.0532
415.30	115.0517

415.76	124.7467
417.63	0.0000
418.52	132.6485
423.70	126.1660
427.08	107.8903
427.89	99.1786
432.53	119.8454
433.93	97.4951
439.47	112.3945
439.56	112.3987
439.89	118.2808
443.98	112.6163
444.90	119.5189
445.03	119.5263
445.03	119.5263
445.03	119.5263
445.03	119.5263
453.90	107.1997
463.38	111.9139
468.07	95.6448
473.00	103.1139
475.06	99.2322
475.35	94.2822
476.78	95.3309
477.59	103.3106
477.96	104.3194
482.03	93.5479
484.57	85.6756
487.03	107.7020
490.36	0.0000
492.35	84.9492
497.08	88.1160
507.63	0.0000
510.53	0.0000
510.84	77.5259
511.00	77.5306
511.85	70.5067
511.85	70.5067
513.99	80.6465
513.99	80.6465
520.41	77.8177
520.65	77.8253
527.90	89.1945
528.96	0.0000
529.64	93.3117
529.87	0.0000
531.02	66.9765
537.32	102.7409
543.00	90.7296
546.56	0.0000
549.76	85.8519
552.65	74.6896
555.20	69.6402
563.23	77.0380
563.90	98.6344
568.70	72.0474
569.32	78.2414
569.50	74.1287
569.67	74.1322
573.80	90.5144
574.00	81.3542
574.64	78.6514
578.91	63.7067
579.30	0.0000
583.14	78.6348
585.48	77.6660
591.81	85.1070
592.07	83.0391
593.00	76.8364
595.88	67.5597
600.56	76.7821
602.52	0.0000
602.71	79.8786
602.71	79.8786
603.60	78.1677
604.41	57.3391
604.70	57.3445
609.31	69.9689

609.31	69.9689
609.31	69.9689
609.31	69.9689
610.33	59.1984
612.46	54.0154
614.37	62.7700
618.01	62.8491
621.84	66.0777
621.84	66.0777
631.29	69.4499
633.02	70.5430
633.10	70.5447
634.78	62.1574
635.90	65.3422
636.97	62.2035
645.85	63.4468
646.12	62.3951
656.30	67.2051
657.75	67.2375
657.90	0.0000
661.65	77.9543
661.65	77.9543
664.57	0.0000
666.33	94.0439
666.33	94.0439
675.00	75.8032
677.61	55.5648
685.20	65.3412
692.80	65.5005
695.00	66.6212
696.49	78.4786
696.49	78.4786
697.00	74.1902
697.49	84.9559
698.33	75.2961
698.50	74.2255
699.00	64.5542
702.63	73.2444
706.10	67.9326
706.58	0.0000
706.67	65.7880
709.31	72.3194
711.68	66.9724
713.82	68.0972
717.42	75.7490
720.50	68.5998
721.93	0.0000
722.20	72.2485
722.78	75.8738
722.78	75.8738
722.89	75.8772
722.95	75.8789
723.30	68.6601
724.18	74.1006
727.18	54.2700
733.00	57.9909
735.90	65.2983
739.58	78.4441
742.81	57.8005
744.21	58.9162
747.13	66.6130
751.79	47.0218
752.31	45.9354
753.82	52.5223
755.35	47.0722
756.15	48.1787
756.87	53.6655
763.93	53.0463
765.79	62.2268
766.42	65.8989
766.84	65.9077
776.49	61.5053
778.00	57.8589
778.57	56.9494
778.89	56.9544
783.80	66.2358
785.46	67.1885
792.07	57.1739

795.84	51.6968
796.30	51.7036
798.80	75.7639
801.93	58.2614
805.60	44.4355
810.29	56.5459
810.76	61.1888
815.85	40.8516
817.79	46.4478
818.51	50.1735
819.60	53.9065
826.30	52.1457
828.27	0.0000
831.60	42.8976
831.96	44.7676
834.83	57.8715
836.80	0.0000
846.75	41.2052
848.13	49.6530
856.28	0.0000
856.80	40.2457
860.37	36.6593
867.32	37.1319
867.82	37.1368
871.10	39.5938
873.19	44.3322
874.81	46.2396
875.33	0.0000
876.40	50.0347
879.36	41.5714
880.27	45.3623
880.51	51.0359
881.50	54.8305
883.24	54.8553
884.67	48.2535
889.25	45.4707
896.60	38.9155
898.02	44.6267
899.00	49.3869
903.28	37.4897
911.07	35.9326
911.07	35.9326
911.07	35.9326
919.63	34.3755
920.93	36.2976
925.00	43.0289
925.24	42.0754
926.50	48.7858
935.52	46.9813
937.48	64.2710
944.10	44.2013
946.00	37.4932
949.00	42.3323
962.29	43.0253
964.01	48.0100
966.15	67.9134
968.20	53.1705
969.11	53.1828
969.11	53.1828
969.11	53.1828
977.42	31.9755
980.50	37.8177
983.50	41.7280
989.30	47.6183
996.32	35.0449
1001.03	33.4145
1001.68	33.4194
1004.76	36.7889
1021.30	0.0000
1024.50	0.0000
1034.80	40.2843
1036.00	36.3632
1037.82	34.4132
1038.57	38.3525
1038.76	0.0000
1045.16	42.3526
1046.59	41.3813
1048.07	45.3374

1050.47	46.3498
1050.47	46.3498
1062.04	39.5540
1063.62	31.6549
1076.63	44.6484
1077.35	40.6864
1078.86	37.7217
1085.78	39.7705
1099.22	34.9060
1112.02	39.4366
1112.84	36.0146
1115.52	36.0352
1120.29	41.2282
1120.29	41.2282
1120.29	41.2282
1120.29	41.2282
1120.51	41.2299
1121.28	37.8002
1124.00	0.0000
1129.67	44.1826
1131.51	0.0000
1147.95	0.0000
1167.94	49.6181
1173.22	45.6207
1175.09	48.6816
1177.93	46.6813
1189.05	61.0352
1204.90	42.8682
1205.75	0.0000
1213.00	48.0538
1221.42	36.8730
1230.97	70.8137
1235.34	60.6061
1236.41	0.0000
1238.25	47.2803
1246.25	56.6248
1260.41	0.0000
1271.85	36.2234
1274.45	41.4193
1274.54	41.4209
1291.56	43.6406
1298.22	0.0000
1312.09	28.1700
1325.50	32.4292
1325.50	32.4292
1332.49	24.0940
1333.61	30.3853
1360.21	18.9580
1362.66	0.0000
1365.15	20.0298
1368.21	23.2067
1368.53	0.0000
1376.25	22.1860
1384.27	28.5688
1394.10	23.3213
1395.20	20.1458
1407.95	19.1309
1434.06	22.4287
1436.60	24.5760
1457.56	0.0000
1460.81	9.1999
1489.15	17.2617
1509.49	12.9932
1596.49	21.6724
1620.62	15.1384
1678.03	0.0000
1691.02	18.1882
1691.02	18.1882
1706.46	0.0000
1750.46	0.0000
1764.49	5.0854
1764.49	5.0854
1764.49	5.0854
1764.49	5.0854
1770.23	36.8417
1771.40	17.4545
1791.20	0.0000
1808.65	2.9261

1836.01 12.7334

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245808007

Total Uranium Activity	6.8262E+01	ug/g
Total Uranium Counting Unc.	1.6727E+01	ug/g
Total Uranium Tpu	8.5343E-06	ug/g
Total Uranium Mda	5.5782E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID  : G245808007       *
*   ANALYST       : RXF2                      DETECTOR   : GAM23            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 17:00:15.91    SAMPLE ALQT:  100.792 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.158E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.525E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.343E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.111E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:38:04.50

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808008.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:37:37
Sample ID         : G245808008           Sample quantity  : 1.31013E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.99*	305	466	1.60	148.90	142	17	4.24E-02	15.3	1.23E+00
2	2	77.30*	361	387	1.26	153.53	142	17	5.01E-02	11.3	
3	0	86.82*	185	607	4.15	172.57	166	12	2.57E-02	27.8	
4	0	93.66*	151	760	1.51	186.23	180	15	2.10E-02	43.3	
5	0	129.10	88	336	1.25	257.11	252	10	1.22E-02	40.7	
6	0	185.98*	133	319	1.67	370.86	367	10	1.85E-02	27.7	
7	0	209.23	94	233	1.05	417.36	414	8	1.31E-02	29.8	
8	2	238.78*	1029	206	1.41	476.46	470	19	1.43E-01	4.1	6.31E-01
9	2	241.73	263	273	1.85	482.36	470	19	3.65E-02	16.4	
10	0	270.58*	73	202	1.10	540.06	535	10	1.01E-02	39.3	
11	0	295.24*	283	167	1.43	589.39	584	11	3.94E-02	10.9	
12	0	302.08	163	265	5.54	603.06	595	19	2.26E-02	25.2	
13	0	338.51	233	180	1.36	675.92	671	13	3.24E-02	13.6	
14	0	351.98*	508	216	1.36	702.85	697	12	7.06E-02	7.5	
15	0	463.18	88	101	1.64	925.26	920	11	1.22E-02	24.7	
16	0	511.03*	75	162	1.87	1020.96	1014	16	1.04E-02	45.4	
17	0	583.42*	343	95	1.53	1165.76	1159	16	4.77E-02	8.7	
18	0	609.48*	337	141	1.42	1217.87	1210	14	4.69E-02	9.4	
19	0	727.41*	39	77	0.82	1453.76	1447	11	5.38E-03	48.9	
20	0	794.90	65	40	2.04	1588.76	1581	12	9.09E-03	22.8	
21	0	861.46	22	81	1.31	1721.90	1714	12	3.02E-03	85.5	
22	0	911.02*	217	62	1.87	1821.02	1815	13	3.01E-02	10.3	
23	1	964.80	53	57	2.20	1928.60	1922	31	7.36E-03	32.9	1.22E+00
24	1	969.05	126	55	2.20	1937.10	1922	31	1.74E-02	15.7	
25	0	1120.21*	117	50	2.33	2239.49	2231	17	1.62E-02	17.3	
26	0	1377.64	34	21	2.10	2754.48	2744	16	4.77E-03	33.8	
27	0	1460.45*	1244	23	2.20	2920.17	2908	22	1.73E-01	3.0	
28	0	1587.62	19	9	2.20	3174.58	3169	9	2.64E-03	36.6	
29	0	1592.62	16	8	1.53	3184.58	3180	9	2.20E-03	42.0	
30	0	1764.24*	78	3	1.78	3527.97	3521	16	1.08E-02	13.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 19:38:07

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:37:37
Sample ID : G245808008 Sample quantity : 131.01 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.31 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.456E+01	3.987E+00	6.171E-01	6.064E-02	56.002
CD-109	+	88.03	*	3.324E+00	1.893E+00	1.934E+00	2.401E-01	1.718
SN-126		64.28		3.338E-01	8.668E-01	1.446E+00	2.447E-01	0.231
	+	86.94		1.354E+00	9.457E-01	7.352E-01	3.109E-01	1.842
	+	87.57	*	3.257E-01	1.855E-01	2.017E-01	2.495E-02	1.615
TL-208		277.35		6.728E-01	4.979E-01	8.467E-01	1.183E-01	0.795
	+	510.84		4.126E-01	3.779E-01	2.699E-01	3.240E-02	1.529
	+	583.14	*	5.333E-01	1.048E-01	6.781E-02	6.210E-03	7.865
	+	860.37		3.179E-01	5.443E-01	5.143E-01	5.030E-02	0.618
BI-211		72.87		7.381E+00	5.196E+00	7.896E+00	9.043E-01	0.935
	+	351.07	*	3.583E+00	6.438E-01	3.983E-01	3.966E-02	8.996
PB-212	+	74.81		2.516E+00	8.563E-01	7.821E-01	1.159E-01	3.217
	+	77.11		1.638E+00	4.173E-01	4.312E-01	4.999E-02	3.798
	+	87.30		1.506E+00	8.709E-01	9.370E-01	1.489E-01	1.608
	+	238.63	*	1.607E+00	2.326E-01	1.108E-01	1.319E-02	14.502
		300.09		2.118E+00	1.446E+00	1.676E+00	2.024E-01	1.264
PO-212	+	74.81		2.516E+00	8.563E-01	7.821E-01	1.159E-01	3.217
	+	77.11		1.638E+00	4.173E-01	4.312E-01	4.999E-02	3.798
	+	87.30		1.506E+00	8.709E-01	9.370E-01	1.489E-01	1.608
		115.19		2.152E+00	4.472E+00	7.409E+00	7.499E-01	0.291
	+	238.63	*	1.607E+00	2.326E-01	1.108E-01	1.319E-02	14.502
		300.09		2.118E+00	1.446E+00	1.676E+00	2.024E-01	1.264
BI-214	+	609.31	*	9.865E-01	2.097E-01	1.457E-01	1.445E-02	6.769
	+	1120.29		1.806E+00	6.550E-01	6.386E-01	6.884E-02	2.828
	+	1764.49		1.648E+00	4.813E-01	3.268E-01	2.865E-02	5.042
PB-214	+	74.81		4.336E+00	1.455E+00	1.348E+00	1.844E-01	3.217
	+	77.11		2.808E+00	7.466E-01	7.393E-01	1.025E-01	3.798
	+	87.30		2.580E+00	1.483E+00	1.605E+00	2.336E-01	1.608
	+	241.98		2.463E+00	8.610E-01	6.669E-01	8.250E-02	3.693
	+	295.21		1.193E+00	2.985E-01	2.533E-01	3.122E-02	4.709
	+	351.92	*	1.247E+00	2.332E-01	1.478E-01	1.659E-02	8.432
PO-214	+	74.81		4.336E+00	1.455E+00	1.348E+00	1.844E-01	3.217
	+	77.11		2.808E+00	7.466E-01	7.393E-01	1.025E-01	3.798
	+	87.30		2.580E+00	1.483E+00	1.605E+00	2.336E-01	1.608

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.463E+00	8.610E-01	6.669E-01	8.250E-02	3.693
	+	295.21		1.193E+00	2.985E-01	2.533E-01	3.122E-02	4.709
	+	351.92	*	1.247E+00	2.332E-01	1.478E-01	1.659E-02	8.432
PO-216	+	74.81		2.516E+00	8.563E-01	7.821E-01	1.159E-01	3.217
	+	77.11		1.638E+00	4.173E-01	4.312E-01	4.999E-02	3.798
	+	87.30		1.506E+00	8.709E-01	9.370E-01	1.489E-01	1.608
	+	238.63	*	1.607E+00	2.326E-01	1.108E-01	1.319E-02	14.502
		300.09		2.118E+00	1.446E+00	1.676E+00	2.024E-01	1.264
PO-218	+	74.81		4.336E+00	1.455E+00	1.348E+00	1.844E-01	3.217
	+	77.11		2.808E+00	7.466E-01	7.393E-01	1.025E-01	3.798
	+	87.30		2.580E+00	1.483E+00	1.605E+00	2.336E-01	1.608
	+	241.98		2.463E+00	8.610E-01	6.669E-01	8.250E-02	3.693
	+	295.21		1.193E+00	2.985E-01	2.533E-01	3.122E-02	4.709
	+	351.92	*	1.247E+00	2.332E-01	1.478E-01	1.659E-02	8.432
RA-224	+	240.98	*	4.669E+00	1.612E+00	1.260E+00	1.390E-01	3.705
RA-226	+	609.31	*	9.865E-01	2.097E-01	1.457E-01	1.445E-02	6.769
	+	1120.29		1.806E+00	6.550E-01	6.386E-01	6.884E-02	2.828
	+	1764.49		1.648E+00	4.813E-01	3.268E-01	2.865E-02	5.042
AC-228	+	338.32		1.818E+00	9.023E-01	4.813E-01	1.999E-01	3.778
	+	911.07	*	1.500E+00	3.560E-01	2.538E-01	2.990E-02	5.909
	+	969.11		1.538E+00	6.046E-01	4.594E-01	1.082E-01	3.349
RA-228	+	338.32		1.818E+00	9.023E-01	4.813E-01	1.999E-01	3.778
	+	911.07	*	1.500E+00	3.560E-01	2.538E-01	2.990E-02	5.909
	+	969.11		1.538E+00	6.046E-01	4.594E-01	1.082E-01	3.349
TH-228	+	74.81		2.560E+00	8.381E-01	7.957E-01	9.197E-02	3.217
	+	77.11		1.666E+00	4.245E-01	4.387E-01	5.085E-02	3.798
	+	87.30		1.532E+00	8.726E-01	9.532E-01	1.177E-01	1.608
	+	238.63	*	1.634E+00	2.367E-01	1.127E-01	1.342E-02	14.502
		300.09		2.155E+00	1.935E+00	1.705E+00	1.016E+00	1.264
TH-230	+	609.31	*	9.865E-01	2.097E-01	1.457E-01	1.445E-02	6.769
	+	1120.29		1.806E+00	6.550E-01	6.385E-01	6.884E-02	2.828
	+	1764.49		1.648E+00	4.813E-01	3.268E-01	2.865E-02	5.042
TH-232	+	338.32		1.818E+00	5.253E-01	4.813E-01	4.745E-02	3.778
	+	911.07	*	1.500E+00	3.560E-01	2.538E-01	2.990E-02	5.909
	+	969.11		1.538E+00	6.046E-01	4.594E-01	1.082E-01	3.349
U-234	+	609.31	*	9.865E-01	2.097E-01	1.457E-01	1.445E-02	6.769
	+	1120.29		1.806E+00	6.550E-01	6.385E-01	6.884E-02	2.828
	+	1764.49		1.648E+00	4.813E-01	3.268E-01	2.865E-02	5.042
NP-237	+	86.50	*	9.564E-01	5.793E-01	5.234E-01	1.256E-01	1.827
		95.87		-1.061E-01	1.337E+00	1.908E+00	4.895E-01	-0.056
AM-243	+	74.67	*	4.079E-01	1.335E-01	1.274E-01	1.465E-02	3.201
	+	86.72		3.586E+01	2.042E+01	1.955E+01	2.402E+00	1.834
		117.66		3.686E+00	4.680E+00	7.833E+00	7.902E-01	0.471
		142.18		4.688E+00	2.371E+01	3.862E+01	3.919E+00	0.121
ANH-511	+	511.00	*	8.912E-02	8.128E-02	5.831E-02	5.038E-03	1.529

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.454E-01	4.179E-01	6.968E-01	6.478E-02	0.209

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-1.137E-02	5.517E-02	8.722E-02	7.923E-03	-0.130
NA-24		1368.53	*	-3.590E+00	5.517E-02	Half-Life too short		
AL-26		1129.67		-2.439E-01	2.140E+00	3.278E+00	2.768E-01	-0.074
		1808.65	*	1.272E-02	3.321E-02	5.863E-02	5.015E-03	0.217
TI-44		67.85		-2.000E-02	7.979E-02	1.197E-01	1.365E-02	-0.167
	+	78.38	*	3.023E-01	7.701E-02	1.038E-01	1.210E-02	2.911
SC-46		889.25	*	-2.037E-02	4.233E-02	6.638E-02	6.169E-03	-0.307
	+	1120.51		3.146E-01	1.122E-01	1.581E-01	1.345E-02	1.989
V-48		944.10		-1.197E+00	1.225E+00	1.793E+00	1.658E-01	-0.667
		983.50	*	3.737E-03	9.708E-02	1.600E-01	1.462E-02	0.023
		1312.09		4.029E-02	9.970E-02	1.687E-01	1.590E-02	0.239
CR-51		320.08	*	-6.299E-01	5.008E-01	7.677E-01	8.152E-02	-0.821
MN-52		744.21		-1.009E-01	3.621E-01	5.903E-01	5.110E-02	-0.171
		848.13		-7.096E+00	9.711E+00	1.492E+01	1.363E+00	-0.475
		935.52		5.856E-02	3.685E-01	6.160E-01	5.707E-02	0.095
		1246.25		3.365E+00	1.323E+01	2.186E+01	1.926E+00	0.154
		1333.61		1.319E+00	7.496E+00	1.235E+01	1.188E+00	0.107
		1434.06	*	-1.643E-01	3.471E-01	5.396E-01	5.194E-02	-0.304
MN-54		834.83	*	-1.211E-02	4.608E-02	7.480E-02	6.788E-03	-0.162
CO-56		846.75	*	-2.301E-02	4.215E-02	6.597E-02	6.019E-03	-0.349
		977.42		-2.431E+00	4.597E+00	6.026E+00	5.520E-01	-0.403
		1037.82		6.646E-02	3.643E-01	6.071E-01	5.698E-02	0.109
		1175.09		1.157E+00	3.027E+00	5.074E+00	4.139E-01	0.228
		1238.25		1.509E-01	1.264E-01	2.211E-01	1.986E-02	0.683
		1360.21		3.682E-01	1.200E+00	2.077E+00	2.000E-01	0.177
		1771.40		6.824E-02	2.832E-01	4.257E-01	3.719E-02	0.160
CO-57		122.06	*	-2.289E-02	3.096E-02	4.858E-02	4.893E-03	-0.471
		136.48		-3.741E-02	2.622E-01	4.220E-01	4.487E-02	-0.089
CO-58		810.76	*	-2.397E-02	4.505E-02	7.113E-02	6.395E-03	-0.337
FE-59		142.65		1.172E+00	3.763E+00	6.153E+00	6.249E-01	0.190
		192.34		-1.635E+00	1.393E+00	1.887E+00	2.825E-01	-0.866
		1099.22	*	-2.584E-02	1.127E-01	1.796E-01	1.676E-02	-0.144
		1291.56		2.850E-02	1.518E-01	2.502E-01	2.584E-02	0.114
CO-60		1173.22		8.206E-02	5.733E-02	1.039E-01	8.454E-03	0.790
		1332.49	*	-2.457E-02	4.774E-02	7.168E-02	6.891E-03	-0.343
ZN-65		1115.52	*	7.009E-02	1.210E-01	1.819E-01	1.555E-02	0.385
GE-68		1077.35	*	7.521E-01	1.596E+00	2.714E+00	2.376E-01	0.277
AS-73		53.44	*	6.782E-01	2.131E+00	3.577E+00	4.645E-01	0.190
AS-74		595.88	*	4.933E-02	1.205E-01	2.002E-01	1.701E-02	0.246
		634.78		1.872E-02	4.652E-01	7.499E-01	6.262E-02	0.025
SE-75		66.05		-4.659E+00	8.202E+00	1.309E+01	1.681E+00	-0.356
		96.73		-8.154E-01	1.108E+00	1.513E+00	2.318E-01	-0.539
		121.11		-1.440E-01	1.684E-01	2.622E-01	3.243E-02	-0.549
		136.00		-1.428E-02	4.891E-02	7.821E-02	7.917E-03	-0.183
		198.60		1.656E+00	2.294E+00	3.773E+00	4.404E-01	0.439
		264.65	*	-7.094E-02	6.497E-02	8.670E-02	9.506E-03	-0.818
		279.53		1.722E-01	1.421E-01	2.478E-01	2.743E-02	0.695
		303.91		1.880E+00	3.058E+00	4.596E+00	5.952E-01	0.409
		400.65		-2.768E-01	3.236E-01	5.015E-01	5.508E-02	-0.552

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		1.328E+03	7.560E+02	8.097E+02	1.005E+02	1.640
		200.40		-1.165E+02	3.842E+02	6.050E+02	6.609E+01	-0.193
	+	239.00		4.784E+02	6.587E+01	8.138E+01	8.978E+00	5.879
		249.79		1.910E+01	1.543E+02	2.600E+02	2.862E+01	0.073
		281.68		-3.714E+02	2.212E+02	3.335E+02	3.597E+01	-1.114
		297.23		7.304E+02	2.085E+02	2.729E+02	2.892E+01	2.676
		303.76		2.934E+02	4.767E+02	7.173E+02	7.535E+01	0.409
		439.47		1.900E+02	3.162E+02	5.376E+02	4.607E+01	0.353
		484.57		-5.998E+02	5.546E+02	8.327E+02	7.191E+01	-0.720
		520.65	*	-8.177E+00	2.385E+01	3.773E+01	3.258E+00	-0.217
		574.64		-1.716E+02	4.967E+02	7.579E+02	6.483E+01	-0.226
		578.91		3.851E+01	2.165E+02	3.074E+02	2.626E+01	0.125
		585.48		3.383E+03	6.277E+02	1.099E+03	9.366E+01	3.079
		755.35		1.011E+01	3.588E+02	5.994E+02	5.221E+01	0.017
		817.79		9.194E+01	2.783E+02	4.750E+02	4.275E+01	0.194
SR-82		698.33		1.217E+01	4.096E+01	7.002E+01	5.895E+00	0.174
		776.49	*	-7.591E-02	4.979E-01	8.189E-01	7.216E-02	-0.093
		1395.20		-1.686E+01	1.249E+01	1.636E+01	1.576E+00	-1.031
RB-83		520.41	*	-2.424E-02	8.943E-02	1.382E-01	1.193E-02	-0.175
		529.64		-1.225E-01	1.262E-01	1.879E-01	1.621E-02	-0.652
		552.65		-4.542E-02	2.384E-01	3.799E-01	3.267E-02	-0.120
RB-84		881.50	*	2.985E-02	8.592E-02	1.463E-01	1.355E-02	0.204
KR-85		513.99	*	2.229E+01	1.046E+01	1.710E+01	1.478E+00	1.304
SR-85		513.99	*	1.169E-01	5.486E-02	8.966E-02	7.746E-03	1.304
RB-86		1076.63	*	4.860E-01	1.095E+00	1.859E+00	1.628E-01	0.261
Y-88		898.02		-1.545E-02	4.719E-02	7.541E-02	7.062E-03	-0.205
		1836.01	*	2.658E-02	3.532E-02	6.669E-02	5.617E-03	0.398
ZR-88		392.90	*	-1.499E-02	3.878E-02	6.229E-02	5.243E-03	-0.241
Y-91		1204.90	*	3.084E+01	2.725E+01	4.781E+01	4.031E+00	0.645
NB-94		702.63	*	-5.871E-03	3.734E-02	6.171E-02	5.209E-03	-0.095
		871.10		-2.395E-02	3.973E-02	6.191E-02	5.710E-03	-0.387
NB-95		765.79	*	8.743E-02	5.267E-02	9.671E-02	8.473E-03	0.904
NB-95M		235.69	*	3.125E-01	1.888E-01	2.947E-01	3.546E-02	1.060
ZR-95		724.18		1.506E-04	1.387E-01	1.997E-01	1.858E-02	0.001
		756.15	*	6.100E-02	8.338E-02	1.465E-01	1.404E-02	0.416
NB-97		657.90	*	-3.150E-01	8.338E-02	Half-Life too short		
		1024.50		1.334E+01	8.338E-02	Half-Life too short		
ZR-97		254.15		-1.578E+01	8.338E-02	Half-Life too short		
		355.39		4.700E+01	8.338E-02	Half-Life too short		
		507.63	*	5.506E+01	8.338E-02	Half-Life too short		
		602.52		8.692E+01	8.338E-02	Half-Life too short		
		1021.30		-7.688E+00	8.338E-02	Half-Life too short		
		1147.95		1.188E+01	8.338E-02	Half-Life too short		
		1362.66		2.232E+01	8.338E-02	Half-Life too short		
		1750.46		5.965E+00	8.338E-02	Half-Life too short		
MO-99		140.51		2.132E+01	6.061E+01	9.763E+01	2.753E+01	0.218
		181.06		2.988E+01	4.195E+01	6.065E+01	1.177E+01	0.493
		366.43		8.146E+01	1.754E+02	2.972E+02	2.723E+01	0.274
		739.58	*	1.911E+01	2.348E+01	4.129E+01	6.272E+00	0.463

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-4.269E+01	7.089E+01	1.122E+02	9.894E+00	-0.381
TC-99M		140.51	*	6.321E+12	7.089E+01	Half-Life too short		
RH-101		127.23		3.577E-02	4.491E-02	6.636E-02	6.658E-03	0.539
		198.01	*	4.833E-02	4.126E-02	6.889E-02	7.516E-03	0.701
		325.23		6.114E-02	2.917E-01	4.887E-01	4.951E-02	0.125
RH-102		418.52		-3.173E-01	3.541E-01	5.455E-01	4.644E-02	-0.582
		475.06	*	-3.776E-02	3.666E-02	5.523E-02	4.765E-03	-0.684
		631.29		-6.763E-03	6.307E-02	1.004E-01	8.400E-03	-0.067
		697.49		1.153E-02	8.964E-02	1.514E-01	1.274E-02	0.076
		766.84		1.453E-01	1.340E-01	2.383E-01	2.089E-02	0.610
		1046.59		4.671E-02	1.315E-01	2.226E-01	1.982E-02	0.210
		1112.84		-3.117E-01	3.429E-01	4.177E-01	3.572E-02	-0.746
RU-103		497.08	*	1.231E-02	5.219E-02	8.628E-02	1.223E-02	0.143
	+	610.33		1.106E+01	2.774E+00	3.305E+00	5.486E-01	3.345
RH-106	+	511.85		4.469E-01	4.076E-01	5.041E-01	4.356E-02	0.887
		621.84	*	1.064E-01	3.846E-01	6.322E-01	8.357E-02	0.168
		1050.47		-3.730E+00	2.941E+00	4.184E+00	3.718E-01	-0.892
RU-106	+	511.85		4.469E-01	4.076E-01	5.041E-01	4.356E-02	0.887
		621.84	*	1.064E-01	3.845E-01	6.322E-01	5.313E-02	0.168
		1050.47		-3.730E+00	2.941E+00	4.184E+00	3.718E-01	-0.892
AG-108M		433.93	*	5.346E-03	4.053E-02	6.694E-02	5.959E-03	0.080
		614.37		3.258E-02	5.355E-02	7.907E-02	6.941E-03	0.412
		722.95		-1.888E-02	5.742E-02	7.972E-02	7.086E-03	-0.237
AG-110M		657.75	*	-1.654E-02	4.164E-02	6.788E-02	5.776E-03	-0.244
		677.61		1.470E-01	3.557E-01	6.142E-01	5.257E-02	0.239
		706.67		9.831E-02	2.347E-01	4.046E-01	3.522E-02	0.243
		763.93		-1.947E-01	2.101E-01	3.196E-01	2.874E-02	-0.609
		884.67		-8.977E-03	5.585E-02	9.086E-02	8.662E-03	-0.099
		937.48		1.581E-02	1.254E-01	2.089E-01	1.995E-02	0.076
		1384.27		7.703E-02	2.008E-01	3.084E-01	3.039E-02	0.250
IN-111		171.28		-2.898E-01	2.113E+00	3.375E+00	3.615E-01	-0.086
		245.39	*	-1.134E+00	2.526E+00	3.578E+00	3.943E-01	-0.317
IN-113M		391.69	*	-3.071E-02	5.565E-02	8.838E-02	7.676E-03	-0.347
SN-113		391.69	*	-3.071E-02	5.565E-02	8.838E-02	7.676E-03	-0.347
IN-114M		190.27	*	2.945E-01	2.620E-01	3.889E-01	4.222E-02	0.757
CD-115		260.90		2.916E+02	3.084E+02	5.359E+02	5.872E+01	0.544
		492.35		-6.750E+01	8.857E+01	1.361E+02	1.176E+01	-0.496
		527.90	*	1.397E+01	2.362E+01	4.006E+01	3.457E+00	0.349
SN-117M		156.02		-6.714E-01	3.296E+00	5.269E+00	5.492E-01	-0.127
		158.56	*	-3.155E-02	7.786E-02	1.232E-01	1.292E-02	-0.256
SB-122		563.90	*	1.126E+00	4.351E+00	7.168E+00	6.149E-01	0.157
		692.80		-3.904E+01	8.780E+01	1.421E+02	1.192E+01	-0.275
I-123		159.00	*	-4.952E+00	8.780E+01	Half-Life too short		
		528.96		-7.373E+02	8.780E+01	Half-Life too short		
TE-123M		159.00	*	-1.693E-03	3.619E-02	5.819E-02	6.132E-03	-0.029
I-124		602.71	*	1.138E+00	1.306E+00	1.975E+00	1.673E-01	0.576
		722.78		-2.419E+00	8.545E+00	1.193E+01	1.019E+00	-0.203
		1325.50		-6.848E+00	6.086E+01	9.673E+01	9.237E+00	-0.071
	+	1376.25		1.052E+02	7.183E+01	1.026E+02	9.887E+00	1.025

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1509.49		3.984E+01	2.893E+01	5.516E+01	5.268E+00	0.722
		1691.02		-2.881E+00	5.630E+00	8.271E+00	7.505E-01	-0.348
SB-124		602.71		4.769E-02	5.473E-02	8.279E-02	7.016E-03	0.576
		645.85		-3.947E-02	6.357E-01	1.015E+00	8.970E-02	-0.039
		709.31		9.252E-01	3.182E+00	5.437E+00	4.609E-01	0.170
		713.82		-1.465E+00	1.939E+00	3.036E+00	3.629E-01	-0.483
		722.78		-1.470E-01	5.193E-01	7.248E-01	6.331E-02	-0.203
	+	968.20		1.623E+01	5.319E+00	8.585E+00	7.887E-01	1.890
		1045.16		3.057E+00	2.961E+00	5.296E+00	4.719E-01	0.577
		1325.50		-4.445E-01	3.950E+00	6.278E+00	5.995E-01	-0.071
		1368.21		-1.480E+00	2.754E+00	3.572E+00	5.053E-01	-0.414
		1436.60		4.631E+00	4.190E+00	7.966E+00	7.667E-01	0.581
		1691.02	*	-4.129E-02	8.070E-02	1.185E-01	1.114E-02	-0.348
SB-125		427.89	*	-5.045E-02	1.156E-01	1.840E-01	1.602E-02	-0.274
	+	463.38		9.448E-01	4.755E-01	6.779E-01	6.298E-02	1.394
		600.56		-1.066E-01	2.306E-01	3.475E-01	3.172E-02	-0.307
		635.90		1.584E-01	3.274E-01	5.464E-01	4.952E-02	0.290
TE-125M		109.28	*	-7.048E+00	1.208E+01	1.920E+01	2.256E+00	-0.367
I-126		388.63		8.085E-02	2.834E-01	4.742E-01	4.035E-02	0.171
		666.33	*	1.383E-01	2.475E-01	4.302E-01	3.548E-02	0.321
		753.82		-1.387E-01	1.928E+00	3.195E+00	2.781E-01	-0.043
SB-126		223.80		2.462E+00	5.634E+00	9.637E+00	1.062E+00	0.255
		278.60		5.770E+00	3.630E+00	6.385E+00	6.907E-01	0.904
	+	296.50		1.337E+01	3.240E+00	4.511E+00	4.785E-01	2.963
		414.70		-1.139E-01	1.097E-01	1.679E-01	1.427E-02	-0.679
		415.30		-6.417E+00	8.795E+00	1.374E+01	1.169E+00	-0.467
		555.20		9.425E-01	5.295E+00	8.687E+00	7.466E-01	0.108
		573.80		-8.862E-01	1.519E+00	2.346E+00	2.008E-01	-0.378
		593.00		1.065E-01	1.220E+00	1.981E+00	1.684E-01	0.054
		656.30		-1.969E+00	4.471E+00	7.263E+00	5.991E-01	-0.271
		666.33		5.808E-02	1.039E-01	1.807E-01	1.490E-02	0.321
		675.00		-9.829E-01	2.591E+00	4.217E+00	3.497E-01	-0.233
		695.00		2.955E-02	9.988E-02	1.708E-01	1.435E-02	0.173
		697.00		5.340E-02	3.498E-01	5.918E-01	4.979E-02	0.090
		720.50	*	1.073E-01	2.224E-01	3.366E-01	2.873E-02	0.319
		856.80		-1.310E-01	7.115E-01	9.886E-01	9.062E-02	-0.133
		989.30		-2.629E-01	1.647E+00	2.661E+00	2.427E-01	-0.099
		1034.80		-2.883E+00	1.169E+01	1.867E+01	1.671E+00	-0.154
		1213.00		-3.178E+00	7.111E+00	1.109E+01	9.429E-01	-0.287
SB-127		61.10		-1.970E+02	1.579E+02	2.452E+02	3.418E+01	-0.803
		252.40		3.074E+00	7.993E+00	1.344E+01	5.748E+00	0.229
		290.80		-9.201E+00	4.419E+01	6.303E+01	8.443E+00	-0.146
		411.60		3.062E+01	2.369E+01	4.085E+01	6.588E+00	0.750
		444.90		-1.001E+01	1.674E+01	2.614E+01	3.422E+00	-0.383
		473.00		-2.059E+00	3.040E+00	4.703E+00	6.321E-01	-0.438
		543.00		-2.918E+00	2.897E+01	4.656E+01	6.939E+00	-0.063
		603.60		3.472E+00	2.470E+01	3.479E+01	4.521E+00	0.100
		685.20	*	1.100E+00	2.232E+00	3.874E+00	4.584E-01	0.284
		698.50		6.166E+00	2.509E+01	4.272E+01	6.912E+00	0.144

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.20		2.185E+01	5.867E+01	8.779E+01	1.032E+01	0.249
		783.80		1.988E+00	6.041E+00	1.030E+01	1.355E+00	0.193
XE-127		57.60		-2.291E+00	1.322E+01	2.176E+01	2.557E+00	-0.105
		145.22		-2.122E-01	9.966E-01	1.594E+00	1.625E-01	-0.133
		172.10		1.546E-01	1.555E-01	2.593E-01	2.779E-02	0.596
		202.84	*	-2.287E-02	6.105E-02	9.570E-02	1.047E-02	-0.239
		374.96		1.865E-01	2.605E-01	4.461E-01	3.980E-02	0.418
I-131		80.18		3.465E+00	9.756E+00	1.213E+01	1.432E+00	0.286
		284.30		-6.256E-01	2.258E+00	3.714E+00	4.136E-01	-0.168
		364.48	*	-4.533E-02	1.726E-01	2.804E-01	2.711E-02	-0.162
		636.97		1.897E-01	2.215E+00	3.584E+00	3.174E-01	0.053
		722.89		-3.632E+00	1.162E+01	1.616E+01	1.393E+00	-0.225
TE-132		49.72		-1.389E+01	9.154E+01	1.512E+02	2.349E+01	-0.092
		111.76		4.087E+00	5.831E+01	9.527E+01	1.207E+01	0.043
		116.30		1.969E+01	5.433E+01	8.960E+01	1.129E+01	0.220
		228.16	*	-4.063E-01	1.344E+00	2.228E+00	3.906E-01	-0.182
BA-133		53.15		7.368E+00	9.140E+00	1.557E+01	2.033E+00	0.473
		79.62		3.498E+00	2.241E+00	3.150E+00	5.409E-01	1.110
		81.00		9.378E-02	1.931E-01	2.089E-01	3.720E-02	0.449
		276.40		5.090E-01	5.266E-01	8.342E-01	1.324E-01	0.610
	+	302.84		7.536E-01	3.960E-01	3.207E-01	4.679E-02	2.350
		356.01	*	1.928E-02	6.311E-02	9.254E-02	1.272E-02	0.208
		383.85		-1.162E-01	3.833E-01	6.197E-01	7.826E-02	-0.188
I-133	+	510.53		4.931E+00	3.833E-01	Half-Life too short		
		529.87	*	-4.115E-02	3.833E-01	Half-Life too short		
		706.58		1.266E+00	3.833E-01	Half-Life too short		
		856.28		-1.406E+00	3.833E-01	Half-Life too short		
		875.33		-5.714E-02	3.833E-01	Half-Life too short		
		1236.41		4.697E+00	3.833E-01	Half-Life too short		
		1298.22		6.024E-01	3.833E-01	Half-Life too short		
CS-134		475.35		-3.025E+00	2.430E+00	3.595E+00	3.102E-01	-0.841
		563.23		1.636E-01	4.374E-01	7.266E-01	6.294E-02	0.225
		569.32		-5.284E-02	2.513E-01	4.009E-01	3.482E-02	-0.132
		604.70		6.736E-03	4.839E-02	6.814E-02	5.785E-03	0.099
	+	795.84	*	1.464E-01	6.792E-02	1.013E-01	9.080E-03	1.445
		801.93		-1.643E-01	4.618E-01	7.055E-01	6.333E-02	-0.233
		1038.57		-1.194E-01	4.550E+00	7.428E+00	6.640E-01	-0.016
		1167.94		-1.940E+00	3.327E+00	5.121E+00	4.188E-01	-0.379
		1365.15		1.176E+00	1.472E+00	2.677E+00	2.673E-01	0.439
CS-135		268.24	*	2.375E-01	2.164E-01	3.347E-01	4.016E-02	0.709
I-135		288.45		1.290E+12	2.164E-01	Half-Life too short		
		417.63		-7.741E+12	2.164E-01	Half-Life too short		
		546.56		1.092E+12	2.164E-01	Half-Life too short		
		836.80		7.617E+12	2.164E-01	Half-Life too short		
		1038.76		-1.792E+12	2.164E-01	Half-Life too short		
		1124.00		1.946E+13	2.164E-01	Half-Life too short		
		1131.51		-2.213E+12	2.164E-01	Half-Life too short		
		1260.41	*	-1.236E+12	2.164E-01	Half-Life too short		
		1457.56		2.155E+14	2.164E-01	Half-Life too short		

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		1678.03		2.337E+12	2.164E-01	Half-Life too short		
		1706.46		2.594E+12	2.164E-01	Half-Life too short		
		1791.20		-1.464E+12	2.164E-01	Half-Life too short		
CS-136		66.91		-1.874E+00	1.487E+00	2.262E+00	3.881E-01	-0.829
	+	86.29		4.752E+00	2.744E+00	2.902E+00	4.504E-01	1.637
		153.22		5.244E-01	9.631E-01	1.584E+00	1.777E-01	0.331
		163.89		2.355E-01	1.472E+00	2.386E+00	2.739E-01	0.099
		176.55		-6.708E-01	5.394E-01	8.098E-01	9.035E-02	-0.828
		273.65		-9.914E-01	7.771E-01	1.025E+00	1.161E-01	-0.967
		340.57		4.914E-01	2.268E-01	3.621E-01	3.632E-02	1.357
		818.51		1.968E-02	9.328E-02	1.577E-01	1.421E-02	0.125
		1048.07	*	-4.643E-02	1.399E-01	2.210E-01	2.045E-02	-0.210
		1235.34		1.162E+00	9.395E-01	1.638E+00	1.952E-01	0.710
BA-137M		661.65	*	4.983E-03	4.383E-02	7.305E-02	6.006E-03	0.068
CS-137		661.65	*	5.267E-03	4.633E-02	7.722E-02	6.362E-03	0.068
CE-139		165.85	*	2.368E-02	3.678E-02	6.070E-02	6.479E-03	0.390
BA-140		162.64		-4.609E-01	1.060E+00	1.673E+00	1.840E-01	-0.276
		304.84		1.146E+00	2.089E+00	3.098E+00	8.877E-01	0.370
		423.70		1.368E+00	2.703E+00	4.511E+00	1.461E+00	0.303
		537.32	*	-5.163E-02	3.336E-01	5.334E-01	1.768E-01	-0.097
LA-140		328.77		3.189E-01	4.414E-01	7.545E-01	7.906E-02	0.423
		432.53		-6.412E-01	2.841E+00	4.585E+00	4.115E-01	-0.140
		487.03		1.278E-01	1.909E-01	3.246E-01	2.976E-02	0.394
		751.79		6.832E-01	2.222E+00	3.792E+00	3.643E-01	0.180
		815.85		3.320E-02	4.033E-01	6.742E-01	6.707E-02	0.049
		867.82		6.509E-01	1.920E+00	3.051E+00	2.941E-01	0.213
		919.63		2.655E+00	3.754E+00	6.321E+00	7.079E-01	0.420
		925.24		-4.913E-01	1.490E+00	2.378E+00	2.328E-01	-0.207
		1596.49	*	-2.551E-02	1.108E-01	1.471E-01	1.379E-02	-0.173
CE-141		145.44	*	1.792E-02	8.966E-02	1.456E-01	1.505E-02	0.123
CE-143		57.37		-2.509E-03	8.966E-02	Half-Life too short		
		231.56		-3.666E-03	8.966E-02	Half-Life too short		
		293.26	*	2.087E-03	8.966E-02	Half-Life too short		
	+	350.59		8.260E-02	8.966E-02	Half-Life too short		
		490.36		2.079E-03	8.966E-02	Half-Life too short		
		664.57		2.396E-03	8.966E-02	Half-Life too short		
		721.93		1.594E-03	8.966E-02	Half-Life too short		
CE-144		80.11		1.728E+00	3.776E+00	4.723E+00	5.551E-01	0.366
		133.54	*	4.233E-02	2.749E-01	3.929E-01	6.445E-02	0.108
PM-144		476.78		-4.851E-03	8.359E-02	1.358E-01	1.281E-02	-0.036
		618.01		-7.891E-03	4.047E-02	6.412E-02	5.555E-03	-0.123
		696.49	*	-1.208E-03	3.906E-02	6.523E-02	5.488E-03	-0.019
		778.57		-1.417E+00	2.764E+00	4.405E+00	3.888E-01	-0.322
PR-144		696.49	*	-8.193E-02	2.650E+00	4.425E+00	3.721E-01	-0.019
		1489.15		-1.438E+01	1.209E+01	1.549E+01	1.483E+00	-0.929
PM-146		453.90	*	7.349E-03	5.802E-02	9.363E-02	1.003E-02	0.078
		633.02		8.523E-01	1.677E+00	2.760E+00	1.030E+00	0.309
		735.90		-6.783E-02	1.767E-01	2.843E-01	8.131E-02	-0.239
		747.13		-4.841E-03	1.050E-01	1.745E-01	2.455E-02	-0.028

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ND-147		91.11		3.328E-01	7.338E-01	7.821E-01	9.681E-02	0.426
		319.41		-4.370E+00	4.742E+00	7.444E+00	7.626E-01	-0.587
		439.89		2.635E+00	8.040E+00	1.344E+01	1.152E+00	0.196
		531.02	*	-5.370E-01	7.383E-01	1.119E+00	1.673E-01	-0.480
PM-149		285.90	*	1.515E+02	2.231E+02	3.818E+02	6.421E+01	0.397
EU-152		121.78		-7.091E-02	8.884E-02	1.388E-01	1.556E-02	-0.511
		244.69		2.693E-01	4.715E-01	7.111E-01	7.838E-02	0.379
		344.27	*	3.107E-02	1.444E-01	1.993E-01	2.029E-02	0.156
		443.98		-6.980E-01	1.115E+00	1.740E+00	1.493E-01	-0.401
		778.89		-4.823E-02	3.109E-01	5.108E-01	4.507E-02	-0.094
		867.32		-4.187E-02	1.070E+00	1.577E+00	1.452E-01	-0.027
	+	964.01		7.466E-01	4.966E-01	6.960E-01	6.401E-02	1.073
		1085.78		-4.505E-01	5.122E-01	7.634E-01	6.648E-02	-0.590
		1112.02		-1.771E-01	4.587E-01	6.056E-01	5.182E-02	-0.292
		1407.95		1.370E-01	2.180E-01	3.898E-01	3.755E-02	0.351
GD-153		69.67		3.127E-01	2.834E+00	4.127E+00	4.711E-01	0.076
		83.37		-4.765E+00	2.393E+01	3.178E+01	3.809E+00	-0.150
		97.43	*	2.386E-03	1.091E-01	1.565E-01	1.727E-02	0.015
		103.18		-4.857E-02	1.371E-01	2.207E-01	2.333E-02	-0.220
EU-154		123.07		1.224E-04	6.698E-02	1.006E-01	1.256E-02	0.001
		247.94		-4.029E-01	5.384E-01	7.443E-01	9.950E-02	-0.541
		591.81		-4.168E-01	8.305E-01	1.146E+00	1.328E-01	-0.364
		723.30		-9.237E-02	2.416E-01	3.333E-01	3.155E-02	-0.277
		756.87		3.993E-01	8.770E-01	1.512E+00	1.822E-01	0.264
		873.19		-2.135E-02	3.386E-01	5.565E-01	7.057E-02	-0.038
		996.32		-5.095E-01	4.846E-01	7.051E-01	1.270E-01	-0.723
		1004.76		-3.832E-02	2.719E-01	4.404E-01	5.274E-02	-0.087
		1274.45	*	-3.664E-02	1.535E-01	2.417E-01	2.819E-02	-0.152
EU-155		48.70		-9.466E-02	7.679E+00	1.276E+01	1.713E+00	-0.007
		60.01		-8.334E+00	9.614E+00	1.532E+01	1.730E+00	-0.544
	+	86.54		3.926E-01	2.236E-01	2.390E-01	2.948E-02	1.642
		105.31	*	5.292E-02	1.369E-01	2.266E-01	2.387E-02	0.234
TB-160	+	86.79		1.069E+00	6.089E-01	6.494E-01	7.985E-02	1.646
		197.04		1.021E+00	7.187E-01	1.208E+00	1.318E-01	0.845
		215.65		1.923E-02	9.618E-01	1.581E+00	1.739E-01	0.012
		298.57		3.354E-01	2.142E-01	2.513E-01	2.659E-02	1.335
		879.36	*	6.238E-02	1.687E-01	2.877E-01	2.663E-02	0.217
		962.29		1.432E+00	7.397E-01	1.254E+00	1.154E-01	1.142
	+	966.15		5.230E-01	3.479E-01	6.317E-01	5.807E-02	0.828
		1177.93		-5.724E-01	5.080E-01	7.401E-01	6.056E-02	-0.773
		1271.85		-6.597E-01	9.383E-01	1.401E+00	1.268E-01	-0.471
HO-166M		80.57		7.231E-02	5.529E-01	5.815E-01	6.852E-02	0.124
		184.41		4.527E-02	5.308E-02	7.971E-02	8.620E-03	0.568
		280.46		-6.748E-02	1.088E-01	1.759E-01	1.900E-02	-0.384
		410.95		5.477E-01	3.237E-01	5.749E-01	4.879E-02	0.953
		711.68	*	-3.210E-02	6.907E-02	1.112E-01	9.439E-03	-0.289
		752.31		-2.026E-02	3.194E-01	5.297E-01	4.606E-02	-0.038
		810.29		-6.858E-02	6.722E-02	1.008E-01	9.037E-03	-0.681
TM-171		51.35		-1.445E+01	8.595E+01	1.418E+02	1.911E+01	-0.102

---- Non-Identified Nuclides ----

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		52.39		4.405E+01	4.090E+01	7.014E+01	9.302E+00	0.628
		59.40		-9.152E+00	5.171E+01	8.504E+01	9.587E+00	-0.108
		66.72	*	-5.326E+01	4.763E+01	7.406E+01	8.453E+00	-0.719
LU-176		88.36		2.427E-02	4.595E-01	4.800E-01	5.926E-02	0.051
		201.83		-3.634E-02	3.670E-02	5.556E-02	6.075E-03	-0.654
		306.84	*	9.802E-03	3.533E-02	5.206E-02	5.444E-03	0.188
		401.10		-4.593E+00	8.297E+00	1.316E+01	1.112E+00	-0.349
LU-177		112.95		1.541E-02	2.563E+00	4.176E+00	4.245E-01	0.004
	+	208.36	*	3.248E+00	1.966E+00	3.009E+00	3.301E-01	1.079
LU-177M		52.97		3.490E+00	4.217E+00	7.185E+00	9.422E-01	0.486
		54.07		-8.272E-01	2.132E+00	3.480E+00	4.455E-01	-0.238
		61.30		-3.357E+00	2.789E+00	4.366E+00	4.962E-01	-0.769
		121.62		-4.663E-01	4.659E-01	7.208E-01	7.255E-02	-0.647
		147.16		3.008E-01	8.702E-01	1.423E+00	1.457E-01	0.211
		171.86		3.790E-01	6.075E-01	1.001E+00	1.073E-01	0.379
		218.09		-3.723E-01	1.066E+00	1.769E+00	1.948E-01	-0.210
		268.79		1.880E+00	1.129E+00	1.789E+00	1.951E-01	1.051
		319.02		-1.058E-01	3.238E-01	5.280E-01	5.411E-02	-0.200
		367.43		-4.697E-01	1.133E+00	1.822E+00	1.665E-01	-0.258
		413.65	*	-8.647E-02	2.338E-01	3.753E-01	3.189E-02	-0.230
HF-181		56.28		-7.091E-01	2.155E+00	3.524E+00	4.278E-01	-0.201
		57.53		-2.613E-01	1.107E+00	1.816E+00	2.139E-01	-0.144
		65.20		2.343E+00	1.655E+00	2.802E+00	3.199E-01	0.836
		133.02		-2.760E-03	9.009E-02	1.274E-01	1.280E-02	-0.022
		136.25		-1.260E-01	5.860E-01	9.403E-01	9.473E-02	-0.134
		345.85		1.751E-01	3.461E-01	4.150E-01	4.020E-02	0.422
		482.03	*	-1.566E-03	5.679E-02	9.238E-02	7.976E-03	-0.017
W-181		56.28		-2.724E-01	8.248E-01	1.349E+00	1.637E-01	-0.202
		57.53		-1.009E-01	4.239E-01	6.956E-01	8.191E-02	-0.145
		65.20	*	8.905E-01	6.290E-01	1.065E+00	1.216E-01	0.836
TA-182		67.75		-1.958E-01	1.920E-01	2.893E-01	3.302E-02	-0.677
		100.10		1.746E-01	2.544E-01	3.770E-01	4.069E-02	0.463
		152.43		2.011E-01	4.494E-01	7.370E-01	7.622E-02	0.273
		222.10		1.181E-01	4.293E-01	7.305E-01	8.050E-02	0.162
		1001.68		2.084E+00	2.684E+00	4.662E+00	4.234E-01	0.447
	+	1121.28		8.647E-01	3.084E-01	4.322E-01	3.674E-02	2.001
		1189.05		-4.682E-02	4.131E-01	6.639E-01	5.500E-02	-0.071
		1221.42	*	7.394E-02	2.662E-01	4.409E-01	3.785E-02	0.168
		1230.97		-2.092E-01	6.846E-01	1.082E+00	9.384E-02	-0.193
RE-183		57.98		6.788E-02	4.182E-01	6.970E-01	8.120E-02	0.097
		59.32		9.747E-02	2.127E-01	3.580E-01	4.043E-02	0.272
		67.20		-4.220E-01	3.412E-01	5.272E-01	6.017E-02	-0.801
		162.32	*	-7.535E-02	1.420E-01	2.231E-01	2.360E-02	-0.338
	+	208.81		2.396E+00	1.450E+00	2.225E+00	2.441E-01	1.077
		291.72		-2.031E-01	1.333E+00	1.908E+00	2.036E-01	-0.106
RE-184		57.98		2.471E-01	1.522E+00	2.537E+00	2.956E-01	0.097
		59.32		3.545E-01	7.737E-01	1.302E+00	1.471E-01	0.272
		67.20		-1.536E+00	1.241E+00	1.918E+00	2.189E-01	-0.801
		161.27		-1.837E-02	4.453E-01	7.158E-01	7.553E-02	-0.026

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		216.55		-1.826E-02	3.334E-01	5.606E-01	6.168E-02	-0.033
		252.85	*	6.242E-02	2.909E-01	4.921E-01	5.411E-02	0.127
		318.01		4.103E-01	5.489E-01	9.451E-01	9.703E-02	0.434
		792.07		-1.498E-01	1.498E+00	2.122E+00	1.885E-01	-0.071
		903.28		6.418E-01	1.237E+00	1.997E+00	1.861E-01	0.321
		920.93		6.759E-02	5.370E-01	8.954E-01	8.319E-02	0.075
OS-185		59.72		-1.008E-01	5.708E-01	9.385E-01	1.058E-01	-0.107
		61.14		-3.819E-01	3.098E-01	4.841E-01	5.498E-02	-0.789
		69.30		7.643E-02	5.157E-01	7.524E-01	8.587E-02	0.102
		592.07		-1.132E+00	3.241E+00	4.750E+00	4.041E-01	-0.238
		646.12	*	-2.309E-04	5.316E-02	8.530E-02	7.079E-03	-0.003
		717.42		5.776E-01	1.085E+00	1.882E+00	1.604E-01	0.307
		874.81		7.024E-02	6.976E-01	1.164E+00	1.075E-01	0.060
		880.27		1.793E-01	9.435E-01	1.585E+00	1.468E-01	0.113
RE-188		155.03	*	2.168E-01	2.268E-01	3.779E-01	3.930E-02	0.574
		477.96		2.952E+00	3.947E+00	6.739E+00	5.817E-01	0.438
		633.10		2.141E+00	3.362E+00	5.682E+00	4.749E-01	0.377
W-188		63.58		3.497E+01	9.317E+01	1.556E+02	1.776E+01	0.225
		227.08		-5.656E+00	1.628E+01	2.697E+01	2.975E+00	-0.210
		290.67	*	-2.036E+00	1.068E+01	1.526E+01	1.630E+00	-0.133
IR-192	+	295.96		9.276E-01	2.251E-01	3.152E-01	3.362E-02	2.942
		308.46		7.782E-02	1.348E-01	2.028E-01	2.123E-02	0.384
		316.51	*	8.475E-03	4.249E-02	7.131E-02	7.352E-03	0.119
		468.07		2.361E-02	9.598E-02	1.386E-01	1.281E-02	0.170
		604.41		3.825E-02	6.742E-01	9.414E-01	1.216E-01	0.041
		612.46		3.371E+00	1.200E+00	1.992E+00	1.941E-01	1.693
AU-195		65.12		4.067E-01	2.906E-01	4.917E-01	5.615E-02	0.827
		66.83		-2.052E-01	1.593E-01	2.454E-01	2.801E-02	-0.836
	+	75.70		1.331E+00	4.354E-01	6.145E-01	7.088E-02	2.166
		98.88	*	5.227E-02	3.169E-01	4.580E-01	4.992E-02	0.114
	+	129.76		5.874E+00	4.813E+00	5.972E+00	5.992E-01	0.984
TL-200		367.94	*	-8.889E-04	4.813E+00	Half-Life too short		
		579.30		5.492E-03	4.813E+00	Half-Life too short		
		828.27		1.885E-02	4.813E+00	Half-Life too short		
		1205.75		9.118E-03	4.813E+00	Half-Life too short		
TL-201		68.90		8.547E+00	1.325E+01	1.977E+01	2.256E+00	0.432
		70.82		3.076E+00	7.301E+00	1.078E+01	1.231E+00	0.285
		80.30		2.777E+00	1.662E+01	1.754E+01	2.063E+00	0.158
		135.34		-2.768E+01	5.268E+01	8.025E+01	8.077E+00	-0.345
		167.43	*	-2.489E+00	1.377E+01	2.196E+01	2.346E+00	-0.113
TL-202		68.90		5.352E-01	8.299E-01	1.238E+00	1.412E-01	0.432
		70.82		1.920E-01	4.559E-01	6.728E-01	7.685E-02	0.285
		80.30		1.734E-01	1.038E+00	1.095E+00	1.289E-01	0.158
		439.56	*	5.647E-02	9.310E-02	1.583E-01	1.357E-02	0.357
HG-203		70.83		7.633E-01	1.810E+00	2.668E+00	4.145E-01	0.286
		72.87		1.515E+00	1.077E+00	1.621E+00	2.464E-01	0.935
		82.60		7.540E-01	2.312E+00	2.468E+00	3.954E-01	0.306
		279.20	*	8.906E-02	5.487E-02	9.661E-02	1.064E-02	0.922
BI-207		72.80		3.709E-01	3.010E-01	4.554E-01	5.215E-02	0.815

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	+	74.97		7.324E-01	2.396E-01	3.129E-01	3.601E-02	2.341
		84.90		1.467E-01	2.763E-01	4.064E-01	4.925E-02	0.361
		569.67		3.074E-03	3.850E-02	6.273E-02	5.373E-03	0.049
		1063.62	*	1.508E-02	6.538E-02	1.091E-01	9.626E-03	0.138
		1770.23		2.797E-01	5.778E-01	9.187E-01	8.030E-02	0.304
TL-207		81.07		2.081E-01	4.248E-01	4.605E-01	5.441E-02	0.452
		83.78		-5.166E-02	2.008E-01	2.657E-01	3.194E-02	-0.194
	+	94.90		7.938E-01	6.935E-01	5.537E-01	6.266E-02	1.434
		122.32		-1.545E+00	2.228E+00	3.373E+00	3.578E-01	-0.458
		144.24		1.326E-01	9.290E-01	1.506E+00	1.665E-01	0.088
		154.21		5.634E-01	5.181E-01	8.652E-01	9.608E-02	0.651
	+	269.46		4.060E-01	3.225E-01	4.220E-01	4.659E-02	0.962
		323.87	*	-6.480E-01	8.816E-01	1.396E+00	2.582E-01	-0.464
	+	338.28		7.592E+00	2.293E+00	2.884E+00	3.810E-01	2.632
		445.03		-1.522E+00	2.667E+00	4.175E+00	5.036E-01	-0.364
PO-209		260.50		1.165E+01	1.183E+01	2.058E+01	2.256E+00	0.566
		262.80		-1.323E+01	3.274E+01	5.367E+01	5.874E+00	-0.247
		896.60	*	-1.084E+00	7.989E+00	1.301E+01	1.213E+00	-0.083
BI-210		46.50	*	-4.661E+00	1.319E+01	2.126E+01	2.618E+00	-0.219
PB-210		46.50	*	-4.661E+00	1.319E+01	2.126E+01	2.618E+00	-0.219
PO-210		46.50	*	-4.661E+00	1.319E+01	2.126E+01	2.479E+00	-0.219
PB-211		404.84	*	-7.798E-01	1.322E+00	1.945E+00	1.219E+00	-0.401
		427.08		4.053E-02	2.592E+00	4.253E+00	2.642E+00	0.010
		831.96		7.592E-02	1.449E+00	2.411E+00	1.513E+00	0.031
BI-212	+	727.18	*	5.137E-01	5.054E-01	7.188E-01	7.163E-02	0.715
		785.46		1.858E+00	2.085E+00	3.565E+00	3.157E-01	0.521
		1620.62		3.852E-01	1.434E+00	2.470E+00	2.299E-01	0.156
PO-215		81.07		2.081E-01	4.248E-01	4.605E-01	5.441E-02	0.452
		83.78		-5.166E-02	2.008E-01	2.657E-01	3.194E-02	-0.194
	+	94.90		7.938E-01	6.935E-01	5.537E-01	6.266E-02	1.434
		122.32		-1.545E+00	2.228E+00	3.373E+00	3.578E-01	-0.458
		144.24		1.326E-01	9.290E-01	1.506E+00	1.665E-01	0.088
		154.21		5.634E-01	5.181E-01	8.652E-01	9.608E-02	0.651
	+	269.46		4.060E-01	3.225E-01	4.220E-01	4.659E-02	0.962
		323.87	*	-6.480E-01	8.816E-01	1.396E+00	2.582E-01	-0.464
	+	338.28		7.592E+00	2.293E+00	2.884E+00	3.810E-01	2.632
		445.03		-1.522E+00	2.667E+00	4.175E+00	5.036E-01	-0.364
RN-219	+	271.23		5.209E-01	4.147E-01	5.472E-01	6.714E-02	0.952
		401.81	*	1.724E-01	5.017E-01	8.408E-01	1.256E-01	0.205
RN-220		549.76	*	-9.398E+00	3.108E+01	4.910E+01	4.225E+00	-0.191
RA-223		81.07		2.081E-01	4.248E-01	4.605E-01	5.441E-02	0.452
		83.78		-5.166E-02	2.008E-01	2.657E-01	3.194E-02	-0.194
	+	94.90		7.938E-01	6.935E-01	5.537E-01	6.266E-02	1.434
		122.32		-1.545E+00	2.228E+00	3.373E+00	3.578E-01	-0.458
		144.24		1.326E-01	9.290E-01	1.506E+00	1.665E-01	0.088
		154.21		5.634E-01	5.181E-01	8.652E-01	9.608E-02	0.651
	+	269.46		4.060E-01	3.225E-01	4.220E-01	4.659E-02	0.962
		323.87	*	-6.480E-01	8.816E-01	1.396E+00	2.582E-01	-0.464
	+	338.28		7.592E+00	2.293E+00	2.884E+00	3.810E-01	2.632

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-1.522E+00	2.667E+00	4.175E+00	5.036E-01	-0.364
AC-227		79.80		2.677E+00	3.013E+00	3.800E+00	8.713E-01	0.704
		236.00		1.202E+00	3.941E-01	6.047E-01	8.496E-02	1.987
		256.20	*	-3.815E-01	4.758E-01	7.599E-01	1.276E-01	-0.502
		286.10		1.347E+00	1.925E+00	3.301E+00	4.844E-01	0.408
		299.80		3.938E+00	2.735E+00	3.106E+00	5.754E-01	1.268
		304.40		1.528E+00	2.711E+00	4.049E+00	7.849E-01	0.377
		334.20		-6.558E-01	3.331E+00	4.715E+00	9.446E-01	-0.139
TH-227		79.80		2.677E+00	3.015E+00	3.800E+00	8.811E-01	0.704
	+	94.00		6.350E+00	5.691E+00	5.019E+00	1.156E+00	1.265
		236.00		1.202E+00	3.891E-01	6.047E-01	7.888E-02	1.987
		256.20	*	-3.815E-01	4.772E-01	7.599E-01	1.467E-01	-0.502
		286.10		1.347E+00	2.346E+00	3.301E+00	3.320E+00	0.408
		299.80		3.938E+00	2.735E+00	3.106E+00	5.754E-01	1.268
		304.40		1.528E+00	2.711E+00	4.049E+00	7.849E-01	0.377
		334.20		-6.558E-01	3.331E+00	4.715E+00	9.446E-01	-0.139
TH-229	+	85.43		7.303E-01	4.159E-01	4.264E-01	5.188E-02	1.713
		88.47		2.417E-02	2.642E-01	2.768E-01	3.411E-02	0.087
		100.00		1.688E-01	2.604E-01	3.852E-01	4.161E-02	0.438
		193.63	*	-6.886E-01	6.602E-01	9.990E-01	1.087E-01	-0.689
		210.97		2.061E+00	1.121E+00	1.769E+00	1.943E-01	1.165
PA-231		283.67	*	-1.595E+00	1.940E+00	3.075E+00	5.074E-01	-0.519
	+	301.29		2.907E+00	1.520E+00	1.290E+00	1.763E-01	2.253
TH-231		81.07		2.081E-01	4.248E-01	4.605E-01	5.441E-02	0.452
		83.78		-5.166E-02	2.008E-01	2.657E-01	3.194E-02	-0.194
	+	94.90		7.938E-01	6.935E-01	5.537E-01	6.266E-02	1.434
		122.32		-1.545E+00	2.228E+00	3.373E+00	3.578E-01	-0.458
		144.24		1.326E-01	9.290E-01	1.506E+00	1.665E-01	0.088
		154.21		5.634E-01	5.181E-01	8.652E-01	9.608E-02	0.651
	+	269.46		4.060E-01	3.225E-01	4.220E-01	4.659E-02	0.962
		323.87	*	-6.480E-01	8.816E-01	1.396E+00	2.582E-01	-0.464
	+	338.28		7.592E+00	2.293E+00	2.884E+00	3.810E-01	2.632
		445.03		-1.522E+00	2.667E+00	4.175E+00	5.036E-01	-0.364
U-231		84.21		-1.374E+00	1.131E+01	1.616E+01	1.949E+00	-0.085
	+	92.29		8.894E+00	7.771E+00	7.562E+00	8.824E-01	1.176
		95.87	*	-1.705E-01	2.148E+00	3.066E+00	3.435E-01	-0.056
		108.00		-4.852E-01	3.652E+00	5.925E+00	6.117E-01	-0.082
PA-233	+	75.28		2.137E+01	7.500E+00	9.461E+00	1.622E+00	2.259
	+	86.59		6.376E+00	3.976E+00	3.880E+00	1.095E+00	1.643
		300.12		1.094E+00	7.562E-01	8.659E-01	1.392E-01	1.263
		311.98	*	-7.918E-02	8.204E-02	1.246E-01	1.318E-02	-0.635
		340.50		2.326E+00	1.121E+00	1.597E+00	3.879E-01	1.456
		398.62		-1.152E+00	2.585E+00	4.104E+00	1.091E+00	-0.281
		415.76		-1.398E+00	2.086E+00	3.243E+00	6.974E-01	-0.431
PA-234		63.00		-8.863E-02	2.758E+00	4.546E+00	7.823E-01	-0.019
	+	94.67		5.662E-01	4.973E-01	4.128E-01	5.957E-02	1.372
		98.44		4.973E-02	1.289E-01	1.843E-01	1.036E-01	0.270
		99.86		3.931E-01	6.582E-01	9.715E-01	1.051E-01	0.405
		111.00		9.034E-02	2.296E-01	3.795E-01	5.038E-02	0.238

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		131.20		5.637E-03	1.447E-01	2.056E-01	2.064E-02	0.027
		152.70		2.351E-01	4.273E-01	7.009E-01	1.260E-01	0.335
	+	186.00		3.919E+00	2.505E+00	3.012E+00	9.607E-01	1.301
		226.40		-7.097E-03	5.003E-01	8.412E-01	1.252E-01	-0.008
		227.20		-2.126E-01	5.373E-01	8.883E-01	9.798E-02	-0.239
		248.90		-1.466E-01	1.091E+00	1.715E+00	4.019E-01	-0.086
		293.70		4.549E+00	1.361E+00	1.904E+00	3.502E-01	2.389
		369.80		-4.734E-01	1.063E+00	1.699E+00	3.730E-01	-0.279
		568.70		2.140E-01	1.216E+00	1.990E+00	1.705E-01	0.108
		569.50		-4.379E-02	3.455E-01	5.546E-01	4.751E-02	-0.079
		574.00		-5.976E-01	1.895E+00	2.989E+00	2.557E-01	-0.200
		699.00		2.401E-02	8.114E-01	1.361E+00	2.584E-01	0.018
		706.10		5.703E-01	1.184E+00	2.007E+00	8.942E-01	0.284
		733.00		-2.239E-01	5.322E-01	7.264E-01	1.612E-01	-0.308
		742.81		1.972E-01	1.619E+00	2.717E+00	1.827E+00	0.073
	+	796.30		2.839E+00	1.505E+00	1.964E+00	5.330E-01	1.446
		805.60		1.559E+00	1.200E+00	2.042E+00	6.278E-01	0.763
		819.60		2.615E-01	1.343E+00	2.262E+00	8.622E-01	0.116
		826.30		2.339E-02	9.063E-01	1.507E+00	6.753E-01	0.016
		831.60		6.138E-02	7.366E-01	1.229E+00	3.684E-01	0.050
		876.40		-2.527E-01	1.022E+00	1.597E+00	1.642E+00	-0.158
		880.51		8.694E-02	3.326E-01	5.623E-01	5.206E-02	0.155
		883.24		9.047E-02	3.349E-01	5.578E-01	3.754E-01	0.162
		899.00		-6.782E-01	9.989E-01	1.466E+00	6.431E-01	-0.463
		925.00		-7.119E-01	1.393E+00	2.182E+00	2.026E-01	-0.326
		926.50		-4.213E-02	2.044E-01	3.298E-01	8.413E-02	-0.128
		946.00	*	1.225E-01	3.674E-01	6.214E-01	1.184E-01	0.197
		949.00		5.115E-01	5.638E-01	9.948E-01	9.186E-02	0.514
		980.50		6.813E-01	1.032E+00	1.579E+00	1.445E-01	0.432
		1394.10		-1.423E+00	1.561E+00	1.736E+00	1.133E+00	-0.820
PA-234M		766.42		2.114E+01	1.743E+01	2.524E+01	1.281E+01	0.837
		1001.03	*	3.655E+00	6.174E+00	1.057E+01	1.096E+00	0.346
TH-234		63.29	*	8.490E-01	2.322E+00	3.871E+00	7.540E-01	0.219
	+	92.38		1.643E+00	1.459E+00	1.389E+00	2.739E-01	1.183
U-235		89.95		-1.679E+00	2.599E+00	2.502E+00	8.002E-01	-0.671
	+	93.35		1.976E+00	1.805E+00	1.612E+00	4.683E-01	1.225
		105.00		7.673E-01	1.355E+00	2.227E+00	6.776E-01	0.345
		143.76	*	3.490E-02	2.834E-01	4.590E-01	8.410E-02	0.076
		163.35		-1.552E-01	5.941E-01	9.443E-01	1.894E-01	-0.164
	+	185.71		1.451E-01	8.195E-02	1.110E-01	1.201E-02	1.308
		205.31		1.064E-01	7.251E-01	1.018E+00	2.060E-01	0.105
NP-236	+	94.67		4.295E-01	3.752E-01	3.134E-01	3.555E-02	1.371
		98.44		3.758E-02	9.522E-02	1.393E-01	1.524E-02	0.270
		111.00		6.833E-02	1.736E-01	2.871E-01	2.933E-02	0.238
		160.31	*	2.889E-03	9.949E-02	1.604E-01	1.689E-02	0.018
U-238		63.29	*	8.490E-01	2.322E+00	3.871E+00	7.540E-01	0.219
	+	92.38		1.643E+00	1.436E+00	1.389E+00	1.619E-01	1.183
NP-239		99.55		5.832E-02	2.209E-01	3.208E-01	3.478E-02	0.182
		117.00	*	3.447E-02	2.409E-01	3.941E-01	3.979E-02	0.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	209.75		1.851E+00	1.120E+00	1.760E+00	1.931E-01	1.052
		228.18		-8.319E-02	2.799E-01	4.647E-01	5.126E-02	-0.179
		277.60		3.350E-01	2.371E-01	4.068E-01	4.405E-02	0.824
		334.30		-3.835E-01	1.877E+00	2.657E+00	2.643E-01	-0.144
AM-241		59.54	*	-5.271E-02	2.982E-01	4.903E-01	5.755E-02	-0.108
CM-243		99.55		6.002E-02	2.274E-01	3.302E-01	3.579E-02	0.182
		103.76	*	3.746E-02	1.242E-01	2.050E-01	2.160E-02	0.183
		117.00		3.547E-02	2.479E-01	4.056E-01	4.094E-02	0.087
	+	209.75		1.825E+00	1.105E+00	1.735E+00	1.904E-01	1.052
		228.18		-8.407E-02	2.829E-01	4.696E-01	5.181E-02	-0.179
		277.60		3.378E-01	2.390E-01	4.102E-01	4.441E-02	0.824
AM-246		798.80		-1.492E-01	1.669E-01	2.071E-01	1.847E-02	-0.721
		1036.00		7.236E-02	3.390E-01	5.668E-01	5.073E-02	0.128
		1062.04		-4.110E-01	2.956E-01	4.143E-01	3.658E-02	-0.992
		1078.86	*	8.541E-02	1.814E-01	3.086E-01	2.698E-02	0.277
CM-247		278.00		1.418E+00	9.654E-01	1.694E+00	1.834E-01	0.837
		287.40		1.406E+00	1.562E+00	2.702E+00	2.898E-01	0.520
		402.60	*	5.900E-02	4.517E-02	7.953E-02	6.726E-03	0.742
CF-249		252.85		2.322E-01	1.082E+00	1.830E+00	2.013E-01	0.127
		333.44		-1.151E-01	2.545E-01	3.536E-01	3.523E-02	-0.326
		387.95	*	2.348E-02	4.965E-02	8.394E-02	7.161E-03	0.280
CF-251		176.60	*	-2.211E-01	1.668E-01	2.493E-01	2.681E-02	-0.887
		227.00		-1.761E-01	4.795E-01	7.938E-01	8.755E-02	-0.222
		285.00		4.306E-01	2.216E+00	3.729E+00	4.009E-01	0.115

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808008     *
* Acquisition date : 12-FEB-2010 17:37:37 Detector SN#     :               *
* Detector ID        : GAM15                Sensitivity      : 5.000       *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:01.31      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245808008           Analyst initials: RXF2          *
* Batch Number       : 947554               Sample Quantity : 1.3101E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME :   3-FEB-2010 11:04:32 MS Isotope      :                *
* MSD DPM          :     0.000             MSD Isotope      :              *
* LCS DPM          :     0.000             LCS Isotope      :              *
* LCSD DPM         :     0.000             LCSD Isotope     :              *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.456E+01	3.907E+00	6.177E-01	0.000E+00
CD-109	3.324E+00	1.855E+00	2.028E+00	0.000E+00
SN-126	3.257E-01	1.818E-01	2.114E-01	0.000E+00
TL-208	5.333E-01	1.027E-01	6.894E-02	0.000E+00
BI-211	3.583E+00	6.309E-01	4.084E-01	0.000E+00
PB-212	1.607E+00	2.280E-01	1.143E-01	0.000E+00
PO-212	1.607E+00	2.280E-01	1.143E-01	0.000E+00
BI-214	9.865E-01	2.055E-01	1.481E-01	0.000E+00
PB-214	1.247E+00	2.286E-01	1.516E-01	0.000E+00
PO-214	1.247E+00	2.286E-01	1.516E-01	0.000E+00
PO-216	1.607E+00	2.280E-01	1.143E-01	0.000E+00
PO-218	1.247E+00	2.286E-01	1.516E-01	0.000E+00
RA-224	4.669E+00	1.579E+00	1.300E+00	0.000E+00
RA-226	9.865E-01	2.055E-01	1.481E-01	0.000E+00
AC-228	1.500E+00	3.489E-01	2.561E-01	0.000E+00
RA-228	1.500E+00	3.489E-01	2.561E-01	0.000E+00
TH-228	1.634E+00	2.319E-01	1.163E-01	0.000E+00
TH-230	9.865E-01	2.055E-01	1.481E-01	0.000E+00
TH-232	1.500E+00	3.489E-01	2.561E-01	0.000E+00
U-234	9.865E-01	2.055E-01	1.481E-01	0.000E+00
NP-237	9.564E-01	5.677E-01	5.488E-01	0.000E+00
AM-243	4.079E-01	1.308E-01	1.339E-01	0.000E+00
ANH-511	8.912E-02	7.965E-02	5.941E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	1.454E-01	4.096E-01	7.107E-01	0.000E+00	NOT IDENT.
NA-22	-1.137E-02	5.407E-02	8.751E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.113E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.272E-02	3.255E-02	5.847E-02	0.000E+00	NOT IDENT.

TI-44	0.000E+00	7.547E-02	1.090E-01	0.000E+00	FAIL ABUN
SC-46	-2.037E-02	4.148E-02	6.701E-02	0.000E+00	FAIL ABUN
V-48	3.737E-03	9.513E-02	1.612E-01	0.000E+00	NOT IDENT.
CR-51	-6.299E-01	4.908E-01	7.883E-01	0.000E+00	NOT IDENT.
MN-52	-1.643E-01	3.402E-01	5.403E-01	0.000E+00	NOT IDENT.
MN-54	-1.211E-02	4.516E-02	7.559E-02	0.000E+00	NOT IDENT.
CO-56	-2.301E-02	4.131E-02	6.665E-02	0.000E+00	NOT IDENT.
CO-57	-2.289E-02	3.034E-02	5.066E-02	0.000E+00	NOT IDENT.
CO-58	-2.397E-02	4.415E-02	7.192E-02	0.000E+00	NOT IDENT.
FE-59	-2.584E-02	1.104E-01	1.807E-01	0.000E+00	NOT IDENT.
CO-60	-2.457E-02	4.678E-02	7.187E-02	0.000E+00	NOT IDENT.
ZN-65	7.009E-02	1.185E-01	1.830E-01	0.000E+00	NOT IDENT.
GE-68	7.521E-01	1.564E+00	2.731E+00	0.000E+00	NOT IDENT.
AS-73	6.782E-01	2.088E+00	3.779E+00	0.000E+00	NOT IDENT.
AS-74	4.933E-02	1.180E-01	2.035E-01	0.000E+00	NOT IDENT.
SE-75	-7.094E-02	6.367E-02	8.929E-02	0.000E+00	NOT IDENT.
BR-77	-8.177E+00	2.337E+01	3.843E+01	0.000E+00	FAIL ABUN
SR-82	-7.591E-02	4.879E-01	8.285E-01	0.000E+00	NOT IDENT.
RB-83	-2.424E-02	8.764E-02	1.407E-01	0.000E+00	NOT IDENT.
RB-84	2.985E-02	8.421E-02	1.477E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.026E+01	1.742E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.376E-02	9.135E-02	0.000E+00	NOT IDENT.
RB-86	4.860E-01	1.073E+00	1.870E+00	0.000E+00	NOT IDENT.
Y-88	2.658E-02	3.461E-02	6.650E-02	0.000E+00	NOT IDENT.
ZR-88	-1.499E-02	3.801E-02	6.374E-02	0.000E+00	NOT IDENT.
Y-91	3.084E+01	2.671E+01	4.802E+01	0.000E+00	NOT IDENT.
NB-94	-5.871E-03	3.659E-02	6.254E-02	0.000E+00	NOT IDENT.
NB-95	8.743E-02	5.162E-02	9.787E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.850E-01	3.041E-01	0.000E+00	NOT IDENT.
ZR-95	6.100E-02	8.171E-02	1.483E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.133E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.010E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.911E+01	2.301E+01	4.181E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.764E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.833E-02	4.043E-02	7.129E-02	0.000E+00	NOT IDENT.
RH-102	-3.776E-02	3.593E-02	5.634E-02	0.000E+00	NOT IDENT.
RU-103	1.231E-02	5.114E-02	8.795E-02	0.000E+00	FAIL ABUN
RH-106	1.064E-01	3.769E-01	6.420E-01	0.000E+00	FAIL ABUN
RU-106	1.064E-01	3.768E-01	6.420E-01	0.000E+00	FAIL ABUN
AG-108M	5.346E-03	3.972E-02	6.839E-02	0.000E+00	NOT IDENT.
AG-110M	-1.654E-02	4.081E-02	6.887E-02	0.000E+00	NOT IDENT.
IN-111	-1.134E+00	2.476E+00	3.689E+00	0.000E+00	NOT IDENT.
IN-113M	-3.071E-02	5.453E-02	9.044E-02	0.000E+00	NOT IDENT.
SN-113	-3.071E-02	5.453E-02	9.044E-02	0.000E+00	NOT IDENT.
IN-114M	2.945E-01	2.567E-01	4.027E-01	0.000E+00	NOT IDENT.
CD-115	1.397E+01	2.315E+01	4.079E+01	0.000E+00	NOT IDENT.
SN-117M	-3.155E-02	7.630E-02	1.279E-01	0.000E+00	NOT IDENT.
SB-122	1.126E+00	4.264E+00	7.292E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.037E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.693E-03	3.546E-02	6.043E-02	0.000E+00	NOT IDENT.
I-124	1.138E+00	1.280E+00	2.007E+00	0.000E+00	FAIL ABUN
SB-124	-4.129E-02	7.909E-02	1.184E-01	0.000E+00	FAIL ABUN
SB-125	-5.045E-02	1.132E-01	1.880E-01	0.000E+00	FAIL ABUN
TE-125M	-7.048E+00	1.184E+01	2.006E+01	0.000E+00	NOT IDENT.
I-126	1.383E-01	2.425E-01	4.364E-01	0.000E+00	NOT IDENT.
SB-126	1.073E-01	2.180E-01	3.410E-01	0.000E+00	FAIL ABUN
SB-127	1.100E+00	2.188E+00	3.928E+00	0.000E+00	NOT IDENT.
XE-127	-2.287E-02	5.983E-02	9.899E-02	0.000E+00	NOT IDENT.
I-131	-4.533E-02	1.691E-01	2.873E-01	0.000E+00	NOT IDENT.
TE-132	-4.063E-01	1.317E+00	2.300E+00	0.000E+00	NOT IDENT.
BA-133	1.928E-02	6.185E-02	9.485E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	3.843E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.656E-02	1.025E-01	0.000E+00	FAIL ABUN
CS-135	2.375E-01	2.121E-01	3.447E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.500E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.643E-02	1.371E-01	2.225E-01	0.000E+00	FAIL ABUN
BA-137M	4.983E-03	4.295E-02	7.411E-02	0.000E+00	NOT IDENT.
CS-137	5.267E-03	4.541E-02	7.834E-02	0.000E+00	NOT IDENT.
CE-139	2.368E-02	3.604E-02	6.299E-02	0.000E+00	NOT IDENT.
BA-140	-5.163E-02	3.270E-01	5.430E-01	0.000E+00	NOT IDENT.
LA-140	-2.551E-02	1.086E-01	1.470E-01	0.000E+00	NOT IDENT.
CE-141	1.792E-02	8.787E-02	1.514E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.675E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.233E-02	2.694E-01	4.092E-01	0.000E+00	NOT IDENT.
PM-144	-1.208E-03	3.828E-02	6.612E-02	0.000E+00	NOT IDENT.
PR-144	-8.193E-02	2.597E+00	4.485E+00	0.000E+00	NOT IDENT.
PM-146	7.349E-03	5.686E-02	9.558E-02	0.000E+00	NOT IDENT.
ND-147	-5.370E-01	7.236E-01	1.139E+00	0.000E+00	NOT IDENT.

PM-149	1.515E+02	2.187E+02	3.927E+02	0.000E+00	NOT IDENT.
EU-152	3.107E-02	1.415E-01	2.044E-01	0.000E+00	FAIL ABUN
GD-153	2.386E-03	1.069E-01	1.638E-01	0.000E+00	NOT IDENT.
EU-154	-3.664E-02	1.504E-01	2.425E-01	0.000E+00	NOT IDENT.
EU-155	5.292E-02	1.341E-01	2.368E-01	0.000E+00	FAIL ABUN
TB-160	6.238E-02	1.653E-01	2.905E-01	0.000E+00	FAIL ABUN
HO-166M	-3.210E-02	6.769E-02	1.127E-01	0.000E+00	NOT IDENT.
TM-171	-5.326E+01	4.668E+01	7.797E+01	0.000E+00	NOT IDENT.
LU-176	9.802E-03	3.463E-02	5.349E-02	0.000E+00	NOT IDENT.
LU-177	0.000E+00	1.927E+00	3.111E+00	0.000E+00	FAIL ABUN
LU-177M	-8.647E-02	2.291E-01	3.837E-01	0.000E+00	NOT IDENT.
HF-181	-1.566E-03	5.565E-02	9.421E-02	0.000E+00	NOT IDENT.
W-181	8.905E-01	6.165E-01	1.121E+00	0.000E+00	NOT IDENT.
TA-182	7.394E-02	2.608E-01	4.427E-01	0.000E+00	FAIL ABUN
RE-183	-7.535E-02	1.392E-01	2.316E-01	0.000E+00	FAIL ABUN
RE-184	6.242E-02	2.851E-01	5.072E-01	0.000E+00	NOT IDENT.
OS-185	-2.309E-04	5.210E-02	8.657E-02	0.000E+00	NOT IDENT.
RE-188	2.168E-01	2.223E-01	3.926E-01	0.000E+00	NOT IDENT.
W-188	-2.036E+00	1.047E+01	1.569E+01	0.000E+00	NOT IDENT.
IR-192	8.475E-03	4.164E-02	7.323E-02	0.000E+00	FAIL ABUN
AU-195	5.227E-02	3.106E-01	4.792E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.132E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.489E+00	1.349E+01	2.278E+01	0.000E+00	NOT IDENT.
TL-202	5.647E-02	9.123E-02	1.617E-01	0.000E+00	NOT IDENT.
HG-203	8.906E-02	5.377E-02	9.942E-02	0.000E+00	NOT IDENT.
BI-207	1.508E-02	6.407E-02	1.098E-01	0.000E+00	FAIL ABUN
TL-207	-6.480E-01	8.640E-01	1.433E+00	0.000E+00	FAIL ABUN
PO-209	-1.084E+00	7.829E+00	1.313E+01	0.000E+00	NOT IDENT.
BI-210	-4.661E+00	1.293E+01	2.250E+01	0.000E+00	NOT IDENT.
PB-210	-4.661E+00	1.293E+01	2.250E+01	0.000E+00	NOT IDENT.
PO-210	-4.661E+00	1.292E+01	2.250E+01	0.000E+00	NOT IDENT.
PB-211	-7.798E-01	1.296E+00	1.990E+00	0.000E+00	NOT IDENT.
BI-212	5.137E-01	4.953E-01	7.281E-01	0.000E+00	FAIL ABUN
PO-215	-6.480E-01	8.640E-01	1.433E+00	0.000E+00	FAIL ABUN
RN-219	1.724E-01	4.917E-01	8.602E-01	0.000E+00	FAIL ABUN
RN-220	-9.398E+00	3.046E+01	4.997E+01	0.000E+00	NOT IDENT.
RA-223	-6.480E-01	8.640E-01	1.433E+00	0.000E+00	FAIL ABUN
AC-227	-3.815E-01	4.663E-01	7.831E-01	0.000E+00	NOT IDENT.
TH-227	-3.815E-01	4.677E-01	7.831E-01	0.000E+00	FAIL ABUN
TH-229	-6.886E-01	6.470E-01	1.034E+00	0.000E+00	FAIL ABUN
PA-231	-1.595E+00	1.901E+00	3.164E+00	0.000E+00	FAIL ABUN
TH-231	-6.480E-01	8.640E-01	1.433E+00	0.000E+00	FAIL ABUN
U-231	-1.705E-01	2.105E+00	3.210E+00	0.000E+00	FAIL ABUN
PA-233	-7.918E-02	8.040E-02	1.280E-01	0.000E+00	FAIL ABUN
PA-234	1.225E-01	3.601E-01	6.266E-01	0.000E+00	FAIL ABUN
PA-234M	3.655E+00	6.050E+00	1.065E+01	0.000E+00	NOT IDENT.
TH-234	8.490E-01	2.276E+00	4.078E+00	0.000E+00	FAIL ABUN
U-235	3.490E-02	2.778E-01	4.774E-01	0.000E+00	FAIL ABUN
NP-236	2.889E-03	9.750E-02	1.666E-01	0.000E+00	FAIL ABUN
U-238	8.490E-01	2.276E+00	4.078E+00	0.000E+00	FAIL ABUN
NP-239	3.447E-02	2.361E-01	4.113E-01	0.000E+00	FAIL ABUN
AM-241	-5.271E-02	2.922E-01	5.171E-01	0.000E+00	NOT IDENT.
CM-243	3.746E-02	1.217E-01	2.143E-01	0.000E+00	FAIL ABUN
AM-246	8.541E-02	1.778E-01	3.105E-01	0.000E+00	NOT IDENT.
CM-247	5.900E-02	4.427E-02	8.135E-02	0.000E+00	NOT IDENT.
CF-249	2.348E-02	4.866E-02	8.592E-02	0.000E+00	NOT IDENT.
CF-251	-2.211E-01	1.635E-01	2.584E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:38:05.43

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808008.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:37:37
Sample ID         : G245808008           Sample quantity  : 1.31013E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.31  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1244	10.67*	9.663E-01	3.456E+01	3.456E+01	11.54
CD-109	88.03	185	3.72*	4.406E+00	3.239E+00	3.324E+00	56.95
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	185	8.90	4.406E+00	1.354E+00	1.354E+00	69.85
	87.57	185	37.00*	4.406E+00	3.257E-01	3.257E-01	56.95
TL-208	277.35	------	6.80	3.705E+00	------ Line Not Found		------
	510.84	75	21.60	2.418E+00	4.126E-01	4.126E-01	91.58
	583.14	343	84.20*	2.190E+00	5.333E-01	5.333E-01	19.64
	860.37	22	12.46	1.574E+00	3.179E-01	3.179E-01	171.23
BI-211	72.87	------	1.27	3.001E+00	------ Line Not Found		------
	351.07	508	12.94*	3.141E+00	3.583E+00	3.583E+00	17.97
PB-212	74.81	305	10.70	3.247E+00	2.516E+00	2.516E+00	34.03
	77.11	361	18.00	3.506E+00	1.638E+00	1.638E+00	25.48
	87.30	185	8.00	4.406E+00	1.506E+00	1.506E+00	57.82
	238.63	1029	44.60*	4.114E+00	1.607E+00	1.607E+00	14.48
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PO-212	74.81	305	10.70	3.247E+00	2.516E+00	2.516E+00	34.03
	77.11	361	18.00	3.506E+00	1.638E+00	1.638E+00	25.48
	87.30	185	8.00	4.406E+00	1.506E+00	1.506E+00	57.82
	115.19	------	0.60	5.586E+00	------ Line Not Found		------
	238.63	1029	44.60*	4.114E+00	1.607E+00	1.607E+00	14.48
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
BI-214	609.31	337	46.30*	2.117E+00	9.865E-01	9.865E-01	21.26
	1120.29	117	15.10	1.226E+00	1.806E+00	1.806E+00	36.27
	1764.49	78	15.80	8.554E-01	1.648E+00	1.648E+00	29.21
PB-214	74.81	305	6.21	3.247E+00	4.336E+00	4.336E+00	33.55
	77.11	361	10.50	3.506E+00	2.808E+00	2.808E+00	26.59
	87.30	185	4.67	4.406E+00	2.580E+00	2.580E+00	57.47
	241.98	263	7.49	4.079E+00	2.462E+00	2.463E+00	34.97
	295.21	283	19.20	3.547E+00	1.193E+00	1.193E+00	25.03
	351.92	508	37.20*	3.141E+00	1.247E+00	1.247E+00	18.71
PO-214	74.81	305	6.21	3.247E+00	4.336E+00	4.336E+00	33.55

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	361	10.50	3.506E+00	2.808E+00	2.808E+00	26.59
	87.30	185	4.67	4.406E+00	2.580E+00	2.580E+00	57.47
	241.98	263	7.49	4.079E+00	2.462E+00	2.463E+00	34.97
	295.21	283	19.20	3.547E+00	1.193E+00	1.193E+00	25.03
	351.92	508	37.20*	3.141E+00	1.247E+00	1.247E+00	18.71
PO-216	74.81	305	10.70	3.247E+00	2.516E+00	2.516E+00	34.03
	77.11	361	18.00	3.506E+00	1.638E+00	1.638E+00	25.48
	87.30	185	8.00	4.406E+00	1.506E+00	1.506E+00	57.82
	238.63	1029	44.60*	4.114E+00	1.607E+00	1.607E+00	14.48
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PO-218	74.81	305	6.21	3.247E+00	4.336E+00	4.336E+00	33.55
	77.11	361	10.50	3.506E+00	2.808E+00	2.808E+00	26.59
	87.30	185	4.67	4.406E+00	2.580E+00	2.580E+00	57.47
	241.98	263	7.49	4.079E+00	2.462E+00	2.463E+00	34.97
	295.21	283	19.20	3.547E+00	1.193E+00	1.193E+00	25.03
	351.92	508	37.20*	3.141E+00	1.247E+00	1.247E+00	18.71
RA-224	240.98	263	3.95*	4.079E+00	4.669E+00	4.669E+00	34.51
RA-226	609.31	337	46.30*	2.117E+00	9.865E-01	9.865E-01	21.26
	1120.29	117	15.10	1.226E+00	1.806E+00	1.806E+00	36.27
	1764.49	78	15.80	8.554E-01	1.648E+00	1.648E+00	29.21
AC-228	338.32	233	11.40	3.226E+00	1.818E+00	1.818E+00	49.63
	911.07	217	27.70*	1.494E+00	1.500E+00	1.500E+00	23.74
	969.11	126	16.60	1.410E+00	1.538E+00	1.538E+00	39.30
RA-228	338.32	233	11.40	3.226E+00	1.818E+00	1.818E+00	49.63
	911.07	217	27.70*	1.494E+00	1.500E+00	1.500E+00	23.74
	969.11	126	16.60	1.410E+00	1.538E+00	1.538E+00	39.30
TH-228	74.81	305	10.70	3.247E+00	2.516E+00	2.560E+00	32.74
	77.11	361	18.00	3.506E+00	1.638E+00	1.666E+00	25.48
	87.30	185	8.00	4.406E+00	1.506E+00	1.532E+00	56.95
	238.63	1029	44.60*	4.114E+00	1.607E+00	1.634E+00	14.48
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
TH-230	609.31	337	46.30*	2.117E+00	9.865E-01	9.865E-01	21.26
	1120.29	117	15.10	1.226E+00	1.806E+00	1.806E+00	36.27
	1764.49	78	15.80	8.554E-01	1.648E+00	1.648E+00	29.21
TH-232	338.32	233	11.40	3.226E+00	1.818E+00	1.818E+00	28.89
	911.07	217	27.70*	1.494E+00	1.500E+00	1.500E+00	23.74
	969.11	126	16.60	1.410E+00	1.538E+00	1.538E+00	39.30
U-234	609.31	337	46.30*	2.117E+00	9.865E-01	9.865E-01	21.26
	1120.29	117	15.10	1.226E+00	1.806E+00	1.806E+00	36.27
	1764.49	78	15.80	8.554E-01	1.648E+00	1.648E+00	29.21
NP-237	86.50	185	12.60*	4.406E+00	9.564E-01	9.564E-01	60.57
	95.87	------	2.60	5.004E+00	------ Line Not Found		------
AM-243	74.67	305	66.00*	3.247E+00	4.079E-01	4.079E-01	32.72
	86.72	185	0.34	4.406E+00	3.586E+01	3.586E+01	56.95
	117.66	------	0.55	5.611E+00	------ Line Not Found		------
	142.18	------	0.13	5.525E+00	------ Line Not Found		------
ANH-511	511.00	75	100.00*	2.418E+00	8.912E-02	8.912E-02	91.20

Flag: "*" = Keyline

Sample ID : G245808008 Acquisition date : 12-FEB-2010 17:37:37

Total number of lines in spectrum 30
Number of unidentified lines 2
Number of lines tentatively identified by NID 28 93.33%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.456E+01	3.456E+01	0.399E+01	11.54	
CD-109	464.00D	1.03	3.239E+00	3.324E+00	1.893E+00	56.95	
SN-126	1.00E+05Y	1.00	3.257E-01	3.257E-01	1.855E-01	56.95	
TL-208	1.41E+10Y	1.00	5.333E-01	5.333E-01	1.048E-01	19.64	
BI-211	7.04E+08Y	1.00	3.583E+00	3.583E+00	0.644E+00	17.97	
PB-212	1.41E+10Y	1.00	1.607E+00	1.607E+00	0.233E+00	14.48	
PO-212	1.41E+10Y	1.00	1.607E+00	1.607E+00	0.233E+00	14.48	
BI-214	1600.00Y	1.00	9.865E-01	9.865E-01	2.097E-01	21.26	
PB-214	1600.00Y	1.00	1.247E+00	1.247E+00	0.233E+00	18.71	
PO-214	1600.00Y	1.00	1.247E+00	1.247E+00	0.233E+00	18.71	
PO-216	1.41E+10Y	1.00	1.607E+00	1.607E+00	0.233E+00	14.48	
PO-218	1600.00Y	1.00	1.247E+00	1.247E+00	0.233E+00	18.71	
RA-224	1.41E+10Y	1.00	4.669E+00	4.669E+00	1.612E+00	34.51	
RA-226	1600.00Y	1.00	9.865E-01	9.865E-01	2.097E-01	21.26	
AC-228	1.41E+10Y	1.00	1.500E+00	1.500E+00	0.356E+00	23.74	
RA-228	1.41E+10Y	1.00	1.500E+00	1.500E+00	0.356E+00	23.74	
TH-228	1.91Y	1.02	1.607E+00	1.634E+00	0.237E+00	14.48	
TH-230	4.47E+09Y	1.00	9.865E-01	9.865E-01	2.097E-01	21.26	
TH-232	1.41E+10Y	1.00	1.500E+00	1.500E+00	0.356E+00	23.74	
U-234	4.47E+09Y	1.00	9.865E-01	9.865E-01	2.097E-01	21.26	
NP-237	2.14E+06Y	1.00	9.564E-01	9.564E-01	5.793E-01	60.57	
AM-243	7380.00Y	1.00	4.079E-01	4.079E-01	1.335E-01	32.72	
ANH-511	1.00E+09Y	1.00	8.912E-02	8.912E-02	8.128E-02	91.20	
	Total Activity :		6.698E+01	6.709E+01			

Grand Total Activity : 6.698E+01 6.709E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245808008 Acquisition date : 12-FEB-2010 17:37:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.66	151	760	1.51	186.23	180	15	2.10E-02	86.6	4.88E+00	T
0	129.10	88	336	1.25	257.11	252	10	1.22E-02	81.3	5.63E+00	T
0	185.98	133	319	1.67	370.86	367	10	1.85E-02	55.4	4.86E+00	T
0	209.23	94	233	1.05	417.36	414	8	1.31E-02	59.5	4.50E+00	T
0	270.58	73	202	1.10	540.06	535	10	1.01E-02	78.7	3.77E+00	T
0	302.08	163	265	5.54	603.06	595	19	2.26E-02	50.5	3.49E+00	T
0	463.18	88	101	1.64	925.26	920	11	1.22E-02	49.5	2.60E+00	T
0	727.41	39	77	0.82	1453.76	1447	11	5.38E-03	97.9	1.83E+00	T
0	794.90	65	40	2.04	1588.76	1581	12	9.09E-03	45.5	1.69E+00	T
1	964.80	53	57	2.20	1928.60	1922	31	7.36E-03	65.9	1.42E+00	T
0	1377.64	34	21	2.10	2754.48	2744	16	4.77E-03	67.6	1.01E+00	T
0	1587.62	19	9	2.20	3174.58	3169	9	2.64E-03	73.1	9.09E-01	
0	1592.62	16	8	1.53	3184.58	3180	9	2.20E-03	84.0	9.07E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:38:10.18

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245808008.CNF;1 *
* Acquisition date  : 12-FEB-2010 17:37:37  Detector SN#     :              *
* Detector ID       : GAM15                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.31          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245808008            Analyst initials: RXF2         *
* Batch Number      : 947554                Sample Quantity : 1.31013E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.456E+01	3.987E+00	6.171E-01	6.064E-02	56.002
CD-109	3.324E+00	1.893E+00	1.934E+00	2.401E-01	1.718
SN-126	3.257E-01	1.855E-01	2.017E-01	2.495E-02	1.615
TL-208	5.333E-01	1.048E-01	6.781E-02	6.210E-03	7.865
BI-211	3.583E+00	6.438E-01	3.983E-01	3.966E-02	8.996
PB-212	1.607E+00	2.326E-01	1.108E-01	1.319E-02	14.502
PO-212	1.607E+00	2.326E-01	1.108E-01	1.319E-02	14.502
BI-214	9.865E-01	2.097E-01	1.457E-01	1.445E-02	6.769
PB-214	1.247E+00	2.332E-01	1.478E-01	1.659E-02	8.432
PO-214	1.247E+00	2.332E-01	1.478E-01	1.659E-02	8.432
PO-216	1.607E+00	2.326E-01	1.108E-01	1.319E-02	14.502
PO-218	1.247E+00	2.332E-01	1.478E-01	1.659E-02	8.432
RA-224	4.669E+00	1.612E+00	1.260E+00	1.390E-01	3.705
RA-226	9.865E-01	2.097E-01	1.457E-01	1.445E-02	6.769
AC-228	1.500E+00	3.560E-01	2.538E-01	2.990E-02	5.909
RA-228	1.500E+00	3.560E-01	2.538E-01	2.990E-02	5.909
TH-228	1.634E+00	2.367E-01	1.127E-01	1.342E-02	14.502
TH-230	9.865E-01	2.097E-01	1.457E-01	1.445E-02	6.769

Sample ID : G245808008 Acquisition date : 12-FEB-2010 17:37:37

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.500E+00	3.560E-01	2.538E-01	2.990E-02	5.909
U-234	9.865E-01	2.097E-01	1.457E-01	1.445E-02	6.769
NP-237	9.564E-01	5.793E-01	5.234E-01	1.256E-01	1.827
AM-243	4.079E-01	1.335E-01	1.274E-01	1.465E-02	3.201
ANH-511	8.912E-02	8.128E-02	5.831E-02	5.038E-03	1.529

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.454E-01		4.179E-01	6.968E-01	6.478E-02	0.209
NA-22	-1.137E-02		5.517E-02	8.722E-02	7.923E-03	-0.130
NA-24	-3.590E+00		5.676E+00	Half-Life too short		
AL-26	1.272E-02		3.321E-02	5.863E-02	5.015E-03	0.217
TI-44	3.023E-01	+	7.701E-02	1.038E-01	1.210E-02	2.911
SC-46	-2.037E-02		4.233E-02	6.638E-02	6.169E-03	-0.307
V-48	3.737E-03		9.708E-02	1.600E-01	1.462E-02	0.023
CR-51	-6.299E-01		5.008E-01	7.677E-01	8.152E-02	-0.821
MN-52	-1.643E-01		3.471E-01	5.396E-01	5.194E-02	-0.304
MN-54	-1.211E-02		4.608E-02	7.480E-02	6.788E-03	-0.162
CO-56	-2.301E-02		4.215E-02	6.597E-02	6.019E-03	-0.349
CO-57	-2.289E-02		3.096E-02	4.858E-02	4.893E-03	-0.471
CO-58	-2.397E-02		4.505E-02	7.113E-02	6.395E-03	-0.337
FE-59	-2.584E-02		1.127E-01	1.796E-01	1.676E-02	-0.144
CO-60	-2.457E-02		4.774E-02	7.168E-02	6.891E-03	-0.343
ZN-65	7.009E-02		1.210E-01	1.819E-01	1.555E-02	0.385
GE-68	7.521E-01		1.596E+00	2.714E+00	2.376E-01	0.277
AS-73	6.782E-01		2.131E+00	3.577E+00	4.645E-01	0.190
AS-74	4.933E-02		1.205E-01	2.002E-01	1.701E-02	0.246
SE-75	-7.094E-02		6.497E-02	8.670E-02	9.506E-03	-0.818
BR-77	-8.177E+00		2.385E+01	3.773E+01	3.258E+00	-0.217
SR-82	-7.591E-02		4.979E-01	8.189E-01	7.216E-02	-0.093
RB-83	-2.424E-02		8.943E-02	1.382E-01	1.193E-02	-0.175
RB-84	2.985E-02		8.592E-02	1.463E-01	1.355E-02	0.204
KR-85	2.229E+01		1.046E+01	1.710E+01	1.478E+00	1.304
SR-85	1.169E-01		5.486E-02	8.966E-02	7.746E-03	1.304
RB-86	4.860E-01		1.095E+00	1.859E+00	1.628E-01	0.261
Y-88	2.658E-02		3.532E-02	6.669E-02	5.617E-03	0.398
ZR-88	-1.499E-02		3.878E-02	6.229E-02	5.243E-03	-0.241
Y-91	3.084E+01		2.725E+01	4.781E+01	4.031E+00	0.645
NB-94	-5.871E-03		3.734E-02	6.171E-02	5.209E-03	-0.095
NB-95	8.743E-02		5.267E-02	9.671E-02	8.473E-03	0.904
NB-95M	3.125E-01		1.888E-01	2.947E-01	3.546E-02	1.060
ZR-95	6.100E-02		8.338E-02	1.465E-01	1.404E-02	0.416
NB-97	-3.150E-01		4.660E-01	Half-Life too short		
ZR-97	5.506E+01		1.026E+01	Half-Life too short		
MO-99	1.911E+01		2.348E+01	4.129E+01	6.272E+00	0.463
TC-99M	6.321E+12		9.002E+12	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-101	4.833E-02		4.126E-02	6.889E-02	7.516E-03	0.701
RH-102	-3.776E-02		3.666E-02	5.523E-02	4.765E-03	-0.684
RU-103	1.231E-02		5.219E-02	8.628E-02	1.223E-02	0.143
RH-106	1.064E-01		3.846E-01	6.322E-01	8.357E-02	0.168
RU-106	1.064E-01		3.845E-01	6.322E-01	5.313E-02	0.168
AG-108M	5.346E-03		4.053E-02	6.694E-02	5.959E-03	0.080
AG-110M	-1.654E-02		4.164E-02	6.788E-02	5.776E-03	-0.244
IN-111	-1.134E+00		2.526E+00	3.578E+00	3.943E-01	-0.317
IN-113M	-3.071E-02		5.565E-02	8.838E-02	7.676E-03	-0.347
SN-113	-3.071E-02		5.565E-02	8.838E-02	7.676E-03	-0.347
IN-114M	2.945E-01		2.620E-01	3.889E-01	4.222E-02	0.757
CD-115	1.397E+01		2.362E+01	4.006E+01	3.457E+00	0.349
SN-117M	-3.155E-02		7.786E-02	1.232E-01	1.292E-02	-0.256
SB-122	1.126E+00		4.351E+00	7.168E+00	6.149E-01	0.157
I-123	-4.952E+00		5.292E+01	Half-Life too short		
TE-123M	-1.693E-03		3.619E-02	5.819E-02	6.132E-03	-0.029
I-124	1.138E+00		1.306E+00	1.975E+00	1.673E-01	0.576
SB-124	-4.129E-02		8.070E-02	1.185E-01	1.114E-02	-0.348
SB-125	-5.045E-02		1.156E-01	1.840E-01	1.602E-02	-0.274
TE-125M	-7.048E+00		1.208E+01	1.920E+01	2.256E+00	-0.367
I-126	1.383E-01		2.475E-01	4.302E-01	3.548E-02	0.321
SB-126	1.073E-01		2.224E-01	3.366E-01	2.873E-02	0.319
SB-127	1.100E+00		2.232E+00	3.874E+00	4.584E-01	0.284
XE-127	-2.287E-02		6.105E-02	9.570E-02	1.047E-02	-0.239
I-131	-4.533E-02		1.726E-01	2.804E-01	2.711E-02	-0.162
TE-132	-4.063E-01		1.344E+00	2.228E+00	3.906E-01	-0.182
BA-133	1.928E-02		6.311E-02	9.254E-02	1.272E-02	0.208
I-133	-4.115E-02		1.961E-02	Half-Life too short		
CS-134	1.464E-01	+	6.792E-02	1.013E-01	9.080E-03	1.445
CS-135	2.375E-01		2.164E-01	3.347E-01	4.016E-02	0.709
I-135	-1.236E+12		7.654E+11	Half-Life too short		
CS-136	-4.643E-02		1.399E-01	2.210E-01	2.045E-02	-0.210
BA-137M	4.983E-03		4.383E-02	7.305E-02	6.006E-03	0.068
CS-137	5.267E-03		4.633E-02	7.722E-02	6.362E-03	0.068
CE-139	2.368E-02		3.678E-02	6.070E-02	6.479E-03	0.390
BA-140	-5.163E-02		3.336E-01	5.334E-01	1.768E-01	-0.097
LA-140	-2.551E-02		1.108E-01	1.471E-01	1.379E-02	-0.173
CE-141	1.792E-02		8.966E-02	1.456E-01	1.505E-02	0.123
CE-143	2.087E-03		3.916E-04	Half-Life too short		
CE-144	4.233E-02		2.749E-01	3.929E-01	6.445E-02	0.108
PM-144	-1.208E-03		3.906E-02	6.523E-02	5.488E-03	-0.019
PR-144	-8.193E-02		2.650E+00	4.425E+00	3.721E-01	-0.019
PM-146	7.349E-03		5.802E-02	9.363E-02	1.003E-02	0.078
ND-147	-5.370E-01		7.383E-01	1.119E+00	1.673E-01	-0.480
PM-149	1.515E+02		2.231E+02	3.818E+02	6.421E+01	0.397
EU-152	3.107E-02		1.444E-01	1.993E-01	2.029E-02	0.156
GD-153	2.386E-03		1.091E-01	1.565E-01	1.727E-02	0.015
EU-154	-3.664E-02		1.535E-01	2.417E-01	2.819E-02	-0.152

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	5.292E-02		1.369E-01	2.266E-01	2.387E-02	0.234
TB-160	6.238E-02		1.687E-01	2.877E-01	2.663E-02	0.217
HO-166M	-3.210E-02		6.907E-02	1.112E-01	9.439E-03	-0.289
TM-171	-5.326E+01		4.763E+01	7.406E+01	8.453E+00	-0.719
LU-176	9.802E-03		3.533E-02	5.206E-02	5.444E-03	0.188
LU-177	3.248E+00	+	1.966E+00	3.009E+00	3.301E-01	1.079
LU-177M	-8.647E-02		2.338E-01	3.753E-01	3.189E-02	-0.230
HF-181	-1.566E-03		5.679E-02	9.238E-02	7.976E-03	-0.017
W-181	8.905E-01		6.290E-01	1.065E+00	1.216E-01	0.836
TA-182	7.394E-02		2.662E-01	4.409E-01	3.785E-02	0.168
RE-183	-7.535E-02		1.420E-01	2.231E-01	2.360E-02	-0.338
RE-184	6.242E-02		2.909E-01	4.921E-01	5.411E-02	0.127
OS-185	-2.309E-04		5.316E-02	8.530E-02	7.079E-03	-0.003
RE-188	2.168E-01		2.268E-01	3.779E-01	3.930E-02	0.574
W-188	-2.036E+00		1.068E+01	1.526E+01	1.630E+00	-0.133
IR-192	8.475E-03		4.249E-02	7.131E-02	7.352E-03	0.119
AU-195	5.227E-02		3.169E-01	4.580E-01	4.992E-02	0.114
TL-200	-8.889E-04		1.088E-03	Half-Life too short		
TL-201	-2.489E+00		1.377E+01	2.196E+01	2.346E+00	-0.113
TL-202	5.647E-02		9.310E-02	1.583E-01	1.357E-02	0.357
HG-203	8.906E-02		5.487E-02	9.661E-02	1.064E-02	0.922
BI-207	1.508E-02		6.538E-02	1.091E-01	9.626E-03	0.138
TL-207	-6.480E-01		8.816E-01	1.396E+00	2.582E-01	-0.464
PO-209	-1.084E+00		7.989E+00	1.301E+01	1.213E+00	-0.083
BI-210	-4.661E+00		1.319E+01	2.126E+01	2.618E+00	-0.219
PB-210	-4.661E+00		1.319E+01	2.126E+01	2.618E+00	-0.219
PO-210	-4.661E+00		1.319E+01	2.126E+01	2.479E+00	-0.219
PB-211	-7.798E-01		1.322E+00	1.945E+00	1.219E+00	-0.401
BI-212	5.137E-01	+	5.054E-01	7.188E-01	7.163E-02	0.715
PO-215	-6.480E-01		8.816E-01	1.396E+00	2.582E-01	-0.464
RN-219	1.724E-01		5.017E-01	8.408E-01	1.256E-01	0.205
RN-220	-9.398E+00		3.108E+01	4.910E+01	4.225E+00	-0.191
RA-223	-6.480E-01		8.816E-01	1.396E+00	2.582E-01	-0.464
AC-227	-3.815E-01		4.758E-01	7.599E-01	1.276E-01	-0.502
TH-227	-3.815E-01		4.772E-01	7.599E-01	1.467E-01	-0.502
TH-229	-6.886E-01		6.602E-01	9.990E-01	1.087E-01	-0.689
PA-231	-1.595E+00		1.940E+00	3.075E+00	5.074E-01	-0.519
TH-231	-6.480E-01		8.816E-01	1.396E+00	2.582E-01	-0.464
U-231	-1.705E-01		2.148E+00	3.066E+00	3.435E-01	-0.056
PA-233	-7.918E-02		8.204E-02	1.246E-01	1.318E-02	-0.635
PA-234	1.225E-01		3.674E-01	6.214E-01	1.184E-01	0.197
PA-234M	3.655E+00		6.174E+00	1.057E+01	1.096E+00	0.346
TH-234	8.490E-01		2.322E+00	3.871E+00	7.540E-01	0.219
U-235	3.490E-02		2.834E-01	4.590E-01	8.410E-02	0.076
NP-236	2.889E-03		9.949E-02	1.604E-01	1.689E-02	0.018
U-238	8.490E-01		2.322E+00	3.871E+00	7.540E-01	0.219
NP-239	3.447E-02		2.409E-01	3.941E-01	3.979E-02	0.087
AM-241	-5.271E-02		2.982E-01	4.903E-01	5.755E-02	-0.108

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.746E-02		1.242E-01	2.050E-01	2.160E-02	0.183
AM-246	8.541E-02		1.814E-01	3.086E-01	2.698E-02	0.277
CM-247	5.900E-02		4.517E-02	7.953E-02	6.726E-03	0.742
CF-249	2.348E-02		4.965E-02	8.394E-02	7.161E-03	0.280
CF-251	-2.211E-01		1.668E-01	2.493E-01	2.681E-02	-0.887

VAX/VMS Nuclide Identification Report Generated

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245808008       *
* Acquisition date : 12-FEB-2010 17:37:37 Detector SN#    :             *
* Detector ID      : GAM15                Sensitivity     : 5.000      *
* Geometry         : CAN                  Energy tolerance: 1.500      *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000     *
* Elapsed real time:    0 02:00:01.31     Half life ratio : 8.000      *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID       *
* Sample ID        : G245808008           Analyst initials: RXF2        *
* Batch Number     : 947554               Sample Quantity : 1.3101E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000  *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
*                                                                       *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.456E+01	3.907E+00	3.090E-01	1.993E+00
CD-109	3.324E+00	1.855E+00	1.014E+00	9.465E-01
SN-126	3.257E-01	1.818E-01	1.058E-01	9.273E-02
TL-208	5.333E-01	1.027E-01	3.449E-02	5.238E-02
BI-211	3.583E+00	6.309E-01	2.043E-01	3.219E-01
PB-212	1.607E+00	2.280E-01	5.719E-02	1.163E-01
PO-212	1.607E+00	2.280E-01	5.719E-02	1.163E-01
BI-214	9.865E-01	2.055E-01	7.407E-02	1.049E-01
PB-214	1.247E+00	2.286E-01	7.583E-02	1.166E-01
PO-214	1.247E+00	2.286E-01	7.583E-02	1.166E-01
PO-216	1.607E+00	2.280E-01	5.719E-02	1.163E-01
PO-218	1.247E+00	2.286E-01	7.583E-02	1.166E-01
RA-224	4.669E+00	1.579E+00	6.505E-01	8.058E-01
RA-226	9.865E-01	2.055E-01	7.407E-02	1.049E-01
AC-228	1.500E+00	3.489E-01	1.281E-01	1.780E-01
RA-228	1.500E+00	3.489E-01	1.281E-01	1.780E-01
TH-228	1.634E+00	2.319E-01	5.818E-02	1.183E-01
TH-230	9.865E-01	2.055E-01	7.407E-02	1.049E-01
TH-232	1.500E+00	3.489E-01	1.281E-01	1.780E-01
U-234	9.865E-01	2.055E-01	7.407E-02	1.049E-01
NP-237	9.564E-01	5.677E-01	2.745E-01	2.896E-01
AM-243	4.079E-01	1.308E-01	6.700E-02	6.674E-02
ANH-511	8.912E-02	7.965E-02	2.972E-02	4.064E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.454E-01	4.096E-01	3.556E-01	2.090E-01	NOT IDENT.
NA-22	-1.137E-02	5.407E-02	4.378E-02	2.759E-02	NOT IDENT.
NA-24	-3.590E+06	1.113E+07	0.000E+00	5.676E+06	SHORT HLIF
AL-26	1.272E-02	3.255E-02	2.925E-02	1.660E-02	NOT IDENT.

TI-44	3.023E-01	7.547E-02	5.455E-02	3.850E-02	FAIL ABUN
SC-46	-2.037E-02	4.148E-02	3.353E-02	2.116E-02	FAIL ABUN
V-48	3.737E-03	9.513E-02	8.065E-02	4.854E-02	NOT IDENT.
CR-51	-6.299E-01	4.908E-01	3.944E-01	2.504E-01	NOT IDENT.
MN-52	-1.643E-01	3.402E-01	2.703E-01	1.736E-01	NOT IDENT.
MN-54	-1.211E-02	4.516E-02	3.782E-02	2.304E-02	NOT IDENT.
CO-56	-2.301E-02	4.131E-02	3.334E-02	2.108E-02	NOT IDENT.
CO-57	-2.289E-02	3.034E-02	2.534E-02	1.548E-02	NOT IDENT.
CO-58	-2.397E-02	4.415E-02	3.598E-02	2.252E-02	NOT IDENT.
FE-59	-2.584E-02	1.104E-01	9.038E-02	5.634E-02	NOT IDENT.
CO-60	-2.457E-02	4.678E-02	3.595E-02	2.387E-02	NOT IDENT.
ZN-65	7.009E-02	1.185E-01	9.153E-02	6.048E-02	NOT IDENT.
GE-68	7.521E-01	1.564E+00	1.366E+00	7.978E-01	NOT IDENT.
AS-73	6.782E-01	2.088E+00	1.891E+00	1.065E+00	NOT IDENT.
AS-74	4.933E-02	1.180E-01	1.018E-01	6.023E-02	NOT IDENT.
SE-75	-7.094E-02	6.367E-02	4.467E-02	3.248E-02	NOT IDENT.
BR-77	-8.177E+00	2.337E+01	1.923E+01	1.193E+01	FAIL ABUN
SR-82	-7.591E-02	4.879E-01	4.145E-01	2.489E-01	NOT IDENT.
RB-83	-2.424E-02	8.764E-02	7.041E-02	4.472E-02	NOT IDENT.
RB-84	2.985E-02	8.421E-02	7.390E-02	4.296E-02	NOT IDENT.
KR-85	2.229E+01	1.026E+01	8.717E+00	5.232E+00	NOT IDENT.
SR-85	1.169E-01	5.376E-02	4.570E-02	2.743E-02	NOT IDENT.
RB-86	4.860E-01	1.073E+00	9.356E-01	5.477E-01	NOT IDENT.
Y-88	2.658E-02	3.461E-02	3.327E-02	1.766E-02	NOT IDENT.
ZR-88	-1.499E-02	3.801E-02	3.189E-02	1.939E-02	NOT IDENT.
Y-91	3.084E+01	2.671E+01	2.402E+01	1.363E+01	NOT IDENT.
NB-94	-5.871E-03	3.659E-02	3.129E-02	1.867E-02	NOT IDENT.
NB-95	8.743E-02	5.162E-02	4.897E-02	2.634E-02	NOT IDENT.
NB-95M	3.125E-01	1.850E-01	1.521E-01	9.439E-02	NOT IDENT.
ZR-95	6.100E-02	8.171E-02	7.421E-02	4.169E-02	NOT IDENT.
NB-97	-3.150E+05	9.133E+05	0.000E+00	4.660E+05	SHORT HLIF
ZR-97	5.506E+07	2.010E+07	0.000E+00	1.026E+07	SHORT HLIF
MO-99	1.911E+01	2.301E+01	2.092E+01	1.174E+01	NOT IDENT.
TC-99M	6.321E+18	1.764E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.833E-02	4.043E-02	3.567E-02	2.063E-02	NOT IDENT.
RH-102	-3.776E-02	3.593E-02	2.819E-02	1.833E-02	NOT IDENT.
RU-103	1.231E-02	5.114E-02	4.400E-02	2.609E-02	FAIL ABUN
RH-106	1.064E-01	3.769E-01	3.212E-01	1.923E-01	FAIL ABUN
RU-106	1.064E-01	3.768E-01	3.212E-01	1.922E-01	FAIL ABUN
AG-108M	5.346E-03	3.972E-02	3.422E-02	2.026E-02	NOT IDENT.
AG-110M	-1.654E-02	4.081E-02	3.446E-02	2.082E-02	NOT IDENT.
IN-111	-1.134E+00	2.476E+00	1.846E+00	1.263E+00	NOT IDENT.
IN-113M	-3.071E-02	5.453E-02	4.525E-02	2.782E-02	NOT IDENT.
SN-113	-3.071E-02	5.453E-02	4.525E-02	2.782E-02	NOT IDENT.
IN-114M	2.945E-01	2.567E-01	2.015E-01	1.310E-01	NOT IDENT.
CD-115	1.397E+01	2.315E+01	2.041E+01	1.181E+01	NOT IDENT.
SN-117M	-3.155E-02	7.630E-02	6.401E-02	3.893E-02	NOT IDENT.
SB-122	1.126E+00	4.264E+00	3.648E+00	2.175E+00	NOT IDENT.
I-123	-4.952E+06	1.037E+08	0.000E+00	5.292E+07	SHORT HLIF
TE-123M	-1.693E-03	3.546E-02	3.023E-02	1.809E-02	NOT IDENT.
I-124	1.138E+00	1.280E+00	1.004E+00	6.528E-01	FAIL ABUN
SB-124	-4.129E-02	7.909E-02	5.922E-02	4.035E-02	FAIL ABUN
SB-125	-5.045E-02	1.132E-01	9.405E-02	5.778E-02	FAIL ABUN
TE-125M	-7.048E+00	1.184E+01	1.004E+01	6.042E+00	NOT IDENT.
I-126	1.383E-01	2.425E-01	2.183E-01	1.237E-01	NOT IDENT.
SB-126	1.073E-01	2.180E-01	1.706E-01	1.112E-01	FAIL ABUN
SB-127	1.100E+00	2.188E+00	1.965E+00	1.116E+00	NOT IDENT.
XE-127	-2.287E-02	5.983E-02	4.953E-02	3.052E-02	NOT IDENT.
I-131	-4.533E-02	1.691E-01	1.437E-01	8.628E-02	NOT IDENT.
TE-132	-4.063E-01	1.317E+00	1.151E+00	6.718E-01	NOT IDENT.
BA-133	1.928E-02	6.185E-02	4.745E-02	3.156E-02	FAIL ABUN
I-133	-4.115E+04	3.843E+04	0.000E+00	1.961E+04	SHORT HLIF
CS-134	1.464E-01	6.656E-02	5.126E-02	3.396E-02	FAIL ABUN
CS-135	2.375E-01	2.121E-01	1.724E-01	1.082E-01	NOT IDENT.
I-135	-1.236E+18	1.500E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.643E-02	1.371E-01	1.113E-01	6.993E-02	FAIL ABUN
BA-137M	4.983E-03	4.295E-02	3.708E-02	2.192E-02	NOT IDENT.
CS-137	5.267E-03	4.541E-02	3.919E-02	2.317E-02	NOT IDENT.
CE-139	2.368E-02	3.604E-02	3.151E-02	1.839E-02	NOT IDENT.
BA-140	-5.163E-02	3.270E-01	2.717E-01	1.668E-01	NOT IDENT.
LA-140	-2.551E-02	1.086E-01	7.354E-02	5.542E-02	NOT IDENT.
CE-141	1.792E-02	8.787E-02	7.575E-02	4.483E-02	NOT IDENT.
CE-143	2.087E+03	7.675E+02	0.000E+00	3.916E+02	SHORT HLIF
CE-144	4.233E-02	2.694E-01	2.047E-01	1.374E-01	NOT IDENT.
PM-144	-1.208E-03	3.828E-02	3.308E-02	1.953E-02	NOT IDENT.
PR-144	-8.193E-02	2.597E+00	2.244E+00	1.325E+00	NOT IDENT.
PM-146	7.349E-03	5.686E-02	4.782E-02	2.901E-02	NOT IDENT.
ND-147	-5.370E-01	7.236E-01	5.700E-01	3.692E-01	NOT IDENT.

PM-149	1.515E+02	2.187E+02	1.965E+02	1.116E+02	NOT IDENT.
EU-152	3.107E-02	1.415E-01	1.023E-01	7.219E-02	FAIL ABUN
GD-153	2.386E-03	1.069E-01	8.194E-02	5.454E-02	NOT IDENT.
EU-154	-3.664E-02	1.504E-01	1.213E-01	7.675E-02	NOT IDENT.
EU-155	5.292E-02	1.341E-01	1.185E-01	6.844E-02	FAIL ABUN
TB-160	6.238E-02	1.653E-01	1.453E-01	8.436E-02	FAIL ABUN
HO-166M	-3.210E-02	6.769E-02	5.636E-02	3.453E-02	NOT IDENT.
TM-171	-5.326E+01	4.668E+01	3.901E+01	2.382E+01	NOT IDENT.
LU-176	9.802E-03	3.463E-02	2.676E-02	1.767E-02	NOT IDENT.
LU-177	3.248E+00	1.927E+00	1.557E+00	9.830E-01	FAIL ABUN
LU-177M	-8.647E-02	2.291E-01	1.920E-01	1.169E-01	NOT IDENT.
HF-181	-1.566E-03	5.565E-02	4.714E-02	2.839E-02	NOT IDENT.
W-181	8.905E-01	6.165E-01	5.610E-01	3.145E-01	NOT IDENT.
TA-182	7.394E-02	2.608E-01	2.215E-01	1.331E-01	FAIL ABUN
RE-183	-7.535E-02	1.392E-01	1.159E-01	7.102E-02	FAIL ABUN
RE-184	6.242E-02	2.851E-01	2.537E-01	1.455E-01	NOT IDENT.
OS-185	-2.309E-04	5.210E-02	4.331E-02	2.658E-02	NOT IDENT.
RE-188	2.168E-01	2.223E-01	1.964E-01	1.134E-01	NOT IDENT.
W-188	-2.036E+00	1.047E+01	7.851E+00	5.341E+00	NOT IDENT.
IR-192	8.475E-03	4.164E-02	3.664E-02	2.124E-02	FAIL ABUN
AU-195	5.227E-02	3.106E-01	2.398E-01	1.585E-01	FAIL ABUN
TL-200	-8.889E+02	2.132E+03	0.000E+00	1.088E+03	SHORT HLIF
TL-201	-2.489E+00	1.349E+01	1.140E+01	6.883E+00	NOT IDENT.
TL-202	5.647E-02	9.123E-02	8.091E-02	4.655E-02	NOT IDENT.
HG-203	8.906E-02	5.377E-02	4.974E-02	2.744E-02	NOT IDENT.
BI-207	1.508E-02	6.407E-02	5.494E-02	3.269E-02	FAIL ABUN
TL-207	-6.480E-01	8.640E-01	7.168E-01	4.408E-01	FAIL ABUN
PO-209	-1.084E+00	7.829E+00	6.569E+00	3.994E+00	NOT IDENT.
BI-210	-4.661E+00	1.293E+01	1.126E+01	6.595E+00	NOT IDENT.
PB-210	-4.661E+00	1.293E+01	1.126E+01	6.595E+00	NOT IDENT.
PO-210	-4.661E+00	1.292E+01	1.126E+01	6.594E+00	NOT IDENT.
PB-211	-7.798E-01	1.296E+00	9.955E-01	6.612E-01	NOT IDENT.
BI-212	5.137E-01	4.953E-01	3.643E-01	2.527E-01	FAIL ABUN
PO-215	-6.480E-01	8.640E-01	7.168E-01	4.408E-01	FAIL ABUN
RN-219	1.724E-01	4.917E-01	4.303E-01	2.509E-01	FAIL ABUN
RN-220	-9.398E+00	3.046E+01	2.500E+01	1.554E+01	NOT IDENT.
RA-223	-6.480E-01	8.640E-01	7.168E-01	4.408E-01	FAIL ABUN
AC-227	-3.815E-01	4.663E-01	3.918E-01	2.379E-01	NOT IDENT.
TH-227	-3.815E-01	4.677E-01	3.918E-01	2.386E-01	FAIL ABUN
TH-229	-6.886E-01	6.470E-01	5.174E-01	3.301E-01	FAIL ABUN
PA-231	-1.595E+00	1.901E+00	1.583E+00	9.700E-01	FAIL ABUN
TH-231	-6.480E-01	8.640E-01	7.168E-01	4.408E-01	FAIL ABUN
U-231	-1.705E-01	2.105E+00	1.606E+00	1.074E+00	FAIL ABUN
PA-233	-7.918E-02	8.040E-02	6.404E-02	4.102E-02	FAIL ABUN
PA-234	1.225E-01	3.601E-01	3.135E-01	1.837E-01	FAIL ABUN
PA-234M	3.655E+00	6.050E+00	5.329E+00	3.087E+00	NOT IDENT.
TH-234	8.490E-01	2.276E+00	2.040E+00	1.161E+00	FAIL ABUN
U-235	3.490E-02	2.778E-01	2.389E-01	1.417E-01	FAIL ABUN
NP-236	2.889E-03	9.750E-02	8.335E-02	4.974E-02	FAIL ABUN
U-238	8.490E-01	2.276E+00	2.040E+00	1.161E+00	FAIL ABUN
NP-239	3.447E-02	2.361E-01	2.058E-01	1.204E-01	FAIL ABUN
AM-241	-5.271E-02	2.922E-01	2.587E-01	1.491E-01	NOT IDENT.
CM-243	3.746E-02	1.217E-01	1.072E-01	6.208E-02	FAIL ABUN
AM-246	8.541E-02	1.778E-01	1.553E-01	9.071E-02	NOT IDENT.
CM-247	5.900E-02	4.427E-02	4.070E-02	2.259E-02	NOT IDENT.
CF-249	2.348E-02	4.866E-02	4.298E-02	2.483E-02	NOT IDENT.
CF-251	-2.211E-01	1.635E-01	1.293E-01	8.340E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	289.1563
46.50	289.1563
46.50	289.1563
48.70	280.7066
49.72	292.6677
51.35	304.0114
52.39	255.5363
52.97	278.8544
53.15	278.9357
53.44	296.3876
54.07	322.6955
56.28	318.9895
56.28	318.9914
57.37	0.0000
57.53	324.4530
57.53	324.4539
57.60	324.4878
57.98	316.9241
57.98	316.9241
59.32	305.9181
59.32	305.9181
59.40	337.0365
59.54	337.1073
59.72	337.1993
60.01	372.3447
61.10	395.3491
61.14	395.3724
61.30	397.4149
63.00	367.1635
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63.29	354.6185
63.58	352.8138
64.28	359.0414
65.12	332.0495
65.20	332.0880
65.20	332.0880
66.05	407.0311
66.72	430.9784
66.83	440.8651
66.91	440.9156
67.20	441.0954
67.20	441.0954
67.75	438.2042
67.85	393.3167
68.90	360.8050
68.90	360.8050
69.30	381.4971
69.67	384.8481
70.82	383.8730
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70.83	383.8789
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72.87	411.8685
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75.70	411.4273
77.11	412.1838
77.11	412.1838

77.11	412.1838
77.11	412.1838
77.11	412.1838
77.11	412.1838
77.11	412.1838
78.38	386.1336
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79.80	391.6292
79.80	391.6292
80.11	391.7832
80.18	391.8176
80.30	391.8774
80.30	391.8774
80.57	392.0105
81.00	360.2046
81.07	360.2362
81.07	360.2362
81.07	360.2362
81.07	360.2362
82.60	393.0079
83.37	415.4593
83.78	415.6709
83.78	415.6709
83.78	415.6709
83.78	415.6709
84.21	409.8646
84.90	389.2982
85.43	469.4989
86.29	469.9903
86.50	470.1096
86.54	470.1309
86.59	470.1594
86.72	470.2342
86.79	470.2715
86.94	470.3588
87.30	625.1749
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87.30	625.1749
87.30	625.1749
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87.57	625.3783
87.88	561.0309
88.03	561.1328
88.36	625.9695
88.47	626.0523
89.95	627.1521
91.11	628.0083
92.29	628.8739
92.38	444.9920
92.38	444.9920
93.35	445.4907
94.00	445.8254
94.67	446.1651
94.67	446.1684
94.90	446.2856
94.90	446.2856
94.90	446.2856
94.90	446.2856
95.87	351.9914
95.87	351.9914
96.73	357.2290
97.43	315.0656
98.44	302.3470
98.44	302.3481
98.88	317.2120
99.55	320.7215
99.55	320.7215
99.86	309.3733
100.00	309.4218
100.10	309.4564
103.18	365.5375
103.76	340.0823
105.00	326.1335
105.31	334.4756
108.00	344.7229
109.28	362.7574

111.00	324.0648
111.00	324.0648
111.76	340.8990
112.95	349.6164
115.19	324.4220
116.30	323.7452
117.00	331.2650
117.00	331.2650
117.66	293.9580
121.11	323.2086
121.62	328.6026
121.78	316.0941
122.06	319.3225
122.32	324.3397
122.32	324.3397
122.32	324.3397
122.32	324.3397
123.07	294.8342
127.23	309.7683
129.76	280.1357
131.20	310.9335
133.02	286.0705
133.54	284.5151
135.34	333.2116
136.00	323.5622
136.25	324.6978
136.48	329.0108
140.51	362.1683
140.51	0.0000
142.18	389.3803
142.65	385.2729
143.76	364.2871
144.24	371.9218
144.24	371.9218
144.24	371.9218
144.24	371.9218
145.22	388.2880
145.44	365.8955
147.16	361.0913
152.43	346.5888
152.70	341.2843
153.22	339.2825
154.21	319.0844
154.21	319.0844
154.21	319.0844
154.21	319.0844
155.03	316.0695
156.02	351.9612
158.56	328.9073
159.00	0.0000
159.00	311.7085
160.31	305.5459
161.27	303.6203
162.32	326.6720
162.64	320.2435
163.35	316.0855
163.89	292.3183
165.85	271.0139
167.43	285.5271
171.28	292.9635
171.86	271.2254
172.10	260.3379
176.55	340.2782
176.60	343.5855
181.06	280.2200
184.41	318.0388
185.71	300.6647
186.00	300.7290
190.27	243.1248
192.34	321.4030
193.63	318.0013
197.04	241.8800
198.01	247.6278
198.60	264.4715
200.40	287.1603
201.83	305.3504
202.84	279.8252
205.31	260.1327

208.36	276.8710
208.81	307.9803
209.75	273.3138
209.75	273.3138
210.97	271.6694
215.65	270.0362
216.55	276.6308
218.09	277.8253
222.10	251.3542
223.80	251.6399
226.40	262.0846
227.00	272.2024
227.08	270.3980
227.20	270.4179
228.16	264.2126
228.18	264.2161
228.18	264.2161
231.56	0.0000
235.69	268.5637
236.00	268.6174
236.00	268.6174
238.63	232.9904
238.63	232.9904
238.63	232.9904
238.63	232.9904
239.00	233.0447
240.98	233.3392
241.98	233.4881
241.98	233.4881
241.98	233.4881
244.69	231.7395
245.39	241.0531
247.94	253.7405
248.90	228.5024
249.79	220.7774
252.40	207.2561
252.85	211.0155
252.85	211.0155
254.15	0.0000
256.20	230.9238
256.20	230.9238
260.50	184.1071
260.90	182.2905
262.80	210.4322
264.65	233.0383
268.24	182.1579
268.79	179.1026
269.46	193.1950
269.46	193.1950
269.46	193.1950
269.46	193.1950
271.23	202.7547
273.65	281.1365
276.40	210.5197
277.35	197.2185
277.60	193.0747
277.60	193.0747
278.00	193.5349
278.60	193.6028
279.20	187.0896
279.53	193.7059
280.46	228.6223
281.68	256.0858
283.67	213.9597
284.30	202.7225
285.00	195.2577
285.90	179.3148
286.10	179.3334
286.10	179.3334
287.40	179.4656
288.45	0.0000
290.67	198.7233
290.80	198.7386
291.72	194.1069
293.26	0.0000
293.70	188.0027
295.21	167.6047
295.21	167.6047

295.21	167.6047
295.96	137.6190
296.50	137.6615
297.23	137.7164
298.57	137.8190
299.80	137.9111
299.80	137.9111
300.09	137.9341
300.09	137.9341
300.09	137.9341
300.09	137.9341
300.12	137.9359
301.29	177.6865
302.84	177.8369
303.76	177.9281
303.91	177.9417
304.40	177.9896
304.40	177.9896
304.84	178.0329
306.84	170.2679
308.46	151.3057
311.98	188.2930
316.51	155.4781
318.01	145.9957
319.02	173.9429
319.41	186.4763
320.08	199.0404
323.87	211.9622
323.87	211.9622
323.87	211.9622
323.87	211.9622
325.23	193.7937
328.77	195.1179
333.44	200.1049
334.20	184.0393
334.20	184.0393
334.30	182.4341
338.28	176.6569
338.28	176.6569
338.28	176.6569
338.28	176.6569
338.32	176.6613
338.32	176.6613
338.32	176.6613
340.50	183.0089
340.57	183.0158
344.27	149.9319
345.85	139.6573
350.59	0.0000
351.07	148.1601
351.92	168.0947
351.92	168.0947
351.92	168.0947
355.39	0.0000
356.01	155.0495
364.48	148.4803
366.43	128.9339
367.43	148.6904
367.94	0.0000
369.80	149.8458
374.96	134.4013
383.85	152.8270
387.95	133.2328
388.63	135.2629
391.69	146.4096
391.69	146.4096
392.90	144.4991
398.62	141.8787
400.65	153.0093
401.10	147.0395
401.81	127.0744
402.60	111.1057
404.84	168.3302
410.95	125.5875
411.60	128.6391
413.65	157.9276
414.70	161.0195
415.30	144.9563

415.76	143.9793
417.63	0.0000
418.52	141.1296
423.70	121.2422
427.08	129.5156
427.89	134.6219
432.53	123.7350
433.93	119.7501
439.47	102.7409
439.56	102.7446
439.89	109.8800
443.98	114.1479
444.90	114.1916
445.03	114.1984
445.03	114.1984
445.03	114.1984
445.03	114.1984
453.90	123.8330
463.38	101.0305
468.07	111.5177
473.00	121.7120
475.06	130.0713
475.35	136.2813
476.78	112.6005
477.59	111.6031
477.96	103.3521
482.03	120.0838
484.57	137.8203
487.03	98.5393
490.36	0.0000
492.35	122.6540
497.08	103.0944
507.63	0.0000
510.53	0.0000
510.84	112.0202
511.00	112.0267
511.85	112.0626
511.85	112.0626
513.99	97.8297
513.99	97.8297
520.41	106.2407
520.65	106.1338
527.90	75.8654
528.96	0.0000
529.64	103.3307
529.87	0.0000
531.02	94.9438
537.32	87.7640
543.00	93.2465
546.56	0.0000
549.76	94.5386
552.65	91.4485
555.20	86.2108
563.23	91.7970
563.90	95.0210
568.70	95.1839
569.32	99.4846
569.50	97.3518
569.67	92.0070
573.80	116.7838
574.00	108.2199
574.64	104.7912
578.91	89.4450
579.30	0.0000
583.14	88.1440
585.48	73.5134
591.81	95.4954
592.07	90.3052
593.00	81.9746
595.88	86.3750
600.56	110.5452
602.52	0.0000
602.71	84.7744
602.71	84.7744
603.60	106.4501
604.41	108.2837
604.70	104.6860
609.31	114.9722

609.31	114.9722
609.31	114.9722
609.31	114.9722
610.33	106.6950
612.46	92.2943
614.37	85.1091
618.01	97.9058
621.84	80.6033
621.84	80.6033
631.29	76.4856
633.02	73.2485
633.10	69.9703
634.78	80.9483
635.90	75.5075
636.97	78.8168
645.85	85.6343
646.12	83.4441
656.30	93.6349
657.75	93.6785
657.90	0.0000
661.65	90.1165
661.65	90.1165
664.57	0.0000
666.33	87.4873
666.33	87.4873
675.00	84.9566
677.61	73.0130
685.20	67.6281
692.80	91.0017
695.00	78.0544
696.49	80.8793
696.49	80.8793
697.00	82.7512
697.49	84.6238
698.33	78.1348
698.50	78.1382
699.00	81.8716
702.63	80.1001
706.10	69.9295
706.58	0.0000
706.67	71.8068
709.31	71.8632
711.68	82.1885
713.82	86.9150
717.42	74.8470
720.50	77.0575
721.93	0.0000
722.20	78.7021
722.78	91.5674
722.78	91.5674
722.89	91.5714
722.95	91.5733
723.30	93.1880
724.18	99.6429
727.18	93.2972
733.00	88.6250
735.90	80.9067
739.58	64.9837
742.81	74.4724
744.21	77.3321
747.13	71.7355
751.79	68.9974
752.31	74.6797
753.82	75.6575
755.35	73.7994
756.15	62.4604
756.87	64.3656
763.93	104.3335
765.79	66.4296
766.42	71.1884
766.84	80.6888
776.49	82.8157
778.00	85.7080
778.57	81.9128
778.89	74.2993
783.80	67.7253
785.46	59.5499
792.07	93.4262

795.84	41.0191
796.30	42.6662
798.80	64.0429
801.93	66.7283
805.60	45.1067
810.29	73.9953
810.76	67.2770
815.85	57.7466
817.79	55.8512
818.51	56.8261
819.60	52.9892
826.30	56.9462
828.27	0.0000
831.60	68.6281
831.96	71.5339
834.83	83.1988
836.80	0.0000
846.75	57.2619
848.13	64.0785
856.28	0.0000
856.80	66.7299
860.37	57.4695
867.32	60.0148
867.82	54.6545
871.10	65.4460
873.19	56.6855
874.81	58.6658
875.33	0.0000
876.40	63.5810
879.36	56.7775
880.27	59.7279
880.51	57.7732
881.50	55.8287
883.24	53.8945
884.67	55.8751
889.25	52.9969
896.60	51.1304
898.02	58.0349
899.00	63.9526
903.28	52.5315
911.07	62.1758
911.07	62.1758
911.07	62.1758
919.63	47.4746
920.93	56.3947
925.00	63.3854
925.24	60.4179
926.50	58.4550
935.52	52.6291
937.48	52.6539
944.10	71.6477
946.00	57.7428
949.00	55.7938
962.29	49.6920
964.01	59.9988
966.15	65.0317
968.20	65.0648
969.11	65.0793
969.11	65.0793
969.11	65.0793
977.42	73.9512
980.50	51.6326
983.50	61.2854
989.30	54.3285
996.32	80.6217
1001.03	57.5068
1001.68	51.4617
1004.76	67.6557
1021.30	0.0000
1024.50	0.0000
1034.80	54.9119
1036.00	46.7899
1037.82	48.8438
1038.57	52.9246
1038.76	0.0000
1045.16	41.7924
1046.59	46.9041
1048.07	55.0789

1050.47	75.5206
1050.47	75.5206
1062.04	78.7890
1063.62	57.3216
1076.63	57.4902
1077.35	56.4726
1078.86	56.4905
1085.78	72.0081
1099.22	57.7796
1112.02	65.6275
1112.84	78.0589
1115.52	51.4782
1120.29	78.7770
1120.29	78.7770
1120.29	78.7770
1120.29	78.7770
1120.51	78.7801
1121.28	79.9805
1124.00	0.0000
1129.67	58.5802
1131.51	0.0000
1147.95	0.0000
1167.94	78.5400
1173.22	49.2720
1175.09	67.1198
1177.93	91.2976
1189.05	74.6806
1204.90	70.7050
1205.75	0.0000
1213.00	85.6208
1221.42	76.2393
1230.97	97.6040
1235.34	82.8242
1236.41	0.0000
1238.25	79.6875
1246.25	74.4946
1260.41	0.0000
1271.85	60.9707
1274.45	53.5095
1274.54	53.5116
1291.56	40.8049
1298.22	0.0000
1312.09	31.2644
1325.50	38.9121
1325.50	38.9121
1332.49	40.0472
1333.61	30.3117
1360.21	29.8438
1362.66	0.0000
1365.15	25.2042
1368.21	42.4976
1368.53	0.0000
1376.25	27.1268
1384.27	22.9517
1394.10	31.9094
1395.20	33.7939
1407.95	26.3457
1434.06	28.3615
1436.60	15.1334
1457.56	0.0000
1460.81	22.7988
1489.15	23.8682
1509.49	20.1204
1596.49	17.0172
1620.62	17.5737
1678.03	0.0000
1691.02	14.8127
1691.02	14.8127
1706.46	0.0000
1750.46	0.0000
1764.49	10.9885
1764.49	10.9885
1764.49	10.9885
1764.49	10.9885
1770.23	10.4982
1771.40	10.5000
1791.20	0.0000
1808.65	10.0569

1836.01	7.0688

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245808008

Total Uranium Activity	2.5419E+00	ug/g
Total Uranium Counting Unc.	6.7719E+00	ug/g
Total Uranium Tpu	3.4551E-06	ug/g
Total Uranium Mda	6.0708E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID   : G245808008      *
*   ANALYST       : RXF2                      DETECTOR    : GAM15           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 17:37:37.62    SAMPLE ALQT:  131.013 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.454E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.669E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.816E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.849E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:52:11.01

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029817.CNF;1
Sample date       : 2-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 17:51:43
Sample ID         : G1202029817          Sample quantity  : 1.69389E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.55  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947554                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.45*	6	91	0.98	126.37	122	8	8.61E-04	304.2	
2	0	84.49*	5	43	1.44	168.47	166	6	6.67E-04	268.6	
3	2	94.95	31	54	1.16	189.40	178	17	4.25E-03	45.9	2.27E+00
4	0	911.14*	12	11	1.69	1822.31	1817	9	1.67E-03	67.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 19:52:13

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029817.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 2-FEB-2010 00:00:00
Sample ID : G1202029817
Sample type : SOLID
Detector name : GAMMA12
Elapsed live time: 0 02:00:00.00
Peak Width (FWHM): 3.00
Energy tolerance : 1.50 keV
Errors propagated: Yes
Efficiency type : Empirical
Abundance limit : 75.00

Acquisition date : 12-FEB-2010 17:51:43
Sample quantity : 169.39 GRAM
Sample geometry :
Detector geometry: CAN
Elapsed real time: 0 02:00:00.55 0.0%
Confidence level : 5.00 %
Half life ratio : 8.00
Systematic Error : 0.00 %
Efficiencies at : Peak Energy
WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.745E-03	1.254E-01	2.029E-01	1.396E-02	0.023
NA-22		1274.54	*	1.283E-03	1.521E-02	2.548E-02	1.641E-03	0.050
NA-24		1368.53	*	-4.785E-04	1.521E-02	Half-Life too short		
AL-26		1129.67		-4.006E-01	5.865E-01	8.255E-01	5.031E-02	-0.485
		1808.65	*	-1.370E-03	1.864E-02	3.030E-02	1.738E-03	-0.045
K-40		1460.81	*	-2.917E-02	2.237E-01	3.871E-01	2.760E-02	-0.075
TI-44		67.85		-1.138E-02	1.595E-02	2.302E-02	1.499E-03	-0.494
		78.38	*	-4.166E-03	1.013E-02	1.635E-02	1.144E-03	-0.255
SC-46		889.25	*	-1.990E-03	1.556E-02	2.458E-02	2.037E-03	-0.081
		1120.51		4.604E-03	1.946E-02	3.361E-02	2.088E-03	0.137
V-48		944.10		-1.381E-02	3.489E-01	5.584E-01	4.485E-02	-0.025
		983.50	*	1.941E-02	3.682E-02	5.050E-02	3.891E-03	0.384
		1312.09		-9.124E-03	2.565E-02	3.844E-02	2.609E-03	-0.237
CR-51		320.08	*	8.221E-02	1.365E-01	2.398E-01	1.525E-02	0.343
MN-52		744.21		-2.489E-02	6.007E-02	9.227E-02	6.590E-03	-0.270
		848.13		5.764E-01	1.777E+00	3.040E+00	2.422E-01	0.190
		935.52		-3.489E-02	6.439E-02	9.310E-02	7.538E-03	-0.375
		1246.25		-1.075E+00	1.766E+00	2.581E+00	1.590E-01	-0.417
		1333.61		1.244E+00	1.067E+00	2.207E+00	1.542E-01	0.563
		1434.06	*	3.747E-03	6.494E-02	1.070E-01	7.353E-03	0.035
MN-54		834.83	*	7.393E-03	1.713E-02	2.963E-02	2.329E-03	0.249
CO-56		846.75	*	6.981E-03	1.634E-02	2.844E-02	2.262E-03	0.245
		977.42		-3.494E-01	1.149E+00	1.727E+00	1.340E-01	-0.202
		1037.82		-1.220E-01	1.110E-01	1.404E-01	1.085E-02	-0.869
		1175.09		3.405E-01	6.239E-01	1.162E+00	6.407E-02	0.293
		1238.25		-7.949E-03	2.883E-02	4.492E-02	2.891E-03	-0.177
		1360.21		-1.838E-01	4.101E-01	5.949E-01	4.142E-02	-0.309
		1771.40		4.442E-02	1.199E-01	2.169E-01	1.279E-02	0.205
CO-57		122.06	*	4.999E-04	9.847E-03	1.619E-02	1.013E-03	0.031
		136.48		1.141E-02	7.763E-02	1.279E-01	8.604E-03	0.089
CO-58		810.76	*	5.282E-03	1.463E-02	2.541E-02	1.955E-03	0.208
FE-59		142.65		-2.223E-01	1.040E+00	1.597E+00	9.021E-02	-0.139
		192.34		8.971E-02	3.134E-01	5.141E-01	5.940E-02	0.174
		1099.22	*	1.090E-02	3.473E-02	6.092E-02	4.499E-03	0.179

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.56		-1.961E-02	4.538E-02	6.724E-02	5.415E-03	-0.292
CO-60		1173.22		6.554E-03	1.360E-02	2.491E-02	1.369E-03	0.263
		1332.49	*	1.486E-02	1.473E-02	2.954E-02	2.063E-03	0.503
ZN-65		1115.52	*	7.096E-03	3.468E-02	5.968E-02	3.754E-03	0.119
GE-68		1077.35	*	3.756E-01	5.149E-01	9.596E-01	6.470E-02	0.391
AS-73		53.44	*	8.475E-02	3.051E-01	4.985E-01	3.219E-02	0.170
AS-74		595.88	*	9.850E-03	3.600E-02	6.217E-02	3.957E-03	0.158
		634.78		-2.556E-02	1.389E-01	2.257E-01	1.455E-02	-0.113
SE-75		66.05		-1.231E-01	1.685E+00	2.484E+00	2.168E-01	-0.050
		96.73		1.738E-01	2.699E-01	4.296E-01	5.440E-02	0.404
		121.11		-3.220E-02	4.971E-02	7.655E-02	7.291E-03	-0.421
		136.00		2.734E-03	1.377E-02	2.281E-02	1.347E-03	0.120
		198.60		2.848E-01	7.575E-01	1.193E+00	8.015E-02	0.239
		264.65	*	-1.128E-02	1.674E-02	2.626E-02	1.488E-03	-0.430
		279.53		1.447E-02	4.552E-02	7.817E-02	4.790E-03	0.185
		303.91		-3.345E-01	8.344E-01	1.332E+00	1.261E-01	-0.251
		400.65		6.884E-02	1.050E-01	1.840E-01	1.645E-02	0.374
BR-77		87.88		5.781E+00	1.789E+01	2.362E+01	1.806E+00	0.245
		200.40		-1.221E+01	1.857E+01	2.763E+01	1.465E+00	-0.442
		239.00		-1.821E-01	1.210E+00	2.017E+00	1.111E-01	-0.090
		249.79		-1.206E+00	7.295E+00	1.211E+01	6.725E-01	-0.100
		281.68		2.171E+00	1.046E+01	1.781E+01	1.006E+00	0.122
		297.23		2.082E+00	5.662E+00	9.762E+00	5.541E-01	0.213
		303.76		-9.150E+00	2.045E+01	3.251E+01	1.847E+00	-0.281
		439.47		-1.383E+01	1.929E+01	2.854E+01	1.643E+00	-0.485
		484.57		-7.987E+00	2.613E+01	4.007E+01	2.397E+00	-0.199
		520.65	*	2.909E-01	1.345E+00	2.214E+00	1.358E-01	0.131
		574.64		-1.686E+01	2.578E+01	3.838E+01	2.422E+00	-0.439
		578.91		-7.614E+00	1.037E+01	1.572E+01	9.941E-01	-0.484
		585.48		9.559E+00	2.048E+01	3.615E+01	2.292E+00	0.264
		755.35		-2.130E+01	1.978E+01	2.457E+01	1.777E+00	-0.867
		817.79		-2.163E+00	1.489E+01	2.364E+01	1.827E+00	-0.092
SR-82		698.33		-5.881E+00	1.679E+01	2.386E+01	1.617E+00	-0.247
		776.49	*	1.617E-01	1.482E-01	2.800E-01	2.072E-02	0.577
		1395.20		-9.592E-01	5.208E+00	8.176E+00	5.661E-01	-0.117
RB-83		520.41	*	5.520E-03	3.059E-02	5.012E-02	3.073E-03	0.110
		529.64		-1.541E-02	4.424E-02	6.685E-02	4.122E-03	-0.231
		552.65		-1.944E-02	7.843E-02	1.276E-01	7.971E-03	-0.152
RB-84		881.50	*	3.437E-03	2.816E-02	4.661E-02	3.835E-03	0.074
KR-85		513.99	*	-1.643E+01	5.720E+00	6.842E+00	4.178E-01	-2.402
SR-85		513.99	*	-8.047E-02	2.801E-02	3.351E-02	2.046E-03	-2.402
RB-86		1076.63	*	1.591E-01	2.806E-01	5.112E-01	3.451E-02	0.311
Y-88		898.02		-2.712E-03	1.943E-02	2.814E-02	2.364E-03	-0.096
		1836.01	*	-3.305E-03	1.867E-02	2.939E-02	1.654E-03	-0.112
ZR-88		392.90	*	6.922E-03	1.152E-02	2.021E-02	1.108E-03	0.343
Y-91		1204.90	*	6.499E+00	5.363E+00	1.104E+01	6.382E-01	0.589
NB-94		702.63	*	-1.447E-02	1.579E-02	2.274E-02	1.549E-03	-0.636
		871.10		5.422E-03	1.469E-02	2.535E-02	2.065E-03	0.214
NB-95		765.79	*	-1.003E-02	1.642E-02	2.424E-02	1.773E-03	-0.414

---- Non-Identified Nuclides ----

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NB-95M		235.69	*	-5.715E-02	4.587E-02	6.941E-02	5.063E-03	-0.823
ZR-95		724.18		1.600E-02	3.432E-02	6.054E-02	4.774E-03	0.264
		756.15	*	-2.896E-02	2.857E-02	3.589E-02	2.964E-03	-0.807
NB-97		657.90	*	1.012E-04	2.857E-02	Half-Life too short		
		1024.50		-1.354E-02	2.857E-02	Half-Life too short		
ZR-97		254.15		2.835E-03	2.857E-02	Half-Life too short		
		355.39		1.266E-02	2.857E-02	Half-Life too short		
		507.63	*	-4.694E-02	2.857E-02	Half-Life too short		
		602.52		-3.147E-02	2.857E-02	Half-Life too short		
		1021.30		-6.841E-03	2.857E-02	Half-Life too short		
		1147.95		6.428E-03	2.857E-02	Half-Life too short		
		1362.66		-1.246E-03	2.857E-02	Half-Life too short		
		1750.46		2.151E-02	2.857E-02	Half-Life too short		
MO-99		140.51		-3.404E+00	3.920E+00	5.285E+00	1.423E+00	-0.644
		181.06		-2.149E+00	2.027E+00	2.819E+00	4.776E-01	-0.762
		366.43		2.495E+00	1.189E+01	1.999E+01	1.117E+00	0.125
		739.58	*	5.677E-01	1.545E+00	2.689E+00	3.866E-01	0.211
		778.00		2.690E+00	4.924E+00	8.725E+00	6.467E-01	0.308
TC-99M		140.51	*	-8.416E+04	4.924E+00	Half-Life too short		
RH-101		127.23		2.785E-03	1.162E-02	1.938E-02	1.176E-03	0.144
		198.01	*	3.009E-03	1.441E-02	2.239E-02	1.184E-03	0.134
		325.23		3.417E-02	8.357E-02	1.444E-01	8.205E-03	0.237
RH-102		418.52		9.053E-02	1.156E-01	2.062E-01	1.163E-02	0.439
		475.06	*	-4.866E-03	1.267E-02	1.932E-02	1.147E-03	-0.252
		631.29		8.548E-03	2.433E-02	4.237E-02	2.728E-03	0.202
		697.49		-4.845E-03	3.928E-02	6.400E-02	4.332E-03	-0.076
		766.84		-1.955E-02	4.327E-02	6.581E-02	4.819E-03	-0.297
		1046.59		2.344E-02	4.212E-02	7.757E-02	5.496E-03	0.302
		1112.84		8.133E-02	8.786E-02	1.683E-01	1.062E-02	0.483
RU-103		497.08	*	3.989E-03	1.857E-02	3.024E-02	3.857E-03	0.132
		610.33		-1.930E-01	3.997E-01	5.961E-01	9.332E-02	-0.324
RH-106		511.85		-1.891E-01	1.367E-01	2.402E-01	1.465E-02	-0.787
		621.84	*	4.648E-02	1.409E-01	2.447E-01	2.950E-02	0.190
		1050.47		-8.159E-01	8.379E-01	1.101E+00	7.754E-02	-0.741
RU-106		511.85		-1.891E-01	1.367E-01	2.402E-01	1.465E-02	-0.787
		621.84	*	4.648E-02	1.408E-01	2.447E-01	1.571E-02	0.190
		1050.47		-8.159E-01	8.379E-01	1.101E+00	7.754E-02	-0.741
AG-108M		433.93	*	-9.478E-03	1.551E-02	2.183E-02	1.361E-03	-0.434
		614.37		2.110E-03	1.749E-02	2.962E-02	2.031E-03	0.071
		722.95		7.169E-03	1.616E-02	2.844E-02	2.101E-03	0.252
CD-109		88.03	*	-9.048E-02	3.214E-01	3.779E-01	2.892E-02	-0.239
AG-110M		657.75	*	-3.151E-04	1.370E-02	2.267E-02	1.545E-03	-0.014
		677.61		6.570E-02	1.380E-01	2.429E-01	1.682E-02	0.271
		706.67		7.012E-02	9.268E-02	1.679E-01	1.199E-02	0.418
		763.93		-1.609E-02	7.242E-02	1.150E-01	8.722E-03	-0.140
		884.67		3.739E-03	2.050E-02	3.432E-02	2.932E-03	0.109
		937.48		-1.869E-02	4.645E-02	6.901E-02	5.806E-03	-0.271
		1384.27		8.168E-03	7.773E-02	1.296E-01	9.378E-03	0.063
IN-111		171.28		4.792E-02	1.313E-01	2.179E-01	1.121E-02	0.220

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		245.39	*	8.596E-02	1.499E-01	2.642E-01	1.462E-02	0.325
IN-113M		391.69	*	4.912E-04	1.826E-02	2.993E-02	1.762E-03	0.016
SN-113		391.69	*	4.912E-04	1.826E-02	2.993E-02	1.762E-03	0.016
IN-114M		190.27	*	-4.759E-03	6.269E-02	9.921E-02	5.204E-03	-0.048
CD-115		260.90		1.472E+01	1.275E+01	2.360E+01	1.320E+00	0.624
		492.35		4.338E-01	4.504E+00	7.320E+00	4.405E-01	0.059
		527.90	*	5.581E-01	1.159E+00	1.984E+00	1.222E-01	0.281
SN-117M		156.02		5.979E-01	6.813E-01	1.183E+00	6.316E-02	0.505
		158.56	*	-2.486E-03	1.651E-02	2.626E-02	1.387E-03	-0.095
SB-122		563.90	*	-2.678E-01	3.219E-01	4.880E-01	3.065E-02	-0.549
		692.80		1.011E+01	7.161E+00	1.366E+01	9.197E-01	0.740
I-123		159.00	*	-5.140E-03	7.161E+00	Half-Life too short		
		528.96		1.429E-01	7.161E+00	Half-Life too short		
TE-123M		159.00	*	-6.306E-03	1.046E-02	1.590E-02	8.521E-04	-0.397
I-124		602.71	*	-8.482E-02	1.506E-01	2.348E-01	1.499E-02	-0.361
		722.78		3.849E-01	8.213E-01	1.450E+00	1.011E-01	0.266
		1325.50		-3.178E+00	5.813E+00	7.995E+00	5.530E-01	-0.397
		1376.25		6.006E-01	6.079E+00	1.015E+01	7.048E-01	0.059
		1509.49		-2.701E+00	2.990E+00	3.310E+00	2.228E-01	-0.816
		1691.02		-2.932E-01	1.039E+00	1.610E+00	9.994E-02	-0.182
SB-124		602.71		-9.680E-03	1.718E-02	2.680E-02	1.711E-03	-0.361
		645.85		-1.365E-02	1.904E-01	3.133E-01	2.236E-02	-0.044
		709.31		-3.322E-01	1.251E+00	1.993E+00	1.368E-01	-0.167
		713.82		1.565E-01	6.344E-01	1.086E+00	1.181E-01	0.144
		722.78		6.368E-02	1.359E-01	2.398E-01	1.727E-02	0.266
		968.20		-2.508E-01	9.564E-01	1.421E+00	1.114E-01	-0.176
		1045.16		4.530E-01	8.244E-01	1.523E+00	1.081E-01	0.297
		1325.50		-5.614E-01	1.027E+00	1.413E+00	9.770E-02	-0.397
		1368.21		1.032E-01	6.176E-01	1.054E+00	1.315E-01	0.098
		1436.60		1.197E+00	1.671E+00	3.144E+00	2.159E-01	0.381
		1691.02	*	-1.144E-02	4.054E-02	6.283E-02	4.192E-03	-0.182
SB-125		427.89	*	-5.050E-02	3.997E-02	5.355E-02	3.183E-03	-0.943
		463.38		7.942E-03	1.033E-01	1.687E-01	1.153E-02	0.047
		600.56		-1.778E-02	8.879E-02	1.413E-01	1.019E-02	-0.126
		635.90		6.087E-02	1.217E-01	2.156E-01	1.585E-02	0.282
TE-125M		109.28	*	1.008E+00	3.429E+00	5.776E+00	4.974E-01	0.174
I-126		388.63		-3.972E-02	6.922E-02	1.054E-01	5.790E-03	-0.377
		666.33	*	2.962E-02	5.990E-02	1.060E-01	6.914E-03	0.279
		753.82		-3.784E-01	4.706E-01	6.169E-01	4.453E-02	-0.613
SB-126		223.80		3.399E-01	1.133E+00	1.970E+00	1.070E-01	0.173
		278.60		9.223E-01	8.120E-01	1.483E+00	8.371E-02	0.622
		296.50		1.052E-01	4.060E-01	6.934E-01	3.935E-02	0.152
		414.70		-1.837E-02	2.356E-02	3.419E-02	1.921E-03	-0.537
		415.30		-1.222E+00	2.035E+00	3.049E+00	1.714E-01	-0.401
		555.20		-8.229E-01	1.279E+00	1.960E+00	1.226E-01	-0.420
		573.80		-1.397E-01	3.504E-01	5.578E-01	3.519E-02	-0.250
		593.00		-1.854E-01	3.168E-01	4.885E-01	3.106E-02	-0.380
		656.30		-7.171E-01	1.057E+00	1.568E+00	1.015E-01	-0.457
		666.33		1.225E-02	2.478E-02	4.387E-02	2.860E-03	0.279

---- Non-Identified Nuclides ----

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		675.00		1.178E-01	6.856E-01	1.163E+00	7.665E-02	0.101
		695.00		2.934E-02	3.192E-02	5.801E-02	3.916E-03	0.506
		697.00		1.487E-02	1.069E-01	1.797E-01	1.216E-02	0.083
		720.50	*	-3.870E-02	4.461E-02	6.242E-02	4.340E-03	-0.620
		856.80		-7.100E-02	1.648E-01	2.482E-01	1.994E-02	-0.286
		989.30		-5.005E-01	4.880E-01	6.300E-01	4.821E-02	-0.795
		1034.80		9.791E-01	2.668E+00	4.757E+00	3.430E-01	0.206
		1213.00		-6.102E-01	1.158E+00	1.679E+00	9.828E-02	-0.364
SN-126	+	64.28		4.434E-02	2.698E-01	3.253E-01	4.568E-02	0.136
		86.94		-2.219E-02	1.349E-01	1.619E-01	6.662E-02	-0.137
		87.57	*	2.169E-02	2.760E-02	3.954E-02	3.014E-03	0.549
SB-127		61.10		-2.958E+00	9.137E+00	1.375E+01	1.111E+00	-0.215
		252.40		8.451E-01	8.333E-01	1.399E+00	5.765E-01	0.604
		290.80		4.790E-02	3.427E+00	5.726E+00	4.344E-01	0.008
		411.60		7.400E-02	2.058E+00	3.368E+00	4.513E-01	0.022
		444.90		1.225E+00	2.140E+00	3.684E+00	3.523E-01	0.333
		473.00		2.471E-01	3.208E-01	5.685E-01	5.729E-02	0.435
		543.00		1.001E+00	3.094E+00	5.422E+00	6.567E-01	0.185
		603.60		-1.435E+00	2.533E+00	3.955E+00	3.917E-01	-0.363
		685.20	*	6.239E-02	2.238E-01	3.877E-01	3.357E-02	0.161
		698.50		-1.489E+00	3.829E+00	5.398E+00	7.577E-01	-0.276
		722.20		1.990E+00	5.222E+00	9.114E+00	7.840E-01	0.218
		783.80		-1.577E-01	6.100E-01	9.510E-01	1.000E-01	-0.166
XE-127		57.60		-3.991E-01	1.647E+00	2.732E+00	1.726E-01	-0.146
		145.22		-5.855E-02	2.387E-01	3.786E-01	2.115E-02	-0.155
		172.10		1.858E-02	4.305E-02	7.178E-02	3.695E-03	0.259
		202.84	*	-5.919E-03	1.720E-02	2.639E-02	1.404E-03	-0.224
		374.96		1.743E-02	7.155E-02	1.208E-01	6.711E-03	0.144
I-131		80.18		-1.188E-01	9.113E-01	1.436E+00	1.025E-01	-0.083
		284.30		-9.718E-02	4.014E-01	6.545E-01	4.112E-02	-0.148
		364.48	*	2.962E-02	3.211E-02	5.813E-02	3.637E-03	0.510
		636.97		2.860E-01	4.677E-01	8.400E-01	5.918E-02	0.340
		722.89		8.462E-01	1.870E+00	3.295E+00	2.309E-01	0.257
TE-132		49.72		9.142E-01	2.583E+00	4.531E+00	3.648E-01	0.202
		111.76		1.062E+00	4.880E+00	7.893E+00	6.275E-01	0.135
		116.30		-2.795E+00	4.044E+00	6.226E+00	4.903E-01	-0.449
		228.16	*	2.137E-02	9.794E-02	1.690E-01	2.273E-02	0.126
BA-133		53.15		1.528E-01	1.372E+00	2.214E+00	1.432E-01	0.069
		79.62		-5.601E-02	3.697E-01	6.102E-01	8.789E-02	-0.092
		81.00		-5.992E-03	2.962E-02	4.330E-02	6.552E-03	-0.138
		276.40		-3.313E-02	1.520E-01	2.494E-01	3.216E-02	-0.133
		302.84		-4.843E-02	5.851E-02	8.878E-02	1.030E-02	-0.545
		356.01	*	9.260E-03	1.767E-02	3.069E-02	3.521E-03	0.302
		383.85		3.313E-02	1.321E-01	2.221E-01	2.381E-02	0.149
I-133		510.53		-1.077E-03	1.321E-01	Half-Life too short		
		529.87	*	-2.768E-05	1.321E-01	Half-Life too short		
		706.58		4.598E-03	1.321E-01	Half-Life too short		
		856.28		-2.399E-03	1.321E-01	Half-Life too short		
		875.33		2.649E-04	1.321E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1236.41		-5.334E-03	1.321E-01	Half-Life too short		
		1298.22		-4.202E-04	1.321E-01	Half-Life too short		
CS-134		475.35		-7.000E-01	8.813E-01	1.266E+00	7.519E-02	-0.553
		563.23		-1.060E-01	1.694E-01	2.637E-01	1.685E-02	-0.402
		569.32		2.712E-02	9.819E-02	1.658E-01	1.070E-02	0.164
		604.70		-4.793E-03	1.569E-02	2.530E-02	1.623E-03	-0.189
		795.84	*	1.002E-03	1.914E-02	3.157E-02	2.407E-03	0.032
		801.93		1.159E-01	1.695E-01	3.059E-01	2.342E-02	0.379
		1038.57		-3.165E-01	1.298E+00	2.056E+00	1.474E-01	-0.154
		1167.94		-9.536E-01	8.136E-01	9.424E-01	5.251E-02	-1.012
		1365.15		2.354E-01	4.952E-01	9.009E-01	6.701E-02	0.261
CS-135		268.24	*	-4.225E-03	6.145E-02	1.024E-01	7.703E-03	-0.041
I-135		288.45		-1.253E+03	6.145E-02	Half-Life too short		
		417.63		5.849E+04	6.145E-02	Half-Life too short		
		546.56		-1.626E+04	6.145E-02	Half-Life too short		
		836.80		8.648E+04	6.145E-02	Half-Life too short		
		1038.76		-1.143E+04	6.145E-02	Half-Life too short		
		1124.00		-1.053E+05	6.145E-02	Half-Life too short		
		1131.51		1.720E+04	6.145E-02	Half-Life too short		
		1260.41	*	-1.388E+04	6.145E-02	Half-Life too short		
		1457.56		1.318E+05	6.145E-02	Half-Life too short		
		1678.03		5.884E+04	6.145E-02	Half-Life too short		
		1706.46		1.062E+05	6.145E-02	Half-Life too short		
		1791.20		2.230E+04	6.145E-02	Half-Life too short		
CS-136		66.91		-1.910E-03	2.164E-01	3.206E-01	4.600E-02	-0.006
		86.29		-5.212E-02	3.054E-01	4.138E-01	5.023E-02	-0.126
		153.22		-2.960E-02	1.957E-01	3.120E-01	2.154E-02	-0.095
		163.89		1.459E-01	3.520E-01	5.353E-01	3.613E-02	0.273
		176.55		4.440E-02	1.114E-01	1.851E-01	1.103E-02	0.240
		273.65		-5.642E-02	1.398E-01	2.255E-01	1.457E-02	-0.250
		340.57		2.211E-02	4.024E-02	7.002E-02	4.222E-03	0.316
		818.51		5.995E-03	2.374E-02	4.046E-02	3.131E-03	0.148
		1048.07	*	-4.328E-03	3.067E-02	4.981E-02	3.740E-03	-0.087
		1235.34		-5.269E-02	1.430E-01	2.165E-01	2.195E-02	-0.243
BA-137M		661.65	*	-9.763E-03	1.658E-02	2.382E-02	1.544E-03	-0.410
CS-137		661.65	*	-1.032E-02	1.752E-02	2.518E-02	1.638E-03	-0.410
CE-139		165.85	*	-8.805E-03	1.087E-02	1.609E-02	8.244E-04	-0.547
BA-140		162.64		1.895E-01	2.455E-01	3.856E-01	2.309E-02	0.491
		304.84		3.766E-01	4.175E-01	7.327E-01	1.998E-01	0.514
		423.70		3.415E-01	6.145E-01	1.054E+00	3.347E-01	0.324
		537.32	*	-4.135E-03	8.864E-02	1.486E-01	4.845E-02	-0.028
LA-140		328.77		-4.306E-02	9.448E-02	1.489E-01	9.511E-03	-0.289
		432.53		-4.638E-01	7.698E-01	1.086E+00	6.877E-02	-0.427
		487.03		-2.057E-02	4.816E-02	7.272E-02	4.899E-03	-0.283
		751.79		-9.587E-02	5.063E-01	8.034E-01	6.655E-02	-0.119
		815.85		-1.003E-01	1.131E-01	1.450E-01	1.277E-02	-0.692
		867.82		-1.711E-01	4.659E-01	7.045E-01	6.061E-02	-0.243
		919.63		8.824E-01	9.099E-01	1.716E+00	1.771E-01	0.514
		925.24		-1.524E-01	3.715E-01	5.500E-01	4.807E-02	-0.277

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1596.49	*	-1.689E-02	2.703E-02	3.677E-02	2.395E-03	-0.459
CE-141		145.44	*	-1.151E-02	2.126E-02	3.276E-02	1.907E-03	-0.351
CE-143		57.37		-7.576E+00	3.474E+01	5.776E+01	5.277E+00	-0.131
		231.56		8.495E-01	1.062E+02	1.799E+02	5.613E+01	0.005
		293.26	*	-1.136E+00	5.260E+00	8.568E+00	1.794E+00	-0.133
		350.59		-3.802E+01	7.788E+01	1.154E+02	3.539E+01	-0.329
		490.36		2.669E+01	1.520E+02	2.492E+02	7.798E+01	0.107
		664.57		1.972E+00	6.148E+01	1.025E+02	3.292E+01	0.019
		721.93		1.734E+01	5.838E+01	1.004E+02	2.920E+01	0.173
CE-144		80.11		-7.108E-02	6.059E-01	9.561E-01	6.787E-02	-0.074
		133.54	*	-7.041E-02	7.328E-02	1.073E-01	1.528E-02	-0.656
PM-144		476.78		7.664E-03	2.679E-02	4.491E-02	3.172E-03	0.171
		618.01		6.480E-03	1.509E-02	2.644E-02	1.779E-03	0.245
		696.49	*	9.010E-03	1.795E-02	3.133E-02	2.119E-03	0.288
		778.57		1.231E-01	9.725E-01	1.625E+00	1.205E-01	0.076
PR-144		696.49	*	6.092E-01	1.214E+00	2.118E+00	1.432E-01	0.288
		1489.15		3.808E+00	5.134E+00	9.885E+00	6.694E-01	0.385
PM-146		453.90	*	-2.129E-03	1.916E-02	3.052E-02	2.639E-03	-0.070
		633.02		-2.955E-01	6.125E-01	9.347E-01	3.452E-01	-0.316
		735.90		-2.393E-02	7.037E-02	1.097E-01	3.090E-02	-0.218
		747.13		4.858E-02	3.798E-02	7.336E-02	9.680E-03	0.662
ND-147		91.11		-1.403E-01	8.343E-02	1.452E-01	1.190E-02	-0.967
		319.41		5.851E-01	1.015E+00	1.781E+00	1.013E-01	0.328
		439.89		-1.357E+00	2.153E+00	3.225E+00	1.859E-01	-0.421
		531.02	*	-2.345E-01	1.932E-01	2.437E-01	3.335E-02	-0.962
PM-149		285.90	*	1.600E+00	8.800E+00	1.496E+01	2.110E+00	0.107
EU-152		121.78		4.718E-03	2.775E-02	4.611E-02	3.667E-03	0.102
		244.69		2.035E-02	1.370E-01	2.339E-01	1.294E-02	0.087
		344.27	*	-3.322E-02	3.944E-02	5.864E-02	3.758E-03	-0.566
		443.98		3.141E-01	4.589E-01	7.996E-01	4.624E-02	0.393
		778.89		-2.597E-02	1.154E-01	1.822E-01	1.352E-02	-0.143
		867.32		-5.580E-02	3.531E-01	5.568E-01	4.520E-02	-0.100
		964.01		4.548E-02	1.037E-01	1.808E-01	1.423E-02	0.252
		1085.78		-4.536E-02	1.562E-01	2.459E-01	1.634E-02	-0.184
		1112.02		4.077E-02	1.185E-01	2.095E-01	1.324E-02	0.195
		1407.95		-9.814E-03	9.490E-02	1.385E-01	9.564E-03	-0.071
GD-153		69.67		-8.595E-02	5.180E-01	8.188E-01	5.384E-02	-0.105
	+	83.37		9.145E-01	4.913E+00	7.610E+00	5.565E-01	0.120
		97.43	*	8.266E-03	3.011E-02	4.455E-02	3.098E-03	0.186
		103.18		9.892E-03	3.600E-02	6.088E-02	4.068E-03	0.162
EU-154		123.07		5.980E-03	2.001E-02	3.356E-02	3.243E-03	0.178
		247.94		-1.286E-01	1.485E-01	2.306E-01	2.165E-02	-0.558
		591.81		-7.920E-02	2.662E-01	4.279E-01	4.328E-02	-0.185
		723.30		2.684E-02	6.703E-02	1.173E-01	9.466E-03	0.229
		756.87		-1.498E-01	3.173E-01	4.789E-01	5.281E-02	-0.313
		873.19		6.843E-03	1.333E-01	2.183E-01	2.603E-02	0.031
		996.32		-2.037E-02	1.546E-01	2.539E-01	4.390E-02	-0.080
		1004.76		-4.127E-02	9.213E-02	1.430E-01	1.550E-02	-0.289
		1274.45	*	5.362E-03	4.298E-02	7.264E-02	7.078E-03	0.074

---- Non-Identified Nuclides ----

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EU-155		48.70		-1.252E+00	9.171E-01	1.304E+00	8.522E-02	-0.959
		60.01		4.844E-01	1.651E+00	2.666E+00	1.676E-01	0.182
		86.54		-8.297E-03	3.516E-02	4.720E-02	3.607E-03	-0.176
		105.31	*	3.018E-03	3.817E-02	6.342E-02	4.274E-03	0.048
TB-160		86.79		-1.636E-02	1.001E-01	1.204E-01	9.101E-03	-0.136
		197.04		6.145E-02	2.367E-01	3.695E-01	1.953E-02	0.166
		215.65		1.317E-01	2.574E-01	4.296E-01	2.315E-02	0.307
		298.57		3.293E-02	4.067E-02	7.291E-02	4.140E-03	0.452
		879.36	*	3.922E-02	5.540E-02	1.009E-01	8.283E-03	0.389
		962.29		-5.540E-02	1.967E-01	3.081E-01	2.430E-02	-0.180
		966.15		7.850E-03	7.459E-02	1.222E-01	9.601E-03	0.064
		1177.93		-9.447E-02	1.103E-01	1.437E-01	7.961E-03	-0.657
		1271.85		3.461E-02	2.768E-01	4.662E-01	2.984E-02	0.074
HO-166M		80.57		-6.537E-03	7.700E-02	1.219E-01	8.686E-03	-0.054
		184.41		-4.124E-03	1.641E-02	2.666E-02	1.390E-03	-0.155
		280.46		-5.532E-03	3.746E-02	6.186E-02	3.494E-03	-0.089
		410.95		-1.119E-02	9.330E-02	1.495E-01	8.367E-03	-0.075
		711.68	*	-9.327E-03	2.735E-02	4.293E-02	2.955E-03	-0.217
		752.31		-2.715E-02	9.801E-02	1.525E-01	1.099E-02	-0.178
		810.29		9.512E-03	2.395E-02	4.174E-02	3.200E-03	0.228
TM-171		51.35		-2.221E+00	1.084E+01	1.819E+01	1.185E+00	-0.122
		52.39		-7.336E-01	5.973E+00	9.446E+00	6.130E-01	-0.078
		59.40		2.589E+00	8.733E+00	1.378E+01	8.644E-01	0.188
		66.72	*	1.786E+00	9.623E+00	1.455E+01	9.419E-01	0.123
LU-176		88.36		-3.244E-02	7.445E-02	8.489E-02	6.469E-03	-0.382
		201.83		-3.946E-03	1.130E-02	1.734E-02	9.212E-04	-0.228
		306.84	*	4.568E-03	1.042E-02	1.805E-02	1.026E-03	0.253
		401.10		6.127E-01	2.746E+00	4.601E+00	2.547E-01	0.133
LU-177		112.95		1.078E-01	4.386E-01	7.111E-01	4.543E-02	0.152
		208.36	*	-1.011E-01	2.599E-01	3.958E-01	2.117E-02	-0.255
LU-177M		52.97		1.316E-02	6.054E-01	9.690E-01	6.271E-02	0.014
		54.07		4.677E-02	3.156E-01	5.097E-01	3.280E-02	0.092
		61.30		-7.545E-02	5.157E-01	7.910E-01	4.997E-02	-0.095
		121.62		2.846E-03	1.379E-01	2.263E-01	1.413E-02	0.013
		147.16		1.543E-01	2.244E-01	3.862E-01	2.140E-02	0.400
		171.86		6.869E-02	1.841E-01	3.054E-01	1.572E-02	0.225
		218.09		-1.229E-01	3.153E-01	4.769E-01	2.576E-02	-0.258
		268.79		-5.792E-02	2.974E-01	4.896E-01	2.751E-02	-0.118
		319.02		2.538E-02	1.055E-01	1.791E-01	1.018E-02	0.142
		367.43		-1.553E-01	3.793E-01	5.932E-01	3.314E-02	-0.262
		413.65	*	3.638E-03	6.520E-02	1.069E-01	6.001E-03	0.034
HF-181		56.28		-3.018E-01	2.779E-01	4.243E-01	2.699E-02	-0.711
		57.53		-3.300E-02	1.403E-01	2.330E-01	1.473E-02	-0.142
		65.20		8.116E-02	3.143E-01	4.798E-01	3.083E-02	0.169
		133.02		-5.915E-04	2.076E-02	3.375E-02	1.990E-03	-0.018
		136.25		3.392E-02	1.561E-01	2.590E-01	1.505E-02	0.131
		345.85		-7.142E-02	7.068E-02	1.022E-01	5.774E-03	-0.699
		482.03	*	-8.572E-03	1.662E-02	2.468E-02	1.474E-03	-0.347
W-181		56.28		-1.238E-01	1.139E-01	1.740E-01	1.106E-02	-0.712

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		57.53		-1.353E-02	5.759E-02	9.561E-02	6.044E-03	-0.142
		65.20	*	3.304E-02	1.279E-01	1.953E-01	1.255E-02	0.169
TA-182		67.75		-2.408E-02	3.727E-02	5.426E-02	3.530E-03	-0.444
		100.10		-4.148E-02	6.124E-02	8.965E-02	6.111E-03	-0.463
		152.43		-1.796E-02	1.200E-01	1.913E-01	1.037E-02	-0.094
		222.10		2.515E-02	1.332E-01	2.150E-01	1.166E-02	0.117
		1001.68		6.810E-01	9.116E-01	1.603E+00	1.208E-01	0.425
		1121.28		5.462E-02	4.726E-02	9.426E-02	5.848E-03	0.579
		1189.05		1.074E-02	1.056E-01	1.781E-01	1.004E-02	0.060
		1221.42	*	1.847E-02	6.780E-02	1.176E-01	6.975E-03	0.157
		1230.97		3.285E-02	1.324E-01	2.307E-01	1.389E-02	0.142
RE-183		57.98		-1.595E-02	5.625E-02	9.292E-02	5.862E-03	-0.172
		59.32		4.682E-03	3.491E-02	5.408E-02	3.393E-03	0.087
		67.20		-4.563E-03	6.711E-02	9.879E-02	6.409E-03	-0.046
		162.32	*	1.843E-02	4.411E-02	6.726E-02	3.497E-03	0.274
		208.81		6.749E-02	3.404E-01	5.504E-01	2.945E-02	0.123
		291.72		-2.442E-02	3.191E-01	5.279E-01	2.993E-02	-0.046
RE-184		57.98		-6.027E-02	2.126E-01	3.512E-01	2.216E-02	-0.172
		59.32		1.768E-02	1.318E-01	2.042E-01	1.281E-02	0.087
		67.20		-1.724E-02	2.536E-01	3.733E-01	2.422E-02	-0.046
		161.27		-6.224E-02	1.291E-01	1.984E-01	1.036E-02	-0.314
		216.55		-1.951E-02	9.939E-02	1.538E-01	8.299E-03	-0.127
		252.85	*	6.532E-02	8.739E-02	1.568E-01	8.724E-03	0.417
		318.01		-3.833E-02	1.822E-01	2.955E-01	1.680E-02	-0.130
		792.07		1.653E-01	3.935E-01	6.867E-01	5.166E-02	0.241
		903.28		-1.836E-02	4.362E-01	6.807E-01	5.665E-02	-0.027
		920.93		8.353E-02	1.925E-01	3.346E-01	2.745E-02	0.250
OS-185		59.72		3.219E-02	9.615E-02	1.522E-01	9.550E-03	0.212
		61.14		-1.789E-02	5.527E-02	8.318E-02	5.252E-03	-0.215
		69.30		-4.031E-02	9.248E-02	1.429E-01	9.379E-03	-0.282
		592.07		-1.524E-01	1.038E+00	1.704E+00	1.083E-01	-0.089
		646.12	*	-1.183E-03	1.650E-02	2.714E-02	1.754E-03	-0.044
		717.42		-2.569E-01	3.539E-01	5.124E-01	3.550E-02	-0.501
		874.81		9.292E-03	2.301E-01	3.762E-01	3.076E-02	0.025
		880.27		1.862E-01	3.162E-01	5.650E-01	4.643E-02	0.330
RE-188		155.03	*	2.169E-02	6.390E-02	1.062E-01	5.693E-03	0.204
		477.96		-4.880E-01	1.312E+00	2.004E+00	1.193E-01	-0.244
		633.10		-5.590E-01	1.170E+00	1.818E+00	1.171E-01	-0.308
W-188	+	63.58		4.310E+00	2.622E+01	3.470E+01	2.214E+00	0.124
		227.08		-9.099E-01	4.443E+00	7.396E+00	4.030E-01	-0.123
		290.67	*	-2.745E-01	2.520E+00	4.155E+00	2.355E-01	-0.066
IR-192		295.96		-7.774E-03	4.142E-02	6.508E-02	3.754E-03	-0.119
		308.46		9.959E-05	3.766E-02	6.260E-02	3.600E-03	0.002
		316.51	*	4.387E-03	1.312E-02	2.252E-02	1.287E-03	0.195
		468.07		-1.847E-02	2.704E-02	3.930E-02	2.664E-03	-0.470
		604.41		-8.787E-02	2.069E-01	3.287E-01	3.832E-02	-0.267
		612.46		-1.003E-01	3.263E-01	5.260E-01	4.231E-02	-0.191
AU-195		65.12		1.110E-02	6.057E-02	9.181E-02	5.896E-03	0.121
		66.83		6.403E-03	3.146E-02	4.767E-02	3.087E-03	0.134

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		75.70		-1.187E-02	6.082E-02	9.538E-02	6.531E-03	-0.124
		98.88	*	5.434E-02	8.036E-02	1.242E-01	8.537E-03	0.438
		129.76		4.304E-01	9.847E-01	1.668E+00	9.997E-02	0.258
TL-200		367.94	*	-5.415E-06	9.847E-01	Half-Life too short		
		579.30		-7.348E-05	9.847E-01	Half-Life too short		
		828.27		-1.330E-05	9.847E-01	Half-Life too short		
		1205.75		5.426E-05	9.847E-01	Half-Life too short		
TL-201		68.90		-5.014E-01	5.699E-01	8.437E-01	5.523E-02	-0.594
		70.82		-7.270E-02	3.073E-01	5.071E-01	3.357E-02	-0.143
		80.30		-8.151E-02	5.337E-01	8.388E-01	5.964E-02	-0.097
		135.34		5.173E-01	3.322E+00	5.486E+00	3.201E-01	0.094
		167.43	*	-1.728E-01	9.050E-01	1.427E+00	7.312E-02	-0.121
TL-202		68.90		-9.526E-02	1.083E-01	1.603E-01	1.049E-02	-0.594
		70.82		-1.377E-02	5.823E-02	9.608E-02	6.361E-03	-0.143
		80.30		-1.545E-02	1.011E-01	1.590E-01	1.130E-02	-0.097
		439.56	*	-1.845E-02	2.612E-02	3.870E-02	2.229E-03	-0.477
HG-203		70.83		-7.114E-02	3.031E-01	5.000E-01	6.218E-02	-0.142
		72.87		-7.565E-02	1.771E-01	2.873E-01	3.459E-02	-0.263
		82.60		-8.464E-02	3.218E-01	4.666E-01	6.034E-02	-0.181
		279.20	*	1.251E-02	1.604E-02	2.857E-02	1.718E-03	0.438
BI-207		72.80		-2.305E-02	5.549E-02	9.018E-02	6.047E-03	-0.256
		74.97		-1.679E-02	3.494E-02	5.357E-02	3.648E-03	-0.313
	+	84.90		1.197E-02	6.433E-02	1.039E-01	7.713E-03	0.115
		569.67		3.719E-03	1.531E-02	2.575E-02	1.621E-03	0.144
		1063.62	*	-1.956E-02	1.983E-02	2.615E-02	1.804E-03	-0.748
		1770.23		1.446E-01	2.611E-01	4.874E-01	2.877E-02	0.297
TL-207		81.07		-1.284E-02	6.541E-02	9.574E-02	6.854E-03	-0.134
	+	83.78		7.897E-03	4.242E-02	6.816E-02	5.003E-03	0.116
	+	94.90		9.951E-02	9.154E-02	1.411E-01	1.002E-02	0.705
		122.32		9.272E-02	6.933E-01	1.147E+00	8.124E-02	0.081
		144.24		-5.979E-02	2.740E-01	4.193E-01	2.969E-02	-0.143
		154.21		-1.946E-02	1.524E-01	2.435E-01	1.624E-02	-0.080
		269.46		-6.267E-03	7.248E-02	1.206E-01	7.103E-03	-0.052
		323.87	*	-1.392E-01	2.649E-01	4.122E-01	6.791E-02	-0.338
		338.28		-1.515E-01	4.628E-01	7.067E-01	7.391E-02	-0.214
		445.03		6.044E-01	1.093E+00	1.878E+00	1.927E-01	0.322
TL-208		277.35		4.098E-02	1.553E-01	2.657E-01	2.783E-02	0.154
		510.84		-4.082E-02	1.295E-01	2.396E-01	2.474E-02	-0.170
		583.14	*	-7.861E-03	1.740E-02	2.884E-02	2.063E-03	-0.273
		860.37		-7.803E-03	1.148E-01	1.842E-01	1.610E-02	-0.042
PO-209		260.50		5.385E+00	3.614E+00	6.861E+00	3.837E-01	0.785
		262.80		-9.093E+00	1.055E+01	1.624E+01	9.094E-01	-0.560
		896.60	*	-9.744E-01	3.614E+00	5.101E+00	4.257E-01	-0.191
BI-210		46.50	*	-1.456E-01	1.301E+00	2.161E+00	1.628E-01	-0.067
PB-210		46.50	*	-1.456E-01	1.301E+00	2.161E+00	1.628E-01	-0.067
PO-210		46.50	*	-1.456E-01	1.301E+00	2.161E+00	1.386E-01	-0.067
BI-211		72.87		-4.059E-01	9.495E-01	1.541E+00	1.034E-01	-0.263
		351.07	*	-5.112E-02	8.929E-02	1.327E-01	8.339E-03	-0.385
PB-211		404.84	*	-7.444E-02	3.775E-01	5.953E-01	3.710E-01	-0.125

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.08		-8.678E-01	1.032E+00	1.241E+00	7.671E-01	-0.699
		831.96		-2.277E-01	5.735E-01	8.460E-01	5.293E-01	-0.269
BI-212		727.18	*	-6.344E-02	1.257E-01	1.914E-01	1.657E-02	-0.331
		785.46		3.164E-01	6.353E-01	1.131E+00	8.452E-02	0.280
		1620.62		-4.212E-01	5.935E-01	7.977E-01	5.137E-02	-0.528
PB-212		74.81		-1.107E-02	1.180E-01	1.862E-01	2.152E-02	-0.059
		77.11		-9.354E-03	5.854E-02	9.682E-02	6.702E-03	-0.097
		87.30		3.040E-02	1.422E-01	1.833E-01	2.302E-02	0.166
		238.63	*	-7.877E-03	2.678E-02	4.419E-02	3.138E-03	-0.178
		300.09		-6.859E-02	2.991E-01	4.867E-01	3.973E-02	-0.141
PO-212		74.81		-1.107E-02	1.180E-01	1.862E-01	2.152E-02	-0.059
		77.11		-9.354E-03	5.854E-02	9.682E-02	6.702E-03	-0.097
		87.30		3.040E-02	1.422E-01	1.833E-01	2.302E-02	0.166
		115.19		-8.575E-01	1.336E+00	2.071E+00	1.314E-01	-0.414
		238.63	*	-7.877E-03	2.678E-02	4.419E-02	3.138E-03	-0.178
		300.09		-6.859E-02	2.991E-01	4.867E-01	3.973E-02	-0.141
BI-214		609.31	*	-2.118E-02	3.964E-02	5.884E-02	4.844E-03	-0.360
		1120.29		3.650E-02	1.160E-01	2.028E-01	1.842E-02	0.180
		1764.49		-1.231E-02	1.509E-01	2.236E-01	1.325E-02	-0.055
PB-214		74.81		-1.907E-02	2.033E-01	3.208E-01	3.226E-02	-0.059
		77.11		-1.604E-02	1.004E-01	1.660E-01	1.709E-02	-0.097
		87.30		5.209E-02	2.435E-01	3.139E-01	3.398E-02	0.166
		241.98		-1.036E-01	1.507E-01	2.414E-01	1.899E-02	-0.429
		295.21		-3.192E-02	5.542E-02	8.324E-02	7.026E-03	-0.383
		351.92	*	-2.370E-02	3.306E-02	4.867E-02	3.975E-03	-0.487
PO-214		74.81		-1.907E-02	2.033E-01	3.208E-01	3.226E-02	-0.059
		77.11		-1.604E-02	1.004E-01	1.660E-01	1.709E-02	-0.097
		87.30		5.209E-02	2.435E-01	3.139E-01	3.398E-02	0.166
		241.98		-1.036E-01	1.507E-01	2.414E-01	1.899E-02	-0.429
		295.21		-3.192E-02	5.542E-02	8.324E-02	7.026E-03	-0.383
		351.92	*	-2.370E-02	3.306E-02	4.867E-02	3.975E-03	-0.487
PO-215		81.07		-1.284E-02	6.541E-02	9.574E-02	6.854E-03	-0.134
	+	83.78		7.897E-03	4.242E-02	6.816E-02	5.003E-03	0.116
	+	94.90		9.951E-02	9.154E-02	1.411E-01	1.002E-02	0.705
		122.32		9.272E-02	6.933E-01	1.147E+00	8.124E-02	0.081
		144.24		-5.979E-02	2.740E-01	4.193E-01	2.969E-02	-0.143
		154.21		-1.946E-02	1.524E-01	2.435E-01	1.624E-02	-0.080
		269.46		-6.267E-03	7.248E-02	1.206E-01	7.103E-03	-0.052
		323.87	*	-1.392E-01	2.649E-01	4.122E-01	6.791E-02	-0.338
		338.28		-1.515E-01	4.628E-01	7.067E-01	7.391E-02	-0.214
		445.03		6.044E-01	1.093E+00	1.878E+00	1.927E-01	0.322
PO-216		74.81		-1.107E-02	1.180E-01	1.862E-01	2.152E-02	-0.059
		77.11		-9.354E-03	5.854E-02	9.682E-02	6.702E-03	-0.097
		87.30		3.040E-02	1.422E-01	1.833E-01	2.302E-02	0.166
		238.63	*	-7.877E-03	2.678E-02	4.419E-02	3.138E-03	-0.178
		300.09		-6.859E-02	2.991E-01	4.867E-01	3.973E-02	-0.141
PO-218		74.81		-1.907E-02	2.033E-01	3.208E-01	3.226E-02	-0.059
		77.11		-1.604E-02	1.004E-01	1.660E-01	1.709E-02	-0.097
		87.30		5.209E-02	2.435E-01	3.139E-01	3.398E-02	0.166

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		241.98		-1.036E-01	1.507E-01	2.414E-01	1.899E-02	-0.429
		295.21		-3.192E-02	5.542E-02	8.324E-02	7.026E-03	-0.383
		351.92	*	-2.370E-02	3.306E-02	4.867E-02	3.975E-03	-0.487
RN-219		271.23		-3.044E-02	9.457E-02	1.538E-01	1.228E-02	-0.198
		401.81	*	-1.522E-01	1.848E-01	2.701E-01	3.646E-02	-0.564
RN-220		549.76	*	-2.353E+00	9.916E+00	1.613E+01	1.006E+00	-0.146
RA-223		81.07		-1.284E-02	6.541E-02	9.574E-02	6.854E-03	-0.134
	+	83.78		7.897E-03	4.242E-02	6.816E-02	5.003E-03	0.116
	+	94.90		9.951E-02	9.154E-02	1.411E-01	1.002E-02	0.705
		122.32		9.272E-02	6.933E-01	1.147E+00	8.124E-02	0.081
		144.24		-5.979E-02	2.740E-01	4.193E-01	2.969E-02	-0.143
		154.21		-1.946E-02	1.524E-01	2.435E-01	1.624E-02	-0.080
		269.46		-6.267E-03	7.248E-02	1.206E-01	7.103E-03	-0.052
		323.87	*	-1.392E-01	2.649E-01	4.122E-01	6.791E-02	-0.338
		338.28		-1.515E-01	4.628E-01	7.067E-01	7.391E-02	-0.214
		445.03		6.044E-01	1.093E+00	1.878E+00	1.927E-01	0.322
RA-224		240.98	*	4.149E-02	2.804E-01	4.785E-01	2.639E-02	0.087
RA-226		609.31	*	-2.118E-02	3.964E-02	5.884E-02	4.844E-03	-0.360
		1120.29		3.650E-02	1.160E-01	2.028E-01	1.842E-02	0.180
		1764.49		-1.231E-02	1.509E-01	2.236E-01	1.325E-02	-0.055
AC-227		79.80		-9.482E-02	4.672E-01	7.669E-01	1.605E-01	-0.124
		236.00		-1.215E-01	9.114E-02	1.363E-01	1.402E-02	-0.891
		256.20	*	-1.946E-01	1.452E-01	2.069E-01	2.870E-02	-0.940
		286.10		-3.791E-02	5.773E-01	9.578E-01	1.101E-01	-0.040
		299.80		2.406E-02	5.422E-01	9.068E-01	1.473E-01	0.027
		304.40		1.405E-01	7.687E-01	1.300E+00	2.244E-01	0.108
		334.20		-2.163E-01	1.024E+00	1.657E+00	3.030E-01	-0.131
TH-227		79.80		-9.482E-02	4.672E-01	7.669E-01	1.627E-01	-0.124
	+	94.00		7.961E-01	7.494E-01	1.329E+00	2.824E-01	0.599
		236.00		-1.215E-01	9.092E-02	1.363E-01	1.208E-02	-0.891
		256.20	*	-1.946E-01	1.464E-01	2.069E-01	3.482E-02	-0.940
		286.10		-3.791E-02	5.786E-01	9.578E-01	9.593E-01	-0.040
		299.80		2.406E-02	5.422E-01	9.068E-01	1.473E-01	0.027
		304.40		1.405E-01	7.687E-01	1.300E+00	2.244E-01	0.108
		334.20		-2.163E-01	1.024E+00	1.657E+00	3.030E-01	-0.131
AC-228		338.32		-3.587E-02	1.118E-01	1.694E-01	6.902E-02	-0.212
	+	911.07	*	5.625E-02	7.598E-02	1.259E-01	1.382E-02	0.447
		969.11		-5.104E-02	1.065E-01	1.517E-01	3.498E-02	-0.336
RA-228		338.32		-3.587E-02	1.118E-01	1.694E-01	6.902E-02	-0.212
	+	911.07	*	5.625E-02	7.598E-02	1.259E-01	1.382E-02	0.447
		969.11		-5.104E-02	1.065E-01	1.517E-01	3.498E-02	-0.336
TH-228		74.81		-1.119E-02	1.192E-01	1.882E-01	1.297E-02	-0.059
		77.11		-9.455E-03	5.917E-02	9.786E-02	6.775E-03	-0.097
		87.30		3.073E-02	1.437E-01	1.852E-01	1.408E-02	0.166
		238.63	*	-7.962E-03	2.707E-02	4.467E-02	3.172E-03	-0.178
		300.09		-6.933E-02	3.050E-01	4.919E-01	2.899E-01	-0.141
TH-229	+	85.43		1.182E-02	6.351E-02	9.901E-02	7.386E-03	0.119
		88.47		-4.397E-02	4.129E-02	4.852E-02	3.692E-03	-0.906
		100.00		-1.791E-02	6.307E-02	9.653E-02	6.584E-03	-0.186

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		193.63	*	-1.640E-01	1.905E-01	2.758E-01	1.452E-02	-0.595
		210.97		-1.184E-01	2.819E-01	4.267E-01	2.289E-02	-0.277
TH-230		609.31	*	-2.118E-02	3.964E-02	5.884E-02	4.844E-03	-0.360
		1120.29		3.650E-02	1.160E-01	2.028E-01	1.842E-02	0.180
		1764.49		-1.231E-02	1.509E-01	2.236E-01	1.325E-02	-0.055
PA-231		283.67	*	-4.068E-01	6.254E-01	9.751E-01	1.338E-01	-0.417
		301.29		-1.988E-01	2.256E-01	3.406E-01	3.538E-02	-0.584
TH-231		81.07		-1.284E-02	6.541E-02	9.574E-02	6.854E-03	-0.134
	+	83.78		7.897E-03	4.242E-02	6.816E-02	5.003E-03	0.116
	+	94.90		9.951E-02	9.154E-02	1.411E-01	1.002E-02	0.705
		122.32		9.272E-02	6.933E-01	1.147E+00	8.124E-02	0.081
		144.24		-5.979E-02	2.740E-01	4.193E-01	2.969E-02	-0.143
		154.21		-1.946E-02	1.524E-01	2.435E-01	1.624E-02	-0.080
		269.46		-6.267E-03	7.248E-02	1.206E-01	7.103E-03	-0.052
		323.87	*	-1.392E-01	2.649E-01	4.122E-01	6.791E-02	-0.338
		338.28		-1.515E-01	4.628E-01	7.067E-01	7.391E-02	-0.214
		445.03		6.044E-01	1.093E+00	1.878E+00	1.927E-01	0.322
U-231	+	84.21		1.652E-01	8.877E-01	1.420E+00	1.047E-01	0.116
		92.29		-2.436E-01	4.246E-01	7.787E-01	5.674E-02	-0.313
	+	95.87	*	2.361E-01	2.171E-01	3.245E-01	2.286E-02	0.727
		108.00		-3.346E-01	3.757E-01	5.715E-01	3.724E-02	-0.586
TH-232		338.32		-3.587E-02	1.108E-01	1.694E-01	9.595E-03	-0.212
	+	911.07	*	5.625E-02	7.598E-02	1.259E-01	1.382E-02	0.447
		969.11		-5.104E-02	1.065E-01	1.517E-01	3.498E-02	-0.336
PA-233		75.28		-2.302E-01	1.002E+00	1.566E+00	2.257E-01	-0.147
		86.59		-9.588E-02	6.373E-01	7.680E-01	2.035E-01	-0.125
		300.12		-3.592E-02	1.545E-01	2.513E-01	3.364E-02	-0.143
		311.98	*	-1.188E-02	2.400E-02	3.757E-02	2.273E-03	-0.316
		340.50		1.403E-01	2.482E-01	4.293E-01	9.844E-02	0.327
		398.62		2.656E-01	9.078E-01	1.527E+00	3.939E-01	0.174
		415.76		-2.711E-01	6.964E-01	1.073E+00	2.204E-01	-0.253
PA-234	+	63.00		1.306E-01	7.946E-01	1.082E+00	1.554E-01	0.121
	+	94.67		7.099E-02	6.561E-02	1.026E-01	1.171E-02	0.692
		98.44		1.208E-02	3.501E-02	5.122E-02	2.845E-02	0.236
		99.86		-1.933E-02	1.766E-01	2.484E-01	1.696E-02	-0.078
		111.00		4.261E-02	7.569E-02	1.296E-01	1.378E-02	0.329
		131.20		-1.513E-02	3.818E-02	6.002E-02	3.571E-03	-0.252
		152.70		2.871E-02	1.169E-01	1.931E-01	3.026E-02	0.149
		186.00		-4.362E-01	6.214E-01	9.531E-01	2.902E-01	-0.458
		226.40		-9.822E-02	1.466E-01	2.330E-01	2.653E-02	-0.422
		227.20		-1.420E-02	1.573E-01	2.645E-01	1.442E-02	-0.054
		248.90		-3.896E-01	3.411E-01	4.979E-01	1.067E-01	-0.783
		293.70		-1.577E-01	2.629E-01	3.917E-01	6.281E-02	-0.403
		369.80		1.328E-01	3.407E-01	5.831E-01	1.211E-01	0.228
		568.70		2.531E-01	4.953E-01	8.565E-01	5.390E-02	0.296
		569.50		3.200E-02	1.357E-01	2.282E-01	1.437E-02	0.140
		574.00		-2.562E-01	6.425E-01	1.023E+00	6.453E-02	-0.250
		699.00		-1.898E-01	3.982E-01	5.528E-01	1.013E-01	-0.343
		706.10		3.627E-01	5.199E-01	8.907E-01	3.944E-01	0.407

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		733.00		1.470E-01	1.750E-01	3.156E-01	6.829E-02	0.466
		742.81		-4.177E-01	6.542E-01	8.610E-01	5.772E-01	-0.485
		796.30		-7.121E-02	3.695E-01	5.841E-01	1.561E-01	-0.122
		805.60		-4.792E-02	4.233E-01	6.780E-01	2.060E-01	-0.071
		819.60		9.635E-02	5.402E-01	9.052E-01	3.425E-01	0.106
		826.30		-8.967E-02	3.553E-01	5.501E-01	2.453E-01	-0.163
		831.60		-9.254E-02	2.859E-01	4.396E-01	1.302E-01	-0.211
		876.40		-2.342E-01	4.469E-01	5.418E-01	5.568E-01	-0.432
		880.51		4.606E-02	1.178E-01	2.043E-01	1.679E-02	0.226
		883.24		-9.324E-03	1.304E-01	2.086E-01	1.401E-01	-0.045
		899.00		3.138E-02	3.964E-01	5.967E-01	2.605E-01	0.053
		925.00		-3.550E-01	5.141E-01	7.157E-01	5.850E-02	-0.496
		926.50		1.811E-02	7.367E-02	1.241E-01	3.119E-02	0.146
		946.00	*	8.474E-02	1.408E-01	2.480E-01	4.586E-02	0.342
		949.00		9.072E-02	2.011E-01	3.487E-01	2.787E-02	0.260
		980.50		-2.541E-01	3.568E-01	4.978E-01	3.848E-02	-0.510
		1394.10		-3.429E-01	6.777E-01	9.280E-01	6.022E-01	-0.370
PA-234M		766.42		-3.658E+00	4.993E+00	6.638E+00	3.354E+00	-0.551
		1001.03	*	5.320E-01	2.141E+00	3.515E+00	3.181E-01	0.151
TH-234	+	63.29	*	1.120E-01	6.817E-01	9.200E-01	1.566E-01	0.122
		92.38		-1.374E-01	2.295E-01	4.185E-01	7.317E-02	-0.328
U-234		609.31	*	-2.118E-02	3.964E-02	5.884E-02	4.844E-03	-0.360
		1120.29		3.650E-02	1.160E-01	2.028E-01	1.842E-02	0.180
		1764.49		-1.231E-02	1.509E-01	2.236E-01	1.325E-02	-0.055
U-235		89.95		7.934E-02	3.399E-01	5.196E-01	1.588E-01	0.153
		93.35		-1.887E-01	2.758E-01	4.947E-01	1.367E-01	-0.381
		105.00		8.105E-02	3.746E-01	6.285E-01	1.843E-01	0.129
		143.76	*	1.959E-02	8.255E-02	1.312E-01	2.131E-02	0.149
		163.35		1.381E-01	1.946E-01	3.014E-01	5.362E-02	0.458
		185.71		-1.852E-02	2.254E-02	3.509E-02	1.832E-03	-0.528
		205.31		4.197E-02	2.039E-01	3.296E-01	5.880E-02	0.127
NP-236	+	94.67		5.384E-02	4.953E-02	7.788E-02	5.545E-03	0.691
		98.44		9.141E-03	2.598E-02	3.872E-02	2.671E-03	0.236
		111.00		3.223E-02	5.719E-02	9.799E-02	6.305E-03	0.329
		160.31	*	-2.946E-02	2.989E-02	4.350E-02	2.281E-03	-0.677
NP-237		86.50	*	-2.028E-02	8.601E-02	1.153E-01	2.534E-02	-0.176
	+	95.87		4.287E-01	4.066E-01	5.894E-01	1.422E-01	0.727
U-238	+	63.29	*	1.120E-01	6.817E-01	9.200E-01	1.566E-01	0.122
		92.38		-1.374E-01	2.285E-01	4.185E-01	3.046E-02	-0.328
NP-239		99.55		5.438E-03	5.992E-02	8.657E-02	5.924E-03	0.063
		117.00	*	2.884E-03	6.776E-02	1.116E-01	7.045E-03	0.026
		209.75		3.343E-02	2.766E-01	4.438E-01	2.378E-02	0.075
		228.18		1.062E-02	8.179E-02	1.401E-01	7.644E-03	0.076
		277.60		2.988E-02	7.589E-02	1.312E-01	7.402E-03	0.228
		334.30		-1.337E-01	5.786E-01	9.351E-01	5.303E-02	-0.143
AM-241		59.54	*	1.895E-02	5.127E-02	8.152E-02	5.793E-03	0.232
AM-243		74.67	*	-1.611E-04	1.931E-02	3.070E-02	2.086E-03	-0.005
		86.72		-5.687E-01	3.575E+00	4.305E+00	3.252E-01	-0.132
		117.66		2.686E-01	1.322E+00	2.209E+00	1.392E-01	0.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		-2.706E+00	7.109E+00	1.073E+01	6.073E-01	-0.252
CM-243		99.55		5.594E-03	6.164E-02	8.906E-02	6.094E-03	0.063
		103.76	*	2.738E-02	3.268E-02	5.785E-02	3.853E-03	0.473
		117.00		2.966E-03	6.969E-02	1.148E-01	7.246E-03	0.026
		209.75		3.295E-02	2.726E-01	4.374E-01	2.343E-02	0.075
		228.18		1.073E-02	8.262E-02	1.415E-01	7.721E-03	0.076
		277.60		3.012E-02	7.649E-02	1.322E-01	7.460E-03	0.228
AM-246		798.80		-5.310E-02	6.234E-02	8.739E-02	6.621E-03	-0.608
		1036.00		-4.232E-02	1.146E-01	1.781E-01	1.282E-02	-0.238
		1062.04		-3.597E-02	8.033E-02	1.213E-01	8.387E-03	-0.297
		1078.86	*	1.207E-02	6.092E-02	1.049E-01	7.055E-03	0.115
CM-247		278.00		1.955E-01	3.170E-01	5.574E-01	3.145E-02	0.351
		287.40		1.315E-01	4.994E-01	7.946E-01	4.499E-02	0.165
		402.60	*	-6.495E-03	1.580E-02	2.449E-02	1.358E-03	-0.265
CF-249		252.85		2.495E-01	3.338E-01	5.988E-01	3.333E-02	0.417
		333.44		-5.941E-03	7.669E-02	1.259E-01	7.138E-03	-0.047
		387.95	*	-1.961E-02	1.735E-02	2.441E-02	1.342E-03	-0.803
CF-251		176.60	*	1.928E-02	4.835E-02	8.034E-02	4.154E-03	0.240
		227.00		-3.743E-02	1.384E-01	2.290E-01	1.248E-02	-0.163
		285.00		-3.176E-02	6.796E-01	1.130E+00	6.394E-02	-0.028
ANH-511		511.00	*	-8.566E-03	2.799E-02	5.182E-02	3.158E-03	-0.165

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029817    *
* Acquisition date : 12-FEB-2010 17:51:43 Detector SN#     :               *
* Detector ID      : GAM12                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.55     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  2-FEB-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202029817          Analyst initials: RXF2            *
* Batch Number     : 947554               Sample Quantity : 1.6939E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	4.745E-03	1.229E-01	2.133E-01	0.000E+00 NOT IDENT.
NA-22	1.283E-03	1.490E-02	2.593E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	2.197E+03	0.000E+00	0.000E+00 SHORT HLIF
AL-26	-1.370E-03	1.827E-02	3.046E-02	0.000E+00 NOT IDENT.
K-40	-2.917E-02	2.192E-01	3.921E-01	0.000E+00 NOT IDENT.
TI-44	-4.166E-03	9.924E-03	1.816E-02	0.000E+00 NOT IDENT.
SC-46	-1.990E-03	1.524E-02	2.532E-02	0.000E+00 NOT IDENT.
V-48	1.941E-02	3.609E-02	5.184E-02	0.000E+00 NOT IDENT.
CR-51	8.221E-02	1.338E-01	2.553E-01	0.000E+00 NOT IDENT.
MN-52	3.747E-03	6.364E-02	1.085E-01	0.000E+00 NOT IDENT.
MN-54	7.393E-03	1.679E-02	3.058E-02	0.000E+00 NOT IDENT.
CO-56	6.981E-03	1.601E-02	2.934E-02	0.000E+00 NOT IDENT.
CO-57	4.999E-04	9.651E-03	1.775E-02	0.000E+00 NOT IDENT.
CO-58	5.282E-03	1.433E-02	2.626E-02	0.000E+00 NOT IDENT.
FE-59	1.090E-02	3.404E-02	6.230E-02	0.000E+00 NOT IDENT.
CO-60	1.486E-02	1.444E-02	3.001E-02	0.000E+00 NOT IDENT.
ZN-65	7.096E-03	3.398E-02	6.100E-02	0.000E+00 NOT IDENT.
GE-68	3.756E-01	5.046E-01	9.821E-01	0.000E+00 NOT IDENT.
AS-73	8.475E-02	2.990E-01	5.596E-01	0.000E+00 NOT IDENT.
AS-74	9.850E-03	3.528E-02	6.488E-02	0.000E+00 NOT IDENT.
SE-75	-1.128E-02	1.640E-02	2.812E-02	0.000E+00 NOT IDENT.
BR-77	2.909E-01	1.318E+00	2.321E+00	0.000E+00 NOT IDENT.
SR-82	1.617E-01	1.452E-01	2.897E-01	0.000E+00 NOT IDENT.
RB-83	5.520E-03	2.998E-02	5.254E-02	0.000E+00 NOT IDENT.
RB-84	3.437E-03	2.759E-02	4.803E-02	0.000E+00 NOT IDENT.
KR-85	-1.643E+01	5.605E+00	7.175E+00	0.000E+00 NOT IDENT.

SR-85	-8.047E-02	2.745E-02	3.514E-02	0.000E+00	NOT IDENT.
RB-86	1.591E-01	2.749E-01	5.232E-01	0.000E+00	NOT IDENT.
Y-88	-3.305E-03	1.829E-02	2.953E-02	0.000E+00	NOT IDENT.
ZR-88	6.922E-03	1.129E-02	2.137E-02	0.000E+00	NOT IDENT.
Y-91	6.499E+00	5.256E+00	1.125E+01	0.000E+00	NOT IDENT.
NB-94	-1.447E-02	1.547E-02	2.361E-02	0.000E+00	NOT IDENT.
NB-95	-1.003E-02	1.609E-02	2.509E-02	0.000E+00	NOT IDENT.
NB-95M	-5.715E-02	4.495E-02	7.459E-02	0.000E+00	NOT IDENT.
ZR-95	-2.896E-02	2.800E-02	3.716E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	5.058E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.856E+04	0.000E+00	0.000E+00	SHORT HLIF
MO-99	5.677E-01	1.514E+00	2.787E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.392E+10	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.009E-03	1.412E-02	2.419E-02	0.000E+00	NOT IDENT.
RH-102	-4.866E-03	1.242E-02	2.031E-02	0.000E+00	NOT IDENT.
RU-103	3.989E-03	1.820E-02	3.175E-02	0.000E+00	NOT IDENT.
RH-106	4.648E-02	1.380E-01	2.550E-01	0.000E+00	NOT IDENT.
RU-106	4.648E-02	1.380E-01	2.550E-01	0.000E+00	NOT IDENT.
AG-108M	-9.478E-03	1.520E-02	2.302E-02	0.000E+00	NOT IDENT.
CD-109	-9.048E-02	3.150E-01	4.182E-01	0.000E+00	NOT IDENT.
AG-110M	-3.151E-04	1.342E-02	2.359E-02	0.000E+00	NOT IDENT.
IN-111	8.596E-02	1.469E-01	2.836E-01	0.000E+00	NOT IDENT.
IN-113M	4.912E-04	1.789E-02	3.166E-02	0.000E+00	NOT IDENT.
SN-113	4.912E-04	1.789E-02	3.166E-02	0.000E+00	NOT IDENT.
IN-114M	-4.759E-03	6.144E-02	1.073E-01	0.000E+00	NOT IDENT.
CD-115	5.581E-01	1.136E+00	2.079E+00	0.000E+00	NOT IDENT.
SN-117M	-2.486E-03	1.618E-02	2.856E-02	0.000E+00	NOT IDENT.
SB-122	-2.678E-01	3.155E-01	5.103E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.357E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-6.306E-03	1.025E-02	1.730E-02	0.000E+00	NOT IDENT.
I-124	-8.482E-02	1.476E-01	2.450E-01	0.000E+00	NOT IDENT.
SB-124	-1.144E-02	3.973E-02	6.331E-02	0.000E+00	NOT IDENT.
SB-125	-5.050E-02	3.917E-02	5.648E-02	0.000E+00	NOT IDENT.
TE-125M	1.008E+00	3.360E+00	6.352E+00	0.000E+00	NOT IDENT.
I-126	2.962E-02	5.870E-02	1.103E-01	0.000E+00	NOT IDENT.
SB-126	-3.870E-02	4.372E-02	6.474E-02	0.000E+00	NOT IDENT.
SN-126	2.169E-02	2.705E-02	4.376E-02	0.000E+00	FAIL ABUN
SB-127	6.239E-02	2.193E-01	4.028E-01	0.000E+00	NOT IDENT.
XE-127	-5.919E-03	1.685E-02	2.849E-02	0.000E+00	NOT IDENT.
I-131	2.962E-02	3.147E-02	6.163E-02	0.000E+00	NOT IDENT.
TE-132	2.137E-02	9.598E-02	1.818E-01	0.000E+00	NOT IDENT.
BA-133	9.260E-03	1.732E-02	3.256E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.789E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.002E-03	1.876E-02	3.264E-02	0.000E+00	NOT IDENT.
CS-135	-4.225E-03	6.022E-02	1.096E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.567E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.328E-03	3.006E-02	5.103E-02	0.000E+00	NOT IDENT.
BA-137M	-9.763E-03	1.625E-02	2.477E-02	0.000E+00	NOT IDENT.
CS-137	-1.032E-02	1.717E-02	2.619E-02	0.000E+00	NOT IDENT.
CE-139	-8.805E-03	1.066E-02	1.747E-02	0.000E+00	NOT IDENT.
BA-140	-4.135E-03	8.687E-02	1.556E-01	0.000E+00	NOT IDENT.
LA-140	-1.689E-02	2.649E-02	3.713E-02	0.000E+00	NOT IDENT.
CE-141	-1.151E-02	2.083E-02	3.572E-02	0.000E+00	NOT IDENT.
CE-143	-1.136E+00	5.154E+00	9.146E+00	0.000E+00	NOT IDENT.
CE-144	-7.041E-02	7.182E-02	1.173E-01	0.000E+00	NOT IDENT.
PM-144	9.010E-03	1.759E-02	3.253E-02	0.000E+00	NOT IDENT.
PR-144	6.092E-01	1.189E+00	2.199E+00	0.000E+00	NOT IDENT.
PM-146	-2.129E-03	1.878E-02	3.214E-02	0.000E+00	NOT IDENT.
ND-147	-2.345E-01	1.894E-01	2.553E-01	0.000E+00	NOT IDENT.
PM-149	1.600E+00	8.624E+00	1.598E+01	0.000E+00	NOT IDENT.
EU-152	-3.322E-02	3.865E-02	6.228E-02	0.000E+00	NOT IDENT.
GD-153	8.266E-03	2.950E-02	4.915E-02	0.000E+00	FAIL ABUN
EU-154	5.362E-03	4.212E-02	7.391E-02	0.000E+00	NOT IDENT.
EU-155	3.018E-03	3.740E-02	6.981E-02	0.000E+00	NOT IDENT.
TB-160	3.922E-02	5.429E-02	1.039E-01	0.000E+00	NOT IDENT.
HO-166M	-9.327E-03	2.680E-02	4.454E-02	0.000E+00	NOT IDENT.
TM-171	1.786E+00	9.430E+00	1.623E+01	0.000E+00	NOT IDENT.
LU-176	4.568E-03	1.021E-02	1.924E-02	0.000E+00	NOT IDENT.
LU-177	-1.011E-01	2.547E-01	4.269E-01	0.000E+00	NOT IDENT.
LU-177M	3.638E-03	6.390E-02	1.129E-01	0.000E+00	NOT IDENT.
HF-181	-8.572E-03	1.629E-02	2.593E-02	0.000E+00	NOT IDENT.
W-181	3.304E-02	1.254E-01	2.180E-01	0.000E+00	NOT IDENT.
TA-182	1.847E-02	6.645E-02	1.198E-01	0.000E+00	NOT IDENT.
RE-183	1.843E-02	4.322E-02	7.311E-02	0.000E+00	NOT IDENT.
RE-184	6.532E-02	8.564E-02	1.681E-01	0.000E+00	NOT IDENT.
OS-185	-1.183E-03	1.617E-02	2.825E-02	0.000E+00	NOT IDENT.
RE-188	2.169E-02	6.262E-02	1.156E-01	0.000E+00	NOT IDENT.
W-188	-2.745E-01	2.469E+00	4.436E+00	0.000E+00	FAIL ABUN

IR-192	4.387E-03	1.285E-02	2.398E-02	0.000E+00	NOT IDENT.
AU-195	5.434E-02	7.876E-02	1.369E-01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	1.161E+01	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.728E-01	8.869E-01	1.549E+00	0.000E+00	NOT IDENT.
TL-202	-1.845E-02	2.560E-02	4.078E-02	0.000E+00	NOT IDENT.
HG-203	1.251E-02	1.572E-02	3.054E-02	0.000E+00	NOT IDENT.
BI-207	-1.956E-02	1.943E-02	2.677E-02	0.000E+00	FAIL ABUN
TL-207	-1.392E-01	2.596E-01	4.387E-01	0.000E+00	FAIL ABUN
TL-208	-7.861E-03	1.705E-02	3.012E-02	0.000E+00	NOT IDENT.
PO-209	-9.744E-01	3.542E+00	5.253E+00	0.000E+00	NOT IDENT.
BI-210	-1.456E-01	1.275E+00	2.435E+00	0.000E+00	NOT IDENT.
PB-210	-1.456E-01	1.275E+00	2.435E+00	0.000E+00	NOT IDENT.
PO-210	-1.456E-01	1.275E+00	2.435E+00	0.000E+00	NOT IDENT.
BI-211	-5.112E-02	8.750E-02	1.408E-01	0.000E+00	NOT IDENT.
PB-211	-7.444E-02	3.699E-01	6.291E-01	0.000E+00	NOT IDENT.
BI-212	-6.344E-02	1.232E-01	1.985E-01	0.000E+00	NOT IDENT.
PB-212	-7.877E-03	2.624E-02	4.748E-02	0.000E+00	NOT IDENT.
PO-212	-7.877E-03	2.624E-02	4.748E-02	0.000E+00	NOT IDENT.
BI-214	-2.118E-02	3.885E-02	6.137E-02	0.000E+00	NOT IDENT.
PB-214	-2.370E-02	3.240E-02	5.165E-02	0.000E+00	NOT IDENT.
PO-214	-2.370E-02	3.240E-02	5.165E-02	0.000E+00	NOT IDENT.
PO-215	-1.392E-01	2.596E-01	4.387E-01	0.000E+00	FAIL ABUN
PO-216	-7.877E-03	2.624E-02	4.748E-02	0.000E+00	NOT IDENT.
PO-218	-2.370E-02	3.240E-02	5.165E-02	0.000E+00	NOT IDENT.
RN-219	-1.522E-01	1.811E-01	2.855E-01	0.000E+00	NOT IDENT.
RN-220	-2.353E+00	9.718E+00	1.688E+01	0.000E+00	NOT IDENT.
RA-223	-1.392E-01	2.596E-01	4.387E-01	0.000E+00	FAIL ABUN
RA-224	4.149E-02	2.748E-01	5.138E-01	0.000E+00	NOT IDENT.
RA-226	-2.118E-02	3.885E-02	6.137E-02	0.000E+00	NOT IDENT.
AC-227	-1.946E-01	1.423E-01	2.218E-01	0.000E+00	NOT IDENT.
TH-227	-1.946E-01	1.435E-01	2.218E-01	0.000E+00	FAIL ABUN
AC-228	5.625E-02	7.446E-02	1.295E-01	0.000E+00	FAIL ABUN
RA-228	5.625E-02	7.446E-02	1.295E-01	0.000E+00	FAIL ABUN
TH-228	-7.962E-03	2.653E-02	4.799E-02	0.000E+00	NOT IDENT.
TH-229	-1.640E-01	1.867E-01	2.982E-01	0.000E+00	FAIL ABUN
TH-230	-2.118E-02	3.885E-02	6.137E-02	0.000E+00	NOT IDENT.
PA-231	-4.068E-01	6.129E-01	1.042E+00	0.000E+00	NOT IDENT.
TH-231	-1.392E-01	2.596E-01	4.387E-01	0.000E+00	FAIL ABUN
U-231	2.361E-01	2.128E-01	3.582E-01	0.000E+00	FAIL ABUN
TH-232	5.625E-02	7.446E-02	1.295E-01	0.000E+00	FAIL ABUN
PA-233	-1.188E-02	2.352E-02	4.002E-02	0.000E+00	NOT IDENT.
PA-234	8.474E-02	1.380E-01	2.549E-01	0.000E+00	FAIL ABUN
PA-234M	5.320E-01	2.099E+00	3.606E+00	0.000E+00	NOT IDENT.
TH-234	1.120E-01	6.681E-01	1.028E+00	0.000E+00	FAIL ABUN
U-234	-2.118E-02	3.885E-02	6.137E-02	0.000E+00	NOT IDENT.
U-235	1.959E-02	8.090E-02	1.431E-01	0.000E+00	NOT IDENT.
NP-236	-2.946E-02	2.929E-02	4.729E-02	0.000E+00	FAIL ABUN
NP-237	-2.028E-02	8.429E-02	1.277E-01	0.000E+00	FAIL ABUN
U-238	1.120E-01	6.681E-01	1.028E+00	0.000E+00	FAIL ABUN
NP-239	2.884E-03	6.640E-02	1.225E-01	0.000E+00	NOT IDENT.
AM-241	1.895E-02	5.025E-02	9.122E-02	0.000E+00	NOT IDENT.
AM-243	-1.611E-04	1.892E-02	3.413E-02	0.000E+00	NOT IDENT.
CM-243	2.738E-02	3.203E-02	6.372E-02	0.000E+00	NOT IDENT.
AM-246	1.207E-02	5.970E-02	1.074E-01	0.000E+00	NOT IDENT.
CM-247	-6.495E-03	1.549E-02	2.588E-02	0.000E+00	NOT IDENT.
CF-249	-1.961E-02	1.701E-02	2.583E-02	0.000E+00	NOT IDENT.
CF-251	1.928E-02	4.738E-02	8.710E-02	0.000E+00	NOT IDENT.
ANH-511	-8.566E-03	2.743E-02	5.435E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:52:12.28

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029817.CNF;1
Sample date       : 2-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 17:51:43
Sample ID         : G1202029817          Sample quantity  : 1.69389E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.55  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947554                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202029817 Acquisition date : 12-FEB-2010 17:51:43

Total number of lines in spectrum	4	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	4	100.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202029817 Acquisition date : 12-FEB-2010 17:51:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.45	6	91	0.98	126.37	122	8	8.61E-04	****	3.23E+00	T
0	84.49	5	43	1.44	168.47	166	6	6.67E-04	****	5.46E+00	T
2	94.95	31	54	1.16	189.40	178	17	4.25E-03	91.7	6.08E+00	T
0	911.14	12	11	1.69	1822.31	1817	9	1.67E-03	****	1.71E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:52:16.77

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029817.CNF;1 *
* Acquisition date : 12-FEB-2010 17:51:43  Detector SN#     :              *
* Detector ID      : GAM12                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:00.55         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 2-FEB-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID        : G1202029817           Analyst initials: RXF2           *
* Batch Number     : 947554                Sample Quantity : 1.69389E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24.5MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.745E-03		1.254E-01	2.029E-01	1.396E-02	0.023
NA-22	1.283E-03		1.521E-02	2.548E-02	1.641E-03	0.050
NA-24	-4.785E-04		1.121E-03	Half-Life too short		
AL-26	-1.370E-03		1.864E-02	3.030E-02	1.738E-03	-0.045
K-40	-2.917E-02		2.237E-01	3.871E-01	2.760E-02	-0.075
TI-44	-4.166E-03		1.013E-02	1.635E-02	1.144E-03	-0.255
SC-46	-1.990E-03		1.556E-02	2.458E-02	2.037E-03	-0.081
V-48	1.941E-02		3.682E-02	5.050E-02	3.891E-03	0.384
CR-51	8.221E-02		1.365E-01	2.398E-01	1.525E-02	0.343
MN-52	3.747E-03		6.494E-02	1.070E-01	7.353E-03	0.035
MN-54	7.393E-03		1.713E-02	2.963E-02	2.329E-03	0.249
CO-56	6.981E-03		1.634E-02	2.844E-02	2.262E-03	0.245
CO-57	4.999E-04		9.847E-03	1.619E-02	1.013E-03	0.031
CO-58	5.282E-03		1.463E-02	2.541E-02	1.955E-03	0.208
FE-59	1.090E-02		3.473E-02	6.092E-02	4.499E-03	0.179
CO-60	1.486E-02		1.473E-02	2.954E-02	2.063E-03	0.503
ZN-65	7.096E-03		3.468E-02	5.968E-02	3.754E-03	0.119

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GE-68	3.756E-01		5.149E-01	9.596E-01	6.470E-02	0.391
AS-73	8.475E-02		3.051E-01	4.985E-01	3.219E-02	0.170
AS-74	9.850E-03		3.600E-02	6.217E-02	3.957E-03	0.158
SE-75	-1.128E-02		1.674E-02	2.626E-02	1.488E-03	-0.430
BR-77	2.909E-01		1.345E+00	2.214E+00	1.358E-01	0.131
SR-82	1.617E-01		1.482E-01	2.800E-01	2.072E-02	0.577
RB-83	5.520E-03		3.059E-02	5.012E-02	3.073E-03	0.110
RB-84	3.437E-03		2.816E-02	4.661E-02	3.835E-03	0.074
KR-85	-1.643E+01		5.720E+00	6.842E+00	4.178E-01	-2.402
SR-85	-8.047E-02		2.801E-02	3.351E-02	2.046E-03	-2.402
RB-86	1.591E-01		2.806E-01	5.112E-01	3.451E-02	0.311
Y-88	-3.305E-03		1.867E-02	2.939E-02	1.654E-03	-0.112
ZR-88	6.922E-03		1.152E-02	2.021E-02	1.108E-03	0.343
Y-91	6.499E+00		5.363E+00	1.104E+01	6.382E-01	0.589
NB-94	-1.447E-02		1.579E-02	2.274E-02	1.549E-03	-0.636
NB-95	-1.003E-02		1.642E-02	2.424E-02	1.773E-03	-0.414
NB-95M	-5.715E-02		4.587E-02	6.941E-02	5.063E-03	-0.823
ZR-95	-2.896E-02		2.857E-02	3.589E-02	2.964E-03	-0.807
NB-97	1.012E-04		2.581E-04	Half-Life too short		
ZR-97	-4.694E-02		9.469E-03	Half-Life too short		
MO-99	5.677E-01		1.545E+00	2.689E+00	3.866E-01	0.211
TC-99M	-8.416E+04		4.792E+04	Half-Life too short		
RH-101	3.009E-03		1.441E-02	2.239E-02	1.184E-03	0.134
RH-102	-4.866E-03		1.267E-02	1.932E-02	1.147E-03	-0.252
RU-103	3.989E-03		1.857E-02	3.024E-02	3.857E-03	0.132
RH-106	4.648E-02		1.409E-01	2.447E-01	2.950E-02	0.190
RU-106	4.648E-02		1.408E-01	2.447E-01	1.571E-02	0.190
AG-108M	-9.478E-03		1.551E-02	2.183E-02	1.361E-03	-0.434
CD-109	-9.048E-02		3.214E-01	3.779E-01	2.892E-02	-0.239
AG-110M	-3.151E-04		1.370E-02	2.267E-02	1.545E-03	-0.014
IN-111	8.596E-02		1.499E-01	2.642E-01	1.462E-02	0.325
IN-113M	4.912E-04		1.826E-02	2.993E-02	1.762E-03	0.016
SN-113	4.912E-04		1.826E-02	2.993E-02	1.762E-03	0.016
IN-114M	-4.759E-03		6.269E-02	9.921E-02	5.204E-03	-0.048
CD-115	5.581E-01		1.159E+00	1.984E+00	1.222E-01	0.281
SN-117M	-2.486E-03		1.651E-02	2.626E-02	1.387E-03	-0.095
SB-122	-2.678E-01		3.219E-01	4.880E-01	3.065E-02	-0.549
I-123	-5.140E-03		4.264E-03	Half-Life too short		
TE-123M	-6.306E-03		1.046E-02	1.590E-02	8.521E-04	-0.397
I-124	-8.482E-02		1.506E-01	2.348E-01	1.499E-02	-0.361
SB-124	-1.144E-02		4.054E-02	6.283E-02	4.192E-03	-0.182
SB-125	-5.050E-02		3.997E-02	5.355E-02	3.183E-03	-0.943
TE-125M	1.008E+00		3.429E+00	5.776E+00	4.974E-01	0.174
I-126	2.962E-02		5.990E-02	1.060E-01	6.914E-03	0.279
SB-126	-3.870E-02		4.461E-02	6.242E-02	4.340E-03	-0.620
SN-126	2.169E-02		2.760E-02	3.954E-02	3.014E-03	0.549
SB-127	6.239E-02		2.238E-01	3.877E-01	3.357E-02	0.161
XE-127	-5.919E-03		1.720E-02	2.639E-02	1.404E-03	-0.224

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	2.962E-02		3.211E-02	5.813E-02	3.637E-03	0.510
TE-132	2.137E-02		9.794E-02	1.690E-01	2.273E-02	0.126
BA-133	9.260E-03		1.767E-02	3.069E-02	3.521E-03	0.302
I-133	-2.768E-05		3.974E-05	Half-Life too short		
CS-134	1.002E-03		1.914E-02	3.157E-02	2.407E-03	0.032
CS-135	-4.225E-03		6.145E-02	1.024E-01	7.703E-03	-0.041
I-135	-1.388E+04		1.820E+04	Half-Life too short		
CS-136	-4.328E-03		3.067E-02	4.981E-02	3.740E-03	-0.087
BA-137M	-9.763E-03		1.658E-02	2.382E-02	1.544E-03	-0.410
CS-137	-1.032E-02		1.752E-02	2.518E-02	1.638E-03	-0.410
CE-139	-8.805E-03		1.087E-02	1.609E-02	8.244E-04	-0.547
BA-140	-4.135E-03		8.864E-02	1.486E-01	4.845E-02	-0.028
LA-140	-1.689E-02		2.703E-02	3.677E-02	2.395E-03	-0.459
CE-141	-1.151E-02		2.126E-02	3.276E-02	1.907E-03	-0.351
CE-143	-1.136E+00		5.260E+00	8.568E+00	1.794E+00	-0.133
CE-144	-7.041E-02		7.328E-02	1.073E-01	1.528E-02	-0.656
PM-144	9.010E-03		1.795E-02	3.133E-02	2.119E-03	0.288
PR-144	6.092E-01		1.214E+00	2.118E+00	1.432E-01	0.288
PM-146	-2.129E-03		1.916E-02	3.052E-02	2.639E-03	-0.070
ND-147	-2.345E-01		1.932E-01	2.437E-01	3.335E-02	-0.962
PM-149	1.600E+00		8.800E+00	1.496E+01	2.110E+00	0.107
EU-152	-3.322E-02		3.944E-02	5.864E-02	3.758E-03	-0.566
GD-153	8.266E-03		3.011E-02	4.455E-02	3.098E-03	0.186
EU-154	5.362E-03		4.298E-02	7.264E-02	7.078E-03	0.074
EU-155	3.018E-03		3.817E-02	6.342E-02	4.274E-03	0.048
TB-160	3.922E-02		5.540E-02	1.009E-01	8.283E-03	0.389
HO-166M	-9.327E-03		2.735E-02	4.293E-02	2.955E-03	-0.217
TM-171	1.786E+00		9.623E+00	1.455E+01	9.419E-01	0.123
LU-176	4.568E-03		1.042E-02	1.805E-02	1.026E-03	0.253
LU-177	-1.011E-01		2.599E-01	3.958E-01	2.117E-02	-0.255
LU-177M	3.638E-03		6.520E-02	1.069E-01	6.001E-03	0.034
HF-181	-8.572E-03		1.662E-02	2.468E-02	1.474E-03	-0.347
W-181	3.304E-02		1.279E-01	1.953E-01	1.255E-02	0.169
TA-182	1.847E-02		6.780E-02	1.176E-01	6.975E-03	0.157
RE-183	1.843E-02		4.411E-02	6.726E-02	3.497E-03	0.274
RE-184	6.532E-02		8.739E-02	1.568E-01	8.724E-03	0.417
OS-185	-1.183E-03		1.650E-02	2.714E-02	1.754E-03	-0.044
RE-188	2.169E-02		6.390E-02	1.062E-01	5.693E-03	0.204
W-188	-2.745E-01		2.520E+00	4.155E+00	2.355E-01	-0.066
IR-192	4.387E-03		1.312E-02	2.252E-02	1.287E-03	0.195
AU-195	5.434E-02		8.036E-02	1.242E-01	8.537E-03	0.438
TL-200	-5.415E-06		5.922E-06	Half-Life too short		
TL-201	-1.728E-01		9.050E-01	1.427E+00	7.312E-02	-0.121
TL-202	-1.845E-02		2.612E-02	3.870E-02	2.229E-03	-0.477
HG-203	1.251E-02		1.604E-02	2.857E-02	1.718E-03	0.438
BI-207	-1.956E-02		1.983E-02	2.615E-02	1.804E-03	-0.748
TL-207	-1.392E-01		2.649E-01	4.122E-01	6.791E-02	-0.338
TL-208	-7.861E-03		1.740E-02	2.884E-02	2.063E-03	-0.273

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-209	-9.744E-01		3.614E+00	5.101E+00	4.257E-01	-0.191
BI-210	-1.456E-01		1.301E+00	2.161E+00	1.628E-01	-0.067
PB-210	-1.456E-01		1.301E+00	2.161E+00	1.628E-01	-0.067
PO-210	-1.456E-01		1.301E+00	2.161E+00	1.386E-01	-0.067
BI-211	-5.112E-02		8.929E-02	1.327E-01	8.339E-03	-0.385
PB-211	-7.444E-02		3.775E-01	5.953E-01	3.710E-01	-0.125
BI-212	-6.344E-02		1.257E-01	1.914E-01	1.657E-02	-0.331
PB-212	-7.877E-03		2.678E-02	4.419E-02	3.138E-03	-0.178
PO-212	-7.877E-03		2.678E-02	4.419E-02	3.138E-03	-0.178
BI-214	-2.118E-02		3.964E-02	5.884E-02	4.844E-03	-0.360
PB-214	-2.370E-02		3.306E-02	4.867E-02	3.975E-03	-0.487
PO-214	-2.370E-02		3.306E-02	4.867E-02	3.975E-03	-0.487
PO-215	-1.392E-01		2.649E-01	4.122E-01	6.791E-02	-0.338
PO-216	-7.877E-03		2.678E-02	4.419E-02	3.138E-03	-0.178
PO-218	-2.370E-02		3.306E-02	4.867E-02	3.975E-03	-0.487
RN-219	-1.522E-01		1.848E-01	2.701E-01	3.646E-02	-0.564
RN-220	-2.353E+00		9.916E+00	1.613E+01	1.006E+00	-0.146
RA-223	-1.392E-01		2.649E-01	4.122E-01	6.791E-02	-0.338
RA-224	4.149E-02		2.804E-01	4.785E-01	2.639E-02	0.087
RA-226	-2.118E-02		3.964E-02	5.884E-02	4.844E-03	-0.360
AC-227	-1.946E-01		1.452E-01	2.069E-01	2.870E-02	-0.940
TH-227	-1.946E-01		1.464E-01	2.069E-01	3.482E-02	-0.940
AC-228	5.625E-02	+	7.598E-02	1.259E-01	1.382E-02	0.447
RA-228	5.625E-02	+	7.598E-02	1.259E-01	1.382E-02	0.447
TH-228	-7.962E-03		2.707E-02	4.467E-02	3.172E-03	-0.178
TH-229	-1.640E-01		1.905E-01	2.758E-01	1.452E-02	-0.595
TH-230	-2.118E-02		3.964E-02	5.884E-02	4.844E-03	-0.360
PA-231	-4.068E-01		6.254E-01	9.751E-01	1.338E-01	-0.417
TH-231	-1.392E-01		2.649E-01	4.122E-01	6.791E-02	-0.338
U-231	2.361E-01	+	2.171E-01	3.245E-01	2.286E-02	0.727
TH-232	5.625E-02	+	7.598E-02	1.259E-01	1.382E-02	0.447
PA-233	-1.188E-02		2.400E-02	3.757E-02	2.273E-03	-0.316
PA-234	8.474E-02		1.408E-01	2.480E-01	4.586E-02	0.342
PA-234M	5.320E-01		2.141E+00	3.515E+00	3.181E-01	0.151
TH-234	1.120E-01	+	6.817E-01	9.200E-01	1.566E-01	0.122
U-234	-2.118E-02		3.964E-02	5.884E-02	4.844E-03	-0.360
U-235	1.959E-02		8.255E-02	1.312E-01	2.131E-02	0.149
NP-236	-2.946E-02		2.989E-02	4.350E-02	2.281E-03	-0.677
NP-237	-2.028E-02		8.601E-02	1.153E-01	2.534E-02	-0.176
U-238	1.120E-01	+	6.817E-01	9.200E-01	1.566E-01	0.122
NP-239	2.884E-03		6.776E-02	1.116E-01	7.045E-03	0.026
AM-241	1.895E-02		5.127E-02	8.152E-02	5.793E-03	0.232
AM-243	-1.611E-04		1.931E-02	3.070E-02	2.086E-03	-0.005
CM-243	2.738E-02		3.268E-02	5.785E-02	3.853E-03	0.473
AM-246	1.207E-02		6.092E-02	1.049E-01	7.055E-03	0.115
CM-247	-6.495E-03		1.580E-02	2.449E-02	1.358E-03	-0.265
CF-249	-1.961E-02		1.735E-02	2.441E-02	1.342E-03	-0.803
CF-251	1.928E-02		4.835E-02	8.034E-02	4.154E-03	0.240

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	-8.566E-03		2.799E-02	5.182E-02	3.158E-03	-0.165

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202029817          *
* Acquisition date : 12-FEB-2010 17:51:43 Detector SN#    :                *
* Detector ID      : GAM12                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.55     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  2-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202029817          Analyst initials: RXF2           *
* Batch Number     : 947554               Sample Quantity : 1.6939E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.745E-03	1.229E-01	1.067E-01	6.268E-02 NOT IDENT.
NA-22	1.283E-03	1.490E-02	1.297E-02	7.604E-03 NOT IDENT.
NA-24	-4.785E+02	2.197E+03	0.000E+00	1.121E+03 SHORT HLIF
AL-26	-1.370E-03	1.827E-02	1.524E-02	9.321E-03 NOT IDENT.
K-40	-2.917E-02	2.192E-01	1.962E-01	1.118E-01 NOT IDENT.
TI-44	-4.166E-03	9.924E-03	9.083E-03	5.063E-03 NOT IDENT.
SC-46	-1.990E-03	1.524E-02	1.267E-02	7.778E-03 NOT IDENT.
V-48	1.941E-02	3.609E-02	2.594E-02	1.841E-02 NOT IDENT.
CR-51	8.221E-02	1.338E-01	1.277E-01	6.826E-02 NOT IDENT.
MN-52	3.747E-03	6.364E-02	5.427E-02	3.247E-02 NOT IDENT.
MN-54	7.393E-03	1.679E-02	1.530E-02	8.566E-03 NOT IDENT.
CO-56	6.981E-03	1.601E-02	1.468E-02	8.168E-03 NOT IDENT.
CO-57	4.999E-04	9.651E-03	8.880E-03	4.924E-03 NOT IDENT.
CO-58	5.282E-03	1.433E-02	1.314E-02	7.313E-03 NOT IDENT.
FE-59	1.090E-02	3.404E-02	3.117E-02	1.737E-02 NOT IDENT.
CO-60	1.486E-02	1.444E-02	1.502E-02	7.365E-03 NOT IDENT.
ZN-65	7.096E-03	3.398E-02	3.052E-02	1.734E-02 NOT IDENT.
GE-68	3.756E-01	5.046E-01	4.913E-01	2.574E-01 NOT IDENT.
AS-73	8.475E-02	2.990E-01	2.799E-01	1.526E-01 NOT IDENT.
AS-74	9.850E-03	3.528E-02	3.246E-02	1.800E-02 NOT IDENT.
SE-75	-1.128E-02	1.640E-02	1.407E-02	8.369E-03 NOT IDENT.
BR-77	2.909E-01	1.318E+00	1.161E+00	6.726E-01 NOT IDENT.
SR-82	1.617E-01	1.452E-01	1.450E-01	7.409E-02 NOT IDENT.
RB-83	5.520E-03	2.998E-02	2.629E-02	1.530E-02 NOT IDENT.
RB-84	3.437E-03	2.759E-02	2.403E-02	1.408E-02 NOT IDENT.
KR-85	-1.643E+01	5.605E+00	3.590E+00	2.860E+00 NOT IDENT.

SR-85	-8.047E-02	2.745E-02	1.758E-02	1.400E-02	NOT IDENT.
RB-86	1.591E-01	2.749E-01	2.618E-01	1.403E-01	NOT IDENT.
Y-88	-3.305E-03	1.829E-02	1.477E-02	9.334E-03	NOT IDENT.
ZR-88	6.922E-03	1.129E-02	1.069E-02	5.758E-03	NOT IDENT.
Y-91	6.499E+00	5.256E+00	5.630E+00	2.682E+00	NOT IDENT.
NB-94	-1.447E-02	1.547E-02	1.181E-02	7.894E-03	NOT IDENT.
NB-95	-1.003E-02	1.609E-02	1.255E-02	8.209E-03	NOT IDENT.
NB-95M	-5.715E-02	4.495E-02	3.732E-02	2.293E-02	NOT IDENT.
ZR-95	-2.896E-02	2.800E-02	1.859E-02	1.429E-02	NOT IDENT.
NB-97	1.012E+02	5.058E+02	0.000E+00	2.581E+02	SHORT HLIF
ZR-97	-4.694E+04	1.856E+04	0.000E+00	9.469E+03	SHORT HLIF
MO-99	5.677E-01	1.514E+00	1.394E+00	7.726E-01	NOT IDENT.
TC-99M	-8.416E+10	9.392E+10	0.000E+00	4.792E+10	SHORT HLIF
RH-101	3.009E-03	1.412E-02	1.210E-02	7.205E-03	NOT IDENT.
RH-102	-4.866E-03	1.242E-02	1.016E-02	6.337E-03	NOT IDENT.
RU-103	3.989E-03	1.820E-02	1.588E-02	9.286E-03	NOT IDENT.
RH-106	4.648E-02	1.380E-01	1.276E-01	7.043E-02	NOT IDENT.
RU-106	4.648E-02	1.380E-01	1.276E-01	7.039E-02	NOT IDENT.
AG-108M	-9.478E-03	1.520E-02	1.152E-02	7.755E-03	NOT IDENT.
CD-109	-9.048E-02	3.150E-01	2.092E-01	1.607E-01	NOT IDENT.
AG-110M	-3.151E-04	1.342E-02	1.180E-02	6.849E-03	NOT IDENT.
IN-111	8.596E-02	1.469E-01	1.419E-01	7.496E-02	NOT IDENT.
IN-113M	4.912E-04	1.789E-02	1.584E-02	9.128E-03	NOT IDENT.
SN-113	4.912E-04	1.789E-02	1.584E-02	9.128E-03	NOT IDENT.
IN-114M	-4.759E-03	6.144E-02	5.369E-02	3.135E-02	NOT IDENT.
CD-115	5.581E-01	1.136E+00	1.040E+00	5.796E-01	NOT IDENT.
SN-117M	-2.486E-03	1.618E-02	1.429E-02	8.255E-03	NOT IDENT.
SB-122	-2.678E-01	3.155E-01	2.553E-01	1.610E-01	NOT IDENT.
I-123	-5.140E+03	8.357E+03	0.000E+00	4.264E+03	SHORT HLIF
TE-123M	-6.306E-03	1.025E-02	8.653E-03	5.231E-03	NOT IDENT.
I-124	-8.482E-02	1.476E-01	1.226E-01	7.529E-02	NOT IDENT.
SB-124	-1.144E-02	3.973E-02	3.167E-02	2.027E-02	NOT IDENT.
SB-125	-5.050E-02	3.917E-02	2.826E-02	1.999E-02	NOT IDENT.
TE-125M	1.008E+00	3.360E+00	3.178E+00	1.714E+00	NOT IDENT.
I-126	2.962E-02	5.870E-02	5.517E-02	2.995E-02	NOT IDENT.
SB-126	-3.870E-02	4.372E-02	3.239E-02	2.231E-02	NOT IDENT.
SN-126	2.169E-02	2.705E-02	2.189E-02	1.380E-02	FAIL ABUN
SB-127	6.239E-02	2.193E-01	2.015E-01	1.119E-01	NOT IDENT.
XE-127	-5.919E-03	1.685E-02	1.426E-02	8.599E-03	NOT IDENT.
I-131	2.962E-02	3.147E-02	3.083E-02	1.605E-02	NOT IDENT.
TE-132	2.137E-02	9.598E-02	9.094E-02	4.897E-02	NOT IDENT.
BA-133	9.260E-03	1.732E-02	1.629E-02	8.837E-03	NOT IDENT.
I-133	-2.768E+01	7.789E+01	0.000E+00	3.974E+01	SHORT HLIF
CS-134	1.002E-03	1.876E-02	1.633E-02	9.571E-03	NOT IDENT.
CS-135	-4.225E-03	6.022E-02	5.485E-02	3.073E-02	NOT IDENT.
I-135	-1.388E+10	3.567E+10	0.000E+00	1.820E+10	SHORT HLIF
CS-136	-4.328E-03	3.006E-02	2.553E-02	1.533E-02	NOT IDENT.
BA-137M	-9.763E-03	1.625E-02	1.239E-02	8.289E-03	NOT IDENT.
CS-137	-1.032E-02	1.717E-02	1.310E-02	8.762E-03	NOT IDENT.
CE-139	-8.805E-03	1.066E-02	8.742E-03	5.437E-03	NOT IDENT.
BA-140	-4.135E-03	8.687E-02	7.787E-02	4.432E-02	NOT IDENT.
LA-140	-1.689E-02	2.649E-02	1.857E-02	1.351E-02	NOT IDENT.
CE-141	-1.151E-02	2.083E-02	1.787E-02	1.063E-02	NOT IDENT.
CE-143	-1.136E+00	5.154E+00	4.576E+00	2.630E+00	NOT IDENT.
CE-144	-7.041E-02	7.182E-02	5.871E-02	3.664E-02	NOT IDENT.
PM-144	9.010E-03	1.759E-02	1.628E-02	8.976E-03	NOT IDENT.
PR-144	6.092E-01	1.189E+00	1.100E+00	6.068E-01	NOT IDENT.
PM-146	-2.129E-03	1.878E-02	1.608E-02	9.581E-03	NOT IDENT.
ND-147	-2.345E-01	1.894E-01	1.277E-01	9.661E-02	NOT IDENT.
PM-149	1.600E+00	8.624E+00	7.997E+00	4.400E+00	NOT IDENT.
EU-152	-3.322E-02	3.865E-02	3.116E-02	1.972E-02	NOT IDENT.
GD-153	8.266E-03	2.950E-02	2.459E-02	1.505E-02	FAIL ABUN
EU-154	5.362E-03	4.212E-02	3.698E-02	2.149E-02	NOT IDENT.
EU-155	3.018E-03	3.740E-02	3.493E-02	1.908E-02	NOT IDENT.
TB-160	3.922E-02	5.429E-02	5.200E-02	2.770E-02	NOT IDENT.
HO-166M	-9.327E-03	2.680E-02	2.228E-02	1.367E-02	NOT IDENT.
TM-171	1.786E+00	9.430E+00	8.122E+00	4.811E+00	NOT IDENT.
LU-176	4.568E-03	1.021E-02	9.624E-03	5.211E-03	NOT IDENT.
LU-177	-1.011E-01	2.547E-01	2.136E-01	1.300E-01	NOT IDENT.
LU-177M	3.638E-03	6.390E-02	5.649E-02	3.260E-02	NOT IDENT.
HF-181	-8.572E-03	1.629E-02	1.297E-02	8.311E-03	NOT IDENT.
W-181	3.304E-02	1.254E-01	1.091E-01	6.397E-02	NOT IDENT.
TA-182	1.847E-02	6.645E-02	5.994E-02	3.390E-02	NOT IDENT.
RE-183	1.843E-02	4.322E-02	3.657E-02	2.205E-02	NOT IDENT.
RE-184	6.532E-02	8.564E-02	8.409E-02	4.369E-02	NOT IDENT.
OS-185	-1.183E-03	1.617E-02	1.414E-02	8.249E-03	NOT IDENT.
RE-188	2.169E-02	6.262E-02	5.782E-02	3.195E-02	NOT IDENT.
W-188	-2.745E-01	2.469E+00	2.220E+00	1.260E+00	FAIL ABUN

IR-192	4.387E-03	1.285E-02	1.200E-02	6.559E-03	NOT IDENT.
AU-195	5.434E-02	7.876E-02	6.850E-02	4.018E-02	NOT IDENT.
TL-200	-5.415E+00	1.161E+01	0.000E+00	5.922E+00	SHORT HLIF
TL-201	-1.728E-01	8.869E-01	7.750E-01	4.525E-01	NOT IDENT.
TL-202	-1.845E-02	2.560E-02	2.040E-02	1.306E-02	NOT IDENT.
HG-203	1.251E-02	1.572E-02	1.528E-02	8.019E-03	NOT IDENT.
BI-207	-1.956E-02	1.943E-02	1.340E-02	9.915E-03	FAIL ABUN
TL-207	-1.392E-01	2.596E-01	2.195E-01	1.324E-01	FAIL ABUN
TL-208	-7.861E-03	1.705E-02	1.507E-02	8.698E-03	NOT IDENT.
PO-209	-9.744E-01	3.542E+00	2.628E+00	1.807E+00	NOT IDENT.
BI-210	-1.456E-01	1.275E+00	1.218E+00	6.503E-01	NOT IDENT.
PB-210	-1.456E-01	1.275E+00	1.218E+00	6.503E-01	NOT IDENT.
PO-210	-1.456E-01	1.275E+00	1.218E+00	6.503E-01	NOT IDENT.
BI-211	-5.112E-02	8.750E-02	7.044E-02	4.464E-02	NOT IDENT.
PB-211	-7.444E-02	3.699E-01	3.147E-01	1.887E-01	NOT IDENT.
BI-212	-6.344E-02	1.232E-01	9.931E-02	6.286E-02	NOT IDENT.
PB-212	-7.877E-03	2.624E-02	2.375E-02	1.339E-02	NOT IDENT.
PO-212	-7.877E-03	2.624E-02	2.375E-02	1.339E-02	NOT IDENT.
BI-214	-2.118E-02	3.885E-02	3.070E-02	1.982E-02	NOT IDENT.
PB-214	-2.370E-02	3.240E-02	2.584E-02	1.653E-02	NOT IDENT.
PO-214	-2.370E-02	3.240E-02	2.584E-02	1.653E-02	NOT IDENT.
PO-215	-1.392E-01	2.596E-01	2.195E-01	1.324E-01	FAIL ABUN
PO-216	-7.877E-03	2.624E-02	2.375E-02	1.339E-02	NOT IDENT.
PO-218	-2.370E-02	3.240E-02	2.584E-02	1.653E-02	NOT IDENT.
RN-219	-1.522E-01	1.811E-01	1.428E-01	9.241E-02	NOT IDENT.
RN-220	-2.353E+00	9.718E+00	8.444E+00	4.958E+00	NOT IDENT.
RA-223	-1.392E-01	2.596E-01	2.195E-01	1.324E-01	FAIL ABUN
RA-224	4.149E-02	2.748E-01	2.571E-01	1.402E-01	NOT IDENT.
RA-226	-2.118E-02	3.885E-02	3.070E-02	1.982E-02	NOT IDENT.
AC-227	-1.946E-01	1.423E-01	1.110E-01	7.261E-02	NOT IDENT.
TH-227	-1.946E-01	1.435E-01	1.110E-01	7.320E-02	FAIL ABUN
AC-228	5.625E-02	7.446E-02	6.480E-02	3.799E-02	FAIL ABUN
RA-228	5.625E-02	7.446E-02	6.480E-02	3.799E-02	FAIL ABUN
TH-228	-7.962E-03	2.653E-02	2.401E-02	1.353E-02	NOT IDENT.
TH-229	-1.640E-01	1.867E-01	1.492E-01	9.527E-02	FAIL ABUN
TH-230	-2.118E-02	3.885E-02	3.070E-02	1.982E-02	NOT IDENT.
PA-231	-4.068E-01	6.129E-01	5.212E-01	3.127E-01	NOT IDENT.
TH-231	-1.392E-01	2.596E-01	2.195E-01	1.324E-01	FAIL ABUN
U-231	2.361E-01	2.128E-01	1.792E-01	1.086E-01	FAIL ABUN
TH-232	5.625E-02	7.446E-02	6.480E-02	3.799E-02	FAIL ABUN
PA-233	-1.188E-02	2.352E-02	2.002E-02	1.200E-02	NOT IDENT.
PA-234	8.474E-02	1.380E-01	1.275E-01	7.040E-02	FAIL ABUN
PA-234M	5.320E-01	2.099E+00	1.804E+00	1.071E+00	NOT IDENT.
TH-234	1.120E-01	6.681E-01	5.141E-01	3.409E-01	FAIL ABUN
U-234	-2.118E-02	3.885E-02	3.070E-02	1.982E-02	NOT IDENT.
U-235	1.959E-02	8.090E-02	7.159E-02	4.127E-02	NOT IDENT.
NP-236	-2.946E-02	2.929E-02	2.366E-02	1.494E-02	FAIL ABUN
NP-237	-2.028E-02	8.429E-02	6.388E-02	4.301E-02	FAIL ABUN
U-238	1.120E-01	6.681E-01	5.141E-01	3.409E-01	FAIL ABUN
NP-239	2.884E-03	6.640E-02	6.129E-02	3.388E-02	NOT IDENT.
AM-241	1.895E-02	5.025E-02	4.564E-02	2.564E-02	NOT IDENT.
AM-243	-1.611E-04	1.892E-02	1.708E-02	9.654E-03	NOT IDENT.
CM-243	2.738E-02	3.203E-02	3.188E-02	1.634E-02	NOT IDENT.
AM-246	1.207E-02	5.970E-02	5.372E-02	3.046E-02	NOT IDENT.
CM-247	-6.495E-03	1.549E-02	1.295E-02	7.901E-03	NOT IDENT.
CF-249	-1.961E-02	1.701E-02	1.292E-02	8.677E-03	NOT IDENT.
CF-251	1.928E-02	4.738E-02	4.357E-02	2.417E-02	NOT IDENT.
ANH-511	-8.566E-03	2.743E-02	2.719E-02	1.399E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	58.4235
46.50	58.4235
46.50	58.4235
48.70	79.3375
49.72	56.4958
51.35	68.8464
52.39	60.4427
52.97	58.8243
53.15	58.8579
53.44	56.3128
54.07	56.4245
56.28	66.4246
56.28	66.4252
57.37	51.7374
57.53	51.7623
57.53	51.7626
57.60	51.7732
57.98	52.7107
57.98	52.7107
59.32	52.9205
59.32	52.9205
59.40	50.2862
59.54	50.3070
59.72	52.9826
60.01	45.0735
61.10	59.8450
61.14	59.8520
61.30	59.8794
63.00	66.8561
63.29	66.9107
63.29	66.9107
63.58	66.9653
64.28	68.4385
65.12	59.1827
65.20	56.5051
65.20	56.5051
66.05	60.6826
66.72	51.3365
66.83	51.3521
66.91	56.7701
67.20	58.1674
67.20	58.1674
67.75	70.4459
67.85	70.4653
68.90	69.7574
68.90	69.7574
69.30	64.3900
69.67	59.0064
70.82	71.9317
70.82	71.9317
70.83	71.9337
72.80	79.6221
72.87	79.6367
72.87	79.6367
74.67	67.1272
74.81	67.1510
74.81	67.1510
74.81	67.1510
74.81	67.1510
74.81	67.1510
74.81	67.1510
74.81	67.1510
74.97	76.3803
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75.70	71.9102
77.11	70.3114
77.11	70.3114

77.11	70.3114
77.11	70.3114
77.11	70.3114
77.11	70.3114
77.11	70.3114
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79.80	61.4604
79.80	61.4604
80.11	57.0332
80.18	57.0426
80.30	57.0591
80.30	57.0591
80.57	54.8567
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81.07	56.0431
81.07	56.0431
81.07	56.0431
81.07	56.0431
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83.78	53.5810
83.78	53.5810
84.21	57.3982
84.90	62.2020
85.43	59.4470
86.29	52.9455
86.50	52.9708
86.54	52.9757
86.59	51.0894
86.72	51.1046
86.79	51.1125
86.94	51.1301
87.30	42.6430
87.30	42.6430
87.30	42.6430
87.30	42.6430
87.30	42.6430
87.30	42.6430
87.30	42.6430
87.57	28.4460
87.88	37.0056
88.03	51.2559
88.36	51.2938
88.47	68.4086
89.95	57.1948
91.11	61.1641
92.29	61.3216
92.38	61.3337
92.38	61.3337
93.35	61.4622
94.00	61.5482
94.67	61.6357
94.67	61.6364
94.90	61.6667
94.90	61.6667
94.90	61.6667
94.90	61.6667
95.87	61.7936
95.87	61.7936
96.73	52.2334
97.43	50.8567
98.44	45.1391
98.44	45.1394
98.88	37.8933
99.55	49.6213
99.55	49.6213
99.86	49.6529
100.00	59.6006
100.10	67.7956
103.18	59.7906
103.76	50.0470
105.00	62.9593
105.31	64.9667
108.00	85.1011
109.28	75.3923

111.00	79.6224
111.00	79.6224
111.76	75.7507
112.95	77.9191
115.19	79.2491
116.30	77.4018
117.00	62.4036
117.00	62.4036
117.66	57.4407
121.11	75.0388
121.62	66.9876
121.78	67.0067
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122.32	74.1848
122.32	74.1848
122.32	74.1848
122.32	74.1848
123.07	69.1957
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136.48	67.6726
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140.51	0.0000
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142.65	72.5573
143.76	58.9913
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144.24	68.5236
144.24	68.5236
144.24	68.5236
145.22	73.9086
145.44	76.0466
147.16	54.0116
152.43	67.2624
152.70	60.8814
153.22	70.5493
154.21	73.8663
154.21	73.8663
154.21	73.8663
154.21	73.8663
155.03	69.6702
156.02	57.9655
158.56	67.8815
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161.27	69.2331
162.32	54.1707
162.64	47.6922
163.35	46.6559
163.89	52.1216
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167.43	57.8426
171.28	60.3504
171.86	62.5954
172.10	62.6163
176.55	59.6843
176.60	59.6884
181.06	67.8326
184.41	55.8482
185.71	70.4886
186.00	68.2769
190.27	59.6525
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193.63	68.9520
197.04	60.1679
198.01	60.2407
198.60	55.7351
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201.83	69.6631
202.84	70.8934
205.31	64.2259

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208.81	56.4359
209.75	55.3467
209.75	55.3467
210.97	63.5104
215.65	45.2846
216.55	58.1182
218.09	58.2225
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223.80	51.8667
226.40	63.4823
227.00	58.2314
227.08	58.2369
227.20	57.3620
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228.18	53.8916
228.18	53.8916
231.56	60.3031
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236.00	90.8982
236.00	90.8982
238.63	72.3915
238.63	72.3915
238.63	72.3915
238.63	72.3915
239.00	71.5259
240.98	79.7437
241.98	93.2836
241.98	93.2836
241.98	93.2836
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245.39	58.5150
247.94	70.4078
248.90	71.3828
249.79	56.9789
252.40	39.9032
252.85	43.5513
252.85	43.5513
254.15	0.0000
256.20	62.8218
256.20	62.8218
260.50	32.9211
260.90	37.5085
262.80	61.4129
264.65	57.8541
268.24	55.2969
268.79	54.4050
269.46	55.3638
269.46	55.3638
269.46	55.3638
269.46	55.3638
271.23	59.1582
273.65	59.2988
276.40	61.3151
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277.60	56.7361
278.00	54.8975
278.60	47.4810
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293.70	45.3303
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295.21	46.3398

295.21	46.3398
295.96	44.4792
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299.80	46.5349
299.80	46.5349
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300.09	51.2974
300.09	51.2974
300.09	51.2974
300.12	51.2982
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302.84	58.0913
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303.91	53.3810
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304.40	47.6830
304.84	38.1616
306.84	44.9202
308.46	45.9426
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323.87	48.5062
323.87	48.5062
323.87	48.5062
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334.20	56.7628
334.30	56.7672
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338.28	54.0097
338.28	54.0097
338.28	54.0097
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391.69	36.8619
391.69	36.8619
392.90	26.6463
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401.81	48.4831
402.60	41.2854
404.84	35.1497
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427.89	45.1823
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433.93	39.0387
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439.56	47.6614
439.89	47.6724
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487.03	33.8587
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510.53	0.0000
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511.00	46.5489
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511.85	58.7702
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513.99	153.2190
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529.87	0.0000
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537.32	29.7145
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569.32	29.3359
569.50	29.3391
569.67	29.3414
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602.71	39.1976
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604.70	38.3044
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609.31	32.7775
609.31	32.7775
610.33	32.7946
612.46	40.3356
614.37	30.0469
618.01	28.2217
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631.29	23.6774
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661.65	26.9192
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677.61	22.2824
685.20	14.5844
692.80	21.4667
695.00	28.3260
696.49	32.2556
696.49	32.2556
697.00	33.2405
697.49	36.1816
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698.50	34.2421
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720.50	24.7064
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722.78	16.8178
722.89	16.8186
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724.18	16.8282
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742.81	25.9518
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747.13	11.0005
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752.31	16.0371
753.82	19.0566
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756.15	22.0875
756.87	22.0945
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766.42	27.2281
766.84	24.2074
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778.89	22.3045
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792.07	16.3117

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798.80	27.6031
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805.60	19.4792
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831.60	23.8305
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856.28	0.0000
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875.33	0.0000
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884.67	14.8097
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896.60	15.9393
898.02	14.8849
899.00	12.7632
903.28	17.7551
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911.07	11.7525
911.07	11.7525
919.63	9.6462
920.93	13.9401
925.00	20.4046
925.24	17.1844
926.50	13.9687
935.52	20.4830
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946.00	15.1501
949.00	15.1666
962.29	15.2387
964.01	11.9805
966.15	16.3495
968.20	13.0890
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969.11	17.4578
969.11	17.4578
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980.50	24.1006
983.50	10.9663
989.30	26.3725
996.32	17.4406
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1001.68	7.3569
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1021.30	0.0000
1024.50	0.0000
1034.80	11.1602
1036.00	14.8861
1037.82	17.6880
1038.57	11.1738
1038.76	0.0000
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1046.59	9.3363
1048.07	12.1436

1050.47	16.8274
1050.47	16.8274
1062.04	13.1375
1063.62	17.8388
1076.63	12.2573
1077.35	11.3169
1078.86	15.0964
1085.78	15.1302
1099.22	13.2959
1112.02	11.4429
1112.84	9.5382
1115.52	14.3188
1120.29	14.3402
1120.29	14.3402
1120.29	14.3402
1120.29	14.3402
1120.51	15.2975
1121.28	6.6944
1124.00	0.0000
1129.67	14.3823
1131.51	0.0000
1147.95	0.0000
1167.94	15.5215
1173.22	6.8015
1175.09	5.8333
1177.93	13.6223
1189.05	11.7148
1204.90	3.9233
1205.75	0.0000
1213.00	12.7810
1221.42	11.8267
1230.97	7.9063
1235.34	12.8641
1236.41	0.0000
1238.25	14.8553
1246.25	19.8527
1260.41	0.0000
1271.85	11.9980
1274.45	9.0051
1274.54	9.0055
1291.56	13.0693
1298.22	0.0000
1312.09	11.1213
1325.50	9.1326
1325.50	9.1326
1332.49	4.0666
1333.61	3.0508
1360.21	11.2659
1362.66	0.0000
1365.15	6.1531
1368.21	6.1582
1368.53	0.0000
1376.25	9.2567
1384.27	11.3375
1394.10	16.5332
1395.20	14.4705
1407.95	9.3333
1434.06	9.3955
1436.60	6.2676
1457.56	0.0000
1460.81	9.4585
1489.15	4.2334
1509.49	9.5724
1596.49	8.3750
1620.62	7.4858
1678.03	0.0000
1691.02	9.5054
1691.02	9.5054
1706.46	0.0000
1750.46	0.0000
1764.49	4.8284
1764.49	4.8284
1764.49	4.8284
1764.49	4.8284
1770.23	5.8010
1771.40	5.8025
1791.20	0.0000
1808.65	8.7715

1836.01	7.8410

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202029817

Total Uranium Activity	3.4230E-01	ug/g
Total Uranium Counting Unc.	1.9879E+00	ug/g
Total Uranium Tpu	1.0142E-06	ug/g
Total Uranium Mda	1.5299E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947554                    SAMPLE ID  : G1202029817      *
*   ANALYST       : RXF2                      DETECTOR   : GAM12            *
*   SAMPLE DATE   :  2-FEB-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 17:51:43.00    SAMPLE ALQT:  169.389 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 3.293E-02
GROSS GAMMA ERROR   (pCi/GRAM  )  : 4.585E-02
GROSS GAMMA MDA     (pCi/GRAM  )  : 1.130E-01
GROSS GAMMA DLC     (pCi/GRAM  )  : 5.282E-02
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:53:03.35

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029818.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:52:24
Sample ID         : G1202029818          Sample quantity  : 1.69389E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:05.50  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.26*	11713	5526	1.03	126.77	121	10	1.63E+00	1.5	
2	0	74.93	661	4238	0.89	150.09	147	6	9.18E-02	16.1	
3	0	77.12	462	4002	0.94	154.46	153	6	6.41E-02	22.2	
4	0	84.00	1185	6315	1.70	168.21	164	9	1.65E-01	12.4	
5	3	92.61*	30187	4680	1.17	185.42	180	15	4.19E+00	0.7	4.06E+00
6	3	94.70	1315	3077	1.19	189.59	180	15	1.83E-01	12.4	
7	0	98.52	2336	3117	1.16	197.21	194	10	3.24E-01	5.0	
8	10	111.28	465	2304	1.27	222.73	220	11	6.46E-02	17.4	3.51E+00
9	10	112.84*	1463	2161	1.05	225.84	220	11	2.03E-01	5.8	
10	0	143.86*	1231	1760	1.15	287.81	284	9	1.71E-01	6.8	
11	0	163.43	601	1580	1.32	326.92	322	10	8.34E-02	13.0	
12	0	185.79*	6125	1769	1.20	371.60	366	13	8.51E-01	1.9	
13	0	205.33*	482	1051	1.08	410.64	407	9	6.70E-02	13.1	
14	0	209.16	131	850	1.31	418.29	415	8	1.81E-02	39.7	
15	2	238.69*	1382	610	1.35	477.31	471	17	1.92E-01	4.1	2.14E+00
16	2	241.42	328	743	1.71	482.76	471	17	4.55E-02	18.3	
17	0	258.20	368	855	1.26	516.28	512	11	5.12E-02	16.2	
18	0	270.78*	109	727	1.10	541.42	536	10	1.51E-02	47.9	
19	0	295.22*	425	643	1.27	590.26	585	11	5.90E-02	12.7	
20	0	338.60*	274	518	1.35	676.96	671	11	3.80E-02	17.5	
21	0	352.00*	714	475	1.44	703.74	699	11	9.92E-02	7.1	
22	0	511.19*	147	578	2.73	1021.88	1014	21	2.05E-02	44.4	
23	0	583.37*	410	355	1.55	1166.16	1159	15	5.70E-02	11.5	
24	0	609.41*	548	255	1.61	1218.20	1213	12	7.61E-02	7.5	
25	0	661.51	245	319	1.37	1322.34	1314	15	3.41E-02	17.1	
26	0	727.82*	131	207	1.22	1454.91	1449	12	1.83E-02	24.1	
27	0	742.58	294	254	1.80	1484.40	1477	14	4.08E-02	12.9	
28	0	766.40	1131	323	1.89	1532.04	1523	19	1.57E-01	4.8	
29	0	786.53	196	235	1.75	1572.27	1567	13	2.72E-02	17.3	
30	0	860.10	92	137	2.61	1719.34	1714	13	1.27E-02	28.3	
31	0	911.03*	350	162	1.75	1821.19	1812	18	4.87E-02	10.3	
32	0	946.04	62	88	1.59	1891.18	1887	9	8.61E-03	30.1	
33	0	969.37*	202	163	1.95	1937.82	1932	17	2.80E-02	17.1	
34	0	1000.98*	2409	167	2.16	2001.03	1990	23	3.35E-01	2.5	
35	0	1120.20*	106	105	1.49	2239.42	2231	14	1.47E-02	23.9	
36	0	1460.72*	2112	68	2.74	2920.48	2909	23	2.93E-01	2.4	
37	0	1764.87*	107	31	3.36	3528.94	3519	17	1.48E-02	16.4	
38	0	1868.38	20	16	2.53	3736.05	3728	14	2.73E-03	43.8	

Sample ID : G1202029818 Acquisition date : 12-FEB-2010 17:52:24

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1911.80	33	5	2.18	3822.93	3816	14	4.63E-03	21.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 19:53:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029818.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:52:24
Sample ID : G1202029818 Sample quantity : 169.39 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:05.50 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.297E+01	2.383E+00	3.805E-01	3.486E-02	60.368
NB-95	+	765.79	*	9.437E-01	1.378E-01	5.847E-02	6.394E-03	16.140
BA-137M	+	661.65	*	1.684E-01	6.028E-02	5.467E-02	5.765E-03	3.080
CS-137	+	661.65	*	1.780E-01	6.373E-02	5.779E-02	6.102E-03	3.080
LU-177	+	112.95		3.549E+01	5.067E+00	5.367E+00	4.462E-01	6.613
	+	208.36	*	2.185E+00	1.751E+00	2.347E+00	2.649E-01	0.931
TL-208		277.35		6.073E-01	3.887E-01	6.308E-01	1.040E-01	0.963
	+	510.84		3.520E-01	3.162E-01	1.986E-01	2.588E-02	1.772
	+	583.14	*	2.748E-01	6.965E-02	5.238E-02	5.680E-03	5.247
	+	860.37		5.565E-01	3.218E-01	3.775E-01	4.399E-02	1.474
BI-211		72.87		5.690E+00	6.052E+00	8.986E+00	7.192E-01	0.633
	+	351.07	*	2.265E+00	4.152E-01	3.112E-01	3.631E-02	7.278
BI-212	+	727.18	*	7.393E-01	3.665E-01	4.250E-01	5.076E-02	1.740
	+	785.46		6.997E+00	2.545E+00	2.798E+00	3.075E-01	2.501
		1620.62		4.705E-01	8.585E-01	1.503E+00	1.310E-01	0.313
PB-212	+	74.81		2.214E+00	7.625E-01	1.055E+00	1.310E-01	2.098
	+	77.11		8.799E-01	3.976E-01	5.792E-01	4.843E-02	1.519
		87.30		-7.552E-01	1.086E+00	1.214E+00	1.667E-01	-0.622
	+	238.63	*	1.024E+00	1.596E-01	9.250E-02	1.222E-02	11.068
		300.09		1.339E+00	8.389E-01	1.268E+00	1.850E-01	1.056
PO-212	+	74.81		2.214E+00	7.625E-01	1.055E+00	1.310E-01	2.098
	+	77.11		8.799E-01	3.976E-01	5.792E-01	4.843E-02	1.519
		87.30		-7.552E-01	1.086E+00	1.214E+00	1.667E-01	-0.622
		115.19		2.339E+01	6.436E+00	9.443E+00	7.823E-01	2.477
	+	238.63	*	1.024E+00	1.596E-01	9.250E-02	1.222E-02	11.068
		300.09		1.339E+00	8.389E-01	1.268E+00	1.850E-01	1.056
BI-214	+	609.31	*	6.886E-01	1.307E-01	9.854E-02	1.146E-02	6.988
	+	1120.29		6.644E-01	3.255E-01	3.626E-01	4.006E-02	1.833
	+	1764.49		8.725E-01	2.946E-01	2.235E-01	1.862E-02	3.904
PB-214	+	74.81		3.815E+00	1.296E+00	1.818E+00	2.004E-01	2.098
	+	77.11		1.508E+00	6.913E-01	9.929E-01	1.123E-01	1.519
		87.30		-1.294E+00	1.858E+00	2.080E+00	2.530E-01	-0.622
	+	241.98		1.454E+00	5.672E-01	5.444E-01	7.487E-02	2.670
	+	295.21		8.217E-01	2.420E-01	2.208E-01	3.288E-02	3.721

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	7.879E-01	1.502E-01	1.045E-01	1.333E-02	7.537
PO-214	+	74.81		3.815E+00	1.296E+00	1.818E+00	2.004E-01	2.098
	+	77.11		1.508E+00	6.913E-01	9.929E-01	1.123E-01	1.519
		87.30		-1.294E+00	1.858E+00	2.080E+00	2.530E-01	-0.622
	+	241.98		1.454E+00	5.672E-01	5.444E-01	7.487E-02	2.670
	+	295.21		8.217E-01	2.420E-01	2.208E-01	3.288E-02	3.721
	+	351.92	*	7.879E-01	1.502E-01	1.045E-01	1.333E-02	7.537
PO-216	+	74.81		2.214E+00	7.625E-01	1.055E+00	1.310E-01	2.098
	+	77.11		8.799E-01	3.976E-01	5.792E-01	4.843E-02	1.519
		87.30		-7.552E-01	1.086E+00	1.214E+00	1.667E-01	-0.622
	+	238.63	*	1.024E+00	1.596E-01	9.250E-02	1.222E-02	11.068
		300.09		1.339E+00	8.389E-01	1.268E+00	1.850E-01	1.056
PO-218	+	74.81		3.815E+00	1.296E+00	1.818E+00	2.004E-01	2.098
	+	77.11		1.508E+00	6.913E-01	9.929E-01	1.123E-01	1.519
		87.30		-1.294E+00	1.858E+00	2.080E+00	2.530E-01	-0.622
	+	241.98		1.454E+00	5.672E-01	5.444E-01	7.487E-02	2.670
	+	295.21		8.217E-01	2.420E-01	2.208E-01	3.288E-02	3.721
	+	351.92	*	7.879E-01	1.502E-01	1.045E-01	1.333E-02	7.537
RA-224	+	240.98	*	2.757E+00	1.064E+00	1.052E+00	1.316E-01	2.622
RA-226	+	609.31	*	6.886E-01	1.307E-01	9.854E-02	1.146E-02	6.988
	+	1120.29		6.644E-01	3.255E-01	3.626E-01	4.006E-02	1.833
	+	1764.49		8.725E-01	2.946E-01	2.235E-01	1.862E-02	3.904
AC-228	+	338.32		9.642E-01	5.280E-01	3.495E-01	1.470E-01	2.759
	+	911.07	*	1.005E+00	2.464E-01	1.665E-01	2.206E-02	6.037
	+	969.11		1.017E+00	4.258E-01	3.307E-01	7.985E-02	3.077
RA-228	+	338.32		9.642E-01	5.280E-01	3.495E-01	1.470E-01	2.759
	+	911.07	*	1.005E+00	2.464E-01	1.665E-01	2.206E-02	6.037
	+	969.11		1.017E+00	4.258E-01	3.307E-01	7.985E-02	3.077
TH-228	+	74.81		2.252E+00	7.470E-01	1.074E+00	8.846E-02	2.098
	+	77.11		8.951E-01	4.045E-01	5.892E-01	4.927E-02	1.519
		87.30		-7.683E-01	1.102E+00	1.235E+00	1.162E-01	-0.622
	+	238.63	*	1.042E+00	1.624E-01	9.410E-02	1.243E-02	11.068
		300.09		1.362E+00	1.166E+00	1.290E+00	7.762E-01	1.056
TH-230	+	609.31	*	6.886E-01	1.306E-01	9.854E-02	1.146E-02	6.988
	+	1120.29		6.644E-01	3.255E-01	3.626E-01	4.006E-02	1.833
	+	1764.49		8.724E-01	2.946E-01	2.235E-01	1.862E-02	3.904
U-231	+	84.21		9.028E+01	2.387E+01	2.435E+01	2.208E+00	3.707
	+	92.29		8.535E+02	7.851E+01	8.965E+00	8.175E-01	95.205
	+	95.87	*	2.263E+01	5.977E+00	3.890E+00	3.454E-01	5.818
		108.00		-3.798E+00	5.561E+00	7.788E+00	6.547E-01	-0.488
TH-232	+	338.32		9.642E-01	3.569E-01	3.495E-01	4.156E-02	2.759
	+	911.07	*	1.005E+00	2.464E-01	1.665E-01	2.206E-02	6.037
	+	969.11		1.017E+00	4.258E-01	3.307E-01	7.985E-02	3.077
PA-234M	+	766.42		2.441E+02	1.272E+02	1.514E+01	7.748E+00	16.127
	+	1001.03	*	2.466E+02	3.080E+01	4.855E+00	5.564E-01	50.790
TH-234	+	63.29	*	1.578E+02	2.788E+01	3.561E+00	6.198E-01	44.318
	+	92.38		1.574E+02	2.891E+01	1.653E+00	3.028E-01	95.260
U-234	+	609.31	*	6.886E-01	1.306E-01	9.854E-02	1.146E-02	6.988
	+	1120.29		6.644E-01	3.255E-01	3.626E-01	4.006E-02	1.833

Sample ID : G1202029818 Acquisition date : 12-FEB-2010 17:52:24

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1764.49		8.724E-01	2.946E-01	2.235E-01	1.862E-02	3.904
U-235		89.95		6.601E+00	3.311E+00	3.879E+00	1.205E+00	1.702
	+	93.35		1.893E+02	5.339E+01	1.975E+00	5.562E-01	95.823
		105.00		1.092E+00	1.706E+00	2.713E+00	8.087E-01	0.402
	+	143.76	*	3.107E+00	6.932E-01	4.586E-01	8.091E-02	6.774
	+	163.35		3.528E+00	1.151E+00	9.555E-01	1.872E-01	3.692
	+	185.71		3.303E+00	3.688E-01	8.166E-02	8.551E-03	40.452
	+	205.31		3.135E+00	1.040E+00	9.933E-01	2.023E-01	3.156
U-238	+	63.29	*	1.578E+02	2.788E+01	3.561E+00	6.198E-01	44.318
	+	92.38		1.574E+02	1.448E+01	1.653E+00	1.506E-01	95.260
AM-243	+	74.67	*	3.590E-01	1.190E-01	1.716E-01	1.398E-02	2.092
		86.72		-2.424E+01	2.254E+01	2.907E+01	2.716E+00	-0.834
		117.66		-6.727E+00	6.415E+00	8.787E+00	7.258E-01	-0.765
		142.18		1.597E+02	3.167E+01	4.702E+01	4.152E+00	3.397
ANH-511	+	511.00	*	7.602E-02	6.801E-02	4.291E-02	4.300E-03	1.772

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.486E-01	3.169E-01	5.018E-01	5.237E-02	-0.296
NA-22		1274.54	*	-1.702E-02	3.173E-02	5.059E-02	4.359E-03	-0.336
NA-24		1368.53	*	-2.000E+00	3.173E-02	Half-Life too short		
AL-26		1129.67		-5.680E-01	1.293E+00	1.991E+00	1.734E-01	-0.285
		1808.65	*	9.022E-03	2.169E-02	3.739E-02	3.058E-03	0.241
TI-44		67.85		-1.073E-01	8.079E-02	1.241E-01	9.472E-03	-0.865
	+	78.38	*	1.624E-01	7.339E-02	1.060E-01	8.986E-03	1.532
SC-46		889.25	*	-4.431E-02	3.482E-02	5.334E-02	5.971E-03	-0.831
	+	1120.51		1.158E-01	5.619E-02	7.955E-02	7.033E-03	1.455
V-48		944.10		1.560E+00	9.398E-01	1.473E+00	1.598E-01	1.059
		983.50	*	-1.686E-02	5.942E-02	9.586E-02	1.005E-02	-0.176
		1312.09		-1.085E-02	6.137E-02	9.991E-02	8.802E-03	-0.109
CR-51		320.08	*	-1.035E-03	3.664E-01	6.129E-01	7.936E-02	-0.002
MN-52		744.21		1.392E+00	4.251E-01	6.544E-01	7.111E-02	2.128
		848.13		9.316E+00	7.357E+00	1.289E+01	1.435E+00	0.723
		935.52		8.234E-02	2.500E-01	4.201E-01	4.587E-02	0.196
		1246.25		-4.982E+00	6.895E+00	1.092E+01	9.233E-01	-0.456
		1333.61		-9.199E-01	4.635E+00	7.516E+00	6.703E-01	-0.122
		1434.06	*	1.377E-01	2.366E-01	4.050E-01	3.619E-02	0.340
MN-54		834.83	*	2.803E-02	3.091E-02	5.348E-02	5.941E-03	0.524
CO-56		846.75	*	-1.577E-02	3.310E-02	5.376E-02	5.984E-03	-0.293
		977.42		2.383E-01	2.605E+00	3.682E+00	3.883E-01	0.065
		1037.82		6.089E-02	2.203E-01	3.665E-01	3.779E-02	0.166
		1175.09		-8.686E-01	1.623E+00	2.619E+00	2.109E-01	-0.332
		1238.25		1.352E-01	6.734E-02	1.214E-01	1.052E-02	1.114
		1360.21		-2.986E-01	7.479E-01	1.189E+00	1.062E-01	-0.251
		1771.40		-1.149E-02	1.872E-01	2.580E-01	2.144E-02	-0.045
CO-57		122.06	*	1.504E-02	3.770E-02	6.019E-02	4.964E-03	0.250
		136.48		-9.375E-02	2.811E-01	4.724E-01	4.383E-02	-0.198

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-4.562E-02	3.525E-02	5.476E-02	6.063E-03	-0.833
FE-59	+	142.65		4.142E+01	6.752E+00	7.941E+00	7.027E-01	5.216
		192.34		-8.821E-01	1.186E+00	1.764E+00	2.619E-01	-0.500
		1099.22	*	-3.417E-02	6.585E-02	1.029E-01	1.009E-02	-0.332
		1291.56		5.296E-02	8.609E-02	1.483E-01	1.462E-02	0.357
CO-60		1173.22		8.547E-03	3.124E-02	5.295E-02	4.258E-03	0.161
		1332.49	*	-5.405E-03	2.806E-02	4.553E-02	4.060E-03	-0.119
ZN-65		1115.52	*	-2.095E-03	7.977E-02	1.097E-01	9.784E-03	-0.019
GE-68		1077.35	*	4.230E-01	9.057E-01	1.518E+00	1.431E-01	0.279
AS-73		53.44	*	6.959E-01	1.446E+00	2.423E+00	1.831E-01	0.287
AS-74		595.88	*	9.605E-03	9.134E-02	1.520E-01	1.576E-02	0.063
		634.78		-2.215E-01	3.322E-01	5.293E-01	5.547E-02	-0.418
SE-75		66.05		-1.892E+01	8.867E+00	1.234E+01	1.177E+00	-1.534
		96.73		1.119E+01	2.449E+00	2.503E+00	3.445E-01	4.470
		121.11		1.512E-01	2.040E-01	3.272E-01	3.577E-02	0.462
		136.00		-1.150E-02	5.285E-02	8.904E-02	7.726E-03	-0.129
		198.60		-4.370E+00	2.158E+00	3.250E+00	3.798E-01	-1.345
		264.65	*	-7.638E-02	6.841E-02	7.433E-02	1.000E-02	-1.028
		279.53		1.086E-02	1.107E-01	1.776E-01	2.521E-02	0.061
		303.91		-1.243E+00	2.022E+00	3.322E+00	5.063E-01	-0.374
		400.65		-8.848E-02	2.392E-01	3.870E-01	4.529E-02	-0.229
BR-77		87.88		-5.500E+02	9.680E+02	1.088E+03	1.032E+02	-0.505
		200.40		2.299E+02	3.882E+02	5.690E+02	6.257E+01	0.404
	+	239.00		3.058E+02	4.567E+01	4.740E+01	5.898E+00	6.452
		249.79		6.146E+01	1.320E+02	2.157E+02	2.773E+01	0.285
		281.68		-1.793E+02	1.696E+02	2.587E+02	3.604E+01	-0.693
		297.23		3.036E+02	1.239E+02	1.869E+02	2.513E+01	1.624
		303.76		-1.664E+02	3.168E+02	5.229E+02	6.916E+01	-0.318
		439.47		-4.191E+01	2.438E+02	3.942E+02	3.794E+01	-0.106
		484.57		5.763E+01	4.013E+02	6.513E+02	6.439E+01	0.088
		520.65	*	-7.214E-01	2.018E+01	2.916E+01	2.935E+00	-0.025
		574.64		-3.307E+00	3.884E+02	6.164E+02	6.343E+01	-0.005
		578.91		-5.831E+01	1.689E+02	2.367E+02	2.440E+01	-0.246
		585.48		1.983E+03	4.259E+02	6.583E+02	6.800E+01	3.012
		755.35		1.054E+02	2.848E+02	4.692E+02	5.116E+01	0.225
		817.79		-2.974E+00	2.070E+02	3.459E+02	3.830E+01	-0.009
SR-82		698.33		3.494E+01	3.302E+01	5.600E+01	5.992E+00	0.624
		776.49	*	-2.738E-01	3.986E-01	5.887E-01	6.456E-02	-0.465
		1395.20		2.285E+00	8.434E+00	1.414E+01	1.265E+00	0.162
RB-83		520.41	*	1.780E-03	7.310E-02	1.060E-01	1.067E-02	0.017
		529.64		-1.016E-01	9.881E-02	1.581E-01	1.598E-02	-0.643
		552.65		-9.525E-02	1.809E-01	2.951E-01	3.011E-02	-0.323
RB-84		881.50	*	1.466E-01	6.855E-02	1.215E-01	1.359E-02	1.207
KR-85		513.99	*	1.549E+01	6.957E+00	1.181E+01	1.185E+00	1.312
SR-85		513.99	*	8.123E-02	3.648E-02	6.191E-02	6.212E-03	1.312
RB-86		1076.63	*	3.902E-01	6.145E-01	1.040E+00	9.816E-02	0.375
Y-88		898.02		1.046E-02	3.466E-02	5.831E-02	6.551E-03	0.179
		1836.01	*	1.367E-02	2.502E-02	4.362E-02	3.526E-03	0.313
ZR-88		392.90	*	1.082E-02	2.953E-02	4.916E-02	4.577E-03	0.220

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91		1204.90	*	-8.446E+00	1.348E+01	2.158E+01	1.774E+00	-0.391
NB-94		702.63	*	-3.710E-03	3.061E-02	4.970E-02	5.326E-03	-0.075
		871.10		-2.193E-02	2.805E-02	4.448E-02	4.969E-03	-0.493
NB-95M		235.69	*	-1.837E-02	1.466E-01	2.070E-01	2.737E-02	-0.089
ZR-95		724.18		8.311E-02	1.010E-01	1.474E-01	1.681E-02	0.564
		756.15	*	2.535E-02	7.121E-02	1.119E-01	1.299E-02	0.227
NB-97		657.90	*	5.663E-01	7.121E-02	Half-Life too short		
		1024.50		-3.520E+01	7.121E-02	Half-Life too short		
ZR-97		254.15		8.108E-01	7.121E-02	Half-Life too short		
		355.39		-9.890E-01	7.121E-02	Half-Life too short		
		507.63	*	3.693E+01	7.121E-02	Half-Life too short		
		602.52		-1.271E+01	7.121E-02	Half-Life too short		
		1021.30		2.240E+01	7.121E-02	Half-Life too short		
		1147.95		-1.813E+01	7.121E-02	Half-Life too short		
		1362.66		-1.182E+01	7.121E-02	Half-Life too short		
		1750.46		-1.204E+01	7.121E-02	Half-Life too short		
MO-99		140.51		7.238E+00	6.665E+01	9.893E+01	2.744E+01	0.073
		181.06		-4.047E-01	4.044E+01	5.886E+01	1.127E+01	-0.007
		366.43		8.311E+01	1.296E+02	2.188E+02	2.321E+01	0.380
		739.58	*	4.747E+01	2.577E+01	3.786E+01	6.268E+00	1.254
		778.00		-4.119E+01	5.763E+01	8.492E+01	9.317E+00	-0.485
TC-99M		140.51	*	2.202E+12	5.763E+01	Half-Life too short		
RH-101		127.23		-5.602E-03	4.584E-02	7.226E-02	6.040E-03	-0.078
		198.01	*	-5.785E-02	3.809E-02	5.896E-02	6.432E-03	-0.981
		325.23		-1.485E-01	2.076E-01	3.379E-01	4.200E-02	-0.440
RH-102		418.52		-1.066E-01	2.682E-01	4.317E-01	4.097E-02	-0.247
		475.06	*	6.768E-03	2.764E-02	4.511E-02	4.436E-03	0.150
		631.29		1.949E-02	4.664E-02	7.830E-02	8.199E-03	0.249
		697.49		1.613E-02	7.138E-02	1.177E-01	1.259E-02	0.137
	+	766.84		2.324E+00	3.392E-01	3.460E-01	3.784E-02	6.716
		1046.59		-2.179E-02	8.335E-02	1.337E-01	1.311E-02	-0.163
		1112.84		7.148E-02	1.927E-01	2.748E-01	2.460E-02	0.260
RU-103		497.08	*	5.851E-03	3.834E-02	6.211E-02	9.323E-03	0.094
	+	610.33		7.720E+00	1.789E+00	1.880E+00	3.324E-01	4.105
RH-106	+	511.85		3.812E-01	3.411E-01	3.181E-01	3.188E-02	1.199
		621.84	*	1.640E-01	2.844E-01	4.795E-01	7.002E-02	0.342
		1050.47		7.133E-01	1.676E+00	2.809E+00	2.741E-01	0.254
RU-106	+	511.85		3.812E-01	3.411E-01	3.181E-01	3.188E-02	1.199
		621.84	*	1.640E-01	2.839E-01	4.795E-01	5.009E-02	0.342
		1050.47		7.133E-01	1.676E+00	2.809E+00	2.741E-01	0.254
AG-108M		433.93	*	-8.739E-03	3.028E-02	4.878E-02	4.829E-03	-0.179
		614.37		-1.684E-02	3.765E-02	5.190E-02	5.556E-03	-0.324
		722.95		1.290E-02	4.319E-02	6.135E-02	6.788E-03	0.210
CD-109		88.03	*	-9.512E-01	2.415E+00	2.727E+00	2.588E-01	-0.349
AG-110M		657.75	*	2.146E-02	3.753E-02	5.467E-02	5.876E-03	0.393
		677.61		-8.638E-02	2.765E-01	4.462E-01	4.824E-02	-0.194
		706.67		-4.978E-02	1.923E-01	3.100E-01	3.387E-02	-0.161
		763.93		2.858E+00	4.066E-01	5.026E-01	5.591E-02	5.685
		884.67		1.755E-02	4.557E-02	7.692E-02	8.772E-03	0.228

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		937.48		1.444E-02	8.750E-02	1.402E-01	1.564E-02	0.103
		1384.27		-1.563E-01	1.289E-01	1.898E-01	1.741E-02	-0.824
IN-111		171.28		-5.765E-01	2.127E+00	3.519E+00	3.512E-01	-0.164
		245.39	*	6.622E-02	2.111E+00	2.987E+00	3.790E-01	0.022
IN-113M		391.69	*	1.154E-02	4.230E-02	7.023E-02	6.706E-03	0.164
SN-113		391.69	*	1.154E-02	4.230E-02	7.023E-02	6.706E-03	0.164
IN-114M		190.27	*	2.636E-02	2.307E-01	3.355E-01	3.567E-02	0.079
CD-115		260.90		3.018E+02	3.165E+02	4.578E+02	6.083E+01	0.659
		492.35		-3.058E+00	6.507E+01	1.046E+02	1.039E+01	-0.029
		527.90	*	-1.765E+01	1.896E+01	3.048E+01	3.078E+00	-0.579
SN-117M		156.02		-2.492E-01	3.099E+00	5.182E+00	4.859E-01	-0.048
		158.56	*	-9.474E-02	8.642E-02	1.229E-01	1.166E-02	-0.771
SB-122		563.90	*	-1.486E+00	3.348E+00	5.478E+00	5.615E-01	-0.271
		692.80		9.186E+00	6.906E+01	1.135E+02	1.212E+01	0.081
I-123		159.00	*	-1.264E+02	6.906E+01	Half-Life too short		
		528.96		-7.399E+03	6.906E+01	Half-Life too short		
TE-123M		159.00	*	-4.264E-02	4.051E-02	5.768E-02	5.509E-03	-0.739
I-124		602.71	*	-3.790E-01	1.025E+00	1.428E+00	1.483E-01	-0.265
		722.78		1.512E+00	6.403E+00	9.062E+00	9.780E-01	0.167
		1325.50		-2.114E+01	3.841E+01	5.734E+01	5.092E+00	-0.369
		1376.25		4.713E+01	3.265E+01	5.869E+01	5.245E+00	0.803
		1509.49		3.062E+01	1.734E+01	3.192E+01	2.837E+00	0.959
		1691.02		8.600E-01	3.662E+00	6.227E+00	5.325E-01	0.138
SB-124		602.71		-1.586E-02	4.289E-02	5.977E-02	6.209E-03	-0.265
		645.85		-1.982E-03	4.617E-01	7.596E-01	8.308E-02	-0.003
		709.31		5.098E-01	2.598E+00	4.273E+00	4.590E-01	0.119
		713.82		7.603E-01	1.552E+00	2.580E+00	3.522E-01	0.295
		722.78		9.171E-02	3.885E-01	5.498E-01	6.016E-02	0.167
	+	968.20		1.073E+01	3.842E+00	4.895E+00	5.205E-01	2.193
		1045.16		-1.905E-02	1.817E+00	2.965E+00	2.913E-01	-0.006
		1325.50		-1.370E+00	2.489E+00	3.716E+00	3.300E-01	-0.369
		1368.21		-3.873E-01	1.427E+00	2.295E+00	3.139E-01	-0.169
		1436.60		2.105E+00	2.966E+00	5.124E+00	4.579E-01	0.411
		1691.02	*	1.231E-02	5.240E-02	8.911E-02	7.927E-03	0.138
SB-125		427.89	*	-8.444E-02	8.730E-02	1.366E-01	1.325E-02	-0.618
		463.38		2.534E-01	2.690E-01	4.488E-01	4.654E-02	0.565
		600.56		-9.393E-02	1.641E-01	2.652E-01	2.895E-02	-0.354
		635.90		-1.964E-01	2.368E-01	3.688E-01	4.080E-02	-0.533
TE-125M		109.28	*	4.228E+01	1.897E+01	2.749E+01	2.785E+00	1.538
I-126		388.63		-5.527E-02	2.144E-01	3.495E-01	3.309E-02	-0.158
		666.33	*	8.112E-02	2.146E-01	3.090E-01	3.265E-02	0.263
		753.82		-5.464E-01	1.542E+00	2.456E+00	2.677E-01	-0.222
SB-126		223.80		-4.284E+00	5.138E+00	8.160E+00	9.682E-01	-0.525
		278.60		4.679E+00	2.851E+00	4.670E+00	6.527E-01	1.002
	+	296.50		9.214E+00	2.651E+00	3.105E+00	4.183E-01	2.968
		414.70		-9.198E-02	7.985E-02	1.243E-01	1.176E-02	-0.740
		415.30		-5.160E-01	6.426E+00	1.048E+01	9.927E-01	-0.049
		555.20		-1.803E+00	4.070E+00	6.664E+00	6.807E-01	-0.271
		573.80		-2.122E-01	1.136E+00	1.834E+00	1.887E-01	-0.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		593.00		-5.287E-01	9.649E-01	1.562E+00	1.618E-01	-0.338
		656.30		2.121E+00	3.842E+00	5.602E+00	5.901E-01	0.379
		666.33		3.406E-02	9.014E-02	1.298E-01	1.371E-02	0.263
		675.00		-1.712E+00	2.030E+00	3.186E+00	3.379E-01	-0.537
		695.00		-5.730E-02	8.132E-02	1.285E-01	1.373E-02	-0.446
		697.00		-7.976E-02	2.843E-01	4.588E-01	4.906E-02	-0.174
		720.50	*	-1.269E-02	1.659E-01	2.400E-01	2.589E-02	-0.053
		856.80		-2.714E-02	5.257E-01	7.461E-01	8.318E-02	-0.036
		989.30		2.579E-01	1.106E+00	1.732E+00	1.807E-01	0.149
		1034.80		-3.281E+00	6.996E+00	1.105E+01	1.099E+00	-0.297
		1213.00		1.124E-01	3.654E+00	6.088E+00	5.034E-01	0.018
SN-126	+	64.28		6.247E+01	9.244E+00	2.656E+00	3.858E-01	23.515
		86.94		-1.014E+00	9.434E-01	1.092E+00	4.533E-01	-0.929
		87.57	*	-9.887E-02	2.338E-01	2.640E-01	2.492E-02	-0.375
SB-127		61.10		6.718E+02	1.895E+02	2.747E+02	2.970E+01	2.446
		252.40		-3.927E-01	7.364E+00	1.095E+01	4.742E+00	-0.036
		290.80		8.718E+00	3.394E+01	5.035E+01	7.989E+00	0.173
		411.60		6.136E+00	1.652E+01	2.737E+01	4.558E+00	0.224
		444.90		1.214E+00	1.292E+01	2.110E+01	2.917E+00	0.058
		473.00		-1.364E+00	2.419E+00	3.812E+00	5.428E-01	-0.358
		543.00		2.506E+01	2.321E+01	3.976E+01	6.303E+00	0.630
		603.60		1.658E+01	1.735E+01	2.583E+01	3.700E+00	0.642
		685.20	*	-1.047E-02	1.823E+00	2.982E+00	4.041E-01	-0.004
		698.50		2.224E+01	2.060E+01	3.459E+01	6.045E+00	0.643
		722.20		2.713E+00	4.518E+01	6.324E+01	8.526E+00	0.043
		783.80		1.872E+01	6.815E+00	1.011E+01	1.485E+00	1.851
XE-127		57.60		1.138E+01	1.194E+01	1.919E+01	1.378E+00	0.593
	+	145.22		1.069E+01	1.743E+00	1.986E+00	1.776E-01	5.383
		172.10		9.742E-02	1.546E-01	2.598E-01	2.600E-02	0.375
		202.84	*	1.384E-01	6.548E-02	9.773E-02	1.083E-02	1.416
		374.96		3.085E-02	1.922E-01	3.191E-01	3.249E-02	0.097
I-131		80.18		1.097E+00	1.431E+01	1.649E+01	1.439E+00	0.067
		284.30		-1.196E-01	1.771E+00	2.822E+00	3.992E-01	-0.042
		364.48	*	-1.335E-01	1.272E-01	2.012E-01	2.232E-02	-0.663
		636.97		-8.136E-01	1.622E+00	2.575E+00	2.806E-01	-0.316
		722.89		2.415E+00	8.730E+00	1.239E+01	1.344E+00	0.195
TE-132		49.72		2.303E+01	4.845E+01	8.179E+01	8.989E+00	0.282
	+	111.76		2.595E+02	9.509E+01	1.699E+02	1.907E+01	1.528
		116.30		9.716E+01	7.359E+01	1.063E+02	1.188E+01	0.914
		228.16	*	1.153E+00	1.232E+00	2.022E+00	3.675E-01	0.570
BA-133		53.15		3.817E+00	6.099E+00	1.024E+01	7.767E-01	0.373
		79.62		-5.942E-01	3.377E+00	3.870E+00	5.887E-01	-0.154
		81.00		2.893E-01	2.553E-01	2.964E-01	4.724E-02	0.976
		276.40		4.660E-01	4.135E-01	6.235E-01	1.128E-01	0.747
		302.84		-8.392E-02	1.378E-01	2.263E-01	3.774E-02	-0.371
		356.01	*	-2.642E-02	4.597E-02	6.405E-02	9.571E-03	-0.413
		383.85		-4.920E-03	2.795E-01	4.602E-01	6.159E-02	-0.011
I-133	+	510.53		4.241E+00	2.795E-01	Half-Life too short		
		529.87	*	-3.056E-02	2.795E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.58		-5.678E-01	2.795E-01	Half-Life too short		
		856.28		-1.098E+00	2.795E-01	Half-Life too short		
		875.33		-1.108E+00	2.795E-01	Half-Life too short		
		1236.41		7.244E+00	2.795E-01	Half-Life too short		
		1298.22		-8.529E-01	2.795E-01	Half-Life too short		
CS-134		475.35		2.124E-02	1.823E+00	2.948E+00	2.899E-01	0.007
		563.23		2.651E-02	3.338E-01	5.578E-01	5.755E-02	0.048
		569.32		1.851E-01	1.858E-01	3.190E-01	3.308E-02	0.580
		604.70		1.669E-02	3.515E-02	5.133E-02	5.344E-03	0.325
		795.84	*	8.960E-02	4.669E-02	7.703E-02	8.526E-03	1.163
		801.93		-7.136E-01	4.116E-01	5.815E-01	6.439E-02	-1.227
		1038.57		6.125E-01	2.715E+00	4.502E+00	4.457E-01	0.136
		1167.94		3.217E-01	1.746E+00	2.946E+00	2.394E-01	0.109
		1365.15		3.114E-01	9.768E-01	1.602E+00	1.492E-01	0.194
CS-135		268.24	*	2.615E-02	1.935E-01	2.700E-01	3.905E-02	0.097
I-135		288.45		1.447E+12	1.935E-01	Half-Life too short		
		417.63		-1.677E+11	1.935E-01	Half-Life too short		
		546.56		1.968E+12	1.935E-01	Half-Life too short		
		836.80		1.422E+11	1.935E-01	Half-Life too short		
		1038.76		3.050E+11	1.935E-01	Half-Life too short		
		1124.00		1.459E+13	1.935E-01	Half-Life too short		
		1131.51		-6.558E+11	1.935E-01	Half-Life too short		
		1260.41	*	-3.110E+11	1.935E-01	Half-Life too short		
		1457.56		1.780E+14	1.935E-01	Half-Life too short		
		1678.03		3.327E+11	1.935E-01	Half-Life too short		
		1706.46		-4.663E+11	1.935E-01	Half-Life too short		
		1791.20		2.569E+11	1.935E-01	Half-Life too short		
CS-136		66.91		-4.260E+00	1.719E+00	2.251E+00	3.349E-01	-1.892
		86.29		-6.671E-02	2.693E+00	3.900E+00	5.193E-01	-0.017
		153.22		5.698E-01	9.168E-01	1.552E+00	1.585E-01	0.367
	+	163.89		8.940E+00	2.518E+00	2.928E+00	3.118E-01	3.053
		176.55		-5.678E-01	5.137E-01	8.282E-01	8.766E-02	-0.686
		273.65		-7.409E-01	6.132E-01	8.010E-01	1.133E-01	-0.925
		340.57		3.414E-01	1.598E-01	2.402E-01	2.879E-02	1.421
		818.51		-1.214E-03	6.996E-02	1.169E-01	1.295E-02	-0.010
		1048.07	*	-2.639E-02	8.817E-02	1.410E-01	1.426E-02	-0.187
		1235.34		1.085E+00	4.866E-01	8.700E-01	1.017E-01	1.247
CE-139		165.85	*	2.647E-02	4.262E-02	6.346E-02	6.224E-03	0.417
BA-140	+	162.64		6.315E+00	1.767E+00	2.055E+00	2.078E-01	3.073
		304.84		-1.645E+00	1.446E+00	2.205E+00	6.559E-01	-0.746
		423.70		2.114E+00	2.077E+00	3.329E+00	1.088E+00	0.635
		537.32	*	-4.820E-02	2.739E-01	4.545E-01	1.526E-01	-0.106
LA-140		328.77		3.764E-01	3.129E-01	5.347E-01	6.755E-02	0.704
		432.53		-4.551E-01	2.172E+00	3.494E+00	3.481E-01	-0.130
		487.03		-4.056E-02	1.443E-01	2.299E-01	2.383E-02	-0.176
		751.79		-1.114E+00	1.849E+00	2.835E+00	3.299E-01	-0.393
		815.85		3.517E-01	3.014E-01	5.274E-01	6.254E-02	0.667
		867.82		9.965E-01	1.404E+00	2.104E+00	2.424E-01	0.474
		919.63		-3.660E+00	3.256E+00	4.346E+00	5.515E-01	-0.842

---- Non-Identified Nuclides ----

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		925.24		2.201E+00	1.191E+00	2.094E+00	2.393E-01	1.051
		1596.49	*	-8.569E-02	7.114E-02	1.045E-01	9.163E-03	-0.820
CE-141		145.44	*	6.667E-01	1.197E-01	1.739E-01	1.583E-02	3.835
CE-143		57.37		3.910E-03	1.197E-01	Half-Life too short		
		231.56		-3.685E-03	1.197E-01	Half-Life too short		
		293.26	*	1.502E-03	1.197E-01	Half-Life too short		
	+	350.59		5.248E-02	1.197E-01	Half-Life too short		
		490.36		2.765E-04	1.197E-01	Half-Life too short		
		664.57		9.170E-03	1.197E-01	Half-Life too short		
		721.93		3.695E-04	1.197E-01	Half-Life too short		
CE-144		80.11		3.926E-01	5.513E+00	6.353E+00	5.491E-01	0.062
		133.54	*	-1.268E-01	2.790E-01	4.678E-01	7.261E-02	-0.271
PM-144		476.78		-1.660E-02	6.460E-02	1.033E-01	1.090E-02	-0.161
		618.01		1.288E-02	2.873E-02	4.733E-02	5.032E-03	0.272
		696.49	*	-2.620E-02	3.305E-02	5.199E-02	5.561E-03	-0.504
		778.57		-1.215E+00	2.357E+00	3.406E+00	3.738E-01	-0.357
PR-144		696.49	*	-1.777E+00	2.242E+00	3.527E+00	3.771E-01	-0.504
		1489.15		6.626E+00	7.694E+00	1.364E+01	1.215E+00	0.486
PM-146		453.90	*	1.601E-02	4.185E-02	6.887E-02	8.004E-03	0.232
		633.02		1.658E-01	1.187E+00	1.966E+00	7.441E-01	0.084
		735.90		1.022E-01	1.840E-01	2.357E-01	6.918E-02	0.434
		747.13		9.070E-02	9.908E-02	1.446E-01	2.246E-02	0.627
ND-147		91.11		5.336E+01	5.381E+00	2.133E+00	2.107E-01	25.019
		319.41		1.242E+00	3.547E+00	5.994E+00	7.588E-01	0.207
		439.89		-5.164E-01	6.107E+00	9.908E+00	9.542E-01	-0.052
		531.02	*	-1.284E-02	5.886E-01	9.850E-01	1.562E-01	-0.013
PM-149		285.90	*	-9.224E+00	1.765E+02	2.813E+02	5.323E+01	-0.033
EU-152		121.78		4.803E-02	1.091E-01	1.743E-01	1.673E-02	0.276
		244.69		1.554E-01	3.859E-01	5.536E-01	7.009E-02	0.281
		344.27	*	4.956E-02	9.952E-02	1.534E-01	1.843E-02	0.323
		443.98		9.648E-02	8.848E-01	1.445E+00	1.395E-01	0.067
		778.89		-3.979E-02	2.701E-01	3.996E-01	4.385E-02	-0.100
		867.32		3.398E-01	7.591E-01	1.117E+00	1.247E-01	0.304
		964.01		1.992E-01	2.645E-01	3.911E-01	4.173E-02	0.510
		1085.78		-7.683E-02	2.776E-01	4.426E-01	4.124E-02	-0.174
		1112.02		1.497E-01	2.696E-01	3.907E-01	3.501E-02	0.383
		1407.95		4.852E-02	1.368E-01	2.304E-01	2.060E-02	0.211
GD-153		69.67		1.599E+00	2.873E+00	4.751E+00	3.688E-01	0.337
	+	83.37		1.741E+02	4.604E+01	5.065E+01	4.546E+00	3.438
	+	97.43	*	2.132E+00	2.828E-01	2.822E-01	2.481E-02	7.555
		103.18		-1.689E-01	1.881E-01	2.626E-01	2.244E-02	-0.643
EU-154		123.07		8.214E-03	7.679E-02	1.219E-01	1.352E-02	0.067
		247.94		6.326E-02	3.866E-01	6.275E-01	9.325E-02	0.101
		591.81		-4.802E-01	6.297E-01	9.269E-01	1.205E-01	-0.518
		723.30		8.695E-02	1.808E-01	2.596E-01	2.994E-02	0.335
		756.87		6.281E-01	7.619E-01	1.188E+00	1.629E-01	0.529
		873.19		-1.857E-01	2.476E-01	3.928E-01	5.561E-02	-0.473
		996.32		2.445E+00	6.282E-01	8.036E-01	1.500E-01	3.042
		1004.76		4.941E+00	7.288E-01	7.565E-01	9.767E-02	6.532

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.45	*	-4.534E-02	8.872E-02	1.416E-01	1.601E-02	-0.320
EU-155		48.70		1.638E+00	3.801E+00	6.426E+00	5.233E-01	0.255
		60.01		1.785E+01	1.004E+01	1.524E+01	1.082E+00	1.171
		86.54		-3.348E-02	2.216E-01	3.203E-01	3.013E-02	-0.105
		105.31	*	5.273E-02	1.720E-01	2.769E-01	2.377E-02	0.190
TB-160		86.79		-7.473E-01	6.716E-01	8.654E-01	8.093E-02	-0.864
		197.04		1.626E-01	6.402E-01	1.047E+00	1.139E-01	0.155
		215.65		-7.163E-02	8.287E-01	1.352E+00	1.562E-01	-0.053
		298.57		7.850E-02	1.233E-01	1.846E-01	2.474E-02	0.425
		879.36	*	2.136E-01	1.304E-01	2.292E-01	2.563E-02	0.932
		962.29		1.529E-01	4.719E-01	6.794E-01	7.261E-02	0.225
		966.15		7.592E-01	2.200E-01	3.534E-01	3.765E-02	2.148
		1177.93		-5.363E-03	2.628E-01	4.378E-01	3.533E-02	-0.012
		1271.85		-3.302E-02	5.178E-01	8.536E-01	7.336E-02	-0.039
HO-166M		80.57		2.081E-01	7.037E-01	8.145E-01	7.077E-02	0.255
	+	184.41		2.478E+00	2.766E-01	1.522E-01	1.587E-02	16.280
		280.46		-7.818E-02	8.608E-02	1.325E-01	1.850E-02	-0.590
		410.95		1.119E-01	2.272E-01	3.783E-01	3.570E-02	0.296
		711.68	*	7.551E-03	5.689E-02	9.329E-02	1.003E-02	0.081
		752.31		-1.356E-01	2.582E-01	4.077E-01	4.441E-02	-0.333
		810.29		-5.830E-02	5.193E-02	8.163E-02	9.024E-03	-0.714
TM-171		51.35		-2.431E+01	5.047E+01	8.399E+01	6.552E+00	-0.289
		52.39		3.456E+00	2.665E+01	4.451E+01	3.416E+00	0.078
		59.40		8.689E+01	5.381E+01	8.169E+01	5.775E+00	1.064
		66.72	*	-1.440E+02	5.310E+01	7.311E+01	5.524E+00	-1.970
LU-176		88.36		3.267E-01	5.554E-01	6.398E-01	6.050E-02	0.511
		201.83		3.881E-02	3.700E-02	5.470E-02	6.043E-03	0.709
		306.84	*	-6.890E-03	2.366E-02	3.935E-02	5.163E-03	-0.175
		401.10		-1.758E+00	6.149E+00	9.984E+00	9.355E-01	-0.176
LU-177M		52.97		1.102E+00	2.780E+00	4.656E+00	3.543E-01	0.237
		54.07		2.990E-01	1.488E+00	2.483E+00	1.860E-01	0.120
		61.30		2.520E+01	3.714E+00	5.323E+00	3.830E-01	4.733
		121.62		2.986E-01	5.652E-01	9.045E-01	7.450E-02	0.330
		147.16		5.424E-01	9.215E-01	1.385E+00	1.249E-01	0.392
		171.86		3.206E-01	6.024E-01	1.011E+00	1.011E-01	0.317
		218.09		6.772E-01	9.516E-01	1.576E+00	1.836E-01	0.430
		268.79		6.179E-01	1.007E+00	1.427E+00	1.939E-01	0.433
		319.02		1.466E-01	2.441E-01	4.149E-01	5.258E-02	0.353
		367.43		4.058E-01	8.248E-01	1.386E+00	1.463E-01	0.293
		413.65	*	-2.104E-01	1.687E-01	2.615E-01	2.473E-02	-0.804
HF-181		56.28		-1.456E+00	1.747E+00	2.878E+00	2.097E-01	-0.506
		57.53		9.114E-01	9.975E-01	1.603E+00	1.152E-01	0.569
		65.20		1.682E+01	2.289E+00	3.189E+00	2.377E-01	5.276
		133.02		2.668E-04	9.198E-02	1.558E-01	1.328E-02	0.002
		136.25		-9.354E-02	6.313E-01	1.065E+00	9.185E-02	-0.088
		345.85		-7.779E-02	2.058E-01	3.059E-01	3.538E-02	-0.254
		482.03	*	1.648E-02	4.173E-02	6.840E-02	6.752E-03	0.241
W-181		56.28		-5.548E-01	6.685E-01	1.102E+00	8.024E-02	-0.504
		57.53		3.479E-01	3.820E-01	6.138E-01	4.411E-02	0.567

---- Non-Identified Nuclides ----

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		65.20	*	6.392E+00	8.695E-01	1.212E+00	9.032E-02	5.276
TA-182		67.75		-2.864E-01	1.952E-01	2.990E-01	2.280E-02	-0.958
		100.10		2.255E+00	3.916E-01	5.482E-01	4.750E-02	4.113
		152.43		1.738E-01	4.269E-01	7.209E-01	6.652E-02	0.241
		222.10		-2.227E-01	3.884E-01	6.229E-01	7.351E-02	-0.357
	+	1001.68		1.100E+02	1.259E+01	1.060E+01	1.093E+00	10.375
	+	1121.28		3.182E-01	1.545E-01	2.187E-01	1.931E-02	1.455
		1189.05		-7.278E-02	2.315E-01	3.790E-01	3.082E-02	-0.192
		1221.42	*	1.323E-01	1.364E-01	2.385E-01	1.983E-02	0.555
		1230.97		-7.651E-01	3.619E-01	5.197E-01	4.349E-02	-1.472
RE-183		57.98		7.032E-01	4.070E-01	6.199E-01	4.436E-02	1.134
		59.32		3.508E-01	2.254E-01	3.420E-01	2.419E-02	1.026
		67.20		-1.286E+00	3.928E-01	5.297E-01	4.019E-02	-2.427
	+	162.32	*	8.409E-01	2.340E-01	2.719E-01	2.623E-02	3.093
	+	208.81		1.610E+00	1.291E+00	1.805E+00	2.040E-01	0.892
		291.72		1.478E-01	1.049E+00	1.549E+00	2.110E-01	0.095
RE-184		57.98		2.559E+00	1.481E+00	2.256E+00	1.615E-01	1.134
		59.32		1.276E+00	8.195E-01	1.244E+00	8.798E-02	1.026
		67.20		-4.678E+00	1.429E+00	1.927E+00	1.462E-01	-2.427
		161.27		9.457E-01	5.102E-01	7.749E-01	7.440E-02	1.220
		216.55		8.276E-02	2.907E-01	4.782E-01	5.543E-02	0.173
		252.85	*	-1.856E-01	2.932E-01	4.012E-01	5.206E-02	-0.463
		318.01		1.199E-01	4.264E-01	7.194E-01	9.144E-02	0.167
		792.07		-7.193E-01	1.155E+00	1.523E+00	1.677E-01	-0.472
		903.28		-3.932E-01	9.415E-01	1.286E+00	1.436E-01	-0.306
		920.93		-4.046E-01	4.476E-01	6.537E-01	7.213E-02	-0.619
OS-185		59.72		8.977E-01	6.039E-01	9.155E-01	6.481E-02	0.981
		61.14		1.402E+00	3.599E-01	5.437E-01	3.906E-02	2.578
		69.30		5.096E-01	5.145E-01	8.540E-01	6.605E-02	0.597
		592.07		-2.482E+00	2.527E+00	3.797E+00	3.931E-01	-0.654
		646.12	*	3.160E-03	3.879E-02	6.406E-02	6.732E-03	0.049
		717.42		-3.975E-01	8.537E-01	1.360E+00	1.465E-01	-0.292
		874.81		-4.034E-01	5.050E-01	8.008E-01	8.950E-02	-0.504
		880.27		1.413E+00	7.333E-01	1.296E+00	1.449E-01	1.091
RE-188		155.03	*	-1.598E-03	2.153E-01	3.607E-01	3.367E-02	-0.004
		477.96		-1.295E+00	3.012E+00	4.778E+00	4.706E-01	-0.271
		633.10		-1.294E-02	2.465E+00	4.062E+00	4.255E-01	-0.003
W-188	+	63.58		6.479E+03	5.132E+02	3.054E+02	2.244E+01	21.216
		227.08		1.827E+01	1.473E+01	2.443E+01	2.929E+00	0.748
		290.67	*	2.130E+00	8.184E+00	1.215E+01	1.659E+00	0.175
IR-192	+	295.96		6.392E-01	1.840E-01	2.163E-01	2.926E-02	2.955
		308.46		-1.045E-02	9.369E-02	1.567E-01	2.051E-02	-0.067
		316.51	*	-5.133E-03	3.341E-02	5.568E-02	7.116E-03	-0.092
		468.07		-6.260E-02	6.789E-02	1.055E-01	1.092E-02	-0.593
		604.41		1.842E-01	4.825E-01	7.008E-01	9.989E-02	0.263
		612.46		2.798E+00	8.331E-01	1.296E+00	1.491E-01	2.158
AU-195		65.12		3.616E+00	4.346E-01	5.794E-01	4.316E-02	6.241
		66.83		-4.687E-01	1.765E-01	2.435E-01	1.842E-02	-1.925
	+	75.70		1.171E+00	3.881E-01	5.829E-01	4.802E-02	2.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	98.88	*	6.220E+00	8.252E-01	8.168E-01	7.123E-02	7.615
		129.76		3.929E+00	3.850E+00	6.611E+00	5.572E-01	0.594
TL-200		367.94	*	2.122E-04	3.850E+00	Half-Life too short		
		579.30		-2.981E-03	3.850E+00	Half-Life too short		
		828.27		-8.931E-03	3.850E+00	Half-Life too short		
		1205.75		-6.061E-03	3.850E+00	Half-Life too short		
TL-201		68.90		1.324E+01	1.304E+01	2.165E+01	1.669E+00	0.611
		70.82		1.262E+01	8.502E+00	1.270E+01	9.968E-01	0.993
		80.30		3.020E+00	2.109E+01	2.433E+01	2.108E+00	0.124
		135.34		-1.350E+01	5.513E+01	9.286E+01	7.983E+00	-0.145
		167.43	*	9.396E+00	1.572E+01	2.339E+01	2.305E+00	0.402
TL-202		68.90		8.275E-01	8.149E-01	1.353E+00	1.043E-01	0.611
		70.82		7.863E-01	5.300E-01	7.919E-01	6.213E-02	0.993
		80.30		1.883E-01	1.315E+00	1.517E+00	1.314E-01	0.124
		439.56	*	-1.380E-02	7.163E-02	1.157E-01	1.114E-02	-0.119
HG-203		70.83		3.136E+00	2.127E+00	3.140E+00	4.123E-01	0.999
		72.87		1.168E+00	1.248E+00	1.845E+00	2.363E-01	0.633
	+	82.60		1.328E+01	3.788E+00	3.735E+00	5.199E-01	3.555
		279.20	*	2.149E-02	4.279E-02	6.935E-02	9.817E-03	0.310
BI-207		72.80		2.856E-01	3.527E-01	5.232E-01	4.184E-02	0.546
	+	74.97		6.444E-01	2.136E-01	3.187E-01	2.606E-02	2.022
	+	84.90		2.239E+00	5.919E-01	6.406E-01	5.855E-02	3.494
		569.67		2.893E-02	2.884E-02	4.954E-02	5.088E-03	0.584
		1063.62	*	2.252E-02	3.927E-02	6.620E-02	6.356E-03	0.340
		1770.23		4.960E-01	3.998E-01	6.613E-01	5.497E-02	0.750
TL-207		81.07		6.526E-01	5.569E-01	6.543E-01	5.718E-02	0.997
	+	83.78		1.476E+00	3.902E-01	4.314E-01	3.891E-02	3.421
	+	94.90		3.263E+00	8.619E-01	9.639E-01	8.616E-02	3.386
		122.32		1.159E+00	2.596E+00	4.147E+00	3.690E-01	0.279
	+	144.24		1.007E+01	1.698E+00	1.967E+00	1.947E-01	5.120
		154.21		4.071E-01	4.914E-01	8.334E-01	8.418E-02	0.489
	+	269.46		2.832E-01	2.739E-01	3.379E-01	4.641E-02	0.838
		323.87	*	-8.368E-01	6.438E-01	9.963E-01	1.980E-01	-0.840
	+	338.28		4.026E+00	1.532E+00	1.851E+00	2.738E-01	2.175
		445.03		2.770E-01	2.056E+00	3.361E+00	4.319E-01	0.082
PO-209		260.50		3.284E+01	1.288E+01	1.878E+01	2.492E+00	1.749
		262.80		1.866E+00	3.202E+01	4.505E+01	6.020E+00	0.041
		896.60	*	4.688E+00	6.112E+00	1.050E+01	1.176E+00	0.447
BI-210		46.50	*	-4.154E+00	5.301E+00	8.775E+00	8.152E-01	-0.473
PB-210		46.50	*	-4.154E+00	5.301E+00	8.775E+00	8.152E-01	-0.473
PO-210		46.50	*	-4.154E+00	5.299E+00	8.775E+00	7.378E-01	-0.473
PB-211		404.84	*	-6.193E-02	8.709E-01	1.423E+00	8.935E-01	-0.044
		427.08		-2.343E+00	2.427E+00	3.018E+00	1.880E+00	-0.776
		831.96		3.981E-01	1.048E+00	1.730E+00	1.091E+00	0.230
PO-215		81.07		6.526E-01	5.569E-01	6.543E-01	5.718E-02	0.997
	+	83.78		1.476E+00	3.902E-01	4.314E-01	3.891E-02	3.421
	+	94.90		3.263E+00	8.619E-01	9.639E-01	8.616E-02	3.386
		122.32		1.159E+00	2.596E+00	4.147E+00	3.690E-01	0.279
	+	144.24		1.007E+01	1.698E+00	1.967E+00	1.947E-01	5.120

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		4.071E-01	4.914E-01	8.334E-01	8.418E-02	0.489
	+	269.46		2.832E-01	2.739E-01	3.379E-01	4.641E-02	0.838
		323.87	*	-8.368E-01	6.438E-01	9.963E-01	1.980E-01	-0.840
	+	338.28		4.026E+00	1.532E+00	1.851E+00	2.738E-01	2.175
		445.03		2.770E-01	2.056E+00	3.361E+00	4.319E-01	0.082
RN-219	+	271.23		3.634E-01	3.520E-01	4.263E-01	6.315E-02	0.852
		401.81	*	-1.823E-01	3.802E-01	6.113E-01	9.458E-02	-0.298
RN-220		549.76	*	-1.297E+01	2.392E+01	3.904E+01	3.979E+00	-0.332
RA-223		81.07		6.526E-01	5.569E-01	6.543E-01	5.718E-02	0.997
	+	83.78		1.476E+00	3.902E-01	4.314E-01	3.891E-02	3.421
	+	94.90		3.263E+00	8.619E-01	9.639E-01	8.616E-02	3.386
		122.32		1.159E+00	2.596E+00	4.147E+00	3.690E-01	0.279
	+	144.24		1.007E+01	1.698E+00	1.967E+00	1.947E-01	5.120
		154.21		4.071E-01	4.914E-01	8.334E-01	8.418E-02	0.489
	+	269.46		2.832E-01	2.739E-01	3.379E-01	4.641E-02	0.838
		323.87	*	-8.368E-01	6.438E-01	9.963E-01	1.980E-01	-0.840
	+	338.28		4.026E+00	1.532E+00	1.851E+00	2.738E-01	2.175
		445.03		2.770E-01	2.056E+00	3.361E+00	4.319E-01	0.082
AC-227		79.80		-8.963E-01	4.284E+00	4.901E+00	1.054E+00	-0.183
		236.00		4.616E-01	2.786E-01	4.055E-01	6.118E-02	1.138
		256.20	*	1.186E+00	5.276E-01	7.396E-01	1.350E-01	1.603
		286.10		-5.215E-01	1.534E+00	2.416E+00	4.118E-01	-0.216
		299.80		2.099E+00	1.576E+00	2.337E+00	4.732E-01	0.898
		304.40		-2.145E+00	1.847E+00	2.904E+00	6.090E-01	-0.739
		334.20		-1.596E+00	2.469E+00	3.440E+00	7.281E-01	-0.464
TH-227		79.80		-8.963E-01	4.284E+00	4.901E+00	1.067E+00	-0.183
	+	94.00		2.611E+01	8.649E+00	1.443E+01	3.164E+00	1.810
		236.00		4.616E-01	2.776E-01	4.055E-01	5.740E-02	1.138
		256.20	*	1.186E+00	5.395E-01	7.396E-01	1.522E-01	1.603
		286.10		-5.215E-01	1.619E+00	2.416E+00	2.439E+00	-0.216
		299.80		2.099E+00	1.576E+00	2.337E+00	4.732E-01	0.898
		304.40		-2.145E+00	1.847E+00	2.904E+00	6.090E-01	-0.739
		334.20		-1.596E+00	2.469E+00	3.440E+00	7.281E-01	-0.464
TH-229	+	85.43		2.209E+00	5.842E-01	6.194E-01	5.698E-02	3.567
		88.47		2.203E-01	3.199E-01	3.690E-01	3.485E-02	0.597
	+	100.00		5.121E+00	6.794E-01	5.805E-01	5.033E-02	8.821
		193.63	*	5.326E-01	5.658E-01	9.477E-01	1.019E-01	0.562
		210.97		8.543E-01	9.046E-01	1.332E+00	1.516E-01	0.641
PA-231		283.67	*	-6.556E-01	1.515E+00	2.377E+00	4.439E-01	-0.276
		301.29		3.527E-01	5.949E-01	9.221E-01	1.466E-01	0.382
TH-231		81.07		6.526E-01	5.569E-01	6.543E-01	5.718E-02	0.997
	+	83.78		1.476E+00	3.902E-01	4.314E-01	3.891E-02	3.421
	+	94.90		3.263E+00	8.619E-01	9.639E-01	8.616E-02	3.386
		122.32		1.159E+00	2.596E+00	4.147E+00	3.690E-01	0.279
	+	144.24		1.007E+01	1.698E+00	1.967E+00	1.947E-01	5.120
		154.21		4.071E-01	4.914E-01	8.334E-01	8.418E-02	0.489
	+	269.46		2.832E-01	2.739E-01	3.379E-01	4.641E-02	0.838
		323.87	*	-8.368E-01	6.438E-01	9.963E-01	1.980E-01	-0.840
	+	338.28		4.026E+00	1.532E+00	1.851E+00	2.738E-01	2.175

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		2.770E-01	2.056E+00	3.361E+00	4.319E-01	0.082
PA-233	+	75.28		1.880E+01	6.674E+00	9.304E+00	1.406E+00	2.021
		86.59		-3.666E+00	4.117E+00	5.195E+00	1.406E+00	-0.706
		300.12		6.969E-01	4.400E-01	6.559E-01	1.183E-01	1.063
		311.98	*	3.408E-02	6.161E-02	1.047E-01	1.372E-02	0.325
		340.50		1.586E+00	7.820E-01	1.051E+00	2.645E-01	1.509
		398.62		-9.014E-01	1.958E+00	3.138E+00	8.433E-01	-0.287
		415.76		5.491E-01	1.515E+00	2.504E+00	5.486E-01	0.219
PA-234	+	63.00		1.840E+02	2.782E+01	8.968E+00	1.328E+00	20.512
	+	94.67		2.328E+00	6.489E-01	8.201E-01	1.036E-01	2.839
	+	98.44		2.500E+00	1.417E+00	3.319E-01	1.853E-01	7.531
	+	99.86		1.296E+01	1.719E+00	1.533E+00	1.330E-01	8.452
	+	111.00		1.029E+00	3.792E-01	6.156E-01	7.322E-02	1.672
		131.20		1.072E-01	1.430E-01	2.447E-01	2.072E-02	0.438
		152.70		1.582E-01	4.066E-01	6.854E-01	1.190E-01	0.231
	+	186.00		8.919E+01	2.855E+01	5.767E+00	1.833E+00	15.466
		226.40		5.211E-01	4.568E-01	7.525E-01	1.173E-01	0.692
		227.20		5.647E-01	4.883E-01	8.095E-01	9.709E-02	0.698
		248.90		-7.331E-03	8.838E-01	1.428E+00	3.475E-01	-0.005
		293.70		3.329E+00	1.034E+00	1.315E+00	2.659E-01	2.532
		369.80		7.322E-02	7.714E-01	1.279E+00	2.886E-01	0.057
		568.70		9.079E-01	9.395E-01	1.612E+00	1.655E-01	0.563
		569.50		2.619E-01	2.562E-01	4.401E-01	4.521E-02	0.595
		574.00		-1.127E-01	1.451E+00	2.355E+00	2.423E-01	-0.048
		699.00		1.050E+00	6.797E-01	1.127E+00	2.267E-01	0.931
		706.10		-7.125E-01	1.005E+00	1.502E+00	6.767E-01	-0.474
		733.00		-1.114E-01	4.666E-01	5.669E-01	1.312E-01	-0.197
	+	742.81		8.245E+00	5.963E+00	2.959E+00	1.999E+00	2.786
		796.30		1.688E+00	9.798E-01	1.481E+00	4.133E-01	1.140
		805.60		2.177E+00	1.110E+00	1.618E+00	5.084E-01	1.345
		819.60		-8.705E-01	1.110E+00	1.696E+00	6.558E-01	-0.513
		826.30		-4.448E-01	7.150E-01	1.109E+00	5.021E-01	-0.401
		831.60		-4.918E-02	5.379E-01	8.778E-01	2.691E-01	-0.056
		876.40		-8.173E-01	1.122E+00	1.165E+00	1.200E+00	-0.702
		880.51		5.231E-01	2.596E-01	4.597E-01	5.141E-02	1.138
		883.24		3.759E-01	3.661E-01	4.660E-01	3.150E-01	0.807
		899.00		9.936E-02	6.848E-01	1.141E+00	5.054E-01	0.087
		925.00		2.427E+00	1.099E+00	1.950E+00	2.145E-01	1.245
		926.50		2.866E-01	1.753E-01	2.841E-01	7.438E-02	1.009
	+	946.00	*	4.236E-01	2.683E-01	4.556E-01	9.056E-02	0.930
		949.00		6.727E-01	4.131E-01	6.482E-01	7.004E-02	1.038
		980.50		4.108E-01	5.814E-01	9.394E-01	9.880E-02	0.437
		1394.10		4.717E-01	9.072E-01	1.465E+00	9.541E-01	0.322
NP-236	+	94.67		1.766E+00	4.663E-01	6.252E-01	5.598E-02	2.824
	+	98.44		1.890E+00	2.507E-01	2.509E-01	2.194E-02	7.531
	+	111.00		7.784E-01	2.791E-01	4.657E-01	3.886E-02	1.672
		160.31	*	-3.008E-02	1.094E-01	1.597E-01	1.527E-02	-0.188
NP-237		86.50	*	-7.069E-02	5.404E-01	7.811E-01	1.768E-01	-0.091
	+	95.87		1.406E+01	4.930E+00	3.009E+00	7.439E-01	4.672

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		4.320E+00	5.731E-01	5.409E-01	4.701E-02	7.986
		117.00	*	-2.702E-01	3.242E-01	4.476E-01	3.699E-02	-0.604
	+	209.75		1.244E+00	9.971E-01	1.389E+00	1.575E-01	0.895
		228.18		2.391E-01	2.542E-01	4.205E-01	5.059E-02	0.569
		277.60		2.954E-01	1.860E-01	3.046E-01	4.246E-02	0.970
		334.30		-1.010E+00	1.395E+00	1.948E+00	2.349E-01	-0.519
AM-241		59.54	*	5.361E-01	3.129E-01	4.745E-01	3.709E-02	1.130
CM-243	+	99.55		4.446E+00	5.898E-01	5.567E-01	4.838E-02	7.986
		103.76	*	8.004E-02	1.705E-01	2.459E-01	2.096E-02	0.326
		117.00		-2.780E-01	3.336E-01	4.605E-01	3.806E-02	-0.604
	+	209.75		1.226E+00	9.831E-01	1.370E+00	1.553E-01	0.895
		228.18		2.417E-01	2.569E-01	4.250E-01	5.112E-02	0.569
		277.60		2.978E-01	1.875E-01	3.072E-01	4.281E-02	0.970
AM-246		798.80		-1.017E-01	1.353E-01	2.097E-01	2.312E-02	-0.485
		1036.00		-2.076E-01	2.101E-01	3.178E-01	3.155E-02	-0.653
		1062.04		5.397E-02	1.727E-01	2.869E-01	2.760E-02	0.188
		1078.86	*	7.220E-02	1.029E-01	1.747E-01	1.644E-02	0.413
CM-247		278.00		1.077E+00	7.650E-01	1.253E+00	1.749E-01	0.860
		287.40		1.467E-02	1.240E+00	1.979E+00	2.723E-01	0.007
		402.60	*	-1.167E-02	3.423E-02	5.545E-02	5.202E-03	-0.210
CF-249		252.85		-6.906E-01	1.091E+00	1.492E+00	1.937E-01	-0.463
		333.44		-1.232E-01	1.851E-01	2.595E-01	3.139E-02	-0.475
		387.95	*	-1.023E-02	3.716E-02	6.055E-02	5.755E-03	-0.169
CF-251		176.60	*	-1.758E-01	1.583E-01	2.553E-01	2.593E-02	-0.689
		227.00		5.242E-01	4.321E-01	7.168E-01	8.592E-02	0.731
		285.00		-7.130E-01	1.742E+00	2.739E+00	3.789E-01	-0.260

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029818    *
* Acquisition date : 12-FEB-2010 17:52:24 Detector SN#     :               *
* Detector ID        : GAM22               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:05.50     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G1202029818          Analyst initials: RXF2         *
* Batch Number       : 947554               Sample Quantity : 1.6939E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope      :               *
* LCS DPM          :    0.000             LCS Isotope      :               *
* LCSD DPM         :    0.000             LCSD Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.297E+01	2.335E+00	3.854E-01	0.000E+00
NB-95	9.437E-01	1.350E-01	6.053E-02	0.000E+00
BA-137M	1.684E-01	5.907E-02	5.686E-02	0.000E+00
CS-137	1.780E-01	6.245E-02	6.011E-02	0.000E+00
LU-177	2.185E+00	1.716E+00	2.532E+00	0.000E+00
TL-208	2.748E-01	6.825E-02	5.470E-02	0.000E+00
BI-211	2.265E+00	4.069E-01	3.303E-01	0.000E+00
BI-212	7.393E-01	3.592E-01	4.407E-01	0.000E+00
PB-212	1.024E+00	1.565E-01	9.937E-02	0.000E+00
PO-212	1.024E+00	1.565E-01	9.937E-02	0.000E+00
BI-214	6.886E-01	1.280E-01	1.028E-01	0.000E+00
PB-214	7.879E-01	1.472E-01	1.109E-01	0.000E+00
PO-214	7.879E-01	1.472E-01	1.109E-01	0.000E+00
PO-216	1.024E+00	1.565E-01	9.937E-02	0.000E+00
PO-218	7.879E-01	1.472E-01	1.109E-01	0.000E+00
RA-224	2.757E+00	1.043E+00	1.129E+00	0.000E+00
RA-226	6.886E-01	1.280E-01	1.028E-01	0.000E+00
AC-228	1.005E+00	2.415E-01	1.714E-01	0.000E+00
RA-228	1.005E+00	2.415E-01	1.714E-01	0.000E+00
TH-228	1.042E+00	1.592E-01	1.011E-01	0.000E+00
TH-230	6.886E-01	1.280E-01	1.028E-01	0.000E+00
U-231	2.263E+01	5.857E+00	4.294E+00	0.000E+00
TH-232	1.005E+00	2.415E-01	1.714E-01	0.000E+00
PA-234M	2.466E+02	3.018E+01	4.981E+00	0.000E+00
TH-234	1.578E+02	2.732E+01	3.978E+00	0.000E+00
U-234	6.886E-01	1.280E-01	1.028E-01	0.000E+00
U-235	3.107E+00	6.794E-01	5.003E-01	0.000E+00
U-238	1.578E+02	2.732E+01	3.978E+00	0.000E+00
AM-243	3.590E-01	1.166E-01	1.908E-01	0.000E+00
ANH-511	7.602E-02	6.665E-02	4.501E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-1.486E-01	3.106E-01	5.274E-01	0.000E+00	NOT IDENT.
NA-22	-1.702E-02	3.109E-02	5.147E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.140E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	9.022E-03	2.125E-02	3.759E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.192E-02	1.177E-01	0.000E+00	FAIL ABUN
SC-46	-4.431E-02	3.412E-02	5.494E-02	0.000E+00	FAIL ABUN
V-48	-1.686E-02	5.823E-02	9.841E-02	0.000E+00	NOT IDENT.
CR-51	-1.035E-03	3.590E-01	6.525E-01	0.000E+00	NOT IDENT.
MN-52	1.377E-01	2.318E-01	4.104E-01	0.000E+00	NOT IDENT.
MN-54	2.803E-02	3.030E-02	5.520E-02	0.000E+00	NOT IDENT.
CO-56	-1.577E-02	3.244E-02	5.546E-02	0.000E+00	NOT IDENT.
CO-57	1.504E-02	3.695E-02	6.598E-02	0.000E+00	NOT IDENT.
CO-58	-4.562E-02	3.455E-02	5.657E-02	0.000E+00	NOT IDENT.
FE-59	-3.417E-02	6.453E-02	1.053E-01	0.000E+00	FAIL ABUN
CO-60	-5.405E-03	2.750E-02	4.626E-02	0.000E+00	NOT IDENT.
ZN-65	-2.095E-03	7.817E-02	1.121E-01	0.000E+00	NOT IDENT.
GE-68	4.230E-01	8.876E-01	1.554E+00	0.000E+00	NOT IDENT.
AS-73	6.959E-01	1.417E+00	2.720E+00	0.000E+00	NOT IDENT.
AS-74	9.605E-03	8.951E-02	1.587E-01	0.000E+00	NOT IDENT.
SE-75	-7.638E-02	6.705E-02	7.959E-02	0.000E+00	NOT IDENT.
BR-77	-7.214E-01	1.977E+01	3.056E+01	0.000E+00	FAIL ABUN
SR-82	-2.738E-01	3.907E-01	6.091E-01	0.000E+00	NOT IDENT.
RB-83	1.780E-03	7.164E-02	1.111E-01	0.000E+00	NOT IDENT.
RB-84	0.000E+00	6.718E-02	1.252E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.818E+00	1.238E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.575E-02	6.492E-02	0.000E+00	NOT IDENT.
RB-86	3.902E-01	6.022E-01	1.065E+00	0.000E+00	NOT IDENT.
Y-88	1.367E-02	2.451E-02	4.383E-02	0.000E+00	NOT IDENT.
ZR-88	1.082E-02	2.894E-02	5.199E-02	0.000E+00	NOT IDENT.
Y-91	-8.446E+00	1.321E+01	2.200E+01	0.000E+00	NOT IDENT.
NB-94	-3.710E-03	3.000E-02	5.160E-02	0.000E+00	NOT IDENT.
NB-95M	-1.837E-02	1.436E-01	2.225E-01	0.000E+00	NOT IDENT.
ZR-95	2.535E-02	6.978E-02	1.159E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.314E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.557E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	0.000E+00	2.526E+01	3.924E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.988E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.785E-02	3.733E-02	6.369E-02	0.000E+00	NOT IDENT.
RH-102	6.768E-03	2.708E-02	4.742E-02	0.000E+00	FAIL ABUN
RU-103	5.851E-03	3.757E-02	6.521E-02	0.000E+00	FAIL ABUN
RH-106	1.640E-01	2.787E-01	4.998E-01	0.000E+00	FAIL ABUN
RU-106	1.640E-01	2.783E-01	4.998E-01	0.000E+00	FAIL ABUN
AG-108M	-8.739E-03	2.968E-02	5.143E-02	0.000E+00	NOT IDENT.
CD-109	-9.512E-01	2.366E+00	3.018E+00	0.000E+00	NOT IDENT.
AG-110M	2.146E-02	3.678E-02	5.688E-02	0.000E+00	NOT IDENT.
IN-111	6.622E-02	2.068E+00	3.206E+00	0.000E+00	NOT IDENT.
IN-113M	1.154E-02	4.146E-02	7.428E-02	0.000E+00	NOT IDENT.
SN-113	1.154E-02	4.146E-02	7.428E-02	0.000E+00	NOT IDENT.
IN-114M	2.636E-02	2.261E-01	3.629E-01	0.000E+00	NOT IDENT.
CD-115	-1.765E+01	1.858E+01	3.193E+01	0.000E+00	NOT IDENT.
SN-117M	-9.474E-02	8.470E-02	1.337E-01	0.000E+00	NOT IDENT.
SB-122	-1.486E+00	3.281E+00	5.727E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.176E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-4.264E-02	3.970E-02	6.273E-02	0.000E+00	NOT IDENT.
I-124	-3.790E-01	1.004E+00	1.490E+00	0.000E+00	NOT IDENT.
SB-124	1.231E-02	5.136E-02	8.980E-02	0.000E+00	FAIL ABUN
SB-125	-8.444E-02	8.556E-02	1.440E-01	0.000E+00	NOT IDENT.
TE-125M	0.000E+00	1.860E+01	3.023E+01	0.000E+00	NOT IDENT.
I-126	8.112E-02	2.104E-01	3.213E-01	0.000E+00	NOT IDENT.
SB-126	-1.269E-02	1.626E-01	2.490E-01	0.000E+00	FAIL ABUN
SN-126	-9.887E-02	2.291E-01	2.921E-01	0.000E+00	FAIL ABUN
SB-127	-1.047E-02	1.786E+00	3.098E+00	0.000E+00	NOT IDENT.
XE-127	0.000E+00	6.417E-02	1.055E-01	0.000E+00	FAIL ABUN
I-131	-1.335E-01	1.247E-01	2.133E-01	0.000E+00	NOT IDENT.
TE-132	1.153E+00	1.207E+00	2.175E+00	0.000E+00	FAIL ABUN
BA-133	-2.642E-02	4.505E-02	6.795E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.026E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.576E-02	7.963E-02	0.000E+00	NOT IDENT.
CS-135	2.615E-02	1.896E-01	2.890E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.528E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.639E-02	8.640E-02	1.444E-01	0.000E+00	FAIL ABUN
CE-139	2.647E-02	4.176E-02	6.892E-02	0.000E+00	NOT IDENT.
BA-140	-4.820E-02	2.684E-01	4.759E-01	0.000E+00	FAIL ABUN
LA-140	-8.569E-02	6.972E-02	1.055E-01	0.000E+00	NOT IDENT.
CE-141	0.000E+00	1.173E-01	1.896E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	5.763E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.268E-01	2.734E-01	5.114E-01	0.000E+00	NOT IDENT.
PM-144	-2.620E-02	3.239E-02	5.399E-02	0.000E+00	NOT IDENT.
PR-144	-1.777E+00	2.197E+00	3.663E+00	0.000E+00	NOT IDENT.
PM-146	1.601E-02	4.102E-02	7.251E-02	0.000E+00	NOT IDENT.
ND-147	-1.284E-02	5.768E-01	1.032E+00	0.000E+00	NOT IDENT.
PM-149	-9.224E+00	1.730E+02	3.005E+02	0.000E+00	NOT IDENT.
EU-152	4.956E-02	9.753E-02	1.629E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	2.772E-01	3.113E-01	0.000E+00	FAIL ABUN
EU-154	-4.534E-02	8.695E-02	1.441E-01	0.000E+00	NOT IDENT.
EU-155	5.273E-02	1.686E-01	3.048E-01	0.000E+00	NOT IDENT.
TB-160	2.136E-01	1.278E-01	2.361E-01	0.000E+00	NOT IDENT.
HO-166M	7.551E-03	5.576E-02	9.680E-02	0.000E+00	FAIL ABUN
TM-171	-1.440E+02	5.204E+01	8.155E+01	0.000E+00	NOT IDENT.
LU-176	-6.890E-03	2.319E-02	4.195E-02	0.000E+00	NOT IDENT.
LU-177M	-2.104E-01	1.653E-01	2.762E-01	0.000E+00	NOT IDENT.
HF-181	1.648E-02	4.089E-02	7.187E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	8.522E-01	1.352E+00	0.000E+00	NOT IDENT.
TA-182	1.323E-01	1.337E-01	2.430E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	2.293E-01	2.955E-01	0.000E+00	FAIL ABUN
RE-184	-1.856E-01	2.873E-01	4.302E-01	0.000E+00	NOT IDENT.
OS-185	3.160E-03	3.802E-02	6.668E-02	0.000E+00	NOT IDENT.
RE-188	-1.598E-03	2.110E-01	3.925E-01	0.000E+00	NOT IDENT.
W-188	2.130E+00	8.020E+00	1.297E+01	0.000E+00	FAIL ABUN
IR-192	-5.133E-03	3.274E-02	5.929E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	8.087E-01	9.008E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.581E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	9.396E+00	1.540E+01	2.539E+01	0.000E+00	NOT IDENT.
TL-202	-1.380E-02	7.020E-02	1.220E-01	0.000E+00	NOT IDENT.
HG-203	2.149E-02	4.194E-02	7.414E-02	0.000E+00	FAIL ABUN
BI-207	2.252E-02	3.848E-02	6.778E-02	0.000E+00	FAIL ABUN
TL-207	-8.368E-01	6.310E-01	1.060E+00	0.000E+00	FAIL ABUN
PO-209	4.688E+00	5.990E+00	1.081E+01	0.000E+00	NOT IDENT.
BI-210	-4.154E+00	5.195E+00	9.887E+00	0.000E+00	NOT IDENT.
PB-210	-4.154E+00	5.195E+00	9.887E+00	0.000E+00	NOT IDENT.
PO-210	-4.154E+00	5.193E+00	9.887E+00	0.000E+00	NOT IDENT.
PB-211	-6.193E-02	8.535E-01	1.504E+00	0.000E+00	NOT IDENT.
PO-215	-8.368E-01	6.310E-01	1.060E+00	0.000E+00	FAIL ABUN
RN-219	-1.823E-01	3.726E-01	6.461E-01	0.000E+00	FAIL ABUN
RN-220	-1.297E+01	2.344E+01	4.085E+01	0.000E+00	NOT IDENT.
RA-223	-8.368E-01	6.310E-01	1.060E+00	0.000E+00	FAIL ABUN
AC-227	0.000E+00	5.170E-01	7.927E-01	0.000E+00	NOT IDENT.
TH-227	0.000E+00	5.287E-01	7.927E-01	0.000E+00	FAIL ABUN
TH-229	5.326E-01	5.545E-01	1.024E+00	0.000E+00	FAIL ABUN
PA-231	-6.556E-01	1.485E+00	2.540E+00	0.000E+00	NOT IDENT.
TH-231	-8.368E-01	6.310E-01	1.060E+00	0.000E+00	FAIL ABUN
PA-233	3.408E-02	6.038E-02	1.116E-01	0.000E+00	FAIL ABUN
PA-234	4.236E-01	2.629E-01	4.683E-01	0.000E+00	FAIL ABUN
NP-236	-3.008E-02	1.072E-01	1.737E-01	0.000E+00	FAIL ABUN
NP-237	-7.069E-02	5.296E-01	8.647E-01	0.000E+00	FAIL ABUN
NP-239	-2.702E-01	3.177E-01	4.912E-01	0.000E+00	FAIL ABUN
AM-241	0.000E+00	3.066E-01	5.309E-01	0.000E+00	NOT IDENT.
CM-243	8.004E-02	1.671E-01	2.708E-01	0.000E+00	FAIL ABUN
AM-246	7.220E-02	1.008E-01	1.788E-01	0.000E+00	NOT IDENT.
CM-247	-1.167E-02	3.355E-02	5.860E-02	0.000E+00	NOT IDENT.
CF-249	-1.023E-02	3.641E-02	6.407E-02	0.000E+00	NOT IDENT.
CF-251	-1.758E-01	1.551E-01	2.767E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:53:04.35

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029818.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 17:52:24
Sample ID         : G1202029818          Sample quantity  : 1.69389E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:05.50  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2112	10.67*	1.909E+00	2.297E+01	2.297E+01	10.37
NB-95	765.79	1131	99.81*	3.208E+00	7.827E-01	9.437E-01	14.60
BA-137M	661.65	245	89.98*	3.590E+00	1.682E-01	1.684E-01	35.80
CS-137	661.65	245	85.12*	3.590E+00	1.778E-01	1.780E-01	35.80
LU-177	112.95	1463	6.40	8.513E+00	5.952E+00	3.549E+01	14.28
	208.36	131	11.00*	7.186E+00	3.663E-01	2.185E+00	80.18
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	147	21.60	4.297E+00	3.520E-01	3.520E-01	89.84
	583.14	410	84.20*	3.930E+00	2.748E-01	2.748E-01	25.34
	860.37	92	12.46	2.924E+00	5.565E-01	5.565E-01	57.83
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	714	12.94*	5.401E+00	2.265E+00	2.265E+00	18.33
BI-212	727.18	131	11.80*	3.340E+00	7.393E-01	7.393E-01	49.58
	785.46	196	1.97	3.143E+00	6.997E+00	6.997E+00	36.38
	1620.62	------	2.75	1.789E+00	------ Line Not Found		------
PB-212	74.81	661	10.70	6.182E+00	2.214E+00	2.214E+00	34.44
	77.11	462	18.00	6.462E+00	8.799E-01	8.799E-01	45.19
	87.30	------	8.00	7.486E+00	------ Line Not Found		------
	238.63	1382	44.60*	6.709E+00	1.024E+00	1.024E+00	15.59
	300.09	------	3.41	5.916E+00	------ Line Not Found		------
PO-212	74.81	661	10.70	6.182E+00	2.214E+00	2.214E+00	34.44
	77.11	462	18.00	6.462E+00	8.799E-01	8.799E-01	45.19
	87.30	------	8.00	7.486E+00	------ Line Not Found		------
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	1382	44.60*	6.709E+00	1.024E+00	1.024E+00	15.59
	300.09	------	3.41	5.916E+00	------ Line Not Found		------
BI-214	609.31	548	46.30*	3.811E+00	6.886E-01	6.886E-01	18.97
	1120.29	106	15.10	2.346E+00	6.644E-01	6.644E-01	48.99
	1764.49	107	15.80	1.716E+00	8.724E-01	8.725E-01	33.77
PB-214	74.81	661	6.21	6.182E+00	3.815E+00	3.815E+00	33.96
	77.11	462	10.50	6.462E+00	1.508E+00	1.508E+00	45.83
	87.30	------	4.67	7.486E+00	------ Line Not Found		------

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	328	7.49	6.668E+00	1.454E+00	1.454E+00	39.02
	295.21	425	19.20	5.970E+00	8.217E-01	8.217E-01	29.45
	351.92	714	37.20*	5.401E+00	7.879E-01	7.879E-01	19.06
PO-214	74.81	661	6.21	6.182E+00	3.815E+00	3.815E+00	33.96
	77.11	462	10.50	6.462E+00	1.508E+00	1.508E+00	45.83
	87.30	------	4.67	7.486E+00	------ Line Not Found		------
	241.98	328	7.49	6.668E+00	1.454E+00	1.454E+00	39.02
	295.21	425	19.20	5.970E+00	8.217E-01	8.217E-01	29.45
	351.92	714	37.20*	5.401E+00	7.879E-01	7.879E-01	19.06
PO-216	74.81	661	10.70	6.182E+00	2.214E+00	2.214E+00	34.44
	77.11	462	18.00	6.462E+00	8.799E-01	8.799E-01	45.19
	87.30	------	8.00	7.486E+00	------ Line Not Found		------
	238.63	1382	44.60*	6.709E+00	1.024E+00	1.024E+00	15.59
	300.09	------	3.41	5.916E+00	------ Line Not Found		------
PO-218	74.81	661	6.21	6.182E+00	3.815E+00	3.815E+00	33.96
	77.11	462	10.50	6.462E+00	1.508E+00	1.508E+00	45.83
	87.30	------	4.67	7.486E+00	------ Line Not Found		------
	241.98	328	7.49	6.668E+00	1.454E+00	1.454E+00	39.02
	295.21	425	19.20	5.970E+00	8.217E-01	8.217E-01	29.45
	351.92	714	37.20*	5.401E+00	7.879E-01	7.879E-01	19.06
RA-224	240.98	328	3.95*	6.668E+00	2.757E+00	2.757E+00	38.61
RA-226	609.31	548	46.30*	3.811E+00	6.886E-01	6.886E-01	18.97
	1120.29	106	15.10	2.346E+00	6.644E-01	6.644E-01	48.99
	1764.49	107	15.80	1.716E+00	8.724E-01	8.725E-01	33.77
AC-228	338.32	274	11.40	5.523E+00	9.642E-01	9.642E-01	54.76
	911.07	350	27.70*	2.789E+00	1.005E+00	1.005E+00	24.51
	969.11	202	16.60	2.648E+00	1.017E+00	1.017E+00	41.85
RA-228	338.32	274	11.40	5.523E+00	9.642E-01	9.642E-01	54.76
	911.07	350	27.70*	2.789E+00	1.005E+00	1.005E+00	24.51
	969.11	202	16.60	2.648E+00	1.017E+00	1.017E+00	41.85
TH-228	74.81	661	10.70	6.182E+00	2.214E+00	2.252E+00	33.16
	77.11	462	18.00	6.462E+00	8.799E-01	8.951E-01	45.19
	87.30	------	8.00	7.486E+00	------ Line Not Found		------
	238.63	1382	44.60*	6.709E+00	1.024E+00	1.042E+00	15.59
	300.09	------	3.41	5.916E+00	------ Line Not Found		------
TH-230	609.31	548	46.30*	3.811E+00	6.886E-01	6.886E-01	18.97
	1120.29	106	15.10	2.346E+00	6.644E-01	6.644E-01	48.99
	1764.49	107	15.80	1.716E+00	8.724E-01	8.724E-01	33.77
U-231	84.21	1185	7.00	7.203E+00	5.208E+00	9.028E+01	26.44
	92.29	30187	17.30	7.855E+00	4.923E+01	8.535E+02	9.20
	95.87	1315	28.00*	7.972E+00	1.305E+00	2.263E+01	26.41
	108.00	------	13.10	8.439E+00	------ Line Not Found		------
TH-232	338.32	274	11.40	5.523E+00	9.642E-01	9.642E-01	37.01
	911.07	350	27.70*	2.789E+00	1.005E+00	1.005E+00	24.51
	969.11	202	16.60	2.648E+00	1.017E+00	1.017E+00	41.85
PA-234M	766.42	1131	0.32	3.208E+00	2.441E+02	2.441E+02	52.09
	1001.03	2409	0.84*	2.578E+00	2.466E+02	2.466E+02	12.49
TH-234	63.29	11713	3.80*	4.328E+00	1.578E+02	1.578E+02	17.66
	92.38	30187	5.41	7.855E+00	1.574E+02	1.574E+02	18.37

Sample ID : G1202029818 Acquisition date : 12-FEB-2010 17:52:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-234	609.31	548	46.30*	3.811E+00	6.886E-01	6.886E-01	18.97
	1120.29	106	15.10	2.346E+00	6.644E-01	6.644E-01	48.99
	1764.49	107	15.80	1.716E+00	8.724E-01	8.724E-01	33.77
U-235	89.95	------	2.70	7.683E+00	------ Line Not Found		------
	93.35	30187	4.50	7.855E+00	1.893E+02	1.893E+02	28.21
	105.00	------	2.10	8.370E+00	------ Line Not Found		------
	143.76	1231	10.50*	8.363E+00	3.107E+00	3.107E+00	22.31
	163.35	601	4.70	8.029E+00	3.528E+00	3.528E+00	32.62
	185.71	6125	54.00	7.608E+00	3.303E+00	3.303E+00	11.16
	205.31	482	4.70	7.253E+00	3.135E+00	3.135E+00	33.17
U-238	63.29	11713	3.80*	4.328E+00	1.578E+02	1.578E+02	17.66
	92.38	30187	5.41	7.855E+00	1.574E+02	1.574E+02	9.20
AM-243	74.67	661	66.00*	6.182E+00	3.590E-01	3.590E-01	33.15
	86.72	------	0.34	7.440E+00	------ Line Not Found		------
	117.66	------	0.55	8.550E+00	------ Line Not Found		------
	142.18	------	0.13	8.387E+00	------ Line Not Found		------
ANH-511	511.00	147	100.00*	4.297E+00	7.602E-02	7.602E-02	89.46

Flag: "*" = Keyline

Sample ID : G1202029818 Acquisition date : 12-FEB-2010 17:52:24

Total number of lines in spectrum	39	
Number of unidentified lines	3	
Number of lines tentatively identified by NID	36	92.31%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.297E+01	2.297E+01	0.238E+01	10.37	
NB-95	64.02D	1.21	7.827E-01	9.437E-01	1.378E-01	14.60	
BA-137M	30.17Y	1.00	1.682E-01	1.684E-01	0.603E-01	35.80	
CS-137	30.17Y	1.00	1.778E-01	1.780E-01	0.637E-01	35.80	
LU-177	6.71D	5.96	3.663E-01	2.185E+00	1.751E+00	80.18	
TL-208	1.41E+10Y	1.00	2.748E-01	2.748E-01	0.696E-01	25.34	
BI-211	7.04E+08Y	1.00	2.265E+00	2.265E+00	0.415E+00	18.33	
BI-212	1.41E+10Y	1.00	7.393E-01	7.393E-01	3.665E-01	49.58	
PB-212	1.41E+10Y	1.00	1.024E+00	1.024E+00	0.160E+00	15.59	
PO-212	1.41E+10Y	1.00	1.024E+00	1.024E+00	0.160E+00	15.59	
BI-214	1600.00Y	1.00	6.886E-01	6.886E-01	1.307E-01	18.97	
PB-214	1600.00Y	1.00	7.879E-01	7.879E-01	1.502E-01	19.06	
PO-214	1600.00Y	1.00	7.879E-01	7.879E-01	1.502E-01	19.06	
PO-216	1.41E+10Y	1.00	1.024E+00	1.024E+00	0.160E+00	15.59	
PO-218	1600.00Y	1.00	7.879E-01	7.879E-01	1.502E-01	19.06	
RA-224	1.41E+10Y	1.00	2.757E+00	2.757E+00	1.064E+00	38.61	
RA-226	1600.00Y	1.00	6.886E-01	6.886E-01	1.307E-01	18.97	
AC-228	1.41E+10Y	1.00	1.005E+00	1.005E+00	0.246E+00	24.51	
RA-228	1.41E+10Y	1.00	1.005E+00	1.005E+00	0.246E+00	24.51	
TH-228	1.91Y	1.02	1.024E+00	1.042E+00	0.162E+00	15.59	
TH-230	4.47E+09Y	1.00	6.886E-01	6.886E-01	1.306E-01	18.97	
U-231	4.20D	17.3	1.305E+00	2.263E+01	0.598E+01	26.41	
TH-232	1.41E+10Y	1.00	1.005E+00	1.005E+00	0.246E+00	24.51	
PA-234M	4.47E+09Y	1.00	2.466E+02	2.466E+02	0.308E+02	12.49	
TH-234	4.47E+09Y	1.00	1.578E+02	1.578E+02	0.279E+02	17.66	
U-234	4.47E+09Y	1.00	6.886E-01	6.886E-01	1.306E-01	18.97	
U-235	7.04E+08Y	1.00	3.107E+00	3.107E+00	0.693E+00	22.31	
U-238	4.47E+09Y	1.00	1.578E+02	1.578E+02	0.279E+02	17.66	
AM-243	7380.00Y	1.00	3.590E-01	3.590E-01	1.190E-01	33.15	
ANH-511	1.00E+09Y	1.00	7.602E-02	7.602E-02	6.801E-02	89.46	
	Total Activity :		6.098E+02	6.331E+02			

Grand Total Activity : 6.098E+02 6.331E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202029818 Acquisition date : 12-FEB-2010 17:52:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.52	2336	3117	1.16	197.21	194	10	3.24E-01	10.0	8.15E+00	T
10	111.28	465	2304	1.27	222.73	220	11	6.46E-02	34.9	8.49E+00	T
0	258.20	368	855	1.26	516.28	512	11	5.12E-02	32.4	6.43E+00	
0	270.78	109	727	1.10	541.42	536	10	1.51E-02	95.7	6.26E+00	T
0	742.58	294	254	1.80	1484.40	1477	14	4.08E-02	25.9	3.29E+00	T
0	946.04	62	88	1.59	1891.18	1887	9	8.61E-03	60.1	2.70E+00	T
0	1868.38	20	16	2.53	3736.05	3728	14	2.73E-03	87.6	1.68E+00	
0	1911.80	33	5	2.18	3822.93	3816	14	4.63E-03	42.0	1.67E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:53:09.17

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029818.CNF;1 *
* Acquisition date : 12-FEB-2010 17:52:24  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:05.50         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202029818           Analyst initials: RXF2           *
* Batch Number     : 947554                Sample Quantity : 1.69389E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.297E+01	2.383E+00	3.805E-01	3.486E-02	60.368
NB-95	9.437E-01	1.378E-01	5.847E-02	6.394E-03	16.140
BA-137M	1.684E-01	6.028E-02	5.467E-02	5.765E-03	3.080
CS-137	1.780E-01	6.373E-02	5.779E-02	6.102E-03	3.080
LU-177	2.185E+00	1.751E+00	2.347E+00	2.649E-01	0.931
TL-208	2.748E-01	6.965E-02	5.238E-02	5.680E-03	5.247
BI-211	2.265E+00	4.152E-01	3.112E-01	3.631E-02	7.278
BI-212	7.393E-01	3.665E-01	4.250E-01	5.076E-02	1.740
PB-212	1.024E+00	1.596E-01	9.250E-02	1.222E-02	11.068
PO-212	1.024E+00	1.596E-01	9.250E-02	1.222E-02	11.068
BI-214	6.886E-01	1.307E-01	9.854E-02	1.146E-02	6.988
PB-214	7.879E-01	1.502E-01	1.045E-01	1.333E-02	7.537
PO-214	7.879E-01	1.502E-01	1.045E-01	1.333E-02	7.537
PO-216	1.024E+00	1.596E-01	9.250E-02	1.222E-02	11.068
PO-218	7.879E-01	1.502E-01	1.045E-01	1.333E-02	7.537
RA-224	2.757E+00	1.064E+00	1.052E+00	1.316E-01	2.622
RA-226	6.886E-01	1.307E-01	9.854E-02	1.146E-02	6.988
AC-228	1.005E+00	2.464E-01	1.665E-01	2.206E-02	6.037

Sample ID : G1202029818 Acquisition date : 12-FEB-2010 17:52:24

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.005E+00	2.464E-01	1.665E-01	2.206E-02	6.037
TH-228	1.042E+00	1.624E-01	9.410E-02	1.243E-02	11.068
TH-230	6.886E-01	1.306E-01	9.854E-02	1.146E-02	6.988
U-231	2.263E+01	5.977E+00	3.890E+00	3.454E-01	5.818
TH-232	1.005E+00	2.464E-01	1.665E-01	2.206E-02	6.037
PA-234M	2.466E+02	3.080E+01	4.855E+00	5.564E-01	50.790
TH-234	1.578E+02	2.788E+01	3.561E+00	6.198E-01	44.318
U-234	6.886E-01	1.306E-01	9.854E-02	1.146E-02	6.988
U-235	3.107E+00	6.932E-01	4.586E-01	8.091E-02	6.774
U-238	1.578E+02	2.788E+01	3.561E+00	6.198E-01	44.318
AM-243	3.590E-01	1.190E-01	1.716E-01	1.398E-02	2.092
ANH-511	7.602E-02	6.801E-02	4.291E-02	4.300E-03	1.772

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.486E-01		3.169E-01	5.018E-01	5.237E-02	-0.296
NA-22	-1.702E-02		3.173E-02	5.059E-02	4.359E-03	-0.336
NA-24	-2.000E+00		3.133E+00	Half-Life too short		
AL-26	9.022E-03		2.169E-02	3.739E-02	3.058E-03	0.241
TI-44	1.624E-01	+	7.339E-02	1.060E-01	8.986E-03	1.532
SC-46	-4.431E-02		3.482E-02	5.334E-02	5.971E-03	-0.831
V-48	-1.686E-02		5.942E-02	9.586E-02	1.005E-02	-0.176
CR-51	-1.035E-03		3.664E-01	6.129E-01	7.936E-02	-0.002
MN-52	1.377E-01		2.366E-01	4.050E-01	3.619E-02	0.340
MN-54	2.803E-02		3.091E-02	5.348E-02	5.941E-03	0.524
CO-56	-1.577E-02		3.310E-02	5.376E-02	5.984E-03	-0.293
CO-57	1.504E-02		3.770E-02	6.019E-02	4.964E-03	0.250
CO-58	-4.562E-02		3.525E-02	5.476E-02	6.063E-03	-0.833
FE-59	-3.417E-02		6.585E-02	1.029E-01	1.009E-02	-0.332
CO-60	-5.405E-03		2.806E-02	4.553E-02	4.060E-03	-0.119
ZN-65	-2.095E-03		7.977E-02	1.097E-01	9.784E-03	-0.019
GE-68	4.230E-01		9.057E-01	1.518E+00	1.431E-01	0.279
AS-73	6.959E-01		1.446E+00	2.423E+00	1.831E-01	0.287
AS-74	9.605E-03		9.134E-02	1.520E-01	1.576E-02	0.063
SE-75	-7.638E-02		6.841E-02	7.433E-02	1.000E-02	-1.028
BR-77	-7.214E-01		2.018E+01	2.916E+01	2.935E+00	-0.025
SR-82	-2.738E-01		3.986E-01	5.887E-01	6.456E-02	-0.465
RB-83	1.780E-03		7.310E-02	1.060E-01	1.067E-02	0.017
RB-84	1.466E-01		6.855E-02	1.215E-01	1.359E-02	1.207
KR-85	1.549E+01		6.957E+00	1.181E+01	1.185E+00	1.312
SR-85	8.123E-02		3.648E-02	6.191E-02	6.212E-03	1.312
RB-86	3.902E-01		6.145E-01	1.040E+00	9.816E-02	0.375
Y-88	1.367E-02		2.502E-02	4.362E-02	3.526E-03	0.313
ZR-88	1.082E-02		2.953E-02	4.916E-02	4.577E-03	0.220
Y-91	-8.446E+00		1.348E+01	2.158E+01	1.774E+00	-0.391
NB-94	-3.710E-03		3.061E-02	4.970E-02	5.326E-03	-0.075

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	-1.837E-02		1.466E-01	2.070E-01	2.737E-02	-0.089
ZR-95	2.535E-02		7.121E-02	1.119E-01	1.299E-02	0.227
NB-97	5.663E-01		4.242E-01	Half-Life too short		
ZR-97	3.693E+01		7.944E+00	Half-Life too short		
MO-99	4.747E+01		2.577E+01	3.786E+01	6.268E+00	1.254
TC-99M	2.202E+12		1.014E+13	Half-Life too short		
RH-101	-5.785E-02		3.809E-02	5.896E-02	6.432E-03	-0.981
RH-102	6.768E-03		2.764E-02	4.511E-02	4.436E-03	0.150
RU-103	5.851E-03		3.834E-02	6.211E-02	9.323E-03	0.094
RH-106	1.640E-01		2.844E-01	4.795E-01	7.002E-02	0.342
RU-106	1.640E-01		2.839E-01	4.795E-01	5.009E-02	0.342
AG-108M	-8.739E-03		3.028E-02	4.878E-02	4.829E-03	-0.179
CD-109	-9.512E-01		2.415E+00	2.727E+00	2.588E-01	-0.349
AG-110M	2.146E-02		3.753E-02	5.467E-02	5.876E-03	0.393
IN-111	6.622E-02		2.111E+00	2.987E+00	3.790E-01	0.022
IN-113M	1.154E-02		4.230E-02	7.023E-02	6.706E-03	0.164
SN-113	1.154E-02		4.230E-02	7.023E-02	6.706E-03	0.164
IN-114M	2.636E-02		2.307E-01	3.355E-01	3.567E-02	0.079
CD-115	-1.765E+01		1.896E+01	3.048E+01	3.078E+00	-0.579
SN-117M	-9.474E-02		8.642E-02	1.229E-01	1.166E-02	-0.771
SB-122	-1.486E+00		3.348E+00	5.478E+00	5.615E-01	-0.271
I-123	-1.264E+02		6.002E+01	Half-Life too short		
TE-123M	-4.264E-02		4.051E-02	5.768E-02	5.509E-03	-0.739
I-124	-3.790E-01		1.025E+00	1.428E+00	1.483E-01	-0.265
SB-124	1.231E-02		5.240E-02	8.911E-02	7.927E-03	0.138
SB-125	-8.444E-02		8.730E-02	1.366E-01	1.325E-02	-0.618
TE-125M	4.228E+01		1.897E+01	2.749E+01	2.785E+00	1.538
I-126	8.112E-02		2.146E-01	3.090E-01	3.265E-02	0.263
SB-126	-1.269E-02		1.659E-01	2.400E-01	2.589E-02	-0.053
SN-126	-9.887E-02		2.338E-01	2.640E-01	2.492E-02	-0.375
SB-127	-1.047E-02		1.823E+00	2.982E+00	4.041E-01	-0.004
XE-127	1.384E-01		6.548E-02	9.773E-02	1.083E-02	1.416
I-131	-1.335E-01		1.272E-01	2.012E-01	2.232E-02	-0.663
TE-132	1.153E+00		1.232E+00	2.022E+00	3.675E-01	0.570
BA-133	-2.642E-02		4.597E-02	6.405E-02	9.571E-03	-0.413
I-133	-3.056E-02		1.544E-02	Half-Life too short		
CS-134	8.960E-02		4.669E-02	7.703E-02	8.526E-03	1.163
CS-135	2.615E-02		1.935E-01	2.700E-01	3.905E-02	0.097
I-135	-3.110E+11		4.351E+11	Half-Life too short		
CS-136	-2.639E-02		8.817E-02	1.410E-01	1.426E-02	-0.187
CE-139	2.647E-02		4.262E-02	6.346E-02	6.224E-03	0.417
BA-140	-4.820E-02		2.739E-01	4.545E-01	1.526E-01	-0.106
LA-140	-8.569E-02		7.114E-02	1.045E-01	9.163E-03	-0.820
CE-141	6.667E-01		1.197E-01	1.739E-01	1.583E-02	3.835
CE-143	1.502E-03		2.940E-04	Half-Life too short		
CE-144	-1.268E-01		2.790E-01	4.678E-01	7.261E-02	-0.271
PM-144	-2.620E-02		3.305E-02	5.199E-02	5.561E-03	-0.504
PR-144	-1.777E+00		2.242E+00	3.527E+00	3.771E-01	-0.504

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	1.601E-02		4.185E-02	6.887E-02	8.004E-03	0.232
ND-147	-1.284E-02		5.886E-01	9.850E-01	1.562E-01	-0.013
PM-149	-9.224E+00		1.765E+02	2.813E+02	5.323E+01	-0.033
EU-152	4.956E-02		9.952E-02	1.534E-01	1.843E-02	0.323
GD-153	2.132E+00	+	2.828E-01	2.822E-01	2.481E-02	7.555
EU-154	-4.534E-02		8.872E-02	1.416E-01	1.601E-02	-0.320
EU-155	5.273E-02		1.720E-01	2.769E-01	2.377E-02	0.190
TB-160	2.136E-01		1.304E-01	2.292E-01	2.563E-02	0.932
HO-166M	7.551E-03		5.689E-02	9.329E-02	1.003E-02	0.081
TM-171	-1.440E+02		5.310E+01	7.311E+01	5.524E+00	-1.970
LU-176	-6.890E-03		2.366E-02	3.935E-02	5.163E-03	-0.175
LU-177M	-2.104E-01		1.687E-01	2.615E-01	2.473E-02	-0.804
HF-181	1.648E-02		4.173E-02	6.840E-02	6.752E-03	0.241
W-181	6.392E+00		8.695E-01	1.212E+00	9.032E-02	5.276
TA-182	1.323E-01		1.364E-01	2.385E-01	1.983E-02	0.555
RE-183	8.409E-01	+	2.340E-01	2.719E-01	2.623E-02	3.093
RE-184	-1.856E-01		2.932E-01	4.012E-01	5.206E-02	-0.463
OS-185	3.160E-03		3.879E-02	6.406E-02	6.732E-03	0.049
RE-188	-1.598E-03		2.153E-01	3.607E-01	3.367E-02	-0.004
W-188	2.130E+00		8.184E+00	1.215E+01	1.659E+00	0.175
IR-192	-5.133E-03		3.341E-02	5.568E-02	7.116E-03	-0.092
AU-195	6.220E+00	+	8.252E-01	8.168E-01	7.123E-02	7.615
TL-200	2.122E-04		8.064E-04	Half-Life too short		
TL-201	9.396E+00		1.572E+01	2.339E+01	2.305E+00	0.402
TL-202	-1.380E-02		7.163E-02	1.157E-01	1.114E-02	-0.119
HG-203	2.149E-02		4.279E-02	6.935E-02	9.817E-03	0.310
BI-207	2.252E-02		3.927E-02	6.620E-02	6.356E-03	0.340
TL-207	-8.368E-01		6.438E-01	9.963E-01	1.980E-01	-0.840
PO-209	4.688E+00		6.112E+00	1.050E+01	1.176E+00	0.447
BI-210	-4.154E+00		5.301E+00	8.775E+00	8.152E-01	-0.473
PB-210	-4.154E+00		5.301E+00	8.775E+00	8.152E-01	-0.473
PO-210	-4.154E+00		5.299E+00	8.775E+00	7.378E-01	-0.473
PB-211	-6.193E-02		8.709E-01	1.423E+00	8.935E-01	-0.044
PO-215	-8.368E-01		6.438E-01	9.963E-01	1.980E-01	-0.840
RN-219	-1.823E-01		3.802E-01	6.113E-01	9.458E-02	-0.298
RN-220	-1.297E+01		2.392E+01	3.904E+01	3.979E+00	-0.332
RA-223	-8.368E-01		6.438E-01	9.963E-01	1.980E-01	-0.840
AC-227	1.186E+00		5.276E-01	7.396E-01	1.350E-01	1.603
TH-227	1.186E+00		5.395E-01	7.396E-01	1.522E-01	1.603
TH-229	5.326E-01		5.658E-01	9.477E-01	1.019E-01	0.562
PA-231	-6.556E-01		1.515E+00	2.377E+00	4.439E-01	-0.276
TH-231	-8.368E-01		6.438E-01	9.963E-01	1.980E-01	-0.840
PA-233	3.408E-02		6.161E-02	1.047E-01	1.372E-02	0.325
PA-234	4.236E-01	+	2.683E-01	4.556E-01	9.056E-02	0.930
NP-236	-3.008E-02		1.094E-01	1.597E-01	1.527E-02	-0.188
NP-237	-7.069E-02		5.404E-01	7.811E-01	1.768E-01	-0.091
NP-239	-2.702E-01		3.242E-01	4.476E-01	3.699E-02	-0.604
AM-241	5.361E-01		3.129E-01	4.745E-01	3.709E-02	1.130

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	8.004E-02		1.705E-01	2.459E-01	2.096E-02	0.326
AM-246	7.220E-02		1.029E-01	1.747E-01	1.644E-02	0.413
CM-247	-1.167E-02		3.423E-02	5.545E-02	5.202E-03	-0.210
CF-249	-1.023E-02		3.716E-02	6.055E-02	5.755E-03	-0.169
CF-251	-1.758E-01		1.583E-01	2.553E-01	2.593E-02	-0.689

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202029818          *
* Acquisition date : 12-FEB-2010 17:52:24 Detector SN#     :               *
* Detector ID      : GAM22                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:05.50     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202029818          Analyst initials: RXF2           *
* Batch Number     : 947554               Sample Quantity : 1.6939E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.297E+01	2.335E+00	1.928E-01	1.191E+00
NB-95	9.437E-01	1.350E-01	3.028E-02	6.888E-02
BA-137M	1.684E-01	5.907E-02	2.845E-02	3.014E-02
CS-137	1.780E-01	6.245E-02	3.007E-02	3.186E-02
LU-177	2.185E+00	1.716E+00	1.267E+00	8.757E-01
TL-208	2.748E-01	6.825E-02	2.737E-02	3.482E-02
BI-211	2.265E+00	4.069E-01	1.653E-01	2.076E-01
BI-212	7.393E-01	3.592E-01	2.205E-01	1.833E-01
PB-212	1.024E+00	1.565E-01	4.971E-02	7.982E-02
PO-212	1.024E+00	1.565E-01	4.971E-02	7.982E-02
BI-214	6.886E-01	1.280E-01	5.142E-02	6.533E-02
PB-214	7.879E-01	1.472E-01	5.551E-02	7.509E-02
PO-214	7.879E-01	1.472E-01	5.551E-02	7.509E-02
PO-216	1.024E+00	1.565E-01	4.971E-02	7.982E-02
PO-218	7.879E-01	1.472E-01	5.551E-02	7.509E-02
RA-224	2.757E+00	1.043E+00	5.650E-01	5.322E-01
RA-226	6.886E-01	1.280E-01	5.142E-02	6.533E-02
AC-228	1.005E+00	2.415E-01	8.574E-02	1.232E-01
RA-228	1.005E+00	2.415E-01	8.574E-02	1.232E-01
TH-228	1.042E+00	1.592E-01	5.057E-02	8.121E-02
TH-230	6.886E-01	1.280E-01	5.141E-02	6.532E-02
U-231	2.263E+01	5.857E+00	2.148E+00	2.988E+00
TH-232	1.005E+00	2.415E-01	8.574E-02	1.232E-01
PA-234M	2.466E+02	3.018E+01	2.492E+00	1.540E+01
TH-234	1.578E+02	2.732E+01	1.990E+00	1.394E+01
U-234	6.886E-01	1.280E-01	5.141E-02	6.532E-02
U-235	3.107E+00	6.794E-01	2.503E-01	3.466E-01
U-238	1.578E+02	2.732E+01	1.990E+00	1.394E+01
AM-243	3.590E-01	1.166E-01	9.544E-02	5.949E-02
ANH-511	7.602E-02	6.665E-02	2.252E-02	3.400E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.486E-01	3.106E-01	2.639E-01	1.585E-01	NOT IDENT.
NA-22	-1.702E-02	3.109E-02	2.575E-02	1.586E-02	NOT IDENT.
NA-24	-2.000E+06	6.140E+06	0.000E+00	3.133E+06	SHORT HLIF
AL-26	9.022E-03	2.125E-02	1.881E-02	1.084E-02	NOT IDENT.
TI-44	1.624E-01	7.192E-02	5.887E-02	3.669E-02	FAIL ABUN
SC-46	-4.431E-02	3.412E-02	2.749E-02	1.741E-02	FAIL ABUN
V-48	-1.686E-02	5.823E-02	4.923E-02	2.971E-02	NOT IDENT.
CR-51	-1.035E-03	3.590E-01	3.264E-01	1.832E-01	NOT IDENT.
MN-52	1.377E-01	2.318E-01	2.053E-01	1.183E-01	NOT IDENT.
MN-54	2.803E-02	3.030E-02	2.762E-02	1.546E-02	NOT IDENT.
CO-56	-1.577E-02	3.244E-02	2.775E-02	1.655E-02	NOT IDENT.
CO-57	1.504E-02	3.695E-02	3.301E-02	1.885E-02	NOT IDENT.
CO-58	-4.562E-02	3.455E-02	2.830E-02	1.763E-02	NOT IDENT.
FE-59	-3.417E-02	6.453E-02	5.267E-02	3.292E-02	FAIL ABUN
CO-60	-5.405E-03	2.750E-02	2.314E-02	1.403E-02	NOT IDENT.
ZN-65	-2.095E-03	7.817E-02	5.609E-02	3.988E-02	NOT IDENT.
GE-68	4.230E-01	8.876E-01	7.772E-01	4.528E-01	NOT IDENT.
AS-73	6.959E-01	1.417E+00	1.361E+00	7.231E-01	NOT IDENT.
AS-74	9.605E-03	8.951E-02	7.938E-02	4.567E-02	NOT IDENT.
SE-75	-7.638E-02	6.705E-02	3.982E-02	3.421E-02	NOT IDENT.
BR-77	-7.214E-01	1.977E+01	1.529E+01	1.009E+01	FAIL ABUN
SR-82	-2.738E-01	3.907E-01	3.047E-01	1.993E-01	NOT IDENT.
RB-83	1.780E-03	7.164E-02	5.560E-02	3.655E-02	NOT IDENT.
RB-84	1.466E-01	6.718E-02	6.263E-02	3.428E-02	NOT IDENT.
KR-85	1.549E+01	6.818E+00	6.195E+00	3.479E+00	NOT IDENT.
SR-85	8.123E-02	3.575E-02	3.248E-02	1.824E-02	NOT IDENT.
RB-86	3.902E-01	6.022E-01	5.326E-01	3.072E-01	NOT IDENT.
Y-88	1.367E-02	2.451E-02	2.193E-02	1.251E-02	NOT IDENT.
ZR-88	1.082E-02	2.894E-02	2.601E-02	1.477E-02	NOT IDENT.
Y-91	-8.446E+00	1.321E+01	1.101E+01	6.741E+00	NOT IDENT.
NB-94	-3.710E-03	3.000E-02	2.581E-02	1.531E-02	NOT IDENT.
NB-95M	-1.837E-02	1.436E-01	1.113E-01	7.328E-02	NOT IDENT.
ZR-95	2.535E-02	6.978E-02	5.796E-02	3.560E-02	NOT IDENT.
NB-97	5.663E+05	8.314E+05	0.000E+00	4.242E+05	SHORT HLIF
ZR-97	3.693E+07	1.557E+07	0.000E+00	7.944E+06	SHORT HLIF
MO-99	4.747E+01	2.526E+01	1.963E+01	1.289E+01	NOT IDENT.
TC-99M	2.202E+18	1.988E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.785E-02	3.733E-02	3.187E-02	1.904E-02	NOT IDENT.
RH-102	6.768E-03	2.708E-02	2.372E-02	1.382E-02	FAIL ABUN
RU-103	5.851E-03	3.757E-02	3.262E-02	1.917E-02	FAIL ABUN
RH-106	1.640E-01	2.787E-01	2.500E-01	1.422E-01	FAIL ABUN
RU-106	1.640E-01	2.783E-01	2.500E-01	1.420E-01	FAIL ABUN
AG-108M	-8.739E-03	2.968E-02	2.573E-02	1.514E-02	NOT IDENT.
CD-109	-9.512E-01	2.366E+00	1.510E+00	1.207E+00	NOT IDENT.
AG-110M	2.146E-02	3.678E-02	2.845E-02	1.876E-02	NOT IDENT.
IN-111	6.622E-02	2.068E+00	1.604E+00	1.055E+00	NOT IDENT.
IN-113M	1.154E-02	4.146E-02	3.716E-02	2.115E-02	NOT IDENT.
SN-113	1.154E-02	4.146E-02	3.716E-02	2.115E-02	NOT IDENT.
IN-114M	2.636E-02	2.261E-01	1.816E-01	1.153E-01	NOT IDENT.
CD-115	-1.765E+01	1.858E+01	1.598E+01	9.482E+00	NOT IDENT.
SN-117M	-9.474E-02	8.470E-02	6.688E-02	4.321E-02	NOT IDENT.
SB-122	-1.486E+00	3.281E+00	2.865E+00	1.674E+00	NOT IDENT.
I-123	-1.264E+08	1.176E+08	0.000E+00	6.002E+07	SHORT HLIF
TE-123M	-4.264E-02	3.970E-02	3.139E-02	2.026E-02	NOT IDENT.
I-124	-3.790E-01	1.004E+00	7.454E-01	5.124E-01	NOT IDENT.
SB-124	1.231E-02	5.136E-02	4.493E-02	2.620E-02	FAIL ABUN
SB-125	-8.444E-02	8.556E-02	7.207E-02	4.365E-02	NOT IDENT.
TE-125M	4.228E+01	1.860E+01	1.512E+01	9.487E+00	NOT IDENT.
I-126	8.112E-02	2.104E-01	1.608E-01	1.073E-01	NOT IDENT.
SB-126	-1.269E-02	1.626E-01	1.246E-01	8.294E-02	FAIL ABUN
SN-126	-9.887E-02	2.291E-01	1.462E-01	1.169E-01	FAIL ABUN
SB-127	-1.047E-02	1.786E+00	1.550E+00	9.113E-01	NOT IDENT.
XE-127	1.384E-01	6.417E-02	5.278E-02	3.274E-02	FAIL ABUN
I-131	-1.335E-01	1.247E-01	1.067E-01	6.361E-02	NOT IDENT.
TE-132	1.153E+00	1.207E+00	1.088E+00	6.161E-01	FAIL ABUN
BA-133	-2.642E-02	4.505E-02	3.400E-02	2.298E-02	NOT IDENT.
I-133	-3.056E+04	3.026E+04	0.000E+00	1.544E+04	SHORT HLIF
CS-134	8.960E-02	4.576E-02	3.984E-02	2.335E-02	NOT IDENT.
CS-135	2.615E-02	1.896E-01	1.446E-01	9.676E-02	NOT IDENT.
I-135	-3.110E+17	8.528E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.639E-02	8.640E-02	7.227E-02	4.408E-02	FAIL ABUN
CE-139	2.647E-02	4.176E-02	3.448E-02	2.131E-02	NOT IDENT.
BA-140	-4.820E-02	2.684E-01	2.381E-01	1.369E-01	FAIL ABUN
LA-140	-8.569E-02	6.972E-02	5.280E-02	3.557E-02	NOT IDENT.
CE-141	6.667E-01	1.173E-01	9.484E-02	5.984E-02	NOT IDENT.

CE-143	1.502E+03	5.763E+02	0.000E+00	2.940E+02	SHORT HLIF
CE-144	-1.268E-01	2.734E-01	2.558E-01	1.395E-01	NOT IDENT.
PM-144	-2.620E-02	3.239E-02	2.701E-02	1.652E-02	NOT IDENT.
PR-144	-1.777E+00	2.197E+00	1.832E+00	1.121E+00	NOT IDENT.
PM-146	1.601E-02	4.102E-02	3.628E-02	2.093E-02	NOT IDENT.
ND-147	-1.284E-02	5.768E-01	5.163E-01	2.943E-01	NOT IDENT.
PM-149	-9.224E+00	1.730E+02	1.503E+02	8.826E+01	NOT IDENT.
EU-152	4.956E-02	9.753E-02	8.149E-02	4.976E-02	NOT IDENT.
GD-153	2.132E+00	2.772E-01	1.558E-01	1.414E-01	FAIL ABUN
EU-154	-4.534E-02	8.695E-02	7.210E-02	4.436E-02	NOT IDENT.
EU-155	5.273E-02	1.686E-01	1.525E-01	8.600E-02	NOT IDENT.
TB-160	2.136E-01	1.278E-01	1.181E-01	6.519E-02	NOT IDENT.
HO-166M	7.551E-03	5.576E-02	4.843E-02	2.845E-02	FAIL ABUN
TM-171	-1.440E+02	5.204E+01	4.080E+01	2.655E+01	NOT IDENT.
LU-176	-6.890E-03	2.319E-02	2.099E-02	1.183E-02	NOT IDENT.
LU-177M	-2.104E-01	1.653E-01	1.382E-01	8.435E-02	NOT IDENT.
HF-181	1.648E-02	4.089E-02	3.596E-02	2.086E-02	NOT IDENT.
W-181	6.392E+00	8.522E-01	6.766E-01	4.348E-01	NOT IDENT.
TA-182	1.323E-01	1.337E-01	1.216E-01	6.821E-02	FAIL ABUN
RE-183	8.409E-01	2.293E-01	1.478E-01	1.170E-01	FAIL ABUN
RE-184	-1.856E-01	2.873E-01	2.152E-01	1.466E-01	NOT IDENT.
OS-185	3.160E-03	3.802E-02	3.336E-02	1.940E-02	NOT IDENT.
RE-188	-1.598E-03	2.110E-01	1.964E-01	1.076E-01	NOT IDENT.
W-188	2.130E+00	8.020E+00	6.488E+00	4.092E+00	FAIL ABUN
IR-192	-5.133E-03	3.274E-02	2.966E-02	1.671E-02	FAIL ABUN
AU-195	6.220E+00	8.087E-01	4.507E-01	4.126E-01	FAIL ABUN
TL-200	2.122E+02	1.581E+03	0.000E+00	8.064E+02	SHORT HLIF
TL-201	9.396E+00	1.540E+01	1.270E+01	7.860E+00	NOT IDENT.
TL-202	-1.380E-02	7.020E-02	6.101E-02	3.582E-02	NOT IDENT.
HG-203	2.149E-02	4.194E-02	3.709E-02	2.140E-02	FAIL ABUN
BI-207	2.252E-02	3.848E-02	3.391E-02	1.963E-02	FAIL ABUN
TL-207	-8.368E-01	6.310E-01	5.304E-01	3.219E-01	FAIL ABUN
PO-209	4.688E+00	5.990E+00	5.408E+00	3.056E+00	NOT IDENT.
BI-210	-4.154E+00	5.195E+00	4.947E+00	2.651E+00	NOT IDENT.
PB-210	-4.154E+00	5.195E+00	4.947E+00	2.651E+00	NOT IDENT.
PO-210	-4.154E+00	5.193E+00	4.947E+00	2.649E+00	NOT IDENT.
PB-211	-6.193E-02	8.535E-01	7.524E-01	4.355E-01	NOT IDENT.
PO-215	-8.368E-01	6.310E-01	5.304E-01	3.219E-01	FAIL ABUN
RN-219	-1.823E-01	3.726E-01	3.232E-01	1.901E-01	FAIL ABUN
RN-220	-1.297E+01	2.344E+01	2.044E+01	1.196E+01	NOT IDENT.
RA-223	-8.368E-01	6.310E-01	5.304E-01	3.219E-01	FAIL ABUN
AC-227	1.186E+00	5.170E-01	3.966E-01	2.638E-01	NOT IDENT.
TH-227	1.186E+00	5.287E-01	3.966E-01	2.698E-01	FAIL ABUN
TH-229	5.326E-01	5.545E-01	5.126E-01	2.829E-01	FAIL ABUN
PA-231	-6.556E-01	1.485E+00	1.271E+00	7.575E-01	NOT IDENT.
TH-231	-8.368E-01	6.310E-01	5.304E-01	3.219E-01	FAIL ABUN
PA-233	3.408E-02	6.038E-02	5.581E-02	3.081E-02	FAIL ABUN
PA-234	4.236E-01	2.629E-01	2.343E-01	1.341E-01	FAIL ABUN
NP-236	-3.008E-02	1.072E-01	8.688E-02	5.468E-02	FAIL ABUN
NP-237	-7.069E-02	5.296E-01	4.326E-01	2.702E-01	FAIL ABUN
NP-239	-2.702E-01	3.177E-01	2.457E-01	1.621E-01	FAIL ABUN
AM-241	5.361E-01	3.066E-01	2.656E-01	1.564E-01	NOT IDENT.
CM-243	8.004E-02	1.671E-01	1.355E-01	8.526E-02	FAIL ABUN
AM-246	7.220E-02	1.008E-01	8.945E-02	5.143E-02	NOT IDENT.
CM-247	-1.167E-02	3.355E-02	2.932E-02	1.712E-02	NOT IDENT.
CF-249	-1.023E-02	3.641E-02	3.205E-02	1.858E-02	NOT IDENT.
CF-251	-1.758E-01	1.551E-01	1.384E-01	7.914E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	2089.0388
46.50	2089.0388
46.50	2089.0388
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49.72	2227.7720
51.35	2459.2739
52.39	2528.0554
52.97	2558.6196
53.15	2550.3748
53.44	2603.8850
54.07	2698.7600
56.28	3120.0437
56.28	3120.0774
57.37	0.0000
57.53	3133.1035
57.53	3133.1287
57.60	3139.6929
57.98	3055.9277
57.98	3055.9277
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59.32	3300.1699
59.40	3301.2158
59.54	3303.0527
59.72	3361.3682
60.01	3365.2292
61.10	3633.5256
61.14	3634.0879
61.30	3636.3508
63.00	3235.4509
63.29	3239.0271
63.29	3239.0271
63.58	3242.5859
64.28	2898.2952
65.12	2973.3191
65.20	3006.4387
65.20	3006.4387
66.05	3190.7930
66.72	3429.9424
66.83	3431.3276
66.91	3432.3401
67.20	3616.0266
67.20	3616.0266
67.75	3439.2522
67.85	3440.5032
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68.90	3364.9768
69.30	3490.7163
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70.82	3624.0715
70.83	3624.2012
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72.87	4072.9575
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74.81	4565.0854
74.81	4565.0854
74.81	4565.0854
74.81	4565.0854
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74.81	4565.0854
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77.11	4273.1875

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77.11	4273.1875
77.11	4273.1875
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79.80	4208.8667
79.80	4208.8667
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80.30	4132.2544
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81.00	3974.4099
81.07	3975.2922
81.07	3975.2922
81.07	3975.2922
81.07	3975.2922
82.60	4205.7661
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83.78	4744.2402
83.78	4744.2402
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85.43	4919.7881
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86.50	5045.7861
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86.59	5235.9531
86.72	5238.0098
86.79	5239.0762
86.94	5241.4629
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87.30	5174.5737
87.30	5174.5737
87.30	5174.5737
87.57	5178.7300
87.88	5344.6094
88.03	5346.9844
88.36	5190.8745
88.47	5192.5771
89.95	5480.5293
91.11	5239.1436
92.29	4626.6221
92.38	4627.8135
92.38	4627.8135
93.35	4640.5884
94.00	4649.1274
94.67	4657.8428
94.67	4657.9092
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94.90	4660.9097
94.90	4660.9097
94.90	4660.9097
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95.87	2398.1741
96.73	2403.9028
97.43	2408.5222
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98.44	2192.2148
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105.00	2055.7312
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109.28	2328.8679

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117.00	1813.6334
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121.78	1628.7515
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122.32	1626.1686
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131.20	1616.8109
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136.25	1559.6046
136.48	1583.5354
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142.65	1594.3583
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144.24	1529.4192
144.24	1529.4192
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145.44	1378.2743
147.16	1324.7189
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152.70	1342.4919
153.22	1314.3435
154.21	1283.6014
154.21	1283.6014
154.21	1283.6014
154.21	1283.6014
155.03	1306.8892
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162.64	1223.3855
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163.89	1232.1991
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171.28	1265.4156
171.86	1180.8566
172.10	1181.3572
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176.60	1273.3419
181.06	1224.8954
184.41	1276.9982
185.71	1060.5966
186.00	1061.1104
190.27	924.0951
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198.60	1095.7467
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201.83	939.5385
202.84	926.5457
205.31	1079.9579

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209.75	799.9996
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223.80	916.1268
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227.08	809.0970
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228.18	820.7592
228.18	820.7592
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238.63	721.6595
238.63	721.6595
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241.98	694.5511
241.98	694.5511
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248.90	695.1180
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256.20	634.8558
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268.79	694.0852
269.46	685.8611
269.46	685.8611
269.46	685.8611
269.46	685.8611
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273.65	714.0917
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278.00	549.6844
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279.20	578.2715
279.53	578.4937
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284.30	522.4463
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286.10	542.6020
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293.26	0.0000
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295.21	603.5625

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297.23	622.1944
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300.09	485.9896
300.09	485.9896
300.09	485.9896
300.12	486.0026
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303.91	550.8829
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319.41	456.8901
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323.87	534.7628
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334.20	502.3770
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338.28	456.3804
338.28	456.3804
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351.92	415.4678
351.92	415.4678
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367.94	0.0000
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391.69	393.2112
392.90	393.6345
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401.10	391.4550
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413.65	430.2910
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415.30	363.6632

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427.08	402.2451
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433.93	353.8189
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439.56	342.9672
439.89	339.9411
443.98	335.8438
444.90	319.3912
445.03	319.4249
445.03	319.4249
445.03	319.4249
445.03	319.4249
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475.35	341.9922
476.78	348.7786
477.59	356.4832
477.96	354.4431
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484.57	322.8369
487.03	325.5790
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511.85	320.4996
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513.99	320.9861
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529.87	0.0000
531.02	311.4658
537.32	331.4250
543.00	295.3178
546.56	0.0000
549.76	317.3082
552.65	302.8708
555.20	307.1505
563.23	319.1874
563.90	341.1255
568.70	303.2162
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574.00	333.9879
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578.91	321.4736
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583.14	283.0024
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591.81	324.0986
592.07	327.6195
593.00	308.8932
595.88	298.8094
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602.52	0.0000
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602.71	341.2758
603.60	276.5007
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609.31	284.7107
609.31	284.7107
609.31	284.7107
610.33	234.1553
612.46	252.8797
614.37	268.2589
618.01	252.3528
621.84	248.5579
621.84	248.5579
631.29	226.2419
633.02	233.3976
633.10	240.3303
634.78	251.4575
635.90	252.6135
636.97	246.8267
645.85	257.0709
646.12	253.1267
656.30	238.8578
657.75	264.8540
657.90	0.0000
661.65	293.0176
661.65	293.0176
664.57	0.0000
666.33	269.5995
666.33	269.5995
675.00	275.5417
677.61	255.6504
685.20	258.7646
692.80	273.1383
695.00	301.1179
696.49	320.8390
696.49	320.8390
697.00	301.4469
697.49	283.0640
698.33	252.4113
698.50	252.4363
699.00	237.1049
702.63	279.7363
706.10	289.5297
706.58	0.0000
706.67	279.3144
709.31	261.1276
711.68	270.7579
713.82	251.4095
717.42	277.8036
720.50	261.6438
721.93	0.0000
722.20	254.7487
722.78	253.0465
722.78	253.0465
722.89	253.0613
722.95	253.0663
723.30	249.5508
724.18	256.7963
727.18	264.6402
733.00	273.3835
735.90	241.1438
739.58	280.4268
742.81	262.8886
744.21	266.6756
747.13	223.7639
751.79	267.0503
752.31	267.0264
753.82	260.8897
755.35	237.8357
756.15	243.6422
756.87	220.0352
763.93	229.3110
765.79	227.3968
766.42	227.4664
766.84	227.5143
776.49	262.7889
778.00	261.6987
778.57	259.4922
778.89	250.9757
783.80	235.2455
785.46	283.2607
792.07	298.9305

795.84	214.8071
796.30	211.7964
798.80	280.7727
801.93	298.5002
805.60	168.0841
810.29	237.3327
810.76	240.1788
815.85	162.3695
817.79	189.6045
818.51	192.4712
819.60	215.0033
826.30	202.5527
828.27	0.0000
831.60	204.9300
831.96	198.3828
834.83	187.3503
836.80	0.0000
846.75	194.0572
848.13	159.1318
856.28	0.0000
856.80	204.6909
860.37	178.1104
867.32	152.1545
867.82	142.1535
871.10	184.7104
873.19	186.7979
874.81	196.5167
875.33	0.0000
876.40	221.5979
879.36	170.9786
880.27	167.2031
880.51	162.4161
881.50	163.4483
883.24	182.8167
884.67	202.1887
889.25	212.2426
896.60	154.8521
898.02	166.5680
899.00	166.6370
903.28	173.2549
911.07	155.8175
911.07	155.8175
911.07	155.8175
919.63	225.0231
920.93	222.7965
925.00	153.8022
925.24	165.5754
926.50	162.7231
935.52	140.7083
937.48	140.1665
944.10	131.3347
946.00	135.3921
949.00	124.6750
962.29	165.4005
964.01	175.9671
966.15	162.1710
968.20	181.5017
969.11	199.0303
969.11	199.0303
969.11	199.0303
977.42	127.8748
980.50	118.6258
983.50	141.4819
989.30	120.3228
996.32	135.9014
1001.03	104.0723
1001.68	104.0993
1004.76	109.7904
1021.30	0.0000
1024.50	0.0000
1034.80	118.7511
1036.00	125.9729
1037.82	106.5862
1038.57	108.6692
1038.76	0.0000
1045.16	119.2164
1046.59	125.4508
1048.07	127.5809

1050.47	114.3062
1050.47	114.3062
1062.04	126.1784
1063.62	120.0458
1076.63	108.1459
1077.35	112.3355
1078.86	108.2366
1085.78	114.7688
1099.22	121.6236
1112.02	119.8120
1112.84	125.3792
1115.52	147.6465
1120.29	155.2903
1120.29	155.2903
1120.29	155.2903
1120.29	155.2903
1120.51	155.3057
1121.28	149.7986
1124.00	0.0000
1129.67	141.5400
1131.51	0.0000
1147.95	0.0000
1167.94	125.9399
1173.22	124.2817
1175.09	143.2051
1177.93	136.7429
1189.05	156.1880
1204.90	148.4542
1205.75	0.0000
1213.00	138.3580
1221.42	120.5629
1230.97	206.3654
1235.34	125.9188
1236.41	0.0000
1238.25	123.1523
1246.25	150.4775
1260.41	0.0000
1271.85	109.8964
1274.45	120.6926
1274.54	120.6964
1291.56	82.2004
1298.22	0.0000
1312.09	89.6198
1325.50	92.9558
1325.50	92.9558
1332.49	85.2258
1333.61	83.2720
1360.21	82.9417
1362.66	0.0000
1365.15	73.0557
1368.21	91.1527
1368.53	0.0000
1376.25	70.2841
1384.27	103.6632
1394.10	62.5790
1395.20	66.6365
1407.95	72.9646
1434.06	65.3438
1436.60	63.3491
1457.56	0.0000
1460.81	56.5811
1489.15	35.2524
1509.49	49.0023
1596.49	73.0209
1620.62	41.0310
1678.03	0.0000
1691.02	33.0177
1691.02	33.0177
1706.46	0.0000
1750.46	0.0000
1764.49	34.5927
1764.49	34.5927
1764.49	34.5927
1764.49	34.5927
1770.23	30.2846
1771.40	33.8567
1791.20	0.0000
1808.65	30.9554

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202029818

Total Uranium Activity	4.7092E+02	ug/g
Total Uranium Counting Unc.	8.1275E+01	ug/g
Total Uranium Tpu	4.1467E-05	ug/g
Total Uranium Mda	5.9215E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 947554                    SAMPLE ID   : G1202029818       *
*   ANALYST       : RXF2                      DETECTOR    : GAM22             *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 12-FEB-2010 17:52:24.54    SAMPLE ALQT:  169.389 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.791E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.899E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 5.664E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.804E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:29:17.14

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029819.CNF;1
Sample date       : 2-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 18:28:27
Sample ID         : G1202029819          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:19.24  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947554                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.65	4089	1010	1.06	119.30	114	10	1.14E+00	2.1	
2	0	78.00*	119	702	0.96	155.93	151	8	3.30E-02	40.6	
3	4	88.10	1757	356	1.15	176.11	172	22	4.88E-01	2.9	3.72E+00
4	4	92.86*	102	316	1.55	185.61	172	22	2.84E-02	37.9	
5	0	122.17	295	331	0.95	244.15	240	10	8.19E-02	12.9	
6	0	185.86*	112	291	2.29	371.34	367	10	3.12E-02	30.6	
7	0	209.04	95	230	0.90	417.64	414	9	2.62E-02	30.7	
8	0	238.61*	494	523	1.14	476.72	471	13	1.37E-01	10.6	
9	0	270.21	73	165	1.25	539.83	536	8	2.03E-02	32.9	
10	0	294.85	160	255	1.30	589.06	584	11	4.45E-02	20.8	
11	0	299.74	40	150	1.25	598.82	597	7	1.11E-02	54.1	
12	0	338.37*	134	219	1.05	676.00	670	12	3.72E-02	23.9	
13	0	351.74*	214	202	1.38	702.72	698	10	5.94E-02	14.3	
14	0	510.77*	58	153	2.09	1020.50	1015	14	1.62E-02	50.0	
15	0	583.29*	183	104	1.40	1165.43	1160	11	5.09E-02	13.2	
16	0	609.48*	178	123	1.41	1217.79	1211	13	4.94E-02	15.0	
17	0	661.72	2603	181	1.41	1322.22	1317	13	7.23E-01	2.2	
18	0	727.09	24	93	0.67	1452.90	1448	10	6.71E-03	77.3	
19	0	911.23*	82	135	1.13	1821.14	1816	11	2.28E-02	29.7	
20	0	969.60*	71	91	1.10	1937.88	1933	9	1.98E-02	27.1	
21	0	1173.46	1919	49	1.63	2345.74	2338	15	5.33E-01	2.4	
22	0	1332.68	1868	14	1.83	2664.39	2654	19	5.19E-01	2.4	
23	0	1764.74*	35	9	0.80	3529.56	3523	12	9.78E-03	24.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 19:29:19

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029819.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 2-FEB-2010 00:00:00 Acquisition date : 12-FEB-2010 18:28:27
Sample ID : G1202029819 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:19.24 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.320E-01	6.301E-02	5.599E-02	4.674E-03	4.143
		136.48		1.640E-01	3.091E-01	5.060E-01	4.581E-02	0.324
CO-60	+	1173.22		6.214E+00	5.830E-01	1.116E-01	8.973E-03	55.684
	+	1332.49	*	6.725E+00	6.468E-01	6.784E-02	5.682E-03	99.135
CD-109	+	88.03	*	3.321E+01	3.700E+00	1.695E+00	1.603E-01	19.592
SN-126		64.28		-4.747E-01	6.085E-01	9.347E-01	1.353E-01	-0.508
	+	86.94		1.366E+01	5.731E+00	8.164E-01	3.389E-01	16.733
	+	87.57	*	3.286E+00	3.660E-01	1.682E-01	1.582E-02	19.537
BA-137M	+	661.65	*	5.743E+00	6.308E-01	1.085E-01	1.089E-02	52.939
CS-137	+	661.65	*	6.071E+00	6.676E-01	1.147E-01	1.152E-02	52.939
TL-208		277.35		-1.355E-01	5.827E-01	9.608E-01	1.278E-01	-0.141
	+	510.84		4.351E-01	4.387E-01	3.699E-01	4.624E-02	1.176
	+	583.14	*	3.898E-01	1.104E-01	1.018E-01	1.046E-02	3.830
		860.37		3.921E-01	5.911E-01	1.018E+00	1.079E-01	0.385
BI-211		72.87		-7.414E+00	4.499E+00	6.013E+00	4.748E-01	-1.233
	+	351.07	*	2.009E+00	6.051E-01	5.428E-01	5.200E-02	3.701
PB-212		74.81		4.016E-01	5.448E-01	8.163E-01	1.008E-01	0.492
	+	77.11		5.034E-01	4.112E-01	4.468E-01	3.695E-02	1.127
	+	87.30		1.520E+01	2.275E+00	9.061E-01	1.242E-01	16.772
	+	238.63	*	1.018E+00	2.408E-01	1.489E-01	1.583E-02	6.842
	+	300.09		1.266E+00	1.377E+00	1.932E+00	2.209E-01	0.655
PO-212		74.81		4.016E-01	5.448E-01	8.163E-01	1.008E-01	0.492
	+	77.11		5.034E-01	4.112E-01	4.468E-01	3.695E-02	1.127
	+	87.30		1.520E+01	2.275E+00	9.061E-01	1.242E-01	16.772
		115.19		-1.939E+00	4.993E+00	7.887E+00	6.625E-01	-0.246
	+	238.63	*	1.018E+00	2.408E-01	1.489E-01	1.583E-02	6.842
	+	300.09		1.266E+00	1.377E+00	1.932E+00	2.209E-01	0.655
BI-214	+	609.31	*	7.127E-01	2.278E-01	1.835E-01	2.041E-02	3.885
		1120.29		5.312E-01	5.658E-01	9.792E-01	1.059E-01	0.542
	+	1764.49		9.787E-01	4.906E-01	4.268E-01	3.506E-02	2.293
PB-214		74.81		6.920E-01	9.379E-01	1.407E+00	1.540E-01	0.492
	+	77.11		8.629E-01	7.081E-01	7.659E-01	8.612E-02	1.127
	+	87.30		2.603E+01	3.527E+00	1.552E+00	1.884E-01	16.772
		241.98		9.858E-01	6.183E-01	9.838E-01	1.100E-01	1.002

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		8.926E-01	3.855E-01	3.612E-01	4.216E-02	2.471
	+	351.92	*	6.987E-01	2.136E-01	1.947E-01	2.121E-02	3.589
PO-214		74.81		6.920E-01	9.379E-01	1.407E+00	1.540E-01	0.492
	+	77.11		8.629E-01	7.081E-01	7.659E-01	8.612E-02	1.127
	+	87.30		2.603E+01	3.527E+00	1.552E+00	1.884E-01	16.772
		241.98		9.858E-01	6.183E-01	9.838E-01	1.100E-01	1.002
	+	295.21		8.926E-01	3.855E-01	3.612E-01	4.216E-02	2.471
	+	351.92	*	6.987E-01	2.136E-01	1.947E-01	2.121E-02	3.589
PO-216		74.81		4.016E-01	5.448E-01	8.163E-01	1.008E-01	0.492
	+	77.11		5.034E-01	4.112E-01	4.468E-01	3.695E-02	1.127
	+	87.30		1.520E+01	2.275E+00	9.061E-01	1.242E-01	16.772
	+	238.63	*	1.018E+00	2.408E-01	1.489E-01	1.583E-02	6.842
	+	300.09		1.266E+00	1.377E+00	1.932E+00	2.209E-01	0.655
PO-218		74.81		6.920E-01	9.379E-01	1.407E+00	1.540E-01	0.492
	+	77.11		8.629E-01	7.081E-01	7.659E-01	8.612E-02	1.127
	+	87.30		2.603E+01	3.527E+00	1.552E+00	1.884E-01	16.772
		241.98		9.858E-01	6.183E-01	9.838E-01	1.100E-01	1.002
	+	295.21		8.926E-01	3.855E-01	3.612E-01	4.216E-02	2.471
	+	351.92	*	6.987E-01	2.136E-01	1.947E-01	2.121E-02	3.589
RA-226	+	609.31	*	7.127E-01	2.278E-01	1.835E-01	2.041E-02	3.885
		1120.29		5.312E-01	5.658E-01	9.792E-01	1.059E-01	0.542
	+	1764.49		9.787E-01	4.906E-01	4.268E-01	3.506E-02	2.293
AC-228	+	338.32		1.387E+00	8.777E-01	6.014E-01	2.491E-01	2.306
	+	911.07	*	7.688E-01	4.659E-01	4.560E-01	5.585E-02	1.686
	+	969.11		1.174E+00	6.952E-01	8.619E-01	2.045E-01	1.362
RA-228	+	338.32		1.387E+00	8.777E-01	6.014E-01	2.491E-01	2.306
	+	911.07	*	7.688E-01	4.659E-01	4.560E-01	5.585E-02	1.686
	+	969.11		1.174E+00	6.952E-01	8.619E-01	2.045E-01	1.362
TH-228		74.81		4.060E-01	5.494E-01	8.251E-01	6.716E-02	0.492
	+	77.11		5.088E-01	4.157E-01	4.516E-01	3.735E-02	1.127
	+	87.30		1.536E+01	1.711E+00	9.158E-01	8.584E-02	16.772
	+	238.63	*	1.029E+00	2.434E-01	1.505E-01	1.600E-02	6.842
	+	300.09		1.280E+00	1.579E+00	1.953E+00	1.161E+00	0.655
TH-230	+	609.31	*	7.127E-01	2.278E-01	1.835E-01	2.041E-02	3.885
		1120.29		5.311E-01	5.658E-01	9.792E-01	1.059E-01	0.542
	+	1764.49		9.787E-01	4.906E-01	4.268E-01	3.506E-02	2.293
TH-232	+	338.32		1.387E+00	6.761E-01	6.014E-01	5.635E-02	2.306
	+	911.07	*	7.688E-01	4.659E-01	4.560E-01	5.585E-02	1.686
	+	969.11		1.174E+00	6.952E-01	8.619E-01	2.045E-01	1.362
U-234	+	609.31	*	7.127E-01	2.278E-01	1.835E-01	2.041E-02	3.885
		1120.29		5.311E-01	5.658E-01	9.792E-01	1.059E-01	0.542
	+	1764.49		9.787E-01	4.906E-01	4.268E-01	3.506E-02	2.293
AM-241	+	59.54	*	1.350E+01	1.204E+00	3.798E-01	2.972E-02	35.531
ANH-511	+	511.00	*	9.397E-02	9.443E-02	7.992E-02	7.447E-03	1.176

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.480E-01	6.290E-01	9.866E-01	9.589E-02	-0.353

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-1.315E-03	4.163E-02	6.670E-02	5.525E-03	-0.020
NA-24		1368.53	*	-1.403E-03	4.163E-02	Half-Life too short		
AL-26		1129.67		1.601E+00	2.535E+00	4.375E+00	3.706E-01	0.366
		1808.65	*	4.455E-03	3.891E-02	6.563E-02	5.331E-03	0.068
K-40		1460.81	*	6.210E-01	5.223E-01	9.938E-01	8.666E-02	0.625
TI-44		67.85		4.090E-02	5.439E-02	9.145E-02	6.881E-03	0.447
	+	78.38	*	9.287E-02	7.588E-02	8.976E-02	7.533E-03	1.035
SC-46		889.25	*	-2.900E-03	7.408E-02	1.220E-01	1.217E-02	-0.024
		1120.51		9.424E-02	9.326E-02	1.624E-01	1.389E-02	0.580
V-48		944.10		-1.430E-01	1.699E+00	2.782E+00	2.714E-01	-0.051
		983.50	*	-1.279E-01	1.324E-01	2.017E-01	1.928E-02	-0.634
		1312.09		1.093E-02	6.968E-02	1.152E-01	9.611E-03	0.095
CR-51		320.08	*	1.410E-01	5.491E-01	9.221E-01	9.244E-02	0.153
MN-52		744.21		3.613E-02	2.287E-01	3.866E-01	3.927E-02	0.093
		848.13		2.644E+00	7.341E+00	1.248E+01	1.257E+00	0.212
		935.52		1.641E-01	3.315E-01	5.624E-01	5.509E-02	0.292
		1246.25		1.060E+00	4.545E+00	7.580E+00	6.227E-01	0.140
	+	1333.61		5.035E+02	4.843E+01	5.375E+01	4.503E+00	9.367
		1434.06	*	-2.602E-02	1.455E-01	2.351E-01	1.989E-02	-0.111
MN-54		834.83	*	-1.211E-02	6.773E-02	1.109E-01	1.120E-02	-0.109
CO-56		846.75	*	2.286E-02	7.160E-02	1.213E-01	1.223E-02	0.188
		977.42		7.104E+00	6.176E+00	1.086E+01	1.042E+00	0.654
		1037.82		-4.427E-01	5.473E-01	8.282E-01	7.991E-02	-0.535
		1175.09		2.710E+02	2.560E+01	3.058E+01	2.460E+00	8.862
		1238.25		-2.870E-02	9.729E-02	1.513E-01	1.280E-02	-0.190
		1360.21		3.423E-01	1.002E+00	1.792E+00	1.507E-01	0.191
		1771.40		-1.551E-01	3.226E-01	4.793E-01	3.931E-02	-0.324
CO-58		810.76	*	-1.155E-03	6.850E-02	1.137E-01	1.155E-02	-0.010
FE-59		142.65		-5.237E-02	3.488E+00	5.601E+00	4.731E-01	-0.009
		192.34		6.968E-01	1.295E+00	2.238E+00	3.072E-01	0.311
		1099.22	*	-1.794E-01	1.592E-01	2.322E-01	2.190E-02	-0.773
		1291.56		-2.579E-03	1.284E-01	2.060E-01	1.959E-02	-0.013
ZN-65		1115.52	*	2.081E-02	1.674E-01	2.750E-01	2.367E-02	0.076
GE-68		1077.35	*	-1.789E+00	2.501E+00	3.839E+00	3.425E-01	-0.466
AS-73		53.44	*	-5.225E-01	1.306E+00	2.131E+00	1.582E-01	-0.245
AS-74		595.88	*	-3.405E-02	1.444E-01	2.273E-01	2.225E-02	-0.150
		634.78		2.139E-02	5.077E-01	8.586E-01	8.540E-02	0.025
SE-75		66.05		-7.085E+00	5.596E+00	8.699E+00	8.230E-01	-0.814
		96.73		-8.155E-01	1.096E+00	1.502E+00	2.074E-01	-0.543
	+	121.11		1.230E+00	3.455E-01	4.157E-01	4.577E-02	2.959
		136.00		3.796E-02	5.755E-02	9.474E-02	8.005E-03	0.401
		198.60		1.625E-01	2.613E+00	4.435E+00	4.464E-01	0.037
		264.65	*	-5.477E-02	7.374E-02	1.143E-01	1.132E-02	-0.479
		279.53		8.746E-02	1.657E-01	2.832E-01	2.898E-02	0.309
		303.91		-1.903E-01	3.666E+00	5.335E+00	6.600E-01	-0.036
		400.65		-7.784E-02	4.594E-01	7.454E-01	8.181E-02	-0.104
BR-77	+	87.88		2.021E+03	2.251E+02	2.427E+02	2.292E+01	8.327
		200.40		1.902E+01	6.793E+01	1.162E+02	1.069E+01	0.164
	+	239.00		4.575E+01	1.062E+01	1.235E+01	1.191E+00	3.705

---- Non-Identified Nuclides ----

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		249.79		-1.803E+01	2.837E+01	4.599E+01	4.483E+00	-0.392
		281.68		4.139E+00	3.937E+01	6.600E+01	6.563E+00	0.063
		297.23		1.049E+01	4.027E+01	4.390E+01	4.319E+00	0.239
		303.76		-1.110E+01	8.930E+01	1.292E+02	1.264E+01	-0.086
		439.47		1.750E+01	7.564E+01	1.249E+02	1.098E+01	0.140
		484.57		5.538E+01	1.131E+02	1.892E+02	1.728E+01	0.293
		520.65	*	3.340E+00	5.058E+00	8.532E+00	8.003E-01	0.392
		574.64		4.045E+01	9.533E+01	1.580E+02	1.530E+01	0.256
		578.91		-3.909E+01	4.926E+01	6.298E+01	6.114E+00	-0.621
		585.48		2.053E+02	1.037E+02	1.667E+02	1.624E+01	1.232
		755.35		9.936E+01	7.863E+01	1.420E+02	1.443E+01	0.700
		817.79		-1.964E+01	7.190E+01	1.171E+02	1.185E+01	-0.168
SR-82		698.33		1.341E+01	4.940E+01	8.438E+01	8.532E+00	0.159
		776.49	*	-3.556E-01	5.822E-01	9.237E-01	9.386E-02	-0.385
		1395.20		-3.848E+00	1.108E+01	1.747E+01	1.474E+00	-0.220
RB-83		520.41	*	-1.909E-02	1.209E-01	1.930E-01	1.810E-02	-0.099
		529.64		1.679E-01	1.765E-01	3.027E-01	2.856E-02	0.555
		552.65		1.405E-01	3.222E-01	5.350E-01	5.120E-02	0.263
RB-84		881.50	*	6.733E-02	1.299E-01	2.222E-01	2.221E-02	0.303
KR-85		513.99	*	1.127E+01	1.260E+01	1.928E+01	1.800E+00	0.585
SR-85		513.99	*	5.521E-02	6.170E-02	9.440E-02	8.815E-03	0.585
RB-86		1076.63	*	-4.177E-01	1.329E+00	2.113E+00	1.887E-01	-0.198
Y-88		898.02		2.307E-02	8.975E-02	1.511E-01	1.507E-02	0.153
		1836.01	*	-2.276E-02	4.280E-02	6.114E-02	4.933E-03	-0.372
ZR-88		392.90	*	-3.320E-02	5.152E-02	8.114E-02	6.786E-03	-0.409
Y-91		1204.90	*	-3.771E-01	2.091E+01	3.376E+01	2.741E+00	-0.011
NB-94		702.63	*	1.694E-02	5.543E-02	9.485E-02	9.596E-03	0.179
		871.10		-3.422E-02	7.437E-02	1.191E-01	1.194E-02	-0.287
NB-95		765.79	*	4.369E-02	6.890E-02	1.196E-01	1.216E-02	0.365
NB-95M		235.69	*	8.462E-02	1.950E-01	2.963E-01	3.183E-02	0.286
ZR-95		724.18		-6.508E-02	1.531E-01	2.119E-01	2.285E-02	-0.307
		756.15	*	8.919E-02	1.124E-01	1.979E-01	2.160E-02	0.451
NB-97		657.90	*	9.777E-04	1.124E-01	Half-Life too short		
		1024.50		2.389E-01	1.124E-01	Half-Life too short		
ZR-97		254.15		1.079E-01	1.124E-01	Half-Life too short		
		355.39		1.209E-02	1.124E-01	Half-Life too short		
		507.63	*	6.771E-03	1.124E-01	Half-Life too short		
		602.52		-8.945E-02	1.124E-01	Half-Life too short		
		1021.30		-6.158E-02	1.124E-01	Half-Life too short		
		1147.95		-1.235E-01	1.124E-01	Half-Life too short		
		1362.66		-6.322E-03	1.124E-01	Half-Life too short		
		1750.46		-1.124E-01	1.124E-01	Half-Life too short		
MO-99		140.51		1.463E+00	1.220E+01	1.960E+01	5.416E+00	0.075
		181.06		-2.237E+00	9.172E+00	1.263E+01	2.329E+00	-0.177
		366.43		-6.121E+00	4.928E+01	8.055E+01	7.161E+00	-0.076
		739.58	*	-2.719E+00	6.143E+00	9.878E+00	1.591E+00	-0.275
		778.00		-1.070E+01	1.999E+01	3.194E+01	3.245E+00	-0.335
TC-99M		140.51	*	3.668E+04	1.999E+01	Half-Life too short		
RH-101		127.23		6.070E-03	4.844E-02	6.974E-02	5.817E-03	0.087

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		198.01	*	1.057E-02	4.828E-02	8.246E-02	7.558E-03	0.128
		325.23		-2.118E-01	3.805E-01	6.114E-01	5.838E-02	-0.347
RH-102		418.52		1.349E-01	5.238E-01	8.687E-01	7.473E-02	0.155
		475.06	*	-2.618E-02	5.969E-02	9.435E-02	8.554E-03	-0.277
		631.29		8.501E-03	9.609E-02	1.544E-01	1.534E-02	0.055
		697.49		2.434E-02	1.274E-01	2.164E-01	2.187E-02	0.112
		766.84		1.556E-01	1.891E-01	3.310E-01	3.364E-02	0.470
		1046.59		1.164E-01	2.170E-01	3.694E-01	3.382E-02	0.315
		1112.84		-1.761E-01	4.182E-01	6.564E-01	5.660E-02	-0.268
RU-103		497.08	*	2.803E-02	7.004E-02	1.161E-01	1.688E-02	0.241
	+	610.33		7.126E+00	2.467E+00	2.935E+00	5.093E-01	2.428
RH-106	+	511.85		4.655E-01	4.678E-01	5.423E-01	5.056E-02	0.858
		621.84	*	7.569E-01	5.754E-01	9.922E-01	1.410E-01	0.763
		1050.47		-2.548E+00	4.655E+00	7.272E+00	6.637E-01	-0.350
RU-106	+	511.85		4.655E-01	4.678E-01	5.423E-01	5.056E-02	0.858
		621.84	*	7.569E-01	5.702E-01	9.922E-01	9.820E-02	0.763
		1050.47		-2.548E+00	4.655E+00	7.272E+00	6.637E-01	-0.350
AG-108M		433.93	*	3.044E-03	6.187E-02	1.012E-01	9.186E-03	0.030
		614.37		5.165E-02	7.176E-02	1.075E-01	1.093E-02	0.480
		722.95		-6.815E-02	7.295E-02	9.408E-02	9.813E-03	-0.724
AG-110M		657.75	*	8.704E-03	7.474E-02	1.107E-01	1.134E-02	0.079
		677.61		2.495E-01	5.075E-01	8.807E-01	9.054E-02	0.283
		706.67		-4.633E-01	3.305E-01	4.881E-01	5.040E-02	-0.949
		763.93		-1.028E-01	2.764E-01	4.485E-01	4.652E-02	-0.229
		884.67		-6.328E-02	9.863E-02	1.549E-01	1.583E-02	-0.409
		937.48		-1.171E-01	2.572E-01	4.109E-01	4.135E-02	-0.285
		1384.27		3.637E-03	1.627E-01	2.739E-01	2.377E-02	0.013
IN-111		171.28		1.011E-01	5.149E-01	8.241E-01	7.253E-02	0.123
		245.39	*	-1.091E-01	5.626E-01	9.038E-01	8.774E-02	-0.121
IN-113M		391.69	*	-2.722E-02	7.655E-02	1.229E-01	1.060E-02	-0.221
SN-113		391.69	*	-2.722E-02	7.655E-02	1.229E-01	1.060E-02	-0.221
IN-114M		190.27	*	-1.417E-02	2.645E-01	3.950E-01	3.580E-02	-0.036
CD-115		260.90		2.147E+01	5.456E+01	9.288E+01	9.137E+00	0.231
		492.35		-4.561E+00	1.703E+01	2.708E+01	2.490E+00	-0.168
		527.90	*	5.993E-01	4.882E+00	7.944E+00	7.488E-01	0.075
SN-117M		156.02		6.703E-01	2.611E+00	4.206E+00	3.616E-01	0.159
		158.56	*	-3.187E-02	6.555E-02	1.013E-01	8.740E-03	-0.315
SB-122		563.90	*	7.539E-01	1.180E+00	1.979E+00	1.906E-01	0.381
		692.80		-1.626E+01	2.315E+01	3.677E+01	3.715E+00	-0.442
I-123		159.00	*	1.034E-02	2.315E+01	Half-Life too short		
		528.96		2.427E+00	2.315E+01	Half-Life too short		
TE-123M		159.00	*	1.260E-02	4.031E-02	6.489E-02	5.638E-03	0.194
I-124		602.71	*	-4.902E-01	6.372E-01	8.117E-01	7.970E-02	-0.604
		722.78		-3.271E+00	3.704E+00	4.816E+00	4.885E-01	-0.679
		1325.50		1.251E+01	2.147E+01	3.387E+01	2.834E+00	0.369
		1376.25		4.611E-01	1.500E+01	2.529E+01	2.130E+00	0.018
		1509.49		1.305E-01	8.568E+00	1.432E+01	1.214E+00	0.009
		1691.02		4.215E-01	1.848E+00	3.235E+00	2.697E-01	0.130
SB-124		602.71		-5.591E-02	7.267E-02	9.257E-02	9.090E-03	-0.604

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		645.85		1.113E-01	8.391E-01	1.426E+00	1.488E-01	0.078
		709.31		3.471E+00	4.054E+00	7.200E+00	7.292E-01	0.482
		713.82		-8.456E-01	2.553E+00	4.168E+00	5.486E-01	-0.203
		722.78		-5.408E-01	6.123E-01	7.962E-01	8.202E-02	-0.679
	+	968.20		1.149E+01	6.333E+00	1.006E+01	9.695E-01	1.143
		1045.16		-1.101E+00	4.522E+00	7.243E+00	6.639E-01	-0.152
		1325.50		2.209E+00	3.791E+00	5.981E+00	5.003E-01	0.369
		1368.21		-2.664E-01	1.761E+00	2.877E+00	3.839E-01	-0.093
		1436.60		1.103E+00	3.650E+00	6.553E+00	5.546E-01	0.168
		1691.02	*	1.643E-02	7.205E-02	1.261E-01	1.096E-02	0.130
SB-125		427.89	*	-2.099E-02	1.688E-01	2.735E-01	2.421E-02	-0.077
		463.38		5.126E-01	5.620E-01	9.542E-01	9.187E-02	0.537
		600.56		-2.733E-02	2.979E-01	4.734E-01	4.910E-02	-0.058
		635.90		-1.006E-01	4.596E-01	7.634E-01	8.061E-02	-0.132
TE-125M		109.28	*	-9.148E+00	1.191E+01	1.845E+01	1.884E+00	-0.496
I-126		388.63		4.363E-02	2.939E-01	4.862E-01	4.095E-02	0.090
		666.33	*	-1.245E-02	2.605E-01	3.797E-01	3.815E-02	-0.033
		753.82		1.803E+00	1.963E+00	3.479E+00	3.536E-01	0.518
SB-126		223.80		-3.970E-01	5.007E+00	8.406E+00	7.974E-01	-0.047
		278.60		2.127E+00	3.041E+00	5.231E+00	5.207E-01	0.407
		296.50		5.776E+00	2.858E+00	3.623E+00	3.567E-01	1.594
		414.70		5.855E-02	1.133E-01	1.903E-01	1.631E-02	0.308
		415.30		1.703E+00	9.470E+00	1.563E+01	1.340E+00	0.109
		555.20		1.859E+00	5.170E+00	8.542E+00	8.186E-01	0.218
		573.80		-1.533E-01	1.364E+00	2.169E+00	2.100E-01	-0.071
		593.00		6.966E-01	1.310E+00	2.178E+00	2.129E-01	0.320
		656.30		-1.713E+00	5.491E+00	7.819E+00	7.834E-01	-0.219
		666.33		-5.150E-03	1.078E-01	1.571E-01	1.578E-02	-0.033
		675.00		-7.756E-01	2.522E+00	4.141E+00	4.169E-01	-0.187
		695.00		5.242E-02	9.777E-02	1.700E-01	1.717E-02	0.308
		697.00		-1.069E-02	3.532E-01	5.913E-01	5.977E-02	-0.018
		720.50	*	-2.763E-02	1.853E-01	2.891E-01	2.932E-02	-0.096
		856.80		-5.725E-01	7.419E-01	1.160E+00	1.166E-01	-0.494
		989.30		-9.313E-01	2.122E+00	3.367E+00	3.207E-01	-0.277
		1034.80		-6.571E+00	1.327E+01	2.079E+01	1.920E+00	-0.316
		1213.00		9.093E-01	4.369E+00	7.245E+00	5.898E-01	0.126
SB-127	+	61.10		2.381E+03	2.307E+02	1.318E+02	1.153E+01	18.062
		252.40		8.081E-01	3.094E+00	5.217E+00	2.191E+00	0.155
		290.80		-1.268E+01	1.773E+01	2.456E+01	2.726E+00	-0.516
		411.60		1.113E+00	1.032E+01	1.698E+01	2.525E+00	0.066
		444.90		6.346E+00	8.464E+00	1.433E+01	1.671E+00	0.443
		473.00		1.083E+00	1.576E+00	2.648E+00	3.225E-01	0.409
		543.00		8.937E+00	1.364E+01	2.287E+01	3.223E+00	0.391
		603.60		3.405E-01	9.715E+00	1.360E+01	1.687E+00	0.025
		685.20	*	-3.473E-01	1.010E+00	1.653E+00	1.900E-01	-0.210
		698.50		2.490E+00	1.127E+01	1.918E+01	3.053E+00	0.130
		722.20		-1.576E+01	2.379E+01	3.189E+01	3.613E+00	-0.494
		783.80		4.239E+00	2.954E+00	5.315E+00	6.686E-01	0.798
XE-127		57.60		5.735E+01	1.285E+01	2.029E+01	1.449E+00	2.827

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		145.22		3.866E-02	8.904E-01	1.433E+00	1.214E-01	0.027
		172.10		8.991E-05	1.675E-01	2.654E-01	2.338E-02	0.000
		202.84	*	2.954E-02	6.252E-02	1.077E-01	9.944E-03	0.274
		374.96		-1.054E-01	3.292E-01	5.316E-01	4.635E-02	-0.198
I-131		80.18		-1.027E+00	4.463E+00	6.421E+00	5.523E-01	-0.160
		284.30		-8.235E-01	1.641E+00	2.662E+00	2.742E-01	-0.309
		364.48	*	3.606E-04	1.419E-01	2.337E-01	2.186E-02	0.002
		636.97		-6.357E-02	1.779E+00	2.993E+00	3.098E-01	-0.021
		722.89		-7.732E+00	8.439E+00	1.092E+01	1.110E+00	-0.708
TE-132		49.72		8.179E-01	1.073E+01	1.778E+01	1.626E+00	0.046
		111.76		-2.306E+00	1.598E+01	2.557E+01	2.472E+00	-0.090
		116.30		2.163E+00	1.517E+01	2.458E+01	2.362E+00	0.088
		228.16	*	-1.398E-01	4.409E-01	7.313E-01	1.138E-01	-0.191
BA-133		53.15		6.020E-01	5.726E+00	9.477E+00	7.060E-01	0.064
		79.62		-6.020E-01	1.860E+00	2.661E+00	4.036E-01	-0.226
		81.00		-8.658E-02	1.418E-01	1.990E-01	3.164E-02	-0.435
		276.40		1.059E-01	5.790E-01	9.744E-01	1.488E-01	0.109
		302.84		-7.417E-02	2.489E-01	3.550E-01	4.997E-02	-0.209
		356.01	*	1.184E-02	8.509E-02	1.244E-01	1.680E-02	0.095
		383.85		1.341E-01	5.343E-01	8.893E-01	1.115E-01	0.151
I-133	+	510.53		2.907E-02	5.343E-01	Half-Life too short		
		529.87	*	3.422E-04	5.343E-01	Half-Life too short		
		706.58		-2.676E-02	5.343E-01	Half-Life too short		
		856.28		-2.378E-02	5.343E-01	Half-Life too short		
		875.33		1.114E-03	5.343E-01	Half-Life too short		
		1236.41		1.239E-02	5.343E-01	Half-Life too short		
		1298.22		2.676E-03	5.343E-01	Half-Life too short		
CS-134		475.35		-1.901E+00	3.925E+00	6.186E+00	5.610E-01	-0.307
		563.23		1.325E-01	6.253E-01	1.020E+00	9.896E-02	0.130
		569.32		4.713E-02	3.268E-01	5.306E-01	5.180E-02	0.089
		604.70		-5.331E-04	6.176E-02	8.605E-02	8.472E-03	-0.006
		795.84	*	9.293E-02	8.153E-02	1.454E-01	1.483E-02	0.639
		801.93		2.321E-01	7.044E-01	1.199E+00	1.221E-01	0.194
		1038.57		-1.214E-01	6.946E+00	1.134E+01	1.045E+00	-0.011
		1167.94		-1.188E+00	4.397E+00	5.909E+00	4.783E-01	-0.201
		1365.15		3.932E-02	1.298E+00	2.189E+00	1.930E-01	0.018
CS-135		268.24	*	7.015E-02	2.857E-01	4.269E-01	4.731E-02	0.164
I-135		288.45		3.980E+05	2.857E-01	Half-Life too short		
		417.63		5.418E+04	2.857E-01	Half-Life too short		
		546.56		1.061E+05	2.857E-01	Half-Life too short		
		836.80		1.134E+05	2.857E-01	Half-Life too short		
		1038.76		-1.817E+04	2.857E-01	Half-Life too short		
		1124.00		-1.615E+06	2.857E-01	Half-Life too short		
		1131.51		-3.766E+04	2.857E-01	Half-Life too short		
		1260.41	*	1.833E+04	2.857E-01	Half-Life too short		
		1457.56		1.479E+05	2.857E-01	Half-Life too short		
		1678.03		1.426E+05	2.857E-01	Half-Life too short		
		1706.46		9.243E+04	2.857E-01	Half-Life too short		
		1791.20		1.781E+05	2.857E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-136		66.91		2.250E-04	7.289E-01	1.198E+00	1.775E-01	0.000
		86.29		9.770E+00	2.024E+00	2.759E+00	3.664E-01	3.541
		153.22		-4.564E-01	7.469E-01	1.150E+00	1.102E-01	-0.397
		163.89		1.084E-01	1.229E+00	1.961E+00	1.907E-01	0.055
		176.55		1.664E-01	4.352E-01	7.020E-01	6.567E-02	0.237
		273.65		4.635E-01	5.913E-01	9.139E-01	9.522E-02	0.507
		340.57		8.976E-02	1.819E-01	2.743E-01	2.624E-02	0.327
		818.51		-1.866E-02	1.125E-01	1.846E-01	1.870E-02	-0.101
		1048.07	*	4.881E-02	1.659E-01	2.774E-01	2.631E-02	0.176
		1235.34		2.847E-01	4.959E-01	8.573E-01	9.892E-02	0.332
CE-139		165.85	*	5.242E-03	4.247E-02	6.782E-02	5.921E-03	0.077
BA-140		162.64		-3.422E-01	8.653E-01	1.345E+00	1.235E-01	-0.254
		304.84		8.358E-02	1.802E+00	2.641E+00	7.501E-01	0.032
		423.70		1.898E+00	2.779E+00	4.607E+00	1.494E+00	0.412
		537.32	*	7.201E-02	3.673E-01	5.988E-01	1.998E-01	0.120
LA-140		328.77		2.518E-01	3.948E-01	6.727E-01	6.689E-02	0.374
		432.53		1.090E-01	3.108E+00	5.082E+00	4.645E-01	0.021
		487.03		2.400E-02	1.897E-01	3.101E-01	2.994E-02	0.077
		751.79		-1.283E+00	2.295E+00	3.664E+00	4.013E-01	-0.350
		815.85		-2.659E-01	4.754E-01	7.554E-01	8.300E-02	-0.352
		867.82		9.372E-01	2.248E+00	3.822E+00	3.984E-01	0.245
		919.63		1.602E+00	5.075E+00	8.528E+00	9.957E-01	0.188
		925.24		-1.934E+00	2.017E+00	3.092E+00	3.190E-01	-0.626
		1596.49	*	1.021E-02	9.188E-02	1.552E-01	1.310E-02	0.066
CE-141		145.44	*	2.034E-02	7.947E-02	1.284E-01	1.109E-02	0.158
CE-143		57.37		6.565E+02	2.531E+02	3.896E+02	3.791E+01	1.685
		231.56		-1.168E+02	4.453E+02	7.379E+02	2.374E+02	-0.158
		293.26	*	5.785E+01	2.966E+01	4.433E+01	9.950E+00	1.305
	+	350.59		1.761E+03	7.489E+02	7.203E+02	2.270E+02	2.445
		490.36		-1.139E+02	5.719E+02	9.123E+02	2.925E+02	-0.125
		664.57		4.125E+03	1.438E+03	9.628E+02	3.180E+02	4.285
		721.93		-1.629E+02	2.741E+02	3.656E+02	1.097E+02	-0.445
CE-144		80.11		-6.483E-01	2.963E+00	4.265E+00	3.653E-01	-0.152
		133.54	*	-1.775E-01	2.974E-01	4.605E-01	7.106E-02	-0.386
PM-144		476.78		-8.092E-02	1.372E-01	2.146E-01	2.113E-02	-0.377
		618.01		-5.842E-02	5.682E-02	8.279E-02	8.353E-03	-0.706
		696.49	*	4.343E-03	5.652E-02	9.531E-02	9.634E-03	0.046
		778.57		-2.922E+00	3.981E+00	6.247E+00	6.348E-01	-0.468
PR-144		696.49	*	2.936E-01	3.821E+00	6.443E+00	6.513E-01	0.046
		1489.15		0.000E+00	1.255E+01	2.093E+01	1.774E+00	0.000
PM-146		453.90	*	-2.139E-02	8.723E-02	1.399E-01	1.532E-02	-0.153
		633.02		2.014E-01	2.429E+00	3.899E+00	1.470E+00	0.052
		735.90		-1.357E-01	2.513E-01	3.978E-01	1.158E-01	-0.341
		747.13		6.178E-02	1.505E-01	2.587E-01	3.889E-02	0.239
ND-147		91.11		-2.592E-01	2.571E-01	3.984E-01	3.941E-02	-0.651
		319.41		2.800E+00	4.081E+00	6.998E+00	6.732E-01	0.400
		439.89		1.031E+00	8.448E+00	1.387E+01	1.219E+00	0.074
		531.02	*	7.372E-01	7.606E-01	1.295E+00	2.000E-01	0.569
PM-149		285.90	*	-7.935E+00	3.713E+01	6.116E+01	9.962E+00	-0.130

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	+	121.78		6.805E-01	1.878E-01	2.408E-01	2.332E-02	2.826
		244.69		7.874E-03	5.468E-01	8.095E-01	7.853E-02	0.010
		344.27	*	3.627E-02	1.715E-01	2.661E-01	2.596E-02	0.136
		443.98		1.618E-01	1.822E+00	2.984E+00	2.632E-01	0.054
		778.89		-3.377E-01	4.581E-01	7.183E-01	7.298E-02	-0.470
		867.32		1.083E+00	1.733E+00	2.981E+00	2.990E-01	0.363
		964.01		6.745E-02	7.367E-01	1.057E+00	1.021E-01	0.064
		1085.78		2.552E-01	8.416E-01	1.402E+00	1.241E-01	0.182
		1112.02		-4.589E-01	6.051E-01	9.210E-01	7.949E-02	-0.498
		1407.95		2.464E-02	2.042E-01	3.488E-01	2.946E-02	0.071
GD-153		69.67		6.937E-01	1.953E+00	3.239E+00	2.478E-01	0.214
		83.37		2.587E+01	2.145E+01	3.284E+01	2.927E+00	0.788
		97.43	*	-7.263E-02	1.126E-01	1.562E-01	1.385E-02	-0.465
		103.18		1.074E-03	1.351E-01	2.184E-01	1.889E-02	0.005
EU-154	+	123.07		4.776E-01	1.344E-01	1.677E-01	1.870E-02	2.848
		247.94		-7.014E-02	5.297E-01	8.824E-01	1.088E-01	-0.079
		591.81		-4.023E-01	1.117E+00	1.739E+00	2.181E-01	-0.231
		723.30		-2.709E-01	3.058E-01	3.971E-01	4.339E-02	-0.682
		756.87		5.575E-01	1.295E+00	2.226E+00	2.923E-01	0.250
		873.19		-9.557E-02	6.345E-01	1.039E+00	1.378E-01	-0.092
		996.32		9.739E-03	7.783E-01	1.277E+00	2.325E-01	0.008
		1004.76		-2.142E-01	4.641E-01	7.348E-01	9.005E-02	-0.291
		1274.45	*	6.465E-03	1.145E-01	1.865E-01	2.061E-02	0.035
EU-155		48.70		-1.967E+00	3.222E+00	5.225E+00	4.182E-01	-0.376
	+	60.01		4.383E+02	3.625E+01	3.292E+01	2.336E+00	13.313
		86.54		1.842E+00	2.671E-01	3.781E-01	3.540E-02	4.872
		105.31	*	2.949E-02	1.406E-01	2.294E-01	1.995E-02	0.129
TB-160	+	86.79		1.014E+01	1.129E+00	1.085E+00	1.011E-01	9.340
		197.04		2.423E-01	7.875E-01	1.350E+00	1.236E-01	0.180
		215.65		-3.333E-01	1.092E+00	1.817E+00	1.706E-01	-0.183
	+	298.57		1.767E-01	1.918E-01	3.119E-01	3.065E-02	0.566
		879.36	*	-3.047E-02	2.849E-01	4.677E-01	4.676E-02	-0.065
		962.29		1.410E-02	1.154E+00	1.848E+00	1.787E-01	0.008
		966.15		1.821E-01	4.737E-01	6.961E-01	6.717E-02	0.262
		1177.93		5.328E-01	5.450E-01	8.722E-01	7.023E-02	0.611
		1271.85		-3.425E-01	6.609E-01	9.604E-01	7.941E-02	-0.357
HO-166M		80.57		-2.583E-01	3.891E-01	5.466E-01	4.708E-02	-0.473
	+	184.41		1.221E-01	7.563E-02	9.001E-02	8.084E-03	1.357
		280.46		-6.269E-02	1.351E-01	2.198E-01	2.187E-02	-0.285
		410.95		-5.625E-03	4.547E-01	7.435E-01	6.345E-02	-0.008
		711.68	*	5.667E-02	9.835E-02	1.713E-01	1.735E-02	0.331
		752.31		3.623E-03	4.591E-01	7.671E-01	7.795E-02	0.005
		810.29		-3.489E-02	1.063E-01	1.722E-01	1.746E-02	-0.203
TM-171		51.35		1.580E+01	4.598E+01	7.660E+01	5.852E+00	0.206
		52.39		9.466E+00	2.463E+01	4.106E+01	3.089E+00	0.231
	+	59.40		2.299E+03	1.902E+02	1.798E+02	1.273E+01	12.784
		66.72	*	-2.506E+01	3.400E+01	5.429E+01	4.044E+00	-0.462
LU-176	+	88.36		7.793E+00	8.682E-01	9.232E-01	8.704E-02	8.442
		201.83		-3.856E-02	4.312E-02	6.998E-02	6.449E-03	-0.551

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		306.84	*	2.199E-02	3.867E-02	6.609E-02	6.447E-03	0.333
		401.10		2.128E+00	1.228E+01	2.031E+01	1.714E+00	0.105
LU-177		112.95		4.243E-01	1.409E+00	2.300E+00	1.939E-01	0.184
	+	208.36	*	2.205E+00	1.368E+00	1.800E+00	1.674E-01	1.225
LU-177M		52.97		1.583E-01	2.536E+00	4.193E+00	3.131E-01	0.038
		54.07		-4.208E-01	1.455E+00	2.271E+00	1.673E-01	-0.185
		61.30		4.818E+01	4.636E+00	6.323E+00	4.523E-01	7.620
	+	121.62		3.427E+00	9.307E-01	1.204E+00	1.004E-01	2.846
		147.16		-9.100E-02	9.041E-01	1.435E+00	1.218E-01	-0.063
		171.86		-2.247E-02	7.187E-01	1.137E+00	1.001E-01	-0.020
		218.09		1.385E-01	1.248E+00	2.114E+00	1.992E-01	0.065
	+	268.79		2.262E+00	1.505E+00	2.190E+00	2.167E-01	1.033
		319.02		1.831E-01	4.065E-01	6.896E-01	6.637E-02	0.266
		367.43		6.112E-02	1.539E+00	2.538E+00	2.251E-01	0.024
		413.65	*	8.523E-02	3.293E-01	5.460E-01	4.673E-02	0.156
HF-181		56.28		2.048E+00	1.711E+00	2.611E+00	1.884E-01	0.784
		57.53		4.222E+00	1.067E+00	1.683E+00	1.203E-01	2.508
		65.20		-1.009E+00	1.015E+00	1.601E+00	1.178E-01	-0.630
		133.02		-2.847E-02	8.661E-02	1.364E-01	1.141E-02	-0.209
		136.25		3.383E-01	6.373E-01	1.044E+00	8.757E-02	0.324
		345.85		-4.794E-02	3.152E-01	4.770E-01	4.413E-02	-0.101
		482.03	*	-5.292E-02	7.736E-02	1.199E-01	1.093E-02	-0.441
W-181		56.28		8.408E-01	7.017E-01	1.071E+00	7.724E-02	0.785
		57.53		1.725E+00	4.373E-01	6.901E-01	4.933E-02	2.499
		65.20	*	-4.108E-01	4.130E-01	6.519E-01	4.797E-02	-0.630
TA-182		67.75		8.161E-02	1.261E-01	2.118E-01	1.592E-02	0.385
		100.10		9.736E-02	2.281E-01	3.761E-01	3.294E-02	0.259
		152.43		-1.671E-01	4.664E-01	7.288E-01	6.234E-02	-0.229
		222.10		-8.535E-02	5.216E-01	8.726E-01	8.260E-02	-0.098
		1001.68		1.257E+00	4.221E+00	7.021E+00	6.637E-01	0.179
		1121.28		3.382E-01	2.531E-01	4.501E-01	3.847E-02	0.751
		1189.05		-1.538E-01	3.776E-01	5.806E-01	4.691E-02	-0.265
		1221.42	*	-5.247E-02	1.757E-01	2.700E-01	2.203E-02	-0.194
		1230.97		2.715E-01	4.547E-01	7.956E-01	6.509E-02	0.341
RE-183		57.98		5.647E+00	6.300E-01	9.008E-01	6.421E-02	6.269
	+	59.32		9.061E+00	7.494E-01	7.121E-01	5.041E-02	12.724
		67.20		4.796E-03	2.256E-01	3.709E-01	2.775E-02	0.013
		162.32	*	-4.489E-02	1.533E-01	2.398E-01	2.081E-02	-0.187
	+	208.81		2.981E+00	1.850E+00	2.453E+00	2.282E-01	1.215
		291.72		4.292E-01	1.585E+00	2.364E+00	2.336E-01	0.182
RE-184		57.98		2.134E+01	2.381E+00	3.405E+00	2.427E-01	6.269
	+	59.32		3.422E+01	2.830E+00	2.689E+00	1.904E-01	12.724
		67.20		1.812E-02	8.523E-01	1.401E+00	1.048E-01	0.013
		161.27		-2.527E-01	5.205E-01	8.057E-01	6.982E-02	-0.314
		216.55		-1.549E-01	3.983E-01	6.602E-01	6.207E-02	-0.235
		252.85	*	1.996E-01	3.526E-01	6.059E-01	5.922E-02	0.329
		318.01		-4.261E-01	7.244E-01	1.161E+00	1.118E-01	-0.367
		792.07		1.096E+00	1.657E+00	2.883E+00	2.927E-01	0.380
		903.28		4.311E-01	2.096E+00	3.506E+00	3.479E-01	0.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		920.93		8.859E-01	1.025E+00	1.774E+00	1.748E-01	0.499
OS-185	+	59.72		2.499E+01	2.067E+00	1.918E+00	1.359E-01	13.027
	+	61.14		1.442E+01	1.192E+00	7.753E-01	5.540E-02	18.596
		69.30		1.309E-01	3.431E-01	5.695E-01	4.342E-02	0.230
		592.07		-6.836E-01	4.430E+00	7.013E+00	6.852E-01	-0.097
		646.12	*	3.214E-02	7.209E-02	1.249E-01	1.247E-02	0.257
		717.42		1.281E+00	1.367E+00	2.438E+00	2.472E-01	0.525
		874.81		1.332E-01	1.191E+00	1.985E+00	1.987E-01	0.067
		880.27		4.188E-01	1.579E+00	2.656E+00	2.655E-01	0.158
RE-188		155.03	*	1.874E-01	2.356E-01	3.889E-01	3.339E-02	0.482
		477.96		3.768E+00	5.857E+00	9.841E+00	8.944E-01	0.383
		633.10		9.122E-01	4.656E+00	7.544E+00	7.499E-01	0.121
W-188		63.58		1.957E+00	6.232E+01	9.393E+01	6.826E+00	0.021
		227.08		8.290E-01	1.975E+01	3.332E+01	3.172E+00	0.025
		290.67	*	-1.015E+01	1.286E+01	1.771E+01	1.751E+00	-0.574
IR-192	+	295.96		6.533E-01	2.793E-01	3.433E-01	3.400E-02	1.903
		308.46		-1.047E-01	1.475E-01	2.348E-01	2.296E-02	-0.446
		316.51	*	-2.424E-02	5.220E-02	8.420E-02	8.143E-03	-0.288
		468.07		-4.167E-04	1.302E-01	2.115E-01	2.032E-02	-0.002
		604.41		-4.787E-01	8.458E-01	1.104E+00	1.528E-01	-0.434
		612.46		9.883E-01	1.306E+00	1.953E+00	2.148E-01	0.506
AU-195		65.12		-1.789E-01	1.933E-01	3.061E-01	2.251E-02	-0.584
		66.83		-5.938E-04	1.084E-01	1.780E-01	1.328E-02	-0.003
		75.70		5.763E-01	3.038E-01	4.696E-01	3.822E-02	1.227
		98.88	*	3.364E-01	3.142E-01	4.829E-01	4.253E-02	0.696
		129.76		7.599E-01	3.821E+00	6.184E+00	5.164E-01	0.123
TL-200		367.94	*	-1.080E-05	3.821E+00	Half-Life too short		
		579.30		-3.206E-04	3.821E+00	Half-Life too short		
		828.27		2.915E-04	3.821E+00	Half-Life too short		
		1205.75		1.165E-04	3.821E+00	Half-Life too short		
TL-201		68.90		9.974E-01	2.116E+00	3.524E+00	2.676E-01	0.283
		70.82		-5.429E-01	1.207E+00	1.942E+00	1.502E-01	-0.280
		80.30		-1.561E+00	2.664E+00	3.760E+00	3.228E-01	-0.415
		135.34		1.785E+01	1.378E+01	2.325E+01	1.949E+00	0.767
		167.43	*	5.806E-01	3.819E+00	6.105E+00	5.341E-01	0.095
TL-202		68.90		1.893E-01	4.018E-01	6.689E-01	5.080E-02	0.283
		70.82		-1.028E-01	2.286E-01	3.677E-01	2.844E-02	-0.280
		80.30		-2.956E-01	5.045E-01	7.119E-01	6.112E-02	-0.415
		439.56	*	2.833E-02	1.025E-01	1.697E-01	1.490E-02	0.167
HG-203		70.83		-5.401E-01	1.190E+00	1.912E+00	2.498E-01	-0.283
		72.87		-1.382E+00	8.498E-01	1.121E+00	1.428E-01	-1.233
		82.60		-1.189E+00	1.411E+00	2.212E+00	3.070E-01	-0.537
		279.20	*	4.482E-02	6.032E-02	1.039E-01	1.057E-02	0.431
BI-207		72.80		-5.221E-01	2.657E-01	3.479E-01	2.746E-02	-1.500
		74.97		6.231E-02	1.618E-01	2.398E-01	1.936E-02	0.260
		84.90		3.516E-01	2.910E-01	4.441E-01	4.036E-02	0.792
		569.67		-9.916E-04	5.056E-02	8.106E-02	7.831E-03	-0.012
		1063.62	*	2.264E-02	1.035E-01	1.718E-01	1.551E-02	0.132
		1770.23		-1.599E+00	8.485E-01	8.934E-01	7.329E-02	-1.789

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-207		81.07		-1.815E-01	3.124E-01	4.408E-01	3.820E-02	-0.412
		83.78		2.979E-01	1.878E-01	2.908E-01	2.606E-02	1.024
		94.90		-4.915E-01	3.161E-01	4.742E-01	4.265E-02	-1.037
	+	122.32		1.622E+01	4.438E+00	5.754E+00	5.172E-01	2.818
		144.24		-7.250E-01	9.721E-01	1.500E+00	1.425E-01	-0.483
		154.21		2.833E-01	5.586E-01	9.110E-01	8.598E-02	0.311
	+	269.46		5.397E-01	3.591E-01	5.230E-01	5.258E-02	1.032
		323.87	*	-8.719E-01	1.140E+00	1.795E+00	3.265E-01	-0.486
	+	338.28		5.791E+00	2.869E+00	3.327E+00	4.275E-01	1.741
		445.03		3.503E+00	4.348E+00	7.377E+00	9.029E-01	0.475
PO-209		260.50		8.530E+00	1.544E+01	2.647E+01	2.603E+00	0.322
		262.80		2.707E+01	4.379E+01	7.521E+01	7.409E+00	0.360
		896.60	*	-9.990E-01	1.624E+01	2.671E+01	2.656E+00	-0.037
BI-210		46.50	*	-2.032E+00	4.183E+00	6.842E+00	6.345E-01	-0.297
PB-210		46.50	*	-2.032E+00	4.183E+00	6.842E+00	6.345E-01	-0.297
PO-210		46.50	*	-2.032E+00	4.182E+00	6.842E+00	5.741E-01	-0.297
PB-211		404.84	*	1.434E-01	1.660E+00	2.727E+00	1.708E+00	0.053
		427.08		-2.022E+00	4.015E+00	6.031E+00	3.748E+00	-0.335
		831.96		-9.411E-01	2.348E+00	3.641E+00	2.290E+00	-0.258
BI-212	+	727.18	*	4.389E-01	6.800E-01	9.007E-01	1.022E-01	0.487
		785.46		1.423E+00	3.140E+00	5.388E+00	5.473E-01	0.264
		1620.62		2.498E-01	1.552E+00	2.650E+00	2.232E-01	0.094
PO-215		81.07		-1.815E-01	3.124E-01	4.408E-01	3.820E-02	-0.412
		83.78		2.979E-01	1.878E-01	2.908E-01	2.606E-02	1.024
		94.90		-4.915E-01	3.161E-01	4.742E-01	4.265E-02	-1.037
	+	122.32		1.622E+01	4.438E+00	5.754E+00	5.172E-01	2.818
		144.24		-7.250E-01	9.721E-01	1.500E+00	1.425E-01	-0.483
		154.21		2.833E-01	5.586E-01	9.110E-01	8.598E-02	0.311
	+	269.46		5.397E-01	3.591E-01	5.230E-01	5.258E-02	1.032
		323.87	*	-8.719E-01	1.140E+00	1.795E+00	3.265E-01	-0.486
	+	338.28		5.791E+00	2.869E+00	3.327E+00	4.275E-01	1.741
		445.03		3.503E+00	4.348E+00	7.377E+00	9.029E-01	0.475
RN-219	+	271.23		6.925E-01	4.622E-01	6.391E-01	7.294E-02	1.083
		401.81	*	3.758E-01	7.515E-01	1.262E+00	1.883E-01	0.298
RN-220		549.76	*	8.041E+00	4.620E+01	7.527E+01	7.191E+00	0.107
RA-223		81.07		-1.815E-01	3.124E-01	4.408E-01	3.820E-02	-0.412
		83.78		2.979E-01	1.878E-01	2.908E-01	2.606E-02	1.024
		94.90		-4.915E-01	3.161E-01	4.742E-01	4.265E-02	-1.037
	+	122.32		1.622E+01	4.438E+00	5.754E+00	5.172E-01	2.818
		144.24		-7.250E-01	9.721E-01	1.500E+00	1.425E-01	-0.483
		154.21		2.833E-01	5.586E-01	9.110E-01	8.598E-02	0.311
	+	269.46		5.397E-01	3.591E-01	5.230E-01	5.258E-02	1.032
		323.87	*	-8.719E-01	1.140E+00	1.795E+00	3.265E-01	-0.486
	+	338.28		5.791E+00	2.869E+00	3.327E+00	4.275E-01	1.741
		445.03		3.503E+00	4.348E+00	7.377E+00	9.029E-01	0.475
RA-224		240.98	*	4.094E+00	1.302E+00	2.146E+00	2.075E-01	1.907
AC-227		79.80		-3.921E-01	2.321E+00	3.348E+00	7.189E-01	-0.117
		236.00		3.589E-01	3.904E-01	6.054E-01	7.849E-02	0.593
		256.20	*	-2.244E-01	6.011E-01	9.869E-01	1.583E-01	-0.227

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		286.10		-9.207E-01	2.459E+00	4.014E+00	5.653E-01	-0.229
	+	299.80		2.346E+00	2.573E+00	4.083E+00	7.395E-01	0.575
		304.40		9.552E-01	3.279E+00	4.887E+00	9.287E-01	0.195
		334.20		-3.845E-01	4.178E+00	6.025E+00	1.192E+00	-0.064
TH-227		79.80		-3.921E-01	2.321E+00	3.348E+00	7.281E-01	-0.117
	+	94.00		4.924E+00	3.882E+00	4.294E+00	9.425E-01	1.147
		236.00		3.589E-01	3.899E-01	6.054E-01	7.185E-02	0.593
		256.20	*	-2.244E-01	6.015E-01	9.869E-01	1.841E-01	-0.227
		286.10		-9.207E-01	2.624E+00	4.014E+00	4.034E+00	-0.229
	+	299.80		2.346E+00	2.573E+00	4.083E+00	7.395E-01	0.575
		304.40		9.552E-01	3.279E+00	4.887E+00	9.287E-01	0.195
		334.20		-3.845E-01	4.178E+00	6.025E+00	1.192E+00	-0.064
TH-229		85.43		4.237E-01	2.960E-01	4.538E-01	4.153E-02	0.934
	+	88.47		4.486E+00	4.998E-01	5.291E-01	4.984E-02	8.479
		100.00		1.137E-01	2.435E-01	4.022E-01	3.523E-02	0.283
		193.63	*	7.552E-01	7.349E-01	1.293E+00	1.177E-01	0.584
		210.97		4.150E-01	1.266E+00	1.922E+00	1.794E-01	0.216
PA-231		283.67	*	-9.882E-01	2.452E+00	3.995E+00	6.378E-01	-0.247
		301.29		2.929E-01	1.024E+00	1.525E+00	1.998E-01	0.192
TH-231		81.07		-1.815E-01	3.124E-01	4.408E-01	3.820E-02	-0.412
		83.78		2.979E-01	1.878E-01	2.908E-01	2.606E-02	1.024
		94.90		-4.915E-01	3.161E-01	4.742E-01	4.265E-02	-1.037
	+	122.32		1.622E+01	4.438E+00	5.754E+00	5.172E-01	2.818
		144.24		-7.250E-01	9.721E-01	1.500E+00	1.425E-01	-0.483
		154.21		2.833E-01	5.586E-01	9.110E-01	8.598E-02	0.311
	+	269.46		5.397E-01	3.591E-01	5.230E-01	5.258E-02	1.032
		323.87	*	-8.719E-01	1.140E+00	1.795E+00	3.265E-01	-0.486
	+	338.28		5.791E+00	2.869E+00	3.327E+00	4.275E-01	1.741
		445.03		3.503E+00	4.348E+00	7.377E+00	9.029E-01	0.475
U-231		84.21		5.833E+00	3.910E+00	6.037E+00	5.439E-01	0.966
	+	92.29		2.365E+00	1.804E+00	2.146E+00	1.963E-01	1.102
		95.87	*	-4.237E-02	7.166E-01	1.032E+00	9.230E-02	-0.041
		108.00		1.095E+00	1.307E+00	2.188E+00	1.864E-01	0.500
PA-233		75.28		3.813E+00	4.788E+00	7.160E+00	1.079E+00	0.533
		86.59		3.269E+01	9.464E+00	6.328E+00	1.711E+00	5.166
	+	300.12		6.542E-01	7.147E-01	1.112E+00	1.734E-01	0.588
		311.98	*	3.209E-02	1.016E-01	1.714E-01	1.701E-02	0.187
		340.50		7.175E-01	1.130E+00	1.703E+00	4.106E-01	0.421
		398.62		1.770E+00	3.794E+00	6.331E+00	1.682E+00	0.280
		415.76		2.115E-01	3.144E+00	5.159E+00	1.111E+00	0.041
PA-234		63.00		3.916E-01	1.929E+00	2.931E+00	4.331E-01	0.134
		94.67		-2.288E-01	2.298E-01	3.548E-01	4.496E-02	-0.645
		98.44		1.356E-01	1.487E-01	1.975E-01	1.103E-01	0.686
		99.86		3.741E-01	6.449E-01	1.024E+00	8.975E-02	0.365
		111.00		-7.349E-02	2.463E-01	3.912E-01	4.685E-02	-0.188
		131.20		-1.427E-01	1.475E-01	2.241E-01	1.873E-02	-0.637
		152.70		-2.225E-01	4.656E-01	7.208E-01	1.226E-01	-0.309
	+	186.00		4.395E+00	3.025E+00	3.432E+00	1.075E+00	1.281
		226.40		3.697E-01	6.430E-01	1.105E+00	1.525E-01	0.335

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		227.20		-3.092E-02	7.006E-01	1.177E+00	1.121E-01	-0.026
		248.90		-8.452E-01	1.229E+00	1.963E+00	4.488E-01	-0.431
	+	293.70		4.284E+00	1.940E+00	2.171E+00	3.898E-01	1.973
		369.80		-6.528E-01	1.481E+00	2.364E+00	5.168E-01	-0.276
		568.70		1.928E-01	1.688E+00	2.733E+00	2.639E-01	0.071
		569.50		3.098E-02	4.516E-01	7.290E-01	7.042E-02	0.043
		574.00		-6.885E-02	2.515E+00	4.027E+00	3.900E-01	-0.017
		699.00		-1.791E-01	1.180E+00	1.957E+00	3.875E-01	-0.091
		706.10		-7.840E-01	1.703E+00	2.695E+00	1.210E+00	-0.291
		733.00		1.282E-01	6.853E-01	1.061E+00	2.422E-01	0.121
		742.81		-1.053E+00	2.336E+00	3.581E+00	2.415E+00	-0.294
		796.30		1.715E+00	1.627E+00	2.790E+00	7.693E-01	0.615
		805.60		6.636E-01	1.815E+00	3.078E+00	9.577E-01	0.216
		819.60		1.580E+00	2.395E+00	4.035E+00	1.549E+00	0.391
		826.30		-3.018E-01	1.631E+00	2.664E+00	1.200E+00	-0.113
		831.60		-5.519E-01	1.171E+00	1.848E+00	5.602E-01	-0.299
		876.40		-1.784E-01	1.798E+00	2.938E+00	3.024E+00	-0.061
		880.51		9.611E-02	5.881E-01	9.830E-01	9.826E-02	0.098
		883.24		1.711E-01	5.774E-01	9.547E-01	6.436E-01	0.179
		899.00		3.875E-01	1.903E+00	3.179E+00	1.399E+00	0.122
		925.00		-2.083E+00	2.681E+00	4.177E+00	4.110E-01	-0.499
		926.50		-1.882E-01	3.883E-01	6.137E-01	1.578E-01	-0.307
		946.00	*	-6.042E-01	7.041E-01	1.077E+00	2.079E-01	-0.561
		949.00		6.455E-01	9.810E-01	1.680E+00	1.636E-01	0.384
		980.50		1.563E-02	1.634E+00	2.684E+00	2.570E-01	0.006
		1394.10		1.111E-01	1.379E+00	2.337E+00	1.521E+00	0.048
PA-234M		766.42		2.245E+01	2.243E+01	3.464E+01	1.767E+01	0.648
		1001.03	*	3.622E+00	9.836E+00	1.644E+01	1.758E+00	0.220
TH-234		63.29	*	3.851E-01	1.646E+00	2.503E+00	4.349E-01	0.154
	+	92.38		1.274E+00	9.927E-01	1.161E+00	2.129E-01	1.098
U-235		89.95		9.910E+00	3.527E+00	3.256E+00	1.011E+00	3.044
	+	93.35		1.532E+00	1.238E+00	1.377E+00	3.879E-01	1.113
		105.00		-7.545E-02	1.392E+00	2.243E+00	6.692E-01	-0.034
		143.76	*	-1.458E-01	2.998E-01	4.682E-01	8.160E-02	-0.311
		163.35		-9.675E-02	6.918E-01	1.090E+00	2.084E-01	-0.089
	+	185.71		1.628E-01	1.008E-01	1.274E-01	1.146E-02	1.278
		205.31		2.944E-01	8.134E-01	1.238E+00	2.400E-01	0.238
NP-236		94.67		-1.719E-01	1.737E-01	2.693E-01	2.425E-02	-0.639
		98.44		1.025E-01	9.716E-02	1.493E-01	1.318E-02	0.686
		111.00		-5.559E-02	1.863E-01	2.959E-01	2.504E-02	-0.188
		160.31	*	1.478E-02	1.164E-01	1.856E-01	1.606E-02	0.080
NP-237		86.50	*	4.175E+00	1.065E+00	9.023E-01	2.041E-01	4.627
		95.87		-7.689E-02	1.300E+00	1.873E+00	4.635E-01	-0.041
U-238		63.29	*	3.851E-01	1.646E+00	2.503E+00	4.349E-01	0.154
	+	92.38		1.274E+00	9.718E-01	1.161E+00	1.061E-01	1.098
NP-239		99.55		2.052E-01	2.129E-01	3.439E-01	3.019E-02	0.597
		117.00	*	-5.832E-02	2.802E-01	4.241E-01	3.553E-02	-0.138
	+	209.75		2.455E+00	1.524E+00	2.015E+00	1.878E-01	1.218
		228.18		-5.719E-02	3.622E-01	6.055E-01	5.773E-02	-0.094

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		-7.368E-02	2.835E-01	4.669E-01	4.645E-02	-0.158
		334.30		-2.870E-01	2.364E+00	3.401E+00	3.207E-01	-0.084
AM-243		74.67	*	6.007E-02	8.814E-02	1.321E-01	1.063E-02	0.455
	+	86.72		3.618E+02	4.031E+01	3.798E+01	3.533E+00	9.527
		117.66		2.254E+00	5.961E+00	8.744E+00	7.320E-01	0.258
		142.18		-3.422E+00	2.466E+01	3.911E+01	3.301E+00	-0.088
CM-243		99.55		2.111E-01	2.190E-01	3.538E-01	3.106E-02	0.597
		103.76	*	9.020E-03	1.265E-01	2.052E-01	1.771E-02	0.044
		117.00		-5.998E-02	2.881E-01	4.362E-01	3.654E-02	-0.138
	+	209.75		2.420E+00	1.502E+00	1.986E+00	1.851E-01	1.218
		228.18		-5.777E-02	3.658E-01	6.116E-01	5.831E-02	-0.094
		277.60		-7.426E-02	2.857E-01	4.706E-01	4.681E-02	-0.158
AM-246		798.80		-4.439E-01	2.586E-01	3.684E-01	3.738E-02	-1.205
		1036.00		-6.037E-02	5.670E-01	9.191E-01	8.484E-02	-0.066
		1062.04		-3.934E-02	4.555E-01	7.386E-01	6.678E-02	-0.053
		1078.86	*	-2.204E-01	2.913E-01	4.455E-01	3.970E-02	-0.495
CM-247		278.00		5.561E-01	1.160E+00	1.978E+00	1.968E-01	0.281
		287.40		3.296E-01	1.978E+00	3.322E+00	3.292E-01	0.099
		402.60	*	1.913E-02	6.685E-02	1.112E-01	9.404E-03	0.172
CF-249		252.85		7.626E-01	1.347E+00	2.315E+00	2.262E-01	0.329
		333.44		-2.904E-02	3.122E-01	4.504E-01	4.251E-02	-0.064
		387.95	*	2.845E-02	7.311E-02	1.225E-01	1.033E-02	0.232
CF-251		176.60	*	7.223E-02	1.889E-01	3.047E-01	2.704E-02	0.237
		227.00		1.909E-02	6.189E-01	1.043E+00	9.933E-02	0.018
		285.00		-1.337E+00	2.785E+00	4.522E+00	4.488E-01	-0.296

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029819 *
* Acquisition date : 12-FEB-2010 18:28:27 Detector SN#     :            *
* Detector ID        : GAM20               Sensitivity      : 5.000    *
* Geometry           : CAN                 Energy tolerance: 1.500     *
* Elapsed live time:     0 01:00:00.00     Abundance limit : 75.000    *
* Elapsed real time:     0 01:00:19.24     Half life ratio :  8.000    *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date        :  2-FEB-2010 00:00:00 Nuclide Library : SOLID     *
* Sample ID          : G1202029819          Analyst initials: RXF2      *
* Batch Number       : 947554               Sample Quantity : 1.5544E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000 *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
* Standard Weight  :   0.00000                                          *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.320E-01	6.175E-02	6.030E-02	0.000E+00
CO-60	6.725E+00	6.339E-01	6.859E-02	0.000E+00
CD-109	3.321E+01	3.626E+00	1.841E+00	0.000E+00
SN-126	3.286E+00	3.587E-01	1.826E-01	0.000E+00
BA-137M	5.743E+00	6.182E-01	1.118E-01	0.000E+00
CS-137	6.071E+00	6.542E-01	1.182E-01	0.000E+00
TL-208	3.898E-01	1.082E-01	1.053E-01	0.000E+00
BI-211	2.009E+00	5.930E-01	5.691E-01	0.000E+00
PB-212	1.018E+00	2.359E-01	1.576E-01	0.000E+00
PO-212	1.018E+00	2.359E-01	1.576E-01	0.000E+00
BI-214	7.127E-01	2.232E-01	1.895E-01	0.000E+00
PB-214	6.987E-01	2.094E-01	2.041E-01	0.000E+00
PO-214	6.987E-01	2.094E-01	2.041E-01	0.000E+00
PO-216	1.018E+00	2.359E-01	1.576E-01	0.000E+00
PO-218	6.987E-01	2.094E-01	2.041E-01	0.000E+00
RA-226	7.127E-01	2.232E-01	1.895E-01	0.000E+00
AC-228	7.688E-01	4.565E-01	4.660E-01	0.000E+00
RA-228	7.688E-01	4.565E-01	4.660E-01	0.000E+00
TH-228	1.029E+00	2.385E-01	1.593E-01	0.000E+00
TH-230	7.127E-01	2.232E-01	1.895E-01	0.000E+00
TH-232	7.688E-01	4.565E-01	4.660E-01	0.000E+00
U-234	7.127E-01	2.232E-01	1.895E-01	0.000E+00
AM-241	1.350E+01	1.180E+00	4.163E-01	0.000E+00
ANH-511	9.397E-02	9.254E-02	8.296E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.480E-01	6.164E-01	1.026E+00	0.000E+00	NOT IDENT.
NA-22	-1.315E-03	4.080E-02	6.753E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.941E+03	0.000E+00	0.000E+00	SHORT HLIF

AL-26	4.455E-03	3.813E-02	6.579E-02	0.000E+00	NOT IDENT.
K-40	6.210E-01	5.118E-01	1.002E+00	0.000E+00	NOT IDENT.
TI-44	9.287E-02	7.436E-02	9.773E-02	0.000E+00	FAIL ABUN
SC-46	-2.900E-03	7.260E-02	1.248E-01	0.000E+00	NOT IDENT.
V-48	-1.279E-01	1.298E-01	2.057E-01	0.000E+00	NOT IDENT.
CR-51	1.410E-01	5.381E-01	9.691E-01	0.000E+00	NOT IDENT.
MN-52	-2.602E-02	1.426E-01	2.372E-01	0.000E+00	FAIL ABUN
MN-54	-1.211E-02	6.637E-02	1.136E-01	0.000E+00	NOT IDENT.
CO-56	2.286E-02	7.016E-02	1.242E-01	0.000E+00	NOT IDENT.
CO-58	-1.155E-03	6.713E-02	1.166E-01	0.000E+00	NOT IDENT.
FE-59	-1.794E-01	1.561E-01	2.360E-01	0.000E+00	NOT IDENT.
ZN-65	2.081E-02	1.640E-01	2.794E-01	0.000E+00	NOT IDENT.
GE-68	-1.789E+00	2.451E+00	3.905E+00	0.000E+00	NOT IDENT.
AS-73	-5.225E-01	1.279E+00	2.342E+00	0.000E+00	NOT IDENT.
AS-74	-3.405E-02	1.416E-01	2.350E-01	0.000E+00	NOT IDENT.
SE-75	-5.477E-02	7.226E-02	1.208E-01	0.000E+00	FAIL ABUN
BR-77	3.340E+00	4.957E+00	8.852E+00	0.000E+00	FAIL ABUN
SR-82	-3.556E-01	5.706E-01	9.481E-01	0.000E+00	NOT IDENT.
RB-83	-1.909E-02	1.185E-01	2.002E-01	0.000E+00	NOT IDENT.
RB-84	6.733E-02	1.273E-01	2.273E-01	0.000E+00	NOT IDENT.
KR-85	1.127E+01	1.235E+01	2.001E+01	0.000E+00	NOT IDENT.
SR-85	5.521E-02	6.046E-02	9.798E-02	0.000E+00	NOT IDENT.
RB-86	-4.177E-01	1.303E+00	2.150E+00	0.000E+00	NOT IDENT.
Y-88	-2.276E-02	4.195E-02	6.126E-02	0.000E+00	NOT IDENT.
ZR-88	-3.320E-02	5.049E-02	8.482E-02	0.000E+00	NOT IDENT.
Y-91	-3.771E-01	2.049E+01	3.423E+01	0.000E+00	NOT IDENT.
NB-94	1.694E-02	5.433E-02	9.762E-02	0.000E+00	NOT IDENT.
NB-95	4.369E-02	6.752E-02	1.228E-01	0.000E+00	NOT IDENT.
NB-95M	8.462E-02	1.911E-01	3.138E-01	0.000E+00	NOT IDENT.
ZR-95	8.919E-02	1.102E-01	2.033E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.844E+03	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.604E+04	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.719E+00	6.020E+00	1.015E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.996E+11	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.057E-02	4.731E-02	8.774E-02	0.000E+00	NOT IDENT.
RH-102	-2.618E-02	5.850E-02	9.813E-02	0.000E+00	NOT IDENT.
RU-103	2.803E-02	6.864E-02	1.206E-01	0.000E+00	FAIL ABUN
RH-106	7.569E-01	5.639E-01	1.025E+00	0.000E+00	FAIL ABUN
RU-106	7.569E-01	5.588E-01	1.025E+00	0.000E+00	FAIL ABUN
AG-108M	3.044E-03	6.064E-02	1.055E-01	0.000E+00	NOT IDENT.
AG-110M	8.704E-03	7.324E-02	1.141E-01	0.000E+00	NOT IDENT.
IN-111	-1.091E-01	5.514E-01	9.564E-01	0.000E+00	NOT IDENT.
IN-113M	-2.722E-02	7.502E-02	1.285E-01	0.000E+00	NOT IDENT.
SN-113	-2.722E-02	7.502E-02	1.285E-01	0.000E+00	NOT IDENT.
IN-114M	-1.417E-02	2.592E-01	4.207E-01	0.000E+00	NOT IDENT.
CD-115	5.993E-01	4.785E+00	8.239E+00	0.000E+00	NOT IDENT.
SN-117M	-3.187E-02	6.424E-02	1.084E-01	0.000E+00	NOT IDENT.
SB-122	7.539E-01	1.156E+00	2.049E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.240E+04	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.260E-02	3.950E-02	6.943E-02	0.000E+00	NOT IDENT.
I-124	-4.902E-01	6.245E-01	8.389E-01	0.000E+00	NOT IDENT.
SB-124	1.643E-02	7.061E-02	1.267E-01	0.000E+00	FAIL ABUN
SB-125	-2.099E-02	1.654E-01	2.853E-01	0.000E+00	NOT IDENT.
TE-125M	-9.148E+00	1.168E+01	1.992E+01	0.000E+00	NOT IDENT.
I-126	-1.245E-02	2.552E-01	3.914E-01	0.000E+00	NOT IDENT.
SB-126	-2.763E-02	1.816E-01	2.974E-01	0.000E+00	NOT IDENT.
SB-127	-3.473E-01	9.903E-01	1.702E+00	0.000E+00	FAIL ABUN
XE-127	2.954E-02	6.127E-02	1.146E-01	0.000E+00	NOT IDENT.
I-131	3.606E-04	1.390E-01	2.447E-01	0.000E+00	NOT IDENT.
TE-132	-1.398E-01	4.320E-01	7.753E-01	0.000E+00	NOT IDENT.
BA-133	1.184E-02	8.339E-02	1.304E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.160E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.293E-02	7.990E-02	1.491E-01	0.000E+00	NOT IDENT.
CS-135	7.015E-02	2.800E-01	4.507E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.558E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.881E-02	1.626E-01	2.823E-01	0.000E+00	NOT IDENT.
CE-139	5.242E-03	4.162E-02	7.249E-02	0.000E+00	NOT IDENT.
BA-140	7.201E-02	3.599E-01	6.207E-01	0.000E+00	NOT IDENT.
LA-140	1.021E-02	9.004E-02	1.561E-01	0.000E+00	NOT IDENT.
CE-141	2.034E-02	7.788E-02	1.377E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.907E+01	4.670E+01	0.000E+00	FAIL ABUN
CE-144	-1.775E-01	2.915E-01	4.948E-01	0.000E+00	NOT IDENT.
PM-144	4.343E-03	5.539E-02	9.811E-02	0.000E+00	NOT IDENT.
PR-144	2.936E-01	3.744E+00	6.633E+00	0.000E+00	NOT IDENT.
PM-146	-2.139E-02	8.548E-02	1.457E-01	0.000E+00	NOT IDENT.
ND-147	7.372E-01	7.454E-01	1.343E+00	0.000E+00	NOT IDENT.
PM-149	-7.935E+00	3.639E+01	6.447E+01	0.000E+00	NOT IDENT.
EU-152	3.627E-02	1.680E-01	2.791E-01	0.000E+00	FAIL ABUN

GD-153	-7.263E-02	1.103E-01	1.692E-01	0.000E+00	NOT IDENT.
EU-154	6.465E-03	1.123E-01	1.888E-01	0.000E+00	FAIL ABUN
EU-155	2.949E-02	1.378E-01	2.480E-01	0.000E+00	FAIL ABUN
TB-160	-3.047E-02	2.792E-01	4.784E-01	0.000E+00	FAIL ABUN
HO-166M	5.667E-02	9.638E-02	1.763E-01	0.000E+00	FAIL ABUN
TM-171	-2.506E+01	3.332E+01	5.934E+01	0.000E+00	FAIL ABUN
LU-176	2.199E-02	3.790E-02	6.953E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.341E+00	1.913E+00	0.000E+00	FAIL ABUN
LU-177M	8.523E-02	3.227E-01	5.699E-01	0.000E+00	FAIL ABUN
HF-181	-5.292E-02	7.581E-02	1.246E-01	0.000E+00	NOT IDENT.
W-181	-4.108E-01	4.047E-01	7.129E-01	0.000E+00	NOT IDENT.
TA-182	-5.247E-02	1.721E-01	2.736E-01	0.000E+00	NOT IDENT.
RE-183	-4.489E-02	1.503E-01	2.564E-01	0.000E+00	FAIL ABUN
RE-184	1.996E-01	3.456E-01	6.407E-01	0.000E+00	FAIL ABUN
OS-185	3.214E-02	7.065E-02	1.288E-01	0.000E+00	FAIL ABUN
RE-188	1.874E-01	2.309E-01	4.164E-01	0.000E+00	NOT IDENT.
W-188	-1.015E+01	1.260E+01	1.865E+01	0.000E+00	NOT IDENT.
IR-192	-2.424E-02	5.115E-02	8.852E-02	0.000E+00	FAIL ABUN
AU-195	3.364E-01	3.079E-01	5.228E-01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	4.781E+01	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.806E-01	3.743E+00	6.524E+00	0.000E+00	NOT IDENT.
TL-202	2.833E-02	1.004E-01	1.768E-01	0.000E+00	NOT IDENT.
HG-203	4.482E-02	5.911E-02	1.096E-01	0.000E+00	NOT IDENT.
BI-207	2.264E-02	1.014E-01	1.748E-01	0.000E+00	NOT IDENT.
TL-207	-8.719E-01	1.117E+00	1.886E+00	0.000E+00	FAIL ABUN
PO-209	-9.990E-01	1.591E+01	2.731E+01	0.000E+00	NOT IDENT.
BI-210	-2.032E+00	4.099E+00	7.544E+00	0.000E+00	NOT IDENT.
PB-210	-2.032E+00	4.099E+00	7.544E+00	0.000E+00	NOT IDENT.
PO-210	-2.032E+00	4.098E+00	7.544E+00	0.000E+00	NOT IDENT.
PB-211	1.434E-01	1.627E+00	2.849E+00	0.000E+00	NOT IDENT.
BI-212	4.389E-01	6.664E-01	9.261E-01	0.000E+00	FAIL ABUN
PO-215	-8.719E-01	1.117E+00	1.886E+00	0.000E+00	FAIL ABUN
RN-219	3.758E-01	7.365E-01	1.318E+00	0.000E+00	FAIL ABUN
RN-220	8.041E+00	4.527E+01	7.798E+01	0.000E+00	NOT IDENT.
RA-223	-8.719E-01	1.117E+00	1.886E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	1.276E+00	2.272E+00	0.000E+00	NOT IDENT.
AC-227	-2.244E-01	5.891E-01	1.043E+00	0.000E+00	FAIL ABUN
TH-227	-2.244E-01	5.895E-01	1.043E+00	0.000E+00	FAIL ABUN
TH-229	7.552E-01	7.202E-01	1.376E+00	0.000E+00	FAIL ABUN
PA-231	-9.882E-01	2.403E+00	4.211E+00	0.000E+00	NOT IDENT.
TH-231	-8.719E-01	1.117E+00	1.886E+00	0.000E+00	FAIL ABUN
U-231	-4.237E-02	7.022E-01	1.118E+00	0.000E+00	FAIL ABUN
PA-233	3.209E-02	9.959E-02	1.803E-01	0.000E+00	FAIL ABUN
PA-234	-6.042E-01	6.900E-01	1.099E+00	0.000E+00	FAIL ABUN
PA-234M	3.622E+00	9.640E+00	1.675E+01	0.000E+00	NOT IDENT.
TH-234	3.851E-01	1.613E+00	2.739E+00	0.000E+00	FAIL ABUN
U-235	-1.458E-01	2.938E-01	5.022E-01	0.000E+00	FAIL ABUN
NP-236	1.478E-02	1.141E-01	1.986E-01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	1.043E+00	9.801E-01	0.000E+00	NOT IDENT.
U-238	3.851E-01	1.613E+00	2.739E+00	0.000E+00	FAIL ABUN
NP-239	-5.832E-02	2.746E-01	4.572E-01	0.000E+00	FAIL ABUN
AM-243	6.007E-02	8.637E-02	1.440E-01	0.000E+00	FAIL ABUN
CM-243	9.020E-03	1.240E-01	2.219E-01	0.000E+00	FAIL ABUN
AM-246	-2.204E-01	2.854E-01	4.532E-01	0.000E+00	NOT IDENT.
CM-247	1.913E-02	6.551E-02	1.162E-01	0.000E+00	NOT IDENT.
CF-249	2.845E-02	7.165E-02	1.280E-01	0.000E+00	NOT IDENT.
CF-251	7.223E-02	1.851E-01	3.252E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:29:18.00

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029819.CNF;1
Sample date       : 2-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 18:28:27
Sample ID         : G1202029819          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:19.24  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947554               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	295	85.51*	7.377E+00	2.257E-01	2.320E-01	27.16
	136.48	------	10.60	7.171E+00	------ Line Not Found		------
CO-60	1173.22	1919	100.00	1.497E+00	6.190E+00	6.214E+00	9.38
	1332.49	1868	100.00*	1.347E+00	6.699E+00	6.725E+00	9.62
CD-109	88.03	1757	3.72*	6.978E+00	3.268E+01	3.321E+01	11.14
SN-126	64.28	------	9.60	4.779E+00	------ Line Not Found		------
	86.94	1757	8.90	6.978E+00	1.366E+01	1.366E+01	41.96
	87.57	1757	37.00*	6.978E+00	3.286E+00	3.286E+00	11.14
BA-137M	661.65	2603	89.98*	2.435E+00	5.739E+00	5.743E+00	10.98
CS-137	661.65	2603	85.12*	2.435E+00	6.067E+00	6.071E+00	11.00
TL-208	277.35	------	6.80	4.722E+00	------ Line Not Found		------
	510.84	58	21.60	2.993E+00	4.351E-01	4.351E-01	100.83
	583.14	183	84.20*	2.696E+00	3.898E-01	3.898E-01	28.32
	860.37	------	12.46	1.954E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	5.845E+00	------ Line Not Found		------
	351.07	214	12.94*	3.971E+00	2.009E+00	2.009E+00	30.13
PB-212	74.81	------	10.70	6.041E+00	------ Line Not Found		------
	77.11	119	18.00	6.327E+00	5.034E-01	5.034E-01	81.70
	87.30	1757	8.00	6.978E+00	1.520E+01	1.520E+01	14.97
	238.63	494	44.60*	5.249E+00	1.018E+00	1.018E+00	23.64
	300.09	40	3.41	4.465E+00	1.266E+00	1.266E+00	108.74
PO-212	74.81	------	10.70	6.041E+00	------ Line Not Found		------
	77.11	119	18.00	6.327E+00	5.034E-01	5.034E-01	81.70
	87.30	1757	8.00	6.978E+00	1.520E+01	1.520E+01	14.97
	115.19	------	0.60	7.430E+00	------ Line Not Found		------
	238.63	494	44.60*	5.249E+00	1.018E+00	1.018E+00	23.64
	300.09	40	3.41	4.465E+00	1.266E+00	1.266E+00	108.74
BI-214	609.31	178	46.30*	2.603E+00	7.127E-01	7.127E-01	31.96
	1120.29	------	15.10	1.557E+00	------ Line Not Found		------
	1764.49	35	15.80	1.100E+00	9.787E-01	9.787E-01	50.13
PB-214	74.81	------	6.21	6.041E+00	------ Line Not Found		------
	77.11	119	10.50	6.327E+00	8.629E-01	8.629E-01	82.05

Sample ID : G1202029819 Acquisition date : 12-FEB-2010 18:28:27

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	1757	4.67	6.978E+00	2.603E+01	2.603E+01	13.55
	241.98	------	7.49	5.198E+00	------ Line Not Found		------
	295.21	160	19.20	4.518E+00	8.926E-01	8.926E-01	43.18
	351.92	214	37.20*	3.971E+00	6.987E-01	6.987E-01	30.58
PO-214	74.81	------	6.21	6.041E+00	------ Line Not Found		------
	77.11	119	10.50	6.327E+00	8.629E-01	8.629E-01	82.05
	87.30	1757	4.67	6.978E+00	2.603E+01	2.603E+01	13.55
	241.98	------	7.49	5.198E+00	------ Line Not Found		------
	295.21	160	19.20	4.518E+00	8.926E-01	8.926E-01	43.18
	351.92	214	37.20*	3.971E+00	6.987E-01	6.987E-01	30.58
PO-216	74.81	------	10.70	6.041E+00	------ Line Not Found		------
	77.11	119	18.00	6.327E+00	5.034E-01	5.034E-01	81.70
	87.30	1757	8.00	6.978E+00	1.520E+01	1.520E+01	14.97
	238.63	494	44.60*	5.249E+00	1.018E+00	1.018E+00	23.64
	300.09	40	3.41	4.465E+00	1.266E+00	1.266E+00	108.74
PO-218	74.81	------	6.21	6.041E+00	------ Line Not Found		------
	77.11	119	10.50	6.327E+00	8.629E-01	8.629E-01	82.05
	87.30	1757	4.67	6.978E+00	2.603E+01	2.603E+01	13.55
	241.98	------	7.49	5.198E+00	------ Line Not Found		------
	295.21	160	19.20	4.518E+00	8.926E-01	8.926E-01	43.18
	351.92	214	37.20*	3.971E+00	6.987E-01	6.987E-01	30.58
RA-226	609.31	178	46.30*	2.603E+00	7.127E-01	7.127E-01	31.96
	1120.29	------	15.10	1.557E+00	------ Line Not Found		------
	1764.49	35	15.80	1.100E+00	9.787E-01	9.787E-01	50.13
AC-228	338.32	134	11.40	4.086E+00	1.387E+00	1.387E+00	63.29
	911.07	82	27.70*	1.860E+00	7.688E-01	7.688E-01	60.60
	969.11	71	16.60	1.763E+00	1.174E+00	1.174E+00	59.22
RA-228	338.32	134	11.40	4.086E+00	1.387E+00	1.387E+00	63.29
	911.07	82	27.70*	1.860E+00	7.688E-01	7.688E-01	60.60
	969.11	71	16.60	1.763E+00	1.174E+00	1.174E+00	59.22
TH-228	74.81	------	10.70	6.041E+00	------ Line Not Found		------
	77.11	119	18.00	6.327E+00	5.034E-01	5.088E-01	81.70
	87.30	1757	8.00	6.978E+00	1.520E+01	1.536E+01	11.14
	238.63	494	44.60*	5.249E+00	1.018E+00	1.029E+00	23.64
	300.09	40	3.41	4.465E+00	1.266E+00	1.280E+00	123.41
TH-230	609.31	178	46.30*	2.603E+00	7.127E-01	7.127E-01	31.96
	1120.29	------	15.10	1.557E+00	------ Line Not Found		------
	1764.49	35	15.80	1.100E+00	9.787E-01	9.787E-01	50.13
TH-232	338.32	134	11.40	4.086E+00	1.387E+00	1.387E+00	48.75
	911.07	82	27.70*	1.860E+00	7.688E-01	7.688E-01	60.60
	969.11	71	16.60	1.763E+00	1.174E+00	1.174E+00	59.22
U-234	609.31	178	46.30*	2.603E+00	7.127E-01	7.127E-01	31.96
	1120.29	------	15.10	1.557E+00	------ Line Not Found		------
	1764.49	35	15.80	1.100E+00	9.787E-01	9.787E-01	50.13
AM-241	59.54	4089	35.90*	4.076E+00	1.350E+01	1.350E+01	8.92
ANH-511	511.00	58	100.00*	2.993E+00	9.397E-02	9.397E-02	100.48

Flag: "*" = Keyline

Sample ID : G1202029819 Acquisition date : 12-FEB-2010 18:28:27

Total number of lines in spectrum 23
Number of unidentified lines 0
Number of lines tentatively identified by NID 23 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.03	2.257E-01	2.320E-01	0.630E-01	27.16	
CO-60	5.27Y	1.00	6.699E+00	6.725E+00	0.647E+00	9.62	
CD-109	464.00D	1.02	3.268E+01	3.321E+01	0.370E+01	11.14	
SN-126	1.00E+05Y	1.00	3.286E+00	3.286E+00	0.366E+00	11.14	
BA-137M	30.17Y	1.00	5.739E+00	5.743E+00	0.631E+00	10.98	
CS-137	30.17Y	1.00	6.067E+00	6.071E+00	0.668E+00	11.00	
TL-208	1.41E+10Y	1.00	3.898E-01	3.898E-01	1.104E-01	28.32	
BI-211	7.04E+08Y	1.00	2.009E+00	2.009E+00	0.605E+00	30.13	
PB-212	1.41E+10Y	1.00	1.018E+00	1.018E+00	0.241E+00	23.64	
PO-212	1.41E+10Y	1.00	1.018E+00	1.018E+00	0.241E+00	23.64	
BI-214	1600.00Y	1.00	7.127E-01	7.127E-01	2.278E-01	31.96	
PB-214	1600.00Y	1.00	6.987E-01	6.987E-01	2.136E-01	30.58	
PO-214	1600.00Y	1.00	6.987E-01	6.987E-01	2.136E-01	30.58	
PO-216	1.41E+10Y	1.00	1.018E+00	1.018E+00	0.241E+00	23.64	
PO-218	1600.00Y	1.00	6.987E-01	6.987E-01	2.136E-01	30.58	
RA-226	1600.00Y	1.00	7.127E-01	7.127E-01	2.278E-01	31.96	
AC-228	1.41E+10Y	1.00	7.688E-01	7.688E-01	4.659E-01	60.60	
RA-228	1.41E+10Y	1.00	7.688E-01	7.688E-01	4.659E-01	60.60	
TH-228	1.91Y	1.01	1.018E+00	1.029E+00	0.243E+00	23.64	
TH-230	4.47E+09Y	1.00	7.127E-01	7.127E-01	2.278E-01	31.96	
TH-232	1.41E+10Y	1.00	7.688E-01	7.688E-01	4.659E-01	60.60	
U-234	4.47E+09Y	1.00	7.127E-01	7.127E-01	2.278E-01	31.96	
AM-241	432.20Y	1.00	1.350E+01	1.350E+01	0.120E+01	8.92	
ANH-511	1.00E+09Y	1.00	9.397E-02	9.397E-02	9.443E-02	100.48	
			---	---			
	Total Activity :		8.201E+01	8.260E+01			

Grand Total Activity : 8.201E+01 8.260E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202029819 Acquisition date : 12-FEB-2010 18:28:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	92.86	102	316	1.55	185.61	172	22	2.84E-02	75.7	7.17E+00	T
0	185.86	112	291	2.29	371.34	367	10	3.12E-02	61.3	6.18E+00	T
0	209.04	95	230	0.90	417.64	414	9	2.62E-02	61.4	5.74E+00	T
0	270.21	73	165	1.25	539.83	536	8	2.03E-02	65.8	4.81E+00	T
0	727.09	24	93	0.67	1452.90	1448	10	6.71E-03	****	2.25E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 19:29:22.63

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029819.CNF;1  *
* Acquisition date  : 12-FEB-2010 18:28:27  Detector SN#     :             *
* Detector ID       : GAM20                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 01:00:19.24          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 2-FEB-2010 00:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G1202029819           Analyst initials: RXF2         *
* Batch Number      : 947554                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.320E-01	6.301E-02	5.599E-02	4.674E-03	4.143
CO-60	6.725E+00	6.468E-01	6.784E-02	5.682E-03	99.135
CD-109	3.321E+01	3.700E+00	1.695E+00	1.603E-01	19.592
SN-126	3.286E+00	3.660E-01	1.682E-01	1.582E-02	19.537
BA-137M	5.743E+00	6.308E-01	1.085E-01	1.089E-02	52.939
CS-137	6.071E+00	6.676E-01	1.147E-01	1.152E-02	52.939
TL-208	3.898E-01	1.104E-01	1.018E-01	1.046E-02	3.830
BI-211	2.009E+00	6.051E-01	5.428E-01	5.200E-02	3.701
PB-212	1.018E+00	2.408E-01	1.489E-01	1.583E-02	6.842
PO-212	1.018E+00	2.408E-01	1.489E-01	1.583E-02	6.842
BI-214	7.127E-01	2.278E-01	1.835E-01	2.041E-02	3.885
PB-214	6.987E-01	2.136E-01	1.947E-01	2.121E-02	3.589
PO-214	6.987E-01	2.136E-01	1.947E-01	2.121E-02	3.589
PO-216	1.018E+00	2.408E-01	1.489E-01	1.583E-02	6.842
PO-218	6.987E-01	2.136E-01	1.947E-01	2.121E-02	3.589
RA-226	7.127E-01	2.278E-01	1.835E-01	2.041E-02	3.885
AC-228	7.688E-01	4.659E-01	4.560E-01	5.585E-02	1.686
RA-228	7.688E-01	4.659E-01	4.560E-01	5.585E-02	1.686

Sample ID : G1202029819 Acquisition date : 12-FEB-2010 18:28:27

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.029E+00	2.434E-01	1.505E-01	1.600E-02	6.842
TH-230	7.127E-01	2.278E-01	1.835E-01	2.041E-02	3.885
TH-232	7.688E-01	4.659E-01	4.560E-01	5.585E-02	1.686
U-234	7.127E-01	2.278E-01	1.835E-01	2.041E-02	3.885
AM-241	1.350E+01	1.204E+00	3.798E-01	2.972E-02	35.531
ANH-511	9.397E-02	9.443E-02	7.992E-02	7.447E-03	1.176

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.480E-01		6.290E-01	9.866E-01	9.589E-02	-0.353
NA-22	-1.315E-03		4.163E-02	6.670E-02	5.525E-03	-0.020
NA-24	-1.403E-03		3.031E-03	Half-Life too short		
AL-26	4.455E-03		3.891E-02	6.563E-02	5.331E-03	0.068
K-40	6.210E-01		5.223E-01	9.938E-01	8.666E-02	0.625
TI-44	9.287E-02	+	7.588E-02	8.976E-02	7.533E-03	1.035
SC-46	-2.900E-03		7.408E-02	1.220E-01	1.217E-02	-0.024
V-48	-1.279E-01		1.324E-01	2.017E-01	1.928E-02	-0.634
CR-51	1.410E-01		5.491E-01	9.221E-01	9.244E-02	0.153
MN-52	-2.602E-02		1.455E-01	2.351E-01	1.989E-02	-0.111
MN-54	-1.211E-02		6.773E-02	1.109E-01	1.120E-02	-0.109
CO-56	2.286E-02		7.160E-02	1.213E-01	1.223E-02	0.188
CO-58	-1.155E-03		6.850E-02	1.137E-01	1.155E-02	-0.010
FE-59	-1.794E-01		1.592E-01	2.322E-01	2.190E-02	-0.773
ZN-65	2.081E-02		1.674E-01	2.750E-01	2.367E-02	0.076
GE-68	-1.789E+00		2.501E+00	3.839E+00	3.425E-01	-0.466
AS-73	-5.225E-01		1.306E+00	2.131E+00	1.582E-01	-0.245
AS-74	-3.405E-02		1.444E-01	2.273E-01	2.225E-02	-0.150
SE-75	-5.477E-02		7.374E-02	1.143E-01	1.132E-02	-0.479
BR-77	3.340E+00		5.058E+00	8.532E+00	8.003E-01	0.392
SR-82	-3.556E-01		5.822E-01	9.237E-01	9.386E-02	-0.385
RB-83	-1.909E-02		1.209E-01	1.930E-01	1.810E-02	-0.099
RB-84	6.733E-02		1.299E-01	2.222E-01	2.221E-02	0.303
KR-85	1.127E+01		1.260E+01	1.928E+01	1.800E+00	0.585
SR-85	5.521E-02		6.170E-02	9.440E-02	8.815E-03	0.585
RB-86	-4.177E-01		1.329E+00	2.113E+00	1.887E-01	-0.198
Y-88	-2.276E-02		4.280E-02	6.114E-02	4.933E-03	-0.372
ZR-88	-3.320E-02		5.152E-02	8.114E-02	6.786E-03	-0.409
Y-91	-3.771E-01		2.091E+01	3.376E+01	2.741E+00	-0.011
NB-94	1.694E-02		5.543E-02	9.485E-02	9.596E-03	0.179
NB-95	4.369E-02		6.890E-02	1.196E-01	1.216E-02	0.365
NB-95M	8.462E-02		1.950E-01	2.963E-01	3.183E-02	0.286
ZR-95	8.919E-02		1.124E-01	1.979E-01	2.160E-02	0.451
NB-97	9.777E-04		1.451E-03	Half-Life too short		
ZR-97	6.771E-03		2.349E-02	Half-Life too short		
MO-99	-2.719E+00		6.143E+00	9.878E+00	1.591E+00	-0.275
TC-99M	3.668E+04		1.528E+05	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-101	1.057E-02		4.828E-02	8.246E-02	7.558E-03	0.128
RH-102	-2.618E-02		5.969E-02	9.435E-02	8.554E-03	-0.277
RU-103	2.803E-02		7.004E-02	1.161E-01	1.688E-02	0.241
RH-106	7.569E-01		5.754E-01	9.922E-01	1.410E-01	0.763
RU-106	7.569E-01		5.702E-01	9.922E-01	9.820E-02	0.763
AG-108M	3.044E-03		6.187E-02	1.012E-01	9.186E-03	0.030
AG-110M	8.704E-03		7.474E-02	1.107E-01	1.134E-02	0.079
IN-111	-1.091E-01		5.626E-01	9.038E-01	8.774E-02	-0.121
IN-113M	-2.722E-02		7.655E-02	1.229E-01	1.060E-02	-0.221
SN-113	-2.722E-02		7.655E-02	1.229E-01	1.060E-02	-0.221
IN-114M	-1.417E-02		2.645E-01	3.950E-01	3.580E-02	-0.036
CD-115	5.993E-01		4.882E+00	7.944E+00	7.488E-01	0.075
SN-117M	-3.187E-02		6.555E-02	1.013E-01	8.740E-03	-0.315
SB-122	7.539E-01		1.180E+00	1.979E+00	1.906E-01	0.381
I-123	1.034E-02		1.653E-02	Half-Life too short		
TE-123M	1.260E-02		4.031E-02	6.489E-02	5.638E-03	0.194
I-124	-4.902E-01		6.372E-01	8.117E-01	7.970E-02	-0.604
SB-124	1.643E-02		7.205E-02	1.261E-01	1.096E-02	0.130
SB-125	-2.099E-02		1.688E-01	2.735E-01	2.421E-02	-0.077
TE-125M	-9.148E+00		1.191E+01	1.845E+01	1.884E+00	-0.496
I-126	-1.245E-02		2.605E-01	3.797E-01	3.815E-02	-0.033
SB-126	-2.763E-02		1.853E-01	2.891E-01	2.932E-02	-0.096
SB-127	-3.473E-01		1.010E+00	1.653E+00	1.900E-01	-0.210
XE-127	2.954E-02		6.252E-02	1.077E-01	9.944E-03	0.274
I-131	3.606E-04		1.419E-01	2.337E-01	2.186E-02	0.002
TE-132	-1.398E-01		4.409E-01	7.313E-01	1.138E-01	-0.191
BA-133	1.184E-02		8.509E-02	1.244E-01	1.680E-02	0.095
I-133	3.422E-04		1.612E-04	Half-Life too short		
CS-134	9.293E-02		8.153E-02	1.454E-01	1.483E-02	0.639
CS-135	7.015E-02		2.857E-01	4.269E-01	4.731E-02	0.164
I-135	1.833E+04		4.877E+04	Half-Life too short		
CS-136	4.881E-02		1.659E-01	2.774E-01	2.631E-02	0.176
CE-139	5.242E-03		4.247E-02	6.782E-02	5.921E-03	0.077
BA-140	7.201E-02		3.673E-01	5.988E-01	1.998E-01	0.120
LA-140	1.021E-02		9.188E-02	1.552E-01	1.310E-02	0.066
CE-141	2.034E-02		7.947E-02	1.284E-01	1.109E-02	0.158
CE-143	5.785E+01		2.966E+01	4.433E+01	9.950E+00	1.305
CE-144	-1.775E-01		2.974E-01	4.605E-01	7.106E-02	-0.386
PM-144	4.343E-03		5.652E-02	9.531E-02	9.634E-03	0.046
PR-144	2.936E-01		3.821E+00	6.443E+00	6.513E-01	0.046
PM-146	-2.139E-02		8.723E-02	1.399E-01	1.532E-02	-0.153
ND-147	7.372E-01		7.606E-01	1.295E+00	2.000E-01	0.569
PM-149	-7.935E+00		3.713E+01	6.116E+01	9.962E+00	-0.130
EU-152	3.627E-02		1.715E-01	2.661E-01	2.596E-02	0.136
GD-153	-7.263E-02		1.126E-01	1.562E-01	1.385E-02	-0.465
EU-154	6.465E-03		1.145E-01	1.865E-01	2.061E-02	0.035
EU-155	2.949E-02		1.406E-01	2.294E-01	1.995E-02	0.129
TB-160	-3.047E-02		2.849E-01	4.677E-01	4.676E-02	-0.065

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HO-166M	5.667E-02		9.835E-02	1.713E-01	1.735E-02	0.331
TM-171	-2.506E+01		3.400E+01	5.429E+01	4.044E+00	-0.462
LU-176	2.199E-02		3.867E-02	6.609E-02	6.447E-03	0.333
LU-177	2.205E+00	+	1.368E+00	1.800E+00	1.674E-01	1.225
LU-177M	8.523E-02		3.293E-01	5.460E-01	4.673E-02	0.156
HF-181	-5.292E-02		7.736E-02	1.199E-01	1.093E-02	-0.441
W-181	-4.108E-01		4.130E-01	6.519E-01	4.797E-02	-0.630
TA-182	-5.247E-02		1.757E-01	2.700E-01	2.203E-02	-0.194
RE-183	-4.489E-02		1.533E-01	2.398E-01	2.081E-02	-0.187
RE-184	1.996E-01		3.526E-01	6.059E-01	5.922E-02	0.329
OS-185	3.214E-02		7.209E-02	1.249E-01	1.247E-02	0.257
RE-188	1.874E-01		2.356E-01	3.889E-01	3.339E-02	0.482
W-188	-1.015E+01		1.286E+01	1.771E+01	1.751E+00	-0.574
IR-192	-2.424E-02		5.220E-02	8.420E-02	8.143E-03	-0.288
AU-195	3.364E-01		3.142E-01	4.829E-01	4.253E-02	0.696
TL-200	-1.080E-05		2.439E-05	Half-Life too short		
TL-201	5.806E-01		3.819E+00	6.105E+00	5.341E-01	0.095
TL-202	2.833E-02		1.025E-01	1.697E-01	1.490E-02	0.167
HG-203	4.482E-02		6.032E-02	1.039E-01	1.057E-02	0.431
BI-207	2.264E-02		1.035E-01	1.718E-01	1.551E-02	0.132
TL-207	-8.719E-01		1.140E+00	1.795E+00	3.265E-01	-0.486
PO-209	-9.990E-01		1.624E+01	2.671E+01	2.656E+00	-0.037
BI-210	-2.032E+00		4.183E+00	6.842E+00	6.345E-01	-0.297
PB-210	-2.032E+00		4.183E+00	6.842E+00	6.345E-01	-0.297
PO-210	-2.032E+00		4.182E+00	6.842E+00	5.741E-01	-0.297
PB-211	1.434E-01		1.660E+00	2.727E+00	1.708E+00	0.053
BI-212	4.389E-01	+	6.800E-01	9.007E-01	1.022E-01	0.487
PO-215	-8.719E-01		1.140E+00	1.795E+00	3.265E-01	-0.486
RN-219	3.758E-01		7.515E-01	1.262E+00	1.883E-01	0.298
RN-220	8.041E+00		4.620E+01	7.527E+01	7.191E+00	0.107
RA-223	-8.719E-01		1.140E+00	1.795E+00	3.265E-01	-0.486
RA-224	4.094E+00		1.302E+00	2.146E+00	2.075E-01	1.907
AC-227	-2.244E-01		6.011E-01	9.869E-01	1.583E-01	-0.227
TH-227	-2.244E-01		6.015E-01	9.869E-01	1.841E-01	-0.227
TH-229	7.552E-01		7.349E-01	1.293E+00	1.177E-01	0.584
PA-231	-9.882E-01		2.452E+00	3.995E+00	6.378E-01	-0.247
TH-231	-8.719E-01		1.140E+00	1.795E+00	3.265E-01	-0.486
U-231	-4.237E-02		7.166E-01	1.032E+00	9.230E-02	-0.041
PA-233	3.209E-02		1.016E-01	1.714E-01	1.701E-02	0.187
PA-234	-6.042E-01		7.041E-01	1.077E+00	2.079E-01	-0.561
PA-234M	3.622E+00		9.836E+00	1.644E+01	1.758E+00	0.220
TH-234	3.851E-01		1.646E+00	2.503E+00	4.349E-01	0.154
U-235	-1.458E-01		2.998E-01	4.682E-01	8.160E-02	-0.311
NP-236	1.478E-02		1.164E-01	1.856E-01	1.606E-02	0.080
NP-237	4.175E+00		1.065E+00	9.023E-01	2.041E-01	4.627
U-238	3.851E-01		1.646E+00	2.503E+00	4.349E-01	0.154
NP-239	-5.832E-02		2.802E-01	4.241E-01	3.553E-02	-0.138
AM-243	6.007E-02		8.814E-02	1.321E-01	1.063E-02	0.455

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	9.020E-03		1.265E-01	2.052E-01	1.771E-02	0.044
AM-246	-2.204E-01		2.913E-01	4.455E-01	3.970E-02	-0.495
CM-247	1.913E-02		6.685E-02	1.112E-01	9.404E-03	0.172
CF-249	2.845E-02		7.311E-02	1.225E-01	1.033E-02	0.232
CF-251	7.223E-02		1.889E-01	3.047E-01	2.704E-02	0.237

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202029819          *
* Acquisition date  : 12-FEB-2010 18:28:27 Detector SN#     :               *
* Detector ID       : GAM20                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:     0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:     0 01:00:19.24     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  2-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202029819          Analyst initials: RXF2           *
* Batch Number      : 947554               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.320E-01	6.175E-02	3.017E-02	3.151E-02
CO-60	6.725E+00	6.339E-01	3.432E-02	3.234E-01
CD-109	3.321E+01	3.626E+00	9.208E-01	1.850E+00
SN-126	3.286E+00	3.587E-01	9.137E-02	1.830E-01
BA-137M	5.743E+00	6.182E-01	5.595E-02	3.154E-01
CS-137	6.071E+00	6.542E-01	5.914E-02	3.338E-01
TL-208	3.898E-01	1.082E-01	5.267E-02	5.519E-02
BI-211	2.009E+00	5.930E-01	2.847E-01	3.026E-01
PB-212	1.018E+00	2.359E-01	7.886E-02	1.204E-01
PO-212	1.018E+00	2.359E-01	7.886E-02	1.204E-01
BI-214	7.127E-01	2.232E-01	9.483E-02	1.139E-01
PB-214	6.987E-01	2.094E-01	1.021E-01	1.068E-01
PO-214	6.987E-01	2.094E-01	1.021E-01	1.068E-01
PO-216	1.018E+00	2.359E-01	7.886E-02	1.204E-01
PO-218	6.987E-01	2.094E-01	1.021E-01	1.068E-01
RA-226	7.127E-01	2.232E-01	9.483E-02	1.139E-01
AC-228	7.688E-01	4.565E-01	2.331E-01	2.329E-01
RA-228	7.688E-01	4.565E-01	2.331E-01	2.329E-01
TH-228	1.029E+00	2.385E-01	7.971E-02	1.217E-01
TH-230	7.127E-01	2.232E-01	9.483E-02	1.139E-01
TH-232	7.688E-01	4.565E-01	2.331E-01	2.329E-01
U-234	7.127E-01	2.232E-01	9.483E-02	1.139E-01
AM-241	1.350E+01	1.180E+00	2.083E-01	6.020E-01
ANH-511	9.397E-02	9.254E-02	4.150E-02	4.721E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-3.480E-01	6.164E-01	5.133E-01	3.145E-01 NOT IDENT.
NA-22	-1.315E-03	4.080E-02	3.378E-02	2.081E-02 NOT IDENT.
NA-24	-1.403E+03	5.941E+03	0.000E+00	3.031E+03 SHORT HLIF

AL-26	4.455E-03	3.813E-02	3.291E-02	1.945E-02	NOT IDENT.
K-40	6.210E-01	5.118E-01	5.014E-01	2.611E-01	NOT IDENT.
TI-44	9.287E-02	7.436E-02	4.889E-02	3.794E-02	FAIL ABUN
SC-46	-2.900E-03	7.260E-02	6.244E-02	3.704E-02	NOT IDENT.
V-48	-1.279E-01	1.298E-01	1.029E-01	6.621E-02	NOT IDENT.
CR-51	1.410E-01	5.381E-01	4.848E-01	2.745E-01	NOT IDENT.
MN-52	-2.602E-02	1.426E-01	1.187E-01	7.274E-02	FAIL ABUN
MN-54	-1.211E-02	6.637E-02	5.684E-02	3.386E-02	NOT IDENT.
CO-56	2.286E-02	7.016E-02	6.215E-02	3.580E-02	NOT IDENT.
CO-58	-1.155E-03	6.713E-02	5.832E-02	3.425E-02	NOT IDENT.
FE-59	-1.794E-01	1.561E-01	1.181E-01	7.962E-02	NOT IDENT.
ZN-65	2.081E-02	1.640E-01	1.398E-01	8.370E-02	NOT IDENT.
GE-68	-1.789E+00	2.451E+00	1.954E+00	1.251E+00	NOT IDENT.
AS-73	-5.225E-01	1.279E+00	1.172E+00	6.528E-01	NOT IDENT.
AS-74	-3.405E-02	1.416E-01	1.176E-01	7.222E-02	NOT IDENT.
SE-75	-5.477E-02	7.226E-02	6.041E-02	3.687E-02	FAIL ABUN
BR-77	3.340E+00	4.957E+00	4.429E+00	2.529E+00	FAIL ABUN
SR-82	-3.556E-01	5.706E-01	4.743E-01	2.911E-01	NOT IDENT.
RB-83	-1.909E-02	1.185E-01	1.002E-01	6.044E-02	NOT IDENT.
RB-84	6.733E-02	1.273E-01	1.137E-01	6.497E-02	NOT IDENT.
KR-85	1.127E+01	1.235E+01	1.001E+01	6.299E+00	NOT IDENT.
SR-85	5.521E-02	6.046E-02	4.902E-02	3.085E-02	NOT IDENT.
RB-86	-4.177E-01	1.303E+00	1.075E+00	6.647E-01	NOT IDENT.
Y-88	-2.276E-02	4.195E-02	3.065E-02	2.140E-02	NOT IDENT.
ZR-88	-3.320E-02	5.049E-02	4.243E-02	2.576E-02	NOT IDENT.
Y-91	-3.771E-01	2.049E+01	1.713E+01	1.046E+01	NOT IDENT.
NB-94	1.694E-02	5.433E-02	4.884E-02	2.772E-02	NOT IDENT.
NB-95	4.369E-02	6.752E-02	6.145E-02	3.445E-02	NOT IDENT.
NB-95M	8.462E-02	1.911E-01	1.570E-01	9.749E-02	NOT IDENT.
ZR-95	8.919E-02	1.102E-01	1.017E-01	5.622E-02	NOT IDENT.
NB-97	9.777E+02	2.844E+03	0.000E+00	1.451E+03	SHORT HLIF
ZR-97	6.771E+03	4.604E+04	0.000E+00	2.349E+04	SHORT HLIF
MO-99	-2.719E+00	6.020E+00	5.079E+00	3.071E+00	NOT IDENT.
TC-99M	3.668E+10	2.996E+11	0.000E+00	1.528E+11	SHORT HLIF
RH-101	1.057E-02	4.731E-02	4.390E-02	2.414E-02	NOT IDENT.
RH-102	-2.618E-02	5.850E-02	4.910E-02	2.985E-02	NOT IDENT.
RU-103	2.803E-02	6.864E-02	6.034E-02	3.502E-02	FAIL ABUN
RH-106	7.569E-01	5.639E-01	5.126E-01	2.877E-01	FAIL ABUN
RU-106	7.569E-01	5.588E-01	5.126E-01	2.851E-01	FAIL ABUN
AG-108M	3.044E-03	6.064E-02	5.280E-02	3.094E-02	NOT IDENT.
AG-110M	8.704E-03	7.324E-02	5.710E-02	3.737E-02	NOT IDENT.
IN-111	-1.091E-01	5.514E-01	4.785E-01	2.813E-01	NOT IDENT.
IN-113M	-2.722E-02	7.502E-02	6.430E-02	3.828E-02	NOT IDENT.
SN-113	-2.722E-02	7.502E-02	6.430E-02	3.828E-02	NOT IDENT.
IN-114M	-1.417E-02	2.592E-01	2.105E-01	1.322E-01	NOT IDENT.
CD-115	5.993E-01	4.785E+00	4.122E+00	2.441E+00	NOT IDENT.
SN-117M	-3.187E-02	6.424E-02	5.421E-02	3.278E-02	NOT IDENT.
SB-122	7.539E-01	1.156E+00	1.025E+00	5.900E-01	NOT IDENT.
I-123	1.034E+04	3.240E+04	0.000E+00	1.653E+04	SHORT HLIF
TE-123M	1.260E-02	3.950E-02	3.473E-02	2.015E-02	NOT IDENT.
I-124	-4.902E-01	6.245E-01	4.197E-01	3.186E-01	NOT IDENT.
SB-124	1.643E-02	7.061E-02	6.338E-02	3.602E-02	FAIL ABUN
SB-125	-2.099E-02	1.654E-01	1.427E-01	8.440E-02	NOT IDENT.
TE-125M	-9.148E+00	1.168E+01	9.968E+00	5.957E+00	NOT IDENT.
I-126	-1.245E-02	2.552E-01	1.958E-01	1.302E-01	NOT IDENT.
SB-126	-2.763E-02	1.816E-01	1.488E-01	9.267E-02	NOT IDENT.
SB-127	-3.473E-01	9.903E-01	8.515E-01	5.052E-01	FAIL ABUN
XE-127	2.954E-02	6.127E-02	5.732E-02	3.126E-02	NOT IDENT.
I-131	3.606E-04	1.390E-01	1.224E-01	7.094E-02	NOT IDENT.
TE-132	-1.398E-01	4.320E-01	3.879E-01	2.204E-01	NOT IDENT.
BA-133	1.184E-02	8.339E-02	6.522E-02	4.254E-02	NOT IDENT.
I-133	3.422E+02	3.160E+02	0.000E+00	1.612E+02	SHORT HLIF
CS-134	9.293E-02	7.990E-02	7.460E-02	4.076E-02	NOT IDENT.
CS-135	7.015E-02	2.800E-01	2.255E-01	1.428E-01	NOT IDENT.
I-135	1.833E+10	9.558E+10	0.000E+00	4.877E+10	SHORT HLIF
CS-136	4.881E-02	1.626E-01	1.413E-01	8.296E-02	NOT IDENT.
CE-139	5.242E-03	4.162E-02	3.627E-02	2.123E-02	NOT IDENT.
BA-140	7.201E-02	3.599E-01	3.105E-01	1.836E-01	NOT IDENT.
LA-140	1.021E-02	9.004E-02	7.812E-02	4.594E-02	NOT IDENT.
CE-141	2.034E-02	7.788E-02	6.889E-02	3.973E-02	NOT IDENT.
CE-143	5.785E+01	2.907E+01	2.336E+01	1.483E+01	FAIL ABUN
CE-144	-1.775E-01	2.915E-01	2.476E-01	1.487E-01	NOT IDENT.
PM-144	4.343E-03	5.539E-02	4.909E-02	2.826E-02	NOT IDENT.
PR-144	2.936E-01	3.744E+00	3.319E+00	1.910E+00	NOT IDENT.
PM-146	-2.139E-02	8.548E-02	7.289E-02	4.361E-02	NOT IDENT.
ND-147	7.372E-01	7.454E-01	6.721E-01	3.803E-01	NOT IDENT.
PM-149	-7.935E+00	3.639E+01	3.225E+01	1.857E+01	NOT IDENT.
EU-152	3.627E-02	1.680E-01	1.396E-01	8.574E-02	FAIL ABUN

GD-153	-7.263E-02	1.103E-01	8.464E-02	5.630E-02	NOT IDENT.
EU-154	6.465E-03	1.123E-01	9.446E-02	5.727E-02	FAIL ABUN
EU-155	2.949E-02	1.378E-01	1.241E-01	7.032E-02	FAIL ABUN
TB-160	-3.047E-02	2.792E-01	2.393E-01	1.425E-01	FAIL ABUN
HO-166M	5.667E-02	9.638E-02	8.818E-02	4.917E-02	FAIL ABUN
TM-171	-2.506E+01	3.332E+01	2.969E+01	1.700E+01	FAIL ABUN
LU-176	2.199E-02	3.790E-02	3.479E-02	1.934E-02	FAIL ABUN
LU-177	2.205E+00	1.341E+00	9.571E-01	6.841E-01	FAIL ABUN
LU-177M	8.523E-02	3.227E-01	2.851E-01	1.646E-01	FAIL ABUN
HF-181	-5.292E-02	7.581E-02	6.236E-02	3.868E-02	NOT IDENT.
W-181	-4.108E-01	4.047E-01	3.567E-01	2.065E-01	NOT IDENT.
TA-182	-5.247E-02	1.721E-01	1.369E-01	8.783E-02	NOT IDENT.
RE-183	-4.489E-02	1.503E-01	1.283E-01	7.667E-02	FAIL ABUN
RE-184	1.996E-01	3.456E-01	3.205E-01	1.763E-01	FAIL ABUN
OS-185	3.214E-02	7.065E-02	6.444E-02	3.605E-02	FAIL ABUN
RE-188	1.874E-01	2.309E-01	2.083E-01	1.178E-01	NOT IDENT.
W-188	-1.015E+01	1.260E+01	9.333E+00	6.430E+00	NOT IDENT.
IR-192	-2.424E-02	5.115E-02	4.429E-02	2.610E-02	FAIL ABUN
AU-195	3.364E-01	3.079E-01	2.616E-01	1.571E-01	NOT IDENT.
TL-200	-1.080E+01	4.781E+01	0.000E+00	2.439E+01	SHORT HLIF
TL-201	5.806E-01	3.743E+00	3.264E+00	1.910E+00	NOT IDENT.
TL-202	2.833E-02	1.004E-01	8.846E-02	5.123E-02	NOT IDENT.
HG-203	4.482E-02	5.911E-02	5.484E-02	3.016E-02	NOT IDENT.
BI-207	2.264E-02	1.014E-01	8.747E-02	5.175E-02	NOT IDENT.
TL-207	-8.719E-01	1.117E+00	9.437E-01	5.700E-01	FAIL ABUN
PO-209	-9.990E-01	1.591E+01	1.366E+01	8.120E+00	NOT IDENT.
BI-210	-2.032E+00	4.099E+00	3.774E+00	2.091E+00	NOT IDENT.
PB-210	-2.032E+00	4.099E+00	3.774E+00	2.091E+00	NOT IDENT.
PO-210	-2.032E+00	4.098E+00	3.774E+00	2.091E+00	NOT IDENT.
PB-211	1.434E-01	1.627E+00	1.425E+00	8.299E-01	NOT IDENT.
BI-212	4.389E-01	6.664E-01	4.633E-01	3.400E-01	FAIL ABUN
PO-215	-8.719E-01	1.117E+00	9.437E-01	5.700E-01	FAIL ABUN
RN-219	3.758E-01	7.365E-01	6.594E-01	3.758E-01	FAIL ABUN
RN-220	8.041E+00	4.527E+01	3.901E+01	2.310E+01	NOT IDENT.
RA-223	-8.719E-01	1.117E+00	9.437E-01	5.700E-01	FAIL ABUN
RA-224	4.094E+00	1.276E+00	1.137E+00	6.511E-01	NOT IDENT.
AC-227	-2.244E-01	5.891E-01	5.219E-01	3.006E-01	FAIL ABUN
TH-227	-2.244E-01	5.895E-01	5.219E-01	3.008E-01	FAIL ABUN
TH-229	7.552E-01	7.202E-01	6.885E-01	3.674E-01	FAIL ABUN
PA-231	-9.882E-01	2.403E+00	2.107E+00	1.226E+00	NOT IDENT.
TH-231	-8.719E-01	1.117E+00	9.437E-01	5.700E-01	FAIL ABUN
U-231	-4.237E-02	7.022E-01	5.594E-01	3.583E-01	FAIL ABUN
PA-233	3.209E-02	9.959E-02	9.020E-02	5.081E-02	FAIL ABUN
PA-234	-6.042E-01	6.900E-01	5.500E-01	3.520E-01	FAIL ABUN
PA-234M	3.622E+00	9.640E+00	8.381E+00	4.918E+00	NOT IDENT.
TH-234	3.851E-01	1.613E+00	1.370E+00	8.231E-01	FAIL ABUN
U-235	-1.458E-01	2.938E-01	2.513E-01	1.499E-01	FAIL ABUN
NP-236	1.478E-02	1.141E-01	9.934E-02	5.820E-02	NOT IDENT.
NP-237	4.175E+00	1.043E+00	4.903E-01	5.323E-01	NOT IDENT.
U-238	3.851E-01	1.613E+00	1.370E+00	8.231E-01	FAIL ABUN
NP-239	-5.832E-02	2.746E-01	2.287E-01	1.401E-01	FAIL ABUN
AM-243	6.007E-02	8.637E-02	7.205E-02	4.407E-02	FAIL ABUN
CM-243	9.020E-03	1.240E-01	1.110E-01	6.326E-02	FAIL ABUN
AM-246	-2.204E-01	2.854E-01	2.267E-01	1.456E-01	NOT IDENT.
CM-247	1.913E-02	6.551E-02	5.812E-02	3.342E-02	NOT IDENT.
CF-249	2.845E-02	7.165E-02	6.406E-02	3.656E-02	NOT IDENT.
CF-251	7.223E-02	1.851E-01	1.627E-01	9.445E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	527.1066
46.50	527.1066
46.50	527.1066
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49.72	614.9310
51.35	656.3003
52.39	685.2524
52.97	709.7095
53.15	709.9640
53.44	755.7611
54.07	763.4234
56.28	761.9609
56.28	761.9648
57.37	824.7050
57.53	824.9561
57.53	824.9582
57.60	825.0658
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57.98	831.6329
59.32	606.7151
59.32	606.7151
59.40	606.8048
59.54	606.9641
59.72	607.1682
60.01	607.4944
61.10	409.9843
61.14	410.0134
61.30	390.6040
63.00	334.5476
63.29	336.2294
63.29	336.2294
63.58	336.4042
64.28	374.5865
65.12	383.2118
65.20	383.2659
65.20	383.2659
66.05	406.0607
66.72	402.4900
66.83	364.1309
66.91	364.1821
67.20	364.3652
67.20	364.3652
67.75	337.3580
67.85	346.5349
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68.90	368.4762
69.30	368.7273
69.67	368.9599
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70.82	400.2260
70.83	400.2320
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72.87	508.8867
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74.81	498.2014
74.81	498.2014
74.81	498.2014
74.81	498.2014
74.81	498.2014
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77.11	501.0719

77.11	501.0719
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77.11	501.0719
77.11	501.0719
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79.80	382.8225
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81.07	405.3174
81.07	405.3174
81.07	405.3174
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83.78	355.5368
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84.90	393.6231
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86.54	468.1798
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86.72	468.3030
86.79	468.3509
86.94	501.3574
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87.30	501.6235
87.30	501.6235
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87.30	501.6235
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88.47	371.6280
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92.29	373.6774
92.38	373.7261
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94.67	374.9341
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98.44	208.6163
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99.55	220.7334
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100.10	238.3498
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103.76	238.4460
105.00	244.1901
105.31	234.6457
108.00	218.2626
109.28	266.0067

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111.00	247.1603
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112.95	235.8651
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117.00	251.8365
117.00	251.8365
117.66	236.6948
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121.62	233.9983
121.78	234.0429
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122.32	234.1931
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122.32	234.1931
122.32	234.1931
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127.23	229.4913
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144.24	254.6176
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145.44	225.7426
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152.70	245.5654
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154.21	216.4779
154.21	216.4779
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162.64	238.8902
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163.89	224.3062
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171.28	223.6080
171.86	235.2628
172.10	235.3168
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176.60	216.6239
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184.41	214.2187
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186.00	204.1861
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202.84	222.3377
205.31	209.6132

208.36	205.8609
208.81	230.6080
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209.75	263.3500
210.97	237.8286
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216.55	245.5775
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227.08	251.2849
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228.18	250.5946
228.18	250.5946
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238.63	240.7295
238.63	240.7295
238.63	240.7295
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241.98	211.4262
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252.85	179.4684
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269.46	191.7281
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290.80	200.6232
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293.70	179.6879
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298.57	229.1492
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338.28	155.6252
338.28	155.6252
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351.92	163.7913
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391.69	161.4282
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404.84	155.4513
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445.03	137.9254
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513.99	92.5330
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568.70	97.5719
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569.50	94.3145
569.67	94.3223
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574.00	96.6877
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579.30	0.0000
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595.88	118.6052
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602.52	0.0000
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602.71	113.8156
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609.31	96.9484
610.33	108.8052
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614.37	80.3936
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621.84	79.5067
621.84	79.5067
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633.10	86.5968
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646.12	92.2233
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661.65	111.8531
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666.33	86.5414
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692.80	97.4884
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696.49	91.1714
697.00	95.7912
697.49	91.2028
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699.00	94.9380
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720.50	77.7775
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722.78	86.7458
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724.18	80.5877
727.18	75.3976
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747.13	73.0983
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752.31	81.6751
753.82	70.4443
755.35	65.7822
756.15	69.5593
756.87	76.1570
763.93	97.0705
765.79	86.7576
766.42	81.1163
766.84	91.5035
776.49	92.7411
778.00	94.6802
778.57	95.6442
778.89	93.7600
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785.46	87.3169
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796.30	73.3361
798.80	119.1467
801.93	83.0090
805.60	83.1067
810.29	88.9698
810.76	87.0699
815.85	95.8350
817.79	97.8114
818.51	93.9972
819.60	79.6362
826.30	101.9189
828.27	0.0000
831.60	98.2348
831.96	100.1711
834.83	98.3319
836.80	0.0000
846.75	86.1166
848.13	82.2794
856.28	0.0000
856.80	117.4374
860.37	102.0187
867.32	96.3921
867.82	95.4328
871.10	118.9202
873.19	109.2410
874.81	102.4622
875.33	0.0000
876.40	109.3449
879.36	108.4662
880.27	99.6965
880.51	100.6815
881.50	89.9561
883.24	86.0900
884.67	102.7646
889.25	90.1627
896.60	112.9476
898.02	111.0275
899.00	115.9748
903.28	108.2463
911.07	109.4797
911.07	109.4797
911.07	109.4797
919.63	116.6719
920.93	106.8240
925.00	128.7336
925.24	128.7432
926.50	116.8995
935.52	112.2358
937.48	136.1471
944.10	120.4742
946.00	134.4825
949.00	100.6992
962.29	140.1025
964.01	140.1675
966.15	128.5620
968.20	148.6846
969.11	126.3292
969.11	126.3292
969.11	126.3292
977.42	86.4220
980.50	108.6223
983.50	124.8174
989.30	105.8588
996.32	101.0107
1001.03	97.0922
1001.68	98.1201
1004.76	113.3891
1021.30	0.0000
1024.50	0.0000
1034.80	83.6816
1036.00	77.5827
1037.82	80.6818
1038.57	69.4643
1038.76	0.0000
1045.16	82.8866
1046.59	70.6307
1048.07	76.8054

1050.47	96.3225
1050.47	96.3225
1062.04	86.3297
1063.62	81.2257
1076.63	87.6853
1077.35	96.9880
1078.86	99.0891
1085.78	90.9906
1099.22	89.2250
1112.02	92.6330
1112.84	85.3633
1115.52	85.4233
1120.29	79.2656
1120.29	79.2656
1120.29	79.2656
1120.29	79.2656
1120.51	78.2263
1121.28	68.8521
1124.00	0.0000
1129.67	43.9052
1131.51	0.0000
1147.95	0.0000
1167.94	56.2708
1173.22	54.9352
1175.09	42.2754
1177.93	35.2539
1189.05	41.3556
1204.90	34.0594
1205.75	0.0000
1213.00	34.1234
1221.42	23.5061
1230.97	21.4160
1235.34	27.8687
1236.41	0.0000
1238.25	39.6847
1246.25	24.7138
1260.41	0.0000
1271.85	20.5345
1274.45	16.2209
1274.54	17.3023
1291.56	21.7100
1298.22	0.0000
1312.09	16.3557
1325.50	14.5814
1325.50	14.5814
1332.49	16.4282
1333.61	16.4326
1360.21	11.9357
1362.66	0.0000
1365.15	14.7051
1368.21	15.6345
1368.53	0.0000
1376.25	15.6608
1384.27	13.8416
1394.10	16.6443
1395.20	18.4977
1407.95	15.7646
1434.06	13.9850
1436.60	9.3278
1457.56	0.0000
1460.81	17.8102
1489.15	11.3120
1509.49	14.1968
1596.49	17.3210
1620.62	12.5662
1678.03	0.0000
1691.02	5.8743
1691.02	5.8743
1706.46	0.0000
1750.46	0.0000
1764.49	10.9091
1764.49	10.9091
1764.49	10.9091
1764.49	10.9091
1770.23	33.7524
1771.40	15.8867
1791.20	0.0000
1808.65	8.9934

1836.01 12.0464

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202029819

Total Uranium Activity	1.0784E+00	ug/g
Total Uranium Counting Unc.	4.8016E+00	ug/g
Total Uranium Tpu	2.4498E-06	ug/g
Total Uranium Mda	4.0786E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 947554                    SAMPLE ID  : G1202029819        *
*   ANALYST       : RXF2                      DETECTOR   : GAM20              *
*   SAMPLE DATE   :  2-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00   *
*   ANALYSIS DATE: 12-FEB-2010 18:28:27.88    SAMPLE ALQT:  155.440 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.716E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.836E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.754E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.327E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 948404 Product: H3 Date: 2/10/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)	✓		
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/10/10

Secondary Review Performed By: [signature] 2/17/10

LANL 2/26

Tritium Que Sheet

40 Orange

03-FEB-10

Batch #: 948404 **Analyst:** KXK2 **First Client Due Date** 26-FEB-10 **Internal Due Date:** 15-FEB-10

Spike Isotope: Hydrogen-3 **Spike Code:** 0134 **Expiration Date:** — **Vol:** —

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 2/5/10 **Initials:** KKKJ **Pipet ID:** 2970968 **Witness:** 2/8/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture Dist Vol (mL) KKKJ 2/5/10
245808001-1	RE15-10-7954	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	5	1		384.46 ~~348.46~~	362.16	22.30
245808002-1	RE15-10-7956	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	6	2		473.51	444.63	28.88
245808003-1	RE15-10-7955	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	7	3		390.10	319.88	70.22
245808004-1	RE15-10-7953	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	8	4		425.44	365.88	59.56
245808005-1	RE15-10-7952	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	9	5		437.23	408.37	28.86
245808006-1	RE15-10-8060	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	10	6		422.66	361.37	61.29
245808007-1	RE15-10-8058	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	11	7		263.31	169.05	94.26
245808008-1	RE15-10-8059	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	12	8		362.31	336.22	26.09
1202031688-1	MB for batch 948404	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	13	9		20.00	0	20.00
1202031689-1	~~RE15-10-7954 245808001 DUP~~ KKG 2/8/10 RE15-10-7955 245808003 DUP	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	26-JAN-10	10	14	3		390.10	319.88	70.22
1202031690-1	LCS for batch 948404	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	15	10		20.00	0	20.00

KKKJ 2/6/10

Bkg Rack #: 4

VOA ILES

Comments:

Bkg prepared with dead water? Yes No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 2/10/10

GEL Laboratories LLC, Radiochemistry Division

DATE	2/5/2010	INITIALS	KXK2		BATCH NUMBER	948404

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
245808001	384.46	0.058	22.30	362.16	10	
245808002	473.51	0.061	28.88	444.63	10	
245808003	390.10	0.180	70.22	319.88	10	
245808004	425.44	0.140	59.56	365.88	10	
245808005	437.23	0.066	28.86	408.37	10	
245808006	422.66	0.145	61.29	361.37	10	
245808007	263.31	0.358	94.26	169.05	10	
245808008	362.31	0.072	26.09	336.22	10	
MB	20.00	1.000	20.00	0.00	10	
DUP	390.10	0.180	70.22	319.88	10	
LCS	20.00	1.000	20.00	0.00	10	

Tritium Solid

Filename :	H3VAC.XLS	Spike S/N :	N/A	LCS S/N :	0134-K
File type :	Excel	Spike Exp Date :	N/A	LCS Exp Date :	3/27/2010
Version # :	1.2.6	Spike Activity (dpm/ml):	N/A	LCS Activity (dpm/ml):	2470.48
		Spike Volume Added:	N/A	LCS Volume Added:	0.10
Batch :	948404				
Analyst :	KXK2				
Prep Date :	2/5/2010				

					Procedure Code :	LSC_VH3S	
H-3 Abundance :	1	Pipet, 0.1 ml Stdev : +/-	0.000701	ml	Parmname :	Tritium	
Method Uncertainty :	0.0691	Pipet, 0.5 ml Stdev : +/-	0.002564	ml	Required MDC :	250	pCi/L
Geometry:	10mL DW/13mL Ecoscint Ultra	Pipet, 1.0 ml Stdev : +/-	0.005480	ml	Halflife of Tritium :	12.32	years
		Pipet, 5.0 ml Stdev : +/-	0.025729	ml			

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	245808001.1	384.46	0.0223	0.0100	2.5729E-05	362.16	5.80%	1	1/26/2010 12:00
2	245808002.1	473.51	0.0289	0.0100	2.5729E-05	444.63	6.10%	2	1/26/2010 12:00
3	245808003.1	390.10	0.0702	0.0100	2.5729E-05	319.88	18.00%	3	1/26/2010 12:00
4	245808004.1	425.44	0.0596	0.0100	2.5729E-05	365.88	14.00%	4	1/26/2010 12:00
5	245808005.1	437.23	0.0289	0.0100	2.5729E-05	408.37	6.60%	5	1/26/2010 12:00
6	245808006.1	422.66	0.0613	0.0100	2.5729E-05	361.37	14.50%	6	1/26/2010 12:00
7	245808007.1	263.31	0.0943	0.0100	2.5729E-05	169.05	35.80%	7	1/26/2010 12:00
8	245808008.1	362.31	0.0261	0.0100	2.5729E-05	336.22	7.20%	8	1/26/2010 12:00
9	1202031688.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	9	2/5/2010 0:00
10	1202031689.1	390.10	0.0702	0.0100	2.5729E-05	319.88	18.00%	3	1/26/2010 12:00
11	1202031690.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	10	2/5/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	5	21.163	761.02	484.02	1.40	40	2/9/2010 9:37	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2727	0.00792	4	2/9/2010 8:54
2	6	14.2463	756.97	719.32	1.40	40	2/9/2010 10:00	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2661	0.00792	4	2/9/2010 8:54
3	7	9.12967	758.16	1125.11	1.40	40	2/9/2010 10:17	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2681	0.00792	4	2/9/2010 8:54
4	8	3.89633	757.89	2643.19	1.40	40	2/9/2010 10:29	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2676	0.00792	4	2/9/2010 8:54
5	9	40.0297	760.83	3.42	1.40	40	2/9/2010 10:35	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2724	0.00792	4	2/9/2010 8:54
6	10	4.27967	760.86	2405.66	1.40	40	2/9/2010 11:18	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2725	0.00792	4	2/9/2010 8:54
7	11	40.0297	757.82	30.22	1.40	40	2/9/2010 11:24	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2675	0.00792	4	2/9/2010 8:54
8	12	40.0297	756.47	5.77	1.40	40	2/9/2010 12:07	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2653	0.00792	4	2/9/2010 8:54
9	13	40.0297	759.49	0.76	1.40	40	2/9/2010 12:49	0.999	LSCORANGE	7/23/2009	7/31/2010	0.2703	0.00792	4	2/9/2010 8:54
10	14	9.2462	759.71	1110.92	1.40	40	2/9/2010 13:32	0.998	LSCORANGE	7/23/2009	7/31/2010	0.2706	0.00792	4	2/9/2010 8:54
11	15	15.0297	761.92	36.91	1.40	40	2/9/2010 13:44	0.999	LSCORANGE	7/23/2009	7/31/2010	0.2742	0.00792	4	2/9/2010 8:54

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	122.6344	86.5810	250	196.6240	**79878.0888**	0.013	482.620	4.786	792.1313	5619.4210		SAMPLE				
2	144.2672	101.8538	250	239.4271	**121776.1286**	0.013	717.920	7.108	1205.7188	8566.6785		SAMPLE				
3	170.2612	120.2059	250	295.7439	**189219.2951**	0.013	1123.710	11.103	1869.5748	13310.6053		SAMPLE				
4	246.7691	174.2211	250	478.3078	**445581.6120**	0.013	2641.790	26.046	4393.1529	31343.0581		SAMPLE				
5	102.1082	72.0892	250	156.5966	**334.7094**	0.172	2.020	0.347	57.4975	62.0435		SAMPLE				
6	232.2799	163.9916	250	444.1151	**398310.3325**	0.013	2404.260	23.710	3927.9485	28018.0270		SAMPLE				
7	103.9831	73.4129	250	159.4720	**4863.0941**	0.032	28.820	0.889	149.9715	370.4197		SAMPLE				
8	104.8532	74.0272	250	160.8064	**743.5651**	0.097	4.370	0.423	72.0122	88.7001		SAMPLE				
9	102.7827	72.5655	250	157.6312	**-106.7471**	0.363	-0.640	0.232	38.7447	38.7458		MB				
10	167.8037	118.4709	250	291.0664	**185085.4619**	0.013	1109.520	10.963	1828.7744	13019.8175	245808003.1	DUP	2.2%	0.0785		
11	137.1052	96.7975	250	226.4087	**5837.6048**	0.045	35.510	1.578	259.4492	482.3037		LCS			5564.1523	104.9%

REGISTRY

TUE 9 FEB 2010 8:52

*** DIRECTORY PATH :S:\LSC\O\DA\948404A0 ***

PARAMETER GROUP: 8
ID: H-3 (4)

00A PROGRAM MODE 6 ->

ORDER	POS	ID	CTIME	COUNTS	CUCNTS	MCW	REP	STD	STMS	STIME
1	4	BKG	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
2	5	245808001	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
3	6	245808002	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
4	7	245808003	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
5	8	245808004	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
6	9	245808005	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
7	10	245808006	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
8	11	245808007	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
9	12	245808008	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
10	13	1202031688	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
11	14	1202031689	40:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
12	15	1202031690	15:00	1.0E04	NO LIM	1	1	Y	1/10	1:00

NUMBER OF CYCLES 1
COINCIDENCE BIAS (L/H) L

MCA	INPUT	TRIGG.	INHIBIT	MEMORY SPLIT
1	LRSUM	DCOS	G	L*R
2	GSUM	G		L*R

WINDOW	CHANNELS	MCA	HALF
1	50- 175	1	2
2	5- 320	1	2
3	1- 1024	1	2
4	50- 320	1	1
5	50- 270	1	1
6	60- 220	1	1
7	1- 1024	2	1
8	1- 1024	2	2

SELECTED PRINTOUT FOR TERMINAL 1 (A)

SELECTED PRINTOUT FOR TERMINAL 2 (B)

1.	2.	3.	4.	5.	6.	7.
POS	ID	CTIME	SQP	CPM1	CPM2	CPM3

SEND SPECTRA 12
RESOLUTION OF SPECTRA 1024
LISTING Y
INSTRUMENT NUMBER 1

POS	ID	CTIME	SQP	CPM1	CPM2	CPM3
Q010401N.001	9 FEB 2010 9:35					
4	BKG	40:01.780	760.40	1.40	2.96	7.67
Q020501N.001	9 FEB 2010 9:59					

Page 1

5	245808001	21:09.780	761.02	484.02	528.47	532.68
Q030601N.001	9 FEB 2010	10:15				
6	245808002	14:14.780	756.97	719.32	779.61	783.41
Q040701N.001	9 FEB 2010	10:27				
7	245808003	9:07.780	758.16	1125.11	1213.13	1218.17
Q050801N.001	9 FEB 2010	10:33				
8	245808004	3:53.780	757.89	2643.19	2859.21	2862.36
Q060901N.001	9 FEB 2010	11:16				
9	245808005	40:01.780	760.83	3.42	4.83	9.15
Q071001N.001	9 FEB 2010	11:23				
10	245808006	4:16.780	760.86	2405.66	2615.24	2618.35
Q081101N.001	9 FEB 2010	12:05				
11	245808007	40:01.779	757.82	30.22	33.72	38.89
Q091201N.001	9 FEB 2010	12:48				
12	245808008	40:01.779	756.47	5.77	7.41	11.78
Q101301N.001	9 FEB 2010	13:30				
13	1202031688	40:01.779	759.49	.76	2.01	6.87
Q111401N.001	9 FEB 2010	13:42				
14	1202031689	9:14.772	759.71	1110.92	1217.09	1222.74
Q121501N.001	9 FEB 2010	14:00				
15	1202031690	15:01.779	761.92	36.91	41.06	46.17

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ010401N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	1, BKG, 40.02967:
Quench:	760.4
Start, End, X-Axis	50-175

Channel Counts

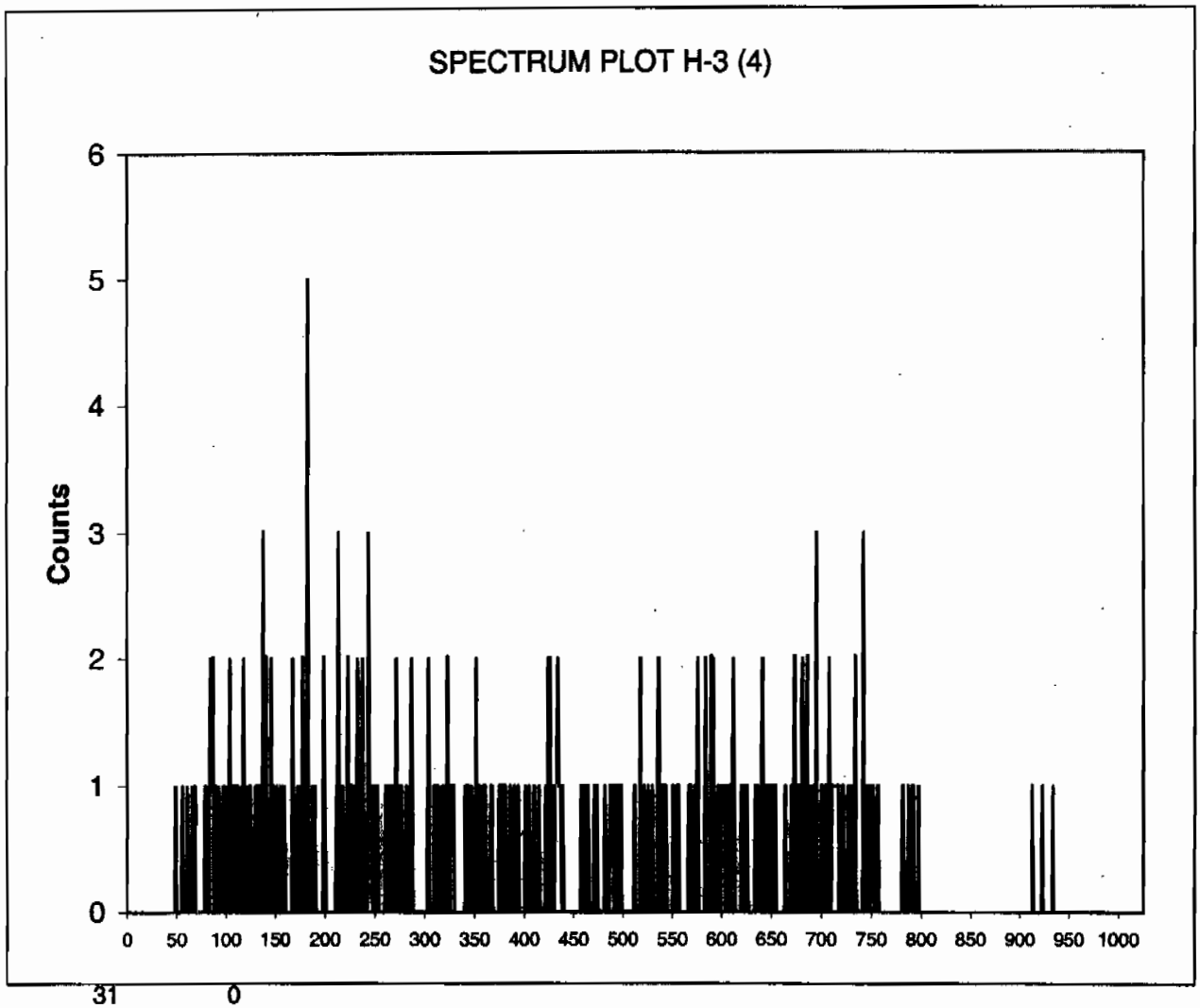

31	0
32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ020501N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	2, 245808001, 21.163:
Quench:	761.02
Start, End, X-Axis	50-175

Channel Counts

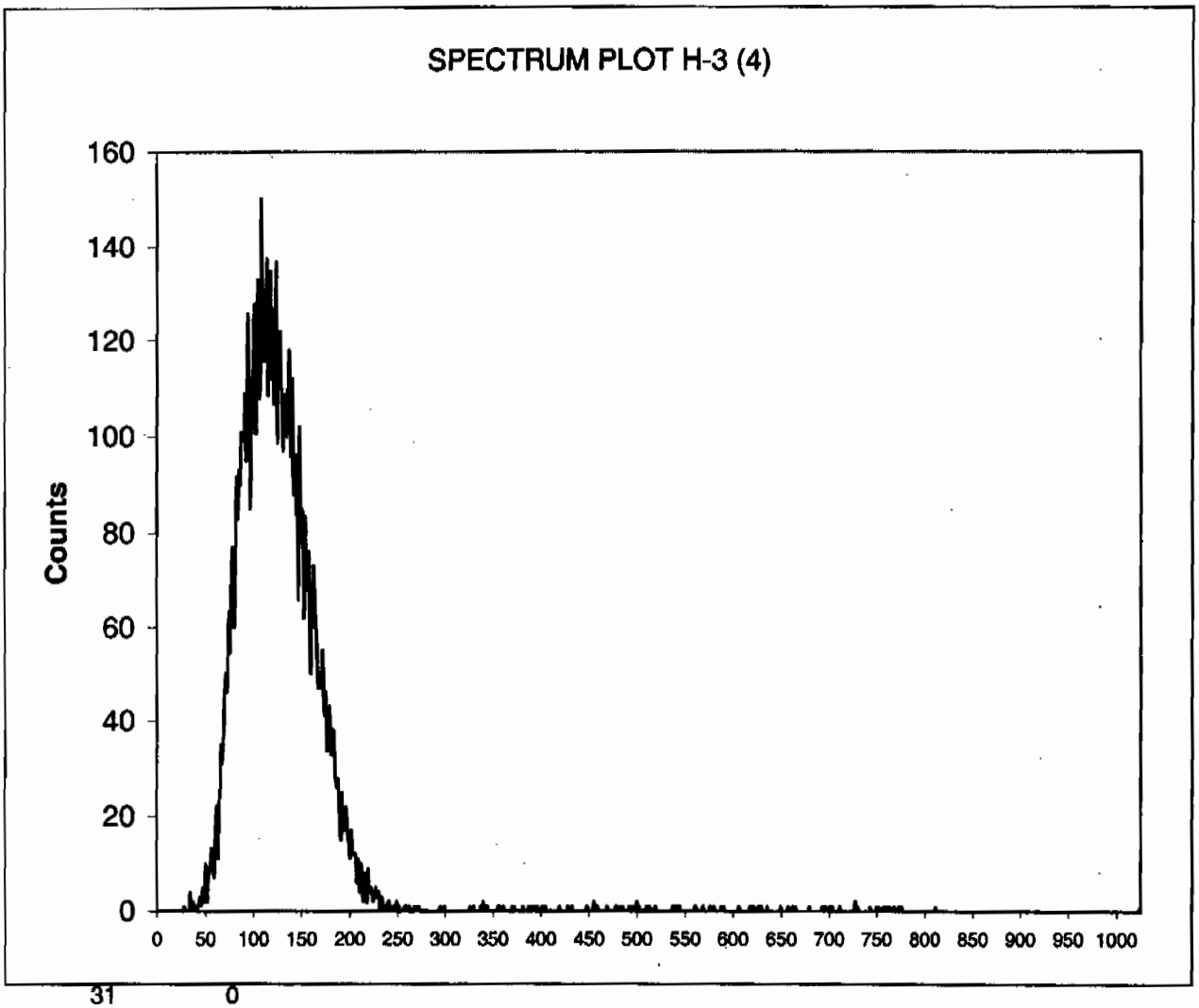

31	0
32	0
33	0
34	4
35	1

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ030601N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	3, 245808002, 14.24633:
Quench:	756.97
Start, End, X-Axis	50-175

Channel Counts

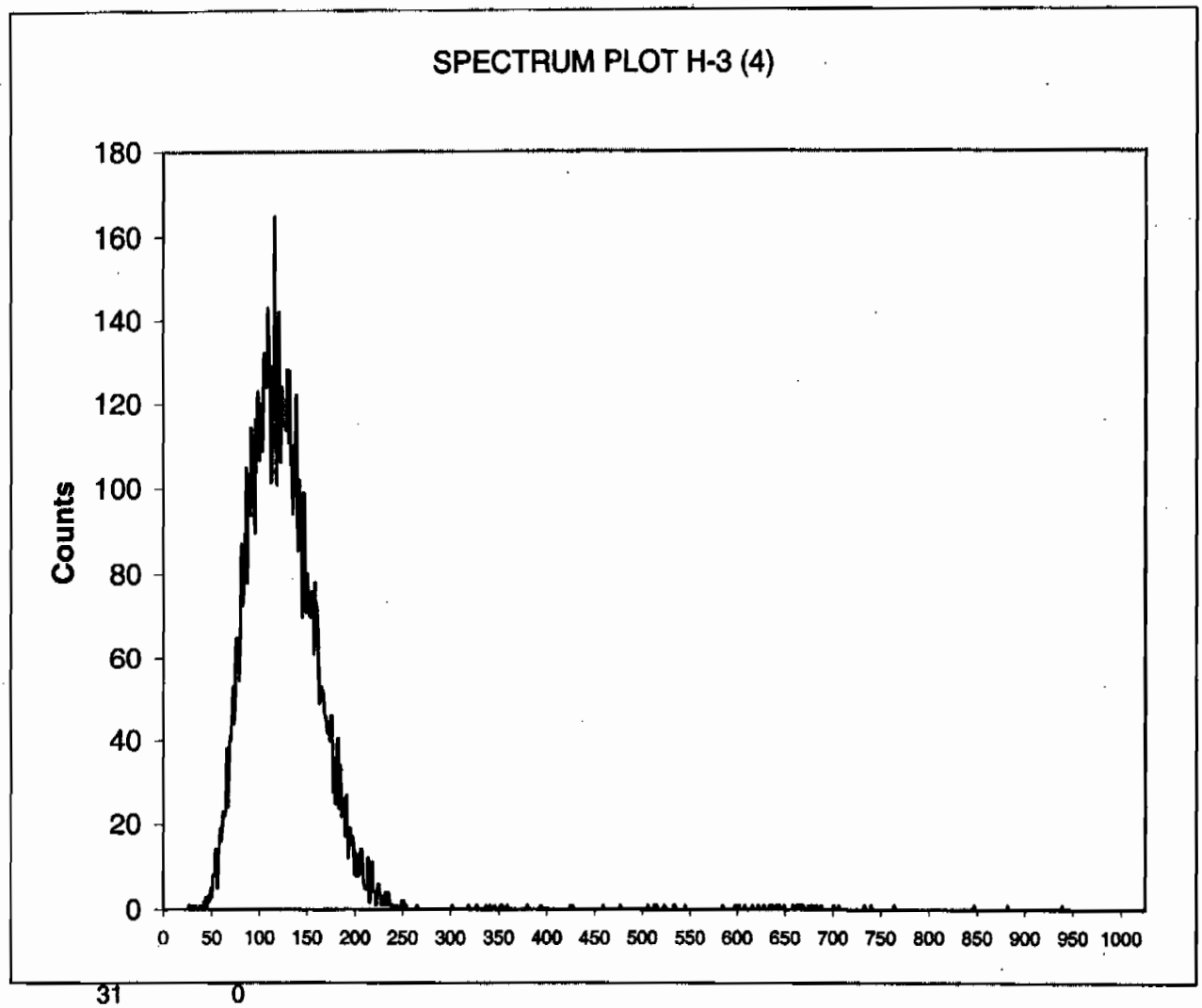

31	0
32	0
33	1
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ040701N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	4, 245808003, 9.129666:
Quench:	758.16
Start, End, X-Axis	50-175

Channel Counts

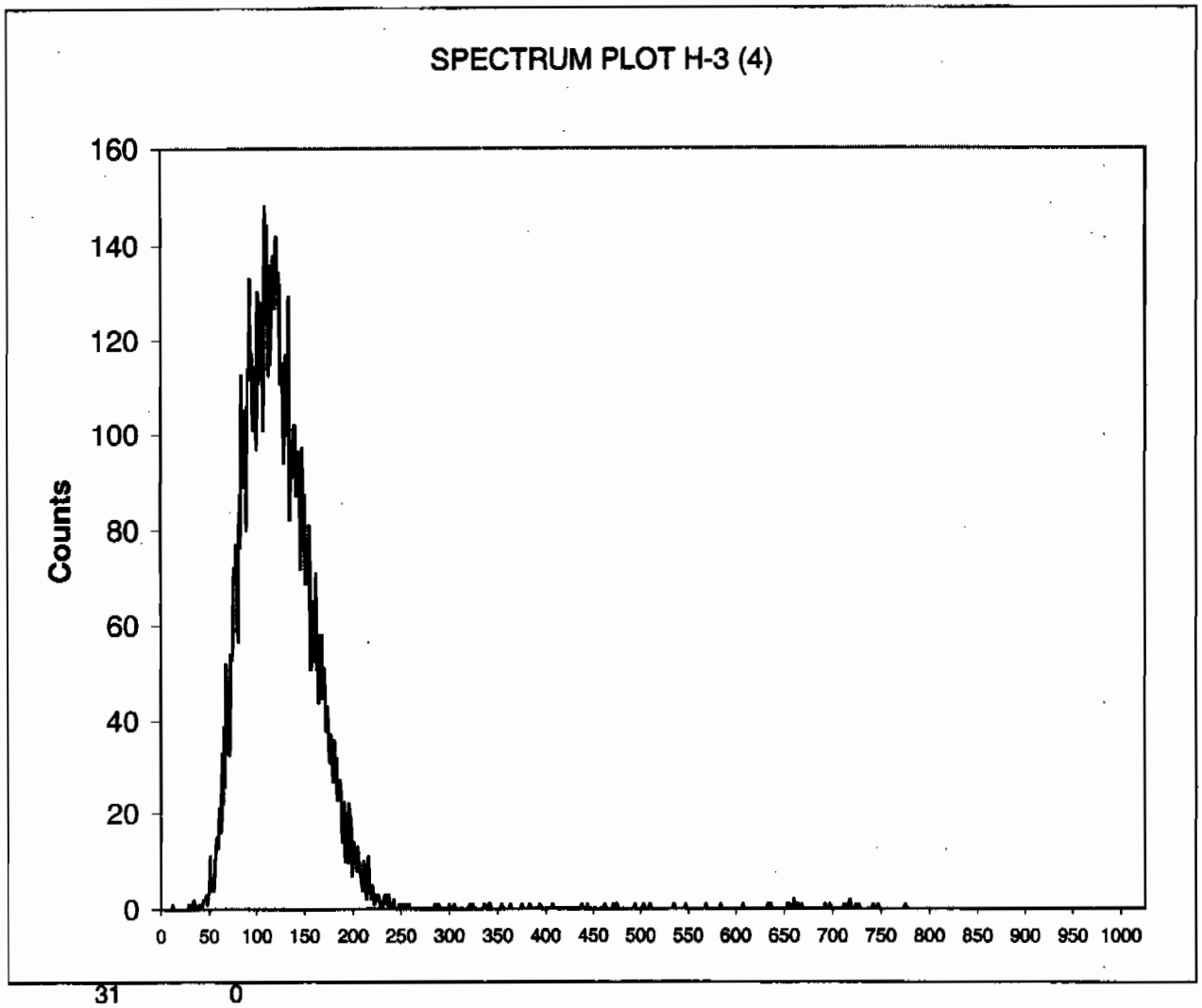

31	0
32	1
33	1
34	2
35	1

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ050801N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	5, 245808004, 3.896333:
Quench:	757.89
Start, End, X-Axis	50-175

Channel Counts

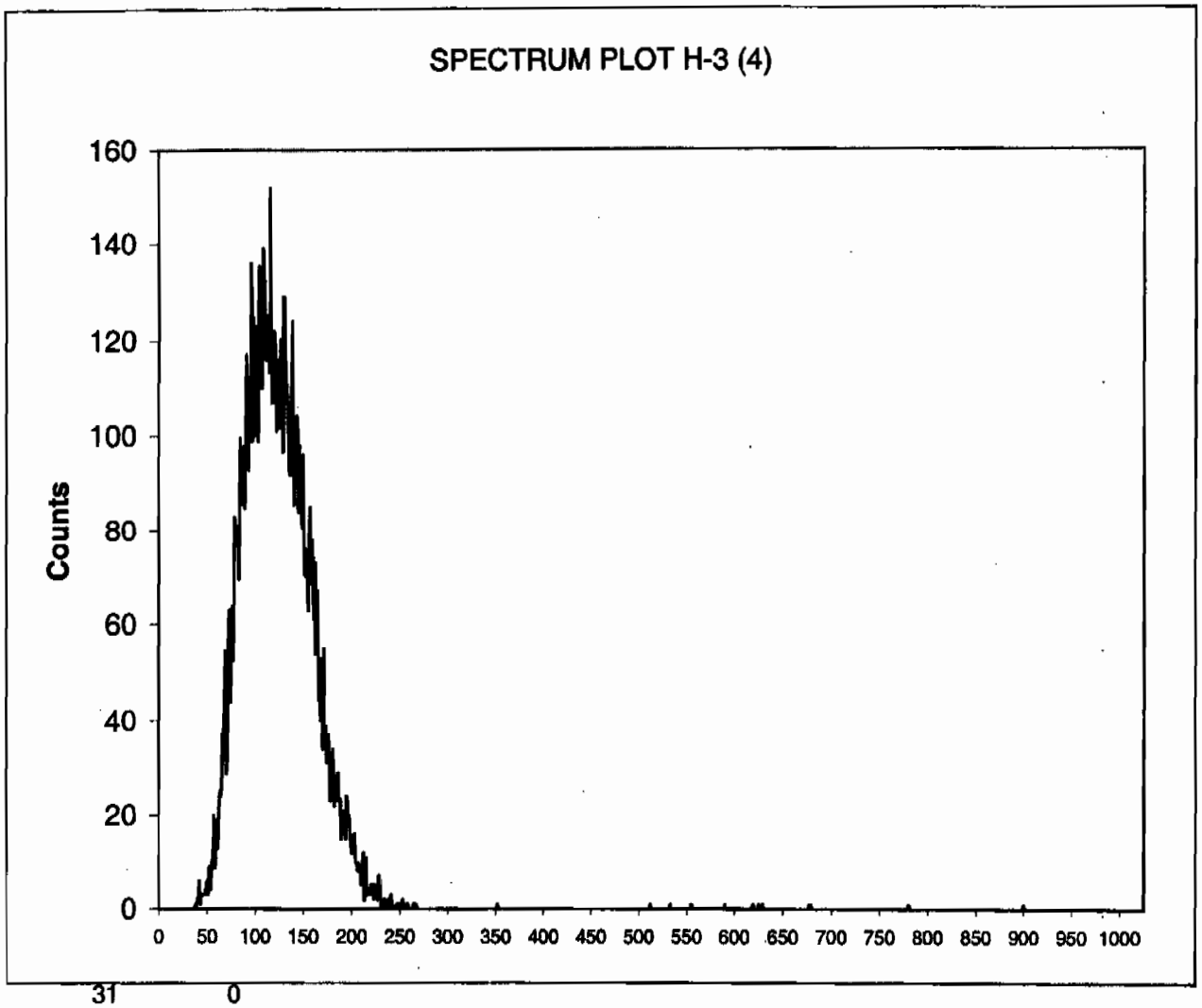

31	0
32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ060901N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	6, 245808005, 40.02967:
Quench:	760.83
Start, End, X-Axis	50-175

Channel	Counts

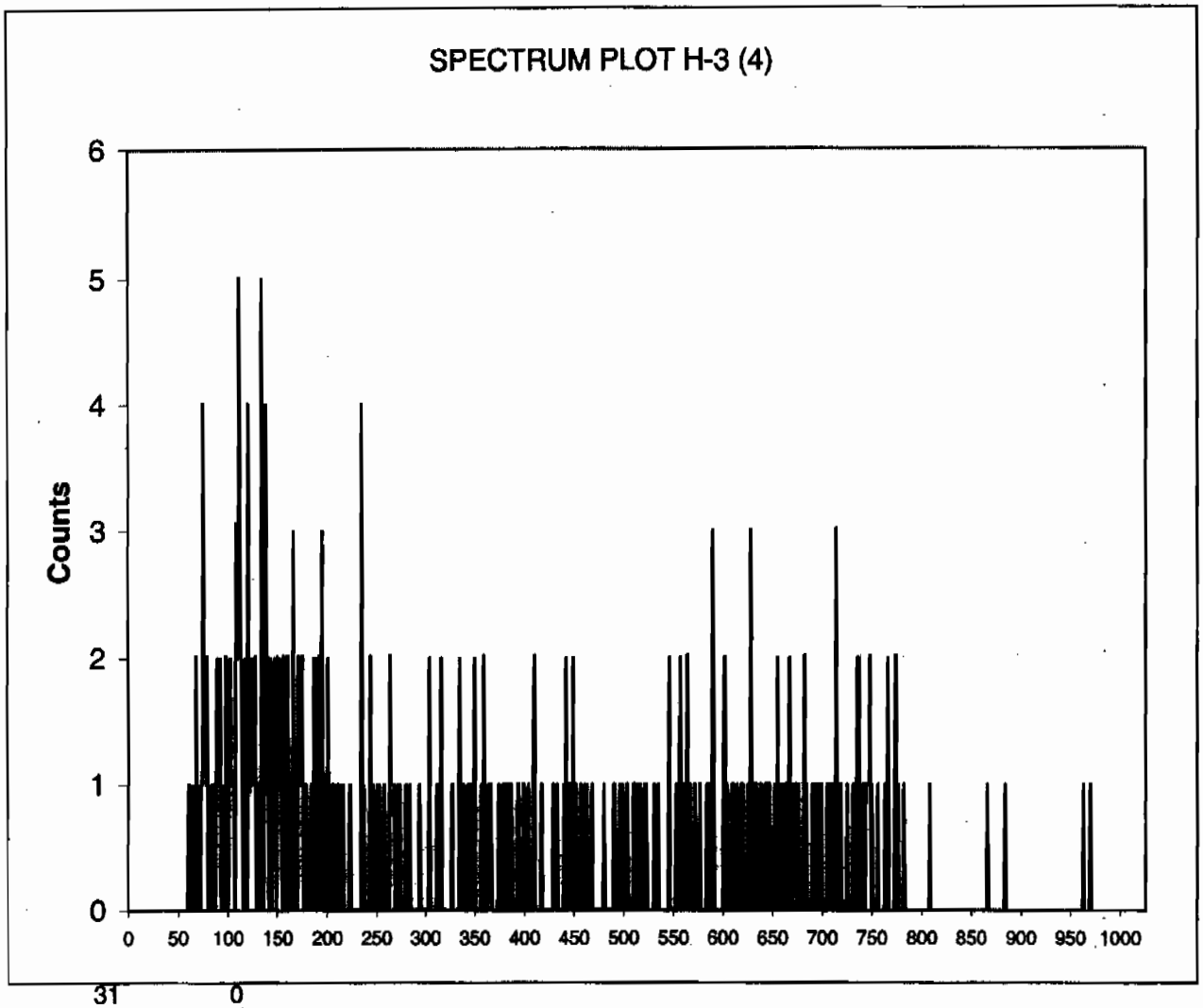

31	0
32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ071001N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	7, 245808006, 4.279667:
Quench:	760.86
Start, End, X-Axis	50-175

Channel Counts

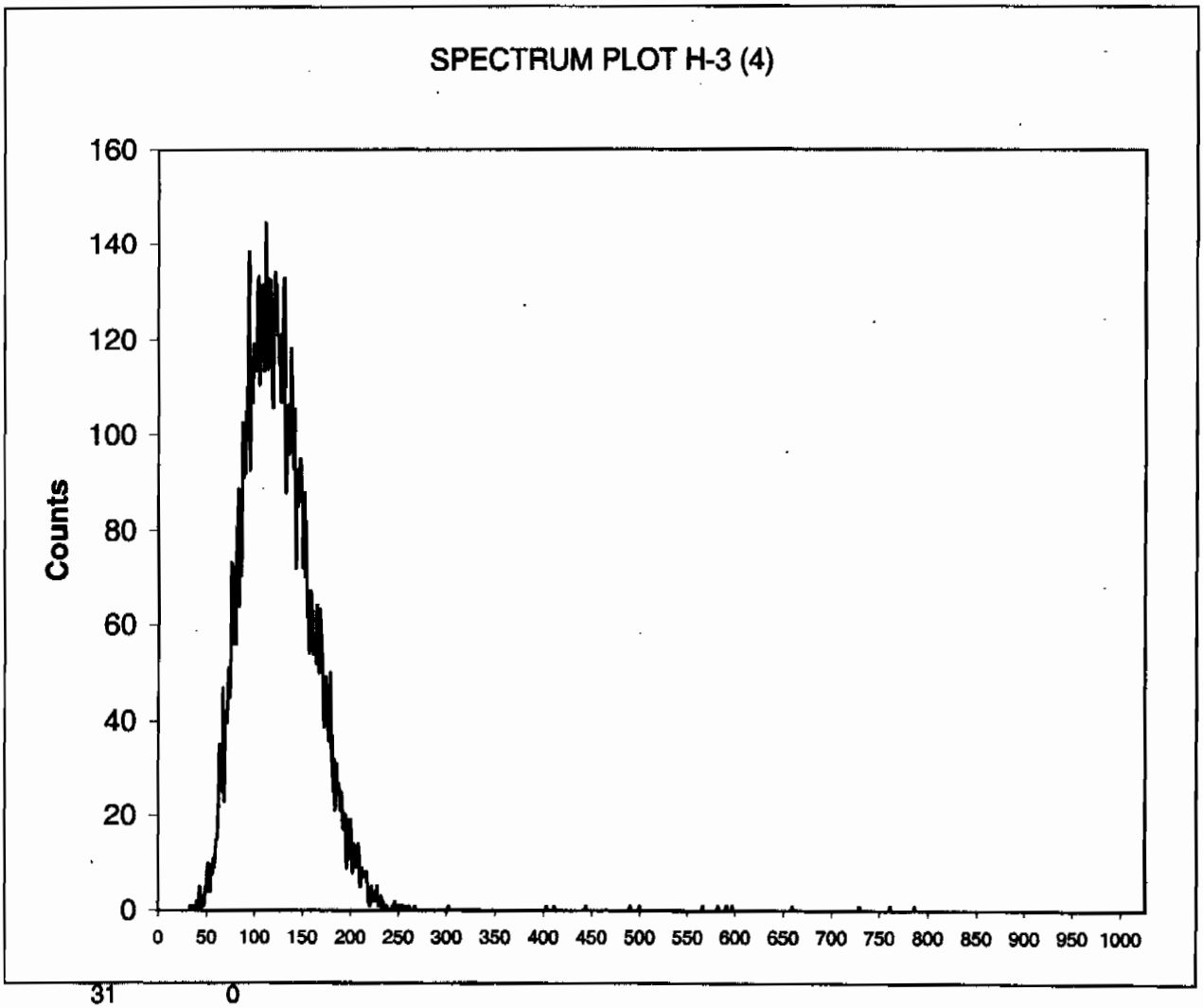

31	0
32	0
33	1
34	0
35	1

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ081101N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	8, 245808007, 40.02965:
Quench:	757.82
Start, End, X-Axis	50-175

Channel Counts

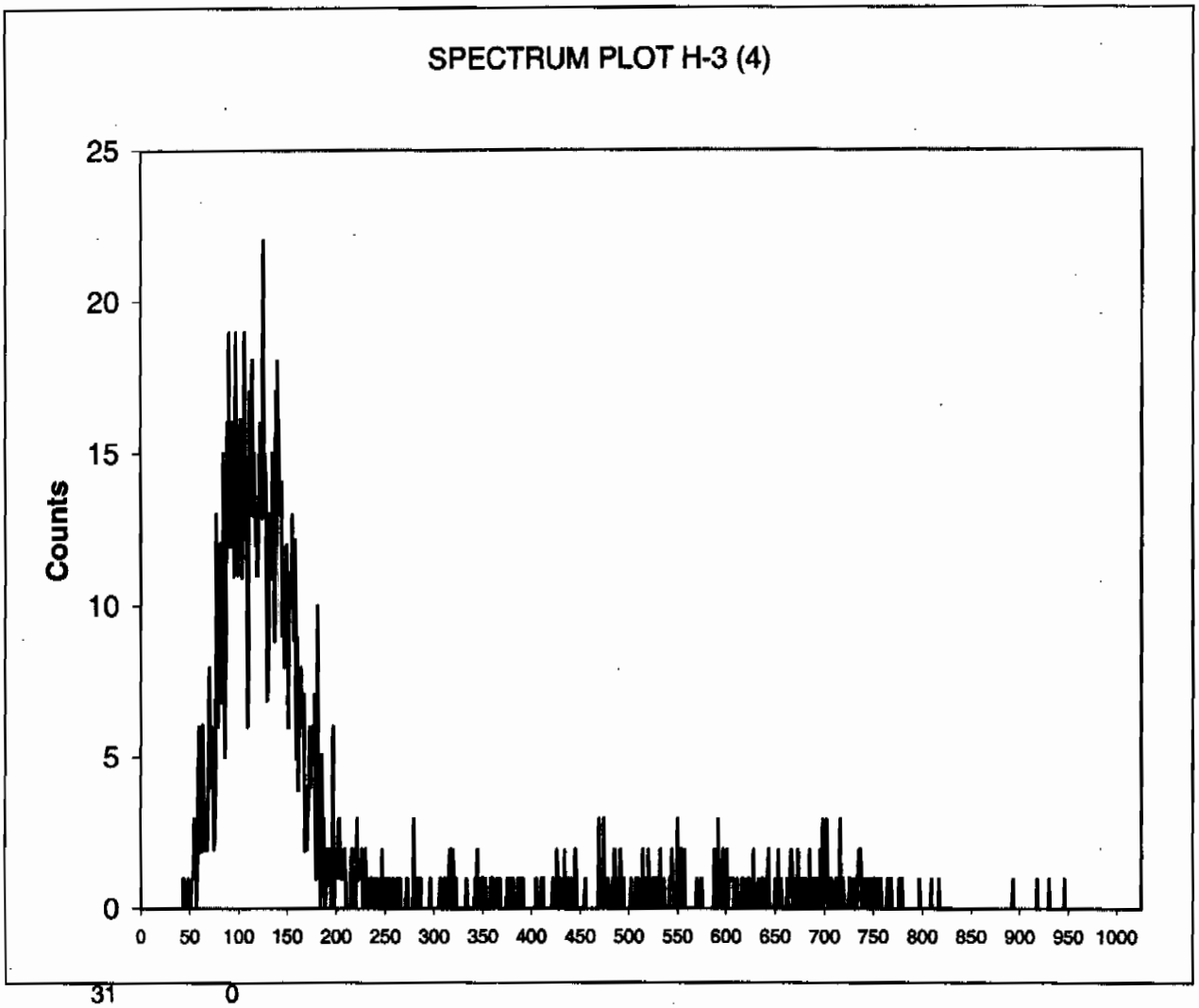

31	0
32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ091201N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	9, 245808008, 40.02965:
Quench:	756.47
Start, End, X-Axis	50-175

Channel	Counts

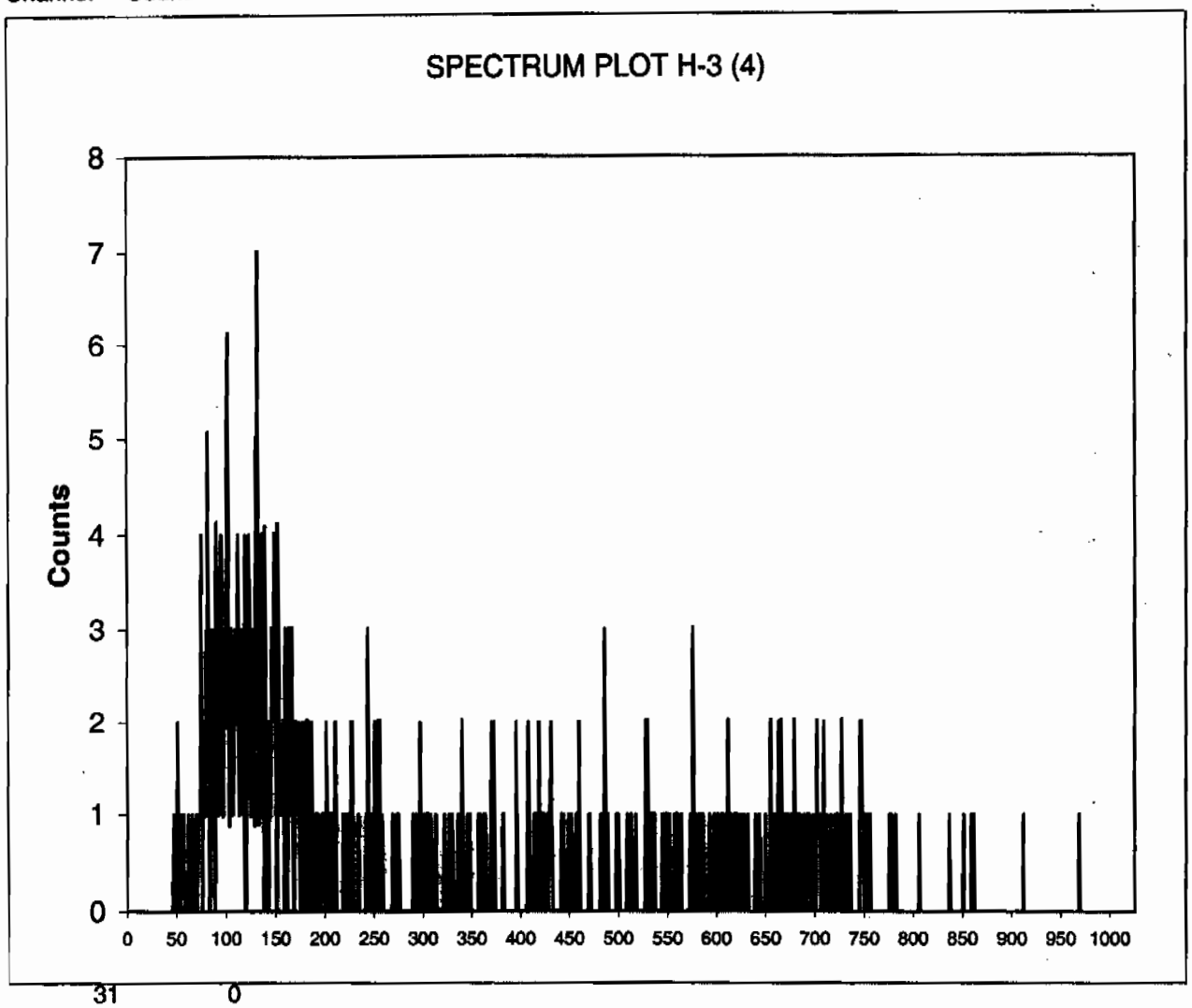

31	0
32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ101301N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	10, 1202031688, 40.02965:
Quench:	759.49
Start, End, X-Axis	50-175

Channel Counts

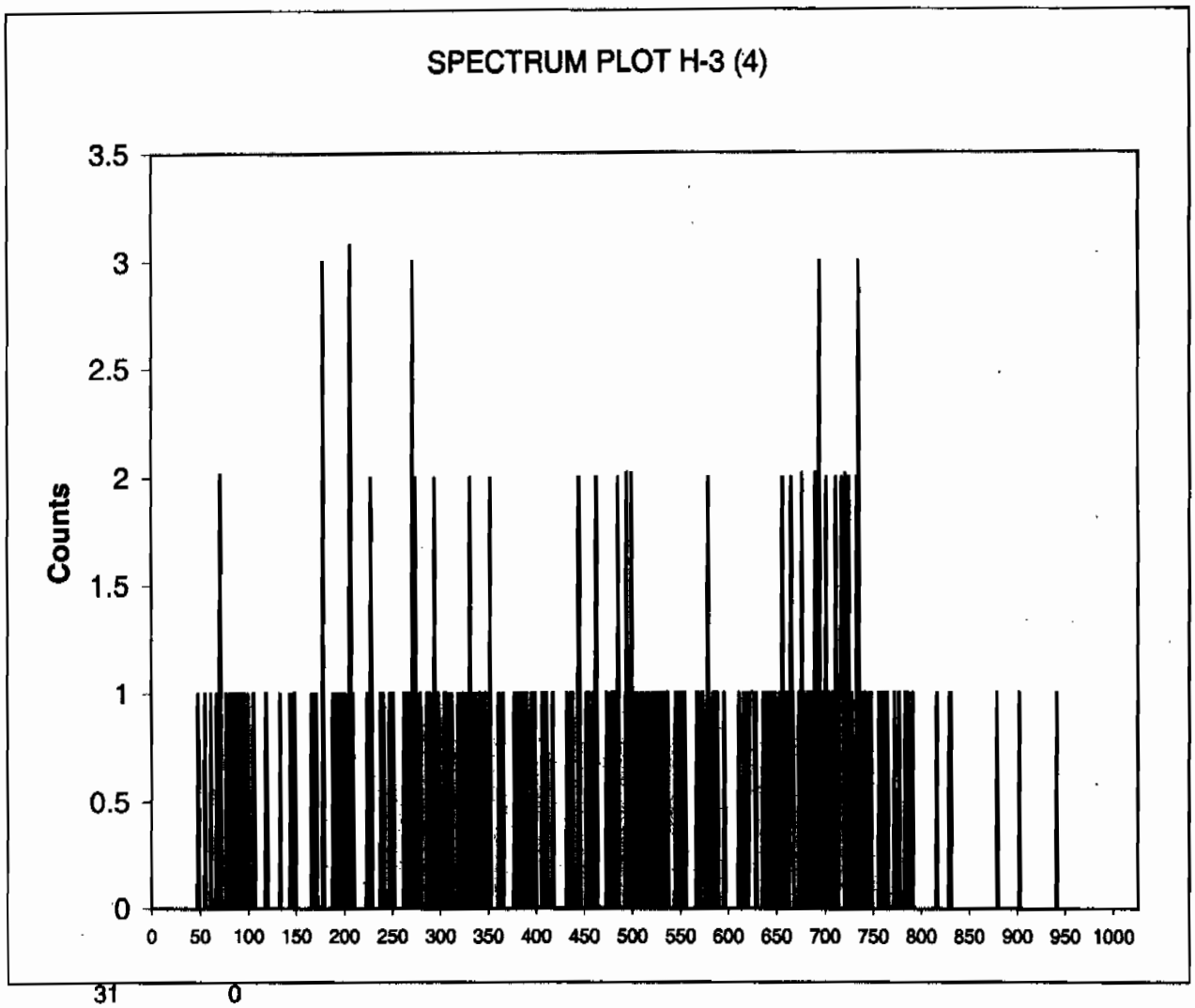

31	0
32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ111401N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	11, 1202031689, 9.2462:
Quench:	759.71
Start, End, X-Axis	50-175

Channel	Counts

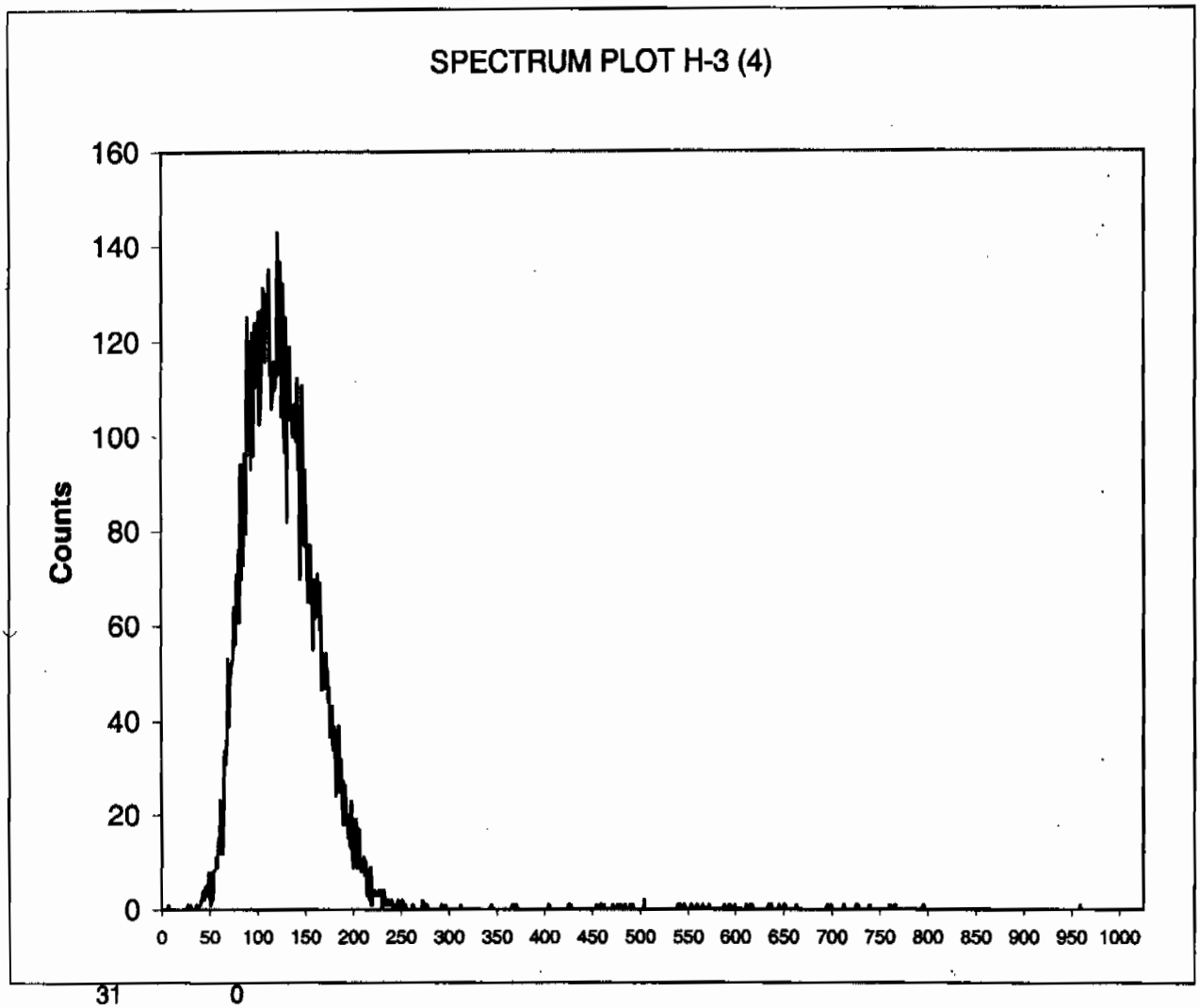

31	0
32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	TUE 9 FEB 2010 8:52
FileName:	s:\lsc\files\orange\948404A0\SQ121501N.001.xls
File Info:	s:\lsc\files\orange\948404A0\U948404A0.xls
ID:	H-3 (4)
Comments:	ORANGE
Sample, Rack-Pos, Time:	12, 1202031690, 15.02965:
Quench:	761.92
Start, End, X-Axis	50-175

Channel Counts

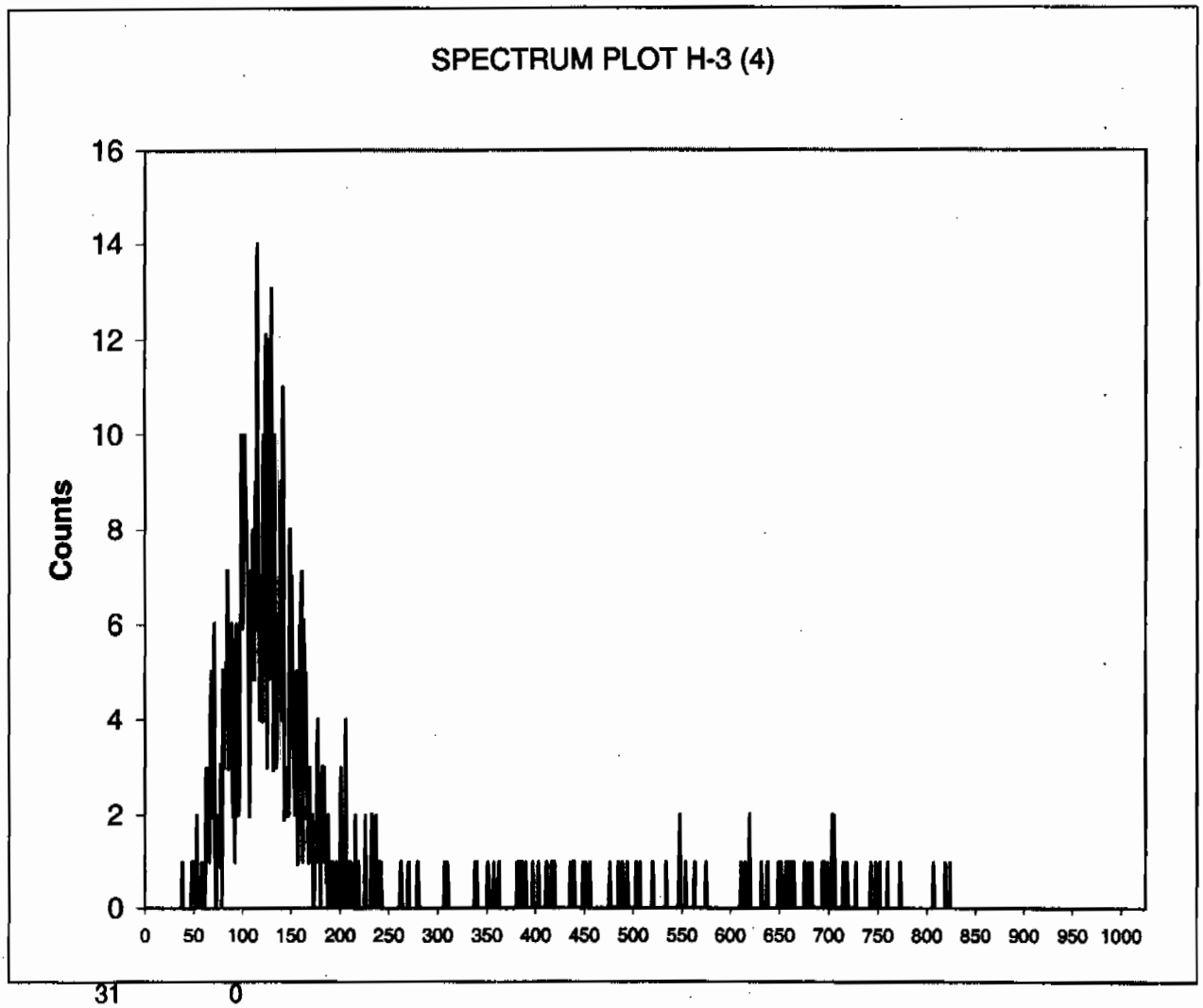

31	0
32	0
33	0
34	0
35	0

DATE		2/5/2010		INITIALS	KXK2			BATCH NUMBER	948404

Sample #	Flask wt. (g)	Sample Wet (g)	Flask & Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	Flask & Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
245808001	200	384.46	584.46	0.058	22.30	362.16	562.16	10	
245808002	200	473.51	673.51	0.061	28.88	444.63	644.63	10	
245808003	200	390.10	590.10	0.180	70.22	319.88	519.88	10	
245808004	200	425.44	625.44	0.140	59.56	365.88	565.88	10	
245808005	200	437.23	637.23	0.066	28.86	408.37	608.37	10	
245808006	200	422.66	622.66	0.145	61.29	361.37	561.37	10	
245808007	200	263.31	463.31	0.358	94.26	169.05	369.05	10	
245808008	200	362.31	562.31	0.072	26.09	336.22	536.22	10	
MB	200	20.00	220.00	1.000	20.00	0.00	200.00	10	
DUP	200	390.10	590.10	0.180	70.22	319.88	519.88	10	
LCS	200	20.00	220.00	1.000	20.00	0.00	200.00	10	

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.287129 through 0.307129

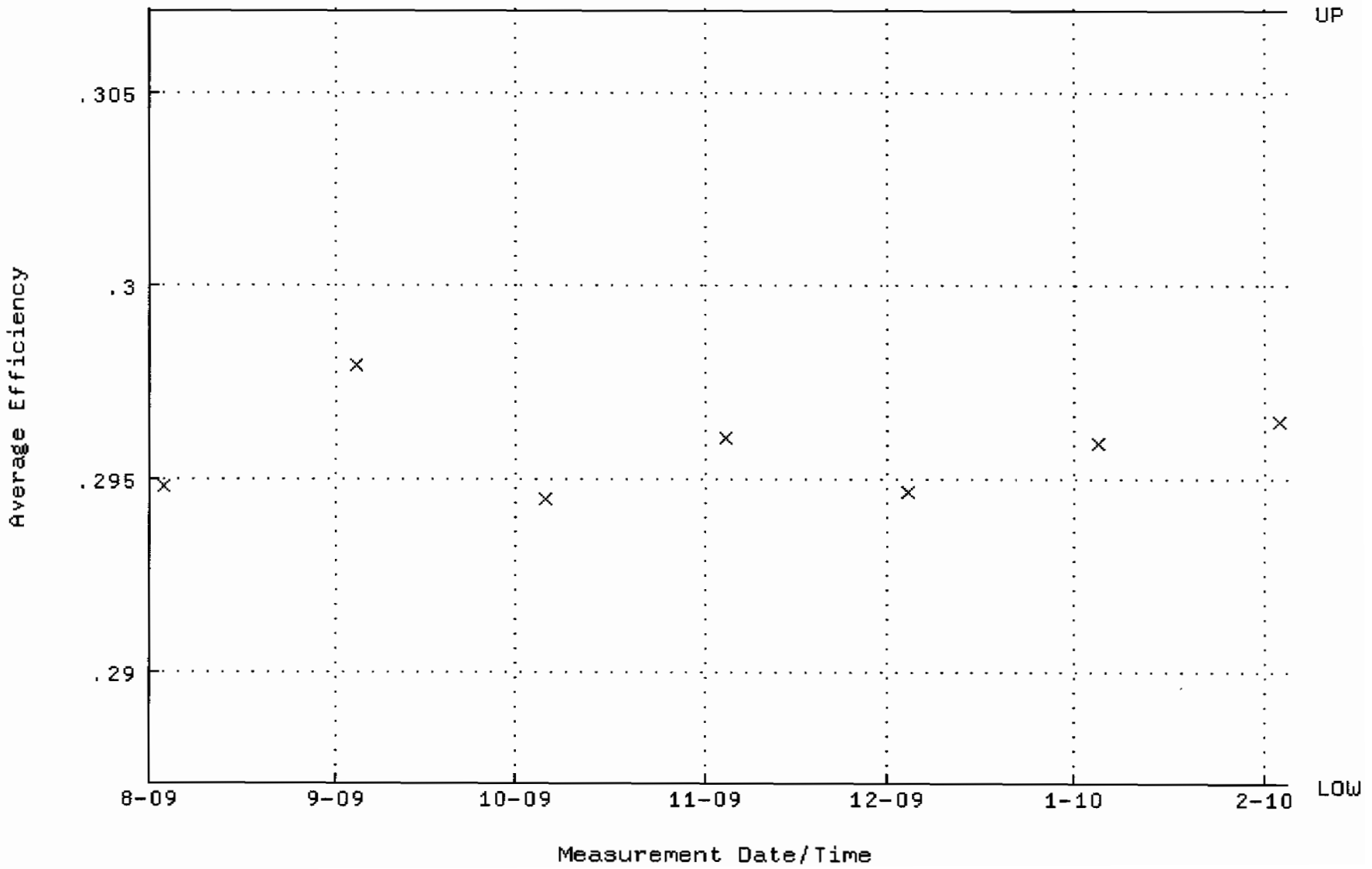

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 90.7092 through 100.258

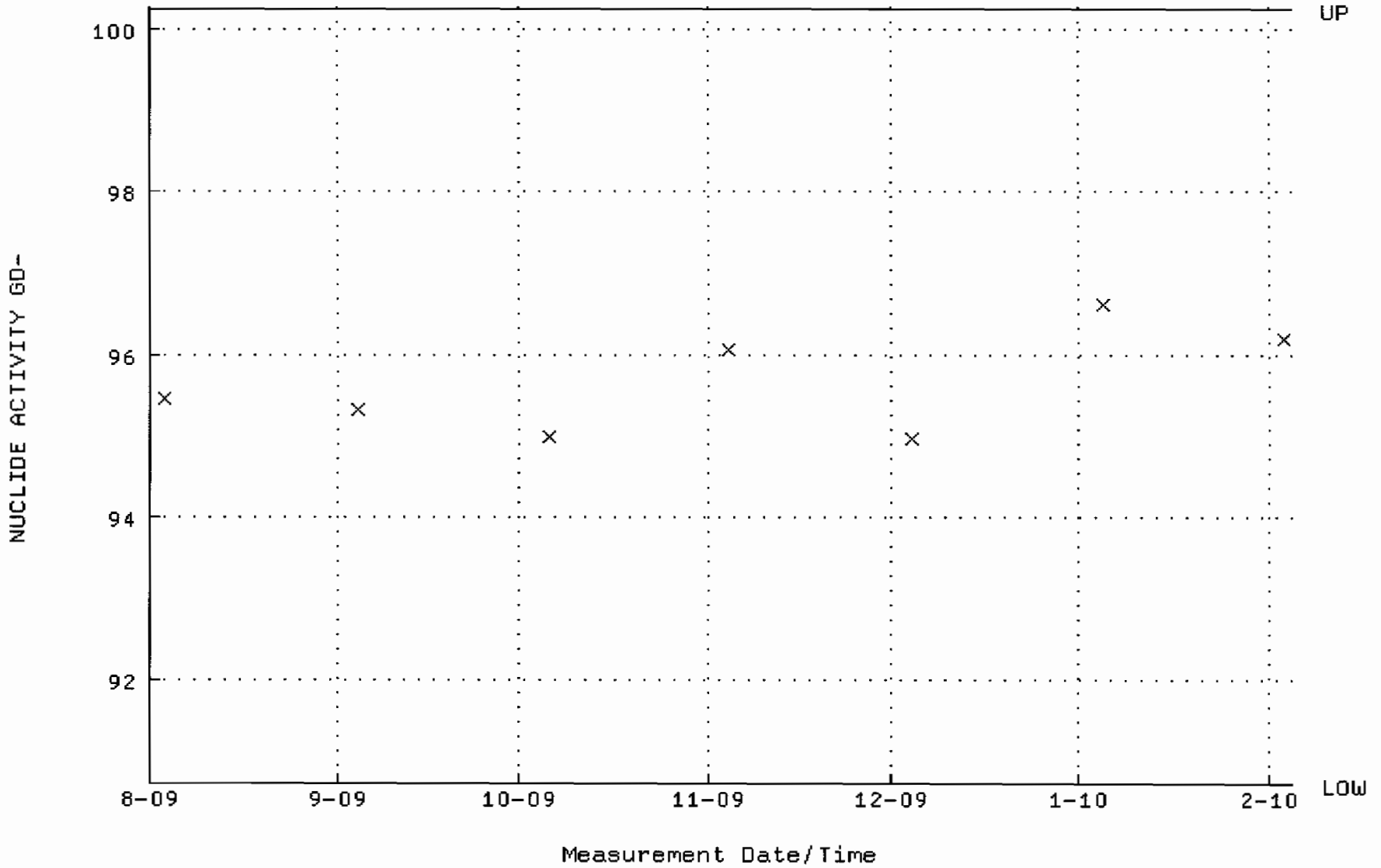

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

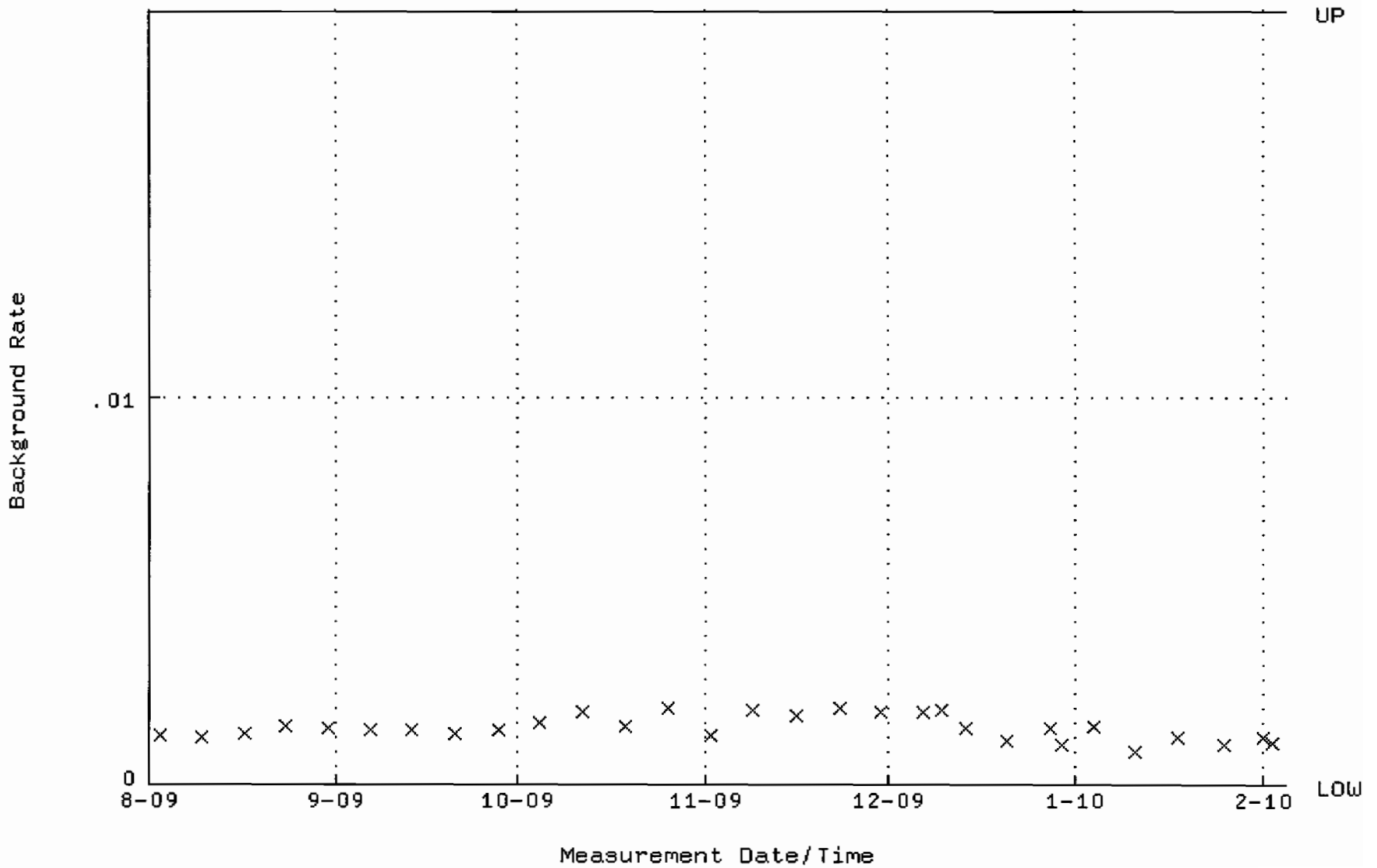

QA filename : DKA100:[ENV_ALPHA.QA.W]W038.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.327380 through 0.362086

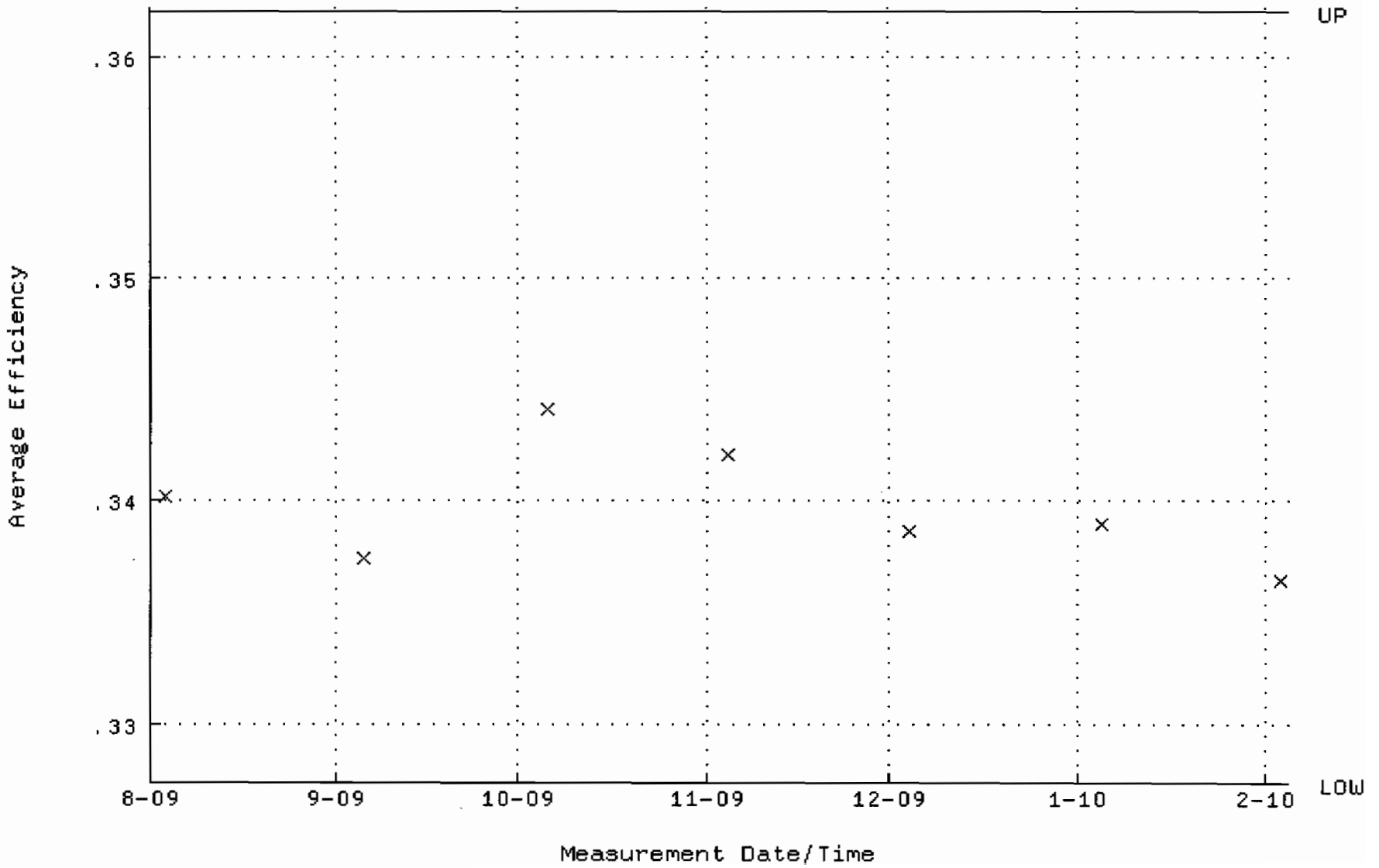

QA filename : DKA100:[ENV_ALPHA.QA.W]W038.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5715 through 92.1899

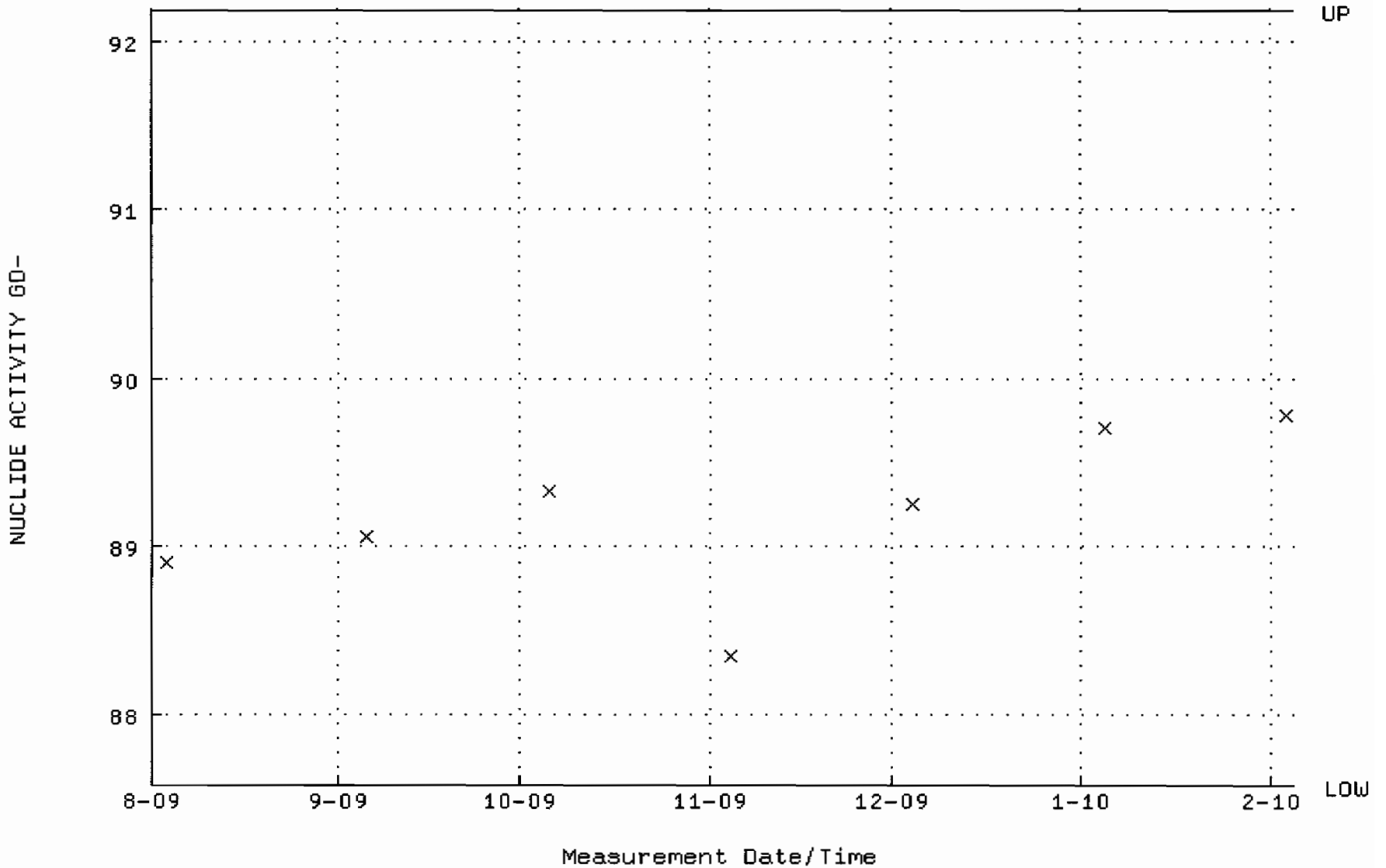

QA filename : DKA100:[ENV_ALPHA.QA.B]B038.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

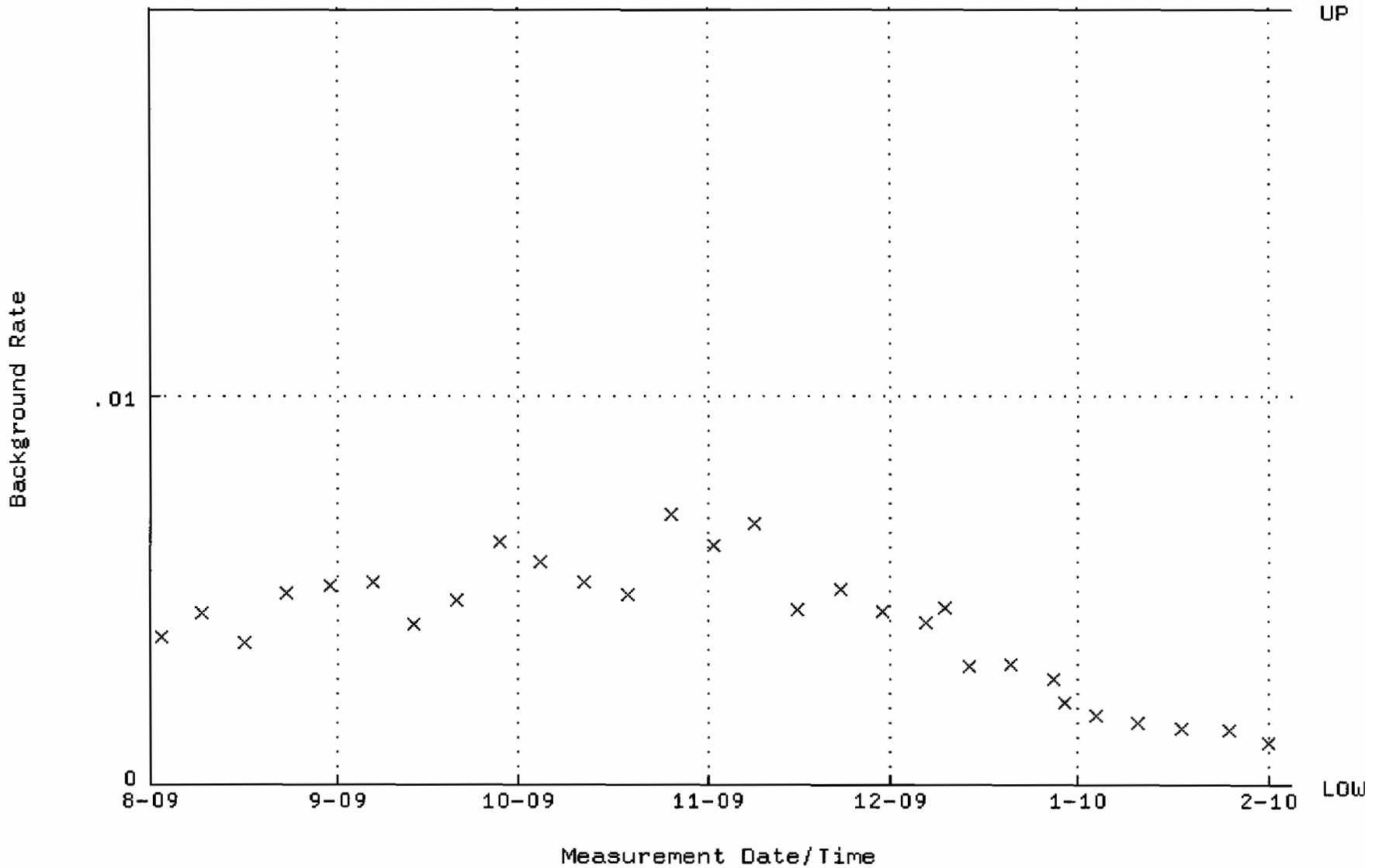

QA filename : DKA100:[ENV_ALPHA.QA.W]W039.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

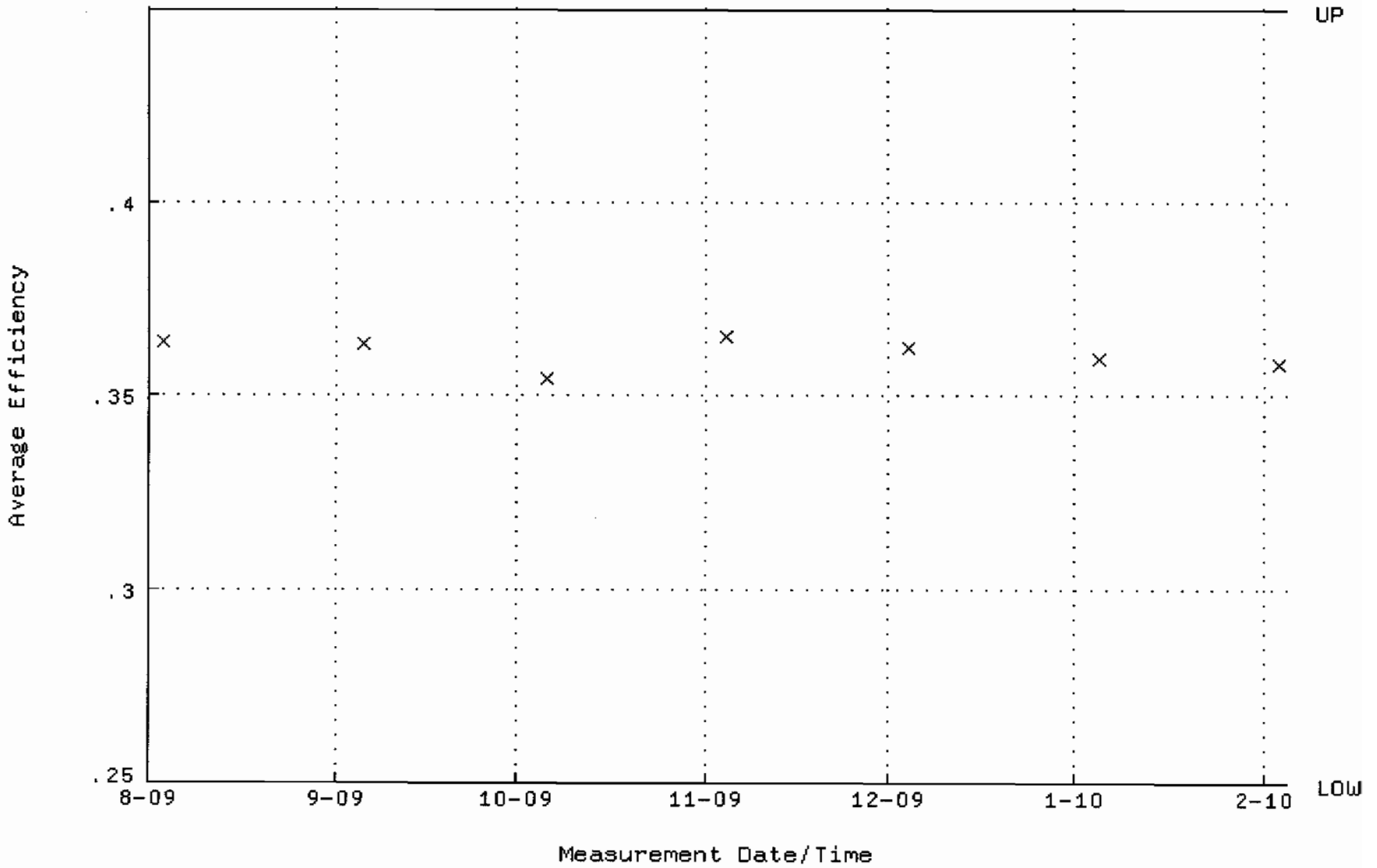

QA filename : DKA100:[ENV_ALPHA.QA.W]W039.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

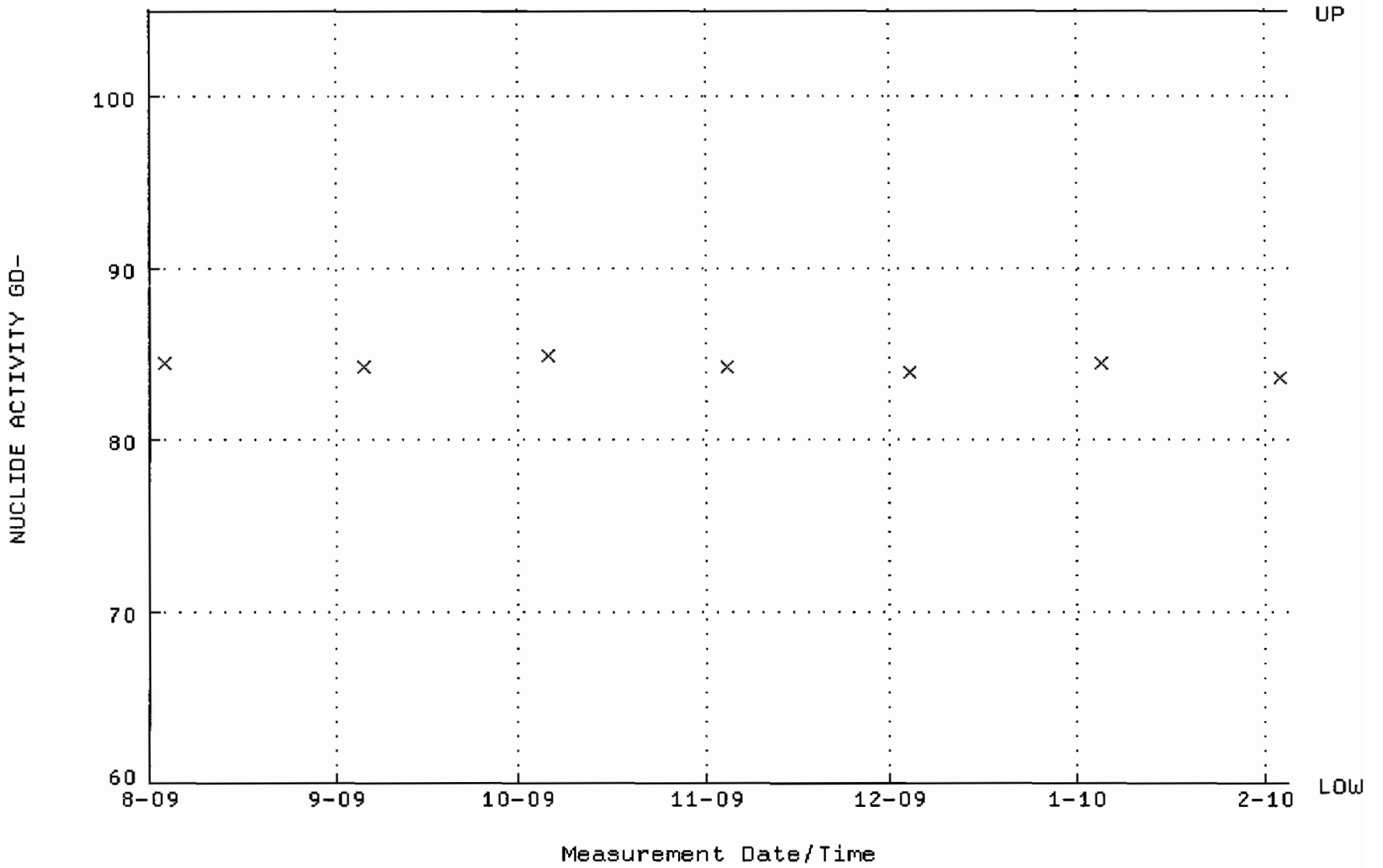

QA filename : DKA100:[ENV_ALPHA.QA.B]B039.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

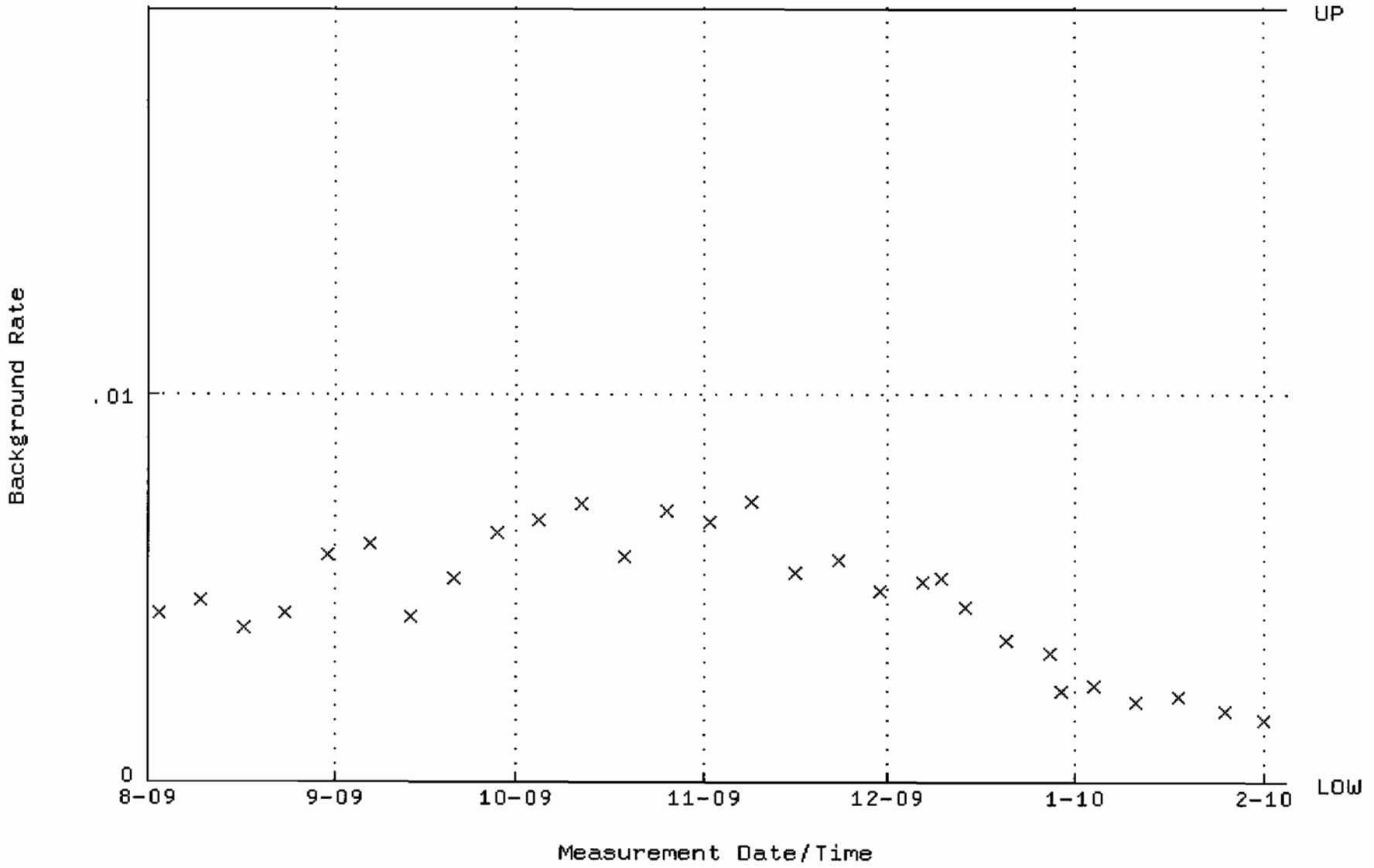

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313016 through 0.333016

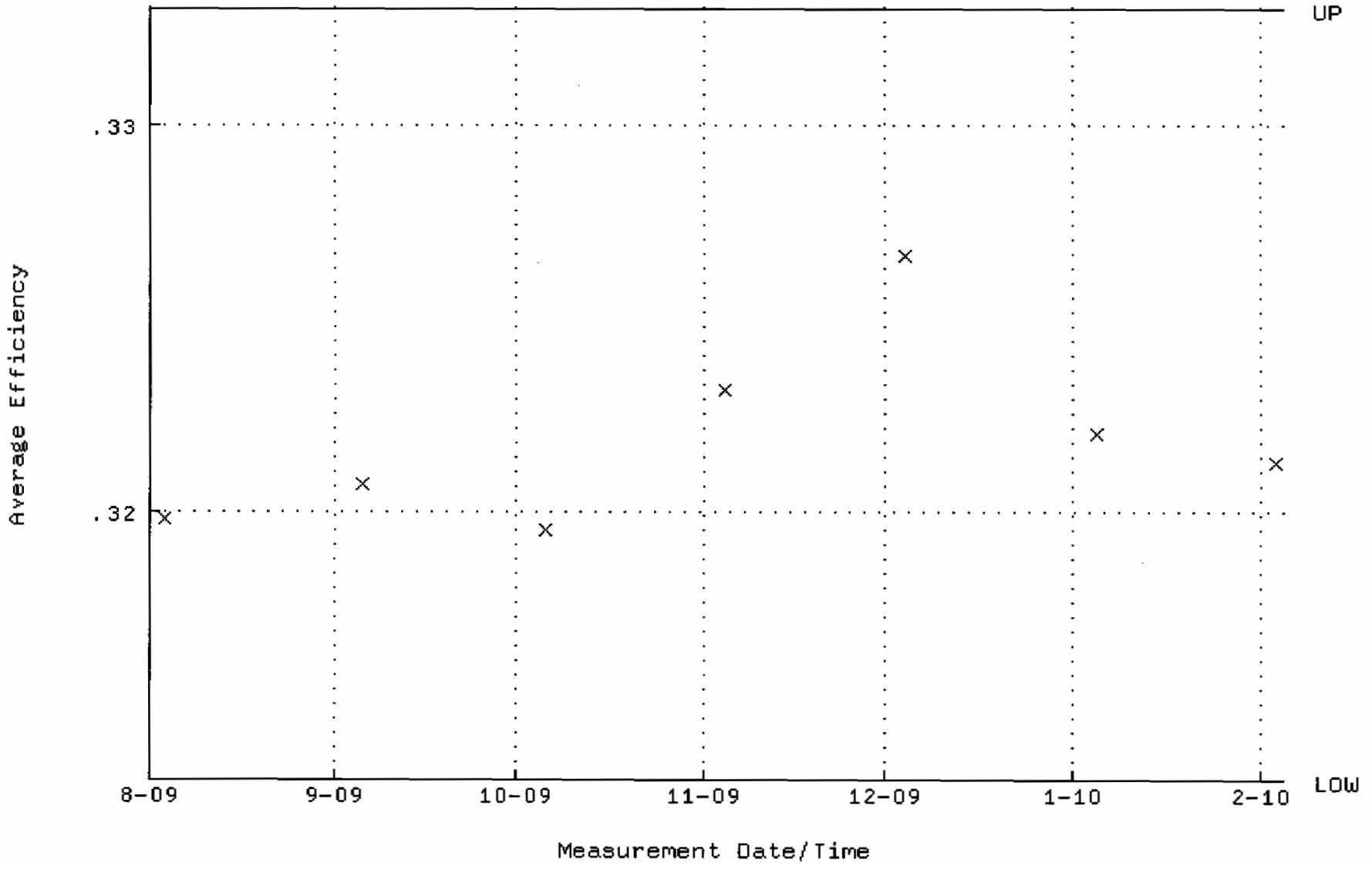

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 82.8065 through 91.5229

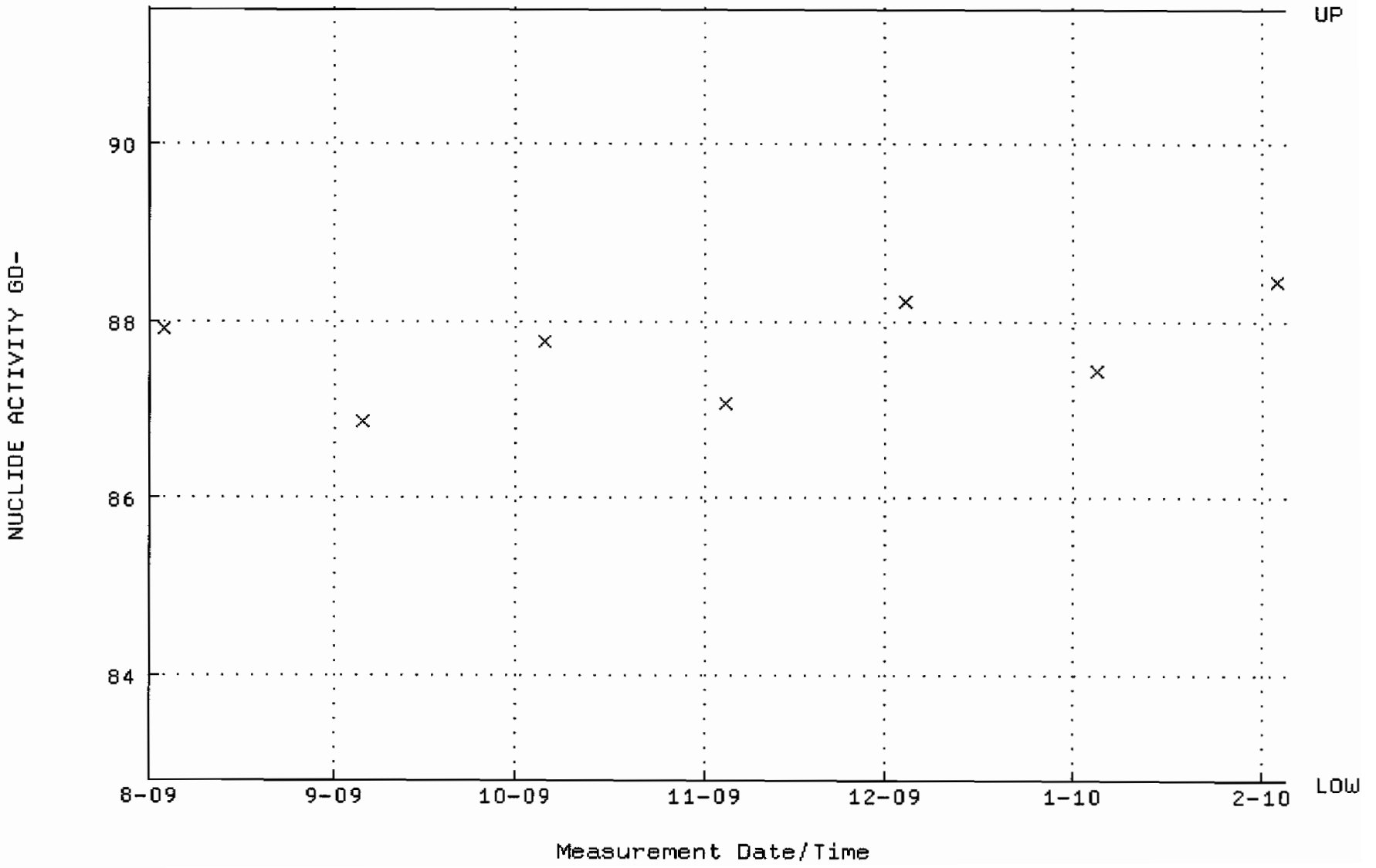

QA filename : DKA100:[ENV_ALPHA.QA.B]B040.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

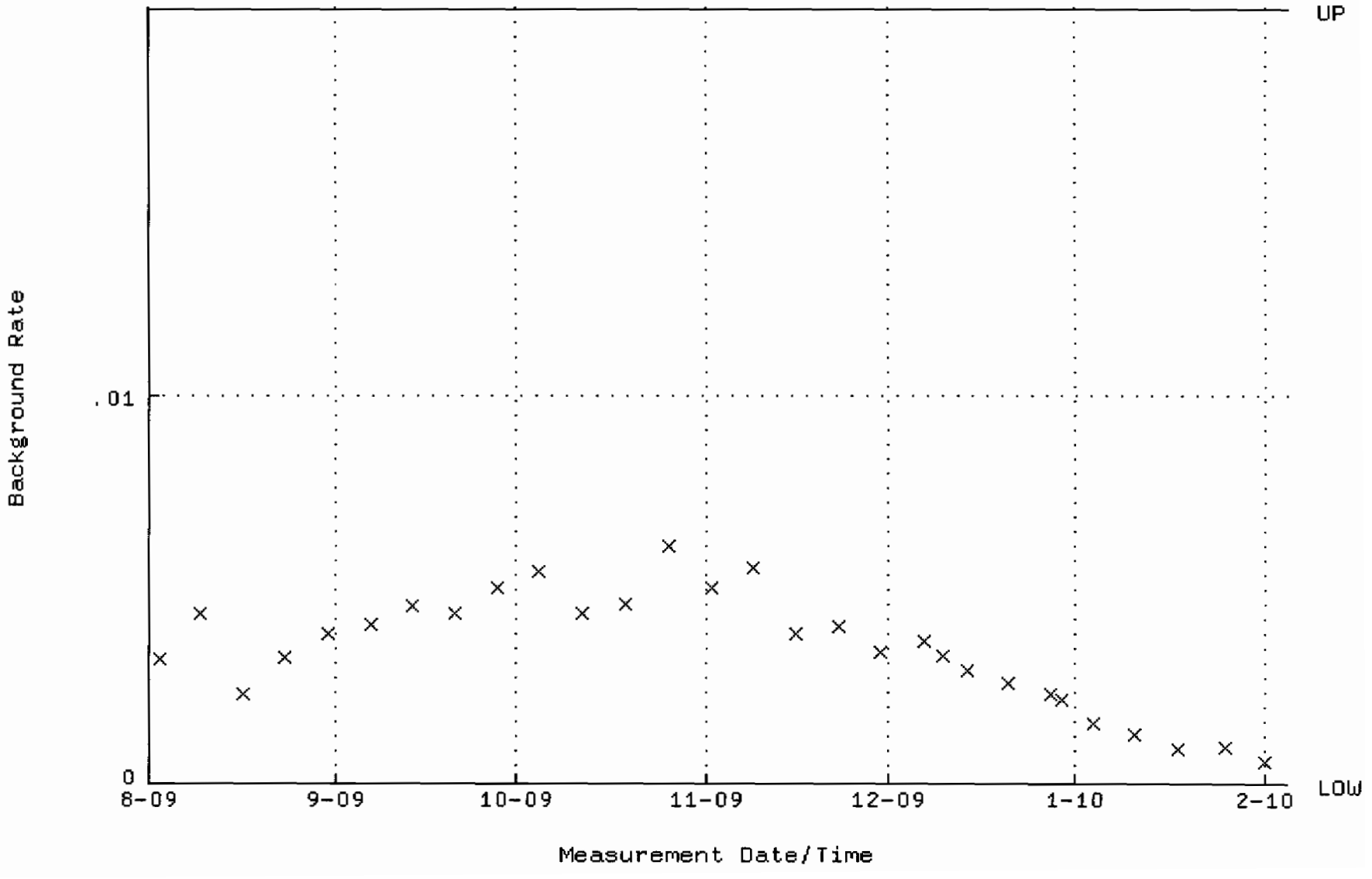

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.320943 through 0.340943

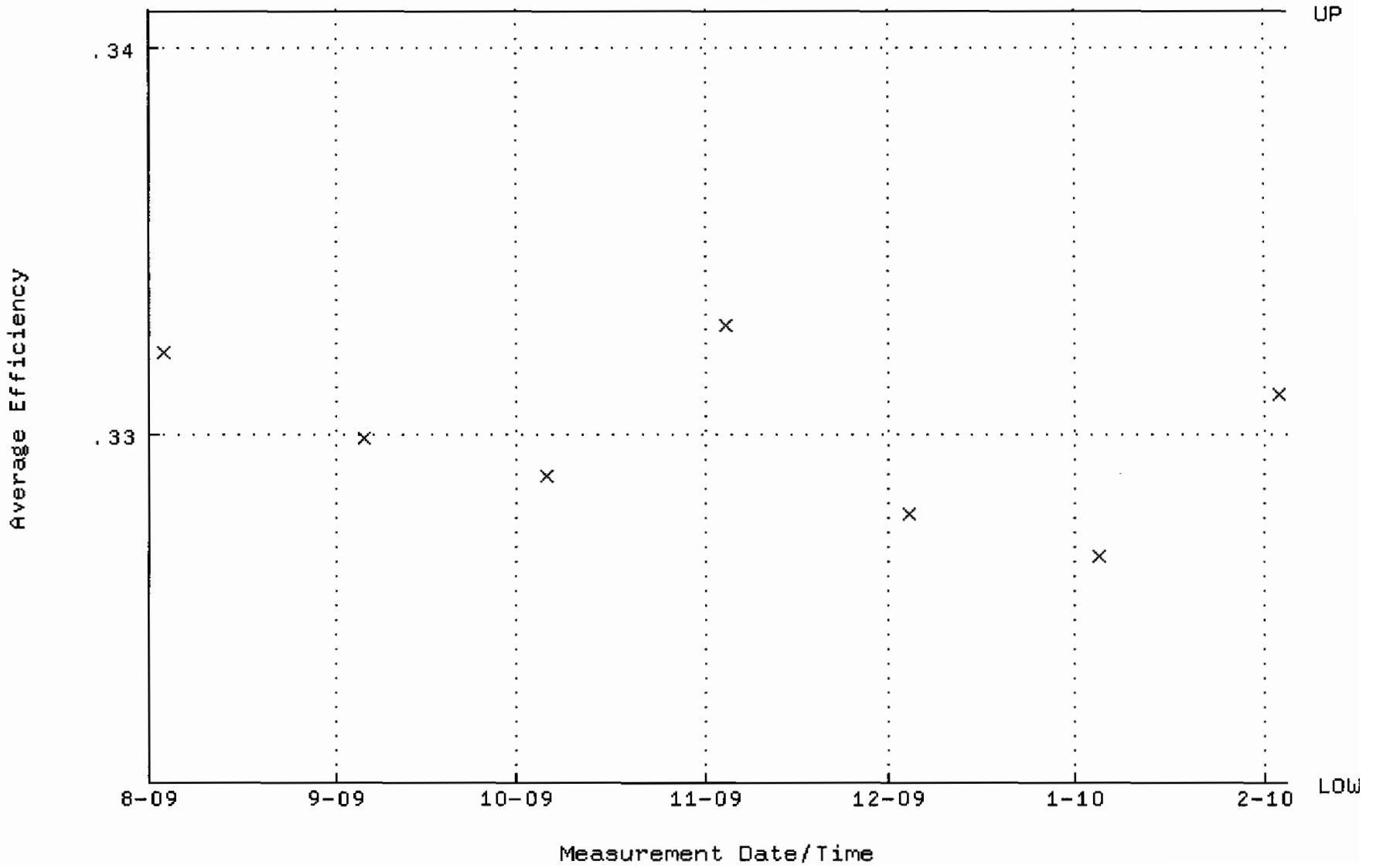

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.6435 through 95.7639

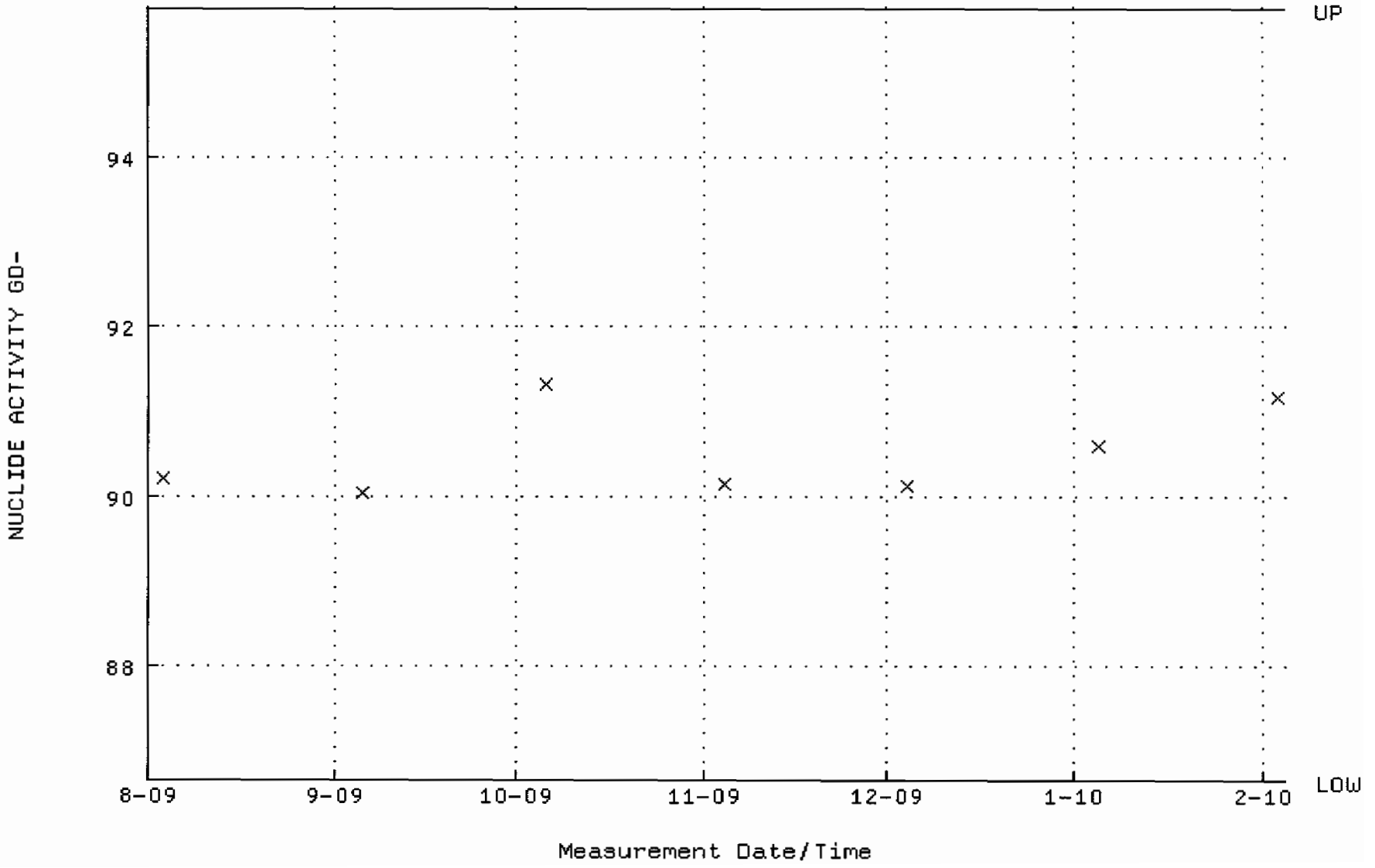

QA filename : DKA100:[ENV_ALPHA.QA.B]B041.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

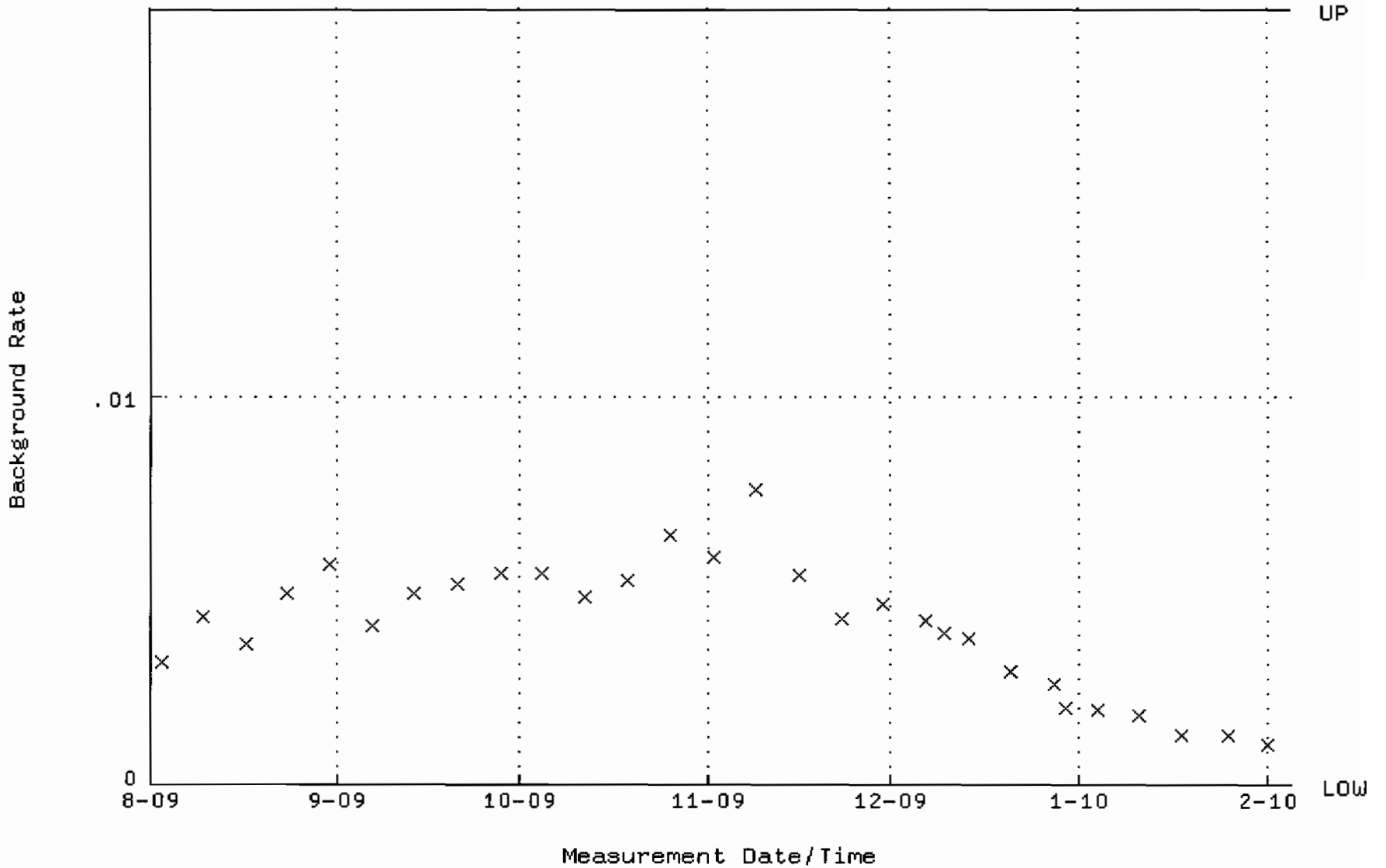

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.322243 through 0.342243

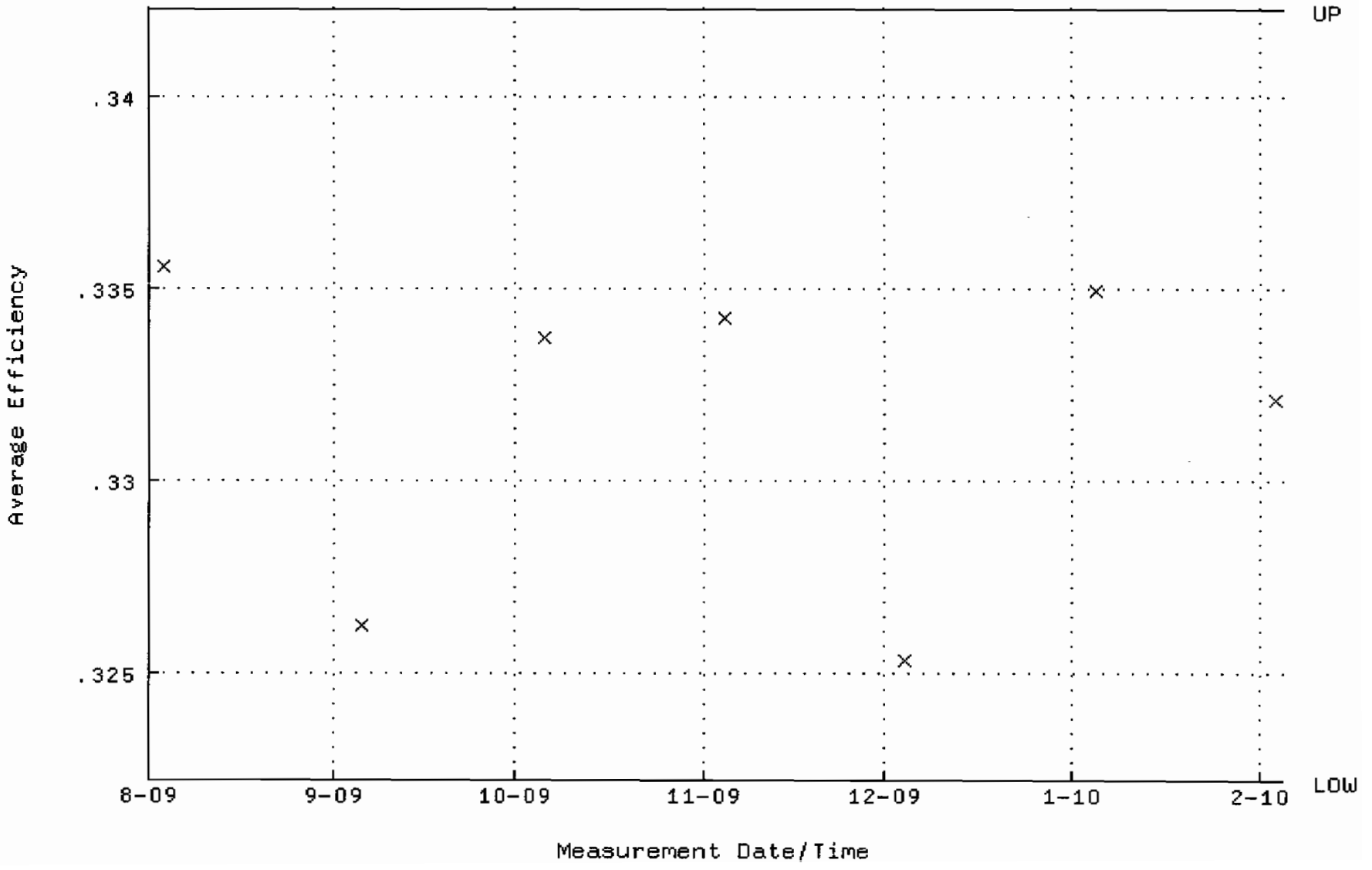

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 80.6389 through 89.1273

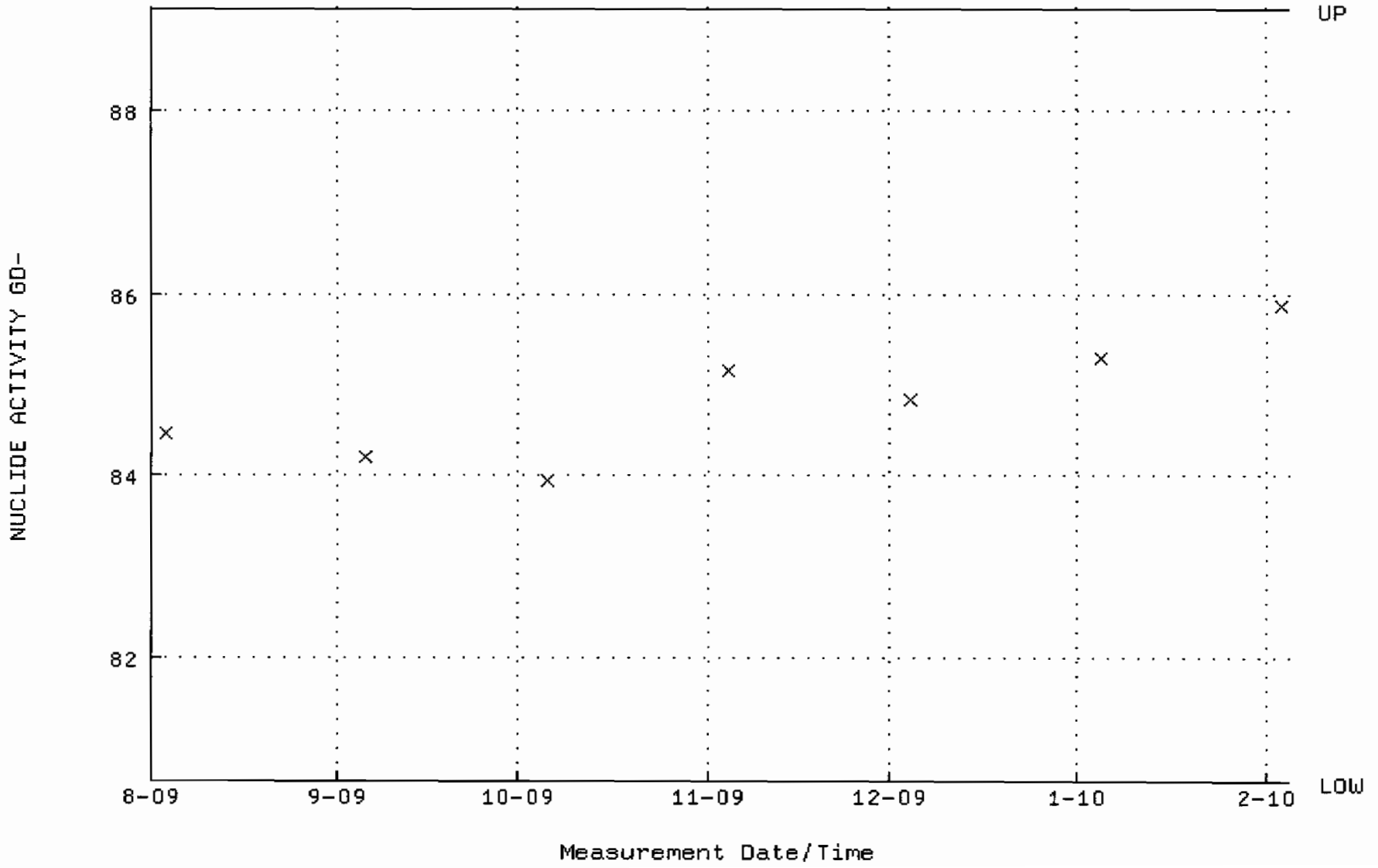

QA filename : DKA100:[ENV_ALPHA.QA.B]B042.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

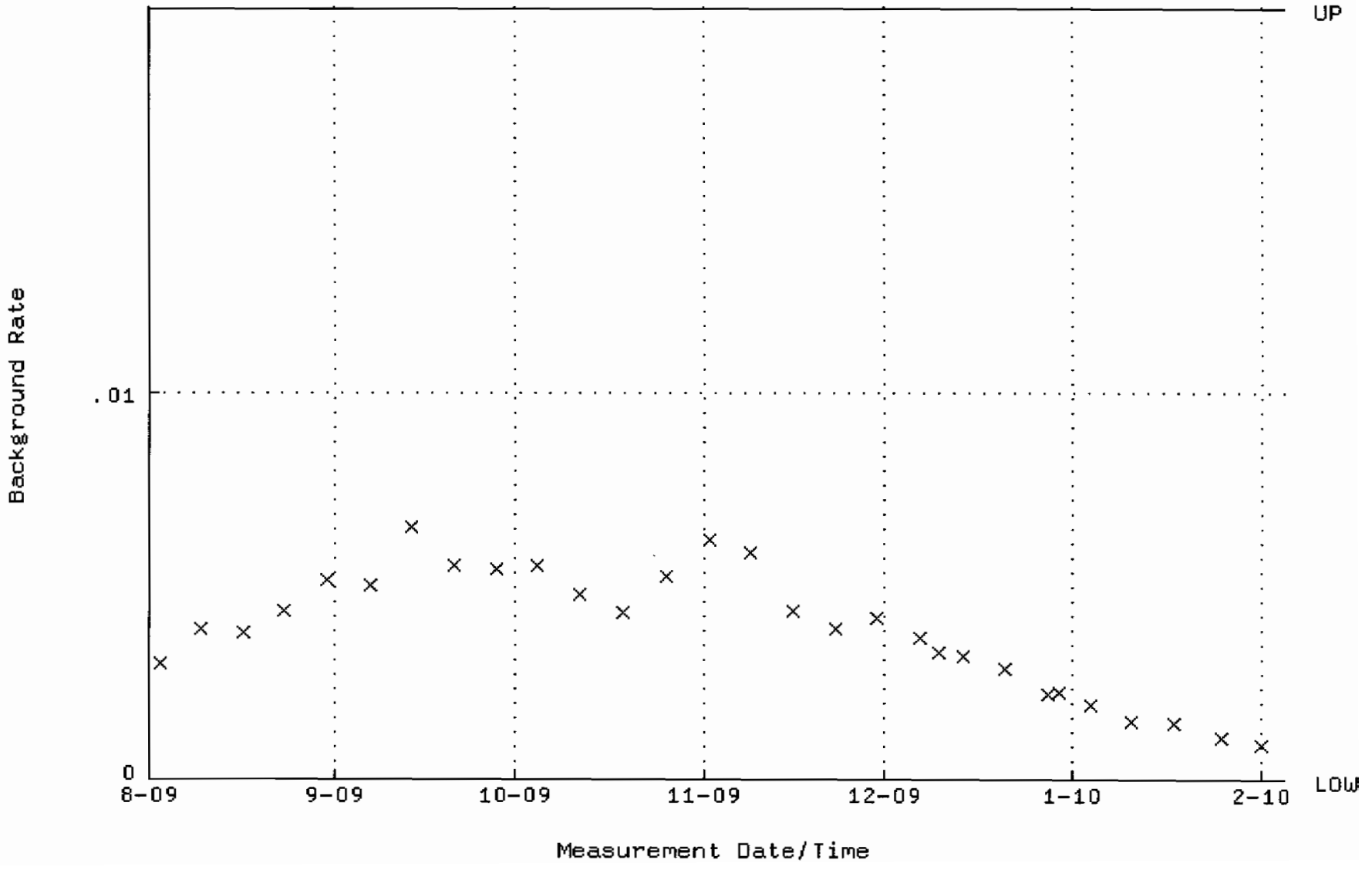

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335973 through 0.355973

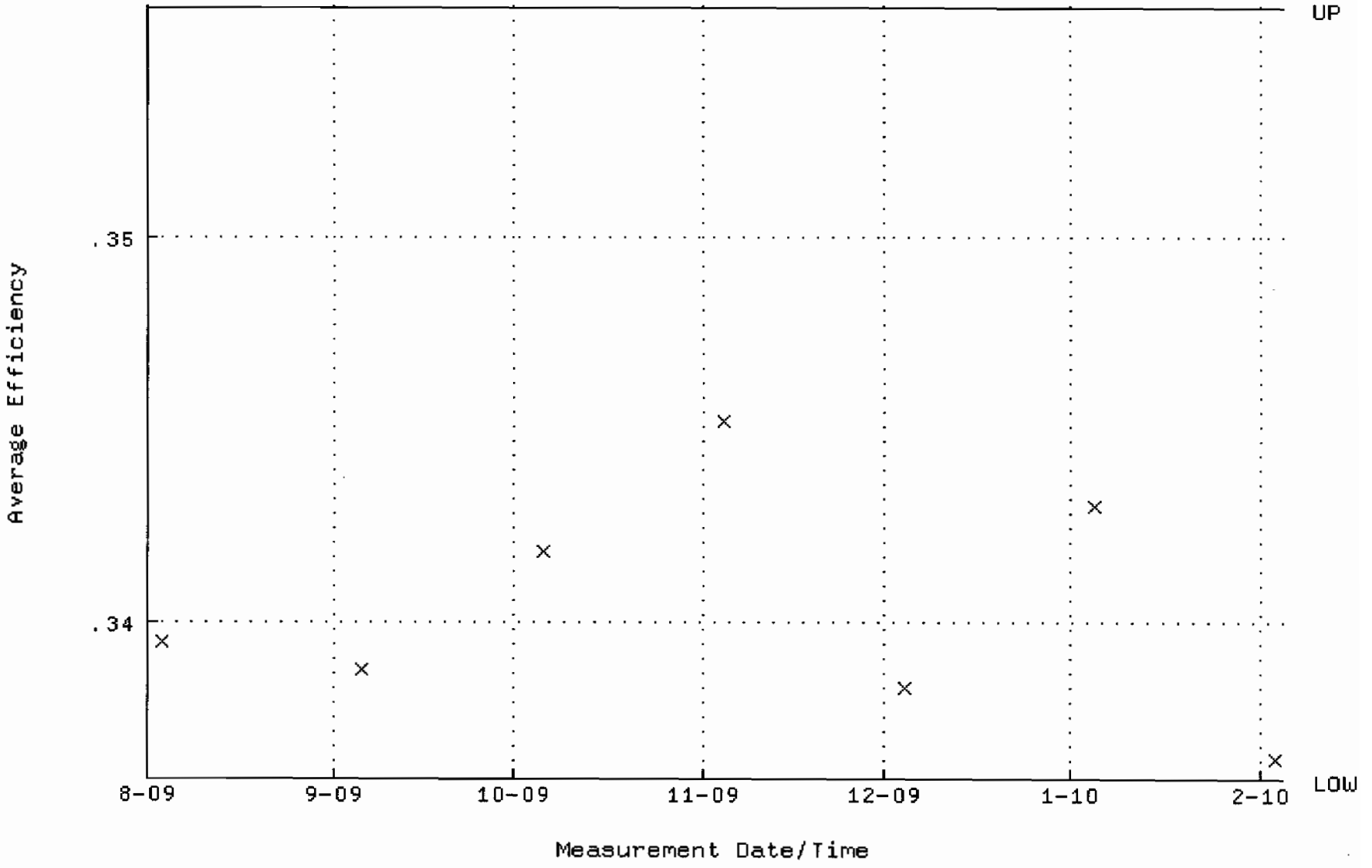

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.2440 through 93.1118

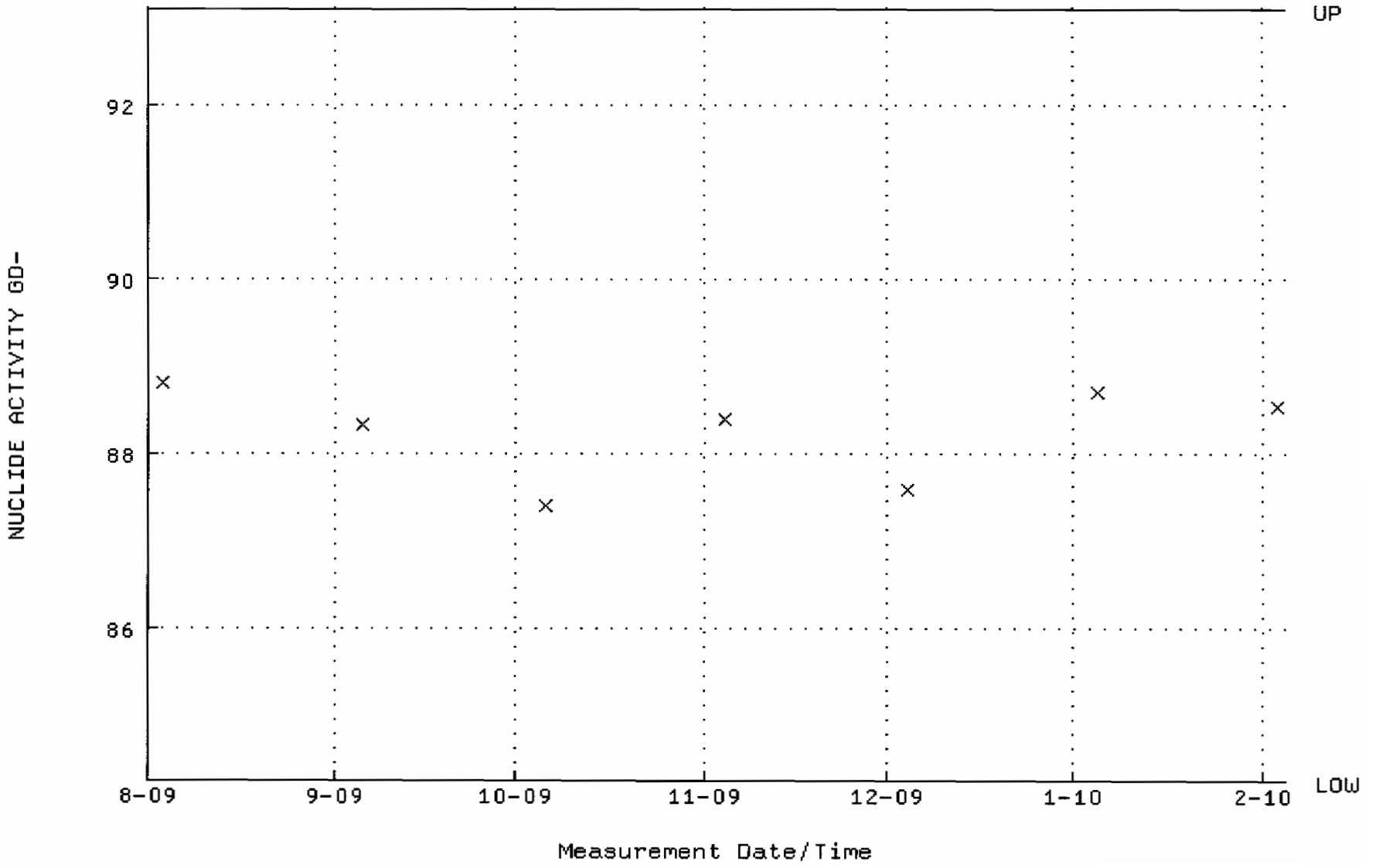

QA filename : DKA100:[ENV_ALPHA.QA.B]B043.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

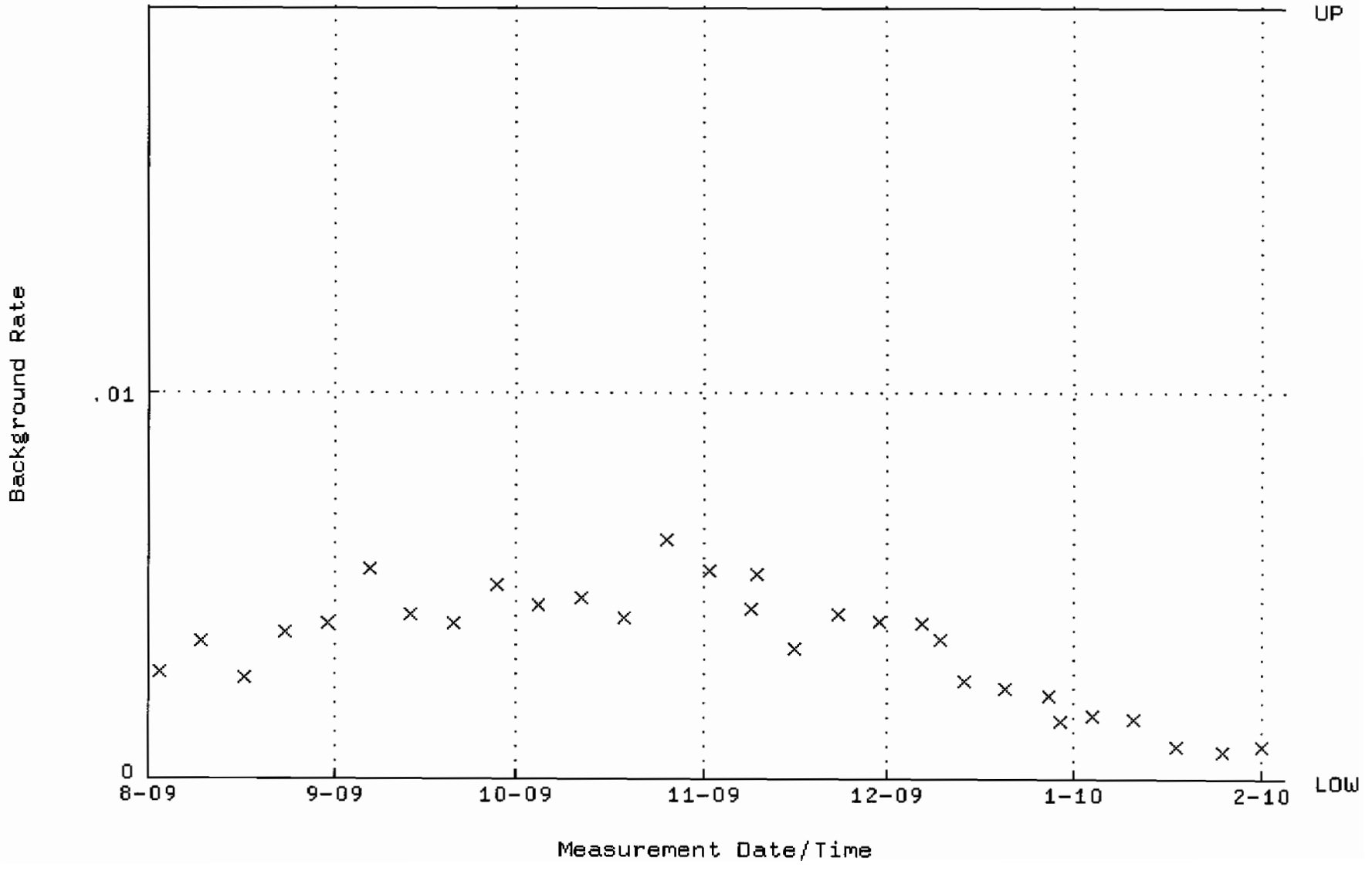

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335557 through 0.360677

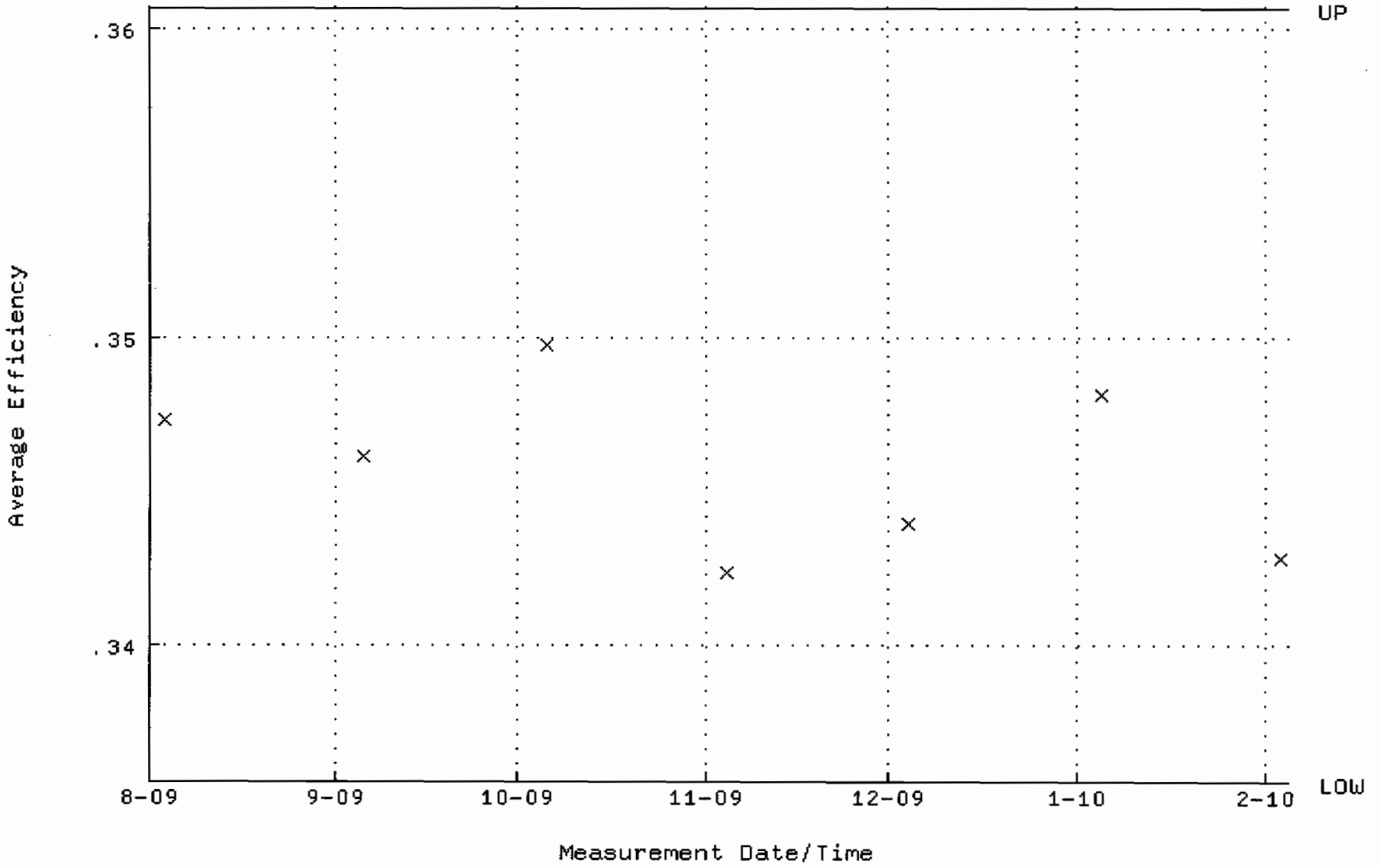

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8425 through 89.6949

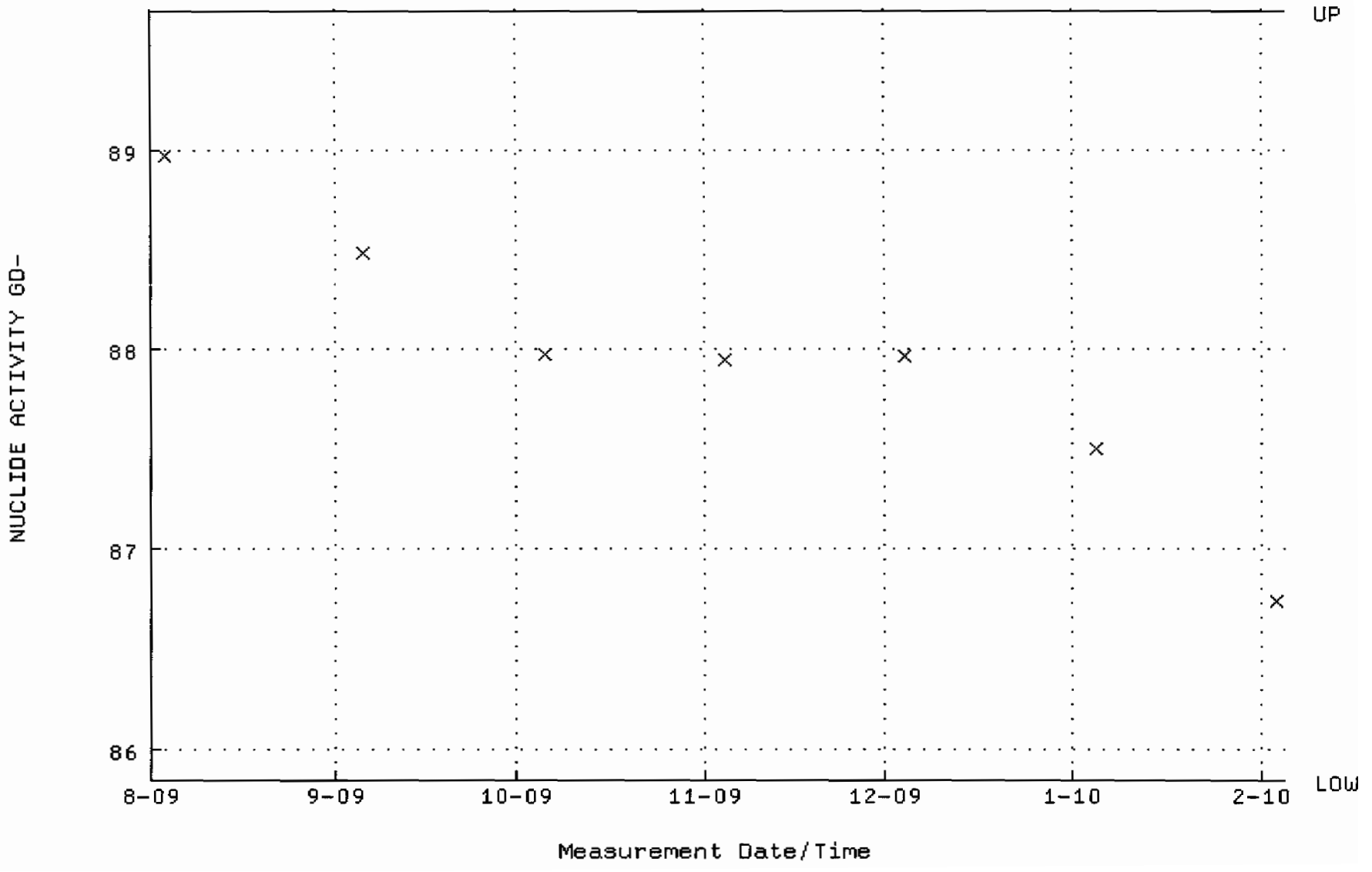

QA filename : DKA100:[ENV_ALPHA.QA.B]B044.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

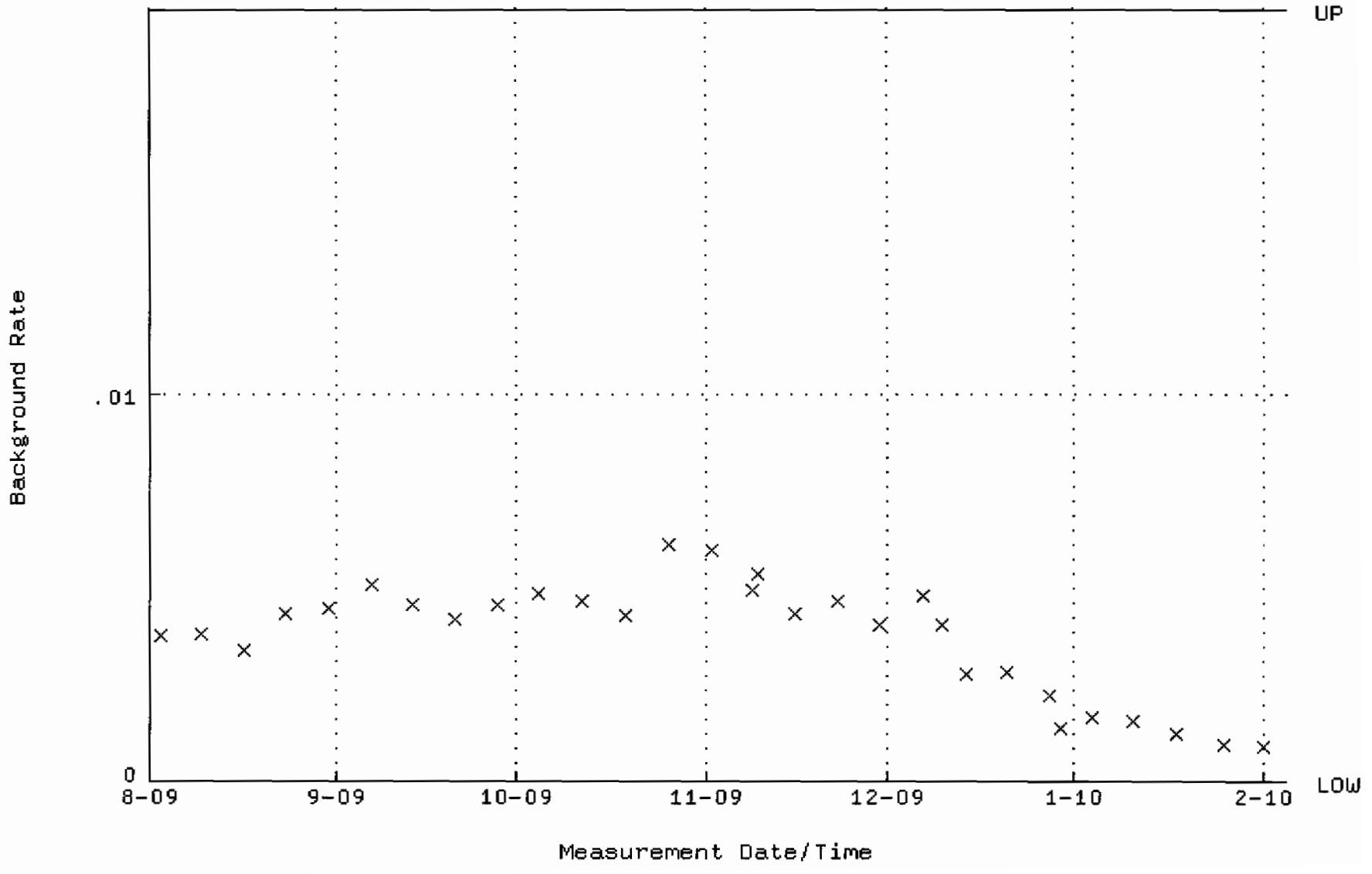

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.332472 through 0.352472

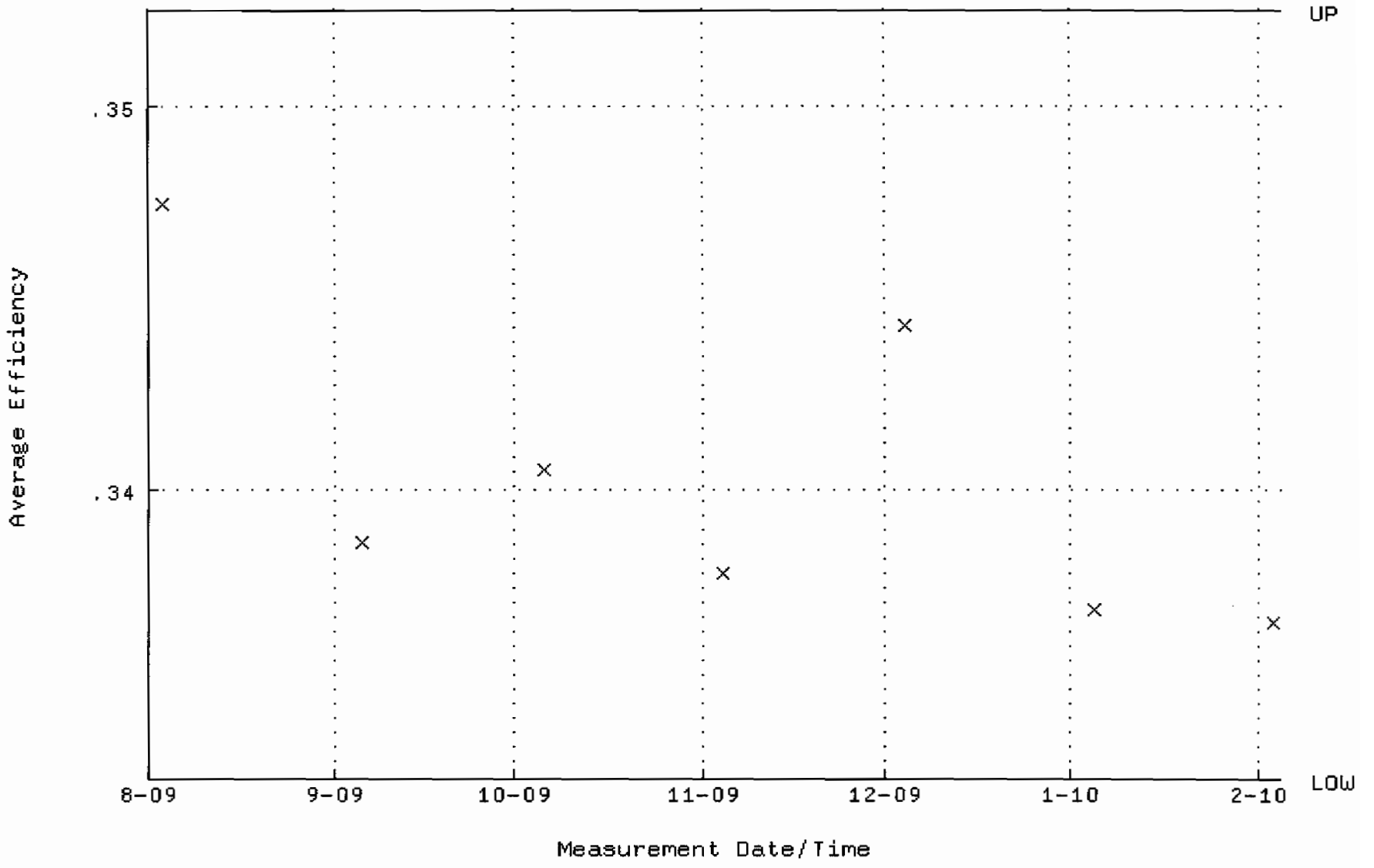

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 80.4622 through 88.9320

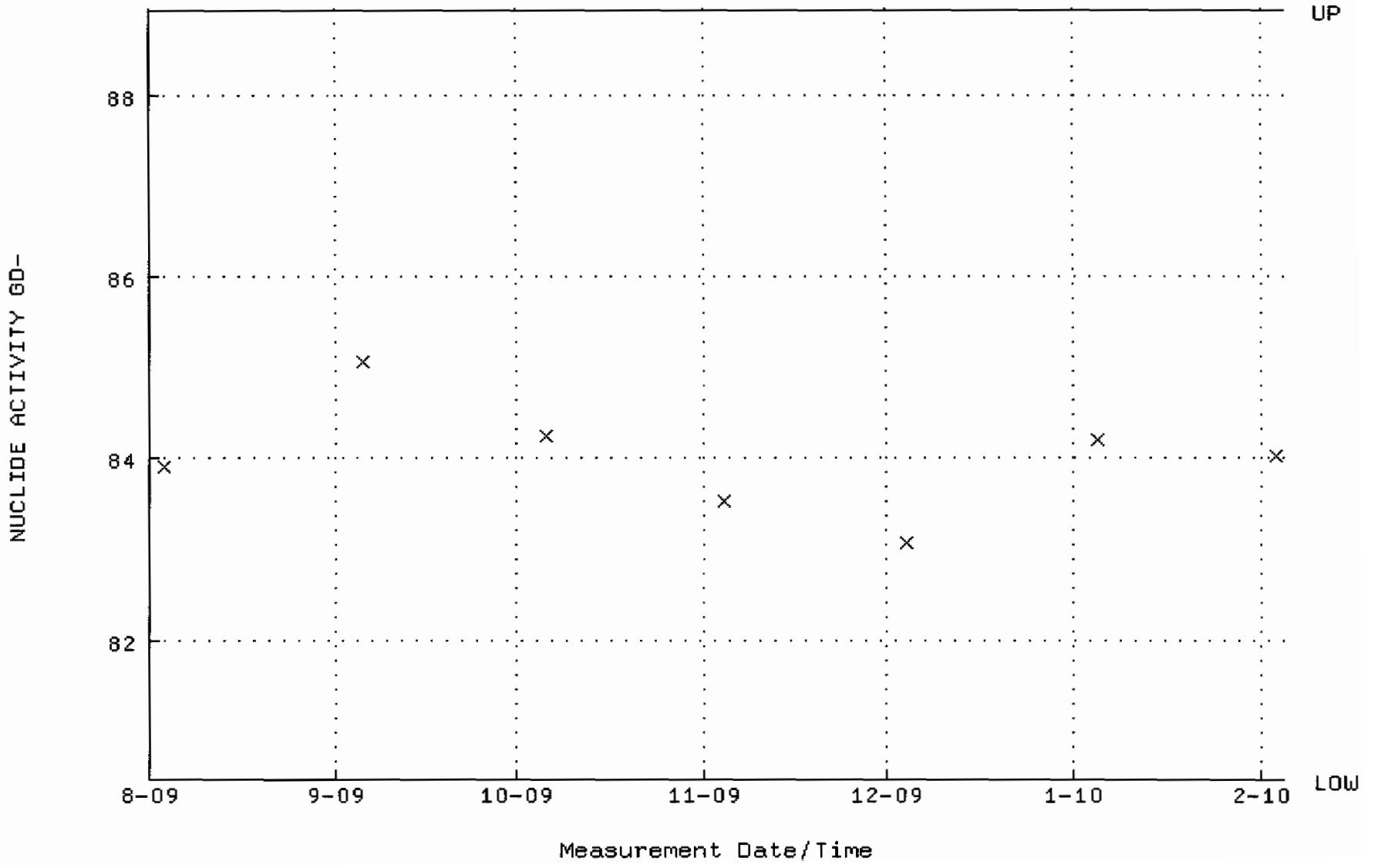

QA filename : DKA100:[ENV_ALPHA.QA.B]B045.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

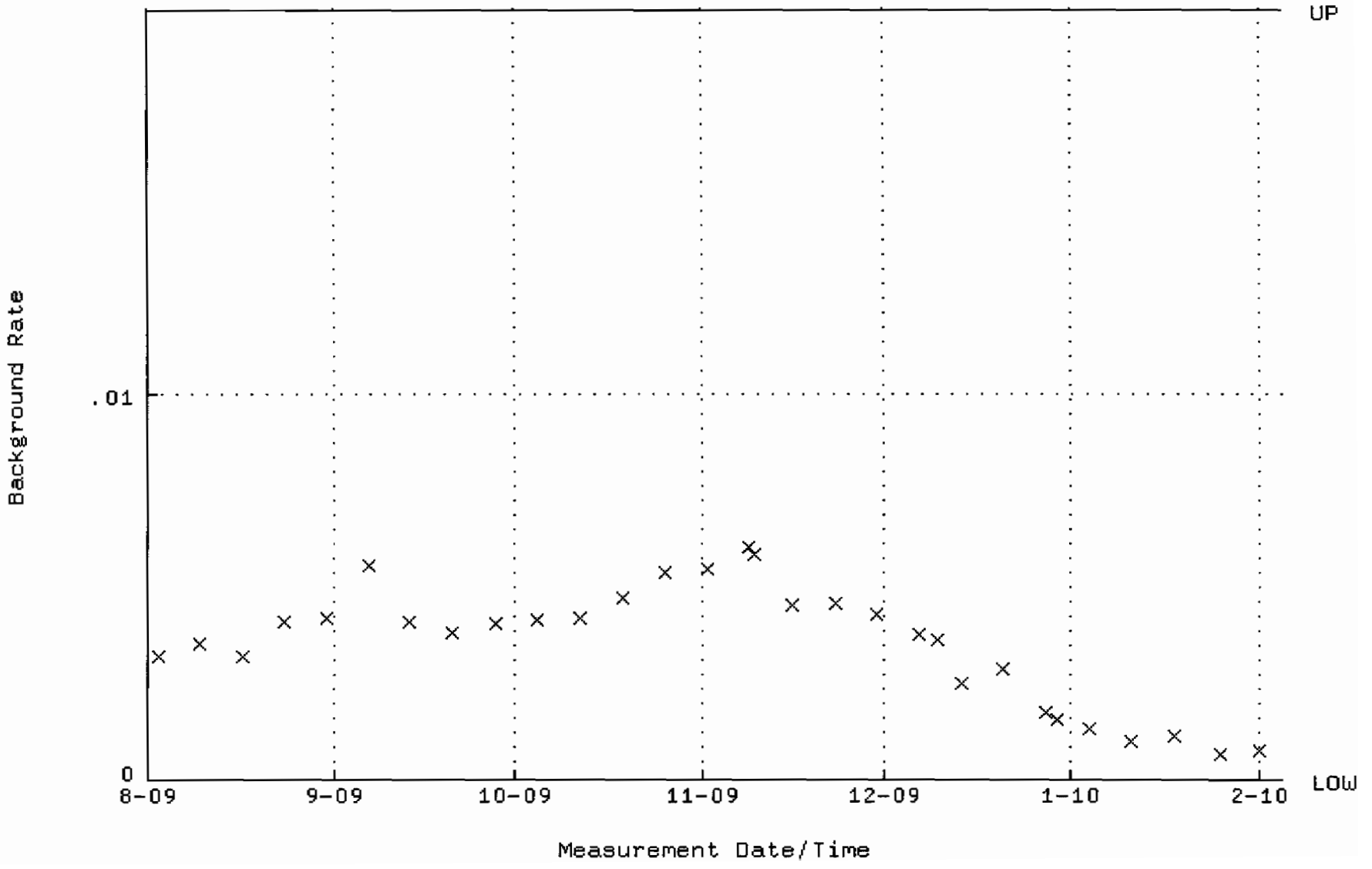

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.333927 through 0.353927

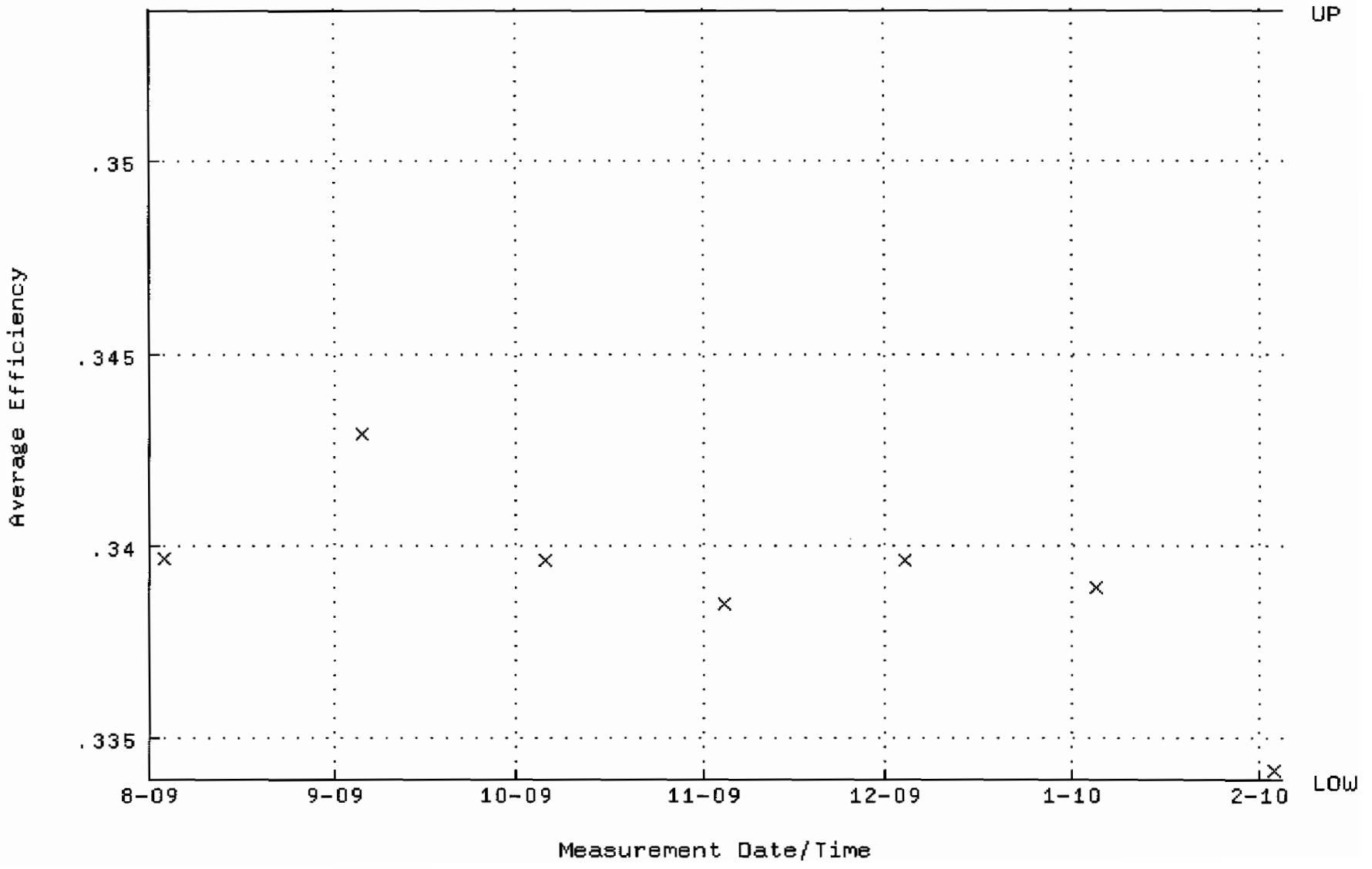

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.7568 through 90.3628

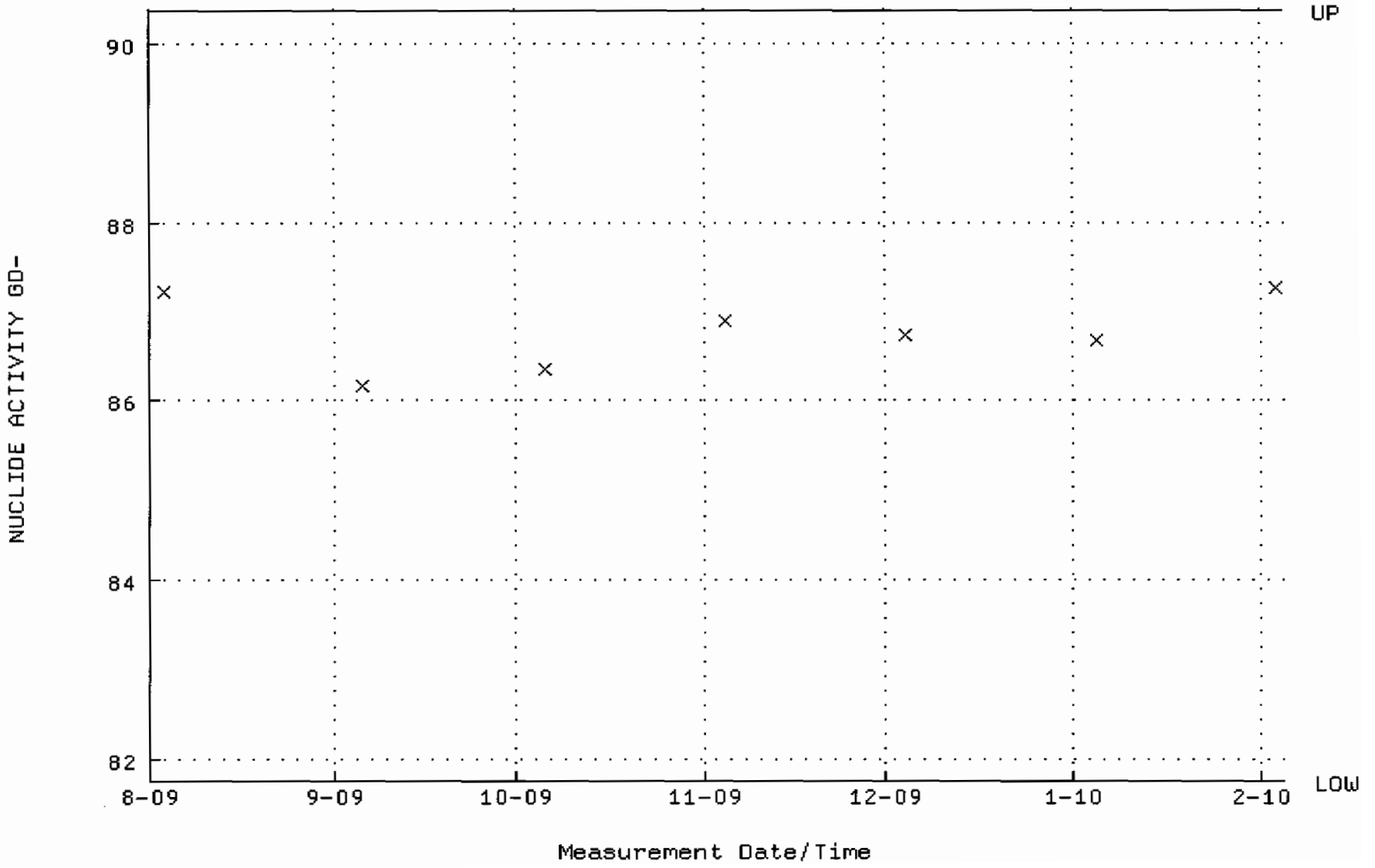

QA filename : DKA100:[ENV_ALPHA.QA.B]B046.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

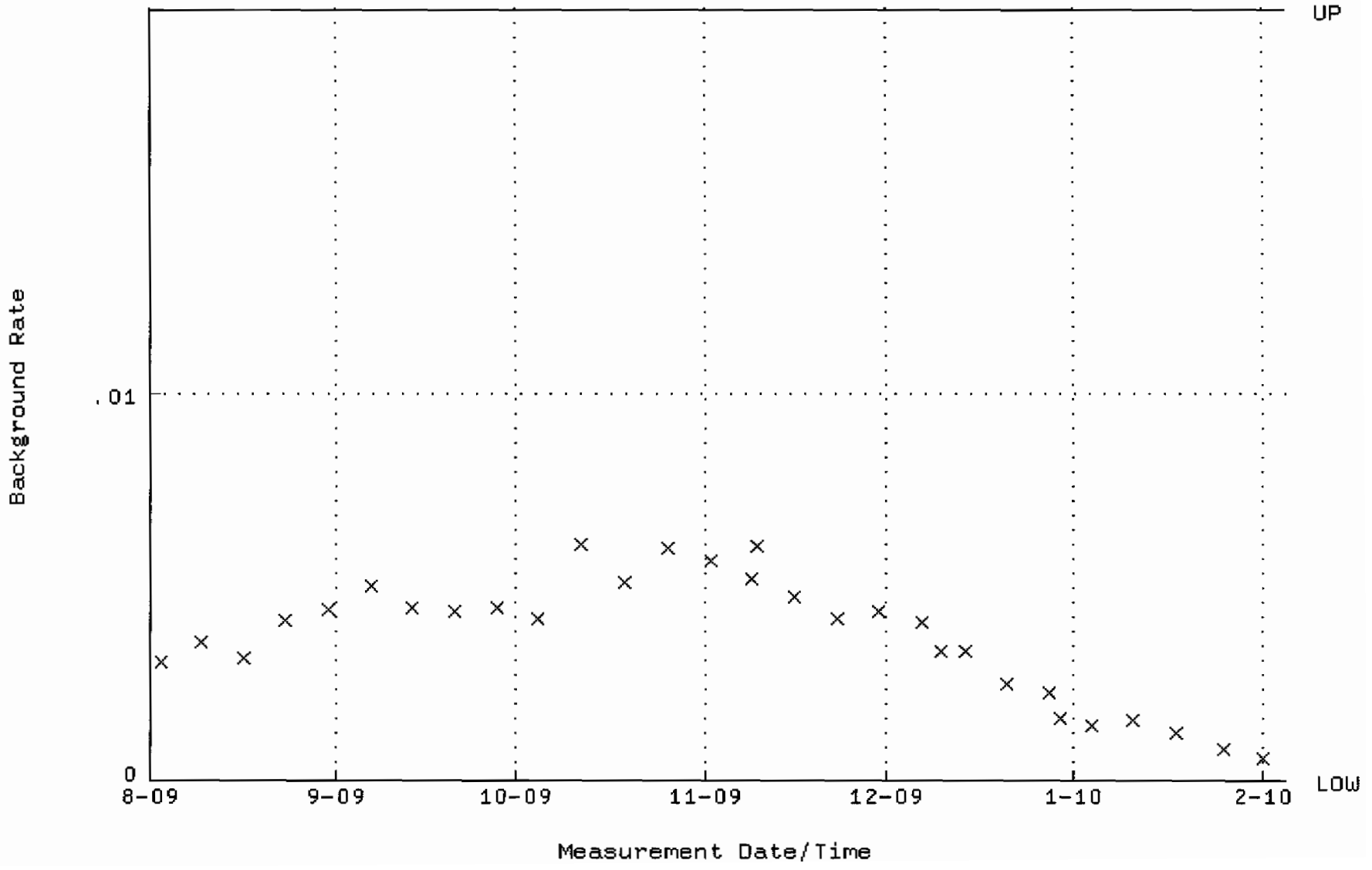

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.336276 through 0.364038

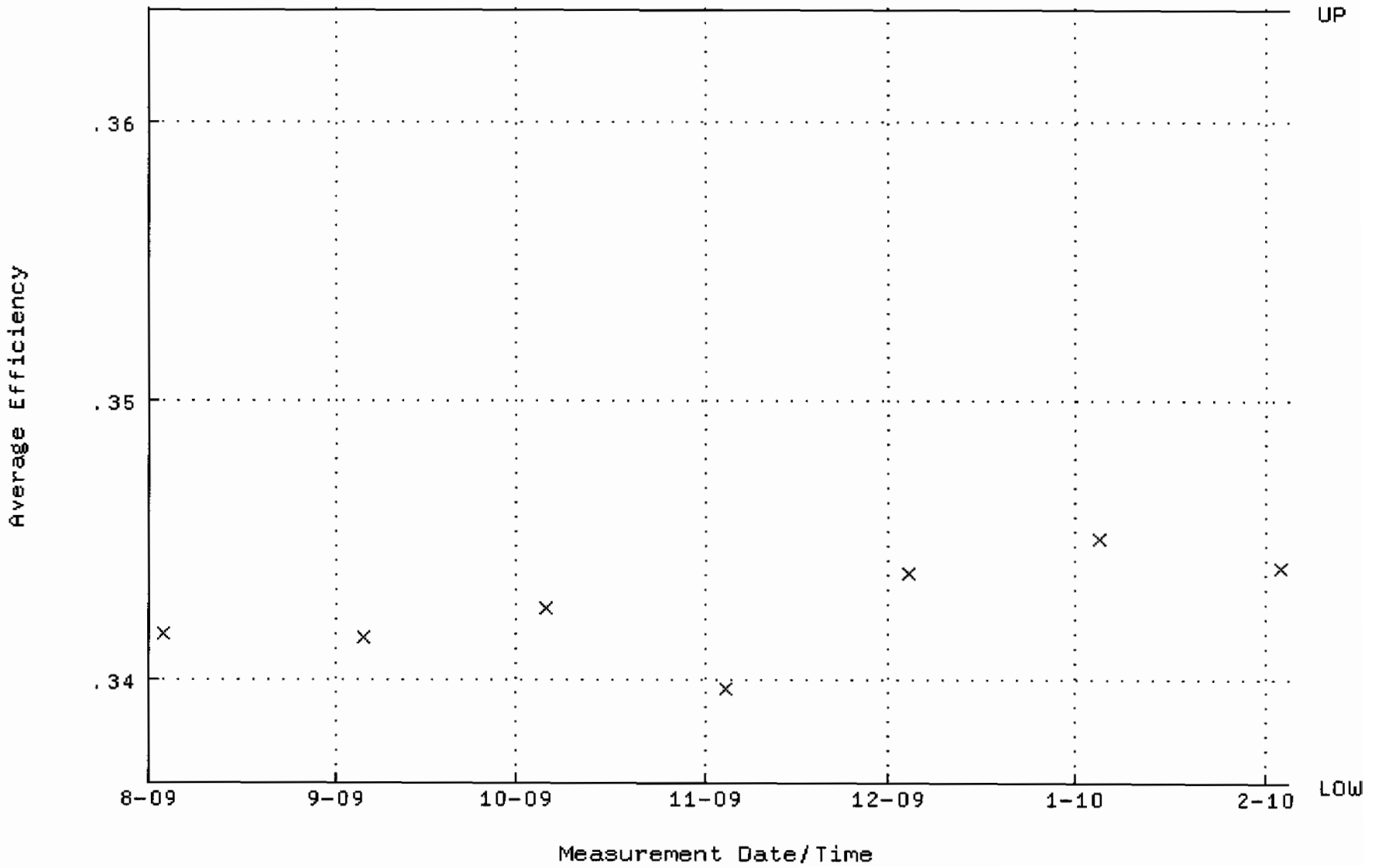

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1403 through 89.8631

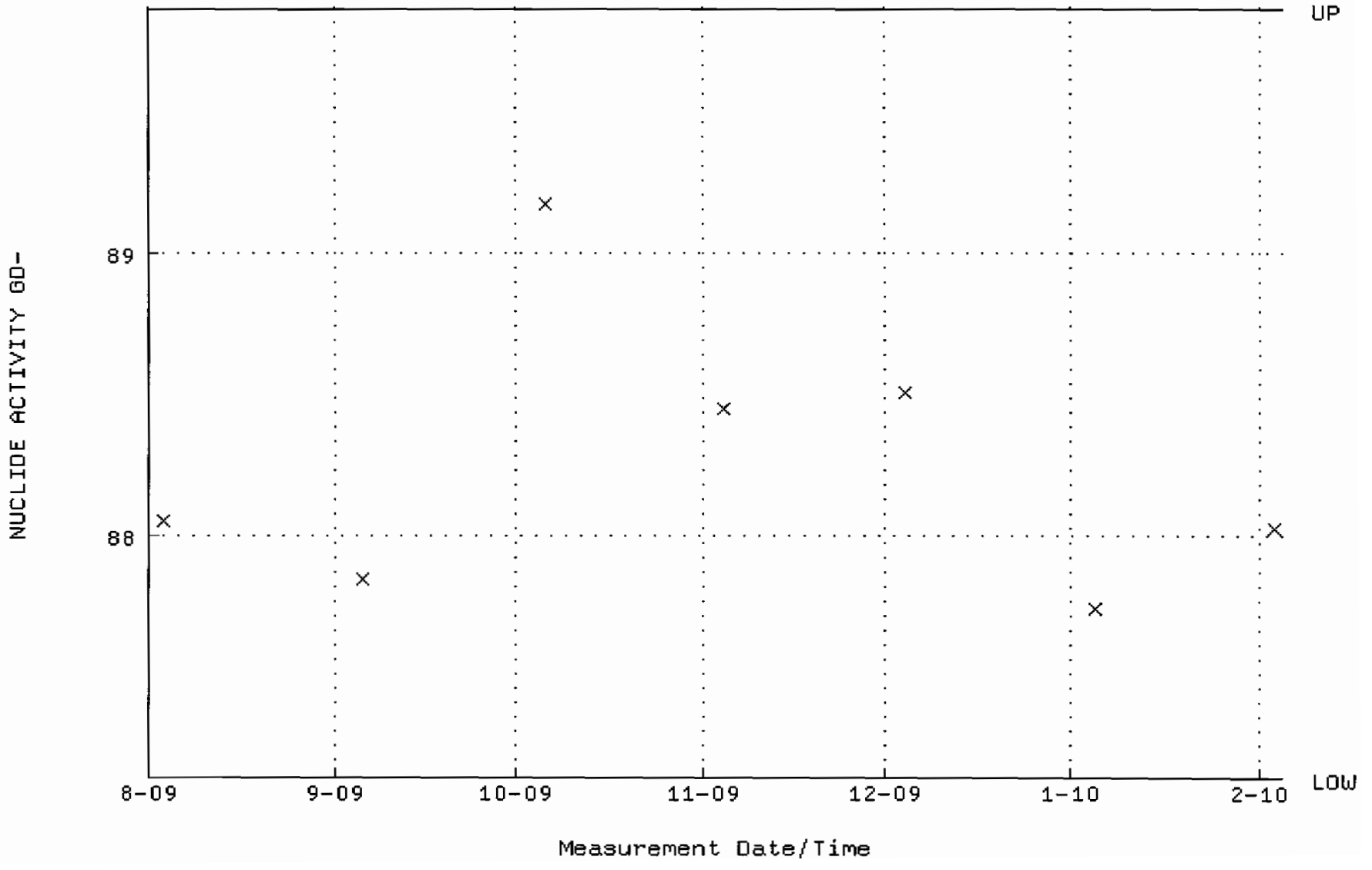

QA filename : DKA100:[ENV_ALPHA.QA.B]B047.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

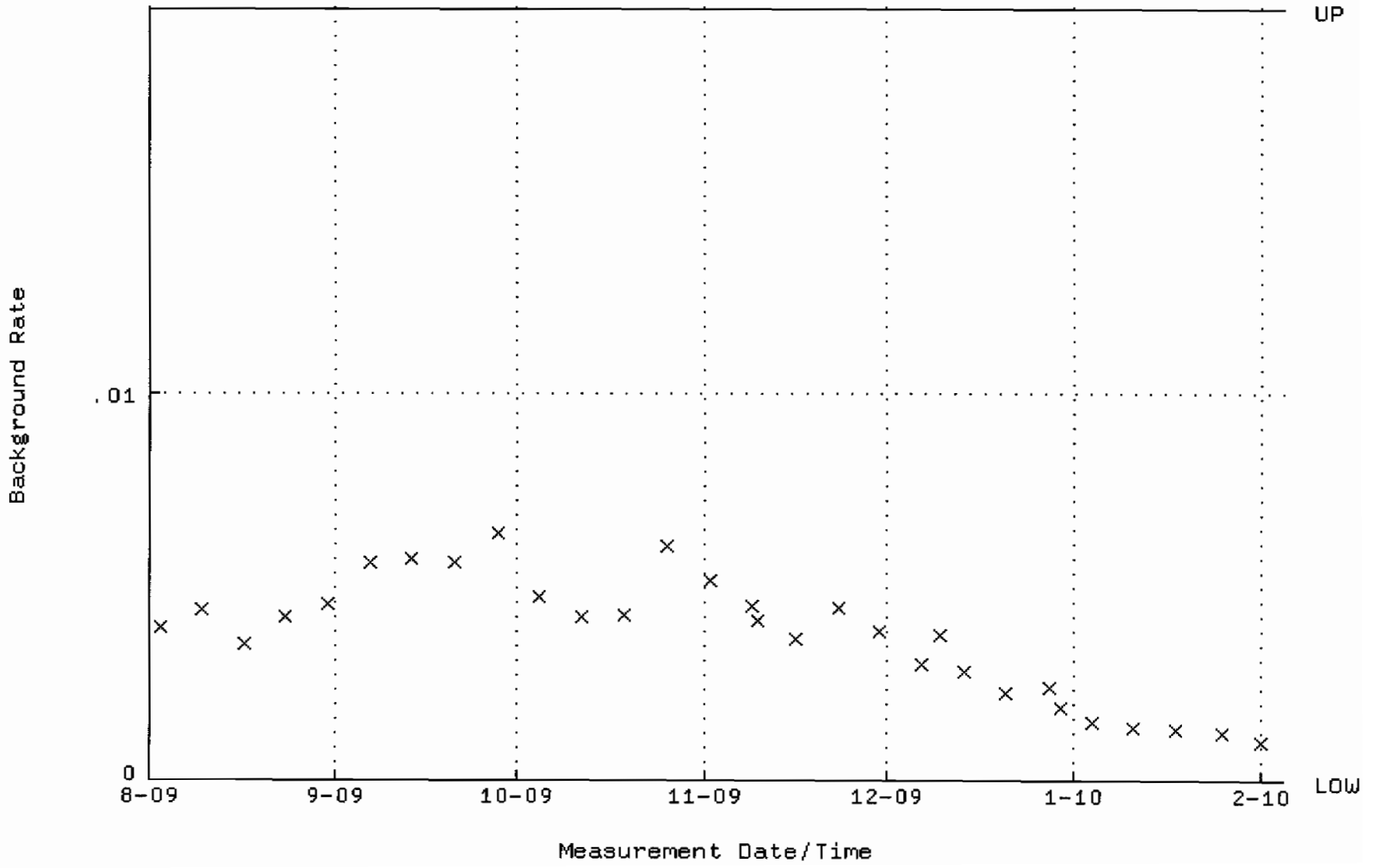

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

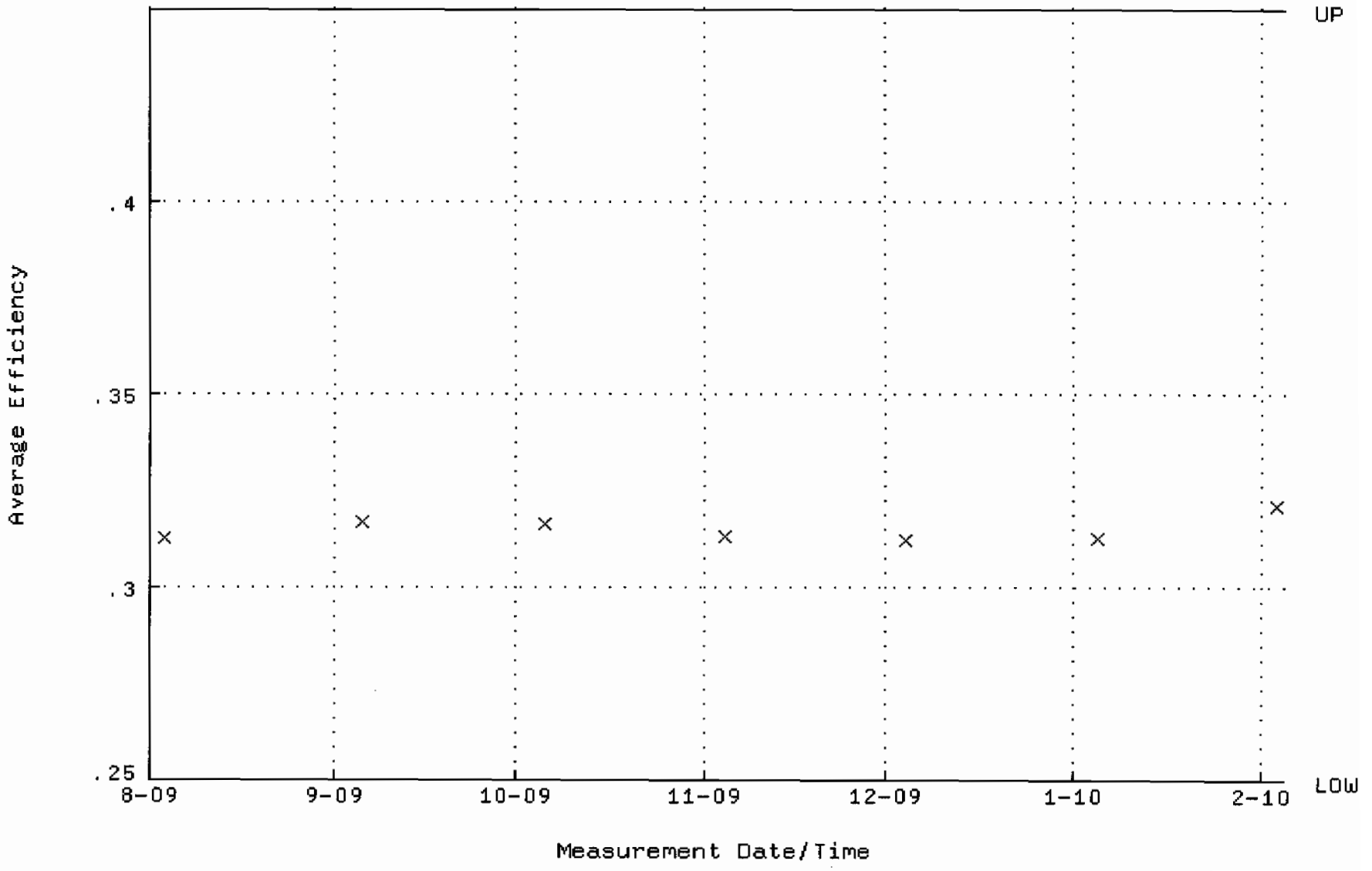

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

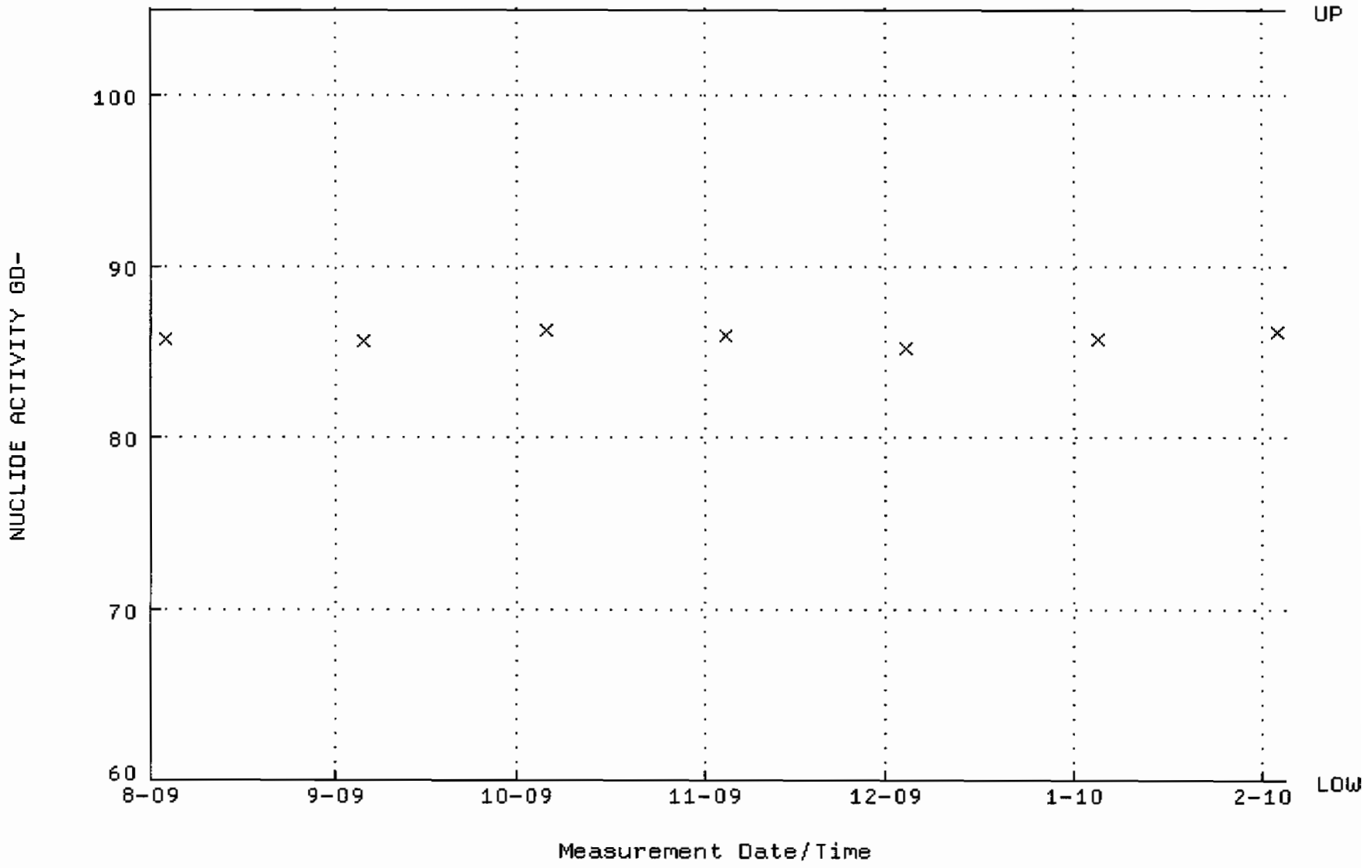

QA filename : DKA100:[ENV_ALPHA.QA.B]B048.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

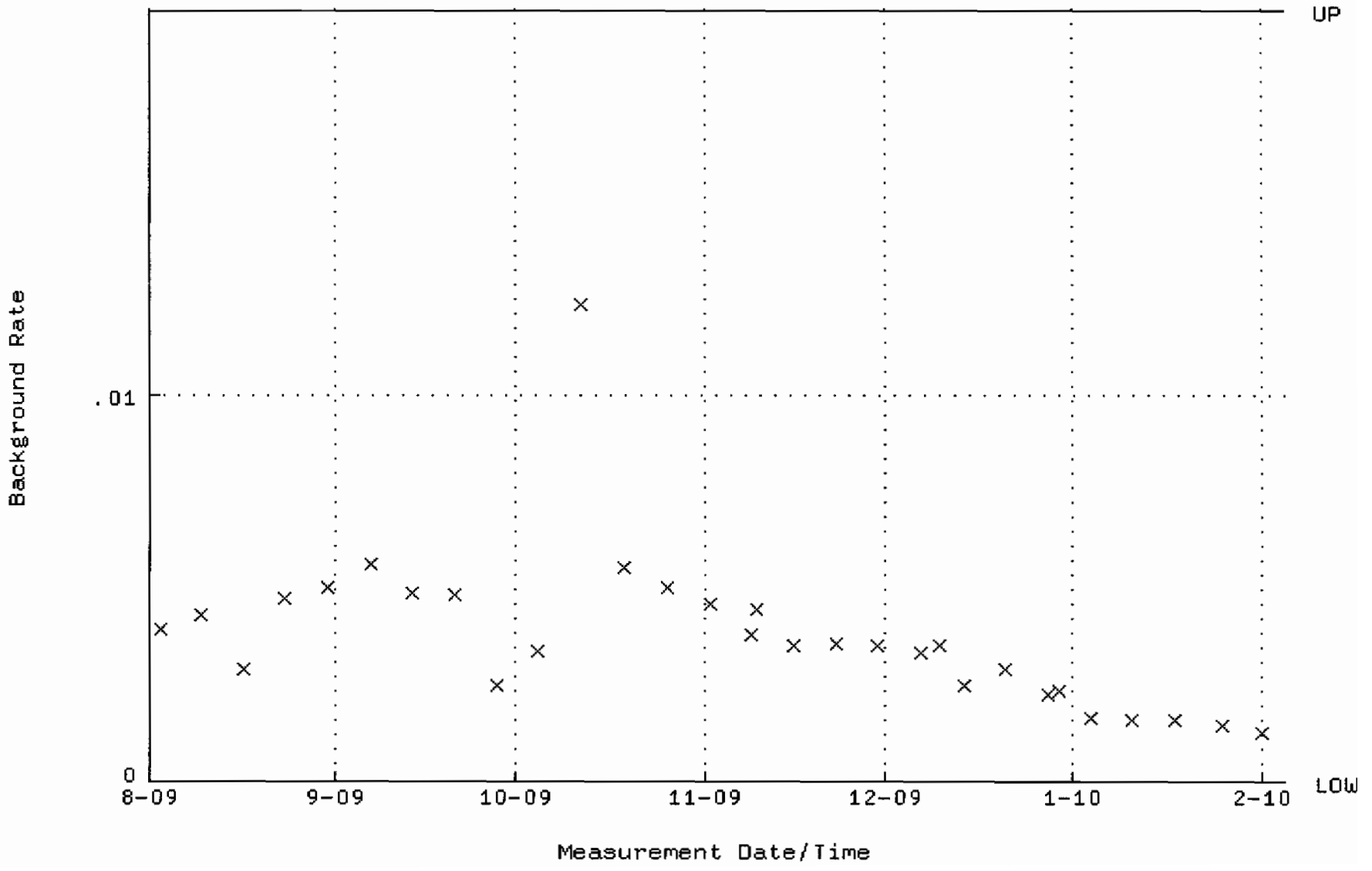

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.248404 through 0.268404

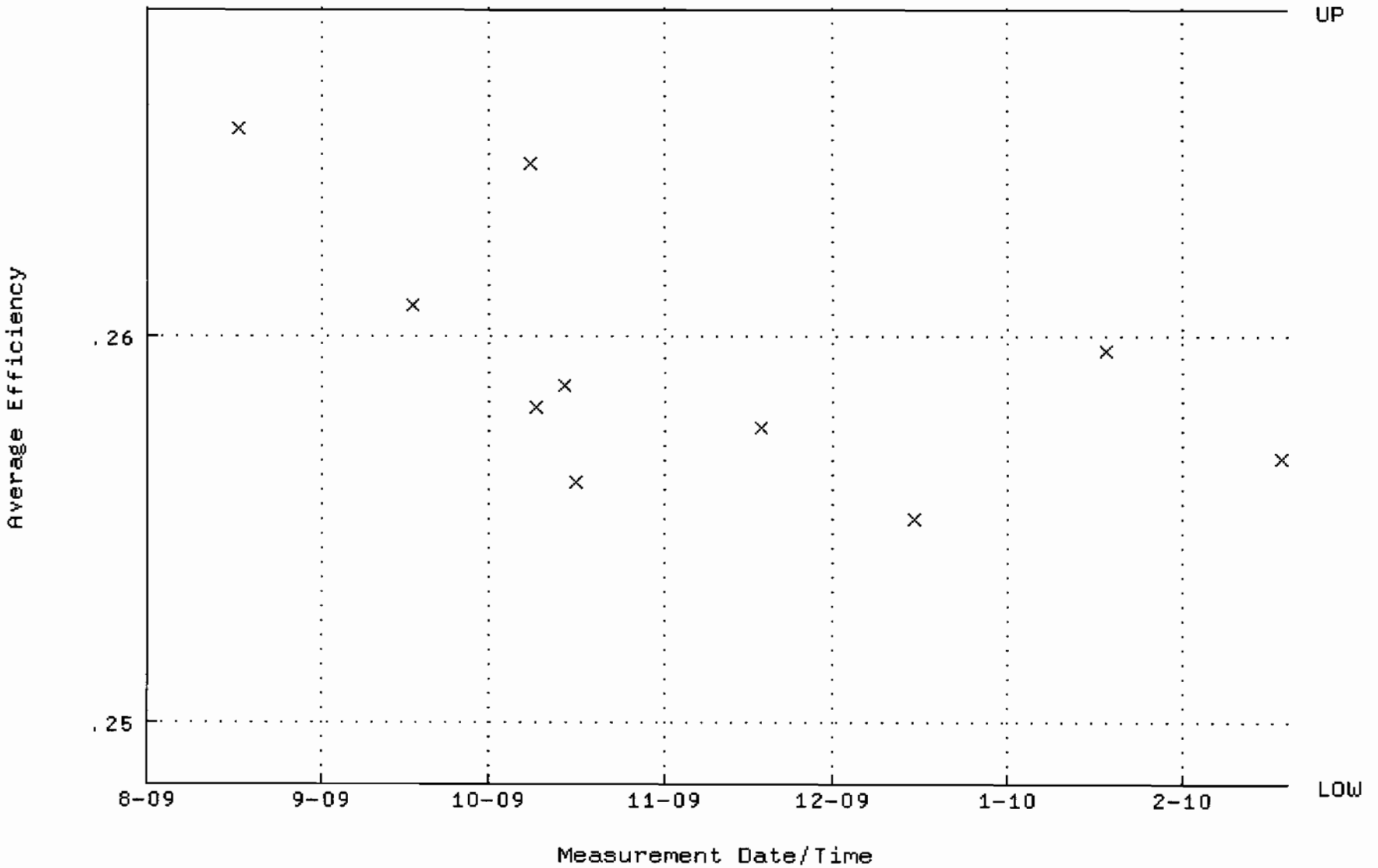

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5661 through 94.5731

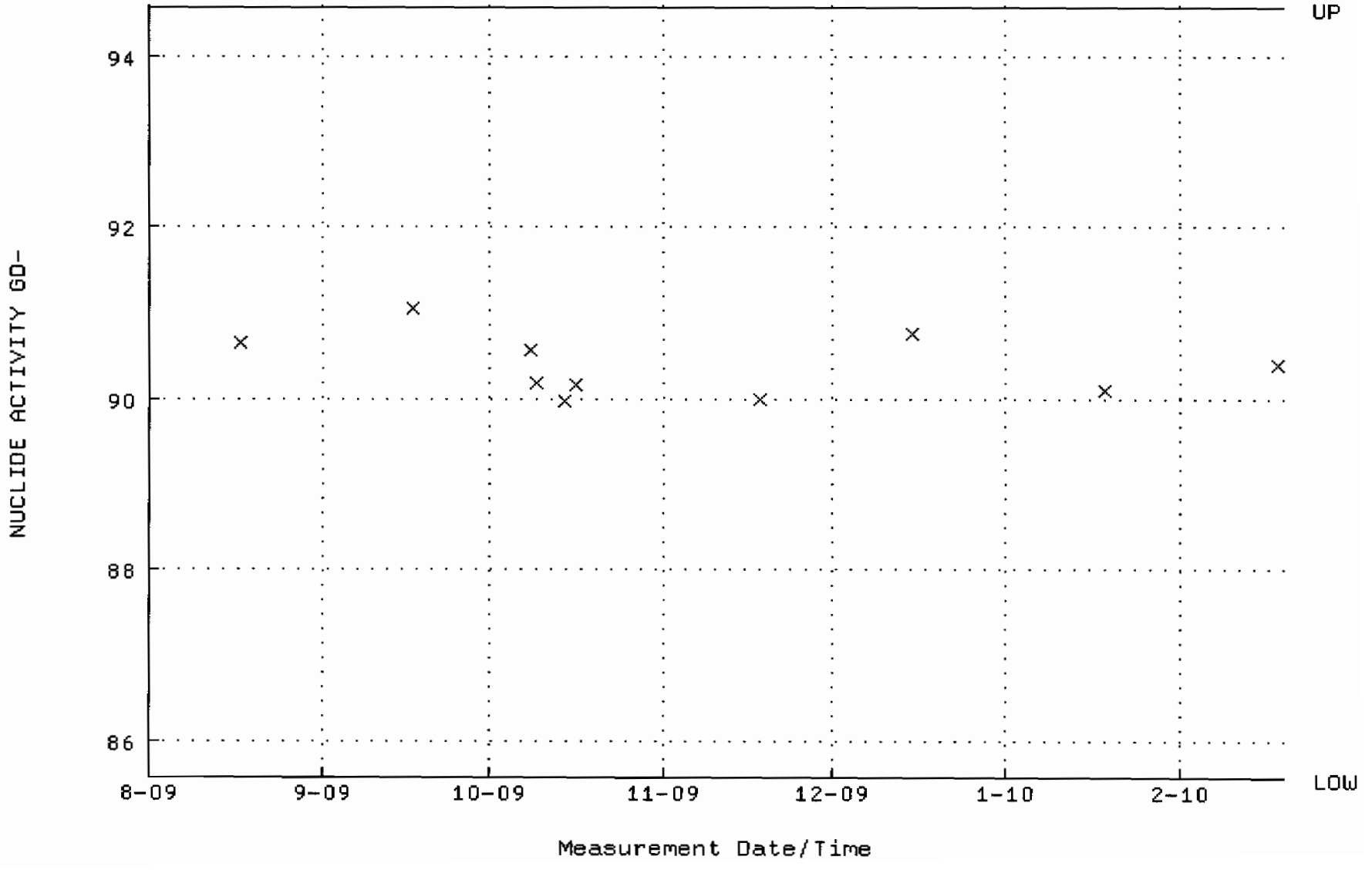

QA filename : DKA100:[ENV_ALPHA.QA.B]B115.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:05 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

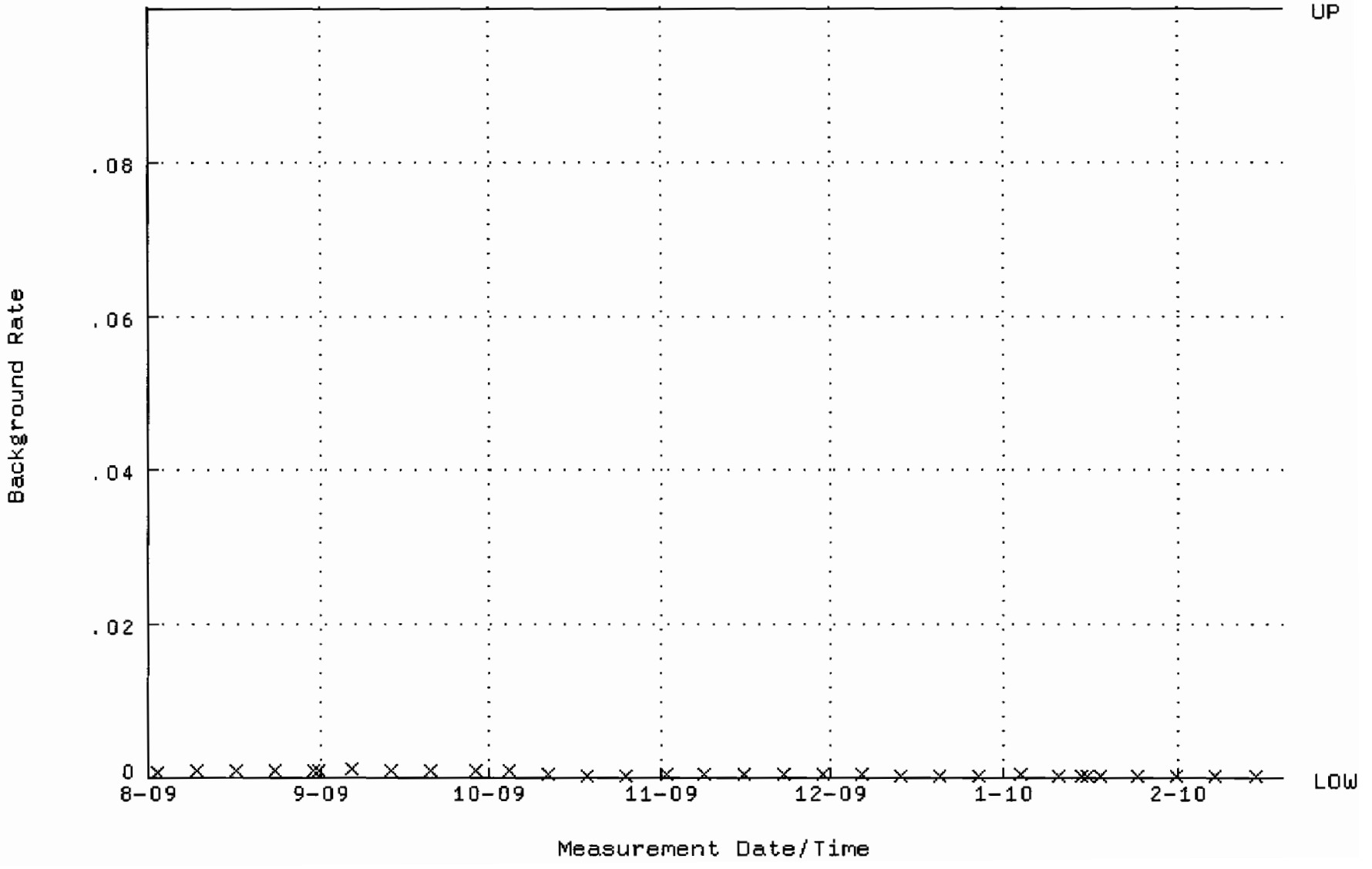

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:13 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242940 through 0.262940

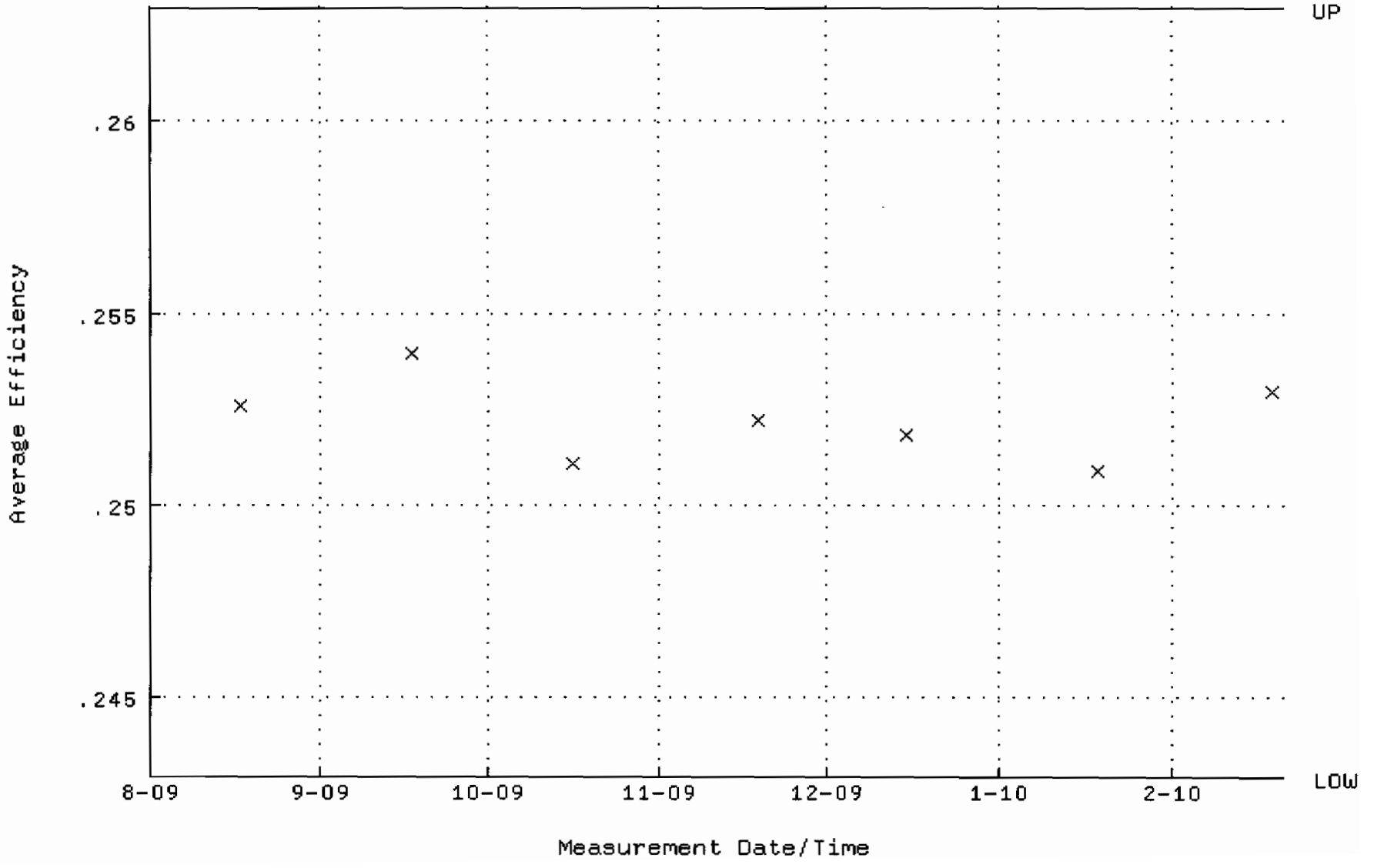

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:13 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8693 through 94.9081

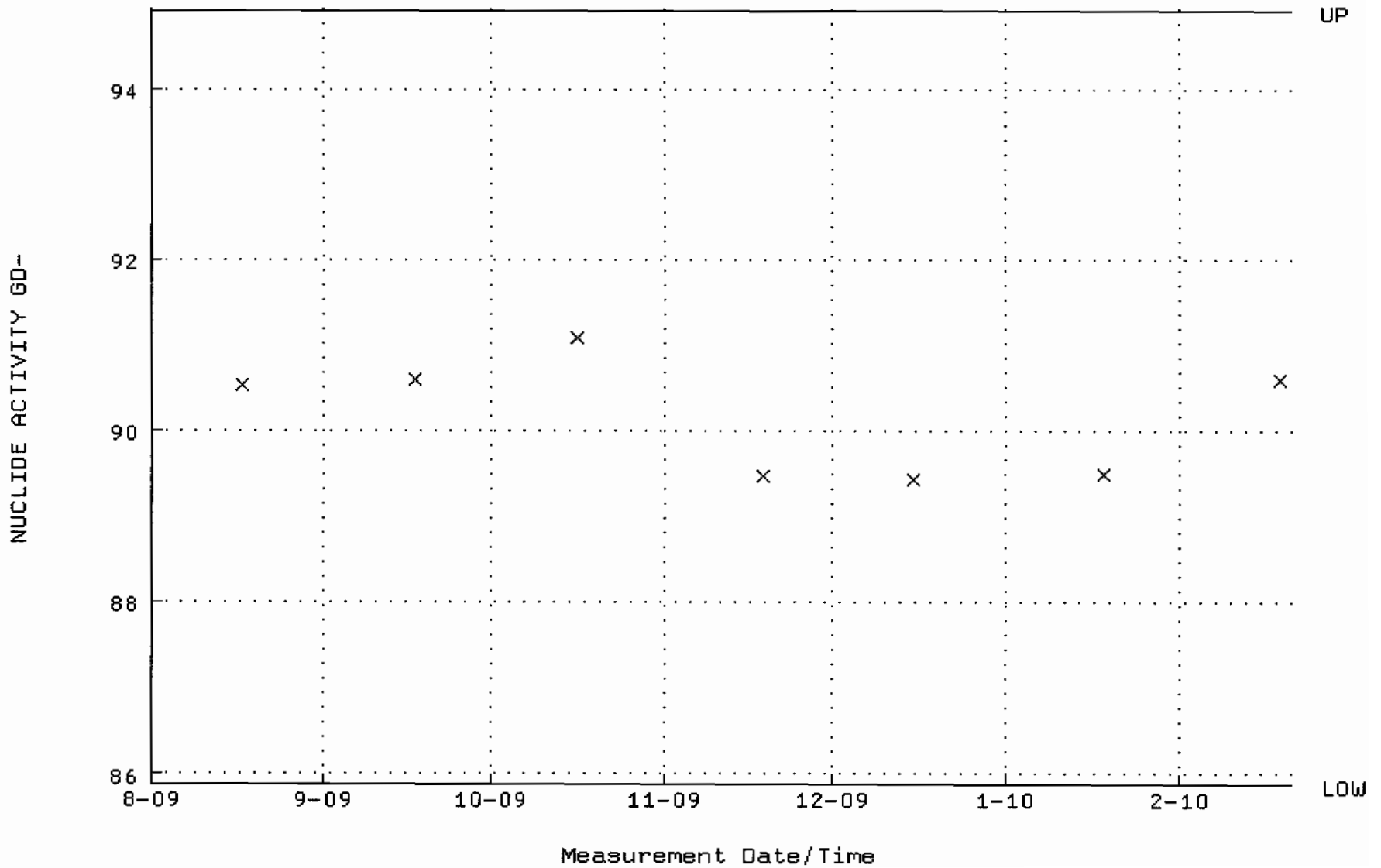

QA filename : DKA100:[ENV_ALPHA.QA.B]B117.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:15 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

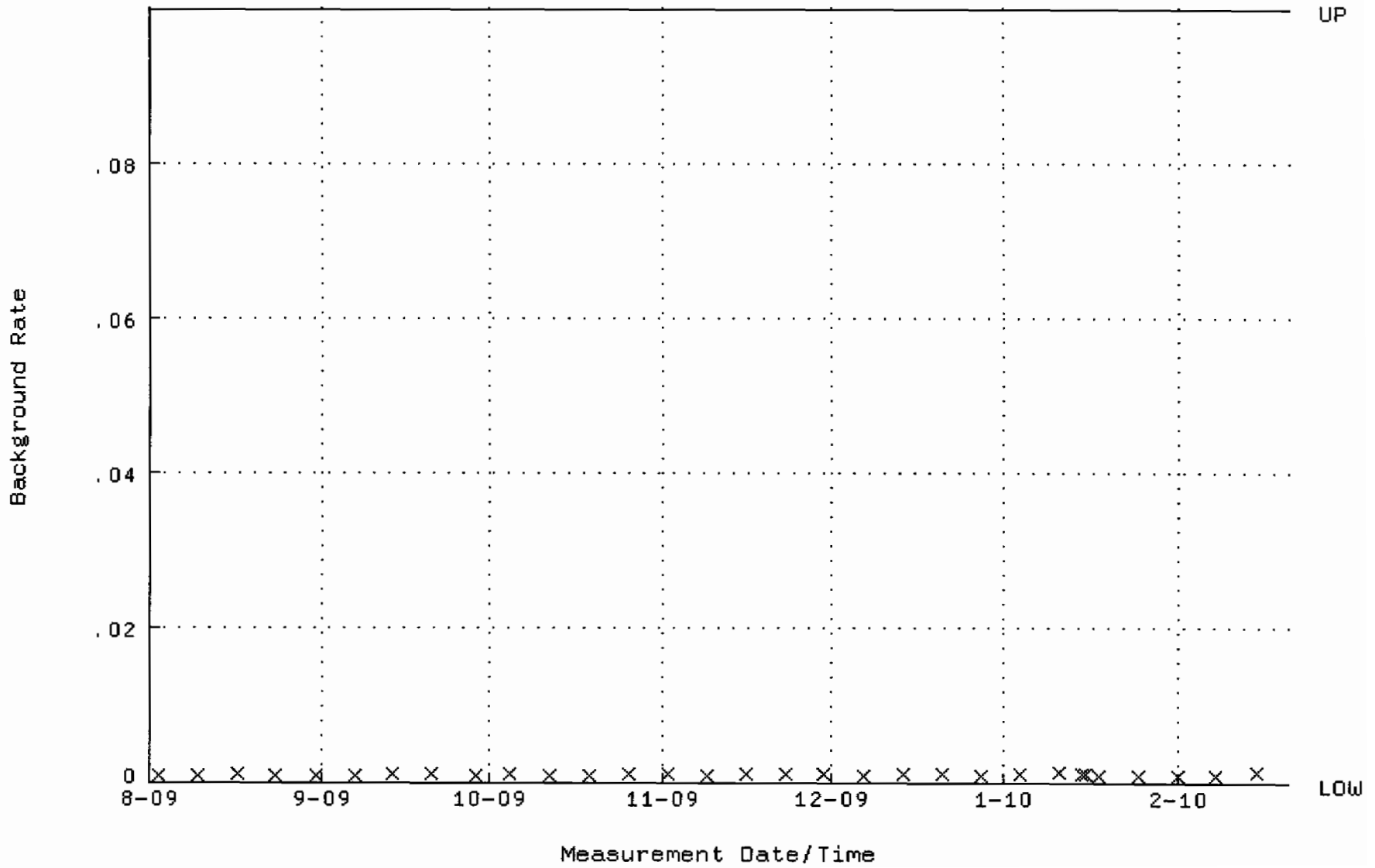

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.232847 through 0.282381

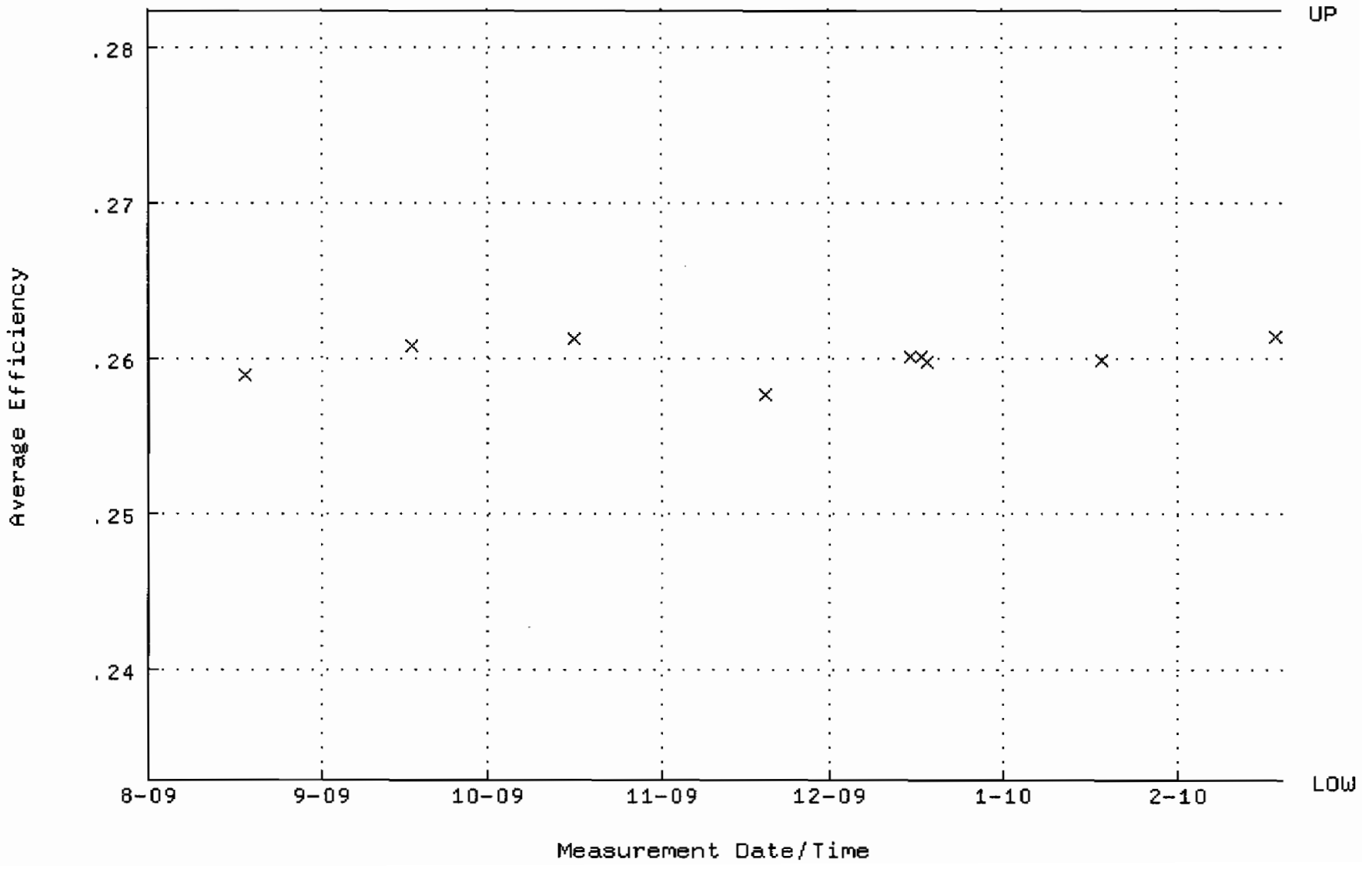

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.3881 through 91.8481

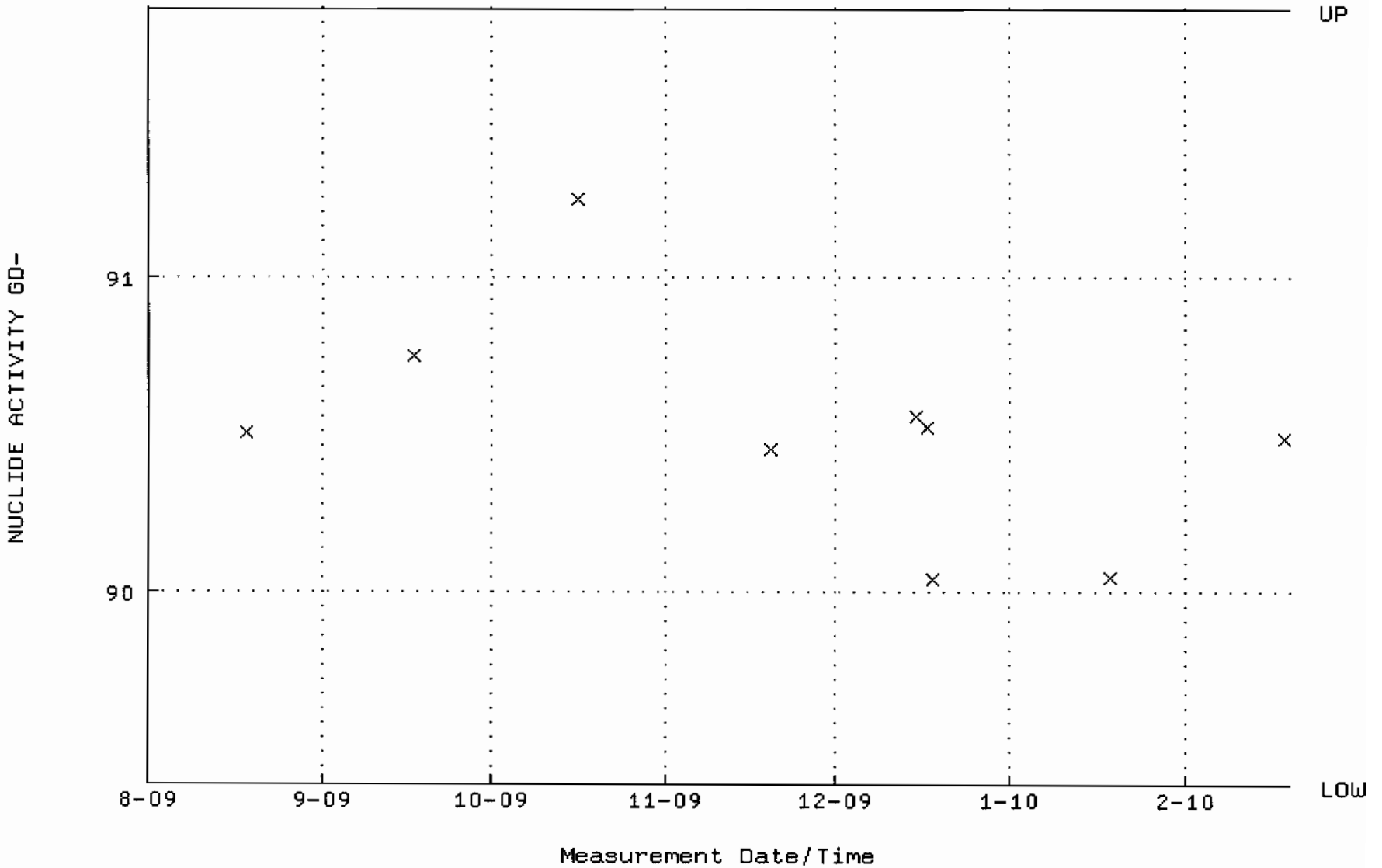

QA filename : DKA100:[ENV_ALPHA.QA.B]B120.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 3-AUG-2009 15:38:20 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

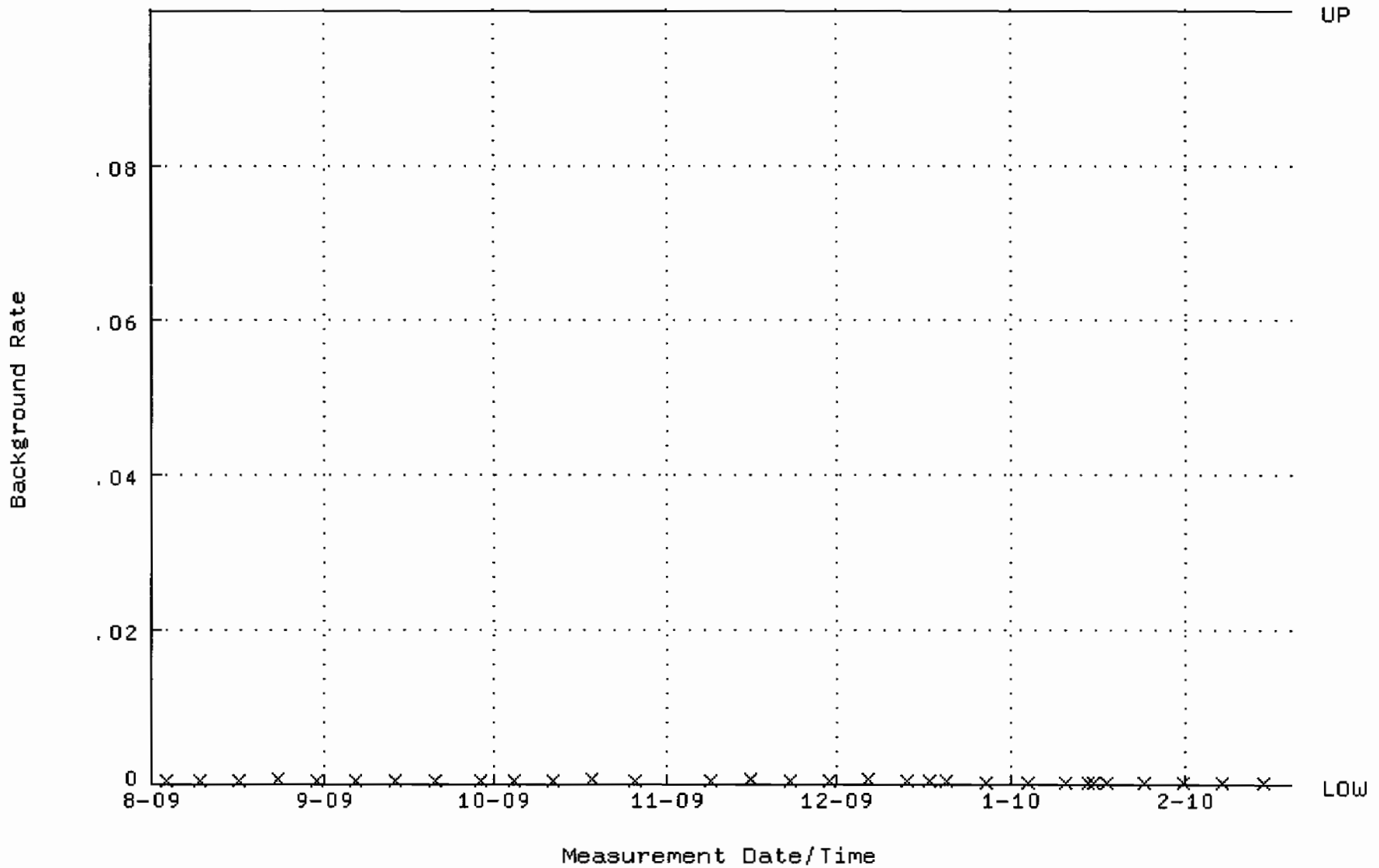

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242659 through 0.262659

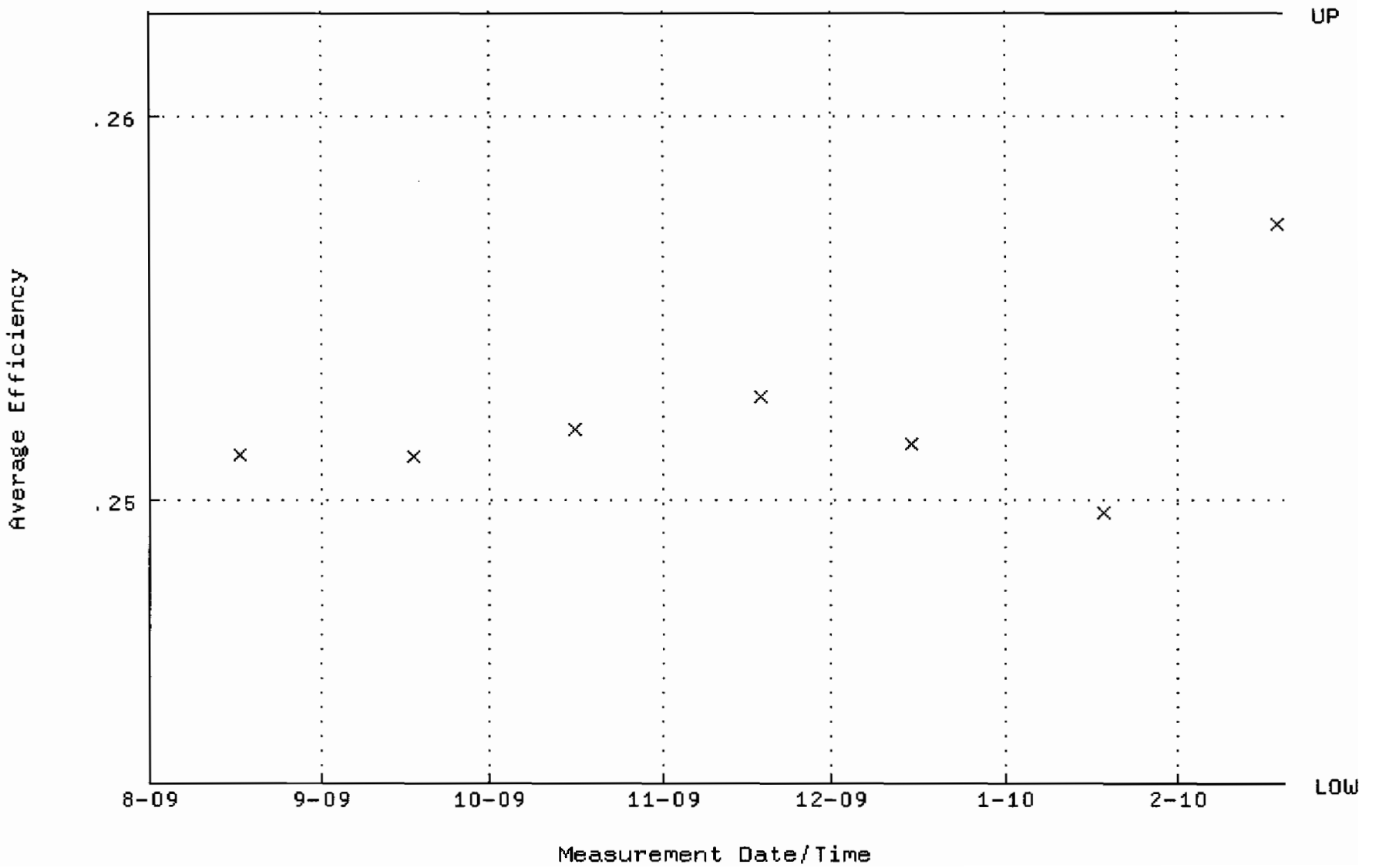

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.5949 through 100.131

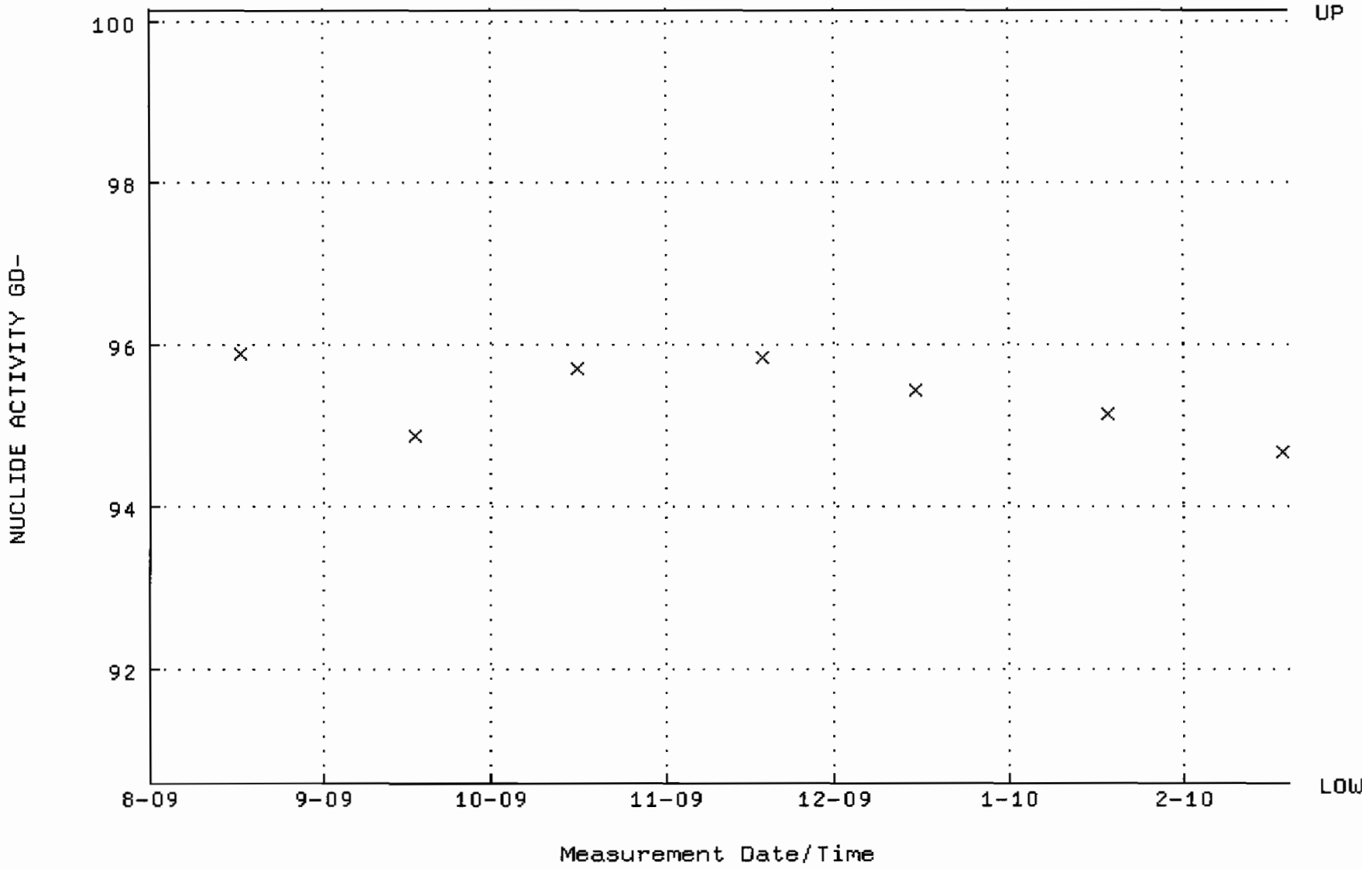

QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:37 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

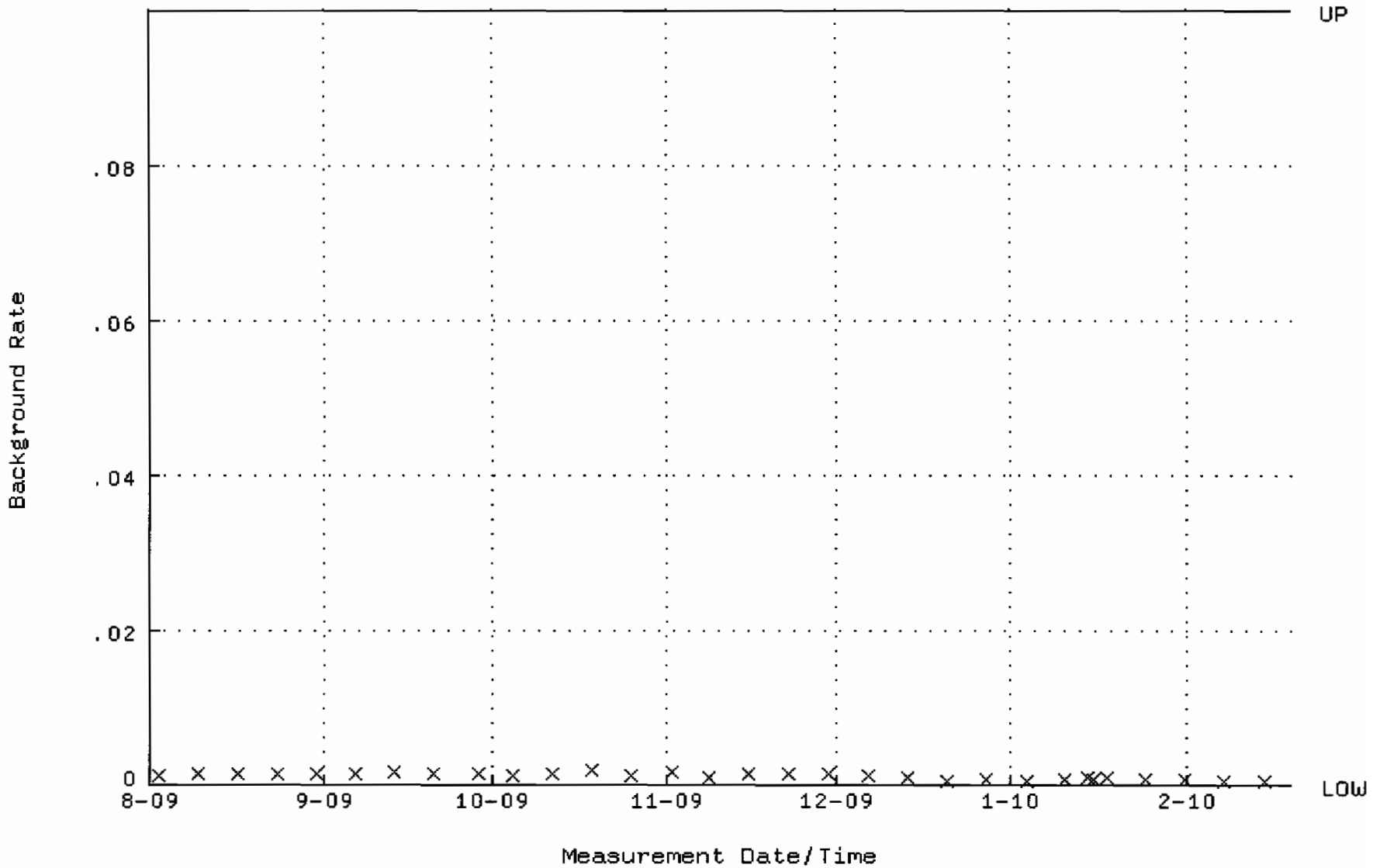

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.249752 through 0.269752

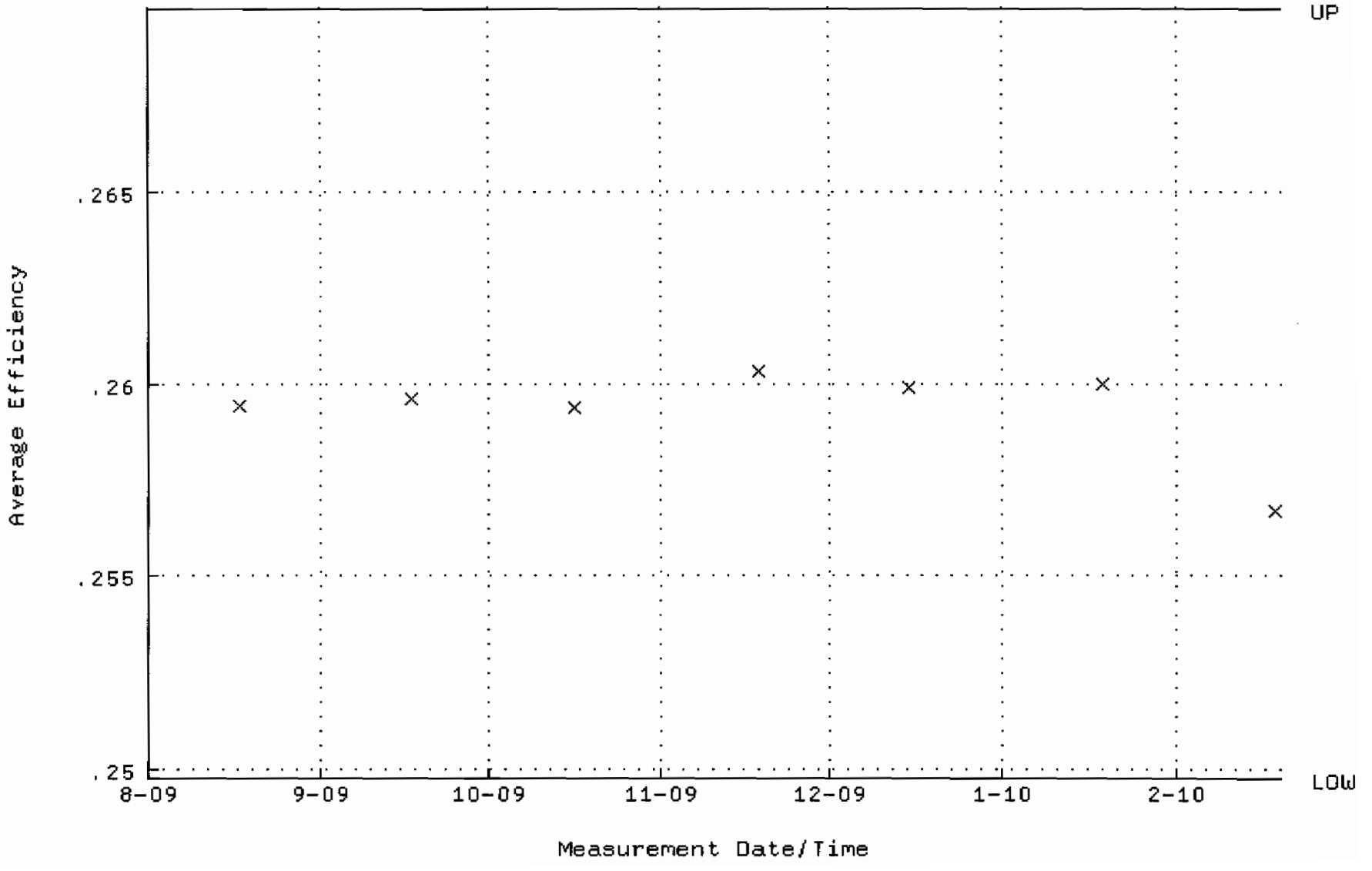

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0496 through 95.1074

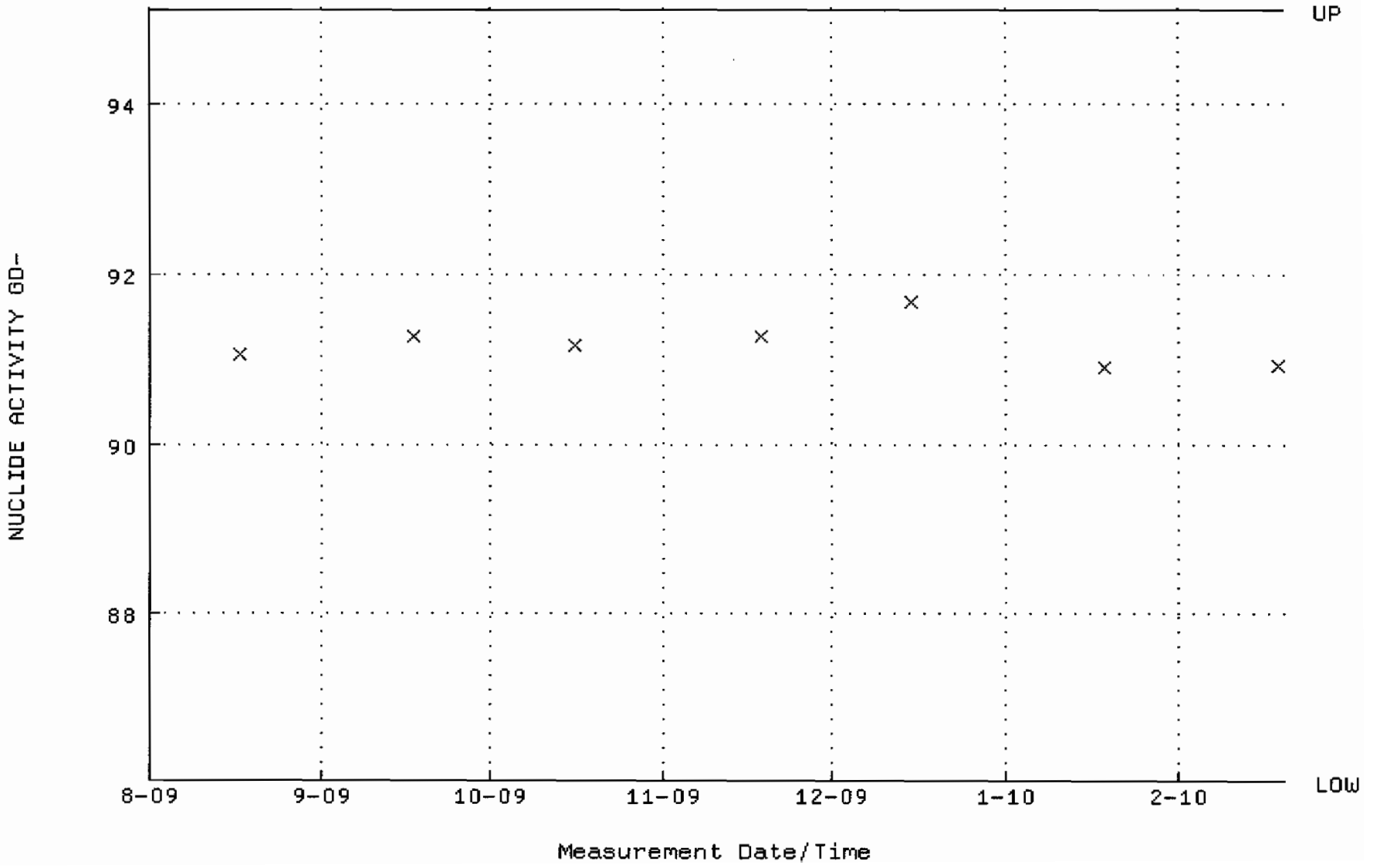

QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:42 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

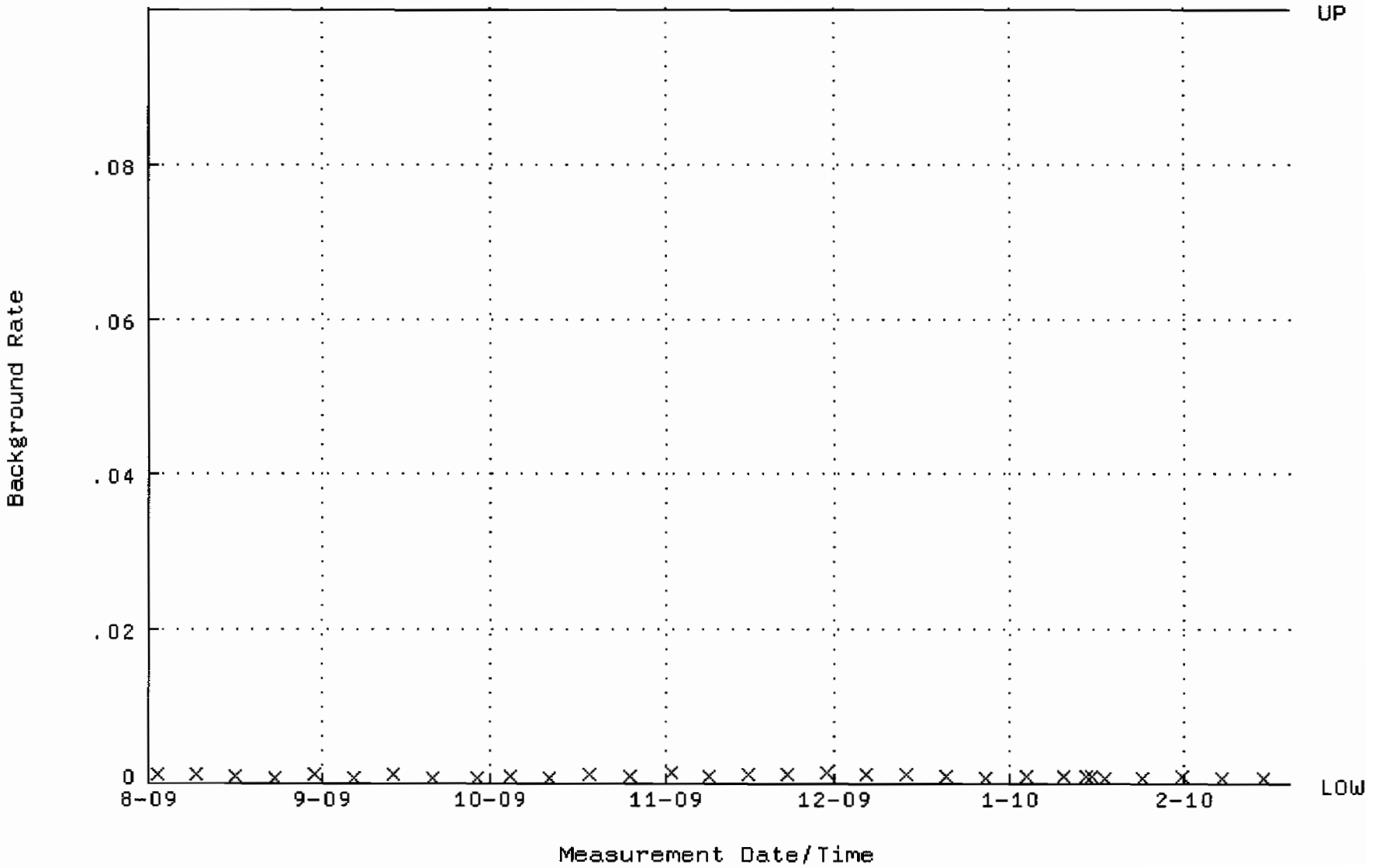

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247512 through 0.267512

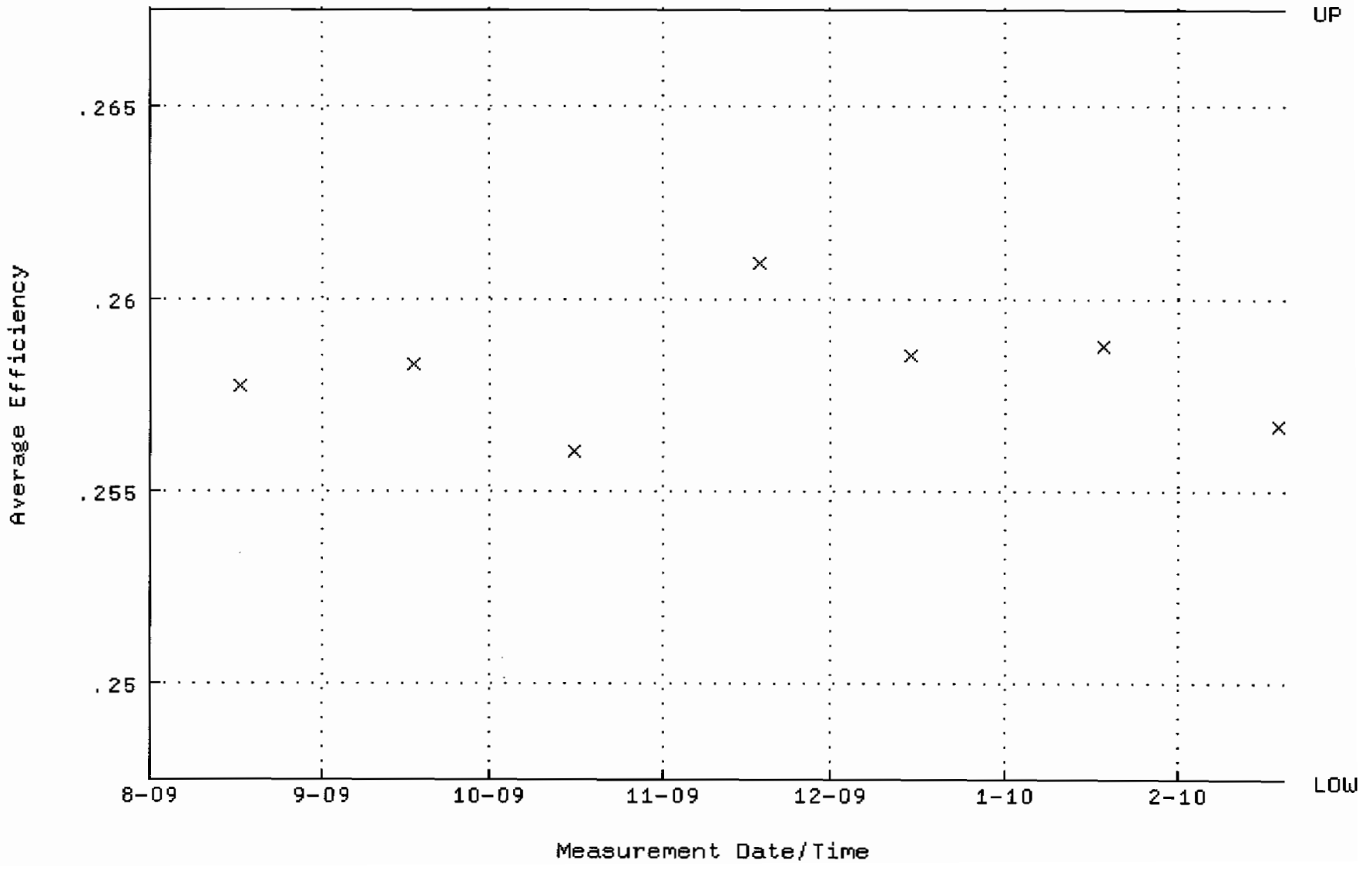

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.6956 through 96.9268

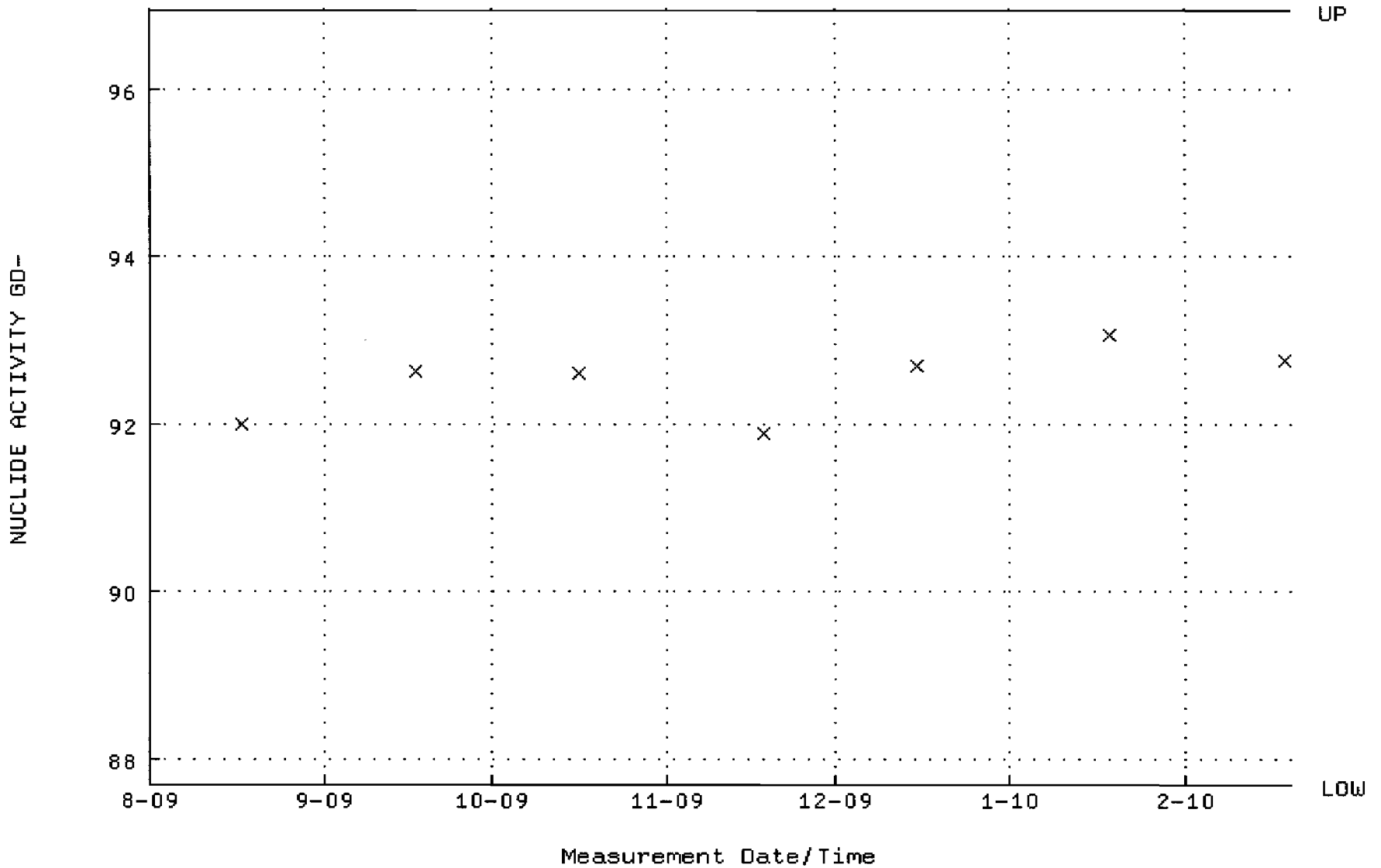

QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:51 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

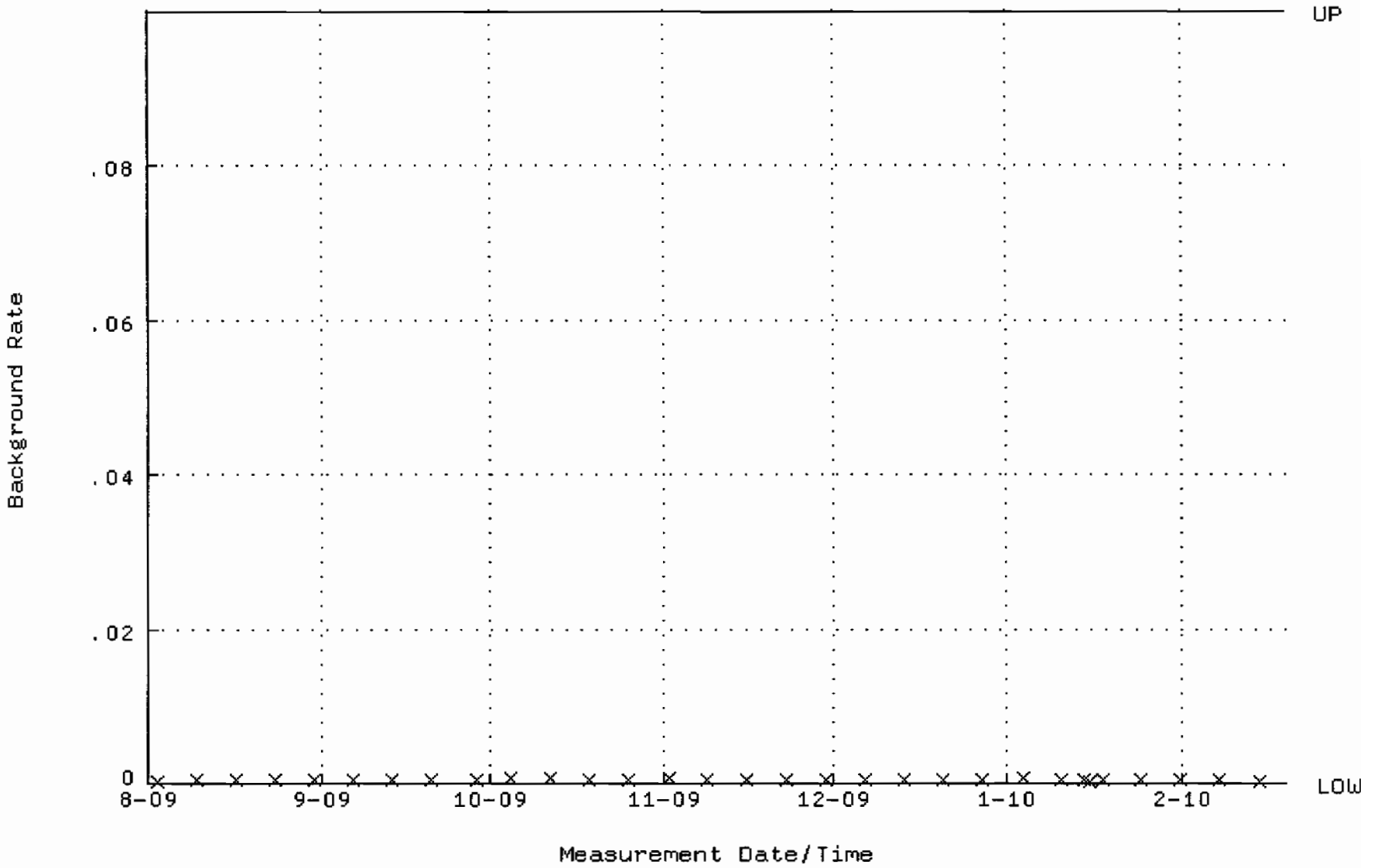

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.243156 through 0.263156

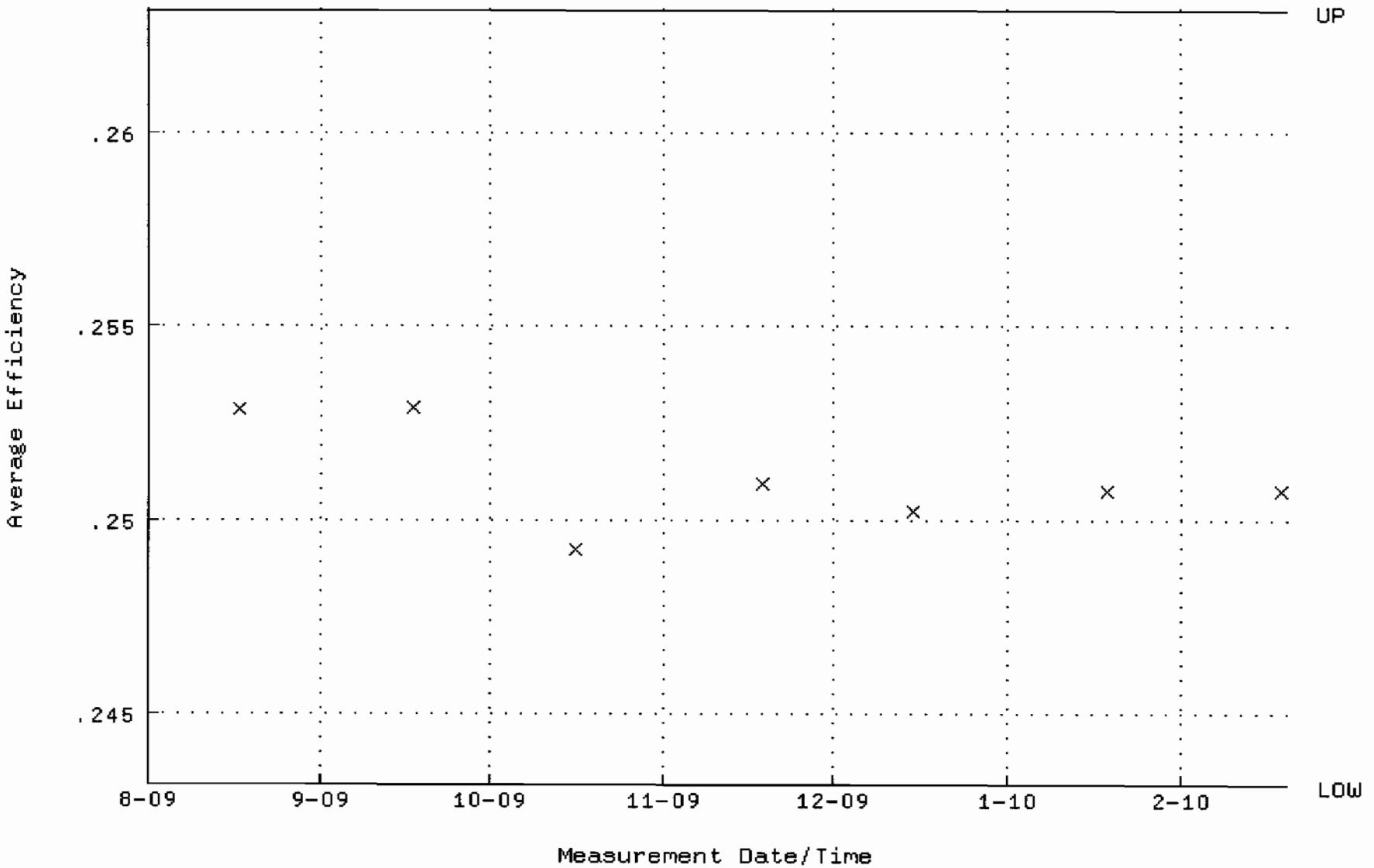

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.7449 through 94.7707

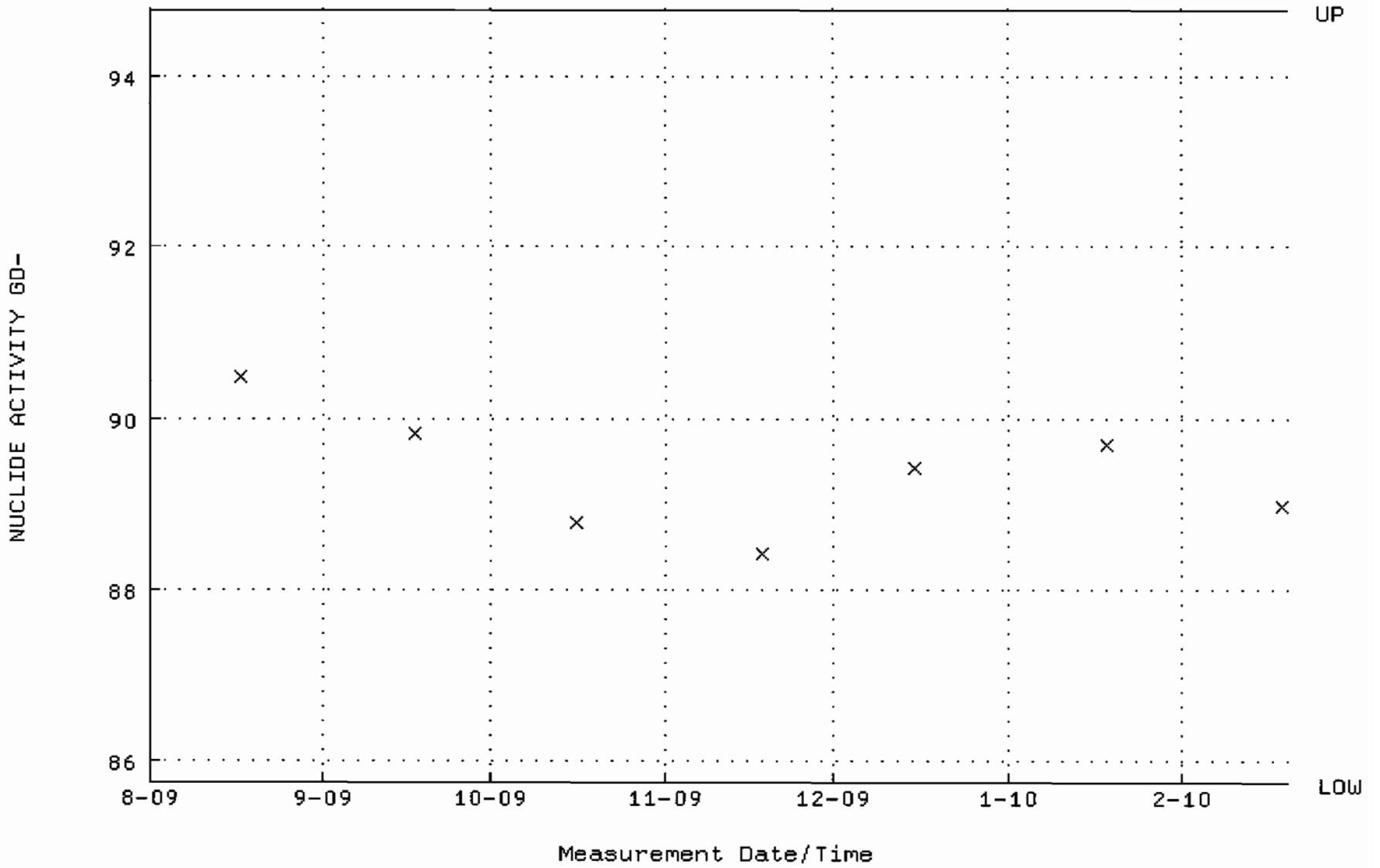

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:55 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

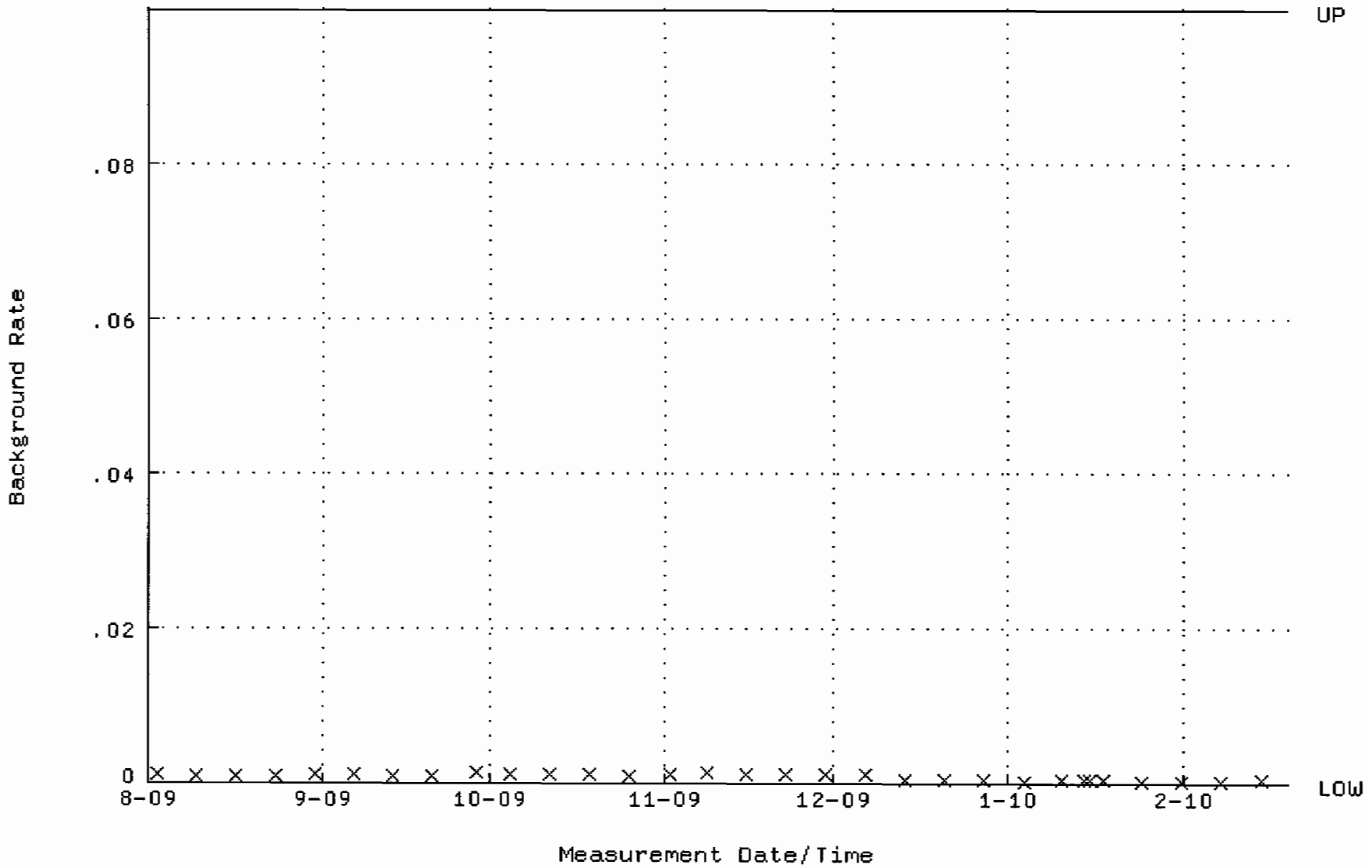

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237963 through 0.257963

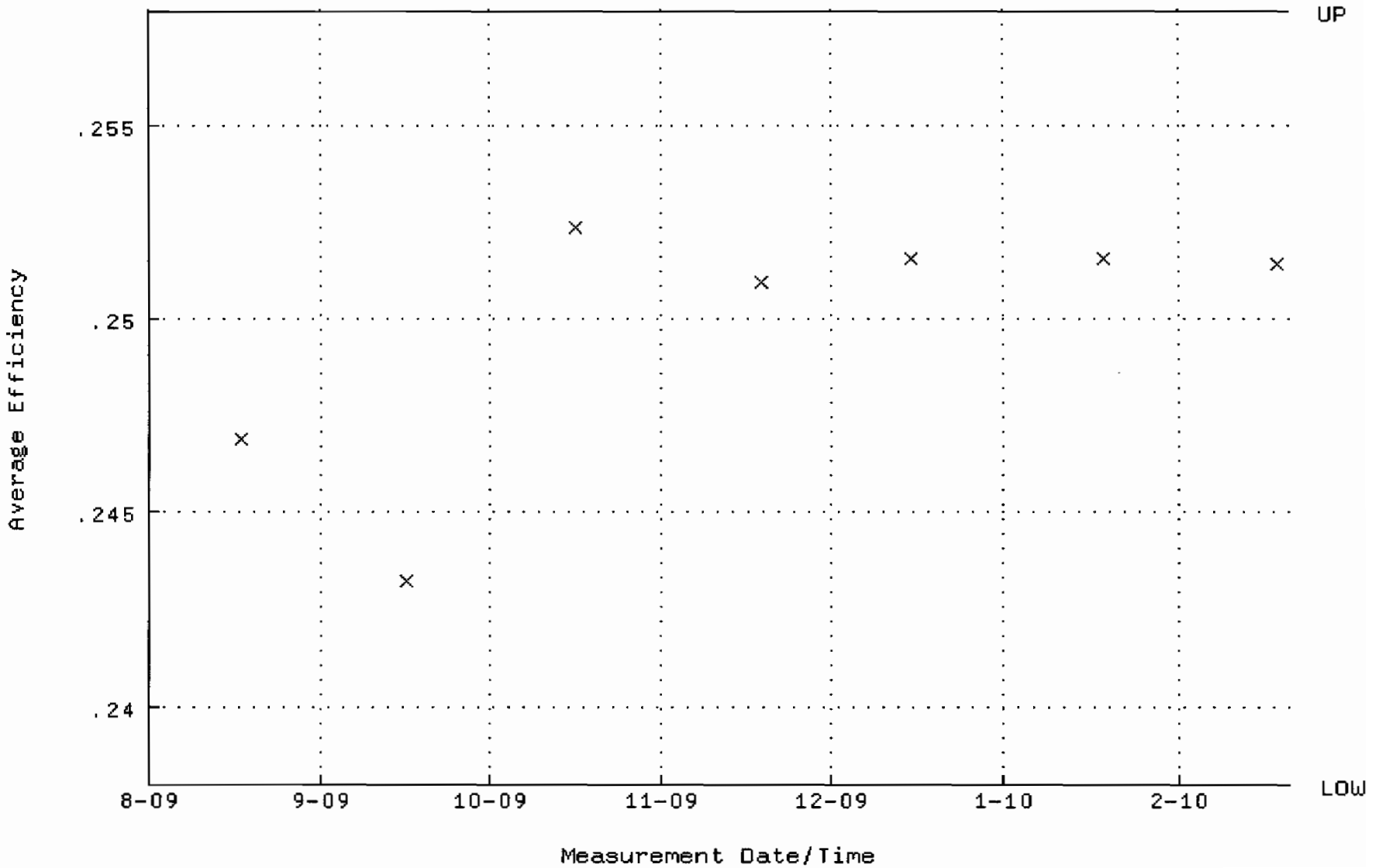

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.6507 through 93.5613

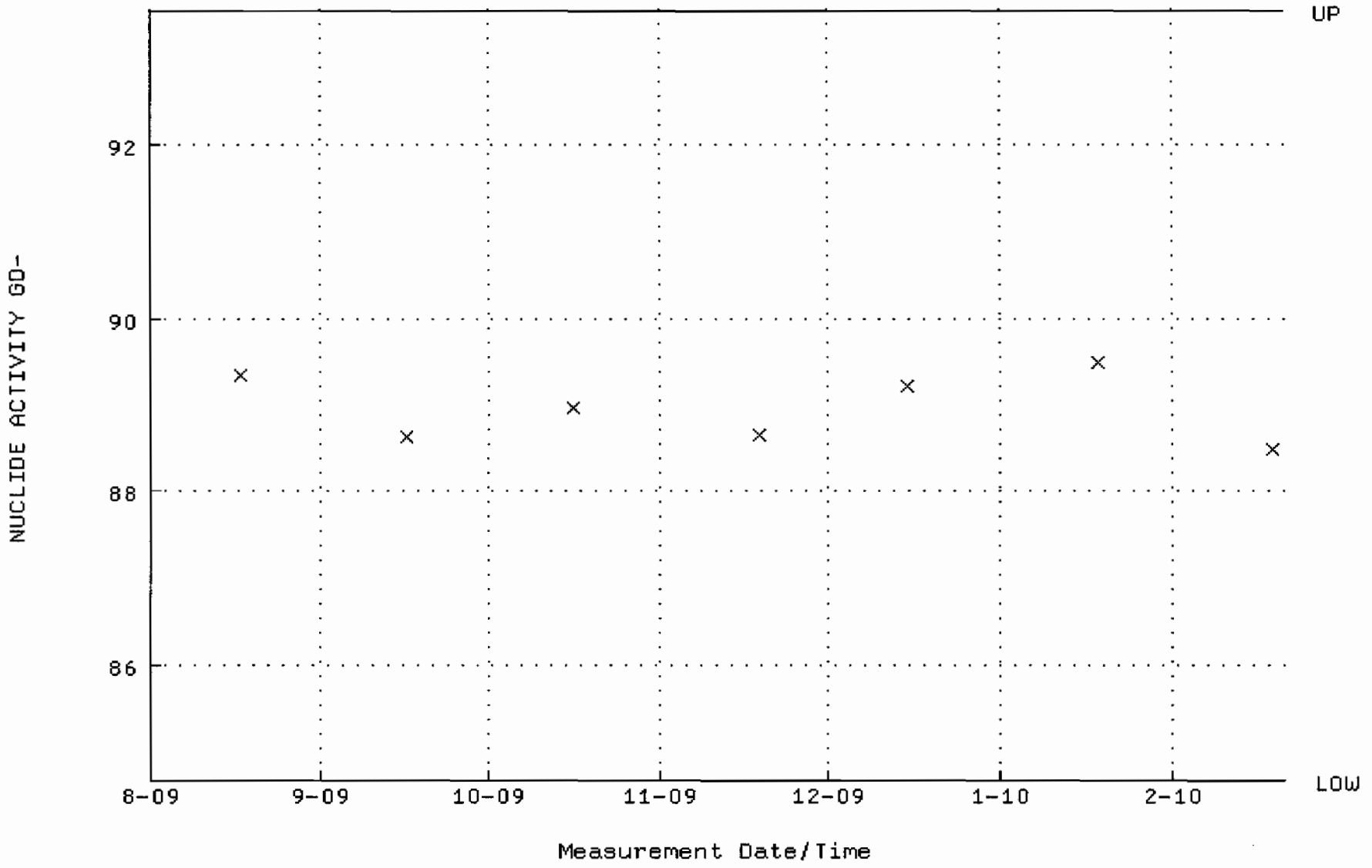

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:12 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

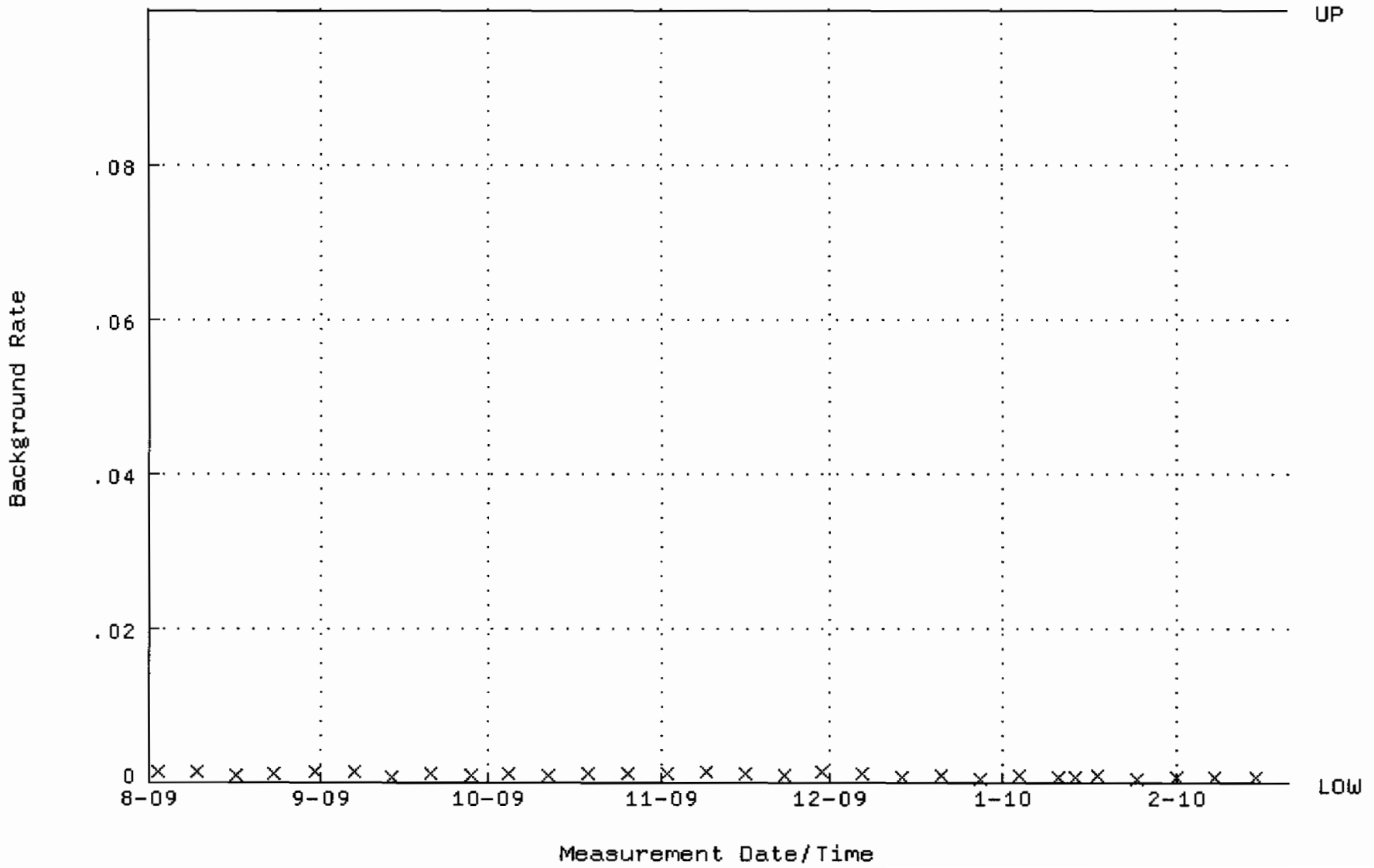

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239850 through 0.259850

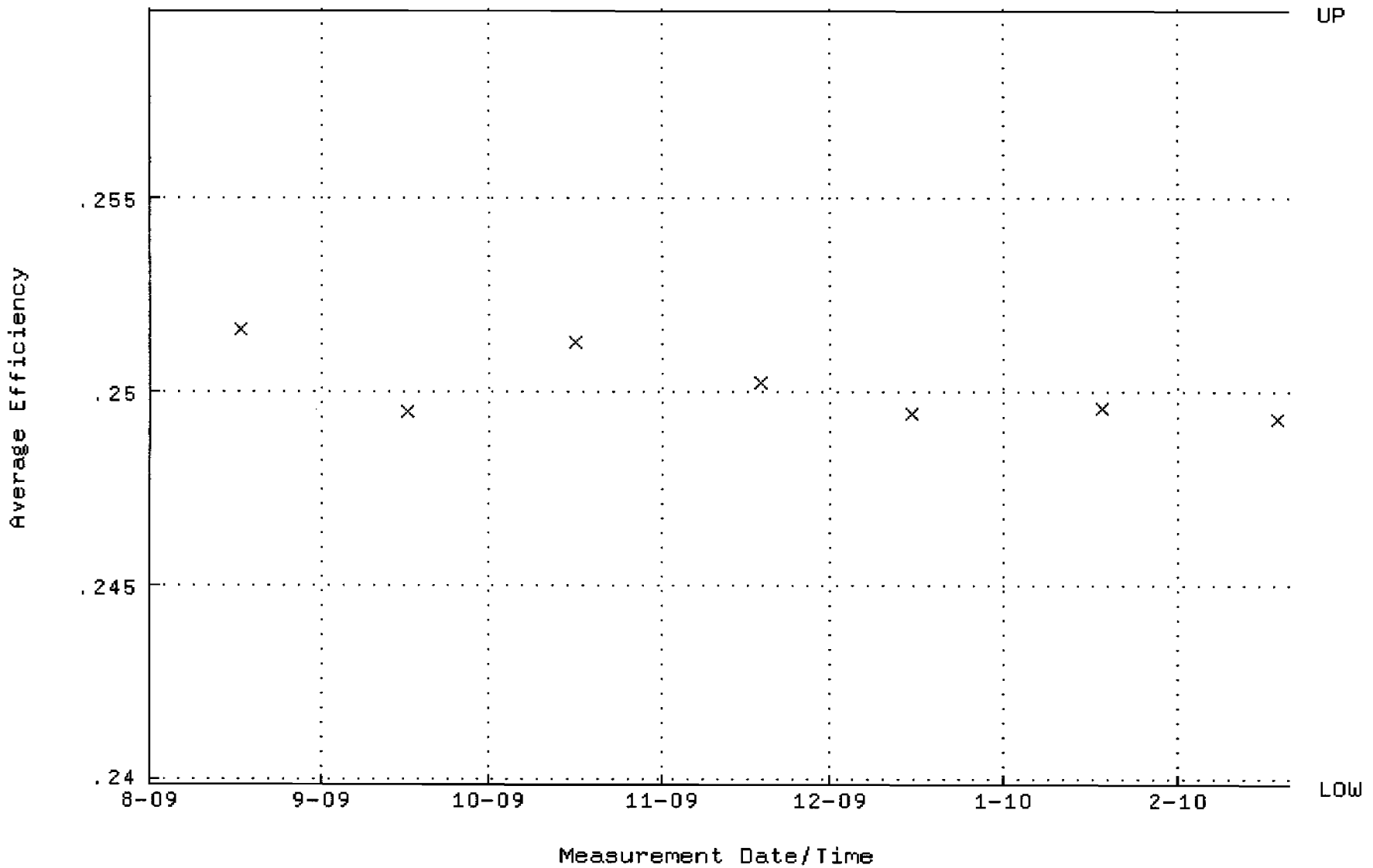

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9354 through 93.8760

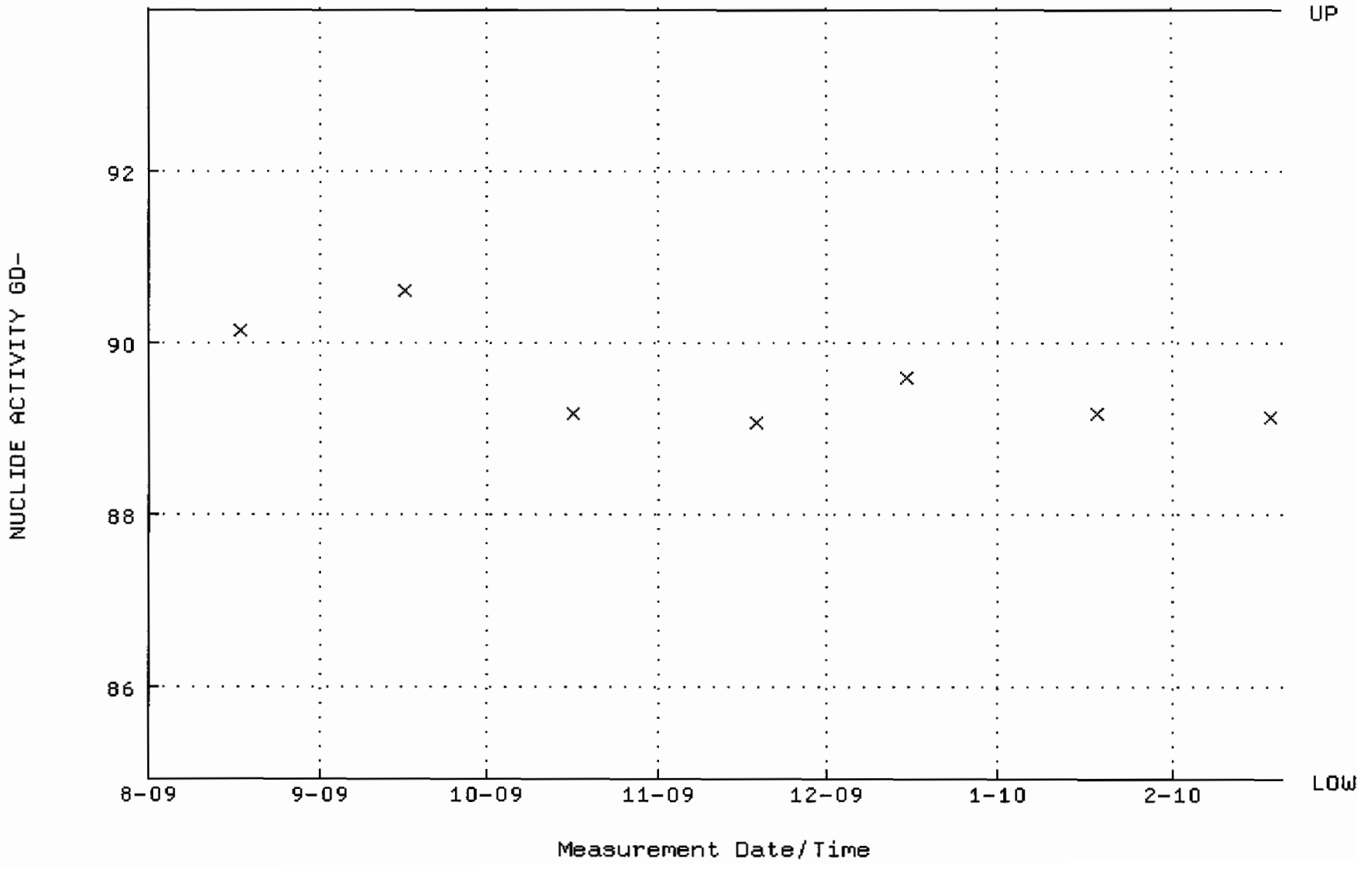

QA filename : DKA100:[ENV_ALPHA.QA.B]B145.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:16 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

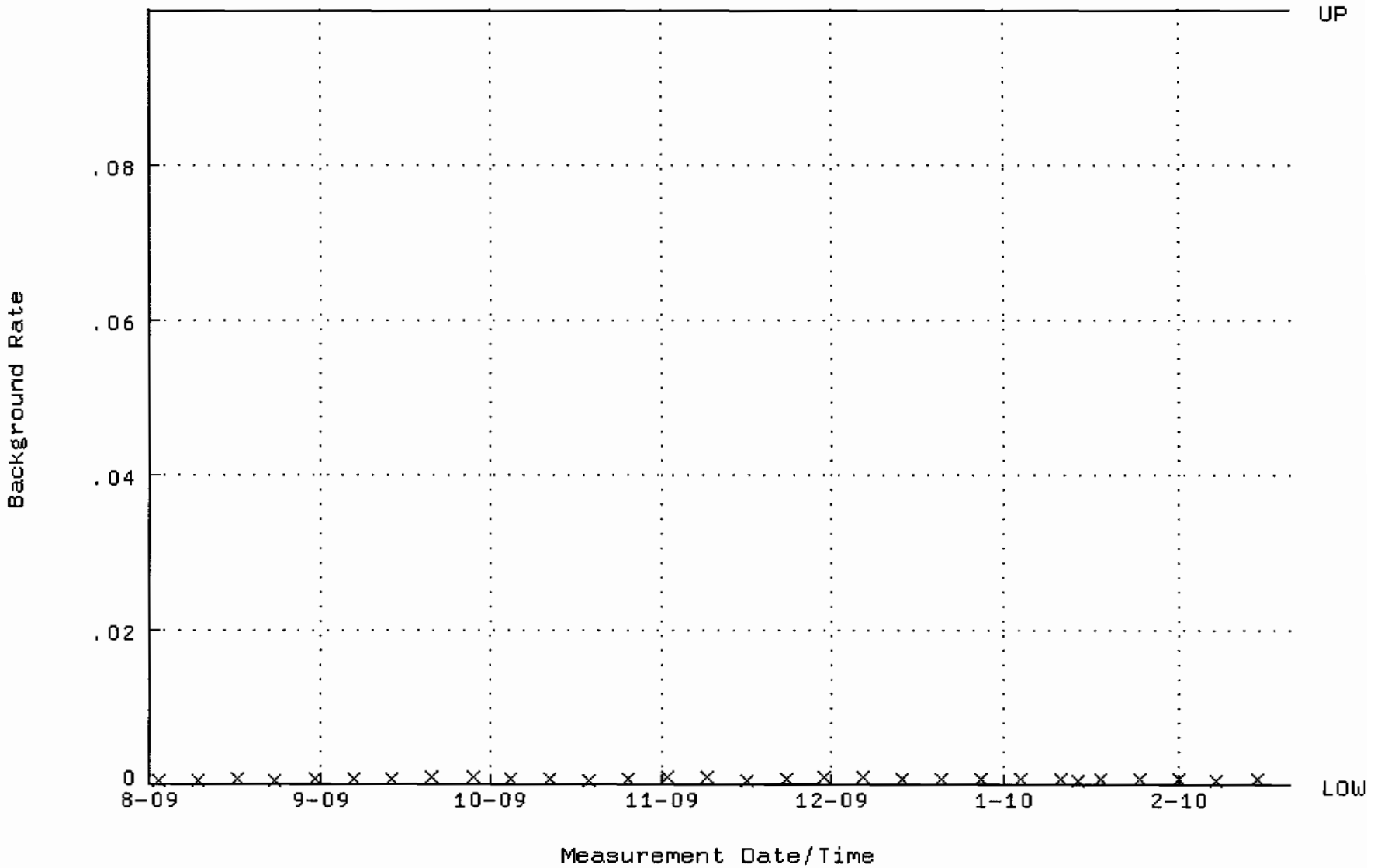

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.241831 through 0.261831

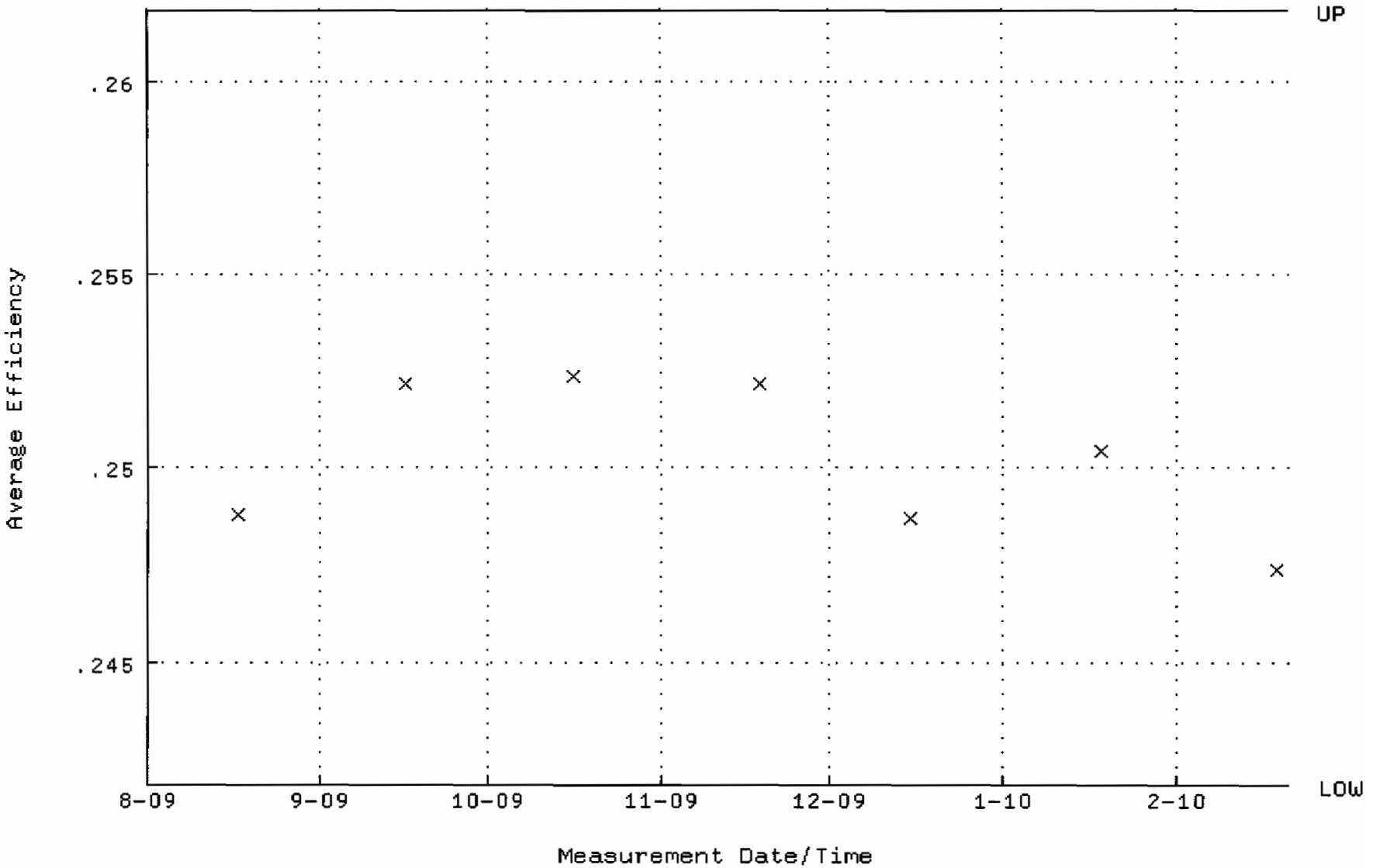

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8578 through 93.7902

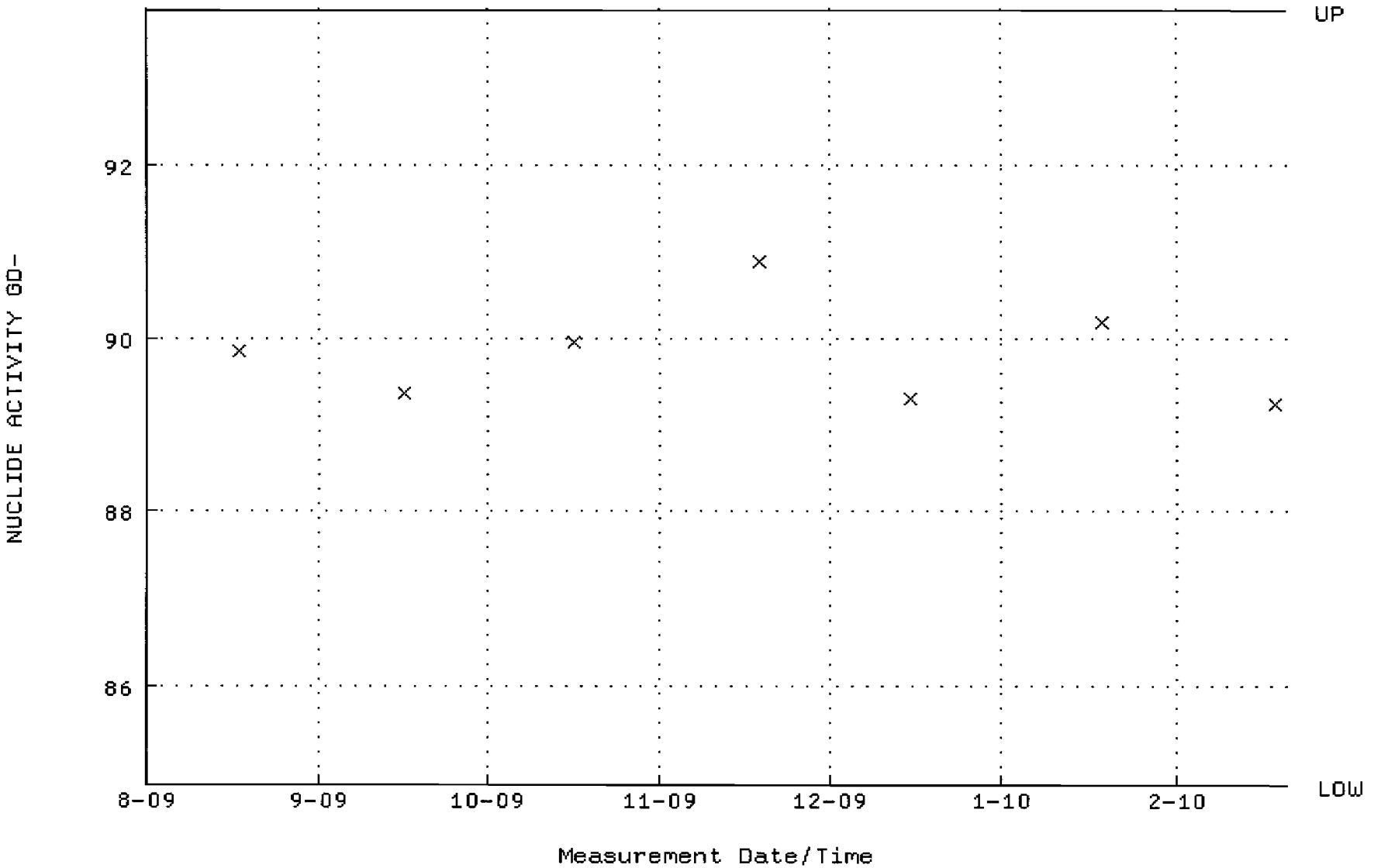

QA filename : DKA100:[ENV_ALPHA.QA.B]B146.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:20 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

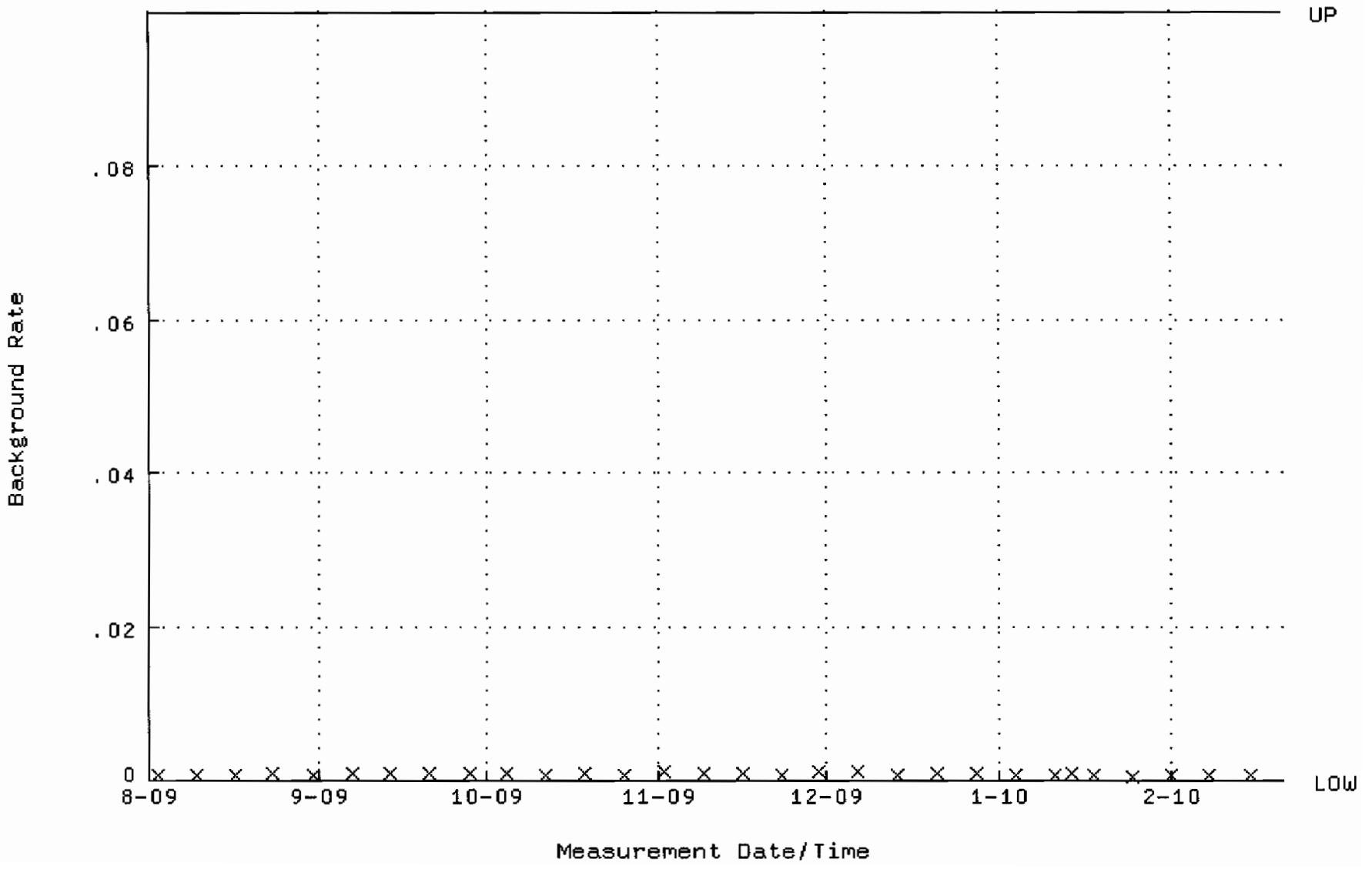

QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:07:03 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237046 through 0.257046

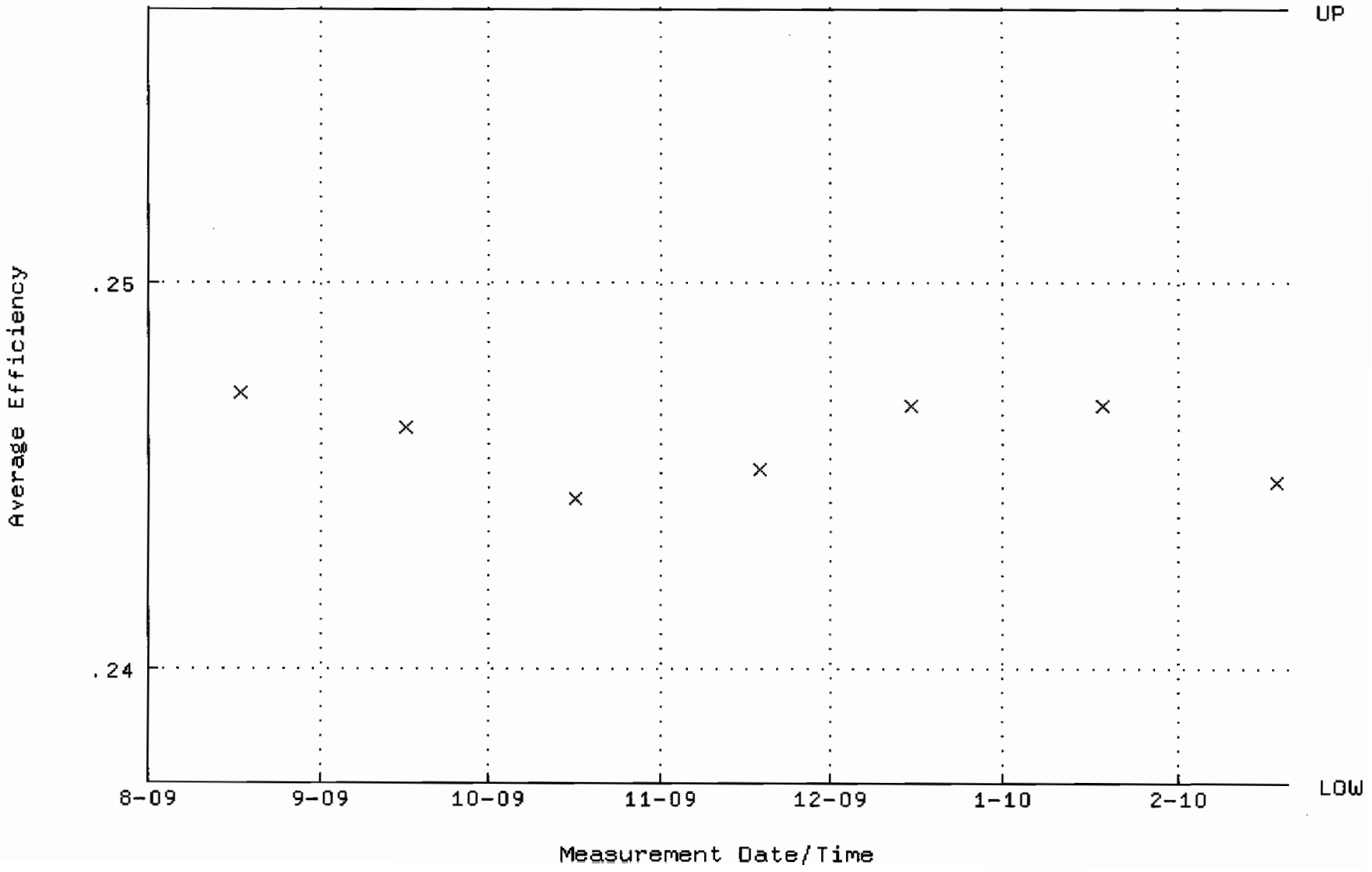

QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:07:03 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9777 through 93.9227

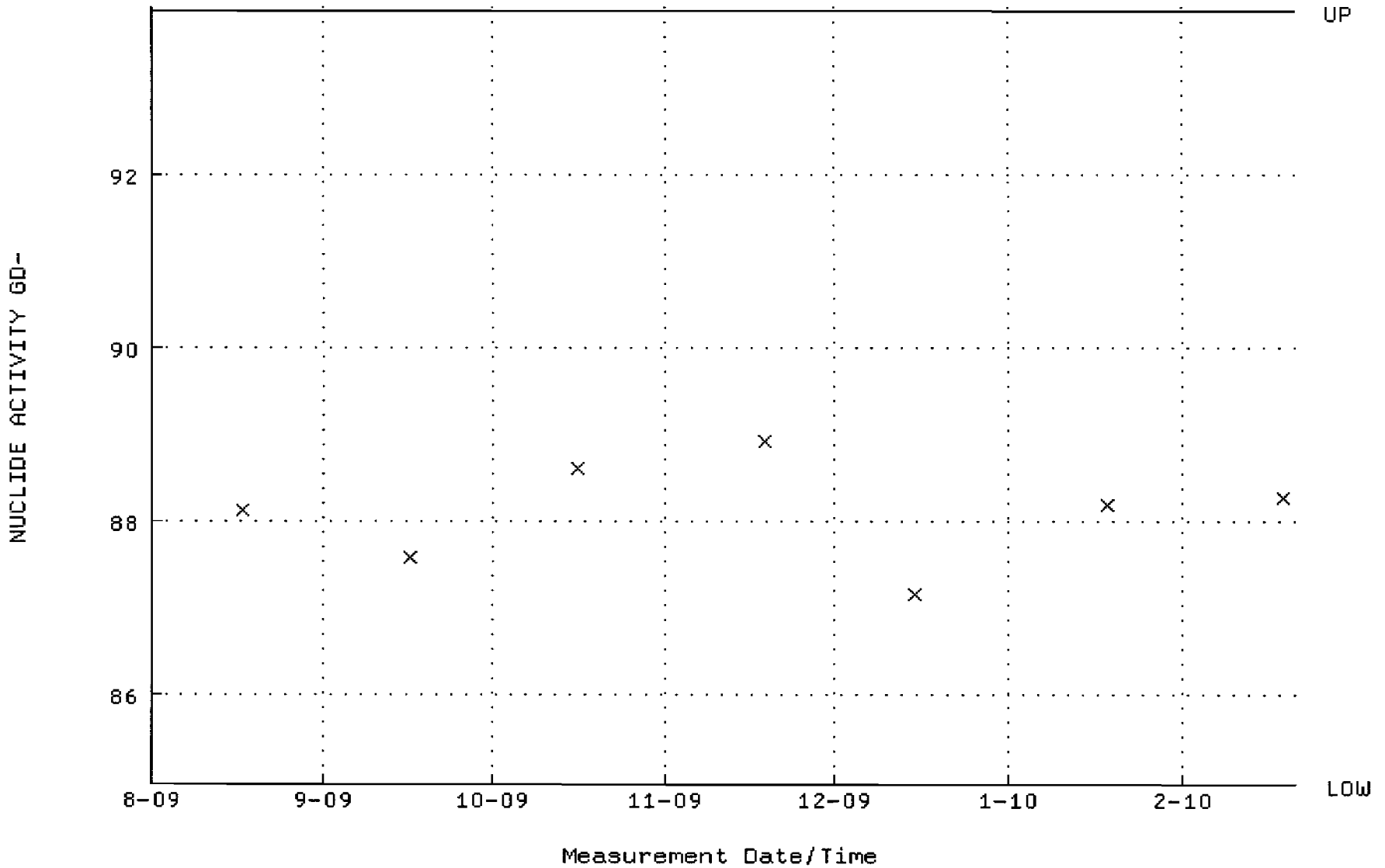

QA filename : DKA100:[ENV_ALPHA.QA.B]B147.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:24 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

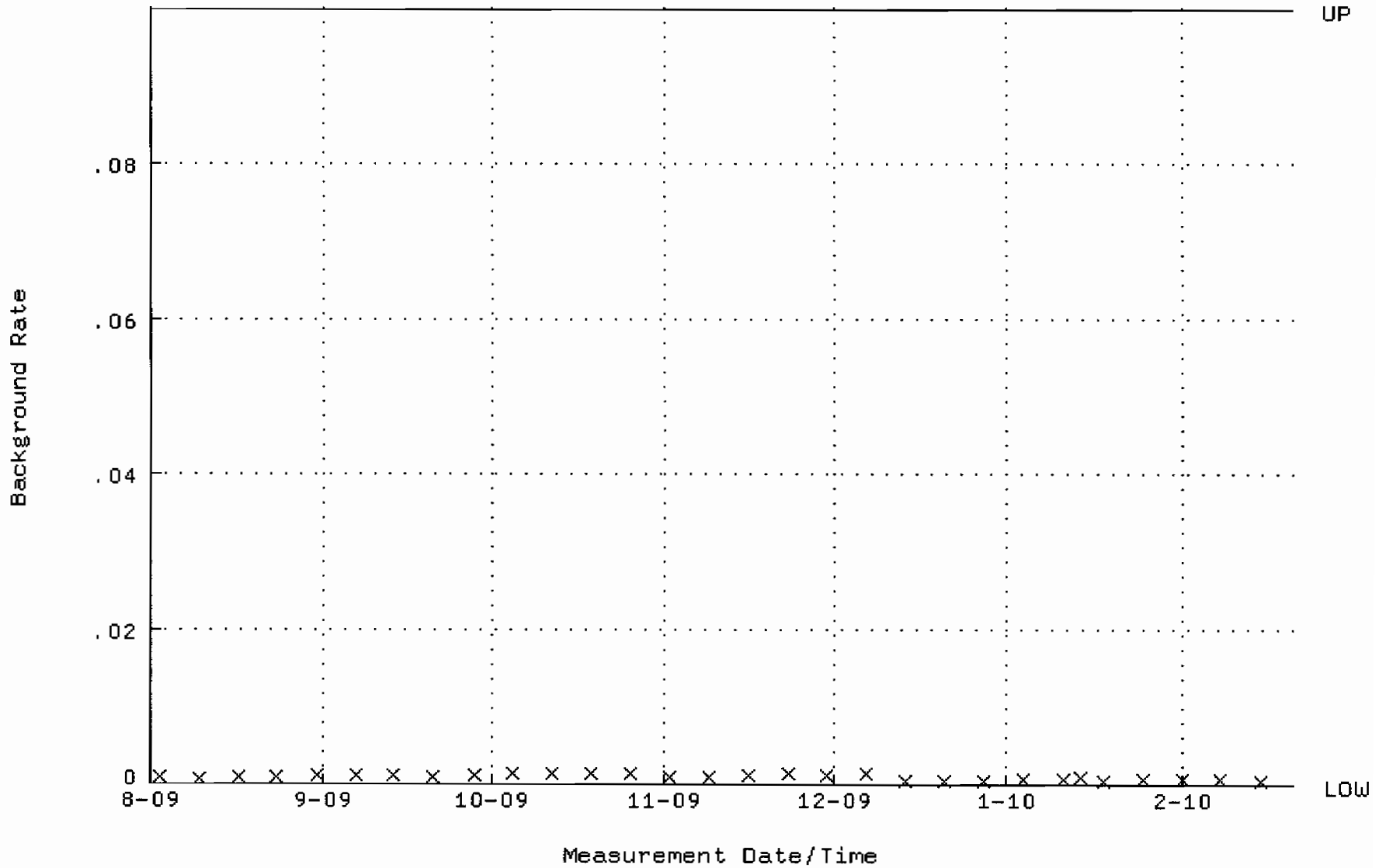

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:07:10 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237934 through 0.257934

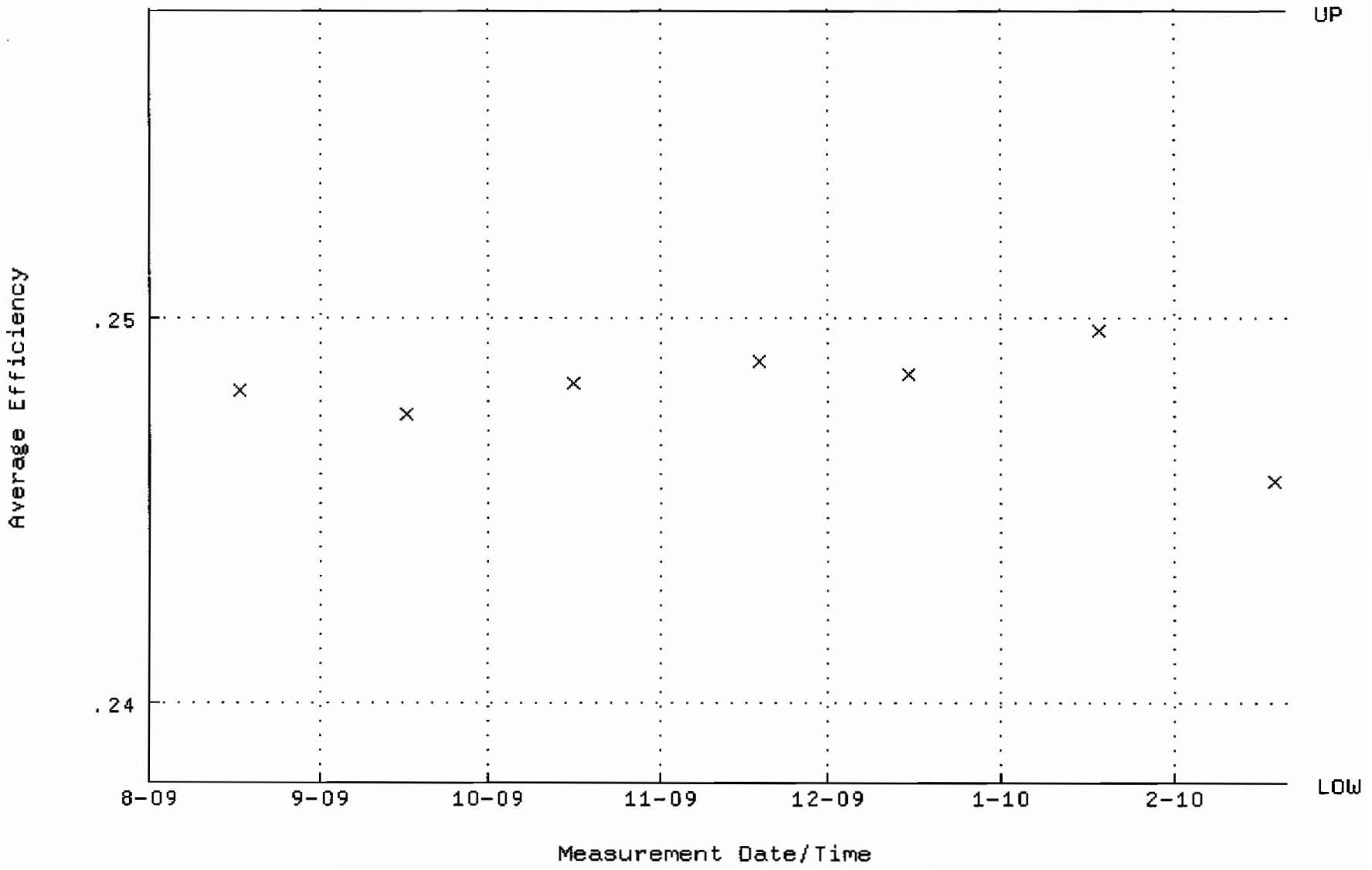

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:07:10 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 85.0831 through 94.0393

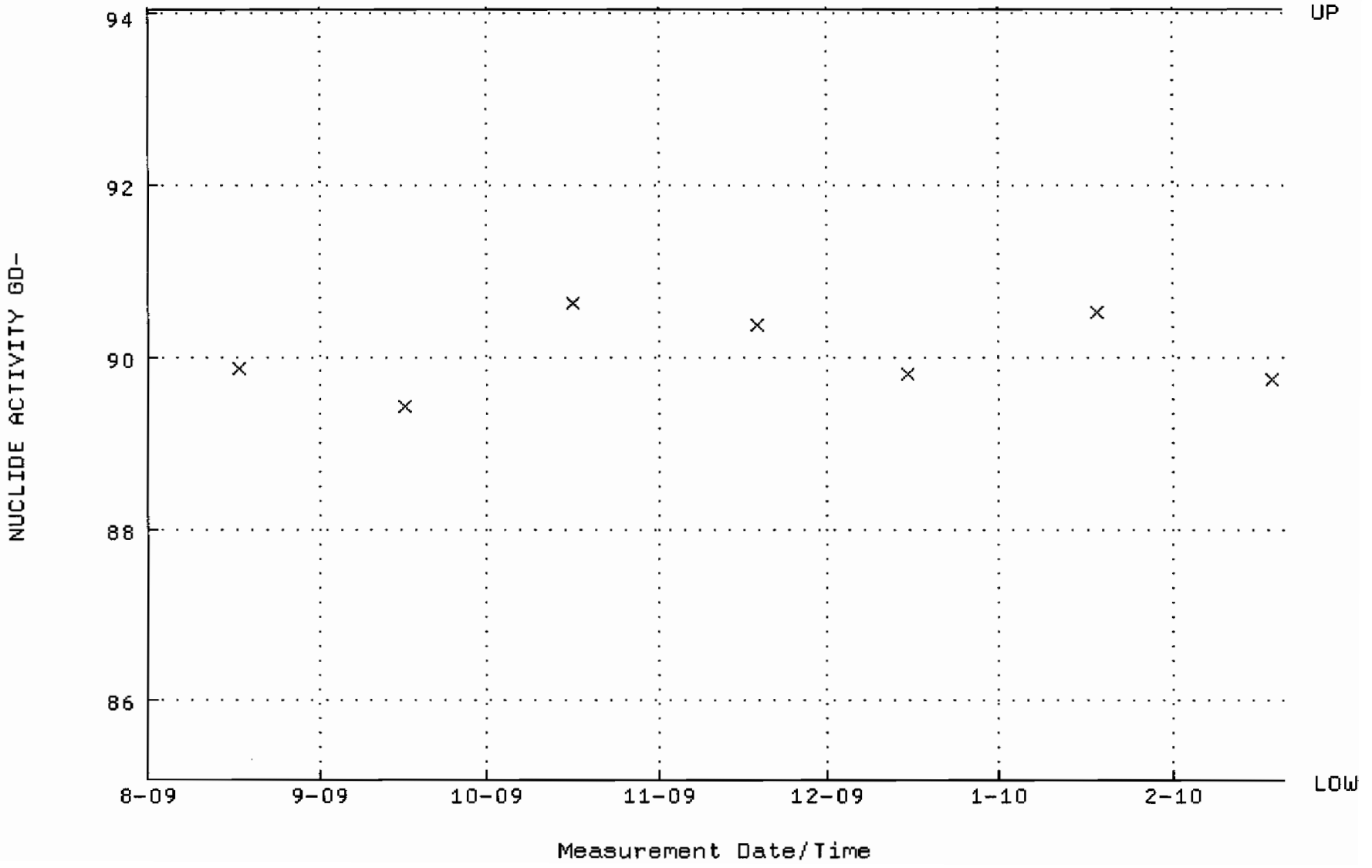

QA filename : DKA100:[ENV_ALPHA.QA.B]B148.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:28 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

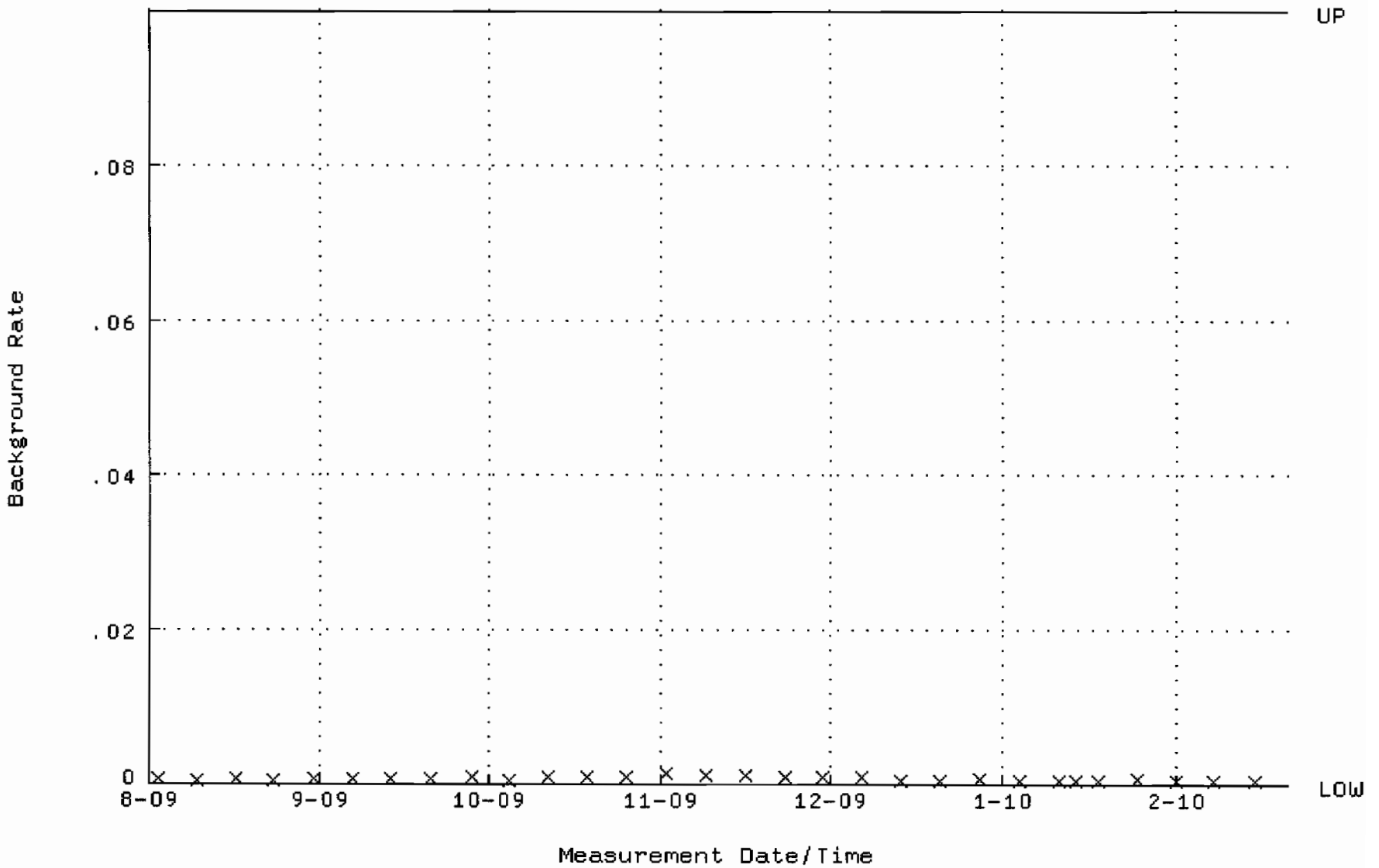

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:06 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.238314 through 0.258314

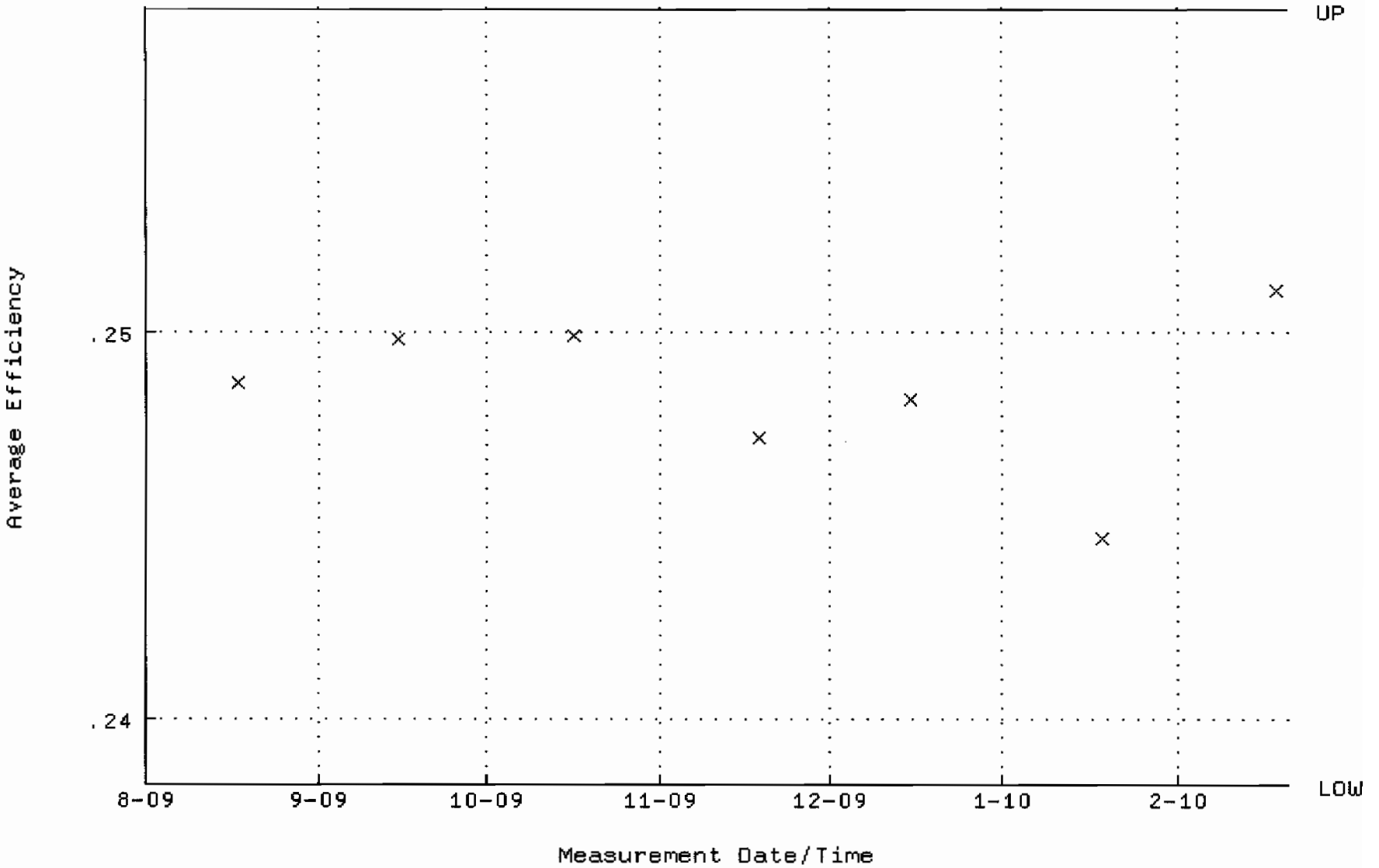

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:06 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.4039 through 93.2885

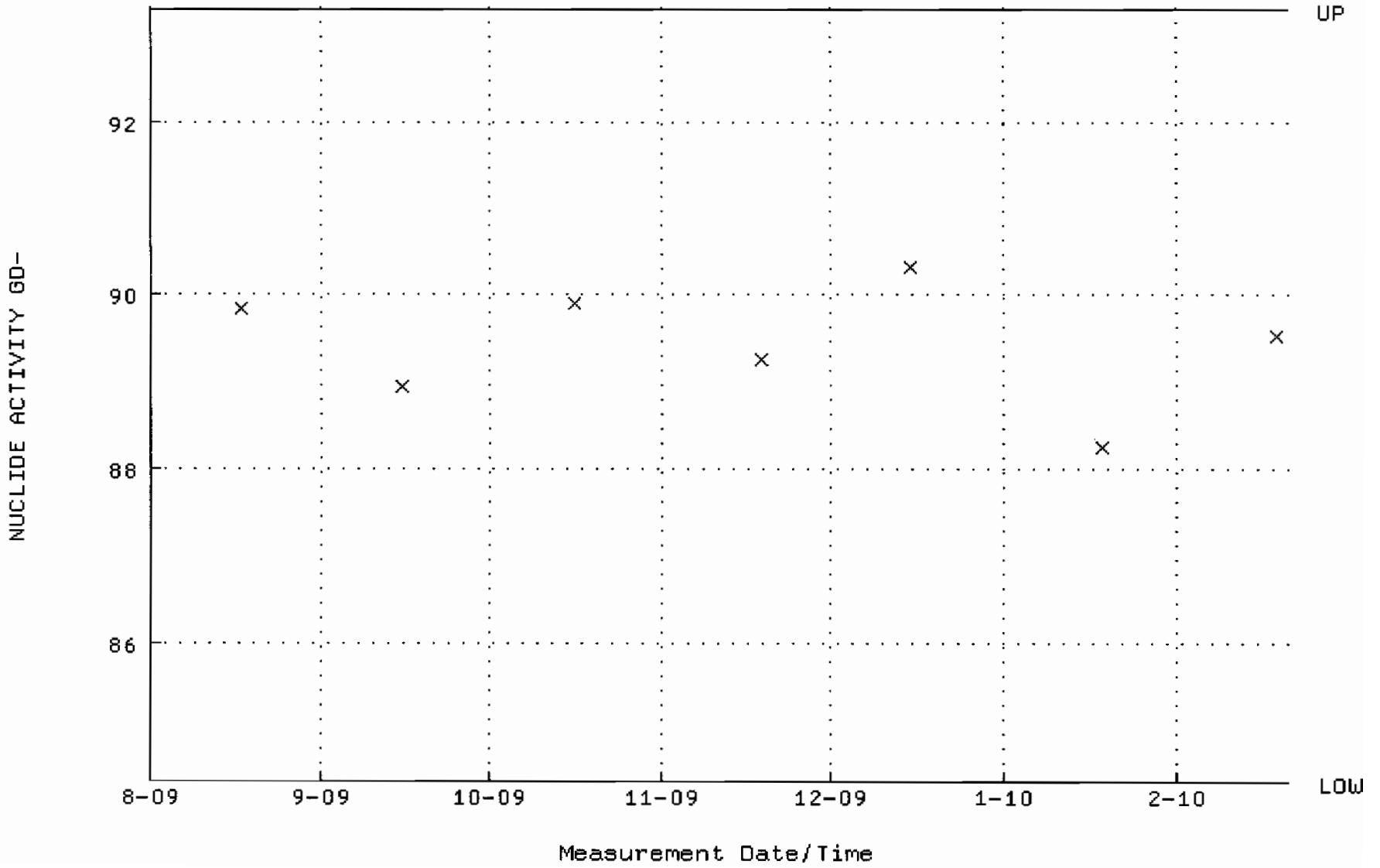

QA filename : DKA100:[ENV_ALPHA.QA.B]B150.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:36 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

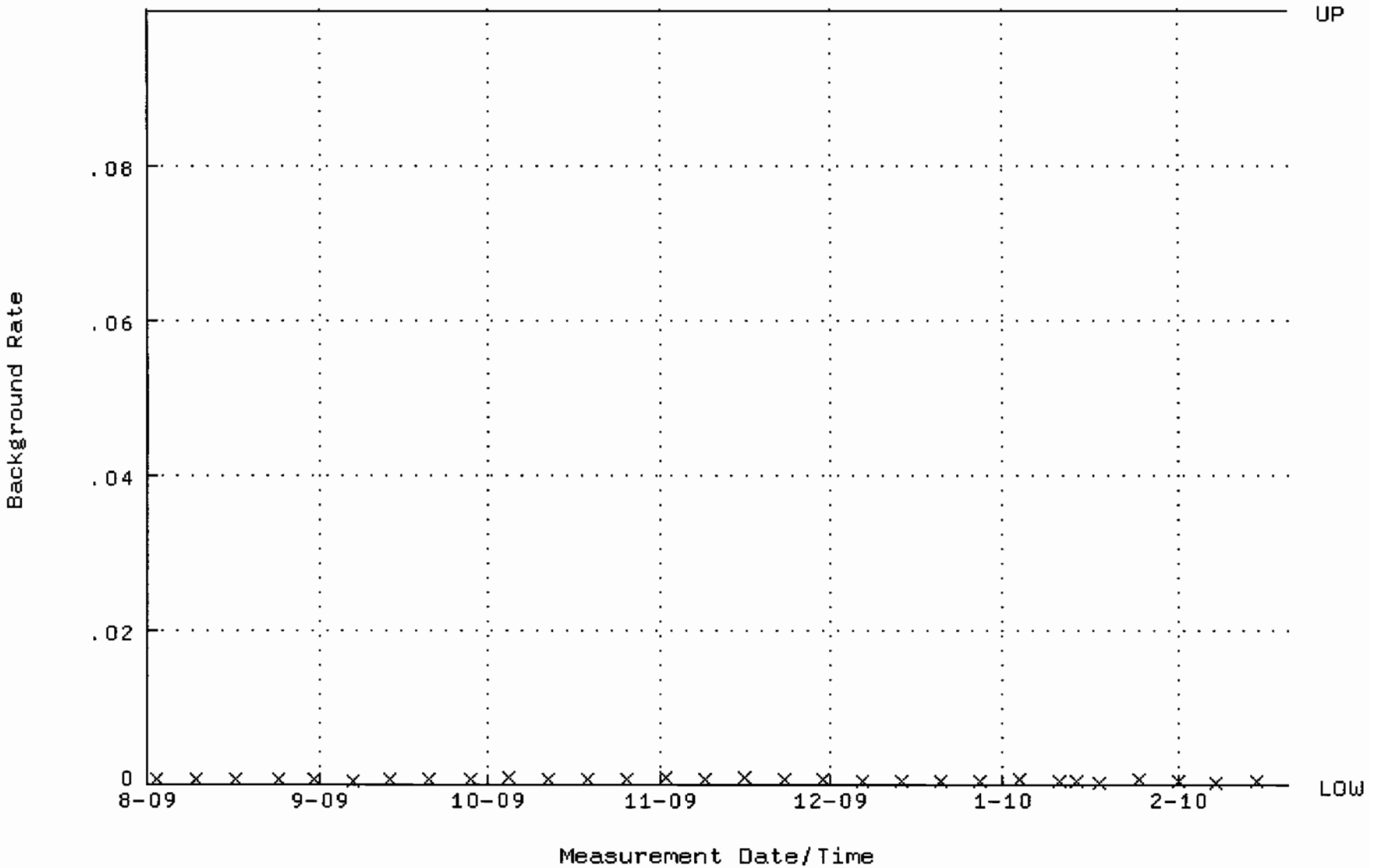

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:22 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.233693 through 0.253693

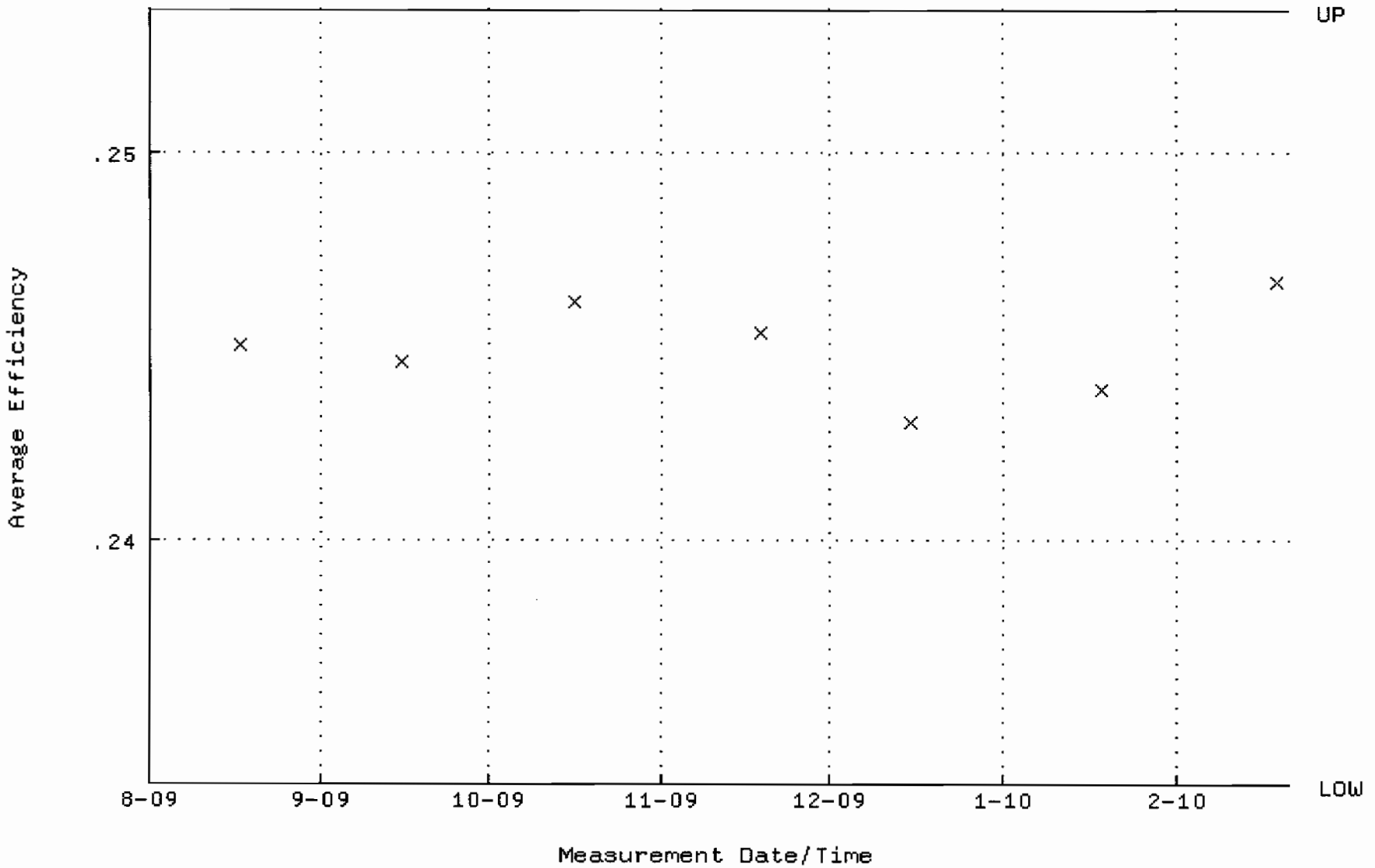

QA filename : DKA100:[ENV_ALPHA.QA.W]W151.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:22 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 86.5749 through 95.6881

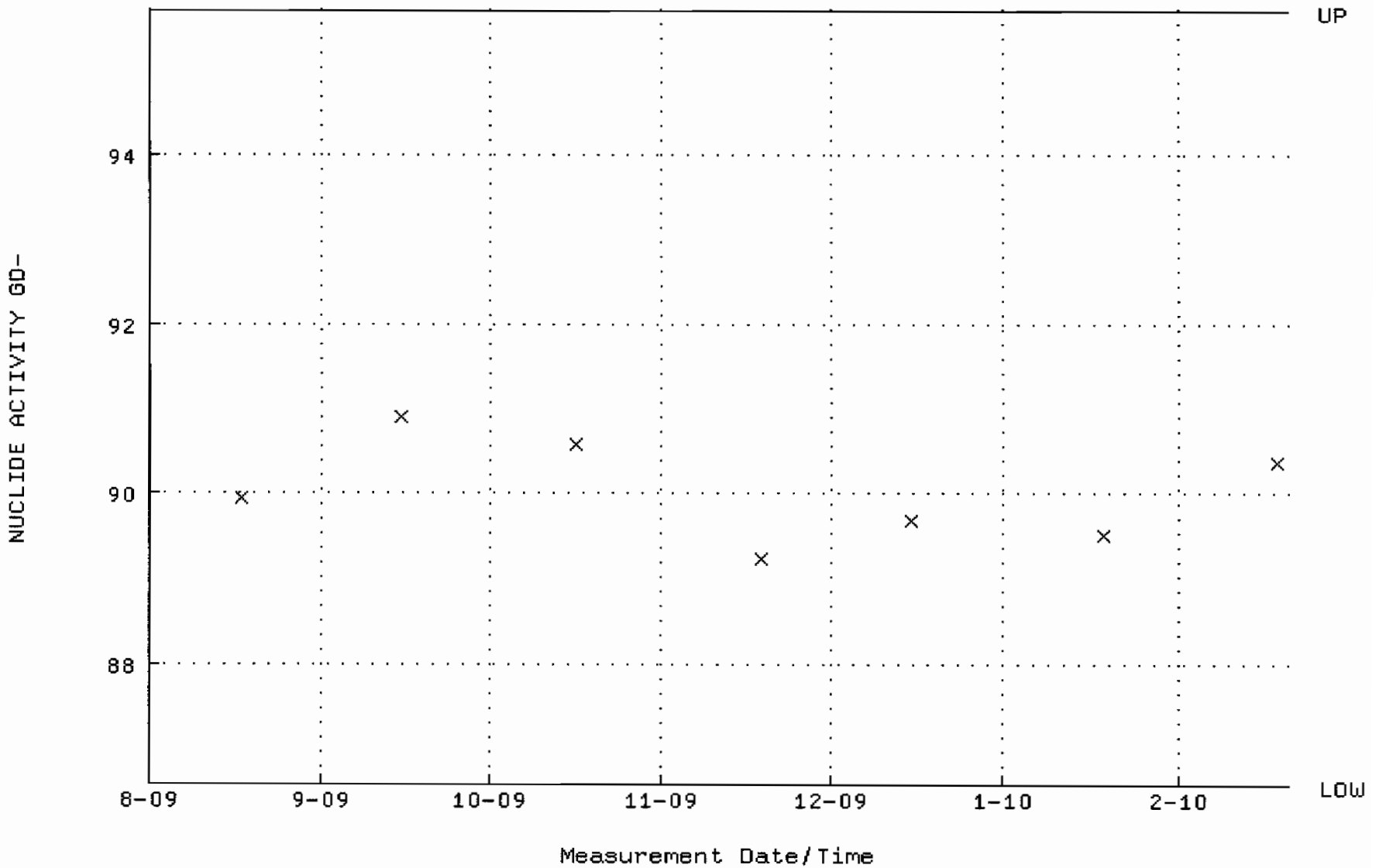

QA filename : DKA100:[ENV_ALPHA.QA.B]B151.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:41 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

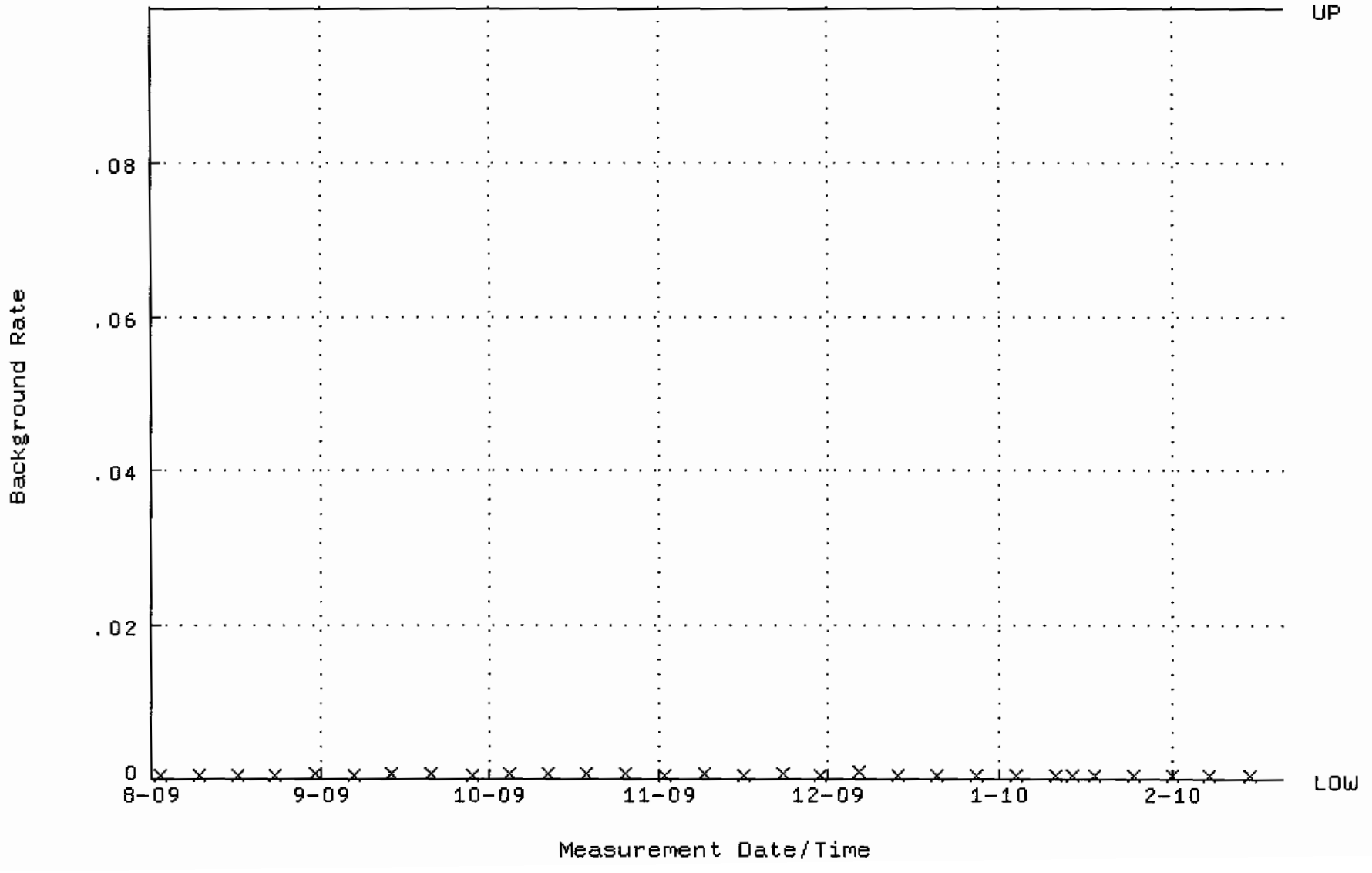

QA filename : DKA100:[ENV_ALPHA.QA.W]W198.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:43:18 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.245817 through 0.265817

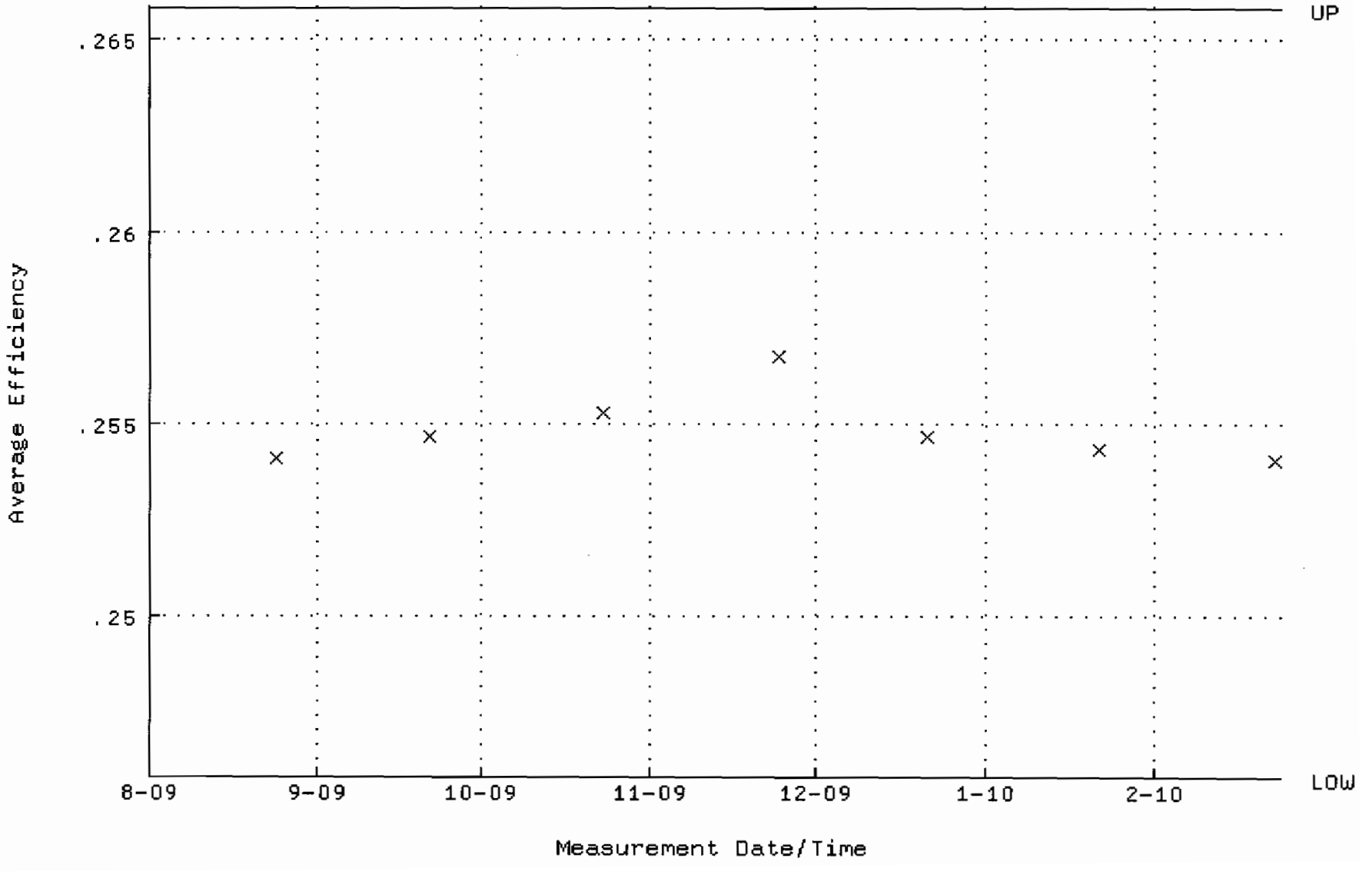

QA filename : DKA100:[ENV_ALPHA.QA.W]W198.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:43:18 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 83.8978 through 92.7292

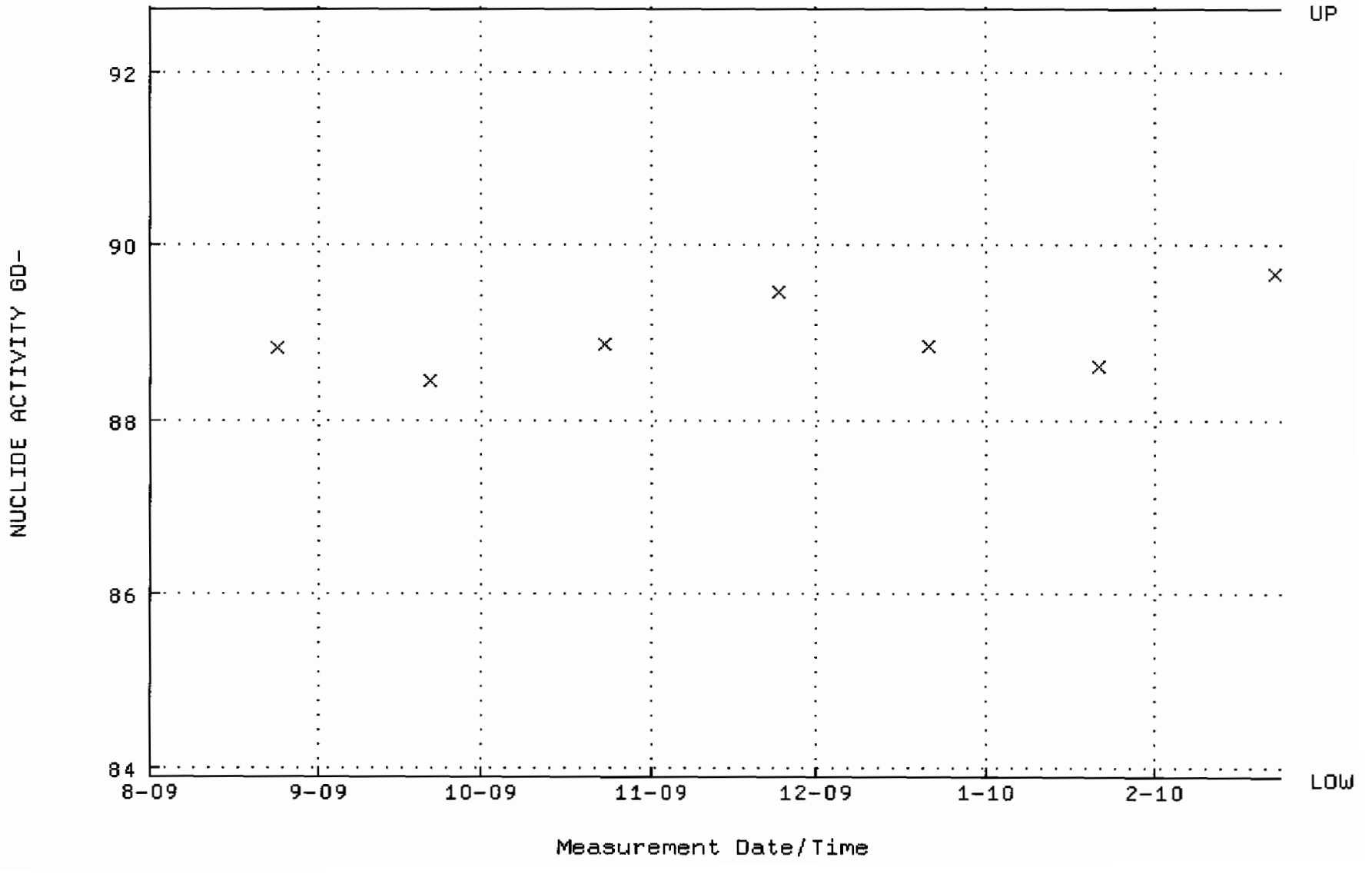

QA filename : DKA100:[ENV_ALPHA.QA.B]B198.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:24:20 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

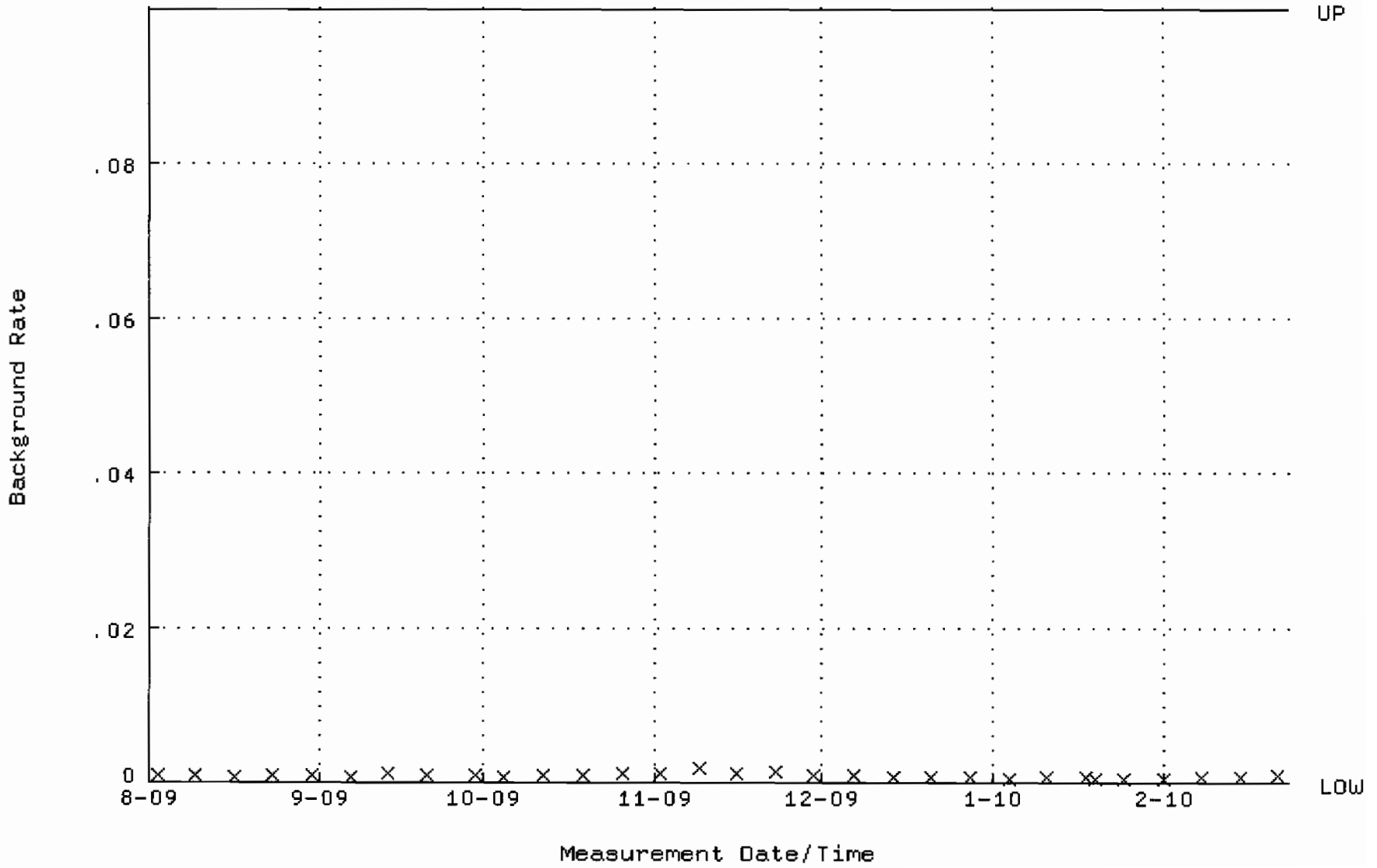

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362134 through 0.382134

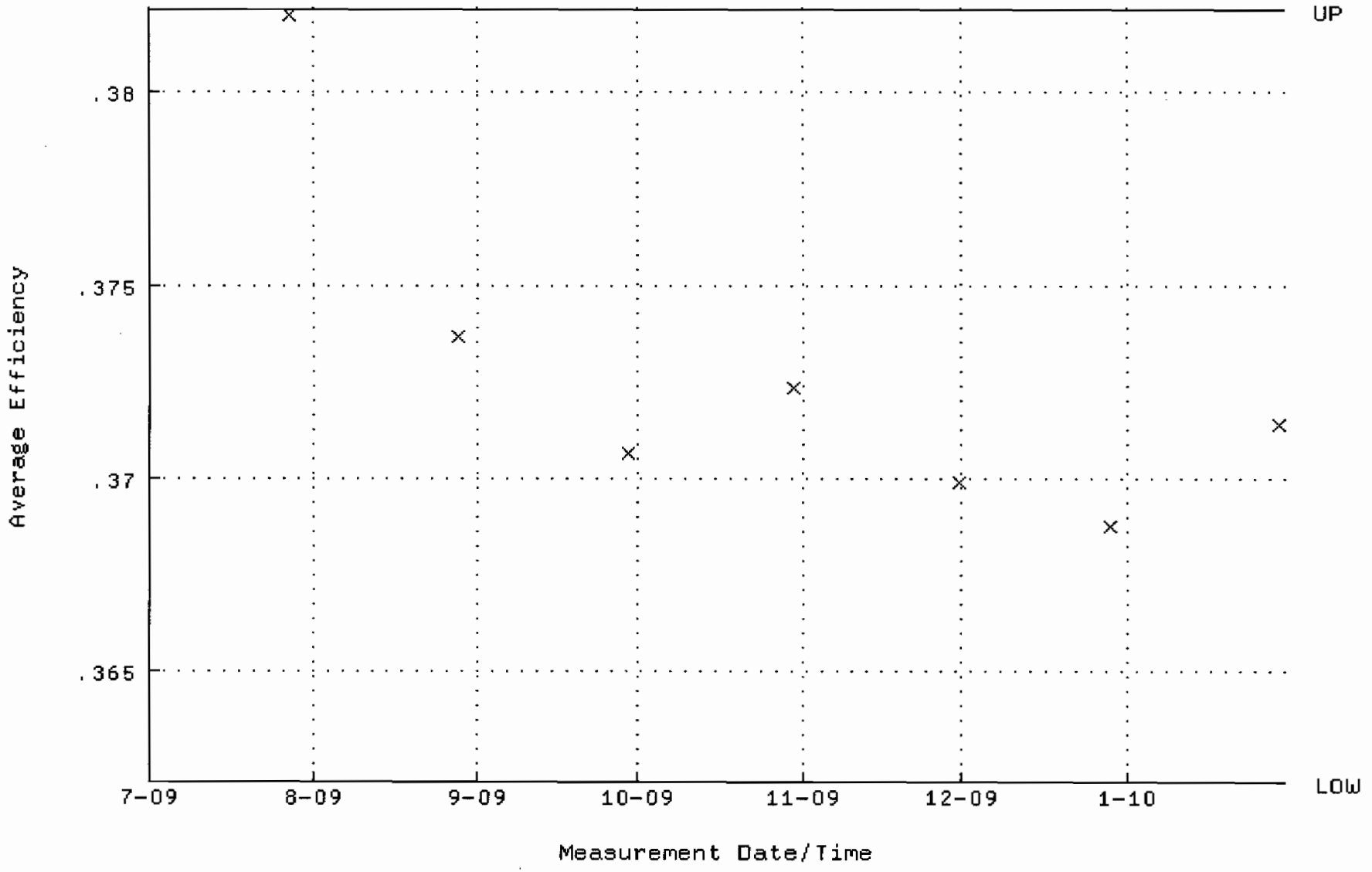

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 87.0370 through 96.1988

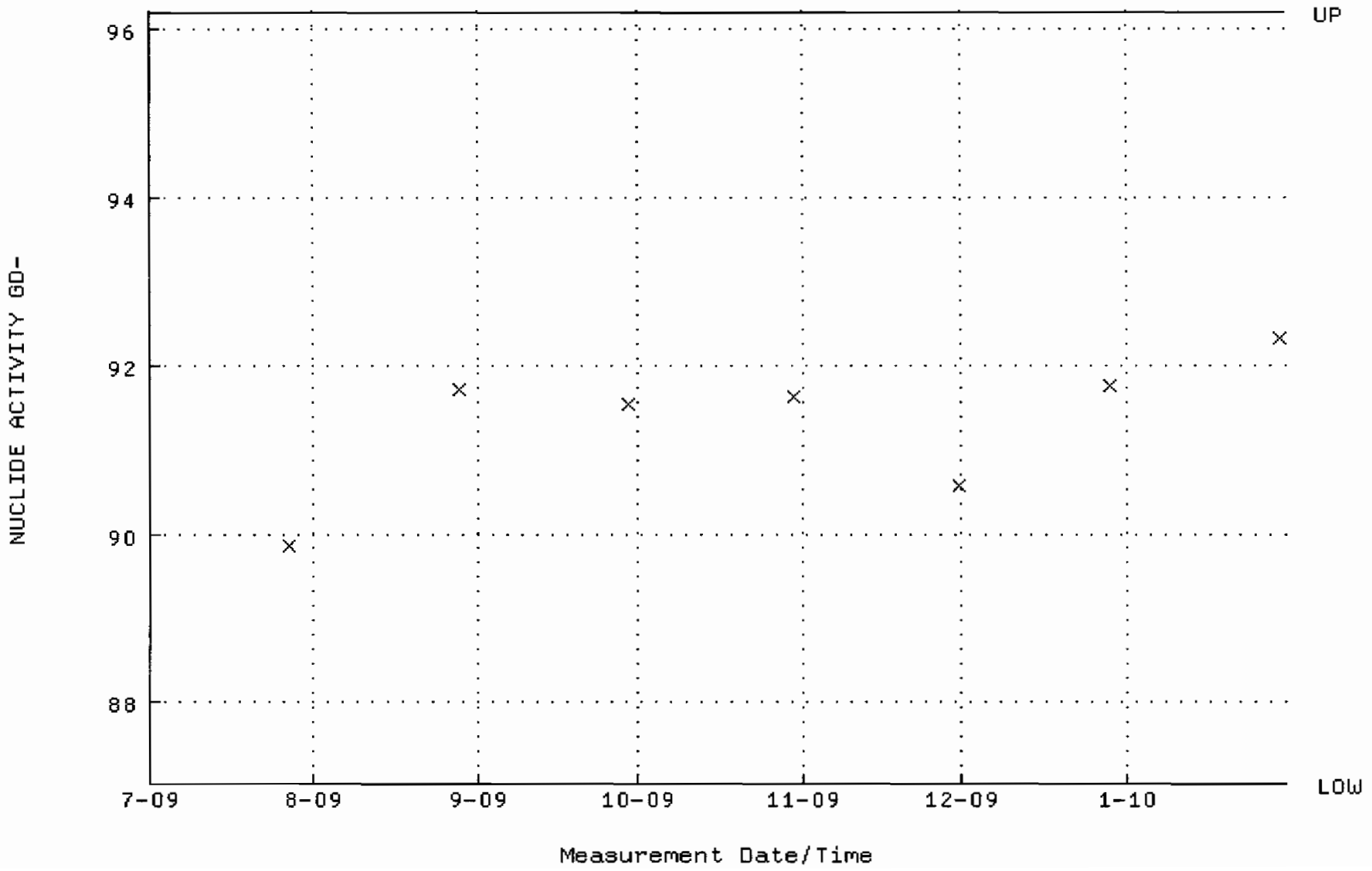

QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

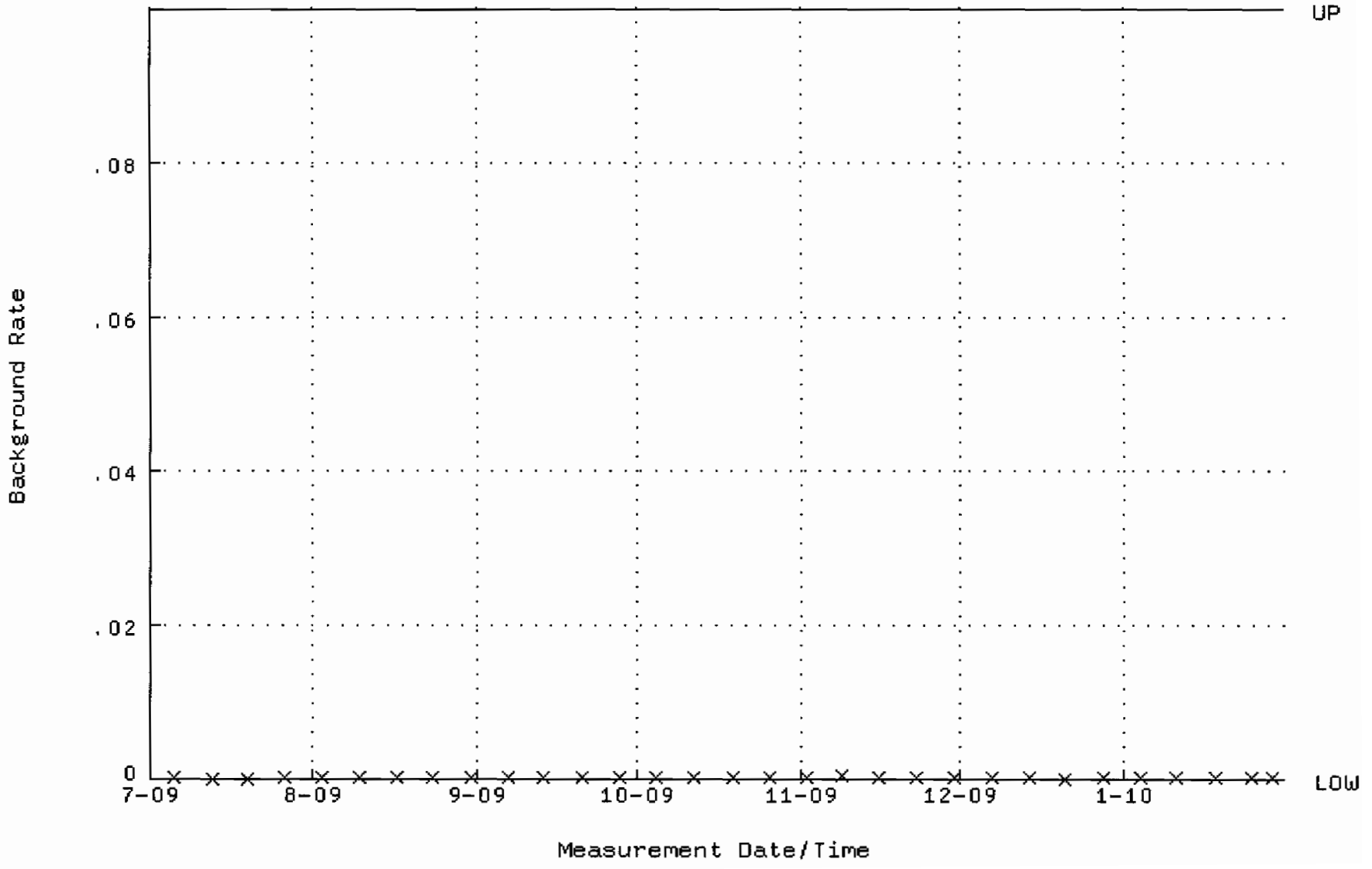

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:22 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.364789 through 0.384789

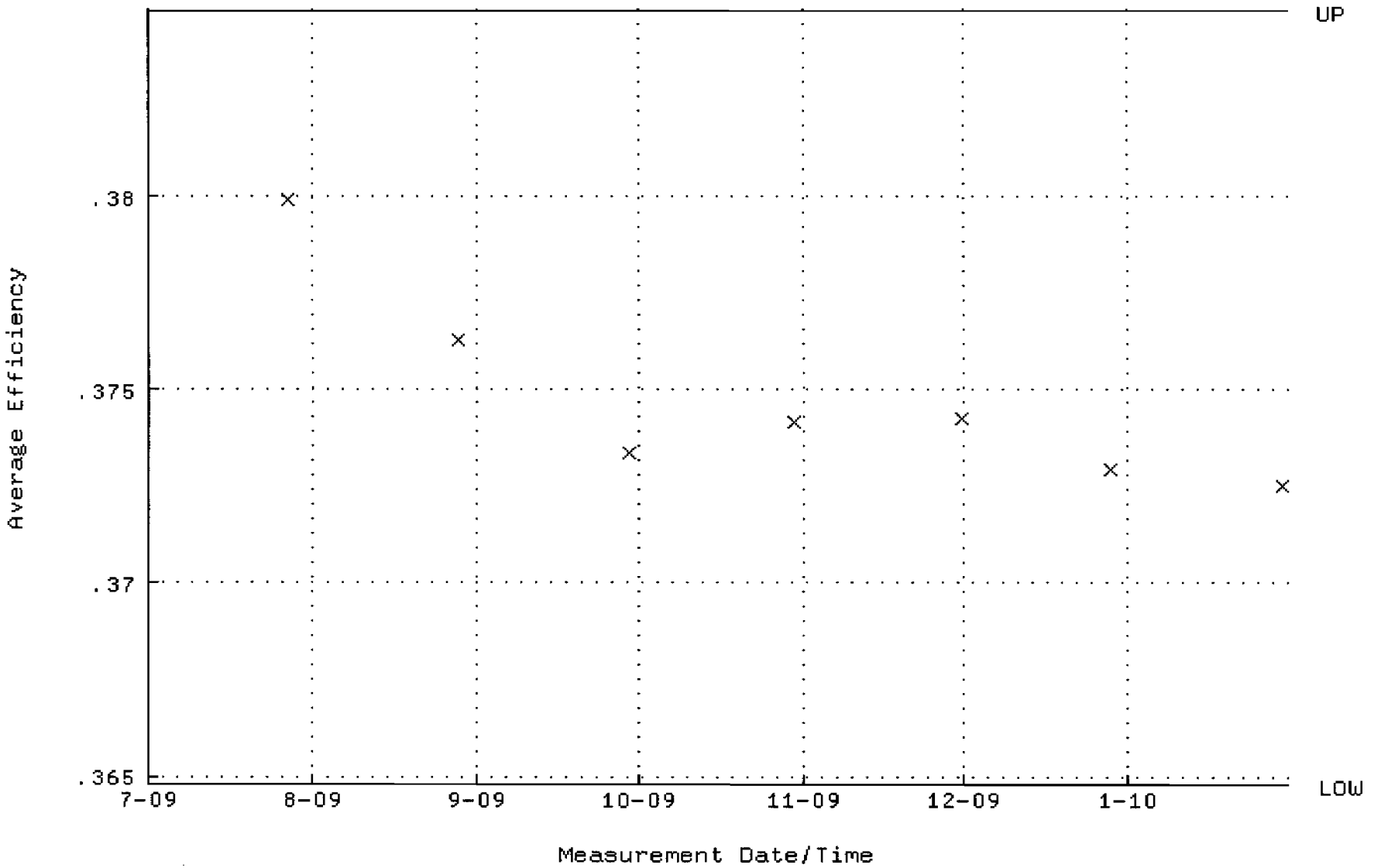

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:22 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.2691 through 97.5605

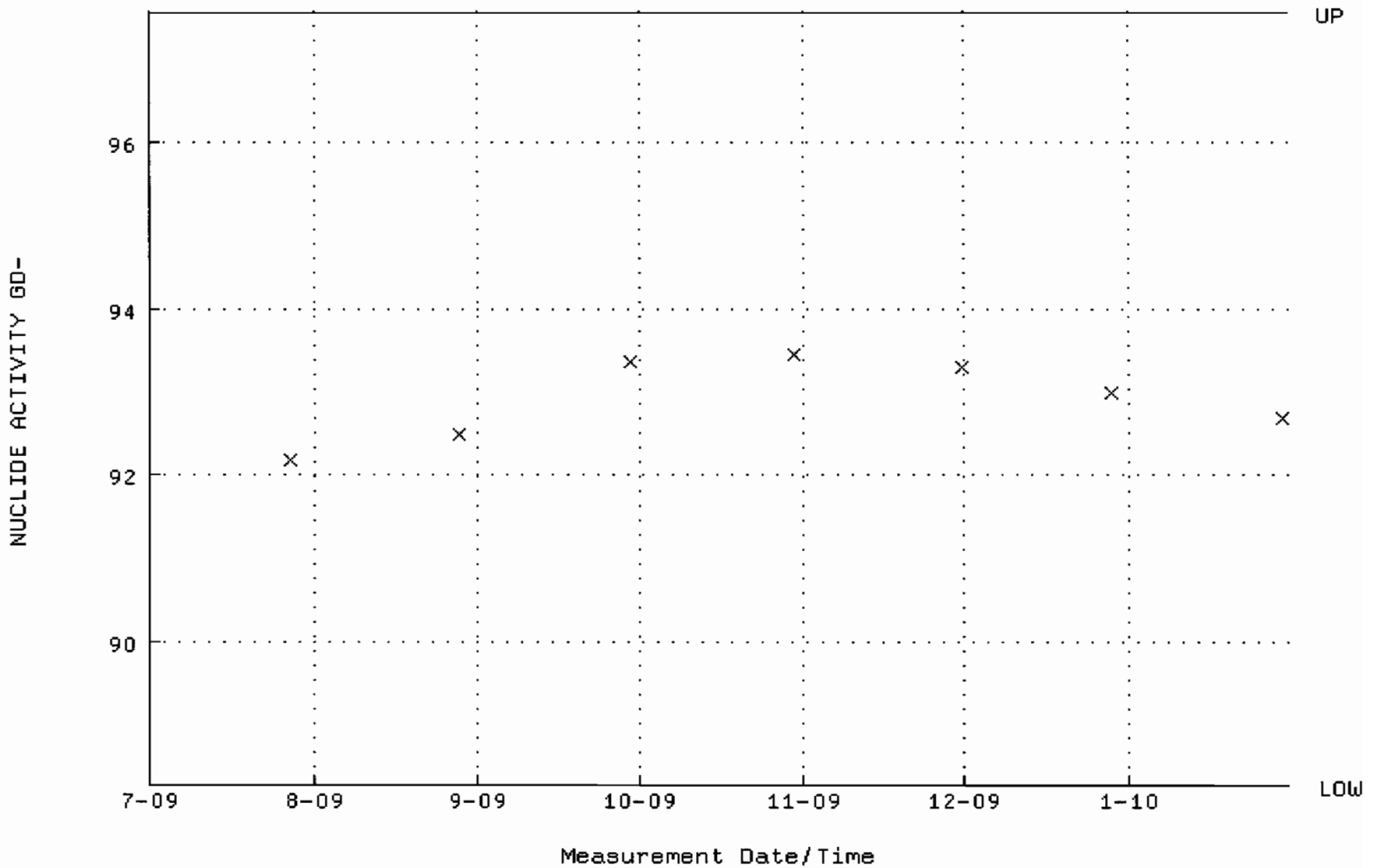

QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:53 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

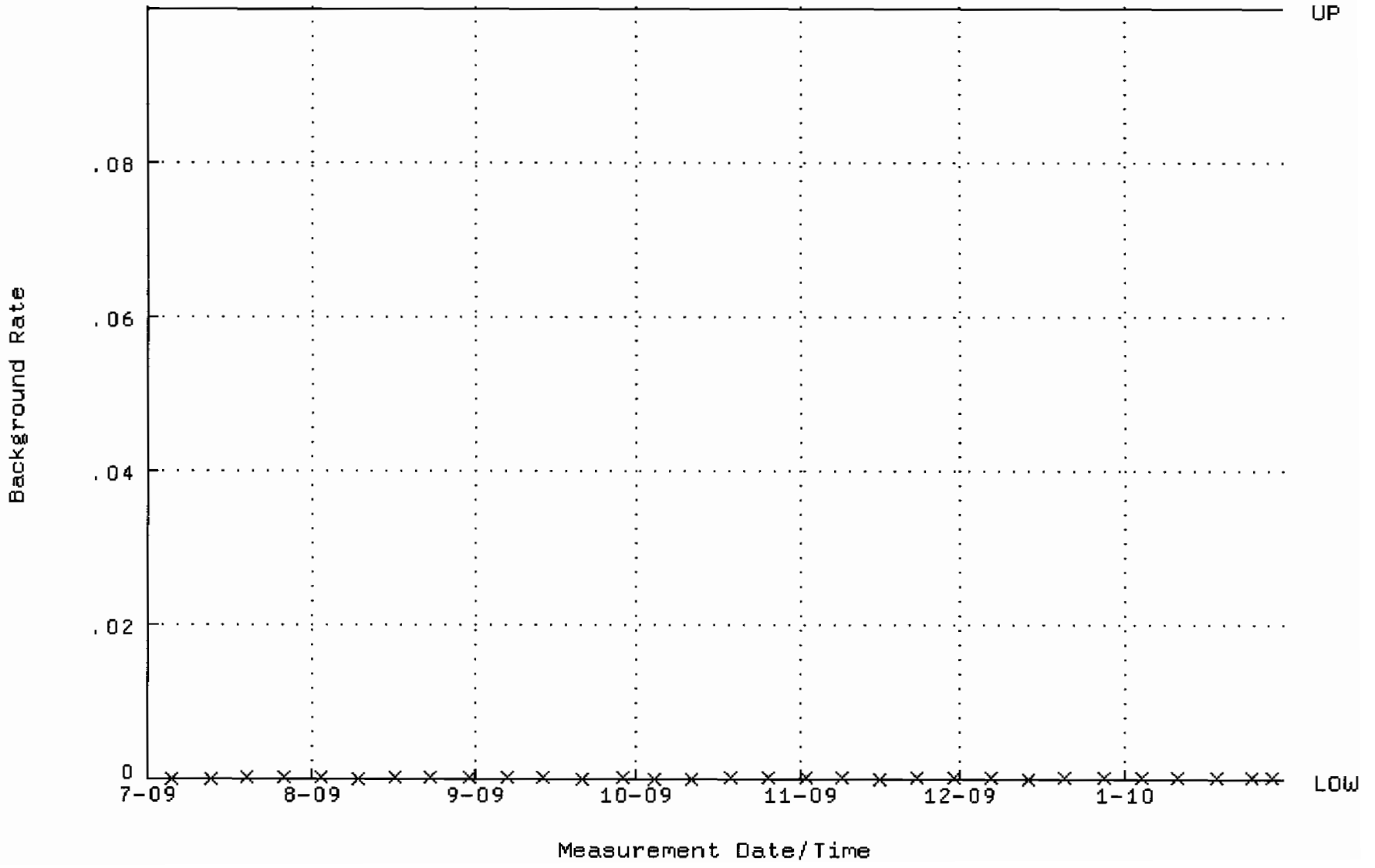

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.366240 through 0.386240

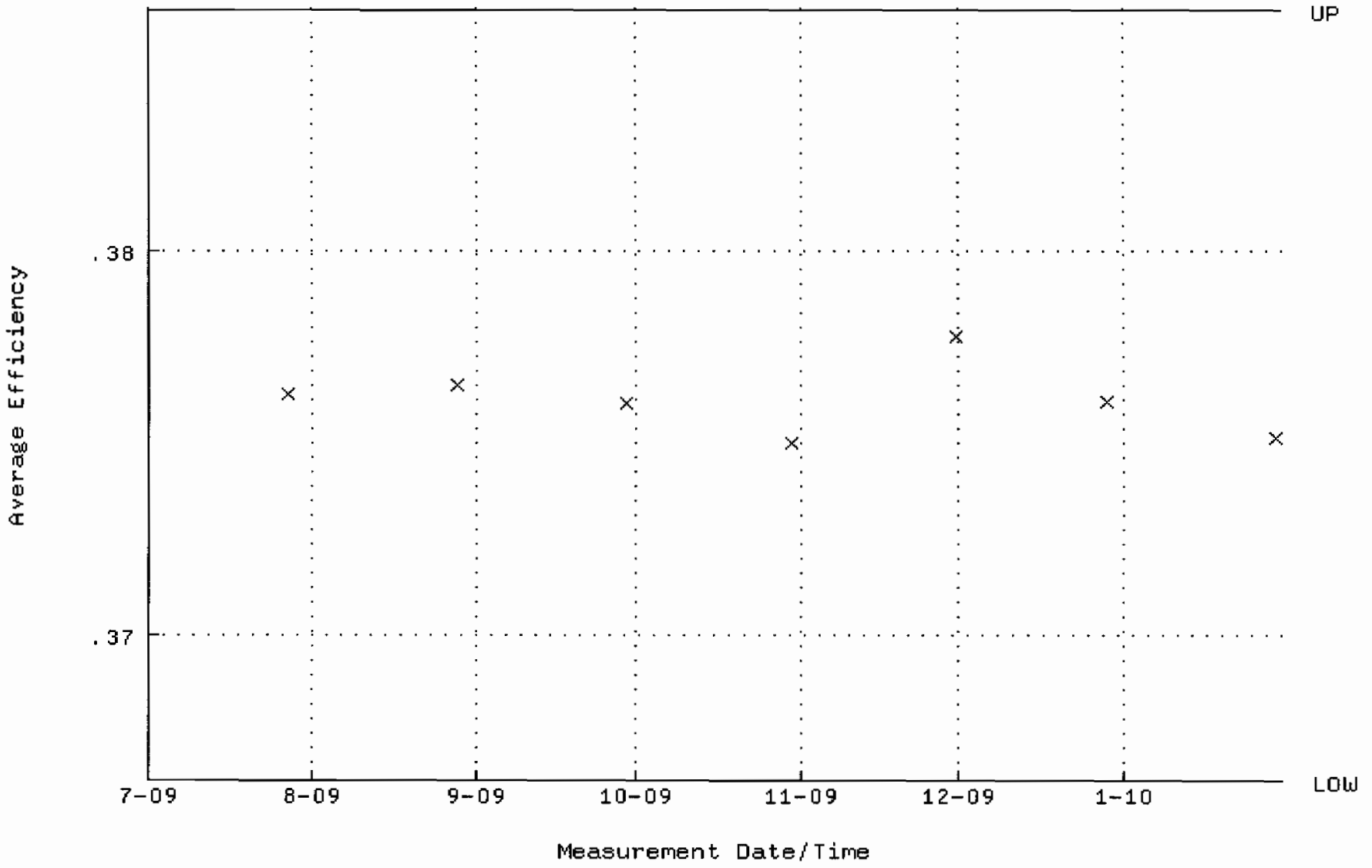

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 85.7127 through 94.7351

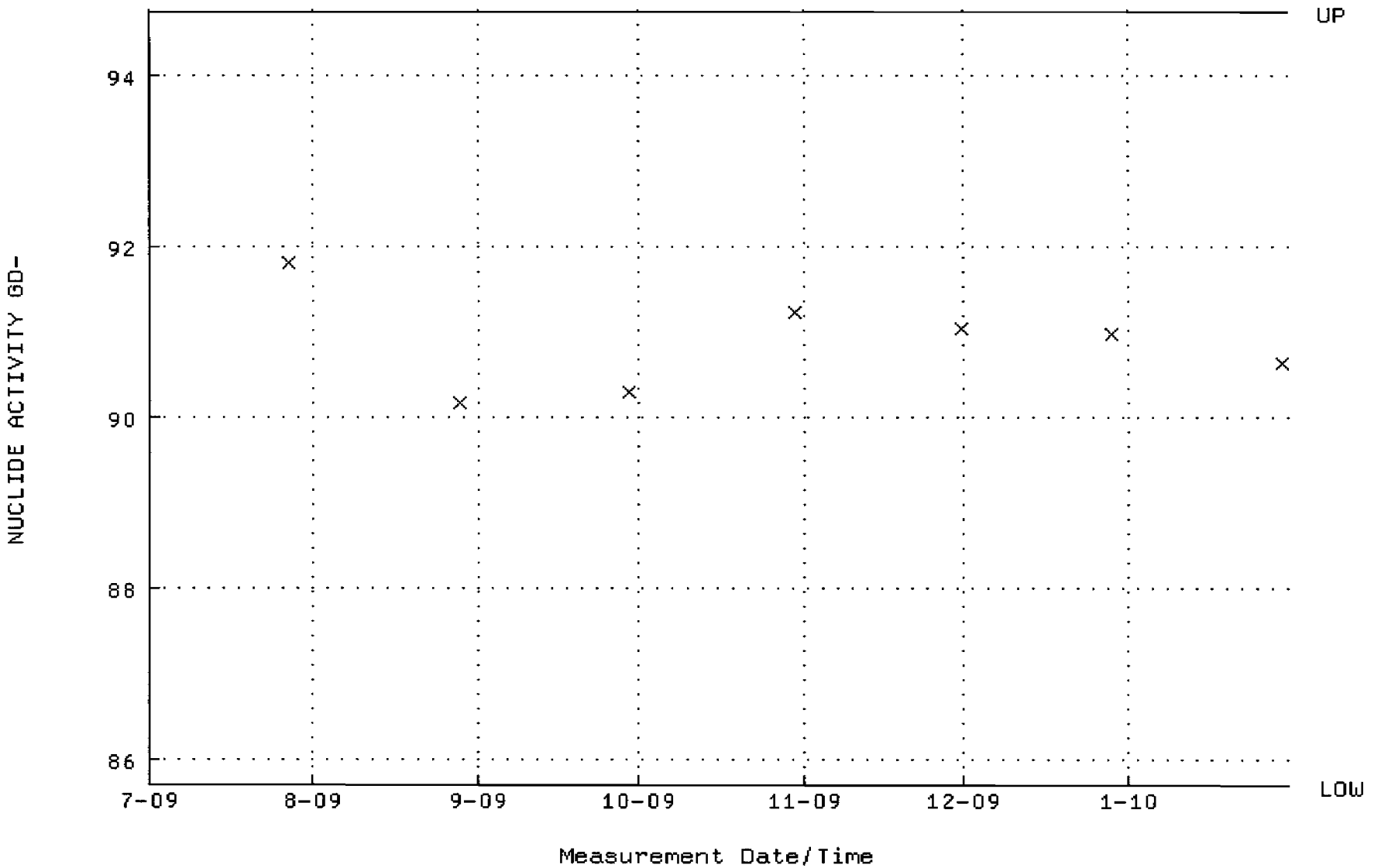

QA filename : DKA100:[ENV_ALPHA.QA.B]B230.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

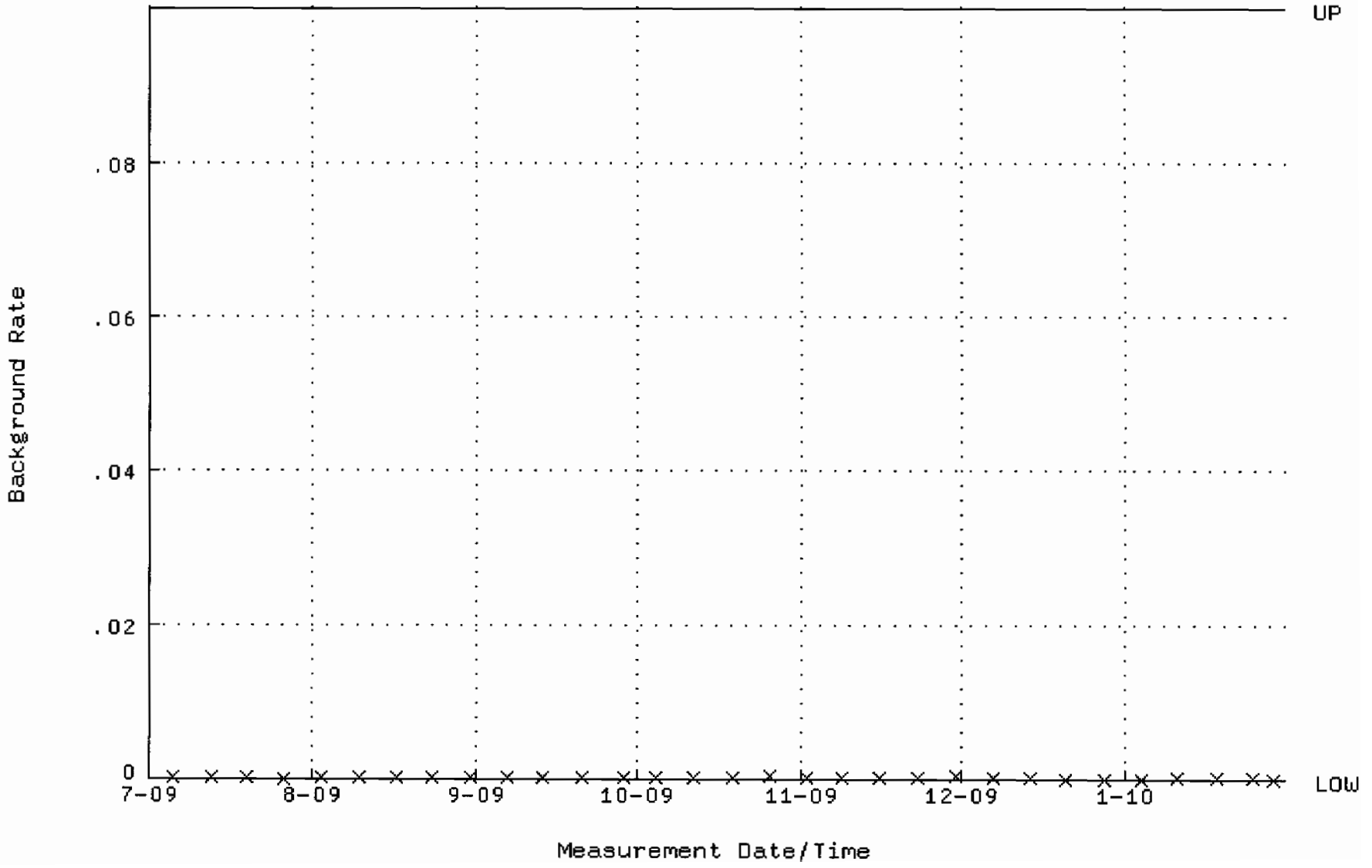

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.364314 through 0.384314

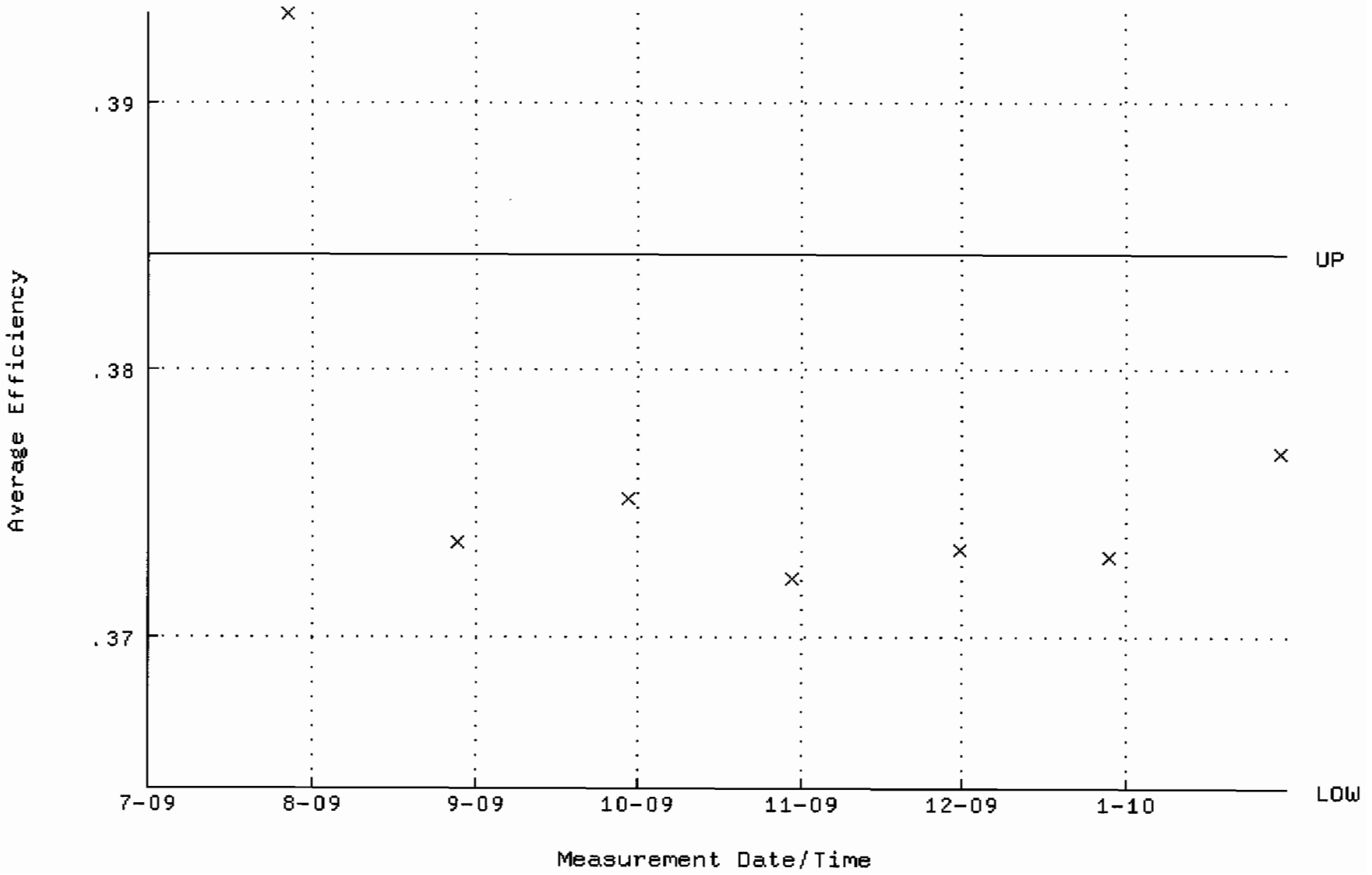

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7416 through 92.5566

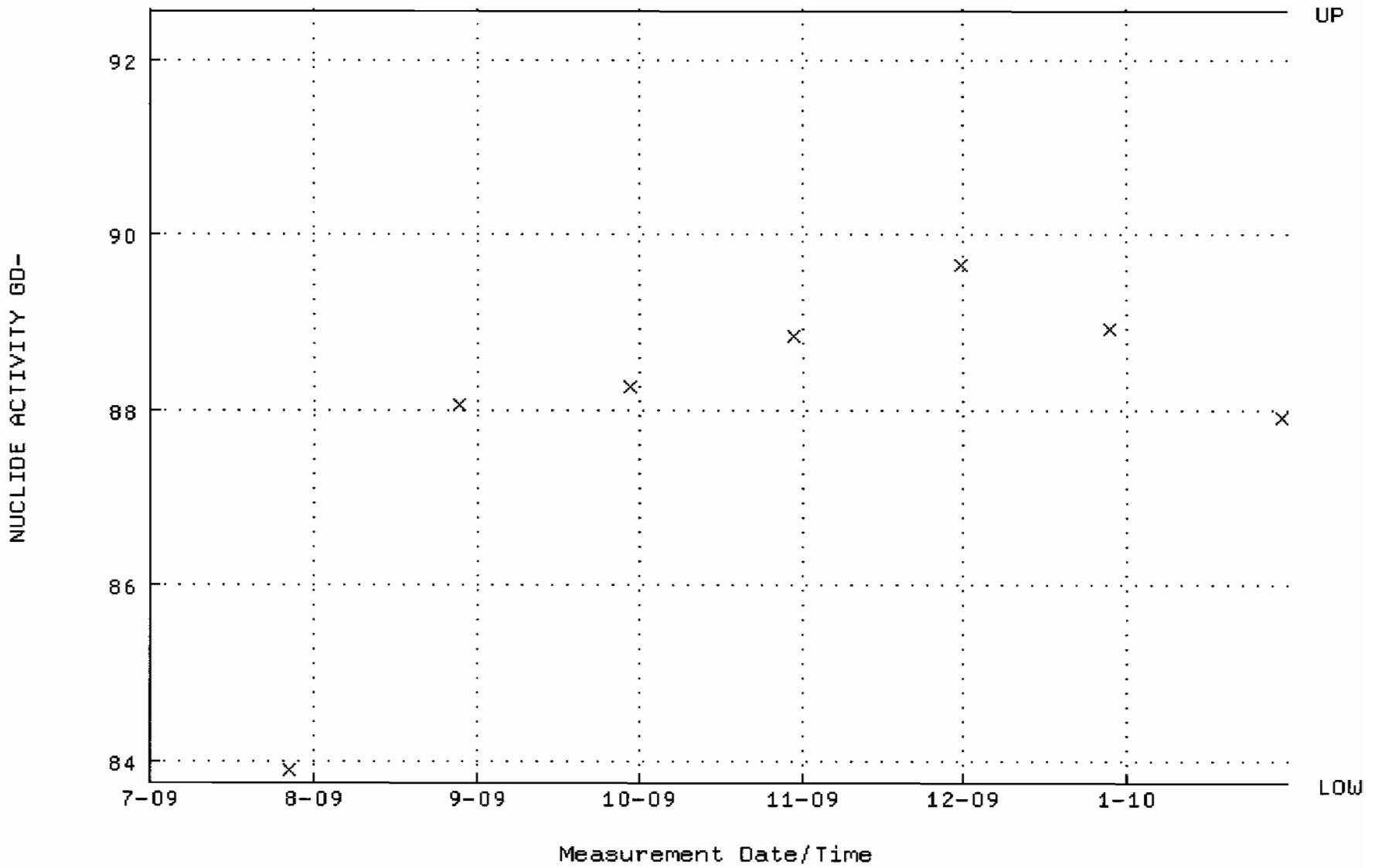

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

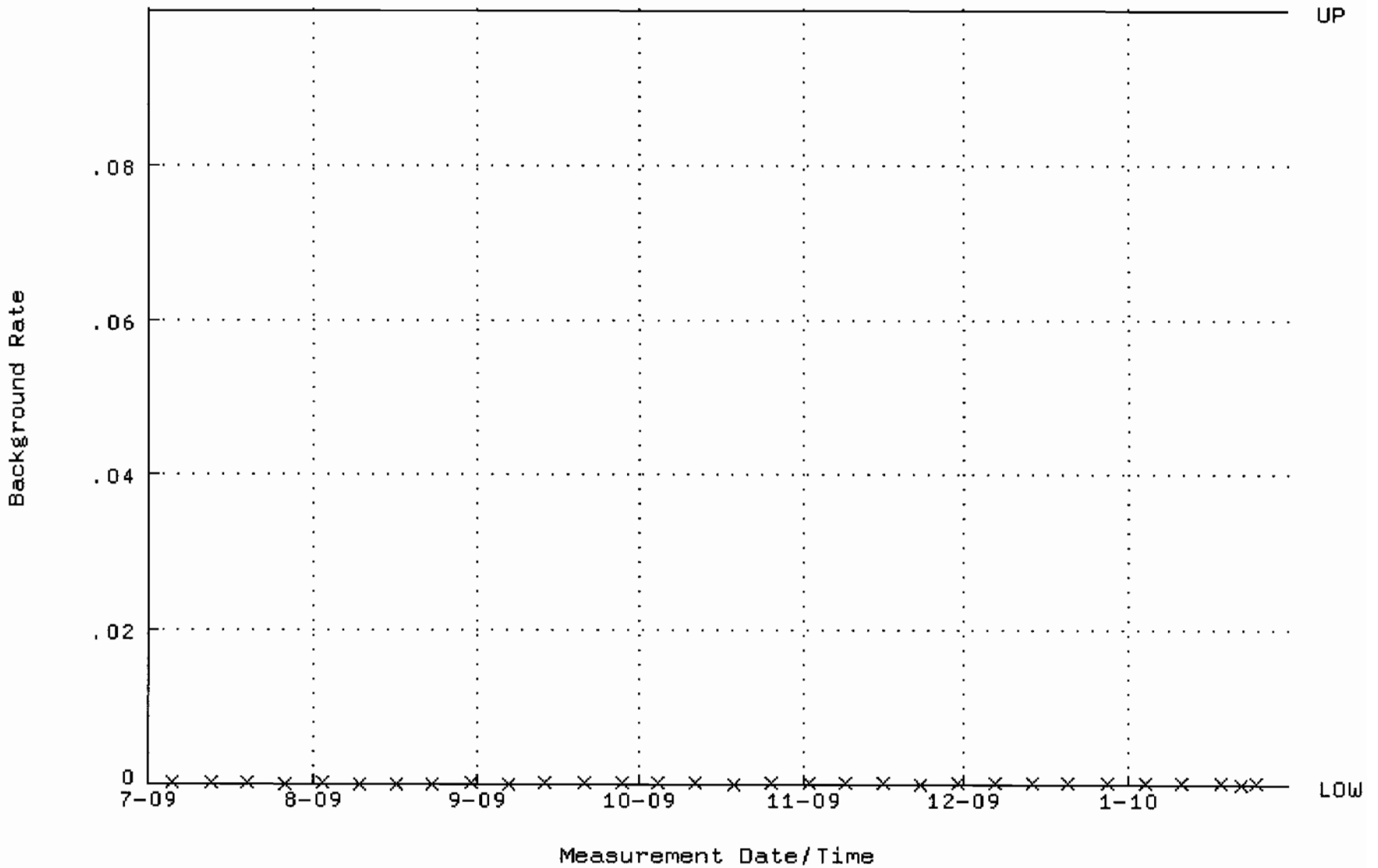

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.378766 through 0.398766

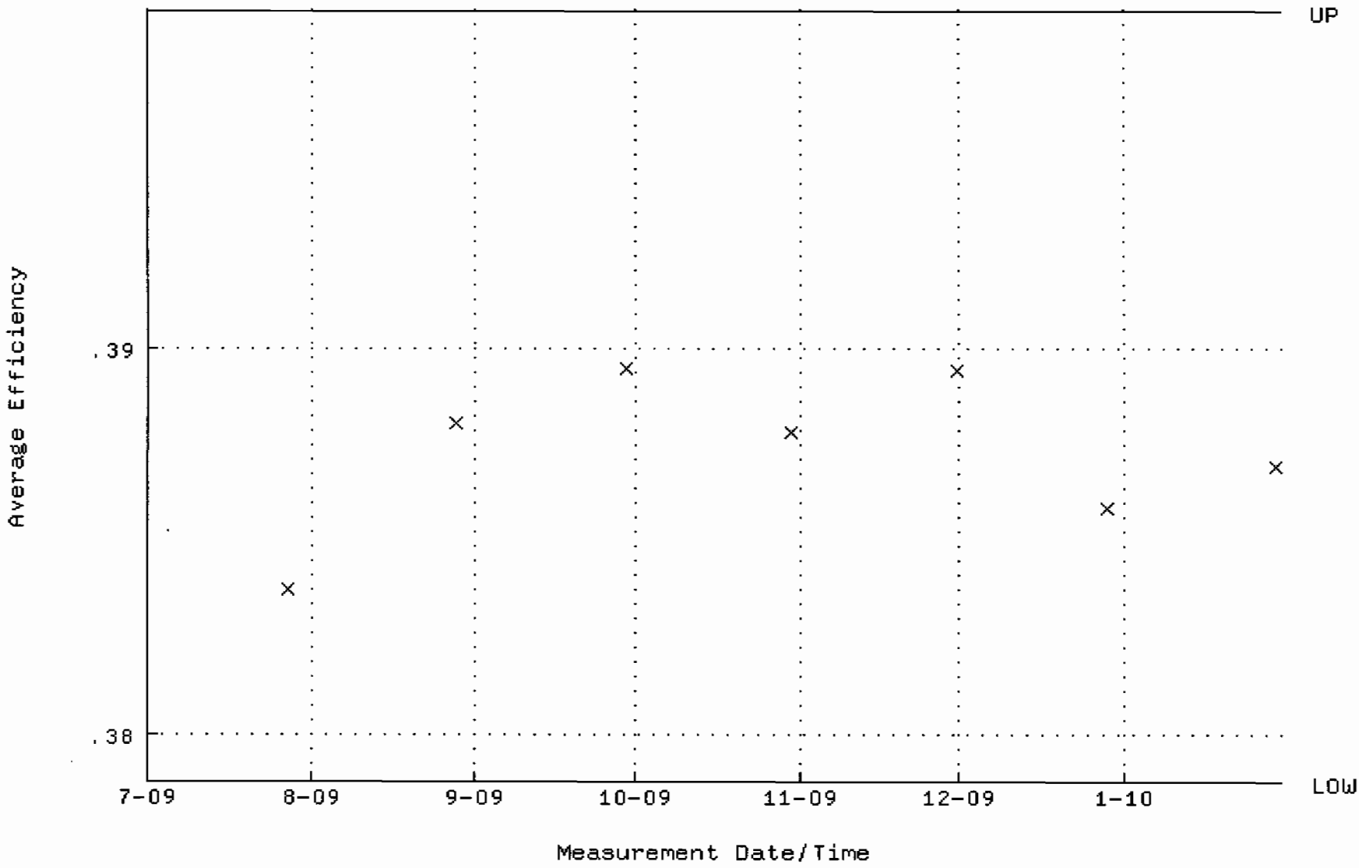

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 81.8490 through 90.4646

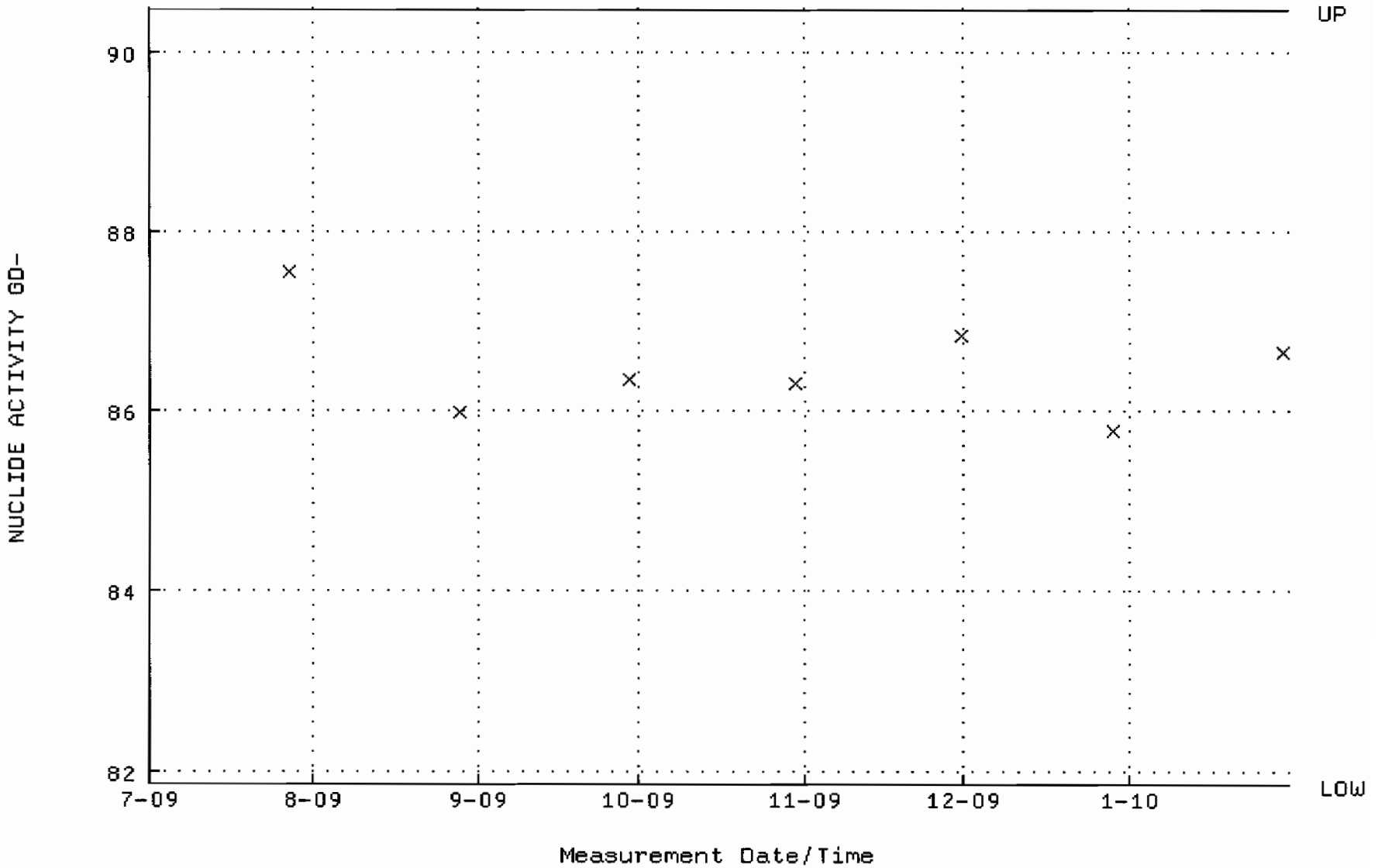

QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

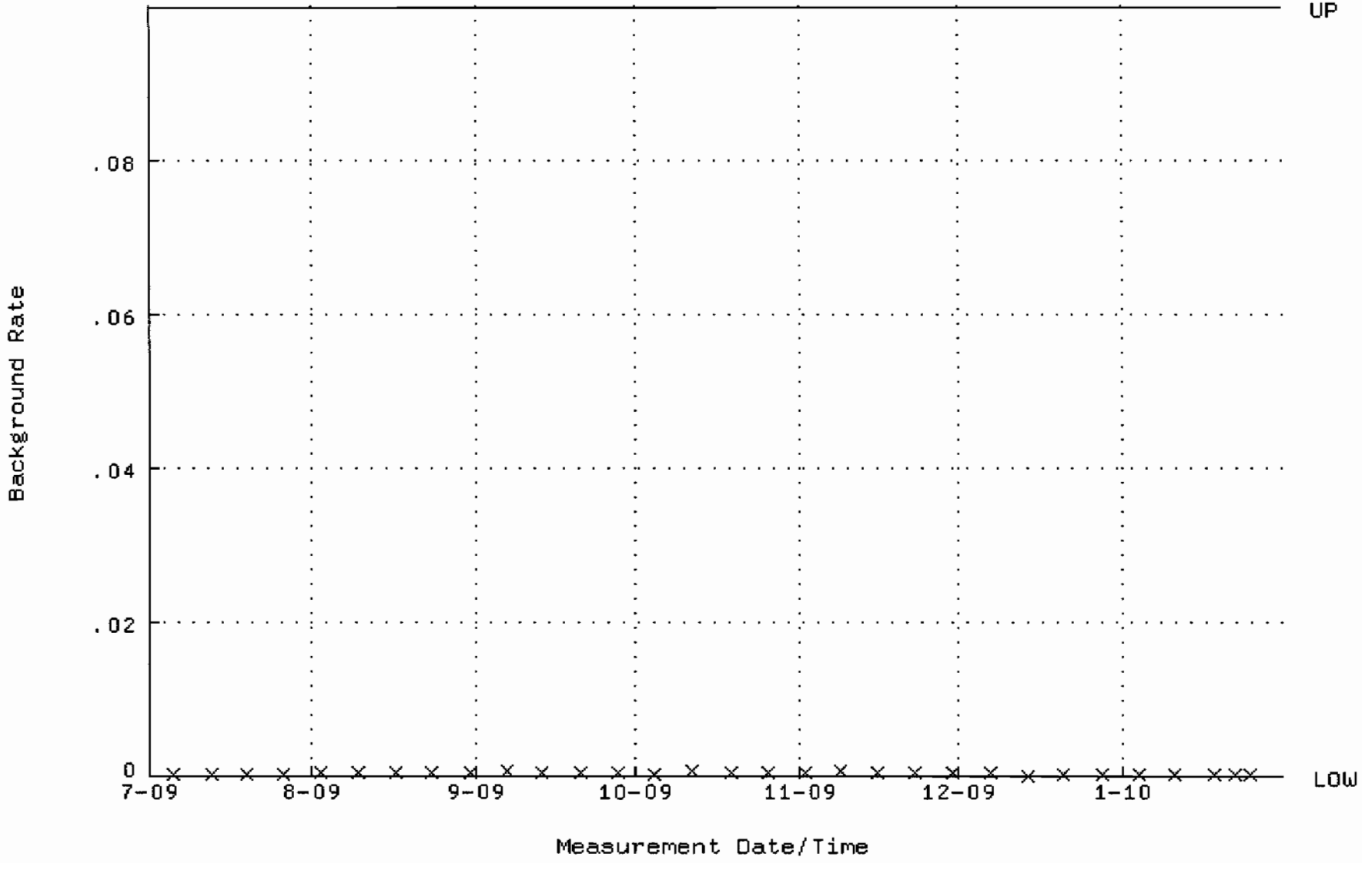

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.386660 through 0.406660

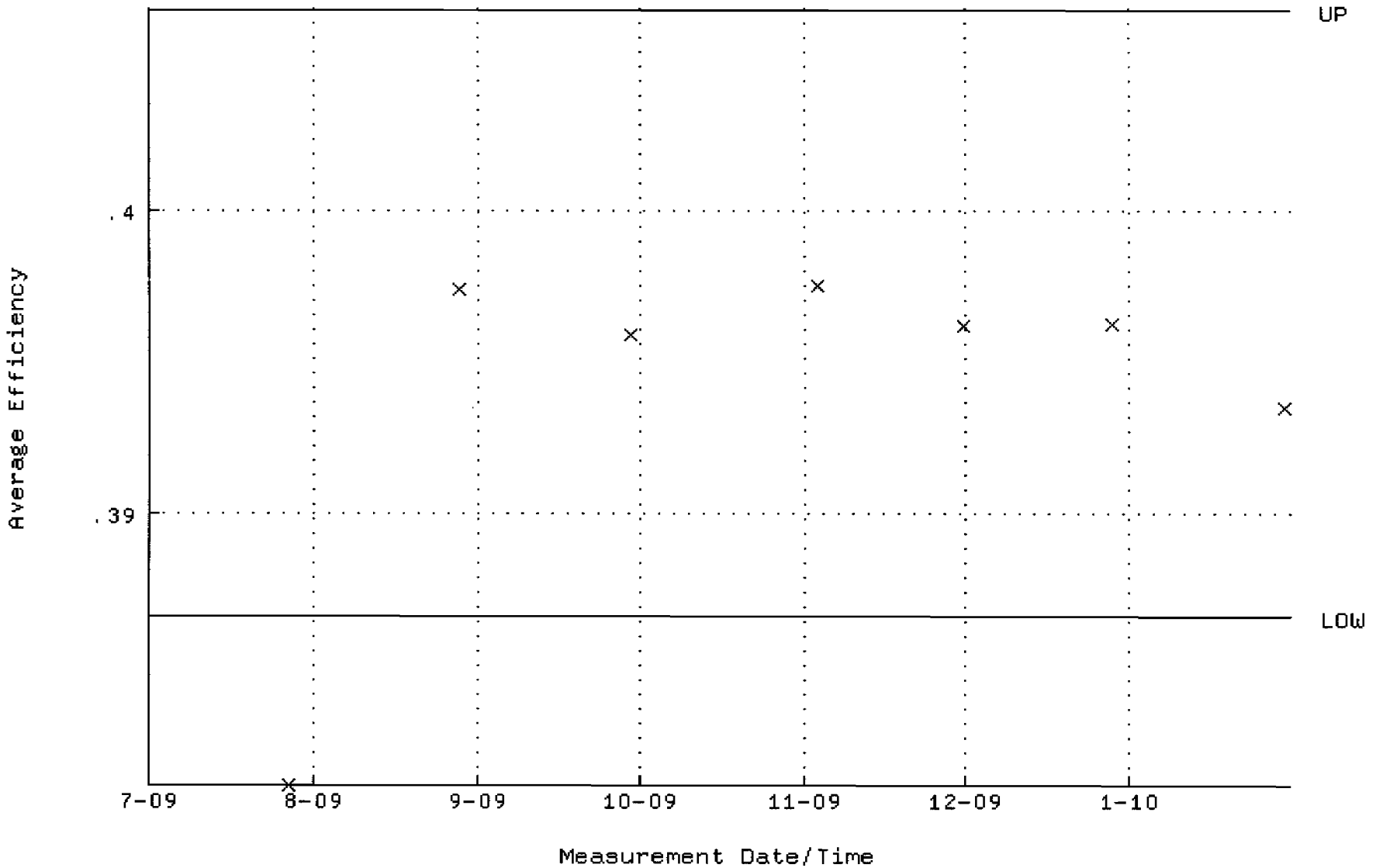

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 80.1146 through 88.5478

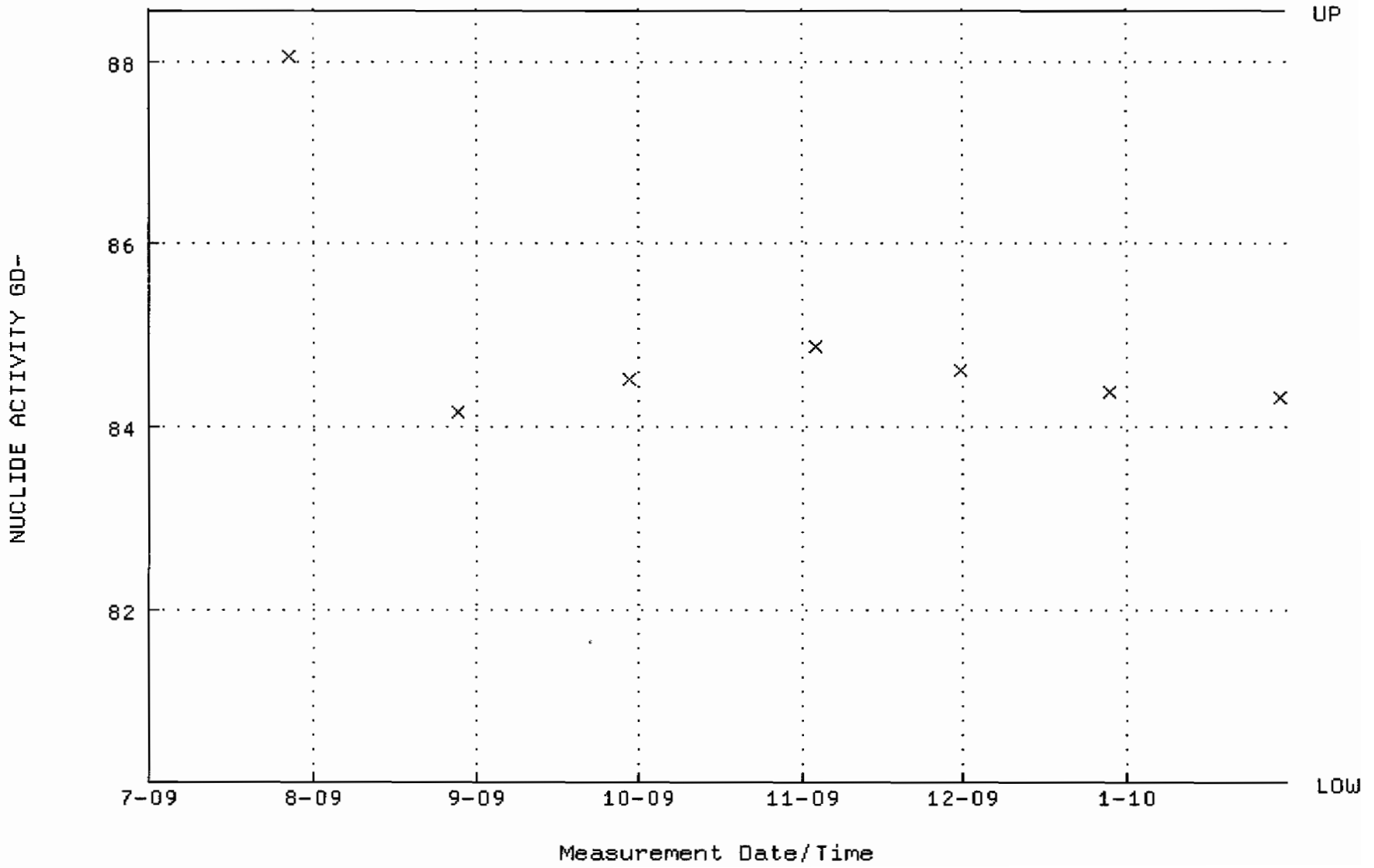

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:34 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

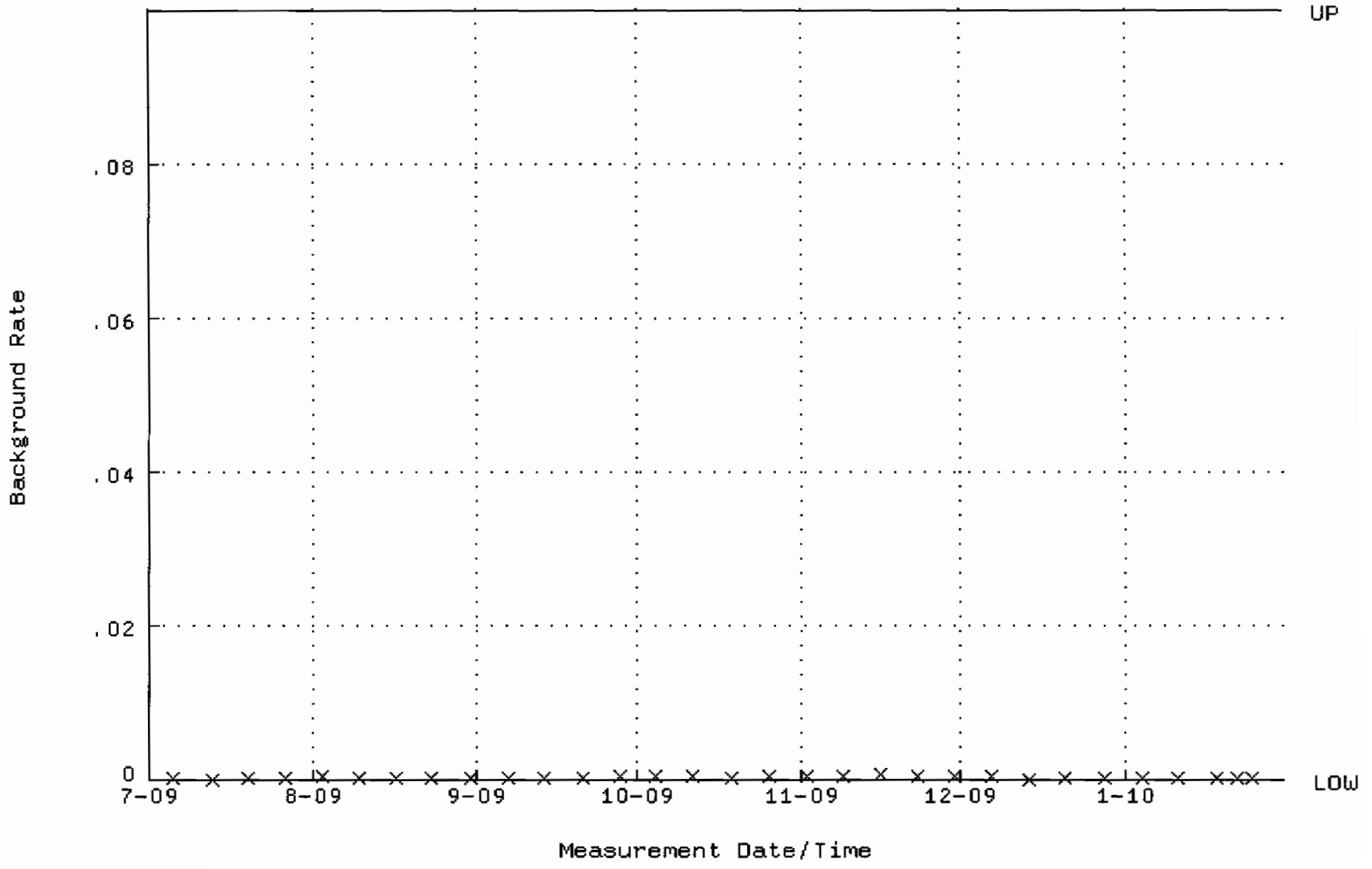

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:26 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.369142 through 0.389142

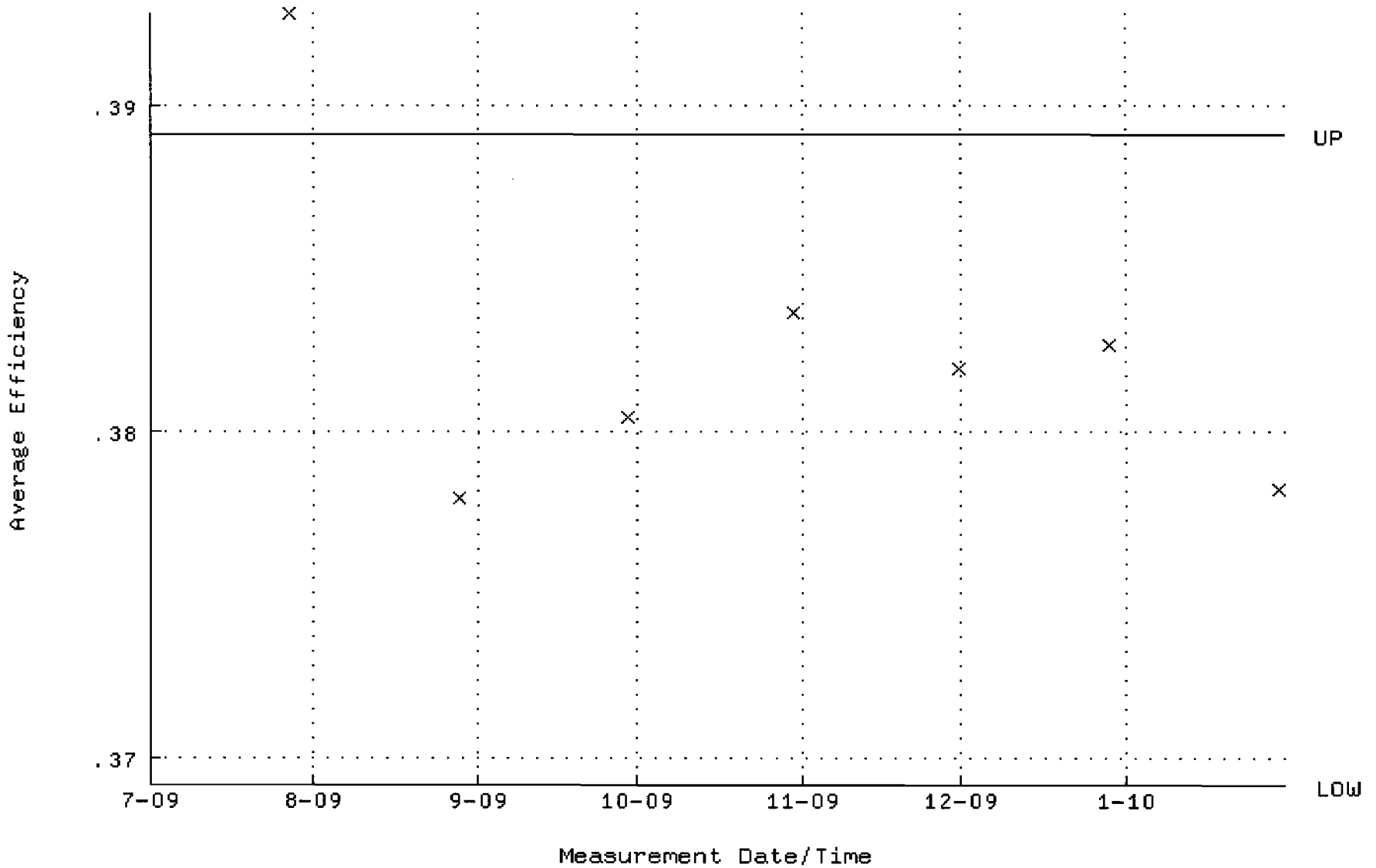

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:26 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.6848 through 92.4938

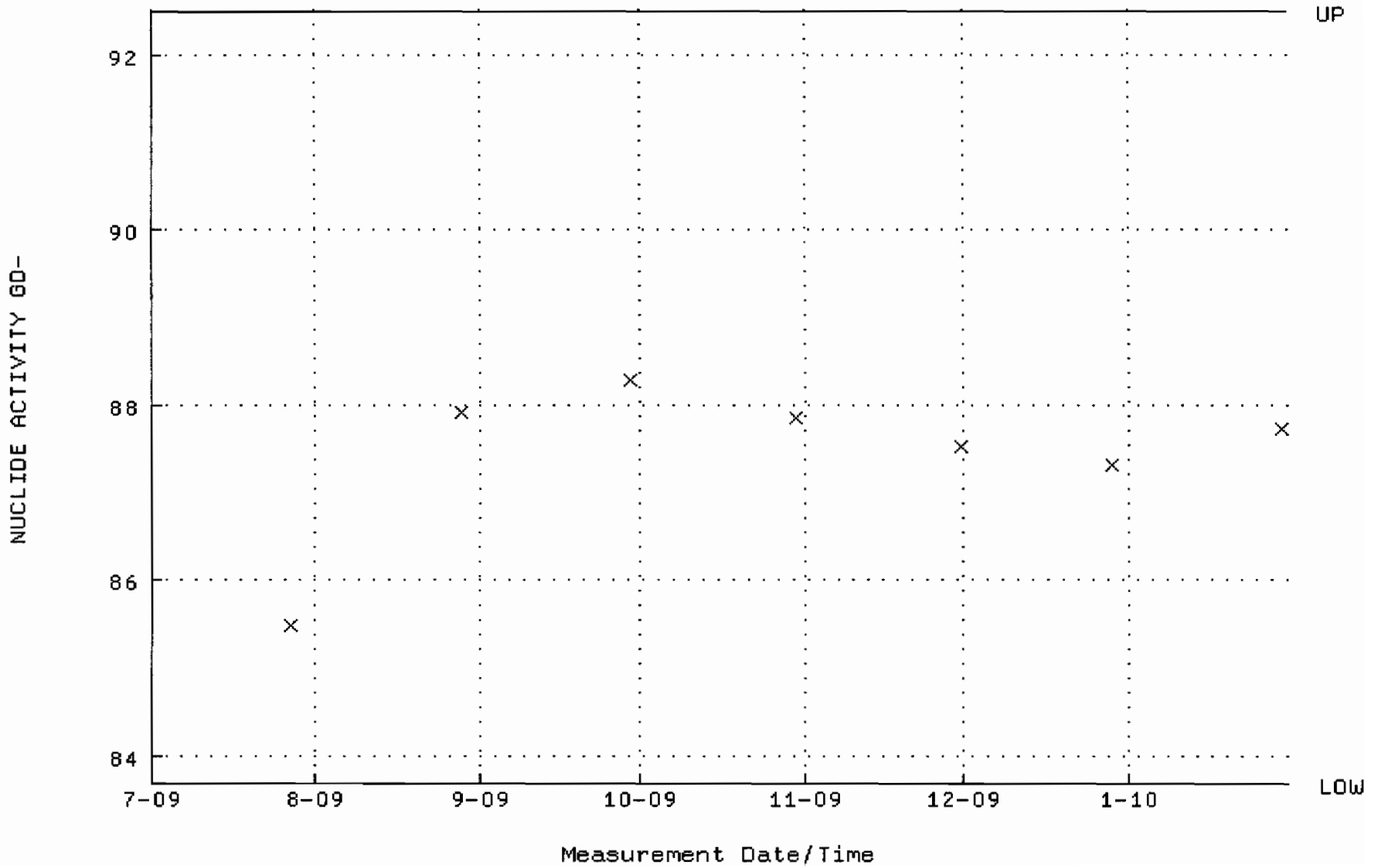

QA filename : DKA100:[ENV_ALPHA.QA.B]B239.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:39 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

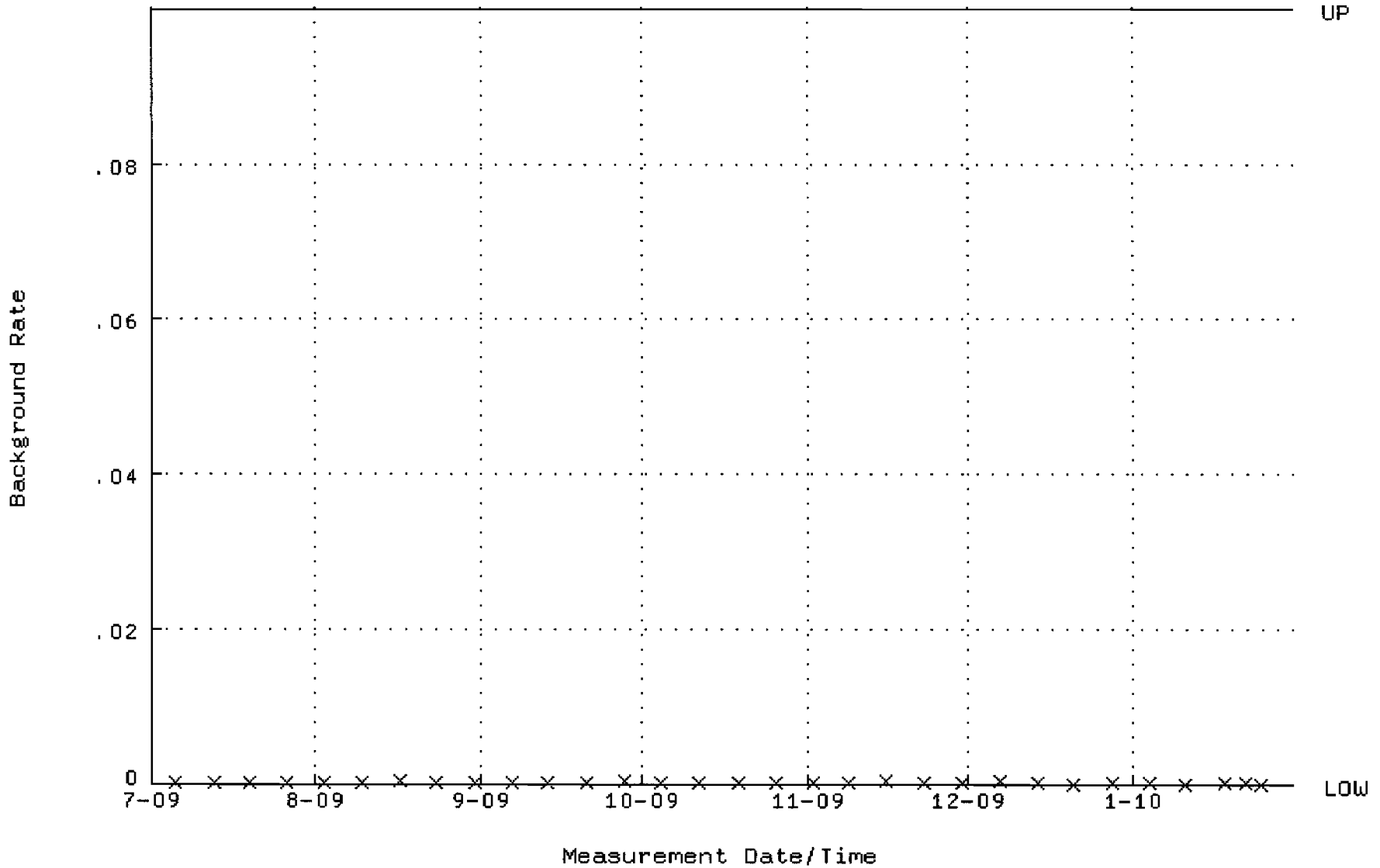

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:32 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362523 through 0.382523

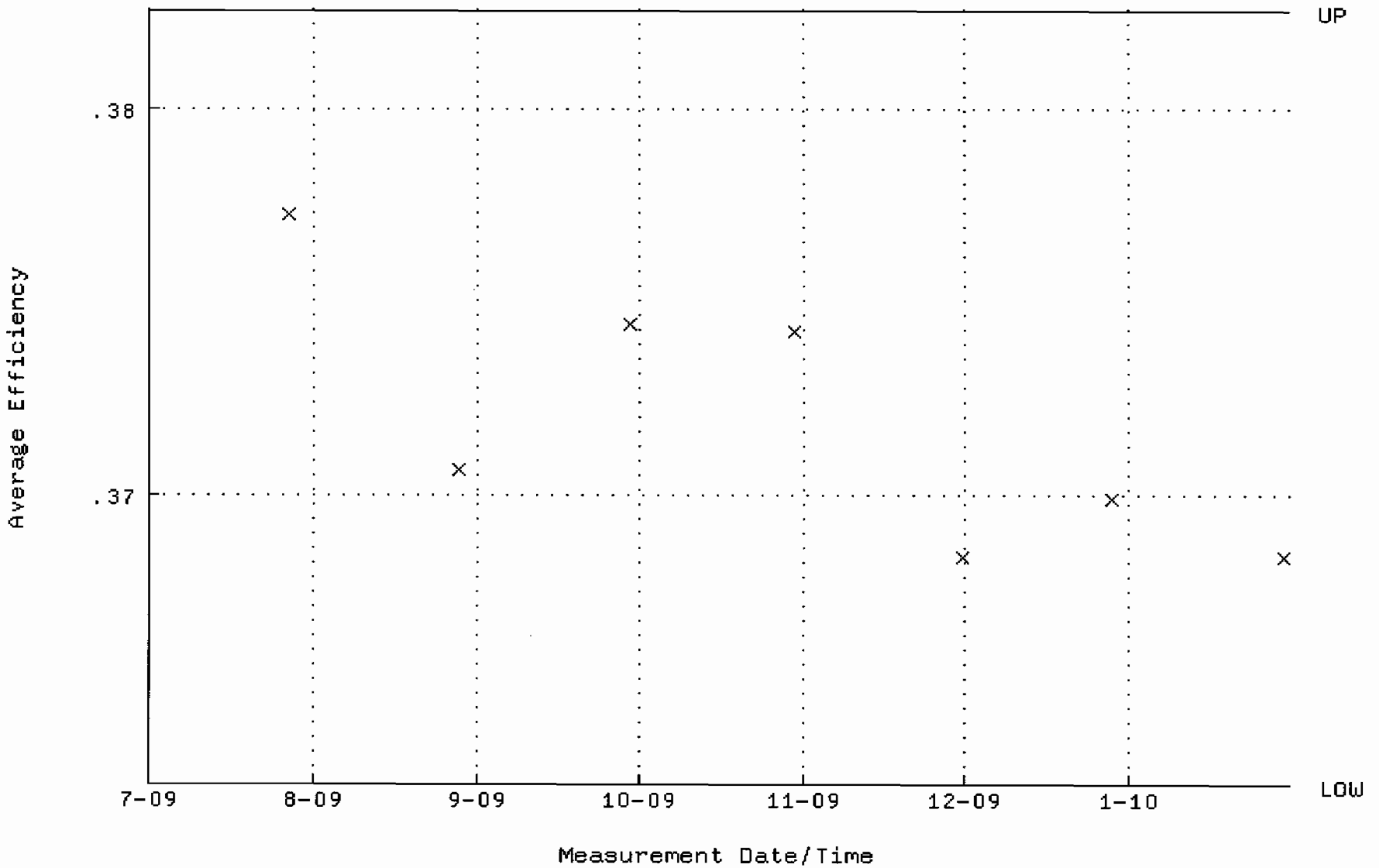

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:32 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.3638 through 92.1390

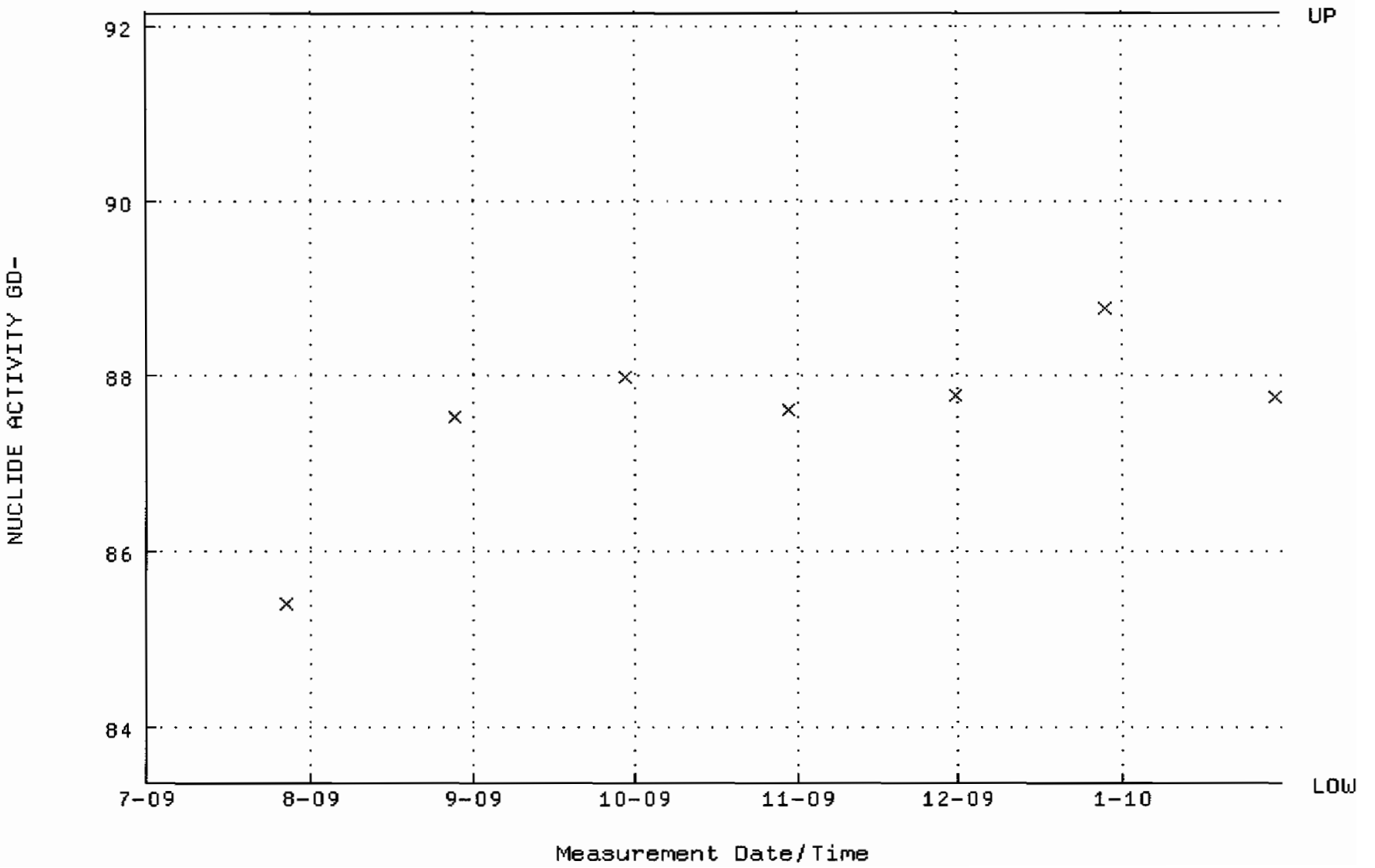

QA filename : DKA100:[ENV_ALPHA.QA.B]B240.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

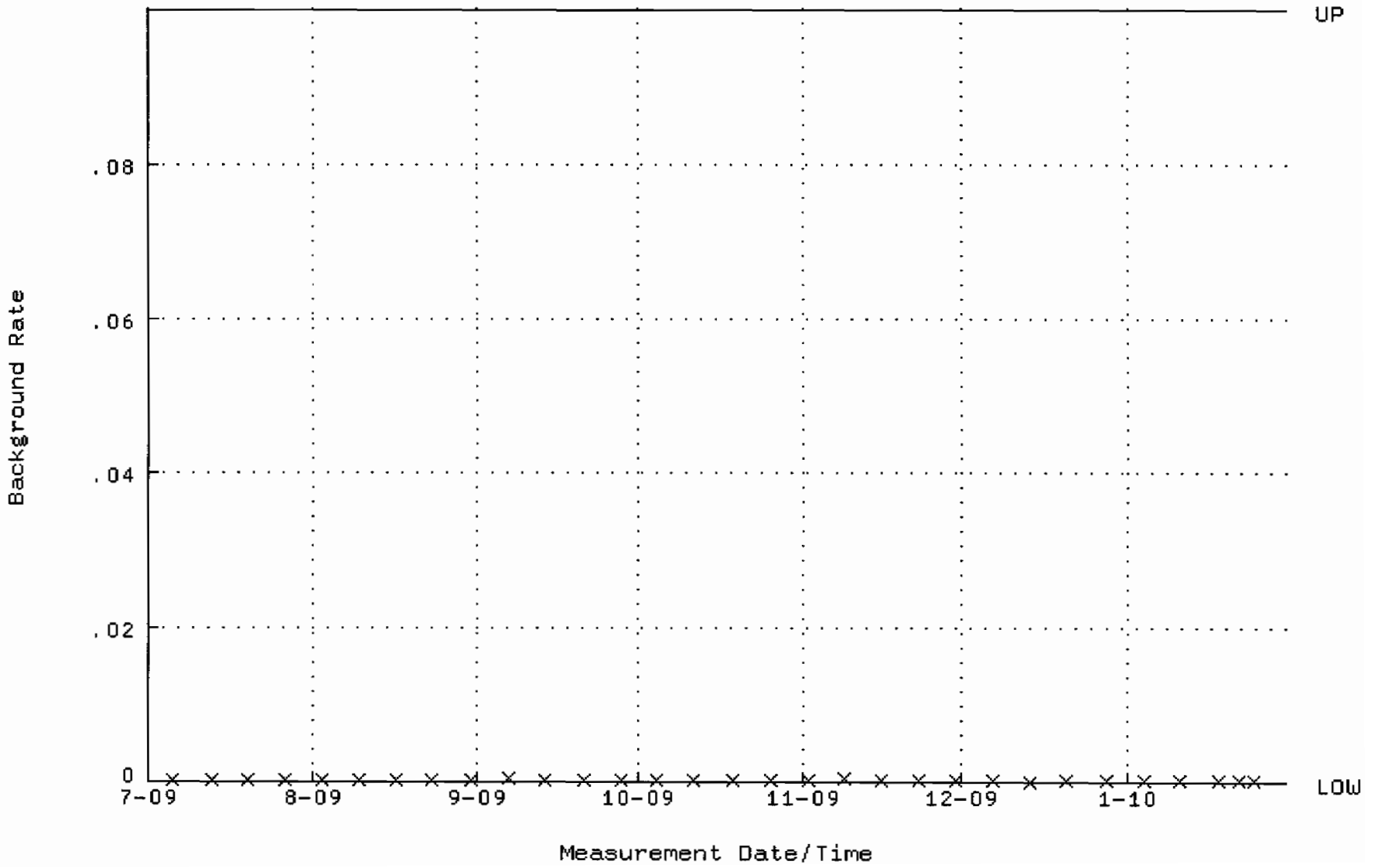

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:38 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.369174 through 0.389174

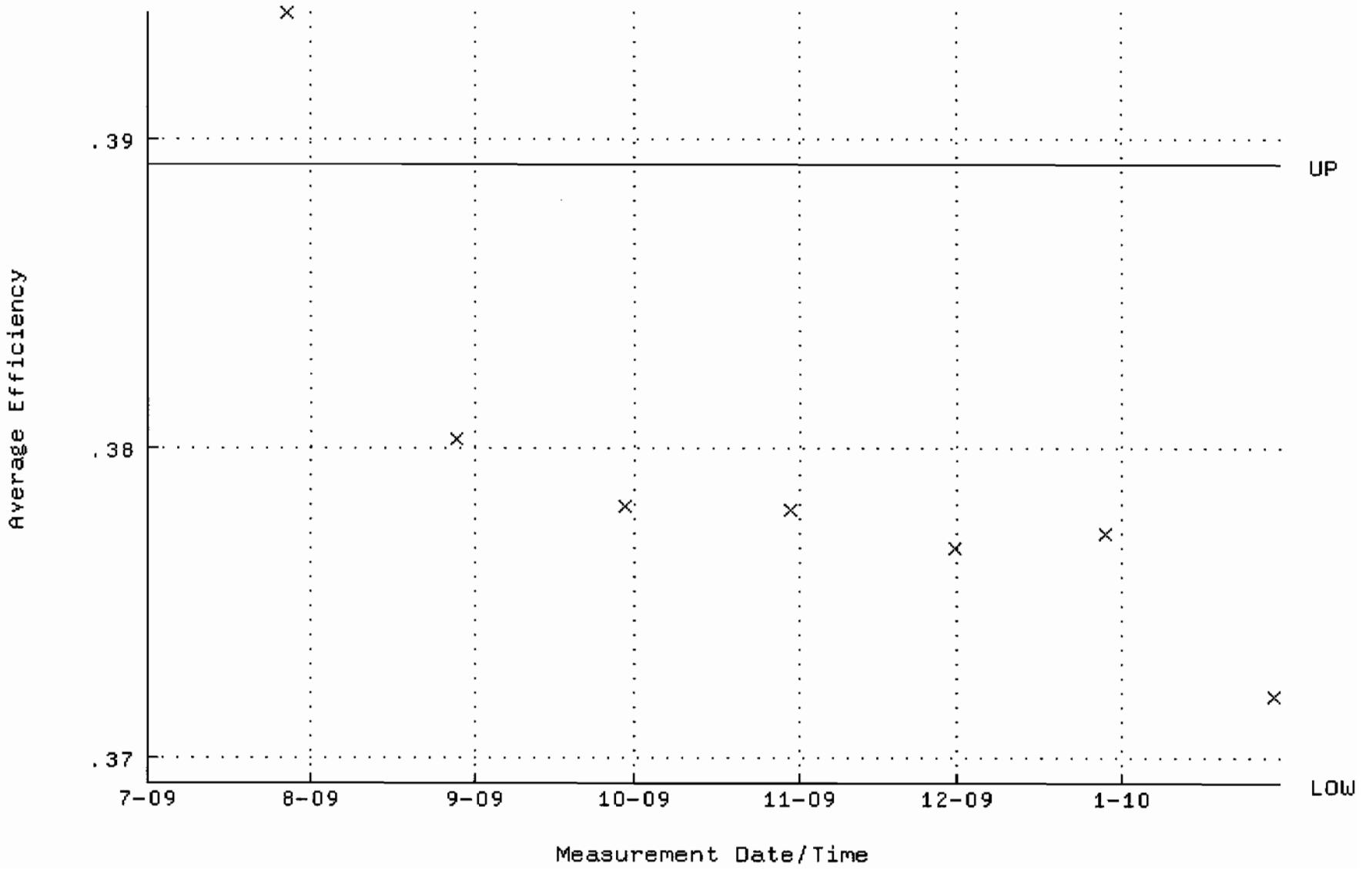

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:38 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7197 through 92.5323

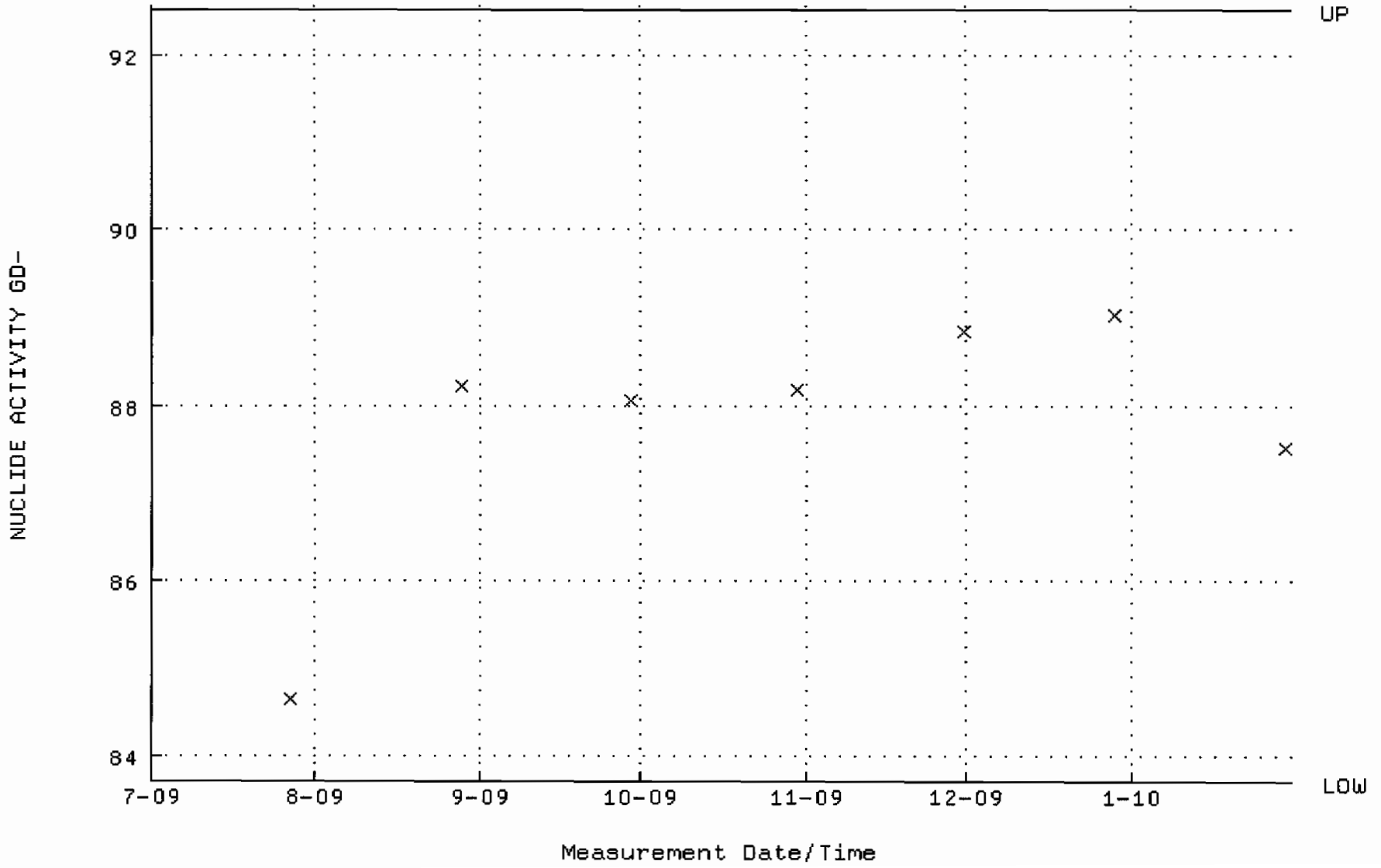

QA filename : DKA100:[ENV_ALPHA.QA.B]B241.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

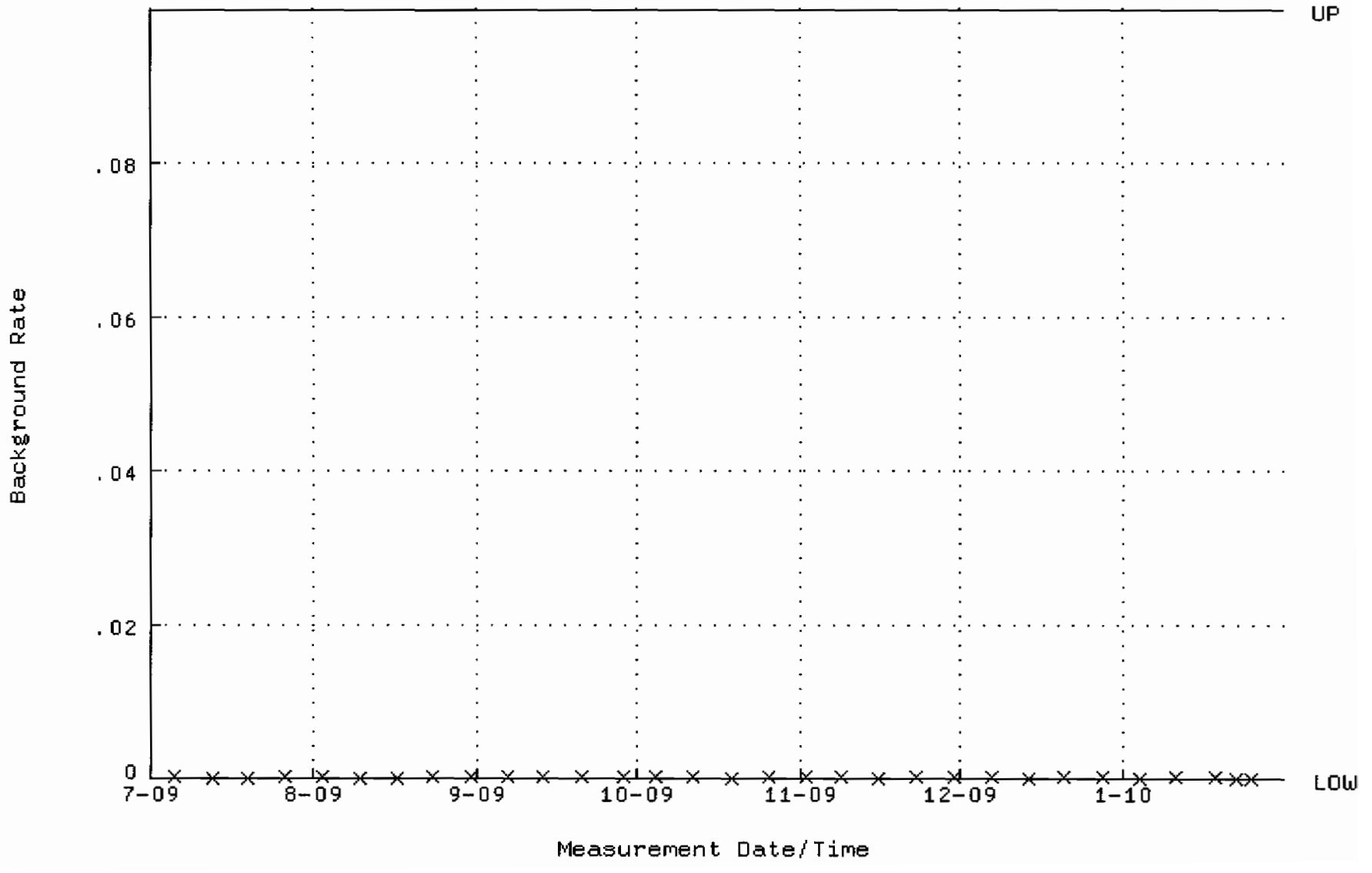

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.361192 through 0.381192

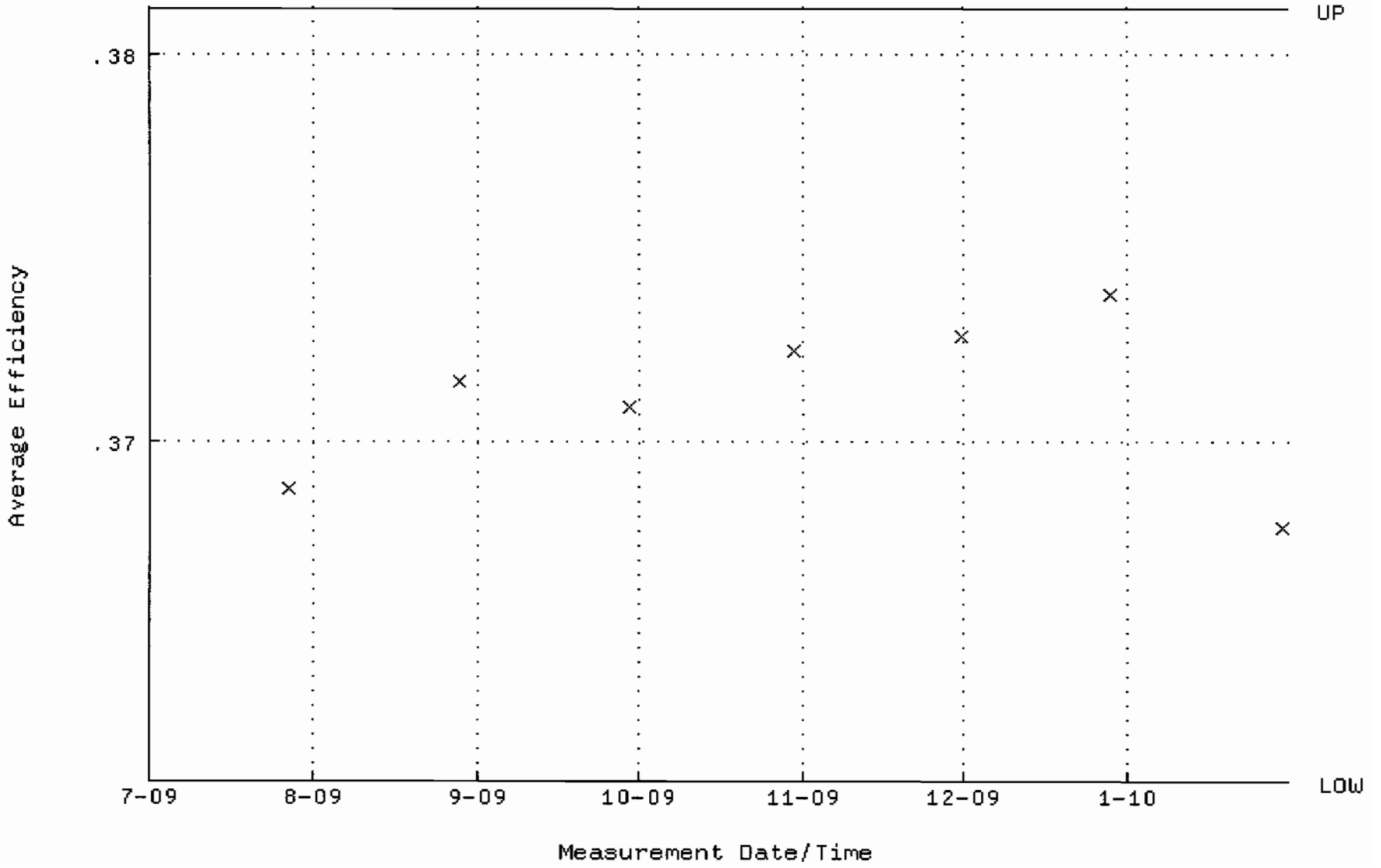

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7473 through 92.5629

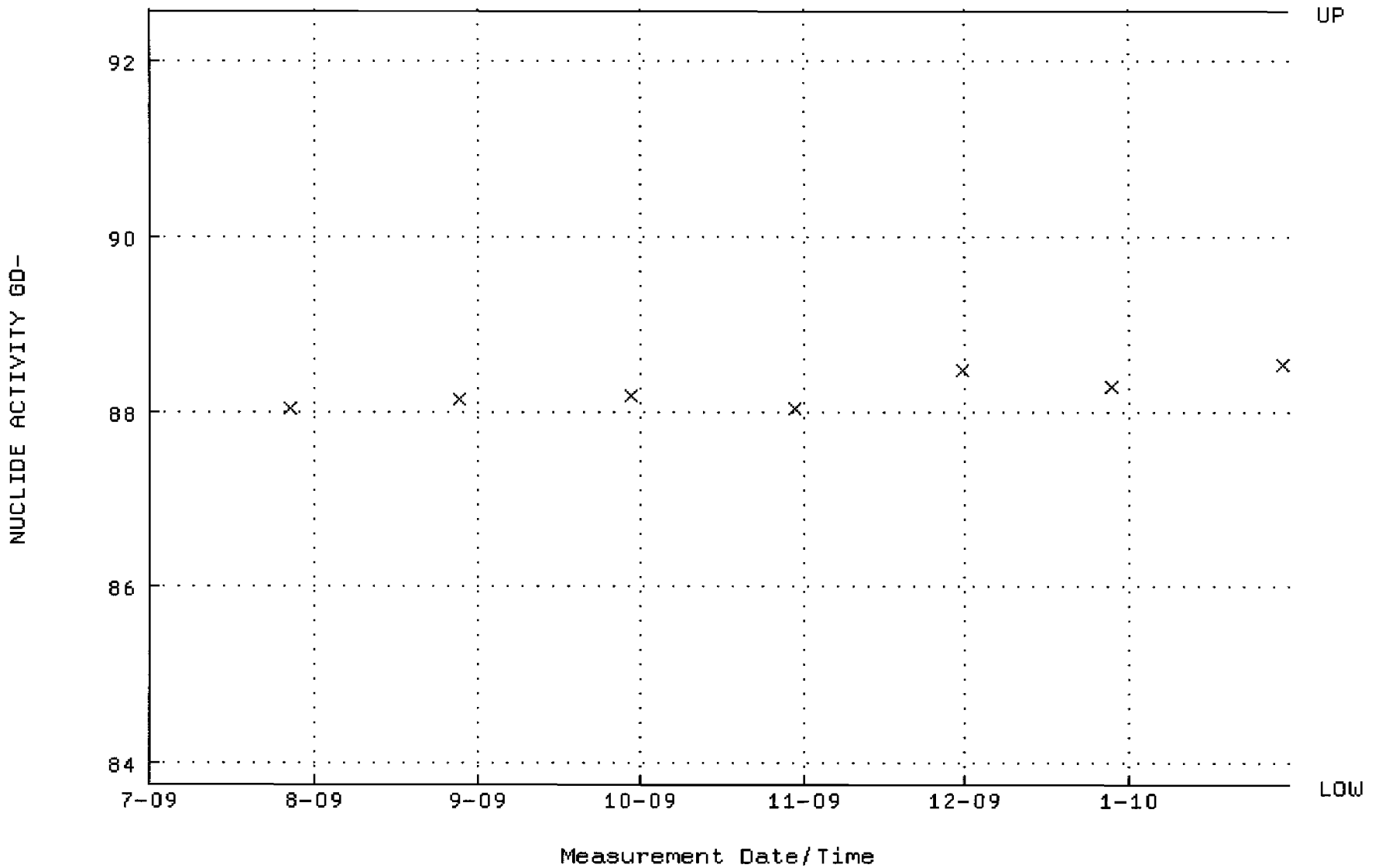

QA filename : DKA100:[ENV_ALPHA.QA.B]B244.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:02 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

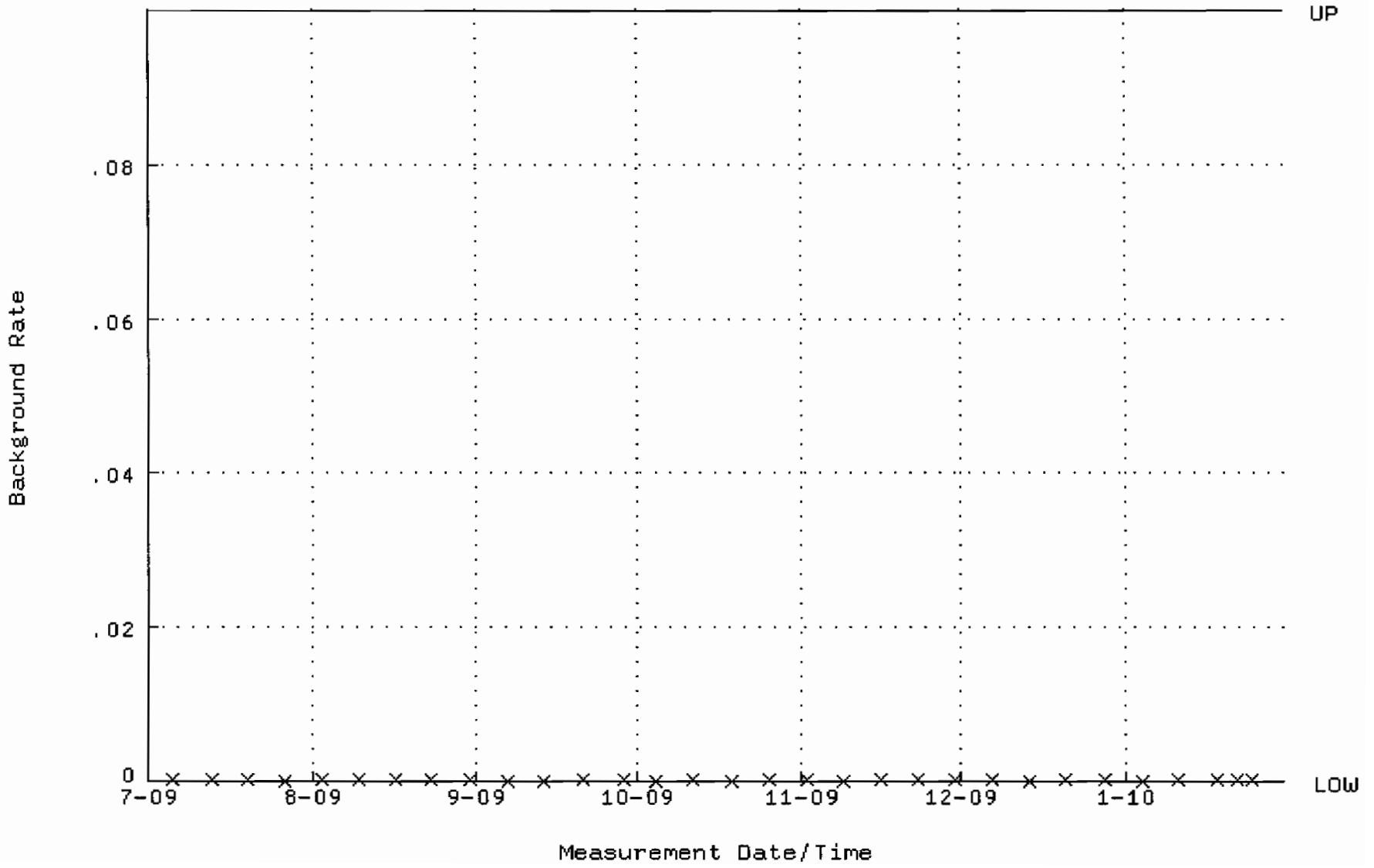

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:11:46 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

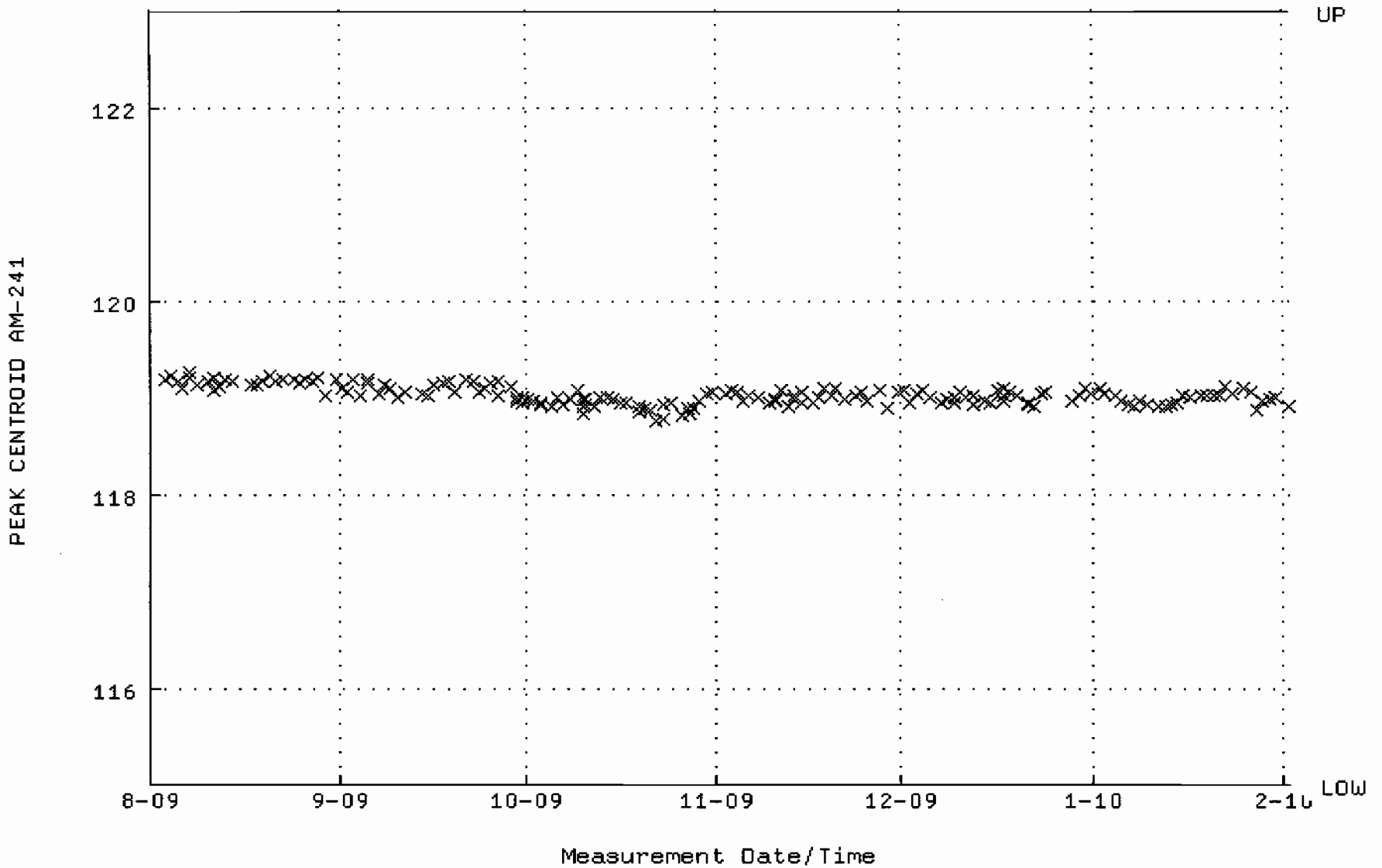

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:48 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

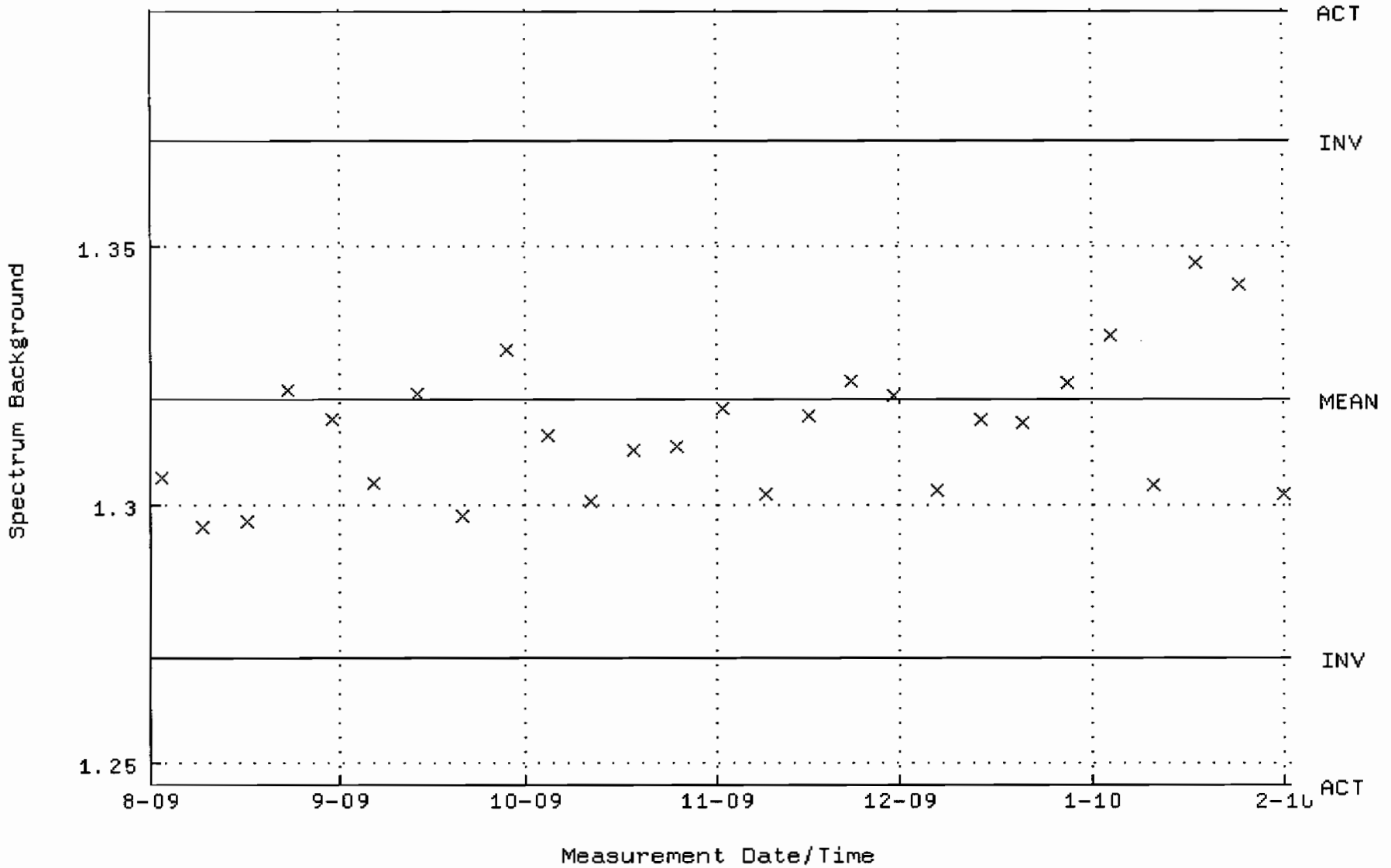

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:36:50 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

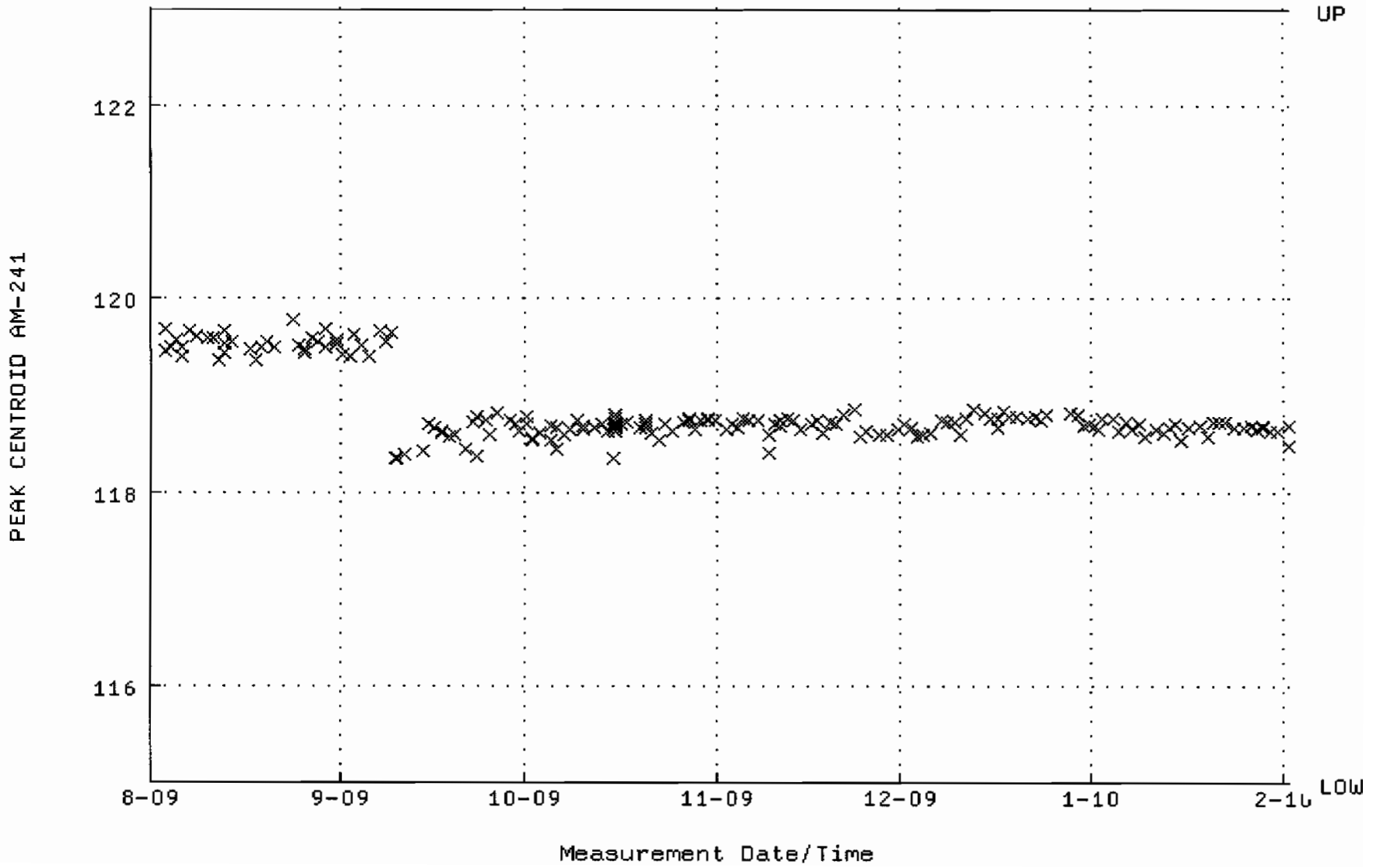

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:43 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

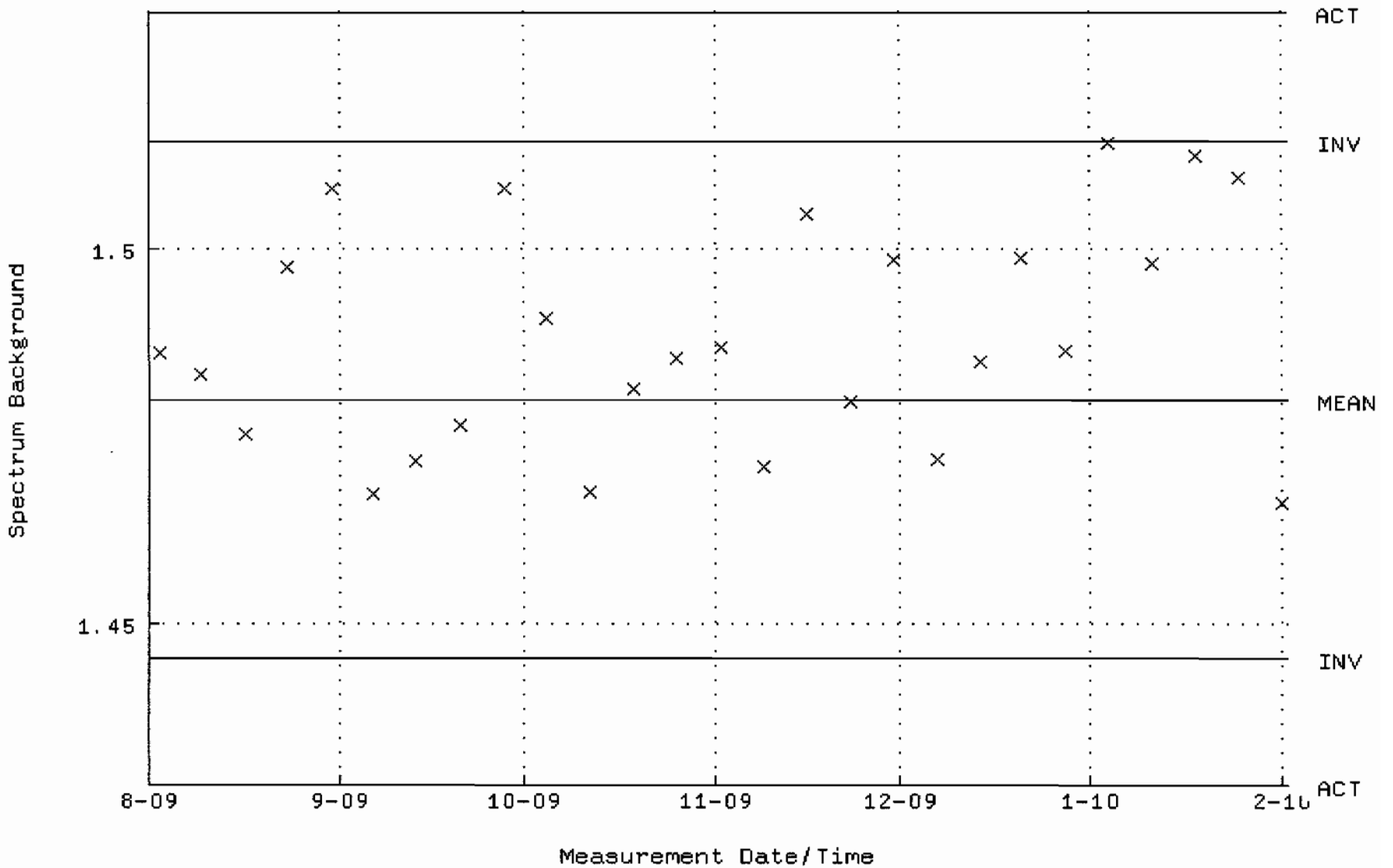

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

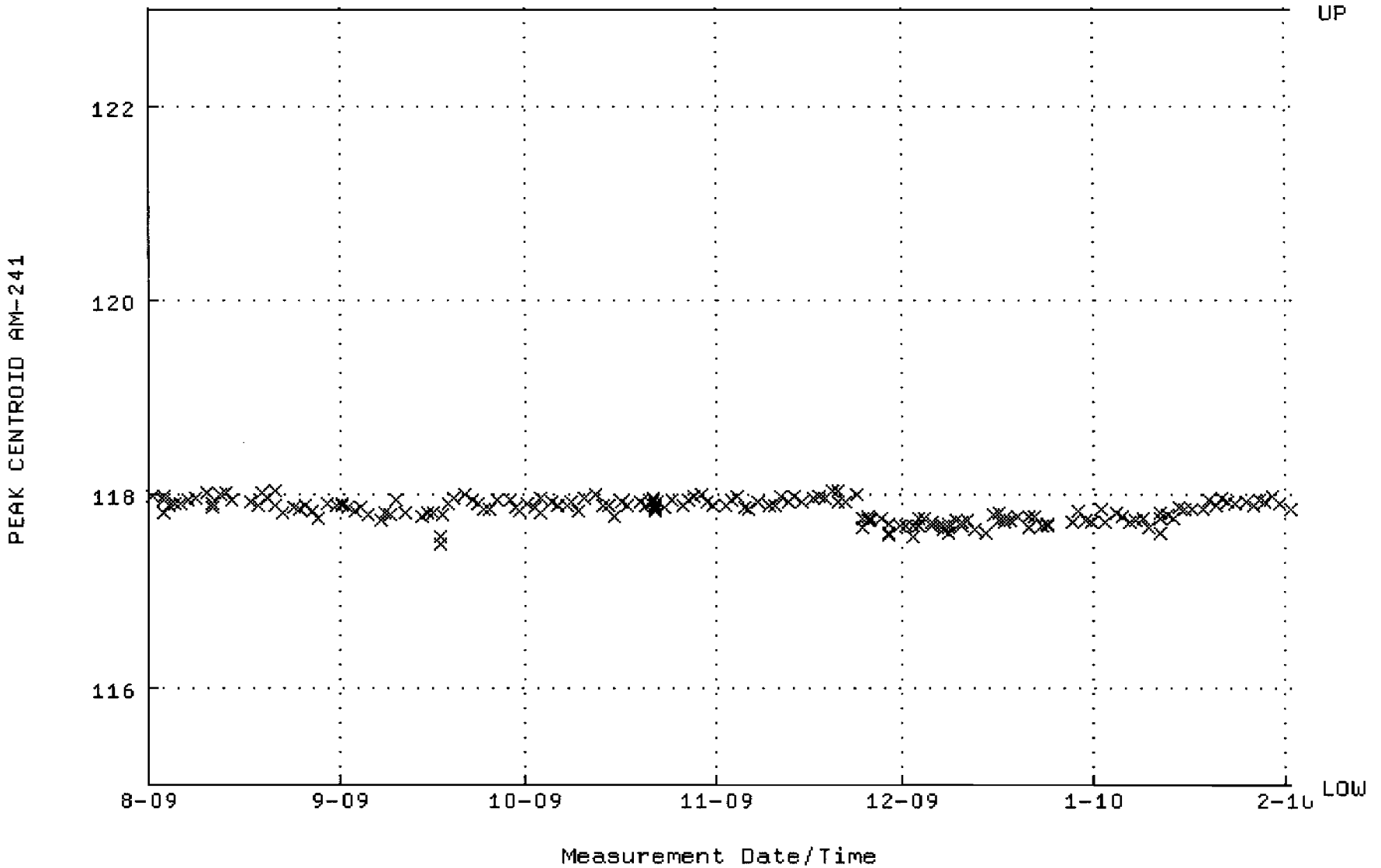

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)

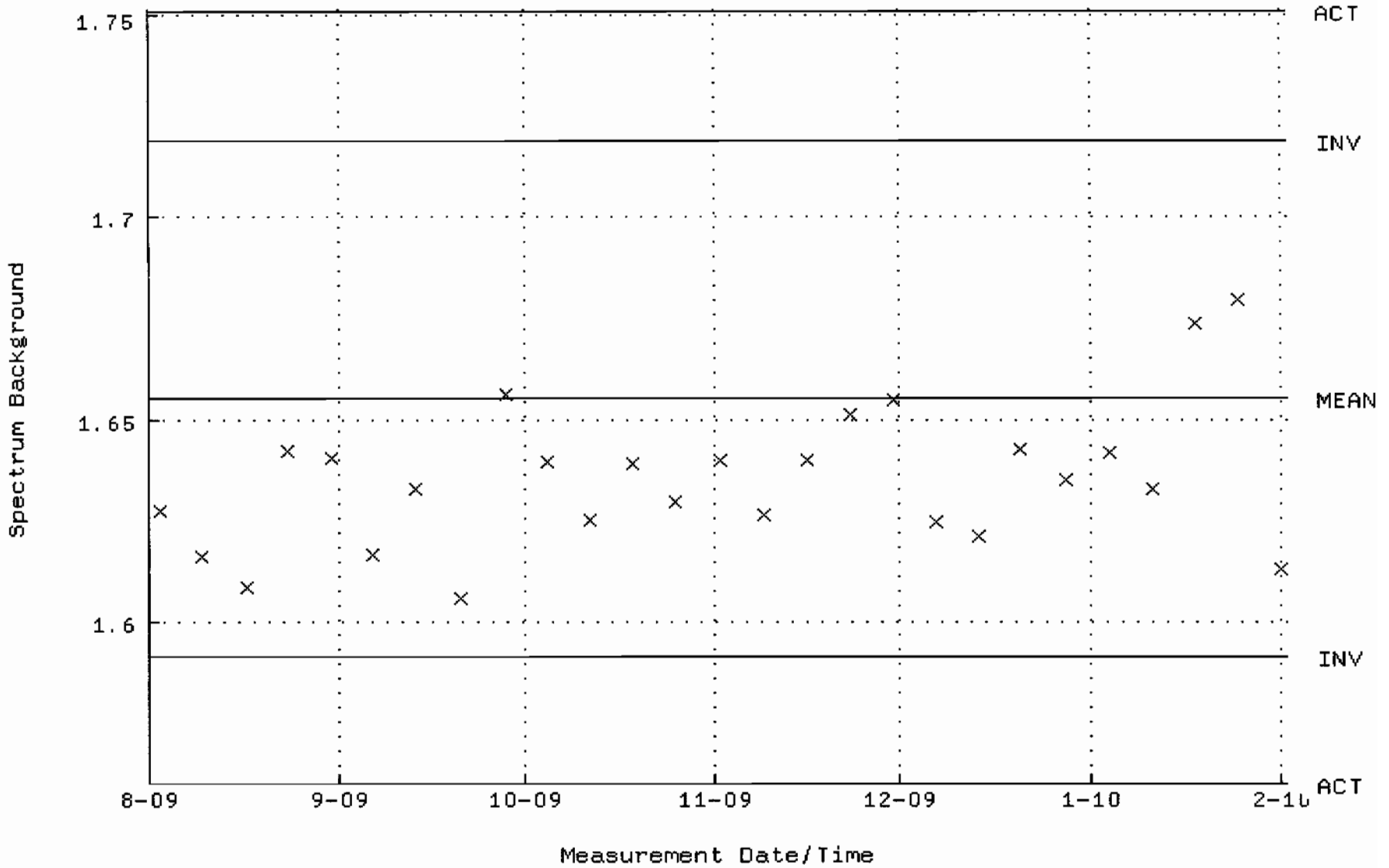

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

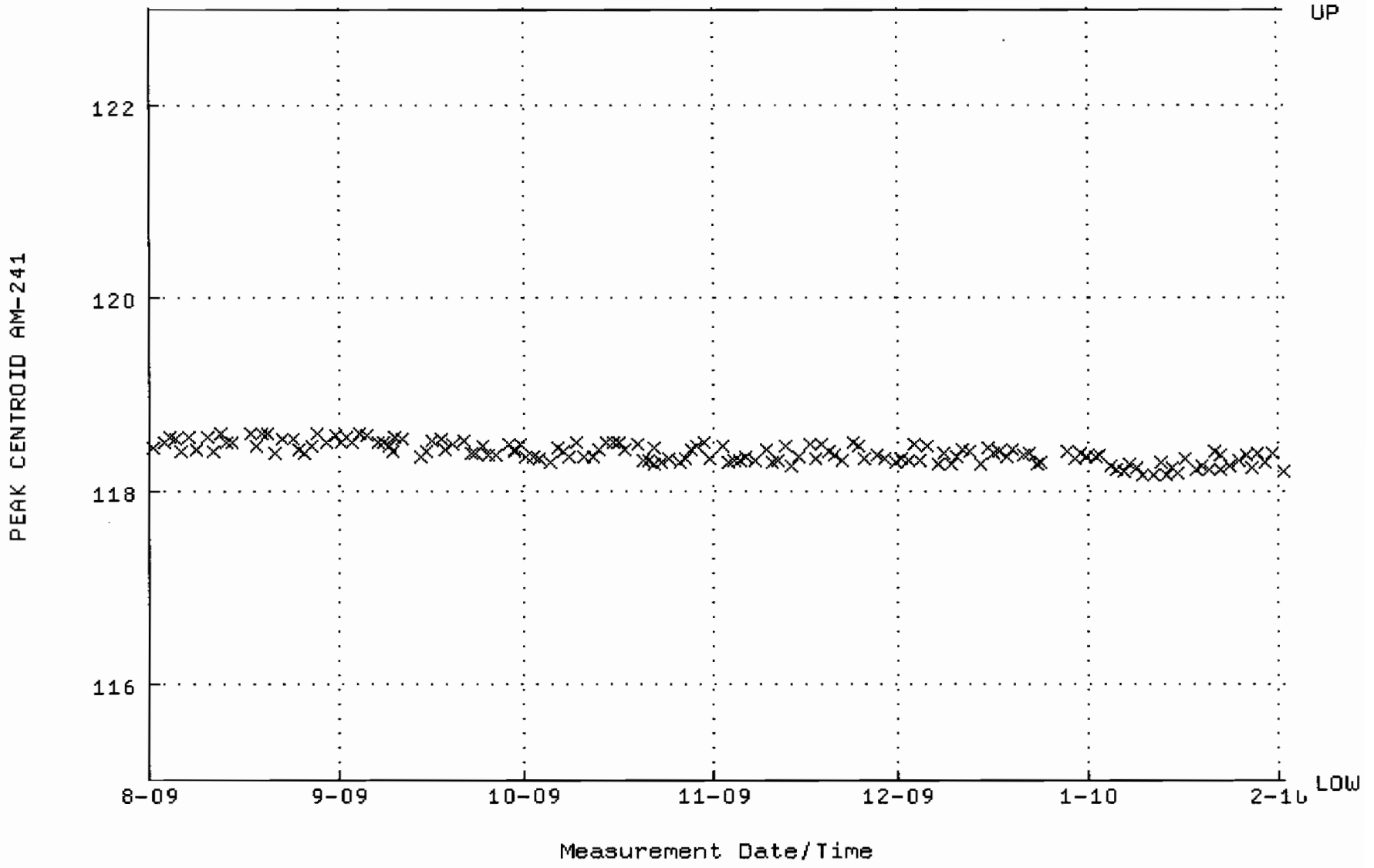

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

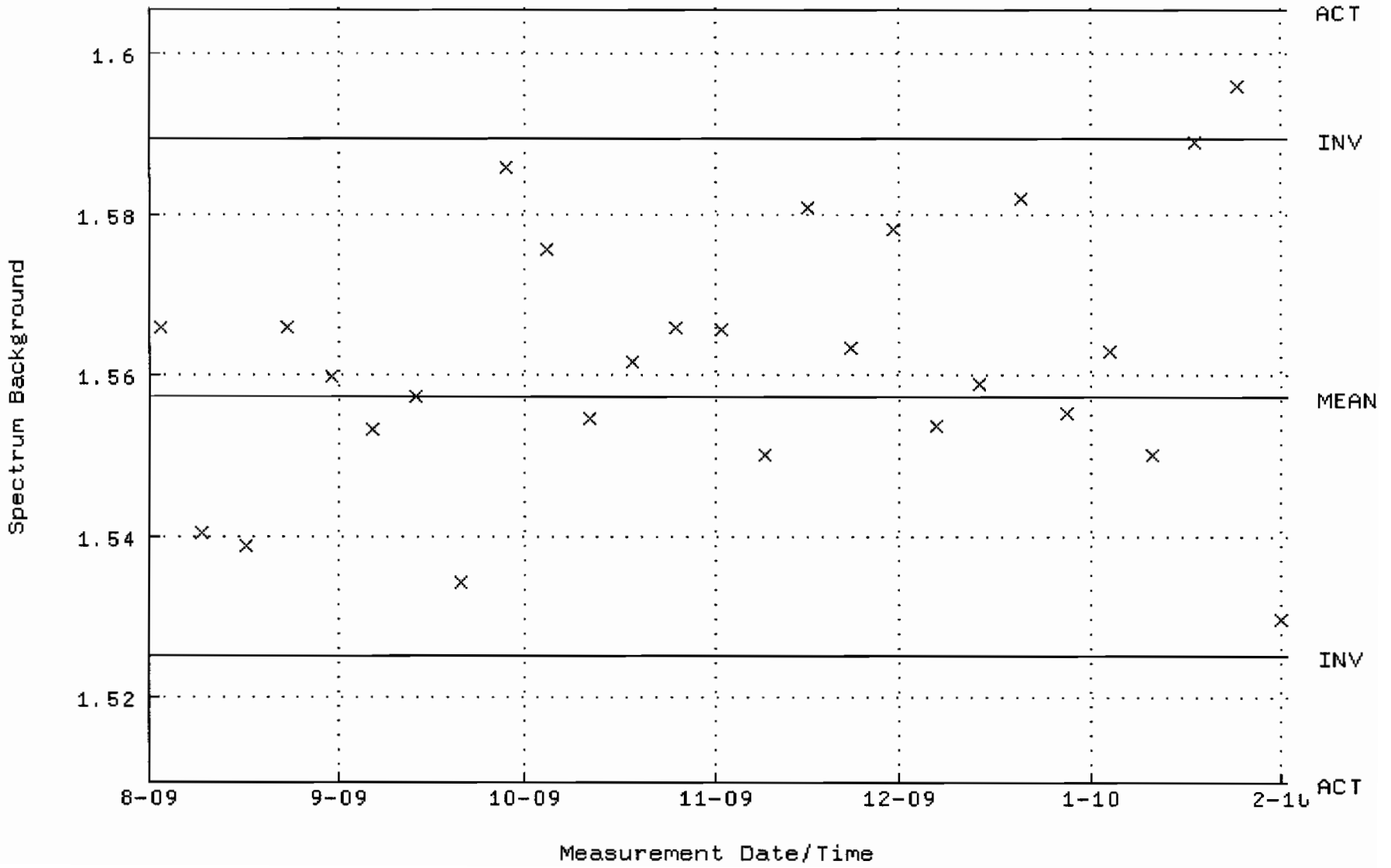

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:53:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

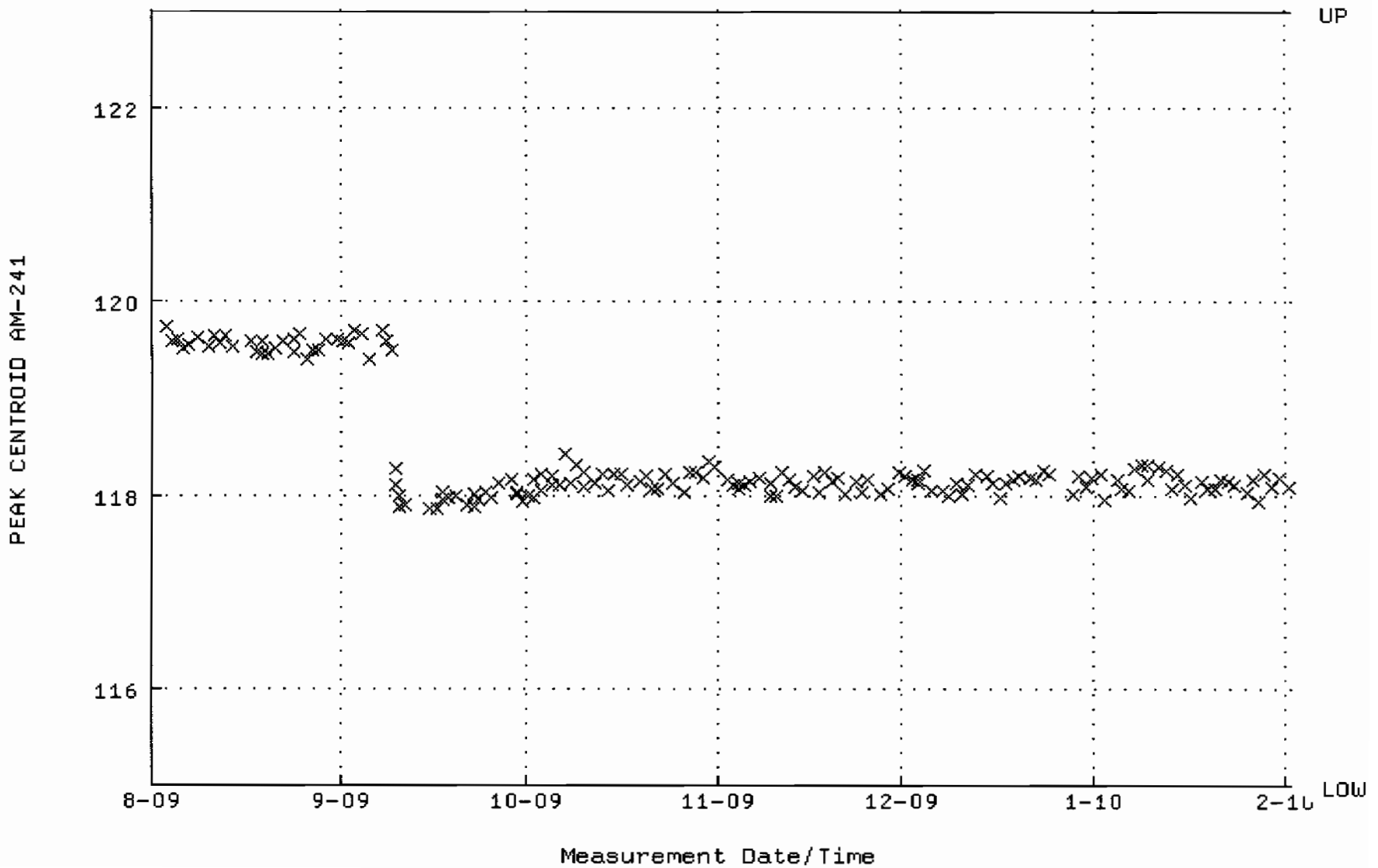

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:46 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

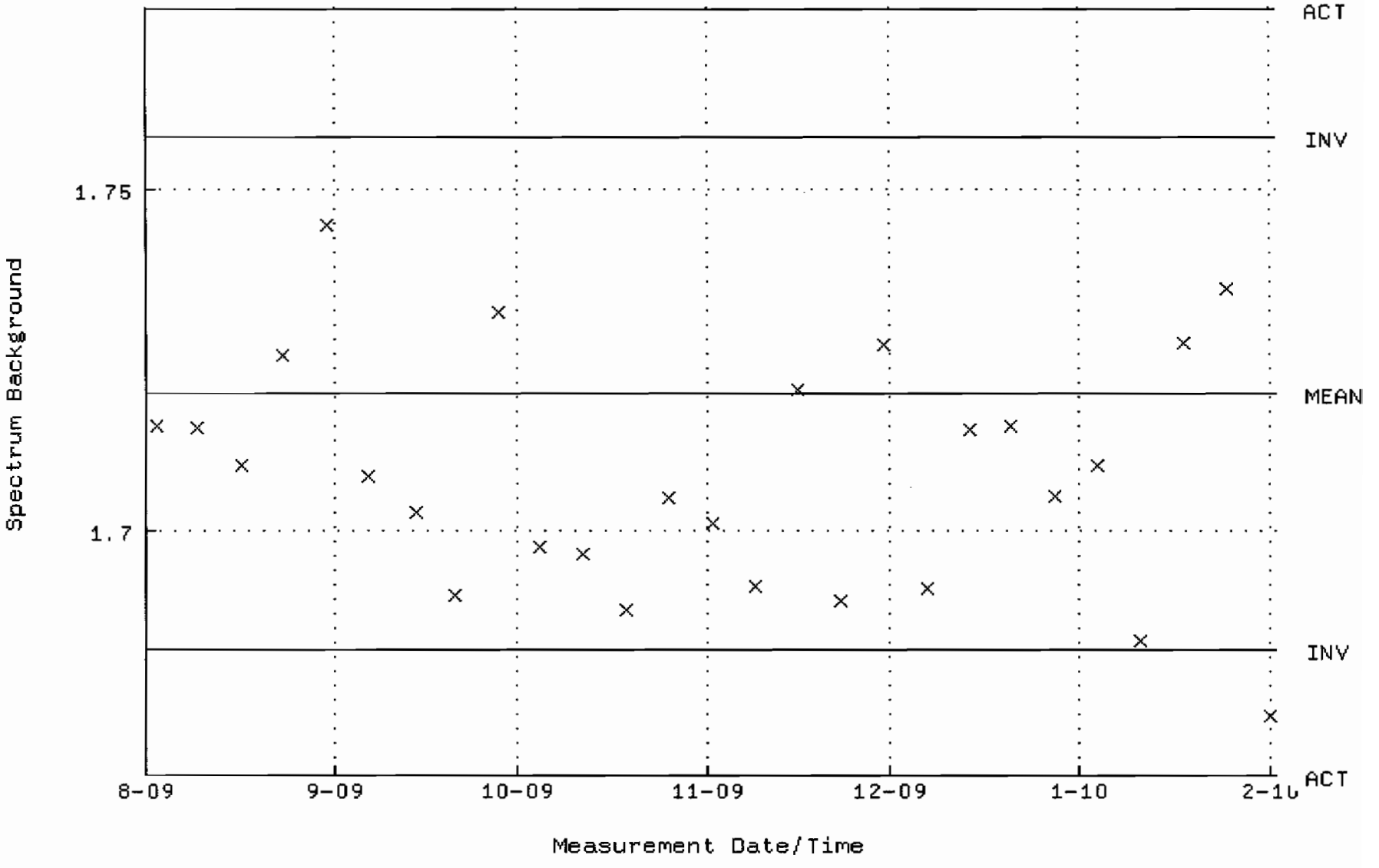

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:55:06 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

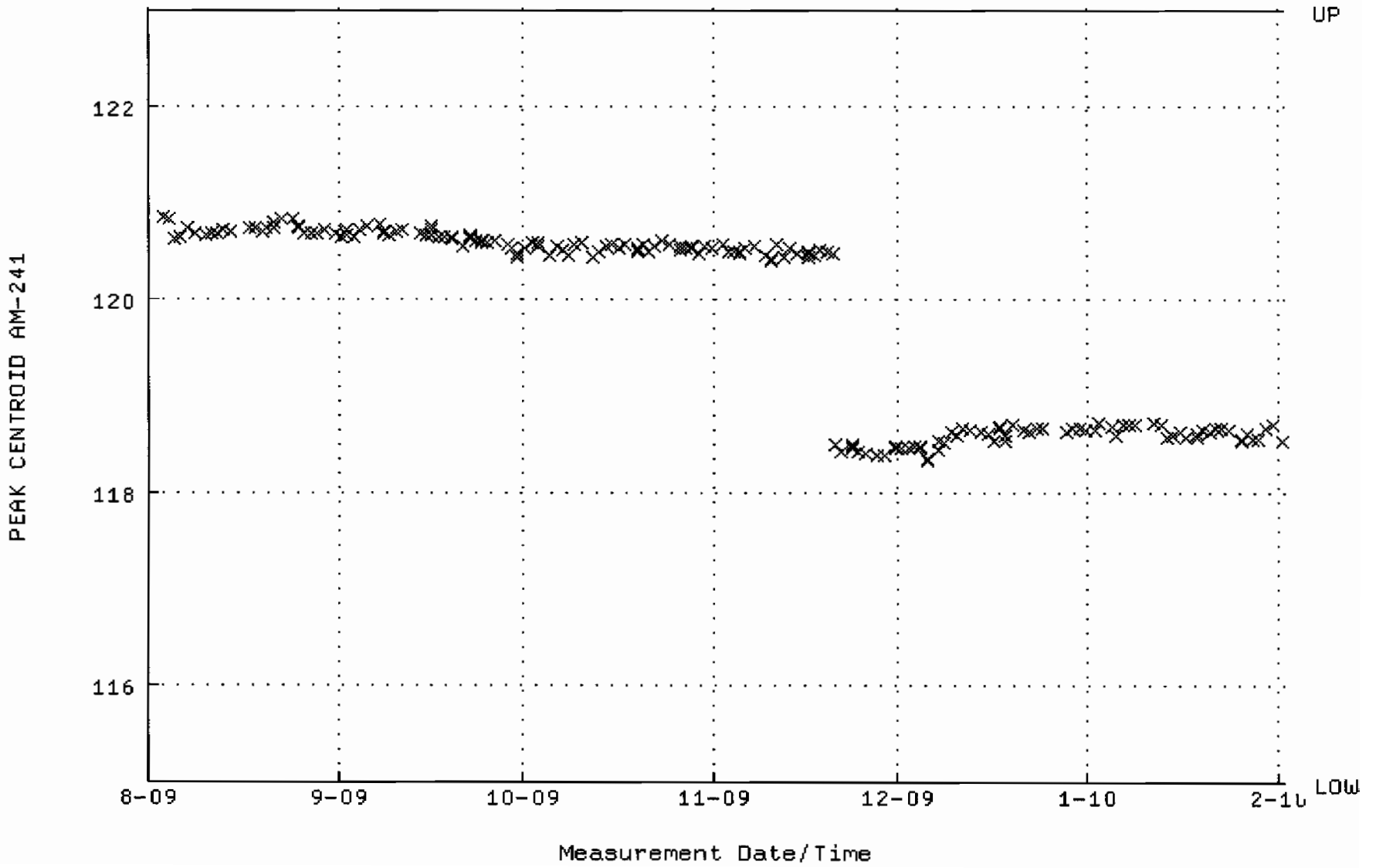

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:10 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

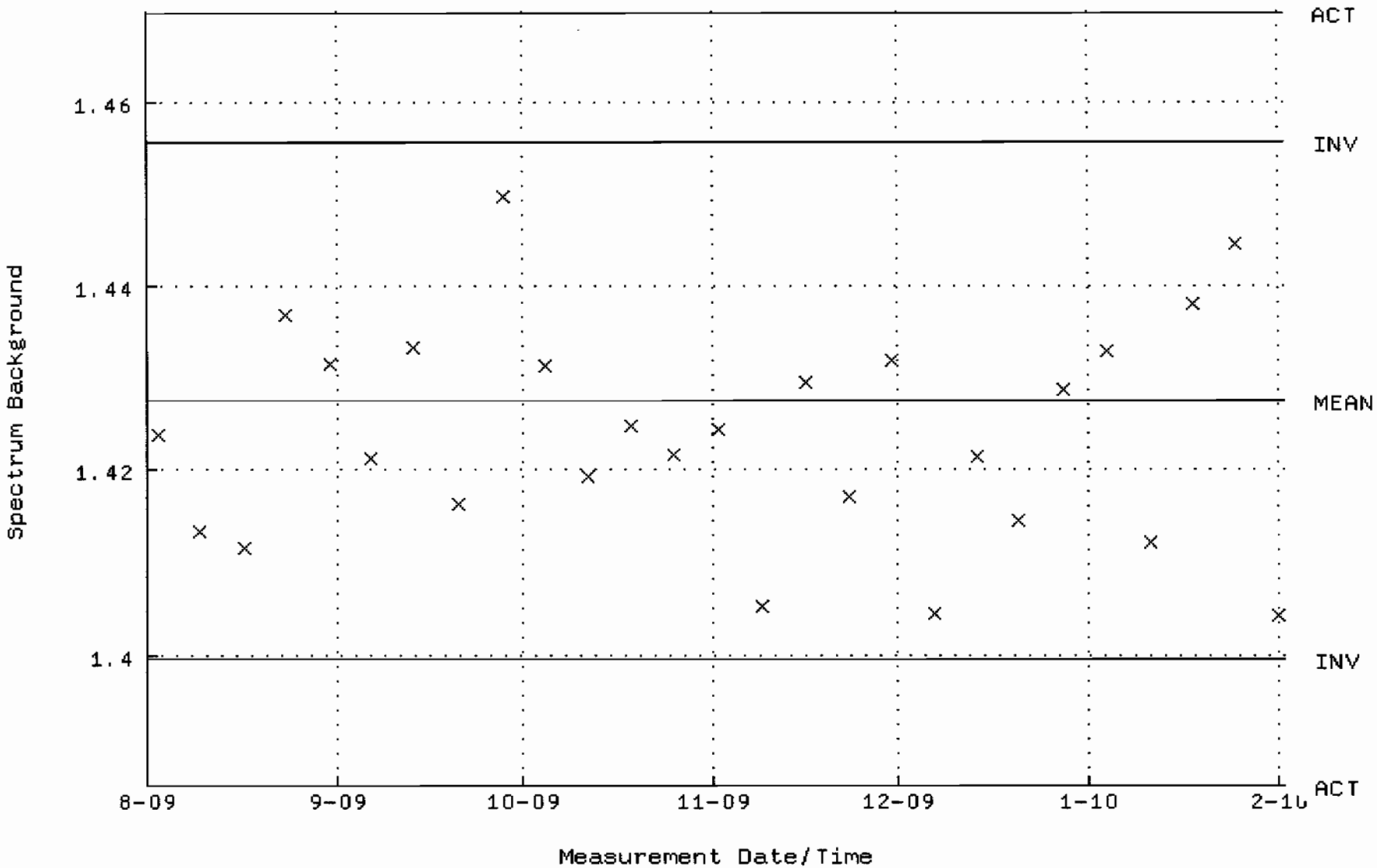

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

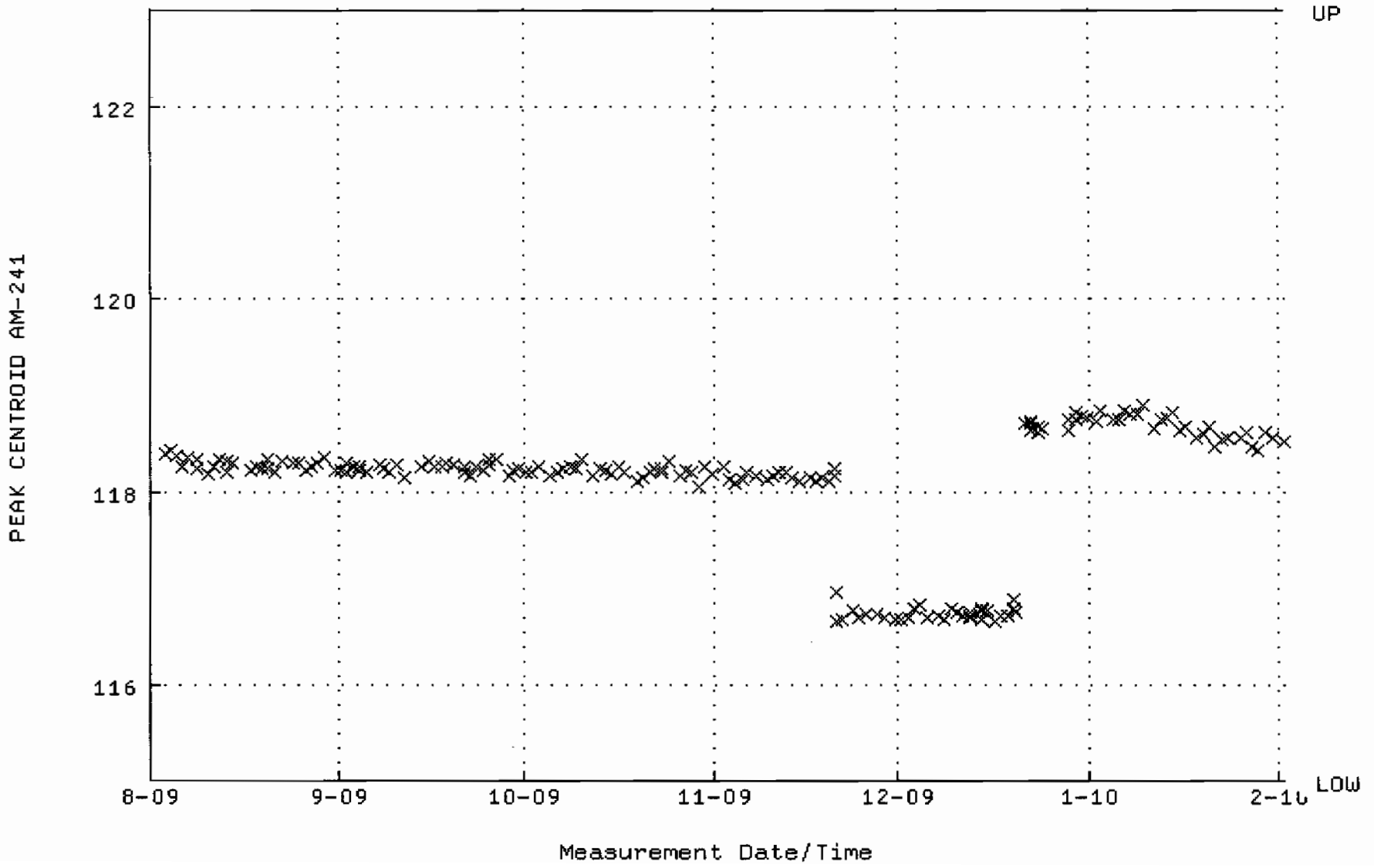

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

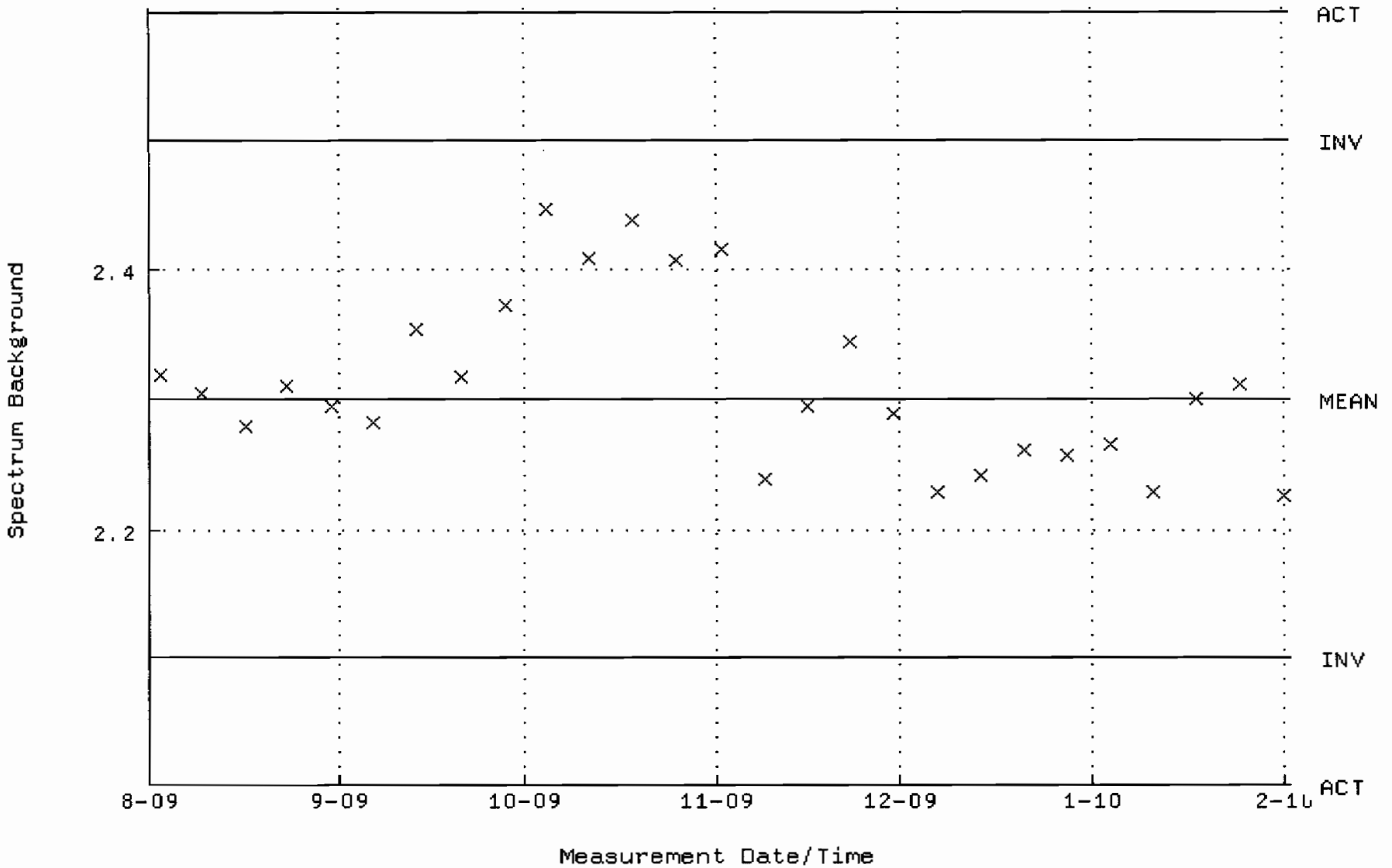

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:08:04 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

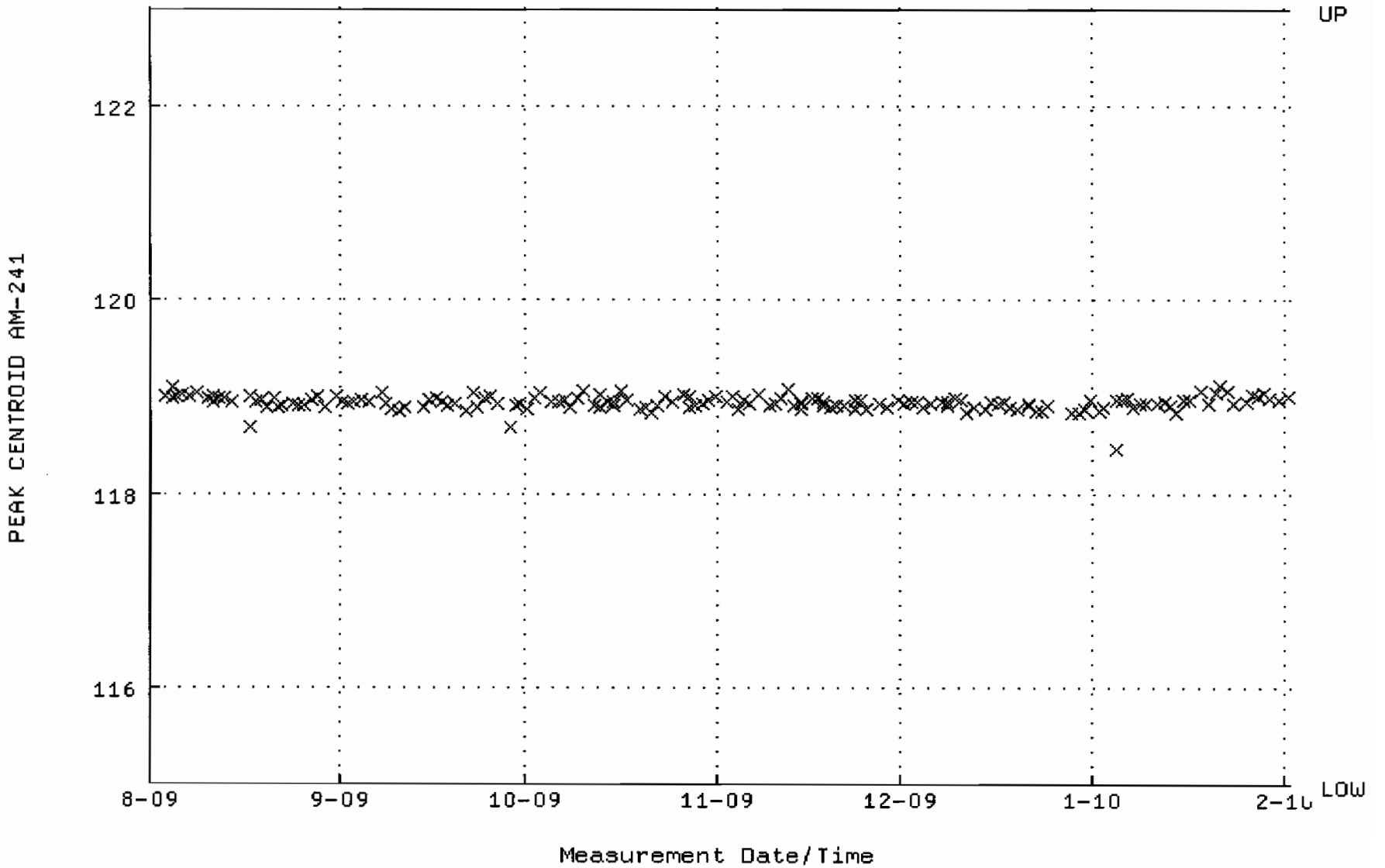

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

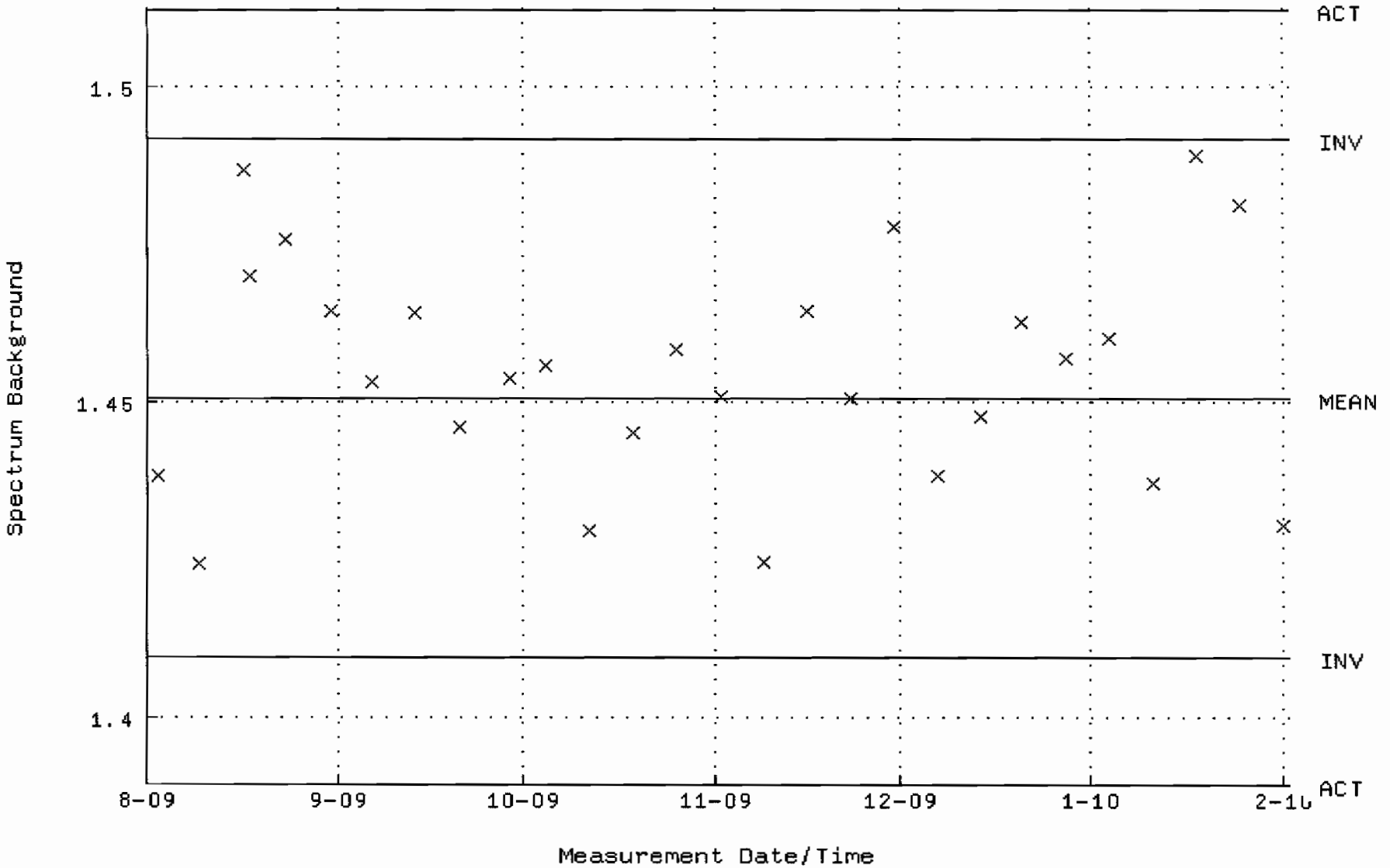

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:19:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

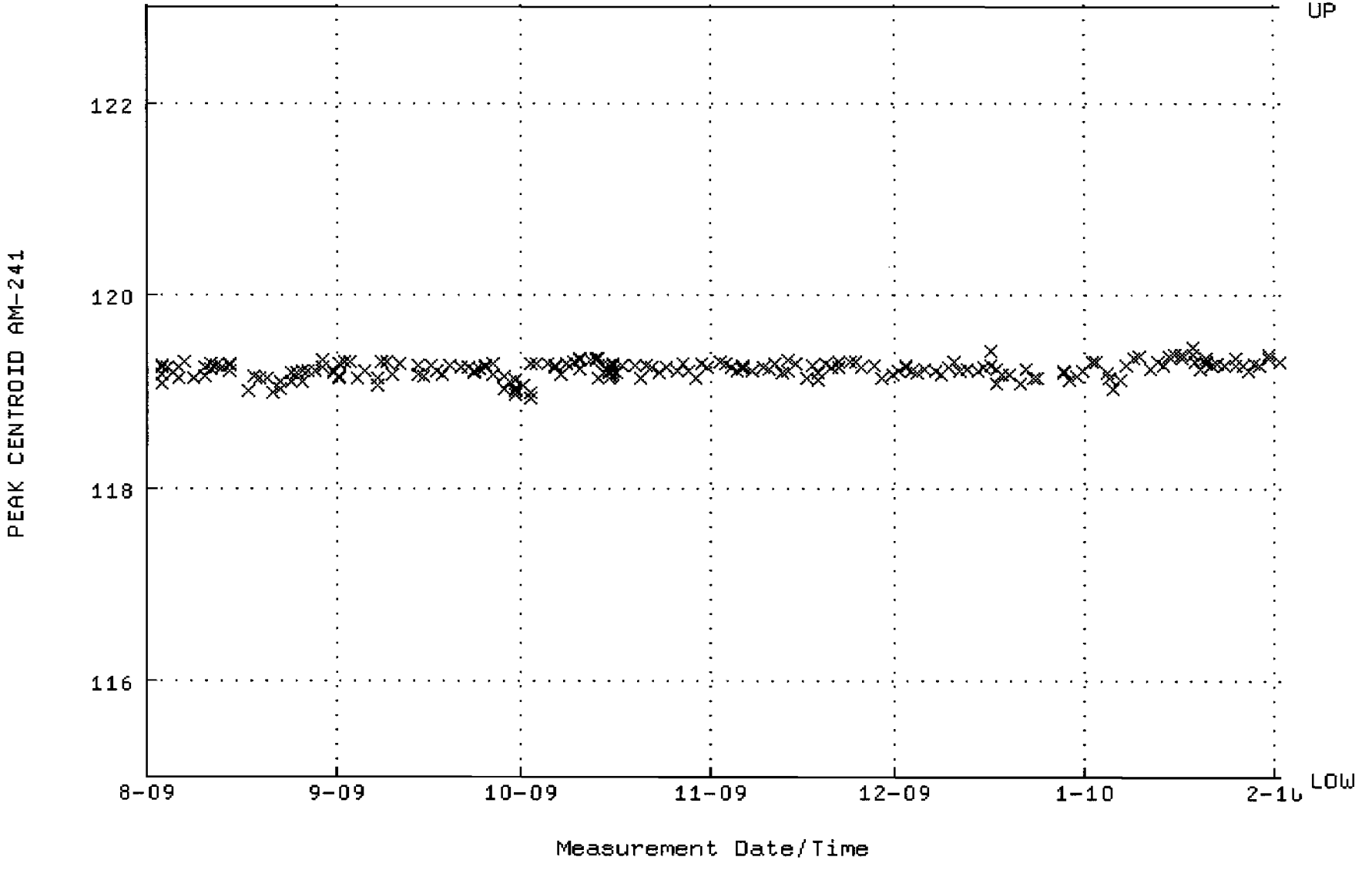

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

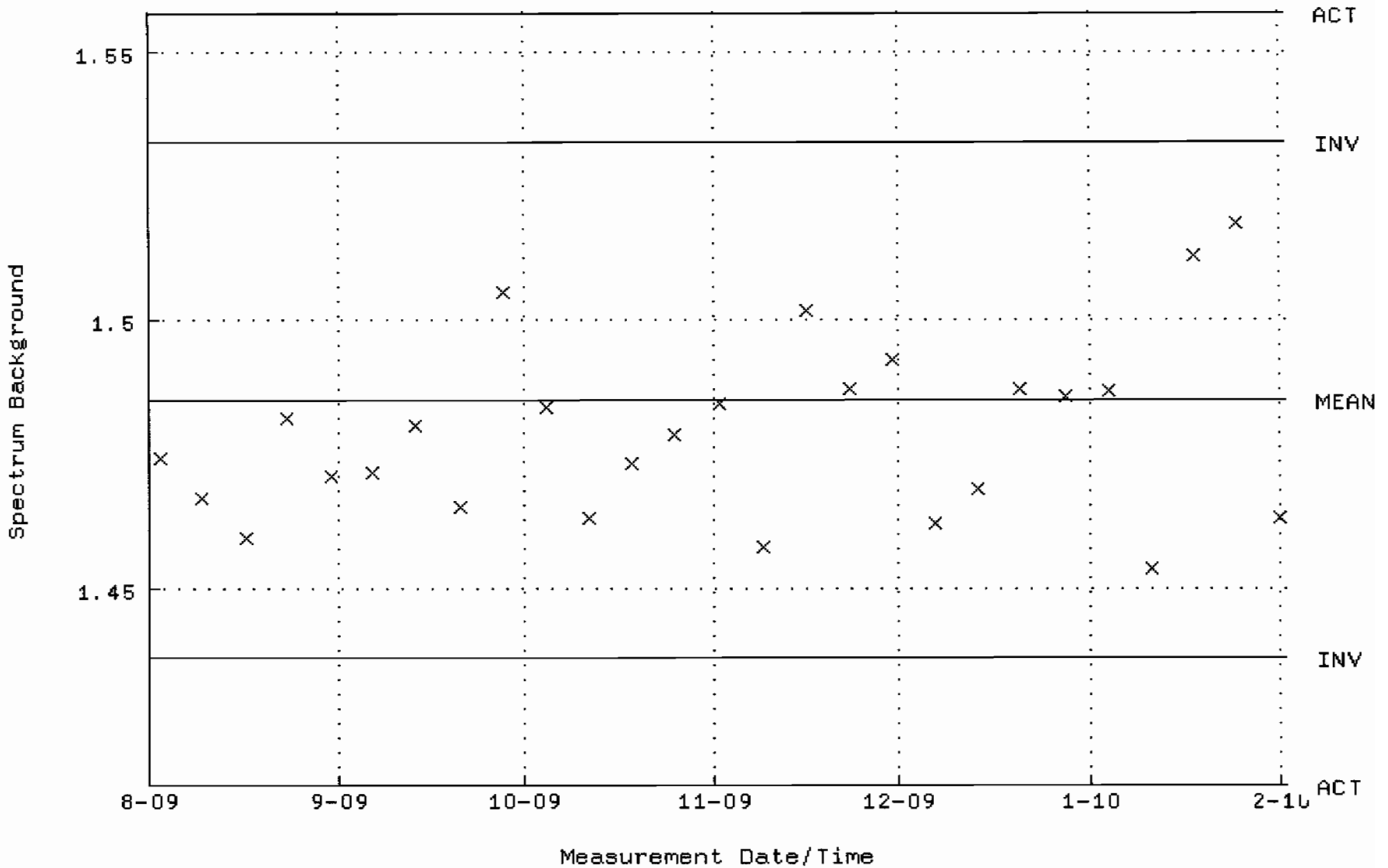

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

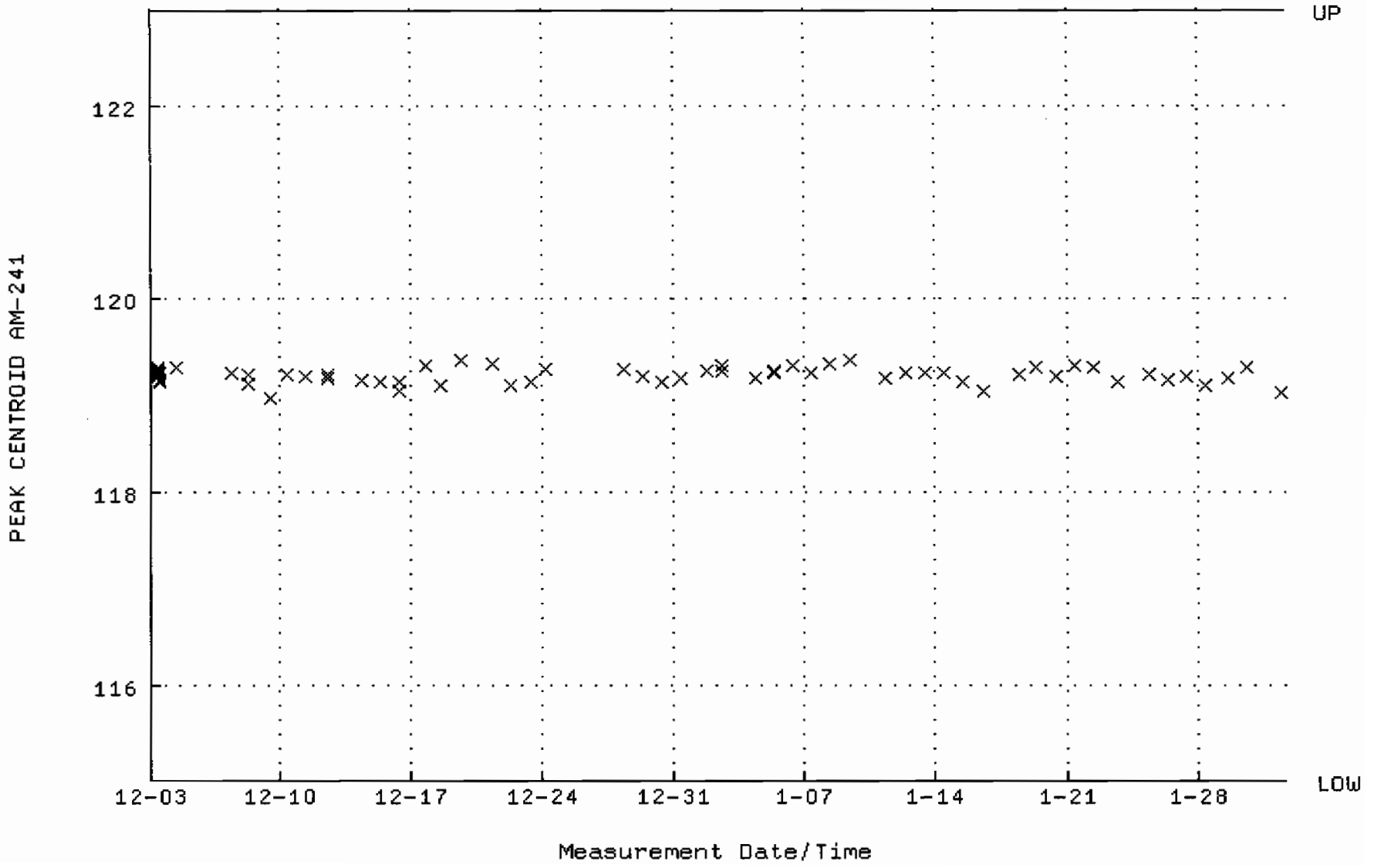

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

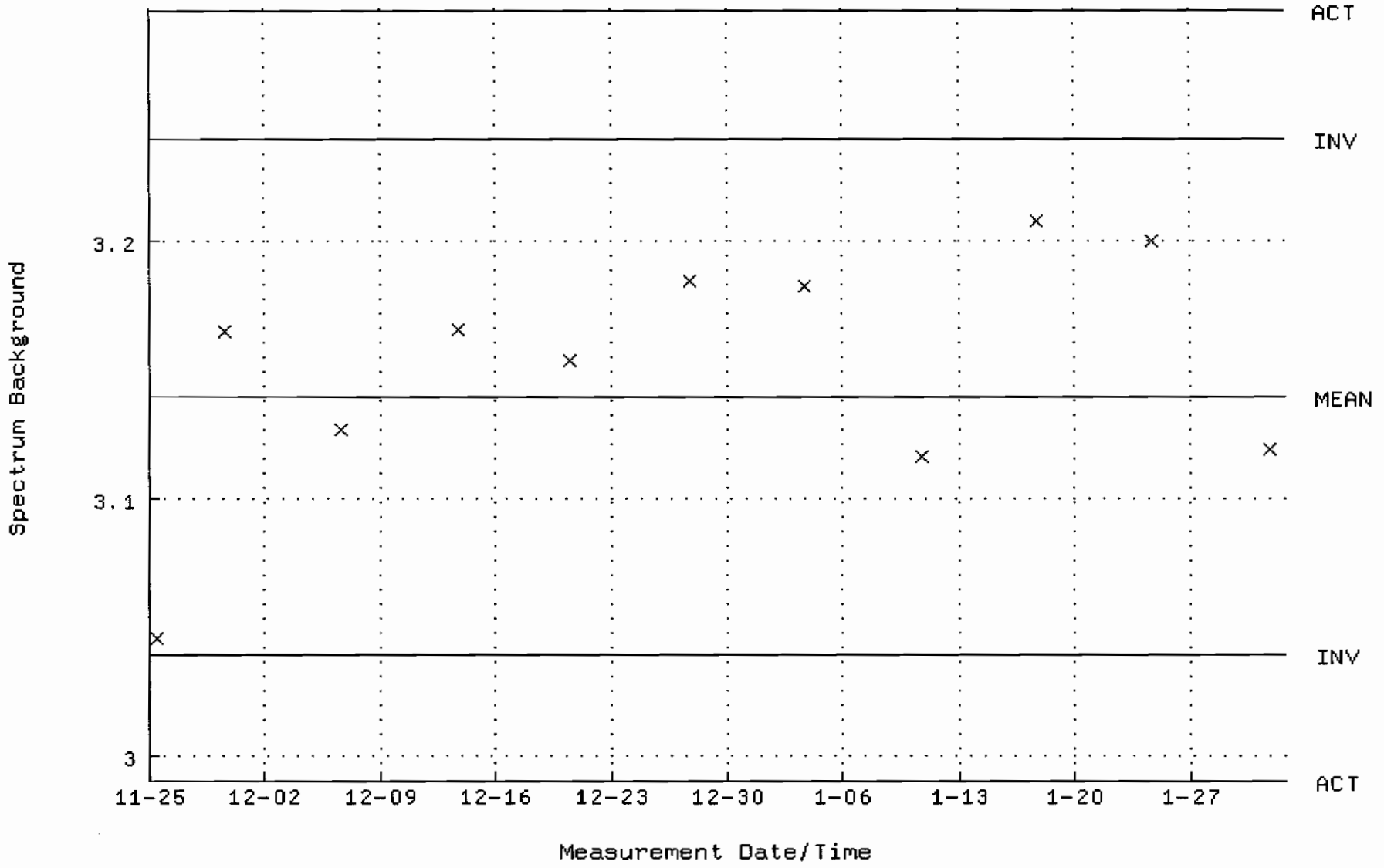

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

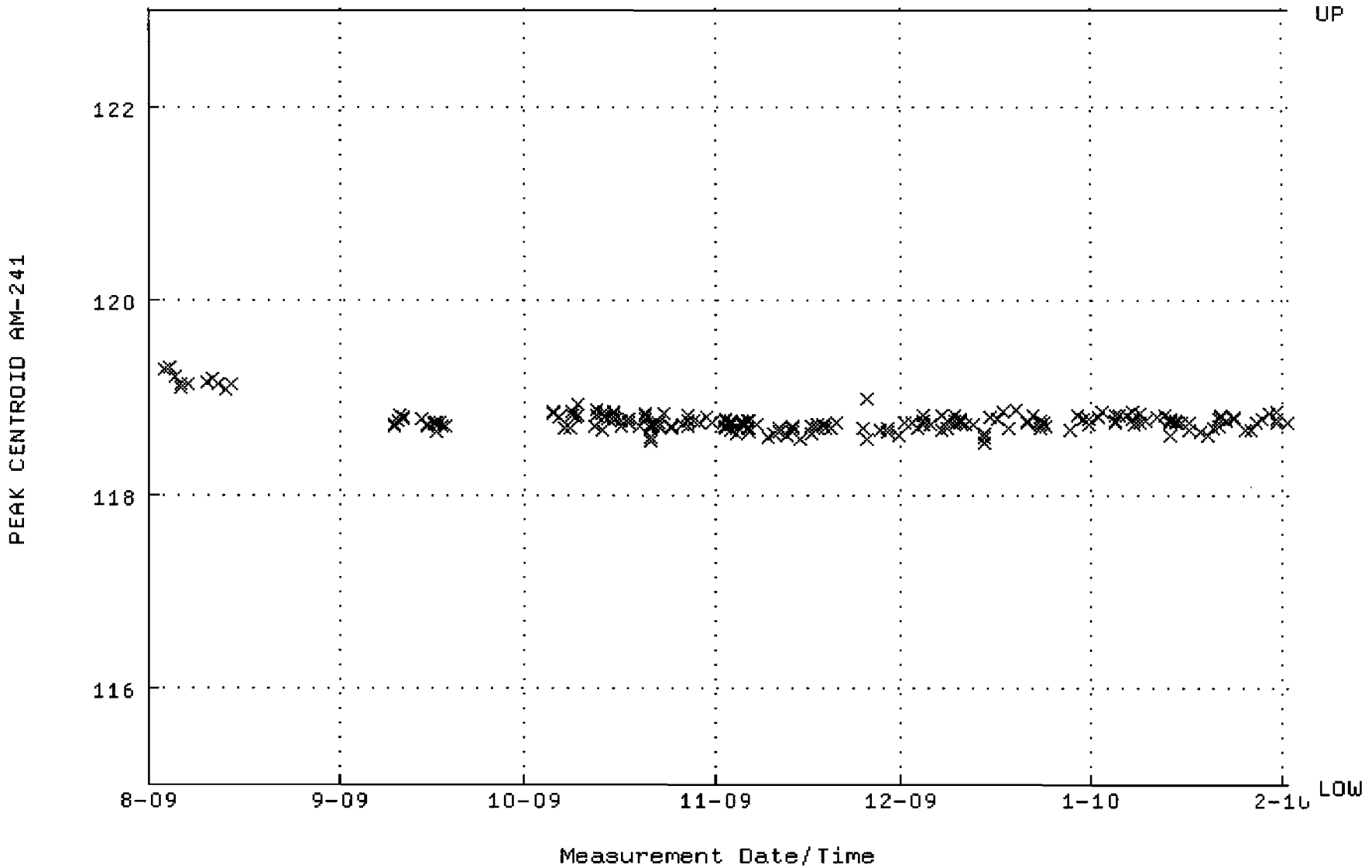

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

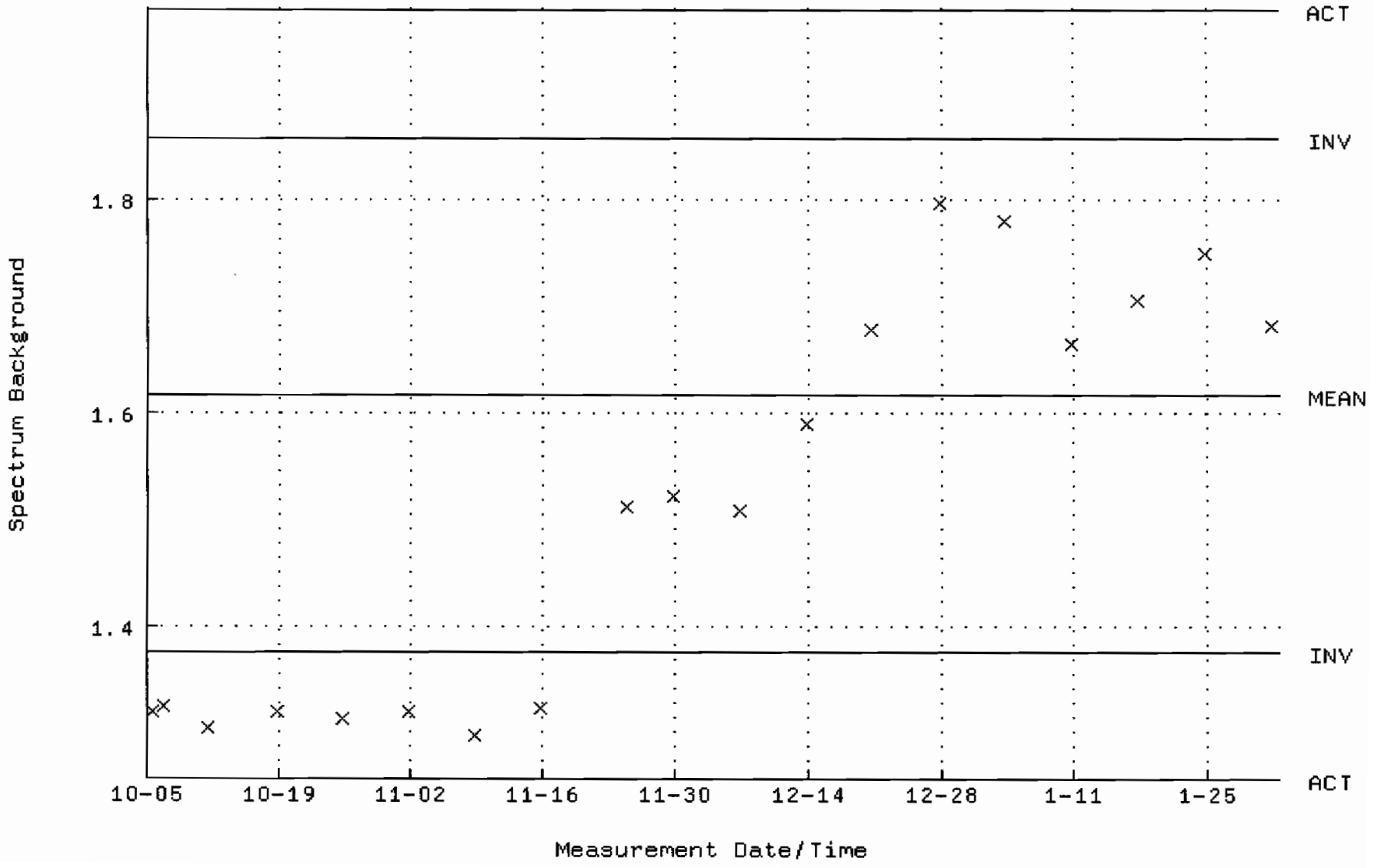

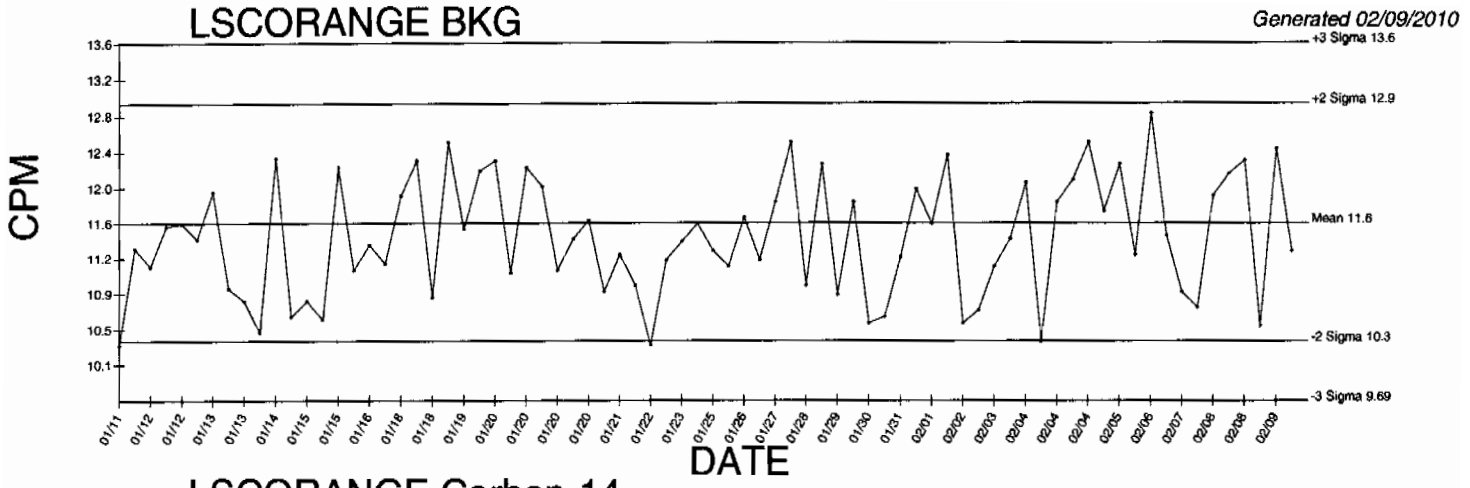

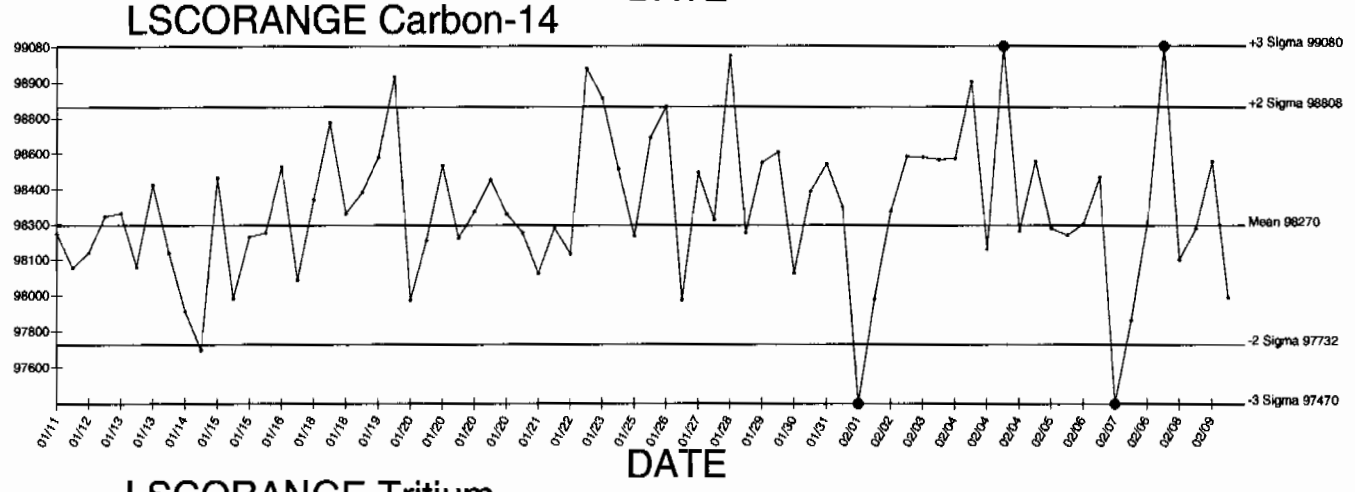

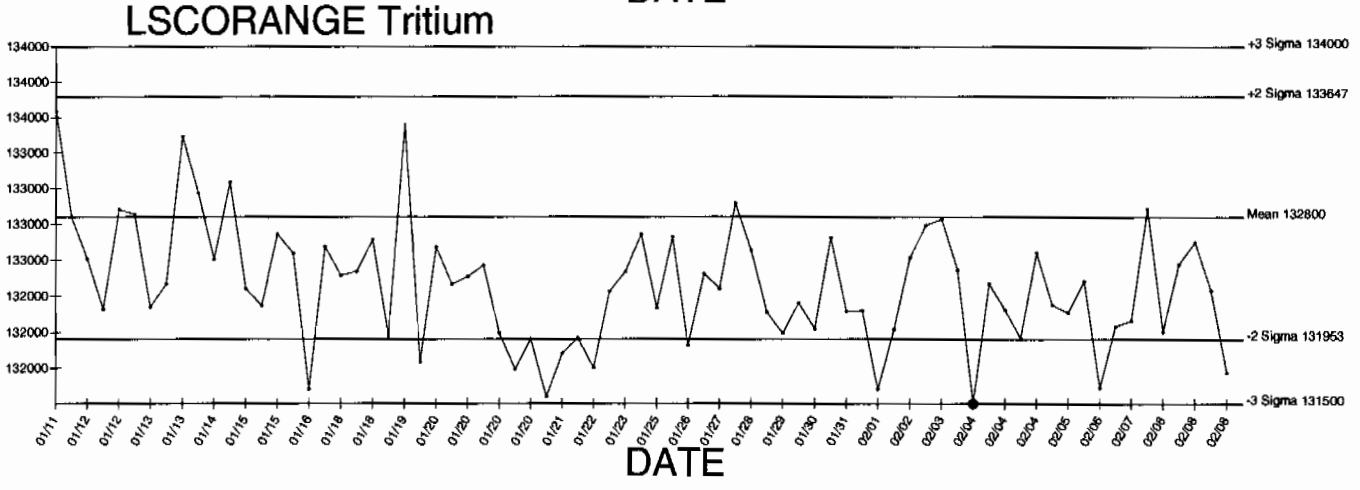

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case
W.F. Case

RC-5-023-Ae1a

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Adams 4/9/09
Amanda L. Fehr 4/9/09

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Corporate Office
24937 Avenue Tibbitts, Valencia, California 91355
Laboratory
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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR. 1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR. 3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2

Mean Value (Counting) =	886.90	**95.01**	**Pass**
Stdev =	28.651	**Rule 3 (Pass/Fail)**	

Certificate Value =	933.44144	pCi/L
Lower Limit =	829.597644	pCi/L
Upper Limit =	944.202356	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	57.30235597	
10 % of Mean =	88.69000000	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Neff 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	485 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No. _____

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7216794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-1~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0887

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Minton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

1. Relinquished by	Org.	Date	Time	4. Relinquished by	Org.	Date	
1. Received by	Org.	Date	Time	4. Received by	Org.	Date	
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date	
2. Received by	Org.	Date	Time	5. Received by	Org.	Date	
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date	
3. Received by	Org.	Date	Time	6. Received by	Org.	Date	

1. Relinquished by: Douglas E. Perry — Org. 7577 — Date 11-16-99 — Time 0900

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)

Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7926 7494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1/3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-1~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (LAB USE)
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized mud materials being sent to GEL on behalf of Hank Hinton.
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Inits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0887

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridean 5/15/09
Robert Bin 007509

Eckert & Ziegler
Analytics

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Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-5-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMD 12/14/09

1375

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/2/01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**$(1.105 \pm 0.002)\ g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: $(0.092 \pm 0.018)\ Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One µSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (µSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) = |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 947554**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245808001	SAMPLE	RXF2	GAM04	11-FEB-10 22:26	DONE	CAN	05-MAY-09 00:00
245808002	SAMPLE	RXF2	GAM17	11-FEB-10 22:26	DONE	CAN	06-JAN-10 00:00
245808003	SAMPLE	RXF2	GAM18	11-FEB-10 22:27	DONE	CAN	23-APR-09 00:00
245808004	SAMPLE	RXF2	GAM19	11-FEB-10 22:27	DONE	CAN	12-MAR-09 00:00
245808005	SAMPLE	RXF2	GAM10	12-FEB-10 16:57	DONE	CAN	16-MAR-09 00:00
245808006	SAMPLE	RXF2	GAM11	12-FEB-10 16:58	DONE	CAN	18-NOV-09 00:00
245808007	SAMPLE	RXF2	GAM23	12-FEB-10 17:00	DONE	CAN	02-JUN-09 00:00
245808008	SAMPLE	RXF2	GAM15	12-FEB-10 17:37	DONE	CAN	03-FEB-10 00:00
1202029817	MB	RXF2	GAM12	12-FEB-10 17:51	DONE	CAN	10-FEB-09 00:00
1202029818	DUP	RXF2	GAM22	12-FEB-10 17:52	DONE	CAN	02-DEC-09 00:00
1202029819	LCS	RXF2	GAM20	12-FEB-10 18:28	DONE	CAN	26-AUG-09 00:00

Instrument Run Log

Instrument Type: LSC **Batch ID: 948404**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245808001	SAMPLE	KXK2	LSCORANGE	09-FEB-10 09:37	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
245808002	SAMPLE	KXK2	LSCORANGE	09-FEB-10 10:00	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
245808003	SAMPLE	KXK2	LSCORANGE	09-FEB-10 10:17	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
245808004	SAMPLE	KXK2	LSCORANGE	09-FEB-10 10:29	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
245808005	SAMPLE	KXK2	LSCORANGE	09-FEB-10 10:35	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
245808006	SAMPLE	KXK2	LSCORANGE	09-FEB-10 11:18	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
245808007	SAMPLE	KXK2	LSCORANGE	09-FEB-10 11:24	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
245808008	SAMPLE	KXK2	LSCORANGE	09-FEB-10 12:07	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
1202031688	MB	KXK2	LSCORANGE	09-FEB-10 12:49	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
1202031689	DUP	KXK2	LSCORANGE	09-FEB-10 13:32	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
1202031690	LCS	KXK2	LSCORANGE	09-FEB-10 13:44	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 950408**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245808001	SAMPLE	AYB1	1038	16-FEB-10 14:33	DONE		
245808002	SAMPLE	AYB1	1039	16-FEB-10 14:33	DONE		
245808003	SAMPLE	AYB1	1040	16-FEB-10 14:33	DONE		
245808004	SAMPLE	AYB1	1041	16-FEB-10 14:33	DONE		
245808005	SAMPLE	AYB1	1042	16-FEB-10 14:33	DONE		
245808006	SAMPLE	AYB1	1043	16-FEB-10 14:33	DONE		
245808007	SAMPLE	AYB1	1044	16-FEB-10 14:33	DONE		
245808008	SAMPLE	AYB1	1045	16-FEB-10 14:33	DONE		
1202036746	MB	AYB1	1046	16-FEB-10 14:33	DONE		
1202036747	DUP	AYB1	1047	16-FEB-10 14:33	DONE		
1202036748	LCS	AYB1	1048	16-FEB-10 14:33	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 950409**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245808001	SAMPLE	AYB1	1115	15-FEB-10 21:11	DONE		
245808002	SAMPLE	AYB1	1119	15-FEB-10 21:11	DUSE		
245808003	SAMPLE	AYB1	1117	15-FEB-10 21:11	DONE		
245808004	SAMPLE	AYB1	1118	15-FEB-10 21:11	DUSE		
245808005	SAMPLE	AYB1	1120	15-FEB-10 21:11	DONE		
245808006	SAMPLE	AYB1	1121	15-FEB-10 21:11	DUSE		
245808007	SAMPLE	AYB1	1122	15-FEB-10 21:11	DONE		
245808008	SAMPLE	AYB1	1123	15-FEB-10 21:11	DONE		
1202036749	MB	AYB1	1124	15-FEB-10 21:11	DUSE		
1202036750	DUP	AYB1	1125	15-FEB-10 21:12	DONE		
1202036751	LCS	AYB1	1126	15-FEB-10 21:12	DONE		
1202036749	MB	AYB1	1011	18-FEB-10 17:13	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 954558**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245808001	SAMPLE	AYB1	1228	20-FEB-10 13:37	DONE		
245808002	SAMPLE	AYB1	1229	20-FEB-10 13:37	DONE		
245808003	SAMPLE	AYB1	1230	20-FEB-10 13:37	DONE		
245808004	SAMPLE	AYB1	1235	20-FEB-10 13:37	DONE		
245808005	SAMPLE	AYB1	1236	20-FEB-10 13:37	DONE		
1202046259	MB	AYB1	1238	20-FEB-10 13:37	DONE		
245808006	SAMPLE	AYB1	1239	20-FEB-10 13:37	DONE		
245808007	SAMPLE	AYB1	1240	20-FEB-10 13:37	DONE		
1202046260	DUP	AYB1	1244	20-FEB-10 13:37	DONE		
1202046261	LCS	AYB1	1198	20-FEB-10 13:39	DONE		
245808008	SAMPLE	AYB1	1241	20-FEB-10 14:58	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 954559**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245808002	SAMPLE	AYB1	1144	22-FEB-10 12:42	DONE		
245808004	SAMPLE	AYB1	1145	22-FEB-10 12:42	DONE		
245808006	SAMPLE	AYB1	1146	22-FEB-10 12:42	DONE		
246271002	SAMPLE	AYB1	1147	22-FEB-10 12:42	DONE		
1202046263	MB	AYB1	1148	22-FEB-10 12:42	DONE		
1202046264	DUP	AYB1	1150	22-FEB-10 12:42	DONE		
1202046265	LCS	AYB1	1151	22-FEB-10 12:42	DONE		

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1474

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-8082	W	1/26/2010	
	SW-846:6850	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	
	SW-846:7470A	1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	
	SW-846:7471A	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	SW-846:9012A	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	

Final Page of REQUEST NUMBER 10-1474

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1474

REQUEST NUMBER: 10-1474

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7954	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7956	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7955	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7953	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7952	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8060	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8058	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8059	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8081	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8081	1	POLY	SW-846:6850	Ice	W
RE15-10-8081	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8082	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8082	1	POLY	SW-846:6850	Ice	W
RE15-10-8082	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
Joe Lu S		1/28/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7952 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1400	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610745	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray moist tuff

SAMPLE COMMENTS: Hit tuff at 1.5 ft

LOCATION DESC: 8b-65 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 1997 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteven Lujan	1/27/10	(Printed Name)	1/28/10
(Signature)	09:16 Am	(Signature)	9:38
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7953 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Alh
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610746	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.8	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand

FD RE15-10-8060

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1970 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:15AM	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7954 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		1512	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610746	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 33 dpm
Beta/Gamma ≤ 3340 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:16AM	(Printed Name) Sherri Sherwood	1/27/10 0916
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7955 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1515	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610747	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown silty sand with some tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-35 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha = 5 dpm
Beta/Gamma = 4250 dpm

PID Ambient 0.0 / Reading 8.9 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLM cFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) E Lujan	09:16 AM	(Signature) Sherri Sherwood	0916
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7956 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1530	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610747	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff, tuff fragments

FR RE15-10-8082

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-35 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha 44 dpm
Beta/Gamma 2910 dpm

PID Ambient Reading 0.0 / 7.1 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:15 AM	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8058 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	↓	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	✓	FIELD PREP:	NA	✓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER 72m 1/26/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 JC	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-7947
brown sandy silt, rocks, Some roots, pine needles

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-43 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 2300 **dpm**

PID Ambient 0.1 / Reading 1.5 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:21 Am	(Signature)	938
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8059 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1047	SUB-MEDIA:	TUFF 1	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	15-610742	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	2.5	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
		12m 1/26/10				
1	Normal	~~80827~~ NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 LC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7946 Gray tuff

SAMPLE COMMENTS: Tuff at 2 ft

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 2070 **dpm**

PID Ambient 0.1 / Reading 83 **ppm**

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:20 Am	(Printed Name) Sherri Sherwood	1/27/10 0920
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8060 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-61074	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	0.8	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER 72h 1/26/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 LC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7953

Brown sand

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 **dpm**
Beta/Gamma ≤ 7970 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:15 AM	(Signature)	935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8081 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1028	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610742	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	W	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7945 Rinsate

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = RS 01.26.10 dpm
~~Beta/Gamma~~ = ____ dpm

PID ~~Ambient Reading~~ RS 01.26.10 = ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:19Am	(Signature) Sherri Sherwood	0919
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8082 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1547	SUB-MEDIA:	OTHER	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	↓
LOCATION ID:	UNK	15-610747	FIELD QC TYPE:	FR	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	↓	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	↓	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1	↓	SW-846:6850	250 ML POLY	Ice	Y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7956

SAMPLE COMMENTS: Rinsate

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = _____ **dpm** TLM 1/26/10
Beta/~~Gamma~~ = _____ **dpm**

PID ~~**Ambient Reading**~~ **= ppm** TLM 1/26/10

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) E Lj	09:14AM	(Signature) Sherri Sherwood	0914
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7890
" " 7889
" " 7956
" " 7953
" " 8060
" " 7954
" " 7955
" " 7952
" " 7951
" " 7949

RE15-10-7886
" " 7885
" " 7882
" " 7881
" " 7941
" " 7942
" " 7943
" " 7944
" " 8059
" " 7946
" " 7945

RE15-10 7948
" " 7947
" " 8058
" " 7950

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8082
RE15-10-8081

Reason: Field Rinsate.

Print Last Name Lujan Signature [signature] Date 1/27/10

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7982	ARS Sample ID:	ARS2-10-00026-007
Sample Collection Date:	01/26/10 14:00	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Result	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	62.18	35.32	30.56	36.33		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	81.19	20.92	19.68	23.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-0.16	-12.45	5.49	-12.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.59	0.15	14.59		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	19.09	0.09	19.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.42	0.49	0.17	0.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.86	0.64	0.15	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.89	1.11	0.39	1.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	82.03	0.23	82.03		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	5.90	4.57	1.79	4.76		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.41	0.48	0.18	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.69

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7953	ARS Sample ID:	ARS2-10-00026-008
Sample Collection Date:	01/26/10 14:57	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	157.42	54.95	38.20	58.23		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	199.89	29.07	18.71	38.00		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-0.78	-24.74	3.32	-34.74		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.08	7.42	0.08	7.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.05	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.42	0.22	0.05	0.22		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.49	0.40	0.09	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.00	0.39	0.14	0.39		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	0.74	0.30	0.28	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.25	1.18	0.46	1.19		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	82.56	8.88	2.44	20.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	1.34	1.06	0.39	1.06		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.56

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7954	ARS Sample ID:	ARS2-10-00026-009
Sample Collection Date:	01/26/10 15:12	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 17:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Dual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	109.48	47.65	36.02	49.50		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	103.84	21.75	17.51	25.22		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	27.12	10.11	2.13	10.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	13.97	0.14	13.97		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.04	0.11	0.09	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.10	0.83	0.16	0.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.84	0.61	0.13	0.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.52	1.45	0.37	1.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	157.74	0.35	157.74		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	20.50	6.40	2.03	7.93		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.09	0.29	0.15	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.64

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: AR52-10-00026
Client Sample ID: RE15-10-7955
Sample Collection Date: 01/26/10 15:15
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00026-010
Date Received: 01/27/10 00:00
Report Date: 01/28/10 12:07

Analysis Description	Analysis Result	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	62.00	35.66	31.66	35.88		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	94.28	20.75	18.10	23.74		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.17	7.18	1.39	7.21		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.16	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.24	0.25	0.09	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.61	0.46	0.11	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.05	0.45	0.17	0.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.72	0.72	0.24	0.72		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.40	1.46	0.46	1.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	47.98	7.34	2.12	13.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.04	0.25	0.15	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.72

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00026
Client Sample ID: RE15-10-7956
Sample Collection Date: 01/26/10 15:30
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00026-011
Date Received: 01/27/10 00:00
Report Date: 01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	91.15	42.42	30.56	43.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	83.97	21.62	19.68	23.04		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	28.52	9.81	1.93	9.85		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.64	0.13	12.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.11	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	16.54	0.08	16.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	13.15	0.15	13.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.71	0.55	0.11	0.56		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.20	0.57	0.34	0.57		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.49	1.03	0.38	1.03		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	19.18	7.15	2.41	8.39		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.61	0.54	0.20	0.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.57

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # F87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-8060	ARS Sample ID:	ARS2-10-00026-012
Sample Collection Date:	01/26/10 14:57	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	152.81	54.21	38.20	57.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	223.52	30.34	18.71	40.86		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.72	6.49	1.13	6.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	7.37	0.07	7.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.26	0.17	0.05	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.13	0.15	0.05	0.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.32	0.36	0.09	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.62	0.36	0.16	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.04	0.98	0.20	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.66	1.34	0.49	1.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	88.93	10.06	2.90	22.66		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.69	0.70	0.31	0.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.51

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-8058	ARS Sample ID:	ARS2-10-00025-014
Sample Collection Date:	01/26/10 10:29	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	182.13	58.02	31.78	62.15		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	154.91	26.46	18.25	32.55		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-1.75	2369.70	4.25	2369.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.08	0.16	0.13	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.10	0.11	0.09	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.08	0.42	0.08	0.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.73	0.52	0.15	0.52		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.07	0.45	0.11	0.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.49	0.83	0.34	0.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.85	1.12	0.48	1.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	15.92	5.50	1.66	6.60		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.44	0.33	0.11	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.74

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: NE15-10-8059
Sample Collection Date: 01/26/10 10:47
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-015
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	149.10	53.62	30.56	56.64		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	114.64	24.84	19.68	24.54		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	0.71	9.53	5.30	9.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.06	0.17	0.14	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.36	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.02	0.12	0.11	0.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.05	0.64	0.16	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.21	0.53	0.17	0.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.00	0.66	0.43	0.66		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.42	1.28	0.36	1.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	2.14	2.80	1.36	2.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.29	0.35	0.14	0.35		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.83

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7952	ARS Sample ID:	ARS2-10-00026-007
Sample Collection Date:	01/26/10 14:00	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	62.18	35.52	30.56	36.33		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	81.19	20.92	19.68	23.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-0.16	-12.45	5.49	-12.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.58	0.15	14.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	19.09	0.09	19.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.42	0.49	0.17	0.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.86	0.64	0.15	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.69	1.11	0.39	1.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	82.03	0.23	82.03		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	5.90	4.57	1.79	4.76		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.41	0.48	0.18	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.69

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00026

Client Sample ID: RE15-10-7953

Sample Collection Date: 01/26/10 14:57

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00026-008

Date Received: 01/27/10 00:00

Report Date: 01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	157.42	54.95	38.20	58.23		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	199.89	29.87	18.71	38.00		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-0.78	-24.74	3.32	-24.74		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	7.42	0.08	7.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.05	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.42	0.22	0.05	0.22		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.49	0.40	0.09	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.00	0.39	0.14	0.39		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	0.94	0.30	0.28	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.25	1.18	0.46	1.19		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	32.86	8.88	2.44	20.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	1.34	1.06	0.59	1.06		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.56

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1474 VALIDATION DATE: 03/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ HIGH EXPLOSIVES
- ☐ DIOXIN FURANS
- ☒ LCMSMS PERCHLORATES
- ☐ TPH-DRO
- ☐ METALS
- ☐ PCB CONGENERS
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ GENERAL CHEMISTRY
- ☐ RADIOCHEMISTRY
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %R calculations were performed incorrectly for the aqueous and the soil analyses. The parent sample results were < the MDL and, thus, a result of 0 ug/L or 0 ug/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentrations. The %Rs were within the acceptance limit when calculated correctly. The MS and MSD for the soil and aqueous analyses were performed on samples from other LANL RNs and the raw data for the parent samples were not included in the data package. No sample results were qualified.

Reviewed by: Mary Donivan Level: II Date: 03/10/10

VALIDATOR'S SIGNATURE: Joanne Compton	DATE: 03/09/10
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7954

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806001

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	12-FEB-10 17:05	per0212030a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:05	per0212030a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	12-FEB-10 17:05	per0212030a
	Perchlorate-O(18)			5.63	ug/kg		1	12-FEB-10 17:05	per0212030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JCC
03/09/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7956

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806002

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 93.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.533	2.13	0.923	ug/kg	J	1	12-FEB-10 17:37	per0212034a
	Perchlorate Isotope Ratio			2.92			1	12-FEB-10 17:37	per0212034a
14797-73-0	Perchlorate-101	.533	2.13	0.974	ug/kg	J	1	12-FEB-10 17:37	per0212034a
	Perchlorate-O(18)			5.69	ug/kg		1	12-FEB-10 17:37	per0212034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7955

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806003

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.61	2.44	0.610	ug/kg	U	1	12-FEB-10 17:45	per0212035a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:45	per0212035a
14797-73-0	Perchlorate-101	.61	2.44	0.610	ug/kg	U	1	12-FEB-10 17:45	per0212035a
	Perchlorate-O(18)			6.47	ug/kg		1	12-FEB-10 17:45	per0212035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7953

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806004

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	12-FEB-10 17:53	per0212036a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:53	per0212036a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	12-FEB-10 17:53	per0212036a
	Perchlorate-O(18)			6.12	ug/kg		1	12-FEB-10 17:53	per0212036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7952

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806005

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 93.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.536	2.14	0.536	ug/kg	U	1	12-FEB-10 18:01	per0212037a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:01	per0212037a
14797-73-0	Perchlorate-101	.536	2.14	0.536	ug/kg	U	1	12-FEB-10 18:01	per0212037a
	Perchlorate-O(18)			5.80	ug/kg		1	12-FEB-10 18:01	per0212037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8060

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806006

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.585	2.34	0.585	ug/kg	U	1	12-FEB-10 18:09	per0212038a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:09	per0212038a
14797-73-0	Perchlorate-101	.585	2.34	0.585	ug/kg	U	1	12-FEB-10 18:09	per0212038a
	Perchlorate-O(18)			6.04	ug/kg		1	12-FEB-10 18:09	per0212038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8058

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806007

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.78	3.12	0.780	ug/kg	U	1	12-FEB-10 18:17	per0212039a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:17	per0212039a
14797-73-0	Perchlorate-101	.78	3.12	0.780	ug/kg	U	1	12-FEB-10 18:17	per0212039a
	Perchlorate-O(18)			8.72	ug/kg		1	12-FEB-10 18:17	per0212039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8059

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806008

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 92.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	12-FEB-10 18:25	per0212040a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:25	per0212040a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	12-FEB-10 18:25	per0212040a
	Perchlorate-O(18)			6.02	ug/kg		1	12-FEB-10 18:25	per0212040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8081

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474-1

GEL Sample ID: 245807001

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	01-FEB-10 16:22	per0201014a
	Perchlorate Isotope Ratio						1	01-FEB-10 16:22	per0201014a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	01-FEB-10 16:22	per0201014a
	Perchlorate-O(18)			0.477	ug/L		1	01-FEB-10 16:22	per0201014a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8082

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474-1

GEL Sample ID: 245807002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:34	per0131074a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:34	per0131074a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:34	per0131074a
	Perchlorate-O(18)			0.499	ug/L		1	31-JAN-10 21:34	per0131074a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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Section I.

REQUEST NUMBER: 10-1474 VALIDATION DATE: 03/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the soil MB, U was detected. The associated results for samples RE15-10-7952 and -8059 were detects >5X but ≤50X the MB concentration and, thus, were qualified J,I4a. The associated results for all samples except RE15-10-7952 and -8059 were detects > 50X the MB concentration and, thus, were not qualified based on professional judgment.

   In the aqueous MB, Mg was detected. The associated sample results were NDs and, thus, were not qualified.

2. In the CCBs associated with the soil analysis, Na, Pb, Tl, and Hg were detected. The associated sample results for Hg, Tl results for samples -7954, -7956, -7955, -8058, Na results for samples -7953, -8060, -8058, and Pb results for samples -7952and -8059 were detects ≤ 5X the greatest associated blank concentration and, thus, were qualified U,I4b. All other associated sample results were either NDs or detects >5X the greatest blank concentration and, thus, were not qualified.

DATA VALIDATION COVER SHEET

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Data Validation Cover Sheet

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In the CCBs associated with the aqueous analysis, Mg and Tl were detected. The associated sample results were NDs and, thus, were not qualified.

3. In the FR blanks, samples RE15-10-8081 and -8082 associated with all samples, Na, K, Pb, and U were detected. The Na sample results associated with samples -7956, -7955, -7953, -8060, and -8058 were detects ≤ 5X the greatest FR blank concentration and, thus, were qualified U,I4d. All other associated sample results were either NDs or detects >5X the greatest FR blank concentration and, thus, were not qualified.
4. In the aqueous analysis, the ICV %R was > the method specified limits for Al. The associated sample results were NDs and, thus, qualified UJ,I7c.
5. The soil MS %Rs for Cu, Mg, Mn and K were > the laboratory UAL. The associated sample results were detects and, thus, qualified J+,I6b. The soil MS %Rs for Al, Fe, and U were also > the laboratory UAL. The aqueous MS %R for Ca was < the laboratory LAL but ≥10%. However, the associated parent sample results were detects > than 4X the spike amount and, thus, no sample results were qualified based on professional judgment.
6. The soil duplicate RPD was >35% and the parent and duplicate sample results were ≥ 5X the PQLs for Cr, Cu, Pb, Be, and Ni. The Pb results for samples -7952 and -8059 were qualified ND and, thus, were qualified UJ,I10a. The remaining associated sample results were detects and, thus, were qualified J,I10a.
7. It should be noted that the matrix QC for the aqueous ICP-AES and ICP-MS analysis were performed on samples from other LANL RNs and that the raw data for the parent samples were not included in the data package. It should also be noted that the matrix QC aqueous ICP-AES analysis was performed on the FR blank -8081. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/10/10

VALIDATOR'S SIGNATURE: Joanne Compton DATE: 03/09/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806001 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7954 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3360000	ug/Kg		6790	20000	20000	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-36-0	Antimony	5040	ug/Kg	*	329	998	998	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-38-2	Arsenic	1.48	mg/kg		0.209	1.05	1.05	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-39-3	Barium	48800	ug/Kg		99.8	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-41-7	Beryllium J,I10a	1.37	mg/kg	*	0.0209	0.105	0.105	2	MS	SKJ	02/19/10 14:42	100219-4	948073
7440-43-9	Cadmium	499	ug/Kg	U	99.8	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-70-2	Calcium	1100000	ug/Kg		7990	25000	25000	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-47-3	Chromium J,I10a	13400	ug/Kg	*	150	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-48-4	Cobalt	3090	ug/Kg	*	150	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-50-8	Copper J+,I6b	115000	ug/Kg	*N	299	998	998	1	P	HSC	02/17/10 02:45	021610-1	948071
7439-89-6	Iron	9310000	ug/Kg		16000	49900	49900	2	P	HSC	02/23/10 14:32	022310A-2	948071
7439-92-1	Lead J,I10a	578000	ug/Kg	*	499	2000	2000	2	P	HSC	02/23/10 14:32	022310A-2	948071
7439-95-4	Magnesium J+,I6b	696000	ug/Kg	N	17000	59900	59900	2	P	HSC	02/23/10 14:32	022310A-2	948071
7439-96-5	Manganese J+,I6b	192000	ug/Kg	N	200	998	998	1	P	HSC	02/17/10 02:45	021610-1	948071
7439-97-6	Mercury U, I4b	14.4	ug/kg		4.13	12.2	12.2	1	AV	JXL1	02/16/10 09:40	021610S2-5	947650
7440-02-0	Nickel J,I10a	7.19	mg/kg	*N	0.105	0.419	0.419	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-09-7	Potassium J+,I6b	460000	ug/Kg	N	6390	25000	25000	1	P	HSC	02/17/10 02:45	021610-1	948071
7782-49-2	Selenium	1.05	mg/kg	U	0.524	1.05	1.05	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-22-4	Silver	766	ug/Kg		99.8	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-23-5	Sodium	85000	ug/Kg		6990	25000	25000	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-28-0	Thallium U, I4b	0.0878	mg/kg	J	0.0628	0.209	0.209	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-61-1	Uranium	84.4	mg/kg	*	0.0138	0.0419	0.0419	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-62-2	Vanadium	8040	ug/Kg		99.8	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-66-6	Zinc	36600	ug/Kg		329	998	998	1	P	HSC	02/17/10 02:45	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.524	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.532	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.507	g	50	mL	02/08/10	FGA

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03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806002 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7956 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 93.9

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		4800000	ug/Kg		6930	20400	20400	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-36-0	Antimony		528	ug/Kg	J*	336	1020	1020	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-38-2	Arsenic		2.82	mg/kg		0.206	1.03	1.03	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-39-3	Barium		54600	ug/Kg		102	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-41-7	Beryllium	J,I10a	29.1	mg/kg	*	0.0206	0.103	0.103	2	MS	SKJ	02/19/10 14:58	100219-4	948073
7440-43-9	Cadmium		509	ug/Kg	U	102	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-70-2	Calcium		2290000	ug/Kg		8150	25500	25500	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-47-3	Chromium	J,I10a	11200	ug/Kg	*	153	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-48-4	Cobalt		2060	ug/Kg	*	153	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-50-8	Copper	J+,I6b	73900	ug/Kg	*N	306	1020	1020	1	P	HSC	02/17/10 03:33	021610-1	948071
7439-89-6	Iron		8990000	ug/Kg		16300	50900	50900	2	P	HSC	02/24/10 08:48	022310A-2	948071
7439-92-1	Lead	J,I10a	23900	ug/Kg	*	509	2040	2040	2	P	HSC	02/24/10 08:48	022310A-2	948071
7439-95-4	Magnesium	J+,I6b	1050000	ug/Kg	N	17300	61100	61100	2	P	HSC	02/24/10 08:48	022310A-2	948071
7439-96-5	Manganese	J+,I6b	185000	ug/Kg	N	204	1020	1020	1	P	HSC	02/17/10 03:33	021610-1	948071
7439-97-6	Mercury	U, I4b	15.5	ug/kg		3.8	11.2	11.2	1	AV	JXL1	02/16/10 09:51	021610S2-5	947650
7440-02-0	Nickel	J,I10a	7.17	mg/kg	*N	0.103	0.412	0.412	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-09-7	Potassium	J+,I6b	675000	ug/Kg	N	6520	25500	25500	1	P	HSC	02/17/10 03:33	021610-1	948071
7782-49-2	Selenium		0.640	mg/kg	J	0.515	1.03	1.03	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-22-4	Silver		692	ug/Kg		102	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-23-5	Sodium	U, I4d	63900	ug/Kg		7130	25500	25500	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-28-0	Thallium	U, I4b	0.139	mg/kg	J	0.0618	0.206	0.206	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-61-1	Uranium		69.8	mg/kg	*	0.0136	0.0412	0.0412	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-62-2	Vanadium		11400	ug/Kg		102	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-66-6	Zinc		32100	ug/Kg		336	1020	1020	1	P	HSC	02/17/10 03:33	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.572	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.523	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.517	g	50	mL	02/08/10	FGA

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03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806003 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7955 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		3390000	ug/Kg		7960	23400	23400	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-36-0	Antimony		5530	ug/Kg	*	386	1170	1170	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-38-2	Arsenic		1.8	mg/kg		0.233	1.17	1.17	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-39-3	Barium		73400	ug/Kg		117	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-41-7	Beryllium	J,I10a	6.85	mg/kg	*	0.0233	0.117	0.117	2	MS	SKJ	02/19/10 15:00	100219-4	948073
7440-43-9	Cadmium		242	ug/Kg	J	117	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-70-2	Calcium		1460000	ug/Kg		9370	29300	29300	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-47-3	Chromium	J,I10a	6870	ug/Kg	*	176	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-48-4	Cobalt		6080	ug/Kg	*	176	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-50-8	Copper	J+,I6b	1200000	ug/Kg	*N	351	1170	1170	1	P	HSC	02/17/10 03:41	021610-1	948071
7439-89-6	Iron		8710000	ug/Kg		18700	58500	58500	2	P	HSC	02/23/10 15:27	022310A-2	948071
7439-92-1	Lead	J,I10a	203000	ug/Kg	*	585	2340	2340	2	P	HSC	02/23/10 15:27	022310A-2	948071
7439-95-4	Magnesium	J+,I6b	713000	ug/Kg	N	19900	70300	70300	2	P	HSC	02/23/10 15:27	022310A-2	948071
7439-96-5	Manganese	J+,I6b	234000	ug/Kg	N	234	1170	1170	1	P	HSC	02/17/10 03:41	021610-1	948071
7439-97-6	Mercury	U, I4b	15.7	ug/kg		4.58	13.5	13.5	1	AV	JXL1	02/16/10 09:53	021610S2-5	947650
7440-02-0	Nickel	J,I10a	6.47	mg/kg	*N	0.117	0.467	0.467	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-09-7	Potassium	J+,I6b	586000	ug/Kg	N	7490	29300	29300	1	P	HSC	02/17/10 03:41	021610-1	948071
7782-49-2	Selenium		1.17	mg/kg	U	0.583	1.17	1.17	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-22-4	Silver		1060	ug/Kg		117	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-23-5	Sodium	U, I4d	68300	ug/Kg		8200	29300	29300	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-28-0	Thallium	U, I4b	0.0733	mg/kg	J	0.07	0.233	0.233	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-61-1	Uranium		183	mg/kg	*	0.0154	0.0467	0.0467	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-62-2	Vanadium		11300	ug/Kg		117	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-66-6	Zinc		64700	ug/Kg		386	1170	1170	1	P	HSC	02/17/10 03:41	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.544	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.521	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.523	g	50	mL	02/08/10	FGA

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03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806004 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7953 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2950000	ug/Kg		7470	22000	22000	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-36-0	Antimony	256000	ug/Kg	*	362	1100	1100	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-38-2	Arsenic	2.29	mg/kg		0.223	1.12	1.12	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-39-3	Barium	89000	ug/Kg		110	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-41-7	Beryllium J,I10a	12.2	mg/kg	*	0.0223	0.112	0.112	2	MS	SKJ	02/19/10 15:03	100219-4	948073
7440-43-9	Cadmium	448	ug/Kg	J	110	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-70-2	Calcium	1220000	ug/Kg		8780	27500	27500	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-47-3	Chromium J,I10a	10500	ug/Kg	*	165	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-48-4	Cobalt	2690	ug/Kg	*	165	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-50-8	Copper J+,I6b	686000	ug/Kg	*N	329	1100	1100	1	P	HSC	02/17/10 03:48	021610-1	948071
7439-89-6	Iron	6900000	ug/Kg		17600	54900	54900	2	P	HSC	02/23/10 15:34	022310A-2	948071
7439-92-1	Lead J,I10a	138000000	ug/Kg	*	27500	110000	110000	100	P	HSC	02/23/10 17:46	022310A-2	948071
7439-95-4	Magnesium J+,I6b	862000	ug/Kg	N	18700	65900	65900	2	P	HSC	02/23/10 15:34	022310A-2	948071
7439-96-5	Manganese J+,I6b	140000	ug/Kg	N	220	1100	1100	1	P	HSC	02/17/10 03:48	021610-1	948071
7439-97-6	Mercury U, I4b	17.7	ug/kg		4.23	12.4	12.4	1	AV	JXL1	02/16/10 09:59	021610S2-5	947650
7440-02-0	Nickel J,I10a	8.47	mg/kg	*N	0.112	0.447	0.447	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-09-7	Potassium J+,I6b	340000	ug/Kg	N	7030	27500	27500	1	P	HSC	02/17/10 03:48	021610-1	948071
7782-49-2	Selenium	1.12	mg/kg	U	0.559	1.12	1.12	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-22-4	Silver	2520	ug/Kg		110	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-23-5	Sodium U, I4b	42700	ug/Kg		7690	27500	27500	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-28-0	Thallium	0.223	mg/kg	U	0.067	0.223	0.223	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-61-1	Uranium	362	mg/kg	*	0.0147	0.0447	0.0447	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-62-2	Vanadium	9670	ug/Kg		110	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-66-6	Zinc	125000	ug/Kg		362	1100	1100	1	P	HSC	02/17/10 03:48	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.562	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.53	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.521	g	50	mL	02/08/10	FGA

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03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806005 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7952 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 93.3

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		1670000	ug/Kg		7100	20900	20900	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-36-0	Antimony		1040	ug/Kg	U*	345	1040	1040	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-38-2	Arsenic		0.839	mg/kg	J	0.201	1.01	1.01	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-39-3	Barium		48800	ug/Kg		104	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-41-7	Beryllium	J,I10a	0.310	mg/kg	*	0.0201	0.101	0.101	2	MS	SKJ	02/19/10 15:10	100219-4	948073
7440-43-9	Cadmium		522	ug/Kg	U	104	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-70-2	Calcium		569000	ug/Kg		8360	26100	26100	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-47-3	Chromium	J,I10a	24000	ug/Kg	*	157	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-48-4	Cobalt		5010	ug/Kg	*	157	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-50-8	Copper	J+,I6b	4310	ug/Kg	*N	313	1040	1040	1	P	HSC	02/17/10 03:55	021610-1	948071
7439-89-6	Iron		8550000	ug/Kg		16700	52200	52200	2	P	HSC	02/23/10 17:53	022310A-2	948071
7439-92-1	Lead	U, I4b	7460	ug/Kg	*	522	2090	2090	2	P	HSC	02/23/10 17:53	022310A-2	948071
7439-95-4	Magnesium	J+,I6b	390000	ug/Kg	N	17800	62700	62700	2	P	HSC	02/23/10 17:53	022310A-2	948071
7439-96-5	Manganese	J+,I6b	354000	ug/Kg	N	209	1040	1040	1	P	HSC	02/17/10 03:55	021610-1	948071
7439-97-6	Mercury	U, I4b	22.2	ug/kg		4.2	12.3	12.3	1	AV	JXL1	02/16/10 10:01	021610S2-5	947650
7440-02-0	Nickel	J,I10a	4.07	mg/kg	*N	0.101	0.403	0.403	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-09-7	Potassium	J+,I6b	353000	ug/Kg	N	6690	26100	26100	1	P	HSC	02/17/10 03:55	021610-1	948071
7782-49-2	Selenium		1.01	mg/kg	U	0.504	1.01	1.01	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-22-4	Silver		589	ug/Kg		104	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-23-5	Sodium		128000	ug/Kg		7310	26100	26100	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-28-0	Thallium		0.201	mg/kg	U	0.0604	0.201	0.201	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-61-1	Uranium	J,I4a	0.519	mg/kg	*	0.0133	0.0403	0.0403	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-62-2	Vanadium		3900	ug/Kg		104	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-66-6	Zinc		37500	ug/Kg		345	1040	1040	1	P	HSC	02/17/10 03:55	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.521	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.513	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.532	g	50	mL	02/08/10	FGA

JCC
03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806006 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8060 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2550000	ug/Kg		7630	22400	22400	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-36-0	Antimony	8360	ug/Kg	*	370	1120	1120	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-38-2	Arsenic	3.7	mg/kg		0.219	1.1	1.1	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-39-3	Barium	85200	ug/Kg		112	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-41-7	Beryllium J,I10a	9.08	mg/kg	*	0.0219	0.11	0.11	2	MS	SKJ	02/19/10 15:12	100219-4	948073
7440-43-9	Cadmium	229	ug/Kg	J	112	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-70-2	Calcium	1360000	ug/Kg		8970	28000	28000	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-47-3	Chromium J,I10a	9600	ug/Kg	*	168	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-48-4	Cobalt	3890	ug/Kg	*	168	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-50-8	Copper J+,I6b	445000	ug/Kg	*N	336	1120	1120	1	P	HSC	02/17/10 04:02	021610-1	948071
7439-89-6	Iron	6730000	ug/Kg		17900	56100	56100	2	P	HSC	02/23/10 15:48	022310A-2	948071
7439-92-1	Lead J,I10a	952000	ug/Kg	*	561	2240	2240	2	P	HSC	02/23/10 15:48	022310A-2	948071
7439-95-4	Magnesium J+,I6b	653000	ug/Kg	N	19100	67300	67300	2	P	HSC	02/23/10 15:48	022310A-2	948071
7439-96-5	Manganese J+,I6b	144000	ug/Kg	N	224	1120	1120	1	P	HSC	02/17/10 04:02	021610-1	948071
7439-97-6	Mercury U, I4b	17.5	ug/kg		4.78	14	14	1	AV	JXL1	02/16/10 10:02	021610S2-5	947650
7440-02-0	Nickel J,I10a	7.59	mg/kg	*N	0.11	0.439	0.439	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-09-7	Potassium J+,I6b	344000	ug/Kg	N	7180	28000	28000	1	P	HSC	02/17/10 04:02	021610-1	948071
7782-49-2	Selenium	1.1	mg/kg	U	0.548	1.1	1.1	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-22-4	Silver	1240	ug/Kg		112	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-23-5	Sodium U, I4b	59600	ug/Kg		7830	28000	28000	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-28-0	Thallium	0.219	mg/kg	U	0.0658	0.219	0.219	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-61-1	Uranium	352	mg/kg	*	0.0145	0.0439	0.0439	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-62-2	Vanadium	7750	ug/Kg		112	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-66-6	Zinc	52800	ug/Kg		370	1120	1120	1	P	HSC	02/17/10 04:02	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.5	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.522	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.534	g	50	mL	02/08/10	FGA

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03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806007 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8058 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		7390000	ug/Kg		10300	30200	30200	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-36-0	Antimony		1680	ug/Kg	*	498	1510	1510	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-38-2	Arsenic		2.96	mg/kg		0.303	1.51	1.51	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-39-3	Barium		114000	ug/Kg		151	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-41-7	Beryllium	J,I10a	2.84	mg/kg	*	0.0303	0.151	0.151	2	MS	SKJ	02/19/10 15:14	100219-4	948073
7440-43-9	Cadmium		798	ug/Kg		151	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-70-2	Calcium		3730000	ug/Kg		12100	37700	37700	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-47-3	Chromium	J,I10a	10500	ug/Kg	*	226	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-48-4	Cobalt		5630	ug/Kg	*	226	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-50-8	Copper	J+,I6b	148000	ug/Kg	*N	453	1510	1510	1	P	HSC	02/17/10 04:09	021610-1	948071
7439-89-6	Iron		11200000	ug/Kg		24100	75400	75400	2	P	HSC	02/23/10 15:55	022310A-2	948071
7439-92-1	Lead	J,I10a	140000	ug/Kg	*	754	3020	3020	2	P	HSC	02/23/10 15:55	022310A-2	948071
7439-95-4	Magnesium	J+,I6b	1630000	ug/Kg	N	25600	90500	90500	2	P	HSC	02/23/10 15:55	022310A-2	948071
7439-96-5	Manganese	J+,I6b	378000	ug/Kg	N	302	1510	1510	1	P	HSC	02/17/10 04:09	021610-1	948071
7439-97-6	Mercury	U, I4b	41.4	ug/kg		6.35	18.7	18.7	1	AV	JXL1	02/16/10 10:04	021610S2-5	947650
7440-02-0	Nickel	J,I10a	8.08	mg/kg	*N	0.151	0.606	0.606	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-09-7	Potassium	J+,I6b	1490000	ug/Kg	N	9650	37700	37700	1	P	HSC	02/17/10 04:09	021610-1	948071
7782-49-2	Selenium		1.51	mg/kg	U	0.757	1.51	1.51	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-22-4	Silver		1060	ug/Kg		151	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-23-5	Sodium	U, I4b	35700	ug/Kg	J	10600	37700	37700	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-28-0	Thallium	U, I4b	0.139	mg/kg	J	0.0909	0.303	0.303	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-61-1	Uranium		53.8	mg/kg	*	0.02	0.0606	0.0606	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-62-2	Vanadium		20000	ug/Kg		151	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-66-6	Zinc		67200	ug/Kg		498	1510	1510	1	P	HSC	02/17/10 04:09	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.501	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.517	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.515	g	50	mL	02/08/10	FGA

JCC
03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806008 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8059 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 92.7

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		1910000	ug/Kg		7130	21000	21000	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-36-0	Antimony		1050	ug/Kg	U*	346	1050	1050	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-38-2	Arsenic		0.845	mg/kg	J	0.211	1.05	1.05	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-39-3	Barium		30500	ug/Kg		105	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-41-7	Beryllium	J,I10a	0.304	mg/kg	*	0.0211	0.105	0.105	2	MS	SKJ	02/19/10 15:16	100219-4	948073
7440-43-9	Cadmium		525	ug/Kg	U	105	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-70-2	Calcium		779000	ug/Kg		8390	26200	26200	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-47-3	Chromium	J,I10a	16300	ug/Kg	*	157	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-48-4	Cobalt		14300	ug/Kg	*	157	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-50-8	Copper	J+,I6b	5340	ug/Kg	*N	315	1050	1050	1	P	HSC	02/17/10 04:16	021610-1	948071
7439-89-6	Iron		8500000	ug/Kg		16800	52500	52500	2	P	HSC	02/23/10 17:59	022310A-2	948071
7439-92-1	Lead	U, I4b	6900	ug/Kg	*	525	2100	2100	2	P	HSC	02/23/10 17:59	022310A-2	948071
7439-95-4	Magnesium	J+,I6b	386000	ug/Kg	N	17800	62900	62900	2	P	HSC	02/23/10 17:59	022310A-2	948071
7439-96-5	Manganese	J+,I6b	221000	ug/Kg	N	210	1050	1050	1	P	HSC	02/17/10 04:16	021610-1	948071
7439-97-6	Mercury	U, I4b	26.5	ug/kg		4.33	12.7	12.7	1	AV	JXL1	02/16/10 10:06	021610S2-5	947650
7440-02-0	Nickel	J,I10a	4.26	mg/kg	*N	0.105	0.421	0.421	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-09-7	Potassium	J+,I6b	396000	ug/Kg	N	6710	26200	26200	1	P	HSC	02/17/10 04:16	021610-1	948071
7782-49-2	Selenium		1.05	mg/kg	U	0.527	1.05	1.05	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-22-4	Silver		564	ug/Kg		105	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-23-5	Sodium		145000	ug/Kg		7340	26200	26200	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-28-0	Thallium		0.211	mg/kg	U	0.0632	0.211	0.211	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-61-1	Uranium	J,I4a	0.584	mg/kg	*	0.0139	0.0421	0.0421	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-62-2	Vanadium		5440	ug/Kg		105	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-66-6	Zinc		32800	ug/Kg		346	1050	1050	1	P	HSC	02/17/10 04:16	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.508	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.514	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.512	g	50	mL	02/08/10	FGA

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03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245807001 **BASIS:** As Received **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8081 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum UJ,I7c	200	ug/L	U	68	200	200	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/20/10 22:38	100220-2	948090
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/21/10 11:54	100220-7	948090
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/20/10 22:38	100220-2	948090
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/25/10 16:33	022510-1	948088
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/25/10 16:33	022510-1	948088
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/21/10 11:54	100220-7	948090
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/25/10 16:33	022510-1	948088
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/21/10 11:54	100220-7	948090
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:13	021510W1-9	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-09-7	Potassium	180	ug/L		50	150	150	1	P	HSC	02/25/10 16:33	022510-1	948088
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-23-5	Sodium	160	ug/L	J	100	300	300	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/20/10 22:38	100220-2	948090
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/21/10 13:39	100221-8	948090
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/25/10 16:33	022510-1	948088

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948088	948085	SW846 3005A	25	mL	25	mL	02/25/10	AXG2
948090	948089	SW846 3005A	50	mL	50	mL	02/03/10	LYH1

JCC
03/09/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245807002 **BASIS:** As Received **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8082 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum UJ,I7c	200	ug/L	U	68	200	200	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/20/10 22:44	100220-2	948090
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/21/10 11:56	100220-7	948090
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/20/10 22:44	100220-2	948090
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/25/10 16:39	022510-1	948088
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/25/10 16:39	022510-1	948088
7439-92-1	Lead	0.604	ug/L	J	0.5	2	2	1	MS	BAJ	02/21/10 11:56	100220-7	948090
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/25/10 16:39	022510-1	948088
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/21/10 11:56	100220-7	948090
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:25	021510W1-9	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-09-7	Potassium	82.7	ug/L	J	50	150	150	1	P	HSC	02/25/10 16:39	022510-1	948088
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-23-5	Sodium	154	ug/L	J	100	300	300	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/20/10 22:44	100220-2	948090
7440-61-1	Uranium	0.088	ug/L	J	0.05	0.2	0.2	1	MS	BAJ	02/21/10 13:41	100221-8	948090
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/25/10 16:39	022510-1	948088

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948088	948085	SW846 3005A	25	mL	25	mL	02/25/10	AXG2
948090	948089	SW846 3005A	50	mL	50	mL	02/03/10	LYH1

JCC
03/09/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1474 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Joanne Compton ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total Cyanide

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the aqueous MB, total cyanide was detected. The associated sample results were detects ≤ 5X the MB concentration and, thus, were qualified U,I4.
2. In the ICB and CCBs associated with the aqueous analysis, total cyanide was detected. The associated sample results were detects ≤ 5X the greatest associated blank concentration and, thus, were qualified U,I4b.
3. It should be noted that the matrix QC for the soil and aqueous analysis for total cyanide were performed on samples from other LANL RNs except for one set of soil matrix QC. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/10/10

DATA VALIDATION COVER SHEET	
5120-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
VALIDATOR'S SIGNATURE: Joanne Compton	DATE: 03/10/10
Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7954	Project:	LANL01004
Sample ID:	245806001	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	5.84%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.8	260	ug/kg	1	AXC2 02/08/10	1541	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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3/10/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7956	Project:	LANL01004
Sample ID:	245806002	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	6.14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.5	234	ug/kg	1	AXC2 02/08/10	1545	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7955	Project:	LANL01004
Sample ID:	245806003	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	18%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.5	263	ug/kg	1	AXC2 02/08/10	1546	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7953	Project:	LANL01004
Sample ID:	245806004	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	14.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2 02/08/10	1547	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7952	Project:	LANL01004
Sample ID:	245806005	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.9	268	ug/kg	1	AXC2 02/08/10	1548	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-8060	Project:	LANL01004
Sample ID:	245806006	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	14.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.1	276	ug/kg	1	AXC2 02/08/10	1549	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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3/10/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-8058	Project:	LANL01004
Sample ID:	245806007	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	35.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	104	382	ug/kg	1	AXC2 02/08/10	1550	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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3/10/10

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-8059	Project:	LANL01004
Sample ID:	245806008	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	7.28%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 02/09/10	1318	947321	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1427	947319

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JCC
3/10/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 9, 2010

Client SDG: 10-1474-1

Client Sample ID:	RE15-10-8081	Project:	LANL01004
Sample ID:	245807001	Client ID:	LANL010
Matrix:	W		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	J	2.82	U,I4	1.66	5.00	ug/L	1	AXC2 02/05/10	1112	947324	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JCC
3/10/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 9, 2010

Client SDG: 10-1474-1

Client Sample ID:	RE15-10-8082	Project:	LANL01004
Sample ID:	245807002	Client ID:	LANL010
Matrix:	W		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	J	2.67	U,I4	1.66	5.00	ug/L	1	AXC2 02/05/10	1113	947324	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JCC
3/10/10

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1474

REQUEST NUMBER: 10-1474

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245806, 245807 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7954	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7956	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7955	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7953	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7952	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8060	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8058	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8059	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8081	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8081	1	POLY	SW-846:6850	Ice	W
RE15-10-8081	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8082	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8082	1	POLY	SW-846:6850	Ice	W
RE15-10-8082	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	1/28/10	1400	Patricia Dover-Dent	P. Dover-Dent	1-29-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time

Printed Name Signature

Remarks:

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1474
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010
TURNAROUND/REPORT DUE: 2/27/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-8082	W	1/26/2010	
	SW-846:6850	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	
	SW-846:7470A	1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	
	SW-846:7471A	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	SW-846:9012A	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	

Final Page of REQUEST NUMBER 10-1474

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 245806 245807
SDG: 10-1474

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 29, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1474
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245806 and 245807
SDG: 10-1474

Table of Contents

Case Narrative **1**

Chain of Custody and Supporting Documentation **4**

Data Review Qualifier Flag Definition Sheet **18**

LC/MS/MS Perchlorate Analysis **20**
- Sample Data Summary 25
- Quality Control Summary 34
- Sample Data 58
- Standards Data 75
- Quality Control 92
- Miscellaneous Data 97

LC/MS/MS Perchlorate Analysis **104**
- Sample Data Summary 109
- Quality Control Summary 112
- Sample Data 148
- Standards Data 153
- Quality Control 186
- Miscellaneous Data 191

Metals Analysis **202**
- Case Narrative 203
- Sample Data Summary 209
- Quality Control Summary 218
- Standards 286
- Raw Data 298
- Miscellaneous 819

Metals Analysis **867**
- Case Narrative 868
- Sample Data Summary 874
- Quality Control Summary 877
- Standards 921
- Raw Data 933
- Miscellaneous 1207

General Chemistry Analysis **1246**
- Case Narrative 1247
- Sample Data Summary 1252

Quality Control Summary 1262
Instrument QC Data Summary 1265
Cyanide, Total 1267
Miscellaneous 1294

General Chemistry Analysis 1296
Case Narrative 1297
Sample Data Summary 1302
Quality Control Summary 1306
Instrument QC Data Summary 1309
Cyanide, Total 1311

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245806 and 245807
SDG # : 10-1474

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 29, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245806001	RE15-10-7954
245806002	RE15-10-7956
245806003	RE15-10-7955
245806004	RE15-10-7953
245806005	RE15-10-7952
245806006	RE15-10-8060
245806007	RE15-10-8058
245806008	RE15-10-8059
245807001	RE15-10-8081
245807002	RE15-10-8082

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1474

REQUEST NUMBER: 10-1474

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245806, 245807 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7954	1	POLY	Met+U+CLO4+CN	Ice	R
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RE15-10-7952	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8060	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8058	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8059	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8081	1	POLY	METALS+U-GEL	Nitric Acid	W
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RE15-10-8082	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8082	1	POLY	SW-846:6850	Ice	W
RE15-10-8082	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	1/28/10	1400	Patricia Dover-Dent	P. Dover-Dent	1-29-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1474
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010
TURNAROUND/REPORT DUE: 2/27/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8020	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-8082	W	1/26/2010	
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		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	
	SW-846:7470A	1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	
	SW-846:7471A	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	SW-846:9012A	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1474

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8060	R	1/26/2010	
		1	RE15-10-8081	W	1/26/2010	
		1	RE15-10-8082	W	1/26/2010	

Final Page of REQUEST NUMBER 10-1474

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1474**
Received By: Patricia Dover-Dent	**Date Received: January 29, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-6** **10-12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7419 11C	**7209 7849 7522 6C**
7209 7849 7500 5C	**7209 7849 7533 1C**
7209 7849 7452 2C	**7209 7849 7544 1C**
7209 7849 7474 1C	**7209 7849 7420 10C**
7209 7849 7441 4C	**7209 7849 7496 2C**
7209 7849 7463 3C	**7209 7849 7485 3C**
7209 7849 7430 10C	**7209 7849 7408 12C**
7209 7849 7511 6C	

PM (or PMA) review: Initials _____ Date ~~2/1/09~~ 2/1/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR2A0515BYD0

11°

FedEx Express

3 of 3
MPS# 0203 7209 7849 7419
Matr# 7209 7849 7393 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9358
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGWK0

5°

FedEx Express

1 of 2
TRK# 0201 7209 7849 7500
MASTER

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9958
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

2°

FedEx Express

FRI - 29JAN A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7452

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9958
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

1°

FedEx Express

2 of 2
MPS# 0263 7209 7849 7474
Mstr# 7209 7849 7463 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR3A05529E00

4°

FedEx Express

2 of 2
MPS# 0263 7209 7849 7441
Mstr# 7209 7849 7430 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGWK0

3°

FedEx Express

1 of 2
TRK# 0201 7209 7849 7463
MASTER

FRI - 29JAN A1
PRIORITY OVERNIGHT

29407
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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
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REF: 6B010AMR3A0552BE00

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TRK# 0201 7209 7849 7430
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Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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SHIP DATE: 28JAN10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

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Part # 158148-434 NRIT V3 04-08

Page 15 of 1321

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA60 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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Part # 156148-434 NRIT V3 04-09

238 1 B 7544 01.29

ORIGIN ID: SAFA (505) 665-9968
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LOS ALAMOS NATL LAB.
TA60 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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TRK# 0201 7209 7849 7544

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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TRK# 0201 7209 7849 7420

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Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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2 of 2
MPS# 0263 7209 7849 7496
Mstr# 7209 7849 7485 0201

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Part # 156148-434 NRIT V3 04-08

[redacted]

ORIGIN ID: SAFA (505) 665-9966
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

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Part # 156148-434 NRIT V3 04-0

ORIGIN ID: SAFA (505) 665-9966
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 4.0 LB MAN
CAD: 0014176/CAFE2449

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MPS# 0263 7209 7849 7498

Master# 7209 7849 7393

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1474

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	947240
Prep Batch Number:	947239

Sample Analysis

Sample ID	Client ID
245806001	RE15-10-7954
245806002	RE15-10-7956
245806003	RE15-10-7955
245806004	RE15-10-7953
245806005	RE15-10-7952
245806006	RE15-10-8060
245806007	RE15-10-8058
245806008	RE15-10-8059
1202029071	Interference Check Sample (ICS)
1202029067	Method Blank (MB)
1202029068	Laboratory Control Sample (LCS)
1202029069	245682002(RE46-10-11907) Matrix Spike (MS)
1202029070	245682002(RE46-10-11907) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245682002 (RE46-10-11907) from SDG 10-1450-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K. Mauer **Date:** 02/17/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7954

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806001

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	12-FEB-10 17:05	per0212030a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:05	per0212030a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	12-FEB-10 17:05	per0212030a
	Perchlorate-O(18)			5.63	ug/kg		1	12-FEB-10 17:05	per0212030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7956

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806002

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 93.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.533	2.13	0.923	ug/kg	J	1	12-FEB-10 17:37	per0212034a
	Perchlorate Isotope Ratio			2.92			1	12-FEB-10 17:37	per0212034a
14797-73-0	Perchlorate-101	.533	2.13	0.974	ug/kg	J	1	12-FEB-10 17:37	per0212034a
	Perchlorate-O(18)			5.69	ug/kg		1	12-FEB-10 17:37	per0212034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7955

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806003

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.61	2.44	0.610	ug/kg	U	1	12-FEB-10 17:45	per0212035a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:45	per0212035a
14797-73-0	Perchlorate-101	.61	2.44	0.610	ug/kg	U	1	12-FEB-10 17:45	per0212035a
	Perchlorate-O(18)			6.47	ug/kg		1	12-FEB-10 17:45	per0212035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7953

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806004

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	12-FEB-10 17:53	per0212036a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:53	per0212036a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	12-FEB-10 17:53	per0212036a
	Perchlorate-O(18)			6.12	ug/kg		1	12-FEB-10 17:53	per0212036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7952

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806005

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 93.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.536	2.14	0.536	ug/kg	U	1	12-FEB-10 18:01	per0212037a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:01	per0212037a
14797-73-0	Perchlorate-101	.536	2.14	0.536	ug/kg	U	1	12-FEB-10 18:01	per0212037a
	Perchlorate-O(18)			5.80	ug/kg		1	12-FEB-10 18:01	per0212037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8060

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806006

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.585	2.34	0.585	ug/kg	U	1	12-FEB-10 18:09	per0212038a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:09	per0212038a
14797-73-0	Perchlorate-101	.585	2.34	0.585	ug/kg	U	1	12-FEB-10 18:09	per0212038a
	Perchlorate-O(18)			6.04	ug/kg		1	12-FEB-10 18:09	per0212038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8058

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806007

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.78	3.12	0.780	ug/kg	U	1	12-FEB-10 18:17	per0212039a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:17	per0212039a
14797-73-0	Perchlorate-101	.78	3.12	0.780	ug/kg	U	1	12-FEB-10 18:17	per0212039a
	Perchlorate-O(18)			8.72	ug/kg		1	12-FEB-10 18:17	per0212039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8059

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806008

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 92.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	12-FEB-10 18:25	per0212040a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:25	per0212040a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	12-FEB-10 18:25	per0212040a
	Perchlorate-O(18)			6.02	ug/kg		1	12-FEB-10 18:25	per0212040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1474

Extract Batch Code: 947239

Date Filtered: 10–FEB–10

Matrix: SOIL

Sample ID: 1202029068

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.13	ug/kg	106		70 – 130
Perchlorate Isotope Ratio		3.26				–
Perchlorate–101	2.00	2.01	ug/kg	101		70 – 130
Perchlorate–O(18)		5.01	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1474

Extract Batch Code: 947239

Date Filtered: 10–FEB–10

Matrix: SOIL

Sample ID: 1202029071

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.26	ug/kg	113		70 – 130
Perchlorate Isotope Ratio		3.06				
Perchlorate–101	2.00	2.28	ug/kg	114		70 – 130
Perchlorate–O(18)		5.34	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212014a
Date: 12-Feb-2010
Time: 14:56:24
ID: 1202029071
Vial: 1:3,C

| LAB | 947240 | 5020 | IC | 11

CW 02-13-10

Perchlorate

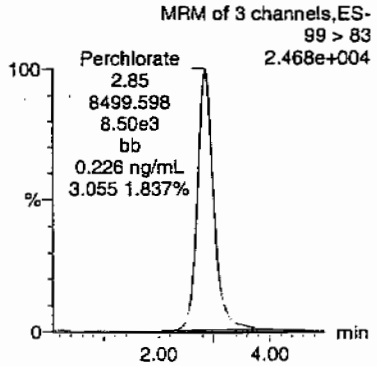

Perchlorate

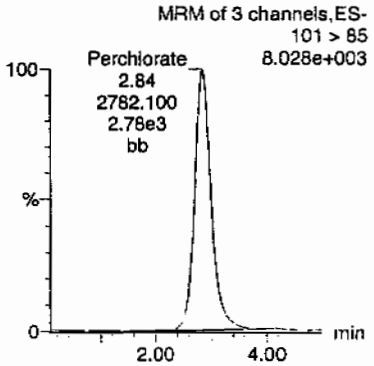

Perchlorate-101

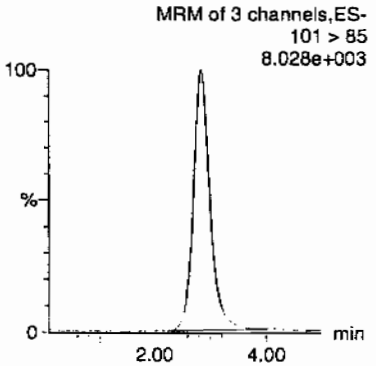

Perchlorate-O(18)

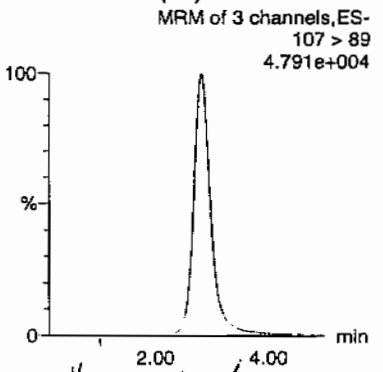

Hmc 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029071	Perchlorate	99 > 83	2.85	8499.598	8499.598	bb			0.2260	113.00	13.00	453.962	3.06
1202029071	Perchlorate-101	101 > 85	2.84	2782.100	2782.100	bb			0.2281	114.04	14.04	638.904	
1202029071	Perchlorate-O(18)	107 > 89	2.82	16858.023	16858.023	bb			0.5336	106.73	6.73	1364.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1474

Extract Batch Code: 947239

Date Extracted: 10–FEB–10

GEL MS/PS ID: 1202029069

Client ID: RE46–10–11907

GEL MSD/PSD ID: 1202029070

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.39	0.106	ug/kg	2.72	110	2.29	91.6	17.2	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.07		3.03		0		–
Perchlorate–101	2.39	0.106	ug/kg	2.74	110	2.33	93.3	16	30	75 – 125
Perchlorate–O(18)	0	6.16	ug/kg	6.43		6.39		.59		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	12–FEB–10	per0212001a	IPB001
Perchlorate–101	0.00	0	NA	12–FEB–10	per0212001a	IPB001
Perchlorate	0.00	0	NA	12–FEB–10	per0212002a	IPB001
Perchlorate–101	0.00	0	NA	12–FEB–10	per0212002a	IPB001

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021210a.mdb 12 Feb 2010 14:01:47
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021210a.cdb 13 Feb 2010 10:56:08

Name: per0212001a
Date: 12-Feb-2010
Time: 13:11:47
ID: IPB001
Vial: 1:1,A

aw
02-13-10

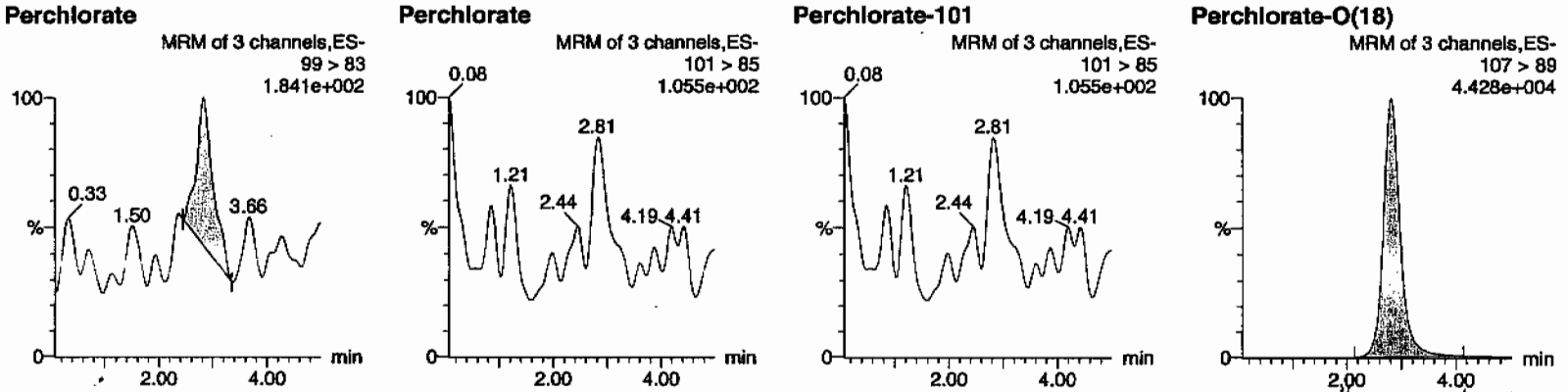

Hmw 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	2.82	38.717	38.717	bb			0.0010			10.949	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.81	15682.421	15682.421	bb			0.4964	99.28	-0.72	2148.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212002a
Date: 12-Feb-2010
Time: 13:20:00
ID: IPB001
Vial: 1:1,A

CWW 02-13-10

Perchlorate

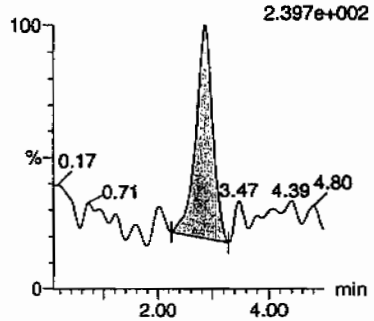

Perchlorate

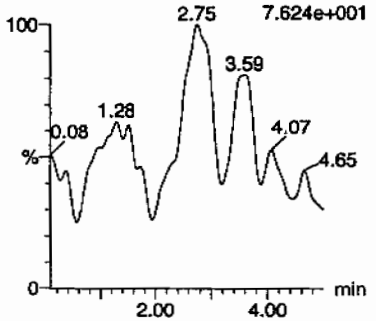

Perchlorate-101

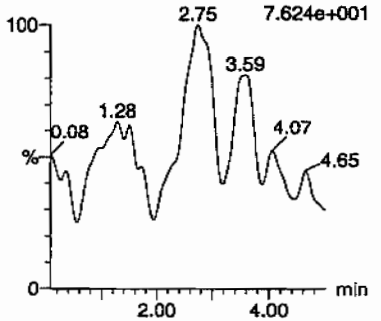

Perchlorate-O(18)

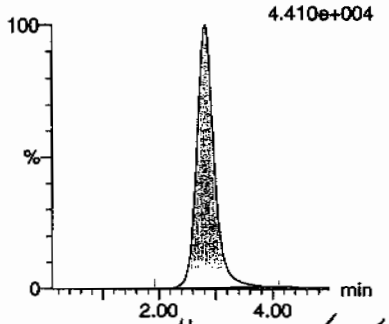

Hnm 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	2.86	70.429	70.429	bb			0.0019			19.613	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.81	15724.715	15724.715	bb			0.4978	99.55	✓ -0.45	4330.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	12–FEB–10	per0212008a	IPB002
Perchlorate–101	0.00	0	NA	12–FEB–10	per0212008a	IPB002
Perchlorate	0.00	0	NA	12–FEB–10	per0212010a	IPB003
Perchlorate–101	0.00	0	NA	12–FEB–10	per0212010a	IPB003
Perchlorate	0.00	0	NA	12–FEB–10	per0212021a	IPB004
Perchlorate–101	0.00	0	NA	12–FEB–10	per0212021a	IPB004
Perchlorate	0.00	0	NA	12–FEB–10	per0212032a	IPB005
Perchlorate–101	0.00	0	NA	12–FEB–10	per0212032a	IPB005
Perchlorate	0.00	0	NA	12–FEB–10	per0212042a	IPB006
Perchlorate–101	0.00	0	NA	12–FEB–10	per0212042a	IPB006

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212008a
Date: 12-Feb-2010
Time: 14:08:09
ID: IPB002
Vial: 1:1,A

CW 02-13-10

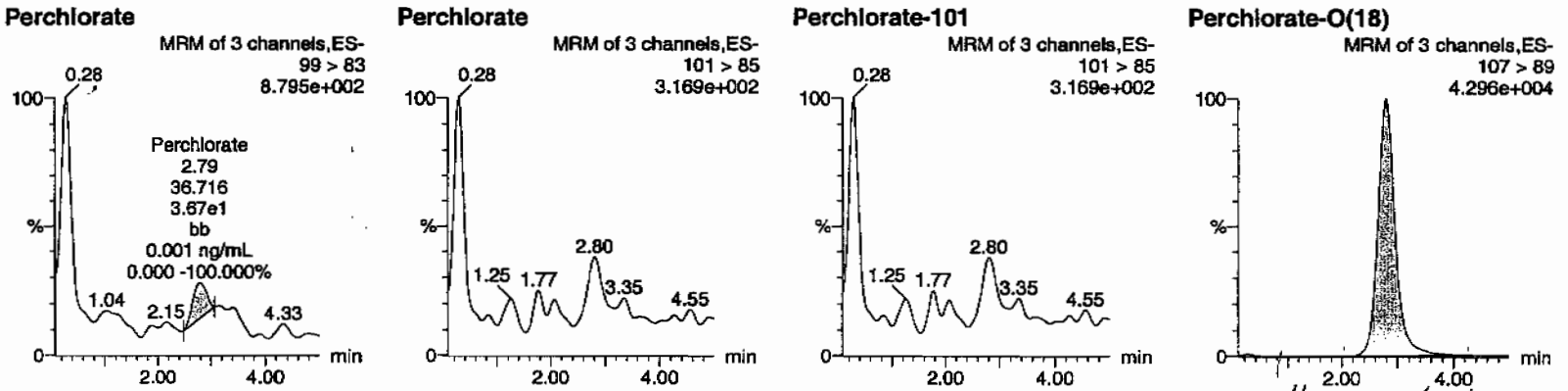

HN 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	2.79	36.716	36.716	bb			0.0010			20.998	0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.79	15252.011	15252.011	bb			0.4828	96.56	-3.44	3237.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212010a
Date: 12-Feb-2010
Time: 14:24:13
ID: IPB003
Vial: 1:1,A

CWW 02-13-10

Perchlorate

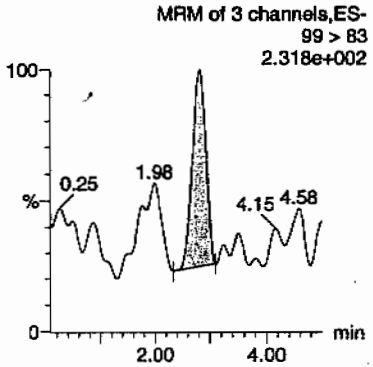

Perchlorate

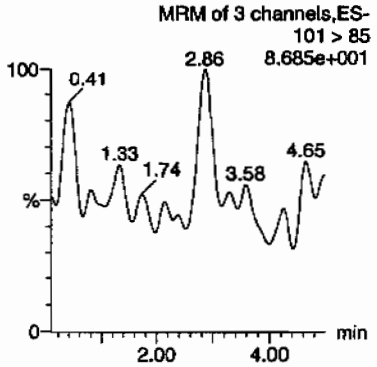

Perchlorate-101

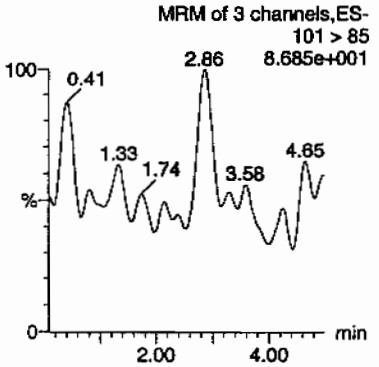

Perchlorate-O(18)

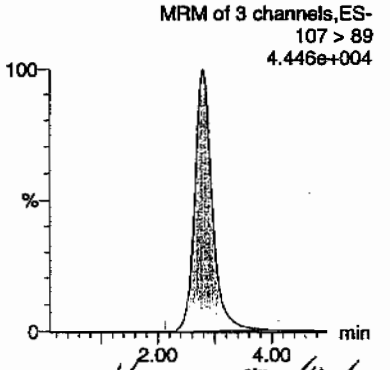

HMM 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	2.81	51.258	51.258	bb			0.0014			15.095	0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.80	15674.793	15674.793	bb			0.4962	99.24	-0.76	2399.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212021a
Date: 12-Feb-2010
Time: 15:52:38
ID: IPB004
Vial: 1:1,A

CWO 02-13-10

Perchlorate

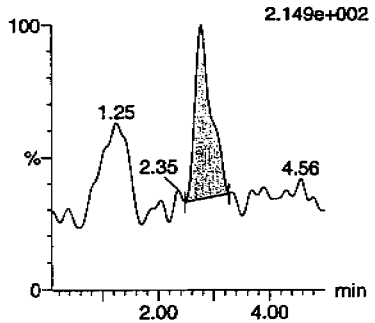

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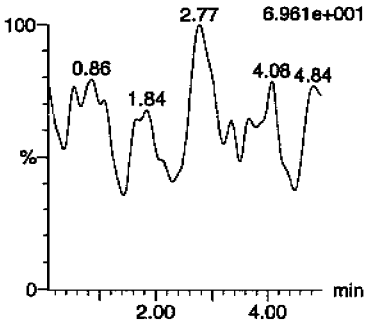

Perchlorate-101

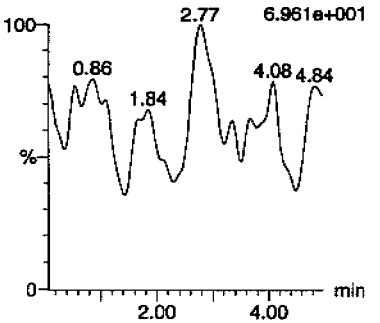

Perchlorate-O(18)

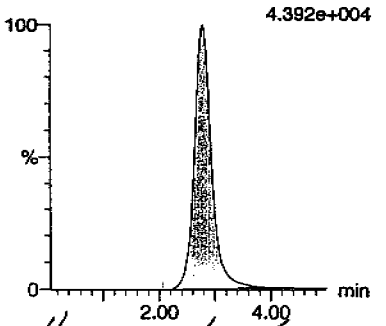

HMW 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	2.76	48.784	48.784	bb			0.0013			9.869	0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.77	15534.931	15534.931	bb			0.4918	98.35	-1.65	2671.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212032a
Date: 12-Feb-2010
Time: 17:21:20
ID: IPB005
Vial: 1:1,A

02-13-10

Perchlorate

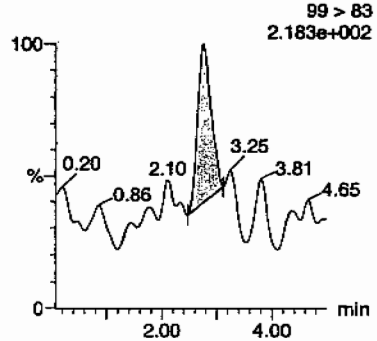

Perchlorate

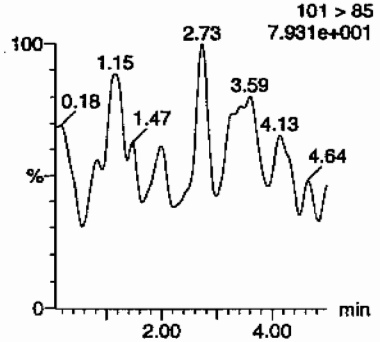

Perchlorate-101

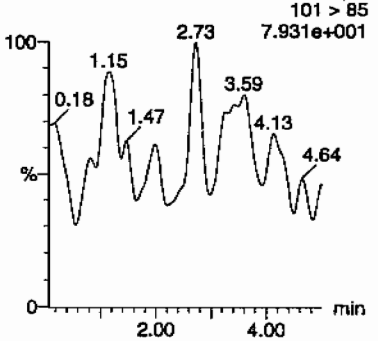

Perchlorate-O(18)

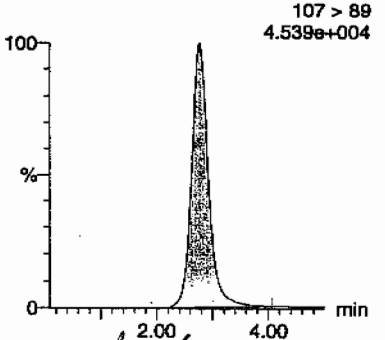

02/13/10 HMM

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	2.76	38.580	38.580	bb			0.0010			13.178	0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.76	15785.521	15785.521	bb			0.4997	99.94	-0.06	4113.3...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212042a
Date: 12-Feb-2010
Time: 18:41:50
ID: IPB006
Vial: 1:1,A

CWW
02-13-10

Perchlorate

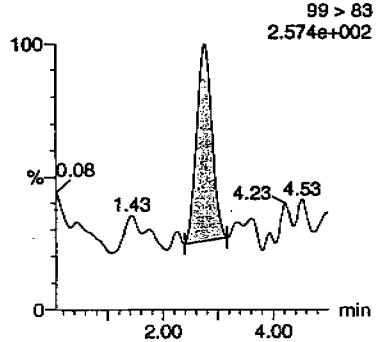

Perchlorate

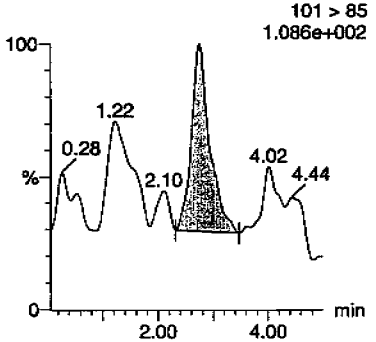

Perchlorate-101

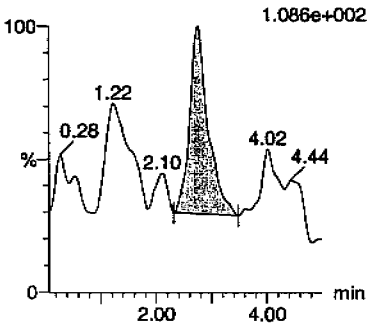

Perchlorate-O(18)

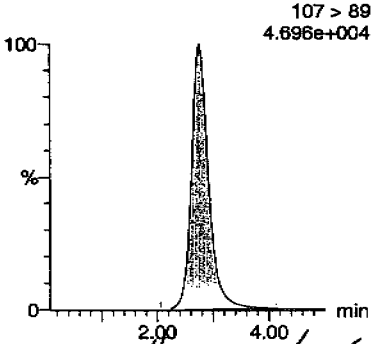

Anne 02/13/10

ID	Name	Trace	RT	%	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	2.76		63.368	63.368	bb			0.0017			25.713	2.12
IPB006	Perchlorate-101	101 > 85	2.75		29.885	29.885	bb			0.0025			8.674	
IPB006	Perchlorate-O(18)	107 > 89	2.76		16748.635	16748.635	bb			0.5302	106.03	6.03	1315.2...	

OKAY
LA 0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CUNO 01-01-08

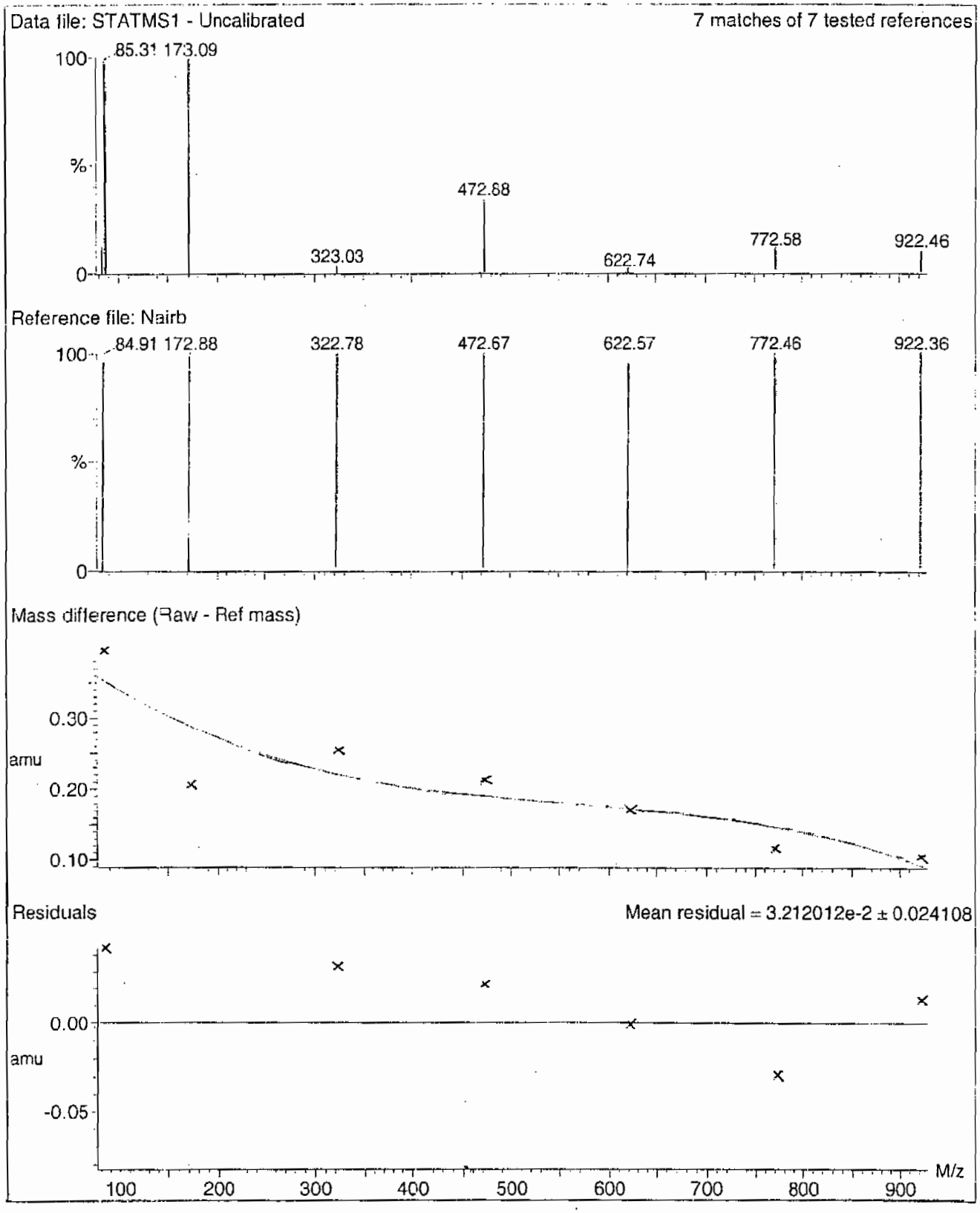

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

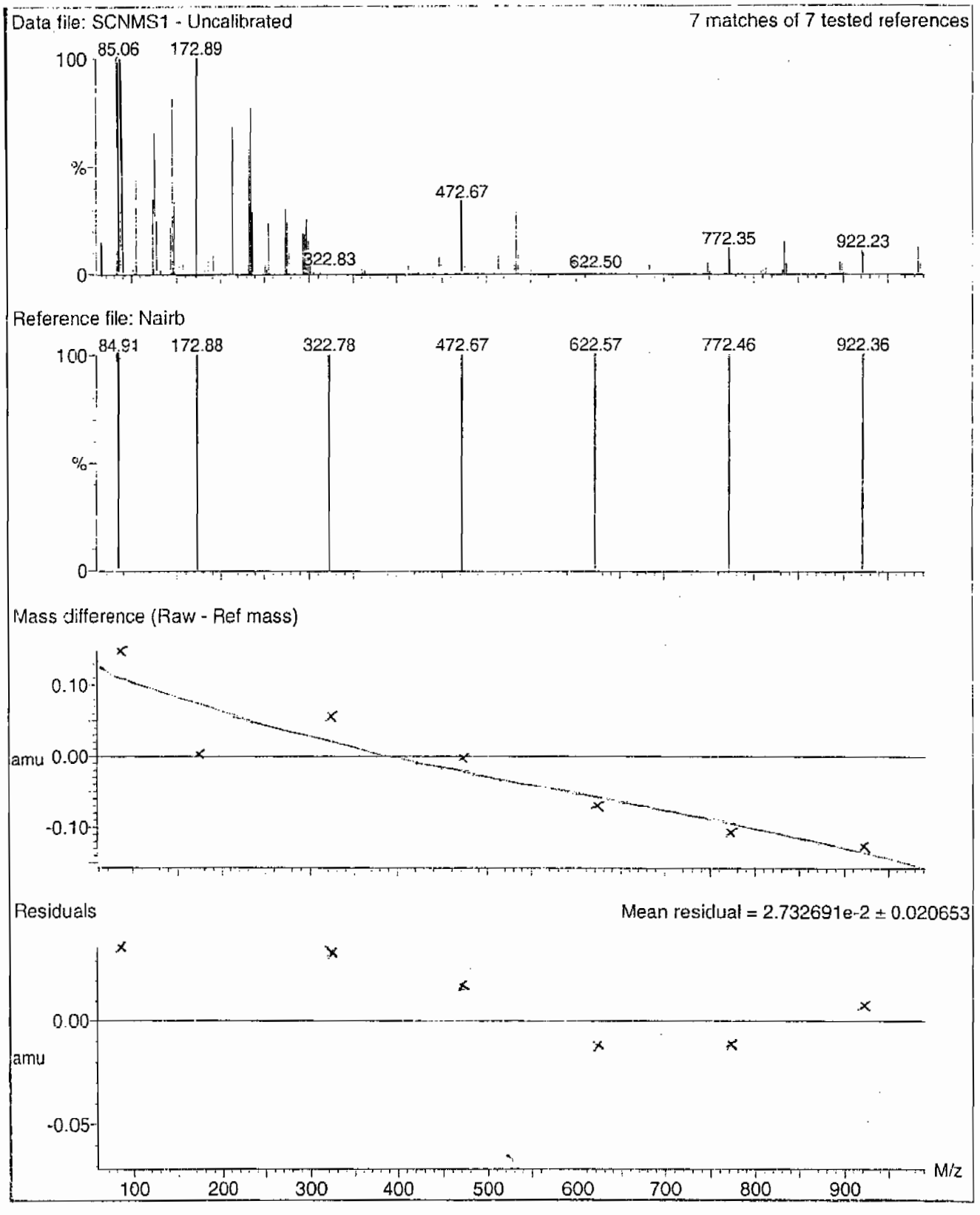

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

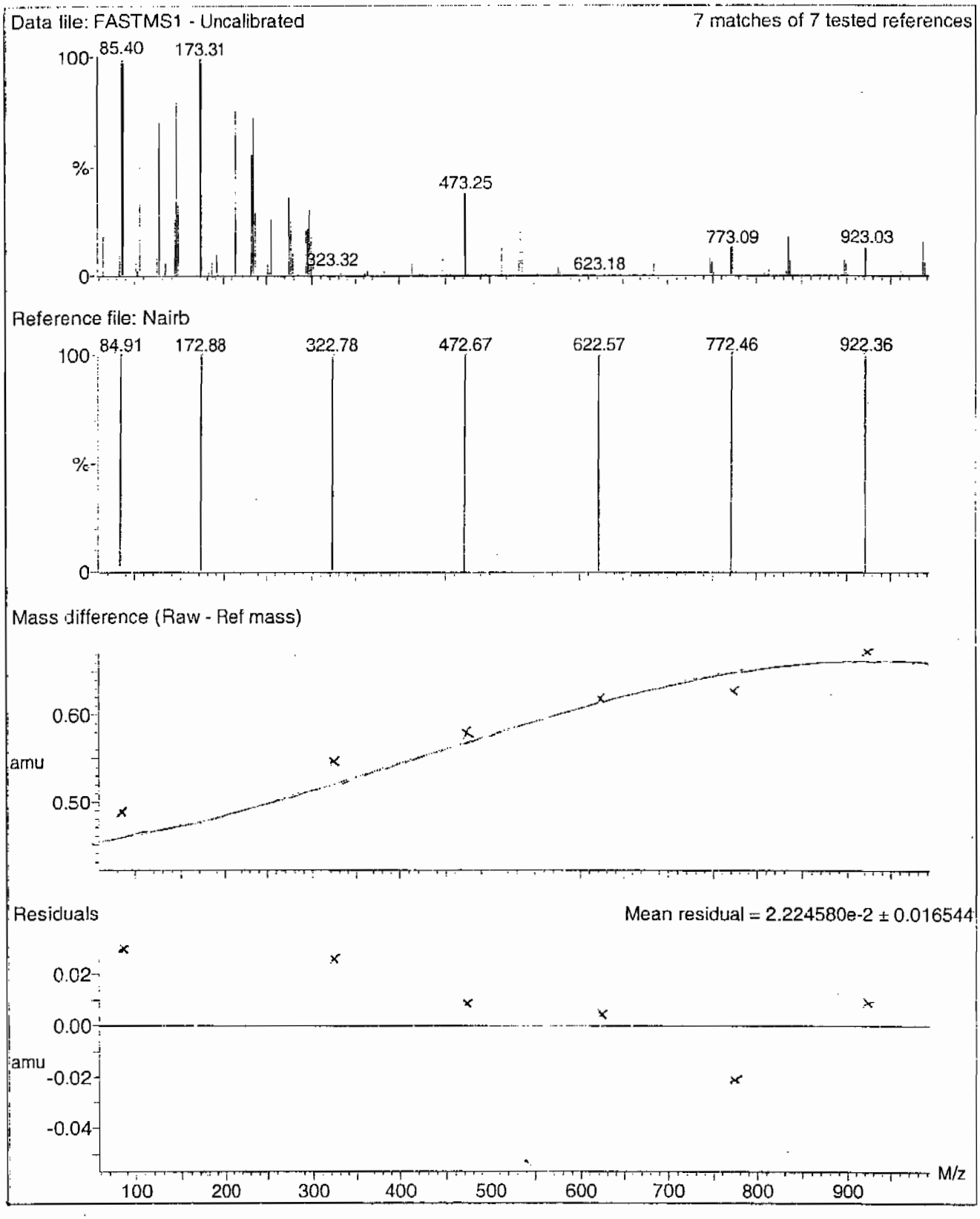

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

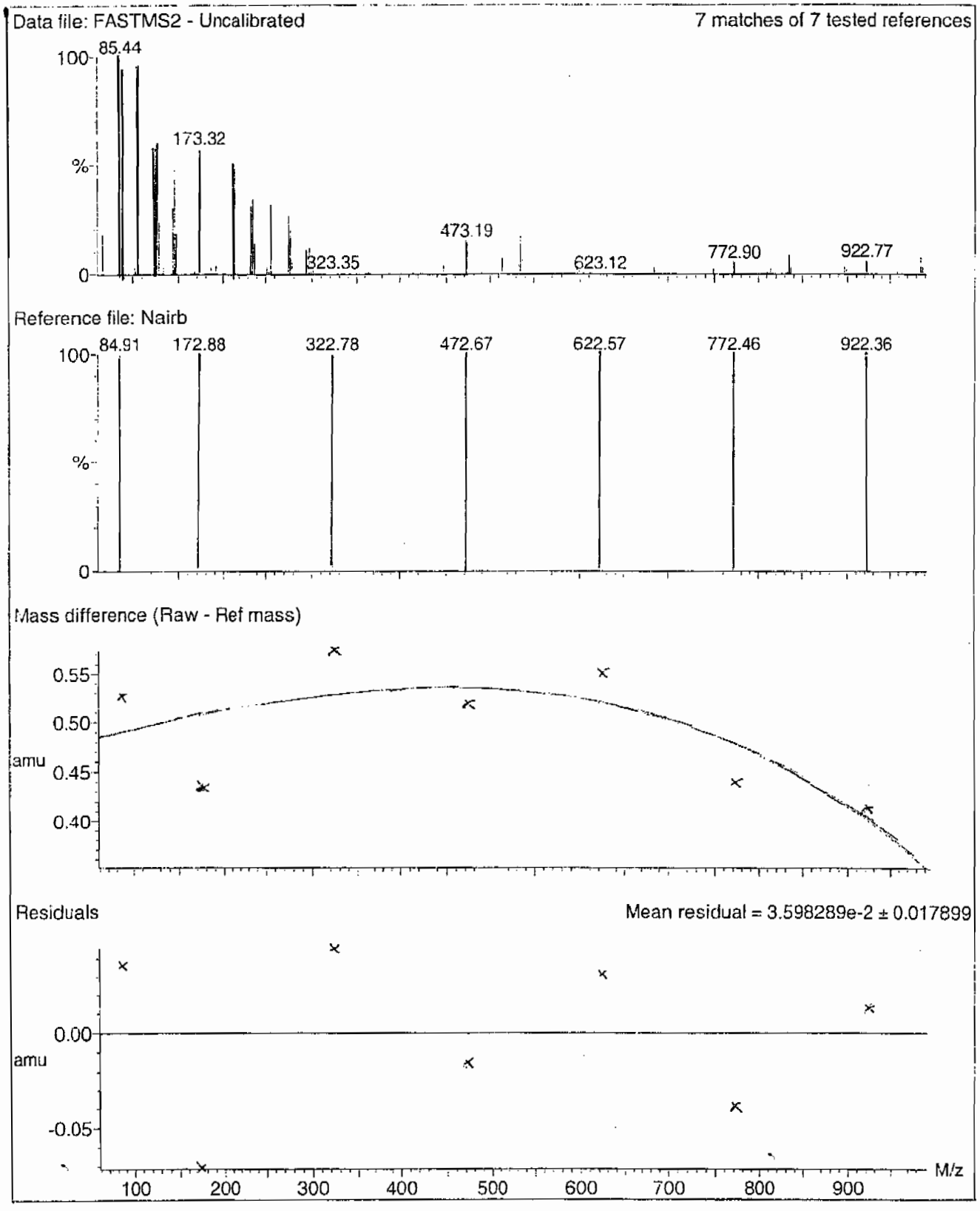

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

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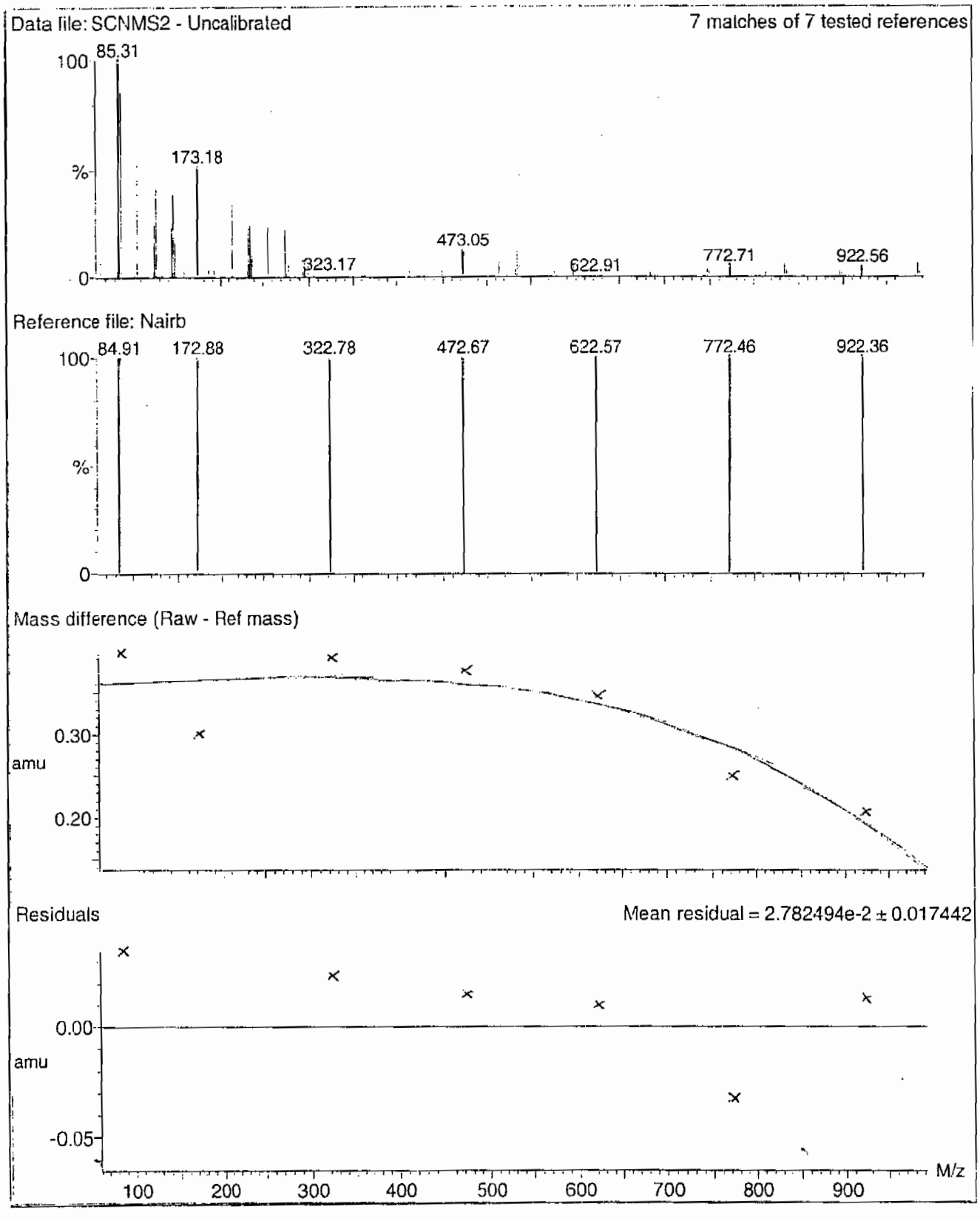

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

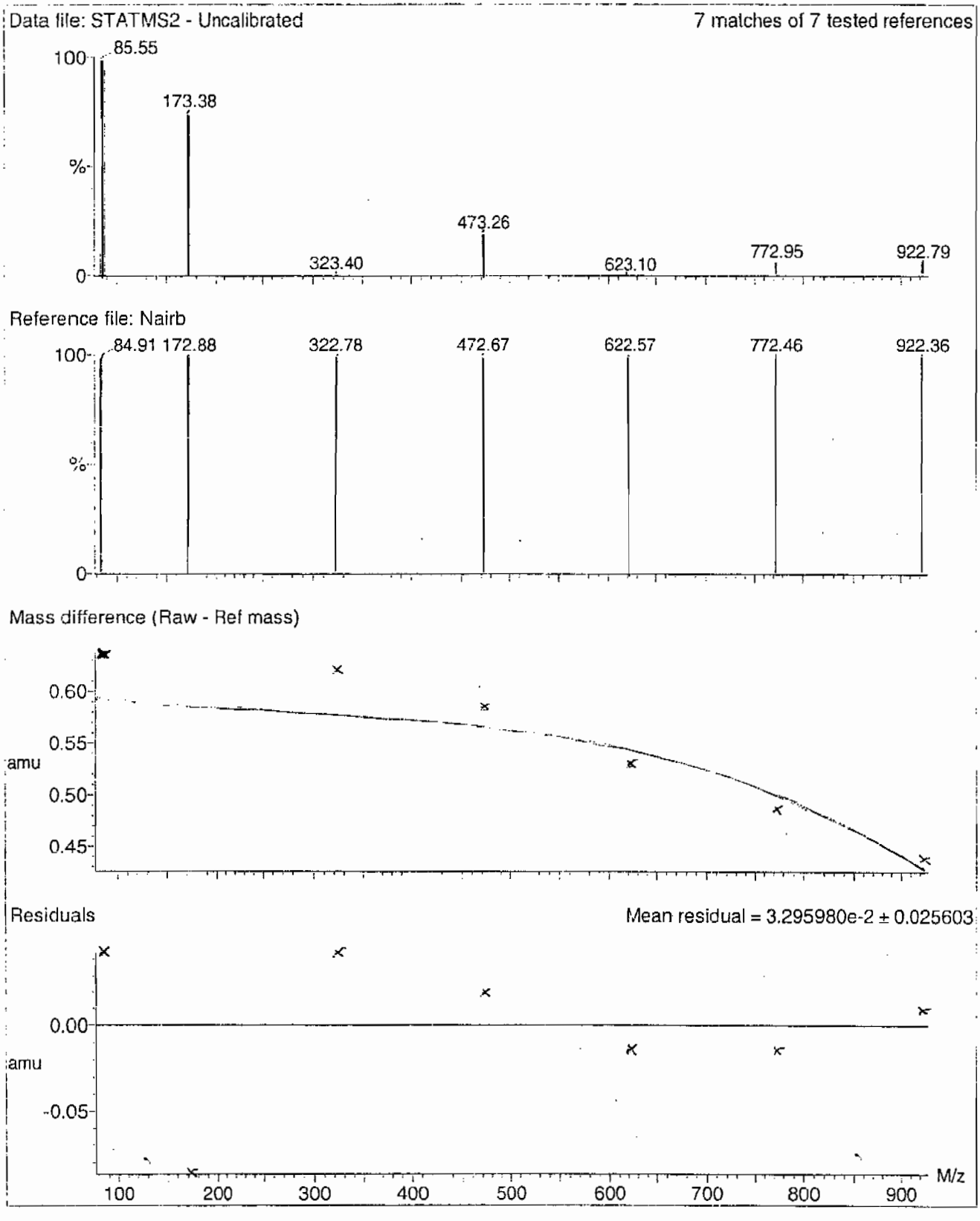

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Friday, February 12, 2010 11:29:55 Eastern Standard Time

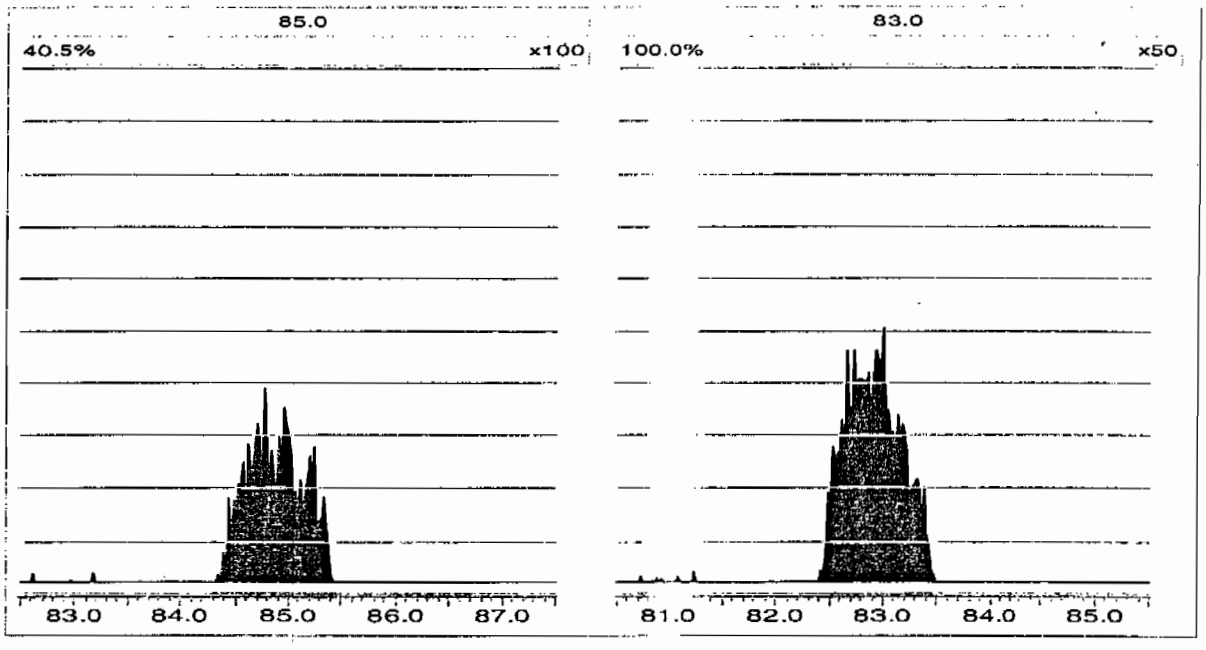

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1474

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0212006a**	**12–FEB–10**	**15715**				
Lower Area Limit			**7857.5**				
Upper Area Limit			**31430**				
1202029067	per0212012a	12–FEB–10 14:40	15223.1	2.79	2.7747	.995	
1202029068	per0212013a	12–FEB–10 14:48	15842.5	2.79	2.7996	1.003	
1202029071	per0212014a	12–FEB–10 14:56	16858	2.82	2.84922	1.01	
245806001	per0212030a	12–FEB–10 17:05	16733.5	2.77	2.78722	1.006	
245806002	per0212034a	12–FEB–10 17:37	16858	2.76	2.78715	1.01	
245806003	per0212035a	12–FEB–10 17:45	16751.2	2.77	2.78715	1.006	
245806004	per0212036a	12–FEB–10 17:53	16603.5	2.77	2.78715	1.006	
245806005	per0212037a	12–FEB–10 18:01	17097.2	2.77	2.79965	1.011	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1474

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0212006a**	**12–FEB–10**	**15715**				
Lower Area Limit			**7857.5**				
Upper Area Limit			**31430**				
245806006	per0212038a	12–FEB–10 18:09	16301.7	2.77	2.78718	1.006	
245806007	per0212039a	12–FEB–10 18:17	17668	2.76	2.78717	1.01	
245806008	per0212040a	12–FEB–10 18:25	17624.9	2.76	2.77467	1.005	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7954

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806001

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	12-FEB-10 17:05	per0212030a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:05	per0212030a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	12-FEB-10 17:05	per0212030a
	Perchlorate-O(18)			5.63	ug/kg		1	12-FEB-10 17:05	per0212030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212030a
Date: 12-Feb-2010
Time: 17:05:15
ID: 245806001
Vial: 1:5,D

|LANL|947240|SOL20|1|

CWO
02-13-10

Perchlorate

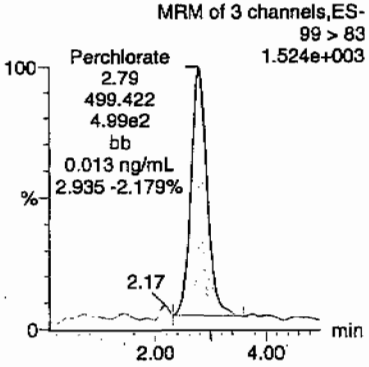

Perchlorate

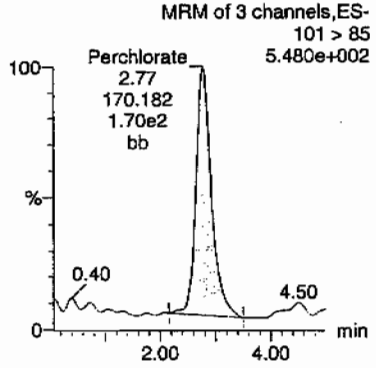

Perchlorate-101

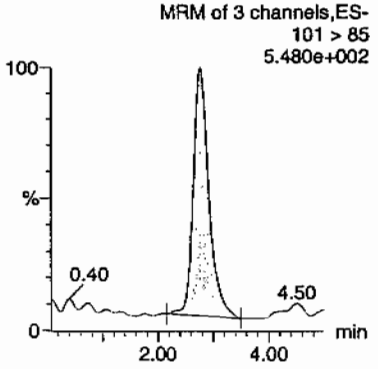

Perchlorate-O(18)

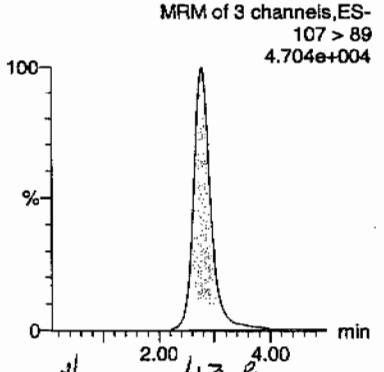

HMC 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245806001	Perchlorate	99 > 83	2.79	499.422	499.422	bb			0.0133			26.511	2.93
245806001	Perchlorate-101	101 > 85	2.77	170.182	170.182	bb			0.0140			18.356	
245806001	Perchlorate-O(18)	107 > 89	2.77	16733.518	16733.518	bb			0.5297	105.94	5.94	638.735	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7956

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806002

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 93.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.533	2.13	0.923	ug/kg	J	1	12-FEB-10 17:37	per0212034a
	Perchlorate Isotope Ratio			2.92			1	12-FEB-10 17:37	per0212034a
14797-73-0	Perchlorate-101	.533	2.13	0.974	ug/kg	J	1	12-FEB-10 17:37	per0212034a
	Perchlorate-O(18)			5.69	ug/kg		1	12-FEB-10 17:37	per0212034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212034a
Date: 12-Feb-2010
Time: 17:37:27
ID: 245806002
Vial: 1:5,E

|LANL|947240|50120|1|

CWJ
02-13-10

Perchlorate

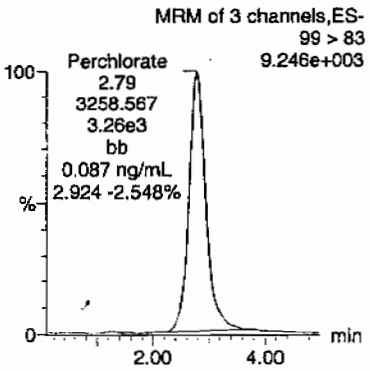

Perchlorate

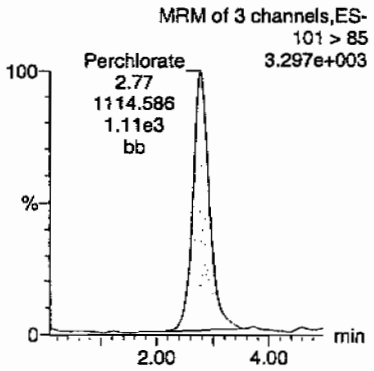

Perchlorate-101

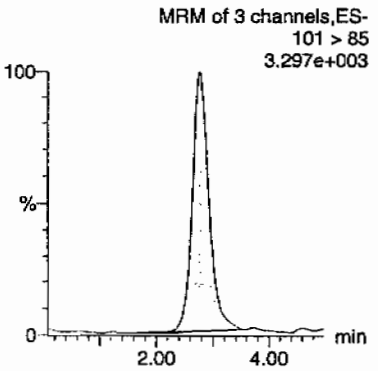

Perchlorate-O(18)

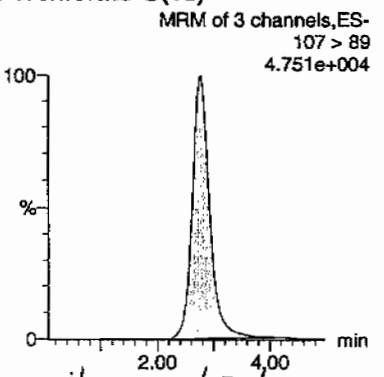

Hmc 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245806002	Perchlorate	99 > 83	2.79	3258.567	3258.567	bb			0.0866			408.689	2.92
245806002	Perchlorate-101	101 > 85	2.77	1114.586	1114.586	bb			0.0914			313.430	
245806002	Perchlorate-O(18)	107 > 89	2.76	16858.047	16858.047	bb			0.5336	106.73	6.73	7248.5...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7955

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806003

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.61	2.44	0.610	ug/kg	U	1	12-FEB-10 17:45	per0212035a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:45	per0212035a
14797-73-0	Perchlorate-101	.61	2.44	0.610	ug/kg	U	1	12-FEB-10 17:45	per0212035a
	Perchlorate-O(18)			6.47	ug/kg		1	12-FEB-10 17:45	per0212035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212035a
Date: 12-Feb-2010
Time: 17:45:29
ID: 245806003
Vial: 1:5,F

| LANL | 947240 | SOLID | 11

CWJ 02-13-10

Perchlorate

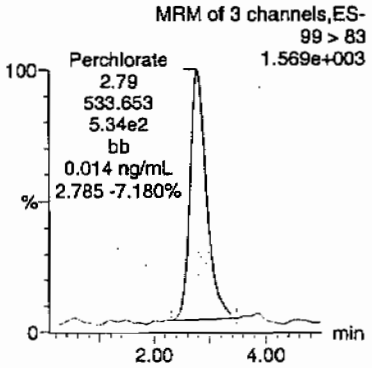

Perchlorate

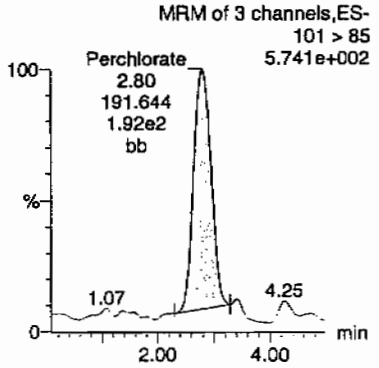

Perchlorate-101

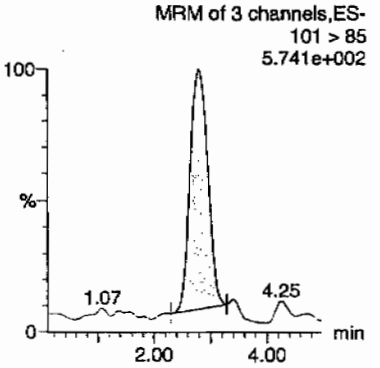

Perchlorate-O(18)

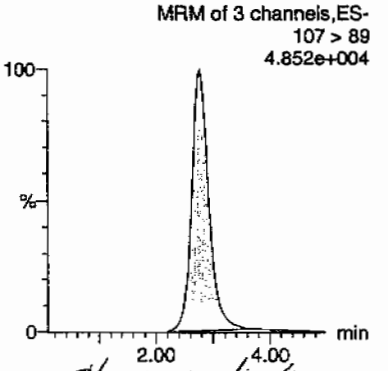

HMK 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245806003	Perchlorate	99 > 83	2.79	533.653	533.653	bb			0.0142			89.385	2.78
245806003	Perchlorate-101	101 > 85	2.80	191.644	191.644	bb			0.0157			100.295	
245806003	Perchlorate-O(18)	107 > 89	2.77	16751.219	16751.219	bb			0.5303	106.05	6.05	1760.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7953

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806004

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.582	2.33	0.582	ug/kg	U	1	12-FEB-10 17:53	per0212036a
	Perchlorate Isotope Ratio						1	12-FEB-10 17:53	per0212036a
14797-73-0	Perchlorate-101	.582	2.33	0.582	ug/kg	U	1	12-FEB-10 17:53	per0212036a
	Perchlorate-O(18)			6.12	ug/kg		1	12-FEB-10 17:53	per0212036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212036a
Date: 12-Feb-2010
Time: 17:53:31
ID: 245806004
Vial: 1:6,A

|LANL|947240|50120|1|

02-13-10

Perchlorate

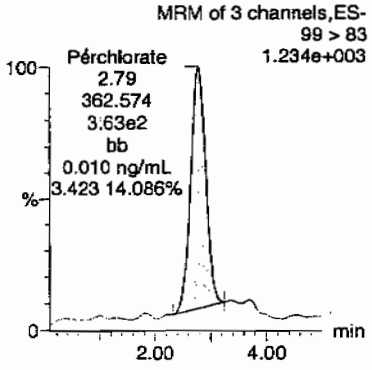

Perchlorate

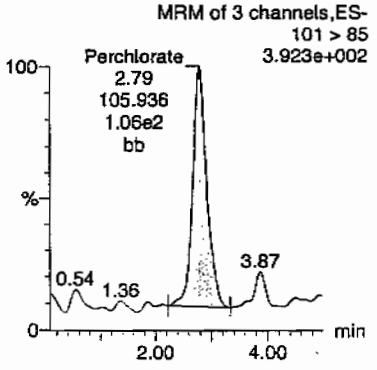

Perchlorate-101

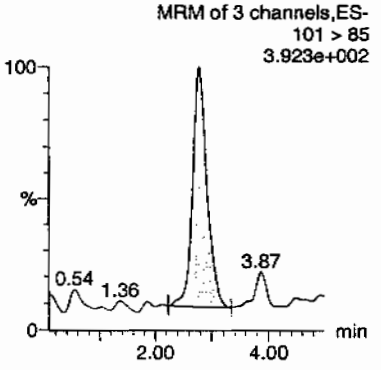

Perchlorate-O(18)

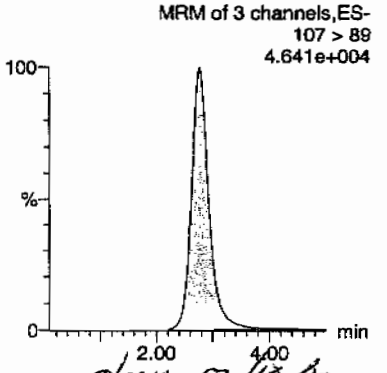

Anne 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245806004	Perchlorate	99 > 83	2.79	362.574	362.574	bb			0.0096			40.469	3.42
245806004	Perchlorate-101	101 > 85	2.79	105.936	105.936	bb			0.0087			40.356	
245806004	Perchlorate-O(18)	107 > 89	2.77	16603.467	16603.467	bb			0.5256	105.12	5.12	1719.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7952

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806005

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 93.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.536	2.14	0.536	ug/kg	U	1	12-FEB-10 18:01	per0212037a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:01	per0212037a
14797-73-0	Perchlorate-101	.536	2.14	0.536	ug/kg	U	1	12-FEB-10 18:01	per0212037a
	Perchlorate-O(18)			5.80	ug/kg		1	12-FEB-10 18:01	per0212037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212037a
Date: 12-Feb-2010
Time: 18:01:34
ID: 245806005
Vial: 1:6,B

|LZNL|947240|50120|1|

02-13-10

Perchlorate

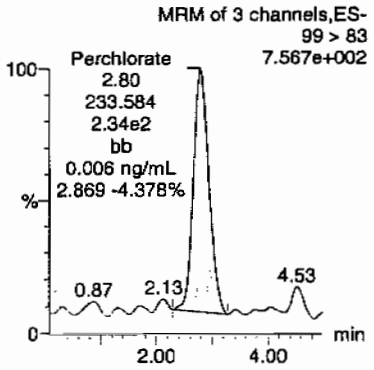

Perchlorate

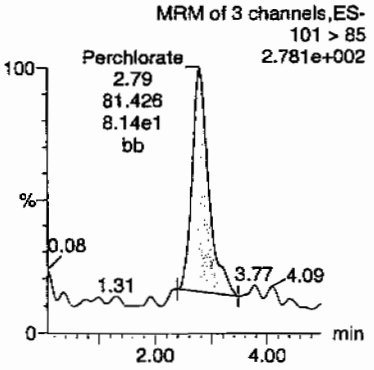

Perchlorate-101

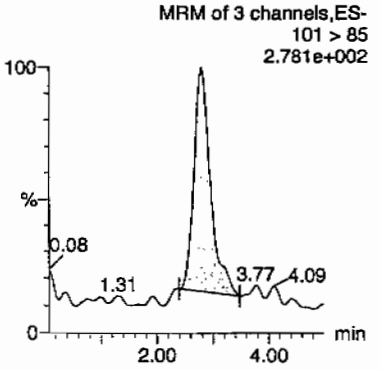

Perchlorate-O(18)

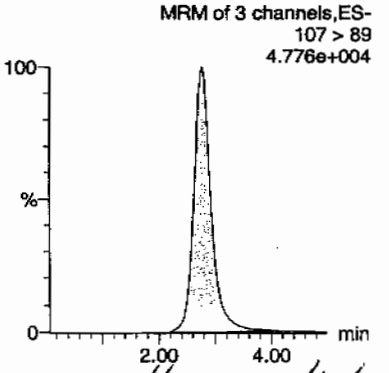

Hmc 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245806005	Perchlorate	99 > 83	2.80	233.584	233.584	bb			0.0062			13.282	2.87
245806005	Perchlorate-101	101 > 85	2.79	81.426	81.426	bb			0.0067			38.263	
245806005	Perchlorate-O(18)	107 > 89	2.77	17097.164	17097.164	bb			0.5412	108.24	8.24	3840.6...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8060

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806006

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.585	2.34	0.585	ug/kg	U	1	12-FEB-10 18:09	per0212038a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:09	per0212038a
14797-73-0	Perchlorate-101	.585	2.34	0.585	ug/kg	U	1	12-FEB-10 18:09	per0212038a
	Perchlorate-O(18)			6.04	ug/kg		1	12-FEB-10 18:09	per0212038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212038a
Date: 12-Feb-2010
Time: 18:09:38
ID: 245806006
Vial: 1:6,C

|LANL|947240|SOLID|1|

GWJ 02-13-10

Perchlorate

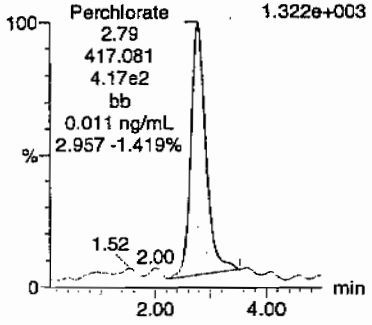

Perchlorate

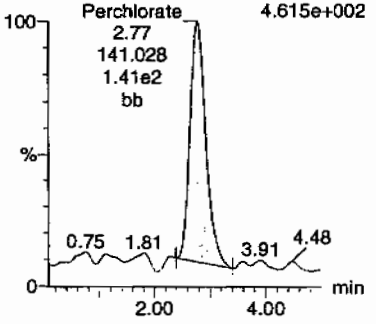

Perchlorate-101

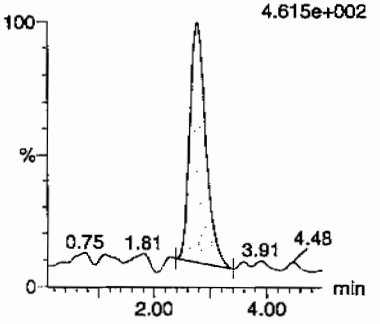

Perchlorate-O(18)

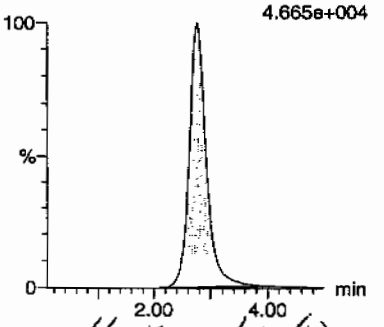

HMK 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245806006	Perchlorate	99 > 83	2.79	417.081	417.081	bb			0.0111			106.640	2.96
245806006	Perchlorate-101	101 > 85	2.77	141.028	141.028	bb			0.0116			14.700	
245806006	Perchlorate-O(18)	107 > 89	2.77	16301.740	16301.740	bb			0.5160	103.21	3.21	984.339	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8058

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806007

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.78	3.12	0.780	ug/kg	U	1	12-FEB-10 18:17	per0212039a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:17	per0212039a
14797-73-0	Perchlorate-101	.78	3.12	0.780	ug/kg	U	1	12-FEB-10 18:17	per0212039a
	Perchlorate-O(18)			8.72	ug/kg		1	12-FEB-10 18:17	per0212039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212039a
Date: 12-Feb-2010
Time: 18:17:42
ID: 245806007
Vial: 1:6,D

|LANL|947240|50120|1|

CWW 02-13-10

Perchlorate

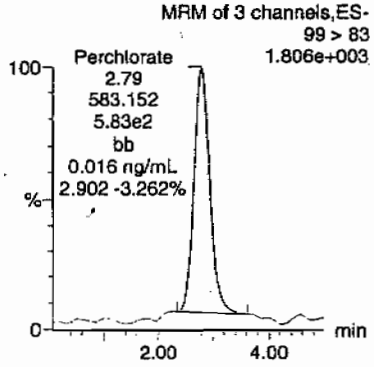

Perchlorate

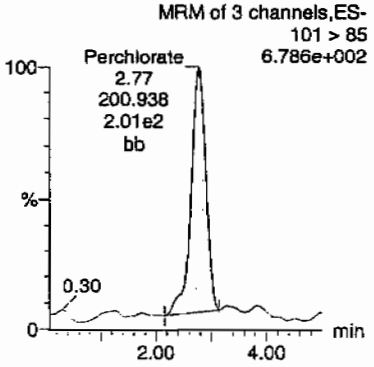

Perchlorate-101

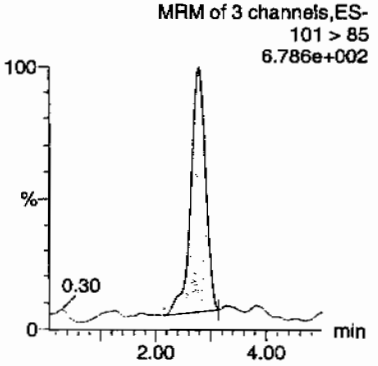

Perchlorate-O(18)

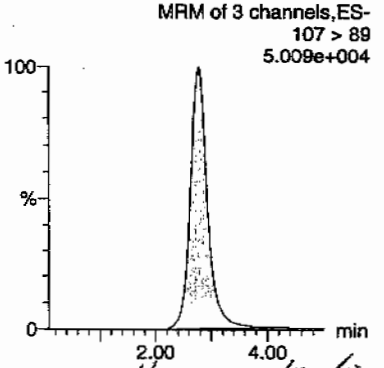

HAM 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245806007	Perchlorate	99 > 83	2.79	583.152	583.152	bb			0.0155			222.935	2.90
245806007	Perchlorate-101	101 > 85	2.77	200.938	200.938	bb			0.0165			173.795	
245806007	Perchlorate-O(18)	107 > 89	2.76	17667.965	17667.965	bb			0.5593	111.85	11.85	2273.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8059

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 245806008

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 92.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	12-FEB-10 18:25	per0212040a
	Perchlorate Isotope Ratio						1	12-FEB-10 18:25	per0212040a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	12-FEB-10 18:25	per0212040a
	Perchlorate-O(18)			6.02	ug/kg		1	12-FEB-10 18:25	per0212040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212040a
Date: 12-Feb-2010
Time: 18:25:44
ID: 245806008
Vial: 1:6,E

|LANL|947240|SOLID|1|

GW 02-13-10

Perchlorate

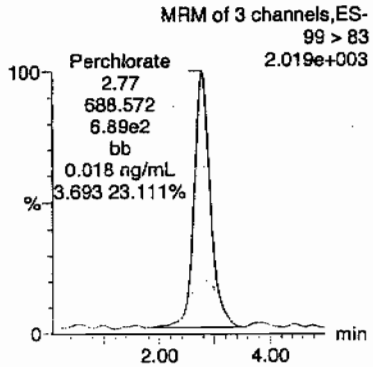

Perchlorate

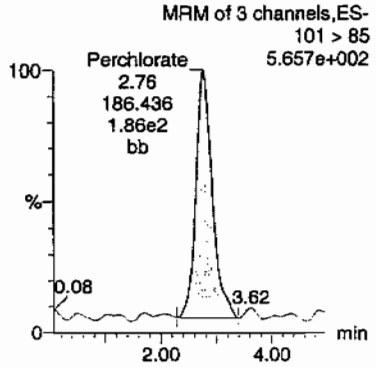

Perchlorate-101

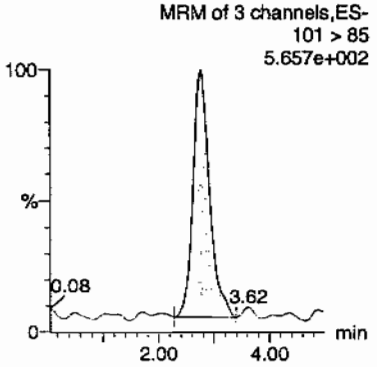

Perchlorate-O(18)

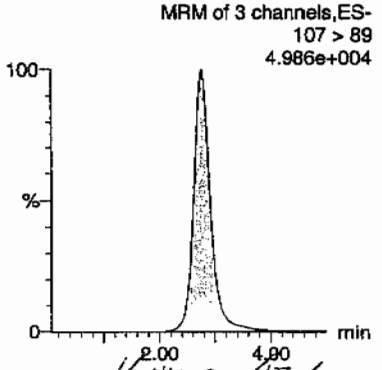

HAW 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245806008	Perchlorate	99 > 83	2.77	688.572	688.572	bb			0.0183			124.206	3.69
245806008	Perchlorate-101	101 > 85	2.76	186.436	186.436	bb			0.0153			59.294	
245806008	Perchlorate-O(18)	107 > 89	2.76	17624.924	17624.924	bb			0.5579	111.58	11.58	712.358	

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1474

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 12–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 37608.16

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1474

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 12–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 12197.42

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021210a.mdb 12 Feb 2010 14:01:47
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021210a.cdb 13 Feb 2010 10:56:08

Compound name: Perchlorate
Response Factor: 37608.1
RRF SD: 358.139, % Relative SD: 0.952292
Response type: External Std, Area
Curve type: RF

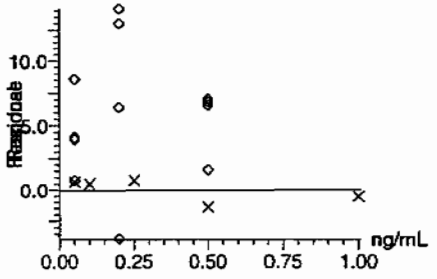

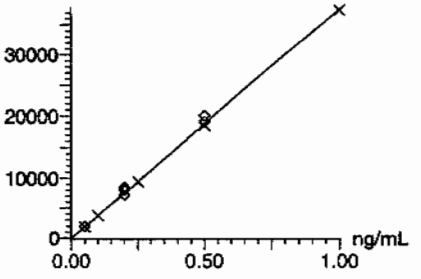

02-13-10

Compound name: Perchlorate-101
Response Factor: 12197.4
RRF SD: 418.958, % Relative SD: 3.43481
Response type: External Std, Area
Curve type: RF

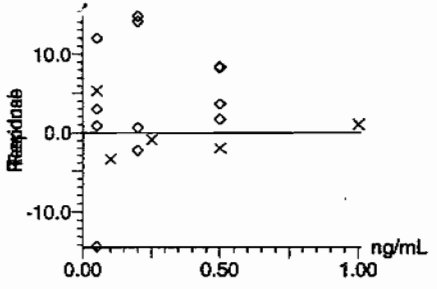

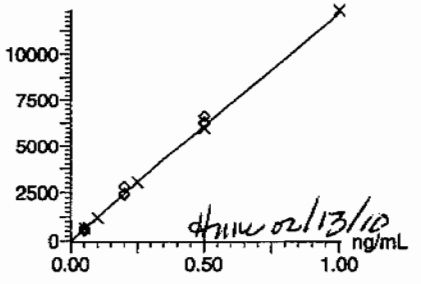

02/13/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 31590.9
RRF SD: 519.998, % Relative SD: 1.64603
Response type: External Std, Area
Curve type: RF

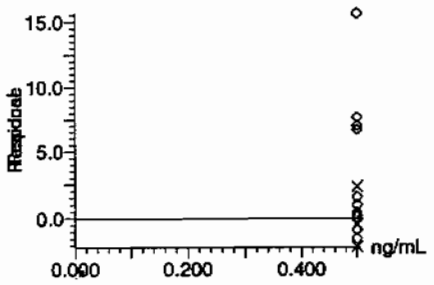

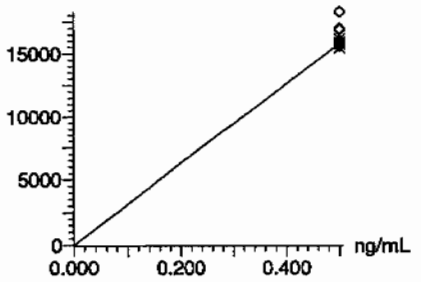

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	106.79	12–FEB–10 14:16	per0212009a
Perchlorate Isotope Ratio		3.04		12–FEB–10 14:16	per0212009a
Perchlorate–101	.5	.54	108.45	12–FEB–10 14:16	per0212009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212009a
Date: 12-Feb-2010
Time: 14:16:11
ID: ~~WCL100128-06ICV~~ WCL100211-06ICV
Vial: 1:2,A

Perchlorate
MRM of 3 channels,ES-
99 > 83
5.609e+004

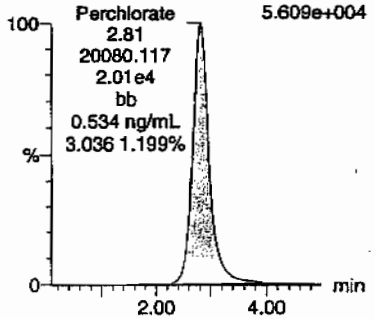

Perchlorate
MRM of 3 channels,ES-
101 > 85
1.863e+004

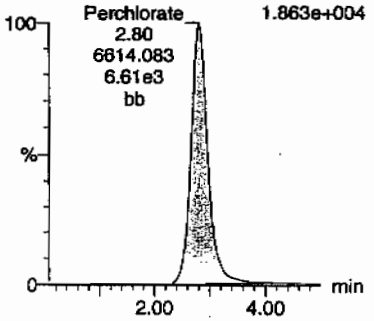

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
1.863e+004

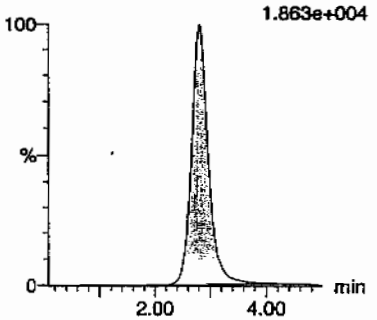

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
4.452e+004

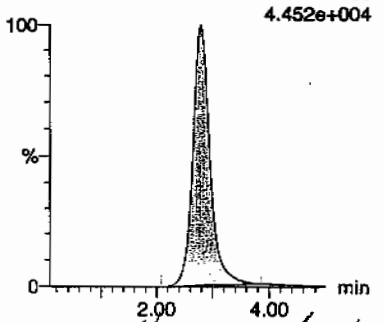

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	2.81	20080.117	20080.117	bb			0.5339	106.79	6.79	1116.2...	3.04
WCL100128-06ICV	Perchlorate-101	101 > 85	2.80	6614.083	6614.083	bb			0.5423	108.45	8.45	1715.6...	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	2.79	15659.994	15659.994	bb			0.4957	99.14	-0.86	780.695	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.58	12–FEB–10 15:44	per0212020a
Perchlorate Isotope Ratio		3.08		12–FEB–10 15:44	per0212020a
Perchlorate–101	.5	.51	101.67	12–FEB–10 15:44	per0212020a
Perchlorate	.5	.53	106.57	12–FEB–10 17:13	per0212031a
Perchlorate Isotope Ratio		3.04		12–FEB–10 17:13	per0212031a
Perchlorate–101	.5	.54	108.26	12–FEB–10 17:13	per0212031a
Perchlorate	.5	.54	107.02	12–FEB–10 18:33	per0212041a
Perchlorate Isotope Ratio		3.18		12–FEB–10 18:33	per0212041a
Perchlorate–101	.5	.52	103.61	12–FEB–10 18:33	per0212041a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212020a
Date: 12-Feb-2010
Time: 15:44:36
ID: ~~WCL100128-06CCV~~ WCL100211-06CCV
Vial: 1:2,A

CWO 02-13-10

Pass CWO 02-13-10

Perchlorate

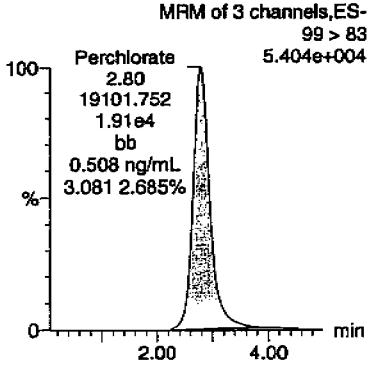

Perchlorate

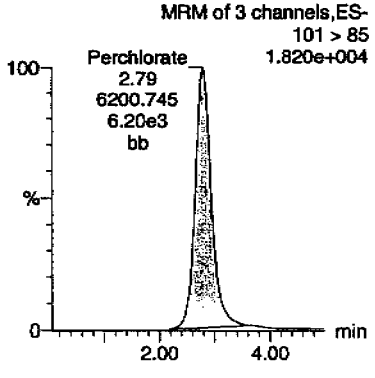

Perchlorate-101

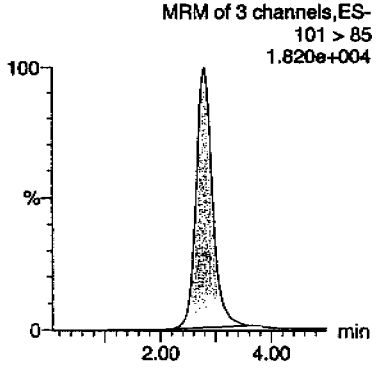

Perchlorate-O(18)

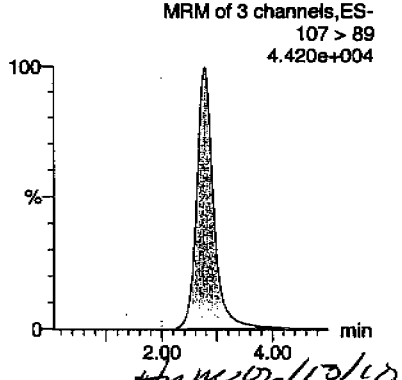

HMW 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.80	19101.752	19101.752	bb			0.5079	101.58	1.58	2610.9...	3.08
WCL100128-06CCV	Perchlorate-101	101 > 85	2.79	6200.745	6200.745	bb			0.5084	101.67	1.67	546.973	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.77	15563.824	15563.824	bb			0.4927	98.53	-1.47	1889.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212031a
Date: 12-Feb-2010
Time: 17:13:18
ID: ~~WCL100128-06CCV~~ WCL100211-06CCV
Vial: 1:2,A

CWJ 02-13-10

PWD CWJ 02-13-10

Perchlorate

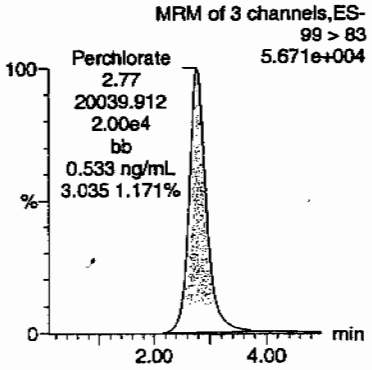

Perchlorate

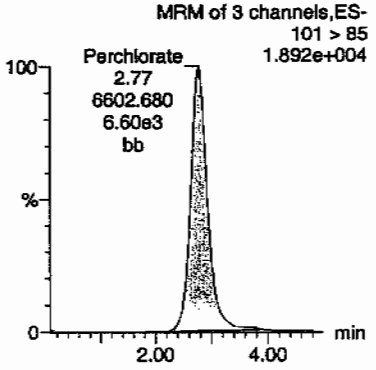

Perchlorate-101

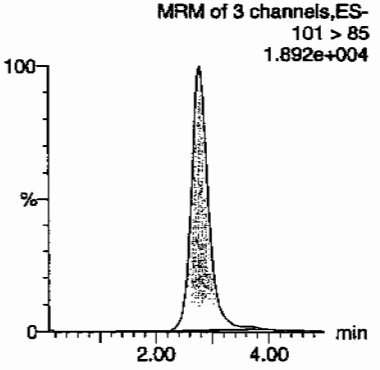

Perchlorate-O(18)

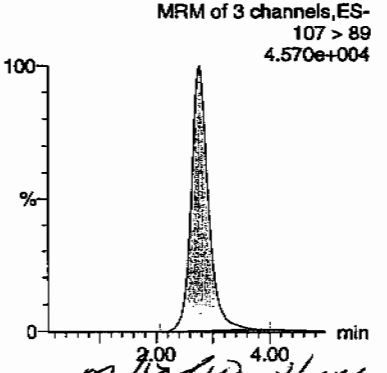

02/13/10 HMR

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.77	20039.912	20039.912	bb			0.5329	106.57	6.57	5797.7...	3.04
WCL100128-06CCV	Perchlorate-101	101 > 85	2.77	6602.680	6602.680	bb			0.5413	108.26	8.26	1694.1...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.76	16048.817	16048.817	bb			0.5080	101.60	1.60	1410.6...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212041a
Date: 12-Feb-2010
Time: 18:33:47
ID: ~~WCL100128-06CCV~~ WCL100211-06CCV
Vial: 1:2,A

02-13-10

Pass
02-13-10

Perchlorate

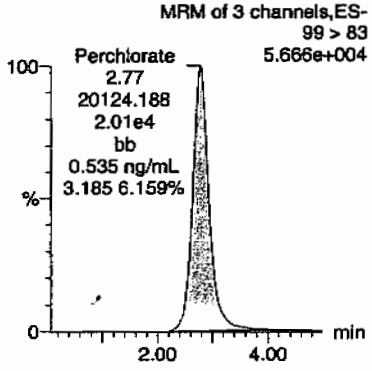

Perchlorate

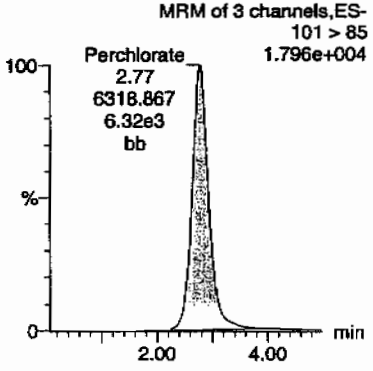

Perchlorate-101

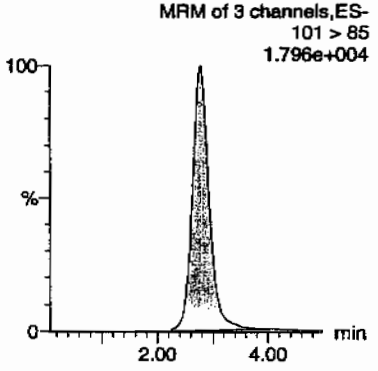

Perchlorate-O(18)

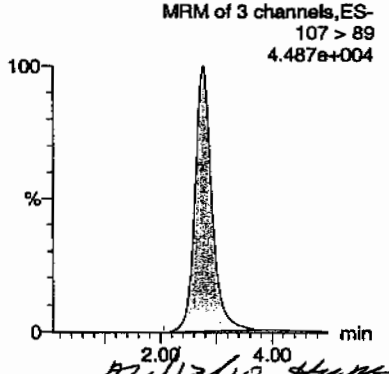

02/13/10 [illegible]

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.77	20124.188	20124.188	bb			0.5351	107.02	7.02	2450.8...	3.18
WCL100128-06CCV	Perchlorate-101	101 > 85	2.77	6318.867	6318.867	bb			0.5181	103.61	3.61	507.983	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.76	15814.844	15814.844	bb			0.5006	100.12	0.12	2260.6...	

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	100.77	12–FEB–10 14:32	per0212011a
Perchlorate Isotope Ratio		2.78		12–FEB–10 14:32	per0212011a
Perchlorate–101	.05	.06	111.96	12–FEB–10 14:32	per0212011a
Perchlorate	.05	.05	103.94	12–FEB–10 16:00	per0212022a
Perchlorate Isotope Ratio		3.73		12–FEB–10 16:00	per0212022a
Perchlorate–101	.05	.04	85.82	12–FEB–10 16:00	per0212022a
Perchlorate	.05	.05	104.14	12–FEB–10 17:29	per0212033a
Perchlorate Isotope Ratio		3.12		12–FEB–10 17:29	per0212033a
Perchlorate–101	.05	.05	102.97	12–FEB–10 17:29	per0212033a
Perchlorate	.05	.05	108.6	12–FEB–10 18:49	per0212043a
Perchlorate Isotope Ratio		3.32		12–FEB–10 18:49	per0212043a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	100.86	12–FEB–10 18:49	per0212043a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212011a
Date: 12-Feb-2010
Time: 14:32:15
ID: ~~WCL100128-07CRI~~ WCL100211-07CRI
Vial: 1:2,B

Perchlorate

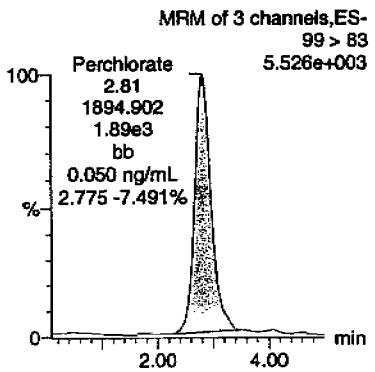

Perchlorate

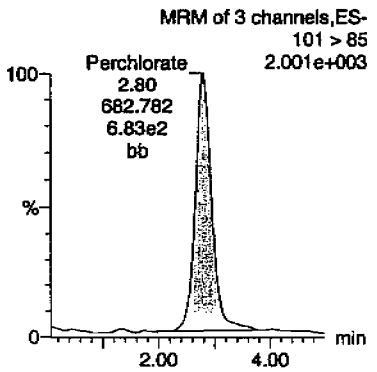

Perchlorate-101

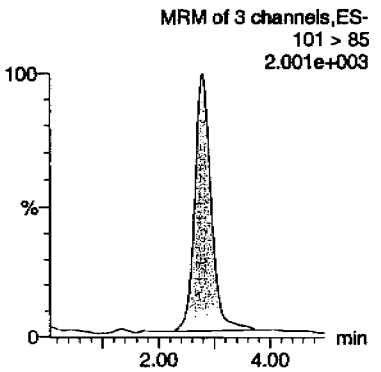

Perchlorate-O(18)

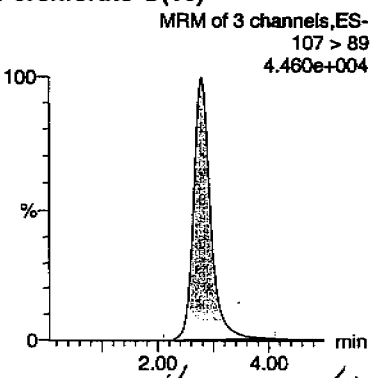

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.81	1894.902	1894.902	bb			0.0504	100.77	0.77	116.592	2.78
WCL100128-07CRI	Perchlorate-101	101 > 85	2.80	682.782	682.782	bb			0.0560	111.96	11.96	330.079	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.79	15868.563	15868.563	bb			0.5023	100.46	0.46	2772.0...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212022a
Date: 12-Feb-2010
Time: 16:00:40
ID: ~~WCL100128-07CRI~~ WCL100211-07CRZ
Vial: 1:2,B CWO 02-13-10

PWO CWO 02-13-10

Perchlorate

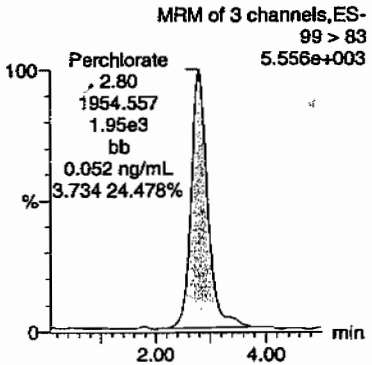

Perchlorate

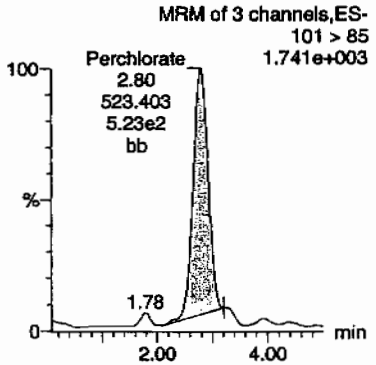

Perchlorate-101

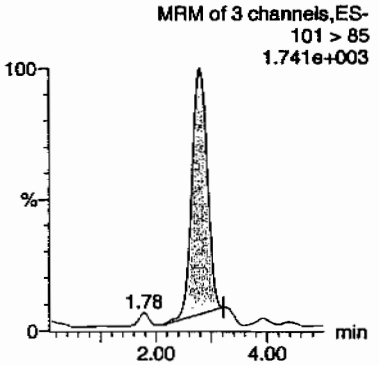

Perchlorate-O(18)

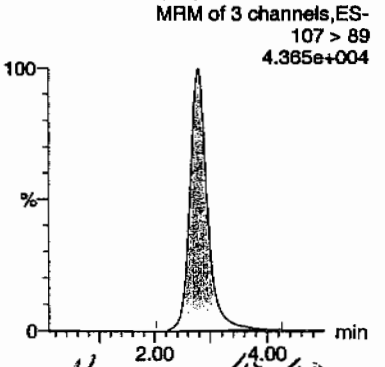

Hmc 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.80	1954.557	1954.557	bb			0.0520	103.94	3.94	556.182	3.73
WCL100128-07CRI	Perchlorate-101	101 > 85	2.80	523.403	523.403	bb			0.0429	85.82	-14.18	119.738	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.79	15667.299	15667.299	bb			0.4959	99.19	-0.81	1626.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212033a
Date: 12-Feb-2010
Time: 17:29:23
ID: ~~WCL100128-07CRI~~ WCL 100211-07CRZ
Vial: 1:2,B WJ 02-13-10

Pass
WJ
02-13-10

Perchlorate

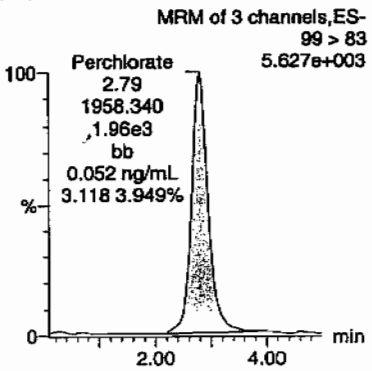

Perchlorate

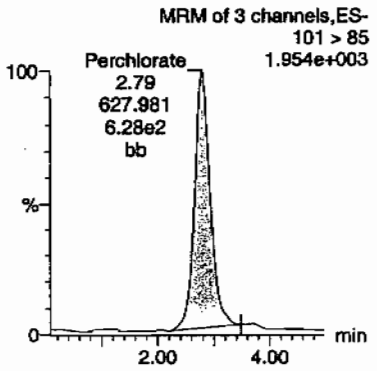

Perchlorate-101

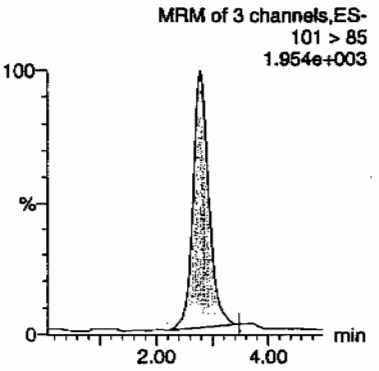

Perchlorate-O(18)

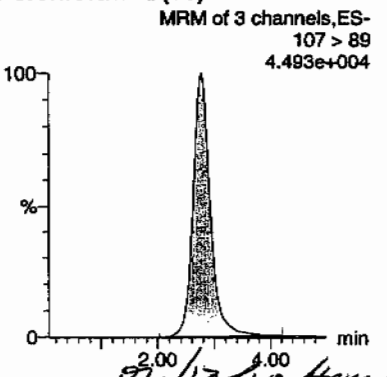

02/13/10 [illegible]

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.79	1958.340	1958.340	bb			0.0521	104.14	4.14	315.766	3.12
WCL100128-07CRI	Perchlorate-101	101 > 85	2.79	627.981	627.981	bb			0.0515	102.97	2.97	173.472	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.77	15952.271	15952.271	bb			0.5050	100.99	0.99	571.084	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212043a
Date: 12-Feb-2010
Time: 18:49:53
ID: ~~WCL100128-07CRI~~ WCL100211-07CRI
Vial: 1:2,B

Pass
AWJ
02-13-10

AWJ
02-13-10

Perchlorate

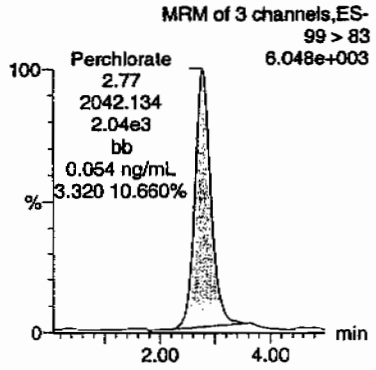

Perchlorate

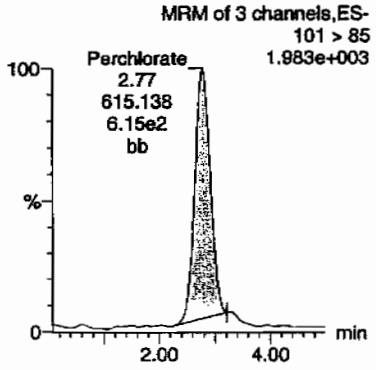

Perchlorate-101

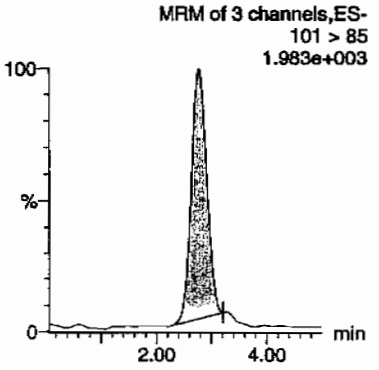

Perchlorate-O(18)

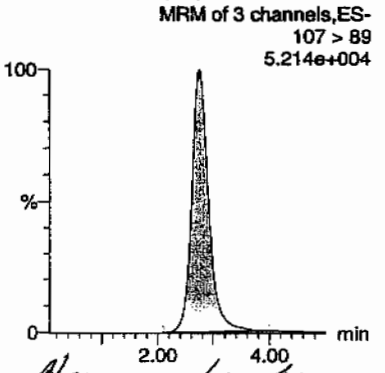

AWJ 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.77	2042.134	2042.134	bb			0.0543	108.60	8.60	78.582	3.32
WCL100128-07CRI	Perchlorate-101	101 > 85	2.77	615.138	615.138	bb			0.0504	100.86	0.86	291.822	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.75	18266.033	18266.033	bb			0.5782	115.64	15.64	1757.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 10-FEB-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 1202029067

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	12-FEB-10 14:40	per0212012a
	Perchlorate Isotope Ratio						1	12-FEB-10 14:40	per0212012a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	12-FEB-10 14:40	per0212012a
	Perchlorate-O(18)			4.82	ug/kg		1	12-FEB-10 14:40	per0212012a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212012a
Date: 12-Feb-2010
Time: 14:40:19
ID: 1202029067 | LAIOL | 947240 | 50120 | MB | 1 |
Vial: 1:3,A

(WW) 02-13-10

Perchlorate

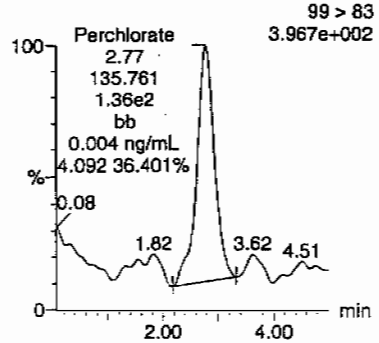

Perchlorate

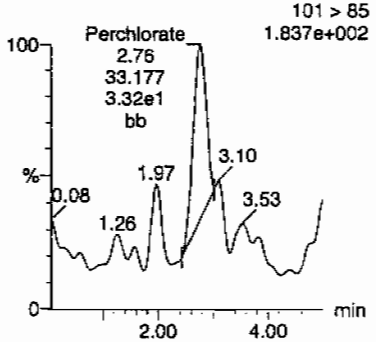

Perchlorate-101

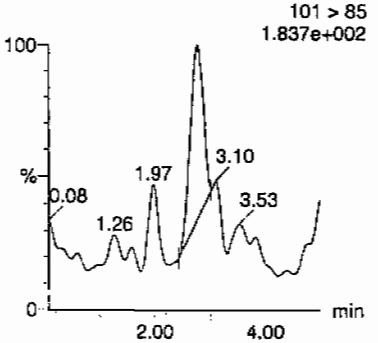

Perchlorate-O(18)

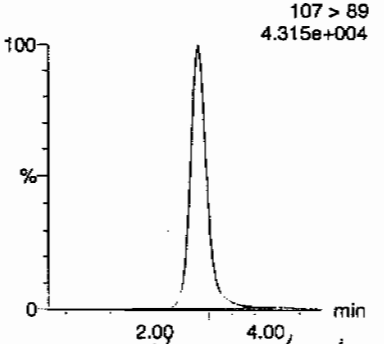

02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029067	Perchlorate	99 > 83	2.77	135.761	135.761	bb			0.0036			13.882	4.09
1202029067	Perchlorate-101	101 > 85	2.76	33.177	33.177	bb			0.0027			15.585	
1202029067	Perchlorate-O(18)	107 > 89	2.79	15223.065	15223.065	bb			0.4819	96.38	-3.62	643.544	

ONLY 20.0500

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947239

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 10-FEB-10

GEL Job No (SDG): 10-1474

GEL Sample ID: 1202029068

Date Filtered: 10-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.13	ug/kg		1	12-FEB-10 14:48	per0212013a
	Perchlorate Isotope Ratio			3.26			1	12-FEB-10 14:48	per0212013a
14797-73-0	Perchlorate-101	.5	2	2.01	ug/kg		1	12-FEB-10 14:48	per0212013a
	Perchlorate-O(18)			5.01	ug/kg		1	12-FEB-10 14:48	per0212013a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212013a
Date: 12-Feb-2010
Time: 14:48:22
ID: 1202029068
Vial: 1:3,B

|LCMS|947240|5020|LCS|1|

UL-13-10

Perchlorate

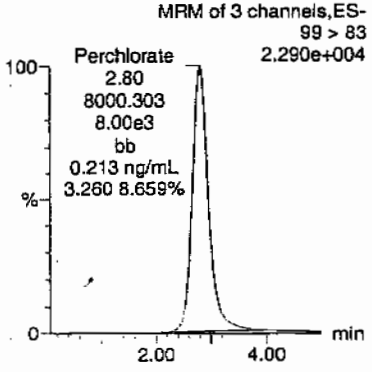

Perchlorate

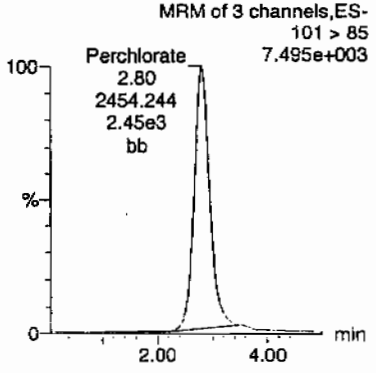

Perchlorate-101

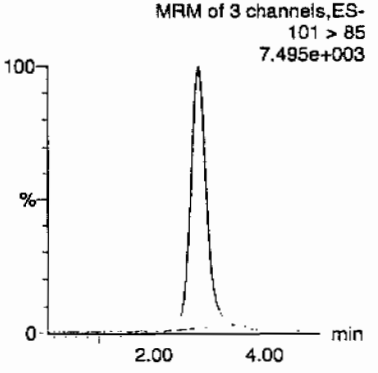

Perchlorate-O(18)

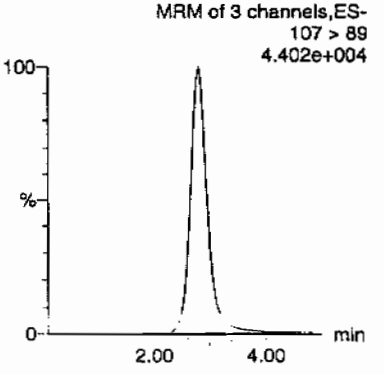

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029068	Perchlorate	99 > 83	2.80	8000.303	8000.303	bb			0.2127	106.36	6.36	1689.3...	3.26
1202029068	Perchlorate-101	101 > 85	2.80	2454.244	2454.244	bb			0.2012	100.61	0.61	474.361	
1202029068	Perchlorate-O(18)	107 > 89	2.79	15842.475	15842.475	bb			0.5015	100.30	0.30	1347.2...	

$\frac{8000.303}{37608.1} = 0.2127$

MM 02/13/10

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 947239 **Verified by:**
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202029067 MB	10-FEB-2010 15:29:00	2	20	10
1202029068 LCS	10-FEB-2010 15:29:00	2	20	10
245682001	10-FEB-2010 15:29:00	2	20	10
245682002	10-FEB-2010 15:29:00	2	20	10
1202029069 MS (245682002)	10-FEB-2010 15:29:00	2	20	10
1202029070 MSD (245682002)	10-FEB-2010 15:29:00	2	20	10
245682003	10-FEB-2010 15:29:00	2	20	10
245682004	10-FEB-2010 15:29:00	2	20	10
245682005	10-FEB-2010 15:29:00	2	20	10
245682006	10-FEB-2010 15:29:00	2	20	10
245682007	10-FEB-2010 15:29:00	2	20	10
245682008	10-FEB-2010 15:29:00	2	20	10
245682009	10-FEB-2010 15:29:00	2	20	10
245682010	10-FEB-2010 15:29:00	2	20	10
245806001	10-FEB-2010 15:29:00	2	20	10
245806002	10-FEB-2010 15:29:00	2	20	10
245806003	10-FEB-2010 15:29:00	2	20	10
245806004	10-FEB-2010 15:29:00	2	20	10
245806005	10-FEB-2010 15:29:00	2	20	10
245806006	10-FEB-2010 15:29:00	2	20	10
245806007	10-FEB-2010 15:29:00	2	20	10
245806008	10-FEB-2010 15:29:00	2	20	10
1202029071 ICS	10-FEB-2010 15:29:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202029071	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL
LCS	1202029068	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL
MS	1202029069	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL
MSD	1202029070	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL

Comments:
Desalting cartridges used: 091118-1-Ba & 100105-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/12/10
Extr. Injection Volume: 20uL
Sequence Number: per021210a
Initial Calibration Date: 02/12/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: Hm MC
Date: 02/13/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0212001a	IPB001	CWW	2/12/2010 13:11			1		USE	B
per0212002a	IPB001	CWW	2/12/2010 13:20			1		USE	B
per0212003a	WCLICAL-01	CWW	2/12/2010 13:28			1		USE	I
per0212004a	WCLICAL-02	CWW	2/12/2010 13:36			1		USE	I
per0212005a	WCLICAL-03	CWW	2/12/2010 13:44			1		USE	I
per0212006a	WCLICAL-04	CWW	2/12/2010 13:52			1		USE	I
per0212007a	WCLICAL-05	CWW	2/12/2010 14:00			1		USE	I
per0212008a	IPB002	CWW	2/12/2010 14:08			1		USE	B
per0212009a	WCLICV	CWW	2/12/2010 14:16			1		USE	C
per0212010a	IPB003	CWW	2/12/2010 14:24			1		USE	B
per0212011a	WCLCRI	CWW	2/12/2010 14:32			1		USE	C
per0212012a	1202029067	CWW	2/12/2010 14:40	947240	VARIOUS	1	LANL	USE	S
per0212013a	1202029068	CWW	2/12/2010 14:48	947240	VARIOUS	1	LANL	USE	S
per0212014a	1202029071	CWW	2/12/2010 14:56	947240	VARIOUS	1	LANL	USE	S
per0212015a	245682001	CWW	2/12/2010 15:04	947240	10-1450-1	1	LANL	USE	S
per0212016a	245682002	CWW	2/12/2010 15:12	947240	10-1450-1	1	LANL	USE	S
per0212017a	1202029069	CWW	2/12/2010 15:20	947240	10-1450-1	1	LANL	USE	S
per0212018a	1202029070	CWW	2/12/2010 15:28	947240	10-1450-1	1	LANL	USE	S
per0212019a	245682003	CWW	2/12/2010 15:36	947240	10-1450-1	1	LANL	USE	S
per0212020a	WCLCCV	CWW	2/12/2010 15:44			1		USE	C
per0212021a	IPB004	CWW	2/12/2010 15:52			1		USE	B
per0212022a	WCLCRI	CWW	2/12/2010 16:00			1		USE	C
per0212023a	245682004	CWW	2/12/2010 16:08	947240	10-1450-1	1	LANL	USE	S
per0212024a	245682005	CWW	2/12/2010 16:16	947240	10-1450-1	1	LANL	USE	S
per0212025a	245682006	CWW	2/12/2010 16:24	947240	10-1450-1	1	LANL	USE	S
per0212026a	245682007	CWW	2/12/2010 16:32	947240	10-1450-1	1	LANL	USE	S
per0212027a	245682008	CWW	2/12/2010 16:40	947240	10-1450-1	1	LANL	USE	S
per0212028a	245682009	CWW	2/12/2010 16:49	947240	10-1450-1	1	LANL	USE	S
per0212029a	245682010	CWW	2/12/2010 16:57	947240	10-1450-1	1	LANL	USE	S

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per0212030a	245806001	CWW	2/12/2010 17:05	947240	10-1474	1	LANL	USE	S
per0212031a	WCLCCV	CWW	2/12/2010 17:13			1		USE	C
per0212032a	IPB005	CWW	2/12/2010 17:21			1		USE	B
per0212033a	WCLCRI	CWW	2/12/2010 17:29			1		USE	C
per0212034a	245806002	CWW	2/12/2010 17:37	947240	10-1474	1	LANL	USE	S
per0212035a	245806003	CWW	2/12/2010 17:45	947240	10-1474	1	LANL	USE	S
per0212036a	245806004	CWW	2/12/2010 17:53	947240	10-1474	1	LANL	USE	S
per0212037a	245806005	CWW	2/12/2010 18:01	947240	10-1474	1	LANL	USE	S
per0212038a	245806006	CWW	2/12/2010 18:09	947240	10-1474	1	LANL	USE	S
per0212039a	245806007	CWW	2/12/2010 18:17	947240	10-1474	1	LANL	USE	S
per0212040a	245806008	CWW	2/12/2010 18:25	947240	10-1474	1	LANL	USE	S
per0212041a	WCLCCV	CWW	2/12/2010 18:33			1		USE	C
per0212042a	IPB006	CWW	2/12/2010 18:41			1		USE	B
per0212043a	WCLCRI	CWW	2/12/2010 18:49			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212017a
Date: 12-Feb-2010
Time: 15:20:29
ID: 1202029069
Vial: 1:3,F

|LANL|94240|SO20|MS|1|

02-13-10

Perchlorate

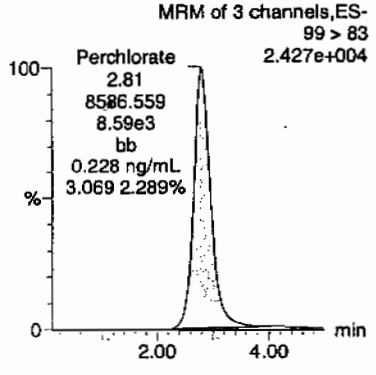

Perchlorate

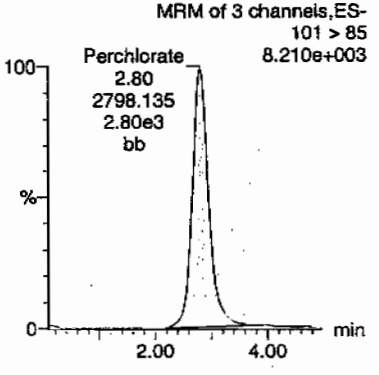

Perchlorate-101

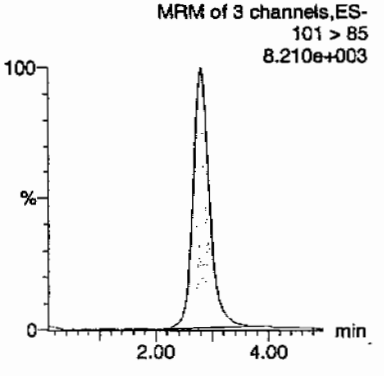

Perchlorate-O(18)

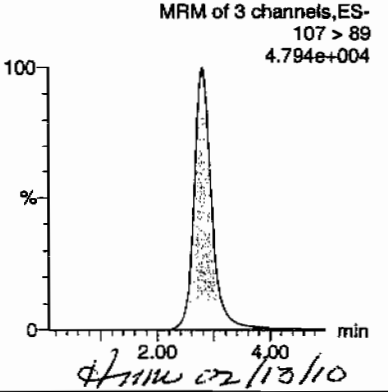

HMW 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029069	Perchlorate	99 > 83	2.81	8586.559	8586.559	bb			0.2283	114.16	14.16	1712.0...	3.07
1202029069	Perchlorate-101	101 > 85	2.80	2798.135	2798.135	bb			0.2294	114.70	14.70	559.261	
1202029069	Perchlorate-O(18)	107 > 89	2.80	17012.309	17012.309	bb			0.5385	107.70	7.70	1805.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021210a.qld

Last Altered: Saturday, February 13, 2010 10:56:08 AM Eastern Standard Time
Printed: Saturday, February 13, 2010 11:00:28 AM Eastern Standard Time

Name: per0212018a
Date: 12-Feb-2010
Time: 15:28:30
ID: 1202029070
Vial: 1:4,A

|LANL|947240|50120|MSD|1|

CWJ
02-13-10

Perchlorate

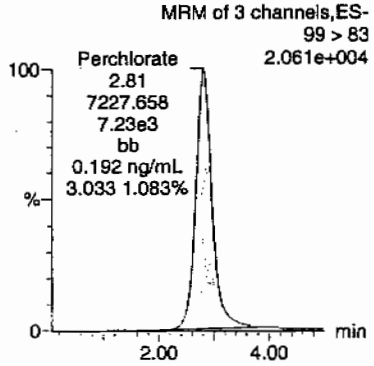

Perchlorate

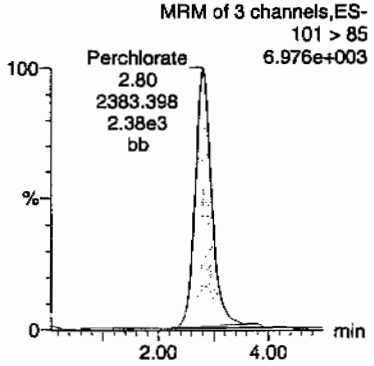

Perchlorate-101

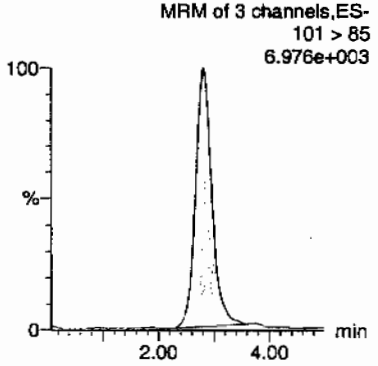

Perchlorate-O(18)

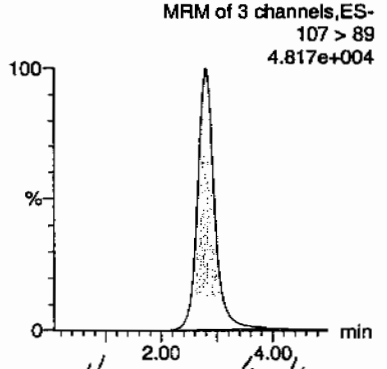

HMW 02/13/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029070	Perchlorate	99 > 83	2.81	7227.658	7227.658	bb			0.1922	96.09	-3.91	577.933	3.03
1202029070	Perchlorate-101	101 > 85	2.80	2383.398	2383.398	bb			0.1954	97.70	-2.30	1002.9...	
1202029070	Perchlorate-O(18)	107 > 89	2.80	16912.295	16912.295	bb			0.5354	107.07	7.07	1264.1...	

$$\frac{7227.658}{37608.1} \Big| \frac{10}{} \Big| \frac{100}{83.8} = 2.29$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1474-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	947199
Prep Batch Number:	947198

Sample Analysis

Sample ID	Client ID
245807001	RE15-10-8081
245807002	RE15-10-8082
1202028966	Interference Check Sample (ICS)
1202028960	Method Blank (MB)
1202028961	Laboratory Control Sample (LCS)
1202028962	245614001(RE46-10-11838) Matrix Spike (MS)
1202028963	245614001(RE46-10-11838) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245614001 (RE46-10-11838) from SDG 10-1417-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 245807001 (RE15-10-8081) was re-analyzed to confirm the potential of carryover from the previous sample. The re-analysis is reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Deborah K Maier **Date:** 02/06/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8081

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474-1

GEL Sample ID: 245807001

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	01-FEB-10 16:22	per0201014a
	Perchlorate Isotope Ratio						1	01-FEB-10 16:22	per0201014a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	01-FEB-10 16:22	per0201014a
	Perchlorate-O(18)			0.477	ug/L		1	01-FEB-10 16:22	per0201014a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8082

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474-1

GEL Sample ID: 245807002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:34	per0131074a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:34	per0131074a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:34	per0131074a
	Perchlorate-O(18)			0.499	ug/L		1	31-JAN-10 21:34	per0131074a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1474–1

Extract Batch Code: 947198

Date Filtered: 30–JAN–10

Matrix: WATER

Sample ID: 1202028961

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.199	ug/L	99.4		85 – 115
Perchlorate Isotope Ratio		3.1				–
Perchlorate–101	0.200	.191	ug/L	95.3		85 – 115
Perchlorate–O(18)		.455	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1474-1

Extract Batch Code: 947198

Date Filtered: 30-JAN-10

Matrix: SURFACE WATE

Sample ID: 1202028966

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.2	ug/L	100		70 – 130
Perchlorate Isotope Ratio		3.04				
Perchlorate-101	0.200	.196	ug/L	98		70 – 130
Perchlorate-O(18)		.475	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131048a
Date: 31-Jan-2010
Time: 18:17:55
ID: 1202028966
Vial: 2:1,C

|LANL|947199|LIQ|ICS|1|

WW
02-01-10

Perchlorate

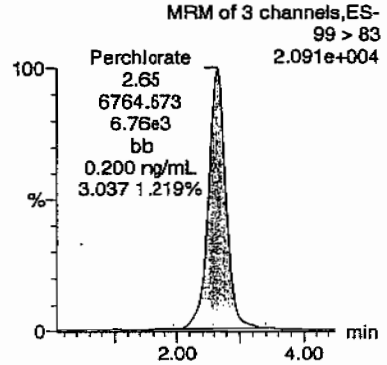

Perchlorate

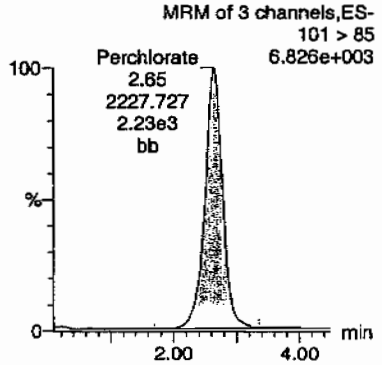

Perchlorate-101

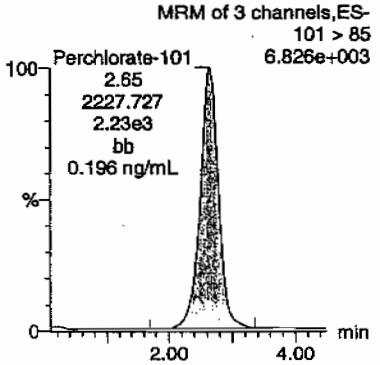

Perchlorate-O(18)

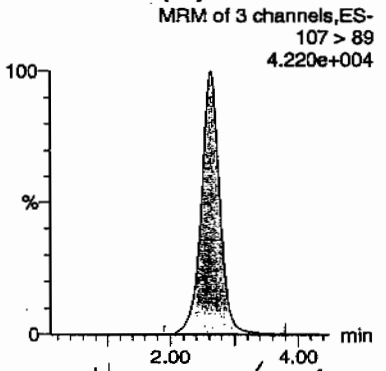

Hmc 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028966	Perchlorate	99 > 83	2.65	6764.673	6764.673	bb			0.2000	100.01	0.01	722.076	3.04
1202028966	Perchlorate-101	101 > 85	2.65	2227.727	2227.727	bb			0.1960	97.99	-2.01	600.092	
1202028966	Perchlorate-O(18)	107 > 89	2.64	13812.098	13812.098	bb			0.4749	94.98	-5.02	4165.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1474–1

Extract Batch Code: 947198

Date Extracted: 30–JAN–10

GEL MS/PS ID: 1202028962

Client ID: RE46–10–11838

GEL MSD/PSD ID: 1202028963

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00266	ug/L	0.204	101	.196	96.5	4.16	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.07		2.95		0		–
Perchlorate–101	0.200	0.00	ug/L	0.198	98.9	.198	98.8	.103	30	75 – 125
Perchlorate–O(18)	0	0.438	ug/L	0.475		.484		1.83		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1474-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	31-JAN-10	per0131001a	IPB001
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131001a	IPB001
Perchlorate	0.00	0	NA	31-JAN-10	per0131002a	IPB001
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131002a	IPB001
Perchlorate	0.00	0	NA	01-FEB-10	per0201001a	IPB001
Perchlorate-101	0.00	0	NA	01-FEB-10	per0201001a	IPB001
Perchlorate	0.00	0	NA	01-FEB-10	per0201002a	IPB001
Perchlorate-101	0.00	0	NA	01-FEB-10	per0201002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per013110a.mdb 01 Feb 2010 10:44:50
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per013110a.cdb 01 Feb 2010 10:45:05

Name: per0131001a
Date: 31-Jan-2010
Time: 12:23:18
ID: IPB001
Vial: 1:1,A

02-01-10

Perchlorate

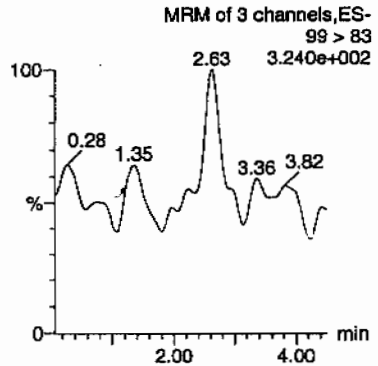

Perchlorate

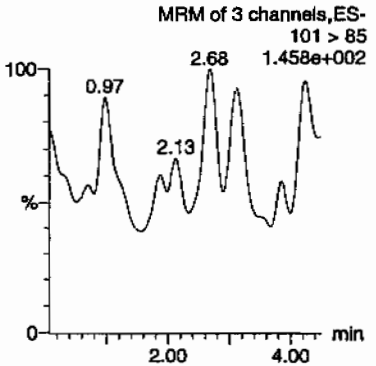

Perchlorate-101

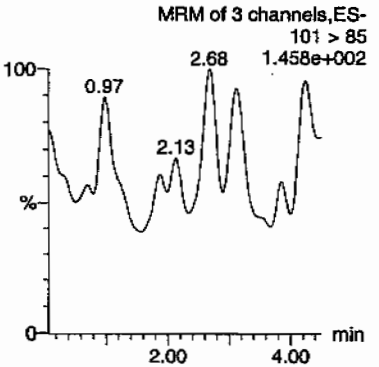

Perchlorate-O(18)

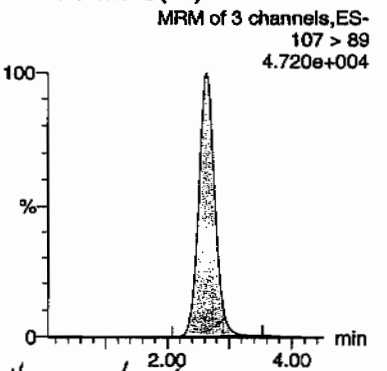

Hmc 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.64	14142.885	14142.885	bb			0.4863	97.26	-2.74	1262.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131002a
Date: 31-Jan-2010
Time: 12:30:50
ID: IPB001
Vial: 1:1,A

aw
02-01-10

Perchlorate

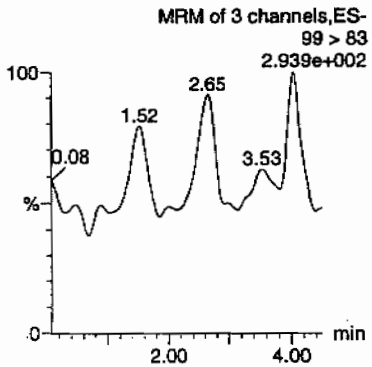

Perchlorate

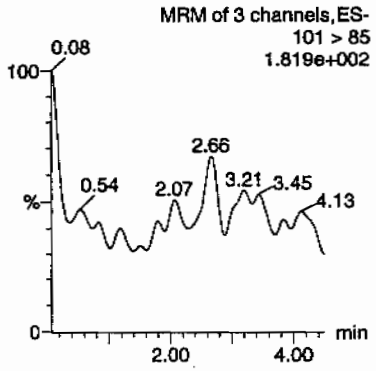

Perchlorate-101

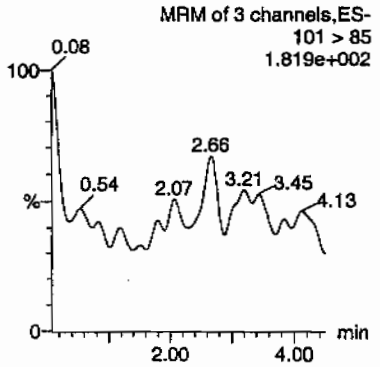

Perchlorate-O(18)

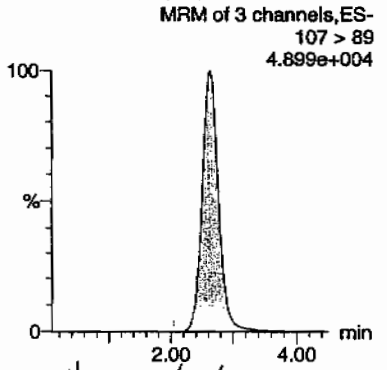

thw 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.64	14670.820	14670.820	bb			0.5044	100.89	0.89	7699.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020110a.mdb 02 Feb 2010 07:54:05
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020110a.cdb 02 Feb 2010 14:28:23

Name: per0201001a
Date: 01-Feb-2010
Time: 14:44:45
ID: IPB001
Vial: 1:1,A

cwl
02-02-10

Perchlorate

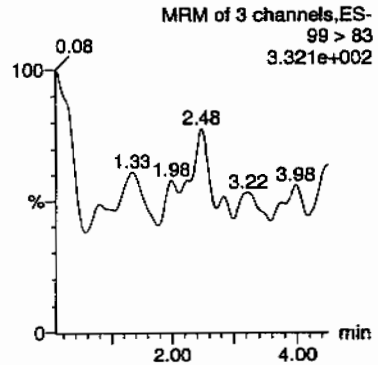

Perchlorate

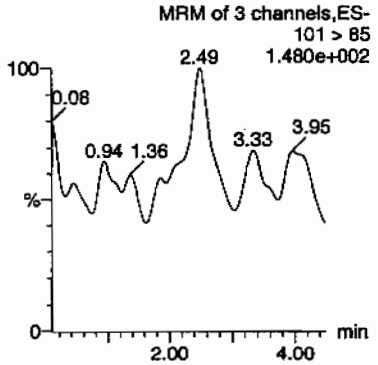

Perchlorate-101

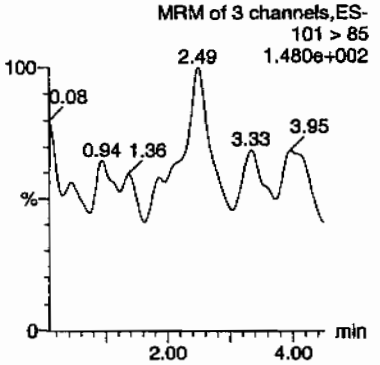

Perchlorate-O(18)

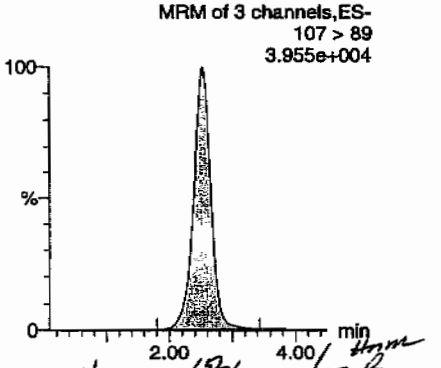

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.53	12548.574	12548.574	bb			0.5028	100.56	0.56	1850.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201002a
Date: 01-Feb-2010
Time: 14:52:28
ID: IPB001
Vial: 1:1,A

02-02-10

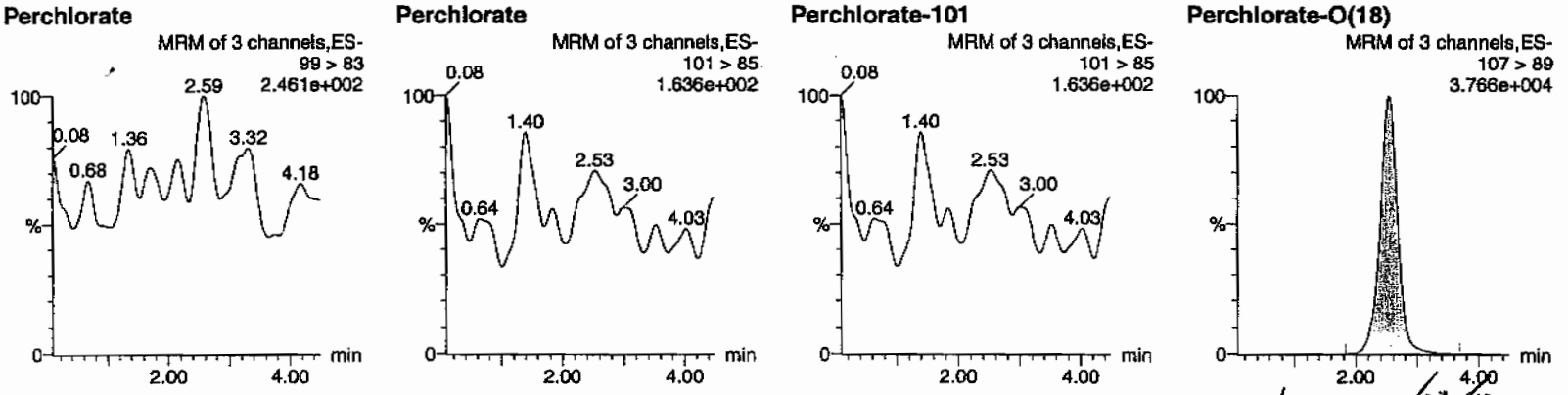

dzine 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.54	12279.958	12279.958	bb			0.4920	98.41	-1.59	1440.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1474-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	31-JAN-10	per0131008a	IPB002
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131008a	IPB002
Perchlorate	0.00	0	NA	31-JAN-10	per0131010a	IPB003
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131010a	IPB003
Perchlorate	0.00	0	NA	31-JAN-10	per0131022a	IPB004
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131022a	IPB004
Perchlorate	0.00	0	NA	31-JAN-10	per0131033a	IPB005
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131033a	IPB005
Perchlorate	0.00	0	NA	31-JAN-10	per0131044a	IPB006
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131044a	IPB006
Perchlorate	0.00	0	NA	31-JAN-10	per0131055a	IPB007
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131055a	IPB007
Perchlorate	0.00	0	NA	31-JAN-10	per0131066a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1474-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131066a	IPB008
Perchlorate	0.00	0	NA	31-JAN-10	per0131075a	IPB009
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131075a	IPB009
Perchlorate	0.00	0	NA	31-JAN-10	per0131078a	IPB010
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131078a	IPB010
Perchlorate	0.00	0	NA	01-FEB-10	per0201008a	IPB002
Perchlorate-101	0.00	0	NA	01-FEB-10	per0201008a	IPB002
Perchlorate	0.00	0	NA	01-FEB-10	per0201010a	IPB003
Perchlorate-101	0.00	0	NA	01-FEB-10	per0201010a	IPB003
Perchlorate	0.00	0	NA	01-FEB-10	per0201015a	IPB004
Perchlorate-101	0.00	0	NA	01-FEB-10	per0201015a	IPB004
Perchlorate	0.00	0	NA	01-FEB-10	per0201021a	IPB005
Perchlorate-101	0.00	0	NA	01-FEB-10	per0201021a	IPB005

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131008a
Date: 31-Jan-2010
Time: 13:15:57
ID: IPB002
Vial: 1:1,A

CWW
02-01-10

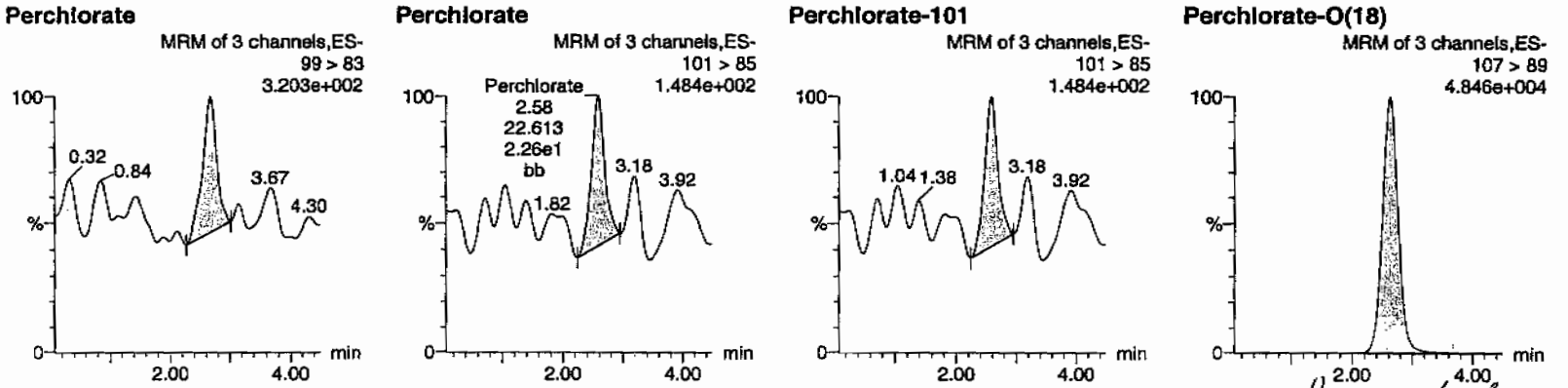

Hrm a/o/zlio

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	2.66	48.090	48.090	bb			0.0014			8.037	2.13
IPB002	Perchlorate-101	101 > 85	2.58	22.613	22.613	bb			0.0020			5.380	
IPB002	Perchlorate-O(18)	107 > 89	2.63	14490.285	14490.285	bb			0.4982	99.65	-0.35	1594.1...	

okay
CWW

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131010a
Date: 31-Jan-2010
Time: 13:31:01
ID: IPB003
Vial: 1:1,A

02-01-10

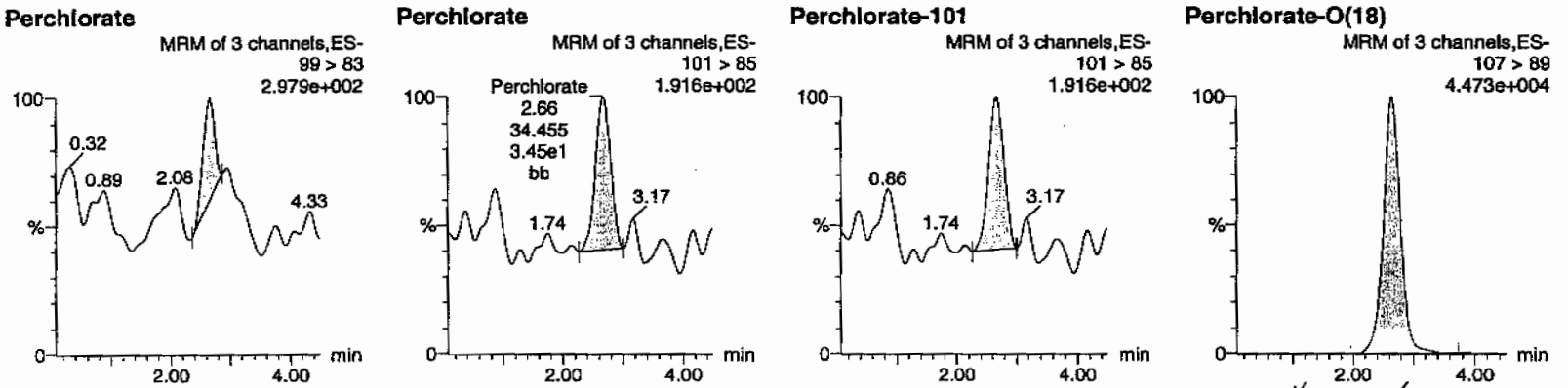

dhm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	2.66	27.957	27.957	bb			0.0008			6.487	0.81
IPB003	Perchlorate-101	101 > 85	2.66	34.455	34.455	bb			0.0030			10.133	
IPB003	Perchlorate-O(18)	107 > 89	2.65	14485.047	14485.047	bb			0.4981	99.61	-0.39	3915.2...	

0.0008 LO 0.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131022a
Date: 31-Jan-2010
Time: 15:01:35
ID: IPB004
Vial: 1:1,A

Chw
02-01-10

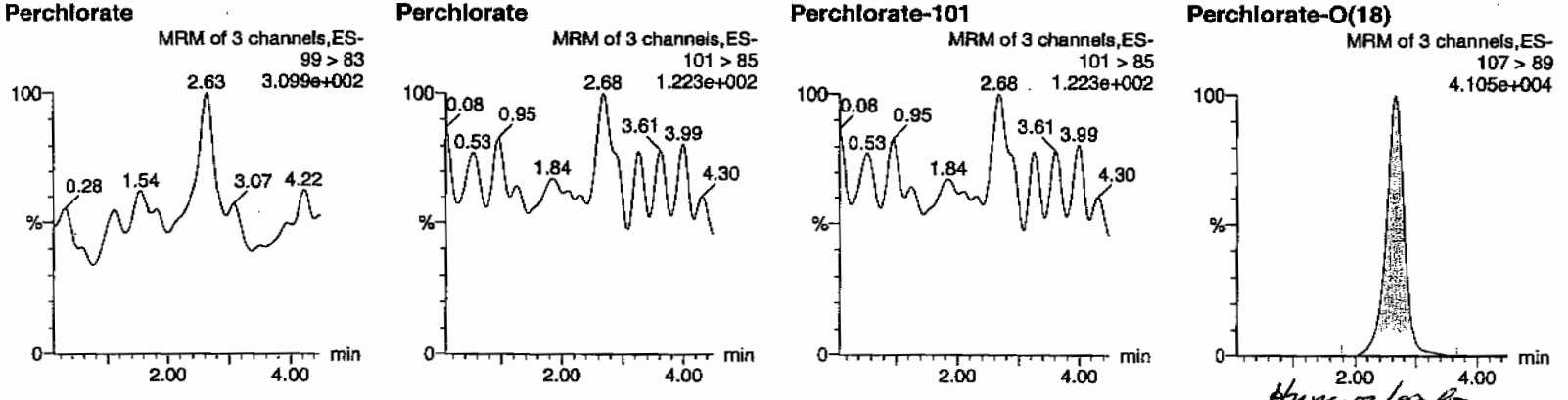

Hum 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.65	13877.979	13877.979	bb			0.4772	95.44	-4.56	576.575	

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131033a
Date: 31-Jan-2010
Time: 16:24:34
ID: IPB005
Vial: 1:1,A

02-01-10

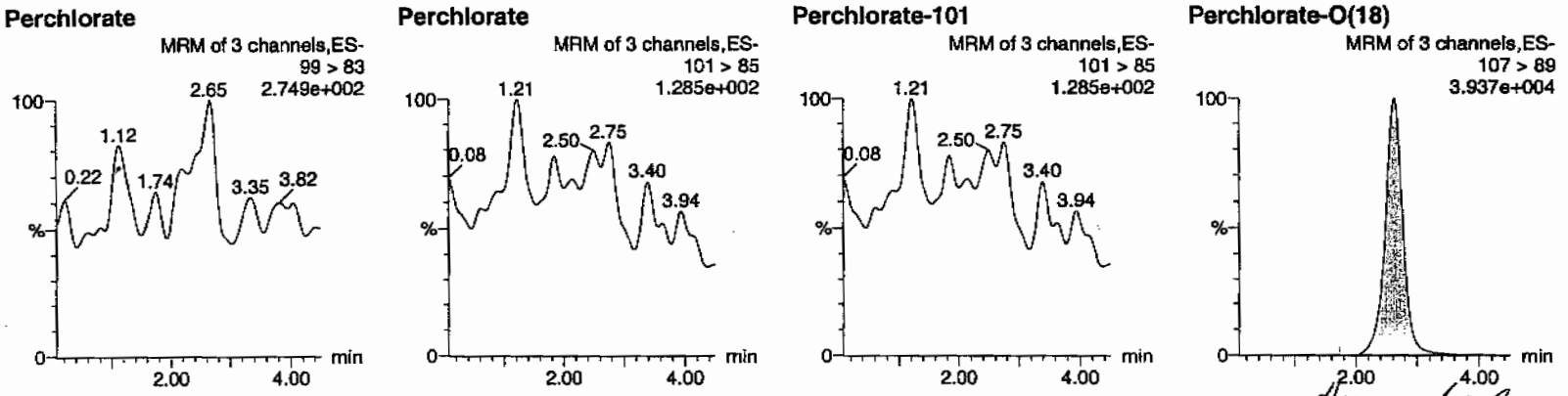

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.63	13136.926	13136.926	bb			0.4517	90.34	-9.66	4624.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131044a
Date: 31-Jan-2010
Time: 17:47:37
ID: IPB006
Vial: 1:1,A

02-01-10

Perchlorate

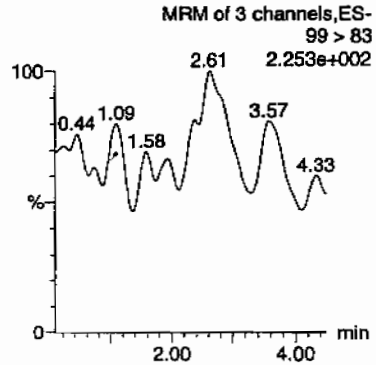

Perchlorate

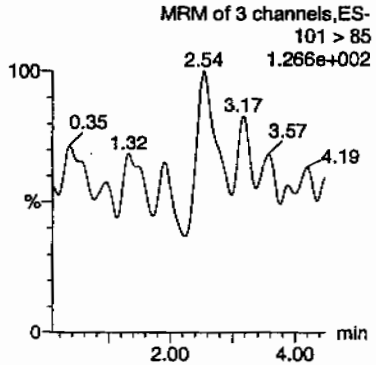

Perchlorate-101

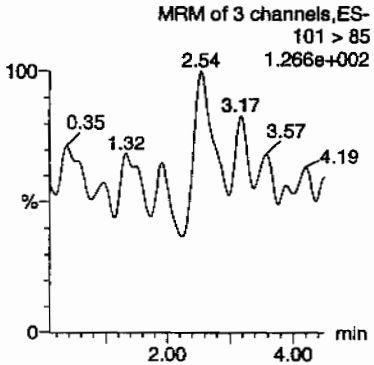

Perchlorate-O(18)

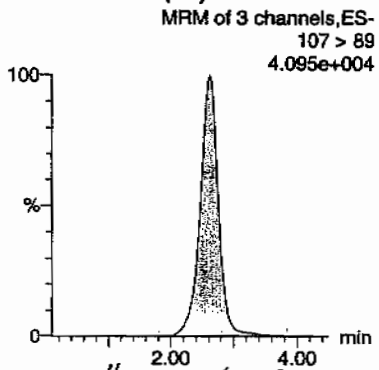

Hmm a/c/ap/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	2.61	13693.361	13693.361	bb			0.4708	94.17	-5.83	3955.2...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131055a
Date: 31-Jan-2010
Time: 19:10:53
ID: IPB007
Vial: 1:1,A

GWO
02-01-10

Perchlorate

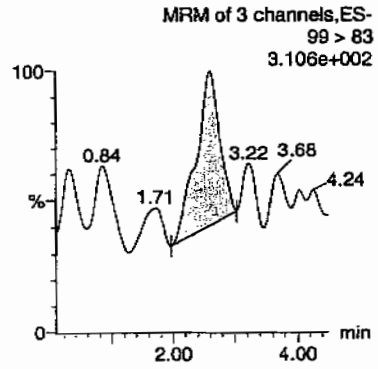

Perchlorate

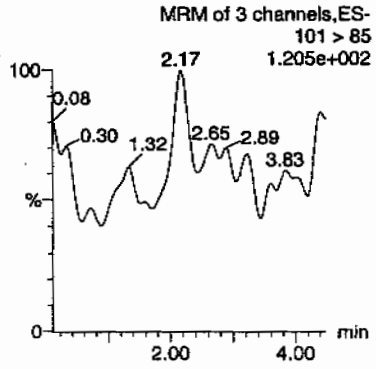

Perchlorate-101

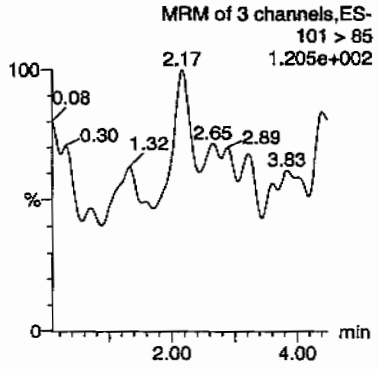

Perchlorate-O(18)

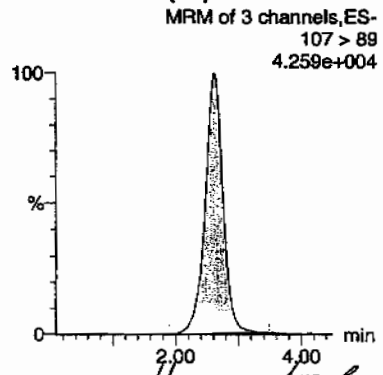

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	2.59	81.753	81.753	bb			0.0024			4.141	0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	2.61	13936.795	13936.795	bb			0.4792	95.84	-4.16	4415.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131066a
Date: 31-Jan-2010
Time: 20:34:13
ID: IPB008
Vial: 1:1,A

02-01-10

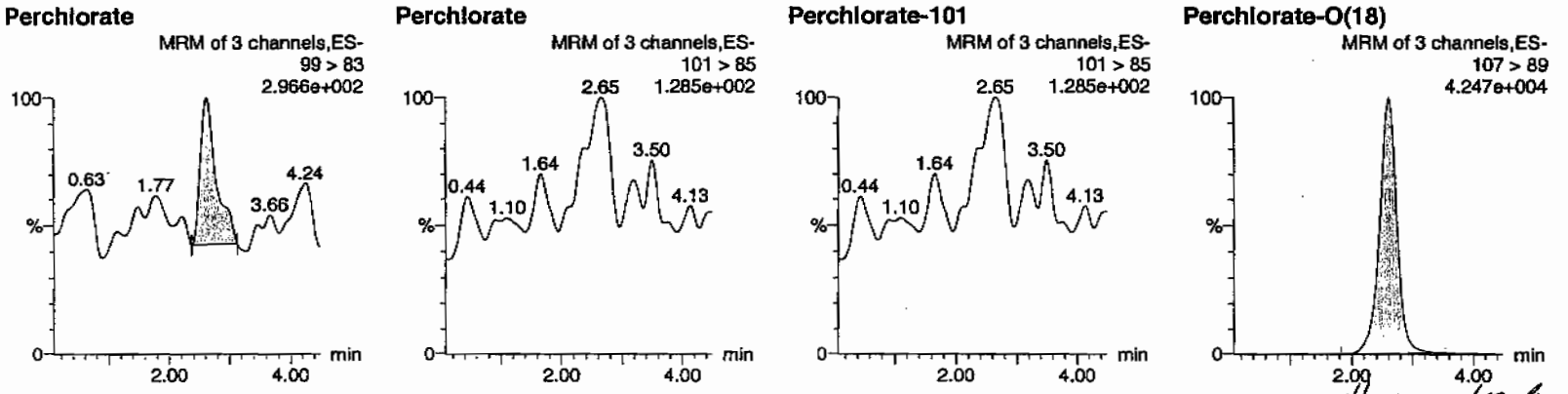

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	2.61	52.781	52.781	bb			0.0016			11.563	0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	2.60	14030.887	14030.887	bb			0.4824	96.49	-3.51	3435.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131075a
Date: 31-Jan-2010
Time: 21:42:14
ID: IPB009
Vial: 1:1,A

CWW 02-01-10

Perchlorate

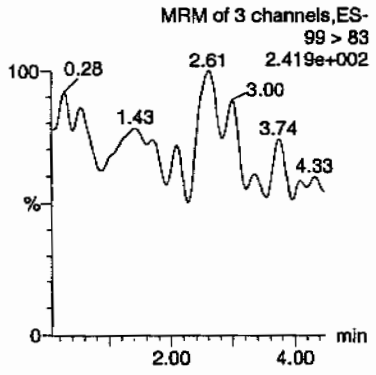

Perchlorate

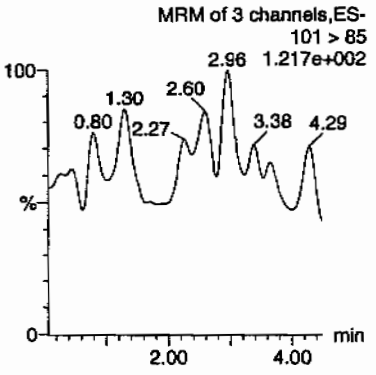

Perchlorate-101

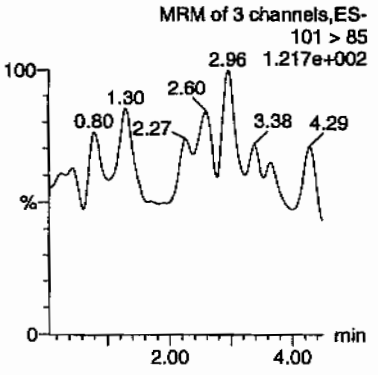

Perchlorate-O(18)

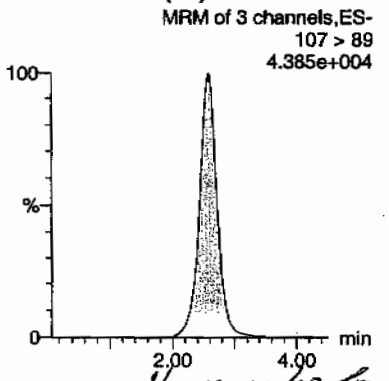

Hum 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	2.59	14440.522	14440.522	bb			0.4965	99.31	-0.69	3410.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131078a
Date: 31-Jan-2010
Time: 22:05:33
ID: IPB010
Vial: 1:1,A

CWW
02-01-10

Perchlorate

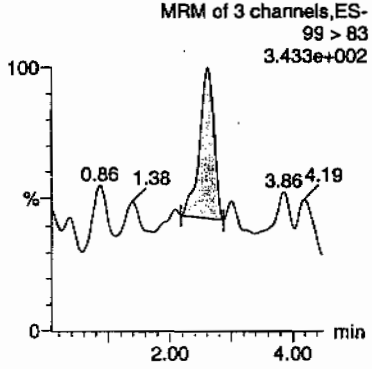

Perchlorate

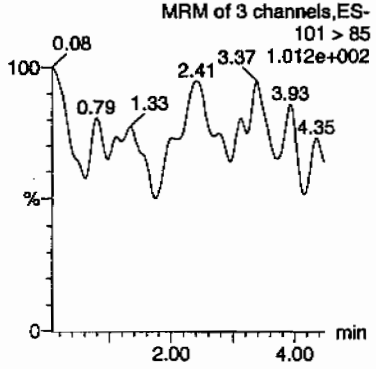

Perchlorate-101

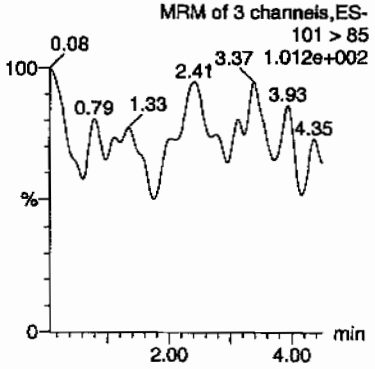

Perchlorate-O(18)

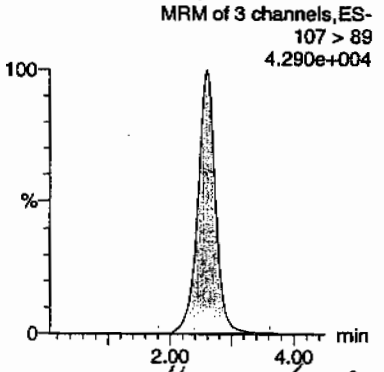

Hmm 02/2/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83	2.61	54.315	54.315	bb			0.0016			12.130	0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	2.60	14165.403	14165.403	bb			0.4871	97.41	-2.59	1328.2...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201008a
Date: 01-Feb-2010
Time: 15:37:36
ID: IPB002
Vial: 1:1,A

02-02-10

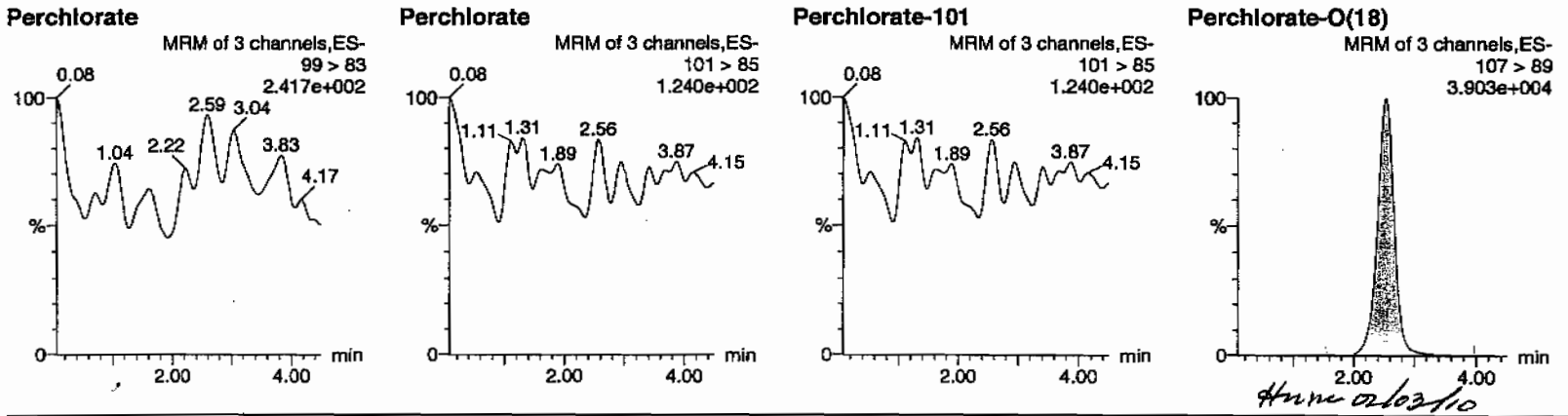

Anne 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.54	12466.273	12466.273	bb			0.4995	99.90	-0.10	3302.1...	

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201010a
Date: 01-Feb-2010
Time: 15:52:41
ID: IPB003
Vial: 1:1,A

CWW
02-02-10

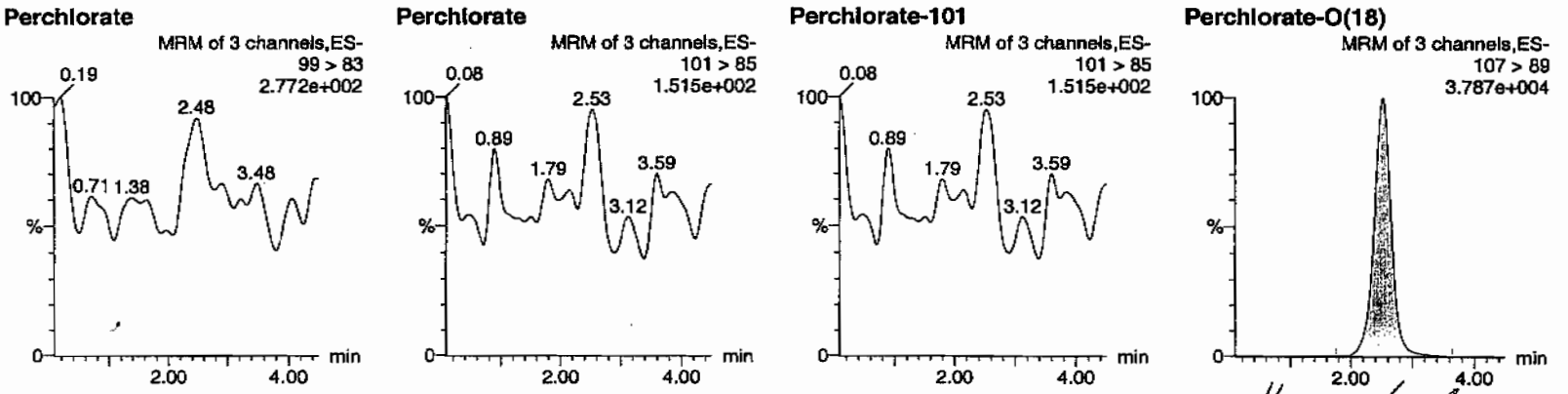

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.51	12216.218	12216.218	bb			0.4895	97.90	-2.10	3557.9...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201015a
Date: 01-Feb-2010
Time: 16:30:26
ID: IPB004
Vial: 1:1,A

02-02-10

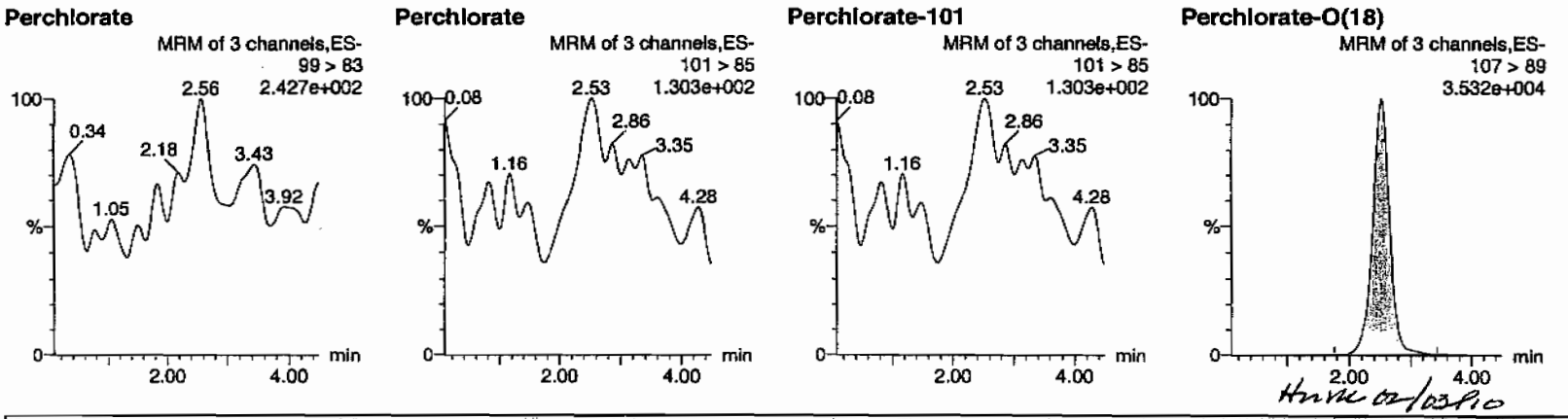

Hmk 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.53	11317.529	11317.529	bb			0.4535	90.70	-9.30	873.039	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201021a
Date: 01-Feb-2010
Time: 17:15:41
ID: IPB005
Vial: 1:1,A

02-02-10

Perchlorate

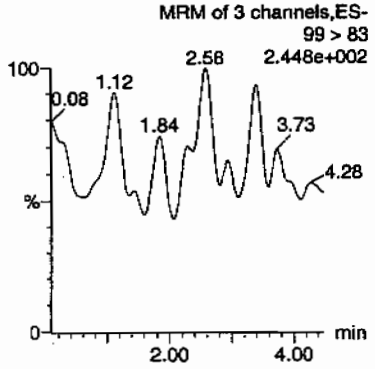

Perchlorate

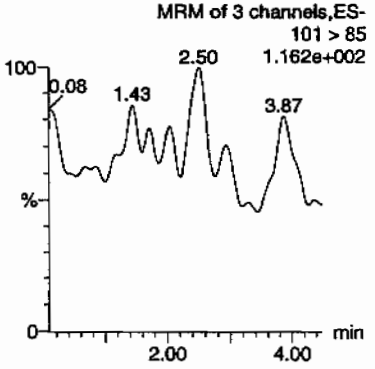

Perchlorate-101

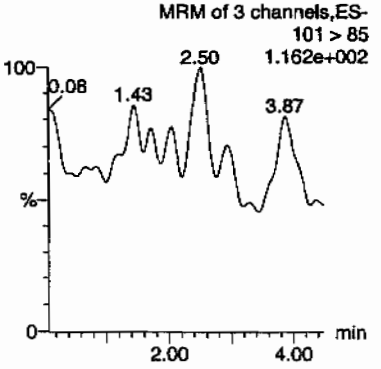

Perchlorate-O(18)

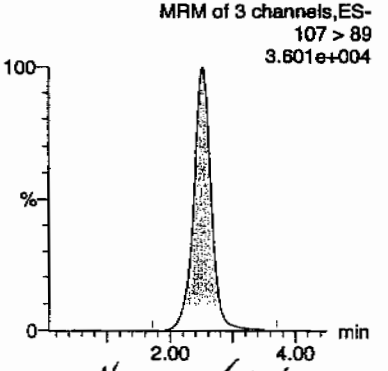

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.51	11657.459	11657.459	bb			0.4671	93.42	-6.58	6561.5...	

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

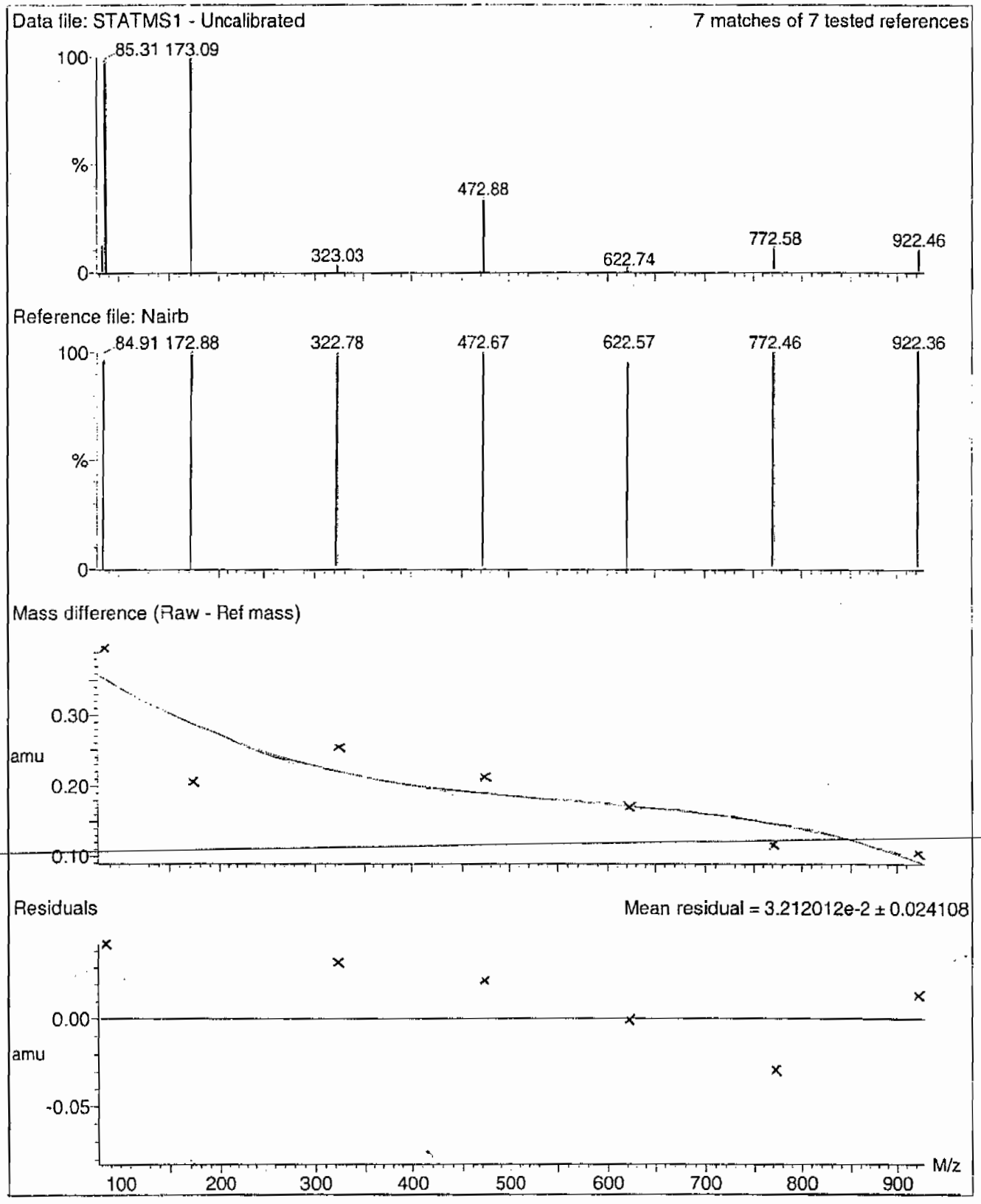

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

Data file: SCNMS1 - Uncalibrated

7 matches of 7 tested references

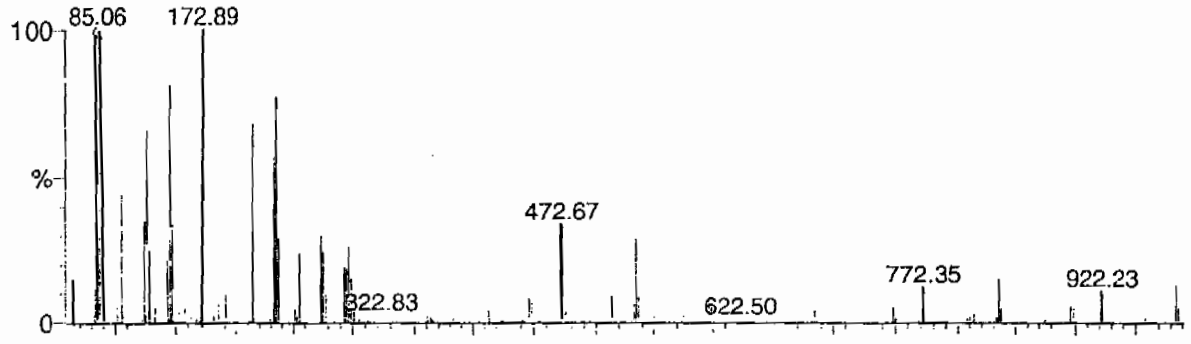

Reference file: Nairb

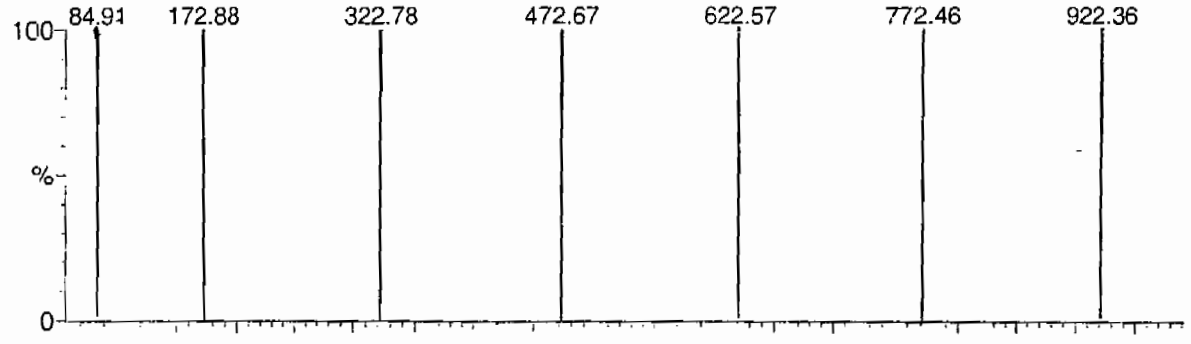

Mass difference (Raw - Ref mass)

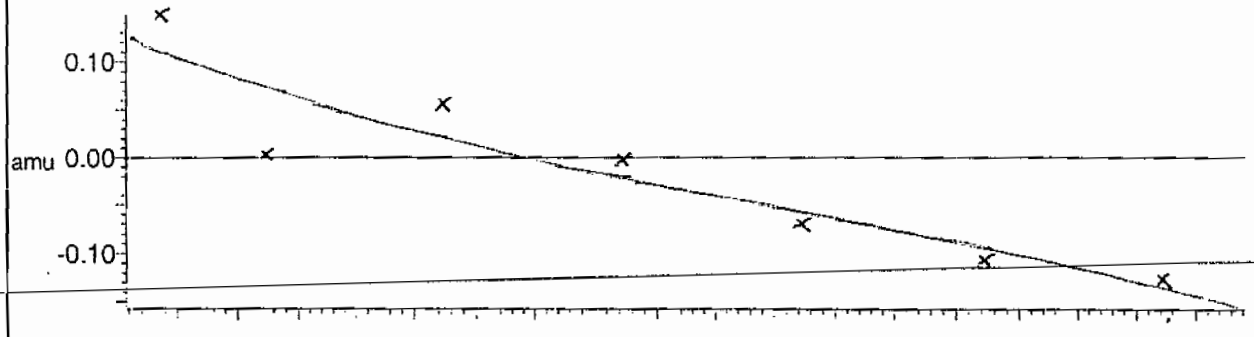

Residuals

Mean residual = 2.732691e-2 ± 0.020653

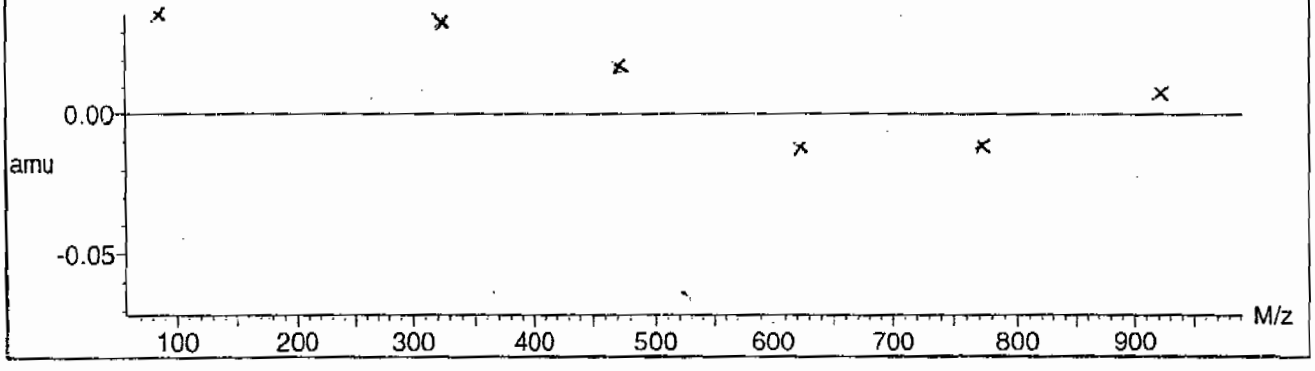

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

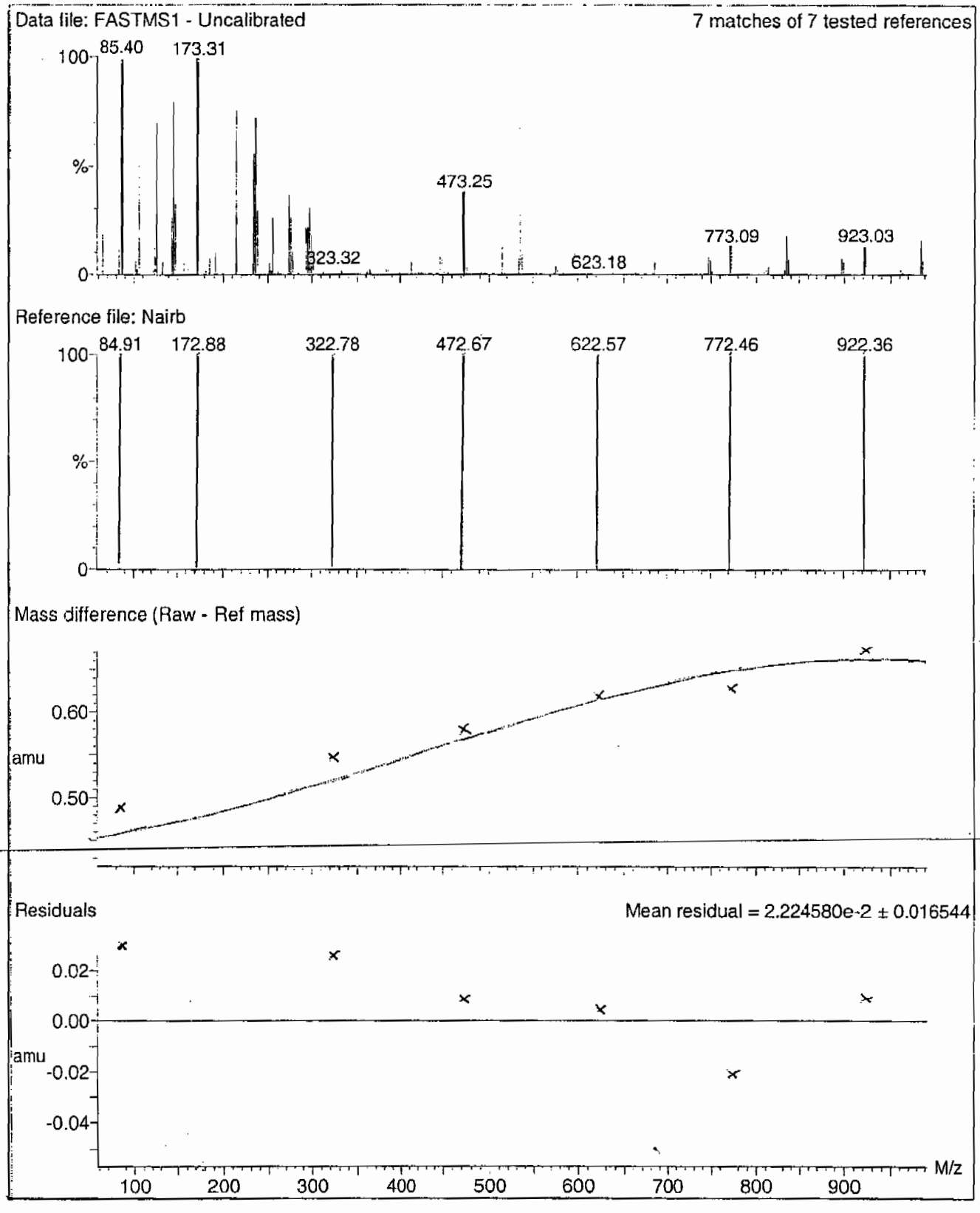

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

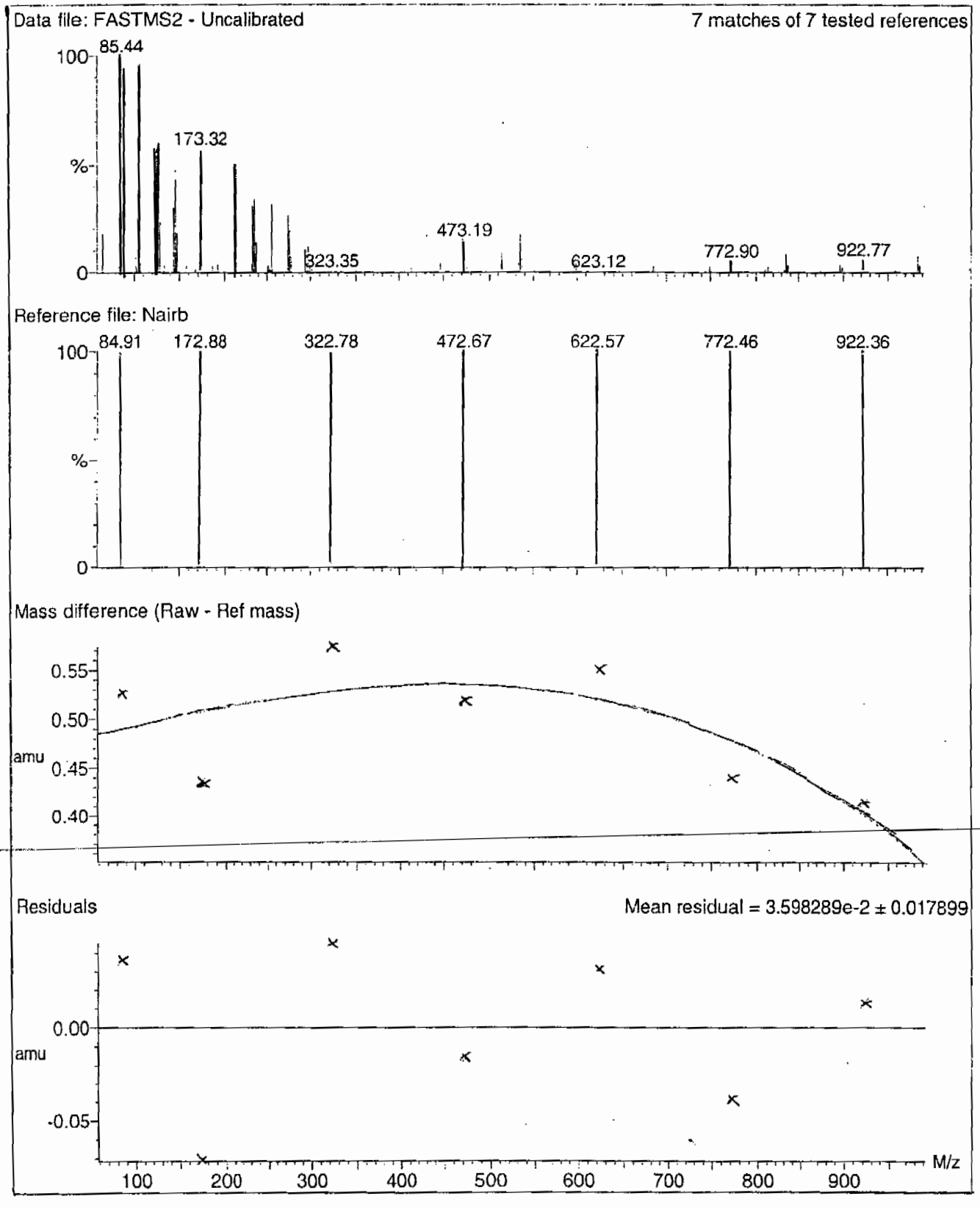

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

7 matches of 7 tested references

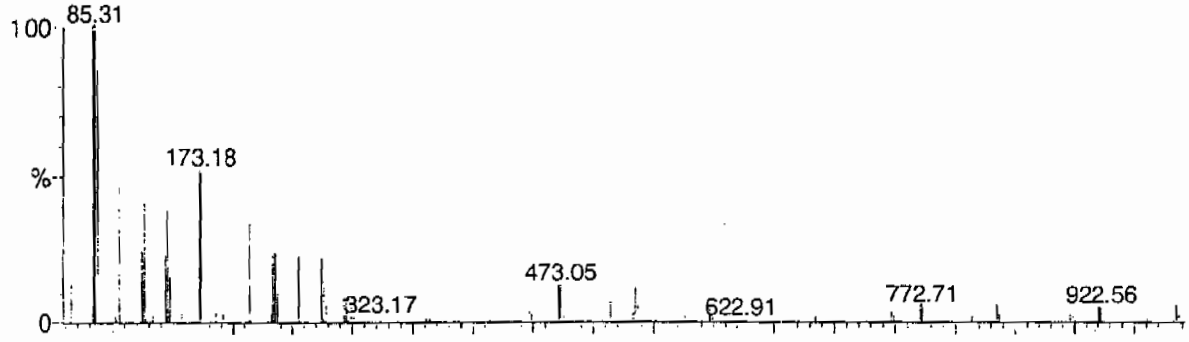

Reference file: Nairb

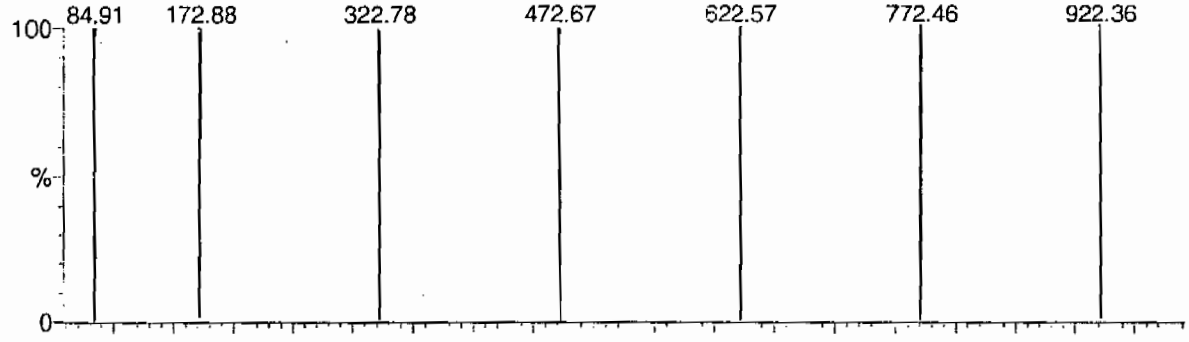

Mass difference (Raw - Ref mass)

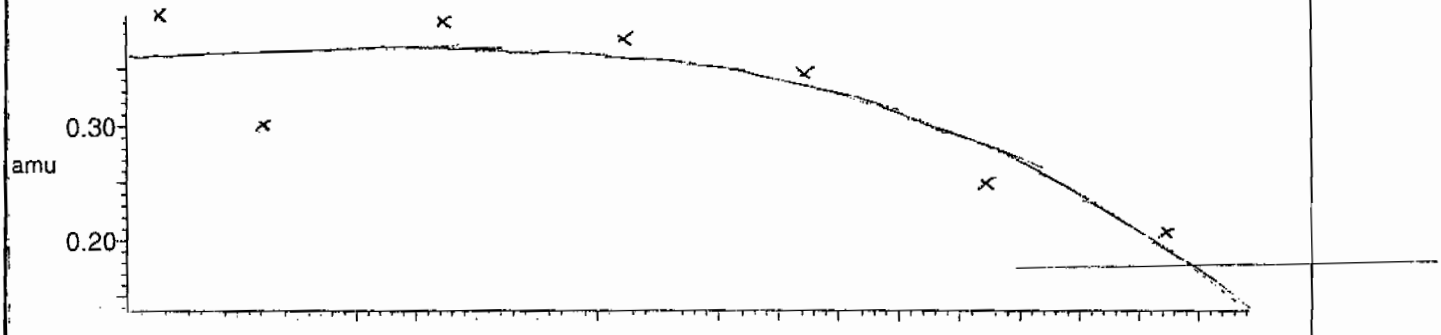

Residuals

Mean residual = 2.782494e-2 ± 0.017442

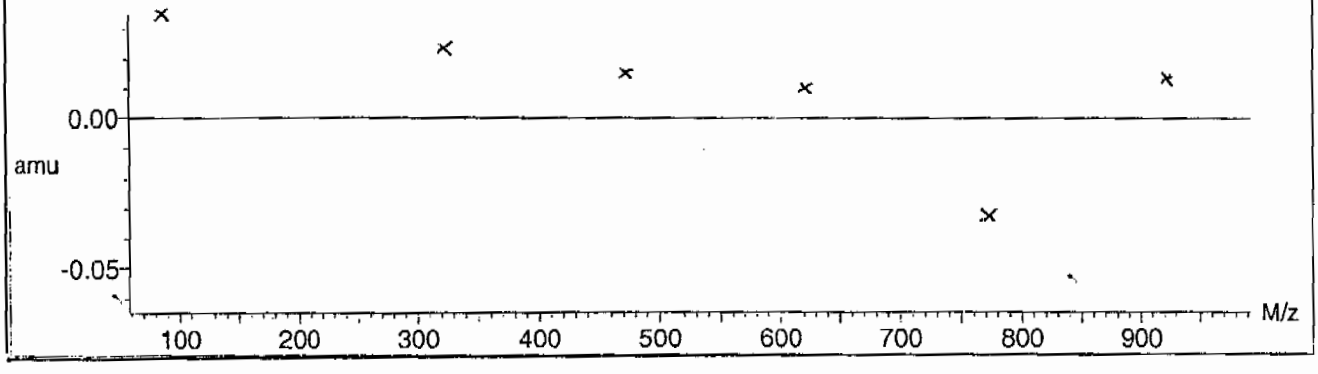

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

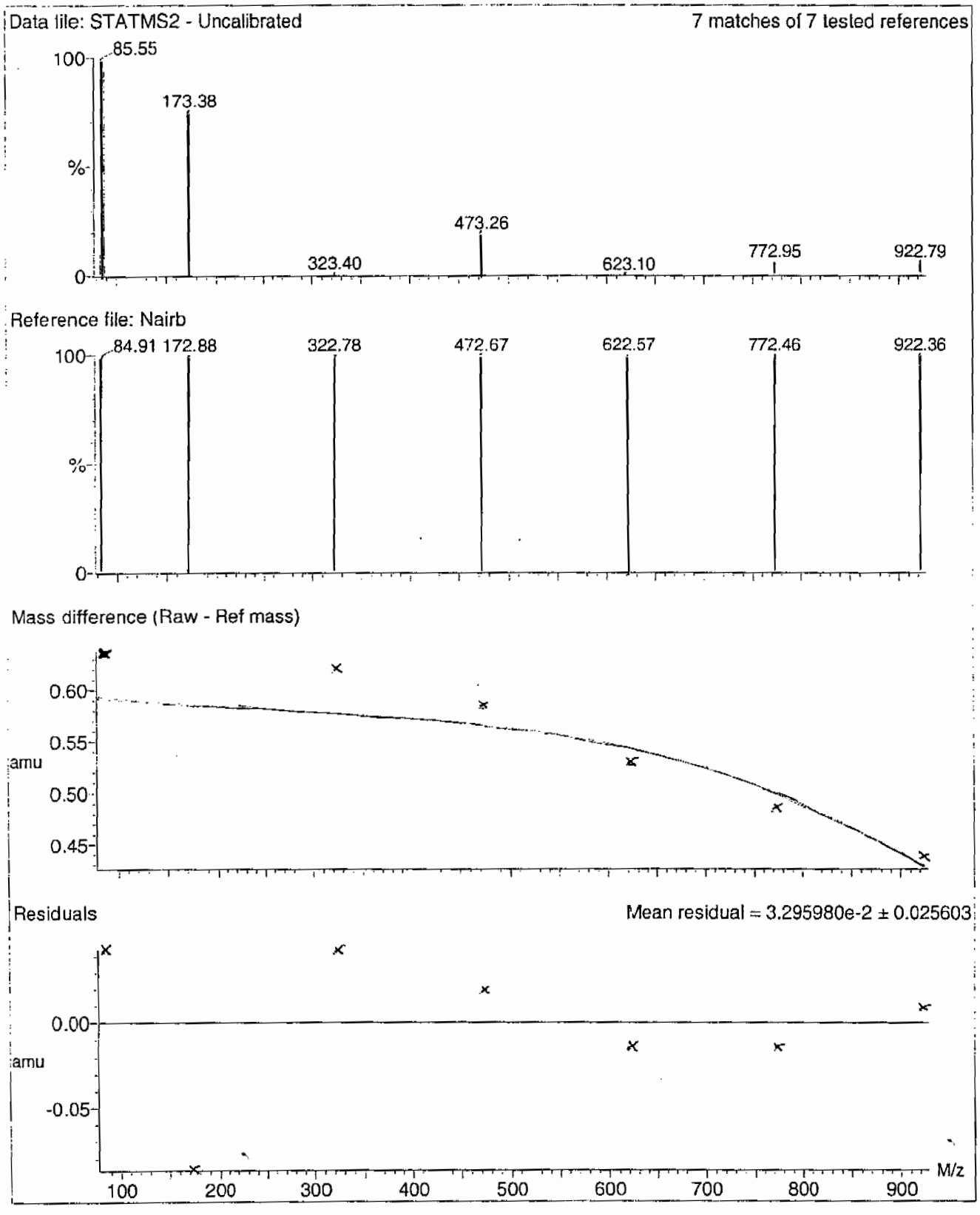

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, January 31, 2010 11:10:18 Eastern Standard Time

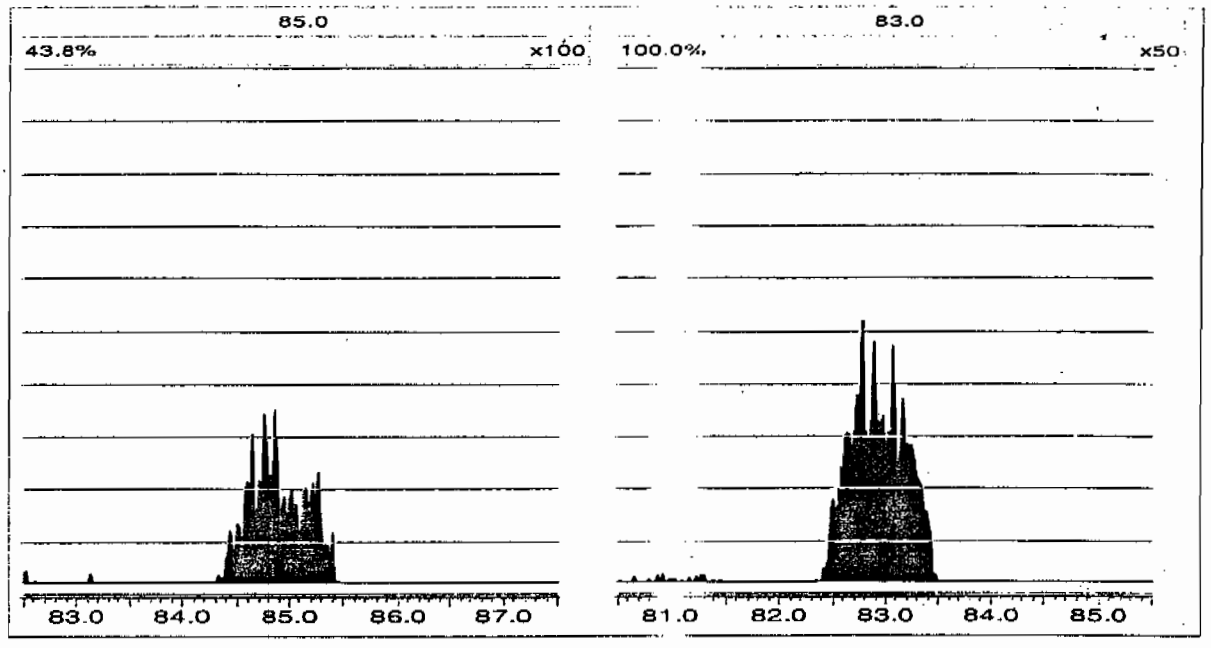

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, February 01, 2010 12:58:34 Eastern Standard Time

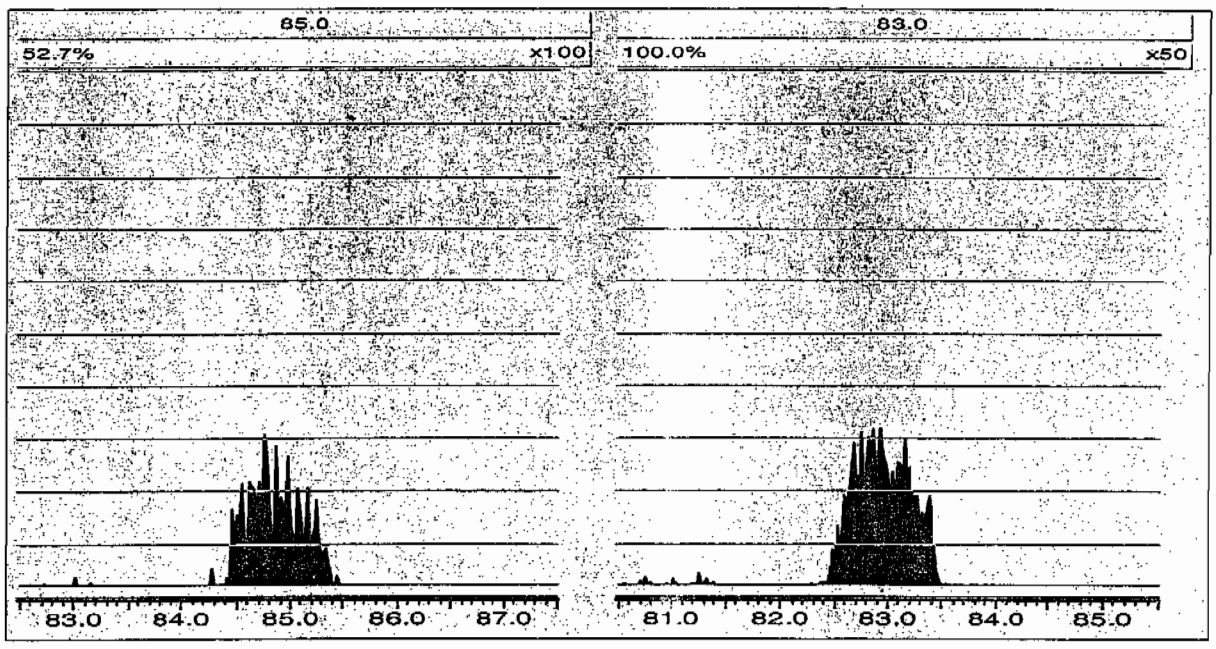

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1474–1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0131006a**	**31–JAN–10**	**14758**				
Lower Area Limit			**7379**				
Upper Area Limit			**29516**				
1202028960	per0131046a	31–JAN–10 18:02	13448.4	2.63	2.65055	1.008	
1202028961	per0131047a	31–JAN–10 18:10	13238.3	2.61	2.62565	1.006	
1202028966	per0131048a	31–JAN–10 18:17	13812.1	2.64	2.65053	1.004	
245807002	per0131074a	31–JAN–10 21:34	14508.8	2.59			

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1474–1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0201006a**	**01–FEB–10**	**12552.6**				
Lower Area Limit			**6276.3**				
Upper Area Limit			**25105.2**				
245807001	per0201014a	01–FEB–10 16:22	11903	2.53	2.50148	.989	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8081

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474-1

GEL Sample ID: 245807001

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	01-FEB-10 16:22	per0201014a
	Perchlorate Isotope Ratio						1	01-FEB-10 16:22	per0201014a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	01-FEB-10 16:22	per0201014a
	Perchlorate-O(18)			0.477	ug/L		1	01-FEB-10 16:22	per0201014a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201014a
Date: 01-Feb-2010
Time: 16:22:54
ID: 245807001
Vial: 1:3,C

|LANL|947199|LZQ|1|RA

02-02-10

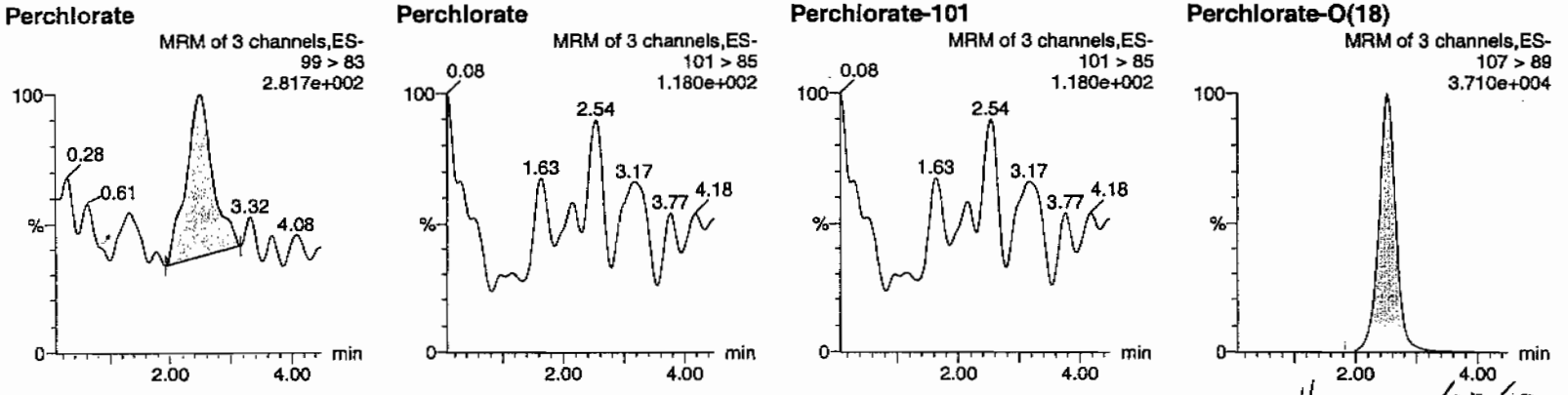

Hanne 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245807001	Perchlorate	99 > 83	2.50	91.731	91.731	bb			0.0031			11.261	0.00
245807001	Perchlorate-101	101 > 85											
245807001	Perchlorate-O(18)	107 > 89	2.53	11902.968	11902.968	bb			0.4769	95.39	-4.61	3277.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8082

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1474-1

GEL Sample ID: 245807002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:34	per0131074a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:34	per0131074a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:34	per0131074a
	Perchlorate-O(18)			0.499	ug/L		1	31-JAN-10 21:34	per0131074a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131074a
Date: 31-Jan-2010
Time: 21:34:42
ID: 245807002
Vial: 2:4,E

|LANL|947199|LZW|11|

GWJ
02-01-10

Perchlorate

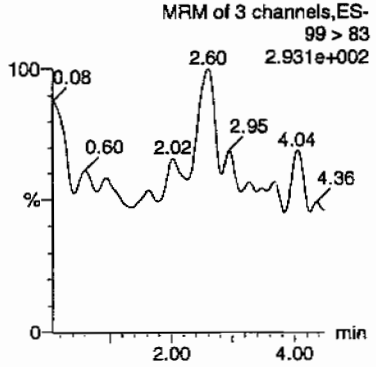

Perchlorate

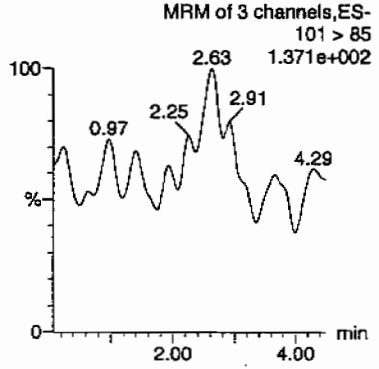

Perchlorate-101

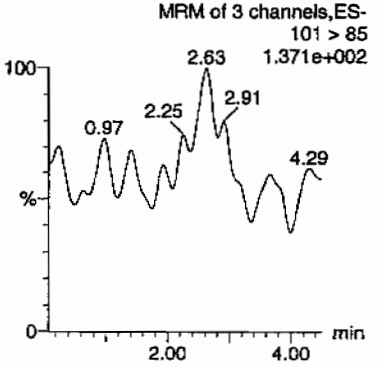

Perchlorate-O(18)

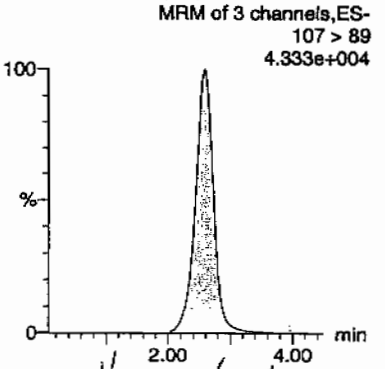

HMM 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245807002	Perchlorate	99 > 83											0.00
245807002	Perchlorate-101	101 > 85											
245807002	Perchlorate-O(18)	107 > 89	2.59	14508.780	14508.780	bb			0.4989	99.78	-0.22	1936.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1474-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 31-JAN-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 33819.9

Response Type: External Standard

Curve Type: RF

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1474-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 31-JAN-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 11367

Response Type: External Standard

Curve Type: RF

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per013110a.mdb 01 Feb 2010 10:44:50
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per013110a.cdb 01 Feb 2010 10:45:05

Compound name: Perchlorate
Response Factor: 33819.9
RRF SD: 737.507, % Relative SD: 2.18069
Response type: External Std, Area
Curve type: RF

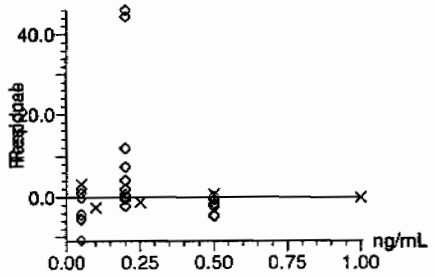

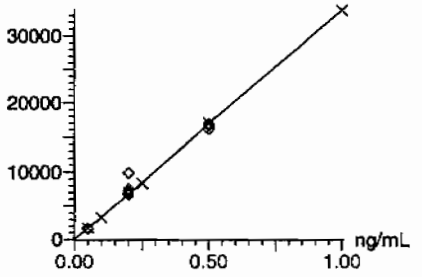

Compound name: Perchlorate-101
Response Factor: 11367
RRF SD: 542.649, % Relative SD: 4.7739
Response type: External Std, Area
Curve type: RF

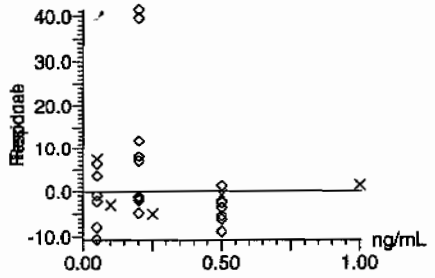

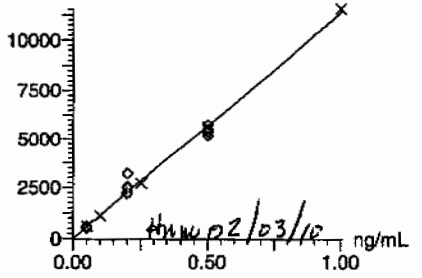

02-01-10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 29083
RRF SD: 471.184, % Relative SD: 1.62014
Response type: External Std, Area
Curve type: RF

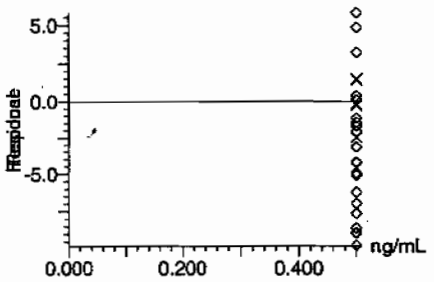

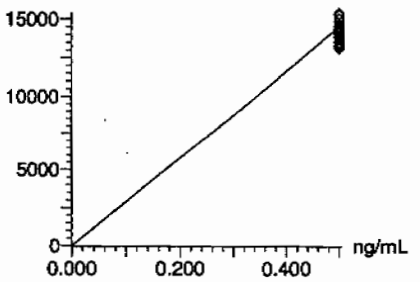

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1474-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 01-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 29509.02

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1474-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 01-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 9714.282

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020110a.mdb 02 Feb 2010 07:54:05
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020110a.cdb 02 Feb 2010 14:28:23

Compound name: Perchlorate
Response Factor: 29509
RRF SD: 760.836, % Relative SD: 2.57832
Response type: External Std, Area
Curve type: RF

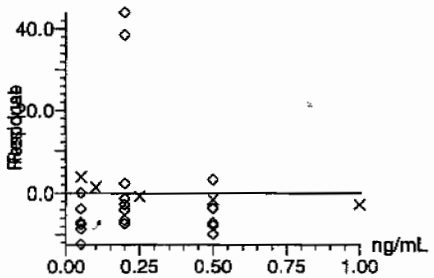

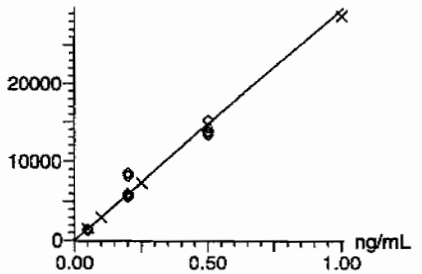

CWW
02-02-10

Compound name: Perchlorate-101
Response Factor: 9714.29
RRF SD: 312.663, % Relative SD: 3.21858
Response type: External Std, Area
Curve type: RF

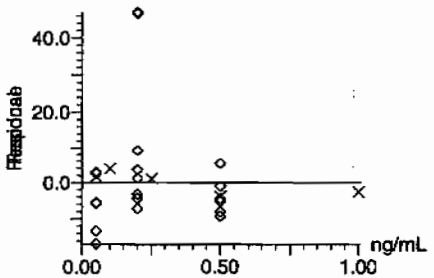

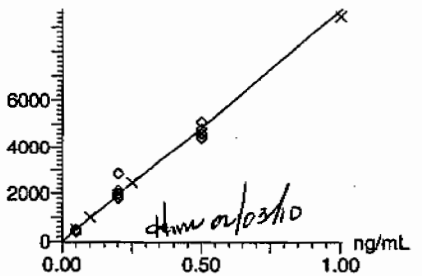

dmw 02/03/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 24957
RRF SD: 251.821, % Relative SD: 1.00902
Response type: External Std, Area
Curve type: RF

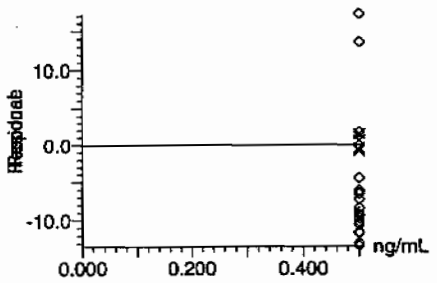

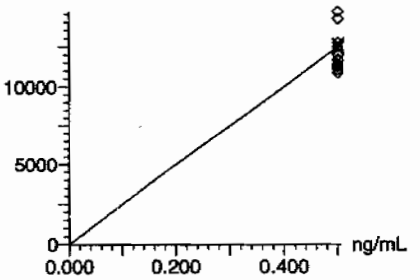

Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.34	31–JAN–10 13:23	per0131009a
Perchlorate Isotope Ratio		2.89		31–JAN–10 13:23	per0131009a
Perchlorate–101	.5	.51	101.28	31–JAN–10 13:23	per0131009a
Perchlorate	.5	.52	103.11	01–FEB–10 15:45	per0201009a
Perchlorate Isotope Ratio		2.98		01–FEB–10 15:45	per0201009a
Perchlorate–101	.5	.53	105.27	01–FEB–10 15:45	per0201009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131009a
Date: 31-Jan-2010
Time: 13:23:29
ID: WCL100128-06ICV
Vial: 1:2,A

Pass
aw
02-01-10

Perchlorate

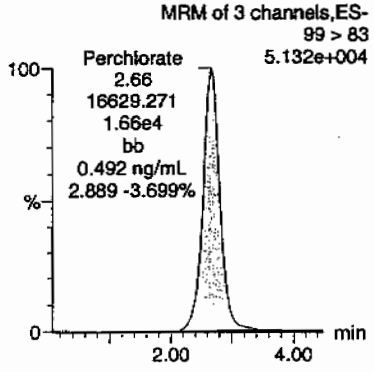

Perchlorate

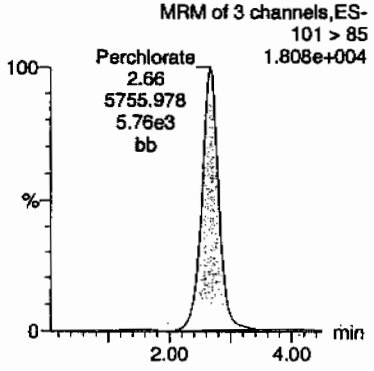

Perchlorate-101

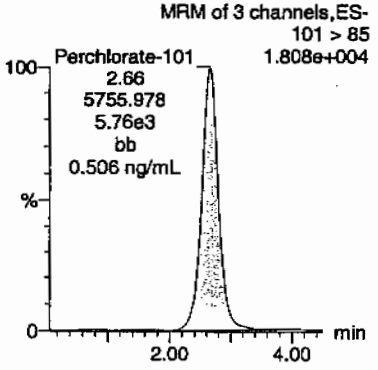

Perchlorate-O(18)

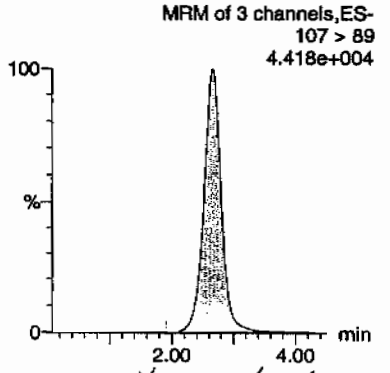

HMW 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	2.66	16629.271	16629.271	bb			0.4917	98.34	-1.66	1435.3...	2.89
WCL100128-06ICV	Perchlorate-101	101 > 85	2.66	5755.978	5755.978	bb			0.5064	101.28	1.28	591.471	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	2.66	14373.936	14373.936	bb			0.4942	98.85	-1.15	3087.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Pwo
GWO
02-02-10

Name: per0201009a
Date: 01-Feb-2010
Time: 15:45:09
ID: WCL100128-06ICV
Vial: 1:2,A

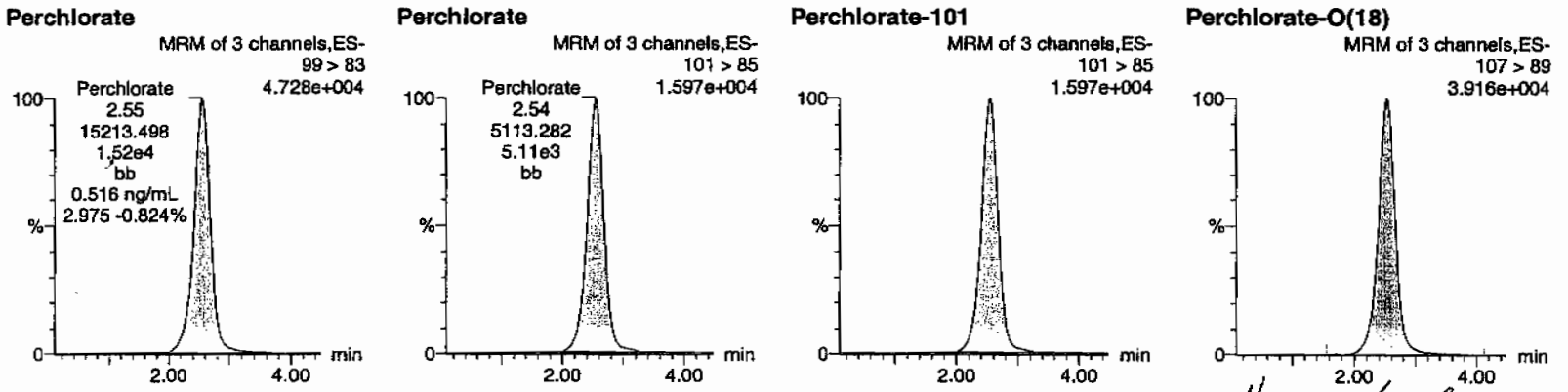

Hmm a lot ho

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	2.55	15213.498	15213.498	bb			0.5156	103.11	3.11	1234.0...	2.98
WCL100128-06ICV	Perchlorate-101	101 > 85	2.54	5113.282	5113.282	bb			0.5264	105.27	5.27	2547.6...	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	2.53	12695.416	12695.416	bb			0.5087	101.74	1.74	962.638	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.54	31–JAN–10 14:54	per0131021a
Perchlorate Isotope Ratio		2.92		31–JAN–10 14:54	per0131021a
Perchlorate–101	.5	.49	97.46	31–JAN–10 14:54	per0131021a
Perchlorate	.5	.48	95.21	31–JAN–10 16:17	per0131032a
Perchlorate Isotope Ratio		3.02		31–JAN–10 16:17	per0131032a
Perchlorate–101	.5	.47	93.93	31–JAN–10 16:17	per0131032a
Perchlorate	.5	.48	95.2	31–JAN–10 17:40	per0131043a
Perchlorate Isotope Ratio		2.94		31–JAN–10 17:40	per0131043a
Perchlorate–101	.5	.48	96.44	31–JAN–10 17:40	per0131043a
Perchlorate	.5	.5	99.25	31–JAN–10 19:03	per0131054a
Perchlorate Isotope Ratio		3.14		31–JAN–10 19:03	per0131054a
Perchlorate–101	.5	.47	93.9	31–JAN–10 19:03	per0131054a
Perchlorate	.5	.5	100.12	31–JAN–10 20:26	per0131065a

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.15		31–JAN–10 20:26	per0131065a
Perchlorate–101	.5	.47	94.61	31–JAN–10 20:26	per0131065a
Perchlorate	.5	.49	97.71	31–JAN–10 21:57	per0131077a
Perchlorate Isotope Ratio		3.19		31–JAN–10 21:57	per0131077a
Perchlorate–101	.5	.46	91.15	31–JAN–10 21:57	per0131077a
Perchlorate	.5	.48	96.42	01–FEB–10 17:08	per0201020a
Perchlorate Isotope Ratio		2.96		01–FEB–10 17:08	per0201020a
Perchlorate–101	.5	.49	98.95	01–FEB–10 17:08	per0201020a

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131021a
Date: 31-Jan-2010
Time: 14:54:02
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-01-10

Perchlorate

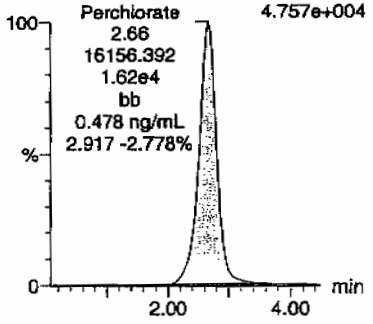

Perchlorate

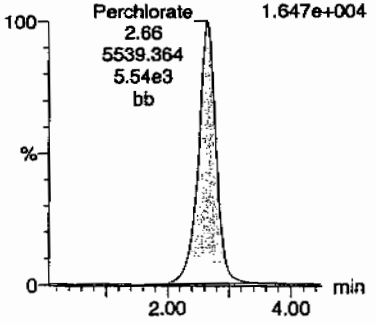

Perchlorate-101

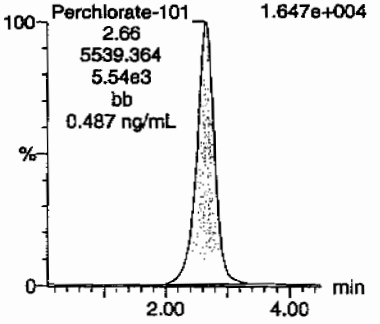

Perchlorate-O(18)

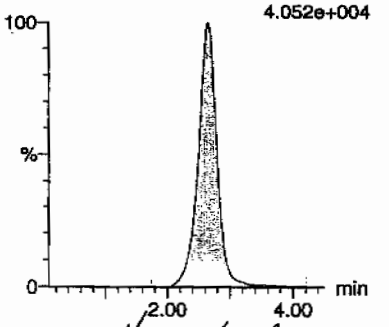

HMW 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.66	16156.392	16156.392	bb			0.4777	95.54	-4.46	559.772	2.92
WCL100128-06CCV	Perchlorate-101	101 > 85	2.66	5539.364	5539.364	bb			0.4873	97.46	-2.54	691.093	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.65	13809.432	13809.432	bb			0.4748	94.97	-5.03	2631.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131032a
Date: 31-Jan-2010
Time: 16:17:01
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-01-10

Perchlorate

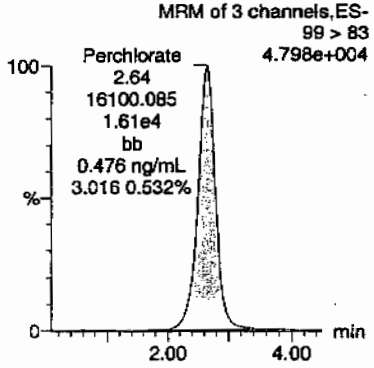

Perchlorate

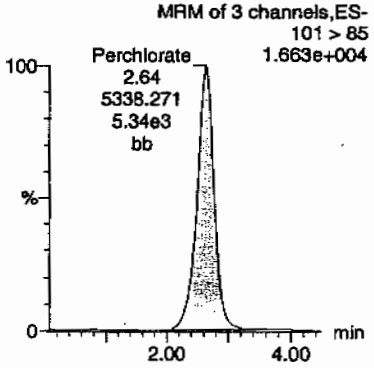

Perchlorate-101

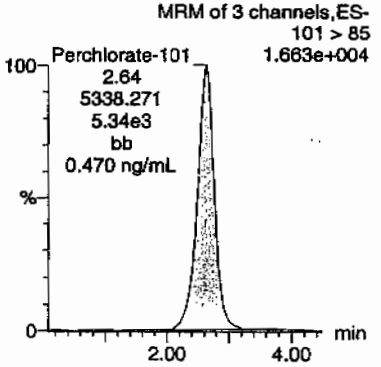

Perchlorate-O(18)

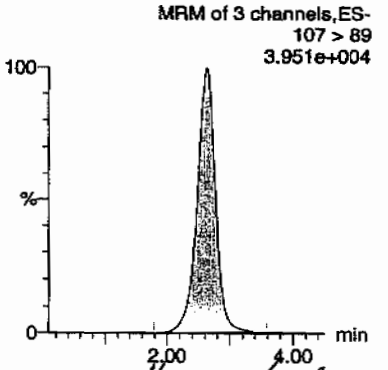

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.64	16100.085	16100.085	bb			0.4761	95.21	-4.79	1980.2...	3.02
WCL100128-06CCV	Perchlorate-101	101 > 85	2.64	5338.271	5338.271	bb			0.4696	93.93	-6.07	931.388	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.63	13123.846	13123.846	bb			0.4513	90.25	-9.75	686.121	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131043a
Date: 31-Jan-2010
Time: 17:40:03
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-01-10

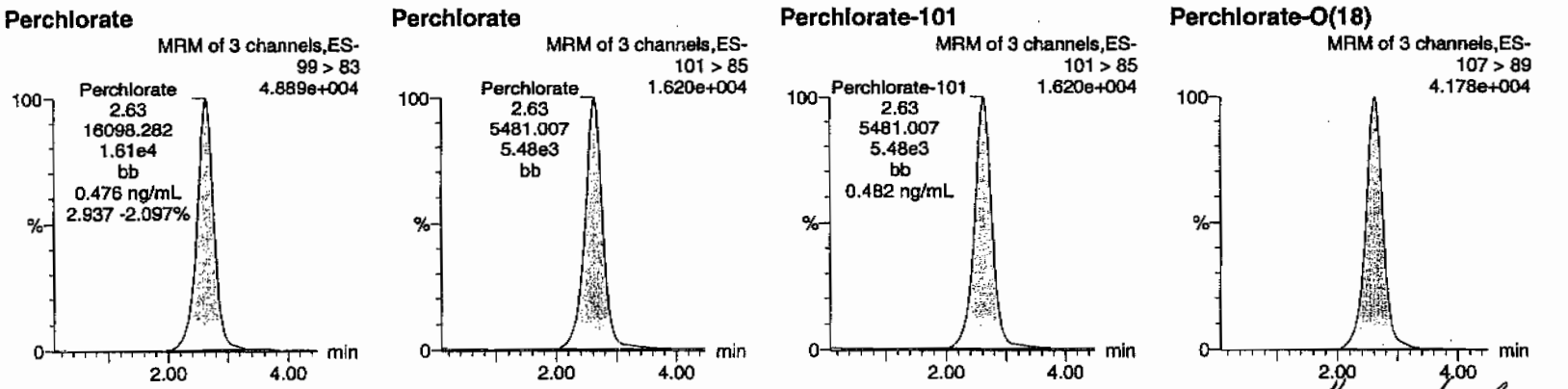

Initial 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.63	16098.282	16098.282	bb			0.4760	95.20	-4.80	1056.1...	2.94
WCL100128-06CCV	Perchlorate-101	101 > 85	2.63	5481.007	5481.007	bb			0.4822	96.44	-3.56	523.363	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.61	13816.302	13816.302	bb			0.4751	95.01	-4.99	10733....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131054a
Date: 31-Jan-2010
Time: 19:03:06
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-01-10

Perchlorate

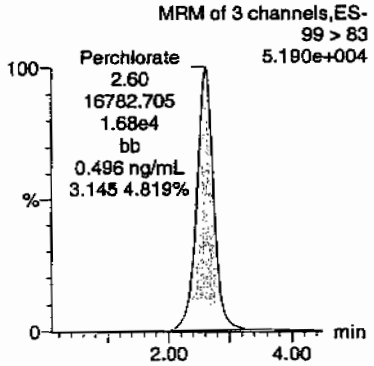

Perchlorate

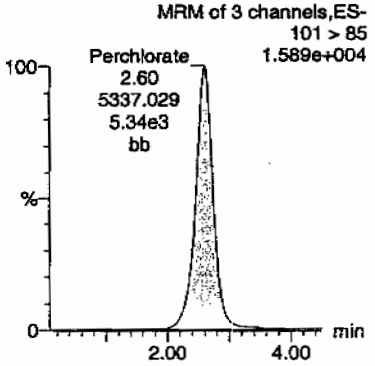

Perchlorate-101

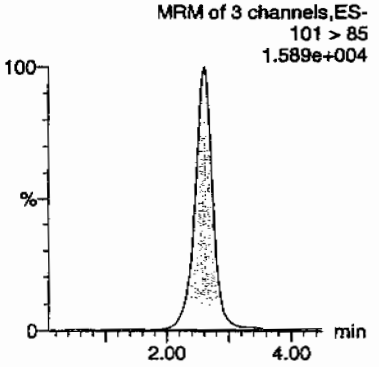

Perchlorate-O(18)

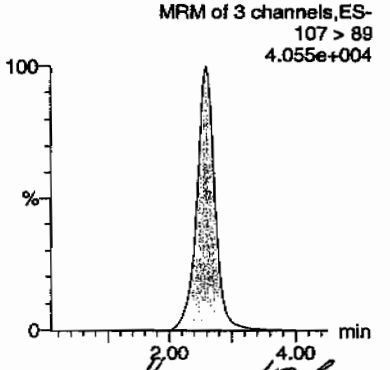

Hmc 02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.60	16782.705	16782.705	bb			0.4962	99.25	-0.75	363.629	3.14
WCL100128-06CCV	Perchlorate-101	101 > 85	2.60	5337.029	5337.029	bb			0.4695	93.90	-6.10	1594.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13526.200	13526.200	bb			0.4651	93.02	-6.98	3181.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131065a
Date: 31-Jan-2010
Time: 20:26:26
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-01-10

Perchlorate

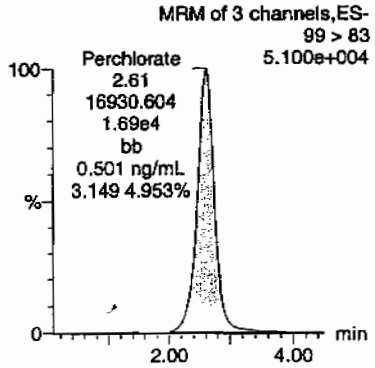

Perchlorate

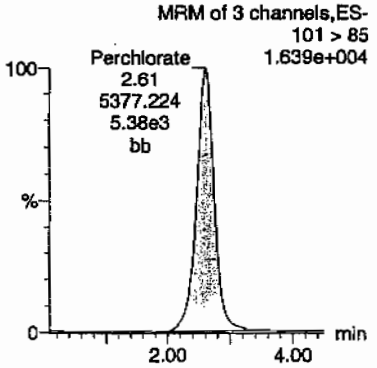

Perchlorate-101

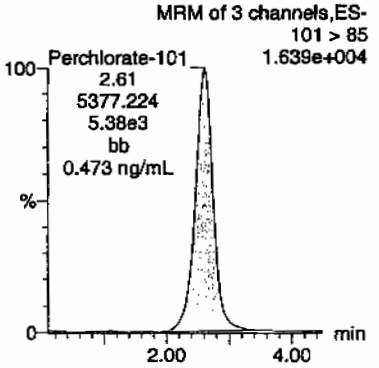

Perchlorate-O(18)

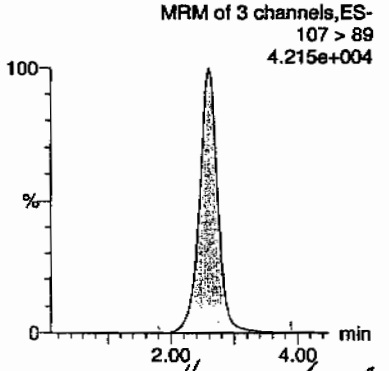

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.61	16930.604	16930.604	bb			0.5006	100.12	0.12	2310.5...	3.15
WCL100128-06CCV	Perchlorate-101	101 > 85	2.61	5377.224	5377.224	bb			0.4731	94.61	-5.39	916.330	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13933.124	13933.124	bb			0.4791	95.82	-4.18	5137.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131077a
Date: 31-Jan-2010
Time: 21:57:45
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
AWD
02-01-10

Perchlorate

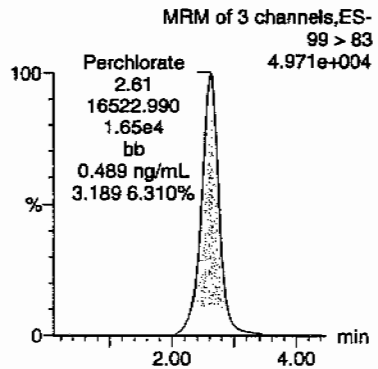

Perchlorate

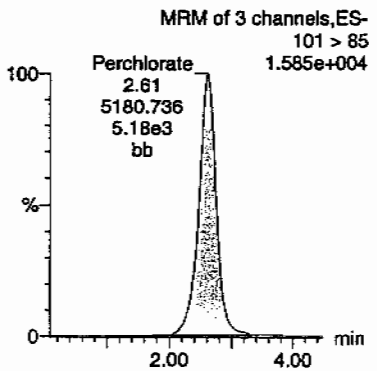

Perchlorate-101

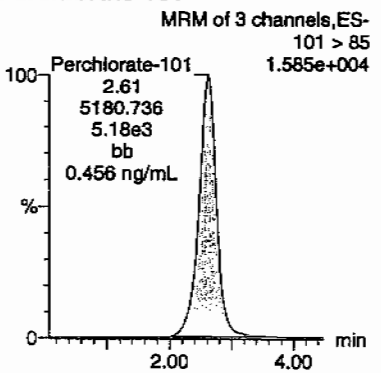

Perchlorate-O(18)

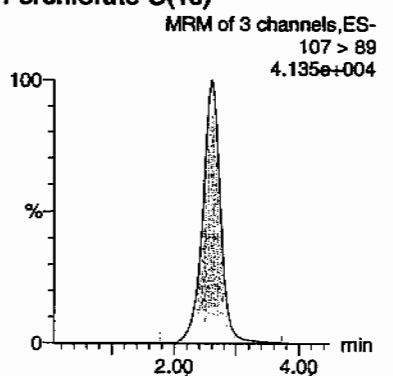

HMM 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.61	16522.990	16522.990	bb			0.4886	97.71	-2.29	1711.4...	3.19
WCL100128-06CCV	Perchlorate-101	101 > 85	2.61	5180.736	5180.736	bb			0.4558	91.15	-8.85	1110.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13635.730	13635.730	bb			0.4689	93.77	-6.23	6209.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201020a
Date: 01-Feb-2010
Time: 17:08:09
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-02-10

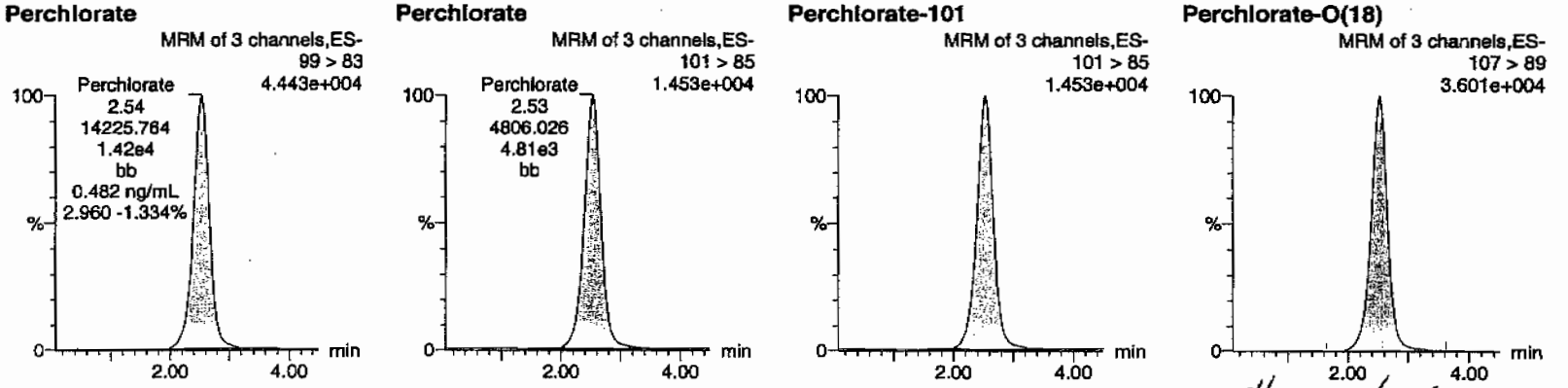

Hmm a 02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.54	14225.764	14225.764	bb			0.4821	96.42	-3.58	786.613	2.96
WCL100128-06CCV	Perchlorate-101	101 > 85	2.53	4806.026	4806.026	bb			0.4947	98.95	-1.05	491.086	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.51	11571.769	11571.769	bb			0.4637	92.73	-7.27	6320.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1474-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.8	31-JAN-10 13:38	per0131011a
Perchlorate Isotope Ratio		2.79		31-JAN-10 13:38	per0131011a
Perchlorate-101	.05	.05	106.42	31-JAN-10 13:38	per0131011a
Perchlorate	.05	.05	101.06	31-JAN-10 15:09	per0131023a
Perchlorate Isotope Ratio		3.03		31-JAN-10 15:09	per0131023a
Perchlorate-101	.05	.05	99.13	31-JAN-10 15:09	per0131023a
Perchlorate	.05	.05	94.76	31-JAN-10 16:32	per0131034a
Perchlorate Isotope Ratio		3.06		31-JAN-10 16:32	per0131034a
Perchlorate-101	.05	.05	92.11	31-JAN-10 16:32	per0131034a
Perchlorate	.05	.04	89.19	31-JAN-10 17:55	per0131045a
Perchlorate Isotope Ratio		2.97		31-JAN-10 17:55	per0131045a

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.04	89.43	31–JAN–10 17:55	per0131045a
Perchlorate	.05	.05	95.73	31–JAN–10 19:18	per0131056a
Perchlorate Isotope Ratio		2.68		31–JAN–10 19:18	per0131056a
Perchlorate–101	.05	.05	106.32	31–JAN–10 19:18	per0131056a
Perchlorate	.05	.05	102.23	31–JAN–10 20:41	per0131067a
Perchlorate Isotope Ratio		2.94		31–JAN–10 20:41	per0131067a
Perchlorate–101	.05	.05	103.57	31–JAN–10 20:41	per0131067a
Perchlorate	.05	.05	94.46	31–JAN–10 22:13	per0131079a
Perchlorate Isotope Ratio		2.87		31–JAN–10 22:13	per0131079a
Perchlorate–101	.05	.05	97.88	31–JAN–10 22:13	per0131079a
Perchlorate	.05	.05	100.09	01–FEB–10 16:00	per0201011a

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1474–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		2.95		01–FEB–10 16:00	per0201011a
Perchlorate–101	.05	.05	102.95	01–FEB–10 16:00	per0201011a
Perchlorate	.05	.05	93.07	01–FEB–10 17:23	per0201022a
Perchlorate Isotope Ratio		3		01–FEB–10 17:23	per0201022a
Perchlorate–101	.05	.05	94.25	01–FEB–10 17:23	per0201022a

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131011a
Date: 31-Jan-2010
Time: 13:38:34
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02.01.10

Perchlorate

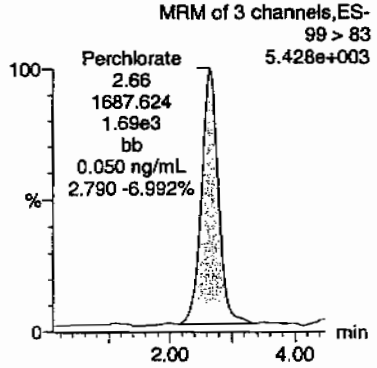

Perchlorate

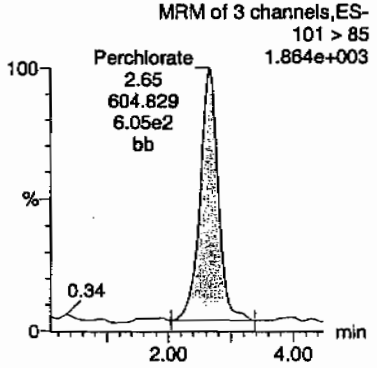

Perchlorate-101

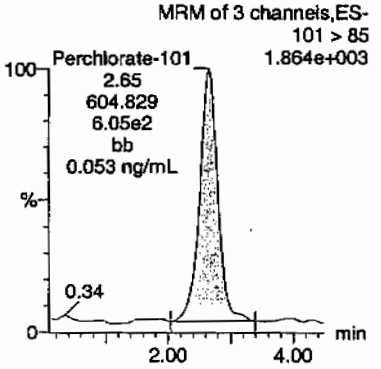

Perchlorate-O(18)

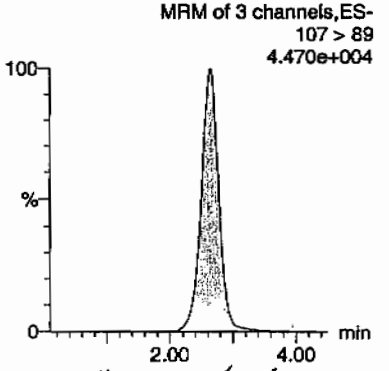

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.66	1687.624	1687.624	bb			0.0499	99.80	-0.20	385.644	2.79
WCL100128-07CRI	Perchlorate-101	101 > 85	2.65	604.829	604.829	bb			0.0532	106.42	6.42	201.132	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.64	14329.497	14329.497	bb			0.4927	98.54	-1.46	4076.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: pér0131023a
Date: 31-Jan-2010
Time: 15:09:07
ID: WCL100128-07CRI
Vial: 1:2,B

Pwso
aw
02-01-10

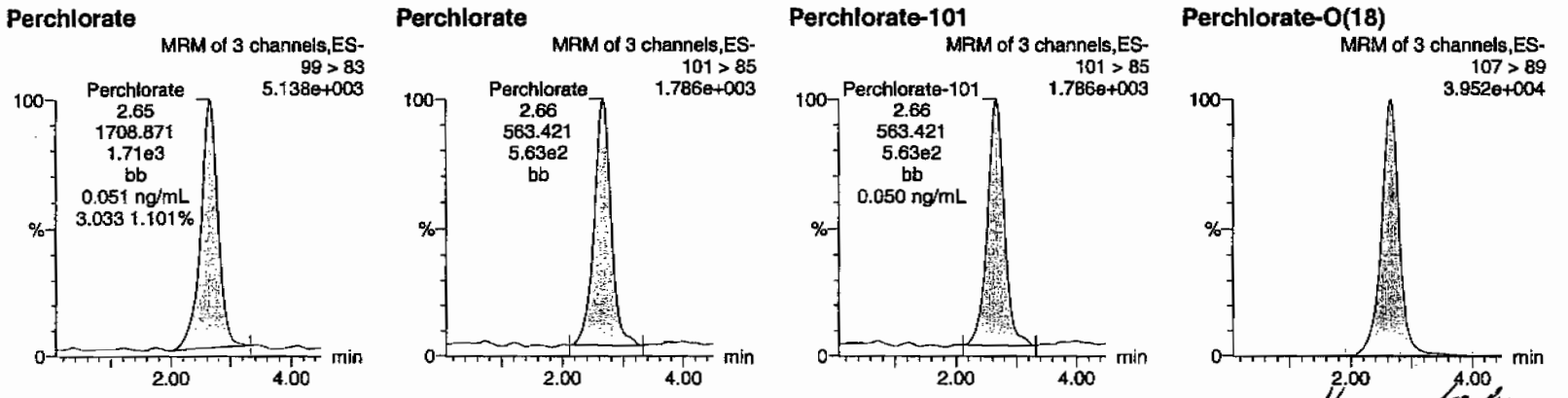

Hmw 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.65	1708.871	1708.871	bb			0.0505	101.06	1.06	90.206	3.03
WCL100128-07CRI	Perchlorate-101	101 > 85	2.66	563.421	563.421	bb			0.0496	99.13	-0.87	234.947	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.65	13430.074	13430.074	bb			0.4618	92.36	-7.64	1794.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131034a
Date: 31-Jan-2010
Time: 16:32:06
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02-01-10

Perchlorate

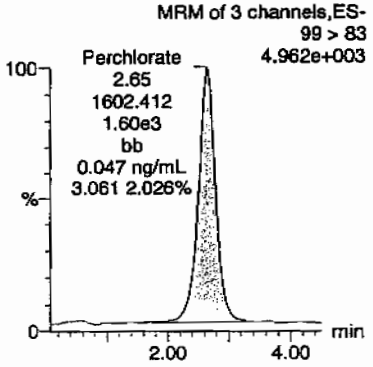

Perchlorate

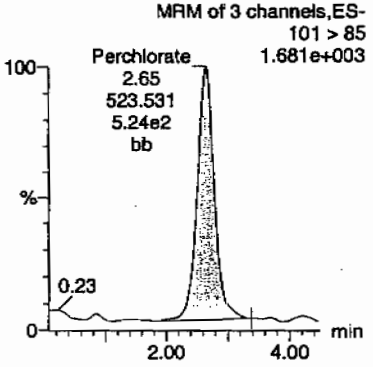

Perchlorate-101

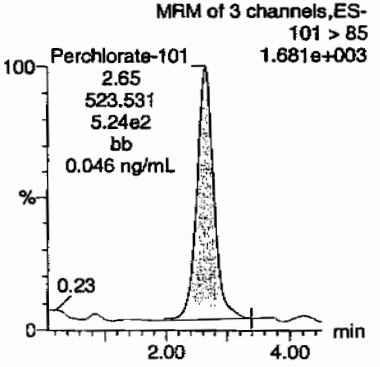

Perchlorate-O(18)

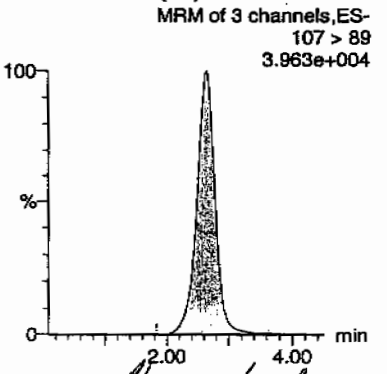

Hunzalogho

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.65	1602.412	1602.412	bb			0.0474	94.76	-5.24	128.941	3.06
WCL100128-07CRI	Perchlorate-101	101 > 85	2.65	523.531	523.531	bb			0.0461	92.11	-7.89	148.998	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.64	13291.097	13291.097	bb			0.4570	91.40	-8.60	3554.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131045a
Date: 31-Jan-2010
Time: 17:55:09
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-01-10

Perchlorate

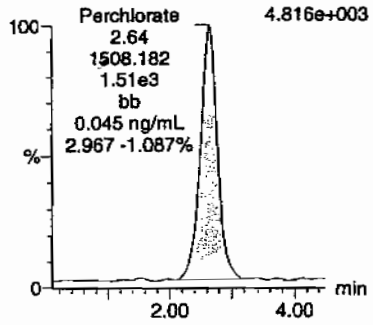

Perchlorate

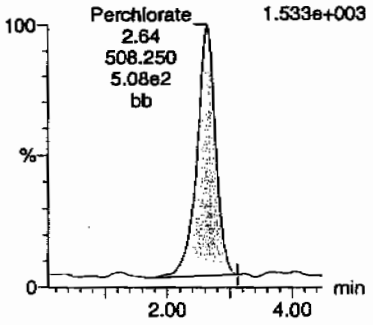

Perchlorate-101

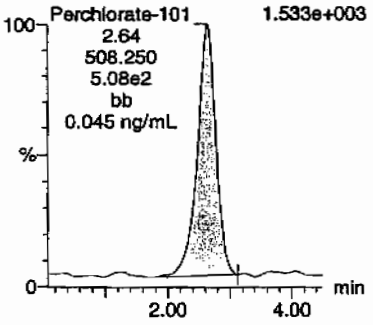

Perchlorate-O(18)

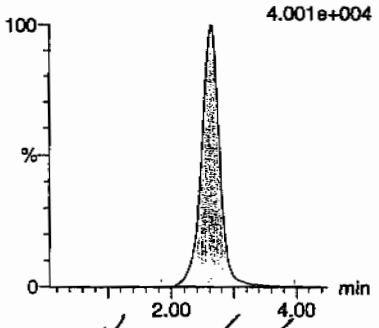

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.64	1508.182	1508.182	bb			0.0446	89.19	-10.81	257.659	2.97
WCL100128-07CRI	Perchlorate-101	101 > 85	2.64	508.250	508.250	bb			0.0447	89.43	-10.57	61.987	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.63	13246.691	13246.691	bb			0.4555	91.10	-8.90	5001.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Pers
02-01-10

Name: per0131056a
Date: 31-Jan-2010
Time: 19:18:25
ID: WCL100128-07CRI
Vial: 1:2,B

Perchlorate

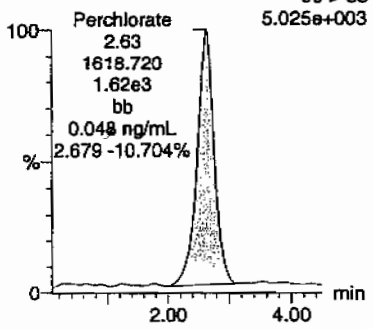

Perchlorate

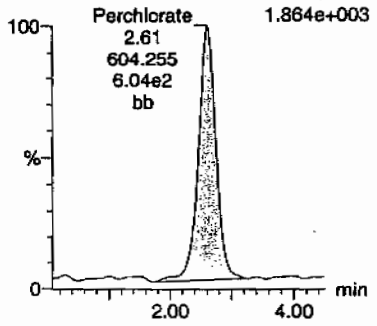

Perchlorate-101

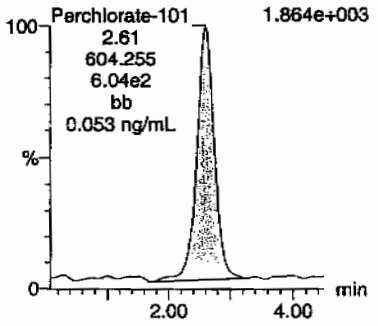

Perchlorate-O(18)

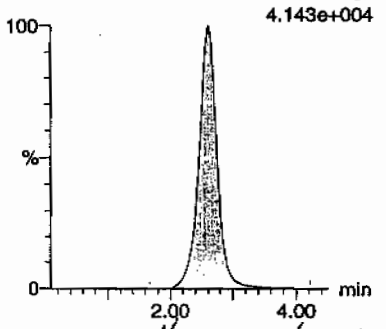

Hum 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.63	1618.720	1618.720	bb			0.0479	95.73	-4.27	296.151	2.68
WCL100128-07CRI	Perchlorate-101	101 > 85	2.61	604.255	604.255	bb			0.0532	106.32	6.32	17.440	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.61	13919.873	13919.873	bb			0.4786	95.73	-4.27	10057....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131067a
Date: 31-Jan-2010
Time: 20:41:45
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
ang
02-01-10

Perchlorate

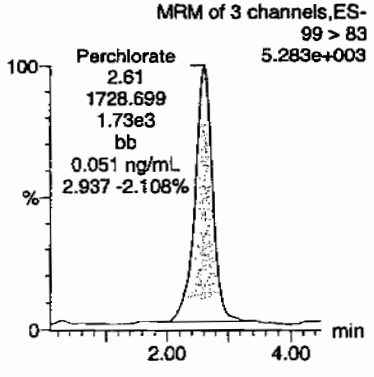

Perchlorate

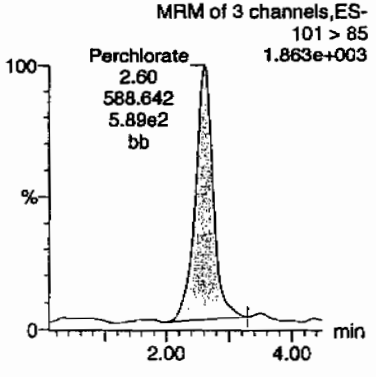

Perchlorate-101

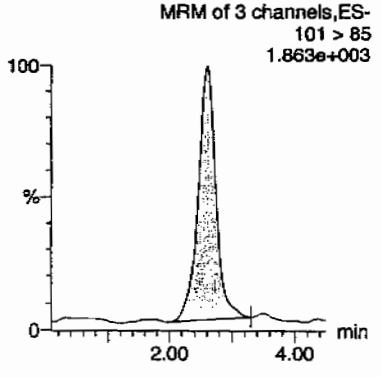

Perchlorate-O(18)

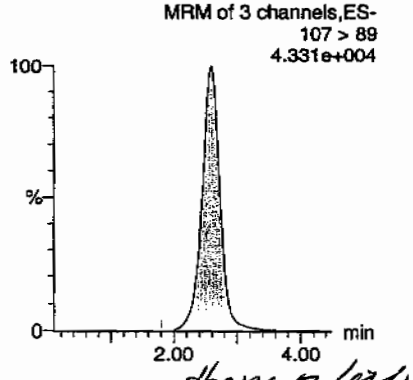

Hmm 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.61	1728.699	1728.699	bb			0.0511	102.23	2.23	392.527	2.94
WCL100128-07CRI	Perchlorate-101	101 > 85	2.60	588.642	588.642	bb			0.0518	103.57	3.57	130.060	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.59	14243.858	14243.858	bb			0.4898	97.95	-2.05	5194.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131079a
Date: 31-Jan-2010
Time: 22:13:05
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
CWW
02-01-10

Perchlorate

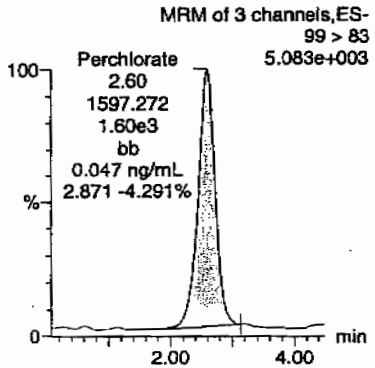

Perchlorate

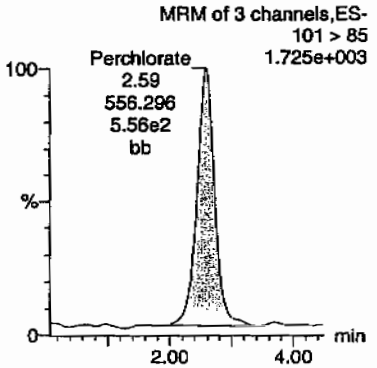

Perchlorate-101

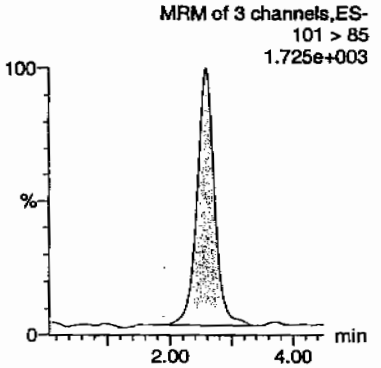

Perchlorate-O(18)

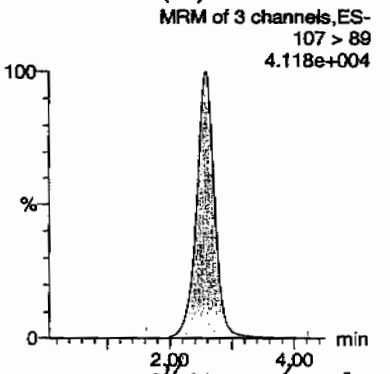

Hm 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.60	1597.272	1597.272	bb			0.0472	94.46	-5.54	190.554	2.87
WCL100128-07CRI	Perchlorate-101	101 > 85	2.59	556.296	556.296	bb			0.0489	97.88	-2.12	73.002	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.58	13796.101	13796.101	bb			0.4744	94.87	-5.13	8492.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201011a
Date: 01-Feb-2010
Time: 16:00:14
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-02-10

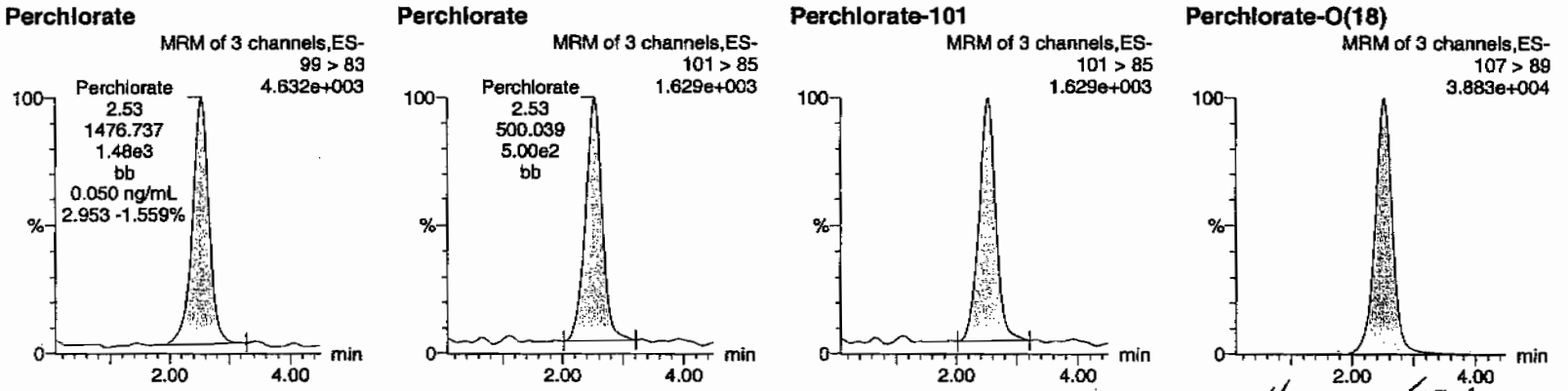

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.53	1476.737	1476.737	bb			0.0500	100.09	0.09	417.546	2.95
WCL100128-07CRI	Perchlorate-101	101 > 85	2.53	500.039	500.039	bb			0.0515	102.95	2.95	65.424	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.51	12467.722	12467.722	bb			0.4996	99.91	-0.09	1252.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020110a.qld

Last Altered: Tuesday, February 02, 2010 2:28:24 PM Eastern Standard Time
Printed: Tuesday, February 02, 2010 2:30:40 PM Eastern Standard Time

Name: per0201022a
Date: 01-Feb-2010
Time: 17:23:13
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
CWW
02.02-10

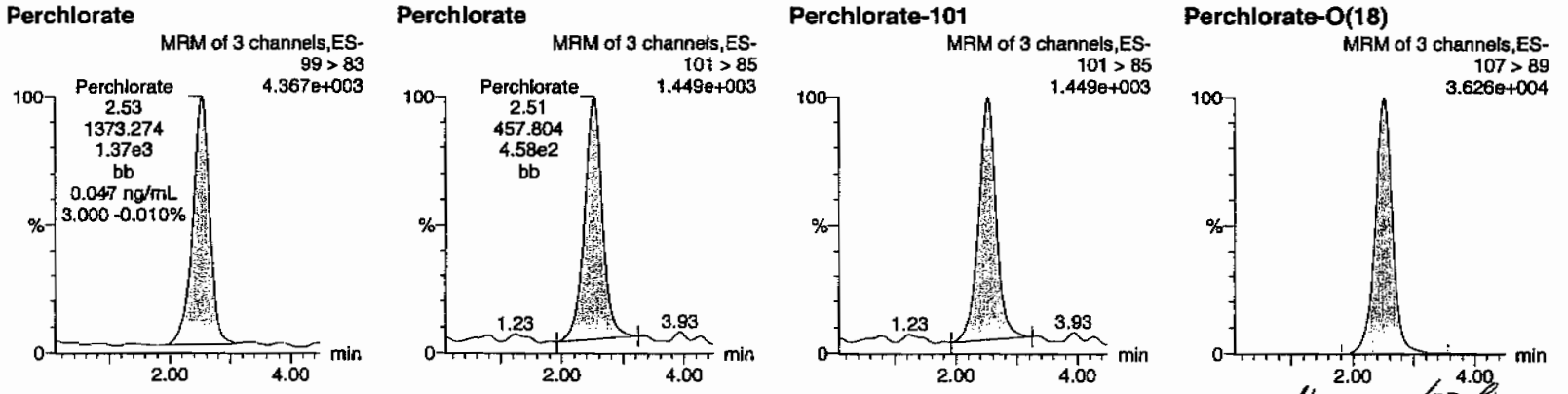

Hme 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.53	1373.274	1373.274	bb			0.0465	93.07	-6.93	234.582	3.00
WCL100128-07CRI	Perchlorate-101	101 > 85	2.51	457.804	457.804	bb			0.0471	94.25	-5.75	66.529	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.50	11662.440	11662.440	bb			0.4673	93.46	-6.54	3818.4...	

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 30–JAN–10

GEL Job No (SDG): 10–1474–1

GEL Sample ID: 1202028960

Date Filtered: 30–JAN–10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.050	ug/L	U	1	31–JAN–10 18:02	per0131046a
	Perchlorate Isotope Ratio						1	31–JAN–10 18:02	per0131046a
14797–73–0	Perchlorate–101	.05	.2	0.050	ug/L	U	1	31–JAN–10 18:02	per0131046a
	Perchlorate–O(18)			0.462	ug/L		1	31–JAN–10 18:02	per0131046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131046a
Date: 31-Jan-2010
Time: 18:02:41
ID: 1202028960
Vial: 2:1,A

|LANL|947199|LIQ ~~50250~~|MB|1|

cwo 02-01-10

cwo 02-01-10

Perchlorate

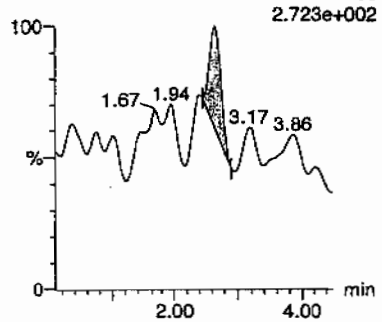

Perchlorate

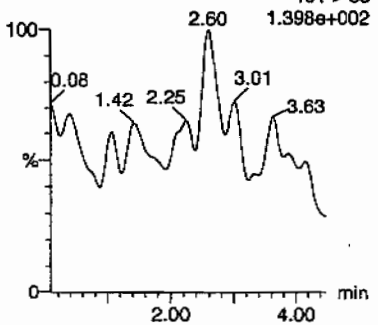

Perchlorate-101

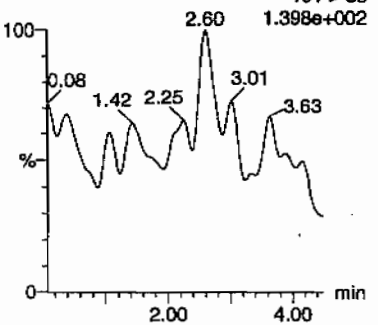

Perchlorate-O(18)

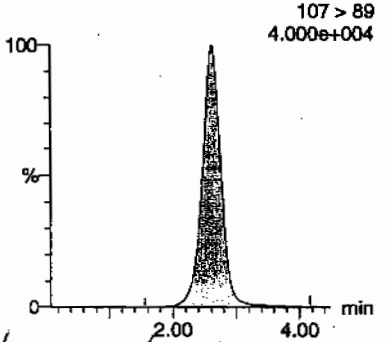

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028960	Perchlorate	99 > 83	2.65	22.511	22.511	bb			0.0007			8.744	0.00
1202028960	Perchlorate-101	101 > 85											
1202028960	Perchlorate-O(18)	107 > 89	2.63	13448.378	13448.378	bb			0.4624	92.48	-7.52	3729.0...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 30-JAN-10

GEL Job No (SDG): 10-1474-1

GEL Sample ID: 1202028961

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.199	ug/L	J	1	31-JAN-10 18:10	per0131047a
	Perchlorate Isotope Ratio			3.1			1	31-JAN-10 18:10	per0131047a
14797-73-0	Perchlorate-101	.05	.2	0.191	ug/L	J	1	31-JAN-10 18:10	per0131047a
	Perchlorate-O(18)			0.455	ug/L		1	31-JAN-10 18:10	per0131047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131047a
Date: 31-Jan-2010
Time: 18:10:24
ID: 1202028961
Vial: 2:1,B

|LANC|947199|L2Q|LCS|1|

LWO 02-01-10

Perchlorate

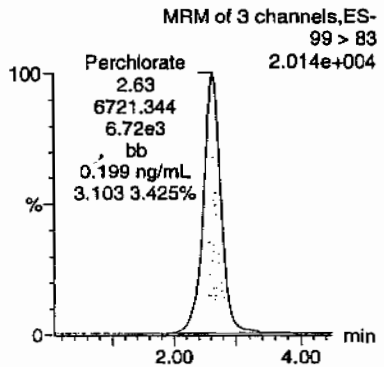

Perchlorate

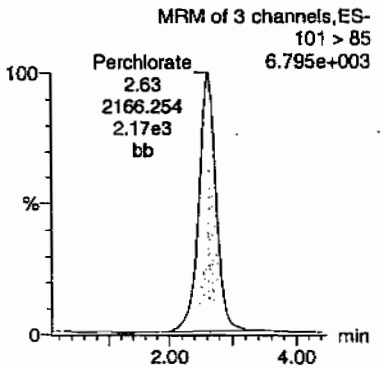

Perchlorate-101

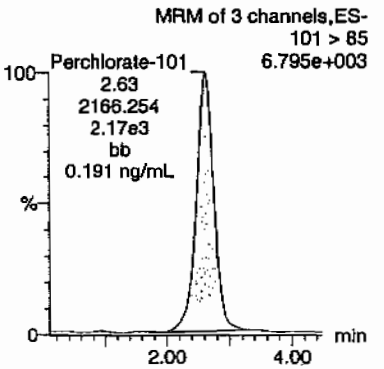

Perchlorate-O(18)

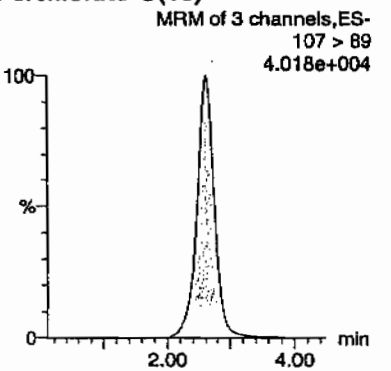

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028961	Perchlorate	99 > 83	2.63	6721.344	6721.344	bb			0.1987	99.37	-0.63	1459.2...	3.10
1202028961	Perchlorate-101	101 > 85	2.63	2166.254	2166.254	bb			0.1906	95.29	-4.71	575.994	
1202028961	Perchlorate-O(18)	107 > 89	2.61	13238.314	13238.314	bb			0.4552	91.04	-8.96	2651.3...	

$\frac{6721.344}{33819.9} = 0.1987$

HMW 02/03/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 947198 Verified by: _____

Analyst: Jareth Shirley

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202028960 MB	30-JAN-2010 12:08:58	10	10	1
1202028961 LCS	30-JAN-2010 12:08:58	10	10	1
245601001	30-JAN-2010 12:08:58	10	10	1
245614001	30-JAN-2010 12:08:58	10	10	1
1202028962 MS (245614001)	30-JAN-2010 12:08:58	10	10	1
1202028963 MSD (245614001)	30-JAN-2010 12:08:58	10	10	1
245614002	30-JAN-2010 12:08:58	10	10	1
245618007	30-JAN-2010 12:08:58	10	10	1
245619001	30-JAN-2010 12:08:58	10	10	1
245625001	30-JAN-2010 12:08:58	10	10	1
245676002	30-JAN-2010 12:08:58	10	10	1
1202028964 MS (245676002)	30-JAN-2010 12:08:58	10	10	1
1202028965 MSD (245676002)	30-JAN-2010 12:08:58	10	10	1
245676005	30-JAN-2010 12:08:58	10	10	1
245681001	30-JAN-2010 12:08:58	10	10	1
245681002	30-JAN-2010 12:08:58	10	10	1
245690001	30-JAN-2010 12:08:58	10	10	1
245690002	30-JAN-2010 12:08:58	10	10	1
245777001	30-JAN-2010 12:08:58	10	10	1
245777005	30-JAN-2010 12:08:58	10	10	1
245807001	30-JAN-2010 12:08:58	10	10	1
245807002	30-JAN-2010 12:08:58	10	10	1
1202028966 ICS	30-JAN-2010 12:08:58	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202028966	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
LCS	1202028961	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
MS	1202028962	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
MS	1202028964	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
MSD	1202028963	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
MSD	1202028965	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1236492	10	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL

Comments:

Desalting cartridges used: 090406-1-Ba & 091130-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 01/31/10
Extr. Injection Volume: 20uL
Sequence Number: per013110a
Initial Calibration Date: 01/31/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1246195
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: HAM
Date: 02/03/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0131001a	IPB001	CWW	1/31/2010 12:23			1		USE	B
per0131002a	IPB001	CWW	1/31/2010 12:30			1		USE	B
per0131003a	WCLICAL-01	CWW	1/31/2010 12:38			1		USE	I
per0131004a	WCLICAL-02	CWW	1/31/2010 12:45			1		USE	I
per0131005a	WCLICAL-03	CWW	1/31/2010 12:53			1		USE	I
per0131006a	WCLICAL-04	CWW	1/31/2010 13:00			1		USE	I
per0131007a	WCLICAL-05	CWW	1/31/2010 13:08			1		USE	I
per0131008a	IPB002	CWW	1/31/2010 13:15			1		USE	B
per0131009a	WCLICV	CWW	1/31/2010 13:23			1		USE	C
per0131010a	IPB003	CWW	1/31/2010 13:31			1		USE	B
per0131011a	WCLCRI	CWW	1/31/2010 13:38			1		USE	C
per0131012a	1202023105	CWW	1/31/2010 13:46	944723	VARIOUS	1	LANL	USE	S
per0131013a	1202023106	CWW	1/31/2010 13:53	944723	VARIOUS	1	LANL	USE	S
per0131014a	1202023109	CWW	1/31/2010 14:01	944723	VARIOUS	1	LANL	USE	S
per0131015a	244921001	CWW	1/31/2010 14:08	944723	10-1288	1	LANL	USE	S
per0131016a	244921002	CWW	1/31/2010 14:16	944723	10-1288	1	LANL	USE	S
per0131017a	244921003	CWW	1/31/2010 14:23	944723	10-1288	1	LANL	USE	S
per0131018a	244921004	CWW	1/31/2010 14:31	944723	10-1288	1	LANL	USE	S
per0131019a	244921005	CWW	1/31/2010 14:38	944723	10-1288	1	LANL	USE	S
per0131020a	244921006	CWW	1/31/2010 14:46	944723	10-1288	1	LANL	USE	S
per0131021a	WCLCCV	CWW	1/31/2010 14:54			1	LANL	USE	C
per0131022a	IPB004	CWW	1/31/2010 15:01			1	LANL	USE	B
per0131023a	WCLCRI	CWW	1/31/2010 15:09			1	LANL	USE	C
per0131024a	244921007	CWW	1/31/2010 15:16	944723	10-1288	1	LANL	USE	S
per0131025a	244921008	CWW	1/31/2010 15:24	944723	10-1288	1	LANL	USE	S
per0131026a	244921009	CWW	1/31/2010 15:31	944723	10-1288	1	LANL	USE	S
per0131027a	244921010	CWW	1/31/2010 15:39	944723	10-1288	1	LANL	USE	S
per0131028a	245134001	CWW	1/31/2010 15:46	944723	10-1300	1	LANL	USE	S
per0131029a	1202023107	CWW	1/31/2010 15:54	944723	10-1300	1	LANL	USE	S

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per0131030a	1202023108	CWW	1/31/2010 16:01	944723	10-1300	1	LANL	USE	S
per0131031a	245134002	CWW	1/31/2010 16:09	944723	10-1300	1	LANL	USE	S
per0131032a	WCLCCV	CWW	1/31/2010 16:17			1	LANL	USE	C
per0131033a	IPB005	CWW	1/31/2010 16:24			1	LANL	USE	B
per0131034a	WCLCRI	CWW	1/31/2010 16:32			1	LANL	USE	C
per0131035a	245134003	CWW	1/31/2010 16:39	944723	10-1300	1	LANL	USE	S
per0131036a	245134004	CWW	1/31/2010 16:47	944723	10-1300	1	LANL	USE	S
per0131037a	245134005	CWW	1/31/2010 16:54	944723	10-1300	1	LANL	USE	S
per0131038a	245134006	CWW	1/31/2010 17:02	944723	10-1300	1	LANL	USE	S
per0131039a	245134007	CWW	1/31/2010 17:09	944723	10-1300	1	LANL	USE	S
per0131040a	245134008	CWW	1/31/2010 17:17	944723	10-1300	1	LANL	USE	S
per0131041a	245134009	CWW	1/31/2010 17:24	944723	10-1300	1	LANL	USE	S
per0131042a	245134010	CWW	1/31/2010 17:32	944723	10-1300	1	LANL	USE	S
per0131043a	WCLCCV	CWW	1/31/2010 17:40			1	LANL	USE	C
per0131044a	IPB006	CWW	1/31/2010 17:47			1	LANL	USE	B
per0131045a	WCLCRI	CWW	1/31/2010 17:55			1	LANL	USE	C
per0131046a	1202028960	CWW	1/31/2010 18:02	947199	VARIOUS	1	LANL	USE	S
per0131047a	1202028961	CWW	1/31/2010 18:10	947199	VARIOUS	1	LANL	USE	S
per0131048a	1202028966	CWW	1/31/2010 18:17	947199	VARIOUS	1	LANL	USE	S
per0131049a	245601001	CWW	1/31/2010 18:25	947199	10-1409	1	LANL	USE	S
per0131050a	245614001	CWW	1/31/2010 18:32	947199	10-1417-1	1	LANL	USE	S
per0131051a	1202028962	CWW	1/31/2010 18:40	947199	10-1417-1	1	LANL	USE	S
per0131052a	1202028963	CWW	1/31/2010 18:48	947199	10-1417-1	1	LANL	USE	S
per0131053a	245614002	CWW	1/31/2010 18:55	947199	10-1417-1	1	LANL	USE	S
per0131054a	WCLCCV	CWW	1/31/2010 19:03			1	LANL	USE	C
per0131055a	IPB007	CWW	1/31/2010 19:10			1	LANL	USE	B
per0131056a	WCLCRI	CWW	1/31/2010 19:18			1	LANL	USE	C
per0131057a	245618007	CWW	1/31/2010 19:25	947199	10-1422	1	LANL	USE	S
per0131058a	245619001	CWW	1/31/2010 19:33	947199	10-1423	1	LANL	USE	S
per0131059a	245625001	CWW	1/31/2010 19:41	947199	10-1425	1	LANL	USE	S
per0131060a	245676002	CWW	1/31/2010 19:48	947199	10-1446	1	LANL	USE	S
per0131061a	1202028964	CWW	1/31/2010 19:56	947199	10-1446	1	LANL	USE	S
per0131062a	1202028965	CWW	1/31/2010 20:03	947199	10-1446	1	LANL	USE	S
per0131063a	245676005	CWW	1/31/2010 20:11	947199	10-1446	1	LANL	USE	S
per0131064a	245681001	CWW	1/31/2010 20:18	947199	10-1450	1	LANL	USE	S
per0131065a	WCLCCV	CWW	1/31/2010 20:26			1	LANL	USE	C
per0131066a	IPB008	CWW	1/31/2010 20:34			1	LANL	USE	B

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per0131067a	WCLCRI	CWW	1/31/2010 20:41			1	LANL	USE	C
per0131068a	245681002	CWW	1/31/2010 20:49	947199	10-1450	1	LANL	USE	S
per0131069a	245690001	CWW	1/31/2010 20:57	947199	10-1433-1	1	LANL	USE	S
per0131070a	245690002	CWW	1/31/2010 21:04	947199	10-1433-1	1	LANL	USE	S
per0131071a	245777001	CWW	1/31/2010 21:12	947199	10-1458	1	LANL	DUSE-DL	S
per0131072a	245777005	CWW	1/31/2010 21:19	947199	10-1458	1	LANL	DUSE-DL	S
per0131073a	245807001	CWW	1/31/2010 21:27	947199	10-1474-1	1	LANL	DUSE-RA	S
per0131074a	245807002	CWW	1/31/2010 21:34	947199	10-1474-1	1	LANL	USE	S
per0131075a	IPB009	CWW	1/31/2010 21:42			1		USE	B
per0131076a	1262643 Suppr	CWW	1/31/2010 21:50	Screen	Inhouse	1	GEL	DUSE	S
per0131077a	WCLCCV	CWW	1/31/2010 21:57			1		USE	C
per0131078a	IPB010	CWW	1/31/2010 22:05			1		USE	B
per0131079a	WCLCRI	CWW	1/31/2010 22:13			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/01/10
Extr. Injection Volume: 20uL
Sequence Number: per020110a
Initial Calibration Date: 02/01/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1246195
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 02/03/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0201001a	IPB001	CWW	2/1/2010 14:44			1		USE	B
per0201002a	IPB001	CWW	2/1/2010 14:52			1		USE	B
per0201003a	WCLICAL-01	CWW	2/1/2010 15:00			1		USE	I
per0201004a	WCLICAL-02	CWW	2/1/2010 15:07			1		USE	I
per0201005a	WCLICAL-03	CWW	2/1/2010 15:15			1		USE	I
per0201006a	WCLICAL-04	CWW	2/1/2010 15:22			1		USE	I
per0201007a	WCLICAL-05	CWW	2/1/2010 15:30			1		USE	I
per0201008a	IPB002	CWW	2/1/2010 15:37			1		USE	B
per0201009a	WCLICV	CWW	2/1/2010 15:45			1		USE	C
per0201010a	IPB003	CWW	2/1/2010 15:52			1		USE	B
per0201011a	WCLCRI	CWW	2/1/2010 16:00			1		USE	C
per0201012a	245777001	CWW	2/1/2010 16:07	947199	10-1458	10	LANL	USE	S
per0201013a	245777005	CWW	2/1/2010 16:15	947199	10-1458	10	LANL	USE	S
per0201014a	245807001	CWW	2/1/2010 16:22	947199	10-1474-1	1	LANL	USE	S
per0201015a	IPB004	CWW	2/1/2010 16:30			1		USE	B
per0201016a	1202024354	CWW	2/1/2010 16:37	945206	VARIOUS	1	LANL	USE	S
per0201017a	1202024355	CWW	2/1/2010 16:45	945206	VARIOUS	1	LANL	USE	S
per0201018a	1202024358	CWW	2/1/2010 16:53	945206	VARIOUS	1	LANL	USE	S
per0201019a	245113001	CWW	2/1/2010 17:00	945206	10-1325-1	1	LANL	USE	S
per0201020a	WCLCCV	CWW	2/1/2010 17:08			1		USE	C
per0201021a	IPB005	CWW	2/1/2010 17:15			1		USE	B
per0201022a	WCLCRI	CWW	2/1/2010 17:23			1		USE	C
per0201023a	245113002	CWW	2/1/2010 17:30	945206	10-1325-1	1	LANL	USE	S
per0201024a	1202024356	CWW	2/1/2010 17:38	945206	10-1325-1	1	LANL	USE	S
per0201025a	1202024357	CWW	2/1/2010 17:45	945206	10-1325-1	1	LANL	USE	S
per0201026a	245113003	CWW	2/1/2010 17:53	945206	10-1325-1	1	LANL	USE	S
per0201027a	245113004	CWW	2/1/2010 18:00	945206	10-1325-1	1	LANL	USE	S
per0201028a	245113005	CWW	2/1/2010 18:08	945206	10-1325-1	1	LANL	USE	S
per0201029a	245113006	CWW	2/1/2010 18:16	945206	10-1325-1	1	LANL	USE	S

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per0201030a	245113007	CWW	2/1/2010 18:23	945206	10-1325-1	1	LANL	USE	S
per0201031a	245113008	CWW	2/1/2010 18:31	945206	10-1325-1	1	LANL	USE	S
per0201032a	245113009	CWW	2/1/2010 18:38	945206	10-1325-1	1	LANL	USE	S
per0201033a	WCLCCV	CWW	2/1/2010 18:46			1		USE	C
per0201034a	IPB006	CWW	2/1/2010 18:53			1		USE	B
per0201035a	WCLCRI	CWW	2/1/2010 19:01			1		USE	C
per0201036a	245113010	CWW	2/1/2010 19:08	945206	10-1325-1	1	LANL	USE	S
per0201037a	245113011	CWW	2/1/2010 19:16	945206	10-1325-1	1	LANL	USE	S
per0201038a	245113012	CWW	2/1/2010 19:24	945206	10-1325-1	1	LANL	USE	S
per0201039a	245113013	CWW	2/1/2010 19:31	945206	10-1325-1	1	LANL	USE	S
per0201040a	245113014	CWW	2/1/2010 19:39	945206	10-1325-1	1	LANL	USE	S
per0201041a	245371001	CWW	2/1/2010 19:46	945206	10-1374	1	LANL	USE	S
per0201042a	245371002	CWW	2/1/2010 19:54	945206	10-1374	1	LANL	USE	S
per0201043a	245372002	CWW	2/1/2010 20:01	945206	10-1375	1	LANL	USE	S
per0201044a	245372003	CWW	2/1/2010 20:09	945206	10-1375	1	LANL	USE	S
per0201045a	245372004	CWW	2/1/2010 20:16	945206	10-1375	1	LANL	USE	S
per0201046a	WCLCCV	CWW	2/1/2010 20:24			1		USE	C
per0201047a	IPB007	CWW	2/1/2010 20:32			1		USE	B
per0201048a	WCLCRI	CWW	2/1/2010 20:39			1		USE	C
per0201049a	1202024390	CWW	2/1/2010 20:47	945227	VARIOUS	1	LANL	USE	S
per0201050a	1202024391	CWW	2/1/2010 20:54	945227	VARIOUS	1	LANL	USE	S
per0201051a	1202024399	CWW	2/1/2010 21:02	945227	VARIOUS	1	LANL	USE	S
per0201052a	245250001	CWW	2/1/2010 21:09	945227	10-1351-1	1	LANL	USE	S
per0201053a	245250002	CWW	2/1/2010 21:17	945227	10-1351-1	1	LANL	USE	S
per0201054a	245373001	CWW	2/1/2010 21:24	945227	10-1375-1	1	LANL	USE	S
per0201055a	245375001	CWW	2/1/2010 21:32	945227	10-1373-1	1	LANL	USE	S
per0201056a	1202024392	CWW	2/1/2010 21:40	945227	10-1373-1	1	LANL	USE	S
per0201057a	1202024393	CWW	2/1/2010 21:47	945227	10-1373-1	1	LANL	USE	S
per0201058a	WCLCCV	CWW	2/1/2010 21:55			1		USE	C
per0201059a	IPB008	CWW	2/1/2010 22:02			1		USE	B
per0201060a	WCLCRI	CWW	2/1/2010 22:10			1		USE	C
per0201061a	245375002	CWW	2/1/2010 22:17	945227	10-1373-1	1	LANL	USE	S
per0201062a	245378001	CWW	2/1/2010 22:25	945227	10-1378-1	1	LANL	USE	S
per0201063a	245378002	CWW	2/1/2010 22:33	945227	10-1378-1	1	LANL	USE	S
per0201064a	245382001	CWW	2/1/2010 22:40	945227	10-1381	1	LANL	USE	S
per0201065a	245386001	CWW	2/1/2010 22:48	945227	10-1383-1	1	LANL	USE	S
per0201066a	245390001	CWW	2/1/2010 22:55	945227	10-1386-1	1	LANL	USE	S

per0201067a	245392001	CWW	2/1/2010 23:03	945227	10-1390-1	1	LANL	USE	S
per0201068a	245392002	CWW	2/1/2010 23:10	945227	10-1390-1	1	LANL	USE	S
per0201069a	WCLCCV	CWW	2/1/2010 23:18			1		USE	C
per0201070a	IPB009	CWW	2/1/2010 23:26			1		USE	B
per0201071a	WCLCRI	CWW	2/1/2010 23:33			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131051a
Date: 31-Jan-2010
Time: 18:40:29
ID: 1202028962
Vial: 2:1,F

| LANL | 947199 | LZW | MS | 1 |

CWO 02-01-10

Perchlorate

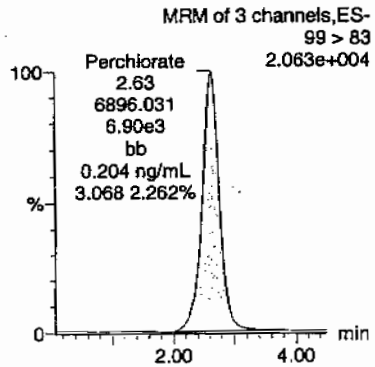

Perchlorate

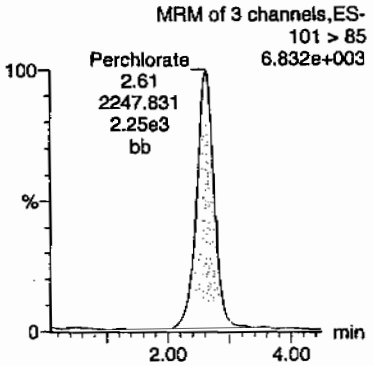

Perchlorate-101

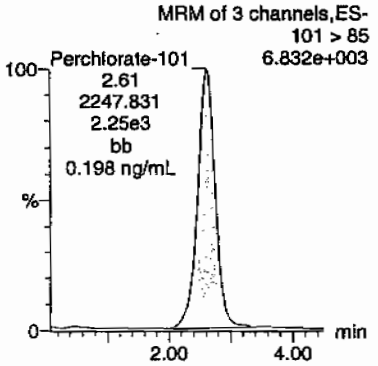

Perchlorate-O(18)

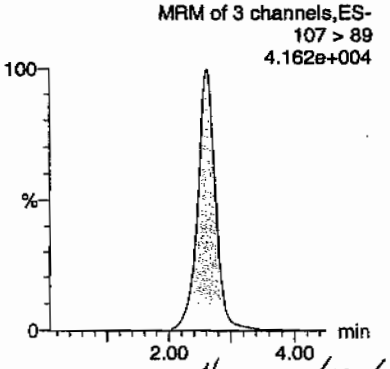

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028962	Perchlorate	99 > 83	2.63	6896.031	6896.031	bb			0.2039	101.95	1.95	499.072	3.07
1202028962	Perchlorate-101	101 > 85	2.61	2247.831	2247.831	bb			0.1978	98.88	-1.12	1131.5...	
1202028962	Perchlorate-O(18)	107 > 89	2.61	13826.360	13826.360	bb			0.4754	95.08	-4.92	4176.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131052a
Date: 31-Jan-2010
Time: 18:48:01
ID: 1202028963
Vial: 2:2,A

|LANL|947199|LCQ|MSD|1|

WW 02-01-10

Perchlorate

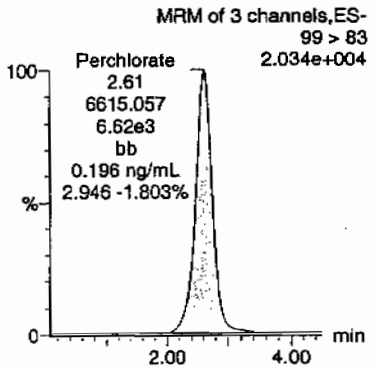

Perchlorate

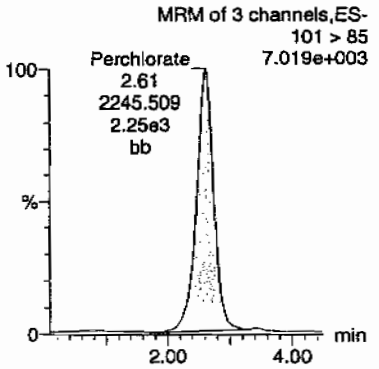

Perchlorate-101

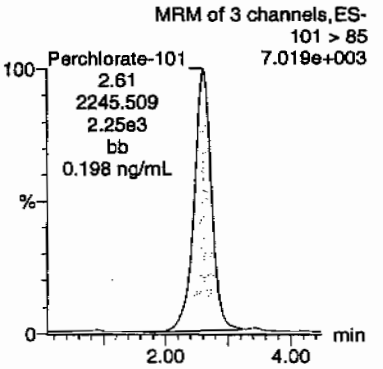

Perchlorate-O(18)

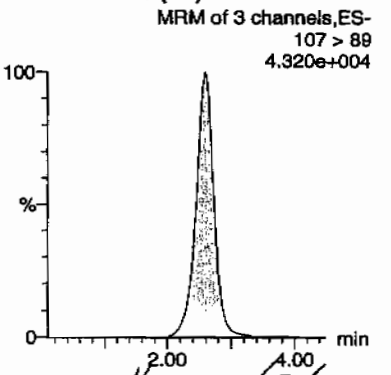

Hum 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028963	Perchlorate	99 > 83	2.61	6615.057	6615.057	bb			0.1956	97.80	-2.20	747.719	2.95
1202028963	Perchlorate-101	101 > 85	2.61	2245.509	2245.509	bb			0.1975	98.77	-1.23	234.767	
1202028963	Perchlorate-O(18)	107 > 89	2.60	14081.118	14081.118	bb			0.4842	96.83	-3.17	1719.1...	

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1474

Sample Analysis

Sample ID	Client ID
245806001	RE15-10-7954
245806002	RE15-10-7956
245806003	RE15-10-7955
245806004	RE15-10-7953
245806005	RE15-10-7952
245806006	RE15-10-8060
245806007	RE15-10-8058
245806008	RE15-10-8059
1202030969	Method Blank (MB) **ICP**
1202030974	Laboratory Control Sample (LCS)
1202030971	245806001(RE15-10-7954L) Serial Dilution (SD)
1202030970	245806001(RE15-10-7954D) Sample Duplicate (DUP)
1202030972	245806001(RE15-10-7954S) Matrix Spike (MS)
1202030973	245806001(RE15-10-7954SD) Matrix Spike Duplicate (MSD)
1202030975	Method Blank (MB) **ICP-MS**
1202030980	Laboratory Control Sample (LCS)
1202030977	245806001(RE15-10-7954L) Serial Dilution (SD)
1202030976	245806001(RE15-10-7954D) Sample Duplicate (DUP)
1202030978	245806001(RE15-10-7954S) Matrix Spike (MS)
1202030979	245806001(RE15-10-7954SD) Matrix Spike Duplicate (MSD)

1202029970	Method Blank (MB) **CVAA**
1202029971	Laboratory Control Sample (LCS)
1202029974	245806001(RE15-10-7954L) Serial Dilution (SD)
1202029972	245806001(RE15-10-7954D) Sample Duplicate (DUP)
1202029973	245806001(RE15-10-7954S) Matrix Spike (MS)
1202029975	245806001(RE15-10-7954SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	948071, 948073 and 947650
Prep Batch :	948070, 948072 and 947648
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial

lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verification (CCV) bracketing this SDG met the established acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 245806001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of copper, magnesium, manganese and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of copper, magnesium, potassium and nickel, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of copper, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of antimony, chromium, cobalt, copper, lead, beryllium, nickel and uranium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. Samples in this SDG required dilutions after repeated attempts to analyze undiluted resulted in ICP instrument QC failures. The samples were diluted at 2x dilution because when analyzed straight twice the CCV failed for iron and magnesium.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 793483 and 795195. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 2/25/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806001 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7954 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3360000	ug/Kg		6790	20000	20000	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-36-0	Antimony	5040	ug/Kg	*	329	998	998	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-38-2	Arsenic	1.48	mg/kg		0.209	1.05	1.05	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-39-3	Barium	48800	ug/Kg		99.8	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-41-7	Beryllium	1.37	mg/kg	*	0.0209	0.105	0.105	2	MS	SKJ	02/19/10 14:42	100219-4	948073
7440-43-9	Cadmium	499	ug/Kg	U	99.8	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-70-2	Calcium	1100000	ug/Kg		7990	25000	25000	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-47-3	Chromium	13400	ug/Kg	*	150	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-48-4	Cobalt	3090	ug/Kg	*	150	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-50-8	Copper	115000	ug/Kg	*N	299	998	998	1	P	HSC	02/17/10 02:45	021610-1	948071
7439-89-6	Iron	9310000	ug/Kg		16000	49900	49900	2	P	HSC	02/23/10 14:32	022310A-2	948071
7439-92-1	Lead	578000	ug/Kg	*	499	2000	2000	2	P	HSC	02/23/10 14:32	022310A-2	948071
7439-95-4	Magnesium	696000	ug/Kg	N	17000	59900	59900	2	P	HSC	02/23/10 14:32	022310A-2	948071
7439-96-5	Manganese	192000	ug/Kg	N	200	998	998	1	P	HSC	02/17/10 02:45	021610-1	948071
7439-97-6	Mercury	14.4	ug/kg		4.13	12.2	12.2	1	AV	JXL1	02/16/10 09:40	021610S2-5	947650
7440-02-0	Nickel	7.19	mg/kg	*N	0.105	0.419	0.419	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-09-7	Potassium	460000	ug/Kg	N	6390	25000	25000	1	P	HSC	02/17/10 02:45	021610-1	948071
7782-49-2	Selenium	1.05	mg/kg	U	0.524	1.05	1.05	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-22-4	Silver	766	ug/Kg		99.8	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-23-5	Sodium	85000	ug/Kg		6990	25000	25000	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-28-0	Thallium	0.0878	mg/kg	J	0.0628	0.209	0.209	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-61-1	Uranium	84.4	mg/kg	*	0.0138	0.0419	0.0419	2	MS	SKJ	02/19/10 00:12	100218-3	948073
7440-62-2	Vanadium	8040	ug/Kg		99.8	499	499	1	P	HSC	02/17/10 02:45	021610-1	948071
7440-66-6	Zinc	36600	ug/Kg		329	998	998	1	P	HSC	02/17/10 02:45	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.524	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.532	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.507	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806002 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7956 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 93.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4800000	ug/Kg		6930	20400	20400	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-36-0	Antimony	528	ug/Kg	J*	336	1020	1020	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-38-2	Arsenic	2.82	mg/kg		0.206	1.03	1.03	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-39-3	Barium	54600	ug/Kg		102	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-41-7	Beryllium	29.1	mg/kg	*	0.0206	0.103	0.103	2	MS	SKJ	02/19/10 14:58	100219-4	948073
7440-43-9	Cadmium	509	ug/Kg	U	102	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-70-2	Calcium	2290000	ug/Kg		8150	25500	25500	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-47-3	Chromium	11200	ug/Kg	*	153	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-48-4	Cobalt	2060	ug/Kg	*	153	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-50-8	Copper	73900	ug/Kg	*N	306	1020	1020	1	P	HSC	02/17/10 03:33	021610-1	948071
7439-89-6	Iron	8990000	ug/Kg		16300	50900	50900	2	P	HSC	02/24/10 08:48	022310A-2	948071
7439-92-1	Lead	23900	ug/Kg	*	509	2040	2040	2	P	HSC	02/24/10 08:48	022310A-2	948071
7439-95-4	Magnesium	1050000	ug/Kg	N	17300	61100	61100	2	P	HSC	02/24/10 08:48	022310A-2	948071
7439-96-5	Manganese	185000	ug/Kg	N	204	1020	1020	1	P	HSC	02/17/10 03:33	021610-1	948071
7439-97-6	Mercury	15.5	ug/kg		3.8	11.2	11.2	1	AV	JXL1	02/16/10 09:51	021610S2-5	947650
7440-02-0	Nickel	7.17	mg/kg	*N	0.103	0.412	0.412	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-09-7	Potassium	675000	ug/Kg	N	6520	25500	25500	1	P	HSC	02/17/10 03:33	021610-1	948071
7782-49-2	Selenium	0.640	mg/kg	J	0.515	1.03	1.03	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-22-4	Silver	692	ug/Kg		102	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-23-5	Sodium	63900	ug/Kg		7130	25500	25500	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-28-0	Thallium	0.139	mg/kg	J	0.0618	0.206	0.206	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-61-1	Uranium	69.8	mg/kg	*	0.0136	0.0412	0.0412	2	MS	SKJ	02/19/10 00:42	100218-3	948073
7440-62-2	Vanadium	11400	ug/Kg		102	509	509	1	P	HSC	02/17/10 03:33	021610-1	948071
7440-66-6	Zinc	32100	ug/Kg		336	1020	1020	1	P	HSC	02/17/10 03:33	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.572	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.523	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.517	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806003 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7955 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3390000	ug/Kg		7960	23400	23400	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-36-0	Antimony	5530	ug/Kg	*	386	1170	1170	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-38-2	Arsenic	1.8	mg/kg		0.233	1.17	1.17	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-39-3	Barium	73400	ug/Kg		117	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-41-7	Beryllium	6.85	mg/kg	*	0.0233	0.117	0.117	2	MS	SKJ	02/19/10 15:00	100219-4	948073
7440-43-9	Cadmium	242	ug/Kg	J	117	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-70-2	Calcium	1460000	ug/Kg		9370	29300	29300	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-47-3	Chromium	6870	ug/Kg	*	176	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-48-4	Cobalt	6080	ug/Kg	*	176	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-50-8	Copper	1200000	ug/Kg	*N	351	1170	1170	1	P	HSC	02/17/10 03:41	021610-1	948071
7439-89-6	Iron	8710000	ug/Kg		18700	58500	58500	2	P	HSC	02/23/10 15:27	022310A-2	948071
7439-92-1	Lead	203000	ug/Kg	*	585	2340	2340	2	P	HSC	02/23/10 15:27	022310A-2	948071
7439-95-4	Magnesium	713000	ug/Kg	N	19900	70300	70300	2	P	HSC	02/23/10 15:27	022310A-2	948071
7439-96-5	Manganese	234000	ug/Kg	N	234	1170	1170	1	P	HSC	02/17/10 03:41	021610-1	948071
7439-97-6	Mercury	15.7	ug/kg		4.58	13.5	13.5	1	AV	JXL1	02/16/10 09:53	021610S2-5	947650
7440-02-0	Nickel	6.47	mg/kg	*N	0.117	0.467	0.467	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-09-7	Potassium	586000	ug/Kg	N	7490	29300	29300	1	P	HSC	02/17/10 03:41	021610-1	948071
7782-49-2	Selenium	1.17	mg/kg	U	0.583	1.17	1.17	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-22-4	Silver	1060	ug/Kg		117	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-23-5	Sodium	68300	ug/Kg		8200	29300	29300	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-28-0	Thallium	0.0733	mg/kg	J	0.07	0.233	0.233	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-61-1	Uranium	183	mg/kg	*	0.0154	0.0467	0.0467	2	MS	SKJ	02/19/10 00:46	100218-3	948073
7440-62-2	Vanadium	11300	ug/Kg		117	585	585	1	P	HSC	02/17/10 03:41	021610-1	948071
7440-66-6	Zinc	64700	ug/Kg		386	1170	1170	1	P	HSC	02/17/10 03:41	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.544	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.521	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.523	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806004 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7953 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2950000	ug/Kg		7470	22000	22000	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-36-0	Antimony	256000	ug/Kg	*	362	1100	1100	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-38-2	Arsenic	2.29	mg/kg		0.223	1.12	1.12	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-39-3	Barium	89000	ug/Kg		110	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-41-7	Beryllium	12.2	mg/kg	*	0.0223	0.112	0.112	2	MS	SKJ	02/19/10 15:03	100219-4	948073
7440-43-9	Cadmium	448	ug/Kg	J	110	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-70-2	Calcium	1220000	ug/Kg		8780	27500	27500	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-47-3	Chromium	10500	ug/Kg	*	165	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-48-4	Cobalt	2690	ug/Kg	*	165	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-50-8	Copper	686000	ug/Kg	*N	329	1100	1100	1	P	HSC	02/17/10 03:48	021610-1	948071
7439-89-6	Iron	6900000	ug/Kg		17600	54900	54900	2	P	HSC	02/23/10 15:34	022310A-2	948071
7439-92-1	Lead	138000000	ug/Kg	*	27500	110000	110000	100	P	HSC	02/23/10 17:46	022310A-2	948071
7439-95-4	Magnesium	862000	ug/Kg	N	18700	65900	65900	2	P	HSC	02/23/10 15:34	022310A-2	948071
7439-96-5	Manganese	140000	ug/Kg	N	220	1100	1100	1	P	HSC	02/17/10 03:48	021610-1	948071
7439-97-6	Mercury	17.7	ug/kg		4.23	12.4	12.4	1	AV	JXL1	02/16/10 09:59	021610S2-5	947650
7440-02-0	Nickel	8.47	mg/kg	*N	0.112	0.447	0.447	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-09-7	Potassium	340000	ug/Kg	N	7030	27500	27500	1	P	HSC	02/17/10 03:48	021610-1	948071
7782-49-2	Selenium	1.12	mg/kg	U	0.559	1.12	1.12	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-22-4	Silver	2520	ug/Kg		110	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-23-5	Sodium	42700	ug/Kg		7690	27500	27500	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-28-0	Thallium	0.223	mg/kg	U	0.067	0.223	0.223	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-61-1	Uranium	362	mg/kg	*	0.0147	0.0447	0.0447	2	MS	SKJ	02/19/10 00:50	100218-3	948073
7440-62-2	Vanadium	9670	ug/Kg		110	549	549	1	P	HSC	02/17/10 03:48	021610-1	948071
7440-66-6	Zinc	125000	ug/Kg		362	1100	1100	1	P	HSC	02/17/10 03:48	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.562	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.53	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.521	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806005 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7952 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 93.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1670000	ug/Kg		7100	20900	20900	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-36-0	Antimony	1040	ug/Kg	U*	345	1040	1040	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-38-2	Arsenic	0.839	mg/kg	J	0.201	1.01	1.01	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-39-3	Barium	48800	ug/Kg		104	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-41-7	Beryllium	0.310	mg/kg	*	0.0201	0.101	0.101	2	MS	SKJ	02/19/10 15:10	100219-4	948073
7440-43-9	Cadmium	522	ug/Kg	U	104	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-70-2	Calcium	569000	ug/Kg		8360	26100	26100	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-47-3	Chromium	24000	ug/Kg	*	157	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-48-4	Cobalt	5010	ug/Kg	*	157	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-50-8	Copper	4310	ug/Kg	*N	313	1040	1040	1	P	HSC	02/17/10 03:55	021610-1	948071
7439-89-6	Iron	8550000	ug/Kg		16700	52200	52200	2	P	HSC	02/23/10 17:53	022310A-2	948071
7439-92-1	Lead	7460	ug/Kg	*	522	2090	2090	2	P	HSC	02/23/10 17:53	022310A-2	948071
7439-95-4	Magnesium	390000	ug/Kg	N	17800	62700	62700	2	P	HSC	02/23/10 17:53	022310A-2	948071
7439-96-5	Manganese	354000	ug/Kg	N	209	1040	1040	1	P	HSC	02/17/10 03:55	021610-1	948071
7439-97-6	Mercury	22.2	ug/kg		4.2	12.3	12.3	1	AV	JXL1	02/16/10 10:01	021610S2-5	947650
7440-02-0	Nickel	4.07	mg/kg	*N	0.101	0.403	0.403	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-09-7	Potassium	353000	ug/Kg	N	6690	26100	26100	1	P	HSC	02/17/10 03:55	021610-1	948071
7782-49-2	Selenium	1.01	mg/kg	U	0.504	1.01	1.01	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-22-4	Silver	589	ug/Kg		104	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-23-5	Sodium	128000	ug/Kg		7310	26100	26100	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-28-0	Thallium	0.201	mg/kg	U	0.0604	0.201	0.201	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-61-1	Uranium	0.519	mg/kg	*	0.0133	0.0403	0.0403	2	MS	SKJ	02/19/10 00:54	100218-3	948073
7440-62-2	Vanadium	3900	ug/Kg		104	522	522	1	P	HSC	02/17/10 03:55	021610-1	948071
7440-66-6	Zinc	37500	ug/Kg		345	1040	1040	1	P	HSC	02/17/10 03:55	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.521	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.513	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.532	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806006 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8060 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2550000	ug/Kg		7630	22400	22400	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-36-0	Antimony	8360	ug/Kg	*	370	1120	1120	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-38-2	Arsenic	3.7	mg/kg		0.219	1.1	1.1	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-39-3	Barium	85200	ug/Kg		112	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-41-7	Beryllium	9.08	mg/kg	*	0.0219	0.11	0.11	2	MS	SKJ	02/19/10 15:12	100219-4	948073
7440-43-9	Cadmium	229	ug/Kg	J	112	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-70-2	Calcium	1360000	ug/Kg		8970	28000	28000	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-47-3	Chromium	9600	ug/Kg	*	168	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-48-4	Cobalt	3890	ug/Kg	*	168	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-50-8	Copper	445000	ug/Kg	*N	336	1120	1120	1	P	HSC	02/17/10 04:02	021610-1	948071
7439-89-6	Iron	6730000	ug/Kg		17900	56100	56100	2	P	HSC	02/23/10 15:48	022310A-2	948071
7439-92-1	Lead	952000	ug/Kg	*	561	2240	2240	2	P	HSC	02/23/10 15:48	022310A-2	948071
7439-95-4	Magnesium	653000	ug/Kg	N	19100	67300	67300	2	P	HSC	02/23/10 15:48	022310A-2	948071
7439-96-5	Manganese	144000	ug/Kg	N	224	1120	1120	1	P	HSC	02/17/10 04:02	021610-1	948071
7439-97-6	Mercury	17.5	ug/kg		4.78	14	14	1	AV	JXL1	02/16/10 10:02	021610S2-5	947650
7440-02-0	Nickel	7.59	mg/kg	*N	0.11	0.439	0.439	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-09-7	Potassium	344000	ug/Kg	N	7180	28000	28000	1	P	HSC	02/17/10 04:02	021610-1	948071
7782-49-2	Selenium	1.1	mg/kg	U	0.548	1.1	1.1	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-22-4	Silver	1240	ug/Kg		112	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-23-5	Sodium	59600	ug/Kg		7850	28000	28000	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-28-0	Thallium	0.219	mg/kg	U	0.0658	0.219	0.219	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-61-1	Uranium	352	mg/kg	*	0.0145	0.0439	0.0439	2	MS	SKJ	02/19/10 01:07	100218-3	948073
7440-62-2	Vanadium	7750	ug/Kg		112	561	561	1	P	HSC	02/17/10 04:02	021610-1	948071
7440-66-6	Zinc	52800	ug/Kg		370	1120	1120	1	P	HSC	02/17/10 04:02	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.5	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.522	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.534	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806007 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8058 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7390000	ug/Kg		10300	30200	30200	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-36-0	Antimony	1680	ug/Kg	*	498	1510	1510	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-38-2	Arsenic	2.96	mg/kg		0.303	1.51	1.51	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-39-3	Barium	114000	ug/Kg		151	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-41-7	Beryllium	2.84	mg/kg	*	0.0303	0.151	0.151	2	MS	SKJ	02/19/10 15:14	100219-4	948073
7440-43-9	Cadmium	798	ug/Kg		151	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-70-2	Calcium	3730000	ug/Kg		12100	37700	37700	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-47-3	Chromium	10500	ug/Kg	*	226	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-48-4	Cobalt	5630	ug/Kg	*	226	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-50-8	Copper	148000	ug/Kg	*N	453	1510	1510	1	P	HSC	02/17/10 04:09	021610-1	948071
7439-89-6	Iron	11200000	ug/Kg		24100	75400	75400	2	P	HSC	02/23/10 15:55	022310A-2	948071
7439-92-1	Lead	140000	ug/Kg	*	754	3020	3020	2	P	HSC	02/23/10 15:55	022310A-2	948071
7439-95-4	Magnesium	1630000	ug/Kg	N	25600	90500	90500	2	P	HSC	02/23/10 15:55	022310A-2	948071
7439-96-5	Manganese	378000	ug/Kg	N	302	1510	1510	1	P	HSC	02/17/10 04:09	021610-1	948071
7439-97-6	Mercury	41.4	ug/kg		6.35	18.7	18.7	1	AV	JXL1	02/16/10 10:04	021610S2-5	947650
7440-02-0	Nickel	8.08	mg/kg	*N	0.151	0.606	0.606	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-09-7	Potassium	1490000	ug/Kg	N	9650	37700	37700	1	P	HSC	02/17/10 04:09	021610-1	948071
7782-49-2	Selenium	1.51	mg/kg	U	0.757	1.51	1.51	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-22-4	Silver	1060	ug/Kg		151	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-23-5	Sodium	35700	ug/Kg	J	10600	37700	37700	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-28-0	Thallium	0.139	mg/kg	J	0.0909	0.303	0.303	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-61-1	Uranium	53.8	mg/kg	*	0.02	0.0606	0.0606	2	MS	SKJ	02/19/10 01:11	100218-3	948073
7440-62-2	Vanadium	20000	ug/Kg		151	754	754	1	P	HSC	02/17/10 04:09	021610-1	948071
7440-66-6	Zinc	67200	ug/Kg		498	1510	1510	1	P	HSC	02/17/10 04:09	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.501	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.517	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.515	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245806008 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8059 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 92.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1910000	ug/Kg		7130	21000	21000	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-36-0	Antimony	1050	ug/Kg	U*	346	1050	1050	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-38-2	Arsenic	0.845	mg/kg	J	0.211	1.05	1.05	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-39-3	Barium	30500	ug/Kg		105	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-41-7	Beryllium	0.304	mg/kg	*	0.0211	0.105	0.105	2	MS	SKJ	02/19/10 15:16	100219-4	948073
7440-43-9	Cadmium	525	ug/Kg	U	105	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-70-2	Calcium	779000	ug/Kg		8390	26200	26200	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-47-3	Chromium	16300	ug/Kg	*	157	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-48-4	Cobalt	14300	ug/Kg	*	157	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-50-8	Copper	5340	ug/Kg	*N	315	1050	1050	1	P	HSC	02/17/10 04:16	021610-1	948071
7439-89-6	Iron	8500000	ug/Kg		16800	52500	52500	2	P	HSC	02/23/10 17:59	022310A-2	948071
7439-92-1	Lead	6900	ug/Kg	*	525	2100	2100	2	P	HSC	02/23/10 17:59	022310A-2	948071
7439-95-4	Magnesium	386000	ug/Kg	N	17800	62900	62900	2	P	HSC	02/23/10 17:59	022310A-2	948071
7439-96-5	Manganese	221000	ug/Kg	N	210	1050	1050	1	P	HSC	02/17/10 04:16	021610-1	948071
7439-97-6	Mercury	26.5	ug/kg		4.33	12.7	12.7	1	AV	JXL1	02/16/10 10:06	021610S2-5	947650
7440-02-0	Nickel	4.26	mg/kg	*N	0.105	0.421	0.421	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-09-7	Potassium	396000	ug/Kg	N	6710	26200	26200	1	P	HSC	02/17/10 04:16	021610-1	948071
7782-49-2	Selenium	1.05	mg/kg	U	0.527	1.05	1.05	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-22-4	Silver	564	ug/Kg		105	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-23-5	Sodium	145000	ug/Kg		7340	26200	26200	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-28-0	Thallium	0.211	mg/kg	U	0.0632	0.211	0.211	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-61-1	Uranium	0.584	mg/kg	*	0.0139	0.0421	0.0421	2	MS	SKJ	02/19/10 01:15	100218-3	948073
7440-62-2	Vanadium	5440	ug/Kg		105	525	525	1	P	HSC	02/17/10 04:16	021610-1	948071
7440-66-6	Zinc	32800	ug/Kg		346	1050	1050	1	P	HSC	02/17/10 04:16	021610-1	948071

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947650	947648	SW846 7471A Prep	0.508	g	30	mL	02/15/10	TXB3
948071	948070	SW846 3050B	0.514	g	50	mL	02/08/10	FGA
948073	948072	SW846 3050B	0.512	g	50	mL	02/08/10	FGA

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.04	ug/L	5	ug/L	100.9	90.0 – 110.0	AV	16-FEB-10 09:01	021610S2-5
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Antimony	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Cadmium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Chromium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Manganese	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Potassium	2410	ug/L	2500	ug/L	96.4	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Silver	254	ug/L	250	ug/L	101.5	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Sodium	2490	ug/L	2500	ug/L	99.5	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Vanadium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Zinc	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	16-FEB-10 12:18	021610-1
	Arsenic	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	18-FEB-10 23:14	100218-3
	Nickel	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	18-FEB-10 23:14	100218-3
	Selenium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	18-FEB-10 23:14	100218-3
	Thallium	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	18-FEB-10 23:14	100218-3
	Uranium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	18-FEB-10 23:14	100218-3
	Beryllium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	19-FEB-10 14:18	100219-4
	Iron	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	23-FEB-10 11:10	022310A-2
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	23-FEB-10 11:10	022310A-2
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	23-FEB-10 11:10	022310A-2
CCV01										
	Mercury	5.12	ug/L	5	ug/L	102.4	80.0 – 120.0	AV	16-FEB-10 09:07	021610S2-5
	Aluminum	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	16-FEB-10 13:04	021610-1
	Antimony	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	16-FEB-10 13:04	021610-1
	Barium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	16-FEB-10 13:04	021610-1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	16-FEB-10 13:04	021610-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Chromium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Cobalt	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Copper	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Potassium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Silver	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Sodium	10200	ug/L	10000	ug/L	102.1	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Zinc	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	16–FEB–10 13:04	021610–1
	Arsenic	47.7	ug/L	50	ug/L	95.4	90.0 – 110.0	MS	18–FEB–10 23:35	100218–3
	Nickel	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	18–FEB–10 23:35	100218–3
	Selenium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	18–FEB–10 23:35	100218–3
	Thallium	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	18–FEB–10 23:35	100218–3
	Uranium	51.9	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	18–FEB–10 23:35	100218–3
	Beryllium	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	19–FEB–10 14:29	100219–4
	Iron	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	23–FEB–10 11:57	022310A–2
	Lead	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	23–FEB–10 11:57	022310A–2
	Magnesium	5410	ug/L	5000	ug/L	108.3	90.0 – 110.0	P	23–FEB–10 11:57	022310A–2
CCV02										
	Mercury	5.26	ug/L	5	ug/L	105.3	80.0 – 120.0	AV	16–FEB–10 09:30	021610S2–5
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	16–FEB–10 13:26	021610–1
	Antimony	505	ug/L	500	ug/L	101	90.0 – 110.0	P	16–FEB–10 13:26	021610–1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	16–FEB–10 13:26	021610–1
	Cadmium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	16–FEB–10 13:26	021610–1
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	16–FEB–10 13:26	021610–1
	Chromium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	16–FEB–10 13:26	021610–1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	16–FEB–10 13:26	021610–1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	16–FEB–10 13:26	021610–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	16–FEB–10 13:26	021610–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: 1CPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	16-FEB-10 13:26	021610-1
	Silver	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	16-FEB-10 13:26	021610-1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	16-FEB-10 13:26	021610-1
	Vanadium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	16-FEB-10 13:26	021610-1
	Zinc	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	16-FEB-10 13:26	021610-1
	Arsenic	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	18-FEB-10 23:47	100218-3
	Nickel	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	18-FEB-10 23:47	100218-3
	Selenium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	18-FEB-10 23:47	100218-3
	Thallium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	18-FEB-10 23:47	100218-3
	Uranium	54.7	ug/L	50	ug/L	109.4	90.0 – 110.0	MS	18-FEB-10 23:47	100218-3
	Beryllium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	19-FEB-10 14:38	100219-4
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	23-FEB-10 12:25	022310A-2
	Lead	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	23-FEB-10 12:25	022310A-2
	Magnesium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	23-FEB-10 12:25	022310A-2
CCV03										
	Mercury	5.67	ug/L	5	ug/L	113.4	80.0 – 120.0	AV	16-FEB-10 09:55	021610S2-5
	Aluminum	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Antimony	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Cadmium	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Calcium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Chromium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Potassium	5370	ug/L	5000	ug/L	107.5	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Silver	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Sodium	12300	ug/L	10000	ug/L	122.7	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Vanadium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	16-FEB-10 15:01	021610-1
	Zinc	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	16-FEB-10 15:01	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	48.7	ug/L	50	ug/L	97.4	90.0 - 110.0	MS	19-FEB-10 00:04	100218-3
	Nickel	51.3	ug/L	50	ug/L	102.6	90.0 - 110.0	MS	19-FEB-10 00:04	100218-3
	Selenium	49.4	ug/L	50	ug/L	98.8	90.0 - 110.0	MS	19-FEB-10 00:04	100218-3
	Thallium	47.9	ug/L	50	ug/L	95.8	90.0 - 110.0	MS	19-FEB-10 00:04	100218-3
	Uranium	52.8	ug/L	50	ug/L	105.5	90.0 - 110.0	MS	19-FEB-10 00:04	100218-3
	Beryllium	50.4	ug/L	50	ug/L	100.8	90.0 - 110.0	MS	19-FEB-10 14:51	100219-4
	Iron	4970	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	23-FEB-10 13:03	022310A-2
	Lead	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	23-FEB-10 13:03	022310A-2
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	23-FEB-10 13:03	022310A-2
CCV04										
	Mercury	5.57	ug/L	5	ug/L	111.3	80.0 - 120.0	AV	16-FEB-10 10:14	021610S2-5
	Aluminum	5200	ug/L	5000	ug/L	104	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Antimony	513	ug/L	500	ug/L	102.7	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Barium	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Cadmium	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Chromium	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Cobalt	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Copper	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Potassium	5320	ug/L	5000	ug/L	106.3	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Silver	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Sodium	11500	ug/L	10000	ug/L	114.7	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Vanadium	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	16-FEB-10 15:21	021610-1
	Arsenic	49.1	ug/L	50	ug/L	98.2	90.0 - 110.0	MS	19-FEB-10 00:33	100218-3
	Nickel	50.9	ug/L	50	ug/L	101.7	90.0 - 110.0	MS	19-FEB-10 00:33	100218-3
	Selenium	50.7	ug/L	50	ug/L	101.4	90.0 - 110.0	MS	19-FEB-10 00:33	100218-3
	Thallium	46.7	ug/L	50	ug/L	93.3	90.0 - 110.0	MS	19-FEB-10 00:33	100218-3
	Uranium	51	ug/L	50	ug/L	101.9	90.0 - 110.0	MS	19-FEB-10 00:33	100218-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	19-FEB-10 15:05	100219-4
	Iron	5340	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	23-FEB-10 14:04	022310A-2
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	23-FEB-10 14:04	022310A-2
	Magnesium	5510	ug/L	5000	ug/L	110.3	90.0 – 110.0	P	23-FEB-10 14:04	022310A-2
CCV05										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Antimony	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Barium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Calcium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Chromium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Cobalt	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Copper	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Silver	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Sodium	11100	ug/L	10000	ug/L	110.8	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Vanadium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	16-FEB-10 15:39	021610-1
	Arsenic	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	19-FEB-10 00:58	100218-3
	Nickel	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	19-FEB-10 00:58	100218-3
	Selenium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	19-FEB-10 00:58	100218-3
	Thallium	45.8	ug/L	50	ug/L	91.6	90.0 – 110.0	MS	19-FEB-10 00:58	100218-3
	Uranium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	19-FEB-10 00:58	100218-3
	Beryllium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	19-FEB-10 15:19	100219-4
	Iron	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	23-FEB-10 15:06	022310A-2
	Lead	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	23-FEB-10 15:06	022310A-2
	Magnesium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	23-FEB-10 15:06	022310A-2
CCV06										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	16-FEB-10 16:07	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Barium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Cadmium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Chromium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Silver	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Sodium	10800	ug/L	10000	ug/L	107.6	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Zinc	485	ug/L	500	ug/L	97	90.0 – 110.0	P	16-FEB-10 16:07	021610-1
	Arsenic	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	19-FEB-10 01:19	100218-3
	Nickel	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	19-FEB-10 01:19	100218-3
	Selenium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	19-FEB-10 01:19	100218-3
	Thallium	46.1	ug/L	50	ug/L	92.1	90.0 – 110.0	MS	19-FEB-10 01:19	100218-3
	Uranium	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	19-FEB-10 01:19	100218-3
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	23-FEB-10 16:09	022310A-2
	Lead	524	ug/L	500	ug/L	104.9	90.0 – 110.0	P	23-FEB-10 16:09	022310A-2
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	23-FEB-10 16:09	022310A-2
CCV07										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	16-FEB-10 16:40	021610-1
	Antimony	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	16-FEB-10 16:40	021610-1
	Barium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	16-FEB-10 16:40	021610-1
	Cadmium	468	ug/L	500	ug/L	93.5	90.0 – 110.0	P	16-FEB-10 16:40	021610-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	16-FEB-10 16:40	021610-1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	16-FEB-10 16:40	021610-1
	Cobalt	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	16-FEB-10 16:40	021610-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	16-FEB-10 16:40	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	16-FEB-10 16:40	021610-1
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	16-FEB-10 16:40	021610-1
	Silver	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	16-FEB-10 16:40	021610-1
	Sodium	10600	ug/L	10000	ug/L	106.3	90.0 - 110.0	P	16-FEB-10 16:40	021610-1
	Vanadium	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	16-FEB-10 16:40	021610-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	16-FEB-10 16:40	021610-1
	Iron	5030	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	23-FEB-10 16:57	022310A-2
	Lead	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	23-FEB-10 16:57	022310A-2
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 - 110.0	P	23-FEB-10 16:57	022310A-2
CCV08										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Antimony	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Cadmium	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Chromium	475	ug/L	500	ug/L	95.1	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Cobalt	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Silver	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Sodium	10300	ug/L	10000	ug/L	103.5	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Vanadium	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	16-FEB-10 17:42	021610-1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 - 110.0	P	23-FEB-10 17:25	022310A-2
	Lead	516	ug/L	500	ug/L	103.1	90.0 - 110.0	P	23-FEB-10 17:25	022310A-2
	Magnesium	5320	ug/L	5000	ug/L	106.3	90.0 - 110.0	P	23-FEB-10 17:25	022310A-2
CCV09										
	Aluminum	4830	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	16-FEB-10 18:44	021610-1
	Antimony	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	16-FEB-10 18:44	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Cadmium	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Calcium	4780	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Chromium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Silver	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Vanadium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Zinc	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	16-FEB-10 18:44	021610-1
	Iron	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	23-FEB-10 18:40	022310A-2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	23-FEB-10 18:40	022310A-2
	Magnesium	5400	ug/L	5000	ug/L	108	90.0 – 110.0	P	23-FEB-10 18:40	022310A-2
CCV10										
	Aluminum	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Antimony	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Cadmium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Chromium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Silver	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Sodium	10300	ug/L	10000	ug/L	103.5	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Vanadium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	16-FEB-10 19:41	021610-1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	16-FEB-10 19:41	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	23-FEB-10 19:55	022310A-2
	Lead	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	23-FEB-10 19:55	022310A-2
	Magnesium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	23-FEB-10 19:55	022310A-2
CCV11										
	Aluminum	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Antimony	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Barium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Cadmium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Calcium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Chromium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Cobalt	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Sodium	10700	ug/L	10000	ug/L	107.1	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	16-FEB-10 20:57	021610-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	23-FEB-10 21:12	022310A-2
	Lead	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	23-FEB-10 21:12	022310A-2
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	23-FEB-10 21:12	022310A-2
CCV12										
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Antimony	500	ug/L	500	ug/L	100	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Barium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Cadmium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Chromium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Cobalt	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	16-FEB-10 22:07	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Potassium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Silver	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Sodium	10900	ug/L	10000	ug/L	109.3	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Vanadium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Zinc	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	16-FEB-10 22:07	021610-1
	Iron	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	23-FEB-10 22:21	022310A-2
	Lead	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	23-FEB-10 22:21	022310A-2
	Magnesium	5510	ug/L	5000	ug/L	110.2	90.0 – 110.0	P	23-FEB-10 22:21	022310A-2
CCV13										
	Aluminum	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Antimony	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Calcium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Cobalt	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Copper	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Manganese	519	ug/L	500	ug/L	103.7	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Silver	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Sodium	10800	ug/L	10000	ug/L	108.5	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Zinc	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	16-FEB-10 23:16	021610-1
	Iron	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	23-FEB-10 23:09	022310A-2
	Lead	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	23-FEB-10 23:09	022310A-2
	Magnesium	5570	ug/L	5000	ug/L	111.4	90.0 – 110.0	P	23-FEB-10 23:09	022310A-2
CCV14										
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Antimony	515	ug/L	500	ug/L	103	90.0 – 110.0	P	17-FEB-10 00:18	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Cadmium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Calcium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Chromium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Copper	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Manganese	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Sodium	10200	ug/L	10000	ug/L	102.3	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	17-FEB-10 00:18	021610-1
	Iron	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	24-FEB-10 00:05	022310A-2
	Lead	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	24-FEB-10 00:05	022310A-2
	Magnesium	5520	ug/L	5000	ug/L	110.5	90.0 – 110.0	P	24-FEB-10 00:05	022310A-2
CCV15										
	Aluminum	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Antimony	520	ug/L	500	ug/L	104	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Barium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Cadmium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Calcium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Cobalt	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Copper	518	ug/L	500	ug/L	103.7	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Manganese	519	ug/L	500	ug/L	103.9	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Potassium	5250	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Sodium	10300	ug/L	10000	ug/L	103.5	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	17-FEB-10 01:21	021610-1
	Zinc	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	17-FEB-10 01:21	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5440	ug/L	5000	ug/L	108.8	90.0 - 110.0	P	24-FEB-10 01:06	022310A-2
	Lead	520	ug/L	500	ug/L	104	90.0 - 110.0	P	24-FEB-10 01:06	022310A-2
	Magnesium	5590	ug/L	5000	ug/L	111.9	90.0 - 110.0	P	24-FEB-10 01:06	022310A-2
CCV16										
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Antimony	520	ug/L	500	ug/L	103.9	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Cadmium	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Calcium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Cobalt	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Copper	517	ug/L	500	ug/L	103.3	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Manganese	523	ug/L	500	ug/L	104.5	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Silver	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Zinc	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	17-FEB-10 02:18	021610-1
	Iron	5480	ug/L	5000	ug/L	109.6	90.0 - 110.0	P	24-FEB-10 02:22	022310A-2
	Lead	521	ug/L	500	ug/L	104.2	90.0 - 110.0	P	24-FEB-10 02:22	022310A-2
	Magnesium	5680	ug/L	5000	ug/L	113.7	90.0 - 110.0	P	24-FEB-10 02:22	022310A-2
CCV17										
	Aluminum	5320	ug/L	5000	ug/L	106.4	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Antimony	519	ug/L	500	ug/L	103.7	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Barium	512	ug/L	500	ug/L	102.3	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Cadmium	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Calcium	5310	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Copper	520	ug/L	500	ug/L	104	90.0 - 110.0	P	17-FEB-10 03:20	021610-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	521	ug/L	500	ug/L	104.1	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Silver	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Zinc	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	17-FEB-10 03:20	021610-1
	Iron	5330	ug/L	5000	ug/L	106.6	90.0 - 110.0	P	24-FEB-10 03:23	022310A-2
	Lead	530	ug/L	500	ug/L	106	90.0 - 110.0	P	24-FEB-10 03:23	022310A-2
	Magnesium	5410	ug/L	5000	ug/L	108.2	90.0 - 110.0	P	24-FEB-10 03:23	022310A-2
CCV18										
	Aluminum	5260	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Antimony	521	ug/L	500	ug/L	104.2	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Barium	512	ug/L	500	ug/L	102.5	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Calcium	5330	ug/L	5000	ug/L	106.5	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Cobalt	515	ug/L	500	ug/L	102.9	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Copper	519	ug/L	500	ug/L	103.8	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Manganese	522	ug/L	500	ug/L	104.4	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Potassium	5140	ug/L	5000	ug/L	102.8	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Silver	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Sodium	10400	ug/L	10000	ug/L	103.9	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	17-FEB-10 04:23	021610-1
	Iron	5440	ug/L	5000	ug/L	108.9	90.0 - 110.0	P	24-FEB-10 04:33	022310A-2
	Lead	526	ug/L	500	ug/L	105.2	90.0 - 110.0	P	24-FEB-10 04:33	022310A-2
	Magnesium	5630	ug/L	5000	ug/L	112.5	90.0 - 110.0	P	24-FEB-10 04:33	022310A-2
CCV19										
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	24-FEB-10 05:51	022310A-2
	Lead	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	24-FEB-10 05:51	022310A-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5310	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	24-FEB-10 05:51	022310A-2
CCV20										
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	24-FEB-10 06:17	022310A-2
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	24-FEB-10 06:17	022310A-2
	Magnesium	5280	ug/L	5000	ug/L	105.7	90.0 – 110.0	P	24-FEB-10 06:17	022310A-2
CCV21										
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	24-FEB-10 07:41	022310A-2
	Lead	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	24-FEB-10 07:41	022310A-2
	Magnesium	5430	ug/L	5000	ug/L	108.6	90.0 – 110.0	P	24-FEB-10 07:41	022310A-2
CCV22										
	Iron	5260	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	24-FEB-10 08:55	022310A-2
	Lead	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	24-FEB-10 08:55	022310A-2
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	24-FEB-10 08:55	022310A-2

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS4,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.255	ug/L	.2	ug/L	127.4	70.0 – 130.0	AV	16-FEB-10 09:05	021610S2-5
	Nickel	2.29	ug/L	2	ug/L	114.3	70.0 – 130.0	MS	18-FEB-10 23:23	100218-3
	Thallium	1.12	ug/L	1	ug/L	112.3	70.0 – 130.0	MS	18-FEB-10 23:23	100218-3
	Selenium	5.91	ug/L	5	ug/L	118.2	70.0 – 130.0	MS	18-FEB-10 23:23	100218-3
	Uranium	.229	ug/L	.2	ug/L	114.5	70.0 – 130.0	MS	18-FEB-10 23:23	100218-3
	Arsenic	5.99	ug/L	5	ug/L	119.8	70.0 – 130.0	MS	18-FEB-10 23:23	100218-3
	Beryllium	.496	ug/L	.5	ug/L	99.2	70.0 – 130.0	MS	19-FEB-10 14:22	100219-4
PQL01										
	Aluminum	216	ug/L	200	ug/L	107.9	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Manganese	10.3	ug/L	10	ug/L	103	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Potassium	141	ug/L	150	ug/L	94	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Sodium	304	ug/L	300	ug/L	101.3	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Barium	5.07	ug/L	5	ug/L	101.4	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Chromium	3.95	ug/L	5	ug/L	79.1	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Copper	10	ug/L	10	ug/L	100.3	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Zinc	10.2	ug/L	10	ug/L	101.9	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Calcium	206	ug/L	200	ug/L	103.1	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Vanadium	4.75	ug/L	5	ug/L	94.9	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Cobalt	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Cadmium	4.77	ug/L	5	ug/L	95.4	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Antimony	9.77	ug/L	10	ug/L	97.7	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Silver	4.92	ug/L	5	ug/L	98.3	70.0 – 130.0	P	16-FEB-10 12:32	021610-1
	Magnesium	244	ug/L	300	ug/L	81.2	70.0 – 130.0	P	23-FEB-10 11:23	022310A-2
	Iron	114	ug/L	100	ug/L	114.3	70.0 – 130.0	P	23-FEB-10 11:23	022310A-2
	Lead	11.4	ug/L	10	ug/L	113.9	70.0 – 130.0	P	23-FEB-10 11:23	022310A-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 09:03	021610S2–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	16–FEB–10 12:25	021610–1
	Antimony	4.65	+/–10	J	3.3	10.0	SOL	P	16–FEB–10 12:25	021610–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 12:25	021610–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 12:25	021610–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	16–FEB–10 12:25	021610–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 12:25	021610–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 12:25	021610–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	16–FEB–10 12:25	021610–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	16–FEB–10 12:25	021610–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	16–FEB–10 12:25	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 12:25	021610–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	16–FEB–10 12:25	021610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 12:25	021610–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	16–FEB–10 12:25	021610–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	18–FEB–10 23:18	100218–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	18–FEB–10 23:18	100218–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	18–FEB–10 23:18	100218–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	18–FEB–10 23:18	100218–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	18–FEB–10 23:18	100218–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	19–FEB–10 14:20	100219–4
	Iron	80.0	+/–250	U	80.0	250	SOL	P	23–FEB–10 11:17	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	23–FEB–10 11:17	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	23–FEB–10 11:17	022310A–2
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 09:09	021610S2–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	16–FEB–10 13:11	021610–1
	Antimony	4.45	+/–10	J	3.3	10.0	SOL	P	16–FEB–10 13:11	021610–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 13:11	021610–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 13:11	021610–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	16–FEB–10 13:11	021610–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 13:11	021610–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 13:11	021610–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	16–FEB–10 13:11	021610–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	16–FEB–10 13:11	021610–1
	Potassium	90.9	+/–250	J	64.0	250	SOL	P	16–FEB–10 13:11	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 13:11	021610–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	16–FEB–10 13:11	021610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 13:11	021610–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	16–FEB–10 13:11	021610–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	18–FEB–10 23:39	100218–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	18–FEB–10 23:39	100218–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	18–FEB–10 23:39	100218–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	18–FEB–10 23:39	100218–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	18–FEB–10 23:39	100218–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	19–FEB–10 14:31	100219–4
	Iron	80.0	+/–250	U	80.0	250	SOL	P	23–FEB–10 12:04	022310A–2
	Lead	6.01	+/–10	J	2.5	10.0	SOL	P	23–FEB–10 12:04	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	23–FEB–10 12:04	022310A–2
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 09:33	021610S2–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	16–FEB–10 13:33	021610–1
	Antimony	5.52	+/–10	J	3.3	10.0	SOL	P	16–FEB–10 13:33	021610–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 13:33	021610–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 13:33	021610–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	16–FEB–10 13:33	021610–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 13:33	021610–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 13:33	021610–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	16–FEB–10 13:33	021610–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	16–FEB–10 13:33	021610–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	16–FEB–10 13:33	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 13:33	021610–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	-74.7	+/-250	J	70.0	250	SOL	P	16-FEB-10 13:33	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 13:33	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 13:33	021610-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	18-FEB-10 23:51	100218-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	18-FEB-10 23:51	100218-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	18-FEB-10 23:51	100218-3
	Thallium	0.35	+/-1	J	0.3	1.0	SOL	MS	18-FEB-10 23:51	100218-3
	Uranium	0.19	+/-.2	J	0.066	0.2	SOL	MS	18-FEB-10 23:51	100218-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	19-FEB-10 14:40	100219-4
	Iron	80.0	+/-250	U	80.0	250	SOL	P	23-FEB-10 12:32	022310A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	23-FEB-10 12:32	022310A-2
	Magnesium	-99.39	+/-300	J	85.0	300	SOL	P	23-FEB-10 12:32	022310A-2
CCB03										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	16-FEB-10 09:57	021610S2-5
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 15:08	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 15:08	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 15:08	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 15:08	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 15:08	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 15:08	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 15:08	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-FEB-10 15:08	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-FEB-10 15:08	021610-1
	Potassium	280.55	+/-250		64.0	250	SOL	P	16-FEB-10 15:08	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 15:08	021610-1
	Sodium	1039.7	+/-250		70.0	250	SOL	P	16-FEB-10 15:08	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 15:08	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 15:08	021610-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	19-FEB-10 00:08	100218-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-FEB-10 00:08	100218-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	19-FEB-10 00:08	100218-3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.304	+/–1	J	0.3	1.0	SOL	MS	19–FEB–10 00:08	100218–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	19–FEB–10 00:08	100218–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	19–FEB–10 14:54	100219–4
	Iron	80.0	+/–250	U	80.0	250	SOL	P	23–FEB–10 13:10	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	23–FEB–10 13:10	022310A–2
	Magnesium	–89.25	+/–300	J	85.0	300	SOL	P	23–FEB–10 13:10	022310A–2
CCB04										
	Mercury	0.094	+/–.2	J	0.068	0.2	SOL	AV	16–FEB–10 10:16	021610S2–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	16–FEB–10 15:28	021610–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	16–FEB–10 15:28	021610–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 15:28	021610–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 15:28	021610–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	16–FEB–10 15:28	021610–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 15:28	021610–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 15:28	021610–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	16–FEB–10 15:28	021610–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	16–FEB–10 15:28	021610–1
	Potassium	179.55	+/–250	J	64.0	250	SOL	P	16–FEB–10 15:28	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 15:28	021610–1
	Sodium	788.45	+/–250		70.0	250	SOL	P	16–FEB–10 15:28	021610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 15:28	021610–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	16–FEB–10 15:28	021610–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	19–FEB–10 00:37	100218–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	19–FEB–10 00:37	100218–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	19–FEB–10 00:37	100218–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	19–FEB–10 00:37	100218–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	19–FEB–10 00:37	100218–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	19–FEB–10 15:07	100219–4
	Iron	80.0	+/–250	U	80.0	250	SOL	P	23–FEB–10 14:11	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	23–FEB–10 14:11	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	23–FEB–10 14:11	022310A–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 15:46	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 15:46	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 15:46	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 15:46	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 15:46	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 15:46	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 15:46	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-FEB-10 15:46	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-FEB-10 15:46	021610-1
	Potassium	145.12	+/-250	J	64.0	250	SOL	P	16-FEB-10 15:46	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 15:46	021610-1
	Sodium	619.07	+/-250		70.0	250	SOL	P	16-FEB-10 15:46	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 15:46	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 15:46	021610-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	19-FEB-10 01:02	100218-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-FEB-10 01:02	100218-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	19-FEB-10 01:02	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	19-FEB-10 01:02	100218-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	19-FEB-10 01:02	100218-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	19-FEB-10 15:21	100219-4
	Iron	80.0	+/-250	U	80.0	250	SOL	P	23-FEB-10 15:13	022310A-2
	Lead	2.65	+/-10	J	2.5	10.0	SOL	P	23-FEB-10 15:13	022310A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	23-FEB-10 15:13	022310A-2
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 16:14	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 16:14	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 16:14	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 16:14	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 16:14	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 16:14	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 16:14	021610-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-FEB-10 16:14	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-FEB-10 16:14	021610-1
	Potassium	93.45	+/-250	J	64.0	250	SOL	P	16-FEB-10 16:14	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 16:14	021610-1
	Sodium	617.67	+/-250		70.0	250	SOL	P	16-FEB-10 16:14	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 16:14	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 16:14	021610-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	19-FEB-10 01:23	100218-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	19-FEB-10 01:23	100218-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	19-FEB-10 01:23	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	19-FEB-10 01:23	100218-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	19-FEB-10 01:23	100218-3
	Iron	80.0	+/-250	U	80.0	250	SOL	P	23-FEB-10 16:16	022310A-2
	Lead	21.3	+/-10		2.5	10.0	SOL	P	23-FEB-10 16:16	022310A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	23-FEB-10 16:16	022310A-2
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 16:47	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 16:47	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 16:47	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 16:47	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 16:47	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 16:47	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 16:47	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-FEB-10 16:47	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-FEB-10 16:47	021610-1
	Potassium	69.32	+/-250	J	64.0	250	SOL	P	16-FEB-10 16:47	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 16:47	021610-1
	Sodium	431.15	+/-250		70.0	250	SOL	P	16-FEB-10 16:47	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 16:47	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 16:47	021610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	23-FEB-10 17:04	022310A-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	11.76	+/-10		2.5	10.0	SOL	P	23-FEB-10 17:04	022310A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	23-FEB-10 17:04	022310A-2
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 17:49	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 17:49	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 17:49	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 17:49	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 17:49	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 17:49	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 17:49	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-FEB-10 17:49	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-FEB-10 17:49	021610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-FEB-10 17:49	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 17:49	021610-1
	Sodium	370.72	+/-250		70.0	250	SOL	P	16-FEB-10 17:49	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 17:49	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 17:49	021610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	23-FEB-10 17:32	022310A-2
	Lead	8.75	+/-10	J	2.5	10.0	SOL	P	23-FEB-10 17:32	022310A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	23-FEB-10 17:32	022310A-2
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 18:51	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 18:51	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 18:51	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 18:51	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 18:51	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 18:51	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 18:51	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-FEB-10 18:51	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-FEB-10 18:51	021610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-FEB-10 18:51	021610-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 18:51	021610-1
	Sodium	325.41	+/-250		70.0	250	SOL	P	16-FEB-10 18:51	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 18:51	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 18:51	021610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	23-FEB-10 18:47	022310A-2
	Lead	6.19	+/-10	J	2.5	10.0	SOL	P	23-FEB-10 18:47	022310A-2
	Magnesium	-124.45	+/-300	J	85.0	300	SOL	P	23-FEB-10 18:47	022310A-2
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 19:48	021610-1
	Antimony	4.46	+/-10	J	3.3	10.0	SOL	P	16-FEB-10 19:48	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 19:48	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 19:48	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 19:48	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 19:48	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 19:48	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-FEB-10 19:48	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-FEB-10 19:48	021610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-FEB-10 19:48	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 19:48	021610-1
	Sodium	241.85	+/-250	J	70.0	250	SOL	P	16-FEB-10 19:48	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 19:48	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 19:48	021610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	23-FEB-10 20:02	022310A-2
	Lead	3.5	+/-10	J	2.5	10.0	SOL	P	23-FEB-10 20:02	022310A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	23-FEB-10 20:02	022310A-2
CCB11										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 21:04	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 21:04	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 21:04	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 21:04	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 21:04	021610-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1474

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 21:04	021610–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 21:04	021610–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	16–FEB–10 21:04	021610–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	16–FEB–10 21:04	021610–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	16–FEB–10 21:04	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 21:04	021610–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	16–FEB–10 21:04	021610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 21:04	021610–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	16–FEB–10 21:04	021610–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	23–FEB–10 21:19	022310A–2
	Lead	3.34	+/–10	J	2.5	10.0	SOL	P	23–FEB–10 21:19	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	23–FEB–10 21:19	022310A–2
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	16–FEB–10 22:14	021610–1
	Antimony	3.35	+/–10	J	3.3	10.0	SOL	P	16–FEB–10 22:14	021610–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 22:14	021610–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 22:14	021610–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	16–FEB–10 22:14	021610–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 22:14	021610–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	16–FEB–10 22:14	021610–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	16–FEB–10 22:14	021610–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	16–FEB–10 22:14	021610–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	16–FEB–10 22:14	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 22:14	021610–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	16–FEB–10 22:14	021610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	16–FEB–10 22:14	021610–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	16–FEB–10 22:14	021610–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	23–FEB–10 22:28	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	23–FEB–10 22:28	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	23–FEB–10 22:28	022310A–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB13										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	16-FEB-10 23:23	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 23:23	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 23:23	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 23:23	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	16-FEB-10 23:23	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 23:23	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	16-FEB-10 23:23	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	16-FEB-10 23:23	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	16-FEB-10 23:23	021610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	16-FEB-10 23:23	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 23:23	021610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	16-FEB-10 23:23	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	16-FEB-10 23:23	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	16-FEB-10 23:23	021610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	23-FEB-10 23:16	022310A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	23-FEB-10 23:16	022310A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	23-FEB-10 23:16	022310A-2
CCB14										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-FEB-10 00:25	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-FEB-10 00:25	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 00:25	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 00:25	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 00:25	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 00:25	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 00:25	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-FEB-10 00:25	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-FEB-10 00:25	021610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-FEB-10 00:25	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 00:25	021610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-FEB-10 00:25	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 00:25	021610-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-FEB-10 00:25	021610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 00:12	022310A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 00:12	022310A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 00:12	022310A-2
CCB15										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-FEB-10 01:28	021610-1
	Antimony	3.92	+/-10	J	3.3	10.0	SOL	P	17-FEB-10 01:28	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 01:28	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 01:28	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 01:28	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 01:28	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 01:28	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-FEB-10 01:28	021610-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-FEB-10 01:28	021610-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-FEB-10 01:28	021610-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 01:28	021610-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-FEB-10 01:28	021610-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 01:28	021610-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-FEB-10 01:28	021610-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 01:13	022310A-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	24-FEB-10 01:13	022310A-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 01:13	022310A-2
CCB16										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-FEB-10 02:25	021610-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	17-FEB-10 02:25	021610-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 02:25	021610-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 02:25	021610-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 02:25	021610-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 02:25	021610-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 02:25	021610-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-FEB-10 02:25	021610-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 02:25	021610–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	17–FEB–10 02:25	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 02:25	021610–1
	Sodium	112.28	+/–250	J	70.0	250	SOL	P	17–FEB–10 02:25	021610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 02:25	021610–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 02:25	021610–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 02:29	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 02:29	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 02:29	022310A–2
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	17–FEB–10 03:27	021610–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 03:27	021610–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 03:27	021610–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 03:27	021610–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 03:27	021610–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 03:27	021610–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 03:27	021610–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	17–FEB–10 03:27	021610–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 03:27	021610–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	17–FEB–10 03:27	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 03:27	021610–1
	Sodium	–106.66	+/–250	J	70.0	250	SOL	P	17–FEB–10 03:27	021610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 03:27	021610–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 03:27	021610–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 03:31	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 03:31	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 03:31	022310A–2
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	17–FEB–10 04:30	021610–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 04:30	021610–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 04:30	021610–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1474

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 04:30	021610–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 04:30	021610–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 04:30	021610–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 04:30	021610–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	17–FEB–10 04:30	021610–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 04:30	021610–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	17–FEB–10 04:30	021610–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 04:30	021610–1
	Sodium	–75.36	+/–250	J	70.0	250	SOL	P	17–FEB–10 04:30	021610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 04:30	021610–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 04:30	021610–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 04:40	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 04:40	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 04:40	022310A–2
CCB19										
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 05:58	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 05:58	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 05:58	022310A–2
CCB20										
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 06:24	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 06:24	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 06:24	022310A–2
CCB21										
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 07:48	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 07:48	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 07:48	022310A–2
CCB22										
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 09:02	022310A–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 09:02	022310A–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 09:02	022310A–2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1474

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202029970								
	Mercury	3.81	ug/kg	+/-11.2	U	AV	3.81	11.2
1202030969								
	Aluminum	6500	ug/Kg	+/-19100	U	P	6500	19100
	Antimony	315	ug/Kg	+/-956	U	P	315	956
	Barium	95.6	ug/Kg	+/-478	U	P	95.6	478
	Cadmium	95.6	ug/Kg	+/-478	U	P	95.6	478
	Calcium	7650	ug/Kg	+/-23900	U	P	7650	23900
	Chromium	143	ug/Kg	+/-478	U	P	143	478
	Cobalt	143	ug/Kg	+/-478	U	P	143	478
	Copper	287	ug/Kg	+/-956	U	P	287	956
	Iron	7650	ug/Kg	+/-23900	U	P	7650	23900
	Lead	239	ug/Kg	+/-956	U	P	239	956
	Magnesium	8130	ug/Kg	+/-28700	U	P	8130	28700
	Manganese	191	ug/Kg	+/-956	U	P	191	956
	Potassium	6120	ug/Kg	+/-23900	U	P	6120	23900
	Silver	95.6	ug/Kg	+/-478	U	P	95.6	478
	Sodium	-13200	ug/Kg	+/-23900	J	P	6690	23900
	Vanadium	95.6	ug/Kg	+/-478	U	P	95.6	478
	Zinc	315	ug/Kg	+/-956	U	P	315	956
1202030975								
	Arsenic	0.198	mg/kg	+/-0.988	U	MS	0.198	0.988
	Beryllium	0.0198	mg/kg	+/-0.0988	U	MS	0.0198	0.0988
	Nickel	0.0988	mg/kg	+/-0.395	U	MS	0.0988	0.395
	Selenium	0.494	mg/kg	+/-0.988	U	MS	0.494	0.988
	Thallium	0.0593	mg/kg	+/-0.198	U	MS	0.0593	0.198
	Uranium	0.0296	mg/kg	+/-0.0395	J	MS	0.013	0.0395

METALS
–4–
Interference Check Sample

SDG No: 10–1474

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	526000	ug/L	500000	ug/L	105	80.0 – 120.0	16–FEB–10 12:39	021610–1
	Antimony	0.835	ug/L					16–FEB–10 12:39	021610–1
	Barium	–0.258	ug/L					16–FEB–10 12:39	021610–1
	Cadmium	–1.61	ug/L					16–FEB–10 12:39	021610–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	16–FEB–10 12:39	021610–1
	Chromium	1.6	ug/L					16–FEB–10 12:39	021610–1
	Cobalt	–1.66	ug/L					16–FEB–10 12:39	021610–1
	Copper	3.48	ug/L					16–FEB–10 12:39	021610–1
	Manganese	–1.06	ug/L					16–FEB–10 12:39	021610–1
	Potassium	–146.0	ug/L					16–FEB–10 12:39	021610–1
	Silver	4.44	ug/L					16–FEB–10 12:39	021610–1
	Sodium	349	ug/L					16–FEB–10 12:39	021610–1
	Vanadium	–2.55	ug/L					16–FEB–10 12:39	021610–1
	Zinc	–0.46	ug/L					16–FEB–10 12:39	021610–1
ICSAB01									
	Aluminum	523000	ug/L	500000	ug/L	105	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Antimony	549	ug/L	500	ug/L	110	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Barium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Cadmium	457	ug/L	500	ug/L	91.4	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Calcium	482000	ug/L	500000	ug/L	96.5	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Chromium	480	ug/L	500	ug/L	96	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Cobalt	445	ug/L	500	ug/L	89.1	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Copper	566	ug/L	500	ug/L	113	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Manganese	485	ug/L	500	ug/L	97.1	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Potassium	5460	ug/L	5000	ug/L	109	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Silver	275	ug/L	250	ug/L	110	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Sodium	5800	ug/L	5000	ug/L	116	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Vanadium	498	ug/L	500	ug/L	99.7	80.0 – 120.0	16–FEB–10 12:45	021610–1
	Zinc	495	ug/L	500	ug/L	99	80.0 – 120.0	16–FEB–10 12:45	021610–1

METALS
-4-
Interference Check Sample

SDG No: 10-1474

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Iron	192000	ug/L	200000	ug/L	96.2	80.0 - 120.0	23-FEB-10 11:30	022310A-2
	Lead	-8.35	ug/L					23-FEB-10 11:30	022310A-2
	Magnesium	505000	ug/L	500000	ug/L	101	80.0 - 120.0	23-FEB-10 11:30	022310A-2
ICSAB01									
	Iron	193000	ug/L	200000	ug/L	96.5	80.0 - 120.0	23-FEB-10 11:37	022310A-2
	Lead	462	ug/L	500	ug/L	92.4	80.0 - 120.0	23-FEB-10 11:37	022310A-2
	Magnesium	510000	ug/L	500000	ug/L	102	80.0 - 120.0	23-FEB-10 11:37	022310A-2

METALS
–4–
Interference Check Sample

SDG No: 10–1474

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.361	ug/L					18–FEB–10 23:27	100218–3
	Nickel	4.91	ug/L					18–FEB–10 23:27	100218–3
	Selenium	–0.571	ug/L					18–FEB–10 23:27	100218–3
	Thallium	0.021	ug/L					18–FEB–10 23:27	100218–3
	Uranium	–0.016	ug/L					18–FEB–10 23:27	100218–3
ICSAB01									
	Arsenic	19.8	ug/L	20	ug/L	99.2	80.0 – 120.0	18–FEB–10 23:31	100218–3
	Nickel	24.4	ug/L	23.31	ug/L	105	80.0 – 120.0	18–FEB–10 23:31	100218–3
	Selenium	21.1	ug/L	20	ug/L	105	80.0 – 120.0	18–FEB–10 23:31	100218–3
	Thallium	17.9	ug/L	20	ug/L	89.7	80.0 – 120.0	18–FEB–10 23:31	100218–3
	Uranium	21.5	ug/L	20	ug/L	108	80.0 – 120.0	18–FEB–10 23:31	100218–3

METALS
–4–
Interference Check Sample

SDG No: 10–1474

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.102	ug/L					19–FEB–10 14:24	100219–4
ICSAB01									
	Beryllium	17.9	ug/L	20	ug/L	89.6	80.0 – 120.0	19–FEB–10 14:27	100219–4

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1474 **Client ID** RE15–10–7954S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.2

Sample ID: 245806001 **Spike ID:** 1202029973

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	138		14.4		107	115		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1474 **Client ID** RE15–10–7954SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.2

Sample ID: 245806001 **Spike ID:** 1202029975

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	137		14.4		107	114		AV

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1474 **Client ID** RE15–10–7954S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.2

Sample ID: 245806001 **Spike ID:** 1202030972

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		7650000		3360000		511000	839	N/A	P
Antimony	ug/Kg	75–125	46100		5040		51100	80.4		P
Barium	ug/Kg	75–125	111000		48800		51100	121		P
Cadmium	ug/Kg	75–125	46500		99.8	U	51100	91		P
Calcium	ug/Kg	75–125	1630000		1100000		511000	103		P
Chromium	ug/Kg	75–125	57700		13400		51100	86.6		P
Cobalt	ug/Kg	75–125	50200		3090		51100	92.2		P
Copper	ug/Kg	75–125	679000		115000		51100	1100	N	P
Iron	ug/Kg		11000000		9310000		511000	327	N/A	P
Lead	ug/Kg		86200		578000		51100	–963	N/A	P
Magnesium	ug/Kg	75–125	1590000		696000		511000	175	N	P
Manganese	ug/Kg	75–125	259000		192000		51100	131	N	P
Potassium	ug/Kg	75–125	1190000		460000		511000	142	N	P
Silver	ug/Kg	75–125	50100		766		51100	96.7		P
Sodium	ug/Kg	75–125	538000		85000		511000	88.7		P
Vanadium	ug/Kg	75–125	57100		8040		51100	96.1		P
Zinc	ug/Kg	75–125	87000		36600		51100	98.7		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1474 **Client ID** RE15–10–7954SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.2

Sample ID: 245806001 **Spike ID:** 1202030973

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Copper	ug/Kg	75–125	113000		115000		50500	–4.26	N	P
Iron	ug/Kg		10200000		9310000		505000	182	N/A	P
Lead	ug/Kg		92500		578000		50500	–962	N/A	P
Magnesium	ug/Kg	75–125	1500000		696000		505000	159	N	P
Manganese	ug/Kg	75–125	231000		192000		50500	77.4		P
Potassium	ug/Kg	75–125	1140000		460000		505000	134	N	P
Silver	ug/Kg	75–125	49900		766		50500	97.3		P
Sodium	ug/Kg	75–125	559000		85000		505000	93.8		P
Vanadium	ug/Kg	75–125	56000		8040		50500	94.9		P
Zinc	ug/Kg	75–125	81700		36600		50500	89.4		P
Aluminum	ug/Kg		7000000		3360000		505000	721	N/A	P
Antimony	ug/Kg	75–125	46300		5040		50500	81.7		P
Barium	ug/Kg	75–125	94600		48800		50500	90.6		P
Cadmium	ug/Kg	75–125	45900		99.8	U	50500	91		P
Calcium	ug/Kg	75–125	1540000		1100000		505000	88.7		P
Chromium	ug/Kg	75–125	61000		13400		50500	94.2		P
Cobalt	ug/Kg	75–125	49800		3090		50500	92.5		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1474 **Client ID** RE15–10–7954S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.2

Sample ID: 245806001 **Spike ID:** 1202030978

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	10.7		1.48		8.46	108		MS
Beryllium	mg/kg	75–125	6		1.37		5.29	87.6		MS
Nickel	mg/kg	75–125	12		7.19		5.29	90.7		MS
Selenium	mg/kg	75–125	2.37		0.524	U	2.12	89.1		MS
Thallium	mg/kg	75–125	8.85		0.0878	J	10.6	82.9		MS
Uranium	mg/kg		105		84.4		5.29	390	N/A	MS

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1474 **Client ID** RE15-10-7954SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.2

Sample ID: 245806001 **Spike ID:** 1202030979

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.21		1.48		8.35	92.6		MS
Beryllium	mg/kg	75-125	6.05		1.37		5.22	89.7		MS
Nickel	mg/kg	75-125	10.7		7.19		5.22	67.2	N	MS
Selenium	mg/kg	75-125	2.16		0.524	U	2.09	80		MS
Thallium	mg/kg	75-125	8.71		0.0878	J	10.4	82.6		MS
Uranium	mg/kg		104		84.4		5.22	377	N/A	MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1474

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7954D

Sample ID: 245806001 **Duplicate ID:** 1202029972 **Percent Solids for Dup:** 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–12.6	14.4		16.3		12.5		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1474

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7954SD

Sample ID: 1202029973 **Duplicate ID:** 1202029975 **Percent Solids for Dup:** 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	138		137		.457		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1474

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7954D

Sample ID: 245806001 **Duplicate ID:** 1202030970 **Percent Solids for Dup:** 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	3360000		3180000		5.59		P
Antimony	ug/Kg	+/–998	5040		992	J	134	*	P
Barium	ug/Kg	+/–20%	48800		45200		7.79		P
Cadmium	ug/Kg		99.8	U	99.8	U			P
Calcium	ug/Kg	+/–20%	1100000		1040000		5.6		P
Chromium	ug/Kg	+/–20%	13400		8790		41.8	*	P
Cobalt	ug/Kg	+/–499	3090		2490		21.2	*	P
Copper	ug/Kg	+/–20%	115000		33000		111	*	P
Iron	ug/Kg	+/–20%	9310000		9510000		2.11		P
Lead	ug/Kg	+/–20%	578000		31400		179	*	P
Magnesium	ug/Kg	+/–20%	696000		675000		3.13		P
Manganese	ug/Kg	+/–20%	192000		210000		8.81		P
Potassium	ug/Kg	+/–20%	460000		448000		2.7		P
Silver	ug/Kg	+/–499	766		680		11.9		P
Sodium	ug/Kg	+/–25000	85000		81600		4.08		P
Vanadium	ug/Kg	+/–20%	8040		7420		7.95		P
Zinc	ug/Kg	+/–20%	36600		34700		5.42		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1474

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7954SD

Sample ID: 1202030972 **Duplicate ID:** 1202030973 **Percent Solids for Dup:** 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	7650000		7000000		8.83		P
Antimony	ug/Kg	+/–20	46100		46300		.33		P
Barium	ug/Kg	+/–20	111000		94600		15.7		P
Cadmium	ug/Kg	+/–20	46500		45900		1.2		P
Calcium	ug/Kg	+/–20	1630000		1540000		5.09		P
Chromium	ug/Kg	+/–20	57700		61000		5.6		P
Cobalt	ug/Kg	+/–20	50200		49800		.79		P
Copper	ug/Kg	+/–20	679000		113000		143	*	P
Iron	ug/Kg	+/–20	11000000		10200000		7.09		P
Lead	ug/Kg	+/–20	86200		92500		7.07		P
Magnesium	ug/Kg	+/–20	1590000		1500000		5.78		P
Manganese	ug/Kg	+/–20	259000		231000		11.5		P
Potassium	ug/Kg	+/–20	1190000		1140000		4.27		P
Silver	ug/Kg	+/–20	50100		49900		.518		P
Sodium	ug/Kg	+/–20	538000		559000		3.76		P
Vanadium	ug/Kg	+/–20	57100		56000		2.02		P
Zinc	ug/Kg	+/–20	87000		81700		6.27		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7954D

Sample ID: 245806001 **Duplicate ID:** 1202030976 **Percent Solids for Dup:** 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-1.05	1.48		1.32		11.6		MS
Beryllium	mg/kg	+/-20%	1.37		0.922		39.1	*	MS
Nickel	mg/kg	+/-20%	7.19		4.76		40.8	*	MS
Selenium	mg/kg		0.524	U	0.527	U			MS
Thallium	mg/kg	+/-.211	0.0878	J	0.07	J	22.6		MS
Uranium	mg/kg	+/-20%	84.4		68.9		20.2	*	MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1474

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7954SD

Sample ID: 1202030978 **Duplicate ID:** 1202030979 **Percent Solids for Dup:** 94.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	10.7		9.21		14.6		MS
Beryllium	mg/kg	+/-20	6		6.05		.77		MS
Nickel	mg/kg	+/-20	12		10.7		11.4		MS
Selenium	mg/kg	+/-20	2.37		2.16		9.52		MS
Thallium	mg/kg	+/-20	8.85		8.71		1.68		MS
Uranium	mg/kg	+/-20	105		104		.934		MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1474

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202029971								
	Mercury	ug/kg	5150	5800		113	71.6-128.3	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1474

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030974								
	Aluminum	ug/Kg	10500000	8060000		76.8	56-144	P
	Antimony	ug/Kg	173000	130000		75.4	71-130	P
	Barium	ug/Kg	198000	178000		90	80-120	P
	Cadmium	ug/Kg	60700	53000		87.3	81-120	P
	Calcium	ug/Kg	9870000	9340000		94.7	83-117	P
	Chromium	ug/Kg	236000	213000		90.2	80-120	P
	Cobalt	ug/Kg	91200	84700		92.9	81-120	P
	Copper	ug/Kg	174000	176000		101	81-118	P
	Iron	ug/Kg	18000000	17500000		97	51-149	P
	Lead	ug/Kg	86000	78500		91.3	79-121	P
	Magnesium	ug/Kg	4000000	3710000		92.8	79-122	P
	Manganese	ug/Kg	558000	499000		89.4	81-119	P
	Potassium	ug/Kg	4300000	3800000		88.5	74-127	P
	Silver	ug/Kg	30100	30000		99.7	66-134	P
	Sodium	ug/Kg	1020000	919000		90.1	74-127	P
	Vanadium	ug/Kg	115000	111000		96.3	79-121	P
	Zinc	ug/Kg	594000	548000		92.3	80-121	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1474

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030980								
	Arsenic	mg/kg	104	118		113	78-123	MS
	Beryllium	mg/kg	77.6	82.6		106	84-116	MS
	Nickel	mg/kg	134	147		109	78-123	MS
	Selenium	mg/kg	286	317		111	77-123	MS
	Thallium	mg/kg	121	123		102	78-122	MS
	Uranium	mg/kg	2.13	2.11		99	73-127	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1474 **Client ID** RE15-10-7954L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245806001 **Serial Dilution ID:** 1202029974

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.237		.34	U	100			AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1474 **Client ID** RE15–10–7954L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245806001 **Serial Dilution ID:** 1202030971

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	33700		32400		3.86		10	P
Antimony	50.5		57.5		13.9			P
Barium	489		505		3.27		10	P
Cadmium	1	U	5	U				P
Calcium	11000		11000		.455		10	P
Chromium	135		135		0		10	P
Cobalt	30.9		32.7		5.83			P
Copper	1150		1180		2.17		10	P
Iron	46700		47100		.749		10	P
Lead	2900		2910		.345		10	P
Magnesium	3490		3400		2.72			P
Manganese	1920		2010		4.69		10	P
Potassium	4610		4300		6.83		10	P
Silver	7.68		7.5	J	2.34			P
Sodium	852		492	J	42.3			P
Vanadium	80.5		79		1.86		10	P
Zinc	366		380		3.83		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1474 **Client ID** RE15–10–7954L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245806001 **Serial Dilution ID:** 1202030977

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	7.05		10.7	J	51.8			MS
Beryllium	6.54		7.3		11.6			MS
Nickel	34.3		38.8		13			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.419	J	1.53	J	265			MS
Uranium	403		439		8.93		10	MS

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1474 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948070						
1202030969	MB for batch 948070	MB	S	08–FEB–10	.523g	50mL	
1202030974	LCS for batch 948070	LCS	S	08–FEB–10	.514g	50mL	
1202030972	RE15–10–7954S	MS	S	08–FEB–10	.52g	50mL	
1202030973	RE15–10–7954SD	MSD	S	08–FEB–10	.526g	50mL	
1202030970	RE15–10–7954D	DUP	S	08–FEB–10	.532g	50mL	
245806001	RE15–10–7954	SAMPLE	S	08–FEB–10	.532g	50mL	
245806002	RE15–10–7956	SAMPLE	S	08–FEB–10	.523g	50mL	
245806003	RE15–10–7955	SAMPLE	S	08–FEB–10	.521g	50mL	
245806004	RE15–10–7953	SAMPLE	S	08–FEB–10	.53g	50mL	
245806005	RE15–10–7952	SAMPLE	S	08–FEB–10	.513g	50mL	
245806006	RE15–10–8060	SAMPLE	S	08–FEB–10	.522g	50mL	
245806007	RE15–10–8058	SAMPLE	S	08–FEB–10	.517g	50mL	
245806008	RE15–10–8059	SAMPLE	S	08–FEB–10	.514g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1474 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948072						
1202030975	MB for batch 948072	MB	S	08-FEB-10	.506g	50mL	
1202030980	LCS for batch 948072	LCS	S	08-FEB-10	.515g	50mL	
1202030978	RE15-10-7954S	MS	S	08-FEB-10	.502g	50mL	
1202030979	RE15-10-7954SD	MSD	S	08-FEB-10	.509g	50mL	
1202030976	RE15-10-7954D	DUP	S	08-FEB-10	.504g	50mL	
245806001	RE15-10-7954	SAMPLE	S	08-FEB-10	.507g	50mL	
245806002	RE15-10-7956	SAMPLE	S	08-FEB-10	.517g	50mL	
245806003	RE15-10-7955	SAMPLE	S	08-FEB-10	.523g	50mL	
245806004	RE15-10-7953	SAMPLE	S	08-FEB-10	.521g	50mL	
245806005	RE15-10-7952	SAMPLE	S	08-FEB-10	.532g	50mL	
245806006	RE15-10-8060	SAMPLE	S	08-FEB-10	.534g	50mL	
245806007	RE15-10-8058	SAMPLE	S	08-FEB-10	.515g	50mL	
245806008	RE15-10-8059	SAMPLE	S	08-FEB-10	.512g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1474 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	947648						
1202029970	MB for batch 947648	MB	S	15–FEB–10	.535g	30mL	
1202029971	LCS for batch 947648	LCS	S	15–FEB–10	.209g	30mL	
1202029973	RE15–10–7954S	MS	S	15–FEB–10	.595g	30mL	
1202029975	RE15–10–7954SD	MSD	S	15–FEB–10	.593g	30mL	
1202029972	RE15–10–7954D	DUP	S	15–FEB–10	.504g	30mL	
245806001	RE15–10–7954	SAMPLE	S	15–FEB–10	.524g	30mL	
245806002	RE15–10–7956	SAMPLE	S	15–FEB–10	.572g	30mL	
245806003	RE15–10–7955	SAMPLE	S	15–FEB–10	.544g	30mL	
245806004	RE15–10–7953	SAMPLE	S	15–FEB–10	.562g	30mL	
245806005	RE15–10–7952	SAMPLE	S	15–FEB–10	.521g	30mL	
245806006	RE15–10–8060	SAMPLE	S	15–FEB–10	.5g	30mL	
245806007	RE15–10–8058	SAMPLE	S	15–FEB–10	.501g	30mL	
245806008	RE15–10–8059	SAMPLE	S	15–FEB–10	.508g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 16–FEB–10
End Date: 17–FEB–10

Client Sdg: 10–1474
Method P
Data File: 021610–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:46	X	X		X		X	X	X	X	X				X			X		X	X			X	X
S0.1	1	11:52		X		X		X		X	X	X				X			X		X				X	X
S0.5	1	11:58	X	X		X		X	X	X	X	X				X			X		X				X	X
SCAL	1	12:05	X	X		X		X	X	X	X	X				X			X		X	X			X	X
S10	1	12:13	X						X													X				
ICV01	1	12:18	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ICB01	1	12:25	X	X		X		X	X	X	X	X				X			X		X	X			X	X
PQL01	1	12:32	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ICSA01	1	12:39	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ICSAB01	1	12:45	X	X		X		X	X	X	X	X				X			X		X	X			X	X
LR01	1	12:51	X	X		X		X	X	X	X	X				X			X		X	X			X	X
LR02	1	12:57	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCV01	1	13:04	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB01	1	13:11	X	X		X		X	X	X	X	X				X			X		X	X			X	X
LR03	1	13:19	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCV02	1	13:26	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB02	1	13:33	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	13:49																								
ZZZZZZ	1	13:55																								
ZZZZZZ	1	14:02																								
ZZZZZZ	1	14:10																								
ZZZZZZ	1	14:17																								
ZZZZZZ	5	14:25																								
ZZZZZZ	10	14:32																								
ZZZZZZ	10	14:39																								
ZZZZZZ	10	14:47																								
ZZZZZZ	50	14:54																								
CCV03	1	15:01	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB03	1	15:08	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	50	15:14																								
CCV04	1	15:21	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB04	1	15:28	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCV05	1	15:39	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB05	1	15:46	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	50	15:53																								
ZZZZZZ	5	16:00																								
CCV06	1	16:07	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB06	1	16:14	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCV07	1	16:40	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB07	1	16:47	X	X		X		X	X	X	X	X				X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	16:54																							
ZZZZZZ	1	17:01																							
ZZZZZZ	1	17:07																							
ZZZZZZ	1	17:14																							
ZZZZZZ	1	17:21																							
ZZZZZZ	1	17:28																							
ZZZZZZ	1	17:35																							
CCV08	1	17:42	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB08	1	17:49	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	17:55																							
ZZZZZZ	5	18:02																							
ZZZZZZ	1	18:09																							
ZZZZZZ	1	18:16																							
ZZZZZZ	1	18:23																							
ZZZZZZ	1	18:30																							
ZZZZZZ	1	18:37																							
CCV09	1	18:44	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB09	1	18:51	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	18:58																							
ZZZZZZ	1	19:05																							
ZZZZZZ	1	19:12																							
ZZZZZZ	1	19:19																							
ZZZZZZ	1	19:26																							
ZZZZZZ	1	19:34																							
CCV10	1	19:41	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB10	1	19:48	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	19:54																							
ZZZZZZ	1	20:01																							
ZZZZZZ	1	20:08																							
ZZZZZZ	1	20:15																							
ZZZZZZ	1	20:22																							
ZZZZZZ	1	20:29																							
ZZZZZZ	5	20:36																							
ZZZZZZ	1	20:43																							
ZZZZZZ	1	20:50																							
CCV11	1	20:57	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB11	1	21:04	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	21:10																							
ZZZZZZ	1	21:17																							
ZZZZZZ	1	21:25																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	21:32																								
ZZZZZZ	1	21:39																								
ZZZZZZ	1	21:46																								
ZZZZZZ	1	21:53																								
ZZZZZZ	1	22:00																								
CCV12	1	22:07	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB12	1	22:14	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	22:21																								
ZZZZZZ	1	22:28																								
ZZZZZZ	1	22:34																								
ZZZZZZ	1	22:41																								
ZZZZZZ	1	22:48																								
ZZZZZZ	1	22:55																								
ZZZZZZ	5	23:02																								
ZZZZZZ	1	23:09																								
CCV13	1	23:16	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB13	1	23:23	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	23:30																								
ZZZZZZ	1	23:36																								
ZZZZZZ	1	23:43																								
ZZZZZZ	1	23:50																								
ZZZZZZ	1	23:57																								
ZZZZZZ	1	00:04																								
ZZZZZZ	5	00:11																								
CCV14	1	00:18	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB14	1	00:25	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	00:31																								
ZZZZZZ	1	00:38																								
ZZZZZZ	1	00:46																								
ZZZZZZ	1	00:53																								
ZZZZZZ	1	01:00																								
ZZZZZZ	1	01:07																								
ZZZZZZ	1	01:14																								
CCV15	1	01:21	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB15	1	01:28	X	X		X		X	X	X	X	X				X			X		X	X			X	X
ZZZZZZ	1	01:35																								
ZZZZZZ	1	01:42																								
ZZZZZZ	1	01:49																								
ZZZZZZ	1	01:56																								
ZZZZZZ	1	02:04																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	02:11																							
CCV16	1	02:18	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB16	1	02:25	X	X		X		X	X	X	X	X				X			X		X	X			X	X
1202030969	1	02:32	X	X		X		X	X	X	X	X				X			X		X	X			X	X
1202030974	1	02:38	X	X		X		X	X	X	X	X				X			X		X	X			X	X
245806001	1	02:45	X	X		X		X	X	X	X	X				X			X		X	X			X	X
1202030970	1	02:52	X	X		X		X	X	X	X	X				X			X		X	X			X	X
1202030972	1	02:59	X	X		X		X	X	X	X	X				X			X		X	X			X	X
1202030973	1	03:06	X	X		X		X	X	X	X	X				X			X		X	X			X	X
1202030971	5	03:13	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCV17	1	03:20	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB17	1	03:27	X	X		X		X	X	X	X	X				X			X		X	X			X	X
245806002	1	03:33	X	X		X		X	X	X	X	X				X			X		X	X			X	X
245806003	1	03:41	X	X		X		X	X	X	X	X				X			X		X	X			X	X
245806004	1	03:48	X	X		X		X	X	X	X	X				X			X		X	X			X	X
245806005	1	03:55	X	X		X		X	X	X	X	X				X			X		X	X			X	X
245806006	1	04:02	X	X		X		X	X	X	X	X				X			X		X	X			X	X
245806007	1	04:09	X	X		X		X	X	X	X	X				X			X		X	X			X	X
245806008	1	04:16	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCV18	1	04:23	X	X		X		X	X	X	X	X				X			X		X	X			X	X
CCB18	1	04:30	X	X		X		X	X	X	X	X				X			X		X	X			X	X

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 23-FEB-10 **End Date:** 24-FEB-10

Client Sdg: 10-1474
Method P
Data File: 022310A-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:37											X	X	X											
S0.1	1	10:44												X												
S0.5	1	10:50												X	X											
SCAL	1	10:57											X	X	X											
S10	1	11:04											X		X											
ICV01	1	11:10											X	X	X											
ICB01	1	11:17											X	X	X											
PQL01	1	11:23											X	X	X											
ICSA01	1	11:30											X	X	X											
ICSAB01	1	11:37											X	X	X											
LR01	1	11:43											X	X	X											
LR02	1	11:50											X	X	X											
CCV01	1	11:57											X	X	X											
CCB01	1	12:04											X	X	X											
LR03	1	12:18											X	X	X											
CCV02	1	12:25											X	X	X											
CCB02	1	12:32											X	X	X											
ZZZZZZ	50	12:49																								
ZZZZZZ	100	12:56																								
CCV03	1	13:03											X	X	X											
CCB03	1	13:10											X	X	X											
ZZZZZZ	10	13:17																								
ZZZZZZ	10	13:24																								
ZZZZZZ	10	13:31																								
ZZZZZZ	10	13:38																								
ZZZZZZ	50	13:45																								
ZZZZZZ	10	13:52																								
ZZZZZZ	10	13:59																								
CCV04	1	14:04											X	X	X											
CCB04	1	14:11											X	X	X											
1202030969	1	14:19											X	X	X											
1202030974	1	14:26											X	X	X											
245806001	2	14:32											X	X	X											
1202030970	2	14:39											X	X	X											
1202030972	2	14:46											X	X	X											
1202030973	2	14:52											X	X	X											
1202030971	10	14:59											X	X	X											
CCV05	1	15:06											X	X	X											
CCB05	1	15:13											X	X	X											
ZZZZZZ	2	15:20																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																									
245806003	2	15:27										X	X	X													
245806004	2	15:34										X		X													
ZZZZZZ	2	15:41																									
245806006	2	15:48										X	X	X													
245806007	2	15:55										X	X	X													
ZZZZZZ	2	16:02																									
CCV06	1	16:09										X	X	X													
CCB06	1	16:16										X	X	X													
CCV07	1	16:57										X	X	X													
CCB07	1	17:04										X	X	X													
CCV08	1	17:25										X	X	X													
CCB08	1	17:32										X	X	X													
ZZZZZZ	2	17:39																									
245806004	100	17:46											X														
245806005	2	17:53										X	X	X													
245806008	2	17:59										X	X	X													
ZZZZZZ	5	18:06																									
ZZZZZZ	5	18:13																									
ZZZZZZ	5	18:20																									
ZZZZZZ	5	18:26																									
ZZZZZZ	25	18:33																									
CCV09	1	18:40										X	X	X													
CCB09	1	18:47										X	X	X													
ZZZZZZ	2	18:54																									
ZZZZZZ	2	19:01																									
ZZZZZZ	2	19:07																									
ZZZZZZ	2	19:14																									
ZZZZZZ	10	19:21																									
ZZZZZZ	2	19:28																									
ZZZZZZ	2	19:35																									
ZZZZZZ	2	19:42																									
ZZZZZZ	2	19:48																									
CCV10	1	19:55										X	X	X													
CCB10	1	20:02										X	X	X													
ZZZZZZ	1	20:09																									
ZZZZZZ	1	20:16																									
ZZZZZZ	100	20:23																									
ZZZZZZ	100	20:30																									
ZZZZZZ	100	20:37																									
ZZZZZZ	100	20:44																									

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	100	20:51																								
ZZZZZZ	500	20:58																								
ZZZZZZ	100	21:05																								
CCV11	1	21:12											X	X	X											
CCB11	1	21:19											X	X	X											
ZZZZZZ	10	21:26																								
ZZZZZZ	10	21:33																								
ZZZZZZ	10	21:40																								
ZZZZZZ	10	21:47																								
ZZZZZZ	5	21:54																								
ZZZZZZ	5	22:01																								
ZZZZZZ	5	22:07																								
ZZZZZZ	25	22:14																								
CCV12	1	22:21											X	X	X											
CCB12	1	22:28											X	X	X											
ZZZZZZ	5	22:35																								
ZZZZZZ	5	22:42																								
ZZZZZZ	5	22:48																								
ZZZZZZ	5	22:55																								
ZZZZZZ	5	23:02																								
CCV13	1	23:09											X	X	X											
CCB13	1	23:16											X	X	X											
ZZZZZZ	1	23:23																								
ZZZZZZ	1	23:30																								
ZZZZZZ	1	23:36																								
ZZZZZZ	100	23:43																								
ZZZZZZ	500	23:50																								
ZZZZZZ	100	23:57																								
CCV14	1	00:05											X	X	X											
CCB14	1	00:12											X	X	X											
ZZZZZZ	1	00:18																								
ZZZZZZ	1	00:25																								
ZZZZZZ	1	00:32																								
ZZZZZZ	1	00:39																								
ZZZZZZ	1	00:46																								
ZZZZZZ	1	00:53																								
ZZZZZZ	5	01:00																								
CCV15	1	01:06											X	X	X											
CCB15	1	01:13											X	X	X											
ZZZZZZ	1	01:20																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	01:27																							
ZZZZZZ	100	01:34																							
ZZZZZZ	100	01:41																							
ZZZZZZ	100	01:48																							
ZZZZZZ	500	01:55																							
ZZZZZZ	100	02:01																							
ZZZZZZ	10	02:08																							
ZZZZZZ	10	02:15																							
CCV16	1	02:22										X	X	X											
CCB16	1	02:29										X	X	X											
ZZZZZZ	1	02:36																							
ZZZZZZ	1	02:42																							
ZZZZZZ	1	02:49																							
ZZZZZZ	1	02:56																							
ZZZZZZ	1	03:03																							
ZZZZZZ	5	03:10																							
ZZZZZZ	1	03:17																							
CCV17	1	03:23										X	X	X											
CCB17	1	03:31										X	X	X											
ZZZZZZ	1	03:38																							
ZZZZZZ	1	03:45																							
ZZZZZZ	1	03:52																							
ZZZZZZ	1	03:58																							
ZZZZZZ	1	04:05																							
ZZZZZZ	5	04:12																							
ZZZZZZ	1	04:19																							
ZZZZZZ	1	04:26																							
CCV18	1	04:33										X	X	X											
CCB18	1	04:40										X	X	X											
ZZZZZZ	1	04:47																							
ZZZZZZ	1	04:54																							
ZZZZZZ	1	05:01																							
ZZZZZZ	1	05:08																							
ZZZZZZ	1	05:15																							
ZZZZZZ	1	05:22																							
ZZZZZZ	1	05:29																							
ZZZZZZ	1	05:36																							
ZZZZZZ	5	05:43																							
CCV19	1	05:51										X	X	X											
CCB19	1	05:58										X	X	X											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
CCV20	1	06:17											X	X	X											
CCB20	1	06:24											X	X	X											
ZZZZZZ	1	06:39																								
ZZZZZZ	1	06:46																								
ZZZZZZ	1	06:53																								
ZZZZZZ	1	07:00																								
ZZZZZZ	1	07:07																								
ZZZZZZ	1	07:13																								
ZZZZZZ	1	07:20																								
ZZZZZZ	1	07:27																								
ZZZZZZ	5	07:34																								
CCV21	1	07:41											X	X	X											
CCB21	1	07:48											X	X	X											
ZZZZZZ	1	07:54																								
ZZZZZZ	1	08:01																								
ZZZZZZ	1	08:07																								
ZZZZZZ	1	08:15																								
ZZZZZZ	1	08:22																								
ZZZZZZ	1	08:29																								
ZZZZZZ	1	08:36																								
ZZZZZZ	5	08:42																								
24580600~~1~~2	2	08:48											X	X	X											
CCV22	1	08:55											X	X	X											
CCB22	1	09:02											X	X	X											

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 16-FEB-10
End Date: 16-FEB-10
Client Sdg: 10-1474
Method AV
Data File: 021610S2-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:49															X									
S0.2	1	08:51															X									
S0.5	1	08:53															X									
S2.0	1	08:55															X									
S5.0	1	08:57															X									
S10	1	08:59															X									
ICV01	1	09:01															X									
ICB01	1	09:03															X									
CRDL01	1	09:05															X									
CCV01	1	09:07															X									
CCB01	1	09:09															X									
1202029970	1	09:11															X									
1202029971	10	09:13															X									
ZZZZZZ	1	09:15																								
ZZZZZZ	1	09:17																								
ZZZZZZ	1	09:19																								
ZZZZZZ	1	09:21																								
ZZZZZZ	1	09:23																								
ZZZZZZ	1	09:25																								
ZZZZZZ	1	09:27																								
ZZZZZZ	1	09:28																								
CCV02	1	09:30															X									
CCB02	1	09:33															X									
ZZZZZZ	1	09:35																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
245806001	1	09:40															X									
1202029972	1	09:42															X									
1202029973	1	09:44															X									
1202029975	1	09:46															X									
1202029974	5	09:48															X									
245806002	1	09:51															X									
245806003	1	09:53															X									
CCV03	1	09:55															X									
CCB03	1	09:57															X									
245806004	1	09:59															X									
245806005	1	10:01															X									
245806006	1	10:02															X									
245806007	1	10:04															X									
245806008	1	10:06															X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:08																							
ZZZZZZ	10	10:10																							
CCV04	1	10:14													X										
CCB04	1	10:16													X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 18–FEB–10 **End Date:** 19–FEB–10

Client Sdg: 10–1474
Method MS
Data File: 100218–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	23:02			X													X		X			X	X		
S10	1	23:06			X													X		X			X	X		
S100	1	23:10			X													X		X			X	X		
ICV01	1	23:14			X													X		X			X	X		
ICB01	1	23:18			X													X		X			X	X		
CRDL01	1	23:23			X													X		X			X	X		
ICSA01	1	23:27			X													X		X			X	X		
ICSAB01	1	23:31			X													X		X			X	X		
CCV01	1	23:35			X													X		X			X	X		
CCB01	1	23:39			X													X		X			X	X		
LR01	1	23:43			X													X		X			X	X		
CCV02	1	23:47			X													X		X			X	X		
CCB02	1	23:51			X													X		X			X	X		
1202030975	2	23:56			X													X		X			X	X		
1202030980	40	00:00			X													X		X			X	X		
CCV03	1	00:04			X													X		X			X	X		
CCB03	1	00:08			X													X		X			X	X		
245806001	2	00:12			X													X		X			X	X		
1202030976	2	00:16			X													X		X			X	X		
1202030978	2	00:21			X													X		X			X	X		
1202030979	2	00:25			X													X		X			X	X		
1202030977	10	00:29			X													X		X			X	X		
CCV04	1	00:33			X													X		X			X	X		
CCB04	1	00:37			X													X		X			X	X		
245806002	2	00:42			X													X		X			X	X		
245806003	2	00:46			X													X		X			X	X		
245806004	2	00:50			X													X		X			X	X		
245806005	2	00:54			X													X		X			X	X		
CCV05	1	00:58			X													X		X			X	X		
CCB05	1	01:02			X													X		X			X	X		
245806006	2	01:07			X													X		X			X	X		
245806007	2	01:11			X													X		X			X	X		
245806008	2	01:15			X													X		X			X	X		
CCV06	1	01:19			X													X		X			X	X		
CCB06	1	01:23			X													X		X			X	X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 19-FEB-10
End Date: 19-FEB-10

Client Sdg: 10-1474
Method MS
Data File: 100219-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:11					X																			
S10	1	14:14					X																			
S100	1	14:16					X																			
ICV01	1	14:18					X																			
ICB01	1	14:20					X																			
CRDL01	1	14:22					X																			
ICSA01	1	14:24					X																			
ICSAB01	1	14:27					X																			
CCV01	1	14:29					X																			
CCB01	1	14:31					X																			
1202030975	2	14:33					X																			
1202030980	40	14:36					X																			
CCV02	1	14:38					X																			
CCB02	1	14:40					X																			
245806001	2	14:42					X																			
1202030976	2	14:45					X																			
1202030978	2	14:47					X																			
1202030979	2	14:49					X																			
CCV03	1	14:51					X																			
CCB03	1	14:54					X																			
1202030977	10	14:56					X																			
245806002	2	14:58					X																			
245806003	2	15:00					X																			
245806004	2	15:03					X																			
CCV04	1	15:05					X																			
CCB04	1	15:07					X																			
245806005	2	15:10					X																			
245806006	2	15:12					X																			
245806007	2	15:14					X																			
245806008	2	15:16					X																			
CCV05	1	15:19					X																			
CCB05	1	15:21					X																			

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1474

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1474

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1474

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1474

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1474

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 022410

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

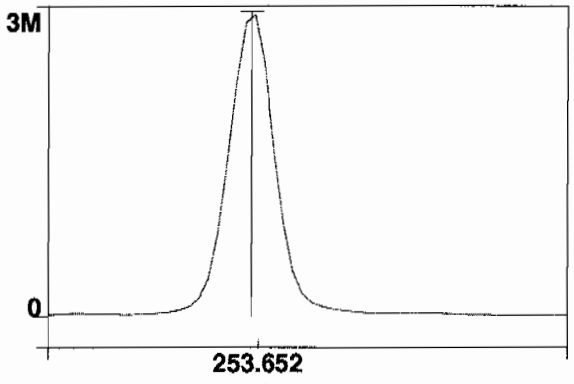

Intensity: 3241444.2 cps
Conc:

1

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Analysis Begun

Start Time: 2/16/2010 11:46:01 **Plasma On Time: 2/15/2010 05:50:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021610.sif
Batch ID:
Results Data Set: 021610
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/16/2010 09:05:05**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/16/2010 11:46:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4341.7	4341.7	0.000	%	11:47:55
1	Y RADIAL	4471.4	4471.4	0.000	%	11:47:55
1	Al 396.153Radial†	-175[illegible]8	-172.2	[0.00]	ug/L	11:47:55

1	Ca 317.933Radial†	14.1	13.8	[0.00] ug/L	11:48:15
1	Fe 238.204 Radial†	10.4	10.1	[0.00] ug/L	11:48:15
1	K 766.490 Radial†	3248.0	3180.1	[0.00] ug/L	11:47:55
1	Mg 279.077 IEC†	2.3	2.3	[0.00] ug/L	11:48:15
1	Na 589.592 Radial†	227.6	222.9	[0.00] ug/L	11:47:55
1	Sr 421.552†	86.7	84.9	[0.00] ug/L	11:47:55
1	Sc 361.383	848751.5	848751.5	0.0000 %	11:49:12
1	Y 371.029	702201.4	702201.4	0.0000 %	11:49:12
1	Ag 328.068†	164.7	165.0	[0.00] ug/L	11:49:12
1	As 188.979†	-27.6	-27.7	[0.00] ug/L	11:49:32
1	B 249.677†	-476.2	-476.9	[0.00] ug/L	11:49:32
1	Ba 233.527†	15.5	15.6	[0.00] ug/L	11:49:32
1	Be 313.107†	-4361.6	-4368.1	[0.00] ug/L	11:49:12
1	Cd 226.502†	-190.4	-190.6	[0.00] ug/L	11:49:32
1	Co 228.616†	-82.2	-82.3	[0.00] ug/L	11:49:32
1	Cr 267.716†	153.6	153.9	[0.00] ug/L	11:49:32
1	Cu 324.752†	8084.8	8096.8	[0.00] ug/L	11:49:12
1	Mn 257.610†	580.8	581.6	[0.00] ug/L	11:49:32
1	Mo 202.031†	4.3	4.3	[0.00] ug/L	11:49:32
1	Ni 231.604†	117.0	117.1	[0.00] ug/L	11:49:32
1	P 214.914†	232.7	233.1	[0.00] ug/L	11:49:32
1	Pb 220.353†	-75.2	-75.3	[0.00] ug/L	11:49:32
1	S 181.975 Axial†	40.3	40.4	[0.00] ug/L	11:49:32
1	Sb 206.836†	37.8	37.9	[0.00] ug/L	11:49:32
1	Se 196.026†	-21.6	-21.6	[0.00] ug/L	11:49:32
1	Si 251.611†	615.7	616.6	[0.00] ug/L	11:49:32
1	Sn 189.927†	8.5	8.6	[0.00] ug/L	11:49:32
1	Ti 334.940†	-1519.3	-1521.6	[0.00] ug/L	11:49:12
1	Tl 190.801†	-32.6	-32.6	[0.00] ug/L	11:49:32
1	U 409.014†	-3456.7	-3461.8	[0.00] ug/L	11:49:12
1	V 292.402†	-1680.9	-1683.4	[0.00] ug/L	11:49:12
1	Zn 213.857†	686.4	687.4	[0.00] ug/L	11:49:32
1	SiO2†	600.5	601.4	[0.00] ug/L	11:50:28
2	Sc Radial	4353.2	4353.2	0.000 %	11:48:21
2	Y RADIAL	4521.0	4521.0	0.000 %	11:48:21
2	Al 396.153Radial†	-171.5	-167.5	[0.00] ug/L	11:48:21
2	Ca 317.933Radial†	22.1	21.6	[0.00] ug/L	11:48:41
2	Fe 238.204 Radial†	11.0	10.7	[0.00] ug/L	11:48:41
2	K 766.490 Radial†	3106.4	3033.4	[0.00] ug/L	11:48:21
2	Mg 279.077 IEC†	2.0	1.9	[0.00] ug/L	11:48:41
2	Na 589.592 Radial†	203.0	198.2	[0.00] ug/L	11:48:21
2	Sr 421.552†	95.1	92.9	[0.00] ug/L	11:48:21
2	Sc 361.383	851402.3	851402.3	0.0000 %	11:49:38
2	Y 371.029	703154.2	703154.2	0.0000 %	11:49:38
2	Ag 328.068†	216.7	216.3	[0.00] ug/L	11:49:38
2	As 188.979†	-27.2	-27.1	[0.00] ug/L	11:49:58
2	B 249.677†	-471.0	-470.2	[0.00] ug/L	11:49:58
2	Ba 233.527†	17.0	17.0	[0.00] ug/L	11:49:58
2	Be 313.107†	-4386.4	-4379.3	[0.00] ug/L	11:49:38
2	Cd 226.502†	-197.4	-197.1	[0.00] ug/L	11:49:58
2	Co 228.616†	-80.6	-80.5	[0.00] ug/L	11:49:58
2	Cr 267.716†	148.4	148.2	[0.00] ug/L	11:49:58
2	Cu 324.752†	8157.3	8143.9	[0.00] ug/L	11:49:38
2	Mn 257.610†	571.2	570.3	[0.00] ug/L	11:49:58
2	Mo 202.031†	12.0	12.0	[0.00] ug/L	11:49:58
2	Ni 231.604†	118.8	118.6	[0.00] ug/L	11:49:58
2	P 214.914†	248.5	248.1	[0.00] ug/L	11:49:58
2	Pb 220.353†	-71.0	-70.9	[0.00] ug/L	11:49:58
2	S 181.975 Axial†	38.5	38.4	[0.00] ug/L	11:49:58
2	Sb 206.836†	44.0	43.9	[0.00] ug/L	11:49:58
2	Se 196.026†	-27.3	-27.3	[0.00] ug/L	11:49:58
2	Si 251.611†	610.7	609.7	[0.00] ug/L	11:49:58
2	Sn 189.927†	9.0	9.0	[0.00] ug/L	11:49:58
2	Ti 334.940†	-1445.2	-1442.8	[0.00] ug/L	11:49:38
2	Tl 190.801†	-38.7	-38.6	[0.00] ug/L	11:49:58
2	U 409.014†	-3487.1	-3481.4	[0.00] ug/L	11:49:38
2	V 292.402†	-1613.1	-1610.4	[0.00] ug/L	11:49:38
2	Zn 213.857†	685.3	684.2	[0.00] ug/L	11:49:58
2	SiO2†	596.6	595.6	[0.00] ug/L	11:50:33
3	Sc Radial	4057.8	4057.8	0.000 %	11:48:46
3	Y RADIAL	4214.3	4214.3	0.000 %	11:48:46

3	Al 396.153Radial†	-131.2	-137.4	[0.00] ug/L	11:48:46
3	Ca 317.933Radial†	18.7	19.6	[0.00] ug/L	11:49:06
3	Fe 238.204 Radial†	8.9	9.3	[0.00] ug/L	11:49:06
3	K 766.490 Radial†	3151.4	3301.3	[0.00] ug/L	11:48:46
3	Mg 279.077 IEC†	3.7	3.9	[0.00] ug/L	11:49:06
3	Na 589.592 Radial†	191.0	200.1	[0.00] ug/L	11:48:46
3	Sr 421.552†	87.5	91.6	[0.00] ug/L	11:48:46
3	Sc 361.383	849872.6	849872.6	0.0000 %	11:50:03
3	Y 371.029	702829.5	702829.5	0.0000 %	11:50:03
3	Ag 328.068†	301.7	301.8	[0.00] ug/L	11:50:03
3	As 188.979†	-30.1	-30.1	[0.00] ug/L	11:50:23
3	B 249.677†	-498.5	-498.6	[0.00] ug/L	11:50:23
3	Ba 233.527†	24.0	24.0	[0.00] ug/L	11:50:23
3	Be 313.107†	-4269.3	-4270.0	[0.00] ug/L	11:50:03
3	Cd 226.502†	-198.7	-198.7	[0.00] ug/L	11:50:23
3	Co 228.616†	-73.8	-73.8	[0.00] ug/L	11:50:23
3	Cr 267.716†	147.0	147.0	[0.00] ug/L	11:50:23
3	Cu 324.752†	8040.3	8041.6	[0.00] ug/L	11:50:03
3	Mn 257.610†	557.3	557.4	[0.00] ug/L	11:50:23
3	Mo 202.031†	15.0	15.0	[0.00] ug/L	11:50:23
3	Ni 231.604†	104.8	104.8	[0.00] ug/L	11:50:23
3	P 214.914†	244.7	244.8	[0.00] ug/L	11:50:23
3	Pb 220.353†	-74.4	-74.5	[0.00] ug/L	11:50:23
3	S 181.975 Axial†	49.9	49.9	[0.00] ug/L	11:50:23
3	Sb 206.836†	25.2	25.2	[0.00] ug/L	11:50:23
3	Se 196.026†	-21.1	-21.1	[0.00] ug/L	11:50:23
3	Si 251.611†	610.6	610.7	[0.00] ug/L	11:50:23
3	Sn 189.927†	20.3	20.3	[0.00] ug/L	11:50:23
3	Ti 334.940†	-1514.1	-1514.3	[0.00] ug/L	11:50:03
3	Tl 190.801†	-46.1	-46.1	[0.00] ug/L	11:50:23
3	U 409.014†	-3601.8	-3602.3	[0.00] ug/L	11:50:03
3	V 292.402†	-1737.8	-1738.1	[0.00] ug/L	11:50:03
3	Zn 213.857†	691.5	691.7	[0.00] ug/L	11:50:23
3	SiO2†	661.5	661.6	[0.00] ug/L	11:50:38

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	850008.8	1330.66	0.16%	0.0000	%
Sc Radial	4250.9	167.29	3.94%	0.000	%
Y 371.029	702728.4	484.42	0.07%	0.0000	%
Y RADIAL	4402.2	164.65	3.74%	0.000	%
Ag 328.068†	227.7	69.10	30.35%	[0.00]	ug/L
Al 396.153Radial†	-159.0	18.85	11.85%	[0.00]	ug/L
As 188.979†	-28.3	1.59	5.63%	[0.00]	ug/L
B 249.677†	-481.9	14.85	3.08%	[0.00]	ug/L
Ba 233.527†	18.8	4.53	24.06%	[0.00]	ug/L
Be 313.107†	-4339.1	60.13	1.39%	[0.00]	ug/L
Ca 317.933Radial†	18.3	4.03	22.00%	[0.00]	ug/L
Cd 226.502†	-195.5	4.27	2.19%	[0.00]	ug/L
Co 228.616†	-78.9	4.49	5.70%	[0.00]	ug/L
Cr 267.716†	149.7	3.66	2.45%	[0.00]	ug/L
Cu 324.752†	8094.1	51.19	0.63%	[0.00]	ug/L
Fe 238.204 Radial†	10.1	0.70	7.00%	[0.00]	ug/L
K 766.490 Radial†	3171.6	134.15	4.23%	[0.00]	ug/L
Mg 279.077 IEC†	2.7	1.06	38.89%	[0.00]	ug/L
Mn 257.610†	569.7	12.13	2.13%	[0.00]	ug/L
Mo 202.031†	10.5	5.52	52.76%	[0.00]	ug/L
Na 589.592 Radial†	207.1	13.71	6.62%	[0.00]	ug/L
Ni 231.604†	113.5	7.61	6.71%	[0.00]	ug/L
P 214.914†	242.0	7.90	3.27%	[0.00]	ug/L
Pb 220.353†	-73.6	2.33	3.17%	[0.00]	ug/L
S 181.975 Axial†	42.9	6.12	14.26%	[0.00]	ug/L
Sb 206.836†	35.7	9.55	26.76%	[0.00]	ug/L
Se 196.026†	-23.3	3.45	14.79%	[0.00]	ug/L
Si 251.611†	612.3	3.77	0.62%	[0.00]	ug/L
Sn 189.927†	12.6	6.63	52.56%	[0.00]	ug/L
Sr 421.552†	89.8	4.28	4.76%	[0.00]	ug/L
Ti 334.940†	-1492.9	43.54	2.92%	[0.00]	ug/L
Tl 190.801†	-39.1	6.75	17.25%	[0.00]	ug/L

U 409.014†	-3515.2	76.12	2.17%	[0.00] ug/L
V 292.402†	-1677.3	64.04	3.82%	[0.00] ug/L
Zn 213.857†	687.8	3.75	0.54%	[0.00] ug/L
SiO2†	619.5	36.53	5.90%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/16/2010 11:52:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4326.7	4326.7	102	%	11:54:47
1	Y RADIAL	4475.5	4475.5	101.7	%	11:54:47
1	K 766.490 Radial†	8282.3	4965.6	[1000]	ug/L	11:54:42
1	Sr 421.552†	13230.3	12908.7	[100]	ug/L	11:54:47
1	Sc 361.383	857644.3	857644.3	100.90	%	11:55:14
1	Y 371.029	706605.2	706605.2	100.55	%	11:55:14
1	Ag 328.068†	21213.1	20796.6	[100]	ug/L	11:55:14
1	As 188.979†	204.3	230.8	[100]	ug/L	11:55:34
1	B 249.677†	3602.8	4052.6	[100]	ug/L	11:55:14
1	Ba 233.527†	12531.5	12401.1	[100]	ug/L	11:55:14
1	Be 313.107†	269412.1	271352.7	[100]	ug/L	11:55:14
1	Cd 226.502†	8455.7	8575.9	[100]	ug/L	11:55:14
1	Co 228.616†	4621.3	4659.0	[100]	ug/L	11:55:34
1	Cr 267.716†	8768.1	8540.4	[100]	ug/L	11:55:14
1	Cu 324.752†	40432.8	31978.7	[100]	ug/L	11:55:14
1	Mn 257.610†	89563.0	88195.9	[100]	ug/L	11:55:14
1	Mo 202.031†	1344.8	1322.4	[100]	ug/L	11:55:34
1	Ni 231.604†	4108.5	3958.4	[100]	ug/L	11:55:14
1	P 214.914†	1121.5	869.6	[500]	ug/L	11:55:34
1	Pb 220.353†	730.7	797.8	[100]	ug/L	11:55:34
1	S 181.975 Axial†	200.6	155.9	[200]	ug/L	11:55:34
1	Sb 206.836†	322.2	283.6	[100]	ug/L	11:55:34
1	Se 196.026†	145.8	167.9	[100]	ug/L	11:55:34
1	Si 251.611†	16657.9	15897.3	[500]	ug/L	11:55:14
1	Sn 189.927†	556.8	539.2	[100]	ug/L	11:55:34
1	Ti 334.940†	61039.2	61988.6	[100]	ug/L	11:55:14
1	Tl 190.801†	283.9	320.5	[100]	ug/L	11:55:34
1	U 409.014†	229.5	3742.7	[100]	ug/L	11:55:14
1	V 292.402†	12039.9	13610.0	[100]	ug/L	11:55:14
1	Zn 213.857†	11119.5	10332.7	[100]	ug/L	11:55:14
1	SiO2†	16613.6	15846.2	[1069.5]	ug/L	11:56:30
2	Sc Radial	4389.6	4389.6	103	%	11:54:57
2	Y RADIAL	4530.3	4530.3	102.9	%	11:54:57
2	K 766.490 Radial†	8310.2	4876.1	[1000]	ug/L	11:54:52
2	Sr 421.552†	13344.8	12833.4	[100]	ug/L	11:54:57
2	Sc 361.383	851136.1	851136.1	100.13	%	11:55:39
2	Y 371.029	701838.8	701838.8	99.873	%	11:55:39
2	Ag 328.068†	20948.1	20692.7	[100]	ug/L	11:55:39
2	As 188.979†	200.6	228.6	[100]	ug/L	11:55:59
2	B 249.677†	3537.7	4014.9	[100]	ug/L	11:55:39
2	Ba 233.527†	12459.9	12424.5	[100]	ug/L	11:55:39
2	Be 313.107†	267429.2	271414.1	[100]	ug/L	11:55:39
2	Cd 226.502†	8399.7	8584.0	[100]	ug/L	11:55:39
2	Co 228.616†	4630.3	4703.0	[100]	ug/L	11:55:59
2	Cr 267.716†	8692.9	8531.7	[100]	ug/L	11:55:39
2	Cu 324.752†	40067.1	31919.9	[100]	ug/L	11:55:39
2	Mn 257.610†	88973.7	88286.1	[100]	ug/L	11:55:39
2	Mo 202.031†	1353.9	1341.7	[100]	ug/L	11:55:59
2	Ni 231.604†	4090.4	3971.5	[100]	ug/L	11:55:39
2	P 214.914†	1132.4	888.9	[500]	ug/L	11:55:59
2	Pb 220.353†	735.4	808.0	[100]	ug/L	11:55:59
2	S 181.975 Axial†	202.9	159.7	[200]	ug/L	11:55:59
2	Sb 206.836†	330.1	294.0	[100]	ug/L	11:55:59
2	Se 196.026†	149.0	172.1	[100]	ug/L	11:55:59
2	Si 251.611†	16475.5	15841.3	[500]	ug/L	11:55:39
2	Sn 189.927†	561.8	548.4	[100]	ug/L	11:55:59
2	Ti 334.940†	60616.0	62028.6	[100]	ug/L	11:55:39
2	Tl 190.801†	282.6	321.3	[100]	ug/L	11:55:59
2	U 409.014†	-139.6	3375.8	[100]	ug/L	11:55:39

2	V 292.402†	11905.3	13566.9	[100]	ug/L	11:55:39
2	Zn 213.857†	10978.5	10276.2	[100]	ug/L	11:55:39
2	SiO2†	16528.8	15887.4	[1069.5]	ug/L	11:56:35
3	Sc Radial	4340.9	4340.9	102	%	11:55:07
3	Y RADIAL	4482.8	4482.8	101.8	%	11:55:07
3	K 766.490 Radial†	8248.8	4906.1	[1000]	ug/L	11:55:02
3	Sr 421.552†	13137.1	12774.7	[100]	ug/L	11:55:07
3	Sc 361.383	857800.6	857800.6	100.92	%	11:56:05
3	Y 371.029	706558.2	706558.2	100.54	%	11:56:05
3	Ag 328.068†	21197.6	20777.4	[100]	ug/L	11:56:05
3	As 188.979†	215.2	241.5	[100]	ug/L	11:56:25
3	B 249.677†	3596.7	4045.9	[100]	ug/L	11:56:05
3	Ba 233.527†	12531.9	12399.2	[100]	ug/L	11:56:05
3	Be 313.107†	269021.5	270917.0	[100]	ug/L	11:56:05
3	Cd 226.502†	8433.2	8552.1	[100]	ug/L	11:56:05
3	Co 228.616†	4661.4	4697.9	[100]	ug/L	11:56:25
3	Cr 267.716†	8712.0	8483.2	[100]	ug/L	11:56:05
3	Cu 324.752†	40490.2	32028.3	[100]	ug/L	11:56:05
3	Mn 257.610†	89778.5	88393.3	[100]	ug/L	11:56:05
3	Mo 202.031†	1371.9	1349.0	[100]	ug/L	11:56:25
3	Ni 231.604†	4020.2	3870.2	[100]	ug/L	11:56:05
3	P 214.914†	1102.9	850.9	[500]	ug/L	11:56:25
3	Pb 220.353†	739.7	806.5	[100]	ug/L	11:56:25
3	S 181.975 Axial†	197.0	152.3	[200]	ug/L	11:56:25
3	Sb 206.836†	334.0	295.3	[100]	ug/L	11:56:25
3	Se 196.026†	143.8	165.8	[100]	ug/L	11:56:25
3	Si 251.611†	16592.5	15829.4	[500]	ug/L	11:56:05
3	Sn 189.927†	573.4	555.6	[100]	ug/L	11:56:25
3	Ti 334.940†	61178.7	62115.9	[100]	ug/L	11:56:05
3	Tl 190.801†	275.5	312.1	[100]	ug/L	11:56:25
3	U 409.014†	-76.2	3439.6	[100]	ug/L	11:56:05
3	V 292.402†	11980.2	13548.7	[100]	ug/L	11:56:05
3	Zn 213.857†	11104.4	10315.8	[100]	ug/L	11:56:05
3	SiO2†	16392.7	15624.3	[1069.5]	ug/L	11:56:40

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	855527.0	3803.40	0.44%	100.65	%
Sc Radial	4352.4	32.96	0.76%	102	%
Y 371.029	705000.7	2738.39	0.39%	100.32	%
Y RADIAL	4496.2	29.77	0.66%	102.1	%
Ag 328.068†	20755.6	55.29	0.27%	[100]	ug/L
As 188.979†	233.6	6.92	2.96%	[100]	ug/L
B 249.677†	4037.8	20.12	0.50%	[100]	ug/L
Ba 233.527†	12408.3	14.12	0.11%	[100]	ug/L
Be 313.107†	271227.9	271.05	0.10%	[100]	ug/L
Cd 226.502†	8570.7	16.60	0.19%	[100]	ug/L
Co 228.616†	4686.6	24.06	0.51%	[100]	ug/L
Cr 267.716†	8518.4	30.80	0.36%	[100]	ug/L
Cu 324.752†	31975.6	54.25	0.17%	[100]	ug/L
K 766.490 Radial†	4915.9	45.56	0.93%	[1000]	ug/L
Mn 257.610†	88291.7	98.84	0.11%	[100]	ug/L
Mo 202.031†	1337.7	13.74	1.03%	[100]	ug/L
Ni 231.604†	3933.3	55.08	1.40%	[100]	ug/L
P 214.914†	869.8	19.02	2.19%	[500]	ug/L
Pb 220.353†	804.1	5.53	0.69%	[100]	ug/L
S 181.975 Axial†	156.0	3.73	2.39%	[200]	ug/L
Sb 206.836†	291.0	6.37	2.19%	[100]	ug/L
Se 196.026†	168.6	3.20	1.90%	[100]	ug/L
Si 251.611†	15856.0	36.24	0.23%	[500]	ug/L
Sn 189.927†	547.7	8.19	1.50%	[100]	ug/L
Sr 421.552†	12838.9	67.16	0.52%	[100]	ug/L
Ti 334.940†	62044.4	65.06	0.10%	[100]	ug/L
Tl 190.801†	317.9	5.10	1.60%	[100]	ug/L
U 409.014†	3519.4	196.00	5.57%	[100]	ug/L
V 292.402†	13575.2	31.49	0.23%	[100]	ug/L
Zn 213.857†	10308.3	29.01	0.28%	[100]	ug/L
SiO2†	15786.0	141.51	0.90%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/16/2010 11:58:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4330.2	4330.2	102	%	12:00:44
1	Y RADIAL	4422.8	4422.8	100.5	%	12:00:44
1	Al 396.153Radial†	4894.9	4964.3	[5000]	ug/L	12:00:44
1	Ca 317.933Radial†	2794.1	2724.6	[5000]	ug/L	12:01:04
1	K 766.490 Radial†	28169.5	24482.0	[5000]	ug/L	12:00:44
1	Mg 279.077 IEC†	139.1	133.9	[5000]	ug/L	12:01:04
1	Sr 421.552†	66095.4	64795.1	[500]	ug/L	12:00:44
1	Sc 361.383	866347.8	866347.8	101.92	%	12:02:01
1	Y 371.029	705393.8	705393.8	100.38	%	12:02:01
1	Ag 328.068†	102655.0	100491.3	[500]	ug/L	12:02:06
1	As 188.979†	1145.3	1152.0	[500]	ug/L	12:02:26
1	B 249.677†	20124.2	20226.6	[500]	ug/L	12:02:06
1	Ba 233.527†	60693.3	59529.8	[500]	ug/L	12:02:06
1	Be 313.107†	1364703.3	1343304.7	[500]	ug/L	12:02:01
1	Cd 226.502†	41966.3	41370.3	[500]	ug/L	12:02:06
1	Co 228.616†	23476.8	23112.9	[500]	ug/L	12:02:06
1	Cr 267.716†	42389.5	41440.4	[500]	ug/L	12:02:06
1	Cu 324.752†	167280.7	156031.8	[500]	ug/L	12:02:06
1	Mn 257.610†	437426.4	428607.0	[500]	ug/L	12:02:01
1	Mo 202.031†	6700.2	6563.4	[500]	ug/L	12:02:26
1	Ni 231.604†	19416.7	18937.0	[500]	ug/L	12:02:06
1	P 214.914†	4699.9	4369.3	[2500]	ug/L	12:02:26
1	Pb 220.353†	3937.6	3936.9	[500]	ug/L	12:02:26
1	S 181.975 Axial†	799.5	741.5	[1000]	ug/L	12:02:26
1	Sb 206.836†	1500.5	1436.5	[500]	ug/L	12:02:26
1	Se 196.026†	836.3	843.8	[500]	ug/L	12:02:26
1	Si 251.611†	79738.1	77621.9	[2500]	ug/L	12:02:06
1	Sn 189.927†	2773.0	2708.1	[500]	ug/L	12:02:26
1	Ti 334.940†	300130.6	295963.2	[500]	ug/L	12:02:06
1	Tl 190.801†	1537.1	1547.3	[500]	ug/L	12:02:26
1	U 409.014†	13780.7	17036.0	[500]	ug/L	12:02:06
1	V 292.402†	66067.1	66498.4	[500]	ug/L	12:02:06
1	Zn 213.857†	51280.8	49625.9	[500]	ug/L	12:02:06
1	SiO2†	80660.6	78519.8	[5347.5]	ug/L	12:03:34
2	Sc Radial	4344.3	4344.3	102	%	12:01:09
2	Y RADIAL	4468.3	4468.3	101.5	%	12:01:09
2	Al 396.153Radial†	4910.7	4964.2	[5000]	ug/L	12:01:09
2	Ca 317.933Radial†	2793.7	2715.3	[5000]	ug/L	12:01:29
2	K 766.490 Radial†	28558.1	24772.5	[5000]	ug/L	12:01:09
2	Mg 279.077 IEC†	138.7	133.0	[5000]	ug/L	12:01:29
2	Sr 421.552†	66419.5	64901.7	[500]	ug/L	12:01:09
2	Sc 361.383	858388.4	858388.4	100.99	%	12:02:32
2	Y 371.029	699297.9	699297.9	99.512	%	12:02:32
2	Ag 328.068†	103582.4	102343.6	[500]	ug/L	12:02:37
2	As 188.979†	1144.2	1161.4	[500]	ug/L	12:02:57
2	B 249.677†	20485.5	20767.5	[500]	ug/L	12:02:37
2	Ba 233.527†	61659.8	61039.1	[500]	ug/L	12:02:37
2	Be 313.107†	1354883.7	1345996.4	[500]	ug/L	12:02:32
2	Cd 226.502†	42779.6	42557.5	[500]	ug/L	12:02:37
2	Co 228.616†	24005.1	23849.7	[500]	ug/L	12:02:37
2	Cr 267.716†	43144.2	42573.3	[500]	ug/L	12:02:37
2	Cu 324.752†	169031.7	159287.5	[500]	ug/L	12:02:37
2	Mn 257.610†	434446.7	429635.9	[500]	ug/L	12:02:32
2	Mo 202.031†	6686.9	6611.2	[500]	ug/L	12:02:57
2	Ni 231.604†	19622.6	19317.5	[500]	ug/L	12:02:37
2	P 214.914†	4705.0	4417.1	[2500]	ug/L	12:02:57
2	Pb 220.353†	3930.3	3965.5	[500]	ug/L	12:02:57
2	S 181.975 Axial†	798.8	748.1	[1000]	ug/L	12:02:57
2	Sb 206.836†	1490.1	1439.8	[500]	ug/L	12:02:57

2	Se 196.026†	835.2	850.4	[500]	ug/L	12:02:57
2	Si 251.611†	81067.4	79663.7	[2500]	ug/L	12:02:37
2	Sn 189.927†	2767.9	2728.3	[500]	ug/L	12:02:57
2	Ti 334.940†	303839.8	302366.6	[500]	ug/L	12:02:37
2	Tl 190.801†	1544.0	1568.0	[500]	ug/L	12:02:57
2	U 409.014†	13909.5	17288.9	[500]	ug/L	12:02:37
2	V 292.402†	66999.8	68023.0	[500]	ug/L	12:02:37
2	Zn 213.857†	52116.7	50920.2	[500]	ug/L	12:02:37
2	SiO2†	80314.9	78911.4	[5347.5]	ug/L	12:03:39
3	Sc Radial	4290.2	4290.2	101	%	12:01:34
3	Y RADIAL	4406.0	4406.0	100.1	%	12:01:34
3	Al 396.153Radial†	4861.9	4976.3	[5000]	ug/L	12:01:34
3	Ca 317.933Radial†	2745.8	2702.3	[5000]	ug/L	12:01:54
3	K 766.490 Radial†	28237.6	24807.1	[5000]	ug/L	12:01:34
3	Mg 279.077 IEC†	138.6	134.6	[5000]	ug/L	12:01:54
3	Sr 421.552†	65739.5	65046.9	[500]	ug/L	12:01:34
3	Sc 361.383	855708.1	855708.1	100.67	%	12:03:03
3	Y 371.029	697085.1	697085.1	99.197	%	12:03:03
3	Ag 328.068†	104159.6	103238.2	[500]	ug/L	12:03:08
3	As 188.979†	1163.1	1183.7	[500]	ug/L	12:03:28
3	B 249.677†	20548.9	20894.0	[500]	ug/L	12:03:08
3	Ba 233.527†	61705.2	61275.4	[500]	ug/L	12:03:08
3	Be 313.107†	1348590.3	1343947.4	[500]	ug/L	12:03:03
3	Cd 226.502†	42791.4	42701.9	[500]	ug/L	12:03:08
3	Co 228.616†	23992.5	23911.6	[500]	ug/L	12:03:08
3	Cr 267.716†	43136.0	42699.0	[500]	ug/L	12:03:08
3	Cu 324.752†	169705.8	160481.4	[500]	ug/L	12:03:08
3	Mn 257.610†	433059.5	429605.4	[500]	ug/L	12:03:03
3	Mo 202.031†	6673.9	6619.0	[500]	ug/L	12:03:28
3	Ni 231.604†	19755.0	19509.9	[500]	ug/L	12:03:08
3	P 214.914†	4719.4	4446.0	[2500]	ug/L	12:03:28
3	Pb 220.353†	3931.2	3978.6	[500]	ug/L	12:03:28
3	S 181.975 Axial†	808.5	760.2	[1000]	ug/L	12:03:28
3	Sb 206.836†	1510.6	1464.9	[500]	ug/L	12:03:28
3	Se 196.026†	838.7	856.4	[500]	ug/L	12:03:28
3	Si 251.611†	81093.2	79940.8	[2500]	ug/L	12:03:08
3	Sn 189.927†	2771.3	2740.2	[500]	ug/L	12:03:28
3	Ti 334.940†	304686.3	304149.8	[500]	ug/L	12:03:08
3	Tl 190.801†	1531.8	1560.7	[500]	ug/L	12:03:28
3	U 409.014†	13900.4	17323.0	[500]	ug/L	12:03:08
3	V 292.402†	67043.2	68274.0	[500]	ug/L	12:03:08
3	Zn 213.857†	52192.8	51157.4	[500]	ug/L	12:03:08
3	SiO2†	80944.3	79785.6	[5347.5]	ug/L	12:03:44

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	860148.1	5533.81	0.64%	101.19	%
Sc Radial	4321.6	28.05	0.65%	102	%
Y 371.029	700592.3	4302.94	0.61%	99.696	%
Y RADIAL	4432.4	32.23	0.73%	100.7	%
Ag 328.068†	102024.3	1400.99	1.37%	[500]	ug/L
Al 396.153Radial†	4968.3	6.98	0.14%	[5000]	ug/L
As 188.979†	1165.7	16.29	1.40%	[500]	ug/L
B 249.677†	20629.3	354.49	1.72%	[500]	ug/L
Ba 233.527†	60614.8	946.98	1.56%	[500]	ug/L
Be 313.107†	1344416.1	1405.75	0.10%	[500]	ug/L
Ca 317.933Radial†	2714.1	11.23	0.41%	[5000]	ug/L
Cd 226.502†	42209.9	730.66	1.73%	[500]	ug/L
Co 228.616†	23624.7	444.32	1.88%	[500]	ug/L
Cr 267.716†	42237.6	693.23	1.64%	[500]	ug/L
Cu 324.752†	158600.2	2303.05	1.45%	[500]	ug/L
K 766.490 Radial†	24687.2	178.57	0.72%	[5000]	ug/L
Mg 279.077 IEC†	133.8	0.80	0.60%	[5000]	ug/L
Mn 257.610†	429282.8	585.44	0.14%	[500]	ug/L
Mo 202.031†	6597.9	30.09	0.46%	[500]	ug/L
Ni 231.604†	19254.8	291.54	1.51%	[500]	ug/L
P 214.914†	4410.8	38.72	0.88%	[2500]	ug/L
Pb 220.353†	3960.3	21.32	0.54%	[500]	ug/L
S 181.975 Axial†	749.9	9.47	1.26%	[1000]	ug/L

Sb 206.836†	1447.1	15.51	1.07%	[500]	ug/L
Se 196.026†	850.2	6.30	0.74%	[500]	ug/L
Si 251.611†	79075.5	1266.40	1.60%	[2500]	ug/L
Sn 189.927†	2725.5	16.25	0.60%	[500]	ug/L
Sr 421.552†	64914.6	126.38	0.19%	[500]	ug/L
Ti 334.940†	300826.5	4305.14	1.43%	[500]	ug/L
Tl 190.801†	1558.7	10.53	0.68%	[500]	ug/L
U 409.014†	17216.0	156.79	0.91%	[500]	ug/L
V 292.402†	67598.5	960.94	1.42%	[500]	ug/L
Zn 213.857†	50567.8	824.29	1.63%	[500]	ug/L
SiO2†	79072.3	648.05	0.82%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/16/2010 12:05:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4297.1	4297.1	101	%	12:07:48
1	Y RADIAL	4399.9	4399.9	99.95	%	12:07:48
1	Al 396.153Radial†	9882.9	9935.6	[10000]	ug/L	12:07:48
1	Ca 317.933Radial†	5548.8	5470.8	[10000]	ug/L	12:07:48
1	Fe 238.204 Radial†	998.4	977.6	[10000]	ug/L	12:08:08
1	K 766.490 Radial†	53335.7	49590.4	[10000]	ug/L	12:07:48
1	Mg 279.077 IEC†	272.0	266.4	[10000]	ug/L	12:08:08
1	Na 589.592 Radial†	30738.5	30200.8	[10000]	ug/L	12:07:48
1	Sr 421.552†	130742.1	129245.9	[1000]	ug/L	12:07:48
1	Sc 361.383	850290.2	850290.2	100.03	%	12:09:11
1	Y 371.029	694357.4	694357.4	98.809	%	12:09:11
1	Ag 328.068†	209475.7	209178.7	[1000]	ug/L	12:09:11
1	As 188.979†	2351.5	2379.0	[1000]	ug/L	12:09:32
1	B 249.677†	42443.4	42911.3	[1000]	ug/L	12:09:11
1	Ba 233.527†	123558.0	123498.3	[1000]	ug/L	12:09:11
1	Be 313.107†	2720911.6	2724350.2	[1000]	ug/L	12:09:06
1	Cd 226.502†	85522.6	85689.8	[1000]	ug/L	12:09:11
1	Co 228.616†	47983.7	48046.7	[1000]	ug/L	12:09:11
1	Cr 267.716†	86528.8	86350.5	[1000]	ug/L	12:09:11
1	Cu 324.752†	337449.3	329243.5	[1000]	ug/L	12:09:11
1	Mn 257.610†	866578.5	865721.9	[1000]	ug/L	12:09:06
1	Mo 202.031†	13503.7	13488.7	[1000]	ug/L	12:09:32
1	Ni 231.604†	39239.7	39113.2	[1000]	ug/L	12:09:11
1	P 214.914†	9281.6	9036.6	[5000]	ug/L	12:09:32
1	Pb 220.353†	8008.1	8079.0	[1000]	ug/L	12:09:32
1	S 181.975 Axial†	1577.2	1533.8	[2000]	ug/L	12:09:32
1	Sb 206.836†	2990.0	2953.4	[1000]	ug/L	12:09:32
1	Se 196.026†	1692.7	1715.5	[1000]	ug/L	12:09:32
1	Si 251.611†	161659.4	160993.6	[5000]	ug/L	12:09:11
1	Sn 189.927†	5589.4	5575.0	[1000]	ug/L	12:09:32
1	Ti 334.940†	617562.9	618851.4	[1000]	ug/L	12:09:11
1	Tl 190.801†	3133.4	3171.5	[1000]	ug/L	12:09:32
1	U 409.014†	31887.1	35391.7	[1000]	ug/L	12:09:11
1	V 292.402†	137158.2	138790.1	[1000]	ug/L	12:09:11
1	Zn 213.857†	103334.0	102612.0	[1000]	ug/L	12:09:11
1	SiO2†	160870.9	160198.1	[10695]	ug/L	12:10:40
2	Sc Radial	4352.3	4352.3	102	%	12:08:13
2	Y RADIAL	4460.9	4460.9	101.3	%	12:08:13
2	Al 396.153Radial†	10007.9	9933.7	[10000]	ug/L	12:08:13
2	Ca 317.933Radial†	5646.2	5496.2	[10000]	ug/L	12:08:13
2	Fe 238.204 Radial†	989.5	956.4	[10000]	ug/L	12:08:33
2	K 766.490 Radial†	54007.2	49576.7	[10000]	ug/L	12:08:13
2	Mg 279.077 IEC†	277.2	268.0	[10000]	ug/L	12:08:33
2	Na 589.592 Radial†	31324.9	30387.7	[10000]	ug/L	12:08:13
2	Sr 421.552†	132904.2	129716.6	[1000]	ug/L	12:08:13
2	Sc 361.383	839445.4	839445.4	98.757	%	12:09:43
2	Y 371.029	685183.9	685183.9	97.503	%	12:09:43
2	Ag 328.068†	206897.9	209273.8	[1000]	ug/L	12:09:43
2	As 188.979†	2347.8	2405.7	[1000]	ug/L	12:10:03
2	B 249.677†	41812.0	42820.1	[1000]	ug/L	12:09:43
2	Ba 233.527†	122310.8	123831.1	[1000]	ug/L	12:09:43
2	Be 313.107†	2711028.7	2749482.7	[1000]	ug/L	12:09:38
2	Cd 226.502†	84641.7	85902.3	[1000]	ug/L	12:09:43
2	Co 228.616†	47590.9	48268.7	[1000]	ug/L	12:09:43
2	Cr 267.716†	85401.1	86326.0	[1000]	ug/L	12:09:43
2	Cu 324.752†	332443.3	328532.5	[1000]	ug/L	12:09:43
2	Mn 257.610†	864434.1	874742.2	[1000]	ug/L	12:09:38
2	Mo 202.031†	13411.3	13569.6	[1000]	ug/L	12:10:03
2	Ni 231.604†	38969.4	39285.5	[1000]	ug/L	12:09:43

2	P 214.914†	9237.6	9111.9	[5000]	ug/L	12:10:03
2	Pb 220.353†	7982.7	8156.7	[1000]	ug/L	12:10:03
2	S 181.975 Axial†	1563.7	1540.4	[2000]	ug/L	12:10:03
2	Sb 206.836†	2972.1	2973.8	[1000]	ug/L	12:10:03
2	Se 196.026†	1673.5	1717.9	[1000]	ug/L	12:10:03
2	Si 251.611†	159696.8	161094.1	[5000]	ug/L	12:09:43
2	Sn 189.927†	5579.8	5637.4	[1000]	ug/L	12:10:03
2	Ti 334.940†	608943.4	618099.1	[1000]	ug/L	12:09:43
2	Tl 190.801†	3119.6	3198.0	[1000]	ug/L	12:10:03
2	U 409.014†	31366.4	35276.3	[1000]	ug/L	12:09:43
2	V 292.402†	135527.3	138910.0	[1000]	ug/L	12:09:43
2	Zn 213.857†	102342.1	102942.2	[1000]	ug/L	12:09:43
2	SiO2†	160636.2	162038.1	[10695]	ug/L	12:10:45
3	Sc Radial	4297.5	4297.5	101	%	12:08:39
3	Y RADIAL	4423.8	4423.8	100.5	%	12:08:39
3	Al 396.153Radial†	9870.2	9922.2	[10000]	ug/L	12:08:39
3	Ca 317.933Radial†	5538.9	5460.5	[10000]	ug/L	12:08:39
3	Fe 238.204 Radial†	978.2	957.6	[10000]	ug/L	12:08:59
3	K 766.490 Radial†	53330.5	49580.4	[10000]	ug/L	12:08:39
3	Mg 279.077 IEC†	272.3	266.7	[10000]	ug/L	12:08:59
3	Na 589.592 Radial†	30764.4	30223.6	[10000]	ug/L	12:08:39
3	Sr 421.552†	130878.6	129369.2	[1000]	ug/L	12:08:39
3	Sc 361.383	841600.4	841600.4	99.011	%	12:10:15
3	Y 371.029	686704.9	686704.9	97.720	%	12:10:15
3	Ag 328.068†	207691.9	209539.3	[1000]	ug/L	12:10:15
3	As 188.979†	2328.7	2380.3	[1000]	ug/L	12:10:35
3	B 249.677†	41884.9	42785.3	[1000]	ug/L	12:10:15
3	Ba 233.527†	122357.9	123561.5	[1000]	ug/L	12:10:15
3	Be 313.107†	2688134.5	2719330.7	[1000]	ug/L	12:10:09
3	Cd 226.502†	84714.8	85756.7	[1000]	ug/L	12:10:15
3	Co 228.616†	47550.5	48104.5	[1000]	ug/L	12:10:15
3	Cr 267.716†	85613.9	86319.5	[1000]	ug/L	12:10:15
3	Cu 324.752†	334091.8	329335.6	[1000]	ug/L	12:10:15
3	Mn 257.610†	858428.4	866435.2	[1000]	ug/L	12:10:09
3	Mo 202.031†	13390.8	13514.2	[1000]	ug/L	12:10:35
3	Ni 231.604†	38839.2	39113.7	[1000]	ug/L	12:10:15
3	P 214.914†	9187.0	9036.8	[5000]	ug/L	12:10:35
3	Pb 220.353†	7943.8	8096.7	[1000]	ug/L	12:10:35
3	S 181.975 Axial†	1565.8	1538.6	[2000]	ug/L	12:10:35
3	Sb 206.836†	2989.0	2983.2	[1000]	ug/L	12:10:35
3	Se 196.026†	1680.3	1720.4	[1000]	ug/L	12:10:35
3	Si 251.611†	160054.4	161041.2	[5000]	ug/L	12:10:15
3	Sn 189.927†	5572.8	5615.9	[1000]	ug/L	12:10:35
3	Ti 334.940†	611283.7	618883.9	[1000]	ug/L	12:10:15
3	Tl 190.801†	3103.6	3173.7	[1000]	ug/L	12:10:35
3	U 409.014†	31685.8	35517.5	[1000]	ug/L	12:10:15
3	V 292.402†	135693.6	138726.6	[1000]	ug/L	12:10:15
3	Zn 213.857†	102467.5	102803.5	[1000]	ug/L	12:10:15
3	SiO2†	159790.3	160767.3	[10695]	ug/L	12:10:51

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	843778.7	5741.17	0.68%	99.267	%
Sc Radial	4315.7	31.77	0.74%	102	%
Y 371.029	688748.7	4916.41	0.71%	98.011	%
Y RADIAL	4428.2	30.70	0.69%	100.6	%
Ag 328.068†	209330.6	186.88	0.09%	[1000]	ug/L
Al 396.153Radial†	9930.5	7.22	0.07%	[10000]	ug/L
As 188.979†	2388.3	15.03	0.63%	[1000]	ug/L
B 249.677†	42838.9	65.08	0.15%	[1000]	ug/L
Ba 233.527†	123630.3	176.75	0.14%	[1000]	ug/L
Be 313.107†	2731054.6	16155.39	0.59%	[1000]	ug/L
Ca 317.933Radial†	5475.8	18.41	0.34%	[10000]	ug/L
Cd 226.502†	85782.9	108.69	0.13%	[1000]	ug/L
Co 228.616†	48139.9	115.15	0.24%	[1000]	ug/L
Cr 267.716†	86332.0	16.33	0.02%	[1000]	ug/L
Cu 324.752†	329037.2	439.48	0.13%	[1000]	ug/L
Fe 238.204 Radial†	963.9	11.92	1.24%	[10000]	ug/L
K 766.490 Radial†	49582.5	7.08	0.01%	[10000]	ug/L

Mg 279.077 IEC†	267.0	0.89	0.33%	[10000]	ug/L
Mn 257.610†	868966.4	5014.62	0.58%	[1000]	ug/L
Mo 202.031†	13524.2	41.36	0.31%	[1000]	ug/L
Na 589.592 Radial†	30270.7	101.98	0.34%	[10000]	ug/L
Ni 231.604†	39170.8	99.35	0.25%	[1000]	ug/L
P 214.914†	9061.8	43.43	0.48%	[5000]	ug/L
Pb 220.353†	8110.8	40.74	0.50%	[1000]	ug/L
S 181.975 Axial†	1537.6	3.45	0.22%	[2000]	ug/L
Sb 206.836†	2970.1	15.24	0.51%	[1000]	ug/L
Se 196.026†	1717.9	2.46	0.14%	[1000]	ug/L
Si 251.611†	161043.0	50.23	0.03%	[5000]	ug/L
Sn 189.927†	5609.4	31.70	0.57%	[1000]	ug/L
Sr 421.552†	129443.9	244.03	0.19%	[1000]	ug/L
Ti 334.940†	618611.5	444.02	0.07%	[1000]	ug/L
Tl 190.801†	3181.0	14.69	0.46%	[1000]	ug/L
U 409.014†	35395.2	120.64	0.34%	[1000]	ug/L
V 292.402†	138808.9	93.16	0.07%	[1000]	ug/L
Zn 213.857†	102785.9	165.80	0.16%	[1000]	ug/L
SiO2†	161001.2	942.03	0.59%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/16/2010 12:13:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4283.2	4283.2	101	%	12:15:15
1	Y RADIAL	4369.2	4369.2	99.25	%	12:15:15
1	Al 396.153Radial†	49493.0	49278.7	[50000]	ug/L	12:14:55
1	Ca 317.933Radial†	26610.3	26391.3	[50000]	ug/L	12:14:55
1	Fe 238.204 Radial†	1891.8	1867.5	[20000]	ug/L	12:15:15
1	Mg 279.077 IEC†	1308.9	1296.3	[50000]	ug/L	12:15:15
1	Na 589.592 Radial†	59870.7	59212.1	[20000]	ug/L	12:14:55
1	Sc 361.383	840869.2	840869.2	98.925	%	12:16:12
1	Y 371.029	681000.5	681000.5	96.908	%	12:16:12
2	Sc Radial	4263.4	4263.4	100	%	12:15:40
2	Y RADIAL	4348.3	4348.3	98.78	%	12:15:40
2	Al 396.153Radial†	50662.4	50672.3	[50000]	ug/L	12:15:20
2	Ca 317.933Radial†	27188.2	27089.9	[50000]	ug/L	12:15:20
2	Fe 238.204 Radial†	1890.5	1874.9	[20000]	ug/L	12:15:40
2	Mg 279.077 IEC†	1301.2	1294.6	[50000]	ug/L	12:15:40
2	Na 589.592 Radial†	61100.3	60713.4	[20000]	ug/L	12:15:20
2	Sc 361.383	841226.2	841226.2	98.967	%	12:16:18
2	Y 371.029	682042.3	682042.3	97.056	%	12:16:18
3	Sc Radial	4282.5	4282.5	101	%	12:16:05
3	Y RADIAL	4375.8	4375.8	99.40	%	12:16:05
3	Al 396.153Radial†	50251.2	50038.9	[50000]	ug/L	12:15:45
3	Ca 317.933Radial†	27070.7	26852.4	[50000]	ug/L	12:15:45
3	Fe 238.204 Radial†	1893.0	1869.0	[20000]	ug/L	12:16:05
3	Mg 279.077 IEC†	1298.9	1286.6	[50000]	ug/L	12:16:05
3	Na 589.592 Radial†	60167.0	59515.4	[20000]	ug/L	12:15:45
3	Sc 361.383	841005.8	841005.8	98.941	%	12:16:23
3	Y 371.029	680903.1	680903.1	96.894	%	12:16:23

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	841033.7	180.11	0.02%	98.944	%
Sc Radial	4276.4	11.22	0.26%	101	%
Y 371.029	681315.3	631.51	0.09%	96.953	%
Y RADIAL	4364.5	14.35	0.33%	99.14	%
Al 396.153Radial†	49996.6	697.75	1.40%	[50000]	ug/L
Ca 317.933Radial†	26777.8	355.23	1.33%	[50000]	ug/L
Fe 238.204 Radial†	1870.4	3.92	0.21%	[20000]	ug/L
Mg 279.077 IEC†	1292.5	5.20	0.40%	[50000]	ug/L
Na 589.592 Radial†	59813.6	793.85	1.33%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	208.3	0.00000	0.999949	
Al 396.153Radial	3	Lin Thru 0	0.0	0.9996	0.00000	0.999999	
As 188.979	3	Lin Thru 0	0.0	2.377	0.00000	0.999953	
B 249.677	3	Lin Thru 0	0.0	42.51	0.00000	0.999880	
Ba 233.527	3	Lin Thru 0	0.0	123.2	0.00000	0.999970	
Be 313.107	3	Lin Thru 0	0.0	2723	0.00000	0.999981	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5361	0.00000	0.999990	
Cd 226.502	3	Lin Thru 0	0.0	85.51	0.00000	0.999980	
Co 228.616	3	Lin Thru 0	0.0	47.95	0.00000	0.999971	
Cr 267.716	3	Lin Thru 0	0.0	85.95	0.00000	0.999963	
Cu 324.752	3	Lin Thru 0	0.0	326.6	0.00000	0.999894	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0941	0.00000	0.999926	
K 766.490 Radial	3	Lin Thru 0	0.0	4.954	0.00000	0.999998	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0259	0.00000	0.999975
Mn 257.610	3	Lin Thru 0	0.0	867.0	0.00000	0.999987
Mo 202.031	3	Lin Thru 0	0.0	13.46	0.00000	0.999953
Na 589.592 Radia	2	Lin Thru 0	0.0	2.998	0.00000	0.999988
Ni 231.604	3	Lin Thru 0	0.0	39.04	0.00000	0.999977
P 214.914	3	Lin Thru 0	0.0	1.802	0.00000	0.999939
Pb 220.353	3	Lin Thru 0	0.0	8.073	0.00000	0.999956
S 181.975 Axial	3	Lin Thru 0	0.0	0.7651	0.00000	0.999950
Sb 206.836	3	Lin Thru 0	0.0	2.955	0.00000	0.999947
Se 196.026	3	Lin Thru 0	0.0	1.714	0.00000	0.999991
Si 251.611	3	Lin Thru 0	0.0	32.09	0.00000	0.999974
Sn 189.927	3	Lin Thru 0	0.0	5.577	0.00000	0.999935
Sr 421.552	3	Lin Thru 0	0.0	129.5	0.00000	0.999999
Ti 334.940	3	Lin Thru 0	0.0	615.3	0.00000	0.999939
Tl 190.801	3	Lin Thru 0	0.0	3.168	0.00000	0.999968
U 409.014	3	Lin Thru 0	0.0	35.20	0.00000	0.999941
V 292.402	3	Lin Thru 0	0.0	138.1	0.00000	0.999945
Zn 213.857	3	Lin Thru 0	0.0	102.5	0.00000	0.999979
SiO2	3	Lin Thru 0	0.0	15.00	0.00000	0.999974

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/16/2010 12:18:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4360.4	4360.4	103	%			12:20:27
1	Y RADIAL	4469.4	4469.4	101.5	%			12:20:27
1	Al 396.153Radial†	4929.7	4965.0	4941.6	ug/L	4941.6	ppb	12:20:27
1	Ca 317.933Radial†	2777.9	2689.8	5017.5	ug/L	5017.5	ppb	12:20:47
1	Fe 238.204 Radial†	508.3	485.4	5173.6	ug/L	5173.6	ppb	12:20:47
1	K 766.490 Radial†	15571.7	12009.2	2420.8	ug/L	2420.8	ppb	12:20:27
1	Mg 279.077 IEC†	143.2	136.9	5288.7	ug/L	5288.7	ppb	12:20:47
1	Na 589.592 Radial†	7893.9	7488.7	2497.9	ug/L	2497.9	ppb	12:20:27
1	Sr 421.552†	69074.7	67250.6	519.22	ug/L	519.22	ppb	12:20:27
1	Sc 361.383	868942.2	868942.2	102.23	%			12:21:45
1	Y 371.029	709496.3	709496.3	100.96	%			12:21:45
1	Ag 328.068†	53459.2	52066.7	253.28	ug/L	253.28	ppb	12:21:45
1	As 188.979†	1082.4	1087.1	461.66	ug/L	461.66	ppb	12:22:05
1	B 249.677†	21376.4	21392.6	501.06	ug/L	501.06	ppb	12:21:45
1	Ba 233.527†	62495.5	61115.0	497.48	ug/L	497.48	ppb	12:21:45
1	Be 313.107†	704444.7	693434.6	255.82	ug/L	255.82	ppb	12:21:45
1	Cd 226.502†	41203.6	40501.3	473.50	ug/L	473.50	ppb	12:22:05
1	Co 228.616†	23747.1	23308.5	486.20	ug/L	486.20	ppb	12:22:05
1	Cr 267.716†	41778.0	40718.0	474.32	ug/L	474.32	ppb	12:21:45
1	Cu 324.752†	172222.0	160375.4	491.03	ug/L	491.03	ppb	12:21:45
1	Mn 257.610†	449261.8	438903.1	506.52	ug/L	506.52	ppb	12:21:45
1	Mo 202.031†	7181.9	7015.0	521.72	ug/L	521.72	ppb	12:22:05
1	Ni 231.604†	19443.8	18906.6	483.98	ug/L	483.98	ppb	12:22:05
1	P 214.914†	4754.1	4408.5	2350.6	ug/L	2350.6	ppb	12:22:05
1	Pb 220.353†	3947.3	3934.9	489.12	ug/L	489.12	ppb	12:22:05
1	S 181.975 Axial†	1926.1	1841.2	2405.5	ug/L	2405.5	ppb	12:22:05
1	Sb 206.836†	1511.1	1442.5	506.98	ug/L	506.98	ppb	12:22:05
1	Se 196.026†	4383.0	4310.8	2533.2	ug/L	2533.2	ppb	12:22:05
1	Si 251.611†	157732.7	153683.6	4782.7	ug/L	4782.7	ppb	12:21:45
1	Sn 189.927†	2996.1	2918.2	524.11	ug/L	524.11	ppb	12:22:05
1	Ti 334.940†	309110.1	303867.8	493.74	ug/L	493.74	ppb	12:21:45
1	Tl 190.801†	1610.0	1614.0	512.87	ug/L	512.87	ppb	12:22:05
1	U 409.014†	13900.0	17112.3	484.46	ug/L	484.46	ppb	12:21:45
1	V 292.402†	68110.9	68304.1	501.66	ug/L	501.66	ppb	12:21:45
1	Zn 213.857†	53475.5	51622.6	499.31	ug/L	499.31	ppb	12:21:45
1	SiO2†	155745.2	151732.1	10102	ug/L	10102	ppb	12:23:03
2	Sc Radial	4411.6	4411.6	104	%			12:20:53
2	Y RADIAL	4512.2	4512.2	102.5	%			12:20:53
2	Al 396.153Radial†	4948.5	4927.3	4903.3	ug/L	4903.3	ppb	12:20:53
2	Ca 317.933Radial†	2749.9	2631.4	4908.5	ug/L	4908.5	ppb	12:21:13
2	Fe 238.204 Radial†	499.6	471.3	5023.6	ug/L	5023.6	ppb	12:21:13
2	K 766.490 Radial†	15645.9	11904.4	2399.6	ug/L	2399.6	ppb	12:20:53
2	Mg 279.077 IEC†	144.7	136.7	5279.5	ug/L	5279.5	ppb	12:21:13
2	Na 589.592 Radial†	8025.8	7526.4	2510.5	ug/L	2510.5	ppb	12:20:53
2	Sr 421.552†	69566.6	66942.6	516.85	ug/L	516.85	ppb	12:20:53
2	Sc 361.383	856794.2	856794.2	100.80	%			12:22:11
2	Y 371.029	699854.6	699854.6	99.591	%			12:22:11
2	Ag 328.068†	53010.6	52363.1	254.66	ug/L	254.66	ppb	12:22:11
2	As 188.979†	1087.6	1107.3	470.09	ug/L	470.09	ppb	12:22:31
2	B 249.677†	20918.9	21235.1	497.35	ug/L	497.35	ppb	12:22:11
2	Ba 233.527†	61691.2	61183.8	498.04	ug/L	498.04	ppb	12:22:11
2	Be 313.107†	694167.9	693009.6	255.67	ug/L	255.67	ppb	12:22:11
2	Cd 226.502†	41342.3	41210.4	481.81	ug/L	481.81	ppb	12:22:31
2	Co 228.616†	23881.3	23771.0	495.88	ug/L	495.88	ppb	12:22:31
2	Cr 267.716†	41313.9	40837.0	475.71	ug/L	475.71	ppb	12:22:11
2	Cu 324.752†	169360.3	159925.0	489.65	ug/L	489.65	ppb	12:22:11
2	Mn 257.610†	442690.7	438615.1	506.17	ug/L	506.17	ppb	12:22:11
2	Mo 202.031†	7247.3	7179.4	533.92	ug/L	533.92	ppb	12:22:31
2	Ni 231.604†	19570.2	19301.6	494.10	ug/L	494.10	ppb	12:22:31

2	P 214.914†	4762.4	4482.7	2392.2	ug/L	2392.2 ppb	12:22:31
2	Pb 220.353†	3959.9	4002.1	497.48	ug/L	497.48 ppb	12:22:31
2	S 181.975 Axial†	1953.1	1894.7	2475.3	ug/L	2475.3 ppb	12:22:31
2	Sb 206.836†	1526.7	1478.9	519.70	ug/L	519.70 ppb	12:22:31
2	Se 196.026†	4408.4	4396.9	2582.9	ug/L	2582.9 ppb	12:22:31
2	Si 251.611†	155299.4	153457.2	4775.5	ug/L	4775.5 ppb	12:22:11
2	Sn 189.927†	2993.1	2956.8	531.01	ug/L	531.01 ppb	12:22:31
2	Ti 334.940†	304709.0	303788.7	493.60	ug/L	493.60 ppb	12:22:11
2	Tl 190.801†	1632.9	1659.1	527.04	ug/L	527.04 ppb	12:22:31
2	U 409.014†	13328.9	16738.6	473.86	ug/L	473.86 ppb	12:22:11
2	V 292.402†	67295.7	68440.0	502.82	ug/L	502.82 ppb	12:22:11
2	Zn 213.857†	52681.3	51576.3	498.81	ug/L	498.81 ppb	12:22:11
2	SiO2†	157647.2	155779.2	10372	ug/L	10372 ppb	12:23:08
3	Sc Radial	4390.1	4390.1	103	%		12:21:18
3	Y RADIAL	4517.5	4517.5	102.6	%		12:21:18
3	Al 396.153Radial†	4976.6	4977.9	4954.2	ug/L	4954.2 ppb	12:21:18
3	Ca 317.933Radial†	2742.3	2637.1	4919.1	ug/L	4919.1 ppb	12:21:38
3	Fe 238.204 Radial†	498.6	472.7	5038.8	ug/L	5038.8 ppb	12:21:38
3	K 766.490 Radial†	15612.6	11946.0	2408.1	ug/L	2408.1 ppb	12:21:18
3	Mg 279.077 IEC†	146.7	139.4	5383.5	ug/L	5383.5 ppb	12:21:38
3	Na 589.592 Radial†	7813.8	7358.9	2454.6	ug/L	2454.6 ppb	12:21:18
3	Sr 421.552†	69255.7	66969.9	517.06	ug/L	517.06 ppb	12:21:18
3	Sc 361.383	858961.3	858961.3	101.05	%		12:22:37
3	Y 371.029	702178.7	702178.7	99.922	%		12:22:37
3	Ag 328.068†	52864.1	52085.4	253.32	ug/L	253.32 ppb	12:22:37
3	As 188.979†	1081.2	1098.2	466.26	ug/L	466.26 ppb	12:22:57
3	B 249.677†	20968.3	21231.6	497.28	ug/L	497.28 ppb	12:22:37
3	Ba 233.527†	61523.0	60863.0	495.43	ug/L	495.43 ppb	12:22:37
3	Be 313.107†	694240.8	691344.2	255.05	ug/L	255.05 ppb	12:22:37
3	Cd 226.502†	41092.7	40859.9	477.71	ug/L	477.71 ppb	12:22:57
3	Co 228.616†	23690.0	23522.0	490.68	ug/L	490.68 ppb	12:22:57
3	Cr 267.716†	41244.1	40664.6	473.70	ug/L	473.70 ppb	12:22:37
3	Cu 324.752†	169502.3	159641.5	488.78	ug/L	488.78 ppb	12:22:37
3	Mn 257.610†	441818.6	436644.0	503.89	ug/L	503.89 ppb	12:22:37
3	Mo 202.031†	7191.9	7106.5	528.50	ug/L	528.50 ppb	12:22:57
3	Ni 231.604†	19436.5	19120.4	489.46	ug/L	489.46 ppb	12:22:57
3	P 214.914†	4751.2	4459.8	2379.6	ug/L	2379.6 ppb	12:22:57
3	Pb 220.353†	3944.2	3976.6	494.32	ug/L	494.32 ppb	12:22:57
3	S 181.975 Axial†	1932.7	1869.6	2442.6	ug/L	2442.6 ppb	12:22:57
3	Sb 206.836†	1515.4	1463.9	514.48	ug/L	514.48 ppb	12:22:57
3	Se 196.026†	4365.2	4343.0	2551.5	ug/L	2551.5 ppb	12:22:57
3	Si 251.611†	155175.8	152946.2	4759.7	ug/L	4759.7 ppb	12:22:37
3	Sn 189.927†	2993.3	2949.5	529.70	ug/L	529.70 ppb	12:22:57
3	Ti 334.940†	304554.5	302873.1	492.11	ug/L	492.11 ppb	12:22:37
3	Tl 190.801†	1617.9	1640.2	521.08	ug/L	521.08 ppb	12:22:57
3	U 409.014†	13447.0	16822.1	476.23	ug/L	476.23 ppb	12:22:37
3	V 292.402†	67158.6	68135.9	500.55	ug/L	500.55 ppb	12:22:37
3	Zn 213.857†	52611.6	51375.5	496.88	ug/L	496.88 ppb	12:22:37
3	SiO2†	156707.7	154454.9	10284	ug/L	10284 ppb	12:23:13

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	861565.9	101.36	%	0.762				0.75%
Sc Radial	4387.4	103	%	0.6				0.59%
Y 371.029	703843.2	100.16	%	0.716				0.71%
Y RADIAL	4499.7	102.2	%	0.60				0.59%
Ag 328.068†	52171.7	253.75	ug/L	0.787	253.75	ppb	0.787	0.31%
QC value within limits for Ag 328.068 Recovery = 101.50%								
Al 396.153Radial†	4956.7	4933.0	ug/L	26.50	4933.0	ppb	26.50	0.54%
QC value within limits for Al 396.153Radial Recovery = 98.66%								
As 188.979†	1097.6	466.00	ug/L	4.219	466.00	ppb	4.219	0.91%
QC value within limits for As 188.979 Recovery = 93.20%								
B 249.677†	21286.4	498.57	ug/L	2.161	498.57	ppb	2.161	0.43%
QC value within limits for B 249.677 Recovery = 99.71%								
Ba 233.527†	61053.9	496.98	ug/L	1.374	496.98	ppb	1.374	0.28%
QC value within limits for Ba 233.527 Recovery = 99.40%								
Be 313.107†	692596.1	255.51	ug/L	0.408	255.51	ppb	0.408	0.16%
QC value within limits for Be 313.107 Recovery = 102.21%								
Ca 317.933Radial†	2652.7	4948.4	ug/L	60.08	4948.4	ppb	60.08	1.21%

QC value within limits for Ca 317.933Radial Recovery = 98.97%

Cd 226.502†	40857.2	477.68 ug/L	4.156	477.68 ppb	4.156	0.87%
QC value within limits for Cd 226.502 Recovery = 95.54%						
Co 228.616†	23533.9	490.92 ug/L	4.842	490.92 ppb	4.842	0.99%
QC value within limits for Co 228.616 Recovery = 98.18%						
Cr 267.716†	40739.9	474.58 ug/L	1.029	474.58 ppb	1.029	0.22%
QC value within limits for Cr 267.716 Recovery = 94.92%						
Cu 324.752†	159980.6	489.82 ug/L	1.134	489.82 ppb	1.134	0.23%
QC value within limits for Cu 324.752 Recovery = 97.96%						
Fe 238.204 Radial†	476.5	5078.7 ug/L	82.55	5078.7 ppb	82.55	1.63%
QC value within limits for Fe 238.204 Radial Recovery = 101.57%						
K 766.490 Radial†	11953.2	2409.5 ug/L	10.64	2409.5 ppb	10.64	0.44%
QC value within limits for K 766.490 Radial Recovery = 96.38%						
Mg 279.077 IEC†	137.7	5317.2 ug/L	57.60	5317.2 ppb	57.60	1.08%
QC value within limits for Mg 279.077 IEC Recovery = 106.34%						
Mn 257.610†	438054.1	505.53 ug/L	1.425	505.53 ppb	1.425	0.28%
QC value within limits for Mn 257.610 Recovery = 101.11%						
Mo 202.031†	7100.3	528.05 ug/L	6.116	528.05 ppb	6.116	1.16%
QC value within limits for Mo 202.031 Recovery = 105.61%						
Na 589.592 Radial†	7458.0	2487.7 ug/L	29.30	2487.7 ppb	29.30	1.18%
QC value within limits for Na 589.592 Radial Recovery = 99.51%						
Ni 231.604†	19109.6	489.18 ug/L	5.062	489.18 ppb	5.062	1.03%
QC value within limits for Ni 231.604 Recovery = 97.84%						
P 214.914†	4450.3	2374.1 ug/L	21.35	2374.1 ppb	21.35	0.90%
QC value within limits for P 214.914 Recovery = 94.97%						
Pb 220.353†	3971.2	493.64 ug/L	4.222	493.64 ppb	4.222	0.86%
QC value within limits for Pb 220.353 Recovery = 98.73%						
S 181.975 Axial†	1868.5	2441.1 ug/L	34.96	2441.1 ppb	34.96	1.43%
QC value within limits for S 181.975 Axial Recovery = 97.64%						
Sb 206.836†	1461.8	513.72 ug/L	6.393	513.72 ppb	6.393	1.24%
QC value within limits for Sb 206.836 Recovery = 102.74%						
Se 196.026†	4350.2	2555.9 ug/L	25.16	2555.9 ppb	25.16	0.98%
QC value within limits for Se 196.026 Recovery = 102.23%						
Si 251.611†	153362.3	4772.7 ug/L	11.80	4772.7 ppb	11.80	0.25%
QC value within limits for Si 251.611 Recovery = 95.45%						
Sn 189.927†	2941.5	528.27 ug/L	3.663	528.27 ppb	3.663	0.69%
QC value within limits for Sn 189.927 Recovery = 105.65%						
Sr 421.552†	67054.4	517.71 ug/L	1.316	517.71 ppb	1.316	0.25%
QC value within limits for Sr 421.552 Recovery = 103.54%						
Ti 334.940†	303509.9	493.15 ug/L	0.906	493.15 ppb	0.906	0.18%
QC value within limits for Ti 334.940 Recovery = 98.63%						
Tl 190.801†	1637.8	520.33 ug/L	7.117	520.33 ppb	7.117	1.37%
QC value within limits for Tl 190.801 Recovery = 104.07%						
U 409.014†	16891.0	478.19 ug/L	5.565	478.19 ppb	5.565	1.16%
QC value within limits for U 409.014 Recovery = 95.64%						
V 292.402†	68293.4	501.68 ug/L	1.136	501.68 ppb	1.136	0.23%
QC value within limits for V 292.402 Recovery = 100.34%						
Zn 213.857†	51524.8	498.33 ug/L	1.281	498.33 ppb	1.281	0.26%
QC value within limits for Zn 213.857 Recovery = 99.67%						
SiO2†	153988.7	10253 ug/L	137.4	10253 ppb	137.4	1.34%
QC value within limits for SiO2 Recovery = 95.86%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/16/2010 12:25:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4455.3	4455.3	105	%			12:27:17
1	Y RADIAL	4561.8	4561.8	103.6	%			12:27:17
1	Al 396.153Radial†	-148.1	17.7	17.696	ug/L	17.696	ppb	12:27:17
1	Ca 317.933Radial†	20.8	1.5	2.8793	ug/L	2.8793	ppb	12:27:37
1	Fe 238.204 Radial†	11.5	0.9	9.5190	ug/L	9.5190	ppb	12:27:37
1	K 766.490 Radial†	3239.8	-80.5	-16.259	ug/L	-16.259	ppb	12:27:17
1	Mg 279.077 IEC†	3.4	0.5	20.058	ug/L	20.058	ppb	12:27:37
1	Na 589.592 Radial†	320.3	98.5	32.864	ug/L	32.864	ppb	12:27:17
1	Sr 421.552†	101.2	6.7	0.0520	ug/L	0.0520	ppb	12:27:17
1	Sc 361.383	850103.5	850103.5	100.01	%			12:28:34
1	Y 371.029	701164.2	701164.2	99.777	%			12:28:34
1	Ag 328.068†	351.9	124.2	0.6024	ug/L	0.6024	ppb	12:28:34
1	As 188.979†	-33.8	-5.5	-2.3138	ug/L	-2.3138	ppb	12:28:54
1	B 249.677†	-258.3	223.6	5.2598	ug/L	5.2598	ppb	12:28:54
1	Ba 233.527†	28.2	9.4	0.0763	ug/L	0.0763	ppb	12:28:54
1	Be 313.107†	-4315.7	23.9	0.0092	ug/L	0.0092	ppb	12:28:34
1	Cd 226.502†	-206.2	-10.7	-0.1266	ug/L	-0.1266	ppb	12:28:54
1	Co 228.616†	-79.3	-0.4	-0.0076	ug/L	-0.0076	ppb	12:28:54
1	Cr 267.716†	168.0	18.3	0.2141	ug/L	0.2141	ppb	12:28:54
1	Cu 324.752†	8192.7	97.7	0.3021	ug/L	0.3021	ppb	12:28:34
1	Mn 257.610†	656.9	87.1	0.1006	ug/L	0.1006	ppb	12:28:54
1	Mo 202.031†	21.2	10.8	0.8000	ug/L	0.8000	ppb	12:28:54
1	Ni 231.604†	106.4	-7.2	-0.1832	ug/L	-0.1832	ppb	12:28:54
1	P 214.914†	253.2	11.1	6.1445	ug/L	6.1445	ppb	12:28:54
1	Pb 220.353†	-77.9	-4.3	-0.5330	ug/L	-0.5330	ppb	12:28:54
1	S 181.975 Axial†	47.0	4.1	5.3073	ug/L	5.3073	ppb	12:28:54
1	Sb 206.836†	45.0	9.3	3.1996	ug/L	3.1996	ppb	12:28:54
1	Se 196.026†	-21.5	1.9	1.1248	ug/L	1.1248	ppb	12:28:54
1	Si 251.611†	630.4	18.1	0.5531	ug/L	0.5531	ppb	12:28:54
1	Sn 189.927†	26.6	13.9	2.5008	ug/L	2.5008	ppb	12:28:54
1	Ti 334.940†	-1382.2	110.9	0.1808	ug/L	0.1808	ppb	12:28:34
1	Tl 190.801†	-36.1	3.1	0.9666	ug/L	0.9666	ppb	12:28:54
1	U 409.014†	-3667.0	-151.4	-4.3038	ug/L	-4.3038	ppb	12:28:34
1	V 292.402†	-1691.7	-14.2	-0.1010	ug/L	-0.1010	ppb	12:28:34
1	Zn 213.857†	726.3	38.5	0.3747	ug/L	0.3747	ppb	12:28:54
1	SiO2†	620.9	1.3	0.0652	ug/L	0.0652	ppb	12:29:50
2	Sc Radial	4440.7	4440.7	104	%			12:27:42
2	Y RADIAL	4576.2	4576.2	104.0	%			12:27:42
2	Al 396.153Radial†	-148.2	17.2	17.157	ug/L	17.157	ppb	12:27:42
2	Ca 317.933Radial†	24.9	5.5	10.224	ug/L	10.224	ppb	12:28:02
2	Fe 238.204 Radial†	12.5	1.9	19.787	ug/L	19.787	ppb	12:28:02
2	K 766.490 Radial†	3182.1	-125.6	-25.354	ug/L	-25.354	ppb	12:27:42
2	Mg 279.077 IEC†	2.2	-0.6	-23.955	ug/L	-23.955	ppb	12:28:02
2	Na 589.592 Radial†	210.8	-5.3	-1.7514	ug/L	-1.7514	ppb	12:27:42
2	Sr 421.552†	78.4	-14.8	-0.1143	ug/L	-0.1143	ppb	12:27:42
2	Sc 361.383	850643.0	850643.0	100.07	%			12:29:00
2	Y 371.029	701080.0	701080.0	99.765	%			12:29:00
2	Ag 328.068†	215.2	-12.6	-0.0538	ug/L	-0.0538	ppb	12:29:00
2	As 188.979†	-32.2	-3.9	-1.6295	ug/L	-1.6295	ppb	12:29:20
2	B 249.677†	-253.7	228.4	5.3704	ug/L	5.3704	ppb	12:29:20
2	Ba 233.527†	1.4	-17.5	-0.1413	ug/L	-0.1413	ppb	12:29:20
2	Be 313.107†	-4312.8	29.6	0.0106	ug/L	0.0106	ppb	12:29:00
2	Cd 226.502†	-195.3	0.3	0.0017	ug/L	0.0017	ppb	12:29:20
2	Co 228.616†	-78.1	0.9	0.0198	ug/L	0.0198	ppb	12:29:20
2	Cr 267.716†	145.5	-4.3	-0.0489	ug/L	-0.0489	ppb	12:29:20
2	Cu 324.752†	8133.5	33.3	0.1034	ug/L	0.1034	ppb	12:29:00
2	Mn 257.610†	632.8	62.5	0.0751	ug/L	0.0751	ppb	12:29:20
2	Mo 202.031†	20.8	10.3	0.7687	ug/L	0.7687	ppb	12:29:20
2	Ni 231.604†	100.8	-12.8	-0.3269	ug/L	-0.3269	ppb	12:29:20

2	P 214.914†	228.4	-13.7	-7.6283 ug/L	-7.6283 ppb	12:29:20
2	Pb 220.353†	-60.9	12.7	1.5761 ug/L	1.5761 ppb	12:29:20
2	S 181.975 Axial†	46.3	3.3	4.3280 ug/L	4.3280 ppb	12:29:20
2	Sb 206.836†	52.7	17.0	5.7844 ug/L	5.7844 ppb	12:29:20
2	Se 196.026†	-17.8	5.6	3.3281 ug/L	3.3281 ppb	12:29:20
2	Si 251.611†	602.3	-10.5	-0.3364 ug/L	-0.3364 ppb	12:29:20
2	Sn 189.927†	18.9	6.2	1.1203 ug/L	1.1203 ppb	12:29:20
2	Ti 334.940†	-1553.1	-59.0	-0.0923 ug/L	-0.0923 ppb	12:29:00
2	Tl 190.801†	-33.4	5.7	1.8073 ug/L	1.8073 ppb	12:29:20
2	U 409.014†	-3539.5	-21.7	-0.6188 ug/L	-0.6188 ppb	12:29:00
2	V 292.402†	-1688.4	-9.8	-0.0648 ug/L	-0.0648 ppb	12:29:00
2	Zn 213.857†	725.2	36.9	0.3593 ug/L	0.3593 ppb	12:29:20
2	SiO2†	626.5	6.5	0.4151 ug/L	0.4151 ppb	12:29:55
3	Sc Radial	4363.6	4363.6	103 %		12:28:08
3	Y RADIAL	4483.5	4483.5	101.8 %		12:28:08
3	Al 396.153Radial†	-148.0	14.8	14.794 ug/L	14.794 ppb	12:28:08
3	Ca 317.933Radial†	22.9	3.9	7.3483 ug/L	7.3483 ppb	12:28:28
3	Fe 238.204 Radial†	10.6	0.2	2.5876 ug/L	2.5876 ppb	12:28:28
3	K 766.490 Radial†	3081.8	-169.4	-34.205 ug/L	-34.205 ppb	12:28:08
3	Mg 279.077 IEC†	0.3	-2.4	-92.996 ug/L	-92.996 ppb	12:28:28
3	Na 589.592 Radial†	217.7	5.0	1.6838 ug/L	1.6838 ppb	12:28:08
3	Sr 421.552†	105.7	13.1	0.1014 ug/L	0.1014 ppb	12:28:08
3	Sc 361.383	852757.2	852757.2	100.32 %		12:29:25
3	Y 371.029	704054.8	704054.8	100.19 %		12:29:25
3	Ag 328.068†	256.4	27.9	0.1341 ug/L	0.1341 ppb	12:29:25
3	As 188.979†	-31.2	-2.8	-1.1867 ug/L	-1.1867 ppb	12:29:45
3	B 249.677†	-279.9	202.9	4.7727 ug/L	4.7727 ppb	12:29:45
3	Ba 233.527†	18.0	-0.9	-0.0081 ug/L	-0.0081 ppb	12:29:45
3	Be 313.107†	-4269.7	83.2	0.0306 ug/L	0.0306 ppb	12:29:25
3	Cd 226.502†	-215.8	-19.6	-0.2295 ug/L	-0.2295 ppb	12:29:45
3	Co 228.616†	-68.1	11.0	0.2297 ug/L	0.2297 ppb	12:29:45
3	Cr 267.716†	144.7	-5.4	-0.0631 ug/L	-0.0631 ppb	12:29:45
3	Cu 324.752†	8096.3	-23.9	-0.0725 ug/L	-0.0725 ppb	12:29:25
3	Mn 257.610†	622.2	50.5	0.0623 ug/L	0.0623 ppb	12:29:45
3	Mo 202.031†	17.5	7.0	0.5216 ug/L	0.5216 ppb	12:29:45
3	Ni 231.604†	123.6	9.7	0.2485 ug/L	0.2485 ppb	12:29:45
3	P 214.914†	239.0	-3.7	-2.0195 ug/L	-2.0195 ppb	12:29:45
3	Pb 220.353†	-65.2	8.6	1.0665 ug/L	1.0665 ppb	12:29:45
3	S 181.975 Axial†	41.2	-1.8	-2.4200 ug/L	-2.4200 ppb	12:29:45
3	Sb 206.836†	50.4	14.6	4.9775 ug/L	4.9775 ppb	12:29:45
3	Se 196.026†	-25.0	-1.5	-0.8926 ug/L	-0.8926 ppb	12:29:45
3	Si 251.611†	616.0	1.7	0.0452 ug/L	0.0452 ppb	12:29:45
3	Sn 189.927†	24.5	11.8	2.1193 ug/L	2.1193 ppb	12:29:45
3	Ti 334.940†	-1476.3	21.4	0.0437 ug/L	0.0437 ppb	12:29:25
3	Tl 190.801†	-33.5	5.7	1.7946 ug/L	1.7946 ppb	12:29:45
3	U 409.014†	-3555.9	-29.3	-0.8315 ug/L	-0.8315 ppb	12:29:25
3	V 292.402†	-1727.4	-44.5	-0.3186 ug/L	-0.3186 ppb	12:29:25
3	Zn 213.857†	725.9	35.8	0.3475 ug/L	0.3475 ppb	12:29:45
3	SiO2†	632.0	10.5	0.6837 ug/L	0.6837 ppb	12:30:00

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	851167.9	100.14	%	0.165				0.16%
Sc Radial	4419.9	104	%	1.2				1.11%
Y 371.029	702099.6	99.911	%	0.2410				0.24%
Y RADIAL	4540.5	103.1	%	1.13				1.10%
Ag 328.068†	46.5	0.2275	ug/L	0.33795	0.2275	ppb	0.33795	148.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.6	16.549	ug/L	1.5440	16.549	ppb	1.5440	9.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-1.7100	ug/L	0.56785	-1.7100	ppb	0.56785	33.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	218.3	5.1343	ug/L	0.31799	5.1343	ppb	0.31799	6.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0244	ug/L	0.10969	-0.0244	ppb	0.10969	449.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	45.5	0.0168	ug/L	0.01199	0.0168	ppb	0.01199	71.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.7	6.8174	ug/L	3.70128	6.8174	ppb	3.70128	54.29%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.0     -0.1181 ug/L       0.11582     -0.1181 ppb        0.11582  98.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                3.8      0.0807 ug/L       0.12984      0.0807 ppb        0.12984 160.98%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.9      0.0340 ug/L       0.15613      0.0340 ppb        0.15613 458.91%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               35.7      0.1110 ug/L       0.18742      0.1110 ppb        0.18742 168.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.0      10.631 ug/L        8.6537      10.631 ppb         8.6537  81.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -125.2     -25.273 ug/L        8.9732     -25.273 ppb         8.9732  35.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -32.298 ug/L       56.9867     -32.298 ppb        56.9867 176.44%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               66.7      0.0793 ug/L       0.01951      0.0793 ppb        0.01951  24.60%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.4      0.6967 ug/L       0.15251      0.6967 ppb        0.15251  21.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        32.8      10.932 ug/L       19.0710      10.932 ppb        19.0710 174.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.4     -0.0872 ug/L       0.29951     -0.0872 ppb        0.29951 343.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.1     -1.1678 ug/L       6.92582     -1.1678 ppb        6.92582 593.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.6      0.7032 ug/L       1.10045      0.7032 ppb        1.10045 156.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.8      2.4051 ug/L       4.20725      2.4051 ppb        4.20725 174.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               13.6      4.6538 ug/L       1.32244      4.6538 ppb        1.32244  28.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.0      1.1868 ug/L       2.11107      1.1868 ppb        2.11107 177.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                3.1      0.0873 ug/L       0.44621      0.0873 ppb        0.44621 511.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               10.7      1.9134 ug/L       0.71290      1.9134 ppb        0.71290  37.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                1.7      0.0130 ug/L       0.11303      0.0130 ppb        0.11303 868.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               24.4      0.0441 ug/L       0.13656      0.0441 ppb        0.13656 309.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.8      1.5228 ug/L       0.48177      1.5228 ppb        0.48177  31.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -67.5     -1.9180 ug/L       2.06884     -1.9180 ppb        2.06884 107.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -22.8     -0.1615 ug/L       0.13730     -0.1615 ppb        0.13730  85.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               37.1      0.3605 ug/L       0.01362      0.3605 ppb        0.01362   3.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      6.1      0.3880 ug/L       0.31015      0.3880 ppb        0.31015  79.93%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/16/2010 12:32:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4365.0	4365.0	103	%			12:34:05
1	Y RADIAL	4513.2	4513.2	102.5	%			12:34:05
1	Al 396.153Radial†	71.4	228.6	228.13	ug/L	228.13	ppb	12:34:05
1	Ca 317.933Radial†	129.9	108.2	201.88	ug/L	201.88	ppb	12:34:25
1	Fe 238.204 Radial†	21.7	11.1	117.86	ug/L	117.86	ppb	12:34:25
1	K 766.490 Radial†	4017.9	741.3	149.43	ug/L	149.43	ppb	12:34:05
1	Mg 279.077 IEC†	12.9	9.9	380.54	ug/L	380.54	ppb	12:34:25
1	Na 589.592 Radial†	1204.1	965.6	322.08	ug/L	322.08	ppb	12:34:05
1	Sr 421.552†	754.3	644.8	4.9769	ug/L	4.9769	ppb	12:34:05
1	Sc 361.383	854077.8	854077.8	100.48	%			12:35:22
1	Y 371.029	703434.5	703434.5	100.10	%			12:35:22
1	Ag 328.068†	1253.1	1019.4	4.9056	ug/L	4.9056	ppb	12:35:22
1	As 188.979†	36.7	64.8	27.314	ug/L	27.314	ppb	12:35:42
1	B 249.677†	1666.4	2140.3	50.321	ug/L	50.321	ppb	12:35:22
1	Ba 233.527†	640.5	618.6	5.0367	ug/L	5.0367	ppb	12:35:42
1	Be 313.107†	9115.3	13411.0	4.9375	ug/L	4.9375	ppb	12:35:22
1	Cd 226.502†	225.8	420.2	4.9153	ug/L	4.9153	ppb	12:35:42
1	Co 228.616†	151.4	229.5	4.8013	ug/L	4.8013	ppb	12:35:42
1	Cr 267.716†	522.6	370.4	4.2961	ug/L	4.2961	ppb	12:35:42
1	Cu 324.752†	11466.5	3317.8	10.134	ug/L	10.134	ppb	12:35:22
1	Mn 257.610†	9572.7	8957.3	10.327	ug/L	10.327	ppb	12:35:22
1	Mo 202.031†	165.7	154.5	11.492	ug/L	11.492	ppb	12:35:42
1	Ni 231.604†	280.8	165.9	4.2477	ug/L	4.2477	ppb	12:35:42
1	P 214.914†	507.9	263.5	144.22	ug/L	144.22	ppb	12:35:42
1	Pb 220.353†	9.3	82.8	10.326	ug/L	10.326	ppb	12:35:42
1	S 181.975 Axial†	122.8	79.3	103.56	ug/L	103.56	ppb	12:35:42
1	Sb 206.836†	70.7	34.7	12.111	ug/L	12.111	ppb	12:35:42
1	Se 196.026†	30.6	53.7	31.774	ug/L	31.774	ppb	12:35:42
1	Si 251.611†	3825.5	3194.9	99.420	ug/L	99.420	ppb	12:35:22
1	Sn 189.927†	68.1	55.2	9.9301	ug/L	9.9301	ppb	12:35:42
1	Ti 334.940†	1649.5	3134.5	5.0651	ug/L	5.0651	ppb	12:35:22
1	Tl 190.801†	22.8	61.8	19.558	ug/L	19.558	ppb	12:35:42
1	U 409.014†	-1608.2	1914.6	54.365	ug/L	54.365	ppb	12:35:22
1	V 292.402†	-1059.7	622.6	4.7589	ug/L	4.7589	ppb	12:35:22
1	Zn 213.857†	1739.8	1043.7	10.128	ug/L	10.128	ppb	12:35:42
1	SiO2†	3848.1	3210.2	213.72	ug/L	213.72	ppb	12:36:38
2	Sc Radial	4445.0	4445.0	105	%			12:34:30
2	Y RADIAL	4541.6	4541.6	103.2	%			12:34:30
2	Al 396.153Radial†	49.4	206.3	205.86	ug/L	205.86	ppb	12:34:30
2	Ca 317.933Radial†	134.8	110.5	206.21	ug/L	206.21	ppb	12:34:50
2	Fe 238.204 Radial†	18.4	7.6	80.787	ug/L	80.787	ppb	12:34:50
2	K 766.490 Radial†	3952.6	608.5	122.63	ug/L	122.63	ppb	12:34:30
2	Mg 279.077 IEC†	9.8	6.6	256.54	ug/L	256.54	ppb	12:34:50
2	Na 589.592 Radial†	1135.2	878.5	293.04	ug/L	293.04	ppb	12:34:30
2	Sr 421.552†	732.4	610.6	4.7128	ug/L	4.7128	ppb	12:34:30
2	Sc 361.383	850654.7	850654.7	100.08	%			12:35:47
2	Y 371.029	699508.6	699508.6	99.542	%			12:35:47
2	Ag 328.068†	1229.8	1001.2	4.8132	ug/L	4.8132	ppb	12:35:47
2	As 188.979†	38.9	67.2	28.306	ug/L	28.306	ppb	12:36:07
2	B 249.677†	1726.7	2207.3	51.903	ug/L	51.903	ppb	12:35:47
2	Ba 233.527†	641.2	621.9	5.0638	ug/L	5.0638	ppb	12:36:07
2	Be 313.107†	8942.9	13275.3	4.8872	ug/L	4.8872	ppb	12:35:47
2	Cd 226.502†	193.0	388.3	4.5453	ug/L	4.5453	ppb	12:36:07
2	Co 228.616†	150.5	229.3	4.7939	ug/L	4.7939	ppb	12:36:07
2	Cr 267.716†	475.8	325.8	3.7796	ug/L	3.7796	ppb	12:36:07
2	Cu 324.752†	11448.2	3345.4	10.220	ug/L	10.220	ppb	12:35:47
2	Mn 257.610†	9603.7	9026.6	10.409	ug/L	10.409	ppb	12:35:47
2	Mo 202.031†	147.8	137.3	10.208	ug/L	10.208	ppb	12:36:07
2	Ni 231.604†	281.9	168.1	4.3034	ug/L	4.3034	ppb	12:36:07

2	P 214.914†	505.6	263.2	144.09	ug/L	144.09 ppb	12:36:07
2	Pb 220.353†	8.0	81.6	10.165	ug/L	10.165 ppb	12:36:07
2	S 181.975 Axial†	125.4	82.4	107.63	ug/L	107.63 ppb	12:36:07
2	Sb 206.836†	61.3	25.6	9.0337	ug/L	9.0337 ppb	12:36:07
2	Se 196.026†	28.3	51.6	30.385	ug/L	30.385 ppb	12:36:07
2	Si 251.611†	3830.4	3215.2	100.07	ug/L	100.07 ppb	12:35:47
2	Sn 189.927†	73.3	60.6	10.898	ug/L	10.898 ppb	12:36:07
2	Ti 334.940†	1526.1	3017.8	4.8886	ug/L	4.8886 ppb	12:35:47
2	Tl 190.801†	23.1	62.2	19.694	ug/L	19.694 ppb	12:36:07
2	U 409.014†	-1777.1	1739.4	49.393	ug/L	49.393 ppb	12:35:47
2	V 292.402†	-937.1	741.0	5.5919	ug/L	5.5919 ppb	12:35:47
2	Zn 213.857†	1712.1	1023.1	9.9316	ug/L	9.9316 ppb	12:36:07
2	SiO2†	3788.5	3166.1	210.82	ug/L	210.82 ppb	12:36:43
3	Sc Radial	4315.2	4315.2	102	%		12:34:55
3	Y RADIAL	4470.6	4470.6	101.6	%		12:34:55
3	Al 396.153Radial†	55.8	214.0	213.61	ug/L	213.61 ppb	12:34:55
3	Ca 317.933Radial†	133.2	112.9	210.58	ug/L	210.58 ppb	12:35:15
3	Fe 238.204 Radial†	19.5	9.2	97.608	ug/L	97.608 ppb	12:35:15
3	K 766.490 Radial†	3979.7	748.8	150.96	ug/L	150.96 ppb	12:34:55
3	Mg 279.077 IEC†	10.1	7.3	280.19	ug/L	280.19 ppb	12:35:15
3	Na 589.592 Radial†	1113.4	889.7	296.78	ug/L	296.78 ppb	12:34:55
3	Sr 421.552†	722.2	621.6	4.7982	ug/L	4.7982 ppb	12:34:55
3	Sc 361.383	840845.7	840845.7	98.922	%		12:36:13
3	Y 371.029	693189.2	693189.2	98.643	%		12:36:13
3	Ag 328.068†	1259.2	1045.3	5.0267	ug/L	5.0267 ppb	12:36:13
3	As 188.979†	45.0	73.8	31.112	ug/L	31.112 ppb	12:36:33
3	B 249.677†	1621.7	2121.2	49.876	ug/L	49.876 ppb	12:36:13
3	Ba 233.527†	640.5	628.7	5.1155	ug/L	5.1155 ppb	12:36:33
3	Be 313.107†	8768.4	13203.1	4.8610	ug/L	4.8610 ppb	12:36:13
3	Cd 226.502†	216.6	414.5	4.8481	ug/L	4.8481 ppb	12:36:33
3	Co 228.616†	142.5	222.9	4.6595	ug/L	4.6595 ppb	12:36:33
3	Cr 267.716†	470.8	326.3	3.7849	ug/L	3.7849 ppb	12:36:33
3	Cu 324.752†	11160.8	3188.3	9.7418	ug/L	9.7418 ppb	12:36:13
3	Mn 257.610†	9275.3	8806.6	10.156	ug/L	10.156 ppb	12:36:13
3	Mo 202.031†	140.7	131.8	9.8031	ug/L	9.8031 ppb	12:36:33
3	Ni 231.604†	272.0	161.5	4.1327	ug/L	4.1327 ppb	12:36:33
3	P 214.914†	495.3	258.8	141.73	ug/L	141.73 ppb	12:36:33
3	Pb 220.353†	15.3	89.0	11.083	ug/L	11.083 ppb	12:36:33
3	S 181.975 Axial†	119.9	78.3	102.33	ug/L	102.33 ppb	12:36:33
3	Sb 206.836†	58.0	23.0	8.1545	ug/L	8.1545 ppb	12:36:33
3	Se 196.026†	27.0	50.6	29.871	ug/L	29.871 ppb	12:36:33
3	Si 251.611†	3910.2	3340.5	103.98	ug/L	103.98 ppb	12:36:13
3	Sn 189.927†	79.7	67.9	12.212	ug/L	12.212 ppb	12:36:33
3	Ti 334.940†	1597.7	3108.0	5.0357	ug/L	5.0357 ppb	12:36:13
3	Tl 190.801†	28.9	68.3	21.631	ug/L	21.631 ppb	12:36:33
3	U 409.014†	-1899.5	1595.0	45.289	ug/L	45.289 ppb	12:36:13
3	V 292.402†	-1157.2	507.5	3.8854	ug/L	3.8854 ppb	12:36:13
3	Zn 213.857†	1750.8	1082.2	10.508	ug/L	10.508 ppb	12:36:33
3	SiO2†	3833.4	3255.7	216.80	ug/L	216.80 ppb	12:36:48

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	848526.1	99.826	%	0.8080				0.81%
Sc Radial	4375.0	103	%	1.5				1.50%
Y 371.029	698710.8	99.428	%	0.7356				0.74%
Y RADIAL	4508.5	102.4	%	0.81				0.79%
Ag 328.068†	1022.0	4.9152	ug/L	0.10710	4.9152	ppb	0.10710	2.18%
QC value within limits for Ag 328.068 Recovery = 98.30%								
Al 396.153Radial†	216.3	215.87	ug/L	11.308	215.87	ppb	11.308	5.24%
QC value within limits for Al 396.153Radial Recovery = 107.93%								
As 188.979†	68.6	28.911	ug/L	1.9701	28.911	ppb	1.9701	6.81%
QC value within limits for As 188.979 Recovery = 96.37%								
B 249.677†	2156.3	50.700	ug/L	1.0655	50.700	ppb	1.0655	2.10%
QC value within limits for B 249.677 Recovery = 101.40%								
Ba 233.527†	623.1	5.0720	ug/L	0.04003	5.0720	ppb	0.04003	0.79%
QC value within limits for Ba 233.527 Recovery = 101.44%								
Be 313.107†	13296.5	4.8953	ug/L	0.03885	4.8953	ppb	0.03885	0.79%
QC value within limits for Be 313.107 Recovery = 97.91%								
Ca 317.933Radial†	110.6	206.22	ug/L	4.353	206.22	ppb	4.353	2.11%

QC value within limits for Ca 317.933Radial Recovery = 103.11%

Cd 226.502†	407.7	4.7696 ug/L	0.19713	4.7696 ppb	0.19713	4.13%
QC value within limits for Cd 226.502 Recovery = 95.39%						
Co 228.616†	227.2	4.7515 ug/L	0.07982	4.7515 ppb	0.07982	1.68%
QC value within limits for Co 228.616 Recovery = 95.03%						
Cr 267.716†	340.8	3.9536 ug/L	0.29669	3.9536 ppb	0.29669	7.50%
QC value within limits for Cr 267.716 Recovery = 79.07%						
Cu 324.752†	3283.8	10.032 ug/L	0.2548	10.032 ppb	0.2548	2.54%
QC value within limits for Cu 324.752 Recovery = 100.32%						
Fe 238.204 Radial†	9.3	98.753 ug/L	18.5648	98.753 ppb	18.5648	18.80%
QC value within limits for Fe 238.204 Radial Recovery = 98.75%						
K 766.490 Radial†	699.5	141.01 ug/L	15.934	141.01 ppb	15.934	11.30%
QC value within limits for K 766.490 Radial Recovery = 94.00%						
Mg 279.077 IEC†	7.9	305.76 ug/L	65.838	305.76 ppb	65.838	21.53%
QC value within limits for Mg 279.077 IEC Recovery = 101.92%						
Mn 257.610†	8930.2	10.297 ug/L	0.1292	10.297 ppb	0.1292	1.25%
QC value within limits for Mn 257.610 Recovery = 102.97%						
Mo 202.031†	141.2	10.501 ug/L	0.8815	10.501 ppb	0.8815	8.39%
QC value within limits for Mo 202.031 Recovery = 105.01%						
Na 589.592 Radial†	911.3	303.97 ug/L	15.797	303.97 ppb	15.797	5.20%
QC value within limits for Na 589.592 Radial Recovery = 101.32%						
Ni 231.604†	165.2	4.2280 ug/L	0.08709	4.2280 ppb	0.08709	2.06%
QC value within limits for Ni 231.604 Recovery = 84.56%						
P 214.914†	261.8	143.35 ug/L	1.405	143.35 ppb	1.405	0.98%
QC value within limits for P 214.914 Recovery = 95.56%						
Pb 220.353†	84.5	10.525 ug/L	0.4900	10.525 ppb	0.4900	4.66%
QC value within limits for Pb 220.353 Recovery = 105.25%						
S 181.975 Axial†	80.0	104.51 ug/L	2.776	104.51 ppb	2.776	2.66%
QC value within limits for S 181.975 Axial Recovery = 104.51%						
Sb 206.836†	27.7	9.7666 ug/L	2.07773	9.7666 ppb	2.07773	21.27%
QC value within limits for Sb 206.836 Recovery = 97.67%						
Se 196.026†	52.0	30.677 ug/L	0.9844	30.677 ppb	0.9844	3.21%
QC value within limits for Se 196.026 Recovery = 102.26%						
Si 251.611†	3250.2	101.15 ug/L	2.465	101.15 ppb	2.465	2.44%
QC value within limits for Si 251.611 Recovery = 101.15%						
Sn 189.927†	61.2	11.013 ug/L	1.1453	11.013 ppb	1.1453	10.40%
QC value within limits for Sn 189.927 Recovery = 110.13%						
Sr 421.552†	625.7	4.8293 ug/L	0.13477	4.8293 ppb	0.13477	2.79%
QC value within limits for Sr 421.552 Recovery = 96.59%						
Ti 334.940†	3086.8	4.9964 ug/L	0.09458	4.9964 ppb	0.09458	1.89%
QC value within limits for Ti 334.940 Recovery = 99.93%						
Tl 190.801†	64.1	20.294 ug/L	1.1597	20.294 ppb	1.1597	5.71%
QC value within limits for Tl 190.801 Recovery = 101.47%						
U 409.014†	1749.6	49.682 ug/L	4.5451	49.682 ppb	4.5451	9.15%
QC value within limits for U 409.014 Recovery = 99.36%						
V 292.402†	623.7	4.7454 ug/L	0.85329	4.7454 ppb	0.85329	17.98%
QC value within limits for V 292.402 Recovery = 94.91%						
Zn 213.857†	1049.7	10.189 ug/L	0.2928	10.189 ppb	0.2928	2.87%
QC value within limits for Zn 213.857 Recovery = 101.89%						
SiO2†	3210.7	213.78 ug/L	2.991	213.78 ppb	2.991	1.40%
QC value within limits for SiO2 Recovery = 100.37%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/16/2010 12:39:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3937.1	3937.1	92.6	%			12:40:58
1	Y RADIAL	4029.9	4029.9	91.54	%			12:40:58
1	Al 396.153Radial†	478456.5	516755.4	516960	ug/L	516960	ppb	12:40:53
1	Ca 317.933Radial†	238994.6	258027.6	481320	ug/L	481320	ppb	12:40:53
1	Fe 238.204 Radial†	16335.7	17627.8	187340	ug/L	187340	ppb	12:40:58
1	K 766.490 Radial†	3019.5	88.7	-143.22	ug/L	-143.22	ppb	12:40:53
1	Mg 279.077 IEC†	11718.1	12649.5	488360	ug/L	488360	ppb	12:40:58
1	Na 589.592 Radial†	1169.1	1055.2	351.97	ug/L	351.97	ppb	12:40:58
1	Sr 421.552†	547.3	501.1	0.2753	ug/L	0.2753	ppb	12:40:58
1	Sc 361.383	740276.7	740276.7	87.090	%			12:41:25
1	Y 371.029	594718.2	594718.2	84.630	%			12:41:25
1	Ag 328.068†	-9235.1	-10831.7	4.7208	ug/L	4.7208	ppb	12:41:25
1	As 188.979†	-107.5	-95.1	3.7336	ug/L	3.7336	ppb	12:41:46
1	B 249.677†	362.1	897.7	-9.3057	ug/L	-9.3057	ppb	12:41:25
1	Ba 233.527†	-647.4	-762.3	-0.4564	ug/L	-0.4564	ppb	12:41:46
1	Be 313.107†	-4701.6	-1059.4	-0.4395	ug/L	-0.4395	ppb	12:41:25
1	Cd 226.502†	1164.0	1532.0	-1.4262	ug/L	-1.4262	ppb	12:41:46
1	Co 228.616†	-32.6	41.4	-1.8478	ug/L	-1.8478	ppb	12:41:46
1	Cr 267.716†	-48.8	-205.7	1.2542	ug/L	1.2542	ppb	12:41:46
1	Cu 324.752†	5131.6	-2201.9	3.1539	ug/L	3.1539	ppb	12:41:25
1	Mn 257.610†	741.7	281.9	-1.1476	ug/L	-1.1476	ppb	12:41:25
1	Mo 202.031†	-242.0	-288.3	-1.1526	ug/L	-1.1526	ppb	12:41:46
1	Ni 231.604†	205.2	122.1	3.1281	ug/L	3.1281	ppb	12:41:46
1	P 214.914†	216.2	6.3	-17.890	ug/L	-17.890	ppb	12:41:46
1	Pb 220.353†	-814.3	-861.4	-5.1356	ug/L	-5.1356	ppb	12:41:46
1	S 181.975 Axial†	68.2	35.4	-50.587	ug/L	-50.587	ppb	12:41:46
1	Sb 206.836†	81.0	57.4	1.8960	ug/L	1.8960	ppb	12:41:46
1	Se 196.026†	-916.1	-1028.5	20.689	ug/L	20.689	ppb	12:41:46
1	Si 251.611†	562.2	33.2	1.2996	ug/L	1.2996	ppb	12:41:46
1	Sn 189.927†	-356.8	-422.3	0.5649	ug/L	0.5649	ppb	12:41:46
1	Ti 334.940†	-13188.7	-13650.8	2.4504	ug/L	2.4504	ppb	12:41:25
1	Tl 190.801†	-79.8	-52.6	-16.804	ug/L	-16.804	ppb	12:41:46
1	U 409.014†	-1918.8	1311.9	15.915	ug/L	15.915	ppb	12:41:25
1	V 292.402†	344.5	2072.8	-3.0434	ug/L	-3.0434	ppb	12:41:46
1	Zn 213.857†	3071.7	2839.3	-0.3354	ug/L	-0.3354	ppb	12:41:46
1	SiO2†	480.6	-67.7	-3.9304	ug/L	-3.9304	ppb	12:42:42
2	Sc Radial	3938.9	3938.9	92.7	%			12:41:08
2	Y RADIAL	4049.1	4049.1	91.98	%			12:41:08
2	Al 396.153Radial†	483505.5	521957.5	522160	ug/L	522160	ppb	12:41:03
2	Ca 317.933Radial†	240862.2	259919.8	484850	ug/L	484850	ppb	12:41:03
2	Fe 238.204 Radial†	16338.0	17621.9	187280	ug/L	187280	ppb	12:41:08
2	K 766.490 Radial†	3062.5	133.4	-135.37	ug/L	-135.37	ppb	12:41:03
2	Mg 279.077 IEC†	11742.6	12669.9	489150	ug/L	489150	ppb	12:41:08
2	Na 589.592 Radial†	1175.6	1061.6	354.12	ug/L	354.12	ppb	12:41:08
2	Sr 421.552†	545.1	498.4	0.2281	ug/L	0.2281	ppb	12:41:08
2	Sc 361.383	743346.1	743346.1	87.452	%			12:41:51
2	Y 371.029	597417.9	597417.9	85.014	%			12:41:51
2	Ag 328.068†	-9292.0	-10853.0	4.5531	ug/L	4.5531	ppb	12:41:51
2	As 188.979†	-98.8	-84.6	8.1206	ug/L	8.1206	ppb	12:42:11
2	B 249.677†	371.1	906.3	-9.0933	ug/L	-9.0933	ppb	12:41:51
2	Ba 233.527†	-609.3	-715.6	-0.0773	ug/L	-0.0773	ppb	12:42:11
2	Be 313.107†	-4579.3	-897.2	-0.3791	ug/L	-0.3791	ppb	12:41:51
2	Cd 226.502†	1152.3	1513.1	-1.6404	ug/L	-1.6404	ppb	12:42:11
2	Co 228.616†	-32.8	41.4	-1.8460	ug/L	-1.8460	ppb	12:42:11
2	Cr 267.716†	10.4	-137.8	2.0442	ug/L	2.0442	ppb	12:42:11
2	Cu 324.752†	5324.7	-2005.4	3.7522	ug/L	3.7522	ppb	12:41:51
2	Mn 257.610†	881.3	438.1	-1.0059	ug/L	-1.0059	ppb	12:41:51
2	Mo 202.031†	-230.5	-274.0	-0.0520	ug/L	-0.0520	ppb	12:42:11
2	Ni 231.604†	220.9	139.0	3.5611	ug/L	3.5611	ppb	12:42:11

2	P 214.914†	220.5	10.1	-14.542 ug/L	-14.542 ppb	12:42:11
2	Pb 220.353†	-829.6	-875.0	-5.6358 ug/L	-5.6358 ppb	12:42:11
2	S 181.975 Axial†	65.8	32.4	-55.569 ug/L	-55.569 ppb	12:42:11
2	Sb 206.836†	73.0	47.8	-1.4860 ug/L	-1.4860 ppb	12:42:11
2	Se 196.026†	-907.9	-1014.8	28.677 ug/L	28.677 ppb	12:42:11
2	Si 251.611†	560.8	28.9	1.1522 ug/L	1.1522 ppb	12:42:11
2	Sn 189.927†	-364.3	-429.2	-0.1275 ug/L	-0.1275 ppb	12:42:11
2	Ti 334.940†	-13038.7	-13416.8	3.2397 ug/L	3.2397 ppb	12:41:51
2	Tl 190.801†	-75.8	-47.5	-15.210 ug/L	-15.210 ppb	12:42:11
2	U 409.014†	-1933.5	1304.2	15.703 ug/L	15.703 ppb	12:41:51
2	V 292.402†	449.9	2191.8	-2.1436 ug/L	-2.1436 ppb	12:42:11
2	Zn 213.857†	3087.5	2842.7	-0.2961 ug/L	-0.2961 ppb	12:42:11
2	SiO2†	533.1	-9.9	-0.1044 ug/L	-0.1044 ppb	12:42:47
3	Sc Radial	3825.6	3825.6	90.0 %		12:41:19
3	Y RADIAL	3920.0	3920.0	89.05 %		12:41:19
3	Al 396.153Radial†	485514.9	539653.4	539860 ug/L	539860 ppb	12:41:14
3	Ca 317.933Radial†	241480.6	268310.1	500500 ug/L	500500 ppb	12:41:14
3	Fe 238.204 Radial†	15921.7	17681.9	187920 ug/L	187920 ppb	12:41:19
3	K 766.490 Radial†	2887.3	36.7	-160.12 ug/L	-160.12 ppb	12:41:14
3	Mg 279.077 IEC†	11480.6	12754.3	492410 ug/L	492410 ppb	12:41:19
3	Na 589.592 Radial†	1102.4	1017.9	339.53 ug/L	339.53 ppb	12:41:19
3	Sr 421.552†	520.4	488.5	0.0344 ug/L	0.0344 ppb	12:41:19
3	Sc 361.383	746684.9	746684.9	87.844 %		12:42:16
3	Y 371.029	599554.4	599554.4	85.318 %		12:42:16
3	Ag 328.068†	-9423.9	-10955.6	4.0545 ug/L	4.0545 ppb	12:42:16
3	As 188.979†	-112.6	-99.8	1.8698 ug/L	1.8698 ppb	12:42:36
3	B 249.677†	340.9	870.0	-10.052 ug/L	-10.052 ppb	12:42:16
3	Ba 233.527†	-631.6	-737.9	-0.2399 ug/L	-0.2399 ppb	12:42:36
3	Be 313.107†	-4776.7	-1098.6	-0.4525 ug/L	-0.4525 ppb	12:42:16
3	Cd 226.502†	1153.7	1508.9	-1.7538 ug/L	-1.7538 ppb	12:42:36
3	Co 228.616†	-8.5	69.1	-1.2730 ug/L	-1.2730 ppb	12:42:36
3	Cr 267.716†	-30.4	-184.4	1.5112 ug/L	1.5112 ppb	12:42:36
3	Cu 324.752†	5275.1	-2089.0	3.5250 ug/L	3.5250 ppb	12:42:16
3	Mn 257.610†	913.3	469.9	-1.0395 ug/L	-1.0395 ppb	12:42:16
3	Mo 202.031†	-214.7	-254.8	1.6069 ug/L	1.6069 ppb	12:42:36
3	Ni 231.604†	222.7	140.0	3.5858 ug/L	3.5858 ppb	12:42:36
3	P 214.914†	229.4	19.2	-5.5250 ug/L	-5.5250 ppb	12:42:36
3	Pb 220.353†	-841.3	-884.1	-2.7413 ug/L	-2.7413 ppb	12:42:36
3	S 181.975 Axial†	76.0	43.6	-44.200 ug/L	-44.200 ppb	12:42:36
3	Sb 206.836†	83.7	59.6	2.0945 ug/L	2.0945 ppb	12:42:36
3	Se 196.026†	-890.1	-989.9	45.831 ug/L	45.831 ppb	12:42:36
3	Si 251.611†	569.1	35.6	1.3412 ug/L	1.3412 ppb	12:42:36
3	Sn 189.927†	-353.5	-415.0	4.8101 ug/L	4.8101 ppb	12:42:36
3	Ti 334.940†	-12983.8	-13287.5	5.2790 ug/L	5.2790 ppb	12:42:16
3	Tl 190.801†	-69.2	-39.7	-12.727 ug/L	-12.727 ppb	12:42:36
3	U 409.014†	-1666.8	1617.7	24.537 ug/L	24.537 ppb	12:42:16
3	V 292.402†	413.0	2147.4	-2.4574 ug/L	-2.4574 ppb	12:42:36
3	Zn 213.857†	3069.1	2806.1	-0.7493 ug/L	-0.7493 ppb	12:42:36
3	SiO2†	536.1	-9.2	-0.1006 ug/L	-0.1006 ppb	12:42:52

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	743435.9	87.462	%	0.3771				0.43%
Sc Radial	3900.5	91.8	%	1.53				1.66%
Y 371.029	597230.2	84.987	%	0.3449				0.41%
Y RADIAL	3999.7	90.86	%	1.582				1.74%
Ag 328.068†	-10880.1	4.4428	ug/L	0.34656	4.4428	ppb	0.34656	7.80%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	526122.1	526330	ug/L	12008.3	526330	ppb	12008.3	2.28%
QC value within limits for Al 396.153Radial Recovery = 105.27%								
As 188.979†	-93.2	4.5747	ug/L	3.20913	4.5747	ppb	3.20913	70.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	891.4	-9.4838	ug/L	0.50378	-9.4838	ppb	0.50378	5.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-738.6	-0.2579	ug/L	0.19016	-0.2579	ppb	0.19016	73.75%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1018.4	-0.4237	ug/L	0.03920	-0.4237	ppb	0.03920	9.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	262085.8	488890	ug/L	10208.8	488890	ppb	10208.8	2.09%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.78%
Cd 226.502†            1518.0     -1.6068 ug/L       0.16637     -1.6068 ppb        0.16637  10.35%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              50.6     -1.6556 ug/L       0.33131     -1.6556 ppb        0.33131  20.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -176.0      1.6032 ug/L       0.40296      1.6032 ppb        0.40296  25.14%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2098.8      3.4771 ug/L       0.30202      3.4771 ppb        0.30202   8.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    17643.9     187510 ug/L         351.2     187510 ppb          351.2   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.76%
K 766.490 Radial†         86.3     -146.24 ug/L        12.648     -146.24 ppb        12.648   8.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       12691.3     489970 ug/L        2145.0     489970 ppb         2145.0   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.99%
Mn 257.610†             396.6     -1.0643 ug/L       0.07402     -1.0643 ppb        0.07402   6.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -272.4      0.1341 ug/L       1.38915      0.1341 ppb        1.38915 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     1044.9     348.54 ug/L         7.878     348.54 ppb          7.878   2.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             133.7      3.4250 ug/L       0.25741      3.4250 ppb        0.25741   7.52%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               11.9     -12.652 ug/L        6.3956     -12.652 ppb         6.3956  50.55%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -873.5     -4.5042 ug/L       1.54712     -4.5042 ppb        1.54712  34.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         37.1     -50.118 ug/L        5.6989     -50.118 ppb         5.6989  11.37%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              54.9      0.8348 ug/L       2.01232      0.8348 ppb        2.01232 241.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1011.1      31.732 ug/L       12.8465      31.732 ppb        12.8465  40.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              32.6      1.2643 ug/L       0.09934      1.2643 ppb        0.09934   7.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -422.2      1.7492 ug/L       2.67336      1.7492 ppb        2.67336 152.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             496.0      0.1793 ug/L       0.12765      0.1793 ppb        0.12765  71.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13451.7      3.6563 ug/L       1.45964      3.6563 ppb        1.45964  39.92%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -46.6     -14.914 ug/L        2.0544     -14.914 ppb         2.0544  13.78%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1411.3      18.719 ug/L        5.0401      18.719 ppb         5.0401  26.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2137.3     -2.5481 ug/L       0.45675     -2.5481 ppb        0.45675  17.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2829.4     -0.4602 ug/L       0.25107     -0.4602 ppb        0.25107  54.55%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -28.9     -1.3784 ug/L       2.21004     -1.3784 ppb        2.21004 160.33%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/16/2010 12:45:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3916.0	3916.0	92.1	%			12:47:17
1	Y RADIAL	4032.1	4032.1	91.59	%			12:47:17
1	Al 396.153Radial†	487289.5	529119.2	529300	ug/L	529300	ppb	12:46:57
1	Ca 317.933Radial†	241486.9	262119.3	488950	ug/L	488950	ppb	12:46:57
1	Fe 238.204 Radial†	16392.0	17783.7	189010	ug/L	189010	ppb	12:47:17
1	K 766.490 Radial†	28852.9	28148.7	5515.7	ug/L	5515.7	ppb	12:46:57
1	Mg 279.077 IEC†	11740.0	12741.3	491910	ug/L	491910	ppb	12:47:17
1	Na 589.592 Radial†	16400.7	17596.1	5869.4	ug/L	5869.4	ppb	12:46:57
1	Sr 421.552†	61995.6	67207.4	515.28	ug/L	515.28	ppb	12:46:57
1	Sc 361.383	746963.1	746963.1	87.877	%			12:48:15
1	Y 371.029	598362.8	598362.8	85.149	%			12:48:15
1	Ag 328.068†	39835.7	45103.5	275.36	ug/L	275.36	ppb	12:48:15
1	As 188.979†	984.6	1148.7	530.73	ug/L	530.73	ppb	12:48:35
1	B 249.677†	19569.3	22750.9	503.26	ug/L	503.26	ppb	12:48:15
1	Ba 233.527†	52653.8	59898.7	493.23	ug/L	493.23	ppb	12:48:15
1	Be 313.107†	578185.8	662287.2	244.38	ug/L	244.38	ppb	12:48:15
1	Cd 226.502†	35945.2	41099.4	461.49	ug/L	461.49	ppb	12:48:35
1	Co 228.616†	18988.0	21686.3	449.60	ug/L	449.60	ppb	12:48:35
1	Cr 267.716†	36075.4	40902.4	480.05	ug/L	480.05	ppb	12:48:15
1	Cu 324.752†	166171.6	181001.3	563.89	ug/L	563.89	ppb	12:48:15
1	Mn 257.610†	370784.4	421365.5	484.54	ug/L	484.54	ppb	12:48:15
1	Mo 202.031†	5540.7	6294.6	488.22	ug/L	488.22	ppb	12:48:35
1	Ni 231.604†	15586.8	17623.5	451.14	ug/L	451.14	ppb	12:48:35
1	P 214.914†	4284.6	4633.7	2444.7	ug/L	2444.7	ppb	12:48:35
1	Pb 220.353†	2488.1	2904.9	464.95	ug/L	464.95	ppb	12:48:35
1	S 181.975 Axial†	1844.8	2056.4	2588.4	ug/L	2588.4	ppb	12:48:35
1	Sb 206.836†	1466.0	1632.6	552.42	ug/L	552.42	ppb	12:48:35
1	Se 196.026†	2986.6	3421.9	2624.2	ug/L	2624.2	ppb	12:48:35
1	Si 251.611†	146822.1	166464.3	5181.7	ug/L	5181.7	ppb	12:48:15
1	Sn 189.927†	2054.8	2325.6	494.49	ug/L	494.49	ppb	12:48:35
1	Ti 334.940†	263882.7	301778.9	515.48	ug/L	515.48	ppb	12:48:15
1	Tl 190.801†	1237.1	1446.9	460.12	ug/L	460.12	ppb	12:48:35
1	U 409.014†	12742.4	18015.5	489.16	ug/L	489.16	ppb	12:48:15
1	V 292.402†	60315.5	70313.5	498.14	ug/L	498.14	ppb	12:48:15
1	Zn 213.857†	47858.4	53772.9	492.91	ug/L	492.91	ppb	12:48:15
1	SiO2†	149139.1	169093.7	11261	ug/L	11261	ppb	12:49:33
2	Sc Radial	3927.2	3927.2	92.4	%			12:47:43
2	Y RADIAL	4027.8	4027.8	91.50	%			12:47:43
2	Al 396.153Radial†	479696.5	519389.1	519570	ug/L	519570	ppb	12:47:23
2	Ca 317.933Radial†	238039.5	257639.0	480590	ug/L	480590	ppb	12:47:23
2	Fe 238.204 Radial†	16460.8	17807.4	189260	ug/L	189260	ppb	12:47:43
2	K 766.490 Radial†	28609.9	27796.2	5447.3	ug/L	5447.3	ppb	12:47:23
2	Mg 279.077 IEC†	11755.2	12721.3	491140	ug/L	491140	ppb	12:47:43
2	Na 589.592 Radial†	16203.2	17331.6	5781.1	ug/L	5781.1	ppb	12:47:23
2	Sr 421.552†	61052.5	65994.3	505.97	ug/L	505.97	ppb	12:47:23
2	Sc 361.383	755718.9	755718.9	88.907	%			12:48:41
2	Y 371.029	604468.6	604468.6	86.017	%			12:48:41
2	Ag 328.068†	40156.0	44938.5	274.76	ug/L	274.76	ppb	12:48:41
2	As 188.979†	987.7	1139.3	526.84	ug/L	526.84	ppb	12:49:01
2	B 249.677†	19998.0	22975.1	508.51	ug/L	508.51	ppb	12:48:41
2	Ba 233.527†	53172.0	59787.4	492.33	ug/L	492.33	ppb	12:48:41
2	Be 313.107†	586311.4	663803.6	244.93	ug/L	244.93	ppb	12:48:41
2	Cd 226.502†	35859.1	40528.7	454.79	ug/L	454.79	ppb	12:49:01
2	Co 228.616†	18962.7	21407.5	443.76	ug/L	443.76	ppb	12:49:01
2	Cr 267.716†	36529.0	40937.0	480.46	ug/L	480.46	ppb	12:48:41
2	Cu 324.752†	168697.1	181651.1	565.89	ug/L	565.89	ppb	12:48:41
2	Mn 257.610†	375656.6	421956.9	485.28	ug/L	485.28	ppb	12:48:41
2	Mo 202.031†	5519.3	6197.5	480.92	ug/L	480.92	ppb	12:49:01
2	Ni 231.604†	15533.1	17357.7	444.33	ug/L	444.33	ppb	12:49:01

2	P 214.914†	4284.3	4576.8	2410.0 ug/L	2410.0 ppb	12:49:01
2	Pb 220.353†	2463.1	2844.0	455.12 ug/L	455.12 ppb	12:49:01
2	S 181.975 Axial†	1842.0	2028.9	2554.3 ug/L	2554.3 ppb	12:49:01
2	Sb 206.836†	1471.8	1619.7	548.02 ug/L	548.02 ppb	12:49:01
2	Se 196.026†	2997.9	3395.3	2609.1 ug/L	2609.1 ppb	12:49:01
2	Si 251.611†	148855.0	166815.1	5192.7 ug/L	5192.7 ppb	12:48:41
2	Sn 189.927†	2029.1	2269.7	483.19 ug/L	483.19 ppb	12:49:01
2	Ti 334.940†	267403.7	302260.1	515.20 ug/L	515.20 ppb	12:48:41
2	Tl 190.801†	1224.3	1416.1	450.44 ug/L	450.44 ppb	12:49:01
2	U 409.014†	13041.9	18184.3	493.92 ug/L	493.92 ppb	12:48:41
2	V 292.402†	60984.4	70270.6	497.68 ug/L	497.68 ppb	12:48:41
2	Zn 213.857†	48682.7	54069.1	495.80 ug/L	495.80 ppb	12:48:41
2	SiO2†	148164.3	166031.0	11057 ug/L	11057 ppb	12:49:38
3	Sc Radial	3943.1	3943.1	92.8 %		12:48:08
3	Y RADIAL	4062.9	4062.9	92.29 %		12:48:08
3	Al 396.153Radial†	481436.5	519174.1	519350 ug/L	519350 ppb	12:47:48
3	Ca 317.933Radial†	237606.2	256134.2	477790 ug/L	477790 ppb	12:47:48
3	Fe 238.204 Radial†	16447.3	17721.1	188350 ug/L	188350 ppb	12:48:08
3	K 766.490 Radial†	28583.9	27643.5	5417.5 ug/L	5417.5 ppb	12:47:48
3	Mg 279.077 IEC†	11765.3	12680.9	489580 ug/L	489580 ppb	12:48:08
3	Na 589.592 Radial†	16177.5	17233.2	5748.3 ug/L	5748.3 ppb	12:47:48
3	Sr 421.552†	61128.7	65810.3	504.57 ug/L	504.57 ppb	12:47:48
3	Sc 361.383	760720.8	760720.8	89.496 %		12:49:07
3	Y 371.029	608232.4	608232.4	86.553 %		12:49:07
3	Ag 328.068†	40543.2	45074.2	275.15 ug/L	275.15 ppb	12:49:07
3	As 188.979†	978.5	1121.6	519.21 ug/L	519.21 ppb	12:49:27
3	B 249.677†	20217.0	23071.8	510.94 ug/L	510.94 ppb	12:49:07
3	Ba 233.527†	53601.0	59873.5	493.01 ug/L	493.01 ppb	12:49:07
3	Be 313.107†	590205.8	663819.0	244.94 ug/L	244.94 ppb	12:49:07
3	Cd 226.502†	36034.9	40460.0	454.08 ug/L	454.08 ppb	12:49:27
3	Co 228.616†	19044.6	21358.8	442.75 ug/L	442.75 ppb	12:49:27
3	Cr 267.716†	36732.7	40894.4	479.95 ug/L	479.95 ppb	12:49:07
3	Cu 324.752†	170101.9	181973.2	566.83 ug/L	566.83 ppb	12:49:07
3	Mn 257.610†	378742.5	422626.9	486.03 ug/L	486.03 ppb	12:49:07
3	Mo 202.031†	5541.1	6181.0	479.59 ug/L	479.59 ppb	12:49:27
3	Ni 231.604†	15656.8	17380.9	444.93 ug/L	444.93 ppb	12:49:27
3	P 214.914†	4278.9	4539.1	2389.6 ug/L	2389.6 ppb	12:49:27
3	Pb 220.353†	2492.4	2858.5	456.90 ug/L	456.90 ppb	12:49:27
3	S 181.975 Axial†	1850.9	2025.2	2549.5 ug/L	2549.5 ppb	12:49:27
3	Sb 206.836†	1473.8	1611.1	545.12 ug/L	545.12 ppb	12:49:27
3	Se 196.026†	3010.5	3387.2	2601.4 ug/L	2601.4 ppb	12:49:27
3	Si 251.611†	150260.4	167284.6	5207.3 ug/L	5207.3 ppb	12:49:07
3	Sn 189.927†	2051.9	2280.1	484.62 ug/L	484.62 ppb	12:49:27
3	Ti 334.940†	269479.6	302602.0	515.51 ug/L	515.51 ppb	12:49:07
3	Tl 190.801†	1236.3	1420.5	451.85 ug/L	451.85 ppb	12:49:27
3	U 409.014†	13001.1	18042.2	489.99 ug/L	489.99 ppb	12:49:07
3	V 292.402†	61601.8	70509.5	499.49 ug/L	499.49 ppb	12:49:07
3	Zn 213.857†	49001.2	54064.9	495.89 ug/L	495.89 ppb	12:49:07
3	SiO2†	147415.4	164098.4	10928 ug/L	10928 ppb	12:49:43

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	754467.6	88.760	%	0.8192				0.92%
Sc Radial	3928.8	92.4	%	0.32				0.35%
Y 371.029	603687.9	85.906	%	0.7088				0.83%
Y RADIAL	4041.0	91.79	%	0.435				0.47%
Ag 328.068†	45038.7	275.09	ug/L	0.304	275.09	ppb	0.304	0.11%
QC value within limits for Ag 328.068 Recovery = 110.04%								
Al 396.153Radial†	522560.8	522740	ug/L	5682.8	522740	ppb	5682.8	1.09%
QC value within limits for Al 396.153Radial Recovery = 104.55%								
As 188.979†	1136.5	525.60	ug/L	5.858	525.60	ppb	5.858	1.11%
QC value within limits for As 188.979 Recovery = 105.12%								
B 249.677†	22932.6	507.57	ug/L	3.924	507.57	ppb	3.924	0.77%
QC value within limits for B 249.677 Recovery = 101.51%								
Ba 233.527†	59853.2	492.86	ug/L	0.467	492.86	ppb	0.467	0.09%
QC value within limits for Ba 233.527 Recovery = 98.57%								
Be 313.107†	663303.3	244.75	ug/L	0.325	244.75	ppb	0.325	0.13%
QC value within limits for Be 313.107 Recovery = 97.90%								
Ca 317.933Radial†	258630.8	482440	ug/L	5807.7	482440	ppb	5807.7	1.20%

QC value within limits for Ca 317.933Radial Recovery = 96.49%

Cd 226.502†	40696.0	456.79 ug/L	4.090	456.79 ppb	4.090	0.90%
QC value within limits for Cd 226.502 Recovery = 91.36%						
Co 228.616†	21484.2	445.37 ug/L	3.695	445.37 ppb	3.695	0.83%
QC value within limits for Co 228.616 Recovery = 89.07%						
Cr 267.716†	40911.3	480.15 ug/L	0.269	480.15 ppb	0.269	0.06%
QC value within limits for Cr 267.716 Recovery = 96.03%						
Cu 324.752†	181541.9	565.54 ug/L	1.501	565.54 ppb	1.501	0.27%
QC value within limits for Cu 324.752 Recovery = 113.11%						
Fe 238.204 Radial†	17770.7	188870 ug/L	473.8	188870 ppb	473.8	0.25%
QC value within limits for Fe 238.204 Radial Recovery = 94.44%						
K 766.490 Radial†	27862.8	5460.2 ug/L	50.34	5460.2 ppb	50.34	0.92%
QC value within limits for K 766.490 Radial Recovery = 109.20%						
Mg 279.077 IEC†	12714.5	490870 ug/L	1186.8	490870 ppb	1186.8	0.24%
QC value within limits for Mg 279.077 IEC Recovery = 98.17%						
Mn 257.610†	421983.1	485.28 ug/L	0.742	485.28 ppb	0.742	0.15%
QC value within limits for Mn 257.610 Recovery = 97.06%						
Mo 202.031†	6224.4	482.91 ug/L	4.642	482.91 ppb	4.642	0.96%
QC value within limits for Mo 202.031 Recovery = 96.58%						
Na 589.592 Radial†	17386.9	5799.6 ug/L	62.62	5799.6 ppb	62.62	1.08%
QC value within limits for Na 589.592 Radial Recovery = 115.99%						
Ni 231.604†	17454.0	446.80 ug/L	3.769	446.80 ppb	3.769	0.84%
QC value within limits for Ni 231.604 Recovery = 89.36%						
P 214.914†	4583.2	2414.8 ug/L	27.86	2414.8 ppb	27.86	1.15%
QC value within limits for P 214.914 Recovery = 96.59%						
Pb 220.353†	2869.1	458.99 ug/L	5.234	458.99 ppb	5.234	1.14%
QC value within limits for Pb 220.353 Recovery = 91.80%						
S 181.975 Axial†	2036.8	2564.1 ug/L	21.18	2564.1 ppb	21.18	0.83%
QC value within limits for S 181.975 Axial Recovery = 102.56%						
Sb 206.836†	1621.1	548.52 ug/L	3.679	548.52 ppb	3.679	0.67%
QC value within limits for Sb 206.836 Recovery = 109.70%						
Se 196.026†	3401.5	2611.6 ug/L	11.57	2611.6 ppb	11.57	0.44%
QC value within limits for Se 196.026 Recovery = 104.46%						
Si 251.611†	166854.7	5193.9 ug/L	12.87	5193.9 ppb	12.87	0.25%
QC value within limits for Si 251.611 Recovery = 103.88%						
Sn 189.927†	2291.8	487.43 ug/L	6.152	487.43 ppb	6.152	1.26%
QC value within limits for Sn 189.927 Recovery = 97.49%						
Sr 421.552†	66337.3	508.61 ug/L	5.818	508.61 ppb	5.818	1.14%
QC value within limits for Sr 421.552 Recovery = 101.72%						
Ti 334.940†	302213.7	515.40 ug/L	0.170	515.40 ppb	0.170	0.03%
QC value within limits for Ti 334.940 Recovery = 103.08%						
Tl 190.801†	1427.9	454.14 ug/L	5.231	454.14 ppb	5.231	1.15%
QC value within limits for Tl 190.801 Recovery = 90.83%						
U 409.014†	18080.7	491.02 ug/L	2.545	491.02 ppb	2.545	0.52%
QC value within limits for U 409.014 Recovery = 98.20%						
V 292.402†	70364.6	498.44 ug/L	0.941	498.44 ppb	0.941	0.19%
QC value within limits for V 292.402 Recovery = 99.69%						
Zn 213.857†	53968.9	494.86 ug/L	1.698	494.86 ppb	1.698	0.34%
QC value within limits for Zn 213.857 Recovery = 98.97%						
SiO2†	166407.7	11082 ug/L	167.8	11082 ppb	167.8	1.51%
QC value within limits for SiO2 Recovery = 103.62%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/16/2010 12:51:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3836.6	3836.6	90.3	%			12:53:52
1	Y RADIAL	3980.0	3980.0	90.41	%			12:53:52
1	Al 396.153Radial†	469696.5	520578.6	520780	ug/L	520780	ppb	12:53:47
1	Ca 317.933Radial†	231182.0	256129.3	477780	ug/L	477780	ppb	12:53:47
1	Fe 238.204 Radial†	37815.0	41888.6	445180	ug/L	445180	ppb	12:53:52
1	K 766.490 Radial†	2794.4	-75.4	-378.53	ug/L	-378.53	ppb	12:53:47
1	Mg 279.077 IEC†	11166.5	12369.7	477280	ug/L	477280	ppb	12:53:52
1	Na 589.592 Radial†	1412072.0	1564356.4	521810	ug/L	521810	ppb	12:53:47
1	Sr 421.552†	714.3	701.6	1.8499	ug/L	1.8499	ppb	12:53:52
1	Sc 361.383	724699.9	724699.9	85.258	%			12:54:21
1	Y 371.029	581705.7	581705.7	82.778	%			12:54:21
1	Ag 328.068†	-21851.5	-25857.5	8.9483	ug/L	8.9483	ppb	12:54:21
1	As 188.979†	-193.6	-198.8	20.610	ug/L	20.610	ppb	12:54:41
1	B 249.677†	1394.1	2117.1	-22.512	ug/L	-22.512	ppb	12:54:21
1	Ba 233.527†	-1136.9	-1352.3	2.6304	ug/L	2.6304	ppb	12:54:41
1	Be 313.107†	-9927.8	-7305.3	-2.7176	ug/L	-2.7176	ppb	12:54:21
1	Cd 226.502†	3273.5	4035.0	3.7857	ug/L	3.7857	ppb	12:54:41
1	Co 228.616†	297.3	427.6	2.4153	ug/L	2.4153	ppb	12:54:41
1	Cr 267.716†	189.0	72.0	4.2850	ug/L	4.2850	ppb	12:54:41
1	Cu 324.752†	2279.8	-5420.1	-0.3589	ug/L	-0.3589	ppb	12:54:21
1	Mn 257.610†	-20496.1	-24609.9	-3.9503	ug/L	-3.9503	ppb	12:54:21
1	Mo 202.031†	-472.4	-564.5	-1.7055	ug/L	-1.7055	ppb	12:54:41
1	Ni 231.604†	345.5	291.7	7.4662	ug/L	7.4662	ppb	12:54:41
1	P 214.914†	622.1	487.7	44.432	ug/L	44.432	ppb	12:54:41
1	Pb 220.353†	-580.4	-607.2	2.4255	ug/L	2.4255	ppb	12:54:41
1	S 181.975 Axial†	115.8	92.9	23.862	ug/L	23.862	ppb	12:54:41
1	Sb 206.836†	100.6	82.3	6.8584	ug/L	6.8584	ppb	12:54:41
1	Se 196.026†	-2080.6	-2417.0	41.476	ug/L	41.476	ppb	12:54:41
1	Si 251.611†	-163.0	-803.5	-24.521	ug/L	-24.521	ppb	12:54:41
1	Sn 189.927†	-379.6	-457.9	-2.0082	ug/L	-2.0082	ppb	12:54:41
1	Ti 334.940†	-9212.4	-9312.4	4.1124	ug/L	4.1124	ppb	12:54:21
1	Tl 190.801†	-87.6	-63.6	-20.434	ug/L	-20.434	ppb	12:54:41
1	U 409.014†	394240.2	465923.9	13185	ug/L	13185	ppb	12:54:21
1	V 292.402†	2097.1	4137.0	-0.8928	ug/L	-0.8928	ppb	12:54:41
1	Zn 213.857†	5731.6	6034.9	-7.7457	ug/L	-7.7457	ppb	12:54:41
1	SiO2†	-374.1	-1058.3	-69.416	ug/L	-69.416	ppb	12:55:38
2	Sc Radial	3797.7	3797.7	89.3	%			12:54:03
2	Y RADIAL	3955.5	3955.5	89.85	%			12:54:03
2	Al 396.153Radial†	471940.9	528418.0	528630	ug/L	528630	ppb	12:53:58
2	Ca 317.933Radial†	232240.7	259936.3	484880	ug/L	484880	ppb	12:53:58
2	Fe 238.204 Radial†	37836.1	42341.2	449980	ug/L	449980	ppb	12:54:03
2	K 766.490 Radial†	2912.2	88.2	-350.87	ug/L	-350.87	ppb	12:53:58
2	Mg 279.077 IEC†	11113.7	12437.3	479890	ug/L	479890	ppb	12:54:03
2	Na 589.592 Radial†	1418206.5	1587238.3	529440	ug/L	529440	ppb	12:53:58
2	Sr 421.552†	685.9	678.0	1.6142	ug/L	1.6142	ppb	12:54:03
2	Sc 361.383	735668.9	735668.9	86.548	%			12:54:46
2	Y 371.029	590847.9	590847.9	84.079	%			12:54:46
2	Ag 328.068†	-21869.6	-25496.3	12.220	ug/L	12.220	ppb	12:54:46
2	As 188.979†	-213.8	-218.7	13.321	ug/L	13.321	ppb	12:55:06
2	B 249.677†	1485.7	2198.5	-21.372	ug/L	-21.372	ppb	12:54:46
2	Ba 233.527†	-1752.5	-2043.7	-2.8403	ug/L	-2.8403	ppb	12:55:06
2	Be 313.107†	-9849.9	-7041.6	-2.6235	ug/L	-2.6235	ppb	12:54:46
2	Cd 226.502†	3082.2	3756.8	0.0299	ug/L	0.0299	ppb	12:55:06
2	Co 228.616†	217.5	330.1	0.3170	ug/L	0.3170	ppb	12:55:06
2	Cr 267.716†	66.2	-73.2	2.6949	ug/L	2.6949	ppb	12:55:06
2	Cu 324.752†	2993.8	-4635.0	2.3095	ug/L	2.3095	ppb	12:54:46
2	Mn 257.610†	-21000.5	-24834.2	-3.8406	ug/L	-3.8406	ppb	12:54:46
2	Mo 202.031†	-464.0	-546.5	0.0900	ug/L	0.0900	ppb	12:55:06
2	Ni 231.604†	298.5	231.4	5.9235	ug/L	5.9235	ppb	12:55:06

2	P 214.914†	604.2	456.1	24.523	ug/L	24.523 ppb	12:55:06
2	Pb 220.353†	-581.4	-598.2	4.8898	ug/L	4.8898 ppb	12:55:06
2	S 181.975 Axial†	84.9	55.1	-27.020	ug/L	-27.020 ppb	12:55:06
2	Sb 206.836†	74.4	50.3	-4.2099	ug/L	-4.2099 ppb	12:55:06
2	Se 196.026†	-2105.5	-2409.4	61.721	ug/L	61.721 ppb	12:55:06
2	Si 251.611†	-431.3	-1110.7	-34.111	ug/L	-34.111 ppb	12:55:06
2	Sn 189.927†	-381.6	-453.5	-0.0677	ug/L	-0.0677 ppb	12:55:06
2	Ti 334.940†	-9991.4	-10051.4	3.6592	ug/L	3.6592 ppb	12:54:46
2	Tl 190.801†	-99.5	-75.9	-24.304	ug/L	-24.304 ppb	12:55:06
2	U 409.014†	399656.7	465287.8	13166	ug/L	13166 ppb	12:54:46
2	V 292.402†	1976.4	3960.9	-2.8323	ug/L	-2.8323 ppb	12:55:06
2	Zn 213.857†	5650.6	5841.1	-10.351	ug/L	-10.351 ppb	12:55:06
2	SiO2†	-419.8	-1104.6	-72.541	ug/L	-72.541 ppb	12:55:43
3	Sc Radial	3792.8	3792.8	89.2	%		12:54:13
3	Y RADIAL	3932.5	3932.5	89.33	%		12:54:13
3	Al 396.153Radial†	469630.3	526516.8	526720	ug/L	526720 ppb	12:54:08
3	Ca 317.933Radial†	230940.4	258817.7	482790	ug/L	482790 ppb	12:54:08
3	Fe 238.204 Radial†	37445.3	41958.4	445920	ug/L	445920 ppb	12:54:13
3	K 766.490 Radial†	2836.5	7.5	-366.44	ug/L	-366.44 ppb	12:54:08
3	Mg 279.077 IEC†	11077.1	12412.4	478930	ug/L	478930 ppb	12:54:13
3	Na 589.592 Radial†	1416277.7	1587145.2	529410	ug/L	529410 ppb	12:54:08
3	Sr 421.552†	673.9	665.4	1.5330	ug/L	1.5330 ppb	12:54:13
3	Sc 361.383	735730.7	735730.7	86.556	%		12:55:12
3	Y 371.029	591133.5	591133.5	84.120	%		12:55:12
3	Ag 328.068†	-22273.9	-25961.3	8.6600	ug/L	8.6600 ppb	12:55:12
3	As 188.979†	-211.4	-216.0	13.562	ug/L	13.562 ppb	12:55:32
3	B 249.677†	1446.1	2152.6	-21.792	ug/L	-21.792 ppb	12:55:12
3	Ba 233.527†	-1776.2	-2070.9	-3.1843	ug/L	-3.1843 ppb	12:55:32
3	Be 313.107†	-9980.3	-7191.4	-2.6721	ug/L	-2.6721 ppb	12:55:12
3	Cd 226.502†	3144.8	3828.8	1.2878	ug/L	1.2878 ppb	12:55:32
3	Co 228.616†	207.6	318.7	0.1279	ug/L	0.1279 ppb	12:55:32
3	Cr 267.716†	76.0	-61.9	2.7559	ug/L	2.7559 ppb	12:55:32
3	Cu 324.752†	2087.9	-5681.9	-1.0996	ug/L	-1.0996 ppb	12:55:12
3	Mn 257.610†	-21234.7	-25102.7	-4.5129	ug/L	-4.5129 ppb	12:55:12
3	Mo 202.031†	-479.6	-564.6	-1.5926	ug/L	-1.5926 ppb	12:55:32
3	Ni 231.604†	278.6	208.4	5.3341	ug/L	5.3341 ppb	12:55:32
3	P 214.914†	617.4	471.3	36.335	ug/L	36.335 ppb	12:55:32
3	Pb 220.353†	-615.0	-636.9	0.0387	ug/L	0.0387 ppb	12:55:32
3	S 181.975 Axial†	86.5	57.0	-24.246	ug/L	-24.246 ppb	12:55:32
3	Sb 206.836†	54.7	27.5	-11.901	ug/L	-11.901 ppb	12:55:32
3	Se 196.026†	-2103.9	-2407.4	49.688	ug/L	49.688 ppb	12:55:32
3	Si 251.611†	-405.0	-1080.3	-33.147	ug/L	-33.147 ppb	12:55:32
3	Sn 189.927†	-398.8	-473.4	-4.0165	ug/L	-4.0165 ppb	12:55:32
3	Ti 334.940†	-8491.7	-8317.7	6.2845	ug/L	6.2845 ppb	12:55:12
3	Tl 190.801†	-95.4	-71.1	-22.783	ug/L	-22.783 ppb	12:55:32
3	U 409.014†	399064.1	464564.3	13146	ug/L	13146 ppb	12:55:12
3	V 292.402†	2011.5	4001.3	-2.0272	ug/L	-2.0272 ppb	12:55:32
3	Zn 213.857†	5696.0	5893.0	-9.2270	ug/L	-9.2270 ppb	12:55:32
3	SiO2†	-471.7	-1164.5	-76.497	ug/L	-76.497 ppb	12:55:48

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	732033.2	86.121	%	0.7472				0.87%
Sc Radial	3809.0	89.6	%	0.56				0.63%
Y 371.029	587895.7	83.659	%	0.7631				0.91%
Y RADIAL	3956.0	89.86	%	0.539				0.60%
Ag 328.068†	-25771.7	9.9426	ug/L	1.97719	9.9426	ppb	1.97719	19.89%
Al 396.153Radial†	525171.1	525380	ug/L	4090.8	525380	ppb	4090.8	0.78%
QC value within limits for Al 396.153Radial Recovery = 105.08%								
As 188.979†	-211.2	15.831	ug/L	4.1408	15.831	ppb	4.1408	26.16%
B 249.677†	2156.1	-21.892	ug/L	0.5768	-21.892	ppb	0.5768	2.63%
Ba 233.527†	-1822.3	-1.1314	ug/L	3.26234	-1.1314	ppb	3.26234	288.35%
Be 313.107†	-7179.4	-2.6711	ug/L	0.04707	-2.6711	ppb	0.04707	1.76%
Ca 317.933Radial†	258294.4	481820	ug/L	3650.0	481820	ppb	3650.0	0.76%
QC value within limits for Ca 317.933Radial Recovery = 96.36%								
Cd 226.502†	3873.5	1.7012	ug/L	1.91170	1.7012	ppb	1.91170	112.38%
Co 228.616†	358.8	0.9534	ug/L	1.26959	0.9534	ppb	1.26959	133.16%
Cr 267.716†	-21.0	3.2453	ug/L	0.90098	3.2453	ppb	0.90098	27.76%
Cu 324.752†	-5245.7	0.2837	ug/L	1.79306	0.2837	ppb	1.79306	632.12%

Fe 238.204 Radial†	42062.7	447030	ug/L	2589.6	447030	ppb	2589.6	0.58%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 89.41%								
K 766.490 Radial†	6.7	-365.28	ug/L	13.871	-365.28	ppb	13.871	3.80%
Mg 279.077 IEC†	12406.5	478700	ug/L	1317.5	478700	ppb	1317.5	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 95.74%								
Mn 257.610†	-24848.9	-4.1013	ug/L	0.36070	-4.1013	ppb	0.36070	8.79%
Mo 202.031†	-558.6	-1.0694	ug/L	1.00566	-1.0694	ppb	1.00566	94.04%
Na 589.592 Radial†	1579579.9	526890	ug/L	4397.7	526890	ppb	4397.7	0.83%
QC value within limits for Na 589.592 Radial Recovery = 105.38%								
Ni 231.604†	243.8	6.2413	ug/L	1.10101	6.2413	ppb	1.10101	17.64%
P 214.914†	471.7	35.097	ug/L	10.0119	35.097	ppb	10.0119	28.53%
Pb 220.353†	-614.1	2.4513	ug/L	2.42568	2.4513	ppb	2.42568	98.95%
S 181.975 Axial†	68.3	-9.1349	ug/L	28.60948	-9.1349	ppb	28.60948	313.19%
Sb 206.836†	53.4	-3.0842	ug/L	9.43026	-3.0842	ppb	9.43026	305.76%
Se 196.026†	-2411.3	50.962	ug/L	10.1825	50.962	ppb	10.1825	19.98%
Si 251.611†	-998.1	-30.593	ug/L	5.2804	-30.593	ppb	5.2804	17.26%
Sn 189.927†	-461.6	-2.0308	ug/L	1.97448	-2.0308	ppb	1.97448	97.23%
Sr 421.552†	681.7	1.6657	ug/L	0.16461	1.6657	ppb	0.16461	9.88%
Ti 334.940†	-9227.2	4.6854	ug/L	1.40327	4.6854	ppb	1.40327	29.95%
Tl 190.801†	-70.2	-22.507	ug/L	1.9496	-22.507	ppb	1.9496	8.66%
U 409.014†	465258.7	13166	ug/L	19.4	13166	ppb	19.4	0.15%
QC value less than the lower limit for U 409.014 Recovery = 87.77%								
V 292.402†	4033.0	-1.9174	ug/L	0.97437	-1.9174	ppb	0.97437	50.82%
Zn 213.857†	5923.0	-9.1078	ug/L	1.30655	-9.1078	ppb	1.30655	14.35%
SiO2†	-1109.1	-72.818	ug/L	3.5488	-72.818	ppb	3.5488	4.87%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/16/2010 12:57:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4043.8	4043.8	95.1	%			13:00:15
1	Y RADIAL	4406.9	4406.9	100.1	%			12:59:55
1	Al 396.153Radial†	335.3	511.5	53.469	ug/L	53.469	ppb	12:59:55
1	Ca 317.933Radial†	32.5	15.8	29.491	ug/L	29.491	ppb	13:00:15
1	Fe 238.204 Radial†	-12.6	-23.3	26.099	ug/L	26.099	ppb	13:00:15
1	K 766.490 Radial†	1473623.2	1545923.4	312050	ug/L	312050	ppb	12:59:50
1	Mg 279.077 IEC†	-0.8	-3.6	-38.405	ug/L	-38.405	ppb	13:00:15
1	Na 589.592 Radial†	317.3	126.5	42.182	ug/L	42.182	ppb	12:59:55
1	Sr 421.552†	1230116.8	1293027.5	9983.8	ug/L	9983.8	ppb	12:59:50
1	Sc 361.383	813914.2	813914.2	95.754	%			13:01:33
1	Y 371.029	653226.7	653226.7	92.956	%			13:01:33
1	Ag 328.068†	-7054.5	-7595.0	3.1080	ug/L	3.1080	ppb	13:01:38
1	As 188.979†	21370.4	22346.4	9466.5	ug/L	9466.5	ppb	13:01:38
1	B 249.677†	197564.0	206807.3	4839.3	ug/L	4839.3	ppb	13:01:33
1	Ba 233.527†	1590638.8	1661159.8	13510	ug/L	13510	ppb	13:01:33
1	Be 313.107†	7362987.9	7693852.4	2848.7	ug/L	2848.7	ppb	13:01:26
1	Cd 226.502†	774676.2	809226.2	9469.3	ug/L	9469.3	ppb	13:01:33
1	Co 228.616†	419606.5	438293.6	9137.1	ug/L	9137.1	ppb	13:01:38
1	Cr 267.716†	1929296.4	2014705.0	23453	ug/L	23453	ppb	13:01:33
1	Cu 324.752†	6350103.3	6623616.4	20280	ug/L	20280	ppb	13:01:26
1	Mn 257.610†	7853884.8	8201610.2	9459.6	ug/L	9459.6	ppb	13:01:26
1	Mo 202.031†	121770.7	127160.4	9448.8	ug/L	9448.8	ppb	13:01:38
1	Ni 231.604†	347364.8	362655.8	9283.6	ug/L	9283.6	ppb	13:01:38
1	P 214.914†	30691.2	31810.3	13716	ug/L	13716	ppb	13:01:38
1	Pb 220.353†	184431.9	192684.4	23881	ug/L	23881	ppb	13:01:38
1	S 181.975 Axial†	37197.7	38804.4	50716	ug/L	50716	ppb	13:01:38
1	Sb 206.836†	29846.2	31134.1	10888	ug/L	10888	ppb	13:01:38
1	Se 196.026†	16395.1	17145.5	10030	ug/L	10030	ppb	13:01:38
1	Si 251.611†	1441062.2	1504356.5	46763	ug/L	46763	ppb	13:01:33
1	Sn 189.927†	53366.0	55720.0	9991.2	ug/L	9991.2	ppb	13:01:38
1	Ti 334.940†	5900732.9	6163904.8	10010	ug/L	10010	ppb	13:01:26
1	Tl 190.801†	28768.7	30083.6	9564.7	ug/L	9564.7	ppb	13:01:38
1	U 409.014†	-2245.3	1170.2	-19.182	ug/L	-19.182	ppb	13:01:38
1	V 292.402†	1295811.7	1354954.1	9928.0	ug/L	9928.0	ppb	13:01:33
1	Zn 213.857†	1355698.6	1415131.8	13725	ug/L	13725	ppb	13:01:33
1	SiO2†	1463609.2	1527896.1	101610	ug/L	101610	ppb	13:02:24
2	Sc Radial	4008.7	4008.7	94.3	%			13:00:46
2	Y RADIAL	4438.8	4438.8	100.8	%			13:00:26
2	Al 396.153Radial†	375.3	557.0	100.00	ug/L	100.00	ppb	13:00:26
2	Ca 317.933Radial†	39.6	23.6	44.085	ug/L	44.085	ppb	13:00:46
2	Fe 238.204 Radial†	-9.1	-19.7	63.476	ug/L	63.476	ppb	13:00:46
2	K 766.490 Radial†	1438906.2	1522677.5	307360	ug/L	307360	ppb	13:00:21
2	Mg 279.077 IEC†	-1.1	-3.9	-51.414	ug/L	-51.414	ppb	13:00:46
2	Na 589.592 Radial†	489.8	312.3	104.17	ug/L	104.17	ppb	13:00:26
2	Sr 421.552†	1194313.0	1266387.1	9778.1	ug/L	9778.1	ppb	13:00:21
2	Sc 361.383	817881.6	817881.6	96.220	%			13:01:52
2	Y 371.029	657254.2	657254.2	93.529	%			13:01:52
2	Ag 328.068†	-7090.9	-7597.2	3.0124	ug/L	3.0124	ppb	13:01:58
2	As 188.979†	21452.5	22323.4	9454.9	ug/L	9454.9	ppb	13:01:58
2	B 249.677†	198314.1	206585.9	4834.2	ug/L	4834.2	ppb	13:01:52
2	Ba 233.527†	1591672.2	1654175.7	13453	ug/L	13453	ppb	13:01:52
2	Be 313.107†	7214029.2	7501741.9	2777.7	ug/L	2777.7	ppb	13:01:46
2	Cd 226.502†	774004.0	804603.1	9415.2	ug/L	9415.2	ppb	13:01:52
2	Co 228.616†	420007.4	436584.6	9102.0	ug/L	9102.0	ppb	13:01:58
2	Cr 267.716†	1930309.1	2005983.7	23352	ug/L	23352	ppb	13:01:52
2	Cu 324.752†	6227198.6	6463714.6	19790	ug/L	19790	ppb	13:01:46
2	Mn 257.610†	7704138.5	8006194.3	9234.2	ug/L	9234.2	ppb	13:01:46
2	Mo 202.031†	122093.3	126878.8	9427.9	ug/L	9427.9	ppb	13:01:58
2	Ni 231.604†	348181.3	361744.7	9260.3	ug/L	9260.3	ppb	13:01:58

2	P 214.914†	30684.7	31648.0	13723	ug/L	13723 ppb	13:01:58
2	Pb 220.353†	184604.3	191929.3	23788	ug/L	23788 ppb	13:01:58
2	S 181.975 Axial†	37393.6	38819.6	50735	ug/L	50735 ppb	13:01:58
2	Sb 206.836†	29820.1	30955.8	10828	ug/L	10828 ppb	13:01:58
2	Se 196.026†	16343.4	17008.7	9950.6	ug/L	9950.6 ppb	13:01:58
2	Si 251.611†	1445712.8	1501889.4	46687	ug/L	46687 ppb	13:01:52
2	Sn 189.927†	53403.3	55488.4	9949.6	ug/L	9949.6 ppb	13:01:58
2	Ti 334.940†	5792570.6	6021600.9	9778.6	ug/L	9778.6 ppb	13:01:46
2	Tl 190.801†	28856.5	30029.1	9544.7	ug/L	9544.7 ppb	13:01:58
2	U 409.014†	-2402.6	1018.2	-23.279	ug/L	-23.279 ppb	13:01:58
2	V 292.402†	1298788.8	1351483.7	9902.9	ug/L	9902.9 ppb	13:01:52
2	Zn 213.857†	1355926.1	1408500.3	13661	ug/L	13661 ppb	13:01:52
2	SiO2†	1471208.8	1528379.6	101650	ug/L	101650 ppb	13:02:30
3	Sc Radial	4019.5	4019.5	94.6	%		13:01:16
3	Y RADIAL	4196.1	4196.1	95.32	%		13:00:56
3	Al 396.153Radial†	295.0	471.0	7.4518	ug/L	7.4518 ppb	13:00:56
3	Ca 317.933Radial†	36.4	20.2	37.657	ug/L	37.657 ppb	13:01:16
3	Fe 238.204 Radial†	-13.3	-24.2	19.639	ug/L	19.639 ppb	13:01:16
3	K 766.490 Radial†	1447545.7	1527693.5	308370	ug/L	308370 ppb	13:00:51
3	Mg 279.077 IEC†	-3.4	-6.3	-144.01	ug/L	-144.01 ppb	13:01:16
3	Na 589.592 Radial†	264.3	72.4	24.148	ug/L	24.148 ppb	13:00:56
3	Sr 421.552†	1202398.1	1271517.2	9817.8	ug/L	9817.8 ppb	13:00:51
3	Sc 361.383	802890.7	802890.7	94.457	%		13:02:12
3	Y 371.029	646897.6	646897.6	92.055	%		13:02:12
3	Ag 328.068†	-7142.1	-7788.9	2.0126	ug/L	2.0126 ppb	13:02:17
3	As 188.979†	21323.7	22603.4	9575.0	ug/L	9575.0 ppb	13:02:17
3	B 249.677†	193145.1	204961.8	4795.6	ug/L	4795.6 ppb	13:02:12
3	Ba 233.527†	1559424.2	1650921.0	13426	ug/L	13426 ppb	13:02:12
3	Be 313.107†	7312694.9	7746183.8	2868.1	ug/L	2868.1 ppb	13:02:06
3	Cd 226.502†	757654.1	802312.9	9388.5	ug/L	9388.5 ppb	13:02:12
3	Co 228.616†	418639.4	443286.3	9241.4	ug/L	9241.4 ppb	13:02:17
3	Cr 267.716†	1894834.5	2005884.3	23350	ug/L	23350 ppb	13:02:12
3	Cu 324.752†	6309777.0	6671975.8	20428	ug/L	20428 ppb	13:02:06
3	Mn 257.610†	7785976.9	8242331.7	9506.6	ug/L	9506.6 ppb	13:02:06
3	Mo 202.031†	121562.1	128685.6	9562.1	ug/L	9562.1 ppb	13:02:17
3	Ni 231.604†	347180.8	367441.8	9406.1	ug/L	9406.1 ppb	13:02:17
3	P 214.914†	30616.6	32171.4	13889	ug/L	13889 ppb	13:02:17
3	Pb 220.353†	184110.0	194988.1	24167	ug/L	24167 ppb	13:02:17
3	S 181.975 Axial†	37114.8	39250.0	51298	ug/L	51298 ppb	13:02:17
3	Sb 206.836†	29665.5	31370.7	10973	ug/L	10973 ppb	13:02:17
3	Se 196.026†	16299.9	17279.8	10109	ug/L	10109 ppb	13:02:17
3	Si 251.611†	1409269.2	1491360.7	46357	ug/L	46357 ppb	13:02:12
3	Sn 189.927†	53317.8	56434.1	10119	ug/L	10119 ppb	13:02:17
3	Ti 334.940†	5863417.3	6209008.3	10083	ug/L	10083 ppb	13:02:06
3	Tl 190.801†	28780.9	30509.0	9699.5	ug/L	9699.5 ppb	13:02:17
3	U 409.014†	-2270.1	1111.9	-20.609	ug/L	-20.609 ppb	13:02:17
3	V 292.402†	1273023.0	1349408.4	9889.4	ug/L	9889.4 ppb	13:02:12
3	Zn 213.857†	1327845.6	1405083.2	13626	ug/L	13626 ppb	13:02:12
3	SiO2†	1468763.4	1554339.1	103370	ug/L	103370 ppb	13:02:35

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	811562.2	95.477	%	0.9138				0.96%
Sc Radial	4024.0	94.7	%	0.42				0.45%
Y 371.029	652459.5	92.847	%	0.7429				0.80%
Y RADIAL	4347.3	98.75	%	2.996				3.03%
Ag 328.068†	-7660.4	2.7110	ug/L	0.60675	2.7110	ppb	0.60675	22.38%
Al 396.153Radial†	513.2	53.641	ug/L	46.2750	53.641	ppb	46.2750	86.27%
As 188.979†	22424.4	9498.8	ug/L	66.23	9498.8	ppb	66.23	0.70%
QC value within limits for As 188.979 Recovery = 94.99%								
B 249.677†	206118.3	4823.1	ug/L	23.90	4823.1	ppb	23.90	0.50%
QC value within limits for B 249.677 Recovery = 96.46%								
Ba 233.527†	1655418.9	13463	ug/L	42.5	13463	ppb	42.5	0.32%
QC value less than the lower limit for Ba 233.527 Recovery = 89.75%								
Be 313.107†	7647259.4	2831.5	ug/L	47.64	2831.5	ppb	47.64	1.68%
QC value within limits for Be 313.107 Recovery = 94.38%								
Ca 317.933Radial†	19.9	37.078	ug/L	7.3141	37.078	ppb	7.3141	19.73%
Cd 226.502†	805380.7	9424.3	ug/L	41.15	9424.3	ppb	41.15	0.44%
QC value within limits for Cd 226.502 Recovery = 94.24%								

Co 228.616†	439388.2	9160.2 ug/L	72.50	9160.2 ppb	72.50	0.79%
QC value within limits for Co 228.616 Recovery = 91.60%						
Cr 267.716†	2008857.6	23385 ug/L	58.9	23385 ppb	58.9	0.25%
QC value within limits for Cr 267.716 Recovery = 93.54%						
Cu 324.752†	6586435.6	20166 ug/L	333.7	20166 ppb	333.7	1.65%
QC value within limits for Cu 324.752 Recovery = 100.83%						
Fe 238.204 Radial†	-22.4	36.405 ug/L	23.6659	36.405 ppb	23.6659	65.01%
K 766.490 Radial†	1532098.1	309260 ug/L	2469.4	309260 ppb	2469.4	0.80%
QC value within limits for K 766.490 Radial Recovery = 103.09%						
Mg 279.077 IEC†	-4.6	-77.942 ug/L	57.5819	-77.942 ppb	57.5819	73.88%
Mn 257.610†	8150045.4	9400.1 ug/L	145.59	9400.1 ppb	145.59	1.55%
QC value within limits for Mn 257.610 Recovery = 94.00%						
Mo 202.031†	127574.9	9479.6 ug/L	72.23	9479.6 ppb	72.23	0.76%
QC value within limits for Mo 202.031 Recovery = 94.80%						
Na 589.592 Radial†	170.4	56.834 ug/L	41.9759	56.834 ppb	41.9759	73.86%
Ni 231.604†	363947.4	9316.7 ug/L	78.34	9316.7 ppb	78.34	0.84%
QC value within limits for Ni 231.604 Recovery = 93.17%						
P 214.914†	31876.6	13776 ug/L	97.5	13776 ppb	97.5	0.71%
QC value within limits for P 214.914 Recovery = 91.84%						
Pb 220.353†	193200.6	23945 ug/L	197.4	23945 ppb	197.4	0.82%
QC value within limits for Pb 220.353 Recovery = 95.78%						
S 181.975 Axial†	38958.0	50916 ug/L	330.6	50916 ppb	330.6	0.65%
QC value within limits for S 181.975 Axial Recovery = 101.83%						
Sb 206.836†	31153.6	10896 ug/L	72.8	10896 ppb	72.8	0.67%
QC value within limits for Sb 206.836 Recovery = 108.96%						
Se 196.026†	17144.7	10030 ug/L	79.2	10030 ppb	79.2	0.79%
QC value within limits for Se 196.026 Recovery = 100.30%						
Si 251.611†	1499202.2	46602 ug/L	215.9	46602 ppb	215.9	0.46%
QC value within limits for Si 251.611 Recovery = 93.20%						
Sn 189.927†	55880.9	10020 ug/L	88.4	10020 ppb	88.4	0.88%
QC value within limits for Sn 189.927 Recovery = 100.20%						
Sr 421.552†	1276977.3	9859.9 ug/L	109.14	9859.9 ppb	109.14	1.11%
QC value within limits for Sr 421.552 Recovery = 98.60%						
Ti 334.940†	6131504.7	9957.3 ug/L	158.98	9957.3 ppb	158.98	1.60%
QC value within limits for Ti 334.940 Recovery = 99.57%						
Tl 190.801†	30207.3	9603.0 ug/L	84.15	9603.0 ppb	84.15	0.88%
QC value within limits for Tl 190.801 Recovery = 96.03%						
U 409.014†	1100.1	-21.023 ug/L	2.0797	-21.023 ppb	2.0797	9.89%
V 292.402†	1351948.7	9906.8 ug/L	19.60	9906.8 ppb	19.60	0.20%
QC value within limits for V 292.402 Recovery = 99.07%						
Zn 213.857†	1409571.8	13671 ug/L	50.2	13671 ppb	50.2	0.37%
QC value within limits for Zn 213.857 Recovery = 91.14%						
SiO2†	1536871.6	102210 ug/L	1006.8	102210 ppb	1006.8	0.99%
QC value within limits for SiO2 Recovery = 95.52%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/16/2010 13:04:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4278.5	4278.5	101	%			13:06:38
1	Y RADIAL	4403.6	4403.6	100.0	%			13:06:38
1	Al 396.153Radial†	4944.4	5071.5	5049.1	ug/L	5049.1	ppb	13:06:38
1	Ca 317.933Radial†	2656.4	2620.9	4888.9	ug/L	4888.9	ppb	13:06:58
1	Fe 238.204 Radial†	479.4	466.3	4970.2	ug/L	4970.2	ppb	13:06:58
1	K 766.490 Radial†	29176.4	25816.3	5205.1	ug/L	5205.1	ppb	13:06:38
1	Mg 279.077 IEC†	134.8	131.2	5067.6	ug/L	5067.6	ppb	13:06:58
1	Na 589.592 Radial†	30434.4	30030.7	10017	ug/L	10017	ppb	13:06:38
1	Sr 421.552†	65572.1	65058.7	502.30	ug/L	502.30	ppb	13:06:38
1	Sc 361.383	847466.4	847466.4	99.701	%			13:07:57
1	Y 371.029	687946.7	687946.7	97.897	%			13:07:57
1	Ag 328.068†	102102.1	102180.7	493.82	ug/L	493.82	ppb	13:07:57
1	As 188.979†	1192.4	1224.3	519.47	ug/L	519.47	ppb	13:08:17
1	B 249.677†	21239.3	21784.9	510.29	ug/L	510.29	ppb	13:07:57
1	Ba 233.527†	60936.7	61100.7	497.35	ug/L	497.35	ppb	13:07:57
1	Be 313.107†	1333863.2	1342203.9	494.14	ug/L	494.14	ppb	13:07:57
1	Cd 226.502†	41617.2	41937.5	490.32	ug/L	490.32	ppb	13:08:17
1	Co 228.616†	23690.5	23840.4	497.22	ug/L	497.22	ppb	13:08:17
1	Cr 267.716†	42278.1	42255.3	492.20	ug/L	492.20	ppb	13:07:57
1	Cu 324.752†	167644.5	160053.4	490.04	ug/L	490.04	ppb	13:07:57
1	Mn 257.610†	432221.0	432947.9	499.64	ug/L	499.64	ppb	13:07:57
1	Mo 202.031†	6756.6	6766.4	503.23	ug/L	503.23	ppb	13:08:17
1	Ni 231.604†	19428.0	19372.8	495.92	ug/L	495.92	ppb	13:08:17
1	P 214.914†	4730.4	4502.6	2403.0	ug/L	2403.0	ppb	13:08:17
1	Pb 220.353†	3993.2	4078.7	506.93	ug/L	506.93	ppb	13:08:17
1	S 181.975 Axial†	815.2	774.7	1011.6	ug/L	1011.6	ppb	13:08:17
1	Sb 206.836†	1533.6	1502.5	526.63	ug/L	526.63	ppb	13:08:17
1	Se 196.026†	836.6	862.4	520.78	ug/L	520.78	ppb	13:08:17
1	Si 251.611†	79978.3	79606.0	2474.5	ug/L	2474.5	ppb	13:07:57
1	Sn 189.927†	2829.2	2825.1	507.39	ug/L	507.39	ppb	13:08:17
1	Ti 334.940†	308044.0	310461.0	504.46	ug/L	504.46	ppb	13:07:57
1	Tl 190.801†	1554.0	1597.8	507.75	ug/L	507.75	ppb	13:08:17
1	U 409.014†	13087.9	16642.3	471.09	ug/L	471.09	ppb	13:07:57
1	V 292.402†	65731.9	67606.4	496.33	ug/L	496.33	ppb	13:07:57
1	Zn 213.857†	51328.9	50795.1	491.19	ug/L	491.19	ppb	13:07:57
1	SiO2†	81049.1	80672.8	5365.0	ug/L	5365.0	ppb	13:09:17
2	Sc Radial	4172.0	4172.0	98.1	%			13:07:03
2	Y RADIAL	4288.0	4288.0	97.41	%			13:07:03
2	Al 396.153Radial†	4910.2	5162.0	5140.0	ug/L	5140.0	ppb	13:07:03
2	Ca 317.933Radial†	2675.9	2708.1	5051.7	ug/L	5051.7	ppb	13:07:23
2	Fe 238.204 Radial†	476.6	475.6	5069.0	ug/L	5069.0	ppb	13:07:23
2	K 766.490 Radial†	28880.8	26255.0	5293.5	ug/L	5293.5	ppb	13:07:03
2	Mg 279.077 IEC†	134.2	134.0	5176.9	ug/L	5176.9	ppb	13:07:23
2	Na 589.592 Radial†	30366.0	30732.8	10251	ug/L	10251	ppb	13:07:03
2	Sr 421.552†	65263.4	66407.0	512.71	ug/L	512.71	ppb	13:07:03
2	Sc 361.383	853528.2	853528.2	100.41	%			13:08:25
2	Y 371.029	692463.8	692463.8	98.539	%			13:08:25
2	Ag 328.068†	102814.1	102162.5	493.77	ug/L	493.77	ppb	13:08:25
2	As 188.979†	1175.8	1199.3	508.97	ug/L	508.97	ppb	13:08:45
2	B 249.677†	21434.1	21827.6	511.30	ug/L	511.30	ppb	13:08:25
2	Ba 233.527†	61494.7	61222.3	498.34	ug/L	498.34	ppb	13:08:25
2	Be 313.107†	1346484.8	1345271.9	495.27	ug/L	495.27	ppb	13:08:25
2	Cd 226.502†	41320.4	41345.5	483.39	ug/L	483.39	ppb	13:08:45
2	Co 228.616†	23521.9	23503.8	490.19	ug/L	490.19	ppb	13:08:45
2	Cr 267.716†	42715.2	42389.3	493.76	ug/L	493.76	ppb	13:08:25
2	Cu 324.752†	169170.7	160379.0	491.04	ug/L	491.04	ppb	13:08:25
2	Mn 257.610†	436015.6	433648.0	500.45	ug/L	500.45	ppb	13:08:25
2	Mo 202.031†	6716.9	6678.8	496.73	ug/L	496.73	ppb	13:08:45
2	Ni 231.604†	19324.8	19131.6	489.74	ug/L	489.74	ppb	13:08:45

2	P 214.914†	4700.9	4439.6	2367.7 ug/L	2367.7 ppb	13:08:45
2	Pb 220.353†	3942.6	3999.9	497.16 ug/L	497.16 ppb	13:08:45
2	S 181.975 Axial†	810.2	764.0	997.51 ug/L	997.51 ppb	13:08:45
2	Sb 206.836†	1520.3	1478.3	518.18 ug/L	518.18 ppb	13:08:45
2	Se 196.026†	826.7	846.6	511.87 ug/L	511.87 ppb	13:08:45
2	Si 251.611†	80610.7	79666.0	2476.5 ug/L	2476.5 ppb	13:08:25
2	Sn 189.927†	2802.9	2778.7	499.11 ug/L	499.11 ppb	13:08:45
2	Ti 334.940†	310548.1	310760.5	504.95 ug/L	504.95 ppb	13:08:25
2	Tl 190.801†	1545.2	1577.9	501.54 ug/L	501.54 ppb	13:08:45
2	U 409.014†	13289.0	16749.3	474.12 ug/L	474.12 ppb	13:08:25
2	V 292.402†	66387.6	67791.1	497.57 ug/L	497.57 ppb	13:08:25
2	Zn 213.857†	51825.6	50924.1	492.47 ug/L	492.47 ppb	13:08:25
2	SiO2†	80362.2	79411.3	5281.1 ug/L	5281.1 ppb	13:09:23
3	Sc Radial	4058.3	4058.3	95.5 %		13:07:28
3	Y RADIAL	4207.4	4207.4	95.57 %		13:07:28
3	Al 396.153Radial†	4832.4	5220.8	5198.9 ug/L	5198.9 ppb	13:07:28
3	Ca 317.933Radial†	2709.9	2820.2	5260.8 ug/L	5260.8 ppb	13:07:49
3	Fe 238.204 Radial†	484.8	497.7	5304.1 ug/L	5304.1 ppb	13:07:49
3	K 766.490 Radial†	28434.4	26612.4	5365.6 ug/L	5365.6 ppb	13:07:28
3	Mg 279.077 IEC†	136.4	140.1	5412.1 ug/L	5412.1 ppb	13:07:49
3	Na 589.592 Radial†	29846.8	31056.4	10359 ug/L	10359 ppb	13:07:28
3	Sr 421.552†	64381.3	67347.2	519.97 ug/L	519.97 ppb	13:07:28
3	Sc 361.383	849872.7	849872.7	99.984 %		13:08:52
3	Y 371.029	690925.9	690925.9	98.320 %		13:08:52
3	Ag 328.068†	102508.9	102297.6	494.50 ug/L	494.50 ppb	13:08:52
3	As 188.979†	1168.5	1197.0	508.09 ug/L	508.09 ppb	13:09:12
3	B 249.677†	21244.0	21729.3	508.95 ug/L	508.95 ppb	13:08:52
3	Ba 233.527†	60983.3	60974.2	496.33 ug/L	496.33 ppb	13:08:52
3	Be 313.107†	1341511.2	1346065.0	495.56 ug/L	495.56 ppb	13:08:52
3	Cd 226.502†	41179.8	41381.9	483.79 ug/L	483.79 ppb	13:09:12
3	Co 228.616†	23446.3	23528.9	490.70 ug/L	490.70 ppb	13:09:12
3	Cr 267.716†	42438.6	42295.7	492.68 ug/L	492.68 ppb	13:08:52
3	Cu 324.752†	169050.4	160983.4	492.90 ug/L	492.90 ppb	13:08:52
3	Mn 257.610†	433713.9	433213.6	499.96 ug/L	499.96 ppb	13:08:52
3	Mo 202.031†	6662.8	6653.4	494.86 ug/L	494.86 ppb	13:09:12
3	Ni 231.604†	19253.3	19142.9	490.03 ug/L	490.03 ppb	13:09:12
3	P 214.914†	4692.3	4451.1	2373.6 ug/L	2373.6 ppb	13:09:12
3	Pb 220.353†	3952.2	4026.4	500.43 ug/L	500.43 ppb	13:09:12
3	S 181.975 Axial†	802.1	759.4	991.48 ug/L	991.48 ppb	13:09:12
3	Sb 206.836†	1508.4	1473.0	516.34 ug/L	516.34 ppb	13:09:12
3	Se 196.026†	824.6	848.0	513.45 ug/L	513.45 ppb	13:09:12
3	Si 251.611†	80336.4	79737.0	2478.7 ug/L	2478.7 ppb	13:08:52
3	Sn 189.927†	2794.8	2782.6	499.84 ug/L	499.84 ppb	13:09:12
3	Ti 334.940†	309406.4	310948.9	505.27 ug/L	505.27 ppb	13:08:52
3	Tl 190.801†	1540.1	1579.5	502.01 ug/L	502.01 ppb	13:09:12
3	U 409.014†	13146.7	16663.9	471.67 ug/L	471.67 ppb	13:08:52
3	V 292.402†	66141.4	67829.2	497.78 ug/L	497.78 ppb	13:08:52
3	Zn 213.857†	51485.5	50806.0	491.28 ug/L	491.28 ppb	13:08:52
3	SiO2†	79732.5	79125.8	5262.1 ug/L	5262.1 ppb	13:09:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850289.1	100.03	%	0.359				0.36%
Sc Radial	4169.6	98.1	%	2.59				2.64%
Y 371.029	690445.4	98.252	%	0.3268				0.33%
Y RADIAL	4299.7	97.67	%	2.241				2.29%
Ag 328.068†	102213.6	494.03	ug/L	0.406	494.03	ppb	0.406	0.08%
QC value within limits for Ag 328.068 Recovery = 98.81%								
Al 396.153Radial†	5151.5	5129.3	ug/L	75.44	5129.3	ppb	75.44	1.47%
QC value within limits for Al 396.153Radial Recovery = 102.59%								
As 188.979†	1206.9	512.18	ug/L	6.330	512.18	ppb	6.330	1.24%
QC value within limits for As 188.979 Recovery = 102.44%								
B 249.677†	21780.6	510.18	ug/L	1.180	510.18	ppb	1.180	0.23%
QC value within limits for B 249.677 Recovery = 102.04%								
Ba 233.527†	61099.1	497.34	ug/L	1.003	497.34	ppb	1.003	0.20%
QC value within limits for Ba 233.527 Recovery = 99.47%								
Be 313.107†	1344513.6	494.99	ug/L	0.750	494.99	ppb	0.750	0.15%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	2716.4	5067.1	ug/L	186.43	5067.1	ppb	186.43	3.68%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.34%
Cd 226.502†            41555.0      485.83 ug/L        3.894      485.83 ppb        3.894   0.80%
   QC value within limits for Cd 226.502  Recovery = 97.17%
Co 228.616†            23624.4      492.70 ug/L        3.924      492.70 ppb        3.924   0.80%
   QC value within limits for Co 228.616  Recovery = 98.54%
Cr 267.716†            42313.4      492.88 ug/L        0.800      492.88 ppb        0.800   0.16%
   QC value within limits for Cr 267.716  Recovery = 98.58%
Cu 324.752†           160471.9      491.33 ug/L        1.454      491.33 ppb        1.454   0.30%
   QC value within limits for Cu 324.752  Recovery = 98.27%
Fe 238.204 Radial†       479.9      5114.4 ug/L       171.51      5114.4 ppb       171.51   3.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.29%
K 766.490 Radial†      26227.9      5288.1 ug/L        80.37      5288.1 ppb        80.37   1.52%
   QC value within limits for K 766.490 Radial  Recovery = 105.76%
Mg 279.077 IEC†          135.1      5218.9 ug/L       176.09      5218.9 ppb       176.09   3.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.38%
Mn 257.610†           433269.8      500.02 ug/L        0.409      500.02 ppb        0.409   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.00%
Mo 202.031†             6699.5      498.27 ug/L        4.393      498.27 ppb        4.393   0.88%
   QC value within limits for Mo 202.031  Recovery = 99.65%
Na 589.592 Radial†     30606.7       10209 ug/L        174.9       10209 ppb        174.9   1.71%
   QC value within limits for Na 589.592 Radial  Recovery = 102.09%
Ni 231.604†            19215.8      491.90 ug/L        3.484      491.90 ppb        3.484   0.71%
   QC value within limits for Ni 231.604  Recovery = 98.38%
P 214.914†              4464.4      2381.4 ug/L       18.92      2381.4 ppb        18.92   0.79%
   QC value within limits for P 214.914  Recovery = 95.26%
Pb 220.353†             4035.0      501.51 ug/L        4.976      501.51 ppb        4.976   0.99%
   QC value within limits for Pb 220.353  Recovery = 100.30%
S 181.975 Axial†         766.0      1000.2 ug/L       10.31      1000.2 ppb        10.31   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 100.02%
Sb 206.836†             1484.6      520.38 ug/L        5.485      520.38 ppb        5.485   1.05%
   QC value within limits for Sb 206.836  Recovery = 104.08%
Se 196.026†              852.3      515.36 ug/L        4.753      515.36 ppb        4.753   0.92%
   QC value within limits for Se 196.026  Recovery = 103.07%
Si 251.611†            79669.7      2476.6 ug/L         2.09      2476.6 ppb         2.09   0.08%
   QC value within limits for Si 251.611  Recovery = 99.06%
Sn 189.927†             2795.5      502.11 ug/L        4.583      502.11 ppb        4.583   0.91%
   QC value within limits for Sn 189.927  Recovery = 100.42%
Sr 421.552†            66271.0      511.66 ug/L        8.880      511.66 ppb        8.880   1.74%
   QC value within limits for Sr 421.552  Recovery = 102.33%
Ti 334.940†           310723.4      504.89 ug/L        0.410      504.89 ppb        0.410   0.08%
   QC value within limits for Ti 334.940  Recovery = 100.98%
Tl 190.801†             1585.1      503.77 ug/L        3.459      503.77 ppb        3.459   0.69%
   QC value within limits for Tl 190.801  Recovery = 100.75%
U 409.014†             16685.2      472.29 ug/L        1.607      472.29 ppb        1.607   0.34%
   QC value within limits for U 409.014  Recovery = 94.46%
V 292.402†             67742.3      497.23 ug/L        0.784      497.23 ppb        0.784   0.16%
   QC value within limits for V 292.402  Recovery = 99.45%
Zn 213.857†            50841.8      491.64 ug/L        0.716      491.64 ppb        0.716   0.15%
   QC value within limits for Zn 213.857  Recovery = 98.33%
SiO2†                  79736.6      5302.7 ug/L       54.77      5302.7 ppb        54.77   1.03%
   QC value within limits for SiO2  Recovery = 99.16%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/16/2010 13:11:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4080.8	4080.8	96.0	%			13:13:50
1	Y RADIAL	4371.1	4371.1	99.29	%			13:13:30
1	Al 396.153Radial†	-122.3	31.7	31.598	ug/L	31.598	ppb	13:13:30
1	Ca 317.933Radial†	14.1	-3.7	-6.8414	ug/L	-6.8414	ppb	13:13:50
1	Fe 238.204 Radial†	10.3	0.7	7.4143	ug/L	7.4143	ppb	13:13:50
1	K 766.490 Radial†	3563.8	540.8	109.18	ug/L	109.18	ppb	13:13:30
1	Mg 279.077 IEC†	2.6	-0.0	-1.5512	ug/L	-1.5512	ppb	13:13:50
1	Na 589.592 Radial†	111.5	-90.9	-30.326	ug/L	-30.326	ppb	13:13:30
1	Sr 421.552†	61.6	-25.6	-0.1976	ug/L	-0.1976	ppb	13:13:30
1	Sc 361.383	834569.1	834569.1	98.184	%			13:14:47
1	Y 371.029	688647.9	688647.9	97.996	%			13:14:47
1	Ag 328.068†	256.0	33.0	0.1671	ug/L	0.1671	ppb	13:14:47
1	As 188.979†	-17.9	10.1	4.2506	ug/L	4.2506	ppb	13:15:07
1	B 249.677†	467.5	958.1	22.538	ug/L	22.538	ppb	13:14:47
1	Ba 233.527†	20.2	1.7	0.0143	ug/L	0.0143	ppb	13:15:07
1	Be 313.107†	-4283.1	-23.2	-0.0088	ug/L	-0.0088	ppb	13:14:47
1	Cd 226.502†	-182.2	9.9	0.1134	ug/L	0.1134	ppb	13:15:07
1	Co 228.616†	-66.0	11.6	0.2461	ug/L	0.2461	ppb	13:15:07
1	Cr 267.716†	149.3	2.4	0.0311	ug/L	0.0311	ppb	13:15:07
1	Cu 324.752†	7973.9	27.3	0.0881	ug/L	0.0881	ppb	13:14:47
1	Mn 257.610†	557.2	-2.2	-0.0018	ug/L	-0.0018	ppb	13:15:07
1	Mo 202.031†	28.9	19.0	1.4092	ug/L	1.4092	ppb	13:15:07
1	Ni 231.604†	106.2	-5.4	-0.1376	ug/L	-0.1376	ppb	13:15:07
1	P 214.914†	256.8	19.6	10.894	ug/L	10.894	ppb	13:15:07
1	Pb 220.353†	-46.8	25.9	3.2139	ug/L	3.2139	ppb	13:15:07
1	S 181.975 Axial†	43.7	1.6	2.0366	ug/L	2.0366	ppb	13:15:07
1	Sb 206.836†	40.5	5.6	1.9850	ug/L	1.9850	ppb	13:15:07
1	Se 196.026†	-17.3	5.7	3.3705	ug/L	3.3705	ppb	13:15:07
1	Si 251.611†	623.9	23.1	0.7028	ug/L	0.7028	ppb	13:15:07
1	Sn 189.927†	33.0	21.0	3.7587	ug/L	3.7587	ppb	13:15:07
1	Ti 334.940†	-1547.0	-82.7	-0.1320	ug/L	-0.1320	ppb	13:14:47
1	Tl 190.801†	-33.6	4.8	1.5285	ug/L	1.5285	ppb	13:15:07
1	U 409.014†	-3707.9	-261.3	-7.4240	ug/L	-7.4240	ppb	13:14:47
1	V 292.402†	-1652.7	-5.9	-0.0384	ug/L	-0.0384	ppb	13:14:47
1	Zn 213.857†	771.2	97.7	0.9530	ug/L	0.9530	ppb	13:15:07
1	SiO2†	667.1	59.9	3.9560	ug/L	3.9560	ppb	13:16:03
2	Sc Radial	4111.7	4111.7	96.7	%			13:14:15
2	Y RADIAL	4390.6	4390.6	99.74	%			13:13:55
2	Al 396.153Radial†	-131.4	23.2	23.175	ug/L	23.175	ppb	13:13:55
2	Ca 317.933Radial†	21.8	4.3	7.9428	ug/L	7.9428	ppb	13:14:15
2	Fe 238.204 Radial†	8.8	-0.9	-9.9532	ug/L	-9.9532	ppb	13:14:15
2	K 766.490 Radial†	3512.1	459.5	92.765	ug/L	92.765	ppb	13:13:55
2	Mg 279.077 IEC†	-1.2	-3.9	-152.00	ug/L	-152.00	ppb	13:14:15
2	Na 589.592 Radial†	96.9	-106.9	-35.655	ug/L	-35.655	ppb	13:13:55
2	Sr 421.552†	72.7	-14.7	-0.1135	ug/L	-0.1135	ppb	13:13:55
2	Sc 361.383	834436.3	834436.3	98.168	%			13:15:12
2	Y 371.029	688166.1	688166.1	97.928	%			13:15:12
2	Ag 328.068†	300.6	78.5	0.3757	ug/L	0.3757	ppb	13:15:12
2	As 188.979†	-10.9	17.3	7.2590	ug/L	7.2590	ppb	13:15:32
2	B 249.677†	398.8	888.2	20.897	ug/L	20.897	ppb	13:15:12
2	Ba 233.527†	2.9	-15.8	-0.1295	ug/L	-0.1295	ppb	13:15:32
2	Be 313.107†	-4328.8	-70.5	-0.0256	ug/L	-0.0256	ppb	13:15:12
2	Cd 226.502†	-196.7	-4.9	-0.0572	ug/L	-0.0572	ppb	13:15:32
2	Co 228.616†	-86.8	-9.6	-0.1982	ug/L	-0.1982	ppb	13:15:32
2	Cr 267.716†	156.9	10.1	0.1186	ug/L	0.1186	ppb	13:15:32
2	Cu 324.752†	8003.4	58.7	0.1814	ug/L	0.1814	ppb	13:15:12
2	Mn 257.610†	557.2	-2.1	0.0028	ug/L	0.0028	ppb	13:15:32
2	Mo 202.031†	18.1	8.0	0.5911	ug/L	0.5911	ppb	13:15:32
2	Ni 231.604†	109.6	-1.9	-0.0488	ug/L	-0.0488	ppb	13:15:32

2	P 214.914†	216.5	-21.5	-11.889	ug/L	-11.889 ppb	13:15:32
2	Pb 220.353†	-45.6	27.1	3.3643	ug/L	3.3643 ppb	13:15:32
2	S 181.975 Axial†	60.8	19.1	24.915	ug/L	24.915 ppb	13:15:32
2	Sb 206.836†	55.1	20.4	6.9965	ug/L	6.9965 ppb	13:15:32
2	Se 196.026†	-18.8	4.1	2.3827	ug/L	2.3827 ppb	13:15:32
2	Si 251.611†	646.2	46.0	1.4257	ug/L	1.4257 ppb	13:15:32
2	Sn 189.927†	40.3	28.4	5.1018	ug/L	5.1018 ppb	13:15:32
2	Ti 334.940†	-1387.0	80.1	0.1453	ug/L	0.1453 ppb	13:15:12
2	Tl 190.801†	-22.4	16.3	5.1363	ug/L	5.1363 ppb	13:15:32
2	U 409.014†	-3590.7	-142.6	-4.0492	ug/L	-4.0492 ppb	13:15:12
2	V 292.402†	-1680.2	-34.3	-0.2495	ug/L	-0.2495 ppb	13:15:12
2	Zn 213.857†	751.4	77.7	0.7595	ug/L	0.7595 ppb	13:15:32
2	SiO2†	638.1	30.5	2.0182	ug/L	2.0182 ppb	13:16:08
3	Sc Radial	4090.2	4090.2	96.2	%		13:14:40
3	Y RADIAL	4448.1	4448.1	101.0	%		13:14:20
3	Al 396.153Radial†	-130.8	23.0	23.037	ug/L	23.037 ppb	13:14:20
3	Ca 317.933Radial†	21.2	3.8	6.9966	ug/L	6.9966 ppb	13:14:40
3	Fe 238.204 Radial†	11.3	1.7	17.786	ug/L	17.786 ppb	13:14:40
3	K 766.490 Radial†	3388.9	350.5	70.764	ug/L	70.764 ppb	13:14:20
3	Mg 279.077 IEC†	0.1	-2.6	-101.31	ug/L	-101.31 ppb	13:14:40
3	Na 589.592 Radial†	87.9	-115.7	-38.591	ug/L	-38.591 ppb	13:14:20
3	Sr 421.552†	110.7	25.2	0.1947	ug/L	0.1947 ppb	13:14:20
3	Sc 361.383	843103.7	843103.7	99.188	%		13:15:37
3	Y 371.029	695321.1	695321.1	98.946	%		13:15:37
3	Ag 328.068†	198.2	-27.9	-0.1277	ug/L	-0.1277 ppb	13:15:37
3	As 188.979†	-17.9	10.3	4.3412	ug/L	4.3412 ppb	13:15:57
3	B 249.677†	341.4	826.1	19.433	ug/L	19.433 ppb	13:15:37
3	Ba 233.527†	5.9	-12.8	-0.1044	ug/L	-0.1044 ppb	13:15:57
3	Be 313.107†	-4374.5	-71.2	-0.0262	ug/L	-0.0262 ppb	13:15:37
3	Cd 226.502†	-180.4	13.6	0.1573	ug/L	0.1573 ppb	13:15:57
3	Co 228.616†	-78.9	-0.7	-0.0135	ug/L	-0.0135 ppb	13:15:57
3	Cr 267.716†	175.0	26.8	0.3120	ug/L	0.3120 ppb	13:15:57
3	Cu 324.752†	8094.8	66.9	0.2069	ug/L	0.2069 ppb	13:15:37
3	Mn 257.610†	585.0	20.1	0.0290	ug/L	0.0290 ppb	13:15:57
3	Mo 202.031†	16.4	6.0	0.4502	ug/L	0.4502 ppb	13:15:57
3	Ni 231.604†	110.5	-2.1	-0.0548	ug/L	-0.0548 ppb	13:15:57
3	P 214.914†	238.8	-1.2	-0.6621	ug/L	-0.6621 ppb	13:15:57
3	Pb 220.353†	-62.9	10.1	1.2617	ug/L	1.2617 ppb	13:15:57
3	S 181.975 Axial†	53.1	10.6	13.870	ug/L	13.870 ppb	13:15:57
3	Sb 206.836†	48.0	12.7	4.3833	ug/L	4.3833 ppb	13:15:57
3	Se 196.026†	-16.1	7.1	4.2001	ug/L	4.2001 ppb	13:15:57
3	Si 251.611†	619.3	12.1	0.3707	ug/L	0.3707 ppb	13:15:57
3	Sn 189.927†	36.5	24.2	4.3427	ug/L	4.3427 ppb	13:15:57
3	Ti 334.940†	-1508.4	-27.8	-0.0354	ug/L	-0.0354 ppb	13:15:37
3	Tl 190.801†	-28.9	9.9	3.1354	ug/L	3.1354 ppb	13:15:57
3	U 409.014†	-3545.6	-59.5	-1.6931	ug/L	-1.6931 ppb	13:15:37
3	V 292.402†	-1703.8	-40.4	-0.2944	ug/L	-0.2944 ppb	13:15:37
3	Zn 213.857†	765.4	83.9	0.8159	ug/L	0.8159 ppb	13:15:57
3	SiO2†	610.3	-4.3	-0.2962	ug/L	-0.2962 ppb	13:16:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	837369.7	98.513	%	0.5843				0.59%
Sc Radial	4094.2	96.3	%	0.37				0.39%
Y 371.029	690711.7	98.290	%	0.5691				0.58%
Y RADIAL	4403.3	100.0	%	0.91				0.91%
Ag 328.068†	27.9	0.1384	ug/L	0.25296	0.1384	ppb	0.25296	182.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.0	25.937	ug/L	4.9037	25.937	ppb	4.9037	18.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.6	5.2836	ug/L	1.71138	5.2836	ppb	1.71138	32.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	890.8	20.956	ug/L	1.5534	20.956	ppb	1.5534	7.41%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.0	-0.0732	ug/L	0.07679	-0.0732	ppb	0.07679	104.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-55.0	-0.0202	ug/L	0.00987	-0.0202	ppb	0.00987	48.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	2.6993	ug/L	8.27604	2.6993	ppb	8.27604	306.60%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                6.2      0.0712 ug/L       0.11331      0.0712 ppb        0.11331 159.17%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                0.5      0.0115 ug/L       0.22320      0.0115 ppb        0.22320 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               13.1      0.1539 ug/L       0.14369      0.1539 ppb        0.14369  93.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               51.0      0.1588 ug/L       0.06254      0.1588 ppb        0.06254  39.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      5.0825 ug/L      14.01597      5.0825 ppb       14.01597 275.77%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        450.3     90.903 ug/L       19.2756     90.903 ppb        19.2756  21.20%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.2    -84.956 ug/L       76.5476    -84.956 ppb        76.5476  90.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                5.2      0.0100 ug/L       0.01662      0.0100 ppb        0.01662 165.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.0      0.8168 ug/L       0.51781      0.8168 ppb        0.51781  63.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -104.5    -34.857 ug/L        4.1899    -34.857 ppb         4.1899  12.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.1     -0.0804 ug/L       0.04960     -0.0804 ppb        0.04960  61.71%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.0     -0.5524 ug/L      11.39186     -0.5524 ppb       11.39186 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               21.0      2.6133 ug/L       1.17296      2.6133 ppb        1.17296  44.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          10.4     13.607 ug/L       11.4412     13.607 ppb        11.4412  84.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               12.9      4.4549 ug/L       2.50656      4.4549 ppb        2.50656  56.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.7      3.3177 ug/L       0.90985      3.3177 ppb        0.90985  27.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               27.1      0.8331 ug/L       0.53945      0.8331 ppb        0.53945  64.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               24.5      4.4011 ug/L       0.67343      4.4011 ppb        0.67343  15.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.0     -0.0388 ug/L       0.20657     -0.0388 ppb        0.20657 532.13%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -10.2     -0.0074 ug/L       0.14079     -0.0074 ppb        0.14079 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               10.3      3.2667 ug/L       1.80748      3.2667 ppb        1.80748  55.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -154.5     -4.3888 ug/L       2.88047     -4.3888 ppb        2.88047  65.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -26.9     -0.1941 ug/L       0.13673     -0.1941 ppb        0.13673  70.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               86.4      0.8428 ug/L       0.09953      0.8428 ppb        0.09953  11.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     28.7      1.8926 ug/L       2.12891      1.8926 ppb        2.12891 112.48%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/16/2010 13:19:34 **Plasma On Time:** 2/15/2010 05:50:42
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\021610.sif
Batch ID:
Results Data Set: 021610
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved:** 2/16/2010 11:50:40
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location:** 37
Sample ID: LR1 **Date Collected:** 2/16/2010 13:19:36
Analyst: HSC **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3988.1	3988.1	93.8	%			13:21:50
1	Y RADIAL	4341.2	4341.2	98.61	%			13:21:30
1	Al 396.153Radial†	-160.7	-12.3	-10.938	ug/L	-10.938	ppb	13:21:30

1	Ca 317.933Radial†	7.1	-10.8	-20.119 ug/L	-20.119 ppb	13:21:50
1	Fe 238.204 Radial†	35531.6	37862.5	402390 ug/L	402390 ppb	13:21:30
1	K 766.490 Radial†	3101.0	133.7	27.081 ug/L	27.081 ppb	13:21:30
1	Mg 279.077 IEC†	11.7	9.7	-45.732 ug/L	-45.732 ppb	13:21:50
1	Na 589.592 Radial†	-113.9	-328.4	-109.55 ug/L	-109.55 ppb	13:21:30
1	Sr 421.552†	158.4	79.1	0.6107 ug/L	0.6107 ppb	13:21:30
1	Sc 361.383	832881.2	832881.2	97.985 %		13:22:47
1	Y 371.029	683100.4	683100.4	97.207 %		13:22:47
1	Ag 328.068†	-21957.5	-22636.7	19.075 ug/L	19.075 ppb	13:22:47
1	As 188.979†	-215.0	-191.1	13.937 ug/L	13.937 ppb	13:23:07
1	B 249.677†	2049.3	2573.4	-4.8538 ug/L	-4.8538 ppb	13:22:47
1	Ba 233.527†	-1848.4	-1905.2	-3.1479 ug/L	-3.1479 ppb	13:22:47
1	Be 313.107†	-8961.3	-4806.5	-1.7555 ug/L	-1.7555 ppb	13:22:47
1	Cd 226.502†	2735.8	2987.6	-4.6639 ug/L	-4.6639 ppb	13:22:47
1	Co 228.616†	752.1	846.4	11.760 ug/L	11.760 ppb	13:23:07
1	Cr 267.716†	-241.0	-395.6	-0.7230 ug/L	-0.7230 ppb	13:22:47
1	Cu 324.752†	2372.5	-5672.8	-1.6438 ug/L	-1.6438 ppb	13:22:47
1	Mn 257.610†	-31245.9	-32458.2	2.2901 ug/L	2.2901 ppb	13:22:47
1	Mo 202.031†	-355.9	-373.7	3.4668 ug/L	3.4668 ppb	13:22:47
1	Ni 231.604†	214.3	105.2	2.6850 ug/L	2.6850 ppb	13:23:07
1	P 214.914†	739.8	513.0	-36.053 ug/L	-36.053 ppb	13:23:07
1	Pb 220.353†	211.9	289.8	-2.6063 ug/L	-2.6063 ppb	13:23:07
1	S 181.975 Axial†	70.1	28.6	37.375 ug/L	37.375 ppb	13:23:07
1	Sb 206.836†	22.5	-12.7	-9.3722 ug/L	-9.3722 ppb	13:23:07
1	Se 196.026†	-1724.0	-1736.1	283.60 ug/L	283.60 ppb	13:23:07
1	Si 251.611†	-610.4	-1235.2	-38.151 ug/L	-38.151 ppb	13:22:47
1	Sn 189.927†	-28.4	-41.6	-0.6874 ug/L	-0.6874 ppb	13:23:07
1	Ti 334.940†	1182.7	2700.0	-0.0648 ug/L	-0.0648 ppb	13:22:47
1	Tl 190.801†	-53.3	-15.3	-5.1274 ug/L	-5.1274 ppb	13:23:07
1	U 409.014†	343838.2	354424.2	10022 ug/L	10022 ppb	13:22:47
1	V 292.402†	3226.3	4969.9	-3.7281 ug/L	-3.7281 ppb	13:22:47
1	Zn 213.857†	4209.5	3608.3	-24.994 ug/L	-24.994 ppb	13:23:07
1	SiO2†	-706.3	-1340.3	-88.607 ug/L	-88.607 ppb	13:24:05
2	Sc Radial	4025.1	4025.1	94.7 %		13:22:15
2	Y RADIAL	4252.0	4252.0	96.59 %		13:21:55
2	Al 396.153Radial†	-150.0	0.6	1.7932 ug/L	1.7932 ppb	13:21:55
2	Ca 317.933Radial†	7.9	-10.0	-18.603 ug/L	-18.603 ppb	13:22:15
2	Fe 238.204 Radial†	34648.7	36582.8	388790 ug/L	388790 ppb	13:21:55
2	K 766.490 Radial†	3001.9	-1.2	-0.1479 ug/L	-0.1479 ppb	13:21:55
2	Mg 279.077 IEC†	8.8	6.6	-150.99 ug/L	-150.99 ppb	13:22:15
2	Na 589.592 Radial†	-157.7	-373.7	-124.64 ug/L	-124.64 ppb	13:21:55
2	Sr 421.552†	185.6	106.2	0.8203 ug/L	0.8203 ppb	13:21:55
2	Sc 361.383	834868.4	834868.4	98.219 %		13:23:13
2	Y 371.029	683686.5	683686.5	97.290 %		13:23:13
2	Ag 328.068†	-22168.1	-22797.8	13.704 ug/L	13.704 ppb	13:23:13
2	As 188.979†	-202.1	-177.5	16.494 ug/L	16.494 ppb	13:23:33
2	B 249.677†	1949.1	2466.4	-5.1617 ug/L	-5.1617 ppb	13:23:13
2	Ba 233.527†	-1889.3	-1942.4	-3.8638 ug/L	-3.8638 ppb	13:23:13
2	Be 313.107†	-8885.9	-4708.0	-1.7194 ug/L	-1.7194 ppb	13:23:13
2	Cd 226.502†	2692.2	2936.5	-3.8550 ug/L	-3.8550 ppb	13:23:13
2	Co 228.616†	729.3	821.3	11.441 ug/L	11.441 ppb	13:23:33
2	Cr 267.716†	-247.1	-401.3	-1.0556 ug/L	-1.0556 ppb	13:23:13
2	Cu 324.752†	2323.9	-5728.1	-2.5363 ug/L	-2.5363 ppb	13:23:13
2	Mn 257.610†	-30959.5	-32090.7	1.3757 ug/L	1.3757 ppb	13:23:13
2	Mo 202.031†	-312.9	-329.1	5.7286 ug/L	5.7286 ppb	13:23:13
2	Ni 231.604†	224.0	114.6	2.9243 ug/L	2.9243 ppb	13:23:33
2	P 214.914†	742.1	513.6	-24.758 ug/L	-24.758 ppb	13:23:33
2	Pb 220.353†	218.8	296.3	-0.4934 ug/L	-0.4934 ppb	13:23:33
2	S 181.975 Axial†	70.9	29.2	38.215 ug/L	38.215 ppb	13:23:33
2	Sb 206.836†	38.1	3.2	-3.7933 ug/L	-3.7933 ppb	13:23:33
2	Se 196.026†	-1708.9	-1716.6	251.19 ug/L	251.19 ppb	13:23:33
2	Si 251.611†	-625.2	-1248.9	-38.617 ug/L	-38.617 ppb	13:23:13
2	Sn 189.927†	-30.1	-43.2	-1.2162 ug/L	-1.2162 ppb	13:23:33
2	Ti 334.940†	1170.0	2684.1	-0.0833 ug/L	-0.0833 ppb	13:23:13
2	Tl 190.801†	-53.8	-15.7	-5.2328 ug/L	-5.2328 ppb	13:23:33
2	U 409.014†	344875.5	354645.0	10030 ug/L	10030 ppb	13:23:13
2	V 292.402†	3208.6	4944.1	-1.8776 ug/L	-1.8776 ppb	13:23:13
2	Zn 213.857†	4230.1	3619.0	-22.856 ug/L	-22.856 ppb	13:23:33
2	SiO2†	-621.9	-1252.7	-82.855 ug/L	-82.855 ppb	13:24:10
3	Sc Radial	4040.8	4040.8	95.1 %		13:22:40
3	Y RADIAL	4411.2	4411.2	100.2 %		13:22:20

3	Al 396.153Radial†	-160.5	-9.8	-8.5480	ug/L	-8.5480 ppb	13:22:20
3	Ca 317.933Radial†	12.2	-5.5	-10.325	ug/L	-10.325 ppb	13:22:40
3	Fe 238.204 Radial†	35465.9	37299.6	396410	ug/L	396410 ppb	13:22:20
3	K 766.490 Radial†	3038.4	24.8	5.1041	ug/L	5.1041 ppb	13:22:20
3	Mg 279.077 IEC†	14.1	12.2	54.746	ug/L	54.746 ppb	13:22:40
3	Na 589.592 Radial†	-153.1	-368.2	-122.80	ug/L	-122.80 ppb	13:22:20
3	Sr 421.552†	164.5	83.2	0.6427	ug/L	0.6427 ppb	13:22:20
3	Sc 361.383	828455.3	828455.3	97.464	%		13:23:39
3	Y 371.029	678768.7	678768.7	96.590	%		13:23:39
3	Ag 328.068†	-22033.1	-22834.0	16.078	ug/L	16.078 ppb	13:23:39
3	As 188.979†	-208.4	-185.5	14.884	ug/L	14.884 ppb	13:23:59
3	B 249.677†	2007.3	2541.4	-4.6335	ug/L	-4.6335 ppb	13:23:39
3	Ba 233.527†	-2011.0	-2082.2	-4.7678	ug/L	-4.7678 ppb	13:23:39
3	Be 313.107†	-8887.9	-4780.0	-1.7456	ug/L	-1.7456 ppb	13:23:39
3	Cd 226.502†	2608.0	2871.3	-5.3988	ug/L	-5.3988 ppb	13:23:39
3	Co 228.616†	740.0	838.1	11.677	ug/L	11.677 ppb	13:23:59
3	Cr 267.716†	-349.8	-508.6	-2.1679	ug/L	-2.1679 ppb	13:23:39
3	Cu 324.752†	2410.3	-5621.1	-1.8205	ug/L	-1.8205 ppb	13:23:39
3	Mn 257.610†	-30964.8	-32340.2	1.8315	ug/L	1.8315 ppb	13:23:39
3	Mo 202.031†	-331.3	-350.4	4.7351	ug/L	4.7351 ppb	13:23:39
3	Ni 231.604†	222.2	114.4	2.9201	ug/L	2.9201 ppb	13:23:59
3	P 214.914†	757.8	535.5	-18.794	ug/L	-18.794 ppb	13:23:59
3	Pb 220.353†	192.9	271.5	-4.3021	ug/L	-4.3021 ppb	13:23:59
3	S 181.975 Axial†	69.8	28.8	37.581	ug/L	37.581 ppb	13:23:59
3	Sb 206.836†	20.7	-14.5	-9.8602	ug/L	-9.8602 ppb	13:23:59
3	Se 196.026†	-1722.7	-1744.2	259.62	ug/L	259.62 ppb	13:23:59
3	Si 251.611†	-636.8	-1265.7	-39.122	ug/L	-39.122 ppb	13:23:39
3	Sn 189.927†	-25.4	-38.7	-0.2718	ug/L	-0.2718 ppb	13:23:59
3	Ti 334.940†	1207.7	2732.0	-0.0333	ug/L	-0.0333 ppb	13:23:39
3	Tl 190.801†	-69.3	-32.0	-10.381	ug/L	-10.381 ppb	13:23:59
3	U 409.014†	343156.5	355599.4	10056	ug/L	10056 ppb	13:23:39
3	V 292.402†	3133.0	4891.8	-3.3319	ug/L	-3.3319 ppb	13:23:39
3	Zn 213.857†	4220.6	3642.7	-23.766	ug/L	-23.766 ppb	13:23:59
3	SiO2†	-667.6	-1304.5	-86.266	ug/L	-86.266 ppb	13:24:15

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	832068.3	97.889	%	0.3862				0.39%
Sc Radial	4018.0	94.5	%	0.64				0.67%
Y 371.029	681851.9	97.029	%	0.3822				0.39%
Y RADIAL	4334.8	98.47	%	1.814				1.84%
Ag 328.068†	-22756.2	16.286	ug/L	2.6911	16.286	ppb	2.6911	16.52%
Al 396.153Radial†	-7.2	-5.8975	ug/L	6.76670	-5.8975	ppb	6.76670	114.74%
As 188.979†	-184.7	15.105	ug/L	1.2926	15.105	ppb	1.2926	8.56%
B 249.677†	2527.1	-4.8830	ug/L	0.26531	-4.8830	ppb	0.26531	5.43%
Ba 233.527†	-1976.6	-3.9265	ug/L	0.81177	-3.9265	ppb	0.81177	20.67%
Be 313.107†	-4764.8	-1.7402	ug/L	0.01868	-1.7402	ppb	0.01868	1.07%
Ca 317.933Radial†	-8.8	-16.349	ug/L	5.2719	-16.349	ppb	5.2719	32.25%
Cd 226.502†	2931.8	-4.6392	ug/L	0.77221	-4.6392	ppb	0.77221	16.65%
Co 228.616†	835.3	11.626	ug/L	0.1654	11.626	ppb	0.1654	1.42%
Cr 267.716†	-435.2	-1.3155	ug/L	0.75672	-1.3155	ppb	0.75672	57.52%
Cu 324.752†	-5674.0	-2.0002	ug/L	0.47263	-2.0002	ppb	0.47263	23.63%
Fe 238.204 Radial†	37248.3	395860	ug/L	6816.1	395860	ppb	6816.1	1.72%
K 766.490 Radial†	52.4	10.679	ug/L	14.4449	10.679	ppb	14.4449	135.27%
Mg 279.077 IEC†	9.5	-47.325	ug/L	102.8770	-47.325	ppb	102.8770	217.38%
Mn 257.610†	-32296.3	1.8325	ug/L	0.45721	1.8325	ppb	0.45721	24.95%
Mo 202.031†	-351.1	4.6435	ug/L	1.13369	4.6435	ppb	1.13369	24.41%
Na 589.592 Radial†	-356.8	-119.00	ug/L	8.229	-119.00	ppb	8.229	6.92%
Ni 231.604†	111.4	2.8432	ug/L	0.13696	2.8432	ppb	0.13696	4.82%
P 214.914†	520.7	-26.535	ug/L	8.7655	-26.535	ppb	8.7655	33.03%
Pb 220.353†	285.9	-2.4673	ug/L	1.90818	-2.4673	ppb	1.90818	77.34%
S 181.975 Axial†	28.9	37.724	ug/L	0.4379	37.724	ppb	0.4379	1.16%
Sb 206.836†	-8.0	-7.6752	ug/L	3.37070	-7.6752	ppb	3.37070	43.92%
Se 196.026†	-1732.3	264.80	ug/L	16.814	264.80	ppb	16.814	6.35%
Si 251.611†	-1249.9	-38.630	ug/L	0.4854	-38.630	ppb	0.4854	1.26%
Sn 189.927†	-41.2	-0.7251	ug/L	0.47330	-0.7251	ppb	0.47330	65.27%
Sr 421.552†	89.5	0.6913	ug/L	0.11293	0.6913	ppb	0.11293	16.34%
Ti 334.940†	2705.4	-0.0604	ug/L	0.02526	-0.0604	ppb	0.02526	41.79%
Tl 190.801†	-21.0	-6.9138	ug/L	3.00335	-6.9138	ppb	3.00335	43.44%

U 409.014†	354889.5	10036 ug/L	17.8	10036 ppb	17.8	0.18%
V 292.402†	4935.3	-2.9792 ug/L	0.97435	-2.9792 ppb	0.97435	32.71%
Zn 213.857†	3623.3	-23.872 ug/L	1.0730	-23.872 ppb	1.0730	4.49%
SiO2†	-1299.2	-85.909 ug/L	2.8924	-85.909 ppb	2.8924	3.37%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/16/2010 13:26:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4310.8	4310.8	101	%			13:28:18
1	Y RADIAL	4413.8	4413.8	100.3	%			13:28:18
1	Al 396.153Radial†	4928.8	5019.3	4997.1	ug/L	4997.1	ppb	13:28:18
1	Ca 317.933Radial†	2671.2	2615.8	4879.4	ug/L	4879.4	ppb	13:28:38
1	Fe 238.204 Radial†	482.3	465.5	4962.2	ug/L	4962.2	ppb	13:28:38
1	K 766.490 Radial†	28154.6	24591.9	4957.9	ug/L	4957.9	ppb	13:28:18
1	Mg 279.077 IEC†	134.8	130.2	5028.2	ug/L	5028.2	ppb	13:28:38
1	Na 589.592 Radial†	30766.8	30132.3	10051	ug/L	10051	ppb	13:28:18
1	Sr 421.552†	66158.3	65149.4	503.00	ug/L	503.00	ppb	13:28:18
1	Sc 361.383	847459.5	847459.5	99.700	%			13:29:37
1	Y 371.029	689364.5	689364.5	98.098	%			13:29:37
1	Ag 328.068†	103189.4	103272.2	499.07	ug/L	499.07	ppb	13:29:37
1	As 188.979†	1154.9	1186.7	503.69	ug/L	503.69	ppb	13:29:57
1	B 249.677†	20631.1	21175.1	495.95	ug/L	495.95	ppb	13:29:37
1	Ba 233.527†	61217.8	61383.1	499.65	ug/L	499.65	ppb	13:29:37
1	Be 313.107†	1347799.5	1356193.1	499.30	ug/L	499.30	ppb	13:29:37
1	Cd 226.502†	41450.0	41770.2	488.37	ug/L	488.37	ppb	13:29:57
1	Co 228.616†	23625.4	23775.3	495.85	ug/L	495.85	ppb	13:29:57
1	Cr 267.716†	42718.9	42697.7	497.35	ug/L	497.35	ppb	13:29:37
1	Cu 324.752†	169926.5	162343.6	497.04	ug/L	497.04	ppb	13:29:37
1	Mn 257.610†	435568.9	436309.5	503.52	ug/L	503.52	ppb	13:29:37
1	Mo 202.031†	6713.6	6723.4	500.03	ug/L	500.03	ppb	13:29:57
1	Ni 231.604†	19404.9	19349.8	495.33	ug/L	495.33	ppb	13:29:57
1	P 214.914†	4733.6	4505.8	2403.3	ug/L	2403.3	ppb	13:29:57
1	Pb 220.353†	3967.7	4053.2	503.75	ug/L	503.75	ppb	13:29:57
1	S 181.975 Axial†	799.1	758.6	990.57	ug/L	990.57	ppb	13:29:57
1	Sb 206.836†	1484.4	1453.2	509.70	ug/L	509.70	ppb	13:29:57
1	Se 196.026†	833.0	858.9	518.67	ug/L	518.67	ppb	13:29:57
1	Si 251.611†	80486.9	80116.7	2490.5	ug/L	2490.5	ppb	13:29:37
1	Sn 189.927†	2764.3	2760.0	495.72	ug/L	495.72	ppb	13:29:57
1	Ti 334.940†	311363.1	313792.6	509.87	ug/L	509.87	ppb	13:29:37
1	Tl 190.801†	1548.4	1592.1	506.04	ug/L	506.04	ppb	13:29:57
1	U 409.014†	13377.0	16932.4	479.33	ug/L	479.33	ppb	13:29:37
1	V 292.402†	66396.6	68273.6	501.13	ug/L	501.13	ppb	13:29:37
1	Zn 213.857†	51565.6	51032.9	493.50	ug/L	493.50	ppb	13:29:37
1	SiO2†	80953.8	80577.8	5358.8	ug/L	5358.8	ppb	13:30:57
2	Sc Radial	4095.8	4095.8	96.4	%			13:28:43
2	Y RADIAL	4225.8	4225.8	95.99	%			13:28:43
2	Al 396.153Radial†	4763.7	5103.1	5081.2	ug/L	5081.2	ppb	13:28:43
2	Ca 317.933Radial†	2700.1	2784.0	5193.2	ug/L	5193.2	ppb	13:29:03
2	Fe 238.204 Radial†	484.1	492.3	5246.9	ug/L	5246.9	ppb	13:29:03
2	K 766.490 Radial†	27409.2	25275.5	5095.8	ug/L	5095.8	ppb	13:28:43
2	Mg 279.077 IEC†	135.8	138.2	5337.1	ug/L	5337.1	ppb	13:29:03
2	Na 589.592 Radial†	29666.7	30583.0	10201	ug/L	10201	ppb	13:28:43
2	Sr 421.552†	63950.8	66282.5	511.75	ug/L	511.75	ppb	13:28:43
2	Sc 361.383	847465.7	847465.7	99.701	%			13:30:04
2	Y 371.029	689049.5	689049.5	98.053	%			13:30:04
2	Ag 328.068†	102828.9	102909.8	497.42	ug/L	497.42	ppb	13:30:04
2	As 188.979†	1128.7	1160.4	492.71	ug/L	492.71	ppb	13:30:24
2	B 249.677†	20622.5	21166.3	495.72	ug/L	495.72	ppb	13:30:04
2	Ba 233.527†	61314.6	61479.8	500.44	ug/L	500.44	ppb	13:30:04
2	Be 313.107†	1341780.8	1350146.4	497.07	ug/L	497.07	ppb	13:30:04
2	Cd 226.502†	40896.5	41214.7	481.84	ug/L	481.84	ppb	13:30:24
2	Co 228.616†	23324.2	23473.1	489.53	ug/L	489.53	ppb	13:30:24
2	Cr 267.716†	42677.6	42656.0	496.87	ug/L	496.87	ppb	13:30:04
2	Cu 324.752†	168900.4	161313.1	493.90	ug/L	493.90	ppb	13:30:04
2	Mn 257.610†	434688.4	435423.1	502.51	ug/L	502.51	ppb	13:30:04
2	Mo 202.031†	6635.9	6645.3	494.26	ug/L	494.26	ppb	13:30:24
2	Ni 231.604†	19111.2	19055.0	487.78	ug/L	487.78	ppb	13:30:24

2	P 214.914†	4658.6	4430.6	2361.9	ug/L	2361.9 ppb	13:30:24
2	Pb 220.353†	3932.1	4017.5	499.30	ug/L	499.30 ppb	13:30:24
2	S 181.975 Axial†	793.9	753.4	983.69	ug/L	983.69 ppb	13:30:24
2	Sb 206.836†	1461.1	1429.8	501.54	ug/L	501.54 ppb	13:30:24
2	Se 196.026†	813.1	838.9	507.90	ug/L	507.90 ppb	13:30:24
2	Si 251.611†	80375.8	80004.7	2487.1	ug/L	2487.1 ppb	13:30:04
2	Sn 189.927†	2732.6	2728.2	490.07	ug/L	490.07 ppb	13:30:24
2	Ti 334.940†	310445.9	312870.4	508.39	ug/L	508.39 ppb	13:30:04
2	Tl 190.801†	1519.9	1563.5	497.03	ug/L	497.03 ppb	13:30:24
2	U 409.014†	13374.0	16929.3	479.20	ug/L	479.20 ppb	13:30:04
2	V 292.402†	66305.8	68182.0	500.35	ug/L	500.35 ppb	13:30:04
2	Zn 213.857†	51371.3	50837.7	491.61	ug/L	491.61 ppb	13:30:04
2	SiO2†	79242.0	78860.2	5244.4	ug/L	5244.4 ppb	13:31:02
3	Sc Radial	4222.0	4222.0	99.3	%		13:29:08
3	Y RADIAL	4362.8	4362.8	99.11	%		13:29:08
3	Al 396.153Radial†	4924.0	5116.8	5094.7	ug/L	5094.7 ppb	13:29:08
3	Ca 317.933Radial†	2706.1	2706.4	5048.4	ug/L	5048.4 ppb	13:29:28
3	Fe 238.204 Radial†	482.6	475.9	5072.2	ug/L	5072.2 ppb	13:29:28
3	K 766.490 Radial†	28113.7	25134.8	5067.4	ug/L	5067.4 ppb	13:29:08
3	Mg 279.077 IEC†	133.9	132.1	5101.0	ug/L	5101.0 ppb	13:29:28
3	Na 589.592 Radial†	30432.2	30433.8	10151	ug/L	10151 ppb	13:29:08
3	Sr 421.552†	65789.5	66150.7	510.73	ug/L	510.73 ppb	13:29:08
3	Sc 361.383	853808.9	853808.9	100.45	%		13:30:32
3	Y 371.029	694630.8	694630.8	98.848	%		13:30:32
3	Ag 328.068†	102619.6	101935.2	492.67	ug/L	492.67 ppb	13:30:32
3	As 188.979†	1140.5	1163.8	494.02	ug/L	494.02 ppb	13:30:52
3	B 249.677†	20608.0	20998.2	491.78	ug/L	491.78 ppb	13:30:32
3	Ba 233.527†	61053.5	60762.9	494.60	ug/L	494.60 ppb	13:30:32
3	Be 313.107†	1339080.4	1337459.6	492.40	ug/L	492.40 ppb	13:30:32
3	Cd 226.502†	41318.9	41330.5	483.21	ug/L	483.21 ppb	13:30:52
3	Co 228.616†	23573.6	23547.5	491.10	ug/L	491.10 ppb	13:30:52
3	Cr 267.716†	42533.3	42194.3	491.49	ug/L	491.49 ppb	13:30:32
3	Cu 324.752†	168480.6	159636.6	488.77	ug/L	488.77 ppb	13:30:32
3	Mn 257.610†	433048.0	430550.8	496.88	ug/L	496.88 ppb	13:30:32
3	Mo 202.031†	6712.8	6672.4	496.26	ug/L	496.26 ppb	13:30:52
3	Ni 231.604†	19328.5	19129.0	489.68	ug/L	489.68 ppb	13:30:52
3	P 214.914†	4700.7	4437.8	2367.1	ug/L	2367.1 ppb	13:30:52
3	Pb 220.353†	3972.9	4028.8	500.73	ug/L	500.73 ppb	13:30:52
3	S 181.975 Axial†	804.1	757.6	989.23	ug/L	989.23 ppb	13:30:52
3	Sb 206.836†	1478.6	1436.4	503.89	ug/L	503.89 ppb	13:30:52
3	Se 196.026†	838.3	857.9	518.45	ug/L	518.45 ppb	13:30:52
3	Si 251.611†	79990.4	79022.1	2456.4	ug/L	2456.4 ppb	13:30:32
3	Sn 189.927†	2774.5	2749.6	493.88	ug/L	493.88 ppb	13:30:52
3	Ti 334.940†	309446.3	309561.9	503.02	ug/L	503.02 ppb	13:30:32
3	Tl 190.801†	1538.0	1570.2	499.07	ug/L	499.07 ppb	13:30:52
3	U 409.014†	13104.0	16560.9	468.77	ug/L	468.77 ppb	13:30:32
3	V 292.402†	66008.8	67392.3	494.66	ug/L	494.66 ppb	13:30:32
3	Zn 213.857†	51287.8	50371.8	487.08	ug/L	487.08 ppb	13:30:32
3	SiO2†	79210.2	78238.1	5202.9	ug/L	5202.9 ppb	13:31:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849578.0	99.949	%	0.4311				0.43%
Sc Radial	4209.5	99.0	%	2.54				2.57%
Y 371.029	691014.9	98.333	%	0.4462				0.45%
Y RADIAL	4334.1	98.45	%	2.209				2.24%
Ag 328.068†	102705.7	496.39	ug/L	3.324	496.39	ppb	3.324	0.67%
QC value within limits for Ag 328.068 Recovery = 99.28%								
Al 396.153Radial†	5079.7	5057.6	ug/L	52.91	5057.6	ppb	52.91	1.05%
QC value within limits for Al 396.153Radial Recovery = 101.15%								
As 188.979†	1170.3	496.81	ug/L	5.998	496.81	ppb	5.998	1.21%
QC value within limits for As 188.979 Recovery = 99.36%								
B 249.677†	21113.2	494.48	ug/L	2.341	494.48	ppb	2.341	0.47%
QC value within limits for B 249.677 Recovery = 98.90%								
Ba 233.527†	61208.6	498.23	ug/L	3.167	498.23	ppb	3.167	0.64%
QC value within limits for Ba 233.527 Recovery = 99.65%								
Be 313.107†	1347933.0	496.25	ug/L	3.520	496.25	ppb	3.520	0.71%
QC value within limits for Be 313.107 Recovery = 99.25%								
Ca 317.933Radial†	2702.0	5040.3	ug/L	157.03	5040.3	ppb	157.03	3.12%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.81%
Cd 226.502†            41438.5      484.47 ug/L        3.444      484.47 ppb        3.444   0.71%
   QC value within limits for Cd 226.502  Recovery = 96.89%
Co 228.616†            23598.6      492.16 ug/L        3.288      492.16 ppb        3.288   0.67%
   QC value within limits for Co 228.616  Recovery = 98.43%
Cr 267.716†            42516.0      495.24 ug/L        3.253      495.24 ppb        3.253   0.66%
   QC value within limits for Cr 267.716  Recovery = 99.05%
Cu 324.752†           161097.8      493.24 ug/L        4.178      493.24 ppb        4.178   0.85%
   QC value within limits for Cu 324.752  Recovery = 98.65%
Fe 238.204 Radial†       477.9      5093.8 ug/L       143.56      5093.8 ppb       143.56   2.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.88%
K 766.490 Radial†      25000.7      5040.4 ug/L        72.79      5040.4 ppb        72.79   1.44%
   QC value within limits for K 766.490 Radial  Recovery = 100.81%
Mg 279.077 IEC†          133.5      5155.4 ug/L       161.48      5155.4 ppb       161.48   3.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.11%
Mn 257.610†           434094.5      500.97 ug/L        3.575      500.97 ppb        3.575   0.71%
   QC value within limits for Mn 257.610  Recovery = 100.19%
Mo 202.031†             6680.4      496.85 ug/L        2.932      496.85 ppb        2.932   0.59%
   QC value within limits for Mo 202.031  Recovery = 99.37%
Na 589.592 Radial†     30383.0       10135 ug/L         76.6       10135 ppb         76.6   0.76%
   QC value within limits for Na 589.592 Radial  Recovery = 101.35%
Ni 231.604†            19177.9      490.93 ug/L        3.926      490.93 ppb        3.926   0.80%
   QC value within limits for Ni 231.604  Recovery = 98.19%
P 214.914†              4458.1      2377.5 ug/L       22.54      2377.5 ppb        22.54   0.95%
   QC value within limits for P 214.914  Recovery = 95.10%
Pb 220.353†             4033.2      501.26 ug/L        2.270      501.26 ppb        2.270   0.45%
   QC value within limits for Pb 220.353  Recovery = 100.25%
S 181.975 Axial†         756.6      987.83 ug/L        3.646      987.83 ppb        3.646   0.37%
   QC value within limits for S 181.975 Axial  Recovery = 98.78%
Sb 206.836†             1439.8      505.04 ug/L        4.200      505.04 ppb        4.200   0.83%
   QC value within limits for Sb 206.836  Recovery = 101.01%
Se 196.026†              851.9      515.01 ug/L        6.156      515.01 ppb        6.156   1.20%
   QC value within limits for Se 196.026  Recovery = 103.00%
Si 251.611†            79714.5      2478.0 ug/L       18.76      2478.0 ppb        18.76   0.76%
   QC value within limits for Si 251.611  Recovery = 99.12%
Sn 189.927†             2745.9      493.22 ug/L        2.880      493.22 ppb        2.880   0.58%
   QC value within limits for Sn 189.927  Recovery = 98.64%
Sr 421.552†            65860.9      508.49 ug/L        4.783      508.49 ppb        4.783   0.94%
   QC value within limits for Sr 421.552  Recovery = 101.70%
Ti 334.940†           312075.0      507.09 ug/L        3.606      507.09 ppb        3.606   0.71%
   QC value within limits for Ti 334.940  Recovery = 101.42%
Tl 190.801†             1575.3      500.71 ug/L        4.724      500.71 ppb        4.724   0.94%
   QC value within limits for Tl 190.801  Recovery = 100.14%
U 409.014†             16807.5      475.77 ug/L        6.059      475.77 ppb        6.059   1.27%
   QC value within limits for U 409.014  Recovery = 95.15%
V 292.402†             67949.3      498.71 ug/L        3.528      498.71 ppb        3.528   0.71%
   QC value within limits for V 292.402  Recovery = 99.74%
Zn 213.857†            50747.5      490.73 ug/L        3.299      490.73 ppb        3.299   0.67%
   QC value within limits for Zn 213.857  Recovery = 98.15%
SiO2†                  79225.4      5268.7 ug/L       80.73      5268.7 ppb        80.73   1.53%
   QC value within limits for SiO2  Recovery = 98.53%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/16/2010 13:33:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3927.6	3927.6	92.4	%			13:35:10
1	Y RADIAL	4071.0	4071.0	92.48	%			13:35:10
1	Al 396.153Radial†	-161.8	-16.1	-16.108	ug/L	-16.108	ppb	13:35:10
1	Ca 317.933Radial†	22.4	6.0	11.104	ug/L	11.104	ppb	13:35:30
1	Fe 238.204 Radial†	10.3	1.1	11.442	ug/L	11.442	ppb	13:35:30
1	K 766.490 Radial†	3230.5	324.8	65.577	ug/L	65.577	ppb	13:35:10
1	Mg 279.077 IEC†	2.7	0.2	9.5656	ug/L	9.5656	ppb	13:35:30
1	Na 589.592 Radial†	40.8	-162.9	-54.329	ug/L	-54.329	ppb	13:35:10
1	Sr 421.552†	92.6	10.4	0.0800	ug/L	0.0800	ppb	13:35:10
1	Sc 361.383	840669.4	840669.4	98.901	%			13:36:27
1	Y 371.029	694936.4	694936.4	98.891	%			13:36:27
1	Ag 328.068†	239.0	14.0	0.0695	ug/L	0.0695	ppb	13:36:27
1	As 188.979†	-27.6	0.4	0.1877	ug/L	0.1877	ppb	13:36:47
1	B 249.677†	116.2	599.4	14.099	ug/L	14.099	ppb	13:36:27
1	Ba 233.527†	8.3	-10.5	-0.0851	ug/L	-0.0851	ppb	13:36:47
1	Be 313.107†	-4317.2	-26.1	-0.0093	ug/L	-0.0093	ppb	13:36:27
1	Cd 226.502†	-201.4	-8.1	-0.0957	ug/L	-0.0957	ppb	13:36:47
1	Co 228.616†	-79.4	-1.4	-0.0289	ug/L	-0.0289	ppb	13:36:47
1	Cr 267.716†	155.6	7.6	0.0883	ug/L	0.0883	ppb	13:36:47
1	Cu 324.752†	8026.2	21.3	0.0651	ug/L	0.0651	ppb	13:36:27
1	Mn 257.610†	535.8	-28.0	-0.0316	ug/L	-0.0316	ppb	13:36:47
1	Mo 202.031†	17.1	6.9	0.5110	ug/L	0.5110	ppb	13:36:47
1	Ni 231.604†	117.0	4.8	0.1238	ug/L	0.1238	ppb	13:36:47
1	P 214.914†	246.0	6.8	3.7688	ug/L	3.7688	ppb	13:36:47
1	Pb 220.353†	-63.5	9.4	1.1581	ug/L	1.1581	ppb	13:36:47
1	S 181.975 Axial†	44.8	2.4	3.1757	ug/L	3.1757	ppb	13:36:47
1	Sb 206.836†	53.2	18.1	6.1746	ug/L	6.1746	ppb	13:36:47
1	Se 196.026†	-22.9	0.2	0.1571	ug/L	0.1571	ppb	13:36:47
1	Si 251.611†	565.3	-40.7	-1.2758	ug/L	-1.2758	ppb	13:36:47
1	Sn 189.927†	23.7	11.4	2.0410	ug/L	2.0410	ppb	13:36:47
1	Ti 334.940†	-1412.8	64.3	0.1048	ug/L	0.1048	ppb	13:36:27
1	Tl 190.801†	-29.8	9.0	2.8501	ug/L	2.8501	ppb	13:36:47
1	U 409.014†	-3440.6	36.3	1.0302	ug/L	1.0302	ppb	13:36:27
1	V 292.402†	-1677.6	-18.9	-0.1296	ug/L	-0.1296	ppb	13:36:27
1	Zn 213.857†	711.1	31.2	0.3020	ug/L	0.3020	ppb	13:36:47
1	SiO2†	616.3	3.6	0.2280	ug/L	0.2280	ppb	13:37:43
2	Sc Radial	4251.7	4251.7	100	%			13:35:35
2	Y RADIAL	4391.9	4391.9	99.77	%			13:35:35
2	Al 396.153Radial†	-154.1	5.0	4.9825	ug/L	4.9825	ppb	13:35:35
2	Ca 317.933Radial†	17.5	-0.8	-1.5118	ug/L	-1.5118	ppb	13:35:55
2	Fe 238.204 Radial†	10.3	0.2	2.1422	ug/L	2.1422	ppb	13:35:55
2	K 766.490 Radial†	3224.7	52.5	10.626	ug/L	10.626	ppb	13:35:35
2	Mg 279.077 IEC†	3.6	0.9	33.067	ug/L	33.067	ppb	13:35:55
2	Na 589.592 Radial†	-30.7	-237.8	-79.307	ug/L	-79.307	ppb	13:35:35
2	Sr 421.552†	14.5	-75.3	-0.5812	ug/L	-0.5812	ppb	13:35:35
2	Sc 361.383	840859.8	840859.8	98.924	%			13:36:53
2	Y 371.029	694632.2	694632.2	98.848	%			13:36:53
2	Ag 328.068†	155.0	-70.9	-0.3394	ug/L	-0.3394	ppb	13:36:53
2	As 188.979†	-36.6	-8.7	-3.6616	ug/L	-3.6616	ppb	13:37:13
2	B 249.677†	89.2	572.1	13.458	ug/L	13.458	ppb	13:36:53
2	Ba 233.527†	2.5	-16.3	-0.1310	ug/L	-0.1310	ppb	13:37:13
2	Be 313.107†	-4402.7	-111.5	-0.0409	ug/L	-0.0409	ppb	13:36:53
2	Cd 226.502†	-197.5	-4.2	-0.0488	ug/L	-0.0488	ppb	13:37:13
2	Co 228.616†	-74.7	3.3	0.0699	ug/L	0.0699	ppb	13:37:13
2	Cr 267.716†	169.0	21.2	0.2462	ug/L	0.2462	ppb	13:37:13
2	Cu 324.752†	8061.2	54.8	0.1665	ug/L	0.1665	ppb	13:36:53
2	Mn 257.610†	536.3	-27.6	-0.0330	ug/L	-0.0330	ppb	13:37:13
2	Mo 202.031†	13.6	3.3	0.2473	ug/L	0.2473	ppb	13:37:13
2	Ni 231.604†	103.6	-8.7	-0.2240	ug/L	-0.2240	ppb	13:37:13

2	P 214.914†	235.1	-4.3	-2.3864	ug/L	-2.3864 ppb	13:37:13
2	Pb 220.353†	-69.2	3.6	0.4419	ug/L	0.4419 ppb	13:37:13
2	S 181.975 Axial†	48.4	6.0	7.8773	ug/L	7.8773 ppb	13:37:13
2	Sb 206.836†	41.8	6.6	2.2769	ug/L	2.2769 ppb	13:37:13
2	Se 196.026†	-23.1	-0.0	-0.0205	ug/L	-0.0205 ppb	13:37:13
2	Si 251.611†	578.7	-27.3	-0.8552	ug/L	-0.8552 ppb	13:37:13
2	Sn 189.927†	27.2	14.9	2.6688	ug/L	2.6688 ppb	13:37:13
2	Ti 334.940†	-1472.1	4.8	0.0036	ug/L	0.0036 ppb	13:36:53
2	Tl 190.801†	-41.0	-2.3	-0.7335	ug/L	-0.7335 ppb	13:37:13
2	U 409.014†	-3388.1	90.2	2.5609	ug/L	2.5609 ppb	13:36:53
2	V 292.402†	-1572.0	88.2	0.6474	ug/L	0.6474 ppb	13:36:53
2	Zn 213.857†	697.8	17.6	0.1731	ug/L	0.1731 ppb	13:37:13
2	SiO2†	621.9	9.2	0.6045	ug/L	0.6045 ppb	13:37:48
3	Sc Radial	4219.0	4219.0	99.3	%		13:36:00
3	Y RADIAL	4390.6	4390.6	99.74	%		13:36:00
3	Al 396.153Radial†	-158.1	-0.3	-0.2996	ug/L	-0.2996 ppb	13:36:00
3	Ca 317.933Radial†	13.5	-4.7	-8.8094	ug/L	-8.8094 ppb	13:36:20
3	Fe 238.204 Radial†	10.0	-0.0	-0.0167	ug/L	-0.0167 ppb	13:36:20
3	K 766.490 Radial†	3161.9	14.2	2.9089	ug/L	2.9089 ppb	13:36:00
3	Mg 279.077 IEC†	0.9	-1.8	-68.962	ug/L	-68.962 ppb	13:36:20
3	Na 589.592 Radial†	-63.7	-271.2	-90.467	ug/L	-90.467 ppb	13:36:00
3	Sr 421.552†	57.1	-32.2	-0.2489	ug/L	-0.2489 ppb	13:36:00
3	Sc 361.383	843627.2	843627.2	99.249	%		13:37:18
3	Y 371.029	696156.6	696156.6	99.065	%		13:37:18
3	Ag 328.068†	118.0	-108.7	-0.5217	ug/L	-0.5217 ppb	13:37:18
3	As 188.979†	-31.0	-2.9	-1.2246	ug/L	-1.2246 ppb	13:37:38
3	B 249.677†	124.0	606.8	14.276	ug/L	14.276 ppb	13:37:18
3	Ba 233.527†	18.1	-0.6	-0.0046	ug/L	-0.0046 ppb	13:37:38
3	Be 313.107†	-4387.0	-81.0	-0.0298	ug/L	-0.0298 ppb	13:37:18
3	Cd 226.502†	-192.2	1.8	0.0212	ug/L	0.0212 ppb	13:37:38
3	Co 228.616†	-75.5	2.8	0.0603	ug/L	0.0603 ppb	13:37:38
3	Cr 267.716†	168.6	20.1	0.2345	ug/L	0.2345 ppb	13:37:38
3	Cu 324.752†	8073.9	40.9	0.1252	ug/L	0.1252 ppb	13:37:18
3	Mn 257.610†	537.4	-28.2	-0.0297	ug/L	-0.0297 ppb	13:37:38
3	Mo 202.031†	21.5	11.1	0.8284	ug/L	0.8284 ppb	13:37:38
3	Ni 231.604†	96.4	-16.4	-0.4200	ug/L	-0.4200 ppb	13:37:38
3	P 214.914†	242.1	1.9	1.0623	ug/L	1.0623 ppb	13:37:38
3	Pb 220.353†	-81.5	-8.6	-1.0587	ug/L	-1.0587 ppb	13:37:38
3	S 181.975 Axial†	49.0	6.5	8.4506	ug/L	8.4506 ppb	13:37:38
3	Sb 206.836†	59.0	23.8	8.1091	ug/L	8.1091 ppb	13:37:38
3	Se 196.026†	-11.7	11.6	6.7588	ug/L	6.7588 ppb	13:37:38
3	Si 251.611†	574.8	-33.2	-1.0437	ug/L	-1.0437 ppb	13:37:38
3	Sn 189.927†	27.7	15.3	2.7408	ug/L	2.7408 ppb	13:37:38
3	Ti 334.940†	-1491.0	-9.3	-0.0108	ug/L	-0.0108 ppb	13:37:18
3	Tl 190.801†	-44.1	-5.3	-1.6787	ug/L	-1.6787 ppb	13:37:38
3	U 409.014†	-3493.0	-4.2	-0.1210	ug/L	-0.1210 ppb	13:37:18
3	V 292.402†	-1657.4	7.3	0.0633	ug/L	0.0633 ppb	13:37:18
3	Zn 213.857†	694.8	12.3	0.1228	ug/L	0.1228 ppb	13:37:38
3	SiO2†	612.3	-2.6	-0.1956	ug/L	-0.1956 ppb	13:37:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841718.8	99.025	%	0.1948				0.20%
Sc Radial	4132.8	97.2	%	4.20				4.32%
Y 371.029	695241.7	98.935	%	0.1148				0.12%
Y RADIAL	4284.5	97.33	%	4.200				4.32%
Ag 328.068†	-55.2	-0.2638	ug/L	0.30276	-0.2638	ppb	0.30276	114.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.8	-3.8082	ug/L	10.97404	-3.8082	ppb	10.97404	288.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.7	-1.5661	ug/L	1.94724	-1.5661	ppb	1.94724	124.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	592.8	13.944	ug/L	0.4301	13.944	ppb	0.4301	3.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.1	-0.0736	ug/L	0.06395	-0.0736	ppb	0.06395	86.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-72.9	-0.0267	ug/L	0.01603	-0.0267	ppb	0.01603	60.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.2609	ug/L	10.07430	0.2609	ppb	10.07430	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.5     -0.0411 ug/L       0.05885     -0.0411 ppb        0.05885 143.12%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.6      0.0338 ug/L       0.05447      0.0338 ppb        0.05447 161.35%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.3      0.1896 ug/L       0.08797      0.1896 ppb        0.08797  46.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                39.0      0.1189 ug/L       0.05097      0.1189 ppb        0.05097  42.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      4.5223 ug/L       6.08866      4.5223 ppb        6.08866 134.64%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         130.5     26.371 ug/L      34.1725     26.371 ppb        34.1725 129.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -8.7766 ug/L      53.43030     -8.7766 ppb       53.43030 608.78%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -27.9     -0.0314 ug/L       0.00162     -0.0314 ppb        0.00162   5.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.1      0.5289 ug/L       0.29095      0.5289 ppb        0.29095  55.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -224.0     -74.701 ug/L      18.5043     -74.701 ppb        18.5043  24.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.8     -0.1734 ug/L       0.27539     -0.1734 ppb        0.27539 158.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.5      0.8149 ug/L       3.08504      0.8149 ppb        3.08504 378.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.5      0.1804 ug/L       1.13129      0.1804 ppb        1.13129 627.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.0      6.5012 ug/L       2.89423      6.5012 ppb        2.89423  44.52%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                16.2      5.5202 ug/L       2.97064      5.5202 ppb        2.97064  53.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.9      2.2985 ug/L       3.86374      2.2985 ppb        3.86374 168.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -33.7     -1.0582 ug/L       0.21070     -1.0582 ppb        0.21070  19.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                13.8      2.4835 ug/L       0.38495      2.4835 ppb        0.38495  15.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -32.4     -0.2500 ug/L       0.33062     -0.2500 ppb        0.33062 132.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                19.9      0.0326 ug/L       0.06299      0.0326 ppb        0.06299 193.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.5      0.1460 ug/L       2.38906      0.1460 ppb        2.38906 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 40.8      1.1567 ug/L       1.34540      1.1567 ppb        1.34540 116.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 25.5      0.1937 ug/L       0.40461      0.1937 ppb        0.40461 208.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                20.4      0.1993 ug/L       0.09244      0.1993 ppb        0.09244  46.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       3.4      0.2123 ug/L       0.40024      0.2123 ppb        0.40024 188.53%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/16/2010 15:01:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4080.2	4080.2	96.0	%			15:03:48
1	Y RADIAL	4285.5	4285.5	97.35	%			15:03:28
1	Al 396.153Radial†	4783.5	5142.6	5120.5	ug/L	5120.5	ppb	15:03:28
1	Ca 317.933Radial†	2644.9	2737.2	5106.0	ug/L	5106.0	ppb	15:03:48
1	Fe 238.204 Radial†	496.7	507.4	5407.7	ug/L	5407.7	ppb	15:03:48
1	K 766.490 Radial†	28390.1	26406.3	5323.2	ug/L	5323.2	ppb	15:03:28
1	Mg 279.077 IEC†	132.7	135.6	5235.1	ug/L	5235.1	ppb	15:03:48
1	Na 589.592 Radial†	35528.9	36808.2	12278	ug/L	12278	ppb	15:03:28
1	Sr 421.552†	66773.4	69477.1	536.42	ug/L	536.42	ppb	15:03:28
1	Sc 361.383	819156.6	819156.6	96.370	%			15:04:47
1	Y 371.029	661929.3	661929.3	94.194	%			15:04:47
1	Ag 328.068†	100495.8	104053.1	502.95	ug/L	502.95	ppb	15:04:47
1	As 188.979†	1103.3	1173.1	498.13	ug/L	498.13	ppb	15:05:07
1	B 249.677†	21328.1	22613.3	529.71	ug/L	529.71	ppb	15:04:47
1	Ba 233.527†	59092.6	61299.4	498.97	ug/L	498.97	ppb	15:04:47
1	Be 313.107†	1308525.1	1362147.6	501.49	ug/L	501.49	ppb	15:04:47
1	Cd 226.502†	39476.7	41159.1	481.17	ug/L	481.17	ppb	15:05:07
1	Co 228.616†	22888.1	23829.0	496.95	ug/L	496.95	ppb	15:05:07
1	Cr 267.716†	40435.4	41808.7	487.01	ug/L	487.01	ppb	15:04:47
1	Cu 324.752†	168397.9	166646.2	510.24	ug/L	510.24	ppb	15:04:47
1	Mn 257.610†	421122.8	436413.9	503.67	ug/L	503.67	ppb	15:04:47
1	Mo 202.031†	6473.2	6706.6	498.82	ug/L	498.82	ppb	15:05:07
1	Ni 231.604†	18503.6	19087.0	488.60	ug/L	488.60	ppb	15:05:07
1	P 214.914†	4488.7	4415.7	2350.3	ug/L	2350.3	ppb	15:05:07
1	Pb 220.353†	3783.4	3999.4	497.06	ug/L	497.06	ppb	15:05:07
1	S 181.975 Axial†	860.5	850.0	1109.9	ug/L	1109.9	ppb	15:05:07
1	Sb 206.836†	1449.8	1468.7	514.73	ug/L	514.73	ppb	15:05:07
1	Se 196.026†	789.1	842.1	510.34	ug/L	510.34	ppb	15:05:07
1	Si 251.611†	77647.3	79959.4	2485.6	ug/L	2485.6	ppb	15:04:47
1	Sn 189.927†	2625.5	2711.8	487.12	ug/L	487.12	ppb	15:05:07
1	Ti 334.940†	303184.0	316095.8	513.63	ug/L	513.63	ppb	15:04:47
1	Tl 190.801†	1506.1	1601.9	509.16	ug/L	509.16	ppb	15:05:07
1	U 409.014†	13079.8	17087.6	483.70	ug/L	483.70	ppb	15:04:47
1	V 292.402†	63536.0	67606.3	496.22	ug/L	496.22	ppb	15:04:47
1	Zn 213.857†	49869.6	51060.1	493.73	ug/L	493.73	ppb	15:04:47
1	SiO2†	77669.3	79975.0	5318.6	ug/L	5318.6	ppb	15:06:08
2	Sc Radial	4084.2	4084.2	96.1	%			15:04:14
2	Y RADIAL	4305.4	4305.4	97.80	%			15:03:54
2	Al 396.153Radial†	4809.5	5164.9	5142.6	ug/L	5142.6	ppb	15:03:54
2	Ca 317.933Radial†	2636.3	2725.6	5084.2	ug/L	5084.2	ppb	15:04:14
2	Fe 238.204 Radial†	491.9	502.0	5349.6	ug/L	5349.6	ppb	15:04:14
2	K 766.490 Radial†	28459.4	26449.4	5332.0	ug/L	5332.0	ppb	15:03:54
2	Mg 279.077 IEC†	130.3	133.0	5134.7	ug/L	5134.7	ppb	15:04:14
2	Na 589.592 Radial†	35522.4	36765.2	12263	ug/L	12263	ppb	15:03:54
2	Sr 421.552†	66527.8	69153.4	533.92	ug/L	533.92	ppb	15:03:54
2	Sc 361.383	819198.5	819198.5	96.375	%			15:05:15
2	Y 371.029	661013.3	661013.3	94.064	%			15:05:15
2	Ag 328.068†	100523.5	104076.6	503.04	ug/L	503.04	ppb	15:05:15
2	As 188.979†	1106.4	1176.3	499.47	ug/L	499.47	ppb	15:05:35
2	B 249.677†	21213.1	22492.8	526.88	ug/L	526.88	ppb	15:05:15
2	Ba 233.527†	59207.3	61415.3	499.92	ug/L	499.92	ppb	15:05:15
2	Be 313.107†	1309711.7	1363309.5	501.92	ug/L	501.92	ppb	15:05:15
2	Cd 226.502†	39584.1	41268.4	482.46	ug/L	482.46	ppb	15:05:35
2	Co 228.616†	22938.8	23880.5	498.03	ug/L	498.03	ppb	15:05:35
2	Cr 267.716†	40488.5	41861.6	487.62	ug/L	487.62	ppb	15:05:15
2	Cu 324.752†	168288.1	166523.4	509.86	ug/L	509.86	ppb	15:05:15
2	Mn 257.610†	422577.7	437901.2	505.39	ug/L	505.39	ppb	15:05:15
2	Mo 202.031†	6501.1	6735.2	500.94	ug/L	500.94	ppb	15:05:35
2	Ni 231.604†	18578.0	19163.2	490.55	ug/L	490.55	ppb	15:05:35

2	P 214.914†	4503.4	4430.8	2358.8	ug/L	2358.8 ppb	15:05:35
2	Pb 220.353†	3796.4	4012.8	498.73	ug/L	498.73 ppb	15:05:35
2	S 181.975 Axial†	860.5	849.9	1109.8	ug/L	1109.8 ppb	15:05:35
2	Sb 206.836†	1451.8	1470.7	515.47	ug/L	515.47 ppb	15:05:35
2	Se 196.026†	788.4	841.4	509.73	ug/L	509.73 ppb	15:05:35
2	Si 251.611†	77846.7	80162.2	2491.9	ug/L	2491.9 ppb	15:05:15
2	Sn 189.927†	2629.9	2716.2	487.91	ug/L	487.91 ppb	15:05:35
2	Ti 334.940†	303723.5	316639.6	514.52	ug/L	514.52 ppb	15:05:15
2	Tl 190.801†	1501.8	1597.4	507.75	ug/L	507.75 ppb	15:05:35
2	U 409.014†	13124.5	17133.2	485.01	ug/L	485.01 ppb	15:05:15
2	V 292.402†	63678.1	67750.3	497.30	ug/L	497.30 ppb	15:05:15
2	Zn 213.857†	50048.3	51242.9	495.51	ug/L	495.51 ppb	15:05:15
2	SiO2†	78162.3	80482.5	5352.4	ug/L	5352.4 ppb	15:06:13
3	Sc Radial	3909.5	3909.5	92.0	%		15:04:39
3	Y RADIAL	4212.4	4212.4	95.69	%		15:04:19
3	Al 396.153Radial†	4655.8	5221.4	5199.5	ug/L	5199.5 ppb	15:04:19
3	Ca 317.933Radial†	2635.0	2846.7	5310.2	ug/L	5310.2 ppb	15:04:39
3	Fe 238.204 Radial†	490.9	523.7	5580.3	ug/L	5580.3 ppb	15:04:39
3	K 766.490 Radial†	27867.2	27128.8	5469.0	ug/L	5469.0 ppb	15:04:19
3	Mg 279.077 IEC†	130.4	139.1	5370.7	ug/L	5370.7 ppb	15:04:39
3	Na 589.592 Radial†	34028.2	36792.3	12272	ug/L	12272 ppb	15:04:19
3	Sr 421.552†	64668.6	70225.4	542.19	ug/L	542.19 ppb	15:04:19
3	Sc 361.383	822426.5	822426.5	96.755	%		15:05:42
3	Y 371.029	663379.1	663379.1	94.400	%		15:05:42
3	Ag 328.068†	100677.5	103826.3	501.91	ug/L	501.91 ppb	15:05:42
3	As 188.979†	1081.6	1146.2	486.84	ug/L	486.84 ppb	15:06:02
3	B 249.677†	21369.9	22568.5	528.65	ug/L	528.65 ppb	15:05:42
3	Ba 233.527†	59199.0	61165.5	497.89	ug/L	497.89 ppb	15:05:42
3	Be 313.107†	1309185.8	1357432.0	499.76	ug/L	499.76 ppb	15:05:42
3	Cd 226.502†	39104.8	40611.8	474.75	ug/L	474.75 ppb	15:06:02
3	Co 228.616†	22684.3	23523.9	490.58	ug/L	490.58 ppb	15:06:02
3	Cr 267.716†	40464.0	41671.4	485.41	ug/L	485.41 ppb	15:05:42
3	Cu 324.752†	168755.9	166321.5	509.25	ug/L	509.25 ppb	15:05:42
3	Mn 257.610†	422577.2	436179.7	503.41	ug/L	503.41 ppb	15:05:42
3	Mo 202.031†	6435.8	6641.2	493.98	ug/L	493.98 ppb	15:06:02
3	Ni 231.604†	18352.1	18854.0	482.63	ug/L	482.63 ppb	15:06:02
3	P 214.914†	4440.6	4347.5	2312.5	ug/L	2312.5 ppb	15:06:02
3	Pb 220.353†	3752.5	3951.9	491.17	ug/L	491.17 ppb	15:06:02
3	S 181.975 Axial†	847.0	832.5	1087.1	ug/L	1087.1 ppb	15:06:02
3	Sb 206.836†	1439.7	1452.3	508.99	ug/L	508.99 ppb	15:06:02
3	Se 196.026†	789.3	839.1	509.12	ug/L	509.12 ppb	15:06:02
3	Si 251.611†	77939.9	79941.6	2485.1	ug/L	2485.1 ppb	15:05:42
3	Sn 189.927†	2611.7	2686.7	482.65	ug/L	482.65 ppb	15:06:02
3	Ti 334.940†	304304.4	316003.0	513.49	ug/L	513.49 ppb	15:05:42
3	Tl 190.801†	1476.3	1564.9	497.50	ug/L	497.50 ppb	15:06:02
3	U 409.014†	13078.8	17032.6	482.13	ug/L	482.13 ppb	15:05:42
3	V 292.402†	63704.2	67518.0	495.49	ug/L	495.49 ppb	15:05:42
3	Zn 213.857†	50142.4	51136.3	494.48	ug/L	494.48 ppb	15:05:42
3	SiO2†	77371.0	79346.3	5276.8	ug/L	5276.8 ppb	15:06:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	820260.5	96.500	%	0.2207				0.23%
Sc Radial	4024.6	94.7	%	2.35				2.48%
Y 371.029	662107.2	94.220	%	0.1698				0.18%
Y RADIAL	4267.7	96.95	%	1.113				1.15%
Ag 328.068†	103985.3	502.63	ug/L	0.627	502.63	ppb	0.627	0.12%
QC value within limits for Ag 328.068 Recovery = 100.53%								
Al 396.153Radial†	5176.3	5154.2	ug/L	40.75	5154.2	ppb	40.75	0.79%
QC value within limits for Al 396.153Radial Recovery = 103.08%								
As 188.979†	1165.2	494.81	ug/L	6.939	494.81	ppb	6.939	1.40%
QC value within limits for As 188.979 Recovery = 98.96%								
B 249.677†	22558.2	528.41	ug/L	1.428	528.41	ppb	1.428	0.27%
QC value within limits for B 249.677 Recovery = 105.68%								
Ba 233.527†	61293.4	498.93	ug/L	1.013	498.93	ppb	1.013	0.20%
QC value within limits for Ba 233.527 Recovery = 99.79%								
Be 313.107†	1360963.0	501.06	ug/L	1.144	501.06	ppb	1.144	0.23%
QC value within limits for Be 313.107 Recovery = 100.21%								
Ca 317.933Radial†	2769.8	5166.8	ug/L	124.65	5166.8	ppb	124.65	2.41%

```
   QC value within limits for Ca 317.933Radial  Recovery = 103.34%
Cd 226.502†            41013.1      479.46 ug/L        4.130      479.46 ppb        4.130   0.86%
   QC value within limits for Cd 226.502  Recovery = 95.89%
Co 228.616†            23744.5      495.19 ug/L        4.028      495.19 ppb        4.028   0.81%
   QC value within limits for Co 228.616  Recovery = 99.04%
Cr 267.716†            41780.5      486.68 ug/L        1.140      486.68 ppb        1.140   0.23%
   QC value within limits for Cr 267.716  Recovery = 97.34%
Cu 324.752†           166497.0      509.78 ug/L        0.496      509.78 ppb        0.496   0.10%
   QC value within limits for Cu 324.752  Recovery = 101.96%
Fe 238.204 Radial†       511.0      5445.8 ug/L       120.01      5445.8 ppb       120.01   2.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.92%
K 766.490 Radial†      26661.5      5374.7 ug/L        81.77      5374.7 ppb        81.77   1.52%
   QC value within limits for K 766.490 Radial  Recovery = 107.49%
Mg 279.077 IEC†          135.9      5246.9 ug/L       118.45      5246.9 ppb       118.45   2.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.94%
Mn 257.610†           436831.6      504.16 ug/L        1.072      504.16 ppb        1.072   0.21%
   QC value within limits for Mn 257.610  Recovery = 100.83%
Mo 202.031†            6694.3      497.91 ug/L        3.569      497.91 ppb        3.569   0.72%
   QC value within limits for Mo 202.031  Recovery = 99.58%
Na 589.592 Radial†     36788.6       12271 ug/L          7.2       12271 ppb          7.2   0.06%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 122.71%
Ni 231.604†            19034.8      487.26 ug/L        4.124      487.26 ppb        4.124   0.85%
   QC value within limits for Ni 231.604  Recovery = 97.45%
P 214.914†              4398.0      2340.5 ug/L       24.66      2340.5 ppb       24.66   1.05%
   QC value within limits for P 214.914  Recovery = 93.62%
Pb 220.353†             3988.0      495.65 ug/L        3.971      495.65 ppb        3.971   0.80%
   QC value within limits for Pb 220.353  Recovery = 99.13%
S 181.975 Axial†         844.1      1102.3 ug/L       13.16      1102.3 ppb       13.16   1.19%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 110.23%
Sb 206.836†             1463.9      513.07 ug/L        3.546      513.07 ppb        3.546   0.69%
   QC value within limits for Sb 206.836  Recovery = 102.61%
Se 196.026†              840.9      509.73 ug/L        0.605      509.73 ppb        0.605   0.12%
   QC value within limits for Se 196.026  Recovery = 101.95%
Si 251.611†            80021.1      2487.5 ug/L        3.79      2487.5 ppb         3.79   0.15%
   QC value within limits for Si 251.611  Recovery = 99.50%
Sn 189.927†             2704.9      485.89 ug/L        2.833      485.89 ppb        2.833   0.58%
   QC value within limits for Sn 189.927  Recovery = 97.18%
Sr 421.552†            69618.7      537.51 ug/L        4.245      537.51 ppb        4.245   0.79%
   QC value within limits for Sr 421.552  Recovery = 107.50%
Ti 334.940†           316246.1      513.88 ug/L        0.555      513.88 ppb        0.555   0.11%
   QC value within limits for Ti 334.940  Recovery = 102.78%
Tl 190.801†             1588.1      504.80 ug/L        6.362      504.80 ppb        6.362   1.26%
   QC value within limits for Tl 190.801  Recovery = 100.96%
U 409.014†             17084.5      483.61 ug/L        1.443      483.61 ppb        1.443   0.30%
   QC value within limits for U 409.014  Recovery = 96.72%
V 292.402†             67624.9      496.34 ug/L        0.912      496.34 ppb        0.912   0.18%
   QC value within limits for V 292.402  Recovery = 99.27%
Zn 213.857†            51146.4      494.57 ug/L        0.894      494.57 ppb        0.894   0.18%
   QC value within limits for Zn 213.857  Recovery = 98.91%
SiO2†                  79934.6      5315.9 ug/L       37.85      5315.9 ppb       37.85   0.71%
   QC value within limits for SiO2  Recovery = 99.41%
QC Failed.  Continue with analysis.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/16/2010 15:08:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3994.6	3994.6	94.0	%			15:10:40
1	Y RADIAL	4277.5	4277.5	97.17	%			15:10:20
1	Al 396.153Radial†	-133.0	17.5	17.468	ug/L	17.468	ppb	15:10:20
1	Ca 317.933Radial†	17.8	0.7	1.2428	ug/L	1.2428	ppb	15:10:40
1	Fe 238.204 Radial†	7.8	-1.7	-18.094	ug/L	-18.094	ppb	15:10:40
1	K 766.490 Radial†	4316.4	1421.7	286.58	ug/L	286.58	ppb	15:10:20
1	Mg 279.077 IEC†	2.5	-0.1	-4.1074	ug/L	-4.1074	ppb	15:10:40
1	Na 589.592 Radial†	3182.1	3179.2	1060.5	ug/L	1060.5	ppb	15:10:20
1	Sr 421.552†	121.3	39.3	0.3035	ug/L	0.3035	ppb	15:10:20
1	Sc 361.383	812570.2	812570.2	95.596	%			15:11:37
1	Y 371.029	665154.7	665154.7	94.653	%			15:11:37
1	Ag 328.068†	107.8	-114.9	-0.5695	ug/L	-0.5695	ppb	15:11:37
1	As 188.979†	-34.4	-7.7	-3.2463	ug/L	-3.2463	ppb	15:11:57
1	B 249.677†	765.3	1282.5	30.174	ug/L	30.174	ppb	15:11:37
1	Ba 233.527†	11.4	-6.9	-0.0578	ug/L	-0.0578	ppb	15:11:57
1	Be 313.107†	-4311.6	-171.1	-0.0627	ug/L	-0.0627	ppb	15:11:37
1	Cd 226.502†	-198.7	-12.3	-0.1399	ug/L	-0.1399	ppb	15:11:57
1	Co 228.616†	-71.2	4.4	0.0922	ug/L	0.0922	ppb	15:11:57
1	Cr 267.716†	150.0	7.2	0.0776	ug/L	0.0776	ppb	15:11:57
1	Cu 324.752†	7871.3	139.9	0.4206	ug/L	0.4206	ppb	15:11:37
1	Mn 257.610†	536.6	-8.4	-0.0113	ug/L	-0.0113	ppb	15:11:57
1	Mo 202.031†	14.2	4.4	0.3273	ug/L	0.3273	ppb	15:11:57
1	Ni 231.604†	102.6	-6.2	-0.1583	ug/L	-0.1583	ppb	15:11:57
1	P 214.914†	242.6	11.8	6.4874	ug/L	6.4874	ppb	15:11:57
1	Pb 220.353†	-65.8	4.7	0.5903	ug/L	0.5903	ppb	15:11:57
1	S 181.975 Axial†	128.7	91.7	119.84	ug/L	119.84	ppb	15:11:57
1	Sb 206.836†	31.6	-2.6	-0.8658	ug/L	-0.8658	ppb	15:11:57
1	Se 196.026†	-15.1	7.5	4.3331	ug/L	4.3331	ppb	15:11:57
1	Si 251.611†	537.3	-50.3	-1.5702	ug/L	-1.5702	ppb	15:11:57
1	Sn 189.927†	16.3	4.4	0.7940	ug/L	0.7940	ppb	15:11:57
1	Ti 334.940†	-1381.2	48.0	0.0732	ug/L	0.0732	ppb	15:11:37
1	Tl 190.801†	-30.3	7.4	2.3483	ug/L	2.3483	ppb	15:11:57
1	U 409.014†	-2947.7	431.6	12.263	ug/L	12.263	ppb	15:11:37
1	V 292.402†	-1661.0	-60.2	-0.4055	ug/L	-0.4055	ppb	15:11:37
1	Zn 213.857†	675.1	18.5	0.1836	ug/L	0.1836	ppb	15:11:57
1	SiO2†	573.8	-19.3	-1.2964	ug/L	-1.2964	ppb	15:12:53
2	Sc Radial	4018.9	4018.9	94.5	%			15:11:05
2	Y RADIAL	4277.1	4277.1	97.16	%			15:10:45
2	Al 396.153Radial†	-138.5	12.5	12.410	ug/L	12.410	ppb	15:10:45
2	Ca 317.933Radial†	19.8	2.6	4.8968	ug/L	4.8968	ppb	15:11:05
2	Fe 238.204 Radial†	10.6	1.2	12.816	ug/L	12.816	ppb	15:11:05
2	K 766.490 Radial†	4354.7	1434.6	289.20	ug/L	289.20	ppb	15:10:45
2	Mg 279.077 IEC†	1.9	-0.7	-27.977	ug/L	-27.977	ppb	15:11:05
2	Na 589.592 Radial†	3056.1	3025.5	1009.2	ug/L	1009.2	ppb	15:10:45
2	Sr 421.552†	84.3	-0.7	-0.0052	ug/L	-0.0052	ppb	15:10:45
2	Sc 361.383	798526.3	798526.3	93.943	%			15:12:02
2	Y 371.029	653593.9	653593.9	93.008	%			15:12:02
2	Ag 328.068†	218.7	5.2	0.0283	ug/L	0.0283	ppb	15:12:02
2	As 188.979†	-33.0	-6.8	-2.8703	ug/L	-2.8703	ppb	15:12:22
2	B 249.677†	802.4	1336.1	31.431	ug/L	31.431	ppb	15:12:02
2	Ba 233.527†	13.6	-4.4	-0.0355	ug/L	-0.0355	ppb	15:12:22
2	Be 313.107†	-4331.6	-271.7	-0.0996	ug/L	-0.0996	ppb	15:12:02
2	Cd 226.502†	-201.9	-19.4	-0.2288	ug/L	-0.2288	ppb	15:12:22
2	Co 228.616†	-77.3	-3.4	-0.0675	ug/L	-0.0675	ppb	15:12:22
2	Cr 267.716†	148.5	8.4	0.0977	ug/L	0.0977	ppb	15:12:22
2	Cu 324.752†	7807.8	217.0	0.6648	ug/L	0.6648	ppb	15:12:02
2	Mn 257.610†	543.4	8.7	0.0125	ug/L	0.0125	ppb	15:12:22
2	Mo 202.031†	31.9	23.5	1.7453	ug/L	1.7453	ppb	15:12:22
2	Ni 231.604†	96.2	-11.2	-0.2858	ug/L	-0.2858	ppb	15:12:22

2	P 214.914†	239.8	13.3	7.2564	ug/L	7.2564 ppb	15:12:22
2	Pb 220.353†	-53.1	17.1	2.1215	ug/L	2.1215 ppb	15:12:22
2	S 181.975 Axial†	109.2	73.4	95.873	ug/L	95.873 ppb	15:12:22
2	Sb 206.836†	41.4	8.4	2.8955	ug/L	2.8955 ppb	15:12:22
2	Se 196.026†	-21.2	0.8	0.4863	ug/L	0.4863 ppb	15:12:22
2	Si 251.611†	552.6	-24.0	-0.7704	ug/L	-0.7704 ppb	15:12:22
2	Sn 189.927†	13.6	1.9	0.3344	ug/L	0.3344 ppb	15:12:22
2	Ti 334.940†	-1341.9	64.5	0.1075	ug/L	0.1075 ppb	15:12:02
2	Tl 190.801†	-27.1	10.3	3.2534	ug/L	3.2534 ppb	15:12:22
2	U 409.014†	-3279.8	23.9	0.6774	ug/L	0.6774 ppb	15:12:02
2	V 292.402†	-1582.1	-6.8	-0.0257	ug/L	-0.0257 ppb	15:12:02
2	Zn 213.857†	687.6	44.2	0.4303	ug/L	0.4303 ppb	15:12:22
2	SiO2†	592.2	10.9	0.6789	ug/L	0.6789 ppb	15:12:58
3	Sc Radial	4015.0	4015.0	94.5	%		15:11:30
3	Y RADIAL	4227.7	4227.7	96.03	%		15:11:10
3	Al 396.153Radial†	-142.5	8.2	8.1425	ug/L	8.1425 ppb	15:11:10
3	Ca 317.933Radial†	22.5	5.5	10.237	ug/L	10.237 ppb	15:11:30
3	Fe 238.204 Radial†	9.8	0.3	3.6350	ug/L	3.6350 ppb	15:11:30
3	K 766.490 Radial†	4241.5	1319.0	265.86	ug/L	265.86 ppb	15:11:10
3	Mg 279.077 IEC†	1.7	-0.9	-34.845	ug/L	-34.845 ppb	15:11:30
3	Na 589.592 Radial†	3167.5	3146.5	1049.6	ug/L	1049.6 ppb	15:11:10
3	Sr 421.552†	83.9	-1.0	-0.0075	ug/L	-0.0075 ppb	15:11:10
3	Sc 361.383	808530.9	808530.9	95.120	%		15:12:27
3	Y 371.029	661117.5	661117.5	94.079	%		15:12:27
3	Ag 328.068†	207.4	-9.7	-0.0484	ug/L	-0.0484 ppb	15:12:27
3	As 188.979†	-28.1	-1.3	-0.5262	ug/L	-0.5262 ppb	15:12:48
3	B 249.677†	751.7	1272.2	29.929	ug/L	29.929 ppb	15:12:27
3	Ba 233.527†	3.0	-15.7	-0.1275	ug/L	-0.1275 ppb	15:12:48
3	Be 313.107†	-4435.2	-323.6	-0.1187	ug/L	-0.1187 ppb	15:12:27
3	Cd 226.502†	-191.8	-6.1	-0.0713	ug/L	-0.0713 ppb	15:12:48
3	Co 228.616†	-66.8	8.6	0.1801	ug/L	0.1801 ppb	15:12:48
3	Cr 267.716†	149.6	7.6	0.0873	ug/L	0.0873 ppb	15:12:48
3	Cu 324.752†	7890.9	201.6	0.6154	ug/L	0.6154 ppb	15:12:27
3	Mn 257.610†	543.5	1.6	0.0036	ug/L	0.0036 ppb	15:12:48
3	Mo 202.031†	12.9	3.1	0.2339	ug/L	0.2339 ppb	15:12:48
3	Ni 231.604†	101.1	-7.2	-0.1846	ug/L	-0.1846 ppb	15:12:48
3	P 214.914†	236.4	6.5	3.5036	ug/L	3.5036 ppb	15:12:48
3	Pb 220.353†	-73.2	-3.4	-0.4179	ug/L	-0.4179 ppb	15:12:48
3	S 181.975 Axial†	103.5	65.9	86.167	ug/L	86.167 ppb	15:12:48
3	Sb 206.836†	46.2	12.9	4.3605	ug/L	4.3605 ppb	15:12:48
3	Se 196.026†	-25.0	-2.9	-1.7066	ug/L	-1.7066 ppb	15:12:48
3	Si 251.611†	562.9	-20.6	-0.6438	ug/L	-0.6438 ppb	15:12:48
3	Sn 189.927†	10.0	-2.1	-0.3839	ug/L	-0.3839 ppb	15:12:48
3	Ti 334.940†	-1375.5	46.8	0.0787	ug/L	0.0787 ppb	15:12:27
3	Tl 190.801†	-37.1	0.1	0.0444	ug/L	0.0444 ppb	15:12:48
3	U 409.014†	-3227.4	122.2	3.4704	ug/L	3.4704 ppb	15:12:27
3	V 292.402†	-1601.3	-6.2	-0.0363	ug/L	-0.0363 ppb	15:12:27
3	Zn 213.857†	673.2	20.0	0.1947	ug/L	0.1947 ppb	15:12:48
3	SiO2†	534.8	-57.3	-3.8266	ug/L	-3.8266 ppb	15:13:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	806542.5	94.886	%	0.8506				0.90%
Sc Radial	4009.5	94.3	%	0.31				0.33%
Y 371.029	659955.4	93.913	%	0.8349				0.89%
Y RADIAL	4260.8	96.79	%	0.651				0.67%
Ag 328.068†	-39.8	-0.1966	ug/L	0.32524	-0.1966	ppb	0.32524	165.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.7	12.674	ug/L	4.6686	12.674	ppb	4.6686	36.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.3	-2.2143	ug/L	1.47392	-2.2143	ppb	1.47392	66.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1296.9	30.512	ug/L	0.8055	30.512	ppb	0.8055	2.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.0	-0.0736	ug/L	0.04800	-0.0736	ppb	0.04800	65.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-255.5	-0.0936	ug/L	0.02847	-0.0936	ppb	0.02847	30.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.9	5.4590	ug/L	4.52355	5.4590	ppb	4.52355	82.86%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -12.6     -0.1467 ug/L       0.07896     -0.1467 ppb        0.07896  53.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                3.2      0.0683 ug/L       0.12550      0.0683 ppb        0.12550 183.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.7      0.0875 ug/L       0.01005      0.0875 ppb        0.01005  11.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              186.2      0.5669 ug/L       0.12911      0.5669 ppb        0.12911  22.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.1     -0.5477 ug/L      15.87374     -0.5477 ppb       15.87374 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       1391.8      280.55 ug/L        12.787      280.55 ppb         12.787   4.56%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6     -22.310 ug/L       16.1333     -22.310 ppb        16.1333  72.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                0.6      0.0016 ug/L       0.01200      0.0016 ppb        0.01200 746.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.3      0.7689 ug/L       0.84691      0.7689 ppb        0.84691 110.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      3117.1      1039.7 ug/L         27.01      1039.7 ppb          27.01   2.60%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.2     -0.2095 ug/L       0.06733     -0.2095 ppb        0.06733  32.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.6      5.7491 ug/L       1.98232      5.7491 ppb        1.98232  34.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.1      0.7647 ug/L       1.27864      0.7647 ppb        1.27864 167.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          77.0      100.63 ug/L        17.335      100.63 ppb         17.335  17.23%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.2      2.1301 ug/L       2.69593      2.1301 ppb        2.69593 126.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.8      1.0376 ug/L       3.05737      1.0376 ppb        3.05737 294.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -31.6     -0.9948 ug/L       0.50230     -0.9948 ppb        0.50230  50.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.4      0.2482 ug/L       0.59366      0.2482 ppb        0.59366 239.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               12.6      0.0969 ug/L       0.17891      0.0969 ppb        0.17891 184.58%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               53.1      0.0864 ug/L       0.01842      0.0864 ppb        0.01842  21.31%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.0      1.8820 ug/L       1.65453      1.8820 ppb        1.65453  87.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               192.6      5.4702 ug/L       6.04610      5.4702 ppb        6.04610 110.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -24.4     -0.1558 ug/L       0.21631     -0.1558 ppb        0.21631 138.83%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.6      0.2695 ug/L       0.13936      0.2695 ppb        0.13936  51.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -21.9     -1.4814 ug/L       2.25843     -1.4814 ppb        2.25843 152.46%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/16/2010 15:21:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4021.8	4021.8	94.6	%			15:23:58
1	Y RADIAL	4359.5	4359.5	99.03	%			15:23:38
1	Al 396.153Radial†	4868.8	5305.2	5283.4	ug/L	5283.4	ppb	15:23:38
1	Ca 317.933Radial†	2611.7	2742.1	5115.1	ug/L	5115.1	ppb	15:23:58
1	Fe 238.204 Radial†	481.6	499.0	5318.0	ug/L	5318.0	ppb	15:23:58
1	K 766.490 Radial†	28347.3	26790.4	5401.0	ug/L	5401.0	ppb	15:23:38
1	Mg 279.077 IEC†	131.2	136.0	5251.3	ug/L	5251.3	ppb	15:23:58
1	Na 589.592 Radial†	33372.6	35066.4	11697	ug/L	11697	ppb	15:23:38
1	Sr 421.552†	66250.0	69933.7	539.94	ug/L	539.94	ppb	15:23:38
1	Sc 361.383	818520.9	818520.9	96.296	%			15:24:55
1	Y 371.029	661186.4	661186.4	94.088	%			15:24:55
1	Ag 328.068†	100535.2	104175.0	503.49	ug/L	503.49	ppb	15:25:00
1	As 188.979†	1093.7	1164.1	494.21	ug/L	494.21	ppb	15:25:20
1	B 249.677†	20988.7	22278.0	521.84	ug/L	521.84	ppb	15:25:00
1	Ba 233.527†	58799.6	61042.8	496.89	ug/L	496.89	ppb	15:25:00
1	Be 313.107†	1297864.2	1352131.1	497.78	ug/L	497.78	ppb	15:24:55
1	Cd 226.502†	39821.0	41548.4	485.74	ug/L	485.74	ppb	15:25:00
1	Co 228.616†	22874.8	23833.6	497.06	ug/L	497.06	ppb	15:25:00
1	Cr 267.716†	40450.7	41857.1	487.57	ug/L	487.57	ppb	15:25:00
1	Cu 324.752†	166993.2	165323.2	506.17	ug/L	506.17	ppb	15:25:00
1	Mn 257.610†	418653.2	434188.7	501.10	ug/L	501.10	ppb	15:24:55
1	Mo 202.031†	6384.1	6619.2	492.32	ug/L	492.32	ppb	15:25:20
1	Ni 231.604†	18463.1	19059.8	487.90	ug/L	487.90	ppb	15:25:00
1	P 214.914†	4428.3	4356.7	2318.4	ug/L	2318.4	ppb	15:25:20
1	Pb 220.353†	3720.9	3937.5	489.43	ug/L	489.43	ppb	15:25:20
1	S 181.975 Axial†	826.7	815.6	1065.0	ug/L	1065.0	ppb	15:25:20
1	Sb 206.836†	1454.2	1474.5	516.54	ug/L	516.54	ppb	15:25:20
1	Se 196.026†	791.0	844.8	511.60	ug/L	511.60	ppb	15:25:20
1	Si 251.611†	77390.5	79755.4	2479.3	ug/L	2479.3	ppb	15:25:00
1	Sn 189.927†	2605.0	2692.6	483.67	ug/L	483.67	ppb	15:25:20
1	Ti 334.940†	295793.9	308665.7	501.54	ug/L	501.54	ppb	15:25:00
1	Tl 190.801†	1498.5	1595.2	506.94	ug/L	506.94	ppb	15:25:20
1	U 409.014†	13593.6	17631.7	499.17	ug/L	499.17	ppb	15:25:00
1	V 292.402†	63658.0	67784.2	497.47	ug/L	497.47	ppb	15:25:00
1	Zn 213.857†	49816.8	51045.5	493.61	ug/L	493.61	ppb	15:25:00
1	SiO2†	79128.3	81552.8	5424.0	ug/L	5424.0	ppb	15:26:28
2	Sc Radial	4063.3	4063.3	95.6	%			15:24:23
2	Y RADIAL	4244.7	4244.7	96.42	%			15:24:03
2	Al 396.153Radial†	4756.1	5134.7	5113.0	ug/L	5113.0	ppb	15:24:03
2	Ca 317.933Radial†	2639.6	2743.2	5117.1	ug/L	5117.1	ppb	15:24:23
2	Fe 238.204 Radial†	484.7	497.0	5296.8	ug/L	5296.8	ppb	15:24:23
2	K 766.490 Radial†	27804.6	25917.0	5224.9	ug/L	5224.9	ppb	15:24:03
2	Mg 279.077 IEC†	129.8	133.1	5140.7	ug/L	5140.7	ppb	15:24:23
2	Na 589.592 Radial†	32404.4	33693.7	11239	ug/L	11239	ppb	15:24:03
2	Sr 421.552†	64552.6	67443.7	520.71	ug/L	520.71	ppb	15:24:03
2	Sc 361.383	831048.8	831048.8	97.769	%			15:25:26
2	Y 371.029	671777.8	671777.8	95.596	%			15:25:26
2	Ag 328.068†	102001.6	104101.0	503.13	ug/L	503.13	ppb	15:25:31
2	As 188.979†	1105.3	1158.8	491.98	ug/L	491.98	ppb	15:25:51
2	B 249.677†	21465.8	22437.4	525.59	ug/L	525.59	ppb	15:25:31
2	Ba 233.527†	59683.8	61026.6	496.76	ug/L	496.76	ppb	15:25:31
2	Be 313.107†	1322512.8	1357024.3	499.58	ug/L	499.58	ppb	15:25:26
2	Cd 226.502†	40464.3	41583.0	486.15	ug/L	486.15	ppb	15:25:31
2	Co 228.616†	23222.5	23831.1	497.01	ug/L	497.01	ppb	15:25:31
2	Cr 267.716†	40967.8	41752.7	486.35	ug/L	486.35	ppb	15:25:31
2	Cu 324.752†	169146.8	164911.7	504.92	ug/L	504.92	ppb	15:25:31
2	Mn 257.610†	425679.5	434821.4	501.83	ug/L	501.83	ppb	15:25:26
2	Mo 202.031†	6458.4	6595.3	490.54	ug/L	490.54	ppb	15:25:51
2	Ni 231.604†	18763.3	19077.9	488.36	ug/L	488.36	ppb	15:25:31

2	P 214.914†	4462.5	4322.4	2299.6 ug/L	2299.6 ppb	15:25:51
2	Pb 220.353†	3741.6	3900.5	484.80 ug/L	484.80 ppb	15:25:51
2	S 181.975 Axial†	808.1	783.7	1023.2 ug/L	1023.2 ppb	15:25:51
2	Sb 206.836†	1459.3	1456.9	510.52 ug/L	510.52 ppb	15:25:51
2	Se 196.026†	803.0	844.7	511.45 ug/L	511.45 ppb	15:25:51
2	Si 251.611†	78588.1	79768.7	2479.8 ug/L	2479.8 ppb	15:25:31
2	Sn 189.927†	2631.6	2679.0	481.24 ug/L	481.24 ppb	15:25:51
2	Ti 334.940†	299650.7	307979.9	500.44 ug/L	500.44 ppb	15:25:31
2	Tl 190.801†	1496.4	1569.6	498.85 ug/L	498.85 ppb	15:25:51
2	U 409.014†	13706.8	17534.7	496.42 ug/L	496.42 ppb	15:25:31
2	V 292.402†	64492.4	67641.0	496.41 ug/L	496.41 ppb	15:25:31
2	Zn 213.857†	50628.1	51095.4	494.10 ug/L	494.10 ppb	15:25:31
2	SiO2†	77270.0	78413.3	5214.7 ug/L	5214.7 ppb	15:26:33
3	Sc Radial	4033.3	4033.3	94.9 %		15:24:48
3	Y RADIAL	4307.5	4307.5	97.85 %		15:24:28
3	Al 396.153Radial†	4812.6	5231.4	5209.6 ug/L	5209.6 ppb	15:24:28
3	Ca 317.933Radial†	2603.5	2725.7	5084.4 ug/L	5084.4 ppb	15:24:48
3	Fe 238.204 Radial†	481.8	497.7	5304.5 ug/L	5304.5 ppb	15:24:48
3	K 766.490 Radial†	28051.9	26393.9	5321.1 ug/L	5321.1 ppb	15:24:28
3	Mg 279.077 IEC†	127.9	132.1	5100.8 ug/L	5100.8 ppb	15:24:48
3	Na 589.592 Radial†	32789.3	34351.5	11458 ug/L	11458 ppb	15:24:28
3	Sr 421.552†	65723.1	69179.5	534.12 ug/L	534.12 ppb	15:24:28
3	Sc 361.383	828655.1	828655.1	97.488 %		15:25:57
3	Y 371.029	668899.6	668899.6	95.186 %		15:25:57
3	Ag 328.068†	100844.8	103215.8	498.86 ug/L	498.86 ppb	15:26:02
3	As 188.979†	1109.2	1166.1	494.99 ug/L	494.99 ppb	15:26:22
3	B 249.677†	21258.5	22288.3	522.09 ug/L	522.09 ppb	15:26:02
3	Ba 233.527†	59022.4	60524.5	492.67 ug/L	492.67 ppb	15:26:02
3	Be 313.107†	1318848.3	1357172.9	499.62 ug/L	499.62 ppb	15:25:57
3	Cd 226.502†	40007.5	41234.0	482.06 ug/L	482.06 ppb	15:26:02
3	Co 228.616†	22954.6	23625.0	492.72 ug/L	492.72 ppb	15:26:02
3	Cr 267.716†	40488.3	41381.9	482.03 ug/L	482.03 ppb	15:26:02
3	Cu 324.752†	166762.7	162965.9	498.96 ug/L	498.96 ppb	15:26:02
3	Mn 257.610†	425584.2	435981.3	503.17 ug/L	503.17 ppb	15:25:57
3	Mo 202.031†	6437.8	6593.2	490.39 ug/L	490.39 ppb	15:26:22
3	Ni 231.604†	18620.6	18986.9	486.04 ug/L	486.04 ppb	15:26:02
3	P 214.914†	4452.8	4325.5	2302.5 ug/L	2302.5 ppb	15:26:22
3	Pb 220.353†	3761.6	3932.0	488.73 ug/L	488.73 ppb	15:26:22
3	S 181.975 Axial†	821.8	800.0	1044.6 ug/L	1044.6 ppb	15:26:22
3	Sb 206.836†	1462.7	1464.7	513.18 ug/L	513.18 ppb	15:26:22
3	Se 196.026†	785.2	828.7	502.18 ug/L	502.18 ppb	15:26:22
3	Si 251.611†	77604.2	78991.7	2455.5 ug/L	2455.5 ppb	15:26:02
3	Sn 189.927†	2627.5	2682.6	481.87 ug/L	481.87 ppb	15:26:22
3	Ti 334.940†	295523.0	304631.3	495.00 ug/L	495.00 ppb	15:26:02
3	Tl 190.801†	1496.6	1574.2	500.29 ug/L	500.29 ppb	15:26:22
3	U 409.014†	13607.1	17473.0	494.68 ug/L	494.68 ppb	15:26:02
3	V 292.402†	63704.0	67022.9	491.93 ug/L	491.93 ppb	15:26:02
3	Zn 213.857†	49920.6	50519.3	488.49 ug/L	488.49 ppb	15:26:02
3	SiO2†	77691.1	79073.6	5258.7 ug/L	5258.7 ppb	15:26:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826075.0	97.184	%	0.7824				0.81%
Sc Radial	4039.5	95.0	%	0.50				0.53%
Y 371.029	667287.9	94.957	%	0.7793				0.82%
Y RADIAL	4303.9	97.77	%	1.306				1.34%
Ag 328.068†	103830.6	501.83	ug/L	2.573	501.83	ppb	2.573	0.51%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	5223.7	5202.0	ug/L	85.47	5202.0	ppb	85.47	1.64%
QC value within limits for Al 396.153Radial Recovery = 104.04%								
As 188.979†	1163.0	493.73	ug/L	1.564	493.73	ppb	1.564	0.32%
QC value within limits for As 188.979 Recovery = 98.75%								
B 249.677†	22334.6	523.17	ug/L	2.097	523.17	ppb	2.097	0.40%
QC value within limits for B 249.677 Recovery = 104.63%								
Ba 233.527†	60864.7	495.44	ug/L	2.399	495.44	ppb	2.399	0.48%
QC value within limits for Ba 233.527 Recovery = 99.09%								
Be 313.107†	1355442.8	498.99	ug/L	1.049	498.99	ppb	1.049	0.21%
QC value within limits for Be 313.107 Recovery = 99.80%								
Ca 317.933Radial†	2737.0	5105.5	ug/L	18.31	5105.5	ppb	18.31	0.36%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.11%
Cd 226.502†            41455.1      484.65 ug/L        2.250      484.65 ppb         2.250   0.46%
   QC value within limits for Cd 226.502  Recovery = 96.93%
Co 228.616†            23763.2      495.60 ug/L        2.491      495.60 ppb         2.491   0.50%
   QC value within limits for Co 228.616  Recovery = 99.12%
Cr 267.716†            41663.9      485.32 ug/L        2.909      485.32 ppb         2.909   0.60%
   QC value within limits for Cr 267.716  Recovery = 97.06%
Cu 324.752†           164400.2      503.35 ug/L        3.854      503.35 ppb         3.854   0.77%
   QC value within limits for Cu 324.752  Recovery = 100.67%
Fe 238.204 Radial†       497.9      5306.4 ug/L       10.72      5306.4 ppb         10.72   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.13%
K 766.490 Radial†      26367.1      5315.7 ug/L       88.18      5315.7 ppb         88.18   1.66%
   QC value within limits for K 766.490 Radial  Recovery = 106.31%
Mg 279.077 IEC†          133.7      5164.2 ug/L       77.97      5164.2 ppb         77.97   1.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.28%
Mn 257.610†           434997.2      502.03 ug/L        1.051      502.03 ppb         1.051   0.21%
   QC value within limits for Mn 257.610  Recovery = 100.41%
Mo 202.031†             6602.6      491.08 ug/L        1.075      491.08 ppb         1.075   0.22%
   QC value within limits for Mo 202.031  Recovery = 98.22%
Na 589.592 Radial†     34370.5       11465 ug/L      229.0        11465 ppb         229.0   2.00%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 114.65%
Ni 231.604†            19041.5      487.43 ug/L        1.232      487.43 ppb         1.232   0.25%
   QC value within limits for Ni 231.604  Recovery = 97.49%
P 214.914†              4334.9      2306.8 ug/L       10.15      2306.8 ppb         10.15   0.44%
   QC value within limits for P 214.914  Recovery = 92.27%
Pb 220.353†             3923.4      487.65 ug/L        2.497      487.65 ppb         2.497   0.51%
   QC value within limits for Pb 220.353  Recovery = 97.53%
S 181.975 Axial†         799.8      1044.3 ug/L       20.88      1044.3 ppb         20.88   2.00%
   QC value within limits for S 181.975 Axial  Recovery = 104.43%
Sb 206.836†             1465.3      513.41 ug/L        3.019      513.41 ppb         3.019   0.59%
   QC value within limits for Sb 206.836  Recovery = 102.68%
Se 196.026†              839.4      508.41 ug/L        5.393      508.41 ppb         5.393   1.06%
   QC value within limits for Se 196.026  Recovery = 101.68%
Si 251.611†            79505.3      2471.5 ug/L       13.85      2471.5 ppb         13.85   0.56%
   QC value within limits for Si 251.611  Recovery = 98.86%
Sn 189.927†             2684.7      482.26 ug/L        1.261      482.26 ppb         1.261   0.26%
   QC value within limits for Sn 189.927  Recovery = 96.45%
Sr 421.552†            68852.3      531.59 ug/L        9.859      531.59 ppb         9.859   1.85%
   QC value within limits for Sr 421.552  Recovery = 106.32%
Ti 334.940†           307092.3      498.99 ug/L        3.504      498.99 ppb         3.504   0.70%
   QC value within limits for Ti 334.940  Recovery = 99.80%
Tl 190.801†             1579.7      502.03 ug/L        4.313      502.03 ppb         4.313   0.86%
   QC value within limits for Tl 190.801  Recovery = 100.41%
U 409.014†             17546.5      496.76 ug/L        2.267      496.76 ppb         2.267   0.46%
   QC value within limits for U 409.014  Recovery = 99.35%
V 292.402†             67482.7      495.27 ug/L        2.941      495.27 ppb         2.941   0.59%
   QC value within limits for V 292.402  Recovery = 99.05%
Zn 213.857†            50886.7      492.07 ug/L        3.102      492.07 ppb         3.102   0.63%
   QC value within limits for Zn 213.857  Recovery = 98.41%
SiO2†                  79679.9      5299.1 ug/L      110.33      5299.1 ppb        110.33   2.08%
   QC value within limits for SiO2  Recovery = 99.10%
QC Failed.  Continue with analysis.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/16/2010 15:28:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4164.1	4164.1	98.0	%			15:30:42
1	Y RADIAL	4321.3	4321.3	98.16	%			15:30:42
1	Al 396.153Radial†	-129.0	27.3	27.293	ug/L	27.293	ppb	15:31:02
1	Ca 317.933Radial†	29.5	11.8	21.995	ug/L	21.995	ppb	15:31:02
1	Fe 238.204 Radial†	10.7	0.9	9.5740	ug/L	9.5740	ppb	15:31:02
1	K 766.490 Radial†	4006.8	918.7	185.12	ug/L	185.12	ppb	15:30:42
1	Mg 279.077 IEC†	4.0	1.4	52.535	ug/L	52.535	ppb	15:31:02
1	Na 589.592 Radial†	2644.0	2492.0	831.23	ug/L	831.23	ppb	15:30:42
1	Sr 421.552†	156.7	70.2	0.5415	ug/L	0.5415	ppb	15:30:42
1	Sc 361.383	815455.4	815455.4	95.935	%			15:31:59
1	Y 371.029	668129.0	668129.0	95.076	%			15:31:59
1	Ag 328.068†	131.4	-90.7	-0.4343	ug/L	-0.4343	ppb	15:31:59
1	As 188.979†	-31.7	-4.7	-1.9781	ug/L	-1.9781	ppb	15:32:19
1	B 249.677†	569.4	1075.4	25.299	ug/L	25.299	ppb	15:31:59
1	Ba 233.527†	11.6	-6.8	-0.0532	ug/L	-0.0532	ppb	15:32:19
1	Be 313.107†	-4306.2	-149.6	-0.0549	ug/L	-0.0549	ppb	15:31:59
1	Cd 226.502†	-179.8	8.1	0.0950	ug/L	0.0950	ppb	15:32:19
1	Co 228.616†	-75.6	0.0	0.0016	ug/L	0.0016	ppb	15:32:19
1	Cr 267.716†	127.2	-17.2	-0.2006	ug/L	-0.2006	ppb	15:32:19
1	Cu 324.752†	8052.9	300.0	0.9159	ug/L	0.9159	ppb	15:31:59
1	Mn 257.610†	514.4	-33.6	-0.0399	ug/L	-0.0399	ppb	15:32:19
1	Mo 202.031†	17.8	8.1	0.5995	ug/L	0.5995	ppb	15:32:19
1	Ni 231.604†	111.4	2.6	0.0659	ug/L	0.0659	ppb	15:32:19
1	P 214.914†	240.9	9.1	4.8755	ug/L	4.8755	ppb	15:32:19
1	Pb 220.353†	-54.8	16.4	2.0386	ug/L	2.0386	ppb	15:32:19
1	S 181.975 Axial†	89.5	50.3	65.791	ug/L	65.791	ppb	15:32:19
1	Sb 206.836†	43.3	9.4	3.2009	ug/L	3.2009	ppb	15:32:19
1	Se 196.026†	-20.0	2.5	1.4963	ug/L	1.4963	ppb	15:32:19
1	Si 251.611†	597.7	10.7	0.3264	ug/L	0.3264	ppb	15:32:19
1	Sn 189.927†	12.7	0.6	0.1069	ug/L	0.1069	ppb	15:32:19
1	Ti 334.940†	-1412.2	20.8	0.0301	ug/L	0.0301	ppb	15:31:59
1	Tl 190.801†	-32.1	5.7	1.7949	ug/L	1.7949	ppb	15:32:19
1	U 409.014†	-3185.2	195.0	5.5399	ug/L	5.5399	ppb	15:31:59
1	V 292.402†	-1521.4	91.4	0.6810	ug/L	0.6810	ppb	15:31:59
1	Zn 213.857†	715.8	58.4	0.5670	ug/L	0.5670	ppb	15:32:19
1	SiO2†	539.7	-56.9	-3.8110	ug/L	-3.8110	ppb	15:33:15
2	Sc Radial	4122.0	4122.0	97.0	%			15:31:07
2	Y RADIAL	4243.9	4243.9	96.40	%			15:31:07
2	Al 396.153Radial†	-132.7	22.1	22.138	ug/L	22.138	ppb	15:31:27
2	Ca 317.933Radial†	26.5	9.0	16.852	ug/L	16.852	ppb	15:31:27
2	Fe 238.204 Radial†	8.5	-1.3	-14.223	ug/L	-14.223	ppb	15:31:27
2	K 766.490 Radial†	3964.9	917.3	184.86	ug/L	184.86	ppb	15:31:07
2	Mg 279.077 IEC†	1.7	-0.9	-36.558	ug/L	-36.558	ppb	15:31:27
2	Na 589.592 Radial†	2471.8	2342.0	781.20	ug/L	781.20	ppb	15:31:07
2	Sr 421.552†	70.8	-16.8	-0.1302	ug/L	-0.1302	ppb	15:31:07
2	Sc 361.383	807209.5	807209.5	94.965	%			15:32:24
2	Y 371.029	661387.1	661387.1	94.117	%			15:32:24
2	Ag 328.068†	251.0	36.6	0.1646	ug/L	0.1646	ppb	15:32:24
2	As 188.979†	-35.6	-9.1	-3.8521	ug/L	-3.8521	ppb	15:32:44
2	B 249.677†	586.5	1099.5	25.868	ug/L	25.868	ppb	15:32:24
2	Ba 233.527†	13.1	-5.0	-0.0428	ug/L	-0.0428	ppb	15:32:44
2	Be 313.107†	-4134.3	-14.4	-0.0051	ug/L	-0.0051	ppb	15:32:24
2	Cd 226.502†	-175.2	11.0	0.1305	ug/L	0.1305	ppb	15:32:44
2	Co 228.616†	-55.3	20.7	0.4317	ug/L	0.4317	ppb	15:32:44
2	Cr 267.716†	109.3	-34.6	-0.4050	ug/L	-0.4050	ppb	15:32:44
2	Cu 324.752†	7959.1	287.0	0.8760	ug/L	0.8760	ppb	15:32:24
2	Mn 257.610†	556.9	16.7	0.0194	ug/L	0.0194	ppb	15:32:44
2	Mo 202.031†	12.9	3.2	0.2334	ug/L	0.2334	ppb	15:32:44
2	Ni 231.604†	110.7	3.0	0.0771	ug/L	0.0771	ppb	15:32:44

2	P 214.914†	240.7	11.5	6.2463	ug/L	6.2463 ppb	15:32:44
2	Pb 220.353†	-56.9	13.6	1.6902	ug/L	1.6902 ppb	15:32:44
2	S 181.975 Axial†	137.0	101.3	132.43	ug/L	132.43 ppb	15:32:44
2	Sb 206.836†	46.7	13.5	4.5851	ug/L	4.5851 ppb	15:32:44
2	Se 196.026†	-14.5	8.1	4.6634	ug/L	4.6634 ppb	15:32:44
2	Si 251.611†	560.9	-21.6	-0.6773	ug/L	-0.6773 ppb	15:32:44
2	Sn 189.927†	17.5	5.8	1.0365	ug/L	1.0365 ppb	15:32:44
2	Ti 334.940†	-1362.4	58.3	0.0986	ug/L	0.0986 ppb	15:32:24
2	Tl 190.801†	-37.5	-0.4	-0.1170	ug/L	-0.1170 ppb	15:32:44
2	U 409.014†	-3218.0	126.6	3.5987	ug/L	3.5987 ppb	15:32:24
2	V 292.402†	-1693.3	-105.8	-0.7548	ug/L	-0.7548 ppb	15:32:24
2	Zn 213.857†	755.7	108.0	1.0542	ug/L	1.0542 ppb	15:32:44
2	SiO2†	601.7	14.0	0.9295	ug/L	0.9295 ppb	15:33:20
3	Sc Radial	4232.6	4232.6	99.6	%		15:31:32
3	Y RADIAL	4373.1	4373.1	99.34	%		15:31:32
3	Al 396.153Radial†	-129.1	29.4	29.357	ug/L	29.357 ppb	15:31:52
3	Ca 317.933Radial†	33.0	14.9	27.716	ug/L	27.716 ppb	15:31:52
3	Fe 238.204 Radial†	9.9	-0.1	-0.9543	ug/L	-0.9543 ppb	15:31:52
3	K 766.490 Radial†	3991.4	837.1	168.67	ug/L	168.67 ppb	15:31:32
3	Mg 279.077 IEC†	4.3	1.6	62.957	ug/L	62.957 ppb	15:31:52
3	Na 589.592 Radial†	2453.7	2257.3	752.93	ug/L	752.93 ppb	15:31:32
3	Sr 421.552†	109.2	19.8	0.1527	ug/L	0.1527 ppb	15:31:32
3	Sc 361.383	820055.9	820055.9	96.476	%		15:32:50
3	Y 371.029	670839.1	670839.1	95.462	%		15:32:50
3	Ag 328.068†	223.8	4.3	0.0147	ug/L	0.0147 ppb	15:32:50
3	As 188.979†	-29.0	-1.7	-0.7153	ug/L	-0.7153 ppb	15:33:10
3	B 249.677†	547.8	1049.7	24.695	ug/L	24.695 ppb	15:32:50
3	Ba 233.527†	6.6	-12.0	-0.0964	ug/L	-0.0964 ppb	15:33:10
3	Be 313.107†	-4441.3	-264.4	-0.0965	ug/L	-0.0965 ppb	15:32:50
3	Cd 226.502†	-197.9	-9.7	-0.1113	ug/L	-0.1113 ppb	15:33:10
3	Co 228.616†	-62.5	14.1	0.2954	ug/L	0.2954 ppb	15:33:10
3	Cr 267.716†	98.3	-47.8	-0.5594	ug/L	-0.5594 ppb	15:33:10
3	Cu 324.752†	8060.1	260.4	0.7928	ug/L	0.7928 ppb	15:32:50
3	Mn 257.610†	550.8	1.1	-0.0014	ug/L	-0.0014 ppb	15:33:10
3	Mo 202.031†	16.4	6.5	0.4839	ug/L	0.4839 ppb	15:33:10
3	Ni 231.604†	107.3	-2.3	-0.0598	ug/L	-0.0598 ppb	15:33:10
3	P 214.914†	234.2	0.8	0.2672	ug/L	0.2672 ppb	15:33:10
3	Pb 220.353†	-65.2	6.0	0.7450	ug/L	0.7450 ppb	15:33:10
3	S 181.975 Axial†	93.4	53.9	70.471	ug/L	70.471 ppb	15:33:10
3	Sb 206.836†	39.3	5.1	1.7180	ug/L	1.7180 ppb	15:33:10
3	Se 196.026†	-24.3	-1.9	-1.0934	ug/L	-1.0934 ppb	15:33:10
3	Si 251.611†	576.7	-14.6	-0.4601	ug/L	-0.4601 ppb	15:33:10
3	Sn 189.927†	11.1	-1.1	-0.1873	ug/L	-0.1873 ppb	15:33:10
3	Ti 334.940†	-1284.7	161.2	0.2573	ug/L	0.2573 ppb	15:32:50
3	Tl 190.801†	-33.3	4.6	1.4416	ug/L	1.4416 ppb	15:33:10
3	U 409.014†	-3120.2	281.0	7.9827	ug/L	7.9827 ppb	15:32:50
3	V 292.402†	-1574.5	45.3	0.3516	ug/L	0.3516 ppb	15:32:50
3	Zn 213.857†	714.1	52.4	0.5107	ug/L	0.5107 ppb	15:33:10
3	SiO2†	563.1	-35.9	-2.4065	ug/L	-2.4065 ppb	15:33:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	814240.3	95.792	%	0.7657				0.80%
Sc Radial	4172.9	98.2	%	1.31				1.34%
Y 371.029	666785.1	94.885	%	0.6926				0.73%
Y RADIAL	4312.8	97.97	%	1.478				1.51%
Ag 328.068†	-16.6	-0.0850	ug/L	0.31166	-0.0850	ppb	0.31166	366.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.3	26.262	ug/L	3.7181	26.262	ppb	3.7181	14.16%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.2	-2.1819	ug/L	1.57830	-2.1819	ppb	1.57830	72.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1074.9	25.288	ug/L	0.5867	25.288	ppb	0.5867	2.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.9	-0.0641	ug/L	0.02846	-0.0641	ppb	0.02846	44.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-142.8	-0.0521	ug/L	0.04578	-0.0521	ppb	0.04578	87.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.9	22.188	ug/L	5.4344	22.188	ppb	5.4344	24.49%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.1      0.0381 ug/L       0.13054      0.0381 ppb        0.13054 342.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.6      0.2429 ug/L       0.21981      0.2429 ppb        0.21981  90.49%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -33.2     -0.3883 ug/L       0.17997     -0.3883 ppb        0.17997  46.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               282.5      0.8616 ug/L       0.06281      0.8616 ppb        0.06281   7.29%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.2     -1.8676 ug/L      11.92453     -1.8676 ppb       11.92453 638.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         891.0      179.55 ug/L         9.425      179.55 ppb          9.425   5.25%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      26.311 ug/L       54.6955      26.311 ppb        54.6955 207.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -5.2     -0.0073 ug/L       0.03008     -0.0073 ppb        0.03008 411.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.9      0.4389 ug/L       0.18717      0.4389 ppb        0.18717  42.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       2363.8      788.45 ug/L        39.653      788.45 ppb         39.653   5.03%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.1      0.0277 ug/L       0.07600      0.0277 ppb        0.07600 274.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  7.1      3.7963 ug/L       3.13220      3.7963 ppb        3.13220  82.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                12.0      1.4913 ug/L       0.66935      1.4913 ppb        0.66935  44.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           68.5      89.565 ug/L       37.1984      89.565 ppb        37.1984  41.53%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.3      3.1680 ug/L       1.43382      3.1680 ppb        1.43382  45.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.9      1.6887 ug/L       2.88322      1.6887 ppb        2.88322 170.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -8.5     -0.2703 ug/L       0.52803     -0.2703 ppb        0.52803 195.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.3187 ug/L       0.63876      0.3187 ppb        0.63876 200.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                24.4      0.1880 ug/L       0.33722      0.1880 ppb        0.33722 179.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                80.1      0.1287 ug/L       0.11654      0.1287 ppb        0.11654  90.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.3      1.0398 ug/L       1.01731      1.0398 ppb        1.01731  97.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                200.9      5.7071 ug/L       2.19675      5.7071 ppb        2.19675  38.49%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 10.3      0.0926 ug/L       0.75210      0.0926 ppb        0.75210 812.29%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                72.9      0.7106 ug/L       0.29889      0.7106 ppb        0.29889  42.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -26.3     -1.7627 ug/L       2.43497     -1.7627 ppb        2.43497 138.14%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 2/16/2010 15:39:35 **Plasma On Time: 2/15/2010 05:50:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021610.sif
Batch ID:
Results Data Set: 021610
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/16/2010 15:39:36**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4259.9	4259.9	100	%			15:41:28
1	Y RADIAL	4343.3	4343.3	98.66	%			15:41:28
1	Al 396.153Radial†	4756.7	4905.8	4884.5	ug/L	4884.5	ppb	15:41:28
1	Ca 317.933Radial†	2607.8	2584.0	4820.1	ug/L	4820.1	ppb	15:41:48
1	Fe 238.204 Radial†	479.4	468.3	4991.7	ug/L	4991.7	ppb	15:41:48
1	K 766.490 Radial†	28010.6	24780.1	4995.6	ug/L	4995.6	ppb	15:41:28
1	Mg 279.077 IEC†	128.2	125.2	4834.6	ug/L	4834.6	ppb	15:41:48
1	Na 589.592 Radial†	33517.2	33239.7	11087	ug/L	11087	ppb	15:41:28
1	Sr 421.552†	66107.1	65878.2	508.63	ug/L	508.63	ppb	15:41:28
1	Sc 361.383	831107.2	831107.2	97.776	%			15:42:45
1	Y 371.029	672004.2	672004.2	95.628	%			15:42:45
1	Ag 328.068†	99548.6	101584.9	490.91	ug/L	490.91	ppb	15:42:51
1	As 188.979†	1079.4	1132.2	480.65	ug/L	480.65	ppb	15:43:11
1	B 249.677†	20839.6	21795.5	510.57	ug/L	510.57	ppb	15:42:51
1	Ba 233.527†	58431.5	59741.6	486.29	ug/L	486.29	ppb	15:42:51
1	Be 313.107†	1299727.6	1333626.0	490.96	ug/L	490.96	ppb	15:42:45
1	Cd 226.502†	39622.6	40719.2	476.07	ug/L	476.07	ppb	15:42:51
1	Co 228.616†	22656.4	23250.6	484.90	ug/L	484.90	ppb	15:42:51
1	Cr 267.716†	39927.1	40685.5	473.92	ug/L	473.92	ppb	15:42:51
1	Cu 324.752†	165158.8	160820.8	492.38	ug/L	492.38	ppb	15:42:51
1	Mn 257.610†	418776.2	427730.5	493.63	ug/L	493.63	ppb	15:42:45
1	Mo 202.031†	6308.8	6441.8	479.11	ug/L	479.11	ppb	15:43:11
1	Ni 231.604†	18314.6	18617.6	476.58	ug/L	476.58	ppb	15:42:51
1	P 214.914†	4390.5	4248.4	2261.1	ug/L	2261.1	ppb	15:43:11
1	Pb 220.353†	3676.1	3833.2	476.42	ug/L	476.42	ppb	15:43:11
1	S 181.975 Axial†	798.3	773.6	1010.1	ug/L	1010.1	ppb	15:43:11
1	Sb 206.836†	1439.1	1436.2	503.17	ug/L	503.17	ppb	15:43:11
1	Se 196.026†	779.1	820.2	496.12	ug/L	496.12	ppb	15:43:11
1	Si 251.611†	77027.3	78166.8	2430.0	ug/L	2430.0	ppb	15:42:51
1	Sn 189.927†	2587.5	2633.8	473.08	ug/L	473.08	ppb	15:43:11
1	Ti 334.940†	292656.4	300805.1	488.77	ug/L	488.77	ppb	15:42:51
1	Tl 190.801†	1474.4	1547.0	491.65	ug/L	491.65	ppb	15:43:11
1	U 409.014†	13465.6	17287.0	489.45	ug/L	489.45	ppb	15:42:51
1	V 292.402†	62942.6	66051.3	484.78	ug/L	484.78	ppb	15:42:51
1	Zn 213.857†	49524.1	49962.6	483.18	ug/L	483.18	ppb	15:42:51
1	SiO2†	77288.1	78426.3	5215.9	ug/L	5215.9	ppb	15:44:18
2	Sc Radial	4177.7	4177.7	98.3	%			15:41:53
2	Y RADIAL	4307.6	4307.6	97.85	%			15:41:53
2	Al 396.153Radial†	4722.2	4964.0	4942.6	ug/L	4942.6	ppb	15:41:53
2	Ca 317.933Radial†	2601.0	2628.2	4902.7	ug/L	4902.7	ppb	15:42:13
2	Fe 238.204 Radial†	484.2	482.6	5143.3	ug/L	5143.3	ppb	15:42:13
2	K 766.490 Radial†	27824.0	25140.2	5068.2	ug/L	5068.2	ppb	15:41:53
2	Mg 279.077 IEC†	128.3	127.8	4935.8	ug/L	4935.8	ppb	15:42:13
2	Na 589.592 Radial†	33063.0	33435.6	11153	ug/L	11153	ppb	15:41:53
2	Sr 421.552†	65494.9	66553.4	513.84	ug/L	513.84	ppb	15:41:53
2	Sc 361.383	825773.8	825773.8	97.149	%			15:43:16
2	Y 371.029	667205.7	667205.7	94.945	%			15:43:16

2	Ag 328.068†	99725.0	102424.0	494.99 ug/L	494.99 ppb	15:43:22
2	As 188.979†	1063.1	1122.6	476.64 ug/L	476.64 ppb	15:43:42
2	B 249.677†	20835.1	21928.5	513.67 ug/L	513.67 ppb	15:43:22
2	Ba 233.527†	58399.0	60094.1	489.16 ug/L	489.16 ppb	15:43:22
2	Be 313.107†	1287464.4	1329588.2	489.48 ug/L	489.48 ppb	15:43:16
2	Cd 226.502†	39480.4	40834.5	477.40 ug/L	477.40 ppb	15:43:22
2	Co 228.616†	22615.4	23357.9	487.14 ug/L	487.14 ppb	15:43:22
2	Cr 267.716†	39954.2	40977.1	477.31 ug/L	477.31 ppb	15:43:22
2	Cu 324.752†	165427.2	162188.1	496.57 ug/L	496.57 ppb	15:43:22
2	Mn 257.610†	415240.5	426857.3	492.64 ug/L	492.64 ppb	15:43:16
2	Mo 202.031†	6320.6	6495.6	483.12 ug/L	483.12 ppb	15:43:42
2	Ni 231.604†	18387.7	18813.8	481.61 ug/L	481.61 ppb	15:43:22
2	P 214.914†	4380.9	4267.5	2270.8 ug/L	2270.8 ppb	15:43:42
2	Pb 220.353†	3668.2	3849.4	478.43 ug/L	478.43 ppb	15:43:42
2	S 181.975 Axial†	798.0	778.5	1016.6 ug/L	1016.6 ppb	15:43:42
2	Sb 206.836†	1433.1	1439.5	504.38 ug/L	504.38 ppb	15:43:42
2	Se 196.026†	794.9	841.6	509.11 ug/L	509.11 ppb	15:43:42
2	Si 251.611†	77051.2	78700.2	2446.6 ug/L	2446.6 ppb	15:43:22
2	Sn 189.927†	2582.3	2645.4	475.18 ug/L	475.18 ppb	15:43:42
2	Ti 334.940†	292821.1	302907.8	492.19 ug/L	492.19 ppb	15:43:22
2	Tl 190.801†	1474.8	1557.2	494.88 ug/L	494.88 ppb	15:43:42
2	U 409.014†	13559.2	17472.3	494.69 ug/L	494.69 ppb	15:43:22
2	V 292.402†	62738.6	66257.2	486.31 ug/L	486.31 ppb	15:43:22
2	Zn 213.857†	49493.0	50257.8	486.00 ug/L	486.00 ppb	15:43:22
2	SiO2†	77182.6	78828.2	5242.6 ug/L	5242.6 ppb	15:44:23
3	Sc Radial	4225.0	4225.0	99.4 %		15:42:18
3	Y RADIAL	4350.5	4350.5	98.82 %		15:42:18
3	Al 396.153Radial†	4718.7	4906.6	4885.0 ug/L	4885.0 ppb	15:42:18
3	Ca 317.933Radial†	2598.2	2595.8	4842.2 ug/L	4842.2 ppb	15:42:38
3	Fe 238.204 Radial†	477.5	470.4	5013.8 ug/L	5013.8 ppb	15:42:38
3	K 766.490 Radial†	27778.7	24777.5	4995.1 ug/L	4995.1 ppb	15:42:18
3	Mg 279.077 IEC†	128.2	126.3	4878.0 ug/L	4878.0 ppb	15:42:38
3	Na 589.592 Radial†	32939.3	32934.4	10986 ug/L	10986 ppb	15:42:18
3	Sr 421.552†	65787.7	66101.6	510.35 ug/L	510.35 ppb	15:42:18
3	Sc 361.383	823496.6	823496.6	96.881 %		15:43:47
3	Y 371.029	665622.4	665622.4	94.720 %		15:43:47
3	Ag 328.068†	99636.2	102616.3	495.88 ug/L	495.88 ppb	15:43:53
3	As 188.979†	1079.7	1142.7	485.09 ug/L	485.09 ppb	15:44:13
3	B 249.677†	20975.5	22132.7	518.49 ug/L	518.49 ppb	15:43:53
3	Ba 233.527†	58343.9	60203.5	490.05 ug/L	490.05 ppb	15:43:53
3	Be 313.107†	1285062.9	1330774.2	489.92 ug/L	489.92 ppb	15:43:47
3	Cd 226.502†	39409.3	40873.6	477.87 ug/L	477.87 ppb	15:43:53
3	Co 228.616†	22595.0	23401.4	488.05 ug/L	488.05 ppb	15:43:53
3	Cr 267.716†	39938.7	41074.8	478.45 ug/L	478.45 ppb	15:43:53
3	Cu 324.752†	165205.7	162430.3	497.31 ug/L	497.31 ppb	15:43:53
3	Mn 257.610†	414057.1	426817.8	492.58 ug/L	492.58 ppb	15:43:47
3	Mo 202.031†	6337.0	6530.5	485.70 ug/L	485.70 ppb	15:44:13
3	Ni 231.604†	18296.5	18772.1	480.54 ug/L	480.54 ppb	15:43:53
3	P 214.914†	4391.0	4290.3	2283.4 ug/L	2283.4 ppb	15:44:13
3	Pb 220.353†	3690.3	3882.7	482.56 ug/L	482.56 ppb	15:44:13
3	S 181.975 Axial†	862.6	847.4	1106.6 ug/L	1106.6 ppb	15:44:13
3	Sb 206.836†	1426.6	1436.9	503.57 ug/L	503.57 ppb	15:44:13
3	Se 196.026†	799.5	848.6	512.81 ug/L	512.81 ppb	15:44:13
3	Si 251.611†	76819.5	78680.4	2445.9 ug/L	2445.9 ppb	15:43:53
3	Sn 189.927†	2579.9	2650.3	476.05 ug/L	476.05 ppb	15:44:13
3	Ti 334.940†	292485.1	303394.5	492.98 ug/L	492.98 ppb	15:43:53
3	Tl 190.801†	1485.2	1572.1	499.58 ug/L	499.58 ppb	15:44:13
3	U 409.014†	13313.7	17257.5	488.60 ug/L	488.60 ppb	15:43:53
3	V 292.402†	62782.6	66481.2	487.97 ug/L	487.97 ppb	15:43:53
3	Zn 213.857†	49244.7	50142.4	484.90 ug/L	484.90 ppb	15:43:53
3	SiO2†	77072.2	78934.0	5249.6 ug/L	5249.6 ppb	15:44:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	826792.6	97.269	%	0.4596				0.47%
Sc Radial	4220.8	99.3	%	0.97				0.98%
Y 371.029	668277.4	95.098	%	0.4729				0.50%
Y RADIAL	4333.8	98.45	%	0.521				0.53%
Ag 328.068†	102208.4	493.93	ug/L	2.651	493.93	ppb	2.651	0.54%

```
   QC value within limits for Ag 328.068  Recovery = 98.79%
Al 396.153Radial†       4925.5      4904.0 ug/L        33.38      4904.0 ppb        33.38   0.68%
   QC value within limits for Al 396.153Radial  Recovery = 98.08%
As 188.979†             1132.5      480.79 ug/L        4.227      480.79 ppb        4.227   0.88%
   QC value within limits for As 188.979  Recovery = 96.16%
B 249.677†             21952.2      514.24 ug/L        3.992      514.24 ppb        3.992   0.78%
   QC value within limits for B 249.677  Recovery = 102.85%
Ba 233.527†            60013.0      488.50 ug/L        1.964      488.50 ppb        1.964   0.40%
   QC value within limits for Ba 233.527  Recovery = 97.70%
Be 313.107†          1331329.5      490.12 ug/L        0.758      490.12 ppb        0.758   0.15%
   QC value within limits for Be 313.107  Recovery = 98.02%
Ca 317.933Radial†       2602.7      4855.0 ug/L        42.76      4855.0 ppb        42.76   0.88%
   QC value within limits for Ca 317.933Radial  Recovery = 97.10%
Cd 226.502†            40809.1      477.11 ug/L        0.937      477.11 ppb        0.937   0.20%
   QC value within limits for Cd 226.502  Recovery = 95.42%
Co 228.616†            23336.6      486.70 ug/L        1.621      486.70 ppb        1.621   0.33%
   QC value within limits for Co 228.616  Recovery = 97.34%
Cr 267.716†            40912.4      476.56 ug/L        2.359      476.56 ppb        2.359   0.50%
   QC value within limits for Cr 267.716  Recovery = 95.31%
Cu 324.752†           161813.1      495.42 ug/L        2.659      495.42 ppb        2.659   0.54%
   QC value within limits for Cu 324.752  Recovery = 99.08%
Fe 238.204 Radial†       473.8      5049.6 ug/L        81.90      5049.6 ppb        81.90   1.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.99%
K 766.490 Radial†      24899.3      5019.6 ug/L        42.08      5019.6 ppb        42.08   0.84%
   QC value within limits for K 766.490 Radial  Recovery = 100.39%
Mg 279.077 IEC†          126.4      4882.8 ug/L        50.80      4882.8 ppb        50.80   1.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.66%
Mn 257.610†           427135.2      492.95 ug/L        0.592      492.95 ppb        0.592   0.12%
   QC value within limits for Mn 257.610  Recovery = 98.59%
Mo 202.031†            6489.3      482.64 ug/L        3.322      482.64 ppb        3.322   0.69%
   QC value within limits for Mo 202.031  Recovery = 96.53%
Na 589.592 Radial†     33203.2       11075 ug/L         84.3       11075 ppb         84.3   0.76%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 110.75%
Ni 231.604†            18734.5      479.57 ug/L        2.647      479.57 ppb        2.647   0.55%
   QC value within limits for Ni 231.604  Recovery = 95.91%
P 214.914†              4268.7      2271.8 ug/L        11.18      2271.8 ppb        11.18   0.49%
   QC value within limits for P 214.914  Recovery = 90.87%
Pb 220.353†            3855.1      479.14 ug/L        3.132      479.14 ppb        3.132   0.65%
   QC value within limits for Pb 220.353  Recovery = 95.83%
S 181.975 Axial†         799.8      1044.4 ug/L        53.95      1044.4 ppb        53.95   5.17%
   QC value within limits for S 181.975 Axial  Recovery = 104.44%
Sb 206.836†            1437.5      503.71 ug/L        0.618      503.71 ppb        0.618   0.12%
   QC value within limits for Sb 206.836  Recovery = 100.74%
Se 196.026†             836.8      506.01 ug/L        8.763      506.01 ppb        8.763   1.73%
   QC value within limits for Se 196.026  Recovery = 101.20%
Si 251.611†            78515.8      2440.8 ug/L         9.39      2440.8 ppb         9.39   0.38%
   QC value within limits for Si 251.611  Recovery = 97.63%
Sn 189.927†            2643.2      474.77 ug/L        1.529      474.77 ppb        1.529   0.32%
   QC value within limits for Sn 189.927  Recovery = 94.95%
Sr 421.552†            66177.7      510.94 ug/L        2.655      510.94 ppb        2.655   0.52%
   QC value within limits for Sr 421.552  Recovery = 102.19%
Ti 334.940†           302369.1      491.31 ug/L        2.236      491.31 ppb        2.236   0.46%
   QC value within limits for Ti 334.940  Recovery = 98.26%
Tl 190.801†            1558.8      495.37 ug/L        3.986      495.37 ppb        3.986   0.80%
   QC value within limits for Tl 190.801  Recovery = 99.07%
U 409.014†             17338.9      490.91 ug/L        3.298      490.91 ppb        3.298   0.67%
   QC value within limits for U 409.014  Recovery = 98.18%
V 292.402†             66263.2      486.35 ug/L        1.599      486.35 ppb        1.599   0.33%
   QC value within limits for V 292.402  Recovery = 97.27%
Zn 213.857†            50120.9      484.69 ug/L        1.422      484.69 ppb        1.422   0.29%
   QC value within limits for Zn 213.857  Recovery = 96.94%
SiO2†                  78729.5      5236.0 ug/L        17.77      5236.0 ppb        17.77   0.34%
   QC value within limits for SiO2  Recovery = 97.92%
QC Failed.  Continue with analysis.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/16/2010 15:46:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4241.1	4241.1	99.8	%			15:48:31
1	Y RADIAL	4368.1	4368.1	99.22	%			15:48:31
1	Al 396.153Radial†	-148.3	10.4	10.352	ug/L	10.352	ppb	15:48:31
1	Ca 317.933Radial†	32.6	14.3	26.714	ug/L	26.714	ppb	15:48:51
1	Fe 238.204 Radial†	11.4	1.3	14.240	ug/L	14.240	ppb	15:48:51
1	K 766.490 Radial†	3878.0	715.4	144.15	ug/L	144.15	ppb	15:48:31
1	Mg 279.077 IEC†	-0.3	-3.0	-116.41	ug/L	-116.41	ppb	15:48:51
1	Na 589.592 Radial†	2121.6	1919.4	640.23	ug/L	640.23	ppb	15:48:31
1	Sr 421.552†	43.9	-45.8	-0.3536	ug/L	-0.3536	ppb	15:48:31
1	Sc 361.383	818204.5	818204.5	96.258	%			15:49:48
1	Y 371.029	669456.0	669456.0	95.265	%			15:49:48
1	Ag 328.068†	314.7	99.3	0.4798	ug/L	0.4798	ppb	15:49:48
1	As 188.979†	-27.0	0.3	0.1177	ug/L	0.1177	ppb	15:50:08
1	B 249.677†	552.2	1055.6	24.832	ug/L	24.832	ppb	15:49:48
1	Ba 233.527†	-0.8	-19.7	-0.1599	ug/L	-0.1599	ppb	15:50:08
1	Be 313.107†	-4303.6	-131.8	-0.0485	ug/L	-0.0485	ppb	15:49:48
1	Cd 226.502†	-202.9	-15.3	-0.1806	ug/L	-0.1806	ppb	15:50:08
1	Co 228.616†	-81.4	-5.7	-0.1168	ug/L	-0.1168	ppb	15:50:08
1	Cr 267.716†	89.4	-56.8	-0.6613	ug/L	-0.6613	ppb	15:50:08
1	Cu 324.752†	7896.7	109.6	0.3357	ug/L	0.3357	ppb	15:49:48
1	Mn 257.610†	537.1	-11.7	-0.0074	ug/L	-0.0074	ppb	15:50:08
1	Mo 202.031†	16.7	6.9	0.5117	ug/L	0.5117	ppb	15:50:08
1	Ni 231.604†	110.5	1.3	0.0325	ug/L	0.0325	ppb	15:50:08
1	P 214.914†	245.3	12.8	7.0384	ug/L	7.0384	ppb	15:50:08
1	Pb 220.353†	-72.5	-1.8	-0.2199	ug/L	-0.2199	ppb	15:50:08
1	S 181.975 Axial†	81.8	42.1	54.963	ug/L	54.963	ppb	15:50:08
1	Sb 206.836†	29.8	-4.7	-1.5910	ug/L	-1.5910	ppb	15:50:08
1	Se 196.026†	-25.8	-3.5	-1.9780	ug/L	-1.9780	ppb	15:50:08
1	Si 251.611†	568.9	-21.3	-0.6706	ug/L	-0.6706	ppb	15:50:08
1	Sn 189.927†	7.0	-5.4	-0.9557	ug/L	-0.9557	ppb	15:50:08
1	Ti 334.940†	-1470.6	-34.8	-0.0437	ug/L	-0.0437	ppb	15:49:48
1	Tl 190.801†	-28.0	10.0	3.1653	ug/L	3.1653	ppb	15:50:08
1	U 409.014†	-3347.4	37.6	1.0689	ug/L	1.0689	ppb	15:49:48
1	V 292.402†	-1627.3	-13.2	-0.0905	ug/L	-0.0905	ppb	15:49:48
1	Zn 213.857†	727.3	67.8	0.6589	ug/L	0.6589	ppb	15:50:08
1	SiO2†	632.6	37.6	2.4958	ug/L	2.4958	ppb	15:51:04
2	Sc Radial	4201.1	4201.1	98.8	%			15:48:56
2	Y RADIAL	4334.1	4334.1	98.45	%			15:48:56
2	Al 396.153Radial†	-118.4	39.3	39.201	ug/L	39.201	ppb	15:48:56
2	Ca 317.933Radial†	30.0	12.1	22.516	ug/L	22.516	ppb	15:49:16
2	Fe 238.204 Radial†	6.8	-3.2	-34.259	ug/L	-34.259	ppb	15:49:16
2	K 766.490 Radial†	3886.1	760.5	153.27	ug/L	153.27	ppb	15:48:56
2	Mg 279.077 IEC†	0.2	-2.5	-95.994	ug/L	-95.994	ppb	15:49:16
2	Na 589.592 Radial†	2024.7	1841.6	614.29	ug/L	614.29	ppb	15:48:56
2	Sr 421.552†	93.1	4.4	0.0341	ug/L	0.0341	ppb	15:48:56
2	Sc 361.383	812430.6	812430.6	95.579	%			15:50:13
2	Y 371.029	665130.1	665130.1	94.650	%			15:50:13
2	Ag 328.068†	287.0	72.6	0.3371	ug/L	0.3371	ppb	15:50:13
2	As 188.979†	-16.8	10.7	4.4993	ug/L	4.4993	ppb	15:50:33
2	B 249.677†	508.0	1013.4	23.846	ug/L	23.846	ppb	15:50:13
2	Ba 233.527†	7.2	-11.4	-0.0930	ug/L	-0.0930	ppb	15:50:33
2	Be 313.107†	-4331.8	-193.1	-0.0707	ug/L	-0.0707	ppb	15:50:13
2	Cd 226.502†	-197.2	-10.8	-0.1229	ug/L	-0.1229	ppb	15:50:33
2	Co 228.616†	-58.9	17.2	0.3629	ug/L	0.3629	ppb	15:50:33
2	Cr 267.716†	99.7	-45.4	-0.5284	ug/L	-0.5284	ppb	15:50:33
2	Cu 324.752†	7836.8	105.2	0.3204	ug/L	0.3204	ppb	15:50:13
2	Mn 257.610†	503.4	-43.1	-0.0491	ug/L	-0.0491	ppb	15:50:33
2	Mo 202.031†	30.5	21.4	1.5881	ug/L	1.5881	ppb	15:50:33
2	Ni 231.604†	87.8	-21.7	-0.5555	ug/L	-0.5555	ppb	15:50:33

2	P 214.914†	225.7	-5.9	-3.2785 ug/L	-3.2785 ppb	15:50:33
2	Pb 220.353†	-37.7	34.1	4.2363 ug/L	4.2363 ppb	15:50:33
2	S 181.975 Axial†	77.6	38.2	49.955 ug/L	49.955 ppb	15:50:33
2	Sb 206.836†	40.8	7.0	2.3956 ug/L	2.3956 ppb	15:50:33
2	Se 196.026†	-26.8	-4.7	-2.8431 ug/L	-2.8431 ppb	15:50:33
2	Si 251.611†	583.8	-1.5	-0.0654 ug/L	-0.0654 ppb	15:50:33
2	Sn 189.927†	11.5	-0.6	-0.1037 ug/L	-0.1037 ppb	15:50:33
2	Ti 334.940†	-1380.4	48.6	0.0902 ug/L	0.0902 ppb	15:50:13
2	Tl 190.801†	-37.4	-0.0	-0.0153 ug/L	-0.0153 ppb	15:50:33
2	U 409.014†	-3366.7	-7.3	-0.2009 ug/L	-0.2009 ppb	15:50:13
2	V 292.402†	-1587.2	16.7	0.1465 ug/L	0.1465 ppb	15:50:13
2	Zn 213.857†	717.3	62.7	0.6206 ug/L	0.6206 ppb	15:50:33
2	SiO2†	563.3	-30.2	-2.0566 ug/L	-2.0566 ppb	15:51:09
3	Sc Radial	4228.8	4228.8	99.5 %		15:49:21
3	Y RADIAL	4357.9	4357.9	98.99 %		15:49:21
3	Al 396.153Radial†	-120.7	37.7	37.716 ug/L	37.716 ppb	15:49:21
3	Ca 317.933Radial†	29.2	11.0	20.574 ug/L	20.574 ppb	15:49:41
3	Fe 238.204 Radial†	9.2	-0.8	-8.2961 ug/L	-8.2961 ppb	15:49:41
3	K 766.490 Radial†	3836.1	684.6	137.95 ug/L	137.95 ppb	15:49:21
3	Mg 279.077 IEC†	2.0	-0.7	-28.707 ug/L	-28.707 ppb	15:49:41
3	Na 589.592 Radial†	2003.4	1806.8	602.69 ug/L	602.69 ppb	15:49:21
3	Sr 421.552†	29.4	-60.2	-0.4651 ug/L	-0.4651 ppb	15:49:21
3	Sc 361.383	824445.4	824445.4	96.993 %		15:50:39
3	Y 371.029	674868.4	674868.4	96.035 %		15:50:39
3	Ag 328.068†	174.8	-47.4	-0.2359 ug/L	-0.2359 ppb	15:50:39
3	As 188.979†	-32.3	-5.0	-2.1139 ug/L	-2.1139 ppb	15:50:59
3	B 249.677†	504.9	1002.5	23.586 ug/L	23.586 ppb	15:50:39
3	Ba 233.527†	10.6	-7.9	-0.0649 ug/L	-0.0649 ppb	15:50:59
3	Be 313.107†	-4398.7	-195.9	-0.0718 ug/L	-0.0718 ppb	15:50:39
3	Cd 226.502†	-208.7	-19.7	-0.2284 ug/L	-0.2284 ppb	15:50:59
3	Co 228.616†	-76.1	0.4	0.0084 ug/L	0.0084 ppb	15:50:59
3	Cr 267.716†	104.3	-42.2	-0.4933 ug/L	-0.4933 ppb	15:50:59
3	Cu 324.752†	7957.9	110.6	0.3348 ug/L	0.3348 ppb	15:50:39
3	Mn 257.610†	524.4	-29.1	-0.0332 ug/L	-0.0332 ppb	15:50:59
3	Mo 202.031†	11.2	1.1	0.0818 ug/L	0.0818 ppb	15:50:59
3	Ni 231.604†	89.6	-21.1	-0.5406 ug/L	-0.5406 ppb	15:50:59
3	P 214.914†	254.4	20.3	11.242 ug/L	11.242 ppb	15:50:59
3	Pb 220.353†	-70.3	1.0	0.1392 ug/L	0.1392 ppb	15:50:59
3	S 181.975 Axial†	71.0	30.3	39.560 ug/L	39.560 ppb	15:50:59
3	Sb 206.836†	38.4	4.0	1.3610 ug/L	1.3610 ppb	15:50:59
3	Se 196.026†	-21.7	1.0	0.5518 ug/L	0.5518 ppb	15:50:59
3	Si 251.611†	552.5	-42.6	-1.3301 ug/L	-1.3301 ppb	15:50:59
3	Sn 189.927†	20.6	8.6	1.5499 ug/L	1.5499 ppb	15:50:59
3	Ti 334.940†	-1397.0	52.6	0.0881 ug/L	0.0881 ppb	15:50:39
3	Tl 190.801†	-36.2	1.8	0.5608 ug/L	0.5608 ppb	15:50:59
3	U 409.014†	-3204.8	211.0	5.9947 ug/L	5.9947 ppb	15:50:39
3	V 292.402†	-1638.1	-11.6	-0.0704 ug/L	-0.0704 ppb	15:50:39
3	Zn 213.857†	720.8	55.4	0.5446 ug/L	0.5446 ppb	15:50:59
3	SiO2†	577.0	-24.7	-1.6475 ug/L	-1.6475 ppb	15:51:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818360.2	96.277	%	0.7069				0.73%
Sc Radial	4223.7	99.4	%	0.48				0.48%
Y 371.029	669818.2	95.317	%	0.6943				0.73%
Y RADIAL	4353.4	98.89	%	0.397				0.40%
Ag 328.068†	41.5	0.1937	ug/L	0.37884	0.1937	ppb	0.37884	195.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	29.1	29.090	ug/L	16.2440	29.090	ppb	16.2440	55.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.8344	ug/L	3.36436	0.8344	ppb	3.36436	403.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1023.8	24.088	ug/L	0.6573	24.088	ppb	0.6573	2.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.0	-0.1059	ug/L	0.04878	-0.1059	ppb	0.04878	46.05%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-173.6	-0.0637	ug/L	0.01313	-0.0637	ppb	0.01313	20.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.5	23.268	ug/L	3.1381	23.268	ppb	3.1381	13.49%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -15.3     -0.1773 ug/L       0.05285     -0.1773 ppb        0.05285  29.81%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.0      0.0848 ug/L       0.24877      0.0848 ppb        0.24877 293.22%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -48.1     -0.5610 ug/L       0.08861     -0.5610 ppb        0.08861  15.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              108.5      0.3303 ug/L       0.00859      0.3303 ppb        0.00859   2.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.9     -9.4386 ug/L      24.26959     -9.4386 ppb       24.26959 257.13%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        720.2      145.12 ug/L         7.710      145.12 ppb          7.710   5.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.1     -80.369 ug/L       45.8906     -80.369 ppb        45.8906  57.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -28.0     -0.0299 ug/L       0.02108     -0.0299 ppb        0.02108  70.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.8      0.7272 ug/L       0.77592      0.7272 ppb        0.77592 106.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1855.9      619.07 ug/L        19.226      619.07 ppb         19.226   3.11%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -13.8     -0.3546 ug/L       0.33528     -0.3546 ppb        0.33528  94.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 9.1      5.0007 ug/L       7.47168      5.0007 ppb        7.47168 149.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               11.1      1.3852 ug/L       2.47568      1.3852 ppb        2.47568 178.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          36.9      48.159 ug/L        7.8566      48.159 ppb         7.8566  16.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.1      0.7219 ug/L       2.06868      0.7219 ppb        2.06868 286.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.4     -1.4231 ug/L       1.76417     -1.4231 ppb        1.76417 123.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -21.8     -0.6887 ug/L       0.63252     -0.6887 ppb        0.63252  91.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.9      0.1635 ug/L       1.27398      0.1635 ppb        1.27398 779.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -33.8     -0.2615 ug/L       0.26202     -0.2615 ppb        0.26202 100.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               22.1      0.0448 ug/L       0.07672      0.0448 ppb        0.07672 171.10%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.9      1.2369 ug/L       1.69468      1.2369 ppb        1.69468 137.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                80.4      2.2876 ug/L       3.27265      2.2876 ppb        3.27265 143.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -2.7     -0.0048 ug/L       0.13144     -0.0048 ppb        0.13144 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               62.0      0.6081 ug/L       0.05818      0.6081 ppb        0.05818   9.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -5.7     -0.4027 ug/L       2.51856     -0.4027 ppb        2.51856 625.36%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 5
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/16/2010 16:07:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4119.1	4119.1	96.9	%			16:09:15
1	Y RADIAL	4271.7	4271.7	97.03	%			16:09:15
1	Al 396.153Radial†	4686.0	4995.0	4973.3	ug/L	4973.3	ppb	16:09:15
1	Ca 317.933Radial†	2613.1	2678.4	4996.3	ug/L	4996.3	ppb	16:09:35
1	Fe 238.204 Radial†	479.7	485.0	5169.5	ug/L	5169.5	ppb	16:09:35
1	K 766.490 Radial†	27324.8	25027.6	5045.5	ug/L	5045.5	ppb	16:09:15
1	Mg 279.077 IEC†	127.5	128.9	4977.9	ug/L	4977.9	ppb	16:09:35
1	Na 589.592 Radial†	31698.4	32505.7	10843	ug/L	10843	ppb	16:09:15
1	Sr 421.552†	64050.8	66010.5	509.65	ug/L	509.65	ppb	16:09:15
1	Sc 361.383	827257.8	827257.8	97.323	%			16:10:32
1	Y 371.029	667757.4	667757.4	95.024	%			16:10:32
1	Ag 328.068†	100188.2	102715.9	496.42	ug/L	496.42	ppb	16:10:38
1	As 188.979†	1085.3	1143.4	485.44	ug/L	485.44	ppb	16:10:58
1	B 249.677†	20666.7	21717.0	508.67	ug/L	508.67	ppb	16:10:38
1	Ba 233.527†	59030.2	60634.8	493.56	ug/L	493.56	ppb	16:10:38
1	Be 313.107†	1296533.2	1336529.2	492.04	ug/L	492.04	ppb	16:10:32
1	Cd 226.502†	39917.3	41210.6	481.80	ug/L	481.80	ppb	16:10:38
1	Co 228.616†	22947.2	23657.2	493.39	ug/L	493.39	ppb	16:10:38
1	Cr 267.716†	40390.8	41351.9	481.68	ug/L	481.68	ppb	16:10:38
1	Cu 324.752†	165822.8	162289.1	496.88	ug/L	496.88	ppb	16:10:38
1	Mn 257.610†	419428.6	430393.8	496.72	ug/L	496.72	ppb	16:10:32
1	Mo 202.031†	6400.4	6566.0	488.35	ug/L	488.35	ppb	16:10:58
1	Ni 231.604†	18573.4	18970.7	485.62	ug/L	485.62	ppb	16:10:38
1	P 214.914†	4437.6	4317.7	2298.6	ug/L	2298.6	ppb	16:10:58
1	Pb 220.353†	3737.2	3913.6	486.40	ug/L	486.40	ppb	16:10:58
1	S 181.975 Axial†	800.7	779.8	1018.3	ug/L	1018.3	ppb	16:10:58
1	Sb 206.836†	1424.3	1427.8	500.64	ug/L	500.64	ppb	16:10:58
1	Se 196.026†	784.1	829.0	501.90	ug/L	501.90	ppb	16:10:58
1	Si 251.611†	77643.5	79166.5	2461.0	ug/L	2461.0	ppb	16:10:38
1	Sn 189.927†	2624.8	2684.4	482.19	ug/L	482.19	ppb	16:10:58
1	Ti 334.940†	295579.7	305201.6	495.92	ug/L	495.92	ppb	16:10:38
1	Tl 190.801†	1485.9	1565.8	497.62	ug/L	497.62	ppb	16:10:58
1	U 409.014†	13518.6	17405.5	492.78	ug/L	492.78	ppb	16:10:38
1	V 292.402†	63386.4	66806.9	490.35	ug/L	490.35	ppb	16:10:38
1	Zn 213.857†	49829.9	50512.5	488.45	ug/L	488.45	ppb	16:10:38
1	SiO2†	77818.7	79339.3	5276.5	ug/L	5276.5	ppb	16:12:05
2	Sc Radial	4154.1	4154.1	97.7	%			16:09:40
2	Y RADIAL	4247.3	4247.3	96.48	%			16:09:40
2	Al 396.153Radial†	4697.6	4966.0	4944.4	ug/L	4944.4	ppb	16:09:40
2	Ca 317.933Radial†	2631.6	2674.5	4989.0	ug/L	4989.0	ppb	16:10:00
2	Fe 238.204 Radial†	484.8	486.0	5179.8	ug/L	5179.8	ppb	16:10:00
2	K 766.490 Radial†	27449.9	24917.7	5023.4	ug/L	5023.4	ppb	16:09:40
2	Mg 279.077 IEC†	131.1	131.5	5078.0	ug/L	5078.0	ppb	16:10:00
2	Na 589.592 Radial†	31533.1	32060.5	10694	ug/L	10694	ppb	16:09:40
2	Sr 421.552†	64309.2	65717.4	507.39	ug/L	507.39	ppb	16:09:40
2	Sc 361.383	830990.2	830990.2	97.763	%			16:11:03
2	Y 371.029	670637.7	670637.7	95.433	%			16:11:03
2	Ag 328.068†	100018.5	102079.9	493.35	ug/L	493.35	ppb	16:11:09
2	As 188.979†	1086.0	1139.2	483.64	ug/L	483.64	ppb	16:11:29
2	B 249.677†	20552.9	21505.2	503.71	ug/L	503.71	ppb	16:11:09
2	Ba 233.527†	58819.8	60147.2	489.59	ug/L	489.59	ppb	16:11:09
2	Be 313.107†	1302367.4	1336513.5	492.03	ug/L	492.03	ppb	16:11:03
2	Cd 226.502†	39612.4	40714.5	475.99	ug/L	475.99	ppb	16:11:09
2	Co 228.616†	22759.5	23359.3	487.17	ug/L	487.17	ppb	16:11:09
2	Cr 267.716†	40208.3	40978.9	477.33	ug/L	477.33	ppb	16:11:09
2	Cu 324.752†	165946.7	161650.6	494.93	ug/L	494.93	ppb	16:11:09
2	Mn 257.610†	420638.5	429695.8	495.91	ug/L	495.91	ppb	16:11:03
2	Mo 202.031†	6392.2	6528.0	485.53	ug/L	485.53	ppb	16:11:29
2	Ni 231.604†	18431.6	18739.9	479.71	ug/L	479.71	ppb	16:11:09

2	P 214.914†	4408.9	4267.8	2271.3 ug/L	2271.3 ppb	16:11:29
2	Pb 220.353†	3691.6	3849.6	478.47 ug/L	478.47 ppb	16:11:29
2	S 181.975 Axial†	783.2	758.2	990.02 ug/L	990.02 ppb	16:11:29
2	Sb 206.836†	1430.5	1427.5	500.45 ug/L	500.45 ppb	16:11:29
2	Se 196.026†	793.3	834.8	505.29 ug/L	505.29 ppb	16:11:29
2	Si 251.611†	77587.8	78751.2	2448.1 ug/L	2448.1 ppb	16:11:09
2	Sn 189.927†	2617.3	2664.6	478.63 ug/L	478.63 ppb	16:11:29
2	Ti 334.940†	294884.9	303126.7	492.55 ug/L	492.55 ppb	16:11:09
2	Tl 190.801†	1483.7	1556.8	494.77 ug/L	494.77 ppb	16:11:29
2	U 409.014†	13409.9	17231.9	487.85 ug/L	487.85 ppb	16:11:09
2	V 292.402†	63123.6	66245.6	486.24 ug/L	486.24 ppb	16:11:09
2	Zn 213.857†	49546.1	49992.3	483.42 ug/L	483.42 ppb	16:11:09
2	SiO2†	78410.7	79585.7	5293.0 ug/L	5293.0 ppb	16:12:10
3	Sc Radial	4188.8	4188.8	98.5 %		16:10:05
3	Y RADIAL	4296.1	4296.1	97.59 %		16:10:05
3	Al 396.153Radial†	4745.1	4974.5	4953.2 ug/L	4953.2 ppb	16:10:05
3	Ca 317.933Radial†	2601.6	2621.8	4890.7 ug/L	4890.7 ppb	16:10:25
3	Fe 238.204 Radial†	480.7	477.8	5092.4 ug/L	5092.4 ppb	16:10:25
3	K 766.490 Radial†	27529.8	24766.3	4992.9 ug/L	4992.9 ppb	16:10:05
3	Mg 279.077 IEC†	128.0	127.2	4910.9 ug/L	4910.9 ppb	16:10:25
3	Na 589.592 Radial†	31899.3	32165.1	10729 ug/L	10729 ppb	16:10:05
3	Sr 421.552†	64585.6	65453.2	505.35 ug/L	505.35 ppb	16:10:05
3	Sc 361.383	841950.1	841950.1	99.052 %		16:11:34
3	Y 371.029	679956.6	679956.6	96.760 %		16:11:34
3	Ag 328.068†	100941.3	101679.8	491.40 ug/L	491.40 ppb	16:11:40
3	As 188.979†	1085.8	1124.5	477.45 ug/L	477.45 ppb	16:12:00
3	B 249.677†	20830.0	21511.3	503.86 ug/L	503.86 ppb	16:11:40
3	Ba 233.527†	59261.8	59810.2	486.85 ug/L	486.85 ppb	16:11:40
3	Be 313.107†	1319856.8	1336828.8	492.14 ug/L	492.14 ppb	16:11:34
3	Cd 226.502†	40065.8	40644.8	475.19 ug/L	475.19 ppb	16:11:40
3	Co 228.616†	23048.2	23347.7	486.92 ug/L	486.92 ppb	16:11:40
3	Cr 267.716†	40715.9	40955.9	477.06 ug/L	477.06 ppb	16:11:40
3	Cu 324.752†	167687.5	161198.4	493.54 ug/L	493.54 ppb	16:11:40
3	Mn 257.610†	425271.8	428772.5	494.84 ug/L	494.84 ppb	16:11:34
3	Mo 202.031†	6398.8	6449.6	479.69 ug/L	479.69 ppb	16:12:00
3	Ni 231.604†	18619.4	18684.1	478.28 ug/L	478.28 ppb	16:11:40
3	P 214.914†	4414.5	4214.7	2242.2 ug/L	2242.2 ppb	16:12:00
3	Pb 220.353†	3723.9	3833.1	476.41 ug/L	476.41 ppb	16:12:00
3	S 181.975 Axial†	795.1	759.8	992.08 ug/L	992.08 ppb	16:12:00
3	Sb 206.836†	1421.0	1399.0	490.58 ug/L	490.58 ppb	16:12:00
3	Se 196.026†	786.1	817.0	494.61 ug/L	494.61 ppb	16:12:00
3	Si 251.611†	78155.0	78290.7	2433.8 ug/L	2433.8 ppb	16:11:40
3	Sn 189.927†	2623.8	2636.3	473.55 ug/L	473.55 ppb	16:12:00
3	Ti 334.940†	297653.0	301994.8	490.71 ug/L	490.71 ppb	16:11:40
3	Tl 190.801†	1488.2	1541.5	489.93 ug/L	489.93 ppb	16:12:00
3	U 409.014†	13768.5	17415.4	493.08 ug/L	493.08 ppb	16:11:40
3	V 292.402†	63858.6	66147.1	485.47 ug/L	485.47 ppb	16:11:40
3	Zn 213.857†	50099.7	49891.4	482.46 ug/L	482.46 ppb	16:11:40
3	SiO2†	77306.5	77426.9	5149.2 ug/L	5149.2 ppb	16:12:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	833399.4	98.046	%	0.8984				0.92%
Sc Radial	4154.0	97.7	%	0.82				0.84%
Y 371.029	672783.9	95.739	%	0.9074				0.95%
Y RADIAL	4271.7	97.03	%	0.554				0.57%
Ag 328.068†	102158.5	493.72	ug/L	2.530	493.72	ppb	2.530	0.51%
QC value within limits for Ag 328.068 Recovery = 98.74%								
Al 396.153Radial†	4978.5	4957.0	ug/L	14.78	4957.0	ppb	14.78	0.30%
QC value within limits for Al 396.153Radial Recovery = 99.14%								
As 188.979†	1135.7	482.18	ug/L	4.189	482.18	ppb	4.189	0.87%
QC value within limits for As 188.979 Recovery = 96.44%								
B 249.677†	21577.8	505.41	ug/L	2.823	505.41	ppb	2.823	0.56%
QC value within limits for B 249.677 Recovery = 101.08%								
Ba 233.527†	60197.4	490.00	ug/L	3.373	490.00	ppb	3.373	0.69%
QC value within limits for Ba 233.527 Recovery = 98.00%								
Be 313.107†	1336623.8	492.07	ug/L	0.061	492.07	ppb	0.061	0.01%
QC value within limits for Be 313.107 Recovery = 98.41%								
Ca 317.933Radial†	2658.3	4958.7	ug/L	58.99	4958.7	ppb	58.99	1.19%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.17%
Cd 226.502†            40856.6      477.66 ug/L        3.608      477.66 ppb          3.608   0.76%
   QC value within limits for Cd 226.502  Recovery = 95.53%
Co 228.616†            23454.7      489.16 ug/L        3.661      489.16 ppb          3.661   0.75%
   QC value within limits for Co 228.616  Recovery = 97.83%
Cr 267.716†            41095.6      478.69 ug/L        2.590      478.69 ppb          2.590   0.54%
   QC value within limits for Cr 267.716  Recovery = 95.74%
Cu 324.752†           161712.7      495.12 ug/L        1.680      495.12 ppb          1.680   0.34%
   QC value within limits for Cu 324.752  Recovery = 99.02%
Fe 238.204 Radial†       483.0      5147.2 ug/L       47.78      5147.2 ppb          47.78   0.93%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.94%
K 766.490 Radial†      24903.9      5020.6 ug/L       26.44      5020.6 ppb          26.44   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 100.41%
Mg 279.077 IEC†          129.2      4988.9 ug/L       84.10      4988.9 ppb          84.10   1.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.78%
Mn 257.610†           429620.7      495.82 ug/L        0.940      495.82 ppb          0.940   0.19%
   QC value within limits for Mn 257.610  Recovery = 99.16%
Mo 202.031†             6514.5      484.53 ug/L        4.417      484.53 ppb          4.417   0.91%
   QC value within limits for Mo 202.031  Recovery = 96.91%
Na 589.592 Radial†     32243.8       10755 ug/L         77.6       10755 ppb           77.6   0.72%
   QC value within limits for Na 589.592 Radial  Recovery = 107.55%
Ni 231.604†            18798.2      481.21 ug/L        3.890      481.21 ppb          3.890   0.81%
   QC value within limits for Ni 231.604  Recovery = 96.24%
P 214.914†              4266.8      2270.7 ug/L       28.24      2270.7 ppb          28.24   1.24%
   QC value within limits for P 214.914  Recovery = 90.83%
Pb 220.353†             3865.4      480.43 ug/L        5.274      480.43 ppb          5.274   1.10%
   QC value within limits for Pb 220.353  Recovery = 96.09%
S 181.975 Axial†         765.9      1000.1 ug/L       15.75      1000.1 ppb          15.75   1.58%
   QC value within limits for S 181.975 Axial  Recovery = 100.01%
Sb 206.836†             1418.1      497.22 ug/L        5.752      497.22 ppb          5.752   1.16%
   QC value within limits for Sb 206.836  Recovery = 99.44%
Se 196.026†              826.9      500.60 ug/L        5.460      500.60 ppb          5.460   1.09%
   QC value within limits for Se 196.026  Recovery = 100.12%
Si 251.611†            78736.1      2447.7 ug/L       13.60      2447.7 ppb          13.60   0.56%
   QC value within limits for Si 251.611  Recovery = 97.91%
Sn 189.927†             2661.8      478.12 ug/L        4.340      478.12 ppb          4.340   0.91%
   QC value within limits for Sn 189.927  Recovery = 95.62%
Sr 421.552†            65727.0      507.46 ug/L        2.152      507.46 ppb          2.152   0.42%
   QC value within limits for Sr 421.552  Recovery = 101.49%
Ti 334.940†           303441.0      493.06 ug/L        2.647      493.06 ppb          2.647   0.54%
   QC value within limits for Ti 334.940  Recovery = 98.61%
Tl 190.801†             1554.7      494.11 ug/L        3.887      494.11 ppb          3.887   0.79%
   QC value within limits for Tl 190.801  Recovery = 98.82%
U 409.014†             17351.0      491.24 ug/L        2.933      491.24 ppb          2.933   0.60%
   QC value within limits for U 409.014  Recovery = 98.25%
V 292.402†             66399.9      487.35 ug/L        2.625      487.35 ppb          2.625   0.54%
   QC value within limits for V 292.402  Recovery = 97.47%
Zn 213.857†            50132.1      484.78 ug/L        3.222      484.78 ppb          3.222   0.66%
   QC value within limits for Zn 213.857  Recovery = 96.96%
SiO2†                  78784.0      5239.6 ug/L       78.68      5239.6 ppb          78.68   1.50%
   QC value within limits for SiO2  Recovery = 97.98%
All analyte(s) passed QC.
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Sequence No.: 6
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/16/2010 16:14:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4281.6	4281.6	101	%			16:16:18
1	Y RADIAL	4415.3	4415.3	100.3	%			16:16:18
1	Al 396.153Radial†	-131.8	28.2	28.180	ug/L	28.180	ppb	16:16:38
1	Ca 317.933Radial†	39.0	20.4	38.028	ug/L	38.028	ppb	16:16:38
1	Fe 238.204 Radial†	8.6	-1.5	-16.347	ug/L	-16.347	ppb	16:16:38
1	K 766.490 Radial†	3656.8	458.9	92.379	ug/L	92.379	ppb	16:16:18
1	Mg 279.077 IEC†	1.7	-1.1	-41.081	ug/L	-41.081	ppb	16:16:38
1	Na 589.592 Radial†	2157.0	1934.5	645.26	ug/L	645.26	ppb	16:16:18
1	Sr 421.552†	145.3	54.4	0.4199	ug/L	0.4199	ppb	16:16:18
1	Sc 361.383	819219.6	819219.6	96.378	%			16:17:35
1	Y 371.029	669576.7	669576.7	95.282	%			16:17:35
1	Ag 328.068†	146.3	-75.9	-0.3718	ug/L	-0.3718	ppb	16:17:35
1	As 188.979†	-26.1	1.3	0.5213	ug/L	0.5213	ppb	16:17:55
1	B 249.677†	424.8	922.6	21.709	ug/L	21.709	ppb	16:17:35
1	Ba 233.527†	53.3	36.5	0.2968	ug/L	0.2968	ppb	16:17:55
1	Be 313.107†	-4379.1	-204.5	-0.0751	ug/L	-0.0751	ppb	16:17:35
1	Cd 226.502†	-185.1	3.5	0.0433	ug/L	0.0433	ppb	16:17:55
1	Co 228.616†	-80.3	-4.4	-0.0893	ug/L	-0.0893	ppb	16:17:55
1	Cr 267.716†	118.7	-26.6	-0.3104	ug/L	-0.3104	ppb	16:17:55
1	Cu 324.752†	7838.8	39.3	0.1174	ug/L	0.1174	ppb	16:17:35
1	Mn 257.610†	979.5	446.6	0.5151	ug/L	0.5151	ppb	16:17:55
1	Mo 202.031†	22.3	12.7	0.9420	ug/L	0.9420	ppb	16:17:55
1	Ni 231.604†	120.8	11.8	0.3031	ug/L	0.3031	ppb	16:17:55
1	P 214.914†	232.5	-0.7	-0.3697	ug/L	-0.3697	ppb	16:17:55
1	Pb 220.353†	-56.9	14.6	1.8144	ug/L	1.8144	ppb	16:17:55
1	S 181.975 Axial†	89.1	49.6	64.779	ug/L	64.779	ppb	16:17:55
1	Sb 206.836†	46.2	12.3	4.2061	ug/L	4.2061	ppb	16:17:55
1	Se 196.026†	-26.6	-4.3	-2.5324	ug/L	-2.5324	ppb	16:17:55
1	Si 251.611†	786.0	203.2	6.3202	ug/L	6.3202	ppb	16:17:55
1	Sn 189.927†	23.2	11.5	2.0610	ug/L	2.0610	ppb	16:17:55
1	Ti 334.940†	-1440.8	-2.1	0.0034	ug/L	0.0034	ppb	16:17:35
1	Tl 190.801†	-42.2	-4.7	-1.4798	ug/L	-1.4798	ppb	16:17:55
1	U 409.014†	-3253.5	139.4	3.9623	ug/L	3.9623	ppb	16:17:35
1	V 292.402†	-1552.1	66.9	0.5068	ug/L	0.5068	ppb	16:17:35
1	Zn 213.857†	764.8	105.8	1.0326	ug/L	1.0326	ppb	16:17:55
1	SiO2†	836.7	248.6	16.548	ug/L	16.548	ppb	16:18:51
2	Sc Radial	4278.2	4278.2	101	%			16:16:43
2	Y RADIAL	4418.0	4418.0	100.4	%			16:16:43
2	Al 396.153Radial†	-115.5	44.3	44.257	ug/L	44.257	ppb	16:17:03
2	Ca 317.933Radial†	42.9	24.3	45.297	ug/L	45.297	ppb	16:17:03
2	Fe 238.204 Radial†	12.2	2.1	22.178	ug/L	22.178	ppb	16:17:03
2	K 766.490 Radial†	3639.4	444.6	89.509	ug/L	89.509	ppb	16:16:43
2	Mg 279.077 IEC†	0.9	-1.8	-70.912	ug/L	-70.912	ppb	16:17:03
2	Na 589.592 Radial†	2003.1	1783.3	594.83	ug/L	594.83	ppb	16:16:43
2	Sr 421.552†	145.6	54.9	0.4235	ug/L	0.4235	ppb	16:16:43
2	Sc 361.383	824051.0	824051.0	96.946	%			16:18:00
2	Y 371.029	673225.9	673225.9	95.802	%			16:18:00
2	Ag 328.068†	214.2	-6.8	-0.0295	ug/L	-0.0295	ppb	16:18:00
2	As 188.979†	-30.5	-3.1	-1.3154	ug/L	-1.3154	ppb	16:18:21
2	B 249.677†	363.6	857.0	20.157	ug/L	20.157	ppb	16:18:00
2	Ba 233.527†	15.6	-2.7	-0.0206	ug/L	-0.0206	ppb	16:18:21
2	Be 313.107†	-4350.8	-148.7	-0.0542	ug/L	-0.0542	ppb	16:18:00
2	Cd 226.502†	-189.5	0.1	-0.0004	ug/L	-0.0004	ppb	16:18:21
2	Co 228.616†	-63.7	13.2	0.2763	ug/L	0.2763	ppb	16:18:21
2	Cr 267.716†	119.0	-27.0	-0.3156	ug/L	-0.3156	ppb	16:18:21
2	Cu 324.752†	8048.0	207.5	0.6328	ug/L	0.6328	ppb	16:18:00
2	Mn 257.610†	613.5	63.1	0.0779	ug/L	0.0779	ppb	16:18:21
2	Mo 202.031†	20.5	10.7	0.7997	ug/L	0.7997	ppb	16:18:21
2	Ni 231.604†	107.9	-2.2	-0.0576	ug/L	-0.0576	ppb	16:18:21

2	P 214.914†	240.0	5.6	2.9623	ug/L	2.9623 ppb	16:18:21
2	Pb 220.353†	-55.1	16.7	2.0762	ug/L	2.0762 ppb	16:18:21
2	S 181.975 Axial†	139.4	100.9	131.82	ug/L	131.82 ppb	16:18:21
2	Sb 206.836†	40.9	6.5	2.2058	ug/L	2.2058 ppb	16:18:21
2	Se 196.026†	-22.9	-0.3	-0.0877	ug/L	-0.0877 ppb	16:18:21
2	Si 251.611†	710.1	120.1	3.7342	ug/L	3.7342 ppb	16:18:21
2	Sn 189.927†	8.0	-4.3	-0.7719	ug/L	-0.7719 ppb	16:18:21
2	Ti 334.940†	-1334.5	116.3	0.1983	ug/L	0.1983 ppb	16:18:00
2	Tl 190.801†	-34.6	3.4	1.0828	ug/L	1.0828 ppb	16:18:21
2	U 409.014†	-3190.7	224.0	6.3613	ug/L	6.3613 ppb	16:18:00
2	V 292.402†	-1585.4	42.0	0.3228	ug/L	0.3228 ppb	16:18:00
2	Zn 213.857†	743.4	79.1	0.7682	ug/L	0.7682 ppb	16:18:21
2	SiO2†	719.6	122.7	8.1621	ug/L	8.1621 ppb	16:18:56
3	Sc Radial	4273.3	4273.3	101	%		16:17:08
3	Y RADIAL	4394.4	4394.4	99.82	%		16:17:08
3	Al 396.153Radial†	-125.8	33.9	33.906	ug/L	33.906 ppb	16:17:28
3	Ca 317.933Radial†	40.4	21.9	40.801	ug/L	40.801 ppb	16:17:28
3	Fe 238.204 Radial†	8.5	-1.6	-16.556	ug/L	-16.556 ppb	16:17:28
3	K 766.490 Radial†	3679.8	489.0	98.449	ug/L	98.449 ppb	16:17:08
3	Mg 279.077 IEC†	4.1	1.3	51.443	ug/L	51.443 ppb	16:17:28
3	Na 589.592 Radial†	2055.3	1837.5	612.92	ug/L	612.92 ppb	16:17:08
3	Sr 421.552†	59.6	-30.6	-0.2363	ug/L	-0.2363 ppb	16:17:08
3	Sc 361.383	816971.0	816971.0	96.113	%		16:18:26
3	Y 371.029	668534.0	668534.0	95.134	%		16:18:26
3	Ag 328.068†	309.5	94.4	0.4429	ug/L	0.4429 ppb	16:18:26
3	As 188.979†	-24.2	3.1	1.3085	ug/L	1.3085 ppb	16:18:46
3	B 249.677†	290.5	784.1	18.450	ug/L	18.450 ppb	16:18:26
3	Ba 233.527†	11.7	-6.7	-0.0550	ug/L	-0.0550 ppb	16:18:46
3	Be 313.107†	-4268.5	-102.0	-0.0375	ug/L	-0.0375 ppb	16:18:26
3	Cd 226.502†	-200.2	-12.8	-0.1467	ug/L	-0.1467 ppb	16:18:46
3	Co 228.616†	-64.5	11.8	0.2479	ug/L	0.2479 ppb	16:18:46
3	Cr 267.716†	101.8	-43.8	-0.5116	ug/L	-0.5116 ppb	16:18:46
3	Cu 324.752†	7931.5	158.1	0.4810	ug/L	0.4810 ppb	16:18:26
3	Mn 257.610†	557.0	9.7	0.0075	ug/L	0.0075 ppb	16:18:46
3	Mo 202.031†	17.1	7.4	0.5467	ug/L	0.5467 ppb	16:18:46
3	Ni 231.604†	121.3	12.7	0.3241	ug/L	0.3241 ppb	16:18:46
3	P 214.914†	224.5	-8.4	-4.7398	ug/L	-4.7398 ppb	16:18:46
3	Pb 220.353†	-52.8	18.7	2.3229	ug/L	2.3229 ppb	16:18:46
3	S 181.975 Axial†	72.8	32.8	42.877	ug/L	42.877 ppb	16:18:46
3	Sb 206.836†	35.6	1.4	0.4486	ug/L	0.4486 ppb	16:18:46
3	Se 196.026†	-22.5	-0.1	-0.0839	ug/L	-0.0839 ppb	16:18:46
3	Si 251.611†	713.6	130.1	4.0480	ug/L	4.0480 ppb	16:18:46
3	Sn 189.927†	4.4	-8.0	-1.4313	ug/L	-1.4313 ppb	16:18:46
3	Ti 334.940†	-1453.8	-19.7	-0.0323	ug/L	-0.0323 ppb	16:18:26
3	Tl 190.801†	-30.9	6.9	2.1858	ug/L	2.1858 ppb	16:18:46
3	U 409.014†	-3243.1	140.9	4.0053	ug/L	4.0053 ppb	16:18:26
3	V 292.402†	-1636.7	-25.6	-0.1666	ug/L	-0.1666 ppb	16:18:26
3	Zn 213.857†	710.9	51.9	0.5060	ug/L	0.5060 ppb	16:18:46
3	SiO2†	823.5	237.3	15.805	ug/L	15.805 ppb	16:19:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	820080.5	96.479	%	0.4256				0.44%
Sc Radial	4277.7	101	%	0.1				0.10%
Y 371.029	670445.5	95.406	%	0.3506				0.37%
Y RADIAL	4409.2	100.2	%	0.29				0.29%
Ag 328.068†	3.9	0.0138	ug/L	0.40908	0.0138	ppb	0.40908	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	35.5	35.448	ug/L	8.1490	35.448	ppb	8.1490	22.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.4	0.1715	ug/L	1.34650	0.1715	ppb	1.34650	785.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	854.6	20.105	ug/L	1.6301	20.105	ppb	1.6301	8.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.0	0.0737	ug/L	0.19395	0.0737	ppb	0.19395	263.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-151.7	-0.0556	ug/L	0.01884	-0.0556	ppb	0.01884	33.87%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	22.2	41.375	ug/L	3.6684	41.375	ppb	3.6684	8.87%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -3.1     -0.0346 ug/L       0.09948     -0.0346 ppb        0.09948 287.34%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.9      0.1449 ug/L       0.20336      0.1449 ppb        0.20336 140.31%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -32.4     -0.3792 ug/L       0.11466     -0.3792 ppb        0.11466  30.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             135.0      0.4104 ug/L       0.26488      0.4104 ppb        0.26488  64.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -3.5748 ug/L      22.30274     -3.5748 ppb       22.30274 623.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       464.2      93.446 ug/L        4.5647      93.446 ppb         4.5647   4.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.5     -20.183 ug/L       63.7983     -20.183 ppb        63.7983 316.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             173.1      0.2002 ug/L       0.27502      0.2002 ppb        0.27502 137.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.7628 ug/L       0.20022      0.7628 ppb        0.20022  26.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1851.7      617.67 ug/L        25.550      617.67 ppb         25.550   4.14%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.4      0.1899 ug/L       0.21454      0.1899 ppb        0.21454 112.99%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.2     -0.7157 ug/L       3.86270     -0.7157 ppb        3.86270 539.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              16.6      2.0712 ug/L       0.25427      2.0712 ppb        0.25427  12.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         61.1      79.827 ug/L       46.3438      79.827 ppb        46.3438  58.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.7      2.2868 ug/L       1.88008      2.2868 ppb        1.88008  82.21%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.5     -0.9013 ug/L       1.41258     -0.9013 ppb        1.41258 156.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             151.1      4.7008 ug/L       1.41120      4.7008 ppb        1.41120  30.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.3     -0.0474 ug/L       1.85547     -0.0474 ppb        1.85547 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.2      0.2024 ug/L       0.37990      0.2024 ppb        0.37990 187.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              31.5      0.0565 ug/L       0.12408      0.0565 ppb        0.12408 219.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.9      0.5963 ug/L       1.88065      0.5963 ppb        1.88065 315.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              168.1      4.7763 ug/L       1.37282      4.7763 ppb        1.37282  28.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               27.7      0.2210 ug/L       0.34804      0.2210 ppb        0.34804 157.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              78.9      0.7690 ug/L       0.26333      0.7690 ppb        0.26333  34.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   202.9      13.505 ug/L        4.6418      13.505 ppb         4.6418  34.37%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
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Analysis Begun

Start Time: 2/16/2010 16:40:44 **Plasma On Time: 2/15/2010 05:50:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021610.sif
Batch ID:
Results Data Set: 021610
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 2/16/2010 16:40:45**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4180.9	4180.9	98.4	%			16:42:37
1	Y RADIAL	4302.4	4302.4	97.73	%			16:42:37
1	Al 396.153Radial†	4732.5	4970.8	4949.1	ug/L	4949.1	ppb	16:42:37
1	Ca 317.933Radial†	2588.5	2613.4	4875.1	ug/L	4875.1	ppb	16:42:57
1	Fe 238.204 Radial†	479.3	477.3	5086.8	ug/L	5086.8	ppb	16:42:57
1	K 766.490 Radial†	27320.8	24606.3	4960.6	ug/L	4960.6	ppb	16:42:37
1	Mg 279.077 IEC†	130.6	130.1	5022.7	ug/L	5022.7	ppb	16:42:57
1	Na 589.592 Radial†	31557.5	31878.4	10633	ug/L	10633	ppb	16:42:37
1	Sr 421.552†	64679.4	65671.7	507.03	ug/L	507.03	ppb	16:42:37
1	Sc 361.383	834359.6	834359.6	98.159	%			16:43:56
1	Y 371.029	673546.0	673546.0	95.847	%			16:43:56
1	Ag 328.068†	99853.4	101498.6	490.54	ug/L	490.54	ppb	16:43:56
1	As 188.979†	1092.7	1141.5	484.67	ug/L	484.67	ppb	16:44:16
1	B 249.677†	20446.2	21311.6	499.17	ug/L	499.17	ppb	16:43:56
1	Ba 233.527†	58930.1	60016.5	488.52	ug/L	488.52	ppb	16:43:56
1	Be 313.107†	1303541.7	1332329.9	490.51	ug/L	490.51	ppb	16:43:56
1	Cd 226.502†	39218.0	40149.0	469.39	ug/L	469.39	ppb	16:44:16
1	Co 228.616†	22717.1	23222.0	484.29	ug/L	484.29	ppb	16:44:16
1	Cr 267.716†	40255.2	40860.5	475.96	ug/L	475.96	ppb	16:43:56
1	Cu 324.752†	167151.4	162192.3	496.59	ug/L	496.59	ppb	16:43:56
1	Mn 257.610†	420299.5	427612.9	493.50	ug/L	493.50	ppb	16:43:56
1	Mo 202.031†	6434.3	6544.5	486.75	ug/L	486.75	ppb	16:44:16
1	Ni 231.604†	18435.2	18667.4	477.86	ug/L	477.86	ppb	16:44:16
1	P 214.914†	4443.0	4284.4	2280.2	ug/L	2280.2	ppb	16:44:16
1	Pb 220.353†	3736.4	3880.0	482.24	ug/L	482.24	ppb	16:44:16
1	S 181.975 Axial†	786.4	758.2	990.02	ug/L	990.02	ppb	16:44:16
1	Sb 206.836†	1428.8	1419.9	497.85	ug/L	497.85	ppb	16:44:16
1	Se 196.026†	791.9	830.0	502.22	ug/L	502.22	ppb	16:44:16
1	Si 251.611†	77647.3	78491.3	2440.0	ug/L	2440.0	ppb	16:43:56
1	Sn 189.927†	2627.7	2664.4	478.57	ug/L	478.57	ppb	16:44:16
1	Ti 334.940†	302298.3	309461.0	502.84	ug/L	502.84	ppb	16:43:56
1	Tl 190.801†	1497.5	1564.7	497.34	ug/L	497.34	ppb	16:44:16
1	U 409.014†	13003.2	16762.2	474.52	ug/L	474.52	ppb	16:43:56
1	V 292.402†	63221.0	66084.1	485.07	ug/L	485.07	ppb	16:43:56
1	Zn 213.857†	49792.0	50038.2	483.89	ug/L	483.89	ppb	16:43:56
1	SiO2†	76576.2	77392.9	5146.8	ug/L	5146.8	ppb	16:45:16
2	Sc Radial	4131.4	4131.4	97.2	%			16:43:02
2	Y RADIAL	4303.2	4303.2	97.75	%			16:43:02
2	Al 396.153Radial†	4669.6	4963.7	4942.2	ug/L	4942.2	ppb	16:43:02
2	Ca 317.933Radial†	2600.5	2657.4	4957.1	ug/L	4957.1	ppb	16:43:22
2	Fe 238.204 Radial†	476.8	480.5	5120.9	ug/L	5120.9	ppb	16:43:22
2	K 766.490 Radial†	27176.0	24790.6	4997.8	ug/L	4997.8	ppb	16:43:02
2	Mg 279.077 IEC†	129.6	130.7	5047.1	ug/L	5047.1	ppb	16:43:22
2	Na 589.592 Radial†	31311.3	32010.0	10677	ug/L	10677	ppb	16:43:02
2	Sr 421.552†	64163.4	65929.8	509.03	ug/L	509.03	ppb	16:43:02
2	Sc 361.383	837219.5	837219.5	98.495	%			16:44:23
2	Y 371.029	674828.3	674828.3	96.030	%			16:44:23

2	Ag 328.068†	100293.9	101598.3	491.03 ug/L	491.03 ppb	16:44:23
2	As 188.979†	1090.5	1135.5	482.16 ug/L	482.16 ppb	16:44:43
2	B 249.677†	20630.6	21427.7	501.91 ug/L	501.91 ppb	16:44:23
2	Ba 233.527†	59149.2	60033.9	488.67 ug/L	488.67 ppb	16:44:23
2	Be 313.107†	1307109.5	1331415.9	490.18 ug/L	490.18 ppb	16:44:23
2	Cd 226.502†	39076.9	39869.4	466.11 ug/L	466.11 ppb	16:44:43
2	Co 228.616†	22663.4	23088.4	481.50 ug/L	481.50 ppb	16:44:43
2	Cr 267.716†	40364.6	40831.6	475.63 ug/L	475.63 ppb	16:44:23
2	Cu 324.752†	168107.8	162581.7	497.79 ug/L	497.79 ppb	16:44:23
2	Mn 257.610†	422119.0	427997.5	493.94 ug/L	493.94 ppb	16:44:23
2	Mo 202.031†	6417.5	6505.1	483.82 ug/L	483.82 ppb	16:44:43
2	Ni 231.604†	18346.3	18513.0	473.91 ug/L	473.91 ppb	16:44:43
2	P 214.914†	4426.9	4252.5	2262.3 ug/L	2262.3 ppb	16:44:43
2	Pb 220.353†	3742.4	3873.2	481.38 ug/L	481.38 ppb	16:44:43
2	S 181.975 Axial†	793.5	762.7	995.88 ug/L	995.88 ppb	16:44:43
2	Sb 206.836†	1415.4	1401.3	491.46 ug/L	491.46 ppb	16:44:43
2	Se 196.026†	796.3	831.8	503.34 ug/L	503.34 ppb	16:44:43
2	Si 251.611†	77927.8	78505.9	2440.5 ug/L	2440.5 ppb	16:44:23
2	Sn 189.927†	2627.2	2654.7	476.85 ug/L	476.85 ppb	16:44:43
2	Ti 334.940†	303434.0	309562.2	503.01 ug/L	503.01 ppb	16:44:23
2	Tl 190.801†	1475.6	1537.2	488.69 ug/L	488.69 ppb	16:44:43
2	U 409.014†	12967.5	16680.7	472.21 ug/L	472.21 ppb	16:44:23
2	V 292.402†	63493.1	66140.3	485.42 ug/L	485.42 ppb	16:44:23
2	Zn 213.857†	49956.9	50032.3	483.85 ug/L	483.85 ppb	16:44:23
2	SiO2†	78033.2	78605.7	5227.7 ug/L	5227.7 ppb	16:45:21
3	Sc Radial	4145.8	4145.8	97.5 %		16:43:27
3	Y RADIAL	4268.6	4268.6	96.97 %		16:43:27
3	Al 396.153Radial†	4672.0	4949.5	4927.9 ug/L	4927.9 ppb	16:43:27
3	Ca 317.933Radial†	2607.2	2655.0	4952.5 ug/L	4952.5 ppb	16:43:47
3	Fe 238.204 Radial†	474.7	476.7	5080.5 ug/L	5080.5 ppb	16:43:47
3	K 766.490 Radial†	27047.5	24561.8	4951.6 ug/L	4951.6 ppb	16:43:27
3	Mg 279.077 IEC†	129.6	130.1	5025.6 ug/L	5025.6 ppb	16:43:47
3	Na 589.592 Radial†	31122.2	31704.4	10575 ug/L	10575 ppb	16:43:27
3	Sr 421.552†	63965.5	65497.8	505.69 ug/L	505.69 ppb	16:43:27
3	Sc 361.383	833075.2	833075.2	98.008 %		16:44:50
3	Y 371.029	670955.9	670955.9	95.479 %		16:44:50
3	Ag 328.068†	99748.4	101548.2	490.78 ug/L	490.78 ppb	16:44:50
3	As 188.979†	1079.4	1129.6	479.68 ug/L	479.68 ppb	16:45:11
3	B 249.677†	20437.1	21334.4	499.72 ug/L	499.72 ppb	16:44:50
3	Ba 233.527†	58855.1	60032.5	488.65 ug/L	488.65 ppb	16:44:50
3	Be 313.107†	1296919.3	1327620.3	488.78 ug/L	488.78 ppb	16:44:50
3	Cd 226.502†	39003.4	39991.7	467.55 ug/L	467.55 ppb	16:45:11
3	Co 228.616†	22636.4	23175.4	483.32 ug/L	483.32 ppb	16:45:11
3	Cr 267.716†	40152.2	40818.7	475.47 ug/L	475.47 ppb	16:44:50
3	Cu 324.752†	166968.5	162268.3	496.82 ug/L	496.82 ppb	16:44:50
3	Mn 257.610†	419920.4	427886.2	493.81 ug/L	493.81 ppb	16:44:50
3	Mo 202.031†	6402.6	6522.3	485.10 ug/L	485.10 ppb	16:45:11
3	Ni 231.604†	18360.6	18620.3	476.65 ug/L	476.65 ppb	16:45:11
3	P 214.914†	4426.6	4274.6	2274.8 ug/L	2274.8 ppb	16:45:11
3	Pb 220.353†	3727.5	3876.8	481.83 ug/L	481.83 ppb	16:45:11
3	S 181.975 Axial†	784.3	757.3	988.88 ug/L	988.88 ppb	16:45:11
3	Sb 206.836†	1412.1	1405.1	492.79 ug/L	492.79 ppb	16:45:11
3	Se 196.026†	789.2	828.6	501.37 ug/L	501.37 ppb	16:45:11
3	Si 251.611†	77417.2	78378.6	2436.5 ug/L	2436.5 ppb	16:44:50
3	Sn 189.927†	2616.7	2657.3	477.32 ug/L	477.32 ppb	16:45:11
3	Ti 334.940†	301814.6	309442.4	502.82 ug/L	502.82 ppb	16:44:50
3	Tl 190.801†	1489.7	1559.1	495.58 ug/L	495.58 ppb	16:45:11
3	U 409.014†	12931.0	16709.1	473.02 ug/L	473.02 ppb	16:44:50
3	V 292.402†	63209.7	66171.8	485.68 ug/L	485.68 ppb	16:44:50
3	Zn 213.857†	49673.7	49995.6	483.48 ug/L	483.48 ppb	16:44:50
3	SiO2†	77388.4	78341.9	5210.1 ug/L	5210.1 ppb	16:45:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	834884.8	98.221	%	0.2496				0.25%
Sc Radial	4152.7	97.7	%	0.60				0.61%
Y 371.029	673110.1	95.785	%	0.2807				0.29%
Y RADIAL	4291.4	97.48	%	0.448				0.46%
Ag 328.068†	101548.4	490.78	ug/L	0.246	490.78	ppb	0.246	0.05%

```
   QC value within limits for Ag 328.068  Recovery = 98.16%
Al 396.153Radial†       4961.3      4939.7 ug/L        10.82      4939.7 ppb        10.82   0.22%
   QC value within limits for Al 396.153Radial  Recovery = 98.79%
As 188.979†             1135.5      482.17 ug/L        2.491      482.17 ppb        2.491   0.52%
   QC value within limits for As 188.979  Recovery = 96.43%
B 249.677†             21357.9      500.27 ug/L        1.447      500.27 ppb        1.447   0.29%
   QC value within limits for B 249.677  Recovery = 100.05%
Ba 233.527†            60027.6      488.62 ug/L        0.079      488.62 ppb        0.079   0.02%
   QC value within limits for Ba 233.527  Recovery = 97.72%
Be 313.107†          1330455.4      489.83 ug/L        0.917      489.83 ppb        0.917   0.19%
   QC value within limits for Be 313.107  Recovery = 97.97%
Ca 317.933Radial†       2641.9      4928.2 ug/L        46.10      4928.2 ppb        46.10   0.94%
   QC value within limits for Ca 317.933Radial  Recovery = 98.56%
Cd 226.502†            40003.4      467.68 ug/L        1.643      467.68 ppb        1.643   0.35%
   QC value within limits for Cd 226.502  Recovery = 93.54%
Co 228.616†            23162.0      483.04 ug/L        1.418      483.04 ppb        1.418   0.29%
   QC value within limits for Co 228.616  Recovery = 96.61%
Cr 267.716†            40836.9      475.69 ug/L        0.248      475.69 ppb        0.248   0.05%
   QC value within limits for Cr 267.716  Recovery = 95.14%
Cu 324.752†           162347.5      497.07 ug/L        0.634      497.07 ppb        0.634   0.13%
   QC value within limits for Cu 324.752  Recovery = 99.41%
Fe 238.204 Radial†       478.2      5096.0 ug/L        21.72      5096.0 ppb        21.72   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.92%
K 766.490 Radial†      24652.9      4970.0 ug/L        24.46      4970.0 ppb        24.46   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 99.40%
Mg 279.077 IEC†          130.3      5031.8 ug/L        13.31      5031.8 ppb        13.31   0.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.64%
Mn 257.610†           427832.2      493.75 ug/L        0.229      493.75 ppb        0.229   0.05%
   QC value within limits for Mn 257.610  Recovery = 98.75%
Mo 202.031†            6523.9      485.22 ug/L        1.467      485.22 ppb        1.467   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.04%
Na 589.592 Radial†     31864.3       10629 ug/L         51.1       10629 ppb         51.1   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 106.29%
Ni 231.604†            18600.3      476.14 ug/L        2.026      476.14 ppb        2.026   0.43%
   QC value within limits for Ni 231.604  Recovery = 95.23%
P 214.914†              4270.5      2272.4 ug/L        9.21       2272.4 ppb        9.21    0.41%
   QC value within limits for P 214.914  Recovery = 90.90%
Pb 220.353†             3876.7      481.82 ug/L        0.431      481.82 ppb        0.431   0.09%
   QC value within limits for Pb 220.353  Recovery = 96.36%
S 181.975 Axial†         759.4      991.59 ug/L        3.755      991.59 ppb        3.755   0.38%
   QC value within limits for S 181.975 Axial  Recovery = 99.16%
Sb 206.836†             1408.8      494.03 ug/L        3.370      494.03 ppb        3.370   0.68%
   QC value within limits for Sb 206.836  Recovery = 98.81%
Se 196.026†              830.1      502.31 ug/L        0.988      502.31 ppb        0.988   0.20%
   QC value within limits for Se 196.026  Recovery = 100.46%
Si 251.611†            78458.6      2439.0 ug/L        2.17       2439.0 ppb        2.17    0.09%
   QC value within limits for Si 251.611  Recovery = 97.56%
Sn 189.927†             2658.8      477.58 ug/L        0.891      477.58 ppb        0.891   0.19%
   QC value within limits for Sn 189.927  Recovery = 95.52%
Sr 421.552†            65699.8      507.25 ug/L        1.678      507.25 ppb        1.678   0.33%
   QC value within limits for Sr 421.552  Recovery = 101.45%
Ti 334.940†           309488.5      502.89 ug/L        0.107      502.89 ppb        0.107   0.02%
   QC value within limits for Ti 334.940  Recovery = 100.58%
Tl 190.801†             1553.6      493.87 ug/L        4.570      493.87 ppb        4.570   0.93%
   QC value within limits for Tl 190.801  Recovery = 98.77%
U 409.014†             16717.3      473.25 ug/L        1.176      473.25 ppb        1.176   0.25%
   QC value within limits for U 409.014  Recovery = 94.65%
V 292.402†             66132.1      485.39 ug/L        0.307      485.39 ppb        0.307   0.06%
   QC value within limits for V 292.402  Recovery = 97.08%
Zn 213.857†            50022.0      483.74 ug/L        0.224      483.74 ppb        0.224   0.05%
   QC value within limits for Zn 213.857  Recovery = 96.75%
SiO2†                  78113.5      5194.9 ug/L        42.57      5194.9 ppb        42.57   0.82%
   QC value within limits for SiO2  Recovery = 97.15%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/16/2010 16:47:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4240.9	4240.9	99.8	%			16:49:28
1	Y RADIAL	4402.2	4402.2	100.00	%			16:49:28
1	Al 396.153Radial†	-119.2	39.5	39.495	ug/L	39.495	ppb	16:49:48
1	Ca 317.933Radial†	27.2	8.9	16.603	ug/L	16.603	ppb	16:49:48
1	Fe 238.204 Radial†	10.9	0.9	9.4012	ug/L	9.4012	ppb	16:49:48
1	K 766.490 Radial†	3573.8	410.7	82.722	ug/L	82.722	ppb	16:49:28
1	Mg 279.077 IEC†	3.0	0.3	12.598	ug/L	12.598	ppb	16:49:48
1	Na 589.592 Radial†	1540.3	1336.9	445.93	ug/L	445.93	ppb	16:49:28
1	Sr 421.552†	99.6	10.0	0.0775	ug/L	0.0775	ppb	16:49:28
1	Sc 361.383	820213.7	820213.7	96.495	%			16:50:45
1	Y 371.029	671016.5	671016.5	95.487	%			16:50:45
1	Ag 328.068†	192.3	-28.4	-0.1359	ug/L	-0.1359	ppb	16:50:45
1	As 188.979†	-28.2	-0.9	-0.3948	ug/L	-0.3948	ppb	16:51:05
1	B 249.677†	227.9	718.1	16.893	ug/L	16.893	ppb	16:50:45
1	Ba 233.527†	3.7	-15.0	-0.1213	ug/L	-0.1213	ppb	16:51:05
1	Be 313.107†	-4294.6	-111.5	-0.0407	ug/L	-0.0407	ppb	16:50:45
1	Cd 226.502†	-208.1	-20.1	-0.2360	ug/L	-0.2360	ppb	16:51:05
1	Co 228.616†	-80.6	-4.6	-0.0943	ug/L	-0.0943	ppb	16:51:05
1	Cr 267.716†	86.0	-60.5	-0.7052	ug/L	-0.7052	ppb	16:51:05
1	Cu 324.752†	7789.3	-21.9	-0.0684	ug/L	-0.0684	ppb	16:50:45
1	Mn 257.610†	509.3	-41.9	-0.0479	ug/L	-0.0479	ppb	16:51:05
1	Mo 202.031†	24.9	15.3	1.1402	ug/L	1.1402	ppb	16:51:05
1	Ni 231.604†	83.8	-26.7	-0.6827	ug/L	-0.6827	ppb	16:51:05
1	P 214.914†	236.5	3.1	1.7462	ug/L	1.7462	ppb	16:51:05
1	Pb 220.353†	-66.6	4.5	0.5720	ug/L	0.5720	ppb	16:51:05
1	S 181.975 Axial†	60.4	19.7	25.740	ug/L	25.740	ppb	16:51:05
1	Sb 206.836†	39.7	5.5	1.8956	ug/L	1.8956	ppb	16:51:05
1	Se 196.026†	-26.0	-3.7	-2.0951	ug/L	-2.0951	ppb	16:51:05
1	Si 251.611†	565.7	-26.0	-0.8254	ug/L	-0.8254	ppb	16:51:05
1	Sn 189.927†	20.8	8.9	1.6051	ug/L	1.6051	ppb	16:51:05
1	Ti 334.940†	-1374.3	68.7	0.1116	ug/L	0.1116	ppb	16:50:45
1	Tl 190.801†	-33.4	4.5	1.4059	ug/L	1.4059	ppb	16:51:05
1	U 409.014†	-3274.9	121.3	3.4454	ug/L	3.4454	ppb	16:50:45
1	V 292.402†	-1609.8	9.0	0.0870	ug/L	0.0870	ppb	16:50:45
1	Zn 213.857†	687.1	24.3	0.2404	ug/L	0.2404	ppb	16:51:05
1	SiO2†	572.9	-25.8	-1.7501	ug/L	-1.7501	ppb	16:52:01
2	Sc Radial	4240.1	4240.1	99.7	%			16:49:53
2	Y RADIAL	4345.3	4345.3	98.71	%			16:49:53
2	Al 396.153Radial†	-138.1	20.6	20.572	ug/L	20.572	ppb	16:50:13
2	Ca 317.933Radial†	18.9	0.7	1.2505	ug/L	1.2505	ppb	16:50:13
2	Fe 238.204 Radial†	11.0	1.0	10.551	ug/L	10.551	ppb	16:50:13
2	K 766.490 Radial†	3454.1	291.2	58.620	ug/L	58.620	ppb	16:49:53
2	Mg 279.077 IEC†	2.0	-0.7	-28.275	ug/L	-28.275	ppb	16:50:13
2	Na 589.592 Radial†	1518.4	1315.2	438.70	ug/L	438.70	ppb	16:49:53
2	Sr 421.552†	65.4	-24.3	-0.1873	ug/L	-0.1873	ppb	16:49:53
2	Sc 361.383	819718.1	819718.1	96.436	%			16:51:10
2	Y 371.029	670897.6	670897.6	95.470	%			16:51:10
2	Ag 328.068†	172.9	-48.4	-0.2305	ug/L	-0.2305	ppb	16:51:10
2	As 188.979†	-38.0	-11.1	-4.6790	ug/L	-4.6790	ppb	16:51:30
2	B 249.677†	216.4	706.3	16.615	ug/L	16.615	ppb	16:51:10
2	Ba 233.527†	2.4	-16.4	-0.1318	ug/L	-0.1318	ppb	16:51:30
2	Be 313.107†	-4270.7	-89.4	-0.0318	ug/L	-0.0318	ppb	16:51:10
2	Cd 226.502†	-197.7	-9.5	-0.1115	ug/L	-0.1115	ppb	16:51:30
2	Co 228.616†	-62.2	14.3	0.3003	ug/L	0.3003	ppb	16:51:30
2	Cr 267.716†	78.6	-68.2	-0.7939	ug/L	-0.7939	ppb	16:51:30
2	Cu 324.752†	7818.5	13.3	0.0390	ug/L	0.0390	ppb	16:51:10
2	Mn 257.610†	486.7	-65.1	-0.0729	ug/L	-0.0729	ppb	16:51:30
2	Mo 202.031†	23.9	14.3	1.0612	ug/L	1.0612	ppb	16:51:30
2	Ni 231.604†	77.7	-33.0	-0.8450	ug/L	-0.8450	ppb	16:51:30

2	P 214.914†	251.1	18.4	10.219	ug/L	10.219 ppb	16:51:30
2	Pb 220.353†	-71.8	-0.9	-0.1068	ug/L	-0.1068 ppb	16:51:30
2	S 181.975 Axial†	85.3	45.5	59.497	ug/L	59.497 ppb	16:51:30
2	Sb 206.836†	51.9	18.1	6.1815	ug/L	6.1815 ppb	16:51:30
2	Se 196.026†	-12.3	10.6	6.2363	ug/L	6.2363 ppb	16:51:30
2	Si 251.611†	590.3	-0.2	-0.0186	ug/L	-0.0186 ppb	16:51:30
2	Sn 189.927†	21.6	9.8	1.7618	ug/L	1.7618 ppb	16:51:30
2	Ti 334.940†	-1156.1	294.1	0.4788	ug/L	0.4788 ppb	16:51:10
2	Tl 190.801†	-24.4	13.8	4.3661	ug/L	4.3661 ppb	16:51:30
2	U 409.014†	-3242.4	152.9	4.3444	ug/L	4.3444 ppb	16:51:10
2	V 292.402†	-1561.9	57.6	0.4385	ug/L	0.4385 ppb	16:51:10
2	Zn 213.857†	671.5	8.6	0.0876	ug/L	0.0876 ppb	16:51:30
2	SiO2†	545.6	-53.7	-3.6106	ug/L	-3.6106 ppb	16:52:06
3	Sc Radial	4240.4	4240.4	99.8	%		16:50:18
3	Y RADIAL	4376.1	4376.1	99.41	%		16:50:18
3	Al 396.153Radial†	-142.7	16.0	15.960	ug/L	15.960 ppb	16:50:38
3	Ca 317.933Radial†	23.8	5.5	10.352	ug/L	10.352 ppb	16:50:38
3	Fe 238.204 Radial†	8.1	-1.9	-20.118	ug/L	-20.118 ppb	16:50:38
3	K 766.490 Radial†	3493.7	330.8	66.610	ug/L	66.610 ppb	16:50:18
3	Mg 279.077 IEC†	0.6	-2.1	-80.215	ug/L	-80.215 ppb	16:50:38
3	Na 589.592 Radial†	1429.2	1225.7	408.84	ug/L	408.84 ppb	16:50:18
3	Sr 421.552†	4.7	-85.1	-0.6571	ug/L	-0.6571 ppb	16:50:18
3	Sc 361.383	822405.2	822405.2	96.753	%		16:51:36
3	Y 371.029	671625.6	671625.6	95.574	%		16:51:36
3	Ag 328.068†	222.4	2.2	-0.0023	ug/L	-0.0023 ppb	16:51:36
3	As 188.979†	-32.8	-5.5	-2.3382	ug/L	-2.3382 ppb	16:51:56
3	B 249.677†	236.5	726.4	17.093	ug/L	17.093 ppb	16:51:36
3	Ba 233.527†	14.4	-3.9	-0.0328	ug/L	-0.0328 ppb	16:51:56
3	Be 313.107†	-4286.5	-91.2	-0.0335	ug/L	-0.0335 ppb	16:51:36
3	Cd 226.502†	-205.1	-16.5	-0.1901	ug/L	-0.1901 ppb	16:51:56
3	Co 228.616†	-84.9	-8.9	-0.1851	ug/L	-0.1851 ppb	16:51:56
3	Cr 267.716†	85.9	-60.9	-0.7118	ug/L	-0.7118 ppb	16:51:56
3	Cu 324.752†	7811.5	-20.5	-0.0673	ug/L	-0.0673 ppb	16:51:36
3	Mn 257.610†	486.9	-66.5	-0.0754	ug/L	-0.0754 ppb	16:51:56
3	Mo 202.031†	11.2	1.1	0.0805	ug/L	0.0805 ppb	16:51:56
3	Ni 231.604†	72.2	-38.9	-0.9951	ug/L	-0.9951 ppb	16:51:56
3	P 214.914†	238.9	5.0	2.7984	ug/L	2.7984 ppb	16:51:56
3	Pb 220.353†	-84.6	-13.9	-1.7179	ug/L	-1.7179 ppb	16:51:56
3	S 181.975 Axial†	70.1	29.5	38.541	ug/L	38.541 ppb	16:51:56
3	Sb 206.836†	39.1	4.8	1.6410	ug/L	1.6410 ppb	16:51:56
3	Se 196.026†	-18.2	4.5	2.5436	ug/L	2.5436 ppb	16:51:56
3	Si 251.611†	567.8	-25.4	-0.7933	ug/L	-0.7933 ppb	16:51:56
3	Sn 189.927†	20.2	8.3	1.4895	ug/L	1.4895 ppb	16:51:56
3	Ti 334.940†	-1431.6	13.2	0.0268	ug/L	0.0268 ppb	16:51:36
3	Tl 190.801†	-29.2	8.9	2.8219	ug/L	2.8219 ppb	16:51:56
3	U 409.014†	-3177.7	230.8	6.5593	ug/L	6.5593 ppb	16:51:36
3	V 292.402†	-1638.7	-16.4	-0.1036	ug/L	-0.1036 ppb	16:51:36
3	Zn 213.857†	682.5	17.7	0.1822	ug/L	0.1822 ppb	16:51:56
3	SiO2†	702.6	106.7	7.1093	ug/L	7.1093 ppb	16:52:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	820779.0	96.561	%	0.1682				0.17%
Sc Radial	4240.5	99.8	%	0.01				0.01%
Y 371.029	671179.9	95.511	%	0.0556				0.06%
Y RADIAL	4374.5	99.37	%	0.647				0.65%
Ag 328.068†	-24.9	-0.1229	ug/L	0.11464	-0.1229	ppb	0.11464	93.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.4	25.342	ug/L	12.4720	25.342	ppb	12.4720	49.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.9	-2.4707	ug/L	2.14519	-2.4707	ppb	2.14519	86.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	716.9	16.867	ug/L	0.2400	16.867	ppb	0.2400	1.42%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.8	-0.0953	ug/L	0.05440	-0.0953	ppb	0.05440	57.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-97.4	-0.0353	ug/L	0.00475	-0.0353	ppb	0.00475	13.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.0	9.4020	ug/L	7.72045	9.4020	ppb	7.72045	82.11%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -15.4     -0.1792 ug/L       0.06296     -0.1792 ppb        0.06296  35.13%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                0.3      0.0070 ug/L       0.25809      0.0070 ppb        0.25809 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -63.2     -0.7370 ug/L       0.04941     -0.7370 ppb        0.04941   6.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -9.7     -0.0322 ug/L       0.06172     -0.0322 ppb        0.06172 191.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.0     -0.0554 ug/L      17.38448     -0.0554 ppb       17.38448 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        344.2      69.317 ug/L       12.2767      69.317 ppb        12.2767  17.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -31.964 ug/L       46.5163     -31.964 ppb        46.5163 145.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -57.8     -0.0654 ug/L       0.01520     -0.0654 ppb        0.01520  23.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.2      0.7607 ug/L       0.59033      0.7607 ppb        0.59033  77.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1292.6      431.15 ug/L        19.662      431.15 ppb         19.662   4.56%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -32.8     -0.8409 ug/L       0.15622     -0.8409 ppb        0.15622  18.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 8.8      4.9212 ug/L       4.61812      4.9212 ppb        4.61812  93.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.4     -0.4176 ug/L       1.17619     -0.4176 ppb        1.17619 281.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          31.6      41.259 ug/L       17.0419      41.259 ppb        17.0419  41.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                9.5      3.2394 ug/L       2.55115      3.2394 ppb        2.55115  78.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.8      2.2283 ug/L       4.17463      2.2283 ppb        4.17463 187.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -17.2     -0.5458 ug/L       0.45682     -0.5458 ppb        0.45682  83.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.0      1.6188 ug/L       0.13667      1.6188 ppb        0.13667   8.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -33.1     -0.2556 ug/L       0.37200     -0.2556 ppb        0.37200 145.52%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              125.3      0.2057 ug/L       0.24026      0.2057 ppb        0.24026 116.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.1      2.8646 ug/L       1.48054      2.8646 ppb        1.48054  51.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               168.3      4.7830 ug/L       1.60264      4.7830 ppb        1.60264  33.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                16.7      0.1406 ug/L       0.27500      0.1406 ppb        0.27500 195.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               16.9      0.1701 ug/L       0.07716      0.1701 ppb        0.07716  45.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      9.1      0.5829 ug/L       5.72808      0.5829 ppb        5.72808 982.69%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/16/2010 17:42:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4291.2	4291.2	101	%			17:43:57
1	Y RADIAL	4423.9	4423.9	100.5	%			17:43:57
1	Al 396.153Radial†	4851.5	4965.0	4943.5	ug/L	4943.5	ppb	17:43:57
1	Ca 317.933Radial†	2638.3	2595.2	4841.0	ug/L	4841.0	ppb	17:44:17
1	Fe 238.204 Radial†	481.0	466.4	4972.0	ug/L	4972.0	ppb	17:44:17
1	K 766.490 Radial†	27833.3	24400.2	4919.1	ug/L	4919.1	ppb	17:43:57
1	Mg 279.077 IEC†	124.6	120.7	4661.6	ug/L	4661.6	ppb	17:44:17
1	Na 589.592 Radial†	31665.3	31160.7	10394	ug/L	10394	ppb	17:43:57
1	Sr 421.552†	65763.6	65055.9	502.28	ug/L	502.28	ppb	17:43:57
1	Sc 361.383	827279.9	827279.9	97.326	%			17:45:14
1	Y 371.029	665724.3	665724.3	94.734	%			17:45:14
1	Ag 328.068†	100688.5	103227.1	498.79	ug/L	498.79	ppb	17:45:20
1	As 188.979†	1068.8	1126.5	478.32	ug/L	478.32	ppb	17:45:40
1	B 249.677†	20618.6	21667.0	507.53	ug/L	507.53	ppb	17:45:20
1	Ba 233.527†	59085.3	60689.8	494.00	ug/L	494.00	ppb	17:45:20
1	Be 313.107†	1289047.9	1328802.5	489.21	ug/L	489.21	ppb	17:45:14
1	Cd 226.502†	39765.1	41053.1	479.98	ug/L	479.98	ppb	17:45:20
1	Co 228.616†	22929.2	23638.0	492.97	ug/L	492.97	ppb	17:45:20
1	Cr 267.716†	39984.4	40933.3	476.80	ug/L	476.80	ppb	17:45:20
1	Cu 324.752†	167829.2	164346.1	503.16	ug/L	503.16	ppb	17:45:20
1	Mn 257.610†	418135.5	429053.7	495.16	ug/L	495.16	ppb	17:45:14
1	Mo 202.031†	6333.8	6497.3	483.23	ug/L	483.23	ppb	17:45:40
1	Ni 231.604†	18495.3	18889.9	483.55	ug/L	483.55	ppb	17:45:20
1	P 214.914†	4356.9	4234.6	2251.4	ug/L	2251.4	ppb	17:45:40
1	Pb 220.353†	3651.7	3825.6	475.49	ug/L	475.49	ppb	17:45:40
1	S 181.975 Axial†	786.9	765.6	999.70	ug/L	999.70	ppb	17:45:40
1	Sb 206.836†	1412.1	1415.2	496.17	ug/L	496.17	ppb	17:45:40
1	Se 196.026†	774.8	819.4	495.64	ug/L	495.64	ppb	17:45:40
1	Si 251.611†	78232.2	79769.3	2479.9	ug/L	2479.9	ppb	17:45:20
1	Sn 189.927†	2587.0	2645.4	475.17	ug/L	475.17	ppb	17:45:40
1	Ti 334.940†	297348.4	307010.6	498.87	ug/L	498.87	ppb	17:45:20
1	Tl 190.801†	1474.4	1554.0	493.92	ug/L	493.92	ppb	17:45:40
1	U 409.014†	13831.8	17727.0	501.94	ug/L	501.94	ppb	17:45:20
1	V 292.402†	63201.8	66615.6	488.93	ug/L	488.93	ppb	17:45:20
1	Zn 213.857†	49924.1	50608.0	489.42	ug/L	489.42	ppb	17:45:20
1	SiO2†	77529.0	79039.5	5256.7	ug/L	5256.7	ppb	17:46:47
2	Sc Radial	4245.0	4245.0	99.9	%			17:44:22
2	Y RADIAL	4317.4	4317.4	98.07	%			17:44:22
2	Al 396.153Radial†	4736.1	4901.8	4880.2	ug/L	4880.2	ppb	17:44:22
2	Ca 317.933Radial†	2628.9	2614.2	4876.5	ug/L	4876.5	ppb	17:44:42
2	Fe 238.204 Radial†	486.3	476.9	5082.8	ug/L	5082.8	ppb	17:44:42
2	K 766.490 Radial†	27442.5	24309.1	4900.8	ug/L	4900.8	ppb	17:44:22
2	Mg 279.077 IEC†	131.7	129.1	4987.1	ug/L	4987.1	ppb	17:44:42
2	Na 589.592 Radial†	30980.6	30816.7	10279	ug/L	10279	ppb	17:44:22
2	Sr 421.552†	64409.3	64409.3	497.29	ug/L	497.29	ppb	17:44:22
2	Sc 361.383	826741.1	826741.1	97.263	%			17:45:46
2	Y 371.029	665697.4	665697.4	94.730	%			17:45:46
2	Ag 328.068†	98514.3	101059.2	488.39	ug/L	488.39	ppb	17:45:51
2	As 188.979†	1072.1	1130.5	479.95	ug/L	479.95	ppb	17:46:11
2	B 249.677†	20275.1	21327.6	499.56	ug/L	499.56	ppb	17:45:51
2	Ba 233.527†	57837.7	59446.7	483.89	ug/L	483.89	ppb	17:45:51
2	Be 313.107†	1293013.1	1333742.6	491.00	ug/L	491.00	ppb	17:45:46
2	Cd 226.502†	38944.7	40236.3	470.41	ug/L	470.41	ppb	17:45:51
2	Co 228.616†	22435.9	23146.2	482.74	ug/L	482.74	ppb	17:45:51
2	Cr 267.716†	39373.7	40332.1	469.80	ug/L	469.80	ppb	17:45:51
2	Cu 324.752†	163796.3	160312.0	490.82	ug/L	490.82	ppb	17:45:51
2	Mn 257.610†	418678.9	429892.4	496.13	ug/L	496.13	ppb	17:45:46
2	Mo 202.031†	6353.9	6522.3	485.10	ug/L	485.10	ppb	17:46:11
2	Ni 231.604†	18066.6	18461.5	472.59	ug/L	472.59	ppb	17:45:51

2	P 214.914†	4395.7	4277.4	2277.5 ug/L	2277.5 ppb	17:46:11
2	Pb 220.353†	3689.2	3866.5	480.55 ug/L	480.55 ppb	17:46:11
2	S 181.975 Axial†	787.5	766.7	1001.2 ug/L	1001.2 ppb	17:46:11
2	Sb 206.836†	1423.1	1427.5	500.40 ug/L	500.40 ppb	17:46:11
2	Se 196.026†	781.1	826.4	500.06 ug/L	500.06 ppb	17:46:11
2	Si 251.611†	76403.4	77941.4	2422.9 ug/L	2422.9 ppb	17:45:51
2	Sn 189.927†	2600.7	2661.3	478.03 ug/L	478.03 ppb	17:46:11
2	Ti 334.940†	290915.8	300596.2	488.43 ug/L	488.43 ppb	17:45:51
2	Tl 190.801†	1475.3	1555.9	494.50 ug/L	494.50 ppb	17:46:11
2	U 409.014†	13508.2	17403.5	492.76 ug/L	492.76 ppb	17:45:51
2	V 292.402†	61990.0	65411.9	480.23 ug/L	480.23 ppb	17:45:51
2	Zn 213.857†	48937.4	49626.9	479.92 ug/L	479.92 ppb	17:45:51
2	SiO2†	76681.9	78220.5	5202.0 ug/L	5202.0 ppb	17:46:52
3	Sc Radial	4245.6	4245.6	99.9 %		17:44:47
3	Y RADIAL	4367.2	4367.2	99.20 %		17:44:47
3	Al 396.153Radial†	4766.4	4931.4	4909.9 ug/L	4909.9 ppb	17:44:47
3	Ca 317.933Radial†	2603.4	2588.4	4828.3 ug/L	4828.3 ppb	17:45:07
3	Fe 238.204 Radial†	477.3	467.8	4986.9 ug/L	4986.9 ppb	17:45:07
3	K 766.490 Radial†	27587.9	24450.9	4929.4 ug/L	4929.4 ppb	17:44:47
3	Mg 279.077 IEC†	128.0	125.4	4843.5 ug/L	4843.5 ppb	17:45:07
3	Na 589.592 Radial†	31252.7	31084.8	10369 ug/L	10369 ppb	17:44:47
3	Sr 421.552†	64767.1	64758.4	499.98 ug/L	499.98 ppb	17:44:47
3	Sc 361.383	827186.1	827186.1	97.315 %		17:46:17
3	Y 371.029	664886.4	664886.4	94.615 %		17:46:17
3	Ag 328.068†	100893.6	103449.6	499.88 ug/L	499.88 ppb	17:46:22
3	As 188.979†	1081.6	1139.7	483.88 ug/L	483.88 ppb	17:46:42
3	B 249.677†	20801.3	21857.2	511.99 ug/L	511.99 ppb	17:46:22
3	Ba 233.527†	59243.4	60859.1	495.38 ug/L	495.38 ppb	17:46:22
3	Be 313.107†	1293600.7	1333631.2	490.99 ug/L	490.99 ppb	17:46:17
3	Cd 226.502†	39945.8	41243.4	482.20 ug/L	482.20 ppb	17:46:22
3	Co 228.616†	23038.8	23753.4	495.38 ug/L	495.38 ppb	17:46:22
3	Cr 267.716†	40181.7	41140.7	479.22 ug/L	479.22 ppb	17:46:22
3	Cu 324.752†	168061.8	164604.7	503.96 ug/L	503.96 ppb	17:46:22
3	Mn 257.610†	419779.7	430792.0	497.16 ug/L	497.16 ppb	17:46:17
3	Mo 202.031†	6352.1	6516.9	484.69 ug/L	484.69 ppb	17:46:42
3	Ni 231.604†	18546.3	18944.5	484.95 ug/L	484.95 ppb	17:46:22
3	P 214.914†	4388.7	4267.8	2269.6 ug/L	2269.6 ppb	17:46:42
3	Pb 220.353†	3673.2	3848.1	478.28 ug/L	478.28 ppb	17:46:42
3	S 181.975 Axial†	779.5	758.1	989.88 ug/L	989.88 ppb	17:46:42
3	Sb 206.836†	1405.9	1409.0	494.12 ug/L	494.12 ppb	17:46:42
3	Se 196.026†	779.9	824.8	498.82 ug/L	498.82 ppb	17:46:42
3	Si 251.611†	78366.1	79916.0	2484.4 ug/L	2484.4 ppb	17:46:22
3	Sn 189.927†	2591.6	2650.5	476.08 ug/L	476.08 ppb	17:46:42
3	Ti 334.940†	298045.7	307761.9	500.07 ug/L	500.07 ppb	17:46:22
3	Tl 190.801†	1466.5	1546.1	491.41 ug/L	491.41 ppb	17:46:42
3	U 409.014†	13687.1	17579.9	497.76 ug/L	497.76 ppb	17:46:22
3	V 292.402†	63487.7	66916.7	491.13 ug/L	491.13 ppb	17:46:22
3	Zn 213.857†	50156.6	50852.7	491.80 ug/L	491.80 ppb	17:46:22
3	SiO2†	77006.3	78511.5	5221.4 ug/L	5221.4 ppb	17:46:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	827069.1	97.301	%	0.0339				0.03%
Sc Radial	4260.6	100	%	0.6				0.62%
Y 371.029	665436.0	94.693	%	0.0678				0.07%
Y RADIAL	4369.5	99.26	%	1.210				1.22%
Ag 328.068†	102578.7	495.69	ug/L	6.341	495.69	ppb	6.341	1.28%
QC value within limits for Ag 328.068 Recovery = 99.14%								
Al 396.153Radial†	4932.7	4911.2	ug/L	31.68	4911.2	ppb	31.68	0.65%
QC value within limits for Al 396.153Radial Recovery = 98.22%								
As 188.979†	1132.3	480.72	ug/L	2.860	480.72	ppb	2.860	0.59%
QC value within limits for As 188.979 Recovery = 96.14%								
B 249.677†	21617.3	506.36	ug/L	6.300	506.36	ppb	6.300	1.24%
QC value within limits for B 249.677 Recovery = 101.27%								
Ba 233.527†	60331.8	491.09	ug/L	6.273	491.09	ppb	6.273	1.28%
QC value within limits for Ba 233.527 Recovery = 98.22%								
Be 313.107†	1332058.8	490.40	ug/L	1.030	490.40	ppb	1.030	0.21%
QC value within limits for Be 313.107 Recovery = 98.08%								
Ca 317.933Radial†	2599.3	4848.6	ug/L	24.99	4848.6	ppb	24.99	0.52%

```
   QC value within limits for Ca 317.933Radial  Recovery = 96.97%
Cd 226.502†            40844.3      477.53 ug/L         6.268      477.53 ppb          6.268   1.31%
   QC value within limits for Cd 226.502  Recovery = 95.51%
Co 228.616†            23512.5      490.36 ug/L         6.711      490.36 ppb          6.711   1.37%
   QC value within limits for Co 228.616  Recovery = 98.07%
Cr 267.716†            40802.0      475.27 ug/L         4.891      475.27 ppb          4.891   1.03%
   QC value within limits for Cr 267.716  Recovery = 95.05%
Cu 324.752†           163087.6      499.31 ug/L         7.365      499.31 ppb          7.365   1.47%
   QC value within limits for Cu 324.752  Recovery = 99.86%
Fe 238.204 Radial†       470.4      5013.9 ug/L        60.12      5013.9 ppb         60.12   1.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.28%
K 766.490 Radial†      24386.7      4916.4 ug/L        14.49      4916.4 ppb         14.49   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 98.33%
Mg 279.077 IEC†          125.1      4830.7 ug/L       163.10      4830.7 ppb        163.10   3.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.61%
Mn 257.610†           429912.7      496.15 ug/L         1.000      496.15 ppb          1.000   0.20%
   QC value within limits for Mn 257.610  Recovery = 99.23%
Mo 202.031†             6512.2      484.34 ug/L         0.981      484.34 ppb          0.981   0.20%
   QC value within limits for Mo 202.031  Recovery = 96.87%
Na 589.592 Radial†     31020.7       10347 ug/L          60.3       10347 ppb           60.3   0.58%
   QC value within limits for Na 589.592 Radial  Recovery = 103.47%
Ni 231.604†            18765.3      480.36 ug/L         6.771      480.36 ppb          6.771   1.41%
   QC value within limits for Ni 231.604  Recovery = 96.07%
P 214.914†              4260.0      2266.2 ug/L        13.39      2266.2 ppb         13.39   0.59%
   QC value within limits for P 214.914  Recovery = 90.65%
Pb 220.353†             3846.7      478.11 ug/L         2.537      478.11 ppb          2.537   0.53%
   QC value within limits for Pb 220.353  Recovery = 95.62%
S 181.975 Axial†         763.5      996.91 ug/L         6.137      996.91 ppb          6.137   0.62%
   QC value within limits for S 181.975 Axial  Recovery = 99.69%
Sb 206.836†             1417.2      496.89 ug/L         3.204      496.89 ppb          3.204   0.64%
   QC value within limits for Sb 206.836  Recovery = 99.38%
Se 196.026†              823.5      498.17 ug/L         2.279      498.17 ppb          2.279   0.46%
   QC value within limits for Se 196.026  Recovery = 99.63%
Si 251.611†            79208.9      2462.4 ug/L        34.29      2462.4 ppb         34.29   1.39%
   QC value within limits for Si 251.611  Recovery = 98.50%
Sn 189.927†             2652.4      476.43 ug/L         1.459      476.43 ppb          1.459   0.31%
   QC value within limits for Sn 189.927  Recovery = 95.29%
Sr 421.552†            64741.2      499.85 ug/L         2.499      499.85 ppb          2.499   0.50%
   QC value within limits for Sr 421.552  Recovery = 99.97%
Ti 334.940†           305122.9      495.79 ug/L         6.404      495.79 ppb          6.404   1.29%
   QC value within limits for Ti 334.940  Recovery = 99.16%
Tl 190.801†             1552.0      493.28 ug/L         1.644      493.28 ppb          1.644   0.33%
   QC value within limits for Tl 190.801  Recovery = 98.66%
U 409.014†             17570.1      497.48 ug/L         4.598      497.48 ppb          4.598   0.92%
   QC value within limits for U 409.014  Recovery = 99.50%
V 292.402†             66314.7      486.76 ug/L         5.764      486.76 ppb          5.764   1.18%
   QC value within limits for V 292.402  Recovery = 97.35%
Zn 213.857†            50362.5      487.04 ug/L         6.287      487.04 ppb          6.287   1.29%
   QC value within limits for Zn 213.857  Recovery = 97.41%
SiO2†                  78590.5      5226.7 ug/L        27.71      5226.7 ppb         27.71   0.53%
   QC value within limits for SiO2  Recovery = 97.74%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/16/2010 17:49:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4186.7	4186.7	98.5	%			17:50:59
1	Y RADIAL	4336.4	4336.4	98.50	%			17:50:59
1	Al 396.153Radial†	-123.0	34.1	34.021	ug/L	34.021	ppb	17:51:19
1	Ca 317.933Radial†	22.6	4.6	8.6430	ug/L	8.6430	ppb	17:51:19
1	Fe 238.204 Radial†	10.4	0.5	5.4827	ug/L	5.4827	ppb	17:51:19
1	K 766.490 Radial†	3424.7	305.5	61.539	ug/L	61.539	ppb	17:50:59
1	Mg 279.077 IEC†	2.1	-0.6	-22.787	ug/L	-22.787	ppb	17:51:19
1	Na 589.592 Radial†	1212.0	1023.5	341.40	ug/L	341.40	ppb	17:50:59
1	Sr 421.552†	97.7	9.4	0.0723	ug/L	0.0723	ppb	17:50:59
1	Sc 361.383	811380.9	811380.9	95.456	%			17:52:16
1	Y 371.029	660963.2	660963.2	94.057	%			17:52:16
1	Ag 328.068†	168.5	-51.2	-0.2444	ug/L	-0.2444	ppb	17:52:16
1	As 188.979†	-32.0	-5.2	-2.1728	ug/L	-2.1728	ppb	17:52:36
1	B 249.677†	211.3	703.3	16.544	ug/L	16.544	ppb	17:52:36
1	Ba 233.527†	34.0	16.8	0.1363	ug/L	0.1363	ppb	17:52:36
1	Be 313.107†	-4234.3	-96.8	-0.0347	ug/L	-0.0347	ppb	17:52:16
1	Cd 226.502†	-192.3	-5.9	-0.0701	ug/L	-0.0701	ppb	17:52:36
1	Co 228.616†	-67.6	8.0	0.1722	ug/L	0.1722	ppb	17:52:36
1	Cr 267.716†	82.4	-63.3	-0.7367	ug/L	-0.7367	ppb	17:52:36
1	Cu 324.752†	7736.3	10.5	0.0321	ug/L	0.0321	ppb	17:52:16
1	Mn 257.610†	681.0	143.7	0.1672	ug/L	0.1672	ppb	17:52:36
1	Mo 202.031†	39.7	31.1	2.3139	ug/L	2.3139	ppb	17:52:36
1	Ni 231.604†	105.0	-3.6	-0.0914	ug/L	-0.0914	ppb	17:52:36
1	P 214.914†	247.8	17.6	9.8001	ug/L	9.8001	ppb	17:52:36
1	Pb 220.353†	-73.0	-2.9	-0.3458	ug/L	-0.3458	ppb	17:52:36
1	S 181.975 Axial†	66.7	26.9	35.180	ug/L	35.180	ppb	17:52:36
1	Sb 206.836†	42.7	9.0	3.1439	ug/L	3.1439	ppb	17:52:36
1	Se 196.026†	-20.0	2.4	1.4004	ug/L	1.4004	ppb	17:52:36
1	Si 251.611†	703.8	125.0	3.8663	ug/L	3.8663	ppb	17:52:36
1	Sn 189.927†	26.4	15.0	2.6975	ug/L	2.6975	ppb	17:52:36
1	Ti 334.940†	-1208.0	227.4	0.3728	ug/L	0.3728	ppb	17:52:16
1	Tl 190.801†	-30.1	7.6	2.3946	ug/L	2.3946	ppb	17:52:36
1	U 409.014†	-3341.8	14.3	0.4071	ug/L	0.4071	ppb	17:52:16
1	V 292.402†	-1601.9	-0.9	0.0256	ug/L	0.0256	ppb	17:52:16
1	Zn 213.857†	690.0	35.1	0.3423	ug/L	0.3423	ppb	17:52:36
1	SiO2†	720.3	135.1	8.9438	ug/L	8.9438	ppb	17:53:32
2	Sc Radial	4192.9	4192.9	98.6	%			17:51:24
2	Y RADIAL	4318.4	4318.4	98.10	%			17:51:24
2	Al 396.153Radial†	-129.0	28.3	28.183	ug/L	28.183	ppb	17:51:44
2	Ca 317.933Radial†	21.5	3.5	6.5283	ug/L	6.5283	ppb	17:51:44
2	Fe 238.204 Radial†	9.6	-0.3	-3.0504	ug/L	-3.0504	ppb	17:51:44
2	K 766.490 Radial†	3425.1	300.9	60.590	ug/L	60.590	ppb	17:51:24
2	Mg 279.077 IEC†	-0.2	-2.9	-111.06	ug/L	-111.06	ppb	17:51:44
2	Na 589.592 Radial†	1318.2	1129.4	376.71	ug/L	376.71	ppb	17:51:24
2	Sr 421.552†	54.2	-34.8	-0.2691	ug/L	-0.2691	ppb	17:51:24
2	Sc 361.383	821459.4	821459.4	96.641	%			17:52:41
2	Y 371.029	670037.3	670037.3	95.348	%			17:52:41
2	Ag 328.068†	254.9	36.1	0.1655	ug/L	0.1655	ppb	17:52:41
2	As 188.979†	-24.5	3.0	1.2475	ug/L	1.2475	ppb	17:53:01
2	B 249.677†	190.0	678.5	15.961	ug/L	15.961	ppb	17:53:01
2	Ba 233.527†	29.4	11.6	0.0953	ug/L	0.0953	ppb	17:53:01
2	Be 313.107†	-4304.6	-115.1	-0.0416	ug/L	-0.0416	ppb	17:52:41
2	Cd 226.502†	-184.6	4.5	0.0544	ug/L	0.0544	ppb	17:53:01
2	Co 228.616†	-50.0	27.1	0.5698	ug/L	0.5698	ppb	17:53:01
2	Cr 267.716†	73.5	-73.7	-0.8607	ug/L	-0.8607	ppb	17:53:01
2	Cu 324.752†	7709.6	-116.6	-0.3630	ug/L	-0.3630	ppb	17:52:41
2	Mn 257.610†	645.2	97.9	0.1171	ug/L	0.1171	ppb	17:53:01
2	Mo 202.031†	32.3	23.0	1.7087	ug/L	1.7087	ppb	17:53:01
2	Ni 231.604†	92.9	-17.4	-0.4455	ug/L	-0.4455	ppb	17:53:01

2	P 214.914†	246.5	13.1	7.3672 ug/L	7.3672 ppb	17:53:01
2	Pb 220.353†	-63.9	7.4	0.9327 ug/L	0.9327 ppb	17:53:01
2	S 181.975 Axial†	66.2	25.6	33.433 ug/L	33.433 ppb	17:53:01
2	Sb 206.836†	42.5	8.3	2.8841 ug/L	2.8841 ppb	17:53:01
2	Se 196.026†	-25.6	-3.2	-1.8631 ug/L	-1.8631 ppb	17:53:01
2	Si 251.611†	692.4	104.2	3.2258 ug/L	3.2258 ppb	17:53:01
2	Sn 189.927†	29.6	18.0	3.2271 ug/L	3.2271 ppb	17:53:01
2	Ti 334.940†	-1255.4	193.9	0.3206 ug/L	0.3206 ppb	17:52:41
2	Tl 190.801†	-38.0	-0.2	-0.0617 ug/L	-0.0617 ppb	17:53:01
2	U 409.014†	-3028.7	381.2	10.832 ug/L	10.832 ppb	17:52:41
2	V 292.402†	-1549.9	73.5	0.5757 ug/L	0.5757 ppb	17:52:41
2	Zn 213.857†	700.5	37.1	0.3661 ug/L	0.3661 ppb	17:53:01
2	SiO2†	725.8	131.5	8.7219 ug/L	8.7219 ppb	17:53:37
3	Sc Radial	4258.0	4258.0	100 %		17:51:49
3	Y RADIAL	4401.6	4401.6	99.99 %		17:51:49
3	Al 396.153Radial†	-113.0	46.3	46.224 ug/L	46.224 ppb	17:52:09
3	Ca 317.933Radial†	22.1	3.8	7.0412 ug/L	7.0412 ppb	17:52:09
3	Fe 238.204 Radial†	10.6	0.5	5.8398 ug/L	5.8398 ppb	17:52:09
3	K 766.490 Radial†	3285.1	108.0	21.651 ug/L	21.651 ppb	17:51:49
3	Mg 279.077 IEC†	2.3	-0.4	-14.351 ug/L	-14.351 ppb	17:52:09
3	Na 589.592 Radial†	1390.8	1181.4	394.06 ug/L	394.06 ppb	17:51:49
3	Sr 421.552†	76.0	-13.9	-0.1075 ug/L	-0.1075 ppb	17:51:49
3	Sc 361.383	820983.8	820983.8	96.585 %		17:53:06
3	Y 371.029	668675.9	668675.9	95.154 %		17:53:06
3	Ag 328.068†	258.8	40.3	0.1956 ug/L	0.1956 ppb	17:53:06
3	As 188.979†	-35.2	-8.1	-3.4017 ug/L	-3.4017 ppb	17:53:26
3	B 249.677†	164.0	651.7	15.330 ug/L	15.330 ppb	17:53:26
3	Ba 233.527†	68.8	52.4	0.4271 ug/L	0.4271 ppb	17:53:26
3	Be 313.107†	-4378.9	-194.6	-0.0710 ug/L	-0.0710 ppb	17:53:06
3	Cd 226.502†	-202.3	-13.9	-0.1630 ug/L	-0.1630 ppb	17:53:26
3	Co 228.616†	-70.4	5.9	0.1262 ug/L	0.1262 ppb	17:53:26
3	Cr 267.716†	103.8	-42.3	-0.4918 ug/L	-0.4918 ppb	17:53:26
3	Cu 324.752†	7665.1	-158.0	-0.4847 ug/L	-0.4847 ppb	17:53:06
3	Mn 257.610†	769.9	227.3	0.2634 ug/L	0.2634 ppb	17:53:26
3	Mo 202.031†	23.5	13.8	1.0284 ug/L	1.0284 ppb	17:53:26
3	Ni 231.604†	104.6	-5.2	-0.1335 ug/L	-0.1335 ppb	17:53:26
3	P 214.914†	247.7	14.5	8.1556 ug/L	8.1556 ppb	17:53:26
3	Pb 220.353†	-68.8	2.4	0.3051 ug/L	0.3051 ppb	17:53:26
3	S 181.975 Axial†	67.5	27.0	35.230 ug/L	35.230 ppb	17:53:26
3	Sb 206.836†	41.6	7.4	2.5564 ug/L	2.5564 ppb	17:53:26
3	Se 196.026†	-19.9	2.8	1.6401 ug/L	1.6401 ppb	17:53:26
3	Si 251.611†	797.5	213.4	6.6377 ug/L	6.6377 ppb	17:53:26
3	Sn 189.927†	21.7	9.9	1.7705 ug/L	1.7705 ppb	17:53:26
3	Ti 334.940†	-1328.1	117.8	0.1927 ug/L	0.1927 ppb	17:53:06
3	Tl 190.801†	-31.5	6.4	2.0368 ug/L	2.0368 ppb	17:53:26
3	U 409.014†	-3310.2	87.9	2.4983 ug/L	2.4983 ppb	17:53:06
3	V 292.402†	-1542.9	79.9	0.5968 ug/L	0.5968 ppb	17:53:06
3	Zn 213.857†	696.0	32.9	0.3216 ug/L	0.3216 ppb	17:53:26
3	SiO2†	737.1	143.7	9.5514 ug/L	9.5514 ppb	17:53:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	817941.4	96.227	%	0.6690				0.70%
Sc Radial	4212.5	99.1	%	0.93				0.94%
Y 371.029	666558.8	94.853	%	0.6964				0.73%
Y RADIAL	4352.1	98.86	%	0.994				1.01%
Ag 328.068†	8.4	0.0389	ug/L	0.24582	0.0389	ppb	0.24582	632.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	36.2	36.143	ug/L	9.2056	36.143	ppb	9.2056	25.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.4	-1.4423	ug/L	2.40912	-1.4423	ppb	2.40912	167.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	677.8	15.945	ug/L	0.6070	15.945	ppb	0.6070	3.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.9	0.2195	ug/L	0.18089	0.2195	ppb	0.18089	82.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-135.5	-0.0491	ug/L	0.01930	-0.0491	ppb	0.01930	39.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.0	7.4042	ug/L	1.10309	7.4042	ppb	1.10309	14.90%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -5.1     -0.0596 ug/L       0.10906     -0.0596 ppb        0.10906 183.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                13.7      0.2894 ug/L       0.24396      0.2894 ppb        0.24396  84.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -59.8     -0.6964 ug/L       0.18772     -0.6964 ppb        0.18772  26.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -88.0     -0.2719 ug/L       0.27023     -0.2719 ppb        0.27023  99.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      2.7573 ug/L       5.03282      2.7573 ppb        5.03282 182.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         238.2      47.927 ug/L       22.7603      47.927 ppb        22.7603  47.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.3     -49.401 ug/L       53.5682     -49.401 ppb        53.5682 108.44%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               156.3      0.1826 ug/L       0.07432      0.1826 ppb        0.07432  40.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.7      1.6837 ug/L       0.64311      1.6837 ppb        0.64311  38.20%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       1111.4      370.72 ug/L        26.836      370.72 ppb         26.836   7.24%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.7     -0.2235 ug/L       0.19343     -0.2235 ppb        0.19343  86.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 15.1      8.4409 ug/L       1.24132      8.4409 ppb        1.24132  14.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.3      0.2973 ug/L       0.63925      0.2973 ppb        0.63925 215.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           26.5      34.614 ug/L        1.0232      34.614 ppb         1.0232   2.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 8.2      2.8615 ug/L       0.29438      2.8615 ppb        0.29438  10.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.6      0.3925 ug/L       1.95704      0.3925 ppb        1.95704 498.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               147.5      4.5766 ug/L       1.81347      4.5766 ppb        1.81347  39.62%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                14.3      2.5650 ug/L       0.73726      2.5650 ppb        0.73726  28.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -13.1     -0.1015 ug/L       0.17075     -0.1015 ppb        0.17075 168.31%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               179.7      0.2954 ug/L       0.09265      0.2954 ppb        0.09265  31.37%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.6      1.4566 ug/L       1.32694      1.4566 ppb        1.32694  91.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                161.2      4.5792 ug/L       5.51537      4.5792 ppb        5.51537 120.44%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 50.8      0.3994 ug/L       0.32387      0.3994 ppb        0.32387  81.09%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.0      0.3433 ug/L       0.02226      0.3433 ppb        0.02226   6.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     136.8      9.0724 ug/L       0.42939      9.0724 ppb        0.42939   4.73%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/16/2010 18:44:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4423.7	4423.7	104	%			18:46:35
1	Y RADIAL	4513.0	4513.0	102.5	%			18:46:35
1	Al 396.153Radial†	4727.0	4701.3	4680.0	ug/L	4680.0	ppb	18:46:35
1	Ca 317.933Radial†	2634.5	2513.3	4688.2	ug/L	4688.2	ppb	18:46:55
1	Fe 238.204 Radial†	492.4	463.1	4935.9	ug/L	4935.9	ppb	18:46:55
1	K 766.490 Radial†	27446.5	23202.6	4677.6	ug/L	4677.6	ppb	18:46:35
1	Mg 279.077 IEC†	127.9	120.2	4643.1	ug/L	4643.1	ppb	18:46:55
1	Na 589.592 Radial†	31156.4	29732.1	9917.4	ug/L	9917.4	ppb	18:46:35
1	Sr 421.552†	64585.8	61972.8	478.47	ug/L	478.47	ppb	18:46:35
1	Sc 361.383	840521.3	840521.3	98.884	%			18:47:52
1	Y 371.029	675506.7	675506.7	96.126	%			18:47:52
1	Ag 328.068†	100445.9	101352.0	489.77	ug/L	489.77	ppb	18:47:58
1	As 188.979†	1085.8	1126.4	478.20	ug/L	478.20	ppb	18:48:18
1	B 249.677†	20236.8	20947.2	490.62	ug/L	490.62	ppb	18:47:58
1	Ba 233.527†	59244.5	59894.4	487.52	ug/L	487.52	ppb	18:47:58
1	Be 313.107†	1307828.8	1326930.1	488.50	ug/L	488.50	ppb	18:47:52
1	Cd 226.502†	39865.2	40510.6	473.63	ug/L	473.63	ppb	18:47:58
1	Co 228.616†	22938.6	23276.4	485.44	ug/L	485.44	ppb	18:47:58
1	Cr 267.716†	40172.0	40475.8	471.47	ug/L	471.47	ppb	18:47:58
1	Cu 324.752†	166882.5	160672.1	491.92	ug/L	491.92	ppb	18:47:58
1	Mn 257.610†	423367.2	427576.2	493.46	ug/L	493.46	ppb	18:47:52
1	Mo 202.031†	6375.1	6436.6	478.72	ug/L	478.72	ppb	18:48:18
1	Ni 231.604†	18538.2	18633.9	477.00	ug/L	477.00	ppb	18:47:58
1	P 214.914†	4413.6	4221.4	2246.2	ug/L	2246.2	ppb	18:48:18
1	Pb 220.353†	3709.8	3825.2	475.39	ug/L	475.39	ppb	18:48:18
1	S 181.975 Axial†	784.3	750.2	979.60	ug/L	979.60	ppb	18:48:18
1	Sb 206.836†	1416.0	1396.3	489.61	ug/L	489.61	ppb	18:48:18
1	Se 196.026†	780.4	812.6	491.51	ug/L	491.51	ppb	18:48:18
1	Si 251.611†	77739.8	78005.0	2424.9	ug/L	2424.9	ppb	18:47:58
1	Sn 189.927†	2601.2	2618.0	470.22	ug/L	470.22	ppb	18:48:18
1	Ti 334.940†	297176.5	302023.8	490.75	ug/L	490.75	ppb	18:47:58
1	Tl 190.801†	1485.9	1541.8	490.03	ug/L	490.03	ppb	18:48:18
1	U 409.014†	13544.9	17212.9	487.35	ug/L	487.35	ppb	18:47:58
1	V 292.402†	63437.4	65830.7	483.17	ug/L	483.17	ppb	18:47:58
1	Zn 213.857†	50043.4	49920.5	482.77	ug/L	482.77	ppb	18:47:58
1	SiO2†	77280.2	77533.0	5156.3	ug/L	5156.3	ppb	18:49:25
2	Sc Radial	4311.3	4311.3	101	%			18:47:00
2	Y RADIAL	4408.3	4408.3	100.1	%			18:47:00
2	Al 396.153Radial†	4858.5	4949.5	4928.2	ug/L	4928.2	ppb	18:47:00
2	Ca 317.933Radial†	2637.7	2582.5	4817.3	ug/L	4817.3	ppb	18:47:20
2	Fe 238.204 Radial†	488.8	471.9	5029.5	ug/L	5029.5	ppb	18:47:20
2	K 766.490 Radial†	27776.7	24216.2	4882.0	ug/L	4882.0	ppb	18:47:00
2	Mg 279.077 IEC†	131.7	127.1	4909.4	ug/L	4909.4	ppb	18:47:20
2	Na 589.592 Radial†	31395.1	30748.4	10256	ug/L	10256	ppb	18:47:00
2	Sr 421.552†	66222.7	65205.6	503.44	ug/L	503.44	ppb	18:47:00
2	Sc 361.383	839711.8	839711.8	98.789	%			18:48:23
2	Y 371.029	674614.5	674614.5	95.999	%			18:48:23
2	Ag 328.068†	100390.7	101394.0	489.99	ug/L	489.99	ppb	18:48:29
2	As 188.979†	1093.6	1135.4	481.98	ug/L	481.98	ppb	18:48:49
2	B 249.677†	20299.3	21030.1	492.56	ug/L	492.56	ppb	18:48:29
2	Ba 233.527†	58826.5	59529.0	484.55	ug/L	484.55	ppb	18:48:29
2	Be 313.107†	1303952.9	1324281.7	487.53	ug/L	487.53	ppb	18:48:23
2	Cd 226.502†	39591.9	40272.9	470.84	ug/L	470.84	ppb	18:48:29
2	Co 228.616†	22844.4	23203.4	483.92	ug/L	483.92	ppb	18:48:29
2	Cr 267.716†	39933.1	40273.1	469.11	ug/L	469.11	ppb	18:48:29
2	Cu 324.752†	166992.8	160946.5	492.77	ug/L	492.77	ppb	18:48:29
2	Mn 257.610†	422025.1	426630.5	492.36	ug/L	492.36	ppb	18:48:23
2	Mo 202.031†	6372.3	6440.0	478.98	ug/L	478.98	ppb	18:48:49
2	Ni 231.604†	18364.8	18476.5	472.97	ug/L	472.97	ppb	18:48:29

2	P 214.914†	4413.1	4225.3	2248.2 ug/L	2248.2 ppb	18:48:49
2	Pb 220.353†	3723.3	3842.5	477.57 ug/L	477.57 ppb	18:48:49
2	S 181.975 Axial†	781.2	747.8	976.48 ug/L	976.48 ppb	18:48:49
2	Sb 206.836†	1411.2	1392.8	488.42 ug/L	488.42 ppb	18:48:49
2	Se 196.026†	790.2	823.2	498.04 ug/L	498.04 ppb	18:48:49
2	Si 251.611†	77687.9	78028.2	2425.7 ug/L	2425.7 ppb	18:48:29
2	Sn 189.927†	2598.8	2618.1	470.26 ug/L	470.26 ppb	18:48:49
2	Ti 334.940†	296136.0	301260.2	489.51 ug/L	489.51 ppb	18:48:29
2	Tl 190.801†	1499.3	1556.8	494.74 ug/L	494.74 ppb	18:48:49
2	U 409.014†	13476.0	17156.4	485.74 ug/L	485.74 ppb	18:48:29
2	V 292.402†	63050.1	65500.6	480.78 ug/L	480.78 ppb	18:48:29
2	Zn 213.857†	49729.4	49651.4	480.16 ug/L	480.16 ppb	18:48:29
2	SiO2†	77417.6	77747.4	5170.6 ug/L	5170.6 ppb	18:49:30
3	Sc Radial	4291.4	4291.4	101 %		18:47:25
3	Y RADIAL	4371.3	4371.3	99.30 %		18:47:25
3	Al 396.153Radial†	4797.9	4911.7	4890.2 ug/L	4890.2 ppb	18:47:25
3	Ca 317.933Radial†	2641.8	2598.5	4847.2 ug/L	4847.2 ppb	18:47:45
3	Fe 238.204 Radial†	496.0	481.3	5129.2 ug/L	5129.2 ppb	18:47:45
3	K 766.490 Radial†	27551.8	24119.9	4862.5 ug/L	4862.5 ppb	18:47:25
3	Mg 279.077 IEC†	129.2	125.3	4839.0 ug/L	4839.0 ppb	18:47:45
3	Na 589.592 Radial†	31649.0	31142.9	10388 ug/L	10388 ppb	18:47:25
3	Sr 421.552†	65026.2	64322.0	496.61 ug/L	496.61 ppb	18:47:25
3	Sc 361.383	834625.9	834625.9	98.190 %		18:48:55
3	Y 371.029	671402.6	671402.6	95.542 %		18:48:55
3	Ag 328.068†	100021.7	101637.5	491.19 ug/L	491.19 ppb	18:49:00
3	As 188.979†	1090.7	1139.1	483.57 ug/L	483.57 ppb	18:49:20
3	B 249.677†	20285.8	21141.6	495.16 ug/L	495.16 ppb	18:49:00
3	Ba 233.527†	58838.5	59904.2	487.61 ug/L	487.61 ppb	18:49:00
3	Be 313.107†	1300745.2	1329058.3	489.29 ug/L	489.29 ppb	18:48:55
3	Cd 226.502†	39448.5	40371.0	471.98 ug/L	471.98 ppb	18:49:00
3	Co 228.616†	22794.8	23293.8	485.81 ug/L	485.81 ppb	18:49:00
3	Cr 267.716†	39887.7	40473.2	471.44 ug/L	471.44 ppb	18:49:00
3	Cu 324.752†	166532.4	161507.7	494.49 ug/L	494.49 ppb	18:49:00
3	Mn 257.610†	420682.4	427866.2	493.80 ug/L	493.80 ppb	18:48:55
3	Mo 202.031†	6379.6	6486.7	482.46 ug/L	482.46 ppb	18:49:20
3	Ni 231.604†	18351.2	18575.9	475.51 ug/L	475.51 ppb	18:49:00
3	P 214.914†	4419.2	4258.7	2266.3 ug/L	2266.3 ppb	18:49:20
3	Pb 220.353†	3705.0	3846.9	478.11 ug/L	478.11 ppb	18:49:20
3	S 181.975 Axial†	772.4	743.8	971.14 ug/L	971.14 ppb	18:49:20
3	Sb 206.836†	1428.0	1418.6	497.29 ug/L	497.29 ppb	18:49:20
3	Se 196.026†	790.1	828.0	501.12 ug/L	501.12 ppb	18:49:20
3	Si 251.611†	77443.1	78258.2	2432.8 ug/L	2432.8 ppb	18:49:00
3	Sn 189.927†	2608.9	2644.4	474.99 ug/L	474.99 ppb	18:49:20
3	Ti 334.940†	295445.4	302383.7	491.34 ug/L	491.34 ppb	18:49:00
3	Tl 190.801†	1495.0	1561.7	496.32 ug/L	496.32 ppb	18:49:20
3	U 409.014†	13600.7	17366.5	491.70 ug/L	491.70 ppb	18:49:00
3	V 292.402†	62855.0	65690.8	482.19 ug/L	482.19 ppb	18:49:00
3	Zn 213.857†	49706.3	49934.7	482.89 ug/L	482.89 ppb	18:49:00
3	SiO2†	78140.6	78961.3	5251.5 ug/L	5251.5 ppb	18:49:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	838286.3	98.621	%	0.3760				0.38%
Sc Radial	4342.1	102	%	1.7				1.64%
Y 371.029	673841.3	95.889	%	0.3072				0.32%
Y RADIAL	4430.9	100.7	%	1.67				1.66%
Ag 328.068†	101461.2	490.32	ug/L	0.767	490.32	ppb	0.767	0.16%
QC value within limits for Ag 328.068 Recovery = 98.06%								
Al 396.153Radial†	4854.2	4832.8	ug/L	133.73	4832.8	ppb	133.73	2.77%
QC value within limits for Al 396.153Radial Recovery = 96.66%								
As 188.979†	1133.6	481.25	ug/L	2.759	481.25	ppb	2.759	0.57%
QC value within limits for As 188.979 Recovery = 96.25%								
B 249.677†	21039.6	492.78	ug/L	2.279	492.78	ppb	2.279	0.46%
QC value within limits for B 249.677 Recovery = 98.56%								
Ba 233.527†	59775.9	486.56	ug/L	1.739	486.56	ppb	1.739	0.36%
QC value within limits for Ba 233.527 Recovery = 97.31%								
Be 313.107†	1326756.7	488.44	ug/L	0.881	488.44	ppb	0.881	0.18%
QC value within limits for Be 313.107 Recovery = 97.69%								
Ca 317.933Radial†	2564.8	4784.2	ug/L	84.51	4784.2	ppb	84.51	1.77%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.68%
Cd 226.502†            40384.8      472.15 ug/L         1.404      472.15 ppb          1.404   0.30%
   QC value within limits for Cd 226.502  Recovery = 94.43%
Co 228.616†            23257.9      485.05 ug/L         1.001      485.05 ppb          1.001   0.21%
   QC value within limits for Co 228.616  Recovery = 97.01%
Cr 267.716†            40407.3      470.68 ug/L         1.354      470.68 ppb          1.354   0.29%
   QC value within limits for Cr 267.716  Recovery = 94.14%
Cu 324.752†           161042.1      493.06 ug/L         1.308      493.06 ppb          1.308   0.27%
   QC value within limits for Cu 324.752  Recovery = 98.61%
Fe 238.204 Radial†       472.1      5031.5 ug/L        96.66      5031.5 ppb         96.66   1.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.63%
K 766.490 Radial†      23846.2      4807.4 ug/L       112.82      4807.4 ppb        112.82   2.35%
   QC value within limits for K 766.490 Radial  Recovery = 96.15%
Mg 279.077 IEC†          124.2      4797.2 ug/L       138.02      4797.2 ppb        138.02   2.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.94%
Mn 257.610†           427357.6      493.21 ug/L         0.751      493.21 ppb          0.751   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.64%
Mo 202.031†             6454.4      480.05 ug/L         2.090      480.05 ppb          2.090   0.44%
   QC value within limits for Mo 202.031  Recovery = 96.01%
Na 589.592 Radial†     30541.1       10187 ug/L       242.8       10187 ppb        242.8   2.38%
   QC value within limits for Na 589.592 Radial  Recovery = 101.87%
Ni 231.604†            18562.1      475.16 ug/L         2.039      475.16 ppb          2.039   0.43%
   QC value within limits for Ni 231.604  Recovery = 95.03%
P 214.914†              4235.1      2253.6 ug/L        11.08      2253.6 ppb         11.08   0.49%
   QC value within limits for P 214.914  Recovery = 90.14%
Pb 220.353†             3838.2      477.02 ug/L         1.441      477.02 ppb          1.441   0.30%
   QC value within limits for Pb 220.353  Recovery = 95.40%
S 181.975 Axial†         747.3      975.74 ug/L         4.276      975.74 ppb          4.276   0.44%
   QC value within limits for S 181.975 Axial  Recovery = 97.57%
Sb 206.836†             1402.6      491.77 ug/L         4.816      491.77 ppb          4.816   0.98%
   QC value within limits for Sb 206.836  Recovery = 98.35%
Se 196.026†              821.3      496.89 ug/L         4.906      496.89 ppb          4.906   0.99%
   QC value within limits for Se 196.026  Recovery = 99.38%
Si 251.611†            78097.1      2427.8 ug/L          4.34      2427.8 ppb           4.34   0.18%
   QC value within limits for Si 251.611  Recovery = 97.11%
Sn 189.927†             2626.8      471.83 ug/L         2.739      471.83 ppb          2.739   0.58%
   QC value within limits for Sn 189.927  Recovery = 94.37%
Sr 421.552†            63833.5      492.84 ug/L        12.901      492.84 ppb         12.901   2.62%
   QC value within limits for Sr 421.552  Recovery = 98.57%
Ti 334.940†           301889.2      490.53 ug/L         0.935      490.53 ppb          0.935   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.11%
Tl 190.801†             1553.4      493.70 ug/L         3.269      493.70 ppb          3.269   0.66%
   QC value within limits for Tl 190.801  Recovery = 98.74%
U 409.014†             17245.3      488.26 ug/L         3.079      488.26 ppb          3.079   0.63%
   QC value within limits for U 409.014  Recovery = 97.65%
V 292.402†             65674.0      482.05 ug/L         1.205      482.05 ppb          1.205   0.25%
   QC value within limits for V 292.402  Recovery = 96.41%
Zn 213.857†            49835.6      481.94 ug/L         1.545      481.94 ppb          1.545   0.32%
   QC value within limits for Zn 213.857  Recovery = 96.39%
SiO2†                  78080.6      5192.8 ug/L        51.30      5192.8 ppb         51.30   0.99%
   QC value within limits for SiO2  Recovery = 97.11%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/16/2010 18:51:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4404.2	4404.2	104	%			18:53:37
1	Y RADIAL	4505.0	4505.0	102.3	%			18:53:37
1	Al 396.153Radial†	-129.6	33.9	33.937	ug/L	33.937	ppb	18:53:57
1	Ca 317.933Radial†	25.2	6.0	11.266	ug/L	11.266	ppb	18:53:57
1	Fe 238.204 Radial†	7.5	-2.8	-30.036	ug/L	-30.036	ppb	18:53:57
1	K 766.490 Radial†	3285.1	-0.8	-0.3042	ug/L	-0.3042	ppb	18:53:37
1	Mg 279.077 IEC†	4.2	1.4	53.368	ug/L	53.368	ppb	18:53:57
1	Na 589.592 Radial†	1262.3	1011.3	337.32	ug/L	337.32	ppb	18:53:37
1	Sr 421.552†	145.0	50.1	0.3871	ug/L	0.3871	ppb	18:53:37
1	Sc 361.383	819612.9	819612.9	96.424	%			18:54:54
1	Y 371.029	667058.4	667058.4	94.924	%			18:54:54
1	Ag 328.068†	139.6	-82.9	-0.4117	ug/L	-0.4117	ppb	18:54:54
1	As 188.979†	-25.1	2.3	0.9633	ug/L	0.9633	ppb	18:55:14
1	B 249.677†	-59.7	420.0	9.8855	ug/L	9.8855	ppb	18:55:14
1	Ba 233.527†	19.7	1.6	0.0132	ug/L	0.0132	ppb	18:55:14
1	Be 313.107†	-4266.3	-85.4	-0.0305	ug/L	-0.0305	ppb	18:54:54
1	Cd 226.502†	-208.0	-20.2	-0.2317	ug/L	-0.2317	ppb	18:55:14
1	Co 228.616†	-71.1	5.1	0.1073	ug/L	0.1073	ppb	18:55:14
1	Cr 267.716†	89.7	-56.7	-0.6616	ug/L	-0.6616	ppb	18:55:14
1	Cu 324.752†	7652.6	-157.7	-0.4882	ug/L	-0.4882	ppb	18:54:54
1	Mn 257.610†	713.1	169.8	0.1907	ug/L	0.1907	ppb	18:55:14
1	Mo 202.031†	14.0	4.1	0.2992	ug/L	0.2992	ppb	18:55:14
1	Ni 231.604†	101.2	-8.5	-0.2187	ug/L	-0.2187	ppb	18:55:14
1	P 214.914†	223.7	-10.0	-5.4118	ug/L	-5.4118	ppb	18:55:14
1	Pb 220.353†	-62.7	8.5	1.0653	ug/L	1.0653	ppb	18:55:14
1	S 181.975 Axial†	64.7	24.2	31.673	ug/L	31.673	ppb	18:55:14
1	Sb 206.836†	42.8	8.7	2.9975	ug/L	2.9975	ppb	18:55:14
1	Se 196.026†	-15.3	7.4	4.2439	ug/L	4.2439	ppb	18:55:14
1	Si 251.611†	623.9	34.7	1.0774	ug/L	1.0774	ppb	18:55:14
1	Sn 189.927†	27.7	16.1	2.8833	ug/L	2.8833	ppb	18:55:14
1	Ti 334.940†	-1204.6	243.6	0.3903	ug/L	0.3903	ppb	18:54:54
1	Tl 190.801†	-27.5	10.6	3.3517	ug/L	3.3517	ppb	18:55:14
1	U 409.014†	-3151.7	246.6	7.0089	ug/L	7.0089	ppb	18:54:54
1	V 292.402†	-1536.4	83.9	0.6306	ug/L	0.6306	ppb	18:54:54
1	Zn 213.857†	703.2	41.5	0.4120	ug/L	0.4120	ppb	18:55:14
1	SiO2†	613.7	16.9	1.1196	ug/L	1.1196	ppb	18:56:10
2	Sc Radial	4352.1	4352.1	102	%			18:54:02
2	Y RADIAL	4491.6	4491.6	102.0	%			18:54:02
2	Al 396.153Radial†	-126.5	35.5	35.486	ug/L	35.486	ppb	18:54:22
2	Ca 317.933Radial†	20.4	1.6	3.0645	ug/L	3.0645	ppb	18:54:22
2	Fe 238.204 Radial†	12.1	1.8	18.919	ug/L	18.919	ppb	18:54:22
2	K 766.490 Radial†	3343.2	93.9	18.830	ug/L	18.830	ppb	18:54:02
2	Mg 279.077 IEC†	-0.3	-3.1	-118.05	ug/L	-118.05	ppb	18:54:22
2	Na 589.592 Radial†	1133.2	899.8	300.14	ug/L	300.14	ppb	18:54:02
2	Sr 421.552†	75.2	-16.3	-0.1261	ug/L	-0.1261	ppb	18:54:02
2	Sc 361.383	824141.6	824141.6	96.957	%			18:55:19
2	Y 371.029	670121.5	670121.5	95.360	%			18:55:19
2	Ag 328.068†	259.0	39.4	0.1829	ug/L	0.1829	ppb	18:55:19
2	As 188.979†	-28.2	-0.7	-0.3009	ug/L	-0.3009	ppb	18:55:39
2	B 249.677†	-78.7	400.7	9.4234	ug/L	9.4234	ppb	18:55:39
2	Ba 233.527†	16.5	-1.8	-0.0150	ug/L	-0.0150	ppb	18:55:39
2	Be 313.107†	-4403.2	-202.2	-0.0740	ug/L	-0.0740	ppb	18:55:19
2	Cd 226.502†	-203.4	-14.3	-0.1670	ug/L	-0.1670	ppb	18:55:39
2	Co 228.616†	-70.2	6.4	0.1350	ug/L	0.1350	ppb	18:55:39
2	Cr 267.716†	64.6	-83.0	-0.9714	ug/L	-0.9714	ppb	18:55:39
2	Cu 324.752†	7741.9	-109.2	-0.3406	ug/L	-0.3406	ppb	18:55:19
2	Mn 257.610†	818.5	274.4	0.3232	ug/L	0.3232	ppb	18:55:39
2	Mo 202.031†	15.5	5.5	0.4139	ug/L	0.4139	ppb	18:55:39
2	Ni 231.604†	97.8	-12.6	-0.3236	ug/L	-0.3236	ppb	18:55:39

2	P 214.914†	235.6	1.0	0.6399	ug/L	0.6399 ppb	18:55:39
2	Pb 220.353†	-65.9	5.6	0.7015	ug/L	0.7015 ppb	18:55:39
2	S 181.975 Axial†	66.6	25.8	33.722	ug/L	33.722 ppb	18:55:39
2	Sb 206.836†	35.8	1.3	0.4681	ug/L	0.4681 ppb	18:55:39
2	Se 196.026†	-27.9	-5.4	-3.1043	ug/L	-3.1043 ppb	18:55:39
2	Si 251.611†	682.3	91.4	2.8419	ug/L	2.8419 ppb	18:55:39
2	Sn 189.927†	23.1	11.2	2.0075	ug/L	2.0075 ppb	18:55:39
2	Ti 334.940†	-1370.5	79.3	0.1336	ug/L	0.1336 ppb	18:55:19
2	Tl 190.801†	-35.9	2.1	0.6585	ug/L	0.6585 ppb	18:55:39
2	U 409.014†	-2956.4	466.0	13.238	ug/L	13.238 ppb	18:55:19
2	V 292.402†	-1688.1	-63.8	-0.4357	ug/L	-0.4357 ppb	18:55:19
2	Zn 213.857†	709.4	43.9	0.4280	ug/L	0.4280 ppb	18:55:39
2	SiO2†	664.1	65.4	4.3492	ug/L	4.3492 ppb	18:56:15
3	Sc Radial	4247.1	4247.1	99.9	%		18:54:27
3	Y RADIAL	4366.6	4366.6	99.19	%		18:54:27
3	Al 396.153Radial†	-130.6	28.3	28.230	ug/L	28.230 ppb	18:54:47
3	Ca 317.933Radial†	20.7	2.4	4.4279	ug/L	4.4279 ppb	18:54:47
3	Fe 238.204 Radial†	10.0	-0.0	-0.4951	ug/L	-0.4951 ppb	18:54:47
3	K 766.490 Radial†	3309.1	140.4	28.216	ug/L	28.216 ppb	18:54:27
3	Mg 279.077 IEC†	4.1	1.4	52.175	ug/L	52.175 ppb	18:54:47
3	Na 589.592 Radial†	1221.6	1015.6	338.76	ug/L	338.76 ppb	18:54:27
3	Sr 421.552†	92.8	3.1	0.0236	ug/L	0.0236 ppb	18:54:27
3	Sc 361.383	820645.3	820645.3	96.546	%		18:55:44
3	Y 371.029	669123.9	669123.9	95.218	%		18:55:44
3	Ag 328.068†	150.3	-72.0	-0.3496	ug/L	-0.3496 ppb	18:55:44
3	As 188.979†	-30.8	-3.6	-1.5028	ug/L	-1.5028 ppb	18:56:04
3	B 249.677†	-117.1	360.6	8.4842	ug/L	8.4842 ppb	18:56:04
3	Ba 233.527†	5.0	-13.6	-0.1094	ug/L	-0.1094 ppb	18:56:04
3	Be 313.107†	-4275.8	-89.7	-0.0324	ug/L	-0.0324 ppb	18:55:44
3	Cd 226.502†	-196.7	-8.2	-0.0951	ug/L	-0.0951 ppb	18:56:04
3	Co 228.616†	-68.4	8.0	0.1695	ug/L	0.1695 ppb	18:56:04
3	Cr 267.716†	62.0	-85.4	-0.9960	ug/L	-0.9960 ppb	18:56:04
3	Cu 324.752†	7611.0	-210.8	-0.6495	ug/L	-0.6495 ppb	18:55:44
3	Mn 257.610†	648.2	101.6	0.1150	ug/L	0.1150 ppb	18:56:04
3	Mo 202.031†	25.5	15.9	1.1832	ug/L	1.1832 ppb	18:56:04
3	Ni 231.604†	91.0	-19.2	-0.4925	ug/L	-0.4925 ppb	18:56:04
3	P 214.914†	242.7	9.4	5.3734	ug/L	5.3734 ppb	18:56:04
3	Pb 220.353†	-74.0	-3.1	-0.3778	ug/L	-0.3778 ppb	18:56:04
3	S 181.975 Axial†	53.4	12.4	16.232	ug/L	16.232 ppb	18:56:04
3	Sb 206.836†	40.5	6.3	2.1687	ug/L	2.1687 ppb	18:56:04
3	Se 196.026†	-21.5	1.1	0.6376	ug/L	0.6376 ppb	18:56:04
3	Si 251.611†	612.5	22.1	0.6753	ug/L	0.6753 ppb	18:56:04
3	Sn 189.927†	16.4	4.4	0.7898	ug/L	0.7898 ppb	18:56:04
3	Ti 334.940†	-1310.2	135.9	0.2143	ug/L	0.2143 ppb	18:55:44
3	Tl 190.801†	-32.1	5.9	1.8662	ug/L	1.8662 ppb	18:56:04
3	U 409.014†	-3143.1	259.6	7.3781	ug/L	7.3781 ppb	18:55:44
3	V 292.402†	-1539.0	83.3	0.6351	ug/L	0.6351 ppb	18:55:44
3	Zn 213.857†	705.5	43.0	0.4237	ug/L	0.4237 ppb	18:56:04
3	SiO2†	634.5	37.7	2.4814	ug/L	2.4814 ppb	18:56:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	821466.6	96.642	%	0.2792				0.29%
Sc Radial	4334.5	102	%	1.9				1.85%
Y 371.029	668767.9	95.167	%	0.2223				0.23%
Y RADIAL	4454.4	101.2	%	1.73				1.71%
Ag 328.068†	-38.5	-0.1928	ug/L	0.32687	-0.1928	ppb	0.32687	169.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	32.6	32.551	ug/L	3.8214	32.551	ppb	3.8214	11.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.7	-0.2801	ug/L	1.23321	-0.2801	ppb	1.23321	440.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	393.8	9.2644	ug/L	0.71407	9.2644	ppb	0.71407	7.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.6	-0.0371	ug/L	0.06424	-0.0371	ppb	0.06424	173.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-125.8	-0.0456	ug/L	0.02458	-0.0456	ppb	0.02458	53.87%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.4	6.2529	ug/L	4.39488	6.2529	ppb	4.39488	70.29%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -14.2     -0.1646 ug/L       0.06832     -0.1646 ppb        0.06832  41.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.5      0.1373 ug/L       0.03116      0.1373 ppb        0.03116  22.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -75.0     -0.8763 ug/L       0.18637     -0.8763 ppb        0.18637  21.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -159.2     -0.4927 ug/L       0.15449     -0.4927 ppb        0.15449  31.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.4     -3.8707 ug/L      24.65148     -3.8707 ppb       24.65148 636.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         77.8      15.581 ug/L       14.5353      15.581 ppb        14.5353  93.29%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.1     -4.1676 ug/L      98.62266     -4.1676 ppb       98.62266 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              181.9      0.2096 ug/L       0.10537      0.2096 ppb        0.10537  50.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.5      0.6321 ug/L       0.48068      0.6321 ppb        0.48068  76.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       975.6      325.41 ug/L        21.895      325.41 ppb         21.895   6.73%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -13.5     -0.3449 ug/L       0.13814     -0.3449 ppb        0.13814  40.05%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.1      0.2005 ug/L       5.40605      0.2005 ppb        5.40605 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.7      0.4630 ug/L       0.75053      0.4630 ppb        0.75053 162.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          20.8      27.209 ug/L        9.5613      27.209 ppb         9.5613  35.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.4      1.8781 ug/L       1.28949      1.8781 ppb        1.28949  68.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.0      0.5924 ug/L       3.67432      0.5924 ppb        3.67432 620.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               49.4      1.5315 ug/L       1.15250      1.5315 ppb        1.15250  75.25%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               10.6      1.8935 ug/L       1.05141      1.8935 ppb        1.05141  55.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               12.3      0.0949 ug/L       0.26392      0.0949 ppb        0.26392 278.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              152.9      0.2460 ug/L       0.13128      0.2460 ppb        0.13128  53.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      1.9588 ug/L       1.34898      1.9588 ppb        1.34898  68.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               324.1      9.2084 ug/L       3.49477      9.2084 ppb        3.49477  37.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                34.5      0.2767 ug/L       0.61692      0.2767 ppb        0.61692 223.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               42.8      0.4212 ug/L       0.00829      0.4212 ppb        0.00829   1.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     40.0      2.6501 ug/L       1.62142      2.6501 ppb        1.62142  61.18%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/16/2010 19:41:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4179.5	4179.5	98.3	%			19:43:03
1	Y RADIAL	4288.6	4288.6	97.42	%			19:43:03
1	Al 396.153Radial†	4687.7	4926.8	4905.1	ug/L	4905.1	ppb	19:43:03
1	Ca 317.933Radial†	2655.1	2682.1	5003.1	ug/L	5003.1	ppb	19:43:23
1	Fe 238.204 Radial†	496.7	495.2	5277.2	ug/L	5277.2	ppb	19:43:23
1	K 766.490 Radial†	27083.0	24373.9	4913.7	ug/L	4913.7	ppb	19:43:03
1	Mg 279.077 IEC†	133.2	132.8	5127.7	ug/L	5127.7	ppb	19:43:23
1	Na 589.592 Radial†	30987.2	31309.3	10444	ug/L	10444	ppb	19:43:03
1	Sr 421.552†	64335.8	65344.6	504.51	ug/L	504.51	ppb	19:43:03
1	Sc 361.383	816487.5	816487.5	96.056	%			19:44:21
1	Y 371.029	656358.4	656358.4	93.401	%			19:44:21
1	Ag 328.068†	99919.2	103793.8	501.63	ug/L	501.63	ppb	19:44:26
1	As 188.979†	1073.3	1145.7	486.48	ug/L	486.48	ppb	19:44:46
1	B 249.677†	20138.8	21447.5	502.30	ug/L	502.30	ppb	19:44:26
1	Ba 233.527†	58941.8	61342.9	499.32	ug/L	499.32	ppb	19:44:26
1	Be 313.107†	1280907.8	1337835.2	492.54	ug/L	492.54	ppb	19:44:21
1	Cd 226.502†	39512.5	41330.2	483.19	ug/L	483.19	ppb	19:44:26
1	Co 228.616†	22844.8	23861.5	497.63	ug/L	497.63	ppb	19:44:26
1	Cr 267.716†	39915.6	41404.7	482.30	ug/L	482.30	ppb	19:44:26
1	Cu 324.752†	166450.4	165190.0	505.77	ug/L	505.77	ppb	19:44:26
1	Mn 257.610†	414714.8	431171.4	497.62	ug/L	497.62	ppb	19:44:21
1	Mo 202.031†	6312.9	6561.6	488.03	ug/L	488.03	ppb	19:44:46
1	Ni 231.604†	18414.5	19057.0	487.83	ug/L	487.83	ppb	19:44:26
1	P 214.914†	4384.8	4322.9	2299.6	ug/L	2299.6	ppb	19:44:46
1	Pb 220.353†	3674.4	3898.8	484.53	ug/L	484.53	ppb	19:44:46
1	S 181.975 Axial†	776.4	765.4	999.36	ug/L	999.36	ppb	19:44:46
1	Sb 206.836†	1408.2	1430.3	501.44	ug/L	501.44	ppb	19:44:46
1	Se 196.026†	767.4	822.2	498.28	ug/L	498.28	ppb	19:44:46
1	Si 251.611†	77317.5	79879.5	2483.2	ug/L	2483.2	ppb	19:44:26
1	Sn 189.927†	2574.4	2667.5	479.16	ug/L	479.16	ppb	19:44:46
1	Ti 334.940†	295940.7	309583.5	503.03	ug/L	503.03	ppb	19:44:26
1	Tl 190.801†	1484.8	1584.9	503.66	ug/L	503.66	ppb	19:44:46
1	U 409.014†	13535.8	17606.7	498.48	ug/L	498.48	ppb	19:44:26
1	V 292.402†	62951.6	67213.4	493.28	ug/L	493.28	ppb	19:44:26
1	Zn 213.857†	49794.7	51151.3	494.65	ug/L	494.65	ppb	19:44:26
1	SiO2†	76911.0	79449.1	5283.8	ug/L	5283.8	ppb	19:45:54
2	Sc Radial	4275.0	4275.0	101	%			19:43:28
2	Y RADIAL	4376.7	4376.7	99.42	%			19:43:28
2	Al 396.153Radial†	4814.8	4946.7	4924.9	ug/L	4924.9	ppb	19:43:28
2	Ca 317.933Radial†	2624.0	2590.9	4833.1	ug/L	4833.1	ppb	19:43:48
2	Fe 238.204 Radial†	490.3	477.4	5088.8	ug/L	5088.8	ppb	19:43:48
2	K 766.490 Radial†	27406.8	24080.9	4854.7	ug/L	4854.7	ppb	19:43:28
2	Mg 279.077 IEC†	129.7	126.3	4877.2	ug/L	4877.2	ppb	19:43:48
2	Na 589.592 Radial†	31213.9	30831.1	10284	ug/L	10284	ppb	19:43:28
2	Sr 421.552†	65603.3	65144.1	502.96	ug/L	502.96	ppb	19:43:28
2	Sc 361.383	815668.6	815668.6	95.960	%			19:44:52
2	Y 371.029	656284.8	656284.8	93.391	%			19:44:52
2	Ag 328.068†	99209.0	103158.1	498.51	ug/L	498.51	ppb	19:44:57
2	As 188.979†	1075.8	1149.5	487.98	ug/L	487.98	ppb	19:45:17
2	B 249.677†	19971.0	21293.7	498.73	ug/L	498.73	ppb	19:44:57
2	Ba 233.527†	58438.2	60879.6	495.54	ug/L	495.54	ppb	19:44:57
2	Be 313.107†	1278947.1	1337130.7	492.27	ug/L	492.27	ppb	19:44:52
2	Cd 226.502†	39176.2	41021.0	479.59	ug/L	479.59	ppb	19:44:57
2	Co 228.616†	22562.7	23591.5	492.02	ug/L	492.02	ppb	19:44:57
2	Cr 267.716†	39582.4	41099.1	478.73	ug/L	478.73	ppb	19:44:57
2	Cu 324.752†	165098.3	163955.0	501.98	ug/L	501.98	ppb	19:44:57
2	Mn 257.610†	413683.5	430530.1	496.87	ug/L	496.87	ppb	19:44:52
2	Mo 202.031†	6334.5	6590.7	490.18	ug/L	490.18	ppb	19:45:17
2	Ni 231.604†	18210.4	18863.5	482.88	ug/L	482.88	ppb	19:44:57

2	P 214.914†	4362.2	4303.9	2290.0	ug/L	2290.0 ppb	19:45:17
2	Pb 220.353†	3680.6	3909.1	485.84	ug/L	485.84 ppb	19:45:17
2	S 181.975 Axial†	772.3	761.9	994.90	ug/L	994.90 ppb	19:45:17
2	Sb 206.836†	1398.9	1422.1	498.74	ug/L	498.74 ppb	19:45:17
2	Se 196.026†	772.3	828.1	501.13	ug/L	501.13 ppb	19:45:17
2	Si 251.611†	76726.5	79344.4	2466.5	ug/L	2466.5 ppb	19:44:57
2	Sn 189.927†	2586.5	2682.8	481.88	ug/L	481.88 ppb	19:45:17
2	Ti 334.940†	293328.6	307170.9	499.11	ug/L	499.11 ppb	19:44:57
2	Tl 190.801†	1468.0	1569.0	498.64	ug/L	498.64 ppb	19:45:17
2	U 409.014†	13356.6	17434.1	493.60	ug/L	493.60 ppb	19:44:57
2	V 292.402†	62380.0	66683.6	489.49	ug/L	489.49 ppb	19:44:57
2	Zn 213.857†	49339.8	50729.3	490.59	ug/L	490.59 ppb	19:44:57
2	SiO2†	77165.6	79794.8	5306.8	ug/L	5306.8 ppb	19:45:59
3	Sc Radial	4256.7	4256.7	100	%		19:43:54
3	Y RADIAL	4349.1	4349.1	98.79	%		19:43:54
3	Al 396.153Radial†	4727.8	4880.4	4858.9	ug/L	4858.9 ppb	19:43:54
3	Ca 317.933Radial†	2633.7	2611.8	4872.1	ug/L	4872.1 ppb	19:44:14
3	Fe 238.204 Radial†	489.1	478.4	5098.2	ug/L	5098.2 ppb	19:44:14
3	K 766.490 Radial†	27371.5	24162.7	4871.2	ug/L	4871.2 ppb	19:43:54
3	Mg 279.077 IEC†	127.8	124.9	4824.0	ug/L	4824.0 ppb	19:44:14
3	Na 589.592 Radial†	31166.5	30917.0	10313	ug/L	10313 ppb	19:43:54
3	Sr 421.552†	65058.8	64880.4	500.92	ug/L	500.92 ppb	19:43:54
3	Sc 361.383	829424.6	829424.6	97.578	%		19:45:23
3	Y 371.029	666366.8	666366.8	94.826	%		19:45:23
3	Ag 328.068†	98856.1	101081.8	488.51	ug/L	488.51 ppb	19:45:28
3	As 188.979†	1081.6	1136.8	482.58	ug/L	482.58 ppb	19:45:48
3	B 249.677†	19982.8	20960.7	490.92	ug/L	490.92 ppb	19:45:28
3	Ba 233.527†	58135.4	59559.3	484.80	ug/L	484.80 ppb	19:45:28
3	Be 313.107†	1302246.1	1338903.7	492.90	ug/L	492.90 ppb	19:45:23
3	Cd 226.502†	39048.2	40212.8	470.13	ug/L	470.13 ppb	19:45:28
3	Co 228.616†	22545.7	23184.1	483.52	ug/L	483.52 ppb	19:45:28
3	Cr 267.716†	39506.5	40337.3	469.86	ug/L	469.86 ppb	19:45:28
3	Cu 324.752†	164768.1	160763.1	492.20	ug/L	492.20 ppb	19:45:28
3	Mn 257.610†	420108.2	429964.4	496.22	ug/L	496.22 ppb	19:45:23
3	Mo 202.031†	6340.7	6487.6	482.52	ug/L	482.52 ppb	19:45:48
3	Ni 231.604†	18150.5	18487.5	473.25	ug/L	473.25 ppb	19:45:28
3	P 214.914†	4353.1	4219.1	2244.8	ug/L	2244.8 ppb	19:45:48
3	Pb 220.353†	3700.5	3865.9	480.46	ug/L	480.46 ppb	19:45:48
3	S 181.975 Axial†	771.2	747.4	975.90	ug/L	975.90 ppb	19:45:48
3	Sb 206.836†	1395.6	1394.6	489.17	ug/L	489.17 ppb	19:45:48
3	Se 196.026†	774.6	817.1	494.71	ug/L	494.71 ppb	19:45:48
3	Si 251.611†	76510.2	77796.7	2418.4	ug/L	2418.4 ppb	19:45:28
3	Sn 189.927†	2594.3	2646.1	475.29	ug/L	475.29 ppb	19:45:48
3	Ti 334.940†	292566.0	301319.7	489.61	ug/L	489.61 ppb	19:45:28
3	Tl 190.801†	1477.4	1553.2	493.64	ug/L	493.64 ppb	19:45:48
3	U 409.014†	13600.6	17453.3	494.17	ug/L	494.17 ppb	19:45:28
3	V 292.402†	62278.3	65501.2	480.83	ug/L	480.83 ppb	19:45:28
3	Zn 213.857†	49214.4	49748.1	481.09	ug/L	481.09 ppb	19:45:28
3	SiO2†	77803.7	79115.1	5261.7	ug/L	5261.7 ppb	19:46:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	820526.9	96.532	%	0.9078				0.94%
Sc Radial	4237.1	99.7	%	1.19				1.20%
Y 371.029	659670.0	93.873	%	0.8253				0.88%
Y RADIAL	4338.2	98.55	%	1.023				1.04%
Ag 328.068†	102677.9	496.22	ug/L	6.857	496.22	ppb	6.857	1.38%
QC value within limits for Ag 328.068 Recovery = 99.24%								
Al 396.153Radial†	4918.0	4896.3	ug/L	33.85	4896.3	ppb	33.85	0.69%
QC value within limits for Al 396.153Radial Recovery = 97.93%								
As 188.979†	1144.0	485.68	ug/L	2.787	485.68	ppb	2.787	0.57%
QC value within limits for As 188.979 Recovery = 97.14%								
B 249.677†	21233.9	497.32	ug/L	5.822	497.32	ppb	5.822	1.17%
QC value within limits for B 249.677 Recovery = 99.46%								
Ba 233.527†	60593.9	493.22	ug/L	7.530	493.22	ppb	7.530	1.53%
QC value within limits for Ba 233.527 Recovery = 98.64%								
Be 313.107†	1337956.6	492.57	ug/L	0.316	492.57	ppb	0.316	0.06%
QC value within limits for Be 313.107 Recovery = 98.51%								
Ca 317.933Radial†	2628.3	4902.7	ug/L	89.09	4902.7	ppb	89.09	1.82%

```
   QC value within limits for Ca 317.933Radial  Recovery = 98.05%
Cd 226.502†            40854.7      477.64 ug/L         6.745      477.64 ppb          6.745   1.41%
   QC value within limits for Cd 226.502  Recovery = 95.53%
Co 228.616†            23545.7      491.06 ug/L         7.104      491.06 ppb          7.104   1.45%
   QC value within limits for Co 228.616  Recovery = 98.21%
Cr 267.716†            40947.0      476.96 ug/L         6.405      476.96 ppb          6.405   1.34%
   QC value within limits for Cr 267.716  Recovery = 95.39%
Cu 324.752†           163302.7      499.98 ug/L         6.997      499.98 ppb          6.997   1.40%
   QC value within limits for Cu 324.752  Recovery = 100.00%
Fe 238.204 Radial†       483.7      5154.7 ug/L        106.13      5154.7 ppb         106.13   2.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.09%
K 766.490 Radial†      24205.8      4879.9 ug/L         30.45      4879.9 ppb          30.45   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 97.60%
Mg 279.077 IEC†          128.0      4943.0 ug/L        162.16      4943.0 ppb         162.16   3.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.86%
Mn 257.610†           430555.3      496.90 ug/L         0.699      496.90 ppb          0.699   0.14%
   QC value within limits for Mn 257.610  Recovery = 99.38%
Mo 202.031†            6546.6      486.91 ug/L         3.951      486.91 ppb          3.951   0.81%
   QC value within limits for Mo 202.031  Recovery = 97.38%
Na 589.592 Radial†     31019.1       10347 ug/L          85.0       10347 ppb           85.0   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 103.47%
Ni 231.604†            18802.7      481.32 ug/L         7.414      481.32 ppb          7.414   1.54%
   QC value within limits for Ni 231.604  Recovery = 96.26%
P 214.914†              4282.0      2278.2 ug/L         29.26      2278.2 ppb          29.26   1.28%
   QC value within limits for P 214.914  Recovery = 91.13%
Pb 220.353†             3891.3      483.61 ug/L         2.806      483.61 ppb          2.806   0.58%
   QC value within limits for Pb 220.353  Recovery = 96.72%
S 181.975 Axial†         758.2      990.05 ug/L        12.459      990.05 ppb         12.459   1.26%
   QC value within limits for S 181.975 Axial  Recovery = 99.01%
Sb 206.836†             1415.7      496.45 ug/L         6.445      496.45 ppb          6.445   1.30%
   QC value within limits for Sb 206.836  Recovery = 99.29%
Se 196.026†              822.5      498.04 ug/L         3.215      498.04 ppb          3.215   0.65%
   QC value within limits for Se 196.026  Recovery = 99.61%
Si 251.611†            79006.9      2456.1 ug/L         33.66      2456.1 ppb          33.66   1.37%
   QC value within limits for Si 251.611  Recovery = 98.24%
Sn 189.927†             2665.5      478.78 ug/L         3.308      478.78 ppb          3.308   0.69%
   QC value within limits for Sn 189.927  Recovery = 95.76%
Sr 421.552†            65123.0      502.80 ug/L         1.797      502.80 ppb          1.797   0.36%
   QC value within limits for Sr 421.552  Recovery = 100.56%
Ti 334.940†           306024.7      497.25 ug/L         6.899      497.25 ppb          6.899   1.39%
   QC value within limits for Ti 334.940  Recovery = 99.45%
Tl 190.801†             1569.0      498.65 ug/L         5.009      498.65 ppb          5.009   1.00%
   QC value within limits for Tl 190.801  Recovery = 99.73%
U 409.014†             17498.1      495.42 ug/L         2.666      495.42 ppb          2.666   0.54%
   QC value within limits for U 409.014  Recovery = 99.08%
V 292.402†             66466.1      487.87 ug/L         6.381      487.87 ppb          6.381   1.31%
   QC value within limits for V 292.402  Recovery = 97.57%
Zn 213.857†            50542.9      488.78 ug/L         6.959      488.78 ppb          6.959   1.42%
   QC value within limits for Zn 213.857  Recovery = 97.76%
SiO2†                  79453.0      5284.1 ug/L         22.55      5284.1 ppb          22.55   0.43%
   QC value within limits for SiO2  Recovery = 98.81%
All analyte(s) passed QC.
```

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/16/2010 19:48:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4279.8	4279.8	101	%			19:50:05
1	Y RADIAL	4394.1	4394.1	99.82	%			19:50:05
1	Al 396.153Radial†	-137.5	22.5	22.436	ug/L	22.436	ppb	19:50:25
1	Ca 317.933Radial†	25.1	6.6	12.333	ug/L	12.333	ppb	19:50:25
1	Fe 238.204 Radial†	9.2	-0.9	-10.033	ug/L	-10.033	ppb	19:50:25
1	K 766.490 Radial†	3148.9	-43.9	-8.9717	ug/L	-8.9717	ppb	19:50:05
1	Mg 279.077 IEC†	3.4	0.7	25.156	ug/L	25.156	ppb	19:50:25
1	Na 589.592 Radial†	968.9	755.3	251.94	ug/L	251.94	ppb	19:50:05
1	Sr 421.552†	144.4	53.6	0.4139	ug/L	0.4139	ppb	19:50:05
1	Sc 361.383	813397.8	813397.8	95.693	%			19:51:22
1	Y 371.029	662201.9	662201.9	94.233	%			19:51:22
1	Ag 328.068†	285.6	70.8	0.3333	ug/L	0.3333	ppb	19:51:22
1	As 188.979†	-31.0	-4.1	-1.7321	ug/L	-1.7321	ppb	19:51:42
1	B 249.677†	-218.6	253.5	5.9664	ug/L	5.9664	ppb	19:51:42
1	Ba 233.527†	35.0	17.8	0.1446	ug/L	0.1446	ppb	19:51:42
1	Be 313.107†	-4237.9	-89.6	-0.0324	ug/L	-0.0324	ppb	19:51:22
1	Cd 226.502†	-208.3	-22.2	-0.2580	ug/L	-0.2580	ppb	19:51:42
1	Co 228.616†	-80.6	-5.3	-0.1079	ug/L	-0.1079	ppb	19:51:42
1	Cr 267.716†	79.1	-67.0	-0.7815	ug/L	-0.7815	ppb	19:51:42
1	Cu 324.752†	7574.6	-178.6	-0.5501	ug/L	-0.5501	ppb	19:51:22
1	Mn 257.610†	1009.2	484.8	0.5572	ug/L	0.5572	ppb	19:51:22
1	Mo 202.031†	25.0	15.7	1.1643	ug/L	1.1643	ppb	19:51:42
1	Ni 231.604†	105.3	-3.5	-0.0897	ug/L	-0.0897	ppb	19:51:42
1	P 214.914†	245.9	15.0	8.4741	ug/L	8.4741	ppb	19:51:42
1	Pb 220.353†	-67.1	3.4	0.4334	ug/L	0.4334	ppb	19:51:42
1	S 181.975 Axial†	63.3	23.3	30.383	ug/L	30.383	ppb	19:51:42
1	Sb 206.836†	51.1	17.8	6.0699	ug/L	6.0699	ppb	19:51:42
1	Se 196.026†	-21.2	1.2	0.6617	ug/L	0.6617	ppb	19:51:42
1	Si 251.611†	642.2	58.8	1.8179	ug/L	1.8179	ppb	19:51:42
1	Sn 189.927†	23.5	12.0	2.1507	ug/L	2.1507	ppb	19:51:42
1	Ti 334.940†	-1295.8	138.8	0.2232	ug/L	0.2232	ppb	19:51:22
1	Tl 190.801†	-27.9	9.9	3.1295	ug/L	3.1295	ppb	19:51:42
1	U 409.014†	-3192.3	179.2	5.0937	ug/L	5.0937	ppb	19:51:22
1	V 292.402†	-1573.7	32.8	0.2656	ug/L	0.2656	ppb	19:51:22
1	Zn 213.857†	722.5	67.3	0.6593	ug/L	0.6593	ppb	19:51:42
1	SiO2†	635.7	44.8	2.9576	ug/L	2.9576	ppb	19:52:38
2	Sc Radial	4293.4	4293.4	101	%			19:50:30
2	Y RADIAL	4413.7	4413.7	100.3	%			19:50:30
2	Al 396.153Radial†	-119.1	41.1	41.099	ug/L	41.099	ppb	19:50:50
2	Ca 317.933Radial†	26.9	8.3	15.511	ug/L	15.511	ppb	19:50:50
2	Fe 238.204 Radial†	10.2	0.0	0.2538	ug/L	0.2538	ppb	19:50:50
2	K 766.490 Radial†	3206.5	3.2	0.5470	ug/L	0.5470	ppb	19:50:30
2	Mg 279.077 IEC†	1.3	-1.5	-56.951	ug/L	-56.951	ppb	19:50:50
2	Na 589.592 Radial†	908.1	692.1	230.84	ug/L	230.84	ppb	19:50:30
2	Sr 421.552†	134.6	43.4	0.3354	ug/L	0.3354	ppb	19:50:30
2	Sc 361.383	814897.1	814897.1	95.869	%			19:51:47
2	Y 371.029	664062.0	664062.0	94.498	%			19:51:47
2	Ag 328.068†	296.5	81.6	0.3881	ug/L	0.3881	ppb	19:51:47
2	As 188.979†	-25.8	1.4	0.5951	ug/L	0.5951	ppb	19:52:07
2	B 249.677†	-227.2	244.9	5.7608	ug/L	5.7608	ppb	19:52:07
2	Ba 233.527†	40.1	23.0	0.1863	ug/L	0.1863	ppb	19:52:07
2	Be 313.107†	-4326.2	-173.4	-0.0631	ug/L	-0.0631	ppb	19:51:47
2	Cd 226.502†	-190.6	-3.3	-0.0383	ug/L	-0.0383	ppb	19:52:07
2	Co 228.616†	-72.0	3.8	0.0816	ug/L	0.0816	ppb	19:52:07
2	Cr 267.716†	77.2	-69.1	-0.8058	ug/L	-0.8058	ppb	19:52:07
2	Cu 324.752†	7549.9	-218.9	-0.6722	ug/L	-0.6722	ppb	19:51:47
2	Mn 257.610†	692.1	152.2	0.1779	ug/L	0.1779	ppb	19:51:47
2	Mo 202.031†	26.8	17.5	1.3023	ug/L	1.3023	ppb	19:52:07
2	Ni 231.604†	115.3	6.7	0.1723	ug/L	0.1723	ppb	19:52:07

2	P 214.914†	235.5	3.7	2.2154	ug/L	2.2154 ppb	19:52:07
2	Pb 220.353†	-64.8	5.9	0.7464	ug/L	0.7464 ppb	19:52:07
2	S 181.975 Axial†	61.2	20.9	27.353	ug/L	27.353 ppb	19:52:07
2	Sb 206.836†	43.2	9.4	3.2418	ug/L	3.2418 ppb	19:52:07
2	Se 196.026†	-21.5	0.9	0.5475	ug/L	0.5475 ppb	19:52:07
2	Si 251.611†	634.4	49.4	1.5231	ug/L	1.5231 ppb	19:52:07
2	Sn 189.927†	27.2	15.8	2.8370	ug/L	2.8370 ppb	19:52:07
2	Ti 334.940†	-1283.8	153.8	0.2554	ug/L	0.2554 ppb	19:51:47
2	Tl 190.801†	-32.4	5.3	1.6852	ug/L	1.6852 ppb	19:52:07
2	U 409.014†	-3254.4	120.6	3.4273	ug/L	3.4273 ppb	19:51:47
2	V 292.402†	-1626.5	-19.2	-0.1155	ug/L	-0.1155 ppb	19:51:47
2	Zn 213.857†	719.3	62.6	0.6106	ug/L	0.6106 ppb	19:52:07
2	SiO2†	640.8	48.9	3.2247	ug/L	3.2247 ppb	19:52:43
3	Sc Radial	4264.8	4264.8	100	%		19:50:55
3	Y RADIAL	4387.4	4387.4	99.66	%		19:50:55
3	Al 396.153Radial†	-122.1	37.3	37.275	ug/L	37.275 ppb	19:51:15
3	Ca 317.933Radial†	20.9	2.5	4.6948	ug/L	4.6948 ppb	19:51:15
3	Fe 238.204 Radial†	11.0	1.0	10.132	ug/L	10.132 ppb	19:51:15
3	K 766.490 Radial†	3217.8	35.7	7.1149	ug/L	7.1149 ppb	19:50:55
3	Mg 279.077 IEC†	3.0	0.2	9.4282	ug/L	9.4282 ppb	19:51:15
3	Na 589.592 Radial†	937.9	727.8	242.75	ug/L	242.75 ppb	19:50:55
3	Sr 421.552†	67.0	-23.0	-0.1780	ug/L	-0.1780 ppb	19:50:55
3	Sc 361.383	818748.2	818748.2	96.322	%		19:52:13
3	Y 371.029	667754.1	667754.1	95.023	%		19:52:13
3	Ag 328.068†	161.7	-59.8	-0.2867	ug/L	-0.2867 ppb	19:52:13
3	As 188.979†	-31.4	-4.3	-1.8046	ug/L	-1.8046 ppb	19:52:33
3	B 249.677†	-200.2	274.0	6.4445	ug/L	6.4445 ppb	19:52:33
3	Ba 233.527†	15.1	-3.2	-0.0262	ug/L	-0.0262 ppb	19:52:33
3	Be 313.107†	-4255.4	-78.7	-0.0286	ug/L	-0.0286 ppb	19:52:13
3	Cd 226.502†	-208.5	-21.0	-0.2463	ug/L	-0.2463 ppb	19:52:33
3	Co 228.616†	-62.7	13.7	0.2893	ug/L	0.2893 ppb	19:52:33
3	Cr 267.716†	85.1	-61.3	-0.7146	ug/L	-0.7146 ppb	19:52:33
3	Cu 324.752†	7570.3	-234.8	-0.7191	ug/L	-0.7191 ppb	19:52:13
3	Mn 257.610†	765.4	224.9	0.2600	ug/L	0.2600 ppb	19:52:13
3	Mo 202.031†	26.2	16.7	1.2407	ug/L	1.2407 ppb	19:52:33
3	Ni 231.604†	87.9	-22.3	-0.5714	ug/L	-0.5714 ppb	19:52:33
3	P 214.914†	248.5	16.0	9.0492	ug/L	9.0492 ppb	19:52:33
3	Pb 220.353†	-68.1	2.8	0.3632	ug/L	0.3632 ppb	19:52:33
3	S 181.975 Axial†	57.0	16.2	21.214	ug/L	21.214 ppb	19:52:33
3	Sb 206.836†	45.8	11.9	4.0653	ug/L	4.0653 ppb	19:52:33
3	Se 196.026†	-16.9	5.8	3.4243	ug/L	3.4243 ppb	19:52:33
3	Si 251.611†	624.7	36.2	1.1128	ug/L	1.1128 ppb	19:52:33
3	Sn 189.927†	16.1	4.1	0.7375	ug/L	0.7375 ppb	19:52:33
3	Ti 334.940†	-1348.4	93.0	0.1506	ug/L	0.1506 ppb	19:52:13
3	Tl 190.801†	-32.4	5.5	1.7449	ug/L	1.7449 ppb	19:52:33
3	U 409.014†	-3336.9	50.8	1.4449	ug/L	1.4449 ppb	19:52:13
3	V 292.402†	-1669.8	-56.2	-0.3881	ug/L	-0.3881 ppb	19:52:13
3	Zn 213.857†	695.3	34.1	0.3363	ug/L	0.3363 ppb	19:52:33
3	SiO2†	703.6	111.0	7.3646	ug/L	7.3646 ppb	19:52:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	815681.0	95.961	%	0.3247				0.34%
Sc Radial	4279.3	101	%	0.3				0.33%
Y 371.029	664672.7	94.585	%	0.4022				0.43%
Y RADIAL	4398.4	99.91	%	0.310				0.31%
Ag 328.068†	30.9	0.1449	ug/L	0.37478	0.1449	ppb	0.37478	258.63%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	33.7	33.603	ug/L	9.8586	33.603	ppb	9.8586	29.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-0.9805	ug/L	1.36499	-0.9805	ppb	1.36499	139.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	257.5	6.0572	ug/L	0.35077	6.0572	ppb	0.35077	5.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.5	0.1015	ug/L	0.11257	0.1015	ppb	0.11257	110.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-113.9	-0.0414	ug/L	0.01896	-0.0414	ppb	0.01896	45.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.8	10.846	ug/L	5.5594	10.846	ppb	5.5594	51.26%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -15.5     -0.1809 ug/L       0.12363     -0.1809 ppb        0.12363  68.35%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.1      0.0877 ug/L       0.19865      0.0877 ppb        0.19865 226.62%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -65.8     -0.7673 ug/L       0.04725     -0.7673 ppb        0.04725   6.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -210.8     -0.6471 ug/L       0.08725     -0.6471 ppb        0.08725  13.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.1176 ug/L      10.08321      0.1176 ppb       10.08321 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -1.7     -0.4366 ug/L       8.08827     -0.4366 ppb        8.08827 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.2     -7.4557 ug/L      43.57992     -7.4557 ppb       43.57992 584.51%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              287.3      0.3317 ug/L       0.19954      0.3317 ppb        0.19954  60.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               16.6      1.2358 ug/L       0.06910      1.2358 ppb        0.06910   5.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       725.0      241.85 ug/L        10.581      241.85 ppb         10.581   4.37%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -6.4     -0.1629 ug/L       0.37722     -0.1629 ppb        0.37722 231.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                11.6      6.5796 ug/L       3.79043      6.5796 ppb        3.79043  57.61%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                4.1      0.5143 ug/L       0.20400      0.5143 ppb        0.20400  39.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          20.1      26.317 ug/L        4.6714      26.317 ppb         4.6714  17.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               13.0      4.4590 ug/L       1.45458      4.4590 ppb        1.45458  32.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.6      1.5445 ug/L       1.62898      1.5445 ppb        1.62898 105.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               48.1      1.4846 ug/L       0.35411      1.4846 ppb        0.35411  23.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               10.6      1.9084 ug/L       1.07048      1.9084 ppb        1.07048  56.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               24.7      0.1904 ug/L       0.32149      0.1904 ppb        0.32149 168.82%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              128.5      0.2097 ug/L       0.05370      0.2097 ppb        0.05370  25.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.9      2.1865 ug/L       0.81718      2.1865 ppb        0.81718  37.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               116.9      3.3220 ug/L       1.82669      3.3220 ppb        1.82669  54.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -14.2     -0.0793 ug/L       0.32833     -0.0793 ppb        0.32833 413.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               54.7      0.5354 ug/L       0.17416      0.5354 ppb        0.17416  32.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     68.2      4.5156 ug/L       2.47087      4.5156 ppb        2.47087  54.72%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/16/2010 20:57:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4080.6	4080.6	96.0	%			20:59:24
1	Y RADIAL	4224.3	4224.3	95.96	%			20:59:04
1	Al 396.153Radial†	4643.1	4995.9	4974.1	ug/L	4974.1	ppb	20:59:04
1	Ca 317.933Radial†	2617.0	2707.9	5051.3	ug/L	5051.3	ppb	20:59:24
1	Fe 238.204 Radial†	501.3	512.2	5458.2	ug/L	5458.2	ppb	20:59:24
1	K 766.490 Radial†	26808.3	24755.6	4990.7	ug/L	4990.7	ppb	20:59:04
1	Mg 279.077 IEC†	133.2	136.1	5255.4	ug/L	5255.4	ppb	20:59:24
1	Na 589.592 Radial†	30882.0	31963.8	10662	ug/L	10662	ppb	20:59:04
1	Sr 421.552†	63836.2	66410.7	512.74	ug/L	512.74	ppb	20:59:04
1	Sc 361.383	834330.2	834330.2	98.155	%			21:00:23
1	Y 371.029	668805.9	668805.9	95.173	%			21:00:23
1	Ag 328.068†	99625.6	101270.1	489.58	ug/L	489.58	ppb	21:00:23
1	As 188.979†	1110.2	1159.4	492.32	ug/L	492.32	ppb	21:00:43
1	B 249.677†	20143.7	21004.1	491.86	ug/L	491.86	ppb	21:00:23
1	Ba 233.527†	59657.8	60760.1	494.57	ug/L	494.57	ppb	21:00:23
1	Be 313.107†	1322163.7	1351348.6	497.51	ug/L	497.51	ppb	21:00:23
1	Cd 226.502†	39430.6	40367.0	471.90	ug/L	471.90	ppb	21:00:43
1	Co 228.616†	23056.3	23568.4	491.52	ug/L	491.52	ppb	21:00:43
1	Cr 267.716†	40560.2	41172.7	479.61	ug/L	479.61	ppb	21:00:23
1	Cu 324.752†	168349.4	163418.9	500.38	ug/L	500.38	ppb	21:00:23
1	Mn 257.610†	426429.5	433873.1	500.75	ug/L	500.75	ppb	21:00:23
1	Mo 202.031†	6495.4	6607.0	491.42	ug/L	491.42	ppb	21:00:43
1	Ni 231.604†	18594.9	18830.8	482.04	ug/L	482.04	ppb	21:00:43
1	P 214.914†	4555.1	4398.7	2342.7	ug/L	2342.7	ppb	21:00:43
1	Pb 220.353†	3792.9	3937.7	489.37	ug/L	489.37	ppb	21:00:43
1	S 181.975 Axial†	788.4	760.3	992.75	ug/L	992.75	ppb	21:00:43
1	Sb 206.836†	1429.0	1420.2	498.15	ug/L	498.15	ppb	21:00:43
1	Se 196.026†	802.3	840.7	509.67	ug/L	509.67	ppb	21:00:43
1	Si 251.611†	79165.2	80040.6	2488.2	ug/L	2488.2	ppb	21:00:23
1	Sn 189.927†	2670.1	2707.6	486.36	ug/L	486.36	ppb	21:00:43
1	Ti 334.940†	304517.9	311733.3	506.54	ug/L	506.54	ppb	21:00:23
1	Tl 190.801†	1496.2	1563.5	497.00	ug/L	497.00	ppb	21:00:43
1	U 409.014†	12403.3	16151.6	457.13	ug/L	457.13	ppb	21:00:23
1	V 292.402†	63344.4	66212.0	485.97	ug/L	485.97	ppb	21:00:23
1	Zn 213.857†	50074.1	50327.3	486.62	ug/L	486.62	ppb	21:00:23
1	SiO2†	79109.4	79976.4	5318.9	ug/L	5318.9	ppb	21:01:43
2	Sc Radial	4071.5	4071.5	95.8	%			20:59:49
2	Y RADIAL	4228.3	4228.3	96.05	%			20:59:29
2	Al 396.153Radial†	4682.7	5048.1	5026.2	ug/L	5026.2	ppb	20:59:29
2	Ca 317.933Radial†	2622.6	2719.8	5073.5	ug/L	5073.5	ppb	20:59:49
2	Fe 238.204 Radial†	496.4	508.2	5416.1	ug/L	5416.1	ppb	20:59:49
2	K 766.490 Radial†	26877.2	24890.0	5017.8	ug/L	5017.8	ppb	20:59:29
2	Mg 279.077 IEC†	130.7	133.7	5163.4	ug/L	5163.4	ppb	20:59:49
2	Na 589.592 Radial†	30969.6	32127.2	10716	ug/L	10716	ppb	20:59:29
2	Sr 421.552†	64023.8	66755.3	515.40	ug/L	515.40	ppb	20:59:29
2	Sc 361.383	836755.2	836755.2	98.441	%			21:00:50
2	Y 371.029	670519.8	670519.8	95.417	%			21:00:50
2	Ag 328.068†	100018.9	101375.5	490.07	ug/L	490.07	ppb	21:00:50
2	As 188.979†	1131.4	1177.7	500.00	ug/L	500.00	ppb	21:01:10
2	B 249.677†	20276.3	21079.4	493.63	ug/L	493.63	ppb	21:00:50
2	Ba 233.527†	59866.9	60796.3	494.87	ug/L	494.87	ppb	21:00:50
2	Be 313.107†	1327964.9	1353338.0	498.24	ug/L	498.24	ppb	21:00:50
2	Cd 226.502†	39806.5	40632.5	475.01	ug/L	475.01	ppb	21:01:10
2	Co 228.616†	23267.0	23714.4	494.56	ug/L	494.56	ppb	21:01:10
2	Cr 267.716†	40831.9	41328.9	481.42	ug/L	481.42	ppb	21:00:50
2	Cu 324.752†	169178.3	163763.9	501.42	ug/L	501.42	ppb	21:00:50
2	Mn 257.610†	429077.4	435303.9	502.40	ug/L	502.40	ppb	21:00:50
2	Mo 202.031†	6533.2	6626.3	492.85	ug/L	492.85	ppb	21:01:10
2	Ni 231.604†	18777.8	18961.8	485.39	ug/L	485.39	ppb	21:01:10

2	P 214.914†	4605.8	4436.8	2363.7 ug/L	2363.7 ppb	21:01:10
2	Pb 220.353†	3816.4	3950.4	490.96 ug/L	490.96 ppb	21:01:10
2	S 181.975 Axial†	803.1	772.9	1009.2 ug/L	1009.2 ppb	21:01:10
2	Sb 206.836†	1460.2	1447.6	507.55 ug/L	507.55 ppb	21:01:10
2	Se 196.026†	814.5	850.8	515.40 ug/L	515.40 ppb	21:01:10
2	Si 251.611†	79614.6	80263.3	2495.1 ug/L	2495.1 ppb	21:00:50
2	Sn 189.927†	2705.2	2735.5	491.36 ug/L	491.36 ppb	21:01:10
2	Ti 334.940†	306143.2	312485.2	507.77 ug/L	507.77 ppb	21:00:50
2	Tl 190.801†	1520.1	1583.3	503.25 ug/L	503.25 ppb	21:01:10
2	U 409.014†	12814.1	16532.2	467.94 ug/L	467.94 ppb	21:00:50
2	V 292.402†	63707.1	66393.5	487.33 ug/L	487.33 ppb	21:00:50
2	Zn 213.857†	50505.5	50617.7	489.44 ug/L	489.44 ppb	21:00:50
2	SiO2†	79042.4	79674.9	5298.8 ug/L	5298.8 ppb	21:01:48
3	Sc Radial	4107.4	4107.4	96.6 %		21:00:14
3	Y RADIAL	4303.1	4303.1	97.75 %		20:59:54
3	Al 396.153Radial†	4706.9	5030.4	5008.7 ug/L	5008.7 ppb	20:59:54
3	Ca 317.933Radial†	2643.4	2717.5	5069.1 ug/L	5069.1 ppb	21:00:14
3	Fe 238.204 Radial†	504.4	512.0	5455.6 ug/L	5455.6 ppb	21:00:14
3	K 766.490 Radial†	27217.2	24996.5	5039.3 ug/L	5039.3 ppb	20:59:54
3	Mg 279.077 IEC†	136.5	138.5	5349.9 ug/L	5349.9 ppb	21:00:14
3	Na 589.592 Radial†	31365.0	32253.8	10759 ug/L	10759 ppb	20:59:54
3	Sr 421.552†	64856.3	67032.4	517.54 ug/L	517.54 ppb	20:59:54
3	Sc 361.383	836740.7	836740.7	98.439 %		21:01:18
3	Y 371.029	669708.0	669708.0	95.301 %		21:01:18
3	Ag 328.068†	100101.7	101461.4	490.51 ug/L	490.51 ppb	21:01:18
3	As 188.979†	1120.6	1166.7	495.39 ug/L	495.39 ppb	21:01:38
3	B 249.677†	20399.6	21205.0	496.59 ug/L	496.59 ppb	21:01:18
3	Ba 233.527†	60201.4	61137.1	497.64 ug/L	497.64 ppb	21:01:18
3	Be 313.107†	1328638.2	1354045.4	498.50 ug/L	498.50 ppb	21:01:18
3	Cd 226.502†	39435.1	40255.9	470.60 ug/L	470.60 ppb	21:01:38
3	Co 228.616†	23005.5	23449.1	489.02 ug/L	489.02 ppb	21:01:38
3	Cr 267.716†	40889.3	41388.0	482.11 ug/L	482.11 ppb	21:01:18
3	Cu 324.752†	169544.8	164139.1	502.58 ug/L	502.58 ppb	21:01:18
3	Mn 257.610†	430061.8	436311.5	503.55 ug/L	503.55 ppb	21:01:18
3	Mo 202.031†	6480.8	6573.1	488.90 ug/L	488.90 ppb	21:01:38
3	Ni 231.604†	18601.5	18783.0	480.81 ug/L	480.81 ppb	21:01:38
3	P 214.914†	4564.0	4394.4	2339.9 ug/L	2339.9 ppb	21:01:38
3	Pb 220.353†	3800.0	3933.8	488.89 ug/L	488.89 ppb	21:01:38
3	S 181.975 Axial†	789.4	759.0	991.06 ug/L	991.06 ppb	21:01:38
3	Sb 206.836†	1424.2	1411.1	494.98 ug/L	494.98 ppb	21:01:38
3	Se 196.026†	803.3	839.3	508.84 ug/L	508.84 ppb	21:01:38
3	Si 251.611†	79704.8	80356.3	2498.1 ug/L	2498.1 ppb	21:01:18
3	Sn 189.927†	2666.3	2696.0	484.28 ug/L	484.28 ppb	21:01:38
3	Ti 334.940†	306644.0	312999.3	508.59 ug/L	508.59 ppb	21:01:18
3	Tl 190.801†	1506.0	1569.0	498.79 ug/L	498.79 ppb	21:01:38
3	U 409.014†	12624.5	16339.8	462.47 ug/L	462.47 ppb	21:01:18
3	V 292.402†	63917.0	66607.8	488.81 ug/L	488.81 ppb	21:01:18
3	Zn 213.857†	50604.5	50719.2	490.45 ug/L	490.45 ppb	21:01:18
3	SiO2†	78528.4	79154.1	5264.1 ug/L	5264.1 ppb	21:01:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835942.0	98.345	%	0.1642				0.17%
Sc Radial	4086.5	96.1	%	0.44				0.46%
Y 371.029	669677.9	95.297	%	0.1220				0.13%
Y RADIAL	4251.9	96.59	%	1.008				1.04%
Ag 328.068†	101369.0	490.05	ug/L	0.463	490.05	ppb	0.463	0.09%
QC value within limits for Ag 328.068 Recovery = 98.01%								
Al 396.153Radial†	5024.8	5003.0	ug/L	26.53	5003.0	ppb	26.53	0.53%
QC value within limits for Al 396.153Radial Recovery = 100.06%								
As 188.979†	1167.9	495.90	ug/L	3.867	495.90	ppb	3.867	0.78%
QC value within limits for As 188.979 Recovery = 99.18%								
B 249.677†	21096.2	494.03	ug/L	2.392	494.03	ppb	2.392	0.48%
QC value within limits for B 249.677 Recovery = 98.81%								
Ba 233.527†	60897.8	495.70	ug/L	1.692	495.70	ppb	1.692	0.34%
QC value within limits for Ba 233.527 Recovery = 99.14%								
Be 313.107†	1352910.7	498.08	ug/L	0.516	498.08	ppb	0.516	0.10%
QC value within limits for Be 313.107 Recovery = 99.62%								
Ca 317.933Radial†	2715.1	5064.6	ug/L	11.77	5064.6	ppb	11.77	0.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.29%
Cd 226.502†            40418.5      472.50 ug/L         2.267      472.50 ppb          2.267   0.48%
   QC value within limits for Cd 226.502  Recovery = 94.50%
Co 228.616†            23577.3      491.70 ug/L         2.776      491.70 ppb          2.776   0.56%
   QC value within limits for Co 228.616  Recovery = 98.34%
Cr 267.716†            41296.5      481.05 ug/L         1.294      481.05 ppb          1.294   0.27%
   QC value within limits for Cr 267.716  Recovery = 96.21%
Cu 324.752†           163774.0      501.46 ug/L         1.101      501.46 ppb          1.101   0.22%
   QC value within limits for Cu 324.752  Recovery = 100.29%
Fe 238.204 Radial†       510.8      5443.3 ug/L        23.58      5443.3 ppb         23.58   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.87%
K 766.490 Radial†      24880.7      5015.9 ug/L        24.35      5015.9 ppb         24.35   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.32%
Mg 279.077 IEC†          136.1      5256.2 ug/L        93.29      5256.2 ppb         93.29   1.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.12%
Mn 257.610†           435162.9      502.23 ug/L         1.411      502.23 ppb          1.411   0.28%
   QC value within limits for Mn 257.610  Recovery = 100.45%
Mo 202.031†             6602.1      491.06 ug/L         1.999      491.06 ppb          1.999   0.41%
   QC value within limits for Mo 202.031  Recovery = 98.21%
Na 589.592 Radial†     32114.9       10712 ug/L          48.5       10712 ppb           48.5   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 107.12%
Ni 231.604†            18858.5      482.75 ug/L         2.369      482.75 ppb          2.369   0.49%
   QC value within limits for Ni 231.604  Recovery = 96.55%
P 214.914†              4410.0      2348.8 ug/L        13.05      2348.8 ppb         13.05   0.56%
   QC value within limits for P 214.914  Recovery = 93.95%
Pb 220.353†             3940.7      489.74 ug/L         1.086      489.74 ppb          1.086   0.22%
   QC value within limits for Pb 220.353  Recovery = 97.95%
S 181.975 Axial†         764.1      997.68 ug/L        10.033      997.68 ppb         10.033   1.01%
   QC value within limits for S 181.975 Axial  Recovery = 99.77%
Sb 206.836†             1426.3      500.23 ug/L         6.533      500.23 ppb          6.533   1.31%
   QC value within limits for Sb 206.836  Recovery = 100.05%
Se 196.026†              843.6      511.30 ug/L         3.572      511.30 ppb          3.572   0.70%
   QC value within limits for Se 196.026  Recovery = 102.26%
Si 251.611†            80220.1      2493.8 ug/L          5.07      2493.8 ppb          5.07   0.20%
   QC value within limits for Si 251.611  Recovery = 99.75%
Sn 189.927†             2713.0      487.33 ug/L         3.636      487.33 ppb          3.636   0.75%
   QC value within limits for Sn 189.927  Recovery = 97.47%
Sr 421.552†            66732.8      515.23 ug/L         2.405      515.23 ppb          2.405   0.47%
   QC value within limits for Sr 421.552  Recovery = 103.05%
Ti 334.940†           312405.9      507.63 ug/L         1.031      507.63 ppb          1.031   0.20%
   QC value within limits for Ti 334.940  Recovery = 101.53%
Tl 190.801†             1571.9      499.68 ug/L         3.219      499.68 ppb          3.219   0.64%
   QC value within limits for Tl 190.801  Recovery = 99.94%
U 409.014†             16341.2      462.51 ug/L         5.407      462.51 ppb          5.407   1.17%
   QC value within limits for U 409.014  Recovery = 92.50%
V 292.402†             66404.5      487.37 ug/L         1.421      487.37 ppb          1.421   0.29%
   QC value within limits for V 292.402  Recovery = 97.47%
Zn 213.857†            50554.7      488.84 ug/L         1.985      488.84 ppb          1.985   0.41%
   QC value within limits for Zn 213.857  Recovery = 97.77%
SiO2†                  79601.8      5293.9 ug/L        27.70      5293.9 ppb         27.70   0.52%
   QC value within limits for SiO2  Recovery = 99.00%
All analyte(s) passed QC.
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Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/16/2010 21:04:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4061.0	4061.0	95.5	%			21:06:15
1	Y RADIAL	4228.7	4228.7	96.06	%			21:05:55
1	Al 396.153Radial†	-129.6	23.4	23.329	ug/L	23.329	ppb	21:05:55
1	Ca 317.933Radial†	17.6	0.1	0.2711	ug/L	0.2711	ppb	21:06:15
1	Fe 238.204 Radial†	11.8	2.2	23.859	ug/L	23.859	ppb	21:06:15
1	K 766.490 Radial†	3097.0	70.2	14.165	ug/L	14.165	ppb	21:05:55
1	Mg 279.077 IEC†	2.6	0.0	0.9769	ug/L	0.9769	ppb	21:06:15
1	Na 589.592 Radial†	243.0	47.3	15.777	ug/L	15.777	ppb	21:05:55
1	Sr 421.552†	38.5	-49.5	-0.3821	ug/L	-0.3821	ppb	21:05:55
1	Sc 361.383	826132.3	826132.3	97.191	%			21:07:12
1	Y 371.029	670161.6	670161.6	95.366	%			21:07:12
1	Ag 328.068†	315.3	96.8	0.4698	ug/L	0.4698	ppb	21:07:12
1	As 188.979†	-28.9	-1.4	-0.5999	ug/L	-0.5999	ppb	21:07:32
1	B 249.677†	-223.8	251.7	5.9171	ug/L	5.9171	ppb	21:07:32
1	Ba 233.527†	8.8	-9.8	-0.0786	ug/L	-0.0786	ppb	21:07:32
1	Be 313.107†	-4178.5	39.8	0.0150	ug/L	0.0150	ppb	21:07:12
1	Cd 226.502†	-208.6	-19.1	-0.2254	ug/L	-0.2254	ppb	21:07:32
1	Co 228.616†	-80.0	-3.4	-0.0704	ug/L	-0.0704	ppb	21:07:32
1	Cr 267.716†	72.0	-75.6	-0.8804	ug/L	-0.8804	ppb	21:07:32
1	Cu 324.752†	8199.6	342.5	1.0479	ug/L	1.0479	ppb	21:07:12
1	Mn 257.610†	815.9	269.8	0.3135	ug/L	0.3135	ppb	21:07:32
1	Mo 202.031†	19.7	9.9	0.7341	ug/L	0.7341	ppb	21:07:32
1	Ni 231.604†	103.9	-6.6	-0.1693	ug/L	-0.1693	ppb	21:07:32
1	P 214.914†	233.2	-2.0	-1.3216	ug/L	-1.3216	ppb	21:07:32
1	Pb 220.353†	-78.7	-7.4	-0.9161	ug/L	-0.9161	ppb	21:07:32
1	S 181.975 Axial†	58.3	17.0	22.253	ug/L	22.253	ppb	21:07:32
1	Sb 206.836†	43.0	8.6	2.9312	ug/L	2.9312	ppb	21:07:32
1	Se 196.026†	-23.4	-0.7	-0.3359	ug/L	-0.3359	ppb	21:07:32
1	Si 251.611†	688.2	95.8	2.9751	ug/L	2.9751	ppb	21:07:32
1	Sn 189.927†	20.2	8.1	1.4568	ug/L	1.4568	ppb	21:07:32
1	Ti 334.940†	-1359.9	93.7	0.1509	ug/L	0.1509	ppb	21:07:12
1	Tl 190.801†	-39.7	-1.8	-0.5494	ug/L	-0.5494	ppb	21:07:32
1	U 409.014†	-3289.4	130.7	3.7117	ug/L	3.7117	ppb	21:07:12
1	V 292.402†	-1623.3	7.1	0.0655	ug/L	0.0655	ppb	21:07:12
1	Zn 213.857†	704.3	36.9	0.3558	ug/L	0.3558	ppb	21:07:32
1	SiO2†	653.9	53.2	3.5284	ug/L	3.5284	ppb	21:08:28
2	Sc Radial	4040.2	4040.2	95.0	%			21:06:40
2	Y RADIAL	4190.2	4190.2	95.18	%			21:06:20
2	Al 396.153Radial†	-145.2	6.3	6.2022	ug/L	6.2022	ppb	21:06:20
2	Ca 317.933Radial†	19.7	2.4	4.4430	ug/L	4.4430	ppb	21:06:40
2	Fe 238.204 Radial†	10.6	1.1	11.971	ug/L	11.971	ppb	21:06:40
2	K 766.490 Radial†	3146.7	139.3	28.112	ug/L	28.112	ppb	21:06:20
2	Mg 279.077 IEC†	4.7	2.3	87.332	ug/L	87.332	ppb	21:06:40
2	Na 589.592 Radial†	206.3	10.0	3.3238	ug/L	3.3238	ppb	21:06:20
2	Sr 421.552†	-3.1	-93.1	-0.7186	ug/L	-0.7186	ppb	21:06:20
2	Sc 361.383	826159.0	826159.0	97.194	%			21:07:37
2	Y 371.029	670488.1	670488.1	95.412	%			21:07:37
2	Ag 328.068†	168.6	-54.2	-0.2575	ug/L	-0.2575	ppb	21:07:37
2	As 188.979†	-31.5	-4.1	-1.7338	ug/L	-1.7338	ppb	21:07:57
2	B 249.677†	-249.7	225.0	5.2917	ug/L	5.2917	ppb	21:07:57
2	Ba 233.527†	28.5	10.5	0.0862	ug/L	0.0862	ppb	21:07:57
2	Be 313.107†	-4170.2	48.6	0.0197	ug/L	0.0197	ppb	21:07:37
2	Cd 226.502†	-208.6	-19.1	-0.2249	ug/L	-0.2249	ppb	21:07:57
2	Co 228.616†	-78.1	-1.5	-0.0285	ug/L	-0.0285	ppb	21:07:57
2	Cr 267.716†	98.5	-48.3	-0.5623	ug/L	-0.5623	ppb	21:07:57
2	Cu 324.752†	8231.9	375.4	1.1490	ug/L	1.1490	ppb	21:07:37
2	Mn 257.610†	770.9	223.4	0.2553	ug/L	0.2553	ppb	21:07:57
2	Mo 202.031†	29.1	19.5	1.4469	ug/L	1.4469	ppb	21:07:57
2	Ni 231.604†	92.2	-18.6	-0.4768	ug/L	-0.4768	ppb	21:07:57

2	P 214.914†	244.7	9.8	5.2128	ug/L	5.2128	ppb	21:07:57
2	Pb 220.353†	-75.5	-4.2	-0.5109	ug/L	-0.5109	ppb	21:07:57
2	S 181.975 Axial†	56.8	15.5	20.280	ug/L	20.280	ppb	21:07:57
2	Sb 206.836†	37.1	2.5	0.8999	ug/L	0.8999	ppb	21:07:57
2	Se 196.026†	-18.1	4.7	2.8084	ug/L	2.8084	ppb	21:07:57
2	Si 251.611†	682.7	90.1	2.7908	ug/L	2.7908	ppb	21:07:57
2	Sn 189.927†	22.5	10.6	1.8974	ug/L	1.8974	ppb	21:07:57
2	Ti 334.940†	-964.4	500.7	0.8065	ug/L	0.8065	ppb	21:07:37
2	Tl 190.801†	-47.1	-9.4	-2.9504	ug/L	-2.9504	ppb	21:07:57
2	U 409.014†	-3346.3	72.2	2.0515	ug/L	2.0515	ppb	21:07:37
2	V 292.402†	-1609.3	21.5	0.1793	ug/L	0.1793	ppb	21:07:37
2	Zn 213.857†	698.0	30.4	0.2960	ug/L	0.2960	ppb	21:07:57
2	SiO2†	633.8	32.6	2.1349	ug/L	2.1349	ppb	21:08:33
3	Sc Radial	4010.6	4010.6	94.3	%			21:07:05
3	Y RADIAL	4315.9	4315.9	98.04	%			21:06:45
3	Al 396.153Radial†	-119.2	32.7	32.672	ug/L	32.672	ppb	21:06:45
3	Ca 317.933Radial†	15.9	-1.4	-2.6988	ug/L	-2.6988	ppb	21:07:05
3	Fe 238.204 Radial†	11.3	1.9	20.147	ug/L	20.147	ppb	21:07:05
3	K 766.490 Radial†	3048.7	59.7	12.048	ug/L	12.048	ppb	21:06:45
3	Mg 279.077 IEC†	2.3	-0.3	-11.327	ug/L	-11.327	ppb	21:07:05
3	Na 589.592 Radial†	254.0	62.2	20.733	ug/L	20.733	ppb	21:06:45
3	Sr 421.552†	23.3	-65.1	-0.5029	ug/L	-0.5029	ppb	21:06:45
3	Sc 361.383	823909.0	823909.0	96.929	%			21:08:02
3	Y 371.029	668640.1	668640.1	95.149	%			21:08:02
3	Ag 328.068†	216.9	-4.0	-0.0175	ug/L	-0.0175	ppb	21:08:02
3	As 188.979†	-33.1	-5.8	-2.4351	ug/L	-2.4351	ppb	21:08:22
3	B 249.677†	-249.3	224.7	5.2819	ug/L	5.2819	ppb	21:08:22
3	Ba 233.527†	-0.8	-19.6	-0.1601	ug/L	-0.1601	ppb	21:08:22
3	Be 313.107†	-4143.3	64.6	0.0238	ug/L	0.0238	ppb	21:08:02
3	Cd 226.502†	-191.1	-1.7	-0.0215	ug/L	-0.0215	ppb	21:08:22
3	Co 228.616†	-64.9	12.0	0.2509	ug/L	0.2509	ppb	21:08:22
3	Cr 267.716†	63.0	-84.7	-0.9873	ug/L	-0.9873	ppb	21:08:22
3	Cu 324.752†	8047.1	207.9	0.6358	ug/L	0.6358	ppb	21:08:02
3	Mn 257.610†	696.8	149.1	0.1744	ug/L	0.1744	ppb	21:08:22
3	Mo 202.031†	18.3	8.4	0.6253	ug/L	0.6253	ppb	21:08:22
3	Ni 231.604†	83.9	-27.0	-0.6912	ug/L	-0.6912	ppb	21:08:22
3	P 214.914†	240.8	6.4	3.4326	ug/L	3.4326	ppb	21:08:22
3	Pb 220.353†	-96.0	-25.4	-3.1456	ug/L	-3.1456	ppb	21:08:22
3	S 181.975 Axial†	65.6	24.8	32.402	ug/L	32.402	ppb	21:08:22
3	Sb 206.836†	33.5	-1.1	-0.3375	ug/L	-0.3375	ppb	21:08:22
3	Se 196.026†	-29.5	-7.1	-4.0741	ug/L	-4.0741	ppb	21:08:22
3	Si 251.611†	702.4	112.3	3.4916	ug/L	3.4916	ppb	21:08:22
3	Sn 189.927†	20.8	8.9	1.5922	ug/L	1.5922	ppb	21:08:22
3	Ti 334.940†	-1428.1	19.5	0.0312	ug/L	0.0312	ppb	21:08:02
3	Tl 190.801†	-28.2	10.0	3.1518	ug/L	3.1518	ppb	21:08:22
3	U 409.014†	-3290.4	120.6	3.4250	ug/L	3.4250	ppb	21:08:02
3	V 292.402†	-1711.3	-88.2	-0.6262	ug/L	-0.6262	ppb	21:08:02
3	Zn 213.857†	701.8	36.3	0.3546	ug/L	0.3546	ppb	21:08:22
3	SiO2†	704.0	106.8	7.1035	ug/L	7.1035	ppb	21:08:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	825400.1	97.105	%	0.1519				0.16%
Sc Radial	4037.3	95.0	%	0.60				0.63%
Y 371.029	669763.3	95.309	%	0.1404				0.15%
Y RADIAL	4245.0	96.43	%	1.463				1.52%
Ag 328.068†	12.9	0.0649	ug/L	0.37062	0.0649	ppb	0.37062	570.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.8	20.735	ug/L	13.4244	20.735	ppb	13.4244	64.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.8	-1.5896	ug/L	0.92606	-1.5896	ppb	0.92606	58.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	233.8	5.4969	ug/L	0.36396	5.4969	ppb	0.36396	6.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.3	-0.0508	ug/L	0.12548	-0.0508	ppb	0.12548	246.78%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	51.0	0.0195	ug/L	0.00441	0.0195	ppb	0.00441	22.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.6718	ug/L	3.58772	0.6718	ppb	3.58772	534.07%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -13.3     -0.1572 ug/L       0.11756     -0.1572 ppb        0.11756  74.76%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                2.4      0.0507 ug/L       0.17464      0.0507 ppb        0.17464 344.61%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -69.5     -0.8100 ug/L       0.22110     -0.8100 ppb        0.22110  27.30%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              308.6      0.9442 ug/L       0.27185      0.9442 ppb        0.27185  28.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.8     18.659 ug/L        6.0821     18.659 ppb         6.0821  32.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         89.7     18.108 ug/L        8.7276     18.108 ppb         8.7276  48.20%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.7     25.660 ug/L       53.7619     25.660 ppb        53.7619 209.51%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              214.1      0.2477 ug/L       0.06984      0.2477 ppb        0.06984  28.19%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               12.6      0.9354 ug/L       0.44626      0.9354 ppb        0.44626  47.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        39.8     13.278 ug/L        8.9697     13.278 ppb         8.9697  67.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -17.4     -0.4457 ug/L       0.26233     -0.4457 ppb        0.26233  58.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 4.7      2.4413 ug/L       3.37808      2.4413 ppb        3.37808 138.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.3     -1.5242 ug/L       1.41873     -1.5242 ppb        1.41873  93.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          19.1     24.978 ug/L        6.5040     24.978 ppb         6.5040  26.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.3      1.1645 ug/L       1.65033      1.1645 ppb        1.65033 141.72%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.0     -0.5338 ug/L       3.44550     -0.5338 ppb        3.44550 645.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               99.4      3.0858 ug/L       0.36326      3.0858 ppb        0.36326  11.77%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.2      1.6488 ug/L       0.22571      1.6488 ppb        0.22571  13.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -69.2     -0.5345 ug/L       0.17044     -0.5345 ppb        0.17044  31.89%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              204.6      0.3295 ug/L       0.41741      0.3295 ppb        0.41741 126.67%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.4     -0.1160 ug/L       3.07411     -0.1160 ppb        3.07411 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               107.8      3.0627 ug/L       0.88743      3.0627 ppb        0.88743  28.98%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -19.9     -0.1271 ug/L       0.43594     -0.1271 ppb        0.43594 342.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               34.5      0.3354 ug/L       0.03420      0.3354 ppb        0.03420  10.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     64.2      4.2556 ug/L       2.56287      4.2556 ppb        2.56287  60.22%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/16/2010 22:07:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4059.7	4059.7	95.5	%			22:09:44
1	Y RADIAL	4222.0	4222.0	95.91	%			22:09:24
1	Al 396.153Radial†	4686.3	5066.0	5044.6	ug/L	5044.6	ppb	22:09:24
1	Ca 317.933Radial†	2617.3	2722.2	5077.9	ug/L	5077.9	ppb	22:09:44
1	Fe 238.204 Radial†	499.5	513.0	5466.8	ug/L	5466.8	ppb	22:09:44
1	K 766.490 Radial†	26902.4	24997.9	5039.5	ug/L	5039.5	ppb	22:09:24
1	Mg 279.077 IEC†	135.1	138.8	5358.3	ug/L	5358.3	ppb	22:09:44
1	Na 589.592 Radial†	31490.7	32766.8	10930	ug/L	10930	ppb	22:09:24
1	Sr 421.552†	64578.4	67530.2	521.38	ug/L	521.38	ppb	22:09:24
1	Sc 361.383	841574.7	841574.7	99.008	%			22:10:42
1	Y 371.029	673588.0	673588.0	95.853	%			22:10:42
1	Ag 328.068†	100691.4	101472.8	490.55	ug/L	490.55	ppb	22:10:47
1	As 188.979†	1109.6	1149.0	487.87	ug/L	487.87	ppb	22:11:07
1	B 249.677†	20235.3	20920.0	489.87	ug/L	489.87	ppb	22:10:47
1	Ba 233.527†	60104.0	60687.5	493.99	ug/L	493.99	ppb	22:10:47
1	Be 313.107†	1339020.5	1356779.1	499.48	ug/L	499.48	ppb	22:10:42
1	Cd 226.502†	40580.7	41182.9	481.44	ug/L	481.44	ppb	22:10:47
1	Co 228.616†	23425.8	23739.4	495.08	ug/L	495.08	ppb	22:10:47
1	Cr 267.716†	40979.3	41240.3	480.39	ug/L	480.39	ppb	22:10:47
1	Cu 324.752†	168824.5	162422.3	497.31	ug/L	497.31	ppb	22:10:47
1	Mn 257.610†	433726.3	437503.3	504.93	ug/L	504.93	ppb	22:10:42
1	Mo 202.031†	6424.5	6478.4	481.87	ug/L	481.87	ppb	22:11:07
1	Ni 231.604†	18941.1	19017.4	486.82	ug/L	486.82	ppb	22:10:47
1	P 214.914†	4531.7	4335.1	2308.0	ug/L	2308.0	ppb	22:11:07
1	Pb 220.353†	3749.9	3861.0	479.86	ug/L	479.86	ppb	22:11:07
1	S 181.975 Axial†	790.0	755.0	985.84	ug/L	985.84	ppb	22:11:07
1	Sb 206.836†	1422.5	1401.0	491.46	ug/L	491.46	ppb	22:11:07
1	Se 196.026†	804.3	835.7	506.72	ug/L	506.72	ppb	22:11:07
1	Si 251.611†	79900.4	80088.8	2489.8	ug/L	2489.8	ppb	22:10:47
1	Sn 189.927†	2671.2	2685.3	482.37	ug/L	482.37	ppb	22:11:07
1	Ti 334.940†	300096.0	304596.5	494.93	ug/L	494.93	ppb	22:10:47
1	Tl 190.801†	1509.7	1564.0	497.06	ug/L	497.06	ppb	22:11:07
1	U 409.014†	13096.9	16743.3	473.93	ug/L	473.93	ppb	22:10:47
1	V 292.402†	64118.4	66438.3	487.52	ug/L	487.52	ppb	22:10:47
1	Zn 213.857†	50696.6	50516.9	488.44	ug/L	488.44	ppb	22:10:47
1	SiO2†	78904.0	79075.2	5259.1	ug/L	5259.1	ppb	22:12:14
2	Sc Radial	4061.7	4061.7	95.5	%			22:10:09
2	Y RADIAL	4303.1	4303.1	97.75	%			22:09:49
2	Al 396.153Radial†	4734.9	5114.5	5093.0	ug/L	5093.0	ppb	22:09:49
2	Ca 317.933Radial†	2612.1	2715.5	5065.4	ug/L	5065.4	ppb	22:10:09
2	Fe 238.204 Radial†	501.0	514.3	5480.4	ug/L	5480.4	ppb	22:10:09
2	K 766.490 Radial†	27203.8	25299.3	5100.3	ug/L	5100.3	ppb	22:09:49
2	Mg 279.077 IEC†	127.9	131.2	5065.7	ug/L	5065.7	ppb	22:10:09
2	Na 589.592 Radial†	31654.7	32922.1	10981	ug/L	10981	ppb	22:09:49
2	Sr 421.552†	65173.3	68119.2	525.93	ug/L	525.93	ppb	22:09:49
2	Sc 361.383	835912.7	835912.7	98.342	%			22:11:13
2	Y 371.029	668417.9	668417.9	95.118	%			22:11:13
2	Ag 328.068†	101090.5	102567.5	495.82	ug/L	495.82	ppb	22:11:18
2	As 188.979†	1118.2	1165.4	494.81	ug/L	494.81	ppb	22:11:38
2	B 249.677†	20459.3	21286.2	498.46	ug/L	498.46	ppb	22:11:18
2	Ba 233.527†	60400.0	61399.7	499.78	ug/L	499.78	ppb	22:11:18
2	Be 313.107†	1326028.9	1352729.0	498.00	ug/L	498.00	ppb	22:11:13
2	Cd 226.502†	40703.1	41585.0	486.15	ug/L	486.15	ppb	22:11:18
2	Co 228.616†	23577.3	24053.8	501.64	ug/L	501.64	ppb	22:11:18
2	Cr 267.716†	41102.8	41646.2	485.11	ug/L	485.11	ppb	22:11:18
2	Cu 324.752†	170139.8	164914.8	504.94	ug/L	504.94	ppb	22:11:18
2	Mn 257.610†	429961.3	436642.0	503.95	ug/L	503.95	ppb	22:11:13
2	Mo 202.031†	6424.5	6522.3	485.13	ug/L	485.13	ppb	22:11:38
2	Ni 231.604†	18922.5	19128.1	489.65	ug/L	489.65	ppb	22:11:18

2	P 214.914†	4531.7	4366.2	2323.8 ug/L	2323.8 ppb	22:11:38
2	Pb 220.353†	3730.0	3866.4	480.54 ug/L	480.54 ppb	22:11:38
2	S 181.975 Axial†	793.1	763.6	997.00 ug/L	997.00 ppb	22:11:38
2	Sb 206.836†	1433.4	1421.9	498.59 ug/L	498.59 ppb	22:11:38
2	Se 196.026†	808.0	845.0	512.19 ug/L	512.19 ppb	22:11:38
2	Si 251.611†	80559.1	81305.3	2527.7 ug/L	2527.7 ppb	22:11:18
2	Sn 189.927†	2662.5	2694.8	484.06 ug/L	484.06 ppb	22:11:38
2	Ti 334.940†	301881.3	308464.9	501.23 ug/L	501.23 ppb	22:11:18
2	Tl 190.801†	1511.3	1575.8	500.82 ug/L	500.82 ppb	22:11:38
2	U 409.014†	13490.6	17233.3	487.84 ug/L	487.84 ppb	22:11:18
2	V 292.402†	64351.2	67113.6	492.47 ug/L	492.47 ppb	22:11:18
2	Zn 213.857†	50842.5	51012.1	493.25 ug/L	493.25 ppb	22:11:18
2	SiO2†	78744.5	79452.9	5284.2 ug/L	5284.2 ppb	22:12:19
3	Sc Radial	4067.0	4067.0	95.7 %		22:10:34
3	Y RADIAL	4274.5	4274.5	97.10 %		22:10:14
3	Al 396.153Radial†	4674.6	5045.0	5023.2 ug/L	5023.2 ppb	22:10:14
3	Ca 317.933Radial†	2618.7	2718.8	5071.6 ug/L	5071.6 ppb	22:10:34
3	Fe 238.204 Radial†	498.8	511.3	5448.6 ug/L	5448.6 ppb	22:10:34
3	K 766.490 Radial†	26943.8	24990.4	5038.0 ug/L	5038.0 ppb	22:10:14
3	Mg 279.077 IEC†	134.7	138.1	5333.9 ug/L	5333.9 ppb	22:10:34
3	Na 589.592 Radial†	31428.1	32642.0	10888 ug/L	10888 ppb	22:10:14
3	Sr 421.552†	64729.8	67566.5	521.66 ug/L	521.66 ppb	22:10:14
3	Sc 361.383	829364.8	829364.8	97.571 %		22:11:44
3	Y 371.029	664180.7	664180.7	94.515 %		22:11:44
3	Ag 328.068†	100021.3	102283.3	494.45 ug/L	494.45 ppb	22:11:49
3	As 188.979†	1119.5	1175.7	499.11 ug/L	499.11 ppb	22:12:09
3	B 249.677†	20131.5	21114.5	494.44 ug/L	494.44 ppb	22:11:49
3	Ba 233.527†	59826.0	61296.3	498.94 ug/L	498.94 ppb	22:11:49
3	Be 313.107†	1316532.6	1353641.9	498.33 ug/L	498.33 ppb	22:11:44
3	Cd 226.502†	40192.0	41387.9	483.85 ug/L	483.85 ppb	22:11:49
3	Co 228.616†	23250.1	23907.7	498.61 ug/L	498.61 ppb	22:11:49
3	Cr 267.716†	40800.5	41666.4	485.35 ug/L	485.35 ppb	22:11:49
3	Cu 324.752†	167825.6	163908.9	501.86 ug/L	501.86 ppb	22:11:49
3	Mn 257.610†	425531.3	435553.6	502.68 ug/L	502.68 ppb	22:11:44
3	Mo 202.031†	6444.4	6594.4	490.49 ug/L	490.49 ppb	22:12:09
3	Ni 231.604†	18785.9	19140.0	489.95 ug/L	489.95 ppb	22:11:49
3	P 214.914†	4548.3	4419.6	2354.1 ug/L	2354.1 ppb	22:12:09
3	Pb 220.353†	3763.2	3930.4	488.47 ug/L	488.47 ppb	22:12:09
3	S 181.975 Axial†	789.0	765.7	999.78 ug/L	999.78 ppb	22:12:09
3	Sb 206.836†	1452.7	1453.2	509.41 ug/L	509.41 ppb	22:12:09
3	Se 196.026†	813.4	857.0	519.11 ug/L	519.11 ppb	22:12:09
3	Si 251.611†	79370.6	80734.0	2509.8 ug/L	2509.8 ppb	22:11:49
3	Sn 189.927†	2676.7	2730.7	490.51 ug/L	490.51 ppb	22:12:09
3	Ti 334.940†	298555.0	307479.4	499.61 ug/L	499.61 ppb	22:11:49
3	Tl 190.801†	1497.4	1573.8	500.17 ug/L	500.17 ppb	22:12:09
3	U 409.014†	13134.7	16976.8	480.56 ug/L	480.56 ppb	22:11:49
3	V 292.402†	63703.0	66966.0	491.47 ug/L	491.47 ppb	22:11:49
3	Zn 213.857†	50326.8	50891.8	492.08 ug/L	492.08 ppb	22:11:49
3	SiO2†	78944.4	80289.9	5339.8 ug/L	5339.8 ppb	22:12:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835617.4	98.307	%	0.7189				0.73%
Sc Radial	4062.8	95.6	%	0.09				0.09%
Y 371.029	668728.9	95.162	%	0.6704				0.70%
Y RADIAL	4266.5	96.92	%	0.934				0.96%
Ag 328.068†	102107.9	493.61	ug/L	2.733	493.61	ppb	2.733	0.55%
QC value within limits for Ag 328.068 Recovery = 98.72%								
Al 396.153Radial†	5075.2	5053.6	ug/L	35.74	5053.6	ppb	35.74	0.71%
QC value within limits for Al 396.153Radial Recovery = 101.07%								
As 188.979†	1163.4	493.93	ug/L	5.673	493.93	ppb	5.673	1.15%
QC value within limits for As 188.979 Recovery = 98.79%								
B 249.677†	21106.9	494.26	ug/L	4.300	494.26	ppb	4.300	0.87%
QC value within limits for B 249.677 Recovery = 98.85%								
Ba 233.527†	61127.8	497.57	ug/L	3.130	497.57	ppb	3.130	0.63%
QC value within limits for Ba 233.527 Recovery = 99.51%								
Be 313.107†	1354383.3	498.60	ug/L	0.773	498.60	ppb	0.773	0.16%
QC value within limits for Be 313.107 Recovery = 99.72%								
Ca 317.933Radial†	2718.8	5071.6	ug/L	6.29	5071.6	ppb	6.29	0.12%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.43%
Cd 226.502†            41385.3      483.81 ug/L         2.353      483.81 ppb          2.353   0.49%
   QC value within limits for Cd 226.502  Recovery = 96.76%
Co 228.616†            23900.3      498.44 ug/L         3.278      498.44 ppb          3.278   0.66%
   QC value within limits for Co 228.616  Recovery = 99.69%
Cr 267.716†            41517.6      483.62 ug/L         2.798      483.62 ppb          2.798   0.58%
   QC value within limits for Cr 267.716  Recovery = 96.72%
Cu 324.752†           163748.6      501.37 ug/L         3.836      501.37 ppb          3.836   0.77%
   QC value within limits for Cu 324.752  Recovery = 100.27%
Fe 238.204 Radial†       512.9      5465.3 ug/L        15.98      5465.3 ppb         15.98   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 109.31%
K 766.490 Radial†      25095.9      5059.3 ug/L        35.56      5059.3 ppb         35.56   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 101.19%
Mg 279.077 IEC†          136.0      5252.6 ug/L       162.35      5252.6 ppb        162.35   3.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.05%
Mn 257.610†           436566.3      503.85 ug/L         1.128      503.85 ppb          1.128   0.22%
   QC value within limits for Mn 257.610  Recovery = 100.77%
Mo 202.031†             6531.7      485.83 ug/L         4.350      485.83 ppb          4.350   0.90%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     32776.9       10933 ug/L          46.8       10933 ppb           46.8   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 109.33%
Ni 231.604†            19095.2      488.81 ug/L         1.729      488.81 ppb          1.729   0.35%
   QC value within limits for Ni 231.604  Recovery = 97.76%
P 214.914†              4373.6      2328.6 ug/L        23.40      2328.6 ppb         23.40   1.00%
   QC value within limits for P 214.914  Recovery = 93.14%
Pb 220.353†             3886.0      482.96 ug/L         4.787      482.96 ppb          4.787   0.99%
   QC value within limits for Pb 220.353  Recovery = 96.59%
S 181.975 Axial†         761.4      994.21 ug/L         7.376      994.21 ppb          7.376   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 99.42%
Sb 206.836†             1425.4      499.82 ug/L         9.038      499.82 ppb          9.038   1.81%
   QC value within limits for Sb 206.836  Recovery = 99.96%
Se 196.026†              845.9      512.67 ug/L         6.212      512.67 ppb          6.212   1.21%
   QC value within limits for Se 196.026  Recovery = 102.53%
Si 251.611†            80709.4      2509.1 ug/L        18.94      2509.1 ppb         18.94   0.75%
   QC value within limits for Si 251.611  Recovery = 100.37%
Sn 189.927†             2703.6      485.65 ug/L         4.297      485.65 ppb          4.297   0.88%
   QC value within limits for Sn 189.927  Recovery = 97.13%
Sr 421.552†            67738.6      522.99 ug/L         2.549      522.99 ppb          2.549   0.49%
   QC value within limits for Sr 421.552  Recovery = 104.60%
Ti 334.940†           306846.9      498.59 ug/L         3.273      498.59 ppb          3.273   0.66%
   QC value within limits for Ti 334.940  Recovery = 99.72%
Tl 190.801†             1571.2      499.35 ug/L         2.011      499.35 ppb          2.011   0.40%
   QC value within limits for Tl 190.801  Recovery = 99.87%
U 409.014†             16984.5      480.78 ug/L         6.956      480.78 ppb          6.956   1.45%
   QC value within limits for U 409.014  Recovery = 96.16%
V 292.402†             66839.3      490.49 ug/L         2.617      490.49 ppb          2.617   0.53%
   QC value within limits for V 292.402  Recovery = 98.10%
Zn 213.857†            50806.9      491.26 ug/L         2.505      491.26 ppb          2.505   0.51%
   QC value within limits for Zn 213.857  Recovery = 98.25%
SiO2†                  79606.0      5294.4 ug/L        41.33      5294.4 ppb         41.33   0.78%
   QC value within limits for SiO2  Recovery = 99.01%
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/16/2010 22:14:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3999.0	3999.0	94.1	%			22:16:46
1	Y RADIAL	4234.9	4234.9	96.20	%			22:16:26
1	Al 396.153Radial†	-104.6	47.9	47.844	ug/L	47.844	ppb	22:16:26
1	Ca 317.933Radial†	18.1	0.9	1.6951	ug/L	1.6951	ppb	22:16:46
1	Fe 238.204 Radial†	12.5	3.2	34.027	ug/L	34.027	ppb	22:16:46
1	K 766.490 Radial†	3086.0	108.9	21.998	ug/L	21.998	ppb	22:16:26
1	Mg 279.077 IEC†	-0.3	-3.1	-119.03	ug/L	-119.03	ppb	22:16:46
1	Na 589.592 Radial†	28.6	-176.7	-58.924	ug/L	-58.924	ppb	22:16:26
1	Sr 421.552†	95.2	11.4	0.0878	ug/L	0.0878	ppb	22:16:26
1	Sc 361.383	818463.0	818463.0	96.289	%			22:17:43
1	Y 371.029	664260.0	664260.0	94.526	%			22:17:43
1	Ag 328.068†	327.6	112.6	0.5502	ug/L	0.5502	ppb	22:17:43
1	As 188.979†	-33.3	-6.3	-2.6331	ug/L	-2.6331	ppb	22:18:03
1	B 249.677†	-360.2	107.8	2.5312	ug/L	2.5312	ppb	22:18:03
1	Ba 233.527†	2.5	-16.3	-0.1313	ug/L	-0.1313	ppb	22:18:03
1	Be 313.107†	-4095.7	85.6	0.0321	ug/L	0.0321	ppb	22:17:43
1	Cd 226.502†	-210.4	-23.0	-0.2723	ug/L	-0.2723	ppb	22:18:03
1	Co 228.616†	-71.6	4.5	0.0959	ug/L	0.0959	ppb	22:18:03
1	Cr 267.716†	51.4	-96.3	-1.1202	ug/L	-1.1202	ppb	22:18:03
1	Cu 324.752†	8177.9	399.0	1.2226	ug/L	1.2226	ppb	22:17:43
1	Mn 257.610†	737.7	196.4	0.2347	ug/L	0.2347	ppb	22:18:03
1	Mo 202.031†	29.7	20.4	1.5160	ug/L	1.5160	ppb	22:18:03
1	Ni 231.604†	107.6	-1.7	-0.0446	ug/L	-0.0446	ppb	22:18:03
1	P 214.914†	235.3	2.4	1.0896	ug/L	1.0896	ppb	22:18:03
1	Pb 220.353†	-48.7	23.0	2.8556	ug/L	2.8556	ppb	22:18:03
1	S 181.975 Axial†	57.8	17.1	22.373	ug/L	22.373	ppb	22:18:03
1	Sb 206.836†	45.4	11.5	3.9275	ug/L	3.9275	ppb	22:18:03
1	Se 196.026†	-22.9	-0.4	-0.1238	ug/L	-0.1238	ppb	22:18:03
1	Si 251.611†	688.2	102.4	3.1723	ug/L	3.1723	ppb	22:18:03
1	Sn 189.927†	16.5	4.6	0.8195	ug/L	0.8195	ppb	22:18:03
1	Ti 334.940†	-1263.5	180.7	0.3033	ug/L	0.3033	ppb	22:17:43
1	Tl 190.801†	-42.5	-5.0	-1.5840	ug/L	-1.5840	ppb	22:18:03
1	U 409.014†	-3326.1	60.8	1.7265	ug/L	1.7265	ppb	22:17:43
1	V 292.402†	-1631.4	-17.0	-0.1053	ug/L	-0.1053	ppb	22:17:43
1	Zn 213.857†	697.7	36.8	0.3527	ug/L	0.3527	ppb	22:18:03
1	SiO2†	657.9	63.7	4.2058	ug/L	4.2058	ppb	22:18:59
2	Sc Radial	4045.1	4045.1	95.2	%			22:17:11
2	Y RADIAL	4195.1	4195.1	95.29	%			22:16:51
2	Al 396.153Radial†	-118.5	34.5	34.493	ug/L	34.493	ppb	22:16:51
2	Ca 317.933Radial†	13.7	-3.9	-7.2610	ug/L	-7.2610	ppb	22:17:11
2	Fe 238.204 Radial†	9.0	-0.6	-6.9044	ug/L	-6.9044	ppb	22:17:11
2	K 766.490 Radial†	3123.4	110.7	22.366	ug/L	22.366	ppb	22:16:51
2	Mg 279.077 IEC†	5.3	2.9	110.50	ug/L	110.50	ppb	22:17:11
2	Na 589.592 Radial†	47.3	-157.4	-52.492	ug/L	-52.492	ppb	22:16:51
2	Sr 421.552†	33.7	-54.4	-0.4198	ug/L	-0.4198	ppb	22:16:51
2	Sc 361.383	824608.2	824608.2	97.012	%			22:18:08
2	Y 371.029	668157.7	668157.7	95.081	%			22:18:08
2	Ag 328.068†	145.8	-77.4	-0.3764	ug/L	-0.3764	ppb	22:18:08
2	As 188.979†	-31.3	-3.9	-1.6480	ug/L	-1.6480	ppb	22:18:28
2	B 249.677†	-365.0	105.6	2.4859	ug/L	2.4859	ppb	22:18:28
2	Ba 233.527†	38.6	21.0	0.1695	ug/L	0.1695	ppb	22:18:28
2	Be 313.107†	-4233.3	-24.6	-0.0085	ug/L	-0.0085	ppb	22:18:08
2	Cd 226.502†	-206.4	-17.2	-0.2009	ug/L	-0.2009	ppb	22:18:28
2	Co 228.616†	-75.3	1.3	0.0273	ug/L	0.0273	ppb	22:18:28
2	Cr 267.716†	65.2	-82.5	-0.9614	ug/L	-0.9614	ppb	22:18:28
2	Cu 324.752†	8212.1	371.0	1.1347	ug/L	1.1347	ppb	22:18:08
2	Mn 257.610†	682.2	133.5	0.1488	ug/L	0.1488	ppb	22:18:28
2	Mo 202.031†	12.0	1.9	0.1406	ug/L	0.1406	ppb	22:18:28
2	Ni 231.604†	94.1	-16.5	-0.4226	ug/L	-0.4226	ppb	22:18:28

2	P 214.914†	241.5	6.9	3.6271	ug/L	3.6271 ppb	22:18:28
2	Pb 220.353†	-73.9	-2.6	-0.3176	ug/L	-0.3176 ppb	22:18:28
2	S 181.975 Axial†	53.1	11.8	15.434	ug/L	15.434 ppb	22:18:28
2	Sb 206.836†	47.7	13.5	4.5779	ug/L	4.5779 ppb	22:18:28
2	Se 196.026†	-20.8	1.9	1.0644	ug/L	1.0644 ppb	22:18:28
2	Si 251.611†	651.0	58.7	1.8274	ug/L	1.8274 ppb	22:18:28
2	Sn 189.927†	15.0	2.8	0.5012	ug/L	0.5012 ppb	22:18:28
2	Ti 334.940†	-1314.2	138.2	0.2144	ug/L	0.2144 ppb	22:18:08
2	Tl 190.801†	-35.4	2.6	0.8305	ug/L	0.8305 ppb	22:18:28
2	U 409.014†	-3360.4	51.2	1.4576	ug/L	1.4576 ppb	22:18:08
2	V 292.402†	-1673.5	-47.8	-0.3382	ug/L	-0.3382 ppb	22:18:08
2	Zn 213.857†	676.6	9.7	0.0965	ug/L	0.0965 ppb	22:18:28
2	SiO2†	602.9	1.9	0.1257	ug/L	0.1257 ppb	22:19:04
3	Sc Radial	4013.9	4013.9	94.4	%		22:17:36
3	Y RADIAL	4275.9	4275.9	97.13	%		22:17:16
3	Al 396.153Radial†	-120.8	31.1	31.097	ug/L	31.097 ppb	22:17:16
3	Ca 317.933Radial†	18.6	1.4	2.6490	ug/L	2.6490 ppb	22:17:36
3	Fe 238.204 Radial†	10.7	1.3	13.695	ug/L	13.695 ppb	22:17:36
3	K 766.490 Radial†	3031.0	38.4	7.7754	ug/L	7.7754 ppb	22:17:16
3	Mg 279.077 IEC†	1.4	-1.2	-48.020	ug/L	-48.020 ppb	22:17:36
3	Na 589.592 Radial†	81.9	-120.3	-40.139	ug/L	-40.139 ppb	22:17:16
3	Sr 421.552†	69.5	-16.2	-0.1252	ug/L	-0.1252 ppb	22:17:16
3	Sc 361.383	828879.5	828879.5	97.514	%		22:18:34
3	Y 371.029	672730.1	672730.1	95.731	%		22:18:34
3	Ag 328.068†	289.9	69.6	0.3388	ug/L	0.3388 ppb	22:18:34
3	As 188.979†	-35.2	-7.8	-3.2609	ug/L	-3.2609 ppb	22:18:54
3	B 249.677†	-395.3	76.6	1.7979	ug/L	1.7979 ppb	22:18:54
3	Ba 233.527†	-12.9	-32.0	-0.2602	ug/L	-0.2602 ppb	22:18:54
3	Be 313.107†	-4152.2	81.1	0.0300	ug/L	0.0300 ppb	22:18:34
3	Cd 226.502†	-194.2	-3.7	-0.0445	ug/L	-0.0445 ppb	22:18:54
3	Co 228.616†	-61.6	15.6	0.3273	ug/L	0.3273 ppb	22:18:54
3	Cr 267.716†	81.9	-65.7	-0.7642	ug/L	-0.7642 ppb	22:18:54
3	Cu 324.752†	8219.7	335.2	1.0276	ug/L	1.0276 ppb	22:18:34
3	Mn 257.610†	689.7	137.5	0.1619	ug/L	0.1619 ppb	22:18:54
3	Mo 202.031†	16.8	6.8	0.5060	ug/L	0.5060 ppb	22:18:54
3	Ni 231.604†	115.9	5.3	0.1354	ug/L	0.1354 ppb	22:18:54
3	P 214.914†	230.2	-6.0	-3.5129	ug/L	-3.5129 ppb	22:18:54
3	Pb 220.353†	-85.5	-14.1	-1.7383	ug/L	-1.7383 ppb	22:18:54
3	S 181.975 Axial†	61.1	19.7	25.800	ug/L	25.800 ppb	22:18:54
3	Sb 206.836†	39.2	4.5	1.5367	ug/L	1.5367 ppb	22:18:54
3	Se 196.026†	-22.7	0.1	0.0812	ug/L	0.0812 ppb	22:18:54
3	Si 251.611†	664.5	69.1	2.1475	ug/L	2.1475 ppb	22:18:54
3	Sn 189.927†	13.2	1.0	0.1752	ug/L	0.1752 ppb	22:18:54
3	Ti 334.940†	-1389.1	68.4	0.1162	ug/L	0.1162 ppb	22:18:34
3	Tl 190.801†	-39.6	-1.5	-0.4881	ug/L	-0.4881 ppb	22:18:54
3	U 409.014†	-3468.8	-42.0	-1.1932	ug/L	-1.1932 ppb	22:18:34
3	V 292.402†	-1672.7	-38.0	-0.2732	ug/L	-0.2732 ppb	22:18:34
3	Zn 213.857†	700.2	30.3	0.2912	ug/L	0.2912 ppb	22:18:54
3	SiO2†	658.1	55.3	3.6732	ug/L	3.6732 ppb	22:19:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	823983.6	96.938	%	0.6160				0.64%
Sc Radial	4019.3	94.6	%	0.55				0.59%
Y 371.029	668382.6	95.113	%	0.6033				0.63%
Y RADIAL	4235.3	96.21	%	0.918				0.95%
Ag 328.068†	35.0	0.1709	ug/L	0.48559	0.1709	ppb	0.48559	284.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	37.8	37.811	ug/L	8.8527	37.811	ppb	8.8527	23.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.0	-2.5140	ug/L	0.81299	-2.5140	ppb	0.81299	32.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	96.7	2.2716	ug/L	0.41093	2.2716	ppb	0.41093	18.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-9.1	-0.0740	ug/L	0.22049	-0.0740	ppb	0.22049	297.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	47.3	0.0179	ug/L	0.02289	0.0179	ppb	0.02289	128.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.5	-0.9723	ug/L	5.46702	-0.9723	ppb	5.46702	562.29%

Mg 279.077 IEC†	5530.0	213580	ug/L	1104.3	213580	ppb	1104.3	0.52%
Mn 257.610†	57222.5	57.324	ug/L	0.1473	57.324	ppb	0.1473	0.26%
Mo 202.031†	664.6	50.225	ug/L	0.5434	50.225	ppb	0.5434	1.08%
Na 589.592 Radial†	5665978.2	1889900	ug/L	31664.3	1889900	ppb	31664.3	1.68%
Ni 231.604†	1950.2	49.923	ug/L	0.5290	49.923	ppb	0.5290	1.06%
P 214.914†	421.7	220.91	ug/L	6.703	220.91	ppb	6.703	3.03%
Pb 220.353†	381.9	48.729	ug/L	1.0166	48.729	ppb	1.0166	2.09%
S 181.975 Axial†	154821.7	202350	ug/L	262.5	202350	ppb	262.5	0.13%
Sb 206.836†	193.2	66.440	ug/L	2.3586	66.440	ppb	2.3586	3.55%
Se 196.026†	88.0	53.349	ug/L	3.2224	53.349	ppb	3.2224	6.04%
Si 251.611†	51955.9	1618.5	ug/L	4.86	1618.5	ppb	4.86	0.30%
Sn 189.927†	17.9	13.373	ug/L	0.8893	13.373	ppb	0.8893	6.65%
Sr 421.552†	178837.6	1380.4	ug/L	8.88	1380.4	ppb	8.88	0.64%
Ti 334.940†	27270.9	35.801	ug/L	0.1514	35.801	ppb	0.1514	0.42%
Tl 190.801†	135.2	43.035	ug/L	3.3217	43.035	ppb	3.3217	7.72%
U 409.014†	1373.1	38.820	ug/L	1.1788	38.820	ppb	1.1788	3.04%
V 292.402†	6167.0	49.413	ug/L	0.6763	49.413	ppb	0.6763	1.37%
Zn 213.857†	5965.5	57.731	ug/L	0.1379	57.731	ppb	0.1379	0.24%
SiO2†	52133.6	3474.6	ug/L	12.76	3474.6	ppb	12.76	0.37%

Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/16/2010 23:16:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4026.5	4026.5	94.7	%			23:18:32
1	Y RADIAL	4210.1	4210.1	95.64	%			23:18:12
1	Al 396.153Radial†	4802.1	5228.8	5206.5	ug/L	5206.5	ppb	23:18:12
1	Ca 317.933Radial†	2668.0	2798.4	5220.0	ug/L	5220.0	ppb	23:18:32
1	Fe 238.204 Radial†	506.2	524.3	5587.5	ug/L	5587.5	ppb	23:18:32
1	K 766.490 Radial†	27422.6	25779.2	5197.1	ug/L	5197.1	ppb	23:18:12
1	Mg 279.077 IEC†	138.7	143.7	5549.7	ug/L	5549.7	ppb	23:18:32
1	Na 589.592 Radial†	31297.4	32834.5	10952	ug/L	10952	ppb	23:18:12
1	Sr 421.552†	65138.0	68678.2	530.25	ug/L	530.25	ppb	23:18:12
1	Sc 361.383	826089.9	826089.9	97.186	%			23:19:29
1	Y 371.029	659245.4	659245.4	93.812	%			23:19:29
1	Ag 328.068†	102050.3	104777.4	506.50	ug/L	506.50	ppb	23:19:34
1	As 188.979†	1127.2	1188.2	504.48	ug/L	504.48	ppb	23:19:54
1	B 249.677†	20754.8	21837.7	511.38	ug/L	511.38	ppb	23:19:34
1	Ba 233.527†	61232.1	62986.2	512.69	ug/L	512.69	ppb	23:19:34
1	Be 313.107†	1346800.1	1390135.0	511.77	ug/L	511.77	ppb	23:19:29
1	Cd 226.502†	41203.0	42591.5	497.92	ug/L	497.92	ppb	23:19:34
1	Co 228.616†	23911.1	24682.3	514.76	ug/L	514.76	ppb	23:19:34
1	Cr 267.716†	41538.0	42591.0	496.12	ug/L	496.12	ppb	23:19:34
1	Cu 324.752†	171354.3	168221.6	515.07	ug/L	515.07	ppb	23:19:34
1	Mn 257.610†	437371.9	449466.0	518.73	ug/L	518.73	ppb	23:19:29
1	Mo 202.031†	6572.5	6752.3	502.23	ug/L	502.23	ppb	23:19:54
1	Ni 231.604†	19199.9	19642.3	502.81	ug/L	502.81	ppb	23:19:34
1	P 214.914†	4651.4	4544.1	2420.6	ug/L	2420.6	ppb	23:19:54
1	Pb 220.353†	3833.9	4018.5	499.43	ug/L	499.43	ppb	23:19:54
1	S 181.975 Axial†	806.5	787.0	1027.5	ug/L	1027.5	ppb	23:19:54
1	Sb 206.836†	1471.2	1478.1	518.25	ug/L	518.25	ppb	23:19:54
1	Se 196.026†	831.1	878.5	532.16	ug/L	532.16	ppb	23:19:54
1	Si 251.611†	80975.4	82707.7	2571.2	ug/L	2571.2	ppb	23:19:34
1	Sn 189.927†	2732.3	2798.8	502.74	ug/L	502.74	ppb	23:19:54
1	Ti 334.940†	305188.6	315518.0	512.67	ug/L	512.67	ppb	23:19:34
1	Tl 190.801†	1545.1	1629.0	517.68	ug/L	517.68	ppb	23:19:54
1	U 409.014†	13345.2	17246.8	488.19	ug/L	488.19	ppb	23:19:34
1	V 292.402†	64883.6	68439.5	502.29	ug/L	502.29	ppb	23:19:34
1	Zn 213.857†	51509.1	52312.7	505.83	ug/L	505.83	ppb	23:19:34
1	SiO2†	81260.7	82994.0	5519.8	ug/L	5519.8	ppb	23:21:02
2	Sc Radial	3990.1	3990.1	93.9	%			23:18:57
2	Y RADIAL	4181.1	4181.1	94.98	%			23:18:37
2	Al 396.153Radial†	4715.4	5182.6	5160.2	ug/L	5160.2	ppb	23:18:37
2	Ca 317.933Radial†	2650.7	2805.6	5233.5	ug/L	5233.5	ppb	23:18:57
2	Fe 238.204 Radial†	498.1	520.5	5547.5	ug/L	5547.5	ppb	23:18:57
2	K 766.490 Radial†	27107.0	25706.8	5182.5	ug/L	5182.5	ppb	23:18:37
2	Mg 279.077 IEC†	132.0	137.9	5326.0	ug/L	5326.0	ppb	23:18:57
2	Na 589.592 Radial†	30722.3	32522.9	10848	ug/L	10848	ppb	23:18:37
2	Sr 421.552†	64346.4	68461.5	528.57	ug/L	528.57	ppb	23:18:37
2	Sc 361.383	827941.4	827941.4	97.404	%			23:20:00
2	Y 371.029	660456.5	660456.5	93.985	%			23:20:00
2	Ag 328.068†	101795.1	104280.6	504.10	ug/L	504.10	ppb	23:20:05
2	As 188.979†	1141.7	1200.4	509.60	ug/L	509.60	ppb	23:20:25
2	B 249.677†	20640.0	21672.0	507.50	ug/L	507.50	ppb	23:20:05
2	Ba 233.527†	61096.2	62705.7	510.41	ug/L	510.41	ppb	23:20:05
2	Be 313.107†	1351704.7	1392071.2	512.48	ug/L	512.48	ppb	23:20:00
2	Cd 226.502†	41014.6	42303.2	494.55	ug/L	494.55	ppb	23:20:05
2	Co 228.616†	23898.6	24614.5	513.35	ug/L	513.35	ppb	23:20:05
2	Cr 267.716†	41511.0	42467.7	494.68	ug/L	494.68	ppb	23:20:05
2	Cu 324.752†	171338.3	167811.0	513.81	ug/L	513.81	ppb	23:20:05
2	Mn 257.610†	438079.7	449186.3	518.41	ug/L	518.41	ppb	23:20:00
2	Mo 202.031†	6598.5	6763.9	503.09	ug/L	503.09	ppb	23:20:25
2	Ni 231.604†	19090.7	19486.0	498.81	ug/L	498.81	ppb	23:20:05

2	P 214.914†	4639.1	4520.8	2407.9 ug/L	2407.9 ppb	23:20:25
2	Pb 220.353†	3832.6	4008.3	498.17 ug/L	498.17 ppb	23:20:25
2	S 181.975 Axial†	806.9	785.5	1025.6 ug/L	1025.6 ppb	23:20:25
2	Sb 206.836†	1463.7	1467.0	514.51 ug/L	514.51 ppb	23:20:25
2	Se 196.026†	821.4	866.6	525.10 ug/L	525.10 ppb	23:20:25
2	Si 251.611†	80835.7	82377.9	2560.9 ug/L	2560.9 ppb	23:20:05
2	Sn 189.927†	2736.2	2796.6	502.34 ug/L	502.34 ppb	23:20:25
2	Ti 334.940†	305012.9	314635.4	511.26 ug/L	511.26 ppb	23:20:05
2	Tl 190.801†	1529.5	1609.4	511.49 ug/L	511.49 ppb	23:20:25
2	U 409.014†	13323.1	17193.4	486.68 ug/L	486.68 ppb	23:20:05
2	V 292.402†	64823.2	68228.2	500.77 ug/L	500.77 ppb	23:20:05
2	Zn 213.857†	51402.5	52084.8	503.64 ug/L	503.64 ppb	23:20:05
2	SiO2†	80195.1	81713.0	5434.4 ug/L	5434.4 ppb	23:21:07
3	Sc Radial	4003.7	4003.7	94.2 %		23:19:22
3	Y RADIAL	4165.1	4165.1	94.61 %		23:19:02
3	Al 396.153Radial†	4737.1	5188.6	5166.4 ug/L	5166.4 ppb	23:19:02
3	Ca 317.933Radial†	2658.1	2803.9	5230.3 ug/L	5230.3 ppb	23:19:22
3	Fe 238.204 Radial†	506.9	528.1	5628.4 ug/L	5628.4 ppb	23:19:22
3	K 766.490 Radial†	27081.7	25582.2	5157.4 ug/L	5157.4 ppb	23:19:02
3	Mg 279.077 IEC†	133.9	139.5	5386.8 ug/L	5386.8 ppb	23:19:22
3	Na 589.592 Radial†	30535.2	32213.5	10745 ug/L	10745 ppb	23:19:02
3	Sr 421.552†	63984.3	67845.0	523.81 ug/L	523.81 ppb	23:19:02
3	Sc 361.383	826567.4	826567.4	97.242 %		23:20:31
3	Y 371.029	660565.5	660565.5	94.000 %		23:20:31
3	Ag 328.068†	102708.1	105393.2	509.49 ug/L	509.49 ppb	23:20:36
3	As 188.979†	1144.9	1205.7	511.91 ug/L	511.91 ppb	23:20:56
3	B 249.677†	21070.6	22150.0	518.72 ug/L	518.72 ppb	23:20:36
3	Ba 233.527†	61699.3	63430.3	516.31 ug/L	516.31 ppb	23:20:36
3	Be 313.107†	1352295.4	1394985.4	513.56 ug/L	513.56 ppb	23:20:31
3	Cd 226.502†	41520.5	42893.5	501.45 ug/L	501.45 ppb	23:20:36
3	Co 228.616†	24062.5	24823.8	517.69 ug/L	517.69 ppb	23:20:36
3	Cr 267.716†	41872.5	42910.3	499.84 ug/L	499.84 ppb	23:20:36
3	Cu 324.752†	173029.8	169842.8	520.03 ug/L	520.03 ppb	23:20:36
3	Mn 257.610†	437537.5	449376.2	518.64 ug/L	518.64 ppb	23:20:31
3	Mo 202.031†	6551.2	6726.5	500.32 ug/L	500.32 ppb	23:20:56
3	Ni 231.604†	19315.9	19750.2	505.57 ug/L	505.57 ppb	23:20:36
3	P 214.914†	4607.1	4495.8	2392.8 ug/L	2392.8 ppb	23:20:56
3	Pb 220.353†	3808.7	3990.2	495.91 ug/L	495.91 ppb	23:20:56
3	S 181.975 Axial†	797.8	777.5	1015.2 ug/L	1015.2 ppb	23:20:56
3	Sb 206.836†	1460.1	1465.9	514.08 ug/L	514.08 ppb	23:20:56
3	Se 196.026†	819.5	866.1	525.05 ug/L	525.05 ppb	23:20:56
3	Si 251.611†	81620.4	83322.9	2590.4 ug/L	2590.4 ppb	23:20:36
3	Sn 189.927†	2734.5	2799.4	502.85 ug/L	502.85 ppb	23:20:56
3	Ti 334.940†	307982.1	318209.3	517.06 ug/L	517.06 ppb	23:20:36
3	Tl 190.801†	1541.1	1624.0	516.11 ug/L	516.11 ppb	23:20:56
3	U 409.014†	13547.0	17446.4	493.84 ug/L	493.84 ppb	23:20:36
3	V 292.402†	65589.3	69126.7	507.24 ug/L	507.24 ppb	23:20:36
3	Zn 213.857†	51947.6	52733.1	509.90 ug/L	509.90 ppb	23:20:36
3	SiO2†	80187.6	81842.2	5443.1 ug/L	5443.1 ppb	23:21:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826866.2	97.277	%	0.1131				0.12%
Sc Radial	4006.8	94.3	%	0.43				0.46%
Y 371.029	660089.1	93.932	%	0.1043				0.11%
Y RADIAL	4185.4	95.08	%	0.518				0.54%
Ag 328.068†	104817.1	506.70	ug/L	2.700	506.70	ppb	2.700	0.53%
QC value within limits for Ag 328.068 Recovery = 101.34%								
Al 396.153Radial†	5200.0	5177.7	ug/L	25.13	5177.7	ppb	25.13	0.49%
QC value within limits for Al 396.153Radial Recovery = 103.55%								
As 188.979†	1198.1	508.66	ug/L	3.804	508.66	ppb	3.804	0.75%
QC value within limits for As 188.979 Recovery = 101.73%								
B 249.677†	21886.6	512.53	ug/L	5.698	512.53	ppb	5.698	1.11%
QC value within limits for B 249.677 Recovery = 102.51%								
Ba 233.527†	63040.7	513.13	ug/L	2.975	513.13	ppb	2.975	0.58%
QC value within limits for Ba 233.527 Recovery = 102.63%								
Be 313.107†	1392397.2	512.60	ug/L	0.902	512.60	ppb	0.902	0.18%
QC value within limits for Be 313.107 Recovery = 102.52%								
Ca 317.933Radial†	2802.6	5227.9	ug/L	7.03	5227.9	ppb	7.03	0.13%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.56%
Cd 226.502†          42596.1      497.97 ug/L        3.450      497.97 ppb        3.450   0.69%
   QC value within limits for Cd 226.502  Recovery = 99.59%
Co 228.616†          24706.8      515.27 ug/L        2.217      515.27 ppb        2.217   0.43%
   QC value within limits for Co 228.616  Recovery = 103.05%
Cr 267.716†          42656.3      496.88 ug/L        2.661      496.88 ppb        2.661   0.54%
   QC value within limits for Cr 267.716  Recovery = 99.38%
Cu 324.752†         168625.1      516.30 ug/L        3.289      516.30 ppb        3.289   0.64%
   QC value within limits for Cu 324.752  Recovery = 103.26%
Fe 238.204 Radial†     524.3      5587.8 ug/L       40.42      5587.8 ppb        40.42   0.72%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 111.76%
K 766.490 Radial†    25689.4      5179.0 ug/L       20.07      5179.0 ppb        20.07   0.39%
   QC value within limits for K 766.490 Radial  Recovery = 103.58%
Mg 279.077 IEC†        140.4      5420.8 ug/L      115.66      5420.8 ppb       115.66   2.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.42%
Mn 257.610†         449342.8      518.59 ug/L       0.163      518.59 ppb        0.163   0.03%
   QC value within limits for Mn 257.610  Recovery = 103.72%
Mo 202.031†          6747.6      501.88 ug/L       1.420      501.88 ppb        1.420   0.28%
   QC value within limits for Mo 202.031  Recovery = 100.38%
Na 589.592 Radial†  32523.6       10849 ug/L       103.6       10849 ppb        103.6   0.95%
   QC value within limits for Na 589.592 Radial  Recovery = 108.49%
Ni 231.604†          19626.2      502.40 ug/L       3.400      502.40 ppb        3.400   0.68%
   QC value within limits for Ni 231.604  Recovery = 100.48%
P 214.914†            4520.2      2407.1 ug/L       13.93      2407.1 ppb        13.93   0.58%
   QC value within limits for P 214.914  Recovery = 96.28%
Pb 220.353†           4005.7      497.84 ug/L       1.781      497.84 ppb        1.781   0.36%
   QC value within limits for Pb 220.353  Recovery = 99.57%
S 181.975 Axial†       783.3      1022.8 ug/L        6.65      1022.8 ppb         6.65   0.65%
   QC value within limits for S 181.975 Axial  Recovery = 102.28%
Sb 206.836†           1470.3      515.62 ug/L       2.292      515.62 ppb        2.292   0.44%
   QC value within limits for Sb 206.836  Recovery = 103.12%
Se 196.026†            870.4      527.44 ug/L       4.090      527.44 ppb        4.090   0.78%
   QC value within limits for Se 196.026  Recovery = 105.49%
Si 251.611†          82802.8      2574.2 ug/L       14.96      2574.2 ppb        14.96   0.58%
   QC value within limits for Si 251.611  Recovery = 102.97%
Sn 189.927†           2798.3      502.65 ug/L       0.270      502.65 ppb        0.270   0.05%
   QC value within limits for Sn 189.927  Recovery = 100.53%
Sr 421.552†          68328.3      527.54 ug/L       3.338      527.54 ppb        3.338   0.63%
   QC value within limits for Sr 421.552  Recovery = 105.51%
Ti 334.940†         316120.9      513.66 ug/L       3.023      513.66 ppb        3.023   0.59%
   QC value within limits for Ti 334.940  Recovery = 102.73%
Tl 190.801†           1620.8      515.09 ug/L       3.220      515.09 ppb        3.220   0.63%
   QC value within limits for Tl 190.801  Recovery = 103.02%
U 409.014†           17295.5      489.57 ug/L       3.778      489.57 ppb        3.778   0.77%
   QC value within limits for U 409.014  Recovery = 97.91%
V 292.402†           68598.1      503.43 ug/L       3.380      503.43 ppb        3.380   0.67%
   QC value within limits for V 292.402  Recovery = 100.69%
Zn 213.857†          52376.9      506.45 ug/L       3.179      506.45 ppb        3.179   0.63%
   QC value within limits for Zn 213.857  Recovery = 101.29%
SiO2†                82183.1      5465.7 ug/L       47.02      5465.7 ppb        47.02   0.86%
   QC value within limits for SiO2  Recovery = 102.21%
QC Failed.  Continue with analysis.
```

Sequence No.: 59
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/16/2010 23:23:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4045.8	4045.8	95.2	%			23:25:35
1	Y RADIAL	4226.5	4226.5	96.01	%			23:25:15
1	Al 396.153Radial†	-142.7	9.1	9.0750	ug/L	9.0750	ppb	23:25:15
1	Ca 317.933Radial†	38.1	21.7	40.537	ug/L	40.537	ppb	23:25:35
1	Fe 238.204 Radial†	11.8	2.3	24.586	ug/L	24.586	ppb	23:25:35
1	K 766.490 Radial†	3155.2	143.6	28.996	ug/L	28.996	ppb	23:25:15
1	Mg 279.077 IEC†	4.3	1.8	70.604	ug/L	70.604	ppb	23:25:35
1	Na 589.592 Radial†	25.5	-180.3	-60.142	ug/L	-60.142	ppb	23:25:15
1	Sr 421.552†	100.8	16.1	0.1237	ug/L	0.1237	ppb	23:25:15
1	Sc 361.383	816044.7	816044.7	96.004	%			23:26:32
1	Y 371.029	659933.4	659933.4	93.910	%			23:26:32
1	Ag 328.068†	232.6	14.6	0.0727	ug/L	0.0727	ppb	23:26:32
1	As 188.979†	-30.1	-3.0	-1.2732	ug/L	-1.2732	ppb	23:26:52
1	B 249.677†	-330.3	137.9	3.2400	ug/L	3.2400	ppb	23:26:52
1	Ba 233.527†	-7.6	-26.8	-0.2174	ug/L	-0.2174	ppb	23:26:52
1	Be 313.107†	-4032.9	138.3	0.0511	ug/L	0.0511	ppb	23:26:32
1	Cd 226.502†	-217.8	-31.4	-0.3687	ug/L	-0.3687	ppb	23:26:52
1	Co 228.616†	-68.5	7.5	0.1577	ug/L	0.1577	ppb	23:26:52
1	Cr 267.716†	100.6	-44.9	-0.5242	ug/L	-0.5242	ppb	23:26:52
1	Cu 324.752†	8202.2	449.5	1.3754	ug/L	1.3754	ppb	23:26:32
1	Mn 257.610†	655.8	113.4	0.1303	ug/L	0.1303	ppb	23:26:52
1	Mo 202.031†	21.1	11.6	0.8611	ug/L	0.8611	ppb	23:26:52
1	Ni 231.604†	96.0	-13.6	-0.3475	ug/L	-0.3475	ppb	23:26:52
1	P 214.914†	227.2	-5.3	-3.2314	ug/L	-3.2314	ppb	23:26:52
1	Pb 220.353†	-66.9	3.8	0.4756	ug/L	0.4756	ppb	23:26:52
1	S 181.975 Axial†	55.4	14.8	19.286	ug/L	19.286	ppb	23:26:52
1	Sb 206.836†	47.5	13.8	4.7058	ug/L	4.7058	ppb	23:26:52
1	Se 196.026†	-22.5	-0.1	0.0004	ug/L	0.0004	ppb	23:26:52
1	Si 251.611†	632.4	46.4	1.4364	ug/L	1.4364	ppb	23:26:52
1	Sn 189.927†	16.7	4.8	0.8662	ug/L	0.8662	ppb	23:26:52
1	Ti 334.940†	-1358.5	77.9	0.1247	ug/L	0.1247	ppb	23:26:32
1	Tl 190.801†	-41.5	-4.1	-1.2976	ug/L	-1.2976	ppb	23:26:52
1	U 409.014†	-3241.4	138.8	3.9421	ug/L	3.9421	ppb	23:26:32
1	V 292.402†	-1668.9	-61.0	-0.4246	ug/L	-0.4246	ppb	23:26:32
1	Zn 213.857†	771.4	115.8	1.1267	ug/L	1.1267	ppb	23:26:52
1	SiO2†	723.6	134.2	8.9220	ug/L	8.9220	ppb	23:27:48
2	Sc Radial	4048.6	4048.6	95.2	%			23:26:00
2	Y RADIAL	4218.5	4218.5	95.83	%			23:25:40
2	Al 396.153Radial†	-126.3	26.4	26.338	ug/L	26.338	ppb	23:25:40
2	Ca 317.933Radial†	34.1	17.5	32.687	ug/L	32.687	ppb	23:26:00
2	Fe 238.204 Radial†	15.0	5.7	60.062	ug/L	60.062	ppb	23:26:00
2	K 766.490 Radial†	3094.7	77.8	15.706	ug/L	15.706	ppb	23:25:40
2	Mg 279.077 IEC†	3.6	1.1	42.166	ug/L	42.166	ppb	23:26:00
2	Na 589.592 Radial†	30.9	-174.6	-58.237	ug/L	-58.237	ppb	23:25:40
2	Sr 421.552†	83.5	-2.1	-0.0164	ug/L	-0.0164	ppb	23:25:40
2	Sc 361.383	814948.0	814948.0	95.875	%			23:26:57
2	Y 371.029	659239.3	659239.3	93.811	%			23:26:57
2	Ag 328.068†	307.6	93.1	0.4658	ug/L	0.4658	ppb	23:26:57
2	As 188.979†	-26.3	0.9	0.3888	ug/L	0.3888	ppb	23:27:17
2	B 249.677†	-299.0	170.1	3.9912	ug/L	3.9912	ppb	23:27:17
2	Ba 233.527†	22.9	5.0	0.0425	ug/L	0.0425	ppb	23:27:17
2	Be 313.107†	-4013.0	153.5	0.0566	ug/L	0.0566	ppb	23:26:57
2	Cd 226.502†	-202.5	-15.8	-0.1907	ug/L	-0.1907	ppb	23:27:17
2	Co 228.616†	-74.5	1.1	0.0251	ug/L	0.0251	ppb	23:27:17
2	Cr 267.716†	98.1	-47.4	-0.5510	ug/L	-0.5510	ppb	23:27:17
2	Cu 324.752†	8106.5	361.2	1.1084	ug/L	1.1084	ppb	23:26:57
2	Mn 257.610†	749.1	211.6	0.2482	ug/L	0.2482	ppb	23:27:17
2	Mo 202.031†	23.4	13.9	1.0375	ug/L	1.0375	ppb	23:27:17
2	Ni 231.604†	89.3	-20.4	-0.5224	ug/L	-0.5224	ppb	23:27:17

2	P 214.914†	232.4	0.5	-0.0009	ug/L	-0.0009	ppb	23:27:17
2	Pb 220.353†	-60.4	10.5	1.3080	ug/L	1.3080	ppb	23:27:17
2	S 181.975 Axial†	60.4	20.0	26.183	ug/L	26.183	ppb	23:27:17
2	Sb 206.836†	38.7	4.7	1.6286	ug/L	1.6286	ppb	23:27:17
2	Se 196.026†	-22.0	0.4	0.4285	ug/L	0.4285	ppb	23:27:17
2	Si 251.611†	664.5	80.7	2.5033	ug/L	2.5033	ppb	23:27:17
2	Sn 189.927†	17.8	5.9	1.0697	ug/L	1.0697	ppb	23:27:17
2	Ti 334.940†	-1379.4	54.2	0.0887	ug/L	0.0887	ppb	23:26:57
2	Tl 190.801†	-30.8	6.9	2.1910	ug/L	2.1910	ppb	23:27:17
2	U 409.014†	-3329.5	42.5	1.2006	ug/L	1.2006	ppb	23:26:57
2	V 292.402†	-1615.1	-7.3	-0.0437	ug/L	-0.0437	ppb	23:26:57
2	Zn 213.857†	772.4	117.9	1.1437	ug/L	1.1437	ppb	23:27:17
2	SiO2†	686.5	96.5	6.4033	ug/L	6.4033	ppb	23:27:53
3	Sc Radial	3925.5	3925.5	92.3	%			23:26:25
3	Y RADIAL	4140.8	4140.8	94.06	%			23:26:05
3	Al 396.153Radial†	-134.1	13.8	13.738	ug/L	13.738	ppb	23:26:05
3	Ca 317.933Radial†	27.2	11.2	20.801	ug/L	20.801	ppb	23:26:25
3	Fe 238.204 Radial†	10.7	1.5	15.786	ug/L	15.786	ppb	23:26:25
3	K 766.490 Radial†	3064.5	146.9	29.669	ug/L	29.669	ppb	23:26:05
3	Mg 279.077 IEC†	1.9	-0.6	-23.507	ug/L	-23.507	ppb	23:26:25
3	Na 589.592 Radial†	85.9	-114.1	-38.047	ug/L	-38.047	ppb	23:26:05
3	Sr 421.552†	19.7	-68.5	-0.5287	ug/L	-0.5287	ppb	23:26:05
3	Sc 361.383	825003.4	825003.4	97.058	%			23:27:22
3	Y 371.029	667181.1	667181.1	94.942	%			23:27:22
3	Ag 328.068†	211.9	-9.3	-0.0421	ug/L	-0.0421	ppb	23:27:22
3	As 188.979†	-27.1	0.4	0.1550	ug/L	0.1550	ppb	23:27:42
3	B 249.677†	-303.8	168.9	3.9699	ug/L	3.9699	ppb	23:27:42
3	Ba 233.527†	10.3	-8.2	-0.0673	ug/L	-0.0673	ppb	23:27:42
3	Be 313.107†	-4082.6	132.8	0.0487	ug/L	0.0487	ppb	23:27:22
3	Cd 226.502†	-220.0	-31.2	-0.3661	ug/L	-0.3661	ppb	23:27:42
3	Co 228.616†	-63.0	14.0	0.2939	ug/L	0.2939	ppb	23:27:42
3	Cr 267.716†	113.7	-32.5	-0.3790	ug/L	-0.3790	ppb	23:27:42
3	Cu 324.752†	8177.9	331.7	1.0161	ug/L	1.0161	ppb	23:27:22
3	Mn 257.610†	712.0	163.8	0.1915	ug/L	0.1915	ppb	23:27:42
3	Mo 202.031†	21.6	11.8	0.8768	ug/L	0.8768	ppb	23:27:42
3	Ni 231.604†	99.2	-11.3	-0.2893	ug/L	-0.2893	ppb	23:27:42
3	P 214.914†	219.6	-15.7	-8.9148	ug/L	-8.9148	ppb	23:27:42
3	Pb 220.353†	-74.2	-2.9	-0.3615	ug/L	-0.3615	ppb	23:27:42
3	S 181.975 Axial†	59.5	18.4	24.091	ug/L	24.091	ppb	23:27:42
3	Sb 206.836†	37.6	3.1	1.0611	ug/L	1.0611	ppb	23:27:42
3	Se 196.026†	-18.9	3.9	2.3285	ug/L	2.3285	ppb	23:27:42
3	Si 251.611†	662.2	70.0	2.1699	ug/L	2.1699	ppb	23:27:42
3	Sn 189.927†	11.4	-0.9	-0.1521	ug/L	-0.1521	ppb	23:27:42
3	Ti 334.940†	-1470.0	-21.7	-0.0306	ug/L	-0.0306	ppb	23:27:22
3	Tl 190.801†	-27.3	10.9	3.4545	ug/L	3.4545	ppb	23:27:42
3	U 409.014†	-3394.3	18.0	0.5112	ug/L	0.5112	ppb	23:27:22
3	V 292.402†	-1695.0	-69.0	-0.4893	ug/L	-0.4893	ppb	23:27:22
3	Zn 213.857†	776.4	112.2	1.0932	ug/L	1.0932	ppb	23:27:42
3	SiO2†	749.0	152.2	10.122	ug/L	10.122	ppb	23:27:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	818665.4	96.313	%	0.6490				0.67%
Sc Radial	4006.6	94.3	%	1.65				1.75%
Y 371.029	662117.9	94.221	%	0.6259				0.66%
Y RADIAL	4195.3	95.30	%	1.075				1.13%
Ag 328.068†	32.8	0.1655	ug/L	0.26634	0.1655	ppb	0.26634	160.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	16.384	ug/L	8.9302	16.384	ppb	8.9302	54.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-0.2431	ug/L	0.89968	-0.2431	ppb	0.89968	370.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	159.0	3.7337	ug/L	0.42772	3.7337	ppb	0.42772	11.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.0	-0.0807	ug/L	0.13051	-0.0807	ppb	0.13051	161.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.5	0.0521	ug/L	0.00403	0.0521	ppb	0.00403	7.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	16.8	31.342	ug/L	9.9364	31.342	ppb	9.9364	31.70%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -26.1     -0.3085 ug/L       0.10206     -0.3085 ppb        0.10206  33.08%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.5      0.1589 ug/L       0.13439      0.1589 ppb        0.13439  84.57%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -41.6     -0.4847 ug/L       0.09253     -0.4847 ppb        0.09253  19.09%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              380.8      1.1667 ug/L       0.18661      1.1667 ppb        0.18661  16.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.1      33.478 ug/L       23.4392      33.478 ppb        23.4392  70.01%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        122.8      24.790 ug/L        7.8745      24.790 ppb         7.8745  31.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.8      29.754 ug/L       48.2676      29.754 ppb        48.2676 162.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              162.9      0.1900 ug/L       0.05898      0.1900 ppb        0.05898  31.04%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               12.4      0.9251 ug/L       0.09758      0.9251 ppb        0.09758  10.55%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -156.3     -52.142 ug/L       12.2434     -52.142 ppb        12.2434  23.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.1     -0.3864 ug/L       0.12128     -0.3864 ppb        0.12128  31.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.8     -4.0490 ug/L       4.51284     -4.0490 ppb        4.51284 111.45%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.8      0.4740 ug/L       0.83475      0.4740 ppb        0.83475 176.11%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          17.7      23.186 ug/L        3.5360      23.186 ppb         3.5360  15.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.2      2.4652 ug/L       1.96110      2.4652 ppb        1.96110  79.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.4      0.9192 ug/L       1.23918      0.9192 ppb        1.23918 134.82%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               65.7      2.0365 ug/L       0.54578      2.0365 ppb        0.54578  26.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.3      0.5946 ug/L       0.65462      0.5946 ppb        0.65462 110.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -18.2     -0.1405 ug/L       0.34342     -0.1405 ppb        0.34342 244.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               36.8      0.0609 ug/L       0.08130      0.0609 ppb        0.08130 133.43%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.6      1.4493 ug/L       2.46136      1.4493 ppb        2.46136 169.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                66.4      1.8846 ug/L       1.81487      1.8846 ppb        1.81487  96.30%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -45.8     -0.3192 ug/L       0.24081     -0.3192 ppb        0.24081  75.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              115.3      1.1212 ug/L       0.02568      1.1212 ppb        0.02568   2.29%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    127.6      8.4825 ug/L       1.89806      8.4825 ppb        1.89806  22.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 67
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 00:18:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3995.1	3995.1	94.0	%			00:20:24
1	Y RADIAL	4215.5	4215.5	95.76	%			00:20:04
1	Al 396.153Radial†	4811.3	5278.3	5255.9	ug/L	5255.9	ppb	00:20:04
1	Ca 317.933Radial†	2668.6	2821.1	5262.4	ug/L	5262.4	ppb	00:20:24
1	Fe 238.204 Radial†	493.2	514.8	5485.8	ug/L	5485.8	ppb	00:20:24
1	K 766.490 Radial†	27364.2	25944.5	5230.7	ug/L	5230.7	ppb	00:20:04
1	Mg 279.077 IEC†	132.4	138.2	5337.2	ug/L	5337.2	ppb	00:20:24
1	Na 589.592 Radial†	29200.7	30863.2	10295	ug/L	10295	ppb	00:20:04
1	Sr 421.552†	63330.5	67295.2	519.57	ug/L	519.57	ppb	00:20:04
1	Sc 361.383	827950.3	827950.3	97.405	%			00:21:23
1	Y 371.029	659553.9	659553.9	93.856	%			00:21:23
1	Ag 328.068†	101594.8	104073.8	503.10	ug/L	503.10	ppb	00:21:23
1	As 188.979†	1143.5	1202.3	510.49	ug/L	510.49	ppb	00:21:43
1	B 249.677†	20826.4	21863.2	512.02	ug/L	512.02	ppb	00:21:23
1	Ba 233.527†	61430.8	63048.6	513.19	ug/L	513.19	ppb	00:21:23
1	Be 313.107†	1358623.9	1399159.9	515.11	ug/L	515.11	ppb	00:21:23
1	Cd 226.502†	40364.6	41635.5	486.74	ug/L	486.74	ppb	00:21:43
1	Co 228.616†	23628.3	24336.7	507.54	ug/L	507.54	ppb	00:21:43
1	Cr 267.716†	41595.7	42554.2	495.70	ug/L	495.70	ppb	00:21:23
1	Cu 324.752†	172463.1	168963.8	517.35	ug/L	517.35	ppb	00:21:23
1	Mn 257.610†	440111.7	451267.6	520.81	ug/L	520.81	ppb	00:21:23
1	Mo 202.031†	6629.2	6795.3	505.42	ug/L	505.42	ppb	00:21:43
1	Ni 231.604†	19035.4	19429.0	497.35	ug/L	497.35	ppb	00:21:43
1	P 214.914†	4677.2	4559.8	2428.9	ug/L	2428.9	ppb	00:21:43
1	Pb 220.353†	3880.9	4057.8	504.34	ug/L	504.34	ppb	00:21:43
1	S 181.975 Axial†	805.0	783.5	1023.0	ug/L	1023.0	ppb	00:21:43
1	Sb 206.836†	1455.4	1458.5	511.65	ug/L	511.65	ppb	00:21:43
1	Se 196.026†	826.0	871.3	527.64	ug/L	527.64	ppb	00:21:43
1	Si 251.611†	81301.7	82855.5	2575.8	ug/L	2575.8	ppb	00:21:23
1	Sn 189.927†	2745.4	2806.0	504.03	ug/L	504.03	ppb	00:21:43
1	Ti 334.940†	312529.1	322348.5	523.81	ug/L	523.81	ppb	00:21:23
1	Tl 190.801†	1554.5	1635.0	519.71	ug/L	519.71	ppb	00:21:43
1	U 409.014†	12654.1	16506.4	467.17	ug/L	467.17	ppb	00:21:23
1	V 292.402†	64834.7	68239.3	500.85	ug/L	500.85	ppb	00:21:23
1	Zn 213.857†	51642.1	52330.2	506.04	ug/L	506.04	ppb	00:21:23
1	SiO2†	80429.1	81952.4	5450.3	ug/L	5450.3	ppb	00:22:43
2	Sc Radial	3993.4	3993.4	93.9	%			00:20:49
2	Y RADIAL	4145.7	4145.7	94.17	%			00:20:29
2	Al 396.153Radial†	4753.5	5219.1	5196.5	ug/L	5196.5	ppb	00:20:29
2	Ca 317.933Radial†	2660.0	2813.3	5247.8	ug/L	5247.8	ppb	00:20:49
2	Fe 238.204 Radial†	495.1	517.0	5509.2	ug/L	5509.2	ppb	00:20:49
2	K 766.490 Radial†	27113.8	25690.7	5179.5	ug/L	5179.5	ppb	00:20:29
2	Mg 279.077 IEC†	132.1	137.9	5324.5	ug/L	5324.5	ppb	00:20:49
2	Na 589.592 Radial†	28828.8	30480.9	10167	ug/L	10167	ppb	00:20:29
2	Sr 421.552†	62538.2	66481.3	513.28	ug/L	513.28	ppb	00:20:29
2	Sc 361.383	823663.2	823663.2	96.901	%			00:21:51
2	Y 371.029	656546.3	656546.3	93.428	%			00:21:51
2	Ag 328.068†	101053.8	104058.4	503.04	ug/L	503.04	ppb	00:21:51
2	As 188.979†	1147.2	1212.2	514.64	ug/L	514.64	ppb	00:22:11
2	B 249.677†	20692.0	21835.8	511.36	ug/L	511.36	ppb	00:21:51
2	Ba 233.527†	61016.6	62949.5	512.39	ug/L	512.39	ppb	00:21:51
2	Be 313.107†	1349502.7	1397006.8	514.32	ug/L	514.32	ppb	00:21:51
2	Cd 226.502†	40430.0	41918.7	490.05	ug/L	490.05	ppb	00:22:11
2	Co 228.616†	23648.9	24484.2	510.62	ug/L	510.62	ppb	00:22:11
2	Cr 267.716†	41369.1	42542.6	495.56	ug/L	495.56	ppb	00:21:51
2	Cu 324.752†	171171.8	168552.8	516.09	ug/L	516.09	ppb	00:21:51
2	Mn 257.610†	436813.5	450215.6	519.60	ug/L	519.60	ppb	00:21:51
2	Mo 202.031†	6628.6	6830.1	508.01	ug/L	508.01	ppb	00:22:11
2	Ni 231.604†	19043.3	19538.9	500.17	ug/L	500.17	ppb	00:22:11

2	P 214.914†	4670.1	4577.5	2439.0	ug/L	2439.0 ppb	00:22:11
2	Pb 220.353†	3895.8	4094.0	508.80	ug/L	508.80 ppb	00:22:11
2	S 181.975 Axial†	804.7	787.6	1028.3	ug/L	1028.3 ppb	00:22:11
2	Sb 206.836†	1460.2	1471.2	516.07	ug/L	516.07 ppb	00:22:11
2	Se 196.026†	823.7	873.3	528.91	ug/L	528.91 ppb	00:22:11
2	Si 251.611†	80718.3	82687.9	2570.5	ug/L	2570.5 ppb	00:21:51
2	Sn 189.927†	2745.0	2820.2	506.58	ug/L	506.58 ppb	00:22:11
2	Ti 334.940†	310631.4	322060.1	523.34	ug/L	523.34 ppb	00:21:51
2	Tl 190.801†	1541.9	1630.4	518.23	ug/L	518.23 ppb	00:22:11
2	U 409.014†	12601.6	16519.9	467.55	ug/L	467.55 ppb	00:21:51
2	V 292.402†	64525.3	68266.5	501.08	ug/L	501.08 ppb	00:21:51
2	Zn 213.857†	51308.4	52261.8	505.36	ug/L	505.36 ppb	00:21:51
2	SiO2†	80822.5	82788.2	5505.9	ug/L	5505.9 ppb	00:22:49
3	Sc Radial	3987.1	3987.1	93.8	%		00:21:15
3	Y RADIAL	4106.6	4106.6	93.28	%		00:20:54
3	Al 396.153Radial†	4732.0	5204.1	5181.6	ug/L	5181.6 ppb	00:20:54
3	Ca 317.933Radial†	2652.5	2809.7	5241.2	ug/L	5241.2 ppb	00:21:15
3	Fe 238.204 Radial†	498.0	520.8	5550.6	ug/L	5550.6 ppb	00:21:15
3	K 766.490 Radial†	26990.2	25604.4	5162.1	ug/L	5162.1 ppb	00:20:54
3	Mg 279.077 IEC†	134.1	140.2	5415.5	ug/L	5415.5 ppb	00:21:15
3	Na 589.592 Radial†	28953.3	30661.9	10228	ug/L	10228 ppb	00:20:54
3	Sr 421.552†	62429.7	66470.5	513.20	ug/L	513.20 ppb	00:20:54
3	Sc 361.383	824066.7	824066.7	96.948	%		00:22:18
3	Y 371.029	656417.9	656417.9	93.410	%		00:22:18
3	Ag 328.068†	101173.6	104131.0	503.40	ug/L	503.40 ppb	00:22:18
3	As 188.979†	1141.7	1206.0	512.06	ug/L	512.06 ppb	00:22:38
3	B 249.677†	20848.9	21987.2	514.92	ug/L	514.92 ppb	00:22:18
3	Ba 233.527†	61176.3	63083.4	513.47	ug/L	513.47 ppb	00:22:18
3	Be 313.107†	1353297.1	1400238.8	515.51	ug/L	515.51 ppb	00:22:18
3	Cd 226.502†	40371.9	41838.3	489.11	ug/L	489.11 ppb	00:22:38
3	Co 228.616†	23665.2	24489.0	510.72	ug/L	510.72 ppb	00:22:38
3	Cr 267.716†	41441.6	42596.6	496.19	ug/L	496.19 ppb	00:22:18
3	Cu 324.752†	171498.3	168803.1	516.86	ug/L	516.86 ppb	00:22:18
3	Mn 257.610†	437726.1	450936.3	520.43	ug/L	520.43 ppb	00:22:18
3	Mo 202.031†	6615.1	6812.9	506.73	ug/L	506.73 ppb	00:22:38
3	Ni 231.604†	19034.3	19520.0	499.68	ug/L	499.68 ppb	00:22:38
3	P 214.914†	4649.6	4554.0	2425.8	ug/L	2425.8 ppb	00:22:38
3	Pb 220.353†	3874.3	4069.8	505.80	ug/L	505.80 ppb	00:22:38
3	S 181.975 Axial†	810.2	792.8	1035.1	ug/L	1035.1 ppb	00:22:38
3	Sb 206.836†	1462.6	1473.0	516.63	ug/L	516.63 ppb	00:22:38
3	Se 196.026†	829.7	879.1	532.42	ug/L	532.42 ppb	00:22:38
3	Si 251.611†	80902.5	82837.1	2575.2	ug/L	2575.2 ppb	00:22:18
3	Sn 189.927†	2746.9	2820.8	506.68	ug/L	506.68 ppb	00:22:38
3	Ti 334.940†	311132.5	322420.0	523.92	ug/L	523.92 ppb	00:22:18
3	Tl 190.801†	1565.3	1653.7	525.61	ug/L	525.61 ppb	00:22:38
3	U 409.014†	12418.0	16324.1	461.98	ug/L	461.98 ppb	00:22:18
3	V 292.402†	64541.9	68251.0	500.93	ug/L	500.93 ppb	00:22:18
3	Zn 213.857†	51429.5	52360.8	506.32	ug/L	506.32 ppb	00:22:18
3	SiO2†	79567.4	81452.7	5416.9	ug/L	5416.9 ppb	00:22:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	825226.7	97.084	%	0.2785				0.29%
Sc Radial	3991.9	93.9	%	0.10				0.11%
Y 371.029	657506.1	93.565	%	0.2525				0.27%
Y RADIAL	4155.9	94.40	%	1.253				1.33%
Ag 328.068†	104087.7	503.18	ug/L	0.195	503.18	ppb	0.195	0.04%
QC value within limits for Ag 328.068 Recovery = 100.64%								
Al 396.153Radial†	5233.9	5211.3	ug/L	39.32	5211.3	ppb	39.32	0.75%
QC value within limits for Al 396.153Radial Recovery = 104.23%								
As 188.979†	1206.8	512.40	ug/L	2.098	512.40	ppb	2.098	0.41%
QC value within limits for As 188.979 Recovery = 102.48%								
B 249.677†	21895.4	512.77	ug/L	1.892	512.77	ppb	1.892	0.37%
QC value within limits for B 249.677 Recovery = 102.55%								
Ba 233.527†	63027.1	513.02	ug/L	0.564	513.02	ppb	0.564	0.11%
QC value within limits for Ba 233.527 Recovery = 102.60%								
Be 313.107†	1398801.9	514.98	ug/L	0.605	514.98	ppb	0.605	0.12%
QC value within limits for Be 313.107 Recovery = 103.00%								
Ca 317.933Radial†	2814.7	5250.5	ug/L	10.84	5250.5	ppb	10.84	0.21%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.01%
Cd 226.502†            41797.5      488.63 ug/L        1.706      488.63 ppb          1.706   0.35%
   QC value within limits for Cd 226.502  Recovery = 97.73%
Co 228.616†            24436.6      509.62 ug/L        1.808      509.62 ppb          1.808   0.35%
   QC value within limits for Co 228.616  Recovery = 101.92%
Cr 267.716†            42564.5      495.82 ug/L        0.332      495.82 ppb          0.332   0.07%
   QC value within limits for Cr 267.716  Recovery = 99.16%
Cu 324.752†           168773.2      516.77 ug/L        0.634      516.77 ppb          0.634   0.12%
   QC value within limits for Cu 324.752  Recovery = 103.35%
Fe 238.204 Radial†       517.5      5515.2 ug/L       32.80      5515.2 ppb          32.80   0.59%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 110.30%
K 766.490 Radial†      25746.5      5190.8 ug/L       35.67      5190.8 ppb          35.67   0.69%
   QC value within limits for K 766.490 Radial  Recovery = 103.82%
Mg 279.077 IEC†          138.8      5359.1 ug/L       49.25      5359.1 ppb          49.25   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.18%
Mn 257.610†           450806.5      520.28 ug/L        0.619      520.28 ppb          0.619   0.12%
   QC value within limits for Mn 257.610  Recovery = 104.06%
Mo 202.031†            6812.8       506.72 ug/L        1.294      506.72 ppb          1.294   0.26%
   QC value within limits for Mo 202.031  Recovery = 101.34%
Na 589.592 Radial†     30668.7       10230 ug/L         63.8       10230 ppb           63.8   0.62%
   QC value within limits for Na 589.592 Radial  Recovery = 102.30%
Ni 231.604†            19496.0      499.07 ug/L        1.504      499.07 ppb          1.504   0.30%
   QC value within limits for Ni 231.604  Recovery = 99.81%
P 214.914†              4563.8      2431.3 ug/L        6.91      2431.3 ppb           6.91   0.28%
   QC value within limits for P 214.914  Recovery = 97.25%
Pb 220.353†             4073.9      506.31 ug/L        2.278      506.31 ppb          2.278   0.45%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†         787.9      1028.8 ug/L        6.07      1028.8 ppb           6.07   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 102.88%
Sb 206.836†            1467.5       514.78 ug/L        2.725      514.78 ppb          2.725   0.53%
   QC value within limits for Sb 206.836  Recovery = 102.96%
Se 196.026†             874.6       529.65 ug/L        2.479      529.65 ppb          2.479   0.47%
   QC value within limits for Se 196.026  Recovery = 105.93%
Si 251.611†            82793.5      2573.8 ug/L        2.88      2573.8 ppb           2.88   0.11%
   QC value within limits for Si 251.611  Recovery = 102.95%
Sn 189.927†            2815.7       505.77 ug/L        1.502      505.77 ppb          1.502   0.30%
   QC value within limits for Sn 189.927  Recovery = 101.15%
Sr 421.552†            66749.0      515.35 ug/L        3.653      515.35 ppb          3.653   0.71%
   QC value within limits for Sr 421.552  Recovery = 103.07%
Ti 334.940†           322276.2      523.69 ug/L        0.308      523.69 ppb          0.308   0.06%
   QC value within limits for Ti 334.940  Recovery = 104.74%
Tl 190.801†            1639.7       521.18 ug/L        3.904      521.18 ppb          3.904   0.75%
   QC value within limits for Tl 190.801  Recovery = 104.24%
U 409.014†             16450.1      465.56 ug/L        3.111      465.56 ppb          3.111   0.67%
   QC value within limits for U 409.014  Recovery = 93.11%
V 292.402†             68252.3      500.95 ug/L        0.117      500.95 ppb          0.117   0.02%
   QC value within limits for V 292.402  Recovery = 100.19%
Zn 213.857†            52317.6      505.91 ug/L        0.496      505.91 ppb          0.496   0.10%
   QC value within limits for Zn 213.857  Recovery = 101.18%
SiO2†                  82064.4      5457.7 ug/L       44.96      5457.7 ppb          44.96   0.82%
   QC value within limits for SiO2  Recovery = 102.06%
QC Failed.  Continue with analysis.
```

Sequence No.: 68
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 00:25:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3986.3	3986.3	93.8	%			00:27:16
1	Y RADIAL	4277.4	4277.4	97.16	%			00:26:56
1	Al 396.153Radial†	-129.9	20.5	20.477	ug/L	20.477	ppb	00:26:56
1	Ca 317.933Radial†	33.4	17.3	32.187	ug/L	32.187	ppb	00:27:16
1	Fe 238.204 Radial†	9.6	0.2	2.1581	ug/L	2.1581	ppb	00:27:16
1	K 766.490 Radial†	3074.5	107.0	21.602	ug/L	21.602	ppb	00:26:56
1	Mg 279.077 IEC†	4.7	2.3	90.317	ug/L	90.317	ppb	00:27:16
1	Na 589.592 Radial†	12.4	-193.8	-64.653	ug/L	-64.653	ppb	00:26:56
1	Sr 421.552†	71.3	-13.8	-0.1066	ug/L	-0.1066	ppb	00:26:56
1	Sc 361.383	773428.2	773428.2	90.991	%			00:28:13
1	Y 371.029	624409.3	624409.3	88.855	%			00:28:13
1	Ag 328.068†	277.5	77.3	0.3776	ug/L	0.3776	ppb	00:28:13
1	As 188.979†	-29.3	-3.9	-1.6343	ug/L	-1.6343	ppb	00:28:33
1	B 249.677†	-174.1	290.6	6.8357	ug/L	6.8357	ppb	00:28:33
1	Ba 233.527†	10.3	-7.5	-0.0620	ug/L	-0.0620	ppb	00:28:33
1	Be 313.107†	-4114.1	-182.3	-0.0667	ug/L	-0.0667	ppb	00:28:13
1	Cd 226.502†	-205.5	-30.4	-0.3575	ug/L	-0.3575	ppb	00:28:33
1	Co 228.616†	-71.9	-0.2	0.0004	ug/L	0.0004	ppb	00:28:33
1	Cr 267.716†	84.5	-56.8	-0.6580	ug/L	-0.6580	ppb	00:28:33
1	Cu 324.752†	8165.9	880.4	2.7010	ug/L	2.7010	ppb	00:28:13
1	Mn 257.610†	748.9	253.4	0.2887	ug/L	0.2887	ppb	00:28:33
1	Mo 202.031†	29.2	21.6	1.6086	ug/L	1.6086	ppb	00:28:33
1	Ni 231.604†	105.3	2.2	0.0557	ug/L	0.0557	ppb	00:28:33
1	P 214.914†	225.2	5.5	2.5264	ug/L	2.5264	ppb	00:28:33
1	Pb 220.353†	-89.7	-25.0	-3.0895	ug/L	-3.0895	ppb	00:28:33
1	S 181.975 Axial†	51.9	14.2	18.498	ug/L	18.498	ppb	00:28:33
1	Sb 206.836†	23.8	-9.5	-3.1467	ug/L	-3.1467	ppb	00:28:33
1	Se 196.026†	-28.5	-8.0	-4.6501	ug/L	-4.6501	ppb	00:28:33
1	Si 251.611†	703.8	161.2	5.0042	ug/L	5.0042	ppb	00:28:33
1	Sn 189.927†	20.8	10.3	1.8440	ug/L	1.8440	ppb	00:28:33
1	Ti 334.940†	-1304.2	59.6	0.0983	ug/L	0.0983	ppb	00:28:13
1	Tl 190.801†	-23.9	12.9	4.0616	ug/L	4.0616	ppb	00:28:33
1	U 409.014†	-3511.5	-344.0	-9.7721	ug/L	-9.7721	ppb	00:28:13
1	V 292.402†	-1582.3	-61.6	-0.4409	ug/L	-0.4409	ppb	00:28:13
1	Zn 213.857†	768.9	157.3	1.5310	ug/L	1.5310	ppb	00:28:33
1	SiO2†	709.8	160.6	10.664	ug/L	10.664	ppb	00:29:29
2	Sc Radial	4026.1	4026.1	94.7	%			00:27:41
2	Y RADIAL	4273.4	4273.4	97.07	%			00:27:21
2	Al 396.153Radial†	-138.5	12.8	12.769	ug/L	12.769	ppb	00:27:21
2	Ca 317.933Radial†	61.6	46.7	87.062	ug/L	87.062	ppb	00:27:41
2	Fe 238.204 Radial†	11.0	1.5	16.108	ug/L	16.108	ppb	00:27:41
2	K 766.490 Radial†	3017.2	14.1	2.8390	ug/L	2.8390	ppb	00:27:21
2	Mg 279.077 IEC†	3.3	0.7	28.251	ug/L	28.251	ppb	00:27:41
2	Na 589.592 Radial†	-26.8	-235.4	-78.525	ug/L	-78.525	ppb	00:27:21
2	Sr 421.552†	45.6	-41.7	-0.3227	ug/L	-0.3227	ppb	00:27:21
2	Sc 361.383	836831.2	836831.2	98.450	%			00:28:38
2	Y 371.029	675397.9	675397.9	96.111	%			00:28:38
2	Ag 328.068†	165.4	-59.7	-0.2846	ug/L	-0.2846	ppb	00:28:38
2	As 188.979†	-37.3	-9.6	-4.0280	ug/L	-4.0280	ppb	00:28:58
2	B 249.677†	-204.3	274.3	6.4514	ug/L	6.4514	ppb	00:28:58
2	Ba 233.527†	9.8	-8.9	-0.0718	ug/L	-0.0718	ppb	00:28:58
2	Be 313.107†	-4188.9	84.2	0.0312	ug/L	0.0312	ppb	00:28:38
2	Cd 226.502†	-189.6	2.9	0.0327	ug/L	0.0327	ppb	00:28:58
2	Co 228.616†	-71.1	6.7	0.1420	ug/L	0.1420	ppb	00:28:58
2	Cr 267.716†	104.6	-43.4	-0.5062	ug/L	-0.5062	ppb	00:28:58
2	Cu 324.752†	8110.7	144.3	0.4412	ug/L	0.4412	ppb	00:28:38
2	Mn 257.610†	701.3	142.6	0.1649	ug/L	0.1649	ppb	00:28:58
2	Mo 202.031†	27.0	16.9	1.2615	ug/L	1.2615	ppb	00:28:58
2	Ni 231.604†	115.9	4.2	0.1067	ug/L	0.1067	ppb	00:28:58

2	P 214.914†	230.7	-7.6	-4.3169	ug/L	-4.3169 ppb	00:28:58
2	Pb 220.353†	-76.4	-4.1	-0.4976	ug/L	-0.4976 ppb	00:28:58
2	S 181.975 Axial†	57.7	15.7	20.541	ug/L	20.541 ppb	00:28:58
2	Sb 206.836†	31.2	-4.0	-1.3054	ug/L	-1.3054 ppb	00:28:58
2	Se 196.026†	-33.8	-11.0	-6.3367	ug/L	-6.3367 ppb	00:28:58
2	Si 251.611†	710.2	109.0	3.3819	ug/L	3.3819 ppb	00:28:58
2	Sn 189.927†	19.4	7.1	1.2780	ug/L	1.2780 ppb	00:28:58
2	Ti 334.940†	-1408.8	61.9	0.1091	ug/L	0.1091 ppb	00:28:38
2	Tl 190.801†	-31.4	7.3	2.2922	ug/L	2.2922 ppb	00:28:58
2	U 409.014†	-3374.9	87.1	2.4749	ug/L	2.4749 ppb	00:28:38
2	V 292.402†	-1661.1	-9.9	-0.0512	ug/L	-0.0512 ppb	00:28:38
2	Zn 213.857†	787.6	112.3	1.0921	ug/L	1.0921 ppb	00:28:58
2	SiO2†	742.9	135.1	8.9712	ug/L	8.9712 ppb	00:29:34
3	Sc Radial	3877.8	3877.8	91.2	%		00:28:06
3	Y RADIAL	4258.6	4258.6	96.74	%		00:27:46
3	Al 396.153Radial†	-141.0	4.4	4.3742	ug/L	4.3742 ppb	00:27:46
3	Ca 317.933Radial†	34.1	19.0	35.528	ug/L	35.528 ppb	00:28:06
3	Fe 238.204 Radial†	12.5	3.6	38.510	ug/L	38.510 ppb	00:28:06
3	K 766.490 Radial†	3032.1	152.2	30.726	ug/L	30.726 ppb	00:27:46
3	Mg 279.077 IEC†	3.9	1.5	58.870	ug/L	58.870 ppb	00:28:06
3	Na 589.592 Radial†	15.2	-190.4	-63.504	ug/L	-63.504 ppb	00:27:46
3	Sr 421.552†	52.3	-32.5	-0.2513	ug/L	-0.2513 ppb	00:27:46
3	Sc 361.383	813500.9	813500.9	95.705	%		00:29:03
3	Y 371.029	658175.5	658175.5	93.660	%		00:29:03
3	Ag 328.068†	282.9	67.9	0.3391	ug/L	0.3391 ppb	00:29:03
3	As 188.979†	-36.2	-9.5	-3.9960	ug/L	-3.9960 ppb	00:29:23
3	B 249.677†	-233.2	238.2	5.5984	ug/L	5.5984 ppb	00:29:23
3	Ba 233.527†	8.6	-9.8	-0.0798	ug/L	-0.0798 ppb	00:29:23
3	Be 313.107†	-4107.1	47.7	0.0175	ug/L	0.0175 ppb	00:29:03
3	Cd 226.502†	-207.2	-21.0	-0.2504	ug/L	-0.2504 ppb	00:29:23
3	Co 228.616†	-73.8	1.8	0.0407	ug/L	0.0407 ppb	00:29:23
3	Cr 267.716†	105.1	-39.8	-0.4623	ug/L	-0.4623 ppb	00:29:23
3	Cu 324.752†	8226.3	501.4	1.5391	ug/L	1.5391 ppb	00:29:03
3	Mn 257.610†	782.0	247.3	0.2867	ug/L	0.2867 ppb	00:29:23
3	Mo 202.031†	30.2	21.1	1.5738	ug/L	1.5738 ppb	00:29:23
3	Ni 231.604†	82.7	-27.2	-0.6955	ug/L	-0.6955 ppb	00:29:23
3	P 214.914†	227.1	-4.7	-2.9136	ug/L	-2.9136 ppb	00:29:23
3	Pb 220.353†	-82.7	-12.9	-1.5960	ug/L	-1.5960 ppb	00:29:23
3	S 181.975 Axial†	50.4	9.7	12.691	ug/L	12.691 ppb	00:29:23
3	Sb 206.836†	32.7	-1.5	-0.4468	ug/L	-0.4468 ppb	00:29:23
3	Se 196.026†	-14.5	8.2	4.9136	ug/L	4.9136 ppb	00:29:23
3	Si 251.611†	704.3	123.6	3.8335	ug/L	3.8335 ppb	00:29:23
3	Sn 189.927†	24.8	13.3	2.3890	ug/L	2.3890 ppb	00:29:23
3	Ti 334.940†	-1444.2	-16.1	-0.0246	ug/L	-0.0246 ppb	00:29:03
3	Tl 190.801†	-30.2	7.6	2.3913	ug/L	2.3913 ppb	00:29:23
3	U 409.014†	-3478.5	-119.4	-3.3962	ug/L	-3.3962 ppb	00:29:03
3	V 292.402†	-1677.9	-75.9	-0.5386	ug/L	-0.5386 ppb	00:29:03
3	Zn 213.857†	798.3	146.4	1.4255	ug/L	1.4255 ppb	00:29:23
3	SiO2†	741.6	155.3	10.314	ug/L	10.314 ppb	00:29:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807920.1	95.048	%	3.7726				3.97%
Sc Radial	3963.4	93.2	%	1.80				1.94%
Y 371.029	652660.9	92.875	%	3.6910				3.97%
Y RADIAL	4269.8	96.99	%	0.225				0.23%
Ag 328.068†	28.5	0.1440	ug/L	0.37171	0.1440	ppb	0.37171	258.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.6	12.540	ug/L	8.0540	12.540	ppb	8.0540	64.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.7	-3.2194	ug/L	1.37288	-3.2194	ppb	1.37288	42.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	267.7	6.2952	ug/L	0.63329	6.2952	ppb	0.63329	10.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.7	-0.0712	ug/L	0.00887	-0.0712	ppb	0.00887	12.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-16.8	-0.0060	ug/L	0.05302	-0.0060	ppb	0.05302	878.54%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	27.7	51.592	ug/L	30.7630	51.592	ppb	30.7630	59.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -16.2     -0.1917 ug/L       0.20158     -0.1917 ppb        0.20158 105.14%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                2.8      0.0610 ug/L       0.07297      0.0610 ppb        0.07297 119.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -46.7     -0.5422 ug/L       0.10272     -0.5422 ppb        0.10272  18.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              508.7      1.5604 ug/L       1.13004      1.5604 ppb        1.13004  72.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.8     18.925 ug/L       18.3389     18.925 ppb        18.3389  96.90%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         91.1     18.389 ug/L       14.2182     18.389 ppb        14.2182  77.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5     59.146 ug/L       31.0340     59.146 ppb        31.0340  52.47%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              214.4      0.2468 ug/L       0.07093      0.2468 ppb        0.07093  28.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               19.9      1.4813 ug/L       0.19115      1.4813 ppb        0.19115  12.90%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -206.5     -68.894 ug/L        8.3602     -68.894 ppb         8.3602  12.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -6.9     -0.1777 ug/L       0.44915     -0.1777 ppb        0.44915 252.74%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.3     -1.5681 ug/L       3.61461     -1.5681 ppb        3.61461 230.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -14.0     -1.7277 ug/L       1.30096     -1.7277 ppb        1.30096  75.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          13.2     17.243 ug/L        4.0726     17.243 ppb         4.0726  23.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -5.0     -1.6329 ug/L       1.37940     -1.6329 ppb        1.37940  84.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.6     -2.0244 ug/L       6.06738     -2.0244 ppb        6.06738 299.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              131.3      4.0732 ug/L       0.83727      4.0732 ppb        0.83727  20.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               10.2      1.8370 ug/L       0.55550      1.8370 ppb        0.55550  30.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -29.3     -0.2268 ug/L       0.11010     -0.2268 ppb        0.11010  48.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               35.1      0.0609 ug/L       0.07427      0.0609 ppb        0.07427 121.92%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.2      2.9150 ug/L       0.99423      2.9150 ppb        0.99423  34.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -125.4     -3.5645 ug/L       6.12524     -3.5645 ppb        6.12524 171.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -49.2     -0.3436 ug/L       0.25786     -0.3436 ppb        0.25786  75.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              138.7      1.3495 ug/L       0.22909      1.3495 ppb        0.22909  16.98%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    150.3      9.9832 ug/L       0.89368      9.9832 ppb        0.89368   8.95%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 76
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 01:21:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4179.7	4179.7	98.3	%			01:23:31
1	Y RADIAL	4267.1	4267.1	96.93	%			01:23:31
1	Al 396.153Radial†	4846.1	5087.8	5065.3	ug/L	5065.3	ppb	01:23:31
1	Ca 317.933Radial†	2696.6	2724.2	5081.7	ug/L	5081.7	ppb	01:23:51
1	Fe 238.204 Radial†	499.4	497.8	5305.9	ug/L	5305.9	ppb	01:23:51
1	K 766.490 Radial†	27663.7	24963.5	5032.9	ug/L	5032.9	ppb	01:23:31
1	Mg 279.077 IEC†	140.1	139.8	5398.2	ug/L	5398.2	ppb	01:23:51
1	Na 589.592 Radial†	29385.7	29679.4	9899.9	ug/L	9899.9	ppb	01:23:31
1	Sr 421.552†	63741.4	64737.8	499.82	ug/L	499.82	ppb	01:23:31
1	Sc 361.383	828006.2	828006.2	97.411	%			01:24:49
1	Y 371.029	660648.9	660648.9	94.012	%			01:24:49
1	Ag 328.068†	102467.3	104962.5	507.30	ug/L	507.30	ppb	01:24:54
1	As 188.979†	1140.9	1199.5	509.19	ug/L	509.19	ppb	01:25:14
1	B 249.677†	20859.8	21896.0	512.80	ug/L	512.80	ppb	01:24:54
1	Ba 233.527†	61626.9	63245.6	514.79	ug/L	514.79	ppb	01:24:54
1	Be 313.107†	1356435.9	1396819.5	514.23	ug/L	514.23	ppb	01:24:49
1	Cd 226.502†	41506.9	42805.4	500.45	ug/L	500.45	ppb	01:24:54
1	Co 228.616†	24054.3	24772.4	516.64	ug/L	516.64	ppb	01:24:54
1	Cr 267.716†	41824.5	42786.2	498.39	ug/L	498.39	ppb	01:24:54
1	Cu 324.752†	172444.9	168933.2	517.23	ug/L	517.23	ppb	01:24:54
1	Mn 257.610†	438932.5	450026.5	519.36	ug/L	519.36	ppb	01:24:49
1	Mo 202.031†	6609.0	6774.2	503.84	ug/L	503.84	ppb	01:25:14
1	Ni 231.604†	19309.2	19708.8	504.51	ug/L	504.51	ppb	01:24:54
1	P 214.914†	4689.8	4572.4	2436.1	ug/L	2436.1	ppb	01:25:14
1	Pb 220.353†	3883.8	4060.6	504.64	ug/L	504.64	ppb	01:25:14
1	S 181.975 Axial†	813.0	791.7	1033.8	ug/L	1033.8	ppb	01:25:14
1	Sb 206.836†	1482.3	1486.1	521.03	ug/L	521.03	ppb	01:25:14
1	Se 196.026†	832.6	878.0	530.98	ug/L	530.98	ppb	01:25:14
1	Si 251.611†	81744.8	83304.6	2589.8	ug/L	2589.8	ppb	01:24:54
1	Sn 189.927†	2750.7	2811.1	504.93	ug/L	504.93	ppb	01:25:14
1	Ti 334.940†	307550.6	317216.0	515.42	ug/L	515.42	ppb	01:24:54
1	Tl 190.801†	1549.4	1629.7	517.91	ug/L	517.91	ppb	01:25:14
1	U 409.014†	13568.6	17444.3	493.83	ug/L	493.83	ppb	01:24:54
1	V 292.402†	65367.6	68781.9	504.84	ug/L	504.84	ppb	01:24:54
1	Zn 213.857†	51905.5	52597.1	508.63	ug/L	508.63	ppb	01:24:54
1	SiO2†	79807.7	81308.9	5407.4	ug/L	5407.4	ppb	01:26:21
2	Sc Radial	4179.7	4179.7	98.3	%			01:23:56
2	Y RADIAL	4236.6	4236.6	96.24	%			01:23:56
2	Al 396.153Radial†	4860.8	5102.7	5080.3	ug/L	5080.3	ppb	01:23:56
2	Ca 317.933Radial†	2677.1	2704.4	5044.7	ug/L	5044.7	ppb	01:24:16
2	Fe 238.204 Radial†	497.6	496.0	5286.8	ug/L	5286.8	ppb	01:24:16
2	K 766.490 Radial†	27663.5	24963.3	5032.9	ug/L	5032.9	ppb	01:23:56
2	Mg 279.077 IEC†	136.9	136.5	5272.6	ug/L	5272.6	ppb	01:24:16
2	Na 589.592 Radial†	29437.9	29732.4	9917.6	ug/L	9917.6	ppb	01:23:56
2	Sr 421.552†	63810.1	64807.5	500.36	ug/L	500.36	ppb	01:23:56
2	Sc 361.383	830895.1	830895.1	97.751	%			01:25:20
2	Y 371.029	661530.7	661530.7	94.137	%			01:25:20
2	Ag 328.068†	102695.6	104830.3	506.67	ug/L	506.67	ppb	01:25:25
2	As 188.979†	1140.9	1195.5	507.48	ug/L	507.48	ppb	01:25:45
2	B 249.677†	20861.2	21823.0	511.08	ug/L	511.08	ppb	01:25:25
2	Ba 233.527†	61818.9	63222.2	514.60	ug/L	514.60	ppb	01:25:25
2	Be 313.107†	1358559.4	1394150.5	513.25	ug/L	513.25	ppb	01:25:20
2	Cd 226.502†	41621.1	42774.0	500.08	ug/L	500.08	ppb	01:25:25
2	Co 228.616†	24160.7	24795.4	517.12	ug/L	517.12	ppb	01:25:25
2	Cr 267.716†	41899.7	42713.8	497.55	ug/L	497.55	ppb	01:25:25
2	Cu 324.752†	172482.0	168355.6	515.46	ug/L	515.46	ppb	01:25:25
2	Mn 257.610†	440394.8	449955.8	519.28	ug/L	519.28	ppb	01:25:20
2	Mo 202.031†	6617.0	6758.8	502.69	ug/L	502.69	ppb	01:25:45
2	Ni 231.604†	19348.0	19679.6	503.76	ug/L	503.76	ppb	01:25:25

2	P 214.914†	4665.4	4530.8	2413.3 ug/L	2413.3 ppb	01:25:45
2	Pb 220.353†	3869.8	4032.4	501.16 ug/L	501.16 ppb	01:25:45
2	S 181.975 Axial†	814.2	790.1	1031.6 ug/L	1031.6 ppb	01:25:45
2	Sb 206.836†	1477.8	1476.1	517.59 ug/L	517.59 ppb	01:25:45
2	Se 196.026†	844.3	887.1	536.19 ug/L	536.19 ppb	01:25:45
2	Si 251.611†	81586.0	82850.5	2575.6 ug/L	2575.6 ppb	01:25:25
2	Sn 189.927†	2741.9	2792.3	501.55 ug/L	501.55 ppb	01:25:45
2	Ti 334.940†	307864.4	316439.3	514.17 ug/L	514.17 ppb	01:25:25
2	Tl 190.801†	1544.2	1618.8	514.47 ug/L	514.47 ppb	01:25:45
2	U 409.014†	13399.3	17222.8	487.54 ug/L	487.54 ppb	01:25:25
2	V 292.402†	65533.5	68718.4	504.35 ug/L	504.35 ppb	01:25:25
2	Zn 213.857†	52023.4	52532.4	508.01 ug/L	508.01 ppb	01:25:25
2	SiO2†	81504.0	82759.4	5504.1 ug/L	5504.1 ppb	01:26:26
3	Sc Radial	3778.4	3778.4	88.9 %		01:24:21
3	Y RADIAL	3840.4	3840.4	87.24 %		01:24:21
3	Al 396.153Radial†	4961.1	5740.5	5718.1 ug/L	5718.1 ppb	01:24:21
3	Ca 317.933Radial†	2692.5	3010.9	5616.4 ug/L	5616.4 ppb	01:24:41
3	Fe 238.204 Radial†	503.0	555.8	5922.5 ug/L	5922.5 ppb	01:24:41
3	K 766.490 Radial†	27931.4	28252.3	5696.1 ug/L	5696.1 ppb	01:24:21
3	Mg 279.077 IEC†	137.3	151.8	5861.1 ug/L	5861.1 ppb	01:24:41
3	Na 589.592 Radial†	30100.3	33656.9	11227 ug/L	11227 ppb	01:24:21
3	Sr 421.552†	65459.5	73554.7	567.90 ug/L	567.90 ppb	01:24:21
3	Sc 361.383	819546.3	819546.3	96.416 %		01:25:51
3	Y 371.029	653321.1	653321.1	92.969 %		01:25:51
3	Ag 328.068†	102649.6	106237.4	513.64 ug/L	513.64 ppb	01:25:56
3	As 188.979†	1154.6	1225.8	520.47 ug/L	520.47 ppb	01:26:16
3	B 249.677†	20885.4	22143.6	518.50 ug/L	518.50 ppb	01:25:56
3	Ba 233.527†	61653.6	63926.5	520.35 ug/L	520.35 ppb	01:25:56
3	Be 313.107†	1338661.5	1392758.7	512.75 ug/L	512.75 ppb	01:25:51
3	Cd 226.502†	41645.3	43388.8	507.21 ug/L	507.21 ppb	01:25:56
3	Co 228.616†	24136.7	25112.8	523.72 ug/L	523.72 ppb	01:25:56
3	Cr 267.716†	41970.9	43381.3	505.33 ug/L	505.33 ppb	01:25:56
3	Cu 324.752†	172327.0	170638.3	522.48 ug/L	522.48 ppb	01:25:56
3	Mn 257.610†	434221.0	449791.2	519.13 ug/L	519.13 ppb	01:25:51
3	Mo 202.031†	6589.9	6824.4	507.62 ug/L	507.62 ppb	01:26:16
3	Ni 231.604†	19379.1	19985.9	511.61 ug/L	511.61 ppb	01:25:56
3	P 214.914†	4668.6	4600.1	2450.1 ug/L	2450.1 ppb	01:26:16
3	Pb 220.353†	3877.6	4095.3	509.04 ug/L	509.04 ppb	01:26:16
3	S 181.975 Axial†	797.4	784.2	1023.8 ug/L	1023.8 ppb	01:26:16
3	Sb 206.836†	1467.6	1486.5	521.32 ug/L	521.32 ppb	01:26:16
3	Se 196.026†	817.8	871.5	529.20 ug/L	529.20 ppb	01:26:16
3	Si 251.611†	81710.8	84135.6	2615.6 ug/L	2615.6 ppb	01:25:56
3	Sn 189.927†	2755.2	2845.0	511.10 ug/L	511.10 ppb	01:26:16
3	Ti 334.940†	307813.0	320747.3	521.19 ug/L	521.19 ppb	01:25:56
3	Tl 190.801†	1555.6	1652.6	525.14 ug/L	525.14 ppb	01:26:16
3	U 409.014†	13692.6	17716.7	501.48 ug/L	501.48 ppb	01:25:56
3	V 292.402†	65498.1	69610.0	510.81 ug/L	510.81 ppb	01:25:56
3	Zn 213.857†	52024.8	53270.8	515.06 ug/L	515.06 ppb	01:25:56
3	SiO2†	80287.1	82651.8	5496.8 ug/L	5496.8 ppb	01:26:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826149.2	97.193	%	0.6939				0.71%
Sc Radial	4045.9	95.2	%	5.45				5.73%
Y 371.029	658500.2	93.706	%	0.6413				0.68%
Y RADIAL	4114.7	93.47	%	5.407				5.79%
Ag 328.068†	105343.4	509.20	ug/L	3.858	509.20	ppb	3.858	0.76%
QC value within limits for Ag 328.068 Recovery = 101.84%								
Al 396.153Radial†	5310.3	5287.9	ug/L	372.65	5287.9	ppb	372.65	7.05%
QC value within limits for Al 396.153Radial Recovery = 105.76%								
As 188.979†	1206.9	512.38	ug/L	7.054	512.38	ppb	7.054	1.38%
QC value within limits for As 188.979 Recovery = 102.48%								
B 249.677†	21954.2	514.12	ug/L	3.884	514.12	ppb	3.884	0.76%
QC value within limits for B 249.677 Recovery = 102.82%								
Ba 233.527†	63464.8	516.58	ug/L	3.267	516.58	ppb	3.267	0.63%
QC value within limits for Ba 233.527 Recovery = 103.32%								
Be 313.107†	1394576.2	513.41	ug/L	0.753	513.41	ppb	0.753	0.15%
QC value within limits for Be 313.107 Recovery = 102.68%								
Ca 317.933Radial†	2813.2	5247.6	ug/L	319.93	5247.6	ppb	319.93	6.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.95%
Cd 226.502†            42989.4      502.58 ug/L        4.016      502.58 ppb        4.016   0.80%
   QC value within limits for Cd 226.502  Recovery = 100.52%
Co 228.616†            24893.5      519.16 ug/L        3.960      519.16 ppb        3.960   0.76%
   QC value within limits for Co 228.616  Recovery = 103.83%
Cr 267.716†            42960.4      500.42 ug/L        4.271      500.42 ppb        4.271   0.85%
   QC value within limits for Cr 267.716  Recovery = 100.08%
Cu 324.752†           169309.0      518.39 ug/L        3.649      518.39 ppb        3.649   0.70%
   QC value within limits for Cu 324.752  Recovery = 103.68%
Fe 238.204 Radial†       516.5      5505.1 ug/L       361.65      5505.1 ppb       361.65   6.57%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 110.10%
K 766.490 Radial†      26059.7      5254.0 ug/L       382.91      5254.0 ppb       382.91   7.29%
   QC value within limits for K 766.490 Radial  Recovery = 105.08%
Mg 279.077 IEC†          142.7      5510.6 ug/L       309.94      5510.6 ppb       309.94   5.62%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.21%
Mn 257.610†           449924.5      519.25 ug/L        0.117      519.25 ppb        0.117   0.02%
   QC value within limits for Mn 257.610  Recovery = 103.85%
Mo 202.031†             6785.8      504.72 ug/L        2.582      504.72 ppb        2.582   0.51%
   QC value within limits for Mo 202.031  Recovery = 100.94%
Na 589.592 Radial†     31022.9       10348 ug/L        760.9       10348 ppb        760.9   7.35%
   QC value within limits for Na 589.592 Radial  Recovery = 103.48%
Ni 231.604†            19791.4      506.63 ug/L        4.329      506.63 ppb        4.329   0.85%
   QC value within limits for Ni 231.604  Recovery = 101.33%
P 214.914†              4567.8      2433.2 ug/L       18.59      2433.2 ppb       18.59   0.76%
   QC value within limits for P 214.914  Recovery = 97.33%
Pb 220.353†             4062.7      504.95 ug/L        3.949      504.95 ppb        3.949   0.78%
   QC value within limits for Pb 220.353  Recovery = 100.99%
S 181.975 Axial†         788.6      1029.7 ug/L         5.26      1029.7 ppb         5.26   0.51%
   QC value within limits for S 181.975 Axial  Recovery = 102.97%
Sb 206.836†             1482.9      519.98 ug/L        2.076      519.98 ppb        2.076   0.40%
   QC value within limits for Sb 206.836  Recovery = 104.00%
Se 196.026†              878.9      532.12 ug/L        3.634      532.12 ppb        3.634   0.68%
   QC value within limits for Se 196.026  Recovery = 106.42%
Si 251.611†            83430.3      2593.7 ug/L       20.28      2593.7 ppb       20.28   0.78%
   QC value within limits for Si 251.611  Recovery = 103.75%
Sn 189.927†             2816.2      505.86 ug/L        4.843      505.86 ppb        4.843   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.17%
Sr 421.552†            67700.0      522.69 ug/L       39.148      522.69 ppb       39.148   7.49%
   QC value within limits for Sr 421.552  Recovery = 104.54%
Ti 334.940†           318134.2      516.93 ug/L        3.745      516.93 ppb        3.745   0.72%
   QC value within limits for Ti 334.940  Recovery = 103.39%
Tl 190.801†             1633.7      519.17 ug/L        5.449      519.17 ppb        5.449   1.05%
   QC value within limits for Tl 190.801  Recovery = 103.83%
U 409.014†             17461.3      494.28 ug/L        6.982      494.28 ppb        6.982   1.41%
   QC value within limits for U 409.014  Recovery = 98.86%
V 292.402†             69036.7      506.67 ug/L        3.599      506.67 ppb        3.599   0.71%
   QC value within limits for V 292.402  Recovery = 101.33%
Zn 213.857†            52800.1      510.57 ug/L        3.905      510.57 ppb        3.905   0.76%
   QC value within limits for Zn 213.857  Recovery = 102.11%
SiO2†                  82240.0      5469.5 ug/L       53.87      5469.5 ppb       53.87   0.98%
   QC value within limits for SiO2  Recovery = 102.28%
QC Failed.  Continue with analysis.
```

Sequence No.: 77
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 01:28:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4057.5	4057.5	95.5	%			01:30:54
1	Y RADIAL	4266.1	4266.1	96.91	%			01:30:34
1	Al 396.153Radial†	-122.4	30.8	30.713	ug/L	30.713	ppb	01:30:34
1	Ca 317.933Radial†	30.4	13.6	25.287	ug/L	25.287	ppb	01:30:54
1	Fe 238.204 Radial†	11.0	1.4	15.352	ug/L	15.352	ppb	01:30:54
1	K 766.490 Radial†	2995.2	-33.7	-6.7830	ug/L	-6.7830	ppb	01:30:34
1	Mg 279.077 IEC†	0.2	-2.6	-98.819	ug/L	-98.819	ppb	01:30:54
1	Na 589.592 Radial†	-15.3	-223.1	-74.425	ug/L	-74.425	ppb	01:30:34
1	Sr 421.552†	81.2	-4.8	-0.0371	ug/L	-0.0371	ppb	01:30:34
1	Sc 361.383	821359.7	821359.7	96.630	%			01:31:51
1	Y 371.029	663885.8	663885.8	94.473	%			01:31:51
1	Ag 328.068†	249.6	30.6	0.1417	ug/L	0.1417	ppb	01:31:51
1	As 188.979†	-29.2	-1.9	-0.7807	ug/L	-0.7807	ppb	01:32:11
1	B 249.677†	-379.9	88.7	2.0847	ug/L	2.0847	ppb	01:32:11
1	Ba 233.527†	13.6	-4.8	-0.0391	ug/L	-0.0391	ppb	01:32:11
1	Be 313.107†	-4018.0	181.0	0.0667	ug/L	0.0667	ppb	01:31:51
1	Cd 226.502†	-194.5	-5.8	-0.0674	ug/L	-0.0674	ppb	01:32:11
1	Co 228.616†	-66.1	10.5	0.2209	ug/L	0.2209	ppb	01:32:11
1	Cr 267.716†	110.9	-34.9	-0.4104	ug/L	-0.4104	ppb	01:32:11
1	Cu 324.752†	8169.4	360.3	1.0980	ug/L	1.0980	ppb	01:31:51
1	Mn 257.610†	784.6	242.2	0.2849	ug/L	0.2849	ppb	01:32:11
1	Mo 202.031†	25.0	15.4	1.1433	ug/L	1.1433	ppb	01:32:11
1	Ni 231.604†	110.4	0.7	0.0179	ug/L	0.0179	ppb	01:32:11
1	P 214.914†	243.2	9.7	5.1603	ug/L	5.1603	ppb	01:32:11
1	Pb 220.353†	-69.2	1.9	0.2418	ug/L	0.2418	ppb	01:32:11
1	S 181.975 Axial†	53.7	12.7	16.589	ug/L	16.589	ppb	01:32:11
1	Sb 206.836†	49.7	15.8	5.3716	ug/L	5.3716	ppb	01:32:11
1	Se 196.026†	-12.6	10.3	6.0791	ug/L	6.0791	ppb	01:32:11
1	Si 251.611†	645.9	56.1	1.7338	ug/L	1.7338	ppb	01:32:11
1	Sn 189.927†	14.4	2.3	0.4161	ug/L	0.4161	ppb	01:32:11
1	Ti 334.940†	-1373.6	71.4	0.1230	ug/L	0.1230	ppb	01:31:51
1	Tl 190.801†	-31.1	6.9	2.1859	ug/L	2.1859	ppb	01:32:11
1	U 409.014†	-3040.1	369.1	10.483	ug/L	10.483	ppb	01:31:51
1	V 292.402†	-1674.4	-55.5	-0.3700	ug/L	-0.3700	ppb	01:31:51
1	Zn 213.857†	750.0	88.4	0.8593	ug/L	0.8593	ppb	01:32:11
1	SiO2†	683.7	88.1	5.8398	ug/L	5.8398	ppb	01:33:07
2	Sc Radial	4071.2	4071.2	95.8	%			01:31:19
2	Y RADIAL	4191.4	4191.4	95.21	%			01:30:59
2	Al 396.153Radial†	-122.6	31.0	30.971	ug/L	30.971	ppb	01:30:59
2	Ca 317.933Radial†	30.5	13.5	25.224	ug/L	25.224	ppb	01:31:19
2	Fe 238.204 Radial†	10.7	1.1	11.981	ug/L	11.981	ppb	01:31:19
2	K 766.490 Radial†	3084.0	48.6	9.8107	ug/L	9.8107	ppb	01:30:59
2	Mg 279.077 IEC†	2.1	-0.5	-19.858	ug/L	-19.858	ppb	01:31:19
2	Na 589.592 Radial†	57.4	-147.1	-49.072	ug/L	-49.072	ppb	01:30:59
2	Sr 421.552†	46.8	-41.0	-0.3167	ug/L	-0.3167	ppb	01:30:59
2	Sc 361.383	815276.1	815276.1	95.914	%			01:32:16
2	Y 371.029	658947.7	658947.7	93.770	%			01:32:16
2	Ag 328.068†	273.8	57.8	0.2769	ug/L	0.2769	ppb	01:32:16
2	As 188.979†	-29.9	-2.9	-1.2063	ug/L	-1.2063	ppb	01:32:36
2	B 249.677†	-355.6	111.2	2.6135	ug/L	2.6135	ppb	01:32:36
2	Ba 233.527†	14.3	-4.0	-0.0338	ug/L	-0.0338	ppb	01:32:36
2	Be 313.107†	-4088.8	76.1	0.0280	ug/L	0.0280	ppb	01:32:16
2	Cd 226.502†	-226.5	-40.6	-0.4761	ug/L	-0.4761	ppb	01:32:36
2	Co 228.616†	-70.2	5.6	0.1198	ug/L	0.1198	ppb	01:32:36
2	Cr 267.716†	81.3	-64.9	-0.7568	ug/L	-0.7568	ppb	01:32:36
2	Cu 324.752†	8091.7	342.3	1.0482	ug/L	1.0482	ppb	01:32:16
2	Mn 257.610†	795.5	259.7	0.3015	ug/L	0.3015	ppb	01:32:36
2	Mo 202.031†	22.2	12.7	0.9429	ug/L	0.9429	ppb	01:32:36
2	Ni 231.604†	101.1	-8.1	-0.2085	ug/L	-0.2085	ppb	01:32:36

2	P 214.914†	249.3	17.9	9.7440	ug/L	9.7440 ppb	01:32:36
2	Pb 220.353†	-72.8	-2.3	-0.2812	ug/L	-0.2812 ppb	01:32:36
2	S 181.975 Axial†	54.3	13.7	17.933	ug/L	17.933 ppb	01:32:36
2	Sb 206.836†	43.8	10.0	3.4314	ug/L	3.4314 ppb	01:32:36
2	Se 196.026†	-34.2	-12.3	-7.1586	ug/L	-7.1586 ppb	01:32:36
2	Si 251.611†	649.5	64.8	2.0092	ug/L	2.0092 ppb	01:32:36
2	Sn 189.927†	24.0	12.4	2.2364	ug/L	2.2364 ppb	01:32:36
2	Ti 334.940†	-1410.0	22.8	0.0419	ug/L	0.0419 ppb	01:32:16
2	Tl 190.801†	-40.4	-3.1	-0.9620	ug/L	-0.9620 ppb	01:32:36
2	U 409.014†	-3340.9	31.9	0.9076	ug/L	0.9076 ppb	01:32:16
2	V 292.402†	-1727.1	-123.3	-0.8802	ug/L	-0.8802 ppb	01:32:16
2	Zn 213.857†	756.2	100.7	0.9805	ug/L	0.9805 ppb	01:32:36
2	SiO2†	655.7	64.1	4.2468	ug/L	4.2468 ppb	01:33:12
3	Sc Radial	4042.1	4042.1	95.1	%		01:31:44
3	Y RADIAL	4261.9	4261.9	96.81	%		01:31:24
3	Al 396.153Radial†	-137.3	14.6	14.567	ug/L	14.567 ppb	01:31:24
3	Ca 317.933Radial†	26.9	10.0	18.564	ug/L	18.564 ppb	01:31:44
3	Fe 238.204 Radial†	11.2	1.7	18.277	ug/L	18.277 ppb	01:31:44
3	K 766.490 Radial†	3031.5	16.5	3.3555	ug/L	3.3555 ppb	01:31:24
3	Mg 279.077 IEC†	6.9	4.6	175.90	ug/L	175.90 ppb	01:31:44
3	Na 589.592 Radial†	19.9	-186.1	-62.080	ug/L	-62.080 ppb	01:31:24
3	Sr 421.552†	76.4	-9.4	-0.0729	ug/L	-0.0729 ppb	01:31:24
3	Sc 361.383	823297.1	823297.1	96.857	%		01:32:41
3	Y 371.029	663829.7	663829.7	94.465	%		01:32:41
3	Ag 328.068†	263.5	44.4	0.2154	ug/L	0.2154 ppb	01:32:41
3	As 188.979†	-25.1	2.4	1.0223	ug/L	1.0223 ppb	01:33:01
3	B 249.677†	-325.7	145.6	3.4230	ug/L	3.4230 ppb	01:33:01
3	Ba 233.527†	38.1	20.5	0.1675	ug/L	0.1675 ppb	01:33:01
3	Be 313.107†	-4094.5	111.8	0.0414	ug/L	0.0414 ppb	01:32:41
3	Cd 226.502†	-228.9	-40.8	-0.4782	ug/L	-0.4782 ppb	01:33:01
3	Co 228.616†	-73.7	2.8	0.0627	ug/L	0.0627 ppb	01:33:01
3	Cr 267.716†	105.5	-40.7	-0.4753	ug/L	-0.4753 ppb	01:33:01
3	Cu 324.752†	8161.9	332.6	1.0168	ug/L	1.0168 ppb	01:32:41
3	Mn 257.610†	788.2	244.0	0.2761	ug/L	0.2761 ppb	01:33:01
3	Mo 202.031†	33.1	23.7	1.7663	ug/L	1.7663 ppb	01:33:01
3	Ni 231.604†	98.9	-11.4	-0.2929	ug/L	-0.2929 ppb	01:33:01
3	P 214.914†	235.7	1.4	0.5456	ug/L	0.5456 ppb	01:33:01
3	Pb 220.353†	-56.0	15.8	1.9582	ug/L	1.9582 ppb	01:33:01
3	S 181.975 Axial†	53.8	12.7	16.537	ug/L	16.537 ppb	01:33:01
3	Sb 206.836†	42.9	8.6	2.9671	ug/L	2.9671 ppb	01:33:01
3	Se 196.026†	-18.6	4.1	2.4508	ug/L	2.4508 ppb	01:33:01
3	Si 251.611†	653.0	61.9	1.9070	ug/L	1.9070 ppb	01:33:01
3	Sn 189.927†	15.4	3.3	0.5944	ug/L	0.5944 ppb	01:33:01
3	Ti 334.940†	-1356.0	92.9	0.1372	ug/L	0.1372 ppb	01:32:41
3	Tl 190.801†	-44.0	-6.3	-1.9976	ug/L	-1.9976 ppb	01:33:01
3	U 409.014†	-3243.3	166.6	4.7330	ug/L	4.7330 ppb	01:32:41
3	V 292.402†	-1620.1	4.6	0.0680	ug/L	0.0680 ppb	01:32:41
3	Zn 213.857†	776.0	113.4	1.1043	ug/L	1.1043 ppb	01:33:01
3	SiO2†	693.8	96.8	6.4063	ug/L	6.4063 ppb	01:33:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	819977.6	96.467	%	0.4924				0.51%
Sc Radial	4056.9	95.4	%	0.34				0.36%
Y 371.029	662221.1	94.236	%	0.4034				0.43%
Y RADIAL	4239.8	96.31	%	0.954				0.99%
Ag 328.068†	44.3	0.2113	ug/L	0.06767	0.2113	ppb	0.06767	32.02%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.5	25.417	ug/L	9.3972	25.417	ppb	9.3972	36.97%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.8	-0.3216	ug/L	1.18308	-0.3216	ppb	1.18308	367.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	115.2	2.7071	ug/L	0.67405	2.7071	ppb	0.67405	24.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.9	0.0315	ug/L	0.11774	0.0315	ppb	0.11774	373.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	122.9	0.0454	ug/L	0.01965	0.0454	ppb	0.01965	43.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.3	23.025	ug/L	3.8637	23.025	ppb	3.8637	16.78%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -29.1     -0.3406 ug/L       0.23658     -0.3406 ppb        0.23658  69.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.3      0.1345 ug/L       0.08015      0.1345 ppb        0.08015  59.61%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -46.9     -0.5475 ug/L       0.18412     -0.5475 ppb        0.18412  33.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              345.1      1.0543 ug/L       0.04098      1.0543 ppb        0.04098   3.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.4     15.203 ug/L        3.1507     15.203 ppb         3.1507  20.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         10.5      2.1277 ug/L       8.36468      2.1277 ppb        8.36468 393.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.5     19.075 ug/L      141.4385     19.075 ppb       141.4385 741.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              248.6      0.2875 ug/L       0.01289      0.2875 ppb        0.01289   4.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               17.3      1.2842 ug/L       0.42936      1.2842 ppb        0.42936  33.43%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -185.5     -61.859 ug/L      12.6778     -61.859 ppb       12.6778  20.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -6.3     -0.1612 ug/L       0.16068     -0.1612 ppb        0.16068  99.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 9.7      5.1500 ug/L       4.59923      5.1500 ppb        4.59923  89.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.1      0.6396 ug/L       1.17151      0.6396 ppb        1.17151 183.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          13.0     17.020 ug/L        0.7911     17.020 ppb         0.7911   4.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               11.5      3.9234 ug/L       1.27552      3.9234 ppb        1.27552  32.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.7      0.4571 ug/L       6.84033      0.4571 ppb        6.84033 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               60.9      1.8833 ug/L       0.13925      1.8833 ppb        0.13925   7.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.0      1.0823 ug/L       1.00345      1.0823 ppb        1.00345  92.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -18.4     -0.1422 ug/L       0.15218     -0.1422 ppb        0.15218 106.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               62.4      0.1007 ug/L       0.05141      0.1007 ppb        0.05141  51.04%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.8     -0.2579 ug/L       2.17885     -0.2579 ppb        2.17885 844.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               189.2      5.3746 ug/L       4.81984      5.3746 ppb        4.81984  89.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -58.1     -0.3941 ug/L       0.47454     -0.3941 ppb        0.47454 120.41%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              100.8      0.9814 ug/L       0.12248      0.9814 ppb        0.12248  12.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     83.0      5.4976 ug/L       1.11968      5.4976 ppb        1.11968  20.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 84
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 02:18:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4209.1	4209.1	99.0	%			02:20:12
1	Y RADIAL	4271.3	4271.3	97.03	%			02:20:12
1	Al 396.153Radial†	4942.0	5150.1	5127.5	ug/L	5127.5	ppb	02:20:12
1	Ca 317.933Radial†	2699.3	2707.8	5051.0	ug/L	5051.0	ppb	02:20:32
1	Fe 238.204 Radial†	504.7	499.6	5325.3	ug/L	5325.3	ppb	02:20:32
1	K 766.490 Radial†	27702.3	24805.7	5001.0	ug/L	5001.0	ppb	02:20:12
1	Mg 279.077 IEC†	136.6	135.3	5223.9	ug/L	5223.9	ppb	02:20:32
1	Na 589.592 Radial†	29781.0	29869.6	9963.3	ug/L	9963.3	ppb	02:20:12
1	Sr 421.552†	64847.0	65401.0	504.94	ug/L	504.94	ppb	02:20:12
1	Sc 361.383	823589.6	823589.6	96.892	%			02:21:29
1	Y 371.029	656355.7	656355.7	93.401	%			02:21:29
1	Ag 328.068†	102350.7	105406.2	509.45	ug/L	509.45	ppb	02:21:34
1	As 188.979†	1154.6	1220.0	517.83	ug/L	517.83	ppb	02:21:54
1	B 249.677†	20734.7	21881.7	512.46	ug/L	512.46	ppb	02:21:34
1	Ba 233.527†	61527.9	63482.7	516.72	ug/L	516.72	ppb	02:21:34
1	Be 313.107†	1352245.2	1399961.8	515.39	ug/L	515.39	ppb	02:21:29
1	Cd 226.502†	41367.4	42889.9	501.44	ug/L	501.44	ppb	02:21:34
1	Co 228.616†	23941.9	24788.8	516.98	ug/L	516.98	ppb	02:21:34
1	Cr 267.716†	41737.1	42926.2	500.02	ug/L	500.02	ppb	02:21:34
1	Cu 324.752†	172385.9	169821.6	519.95	ug/L	519.95	ppb	02:21:34
1	Mn 257.610†	439602.5	453134.4	522.95	ug/L	522.95	ppb	02:21:29
1	Mo 202.031†	6621.6	6823.5	507.50	ug/L	507.50	ppb	02:21:54
1	Ni 231.604†	19256.5	19760.7	505.84	ug/L	505.84	ppb	02:21:34
1	P 214.914†	4686.1	4594.4	2447.8	ug/L	2447.8	ppb	02:21:54
1	Pb 220.353†	3864.0	4061.5	504.77	ug/L	504.77	ppb	02:21:54
1	S 181.975 Axial†	811.5	794.6	1037.6	ug/L	1037.6	ppb	02:21:54
1	Sb 206.836†	1483.4	1495.3	524.26	ug/L	524.26	ppb	02:21:54
1	Se 196.026†	830.0	880.0	532.18	ug/L	532.18	ppb	02:21:54
1	Si 251.611†	81433.7	83433.6	2593.8	ug/L	2593.8	ppb	02:21:34
1	Sn 189.927†	2744.7	2820.2	506.54	ug/L	506.54	ppb	02:21:54
1	Ti 334.940†	307158.8	318504.8	517.53	ug/L	517.53	ppb	02:21:34
1	Tl 190.801†	1565.4	1654.8	525.86	ug/L	525.86	ppb	02:21:54
1	U 409.014†	13418.8	17364.4	491.55	ug/L	491.55	ppb	02:21:34
1	V 292.402†	65231.7	69001.6	506.47	ug/L	506.47	ppb	02:21:34
1	Zn 213.857†	51754.1	52726.6	509.88	ug/L	509.88	ppb	02:21:34
1	SiO2†	81108.1	83090.3	5526.1	ug/L	5526.1	ppb	02:23:02
2	Sc Radial	4145.3	4145.3	97.5	%			02:20:37
2	Y RADIAL	4198.1	4198.1	95.36	%			02:20:37
2	Al 396.153Radial†	4841.8	5124.2	5101.8	ug/L	5101.8	ppb	02:20:37
2	Ca 317.933Radial†	2686.7	2736.8	5105.3	ug/L	5105.3	ppb	02:20:57
2	Fe 238.204 Radial†	498.8	501.5	5344.7	ug/L	5344.7	ppb	02:20:57
2	K 766.490 Radial†	27523.8	25053.6	5051.1	ug/L	5051.1	ppb	02:20:37
2	Mg 279.077 IEC†	136.3	137.1	5293.3	ug/L	5293.3	ppb	02:20:57
2	Na 589.592 Radial†	29398.2	29940.3	9986.9	ug/L	9986.9	ppb	02:20:37
2	Sr 421.552†	63858.4	65395.9	504.90	ug/L	504.90	ppb	02:20:37
2	Sc 361.383	830303.8	830303.8	97.682	%			02:22:00
2	Y 371.029	660417.4	660417.4	93.979	%			02:22:00
2	Ag 328.068†	102730.0	104940.4	507.21	ug/L	507.21	ppb	02:22:05
2	As 188.979†	1159.0	1214.8	515.66	ug/L	515.66	ppb	02:22:25
2	B 249.677†	20839.8	21816.3	510.92	ug/L	510.92	ppb	02:22:05
2	Ba 233.527†	61576.0	63018.5	512.95	ug/L	512.95	ppb	02:22:05
2	Be 313.107†	1366388.9	1403155.5	516.56	ug/L	516.56	ppb	02:22:00
2	Cd 226.502†	41440.9	42619.9	498.27	ug/L	498.27	ppb	02:22:05
2	Co 228.616†	24069.6	24719.7	515.54	ug/L	515.54	ppb	02:22:05
2	Cr 267.716†	41878.0	42722.2	497.64	ug/L	497.64	ppb	02:22:05
2	Cu 324.752†	172970.1	168981.0	517.38	ug/L	517.38	ppb	02:22:05
2	Mn 257.610†	443352.1	453304.1	523.14	ug/L	523.14	ppb	02:22:00
2	Mo 202.031†	6630.7	6777.6	504.09	ug/L	504.09	ppb	02:22:25
2	Ni 231.604†	19322.9	19668.0	503.47	ug/L	503.47	ppb	02:22:05

2	P 214.914†	4679.7	4548.8	2422.9 ug/L	2422.9 ppb	02:22:25
2	Pb 220.353†	3850.6	4015.6	499.07 ug/L	499.07 ppb	02:22:25
2	S 181.975 Axial†	813.5	789.9	1031.4 ug/L	1031.4 ppb	02:22:25
2	Sb 206.836†	1473.7	1473.0	516.59 ug/L	516.59 ppb	02:22:25
2	Se 196.026†	835.4	878.5	531.40 ug/L	531.40 ppb	02:22:25
2	Si 251.611†	81654.4	82979.9	2579.7 ug/L	2579.7 ppb	02:22:05
2	Sn 189.927†	2746.6	2799.2	502.79 ug/L	502.79 ppb	02:22:25
2	Ti 334.940†	308061.5	316865.4	514.87 ug/L	514.87 ppb	02:22:05
2	Tl 190.801†	1555.4	1631.4	518.48 ug/L	518.48 ppb	02:22:25
2	U 409.014†	13400.7	17233.9	487.84 ug/L	487.84 ppb	02:22:05
2	V 292.402†	65430.1	68660.2	503.94 ug/L	503.94 ppb	02:22:05
2	Zn 213.857†	51943.1	52488.1	507.57 ug/L	507.57 ppb	02:22:05
2	SiO2†	81106.8	82412.2	5481.0 ug/L	5481.0 ppb	02:23:07
3	Sc Radial	4098.0	4098.0	96.4 %		02:21:02
3	Y RADIAL	4191.5	4191.5	95.21 %		02:21:02
3	Al 396.153Radial†	4786.2	5123.8	5101.4 ug/L	5101.4 ppb	02:21:02
3	Ca 317.933Radial†	2724.1	2807.4	5236.8 ug/L	5236.8 ppb	02:21:22
3	Fe 238.204 Radial†	507.7	516.6	5505.3 ug/L	5505.3 ppb	02:21:22
3	K 766.490 Radial†	27251.7	25096.6	5059.7 ug/L	5059.7 ppb	02:21:02
3	Mg 279.077 IEC†	135.9	138.2	5338.3 ug/L	5338.3 ppb	02:21:22
3	Na 589.592 Radial†	28872.9	29742.7	9921.0 ug/L	9921.0 ppb	02:21:02
3	Sr 421.552†	63250.3	65519.6	505.86 ug/L	505.86 ppb	02:21:02
3	Sc 361.383	834062.9	834062.9	98.124 %		02:22:31
3	Y 371.029	664806.2	664806.2	94.604 %		02:22:31
3	Ag 328.068†	102288.7	104016.6	502.81 ug/L	502.81 ppb	02:22:36
3	As 188.979†	1148.2	1198.5	508.77 ug/L	508.77 ppb	02:22:57
3	B 249.677†	20693.5	21571.1	505.14 ug/L	505.14 ppb	02:22:36
3	Ba 233.527†	61328.5	62482.2	508.59 ug/L	508.59 ppb	02:22:36
3	Be 313.107†	1374092.1	1404701.6	517.11 ug/L	517.11 ppb	02:22:31
3	Cd 226.502†	41216.3	42199.8	493.34 ug/L	493.34 ppb	02:22:36
3	Co 228.616†	23905.3	24441.2	509.74 ug/L	509.74 ppb	02:22:36
3	Cr 267.716†	41656.8	42303.5	492.77 ug/L	492.77 ppb	02:22:36
3	Cu 324.752†	172200.5	167398.6	512.54 ug/L	512.54 ppb	02:22:36
3	Mn 257.610†	443865.8	451782.1	521.40 ug/L	521.40 ppb	02:22:31
3	Mo 202.031†	6648.1	6764.8	503.15 ug/L	503.15 ppb	02:22:57
3	Ni 231.604†	19270.7	19525.6	499.82 ug/L	499.82 ppb	02:22:36
3	P 214.914†	4670.1	4517.4	2406.3 ug/L	2406.3 ppb	02:22:57
3	Pb 220.353†	3867.1	4014.6	498.94 ug/L	498.94 ppb	02:22:57
3	S 181.975 Axial†	810.8	783.4	1023.0 ug/L	1023.0 ppb	02:22:57
3	Sb 206.836†	1484.1	1476.8	517.79 ug/L	517.79 ppb	02:22:57
3	Se 196.026†	832.1	871.4	527.72 ug/L	527.72 ppb	02:22:57
3	Si 251.611†	81318.6	82260.9	2557.3 ug/L	2557.3 ppb	02:22:36
3	Sn 189.927†	2738.0	2777.8	498.97 ug/L	498.97 ppb	02:22:57
3	Ti 334.940†	306394.9	313745.5	509.81 ug/L	509.81 ppb	02:22:36
3	Tl 190.801†	1563.3	1632.3	518.74 ug/L	518.74 ppb	02:22:57
3	U 409.014†	13573.1	17347.8	491.07 ug/L	491.07 ppb	02:22:36
3	V 292.402†	65117.2	68039.5	499.42 ug/L	499.42 ppb	02:22:36
3	Zn 213.857†	51661.7	51961.6	502.44 ug/L	502.44 ppb	02:22:36
3	SiO2†	81640.3	82581.6	5492.3 ug/L	5492.3 ppb	02:23:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	829318.8	97.566	%	0.6242				0.64%
Sc Radial	4150.8	97.6	%	1.31				1.34%
Y 371.029	660526.4	93.995	%	0.6014				0.64%
Y RADIAL	4220.3	95.87	%	1.006				1.05%
Ag 328.068†	104787.7	506.49	ug/L	3.379	506.49	ppb	3.379	0.67%
QC value within limits for Ag 328.068 Recovery = 101.30%								
Al 396.153Radial†	5132.7	5110.2	ug/L	14.98	5110.2	ppb	14.98	0.29%
QC value within limits for Al 396.153Radial Recovery = 102.20%								
As 188.979†	1211.1	514.09	ug/L	4.732	514.09	ppb	4.732	0.92%
QC value within limits for As 188.979 Recovery = 102.82%								
B 249.677†	21756.4	509.50	ug/L	3.858	509.50	ppb	3.858	0.76%
QC value within limits for B 249.677 Recovery = 101.90%								
Ba 233.527†	62994.5	512.75	ug/L	4.071	512.75	ppb	4.071	0.79%
QC value within limits for Ba 233.527 Recovery = 102.55%								
Be 313.107†	1402606.3	516.35	ug/L	0.880	516.35	ppb	0.880	0.17%
QC value within limits for Be 313.107 Recovery = 103.27%								
Ca 317.933Radial†	2750.7	5131.0	ug/L	95.53	5131.0	ppb	95.53	1.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.62%
Cd 226.502†            42569.9      497.68 ug/L        4.078      497.68 ppb          4.078   0.82%
   QC value within limits for Cd 226.502  Recovery = 99.54%
Co 228.616†            24649.9      514.09 ug/L        3.836      514.09 ppb          3.836   0.75%
   QC value within limits for Co 228.616  Recovery = 102.82%
Cr 267.716†            42650.6      496.81 ug/L        3.696      496.81 ppb          3.696   0.74%
   QC value within limits for Cr 267.716  Recovery = 99.36%
Cu 324.752†           168733.7      516.63 ug/L        3.762      516.63 ppb          3.762   0.73%
   QC value within limits for Cu 324.752  Recovery = 103.33%
Fe 238.204 Radial†       505.9      5391.8 ug/L       98.77     5391.8 ppb         98.77   1.83%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.84%
K 766.490 Radial†      24985.3      5037.3 ug/L       31.67     5037.3 ppb         31.67   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 100.75%
Mg 279.077 IEC†          136.9      5285.2 ug/L       57.63     5285.2 ppb         57.63   1.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.70%
Mn 257.610†           452740.2      522.50 ug/L        0.954      522.50 ppb          0.954   0.18%
   QC value within limits for Mn 257.610  Recovery = 104.50%
Mo 202.031†             6788.6      504.91 ug/L        2.288      504.91 ppb          2.288   0.45%
   QC value within limits for Mo 202.031  Recovery = 100.98%
Na 589.592 Radial†     29850.9      9957.1 ug/L       33.40     9957.1 ppb         33.40   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 99.57%
Ni 231.604†            19651.4      503.04 ug/L        3.031      503.04 ppb          3.031   0.60%
   QC value within limits for Ni 231.604  Recovery = 100.61%
P 214.914†              4553.5      2425.6 ug/L       20.88     2425.6 ppb         20.88   0.86%
   QC value within limits for P 214.914  Recovery = 97.03%
Pb 220.353†             4030.6      500.93 ug/L        3.328      500.93 ppb          3.328   0.66%
   QC value within limits for Pb 220.353  Recovery = 100.19%
S 181.975 Axial†         789.3      1030.7 ug/L        7.35     1030.7 ppb          7.35   0.71%
   QC value within limits for S 181.975 Axial  Recovery = 103.07%
Sb 206.836†             1481.7      519.55 ug/L        4.126      519.55 ppb          4.126   0.79%
   QC value within limits for Sb 206.836  Recovery = 103.91%
Se 196.026†              876.6      530.43 ug/L        2.379      530.43 ppb          2.379   0.45%
   QC value within limits for Se 196.026  Recovery = 106.09%
Si 251.611†            82891.5      2576.9 ug/L       18.40     2576.9 ppb         18.40   0.71%
   QC value within limits for Si 251.611  Recovery = 103.08%
Sn 189.927†             2799.0      502.77 ug/L        3.788      502.77 ppb          3.788   0.75%
   QC value within limits for Sn 189.927  Recovery = 100.55%
Sr 421.552†            65438.8      505.23 ug/L        0.540      505.23 ppb          0.540   0.11%
   QC value within limits for Sr 421.552  Recovery = 101.05%
Ti 334.940†           316371.9      514.07 ug/L        3.920      514.07 ppb          3.920   0.76%
   QC value within limits for Ti 334.940  Recovery = 102.81%
Tl 190.801†             1639.5      521.02 ug/L        4.187      521.02 ppb          4.187   0.80%
   QC value within limits for Tl 190.801  Recovery = 104.20%
U 409.014†             17315.4      490.16 ug/L        2.016      490.16 ppb          2.016   0.41%
   QC value within limits for U 409.014  Recovery = 98.03%
V 292.402†             68567.1      503.28 ug/L        3.569      503.28 ppb          3.569   0.71%
   QC value within limits for V 292.402  Recovery = 100.66%
Zn 213.857†            52392.1      506.63 ug/L        3.810      506.63 ppb          3.810   0.75%
   QC value within limits for Zn 213.857  Recovery = 101.33%
SiO2†                  82694.7      5499.8 ug/L       23.48     5499.8 ppb         23.48   0.43%
   QC value within limits for SiO2  Recovery = 102.85%
All analyte(s) passed QC.
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Sequence No.: 85
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 02:25:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4048.7	4048.7	95.2	%			02:27:35
1	Y RADIAL	4198.9	4198.9	95.38	%			02:27:15
1	Al 396.153Radial†	-143.8	8.0	7.9666	ug/L	7.9666	ppb	02:27:15
1	Ca 317.933Radial†	36.2	19.7	36.732	ug/L	36.732	ppb	02:27:35
1	Fe 238.204 Radial†	19.7	10.6	112.65	ug/L	112.65	ppb	02:27:35
1	K 766.490 Radial†	3129.9	114.6	22.918	ug/L	22.918	ppb	02:27:15
1	Mg 279.077 IEC†	-1.9	-4.8	-183.78	ug/L	-183.78	ppb	02:27:35
1	Na 589.592 Radial†	1657.1	1532.8	511.28	ug/L	511.28	ppb	02:27:15
1	Sr 421.552†	109.3	25.0	0.1926	ug/L	0.1926	ppb	02:27:15
1	Sc 361.383	826600.4	826600.4	97.246	%			02:28:32
1	Y 371.029	669344.2	669344.2	95.249	%			02:28:32
1	Ag 328.068†	305.6	86.6	0.4524	ug/L	0.4524	ppb	02:28:32
1	As 188.979†	-30.2	-2.7	-1.1158	ug/L	-1.1158	ppb	02:28:52
1	B 249.677†	-405.9	64.6	1.4997	ug/L	1.4997	ppb	02:28:52
1	Ba 233.527†	61.4	44.3	0.3613	ug/L	0.3613	ppb	02:28:52
1	Be 313.107†	-4123.6	98.8	0.0372	ug/L	0.0372	ppb	02:28:32
1	Cd 226.502†	-216.6	-27.2	-0.3303	ug/L	-0.3303	ppb	02:28:52
1	Co 228.616†	-62.6	14.5	0.3031	ug/L	0.3031	ppb	02:28:52
1	Cr 267.716†	139.4	-6.3	-0.0710	ug/L	-0.0710	ppb	02:28:52
1	Cu 324.752†	8389.8	533.2	1.6404	ug/L	1.6404	ppb	02:28:32
1	Mn 257.610†	1711.7	1190.4	1.3916	ug/L	1.3916	ppb	02:28:52
1	Mo 202.031†	21.6	11.8	0.8844	ug/L	0.8844	ppb	02:28:52
1	Ni 231.604†	106.4	-4.1	-0.1050	ug/L	-0.1050	ppb	02:28:52
1	P 214.914†	234.1	-1.3	-1.1071	ug/L	-1.1071	ppb	02:28:52
1	Pb 220.353†	-78.3	-6.9	-0.8675	ug/L	-0.8675	ppb	02:28:52
1	S 181.975 Axial†	56.4	15.1	19.753	ug/L	19.753	ppb	02:28:52
1	Sb 206.836†	35.9	1.3	0.4720	ug/L	0.4720	ppb	02:28:52
1	Se 196.026†	-27.3	-4.7	-2.3874	ug/L	-2.3874	ppb	02:28:52
1	Si 251.611†	691.5	98.8	3.0677	ug/L	3.0677	ppb	02:28:52
1	Sn 189.927†	20.6	8.5	1.5382	ug/L	1.5382	ppb	02:28:52
1	Ti 334.940†	-1214.1	244.4	0.4187	ug/L	0.4187	ppb	02:28:32
1	Tl 190.801†	-30.6	7.6	2.4212	ug/L	2.4212	ppb	02:28:52
1	U 409.014†	-3532.8	-117.6	-3.3547	ug/L	-3.3547	ppb	02:28:32
1	V 292.402†	-1747.6	-119.8	-0.8823	ug/L	-0.8823	ppb	02:28:32
1	Zn 213.857†	797.2	132.1	1.2706	ug/L	1.2706	ppb	02:28:52
1	SiO2†	742.9	144.4	9.6040	ug/L	9.6040	ppb	02:29:48
2	Sc Radial	4067.2	4067.2	95.7	%			02:28:00
2	Y RADIAL	4193.0	4193.0	95.25	%			02:27:40
2	Al 396.153Radial†	-131.3	21.8	21.726	ug/L	21.726	ppb	02:27:40
2	Ca 317.933Radial†	33.0	16.1	30.107	ug/L	30.107	ppb	02:28:00
2	Fe 238.204 Radial†	18.5	9.3	98.894	ug/L	98.894	ppb	02:28:00
2	K 766.490 Radial†	3181.1	153.1	30.939	ug/L	30.939	ppb	02:27:40
2	Mg 279.077 IEC†	4.8	2.3	89.104	ug/L	89.104	ppb	02:28:00
2	Na 589.592 Radial†	-63.7	-273.7	-91.285	ug/L	-91.285	ppb	02:27:40
2	Sr 421.552†	116.2	31.7	0.2442	ug/L	0.2442	ppb	02:27:40
2	Sc 361.383	824221.6	824221.6	96.966	%			02:28:57
2	Y 371.029	666667.3	666667.3	94.868	%			02:28:57
2	Ag 328.068†	231.1	10.7	0.0789	ug/L	0.0789	ppb	02:28:57
2	As 188.979†	-32.8	-5.6	-2.3157	ug/L	-2.3157	ppb	02:29:17
2	B 249.677†	-424.1	44.6	1.0317	ug/L	1.0317	ppb	02:29:17
2	Ba 233.527†	60.9	43.9	0.3593	ug/L	0.3593	ppb	02:29:17
2	Be 313.107†	-4301.1	-96.5	-0.0351	ug/L	-0.0351	ppb	02:28:57
2	Cd 226.502†	-208.4	-19.4	-0.2366	ug/L	-0.2366	ppb	02:29:17
2	Co 228.616†	-61.7	15.2	0.3178	ug/L	0.3178	ppb	02:29:17
2	Cr 267.716†	146.3	1.2	0.0131	ug/L	0.0131	ppb	02:29:17
2	Cu 324.752†	8373.1	540.9	1.6584	ug/L	1.6584	ppb	02:28:57
2	Mn 257.610†	1434.5	909.7	1.0553	ug/L	1.0553	ppb	02:29:17
2	Mo 202.031†	20.9	11.0	0.8288	ug/L	0.8288	ppb	02:29:17
2	Ni 231.604†	98.9	-11.5	-0.2957	ug/L	-0.2957	ppb	02:29:17

2	P 214.914†	235.2	0.6	-0.0461	ug/L	-0.0461 ppb	02:29:17
2	Pb 220.353†	-76.8	-5.7	-0.7036	ug/L	-0.7036 ppb	02:29:17
2	S 181.975 Axial†	53.9	12.6	16.521	ug/L	16.521 ppb	02:29:17
2	Sb 206.836†	36.9	2.3	0.8261	ug/L	0.8261 ppb	02:29:17
2	Se 196.026†	-21.5	1.1	0.9891	ug/L	0.9891 ppb	02:29:17
2	Si 251.611†	737.2	148.0	4.6005	ug/L	4.6005 ppb	02:29:17
2	Sn 189.927†	19.8	7.8	1.4109	ug/L	1.4109 ppb	02:29:17
2	Ti 334.940†	-1366.0	84.1	0.1310	ug/L	0.1310 ppb	02:28:57
2	Tl 190.801†	-33.9	4.2	1.3283	ug/L	1.3283 ppb	02:29:17
2	U 409.014†	-3219.4	195.0	5.5280	ug/L	5.5280 ppb	02:28:57
2	V 292.402†	-1655.6	-30.1	-0.2084	ug/L	-0.2084 ppb	02:28:57
2	Zn 213.857†	791.6	128.6	1.2399	ug/L	1.2399 ppb	02:29:17
2	SiO2†	677.6	79.3	5.2640	ug/L	5.2640 ppb	02:29:53
3	Sc Radial	4092.6	4092.6	96.3	%		02:28:25
3	Y RADIAL	4295.9	4295.9	97.59	%		02:28:05
3	Al 396.153Radial†	-127.2	26.9	26.893	ug/L	26.893 ppb	02:28:05
3	Ca 317.933Radial†	37.1	20.2	37.719	ug/L	37.719 ppb	02:28:25
3	Fe 238.204 Radial†	15.0	5.5	58.973	ug/L	58.973 ppb	02:28:25
3	K 766.490 Radial†	3183.6	135.1	27.294	ug/L	27.294 ppb	02:28:05
3	Mg 279.077 IEC†	1.3	-1.3	-51.650	ug/L	-51.650 ppb	02:28:25
3	Na 589.592 Radial†	-40.6	-249.3	-83.149	ug/L	-83.149 ppb	02:28:05
3	Sr 421.552†	89.3	2.9	0.0223	ug/L	0.0223 ppb	02:28:05
3	Sc 361.383	832342.1	832342.1	97.922	%		02:29:22
3	Y 371.029	673352.1	673352.1	95.820	%		02:29:22
3	Ag 328.068†	256.7	34.5	0.1849	ug/L	0.1849 ppb	02:29:22
3	As 188.979†	-31.3	-3.6	-1.5168	ug/L	-1.5168 ppb	02:29:43
3	B 249.677†	-426.5	46.4	1.0813	ug/L	1.0813 ppb	02:29:43
3	Ba 233.527†	42.5	24.6	0.2013	ug/L	0.2013 ppb	02:29:43
3	Be 313.107†	-4236.3	12.9	0.0055	ug/L	0.0055 ppb	02:29:22
3	Cd 226.502†	-206.9	-15.8	-0.1913	ug/L	-0.1913 ppb	02:29:43
3	Co 228.616†	-65.8	11.7	0.2436	ug/L	0.2436 ppb	02:29:43
3	Cr 267.716†	127.1	-19.9	-0.2303	ug/L	-0.2303 ppb	02:29:43
3	Cu 324.752†	8505.3	591.8	1.8154	ug/L	1.8154 ppb	02:29:22
3	Mn 257.610†	1738.5	1205.6	1.3985	ug/L	1.3985 ppb	02:29:43
3	Mo 202.031†	18.6	8.5	0.6365	ug/L	0.6365 ppb	02:29:43
3	Ni 231.604†	122.8	11.9	0.3038	ug/L	0.3038 ppb	02:29:43
3	P 214.914†	229.5	-7.6	-4.6437	ug/L	-4.6437 ppb	02:29:43
3	Pb 220.353†	-67.7	4.5	0.5547	ug/L	0.5547 ppb	02:29:43
3	S 181.975 Axial†	54.0	12.2	15.922	ug/L	15.922 ppb	02:29:43
3	Sb 206.836†	38.7	3.8	1.3112	ug/L	1.3112 ppb	02:29:43
3	Se 196.026†	-27.5	-4.7	-2.5739	ug/L	-2.5739 ppb	02:29:43
3	Si 251.611†	686.4	88.7	2.7558	ug/L	2.7558 ppb	02:29:43
3	Sn 189.927†	12.2	-0.1	-0.0178	ug/L	-0.0178 ppb	02:29:43
3	Ti 334.940†	-1271.8	194.1	0.3252	ug/L	0.3252 ppb	02:29:22
3	Tl 190.801†	-29.2	9.2	2.9261	ug/L	2.9261 ppb	02:29:43
3	U 409.014†	-3469.0	-27.5	-0.7860	ug/L	-0.7860 ppb	02:29:22
3	V 292.402†	-1662.9	-20.9	-0.1536	ug/L	-0.1536 ppb	02:29:22
3	Zn 213.857†	785.2	114.2	1.1009	ug/L	1.1009 ppb	02:29:43
3	SiO2†	744.5	140.8	9.3696	ug/L	9.3696 ppb	02:29:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	827721.4	97.378	%	0.4911				0.50%
Sc Radial	4069.5	95.7	%	0.52				0.54%
Y 371.029	669787.9	95.312	%	0.4788				0.50%
Y RADIAL	4229.3	96.07	%	1.313				1.37%
Ag 328.068†	43.9	0.2388	ug/L	0.19250	0.2388	ppb	0.19250	80.63%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.9	18.862	ug/L	9.7827	18.862	ppb	9.7827	51.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.0	-1.6495	ug/L	0.61085	-1.6495	ppb	0.61085	37.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	51.8	1.2042	ug/L	0.25711	1.2042	ppb	0.25711	21.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	37.6	0.3073	ug/L	0.09181	0.3073	ppb	0.09181	29.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	5.1	0.0025	ug/L	0.03625	0.0025	ppb	0.03625	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	18.7	34.853	ug/L	4.1398	34.853	ppb	4.1398	11.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -20.8     -0.2527 ug/L       0.07092     -0.2527 ppb        0.07092  28.06%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               13.8      0.2882 ug/L       0.03932      0.2882 ppb        0.03932  13.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -8.3     -0.0960 ug/L       0.12363     -0.0960 ppb        0.12363 128.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              555.3      1.7047 ug/L       0.09625      1.7047 ppb        0.09625   5.65%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         8.5     90.173 ug/L       27.8815     90.173 ppb        27.8815  30.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        134.3     27.051 ug/L        4.0159     27.051 ppb         4.0159  14.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.3    -48.776 ug/L      136.4657    -48.776 ppb       136.4657 279.78%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             1101.9      1.2818 ug/L       0.19617      1.2818 ppb        0.19617  15.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.4      0.7832 ug/L       0.13007      0.7832 ppb        0.13007  16.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       336.6     112.28 ug/L       345.566     112.28 ppb       345.566 307.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -1.3     -0.0323 ug/L       0.30631     -0.0323 ppb        0.30631 948.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.8     -1.9323 ug/L       2.40731     -1.9323 ppb        2.40731 124.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.7     -0.3388 ug/L       0.77811     -0.3388 ppb        0.77811 229.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          13.3     17.399 ug/L        2.0608     17.399 ppb         2.0608  11.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.5      0.8698 ug/L       0.42127      0.8698 ppb        0.42127  48.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.8     -1.3241 ug/L       2.00543     -1.3241 ppb        2.00543 151.46%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              111.8      3.4746 ug/L       0.98740      3.4746 ppb        0.98740  28.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.4      0.9771 ug/L       0.86397      0.9771 ppb        0.86397  88.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               19.8      0.1530 ug/L       0.11612      0.1530 ppb        0.11612  75.89%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              174.2      0.2916 ug/L       0.14672      0.2916 ppb        0.14672  50.31%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                7.0      2.2252 ug/L       0.81676      2.2252 ppb        0.81676  36.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                16.6      0.4624 ug/L       4.57105      0.4624 ppb        4.57105 988.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -56.9     -0.4148 ug/L       0.40580     -0.4148 ppb        0.40580  97.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              124.9      1.2038 ug/L       0.09039      1.2038 ppb        0.09039   7.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    121.5      8.0792 ug/L       2.44085      8.0792 ppb        2.44085  30.21%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 86
Sample ID: 1202030969|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/17/2010 02:32:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030969|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4040.4	4040.4	95.0	%			02:34:22
1	Y RADIAL	4188.7	4188.7	95.15	%			02:34:02
1	Al 396.153Radial†	-150.3	0.9	0.8387	ug/L	0.8387	ppb	02:34:02
1	Ca 317.933Radial†	36.0	19.6	36.505	ug/L	36.505	ppb	02:34:22
1	Fe 238.204 Radial†	23.8	15.0	159.70	ug/L	159.70	ppb	02:34:22
1	K 766.490 Radial†	2985.3	-30.7	-6.1685	ug/L	-6.1685	ppb	02:34:02
1	Mg 279.077 IEC†	2.9	0.3	12.616	ug/L	12.616	ppb	02:34:22
1	Na 589.592 Radial†	-166.5	-382.3	-127.52	ug/L	-127.52	ppb	02:34:02
1	Sr 421.552†	153.2	71.4	0.5511	ug/L	0.5511	ppb	02:34:02
1	Sc 361.383	832765.3	832765.3	97.971	%			02:35:19
1	Y 371.029	672955.6	672955.6	95.763	%			02:35:19
1	Ag 328.068†	211.1	-12.2	-0.0097	ug/L	-0.0097	ppb	02:35:19
1	As 188.979†	-25.5	2.3	1.0111	ug/L	1.0111	ppb	02:35:39
1	B 249.677†	-454.6	17.9	0.3955	ug/L	0.3955	ppb	02:35:39
1	Ba 233.527†	49.8	32.0	0.2641	ug/L	0.2641	ppb	02:35:39
1	Be 313.107†	-4204.8	47.3	0.0187	ug/L	0.0187	ppb	02:35:19
1	Cd 226.502†	-195.3	-3.9	-0.0611	ug/L	-0.0611	ppb	02:35:39
1	Co 228.616†	-64.6	12.9	0.2687	ug/L	0.2687	ppb	02:35:39
1	Cr 267.716†	175.1	29.0	0.3387	ug/L	0.3387	ppb	02:35:39
1	Cu 324.752†	8517.7	600.0	1.8432	ug/L	1.8432	ppb	02:35:19
1	Mn 257.610†	1973.1	1444.2	1.6809	ug/L	1.6809	ppb	02:35:39
1	Mo 202.031†	23.3	13.3	1.0015	ug/L	1.0015	ppb	02:35:39
1	Ni 231.604†	104.5	-6.9	-0.1763	ug/L	-0.1763	ppb	02:35:39
1	P 214.914†	251.3	14.6	7.6076	ug/L	7.6076	ppb	02:35:39
1	Pb 220.353†	-80.2	-8.3	-1.0427	ug/L	-1.0427	ppb	02:35:39
1	S 181.975 Axial†	63.5	21.9	28.582	ug/L	28.582	ppb	02:35:39
1	Sb 206.836†	37.9	3.0	1.0654	ug/L	1.0654	ppb	02:35:39
1	Se 196.026†	-23.9	-1.0	-0.0763	ug/L	-0.0763	ppb	02:35:39
1	Si 251.611†	1063.3	473.0	14.728	ug/L	14.728	ppb	02:35:39
1	Sn 189.927†	25.1	13.0	2.3406	ug/L	2.3406	ppb	02:35:39
1	Ti 334.940†	-1107.4	362.6	0.5912	ug/L	0.5912	ppb	02:35:19
1	Tl 190.801†	-31.5	7.0	2.2085	ug/L	2.2085	ppb	02:35:39
1	U 409.014†	-3301.7	145.1	4.1016	ug/L	4.1016	ppb	02:35:19
1	V 292.402†	-1681.8	-39.3	-0.2867	ug/L	-0.2867	ppb	02:35:19
1	Zn 213.857†	911.8	242.9	2.3457	ug/L	2.3457	ppb	02:35:39
1	SiO2†	1145.1	549.3	36.597	ug/L	36.597	ppb	02:36:35
2	Sc Radial	4070.3	4070.3	95.8	%			02:34:48
2	Y RADIAL	4248.2	4248.2	96.50	%			02:34:27
2	Al 396.153Radial†	-116.7	37.2	37.126	ug/L	37.126	ppb	02:34:27
2	Ca 317.933Radial†	33.3	16.5	30.713	ug/L	30.713	ppb	02:34:48
2	Fe 238.204 Radial†	26.2	17.3	184.18	ug/L	184.18	ppb	02:34:48
2	K 766.490 Radial†	2961.1	-79.1	-15.930	ug/L	-15.930	ppb	02:34:27
2	Mg 279.077 IEC†	0.5	-2.2	-85.247	ug/L	-85.247	ppb	02:34:48
2	Na 589.592 Radial†	-232.5	-449.9	-150.07	ug/L	-150.07	ppb	02:34:27
2	Sr 421.552†	115.1	30.4	0.2344	ug/L	0.2344	ppb	02:34:27
2	Sc 361.383	819839.7	819839.7	96.451	%			02:35:45
2	Y 371.029	662997.0	662997.0	94.346	%			02:35:45
2	Ag 328.068†	224.1	4.7	0.0830	ug/L	0.0830	ppb	02:35:45
2	As 188.979†	-31.3	-4.2	-1.7089	ug/L	-1.7089	ppb	02:36:05
2	B 249.677†	-431.9	34.1	0.7731	ug/L	0.7731	ppb	02:36:05
2	Ba 233.527†	79.2	63.3	0.5200	ug/L	0.5200	ppb	02:36:05
2	Be 313.107†	-4253.5	-70.9	-0.0240	ug/L	-0.0240	ppb	02:35:45
2	Cd 226.502†	-211.6	-23.9	-0.2976	ug/L	-0.2976	ppb	02:36:05
2	Co 228.616†	-69.0	7.3	0.1524	ug/L	0.1524	ppb	02:36:05
2	Cr 267.716†	167.4	23.8	0.2803	ug/L	0.2803	ppb	02:36:05
2	Cu 324.752†	8391.9	606.6	1.8653	ug/L	1.8653	ppb	02:35:45
2	Mn 257.610†	2052.2	1558.0	1.8186	ug/L	1.8186	ppb	02:36:05
2	Mo 202.031†	33.1	23.9	1.7889	ug/L	1.7889	ppb	02:36:05
2	Ni 231.604†	99.3	-10.6	-0.2704	ug/L	-0.2704	ppb	02:36:05

2	P 214.914†	263.9	31.6	17.035 ug/L	17.035 ppb	02:36:05
2	Pb 220.353†	-66.2	5.0	0.6076 ug/L	0.6076 ppb	02:36:05
2	S 181.975 Axial†	55.0	14.1	18.420 ug/L	18.420 ppb	02:36:05
2	Sb 206.836†	33.0	-1.5	-0.4800 ug/L	-0.4800 ppb	02:36:05
2	Se 196.026†	-22.9	-0.4	0.3643 ug/L	0.3643 ppb	02:36:05
2	Si 251.611†	1008.5	433.3	13.481 ug/L	13.481 ppb	02:36:05
2	Sn 189.927†	8.1	-4.2	-0.7541 ug/L	-0.7541 ppb	02:36:05
2	Ti 334.940†	-895.0	564.9	0.9279 ug/L	0.9279 ppb	02:35:45
2	Tl 190.801†	-28.1	10.0	3.1724 ug/L	3.1724 ppb	02:36:05
2	U 409.014†	-3294.2	99.7	2.8120 ug/L	2.8120 ppb	02:35:45
2	V 292.402†	-1586.6	32.3	0.2347 ug/L	0.2347 ppb	02:35:45
2	Zn 213.857†	924.0	270.2	2.6090 ug/L	2.6090 ppb	02:36:05
2	SiO2†	1061.8	481.3	32.043 ug/L	32.043 ppb	02:36:40
3	Sc Radial	4057.5	4057.5	95.5 %		02:35:13
3	Y RADIAL	4173.6	4173.6	94.81 %		02:34:53
3	Al 396.153Radial†	-126.1	26.9	26.817 ug/L	26.817 ppb	02:34:53
3	Ca 317.933Radial†	38.2	21.7	40.440 ug/L	40.440 ppb	02:35:13
3	Fe 238.204 Radial†	21.8	12.8	136.42 ug/L	136.42 ppb	02:35:13
3	K 766.490 Radial†	3062.8	37.2	7.5473 ug/L	7.5473 ppb	02:34:53
3	Mg 279.077 IEC†	2.3	-0.3	-12.305 ug/L	-12.305 ppb	02:35:13
3	Na 589.592 Radial†	-193.1	-409.4	-136.56 ug/L	-136.56 ppb	02:34:53
3	Sr 421.552†	81.1	-4.8	-0.0374 ug/L	-0.0374 ppb	02:34:53
3	Sc 361.383	824973.9	824973.9	97.055 %		02:36:10
3	Y 371.029	667986.1	667986.1	95.056 %		02:36:10
3	Ag 328.068†	229.6	8.9	0.0855 ug/L	0.0855 ppb	02:36:10
3	As 188.979†	-29.8	-2.4	-0.9716 ug/L	-0.9716 ppb	02:36:30
3	B 249.677†	-424.1	45.0	1.0354 ug/L	1.0354 ppb	02:36:30
3	Ba 233.527†	88.5	72.3	0.5934 ug/L	0.5934 ppb	02:36:30
3	Be 313.107†	-4147.9	65.4	0.0256 ug/L	0.0256 ppb	02:36:10
3	Cd 226.502†	-215.0	-26.1	-0.3176 ug/L	-0.3176 ppb	02:36:30
3	Co 228.616†	-63.6	13.3	0.2778 ug/L	0.2778 ppb	02:36:30
3	Cr 267.716†	156.7	11.8	0.1378 ug/L	0.1378 ppb	02:36:30
3	Cu 324.752†	8416.0	577.3	1.7705 ug/L	1.7705 ppb	02:36:10
3	Mn 257.610†	1969.3	1459.3	1.6972 ug/L	1.6972 ppb	02:36:30
3	Mo 202.031†	30.7	21.1	1.5810 ug/L	1.5810 ppb	02:36:30
3	Ni 231.604†	111.9	1.8	0.0450 ug/L	0.0450 ppb	02:36:30
3	P 214.914†	245.9	11.3	5.8514 ug/L	5.8514 ppb	02:36:30
3	Pb 220.353†	-58.4	13.4	1.6587 ug/L	1.6587 ppb	02:36:30
3	S 181.975 Axial†	61.5	20.5	26.772 ug/L	26.772 ppb	02:36:30
3	Sb 206.836†	41.8	7.4	2.5581 ug/L	2.5581 ppb	02:36:30
3	Se 196.026†	-19.2	3.6	2.5269 ug/L	2.5269 ppb	02:36:30
3	Si 251.611†	1025.9	444.7	13.838 ug/L	13.838 ppb	02:36:30
3	Sn 189.927†	22.3	10.3	1.8629 ug/L	1.8629 ppb	02:36:30
3	Ti 334.940†	-1039.6	421.8	0.6885 ug/L	0.6885 ppb	02:36:10
3	Tl 190.801†	-36.0	2.0	0.6342 ug/L	0.6342 ppb	02:36:30
3	U 409.014†	-3150.3	269.2	7.6326 ug/L	7.6326 ppb	02:36:10
3	V 292.402†	-1507.5	124.0	0.9141 ug/L	0.9141 ppb	02:36:10
3	Zn 213.857†	925.0	265.3	2.5666 ug/L	2.5666 ppb	02:36:30
3	SiO2†	1012.6	423.8	28.212 ug/L	28.212 ppb	02:36:45

Mean Data: 1202030969|948071|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	825859.6	97.159	%	0.7657				0.79%
Sc Radial	4056.1	95.4	%	0.35				0.37%
Y 371.029	667979.6	95.055	%	0.7086				0.75%
Y RADIAL	4203.5	95.49	%	0.896				0.94%
Ag 328.068†	0.5	0.0529	ug/L	0.05429	0.0529	ppb	0.05429	102.56%
Al 396.153Radial†	21.7	21.594	ug/L	18.6990	21.594	ppb	18.6990	86.59%
As 188.979†	-1.4	-0.5564	ug/L	1.40673	-0.5564	ppb	1.40673	252.81%
B 249.677†	32.4	0.7347	ug/L	0.32164	0.7347	ppb	0.32164	43.78%
Ba 233.527†	55.9	0.4592	ug/L	0.17286	0.4592	ppb	0.17286	37.65%
Be 313.107†	13.9	0.0068	ug/L	0.02683	0.0068	ppb	0.02683	396.49%
Ca 317.933Radial†	19.2	35.886	ug/L	4.8929	35.886	ppb	4.8929	13.63%
Cd 226.502†	-17.9	-0.2254	ug/L	0.14265	-0.2254	ppb	0.14265	63.29%
Co 228.616†	11.2	0.2330	ug/L	0.06993	0.2330	ppb	0.06993	30.02%
Cr 267.716†	21.5	0.2522	ug/L	0.10332	0.2522	ppb	0.10332	40.96%
Cu 324.752†	594.6	1.8263	ug/L	0.04960	1.8263	ppb	0.04960	2.72%
Fe 238.204 Radial†	15.1	160.10	ug/L	23.884	160.10	ppb	23.884	14.92%
K 766.490 Radial†	-24.2	-4.8503	ug/L	11.79389	-4.8503	ppb	11.79389	243.16%

Mg 279.077 IEC†	-0.7	-28.312 ug/L	50.8575	-28.312 ppb	50.8575	179.63%
Mn 257.610†	1487.2	1.7322 ug/L	0.07526	1.7322 ppb	0.07526	4.34%
Mo 202.031†	19.4	1.4571 ug/L	0.40804	1.4571 ppb	0.40804	28.00%
Na 589.592 Radial†	-413.9	-138.05 ug/L	11.351	-138.05 ppb	11.351	8.22%
Ni 231.604†	-5.2	-0.1339 ug/L	0.16189	-0.1339 ppb	0.16189	120.91%
P 214.914†	19.2	10.165 ug/L	6.0144	10.165 ppb	6.0144	59.17%
Pb 220.353†	3.4	0.4079 ug/L	1.36175	0.4079 ppb	1.36175	333.87%
S 181.975 Axial†	18.8	24.591 ug/L	5.4208	24.591 ppb	5.4208	22.04%
Sb 206.836†	3.0	1.0478 ug/L	1.51918	1.0478 ppb	1.51918	144.98%
Se 196.026†	0.7	0.9383 ug/L	1.39329	0.9383 ppb	1.39329	148.49%
Si 251.611†	450.3	14.016 ug/L	0.6420	14.016 ppb	0.6420	4.58%
Sn 189.927†	6.4	1.1498 ug/L	1.66601	1.1498 ppb	1.66601	144.90%
Sr 421.552†	32.3	0.2494 ug/L	0.29455	0.2494 ppb	0.29455	118.11%
Ti 334.940†	449.8	0.7359 ug/L	0.17329	0.7359 ppb	0.17329	23.55%
Tl 190.801†	6.3	2.0050 ug/L	1.28126	2.0050 ppb	1.28126	63.90%
U 409.014†	171.3	4.8487 ug/L	2.49567	4.8487 ppb	2.49567	51.47%
V 292.402†	39.0	0.2874 ug/L	0.60212	0.2874 ppb	0.60212	209.53%
Zn 213.857†	259.5	2.5071 ug/L	0.14139	2.5071 ppb	0.14139	5.64%
SiO2†	484.8	32.284 ug/L	4.1977	32.284 ppb	4.1977	13.00%

Sequence No.: 87
Sample ID: 1202030974|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/17/2010 02:38:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030974|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4266.5	4266.5	100	%			02:41:11
1	Y RADIAL	4807.1	4807.1	109.2	%			02:41:11
1	Al 396.153Radial†	83517.0	83371.6	83382	ug/L	83382	ppb	02:40:51
1	Ca 317.933Radial†	52133.0	51924.6	96859	ug/L	96859	ppb	02:40:51
1	Fe 238.204 Radial†	17802.4	17727.4	188430	ug/L	188430	ppb	02:40:51
1	K 766.490 Radial†	199287.3	195389.1	39404	ug/L	39404	ppb	02:40:51
1	Mg 279.077 IEC†	954.2	948.0	36421	ug/L	36421	ppb	02:41:11
1	Na 589.592 Radial†	29032.4	28719.5	9579.7	ug/L	9579.7	ppb	02:40:51
1	Sr 421.552†	280262.9	279151.2	2154.7	ug/L	2154.7	ppb	02:40:51
1	Sc 361.383	847863.3	847863.3	99.748	%			02:42:13
1	Y 371.029	746467.2	746467.2	106.22	%			02:42:13
1	Ag 328.068†	50483.9	50384.0	309.05	ug/L	309.05	ppb	02:42:13
1	As 188.979†	2284.4	2318.5	1067.2	ug/L	1067.2	ppb	02:42:18
1	B 249.677†	61172.1	61808.8	1421.0	ug/L	1421.0	ppb	02:42:13
1	Ba 233.527†	224145.9	224694.3	1832.7	ug/L	1832.7	ppb	02:42:13
1	Be 313.107†	2017880.0	2027325.4	757.40	ug/L	757.40	ppb	02:42:13
1	Cd 226.502†	47813.7	48130.2	544.15	ug/L	544.15	ppb	02:42:18
1	Co 228.616†	42186.5	42372.1	870.10	ug/L	870.10	ppb	02:42:18
1	Cr 267.716†	187503.1	187827.8	2190.6	ug/L	2190.6	ppb	02:42:13
1	Cu 324.752†	593695.2	587103.5	1807.6	ug/L	1807.6	ppb	02:42:13
1	Mn 257.610†	4426162.0	4436792.7	5134.4	ug/L	5134.4	ppb	02:42:13
1	Mo 202.031†	6164.1	6169.2	474.19	ug/L	474.19	ppb	02:42:18
1	Ni 231.604†	48433.4	48442.5	1240.3	ug/L	1240.3	ppb	02:42:18
1	P 214.914†	14720.4	14515.7	7575.3	ug/L	7575.3	ppb	02:42:18
1	Pb 220.353†	6151.3	6240.4	774.79	ug/L	774.79	ppb	02:42:18
1	S 181.975 Axial†	3048.8	3013.7	3923.1	ug/L	3923.1	ppb	02:42:18
1	Sb 206.836†	3970.0	3944.4	1340.8	ug/L	1340.8	ppb	02:42:18
1	Se 196.026†	4091.1	4124.8	3017.5	ug/L	3017.5	ppb	02:42:18
1	Si 251.611†	966465.4	968298.7	30169	ug/L	30169	ppb	02:42:13
1	Sn 189.927†	5383.8	5384.8	983.44	ug/L	983.44	ppb	02:42:18
1	Ti 334.940†	3445942.5	3456155.3	5626.7	ug/L	5626.7	ppb	02:42:13
1	Tl 190.801†	3520.2	3568.3	1191.2	ug/L	1191.2	ppb	02:42:18
1	U 409.014†	-9015.8	-5523.5	-183.27	ug/L	-183.27	ppb	02:42:13
1	V 292.402†	158907.3	160986.7	1138.7	ug/L	1138.7	ppb	02:42:13
1	Zn 213.857†	581590.3	582374.2	5645.3	ug/L	5645.3	ppb	02:42:13
1	SiO2†	953265.4	955058.1	63664	ug/L	63664	ppb	02:42:53
2	Sc Radial	4274.9	4274.9	101	%			02:41:37
2	Y RADIAL	4821.4	4821.4	109.5	%			02:41:37
2	Al 396.153Radial†	83424.6	83115.2	83125	ug/L	83125	ppb	02:41:17
2	Ca 317.933Radial†	52002.8	51692.4	96426	ug/L	96426	ppb	02:41:17
2	Fe 238.204 Radial†	17721.8	17612.3	187200	ug/L	187200	ppb	02:41:17
2	K 766.490 Radial†	199060.5	194771.0	39279	ug/L	39279	ppb	02:41:17
2	Mg 279.077 IEC†	959.0	950.9	36536	ug/L	36536	ppb	02:41:37
2	Na 589.592 Radial†	28635.0	28267.1	9428.8	ug/L	9428.8	ppb	02:41:17
2	Sr 421.552†	278861.1	277205.1	2139.7	ug/L	2139.7	ppb	02:41:17
2	Sc 361.383	841725.0	841725.0	99.025	%			02:42:27
2	Y 371.029	741504.4	741504.4	105.52	%			02:42:27
2	Ag 328.068†	50106.5	50372.0	308.58	ug/L	308.58	ppb	02:42:27
2	As 188.979†	2254.6	2305.1	1061.2	ug/L	1061.2	ppb	02:42:32
2	B 249.677†	60638.7	61717.3	1419.0	ug/L	1419.0	ppb	02:42:27
2	Ba 233.527†	222433.0	224603.2	1832.0	ug/L	1832.0	ppb	02:42:27
2	Be 313.107†	1998813.8	2022824.1	755.73	ug/L	755.73	ppb	02:42:27
2	Cd 226.502†	47946.7	48614.0	549.94	ug/L	549.94	ppb	02:42:32
2	Co 228.616†	42386.6	42882.6	880.79	ug/L	880.79	ppb	02:42:32
2	Cr 267.716†	186101.7	187783.5	2190.0	ug/L	2190.0	ppb	02:42:27
2	Cu 324.752†	587354.6	585041.0	1801.2	ug/L	1801.2	ppb	02:42:27
2	Mn 257.610†	4388567.5	4431187.5	5127.8	ug/L	5127.8	ppb	02:42:27
2	Mo 202.031†	6194.0	6244.5	479.68	ug/L	479.68	ppb	02:42:32
2	Ni 231.604†	48597.8	48962.6	1253.6	ug/L	1253.6	ppb	02:42:32

2	P 214.914†	14818.2	14722.0	7692.1 ug/L	7692.1 ppb	02:42:32
2	Pb 220.353†	6228.2	6363.1	790.06 ug/L	790.06 ppb	02:42:32
2	S 181.975 Axial†	3055.0	3042.1	3960.3 ug/L	3960.3 ppb	02:42:32
2	Sb 206.836†	3965.6	3969.0	1349.5 ug/L	1349.5 ppb	02:42:32
2	Se 196.026†	4115.5	4179.3	3045.3 ug/L	3045.3 ppb	02:42:32
2	Si 251.611†	957667.2	966479.7	30112 ug/L	30112 ppb	02:42:27
2	Sn 189.927†	5417.7	5458.4	996.55 ug/L	996.55 ppb	02:42:32
2	Ti 334.940†	3416693.2	3451811.2	5619.5 ug/L	5619.5 ppb	02:42:27
2	Tl 190.801†	3531.7	3605.6	1202.8 ug/L	1202.8 ppb	02:42:32
2	U 409.014†	-8980.9	-5554.1	-184.00 ug/L	-184.00 ppb	02:42:27
2	V 292.402†	157554.7	160782.6	1137.5 ug/L	1137.5 ppb	02:42:27
2	Zn 213.857†	576219.4	581202.4	5634.0 ug/L	5634.0 ppb	02:42:27
2	SiO2†	956134.2	964924.4	64322 ug/L	64322 ppb	02:42:59
3	Sc Radial	4287.5	4287.5	101 %		02:42:02
3	Y RADIAL	4835.2	4835.2	109.8 %		02:42:02
3	Al 396.153Radial†	82669.4	82122.3	82132 ug/L	82132 ppb	02:41:42
3	Ca 317.933Radial†	51334.3	50877.4	94906 ug/L	94906 ppb	02:41:42
3	Fe 238.204 Radial†	17545.6	17385.6	184790 ug/L	184790 ppb	02:41:42
3	K 766.490 Radial†	196547.5	191697.0	38659 ug/L	38659 ppb	02:41:42
3	Mg 279.077 IEC†	962.6	951.7	36569 ug/L	36569 ppb	02:42:02
3	Na 589.592 Radial†	28447.1	27997.1	9338.7 ug/L	9338.7 ppb	02:41:42
3	Sr 421.552†	275935.5	273488.5	2111.0 ug/L	2111.0 ppb	02:41:42
3	Sc 361.383	850104.7	850104.7	100.01 %		02:42:41
3	Y 371.029	748693.1	748693.1	106.54 %		02:42:41
3	Ag 328.068†	50588.0	50354.6	307.70 ug/L	307.70 ppb	02:42:41
3	As 188.979†	2245.1	2273.2	1047.3 ug/L	1047.3 ppb	02:42:46
3	B 249.677†	61468.3	61943.3	1424.8 ug/L	1424.8 ppb	02:42:41
3	Ba 233.527†	224281.1	224236.9	1828.9 ug/L	1828.9 ppb	02:42:41
3	Be 313.107†	2021496.7	2025607.8	756.76 ug/L	756.76 ppb	02:42:41
3	Cd 226.502†	47492.8	47683.0	539.28 ug/L	539.28 ppb	02:42:46
3	Co 228.616†	41894.8	41969.0	861.75 ug/L	861.75 ppb	02:42:46
3	Cr 267.716†	187544.1	187373.3	2185.2 ug/L	2185.2 ppb	02:42:41
3	Cu 324.752†	595504.2	587342.9	1808.1 ug/L	1808.1 ppb	02:42:41
3	Mn 257.610†	4427110.7	4426041.6	5121.7 ug/L	5121.7 ppb	02:42:41
3	Mo 202.031†	6130.1	6119.0	470.15 ug/L	470.15 ppb	02:42:46
3	Ni 231.604†	48091.8	47972.8	1228.3 ug/L	1228.3 ppb	02:42:46
3	P 214.914†	14599.1	14355.4	7488.7 ug/L	7488.7 ppb	02:42:46
3	Pb 220.353†	6121.1	6194.0	769.07 ug/L	769.07 ppb	02:42:46
3	S 181.975 Axial†	3027.4	2984.1	3884.7 ug/L	3884.7 ppb	02:42:46
3	Sb 206.836†	3962.0	3925.8	1334.2 ug/L	1334.2 ppb	02:42:46
3	Se 196.026†	4098.0	4120.9	3003.4 ug/L	3003.4 ppb	02:42:46
3	Si 251.611†	966727.8	966006.5	30098 ug/L	30098 ppb	02:42:41
3	Sn 189.927†	5300.7	5287.5	965.64 ug/L	965.64 ppb	02:42:46
3	Ti 334.940†	3451362.2	3452465.8	5620.4 ug/L	5620.4 ppb	02:42:41
3	Tl 190.801†	3443.2	3481.9	1163.9 ug/L	1163.9 ppb	02:42:46
3	U 409.014†	-8831.8	-5315.7	-176.94 ug/L	-176.94 ppb	02:42:41
3	V 292.402†	159300.8	160960.1	1139.0 ug/L	1139.0 ppb	02:42:41
3	Zn 213.857†	582032.6	581279.2	5635.3 ug/L	5635.3 ppb	02:42:41
3	SiO2†	956687.7	955960.2	63724 ug/L	63724 ppb	02:43:05

Mean Data: 1202030974|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846564.3	99.595	%	0.5104				0.51%
Sc Radial	4276.3	101	%	0.2				0.25%
Y 371.029	745554.9	106.09	%	0.524				0.49%
Y RADIAL	4821.2	109.5	%	0.32				0.29%
Ag 328.068†	50370.2	308.44	ug/L	0.683	308.44	ppb	0.683	0.22%
Al 396.153Radial†	82869.7	82880	ug/L	659.9	82880	ppb	659.9	0.80%
As 188.979†	2298.9	1058.6	ug/L	10.24	1058.6	ppb	10.24	0.97%
B 249.677†	61823.1	1421.6	ug/L	2.93	1421.6	ppb	2.93	0.21%
Ba 233.527†	224511.5	1831.2	ug/L	2.02	1831.2	ppb	2.02	0.11%
Be 313.107†	2025252.4	756.63	ug/L	0.842	756.63	ppb	0.842	0.11%
Ca 317.933Radial†	51498.2	96064	ug/L	1025.9	96064	ppb	1025.9	1.07%
Cd 226.502†	48142.4	544.46	ug/L	5.334	544.46	ppb	5.334	0.98%
Co 228.616†	42407.9	870.88	ug/L	9.545	870.88	ppb	9.545	1.10%
Cr 267.716†	187661.5	2188.6	ug/L	2.95	2188.6	ppb	2.95	0.13%
Cu 324.752†	586495.8	1805.7	ug/L	3.85	1805.7	ppb	3.85	0.21%
Fe 238.204 Radial†	17575.1	186810	ug/L	1848.2	186810	ppb	1848.2	0.99%
K 766.490 Radial†	193952.4	39114	ug/L	398.8	39114	ppb	398.8	1.02%

Mg 279.077 IEC†	950.2	36509	ug/L	77.6	36509	ppb	77.6	0.21%
Mn 257.610†	4431340.6	5128.0	ug/L	6.38	5128.0	ppb	6.38	0.12%
Mo 202.031†	6177.6	474.67	ug/L	4.785	474.67	ppb	4.785	1.01%
Na 589.592 Radial†	28327.9	9449.1	ug/L	121.75	9449.1	ppb	121.75	1.29%
Ni 231.604†	48459.3	1240.7	ug/L	12.68	1240.7	ppb	12.68	1.02%
P 214.914†	14531.0	7585.4	ug/L	102.07	7585.4	ppb	102.07	1.35%
Pb 220.353†	6265.8	777.98	ug/L	10.851	777.98	ppb	10.851	1.39%
S 181.975 Axial†	3013.3	3922.7	ug/L	37.80	3922.7	ppb	37.80	0.96%
Sb 206.836†	3946.4	1341.5	ug/L	7.64	1341.5	ppb	7.64	0.57%
Se 196.026†	4141.7	3022.1	ug/L	21.33	3022.1	ppb	21.33	0.71%
Si 251.611†	966928.3	30126	ug/L	37.7	30126	ppb	37.7	0.13%
Sn 189.927†	5376.9	981.88	ug/L	15.517	981.88	ppb	15.517	1.58%
Sr 421.552†	276615.0	2135.1	ug/L	22.21	2135.1	ppb	22.21	1.04%
Ti 334.940†	3453477.4	5622.2	ug/L	3.89	5622.2	ppb	3.89	0.07%
Tl 190.801†	3551.9	1186.0	ug/L	20.00	1186.0	ppb	20.00	1.69%
U 409.014†	-5464.4	-181.41	ug/L	3.882	-181.41	ppb	3.882	2.14%
V 292.402†	160909.8	1138.4	ug/L	0.80	1138.4	ppb	0.80	0.07%
Zn 213.857†	581618.6	5638.2	ug/L	6.21	5638.2	ppb	6.21	0.11%
SiO2†	958647.6	63904	ug/L	363.6	63904	ppb	363.6	0.57%

Sequence No.: 88
Sample ID: 245806001|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/17/2010 02:45:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806001|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4128.5	4128.5	97.1	%			02:47:29
1	Y RADIAL	5187.6	5187.6	117.8	%			02:47:09
1	Al 396.153Radial†	32691.1	33819.6	33833	ug/L	33833	ppb	02:47:09
1	Ca 317.933Radial†	5783.8	5937.0	11075	ug/L	11075	ppb	02:47:09
1	Fe 238.204 Radial†	8824.3	9075.9	96456	ug/L	96456	ppb	02:47:09
1	K 766.490 Radial†	25580.8	23167.8	4672.0	ug/L	4672.0	ppb	02:47:09
1	Mg 279.077 IEC†	170.8	173.1	6585.5	ug/L	6585.5	ppb	02:47:29
1	Na 589.592 Radial†	2709.7	2583.0	861.59	ug/L	861.59	ppb	02:47:09
1	Sr 421.552†	10136.3	10347.1	79.810	ug/L	79.810	ppb	02:47:09
1	Sc 361.383	861304.8	861304.8	101.33	%			02:48:27
1	Y 371.029	815455.8	815455.8	116.04	%			02:48:27
1	Ag 328.068†	-4873.2	-5037.0	8.1165	ug/L	8.1165	ppb	02:48:32
1	As 188.979†	-15.9	12.6	42.883	ug/L	42.883	ppb	02:48:52
1	B 249.677†	705.3	1177.9	11.948	ug/L	11.948	ppb	02:48:32
1	Ba 233.527†	59581.3	58781.0	480.42	ug/L	480.42	ppb	02:48:32
1	Be 313.107†	15354.8	19492.6	11.090	ug/L	11.090	ppb	02:48:32
1	Cd 226.502†	547.1	735.4	-1.1945	ug/L	-1.1945	ppb	02:48:52
1	Co 228.616†	1632.7	1690.2	30.402	ug/L	30.402	ppb	02:48:52
1	Cr 267.716†	11516.2	11215.5	132.25	ug/L	132.25	ppb	02:48:32
1	Cu 324.752†	381548.1	368450.0	1132.9	ug/L	1132.9	ppb	02:48:32
1	Mn 257.610†	1680985.8	1658369.9	1922.0	ug/L	1922.0	ppb	02:48:27
1	Mo 202.031†	30.1	19.2	9.0462	ug/L	9.0462	ppb	02:48:52
1	Ni 231.604†	3387.3	3229.4	82.697	ug/L	82.697	ppb	02:48:52
1	P 214.914†	1320.8	1061.5	295.65	ug/L	295.65	ppb	02:48:52
1	Pb 220.353†	44186.5	43680.5	5408.6	ug/L	5408.6	ppb	02:48:32
1	S 181.975 Axial†	159.2	114.2	142.93	ug/L	142.93	ppb	02:48:52
1	Sb 206.836†	206.2	167.8	49.447	ug/L	49.447	ppb	02:48:52
1	Se 196.026†	-436.7	-407.6	74.110	ug/L	74.110	ppb	02:48:52
1	Si 251.611†	699667.0	689878.5	21498	ug/L	21498	ppb	02:48:27
1	Sn 189.927†	6.6	-6.1	2.2187	ug/L	2.2187	ppb	02:48:52
1	Ti 334.940†	1077733.4	1065091.8	1731.8	ug/L	1731.8	ppb	02:48:27
1	Tl 190.801†	-102.8	-62.4	3.4910	ug/L	3.4910	ppb	02:48:52
1	U 409.014†	17759.9	21042.1	586.46	ug/L	586.46	ppb	02:48:27
1	V 292.402†	11396.3	12924.1	78.970	ug/L	78.970	ppb	02:48:32
1	Zn 213.857†	39759.8	38550.6	359.76	ug/L	359.76	ppb	02:48:32
1	SiO2†	691574.8	681885.3	45463	ug/L	45463	ppb	02:50:00
2	Sc Radial	4172.1	4172.1	98.1	%			02:47:54
2	Y RADIAL	5114.8	5114.8	116.2	%			02:47:34
2	Al 396.153Radial†	32182.4	32949.1	32962	ug/L	32962	ppb	02:47:34
2	Ca 317.933Radial†	5695.4	5784.6	10790	ug/L	10790	ppb	02:47:34
2	Fe 238.204 Radial†	8701.4	8855.7	94115	ug/L	94115	ppb	02:47:34
2	K 766.490 Radial†	25030.0	22331.0	4503.2	ug/L	4503.2	ppb	02:47:34
2	Mg 279.077 IEC†	169.4	169.9	6462.0	ug/L	6462.0	ppb	02:47:54
2	Na 589.592 Radial†	2692.7	2536.5	846.07	ug/L	846.07	ppb	02:47:34
2	Sr 421.552†	10028.4	10127.9	78.120	ug/L	78.120	ppb	02:47:34
2	Sc 361.383	846618.8	846618.8	99.601	%			02:48:58
2	Y 371.029	801810.5	801810.5	114.10	%			02:48:58
2	Ag 328.068†	-4825.6	-5072.6	7.1617	ug/L	7.1617	ppb	02:49:03
2	As 188.979†	0.4	28.7	49.111	ug/L	49.111	ppb	02:49:23
2	B 249.677†	728.9	1213.7	13.167	ug/L	13.167	ppb	02:49:03
2	Ba 233.527†	60051.1	60272.7	492.47	ug/L	492.47	ppb	02:49:03
2	Be 313.107†	15564.0	19965.5	11.262	ug/L	11.262	ppb	02:49:03
2	Cd 226.502†	555.3	753.0	-0.7446	ug/L	-0.7446	ppb	02:49:23
2	Co 228.616†	1641.4	1726.9	31.207	ug/L	31.207	ppb	02:49:23
2	Cr 267.716†	11579.9	11476.6	135.24	ug/L	135.24	ppb	02:49:03
2	Cu 324.752†	382579.6	376017.4	1155.9	ug/L	1155.9	ppb	02:49:03
2	Mn 257.610†	1650402.1	1656440.8	1919.5	ug/L	1919.5	ppb	02:48:58
2	Mo 202.031†	31.1	20.7	8.9738	ug/L	8.9738	ppb	02:49:23
2	Ni 231.604†	3384.7	3284.7	84.114	ug/L	84.114	ppb	02:49:23

2	P 214.914†	1333.3	1096.7	312.24	ug/L	312.24 ppb	02:49:23
2	Pb 220.353†	44357.5	44608.7	5523.6	ug/L	5523.6 ppb	02:49:03
2	S 181.975 Axial†	169.6	127.4	160.31	ug/L	160.31 ppb	02:49:23
2	Sb 206.836†	213.7	178.8	53.219	ug/L	53.219 ppb	02:49:23
2	Se 196.026†	-434.2	-412.6	63.627	ug/L	63.627 ppb	02:49:23
2	Si 251.611†	687124.3	689263.4	21479	ug/L	21479 ppb	02:48:58
2	Sn 189.927†	2.5	-10.1	1.4118	ug/L	1.4118 ppb	02:49:23
2	Ti 334.940†	1058822.3	1064554.8	1730.8	ug/L	1730.8 ppb	02:48:58
2	Tl 190.801†	-121.2	-82.6	-2.9065	ug/L	-2.9065 ppb	02:49:23
2	U 409.014†	17685.0	21271.0	593.22	ug/L	593.22 ppb	02:48:58
2	V 292.402†	11483.3	13206.6	81.368	ug/L	81.368 ppb	02:49:03
2	Zn 213.857†	40042.0	39514.6	369.48	ug/L	369.48 ppb	02:49:03
2	SiO2†	693764.9	695923.3	46399	ug/L	46399 ppb	02:50:06
3	Sc Radial	4123.1	4123.1	97.0	%		02:48:20
3	Y RADIAL	5193.9	5193.9	118.0	%		02:48:00
3	Al 396.153Radial†	33006.8	34189.2	34202	ug/L	34202 ppb	02:48:00
3	Ca 317.933Radial†	5789.8	5950.9	11101	ug/L	11101 ppb	02:48:00
3	Fe 238.204 Radial†	8857.9	9122.5	96951	ug/L	96951 ppb	02:48:00
3	K 766.490 Radial†	25500.8	23119.8	4662.3	ug/L	4662.3 ppb	02:48:00
3	Mg 279.077 IEC†	171.6	174.2	6626.8	ug/L	6626.8 ppb	02:48:20
3	Na 589.592 Radial†	2667.6	2543.3	848.33	ug/L	848.33 ppb	02:48:00
3	Sr 421.552†	10187.4	10413.4	80.322	ug/L	80.322 ppb	02:48:00
3	Sc 361.383	848006.1	848006.1	99.764	%		02:49:29
3	Y 371.029	803773.5	803773.5	114.38	%		02:49:29
3	Ag 328.068†	-4910.3	-5149.5	7.7509	ug/L	7.7509 ppb	02:49:34
3	As 188.979†	-9.2	19.1	45.757	ug/L	45.757 ppb	02:49:54
3	B 249.677†	729.4	1213.1	12.692	ug/L	12.692 ppb	02:49:34
3	Ba 233.527†	60408.3	60532.1	494.66	ug/L	494.66 ppb	02:49:34
3	Be 313.107†	15537.3	19913.2	11.246	ug/L	11.246 ppb	02:49:34
3	Cd 226.502†	550.4	747.2	-1.1061	ug/L	-1.1061 ppb	02:49:54
3	Co 228.616†	1642.1	1724.8	31.119	ug/L	31.119 ppb	02:49:54
3	Cr 267.716†	11682.2	11560.1	136.27	ug/L	136.27 ppb	02:49:34
3	Cu 324.752†	385769.1	378586.0	1163.9	ug/L	1163.9 ppb	02:49:34
3	Mn 257.610†	1656357.2	1659699.1	1923.6	ug/L	1923.6 ppb	02:49:29
3	Mo 202.031†	19.0	8.6	8.2979	ug/L	8.2979 ppb	02:49:54
3	Ni 231.604†	3369.2	3263.6	83.573	ug/L	83.573 ppb	02:49:54
3	P 214.914†	1319.3	1080.4	299.69	ug/L	299.69 ppb	02:49:54
3	Pb 220.353†	44836.1	45015.6	5574.0	ug/L	5574.0 ppb	02:49:34
3	S 181.975 Axial†	156.6	114.1	142.70	ug/L	142.70 ppb	02:49:54
3	Sb 206.836†	201.0	165.8	48.718	ug/L	48.718 ppb	02:49:54
3	Se 196.026†	-434.6	-412.3	72.990	ug/L	72.990 ppb	02:49:54
3	Si 251.611†	688399.1	689412.5	21484	ug/L	21484 ppb	02:49:29
3	Sn 189.927†	2.3	-10.3	1.4739	ug/L	1.4739 ppb	02:49:54
3	Ti 334.940†	1061425.5	1065425.0	1732.3	ug/L	1732.3 ppb	02:49:29
3	Tl 190.801†	-115.6	-76.7	-1.0397	ug/L	-1.0397 ppb	02:49:54
3	U 409.014†	17538.5	21095.1	587.90	ug/L	587.90 ppb	02:49:29
3	V 292.402†	11549.0	13253.6	81.275	ug/L	81.275 ppb	02:49:34
3	Zn 213.857†	40227.6	39634.9	370.22	ug/L	370.22 ppb	02:49:34
3	SiO2†	694036.9	695056.4	46342	ug/L	46342 ppb	02:50:11

Mean Data: 245806001|948071|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851976.6	100.23	%	0.954				0.95%
Sc Radial	4141.2	97.4	%	0.63				0.65%
Y 371.029	807013.3	114.84	%	1.050				0.91%
Y RADIAL	5165.4	117.3	%	1.00				0.85%
Ag 328.068†	-5086.4	7.6764	ug/L	0.48174	7.6764	ppb	0.48174	6.28%
Al 396.153Radial†	33652.6	33666	ug/L	636.9	33666	ppb	636.9	1.89%
As 188.979†	20.1	45.917	ug/L	3.1170	45.917	ppb	3.1170	6.79%
B 249.677†	1201.6	12.602	ug/L	0.6146	12.602	ppb	0.6146	4.88%
Ba 233.527†	59861.9	489.19	ug/L	7.666	489.19	ppb	7.666	1.57%
Be 313.107†	19790.4	11.199	ug/L	0.0949	11.199	ppb	0.0949	0.85%
Ca 317.933Radial†	5890.8	10989	ug/L	172.1	10989	ppb	172.1	1.57%
Cd 226.502†	745.2	-1.0151	ug/L	0.23833	-1.0151	ppb	0.23833	23.48%
Co 228.616†	1714.0	30.909	ug/L	0.4418	30.909	ppb	0.4418	1.43%
Cr 267.716†	11417.4	134.59	ug/L	2.089	134.59	ppb	2.089	1.55%
Cu 324.752†	374351.1	1150.9	ug/L	16.12	1150.9	ppb	16.12	1.40%
Fe 238.204 Radial†	9018.0	95841	ug/L	1514.6	95841	ppb	1514.6	1.58%
K 766.490 Radial†	22872.9	4612.5	ug/L	94.79	4612.5	ppb	94.79	2.06%

Mg 279.077 IEC†	172.4	6558.1	ug/L	85.78	6558.1	ppb	85.78	1.31%
Mn 257.610†	1658169.9	1921.7	ug/L	2.03	1921.7	ppb	2.03	0.11%
Mo 202.031†	16.2	8.7726	ug/L	0.41269	8.7726	ppb	0.41269	4.70%
Na 589.592 Radial†	2554.2	852.00	ug/L	8.381	852.00	ppb	8.381	0.98%
Ni 231.604†	3259.3	83.462	ug/L	0.7153	83.462	ppb	0.7153	0.86%
P 214.914†	1079.5	302.53	ug/L	8.652	302.53	ppb	8.652	2.86%
Pb 220.353†	44434.9	5502.0	ug/L	84.77	5502.0	ppb	84.77	1.54%
S 181.975 Axial†	118.6	148.65	ug/L	10.098	148.65	ppb	10.098	6.79%
Sb 206.836†	170.8	50.461	ug/L	2.4162	50.461	ppb	2.4162	4.79%
Se 196.026†	-410.8	70.243	ug/L	5.7568	70.243	ppb	5.7568	8.20%
Si 251.611†	689518.1	21487	ug/L	10.0	21487	ppb	10.0	0.05%
Sn 189.927†	-8.8	1.7015	ug/L	0.44903	1.7015	ppb	0.44903	26.39%
Sr 421.552†	10296.1	79.417	ug/L	1.1522	79.417	ppb	1.1522	1.45%
Ti 334.940†	1065023.9	1731.6	ug/L	0.73	1731.6	ppb	0.73	0.04%
Tl 190.801†	-73.9	-0.1518	ug/L	3.28991	-0.1518	ppb	3.28991	>999.9%
U 409.014†	21136.1	589.19	ug/L	3.561	589.19	ppb	3.561	0.60%
V 292.402†	13128.1	80.538	ug/L	1.3584	80.538	ppb	1.3584	1.69%
Zn 213.857†	39233.4	366.49	ug/L	5.837	366.49	ppb	5.837	1.59%
SiO2†	690955.0	46068	ug/L	524.5	46068	ppb	524.5	1.14%

Sequence No.: 89
Sample ID: 1202030970|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 106
Date Collected: 2/17/2010 02:52:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030970|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4115.2	4115.2	96.8	%			02:54:36
1	Y RADIAL	5070.3	5070.3	115.2	%			02:54:16
1	Al 396.153Radial†	30815.7	31990.9	32003	ug/L	32003	ppb	02:54:16
1	Ca 317.933Radial†	5448.7	5610.1	10465	ug/L	10465	ppb	02:54:16
1	Fe 238.204 Radial†	8740.6	9018.7	95848	ug/L	95848	ppb	02:54:16
1	K 766.490 Radial†	24852.8	22500.7	4537.5	ug/L	4537.5	ppb	02:54:16
1	Mg 279.077 IEC†	161.7	164.3	6246.4	ug/L	6246.4	ppb	02:54:36
1	Na 589.592 Radial†	2652.2	2532.6	844.77	ug/L	844.77	ppb	02:54:16
1	Sr 421.552†	9454.3	9676.2	74.635	ug/L	74.635	ppb	02:54:16
1	Sc 361.383	855411.4	855411.4	100.64	%			02:55:34
1	Y 371.029	808085.1	808085.1	114.99	%			02:55:34
1	Ag 328.068†	-5068.0	-5263.6	7.0113	ug/L	7.0113	ppb	02:55:39
1	As 188.979†	-47.1	-18.5	29.468	ug/L	29.468	ppb	02:55:59
1	B 249.677†	588.2	1066.4	9.4379	ug/L	9.4379	ppb	02:55:39
1	Ba 233.527†	55572.4	55202.6	451.34	ug/L	451.34	ppb	02:55:39
1	Be 313.107†	11494.4	15761.0	9.6678	ug/L	9.6678	ppb	02:55:39
1	Cd 226.502†	522.5	714.7	-1.4345	ug/L	-1.4345	ppb	02:55:59
1	Co 228.616†	1345.4	1415.8	24.741	ug/L	24.741	ppb	02:55:59
1	Cr 267.716†	7604.3	7406.6	88.017	ug/L	88.017	ppb	02:55:39
1	Cu 324.752†	114923.8	106103.8	329.74	ug/L	329.74	ppb	02:55:39
1	Mn 257.610†	1825522.0	1813422.6	2100.8	ug/L	2100.8	ppb	02:55:34
1	Mo 202.031†	24.0	13.4	8.5607	ug/L	8.5607	ppb	02:55:59
1	Ni 231.604†	2564.8	2435.1	62.355	ug/L	62.355	ppb	02:55:59
1	P 214.914†	988.2	739.9	276.78	ug/L	276.78	ppb	02:55:59
1	Pb 220.353†	2323.1	2382.0	292.77	ug/L	292.77	ppb	02:55:59
1	S 181.975 Axial†	151.5	107.6	134.69	ug/L	134.69	ppb	02:55:59
1	Sb 206.836†	87.3	51.1	9.9777	ug/L	9.9777	ppb	02:55:59
1	Se 196.026†	-446.2	-420.1	64.833	ug/L	64.833	ppb	02:55:59
1	Si 251.611†	698245.0	693222.7	21603	ug/L	21603	ppb	02:55:34
1	Sn 189.927†	-8.8	-21.3	-0.6243	ug/L	-0.6243	ppb	02:55:59
1	Ti 334.940†	1056337.3	1051158.6	1709.2	ug/L	1709.2	ppb	02:55:34
1	Tl 190.801†	-119.3	-79.5	-1.2113	ug/L	-1.2113	ppb	02:55:59
1	U 409.014†	8996.9	12455.3	342.70	ug/L	342.70	ppb	02:55:34
1	V 292.402†	10665.3	12275.3	73.920	ug/L	73.920	ppb	02:55:39
1	Zn 213.857†	38028.6	37100.7	346.92	ug/L	346.92	ppb	02:55:39
1	SiO2†	683862.6	678924.0	45266	ug/L	45266	ppb	02:57:07
2	Sc Radial	4116.4	4116.4	96.8	%			02:55:01
2	Y RADIAL	4987.5	4987.5	113.3	%			02:54:41
2	Al 396.153Radial†	30214.2	31360.8	31373	ug/L	31373	ppb	02:54:41
2	Ca 317.933Radial†	5332.0	5488.0	10237	ug/L	10237	ppb	02:54:41
2	Fe 238.204 Radial†	8588.6	8859.3	94154	ug/L	94154	ppb	02:54:41
2	K 766.490 Radial†	24220.2	21840.3	4404.2	ug/L	4404.2	ppb	02:54:41
2	Mg 279.077 IEC†	162.7	165.3	6286.4	ug/L	6286.4	ppb	02:55:01
2	Na 589.592 Radial†	2469.1	2342.7	781.42	ug/L	781.42	ppb	02:54:41
2	Sr 421.552†	9219.5	9431.0	72.743	ug/L	72.743	ppb	02:54:41
2	Sc 361.383	846340.2	846340.2	99.568	%			02:56:05
2	Y 371.029	798334.4	798334.4	113.60	%			02:56:05
2	Ag 328.068†	-5033.6	-5283.1	6.3544	ug/L	6.3544	ppb	02:56:10
2	As 188.979†	-42.9	-14.7	30.665	ug/L	30.665	ppb	02:56:30
2	B 249.677†	639.9	1124.6	11.083	ug/L	11.083	ppb	02:56:10
2	Ba 233.527†	55601.4	55823.5	456.33	ug/L	456.33	ppb	02:56:10
2	Be 313.107†	11551.5	15940.6	9.7385	ug/L	9.7385	ppb	02:56:10
2	Cd 226.502†	544.3	742.2	-0.9380	ug/L	-0.9380	ppb	02:56:30
2	Co 228.616†	1342.5	1427.2	25.000	ug/L	25.000	ppb	02:56:30
2	Cr 267.716†	7551.4	7434.4	88.310	ug/L	88.310	ppb	02:56:10
2	Cu 324.752†	114704.1	107107.2	332.72	ug/L	332.72	ppb	02:56:10
2	Mn 257.610†	1806806.2	1814068.2	2101.4	ug/L	2101.4	ppb	02:56:05
2	Mo 202.031†	25.4	15.0	8.5478	ug/L	8.5478	ppb	02:56:30
2	Ni 231.604†	2535.9	2433.4	62.311	ug/L	62.311	ppb	02:56:30

2	P 214.914†	985.1	747.3	281.46 ug/L	281.46 ppb	02:56:30
2	Pb 220.353†	2308.1	2391.7	293.98 ug/L	293.98 ppb	02:56:30
2	S 181.975 Axial†	143.5	101.2	126.39 ug/L	126.39 ppb	02:56:30
2	Sb 206.836†	89.1	53.9	10.903 ug/L	10.903 ppb	02:56:30
2	Se 196.026†	-433.9	-412.4	63.796 ug/L	63.796 ppb	02:56:30
2	Si 251.611†	690560.7	692941.6	21594 ug/L	21594 ppb	02:56:05
2	Sn 189.927†	-25.1	-37.8	-3.6373 ug/L	-3.6373 ppb	02:56:30
2	Ti 334.940†	1046420.9	1052449.6	1711.2 ug/L	1711.2 ppb	02:56:05
2	Tl 190.801†	-111.5	-72.8	0.9076 ug/L	0.9076 ppb	02:56:30
2	U 409.014†	8877.6	12431.3	342.21 ug/L	342.21 ppb	02:56:05
2	V 292.402†	10716.9	12440.7	75.363 ug/L	75.363 ppb	02:56:10
2	Zn 213.857†	37924.4	37401.0	350.10 ug/L	350.10 ppb	02:56:10
2	SiO2†	700092.4	702507.5	46838 ug/L	46838 ppb	02:57:13
3	Sc Radial	4125.7	4125.7	97.1 %		02:55:27
3	Y RADIAL	5162.3	5162.3	117.3 %		02:55:07
3	Al 396.153Radial†	31012.2	32112.5	32125 ug/L	32125 ppb	02:55:07
3	Ca 317.933Radial†	5464.8	5612.4	10469 ug/L	10469 ppb	02:55:07
3	Fe 238.204 Radial†	8776.6	9032.9	95999 ug/L	95999 ppb	02:55:07
3	K 766.490 Radial†	24865.4	22448.5	4526.9 ug/L	4526.9 ppb	02:55:07
3	Mg 279.077 IEC†	160.2	162.3	6168.8 ug/L	6168.8 ppb	02:55:27
3	Na 589.592 Radial†	2608.8	2480.9	827.53 ug/L	827.53 ppb	02:55:07
3	Sr 421.552†	9453.4	9650.5	74.436 ug/L	74.436 ppb	02:55:07
3	Sc 361.383	853718.2	853718.2	100.44 %		02:56:36
3	Y 371.029	807069.0	807069.0	114.85 %		02:56:36
3	Ag 328.068†	-5056.3	-5262.0	7.0672 ug/L	7.0672 ppb	02:56:41
3	As 188.979†	-34.4	-5.9	34.772 ug/L	34.772 ppb	02:57:01
3	B 249.677†	567.3	1046.8	8.9517 ug/L	8.9517 ppb	02:56:41
3	Ba 233.527†	55278.4	55019.4	449.86 ug/L	449.86 ppb	02:56:41
3	Be 313.107†	11427.4	15716.9	9.6480 ug/L	9.6480 ppb	02:56:41
3	Cd 226.502†	534.0	727.1	-1.3032 ug/L	-1.3032 ppb	02:57:01
3	Co 228.616†	1364.1	1437.1	25.187 ug/L	25.187 ppb	02:57:01
3	Cr 267.716†	7580.5	7397.9	87.917 ug/L	87.917 ppb	02:56:41
3	Cu 324.752†	114119.3	105529.3	327.98 ug/L	327.98 ppb	02:56:41
3	Mn 257.610†	1816225.8	1807764.5	2094.3 ug/L	2094.3 ppb	02:56:36
3	Mo 202.031†	31.4	20.8	9.1250 ug/L	9.1250 ppb	02:57:01
3	Ni 231.604†	2572.9	2448.2	62.691 ug/L	62.691 ppb	02:57:01
3	P 214.914†	977.0	730.8	271.98 ug/L	271.98 ppb	02:57:01
3	Pb 220.353†	2360.0	2423.3	297.90 ug/L	297.90 ppb	02:57:01
3	S 181.975 Axial†	142.0	98.4	122.65 ug/L	122.65 ppb	02:57:01
3	Sb 206.836†	83.9	47.9	8.9207 ug/L	8.9207 ppb	02:57:01
3	Se 196.026†	-447.1	-421.8	64.290 ug/L	64.290 ppb	02:57:01
3	Si 251.611†	694262.3	690633.4	21522 ug/L	21522 ppb	02:56:36
3	Sn 189.927†	-1.3	-13.9	0.7105 ug/L	0.7105 ppb	02:57:01
3	Ti 334.940†	1053256.8	1050173.2	1707.6 ug/L	1707.6 ppb	02:56:36
3	Tl 190.801†	-117.0	-77.3	-0.5828 ug/L	-0.5828 ppb	02:57:01
3	U 409.014†	9092.8	12568.4	345.90 ug/L	345.90 ppb	02:56:36
3	V 292.402†	10635.3	12266.4	73.848 ug/L	73.848 ppb	02:56:41
3	Zn 213.857†	37703.6	36852.1	344.47 ug/L	344.47 ppb	02:56:41
3	SiO2†	694057.7	690422.4	46033 ug/L	46033 ppb	02:57:18

Mean Data: 1202030970|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851823.3	100.21	%	0.567				0.57%
Sc Radial	4119.1	96.9	%	0.14				0.14%
Y 371.029	804496.2	114.48	%	0.763				0.67%
Y RADIAL	5073.3	115.2	%	1.99				1.72%
Ag 328.068†	-5269.6	6.8110	ug/L	0.39637	6.8110	ppb	0.39637	5.82%
Al 396.153Radial†	31821.4	31834	ug/L	403.7	31834	ppb	403.7	1.27%
As 188.979†	-13.1	31.635	ug/L	2.7818	31.635	ppb	2.7818	8.79%
B 249.677†	1079.3	9.8243	ug/L	1.11705	9.8243	ppb	1.11705	11.37%
Ba 233.527†	55348.5	452.51	ug/L	3.393	452.51	ppb	3.393	0.75%
Be 313.107†	15806.2	9.6848	ug/L	0.04762	9.6848	ppb	0.04762	0.49%
Ca 317.933Radial†	5570.1	10390	ug/L	132.8	10390	ppb	132.8	1.28%
Cd 226.502†	728.0	-1.2252	ug/L	0.25727	-1.2252	ppb	0.25727	21.00%
Co 228.616†	1426.7	24.976	ug/L	0.2240	24.976	ppb	0.2240	0.90%
Cr 267.716†	7413.0	88.081	ug/L	0.2041	88.081	ppb	0.2041	0.23%
Cu 324.752†	106246.8	330.15	ug/L	2.394	330.15	ppb	2.394	0.73%
Fe 238.204 Radial†	8970.3	95334	ug/L	1024.5	95334	ppb	1024.5	1.07%
K 766.490 Radial†	22263.2	4489.5	ug/L	74.06	4489.5	ppb	74.06	1.65%

Mg 279.077 IEC†	164.0	6233.9	ug/L	59.79	6233.9	ppb	59.79	0.96%
Mn 257.610†	1811751.8	2098.8	ug/L	3.93	2098.8	ppb	3.93	0.19%
Mo 202.031†	16.4	8.7445	ug/L	0.32958	8.7445	ppb	0.32958	3.77%
Na 589.592 Radial†	2452.1	817.91	ug/L	32.750	817.91	ppb	32.750	4.00%
Ni 231.604†	2438.9	62.452	ug/L	0.2076	62.452	ppb	0.2076	0.33%
P 214.914†	739.4	276.74	ug/L	4.740	276.74	ppb	4.740	1.71%
Pb 220.353†	2399.0	294.88	ug/L	2.680	294.88	ppb	2.680	0.91%
S 181.975 Axial†	102.4	127.91	ug/L	6.166	127.91	ppb	6.166	4.82%
Sb 206.836†	50.9	9.9338	ug/L	0.99192	9.9338	ppb	0.99192	9.99%
Se 196.026†	-418.1	64.307	ug/L	0.5186	64.307	ppb	0.5186	0.81%
Si 251.611†	692265.9	21573	ug/L	44.3	21573	ppb	44.3	0.21%
Sn 189.927†	-24.4	-1.1837	ug/L	2.22724	-1.1837	ppb	2.22724	188.16%
Sr 421.552†	9585.9	73.938	ug/L	1.0398	73.938	ppb	1.0398	1.41%
Ti 334.940†	1051260.5	1709.3	ug/L	1.84	1709.3	ppb	1.84	0.11%
Tl 190.801†	-76.6	-0.2955	ug/L	1.08825	-0.2955	ppb	1.08825	368.28%
U 409.014†	12485.0	343.60	ug/L	2.003	343.60	ppb	2.003	0.58%
V 292.402†	12327.5	74.377	ug/L	0.8549	74.377	ppb	0.8549	1.15%
Zn 213.857†	37117.9	347.16	ug/L	2.823	347.16	ppb	2.823	0.81%
SiO2†	690618.0	46046	ug/L	786.3	46046	ppb	786.3	1.71%

Sequence No.: 90
Sample ID: 1202030972|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 107
Date Collected: 2/17/2010 02:59:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030972|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4220.9	4220.9	99.3	%			03:01:44
1	Y RADIAL	5196.2	5196.2	118.0	%			03:01:44
1	Al 396.153Radial†	73554.3	74236.8	74244	ug/L	74244	ppb	03:01:24
1	Ca 317.933Radial†	8417.0	8458.6	15778	ug/L	15778	ppb	03:01:24
1	Fe 238.204 Radial†	9909.5	9969.9	105970	ug/L	105970	ppb	03:01:24
1	K 766.490 Radial†	59771.8	57025.6	11503	ug/L	11503	ppb	03:01:24
1	Mg 279.077 IEC†	390.7	390.8	14986	ug/L	14986	ppb	03:01:44
1	Na 589.592 Radial†	15787.2	15692.5	5234.4	ug/L	5234.4	ppb	03:01:24
1	Sr 421.552†	70565.4	70977.7	547.92	ug/L	547.92	ppb	03:01:24
1	Sc 361.383	849326.2	849326.2	99.920	%			03:02:43
1	Y 371.029	827087.8	827087.8	117.70	%			03:02:43
1	Ag 328.068†	94728.1	94576.6	491.23	ug/L	491.23	ppb	03:02:43
1	As 188.979†	1094.9	1124.1	520.54	ug/L	520.54	ppb	03:03:03
1	B 249.677†	21136.1	21635.0	490.37	ug/L	490.37	ppb	03:02:43
1	Ba 233.527†	132846.4	132934.3	1083.9	ug/L	1083.9	ppb	03:02:43
1	Be 313.107†	1355020.6	1360448.7	505.95	ug/L	505.95	ppb	03:02:43
1	Cd 226.502†	39361.4	39588.6	452.53	ug/L	452.53	ppb	03:03:03
1	Co 228.616†	23636.3	23734.2	488.98	ug/L	488.98	ppb	03:03:03
1	Cr 267.716†	48479.2	48368.4	565.23	ug/L	565.23	ppb	03:02:43
1	Cu 324.752†	2179094.8	2172751.9	6657.4	ug/L	6657.4	ppb	03:02:43
1	Mn 257.610†	2190660.6	2191851.5	2537.9	ug/L	2537.9	ppb	03:02:43
1	Mo 202.031†	6146.2	6140.7	464.71	ug/L	464.71	ppb	03:03:03
1	Ni 231.604†	20778.8	20682.0	529.45	ug/L	529.45	ppb	03:03:03
1	P 214.914†	3831.4	3592.5	610.10	ug/L	610.10	ppb	03:03:03
1	Pb 220.353†	6397.9	6476.6	805.64	ug/L	805.64	ppb	03:03:03
1	S 181.975 Axial†	3980.9	3941.2	5137.1	ug/L	5137.1	ppb	03:03:03
1	Sb 206.836†	1339.3	1304.7	448.78	ug/L	448.78	ppb	03:03:03
1	Se 196.026†	357.9	381.6	567.84	ug/L	567.84	ppb	03:03:03
1	Si 251.611†	910909.9	911029.7	28384	ug/L	28384	ppb	03:02:43
1	Sn 189.927†	2908.1	2897.8	523.79	ug/L	523.79	ppb	03:03:03
1	Ti 334.940†	1690474.2	1693325.6	2752.5	ug/L	2752.5	ppb	03:02:43
1	Tl 190.801†	1377.4	1417.6	479.11	ug/L	479.11	ppb	03:03:03
1	U 409.014†	28411.2	31949.2	894.25	ug/L	894.25	ppb	03:02:43
1	V 292.402†	76934.5	78673.6	559.74	ug/L	559.74	ppb	03:02:43
1	Zn 213.857†	90916.0	90301.3	853.10	ug/L	853.10	ppb	03:02:43
1	SiO2†	902681.6	902787.5	60179	ug/L	60179	ppb	03:04:04
2	Sc Radial	4185.8	4185.8	98.5	%			03:02:09
2	Y RADIAL	5167.3	5167.3	117.4	%			03:02:09
2	Al 396.153Radial†	73910.5	75218.9	75226	ug/L	75226	ppb	03:01:49
2	Ca 317.933Radial†	8453.1	8566.2	15979	ug/L	15979	ppb	03:01:49
2	Fe 238.204 Radial†	9909.1	10053.1	106860	ug/L	106860	ppb	03:01:49
2	K 766.490 Radial†	60090.1	57852.8	11670	ug/L	11670	ppb	03:01:49
2	Mg 279.077 IEC†	384.2	387.4	14856	ug/L	14856	ppb	03:02:09
2	Na 589.592 Radial†	15821.4	15860.3	5290.4	ug/L	5290.4	ppb	03:01:49
2	Sr 421.552†	70796.5	71807.5	554.33	ug/L	554.33	ppb	03:01:49
2	Sc 361.383	845219.4	845219.4	99.437	%			03:03:10
2	Y 371.029	823193.8	823193.8	117.14	%			03:03:10
2	Ag 328.068†	94270.8	94577.3	491.53	ug/L	491.53	ppb	03:03:10
2	As 188.979†	1105.1	1139.7	527.32	ug/L	527.32	ppb	03:03:30
2	B 249.677†	21004.3	21605.2	489.52	ug/L	489.52	ppb	03:03:10
2	Ba 233.527†	132157.7	132887.7	1083.5	ug/L	1083.5	ppb	03:03:10
2	Be 313.107†	1345912.7	1357878.4	505.01	ug/L	505.01	ppb	03:03:10
2	Cd 226.502†	39416.9	39835.8	455.33	ug/L	455.33	ppb	03:03:30
2	Co 228.616†	23643.8	23856.6	491.52	ug/L	491.52	ppb	03:03:30
2	Cr 267.716†	48101.5	48224.4	563.57	ug/L	563.57	ppb	03:03:10
2	Cu 324.752†	2167606.7	2171795.2	6654.6	ug/L	6654.6	ppb	03:03:10
2	Mn 257.610†	2178284.9	2190058.3	2535.9	ug/L	2535.9	ppb	03:03:10
2	Mo 202.031†	6117.2	6141.4	464.83	ug/L	464.83	ppb	03:03:30
2	Ni 231.604†	20799.8	20804.2	532.58	ug/L	532.58	ppb	03:03:30

2	P 214.914†	3791.8	3571.3	598.46	ug/L	598.46 ppb	03:03:30
2	Pb 220.353†	6405.4	6515.2	810.56	ug/L	810.56 ppb	03:03:30
2	S 181.975 Axial†	3968.8	3948.4	5146.2	ug/L	5146.2 ppb	03:03:30
2	Sb 206.836†	1339.6	1311.5	451.09	ug/L	451.09 ppb	03:03:30
2	Se 196.026†	378.0	403.4	583.50	ug/L	583.50 ppb	03:03:30
2	Si 251.611†	905825.7	910346.2	28363	ug/L	28363 ppb	03:03:10
2	Sn 189.927†	2911.1	2915.0	526.91	ug/L	526.91 ppb	03:03:30
2	Ti 334.940†	1682492.3	1693519.0	2752.8	ug/L	2752.8 ppb	03:03:10
2	Tl 190.801†	1382.3	1429.3	482.76	ug/L	482.76 ppb	03:03:30
2	U 409.014†	28145.3	31820.0	890.48	ug/L	890.48 ppb	03:03:10
2	V 292.402†	76467.4	78578.0	558.91	ug/L	558.91 ppb	03:03:10
2	Zn 213.857†	90336.7	90160.8	851.58	ug/L	851.58 ppb	03:03:10
2	SiO2†	916206.6	920778.7	61379	ug/L	61379 ppb	03:04:10
3	Sc Radial	4186.0	4186.0	98.5	%		03:02:34
3	Y RADIAL	5169.6	5169.6	117.4	%		03:02:34
3	Al 396.153Radial†	73824.4	75128.7	75136	ug/L	75136 ppb	03:02:14
3	Ca 317.933Radial†	8454.7	8567.6	15982	ug/L	15982 ppb	03:02:14
3	Fe 238.204 Radial†	9916.3	10060.1	106930	ug/L	106930 ppb	03:02:14
3	K 766.490 Radial†	59941.6	57699.9	11639	ug/L	11639 ppb	03:02:14
3	Mg 279.077 IEC†	388.2	391.5	15013	ug/L	15013 ppb	03:02:34
3	Na 589.592 Radial†	15793.8	15831.8	5280.8	ug/L	5280.8 ppb	03:02:14
3	Sr 421.552†	70580.5	71585.6	552.61	ug/L	552.61 ppb	03:02:14
3	Sc 361.383	844483.4	844483.4	99.350	%		03:03:38
3	Y 371.029	823693.7	823693.7	117.21	%		03:03:38
3	Ag 328.068†	93863.9	94250.4	489.99	ug/L	489.99 ppb	03:03:38
3	As 188.979†	1102.3	1137.9	526.51	ug/L	526.51 ppb	03:03:58
3	B 249.677†	20907.6	21526.3	487.64	ug/L	487.64 ppb	03:03:38
3	Ba 233.527†	131970.5	132815.2	1082.9	ug/L	1082.9 ppb	03:03:38
3	Be 313.107†	1346748.3	1359899.2	505.73	ug/L	505.73 ppb	03:03:38
3	Cd 226.502†	39597.8	40052.4	457.85	ug/L	457.85 ppb	03:03:58
3	Co 228.616†	23716.0	23950.0	493.49	ug/L	493.49 ppb	03:03:58
3	Cr 267.716†	48187.5	48353.1	565.07	ug/L	565.07 ppb	03:03:38
3	Cu 324.752†	2159087.9	2165120.6	6634.1	ug/L	6634.1 ppb	03:03:38
3	Mn 257.610†	2173816.9	2187470.3	2532.9	ug/L	2532.9 ppb	03:03:38
3	Mo 202.031†	6148.4	6178.2	467.57	ug/L	467.57 ppb	03:03:58
3	Ni 231.604†	20833.6	20856.4	533.92	ug/L	533.92 ppb	03:03:58
3	P 214.914†	3819.1	3602.1	619.55	ug/L	619.55 ppb	03:03:58
3	Pb 220.353†	6454.7	6570.5	817.39	ug/L	817.39 ppb	03:03:58
3	S 181.975 Axial†	3984.0	3967.1	5170.8	ug/L	5170.8 ppb	03:03:58
3	Sb 206.836†	1348.7	1321.8	454.66	ug/L	454.66 ppb	03:03:58
3	Se 196.026†	355.1	380.8	570.51	ug/L	570.51 ppb	03:03:58
3	Si 251.611†	903439.9	908738.7	28313	ug/L	28313 ppb	03:03:38
3	Sn 189.927†	2912.3	2918.8	527.59	ug/L	527.59 ppb	03:03:58
3	Ti 334.940†	1677338.2	1689805.8	2746.8	ug/L	2746.8 ppb	03:03:38
3	Tl 190.801†	1363.0	1411.1	476.94	ug/L	476.94 ppb	03:03:58
3	U 409.014†	27862.7	31560.2	883.09	ug/L	883.09 ppb	03:03:38
3	V 292.402†	76369.7	78546.7	558.70	ug/L	558.70 ppb	03:03:38
3	Zn 213.857†	90170.5	90072.8	850.72	ug/L	850.72 ppb	03:03:38
3	SiO2†	901084.4	906360.6	60417	ug/L	60417 ppb	03:04:16

Mean Data: 1202030972|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846343.0	99.569	%	0.3070				0.31%
Sc Radial	4197.5	98.7	%	0.48				0.48%
Y 371.029	824658.4	117.35	%	0.301				0.26%
Y RADIAL	5177.7	117.6	%	0.36				0.31%
Ag 328.068†	94468.1	490.91	ug/L	0.816	490.91	ppb	0.816	0.17%
Al 396.153Radial†	74861.5	74868	ug/L	543.0	74868	ppb	543.0	0.73%
As 188.979†	1133.9	524.79	ug/L	3.702	524.79	ppb	3.702	0.71%
B 249.677†	21588.8	489.18	ug/L	1.394	489.18	ppb	1.394	0.29%
Ba 233.527†	132879.1	1083.4	ug/L	0.47	1083.4	ppb	0.47	0.04%
Be 313.107†	1359408.8	505.56	ug/L	0.494	505.56	ppb	0.494	0.10%
Ca 317.933Radial†	8530.8	15913	ug/L	116.7	15913	ppb	116.7	0.73%
Cd 226.502†	39825.6	455.24	ug/L	2.664	455.24	ppb	2.664	0.59%
Co 228.616†	23846.9	491.33	ug/L	2.258	491.33	ppb	2.258	0.46%
Cr 267.716†	48315.3	564.62	ug/L	0.915	564.62	ppb	0.915	0.16%
Cu 324.752†	2169889.2	6648.7	ug/L	12.71	6648.7	ppb	12.71	0.19%
Fe 238.204 Radial†	10027.7	106590	ug/L	533.1	106590	ppb	533.1	0.50%
K 766.490 Radial†	57526.1	11604	ug/L	88.8	11604	ppb	88.8	0.77%

Mg 279.077 IEC†	389.9	14952	ug/L	84.1	14952	ppb	84.1	0.56%
Mn 257.610†	2189793.3	2535.6	ug/L	2.50	2535.6	ppb	2.50	0.10%
Mo 202.031†	6153.4	465.70	ug/L	1.619	465.70	ppb	1.619	0.35%
Na 589.592 Radial†	15794.9	5268.5	ug/L	29.96	5268.5	ppb	29.96	0.57%
Ni 231.604†	20780.8	531.98	ug/L	2.291	531.98	ppb	2.291	0.43%
P 214.914†	3588.6	609.37	ug/L	10.564	609.37	ppb	10.564	1.73%
Pb 220.353†	6520.8	811.20	ug/L	5.901	811.20	ppb	5.901	0.73%
S 181.975 Axial†	3952.2	5151.4	ug/L	17.44	5151.4	ppb	17.44	0.34%
Sb 206.836†	1312.7	451.51	ug/L	2.965	451.51	ppb	2.965	0.66%
Se 196.026†	388.6	573.95	ug/L	8.374	573.95	ppb	8.374	1.46%
Si 251.611†	910038.2	28353	ug/L	36.7	28353	ppb	36.7	0.13%
Sn 189.927†	2910.5	526.10	ug/L	2.026	526.10	ppb	2.026	0.39%
Sr 421.552†	71456.9	551.62	ug/L	3.316	551.62	ppb	3.316	0.60%
Ti 334.940†	1692216.8	2750.7	ug/L	3.39	2750.7	ppb	3.39	0.12%
Tl 190.801†	1419.3	479.61	ug/L	2.939	479.61	ppb	2.939	0.61%
U 409.014†	31776.5	889.27	ug/L	5.677	889.27	ppb	5.677	0.64%
V 292.402†	78599.4	559.12	ug/L	0.548	559.12	ppb	0.548	0.10%
Zn 213.857†	90178.3	851.80	ug/L	1.201	851.80	ppb	1.201	0.14%
SiO2†	909975.6	60658	ug/L	635.1	60658	ppb	635.1	1.05%

Sequence No.: 91
Sample ID: 1202030973|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/17/2010 03:06:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030973|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4088.5	4088.5	96.2	%			03:08:42
1	Y RADIAL	5133.1	5133.1	116.6	%			03:08:22
1	Al 396.153Radial†	66758.3	69569.0	69574	ug/L	69574	ppb	03:08:22
1	Ca 317.933Radial†	7939.3	8236.4	15364	ug/L	15364	ppb	03:08:22
1	Fe 238.204 Radial†	9194.6	9549.7	101510	ug/L	101510	ppb	03:08:22
1	K 766.490 Radial†	56859.9	55946.8	11285	ug/L	11285	ppb	03:08:22
1	Mg 279.077 IEC†	354.4	365.8	14026	ug/L	14026	ppb	03:08:42
1	Na 589.592 Radial†	16213.8	16650.7	5554.0	ug/L	5554.0	ppb	03:08:22
1	Sr 421.552†	70953.0	73681.5	568.80	ug/L	568.80	ppb	03:08:22
1	Sc 361.383	846903.4	846903.4	99.635	%			03:09:41
1	Y 371.029	806845.0	806845.0	114.82	%			03:09:41
1	Ag 328.068†	95405.9	95528.0	494.34	ug/L	494.34	ppb	03:09:41
1	As 188.979†	1095.7	1128.0	518.52	ug/L	518.52	ppb	03:10:01
1	B 249.677†	21107.4	21666.7	491.83	ug/L	491.83	ppb	03:09:41
1	Ba 233.527†	114585.4	114986.7	937.98	ug/L	937.98	ppb	03:09:41
1	Be 313.107†	1354132.7	1363437.1	506.37	ug/L	506.37	ppb	03:09:41
1	Cd 226.502†	39449.2	39789.3	455.33	ug/L	455.33	ppb	03:10:01
1	Co 228.616†	23753.2	23919.2	493.46	ug/L	493.46	ppb	03:10:01
1	Cr 267.716†	51727.5	51767.4	604.71	ug/L	604.71	ppb	03:09:41
1	Cu 324.752†	369828.8	363090.7	1116.6	ug/L	1116.6	ppb	03:09:41
1	Mn 257.610†	1970880.0	1977536.9	2290.3	ug/L	2290.3	ppb	03:09:41
1	Mo 202.031†	6220.6	6233.0	471.21	ug/L	471.21	ppb	03:10:01
1	Ni 231.604†	21433.9	21399.0	547.82	ug/L	547.82	ppb	03:10:01
1	P 214.914†	2086.4	1852.1	747.05	ug/L	747.05	ppb	03:10:01
1	Pb 220.353†	6599.1	6696.9	835.56	ug/L	835.56	ppb	03:10:01
1	S 181.975 Axial†	3917.1	3888.5	5069.1	ug/L	5069.1	ppb	03:10:01
1	Sb 206.836†	1374.3	1343.6	462.76	ug/L	462.76	ppb	03:10:01
1	Se 196.026†	393.1	417.9	574.51	ug/L	574.51	ppb	03:10:01
1	Si 251.611†	920651.9	923415.4	28770	ug/L	28770	ppb	03:09:41
1	Sn 189.927†	2724.3	2721.7	492.07	ug/L	492.07	ppb	03:10:01
1	Ti 334.940†	1502036.1	1509036.5	2453.0	ug/L	2453.0	ppb	03:09:41
1	Tl 190.801†	1398.5	1442.7	483.35	ug/L	483.35	ppb	03:10:01
1	U 409.014†	25412.1	29020.4	811.47	ug/L	811.47	ppb	03:09:41
1	V 292.402†	75841.7	77797.1	554.26	ug/L	554.26	ppb	03:09:41
1	Zn 213.857†	85557.5	85183.4	811.19	ug/L	811.19	ppb	03:09:41
1	SiO2†	921177.2	923935.3	61589	ug/L	61589	ppb	03:11:02
2	Sc Radial	4109.8	4109.8	96.7	%			03:09:07
2	Y RADIAL	5100.4	5100.4	115.9	%			03:08:47
2	Al 396.153Radial†	66587.3	69032.4	69037	ug/L	69037	ppb	03:08:47
2	Ca 317.933Radial†	7924.1	8177.9	15255	ug/L	15255	ppb	03:08:47
2	Fe 238.204 Radial†	9139.0	9442.7	100370	ug/L	100370	ppb	03:08:47
2	K 766.490 Radial†	56780.2	55558.0	11207	ug/L	11207	ppb	03:08:47
2	Mg 279.077 IEC†	358.1	367.7	14101	ug/L	14101	ppb	03:09:07
2	Na 589.592 Radial†	16138.1	16485.1	5498.8	ug/L	5498.8	ppb	03:08:47
2	Sr 421.552†	70494.2	72824.6	562.19	ug/L	562.19	ppb	03:08:47
2	Sc 361.383	846722.6	846722.6	99.613	%			03:10:08
2	Y 371.029	808420.9	808420.9	115.04	%			03:10:08
2	Ag 328.068†	95426.5	95569.2	494.15	ug/L	494.15	ppb	03:10:08
2	As 188.979†	1110.3	1142.9	524.51	ug/L	524.51	ppb	03:10:28
2	B 249.677†	21165.4	21729.4	493.49	ug/L	493.49	ppb	03:10:08
2	Ba 233.527†	114246.8	114671.4	935.39	ug/L	935.39	ppb	03:10:08
2	Be 313.107†	1355912.3	1365513.8	507.12	ug/L	507.12	ppb	03:10:08
2	Cd 226.502†	39472.6	39821.3	455.83	ug/L	455.83	ppb	03:10:28
2	Co 228.616†	23752.7	23923.8	493.58	ug/L	493.58	ppb	03:10:28
2	Cr 267.716†	51612.1	51662.7	603.47	ug/L	603.47	ppb	03:10:08
2	Cu 324.752†	369486.8	362826.7	1115.7	ug/L	1115.7	ppb	03:10:08
2	Mn 257.610†	1965490.7	1972549.1	2284.4	ug/L	2284.4	ppb	03:10:08
2	Mo 202.031†	6215.5	6229.1	470.83	ug/L	470.83	ppb	03:10:28
2	Ni 231.604†	21413.3	21382.9	547.40	ug/L	547.40	ppb	03:10:28

2	P 214.914†	2078.6	1844.6	743.78	ug/L	743.78 ppb	03:10:28
2	Pb 220.353†	6592.1	6691.3	834.86	ug/L	834.86 ppb	03:10:28
2	S 181.975 Axial†	3911.8	3884.1	5063.4	ug/L	5063.4 ppb	03:10:28
2	Sb 206.836†	1368.7	1338.3	460.88	ug/L	460.88 ppb	03:10:28
2	Se 196.026†	393.9	418.7	571.32	ug/L	571.32 ppb	03:10:28
2	Si 251.611†	918432.9	921385.1	28707	ug/L	28707 ppb	03:10:08
2	Sn 189.927†	2684.0	2681.8	484.88	ug/L	484.88 ppb	03:10:28
2	Ti 334.940†	1498842.4	1506152.4	2448.3	ug/L	2448.3 ppb	03:10:08
2	Tl 190.801†	1391.7	1436.2	481.22	ug/L	481.22 ppb	03:10:28
2	U 409.014†	25598.9	29213.4	817.08	ug/L	817.08 ppb	03:10:08
2	V 292.402†	75934.3	77906.3	555.23	ug/L	555.23 ppb	03:10:08
2	Zn 213.857†	85243.7	84886.8	808.47	ug/L	808.47 ppb	03:10:08
2	SiO2†	917849.1	920791.8	61379	ug/L	61379 ppb	03:11:08
3	Sc Radial	4106.1	4106.1	96.6	%		03:09:32
3	Y RADIAL	5148.7	5148.7	117.0	%		03:09:12
3	Al 396.153Radial†	66851.3	69367.5	69372	ug/L	69372 ppb	03:09:12
3	Ca 317.933Radial†	7927.9	8189.1	15276	ug/L	15276 ppb	03:09:12
3	Fe 238.204 Radial†	9221.1	9536.2	101360	ug/L	101360 ppb	03:09:12
3	K 766.490 Radial†	56936.1	55772.1	11250	ug/L	11250 ppb	03:09:12
3	Mg 279.077 IEC†	362.8	372.9	14300	ug/L	14300 ppb	03:09:32
3	Na 589.592 Radial†	16265.3	16631.7	5547.7	ug/L	5547.7 ppb	03:09:12
3	Sr 421.552†	70932.9	73344.3	566.20	ug/L	566.20 ppb	03:09:12
3	Sc 361.383	853380.0	853380.0	100.40	%		03:10:36
3	Y 371.029	813695.2	813695.2	115.79	%		03:10:36
3	Ag 328.068†	95980.7	95373.8	493.55	ug/L	493.55 ppb	03:10:36
3	As 188.979†	1096.1	1120.1	515.16	ug/L	515.16 ppb	03:10:56
3	B 249.677†	21456.1	21853.2	496.24	ug/L	496.24 ppb	03:10:36
3	Ba 233.527†	115245.2	114771.1	936.23	ug/L	936.23 ppb	03:10:36
3	Be 313.107†	1367318.1	1366255.7	507.39	ug/L	507.39 ppb	03:10:36
3	Cd 226.502†	39620.4	39659.3	453.83	ug/L	453.83 ppb	03:10:56
3	Co 228.616†	23875.6	23860.1	492.23	ug/L	492.23 ppb	03:10:56
3	Cr 267.716†	52050.2	51694.9	603.86	ug/L	603.86 ppb	03:10:36
3	Cu 324.752†	372967.7	363400.2	1117.5	ug/L	1117.5 ppb	03:10:36
3	Mn 257.610†	1982081.8	1973681.9	2285.8	ug/L	2285.8 ppb	03:10:36
3	Mo 202.031†	6255.8	6220.6	470.28	ug/L	470.28 ppb	03:10:56
3	Ni 231.604†	21542.7	21344.1	546.41	ug/L	546.41 ppb	03:10:56
3	P 214.914†	2080.4	1830.2	734.72	ug/L	734.72 ppb	03:10:56
3	Pb 220.353†	6646.1	6693.4	835.09	ug/L	835.09 ppb	03:10:56
3	S 181.975 Axial†	3934.9	3876.4	5053.3	ug/L	5053.3 ppb	03:10:56
3	Sb 206.836†	1350.3	1309.3	451.04	ug/L	451.04 ppb	03:10:56
3	Se 196.026†	389.6	411.4	570.27	ug/L	570.27 ppb	03:10:56
3	Si 251.611†	926262.1	921990.6	28726	ug/L	28726 ppb	03:10:36
3	Sn 189.927†	2713.2	2689.9	486.35	ug/L	486.35 ppb	03:10:56
3	Ti 334.940†	1511581.7	1507103.2	2449.8	ug/L	2449.8 ppb	03:10:36
3	Tl 190.801†	1405.0	1438.5	481.99	ug/L	481.99 ppb	03:10:56
3	U 409.014†	25469.1	28883.6	807.60	ug/L	807.60 ppb	03:10:36
3	V 292.402†	76276.4	77652.3	553.22	ug/L	553.22 ppb	03:10:36
3	Zn 213.857†	85876.0	84849.0	807.96	ug/L	807.96 ppb	03:10:36
3	SiO2†	924741.1	920468.4	61358	ug/L	61358 ppb	03:11:14

Mean Data: 1202030973|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849002.0	99.882	%	0.4462				0.45%
Sc Radial	4101.5	96.5	%	0.27				0.28%
Y 371.029	809653.7	115.22	%	0.511				0.44%
Y RADIAL	5127.4	116.5	%	0.56				0.48%
Ag 328.068†	95490.4	494.01	ug/L	0.412	494.01	ppb	0.412	0.08%
Al 396.153Radial†	69323.0	69328	ug/L	271.2	69328	ppb	271.2	0.39%
As 188.979†	1130.4	519.40	ug/L	4.737	519.40	ppb	4.737	0.91%
B 249.677†	21749.8	493.85	ug/L	2.230	493.85	ppb	2.230	0.45%
Ba 233.527†	114809.7	936.53	ug/L	1.324	936.53	ppb	1.324	0.14%
Be 313.107†	1365068.9	506.96	ug/L	0.532	506.96	ppb	0.532	0.10%
Ca 317.933Radial†	8201.1	15298	ug/L	57.9	15298	ppb	57.9	0.38%
Cd 226.502†	39756.6	454.99	ug/L	1.041	454.99	ppb	1.041	0.23%
Co 228.616†	23901.0	493.09	ug/L	0.745	493.09	ppb	0.745	0.15%
Cr 267.716†	51708.3	604.01	ug/L	0.634	604.01	ppb	0.634	0.11%
Cu 324.752†	363105.9	1116.6	ug/L	0.91	1116.6	ppb	0.91	0.08%
Fe 238.204 Radial†	9509.6	101080	ug/L	619.3	101080	ppb	619.3	0.61%
K 766.490 Radial†	55759.0	11247	ug/L	39.3	11247	ppb	39.3	0.35%

Mg 279.077 IEC†	368.8	14142	ug/L	141.6	14142	ppb	141.6	1.00%
Mn 257.610†	1974589.3	2286.9	ug/L	3.07	2286.9	ppb	3.07	0.13%
Mo 202.031†	6227.6	470.78	ug/L	0.469	470.78	ppb	0.469	0.10%
Na 589.592 Radial†	16589.2	5533.5	ug/L	30.24	5533.5	ppb	30.24	0.55%
Ni 231.604†	21375.3	547.21	ug/L	0.723	547.21	ppb	0.723	0.13%
P 214.914†	1842.3	741.85	ug/L	6.388	741.85	ppb	6.388	0.86%
Pb 220.353†	6693.9	835.17	ug/L	0.358	835.17	ppb	0.358	0.04%
S 181.975 Axial†	3883.0	5061.9	ug/L	8.00	5061.9	ppb	8.00	0.16%
Sb 206.836†	1330.4	458.23	ug/L	6.293	458.23	ppb	6.293	1.37%
Se 196.026†	416.0	572.03	ug/L	2.209	572.03	ppb	2.209	0.39%
Si 251.611†	922263.7	28734	ug/L	32.5	28734	ppb	32.5	0.11%
Sn 189.927†	2697.8	487.76	ug/L	3.797	487.76	ppb	3.797	0.78%
Sr 421.552†	73283.5	565.73	ug/L	3.333	565.73	ppb	3.333	0.59%
Ti 334.940†	1507430.7	2450.4	ug/L	2.40	2450.4	ppb	2.40	0.10%
Tl 190.801†	1439.1	482.19	ug/L	1.078	482.19	ppb	1.078	0.22%
U 409.014†	29039.2	812.05	ug/L	4.768	812.05	ppb	4.768	0.59%
V 292.402†	77785.3	554.24	ug/L	1.005	554.24	ppb	1.005	0.18%
Zn 213.857†	84973.1	809.21	ug/L	1.738	809.21	ppb	1.738	0.21%
SiO2†	921731.9	61442	ug/L	127.7	61442	ppb	127.7	0.21%

Sequence No.: 92
Sample ID: 1202030971|948071|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 109
Date Collected: 2/17/2010 03:13:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030971|948071|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4202.6	4202.6	98.9	%			03:15:19
1	Y RADIAL	4425.4	4425.4	100.5	%			03:15:19
1	Al 396.153Radial†	6265.7	6496.7	6499.2	ug/L	6499.2	ppb	03:15:19
1	Ca 317.933Radial†	1185.6	1180.9	2202.8	ug/L	2202.8	ppb	03:15:39
1	Fe 238.204 Radial†	1785.3	1795.8	19085	ug/L	19085	ppb	03:15:39
1	K 766.490 Radial†	7331.4	4244.0	855.79	ug/L	855.79	ppb	03:15:19
1	Mg 279.077 IEC†	35.1	32.8	1245.3	ug/L	1245.3	ppb	03:15:39
1	Na 589.592 Radial†	489.2	287.8	95.988	ug/L	95.988	ppb	03:15:19
1	Sr 421.552†	2073.2	2007.2	15.482	ug/L	15.482	ppb	03:15:19
1	Sc 361.383	830375.2	830375.2	97.690	%			03:16:36
1	Y 371.029	693269.9	693269.9	98.654	%			03:16:36
1	Ag 328.068†	-747.8	-993.2	1.6112	ug/L	1.6112	ppb	03:16:36
1	As 188.979†	-28.7	-1.1	7.0941	ug/L	7.0941	ppb	03:16:57
1	B 249.677†	-65.1	415.3	6.6493	ug/L	6.6493	ppb	03:16:36
1	Ba 233.527†	12132.7	12400.7	101.31	ug/L	101.31	ppb	03:16:36
1	Be 313.107†	-456.3	3872.0	2.2259	ug/L	2.2259	ppb	03:16:36
1	Cd 226.502†	-38.4	156.2	-0.1080	ug/L	-0.1080	ppb	03:16:57
1	Co 228.616†	270.8	356.1	6.4463	ug/L	6.4463	ppb	03:16:57
1	Cr 267.716†	2378.5	2285.1	26.929	ug/L	26.929	ppb	03:16:36
1	Cu 324.752†	82392.3	76246.3	234.38	ug/L	234.38	ppb	03:16:36
1	Mn 257.610†	339792.6	347257.0	402.35	ug/L	402.35	ppb	03:16:36
1	Mo 202.031†	15.2	5.1	1.8852	ug/L	1.8852	ppb	03:16:57
1	Ni 231.604†	767.0	671.6	17.198	ug/L	17.198	ppb	03:16:57
1	P 214.914†	464.5	233.5	69.429	ug/L	69.429	ppb	03:16:57
1	Pb 220.353†	9024.5	9311.4	1152.9	ug/L	1152.9	ppb	03:16:36
1	S 181.975 Axial†	76.3	35.2	44.784	ug/L	44.784	ppb	03:16:57
1	Sb 206.836†	70.0	36.0	10.707	ug/L	10.707	ppb	03:16:57
1	Se 196.026†	-110.4	-89.6	9.4202	ug/L	9.4202	ppb	03:16:57
1	Si 251.611†	138895.3	141567.1	4411.6	ug/L	4411.6	ppb	03:16:36
1	Sn 189.927†	15.5	3.2	1.2342	ug/L	1.2342	ppb	03:16:57
1	Ti 334.940†	211325.6	217815.1	354.14	ug/L	354.14	ppb	03:16:36
1	Tl 190.801†	-49.8	-11.9	1.0274	ug/L	1.0274	ppb	03:16:57
1	U 409.014†	1122.7	4664.4	130.27	ug/L	130.27	ppb	03:16:36
1	V 292.402†	877.6	2575.6	15.773	ug/L	15.773	ppb	03:16:36
1	Zn 213.857†	8634.9	8151.3	76.274	ug/L	76.274	ppb	03:16:36
1	SiO2†	140858.2	143569.1	9572.2	ug/L	9572.2	ppb	03:17:53
2	Sc Radial	4221.2	4221.2	99.3	%			03:15:44
2	Y RADIAL	4428.3	4428.3	100.6	%			03:15:44
2	Al 396.153Radial†	6245.9	6448.9	6451.4	ug/L	6451.4	ppb	03:15:44
2	Ca 317.933Radial†	1181.6	1171.6	2185.6	ug/L	2185.6	ppb	03:16:05
2	Fe 238.204 Radial†	1787.8	1790.3	19027	ug/L	19027	ppb	03:16:05
2	K 766.490 Radial†	7335.8	4215.9	850.12	ug/L	850.12	ppb	03:15:44
2	Mg 279.077 IEC†	35.5	33.0	1256.3	ug/L	1256.3	ppb	03:16:05
2	Na 589.592 Radial†	508.2	304.7	101.64	ug/L	101.64	ppb	03:15:44
2	Sr 421.552†	2024.9	1949.4	15.035	ug/L	15.035	ppb	03:15:44
2	Sc 361.383	832291.8	832291.8	97.916	%			03:17:02
2	Y 371.029	695961.7	695961.7	99.037	%			03:17:02
2	Ag 328.068†	-825.2	-1070.5	1.2172	ug/L	1.2172	ppb	03:17:02
2	As 188.979†	-21.9	6.0	10.037	ug/L	10.037	ppb	03:17:22
2	B 249.677†	-173.6	304.6	4.0541	ug/L	4.0541	ppb	03:17:02
2	Ba 233.527†	12101.2	12339.9	100.82	ug/L	100.82	ppb	03:17:02
2	Be 313.107†	-369.3	3962.0	2.2588	ug/L	2.2588	ppb	03:17:02
2	Cd 226.502†	-44.3	150.2	-0.1710	ug/L	-0.1710	ppb	03:17:22
2	Co 228.616†	284.9	369.8	6.7325	ug/L	6.7325	ppb	03:17:22
2	Cr 267.716†	2388.1	2289.3	26.975	ug/L	26.975	ppb	03:17:02
2	Cu 324.752†	82723.0	76389.8	234.81	ug/L	234.81	ppb	03:17:02
2	Mn 257.610†	339447.3	346103.4	401.02	ug/L	401.02	ppb	03:17:02
2	Mo 202.031†	11.4	1.2	1.5903	ug/L	1.5903	ppb	03:17:22
2	Ni 231.604†	752.1	654.6	16.763	ug/L	16.763	ppb	03:17:22

2	P 214.914†	467.7	235.6	70.570 ug/L	70.570 ppb	03:17:22
2	Pb 220.353†	9032.9	9298.8	1151.4 ug/L	1151.4 ppb	03:17:02
2	S 181.975 Axial†	68.7	27.2	34.389 ug/L	34.389 ppb	03:17:22
2	Sb 206.836†	62.7	28.4	8.0915 ug/L	8.0915 ppb	03:17:22
2	Se 196.026†	-96.2	-74.9	17.817 ug/L	17.817 ppb	03:17:22
2	Si 251.611†	138893.4	141237.7	4401.3 ug/L	4401.3 ppb	03:17:02
2	Sn 189.927†	5.3	-7.2	-0.6397 ug/L	-0.6397 ppb	03:17:22
2	Ti 334.940†	211761.5	217762.2	354.05 ug/L	354.05 ppb	03:17:02
2	Tl 190.801†	-50.1	-12.1	0.9650 ug/L	0.9650 ppb	03:17:22
2	U 409.014†	1328.8	4872.3	136.18 ug/L	136.18 ppb	03:17:02
2	V 292.402†	915.9	2612.7	16.058 ug/L	16.058 ppb	03:17:02
2	Zn 213.857†	8627.4	8123.3	76.012 ug/L	76.012 ppb	03:17:02
2	SiO2†	137246.7	139548.7	9304.1 ug/L	9304.1 ppb	03:17:58
3	Sc Radial	4216.0	4216.0	99.2 %		03:16:10
3	Y RADIAL	4468.1	4468.1	101.5 %		03:16:10
3	Al 396.153Radial†	6282.3	6493.4	6495.9 ug/L	6495.9 ppb	03:16:10
3	Ca 317.933Radial†	1174.8	1166.2	2175.4 ug/L	2175.4 ppb	03:16:30
3	Fe 238.204 Radial†	1788.0	1792.8	19053 ug/L	19053 ppb	03:16:30
3	K 766.490 Radial†	7431.8	4321.8	871.51 ug/L	871.51 ppb	03:16:10
3	Mg 279.077 IEC†	35.3	32.8	1248.3 ug/L	1248.3 ppb	03:16:30
3	Na 589.592 Radial†	494.2	291.2	97.144 ug/L	97.144 ppb	03:16:10
3	Sr 421.552†	2024.5	1951.4	15.051 ug/L	15.051 ppb	03:16:10
3	Sc 361.383	834145.5	834145.5	98.134 %		03:17:28
3	Y 371.029	696751.1	696751.1	99.149 %		03:17:28
3	Ag 328.068†	-739.5	-981.3	1.6593 ug/L	1.6593 ppb	03:17:28
3	As 188.979†	-18.3	9.7	11.603 ug/L	11.603 ppb	03:17:48
3	B 249.677†	-108.4	371.4	5.6233 ug/L	5.6233 ppb	03:17:28
3	Ba 233.527†	12141.2	12353.3	100.93 ug/L	100.93 ppb	03:17:28
3	Be 313.107†	-496.1	3833.6	2.2127 ug/L	2.2127 ppb	03:17:28
3	Cd 226.502†	-39.7	155.0	-0.1189 ug/L	-0.1189 ppb	03:17:48
3	Co 228.616†	272.0	356.0	6.4455 ug/L	6.4455 ppb	03:17:48
3	Cr 267.716†	2413.6	2309.8	27.218 ug/L	27.218 ppb	03:17:28
3	Cu 324.752†	82949.1	76432.5	234.95 ug/L	234.95 ppb	03:17:28
3	Mn 257.610†	340470.6	346375.8	401.33 ug/L	401.33 ppb	03:17:28
3	Mo 202.031†	24.1	14.1	2.5507 ug/L	2.5507 ppb	03:17:48
3	Ni 231.604†	771.1	672.2	17.214 ug/L	17.214 ppb	03:17:48
3	P 214.914†	447.0	213.6	58.289 ug/L	58.289 ppb	03:17:48
3	Pb 220.353†	9070.4	9316.5	1153.6 ug/L	1153.6 ppb	03:17:28
3	S 181.975 Axial†	70.8	29.2	36.980 ug/L	36.980 ppb	03:17:48
3	Sb 206.836†	84.7	50.6	15.659 ug/L	15.659 ppb	03:17:48
3	Se 196.026†	-107.0	-85.7	11.603 ug/L	11.603 ppb	03:17:48
3	Si 251.611†	139632.2	141675.3	4414.9 ug/L	4414.9 ppb	03:17:28
3	Sn 189.927†	12.1	-0.3	0.5957 ug/L	0.5957 ppb	03:17:48
3	Ti 334.940†	212520.4	218054.9	354.53 ug/L	354.53 ppb	03:17:28
3	Tl 190.801†	-51.1	-13.0	0.6813 ug/L	0.6813 ppb	03:17:48
3	U 409.014†	1047.8	4582.9	127.96 ug/L	127.96 ppb	03:17:28
3	V 292.402†	861.7	2555.4	15.636 ug/L	15.636 ppb	03:17:28
3	Zn 213.857†	8620.8	8097.0	75.748 ug/L	75.748 ppb	03:17:28
3	SiO2†	139390.8	141422.1	9429.0 ug/L	9429.0 ppb	03:18:03

Mean Data: 1202030971|948071|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	832270.8	97.913	%	0.2218				0.23%
Sc Radial	4213.2	99.1	%	0.23				0.23%
Y 371.029	695327.6	98.947	%	0.2597				0.26%
Y RADIAL	4440.6	100.9	%	0.54				0.54%
Ag 328.068†	-1015.0	1.4959	ug/L	0.24255	1.4959	ppb	0.24255	16.21%
Al 396.153Radial†	6479.7	6482.2	ug/L	26.69	6482.2	ppb	26.69	0.41%
As 188.979†	4.9	9.5779	ug/L	2.28920	9.5779	ppb	2.28920	23.90%
B 249.677†	363.8	5.4422	ug/L	1.30702	5.4422	ppb	1.30702	24.02%
Ba 233.527†	12364.6	101.02	ug/L	0.260	101.02	ppb	0.260	0.26%
Be 313.107†	3889.2	2.2325	ug/L	0.02372	2.2325	ppb	0.02372	1.06%
Ca 317.933Radial†	1172.9	2187.9	ug/L	13.84	2187.9	ppb	13.84	0.63%
Cd 226.502†	153.8	-0.1326	ug/L	0.03365	-0.1326	ppb	0.03365	25.38%
Co 228.616†	360.7	6.5414	ug/L	0.16551	6.5414	ppb	0.16551	2.53%
Cr 267.716†	2294.7	27.041	ug/L	0.1551	27.041	ppb	0.1551	0.57%
Cu 324.752†	76356.2	234.71	ug/L	0.297	234.71	ppb	0.297	0.13%
Fe 238.204 Radial†	1793.0	19055	ug/L	29.0	19055	ppb	29.0	0.15%
K 766.490 Radial†	4260.6	859.14	ug/L	11.081	859.14	ppb	11.081	1.29%

Mg 279.077 IEC†	32.9	1250.0 ug/L	5.73	1250.0 ppb	5.73	0.46%
Mn 257.610†	346578.7	401.57 ug/L	0.698	401.57 ppb	0.698	0.17%
Mo 202.031†	6.8	2.0087 ug/L	0.49200	2.0087 ppb	0.49200	24.49%
Na 589.592 Radial†	294.6	98.257 ug/L	2.9844	98.257 ppb	2.9844	3.04%
Ni 231.604†	666.1	17.058 ug/L	0.2559	17.058 ppb	0.2559	1.50%
P 214.914†	227.6	66.096 ug/L	6.7852	66.096 ppb	6.7852	10.27%
Pb 220.353†	9308.9	1152.6 ug/L	1.13	1152.6 ppb	1.13	0.10%
S 181.975 Axial†	30.6	38.718 ug/L	5.4111	38.718 ppb	5.4111	13.98%
Sb 206.836†	38.3	11.486 ug/L	3.8437	11.486 ppb	3.8437	33.46%
Se 196.026†	-83.4	12.947 ug/L	4.3569	12.947 ppb	4.3569	33.65%
Si 251.611†	141493.4	4409.3 ug/L	7.10	4409.3 ppb	7.10	0.16%
Sn 189.927†	-1.4	0.3967 ug/L	0.95265	0.3967 ppb	0.95265	240.12%
Sr 421.552†	1969.3	15.189 ug/L	0.2533	15.189 ppb	0.2533	1.67%
Ti 334.940†	217877.4	354.24 ug/L	0.254	354.24 ppb	0.254	0.07%
Tl 190.801†	-12.3	0.8913 ug/L	0.18446	0.8913 ppb	0.18446	20.70%
U 409.014†	4706.5	131.47 ug/L	4.241	131.47 ppb	4.241	3.23%
V 292.402†	2581.2	15.823 ug/L	0.2153	15.823 ppb	0.2153	1.36%
Zn 213.857†	8123.9	76.011 ug/L	0.2628	76.011 ppb	0.2628	0.35%
SiO2†	141513.3	9435.1 ug/L	134.13	9435.1 ppb	134.13	1.42%

Sequence No.: 93
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 03:20:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3988.3	3988.3	93.8	%			03:22:27
1	Y RADIAL	4204.7	4204.7	95.51	%			03:22:07
1	Al 396.153Radial†	4902.5	5384.4	5361.8	ug/L	5361.8	ppb	03:22:07
1	Ca 317.933Radial†	2689.4	2848.2	5312.9	ug/L	5312.9	ppb	03:22:27
1	Fe 238.204 Radial†	496.4	519.0	5530.9	ug/L	5530.9	ppb	03:22:27
1	K 766.490 Radial†	27473.3	26110.6	5264.3	ug/L	5264.3	ppb	03:22:07
1	Mg 279.077 IEC†	137.3	143.6	5545.9	ug/L	5545.9	ppb	03:22:27
1	Na 589.592 Radial†	28566.5	30240.2	10087	ug/L	10087	ppb	03:22:07
1	Sr 421.552†	63423.4	67509.3	521.22	ug/L	521.22	ppb	03:22:07
1	Sc 361.383	838414.7	838414.7	98.636	%			03:23:26
1	Y 371.029	670452.7	670452.7	95.407	%			03:23:26
1	Ag 328.068†	103612.3	104817.5	506.69	ug/L	506.69	ppb	03:23:26
1	As 188.979†	1179.7	1224.3	519.77	ug/L	519.77	ppb	03:23:46
1	B 249.677†	20944.8	21716.3	508.55	ug/L	508.55	ppb	03:23:26
1	Ba 233.527†	62010.0	62848.7	511.58	ug/L	511.58	ppb	03:23:26
1	Be 313.107†	1380805.6	1404239.4	516.98	ug/L	516.98	ppb	03:23:26
1	Cd 226.502†	41179.1	41944.1	490.35	ug/L	490.35	ppb	03:23:46
1	Co 228.616†	24027.6	24438.8	509.67	ug/L	509.67	ppb	03:23:46
1	Cr 267.716†	42536.6	42975.1	500.60	ug/L	500.60	ppb	03:23:26
1	Cu 324.752†	175942.4	170281.4	521.38	ug/L	521.38	ppb	03:23:26
1	Mn 257.610†	446023.0	451621.2	521.21	ug/L	521.21	ppb	03:23:26
1	Mo 202.031†	6767.0	6850.1	509.50	ug/L	509.50	ppb	03:23:46
1	Ni 231.604†	19440.4	19595.7	501.62	ug/L	501.62	ppb	03:23:46
1	P 214.914†	4813.0	4637.6	2471.3	ug/L	2471.3	ppb	03:23:46
1	Pb 220.353†	3958.2	4086.5	507.91	ug/L	507.91	ppb	03:23:46
1	S 181.975 Axial†	827.8	796.4	1039.8	ug/L	1039.8	ppb	03:23:46
1	Sb 206.836†	1499.7	1484.8	520.66	ug/L	520.66	ppb	03:23:46
1	Se 196.026†	864.9	900.2	544.68	ug/L	544.68	ppb	03:23:46
1	Si 251.611†	83052.0	83588.2	2598.5	ug/L	2598.5	ppb	03:23:26
1	Sn 189.927†	2784.4	2810.3	504.81	ug/L	504.81	ppb	03:23:46
1	Ti 334.940†	317830.5	323718.6	526.02	ug/L	526.02	ppb	03:23:26
1	Tl 190.801†	1580.4	1641.4	521.74	ug/L	521.74	ppb	03:23:46
1	U 409.014†	13218.5	16916.5	478.80	ug/L	478.80	ppb	03:23:26
1	V 292.402†	66241.1	68834.4	505.23	ug/L	505.23	ppb	03:23:26
1	Zn 213.857†	52367.6	52404.0	506.73	ug/L	506.73	ppb	03:23:26
1	SiO2†	83185.8	83716.6	5567.8	ug/L	5567.8	ppb	03:24:46
2	Sc Radial	3976.1	3976.1	93.5	%			03:22:52
2	Y RADIAL	4141.5	4141.5	94.08	%			03:22:32
2	Al 396.153Radial†	4820.8	5313.0	5290.3	ug/L	5290.3	ppb	03:22:32
2	Ca 317.933Radial†	2681.5	2848.5	5313.6	ug/L	5313.6	ppb	03:22:52
2	Fe 238.204 Radial†	494.8	518.9	5530.0	ug/L	5530.0	ppb	03:22:52
2	K 766.490 Radial†	27140.3	25844.5	5210.6	ug/L	5210.6	ppb	03:22:32
2	Mg 279.077 IEC†	136.6	143.3	5534.8	ug/L	5534.8	ppb	03:22:52
2	Na 589.592 Radial†	28223.2	29966.8	9995.7	ug/L	9995.7	ppb	03:22:32
2	Sr 421.552†	62430.9	66655.9	514.63	ug/L	514.63	ppb	03:22:32
2	Sc 361.383	830162.5	830162.5	97.665	%			03:23:53
2	Y 371.029	664864.0	664864.0	94.612	%			03:23:53
2	Ag 328.068†	102408.6	104629.1	505.79	ug/L	505.79	ppb	03:23:53
2	As 188.979†	1171.4	1227.7	521.20	ug/L	521.20	ppb	03:24:13
2	B 249.677†	20660.8	21636.6	506.67	ug/L	506.67	ppb	03:23:53
2	Ba 233.527†	61495.0	62946.3	512.37	ug/L	512.37	ppb	03:23:53
2	Be 313.107†	1369299.9	1406374.2	517.76	ug/L	517.76	ppb	03:23:53
2	Cd 226.502†	40981.4	42156.6	492.83	ug/L	492.83	ppb	03:24:13
2	Co 228.616†	23880.2	24530.0	511.58	ug/L	511.58	ppb	03:24:13
2	Cr 267.716†	42269.3	43130.2	502.40	ug/L	502.40	ppb	03:23:53
2	Cu 324.752†	173635.3	169692.3	519.58	ug/L	519.58	ppb	03:23:53
2	Mn 257.610†	441545.6	451531.7	521.11	ug/L	521.11	ppb	03:23:53
2	Mo 202.031†	6736.2	6886.8	512.22	ug/L	512.22	ppb	03:24:13
2	Ni 231.604†	19319.7	19668.1	503.47	ug/L	503.47	ppb	03:24:13

2	P 214.914†	4786.8	4659.2	2483.7 ug/L	2483.7 ppb	03:24:13
2	Pb 220.353†	3949.9	4117.9	511.79 ug/L	511.79 ppb	03:24:13
2	S 181.975 Axial†	818.2	794.9	1037.9 ug/L	1037.9 ppb	03:24:13
2	Sb 206.836†	1486.0	1485.8	521.09 ug/L	521.09 ppb	03:24:13
2	Se 196.026†	849.5	893.1	540.55 ug/L	540.55 ppb	03:24:13
2	Si 251.611†	82326.8	83682.7	2601.5 ug/L	2601.5 ppb	03:23:53
2	Sn 189.927†	2762.1	2815.5	505.76 ug/L	505.76 ppb	03:24:13
2	Ti 334.940†	314113.7	323115.9	525.04 ug/L	525.04 ppb	03:23:53
2	Tl 190.801†	1563.8	1640.3	521.38 ug/L	521.38 ppb	03:24:13
2	U 409.014†	13004.0	16830.1	476.34 ug/L	476.34 ppb	03:23:53
2	V 292.402†	65638.0	68884.5	505.62 ug/L	505.62 ppb	03:23:53
2	Zn 213.857†	51872.9	52425.2	506.92 ug/L	506.92 ppb	03:23:53
2	SiO2†	82968.8	84332.7	5608.8 ug/L	5608.8 ppb	03:24:51
3	Sc Radial	4031.1	4031.1	94.8 %		03:23:17
3	Y RADIAL	4215.4	4215.4	95.76 %		03:22:57
3	Al 396.153Radial†	4907.9	5334.5	5312.1 ug/L	5312.1 ppb	03:22:57
3	Ca 317.933Radial†	2708.4	2837.8	5293.5 ug/L	5293.5 ppb	03:23:17
3	Fe 238.204 Radial†	504.3	521.8	5560.2 ug/L	5560.2 ppb	03:23:17
3	K 766.490 Radial†	27468.4	25794.5	5200.5 ug/L	5200.5 ppb	03:22:57
3	Mg 279.077 IEC†	138.9	143.8	5552.6 ug/L	5552.6 ppb	03:23:17
3	Na 589.592 Radial†	28742.1	30102.1	10041 ug/L	10041 ppb	03:22:57
3	Sr 421.552†	63476.4	66847.4	516.11 ug/L	516.11 ppb	03:22:57
3	Sc 361.383	844064.4	844064.4	99.301 %		03:24:21
3	Y 371.029	675288.2	675288.2	96.095 %		03:24:21
3	Ag 328.068†	103931.6	104435.9	504.88 ug/L	504.88 ppb	03:24:21
3	As 188.979†	1175.9	1212.5	514.78 ug/L	514.78 ppb	03:24:41
3	B 249.677†	21127.4	21758.1	509.54 ug/L	509.54 ppb	03:24:21
3	Ba 233.527†	62384.2	62804.7	511.22 ug/L	511.22 ppb	03:24:21
3	Be 313.107†	1389819.8	1403946.9	516.87 ug/L	516.87 ppb	03:24:21
3	Cd 226.502†	41222.1	41707.9	487.58 ug/L	487.58 ppb	03:24:41
3	Co 228.616†	24004.4	24252.3	505.77 ug/L	505.77 ppb	03:24:41
3	Cr 267.716†	42747.9	42899.2	499.72 ug/L	499.72 ppb	03:24:21
3	Cu 324.752†	176557.1	169706.4	519.62 ug/L	519.62 ppb	03:24:21
3	Mn 257.610†	447801.6	450385.6	519.79 ug/L	519.79 ppb	03:24:21
3	Mo 202.031†	6758.9	6796.0	505.48 ug/L	505.48 ppb	03:24:41
3	Ni 231.604†	19446.1	19469.5	498.39 ug/L	498.39 ppb	03:24:41
3	P 214.914†	4825.6	4617.6	2460.5 ug/L	2460.5 ppb	03:24:41
3	Pb 220.353†	3991.4	4093.1	508.70 ug/L	508.70 ppb	03:24:41
3	S 181.975 Axial†	821.7	784.5	1024.3 ug/L	1024.3 ppb	03:24:41
3	Sb 206.836†	1490.3	1465.1	513.85 ug/L	513.85 ppb	03:24:41
3	Se 196.026†	866.0	895.5	541.99 ug/L	541.99 ppb	03:24:41
3	Si 251.611†	83395.9	83371.0	2591.8 ug/L	2591.8 ppb	03:24:21
3	Sn 189.927†	2777.4	2784.4	500.16 ug/L	500.16 ppb	03:24:41
3	Ti 334.940†	318891.2	322629.9	524.25 ug/L	524.25 ppb	03:24:21
3	Tl 190.801†	1576.7	1626.9	517.16 ug/L	517.16 ppb	03:24:41
3	U 409.014†	13136.9	16744.6	473.92 ug/L	473.92 ppb	03:24:21
3	V 292.402†	66735.8	68883.1	505.51 ug/L	505.51 ppb	03:24:21
3	Zn 213.857†	52667.6	52350.7	506.22 ug/L	506.22 ppb	03:24:21
3	SiO2†	83624.3	83593.7	5559.7 ug/L	5559.7 ppb	03:24:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	837547.2	98.534	%	0.8225				0.83%
Sc Radial	3998.5	94.1	%	0.68				0.72%
Y 371.029	670201.6	95.371	%	0.7423				0.78%
Y RADIAL	4187.2	95.12	%	0.906				0.95%
Ag 328.068†	104627.5	505.79	ug/L	0.908	505.79	ppb	0.908	0.18%
QC value within limits for Ag 328.068 Recovery = 101.16%								
Al 396.153Radial†	5344.0	5321.4	ug/L	36.64	5321.4	ppb	36.64	0.69%
QC value within limits for Al 396.153Radial Recovery = 106.43%								
As 188.979†	1221.5	518.58	ug/L	3.368	518.58	ppb	3.368	0.65%
QC value within limits for As 188.979 Recovery = 103.72%								
B 249.677†	21703.7	508.25	ug/L	1.458	508.25	ppb	1.458	0.29%
QC value within limits for B 249.677 Recovery = 101.65%								
Ba 233.527†	62866.6	511.72	ug/L	0.588	511.72	ppb	0.588	0.11%
QC value within limits for Ba 233.527 Recovery = 102.34%								
Be 313.107†	1404853.5	517.20	ug/L	0.487	517.20	ppb	0.487	0.09%
QC value within limits for Be 313.107 Recovery = 103.44%								
Ca 317.933Radial†	2844.8	5306.7	ug/L	11.41	5306.7	ppb	11.41	0.21%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.13%
Cd 226.502†            41936.2      490.25 ug/L        2.628      490.25 ppb        2.628   0.54%
   QC value within limits for Cd 226.502  Recovery = 98.05%
Co 228.616†            24407.0      509.01 ug/L        2.958      509.01 ppb        2.958   0.58%
   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            43001.5      500.90 ug/L        1.369      500.90 ppb        1.369   0.27%
   QC value within limits for Cr 267.716  Recovery = 100.18%
Cu 324.752†           169893.3      520.19 ug/L        1.027      520.19 ppb        1.027   0.20%
   QC value within limits for Cu 324.752  Recovery = 104.04%
Fe 238.204 Radial†       519.9      5540.4 ug/L        17.21      5540.4 ppb        17.21   0.31%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 110.81%
K 766.490 Radial†      25916.5      5225.2 ug/L        34.28      5225.2 ppb        34.28   0.66%
   QC value within limits for K 766.490 Radial  Recovery = 104.50%
Mg 279.077 IEC†          143.6      5544.4 ug/L         8.99      5544.4 ppb         8.99   0.16%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.89%
Mn 257.610†           451179.5      520.70 ug/L        0.793      520.70 ppb        0.793   0.15%
   QC value within limits for Mn 257.610  Recovery = 104.14%
Mo 202.031†             6844.3      509.07 ug/L        3.392      509.07 ppb        3.392   0.67%
   QC value within limits for Mo 202.031  Recovery = 101.81%
Na 589.592 Radial†     30103.0       10041 ug/L         45.6       10041 ppb         45.6   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 100.41%
Ni 231.604†            19577.8      501.16 ug/L        2.573      501.16 ppb        2.573   0.51%
   QC value within limits for Ni 231.604  Recovery = 100.23%
P 214.914†              4638.1      2471.8 ug/L        11.60      2471.8 ppb        11.60   0.47%
   QC value within limits for P 214.914  Recovery = 98.87%
Pb 220.353†             4099.1      509.47 ug/L        2.052      509.47 ppb        2.052   0.40%
   QC value within limits for Pb 220.353  Recovery = 101.89%
S 181.975 Axial†         791.9      1034.0 ug/L         8.42      1034.0 ppb         8.42   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 103.40%
Sb 206.836†             1478.6      518.53 ug/L        4.062      518.53 ppb        4.062   0.78%
   QC value within limits for Sb 206.836  Recovery = 103.71%
Se 196.026†              896.3      542.41 ug/L        2.100      542.41 ppb        2.100   0.39%
   QC value within limits for Se 196.026  Recovery = 108.48%
Si 251.611†            83547.3      2597.3 ug/L         4.94      2597.3 ppb         4.94   0.19%
   QC value within limits for Si 251.611  Recovery = 103.89%
Sn 189.927†             2803.4      503.58 ug/L        2.995      503.58 ppb        2.995   0.59%
   QC value within limits for Sn 189.927  Recovery = 100.72%
Sr 421.552†            67004.2      517.32 ug/L        3.458      517.32 ppb        3.458   0.67%
   QC value within limits for Sr 421.552  Recovery = 103.46%
Ti 334.940†           323154.8      525.10 ug/L        0.887      525.10 ppb        0.887   0.17%
   QC value within limits for Ti 334.940  Recovery = 105.02%
Tl 190.801†             1636.2      520.09 ug/L        2.544      520.09 ppb        2.544   0.49%
   QC value within limits for Tl 190.801  Recovery = 104.02%
U 409.014†             16830.4      476.35 ug/L        2.442      476.35 ppb        2.442   0.51%
   QC value within limits for U 409.014  Recovery = 95.27%
V 292.402†             68867.3      505.46 ug/L        0.204      505.46 ppb        0.204   0.04%
   QC value within limits for V 292.402  Recovery = 101.09%
Zn 213.857†            52393.3      506.62 ug/L        0.360      506.62 ppb        0.360   0.07%
   QC value within limits for Zn 213.857  Recovery = 101.32%
SiO2†                  83881.0      5578.8 ug/L        26.32      5578.8 ppb        26.32   0.47%
   QC value within limits for SiO2  Recovery = 104.32%
QC Failed.  Continue with analysis.
```

Sequence No.: 94
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 03:27:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4036.7	4036.7	95.0	%			03:29:19
1	Y RADIAL	4207.0	4207.0	95.56	%			03:28:59
1	Al 396.153Radial†	-133.4	18.5	18.495	ug/L	18.495	ppb	03:28:59
1	Ca 317.933Radial†	33.7	17.2	32.061	ug/L	32.061	ppb	03:29:19
1	Fe 238.204 Radial†	11.6	2.2	23.391	ug/L	23.391	ppb	03:29:19
1	K 766.490 Radial†	2911.1	-106.0	-21.371	ug/L	-21.371	ppb	03:28:59
1	Mg 279.077 IEC†	3.2	0.7	25.290	ug/L	25.290	ppb	03:29:19
1	Na 589.592 Radial†	-117.7	-331.0	-110.41	ug/L	-110.41	ppb	03:28:59
1	Sr 421.552†	167.5	86.6	0.6680	ug/L	0.6680	ppb	03:28:59
1	Sc 361.383	823497.3	823497.3	96.881	%			03:30:16
1	Y 371.029	666160.4	666160.4	94.796	%			03:30:16
1	Ag 328.068†	285.5	67.0	0.3271	ug/L	0.3271	ppb	03:30:16
1	As 188.979†	-30.3	-3.0	-1.2561	ug/L	-1.2561	ppb	03:30:36
1	B 249.677†	-275.1	198.0	4.6526	ug/L	4.6526	ppb	03:30:36
1	Ba 233.527†	33.8	16.0	0.1324	ug/L	0.1324	ppb	03:30:36
1	Be 313.107†	-4179.3	25.3	0.0098	ug/L	0.0098	ppb	03:30:16
1	Cd 226.502†	-203.5	-14.5	-0.1710	ug/L	-0.1710	ppb	03:30:36
1	Co 228.616†	-59.0	17.9	0.3746	ug/L	0.3746	ppb	03:30:36
1	Cr 267.716†	138.1	-7.1	-0.0838	ug/L	-0.0838	ppb	03:30:36
1	Cu 324.752†	8516.2	696.2	2.1294	ug/L	2.1294	ppb	03:30:16
1	Mn 257.610†	1065.0	529.6	0.6121	ug/L	0.6121	ppb	03:30:36
1	Mo 202.031†	17.9	8.0	0.5956	ug/L	0.5956	ppb	03:30:36
1	Ni 231.604†	104.9	-5.3	-0.1357	ug/L	-0.1357	ppb	03:30:36
1	P 214.914†	237.0	2.6	1.0116	ug/L	1.0116	ppb	03:30:36
1	Pb 220.353†	-71.0	0.3	0.0412	ug/L	0.0412	ppb	03:30:36
1	S 181.975 Axial†	57.0	15.9	20.810	ug/L	20.810	ppb	03:30:36
1	Sb 206.836†	38.1	3.6	1.2383	ug/L	1.2383	ppb	03:30:36
1	Se 196.026†	-25.8	-3.3	-1.8748	ug/L	-1.8748	ppb	03:30:36
1	Si 251.611†	751.4	163.3	5.0805	ug/L	5.0805	ppb	03:30:36
1	Sn 189.927†	11.8	-0.5	-0.0803	ug/L	-0.0803	ppb	03:30:36
1	Ti 334.940†	-1315.7	134.8	0.2187	ug/L	0.2187	ppb	03:30:16
1	Tl 190.801†	-31.1	7.0	2.2158	ug/L	2.2158	ppb	03:30:36
1	U 409.014†	-3193.9	218.4	6.2022	ug/L	6.2022	ppb	03:30:16
1	V 292.402†	-1533.0	95.0	0.7051	ug/L	0.7051	ppb	03:30:16
1	Zn 213.857†	804.9	143.0	1.3905	ug/L	1.3905	ppb	03:30:36
1	SiO2†	766.6	171.8	11.436	ug/L	11.436	ppb	03:31:32
2	Sc Radial	4034.8	4034.8	94.9	%			03:29:44
2	Y RADIAL	4269.2	4269.2	96.98	%			03:29:24
2	Al 396.153Radial†	-121.8	30.7	30.584	ug/L	30.584	ppb	03:29:24
2	Ca 317.933Radial†	35.4	18.9	35.313	ug/L	35.313	ppb	03:29:44
2	Fe 238.204 Radial†	10.4	0.9	9.4646	ug/L	9.4646	ppb	03:29:44
2	K 766.490 Radial†	3018.9	9.0	1.8431	ug/L	1.8431	ppb	03:29:24
2	Mg 279.077 IEC†	2.1	-0.5	-20.250	ug/L	-20.250	ppb	03:29:44
2	Na 589.592 Radial†	-147.4	-362.3	-120.86	ug/L	-120.86	ppb	03:29:24
2	Sr 421.552†	58.3	-28.4	-0.2195	ug/L	-0.2195	ppb	03:29:24
2	Sc 361.383	825709.2	825709.2	97.141	%			03:30:42
2	Y 371.029	669492.8	669492.8	95.271	%			03:30:42
2	Ag 328.068†	278.3	58.9	0.2771	ug/L	0.2771	ppb	03:30:42
2	As 188.979†	-34.4	-7.1	-2.9730	ug/L	-2.9730	ppb	03:31:02
2	B 249.677†	-289.7	183.7	4.3199	ug/L	4.3199	ppb	03:31:02
2	Ba 233.527†	23.5	5.4	0.0426	ug/L	0.0426	ppb	03:31:02
2	Be 313.107†	-4179.2	36.9	0.0140	ug/L	0.0140	ppb	03:30:42
2	Cd 226.502†	-207.6	-18.2	-0.2123	ug/L	-0.2123	ppb	03:31:02
2	Co 228.616†	-81.4	-4.9	-0.0985	ug/L	-0.0985	ppb	03:31:02
2	Cr 267.716†	105.0	-41.6	-0.4875	ug/L	-0.4875	ppb	03:31:02
2	Cu 324.752†	8514.8	671.3	2.0519	ug/L	2.0519	ppb	03:30:42
2	Mn 257.610†	992.5	451.9	0.5230	ug/L	0.5230	ppb	03:31:02
2	Mo 202.031†	36.5	27.1	2.0157	ug/L	2.0157	ppb	03:31:02
2	Ni 231.604†	109.7	-0.5	-0.0138	ug/L	-0.0138	ppb	03:31:02

2	P 214.914†	228.0	-7.3	-4.4536 ug/L	-4.4536 ppb	03:31:02
2	Pb 220.353†	-75.6	-4.3	-0.5199 ug/L	-0.5199 ppb	03:31:02
2	S 181.975 Axial†	58.9	17.7	23.163 ug/L	23.163 ppb	03:31:02
2	Sb 206.836†	42.5	8.1	2.8048 ug/L	2.8048 ppb	03:31:02
2	Se 196.026†	-29.3	-6.8	-3.9217 ug/L	-3.9217 ppb	03:31:02
2	Si 251.611†	683.5	91.3	2.8217 ug/L	2.8217 ppb	03:31:02
2	Sn 189.927†	20.7	8.7	1.5697 ug/L	1.5697 ppb	03:31:02
2	Ti 334.940†	-1342.0	111.4	0.1846 ug/L	0.1846 ppb	03:30:42
2	Tl 190.801†	-36.4	1.6	0.5067 ug/L	0.5067 ppb	03:31:02
2	U 409.014†	-3182.3	239.2	6.7958 ug/L	6.7958 ppb	03:30:42
2	V 292.402†	-1716.5	-89.7	-0.6103 ug/L	-0.6103 ppb	03:30:42
2	Zn 213.857†	798.8	134.6	1.3093 ug/L	1.3093 ppb	03:31:02
2	SiO2†	726.0	127.9	8.4718 ug/L	8.4718 ppb	03:31:37
3	Sc Radial	4024.1	4024.1	94.7 %		03:30:10
3	Y RADIAL	4241.2	4241.2	96.34 %		03:29:50
3	Al 396.153Radial†	-141.0	10.1	10.086 ug/L	10.086 ppb	03:29:50
3	Ca 317.933Radial†	42.6	26.7	49.751 ug/L	49.751 ppb	03:30:10
3	Fe 238.204 Radial†	13.2	3.9	40.985 ug/L	40.985 ppb	03:30:10
3	K 766.490 Radial†	2907.4	-100.3	-20.229 ug/L	-20.229 ppb	03:29:50
3	Mg 279.077 IEC†	0.5	-2.2	-84.462 ug/L	-84.462 ppb	03:30:10
3	Na 589.592 Radial†	-55.7	-265.9	-88.696 ug/L	-88.696 ppb	03:29:50
3	Sr 421.552†	61.6	-24.7	-0.1912 ug/L	-0.1912 ppb	03:29:50
3	Sc 361.383	829211.3	829211.3	97.553 %		03:31:07
3	Y 371.029	671228.1	671228.1	95.517 %		03:31:07
3	Ag 328.068†	241.7	20.1	0.1084 ug/L	0.1084 ppb	03:31:07
3	As 188.979†	-33.0	-5.5	-2.3084 ug/L	-2.3084 ppb	03:31:27
3	B 249.677†	-307.3	166.9	3.9202 ug/L	3.9202 ppb	03:31:27
3	Ba 233.527†	20.5	2.2	0.0201 ug/L	0.0201 ppb	03:31:27
3	Be 313.107†	-3969.5	270.0	0.1036 ug/L	0.1036 ppb	03:31:07
3	Cd 226.502†	-204.4	-14.0	-0.1678 ug/L	-0.1678 ppb	03:31:27
3	Co 228.616†	-69.2	7.9	0.1613 ug/L	0.1613 ppb	03:31:27
3	Cr 267.716†	149.0	3.0	0.0350 ug/L	0.0350 ppb	03:31:27
3	Cu 324.752†	8561.3	682.0	2.0881 ug/L	2.0881 ppb	03:31:07
3	Mn 257.610†	991.1	446.2	0.5222 ug/L	0.5222 ppb	03:31:27
3	Mo 202.031†	14.0	3.8	0.2898 ug/L	0.2898 ppb	03:31:27
3	Ni 231.604†	84.4	-27.0	-0.6913 ug/L	-0.6913 ppb	03:31:27
3	P 214.914†	242.2	6.3	3.0438 ug/L	3.0438 ppb	03:31:27
3	Pb 220.353†	-72.8	-1.1	-0.1350 ug/L	-0.1350 ppb	03:31:27
3	S 181.975 Axial†	54.0	12.4	16.236 ug/L	16.236 ppb	03:31:27
3	Sb 206.836†	29.2	-5.8	-1.9542 ug/L	-1.9542 ppb	03:31:27
3	Se 196.026†	-23.3	-0.5	-0.1782 ug/L	-0.1782 ppb	03:31:27
3	Si 251.611†	703.0	108.3	3.3711 ug/L	3.3711 ppb	03:31:27
3	Sn 189.927†	10.8	-1.6	-0.2762 ug/L	-0.2762 ppb	03:31:27
3	Ti 334.940†	-300.8	1184.6	1.9372 ug/L	1.9372 ppb	03:31:07
3	Tl 190.801†	-32.4	5.9	1.8699 ug/L	1.8699 ppb	03:31:27
3	U 409.014†	-3299.4	133.1	3.7750 ug/L	3.7750 ppb	03:31:07
3	V 292.402†	-1567.8	70.2	0.5102 ug/L	0.5102 ppb	03:31:07
3	Zn 213.857†	783.4	115.3	1.1207 ug/L	1.1207 ppb	03:31:27
3	SiO2†	746.2	145.4	9.6835 ug/L	9.6835 ppb	03:31:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826139.3	97.192	%	0.3390				0.35%
Sc Radial	4031.9	94.8	%	0.16				0.17%
Y 371.029	668960.5	95.195	%	0.3665				0.38%
Y RADIAL	4239.1	96.29	%	0.708				0.73%
Ag 328.068†	48.7	0.2376	ug/L	0.11459	0.2376	ppb	0.11459	48.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.8	19.722	ug/L	10.3041	19.722	ppb	10.3041	52.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.2	-2.1792	ug/L	0.86573	-2.1792	ppb	0.86573	39.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	182.9	4.2976	ug/L	0.36671	4.2976	ppb	0.36671	8.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.0650	ug/L	0.05938	0.0650	ppb	0.05938	91.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.7	0.0424	ug/L	0.05297	0.0424	ppb	0.05297	124.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.9	39.042	ug/L	9.4156	39.042	ppb	9.4156	24.12%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -15.6     -0.1837 ug/L       0.02484     -0.1837 ppb        0.02484  13.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.0      0.1458 ug/L       0.23693      0.1458 ppb        0.23693 162.46%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.2     -0.1788 ug/L       0.27390     -0.1788 ppb        0.27390 153.21%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              683.1      2.0898 ug/L       0.03878      2.0898 ppb        0.03878   1.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.3     24.614 ug/L       15.7957     24.614 ppb        15.7957  64.17%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -65.8    -13.252 ug/L       13.0855    -13.252 ppb        13.0855  98.74%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.7    -26.474 ug/L       55.1400    -26.474 ppb        55.1400 208.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              475.9      0.5524 ug/L       0.05166      0.5524 ppb        0.05166   9.35%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               13.0      0.9671 ug/L       0.92094      0.9671 ppb        0.92094  95.23%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -319.8    -106.66 ug/L        16.409    -106.66 ppb         16.409  15.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -10.9     -0.2803 ug/L       0.36116     -0.2803 ppb        0.36116 128.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.5     -0.1327 ug/L       3.87750     -0.1327 ppb        3.87750 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.7     -0.2046 ug/L       0.28696     -0.2046 ppb        0.28696 140.28%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          15.4     20.070 ug/L        3.5222     20.070 ppb         3.5222  17.55%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.0      0.6963 ug/L       2.42535      0.6963 ppb        2.42535 348.34%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.6     -1.9916 ug/L       1.87449     -1.9916 ppb        1.87449  94.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              121.0      3.7578 ug/L       1.17802      3.7578 ppb        1.17802  31.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.2      0.4044 ug/L       1.01393      0.4044 ppb        1.01393 250.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               11.1      0.0858 ug/L       0.50447      0.0858 ppb        0.50447 588.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              476.9      0.7802 ug/L       1.00219      0.7802 ppb        1.00219 128.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.8      1.5308 ug/L       0.90362      1.5308 ppb        0.90362  59.03%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               196.9      5.5910 ug/L       1.60047      5.5910 ppb        1.60047  28.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                25.2      0.2017 ug/L       0.70989      0.2017 ppb        0.70989 351.98%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              131.0      1.2735 ug/L       0.13845      1.2735 ppb        0.13845  10.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    148.3      9.8638 ug/L       1.49032      9.8638 ppb        1.49032  15.11%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 95
Sample ID: 245806002|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 110
Date Collected: 2/17/2010 03:33:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806002|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4195.2	4195.2	98.7	%			03:36:07
1	Y RADIAL	5172.4	5172.4	117.5	%			03:35:47
1	Al 396.153Radial†	45387.6	46149.0	46167	ug/L	46167	ppb	03:35:47
1	Ca 317.933Radial†	11663.0	11799.5	22011	ug/L	22011	ppb	03:35:47
1	Fe 238.204 Radial†	8339.0	8439.6	89694	ug/L	89694	ppb	03:35:47
1	K 766.490 Radial†	34896.0	32187.5	6489.2	ug/L	6489.2	ppb	03:35:47
1	Mg 279.077 IEC†	244.6	245.1	9373.6	ug/L	9373.6	ppb	03:36:07
1	Na 589.592 Radial†	2033.2	1853.1	618.12	ug/L	618.12	ppb	03:35:47
1	Sr 421.552†	20803.3	20989.5	161.90	ug/L	161.90	ppb	03:35:47
1	Sc 361.383	854811.0	854811.0	100.56	%			03:37:05
1	Y 371.029	812734.8	812734.8	115.65	%			03:37:05
1	Ag 328.068†	-4833.7	-5034.2	6.0143	ug/L	6.0143	ppb	03:37:10
1	As 188.979†	-21.5	6.9	38.370	ug/L	38.370	ppb	03:37:30
1	B 249.677†	1659.2	2131.8	35.516	ug/L	35.516	ppb	03:37:10
1	Ba 233.527†	66046.6	65656.7	536.12	ug/L	536.12	ppb	03:37:10
1	Be 313.107†	11343.8	15619.2	9.5232	ug/L	9.5232	ppb	03:37:10
1	Cd 226.502†	541.7	734.2	-0.5639	ug/L	-0.5639	ppb	03:37:30
1	Co 228.616†	1104.8	1177.5	19.984	ug/L	19.984	ppb	03:37:30
1	Cr 267.716†	9514.2	9311.0	110.10	ug/L	110.10	ppb	03:37:10
1	Cu 324.752†	244782.3	235313.0	725.00	ug/L	725.00	ppb	03:37:10
1	Mn 257.610†	1577654.4	1568221.5	1817.2	ug/L	1817.2	ppb	03:37:05
1	Mo 202.031†	67.8	57.0	11.460	ug/L	11.460	ppb	03:37:30
1	Ni 231.604†	2751.9	2622.9	67.169	ug/L	67.169	ppb	03:37:30
1	P 214.914†	1658.6	1407.3	576.98	ug/L	576.98	ppb	03:37:30
1	Pb 220.353†	1711.6	1775.5	221.25	ug/L	221.25	ppb	03:37:30
1	S 181.975 Axial†	320.9	276.2	352.37	ug/L	352.37	ppb	03:37:30
1	Sb 206.836†	77.7	41.6	6.7728	ug/L	6.7728	ppb	03:37:30
1	Se 196.026†	-427.5	-401.7	56.186	ug/L	56.186	ppb	03:37:30
1	Si 251.611†	803726.8	798599.2	24886	ug/L	24886	ppb	03:37:05
1	Sn 189.927†	-6.0	-18.5	1.5296	ug/L	1.5296	ppb	03:37:30
1	Ti 334.940†	1030379.4	1026083.7	1669.7	ug/L	1669.7	ppb	03:37:05
1	Tl 190.801†	-113.0	-73.3	-0.9922	ug/L	-0.9922	ppb	03:37:30
1	U 409.014†	9574.3	13035.7	359.84	ug/L	359.84	ppb	03:37:05
1	V 292.402†	15788.4	17377.0	111.94	ug/L	111.94	ppb	03:37:10
1	Zn 213.857†	34772.8	33889.7	315.93	ug/L	315.93	ppb	03:37:10
1	SiO2†	806534.4	801383.8	53431	ug/L	53431	ppb	03:38:39
2	Sc Radial	4109.1	4109.1	96.7	%			03:36:33
2	Y RADIAL	5077.9	5077.9	115.3	%			03:36:13
2	Al 396.153Radial†	46209.1	47962.5	47981	ug/L	47981	ppb	03:36:13
2	Ca 317.933Radial†	11883.3	12275.0	22897	ug/L	22897	ppb	03:36:13
2	Fe 238.204 Radial†	8498.8	8782.0	93332	ug/L	93332	ppb	03:36:13
2	K 766.490 Radial†	35444.5	33495.8	6753.0	ug/L	6753.0	ppb	03:36:13
2	Mg 279.077 IEC†	243.6	249.2	9528.8	ug/L	9528.8	ppb	03:36:33
2	Na 589.592 Radial†	2017.7	1880.2	627.18	ug/L	627.18	ppb	03:36:13
2	Sr 421.552†	20962.0	21595.4	166.57	ug/L	166.57	ppb	03:36:13
2	Sc 361.383	850591.4	850591.4	100.07	%			03:37:36
2	Y 371.029	809251.6	809251.6	115.16	%			03:37:36
2	Ag 328.068†	-4664.6	-4889.1	7.9224	ug/L	7.9224	ppb	03:37:41
2	As 188.979†	-15.7	12.6	41.639	ug/L	41.639	ppb	03:38:01
2	B 249.677†	1714.2	2194.9	36.409	ug/L	36.409	ppb	03:37:41
2	Ba 233.527†	65290.3	65226.7	532.73	ug/L	532.73	ppb	03:37:41
2	Be 313.107†	11152.1	15483.5	9.4778	ug/L	9.4778	ppb	03:37:41
2	Cd 226.502†	550.5	745.6	-0.8064	ug/L	-0.8064	ppb	03:38:01
2	Co 228.616†	1120.6	1198.7	20.367	ug/L	20.367	ppb	03:38:01
2	Cr 267.716†	9450.0	9293.8	109.97	ug/L	109.97	ppb	03:37:41
2	Cu 324.752†	242379.3	234119.2	721.54	ug/L	721.54	ppb	03:37:41
2	Mn 257.610†	1568969.7	1567325.3	1816.6	ug/L	1816.6	ppb	03:37:36
2	Mo 202.031†	56.7	46.2	10.952	ug/L	10.952	ppb	03:38:01
2	Ni 231.604†	2739.7	2624.3	67.204	ug/L	67.204	ppb	03:38:01

2	P 214.914†	1665.9	1422.8	583.79	ug/L	583.79 ppb	03:38:01
2	Pb 220.353†	1734.5	1806.9	225.19	ug/L	225.19 ppb	03:38:01
2	S 181.975 Axial†	320.9	277.7	353.99	ug/L	353.99 ppb	03:38:01
2	Sb 206.836†	68.2	32.5	3.5162	ug/L	3.5162 ppb	03:38:01
2	Se 196.026†	-421.3	-397.7	70.305	ug/L	70.305 ppb	03:38:01
2	Si 251.611†	800607.9	799447.2	24913	ug/L	24913 ppb	03:37:36
2	Sn 189.927†	-24.5	-37.1	-1.6041	ug/L	-1.6041 ppb	03:38:01
2	Ti 334.940†	1026498.3	1027288.1	1671.8	ug/L	1671.8 ppb	03:37:36
2	Tl 190.801†	-113.1	-73.9	-1.1637	ug/L	-1.1637 ppb	03:38:01
2	U 409.014†	9565.4	13074.0	360.51	ug/L	360.51 ppb	03:37:36
2	V 292.402†	15568.1	17234.7	110.37	ug/L	110.37 ppb	03:37:41
2	Zn 213.857†	34401.9	33690.6	313.45	ug/L	313.45 ppb	03:37:41
2	SiO2†	808768.7	807595.3	53845	ug/L	53845 ppb	03:38:45
3	Sc Radial	4162.3	4162.3	97.9	%		03:36:58
3	Y RADIAL	5194.3	5194.3	118.0	%		03:36:38
3	Al 396.153Radial†	46027.1	47165.8	47184	ug/L	47184 ppb	03:36:38
3	Ca 317.933Radial†	11803.6	12036.5	22453	ug/L	22453 ppb	03:36:38
3	Fe 238.204 Radial†	8434.6	8604.0	91441	ug/L	91441 ppb	03:36:38
3	K 766.490 Radial†	35397.3	32979.1	6648.9	ug/L	6648.9 ppb	03:36:38
3	Mg 279.077 IEC†	244.9	247.4	9458.4	ug/L	9458.4 ppb	03:36:58
3	Na 589.592 Radial†	2072.7	1909.7	637.00	ug/L	637.00 ppb	03:36:38
3	Sr 421.552†	21007.8	21365.1	164.80	ug/L	164.80 ppb	03:36:38
3	Sc 361.383	852197.2	852197.2	100.26	%		03:38:07
3	Y 371.029	811654.6	811654.6	115.50	%		03:38:07
3	Ag 328.068†	-4849.7	-5064.9	6.4475	ug/L	6.4475 ppb	03:38:12
3	As 188.979†	-15.5	12.9	41.285	ug/L	41.285 ppb	03:38:32
3	B 249.677†	1756.3	2233.7	37.629	ug/L	37.629 ppb	03:38:12
3	Ba 233.527†	66114.0	65925.4	538.35	ug/L	538.35 ppb	03:38:12
3	Be 313.107†	11374.6	15684.5	9.5509	ug/L	9.5509 ppb	03:38:12
3	Cd 226.502†	531.0	725.1	-0.8489	ug/L	-0.8489 ppb	03:38:32
3	Co 228.616†	1125.4	1201.3	20.453	ug/L	20.453 ppb	03:38:32
3	Cr 267.716†	9494.4	9320.3	110.24	ug/L	110.24 ppb	03:38:12
3	Cu 324.752†	245378.8	236654.5	729.20	ug/L	729.20 ppb	03:38:12
3	Mn 257.610†	1573216.5	1568606.9	1817.8	ug/L	1817.8 ppb	03:38:07
3	Mo 202.031†	66.7	56.1	11.535	ug/L	11.535 ppb	03:38:32
3	Ni 231.604†	2757.9	2637.3	67.538	ug/L	67.538 ppb	03:38:32
3	P 214.914†	1671.0	1424.8	584.69	ug/L	584.69 ppb	03:38:32
3	Pb 220.353†	1735.0	1804.1	224.85	ug/L	224.85 ppb	03:38:32
3	S 181.975 Axial†	315.4	271.6	346.17	ug/L	346.17 ppb	03:38:32
3	Sb 206.836†	73.3	37.4	5.2531	ug/L	5.2531 ppb	03:38:32
3	Se 196.026†	-417.7	-393.3	66.770	ug/L	66.770 ppb	03:38:32
3	Si 251.611†	802006.6	799334.8	24909	ug/L	24909 ppb	03:38:07
3	Sn 189.927†	-22.0	-34.5	-1.2438	ug/L	-1.2438 ppb	03:38:32
3	Ti 334.940†	1028247.6	1027100.0	1671.4	ug/L	1671.4 ppb	03:38:07
3	Tl 190.801†	-123.0	-83.6	-4.2241	ug/L	-4.2241 ppb	03:38:32
3	U 409.014†	9777.8	13267.9	366.24	ug/L	366.24 ppb	03:38:07
3	V 292.402†	15815.0	17451.7	112.24	ug/L	112.24 ppb	03:38:12
3	Zn 213.857†	34836.6	34059.4	317.32	ug/L	317.32 ppb	03:38:12
3	SiO2†	801857.6	799178.9	53284	ug/L	53284 ppb	03:38:51

Mean Data: 245806002|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852533.2	100.30	%	0.251				0.25%
Sc Radial	4155.6	97.8	%	1.02				1.05%
Y 371.029	811213.7	115.44	%	0.254				0.22%
Y RADIAL	5148.2	116.9	%	1.40				1.20%
Ag 328.068†	-4996.1	6.7947	ug/L	1.00032	6.7947	ppb	1.00032	14.72%
Al 396.153Radial†	47092.4	47111	ug/L	909.3	47111	ppb	909.3	1.93%
As 188.979†	10.8	40.431	ug/L	1.7940	40.431	ppb	1.7940	4.44%
B 249.677†	2186.8	36.518	ug/L	1.0607	36.518	ppb	1.0607	2.90%
Ba 233.527†	65602.9	535.74	ug/L	2.829	535.74	ppb	2.829	0.53%
Be 313.107†	15595.8	9.5173	ug/L	0.03692	9.5173	ppb	0.03692	0.39%
Ca 317.933Radial†	12037.0	22454	ug/L	443.5	22454	ppb	443.5	1.98%
Cd 226.502†	735.0	-0.7397	ug/L	0.15375	-0.7397	ppb	0.15375	20.79%
Co 228.616†	1192.5	20.268	ug/L	0.2498	20.268	ppb	0.2498	1.23%
Cr 267.716†	9308.4	110.10	ug/L	0.136	110.10	ppb	0.136	0.12%
Cu 324.752†	235362.3	725.25	ug/L	3.835	725.25	ppb	3.835	0.53%
Fe 238.204 Radial†	8608.6	91489	ug/L	1819.8	91489	ppb	1819.8	1.99%
K 766.490 Radial†	32887.4	6630.4	ug/L	132.87	6630.4	ppb	132.87	2.00%

Mg 279.077 IEC†	247.2	9453.6	ug/L	77.72	9453.6	ppb	77.72	0.82%
Mn 257.610†	1568051.2	1817.2	ug/L	0.65	1817.2	ppb	0.65	0.04%
Mo 202.031†	53.1	11.316	ug/L	0.3170	11.316	ppb	0.3170	2.80%
Na 589.592 Radial†	1881.0	627.43	ug/L	9.445	627.43	ppb	9.445	1.51%
Ni 231.604†	2628.2	67.304	ug/L	0.2038	67.304	ppb	0.2038	0.30%
P 214.914†	1418.3	581.82	ug/L	4.216	581.82	ppb	4.216	0.72%
Pb 220.353†	1795.5	223.76	ug/L	2.185	223.76	ppb	2.185	0.98%
S 181.975 Axial†	275.2	350.84	ug/L	4.125	350.84	ppb	4.125	1.18%
Sb 206.836†	37.2	5.1807	ug/L	1.62951	5.1807	ppb	1.62951	31.45%
Se 196.026†	-397.6	64.420	ug/L	7.3468	64.420	ppb	7.3468	11.40%
Si 251.611†	799127.0	24903	ug/L	14.4	24903	ppb	14.4	0.06%
Sn 189.927†	-30.1	-0.4394	ug/L	1.71474	-0.4394	ppb	1.71474	390.22%
Sr 421.552†	21316.7	164.42	ug/L	2.358	164.42	ppb	2.358	1.43%
Ti 334.940†	1026823.9	1671.0	ug/L	1.10	1671.0	ppb	1.10	0.07%
Tl 190.801†	-76.9	-2.1266	ug/L	1.81844	-2.1266	ppb	1.81844	85.51%
U 409.014†	13125.9	362.20	ug/L	3.515	362.20	ppb	3.515	0.97%
V 292.402†	17354.5	111.52	ug/L	1.003	111.52	ppb	1.003	0.90%
Zn 213.857†	33879.9	315.57	ug/L	1.961	315.57	ppb	1.961	0.62%
SiO2†	802719.3	53520	ug/L	291.0	53520	ppb	291.0	0.54%

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Sequence No.: 96
Sample ID: 245806003|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 111
Date Collected: 2/17/2010 03:41:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806003|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4131.5	4131.5	97.2	%			03:43:16
1	Y RADIAL	4923.6	4923.6	111.8	%			03:42:56
1	Al 396.153Radial†	27536.9	28491.8	28503	ug/L	28503	ppb	03:42:56
1	Ca 317.933Radial†	6416.3	6583.5	12281	ug/L	12281	ppb	03:42:56
1	Fe 238.204 Radial†	7331.4	7533.3	80062	ug/L	80062	ppb	03:42:56
1	K 766.490 Radial†	26775.9	24378.2	4916.0	ug/L	4916.0	ppb	03:42:56
1	Mg 279.077 IEC†	153.4	155.1	5905.8	ug/L	5905.8	ppb	03:43:16
1	Na 589.592 Radial†	1881.7	1729.0	576.72	ug/L	576.72	ppb	03:42:56
1	Sr 421.552†	10167.9	10372.0	79.994	ug/L	79.994	ppb	03:42:56
1	Sc 361.383	831830.3	831830.3	97.861	%			03:44:13
1	Y 371.029	752847.0	752847.0	107.13	%			03:44:13
1	Ag 328.068†	-3342.1	-3642.8	8.6768	ug/L	8.6768	ppb	03:44:19
1	As 188.979†	-36.1	-8.6	31.112	ug/L	31.112	ppb	03:44:39
1	B 249.677†	738.5	1236.5	15.925	ug/L	15.925	ppb	03:44:19
1	Ba 233.527†	75579.8	77212.6	629.61	ug/L	629.61	ppb	03:44:19
1	Be 313.107†	111663.6	118442.9	47.695	ug/L	47.695	ppb	03:44:19
1	Cd 226.502†	668.9	879.0	2.3150	ug/L	2.3150	ppb	03:44:39
1	Co 228.616†	2621.2	2757.3	52.757	ug/L	52.757	ppb	03:44:39
1	Cr 267.716†	5045.0	5005.6	59.396	ug/L	59.396	ppb	03:44:39
1	Cu 324.752†	3327022.2	3391635.5	10388	ug/L	10388	ppb	03:44:13
1	Mn 257.610†	1715522.7	1752443.3	2028.9	ug/L	2028.9	ppb	03:44:13
1	Mo 202.031†	31.7	22.0	7.9938	ug/L	7.9938	ppb	03:44:39
1	Ni 231.604†	2344.9	2282.7	58.434	ug/L	58.434	ppb	03:44:39
1	P 214.914†	5034.0	4902.0	600.26	ug/L	600.26	ppb	03:44:19
1	Pb 220.353†	14144.4	14527.0	1792.3	ug/L	1792.3	ppb	03:44:19
1	S 181.975 Axial†	466.9	434.2	562.12	ug/L	562.12	ppb	03:44:39
1	Sb 206.836†	202.7	171.4	51.007	ug/L	51.007	ppb	03:44:39
1	Se 196.026†	-381.7	-366.7	44.995	ug/L	44.995	ppb	03:44:39
1	Si 251.611†	587129.3	599347.9	18677	ug/L	18677	ppb	03:44:13
1	Sn 189.927†	141.1	131.6	26.810	ug/L	26.810	ppb	03:44:39
1	Ti 334.940†	1109808.3	1135554.5	1846.2	ug/L	1846.2	ppb	03:44:13
1	Tl 190.801†	-122.4	-86.0	-2.6137	ug/L	-2.6137	ppb	03:44:39
1	U 409.014†	44056.4	48534.4	1369.5	ug/L	1369.5	ppb	03:44:13
1	V 292.402†	12843.2	14801.2	96.342	ug/L	96.342	ppb	03:44:19
1	Zn 213.857†	58917.5	59517.4	554.48	ug/L	554.48	ppb	03:44:19
1	SiO2†	583089.6	595212.7	39685	ug/L	39685	ppb	03:45:47
2	Sc Radial	4103.9	4103.9	96.5	%			03:43:41
2	Y RADIAL	4819.1	4819.1	109.5	%			03:43:21
2	Al 396.153Radial†	27045.8	28173.3	28184	ug/L	28184	ppb	03:43:21
2	Ca 317.933Radial†	6307.3	6514.9	12153	ug/L	12153	ppb	03:43:21
2	Fe 238.204 Radial†	7216.7	7465.1	79338	ug/L	79338	ppb	03:43:21
2	K 766.490 Radial†	26263.7	24032.6	4846.3	ug/L	4846.3	ppb	03:43:21
2	Mg 279.077 IEC†	149.1	151.7	5776.1	ug/L	5776.1	ppb	03:43:41
2	Na 589.592 Radial†	1840.9	1699.8	566.97	ug/L	566.97	ppb	03:43:21
2	Sr 421.552†	9882.1	10146.2	78.251	ug/L	78.251	ppb	03:43:21
2	Sc 361.383	840513.0	840513.0	98.883	%			03:44:45
2	Y 371.029	760537.7	760537.7	108.23	%			03:44:45
2	Ag 328.068†	-3556.7	-3824.5	7.5821	ug/L	7.5821	ppb	03:44:50
2	As 188.979†	-17.4	10.7	38.755	ug/L	38.755	ppb	03:45:10
2	B 249.677†	803.4	1294.4	17.407	ug/L	17.407	ppb	03:44:50
2	Ba 233.527†	76367.5	77211.4	629.58	ug/L	629.58	ppb	03:44:50
2	Be 313.107†	112957.1	118572.4	47.658	ug/L	47.658	ppb	03:44:50
2	Cd 226.502†	655.8	858.7	2.1482	ug/L	2.1482	ppb	03:45:10
2	Co 228.616†	2588.8	2696.9	51.585	ug/L	51.585	ppb	03:45:10
2	Cr 267.716†	5015.9	4922.9	58.429	ug/L	58.429	ppb	03:45:10
2	Cu 324.752†	3294759.8	3323888.7	10180	ug/L	10180	ppb	03:44:45
2	Mn 257.610†	1699245.8	1717873.6	1989.0	ug/L	1989.0	ppb	03:44:45
2	Mo 202.031†	28.1	18.0	7.6409	ug/L	7.6409	ppb	03:45:10
2	Ni 231.604†	2356.9	2270.0	58.110	ug/L	58.110	ppb	03:45:10

2	P 214.914†	5084.1	4899.6	640.57 ug/L	640.57 ppb	03:44:50
2	Pb 220.353†	14350.4	14586.1	1799.7 ug/L	1799.7 ppb	03:44:50
2	S 181.975 Axial†	458.5	420.8	544.66 ug/L	544.66 ppb	03:45:10
2	Sb 206.836†	188.9	155.3	45.655 ug/L	45.655 ppb	03:45:10
2	Se 196.026†	-365.6	-346.4	54.485 ug/L	54.485 ppb	03:45:10
2	Si 251.611†	581481.9	587439.0	18306 ug/L	18306 ppb	03:44:45
2	Sn 189.927†	126.6	115.4	23.870 ug/L	23.870 ppb	03:45:10
2	Ti 334.940†	1098680.0	1112585.4	1808.8 ug/L	1808.8 ppb	03:44:45
2	Tl 190.801†	-120.1	-82.4	-1.9752 ug/L	-1.9752 ppb	03:45:10
2	U 409.014†	43751.8	47761.2	1347.6 ug/L	1347.6 ppb	03:44:45
2	V 292.402†	13066.7	14891.6	97.094 ug/L	97.094 ppb	03:44:50
2	Zn 213.857†	59587.8	59573.2	555.41 ug/L	555.41 ppb	03:44:50
2	SiO2†	589393.2	595432.5	39699 ug/L	39699 ppb	03:45:52
3	Sc Radial	3863.1	3863.1	90.9 %		03:44:06
3	Y RADIAL	4829.3	4829.3	109.7 %		03:43:46
3	Al 396.153Radial†	27225.7	30118.2	30130 ug/L	30130 ppb	03:43:46
3	Ca 317.933Radial†	6344.5	6963.2	12989 ug/L	12989 ppb	03:43:46
3	Fe 238.204 Radial†	7297.1	8019.7	85232 ug/L	85232 ppb	03:43:46
3	K 766.490 Radial†	26525.7	26017.2	5246.6 ug/L	5246.6 ppb	03:43:46
3	Mg 279.077 IEC†	155.4	168.2	6409.0 ug/L	6409.0 ppb	03:44:06
3	Na 589.592 Radial†	1840.6	1818.3	606.51 ug/L	606.51 ppb	03:43:46
3	Sr 421.552†	9875.8	10777.4	83.119 ug/L	83.119 ppb	03:43:46
3	Sc 361.383	847111.3	847111.3	99.659 %		03:45:16
3	Y 371.029	764705.7	764705.7	108.82 %		03:45:16
3	Ag 328.068†	-3329.2	-3568.3	10.796 ug/L	10.796 ppb	03:45:21
3	As 188.979†	-22.1	6.1	38.132 ug/L	38.132 ppb	03:45:41
3	B 249.677†	665.9	1150.1	13.056 ug/L	13.056 ppb	03:45:21
3	Ba 233.527†	76060.2	76301.5	622.37 ug/L	622.37 ppb	03:45:21
3	Be 313.107†	112479.2	117203.1	47.137 ug/L	47.137 ppb	03:45:21
3	Cd 226.502†	678.4	876.2	1.7421 ug/L	1.7421 ppb	03:45:41
3	Co 228.616†	2604.5	2692.2	51.414 ug/L	51.414 ppb	03:45:41
3	Cr 267.716†	5021.9	4889.4	58.157 ug/L	58.157 ppb	03:45:41
3	Cu 324.752†	3306761.6	3309978.0	10138 ug/L	10138 ppb	03:45:16
3	Mn 257.610†	1704288.2	1709547.8	1979.9 ug/L	1979.9 ppb	03:45:16
3	Mo 202.031†	16.8	6.4	7.2461 ug/L	7.2461 ppb	03:45:41
3	Ni 231.604†	2369.1	2263.7	57.948 ug/L	57.948 ppb	03:45:41
3	P 214.914†	5104.8	4880.3	634.08 ug/L	634.08 ppb	03:45:21
3	Pb 220.353†	14271.5	14393.8	1775.8 ug/L	1775.8 ppb	03:45:21
3	S 181.975 Axial†	465.8	424.5	549.13 ug/L	549.13 ppb	03:45:41
3	Sb 206.836†	189.0	154.0	45.112 ug/L	45.112 ppb	03:45:41
3	Se 196.026†	-365.9	-343.9	75.019 ug/L	75.019 ppb	03:45:41
3	Si 251.611†	583655.6	585039.6	18231 ug/L	18231 ppb	03:45:16
3	Sn 189.927†	133.6	121.5	25.186 ug/L	25.186 ppb	03:45:41
3	Ti 334.940†	1102604.6	1107868.9	1801.2 ug/L	1801.2 ppb	03:45:16
3	Tl 190.801†	-124.5	-85.8	-3.1646 ug/L	-3.1646 ppb	03:45:41
3	U 409.014†	43684.3	47348.9	1335.2 ug/L	1335.2 ppb	03:45:16
3	V 292.402†	13012.5	14734.3	95.082 ug/L	95.082 ppb	03:45:21
3	Zn 213.857†	59353.8	58869.1	547.72 ug/L	547.72 ppb	03:45:21
3	SiO2†	589058.8	590454.1	39367 ug/L	39367 ppb	03:45:58

Mean Data: 245806003|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	839818.2	98.801	%	0.9017				0.91%
Sc Radial	4032.8	94.9	%	3.47				3.66%
Y 371.029	759363.5	108.06	%	0.856				0.79%
Y RADIAL	4857.3	110.3	%	1.31				1.19%
Ag 328.068†	-3678.5	9.0183	ug/L	1.63396	9.0183	ppb	1.63396	18.12%
Al 396.153Radial†	28927.8	28939	ug/L	1043.6	28939	ppb	1043.6	3.61%
As 188.979†	2.7	36.000	ug/L	4.2442	36.000	ppb	4.2442	11.79%
B 249.677†	1227.0	15.463	ug/L	2.2120	15.463	ppb	2.2120	14.30%
Ba 233.527†	76908.5	627.19	ug/L	4.172	627.19	ppb	4.172	0.67%
Be 313.107†	118072.8	47.497	ug/L	0.3117	47.497	ppb	0.3117	0.66%
Ca 317.933Radial†	6687.2	12474	ug/L	450.4	12474	ppb	450.4	3.61%
Cd 226.502†	871.3	2.0684	ug/L	0.29466	2.0684	ppb	0.29466	14.25%
Co 228.616†	2715.5	51.919	ug/L	0.7313	51.919	ppb	0.7313	1.41%
Cr 267.716†	4939.3	58.661	ug/L	0.6511	58.661	ppb	0.6511	1.11%
Cu 324.752†	3341834.1	10235	ug/L	133.7	10235	ppb	133.7	1.31%
Fe 238.204 Radial†	7672.7	81544	ug/L	3214.4	81544	ppb	3214.4	3.94%
K 766.490 Radial†	24809.4	5003.0	ug/L	213.87	5003.0	ppb	213.87	4.27%

Mg 279.077 IEC†	158.3	6030.3	ug/L	334.34	6030.3	ppb	334.34	5.54%
Mn 257.610†	1726621.6	1999.3	ug/L	26.07	1999.3	ppb	26.07	1.30%
Mo 202.031†	15.5	7.6269	ug/L	0.37406	7.6269	ppb	0.37406	4.90%
Na 589.592 Radial†	1749.0	583.40	ug/L	20.597	583.40	ppb	20.597	3.53%
Ni 231.604†	2272.1	58.164	ug/L	0.2473	58.164	ppb	0.2473	0.43%
P 214.914†	4894.0	624.97	ug/L	21.643	624.97	ppb	21.643	3.46%
Pb 220.353†	14502.3	1789.2	ug/L	12.25	1789.2	ppb	12.25	0.68%
S 181.975 Axial†	426.5	551.97	ug/L	9.073	551.97	ppb	9.073	1.64%
Sb 206.836†	160.3	47.258	ug/L	3.2580	47.258	ppb	3.2580	6.89%
Se 196.026†	-352.3	58.166	ug/L	15.3468	58.166	ppb	15.3468	26.38%
Si 251.611†	590608.8	18405	ug/L	238.8	18405	ppb	238.8	1.30%
Sn 189.927†	122.8	25.288	ug/L	1.4726	25.288	ppb	1.4726	5.82%
Sr 421.552†	10431.9	80.455	ug/L	2.4664	80.455	ppb	2.4664	3.07%
Ti 334.940†	1118669.6	1818.8	ug/L	24.05	1818.8	ppb	24.05	1.32%
Tl 190.801†	-84.7	-2.5845	ug/L	0.59523	-2.5845	ppb	0.59523	23.03%
U 409.014†	47881.5	1350.8	ug/L	17.35	1350.8	ppb	17.35	1.28%
V 292.402†	14809.0	96.173	ug/L	1.0166	96.173	ppb	1.0166	1.06%
Zn 213.857†	59319.9	552.54	ug/L	4.199	552.54	ppb	4.199	0.76%
SiO2†	593699.8	39584	ug/L	187.5	39584	ppb	187.5	0.47%

Sequence No.: 97
Sample ID: 245806004|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 112
Date Collected: 2/17/2010 03:48:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806004|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4294.7	4294.7	101	%			03:50:05
1	Y RADIAL	4735.7	4735.7	107.6	%			03:50:05
1	Al 396.153Radial†	26916.4	26801.0	26811	ug/L	26811	ppb	03:50:05
1	Ca 317.933Radial†	6033.5	5953.6	11106	ug/L	11106	ppb	03:50:05
1	Fe 238.204 Radial†	5712.0	5643.6	59979	ug/L	59979	ppb	03:50:05
1	K 766.490 Radial†	18734.7	15372.0	3098.7	ug/L	3098.7	ppb	03:50:05
1	Mg 279.077 IEC†	181.0	176.5	6753.4	ug/L	6753.4	ppb	03:50:25
1	Na 589.592 Radial†	1444.9	1223.1	407.96	ug/L	407.96	ppb	03:50:05
1	Sr 421.552†	6168.3	6015.6	46.365	ug/L	46.365	ppb	03:50:05
1	Sc 361.383	847914.0	847914.0	99.754	%			03:51:25
1	Y 371.029	732874.1	732874.1	104.29	%			03:51:25
1	Ag 328.068†	1331.7	1107.3	22.731	ug/L	22.731	ppb	03:51:30
1	As 188.979†	1519.7	1551.8	680.55	ug/L	680.55	ppb	03:51:50
1	B 249.677†	614.5	1097.9	16.009	ug/L	16.009	ppb	03:51:30
1	Ba 233.527†	99814.0	100041.7	814.33	ug/L	814.33	ppb	03:51:30
1	Be 313.107†	232352.6	237265.8	90.703	ug/L	90.703	ppb	03:51:25
1	Cd 226.502†	621.7	818.7	4.1639	ug/L	4.1639	ppb	03:51:50
1	Co 228.616†	1281.2	1363.3	24.631	ug/L	24.631	ppb	03:51:50
1	Cr 267.716†	8371.8	8242.7	95.710	ug/L	95.710	ppb	03:51:30
1	Cu 324.752†	2040405.9	2037352.8	6238.9	ug/L	6238.9	ppb	03:51:25
1	Mn 257.610†	1096914.4	1099054.6	1273.3	ug/L	1273.3	ppb	03:51:25
1	Mo 202.031†	6.9	-3.5	4.5279	ug/L	4.5279	ppb	03:51:50
1	Ni 231.604†	3637.3	3532.8	90.472	ug/L	90.472	ppb	03:51:50
1	P 214.914†	4783.7	4553.5	1246.6	ug/L	1246.6	ppb	03:51:30
1	Pb 220.353†	3618213.5	3627226.0	449330	ug/L	449330	ppb	03:51:25
1	S 181.975 Axial†	286.3	244.1	313.99	ug/L	313.99	ppb	03:51:50
1	Sb 206.836†	6953.2	6934.7	2341.9	ug/L	2341.9	ppb	03:51:50
1	Se 196.026†	-310.5	-287.9	26.159	ug/L	26.159	ppb	03:51:50
1	Si 251.611†	473017.4	473573.7	14758	ug/L	14758	ppb	03:51:25
1	Sn 189.927†	375.6	363.9	67.953	ug/L	67.953	ppb	03:51:50
1	Ti 334.940†	959288.9	963151.7	1564.7	ug/L	1564.7	ppb	03:51:25
1	Tl 190.801†	-102.6	-63.7	-1.3678	ug/L	-1.3678	ppb	03:51:50
1	U 409.014†	127687.2	131517.9	3729.0	ug/L	3729.0	ppb	03:51:25
1	V 292.402†	10863.5	12567.7	87.874	ug/L	87.874	ppb	03:51:30
1	Zn 213.857†	119193.2	118799.9	1141.5	ug/L	1141.5	ppb	03:51:30
1	SiO2†	484695.7	485273.7	32355	ug/L	32355	ppb	03:53:01
2	Sc Radial	4296.2	4296.2	101	%			03:50:30
2	Y RADIAL	4725.2	4725.2	107.3	%			03:50:30
2	Al 396.153Radial†	27010.7	26884.7	26895	ug/L	26895	ppb	03:50:30
2	Ca 317.933Radial†	6014.2	5932.5	11066	ug/L	11066	ppb	03:50:30
2	Fe 238.204 Radial†	5725.6	5655.1	60101	ug/L	60101	ppb	03:50:30
2	K 766.490 Radial†	18780.4	15410.6	3106.5	ug/L	3106.5	ppb	03:50:30
2	Mg 279.077 IEC†	182.1	177.5	6791.3	ug/L	6791.3	ppb	03:50:50
2	Na 589.592 Radial†	1401.6	1179.7	393.50	ug/L	393.50	ppb	03:50:30
2	Sr 421.552†	6159.4	6004.6	46.281	ug/L	46.281	ppb	03:50:30
2	Sc 361.383	847625.1	847625.1	99.720	%			03:51:57
2	Y 371.029	731540.8	731540.8	104.10	%			03:51:57
2	Ag 328.068†	1366.3	1142.5	22.936	ug/L	22.936	ppb	03:52:03
2	As 188.979†	1505.5	1538.1	674.84	ug/L	674.84	ppb	03:52:23
2	B 249.677†	682.2	1166.0	17.592	ug/L	17.592	ppb	03:52:03
2	Ba 233.527†	99283.3	99543.7	810.29	ug/L	810.29	ppb	03:52:03
2	Be 313.107†	232345.4	237337.9	90.736	ug/L	90.736	ppb	03:51:57
2	Cd 226.502†	608.7	805.9	4.0035	ug/L	4.0035	ppb	03:52:23
2	Co 228.616†	1272.4	1354.9	24.447	ug/L	24.447	ppb	03:52:23
2	Cr 267.716†	8410.4	8284.4	96.193	ug/L	96.193	ppb	03:52:03
2	Cu 324.752†	2042473.8	2040123.6	6247.4	ug/L	6247.4	ppb	03:51:57
2	Mn 257.610†	1098751.5	1101271.7	1275.8	ug/L	1275.8	ppb	03:51:57
2	Mo 202.031†	10.9	0.4	4.8291	ug/L	4.8291	ppb	03:52:23
2	Ni 231.604†	3621.7	3518.3	90.102	ug/L	90.102	ppb	03:52:23

2	P 214.914†	4765.3	4536.7	1235.5	ug/L	1235.5	ppb	03:52:03
2	Pb 220.353†	3629868.1	3640149.7	450930	ug/L	450930	ppb	03:51:57
2	S 181.975 Axial†	285.6	243.5	313.23	ug/L	313.23	ppb	03:52:23
2	Sb 206.836†	6908.1	6891.9	2327.4	ug/L	2327.4	ppb	03:52:23
2	Se 196.026†	-304.4	-281.9	30.058	ug/L	30.058	ppb	03:52:23
2	Si 251.611†	473892.6	474613.0	14790	ug/L	14790	ppb	03:51:57
2	Sn 189.927†	373.2	361.6	67.536	ug/L	67.536	ppb	03:52:23
2	Ti 334.940†	960746.8	964941.6	1567.6	ug/L	1567.6	ppb	03:51:57
2	Tl 190.801†	-109.9	-71.1	-3.6470	ug/L	-3.6470	ppb	03:52:23
2	U 409.014†	128042.4	131917.6	3740.3	ug/L	3740.3	ppb	03:51:57
2	V 292.402†	10953.1	12661.2	88.557	ug/L	88.557	ppb	03:52:03
2	Zn 213.857†	118692.2	118338.2	1136.9	ug/L	1136.9	ppb	03:52:03
2	SiO2†	477465.7	478188.9	31882	ug/L	31882	ppb	03:53:07
3	Sc Radial	4257.0	4257.0	100	%			03:50:55
3	Y RADIAL	4680.2	4680.2	106.3	%			03:50:55
3	Al 396.153Radial†	26696.8	26817.3	26828	ug/L	26828	ppb	03:50:55
3	Ca 317.933Radial†	5978.5	5951.5	11102	ug/L	11102	ppb	03:50:55
3	Fe 238.204 Radial†	5634.9	5616.7	59693	ug/L	59693	ppb	03:50:55
3	K 766.490 Radial†	18556.1	15357.7	3095.8	ug/L	3095.8	ppb	03:50:55
3	Mg 279.077 IEC†	181.2	178.3	6822.4	ug/L	6822.4	ppb	03:51:15
3	Na 589.592 Radial†	1307.2	1098.3	366.35	ug/L	366.35	ppb	03:50:55
3	Sr 421.552†	6089.5	5990.9	46.175	ug/L	46.175	ppb	03:50:55
3	Sc 361.383	853589.5	853589.5	100.42	%			03:52:30
3	Y 371.029	737256.1	737256.1	104.91	%			03:52:30
3	Ag 328.068†	1432.5	1198.8	23.065	ug/L	23.065	ppb	03:52:36
3	As 188.979†	1540.7	1562.5	685.01	ug/L	685.01	ppb	03:52:56
3	B 249.677†	681.3	1160.4	17.525	ug/L	17.525	ppb	03:52:36
3	Ba 233.527†	99445.7	99009.7	805.94	ug/L	805.94	ppb	03:52:36
3	Be 313.107†	234002.6	237360.1	90.741	ug/L	90.741	ppb	03:52:30
3	Cd 226.502†	614.7	807.6	4.0651	ug/L	4.0651	ppb	03:52:56
3	Co 228.616†	1281.3	1354.8	24.452	ug/L	24.452	ppb	03:52:56
3	Cr 267.716†	8427.8	8242.7	95.700	ug/L	95.700	ppb	03:52:36
3	Cu 324.752†	2063052.3	2046303.9	6266.3	ug/L	6266.3	ppb	03:52:30
3	Mn 257.610†	1102892.4	1097696.1	1271.7	ug/L	1271.7	ppb	03:52:30
3	Mo 202.031†	8.8	-1.7	4.6422	ug/L	4.6422	ppb	03:52:56
3	Ni 231.604†	3661.8	3533.0	90.477	ug/L	90.477	ppb	03:52:56
3	P 214.914†	4822.2	4560.0	1245.0	ug/L	1245.0	ppb	03:52:36
3	Pb 220.353†	3633896.9	3618726.8	448270	ug/L	448270	ppb	03:52:30
3	S 181.975 Axial†	281.7	237.6	305.52	ug/L	305.52	ppb	03:52:56
3	Sb 206.836†	6979.1	6914.1	2334.9	ug/L	2334.9	ppb	03:52:56
3	Se 196.026†	-311.9	-287.2	25.656	ug/L	25.656	ppb	03:52:56
3	Si 251.611†	476587.8	473976.3	14770	ug/L	14770	ppb	03:52:30
3	Sn 189.927†	368.4	354.2	66.205	ug/L	66.205	ppb	03:52:56
3	Ti 334.940†	966543.5	963981.8	1566.0	ug/L	1566.0	ppb	03:52:30
3	Tl 190.801†	-122.6	-83.0	-7.4309	ug/L	-7.4309	ppb	03:52:56
3	U 409.014†	128886.2	131860.7	3738.8	ug/L	3738.8	ppb	03:52:30
3	V 292.402†	10906.5	12538.0	87.721	ug/L	87.721	ppb	03:52:36
3	Zn 213.857†	118881.6	117695.2	1130.7	ug/L	1130.7	ppb	03:52:36
3	SiO2†	475820.7	473205.1	31550	ug/L	31550	ppb	03:53:12

Mean Data: 245806004|948071|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849709.5	99.965	%	0.3957				0.40%
Sc Radial	4282.7	101	%	0.5				0.52%
Y 371.029	733890.4	104.43	%	0.426				0.41%
Y RADIAL	4713.7	107.1	%	0.67				0.63%
Ag 328.068†	1149.5	22.911	ug/L	0.1684	22.911	ppb	0.1684	0.73%
Al 396.153Radial†	26834.3	26845	ug/L	44.4	26845	ppb	44.4	0.17%
As 188.979†	1550.8	680.13	ug/L	5.102	680.13	ppb	5.102	0.75%
B 249.677†	1141.4	17.042	ug/L	0.8954	17.042	ppb	0.8954	5.25%
Ba 233.527†	99531.7	810.19	ug/L	4.195	810.19	ppb	4.195	0.52%
Be 313.107†	237321.3	90.727	ug/L	0.0206	90.727	ppb	0.0206	0.02%
Ca 317.933Radial†	5945.9	11091	ug/L	21.7	11091	ppb	21.7	0.20%
Cd 226.502†	810.7	4.0775	ug/L	0.08090	4.0775	ppb	0.08090	1.98%
Co 228.616†	1357.6	24.510	ug/L	0.1049	24.510	ppb	0.1049	0.43%
Cr 267.716†	8256.6	95.867	ug/L	0.2818	95.867	ppb	0.2818	0.29%
Cu 324.752†	2041260.1	6250.8	ug/L	14.02	6250.8	ppb	14.02	0.22%
Fe 238.204 Radial†	5638.5	59924	ug/L	209.5	59924	ppb	209.5	0.35%
K 766.490 Radial†	15380.1	3100.4	ug/L	5.53	3100.4	ppb	5.53	0.18%

Mg 279.077 IEC†	177.4	6789.0	ug/L	34.57	6789.0	ppb	34.57	0.51%
Mn 257.610†	1099340.8	1273.6	ug/L	2.10	1273.6	ppb	2.10	0.17%
Mo 202.031†	-1.6	4.6664	ug/L	0.15203	4.6664	ppb	0.15203	3.26%
Na 589.592 Radial†	1167.0	389.27	ug/L	21.128	389.27	ppb	21.128	5.43%
Ni 231.604†	3528.0	90.350	ug/L	0.2147	90.350	ppb	0.2147	0.24%
P 214.914†	4550.1	1242.4	ug/L	5.99	1242.4	ppb	5.99	0.48%
Pb 220.353†	3628700.8	449510	ug/L	1336.3	449510	ppb	1336.3	0.30%
S 181.975 Axial†	241.7	310.92	ug/L	4.687	310.92	ppb	4.687	1.51%
Sb 206.836†	6913.6	2334.7	ug/L	7.25	2334.7	ppb	7.25	0.31%
Se 196.026†	-285.7	27.291	ug/L	2.4094	27.291	ppb	2.4094	8.83%
Si 251.611†	474054.3	14773	ug/L	16.3	14773	ppb	16.3	0.11%
Sn 189.927†	359.9	67.231	ug/L	0.9129	67.231	ppb	0.9129	1.36%
Sr 421.552†	6003.7	46.274	ug/L	0.0956	46.274	ppb	0.0956	0.21%
Ti 334.940†	964025.0	1566.1	ug/L	1.45	1566.1	ppb	1.45	0.09%
Tl 190.801†	-72.6	-4.1486	ug/L	3.06250	-4.1486	ppb	3.06250	73.82%
U 409.014†	131765.4	3736.0	ug/L	6.15	3736.0	ppb	6.15	0.16%
V 292.402†	12589.0	88.051	ug/L	0.4450	88.051	ppb	0.4450	0.51%
Zn 213.857†	118277.8	1136.4	ug/L	5.41	1136.4	ppb	5.41	0.48%
SiO2†	478889.2	31929	ug/L	404.4	31929	ppb	404.4	1.27%

Sequence No.: 98
Sample ID: 245806005|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 113
Date Collected: 2/17/2010 03:55:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806005|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4326.6	4326.6	102	%			03:57:18
1	Y RADIAL	5676.1	5676.1	128.9	%			03:57:18
1	Al 396.153Radial†	16170.4	16046.5	16052	ug/L	16052	ppb	03:57:18
1	Ca 317.933Radial†	2990.1	2919.5	5446.0	ug/L	5446.0	ppb	03:57:38
1	Fe 238.204 Radial†	7911.6	7763.1	82505	ug/L	82505	ppb	03:57:18
1	K 766.490 Radial†	20341.9	16814.4	3390.6	ug/L	3390.6	ppb	03:57:18
1	Mg 279.077 IEC†	91.0	86.7	3263.7	ug/L	3263.7	ppb	03:57:38
1	Na 589.592 Radial†	4008.7	3731.5	1244.7	ug/L	1244.7	ppb	03:57:18
1	Sr 421.552†	5752.3	5561.8	42.904	ug/L	42.904	ppb	03:57:18
1	Sc 361.383	858968.0	858968.0	101.05	%			03:58:35
1	Y 371.029	885939.0	885939.0	126.07	%			03:58:35
1	Ag 328.068†	-4572.6	-4752.6	5.3890	ug/L	5.3890	ppb	03:58:41
1	As 188.979†	-35.0	-6.3	27.531	ug/L	27.531	ppb	03:59:01
1	B 249.677†	215.9	695.5	2.8168	ug/L	2.8168	ppb	03:58:41
1	Ba 233.527†	57867.5	57245.1	467.43	ug/L	467.43	ppb	03:58:41
1	Be 313.107†	-4732.5	-344.0	2.7235	ug/L	2.7235	ppb	03:58:41
1	Cd 226.502†	444.1	635.0	-1.0533	ug/L	-1.0533	ppb	03:59:01
1	Co 228.616†	2432.7	2486.2	48.161	ug/L	48.161	ppb	03:59:01
1	Cr 267.716†	19903.2	19545.9	229.18	ug/L	229.18	ppb	03:58:41
1	Cu 324.752†	20335.4	12029.2	41.348	ug/L	41.348	ppb	03:58:41
1	Mn 257.610†	2962436.1	2930967.6	3388.5	ug/L	3388.5	ppb	03:58:35
1	Mo 202.031†	90.1	78.7	12.319	ug/L	12.319	ppb	03:59:01
1	Ni 231.604†	6105.2	5928.1	151.81	ug/L	151.81	ppb	03:59:01
1	P 214.914†	941.1	689.3	312.70	ug/L	312.70	ppb	03:59:01
1	Pb 220.353†	847.9	912.6	108.69	ug/L	108.69	ppb	03:59:01
1	S 181.975 Axial†	134.0	89.7	114.21	ug/L	114.21	ppb	03:59:01
1	Sb 206.836†	55.1	18.9	1.2489	ug/L	1.2489	ppb	03:59:01
1	Se 196.026†	-380.3	-353.0	60.439	ug/L	60.439	ppb	03:59:01
1	Si 251.611†	488309.9	482604.4	15039	ug/L	15039	ppb	03:58:35
1	Sn 189.927†	2.5	-10.2	0.3919	ug/L	0.3919	ppb	03:59:01
1	Ti 334.940†	778961.0	772329.2	1255.8	ug/L	1255.8	ppb	03:58:35
1	Tl 190.801†	-134.0	-93.5	-3.2500	ug/L	-3.2500	ppb	03:59:01
1	U 409.014†	-13292.0	-9638.2	-283.71	ug/L	-283.71	ppb	03:58:35
1	V 292.402†	5458.9	7079.3	37.467	ug/L	37.467	ppb	03:58:41
1	Zn 213.857†	39346.6	38248.4	359.93	ug/L	359.93	ppb	03:58:41
1	SiO2†	484498.5	478825.5	31925	ug/L	31925	ppb	04:00:09
2	Sc Radial	4255.3	4255.3	100	%			03:57:43
2	Y RADIAL	5596.4	5596.4	127.1	%			03:57:43
2	Al 396.153Radial†	15816.8	15959.4	15965	ug/L	15965	ppb	03:57:43
2	Ca 317.933Radial†	2988.6	2967.1	5534.8	ug/L	5534.8	ppb	03:58:03
2	Fe 238.204 Radial†	7753.6	7735.5	82212	ug/L	82212	ppb	03:57:43
2	K 766.490 Radial†	20022.4	16830.0	3393.7	ug/L	3393.7	ppb	03:57:43
2	Mg 279.077 IEC†	93.6	90.8	3421.6	ug/L	3421.6	ppb	03:58:03
2	Na 589.592 Radial†	3820.8	3609.8	1204.1	ug/L	1204.1	ppb	03:57:43
2	Sr 421.552†	5532.1	5436.5	41.936	ug/L	41.936	ppb	03:57:43
2	Sc 361.383	855892.4	855892.4	100.69	%			03:59:06
2	Y 371.029	881555.9	881555.9	125.45	%			03:59:06
2	Ag 328.068†	-4469.8	-4666.7	5.6969	ug/L	5.6969	ppb	03:59:12
2	As 188.979†	-26.4	2.1	31.017	ug/L	31.017	ppb	03:59:32
2	B 249.677†	209.8	690.3	2.7409	ug/L	2.7409	ppb	03:59:12
2	Ba 233.527†	57505.3	57091.1	466.18	ug/L	466.18	ppb	03:59:12
2	Be 313.107†	-4614.6	-243.8	2.7630	ug/L	2.7630	ppb	03:59:12
2	Cd 226.502†	426.7	619.2	-1.2067	ug/L	-1.2067	ppb	03:59:32
2	Co 228.616†	2430.9	2493.1	48.303	ug/L	48.303	ppb	03:59:32
2	Cr 267.716†	19909.8	19623.3	230.08	ug/L	230.08	ppb	03:59:12
2	Cu 324.752†	20353.1	12119.1	41.606	ug/L	41.606	ppb	03:59:12
2	Mn 257.610†	2954188.3	2933310.9	3391.2	ug/L	3391.2	ppb	03:59:06
2	Mo 202.031†	75.5	64.5	11.242	ug/L	11.242	ppb	03:59:32
2	Ni 231.604†	6056.9	5901.7	151.14	ug/L	151.14	ppb	03:59:32

2	P 214.914†	937.0	688.6	312.42 ug/L	312.42 ppb	03:59:32
2	Pb 220.353†	689.1	758.0	89.545 ug/L	89.545 ppb	03:59:32
2	S 181.975 Axial†	132.2	88.4	112.49 ug/L	112.49 ppb	03:59:32
2	Sb 206.836†	51.8	15.8	0.1634 ug/L	0.1634 ppb	03:59:32
2	Se 196.026†	-386.1	-360.1	55.340 ug/L	55.340 ppb	03:59:32
2	Si 251.611†	486635.9	482678.3	15041 ug/L	15041 ppb	03:59:06
2	Sn 189.927†	-6.2	-18.7	-1.1373 ug/L	-1.1373 ppb	03:59:32
2	Ti 334.940†	776910.8	773063.1	1257.0 ug/L	1257.0 ppb	03:59:06
2	Tl 190.801†	-140.5	-100.5	-5.4337 ug/L	-5.4337 ppb	03:59:32
2	U 409.014†	-13103.8	-9498.6	-279.71 ug/L	-279.71 ppb	03:59:06
2	V 292.402†	5411.8	7051.9	37.306 ug/L	37.306 ppb	03:59:12
2	Zn 213.857†	39027.0	38071.0	358.25 ug/L	358.25 ppb	03:59:12
2	SiO2†	485157.4	481202.8	32083 ug/L	32083 ppb	04:00:14
3	Sc Radial	4359.6	4359.6	103 %		03:58:08
3	Y RADIAL	5689.8	5689.8	129.2 %		03:58:08
3	Al 396.153Radial†	16073.7	15831.8	15838 ug/L	15838 ppb	03:58:08
3	Ca 317.933Radial†	2973.6	2881.1	5374.3 ug/L	5374.3 ppb	03:58:28
3	Fe 238.204 Radial†	7897.6	7690.5	81733 ug/L	81733 ppb	03:58:08
3	K 766.490 Radial†	20290.7	16613.0	3350.0 ug/L	3350.0 ppb	03:58:08
3	Mg 279.077 IEC†	90.1	85.1	3202.3 ug/L	3202.3 ppb	03:58:28
3	Na 589.592 Radial†	3958.6	3652.7	1218.4 ug/L	1218.4 ppb	03:58:08
3	Sr 421.552†	5717.8	5485.3	42.314 ug/L	42.314 ppb	03:58:08
3	Sc 361.383	868556.4	868556.4	102.18 %		03:59:38
3	Y 371.029	895275.8	895275.8	127.40 %		03:59:38
3	Ag 328.068†	-4474.7	-4606.8	5.8218 ug/L	5.8218 ppb	03:59:43
3	As 188.979†	-32.4	-3.4	28.594 ug/L	28.594 ppb	04:00:03
3	B 249.677†	178.6	656.7	2.0300 ug/L	2.0300 ppb	03:59:43
3	Ba 233.527†	58433.3	57166.6	466.77 ug/L	466.77 ppb	03:59:43
3	Be 313.107†	-4843.5	-400.9	2.7054 ug/L	2.7054 ppb	03:59:43
3	Cd 226.502†	439.2	625.3	-1.0870 ug/L	-1.0870 ppb	04:00:03
3	Co 228.616†	2428.3	2455.3	47.522 ug/L	47.522 ppb	04:00:03
3	Cr 267.716†	20128.0	19548.5	229.19 ug/L	229.19 ppb	03:59:43
3	Cu 324.752†	20405.3	11875.5	40.833 ug/L	40.833 ppb	03:59:43
3	Mn 257.610†	2989876.0	2925458.8	3382.1 ug/L	3382.1 ppb	03:59:38
3	Mo 202.031†	71.7	59.7	10.847 ug/L	10.847 ppb	04:00:03
3	Ni 231.604†	6069.0	5825.9	149.20 ug/L	149.20 ppb	04:00:03
3	P 214.914†	954.1	691.8	314.72 ug/L	314.72 ppb	04:00:03
3	Pb 220.353†	660.2	719.7	84.818 ug/L	84.818 ppb	04:00:03
3	S 181.975 Axial†	121.3	75.8	96.155 ug/L	96.155 ppb	04:00:03
3	Sb 206.836†	60.3	23.3	2.7457 ug/L	2.7457 ppb	04:00:03
3	Se 196.026†	-400.8	-368.9	48.673 ug/L	48.673 ppb	04:00:03
3	Si 251.611†	493696.0	482541.1	15037 ug/L	15037 ppb	03:59:38
3	Sn 189.927†	3.8	-8.9	0.5916 ug/L	0.5916 ppb	04:00:03
3	Ti 334.940†	788441.6	773097.7	1257.0 ug/L	1257.0 ppb	03:59:38
3	Tl 190.801†	-129.7	-87.8	-1.4830 ug/L	-1.4830 ppb	04:00:03
3	U 409.014†	-13178.9	-9382.3	-276.35 ug/L	-276.35 ppb	03:59:38
3	V 292.402†	5464.5	7025.1	37.179 ug/L	37.179 ppb	03:59:43
3	Zn 213.857†	39716.4	38180.5	359.40 ug/L	359.40 ppb	03:59:43
3	SiO2†	490852.1	479750.7	31986 ug/L	31986 ppb	04:00:20

Mean Data: 245806005|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861138.9	101.31	%	0.777				0.77%
Sc Radial	4313.9	101	%	1.3				1.24%
Y 371.029	887590.2	126.31	%	0.997				0.79%
Y RADIAL	5654.1	128.4	%	1.15				0.89%
Ag 328.068†	-4675.4	5.6359	ug/L	0.22273	5.6359	ppb	0.22273	3.95%
Al 396.153Radial†	15945.9	15952	ug/L	108.0	15952	ppb	108.0	0.68%
As 188.979†	-2.5	29.047	ug/L	1.7863	29.047	ppb	1.7863	6.15%
B 249.677†	680.8	2.5293	ug/L	0.43404	2.5293	ppb	0.43404	17.16%
Ba 233.527†	57167.6	466.79	ug/L	0.630	466.79	ppb	0.630	0.13%
Be 313.107†	-329.6	2.7306	ug/L	0.02946	2.7306	ppb	0.02946	1.08%
Ca 317.933Radial†	2922.6	5451.7	ug/L	80.42	5451.7	ppb	80.42	1.48%
Cd 226.502†	626.5	-1.1157	ug/L	0.08064	-1.1157	ppb	0.08064	7.23%
Co 228.616†	2478.2	47.996	ug/L	0.4163	47.996	ppb	0.4163	0.87%
Cr 267.716†	19572.5	229.48	ug/L	0.512	229.48	ppb	0.512	0.22%
Cu 324.752†	12007.9	41.262	ug/L	0.3936	41.262	ppb	0.3936	0.95%
Fe 238.204 Radial†	7729.7	82150	ug/L	389.5	82150	ppb	389.5	0.47%
K 766.490 Radial†	16752.5	3378.1	ug/L	24.40	3378.1	ppb	24.40	0.72%

Mg 279.077 IEC†	87.6	3295.9	ug/L	113.11	3295.9	ppb	113.11	3.43%
Mn 257.610†	2929912.4	3387.3	ug/L	4.68	3387.3	ppb	4.68	0.14%
Mo 202.031†	67.7	11.470	ug/L	0.7618	11.470	ppb	0.7618	6.64%
Na 589.592 Radial†	3664.7	1222.4	ug/L	20.59	1222.4	ppb	20.59	1.68%
Ni 231.604†	5885.2	150.71	ug/L	1.358	150.71	ppb	1.358	0.90%
P 214.914†	689.9	313.28	ug/L	1.252	313.28	ppb	1.252	0.40%
Pb 220.353†	796.7	94.351	ug/L	12.6410	94.351	ppb	12.6410	13.40%
S 181.975 Axial†	84.6	107.62	ug/L	9.967	107.62	ppb	9.967	9.26%
Sb 206.836†	19.3	1.3860	ug/L	1.29659	1.3860	ppb	1.29659	93.55%
Se 196.026†	-360.7	54.817	ug/L	5.9002	54.817	ppb	5.9002	10.76%
Si 251.611†	482607.9	15039	ug/L	2.1	15039	ppb	2.1	0.01%
Sn 189.927†	-12.6	-0.0513	ug/L	0.94583	-0.0513	ppb	0.94583	>999.9%
Sr 421.552†	5494.6	42.384	ug/L	0.4878	42.384	ppb	0.4878	1.15%
Ti 334.940†	772830.0	1256.6	ug/L	0.70	1256.6	ppb	0.70	0.06%
Tl 190.801†	-93.9	-3.3889	ug/L	1.97903	-3.3889	ppb	1.97903	58.40%
U 409.014†	-9506.4	-279.92	ug/L	3.682	-279.92	ppb	3.682	1.32%
V 292.402†	7052.1	37.317	ug/L	0.1445	37.317	ppb	0.1445	0.39%
Zn 213.857†	38166.7	359.20	ug/L	0.861	359.20	ppb	0.861	0.24%
SiO2†	479926.3	31998	ug/L	79.9	31998	ppb	79.9	0.25%

Sequence No.: 99
Sample ID: 245806006|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 2/17/2010 04:02:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806006|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4174.2	4174.2	98.2	%			04:04:45
1	Y RADIAL	4866.9	4866.9	110.6	%			04:04:25
1	Al 396.153Radial†	22220.0	22787.0	22796	ug/L	22796	ppb	04:04:25
1	Ca 317.933Radial†	6422.5	6522.1	12166	ug/L	12166	ppb	04:04:25
1	Fe 238.204 Radial†	5727.4	5822.5	61880	ug/L	61880	ppb	04:04:25
1	K 766.490 Radial†	18055.7	15215.6	3066.7	ug/L	3066.7	ppb	04:04:25
1	Mg 279.077 IEC†	147.3	147.3	5623.3	ug/L	5623.3	ppb	04:04:45
1	Na 589.592 Radial†	1817.8	1644.1	548.41	ug/L	548.41	ppb	04:04:25
1	Sr 421.552†	7344.7	7389.7	56.967	ug/L	56.967	ppb	04:04:25
1	Sc 361.383	845832.5	845832.5	99.509	%			04:05:42
1	Y 371.029	753284.8	753284.8	107.19	%			04:05:42
1	Ag 328.068†	-1460.4	-1695.3	10.819	ug/L	10.819	ppb	04:05:42
1	As 188.979†	4.3	32.6	38.874	ug/L	38.874	ppb	04:06:02
1	B 249.677†	331.5	815.1	9.0202	ug/L	9.0202	ppb	04:05:42
1	Ba 233.527†	92876.2	93316.0	759.74	ug/L	759.74	ppb	04:05:42
1	Be 313.107†	923168.5	932065.8	345.15	ug/L	345.15	ppb	04:05:42
1	Cd 226.502†	479.9	677.7	2.0768	ug/L	2.0768	ppb	04:06:02
1	Co 228.616†	1711.2	1798.5	34.360	ug/L	34.360	ppb	04:06:02
1	Cr 267.716†	7459.8	7346.9	85.779	ug/L	85.779	ppb	04:05:42
1	Cu 324.752†	1298651.1	1296969.1	3972.8	ug/L	3972.8	ppb	04:05:42
1	Mn 257.610†	1107218.0	1112115.2	1288.6	ug/L	1288.6	ppb	04:05:42
1	Mo 202.031†	13.7	3.3	5.1923	ug/L	5.1923	ppb	04:06:02
1	Ni 231.604†	3168.8	3070.9	78.636	ug/L	78.636	ppb	04:06:02
1	P 214.914†	4348.4	4127.9	1457.8	ug/L	1457.8	ppb	04:06:02
1	Pb 220.353†	63811.7	64200.3	7949.8	ug/L	7949.8	ppb	04:05:42
1	S 181.975 Axial†	225.5	183.7	235.79	ug/L	235.79	ppb	04:06:02
1	Sb 206.836†	272.3	238.0	75.879	ug/L	75.879	ppb	04:06:02
1	Se 196.026†	-286.7	-264.8	45.665	ug/L	45.665	ppb	04:06:02
1	Si 251.611†	502373.1	504241.3	15713	ug/L	15713	ppb	04:05:42
1	Sn 189.927†	167.2	155.4	30.757	ug/L	30.757	ppb	04:06:02
1	Ti 334.940†	752132.0	757338.5	1230.9	ug/L	1230.9	ppb	04:05:42
1	Tl 190.801†	-106.7	-68.1	-5.4614	ug/L	-5.4614	ppb	04:06:02
1	U 409.014†	85175.9	89111.6	2524.2	ug/L	2524.2	ppb	04:05:42
1	V 292.402†	8597.7	10317.5	69.338	ug/L	69.338	ppb	04:05:42
1	Zn 213.857†	50253.2	49813.6	471.04	ug/L	471.04	ppb	04:05:42
1	SiO2†	509503.3	511399.5	34097	ug/L	34097	ppb	04:07:00
2	Sc Radial	4165.6	4165.6	98.0	%			04:05:10
2	Y RADIAL	4854.5	4854.5	110.3	%			04:04:50
2	Al 396.153Radial†	22061.2	22671.9	22681	ug/L	22681	ppb	04:04:50
2	Ca 317.933Radial†	6360.4	6472.3	12073	ug/L	12073	ppb	04:04:50
2	Fe 238.204 Radial†	5703.2	5810.0	61747	ug/L	61747	ppb	04:04:50
2	K 766.490 Radial†	18048.4	15246.3	3073.0	ug/L	3073.0	ppb	04:04:50
2	Mg 279.077 IEC†	144.4	144.6	5520.1	ug/L	5520.1	ppb	04:05:10
2	Na 589.592 Radial†	1683.3	1510.6	503.89	ug/L	503.89	ppb	04:04:50
2	Sr 421.552†	7200.7	7258.4	55.954	ug/L	55.954	ppb	04:04:50
2	Sc 361.383	841999.7	841999.7	99.058	%			04:06:08
2	Y 371.029	751401.5	751401.5	106.93	%			04:06:08
2	Ag 328.068†	-1322.7	-1562.9	11.409	ug/L	11.409	ppb	04:06:08
2	As 188.979†	-10.2	18.0	32.669	ug/L	32.669	ppb	04:06:28
2	B 249.677†	235.7	719.8	6.7982	ug/L	6.7982	ppb	04:06:08
2	Ba 233.527†	92579.7	93441.5	760.76	ug/L	760.76	ppb	04:06:08
2	Be 313.107†	919099.8	932181.4	345.19	ug/L	345.19	ppb	04:06:08
2	Cd 226.502†	475.4	675.4	2.0635	ug/L	2.0635	ppb	04:06:28
2	Co 228.616†	1740.3	1835.7	35.144	ug/L	35.144	ppb	04:06:28
2	Cr 267.716†	7373.4	7293.9	85.159	ug/L	85.159	ppb	04:06:08
2	Cu 324.752†	1288809.2	1292974.2	3960.6	ug/L	3960.6	ppb	04:06:08
2	Mn 257.610†	1100099.7	1109994.0	1286.1	ug/L	1286.1	ppb	04:06:08
2	Mo 202.031†	24.8	14.5	6.0166	ug/L	6.0166	ppb	04:06:28
2	Ni 231.604†	3183.8	3100.5	79.395	ug/L	79.395	ppb	04:06:28

2	P 214.914†	4315.6	4114.7	1453.0	ug/L	1453.0	ppb	04:06:28
2	Pb 220.353†	63498.3	64175.9	7946.8	ug/L	7946.8	ppb	04:06:08
2	S 181.975 Axial†	209.6	168.7	216.18	ug/L	216.18	ppb	04:06:28
2	Sb 206.836†	267.1	234.0	74.584	ug/L	74.584	ppb	04:06:28
2	Se 196.026†	-296.6	-276.1	38.649	ug/L	38.649	ppb	04:06:28
2	Si 251.611†	498870.0	503002.9	15675	ug/L	15675	ppb	04:06:08
2	Sn 189.927†	171.4	160.4	31.630	ug/L	31.630	ppb	04:06:28
2	Ti 334.940†	747672.3	756277.1	1229.2	ug/L	1229.2	ppb	04:06:08
2	Tl 190.801†	-93.1	-54.9	-1.3050	ug/L	-1.3050	ppb	04:06:28
2	U 409.014†	84802.8	89124.6	2524.5	ug/L	2524.5	ppb	04:06:08
2	V 292.402†	8476.3	10234.2	68.767	ug/L	68.767	ppb	04:06:08
2	Zn 213.857†	49982.6	49770.3	470.65	ug/L	470.65	ppb	04:06:08
2	SiO2†	505051.3	509235.8	33952	ug/L	33952	ppb	04:07:06
3	Sc Radial	4181.4	4181.4	98.4	%			04:05:35
3	Y RADIAL	4856.8	4856.8	110.3	%			04:05:15
3	Al 396.153Radial†	22255.6	22784.3	22793	ug/L	22793	ppb	04:05:15
3	Ca 317.933Radial†	6406.2	6494.2	12114	ug/L	12114	ppb	04:05:15
3	Fe 238.204 Radial†	5740.4	5825.7	61915	ug/L	61915	ppb	04:05:15
3	K 766.490 Radial†	18058.0	15186.4	3060.8	ug/L	3060.8	ppb	04:05:15
3	Mg 279.077 IEC†	144.1	143.8	5489.0	ug/L	5489.0	ppb	04:05:35
3	Na 589.592 Radial†	1798.8	1621.6	540.91	ug/L	540.91	ppb	04:05:15
3	Sr 421.552†	7282.6	7313.8	56.381	ug/L	56.381	ppb	04:05:15
3	Sc 361.383	852130.1	852130.1	100.25	%			04:06:34
3	Y 371.029	759958.8	759958.8	108.14	%			04:06:34
3	Ag 328.068†	-1457.5	-1681.5	10.904	ug/L	10.904	ppb	04:06:34
3	As 188.979†	9.2	37.5	40.938	ug/L	40.938	ppb	04:06:54
3	B 249.677†	336.2	817.3	9.0664	ug/L	9.0664	ppb	04:06:34
3	Ba 233.527†	93431.9	93180.4	758.64	ug/L	758.64	ppb	04:06:34
3	Be 313.107†	932078.8	934097.6	345.89	ug/L	345.89	ppb	04:06:34
3	Cd 226.502†	475.4	669.7	1.9775	ug/L	1.9775	ppb	04:06:54
3	Co 228.616†	1726.8	1801.4	34.425	ug/L	34.425	ppb	04:06:54
3	Cr 267.716†	7515.1	7346.7	85.781	ug/L	85.781	ppb	04:06:34
3	Cu 324.752†	1309330.0	1297976.5	3975.9	ug/L	3975.9	ppb	04:06:34
3	Mn 257.610†	1112684.2	1109344.5	1285.4	ug/L	1285.4	ppb	04:06:34
3	Mo 202.031†	19.1	8.6	5.5913	ug/L	5.5913	ppb	04:06:54
3	Ni 231.604†	3186.7	3065.2	78.490	ug/L	78.490	ppb	04:06:54
3	P 214.914†	4330.4	4077.6	1429.3	ug/L	1429.3	ppb	04:06:54
3	Pb 220.353†	64098.2	64012.2	7926.5	ug/L	7926.5	ppb	04:06:34
3	S 181.975 Axial†	223.7	180.3	231.31	ug/L	231.31	ppb	04:06:54
3	Sb 206.836†	266.1	229.8	73.126	ug/L	73.126	ppb	04:06:54
3	Se 196.026†	-293.1	-269.0	43.298	ug/L	43.298	ppb	04:06:54
3	Si 251.611†	504837.2	502968.1	15674	ug/L	15674	ppb	04:06:34
3	Sn 189.927†	166.8	153.8	30.461	ug/L	30.461	ppb	04:06:54
3	Ti 334.940†	756488.5	756098.2	1228.9	ug/L	1228.9	ppb	04:06:34
3	Tl 190.801†	-94.2	-54.9	-1.3061	ug/L	-1.3061	ppb	04:06:54
3	U 409.014†	85505.3	88807.6	2515.5	ug/L	2515.5	ppb	04:06:34
3	V 292.402†	8640.0	10295.8	69.164	ug/L	69.164	ppb	04:06:34
3	Zn 213.857†	50508.2	49694.8	469.87	ug/L	469.87	ppb	04:06:34
3	SiO2†	501173.4	499306.2	33290	ug/L	33290	ppb	04:07:11

Mean Data: 245806006|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846654.1	99.605	%	0.6017				0.60%
Sc Radial	4173.8	98.2	%	0.19				0.19%
Y 371.029	754881.7	107.42	%	0.640				0.60%
Y RADIAL	4859.4	110.4	%	0.15				0.14%
Ag 328.068†	-1646.6	11.044	ug/L	0.3185	11.044	ppb	0.3185	2.88%
Al 396.153Radial†	22747.7	22757	ug/L	65.7	22757	ppb	65.7	0.29%
As 188.979†	29.4	37.494	ug/L	4.3039	37.494	ppb	4.3039	11.48%
B 249.677†	784.1	8.2949	ug/L	1.29642	8.2949	ppb	1.29642	15.63%
Ba 233.527†	93312.6	759.71	ug/L	1.057	759.71	ppb	1.057	0.14%
Be 313.107†	932781.6	345.41	ug/L	0.418	345.41	ppb	0.418	0.12%
Ca 317.933Radial†	6496.2	12118	ug/L	46.6	12118	ppb	46.6	0.38%
Cd 226.502†	674.3	2.0393	ug/L	0.05391	2.0393	ppb	0.05391	2.64%
Co 228.616†	1811.9	34.643	ug/L	0.4354	34.643	ppb	0.4354	1.26%
Cr 267.716†	7329.2	85.573	ug/L	0.3588	85.573	ppb	0.3588	0.42%
Cu 324.752†	1295973.3	3969.8	ug/L	8.11	3969.8	ppb	8.11	0.20%
Fe 238.204 Radial†	5819.4	61847	ug/L	88.4	61847	ppb	88.4	0.14%
K 766.490 Radial†	15216.1	3066.8	ug/L	6.07	3066.8	ppb	6.07	0.20%

Mg 279.077 IEC†	145.2	5544.2	ug/L	70.32	5544.2	ppb	70.32	1.27%
Mn 257.610†	1110484.6	1286.7	ug/L	1.67	1286.7	ppb	1.67	0.13%
Mo 202.031†	8.8	5.6001	ug/L	0.41222	5.6001	ppb	0.41222	7.36%
Na 589.592 Radial†	1592.1	531.07	ug/L	23.835	531.07	ppb	23.835	4.49%
Ni 231.604†	3078.9	78.840	ug/L	0.4857	78.840	ppb	0.4857	0.62%
P 214.914†	4106.7	1446.7	ug/L	15.27	1446.7	ppb	15.27	1.06%
Pb 220.353†	64129.4	7941.0	ug/L	12.68	7941.0	ppb	12.68	0.16%
S 181.975 Axial†	177.5	227.76	ug/L	10.274	227.76	ppb	10.274	4.51%
Sb 206.836†	233.9	74.529	ug/L	1.3773	74.529	ppb	1.3773	1.85%
Se 196.026†	-270.0	42.537	ug/L	3.5694	42.537	ppb	3.5694	8.39%
Si 251.611†	503404.1	15687	ug/L	22.6	15687	ppb	22.6	0.14%
Sn 189.927†	156.5	30.949	ug/L	0.6076	30.949	ppb	0.6076	1.96%
Sr 421.552†	7320.6	56.434	ug/L	0.5088	56.434	ppb	0.5088	0.90%
Ti 334.940†	756571.3	1229.7	ug/L	1.09	1229.7	ppb	1.09	0.09%
Tl 190.801†	-59.3	-2.6909	ug/L	2.39941	-2.6909	ppb	2.39941	89.17%
U 409.014†	89014.6	2521.4	ug/L	5.10	2521.4	ppb	5.10	0.20%
V 292.402†	10282.5	69.089	ug/L	0.2928	69.089	ppb	0.2928	0.42%
Zn 213.857†	49759.5	470.52	ug/L	0.595	470.52	ppb	0.595	0.13%
SiO2†	506647.2	33780	ug/L	430.0	33780	ppb	430.0	1.27%

Sequence No.: 100
Sample ID: 245806007|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 115
Date Collected: 2/17/2010 04:09:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806007|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4128.7	4128.7	97.1	%			04:11:37
1	Y RADIAL	4753.9	4753.9	108.0	%			04:11:17
1	Al 396.153Radial†	47416.7	48979.0	48998	ug/L	48998	ppb	04:11:17
1	Ca 317.933Radial†	12861.0	13223.3	24666	ug/L	24666	ppb	04:11:17
1	Fe 238.204 Radial†	7038.1	7236.4	76906	ug/L	76906	ppb	04:11:17
1	K 766.490 Radial†	50614.6	48940.8	9870.1	ug/L	9870.1	ppb	04:11:17
1	Mg 279.077 IEC†	272.4	277.8	10649	ug/L	10649	ppb	04:11:37
1	Na 589.592 Radial†	888.0	707.2	235.89	ug/L	235.89	ppb	04:11:17
1	Sr 421.552†	23886.1	24503.2	189.01	ug/L	189.01	ppb	04:11:17
1	Sc 361.383	851701.2	851701.2	100.20	%			04:12:34
1	Y 371.029	745231.5	745231.5	106.05	%			04:12:34
1	Ag 328.068†	-3753.7	-3973.9	6.9079	ug/L	6.9079	ppb	04:12:40
1	As 188.979†	-5.6	22.7	45.350	ug/L	45.350	ppb	04:13:00
1	B 249.677†	716.2	1196.7	15.545	ug/L	15.545	ppb	04:12:40
1	Ba 233.527†	93087.5	92883.7	756.85	ug/L	756.85	ppb	04:12:40
1	Be 313.107†	41301.4	45558.4	21.393	ug/L	21.393	ppb	04:12:40
1	Cd 226.502†	919.4	1113.1	5.1652	ug/L	5.1652	ppb	04:13:00
1	Co 228.616†	1952.7	2027.7	37.208	ug/L	37.208	ppb	04:13:00
1	Cr 267.716†	6010.3	5848.7	69.634	ug/L	69.634	ppb	04:13:00
1	Cu 324.752†	328866.4	320118.8	984.03	ug/L	984.03	ppb	04:12:40
1	Mn 257.610†	2178611.9	2173713.0	2514.3	ug/L	2514.3	ppb	04:12:34
1	Mo 202.031†	12.4	1.9	6.4084	ug/L	6.4084	ppb	04:13:00
1	Ni 231.604†	2482.5	2364.1	60.528	ug/L	60.528	ppb	04:13:00
1	P 214.914†	3126.0	2877.9	1352.2	ug/L	1352.2	ppb	04:13:00
1	Pb 220.353†	6174.7	6236.0	775.51	ug/L	775.51	ppb	04:13:00
1	S 181.975 Axial†	1265.8	1220.4	1585.8	ug/L	1585.8	ppb	04:13:00
1	Sb 206.836†	84.7	48.9	7.7368	ug/L	7.7368	ppb	04:13:00
1	Se 196.026†	-361.0	-336.9	52.851	ug/L	52.851	ppb	04:13:00
1	Si 251.611†	905739.1	903326.9	28150	ug/L	28150	ppb	04:12:34
1	Sn 189.927†	-96.1	-108.5	-14.412	ug/L	-14.412	ppb	04:13:00
1	Ti 334.940†	1263796.1	1262777.7	2054.7	ug/L	2054.7	ppb	04:12:34
1	Tl 190.801†	-137.0	-97.6	-2.2661	ug/L	-2.2661	ppb	04:13:00
1	U 409.014†	6205.1	9708.0	266.86	ug/L	266.86	ppb	04:12:40
1	V 292.402†	18418.7	20059.4	132.62	ug/L	132.62	ppb	04:12:40
1	Zn 213.857†	47835.2	47052.4	446.00	ug/L	446.00	ppb	04:12:40
1	SiO2†	899722.0	897314.6	59827	ug/L	59827	ppb	04:14:08
2	Sc Radial	4155.9	4155.9	97.8	%			04:12:02
2	Y RADIAL	4768.0	4768.0	108.3	%			04:11:42
2	Al 396.153Radial†	47081.1	48316.7	48336	ug/L	48336	ppb	04:11:42
2	Ca 317.933Radial†	12823.7	13098.7	24434	ug/L	24434	ppb	04:11:42
2	Fe 238.204 Radial†	6988.2	7138.0	75861	ug/L	75861	ppb	04:11:42
2	K 766.490 Radial†	50401.1	48382.1	9757.4	ug/L	9757.4	ppb	04:11:42
2	Mg 279.077 IEC†	278.8	282.4	10828	ug/L	10828	ppb	04:12:02
2	Na 589.592 Radial†	850.5	662.9	221.12	ug/L	221.12	ppb	04:11:42
2	Sr 421.552†	23581.0	24030.4	185.36	ug/L	185.36	ppb	04:11:42
2	Sc 361.383	847505.0	847505.0	99.705	%			04:13:05
2	Y 371.029	743443.2	743443.2	105.79	%			04:13:05
2	Ag 328.068†	-3722.6	-3961.3	6.6208	ug/L	6.6208	ppb	04:13:11
2	As 188.979†	-17.8	10.5	39.881	ug/L	39.881	ppb	04:13:31
2	B 249.677†	759.6	1243.8	16.821	ug/L	16.821	ppb	04:13:11
2	Ba 233.527†	92872.3	93127.9	758.80	ug/L	758.80	ppb	04:13:11
2	Be 313.107†	41331.6	45792.9	21.462	ug/L	21.462	ppb	04:13:11
2	Cd 226.502†	931.0	1129.3	5.4635	ug/L	5.4635	ppb	04:13:31
2	Co 228.616†	1955.2	2039.8	37.492	ug/L	37.492	ppb	04:13:31
2	Cr 267.716†	6064.8	5933.0	70.596	ug/L	70.596	ppb	04:13:31
2	Cu 324.752†	329721.1	322601.1	991.57	ug/L	991.57	ppb	04:13:11
2	Mn 257.610†	2158184.8	2163991.0	2503.0	ug/L	2503.0	ppb	04:13:05
2	Mo 202.031†	9.7	-0.8	6.1236	ug/L	6.1236	ppb	04:13:31
2	Ni 231.604†	2482.3	2376.1	60.835	ug/L	60.835	ppb	04:13:31

2	P 214.914†	3127.3	2894.6	1360.7	ug/L	1360.7 ppb	04:13:31
2	Pb 220.353†	6202.0	6293.9	782.64	ug/L	782.64 ppb	04:13:31
2	S 181.975 Axial†	1260.2	1221.0	1586.7	ug/L	1586.7 ppb	04:13:31
2	Sb 206.836†	98.1	62.7	12.429	ug/L	12.429 ppb	04:13:31
2	Se 196.026†	-357.6	-335.3	50.396	ug/L	50.396 ppb	04:13:31
2	Si 251.611†	896383.0	898418.9	27997	ug/L	27997 ppb	04:13:05
2	Sn 189.927†	-113.5	-126.4	-17.677	ug/L	-17.677 ppb	04:13:31
2	Ti 334.940†	1252849.5	1258043.8	2047.0	ug/L	2047.0 ppb	04:13:05
2	Tl 190.801†	-143.9	-105.3	-4.7911	ug/L	-4.7911 ppb	04:13:31
2	U 409.014†	6327.4	9861.2	271.33	ug/L	271.33 ppb	04:13:11
2	V 292.402†	18517.1	20249.1	134.17	ug/L	134.17 ppb	04:13:11
2	Zn 213.857†	47845.3	47298.8	448.55	ug/L	448.55 ppb	04:13:11
2	SiO2†	905969.3	908026.3	60541	ug/L	60541 ppb	04:14:14
3	Sc Radial	4120.3	4120.3	96.9	%		04:12:27
3	Y RADIAL	4741.4	4741.4	107.7	%		04:12:07
3	Al 396.153Radial†	47930.8	49609.2	49629	ug/L	49629 ppb	04:12:07
3	Ca 317.933Radial†	13043.9	13439.1	25069	ug/L	25069 ppb	04:12:07
3	Fe 238.204 Radial†	7126.2	7342.1	78030	ug/L	78030 ppb	04:12:07
3	K 766.490 Radial†	51271.6	49725.3	10028	ug/L	10028 ppb	04:12:07
3	Mg 279.077 IEC†	271.2	277.1	10620	ug/L	10620 ppb	04:12:27
3	Na 589.592 Radial†	934.9	757.5	252.67	ug/L	252.67 ppb	04:12:07
3	Sr 421.552†	24048.1	24720.6	190.69	ug/L	190.69 ppb	04:12:07
3	Sc 361.383	858241.4	858241.4	100.97	%		04:13:37
3	Y 371.029	752271.8	752271.8	107.05	%		04:13:37
3	Ag 328.068†	-3719.9	-3911.9	7.5751	ug/L	7.5751 ppb	04:13:42
3	As 188.979†	-16.9	11.5	40.842	ug/L	40.842 ppb	04:14:02
3	B 249.677†	732.7	1207.6	15.618	ug/L	15.618 ppb	04:13:42
3	Ba 233.527†	92728.1	91819.8	748.24	ug/L	748.24 ppb	04:13:42
3	Be 313.107†	41288.2	45231.2	21.253	ug/L	21.253 ppb	04:13:42
3	Cd 226.502†	943.3	1129.8	5.2447	ug/L	5.2447 ppb	04:14:02
3	Co 228.616†	1971.7	2031.7	37.289	ug/L	37.289 ppb	04:14:02
3	Cr 267.716†	6010.0	5802.7	69.120	ug/L	69.120 ppb	04:14:02
3	Cu 324.752†	328730.6	317483.2	976.02	ug/L	976.02 ppb	04:13:42
3	Mn 257.610†	2185019.9	2163490.6	2502.6	ug/L	2502.6 ppb	04:13:37
3	Mo 202.031†	9.4	-1.2	6.2670	ug/L	6.2670 ppb	04:14:02
3	Ni 231.604†	2487.1	2349.7	60.161	ug/L	60.161 ppb	04:14:02
3	P 214.914†	3130.7	2858.7	1342.4	ug/L	1342.4 ppb	04:14:02
3	Pb 220.353†	6248.5	6262.1	778.79	ug/L	778.79 ppb	04:14:02
3	S 181.975 Axial†	1278.4	1223.3	1589.5	ug/L	1589.5 ppb	04:14:02
3	Sb 206.836†	101.6	65.0	13.155	ug/L	13.155 ppb	04:14:02
3	Se 196.026†	-364.6	-337.8	55.999	ug/L	55.999 ppb	04:14:02
3	Si 251.611†	908832.6	899502.4	28031	ug/L	28031 ppb	04:13:37
3	Sn 189.927†	-107.6	-119.2	-16.253	ug/L	-16.253 ppb	04:14:02
3	Ti 334.940†	1268045.7	1257374.9	2046.0	ug/L	2046.0 ppb	04:13:37
3	Tl 190.801†	-134.6	-94.2	-1.3122	ug/L	-1.3122 ppb	04:14:02
3	U 409.014†	6354.0	9808.2	269.58	ug/L	269.58 ppb	04:13:42
3	V 292.402†	18488.3	19988.2	131.96	ug/L	131.96 ppb	04:13:42
3	Zn 213.857†	47739.9	46594.2	441.38	ug/L	441.38 ppb	04:13:42
3	SiO2†	899231.4	889986.1	59338	ug/L	59338 ppb	04:14:20

Mean Data: 245806007|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852482.5	100.29	%	0.637				0.63%
Sc Radial	4135.0	97.3	%	0.44				0.45%
Y 371.029	746982.2	106.30	%	0.664				0.62%
Y RADIAL	4754.4	108.0	%	0.30				0.28%
Ag 328.068†	-3949.1	7.0346	ug/L	0.48960	7.0346	ppb	0.48960	6.96%
Al 396.153Radial†	48968.3	48987	ug/L	646.6	48987	ppb	646.6	1.32%
As 188.979†	14.9	42.024	ug/L	2.9198	42.024	ppb	2.9198	6.95%
B 249.677†	1216.0	15.995	ug/L	0.7169	15.995	ppb	0.7169	4.48%
Ba 233.527†	92610.4	754.63	ug/L	5.618	754.63	ppb	5.618	0.74%
Be 313.107†	45527.5	21.370	ug/L	0.1064	21.370	ppb	0.1064	0.50%
Ca 317.933Radial†	13253.7	24723	ug/L	321.3	24723	ppb	321.3	1.30%
Cd 226.502†	1124.0	5.2912	ug/L	0.15447	5.2912	ppb	0.15447	2.92%
Co 228.616†	2033.1	37.329	ug/L	0.1462	37.329	ppb	0.1462	0.39%
Cr 267.716†	5861.5	69.783	ug/L	0.7492	69.783	ppb	0.7492	1.07%
Cu 324.752†	320067.7	983.87	ug/L	7.778	983.87	ppb	7.778	0.79%
Fe 238.204 Radial†	7238.8	76932	ug/L	1084.7	76932	ppb	1084.7	1.41%
K 766.490 Radial†	49016.1	9885.3	ug/L	136.10	9885.3	ppb	136.10	1.38%

Mg 279.077 IEC†	279.1	10699	ug/L	113.0	10699	ppb	113.0	1.06%
Mn 257.610†	2167064.9	2506.6	ug/L	6.64	2506.6	ppb	6.64	0.26%
Mo 202.031†	0.0	6.2663	ug/L	0.14241	6.2663	ppb	0.14241	2.27%
Na 589.592 Radial†	709.2	236.56	ug/L	15.786	236.56	ppb	15.786	6.67%
Ni 231.604†	2363.3	60.508	ug/L	0.3377	60.508	ppb	0.3377	0.56%
P 214.914†	2877.0	1351.8	ug/L	9.12	1351.8	ppb	9.12	0.67%
Pb 220.353†	6264.0	778.98	ug/L	3.569	778.98	ppb	3.569	0.46%
S 181.975 Axial†	1221.5	1587.3	ug/L	1.89	1587.3	ppb	1.89	0.12%
Sb 206.836†	58.8	11.107	ug/L	2.9413	11.107	ppb	2.9413	26.48%
Se 196.026†	-336.7	53.082	ug/L	2.8088	53.082	ppb	2.8088	5.29%
Si 251.611†	900416.1	28059	ug/L	80.3	28059	ppb	80.3	0.29%
Sn 189.927†	-118.0	-16.114	ug/L	1.6367	-16.114	ppb	1.6367	10.16%
Sr 421.552†	24418.1	188.35	ug/L	2.722	188.35	ppb	2.722	1.45%
Ti 334.940†	1259398.8	2049.2	ug/L	4.78	2049.2	ppb	4.78	0.23%
Tl 190.801†	-99.0	-2.7898	ug/L	1.79763	-2.7898	ppb	1.79763	64.44%
U 409.014†	9792.5	269.25	ug/L	2.253	269.25	ppb	2.253	0.84%
V 292.402†	20098.9	132.91	ug/L	1.134	132.91	ppb	1.134	0.85%
Zn 213.857†	46981.8	445.31	ug/L	3.638	445.31	ppb	3.638	0.82%
SiO2†	898442.3	59902	ug/L	604.9	59902	ppb	604.9	1.01%

Sequence No.: 101
Sample ID: 245806008|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 116
Date Collected: 2/17/2010 04:16:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806008|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4276.6	4276.6	101	%			04:18:26
1	Y RADIAL	5283.3	5283.3	120.0	%			04:18:26
1	Al 396.153Radial†	18094.5	18144.6	18152	ug/L	18152	ppb	04:18:26
1	Ca 317.933Radial†	4013.8	3971.3	7407.9	ug/L	7407.9	ppb	04:18:26
1	Fe 238.204 Radial†	8104.5	8045.7	85510	ug/L	85510	ppb	04:18:26
1	K 766.490 Radial†	22005.5	18701.4	3771.3	ug/L	3771.3	ppb	04:18:26
1	Mg 279.077 IEC†	94.1	90.8	3417.4	ug/L	3417.4	ppb	04:18:46
1	Na 589.592 Radial†	4376.5	4143.0	1382.0	ug/L	1382.0	ppb	04:18:26
1	Sr 421.552†	8033.6	7895.4	60.908	ug/L	60.908	ppb	04:18:26
1	Sc 361.383	846233.3	846233.3	99.556	%			04:19:43
1	Y 371.029	821736.0	821736.0	116.94	%			04:19:43
1	Ag 328.068†	-4719.2	-4967.9	5.3884	ug/L	5.3884	ppb	04:19:48
1	As 188.979†	-42.9	-14.7	29.627	ug/L	29.627	ppb	04:20:08
1	B 249.677†	640.2	1124.9	12.172	ug/L	12.172	ppb	04:19:48
1	Ba 233.527†	35640.7	35780.9	293.28	ug/L	293.28	ppb	04:19:48
1	Be 313.107†	-11719.5	-7432.6	1.4128	ug/L	1.4128	ppb	04:19:48
1	Cd 226.502†	461.5	659.0	-1.1130	ug/L	-1.1130	ppb	04:20:08
1	Co 228.616†	6736.2	6845.1	137.77	ug/L	137.77	ppb	04:20:08
1	Cr 267.716†	13461.3	13371.7	157.42	ug/L	157.42	ppb	04:19:48
1	Cu 324.752†	22985.4	14993.8	50.571	ug/L	50.571	ppb	04:19:48
1	Mn 257.610†	1813521.5	1821042.8	2108.7	ug/L	2108.7	ppb	04:19:43
1	Mo 202.031†	59.7	49.5	10.403	ug/L	10.403	ppb	04:20:08
1	Ni 231.604†	3832.4	3736.0	95.608	ug/L	95.608	ppb	04:20:08
1	P 214.914†	1064.1	826.9	385.34	ug/L	385.34	ppb	04:20:08
1	Pb 220.353†	451.0	526.6	61.060	ug/L	61.060	ppb	04:20:08
1	S 181.975 Axial†	248.3	206.5	266.43	ug/L	266.43	ppb	04:20:08
1	Sb 206.836†	51.8	16.4	-1.5992	ug/L	-1.5992	ppb	04:20:08
1	Se 196.026†	-401.6	-380.1	54.381	ug/L	54.381	ppb	04:20:08
1	Si 251.611†	536703.8	538486.0	16781	ug/L	16781	ppb	04:19:43
1	Sn 189.927†	8.4	-4.2	1.8159	ug/L	1.8159	ppb	04:20:08
1	Ti 334.940†	1116275.6	1122748.8	1825.6	ug/L	1825.6	ppb	04:19:43
1	Tl 190.801†	-118.5	-79.9	-0.7874	ug/L	-0.7874	ppb	04:20:08
1	U 409.014†	-12251.9	-8791.4	-259.83	ug/L	-259.83	ppb	04:19:43
1	V 292.402†	7622.4	9333.7	52.800	ug/L	52.800	ppb	04:19:48
1	Zn 213.857†	34287.6	33752.9	315.95	ug/L	315.95	ppb	04:19:48
1	SiO2†	546792.7	548612.6	36578	ug/L	36578	ppb	04:21:16
2	Sc Radial	4299.9	4299.9	101	%			04:18:51
2	Y RADIAL	5314.6	5314.6	120.7	%			04:18:51
2	Al 396.153Radial†	18244.3	18195.4	18202	ug/L	18202	ppb	04:18:51
2	Ca 317.933Radial†	4042.5	3978.1	7420.6	ug/L	7420.6	ppb	04:18:51
2	Fe 238.204 Radial†	8161.2	8058.1	85643	ug/L	85643	ppb	04:18:51
2	K 766.490 Radial†	22101.8	18678.3	3766.7	ug/L	3766.7	ppb	04:18:51
2	Mg 279.077 IEC†	93.2	89.4	3364.0	ug/L	3364.0	ppb	04:19:11
2	Na 589.592 Radial†	4374.7	4117.8	1373.5	ug/L	1373.5	ppb	04:18:51
2	Sr 421.552†	8049.2	7867.7	60.693	ug/L	60.693	ppb	04:18:51
2	Sc 361.383	862242.4	862242.4	101.44	%			04:20:14
2	Y 371.029	836318.6	836318.6	119.01	%			04:20:14
2	Ag 328.068†	-4796.8	-4956.4	5.4798	ug/L	5.4798	ppb	04:20:19
2	As 188.979†	-54.5	-25.5	25.163	ug/L	25.163	ppb	04:20:40
2	B 249.677†	563.1	1037.0	10.091	ug/L	10.091	ppb	04:20:19
2	Ba 233.527†	35787.8	35261.2	289.06	ug/L	289.06	ppb	04:20:19
2	Be 313.107†	-11526.0	-7023.3	1.5667	ug/L	1.5667	ppb	04:20:19
2	Cd 226.502†	466.8	655.7	-1.1660	ug/L	-1.1660	ppb	04:20:40
2	Co 228.616†	6730.8	6714.1	135.03	ug/L	135.03	ppb	04:20:40
2	Cr 267.716†	13474.7	13133.8	154.66	ug/L	154.66	ppb	04:20:19
2	Cu 324.752†	23552.4	15124.2	50.975	ug/L	50.975	ppb	04:20:19
2	Mn 257.610†	1845747.0	1818989.7	2106.3	ug/L	2106.3	ppb	04:20:14
2	Mo 202.031†	48.4	37.2	9.5011	ug/L	9.5011	ppb	04:20:40
2	Ni 231.604†	3855.2	3687.0	94.355	ug/L	94.355	ppb	04:20:40

2	P 214.914†	1068.3	811.1	376.41 ug/L	376.41 ppb	04:20:40
2	Pb 220.353†	443.1	510.4	59.052 ug/L	59.052 ppb	04:20:40
2	S 181.975 Axial†	245.2	198.8	256.38 ug/L	256.38 ppb	04:20:40
2	Sb 206.836†	44.5	8.2	-4.4153 ug/L	-4.4153 ppb	04:20:40
2	Se 196.026†	-397.0	-368.1	61.818 ug/L	61.818 ppb	04:20:40
2	Si 251.611†	547621.2	539239.2	16804 ug/L	16804 ppb	04:20:14
2	Sn 189.927†	-2.1	-14.7	-0.0667 ug/L	-0.0667 ppb	04:20:40
2	Ti 334.940†	1138379.9	1123721.4	1827.2 ug/L	1827.2 ppb	04:20:14
2	Tl 190.801†	-126.7	-85.8	-2.6251 ug/L	-2.6251 ppb	04:20:40
2	U 409.014†	-12347.7	-8657.3	-256.03 ug/L	-256.03 ppb	04:20:14
2	V 292.402†	7590.2	9159.8	51.514 ug/L	51.514 ppb	04:20:19
2	Zn 213.857†	34481.1	33304.1	311.56 ug/L	311.56 ppb	04:20:19
2	SiO2†	544390.0	536046.6	35740 ug/L	35740 ppb	04:21:22
3	Sc Radial	4246.8	4246.8	99.9 %		04:19:16
3	Y RADIAL	5264.1	5264.1	119.6 %		04:19:16
3	Al 396.153Radial†	18013.4	18190.0	18197 ug/L	18197 ppb	04:19:16
3	Ca 317.933Radial†	4003.4	3989.0	7440.9 ug/L	7440.9 ppb	04:19:16
3	Fe 238.204 Radial†	8067.8	8065.6	85722 ug/L	85722 ppb	04:19:16
3	K 766.490 Radial†	21914.5	18764.3	3784.0 ug/L	3784.0 ppb	04:19:16
3	Mg 279.077 IEC†	95.4	92.8	3492.6 ug/L	3492.6 ppb	04:19:36
3	Na 589.592 Radial†	4407.1	4204.3	1402.4 ug/L	1402.4 ppb	04:19:16
3	Sr 421.552†	7975.5	7893.4	60.892 ug/L	60.892 ppb	04:19:16
3	Sc 361.383	861457.7	861457.7	101.35 %		04:20:45
3	Y 371.029	834579.3	834579.3	118.76 %		04:20:45
3	Ag 328.068†	-4842.0	-5005.3	5.2726 ug/L	5.2726 ppb	04:20:51
3	As 188.979†	-51.0	-22.0	26.672 ug/L	26.672 ppb	04:21:11
3	B 249.677†	646.4	1119.7	12.022 ug/L	12.022 ppb	04:20:51
3	Ba 233.527†	35872.3	35376.7	290.00 ug/L	290.00 ppb	04:20:51
3	Be 313.107†	-11430.2	-6939.2	1.6040 ug/L	1.6040 ppb	04:20:51
3	Cd 226.502†	474.6	663.8	-1.0790 ug/L	-1.0790 ppb	04:21:11
3	Co 228.616†	6725.3	6714.8	135.04 ug/L	135.04 ppb	04:21:11
3	Cr 267.716†	13382.3	13054.7	153.74 ug/L	153.74 ppb	04:20:51
3	Cu 324.752†	23546.4	15139.4	51.027 ug/L	51.027 ppb	04:20:51
3	Mn 257.610†	1850426.5	1825264.2	2113.6 ug/L	2113.6 ppb	04:20:45
3	Mo 202.031†	53.3	42.1	9.8697 ug/L	9.8697 ppb	04:21:11
3	Ni 231.604†	3863.1	3698.2	94.643 ug/L	94.643 ppb	04:21:11
3	P 214.914†	1054.5	798.5	369.31 ug/L	369.31 ppb	04:21:11
3	Pb 220.353†	410.4	478.5	55.097 ug/L	55.097 ppb	04:21:11
3	S 181.975 Axial†	249.2	203.0	261.90 ug/L	261.90 ppb	04:21:11
3	Sb 206.836†	49.3	12.9	-2.8493 ug/L	-2.8493 ppb	04:21:11
3	Se 196.026†	-394.6	-366.0	63.274 ug/L	63.274 ppb	04:21:11
3	Si 251.611†	548864.7	540957.8	16858 ug/L	16858 ppb	04:20:45
3	Sn 189.927†	-10.9	-23.4	-1.6247 ug/L	-1.6247 ppb	04:21:11
3	Ti 334.940†	1139097.5	1125451.6	1830.0 ug/L	1830.0 ppb	04:20:45
3	Tl 190.801†	-134.1	-93.2	-4.9108 ug/L	-4.9108 ppb	04:21:11
3	U 409.014†	-12407.8	-8727.7	-258.04 ug/L	-258.04 ppb	04:20:45
3	V 292.402†	7561.9	9138.7	51.351 ug/L	51.351 ppb	04:20:51
3	Zn 213.857†	34455.6	33310.0	311.61 ug/L	311.61 ppb	04:20:51
3	SiO2†	552721.4	544756.0	36321 ug/L	36321 ppb	04:21:27

Mean Data: 245806008|948071|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856644.5	100.78	%	1.062				1.05%
Sc Radial	4274.4	101	%	0.6				0.62%
Y 371.029	830878.0	118.24	%	1.133				0.96%
Y RADIAL	5287.4	120.1	%	0.58				0.48%
Ag 328.068†	-4976.6	5.3803	ug/L	0.10382	5.3803	ppb	0.10382	1.93%
Al 396.153Radial†	18176.7	18184	ug/L	27.9	18184	ppb	27.9	0.15%
As 188.979†	-20.7	27.154	ug/L	2.2710	27.154	ppb	2.2710	8.36%
B 249.677†	1093.9	11.428	ug/L	1.1609	11.428	ppb	1.1609	10.16%
Ba 233.527†	35472.9	290.78	ug/L	2.214	290.78	ppb	2.214	0.76%
Be 313.107†	-7131.7	1.5279	ug/L	0.10137	1.5279	ppb	0.10137	6.63%
Ca 317.933Radial†	3979.4	7423.1	ug/L	16.64	7423.1	ppb	16.64	0.22%
Cd 226.502†	659.5	-1.1193	ug/L	0.04386	-1.1193	ppb	0.04386	3.92%
Co 228.616†	6758.0	135.94	ug/L	1.579	135.94	ppb	1.579	1.16%
Cr 267.716†	13186.8	155.27	ug/L	1.919	155.27	ppb	1.919	1.24%
Cu 324.752†	15085.8	50.858	ug/L	0.2496	50.858	ppb	0.2496	0.49%
Fe 238.204 Radial†	8056.5	85625	ug/L	106.9	85625	ppb	106.9	0.12%
K 766.490 Radial†	18714.6	3774.0	ug/L	8.97	3774.0	ppb	8.97	0.24%

Mg 279.077 IEC†	91.0	3424.7	ug/L	64.63	3424.7	ppb	64.63	1.89%
Mn 257.610†	1821765.5	2109.5	ug/L	3.69	2109.5	ppb	3.69	0.18%
Mo 202.031†	42.9	9.9245	ug/L	0.45340	9.9245	ppb	0.45340	4.57%
Na 589.592 Radial†	4155.1	1386.0	ug/L	14.84	1386.0	ppb	14.84	1.07%
Ni 231.604†	3707.1	94.869	ug/L	0.6560	94.869	ppb	0.6560	0.69%
P 214.914†	812.2	377.02	ug/L	8.029	377.02	ppb	8.029	2.13%
Pb 220.353†	505.2	58.403	ug/L	3.0342	58.403	ppb	3.0342	5.20%
S 181.975 Axial†	202.7	261.57	ug/L	5.032	261.57	ppb	5.032	1.92%
Sb 206.836†	12.5	-2.9546	ug/L	1.41099	-2.9546	ppb	1.41099	47.76%
Se 196.026†	-371.4	59.825	ug/L	4.7697	59.825	ppb	4.7697	7.97%
Si 251.611†	539561.0	16814	ug/L	39.5	16814	ppb	39.5	0.23%
Sn 189.927†	-14.1	0.0415	ug/L	1.72287	0.0415	ppb	1.72287	>999.9%
Sr 421.552†	7885.5	60.831	ug/L	0.1195	60.831	ppb	0.1195	0.20%
Ti 334.940†	1123973.9	1827.6	ug/L	2.22	1827.6	ppb	2.22	0.12%
Tl 190.801†	-86.3	-2.7744	ug/L	2.06579	-2.7744	ppb	2.06579	74.46%
U 409.014†	-8725.5	-257.97	ug/L	1.901	-257.97	ppb	1.901	0.74%
V 292.402†	9210.7	51.888	ug/L	0.7937	51.888	ppb	0.7937	1.53%
Zn 213.857†	33455.6	313.04	ug/L	2.523	313.04	ppb	2.523	0.81%
SiO2†	543138.4	36213	ug/L	429.2	36213	ppb	429.2	1.19%

Sequence No.: 102
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 04:23:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4106.7	4106.7	96.6	%			04:25:52
1	Y RADIAL	4274.2	4274.2	97.09	%			04:25:32
1	Al 396.153Radial†	4970.9	5304.5	5282.1	ug/L	5282.1	ppb	04:25:32
1	Ca 317.933Radial†	2775.7	2854.8	5325.4	ug/L	5325.4	ppb	04:25:52
1	Fe 238.204 Radial†	515.0	523.1	5574.2	ug/L	5574.2	ppb	04:25:52
1	K 766.490 Radial†	27695.9	25496.9	5140.3	ug/L	5140.3	ppb	04:25:32
1	Mg 279.077 IEC†	138.3	140.4	5422.5	ug/L	5422.5	ppb	04:25:52
1	Na 589.592 Radial†	30325.6	31183.5	10402	ug/L	10402	ppb	04:25:32
1	Sr 421.552†	65180.1	67379.3	520.22	ug/L	520.22	ppb	04:25:32
1	Sc 361.383	843295.8	843295.8	99.210	%			04:26:49
1	Y 371.029	675064.4	675064.4	96.063	%			04:26:49
1	Ag 328.068†	104366.3	104969.4	507.43	ug/L	507.43	ppb	04:26:54
1	As 188.979†	1182.2	1220.0	517.86	ug/L	517.86	ppb	04:27:14
1	B 249.677†	20984.8	21633.7	506.59	ug/L	506.59	ppb	04:26:54
1	Ba 233.527†	62384.2	62862.0	511.69	ug/L	511.69	ppb	04:26:54
1	Be 313.107†	1395355.0	1410801.7	519.36	ug/L	519.36	ppb	04:26:49
1	Cd 226.502†	42253.8	42785.6	500.19	ug/L	500.19	ppb	04:26:54
1	Co 228.616†	24342.5	24615.1	513.36	ug/L	513.36	ppb	04:26:54
1	Cr 267.716†	42798.4	42989.4	500.76	ug/L	500.76	ppb	04:26:54
1	Cu 324.752†	175717.3	169022.0	517.52	ug/L	517.52	ppb	04:26:54
1	Mn 257.610†	448208.3	451206.5	520.74	ug/L	520.74	ppb	04:26:49
1	Mo 202.031†	6747.7	6790.9	505.10	ug/L	505.10	ppb	04:27:14
1	Ni 231.604†	19637.4	19680.2	503.78	ug/L	503.78	ppb	04:26:54
1	P 214.914†	4795.4	4591.6	2446.5	ug/L	2446.5	ppb	04:27:14
1	Pb 220.353†	3985.6	4090.9	508.43	ug/L	508.43	ppb	04:27:14
1	S 181.975 Axial†	832.5	796.2	1039.7	ug/L	1039.7	ppb	04:27:14
1	Sb 206.836†	1496.0	1472.2	516.33	ug/L	516.33	ppb	04:27:14
1	Se 196.026†	850.0	880.1	533.08	ug/L	533.08	ppb	04:27:14
1	Si 251.611†	83485.7	83538.0	2597.0	ug/L	2597.0	ppb	04:26:54
1	Sn 189.927†	2788.3	2797.9	502.59	ug/L	502.59	ppb	04:27:14
1	Ti 334.940†	312223.1	316201.4	513.80	ug/L	513.80	ppb	04:26:54
1	Tl 190.801†	1575.9	1627.5	517.24	ug/L	517.24	ppb	04:27:14
1	U 409.014†	13771.6	17396.4	492.43	ug/L	492.43	ppb	04:26:54
1	V 292.402†	66868.0	69077.6	506.96	ug/L	506.96	ppb	04:26:54
1	Zn 213.857†	52608.7	52339.7	506.08	ug/L	506.08	ppb	04:26:54
1	SiO2†	83599.4	83645.3	5563.2	ug/L	5563.2	ppb	04:28:22
2	Sc Radial	4119.9	4119.9	96.9	%			04:26:17
2	Y RADIAL	4277.3	4277.3	97.16	%			04:25:57
2	Al 396.153Radial†	4880.4	5194.6	5172.2	ug/L	5172.2	ppb	04:25:57
2	Ca 317.933Radial†	2782.7	2852.9	5321.7	ug/L	5321.7	ppb	04:26:17
2	Fe 238.204 Radial†	515.8	522.2	5564.6	ug/L	5564.6	ppb	04:26:17
2	K 766.490 Radial†	27365.8	25064.2	5053.0	ug/L	5053.0	ppb	04:25:57
2	Mg 279.077 IEC†	142.1	143.9	5559.2	ug/L	5559.2	ppb	04:26:17
2	Na 589.592 Radial†	30048.8	30797.1	10273	ug/L	10273	ppb	04:25:57
2	Sr 421.552†	64714.2	66681.8	514.83	ug/L	514.83	ppb	04:25:57
2	Sc 361.383	843276.6	843276.6	99.208	%			04:27:20
2	Y 371.029	674262.0	674262.0	95.949	%			04:27:20
2	Ag 328.068†	103730.4	104330.8	504.35	ug/L	504.35	ppb	04:27:25
2	As 188.979†	1179.7	1217.5	516.76	ug/L	516.76	ppb	04:27:46
2	B 249.677†	20888.5	21537.2	504.33	ug/L	504.33	ppb	04:27:25
2	Ba 233.527†	61816.1	62290.8	507.04	ug/L	507.04	ppb	04:27:25
2	Be 313.107†	1395500.6	1410980.5	519.42	ug/L	519.42	ppb	04:27:20
2	Cd 226.502†	41788.7	42317.8	494.72	ug/L	494.72	ppb	04:27:25
2	Co 228.616†	24132.4	24403.9	508.96	ug/L	508.96	ppb	04:27:25
2	Cr 267.716†	42474.0	42663.4	496.96	ug/L	496.96	ppb	04:27:25
2	Cu 324.752†	174494.3	167793.2	513.75	ug/L	513.75	ppb	04:27:25
2	Mn 257.610†	449883.6	452905.4	522.69	ug/L	522.69	ppb	04:27:20
2	Mo 202.031†	6729.2	6772.4	503.73	ug/L	503.73	ppb	04:27:46
2	Ni 231.604†	19543.8	19586.3	501.38	ug/L	501.38	ppb	04:27:25

2	P 214.914†	4813.0	4609.4	2457.1 ug/L	2457.1 ppb	04:27:46
2	Pb 220.353†	4009.0	4114.6	511.34 ug/L	511.34 ppb	04:27:46
2	S 181.975 Axial†	831.1	794.8	1037.9 ug/L	1037.9 ppb	04:27:46
2	Sb 206.836†	1512.5	1488.9	521.97 ug/L	521.97 ppb	04:27:46
2	Se 196.026†	863.1	893.3	540.74 ug/L	540.74 ppb	04:27:46
2	Si 251.611†	82810.2	82859.0	2575.9 ug/L	2575.9 ppb	04:27:25
2	Sn 189.927†	2792.9	2802.6	503.43 ug/L	503.43 ppb	04:27:46
2	Ti 334.940†	309514.0	313477.8	509.37 ug/L	509.37 ppb	04:27:25
2	Tl 190.801†	1576.1	1627.8	517.33 ug/L	517.33 ppb	04:27:46
2	U 409.014†	13767.1	17392.2	492.32 ug/L	492.32 ppb	04:27:25
2	V 292.402†	66367.8	68575.0	503.31 ug/L	503.31 ppb	04:27:25
2	Zn 213.857†	52320.3	52050.2	503.28 ug/L	503.28 ppb	04:27:25
2	SiO2†	83265.7	83310.9	5540.9 ug/L	5540.9 ppb	04:28:27
3	Sc Radial	4101.4	4101.4	96.5 %		04:26:42
3	Y RADIAL	4361.5	4361.5	99.07 %		04:26:22
3	Al 396.153Radial†	5016.2	5358.1	5335.5 ug/L	5335.5 ppb	04:26:22
3	Ca 317.933Radial†	2775.9	2858.8	5332.7 ug/L	5332.7 ppb	04:26:42
3	Fe 238.204 Radial†	512.4	521.0	5552.7 ug/L	5552.7 ppb	04:26:42
3	K 766.490 Radial†	28041.2	25891.8	5220.0 ug/L	5220.0 ppb	04:26:22
3	Mg 279.077 IEC†	138.6	140.9	5442.2 ug/L	5442.2 ppb	04:26:42
3	Na 589.592 Radial†	30556.4	31463.3	10495 ug/L	10495 ppb	04:26:22
3	Sr 421.552†	66413.6	68744.9	530.76 ug/L	530.76 ppb	04:26:22
3	Sc 361.383	841227.0	841227.0	98.967 %		04:27:51
3	Y 371.029	671657.9	671657.9	95.579 %		04:27:51
3	Ag 328.068†	105579.4	106453.9	514.57 ug/L	514.57 ppb	04:27:57
3	As 188.979†	1181.6	1222.3	518.89 ug/L	518.89 ppb	04:28:17
3	B 249.677†	21476.6	22182.8	519.49 ug/L	519.49 ppb	04:27:57
3	Ba 233.527†	63006.7	63645.7	518.07 ug/L	518.07 ppb	04:27:57
3	Be 313.107†	1390249.8	1409102.1	518.76 ug/L	518.76 ppb	04:27:51
3	Cd 226.502†	42690.1	43331.3	506.58 ug/L	506.58 ppb	04:27:57
3	Co 228.616†	24670.5	25007.0	521.52 ug/L	521.52 ppb	04:27:57
3	Cr 267.716†	43297.7	43600.0	507.87 ug/L	507.87 ppb	04:27:57
3	Cu 324.752†	178070.1	171834.9	526.12 ug/L	526.12 ppb	04:27:57
3	Mn 257.610†	448555.2	452668.0	522.42 ug/L	522.42 ppb	04:27:51
3	Mo 202.031†	6771.1	6831.3	508.10 ug/L	508.10 ppb	04:28:17
3	Ni 231.604†	19924.0	20018.5	512.44 ug/L	512.44 ppb	04:27:57
3	P 214.914†	4817.7	4626.0	2463.9 ug/L	2463.9 ppb	04:28:17
3	Pb 220.353†	3996.4	4111.7	511.02 ug/L	511.02 ppb	04:28:17
3	S 181.975 Axial†	846.2	812.1	1060.4 ug/L	1060.4 ppb	04:28:17
3	Sb 206.836†	1517.9	1498.1	525.22 ug/L	525.22 ppb	04:28:17
3	Se 196.026†	862.8	895.1	541.76 ug/L	541.76 ppb	04:28:17
3	Si 251.611†	84506.3	84776.2	2635.6 ug/L	2635.6 ppb	04:27:57
3	Sn 189.927†	2807.4	2824.1	507.29 ug/L	507.29 ppb	04:28:17
3	Ti 334.940†	316071.4	320863.9	521.37 ug/L	521.37 ppb	04:27:57
3	Tl 190.801†	1574.5	1630.1	518.06 ug/L	518.06 ppb	04:28:17
3	U 409.014†	14198.4	17861.8	505.64 ug/L	505.64 ppb	04:27:57
3	V 292.402†	67683.0	70066.9	514.18 ug/L	514.18 ppb	04:27:57
3	Zn 213.857†	53341.2	53210.3	514.52 ug/L	514.52 ppb	04:27:57
3	SiO2†	83506.3	83758.5	5570.6 ug/L	5570.6 ppb	04:28:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842599.8	99.128	%	0.1399				0.14%
Sc Radial	4109.3	96.7	%	0.22				0.23%
Y 371.029	673661.4	95.864	%	0.2534				0.26%
Y RADIAL	4304.3	97.78	%	1.125				1.15%
Ag 328.068†	105251.4	508.79	ug/L	5.243	508.79	ppb	5.243	1.03%
QC value within limits for Ag 328.068 Recovery = 101.76%								
Al 396.153Radial†	5285.7	5263.3	ug/L	83.26	5263.3	ppb	83.26	1.58%
QC value within limits for Al 396.153Radial Recovery = 105.27%								
As 188.979†	1219.9	517.84	ug/L	1.064	517.84	ppb	1.064	0.21%
QC value within limits for As 188.979 Recovery = 103.57%								
B 249.677†	21784.6	510.14	ug/L	8.176	510.14	ppb	8.176	1.60%
QC value within limits for B 249.677 Recovery = 102.03%								
Ba 233.527†	62932.8	512.27	ug/L	5.535	512.27	ppb	5.535	1.08%
QC value within limits for Ba 233.527 Recovery = 102.45%								
Be 313.107†	1410294.8	519.18	ug/L	0.368	519.18	ppb	0.368	0.07%
QC value within limits for Be 313.107 Recovery = 103.84%								
Ca 317.933Radial†	2855.5	5326.6	ug/L	5.59	5326.6	ppb	5.59	0.10%

```
   QC value within limits for Ca 317.933Radial  Recovery = 106.53%
Cd 226.502†          42811.6      500.50 ug/L        5.937      500.50 ppb        5.937   1.19%
   QC value within limits for Cd 226.502  Recovery = 100.10%
Co 228.616†          24675.3      514.61 ug/L        6.374      514.61 ppb        6.374   1.24%
   QC value within limits for Co 228.616  Recovery = 102.92%
Cr 267.716†          43084.3      501.86 ug/L        5.536      501.86 ppb        5.536   1.10%
   QC value within limits for Cr 267.716  Recovery = 100.37%
Cu 324.752†         169550.0      519.13 ug/L        6.339      519.13 ppb        6.339   1.22%
   QC value within limits for Cu 324.752  Recovery = 103.83%
Fe 238.204 Radial†     522.1      5563.9 ug/L        10.79      5563.9 ppb        10.79   0.19%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 111.28%
K 766.490 Radial†    25484.3      5137.8 ug/L        83.52      5137.8 ppb        83.52   1.63%
   QC value within limits for K 766.490 Radial  Recovery = 102.76%
Mg 279.077 IEC†        141.8      5474.6 ug/L        73.88      5474.6 ppb        73.88   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.49%
Mn 257.610†         452260.0      521.95 ug/L        1.058      521.95 ppb        1.058   0.20%
   QC value within limits for Mn 257.610  Recovery = 104.39%
Mo 202.031†          6798.2      505.64 ug/L        2.238      505.64 ppb        2.238   0.44%
   QC value within limits for Mo 202.031  Recovery = 101.13%
Na 589.592 Radial†   31147.9       10390 ug/L        111.6       10390 ppb        111.6   1.07%
   QC value within limits for Na 589.592 Radial  Recovery = 103.90%
Ni 231.604†          19761.7      505.87 ug/L        5.819      505.87 ppb        5.819   1.15%
   QC value within limits for Ni 231.604  Recovery = 101.17%
P 214.914†            4609.0      2455.8 ug/L         8.79      2455.8 ppb         8.79   0.36%
   QC value within limits for P 214.914  Recovery = 98.23%
Pb 220.353†           4105.7      510.26 ug/L        1.596      510.26 ppb        1.596   0.31%
   QC value within limits for Pb 220.353  Recovery = 102.05%
S 181.975 Axial†       801.1      1046.0 ug/L        12.52      1046.0 ppb        12.52   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 104.60%
Sb 206.836†           1486.4      521.17 ug/L        4.500      521.17 ppb        4.500   0.86%
   QC value within limits for Sb 206.836  Recovery = 104.23%
Se 196.026†            889.5      538.52 ug/L        4.745      538.52 ppb        4.745   0.88%
   QC value within limits for Se 196.026  Recovery = 107.70%
Si 251.611†          83724.4      2602.8 ug/L        30.27      2602.8 ppb        30.27   1.16%
   QC value within limits for Si 251.611  Recovery = 104.11%
Sn 189.927†           2808.2      504.43 ug/L        2.508      504.43 ppb        2.508   0.50%
   QC value within limits for Sn 189.927  Recovery = 100.89%
Sr 421.552†          67602.0      521.94 ug/L        8.103      521.94 ppb        8.103   1.55%
   QC value within limits for Sr 421.552  Recovery = 104.39%
Ti 334.940†         316847.7      514.85 ug/L        6.071      514.85 ppb        6.071   1.18%
   QC value within limits for Ti 334.940  Recovery = 102.97%
Tl 190.801†           1628.5      517.54 ug/L        0.449      517.54 ppb        0.449   0.09%
   QC value within limits for Tl 190.801  Recovery = 103.51%
U 409.014†           17550.2      496.79 ug/L        7.657      496.79 ppb        7.657   1.54%
   QC value within limits for U 409.014  Recovery = 99.36%
V 292.402†           69239.8      508.15 ug/L        5.535      508.15 ppb        5.535   1.09%
   QC value within limits for V 292.402  Recovery = 101.63%
Zn 213.857†          52533.4      507.96 ug/L        5.849      507.96 ppb        5.849   1.15%
   QC value within limits for Zn 213.857  Recovery = 101.59%
SiO2†                83571.6      5558.2 ug/L        15.46      5558.2 ppb        15.46   0.28%
   QC value within limits for SiO2  Recovery = 103.94%
QC Failed.  Continue with analysis.
```

Sequence No.: 103
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 04:30:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4229.8	4229.8	99.5	%			04:32:36
1	Y RADIAL	4288.3	4288.3	97.41	%			04:32:36
1	Al 396.153Radial†	-145.8	12.5	12.411	ug/L	12.411	ppb	04:32:36
1	Ca 317.933Radial†	38.2	20.1	37.505	ug/L	37.505	ppb	04:32:56
1	Fe 238.204 Radial†	11.7	1.7	17.774	ug/L	17.774	ppb	04:32:56
1	K 766.490 Radial†	3014.7	-141.9	-28.622	ug/L	-28.622	ppb	04:32:36
1	Mg 279.077 IEC†	2.3	-0.4	-14.278	ug/L	-14.278	ppb	04:32:56
1	Na 589.592 Radial†	-7.4	-214.5	-71.552	ug/L	-71.552	ppb	04:32:36
1	Sr 421.552†	71.7	-17.7	-0.1371	ug/L	-0.1371	ppb	04:32:36
1	Sc 361.383	826809.2	826809.2	97.271	%			04:33:52
1	Y 371.029	668742.5	668742.5	95.164	%			04:33:52
1	Ag 328.068†	304.2	85.0	0.4116	ug/L	0.4116	ppb	04:33:52
1	As 188.979†	-27.1	0.4	0.1799	ug/L	0.1799	ppb	04:34:12
1	B 249.677†	-416.0	54.2	1.2727	ug/L	1.2727	ppb	04:34:12
1	Ba 233.527†	56.1	38.8	0.3148	ug/L	0.3148	ppb	04:34:12
1	Be 313.107†	-4091.3	133.0	0.0499	ug/L	0.0499	ppb	04:33:52
1	Cd 226.502†	-195.5	-5.5	-0.0657	ug/L	-0.0657	ppb	04:34:12
1	Co 228.616†	-66.6	10.4	0.2192	ug/L	0.2192	ppb	04:34:12
1	Cr 267.716†	123.1	-23.1	-0.2697	ug/L	-0.2697	ppb	04:34:12
1	Cu 324.752†	8791.0	943.5	2.8892	ug/L	2.8892	ppb	04:33:52
1	Mn 257.610†	1229.8	694.6	0.8035	ug/L	0.8035	ppb	04:34:12
1	Mo 202.031†	29.1	19.4	1.4438	ug/L	1.4438	ppb	04:34:12
1	Ni 231.604†	109.7	-0.8	-0.0194	ug/L	-0.0194	ppb	04:34:12
1	P 214.914†	239.2	3.9	1.6010	ug/L	1.6010	ppb	04:34:12
1	Pb 220.353†	17.2	91.2	11.305	ug/L	11.305	ppb	04:34:12
1	S 181.975 Axial†	58.4	17.1	22.373	ug/L	22.373	ppb	04:34:12
1	Sb 206.836†	42.4	7.9	2.7006	ug/L	2.7006	ppb	04:34:12
1	Se 196.026†	-21.9	0.8	0.5393	ug/L	0.5393	ppb	04:34:12
1	Si 251.611†	736.6	145.0	4.4996	ug/L	4.4996	ppb	04:34:12
1	Sn 189.927†	15.3	3.1	0.5574	ug/L	0.5574	ppb	04:34:12
1	Ti 334.940†	-1168.9	291.2	0.4791	ug/L	0.4791	ppb	04:33:52
1	Tl 190.801†	-38.9	-0.9	-0.2672	ug/L	-0.2672	ppb	04:34:12
1	U 409.014†	-3385.2	35.0	0.9933	ug/L	0.9933	ppb	04:33:52
1	V 292.402†	-1676.4	-46.2	-0.3153	ug/L	-0.3153	ppb	04:33:52
1	Zn 213.857†	799.7	134.4	1.3049	ug/L	1.3049	ppb	04:34:12
1	SiO2†	717.6	118.3	7.8451	ug/L	7.8451	ppb	04:35:08
2	Sc Radial	4209.0	4209.0	99.0	%			04:33:01
2	Y RADIAL	4300.6	4300.6	97.69	%			04:33:01
2	Al 396.153Radial†	-140.6	17.0	16.962	ug/L	16.962	ppb	04:33:01
2	Ca 317.933Radial†	40.4	22.5	41.937	ug/L	41.937	ppb	04:33:21
2	Fe 238.204 Radial†	12.1	2.2	23.464	ug/L	23.464	ppb	04:33:21
2	K 766.490 Radial†	2976.5	-165.4	-33.379	ug/L	-33.379	ppb	04:33:01
2	Mg 279.077 IEC†	0.4	-2.3	-87.396	ug/L	-87.396	ppb	04:33:21
2	Na 589.592 Radial†	6.4	-200.6	-66.909	ug/L	-66.909	ppb	04:33:01
2	Sr 421.552†	60.3	-29.0	-0.2239	ug/L	-0.2239	ppb	04:33:01
2	Sc 361.383	832788.5	832788.5	97.974	%			04:34:18
2	Y 371.029	673507.2	673507.2	95.842	%			04:34:18
2	Ag 328.068†	234.6	11.7	0.0573	ug/L	0.0573	ppb	04:34:18
2	As 188.979†	-31.0	-3.3	-1.3802	ug/L	-1.3802	ppb	04:34:38
2	B 249.677†	-433.1	39.9	0.9341	ug/L	0.9341	ppb	04:34:38
2	Ba 233.527†	35.6	17.5	0.1421	ug/L	0.1421	ppb	04:34:38
2	Be 313.107†	-4266.8	-15.9	-0.0053	ug/L	-0.0053	ppb	04:34:18
2	Cd 226.502†	-208.7	-17.6	-0.2067	ug/L	-0.2067	ppb	04:34:38
2	Co 228.616†	-72.9	4.5	0.0967	ug/L	0.0967	ppb	04:34:38
2	Cr 267.716†	109.3	-38.1	-0.4456	ug/L	-0.4456	ppb	04:34:38
2	Cu 324.752†	8616.7	700.8	2.1435	ug/L	2.1435	ppb	04:34:18
2	Mn 257.610†	908.4	357.5	0.4182	ug/L	0.4182	ppb	04:34:38
2	Mo 202.031†	28.8	18.9	1.4068	ug/L	1.4068	ppb	04:34:38
2	Ni 231.604†	98.8	-12.7	-0.3259	ug/L	-0.3259	ppb	04:34:38

2	P 214.914†	238.5	1.5	0.3992 ug/L	0.3992 ppb	04:34:38
2	Pb 220.353†	6.5	80.2	9.9359 ug/L	9.9359 ppb	04:34:38
2	S 181.975 Axial†	62.3	20.7	27.022 ug/L	27.022 ppb	04:34:38
2	Sb 206.836†	40.3	5.4	1.8807 ug/L	1.8807 ppb	04:34:38
2	Se 196.026†	-22.6	0.3	0.2473 ug/L	0.2473 ppb	04:34:38
2	Si 251.611†	692.4	94.4	2.9251 ug/L	2.9251 ppb	04:34:38
2	Sn 189.927†	16.6	4.4	0.7874 ug/L	0.7874 ppb	04:34:38
2	Ti 334.940†	-1324.3	141.2	0.2398 ug/L	0.2398 ppb	04:34:18
2	Tl 190.801†	-35.2	3.2	1.0150 ug/L	1.0150 ppb	04:34:38
2	U 409.014†	-3229.0	219.4	6.2317 ug/L	6.2317 ppb	04:34:18
2	V 292.402†	-1687.2	-44.8	-0.2976 ug/L	-0.2976 ppb	04:34:18
2	Zn 213.857†	798.2	127.0	1.2347 ug/L	1.2347 ppb	04:34:38
2	SiO2†	731.1	126.7	8.4110 ug/L	8.4110 ppb	04:35:13
3	Sc Radial	4194.0	4194.0	98.7 %		04:33:26
3	Y RADIAL	4316.0	4316.0	98.04 %		04:33:26
3	Al 396.153Radial†	-131.0	26.3	26.281 ug/L	26.281 ppb	04:33:26
3	Ca 317.933Radial†	33.5	15.6	29.136 ug/L	29.136 ppb	04:33:46
3	Fe 238.204 Radial†	11.3	1.4	14.777 ug/L	14.777 ppb	04:33:46
3	K 766.490 Radial†	3191.6	63.4	12.814 ug/L	12.814 ppb	04:33:26
3	Mg 279.077 IEC†	1.7	-1.0	-39.316 ug/L	-39.316 ppb	04:33:46
3	Na 589.592 Radial†	-54.9	-262.7	-87.629 ug/L	-87.629 ppb	04:33:26
3	Sr 421.552†	194.2	107.0	0.8258 ug/L	0.8258 ppb	04:33:26
3	Sc 361.383	827640.9	827640.9	97.369 %		04:34:43
3	Y 371.029	669589.3	669589.3	95.284 %		04:34:43
3	Ag 328.068†	255.8	35.0	0.1683 ug/L	0.1683 ppb	04:34:43
3	As 188.979†	-34.9	-7.5	-3.1629 ug/L	-3.1629 ppb	04:35:03
3	B 249.677†	-421.8	48.7	1.1440 ug/L	1.1440 ppb	04:35:03
3	Ba 233.527†	33.8	15.9	0.1285 ug/L	0.1285 ppb	04:35:03
3	Be 313.107†	-4243.3	-18.8	-0.0064 ug/L	-0.0064 ppb	04:34:43
3	Cd 226.502†	-204.0	-14.1	-0.1649 ug/L	-0.1649 ppb	04:35:03
3	Co 228.616†	-70.4	6.5	0.1364 ug/L	0.1364 ppb	04:35:03
3	Cr 267.716†	105.8	-41.0	-0.4792 ug/L	-0.4792 ppb	04:35:03
3	Cu 324.752†	8543.4	680.2	2.0813 ug/L	2.0813 ppb	04:34:43
3	Mn 257.610†	843.0	296.0	0.3445 ug/L	0.3445 ppb	04:35:03
3	Mo 202.031†	14.2	4.1	0.3080 ug/L	0.3080 ppb	04:35:03
3	Ni 231.604†	124.1	14.0	0.3573 ug/L	0.3573 ppb	04:35:03
3	P 214.914†	230.5	-5.3	-3.3320 ug/L	-3.3320 ppb	04:35:03
3	Pb 220.353†	5.0	78.7	9.7480 ug/L	9.7480 ppb	04:35:03
3	S 181.975 Axial†	53.5	12.0	15.707 ug/L	15.707 ppb	04:35:03
3	Sb 206.836†	46.7	12.3	4.1575 ug/L	4.1575 ppb	04:35:03
3	Se 196.026†	-23.3	-0.6	-0.2950 ug/L	-0.2950 ppb	04:35:03
3	Si 251.611†	683.3	89.5	2.7852 ug/L	2.7852 ppb	04:35:03
3	Sn 189.927†	14.3	2.1	0.3767 ug/L	0.3767 ppb	04:35:03
3	Ti 334.940†	-1307.5	150.1	0.2495 ug/L	0.2495 ppb	04:34:43
3	Tl 190.801†	-23.7	14.8	4.6753 ug/L	4.6753 ppb	04:35:03
3	U 409.014†	-3292.6	133.6	3.7935 ug/L	3.7935 ppb	04:34:43
3	V 292.402†	-1679.2	-47.2	-0.3335 ug/L	-0.3335 ppb	04:34:43
3	Zn 213.857†	783.0	116.4	1.1286 ug/L	1.1286 ppb	04:35:03
3	SiO2†	664.9	63.3	4.2154 ug/L	4.2154 ppb	04:35:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	829079.5	97.538	%	0.3810				0.39%
Sc Radial	4210.9	99.1	%	0.42				0.43%
Y 371.029	670613.0	95.430	%	0.3617				0.38%
Y RADIAL	4301.6	97.72	%	0.314				0.32%
Ag 328.068†	43.9	0.2124	ug/L	0.18121	0.2124	ppb	0.18121	85.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.6	18.552	ug/L	7.0702	18.552	ppb	7.0702	38.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.5	-1.4544	ug/L	1.67264	-1.4544	ppb	1.67264	115.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	47.6	1.1169	ug/L	0.17091	1.1169	ppb	0.17091	15.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	24.1	0.1951	ug/L	0.10382	0.1951	ppb	0.10382	53.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	32.8	0.0128	ug/L	0.03220	0.0128	ppb	0.03220	252.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	19.4	36.192	ug/L	6.5008	36.192	ppb	6.5008	17.96%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -12.4     -0.1458 ug/L       0.07241     -0.1458 ppb        0.07241  49.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.1      0.1508 ug/L       0.06253      0.1508 ppb        0.06253  41.47%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -34.1     -0.3982 ug/L       0.11250     -0.3982 ppb        0.11250  28.25%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              774.9      2.3713 ug/L       0.44958      2.3713 ppb        0.44958  18.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.8      18.671 ug/L        4.4122      18.671 ppb         4.4122  23.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -81.3     -16.396 ug/L       25.4077     -16.396 ppb        25.4077 154.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.2     -46.997 ug/L       37.1588     -46.997 ppb        37.1588  79.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              449.4      0.5221 ug/L       0.24650      0.5221 ppb        0.24650  47.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               14.1      1.0529 ug/L       0.64533      1.0529 ppb        0.64533  61.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -225.9     -75.363 ug/L       10.8731     -75.363 ppb        10.8731  14.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.2      0.0040 ug/L       0.34223      0.0040 ppb        0.34223 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.1     -0.4439 ug/L       2.57233     -0.4439 ppb        2.57233 579.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               83.4      10.330 ug/L        0.8500      10.330 ppb         0.8500   8.23%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          16.6      21.701 ug/L        5.6872      21.701 ppb         5.6872  26.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                8.5      2.9129 ug/L       1.15318      2.9129 ppb        1.15318  39.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.2      0.1639 ug/L       0.42337      0.1639 ppb        0.42337 258.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              109.6      3.4033 ug/L       0.95200      3.4033 ppb        0.95200  27.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.2      0.5738 ug/L       0.20584      0.5738 ppb        0.20584  35.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               20.1      0.1549 ug/L       0.58262      0.1549 ppb        0.58262 376.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              194.2      0.3228 ug/L       0.13547      0.3228 ppb        0.13547  41.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.7      1.8077 ug/L       2.56485      1.8077 ppb        2.56485 141.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               129.3      3.6728 ug/L       2.62132      3.6728 ppb        2.62132  71.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -46.0     -0.3155 ug/L       0.01799     -0.3155 ppb        0.01799   5.70%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              125.9      1.2227 ug/L       0.08877      1.2227 ppb        0.08877   7.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    102.8      6.8238 ug/L       2.27662      6.8238 ppb        2.27662  33.36%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 022310
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 022310A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/23/2010 12:39:25**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/23/2010 10:37:42**
Analyst: **Data Type: Reprocessed on 2/23/2010 12:42:16**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	895840.5	895840.5	99.531	%	10:40:52
1	Sc Radial	4251.3	4251.3	99.9	%	10:39:35
1	Y 371.029	758955.3	758955.3	99.543	%	10:40:52
1	Y RADIAL	4687.6	4687.6	99.91	%	10:39:35
1	Ag 328.068†	244.2	245.3	[0.00]	ug/L	10:40:52

1	Al 396.153Radial†	-107.8	-107.8	[0.00] ug/L	10:39:55
1	As 188.979†	-19.0	-19.1	[0.00] ug/L	10:41:12
1	B 249.677†	-364.1	-365.8	[0.00] ug/L	10:41:12
1	Ba 233.527†	-18.2	-18.3	[0.00] ug/L	10:41:12
1	Be 313.107†	-3867.8	-3886.0	[0.00] ug/L	10:40:52
1	Ca 317.933Radial†	15.2	15.2	[0.00] ug/L	10:39:55
1	Cd 226.502†	-180.3	-181.2	[0.00] ug/L	10:41:12
1	Co 228.616†	-63.6	-63.9	[0.00] ug/L	10:41:12
1	Cr 267.716†	60.2	60.5	[0.00] ug/L	10:41:12
1	Cu 324.752†	6072.0	6100.6	[0.00] ug/L	10:40:52
1	Fe 238.204 Radial†	11.4	11.4	[0.00] ug/L	10:39:55
1	K 766.490 Radial†	2616.5	2617.8	[0.00] ug/L	10:39:35
1	Mg 279.077 IEC†	4.0	4.0	[0.00] ug/L	10:39:55
1	Mn 257.610†	443.7	445.7	[0.00] ug/L	10:41:12
1	Mo 202.031†	-1.8	-1.8	[0.00] ug/L	10:41:12
1	Na 589.592 Radial†	-719.5	-719.9	[0.00] ug/L	10:39:35
1	Ni 231.604†	46.4	46.6	[0.00] ug/L	10:41:12
1	P 214.914†	205.5	206.4	[0.00] ug/L	10:41:12
1	Pb 220.353†	-61.4	-61.7	[0.00] ug/L	10:41:12
1	S 181.975 Axial†	35.0	35.2	[0.00] ug/L	10:41:12
1	Sb 206.836†	30.2	30.3	[0.00] ug/L	10:41:12
1	Se 196.026†	-17.3	-17.3	[0.00] ug/L	10:41:12
1	Si 251.611†	555.6	558.2	[0.00] ug/L	10:41:12
1	Sn 189.927†	12.7	12.8	[0.00] ug/L	10:41:12
1	Sr 421.552†	49.2	49.2	[0.00] ug/L	10:39:35
1	Ti 334.940†	-1294.3	-1300.4	[0.00] ug/L	10:40:52
1	Tl 190.801†	-26.3	-26.4	[0.00] ug/L	10:41:12
1	U 409.014†	-2868.7	-2882.2	[0.00] ug/L	10:40:52
1	V 292.402†	-1410.0	-1416.6	[0.00] ug/L	10:40:52
1	Zn 213.857†	543.7	546.3	[0.00] ug/L	10:41:12
1	SiO2†	519.6	522.1	[0.00] ug/L	10:42:08
2	Sc 361.383	905217.3	905217.3	100.57 %	10:41:17
2	Sc Radial	4235.4	4235.4	99.6 %	10:40:00
2	Y 371.029	767171.8	767171.8	100.62 %	10:41:17
2	Y RADIAL	4682.2	4682.2	99.79 %	10:40:00
2	Ag 328.068†	177.1	176.0	[0.00] ug/L	10:41:17
2	Al 396.153Radial†	-112.8	-113.3	[0.00] ug/L	10:40:20
2	As 188.979†	-24.2	-24.1	[0.00] ug/L	10:41:37
2	B 249.677†	-376.1	-374.0	[0.00] ug/L	10:41:37
2	Ba 233.527†	-2.6	-2.6	[0.00] ug/L	10:41:37
2	Be 313.107†	-3859.5	-3837.5	[0.00] ug/L	10:41:17
2	Ca 317.933Radial†	17.5	17.6	[0.00] ug/L	10:40:20
2	Cd 226.502†	-176.6	-175.6	[0.00] ug/L	10:41:37
2	Co 228.616†	-56.6	-56.3	[0.00] ug/L	10:41:37
2	Cr 267.716†	79.5	79.0	[0.00] ug/L	10:41:37
2	Cu 324.752†	6120.1	6085.3	[0.00] ug/L	10:41:17
2	Fe 238.204 Radial†	9.2	9.3	[0.00] ug/L	10:40:20
2	K 766.490 Radial†	2538.3	2549.1	[0.00] ug/L	10:40:00
2	Mg 279.077 IEC†	2.9	2.9	[0.00] ug/L	10:40:20
2	Mn 257.610†	419.5	417.1	[0.00] ug/L	10:41:37
2	Mo 202.031†	7.5	7.4	[0.00] ug/L	10:41:37
2	Na 589.592 Radial†	-793.5	-796.9	[0.00] ug/L	10:40:00
2	Ni 231.604†	51.0	50.7	[0.00] ug/L	10:41:37
2	P 214.914†	204.8	203.6	[0.00] ug/L	10:41:37
2	Pb 220.353†	-52.4	-52.1	[0.00] ug/L	10:41:37
2	S 181.975 Axial†	35.7	35.5	[0.00] ug/L	10:41:37
2	Sb 206.836†	39.9	39.7	[0.00] ug/L	10:41:37
2	Se 196.026†	-21.1	-21.0	[0.00] ug/L	10:41:37
2	Si 251.611†	524.3	521.3	[0.00] ug/L	10:41:37
2	Sn 189.927†	7.3	7.3	[0.00] ug/L	10:41:37
2	Sr 421.552†	54.4	54.7	[0.00] ug/L	10:40:00
2	Ti 334.940†	-1316.2	-1308.8	[0.00] ug/L	10:41:17
2	Tl 190.801†	-34.9	-34.7	[0.00] ug/L	10:41:37
2	U 409.014†	-2745.8	-2730.2	[0.00] ug/L	10:41:17
2	V 292.402†	-1443.0	-1434.8	[0.00] ug/L	10:41:17
2	Zn 213.857†	568.1	564.9	[0.00] ug/L	10:41:37
2	SiO2†	565.6	562.4	[0.00] ug/L	10:42:13
3	Sc 361.383	899131.7	899131.7	99.897 %	10:41:43
3	Sc Radial	4273.9	4273.9	100 %	10:40:25
3	Y 371.029	761199.7	761199.7	99.837 %	10:41:43
3	Y RADIAL	4706.4	4706.4	100.3 %	10:40:25

3	Ag 328.068†	266.3	266.6	[0.00]	ug/L	10:41:43
3	Al 396.153Radial†	-111.7	-111.2	[0.00]	ug/L	10:40:45
3	As 188.979†	-18.4	-18.4	[0.00]	ug/L	10:42:03
3	B 249.677†	-378.7	-379.1	[0.00]	ug/L	10:42:03
3	Ba 233.527†	-6.6	-6.6	[0.00]	ug/L	10:42:03
3	Be 313.107†	-3832.3	-3836.2	[0.00]	ug/L	10:41:43
3	Ca 317.933Radial†	13.7	13.6	[0.00]	ug/L	10:40:45
3	Cd 226.502†	-193.0	-193.2	[0.00]	ug/L	10:42:03
3	Co 228.616†	-65.4	-65.5	[0.00]	ug/L	10:42:03
3	Cr 267.716†	58.4	58.4	[0.00]	ug/L	10:42:03
3	Cu 324.752†	6039.2	6045.5	[0.00]	ug/L	10:41:43
3	Fe 238.204 Radial†	9.9	9.9	[0.00]	ug/L	10:40:45
3	K 766.490 Radial†	2515.3	2503.3	[0.00]	ug/L	10:40:25
3	Mg 279.077 IEC†	1.3	1.3	[0.00]	ug/L	10:40:45
3	Mn 257.610†	447.2	447.7	[0.00]	ug/L	10:42:03
3	Mo 202.031†	12.5	12.5	[0.00]	ug/L	10:42:03
3	Na 589.592 Radial†	-707.6	-704.2	[0.00]	ug/L	10:40:25
3	Ni 231.604†	59.6	59.6	[0.00]	ug/L	10:42:03
3	P 214.914†	195.8	196.0	[0.00]	ug/L	10:42:03
3	Pb 220.353†	-81.3	-81.3	[0.00]	ug/L	10:42:03
3	S 181.975 Axial†	40.4	40.4	[0.00]	ug/L	10:42:03
3	Sb 206.836†	40.0	40.0	[0.00]	ug/L	10:42:03
3	Se 196.026†	-23.7	-23.7	[0.00]	ug/L	10:42:03
3	Si 251.611†	522.4	523.0	[0.00]	ug/L	10:42:03
3	Sn 189.927†	11.2	11.2	[0.00]	ug/L	10:42:03
3	Sr 421.552†	6.5	6.5	[0.00]	ug/L	10:40:25
3	Ti 334.940†	-1235.0	-1236.3	[0.00]	ug/L	10:41:43
3	Tl 190.801†	-32.5	-32.5	[0.00]	ug/L	10:42:03
3	U 409.014†	-2833.5	-2836.4	[0.00]	ug/L	10:41:43
3	V 292.402†	-1438.4	-1439.9	[0.00]	ug/L	10:41:43
3	Zn 213.857†	561.3	561.9	[0.00]	ug/L	10:42:03
3	SiO2†	569.5	570.0	[0.00]	ug/L	10:42:18

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	900063.2	4757.26	0.53%	100.00	%
Sc Radial	4253.5	19.32	0.45%	100	%
Y 371.029	762442.3	4246.85	0.56%	100.00	%
Y RADIAL	4692.1	12.68	0.27%	100.0	%
Ag 328.068†	229.3	47.35	20.65%	[0.00]	ug/L
Al 396.153Radial†	-110.8	2.77	2.50%	[0.00]	ug/L
As 188.979†	-20.5	3.07	14.95%	[0.00]	ug/L
B 249.677†	-373.0	6.71	1.80%	[0.00]	ug/L
Ba 233.527†	-9.1	8.14	89.03%	[0.00]	ug/L
Be 313.107†	-3853.3	28.38	0.74%	[0.00]	ug/L
Ca 317.933Radial†	15.5	2.01	13.01%	[0.00]	ug/L
Cd 226.502†	-183.3	8.97	4.89%	[0.00]	ug/L
Co 228.616†	-61.9	4.92	7.94%	[0.00]	ug/L
Cr 267.716†	66.0	11.33	17.17%	[0.00]	ug/L
Cu 324.752†	6077.1	28.47	0.47%	[0.00]	ug/L
Fe 238.204 Radial†	10.2	1.10	10.82%	[0.00]	ug/L
K 766.490 Radial†	2556.8	57.63	2.25%	[0.00]	ug/L
Mg 279.077 IEC†	2.8	1.36	49.52%	[0.00]	ug/L
Mn 257.610†	436.8	17.14	3.92%	[0.00]	ug/L
Mo 202.031†	6.1	7.25	119.42%	[0.00]	ug/L
Na 589.592 Radial†	-740.4	49.61	6.70%	[0.00]	ug/L
Ni 231.604†	52.3	6.65	12.71%	[0.00]	ug/L
P 214.914†	202.0	5.38	2.66%	[0.00]	ug/L
Pb 220.353†	-65.0	14.93	22.95%	[0.00]	ug/L
S 181.975 Axial†	37.0	2.96	7.98%	[0.00]	ug/L
Sb 206.836†	36.7	5.51	15.02%	[0.00]	ug/L
Se 196.026†	-20.7	3.21	15.49%	[0.00]	ug/L
Si 251.611†	534.1	20.85	3.90%	[0.00]	ug/L
Sn 189.927†	10.4	2.82	27.03%	[0.00]	ug/L
Sr 421.552†	36.8	26.39	71.74%	[0.00]	ug/L
Ti 334.940†	-1281.8	39.63	3.09%	[0.00]	ug/L
Tl 190.801†	-31.2	4.30	13.78%	[0.00]	ug/L
U 409.014†	-2816.3	77.97	2.77%	[0.00]	ug/L
V 292.402†	-1430.4	12.22	0.85%	[0.00]	ug/L

Zn 213.857†	557.7	10.02	1.80%	[0.00] ug/L
SiO2†	551.5	25.76	4.67%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/23/2010 10:44:29
Data Type: Reprocessed on 2/23/2010 12:42:18

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	891672.7	891672.7	99.068	%	10:46:54
1	Sc Radial	4519.2	4519.2	106	%	10:46:27
1	Y 371.029	752776.2	752776.2	98.732	%	10:46:54
1	Y RADIAL	4974.4	4974.4	106.0	%	10:46:27
1	Ag 328.068†	22198.2	22177.7	[100]	ug/L	10:46:54
1	As 188.979†	187.9	210.2	[100]	ug/L	10:47:14
1	B 249.677†	3567.9	3974.4	[100]	ug/L	10:46:54
1	Ba 233.527†	13048.6	13180.5	[100]	ug/L	10:46:54
1	Be 313.107†	263035.2	269363.5	[100]	ug/L	10:46:54
1	Cd 226.502†	8592.6	8856.8	[100]	ug/L	10:46:54
1	Co 228.616†	4716.3	4822.6	[100]	ug/L	10:47:14
1	Cr 267.716†	9140.2	9160.2	[100]	ug/L	10:46:54
1	Cu 324.752†	39374.9	33668.2	[100]	ug/L	10:46:54
1	K 766.490 Radial†	7859.9	4841.1	[1000]	ug/L	10:46:22
1	Mn 257.610†	91567.1	91991.9	[100]	ug/L	10:46:54
1	Mo 202.031†	1383.5	1390.4	[100]	ug/L	10:47:14
1	Ni 231.604†	3970.8	3955.9	[100]	ug/L	10:47:14
1	P 214.914†	1027.1	834.8	[500]	ug/L	10:47:14
1	Pb 220.353†	763.8	836.0	[100]	ug/L	10:47:14
1	S 181.975 Axial†	169.6	134.1	[200]	ug/L	10:47:14
1	Sb 206.836†	319.5	285.8	[100]	ug/L	10:47:14
1	Se 196.026†	132.3	154.3	[100]	ug/L	10:47:14
1	Si 251.611†	16049.5	15666.3	[500]	ug/L	10:46:54
1	Sn 189.927†	558.0	552.8	[100]	ug/L	10:47:14
1	Sr 421.552†	15243.0	14310.1	[100]	ug/L	10:46:27
1	Ti 334.940†	64268.9	66155.5	[100]	ug/L	10:46:54
1	Tl 190.801†	290.6	324.5	[100]	ug/L	10:47:14
1	U 409.014†	1007.2	3832.9	[100]	ug/L	10:46:54
1	V 292.402†	12926.8	14478.9	[100]	ug/L	10:46:54
1	Zn 213.857†	10644.5	10187.0	[100]	ug/L	10:46:54
1	SiO2†	15951.0	15549.6	[1069.5]	ug/L	10:48:11
2	Sc 361.383	909921.5	909921.5	101.10	%	10:47:20
2	Sc Radial	3973.4	3973.4	93.4	%	10:46:37
2	Y 371.029	767317.3	767317.3	100.64	%	10:47:20
2	Y RADIAL	4379.6	4379.6	93.34	%	10:46:37
2	Ag 328.068†	22100.6	21631.8	[100]	ug/L	10:47:20
2	As 188.979†	196.7	215.1	[100]	ug/L	10:47:40
2	B 249.677†	3576.2	3910.4	[100]	ug/L	10:47:20
2	Ba 233.527†	12961.6	12830.3	[100]	ug/L	10:47:20
2	Be 313.107†	261260.1	262282.8	[100]	ug/L	10:47:20
2	Cd 226.502†	8561.9	8652.5	[100]	ug/L	10:47:20
2	Co 228.616†	4678.8	4690.0	[100]	ug/L	10:47:40
2	Cr 267.716†	9011.8	8848.2	[100]	ug/L	10:47:20
2	Cu 324.752†	39444.2	32939.7	[100]	ug/L	10:47:20
2	K 766.490 Radial†	8012.3	6020.3	[1000]	ug/L	10:46:32
2	Mn 257.610†	91144.9	89720.6	[100]	ug/L	10:47:20
2	Mo 202.031†	1387.7	1366.6	[100]	ug/L	10:47:40
2	Ni 231.604†	3948.7	3853.6	[100]	ug/L	10:47:40
2	P 214.914†	1037.8	824.5	[500]	ug/L	10:47:40
2	Pb 220.353†	761.8	818.5	[100]	ug/L	10:47:40
2	S 181.975 Axial†	173.5	134.6	[200]	ug/L	10:47:40
2	Sb 206.836†	326.8	286.6	[100]	ug/L	10:47:40
2	Se 196.026†	128.3	147.6	[100]	ug/L	10:47:40
2	Si 251.611†	15983.3	15276.0	[500]	ug/L	10:47:20
2	Sn 189.927†	554.9	538.5	[100]	ug/L	10:47:40
2	Sr 421.552†	15418.6	16468.7	[100]	ug/L	10:46:37
2	Ti 334.940†	64081.0	64668.6	[100]	ug/L	10:47:20
2	Tl 190.801†	285.0	313.1	[100]	ug/L	10:47:40

2	U 409.014†	1081.5	3886.0	[100]	ug/L	10:47:20
2	V 292.402†	12885.3	14176.2	[100]	ug/L	10:47:20
2	Zn 213.857†	10684.2	10010.8	[100]	ug/L	10:47:20
2	SiO2†	15928.0	15203.9	[1069.5]	ug/L	10:48:16
3	Sc 361.383	909771.2	909771.2	101.08	%	10:47:45
3	Sc Radial	4100.6	4100.6	96.4	%	10:46:47
3	Y 371.029	768136.4	768136.4	100.75	%	10:47:45
3	Y RADIAL	4554.8	4554.8	97.07	%	10:46:47
3	Ag 328.068†	22141.3	21675.7	[100]	ug/L	10:47:45
3	As 188.979†	205.3	223.6	[100]	ug/L	10:48:05
3	B 249.677†	3546.8	3881.9	[100]	ug/L	10:47:45
3	Ba 233.527†	12994.0	12864.5	[100]	ug/L	10:47:45
3	Be 313.107†	262056.2	263113.1	[100]	ug/L	10:47:45
3	Cd 226.502†	8511.9	8604.4	[100]	ug/L	10:47:45
3	Co 228.616†	4678.7	4690.7	[100]	ug/L	10:48:05
3	Cr 267.716†	9035.2	8872.8	[100]	ug/L	10:47:45
3	Cu 324.752†	39480.7	32982.3	[100]	ug/L	10:47:45
3	K 766.490 Radial†	8016.9	5759.1	[1000]	ug/L	10:46:42
3	Mn 257.610†	91093.0	89684.1	[100]	ug/L	10:47:45
3	Mo 202.031†	1380.7	1359.9	[100]	ug/L	10:48:05
3	Ni 231.604†	3953.9	3859.4	[100]	ug/L	10:48:05
3	P 214.914†	1023.6	810.6	[500]	ug/L	10:48:05
3	Pb 220.353†	750.5	807.5	[100]	ug/L	10:48:05
3	S 181.975 Axial†	173.5	134.6	[200]	ug/L	10:48:05
3	Sb 206.836†	321.6	281.5	[100]	ug/L	10:48:05
3	Se 196.026†	122.4	141.8	[100]	ug/L	10:48:05
3	Si 251.611†	15979.0	15274.4	[500]	ug/L	10:47:45
3	Sn 189.927†	547.8	531.6	[100]	ug/L	10:48:05
3	Sr 421.552†	15184.6	15714.0	[100]	ug/L	10:46:47
3	Ti 334.940†	64132.9	64730.4	[100]	ug/L	10:47:45
3	Tl 190.801†	281.0	309.2	[100]	ug/L	10:48:05
3	U 409.014†	1114.6	3919.0	[100]	ug/L	10:47:45
3	V 292.402†	12798.5	14092.4	[100]	ug/L	10:47:45
3	Zn 213.857†	10691.9	10020.1	[100]	ug/L	10:47:45
3	SiO2†	15847.1	15126.5	[1069.5]	ug/L	10:48:21

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	903788.5	10492.79	1.16%	100.41	%
Sc Radial	4197.8	285.56	6.80%	98.7	%
Y 371.029	762743.3	8641.48	1.13%	100.04	%
Y RADIAL	4636.3	305.66	6.59%	98.81	%
Ag 328.068†	21828.4	303.31	1.39%	[100]	ug/L
As 188.979†	216.3	6.80	3.14%	[100]	ug/L
B 249.677†	3922.2	47.38	1.21%	[100]	ug/L
Ba 233.527†	12958.4	193.07	1.49%	[100]	ug/L
Be 313.107†	264919.8	3870.68	1.46%	[100]	ug/L
Cd 226.502†	8704.5	134.01	1.54%	[100]	ug/L
Co 228.616†	4734.4	76.35	1.61%	[100]	ug/L
Cr 267.716†	8960.4	173.46	1.94%	[100]	ug/L
Cu 324.752†	33196.7	408.88	1.23%	[100]	ug/L
K 766.490 Radial†	5540.2	619.35	11.18%	[1000]	ug/L
Mn 257.610†	90465.5	1322.00	1.46%	[100]	ug/L
Mo 202.031†	1372.3	16.05	1.17%	[100]	ug/L
Ni 231.604†	3889.6	57.45	1.48%	[100]	ug/L
P 214.914†	823.3	12.10	1.47%	[500]	ug/L
Pb 220.353†	820.7	14.38	1.75%	[100]	ug/L
S 181.975 Axial†	134.5	0.28	0.21%	[200]	ug/L
Sb 206.836†	284.6	2.73	0.96%	[100]	ug/L
Se 196.026†	147.9	6.24	4.22%	[100]	ug/L
Si 251.611†	15405.6	225.84	1.47%	[500]	ug/L
Sn 189.927†	541.0	10.83	2.00%	[100]	ug/L
Sr 421.552†	15497.6	1095.44	7.07%	[100]	ug/L
Ti 334.940†	65184.8	841.21	1.29%	[100]	ug/L
Tl 190.801†	315.6	7.96	2.52%	[100]	ug/L
U 409.014†	3879.3	43.40	1.12%	[100]	ug/L
V 292.402†	14249.1	203.31	1.43%	[100]	ug/L
Zn 213.857†	10072.6	99.17	0.98%	[100]	ug/L
SiO2†	15293.3	225.24	1.47%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/23/2010 10:50:31
Data Type: Reprocessed on 2/23/2010 12:42:24

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	900323.3	900323.3	100.03	%	10:53:41
1	Sc Radial	4256.3	4256.3	100	%	10:52:23
1	Y 371.029	750565.4	750565.4	98.442	%	10:53:41
1	Y RADIAL	4638.2	4638.2	98.85	%	10:52:23
1	Ag 328.068†	109543.2	109282.3	[500]	ug/L	10:53:46
1	Al 396.153Radial†	5378.3	5485.6	[5000]	ug/L	10:52:23
1	As 188.979†	1073.7	1093.9	[500]	ug/L	10:54:06
1	B 249.677†	20315.6	20682.7	[500]	ug/L	10:53:46
1	Ba 233.527†	64027.8	64018.5	[500]	ug/L	10:53:46
1	Be 313.107†	1312793.2	1316267.2	[500]	ug/L	10:53:41
1	Ca 317.933Radial†	2558.4	2541.3	[5000]	ug/L	10:52:43
1	Cd 226.502†	43089.3	43260.2	[500]	ug/L	10:53:46
1	Co 228.616†	23900.9	23955.9	[500]	ug/L	10:53:46
1	Cr 267.716†	44711.3	44632.4	[500]	ug/L	10:53:46
1	Cu 324.752†	171573.6	165446.9	[500]	ug/L	10:53:46
1	K 766.490 Radial†	29165.2	26589.6	[5000]	ug/L	10:52:23
1	Mg 279.077 IEC†	117.2	114.4	[5000]	ug/L	10:52:43
1	Mn 257.610†	438677.8	438114.2	[500]	ug/L	10:53:41
1	Mo 202.031†	6854.5	6846.4	[500]	ug/L	10:54:06
1	Ni 231.604†	19835.1	19777.1	[500]	ug/L	10:53:46
1	P 214.914†	4281.2	4077.9	[2500]	ug/L	10:54:06
1	Pb 220.353†	3932.5	3996.4	[500]	ug/L	10:54:06
1	S 181.975 Axial†	726.7	689.5	[1000]	ug/L	10:54:06
1	Sb 206.836†	1467.3	1430.2	[500]	ug/L	10:54:06
1	Se 196.026†	731.3	751.8	[500]	ug/L	10:54:06
1	Si 251.611†	78417.2	77860.4	[2500]	ug/L	10:53:46
1	Sn 189.927†	2762.1	2750.8	[500]	ug/L	10:54:06
1	Sr 421.552†	76092.5	76006.6	[500]	ug/L	10:52:23
1	Ti 334.940†	324664.6	325852.6	[500]	ug/L	10:53:41
1	Tl 190.801†	1528.1	1558.8	[500]	ug/L	10:54:06
1	U 409.014†	15531.1	18342.9	[500]	ug/L	10:53:46
1	V 292.402†	70288.7	71698.8	[500]	ug/L	10:53:46
1	Zn 213.857†	50466.1	49893.8	[500]	ug/L	10:53:46
1	SiO2†	77434.5	76860.6	[5347.5]	ug/L	10:55:14
2	Sc 361.383	903758.2	903758.2	100.41	%	10:54:12
2	Sc Radial	4228.2	4228.2	99.4	%	10:52:48
2	Y 371.029	752751.8	752751.8	98.729	%	10:54:12
2	Y RADIAL	4643.7	4643.7	98.97	%	10:52:48
2	Ag 328.068†	110294.8	109614.5	[500]	ug/L	10:54:17
2	Al 396.153Radial†	5368.3	5511.3	[5000]	ug/L	10:52:48
2	As 188.979†	1096.6	1112.7	[500]	ug/L	10:54:38
2	B 249.677†	20407.6	20697.1	[500]	ug/L	10:54:17
2	Ba 233.527†	64321.9	64068.0	[500]	ug/L	10:54:17
2	Be 313.107†	1317297.0	1315764.5	[500]	ug/L	10:54:12
2	Ca 317.933Radial†	2568.2	2568.1	[5000]	ug/L	10:53:09
2	Cd 226.502†	43253.2	43259.7	[500]	ug/L	10:54:17
2	Co 228.616†	24083.7	24047.2	[500]	ug/L	10:54:17
2	Cr 267.716†	44907.2	44657.6	[500]	ug/L	10:54:17
2	Cu 324.752†	172308.5	165526.9	[500]	ug/L	10:54:17
2	K 766.490 Radial†	29045.9	26663.1	[5000]	ug/L	10:52:48
2	Mg 279.077 IEC†	117.0	114.9	[5000]	ug/L	10:53:09
2	Mn 257.610†	441270.2	439029.2	[500]	ug/L	10:54:12
2	Mo 202.031†	6863.7	6829.6	[500]	ug/L	10:54:38
2	Ni 231.604†	19905.6	19771.9	[500]	ug/L	10:54:17
2	P 214.914†	4297.7	4078.1	[2500]	ug/L	10:54:38
2	Pb 220.353†	3979.3	4028.0	[500]	ug/L	10:54:38
2	S 181.975 Axial†	723.2	683.2	[1000]	ug/L	10:54:38
2	Sb 206.836†	1455.8	1413.2	[500]	ug/L	10:54:38

2	Se 196.026†	734.2	751.9	[500]	ug/L	10:54:38
2	Si 251.611†	78823.9	77967.5	[2500]	ug/L	10:54:17
2	Sn 189.927†	2777.4	2755.6	[500]	ug/L	10:54:38
2	Sr 421.552†	75741.3	76158.1	[500]	ug/L	10:52:48
2	Ti 334.940†	326293.8	326241.5	[500]	ug/L	10:54:12
2	Tl 190.801†	1532.3	1557.2	[500]	ug/L	10:54:38
2	U 409.014†	15585.9	18338.5	[500]	ug/L	10:54:17
2	V 292.402†	70570.4	71712.3	[500]	ug/L	10:54:17
2	Zn 213.857†	50835.7	50070.2	[500]	ug/L	10:54:17
2	SiO2†	79038.6	78163.9	[5347.5]	ug/L	10:55:19
3	Sc 361.383	923923.2	923923.2	102.65	%	10:54:44
3	Sc Radial	4272.5	4272.5	100	%	10:53:14
3	Y 371.029	769970.9	769970.9	100.99	%	10:54:44
3	Y RADIAL	4695.6	4695.6	100.1	%	10:53:14
3	Ag 328.068†	108677.4	105641.5	[500]	ug/L	10:54:49
3	Al 396.153Radial†	5415.2	5501.9	[5000]	ug/L	10:53:14
3	As 188.979†	1076.6	1069.3	[500]	ug/L	10:55:09
3	B 249.677†	20096.6	19950.5	[500]	ug/L	10:54:49
3	Ba 233.527†	63178.8	61556.3	[500]	ug/L	10:54:49
3	Be 313.107†	1346718.2	1315792.9	[500]	ug/L	10:54:44
3	Ca 317.933Radial†	2564.0	2537.1	[5000]	ug/L	10:53:34
3	Cd 226.502†	42442.6	41529.9	[500]	ug/L	10:54:49
3	Co 228.616†	23631.9	23083.6	[500]	ug/L	10:54:49
3	Cr 267.716†	44091.6	42887.0	[500]	ug/L	10:54:49
3	Cu 324.752†	169944.9	159479.0	[500]	ug/L	10:54:49
3	K 766.490 Radial†	29199.6	26513.0	[5000]	ug/L	10:53:14
3	Mg 279.077 IEC†	117.2	113.9	[5000]	ug/L	10:53:34
3	Mn 257.610†	449647.7	437598.8	[500]	ug/L	10:54:44
3	Mo 202.031†	6850.6	6667.6	[500]	ug/L	10:55:09
3	Ni 231.604†	19515.8	18959.5	[500]	ug/L	10:54:49
3	P 214.914†	4291.0	3978.1	[2500]	ug/L	10:55:09
3	Pb 220.353†	3937.9	3901.2	[500]	ug/L	10:55:09
3	S 181.975 Axial†	717.9	662.3	[1000]	ug/L	10:55:09
3	Sb 206.836†	1463.6	1389.1	[500]	ug/L	10:55:09
3	Se 196.026†	736.9	738.5	[500]	ug/L	10:55:09
3	Si 251.611†	77563.1	75025.9	[2500]	ug/L	10:54:49
3	Sn 189.927†	2774.8	2692.7	[500]	ug/L	10:55:09
3	Sr 421.552†	76283.5	75907.6	[500]	ug/L	10:53:14
3	Ti 334.940†	333418.8	326090.2	[500]	ug/L	10:54:44
3	Tl 190.801†	1521.7	1513.6	[500]	ug/L	10:55:09
3	U 409.014†	15506.4	17922.2	[500]	ug/L	10:54:49
3	V 292.402†	69454.9	69091.7	[500]	ug/L	10:54:49
3	Zn 213.857†	49917.0	48070.2	[500]	ug/L	10:54:49
3	SiO2†	77323.4	74775.1	[5347.5]	ug/L	10:55:24

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	909334.9	12750.06	1.40%	101.03	%
Sc Radial	4252.4	22.42	0.53%	100.0	%
Y 371.029	757762.7	10629.01	1.40%	99.386	%
Y RADIAL	4659.2	31.66	0.68%	99.30	%
Ag 328.068†	108179.4	2204.17	2.04%	[500]	ug/L
Al 396.153Radial†	5499.6	12.96	0.24%	[5000]	ug/L
As 188.979†	1092.0	21.74	1.99%	[500]	ug/L
B 249.677†	20443.5	426.95	2.09%	[500]	ug/L
Ba 233.527†	63214.3	1436.04	2.27%	[500]	ug/L
Be 313.107†	1315941.5	282.38	0.02%	[500]	ug/L
Ca 317.933Radial†	2548.8	16.83	0.66%	[5000]	ug/L
Cd 226.502†	42683.3	998.86	2.34%	[500]	ug/L
Co 228.616†	23695.5	531.94	2.24%	[500]	ug/L
Cr 267.716†	44059.0	1015.06	2.30%	[500]	ug/L
Cu 324.752†	163484.3	3468.87	2.12%	[500]	ug/L
K 766.490 Radial†	26588.6	75.02	0.28%	[5000]	ug/L
Mg 279.077 IEC†	114.4	0.51	0.45%	[5000]	ug/L
Mn 257.610†	438247.4	724.44	0.17%	[500]	ug/L
Mo 202.031†	6781.2	98.75	1.46%	[500]	ug/L
Ni 231.604†	19502.8	470.54	2.41%	[500]	ug/L
P 214.914†	4044.7	57.68	1.43%	[2500]	ug/L
Pb 220.353†	3975.2	66.02	1.66%	[500]	ug/L

S 181.975 Axial†	678.3	14.20	2.09%	[1000]	ug/L
Sb 206.836†	1410.8	20.65	1.46%	[500]	ug/L
Se 196.026†	747.4	7.69	1.03%	[500]	ug/L
Si 251.611†	76951.3	1668.26	2.17%	[2500]	ug/L
Sn 189.927†	2733.1	35.00	1.28%	[500]	ug/L
Sr 421.552†	76024.1	126.19	0.17%	[500]	ug/L
Ti 334.940†	326061.4	196.03	0.06%	[500]	ug/L
Tl 190.801†	1543.2	25.69	1.66%	[500]	ug/L
U 409.014†	18201.2	241.61	1.33%	[500]	ug/L
V 292.402†	70834.2	1509.15	2.13%	[500]	ug/L
Zn 213.857†	49344.7	1107.27	2.24%	[500]	ug/L
SiO2†	76599.9	1709.41	2.23%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/23/2010 10:57:35
Data Type: Reprocessed on 2/23/2010 12:42:25

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	891910.2	891910.2	99.094	%	11:00:52
1	Sc Radial	4245.1	4245.1	99.8	%	10:59:28
1	Y 371.029	744742.4	744742.4	97.679	%	11:00:52
1	Y RADIAL	4634.9	4634.9	98.78	%	10:59:28
1	Ag 328.068†	216642.1	218393.1	[1000]	ug/L	11:00:52
1	Al 396.153Radial†	10786.9	10919.1	[10000]	ug/L	10:59:28
1	As 188.979†	2169.6	2209.9	[1000]	ug/L	11:01:12
1	B 249.677†	41480.7	42232.8	[1000]	ug/L	11:00:52
1	Ba 233.527†	127494.5	128669.0	[1000]	ug/L	11:00:52
1	Be 313.107†	2653232.1	2681338.7	[1000]	ug/L	11:00:47
1	Ca 317.933Radial†	5118.1	5112.7	[10000]	ug/L	10:59:28
1	Cd 226.502†	85611.0	86576.9	[1000]	ug/L	11:00:52
1	Co 228.616†	47510.9	48007.2	[1000]	ug/L	11:00:52
1	Cr 267.716†	88787.8	89533.4	[1000]	ug/L	11:00:52
1	Cu 324.752†	337960.7	334972.9	[1000]	ug/L	11:00:52
1	Fe 238.204 Radial†	785.9	777.3	[10000]	ug/L	10:59:48
1	K 766.490 Radial†	55587.7	53141.1	[10000]	ug/L	10:59:28
1	Mg 279.077 IEC†	229.7	227.5	[10000]	ug/L	10:59:48
1	Mn 257.610†	882531.1	890161.6	[1000]	ug/L	11:00:47
1	Mo 202.031†	13476.9	13594.0	[1000]	ug/L	11:01:12
1	Na 589.592 Radial†	33142.6	33948.6	[10000]	ug/L	10:59:28
1	Ni 231.604†	39197.0	39503.0	[1000]	ug/L	11:00:52
1	P 214.914†	8340.5	8214.7	[5000]	ug/L	11:01:12
1	Pb 220.353†	7911.5	8048.8	[1000]	ug/L	11:01:12
1	S 181.975 Axial†	1383.9	1359.5	[2000]	ug/L	11:01:12
1	Sb 206.836†	2854.7	2844.1	[1000]	ug/L	11:01:12
1	Se 196.026†	1477.1	1511.3	[1000]	ug/L	11:01:12
1	Si 251.611†	155728.5	156617.9	[5000]	ug/L	11:00:52
1	Sn 189.927†	5486.1	5525.8	[1000]	ug/L	11:01:12
1	Sr 421.552†	149204.2	149463.0	[1000]	ug/L	10:59:28
1	Ti 334.940†	651627.1	658865.4	[1000]	ug/L	11:00:47
1	Tl 190.801†	3041.6	3100.6	[1000]	ug/L	11:01:12
1	U 409.014†	34095.7	37223.7	[1000]	ug/L	11:00:52
1	V 292.402†	142270.3	145001.3	[1000]	ug/L	11:00:52
1	Zn 213.857†	99796.5	100151.0	[1000]	ug/L	11:00:52
1	SiO2†	155863.5	156736.7	[10695]	ug/L	11:02:22
2	Sc 361.383	888123.5	888123.5	98.673	%	11:01:24
2	Sc Radial	4238.9	4238.9	99.7	%	10:59:53
2	Y 371.029	740212.2	740212.2	97.084	%	11:01:24
2	Y RADIAL	4662.0	4662.0	99.36	%	10:59:53
2	Ag 328.068†	215558.5	218227.1	[1000]	ug/L	11:01:24
2	Al 396.153Radial†	10911.0	11059.4	[10000]	ug/L	10:59:53
2	As 188.979†	2174.9	2224.6	[1000]	ug/L	11:01:44
2	B 249.677†	41324.3	42252.9	[1000]	ug/L	11:01:24
2	Ba 233.527†	126728.9	128441.7	[1000]	ug/L	11:01:24
2	Be 313.107†	2671625.9	2711395.8	[1000]	ug/L	11:01:19
2	Ca 317.933Radial†	5131.3	5133.5	[10000]	ug/L	10:59:53
2	Cd 226.502†	84910.5	86235.4	[1000]	ug/L	11:01:24
2	Co 228.616†	47317.7	48015.8	[1000]	ug/L	11:01:24
2	Cr 267.716†	88245.6	89366.0	[1000]	ug/L	11:01:24
2	Cu 324.752†	336722.4	335172.1	[1000]	ug/L	11:01:24
2	Fe 238.204 Radial†	787.6	780.2	[10000]	ug/L	11:00:13
2	K 766.490 Radial†	56091.1	53727.5	[10000]	ug/L	10:59:53
2	Mg 279.077 IEC†	226.8	224.8	[10000]	ug/L	11:00:13
2	Mn 257.610†	890113.8	901643.4	[1000]	ug/L	11:01:19
2	Mo 202.031†	13455.5	13630.4	[1000]	ug/L	11:01:44
2	Na 589.592 Radial†	33331.2	34186.3	[10000]	ug/L	10:59:53
2	Ni 231.604†	38960.7	39432.2	[1000]	ug/L	11:01:24

2	P 214.914†	8345.5	8255.6	[5000]	ug/L	11:01:44
2	Pb 220.353†	7907.6	8078.9	[1000]	ug/L	11:01:44
2	S 181.975 Axial†	1373.4	1354.9	[2000]	ug/L	11:01:44
2	Sb 206.836†	2879.1	2881.1	[1000]	ug/L	11:01:44
2	Se 196.026†	1477.3	1517.8	[1000]	ug/L	11:01:44
2	Si 251.611†	154934.5	156483.3	[5000]	ug/L	11:01:24
2	Sn 189.927†	5443.4	5506.1	[1000]	ug/L	11:01:44
2	Sr 421.552†	150616.7	151098.6	[1000]	ug/L	10:59:53
2	Ti 334.940†	658117.6	668247.0	[1000]	ug/L	11:01:19
2	Tl 190.801†	3044.3	3116.4	[1000]	ug/L	11:01:44
2	U 409.014†	33948.1	37220.8	[1000]	ug/L	11:01:24
2	V 292.402†	141298.1	144628.1	[1000]	ug/L	11:01:24
2	Zn 213.857†	99168.2	99943.7	[1000]	ug/L	11:01:24
2	SiO2†	153428.2	154939.3	[10695]	ug/L	11:02:27
3	Sc 361.383	881663.0	881663.0	97.956	%	11:01:56
3	Sc Radial	4247.4	4247.4	99.9	%	11:00:19
3	Y 371.029	737020.6	737020.6	96.666	%	11:01:56
3	Y RADIAL	4661.7	4661.7	99.35	%	11:00:19
3	Ag 328.068†	213438.7	217663.8	[1000]	ug/L	11:01:56
3	Al 396.153Radial†	10923.7	11050.3	[10000]	ug/L	11:00:19
3	As 188.979†	2182.0	2248.1	[1000]	ug/L	11:02:16
3	B 249.677†	40835.8	42060.9	[1000]	ug/L	11:01:56
3	Ba 233.527†	125483.7	128111.6	[1000]	ug/L	11:01:56
3	Be 313.107†	2637900.5	2696806.4	[1000]	ug/L	11:01:51
3	Ca 317.933Radial†	5168.9	5160.9	[10000]	ug/L	11:00:19
3	Cd 226.502†	84269.5	86211.5	[1000]	ug/L	11:01:56
3	Co 228.616†	46771.3	47809.3	[1000]	ug/L	11:01:56
3	Cr 267.716†	87584.3	89346.2	[1000]	ug/L	11:01:56
3	Cu 324.752†	332586.7	333450.6	[1000]	ug/L	11:01:56
3	Fe 238.204 Radial†	789.5	780.5	[10000]	ug/L	11:00:39
3	K 766.490 Radial†	56106.6	53631.2	[10000]	ug/L	11:00:19
3	Mg 279.077 IEC†	229.7	227.3	[10000]	ug/L	11:00:39
3	Mn 257.610†	877241.1	895112.1	[1000]	ug/L	11:01:51
3	Mo 202.031†	13566.5	13843.6	[1000]	ug/L	11:02:16
3	Na 589.592 Radial†	33197.9	33986.4	[10000]	ug/L	11:00:19
3	Ni 231.604†	38604.3	39357.7	[1000]	ug/L	11:01:56
3	P 214.914†	8390.1	8363.1	[5000]	ug/L	11:02:16
3	Pb 220.353†	7939.3	8170.0	[1000]	ug/L	11:02:16
3	S 181.975 Axial†	1396.3	1388.4	[2000]	ug/L	11:02:16
3	Sb 206.836†	2893.4	2917.1	[1000]	ug/L	11:02:16
3	Se 196.026†	1486.7	1538.4	[1000]	ug/L	11:02:16
3	Si 251.611†	153339.1	156005.1	[5000]	ug/L	11:01:56
3	Sn 189.927†	5496.2	5600.5	[1000]	ug/L	11:02:16
3	Sr 421.552†	150890.2	151072.2	[1000]	ug/L	11:00:19
3	Ti 334.940†	648705.2	663525.4	[1000]	ug/L	11:01:51
3	Tl 190.801†	3057.3	3152.4	[1000]	ug/L	11:02:16
3	U 409.014†	33467.9	36982.6	[1000]	ug/L	11:01:56
3	V 292.402†	139957.1	144308.4	[1000]	ug/L	11:01:56
3	Zn 213.857†	98088.9	99578.3	[1000]	ug/L	11:01:56
3	SiO2†	154547.5	157221.4	[10695]	ug/L	11:02:32

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	887232.2	5181.41	0.58%	98.574	%
Sc Radial	4243.8	4.37	0.10%	99.8	%
Y 371.029	740658.4	3880.17	0.52%	97.143	%
Y RADIAL	4652.9	15.56	0.33%	99.16	%
Ag 328.068†	218094.7	382.25	0.18%	[1000]	ug/L
Al 396.153Radial†	11009.6	78.52	0.71%	[10000]	ug/L
As 188.979†	2227.5	19.22	0.86%	[1000]	ug/L
B 249.677†	42182.2	105.48	0.25%	[1000]	ug/L
Ba 233.527†	128407.5	280.27	0.22%	[1000]	ug/L
Be 313.107†	2696513.6	15030.70	0.56%	[1000]	ug/L
Ca 317.933Radial†	5135.7	24.16	0.47%	[10000]	ug/L
Cd 226.502†	86341.3	204.44	0.24%	[1000]	ug/L
Co 228.616†	47944.1	116.80	0.24%	[1000]	ug/L
Cr 267.716†	89415.2	102.87	0.12%	[1000]	ug/L
Cu 324.752†	334531.9	941.67	0.28%	[1000]	ug/L
Fe 238.204 Radial†	779.3	1.76	0.23%	[10000]	ug/L

K 766.490 Radial†	53499.9	314.48	0.59%	[10000]	ug/L
Mg 279.077 IEC†	226.5	1.48	0.65%	[10000]	ug/L
Mn 257.610†	895639.0	5759.03	0.64%	[1000]	ug/L
Mo 202.031†	13689.3	134.80	0.98%	[1000]	ug/L
Na 589.592 Radial†	34040.4	127.76	0.38%	[10000]	ug/L
Ni 231.604†	39431.0	72.66	0.18%	[1000]	ug/L
P 214.914†	8277.8	76.67	0.93%	[5000]	ug/L
Pb 220.353†	8099.3	63.08	0.78%	[1000]	ug/L
S 181.975 Axial†	1367.6	18.17	1.33%	[2000]	ug/L
Sb 206.836†	2880.8	36.47	1.27%	[1000]	ug/L
Se 196.026†	1522.5	14.14	0.93%	[1000]	ug/L
Si 251.611†	156368.7	322.03	0.21%	[5000]	ug/L
Sn 189.927†	5544.1	49.81	0.90%	[1000]	ug/L
Sr 421.552†	150544.6	936.80	0.62%	[1000]	ug/L
Ti 334.940†	663545.9	4690.80	0.71%	[1000]	ug/L
Tl 190.801†	3123.2	26.50	0.85%	[1000]	ug/L
U 409.014†	37142.4	138.32	0.37%	[1000]	ug/L
V 292.402†	144645.9	346.78	0.24%	[1000]	ug/L
Zn 213.857†	99891.0	289.99	0.29%	[1000]	ug/L
SiO2†	156299.2	1202.33	0.77%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/23/2010 11:04:43
Data Type: Reprocessed on 2/23/2010 12:42:26

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	883668.8	883668.8	98.179	%	11:07:54
1	Sc Radial	4142.8	4142.8	97.4	%	11:06:57
1	Y 371.029	731362.3	731362.3	95.924	%	11:07:54
1	Y RADIAL	4513.4	4513.4	96.19	%	11:06:57
1	Al 396.153Radial†	53617.4	55161.6	[50000]	ug/L	11:06:37
1	Ca 317.933Radial†	24434.2	25072.0	[50000]	ug/L	11:06:37
1	Fe 238.204 Radial†	1521.2	1551.6	[20000]	ug/L	11:06:57
1	Mg 279.077 IEC†	1067.1	1092.9	[50000]	ug/L	11:06:57
1	Na 589.592 Radial†	66830.1	69357.2	[20000]	ug/L	11:06:37
2	Sc 361.383	886219.7	886219.7	98.462	%	11:08:00
2	Sc Radial	4127.8	4127.8	97.0	%	11:07:22
2	Y 371.029	732471.7	732471.7	96.069	%	11:08:00
2	Y RADIAL	4512.0	4512.0	96.16	%	11:07:22
2	Al 396.153Radial†	53806.5	55555.7	[50000]	ug/L	11:07:02
2	Ca 317.933Radial†	24580.6	25313.6	[50000]	ug/L	11:07:02
2	Fe 238.204 Radial†	1517.7	1553.7	[20000]	ug/L	11:07:22
2	Mg 279.077 IEC†	1071.8	1101.7	[50000]	ug/L	11:07:22
2	Na 589.592 Radial†	66841.1	69616.9	[20000]	ug/L	11:07:02
3	Sc 361.383	883561.2	883561.2	98.167	%	11:08:05
3	Sc Radial	4141.9	4141.9	97.4	%	11:07:47
3	Y 371.029	731261.2	731261.2	95.910	%	11:08:05
3	Y RADIAL	4503.9	4503.9	95.99	%	11:07:47
3	Al 396.153Radial†	53386.3	54936.3	[50000]	ug/L	11:07:27
3	Ca 317.933Radial†	24290.9	24930.3	[50000]	ug/L	11:07:27
3	Fe 238.204 Radial†	1516.5	1547.2	[20000]	ug/L	11:07:47
3	Mg 279.077 IEC†	1074.4	1100.7	[50000]	ug/L	11:07:47
3	Na 589.592 Radial†	65887.7	68404.4	[20000]	ug/L	11:07:27

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	884483.2	1504.77	0.17%	98.269	%
Sc Radial	4137.5	8.38	0.20%	97.3	%
Y 371.029	731698.4	671.64	0.09%	95.968	%
Y RADIAL	4509.8	5.12	0.11%	96.11	%
Al 396.153Radial†	55217.9	313.52	0.57%	[50000]	ug/L
Ca 317.933Radial†	25105.3	193.84	0.77%	[50000]	ug/L
Fe 238.204 Radial†	1550.8	3.33	0.21%	[20000]	ug/L
Mg 279.077 IEC†	1098.4	4.81	0.44%	[50000]	ug/L
Na 589.592 Radial†	69126.2	638.43	0.92%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	217.8	0.00000	0.999995	
Al 396.153Radial	3	Lin Thru 0	0.0	1.104	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.218	0.00000	0.999967	
B 249.677	3	Lin Thru 0	0.0	41.90	0.00000	0.999908	
Ba 233.527	3	Lin Thru 0	0.0	128.0	0.00000	0.999980	
Be 313.107	3	Lin Thru 0	0.0	2683	0.00000	0.999953	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5026	0.00000	0.999989	
Cd 226.502	3	Lin Thru 0	0.0	86.15	0.00000	0.999989	
Co 228.616	3	Lin Thru 0	0.0	47.83	0.00000	0.999989	
Cr 267.716	3	Lin Thru 0	0.0	89.16	0.00000	0.999983	
Cu 324.752	3	Lin Thru 0	0.0	333.0	0.00000	0.999959	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0776	0.00000	0.999998	

K 766.490 Radial	3	Lin Thru 0	0.0	5.345	0.00000	0.999992
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0220	0.00000	0.999975
Mn 257.610	3	Lin Thru 0	0.0	891.9	0.00000	0.999963
Mo 202.031	3	Lin Thru 0	0.0	13.66	0.00000	0.999993
Na 589.592 Radia	2	Lin Thru 0	0.0	3.446	0.00000	0.999982
Ni 231.604	3	Lin Thru 0	0.0	39.34	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	1.648	0.00000	0.999959
Pb 220.353	3	Lin Thru 0	0.0	8.071	0.00000	0.999972
S 181.975 Axial	3	Lin Thru 0	0.0	0.6826	0.00000	0.999994
Sb 206.836	3	Lin Thru 0	0.0	2.869	0.00000	0.999966
Se 196.026	3	Lin Thru 0	0.0	1.517	0.00000	0.999971
Si 251.611	3	Lin Thru 0	0.0	31.17	0.00000	0.999980
Sn 189.927	3	Lin Thru 0	0.0	5.528	0.00000	0.999982
Sr 421.552	3	Lin Thru 0	0.0	150.9	0.00000	0.999989
Ti 334.940	3	Lin Thru 0	0.0	661.2	0.00000	0.999976
Tl 190.801	3	Lin Thru 0	0.0	3.116	0.00000	0.999988
U 409.014	3	Lin Thru 0	0.0	37.01	0.00000	0.999959
V 292.402	3	Lin Thru 0	0.0	144.0	0.00000	0.999966
Zn 213.857	3	Lin Thru 0	0.0	99.66	0.00000	0.999988
SiO2	3	Lin Thru 0	0.0	14.55	0.00000	0.999967

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/23/2010 11:10:17
Data Type: Reprocessed on 2/23/2010 12:42:27

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	915874.4	915874.4	101.76	%			11:13:27
1	Sc Radial	4252.1	4252.1	100.0	%			11:12:09
1	Y 371.029	765461.2	765461.2	100.40	%			11:13:27
1	Y RADIAL	4657.5	4657.5	99.26	%			11:12:09
1	Ag 328.068†	57664.7	56439.9	262.37	ug/L	262.37	ppb	11:13:27
1	Al 396.153Radial†	5487.0	5599.7	5045.4	ug/L	5045.4	ppb	11:12:09
1	As 188.979†	1055.5	1057.8	481.02	ug/L	481.02	ppb	11:13:47
1	B 249.677†	21613.3	21613.1	513.53	ug/L	513.53	ppb	11:13:27
1	Ba 233.527†	66256.4	65121.7	509.94	ug/L	509.94	ppb	11:13:27
1	Be 313.107†	698759.7	690549.9	258.46	ug/L	258.46	ppb	11:13:27
1	Ca 317.933Radial†	2585.1	2570.5	5114.2	ug/L	5114.2	ppb	11:12:30
1	Cd 226.502†	43492.1	42924.6	498.11	ug/L	498.11	ppb	11:13:27
1	Co 228.616†	24233.1	23876.7	499.37	ug/L	499.37	ppb	11:13:47
1	Cr 267.716†	44140.7	43312.7	486.80	ug/L	486.80	ppb	11:13:27
1	Cu 324.752†	178343.5	169187.6	508.06	ug/L	508.06	ppb	11:13:27
1	Fe 238.204 Radial†	414.8	404.8	5229.6	ug/L	5229.6	ppb	11:12:30
1	K 766.490 Radial†	15818.9	13267.7	2478.7	ug/L	2478.7	ppb	11:12:09
1	Mg 279.077 IEC†	121.5	118.8	5400.6	ug/L	5400.6	ppb	11:12:30
1	Mn 257.610†	463611.0	455170.6	510.63	ug/L	510.63	ppb	11:13:27
1	Mo 202.031†	7432.8	7298.4	534.58	ug/L	534.58	ppb	11:13:47
1	Na 589.592 Radial†	7901.1	8644.2	2508.6	ug/L	2508.6	ppb	11:12:09
1	Ni 231.604†	19885.6	19490.0	495.09	ug/L	495.09	ppb	11:13:47
1	P 214.914†	4380.1	4102.4	2390.5	ug/L	2390.5	ppb	11:13:47
1	Pb 220.353†	4067.2	4062.0	504.91	ug/L	504.91	ppb	11:13:47
1	S 181.975 Axial†	1755.0	1687.7	2471.4	ug/L	2471.4	ppb	11:13:47
1	Sb 206.836†	1487.3	1424.9	515.94	ug/L	515.94	ppb	11:13:47
1	Se 196.026†	3960.7	3913.1	2597.8	ug/L	2597.8	ppb	11:13:47
1	Si 251.611†	152917.6	149743.6	4797.2	ug/L	4797.2	ppb	11:13:27
1	Sn 189.927†	3009.6	2947.2	533.79	ug/L	533.79	ppb	11:13:47
1	Sr 421.552†	79876.1	79867.3	529.31	ug/L	529.31	ppb	11:12:09
1	Ti 334.940†	328821.3	324426.5	490.53	ug/L	490.53	ppb	11:13:27
1	Tl 190.801†	1654.7	1657.3	535.23	ug/L	535.23	ppb	11:13:47
1	U 409.014†	15558.4	18106.1	487.56	ug/L	487.56	ppb	11:13:27
1	V 292.402†	72488.0	72667.0	511.63	ug/L	511.63	ppb	11:13:27
1	Zn 213.857†	52692.6	51225.3	509.38	ug/L	509.38	ppb	11:13:27
1	SiO2†	152215.6	149036.3	10226	ug/L	10226	ppb	11:14:45
2	Sc 361.383	906969.3	906969.3	100.77	%			11:13:53
2	Sc Radial	4318.7	4318.7	102	%			11:12:35
2	Y 371.029	759036.8	759036.8	99.553	%			11:13:53
2	Y RADIAL	4733.1	4733.1	100.9	%			11:12:35
2	Ag 328.068†	56985.1	56321.8	261.83	ug/L	261.83	ppb	11:13:53
2	Al 396.153Radial†	5530.1	5557.5	5006.7	ug/L	5006.7	ppb	11:12:35
2	As 188.979†	1049.9	1062.4	483.05	ug/L	483.05	ppb	11:14:13
2	B 249.677†	21279.9	21490.8	510.59	ug/L	510.59	ppb	11:13:53
2	Ba 233.527†	65380.1	64891.4	508.14	ug/L	508.14	ppb	11:13:53
2	Be 313.107†	692294.5	690876.3	258.58	ug/L	258.58	ppb	11:13:53
2	Ca 317.933Radial†	2596.7	2542.1	5057.7	ug/L	5057.7	ppb	11:12:55
2	Cd 226.502†	42889.7	42746.4	496.04	ug/L	496.04	ppb	11:13:53
2	Co 228.616†	24401.4	24277.6	507.78	ug/L	507.78	ppb	11:14:13
2	Cr 267.716†	43720.3	43321.4	486.90	ug/L	486.90	ppb	11:13:53
2	Cu 324.752†	176600.1	169178.2	508.03	ug/L	508.03	ppb	11:13:53
2	Fe 238.204 Radial†	420.1	403.6	5214.3	ug/L	5214.3	ppb	11:12:55
2	K 766.490 Radial†	15988.8	13190.7	2464.3	ug/L	2464.3	ppb	11:12:35
2	Mg 279.077 IEC†	119.9	115.4	5243.1	ug/L	5243.1	ppb	11:12:55
2	Mn 257.610†	458163.0	454237.5	509.58	ug/L	509.58	ppb	11:13:53
2	Mo 202.031†	7501.4	7438.2	544.81	ug/L	544.81	ppb	11:14:13
2	Na 589.592 Radial†	7957.2	8577.5	2489.2	ug/L	2489.2	ppb	11:12:35
2	Ni 231.604†	20057.8	19852.7	504.31	ug/L	504.31	ppb	11:14:13

2	P 214.914†	4443.2	4207.4	2454.2 ug/L	2454.2 ppb	11:14:13
2	Pb 220.353†	4086.8	4120.7	512.20 ug/L	512.20 ppb	11:14:13
2	S 181.975 Axial†	1786.0	1735.3	2541.2 ug/L	2541.2 ppb	11:14:13
2	Sb 206.836†	1495.5	1447.4	524.15 ug/L	524.15 ppb	11:14:13
2	Se 196.026†	4008.9	3999.1	2654.6 ug/L	2654.6 ppb	11:14:13
2	Si 251.611†	151012.2	149328.2	4783.7 ug/L	4783.7 ppb	11:13:53
2	Sn 189.927†	3031.7	2998.1	543.00 ug/L	543.00 ppb	11:14:13
2	Sr 421.552†	80806.5	79550.4	527.21 ug/L	527.21 ppb	11:12:35
2	Ti 334.940†	325113.9	323920.1	489.77 ug/L	489.77 ppb	11:13:53
2	Tl 190.801†	1662.1	1680.7	542.68 ug/L	542.68 ppb	11:14:13
2	U 409.014†	15276.8	17976.7	484.06 ug/L	484.06 ppb	11:13:53
2	V 292.402†	71845.2	72728.6	512.19 ug/L	512.19 ppb	11:13:53
2	Zn 213.857†	51994.9	51041.3	507.48 ug/L	507.48 ppb	11:13:53
2	SiO2†	152512.7	150799.9	10346 ug/L	10346 ppb	11:14:50
3	Sc 361.383	910711.5	910711.5	101.18 %		11:14:19
3	Sc Radial	4267.6	4267.6	100 %		11:13:00
3	Y 371.029	762735.4	762735.4	100.04 %		11:14:19
3	Y RADIAL	4678.6	4678.6	99.71 %		11:13:00
3	Ag 328.068†	57183.4	56285.5	261.66 ug/L	261.66 ppb	11:14:19
3	Al 396.153Radial†	5473.4	5566.2	5014.8 ug/L	5014.8 ppb	11:13:00
3	As 188.979†	1058.8	1067.0	485.12 ug/L	485.12 ppb	11:14:39
3	B 249.677†	21334.5	21458.0	509.81 ug/L	509.81 ppb	11:14:19
3	Ba 233.527†	65509.9	64753.1	507.06 ug/L	507.06 ppb	11:14:19
3	Be 313.107†	694998.9	690726.0	258.53 ug/L	258.53 ppb	11:14:19
3	Ca 317.933Radial†	2602.0	2578.0	5129.2 ug/L	5129.2 ppb	11:13:20
3	Cd 226.502†	43081.7	42761.3	496.22 ug/L	496.22 ppb	11:14:19
3	Co 228.616†	24419.7	24196.1	506.07 ug/L	506.07 ppb	11:14:39
3	Cr 267.716†	43886.5	43307.3	486.74 ug/L	486.74 ppb	11:14:19
3	Cu 324.752†	176910.2	168764.6	506.79 ug/L	506.79 ppb	11:14:19
3	Fe 238.204 Radial†	415.9	404.4	5224.7 ug/L	5224.7 ppb	11:13:20
3	K 766.490 Radial†	15897.1	13288.1	2482.5 ug/L	2482.5 ppb	11:13:00
3	Mg 279.077 IEC†	118.8	115.7	5257.4 ug/L	5257.4 ppb	11:13:20
3	Mn 257.610†	459289.6	453482.6	508.74 ug/L	508.74 ppb	11:14:19
3	Mo 202.031†	7484.0	7390.4	541.32 ug/L	541.32 ppb	11:14:39
3	Na 589.592 Radial†	7898.0	8612.4	2499.3 ug/L	2499.3 ppb	11:13:00
3	Ni 231.604†	20066.0	19779.0	502.44 ug/L	502.44 ppb	11:14:39
3	P 214.914†	4430.2	4176.4	2435.7 ug/L	2435.7 ppb	11:14:39
3	Pb 220.353†	4062.8	4080.3	507.19 ug/L	507.19 ppb	11:14:39
3	S 181.975 Axial†	1780.1	1722.2	2522.0 ug/L	2522.0 ppb	11:14:39
3	Sb 206.836†	1525.3	1470.7	532.17 ug/L	532.17 ppb	11:14:39
3	Se 196.026†	4005.4	3979.2	2641.5 ug/L	2641.5 ppb	11:14:39
3	Si 251.611†	151133.7	148832.4	4767.9 ug/L	4767.9 ppb	11:14:19
3	Sn 189.927†	3035.7	2989.8	541.50 ug/L	541.50 ppb	11:14:39
3	Sr 421.552†	79944.6	79644.8	527.84 ug/L	527.84 ppb	11:13:00
3	Ti 334.940†	326102.4	323571.3	489.25 ug/L	489.25 ppb	11:14:19
3	Tl 190.801†	1655.9	1667.8	538.53 ug/L	538.53 ppb	11:14:39
3	U 409.014†	15420.2	18056.2	486.21 ug/L	486.21 ppb	11:14:19
3	V 292.402†	72026.1	72614.4	511.35 ug/L	511.35 ppb	11:14:19
3	Zn 213.857†	52104.9	50937.9	506.45 ug/L	506.45 ppb	11:14:19
3	SiO2†	152262.5	149930.7	10287 ug/L	10287 ppb	11:14:55

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911185.1	101.24	%	0.497				0.49%
Sc Radial	4279.4	101	%	0.8				0.81%
Y 371.029	762411.2	99.996	%	0.4229				0.42%
Y RADIAL	4689.7	99.95	%	0.832				0.83%
Ag 328.068†	56349.1	261.95	ug/L	0.371	261.95	ppb	0.371	0.14%
QC value within limits for Ag 328.068 Recovery = 104.78%								
Al 396.153Radial†	5574.4	5022.3	ug/L	20.43	5022.3	ppb	20.43	0.41%
QC value within limits for Al 396.153Radial Recovery = 100.45%								
As 188.979†	1062.4	483.06	ug/L	2.050	483.06	ppb	2.050	0.42%
QC value within limits for As 188.979 Recovery = 96.61%								
B 249.677†	21520.6	511.31	ug/L	1.962	511.31	ppb	1.962	0.38%
QC value within limits for B 249.677 Recovery = 102.26%								
Ba 233.527†	64922.1	508.38	ug/L	1.455	508.38	ppb	1.455	0.29%
QC value within limits for Ba 233.527 Recovery = 101.68%								
Be 313.107†	690717.4	258.52	ug/L	0.060	258.52	ppb	0.060	0.02%
QC value within limits for Be 313.107 Recovery = 103.41%								

Ca 317.933Radial†	2563.5	5100.4 ug/L	37.73	5100.4 ppb	37.73	0.74%
QC value within limits for Ca 317.933Radial Recovery = 102.01%						
Cd 226.502†	42810.8	496.79 ug/L	1.144	496.79 ppb	1.144	0.23%
QC value within limits for Cd 226.502 Recovery = 99.36%						
Co 228.616†	24116.8	504.41 ug/L	4.442	504.41 ppb	4.442	0.88%
QC value within limits for Co 228.616 Recovery = 100.88%						
Cr 267.716†	43313.8	486.82 ug/L	0.080	486.82 ppb	0.080	0.02%
QC value within limits for Cr 267.716 Recovery = 97.36%						
Cu 324.752†	169043.5	507.63 ug/L	0.725	507.63 ppb	0.725	0.14%
QC value within limits for Cu 324.752 Recovery = 101.53%						
Fe 238.204 Radial†	404.2	5222.9 ug/L	7.83	5222.9 ppb	7.83	0.15%
QC value within limits for Fe 238.204 Radial Recovery = 104.46%						
K 766.490 Radial†	13248.8	2475.2 ug/L	9.59	2475.2 ppb	9.59	0.39%
QC value within limits for K 766.490 Radial Recovery = 99.01%						
Mg 279.077 IEC†	116.6	5300.4 ug/L	87.12	5300.4 ppb	87.12	1.64%
QC value within limits for Mg 279.077 IEC Recovery = 106.01%						
Mn 257.610†	454296.9	509.65 ug/L	0.945	509.65 ppb	0.945	0.19%
QC value within limits for Mn 257.610 Recovery = 101.93%						
Mo 202.031†	7375.7	540.24 ug/L	5.201	540.24 ppb	5.201	0.96%
QC value within limits for Mo 202.031 Recovery = 108.05%						
Na 589.592 Radial†	8611.3	2499.0 ug/L	9.69	2499.0 ppb	9.69	0.39%
QC value within limits for Na 589.592 Radial Recovery = 99.96%						
Ni 231.604†	19707.3	500.61 ug/L	4.870	500.61 ppb	4.870	0.97%
QC value within limits for Ni 231.604 Recovery = 100.12%						
P 214.914†	4162.1	2426.8 ug/L	32.79	2426.8 ppb	32.79	1.35%
QC value within limits for P 214.914 Recovery = 97.07%						
Pb 220.353†	4087.7	508.10 ug/L	3.726	508.10 ppb	3.726	0.73%
QC value within limits for Pb 220.353 Recovery = 101.62%						
S 181.975 Axial†	1715.1	2511.6 ug/L	36.06	2511.6 ppb	36.06	1.44%
QC value within limits for S 181.975 Axial Recovery = 100.46%						
Sb 206.836†	1447.7	524.09 ug/L	8.116	524.09 ppb	8.116	1.55%
QC value within limits for Sb 206.836 Recovery = 104.82%						
Se 196.026†	3963.8	2631.3 ug/L	29.70	2631.3 ppb	29.70	1.13%
QC value within limits for Se 196.026 Recovery = 105.25%						
Si 251.611†	149301.4	4782.9 ug/L	14.67	4782.9 ppb	14.67	0.31%
QC value within limits for Si 251.611 Recovery = 95.66%						
Sn 189.927†	2978.4	539.43 ug/L	4.943	539.43 ppb	4.943	0.92%
QC value within limits for Sn 189.927 Recovery = 107.89%						
Sr 421.552†	79687.5	528.12 ug/L	1.078	528.12 ppb	1.078	0.20%
QC value within limits for Sr 421.552 Recovery = 105.62%						
Ti 334.940†	323972.6	489.85 ug/L	0.643	489.85 ppb	0.643	0.13%
QC value within limits for Ti 334.940 Recovery = 97.97%						
Tl 190.801†	1668.6	538.81 ug/L	3.733	538.81 ppb	3.733	0.69%
QC value within limits for Tl 190.801 Recovery = 107.76%						
U 409.014†	18046.3	485.94 ug/L	1.762	485.94 ppb	1.762	0.36%
QC value within limits for U 409.014 Recovery = 97.19%						
V 292.402†	72670.0	511.73 ug/L	0.428	511.73 ppb	0.428	0.08%
QC value within limits for V 292.402 Recovery = 102.35%						
Zn 213.857†	51068.2	507.77 ug/L	1.485	507.77 ppb	1.485	0.29%
QC value within limits for Zn 213.857 Recovery = 101.55%						
SiO2†	149922.3	10286 ug/L	60.5	10286 ppb	60.5	0.59%
QC value within limits for SiO2 Recovery = 96.18%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/23/2010 11:17:06
Data Type: Reprocessed on 2/23/2010 12:42:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	898367.4	898367.4	99.812	%			11:20:16
1	Sc Radial	4291.3	4291.3	101	%			11:18:59
1	Y 371.029	760183.8	760183.8	99.704	%			11:20:16
1	Y RADIAL	4722.1	4722.1	100.6	%			11:18:59
1	Ag 328.068†	235.0	6.1	0.0327	ug/L	0.0327	ppb	11:20:16
1	Al 396.153Radial†	-110.3	1.4	1.2756	ug/L	1.2756	ppb	11:19:19
1	As 188.979†	-12.9	7.6	3.4483	ug/L	3.4483	ppb	11:20:36
1	B 249.677†	-219.1	153.4	3.6585	ug/L	3.6585	ppb	11:20:36
1	Ba 233.527†	3.8	13.0	0.1028	ug/L	0.1028	ppb	11:20:36
1	Be 313.107†	-3824.8	21.2	0.0079	ug/L	0.0079	ppb	11:20:16
1	Ca 317.933Radial†	17.3	1.7	3.4407	ug/L	3.4407	ppb	11:19:19
1	Cd 226.502†	-171.0	12.0	0.1378	ug/L	0.1378	ppb	11:20:36
1	Co 228.616†	-68.7	-6.9	-0.1449	ug/L	-0.1449	ppb	11:20:36
1	Cr 267.716†	76.1	10.2	0.1157	ug/L	0.1157	ppb	11:20:36
1	Cu 324.752†	5987.3	-78.5	-0.2362	ug/L	-0.2362	ppb	11:20:16
1	Fe 238.204 Radial†	11.6	1.3	16.477	ug/L	16.477	ppb	11:19:19
1	K 766.490 Radial†	2615.4	35.6	6.6581	ug/L	6.6581	ppb	11:18:59
1	Mg 279.077 IEC†	3.8	1.0	44.821	ug/L	44.821	ppb	11:19:19
1	Mn 257.610†	431.1	-4.9	-0.0057	ug/L	-0.0057	ppb	11:20:36
1	Mo 202.031†	8.5	2.5	0.1825	ug/L	0.1825	ppb	11:20:36
1	Na 589.592 Radial†	-739.3	7.5	2.1807	ug/L	2.1807	ppb	11:18:59
1	Ni 231.604†	65.8	13.6	0.3448	ug/L	0.3448	ppb	11:20:36
1	P 214.914†	195.8	-5.9	-3.5251	ug/L	-3.5251	ppb	11:20:36
1	Pb 220.353†	-58.7	6.2	0.7686	ug/L	0.7686	ppb	11:20:36
1	S 181.975 Axial†	35.3	-1.6	-2.4172	ug/L	-2.4172	ppb	11:20:36
1	Sb 206.836†	47.6	11.0	3.8684	ug/L	3.8684	ppb	11:20:36
1	Se 196.026†	-20.7	-0.0	0.0262	ug/L	0.0262	ppb	11:20:36
1	Si 251.611†	552.4	19.3	0.6174	ug/L	0.6174	ppb	11:20:36
1	Sn 189.927†	23.4	13.0	2.3596	ug/L	2.3596	ppb	11:20:36
1	Sr 421.552†	53.6	16.4	0.1084	ug/L	0.1084	ppb	11:18:59
1	Ti 334.940†	-1272.4	7.0	0.0064	ug/L	0.0064	ppb	11:20:16
1	Tl 190.801†	-25.5	5.7	1.8304	ug/L	1.8304	ppb	11:20:36
1	U 409.014†	-2728.6	82.5	2.2278	ug/L	2.2278	ppb	11:20:16
1	V 292.402†	-1374.2	53.6	0.3774	ug/L	0.3774	ppb	11:20:16
1	Zn 213.857†	561.9	5.2	0.0482	ug/L	0.0482	ppb	11:20:36
1	SiO2†	584.6	34.2	2.3440	ug/L	2.3440	ppb	11:21:32
2	Sc 361.383	903933.7	903933.7	100.43	%			11:20:42
2	Sc Radial	4159.5	4159.5	97.8	%			11:19:24
2	Y 371.029	765270.9	765270.9	100.37	%			11:20:42
2	Y RADIAL	4604.7	4604.7	98.14	%			11:19:24
2	Ag 328.068†	253.1	22.7	0.0905	ug/L	0.0905	ppb	11:20:42
2	Al 396.153Radial†	-108.1	0.3	0.1930	ug/L	0.1930	ppb	11:19:45
2	As 188.979†	-26.7	-6.1	-2.7645	ug/L	-2.7645	ppb	11:21:02
2	B 249.677†	-248.2	125.8	3.0089	ug/L	3.0089	ppb	11:21:02
2	Ba 233.527†	-11.3	-2.2	-0.0171	ug/L	-0.0171	ppb	11:21:02
2	Be 313.107†	-3916.3	-46.3	-0.0175	ug/L	-0.0175	ppb	11:20:42
2	Ca 317.933Radial†	16.3	1.2	2.3081	ug/L	2.3081	ppb	11:19:45
2	Cd 226.502†	-183.5	0.6	0.0120	ug/L	0.0120	ppb	11:21:02
2	Co 228.616†	-62.5	-0.3	-0.0026	ug/L	-0.0026	ppb	11:21:02
2	Cr 267.716†	74.2	7.9	0.0835	ug/L	0.0835	ppb	11:21:02
2	Cu 324.752†	6074.0	-29.1	-0.0917	ug/L	-0.0917	ppb	11:20:42
2	Fe 238.204 Radial†	7.0	-3.0	-38.728	ug/L	-38.728	ppb	11:19:45
2	K 766.490 Radial†	2489.7	-10.8	-2.0295	ug/L	-2.0295	ppb	11:19:24
2	Mg 279.077 IEC†	2.3	-0.4	-16.535	ug/L	-16.535	ppb	11:19:45
2	Mn 257.610†	462.0	23.2	0.0229	ug/L	0.0229	ppb	11:21:02
2	Mo 202.031†	19.6	13.4	0.9784	ug/L	0.9784	ppb	11:21:02
2	Na 589.592 Radial†	-721.4	2.6	0.7590	ug/L	0.7590	ppb	11:19:24
2	Ni 231.604†	57.9	5.4	0.1366	ug/L	0.1366	ppb	11:21:02

2	P 214.914†	200.1	-2.8	-1.6265	ug/L	-1.6265 ppb	11:21:02
2	Pb 220.353†	-50.9	14.3	1.7804	ug/L	1.7804 ppb	11:21:02
2	S 181.975 Axial†	41.6	4.4	6.4181	ug/L	6.4181 ppb	11:21:02
2	Sb 206.836†	49.6	12.7	4.4358	ug/L	4.4358 ppb	11:21:02
2	Se 196.026†	-33.9	-13.1	-8.7383	ug/L	-8.7383 ppb	11:21:02
2	Si 251.611†	554.3	17.8	0.5583	ug/L	0.5583 ppb	11:21:02
2	Sn 189.927†	11.3	0.8	0.1538	ug/L	0.1538 ppb	11:21:02
2	Sr 421.552†	0.9	-35.8	-0.2374	ug/L	-0.2374 ppb	11:19:24
2	Ti 334.940†	-1347.0	-59.5	-0.0901	ug/L	-0.0901 ppb	11:20:42
2	Tl 190.801†	-32.2	-0.8	-0.2595	ug/L	-0.2595 ppb	11:21:02
2	U 409.014†	-2679.0	148.8	4.0237	ug/L	4.0237 ppb	11:20:42
2	V 292.402†	-1380.2	56.1	0.4166	ug/L	0.4166 ppb	11:20:42
2	Zn 213.857†	549.4	-10.7	-0.1021	ug/L	-0.1021 ppb	11:21:02
2	SiO2†	578.9	24.9	1.6858	ug/L	1.6858 ppb	11:21:37
3	Sc 361.383	904058.5	904058.5	100.44	%		11:21:07
3	Sc Radial	4220.4	4220.4	99.2	%		11:19:50
3	Y 371.029	765367.6	765367.6	100.38	%		11:21:07
3	Y RADIAL	4663.3	4663.3	99.39	%		11:19:50
3	Ag 328.068†	187.1	-43.1	-0.1882	ug/L	-0.1882 ppb	11:21:07
3	Al 396.153Radial†	-103.4	6.5	5.8961	ug/L	5.8961 ppb	11:20:10
3	As 188.979†	-18.2	2.4	1.0811	ug/L	1.0811 ppb	11:21:27
3	B 249.677†	-284.4	89.8	2.1369	ug/L	2.1369 ppb	11:21:27
3	Ba 233.527†	-4.4	4.8	0.0380	ug/L	0.0380 ppb	11:21:27
3	Be 313.107†	-3895.7	-25.2	-0.0093	ug/L	-0.0093 ppb	11:21:07
3	Ca 317.933Radial†	16.0	0.7	1.3994	ug/L	1.3994 ppb	11:20:10
3	Cd 226.502†	-182.4	1.7	0.0163	ug/L	0.0163 ppb	11:21:27
3	Co 228.616†	-69.0	-6.7	-0.1408	ug/L	-0.1408 ppb	11:21:27
3	Cr 267.716†	75.4	9.1	0.1043	ug/L	0.1043 ppb	11:21:27
3	Cu 324.752†	6061.1	-42.9	-0.1280	ug/L	-0.1280 ppb	11:21:07
3	Fe 238.204 Radial†	13.3	3.2	40.910	ug/L	40.910 ppb	11:20:10
3	K 766.490 Radial†	2578.2	41.7	7.7947	ug/L	7.7947 ppb	11:19:50
3	Mg 279.077 IEC†	3.3	0.5	24.901	ug/L	24.901 ppb	11:20:10
3	Mn 257.610†	464.7	25.8	0.0319	ug/L	0.0319 ppb	11:21:27
3	Mo 202.031†	11.9	5.8	0.4256	ug/L	0.4256 ppb	11:21:27
3	Na 589.592 Radial†	-716.9	17.8	5.1795	ug/L	5.1795 ppb	11:19:50
3	Ni 231.604†	62.5	9.9	0.2506	ug/L	0.2506 ppb	11:21:27
3	P 214.914†	194.8	-8.1	-4.9115	ug/L	-4.9115 ppb	11:21:27
3	Pb 220.353†	-50.8	14.5	1.7885	ug/L	1.7885 ppb	11:21:27
3	S 181.975 Axial†	34.1	-3.1	-4.5691	ug/L	-4.5691 ppb	11:21:27
3	Sb 206.836†	38.9	2.0	0.7331	ug/L	0.7331 ppb	11:21:27
3	Se 196.026†	-26.0	-5.2	-3.2987	ug/L	-3.2987 ppb	11:21:27
3	Si 251.611†	562.9	26.3	0.8384	ug/L	0.8384 ppb	11:21:27
3	Sn 189.927†	16.7	6.2	1.1179	ug/L	1.1179 ppb	11:21:27
3	Sr 421.552†	18.6	-18.1	-0.1197	ug/L	-0.1197 ppb	11:19:50
3	Ti 334.940†	-1264.0	23.4	0.0323	ug/L	0.0323 ppb	11:21:07
3	Tl 190.801†	-36.9	-5.6	-1.7884	ug/L	-1.7884 ppb	11:21:27
3	U 409.014†	-2729.9	98.4	2.6537	ug/L	2.6537 ppb	11:21:07
3	V 292.402†	-1467.1	-30.2	-0.2040	ug/L	-0.2040 ppb	11:21:07
3	Zn 213.857†	549.5	-10.6	-0.1140	ug/L	-0.1140 ppb	11:21:27
3	SiO2†	574.0	20.0	1.3601	ug/L	1.3601 ppb	11:21:42

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902119.8	100.23	%	0.361				0.36%
Sc Radial	4223.8	99.3	%	1.55				1.56%
Y 371.029	763607.4	100.15	%	0.389				0.39%
Y RADIAL	4663.4	99.39	%	1.251				1.26%
Ag 328.068†	-4.8	-0.0217	ug/L	0.14709	-0.0217	ppb	0.14709	677.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.7	2.4549	ug/L	3.02892	2.4549	ppb	3.02892	123.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	0.5883	ug/L	3.13561	0.5883	ppb	3.13561	533.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	123.0	2.9348	ug/L	0.76352	2.9348	ppb	0.76352	26.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.2	0.0412	ug/L	0.06002	0.0412	ppb	0.06002	145.60%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-16.8	-0.0063	ug/L	0.01296	-0.0063	ppb	0.01296	206.36%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          1.2      2.3827 ug/L       1.02274      2.3827 ppb        1.02274  42.92%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.8      0.0553 ug/L       0.07141      0.0553 ppb        0.07141 129.03%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -4.7     -0.0961 ug/L       0.08101     -0.0961 ppb        0.08101  84.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.0      0.1011 ug/L       0.01634      0.1011 ppb        0.01634  16.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -50.2     -0.1520 ug/L       0.07520     -0.1520 ppb        0.07520  49.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      6.2197 ug/L      40.79766      6.2197 ppb       40.79766 655.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         22.1      4.1411 ug/L       5.37404      4.1411 ppb        5.37404 129.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.4      17.729 ug/L       31.3006      17.729 ppb        31.3006 176.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               14.7      0.0163 ug/L       0.01966      0.0163 ppb        0.01966 120.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                7.2      0.5288 ug/L       0.40785      0.5288 ppb        0.40785  77.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         9.3      2.7064 ug/L       2.25662      2.7064 ppb        2.25662  83.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.6      0.2440 ug/L       0.10428      0.2440 ppb        0.10428  42.74%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.6     -3.3543 ug/L       1.64915     -3.3543 ppb        1.64915  49.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               11.7      1.4458 ug/L       0.58650      1.4458 ppb        0.58650  40.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.1     -0.1894 ug/L       5.82254     -0.1894 ppb        5.82254 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                8.6      3.0125 ug/L       1.99423      3.0125 ppb        1.99423  66.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.1     -4.0036 ug/L       4.42456     -4.0036 ppb        4.42456 110.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               21.1      0.6714 ug/L       0.14765      0.6714 ppb        0.14765  21.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.7      1.2104 ug/L       1.10580      1.2104 ppb        1.10580  91.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -12.5     -0.0829 ug/L       0.17585     -0.0829 ppb        0.17585 212.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -9.7     -0.0171 ug/L       0.06448     -0.0171 ppb        0.06448 376.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.2     -0.0725 ug/L       1.81664     -0.0725 ppb        1.81664 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               109.9      2.9684 ug/L       0.93841      2.9684 ppb        0.93841  31.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                26.5      0.1967 ug/L       0.34755      0.1967 ppb        0.34755 176.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -5.4     -0.0560 ug/L       0.09042     -0.0560 ppb        0.09042 161.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     26.4      1.7966 ug/L       0.50122      1.7966 ppb        0.50122  27.90%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/23/2010 11:23:53
Data Type: Reprocessed on 2/23/2010 12:42:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	922973.3	922973.3	102.55	%			11:27:04
1	Sc Radial	4322.8	4322.8	102	%			11:25:47
1	Y 371.029	779722.9	779722.9	102.27	%			11:27:04
1	Y RADIAL	4763.7	4763.7	101.5	%			11:25:47
1	Ag 328.068†	1453.4	1188.0	5.4609	ug/L	5.4609	ppb	11:27:09
1	Al 396.153Radial†	125.9	234.6	211.98	ug/L	211.98	ppb	11:26:07
1	As 188.979†	30.1	49.9	22.525	ug/L	22.525	ppb	11:27:29
1	B 249.677†	1648.1	1980.1	47.224	ug/L	47.224	ppb	11:27:09
1	Ba 233.527†	647.3	640.4	5.0166	ug/L	5.0166	ppb	11:27:29
1	Be 313.107†	9653.7	13267.4	4.9557	ug/L	4.9557	ppb	11:27:09
1	Ca 317.933Radial†	125.1	107.7	214.22	ug/L	214.22	ppb	11:26:07
1	Cd 226.502†	252.5	429.5	4.9884	ug/L	4.9884	ppb	11:27:29
1	Co 228.616†	185.3	242.6	5.0847	ug/L	5.0847	ppb	11:27:29
1	Cr 267.716†	507.4	428.8	4.8043	ug/L	4.8043	ppb	11:27:29
1	Cu 324.752†	9579.0	3264.1	9.7761	ug/L	9.7761	ppb	11:27:09
1	Fe 238.204 Radial†	19.2	8.7	112.26	ug/L	112.26	ppb	11:26:07
1	K 766.490 Radial†	3349.8	739.3	138.11	ug/L	138.11	ppb	11:25:47
1	Mg 279.077 IEC†	9.7	6.8	308.82	ug/L	308.82	ppb	11:26:07
1	Mn 257.610†	9868.6	9186.8	10.299	ug/L	10.299	ppb	11:27:09
1	Mo 202.031†	148.6	138.9	10.173	ug/L	10.173	ppb	11:27:29
1	Na 589.592 Radial†	338.7	1073.6	311.57	ug/L	311.57	ppb	11:25:47
1	Ni 231.604†	247.9	189.4	4.8115	ug/L	4.8115	ppb	11:27:29
1	P 214.914†	444.0	231.0	138.26	ug/L	138.26	ppb	11:27:29
1	Pb 220.353†	26.9	91.3	11.367	ug/L	11.367	ppb	11:27:29
1	S 181.975 Axial†	103.4	63.8	93.420	ug/L	93.420	ppb	11:27:29
1	Sb 206.836†	66.9	28.6	10.338	ug/L	10.338	ppb	11:27:29
1	Se 196.026†	24.4	44.5	29.701	ug/L	29.701	ppb	11:27:29
1	Si 251.611†	3544.7	2922.6	93.630	ug/L	93.630	ppb	11:27:29
1	Sn 189.927†	75.0	62.7	11.372	ug/L	11.372	ppb	11:27:29
1	Sr 421.552†	800.7	751.1	4.9765	ug/L	4.9765	ppb	11:25:47
1	Ti 334.940†	2047.7	3278.7	4.9354	ug/L	4.9354	ppb	11:27:09
1	Tl 190.801†	35.0	65.3	21.023	ug/L	21.023	ppb	11:27:29
1	U 409.014†	-712.1	2121.9	57.310	ug/L	57.310	ppb	11:27:04
1	V 292.402†	-726.9	721.6	5.2455	ug/L	5.2455	ppb	11:27:09
1	Zn 213.857†	1588.8	991.7	9.8898	ug/L	9.8898	ppb	11:27:29
1	SiO2†	3688.6	3045.5	208.98	ug/L	208.98	ppb	11:28:35
2	Sc 361.383	933203.4	933203.4	103.68	%			11:27:34
2	Sc Radial	4322.2	4322.2	102	%			11:26:12
2	Y 371.029	788115.9	788115.9	103.37	%			11:27:34
2	Y RADIAL	4800.4	4800.4	102.3	%			11:26:12
2	Ag 328.068†	1415.8	1136.2	5.2213	ug/L	5.2213	ppb	11:27:39
2	Al 396.153Radial†	126.2	235.0	212.35	ug/L	212.35	ppb	11:26:32
2	As 188.979†	39.5	58.7	26.489	ug/L	26.489	ppb	11:27:59
2	B 249.677†	1569.6	1886.8	44.997	ug/L	44.997	ppb	11:27:39
2	Ba 233.527†	653.2	639.2	5.0059	ug/L	5.0059	ppb	11:27:59
2	Be 313.107†	9455.0	12972.5	4.8454	ug/L	4.8454	ppb	11:27:39
2	Ca 317.933Radial†	125.4	108.0	214.79	ug/L	214.79	ppb	11:26:32
2	Cd 226.502†	241.1	415.8	4.8296	ug/L	4.8296	ppb	11:27:59
2	Co 228.616†	167.6	223.5	4.6839	ug/L	4.6839	ppb	11:27:59
2	Cr 267.716†	496.1	412.5	4.6211	ug/L	4.6211	ppb	11:27:59
2	Cu 324.752†	9405.2	2994.1	8.9659	ug/L	8.9659	ppb	11:27:39
2	Fe 238.204 Radial†	18.9	8.4	108.94	ug/L	108.94	ppb	11:26:32
2	K 766.490 Radial†	3419.9	808.9	151.12	ug/L	151.12	ppb	11:26:12
2	Mg 279.077 IEC†	6.5	3.6	163.44	ug/L	163.44	ppb	11:26:32
2	Mn 257.610†	9771.8	8987.9	10.081	ug/L	10.081	ppb	11:27:39
2	Mo 202.031†	137.6	126.7	9.2819	ug/L	9.2819	ppb	11:27:59
2	Na 589.592 Radial†	337.8	1072.8	311.32	ug/L	311.32	ppb	11:26:12
2	Ni 231.604†	273.2	211.2	5.3660	ug/L	5.3660	ppb	11:27:59

2	P 214.914†	449.8	231.8	138.93 ug/L	138.93 ppb	11:27:59
2	Pb 220.353†	23.5	87.7	10.914 ug/L	10.914 ppb	11:27:59
2	S 181.975 Axial†	98.4	57.9	84.762 ug/L	84.762 ppb	11:27:59
2	Sb 206.836†	57.8	19.1	6.9807 ug/L	6.9807 ppb	11:27:59
2	Se 196.026†	20.5	40.5	27.045 ug/L	27.045 ppb	11:27:59
2	Si 251.611†	3542.9	2882.9	92.369 ug/L	92.369 ppb	11:27:59
2	Sn 189.927†	63.6	50.9	9.2475 ug/L	9.2475 ppb	11:27:59
2	Sr 421.552†	818.0	768.3	5.0904 ug/L	5.0904 ppb	11:26:12
2	Ti 334.940†	1970.1	3181.9	4.8017 ug/L	4.8017 ppb	11:27:39
2	Tl 190.801†	34.1	64.1	20.626 ug/L	20.626 ppb	11:27:59
2	U 409.014†	-776.1	2067.7	55.847 ug/L	55.847 ppb	11:27:34
2	V 292.402†	-804.6	654.4	4.7619 ug/L	4.7619 ppb	11:27:39
2	Zn 213.857†	1588.0	973.9	9.7098 ug/L	9.7098 ppb	11:27:59
2	SiO2†	3728.2	3044.3	208.92 ug/L	208.92 ppb	11:28:40
3	Sc 361.383	926208.5	926208.5	102.90 %		11:28:05
3	Sc Radial	4317.9	4317.9	102 %		11:26:37
3	Y 371.029	782879.3	782879.3	102.68 %		11:28:05
3	Y RADIAL	4792.4	4792.4	102.1 %		11:26:37
3	Ag 328.068†	1301.0	1034.9	4.7638 ug/L	4.7638 ppb	11:28:10
3	Al 396.153Radial†	130.7	239.5	216.41 ug/L	216.41 ppb	11:26:57
3	As 188.979†	44.3	63.6	28.721 ug/L	28.721 ppb	11:28:30
3	B 249.677†	1632.2	1959.0	46.719 ug/L	46.719 ppb	11:28:10
3	Ba 233.527†	673.7	663.8	5.1998 ug/L	5.1998 ppb	11:28:30
3	Be 313.107†	9347.3	12936.7	4.8321 ug/L	4.8321 ppb	11:28:10
3	Ca 317.933Radial†	120.7	103.4	205.72 ug/L	205.72 ppb	11:26:57
3	Cd 226.502†	254.5	430.7	5.0002 ug/L	5.0002 ppb	11:28:30
3	Co 228.616†	181.4	238.2	4.9914 ug/L	4.9914 ppb	11:28:30
3	Cr 267.716†	524.2	443.5	4.9710 ug/L	4.9710 ppb	11:28:30
3	Cu 324.752†	9429.6	3086.3	9.2444 ug/L	9.2444 ppb	11:28:10
3	Fe 238.204 Radial†	19.9	9.4	121.79 ug/L	121.79 ppb	11:26:57
3	K 766.490 Radial†	3329.4	723.1	135.07 ug/L	135.07 ppb	11:26:37
3	Mg 279.077 IEC†	8.6	5.7	258.72 ug/L	258.72 ppb	11:26:57
3	Mn 257.610†	9661.4	8951.8	10.038 ug/L	10.038 ppb	11:28:10
3	Mo 202.031†	145.6	135.5	9.9248 ug/L	9.9248 ppb	11:28:30
3	Na 589.592 Radial†	360.5	1095.5	317.92 ug/L	317.92 ppb	11:26:37
3	Ni 231.604†	273.9	213.8	5.4315 ug/L	5.4315 ppb	11:28:30
3	P 214.914†	440.0	225.5	135.05 ug/L	135.05 ppb	11:28:30
3	Pb 220.353†	31.4	95.5	11.889 ug/L	11.889 ppb	11:28:30
3	S 181.975 Axial†	111.0	70.8	103.73 ug/L	103.73 ppb	11:28:30
3	Sb 206.836†	67.6	29.0	10.473 ug/L	10.473 ppb	11:28:30
3	Se 196.026†	28.1	48.0	32.065 ug/L	32.065 ppb	11:28:30
3	Si 251.611†	3569.4	2934.5	94.015 ug/L	94.015 ppb	11:28:30
3	Sn 189.927†	74.4	61.9	11.231 ug/L	11.231 ppb	11:28:30
3	Sr 421.552†	799.3	750.6	4.9735 ug/L	4.9735 ppb	11:26:37
3	Ti 334.940†	1944.4	3171.3	4.7774 ug/L	4.7774 ppb	11:28:10
3	Tl 190.801†	28.9	59.3	19.082 ug/L	19.082 ppb	11:28:30
3	U 409.014†	-839.3	2000.7	54.034 ug/L	54.034 ppb	11:28:05
3	V 292.402†	-720.6	730.2	5.2931 ug/L	5.2931 ppb	11:28:10
3	Zn 213.857†	1598.7	995.9	9.9275 ug/L	9.9275 ppb	11:28:30
3	SiO2†	3667.1	3012.1	206.68 ug/L	206.68 ppb	11:28:45

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	927461.7	103.04	%	0.581				0.56%
Sc Radial	4321.0	102	%	0.1				0.06%
Y 371.029	783572.7	102.77	%	0.556				0.54%
Y RADIAL	4785.5	102.0	%	0.41				0.40%
Ag 328.068†	1119.7	5.1487	ug/L	0.35419	5.1487	ppb	0.35419	6.88%
QC value within limits for Ag 328.068 Recovery = 102.97%								
Al 396.153Radial†	236.4	213.58	ug/L	2.456	213.58	ppb	2.456	1.15%
QC value within limits for Al 396.153Radial Recovery = 106.79%								
As 188.979†	57.4	25.912	ug/L	3.1382	25.912	ppb	3.1382	12.11%
QC value within limits for As 188.979 Recovery = 86.37%								
B 249.677†	1942.0	46.314	ug/L	1.1674	46.314	ppb	1.1674	2.52%
QC value within limits for B 249.677 Recovery = 92.63%								
Ba 233.527†	647.8	5.0741	ug/L	0.10897	5.0741	ppb	0.10897	2.15%
QC value within limits for Ba 233.527 Recovery = 101.48%								
Be 313.107†	13058.9	4.8777	ug/L	0.06783	4.8777	ppb	0.06783	1.39%
QC value within limits for Be 313.107 Recovery = 97.55%								

Ca 317.933Radial†	106.3	211.58 ug/L	5.079	211.58 ppb	5.079	2.40%
QC value within limits for Ca 317.933Radial Recovery = 105.79%						
Cd 226.502†	425.3	4.9394 ug/L	0.09529	4.9394 ppb	0.09529	1.93%
QC value within limits for Cd 226.502 Recovery = 98.79%						
Co 228.616†	234.8	4.9200 ug/L	0.20971	4.9200 ppb	0.20971	4.26%
QC value within limits for Co 228.616 Recovery = 98.40%						
Cr 267.716†	428.2	4.7988 ug/L	0.17504	4.7988 ppb	0.17504	3.65%
QC value within limits for Cr 267.716 Recovery = 95.98%						
Cu 324.752†	3114.8	9.3288 ug/L	0.41167	9.3288 ppb	0.41167	4.41%
QC value within limits for Cu 324.752 Recovery = 93.29%						
Fe 238.204 Radial†	8.9	114.33 ug/L	6.666	114.33 ppb	6.666	5.83%
QC value within limits for Fe 238.204 Radial Recovery = 114.33%						
K 766.490 Radial†	757.1	141.43 ug/L	8.529	141.43 ppb	8.529	6.03%
QC value within limits for K 766.490 Radial Recovery = 94.29%						
Mg 279.077 IEC†	5.4	243.66 ug/L	73.846	243.66 ppb	73.846	30.31%
QC value within limits for Mg 279.077 IEC Recovery = 81.22%						
Mn 257.610†	9042.2	10.139 ug/L	0.1396	10.139 ppb	0.1396	1.38%
QC value within limits for Mn 257.610 Recovery = 101.39%						
Mo 202.031†	133.7	9.7932 ug/L	0.45986	9.7932 ppb	0.45986	4.70%
QC value within limits for Mo 202.031 Recovery = 97.93%						
Na 589.592 Radial†	1080.6	313.61 ug/L	3.742	313.61 ppb	3.742	1.19%
QC value within limits for Na 589.592 Radial Recovery = 104.54%						
Ni 231.604†	204.8	5.2030 ug/L	0.34064	5.2030 ppb	0.34064	6.55%
QC value within limits for Ni 231.604 Recovery = 104.06%						
P 214.914†	229.4	137.42 ug/L	2.075	137.42 ppb	2.075	1.51%
QC value within limits for P 214.914 Recovery = 91.61%						
Pb 220.353†	91.5	11.390 ug/L	0.4877	11.390 ppb	0.4877	4.28%
QC value within limits for Pb 220.353 Recovery = 113.90%						
S 181.975 Axial†	64.2	93.970 ug/L	9.4951	93.970 ppb	9.4951	10.10%
QC value within limits for S 181.975 Axial Recovery = 93.97%						
Sb 206.836†	25.5	9.2640 ug/L	1.97853	9.2640 ppb	1.97853	21.36%
QC value within limits for Sb 206.836 Recovery = 92.64%						
Se 196.026†	44.3	29.604 ug/L	2.5114	29.604 ppb	2.5114	8.48%
QC value within limits for Se 196.026 Recovery = 98.68%						
Si 251.611†	2913.3	93.338 ug/L	0.8609	93.338 ppb	0.8609	0.92%
QC value within limits for Si 251.611 Recovery = 93.34%						
Sn 189.927†	58.5	10.617 ug/L	1.1879	10.617 ppb	1.1879	11.19%
QC value within limits for Sn 189.927 Recovery = 106.17%						
Sr 421.552†	756.7	5.0135 ug/L	0.06663	5.0135 ppb	0.06663	1.33%
QC value within limits for Sr 421.552 Recovery = 100.27%						
Ti 334.940†	3210.6	4.8381 ug/L	0.08508	4.8381 ppb	0.08508	1.76%
QC value within limits for Ti 334.940 Recovery = 96.76%						
Tl 190.801†	62.9	20.244 ug/L	1.0250	20.244 ppb	1.0250	5.06%
QC value within limits for Tl 190.801 Recovery = 101.22%						
U 409.014†	2063.4	55.731 ug/L	1.6413	55.731 ppb	1.6413	2.94%
QC value within limits for U 409.014 Recovery = 111.46%						
V 292.402†	702.1	5.1002 ug/L	0.29389	5.1002 ppb	0.29389	5.76%
QC value within limits for V 292.402 Recovery = 102.00%						
Zn 213.857†	987.2	9.8424 ug/L	0.11634	9.8424 ppb	0.11634	1.18%
QC value within limits for Zn 213.857 Recovery = 98.42%						
SiO2†	3034.0	208.19 ug/L	1.307	208.19 ppb	1.307	0.63%
QC value within limits for SiO2 Recovery = 97.74%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/23/2010 11:30:57
Data Type: Reprocessed on 2/23/2010 12:42:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	763627.9	763627.9	84.842	%			11:33:22
1	Sc Radial	3775.6	3775.6	88.8	%			11:32:55
1	Y 371.029	630188.0	630188.0	82.654	%			11:33:22
1	Y RADIAL	4144.2	4144.2	88.32	%			11:32:55
1	Ag 328.068†	-9724.8	-11691.7	-1.0139	ug/L	-1.0139	ppb	11:33:22
1	Al 396.153Radial†	502912.8	566680.5	513210	ug/L	513210	ppb	11:32:50
1	As 188.979†	-86.5	-81.4	8.2300	ug/L	8.2300	ppb	11:33:42
1	B 249.677†	488.3	948.5	-8.6119	ug/L	-8.6119	ppb	11:33:22
1	Ba 233.527†	-469.3	-544.0	1.6452	ug/L	1.6452	ppb	11:33:42
1	Be 313.107†	-4182.4	-1076.4	-0.4498	ug/L	-0.4498	ppb	11:33:22
1	Ca 317.933Radial†	213503.6	240512.7	478520	ug/L	478520	ppb	11:32:50
1	Cd 226.502†	1212.0	1611.9	-1.1550	ug/L	-1.1550	ppb	11:33:42
1	Co 228.616†	-40.1	14.6	-2.4717	ug/L	-2.4717	ppb	11:33:42
1	Cr 267.716†	-1105.0	-1368.4	2.9607	ug/L	2.9607	ppb	11:33:42
1	Cu 324.752†	3516.0	-1933.0	4.3578	ug/L	4.3578	ppb	11:33:22
1	Fe 238.204 Radial†	13266.2	14935.3	192420	ug/L	192420	ppb	11:32:55
1	K 766.490 Radial†	2442.2	194.5	-123.67	ug/L	-123.67	ppb	11:32:55
1	Mg 279.077 IEC†	9839.2	11081.9	503460	ug/L	503460	ppb	11:32:55
1	Mn 257.610†	1572.0	1416.1	-0.0012	ug/L	-0.0012	ppb	11:33:22
1	Mo 202.031†	-233.2	-281.0	0.0665	ug/L	0.0665	ppb	11:33:42
1	Na 589.592 Radial†	-517.4	157.5	45.707	ug/L	45.707	ppb	11:32:55
1	Ni 231.604†	177.3	156.6	3.9813	ug/L	3.9813	ppb	11:33:42
1	P 214.914†	156.0	-18.2	-37.622	ug/L	-37.622	ppb	11:33:42
1	Pb 220.353†	-775.5	-849.0	-12.456	ug/L	-12.456	ppb	11:33:42
1	S 181.975 Axial†	55.7	28.7	-54.210	ug/L	-54.210	ppb	11:33:42
1	Sb 206.836†	59.4	33.3	-5.8554	ug/L	-5.8554	ppb	11:33:42
1	Se 196.026†	-795.1	-916.5	-9.1005	ug/L	-9.1005	ppb	11:33:42
1	Si 251.611†	491.6	45.3	1.7051	ug/L	1.7051	ppb	11:33:42
1	Sn 189.927†	-349.3	-422.2	-2.4140	ug/L	-2.4140	ppb	11:33:42
1	Sr 421.552†	533.5	564.2	0.1664	ug/L	0.1664	ppb	11:32:55
1	Ti 334.940†	-13119.2	-14181.3	1.5840	ug/L	1.5840	ppb	11:33:22
1	Tl 190.801†	-69.5	-50.7	-16.486	ug/L	-16.486	ppb	11:33:42
1	U 409.014†	-1118.9	1497.4	18.560	ug/L	18.560	ppb	11:33:22
1	V 292.402†	1019.1	2631.6	-0.2116	ug/L	-0.2116	ppb	11:33:42
1	Zn 213.857†	2743.4	2675.9	-1.9624	ug/L	-1.9624	ppb	11:33:42
1	SiO2†	494.5	31.3	2.7128	ug/L	2.7128	ppb	11:34:38
2	Sc 361.383	766805.1	766805.1	85.195	%			11:33:48
2	Sc Radial	3784.0	3784.0	89.0	%			11:33:05
2	Y 371.029	633215.5	633215.5	83.051	%			11:33:48
2	Y RADIAL	4161.1	4161.1	88.68	%			11:33:05
2	Ag 328.068†	-9883.4	-11830.3	-1.8999	ug/L	-1.8999	ppb	11:33:48
2	Al 396.153Radial†	526488.4	591936.5	536090	ug/L	536090	ppb	11:33:00
2	As 188.979†	-85.1	-79.3	9.1745	ug/L	9.1745	ppb	11:34:08
2	B 249.677†	408.9	852.9	-10.893	ug/L	-10.893	ppb	11:33:48
2	Ba 233.527†	-459.7	-530.5	1.7501	ug/L	1.7501	ppb	11:34:08
2	Be 313.107†	-4145.9	-1013.1	-0.4277	ug/L	-0.4277	ppb	11:33:48
2	Ca 317.933Radial†	221980.2	249512.5	496430	ug/L	496430	ppb	11:33:00
2	Cd 226.502†	1214.9	1609.3	-1.1834	ug/L	-1.1834	ppb	11:34:08
2	Co 228.616†	-4.0	57.2	-1.5756	ug/L	-1.5756	ppb	11:34:08
2	Cr 267.716†	-1118.5	-1378.9	2.8416	ug/L	2.8416	ppb	11:34:08
2	Cu 324.752†	3482.9	-1989.0	4.1887	ug/L	4.1887	ppb	11:33:48
2	Fe 238.204 Radial†	13294.3	14933.9	192400	ug/L	192400	ppb	11:33:05
2	K 766.490 Radial†	2229.8	-50.3	-175.47	ug/L	-175.47	ppb	11:33:05
2	Mg 279.077 IEC†	9880.3	11103.6	504450	ug/L	504450	ppb	11:33:05
2	Mn 257.610†	1564.6	1399.7	-0.0618	ug/L	-0.0618	ppb	11:33:48
2	Mo 202.031†	-218.3	-262.3	1.6455	ug/L	1.6455	ppb	11:34:08
2	Na 589.592 Radial†	-506.6	170.9	49.583	ug/L	49.583	ppb	11:33:05
2	Ni 231.604†	169.5	146.6	3.7259	ug/L	3.7259	ppb	11:34:08

2	P 214.914†	123.1	-57.6	-55.735	ug/L	-55.735 ppb	11:34:08
2	Pb 220.353†	-793.6	-866.5	-9.6052	ug/L	-9.6052 ppb	11:34:08
2	S 181.975 Axial†	54.5	26.9	-61.009	ug/L	-61.009 ppb	11:34:08
2	Sb 206.836†	89.7	68.6	5.8926	ug/L	5.8926 ppb	11:34:08
2	Se 196.026†	-793.6	-910.8	-5.6429	ug/L	-5.6429 ppb	11:34:08
2	Si 251.611†	481.3	30.7	1.2226	ug/L	1.2226 ppb	11:34:08
2	Sn 189.927†	-338.1	-407.2	3.4756	ug/L	3.4756 ppb	11:34:08
2	Sr 421.552†	549.6	581.0	0.1442	ug/L	0.1442 ppb	11:33:05
2	Ti 334.940†	-13535.0	-14605.4	3.2635	ug/L	3.2635 ppb	11:33:48
2	Tl 190.801†	-80.0	-62.7	-20.341	ug/L	-20.341 ppb	11:34:08
2	U 409.014†	-1126.7	1493.7	18.462	ug/L	18.462 ppb	11:33:48
2	V 292.402†	1012.2	2618.6	-0.2603	ug/L	-0.2603 ppb	11:34:08
2	Zn 213.857†	2748.9	2668.9	-2.0281	ug/L	-2.0281 ppb	11:34:08
2	SiO2†	531.9	72.8	5.5256	ug/L	5.5256 ppb	11:34:43
3	Sc 361.383	777612.4	777612.4	86.395	%		11:34:13
3	Sc Radial	3729.4	3729.4	87.7	%		11:33:15
3	Y 371.029	641522.6	641522.6	84.140	%		11:34:13
3	Y RADIAL	4091.3	4091.3	87.20	%		11:33:15
3	Ag 328.068†	-9943.2	-11738.2	-1.4321	ug/L	-1.4321 ppb	11:34:13
3	Al 396.153Radial†	512772.0	584947.5	529760	ug/L	529760 ppb	11:33:10
3	As 188.979†	-79.6	-71.6	12.674	ug/L	12.674 ppb	11:34:33
3	B 249.677†	377.0	809.3	-11.938	ug/L	-11.938 ppb	11:34:13
3	Ba 233.527†	-502.8	-572.8	1.4193	ug/L	1.4193 ppb	11:34:33
3	Be 313.107†	-4286.7	-1108.5	-0.4623	ug/L	-0.4623 ppb	11:34:13
3	Ca 317.933Radial†	217262.8	247781.4	492980	ug/L	492980 ppb	11:33:10
3	Cd 226.502†	1230.6	1607.7	-1.2028	ug/L	-1.2028 ppb	11:34:33
3	Co 228.616†	-14.0	45.7	-1.8191	ug/L	-1.8191 ppb	11:34:33
3	Cr 267.716†	-1093.0	-1331.1	3.3754	ug/L	3.3754 ppb	11:34:33
3	Cu 324.752†	3434.9	-2101.3	3.8465	ug/L	3.8465 ppb	11:34:13
3	Fe 238.204 Radial†	13104.5	14936.1	192430	ug/L	192430 ppb	11:33:15
3	K 766.490 Radial†	2293.0	58.5	-153.96	ug/L	-153.96 ppb	11:33:15
3	Mg 279.077 IEC†	9773.7	11144.5	506300	ug/L	506300 ppb	11:33:15
3	Mn 257.610†	1638.3	1459.4	-0.0680	ug/L	-0.0680 ppb	11:34:13
3	Mo 202.031†	-226.6	-268.3	1.1679	ug/L	1.1679 ppb	11:34:33
3	Na 589.592 Radial†	-523.3	143.5	41.645	ug/L	41.645 ppb	11:33:15
3	Ni 231.604†	174.2	149.3	3.7952	ug/L	3.7952 ppb	11:34:33
3	P 214.914†	173.1	-1.7	-23.394	ug/L	-23.394 ppb	11:34:33
3	Pb 220.353†	-749.0	-801.9	-2.9778	ug/L	-2.9778 ppb	11:34:33
3	S 181.975 Axial†	55.4	27.0	-59.666	ug/L	-59.666 ppb	11:34:33
3	Sb 206.836†	62.6	35.8	-5.4000	ug/L	-5.4000 ppb	11:34:33
3	Se 196.026†	-778.3	-880.1	14.742	ug/L	14.742 ppb	11:34:33
3	Si 251.611†	443.2	-21.2	-0.4387	ug/L	-0.4387 ppb	11:34:33
3	Sn 189.927†	-347.9	-413.1	1.7909	ug/L	1.7909 ppb	11:34:33
3	Sr 421.552†	537.4	576.1	0.1371	ug/L	0.1371 ppb	11:33:15
3	Ti 334.940†	-13489.1	-14331.4	3.0589	ug/L	3.0589 ppb	11:34:13
3	Tl 190.801†	-65.6	-44.7	-14.561	ug/L	-14.561 ppb	11:34:33
3	U 409.014†	-778.8	1914.8	29.837	ug/L	29.837 ppb	11:34:13
3	V 292.402†	981.0	2565.9	-0.5791	ug/L	-0.5791 ppb	11:34:33
3	Zn 213.857†	2711.5	2580.8	-2.9159	ug/L	-2.9159 ppb	11:34:33
3	SiO2†	500.1	27.3	2.4132	ug/L	2.4132 ppb	11:34:49

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	769348.5	85.477	%	0.8145				0.95%
Sc Radial	3763.0	88.5	%	0.69				0.78%
Y 371.029	634975.4	83.282	%	0.7697				0.92%
Y RADIAL	4132.2	88.07	%	0.775				0.88%
Ag 328.068†	-11753.4	-1.4486	ug/L	0.44323	-1.4486	ppb	0.44323	30.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	581188.1	526350	ug/L	11810.4	526350	ppb	11810.4	2.24%
QC value within limits for Al 396.153Radial Recovery = 105.27%								
As 188.979†	-77.4	10.026	ug/L	2.3414	10.026	ppb	2.3414	23.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	870.2	-10.481	ug/L	1.7009	-10.481	ppb	1.7009	16.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-549.1	1.6049	ug/L	0.16904	1.6049	ppb	0.16904	10.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1066.0	-0.4466	ug/L	0.01751	-0.4466	ppb	0.01751	3.92%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     245935.5      489310 ug/L        9501.2      489310 ppb        9501.2   1.94%
   QC value within limits for Ca 317.933Radial  Recovery = 97.86%
Cd 226.502†             1609.7     -1.1804 ug/L       0.02403     -1.1804 ppb       0.02403   2.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               39.2     -1.9554 ug/L       0.46334     -1.9554 ppb       0.46334  23.69%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -1359.5      3.0592 ug/L       0.28020      3.0592 ppb       0.28020   9.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2007.7      4.1310 ug/L       0.26047      4.1310 ppb       0.26047   6.31%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     14935.1      192410 ug/L          14.2      192410 ppb          14.2   0.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.21%
K 766.490 Radial†         67.6     -151.03 ug/L        26.021     -151.03 ppb        26.021  17.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        11110.0      504740 ug/L        1446.4      504740 ppb        1446.4   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.95%
Mn 257.610†             1425.1     -0.0436 ug/L       0.03692     -0.0436 ppb       0.03692  84.59%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -270.5      0.9599 ug/L       0.80980      0.9599 ppb       0.80980  84.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       157.3      45.645 ug/L        3.9694      45.645 ppb        3.9694   8.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              150.9      3.8341 ug/L       0.13208      3.8341 ppb       0.13208   3.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -25.8     -38.917 ug/L       16.2089     -38.917 ppb       16.2089  41.65%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -839.1     -8.3463 ug/L       4.86289     -8.3463 ppb       4.86289  58.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          27.5     -58.295 ug/L        3.6010     -58.295 ppb        3.6010   6.18%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               45.9     -1.7876 ug/L       6.65514     -1.7876 ppb       6.65514 372.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -902.5     -0.0003 ug/L      12.88414     -0.0003 ppb      12.88414 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               18.3      0.8297 ug/L       1.12464      0.8297 ppb       1.12464 135.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -414.2      0.9508 ug/L       3.03333      0.9508 ppb       3.03333 319.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              573.8      0.1493 ug/L       0.01528      0.1493 ppb       0.01528  10.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -14372.7      2.6355 ug/L       0.91630      2.6355 ppb       0.91630  34.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -52.7     -17.129 ug/L        2.9433     -17.129 ppb        2.9433  17.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1635.3      22.286 ug/L        6.5391      22.286 ppb        6.5391  29.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2605.4     -0.3503 ug/L       0.19959     -0.3503 ppb       0.19959  56.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2641.9     -2.3021 ug/L       0.53253     -2.3021 ppb       0.53253  23.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    43.8      3.5505 ug/L       1.71704      3.5505 ppb       1.71704  48.36%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/23/2010 11:37:00
Data Type: Reprocessed on 2/23/2010 12:42:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	782635.5	782635.5	86.953	%			11:40:11
1	Sc Radial	3748.2	3748.2	88.1	%			11:39:13
1	Y 371.029	645003.9	645003.9	84.597	%			11:40:11
1	Y RADIAL	4101.6	4101.6	87.42	%			11:39:13
1	Ag 328.068†	41713.3	47742.7	273.58	ug/L	273.58	ppb	11:40:11
1	Al 396.153Radial†	511782.3	580893.5	526060	ug/L	526060	ppb	11:38:53
1	As 188.979†	923.2	1082.2	536.10	ug/L	536.10	ppb	11:40:31
1	B 249.677†	19378.5	22659.1	508.17	ug/L	508.17	ppb	11:40:11
1	Ba 233.527†	54501.7	62688.3	496.68	ug/L	496.68	ppb	11:40:11
1	Be 313.107†	568498.9	657650.5	246.18	ug/L	246.18	ppb	11:40:11
1	Ca 317.933Radial†	217200.3	246468.5	490370	ug/L	490370	ppb	11:38:53
1	Cd 226.502†	35640.1	41170.9	458.33	ug/L	458.33	ppb	11:40:31
1	Co 228.616†	18276.1	21080.2	438.06	ug/L	438.06	ppb	11:40:31
1	Cr 267.716†	36394.3	41789.0	487.58	ug/L	487.58	ppb	11:40:11
1	Cu 324.752†	162671.6	181002.0	553.45	ug/L	553.45	ppb	11:40:11
1	Fe 238.204 Radial†	13209.2	14979.9	193000	ug/L	193000	ppb	11:39:13
1	K 766.490 Radial†	29389.4	30795.0	5594.5	ug/L	5594.5	ppb	11:38:53
1	Mg 279.077 IEC†	9895.3	11226.6	510040	ug/L	510040	ppb	11:39:13
1	Mn 257.610†	372959.1	428481.5	478.61	ug/L	478.61	ppb	11:40:11
1	Mo 202.031†	5600.4	6434.6	491.72	ug/L	491.72	ppb	11:40:31
1	Na 589.592 Radial†	15895.5	18778.9	5449.7	ug/L	5449.7	ppb	11:38:53
1	Ni 231.604†	15270.8	17509.8	444.80	ug/L	444.80	ppb	11:40:31
1	P 214.914†	3801.2	4169.5	2401.7	ug/L	2401.7	ppb	11:40:31
1	Pb 220.353†	2491.3	2930.2	459.50	ug/L	459.50	ppb	11:40:31
1	S 181.975 Axial†	1640.0	1849.1	2610.2	ug/L	2610.2	ppb	11:40:31
1	Sb 206.836†	1420.9	1597.4	556.87	ug/L	556.87	ppb	11:40:31
1	Se 196.026†	2575.5	2982.6	2564.8	ug/L	2564.8	ppb	11:40:31
1	Si 251.611†	143064.9	163996.4	5255.2	ug/L	5255.2	ppb	11:40:11
1	Sn 189.927†	2018.9	2311.4	494.19	ug/L	494.19	ppb	11:40:31
1	Sr 421.552†	68506.5	77706.0	511.36	ug/L	511.36	ppb	11:38:53
1	Ti 334.940†	276245.7	318975.7	506.12	ug/L	506.12	ppb	11:40:11
1	Tl 190.801†	1171.5	1378.5	445.75	ug/L	445.75	ppb	11:40:31
1	U 409.014†	14737.5	19765.0	511.01	ug/L	511.01	ppb	11:40:11
1	V 292.402†	64203.3	75266.9	511.29	ug/L	511.29	ppb	11:40:11
1	Zn 213.857†	45981.3	52322.7	492.56	ug/L	492.56	ppb	11:40:11
1	SiO2†	144005.6	165060.9	11328	ug/L	11328	ppb	11:41:28
2	Sc 361.383	779419.6	779419.6	86.596	%			11:40:37
2	Sc Radial	3738.9	3738.9	87.9	%			11:39:38
2	Y 371.029	642042.6	642042.6	84.209	%			11:40:37
2	Y RADIAL	4114.5	4114.5	87.69	%			11:39:38
2	Ag 328.068†	41430.5	47614.0	273.00	ug/L	273.00	ppb	11:40:37
2	Al 396.153Radial†	523589.9	595772.1	539540	ug/L	539540	ppb	11:39:18
2	As 188.979†	907.0	1067.9	529.75	ug/L	529.75	ppb	11:40:57
2	B 249.677†	19317.5	22680.5	508.60	ug/L	508.60	ppb	11:40:37
2	Ba 233.527†	54077.6	62457.3	494.89	ug/L	494.89	ppb	11:40:37
2	Be 313.107†	564801.5	656078.4	245.60	ug/L	245.60	ppb	11:40:37
2	Ca 317.933Radial†	221232.9	251669.8	500720	ug/L	500720	ppb	11:39:18
2	Cd 226.502†	35442.0	41111.2	457.59	ug/L	457.59	ppb	11:40:57
2	Co 228.616†	18242.3	21127.9	439.05	ug/L	439.05	ppb	11:40:57
2	Cr 267.716†	36138.2	41665.9	486.25	ug/L	486.25	ppb	11:40:37
2	Cu 324.752†	161547.2	180475.4	551.90	ug/L	551.90	ppb	11:40:37
2	Fe 238.204 Radial†	13209.2	15017.2	193490	ug/L	193490	ppb	11:39:38
2	K 766.490 Radial†	29794.6	31339.0	5692.7	ug/L	5692.7	ppb	11:39:18
2	Mg 279.077 IEC†	9885.3	11243.2	510790	ug/L	510790	ppb	11:39:38
2	Mn 257.610†	370741.8	427690.8	477.74	ug/L	477.74	ppb	11:40:37
2	Mo 202.031†	5581.6	6439.4	492.23	ug/L	492.23	ppb	11:40:57
2	Na 589.592 Radial†	16258.2	19236.5	5582.5	ug/L	5582.5	ppb	11:39:18
2	Ni 231.604†	15158.2	17452.2	443.33	ug/L	443.33	ppb	11:40:57

2	P 214.914†	3805.2	4192.2	2418.7	ug/L	2418.7 ppb	11:40:57
2	Pb 220.353†	2484.0	2933.6	462.82	ug/L	462.82 ppb	11:40:57
2	S 181.975 Axial†	1619.0	1832.6	2583.6	ug/L	2583.6 ppb	11:40:57
2	Sb 206.836†	1407.5	1588.7	553.46	ug/L	553.46 ppb	11:40:57
2	Se 196.026†	2567.2	2985.3	2568.0	ug/L	2568.0 ppb	11:40:57
2	Si 251.611†	142192.6	163668.0	5244.6	ug/L	5244.6 ppb	11:40:37
2	Sn 189.927†	2006.0	2306.1	495.05	ug/L	495.05 ppb	11:40:57
2	Sr 421.552†	70036.6	79640.3	524.11	ug/L	524.11 ppb	11:39:18
2	Ti 334.940†	274616.0	318404.6	506.59	ug/L	506.59 ppb	11:40:37
2	Tl 190.801†	1183.2	1397.6	451.86	ug/L	451.86 ppb	11:40:57
2	U 409.014†	14385.6	19428.5	501.87	ug/L	501.87 ppb	11:40:37
2	V 292.402†	63814.1	75122.1	510.21	ug/L	510.21 ppb	11:40:37
2	Zn 213.857†	45791.8	52322.0	492.50	ug/L	492.50 ppb	11:40:37
2	SiO2†	144512.2	166329.2	11415	ug/L	11415 ppb	11:41:34
3	Sc 361.383	779540.3	779540.3	86.610	%		11:41:03
3	Sc Radial	3761.9	3761.9	88.4	%		11:40:03
3	Y 371.029	641710.1	641710.1	84.165	%		11:41:03
3	Y RADIAL	4139.4	4139.4	88.22	%		11:40:03
3	Ag 328.068†	41477.8	47661.3	272.99	ug/L	272.99 ppb	11:41:03
3	Al 396.153Radial†	515559.0	583055.8	528020	ug/L	528020 ppb	11:39:43
3	As 188.979†	916.4	1078.6	534.28	ug/L	534.28 ppb	11:41:23
3	B 249.677†	19308.4	22666.6	508.46	ug/L	508.46 ppb	11:41:03
3	Ba 233.527†	54170.4	62554.7	495.62	ug/L	495.62 ppb	11:41:03
3	Be 313.107†	565647.8	656954.5	245.93	ug/L	245.93 ppb	11:41:03
3	Ca 317.933Radial†	217603.9	246030.3	489500	ug/L	489500 ppb	11:39:43
3	Cd 226.502†	35542.3	41220.7	458.99	ug/L	458.99 ppb	11:41:23
3	Co 228.616†	18276.0	21163.5	439.82	ug/L	439.82 ppb	11:41:23
3	Cr 267.716†	36260.8	41801.0	487.65	ug/L	487.65 ppb	11:41:03
3	Cu 324.752†	162319.4	181338.1	554.42	ug/L	554.42 ppb	11:41:03
3	Fe 238.204 Radial†	13206.1	14922.1	192260	ug/L	192260 ppb	11:40:03
3	K 766.490 Radial†	29372.8	30655.2	5568.6	ug/L	5568.6 ppb	11:39:43
3	Mg 279.077 IEC†	9893.3	11183.6	508090	ug/L	508090 ppb	11:40:03
3	Mn 257.610†	371976.1	429049.6	479.25	ug/L	479.25 ppb	11:41:03
3	Mo 202.031†	5631.8	6496.5	496.18	ug/L	496.18 ppb	11:41:23
3	Na 589.592 Radial†	15885.8	18702.5	5427.5	ug/L	5427.5 ppb	11:39:43
3	Ni 231.604†	15201.5	17499.4	444.53	ug/L	444.53 ppb	11:41:23
3	P 214.914†	3825.1	4214.4	2429.9	ug/L	2429.9 ppb	11:41:23
3	Pb 220.353†	2511.0	2964.3	464.21	ug/L	464.21 ppb	11:41:23
3	S 181.975 Axial†	1628.6	1843.3	2601.5	ug/L	2601.5 ppb	11:41:23
3	Sb 206.836†	1404.6	1585.1	552.64	ug/L	552.64 ppb	11:41:23
3	Se 196.026†	2572.2	2990.5	2567.8	ug/L	2567.8 ppb	11:41:23
3	Si 251.611†	142651.3	164172.1	5260.8	ug/L	5260.8 ppb	11:41:03
3	Sn 189.927†	2019.9	2321.8	495.96	ug/L	495.96 ppb	11:41:23
3	Sr 421.552†	68790.1	77744.5	511.62	ug/L	511.62 ppb	11:39:43
3	Ti 334.940†	275594.2	319484.9	506.93	ug/L	506.93 ppb	11:41:03
3	Tl 190.801†	1157.1	1367.2	442.12	ug/L	442.12 ppb	11:41:23
3	U 409.014†	14674.5	19759.6	510.95	ug/L	510.95 ppb	11:41:03
3	V 292.402†	64018.2	75346.3	511.97	ug/L	511.97 ppb	11:41:03
3	Zn 213.857†	45815.0	52340.6	492.86	ug/L	492.86 ppb	11:41:03
3	SiO2†	141937.2	163330.3	11209	ug/L	11209 ppb	11:41:39

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	780531.8	86.720	%	0.2025				0.23%
Sc Radial	3749.6	88.2	%	0.27				0.31%
Y 371.029	642918.9	84.324	%	0.2378				0.28%
Y RADIAL	4118.5	87.78	%	0.410				0.47%
Ag 328.068†	47672.7	273.19	ug/L	0.337	273.19	ppb	0.337	0.12%
QC value within limits for Ag 328.068 Recovery = 109.28%								
Al 396.153Radial†	586573.8	531200	ug/L	7280.5	531200	ppb	7280.5	1.37%
QC value within limits for Al 396.153Radial Recovery = 106.24%								
As 188.979†	1076.3	533.38	ug/L	3.274	533.38	ppb	3.274	0.61%
QC value within limits for As 188.979 Recovery = 106.68%								
B 249.677†	22668.7	508.41	ug/L	0.220	508.41	ppb	0.220	0.04%
QC value within limits for B 249.677 Recovery = 101.68%								
Ba 233.527†	62566.8	495.73	ug/L	0.901	495.73	ppb	0.901	0.18%
QC value within limits for Ba 233.527 Recovery = 99.15%								
Be 313.107†	656894.5	245.90	ug/L	0.295	245.90	ppb	0.295	0.12%
QC value within limits for Be 313.107 Recovery = 98.36%								

Ca 317.933Radial†	248056.2	493530 ug/L	6241.6	493530 ppb	6241.6	1.26%
QC value within limits for Ca 317.933Radial Recovery = 98.71%						
Cd 226.502†	41167.6	458.30 ug/L	0.701	458.30 ppb	0.701	0.15%
QC value within limits for Cd 226.502 Recovery = 91.66%						
Co 228.616†	21123.9	438.98 ug/L	0.883	438.98 ppb	0.883	0.20%
QC value within limits for Co 228.616 Recovery = 87.80%						
Cr 267.716†	41751.9	487.16 ug/L	0.789	487.16 ppb	0.789	0.16%
QC value within limits for Cr 267.716 Recovery = 97.43%						
Cu 324.752†	180938.5	553.26 ug/L	1.271	553.26 ppb	1.271	0.23%
QC value within limits for Cu 324.752 Recovery = 110.65%						
Fe 238.204 Radial†	14973.0	192920 ug/L	617.7	192920 ppb	617.7	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 96.46%						
K 766.490 Radial†	30929.7	5618.6 ug/L	65.49	5618.6 ppb	65.49	1.17%
QC value within limits for K 766.490 Radial Recovery = 112.37%						
Mg 279.077 IEC†	11217.8	509640 ug/L	1396.7	509640 ppb	1396.7	0.27%
QC value within limits for Mg 279.077 IEC Recovery = 101.93%						
Mn 257.610†	428407.3	478.53 ug/L	0.759	478.53 ppb	0.759	0.16%
QC value within limits for Mn 257.610 Recovery = 95.71%						
Mo 202.031†	6456.8	493.38 ug/L	2.442	493.38 ppb	2.442	0.49%
QC value within limits for Mo 202.031 Recovery = 98.68%						
Na 589.592 Radial†	18906.0	5486.6 ug/L	83.80	5486.6 ppb	83.80	1.53%
QC value within limits for Na 589.592 Radial Recovery = 109.73%						
Ni 231.604†	17487.1	444.22 ug/L	0.781	444.22 ppb	0.781	0.18%
QC value within limits for Ni 231.604 Recovery = 88.84%						
P 214.914†	4192.0	2416.8 ug/L	14.18	2416.8 ppb	14.18	0.59%
QC value within limits for P 214.914 Recovery = 96.67%						
Pb 220.353†	2942.7	462.18 ug/L	2.421	462.18 ppb	2.421	0.52%
QC value within limits for Pb 220.353 Recovery = 92.44%						
S 181.975 Axial†	1841.7	2598.4 ug/L	13.58	2598.4 ppb	13.58	0.52%
QC value within limits for S 181.975 Axial Recovery = 103.94%						
Sb 206.836†	1590.4	554.33 ug/L	2.245	554.33 ppb	2.245	0.40%
QC value within limits for Sb 206.836 Recovery = 110.87%						
Se 196.026†	2986.1	2566.9 ug/L	1.75	2566.9 ppb	1.75	0.07%
QC value within limits for Se 196.026 Recovery = 102.67%						
Si 251.611†	163945.5	5253.5 ug/L	8.19	5253.5 ppb	8.19	0.16%
QC value within limits for Si 251.611 Recovery = 105.07%						
Sn 189.927†	2313.1	495.07 ug/L	0.886	495.07 ppb	0.886	0.18%
QC value within limits for Sn 189.927 Recovery = 99.01%						
Sr 421.552†	78363.6	515.70 ug/L	7.283	515.70 ppb	7.283	1.41%
QC value within limits for Sr 421.552 Recovery = 103.14%						
Ti 334.940†	318955.1	506.55 ug/L	0.408	506.55 ppb	0.408	0.08%
QC value within limits for Ti 334.940 Recovery = 101.31%						
Tl 190.801†	1381.1	446.58 ug/L	4.924	446.58 ppb	4.924	1.10%
QC value within limits for Tl 190.801 Recovery = 89.32%						
U 409.014†	19651.0	507.95 ug/L	5.261	507.95 ppb	5.261	1.04%
QC value within limits for U 409.014 Recovery = 101.59%						
V 292.402†	75245.1	511.16 ug/L	0.886	511.16 ppb	0.886	0.17%
QC value within limits for V 292.402 Recovery = 102.23%						
Zn 213.857†	52328.5	492.64 ug/L	0.191	492.64 ppb	0.191	0.04%
QC value within limits for Zn 213.857 Recovery = 98.53%						
SiO2†	164906.8	11318 ug/L	103.5	11318 ppb	103.5	0.91%
QC value within limits for SiO2 Recovery = 105.82%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/23/2010 11:43:50
Data Type: Reprocessed on 2/23/2010 12:42:33
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	762099.3	762099.3	84.672	%			11:47:01
1	Sc Radial	3718.7	3718.7	87.4	%			11:46:03
1	Y 371.029	631025.1	631025.1	82.764	%			11:47:01
1	Y RADIAL	4098.5	4098.5	87.35	%			11:46:03
1	Ag 328.068†	-22982.8	-27372.8	-7.8961	ug/L	-7.8961	ppb	11:47:01
1	Al 396.153Radial†	500717.0	572842.5	518790	ug/L	518790	ppb	11:45:43
1	As 188.979†	-197.7	-213.0	7.1013	ug/L	7.1013	ppb	11:47:21
1	B 249.677†	1572.8	2230.4	-18.278	ug/L	-18.278	ppb	11:47:01
1	Ba 233.527†	-1433.1	-1683.4	0.3156	ug/L	0.3156	ppb	11:47:21
1	Be 313.107†	-10093.3	-8067.2	-3.0374	ug/L	-3.0374	ppb	11:47:01
1	Ca 317.933Radial†	212588.7	243148.5	483770	ug/L	483770	ppb	11:45:43
1	Cd 226.502†	3141.7	3893.7	2.3655	ug/L	2.3655	ppb	11:47:21
1	Co 228.616†	233.6	337.9	0.6393	ug/L	0.6393	ppb	11:47:21
1	Cr 267.716†	-1041.3	-1295.8	22.009	ug/L	22.009	ppb	11:47:21
1	Cu 324.752†	717.8	-5229.4	0.1017	ug/L	0.1017	ppb	11:47:01
1	Fe 238.204 Radial†	29881.4	34168.9	440210	ug/L	440210	ppb	11:46:03
1	K 766.490 Radial†	2437.9	231.8	-317.26	ug/L	-317.26	ppb	11:45:43
1	Mg 279.077 IEC†	9593.6	10970.6	498140	ug/L	498140	ppb	11:46:03
1	Mn 257.610†	-19449.3	-23407.1	-3.1522	ug/L	-3.1522	ppb	11:47:01
1	Mo 202.031†	-467.9	-558.6	-0.9542	ug/L	-0.9542	ppb	11:47:21
1	Na 589.592 Radial†	1535165.1	1756697.9	509800	ug/L	509800	ppb	11:45:43
1	Ni 231.604†	253.6	247.2	6.2801	ug/L	6.2801	ppb	11:47:21
1	P 214.914†	504.8	394.2	16.342	ug/L	16.342	ppb	11:47:21
1	Pb 220.353†	-566.4	-603.9	-7.6789	ug/L	-7.6789	ppb	11:47:21
1	S 181.975 Axial†	74.6	51.1	-22.415	ug/L	-22.415	ppb	11:47:21
1	Sb 206.836†	67.2	42.6	-5.9643	ug/L	-5.9643	ppb	11:47:21
1	Se 196.026†	-1848.0	-2161.9	-57.453	ug/L	-57.453	ppb	11:47:21
1	Si 251.611†	-467.8	-1086.6	-34.355	ug/L	-34.355	ppb	11:47:21
1	Sn 189.927†	-363.6	-439.9	-18.906	ug/L	-18.906	ppb	11:47:21
1	Sr 421.552†	746.9	817.5	1.8061	ug/L	1.8061	ppb	11:46:03
1	Ti 334.940†	-8706.2	-9000.5	4.6079	ug/L	4.6079	ppb	11:47:01
1	Tl 190.801†	-104.8	-92.6	-30.033	ug/L	-30.033	ppb	11:47:21
1	U 409.014†	421872.8	501061.2	13489	ug/L	13489	ppb	11:47:01
1	V 292.402†	2745.4	4672.9	3.3113	ug/L	3.3113	ppb	11:47:21
1	Zn 213.857†	5249.9	5642.6	-9.2771	ug/L	-9.2771	ppb	11:47:21
1	SiO2†	-501.1	-1143.3	-77.442	ug/L	-77.442	ppb	11:48:18
2	Sc 361.383	755963.6	755963.6	83.990	%			11:47:27
2	Sc Radial	3688.1	3688.1	86.7	%			11:46:28
2	Y 371.029	625718.1	625718.1	82.068	%			11:47:27
2	Y RADIAL	4037.0	4037.0	86.04	%			11:46:28
2	Ag 328.068†	-22804.5	-27380.8	-8.2815	ug/L	-8.2815	ppb	11:47:27
2	Al 396.153Radial†	502447.8	579594.2	524910	ug/L	524910	ppb	11:46:08
2	As 188.979†	-201.4	-219.3	4.0482	ug/L	4.0482	ppb	11:47:47
2	B 249.677†	1545.5	2213.1	-18.533	ug/L	-18.533	ppb	11:47:27
2	Ba 233.527†	-1420.9	-1682.6	0.2923	ug/L	0.2923	ppb	11:47:47
2	Be 313.107†	-10035.6	-8095.3	-3.0419	ug/L	-3.0419	ppb	11:47:27
2	Ca 317.933Radial†	213123.5	245784.3	489010	ug/L	489010	ppb	11:46:08
2	Cd 226.502†	3143.4	3925.9	2.8346	ug/L	2.8346	ppb	11:47:47
2	Co 228.616†	220.0	323.8	0.3495	ug/L	0.3495	ppb	11:47:47
2	Cr 267.716†	-1083.1	-1355.5	21.258	ug/L	21.258	ppb	11:47:47
2	Cu 324.752†	732.9	-5204.5	0.1395	ug/L	0.1395	ppb	11:47:27
2	Fe 238.204 Radial†	29569.9	34093.4	439240	ug/L	439240	ppb	11:46:28
2	K 766.490 Radial†	2357.2	161.8	-334.73	ug/L	-334.73	ppb	11:46:08
2	Mg 279.077 IEC†	9502.0	10956.1	497480	ug/L	497480	ppb	11:46:28
2	Mn 257.610†	-19251.3	-23357.8	-3.1661	ug/L	-3.1661	ppb	11:47:27
2	Mo 202.031†	-490.8	-590.4	-3.2938	ug/L	-3.2938	ppb	11:47:47
2	Na 589.592 Radial†	1542603.2	1779856.6	516520	ug/L	516520	ppb	11:46:08
2	Ni 231.604†	259.4	256.6	6.5170	ug/L	6.5170	ppb	11:47:47

2	P 214.914†	490.9	382.5	11.535	ug/L	11.535 ppb	11:47:47
2	Pb 220.353†	-553.8	-594.4	-5.0536	ug/L	-5.0536 ppb	11:47:47
2	S 181.975 Axial†	68.5	44.5	-33.167	ug/L	-33.167 ppb	11:47:47
2	Sb 206.836†	52.2	25.5	-12.151	ug/L	-12.151 ppb	11:47:47
2	Se 196.026†	-1856.2	-2189.3	-78.616	ug/L	-78.616 ppb	11:47:47
2	Si 251.611†	-411.4	-1024.0	-32.318	ug/L	-32.318 ppb	11:47:47
2	Sn 189.927†	-361.4	-440.8	-18.080	ug/L	-18.080 ppb	11:47:47
2	Sr 421.552†	756.3	835.5	1.8863	ug/L	1.8863 ppb	11:46:28
2	Ti 334.940†	-7184.7	-7272.4	7.9903	ug/L	7.9903 ppb	11:47:27
2	Tl 190.801†	-97.3	-84.7	-27.479	ug/L	-27.479 ppb	11:47:47
2	U 409.014†	417666.4	500096.9	13463	ug/L	13463 ppb	11:47:27
2	V 292.402†	2734.2	4685.8	3.4451	ug/L	3.4451 ppb	11:47:47
2	Zn 213.857†	5221.9	5659.6	-8.9632	ug/L	-8.9632 ppb	11:47:47
2	SiO2†	-409.6	-1039.1	-70.221	ug/L	-70.221 ppb	11:48:23
3	Sc 361.383	768050.6	768050.6	85.333	%		11:47:52
3	Sc Radial	3701.7	3701.7	87.0	%		11:46:54
3	Y 371.029	634335.4	634335.4	83.198	%		11:47:52
3	Y RADIAL	4073.7	4073.7	86.82	%		11:46:54
3	Ag 328.068†	-23330.9	-27570.4	-9.3803	ug/L	-9.3803 ppb	11:47:52
3	Al 396.153Radial†	498188.5	572569.5	518550	ug/L	518550 ppb	11:46:34
3	As 188.979†	-181.9	-192.7	15.811	ug/L	15.811 ppb	11:48:12
3	B 249.677†	1505.6	2137.3	-20.193	ug/L	-20.193 ppb	11:47:52
3	Ba 233.527†	-1472.9	-1716.9	-0.0020	ug/L	-0.0020 ppb	11:48:12
3	Be 313.107†	-10145.7	-8036.2	-3.0248	ug/L	-3.0248 ppb	11:47:52
3	Ca 317.933Radial†	211628.9	243163.2	483800	ug/L	483800 ppb	11:46:34
3	Cd 226.502†	3109.0	3826.7	1.7822	ug/L	1.7822 ppb	11:48:12
3	Co 228.616†	232.7	334.6	0.5915	ug/L	0.5915 ppb	11:48:12
3	Cr 267.716†	-1033.3	-1276.9	22.044	ug/L	22.044 ppb	11:48:12
3	Cu 324.752†	721.1	-5232.1	-0.0049	ug/L	-0.0049 ppb	11:47:52
3	Fe 238.204 Radial†	29617.0	34022.1	438320	ug/L	438320 ppb	11:46:54
3	K 766.490 Radial†	2515.9	334.2	-297.43	ug/L	-297.43 ppb	11:46:34
3	Mg 279.077 IEC†	9528.0	10945.7	497010	ug/L	497010 ppb	11:46:54
3	Mn 257.610†	-19505.7	-23295.2	-3.1672	ug/L	-3.1672 ppb	11:47:52
3	Mo 202.031†	-497.9	-589.5	-3.3602	ug/L	-3.3602 ppb	11:48:12
3	Na 589.592 Radial†	1522946.2	1750728.3	508070	ug/L	508070 ppb	11:46:34
3	Ni 231.604†	266.1	259.6	6.5935	ug/L	6.5935 ppb	11:48:12
3	P 214.914†	487.4	369.1	2.6053	ug/L	2.6053 ppb	11:48:12
3	Pb 220.353†	-509.9	-532.6	1.3050	ug/L	1.3050 ppb	11:48:12
3	S 181.975 Axial†	69.6	44.5	-31.947	ug/L	-31.947 ppb	11:48:12
3	Sb 206.836†	33.2	2.2	-20.078	ug/L	-20.078 ppb	11:48:12
3	Se 196.026†	-1842.9	-2139.0	-48.257	ug/L	-48.257 ppb	11:48:12
3	Si 251.611†	-439.5	-1049.2	-33.127	ug/L	-33.127 ppb	11:48:12
3	Sn 189.927†	-364.9	-438.0	-18.460	ug/L	-18.460 ppb	11:48:12
3	Sr 421.552†	771.2	849.4	2.0171	ug/L	2.0171 ppb	11:46:54
3	Ti 334.940†	-8518.8	-8701.2	5.1582	ug/L	5.1582 ppb	11:47:52
3	Tl 190.801†	-112.3	-100.3	-32.529	ug/L	-32.529 ppb	11:48:12
3	U 409.014†	425079.1	500957.9	13486	ug/L	13486 ppb	11:47:52
3	V 292.402†	2847.3	4767.1	4.1814	ug/L	4.1814 ppb	11:48:12
3	Zn 213.857†	5223.7	5563.8	-9.7868	ug/L	-9.7868 ppb	11:48:12
3	SiO2†	-403.5	-1024.4	-69.209	ug/L	-69.209 ppb	11:48:28

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	762037.8	84.665	%	0.6715				0.79%
Sc Radial	3702.8	87.1	%	0.36				0.41%
Y 371.029	630359.5	82.676	%	0.5701				0.69%
Y RADIAL	4069.7	86.74	%	0.659				0.76%
Ag 328.068†	-27441.3	-8.5193	ug/L	0.77014	-8.5193	ppb	0.77014	9.04%
Al 396.153Radial†	575002.1	520750	ug/L	3603.8	520750	ppb	3603.8	0.69%
QC value within limits for Al 396.153Radial Recovery = 104.15%								
As 188.979†	-208.3	8.9869	ug/L	6.10406	8.9869	ppb	6.10406	67.92%
B 249.677†	2193.6	-19.001	ug/L	1.0400	-19.001	ppb	1.0400	5.47%
Ba 233.527†	-1694.3	0.2020	ug/L	0.17705	0.2020	ppb	0.17705	87.67%
Be 313.107†	-8066.2	-3.0347	ug/L	0.00886	-3.0347	ppb	0.00886	0.29%
Ca 317.933Radial†	244032.0	485520	ug/L	3019.3	485520	ppb	3019.3	0.62%
QC value within limits for Ca 317.933Radial Recovery = 97.10%								
Cd 226.502†	3882.1	2.3274	ug/L	0.52723	2.3274	ppb	0.52723	22.65%
Co 228.616†	332.1	0.5268	ug/L	0.15535	0.5268	ppb	0.15535	29.49%
Cr 267.716†	-1309.4	21.770	ug/L	0.4440	21.770	ppb	0.4440	2.04%

Cu 324.752†	-5222.0	0.0788	ug/L	0.07491	0.0788	ppb	0.07491	95.11%
Fe 238.204 Radial†	34094.8	439250	ug/L	945.6	439250	ppb	945.6	0.22%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.85%								
K 766.490 Radial†	242.6	-316.48	ug/L	18.659	-316.48	ppb	18.659	5.90%
Mg 279.077 IEC†	10957.5	497540	ug/L	567.7	497540	ppb	567.7	0.11%
QC value within limits for Mg 279.077 IEC Recovery = 99.51%								
Mn 257.610†	-23353.4	-3.1619	ug/L	0.00838	-3.1619	ppb	0.00838	0.27%
Mo 202.031†	-579.5	-2.5361	ug/L	1.37036	-2.5361	ppb	1.37036	54.03%
Na 589.592 Radial†	1762427.6	511460	ug/L	4465.1	511460	ppb	4465.1	0.87%
QC value within limits for Na 589.592 Radial Recovery = 102.29%								
Ni 231.604†	254.5	6.4635	ug/L	0.16338	6.4635	ppb	0.16338	2.53%
P 214.914†	381.9	10.161	ug/L	6.9706	10.161	ppb	6.9706	68.60%
Pb 220.353†	-576.9	-3.8092	ug/L	4.61941	-3.8092	ppb	4.61941	121.27%
S 181.975 Axial†	46.7	-29.176	ug/L	5.8872	-29.176	ppb	5.8872	20.18%
Sb 206.836†	23.4	-12.731	ug/L	7.0747	-12.731	ppb	7.0747	55.57%
Se 196.026†	-2163.4	-61.442	ug/L	15.5675	-61.442	ppb	15.5675	25.34%
Si 251.611†	-1053.3	-33.267	ug/L	1.0255	-33.267	ppb	1.0255	3.08%
Sn 189.927†	-439.6	-18.482	ug/L	0.4137	-18.482	ppb	0.4137	2.24%
Sr 421.552†	834.1	1.9031	ug/L	0.10651	1.9031	ppb	0.10651	5.60%
Ti 334.940†	-8324.7	5.9188	ug/L	1.81497	5.9188	ppb	1.81497	30.66%
Tl 190.801†	-92.5	-30.014	ug/L	2.5252	-30.014	ppb	2.5252	8.41%
U 409.014†	500705.4	13479	ug/L	14.3	13479	ppb	14.3	0.11%
QC value less than the lower limit for U 409.014 Recovery = 89.86%								
V 292.402†	4708.6	3.6459	ug/L	0.46850	3.6459	ppb	0.46850	12.85%
Zn 213.857†	5622.0	-9.3423	ug/L	0.41569	-9.3423	ppb	0.41569	4.45%
SiO2†	-1068.9	-72.291	ug/L	4.4897	-72.291	ppb	4.4897	6.21%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/23/2010 11:50:38
Data Type: Reprocessed on 2/23/2010 12:42:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	882388.7	882388.7	98.036	%			11:54:13
1	Sc Radial	4083.5	4083.5	96.0	%			11:52:36
1	Y 371.029	726949.1	726949.1	95.345	%			11:54:13
1	Y RADIAL	4457.5	4457.5	95.00	%			11:52:36
1	Ag 328.068†	-8113.4	-8505.2	0.7527	ug/L	0.7527	ppb	11:54:18
1	Al 396.153Radial†	386.7	513.6	-0.4598	ug/L	-0.4598	ppb	11:52:36
1	As 188.979†	21057.1	21499.4	9751.2	ug/L	9751.2	ppb	11:54:18
1	B 249.677†	200438.6	204826.4	4862.0	ug/L	4862.0	ppb	11:54:18
1	Ba 233.527†	1681735.0	1715429.8	13421	ug/L	13421	ppb	11:54:13
1	Be 313.107†	7369759.5	7521231.0	2824.7	ug/L	2824.7	ppb	11:54:07
1	Ca 317.933Radial†	24.7	10.3	20.396	ug/L	20.396	ppb	11:52:56
1	Cd 226.502†	809957.7	826364.7	9597.8	ug/L	9597.8	ppb	11:54:13
1	Co 228.616†	431518.8	440224.1	9202.3	ug/L	9202.3	ppb	11:54:18
1	Cr 267.716†	2060497.4	2101703.7	23586	ug/L	23586	ppb	11:54:13
1	Cu 324.752†	6465550.3	6588979.9	19786	ug/L	19786	ppb	11:54:07
1	Fe 238.204 Radial†	-8.5	-19.1	29.577	ug/L	29.577	ppb	11:52:56
1	K 766.490 Radial†	1544448.2	1606221.4	300490	ug/L	300490	ppb	11:52:31
1	Mg 279.077 IEC†	-5.6	-8.6	-289.33	ug/L	-289.33	ppb	11:52:56
1	Mn 257.610†	8077318.7	8238672.7	9237.1	ug/L	9237.1	ppb	11:54:07
1	Mo 202.031†	128620.9	131191.1	9600.9	ug/L	9600.9	ppb	11:54:18
1	Na 589.592 Radial†	-201.1	530.9	154.08	ug/L	154.08	ppb	11:52:36
1	Ni 231.604†	363705.0	370937.8	9422.9	ug/L	9422.9	ppb	11:54:18
1	P 214.914†	30464.4	30872.6	14900	ug/L	14900	ppb	11:54:18
1	Pb 220.353†	192602.0	196524.9	24363	ug/L	24363	ppb	11:54:18
1	S 181.975 Axial†	35421.2	36093.6	52876	ug/L	52876	ppb	11:54:18
1	Sb 206.836†	30032.7	30597.6	11026	ug/L	11026	ppb	11:54:18
1	Se 196.026†	15007.9	15329.2	10136	ug/L	10136	ppb	11:54:18
1	Si 251.611†	1434695.4	1462898.6	46811	ug/L	46811	ppb	11:54:13
1	Sn 189.927†	55770.8	56877.5	10290	ug/L	10290	ppb	11:54:18
1	Sr 421.552†	1379249.8	1436662.0	9522.0	ug/L	9522.0	ppb	11:52:31
1	Ti 334.940†	6208018.0	6333648.1	9570.7	ug/L	9570.7	ppb	11:54:07
1	Tl 190.801†	28971.4	29583.0	9558.2	ug/L	9558.2	ppb	11:54:18
1	U 409.014†	-1464.1	1322.9	-16.979	ug/L	-16.979	ppb	11:54:18
1	V 292.402†	1392428.8	1421750.0	9987.6	ug/L	9987.6	ppb	11:54:13
1	Zn 213.857†	1362755.8	1389494.5	13856	ug/L	13856	ppb	11:54:13
1	SiO2†	1419310.1	1447187.8	99173	ug/L	99173	ppb	11:55:03
2	Sc 361.383	878695.9	878695.9	97.626	%			11:54:32
2	Sc Radial	4048.2	4048.2	95.2	%			11:53:06
2	Y 371.029	724487.8	724487.8	95.022	%			11:54:32
2	Y RADIAL	4442.2	4442.2	94.67	%			11:53:06
2	Ag 328.068†	-8120.1	-8546.9	0.5774	ug/L	0.5774	ppb	11:54:37
2	Al 396.153Radial†	380.0	510.0	-3.1977	ug/L	-3.1977	ppb	11:53:06
2	As 188.979†	20817.0	21343.7	9682.0	ug/L	9682.0	ppb	11:54:37
2	B 249.677†	198638.8	203842.1	4838.5	ug/L	4838.5	ppb	11:54:37
2	Ba 233.527†	1675805.1	1716564.8	13430	ug/L	13430	ppb	11:54:32
2	Be 313.107†	7426205.9	7610642.3	2858.3	ug/L	2858.3	ppb	11:54:26
2	Ca 317.933Radial†	28.4	14.4	28.648	ug/L	28.648	ppb	11:53:26
2	Cd 226.502†	808960.7	828815.5	9626.3	ug/L	9626.3	ppb	11:54:32
2	Co 228.616†	429995.2	440513.4	9208.1	ug/L	9208.1	ppb	11:54:37
2	Cr 267.716†	2055121.6	2105030.1	23624	ug/L	23624	ppb	11:54:32
2	Cu 324.752†	6511173.4	6663428.6	20010	ug/L	20010	ppb	11:54:26
2	Fe 238.204 Radial†	-9.1	-19.7	21.704	ug/L	21.704	ppb	11:53:26
2	K 766.490 Radial†	1582654.9	1660363.3	310620	ug/L	310620	ppb	11:53:01
2	Mg 279.077 IEC†	-2.2	-5.0	-127.19	ug/L	-127.19	ppb	11:53:26
2	Mn 257.610†	8137961.0	8335415.1	9345.5	ug/L	9345.5	ppb	11:54:26
2	Mo 202.031†	127952.0	131057.4	9591.1	ug/L	9591.1	ppb	11:54:37
2	Na 589.592 Radial†	-264.9	462.0	134.07	ug/L	134.07	ppb	11:53:06
2	Ni 231.604†	362397.8	371157.9	9428.5	ug/L	9428.5	ppb	11:54:37

2	P 214.914†	30344.7	30880.5	14861	ug/L	14861	ppb	11:54:37
2	Pb 220.353†	191799.6	196528.6	24364	ug/L	24364	ppb	11:54:37
2	S 181.975 Axial†	35085.4	35901.6	52594	ug/L	52594	ppb	11:54:37
2	Sb 206.836†	29834.6	30523.4	11000	ug/L	11000	ppb	11:54:37
2	Se 196.026†	14892.2	15275.0	10100	ug/L	10100	ppb	11:54:37
2	Si 251.611†	1425805.1	1459942.3	46717	ug/L	46717	ppb	11:54:32
2	Sn 189.927†	55653.1	56996.0	10311	ug/L	10311	ppb	11:54:37
2	Sr 421.552†	1409895.6	1481362.4	9818.3	ug/L	9818.3	ppb	11:53:01
2	Ti 334.940†	6250927.8	6404213.6	9677.4	ug/L	9677.4	ppb	11:54:26
2	Tl 190.801†	28876.3	29609.7	9568.2	ug/L	9568.2	ppb	11:54:37
2	U 409.014†	-1703.6	1071.2	-23.860	ug/L	-23.860	ppb	11:54:37
2	V 292.402†	1387062.9	1422222.5	9990.6	ug/L	9990.6	ppb	11:54:32
2	Zn 213.857†	1359659.2	1392164.3	13882	ug/L	13882	ppb	11:54:32
2	SiO2†	1412377.4	1446170.7	99103	ug/L	99103	ppb	11:55:09
3	Sc 361.383	879658.4	879658.4	97.733	%			11:54:52
3	Sc Radial	4131.9	4131.9	97.1	%			11:53:37
3	Y 371.029	724149.6	724149.6	94.978	%			11:54:52
3	Y RADIAL	4507.6	4507.6	96.07	%			11:53:37
3	Ag 328.068†	-8157.6	-8576.1	0.4373	ug/L	0.4373	ppb	11:54:57
3	Al 396.153Radial†	379.5	501.5	-12.494	ug/L	-12.494	ppb	11:53:37
3	As 188.979†	21084.9	21594.5	9794.9	ug/L	9794.9	ppb	11:54:57
3	B 249.677†	200236.8	205254.5	4872.1	ug/L	4872.1	ppb	11:54:57
3	Ba 233.527†	1680205.3	1719188.9	13450	ug/L	13450	ppb	11:54:52
3	Be 313.107†	7427825.9	7603976.6	2855.8	ug/L	2855.8	ppb	11:54:46
3	Ca 317.933Radial†	30.0	15.4	30.703	ug/L	30.703	ppb	11:53:57
3	Cd 226.502†	811672.5	830683.6	9648.0	ug/L	9648.0	ppb	11:54:52
3	Co 228.616†	432213.3	442300.9	9245.5	ug/L	9245.5	ppb	11:54:57
3	Cr 267.716†	2058304.7	2105983.6	23634	ug/L	23634	ppb	11:54:52
3	Cu 324.752†	6500993.2	6645714.5	19956	ug/L	19956	ppb	11:54:46
3	Fe 238.204 Radial†	-8.3	-18.7	35.658	ug/L	35.658	ppb	11:53:57
3	K 766.490 Radial†	1589947.4	1634199.9	305720	ug/L	305720	ppb	11:53:32
3	Mg 279.077 IEC†	-0.5	-3.3	-48.321	ug/L	-48.321	ppb	11:53:57
3	Mn 257.610†	8154831.4	8343555.8	9354.7	ug/L	9354.7	ppb	11:54:46
3	Mo 202.031†	128508.3	131483.1	9622.3	ug/L	9622.3	ppb	11:54:57
3	Na 589.592 Radial†	-229.7	503.9	146.23	ug/L	146.23	ppb	11:53:37
3	Ni 231.604†	363989.2	372380.1	9459.5	ug/L	9459.5	ppb	11:54:57
3	P 214.914†	30581.5	31088.8	14998	ug/L	14998	ppb	11:54:57
3	Pb 220.353†	193059.3	197602.6	24497	ug/L	24497	ppb	11:54:57
3	S 181.975 Axial†	35462.9	36248.5	53102	ug/L	53102	ppb	11:54:57
3	Sb 206.836†	30094.0	30755.4	11082	ug/L	11082	ppb	11:54:57
3	Se 196.026†	15075.7	15446.1	10213	ug/L	10213	ppb	11:54:57
3	Si 251.611†	1429109.3	1461725.0	46773	ug/L	46773	ppb	11:54:52
3	Sn 189.927†	55870.1	57155.6	10340	ug/L	10340	ppb	11:54:57
3	Sr 421.552†	1413097.6	1454663.5	9641.3	ug/L	9641.3	ppb	11:53:32
3	Ti 334.940†	6253920.9	6400270.0	9671.4	ug/L	9671.4	ppb	11:54:46
3	Tl 190.801†	29095.3	29801.5	9629.5	ug/L	9629.5	ppb	11:54:57
3	U 409.014†	-1480.7	1301.2	-17.673	ug/L	-17.673	ppb	11:54:57
3	V 292.402†	1388416.2	1422052.6	9989.9	ug/L	9989.9	ppb	11:54:52
3	Zn 213.857†	1363376.9	1394444.4	13905	ug/L	13905	ppb	11:54:52
3	SiO2†	1417724.5	1450058.8	99369	ug/L	99369	ppb	11:55:15

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880247.7	97.798	%	0.2128				0.22%
Sc Radial	4087.9	96.1	%	0.99				1.03%
Y 371.029	725195.5	95.115	%	0.2004				0.21%
Y RADIAL	4469.1	95.25	%	0.729				0.77%
Ag 328.068†	-8542.8	0.5891	ug/L	0.15801	0.5891	ppb	0.15801	26.82%
Al 396.153Radial†	508.4	-5.3837	ug/L	6.30772	-5.3837	ppb	6.30772	117.16%
As 188.979†	21479.2	9742.7	ug/L	56.95	9742.7	ppb	56.95	0.58%
QC value within limits for As 188.979 Recovery = 97.43%								
B 249.677†	204641.0	4857.5	ug/L	17.24	4857.5	ppb	17.24	0.35%
QC value within limits for B 249.677 Recovery = 97.15%								
Ba 233.527†	1717061.2	13434	ug/L	15.1	13434	ppb	15.1	0.11%
QC value less than the lower limit for Ba 233.527 Recovery = 89.56%								
Be 313.107†	7578616.6	2846.3	ug/L	18.70	2846.3	ppb	18.70	0.66%
QC value within limits for Be 313.107 Recovery = 94.88%								
Ca 317.933Radial†	13.4	26.582	ug/L	5.4551	26.582	ppb	5.4551	20.52%
Cd 226.502†	828621.3	9624.0	ug/L	25.15	9624.0	ppb	25.15	0.26%

```
   QC value within limits for Cd 226.502  Recovery = 96.24%
Co 228.616†          441012.8      9218.6 ug/L        23.48      9218.6 ppb        23.48   0.25%
   QC value within limits for Co 228.616  Recovery = 92.19%
Cr 267.716†         2104239.1       23615 ug/L         25.2       23615 ppb         25.2   0.11%
   QC value within limits for Cr 267.716  Recovery = 94.46%
Cu 324.752†         6632707.7       19917 ug/L        116.8       19917 ppb        116.8   0.59%
   QC value within limits for Cu 324.752  Recovery = 99.59%
Fe 238.204 Radial†       -19.2      28.980 ug/L       6.9961      28.980 ppb       6.9961  24.14%
K 766.490 Radial†    1633594.8      305610 ug/L       5065.6      305610 ppb       5065.6   1.66%
   QC value within limits for K 766.490 Radial  Recovery = 101.87%
Mg 279.077 IEC†          -5.6     -154.95 ug/L      122.879     -154.95 ppb      122.879  79.30%
Mn 257.610†          8305881.2      9312.4 ug/L        65.41      9312.4 ppb        65.41   0.70%
   QC value within limits for Mn 257.610  Recovery = 93.12%
Mo 202.031†           131243.9      9604.8 ug/L        15.93      9604.8 ppb        15.93   0.17%
   QC value within limits for Mo 202.031  Recovery = 96.05%
Na 589.592 Radial†       498.9      144.79 ug/L       10.080      144.79 ppb       10.080   6.96%
Ni 231.604†           371491.9      9437.0 ug/L        19.74      9437.0 ppb        19.74   0.21%
   QC value within limits for Ni 231.604  Recovery = 94.37%
P 214.914†             30947.3       14919 ug/L         70.6       14919 ppb         70.6   0.47%
   QC value within limits for P 214.914  Recovery = 99.46%
Pb 220.353†           196885.3       24408 ug/L         77.0       24408 ppb         77.0   0.32%
   QC value within limits for Pb 220.353  Recovery = 97.63%
S 181.975 Axial†       36081.2       52857 ug/L        254.6       52857 ppb        254.6   0.48%
   QC value within limits for S 181.975 Axial  Recovery = 105.71%
Sb 206.836†            30625.4       11036 ug/L         41.9       11036 ppb         41.9   0.38%
   QC value greater than the upper limit for Sb 206.836  Recovery = 110.36%
Se 196.026†            15350.1       10149 ug/L         57.7       10149 ppb         57.7   0.57%
   QC value within limits for Se 196.026  Recovery = 101.49%
Si 251.611†          1461522.0       46767 ug/L         47.7       46767 ppb         47.7   0.10%
   QC value within limits for Si 251.611  Recovery = 93.53%
Sn 189.927†            57009.7       10314 ug/L         25.3       10314 ppb         25.3   0.24%
   QC value within limits for Sn 189.927  Recovery = 103.14%
Sr 421.552†          1457562.6      9660.5 ug/L       149.07      9660.5 ppb       149.07   1.54%
   QC value within limits for Sr 421.552  Recovery = 96.61%
Ti 334.940†          6379377.2      9639.9 ug/L        59.95      9639.9 ppb        59.95   0.62%
   QC value within limits for Ti 334.940  Recovery = 96.40%
Tl 190.801†            29664.7      9585.3 ug/L        38.63      9585.3 ppb        38.63   0.40%
   QC value within limits for Tl 190.801  Recovery = 95.85%
U 409.014†              1231.8     -19.504 ug/L       3.7885     -19.504 ppb       3.7885  19.42%
V 292.402†           1422008.4      9989.3 ug/L         1.57      9989.3 ppb         1.57   0.02%
   QC value within limits for V 292.402  Recovery = 99.89%
Zn 213.857†          1392034.4       13881 ug/L         24.6       13881 ppb         24.6   0.18%
   QC value within limits for Zn 213.857  Recovery = 92.54%
SiO2†                1447805.8       99215 ug/L        138.1       99215 ppb        138.1   0.14%
   QC value within limits for SiO2  Recovery = 92.72%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 11:57:25
Data Type: Reprocessed on 2/23/2010 12:42:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	921577.5	921577.5	102.39	%			12:00:35
1	Sc Radial	3882.6	3882.6	91.3	%			11:59:18
1	Y 371.029	766594.4	766594.4	100.54	%			12:00:35
1	Y RADIAL	4267.1	4267.1	90.94	%			11:59:18
1	Ag 328.068†	109678.6	106888.8	494.05	ug/L	494.05	ppb	12:00:40
1	Al 396.153Radial†	5431.6	6061.3	5465.2	ug/L	5465.2	ppb	11:59:18
1	As 188.979†	1199.4	1191.9	541.58	ug/L	541.58	ppb	12:01:00
1	B 249.677†	21580.9	21450.1	509.62	ug/L	509.62	ppb	12:00:40
1	Ba 233.527†	64326.8	62834.2	492.04	ug/L	492.04	ppb	12:00:40
1	Be 313.107†	1341859.1	1314386.4	490.94	ug/L	490.94	ppb	12:00:35
1	Ca 317.933Radial†	2600.9	2833.9	5638.3	ug/L	5638.3	ppb	11:59:38
1	Cd 226.502†	43860.0	43019.4	499.18	ug/L	499.18	ppb	12:00:40
1	Co 228.616†	24156.4	23654.4	494.63	ug/L	494.63	ppb	12:00:40
1	Cr 267.716†	44977.1	43861.1	492.96	ug/L	492.96	ppb	12:00:40
1	Cu 324.752†	170861.0	160795.1	482.88	ug/L	482.88	ppb	12:00:40
1	Fe 238.204 Radial†	394.8	422.4	5456.3	ug/L	5456.3	ppb	11:59:38
1	K 766.490 Radial†	30234.8	30566.6	5711.8	ug/L	5711.8	ppb	11:59:18
1	Mg 279.077 IEC†	118.1	126.6	5754.9	ug/L	5754.9	ppb	11:59:38
1	Mn 257.610†	448806.4	437892.1	491.26	ug/L	491.26	ppb	12:00:35
1	Mo 202.031†	6978.9	6809.9	498.86	ug/L	498.86	ppb	12:01:00
1	Na 589.592 Radial†	32556.0	36406.7	10565	ug/L	10565	ppb	11:59:18
1	Ni 231.604†	20112.5	19590.6	497.65	ug/L	497.65	ppb	12:00:40
1	P 214.914†	4422.2	4117.0	2403.9	ug/L	2403.9	ppb	12:01:00
1	Pb 220.353†	4154.9	4123.0	512.46	ug/L	512.46	ppb	12:01:00
1	S 181.975 Axial†	756.2	701.5	1026.6	ug/L	1026.6	ppb	12:01:00
1	Sb 206.836†	1536.0	1463.5	528.10	ug/L	528.10	ppb	12:01:00
1	Se 196.026†	756.8	759.8	519.43	ug/L	519.43	ppb	12:01:00
1	Si 251.611†	79180.0	76797.4	2457.5	ug/L	2457.5	ppb	12:00:40
1	Sn 189.927†	2848.7	2771.8	502.14	ug/L	502.14	ppb	12:01:00
1	Sr 421.552†	73649.7	80649.2	534.49	ug/L	534.49	ppb	11:59:18
1	Ti 334.940†	328993.3	322594.7	487.80	ug/L	487.80	ppb	12:00:35
1	Tl 190.801†	1551.3	1546.3	499.52	ug/L	499.52	ppb	12:01:00
1	U 409.014†	15163.0	17625.3	474.53	ug/L	474.53	ppb	12:00:40
1	V 292.402†	70289.9	70079.4	493.11	ug/L	493.11	ppb	12:00:40
1	Zn 213.857†	51371.4	49614.4	493.20	ug/L	493.20	ppb	12:00:40
1	SiO2†	79492.5	77085.2	5282.8	ug/L	5282.8	ppb	12:02:08
2	Sc 361.383	911964.6	911964.6	101.32	%			12:01:06
2	Sc Radial	4140.6	4140.6	97.3	%			11:59:43
2	Y 371.029	759889.1	759889.1	99.665	%			12:01:06
2	Y RADIAL	4532.6	4532.6	96.60	%			11:59:43
2	Ag 328.068†	109875.1	108211.9	499.99	ug/L	499.99	ppb	12:01:12
2	Al 396.153Radial†	5318.2	5574.0	5023.6	ug/L	5023.6	ppb	11:59:43
2	As 188.979†	1183.5	1188.6	539.98	ug/L	539.98	ppb	12:01:32
2	B 249.677†	21633.0	21723.6	516.21	ug/L	516.21	ppb	12:01:12
2	Ba 233.527†	64698.7	63863.5	500.08	ug/L	500.08	ppb	12:01:12
2	Be 313.107†	1338088.4	1324479.1	494.71	ug/L	494.71	ppb	12:01:06
2	Ca 317.933Radial†	2495.1	2547.7	5068.8	ug/L	5068.8	ppb	12:00:03
2	Cd 226.502†	44006.9	43615.9	506.17	ug/L	506.17	ppb	12:01:12
2	Co 228.616†	24280.7	24025.7	502.41	ug/L	502.41	ppb	12:01:12
2	Cr 267.716†	45156.0	44500.7	500.09	ug/L	500.09	ppb	12:01:12
2	Cu 324.752†	170613.3	162309.7	487.39	ug/L	487.39	ppb	12:01:12
2	Fe 238.204 Radial†	379.9	380.1	4912.2	ug/L	4912.2	ppb	12:00:03
2	K 766.490 Radial†	29751.5	28006.0	5233.3	ug/L	5233.3	ppb	11:59:43
2	Mg 279.077 IEC†	113.2	113.6	5161.1	ug/L	5161.1	ppb	12:00:03
2	Mn 257.610†	446822.6	440554.5	494.22	ug/L	494.22	ppb	12:01:06
2	Mo 202.031†	6989.5	6892.2	504.83	ug/L	504.83	ppb	12:01:32
2	Na 589.592 Radial†	31766.9	33373.5	9685.1	ug/L	9685.1	ppb	11:59:43
2	Ni 231.604†	20169.1	19853.6	504.33	ug/L	504.33	ppb	12:01:12

2	P 214.914†	4426.8	4167.0	2433.8	ug/L	2433.8 ppb	12:01:32
2	Pb 220.353†	4159.4	4170.1	518.27	ug/L	518.27 ppb	12:01:32
2	S 181.975 Axial†	740.7	694.0	1015.7	ug/L	1015.7 ppb	12:01:32
2	Sb 206.836†	1543.1	1486.2	536.34	ug/L	536.34 ppb	12:01:32
2	Se 196.026†	765.8	776.6	528.78	ug/L	528.78 ppb	12:01:32
2	Si 251.611†	79337.5	77768.0	2488.6	ug/L	2488.6 ppb	12:01:12
2	Sn 189.927†	2876.1	2828.1	512.26	ug/L	512.26 ppb	12:01:32
2	Sr 421.552†	71668.8	73586.5	487.68	ug/L	487.68 ppb	11:59:43
2	Ti 334.940†	327958.0	324959.8	491.35	ug/L	491.35 ppb	12:01:06
2	Tl 190.801†	1569.2	1579.9	510.31	ug/L	510.31 ppb	12:01:32
2	U 409.014†	15210.5	17828.2	480.06	ug/L	480.06 ppb	12:01:12
2	V 292.402†	70615.9	71124.8	500.52	ug/L	500.52 ppb	12:01:12
2	Zn 213.857†	51538.3	50308.0	500.19	ug/L	500.19 ppb	12:01:12
2	SiO2†	79009.3	77426.7	5306.1	ug/L	5306.1 ppb	12:02:13
3	Sc 361.383	905655.5	905655.5	100.62	%		12:01:38
3	Sc Radial	4114.3	4114.3	96.7	%		12:00:08
3	Y 371.029	754058.0	754058.0	98.900	%		12:01:38
3	Y RADIAL	4524.3	4524.3	96.43	%		12:00:08
3	Ag 328.068†	109944.7	109036.5	503.81	ug/L	503.81 ppb	12:01:43
3	Al 396.153Radial†	5250.1	5538.6	4991.4	ug/L	4991.4 ppb	12:00:08
3	As 188.979†	1176.4	1189.6	540.48	ug/L	540.48 ppb	12:02:03
3	B 249.677†	21687.1	21926.2	521.02	ug/L	521.02 ppb	12:01:43
3	Ba 233.527†	64896.8	64505.3	505.10	ug/L	505.10 ppb	12:01:43
3	Be 313.107†	1334928.8	1330539.0	496.98	ug/L	496.98 ppb	12:01:38
3	Ca 317.933Radial†	2505.1	2574.4	5122.0	ug/L	5122.0 ppb	12:00:28
3	Cd 226.502†	44211.9	44122.2	512.04	ug/L	512.04 ppb	12:01:43
3	Co 228.616†	24371.9	24283.3	507.80	ug/L	507.80 ppb	12:01:43
3	Cr 267.716†	45244.4	44899.1	504.57	ug/L	504.57 ppb	12:01:43
3	Cu 324.752†	170954.2	163821.5	491.93	ug/L	491.93 ppb	12:01:43
3	Fe 238.204 Radial†	381.8	384.6	4969.7	ug/L	4969.7 ppb	12:00:28
3	K 766.490 Radial†	29580.1	28024.8	5236.8	ug/L	5236.8 ppb	12:00:08
3	Mg 279.077 IEC†	116.0	117.2	5325.7	ug/L	5325.7 ppb	12:00:28
3	Mn 257.610†	446928.1	443731.5	497.78	ug/L	497.78 ppb	12:01:38
3	Mo 202.031†	6978.4	6929.2	507.54	ug/L	507.54 ppb	12:02:03
3	Na 589.592 Radial†	31598.8	33408.9	9695.4	ug/L	9695.4 ppb	12:00:08
3	Ni 231.604†	20244.7	20067.3	509.76	ug/L	509.76 ppb	12:01:43
3	P 214.914†	4434.7	4205.3	2456.1	ug/L	2456.1 ppb	12:02:03
3	Pb 220.353†	4140.4	4179.9	519.47	ug/L	519.47 ppb	12:02:03
3	S 181.975 Axial†	748.7	707.0	1034.8	ug/L	1034.8 ppb	12:02:03
3	Sb 206.836†	1545.3	1499.0	540.92	ug/L	540.92 ppb	12:02:03
3	Se 196.026†	762.5	778.5	530.27	ug/L	530.27 ppb	12:02:03
3	Si 251.611†	79558.8	78533.4	2513.1	ug/L	2513.1 ppb	12:01:43
3	Sn 189.927†	2874.4	2846.2	515.54	ug/L	515.54 ppb	12:02:03
3	Sr 421.552†	71185.4	73558.7	487.50	ug/L	487.50 ppb	12:00:08
3	Ti 334.940†	327536.2	326795.5	494.11	ug/L	494.11 ppb	12:01:38
3	Tl 190.801†	1565.8	1587.3	512.71	ug/L	512.71 ppb	12:02:03
3	U 409.014†	15173.2	17895.8	481.87	ug/L	481.87 ppb	12:01:43
3	V 292.402†	70810.1	71803.3	505.26	ug/L	505.26 ppb	12:01:43
3	Zn 213.857†	51755.0	50877.7	505.86	ug/L	505.86 ppb	12:01:43
3	SiO2†	79154.6	78114.3	5353.3	ug/L	5353.3 ppb	12:02:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	913065.9	101.44	%	0.891				0.88%
Sc Radial	4045.8	95.1	%	3.34				3.51%
Y 371.029	760180.5	99.703	%	0.8228				0.83%
Y RADIAL	4441.3	94.66	%	3.218				3.40%
Ag 328.068†	108045.7	499.28	ug/L	4.919	499.28	ppb	4.919	0.99%
QC value within limits for Ag 328.068 Recovery = 99.86%								
Al 396.153Radial†	5724.6	5160.1	ug/L	264.75	5160.1	ppb	264.75	5.13%
QC value within limits for Al 396.153Radial Recovery = 103.20%								
As 188.979†	1190.0	540.68	ug/L	0.816	540.68	ppb	0.816	0.15%
QC value within limits for As 188.979 Recovery = 108.14%								
B 249.677†	21700.0	515.62	ug/L	5.726	515.62	ppb	5.726	1.11%
QC value within limits for B 249.677 Recovery = 103.12%								
Ba 233.527†	63734.3	499.07	ug/L	6.590	499.07	ppb	6.590	1.32%
QC value within limits for Ba 233.527 Recovery = 99.81%								
Be 313.107†	1323134.9	494.21	ug/L	3.048	494.21	ppb	3.048	0.62%
QC value within limits for Be 313.107 Recovery = 98.84%								

Ca 317.933Radial†	2652.0	5276.4 ug/L	314.53	5276.4 ppb	314.53	5.96%
QC value within limits for Ca 317.933Radial Recovery = 105.53%						
Cd 226.502†	43585.8	505.80 ug/L	6.438	505.80 ppb	6.438	1.27%
QC value within limits for Cd 226.502 Recovery = 101.16%						
Co 228.616†	23987.8	501.61 ug/L	6.618	501.61 ppb	6.618	1.32%
QC value within limits for Co 228.616 Recovery = 100.32%						
Cr 267.716†	44420.3	499.20 ug/L	5.855	499.20 ppb	5.855	1.17%
QC value within limits for Cr 267.716 Recovery = 99.84%						
Cu 324.752†	162308.8	487.40 ug/L	4.529	487.40 ppb	4.529	0.93%
QC value within limits for Cu 324.752 Recovery = 97.48%						
Fe 238.204 Radial†	395.7	5112.7 ug/L	298.92	5112.7 ppb	298.92	5.85%
QC value within limits for Fe 238.204 Radial Recovery = 102.25%						
K 766.490 Radial†	28865.8	5394.0 ug/L	275.28	5394.0 ppb	275.28	5.10%
QC value within limits for K 766.490 Radial Recovery = 107.88%						
Mg 279.077 IEC†	119.1	5413.9 ug/L	306.59	5413.9 ppb	306.59	5.66%
QC value within limits for Mg 279.077 IEC Recovery = 108.28%						
Mn 257.610†	440726.1	494.42 ug/L	3.263	494.42 ppb	3.263	0.66%
QC value within limits for Mn 257.610 Recovery = 98.88%						
Mo 202.031†	6877.1	503.75 ug/L	4.443	503.75 ppb	4.443	0.88%
QC value within limits for Mo 202.031 Recovery = 100.75%						
Na 589.592 Radial†	34396.4	9982.0 ug/L	505.26	9982.0 ppb	505.26	5.06%
QC value within limits for Na 589.592 Radial Recovery = 99.82%						
Ni 231.604†	19837.2	503.92 ug/L	6.065	503.92 ppb	6.065	1.20%
QC value within limits for Ni 231.604 Recovery = 100.78%						
P 214.914†	4163.1	2431.3 ug/L	26.19	2431.3 ppb	26.19	1.08%
QC value within limits for P 214.914 Recovery = 97.25%						
Pb 220.353†	4157.7	516.74 ug/L	3.751	516.74 ppb	3.751	0.73%
QC value within limits for Pb 220.353 Recovery = 103.35%						
S 181.975 Axial†	700.8	1025.7 ug/L	9.61	1025.7 ppb	9.61	0.94%
QC value within limits for S 181.975 Axial Recovery = 102.57%						
Sb 206.836†	1482.9	535.12 ug/L	6.496	535.12 ppb	6.496	1.21%
QC value within limits for Sb 206.836 Recovery = 107.02%						
Se 196.026†	771.6	526.16 ug/L	5.877	526.16 ppb	5.877	1.12%
QC value within limits for Se 196.026 Recovery = 105.23%						
Si 251.611†	77699.6	2486.4 ug/L	27.86	2486.4 ppb	27.86	1.12%
QC value within limits for Si 251.611 Recovery = 99.46%						
Sn 189.927†	2815.4	509.98 ug/L	6.986	509.98 ppb	6.986	1.37%
QC value within limits for Sn 189.927 Recovery = 102.00%						
Sr 421.552†	75931.5	503.22 ug/L	27.077	503.22 ppb	27.077	5.38%
QC value within limits for Sr 421.552 Recovery = 100.64%						
Ti 334.940†	324783.3	491.09 ug/L	3.164	491.09 ppb	3.164	0.64%
QC value within limits for Ti 334.940 Recovery = 98.22%						
Tl 190.801†	1571.2	507.51 ug/L	7.025	507.51 ppb	7.025	1.38%
QC value within limits for Tl 190.801 Recovery = 101.50%						
U 409.014†	17783.1	478.82 ug/L	3.823	478.82 ppb	3.823	0.80%
QC value within limits for U 409.014 Recovery = 95.76%						
V 292.402†	71002.5	499.63 ug/L	6.127	499.63 ppb	6.127	1.23%
QC value within limits for V 292.402 Recovery = 99.93%						
Zn 213.857†	50266.7	499.75 ug/L	6.341	499.75 ppb	6.341	1.27%
QC value within limits for Zn 213.857 Recovery = 99.95%						
SiO2†	77542.1	5314.1 ug/L	35.90	5314.1 ppb	35.90	0.68%
QC value within limits for SiO2 Recovery = 99.38%						

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 12:04:28
Data Type: Reprocessed on 2/23/2010 12:42:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	909691.3	909691.3	101.07	%			12:07:38
1	Sc Radial	4155.8	4155.8	97.7	%			12:06:21
1	Y 371.029	768392.1	768392.1	100.78	%			12:07:38
1	Y RADIAL	4619.7	4619.7	98.46	%			12:06:21
1	Ag 328.068†	292.0	59.6	0.2704	ug/L	0.2704	ppb	12:07:43
1	Al 396.153Radial†	-102.3	6.0	5.4442	ug/L	5.4442	ppb	12:06:21
1	As 188.979†	-0.4	20.2	9.0795	ug/L	9.0795	ppb	12:08:03
1	B 249.677†	258.7	628.9	15.010	ug/L	15.010	ppb	12:08:03
1	Ba 233.527†	7.7	16.8	0.1320	ug/L	0.1320	ppb	12:08:03
1	Be 313.107†	-3884.6	9.7	0.0035	ug/L	0.0035	ppb	12:07:43
1	Ca 317.933Radial†	14.5	-0.6	-1.2173	ug/L	-1.2173	ppb	12:06:41
1	Cd 226.502†	-162.5	22.6	0.2636	ug/L	0.2636	ppb	12:08:03
1	Co 228.616†	-43.6	18.8	0.3936	ug/L	0.3936	ppb	12:08:03
1	Cr 267.716†	78.3	11.5	0.1276	ug/L	0.1276	ppb	12:08:03
1	Cu 324.752†	6284.3	140.6	0.4210	ug/L	0.4210	ppb	12:07:43
1	Fe 238.204 Radial†	8.8	-1.2	-15.724	ug/L	-15.724	ppb	12:06:41
1	K 766.490 Radial†	3195.7	714.1	133.60	ug/L	133.60	ppb	12:06:21
1	Mg 279.077 IEC†	0.7	-2.0	-92.160	ug/L	-92.160	ppb	12:06:41
1	Mn 257.610†	477.2	35.3	0.0418	ug/L	0.0418	ppb	12:08:03
1	Mo 202.031†	10.9	4.7	0.3417	ug/L	0.3417	ppb	12:08:03
1	Na 589.592 Radial†	-716.3	7.2	2.1001	ug/L	2.1001	ppb	12:06:21
1	Ni 231.604†	51.2	-1.7	-0.0426	ug/L	-0.0426	ppb	12:08:03
1	P 214.914†	207.3	3.0	1.7990	ug/L	1.7990	ppb	12:08:03
1	Pb 220.353†	-23.2	42.1	5.2206	ug/L	5.2206	ppb	12:08:03
1	S 181.975 Axial†	34.1	-3.3	-4.8746	ug/L	-4.8746	ppb	12:08:03
1	Sb 206.836†	62.9	25.5	8.9481	ug/L	8.9481	ppb	12:08:03
1	Se 196.026†	-31.1	-10.1	-6.6878	ug/L	-6.6878	ppb	12:08:03
1	Si 251.611†	669.8	128.5	4.1193	ug/L	4.1193	ppb	12:08:03
1	Sn 189.927†	25.7	15.0	2.7134	ug/L	2.7134	ppb	12:08:03
1	Sr 421.552†	61.1	25.8	0.1710	ug/L	0.1710	ppb	12:06:21
1	Ti 334.940†	-1329.3	-33.4	-0.0436	ug/L	-0.0436	ppb	12:07:43
1	Tl 190.801†	-37.4	-5.8	-1.8708	ug/L	-1.8708	ppb	12:08:03
1	U 409.014†	-2813.8	32.2	0.8714	ug/L	0.8714	ppb	12:07:38
1	V 292.402†	-1363.0	81.9	0.5754	ug/L	0.5754	ppb	12:07:43
1	Zn 213.857†	735.1	169.6	1.7041	ug/L	1.7041	ppb	12:08:03
1	SiO2†	686.1	127.4	8.7416	ug/L	8.7416	ppb	12:09:09
2	Sc 361.383	923548.0	923548.0	102.61	%			12:08:08
2	Sc Radial	4155.7	4155.7	97.7	%			12:06:46
2	Y 371.029	780343.4	780343.4	102.35	%			12:08:08
2	Y RADIAL	4577.3	4577.3	97.55	%			12:06:46
2	Ag 328.068†	291.3	54.6	0.2512	ug/L	0.2512	ppb	12:08:13
2	Al 396.153Radial†	-138.0	-30.5	-27.643	ug/L	-27.643	ppb	12:06:46
2	As 188.979†	8.8	29.2	13.139	ug/L	13.139	ppb	12:08:33
2	B 249.677†	231.1	598.2	14.276	ug/L	14.276	ppb	12:08:33
2	Ba 233.527†	10.9	19.8	0.1534	ug/L	0.1534	ppb	12:08:33
2	Be 313.107†	-3905.9	46.7	0.0174	ug/L	0.0174	ppb	12:08:13
2	Ca 317.933Radial†	17.9	2.8	5.5879	ug/L	5.5879	ppb	12:07:06
2	Cd 226.502†	-168.5	19.1	0.2210	ug/L	0.2210	ppb	12:08:33
2	Co 228.616†	-64.9	-1.3	-0.0257	ug/L	-0.0257	ppb	12:08:33
2	Cr 267.716†	81.3	13.3	0.1495	ug/L	0.1495	ppb	12:08:33
2	Cu 324.752†	6355.2	116.4	0.3517	ug/L	0.3517	ppb	12:08:13
2	Fe 238.204 Radial†	9.9	-0.0	-0.6057	ug/L	-0.6057	ppb	12:07:06
2	K 766.490 Radial†	3188.7	707.0	132.27	ug/L	132.27	ppb	12:06:46
2	Mg 279.077 IEC†	1.8	-1.0	-43.228	ug/L	-43.228	ppb	12:07:06
2	Mn 257.610†	501.4	51.8	0.0598	ug/L	0.0598	ppb	12:08:33
2	Mo 202.031†	14.8	8.3	0.6083	ug/L	0.6083	ppb	12:08:33
2	Na 589.592 Radial†	-721.9	1.5	0.4333	ug/L	0.4333	ppb	12:06:46
2	Ni 231.604†	54.5	0.8	0.0208	ug/L	0.0208	ppb	12:08:33

2	P 214.914†	204.4	-2.8	-1.7819	ug/L	-1.7819 ppb	12:08:33
2	Pb 220.353†	-14.6	50.8	6.2851	ug/L	6.2851 ppb	12:08:33
2	S 181.975 Axial†	44.9	6.7	9.8806	ug/L	9.8806 ppb	12:08:33
2	Sb 206.836†	55.6	17.5	6.1386	ug/L	6.1386 ppb	12:08:33
2	Se 196.026†	-20.9	0.4	0.2410	ug/L	0.2410 ppb	12:08:33
2	Si 251.611†	688.8	137.1	4.3913	ug/L	4.3913 ppb	12:08:33
2	Sn 189.927†	21.4	10.4	1.8839	ug/L	1.8839 ppb	12:08:33
2	Sr 421.552†	57.8	22.4	0.1481	ug/L	0.1481 ppb	12:06:46
2	Ti 334.940†	-1316.5	-1.2	0.0040	ug/L	0.0040 ppb	12:08:13
2	Tl 190.801†	-38.7	-6.5	-2.0911	ug/L	-2.0911 ppb	12:08:33
2	U 409.014†	-3028.9	-135.6	-3.6646	ug/L	-3.6646 ppb	12:08:08
2	V 292.402†	-1545.2	-75.4	-0.5230	ug/L	-0.5230 ppb	12:08:13
2	Zn 213.857†	716.4	140.5	1.4093	ug/L	1.4093 ppb	12:08:33
2	SiO2†	668.4	99.9	6.8485	ug/L	6.8485 ppb	12:09:14
3	Sc 361.383	898349.9	898349.9	99.810	%		12:08:38
3	Sc Radial	4184.8	4184.8	98.4	%		12:07:11
3	Y 371.029	757882.0	757882.0	99.402	%		12:08:38
3	Y RADIAL	4587.8	4587.8	97.78	%		12:07:11
3	Ag 328.068†	219.7	-9.2	-0.0408	ug/L	-0.0408 ppb	12:08:43
3	Al 396.153Radial†	-140.3	-31.8	-28.874	ug/L	-28.874 ppb	12:07:11
3	As 188.979†	7.4	28.0	12.616	ug/L	12.616 ppb	12:09:03
3	B 249.677†	201.2	574.5	13.708	ug/L	13.708 ppb	12:09:03
3	Ba 233.527†	9.2	18.3	0.1424	ug/L	0.1424 ppb	12:09:03
3	Be 313.107†	-3780.2	65.9	0.0242	ug/L	0.0242 ppb	12:08:43
3	Ca 317.933Radial†	22.5	7.4	14.675	ug/L	14.675 ppb	12:07:31
3	Cd 226.502†	-161.6	21.4	0.2476	ug/L	0.2476 ppb	12:09:03
3	Co 228.616†	-63.3	-1.5	-0.0289	ug/L	-0.0289 ppb	12:09:03
3	Cr 267.716†	84.5	18.7	0.2098	ug/L	0.2098 ppb	12:09:03
3	Cu 324.752†	6276.9	211.8	0.6364	ug/L	0.6364 ppb	12:08:43
3	Fe 238.204 Radial†	10.9	0.9	12.139	ug/L	12.139 ppb	12:07:31
3	K 766.490 Radial†	3145.8	640.7	119.85	ug/L	119.85 ppb	12:07:11
3	Mg 279.077 IEC†	3.4	0.7	32.413	ug/L	32.413 ppb	12:07:31
3	Mn 257.610†	472.5	36.6	0.0409	ug/L	0.0409 ppb	12:09:03
3	Mo 202.031†	22.8	16.8	1.2292	ug/L	1.2292 ppb	12:09:03
3	Na 589.592 Radial†	-712.5	16.1	4.6806	ug/L	4.6806 ppb	12:07:11
3	Ni 231.604†	54.6	2.4	0.0605	ug/L	0.0605 ppb	12:09:03
3	P 214.914†	196.0	-5.7	-3.5837	ug/L	-3.5837 ppb	12:09:03
3	Pb 220.353†	-12.4	52.6	6.5147	ug/L	6.5147 ppb	12:09:03
3	S 181.975 Axial†	40.3	3.4	4.9258	ug/L	4.9258 ppb	12:09:03
3	Sb 206.836†	68.6	32.0	11.216	ug/L	11.216 ppb	12:09:03
3	Se 196.026†	-24.8	-4.2	-2.7150	ug/L	-2.7150 ppb	12:09:03
3	Si 251.611†	658.8	126.0	4.0254	ug/L	4.0254 ppb	12:09:03
3	Sn 189.927†	24.5	14.1	2.5555	ug/L	2.5555 ppb	12:09:03
3	Sr 421.552†	18.7	-17.8	-0.1182	ug/L	-0.1182 ppb	12:07:11
3	Ti 334.940†	-1384.8	-105.6	-0.1607	ug/L	-0.1607 ppb	12:08:43
3	Tl 190.801†	-29.6	1.5	0.4895	ug/L	0.4895 ppb	12:09:03
3	U 409.014†	-2796.5	14.4	0.3875	ug/L	0.3875 ppb	12:08:38
3	V 292.402†	-1491.7	-64.1	-0.4283	ug/L	-0.4283 ppb	12:08:43
3	Zn 213.857†	715.4	159.1	1.5929	ug/L	1.5929 ppb	12:09:03
3	SiO2†	670.8	120.6	8.2499	ug/L	8.2499 ppb	12:09:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910529.7	101.16	%	1.402				1.39%
Sc Radial	4165.4	97.9	%	0.39				0.40%
Y 371.029	768872.5	100.84	%	1.474				1.46%
Y RADIAL	4594.9	97.93	%	0.470				0.48%
Ag 328.068†	35.0	0.1602	ug/L	0.17440	0.1602	ppb	0.17440	108.83%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.8	-17.024	ug/L	19.4681	-17.024	ppb	19.4681	114.35%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	25.8	11.612	ug/L	2.2083	11.612	ppb	2.2083	19.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	600.5	14.331	ug/L	0.6525	14.331	ppb	0.6525	4.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.3	0.1426	ug/L	0.01071	0.1426	ppb	0.01071	7.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	40.8	0.0150	ug/L	0.01054	0.0150	ppb	0.01054	70.11%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          3.2      6.3486 ug/L       7.97349      6.3486 ppb        7.97349 125.59%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               21.0      0.2441 ug/L       0.02151      0.2441 ppb        0.02151   8.81%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.3      0.1130 ug/L       0.24303      0.1130 ppb        0.24303 215.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               14.5      0.1623 ug/L       0.04255      0.1623 ppb        0.04255  26.21%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              156.3      0.4697 ug/L       0.14848      0.4697 ppb        0.14848  31.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.1     -1.3970 ug/L      13.94836     -1.3970 ppb       13.94836 998.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        687.3      128.58 ug/L         7.582      128.58 ppb          7.582   5.90%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -34.325 ug/L       62.7621     -34.325 ppb       62.7621 182.85%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               41.2      0.0475 ug/L       0.01067      0.0475 ppb        0.01067  22.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.9      0.7264 ug/L       0.45541      0.7264 ppb        0.45541  62.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         8.3      2.4046 ug/L       2.13994      2.4046 ppb        2.13994  88.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.5      0.0129 ug/L       0.05199      0.0129 ppb        0.05199 402.72%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.8     -1.1888 ug/L       2.73990     -1.1888 ppb        2.73990 230.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               48.5      6.0068 ug/L       0.69049      6.0068 ppb        0.69049  11.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.3      3.3106 ug/L       7.50903      3.3106 ppb        7.50903 226.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               25.0      8.7677 ug/L       2.54367      8.7677 ppb        2.54367  29.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.6     -3.0539 ug/L       3.47685     -3.0539 ppb        3.47685 113.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              130.5      4.1787 ug/L       0.19000      4.1787 ppb        0.19000   4.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               13.2      2.3842 ug/L       0.44045      2.3842 ppb        0.44045  18.47%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.1      0.0670 ug/L       0.16075      0.0670 ppb        0.16075 239.99%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -46.8     -0.0668 ug/L       0.08475     -0.0668 ppb        0.08475 126.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -3.6     -1.1575 ug/L       1.43059     -1.1575 ppb        1.43059 123.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -29.7     -0.8019 ug/L       2.49097     -0.8019 ppb        2.49097 310.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -19.2     -0.1253 ug/L       0.60866     -0.1253 ppb        0.60866 485.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              156.4      1.5688 ug/L       0.14887      1.5688 ppb        0.14887   9.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    115.9      7.9467 ug/L       0.98229      7.9467 ppb        0.98229  12.36%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 2/23/2010 12:18:14
Data Type: Reprocessed on 2/23/2010 12:42:38
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	897363.4	897363.4	99.700	%			12:21:24
1	Sc Radial	3925.3	3925.3	92.3	%			12:20:27
1	Y 371.029	752479.8	752479.8	98.693	%			12:21:24
1	Y RADIAL	4448.5	4448.5	94.81	%			12:20:07
1	Ag 328.068†	-25381.5	-25687.2	-3.9886	ug/L	-3.9886	ppb	12:21:24
1	Al 396.153Radial†	-117.5	-16.6	-13.826	ug/L	-13.826	ppb	12:20:07
1	As 188.979†	-196.0	-176.1	7.4021	ug/L	7.4021	ppb	12:21:45
1	B 249.677†	2257.4	2637.2	2.7679	ug/L	2.7679	ppb	12:21:24
1	Ba 233.527†	-1629.0	-1624.8	-1.2983	ug/L	-1.2983	ppb	12:21:24
1	Be 313.107†	-3811.9	29.9	0.0105	ug/L	0.0105	ppb	12:21:24
1	Ca 317.933Radial†	12.1	-2.4	-4.7669	ug/L	-4.7669	ppb	12:20:27
1	Cd 226.502†	3013.6	3206.0	-1.0143	ug/L	-1.0143	ppb	12:21:24
1	Co 228.616†	722.2	786.3	11.033	ug/L	11.033	ppb	12:21:45
1	Cr 267.716†	-553.5	-621.1	28.298	ug/L	28.298	ppb	12:21:24
1	Cu 324.752†	-139.2	-6216.7	0.8893	ug/L	0.8893	ppb	12:21:24
1	Fe 238.204 Radial†	26528.3	28736.6	370220	ug/L	370220	ppb	12:20:07
1	K 766.490 Radial†	2706.6	376.1	70.417	ug/L	70.417	ppb	12:20:07
1	Mg 279.077 IEC†	8.0	5.9	-117.76	ug/L	-117.76	ppb	12:20:27
1	Mn 257.610†	-31454.6	-31986.1	0.6922	ug/L	0.6922	ppb	12:21:24
1	Mo 202.031†	-323.6	-330.7	4.5402	ug/L	4.5402	ppb	12:21:24
1	Na 589.592 Radial†	-696.6	-14.5	-4.2122	ug/L	-4.2122	ppb	12:20:07
1	Ni 231.604†	116.5	64.5	1.6304	ug/L	1.6304	ppb	12:21:45
1	P 214.914†	648.7	448.7	-22.297	ug/L	-22.297	ppb	12:21:45
1	Pb 220.353†	197.8	263.4	-7.4336	ug/L	-7.4336	ppb	12:21:45
1	S 181.975 Axial†	58.3	21.4	31.339	ug/L	31.339	ppb	12:21:45
1	Sb 206.836†	19.2	-17.4	-10.610	ug/L	-10.610	ppb	12:21:45
1	Se 196.026†	-1589.6	-1573.7	117.08	ug/L	117.08	ppb	12:21:45
1	Si 251.611†	-479.0	-1014.6	-32.251	ug/L	-32.251	ppb	12:21:24
1	Sn 189.927†	-18.9	-29.4	-26.567	ug/L	-26.567	ppb	12:21:45
1	Sr 421.552†	69.4	38.5	0.2550	ug/L	0.2550	ppb	12:20:07
1	Ti 334.940†	-1455.8	-178.3	-0.3204	ug/L	-0.3204	ppb	12:21:24
1	Tl 190.801†	-45.6	-14.5	-5.0116	ug/L	-5.0116	ppb	12:21:45
1	U 409.014†	-241.1	2574.4	27.371	ug/L	27.371	ppb	12:21:24
1	V 292.402†	6977.7	8429.1	4.3991	ug/L	4.3991	ppb	12:21:24
1	Zn 213.857†	4114.9	3569.5	-19.572	ug/L	-19.572	ppb	12:21:45
1	SiO2†	-516.8	-1069.9	-72.849	ug/L	-72.849	ppb	12:22:42
2	Sc 361.383	890905.0	890905.0	98.982	%			12:21:50
2	Sc Radial	3891.2	3891.2	91.5	%			12:20:52
2	Y 371.029	747754.9	747754.9	98.074	%			12:21:50
2	Y RADIAL	4346.1	4346.1	92.63	%			12:20:32
2	Ag 328.068†	-25285.3	-25774.6	-3.6302	ug/L	-3.6302	ppb	12:21:50
2	Al 396.153Radial†	-134.7	-36.5	-31.871	ug/L	-31.871	ppb	12:20:32
2	As 188.979†	-198.3	-179.8	6.3053	ug/L	6.3053	ppb	12:22:11
2	B 249.677†	2205.6	2601.2	1.5072	ug/L	1.5072	ppb	12:21:50
2	Ba 233.527†	-1555.7	-1562.6	-0.7372	ug/L	-0.7372	ppb	12:21:50
2	Be 313.107†	-3750.2	64.5	0.0235	ug/L	0.0235	ppb	12:21:50
2	Ca 317.933Radial†	13.9	-0.3	-0.6374	ug/L	-0.6374	ppb	12:20:52
2	Cd 226.502†	3045.5	3260.2	-0.6404	ug/L	-0.6404	ppb	12:21:50
2	Co 228.616†	709.2	778.4	10.833	ug/L	10.833	ppb	12:22:11
2	Cr 267.716†	-607.6	-679.8	27.874	ug/L	27.874	ppb	12:21:50
2	Cu 324.752†	-306.0	-6386.3	0.5103	ug/L	0.5103	ppb	12:21:50
2	Fe 238.204 Radial†	26473.7	28928.9	372700	ug/L	372700	ppb	12:20:32
2	K 766.490 Radial†	2579.1	262.5	49.164	ug/L	49.164	ppb	12:20:32
2	Mg 279.077 IEC†	10.4	8.6	0.8242	ug/L	0.8242	ppb	12:20:52
2	Mn 257.610†	-31339.2	-32098.2	0.8062	ug/L	0.8062	ppb	12:21:50
2	Mo 202.031†	-325.4	-334.8	4.4286	ug/L	4.4286	ppb	12:21:50
2	Na 589.592 Radial†	-728.7	-56.2	-16.305	ug/L	-16.305	ppb	12:20:32
2	Ni 231.604†	165.3	114.7	2.9054	ug/L	2.9054	ppb	12:22:11

2	P 214.914†	641.1	445.7	-25.986	ug/L	-25.986 ppb	12:22:11
2	Pb 220.353†	224.7	292.1	-4.1547	ug/L	-4.1547 ppb	12:22:11
2	S 181.975 Axial†	50.5	14.0	20.552	ug/L	20.552 ppb	12:22:11
2	Sb 206.836†	44.8	8.5	-1.5870	ug/L	-1.5870 ppb	12:22:11
2	Se 196.026†	-1590.7	-1586.4	116.49	ug/L	116.49 ppb	12:22:11
2	Si 251.611†	-457.9	-996.8	-31.676	ug/L	-31.676 ppb	12:21:50
2	Sn 189.927†	-18.1	-28.7	-26.584	ug/L	-26.584 ppb	12:22:11
2	Sr 421.552†	70.5	40.3	0.2669	ug/L	0.2669 ppb	12:20:32
2	Ti 334.940†	-1419.1	-151.9	-0.2903	ug/L	-0.2903 ppb	12:21:50
2	Tl 190.801†	-48.5	-17.8	-6.0667	ug/L	-6.0667 ppb	12:22:11
2	U 409.014†	-178.3	2636.1	28.759	ug/L	28.759 ppb	12:21:50
2	V 292.402†	6910.3	8411.8	3.9194	ug/L	3.9194 ppb	12:21:50
2	Zn 213.857†	4098.0	3582.4	-19.821	ug/L	-19.821 ppb	12:22:11
2	SiO2†	-581.8	-1139.3	-77.614	ug/L	-77.614 ppb	12:22:47
3	Sc 361.383	893551.1	893551.1	99.276	%		12:22:16
3	Sc Radial	3884.2	3884.2	91.3	%		12:21:17
3	Y 371.029	749920.2	749920.2	98.358	%		12:22:16
3	Y RADIAL	4339.4	4339.4	92.48	%		12:20:57
3	Ag 328.068†	-25400.7	-25815.2	-3.5156	ug/L	-3.5156 ppb	12:22:16
3	Al 396.153Radial†	-141.3	-44.0	-38.590	ug/L	-38.590 ppb	12:20:57
3	As 188.979†	-193.1	-174.0	9.1516	ug/L	9.1516 ppb	12:22:37
3	B 249.677†	2300.7	2690.5	3.4772	ug/L	3.4772 ppb	12:22:16
3	Ba 233.527†	-1675.4	-1678.5	-1.6125	ug/L	-1.6125 ppb	12:22:16
3	Be 313.107†	-3775.8	49.9	0.0181	ug/L	0.0181 ppb	12:22:16
3	Ca 317.933Radial†	10.6	-3.9	-7.7657	ug/L	-7.7657 ppb	12:21:17
3	Cd 226.502†	3032.9	3238.3	-0.9955	ug/L	-0.9955 ppb	12:22:16
3	Co 228.616†	737.8	805.1	11.374	ug/L	11.374 ppb	12:22:37
3	Cr 267.716†	-616.6	-687.1	27.886	ug/L	27.886 ppb	12:22:16
3	Cu 324.752†	-257.1	-6336.1	0.7131	ug/L	0.7131 ppb	12:22:16
3	Fe 238.204 Radial†	26495.8	29004.7	373680	ug/L	373680 ppb	12:20:57
3	K 766.490 Radial†	2682.2	380.4	71.222	ug/L	71.222 ppb	12:20:57
3	Mg 279.077 IEC†	12.1	10.5	88.041	ug/L	88.041 ppb	12:21:17
3	Mn 257.610†	-31429.6	-32095.5	0.9021	ug/L	0.9021 ppb	12:22:16
3	Mo 202.031†	-339.5	-348.1	3.5358	ug/L	3.5358 ppb	12:22:16
3	Na 589.592 Radial†	-731.7	-60.9	-17.677	ug/L	-17.677 ppb	12:20:57
3	Ni 231.604†	140.6	89.3	2.2592	ug/L	2.2592 ppb	12:22:37
3	P 214.914†	656.3	459.1	-18.684	ug/L	-18.684 ppb	12:22:37
3	Pb 220.353†	227.1	293.8	-4.0486	ug/L	-4.0486 ppb	12:22:37
3	S 181.975 Axial†	54.4	17.8	26.096	ug/L	26.096 ppb	12:22:37
3	Sb 206.836†	20.8	-15.8	-10.079	ug/L	-10.079 ppb	12:22:37
3	Se 196.026†	-1587.4	-1578.3	124.85	ug/L	124.85 ppb	12:22:37
3	Si 251.611†	-477.5	-1015.1	-32.251	ug/L	-32.251 ppb	12:22:16
3	Sn 189.927†	-14.5	-25.0	-25.981	ug/L	-25.981 ppb	12:22:37
3	Sr 421.552†	106.8	80.2	0.5317	ug/L	0.5317 ppb	12:20:57
3	Ti 334.940†	-1423.5	-152.0	-0.2983	ug/L	-0.2983 ppb	12:22:16
3	Tl 190.801†	-51.1	-20.3	-6.8581	ug/L	-6.8581 ppb	12:22:37
3	U 409.014†	-204.2	2610.6	27.957	ug/L	27.957 ppb	12:22:16
3	V 292.402†	6940.9	8422.0	3.8344	ug/L	3.8344 ppb	12:22:16
3	Zn 213.857†	4100.1	3572.3	-20.065	ug/L	-20.065 ppb	12:22:37
3	SiO2†	-365.7	-919.8	-62.507	ug/L	-62.507 ppb	12:22:52

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893939.8	99.320	%	0.3607				0.36%
Sc Radial	3900.2	91.7	%	0.52				0.56%
Y 371.029	750051.6	98.375	%	0.3102				0.32%
Y RADIAL	4378.0	93.31	%	1.303				1.40%
Ag 328.068†	-25759.0	-3.7115	ug/L	0.24677	-3.7115	ppb	0.24677	6.65%
Al 396.153Radial†	-32.3	-28.095	ug/L	12.8062	-28.095	ppb	12.8062	45.58%
As 188.979†	-176.6	7.6197	ug/L	1.43560	7.6197	ppb	1.43560	18.84%
B 249.677†	2642.9	2.5841	ug/L	0.99779	2.5841	ppb	0.99779	38.61%
Ba 233.527†	-1621.9	-1.2160	ug/L	0.44340	-1.2160	ppb	0.44340	36.46%
Be 313.107†	48.1	0.0174	ug/L	0.00654	0.0174	ppb	0.00654	37.62%
Ca 317.933Radial†	-2.2	-4.3900	ug/L	3.57904	-4.3900	ppb	3.57904	81.53%
Cd 226.502†	3234.8	-0.8834	ug/L	0.21066	-0.8834	ppb	0.21066	23.85%
Co 228.616†	789.9	11.080	ug/L	0.2735	11.080	ppb	0.2735	2.47%
Cr 267.716†	-662.7	28.019	ug/L	0.2411	28.019	ppb	0.2411	0.86%
Cu 324.752†	-6313.0	0.7042	ug/L	0.18963	0.7042	ppb	0.18963	26.93%
Fe 238.204 Radial†	28890.1	372200	ug/L	1780.9	372200	ppb	1780.9	0.48%

K 766.490 Radial†	339.7	63.601	ug/L	12.5093	63.601	ppb	12.5093	19.67%
Mg 279.077 IEC†	8.4	-9.6314	ug/L	103.29751	-9.6314	ppb	103.29751	>999.9%
Mn 257.610†	-32059.9	0.8002	ug/L	0.10510	0.8002	ppb	0.10510	13.14%
Mo 202.031†	-337.9	4.1682	ug/L	0.55050	4.1682	ppb	0.55050	13.21%
Na 589.592 Radial†	-43.9	-12.731	ug/L	7.4096	-12.731	ppb	7.4096	58.20%
Ni 231.604†	89.5	2.2650	ug/L	0.63750	2.2650	ppb	0.63750	28.15%
P 214.914†	451.1	-22.322	ug/L	3.6507	-22.322	ppb	3.6507	16.35%
Pb 220.353†	283.1	-5.2123	ug/L	1.92446	-5.2123	ppb	1.92446	36.92%
S 181.975 Axial†	17.7	25.995	ug/L	5.3939	25.995	ppb	5.3939	20.75%
Sb 206.836†	-8.2	-7.4253	ug/L	5.06309	-7.4253	ppb	5.06309	68.19%
Se 196.026†	-1579.5	119.47	ug/L	4.667	119.47	ppb	4.667	3.91%
Si 251.611†	-1008.8	-32.059	ug/L	0.3323	-32.059	ppb	0.3323	1.04%
Sn 189.927†	-27.7	-26.377	ug/L	0.3437	-26.377	ppb	0.3437	1.30%
Sr 421.552†	53.0	0.3512	ug/L	0.15648	0.3512	ppb	0.15648	44.56%
Ti 334.940†	-160.8	-0.3030	ug/L	0.01561	-0.3030	ppb	0.01561	5.15%
Tl 190.801†	-17.5	-5.9788	ug/L	0.92638	-5.9788	ppb	0.92638	15.49%
U 409.014†	2607.0	28.029	ug/L	0.6968	28.029	ppb	0.6968	2.49%
V 292.402†	8421.0	4.0510	ug/L	0.30448	4.0510	ppb	0.30448	7.52%
Zn 213.857†	3574.7	-19.819	ug/L	0.2466	-19.819	ppb	0.2466	1.24%
SiO2†	-1043.0	-70.990	ug/L	7.7232	-70.990	ppb	7.7232	10.88%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 12:25:04
Data Type: Reprocessed on 2/23/2010 12:42:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	917533.4	917533.4	101.94	%			12:28:14
1	Sc Radial	4202.1	4202.1	98.8	%			12:26:56
1	Y 371.029	762477.0	762477.0	100.00	%			12:28:14
1	Y RADIAL	4610.8	4610.8	98.27	%			12:26:56
1	Ag 328.068†	110168.5	107841.5	498.29	ug/L	498.29	ppb	12:28:19
1	Al 396.153Radial†	5406.0	5582.9	5032.1	ug/L	5032.1	ppb	12:26:56
1	As 188.979†	1112.2	1111.5	505.16	ug/L	505.16	ppb	12:28:39
1	B 249.677†	20661.2	20640.8	490.36	ug/L	490.36	ppb	12:28:19
1	Ba 233.527†	64878.5	63652.3	498.42	ug/L	498.42	ppb	12:28:19
1	Be 313.107†	1338075.9	1316451.6	491.70	ug/L	491.70	ppb	12:28:14
1	Ca 317.933Radial†	2519.1	2534.5	5042.7	ug/L	5042.7	ppb	12:27:16
1	Cd 226.502†	44133.2	43476.2	504.54	ug/L	504.54	ppb	12:28:19
1	Co 228.616†	24435.1	24031.8	502.55	ug/L	502.55	ppb	12:28:19
1	Cr 267.716†	45223.4	44296.3	497.79	ug/L	497.79	ppb	12:28:19
1	Cu 324.752†	170806.5	161477.2	484.89	ug/L	484.89	ppb	12:28:19
1	Fe 238.204 Radial†	387.9	382.5	4942.4	ug/L	4942.4	ppb	12:27:16
1	K 766.490 Radial†	29424.5	27228.2	5087.7	ug/L	5087.7	ppb	12:26:56
1	Mg 279.077 IEC†	115.1	113.8	5172.2	ug/L	5172.2	ppb	12:27:16
1	Mn 257.610†	449899.6	440896.4	494.60	ug/L	494.60	ppb	12:28:14
1	Mo 202.031†	6930.8	6792.7	497.55	ug/L	497.55	ppb	12:28:39
1	Na 589.592 Radial†	32985.7	34130.1	9904.7	ug/L	9904.7	ppb	12:26:56
1	Ni 231.604†	20208.4	19771.3	502.24	ug/L	502.24	ppb	12:28:19
1	P 214.914†	4411.5	4125.5	2409.0	ug/L	2409.0	ppb	12:28:39
1	Pb 220.353†	4084.1	4071.4	506.02	ug/L	506.02	ppb	12:28:39
1	S 181.975 Axial†	734.2	683.2	999.90	ug/L	999.90	ppb	12:28:39
1	Sb 206.836†	1485.9	1420.9	513.30	ug/L	513.30	ppb	12:28:39
1	Se 196.026†	752.6	759.0	517.28	ug/L	517.28	ppb	12:28:39
1	Si 251.611†	79241.7	77198.8	2470.4	ug/L	2470.4	ppb	12:28:19
1	Sn 189.927†	2844.9	2780.3	503.60	ug/L	503.60	ppb	12:28:39
1	Sr 421.552†	73801.0	74668.3	494.85	ug/L	494.85	ppb	12:26:56
1	Ti 334.940†	321943.9	317095.8	479.45	ug/L	479.45	ppb	12:28:19
1	Tl 190.801†	1557.9	1559.5	503.67	ug/L	503.67	ppb	12:28:39
1	U 409.014†	15293.0	17818.0	479.78	ug/L	479.78	ppb	12:28:19
1	V 292.402†	70515.9	70603.7	496.81	ug/L	496.81	ppb	12:28:19
1	Zn 213.857†	51505.5	49967.2	496.79	ug/L	496.79	ppb	12:28:19
1	SiO2†	80190.9	78112.5	5353.5	ug/L	5353.5	ppb	12:29:46
2	Sc 361.383	923787.2	923787.2	102.64	%			12:28:45
2	Sc Radial	4111.0	4111.0	96.6	%			12:27:21
2	Y 371.029	768155.5	768155.5	100.75	%			12:28:45
2	Y RADIAL	4516.9	4516.9	96.27	%			12:27:21
2	Ag 328.068†	109212.8	106178.7	490.66	ug/L	490.66	ppb	12:28:50
2	Al 396.153Radial†	5289.7	5583.9	5032.8	ug/L	5032.8	ppb	12:27:21
2	As 188.979†	1128.7	1120.2	509.05	ug/L	509.05	ppb	12:29:10
2	B 249.677†	20497.4	20344.0	483.29	ug/L	483.29	ppb	12:28:50
2	Ba 233.527†	64433.5	62787.9	491.66	ug/L	491.66	ppb	12:28:50
2	Be 313.107†	1348553.6	1317774.3	492.17	ug/L	492.17	ppb	12:28:45
2	Ca 317.933Radial†	2510.7	2582.2	5137.6	ug/L	5137.6	ppb	12:27:41
2	Cd 226.502†	43776.0	42835.1	497.09	ug/L	497.09	ppb	12:28:50
2	Co 228.616†	24225.1	23664.9	494.89	ug/L	494.89	ppb	12:28:50
2	Cr 267.716†	44970.1	43749.2	491.66	ug/L	491.66	ppb	12:28:50
2	Cu 324.752†	169546.3	159115.0	477.81	ug/L	477.81	ppb	12:28:50
2	Fe 238.204 Radial†	385.5	388.7	5022.8	ug/L	5022.8	ppb	12:27:41
2	K 766.490 Radial†	28957.9	27405.2	5120.8	ug/L	5120.8	ppb	12:27:21
2	Mg 279.077 IEC†	114.6	115.8	5262.1	ug/L	5262.1	ppb	12:27:41
2	Mn 257.610†	452046.9	440000.9	493.60	ug/L	493.60	ppb	12:28:45
2	Mo 202.031†	7007.7	6821.7	499.68	ug/L	499.68	ppb	12:29:10
2	Na 589.592 Radial†	32156.3	34011.5	9870.3	ug/L	9870.3	ppb	12:27:21
2	Ni 231.604†	20152.7	19582.8	497.46	ug/L	497.46	ppb	12:28:50

2	P 214.914†	4458.2	4141.7	2420.2 ug/L	2420.2 ppb	12:29:10
2	Pb 220.353†	4112.6	4072.0	506.10 ug/L	506.10 ppb	12:29:10
2	S 181.975 Axial†	744.8	688.6	1007.8 ug/L	1007.8 ppb	12:29:10
2	Sb 206.836†	1499.6	1424.4	514.63 ug/L	514.63 ppb	12:29:10
2	Se 196.026†	768.2	769.2	524.24 ug/L	524.24 ppb	12:29:10
2	Si 251.611†	78621.6	76068.3	2434.1 ug/L	2434.1 ppb	12:28:50
2	Sn 189.927†	2880.8	2796.4	506.52 ug/L	506.52 ppb	12:29:10
2	Sr 421.552†	72255.5	74723.9	495.22 ug/L	495.22 ppb	12:27:21
2	Ti 334.940†	319691.3	312763.1	472.91 ug/L	472.91 ppb	12:28:50
2	Tl 190.801†	1562.3	1553.4	501.69 ug/L	501.69 ppb	12:29:10
2	U 409.014†	14841.0	17276.1	465.14 ug/L	465.14 ppb	12:28:50
2	V 292.402†	70160.3	69789.0	491.16 ug/L	491.16 ppb	12:28:50
2	Zn 213.857†	51018.7	49150.8	488.62 ug/L	488.62 ppb	12:28:50
2	SiO2†	79437.7	76846.2	5266.4 ug/L	5266.4 ppb	12:29:51
3	Sc 361.383	918795.0	918795.0	102.08 %		12:29:16
3	Sc Radial	4174.8	4174.8	98.1 %		12:27:46
3	Y 371.029	765000.0	765000.0	100.34 %		12:29:16
3	Y RADIAL	4597.9	4597.9	97.99 %		12:27:46
3	Ag 328.068†	111756.3	109248.5	504.80 ug/L	504.80 ppb	12:29:21
3	Al 396.153Radial†	5421.5	5634.5	5078.7 ug/L	5078.7 ppb	12:27:46
3	As 188.979†	1122.1	1119.7	508.94 ug/L	508.94 ppb	12:29:41
3	B 249.677†	21120.8	21063.2	500.42 ug/L	500.42 ppb	12:29:21
3	Ba 233.527†	65867.2	64533.5	505.32 ug/L	505.32 ppb	12:29:21
3	Be 313.107†	1340368.0	1316894.6	491.88 ug/L	491.88 ppb	12:29:16
3	Ca 317.933Radial†	2533.8	2566.1	5105.4 ug/L	5105.4 ppb	12:28:06
3	Cd 226.502†	44842.5	44111.6	511.92 ug/L	511.92 ppb	12:29:21
3	Co 228.616†	24782.7	24339.3	508.96 ug/L	508.96 ppb	12:29:21
3	Cr 267.716†	45998.2	44994.5	505.64 ug/L	505.64 ppb	12:29:21
3	Cu 324.752†	174011.5	164386.7	493.63 ug/L	493.63 ppb	12:29:21
3	Fe 238.204 Radial†	390.7	387.9	5013.0 ug/L	5013.0 ppb	12:28:06
3	K 766.490 Radial†	29487.9	27487.1	5136.1 ug/L	5136.1 ppb	12:27:46
3	Mg 279.077 IEC†	115.9	115.3	5242.1 ug/L	5242.1 ppb	12:28:06
3	Mn 257.610†	448664.9	439080.9	492.57 ug/L	492.57 ppb	12:29:16
3	Mo 202.031†	6959.1	6811.2	498.91 ug/L	498.91 ppb	12:29:41
3	Na 589.592 Radial†	32703.4	34060.3	9884.4 ug/L	9884.4 ppb	12:27:46
3	Ni 231.604†	20557.7	20086.3	510.24 ug/L	510.24 ppb	12:29:21
3	P 214.914†	4438.2	4145.7	2419.5 ug/L	2419.5 ppb	12:29:41
3	Pb 220.353†	4082.8	4064.6	505.18 ug/L	505.18 ppb	12:29:41
3	S 181.975 Axial†	742.8	690.7	1010.8 ug/L	1010.8 ppb	12:29:41
3	Sb 206.836†	1496.9	1429.6	516.43 ug/L	516.43 ppb	12:29:41
3	Se 196.026†	755.8	761.1	518.88 ug/L	518.88 ppb	12:29:41
3	Si 251.611†	80646.8	78468.4	2511.1 ug/L	2511.1 ppb	12:29:21
3	Sn 189.927†	2862.8	2794.0	506.09 ug/L	506.09 ppb	12:29:41
3	Sr 421.552†	73477.6	74826.1	495.90 ug/L	495.90 ppb	12:27:46
3	Ti 334.940†	327395.4	322002.5	486.87 ug/L	486.87 ppb	12:29:21
3	Tl 190.801†	1567.8	1567.1	506.12 ug/L	506.12 ppb	12:29:41
3	U 409.014†	15533.7	18033.3	485.57 ug/L	485.57 ppb	12:29:21
3	V 292.402†	71907.5	71872.0	505.63 ug/L	505.63 ppb	12:29:21
3	Zn 213.857†	52226.7	50604.2	503.10 ug/L	503.10 ppb	12:29:21
3	SiO2†	78728.7	76572.2	5247.6 ug/L	5247.6 ppb	12:29:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920038.5	102.22	%	0.367				0.36%
Sc Radial	4162.6	97.9	%	1.10				1.12%
Y 371.029	765210.8	100.36	%	0.373				0.37%
Y RADIAL	4575.2	97.51	%	1.085				1.11%
Ag 328.068†	107756.3	497.91	ug/L	7.076	497.91	ppb	7.076	1.42%
QC value within limits for Ag 328.068 Recovery = 99.58%								
Al 396.153Radial†	5600.4	5047.8	ug/L	26.70	5047.8	ppb	26.70	0.53%
QC value within limits for Al 396.153Radial Recovery = 100.96%								
As 188.979†	1117.2	507.71	ug/L	2.213	507.71	ppb	2.213	0.44%
QC value within limits for As 188.979 Recovery = 101.54%								
B 249.677†	20682.6	491.36	ug/L	8.606	491.36	ppb	8.606	1.75%
QC value within limits for B 249.677 Recovery = 98.27%								
Ba 233.527†	63657.9	498.47	ug/L	6.833	498.47	ppb	6.833	1.37%
QC value within limits for Ba 233.527 Recovery = 99.69%								
Be 313.107†	1317040.2	491.92	ug/L	0.241	491.92	ppb	0.241	0.05%
QC value within limits for Be 313.107 Recovery = 98.38%								

Ca 317.933Radial†	2560.9	5095.2 ug/L	48.27	5095.2 ppb	48.27	0.95%
QC value within limits for Ca 317.933Radial Recovery = 101.90%						
Cd 226.502†	43474.3	504.51 ug/L	7.415	504.51 ppb	7.415	1.47%
QC value within limits for Cd 226.502 Recovery = 100.90%						
Co 228.616†	24012.0	502.13 ug/L	7.045	502.13 ppb	7.045	1.40%
QC value within limits for Co 228.616 Recovery = 100.43%						
Cr 267.716†	44346.7	498.36 ug/L	7.006	498.36 ppb	7.006	1.41%
QC value within limits for Cr 267.716 Recovery = 99.67%						
Cu 324.752†	161659.6	485.45 ug/L	7.924	485.45 ppb	7.924	1.63%
QC value within limits for Cu 324.752 Recovery = 97.09%						
Fe 238.204 Radial†	386.4	4992.7 ug/L	43.86	4992.7 ppb	43.86	0.88%
QC value within limits for Fe 238.204 Radial Recovery = 99.85%						
K 766.490 Radial†	27373.5	5114.9 ug/L	24.74	5114.9 ppb	24.74	0.48%
QC value within limits for K 766.490 Radial Recovery = 102.30%						
Mg 279.077 IEC†	115.0	5225.4 ug/L	47.21	5225.4 ppb	47.21	0.90%
QC value within limits for Mg 279.077 IEC Recovery = 104.51%						
Mn 257.610†	439992.8	493.59 ug/L	1.016	493.59 ppb	1.016	0.21%
QC value within limits for Mn 257.610 Recovery = 98.72%						
Mo 202.031†	6808.5	498.71 ug/L	1.077	498.71 ppb	1.077	0.22%
QC value within limits for Mo 202.031 Recovery = 99.74%						
Na 589.592 Radial†	34067.3	9886.5 ug/L	17.29	9886.5 ppb	17.29	0.17%
QC value within limits for Na 589.592 Radial Recovery = 98.86%						
Ni 231.604†	19813.5	503.31 ug/L	6.461	503.31 ppb	6.461	1.28%
QC value within limits for Ni 231.604 Recovery = 100.66%						
P 214.914†	4137.6	2416.2 ug/L	6.28	2416.2 ppb	6.28	0.26%
QC value within limits for P 214.914 Recovery = 96.65%						
Pb 220.353†	4069.3	505.77 ug/L	0.510	505.77 ppb	0.510	0.10%
QC value within limits for Pb 220.353 Recovery = 101.15%						
S 181.975 Axial†	687.5	1006.2 ug/L	5.65	1006.2 ppb	5.65	0.56%
QC value within limits for S 181.975 Axial Recovery = 100.62%						
Sb 206.836†	1425.0	514.79 ug/L	1.572	514.79 ppb	1.572	0.31%
QC value within limits for Sb 206.836 Recovery = 102.96%						
Se 196.026†	763.1	520.13 ug/L	3.645	520.13 ppb	3.645	0.70%
QC value within limits for Se 196.026 Recovery = 104.03%						
Si 251.611†	77245.2	2471.9 ug/L	38.52	2471.9 ppb	38.52	1.56%
QC value within limits for Si 251.611 Recovery = 98.88%						
Sn 189.927†	2790.2	505.40 ug/L	1.577	505.40 ppb	1.577	0.31%
QC value within limits for Sn 189.927 Recovery = 101.08%						
Sr 421.552†	74739.4	495.32 ug/L	0.530	495.32 ppb	0.530	0.11%
QC value within limits for Sr 421.552 Recovery = 99.06%						
Ti 334.940†	317287.1	479.74 ug/L	6.983	479.74 ppb	6.983	1.46%
QC value within limits for Ti 334.940 Recovery = 95.95%						
Tl 190.801†	1560.0	503.83 ug/L	2.215	503.83 ppb	2.215	0.44%
QC value within limits for Tl 190.801 Recovery = 100.77%						
U 409.014†	17709.1	476.83 ug/L	10.529	476.83 ppb	10.529	2.21%
QC value within limits for U 409.014 Recovery = 95.37%						
V 292.402†	70754.9	497.86 ug/L	7.293	497.86 ppb	7.293	1.46%
QC value within limits for V 292.402 Recovery = 99.57%						
Zn 213.857†	49907.4	496.17 ug/L	7.261	496.17 ppb	7.261	1.46%
QC value within limits for Zn 213.857 Recovery = 99.23%						
SiO2†	77176.9	5289.1 ug/L	56.48	5289.1 ppb	56.48	1.07%
QC value within limits for SiO2 Recovery = 98.91%						

All analyte(s) passed QC.

Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 12:32:06
Data Type: Reprocessed on 2/23/2010 12:42:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	923059.3	923059.3	102.55	%			12:35:16
1	Sc Radial	4161.8	4161.8	97.8	%			12:33:59
1	Y 371.029	778461.9	778461.9	102.10	%			12:35:16
1	Y RADIAL	4589.6	4589.6	97.82	%			12:33:59
1	Ag 328.068†	324.8	87.4	0.4053	ug/L	0.4053	ppb	12:35:21
1	Al 396.153Radial†	-125.6	-17.6	-15.977	ug/L	-15.977	ppb	12:33:59
1	As 188.979†	-12.3	8.6	3.8611	ug/L	3.8611	ppb	12:35:41
1	B 249.677†	-150.3	226.4	5.3977	ug/L	5.3977	ppb	12:35:41
1	Ba 233.527†	12.9	21.7	0.1689	ug/L	0.1689	ppb	12:35:41
1	Be 313.107†	-3912.6	38.2	0.0137	ug/L	0.0137	ppb	12:35:21
1	Ca 317.933Radial†	15.9	0.8	1.6150	ug/L	1.6150	ppb	12:34:19
1	Cd 226.502†	-181.9	6.0	0.0660	ug/L	0.0660	ppb	12:35:41
1	Co 228.616†	-56.0	7.4	0.1545	ug/L	0.1545	ppb	12:35:41
1	Cr 267.716†	66.3	-1.3	-0.0144	ug/L	-0.0144	ppb	12:35:41
1	Cu 324.752†	6067.4	-160.9	-0.4836	ug/L	-0.4836	ppb	12:35:21
1	Fe 238.204 Radial†	12.8	2.9	37.328	ug/L	37.328	ppb	12:34:19
1	K 766.490 Radial†	2694.3	197.0	36.846	ug/L	36.846	ppb	12:33:59
1	Mg 279.077 IEC†	1.5	-1.2	-55.584	ug/L	-55.584	ppb	12:34:19
1	Mn 257.610†	450.5	2.5	0.0087	ug/L	0.0087	ppb	12:35:41
1	Mo 202.031†	10.7	4.4	0.3252	ug/L	0.3252	ppb	12:35:41
1	Na 589.592 Radial†	-729.1	-4.8	-1.3828	ug/L	-1.3828	ppb	12:33:59
1	Ni 231.604†	48.6	-4.9	-0.1242	ug/L	-0.1242	ppb	12:35:41
1	P 214.914†	209.4	2.2	1.3706	ug/L	1.3706	ppb	12:35:41
1	Pb 220.353†	-49.5	16.7	2.0673	ug/L	2.0673	ppb	12:35:41
1	S 181.975 Axial†	40.9	2.8	4.0977	ug/L	4.0977	ppb	12:35:41
1	Sb 206.836†	50.2	12.2	4.2614	ug/L	4.2614	ppb	12:35:41
1	Se 196.026†	-26.7	-5.3	-3.3704	ug/L	-3.3704	ppb	12:35:41
1	Si 251.611†	571.1	22.7	0.7248	ug/L	0.7248	ppb	12:35:41
1	Sn 189.927†	7.9	-2.7	-0.4864	ug/L	-0.4864	ppb	12:35:41
1	Sr 421.552†	41.7	5.8	0.0387	ug/L	0.0387	ppb	12:33:59
1	Ti 334.940†	-1476.2	-157.6	-0.2356	ug/L	-0.2356	ppb	12:35:21
1	Tl 190.801†	-29.7	2.2	0.7143	ug/L	0.7143	ppb	12:35:41
1	U 409.014†	-2714.9	169.0	4.5615	ug/L	4.5615	ppb	12:35:16
1	V 292.402†	-1601.6	-131.3	-0.9045	ug/L	-0.9045	ppb	12:35:21
1	Zn 213.857†	603.6	30.8	0.3051	ug/L	0.3051	ppb	12:35:41
1	SiO2†	580.8	14.9	1.0132	ug/L	1.0132	ppb	12:36:47
2	Sc 361.383	922067.6	922067.6	102.44	%			12:35:46
2	Sc Radial	4144.4	4144.4	97.4	%			12:34:24
2	Y 371.029	778634.5	778634.5	102.12	%			12:35:46
2	Y RADIAL	4564.9	4564.9	97.29	%			12:34:24
2	Ag 328.068†	291.1	54.9	0.2561	ug/L	0.2561	ppb	12:35:51
2	Al 396.153Radial†	-112.4	-4.6	-4.2149	ug/L	-4.2149	ppb	12:34:24
2	As 188.979†	-21.1	-0.1	-0.0496	ug/L	-0.0496	ppb	12:36:11
2	B 249.677†	-169.0	208.0	4.9603	ug/L	4.9603	ppb	12:36:11
2	Ba 233.527†	15.0	23.8	0.1872	ug/L	0.1872	ppb	12:36:11
2	Be 313.107†	-3867.3	78.2	0.0286	ug/L	0.0286	ppb	12:35:51
2	Ca 317.933Radial†	15.7	0.6	1.2928	ug/L	1.2928	ppb	12:34:44
2	Cd 226.502†	-167.4	19.9	0.2299	ug/L	0.2299	ppb	12:36:11
2	Co 228.616†	-67.3	-3.8	-0.0784	ug/L	-0.0784	ppb	12:36:11
2	Cr 267.716†	75.5	7.7	0.0867	ug/L	0.0867	ppb	12:36:11
2	Cu 324.752†	6175.7	-48.8	-0.1477	ug/L	-0.1477	ppb	12:35:51
2	Fe 238.204 Radial†	11.4	1.5	19.708	ug/L	19.708	ppb	12:34:44
2	K 766.490 Radial†	2670.0	183.6	34.349	ug/L	34.349	ppb	12:34:24
2	Mg 279.077 IEC†	-1.4	-4.2	-189.36	ug/L	-189.36	ppb	12:34:44
2	Mn 257.610†	466.9	19.0	0.0310	ug/L	0.0310	ppb	12:36:11
2	Mo 202.031†	10.0	3.7	0.2723	ug/L	0.2723	ppb	12:36:11
2	Na 589.592 Radial†	-713.3	8.3	2.3966	ug/L	2.3966	ppb	12:34:24
2	Ni 231.604†	38.5	-14.7	-0.3734	ug/L	-0.3734	ppb	12:36:11

2	P 214.914†	196.1	-10.6	-6.4255 ug/L	-6.4255 ppb	12:36:11
2	Pb 220.353†	-39.2	26.7	3.3113 ug/L	3.3113 ppb	12:36:11
2	S 181.975 Axial†	40.5	2.5	3.6835 ug/L	3.6835 ppb	12:36:11
2	Sb 206.836†	36.7	-0.9	-0.2687 ug/L	-0.2687 ppb	12:36:11
2	Se 196.026†	-30.0	-8.6	-5.5972 ug/L	-5.5972 ppb	12:36:11
2	Si 251.611†	556.3	8.9	0.2814 ug/L	0.2814 ppb	12:36:11
2	Sn 189.927†	21.1	10.2	1.8406 ug/L	1.8406 ppb	12:36:11
2	Sr 421.552†	52.1	16.7	0.1104 ug/L	0.1104 ppb	12:34:24
2	Ti 334.940†	-1465.5	-148.7	-0.2112 ug/L	-0.2112 ppb	12:35:51
2	Tl 190.801†	-19.6	12.1	3.8886 ug/L	3.8886 ppb	12:36:11
2	U 409.014†	-2728.0	153.3	4.1411 ug/L	4.1411 ppb	12:35:46
2	V 292.402†	-1409.2	54.9	0.3867 ug/L	0.3867 ppb	12:35:51
2	Zn 213.857†	606.7	34.5	0.3462 ug/L	0.3462 ppb	12:36:11
2	SiO2†	597.8	32.1	2.1949 ug/L	2.1949 ppb	12:36:52
3	Sc 361.383	921823.0	921823.0	102.42 %		12:36:16
3	Sc Radial	4165.7	4165.7	97.9 %		12:34:49
3	Y 371.029	778710.3	778710.3	102.13 %		12:36:16
3	Y RADIAL	4619.5	4619.5	98.45 %		12:34:49
3	Ag 328.068†	204.5	-29.7	-0.1318 ug/L	-0.1318 ppb	12:36:21
3	Al 396.153Radial†	-127.8	-19.7	-17.873 ug/L	-17.873 ppb	12:34:49
3	As 188.979†	-20.5	0.5	0.2324 ug/L	0.2324 ppb	12:36:41
3	B 249.677†	-184.4	192.9	4.6014 ug/L	4.6014 ppb	12:36:41
3	Ba 233.527†	15.8	24.6	0.1923 ug/L	0.1923 ppb	12:36:41
3	Be 313.107†	-3832.8	110.9	0.0407 ug/L	0.0407 ppb	12:36:21
3	Ca 317.933Radial†	16.9	1.8	3.5629 ug/L	3.5629 ppb	12:35:09
3	Cd 226.502†	-191.6	-3.8	-0.0451 ug/L	-0.0451 ppb	12:36:41
3	Co 228.616†	-76.8	-13.1	-0.2722 ug/L	-0.2722 ppb	12:36:41
3	Cr 267.716†	77.1	9.2	0.1052 ug/L	0.1052 ppb	12:36:41
3	Cu 324.752†	6239.2	14.8	0.0456 ug/L	0.0456 ppb	12:36:21
3	Fe 238.204 Radial†	11.0	1.0	12.921 ug/L	12.921 ppb	12:35:09
3	K 766.490 Radial†	2745.9	247.1	46.223 ug/L	46.223 ppb	12:34:49
3	Mg 279.077 IEC†	1.5	-1.2	-53.217 ug/L	-53.217 ppb	12:35:09
3	Mn 257.610†	460.1	12.4	0.0173 ug/L	0.0173 ppb	12:36:41
3	Mo 202.031†	13.5	7.1	0.5234 ug/L	0.5234 ppb	12:36:41
3	Na 589.592 Radial†	-704.9	20.6	5.9706 ug/L	5.9706 ppb	12:34:49
3	Ni 231.604†	60.0	6.3	0.1591 ug/L	0.1591 ppb	12:36:41
3	P 214.914†	198.7	-8.0	-4.8743 ug/L	-4.8743 ppb	12:36:41
3	Pb 220.353†	-60.0	6.4	0.7931 ug/L	0.7931 ppb	12:36:41
3	S 181.975 Axial†	37.4	-0.5	-0.7696 ug/L	-0.7696 ppb	12:36:41
3	Sb 206.836†	51.0	13.1	4.6229 ug/L	4.6229 ppb	12:36:41
3	Se 196.026†	-19.9	1.3	0.8888 ug/L	0.8888 ppb	12:36:41
3	Si 251.611†	545.1	-1.9	-0.0664 ug/L	-0.0664 ppb	12:36:41
3	Sn 189.927†	25.8	14.7	2.6634 ug/L	2.6634 ppb	12:36:41
3	Sr 421.552†	36.8	0.8	0.0055 ug/L	0.0055 ppb	12:34:49
3	Ti 334.940†	-1515.2	-197.7	-0.2939 ug/L	-0.2939 ppb	12:36:21
3	Tl 190.801†	-32.0	-0.1	-0.0184 ug/L	-0.0184 ppb	12:36:41
3	U 409.014†	-2910.0	-25.0	-0.6776 ug/L	-0.6776 ppb	12:36:16
3	V 292.402†	-1465.0	0.0	0.0037 ug/L	0.0037 ppb	12:36:21
3	Zn 213.857†	599.2	27.4	0.2716 ug/L	0.2716 ppb	12:36:41
3	SiO2†	587.6	22.2	1.5140 ug/L	1.5140 ppb	12:36:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	922316.6	102.47	%	0.073				0.07%
Sc Radial	4157.3	97.7	%	0.27				0.27%
Y 371.029	778602.2	102.12	%	0.017				0.02%
Y RADIAL	4591.4	97.85	%	0.582				0.60%
Ag 328.068†	37.5	0.1765	ug/L	0.27725	0.1765	ppb	0.27725	157.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.0	-12.688	ug/L	7.3991	-12.688	ppb	7.3991	58.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.3480	ug/L	2.18098	1.3480	ppb	2.18098	161.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	209.1	4.9865	ug/L	0.39878	4.9865	ppb	0.39878	8.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.4	0.1828	ug/L	0.01232	0.1828	ppb	0.01232	6.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	75.8	0.0277	ug/L	0.01352	0.0277	ppb	0.01352	48.86%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          1.1      2.1569 ug/L       1.22824      2.1569 ppb        1.22824  56.95%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.4      0.0836 ug/L       0.13837      0.0836 ppb        0.13837 165.48%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -3.2     -0.0654 ug/L       0.21366     -0.0654 ppb        0.21366 326.72%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                5.2      0.0592 ug/L       0.06441      0.0592 ppb        0.06441 108.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -64.9     -0.1952 ug/L       0.26781     -0.1952 ppb        0.26781 137.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.8      23.319 ug/L       12.5978      23.319 ppb        12.5978  54.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        209.2      39.140 ug/L        6.2602      39.140 ppb         6.2602  15.99%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.2     -99.386 ug/L       77.9263     -99.386 ppb        77.9263  78.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               11.3      0.0190 ug/L       0.01121      0.0190 ppb        0.01121  59.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.1      0.3736 ug/L       0.13240      0.3736 ppb        0.13240  35.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         8.0      2.3281 ug/L       3.67720      2.3281 ppb        3.67720 157.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.4     -0.1128 ug/L       0.26642     -0.1128 ppb        0.26642 236.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.5     -3.3097 ug/L       4.12682     -3.3097 ppb        4.12682 124.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               16.6      2.0573 ug/L       1.25911      2.0573 ppb        1.25911  61.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.6      2.3372 ug/L       2.69853      2.3372 ppb        2.69853 115.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                8.2      2.8719 ug/L       2.72582      2.8719 ppb        2.72582  94.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.2     -2.6929 ug/L       3.29565     -2.6929 ppb        3.29565 122.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                9.9      0.3133 ug/L       0.39653      0.3133 ppb        0.39653 126.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.4      1.3392 ug/L       1.63364      1.3392 ppb        1.63364 121.99%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                7.8      0.0515 ug/L       0.05363      0.0515 ppb        0.05363 104.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -168.0     -0.2469 ug/L       0.04249     -0.2469 ppb        0.04249  17.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.8      1.5281 ug/L       2.07674      1.5281 ppb        2.07674 135.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                99.1      2.6750 ug/L       2.91105      2.6750 ppb        2.91105 108.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -25.4     -0.1714 ug/L       0.66313     -0.1714 ppb        0.66313 387.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               30.9      0.3077 ug/L       0.03736      0.3077 ppb        0.03736  12.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     23.1      1.5740 ug/L       0.59316      1.5740 ppb        0.59316  37.68%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 13:03:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4219.4	4219.4	99.2	%			13:05:39
1	Y RADIAL	4634.2	4634.2	98.77	%			13:05:39
1	Al 396.153Radial†	5242.9	5396.1	4862.6	ug/L	4862.6	ppb	13:05:39
1	Ca 317.933Radial†	2490.8	2495.5	4965.0	ug/L	4965.0	ppb	13:05:59
1	Fe 238.204 Radial†	378.9	371.8	4805.3	ug/L	4805.3	ppb	13:05:59
1	K 766.490 Radial†	28685.2	26360.8	4925.6	ug/L	4925.6	ppb	13:05:39
1	Mg 279.077 IEC†	116.6	114.8	5217.0	ug/L	5217.0	ppb	13:05:59
1	Na 589.592 Radial†	31612.9	32609.4	9463.4	ug/L	9463.4	ppb	13:05:39
1	Sr 421.552†	71826.2	72371.3	479.63	ug/L	479.63	ppb	13:05:39
1	Sc 361.383	907508.6	907508.6	100.83	%			13:06:57
1	Y 371.029	754725.7	754725.7	98.988	%			13:06:57
1	Ag 328.068†	110364.0	109229.3	504.65	ug/L	504.65	ppb	13:07:02
1	As 188.979†	1107.9	1119.3	508.74	ug/L	508.74	ppb	13:07:22
1	B 249.677†	20418.8	20624.2	489.97	ug/L	489.97	ppb	13:07:02
1	Ba 233.527†	65027.7	64503.3	505.08	ug/L	505.08	ppb	13:07:02
1	Be 313.107†	1323657.5	1316651.2	491.80	ug/L	491.80	ppb	13:06:57
1	Cd 226.502†	44210.1	44030.7	510.99	ug/L	510.99	ppb	13:07:02
1	Co 228.616†	24527.2	24387.9	509.98	ug/L	509.98	ppb	13:07:02
1	Cr 267.716†	45261.6	44824.2	503.71	ug/L	503.71	ppb	13:07:02
1	Cu 324.752†	171538.3	164053.8	492.62	ug/L	492.62	ppb	13:07:02
1	Mn 257.610†	445764.0	441670.0	495.45	ug/L	495.45	ppb	13:06:57
1	Mo 202.031†	6932.1	6869.2	503.14	ug/L	503.14	ppb	13:07:22
1	Ni 231.604†	20225.6	20007.3	508.24	ug/L	508.24	ppb	13:07:02
1	P 214.914†	4408.3	4170.1	2434.7	ug/L	2434.7	ppb	13:07:22
1	Pb 220.353†	4056.6	4088.3	508.11	ug/L	508.11	ppb	13:07:22
1	S 181.975 Axial†	751.1	707.9	1036.1	ug/L	1036.1	ppb	13:07:22
1	Sb 206.836†	1476.4	1427.6	515.85	ug/L	515.85	ppb	13:07:22
1	Se 196.026†	756.5	771.0	524.76	ug/L	524.76	ppb	13:07:22
1	Si 251.611†	79408.0	78222.3	2503.2	ug/L	2503.2	ppb	13:07:02
1	Sn 189.927†	2848.4	2814.6	509.79	ug/L	509.79	ppb	13:07:22
1	Ti 334.940†	326208.7	324814.2	491.11	ug/L	491.11	ppb	13:06:57
1	Tl 190.801†	1542.6	1561.2	504.26	ug/L	504.26	ppb	13:07:22
1	U 409.014†	15171.6	17863.4	481.01	ug/L	481.01	ppb	13:07:02
1	V 292.402†	70842.4	71691.7	504.45	ug/L	504.45	ppb	13:07:02
1	Zn 213.857†	51468.8	50488.8	501.99	ug/L	501.99	ppb	13:07:02
1	SiO2†	79473.9	78270.3	5364.1	ug/L	5364.1	ppb	13:08:30
2	Sc Radial	4042.0	4042.0	95.0	%			13:06:04
2	Y RADIAL	4421.1	4421.1	94.23	%			13:06:04
2	Al 396.153Radial†	5224.5	5608.7	5055.3	ug/L	5055.3	ppb	13:06:04
2	Ca 317.933Radial†	2490.6	2605.4	5183.8	ug/L	5183.8	ppb	13:06:24
2	Fe 238.204 Radial†	382.1	391.9	5064.2	ug/L	5064.2	ppb	13:06:24
2	K 766.490 Radial†	28547.1	27484.4	5135.6	ug/L	5135.6	ppb	13:06:04
2	Mg 279.077 IEC†	111.9	115.0	5226.4	ug/L	5226.4	ppb	13:06:24
2	Na 589.592 Radial†	31428.5	33813.6	9812.8	ug/L	9812.8	ppb	13:06:04
2	Sr 421.552†	71309.0	75004.2	497.08	ug/L	497.08	ppb	13:06:04
2	Sc 361.383	920688.8	920688.8	102.29	%			13:07:28
2	Y 371.029	766081.7	766081.7	100.48	%			13:07:28
2	Ag 328.068†	109579.9	106895.7	493.97	ug/L	493.97	ppb	13:07:33
2	As 188.979†	1113.1	1108.7	503.99	ug/L	503.99	ppb	13:07:53
2	B 249.677†	20234.4	20154.0	478.75	ug/L	478.75	ppb	13:07:33
2	Ba 233.527†	64419.0	62985.0	493.20	ug/L	493.20	ppb	13:07:33
2	Be 313.107†	1342856.8	1316626.8	491.78	ug/L	491.78	ppb	13:07:28
2	Cd 226.502†	43866.9	43067.5	499.78	ug/L	499.78	ppb	13:07:33
2	Co 228.616†	24207.5	23727.1	496.16	ug/L	496.16	ppb	13:07:33
2	Cr 267.716†	44984.5	43910.8	493.48	ug/L	493.48	ppb	13:07:33
2	Cu 324.752†	170284.7	160392.8	481.65	ug/L	481.65	ppb	13:07:33
2	Mn 257.610†	450123.6	439602.9	493.16	ug/L	493.16	ppb	13:07:28
2	Mo 202.031†	6984.9	6822.4	499.73	ug/L	499.73	ppb	13:07:53
2	Ni 231.604†	20132.8	19629.4	498.64	ug/L	498.64	ppb	13:07:33

2	P 214.914†	4450.8	4149.0	2423.8	ug/L	2423.8 ppb	13:07:53
2	Pb 220.353†	4082.6	4056.2	504.14	ug/L	504.14 ppb	13:07:53
2	S 181.975 Axial†	748.7	694.9	1017.1	ug/L	1017.1 ppb	13:07:53
2	Sb 206.836†	1504.8	1434.4	518.05	ug/L	518.05 ppb	13:07:53
2	Se 196.026†	763.5	767.1	523.01	ug/L	523.01 ppb	13:07:53
2	Si 251.611†	78723.9	76426.1	2445.6	ug/L	2445.6 ppb	13:07:33
2	Sn 189.927†	2862.0	2787.5	504.91	ug/L	504.91 ppb	13:07:53
2	Ti 334.940†	330062.0	323949.7	489.83	ug/L	489.83 ppb	13:07:28
2	Tl 190.801†	1556.9	1553.3	501.79	ug/L	501.79 ppb	13:07:53
2	U 409.014†	15159.8	17636.5	474.87	ug/L	474.87 ppb	13:07:33
2	V 292.402†	70374.4	70228.2	494.20	ug/L	494.20 ppb	13:07:33
2	Zn 213.857†	51136.9	49433.7	491.44	ug/L	491.44 ppb	13:07:33
2	SiO2†	78201.6	75898.2	5201.3	ug/L	5201.3 ppb	13:08:35
3	Sc Radial	4056.7	4056.7	95.4	%		13:06:29
3	Y RADIAL	4416.3	4416.3	94.12	%		13:06:29
3	Al 396.153Radial†	5251.7	5617.3	5063.0	ug/L	5063.0 ppb	13:06:29
3	Ca 317.933Radial†	2471.4	2575.8	5124.8	ug/L	5124.8 ppb	13:06:49
3	Fe 238.204 Radial†	382.5	390.9	5051.0	ug/L	5051.0 ppb	13:06:49
3	K 766.490 Radial†	28612.5	27444.0	5128.1	ug/L	5128.1 ppb	13:06:29
3	Mg 279.077 IEC†	110.1	112.7	5121.9	ug/L	5121.9 ppb	13:06:49
3	Na 589.592 Radial†	31482.6	33750.5	9794.5	ug/L	9794.5 ppb	13:06:29
3	Sr 421.552†	71295.1	74717.5	495.18	ug/L	495.18 ppb	13:06:29
3	Sc 361.383	912366.2	912366.2	101.37	%		13:07:59
3	Y 371.029	759091.1	759091.1	99.560	%		13:07:59
3	Ag 328.068†	110020.7	108307.8	500.47	ug/L	500.47 ppb	13:08:04
3	As 188.979†	1112.8	1118.3	508.34	ug/L	508.34 ppb	13:08:25
3	B 249.677†	20375.2	20473.4	486.35	ug/L	486.35 ppb	13:08:04
3	Ba 233.527†	64834.9	63969.7	500.91	ug/L	500.91 ppb	13:08:04
3	Be 313.107†	1331914.2	1317807.0	492.23	ug/L	492.23 ppb	13:07:59
3	Cd 226.502†	44101.1	43689.7	507.01	ug/L	507.01 ppb	13:08:04
3	Co 228.616†	24346.6	24080.2	503.54	ug/L	503.54 ppb	13:08:04
3	Cr 267.716†	45107.6	44433.3	499.34	ug/L	499.34 ppb	13:08:04
3	Cu 324.752†	171118.6	162734.0	488.68	ug/L	488.68 ppb	13:08:04
3	Mn 257.610†	447370.6	440901.1	494.62	ug/L	494.62 ppb	13:07:59
3	Mo 202.031†	6943.0	6843.3	501.27	ug/L	501.27 ppb	13:08:25
3	Ni 231.604†	20177.7	19853.3	504.33	ug/L	504.33 ppb	13:08:04
3	P 214.914†	4415.1	4153.5	2425.2	ug/L	2425.2 ppb	13:08:25
3	Pb 220.353†	4068.9	4079.1	506.98	ug/L	506.98 ppb	13:08:25
3	S 181.975 Axial†	740.6	693.6	1015.2	ug/L	1015.2 ppb	13:08:25
3	Sb 206.836†	1482.2	1425.6	515.03	ug/L	515.03 ppb	13:08:25
3	Se 196.026†	745.6	756.3	515.84	ug/L	515.84 ppb	13:08:25
3	Si 251.611†	79272.4	77669.3	2485.5	ug/L	2485.5 ppb	13:08:04
3	Sn 189.927†	2843.2	2794.4	506.16	ug/L	506.16 ppb	13:08:25
3	Ti 334.940†	327405.4	324272.2	490.32	ug/L	490.32 ppb	13:07:59
3	Tl 190.801†	1557.9	1568.1	506.53	ug/L	506.53 ppb	13:08:25
3	U 409.014†	15147.8	17759.8	478.19	ug/L	478.19 ppb	13:08:04
3	V 292.402†	70542.3	71021.5	499.73	ug/L	499.73 ppb	13:08:04
3	Zn 213.857†	51362.8	50112.5	498.21	ug/L	498.21 ppb	13:08:04
3	SiO2†	80483.7	78846.9	5403.8	ug/L	5403.8 ppb	13:08:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	913521.2	101.50	%	0.741				0.73%
Sc Radial	4106.0	96.5	%	2.31				2.40%
Y 371.029	759966.1	99.675	%	0.7513				0.75%
Y RADIAL	4490.6	95.71	%	2.652				2.77%
Ag 328.068†	108144.3	499.70	ug/L	5.380	499.70	ppb	5.380	1.08%
QC value within limits for Ag 328.068 Recovery = 99.94%								
Al 396.153Radial†	5540.7	4993.6	ug/L	113.52	4993.6	ppb	113.52	2.27%
QC value within limits for Al 396.153Radial Recovery = 99.87%								
As 188.979†	1115.5	507.02	ug/L	2.635	507.02	ppb	2.635	0.52%
QC value within limits for As 188.979 Recovery = 101.40%								
B 249.677†	20417.2	485.02	ug/L	5.728	485.02	ppb	5.728	1.18%
QC value within limits for B 249.677 Recovery = 97.00%								
Ba 233.527†	63819.3	499.73	ug/L	6.024	499.73	ppb	6.024	1.21%
QC value within limits for Ba 233.527 Recovery = 99.95%								
Be 313.107†	1317028.3	491.94	ug/L	0.251	491.94	ppb	0.251	0.05%
QC value within limits for Be 313.107 Recovery = 98.39%								
Ca 317.933Radial†	2558.9	5091.2	ug/L	113.17	5091.2	ppb	113.17	2.22%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.82%
Cd 226.502†            43596.0      505.93 ug/L         5.685      505.93 ppb          5.685   1.12%
   QC value within limits for Cd 226.502  Recovery = 101.19%
Co 228.616†            24065.1      503.23 ug/L         6.919      503.23 ppb          6.919   1.37%
   QC value within limits for Co 228.616  Recovery = 100.65%
Cr 267.716†            44389.4      498.84 ug/L         5.135      498.84 ppb          5.135   1.03%
   QC value within limits for Cr 267.716  Recovery = 99.77%
Cu 324.752†           162393.5      487.65 ug/L         5.560      487.65 ppb          5.560   1.14%
   QC value within limits for Cu 324.752  Recovery = 97.53%
Fe 238.204 Radial†       384.9      4973.5 ug/L        145.77      4973.5 ppb         145.77   2.93%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.47%
K 766.490 Radial†      27096.4      5063.1 ug/L        119.13      5063.1 ppb         119.13   2.35%
   QC value within limits for K 766.490 Radial  Recovery = 101.26%
Mg 279.077 IEC†          114.2      5188.5 ug/L         57.80      5188.5 ppb          57.80   1.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.77%
Mn 257.610†           440724.7      494.41 ug/L         1.160      494.41 ppb          1.160   0.23%
   QC value within limits for Mn 257.610  Recovery = 98.88%
Mo 202.031†             6845.0      501.38 ug/L         1.704      501.38 ppb          1.704   0.34%
   QC value within limits for Mo 202.031  Recovery = 100.28%
Na 589.592 Radial†     33391.2      9690.2 ug/L        196.69      9690.2 ppb         196.69   2.03%
   QC value within limits for Na 589.592 Radial  Recovery = 96.90%
Ni 231.604†            19830.0      503.73 ug/L         4.826      503.73 ppb          4.826   0.96%
   QC value within limits for Ni 231.604  Recovery = 100.75%
P 214.914†              4157.5      2427.9 ug/L          5.89      2427.9 ppb           5.89   0.24%
   QC value within limits for P 214.914  Recovery = 97.12%
Pb 220.353†             4074.5      506.41 ug/L         2.045      506.41 ppb          2.045   0.40%
   QC value within limits for Pb 220.353  Recovery = 101.28%
S 181.975 Axial†         698.8      1022.8 ug/L         11.59      1022.8 ppb          11.59   1.13%
   QC value within limits for S 181.975 Axial  Recovery = 102.28%
Sb 206.836†             1429.2      516.31 ug/L         1.562      516.31 ppb          1.562   0.30%
   QC value within limits for Sb 206.836  Recovery = 103.26%
Se 196.026†              764.8      521.20 ug/L         4.725      521.20 ppb          4.725   0.91%
   QC value within limits for Se 196.026  Recovery = 104.24%
Si 251.611†            77439.3      2478.1 ug/L         29.49      2478.1 ppb          29.49   1.19%
   QC value within limits for Si 251.611  Recovery = 99.12%
Sn 189.927†             2798.8      506.96 ug/L         2.535      506.96 ppb          2.535   0.50%
   QC value within limits for Sn 189.927  Recovery = 101.39%
Sr 421.552†            74031.0      490.63 ug/L         9.573      490.63 ppb          9.573   1.95%
   QC value within limits for Sr 421.552  Recovery = 98.13%
Ti 334.940†           324345.4      490.42 ug/L         0.642      490.42 ppb          0.642   0.13%
   QC value within limits for Ti 334.940  Recovery = 98.08%
Tl 190.801†             1560.8      504.19 ug/L         2.371      504.19 ppb          2.371   0.47%
   QC value within limits for Tl 190.801  Recovery = 100.84%
U 409.014†             17753.2      478.03 ug/L         3.072      478.03 ppb          3.072   0.64%
   QC value within limits for U 409.014  Recovery = 95.61%
V 292.402†             70980.5      499.46 ug/L         5.132      499.46 ppb          5.132   1.03%
   QC value within limits for V 292.402  Recovery = 99.89%
Zn 213.857†            50011.7      497.21 ug/L         5.345      497.21 ppb          5.345   1.08%
   QC value within limits for Zn 213.857  Recovery = 99.44%
SiO2†                  77671.8      5323.1 ug/L        107.35      5323.1 ppb         107.35   2.02%
   QC value within limits for SiO2  Recovery = 99.54%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 13:10:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4372.5	4372.5	103	%			13:12:43
1	Y RADIAL	4827.5	4827.5	102.9	%			13:12:43
1	Al 396.153Radial†	-118.5	-4.5	-4.0590	ug/L	-4.0590	ppb	13:12:43
1	Ca 317.933Radial†	19.9	3.9	7.7435	ug/L	7.7435	ppb	13:13:03
1	Fe 238.204 Radial†	11.2	0.7	9.0474	ug/L	9.0474	ppb	13:13:03
1	K 766.490 Radial†	2650.7	21.8	4.0676	ug/L	4.0676	ppb	13:12:43
1	Mg 279.077 IEC†	0.9	-1.9	-86.589	ug/L	-86.589	ppb	13:13:03
1	Na 589.592 Radial†	-745.9	14.7	4.2694	ug/L	4.2694	ppb	13:12:43
1	Sr 421.552†	7.3	-29.7	-0.1966	ug/L	-0.1966	ppb	13:12:43
1	Sc 361.383	918906.0	918906.0	102.09	%			13:14:00
1	Y 371.029	776503.0	776503.0	101.84	%			13:14:00
1	Ag 328.068†	211.0	-22.7	-0.1032	ug/L	-0.1032	ppb	13:14:05
1	As 188.979†	-19.0	1.9	0.8549	ug/L	0.8549	ppb	13:14:25
1	B 249.677†	-398.6	-17.5	-0.4190	ug/L	-0.4190	ppb	13:14:25
1	Ba 233.527†	15.1	23.9	0.1867	ug/L	0.1867	ppb	13:14:25
1	Be 313.107†	-3826.1	105.7	0.0387	ug/L	0.0387	ppb	13:14:05
1	Cd 226.502†	-188.9	-1.7	-0.0209	ug/L	-0.0209	ppb	13:14:25
1	Co 228.616†	-69.4	-6.0	-0.1258	ug/L	-0.1258	ppb	13:14:25
1	Cr 267.716†	94.1	26.2	0.2941	ug/L	0.2941	ppb	13:14:25
1	Cu 324.752†	6102.8	-99.4	-0.2991	ug/L	-0.2991	ppb	13:14:05
1	Mn 257.610†	467.9	21.4	0.0285	ug/L	0.0285	ppb	13:14:25
1	Mo 202.031†	7.3	1.1	0.0804	ug/L	0.0804	ppb	13:14:25
1	Ni 231.604†	51.2	-2.2	-0.0561	ug/L	-0.0561	ppb	13:14:25
1	P 214.914†	208.7	2.4	1.5147	ug/L	1.5147	ppb	13:14:25
1	Pb 220.353†	-42.6	23.3	2.8812	ug/L	2.8812	ppb	13:14:25
1	S 181.975 Axial†	41.0	3.1	4.5342	ug/L	4.5342	ppb	13:14:25
1	Sb 206.836†	37.5	0.0	0.0098	ug/L	0.0098	ppb	13:14:25
1	Se 196.026†	-20.3	0.9	0.5896	ug/L	0.5896	ppb	13:14:25
1	Si 251.611†	533.9	-11.2	-0.3615	ug/L	-0.3615	ppb	13:14:25
1	Sn 189.927†	8.1	-2.5	-0.4586	ug/L	-0.4586	ppb	13:14:25
1	Ti 334.940†	-1502.8	-190.2	-0.2805	ug/L	-0.2805	ppb	13:14:05
1	Tl 190.801†	-28.3	3.5	1.1147	ug/L	1.1147	ppb	13:14:25
1	U 409.014†	-2806.2	67.6	1.8262	ug/L	1.8262	ppb	13:14:00
1	V 292.402†	-1469.1	-8.6	-0.0577	ug/L	-0.0577	ppb	13:14:05
1	Zn 213.857†	615.3	45.0	0.4506	ug/L	0.4506	ppb	13:14:25
1	SiO2†	551.9	-10.9	-0.7502	ug/L	-0.7502	ppb	13:15:31
2	Sc Radial	4130.3	4130.3	97.1	%			13:13:08
2	Y RADIAL	4597.7	4597.7	97.99	%			13:13:08
2	Al 396.153Radial†	-106.4	1.2	1.1175	ug/L	1.1175	ppb	13:13:08
2	Ca 317.933Radial†	25.1	10.4	20.710	ug/L	20.710	ppb	13:13:28
2	Fe 238.204 Radial†	8.3	-1.6	-20.960	ug/L	-20.960	ppb	13:13:28
2	K 766.490 Radial†	2749.2	274.5	51.341	ug/L	51.341	ppb	13:13:08
2	Mg 279.077 IEC†	-2.7	-5.5	-251.86	ug/L	-251.86	ppb	13:13:28
2	Na 589.592 Radial†	-729.6	-11.0	-3.1879	ug/L	-3.1879	ppb	13:13:08
2	Sr 421.552†	43.3	7.8	0.0513	ug/L	0.0513	ppb	13:13:08
2	Sc 361.383	933569.4	933569.4	103.72	%			13:14:30
2	Y 371.029	788435.0	788435.0	103.41	%			13:14:30
2	Ag 328.068†	328.7	87.6	0.3897	ug/L	0.3897	ppb	13:14:35
2	As 188.979†	-19.7	1.5	0.6646	ug/L	0.6646	ppb	13:14:56
2	B 249.677†	-404.4	-16.9	-0.3999	ug/L	-0.3999	ppb	13:14:56
2	Ba 233.527†	12.6	21.3	0.1654	ug/L	0.1654	ppb	13:14:56
2	Be 313.107†	-3842.7	148.5	0.0551	ug/L	0.0551	ppb	13:14:35
2	Cd 226.502†	-175.6	14.0	0.1665	ug/L	0.1665	ppb	13:14:56
2	Co 228.616†	-61.3	2.9	0.0605	ug/L	0.0605	ppb	13:14:56
2	Cr 267.716†	75.6	6.9	0.0728	ug/L	0.0728	ppb	13:14:56
2	Cu 324.752†	6183.2	-115.9	-0.3526	ug/L	-0.3526	ppb	13:14:35
2	Mn 257.610†	460.2	6.9	0.0159	ug/L	0.0159	ppb	13:14:56
2	Mo 202.031†	7.3	1.0	0.0702	ug/L	0.0702	ppb	13:14:56
2	Ni 231.604†	67.3	12.5	0.3183	ug/L	0.3183	ppb	13:14:56

2	P 214.914†	214.1	4.4	2.7666	ug/L	2.7666 ppb	13:14:56
2	Pb 220.353†	-69.2	-1.7	-0.2115	ug/L	-0.2115 ppb	13:14:56
2	S 181.975 Axial†	48.3	9.5	13.938	ug/L	13.938 ppb	13:14:56
2	Sb 206.836†	43.8	5.5	1.9375	ug/L	1.9375 ppb	13:14:56
2	Se 196.026†	-30.3	-8.5	-5.6950	ug/L	-5.6950 ppb	13:14:56
2	Si 251.611†	554.2	0.2	0.0044	ug/L	0.0044 ppb	13:14:56
2	Sn 189.927†	15.9	4.9	0.8940	ug/L	0.8940 ppb	13:14:56
2	Ti 334.940†	-1412.8	-80.3	-0.1009	ug/L	-0.1009 ppb	13:14:35
2	Tl 190.801†	-30.1	2.2	0.6969	ug/L	0.6969 ppb	13:14:56
2	U 409.014†	-2672.1	240.0	6.4877	ug/L	6.4877 ppb	13:14:30
2	V 292.402†	-1504.2	-19.8	-0.1257	ug/L	-0.1257 ppb	13:14:35
2	Zn 213.857†	617.2	37.3	0.3762	ug/L	0.3762 ppb	13:14:56
2	SiO2†	566.5	-5.3	-0.3656	ug/L	-0.3656 ppb	13:15:36
3	Sc Radial	4238.8	4238.8	99.7	%		13:13:34
3	Y RADIAL	4679.3	4679.3	99.73	%		13:13:34
3	Al 396.153Radial†	-122.1	-11.7	-10.658	ug/L	-10.658 ppb	13:13:34
3	Ca 317.933Radial†	18.6	3.2	6.3833	ug/L	6.3833 ppb	13:13:54
3	Fe 238.204 Radial†	11.0	0.8	10.666	ug/L	10.666 ppb	13:13:54
3	K 766.490 Radial†	2703.5	156.2	29.204	ug/L	29.204 ppb	13:13:34
3	Mg 279.077 IEC†	4.3	1.6	70.715	ug/L	70.715 ppb	13:13:54
3	Na 589.592 Radial†	-666.6	71.5	20.739	ug/L	20.739 ppb	13:13:34
3	Sr 421.552†	13.3	-23.4	-0.1553	ug/L	-0.1553 ppb	13:13:34
3	Sc 361.383	911379.9	911379.9	101.26	%		13:15:01
3	Y 371.029	769704.0	769704.0	100.95	%		13:15:01
3	Ag 328.068†	169.0	-62.4	-0.2871	ug/L	-0.2871 ppb	13:15:06
3	As 188.979†	-24.4	-3.6	-1.6037	ug/L	-1.6037 ppb	13:15:26
3	B 249.677†	-404.4	-26.4	-0.6313	ug/L	-0.6313 ppb	13:15:26
3	Ba 233.527†	4.8	13.8	0.1070	ug/L	0.1070 ppb	13:15:26
3	Be 313.107†	-3844.9	56.1	0.0206	ug/L	0.0206 ppb	13:15:06
3	Cd 226.502†	-179.8	5.7	0.0655	ug/L	0.0655 ppb	13:15:26
3	Co 228.616†	-66.1	-3.4	-0.0698	ug/L	-0.0698 ppb	13:15:26
3	Cr 267.716†	72.9	6.0	0.0671	ug/L	0.0671 ppb	13:15:26
3	Cu 324.752†	6219.2	64.8	0.1946	ug/L	0.1946 ppb	13:15:06
3	Mn 257.610†	456.5	13.9	0.0138	ug/L	0.0138 ppb	13:15:26
3	Mo 202.031†	11.2	5.0	0.3667	ug/L	0.3667 ppb	13:15:26
3	Ni 231.604†	53.0	0.1	0.0014	ug/L	0.0014 ppb	13:15:26
3	P 214.914†	217.5	12.7	7.6748	ug/L	7.6748 ppb	13:15:26
3	Pb 220.353†	-52.7	13.0	1.6032	ug/L	1.6032 ppb	13:15:26
3	S 181.975 Axial†	37.6	0.1	0.1845	ug/L	0.1845 ppb	13:15:26
3	Sb 206.836†	48.6	11.3	3.9619	ug/L	3.9619 ppb	13:15:26
3	Se 196.026†	-25.2	-4.2	-2.7191	ug/L	-2.7191 ppb	13:15:26
3	Si 251.611†	536.6	-4.2	-0.1396	ug/L	-0.1396 ppb	13:15:26
3	Sn 189.927†	11.8	1.3	0.2275	ug/L	0.2275 ppb	13:15:26
3	Ti 334.940†	-1389.7	-90.6	-0.1425	ug/L	-0.1425 ppb	13:15:06
3	Tl 190.801†	-39.9	-8.2	-2.6184	ug/L	-2.6184 ppb	13:15:26
3	U 409.014†	-2805.6	45.5	1.2290	ug/L	1.2290 ppb	13:15:01
3	V 292.402†	-1548.2	-98.5	-0.6764	ug/L	-0.6764 ppb	13:15:06
3	Zn 213.857†	617.5	52.1	0.5210	ug/L	0.5210 ppb	13:15:26
3	SiO2†	566.7	8.1	0.5488	ug/L	0.5488 ppb	13:15:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921285.1	102.36	%	1.254				1.22%
Sc Radial	4247.2	99.9	%	2.85				2.86%
Y 371.029	778214.0	102.07	%	1.244				1.22%
Y RADIAL	4701.5	100.2	%	2.48				2.48%
Ag 328.068†	0.8	-0.0002	ug/L	0.34994	-0.0002	ppb	0.34994	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.0	-4.5332	ug/L	5.90208	-4.5332	ppb	5.90208	130.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0281	ug/L	1.36788	-0.0281	ppb	1.36788	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.3	-0.4834	ug/L	0.12844	-0.4834	ppb	0.12844	26.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.7	0.1531	ug/L	0.04129	0.1531	ppb	0.04129	26.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	103.4	0.0381	ug/L	0.01724	0.0381	ppb	0.01724	45.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.8	11.612	ug/L	7.9084	11.612	ppb	7.9084	68.10%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                6.0      0.0704 ug/L       0.09377      0.0704 ppb        0.09377 133.24%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -2.2     -0.0450 ug/L       0.09560     -0.0450 ppb        0.09560 212.45%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               13.1      0.1447 ug/L       0.12947      0.1447 ppb        0.12947  89.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -50.2     -0.1524 ug/L       0.30168     -0.1524 ppb        0.30168 197.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.0     -0.4156 ug/L      17.81049     -0.4156 ppb       17.81049 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        150.8      28.204 ug/L       23.6523      28.204 ppb        23.6523  83.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.0     -89.246 ug/L      161.3061     -89.246 ppb       161.3061 180.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               14.1      0.0194 ug/L       0.00793      0.0194 ppb        0.00793  40.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.4      0.1724 ug/L       0.16834      0.1724 ppb        0.16834  97.63%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        25.1      7.2736 ug/L      12.24325      7.2736 ppb       12.24325 168.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                3.5      0.0879 ug/L       0.20158      0.0879 ppb        0.20158 229.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 6.5      3.9854 ug/L       3.25586      3.9854 ppb        3.25586  81.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               11.5      1.4243 ug/L       1.55408      1.4243 ppb        1.55408 109.11%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.2      6.2189 ug/L       7.02971      6.2189 ppb        7.02971 113.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.6      1.9697 ug/L       1.97625      1.9697 ppb        1.97625 100.33%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.0     -2.6082 ug/L       3.14377     -2.6082 ppb        3.14377 120.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -5.1     -0.1656 ug/L       0.18435     -0.1656 ppb        0.18435 111.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.2      0.2209 ug/L       0.67629      0.2209 ppb        0.67629 306.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -15.1     -0.1002 ug/L       0.13280     -0.1002 ppb        0.13280 132.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -120.4     -0.1746 ug/L       0.09397     -0.1746 ppb        0.09397  53.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.8     -0.2689 ug/L       2.04540     -0.2689 ppb        2.04540 760.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               117.7      3.1810 ug/L       2.87926      3.1810 ppb        2.87926  90.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -42.3     -0.2866 ug/L       0.33929     -0.2866 ppb        0.33929 118.39%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               44.8      0.4492 ug/L       0.07242      0.4492 ppb        0.07242  16.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -2.7     -0.1890 ug/L       0.66725     -0.1890 ppb        0.66725 352.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/23/2010 14:04:56 **Plasma On Time:** 2/22/2010 05:55:10
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\022310B.sif
Batch ID:
Results Data Set: 022310A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location:** 7
Sample ID: CCV **Date Collected:** 2/23/2010 14:04:57
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3971.4	3971.4	93.4	%			14:07:09
1	Y RADIAL	4487.7	4487.7	95.64	%			14:06:49
1	Al 396.153Radial†	5306.8	5794.6	5223.5	ug/L	5223.5	ppb	14:06:49
1	Ca 317.933Radial†	2539.4	2704.4	5380.7	ug/L	5380.7	ppb	14:07:09
1	Fe 238.204 Radial†	393.3	411.1	5311.3	ug/L	5311.3	ppb	14:07:09
1	K 766.490 Radial†	28933.8	28432.8	5312.7	ug/L	5312.7	ppb	14:06:49
1	Mg 279.077 IEC†	114.2	119.6	5434.6	ug/L	5434.6	ppb	14:07:09
1	Na 589.592 Radial†	33562.3	36687.3	10647	ug/L	10647	ppb	14:06:49
1	Sr 421.552†	73917.1	79132.3	524.44	ug/L	524.44	ppb	14:06:49
1	Sc 361.383	914094.0	914094.0	101.56	%			14:08:06
1	Y 371.029	759983.4	759983.4	99.678	%			14:08:06
1	Ag 328.068†	110716.4	108787.7	502.76	ug/L	502.76	ppb	14:08:11
1	As 188.979†	1115.1	1118.5	508.42	ug/L	508.42	ppb	14:08:31
1	B 249.677†	20401.1	20460.9	486.00	ug/L	486.00	ppb	14:08:11
1	Ba 233.527†	65269.6	64276.9	503.32	ug/L	503.32	ppb	14:08:11
1	Be 313.107†	1352259.2	1335356.0	498.75	ug/L	498.75	ppb	14:08:06
1	Cd 226.502†	44339.1	43841.8	508.75	ug/L	508.75	ppb	14:08:11
1	Co 228.616†	24520.3	24205.8	506.18	ug/L	506.18	ppb	14:08:11
1	Cr 267.716†	45502.0	44737.5	502.78	ug/L	502.78	ppb	14:08:11
1	Cu 324.752†	172499.6	163774.7	491.81	ug/L	491.81	ppb	14:08:11
1	Mn 257.610†	454473.9	447061.1	501.54	ug/L	501.54	ppb	14:08:06
1	Mo 202.031†	6970.2	6857.1	502.30	ug/L	502.30	ppb	14:08:31
1	Ni 231.604†	20295.5	19931.7	506.32	ug/L	506.32	ppb	14:08:11
1	P 214.914†	4456.6	4186.2	2444.3	ug/L	2444.3	ppb	14:08:31
1	Pb 220.353†	4052.3	4055.2	504.02	ug/L	504.02	ppb	14:08:31
1	S 181.975 Axial†	750.5	701.9	1027.3	ug/L	1027.3	ppb	14:08:31
1	Sb 206.836†	1509.6	1449.7	523.51	ug/L	523.51	ppb	14:08:31
1	Se 196.026†	757.6	766.7	523.53	ug/L	523.53	ppb	14:08:31
1	Si 251.611†	79832.4	78072.8	2498.4	ug/L	2498.4	ppb	14:08:11
1	Sn 189.927†	2857.3	2803.0	507.74	ug/L	507.74	ppb	14:08:31
1	Ti 334.940†	324558.1	320858.1	485.16	ug/L	485.16	ppb	14:08:11
1	Tl 190.801†	1560.2	1567.5	506.30	ug/L	506.30	ppb	14:08:31
1	U 409.014†	15448.0	18027.1	485.38	ug/L	485.38	ppb	14:08:11
1	V 292.402†	71182.5	71520.3	503.19	ug/L	503.19	ppb	14:08:11
1	Zn 213.857†	51722.2	50370.6	500.74	ug/L	500.74	ppb	14:08:11
1	SiO2†	78952.9	77189.5	5289.9	ug/L	5289.9	ppb	14:09:39
2	Sc Radial	3957.6	3957.6	93.0	%			14:07:34
2	Y RADIAL	4411.2	4411.2	94.01	%			14:07:14
2	Al 396.153Radial†	5195.9	5695.2	5133.3	ug/L	5133.3	ppb	14:07:14
2	Ca 317.933Radial†	2518.0	2690.8	5353.5	ug/L	5353.5	ppb	14:07:34
2	Fe 238.204 Radial†	393.7	413.0	5335.6	ug/L	5335.6	ppb	14:07:34
2	K 766.490 Radial†	28366.0	27930.4	5218.8	ug/L	5218.8	ppb	14:07:14
2	Mg 279.077 IEC†	114.0	119.7	5441.2	ug/L	5441.2	ppb	14:07:34
2	Na 589.592 Radial†	32484.4	35653.8	10347	ug/L	10347	ppb	14:07:14
2	Sr 421.552†	72022.4	77371.1	512.77	ug/L	512.77	ppb	14:07:14
2	Sc 361.383	910791.4	910791.4	101.19	%			14:08:37
2	Y 371.029	757662.9	757662.9	99.373	%			14:08:37

2	Ag 328.068†	109694.8	108173.4	499.94 ug/L	499.94 ppb	14:08:42
2	As 188.979†	1129.7	1137.0	516.72 ug/L	516.72 ppb	14:09:02
2	B 249.677†	20047.8	20184.6	479.41 ug/L	479.41 ppb	14:08:42
2	Ba 233.527†	64608.4	63856.5	500.03 ug/L	500.03 ppb	14:08:42
2	Be 313.107†	1347737.4	1335715.6	498.88 ug/L	498.88 ppb	14:08:37
2	Cd 226.502†	43886.6	43553.0	505.39 ug/L	505.39 ppb	14:08:42
2	Co 228.616†	24294.0	24069.7	503.35 ug/L	503.35 ppb	14:08:42
2	Cr 267.716†	45099.4	44502.2	500.14 ug/L	500.14 ppb	14:08:42
2	Cu 324.752†	170318.8	162235.5	487.19 ug/L	487.19 ppb	14:08:42
2	Mn 257.610†	451433.5	445679.2	499.99 ug/L	499.99 ppb	14:08:37
2	Mo 202.031†	6995.1	6906.6	505.92 ug/L	505.92 ppb	14:09:02
2	Ni 231.604†	20212.0	19921.6	506.06 ug/L	506.06 ppb	14:08:42
2	P 214.914†	4450.6	4196.1	2451.2 ug/L	2451.2 ppb	14:09:02
2	Pb 220.353†	4091.9	4108.7	510.65 ug/L	510.65 ppb	14:09:02
2	S 181.975 Axial†	750.5	704.7	1031.3 ug/L	1031.3 ppb	14:09:02
2	Sb 206.836†	1514.2	1459.7	527.18 ug/L	527.18 ppb	14:09:02
2	Se 196.026†	747.7	759.6	518.95 ug/L	518.95 ppb	14:09:02
2	Si 251.611†	78932.0	77468.1	2478.9 ug/L	2478.9 ppb	14:08:42
2	Sn 189.927†	2884.3	2839.9	514.42 ug/L	514.42 ppb	14:09:02
2	Ti 334.940†	321112.0	318611.4	481.76 ug/L	481.76 ppb	14:08:42
2	Tl 190.801†	1561.4	1574.2	508.44 ug/L	508.44 ppb	14:09:02
2	U 409.014†	15142.4	17780.3	478.71 ug/L	478.71 ppb	14:08:42
2	V 292.402†	70461.2	71061.7	500.05 ug/L	500.05 ppb	14:08:42
2	Zn 213.857†	51166.5	50006.1	497.09 ug/L	497.09 ppb	14:08:42
2	SiO2†	78594.8	77117.6	5284.9 ug/L	5284.9 ppb	14:09:44
3	Sc Radial	3942.9	3942.9	92.7 %		14:07:59
3	Y RADIAL	4535.9	4535.9	96.67 %		14:07:39
3	Al 396.153Radial†	5342.9	5874.6	5296.3 ug/L	5296.3 ppb	14:07:39
3	Ca 317.933Radial†	2525.7	2709.2	5390.2 ug/L	5390.2 ppb	14:07:59
3	Fe 238.204 Radial†	393.9	414.7	5358.0 ug/L	5358.0 ppb	14:07:59
3	K 766.490 Radial†	29252.2	29000.1	5418.7 ug/L	5418.7 ppb	14:07:39
3	Mg 279.077 IEC†	118.1	124.7	5666.9 ug/L	5666.9 ppb	14:07:59
3	Na 589.592 Radial†	33802.1	37205.5	10797 ug/L	10797 ppb	14:07:39
3	Sr 421.552†	74499.3	80331.9	532.39 ug/L	532.39 ppb	14:07:39
3	Sc 361.383	925606.5	925606.5	102.84 %		14:09:08
3	Y 371.029	769215.3	769215.3	100.89 %		14:09:08
3	Ag 328.068†	110593.2	107311.9	495.99 ug/L	495.99 ppb	14:09:13
3	As 188.979†	1117.5	1107.2	503.30 ug/L	503.30 ppb	14:09:33
3	B 249.677†	20384.1	20194.5	479.65 ug/L	479.65 ppb	14:09:13
3	Ba 233.527†	65176.5	63387.0	496.36 ug/L	496.36 ppb	14:09:13
3	Be 313.107†	1371389.2	1337397.2	499.50 ug/L	499.50 ppb	14:09:08
3	Cd 226.502†	44441.2	43398.1	503.59 ug/L	503.59 ppb	14:09:13
3	Co 228.616†	24552.1	23936.5	500.54 ug/L	500.54 ppb	14:09:13
3	Cr 267.716†	45490.0	44168.7	496.40 ug/L	496.40 ppb	14:09:13
3	Cu 324.752†	172047.6	161222.6	484.16 ug/L	484.16 ppb	14:09:13
3	Mn 257.610†	459168.9	446060.7	500.41 ug/L	500.41 ppb	14:09:08
3	Mo 202.031†	6956.3	6758.3	495.07 ug/L	495.07 ppb	14:09:33
3	Ni 231.604†	20302.8	19690.2	500.18 ug/L	500.18 ppb	14:09:13
3	P 214.914†	4434.3	4109.9	2399.4 ug/L	2399.4 ppb	14:09:33
3	Pb 220.353†	4078.6	4031.0	501.03 ug/L	501.03 ppb	14:09:33
3	S 181.975 Axial†	747.4	689.8	1009.5 ug/L	1009.5 ppb	14:09:33
3	Sb 206.836†	1501.6	1423.4	514.15 ug/L	514.15 ppb	14:09:33
3	Se 196.026†	750.4	750.4	512.91 ug/L	512.91 ppb	14:09:33
3	Si 251.611†	79726.0	76991.7	2463.8 ug/L	2463.8 ppb	14:09:13
3	Sn 189.927†	2874.4	2784.6	504.42 ug/L	504.42 ppb	14:09:33
3	Ti 334.940†	324431.5	316760.2	478.95 ug/L	478.95 ppb	14:09:13
3	Tl 190.801†	1550.0	1538.5	496.96 ug/L	496.96 ppb	14:09:33
3	U 409.014†	15127.1	17525.9	471.85 ug/L	471.85 ppb	14:09:13
3	V 292.402†	71243.7	70708.1	497.43 ug/L	497.43 ppb	14:09:13
3	Zn 213.857†	51741.8	49756.3	494.62 ug/L	494.62 ppb	14:09:13
3	SiO2†	78845.8	76118.5	5216.5 ug/L	5216.5 ppb	14:09:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	916830.6	101.86	%	0.864				0.85%
Sc Radial	3957.3	93.0	%	0.33				0.36%
Y 371.029	762287.2	99.980	%	0.8015				0.80%
Y RADIAL	4478.2	95.44	%	1.340				1.40%
Ag 328.068†	108091.0	499.56	ug/L	3.403	499.56	ppb	3.403	0.68%

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   QC value within limits for Ag 328.068  Recovery = 99.91%
Al 396.153Radial†       5788.2      5217.7 ug/L        81.65      5217.7 ppb          81.65   1.56%
   QC value within limits for Al 396.153Radial  Recovery = 104.35%
As 188.979†             1120.9      509.48 ug/L        6.769      509.48 ppb          6.769   1.33%
   QC value within limits for As 188.979  Recovery = 101.90%
B 249.677†             20280.0      481.69 ug/L        3.737      481.69 ppb          3.737   0.78%
   QC value within limits for B 249.677  Recovery = 96.34%
Ba 233.527†            63840.2      499.91 ug/L        3.483      499.91 ppb          3.483   0.70%
   QC value within limits for Ba 233.527  Recovery = 99.98%
Be 313.107†          1336156.3      499.04 ug/L        0.400      499.04 ppb          0.400   0.08%
   QC value within limits for Be 313.107  Recovery = 99.81%
Ca 317.933Radial†       2701.5      5374.8 ug/L        19.04      5374.8 ppb          19.04   0.35%
   QC value within limits for Ca 317.933Radial  Recovery = 107.50%
Cd 226.502†            43597.6      505.91 ug/L        2.619      505.91 ppb          2.619   0.52%
   QC value within limits for Cd 226.502  Recovery = 101.18%
Co 228.616†            24070.7      503.36 ug/L        2.818      503.36 ppb          2.818   0.56%
   QC value within limits for Co 228.616  Recovery = 100.67%
Cr 267.716†            44469.5      499.78 ug/L        3.205      499.78 ppb          3.205   0.64%
   QC value within limits for Cr 267.716  Recovery = 99.96%
Cu 324.752†           162410.9      487.72 ug/L        3.854      487.72 ppb          3.854   0.79%
   QC value within limits for Cu 324.752  Recovery = 97.54%
Fe 238.204 Radial†       412.9      5335.0 ug/L        23.37      5335.0 ppb          23.37   0.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.70%
K 766.490 Radial†      28454.4      5316.7 ug/L       100.04      5316.7 ppb         100.04   1.88%
   QC value within limits for K 766.490 Radial  Recovery = 106.33%
Mg 279.077 IEC†          121.3      5514.3 ug/L       132.23      5514.3 ppb         132.23   2.40%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.29%
Mn 257.610†           446267.0      500.65 ug/L        0.800      500.65 ppb          0.800   0.16%
   QC value within limits for Mn 257.610  Recovery = 100.13%
Mo 202.031†             6840.7      501.10 ug/L        5.525      501.10 ppb          5.525   1.10%
   QC value within limits for Mo 202.031  Recovery = 100.22%
Na 589.592 Radial†     36515.5       10597 ug/L        229.3       10597 ppb          229.3   2.16%
   QC value within limits for Na 589.592 Radial  Recovery = 105.97%
Ni 231.604†            19847.8      504.19 ug/L        3.471      504.19 ppb          3.471   0.69%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†              4164.1      2431.6 ug/L        28.11      2431.6 ppb          28.11   1.16%
   QC value within limits for P 214.914  Recovery = 97.27%
Pb 220.353†             4065.0      505.23 ug/L        4.923      505.23 ppb          4.923   0.97%
   QC value within limits for Pb 220.353  Recovery = 101.05%
S 181.975 Axial†         698.8      1022.7 ug/L        11.64      1022.7 ppb          11.64   1.14%
   QC value within limits for S 181.975 Axial  Recovery = 102.27%
Sb 206.836†             1444.3      521.61 ug/L        6.719      521.61 ppb          6.719   1.29%
   QC value within limits for Sb 206.836  Recovery = 104.32%
Se 196.026†              758.9      518.46 ug/L        5.329      518.46 ppb          5.329   1.03%
   QC value within limits for Se 196.026  Recovery = 103.69%
Si 251.611†            77510.9      2480.4 ug/L        17.34      2480.4 ppb          17.34   0.70%
   QC value within limits for Si 251.611  Recovery = 99.22%
Sn 189.927†             2809.2      508.86 ug/L        5.091      508.86 ppb          5.091   1.00%
   QC value within limits for Sn 189.927  Recovery = 101.77%
Sr 421.552†            78945.1      523.20 ug/L        9.870      523.20 ppb          9.870   1.89%
   QC value within limits for Sr 421.552  Recovery = 104.64%
Ti 334.940†           318743.2      481.96 ug/L        3.108      481.96 ppb          3.108   0.64%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†             1560.1      503.90 ug/L        6.103      503.90 ppb          6.103   1.21%
   QC value within limits for Tl 190.801  Recovery = 100.78%
U 409.014†             17777.8      478.65 ug/L        6.767      478.65 ppb          6.767   1.41%
   QC value within limits for U 409.014  Recovery = 95.73%
V 292.402†             71096.7      500.23 ug/L        2.884      500.23 ppb          2.884   0.58%
   QC value within limits for V 292.402  Recovery = 100.05%
Zn 213.857†            50044.3      497.48 ug/L        3.080      497.48 ppb          3.080   0.62%
   QC value within limits for Zn 213.857  Recovery = 99.50%
SiO2†                  76808.5      5263.8 ug/L        41.00      5263.8 ppb          41.00   0.78%
   QC value within limits for SiO2  Recovery = 98.43%
QC Failed.  Continue with analysis.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 14:11:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3964.8	3964.8	93.2	%			14:14:12
1	Y RADIAL	4413.8	4413.8	94.07	%			14:13:52
1	Al 396.153Radial†	-101.8	1.6	1.4322	ug/L	1.4322	ppb	14:13:52
1	Ca 317.933Radial†	22.9	9.1	18.165	ug/L	18.165	ppb	14:14:12
1	Fe 238.204 Radial†	10.4	0.9	12.003	ug/L	12.003	ppb	14:14:12
1	K 766.490 Radial†	2572.5	203.0	37.982	ug/L	37.982	ppb	14:13:52
1	Mg 279.077 IEC†	3.0	0.5	21.341	ug/L	21.341	ppb	14:14:12
1	Na 589.592 Radial†	-714.3	-26.0	-7.5426	ug/L	-7.5426	ppb	14:13:52
1	Sr 421.552†	33.1	-1.2	-0.0084	ug/L	-0.0084	ppb	14:13:52
1	Sc 361.383	904845.5	904845.5	100.53	%			14:15:09
1	Y 371.029	762943.6	762943.6	100.07	%			14:15:09
1	Ag 328.068†	320.4	89.4	0.4142	ug/L	0.4142	ppb	14:15:14
1	As 188.979†	-19.9	0.7	0.3360	ug/L	0.3360	ppb	14:15:34
1	B 249.677†	-454.0	-78.7	-1.8792	ug/L	-1.8792	ppb	14:15:34
1	Ba 233.527†	4.6	13.7	0.1070	ug/L	0.1070	ppb	14:15:34
1	Be 313.107†	-3951.2	-77.0	-0.0291	ug/L	-0.0291	ppb	14:15:14
1	Cd 226.502†	-194.9	-10.6	-0.1244	ug/L	-0.1244	ppb	14:15:34
1	Co 228.616†	-64.6	-2.3	-0.0472	ug/L	-0.0472	ppb	14:15:34
1	Cr 267.716†	90.2	23.7	0.2673	ug/L	0.2673	ppb	14:15:34
1	Cu 324.752†	6036.1	-72.9	-0.2177	ug/L	-0.2177	ppb	14:15:14
1	Mn 257.610†	465.6	26.3	0.0298	ug/L	0.0298	ppb	14:15:34
1	Mo 202.031†	11.5	5.3	0.3926	ug/L	0.3926	ppb	14:15:34
1	Ni 231.604†	52.6	-0.0	-0.0001	ug/L	-0.0001	ppb	14:15:34
1	P 214.914†	214.7	11.6	7.0601	ug/L	7.0601	ppb	14:15:34
1	Pb 220.353†	-54.5	10.9	1.3466	ug/L	1.3466	ppb	14:15:34
1	S 181.975 Axial†	40.2	2.9	4.2592	ug/L	4.2592	ppb	14:15:34
1	Sb 206.836†	45.4	8.5	2.9843	ug/L	2.9843	ppb	14:15:34
1	Se 196.026†	-23.2	-2.4	-1.5600	ug/L	-1.5600	ppb	14:15:34
1	Si 251.611†	547.5	10.5	0.3306	ug/L	0.3306	ppb	14:15:34
1	Sn 189.927†	16.5	5.9	1.0780	ug/L	1.0780	ppb	14:15:34
1	Ti 334.940†	-1401.5	-112.3	-0.1686	ug/L	-0.1686	ppb	14:15:14
1	Tl 190.801†	-42.9	-11.4	-3.6737	ug/L	-3.6737	ppb	14:15:34
1	U 409.014†	-2881.1	-49.7	-1.3438	ug/L	-1.3438	ppb	14:15:09
1	V 292.402†	-1463.7	-25.6	-0.1758	ug/L	-0.1758	ppb	14:15:14
1	Zn 213.857†	610.5	49.6	0.4963	ug/L	0.4963	ppb	14:15:34
1	SiO2†	547.9	-6.5	-0.4576	ug/L	-0.4576	ppb	14:16:40
2	Sc Radial	3929.9	3929.9	92.4	%			14:14:37
2	Y RADIAL	4523.8	4523.8	96.41	%			14:14:17
2	Al 396.153Radial†	-110.1	-8.4	-7.6239	ug/L	-7.6239	ppb	14:14:17
2	Ca 317.933Radial†	15.5	1.3	2.6435	ug/L	2.6435	ppb	14:14:37
2	Fe 238.204 Radial†	10.5	1.2	15.359	ug/L	15.359	ppb	14:14:37
2	K 766.490 Radial†	2796.6	470.1	87.960	ug/L	87.960	ppb	14:14:17
2	Mg 279.077 IEC†	3.8	1.4	63.946	ug/L	63.946	ppb	14:14:37
2	Na 589.592 Radial†	-768.7	-91.7	-26.598	ug/L	-26.598	ppb	14:14:17
2	Sr 421.552†	42.8	9.6	0.0633	ug/L	0.0633	ppb	14:14:17
2	Sc 361.383	915627.4	915627.4	101.73	%			14:15:39
2	Y 371.029	773618.2	773618.2	101.47	%			14:15:39
2	Ag 328.068†	211.0	-21.9	-0.0958	ug/L	-0.0958	ppb	14:15:44
2	As 188.979†	-27.6	-6.6	-2.9747	ug/L	-2.9747	ppb	14:16:04
2	B 249.677†	-454.3	-73.7	-1.7605	ug/L	-1.7605	ppb	14:16:04
2	Ba 233.527†	-3.8	5.4	0.0423	ug/L	0.0423	ppb	14:16:04
2	Be 313.107†	-3848.3	70.4	0.0257	ug/L	0.0257	ppb	14:15:44
2	Cd 226.502†	-196.7	-10.1	-0.1188	ug/L	-0.1188	ppb	14:16:04
2	Co 228.616†	-62.0	1.0	0.0238	ug/L	0.0238	ppb	14:16:04
2	Cr 267.716†	63.9	-3.1	-0.0334	ug/L	-0.0334	ppb	14:16:04
2	Cu 324.752†	6133.5	-47.9	-0.1422	ug/L	-0.1422	ppb	14:15:44
2	Mn 257.610†	461.6	16.9	0.0179	ug/L	0.0179	ppb	14:16:04
2	Mo 202.031†	20.4	14.0	1.0257	ug/L	1.0257	ppb	14:16:04
2	Ni 231.604†	45.6	-7.5	-0.1900	ug/L	-0.1900	ppb	14:16:04

2	P 214.914†	200.4	-5.0	-3.0207	ug/L	-3.0207 ppb	14:16:04
2	Pb 220.353†	-45.0	20.8	2.5794	ug/L	2.5794 ppb	14:16:04
2	S 181.975 Axial†	40.9	3.2	4.6367	ug/L	4.6367 ppb	14:16:04
2	Sb 206.836†	43.4	6.0	2.1271	ug/L	2.1271 ppb	14:16:04
2	Se 196.026†	-15.4	5.5	3.7094	ug/L	3.7094 ppb	14:16:04
2	Si 251.611†	560.2	16.5	0.5172	ug/L	0.5172 ppb	14:16:04
2	Sn 189.927†	21.3	10.5	1.8984	ug/L	1.8984 ppb	14:16:04
2	Ti 334.940†	-1476.8	-169.9	-0.2610	ug/L	-0.2610 ppb	14:15:44
2	Tl 190.801†	-37.6	-5.8	-1.8480	ug/L	-1.8480 ppb	14:16:04
2	U 409.014†	-2927.3	-61.3	-1.6589	ug/L	-1.6589 ppb	14:15:39
2	V 292.402†	-1493.8	-38.0	-0.2531	ug/L	-0.2531 ppb	14:15:44
2	Zn 213.857†	612.7	44.6	0.4464	ug/L	0.4464 ppb	14:16:04
2	SiO2†	536.1	-24.5	-1.7146	ug/L	-1.7146 ppb	14:16:45
3	Sc Radial	3967.7	3967.7	93.3	%		14:15:02
3	Y RADIAL	4472.1	4472.1	95.31	%		14:14:42
3	Al 396.153Radial†	-114.7	-12.2	-11.094	ug/L	-11.094 ppb	14:14:42
3	Ca 317.933Radial†	21.9	8.0	15.983	ug/L	15.983 ppb	14:15:02
3	Fe 238.204 Radial†	10.2	0.8	10.200	ug/L	10.200 ppb	14:15:02
3	K 766.490 Radial†	2645.4	279.2	52.236	ug/L	52.236 ppb	14:14:42
3	Mg 279.077 IEC†	4.3	1.8	83.555	ug/L	83.555 ppb	14:15:02
3	Na 589.592 Radial†	-701.2	-11.4	-3.3011	ug/L	-3.3011 ppb	14:14:42
3	Sr 421.552†	50.5	17.4	0.1150	ug/L	0.1150 ppb	14:14:42
3	Sc 361.383	907783.6	907783.6	100.86	%		14:16:09
3	Y 371.029	766801.4	766801.4	100.57	%		14:16:09
3	Ag 328.068†	305.0	73.1	0.3381	ug/L	0.3381 ppb	14:16:14
3	As 188.979†	-26.5	-5.8	-2.5959	ug/L	-2.5959 ppb	14:16:34
3	B 249.677†	-491.0	-113.9	-2.7203	ug/L	-2.7203 ppb	14:16:34
3	Ba 233.527†	3.5	12.6	0.0976	ug/L	0.0976 ppb	14:16:34
3	Be 313.107†	-3984.4	-97.3	-0.0366	ug/L	-0.0366 ppb	14:16:14
3	Cd 226.502†	-196.2	-11.2	-0.1313	ug/L	-0.1313 ppb	14:16:34
3	Co 228.616†	-64.3	-1.8	-0.0375	ug/L	-0.0375 ppb	14:16:34
3	Cr 267.716†	81.9	15.2	0.1718	ug/L	0.1718 ppb	14:16:34
3	Cu 324.752†	6161.4	31.9	0.0973	ug/L	0.0973 ppb	14:16:14
3	Mn 257.610†	469.3	28.5	0.0295	ug/L	0.0295 ppb	14:16:34
3	Mo 202.031†	6.1	-0.0	-0.0009	ug/L	-0.0009 ppb	14:16:34
3	Ni 231.604†	33.8	-18.8	-0.4790	ug/L	-0.4790 ppb	14:16:34
3	P 214.914†	207.4	3.6	2.1870	ug/L	2.1870 ppb	14:16:34
3	Pb 220.353†	-61.1	4.5	0.5485	ug/L	0.5485 ppb	14:16:34
3	S 181.975 Axial†	43.5	6.1	8.9119	ug/L	8.9119 ppb	14:16:34
3	Sb 206.836†	36.6	-0.4	-0.1141	ug/L	-0.1141 ppb	14:16:34
3	Se 196.026†	-26.1	-5.2	-3.3809	ug/L	-3.3809 ppb	14:16:34
3	Si 251.611†	536.7	-2.0	-0.0657	ug/L	-0.0657 ppb	14:16:34
3	Sn 189.927†	15.3	4.7	0.8594	ug/L	0.8594 ppb	14:16:34
3	Ti 334.940†	-1409.4	-115.6	-0.1788	ug/L	-0.1788 ppb	14:16:14
3	Tl 190.801†	-34.3	-2.8	-0.8986	ug/L	-0.8986 ppb	14:16:34
3	U 409.014†	-2905.9	-64.9	-1.7560	ug/L	-1.7560 ppb	14:16:09
3	V 292.402†	-1512.4	-69.1	-0.4831	ug/L	-0.4831 ppb	14:16:14
3	Zn 213.857†	602.5	39.7	0.3996	ug/L	0.3996 ppb	14:16:34
3	SiO2†	572.9	16.5	1.1347	ug/L	1.1347 ppb	14:16:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909418.8	101.04	%	0.619				0.61%
Sc Radial	3954.1	93.0	%	0.49				0.53%
Y 371.029	767787.7	100.70	%	0.709				0.70%
Y RADIAL	4469.9	95.27	%	1.172				1.23%
Ag 328.068†	46.8	0.2188	ug/L	0.27512	0.2188	ppb	0.27512	125.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-5.7617	ug/L	6.46715	-5.7617	ppb	6.46715	112.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.9	-1.7449	ug/L	1.81197	-1.7449	ppb	1.81197	103.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-88.7	-2.1200	ug/L	0.52326	-2.1200	ppb	0.52326	24.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.6	0.0823	ug/L	0.03495	0.0823	ppb	0.03495	42.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-34.6	-0.0134	ug/L	0.03400	-0.0134	ppb	0.03400	254.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.2	12.264	ug/L	8.4025	12.264	ppb	8.4025	68.52%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.6     -0.1248 ug/L       0.00626     -0.1248 ppb        0.00626   5.02%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -1.0     -0.0203 ug/L       0.03853     -0.0203 ppb        0.03853 189.58%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               11.9      0.1352 ug/L       0.15362      0.1352 ppb        0.15362 113.59%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -29.7     -0.0875 ug/L       0.16446     -0.0875 ppb        0.16446 187.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.0      12.521 ug/L        2.6180      12.521 ppb         2.6180  20.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        317.5      59.393 ug/L       25.7461      59.393 ppb        25.7461  43.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.2      56.280 ug/L       31.8072      56.280 ppb        31.8072  56.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               23.9      0.0257 ug/L       0.00681      0.0257 ppb        0.00681  26.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.4      0.4724 ug/L       0.51792      0.4724 ppb        0.51792 109.63%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -43.0     -12.481 ug/L       12.4085     -12.481 ppb        12.4085  99.42%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.8     -0.2230 ug/L       0.24119     -0.2230 ppb        0.24119 108.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 3.4      2.0754 ug/L       5.04135      2.0754 ppb        5.04135 242.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               12.0      1.4915 ug/L       1.02320      1.4915 ppb        1.02320  68.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.1      5.9359 ug/L       2.58421      5.9359 ppb        2.58421  43.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.7      1.6658 ug/L       1.59989      1.6658 ppb        1.59989  96.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.7     -0.4105 ug/L       3.68225     -0.4105 ppb        3.68225 896.98%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                8.3      0.2607 ug/L       0.29769      0.2607 ppb        0.29769 114.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.1      1.2786 ug/L       0.54779      1.2786 ppb        0.54779  42.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                8.6      0.0567 ug/L       0.06195      0.0567 ppb        0.06195 109.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -132.6     -0.2028 ug/L       0.05067     -0.2028 ppb        0.05067  24.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -6.7     -2.1401 ug/L       1.41041     -2.1401 ppb        1.41041  65.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -58.6     -1.5862 ug/L       0.21549     -1.5862 ppb        0.21549  13.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -44.2     -0.3040 ug/L       0.15989     -0.3040 ppb        0.15989  52.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               44.6      0.4475 ug/L       0.04834      0.4475 ppb        0.04834  10.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -4.8     -0.3459 ug/L       1.42794     -0.3459 ppb        1.42794 412.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 1202030969|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 2/23/2010 14:19:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030969|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4106.5	4106.5	96.5	%			14:20:52
1	Y RADIAL	4584.2	4584.2	97.70	%			14:20:52
1	Al 396.153Radial†	-112.1	-5.4	-4.8358	ug/L	-4.8358	ppb	14:20:52
1	Ca 317.933Radial†	30.9	16.6	32.951	ug/L	32.951	ppb	14:21:12
1	Fe 238.204 Radial†	13.9	4.2	54.698	ug/L	54.698	ppb	14:21:12
1	K 766.490 Radial†	2624.0	161.2	30.136	ug/L	30.136	ppb	14:20:52
1	Mg 279.077 IEC†	2.4	-0.3	-13.344	ug/L	-13.344	ppb	14:21:12
1	Na 589.592 Radial†	-618.7	99.5	28.864	ug/L	28.864	ppb	14:20:52
1	Sr 421.552†	64.3	29.8	0.1973	ug/L	0.1973	ppb	14:20:52
1	Sc 361.383	912325.4	912325.4	101.36	%			14:22:09
1	Y 371.029	768422.7	768422.7	100.78	%			14:22:09
1	Ag 328.068†	304.1	70.7	0.3394	ug/L	0.3394	ppb	14:22:14
1	As 188.979†	-16.7	4.0	1.8214	ug/L	1.8214	ppb	14:22:34
1	B 249.677†	-492.1	-112.5	-2.6935	ug/L	-2.6935	ppb	14:22:34
1	Ba 233.527†	22.1	31.0	0.2433	ug/L	0.2433	ppb	14:22:34
1	Be 313.107†	-3841.2	63.6	0.0241	ug/L	0.0241	ppb	14:22:14
1	Cd 226.502†	-176.5	9.2	0.1012	ug/L	0.1012	ppb	14:22:34
1	Co 228.616†	-86.6	-23.5	-0.4938	ug/L	-0.4938	ppb	14:22:34
1	Cr 267.716†	125.2	57.5	0.6493	ug/L	0.6493	ppb	14:22:34
1	Cu 324.752†	6067.4	-91.3	-0.2720	ug/L	-0.2720	ppb	14:22:14
1	Mn 257.610†	818.9	371.0	0.4219	ug/L	0.4219	ppb	14:22:34
1	Mo 202.031†	-1.2	-7.2	-0.5253	ug/L	-0.5253	ppb	14:22:34
1	Ni 231.604†	71.4	18.1	0.4604	ug/L	0.4604	ppb	14:22:34
1	P 214.914†	206.4	1.6	0.9865	ug/L	0.9865	ppb	14:22:34
1	Pb 220.353†	-60.1	5.8	0.7075	ug/L	0.7075	ppb	14:22:34
1	S 181.975 Axial†	40.6	3.0	4.3732	ug/L	4.3732	ppb	14:22:34
1	Sb 206.836†	50.5	13.2	4.5886	ug/L	4.5886	ppb	14:22:34
1	Se 196.026†	-22.7	-1.7	-0.9449	ug/L	-0.9449	ppb	14:22:34
1	Si 251.611†	934.9	388.2	12.459	ug/L	12.459	ppb	14:22:34
1	Sn 189.927†	13.9	3.3	0.5939	ug/L	0.5939	ppb	14:22:34
1	Ti 334.940†	-1198.6	99.3	0.1548	ug/L	0.1548	ppb	14:22:14
1	Tl 190.801†	-36.3	-4.6	-1.4619	ug/L	-1.4619	ppb	14:22:34
1	U 409.014†	-2798.1	55.8	1.5001	ug/L	1.5001	ppb	14:22:09
1	V 292.402†	-1467.8	-17.7	-0.1360	ug/L	-0.1360	ppb	14:22:14
1	Zn 213.857†	782.3	214.1	2.1373	ug/L	2.1373	ppb	14:22:34
1	SiO2†	988.8	424.1	29.151	ug/L	29.151	ppb	14:23:40
2	Sc Radial	4146.2	4146.2	97.5	%			14:21:17
2	Y RADIAL	4520.1	4520.1	96.33	%			14:21:17
2	Al 396.153Radial†	-124.2	-16.7	-15.107	ug/L	-15.107	ppb	14:21:17
2	Ca 317.933Radial†	30.3	15.6	31.045	ug/L	31.045	ppb	14:21:37
2	Fe 238.204 Radial†	17.0	7.2	92.914	ug/L	92.914	ppb	14:21:37
2	K 766.490 Radial†	2613.8	124.7	23.323	ug/L	23.323	ppb	14:21:17
2	Mg 279.077 IEC†	4.2	1.5	70.172	ug/L	70.172	ppb	14:21:37
2	Na 589.592 Radial†	-703.2	18.9	5.4986	ug/L	5.4986	ppb	14:21:17
2	Sr 421.552†	38.8	3.0	0.0195	ug/L	0.0195	ppb	14:21:17
2	Sc 361.383	903813.0	903813.0	100.42	%			14:22:39
2	Y 371.029	762572.0	762572.0	100.02	%			14:22:39
2	Ag 328.068†	309.9	79.3	0.3876	ug/L	0.3876	ppb	14:22:44
2	As 188.979†	-14.8	5.8	2.6422	ug/L	2.6422	ppb	14:23:05
2	B 249.677†	-498.3	-123.3	-2.9568	ug/L	-2.9568	ppb	14:23:05
2	Ba 233.527†	26.1	35.1	0.2768	ug/L	0.2768	ppb	14:23:05
2	Be 313.107†	-3844.7	24.5	0.0096	ug/L	0.0096	ppb	14:22:44
2	Cd 226.502†	-178.2	5.9	0.0599	ug/L	0.0599	ppb	14:23:05
2	Co 228.616†	-57.6	4.5	0.0936	ug/L	0.0936	ppb	14:23:05
2	Cr 267.716†	106.2	39.8	0.4531	ug/L	0.4531	ppb	14:23:05
2	Cu 324.752†	6068.6	-33.7	-0.0990	ug/L	-0.0990	ppb	14:22:44
2	Mn 257.610†	827.9	387.6	0.4409	ug/L	0.4409	ppb	14:23:05
2	Mo 202.031†	12.4	6.3	0.4683	ug/L	0.4683	ppb	14:23:05
2	Ni 231.604†	67.8	15.2	0.3855	ug/L	0.3855	ppb	14:23:05

2	P 214.914†	220.6	17.7	10.692 ug/L	10.692 ppb	14:23:05
2	Pb 220.353†	-44.4	20.8	2.5710 ug/L	2.5710 ppb	14:23:05
2	S 181.975 Axial†	48.3	11.1	16.218 ug/L	16.218 ppb	14:23:05
2	Sb 206.836†	46.6	9.7	3.4226 ug/L	3.4226 ppb	14:23:05
2	Se 196.026†	-22.5	-1.7	-0.8458 ug/L	-0.8458 ppb	14:23:05
2	Si 251.611†	962.6	424.5	13.611 ug/L	13.611 ppb	14:23:05
2	Sn 189.927†	21.9	11.4	2.0597 ug/L	2.0597 ppb	14:23:05
2	Ti 334.940†	-1145.9	140.7	0.2088 ug/L	0.2088 ppb	14:22:44
2	Tl 190.801†	-33.7	-2.4	-0.7528 ug/L	-0.7528 ppb	14:23:05
2	U 409.014†	-2640.8	186.4	5.0256 ug/L	5.0256 ppb	14:22:39
2	V 292.402†	-1460.1	-23.6	-0.1600 ug/L	-0.1600 ppb	14:22:44
2	Zn 213.857†	774.9	214.0	2.1312 ug/L	2.1312 ppb	14:23:05
2	SiO2†	965.8	410.2	28.175 ug/L	28.175 ppb	14:23:45
3	Sc Radial	4033.9	4033.9	94.8 %		14:21:43
3	Y RADIAL	4454.0	4454.0	94.93 %		14:21:43
3	Al 396.153Radial†	-116.9	-12.5	-11.364 ug/L	-11.364 ppb	14:21:43
3	Ca 317.933Radial†	30.0	16.1	32.115 ug/L	32.115 ppb	14:22:03
3	Fe 238.204 Radial†	16.1	6.8	87.863 ug/L	87.863 ppb	14:22:03
3	K 766.490 Radial†	2660.8	248.9	46.555 ug/L	46.555 ppb	14:21:43
3	Mg 279.077 IEC†	1.8	-0.9	-40.071 ug/L	-40.071 ppb	14:22:03
3	Na 589.592 Radial†	-666.1	38.0	11.038 ug/L	11.038 ppb	14:21:43
3	Sr 421.552†	89.3	57.3	0.3799 ug/L	0.3799 ppb	14:21:43
3	Sc 361.383	916225.4	916225.4	101.80 %		14:23:10
3	Y 371.029	773226.3	773226.3	101.41 %		14:23:10
3	Ag 328.068†	270.9	36.8	0.1947 ug/L	0.1947 ppb	14:23:15
3	As 188.979†	-20.1	0.8	0.3770 ug/L	0.3770 ppb	14:23:35
3	B 249.677†	-526.4	-144.1	-3.4550 ug/L	-3.4550 ppb	14:23:35
3	Ba 233.527†	18.4	27.2	0.2159 ug/L	0.2159 ppb	14:23:35
3	Be 313.107†	-3922.6	-0.1	0.0006 ug/L	0.0006 ppb	14:23:15
3	Cd 226.502†	-185.8	0.8	0.0014 ug/L	0.0014 ppb	14:23:35
3	Co 228.616†	-53.8	9.1	0.1895 ug/L	0.1895 ppb	14:23:35
3	Cr 267.716†	107.1	39.2	0.4472 ug/L	0.4472 ppb	14:23:35
3	Cu 324.752†	6178.5	-7.6	-0.0201 ug/L	-0.0201 ppb	14:23:15
3	Mn 257.610†	843.1	391.3	0.4491 ug/L	0.4491 ppb	14:23:35
3	Mo 202.031†	14.5	8.2	0.6062 ug/L	0.6062 ppb	14:23:35
3	Ni 231.604†	73.3	19.7	0.5007 ug/L	0.5007 ppb	14:23:35
3	P 214.914†	211.3	5.5	3.3109 ug/L	3.3109 ppb	14:23:35
3	Pb 220.353†	-57.5	8.5	1.0467 ug/L	1.0467 ppb	14:23:35
3	S 181.975 Axial†	48.1	10.3	15.032 ug/L	15.032 ppb	14:23:35
3	Sb 206.836†	40.6	3.2	1.1510 ug/L	1.1510 ppb	14:23:35
3	Se 196.026†	-28.1	-6.9	-4.2733 ug/L	-4.2733 ppb	14:23:35
3	Si 251.611†	981.4	429.9	13.785 ug/L	13.785 ppb	14:23:35
3	Sn 189.927†	22.5	11.7	2.1156 ug/L	2.1156 ppb	14:23:35
3	Ti 334.940†	-1106.2	195.2	0.3011 ug/L	0.3011 ppb	14:23:15
3	Tl 190.801†	-44.2	-12.2	-3.9268 ug/L	-3.9268 ppb	14:23:35
3	U 409.014†	-2739.9	124.7	3.3575 ug/L	3.3575 ppb	14:23:10
3	V 292.402†	-1389.1	65.9	0.4581 ug/L	0.4581 ppb	14:23:15
3	Zn 213.857†	771.9	200.6	1.9968 ug/L	1.9968 ppb	14:23:35
3	SiO2†	1038.9	469.1	32.215 ug/L	32.215 ppb	14:23:50

Mean Data: 1202030969|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910787.9	101.19	%	0.705				0.70%
Sc Radial	4095.5	96.3	%	1.34				1.39%
Y 371.029	768073.6	100.74	%	0.700				0.69%
Y RADIAL	4519.4	96.32	%	1.387				1.44%
Ag 328.068†	62.3	0.3072	ug/L	0.10040	0.3072	ppb	0.10040	32.68%
Al 396.153Radial†	-11.5	-10.436	ug/L	5.1983	-10.436	ppb	5.1983	49.81%
As 188.979†	3.5	1.6136	ug/L	1.14684	1.6136	ppb	1.14684	71.08%
B 249.677†	-126.6	-3.0351	ug/L	0.38672	-3.0351	ppb	0.38672	12.74%
Ba 233.527†	31.1	0.2454	ug/L	0.03048	0.2454	ppb	0.03048	12.43%
Be 313.107†	29.3	0.0114	ug/L	0.01182	0.0114	ppb	0.01182	103.41%
Ca 317.933Radial†	16.1	32.037	ug/L	0.9556	32.037	ppb	0.9556	2.98%
Cd 226.502†	5.3	0.0542	ug/L	0.05013	0.0542	ppb	0.05013	92.58%
Co 228.616†	-3.3	-0.0703	ug/L	0.36994	-0.0703	ppb	0.36994	526.56%
Cr 267.716†	45.5	0.5165	ug/L	0.11503	0.5165	ppb	0.11503	22.27%
Cu 324.752†	-44.2	-0.1304	ug/L	0.12885	-0.1304	ppb	0.12885	98.82%
Fe 238.204 Radial†	6.1	78.491	ug/L	20.7601	78.491	ppb	20.7601	26.45%
K 766.490 Radial†	178.3	33.338	ug/L	11.9421	33.338	ppb	11.9421	35.82%

Mg 279.077 IEC†	0.1	5.5853 ug/L	57.50770	5.5853 ppb	57.50770	>999.9%
Mn 257.610†	383.3	0.4373 ug/L	0.01393	0.4373 ppb	0.01393	3.19%
Mo 202.031†	2.4	0.1831 ug/L	0.61735	0.1831 ppb	0.61735	337.24%
Na 589.592 Radial†	52.1	15.134 ug/L	12.2094	15.134 ppb	12.2094	80.68%
Ni 231.604†	17.7	0.4489 ug/L	0.05847	0.4489 ppb	0.05847	13.03%
P 214.914†	8.3	4.9963 ug/L	5.06736	4.9963 ppb	5.06736	101.42%
Pb 220.353†	11.7	1.4417 ug/L	0.99258	1.4417 ppb	0.99258	68.85%
S 181.975 Axial†	8.1	11.874 ug/L	6.5233	11.874 ppb	6.5233	54.94%
Sb 206.836†	8.7	3.0541 ug/L	1.74816	3.0541 ppb	1.74816	57.24%
Se 196.026†	-3.4	-2.0213 ug/L	1.95091	-2.0213 ppb	1.95091	96.52%
Si 251.611†	414.2	13.285 ug/L	0.7209	13.285 ppb	0.7209	5.43%
Sn 189.927†	8.8	1.5897 ug/L	0.86284	1.5897 ppb	0.86284	54.28%
Sr 421.552†	30.0	0.1989 ug/L	0.18020	0.1989 ppb	0.18020	90.62%
Ti 334.940†	145.0	0.2216 ug/L	0.07398	0.2216 ppb	0.07398	33.39%
Tl 190.801†	-6.4	-2.0472 ug/L	1.66598	-2.0472 ppb	1.66598	81.38%
U 409.014†	122.3	3.2944 ug/L	1.76360	3.2944 ppb	1.76360	53.53%
V 292.402†	8.2	0.0540 ug/L	0.35014	0.0540 ppb	0.35014	648.05%
Zn 213.857†	209.6	2.0884 ug/L	0.07943	2.0884 ppb	0.07943	3.80%
SiO2†	434.5	29.847 ug/L	2.1085	29.847 ppb	2.1085	7.06%

Sequence No.: 4
Sample ID: 1202030974|948071|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 2/23/2010 14:26:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030974|948071|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4220.3	4220.3	99.2	%			14:28:14
1	Y RADIAL	5124.8	5124.8	109.2	%			14:28:14
1	Al 396.153Radial†	98662.2	99549.6	90134	ug/L	90134	ppb	14:27:54
1	Ca 317.933Radial†	50202.9	50582.7	100640	ug/L	100640	ppb	14:27:54
1	Fe 238.204 Radial†	13818.0	13916.6	179320	ug/L	179320	ppb	14:28:14
1	K 766.490 Radial†	226481.1	225707.1	42187	ug/L	42187	ppb	14:27:54
1	Mg 279.077 IEC†	845.7	849.6	38433	ug/L	38433	ppb	14:28:14
1	Na 589.592 Radial†	34391.2	35402.2	10274	ug/L	10274	ppb	14:27:54
1	Sr 421.552†	334373.4	336968.8	2232.6	ug/L	2232.6	ppb	14:27:54
1	Sc 361.383	913157.9	913157.9	101.45	%			14:29:15
1	Y 371.029	835696.6	835696.6	109.61	%			14:29:15
1	Ag 328.068†	53829.0	52827.8	301.33	ug/L	301.33	ppb	14:29:15
1	As 188.979†	2176.5	2165.8	1064.9	ug/L	1064.9	ppb	14:29:20
1	B 249.677†	61067.2	60564.5	1413.7	ug/L	1413.7	ppb	14:29:15
1	Ba 233.527†	242020.5	238559.0	1871.5	ug/L	1871.5	ppb	14:29:15
1	Be 313.107†	2010774.2	1985793.0	752.56	ug/L	752.56	ppb	14:29:15
1	Cd 226.502†	51077.6	50528.5	568.75	ug/L	568.75	ppb	14:29:20
1	Co 228.616†	43081.9	42526.0	875.95	ug/L	875.95	ppb	14:29:20
1	Cr 267.716†	202961.6	199985.1	2261.8	ug/L	2261.8	ppb	14:29:15
1	Cu 324.752†	596286.7	581658.8	1756.2	ug/L	1756.2	ppb	14:29:15
1	Mn 257.610†	4557926.6	4492128.9	5052.6	ug/L	5052.6	ppb	14:29:15
1	Mo 202.031†	6359.1	6261.9	473.38	ug/L	473.38	ppb	14:29:20
1	Ni 231.604†	50535.1	49758.1	1264.2	ug/L	1264.2	ppb	14:29:20
1	P 214.914†	14006.5	13603.6	7794.9	ug/L	7794.9	ppb	14:29:20
1	Pb 220.353†	6511.1	6482.8	804.20	ug/L	804.20	ppb	14:29:20
1	S 181.975 Axial†	2833.3	2755.6	4019.9	ug/L	4019.9	ppb	14:29:20
1	Sb 206.836†	3445.9	3359.8	1177.6	ug/L	1177.6	ppb	14:29:20
1	Se 196.026†	3706.2	3673.7	2982.0	ug/L	2982.0	ppb	14:29:20
1	Si 251.611†	1341507.5	1321736.1	42395	ug/L	42395	ppb	14:29:15
1	Sn 189.927†	5536.7	5446.8	992.98	ug/L	992.98	ppb	14:29:20
1	Ti 334.940†	3694889.4	3643186.4	5519.7	ug/L	5519.7	ppb	14:29:15
1	Tl 190.801†	3537.3	3517.8	1192.5	ug/L	1192.5	ppb	14:29:20
1	U 409.014†	-8771.4	-5829.4	-182.97	ug/L	-182.97	ppb	14:29:15
1	V 292.402†	174056.6	172991.0	1175.2	ug/L	1175.2	ppb	14:29:15
1	Zn 213.857†	583691.2	574763.3	5730.0	ug/L	5730.0	ppb	14:29:15
1	SiO2†	1345351.1	1325507.2	91061	ug/L	91061	ppb	14:29:55
2	Sc Radial	4246.9	4246.9	99.8	%			14:28:39
2	Y RADIAL	5137.9	5137.9	109.5	%			14:28:39
2	Al 396.153Radial†	98908.9	99174.8	89795	ug/L	89795	ppb	14:28:19
2	Ca 317.933Radial†	50232.5	50295.8	100070	ug/L	100070	ppb	14:28:19
2	Fe 238.204 Radial†	13890.0	13901.6	179130	ug/L	179130	ppb	14:28:39
2	K 766.490 Radial†	225968.1	223765.7	41824	ug/L	41824	ppb	14:28:19
2	Mg 279.077 IEC†	841.7	840.3	38007	ug/L	38007	ppb	14:28:39
2	Na 589.592 Radial†	34170.6	34964.5	10147	ug/L	10147	ppb	14:28:19
2	Sr 421.552†	333664.9	334151.4	2214.0	ug/L	2214.0	ppb	14:28:19
2	Sc 361.383	909318.9	909318.9	101.03	%			14:29:29
2	Y 371.029	832744.9	832744.9	109.22	%			14:29:29
2	Ag 328.068†	53725.0	52948.8	301.86	ug/L	301.86	ppb	14:29:29
2	As 188.979†	2195.8	2194.0	1077.7	ug/L	1077.7	ppb	14:29:34
2	B 249.677†	61036.2	60787.9	1419.1	ug/L	1419.1	ppb	14:29:29
2	Ba 233.527†	241226.3	238780.1	1873.2	ug/L	1873.2	ppb	14:29:29
2	Be 313.107†	2005805.7	1989242.2	753.87	ug/L	753.87	ppb	14:29:29
2	Cd 226.502†	51078.3	50741.7	571.24	ug/L	571.24	ppb	14:29:34
2	Co 228.616†	43017.6	42641.7	878.35	ug/L	878.35	ppb	14:29:34
2	Cr 267.716†	202252.6	200127.9	2263.4	ug/L	2263.4	ppb	14:29:29
2	Cu 324.752†	595661.0	583520.8	1761.8	ug/L	1761.8	ppb	14:29:29
2	Mn 257.610†	4543091.3	4496411.2	5057.4	ug/L	5057.4	ppb	14:29:29
2	Mo 202.031†	6371.5	6300.6	476.19	ug/L	476.19	ppb	14:29:34
2	Ni 231.604†	50440.5	49874.8	1267.2	ug/L	1267.2	ppb	14:29:34

2	P 214.914†	13970.7	13626.4	7807.7	ug/L	7807.7 ppb	14:29:34
2	Pb 220.353†	6506.1	6504.9	806.88	ug/L	806.88 ppb	14:29:34
2	S 181.975 Axial†	2806.0	2740.4	3997.8	ug/L	3997.8 ppb	14:29:34
2	Sb 206.836†	3431.3	3359.7	1177.6	ug/L	1177.6 ppb	14:29:34
2	Se 196.026†	3682.7	3665.9	2976.2	ug/L	2976.2 ppb	14:29:34
2	Si 251.611†	1337929.0	1323776.4	42461	ug/L	42461 ppb	14:29:29
2	Sn 189.927†	5494.5	5428.1	989.50	ug/L	989.50 ppb	14:29:34
2	Ti 334.940†	3686665.1	3650421.1	5530.6	ug/L	5530.6 ppb	14:29:29
2	Tl 190.801†	3514.0	3509.5	1190.0	ug/L	1190.0 ppb	14:29:34
2	U 409.014†	-8938.6	-6031.3	-188.41	ug/L	-188.41 ppb	14:29:29
2	V 292.402†	173838.4	173499.4	1178.7	ug/L	1178.7 ppb	14:29:29
2	Zn 213.857†	581797.0	575317.3	5735.6	ug/L	5735.6 ppb	14:29:29
2	SiO2†	1352180.4	1337865.3	91910	ug/L	91910 ppb	14:30:01
3	Sc Radial	4230.2	4230.2	99.5	%		14:29:04
3	Y RADIAL	5117.9	5117.9	109.1	%		14:29:04
3	Al 396.153Radial†	98875.8	99532.6	90119	ug/L	90119 ppb	14:28:44
3	Ca 317.933Radial†	50047.5	50308.4	100090	ug/L	100090 ppb	14:28:44
3	Fe 238.204 Radial†	13895.1	13961.7	179900	ug/L	179900 ppb	14:29:04
3	K 766.490 Radial†	225787.9	224478.0	41957	ug/L	41957 ppb	14:28:44
3	Mg 279.077 IEC†	838.5	840.4	38011	ug/L	38011 ppb	14:29:04
3	Na 589.592 Radial†	34180.6	35109.7	10189	ug/L	10189 ppb	14:28:44
3	Sr 421.552†	333307.3	335111.1	2220.3	ug/L	2220.3 ppb	14:28:44
3	Sc 361.383	915194.0	915194.0	101.68	%		14:29:43
3	Y 371.029	838564.3	838564.3	109.98	%		14:29:43
3	Ag 328.068†	53991.6	52869.6	301.72	ug/L	301.72 ppb	14:29:43
3	As 188.979†	2170.1	2154.7	1060.1	ug/L	1060.1 ppb	14:29:48
3	B 249.677†	61586.3	60941.1	1422.6	ug/L	1422.6 ppb	14:29:43
3	Ba 233.527†	242484.7	238484.8	1870.9	ug/L	1870.9 ppb	14:29:43
3	Be 313.107†	2018494.9	1988976.5	753.75	ug/L	753.75 ppb	14:29:43
3	Cd 226.502†	51353.0	50687.3	570.53	ug/L	570.53 ppb	14:29:48
3	Co 228.616†	43357.5	42702.6	879.64	ug/L	879.64 ppb	14:29:48
3	Cr 267.716†	203480.9	200050.8	2262.6	ug/L	2262.6 ppb	14:29:43
3	Cu 324.752†	599152.1	583169.2	1760.8	ug/L	1760.8 ppb	14:29:43
3	Mn 257.610†	4564983.0	4489073.6	5049.3	ug/L	5049.3 ppb	14:29:43
3	Mo 202.031†	6415.5	6303.4	476.45	ug/L	476.45 ppb	14:29:48
3	Ni 231.604†	50864.0	49970.7	1269.6	ug/L	1269.6 ppb	14:29:48
3	P 214.914†	13996.9	13563.4	7769.2	ug/L	7769.2 ppb	14:29:48
3	Pb 220.353†	6581.5	6537.7	810.93	ug/L	810.93 ppb	14:29:48
3	S 181.975 Axial†	2853.2	2769.0	4039.5	ug/L	4039.5 ppb	14:29:48
3	Sb 206.836†	3496.6	3402.1	1192.6	ug/L	1192.6 ppb	14:29:48
3	Se 196.026†	3739.3	3698.2	2999.9	ug/L	2999.9 ppb	14:29:48
3	Si 251.611†	1344526.7	1321763.6	42396	ug/L	42396 ppb	14:29:43
3	Sn 189.927†	5593.1	5490.2	1000.7	ug/L	1000.7 ppb	14:29:48
3	Ti 334.940†	3704023.6	3644067.1	5521.0	ug/L	5521.0 ppb	14:29:43
3	Tl 190.801†	3530.8	3503.7	1188.0	ug/L	1188.0 ppb	14:29:48
3	U 409.014†	-8855.9	-5893.2	-184.77	ug/L	-184.77 ppb	14:29:43
3	V 292.402†	174605.7	173149.4	1176.2	ug/L	1176.2 ppb	14:29:43
3	Zn 213.857†	584663.5	574439.6	5726.7	ug/L	5726.7 ppb	14:29:43
3	SiO2†	1350149.4	1327276.0	91183	ug/L	91183 ppb	14:30:06

Mean Data: 1202030974|948071|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912556.9	101.39	%	0.331				0.33%
Sc Radial	4232.5	99.5	%	0.32				0.32%
Y 371.029	835668.6	109.60	%	0.382				0.35%
Y RADIAL	5126.9	109.3	%	0.22				0.20%
Ag 328.068†	52882.1	301.63	ug/L	0.271	301.63	ppb	0.271	0.09%
Al 396.153Radial†	99419.0	90016	ug/L	191.8	90016	ppb	191.8	0.21%
As 188.979†	2171.5	1067.6	ug/L	9.08	1067.6	ppb	9.08	0.85%
B 249.677†	60764.5	1418.5	ug/L	4.47	1418.5	ppb	4.47	0.32%
Ba 233.527†	238608.0	1871.9	ug/L	1.19	1871.9	ppb	1.19	0.06%
Be 313.107†	1988003.9	753.39	ug/L	0.724	753.39	ppb	0.724	0.10%
Ca 317.933Radial†	50395.6	100270	ug/L	322.5	100270	ppb	322.5	0.32%
Cd 226.502†	50652.5	570.17	ug/L	1.286	570.17	ppb	1.286	0.23%
Co 228.616†	42623.4	877.98	ug/L	1.872	877.98	ppb	1.872	0.21%
Cr 267.716†	200054.6	2262.6	ug/L	0.79	2262.6	ppb	0.79	0.04%
Cu 324.752†	582782.9	1759.6	ug/L	2.97	1759.6	ppb	2.97	0.17%
Fe 238.204 Radial†	13926.6	179450	ug/L	403.0	179450	ppb	403.0	0.22%
K 766.490 Radial†	224650.3	41989	ug/L	183.6	41989	ppb	183.6	0.44%

Mg 279.077 IEC†	226.5	1.48	0.65%	[10000]	ug/L
Mn 257.610†	895639.0	5759.03	0.64%	[1000]	ug/L
Mo 202.031†	13689.3	134.80	0.98%	[1000]	ug/L
Na 589.592 Radial†	34040.4	127.76	0.38%	[10000]	ug/L
Ni 231.604†	39431.0	72.66	0.18%	[1000]	ug/L
P 214.914†	8277.8	76.67	0.93%	[5000]	ug/L
Pb 220.353†	8099.3	63.08	0.78%	[1000]	ug/L
S 181.975 Axial†	1367.6	18.17	1.33%	[2000]	ug/L
Sb 206.836†	2880.8	36.47	1.27%	[1000]	ug/L
Se 196.026†	1522.5	14.14	0.93%	[1000]	ug/L
Si 251.611†	156368.7	322.03	0.21%	[5000]	ug/L
Sn 189.927†	5544.1	49.81	0.90%	[1000]	ug/L
Sr 421.552†	150544.6	936.80	0.62%	[1000]	ug/L
Ti 334.940†	663545.9	4690.80	0.71%	[1000]	ug/L
Tl 190.801†	3123.2	26.50	0.85%	[1000]	ug/L
U 409.014†	37142.4	138.32	0.37%	[1000]	ug/L
V 292.402†	144645.9	346.78	0.24%	[1000]	ug/L
Zn 213.857†	99891.0	289.99	0.29%	[1000]	ug/L
SiO2†	156299.2	1202.33	0.77%	[10695]	ug/L

Sequence No.: 5
Sample ID: 245806001|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 2/23/2010 14:32:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806001|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4330.7	4330.7	102	%			14:34:10
1	Y RADIAL	5164.9	5164.9	110.1	%			14:34:10
1	Al 396.153Radial†	20045.6	19799.1	17931	ug/L	17931	ppb	14:34:10
1	Ca 317.933Radial†	2809.6	2744.0	5459.4	ug/L	5459.4	ppb	14:34:30
1	Fe 238.204 Radial†	3616.5	3541.9	45632	ug/L	45632	ppb	14:34:10
1	K 766.490 Radial†	16236.4	13390.3	2502.7	ug/L	2502.7	ppb	14:34:10
1	Mg 279.077 IEC†	83.4	79.1	3548.2	ug/L	3548.2	ppb	14:34:30
1	Na 589.592 Radial†	1381.6	2097.3	608.66	ug/L	608.66	ppb	14:34:10
1	Sr 421.552†	6037.4	5893.0	39.017	ug/L	39.017	ppb	14:34:10
1	Sc 361.383	928472.0	928472.0	103.16	%			14:35:27
1	Y 371.029	845469.3	845469.3	110.89	%			14:35:27
1	Ag 328.068†	-2648.0	-2796.3	1.0419	ug/L	1.0419	ppb	14:35:27
1	As 188.979†	-24.1	-2.9	16.853	ug/L	16.853	ppb	14:35:47
1	B 249.677†	325.7	688.7	8.9725	ug/L	8.9725	ppb	14:35:27
1	Ba 233.527†	33048.2	32046.2	251.81	ug/L	251.81	ppb	14:35:27
1	Be 313.107†	6452.2	10108.1	5.7205	ug/L	5.7205	ppb	14:35:27
1	Cd 226.502†	199.2	376.4	-0.2530	ug/L	-0.2530	ppb	14:35:47
1	Co 228.616†	838.4	874.7	15.918	ug/L	15.918	ppb	14:35:47
1	Cr 267.716†	6128.6	5875.1	70.174	ug/L	70.174	ppb	14:35:47
1	Cu 324.752†	202356.3	190087.6	573.05	ug/L	573.05	ppb	14:35:27
1	Mn 257.610†	881714.3	854299.3	962.19	ug/L	962.19	ppb	14:35:27
1	Mo 202.031†	14.3	7.8	4.1764	ug/L	4.1764	ppb	14:35:47
1	Ni 231.604†	1847.1	1738.3	44.172	ug/L	44.172	ppb	14:35:47
1	P 214.914†	779.1	553.2	190.01	ug/L	190.01	ppb	14:35:47
1	Pb 220.353†	24189.1	23514.0	2912.1	ug/L	2912.1	ppb	14:35:27
1	S 181.975 Axial†	85.3	45.6	63.467	ug/L	63.467	ppb	14:35:47
1	Sb 206.836†	98.8	59.0	16.909	ug/L	16.909	ppb	14:35:47
1	Se 196.026†	-214.9	-187.6	18.453	ug/L	18.453	ppb	14:35:47
1	Si 251.611†	576923.1	558736.6	17924	ug/L	17924	ppb	14:35:27
1	Sn 189.927†	1.9	-8.6	-3.2059	ug/L	-3.2059	ppb	14:35:47
1	Ti 334.940†	585571.2	568936.0	860.75	ug/L	860.75	ppb	14:35:27
1	Tl 190.801†	-84.5	-50.7	-4.7398	ug/L	-4.7398	ppb	14:35:47
1	U 409.014†	9482.3	12008.4	319.13	ug/L	319.13	ppb	14:35:27
1	V 292.402†	5752.8	7007.2	41.765	ug/L	41.765	ppb	14:35:27
1	Zn 213.857†	20986.3	19786.4	190.66	ug/L	190.66	ppb	14:35:27
1	SiO2†	565319.0	547470.2	37616	ug/L	37616	ppb	14:36:45
2	Sc Radial	4214.5	4214.5	99.1	%			14:34:35
2	Y RADIAL	5061.2	5061.2	107.9	%			14:34:35
2	Al 396.153Radial†	20029.3	20325.7	18408	ug/L	18408	ppb	14:34:35
2	Ca 317.933Radial†	2756.2	2766.3	5503.8	ug/L	5503.8	ppb	14:34:55
2	Fe 238.204 Radial†	3614.7	3638.0	46870	ug/L	46870	ppb	14:34:35
2	K 766.490 Radial†	16138.6	13731.4	2566.5	ug/L	2566.5	ppb	14:34:35
2	Mg 279.077 IEC†	76.3	74.2	3325.3	ug/L	3325.3	ppb	14:34:55
2	Na 589.592 Radial†	1307.4	2059.9	597.78	ug/L	597.78	ppb	14:34:35
2	Sr 421.552†	6034.2	6053.4	40.080	ug/L	40.080	ppb	14:34:35
2	Sc 361.383	932311.5	932311.5	103.58	%			14:35:53
2	Y 371.029	847483.3	847483.3	111.15	%			14:35:53
2	Ag 328.068†	-2664.6	-2801.8	1.4069	ug/L	1.4069	ppb	14:35:53
2	As 188.979†	-16.7	4.4	20.395	ug/L	20.395	ppb	14:36:13
2	B 249.677†	337.0	698.3	9.0031	ug/L	9.0031	ppb	14:35:53
2	Ba 233.527†	33041.9	31908.1	250.77	ug/L	250.77	ppb	14:35:53
2	Be 313.107†	6451.4	10081.5	5.7013	ug/L	5.7013	ppb	14:35:53
2	Cd 226.502†	228.9	404.3	-0.0591	ug/L	-0.0591	ppb	14:36:13
2	Co 228.616†	797.7	832.0	15.015	ug/L	15.015	ppb	14:36:13
2	Cr 267.716†	6047.2	5772.0	69.140	ug/L	69.140	ppb	14:36:13
2	Cu 324.752†	202690.0	189601.9	571.66	ug/L	571.66	ppb	14:35:53
2	Mn 257.610†	881601.3	850670.1	958.25	ug/L	958.25	ppb	14:35:53
2	Mo 202.031†	7.0	0.7	3.7537	ug/L	3.7537	ppb	14:36:13
2	Ni 231.604†	1822.2	1706.8	43.373	ug/L	43.373	ppb	14:36:13

2	P 214.914†	783.5	554.4	190.12 ug/L	190.12 ppb	14:36:13
2	Pb 220.353†	24212.0	23439.6	2902.8 ug/L	2902.8 ppb	14:35:53
2	S 181.975 Axial†	87.9	47.8	66.568 ug/L	66.568 ppb	14:36:13
2	Sb 206.836†	109.8	69.3	20.463 ug/L	20.463 ppb	14:36:13
2	Se 196.026†	-218.6	-190.3	20.516 ug/L	20.516 ppb	14:36:13
2	Si 251.611†	577885.2	557362.2	17880 ug/L	17880 ppb	14:35:53
2	Sn 189.927†	3.6	-7.0	-2.9737 ug/L	-2.9737 ppb	14:36:13
2	Ti 334.940†	585177.9	566218.6	856.67 ug/L	856.67 ppb	14:35:53
2	Tl 190.801†	-80.1	-46.1	-3.3037 ug/L	-3.3037 ppb	14:36:13
2	U 409.014†	9178.8	11677.6	310.05 ug/L	310.05 ppb	14:35:53
2	V 292.402†	5884.9	7111.8	42.287 ug/L	42.287 ppb	14:35:53
2	Zn 213.857†	21011.3	19726.8	189.88 ug/L	189.88 ppb	14:35:53
2	SiO2†	560497.9	540558.9	37141 ug/L	37141 ppb	14:36:50
3	Sc Radial	4187.0	4187.0	98.4 %		14:35:00
3	Y RADIAL	5027.4	5027.4	107.1 %		14:35:00
3	Al 396.153Radial†	20160.1	20591.1	18648 ug/L	18648 ppb	14:35:00
3	Ca 317.933Radial†	2751.6	2779.8	5530.7 ug/L	5530.7 ppb	14:35:20
3	Fe 238.204 Radial†	3637.2	3684.8	47473 ug/L	47473 ppb	14:35:00
3	K 766.490 Radial†	16125.9	13825.3	2584.1 ug/L	2584.1 ppb	14:35:00
3	Mg 279.077 IEC†	81.6	80.1	3590.9 ug/L	3590.9 ppb	14:35:20
3	Na 589.592 Radial†	1375.1	2137.3	620.24 ug/L	620.24 ppb	14:35:00
3	Sr 421.552†	6099.7	6159.8	40.785 ug/L	40.785 ppb	14:35:00
3	Sc 361.383	936635.5	936635.5	104.06 %		14:36:19
3	Y 371.029	850104.6	850104.6	111.50 %		14:36:19
3	Ag 328.068†	-2723.5	-2846.5	1.3805 ug/L	1.3805 ppb	14:36:19
3	As 188.979†	-11.2	9.8	22.879 ug/L	22.879 ppb	14:36:39
3	B 249.677†	377.2	735.5	9.7916 ug/L	9.7916 ppb	14:36:19
3	Ba 233.527†	32755.2	31485.4	247.49 ug/L	247.49 ppb	14:36:19
3	Be 313.107†	6356.7	9961.8	5.6411 ug/L	5.6411 ppb	14:36:19
3	Cd 226.502†	229.9	404.2	-0.1220 ug/L	-0.1220 ppb	14:36:39
3	Co 228.616†	829.7	859.2	15.589 ug/L	15.589 ppb	14:36:39
3	Cr 267.716†	6073.4	5770.3	69.176 ug/L	69.176 ppb	14:36:39
3	Cu 324.752†	202032.7	188066.9	567.08 ug/L	567.08 ppb	14:36:19
3	Mn 257.610†	877514.7	842814.0	949.49 ug/L	949.49 ppb	14:36:19
3	Mo 202.031†	15.1	8.4	4.3674 ug/L	4.3674 ppb	14:36:39
3	Ni 231.604†	1830.0	1706.2	43.357 ug/L	43.357 ppb	14:36:39
3	P 214.914†	772.9	540.7	182.31 ug/L	182.31 ppb	14:36:39
3	Pb 220.353†	24055.0	23180.8	2870.8 ug/L	2870.8 ppb	14:36:19
3	S 181.975 Axial†	87.0	46.6	64.707 ug/L	64.707 ppb	14:36:39
3	Sb 206.836†	111.2	70.2	20.798 ug/L	20.798 ppb	14:36:39
3	Se 196.026†	-205.7	-177.0	31.187 ug/L	31.187 ppb	14:36:39
3	Si 251.611†	575508.3	552502.6	17724 ug/L	17724 ppb	14:36:19
3	Sn 189.927†	6.8	-3.9	-2.4512 ug/L	-2.4512 ppb	14:36:39
3	Ti 334.940†	583176.4	561687.2	849.79 ug/L	849.79 ppb	14:36:19
3	Tl 190.801†	-76.8	-42.6	-2.2818 ug/L	-2.2818 ppb	14:36:39
3	U 409.014†	9398.1	11847.4	314.57 ug/L	314.57 ppb	14:36:19
3	V 292.402†	5832.0	7034.8	41.693 ug/L	41.693 ppb	14:36:19
3	Zn 213.857†	20920.6	19546.0	187.98 ug/L	187.98 ppb	14:36:19
3	SiO2†	574161.8	551191.3	37872 ug/L	37872 ppb	14:36:56

Mean Data: 245806001|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	932473.0	103.60	%	0.454				0.44%
Sc Radial	4244.1	99.8	%	1.79				1.80%
Y 371.029	847685.7	111.18	%	0.305				0.27%
Y RADIAL	5084.5	108.4	%	1.53				1.41%
Ag 328.068†	-2814.9	1.2764	ug/L	0.20355	1.2764	ppb	0.20355	15.95%
Al 396.153Radial†	20238.6	18329	ug/L	365.1	18329	ppb	365.1	1.99%
As 188.979†	3.8	20.042	ug/L	3.0283	20.042	ppb	3.0283	15.11%
B 249.677†	707.5	9.2558	ug/L	0.46432	9.2558	ppb	0.46432	5.02%
Ba 233.527†	31813.2	250.02	ug/L	2.257	250.02	ppb	2.257	0.90%
Be 313.107†	10050.4	5.6876	ug/L	0.04143	5.6876	ppb	0.04143	0.73%
Ca 317.933Radial†	2763.4	5498.0	ug/L	36.00	5498.0	ppb	36.00	0.65%
Cd 226.502†	395.0	-0.1447	ug/L	0.09892	-0.1447	ppb	0.09892	68.37%
Co 228.616†	855.3	15.508	ug/L	0.4572	15.508	ppb	0.4572	2.95%
Cr 267.716†	5805.8	69.497	ug/L	0.5866	69.497	ppb	0.5866	0.84%
Cu 324.752†	189252.1	570.60	ug/L	3.123	570.60	ppb	3.123	0.55%
Fe 238.204 Radial†	3621.6	46658	ug/L	938.7	46658	ppb	938.7	2.01%
K 766.490 Radial†	13649.0	2551.1	ug/L	42.82	2551.1	ppb	42.82	1.68%

Mg 279.077 IEC†	77.8	3488.1	ug/L	142.60	3488.1	ppb	142.60	4.09%
Mn 257.610†	849261.1	956.64	ug/L	6.499	956.64	ppb	6.499	0.68%
Mo 202.031†	5.6	4.0992	ug/L	0.31406	4.0992	ppb	0.31406	7.66%
Na 589.592 Radial†	2098.2	608.89	ug/L	11.233	608.89	ppb	11.233	1.84%
Ni 231.604†	1717.1	43.634	ug/L	0.4661	43.634	ppb	0.4661	1.07%
P 214.914†	549.4	187.48	ug/L	4.480	187.48	ppb	4.480	2.39%
Pb 220.353†	23378.1	2895.2	ug/L	21.69	2895.2	ppb	21.69	0.75%
S 181.975 Axial†	46.7	64.914	ug/L	1.5612	64.914	ppb	1.5612	2.40%
Sb 206.836†	66.2	19.390	ug/L	2.1551	19.390	ppb	2.1551	11.11%
Se 196.026†	-185.0	23.385	ug/L	6.8346	23.385	ppb	6.8346	29.23%
Si 251.611†	556200.4	17843	ug/L	105.1	17843	ppb	105.1	0.59%
Sn 189.927†	-6.5	-2.8770	ug/L	0.38654	-2.8770	ppb	0.38654	13.44%
Sr 421.552†	6035.4	39.961	ug/L	0.8900	39.961	ppb	0.8900	2.23%
Ti 334.940†	565613.9	855.74	ug/L	5.537	855.74	ppb	5.537	0.65%
Tl 190.801†	-46.5	-3.4418	ug/L	1.23484	-3.4418	ppb	1.23484	35.88%
U 409.014†	11844.5	314.58	ug/L	4.539	314.58	ppb	4.539	1.44%
V 292.402†	7051.3	41.915	ug/L	0.3240	41.915	ppb	0.3240	0.77%
Zn 213.857†	19686.4	189.51	ug/L	1.376	189.51	ppb	1.376	0.73%
SiO2†	546406.8	37543	ug/L	370.7	37543	ppb	370.7	0.99%

Sequence No.: 6
Sample ID: 1202030970|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 2/23/2010 14:39:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030970|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4184.8	4184.8	98.4	%			14:40:59
1	Y RADIAL	5024.7	5024.7	107.1	%			14:40:59
1	Al 396.153Radial†	19569.9	20002.1	18115	ug/L	18115	ppb	14:40:59
1	Ca 317.933Radial†	2649.7	2677.8	5327.7	ug/L	5327.7	ppb	14:41:19
1	Fe 238.204 Radial†	3656.7	3706.6	47754	ug/L	47754	ppb	14:40:59
1	K 766.490 Radial†	16283.9	13994.6	2615.8	ug/L	2615.8	ppb	14:40:59
1	Mg 279.077 IEC†	76.8	75.3	3372.7	ug/L	3372.7	ppb	14:41:19
1	Na 589.592 Radial†	1387.7	2150.8	624.17	ug/L	624.17	ppb	14:40:59
1	Sr 421.552†	5808.4	5867.0	38.846	ug/L	38.846	ppb	14:40:59
1	Sc 361.383	923825.0	923825.0	102.64	%			14:42:16
1	Y 371.029	841468.1	841468.1	110.36	%			14:42:16
1	Ag 328.068†	-2800.3	-2957.6	1.0549	ug/L	1.0549	ppb	14:42:21
1	As 188.979†	-27.1	-5.9	16.024	ug/L	16.024	ppb	14:42:41
1	B 249.677†	147.3	516.5	4.5276	ug/L	4.5276	ppb	14:42:21
1	Ba 233.527†	30840.1	30056.0	236.33	ug/L	236.33	ppb	14:42:21
1	Be 313.107†	4332.9	8074.7	4.9764	ug/L	4.9764	ppb	14:42:21
1	Cd 226.502†	223.1	400.7	-0.2215	ug/L	-0.2215	ppb	14:42:41
1	Co 228.616†	686.0	730.3	12.857	ug/L	12.857	ppb	14:42:41
1	Cr 267.716†	4220.7	4046.2	49.912	ug/L	49.912	ppb	14:42:21
1	Cu 324.752†	60751.0	53111.3	161.91	ug/L	161.91	ppb	14:42:21
1	Mn 257.610†	979086.8	953466.7	1073.6	ug/L	1073.6	ppb	14:42:16
1	Mo 202.031†	16.1	9.6	4.4726	ug/L	4.4726	ppb	14:42:41
1	Ni 231.604†	1389.9	1301.8	33.080	ug/L	33.080	ppb	14:42:41
1	P 214.914†	586.2	369.1	158.33	ug/L	158.33	ppb	14:42:41
1	Pb 220.353†	1257.3	1290.0	158.43	ug/L	158.43	ppb	14:42:41
1	S 181.975 Axial†	81.4	42.2	58.470	ug/L	58.470	ppb	14:42:41
1	Sb 206.836†	65.4	27.0	5.6564	ug/L	5.6564	ppb	14:42:41
1	Se 196.026†	-228.1	-201.5	15.891	ug/L	15.891	ppb	14:42:41
1	Si 251.611†	574333.1	559026.4	17933	ug/L	17933	ppb	14:42:16
1	Sn 189.927†	-5.5	-15.8	-4.6469	ug/L	-4.6469	ppb	14:42:41
1	Ti 334.940†	586739.7	572929.9	866.85	ug/L	866.85	ppb	14:42:16
1	Tl 190.801†	-69.2	-36.2	0.5265	ug/L	0.5265	ppb	14:42:41
1	U 409.014†	4686.2	7381.9	193.92	ug/L	193.92	ppb	14:42:16
1	V 292.402†	5635.4	6920.9	40.617	ug/L	40.617	ppb	14:42:21
1	Zn 213.857†	20044.2	18970.9	182.79	ug/L	182.79	ppb	14:42:21
1	SiO2†	569107.5	553917.9	38059	ug/L	38059	ppb	14:43:48
2	Sc Radial	4160.4	4160.4	97.8	%			14:41:24
2	Y RADIAL	4943.5	4943.5	105.4	%			14:41:24
2	Al 396.153Radial†	19298.3	19841.1	17969	ug/L	17969	ppb	14:41:24
2	Ca 317.933Radial†	2657.2	2701.2	5374.2	ug/L	5374.2	ppb	14:41:44
2	Fe 238.204 Radial†	3620.3	3691.2	47555	ug/L	47555	ppb	14:41:24
2	K 766.490 Radial†	15962.8	13763.4	2572.5	ug/L	2572.5	ppb	14:41:24
2	Mg 279.077 IEC†	76.0	75.0	3357.3	ug/L	3357.3	ppb	14:41:44
2	Na 589.592 Radial†	1442.3	2214.9	642.77	ug/L	642.77	ppb	14:41:24
2	Sr 421.552†	5711.9	5803.0	38.421	ug/L	38.421	ppb	14:41:24
2	Sc 361.383	921711.8	921711.8	102.41	%			14:42:46
2	Y 371.029	839160.1	839160.1	110.06	%			14:42:46
2	Ag 328.068†	-2831.5	-2994.3	0.8301	ug/L	0.8301	ppb	14:42:51
2	As 188.979†	-40.7	-19.2	10.002	ug/L	10.002	ppb	14:43:11
2	B 249.677†	186.2	554.8	5.4745	ug/L	5.4745	ppb	14:42:51
2	Ba 233.527†	30728.8	30016.2	236.01	ug/L	236.01	ppb	14:42:51
2	Be 313.107†	4351.6	8102.6	4.9866	ug/L	4.9866	ppb	14:42:51
2	Cd 226.502†	235.0	412.8	-0.0626	ug/L	-0.0626	ppb	14:43:11
2	Co 228.616†	685.3	731.2	12.879	ug/L	12.879	ppb	14:43:11
2	Cr 267.716†	4181.6	4017.4	49.572	ug/L	49.572	ppb	14:42:51
2	Cu 324.752†	60872.7	53365.8	162.66	ug/L	162.66	ppb	14:42:51
2	Mn 257.610†	976602.7	953228.0	1073.3	ug/L	1073.3	ppb	14:42:46
2	Mo 202.031†	13.8	7.4	4.2959	ug/L	4.2959	ppb	14:43:11
2	Ni 231.604†	1373.0	1288.4	32.740	ug/L	32.740	ppb	14:43:11

2	P 214.914†	588.9	373.0	160.68	ug/L	160.68 ppb	14:43:11
2	Pb 220.353†	1259.8	1295.3	159.08	ug/L	159.08 ppb	14:43:11
2	S 181.975 Axial†	81.9	42.9	59.486	ug/L	59.486 ppb	14:43:11
2	Sb 206.836†	55.6	17.6	2.3938	ug/L	2.3938 ppb	14:43:11
2	Se 196.026†	-219.6	-193.7	20.448	ug/L	20.448 ppb	14:43:11
2	Si 251.611†	572464.5	558484.7	17916	ug/L	17916 ppb	14:42:46
2	Sn 189.927†	-7.5	-17.7	-4.9828	ug/L	-4.9828 ppb	14:43:11
2	Ti 334.940†	585306.4	572840.9	866.72	ug/L	866.72 ppb	14:42:46
2	Tl 190.801†	-77.8	-44.8	-2.2278	ug/L	-2.2278 ppb	14:43:11
2	U 409.014†	4446.4	7158.2	187.90	ug/L	187.90 ppb	14:42:46
2	V 292.402†	5650.5	6948.2	40.822	ug/L	40.822 ppb	14:42:51
2	Zn 213.857†	20052.5	19023.8	183.35	ug/L	183.35 ppb	14:42:51
2	SiO2†	573318.3	559301.0	38429	ug/L	38429 ppb	14:43:53
3	Sc Radial	4238.3	4238.3	99.6	%		14:41:49
3	Y RADIAL	5057.1	5057.1	107.8	%		14:41:49
3	Al 396.153Radial†	19697.4	19878.9	18003	ug/L	18003 ppb	14:41:49
3	Ca 317.933Radial†	2647.9	2642.0	5256.5	ug/L	5256.5 ppb	14:42:09
3	Fe 238.204 Radial†	3695.5	3698.6	47651	ug/L	47651 ppb	14:41:49
3	K 766.490 Radial†	16407.4	13909.6	2599.9	ug/L	2599.9 ppb	14:41:49
3	Mg 279.077 IEC†	78.6	76.2	3411.6	ug/L	3411.6 ppb	14:42:09
3	Na 589.592 Radial†	1437.5	2183.0	633.52	ug/L	633.52 ppb	14:41:49
3	Sr 421.552†	5817.5	5801.7	38.413	ug/L	38.413 ppb	14:41:49
3	Sc 361.383	930341.2	930341.2	103.36	%		14:43:17
3	Y 371.029	845765.0	845765.0	110.93	%		14:43:17
3	Ag 328.068†	-2784.2	-2922.9	1.1857	ug/L	1.1857 ppb	14:43:22
3	As 188.979†	-36.8	-15.1	11.864	ug/L	11.864 ppb	14:43:42
3	B 249.677†	166.5	534.1	4.9646	ug/L	4.9646 ppb	14:43:22
3	Ba 233.527†	30657.8	29669.2	233.30	ug/L	233.30 ppb	14:43:22
3	Be 313.107†	4401.8	8111.8	4.9864	ug/L	4.9864 ppb	14:43:22
3	Cd 226.502†	229.9	405.7	-0.1538	ug/L	-0.1538 ppb	14:43:42
3	Co 228.616†	683.5	723.1	12.711	ug/L	12.711 ppb	14:43:42
3	Cr 267.716†	4279.9	4074.6	50.222	ug/L	50.222 ppb	14:43:22
3	Cu 324.752†	60621.9	52571.9	160.28	ug/L	160.28 ppb	14:43:22
3	Mn 257.610†	983140.6	950707.4	1070.5	ug/L	1070.5 ppb	14:43:17
3	Mo 202.031†	8.9	2.6	3.9489	ug/L	3.9489 ppb	14:43:42
3	Ni 231.604†	1357.6	1261.1	32.045	ug/L	32.045 ppb	14:43:42
3	P 214.914†	576.3	355.5	150.44	ug/L	150.44 ppb	14:43:42
3	Pb 220.353†	1237.7	1262.4	155.01	ug/L	155.01 ppb	14:43:42
3	S 181.975 Axial†	75.6	36.1	49.541	ug/L	49.541 ppb	14:43:42
3	Sb 206.836†	60.7	22.0	3.9278	ug/L	3.9278 ppb	14:43:42
3	Se 196.026†	-216.2	-188.5	24.188	ug/L	24.188 ppb	14:43:42
3	Si 251.611†	576672.1	557370.1	17880	ug/L	17880 ppb	14:43:17
3	Sn 189.927†	-4.1	-14.4	-4.4122	ug/L	-4.4122 ppb	14:43:42
3	Ti 334.940†	589709.8	571799.5	865.13	ug/L	865.13 ppb	14:43:17
3	Tl 190.801†	-84.1	-50.1	-3.9682	ug/L	-3.9682 ppb	14:43:42
3	U 409.014†	4587.7	7254.6	190.49	ug/L	190.49 ppb	14:43:17
3	V 292.402†	5651.7	6898.2	40.463	ug/L	40.463 ppb	14:43:22
3	Zn 213.857†	20038.5	18828.7	181.38	ug/L	181.38 ppb	14:43:22
3	SiO2†	572408.6	553228.0	38011	ug/L	38011 ppb	14:43:59

Mean Data: 1202030970|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925292.6	102.80	%	0.500				0.49%
Sc Radial	4194.5	98.6	%	0.94				0.95%
Y 371.029	842131.1	110.45	%	0.440				0.40%
Y RADIAL	5008.5	106.7	%	1.25				1.17%
Ag 328.068†	-2958.3	1.0236	ug/L	0.17989	1.0236	ppb	0.17989	17.57%
Al 396.153Radial†	19907.4	18029	ug/L	76.3	18029	ppb	76.3	0.42%
As 188.979†	-13.4	12.630	ug/L	3.0829	12.630	ppb	3.0829	24.41%
B 249.677†	535.1	4.9889	ug/L	0.47392	4.9889	ppb	0.47392	9.50%
Ba 233.527†	29913.8	235.21	ug/L	1.663	235.21	ppb	1.663	0.71%
Be 313.107†	8096.4	4.9831	ug/L	0.00579	4.9831	ppb	0.00579	0.12%
Ca 317.933Radial†	2673.7	5319.5	ug/L	59.29	5319.5	ppb	59.29	1.11%
Cd 226.502†	406.4	-0.1460	ug/L	0.07975	-0.1460	ppb	0.07975	54.64%
Co 228.616†	728.2	12.816	ug/L	0.0915	12.816	ppb	0.0915	0.71%
Cr 267.716†	4046.0	49.902	ug/L	0.3247	49.902	ppb	0.3247	0.65%
Cu 324.752†	53016.3	161.62	ug/L	1.216	161.62	ppb	1.216	0.75%
Fe 238.204 Radial†	3698.8	47653	ug/L	99.4	47653	ppb	99.4	0.21%
K 766.490 Radial†	13889.2	2596.0	ug/L	21.90	2596.0	ppb	21.90	0.84%

Mg 279.077 IEC†	75.5	3380.5	ug/L	27.99	3380.5	ppb	27.99	0.83%
Mn 257.610†	952467.4	1072.5	ug/L	1.72	1072.5	ppb	1.72	0.16%
Mo 202.031†	6.5	4.2391	ug/L	0.26640	4.2391	ppb	0.26640	6.28%
Na 589.592 Radial†	2182.9	633.49	ug/L	9.300	633.49	ppb	9.300	1.47%
Ni 231.604†	1283.8	32.622	ug/L	0.5274	32.622	ppb	0.5274	1.62%
P 214.914†	365.9	156.48	ug/L	5.364	156.48	ppb	5.364	3.43%
Pb 220.353†	1282.6	157.51	ug/L	2.189	157.51	ppb	2.189	1.39%
S 181.975 Axial†	40.4	55.832	ug/L	5.4722	55.832	ppb	5.4722	9.80%
Sb 206.836†	22.2	3.9927	ug/L	1.63230	3.9927	ppb	1.63230	40.88%
Se 196.026†	-194.6	20.175	ug/L	4.1553	20.175	ppb	4.1553	20.60%
Si 251.611†	558293.7	17910	ug/L	27.1	17910	ppb	27.1	0.15%
Sn 189.927†	-16.0	-4.6806	ug/L	0.28676	-4.6806	ppb	0.28676	6.13%
Sr 421.552†	5823.9	38.560	ug/L	0.2476	38.560	ppb	0.2476	0.64%
Ti 334.940†	572523.4	866.23	ug/L	0.960	866.23	ppb	0.960	0.11%
Tl 190.801†	-43.7	-1.8898	ug/L	2.26631	-1.8898	ppb	2.26631	119.92%
U 409.014†	7264.9	190.77	ug/L	3.021	190.77	ppb	3.021	1.58%
V 292.402†	6922.4	40.634	ug/L	0.1798	40.634	ppb	0.1798	0.44%
Zn 213.857†	18941.1	182.50	ug/L	1.012	182.50	ppb	1.012	0.55%
SiO2†	555482.3	38166	ug/L	228.5	38166	ppb	228.5	0.60%

Sequence No.: 7
Sample ID: 1202030972|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 2/23/2010 14:46:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030972|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4134.6	4134.6	97.2	%			14:48:02
1	Y RADIAL	4992.4	4992.4	106.4	%			14:48:02
1	Al 396.153Radial†	43126.8	44478.0	40270	ug/L	40270	ppb	14:48:02
1	Ca 317.933Radial†	4140.2	4243.8	8443.5	ug/L	8443.5	ppb	14:48:02
1	Fe 238.204 Radial†	4092.0	4199.5	54112	ug/L	54112	ppb	14:48:02
1	K 766.490 Radial†	35622.8	34090.7	6373.1	ug/L	6373.1	ppb	14:48:02
1	Mg 279.077 IEC†	168.3	170.4	7689.7	ug/L	7689.7	ppb	14:48:22
1	Na 589.592 Radial†	9755.2	10776.1	3127.3	ug/L	3127.3	ppb	14:48:02
1	Sr 421.552†	42845.0	44040.6	291.83	ug/L	291.83	ppb	14:48:02
1	Sc 361.383	910340.1	910340.1	101.14	%			14:49:20
1	Y 371.029	839987.2	839987.2	110.17	%			14:49:20
1	Ag 328.068†	49873.0	49080.6	242.69	ug/L	242.69	ppb	14:49:20
1	As 188.979†	498.5	513.4	255.29	ug/L	255.29	ppb	14:49:40
1	B 249.677†	10005.9	10265.9	235.49	ug/L	235.49	ppb	14:49:20
1	Ba 233.527†	70585.7	69798.0	547.47	ug/L	547.47	ppb	14:49:20
1	Be 313.107†	655000.6	651459.5	245.86	ug/L	245.86	ppb	14:49:20
1	Cd 226.502†	21123.7	21068.6	239.23	ug/L	239.23	ppb	14:49:40
1	Co 228.616†	12122.5	12047.6	248.94	ug/L	248.94	ppb	14:49:40
1	Cr 267.716†	25584.2	25229.4	288.34	ug/L	288.34	ppb	14:49:40
1	Cu 324.752†	1071328.9	1053157.4	3165.1	ug/L	3165.1	ppb	14:49:20
1	Mn 257.610†	1128576.5	1115399.0	1255.6	ug/L	1255.6	ppb	14:49:20
1	Mo 202.031†	3164.7	3122.9	232.84	ug/L	232.84	ppb	14:49:40
1	Ni 231.604†	11011.4	10834.8	275.25	ug/L	275.25	ppb	14:49:40
1	P 214.914†	2175.5	1948.9	523.40	ug/L	523.40	ppb	14:49:40
1	Pb 220.353†	3376.7	3403.6	423.14	ug/L	423.14	ppb	14:49:40
1	S 181.975 Axial†	1798.5	1741.2	2543.2	ug/L	2543.2	ppb	14:49:40
1	Sb 206.836†	660.6	616.4	218.58	ug/L	218.58	ppb	14:49:40
1	Se 196.026†	138.9	158.0	273.26	ug/L	273.26	ppb	14:49:40
1	Si 251.611†	618389.4	610874.1	19594	ug/L	19594	ppb	14:49:20
1	Sn 189.927†	1505.7	1478.3	265.83	ug/L	265.83	ppb	14:49:40
1	Ti 334.940†	904493.2	895564.1	1354.7	ug/L	1354.7	ppb	14:49:20
1	Tl 190.801†	678.2	701.8	240.77	ug/L	240.77	ppb	14:49:40
1	U 409.014†	14763.9	17413.5	463.72	ug/L	463.72	ppb	14:49:20
1	V 292.402†	40508.5	41481.7	282.85	ug/L	282.85	ppb	14:49:20
1	Zn 213.857†	45476.8	44405.7	431.45	ug/L	431.45	ppb	14:49:20
1	SiO2†	624944.9	617338.3	42410	ug/L	42410	ppb	14:50:37
2	Sc Radial	4097.2	4097.2	96.3	%			14:48:27
2	Y RADIAL	5023.4	5023.4	107.1	%			14:48:27
2	Al 396.153Radial†	42740.5	44482.1	40274	ug/L	40274	ppb	14:48:27
2	Ca 317.933Radial†	4080.6	4220.8	8397.8	ug/L	8397.8	ppb	14:48:27
2	Fe 238.204 Radial†	4055.5	4200.0	54118	ug/L	54118	ppb	14:48:27
2	K 766.490 Radial†	35294.2	34084.1	6371.9	ug/L	6371.9	ppb	14:48:27
2	Mg 279.077 IEC†	172.6	176.4	7962.6	ug/L	7962.6	ppb	14:48:47
2	Na 589.592 Radial†	9584.4	10690.5	3102.4	ug/L	3102.4	ppb	14:48:27
2	Sr 421.552†	42396.1	43976.9	291.41	ug/L	291.41	ppb	14:48:27
2	Sc 361.383	923996.8	923996.8	102.66	%			14:49:46
2	Y 371.029	851901.3	851901.3	111.73	%			14:49:46
2	Ag 328.068†	50735.0	49191.5	243.20	ug/L	243.20	ppb	14:49:46
2	As 188.979†	511.8	519.1	257.86	ug/L	257.86	ppb	14:50:06
2	B 249.677†	10191.9	10300.9	236.33	ug/L	236.33	ppb	14:49:46
2	Ba 233.527†	71527.2	69683.7	546.58	ug/L	546.58	ppb	14:49:46
2	Be 313.107†	664662.0	651299.0	245.79	ug/L	245.79	ppb	14:49:46
2	Cd 226.502†	21321.0	20952.0	237.87	ug/L	237.87	ppb	14:50:06
2	Co 228.616†	12178.0	11924.5	246.36	ug/L	246.36	ppb	14:50:06
2	Cr 267.716†	25739.8	25007.1	285.84	ug/L	285.84	ppb	14:50:06
2	Cu 324.752†	1087053.7	1052819.4	3164.1	ug/L	3164.1	ppb	14:49:46
2	Mn 257.610†	1144648.3	1114562.5	1254.6	ug/L	1254.6	ppb	14:49:46
2	Mo 202.031†	3185.4	3096.8	230.93	ug/L	230.93	ppb	14:50:06
2	Ni 231.604†	11074.4	10735.3	272.72	ug/L	272.72	ppb	14:50:06

2	P 214.914†	2191.2	1932.4	513.53	ug/L	513.53 ppb	14:50:06
2	Pb 220.353†	3410.5	3387.2	421.10	ug/L	421.10 ppb	14:50:06
2	S 181.975 Axial†	1816.6	1732.6	2530.6	ug/L	2530.6 ppb	14:50:06
2	Sb 206.836†	661.8	607.9	215.51	ug/L	215.51 ppb	14:50:06
2	Se 196.026†	146.9	163.8	277.07	ug/L	277.07 ppb	14:50:06
2	Si 251.611†	628007.6	611206.6	19605	ug/L	19605 ppb	14:49:46
2	Sn 189.927†	1500.7	1451.4	260.96	ug/L	260.96 ppb	14:50:06
2	Ti 334.940†	917464.9	894982.3	1353.8	ug/L	1353.8 ppb	14:49:46
2	Tl 190.801†	677.1	690.7	237.24	ug/L	237.24 ppb	14:50:06
2	U 409.014†	15084.9	17510.4	466.35	ug/L	466.35 ppb	14:49:46
2	V 292.402†	41006.4	41374.7	282.09	ug/L	282.09 ppb	14:49:46
2	Zn 213.857†	46116.3	44364.0	431.04	ug/L	431.04 ppb	14:49:46
2	SiO2†	623697.4	606990.7	41699	ug/L	41699 ppb	14:50:43
3	Sc Radial	4249.6	4249.6	99.9	%		14:48:52
3	Y RADIAL	5149.7	5149.7	109.8	%		14:48:52
3	Al 396.153Radial†	43750.0	43901.0	39748	ug/L	39748 ppb	14:48:52
3	Ca 317.933Radial†	4189.5	4177.9	8312.3	ug/L	8312.3 ppb	14:48:52
3	Fe 238.204 Radial†	4130.7	4124.3	53143	ug/L	53143 ppb	14:48:52
3	K 766.490 Radial†	36190.6	33667.1	6294.0	ug/L	6294.0 ppb	14:48:52
3	Mg 279.077 IEC†	173.3	170.7	7706.0	ug/L	7706.0 ppb	14:49:12
3	Na 589.592 Radial†	9843.6	10593.0	3074.1	ug/L	3074.1 ppb	14:48:52
3	Sr 421.552†	43355.6	43358.7	287.31	ug/L	287.31 ppb	14:48:52
3	Sc 361.383	917756.1	917756.1	101.97	%		14:50:12
3	Y 371.029	845538.5	845538.5	110.90	%		14:50:12
3	Ag 328.068†	50381.1	49180.5	242.86	ug/L	242.86 ppb	14:50:12
3	As 188.979†	499.5	510.4	253.73	ug/L	253.73 ppb	14:50:32
3	B 249.677†	10064.0	10242.9	235.11	ug/L	235.11 ppb	14:50:12
3	Ba 233.527†	71423.1	70055.3	549.46	ug/L	549.46 ppb	14:50:12
3	Be 313.107†	659725.8	650860.5	245.64	ug/L	245.64 ppb	14:50:12
3	Cd 226.502†	21225.2	20999.3	238.52	ug/L	238.52 ppb	14:50:32
3	Co 228.616†	12172.4	11999.7	247.94	ug/L	247.94 ppb	14:50:32
3	Cr 267.716†	25693.2	25131.9	287.15	ug/L	287.15 ppb	14:50:32
3	Cu 324.752†	1079712.6	1052820.2	3164.1	ug/L	3164.1 ppb	14:50:12
3	Mn 257.610†	1139445.4	1117041.7	1257.3	ug/L	1257.3 ppb	14:50:12
3	Mo 202.031†	3151.9	3085.1	230.00	ug/L	230.00 ppb	14:50:32
3	Ni 231.604†	11037.4	10772.3	273.66	ug/L	273.66 ppb	14:50:32
3	P 214.914†	2167.4	1923.6	508.86	ug/L	508.86 ppb	14:50:32
3	Pb 220.353†	3394.8	3394.3	421.98	ug/L	421.98 ppb	14:50:32
3	S 181.975 Axial†	1813.5	1741.5	2543.8	ug/L	2543.8 ppb	14:50:32
3	Sb 206.836†	646.7	597.5	211.92	ug/L	211.92 ppb	14:50:32
3	Se 196.026†	143.8	161.7	272.67	ug/L	272.67 ppb	14:50:32
3	Si 251.611†	625094.0	612509.0	19646	ug/L	19646 ppb	14:50:12
3	Sn 189.927†	1505.0	1465.5	263.56	ug/L	263.56 ppb	14:50:32
3	Ti 334.940†	913198.6	896875.4	1356.6	ug/L	1356.6 ppb	14:50:12
3	Tl 190.801†	681.8	699.9	240.20	ug/L	240.20 ppb	14:50:32
3	U 409.014†	14701.9	17234.7	459.01	ug/L	459.01 ppb	14:50:12
3	V 292.402†	40932.9	41574.2	283.58	ug/L	283.58 ppb	14:50:12
3	Zn 213.857†	45891.1	44448.7	432.03	ug/L	432.03 ppb	14:50:12
3	SiO2†	629475.0	616788.2	42372	ug/L	42372 ppb	14:50:48

Mean Data: 1202030972|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917364.3	101.92	%	0.760				0.75%
Sc Radial	4160.5	97.8	%	1.87				1.91%
Y 371.029	845809.0	110.93	%	0.782				0.70%
Y RADIAL	5055.2	107.7	%	1.78				1.65%
Ag 328.068†	49150.9	242.92	ug/L	0.258	242.92	ppb	0.258	0.11%
Al 396.153Radial†	44287.0	40097	ug/L	302.7	40097	ppb	302.7	0.75%
As 188.979†	514.3	255.63	ug/L	2.081	255.63	ppb	2.081	0.81%
B 249.677†	10269.9	235.64	ug/L	0.628	235.64	ppb	0.628	0.27%
Ba 233.527†	69845.7	547.84	ug/L	1.472	547.84	ppb	1.472	0.27%
Be 313.107†	651206.3	245.76	ug/L	0.113	245.76	ppb	0.113	0.05%
Ca 317.933Radial†	4214.2	8384.5	ug/L	66.56	8384.5	ppb	66.56	0.79%
Cd 226.502†	21006.6	238.54	ug/L	0.678	238.54	ppb	0.678	0.28%
Co 228.616†	11990.6	247.75	ug/L	1.299	247.75	ppb	1.299	0.52%
Cr 267.716†	25122.8	287.11	ug/L	1.248	287.11	ppb	1.248	0.43%
Cu 324.752†	1052932.3	3164.4	ug/L	0.60	3164.4	ppb	0.60	0.02%
Fe 238.204 Radial†	4174.6	53791	ug/L	561.1	53791	ppb	561.1	1.04%
K 766.490 Radial†	33947.3	6346.3	ug/L	45.37	6346.3	ppb	45.37	0.71%

Mg 279.077 IEC†	172.5	7786.1 ug/L	153.09	7786.1 ppb	153.09	1.97%
Mn 257.610†	1115667.7	1255.9 ug/L	1.37	1255.9 ppb	1.37	0.11%
Mo 202.031†	3101.6	231.26 ug/L	1.447	231.26 ppb	1.447	0.63%
Na 589.592 Radial†	10686.5	3101.3 ug/L	26.59	3101.3 ppb	26.59	0.86%
Ni 231.604†	10780.8	273.87 ug/L	1.278	273.87 ppb	1.278	0.47%
P 214.914†	1935.0	515.26 ug/L	7.424	515.26 ppb	7.424	1.44%
Pb 220.353†	3395.0	422.07 ug/L	1.023	422.07 ppb	1.023	0.24%
S 181.975 Axial†	1738.4	2539.2 ug/L	7.47	2539.2 ppb	7.47	0.29%
Sb 206.836†	607.3	215.34 ug/L	3.330	215.34 ppb	3.330	1.55%
Se 196.026†	161.2	274.33 ug/L	2.390	274.33 ppb	2.390	0.87%
Si 251.611†	611529.9	19615 ug/L	27.7	19615 ppb	27.7	0.14%
Sn 189.927†	1465.1	263.45 ug/L	2.436	263.45 ppb	2.436	0.92%
Sr 421.552†	43792.1	290.19 ug/L	2.496	290.19 ppb	2.496	0.86%
Ti 334.940†	895807.2	1355.0 ug/L	1.47	1355.0 ppb	1.47	0.11%
Tl 190.801†	697.5	239.40 ug/L	1.895	239.40 ppb	1.895	0.79%
U 409.014†	17386.2	463.03 ug/L	3.720	463.03 ppb	3.720	0.80%
V 292.402†	41476.9	282.84 ug/L	0.746	282.84 ppb	0.746	0.26%
Zn 213.857†	44406.1	431.51 ug/L	0.498	431.51 ppb	0.498	0.12%
SiO2†	613705.7	42161 ug/L	400.0	42161 ppb	400.0	0.95%

Sequence No.: 8
Sample ID: 1202030973|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 2/23/2010 14:52:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030973|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4094.4	4094.4	96.3	%			14:54:52
1	Y RADIAL	4956.7	4956.7	105.6	%			14:54:52
1	Al 396.153Radial†	40681.5	42373.0	38363	ug/L	38363	ppb	14:54:52
1	Ca 317.933Radial†	3963.9	4102.5	8162.2	ug/L	8162.2	ppb	14:54:52
1	Fe 238.204 Radial†	3801.9	3939.5	50762	ug/L	50762	ppb	14:54:52
1	K 766.490 Radial†	35001.0	33804.2	6319.6	ug/L	6319.6	ppb	14:54:52
1	Mg 279.077 IEC†	160.8	164.3	7418.0	ug/L	7418.0	ppb	14:55:12
1	Na 589.592 Radial†	9861.7	10985.3	3188.0	ug/L	3188.0	ppb	14:54:52
1	Sr 421.552†	43248.7	44892.4	297.48	ug/L	297.48	ppb	14:54:52
1	Sc 361.383	902816.7	902816.7	100.31	%			14:56:09
1	Y 371.029	826939.9	826939.9	108.46	%			14:56:09
1	Ag 328.068†	51901.9	51514.3	252.90	ug/L	252.90	ppb	14:56:09
1	As 188.979†	525.6	544.5	267.66	ug/L	267.66	ppb	14:56:29
1	B 249.677†	10353.6	10694.9	246.24	ug/L	246.24	ppb	14:56:09
1	Ba 233.527†	62928.5	62745.7	492.30	ug/L	492.30	ppb	14:56:09
1	Be 313.107†	676371.4	678161.8	255.59	ug/L	255.59	ppb	14:56:09
1	Cd 226.502†	22023.4	22139.6	252.01	ug/L	252.01	ppb	14:56:29
1	Co 228.616†	12662.2	12685.5	262.51	ug/L	262.51	ppb	14:56:29
1	Cr 267.716†	28370.5	28218.0	321.56	ug/L	321.56	ppb	14:56:29
1	Cu 324.752†	189976.9	183320.3	552.94	ug/L	552.94	ppb	14:56:09
1	Mn 257.610†	1045955.1	1042328.1	1173.4	ug/L	1173.4	ppb	14:56:09
1	Mo 202.031†	3325.7	3309.5	246.24	ug/L	246.24	ppb	14:56:29
1	Ni 231.604†	11826.5	11738.2	298.20	ug/L	298.20	ppb	14:56:29
1	P 214.914†	1145.5	939.9	432.10	ug/L	432.10	ppb	14:56:29
1	Pb 220.353†	3635.1	3689.1	460.01	ug/L	460.01	ppb	14:56:29
1	S 181.975 Axial†	1852.8	1810.1	2644.6	ug/L	2644.6	ppb	14:56:29
1	Sb 206.836†	689.7	650.9	231.17	ug/L	231.17	ppb	14:56:29
1	Se 196.026†	163.8	184.0	279.97	ug/L	279.97	ppb	14:56:29
1	Si 251.611†	639204.5	636720.8	20423	ug/L	20423	ppb	14:56:09
1	Sn 189.927†	1437.7	1422.8	255.94	ug/L	255.94	ppb	14:56:29
1	Ti 334.940†	833892.6	832631.1	1259.5	ug/L	1259.5	ppb	14:56:09
1	Tl 190.801†	726.4	755.4	256.74	ug/L	256.74	ppb	14:56:29
1	U 409.014†	13521.4	16296.5	433.85	ug/L	433.85	ppb	14:56:09
1	V 292.402†	41245.2	42549.8	290.97	ug/L	290.97	ppb	14:56:09
1	Zn 213.857†	44174.1	43481.7	426.06	ug/L	426.06	ppb	14:56:09
1	SiO2†	647982.0	645454.2	44342	ug/L	44342	ppb	14:57:27
2	Sc Radial	4097.9	4097.9	96.3	%			14:55:17
2	Y RADIAL	4933.3	4933.3	105.1	%			14:55:17
2	Al 396.153Radial†	40391.4	42036.3	38058	ug/L	38058	ppb	14:55:17
2	Ca 317.933Radial†	3946.2	4080.6	8118.7	ug/L	8118.7	ppb	14:55:17
2	Fe 238.204 Radial†	3799.5	3933.6	50686	ug/L	50686	ppb	14:55:17
2	K 766.490 Radial†	34720.0	33481.9	6259.3	ug/L	6259.3	ppb	14:55:17
2	Mg 279.077 IEC†	160.1	163.4	7376.2	ug/L	7376.2	ppb	14:55:37
2	Na 589.592 Radial†	9769.8	10881.3	3157.8	ug/L	3157.8	ppb	14:55:17
2	Sr 421.552†	42884.6	44476.6	294.72	ug/L	294.72	ppb	14:55:17
2	Sc 361.383	913074.5	913074.5	101.45	%			14:56:35
2	Y 371.029	835370.7	835370.7	109.57	%			14:56:35
2	Ag 328.068†	52589.6	51610.9	253.32	ug/L	253.32	ppb	14:56:35
2	As 188.979†	529.9	542.9	266.94	ug/L	266.94	ppb	14:56:55
2	B 249.677†	10503.2	10726.5	247.01	ug/L	247.01	ppb	14:56:35
2	Ba 233.527†	63802.5	62902.5	493.53	ug/L	493.53	ppb	14:56:35
2	Be 313.107†	685685.5	679767.7	256.19	ug/L	256.19	ppb	14:56:35
2	Cd 226.502†	22112.1	21980.3	250.17	ug/L	250.17	ppb	14:56:55
2	Co 228.616†	12704.7	12585.6	260.42	ug/L	260.42	ppb	14:56:55
2	Cr 267.716†	28349.7	27879.7	317.76	ug/L	317.76	ppb	14:56:55
2	Cu 324.752†	192063.8	183249.8	552.72	ug/L	552.72	ppb	14:56:35
2	Mn 257.610†	1060767.0	1045214.1	1176.6	ug/L	1176.6	ppb	14:56:35
2	Mo 202.031†	3355.2	3301.3	245.63	ug/L	245.63	ppb	14:56:55
2	Ni 231.604†	11821.8	11601.0	294.71	ug/L	294.71	ppb	14:56:55

2	P 214.914†	1155.5	937.0	430.32 ug/L	430.32 ppb	14:56:55
2	Pb 220.353†	3638.8	3651.9	455.35 ug/L	455.35 ppb	14:56:55
2	S 181.975 Axial†	1872.6	1808.9	2642.9 ug/L	2642.9 ppb	14:56:55
2	Sb 206.836†	704.4	657.6	233.48 ug/L	233.48 ppb	14:56:55
2	Se 196.026†	152.7	171.2	271.35 ug/L	271.35 ppb	14:56:55
2	Si 251.611†	648213.4	638442.2	20478 ug/L	20478 ppb	14:56:35
2	Sn 189.927†	1444.6	1413.6	254.27 ug/L	254.27 ppb	14:56:55
2	Ti 334.940†	844028.0	833282.3	1260.5 ug/L	1260.5 ppb	14:56:35
2	Tl 190.801†	713.5	734.5	250.06 ug/L	250.06 ppb	14:56:55
2	U 409.014†	13746.1	16366.5	435.76 ug/L	435.76 ppb	14:56:35
2	V 292.402†	41833.6	42667.9	291.80 ug/L	291.80 ppb	14:56:35
2	Zn 213.857†	44784.0	43588.1	427.16 ug/L	427.16 ppb	14:56:35
2	SiO2†	646496.2	636732.1	43742 ug/L	43742 ppb	14:57:33
3	Sc Radial	4072.5	4072.5	95.7 %		14:55:42
3	Y RADIAL	4916.9	4916.9	104.8 %		14:55:42
3	Al 396.153Radial†	40131.3	42025.8	38049 ug/L	38049 ppb	14:55:42
3	Ca 317.933Radial†	3910.1	4068.5	8094.6 ug/L	8094.6 ppb	14:55:42
3	Fe 238.204 Radial†	3770.8	3928.2	50616 ug/L	50616 ppb	14:55:42
3	K 766.490 Radial†	34369.2	33340.1	6232.8 ug/L	6232.8 ppb	14:55:42
3	Mg 279.077 IEC†	161.8	166.3	7505.8 ug/L	7505.8 ppb	14:56:02
3	Na 589.592 Radial†	9659.9	10829.6	3142.8 ug/L	3142.8 ppb	14:55:42
3	Sr 421.552†	42593.4	44449.8	294.55 ug/L	294.55 ppb	14:55:42
3	Sc 361.383	900183.2	900183.2	100.01 %		14:57:01
3	Y 371.029	822398.2	822398.2	107.86 %		14:57:01
3	Ag 328.068†	51869.5	51633.3	253.40 ug/L	253.40 ppb	14:57:01
3	As 188.979†	540.1	560.5	274.86 ug/L	274.86 ppb	14:57:21
3	B 249.677†	10362.4	10734.0	247.19 ug/L	247.19 ppb	14:57:01
3	Ba 233.527†	63090.0	63090.8	494.99 ug/L	494.99 ppb	14:57:01
3	Be 313.107†	674044.8	677808.2	255.46 ug/L	255.46 ppb	14:57:01
3	Cd 226.502†	22015.8	22196.2	252.68 ug/L	252.68 ppb	14:57:21
3	Co 228.616†	12642.2	12702.4	262.87 ug/L	262.87 ppb	14:57:21
3	Cr 267.716†	28255.1	28185.4	321.18 ug/L	321.18 ppb	14:57:21
3	Cu 324.752†	189307.2	183204.9	552.58 ug/L	552.58 ppb	14:57:01
3	Mn 257.610†	1046627.8	1046051.4	1177.5 ug/L	1177.5 ppb	14:57:01
3	Mo 202.031†	3321.4	3314.9	246.62 ug/L	246.62 ppb	14:57:21
3	Ni 231.604†	11795.4	11741.5	298.28 ug/L	298.28 ppb	14:57:21
3	P 214.914†	1141.8	939.6	432.04 ug/L	432.04 ppb	14:57:21
3	Pb 220.353†	3619.6	3684.1	459.34 ug/L	459.34 ppb	14:57:21
3	S 181.975 Axial†	1871.0	1833.7	2679.1 ug/L	2679.1 ppb	14:57:21
3	Sb 206.836†	689.3	652.5	231.75 ug/L	231.75 ppb	14:57:21
3	Se 196.026†	169.8	190.5	283.83 ug/L	283.83 ppb	14:57:21
3	Si 251.611†	639198.9	638579.5	20483 ug/L	20483 ppb	14:57:01
3	Sn 189.927†	1442.3	1431.7	257.54 ug/L	257.54 ppb	14:57:21
3	Ti 334.940†	832532.5	833703.3	1261.1 ug/L	1261.1 ppb	14:57:01
3	Tl 190.801†	714.8	745.9	253.73 ug/L	253.73 ppb	14:57:21
3	U 409.014†	13476.3	16290.8	433.71 ug/L	433.71 ppb	14:57:01
3	V 292.402†	41123.2	42548.1	290.99 ug/L	290.99 ppb	14:57:01
3	Zn 213.857†	44119.5	43555.9	426.83 ug/L	426.83 ppb	14:57:01
3	SiO2†	644064.5	643427.1	44202 ug/L	44202 ppb	14:57:38

Mean Data: 1202030973|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	905358.1	100.59	%	0.757				0.75%
Sc Radial	4088.3	96.1	%	0.32				0.34%
Y 371.029	828236.3	108.63	%	0.863				0.79%
Y RADIAL	4935.6	105.2	%	0.43				0.41%
Ag 328.068†	51586.1	253.21	ug/L	0.270	253.21	ppb	0.270	0.11%
Al 396.153Radial†	42145.0	38157	ug/L	178.8	38157	ppb	178.8	0.47%
As 188.979†	549.3	269.82	ug/L	4.381	269.82	ppb	4.381	1.62%
B 249.677†	10718.5	246.81	ug/L	0.506	246.81	ppb	0.506	0.21%
Ba 233.527†	62913.0	493.61	ug/L	1.347	493.61	ppb	1.347	0.27%
Be 313.107†	678579.2	255.75	ug/L	0.389	255.75	ppb	0.389	0.15%
Ca 317.933Radial†	4083.8	8125.2	ug/L	34.28	8125.2	ppb	34.28	0.42%
Cd 226.502†	22105.3	251.62	ug/L	1.302	251.62	ppb	1.302	0.52%
Co 228.616†	12657.9	261.93	ug/L	1.321	261.93	ppb	1.321	0.50%
Cr 267.716†	28094.3	320.17	ug/L	2.093	320.17	ppb	2.093	0.65%
Cu 324.752†	183258.3	552.75	ug/L	0.179	552.75	ppb	0.179	0.03%
Fe 238.204 Radial†	3933.8	50688	ug/L	72.9	50688	ppb	72.9	0.14%
K 766.490 Radial†	33542.1	6270.6	ug/L	44.48	6270.6	ppb	44.48	0.71%

Mg 279.077 IEC†	164.7	7433.3	ug/L	66.14	7433.3	ppb	66.14	0.89%
Mn 257.610†	1044531.2	1175.8	ug/L	2.18	1175.8	ppb	2.18	0.19%
Mo 202.031†	3308.6	246.16	ug/L	0.499	246.16	ppb	0.499	0.20%
Na 589.592 Radial†	10898.7	3162.8	ug/L	23.02	3162.8	ppb	23.02	0.73%
Ni 231.604†	11693.6	297.07	ug/L	2.037	297.07	ppb	2.037	0.69%
P 214.914†	938.8	431.48	ug/L	1.012	431.48	ppb	1.012	0.23%
Pb 220.353†	3675.0	458.23	ug/L	2.519	458.23	ppb	2.519	0.55%
S 181.975 Axial†	1817.6	2655.5	ug/L	20.46	2655.5	ppb	20.46	0.77%
Sb 206.836†	653.7	232.13	ug/L	1.202	232.13	ppb	1.202	0.52%
Se 196.026†	181.9	278.38	ug/L	6.390	278.38	ppb	6.390	2.30%
Si 251.611†	637914.2	20461	ug/L	33.2	20461	ppb	33.2	0.16%
Sn 189.927†	1422.7	255.91	ug/L	1.636	255.91	ppb	1.636	0.64%
Sr 421.552†	44606.3	295.58	ug/L	1.644	295.58	ppb	1.644	0.56%
Ti 334.940†	833205.6	1260.3	ug/L	0.81	1260.3	ppb	0.81	0.06%
Tl 190.801†	745.3	253.51	ug/L	3.347	253.51	ppb	3.347	1.32%
U 409.014†	16317.9	434.44	ug/L	1.144	434.44	ppb	1.144	0.26%
V 292.402†	42588.6	291.25	ug/L	0.472	291.25	ppb	0.472	0.16%
Zn 213.857†	43541.9	426.69	ug/L	0.565	426.69	ppb	0.565	0.13%
SiO2†	641871.1	44095	ug/L	313.6	44095	ppb	313.6	0.71%

Sequence No.: 9
Sample ID: 1202030971|948071|10
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 2/23/2010 14:59:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030971|948071|10

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4347.3	4347.3	102	%			15:01:42
1	Y RADIAL	4882.1	4882.1	104.1	%			15:01:42
1	Al 396.153Radial†	3863.0	3890.4	3523.3	ug/L	3523.3	ppb	15:01:42
1	Ca 317.933Radial†	583.8	555.7	1105.7	ug/L	1105.7	ppb	15:02:02
1	Fe 238.204 Radial†	727.4	701.5	9038.4	ug/L	9038.4	ppb	15:02:02
1	K 766.490 Radial†	5320.7	2649.2	495.14	ug/L	495.14	ppb	15:01:42
1	Mg 279.077 IEC†	18.9	15.8	707.08	ug/L	707.08	ppb	15:02:02
1	Na 589.592 Radial†	-396.8	352.1	102.17	ug/L	102.17	ppb	15:01:42
1	Sr 421.552†	1215.8	1152.8	7.6322	ug/L	7.6322	ppb	15:01:42
1	Sc 361.383	920371.9	920371.9	102.26	%			15:02:59
1	Y 371.029	787435.2	787435.2	103.28	%			15:02:59
1	Ag 328.068†	-363.3	-584.6	0.0644	ug/L	0.0644	ppb	15:03:04
1	As 188.979†	-25.4	-4.3	1.6281	ug/L	1.6281	ppb	15:03:24
1	B 249.677†	-340.4	40.0	-0.5233	ug/L	-0.5233	ppb	15:03:04
1	Ba 233.527†	6576.3	6440.3	50.601	ug/L	50.601	ppb	15:03:04
1	Be 313.107†	-1866.6	2027.9	1.1388	ug/L	1.1388	ppb	15:03:04
1	Cd 226.502†	-107.1	78.6	-0.0031	ug/L	-0.0031	ppb	15:03:24
1	Co 228.616†	116.1	175.5	3.2048	ug/L	3.2048	ppb	15:03:24
1	Cr 267.716†	1252.9	1159.2	13.849	ug/L	13.849	ppb	15:03:24
1	Cu 324.752†	43937.6	36891.0	111.22	ug/L	111.22	ppb	15:03:04
1	Mn 257.610†	177818.8	173458.3	195.34	ug/L	195.34	ppb	15:02:59
1	Mo 202.031†	17.1	10.6	1.4935	ug/L	1.4935	ppb	15:03:24
1	Ni 231.604†	418.3	356.8	9.0657	ug/L	9.0657	ppb	15:03:24
1	P 214.914†	320.8	111.7	39.370	ug/L	39.370	ppb	15:03:24
1	Pb 220.353†	4657.8	4620.0	572.16	ug/L	572.16	ppb	15:03:24
1	S 181.975 Axial†	53.7	15.5	21.978	ug/L	21.978	ppb	15:03:24
1	Sb 206.836†	52.8	15.0	4.4965	ug/L	4.4965	ppb	15:03:24
1	Se 196.026†	-55.1	-33.2	6.2836	ug/L	6.2836	ppb	15:03:24
1	Si 251.611†	113676.5	110634.0	3549.1	ug/L	3549.1	ppb	15:03:04
1	Sn 189.927†	5.2	-5.3	-1.2886	ug/L	-1.2886	ppb	15:03:24
1	Ti 334.940†	112757.4	111551.1	168.77	ug/L	168.77	ppb	15:03:04
1	Tl 190.801†	-53.3	-20.9	-4.4163	ug/L	-4.4163	ppb	15:03:24
1	U 409.014†	-445.4	2380.7	63.269	ug/L	63.269	ppb	15:02:59
1	V 292.402†	-67.5	1364.4	8.1207	ug/L	8.1207	ppb	15:03:04
1	Zn 213.857†	4516.7	3859.3	37.165	ug/L	37.165	ppb	15:03:24
1	SiO2†	115556.1	112454.8	7726.6	ug/L	7726.6	ppb	15:04:30
2	Sc Radial	4101.8	4101.8	96.4	%			15:02:07
2	Y RADIAL	4620.9	4620.9	98.48	%			15:02:07
2	Al 396.153Radial†	3876.8	4130.9	3741.2	ug/L	3741.2	ppb	15:02:07
2	Ca 317.933Radial†	580.7	586.7	1167.3	ug/L	1167.3	ppb	15:02:27
2	Fe 238.204 Radial†	727.5	744.2	9588.0	ug/L	9588.0	ppb	15:02:27
2	K 766.490 Radial†	5282.0	2920.6	545.88	ug/L	545.88	ppb	15:02:07
2	Mg 279.077 IEC†	16.4	14.2	636.21	ug/L	636.21	ppb	15:02:27
2	Na 589.592 Radial†	-307.8	421.2	122.23	ug/L	122.23	ppb	15:02:07
2	Sr 421.552†	1238.5	1247.5	8.2596	ug/L	8.2596	ppb	15:02:07
2	Sc 361.383	870949.9	870949.9	96.765	%			15:03:29
2	Y 371.029	744609.0	744609.0	97.661	%			15:03:29
2	Ag 328.068†	-275.1	-513.7	0.5645	ug/L	0.5645	ppb	15:03:34
2	As 188.979†	-20.7	-0.8	3.4514	ug/L	3.4514	ppb	15:03:54
2	B 249.677†	-293.1	70.1	0.1053	ug/L	0.1053	ppb	15:03:34
2	Ba 233.527†	6702.5	6935.7	54.490	ug/L	54.490	ppb	15:03:34
2	Be 313.107†	-1985.8	1801.1	1.0838	ug/L	1.0838	ppb	15:03:34
2	Cd 226.502†	-109.4	70.3	-0.1562	ug/L	-0.1562	ppb	15:03:54
2	Co 228.616†	111.1	176.7	3.1964	ug/L	3.1964	ppb	15:03:54
2	Cr 267.716†	1291.3	1268.5	15.130	ug/L	15.130	ppb	15:03:54
2	Cu 324.752†	44690.0	40106.8	120.91	ug/L	120.91	ppb	15:03:34
2	Mn 257.610†	180124.4	185708.6	209.13	ug/L	209.13	ppb	15:03:29
2	Mo 202.031†	10.7	5.0	1.1238	ug/L	1.1238	ppb	15:03:54
2	Ni 231.604†	428.1	390.0	9.9119	ug/L	9.9119	ppb	15:03:54

2	P 214.914†	328.5	137.5	52.719 ug/L	52.719 ppb	15:03:54
2	Pb 220.353†	4672.9	4894.2	606.11 ug/L	606.11 ppb	15:03:54
2	S 181.975 Axial†	53.3	18.0	25.658 ug/L	25.658 ppb	15:03:54
2	Sb 206.836†	49.0	13.9	4.1025 ug/L	4.1025 ppb	15:03:54
2	Se 196.026†	-65.4	-46.9	-1.0378 ug/L	-1.0378 ppb	15:03:54
2	Si 251.611†	115826.5	119164.1	3822.8 ug/L	3822.8 ppb	15:03:34
2	Sn 189.927†	15.7	5.8	0.6998 ug/L	0.6998 ppb	15:03:54
2	Ti 334.940†	115015.2	120141.6	181.78 ug/L	181.78 ppb	15:03:34
2	Tl 190.801†	-44.4	-14.7	-2.2577 ug/L	-2.2577 ppb	15:03:54
2	U 409.014†	-523.9	2274.9	60.343 ug/L	60.343 ppb	15:03:29
2	V 292.402†	76.6	1509.6	9.0216 ug/L	9.0216 ppb	15:03:34
2	Zn 213.857†	4502.0	4094.8	39.427 ug/L	39.427 ppb	15:03:54
2	SiO2†	115874.3	119196.1	8189.8 ug/L	8189.8 ppb	15:04:35
3	Sc Radial	4135.8	4135.8	97.2 %		15:02:32
3	Y RADIAL	4643.8	4643.8	98.97 %		15:02:32
3	Al 396.153Radial†	3814.0	4033.4	3652.8 ug/L	3652.8 ppb	15:02:32
3	Ca 317.933Radial†	575.7	576.6	1147.3 ug/L	1147.3 ppb	15:02:52
3	Fe 238.204 Radial†	734.2	744.9	9597.4 ug/L	9597.4 ppb	15:02:52
3	K 766.490 Radial†	5226.1	2818.2	526.73 ug/L	526.73 ppb	15:02:32
3	Mg 279.077 IEC†	17.7	15.5	692.31 ug/L	692.31 ppb	15:02:52
3	Na 589.592 Radial†	-258.3	474.7	137.77 ug/L	137.77 ppb	15:02:32
3	Sr 421.552†	1186.4	1183.4	7.8347 ug/L	7.8347 ppb	15:02:32
3	Sc 361.383	926177.6	926177.6	102.90 %		15:04:00
3	Y 371.029	790463.1	790463.1	103.68 %		15:04:00
3	Ag 328.068†	-341.5	-561.2	0.3415 ug/L	0.3415 ppb	15:04:05
3	As 188.979†	-24.9	-3.7	2.0277 ug/L	2.0277 ppb	15:04:25
3	B 249.677†	-418.4	-33.6	-2.3705 ug/L	-2.3705 ppb	15:04:05
3	Ba 233.527†	6546.0	6370.6	50.074 ug/L	50.074 ppb	15:04:05
3	Be 313.107†	-1920.1	1987.4	1.1176 ug/L	1.1176 ppb	15:04:05
3	Cd 226.502†	-118.7	67.9	-0.1846 ug/L	-0.1846 ppb	15:04:25
3	Co 228.616†	95.5	154.8	2.7680 ug/L	2.7680 ppb	15:04:25
3	Cr 267.716†	1266.1	1164.5	13.960 ug/L	13.960 ppb	15:04:25
3	Cu 324.752†	43432.1	36130.4	108.97 ug/L	108.97 ppb	15:04:05
3	Mn 257.610†	179760.8	174255.5	196.29 ug/L	196.29 ppb	15:04:00
3	Mo 202.031†	9.2	2.9	0.9717 ug/L	0.9717 ppb	15:04:25
3	Ni 231.604†	407.3	343.5	8.7292 ug/L	8.7292 ppb	15:04:25
3	P 214.914†	317.6	106.6	36.289 ug/L	36.289 ppb	15:04:25
3	Pb 220.353†	4649.1	4583.0	567.55 ug/L	567.55 ppb	15:04:25
3	S 181.975 Axial†	45.5	7.2	9.8537 ug/L	9.8537 ppb	15:04:25
3	Sb 206.836†	41.4	3.5	0.5006 ug/L	0.5006 ppb	15:04:25
3	Se 196.026†	-60.9	-38.5	4.5005 ug/L	4.5005 ppb	15:04:25
3	Si 251.611†	112629.8	108919.9	3494.1 ug/L	3494.1 ppb	15:04:05
3	Sn 189.927†	8.8	-1.9	-0.6888 ug/L	-0.6888 ppb	15:04:25
3	Ti 334.940†	111645.3	109779.2	166.10 ug/L	166.10 ppb	15:04:05
3	Tl 190.801†	-38.7	-6.4	0.2267 ug/L	0.2267 ppb	15:04:25
3	U 409.014†	-394.4	2433.0	64.618 ug/L	64.618 ppb	15:04:00
3	V 292.402†	-69.5	1362.9	8.0259 ug/L	8.0259 ppb	15:04:05
3	Zn 213.857†	4542.8	3857.1	37.064 ug/L	37.064 ppb	15:04:25
3	SiO2†	115832.7	112015.2	7696.4 ug/L	7696.4 ppb	15:04:40

Mean Data: 1202030971|948071|10

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	905833.1	100.64	%	3.372				3.35%
Sc Radial	4195.0	98.6	%	3.13				3.17%
Y 371.029	774169.1	101.54	%	3.363				3.31%
Y RADIAL	4715.6	100.5	%	3.08				3.07%
Ag 328.068†	-553.2	0.3235	ug/L	0.25056	0.3235	ppb	0.25056	77.46%
Al 396.153Radial†	4018.2	3639.1	ug/L	109.57	3639.1	ppb	109.57	3.01%
As 188.979†	-2.9	2.3690	ug/L	0.95839	2.3690	ppb	0.95839	40.46%
B 249.677†	25.5	-0.9295	ug/L	1.28688	-0.9295	ppb	1.28688	138.45%
Ba 233.527†	6582.2	51.722	ug/L	2.4119	51.722	ppb	2.4119	4.66%
Be 313.107†	1938.8	1.1134	ug/L	0.02774	1.1134	ppb	0.02774	2.49%
Ca 317.933Radial†	573.0	1140.1	ug/L	31.44	1140.1	ppb	31.44	2.76%
Cd 226.502†	72.3	-0.1146	ug/L	0.09766	-0.1146	ppb	0.09766	85.20%
Co 228.616†	169.0	3.0564	ug/L	0.24982	3.0564	ppb	0.24982	8.17%
Cr 267.716†	1197.4	14.313	ug/L	0.7094	14.313	ppb	0.7094	4.96%
Cu 324.752†	37709.4	113.70	ug/L	6.345	113.70	ppb	6.345	5.58%
Fe 238.204 Radial†	730.2	9408.0	ug/L	320.06	9408.0	ppb	320.06	3.40%
K 766.490 Radial†	2796.0	522.58	ug/L	25.624	522.58	ppb	25.624	4.90%

Mg 279.077 IEC†	15.1	678.53	ug/L	37.386	678.53	ppb	37.386	5.51%
Mn 257.610†	177807.5	200.26	ug/L	7.703	200.26	ppb	7.703	3.85%
Mo 202.031†	6.2	1.1963	ug/L	0.26833	1.1963	ppb	0.26833	22.43%
Na 589.592 Radial†	416.0	120.72	ug/L	17.848	120.72	ppb	17.848	14.78%
Ni 231.604†	363.4	9.2356	ug/L	0.60941	9.2356	ppb	0.60941	6.60%
P 214.914†	118.6	42.793	ug/L	8.7331	42.793	ppb	8.7331	20.41%
Pb 220.353†	4699.1	581.94	ug/L	21.059	581.94	ppb	21.059	3.62%
S 181.975 Axial†	13.5	19.163	ug/L	8.2696	19.163	ppb	8.2696	43.15%
Sb 206.836†	10.8	3.0332	ug/L	2.20215	3.0332	ppb	2.20215	72.60%
Se 196.026†	-39.5	3.2488	ug/L	3.81788	3.2488	ppb	3.81788	117.52%
Si 251.611†	112906.0	3622.0	ug/L	176.02	3622.0	ppb	176.02	4.86%
Sn 189.927†	-0.5	-0.4259	ug/L	1.01992	-0.4259	ppb	1.01992	239.50%
Sr 421.552†	1194.6	7.9089	ug/L	0.32021	7.9089	ppb	0.32021	4.05%
Ti 334.940†	113824.0	172.21	ug/L	8.389	172.21	ppb	8.389	4.87%
Tl 190.801†	-14.0	-2.1491	ug/L	2.32344	-2.1491	ppb	2.32344	108.11%
U 409.014†	2362.9	62.744	ug/L	2.1853	62.744	ppb	2.1853	3.48%
V 292.402†	1412.3	8.3894	ug/L	0.54954	8.3894	ppb	0.54954	6.55%
Zn 213.857†	3937.1	37.885	ug/L	1.3364	37.885	ppb	1.3364	3.53%
SiO2†	114555.4	7870.9	ug/L	276.55	7870.9	ppb	276.55	3.51%

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 15:06:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3924.9	3924.9	92.3	%			15:09:03
1	Y RADIAL	4390.1	4390.1	93.57	%			15:08:43
1	Al 396.153Radial†	5169.0	5712.6	5148.9	ug/L	5148.9	ppb	15:08:43
1	Ca 317.933Radial†	2496.3	2689.9	5351.7	ug/L	5351.7	ppb	15:09:03
1	Fe 238.204 Radial†	387.9	410.2	5299.7	ug/L	5299.7	ppb	15:09:03
1	K 766.490 Radial†	28286.9	28098.9	5250.4	ug/L	5250.4	ppb	15:08:43
1	Mg 279.077 IEC†	112.5	119.2	5416.5	ug/L	5416.5	ppb	15:09:03
1	Na 589.592 Radial†	31678.4	35071.6	10178	ug/L	10178	ppb	15:08:43
1	Sr 421.552†	70985.5	76893.2	509.60	ug/L	509.60	ppb	15:08:43
1	Sc 361.383	893296.7	893296.7	99.248	%			15:10:01
1	Y 371.029	743691.4	743691.4	97.541	%			15:10:01
1	Ag 328.068†	109119.8	109717.0	507.03	ug/L	507.03	ppb	15:10:06
1	As 188.979†	1106.2	1135.1	516.00	ug/L	516.00	ppb	15:10:26
1	B 249.677†	19977.9	20502.2	486.97	ug/L	486.97	ppb	15:10:06
1	Ba 233.527†	64286.9	64783.0	507.28	ug/L	507.28	ppb	15:10:06
1	Be 313.107†	1328064.1	1341977.0	501.25	ug/L	501.25	ppb	15:10:01
1	Cd 226.502†	43642.0	44155.9	512.40	ug/L	512.40	ppb	15:10:06
1	Co 228.616†	24200.3	24445.5	511.18	ug/L	511.18	ppb	15:10:06
1	Cr 267.716†	44865.4	45139.2	507.29	ug/L	507.29	ppb	15:10:06
1	Cu 324.752†	169272.4	164477.5	493.92	ug/L	493.92	ppb	15:10:06
1	Mn 257.610†	445117.5	448052.3	502.65	ug/L	502.65	ppb	15:10:01
1	Mo 202.031†	6908.3	6954.6	509.43	ug/L	509.43	ppb	15:10:26
1	Ni 231.604†	20015.4	20114.7	510.97	ug/L	510.97	ppb	15:10:06
1	P 214.914†	4381.8	4213.0	2460.1	ug/L	2460.1	ppb	15:10:26
1	Pb 220.353†	4041.9	4137.6	514.24	ug/L	514.24	ppb	15:10:26
1	S 181.975 Axial†	738.6	707.1	1034.9	ug/L	1034.9	ppb	15:10:26
1	Sb 206.836†	1477.5	1452.0	524.54	ug/L	524.54	ppb	15:10:26
1	Se 196.026†	743.4	769.7	525.50	ug/L	525.50	ppb	15:10:26
1	Si 251.611†	78681.3	78743.2	2519.8	ug/L	2519.8	ppb	15:10:06
1	Sn 189.927†	2829.3	2840.3	514.49	ug/L	514.49	ppb	15:10:26
1	Ti 334.940†	326380.3	330134.3	499.18	ug/L	499.18	ppb	15:10:01
1	Tl 190.801†	1552.7	1595.6	515.42	ug/L	515.42	ppb	15:10:26
1	U 409.014†	15141.3	18072.2	486.59	ug/L	486.59	ppb	15:10:06
1	V 292.402†	69952.5	71912.8	506.01	ug/L	506.01	ppb	15:10:06
1	Zn 213.857†	50920.0	50748.0	504.50	ug/L	504.50	ppb	15:10:06
1	SiO2†	77937.1	77976.0	5343.8	ug/L	5343.8	ppb	15:11:34
2	Sc Radial	3923.7	3923.7	92.2	%			15:09:28
2	Y RADIAL	4432.9	4432.9	94.48	%			15:09:08
2	Al 396.153Radial†	5237.5	5788.5	5218.3	ug/L	5218.3	ppb	15:09:08
2	Ca 317.933Radial†	2482.1	2675.3	5322.8	ug/L	5322.8	ppb	15:09:28
2	Fe 238.204 Radial†	380.3	402.1	5194.7	ug/L	5194.7	ppb	15:09:28
2	K 766.490 Radial†	28616.6	28465.1	5318.9	ug/L	5318.9	ppb	15:09:08
2	Mg 279.077 IEC†	111.7	118.4	5378.9	ug/L	5378.9	ppb	15:09:28
2	Na 589.592 Radial†	32166.3	35610.3	10334	ug/L	10334	ppb	15:09:08
2	Sr 421.552†	72055.4	78075.1	517.43	ug/L	517.43	ppb	15:09:08
2	Sc 361.383	910274.8	910274.8	101.13	%			15:10:32
2	Y 371.029	757544.9	757544.9	99.358	%			15:10:32
2	Ag 328.068†	109461.9	108004.7	499.12	ug/L	499.12	ppb	15:10:37
2	As 188.979†	1086.2	1094.6	497.67	ug/L	497.67	ppb	15:10:57
2	B 249.677†	20220.0	20366.1	483.77	ug/L	483.77	ppb	15:10:37
2	Ba 233.527†	64267.4	63555.5	497.68	ug/L	497.68	ppb	15:10:37
2	Be 313.107†	1330740.0	1319664.8	492.92	ug/L	492.92	ppb	15:10:32
2	Cd 226.502†	43777.5	43469.8	504.44	ug/L	504.44	ppb	15:10:37
2	Co 228.616†	24147.0	23938.1	500.56	ug/L	500.56	ppb	15:10:37
2	Cr 267.716†	44895.3	44325.7	498.15	ug/L	498.15	ppb	15:10:37
2	Cu 324.752†	170176.9	162190.7	487.05	ug/L	487.05	ppb	15:10:37
2	Mn 257.610†	446423.9	440979.0	494.71	ug/L	494.71	ppb	15:10:32
2	Mo 202.031†	6847.1	6764.2	495.49	ug/L	495.49	ppb	15:10:57
2	Ni 231.604†	20108.9	19831.0	503.76	ug/L	503.76	ppb	15:10:37

2	P 214.914†	4353.5	4102.6	2394.5	ug/L	2394.5 ppb	15:10:57
2	Pb 220.353†	4025.6	4045.4	502.81	ug/L	502.81 ppb	15:10:57
2	S 181.975 Axial†	740.5	695.1	1017.4	ug/L	1017.4 ppb	15:10:57
2	Sb 206.836†	1463.5	1410.4	509.54	ug/L	509.54 ppb	15:10:57
2	Se 196.026†	732.8	745.2	508.98	ug/L	508.98 ppb	15:10:57
2	Si 251.611†	78873.8	77454.8	2478.6	ug/L	2478.6 ppb	15:10:37
2	Sn 189.927†	2816.4	2774.4	502.57	ug/L	502.57 ppb	15:10:57
2	Ti 334.940†	326791.2	324407.0	490.53	ug/L	490.53 ppb	15:10:32
2	Tl 190.801†	1527.7	1541.8	498.09	ug/L	498.09 ppb	15:10:57
2	U 409.014†	14981.0	17629.2	474.65	ug/L	474.65 ppb	15:10:37
2	V 292.402†	70259.6	70901.8	498.80	ug/L	498.80 ppb	15:10:37
2	Zn 213.857†	51017.7	49887.7	495.94	ug/L	495.94 ppb	15:10:37
2	SiO2†	78251.7	76822.3	5264.9	ug/L	5264.9 ppb	15:11:39
3	Sc Radial	3944.6	3944.6	92.7	%		15:09:53
3	Y RADIAL	4371.9	4371.9	93.18	%		15:09:33
3	Al 396.153Radial†	5165.6	5680.9	5120.7	ug/L	5120.7 ppb	15:09:33
3	Ca 317.933Radial†	2473.3	2651.6	5275.6	ug/L	5275.6 ppb	15:09:53
3	Fe 238.204 Radial†	383.4	403.2	5209.9	ug/L	5209.9 ppb	15:09:53
3	K 766.490 Radial†	28222.9	27876.6	5208.9	ug/L	5208.9 ppb	15:09:33
3	Mg 279.077 IEC†	108.0	113.7	5168.6	ug/L	5168.6 ppb	15:09:53
3	Na 589.592 Radial†	31526.2	34735.7	10080	ug/L	10080 ppb	15:09:33
3	Sr 421.552†	70861.9	76375.0	506.16	ug/L	506.16 ppb	15:09:33
3	Sc 361.383	907260.5	907260.5	100.80	%		15:11:03
3	Y 371.029	754666.7	754666.7	98.980	%		15:11:03
3	Ag 328.068†	108853.1	107760.3	498.00	ug/L	498.00 ppb	15:11:08
3	As 188.979†	1097.2	1109.0	504.20	ug/L	504.20 ppb	15:11:28
3	B 249.677†	20051.3	20265.2	481.36	ug/L	481.36 ppb	15:11:08
3	Ba 233.527†	63960.6	63462.3	496.94	ug/L	496.94 ppb	15:11:08
3	Be 313.107†	1324183.5	1317531.9	492.12	ug/L	492.12 ppb	15:11:03
3	Cd 226.502†	43470.6	43309.0	502.57	ug/L	502.57 ppb	15:11:08
3	Co 228.616†	24073.4	23944.3	500.69	ug/L	500.69 ppb	15:11:08
3	Cr 267.716†	44671.2	44250.9	497.31	ug/L	497.31 ppb	15:11:08
3	Cu 324.752†	169018.4	161600.5	485.28	ug/L	485.28 ppb	15:11:08
3	Mn 257.610†	444795.9	440830.5	494.55	ug/L	494.55 ppb	15:11:03
3	Mo 202.031†	6866.7	6806.2	498.56	ug/L	498.56 ppb	15:11:28
3	Ni 231.604†	19942.8	19732.3	501.25	ug/L	501.25 ppb	15:11:08
3	P 214.914†	4368.7	4132.0	2412.7	ug/L	2412.7 ppb	15:11:28
3	Pb 220.353†	4028.2	4061.3	504.77	ug/L	504.77 ppb	15:11:28
3	S 181.975 Axial†	754.8	711.8	1041.8	ug/L	1041.8 ppb	15:11:28
3	Sb 206.836†	1464.5	1416.2	511.64	ug/L	511.64 ppb	15:11:28
3	Se 196.026†	739.8	754.6	515.24	ug/L	515.24 ppb	15:11:28
3	Si 251.611†	78337.6	77182.0	2469.9	ug/L	2469.9 ppb	15:11:08
3	Sn 189.927†	2815.3	2782.6	504.04	ug/L	504.04 ppb	15:11:28
3	Ti 334.940†	326076.7	324771.7	491.09	ug/L	491.09 ppb	15:11:03
3	Tl 190.801†	1529.6	1548.7	500.31	ug/L	500.31 ppb	15:11:28
3	U 409.014†	14873.5	17571.8	473.10	ug/L	473.10 ppb	15:11:08
3	V 292.402†	69735.8	70613.1	496.83	ug/L	496.83 ppb	15:11:08
3	Zn 213.857†	50693.6	49733.7	494.41	ug/L	494.41 ppb	15:11:08
3	SiO2†	77432.5	76266.7	5226.6	ug/L	5226.6 ppb	15:11:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903610.7	100.39	%	1.006				1.00%
Sc Radial	3931.1	92.4	%	0.28				0.30%
Y 371.029	751967.7	98.626	%	0.9588				0.97%
Y RADIAL	4398.3	93.74	%	0.668				0.71%
Ag 328.068†	108494.0	501.38	ug/L	4.926	501.38	ppb	4.926	0.98%
QC value within limits for Ag 328.068 Recovery = 100.28%								
Al 396.153Radial†	5727.4	5162.7	ug/L	50.22	5162.7	ppb	50.22	0.97%
QC value within limits for Al 396.153Radial Recovery = 103.25%								
As 188.979†	1112.9	505.96	ug/L	9.288	505.96	ppb	9.288	1.84%
QC value within limits for As 188.979 Recovery = 101.19%								
B 249.677†	20377.8	484.04	ug/L	2.815	484.04	ppb	2.815	0.58%
QC value within limits for B 249.677 Recovery = 96.81%								
Ba 233.527†	63933.6	500.63	ug/L	5.769	500.63	ppb	5.769	1.15%
QC value within limits for Ba 233.527 Recovery = 100.13%								
Be 313.107†	1326391.3	495.43	ug/L	5.057	495.43	ppb	5.057	1.02%
QC value within limits for Be 313.107 Recovery = 99.09%								
Ca 317.933Radial†	2672.3	5316.7	ug/L	38.44	5316.7	ppb	38.44	0.72%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.33%
Cd 226.502†            43644.9      506.47 ug/L         5.220      506.47 ppb          5.220   1.03%
   QC value within limits for Cd 226.502  Recovery = 101.29%
Co 228.616†            24109.3      504.14 ug/L         6.094      504.14 ppb          6.094   1.21%
   QC value within limits for Co 228.616  Recovery = 100.83%
Cr 267.716†            44571.9      500.92 ug/L         5.535      500.92 ppb          5.535   1.11%
   QC value within limits for Cr 267.716  Recovery = 100.18%
Cu 324.752†           162756.2      488.75 ug/L         4.562      488.75 ppb          4.562   0.93%
   QC value within limits for Cu 324.752  Recovery = 97.75%
Fe 238.204 Radial†       405.2      5234.8 ug/L        56.76      5234.8 ppb         56.76   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.70%
K 766.490 Radial†      28146.9      5259.4 ug/L        55.55      5259.4 ppb         55.55   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 105.19%
Mg 279.077 IEC†          117.1      5321.3 ug/L       133.56      5321.3 ppb        133.56   2.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.43%
Mn 257.610†           443287.3      497.31 ug/L         4.630      497.31 ppb          4.630   0.93%
   QC value within limits for Mn 257.610  Recovery = 99.46%
Mo 202.031†             6841.7      501.16 ug/L         7.324      501.16 ppb          7.324   1.46%
   QC value within limits for Mo 202.031  Recovery = 100.23%
Na 589.592 Radial†     35139.2       10198 ug/L       128.0        10198 ppb        128.0   1.26%
   QC value within limits for Na 589.592 Radial  Recovery = 101.98%
Ni 231.604†            19892.7      505.33 ug/L         5.042      505.33 ppb          5.042   1.00%
   QC value within limits for Ni 231.604  Recovery = 101.07%
P 214.914†              4149.2      2422.4 ug/L        33.89      2422.4 ppb         33.89   1.40%
   QC value within limits for P 214.914  Recovery = 96.90%
Pb 220.353†             4081.4      507.27 ug/L         6.109      507.27 ppb          6.109   1.20%
   QC value within limits for Pb 220.353  Recovery = 101.45%
S 181.975 Axial†         704.7      1031.4 ug/L        12.61      1031.4 ppb         12.61   1.22%
   QC value within limits for S 181.975 Axial  Recovery = 103.14%
Sb 206.836†             1426.2      515.24 ug/L         8.122      515.24 ppb          8.122   1.58%
   QC value within limits for Sb 206.836  Recovery = 103.05%
Se 196.026†              756.5      516.58 ug/L         8.339      516.58 ppb          8.339   1.61%
   QC value within limits for Se 196.026  Recovery = 103.32%
Si 251.611†            77793.3      2489.4 ug/L        26.66      2489.4 ppb         26.66   1.07%
   QC value within limits for Si 251.611  Recovery = 99.58%
Sn 189.927†             2799.1      507.03 ug/L         6.502      507.03 ppb          6.502   1.28%
   QC value within limits for Sn 189.927  Recovery = 101.41%
Sr 421.552†            77114.4      511.06 ug/L         5.775      511.06 ppb          5.775   1.13%
   QC value within limits for Sr 421.552  Recovery = 102.21%
Ti 334.940†           326437.7      493.60 ug/L         4.842      493.60 ppb          4.842   0.98%
   QC value within limits for Ti 334.940  Recovery = 98.72%
Tl 190.801†             1562.0      504.61 ug/L         9.429      504.61 ppb          9.429   1.87%
   QC value within limits for Tl 190.801  Recovery = 100.92%
U 409.014†             17757.7      478.11 ug/L         7.382      478.11 ppb          7.382   1.54%
   QC value within limits for U 409.014  Recovery = 95.62%
V 292.402†             71142.6      500.54 ug/L         4.834      500.54 ppb          4.834   0.97%
   QC value within limits for V 292.402  Recovery = 100.11%
Zn 213.857†            50123.1      498.28 ug/L         5.439      498.28 ppb          5.439   1.09%
   QC value within limits for Zn 213.857  Recovery = 99.66%
SiO2†                  77021.7      5278.4 ug/L        59.73      5278.4 ppb         59.73   1.13%
   QC value within limits for SiO2  Recovery = 98.71%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 15:13:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4078.5	4078.5	95.9	%			15:15:47
1	Y RADIAL	4502.1	4502.1	95.95	%			15:15:47
1	Al 396.153Radial†	-119.2	-13.6	-12.277	ug/L	-12.277	ppb	15:15:47
1	Ca 317.933Radial†	23.6	9.1	18.112	ug/L	18.112	ppb	15:16:07
1	Fe 238.204 Radial†	11.0	1.3	16.826	ug/L	16.826	ppb	15:16:07
1	K 766.490 Radial†	2674.5	232.6	43.509	ug/L	43.509	ppb	15:15:47
1	Mg 279.077 IEC†	1.2	-1.5	-68.108	ug/L	-68.108	ppb	15:16:07
1	Na 589.592 Radial†	-759.4	-51.6	-14.986	ug/L	-14.986	ppb	15:15:47
1	Sr 421.552†	35.2	-0.1	-0.0005	ug/L	-0.0005	ppb	15:15:47
1	Sc 361.383	894448.4	894448.4	99.376	%			15:17:04
1	Y 371.029	757508.1	757508.1	99.353	%			15:17:04
1	Ag 328.068†	196.3	-31.8	-0.1407	ug/L	-0.1407	ppb	15:17:04
1	As 188.979†	-21.3	-0.9	-0.4226	ug/L	-0.4226	ppb	15:17:24
1	B 249.677†	-402.0	-31.5	-0.7553	ug/L	-0.7553	ppb	15:17:24
1	Ba 233.527†	4.2	13.4	0.1041	ug/L	0.1041	ppb	15:17:24
1	Be 313.107†	-3835.3	-6.1	-0.0026	ug/L	-0.0026	ppb	15:17:04
1	Cd 226.502†	-179.0	3.2	0.0348	ug/L	0.0348	ppb	15:17:24
1	Co 228.616†	-67.0	-5.5	-0.1168	ug/L	-0.1168	ppb	15:17:24
1	Cr 267.716†	67.4	1.8	0.0222	ug/L	0.0222	ppb	15:17:24
1	Cu 324.752†	6165.4	127.0	0.3839	ug/L	0.3839	ppb	15:17:04
1	Mn 257.610†	485.1	51.3	0.0620	ug/L	0.0620	ppb	15:17:24
1	Mo 202.031†	-0.9	-6.9	-0.5068	ug/L	-0.5068	ppb	15:17:24
1	Ni 231.604†	81.9	30.1	0.7661	ug/L	0.7661	ppb	15:17:24
1	P 214.914†	211.8	11.1	6.6497	ug/L	6.6497	ppb	15:17:24
1	Pb 220.353†	-45.9	18.9	2.3323	ug/L	2.3323	ppb	15:17:24
1	S 181.975 Axial†	42.0	5.2	7.5949	ug/L	7.5949	ppb	15:17:24
1	Sb 206.836†	28.4	-8.1	-2.8146	ug/L	-2.8146	ppb	15:17:24
1	Se 196.026†	-22.3	-1.8	-1.1269	ug/L	-1.1269	ppb	15:17:24
1	Si 251.611†	633.7	103.5	3.3280	ug/L	3.3280	ppb	15:17:24
1	Sn 189.927†	14.8	4.5	0.8079	ug/L	0.8079	ppb	15:17:24
1	Ti 334.940†	-1380.2	-107.0	-0.1527	ug/L	-0.1527	ppb	15:17:04
1	Tl 190.801†	-42.8	-11.8	-3.7957	ug/L	-3.7957	ppb	15:17:24
1	U 409.014†	-2903.4	-105.3	-2.8486	ug/L	-2.8486	ppb	15:17:04
1	V 292.402†	-1489.7	-68.6	-0.4926	ug/L	-0.4926	ppb	15:17:04
1	Zn 213.857†	635.9	82.2	0.8171	ug/L	0.8171	ppb	15:17:24
1	SiO2†	661.1	113.8	7.8295	ug/L	7.8295	ppb	15:18:20
2	Sc Radial	4131.3	4131.3	97.1	%			15:16:12
2	Y RADIAL	4570.0	4570.0	97.40	%			15:16:12
2	Al 396.153Radial†	-120.3	-13.1	-11.893	ug/L	-11.893	ppb	15:16:12
2	Ca 317.933Radial†	24.5	9.8	19.509	ug/L	19.509	ppb	15:16:32
2	Fe 238.204 Radial†	8.9	-1.0	-13.298	ug/L	-13.298	ppb	15:16:32
2	K 766.490 Radial†	2716.1	239.6	44.830	ug/L	44.830	ppb	15:16:12
2	Mg 279.077 IEC†	-0.1	-2.8	-128.57	ug/L	-128.57	ppb	15:16:32
2	Na 589.592 Radial†	-746.3	-28.0	-8.1282	ug/L	-8.1282	ppb	15:16:12
2	Sr 421.552†	30.2	-5.7	-0.0380	ug/L	-0.0380	ppb	15:16:12
2	Sc 361.383	897558.7	897558.7	99.722	%			15:17:29
2	Y 371.029	760068.8	760068.8	99.689	%			15:17:29
2	Ag 328.068†	213.1	-15.6	-0.0700	ug/L	-0.0700	ppb	15:17:29
2	As 188.979†	-26.3	-5.8	-2.6238	ug/L	-2.6238	ppb	15:17:50
2	B 249.677†	-344.1	27.9	0.6684	ug/L	0.6684	ppb	15:17:50
2	Ba 233.527†	-6.2	2.9	0.0223	ug/L	0.0223	ppb	15:17:50
2	Be 313.107†	-3774.8	68.0	0.0249	ug/L	0.0249	ppb	15:17:29
2	Cd 226.502†	-175.9	6.9	0.0805	ug/L	0.0805	ppb	15:17:50
2	Co 228.616†	-77.3	-15.6	-0.3252	ug/L	-0.3252	ppb	15:17:50
2	Cr 267.716†	79.6	13.9	0.1574	ug/L	0.1574	ppb	15:17:50
2	Cu 324.752†	6133.3	73.2	0.2234	ug/L	0.2234	ppb	15:17:29
2	Mn 257.610†	481.3	45.8	0.0553	ug/L	0.0553	ppb	15:17:50
2	Mo 202.031†	11.2	5.1	0.3745	ug/L	0.3745	ppb	15:17:50
2	Ni 231.604†	51.5	-0.6	-0.0160	ug/L	-0.0160	ppb	15:17:50

2	P 214.914†	209.9	8.4	5.0797	ug/L	5.0797 ppb	15:17:50
2	Pb 220.353†	-44.1	20.8	2.5808	ug/L	2.5808 ppb	15:17:50
2	S 181.975 Axial†	43.8	6.9	10.137	ug/L	10.137 ppb	15:17:50
2	Sb 206.836†	37.3	0.7	0.2918	ug/L	0.2918 ppb	15:17:50
2	Se 196.026†	-29.1	-8.5	-5.6634	ug/L	-5.6634 ppb	15:17:50
2	Si 251.611†	649.6	117.3	3.7575	ug/L	3.7575 ppb	15:17:50
2	Sn 189.927†	20.9	10.5	1.9031	ug/L	1.9031 ppb	15:17:50
2	Ti 334.940†	-1400.6	-122.7	-0.1693	ug/L	-0.1693 ppb	15:17:29
2	Tl 190.801†	-27.0	4.1	1.3223	ug/L	1.3223 ppb	15:17:50
2	U 409.014†	-3083.3	-275.6	-7.4464	ug/L	-7.4464 ppb	15:17:29
2	V 292.402†	-1426.0	0.4	-0.0063	ug/L	-0.0063 ppb	15:17:29
2	Zn 213.857†	638.1	82.2	0.8266	ug/L	0.8266 ppb	15:17:50
2	SiO2†	683.2	133.6	9.1687	ug/L	9.1687 ppb	15:18:25
3	Sc Radial	4084.3	4084.3	96.0	%		15:16:38
3	Y RADIAL	4492.4	4492.4	95.75	%		15:16:38
3	Al 396.153Radial†	-121.6	-15.8	-14.342	ug/L	-14.342 ppb	15:16:38
3	Ca 317.933Radial†	23.9	9.4	18.665	ug/L	18.665 ppb	15:16:58
3	Fe 238.204 Radial†	13.1	3.4	44.399	ug/L	44.399 ppb	15:16:58
3	K 766.490 Radial†	2692.5	247.3	46.256	ug/L	46.256 ppb	15:16:38
3	Mg 279.077 IEC†	2.5	-0.1	-5.3111	ug/L	-5.3111 ppb	15:16:58
3	Na 589.592 Radial†	-726.8	-16.5	-4.7922	ug/L	-4.7922 ppb	15:16:38
3	Sr 421.552†	51.3	16.7	0.1102	ug/L	0.1102 ppb	15:16:38
3	Sc 361.383	904841.5	904841.5	100.53	%		15:17:55
3	Y 371.029	765641.5	765641.5	100.42	%		15:17:55
3	Ag 328.068†	288.0	57.1	0.2773	ug/L	0.2773 ppb	15:17:55
3	As 188.979†	-18.0	2.6	1.1824	ug/L	1.1824 ppb	15:18:15
3	B 249.677†	-413.1	-38.0	-0.9149	ug/L	-0.9149 ppb	15:18:15
3	Ba 233.527†	5.7	14.8	0.1176	ug/L	0.1176 ppb	15:18:15
3	Be 313.107†	-3858.1	15.6	0.0051	ug/L	0.0051 ppb	15:17:55
3	Cd 226.502†	-189.2	-4.9	-0.0619	ug/L	-0.0619 ppb	15:18:15
3	Co 228.616†	-54.7	7.5	0.1573	ug/L	0.1573 ppb	15:18:15
3	Cr 267.716†	86.2	19.8	0.2269	ug/L	0.2269 ppb	15:18:15
3	Cu 324.752†	6096.4	-12.9	-0.0362	ug/L	-0.0362 ppb	15:17:55
3	Mn 257.610†	475.6	36.2	0.0452	ug/L	0.0452 ppb	15:18:15
3	Mo 202.031†	8.8	2.7	0.1999	ug/L	0.1999 ppb	15:18:15
3	Ni 231.604†	49.9	-2.7	-0.0692	ug/L	-0.0692 ppb	15:18:15
3	P 214.914†	186.5	-16.6	-10.065	ug/L	-10.065 ppb	15:18:15
3	Pb 220.353†	-40.6	24.6	3.0429	ug/L	3.0429 ppb	15:18:15
3	S 181.975 Axial†	45.7	8.4	12.265	ug/L	12.265 ppb	15:18:15
3	Sb 206.836†	35.5	-1.3	-0.4420	ug/L	-0.4420 ppb	15:18:15
3	Se 196.026†	-24.6	-3.7	-2.3234	ug/L	-2.3234 ppb	15:18:15
3	Si 251.611†	625.3	87.8	2.8156	ug/L	2.8156 ppb	15:18:15
3	Sn 189.927†	18.0	7.5	1.3531	ug/L	1.3531 ppb	15:18:15
3	Ti 334.940†	-1504.7	-215.0	-0.3220	ug/L	-0.3220 ppb	15:17:55
3	Tl 190.801†	-23.3	8.0	2.5688	ug/L	2.5688 ppb	15:18:15
3	U 409.014†	-2848.5	-17.2	-0.4700	ug/L	-0.4700 ppb	15:17:55
3	V 292.402†	-1398.6	39.2	0.2678	ug/L	0.2678 ppb	15:17:55
3	Zn 213.857†	631.8	70.8	0.7043	ug/L	0.7043 ppb	15:18:15
3	SiO2†	685.4	130.3	8.9482	ug/L	8.9482 ppb	15:18:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898949.6	99.876	%	0.5927				0.59%
Sc Radial	4098.0	96.3	%	0.68				0.71%
Y 371.029	761072.8	99.820	%	0.5454				0.55%
Y RADIAL	4521.5	96.37	%	0.900				0.93%
Ag 328.068†	3.2	0.0222	ug/L	0.22371	0.0222	ppb	0.22371	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.2	-12.837	ug/L	1.3174	-12.837	ppb	1.3174	10.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-0.6213	ug/L	1.91090	-0.6213	ppb	1.91090	307.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-13.9	-0.3339	ug/L	0.87167	-0.3339	ppb	0.87167	261.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.4	0.0814	ug/L	0.05155	0.0814	ppb	0.05155	63.36%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	25.8	0.0091	ug/L	0.01421	0.0091	ppb	0.01421	155.96%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.4	18.762	ug/L	0.7039	18.762	ppb	0.7039	3.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 1.7      0.0178 ug/L       0.07270      0.0178 ppb        0.07270 408.00%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.6     -0.0949 ug/L       0.24200     -0.0949 ppb        0.24200 254.98%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.8      0.1355 ug/L       0.10409      0.1355 ppb        0.10409  76.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                62.4      0.1904 ug/L       0.21195      0.1904 ppb        0.21195 111.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2     15.976 ug/L      28.8576     15.976 ppb        28.8576 180.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         239.8     44.865 ug/L       1.3737     44.865 ppb         1.3737   3.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.5    -67.330 ug/L      61.6338    -67.330 ppb        61.6338  91.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                44.5      0.0542 ug/L       0.00845      0.0542 ppb        0.00845  15.59%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.3      0.0226 ug/L       0.46664      0.0226 ppb        0.46664 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -32.1     -9.3022 ug/L       5.19738     -9.3022 ppb        5.19738  55.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.9      0.2270 ug/L       0.46765      0.2270 ppb        0.46765 206.06%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.0      0.5546 ug/L       9.23071      0.5546 ppb        9.23071 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                21.4      2.6520 ug/L       0.36058      2.6520 ppb        0.36058  13.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.8      9.9989 ug/L       2.33816      9.9989 ppb        2.33816  23.38%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.9     -0.9883 ug/L       1.62362     -0.9883 ppb        1.62362 164.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.7     -3.0379 ug/L       2.35116     -3.0379 ppb        2.35116  77.39%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               102.9      3.3004 ug/L       0.47153      3.3004 ppb        0.47153  14.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.5      1.3547 ug/L       0.54760      1.3547 ppb        0.54760  40.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 3.6      0.0239 ug/L       0.07709      0.0239 ppb        0.07709 322.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -148.2     -0.2147 ug/L       0.09337     -0.2147 ppb        0.09337  43.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.1      0.0318 ug/L       3.37277      0.0318 ppb        3.37277 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -132.7     -3.5883 ug/L       3.54653     -3.5883 ppb        3.54653  98.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -9.7     -0.0770 ug/L       0.38513     -0.0770 ppb        0.38513 499.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                78.4      0.7827 ug/L       0.06804      0.7827 ppb        0.06804   8.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     125.9      8.6488 ug/L       0.71803      8.6488 ppb        0.71803   8.30%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: 245806003|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 2/23/2010 15:27:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806003|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4166.7	4166.7	98.0	%			15:29:23
1	Y RADIAL	4850.4	4850.4	103.4	%			15:29:23
1	Al 396.153Radial†	15794.8	16234.8	14703	ug/L	14703	ppb	15:29:23
1	Ca 317.933Radial†	2966.0	3012.4	5993.4	ug/L	5993.4	ppb	15:29:43
1	Fe 238.204 Radial†	2827.9	2876.7	37062	ug/L	37062	ppb	15:29:43
1	K 766.490 Radial†	16037.6	13815.1	2582.1	ug/L	2582.1	ppb	15:29:23
1	Mg 279.077 IEC†	71.7	70.4	3161.2	ug/L	3161.2	ppb	15:29:43
1	Na 589.592 Radial†	916.2	1675.6	486.27	ug/L	486.27	ppb	15:29:23
1	Sr 421.552†	5932.9	6019.8	39.853	ug/L	39.853	ppb	15:29:23
1	Sc 361.383	928675.4	928675.4	103.18	%			15:30:41
1	Y 371.029	821125.4	821125.4	107.70	%			15:30:41
1	Ag 328.068†	-1735.3	-1911.1	2.1991	ug/L	2.1991	ppb	15:30:46
1	As 188.979†	-28.5	-7.1	12.765	ug/L	12.765	ppb	15:31:06
1	B 249.677†	73.6	444.3	4.5062	ug/L	4.5062	ppb	15:30:46
1	Ba 233.527†	41301.9	40038.6	313.99	ug/L	313.99	ppb	15:30:46
1	Be 313.107†	53357.4	55566.7	22.620	ug/L	22.620	ppb	15:30:46
1	Cd 226.502†	273.5	448.4	1.5248	ug/L	1.5248	ppb	15:31:06
1	Co 228.616†	1278.3	1300.8	25.035	ug/L	25.035	ppb	15:31:06
1	Cr 267.716†	2695.9	2546.8	31.898	ug/L	31.898	ppb	15:31:06
1	Cu 324.752†	1645047.1	1588286.5	4771.1	ug/L	4771.1	ppb	15:30:41
1	Mn 257.610†	867072.1	839920.9	945.24	ug/L	945.24	ppb	15:30:41
1	Mo 202.031†	4.6	-1.6	2.8331	ug/L	2.8331	ppb	15:31:06
1	Ni 231.604†	1222.8	1132.8	28.777	ug/L	28.777	ppb	15:31:06
1	P 214.914†	2893.6	2602.4	605.69	ug/L	605.69	ppb	15:31:06
1	Pb 220.353†	7209.7	7052.6	870.26	ug/L	870.26	ppb	15:31:06
1	S 181.975 Axial†	224.1	180.2	261.20	ug/L	261.20	ppb	15:31:06
1	Sb 206.836†	93.3	53.7	15.442	ug/L	15.442	ppb	15:31:06
1	Se 196.026†	-162.8	-137.0	25.099	ug/L	25.099	ppb	15:31:06
1	Si 251.611†	447893.8	433560.2	13909	ug/L	13909	ppb	15:30:41
1	Sn 189.927†	64.5	52.1	8.3582	ug/L	8.3582	ppb	15:31:06
1	Ti 334.940†	573040.2	556666.8	842.16	ug/L	842.16	ppb	15:30:41
1	Tl 190.801†	-80.5	-46.8	-3.7387	ug/L	-3.7387	ppb	15:31:06
1	U 409.014†	22645.4	24763.9	664.85	ug/L	664.85	ppb	15:30:46
1	V 292.402†	6307.9	7544.0	47.415	ug/L	47.415	ppb	15:30:46
1	Zn 213.857†	29265.6	27806.2	266.83	ug/L	266.83	ppb	15:30:46
1	SiO2†	445481.9	431205.2	29627	ug/L	29627	ppb	15:32:14
2	Sc Radial	4129.0	4129.0	97.1	%			15:29:48
2	Y RADIAL	4829.9	4829.9	102.9	%			15:29:48
2	Al 396.153Radial†	15880.4	16470.3	14916	ug/L	14916	ppb	15:29:48
2	Ca 317.933Radial†	2957.6	3031.3	6031.1	ug/L	6031.1	ppb	15:30:09
2	Fe 238.204 Radial†	2812.7	2887.4	37200	ug/L	37200	ppb	15:30:09
2	K 766.490 Radial†	16056.7	13984.4	2613.7	ug/L	2613.7	ppb	15:29:48
2	Mg 279.077 IEC†	65.4	64.6	2897.4	ug/L	2897.4	ppb	15:30:09
2	Na 589.592 Radial†	944.7	1713.6	497.28	ug/L	497.28	ppb	15:29:48
2	Sr 421.552†	5901.1	6042.4	40.003	ug/L	40.003	ppb	15:29:48
2	Sc 361.383	931435.5	931435.5	103.49	%			15:31:12
2	Y 371.029	824425.5	824425.5	108.13	%			15:31:12
2	Ag 328.068†	-1762.4	-1932.3	2.1434	ug/L	2.1434	ppb	15:31:17
2	As 188.979†	-31.8	-10.2	11.358	ug/L	11.358	ppb	15:31:37
2	B 249.677†	55.4	426.5	4.0604	ug/L	4.0604	ppb	15:31:17
2	Ba 233.527†	41361.4	39977.4	313.51	ug/L	313.51	ppb	15:31:17
2	Be 313.107†	53568.8	55617.7	22.631	ug/L	22.631	ppb	15:31:17
2	Cd 226.502†	274.0	448.1	1.5080	ug/L	1.5080	ppb	15:31:37
2	Co 228.616†	1265.1	1284.4	24.699	ug/L	24.699	ppb	15:31:37
2	Cr 267.716†	2696.2	2539.4	31.828	ug/L	31.828	ppb	15:31:37
2	Cu 324.752†	1645353.5	1583858.0	4757.8	ug/L	4757.8	ppb	15:31:12
2	Mn 257.610†	865300.6	835719.0	940.55	ug/L	940.55	ppb	15:31:12
2	Mo 202.031†	13.1	6.6	3.4427	ug/L	3.4427	ppb	15:31:37
2	Ni 231.604†	1238.2	1144.2	29.066	ug/L	29.066	ppb	15:31:37

2	P 214.914†	2890.3	2590.9	601.31 ug/L	601.31 ppb	15:31:37
2	Pb 220.353†	7215.4	7037.4	868.41 ug/L	868.41 ppb	15:31:37
2	S 181.975 Axial†	217.3	172.9	250.57 ug/L	250.57 ppb	15:31:37
2	Sb 206.836†	105.1	64.9	19.344 ug/L	19.344 ppb	15:31:37
2	Se 196.026†	-170.3	-143.9	21.029 ug/L	21.029 ppb	15:31:37
2	Si 251.611†	446685.2	431105.9	13830 ug/L	13830 ppb	15:31:12
2	Sn 189.927†	63.9	51.3	8.2155 ug/L	8.2155 ppb	15:31:37
2	Ti 334.940†	572439.8	554440.9	838.82 ug/L	838.82 ppb	15:31:12
2	Tl 190.801†	-80.1	-46.2	-3.6191 ug/L	-3.6191 ppb	15:31:37
2	U 409.014†	22773.5	24822.7	666.42 ug/L	666.42 ppb	15:31:17
2	V 292.402†	6370.1	7586.0	47.697 ug/L	47.697 ppb	15:31:17
2	Zn 213.857†	29296.9	27752.4	266.29 ug/L	266.29 ppb	15:31:17
2	SiO2†	445274.8	429725.6	29526 ug/L	29526 ppb	15:32:20
3	Sc Radial	4112.8	4112.8	96.7 %		15:30:14
3	Y RADIAL	4811.0	4811.0	102.5 %		15:30:14
3	Al 396.153Radial†	15583.5	16227.4	14696 ug/L	14696 ppb	15:30:14
3	Ca 317.933Radial†	2956.3	3041.9	6052.2 ug/L	6052.2 ppb	15:30:34
3	Fe 238.204 Radial†	2809.7	2895.7	37307 ug/L	37307 ppb	15:30:34
3	K 766.490 Radial†	15886.2	13872.9	2592.9 ug/L	2592.9 ppb	15:30:14
3	Mg 279.077 IEC†	69.0	68.6	3080.2 ug/L	3080.2 ppb	15:30:34
3	Na 589.592 Radial†	929.7	1701.9	493.89 ug/L	493.89 ppb	15:30:14
3	Sr 421.552†	5833.7	5996.5	39.699 ug/L	39.699 ppb	15:30:14
3	Sc 361.383	938451.2	938451.2	104.27 %		15:31:44
3	Y 371.029	829685.9	829685.9	108.82 %		15:31:44
3	Ag 328.068†	-1703.6	-1863.2	2.4995 ug/L	2.4995 ppb	15:31:49
3	As 188.979†	-18.5	2.7	17.247 ug/L	17.247 ppb	15:32:09
3	B 249.677†	-0.6	372.3	2.7503 ug/L	2.7503 ppb	15:31:49
3	Ba 233.527†	41163.4	39488.7	309.70 ug/L	309.70 ppb	15:31:49
3	Be 313.107†	53247.8	54922.9	22.374 ug/L	22.374 ppb	15:31:49
3	Cd 226.502†	248.0	421.1	1.1815 ug/L	1.1815 ppb	15:32:09
3	Co 228.616†	1283.7	1293.1	24.874 ug/L	24.874 ppb	15:32:09
3	Cr 267.716†	2702.9	2526.3	31.695 ug/L	31.695 ppb	15:32:09
3	Cu 324.752†	1656151.6	1582328.3	4753.2 ug/L	4753.2 ppb	15:31:44
3	Mn 257.610†	874002.7	837814.1	942.90 ug/L	942.90 ppb	15:31:44
3	Mo 202.031†	5.1	-1.1	2.8850 ug/L	2.8850 ppb	15:32:09
3	Ni 231.604†	1223.9	1121.5	28.490 ug/L	28.490 ppb	15:32:09
3	P 214.914†	2908.0	2587.0	599.73 ug/L	599.73 ppb	15:32:09
3	Pb 220.353†	7215.1	6985.0	861.86 ug/L	861.86 ppb	15:32:09
3	S 181.975 Axial†	218.0	172.1	249.30 ug/L	249.30 ppb	15:32:09
3	Sb 206.836†	89.1	48.7	13.718 ug/L	13.718 ppb	15:32:09
3	Se 196.026†	-175.6	-147.7	18.841 ug/L	18.841 ppb	15:32:09
3	Si 251.611†	451111.4	432124.2	13862 ug/L	13862 ppb	15:31:44
3	Sn 189.927†	66.5	53.4	8.5917 ug/L	8.5917 ppb	15:32:09
3	Ti 334.940†	577400.9	555063.6	839.75 ug/L	839.75 ppb	15:31:44
3	Tl 190.801†	-81.2	-46.7	-3.7320 ug/L	-3.7320 ppb	15:32:09
3	U 409.014†	22530.2	24424.8	655.66 ug/L	655.66 ppb	15:31:49
3	V 292.402†	6314.3	7486.5	46.965 ug/L	46.965 ppb	15:31:49
3	Zn 213.857†	29136.1	27386.6	262.61 ug/L	262.61 ppb	15:31:49
3	SiO2†	451026.5	432025.4	29684 ug/L	29684 ppb	15:32:25

Mean Data: 245806003|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	932854.1	103.64	%	0.560				0.54%
Sc Radial	4136.2	97.2	%	0.65				0.67%
Y 371.029	825078.9	108.22	%	0.566				0.52%
Y RADIAL	4830.4	102.9	%	0.42				0.41%
Ag 328.068†	-1902.2	2.2806	ug/L	0.19157	2.2806	ppb	0.19157	8.40%
Al 396.153Radial†	16310.8	14772	ug/L	125.1	14772	ppb	125.1	0.85%
As 188.979†	-4.9	13.790	ug/L	3.0754	13.790	ppb	3.0754	22.30%
B 249.677†	414.4	3.7723	ug/L	0.91274	3.7723	ppb	0.91274	24.20%
Ba 233.527†	39834.9	312.40	ug/L	2.351	312.40	ppb	2.351	0.75%
Be 313.107†	55369.1	22.542	ug/L	0.1451	22.542	ppb	0.1451	0.64%
Ca 317.933Radial†	3028.6	6025.6	ug/L	29.80	6025.6	ppb	29.80	0.49%
Cd 226.502†	439.2	1.4048	ug/L	0.19353	1.4048	ppb	0.19353	13.78%
Co 228.616†	1292.8	24.869	ug/L	0.1683	24.869	ppb	0.1683	0.68%
Cr 267.716†	2537.5	31.807	ug/L	0.1034	31.807	ppb	0.1034	0.33%
Cu 324.752†	1584824.3	4760.7	ug/L	9.28	4760.7	ppb	9.28	0.20%
Fe 238.204 Radial†	2886.6	37190	ug/L	122.6	37190	ppb	122.6	0.33%
K 766.490 Radial†	13890.8	2596.2	ug/L	16.09	2596.2	ppb	16.09	0.62%

Mg 279.077 IEC†	67.9	3046.3	ug/L	135.15	3046.3	ppb	135.15	4.44%
Mn 257.610†	837818.0	942.90	ug/L	2.343	942.90	ppb	2.343	0.25%
Mo 202.031†	1.3	3.0536	ug/L	0.33798	3.0536	ppb	0.33798	11.07%
Na 589.592 Radial†	1697.0	492.48	ug/L	5.640	492.48	ppb	5.640	1.15%
Ni 231.604†	1132.8	28.778	ug/L	0.2879	28.778	ppb	0.2879	1.00%
P 214.914†	2593.5	602.24	ug/L	3.086	602.24	ppb	3.086	0.51%
Pb 220.353†	7025.0	866.85	ug/L	4.414	866.85	ppb	4.414	0.51%
S 181.975 Axial†	175.1	253.69	ug/L	6.538	253.69	ppb	6.538	2.58%
Sb 206.836†	55.8	16.168	ug/L	2.8826	16.168	ppb	2.8826	17.83%
Se 196.026†	-142.9	21.656	ug/L	3.1760	21.656	ppb	3.1760	14.67%
Si 251.611†	432263.4	13867	ug/L	39.6	13867	ppb	39.6	0.29%
Sn 189.927†	52.3	8.3885	ug/L	0.18991	8.3885	ppb	0.18991	2.26%
Sr 421.552†	6019.5	39.852	ug/L	0.1522	39.852	ppb	0.1522	0.38%
Ti 334.940†	555390.4	840.24	ug/L	1.723	840.24	ppb	1.723	0.21%
Tl 190.801†	-46.6	-3.6966	ug/L	0.06716	-3.6966	ppb	0.06716	1.82%
U 409.014†	24670.5	662.31	ug/L	5.813	662.31	ppb	5.813	0.88%
V 292.402†	7538.8	47.359	ug/L	0.3695	47.359	ppb	0.3695	0.78%
Zn 213.857†	27648.4	265.24	ug/L	2.296	265.24	ppb	2.296	0.87%
SiO2†	430985.4	29612	ug/L	80.1	29612	ppb	80.1	0.27%

Sequence No.: 14
Sample ID: 245806004|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 47
Date Collected: 2/23/2010 15:34:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806004|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4022.0	4022.0	94.6	%			15:36:50
1	Y RADIAL	4724.7	4724.7	100.7	%			15:36:30
1	Al 396.153Radial†	15772.0	16790.5	15206	ug/L	15206	ppb	15:36:30
1	Ca 317.933Radial†	2927.9	3081.0	6129.9	ug/L	6129.9	ppb	15:36:50
1	Fe 238.204 Radial†	2317.2	2440.4	31441	ug/L	31441	ppb	15:36:50
1	K 766.490 Radial†	12212.2	10358.4	1935.4	ug/L	1935.4	ppb	15:36:30
1	Mg 279.077 IEC†	82.0	84.0	3783.9	ug/L	3783.9	ppb	15:36:50
1	Na 589.592 Radial†	721.2	1503.0	436.19	ug/L	436.19	ppb	15:36:30
1	Sr 421.552†	4002.7	4196.3	27.767	ug/L	27.767	ppb	15:36:30
1	Sc 361.383	913987.5	913987.5	101.55	%			15:37:47
1	Y 371.029	791464.5	791464.5	103.81	%			15:37:47
1	Ag 328.068†	602.7	364.2	9.8434	ug/L	9.8434	ppb	15:37:53
1	As 188.979†	762.1	771.0	361.67	ug/L	361.67	ppb	15:38:13
1	B 249.677†	-24.0	349.3	3.1906	ug/L	3.1906	ppb	15:37:53
1	Ba 233.527†	54384.8	53565.4	419.46	ug/L	419.46	ppb	15:37:53
1	Be 313.107†	116884.5	118957.0	46.100	ug/L	46.100	ppb	15:37:53
1	Cd 226.502†	229.8	409.6	1.9189	ug/L	1.9189	ppb	15:38:13
1	Co 228.616†	625.0	677.5	12.257	ug/L	12.257	ppb	15:38:13
1	Cr 267.716†	4495.5	4361.1	51.193	ug/L	51.193	ppb	15:38:13
1	Cu 324.752†	971929.9	951045.7	2856.5	ug/L	2856.5	ppb	15:37:47
1	Mn 257.610†	582533.0	573221.5	645.64	ug/L	645.64	ppb	15:37:47
1	Mo 202.031†	-2.9	-8.9	1.8636	ug/L	1.8636	ppb	15:38:13
1	Ni 231.604†	1981.3	1898.8	48.255	ug/L	48.255	ppb	15:38:13
1	P 214.914†	2616.5	2374.6	852.43	ug/L	852.43	ppb	15:38:13
1	Pb 220.353†	2248139.4	2213954.8	274320	ug/L	274320	ppb	15:37:47
1	S 181.975 Axial†	127.7	88.7	127.11	ug/L	127.11	ppb	15:38:13
1	Sb 206.836†	3555.5	3464.6	1205.0	ug/L	1205.0	ppb	15:38:13
1	Se 196.026†	-154.3	-131.2	11.389	ug/L	11.389	ppb	15:38:13
1	Si 251.611†	358664.5	352666.2	11313	ug/L	11313	ppb	15:37:53
1	Sn 189.927†	198.4	184.9	32.739	ug/L	32.739	ppb	15:38:13
1	Ti 334.940†	521540.5	514876.8	778.35	ug/L	778.35	ppb	15:37:47
1	Tl 190.801†	-73.5	-41.2	-3.8363	ug/L	-3.8363	ppb	15:38:13
1	U 409.014†	70699.0	72438.2	1953.6	ug/L	1953.6	ppb	15:37:53
1	V 292.402†	5357.6	6706.5	44.949	ug/L	44.949	ppb	15:37:53
1	Zn 213.857†	59322.2	57860.7	571.71	ug/L	571.71	ppb	15:37:53
1	SiO2†	367854.5	361698.9	24852	ug/L	24852	ppb	15:39:21
2	Sc Radial	3954.8	3954.8	93.0	%			15:37:15
2	Y RADIAL	4682.3	4682.3	99.79	%			15:36:55
2	Al 396.153Radial†	15667.1	16961.4	15361	ug/L	15361	ppb	15:36:55
2	Ca 317.933Radial†	2891.6	3094.6	6157.0	ug/L	6157.0	ppb	15:37:15
2	Fe 238.204 Radial†	2278.6	2440.6	31444	ug/L	31444	ppb	15:37:15
2	K 766.490 Radial†	12079.2	10435.0	1949.8	ug/L	1949.8	ppb	15:36:55
2	Mg 279.077 IEC†	86.1	89.9	4052.8	ug/L	4052.8	ppb	15:37:15
2	Na 589.592 Radial†	702.6	1496.1	434.16	ug/L	434.16	ppb	15:36:55
2	Sr 421.552†	3909.6	4168.1	27.580	ug/L	27.580	ppb	15:36:55
2	Sc 361.383	907732.0	907732.0	100.85	%			15:38:19
2	Y 371.029	786730.2	786730.2	103.19	%			15:38:19
2	Ag 328.068†	549.9	315.9	9.6265	ug/L	9.6265	ppb	15:38:24
2	As 188.979†	772.8	786.8	368.78	ug/L	368.78	ppb	15:38:44
2	B 249.677†	-80.4	293.3	1.8525	ug/L	1.8525	ppb	15:38:24
2	Ba 233.527†	53842.0	53396.3	418.14	ug/L	418.14	ppb	15:38:24
2	Be 313.107†	116252.7	119123.8	46.161	ug/L	46.161	ppb	15:38:24
2	Cd 226.502†	227.9	409.3	1.9133	ug/L	1.9133	ppb	15:38:44
2	Co 228.616†	616.0	672.7	12.156	ug/L	12.156	ppb	15:38:44
2	Cr 267.716†	4469.2	4365.5	51.245	ug/L	51.245	ppb	15:38:44
2	Cu 324.752†	965509.5	951275.4	2857.2	ug/L	2857.2	ppb	15:38:19
2	Mn 257.610†	577436.3	572121.1	644.39	ug/L	644.39	ppb	15:38:19
2	Mo 202.031†	-8.0	-14.0	1.4862	ug/L	1.4862	ppb	15:38:44
2	Ni 231.604†	1952.0	1883.2	47.858	ug/L	47.858	ppb	15:38:44

2	P 214.914†	2646.7	2422.3	881.26	ug/L	881.26 ppb	15:38:44
2	Pb 220.353†	2230215.4	2211438.7	274010	ug/L	274010 ppb	15:38:19
2	S 181.975 Axial†	142.3	104.0	149.54	ug/L	149.54 ppb	15:38:44
2	Sb 206.836†	3542.2	3475.6	1208.8	ug/L	1208.8 ppb	15:38:44
2	Se 196.026†	-147.3	-125.4	15.261	ug/L	15.261 ppb	15:38:44
2	Si 251.611†	355852.2	352311.7	11302	ug/L	11302 ppb	15:38:24
2	Sn 189.927†	189.3	177.3	31.363	ug/L	31.363 ppb	15:38:44
2	Ti 334.940†	517520.1	514429.7	777.66	ug/L	777.66 ppb	15:38:19
2	Tl 190.801†	-84.4	-52.5	-7.4816	ug/L	-7.4816 ppb	15:38:44
2	U 409.014†	70042.6	72267.1	1949.0	ug/L	1949.0 ppb	15:38:24
2	V 292.402†	5336.5	6721.9	45.047	ug/L	45.047 ppb	15:38:24
2	Zn 213.857†	58884.2	57829.0	571.39	ug/L	571.39 ppb	15:38:24
2	SiO2†	365658.5	362017.8	24874	ug/L	24874 ppb	15:39:26
3	Sc Radial	4001.5	4001.5	94.1	%		15:37:40
3	Y RADIAL	4598.2	4598.2	98.00	%		15:37:20
3	Al 396.153Radial†	15470.9	16556.2	14994	ug/L	14994 ppb	15:37:20
3	Ca 317.933Radial†	2920.3	3088.8	6145.5	ug/L	6145.5 ppb	15:37:40
3	Fe 238.204 Radial†	2304.8	2439.8	31433	ug/L	31433 ppb	15:37:40
3	K 766.490 Radial†	12033.7	10235.0	1912.4	ug/L	1912.4 ppb	15:37:20
3	Mg 279.077 IEC†	84.7	87.3	3935.0	ug/L	3935.0 ppb	15:37:40
3	Na 589.592 Radial†	706.0	1490.8	432.63	ug/L	432.63 ppb	15:37:20
3	Sr 421.552†	3905.2	4114.4	27.224	ug/L	27.224 ppb	15:37:20
3	Sc 361.383	906308.7	906308.7	100.69	%		15:38:50
3	Y 371.029	784921.9	784921.9	102.95	%		15:38:50
3	Ag 328.068†	484.2	251.6	9.3144	ug/L	9.3144 ppb	15:38:55
3	As 188.979†	763.5	778.8	365.17	ug/L	365.17 ppb	15:39:15
3	B 249.677†	-34.0	339.2	2.9500	ug/L	2.9500 ppb	15:38:55
3	Ba 233.527†	54150.5	53786.5	421.19	ug/L	421.19 ppb	15:38:55
3	Be 313.107†	116620.5	119670.1	46.363	ug/L	46.363 ppb	15:38:55
3	Cd 226.502†	231.4	413.1	1.9632	ug/L	1.9632 ppb	15:39:15
3	Co 228.616†	628.1	685.7	12.434	ug/L	12.434 ppb	15:39:15
3	Cr 267.716†	4476.6	4379.8	51.397	ug/L	51.397 ppb	15:39:15
3	Cu 324.752†	959674.9	946984.5	2844.3	ug/L	2844.3 ppb	15:38:50
3	Mn 257.610†	577574.3	573157.3	645.56	ug/L	645.56 ppb	15:38:50
3	Mo 202.031†	6.4	0.3	2.5342	ug/L	2.5342 ppb	15:39:15
3	Ni 231.604†	1982.8	1916.9	48.714	ug/L	48.714 ppb	15:39:15
3	P 214.914†	2631.1	2410.9	876.82	ug/L	876.82 ppb	15:39:15
3	Pb 220.353†	2234836.4	2219500.7	275010	ug/L	275010 ppb	15:38:50
3	S 181.975 Axial†	140.7	102.7	147.62	ug/L	147.62 ppb	15:39:15
3	Sb 206.836†	3552.2	3491.0	1214.2	ug/L	1214.2 ppb	15:39:15
3	Se 196.026†	-141.3	-119.6	19.026	ug/L	19.026 ppb	15:39:15
3	Si 251.611†	358622.7	355617.2	11408	ug/L	11408 ppb	15:38:55
3	Sn 189.927†	180.2	168.5	29.771	ug/L	29.771 ppb	15:39:15
3	Ti 334.940†	516298.1	514022.0	777.04	ug/L	777.04 ppb	15:38:50
3	Tl 190.801†	-66.3	-34.6	-1.7462	ug/L	-1.7462 ppb	15:39:15
3	U 409.014†	70713.9	73042.8	1970.0	ug/L	1970.0 ppb	15:38:55
3	V 292.402†	5449.0	6841.9	45.935	ug/L	45.935 ppb	15:38:55
3	Zn 213.857†	59329.6	58363.1	576.77	ug/L	576.77 ppb	15:38:55
3	SiO2†	363930.2	360870.7	24795	ug/L	24795 ppb	15:39:31

Mean Data: 245806004|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909342.7	101.03	%	0.454				0.45%
Sc Radial	3992.8	93.9	%	0.81				0.86%
Y 371.029	787705.6	103.31	%	0.443				0.43%
Y RADIAL	4668.4	99.50	%	1.372				1.38%
Ag 328.068†	310.6	9.5948	ug/L	0.26596	9.5948	ppb	0.26596	2.77%
Al 396.153Radial†	16769.4	15187	ug/L	184.3	15187	ppb	184.3	1.21%
As 188.979†	778.9	365.21	ug/L	3.556	365.21	ppb	3.556	0.97%
B 249.677†	327.3	2.6644	ug/L	0.71331	2.6644	ppb	0.71331	26.77%
Ba 233.527†	53582.7	419.60	ug/L	1.529	419.60	ppb	1.529	0.36%
Be 313.107†	119250.3	46.208	ug/L	0.1376	46.208	ppb	0.1376	0.30%
Ca 317.933Radial†	3088.2	6144.2	ug/L	13.60	6144.2	ppb	13.60	0.22%
Cd 226.502†	410.7	1.9318	ug/L	0.02735	1.9318	ppb	0.02735	1.42%
Co 228.616†	678.6	12.282	ug/L	0.1405	12.282	ppb	0.1405	1.14%
Cr 267.716†	4368.8	51.278	ug/L	0.1061	51.278	ppb	0.1061	0.21%
Cu 324.752†	949768.5	2852.6	ug/L	7.25	2852.6	ppb	7.25	0.25%
Fe 238.204 Radial†	2440.3	31439	ug/L	5.3	31439	ppb	5.3	0.02%
K 766.490 Radial†	10342.8	1932.5	ug/L	18.88	1932.5	ppb	18.88	0.98%

Mg 279.077 IEC†	87.1	3923.9	ug/L	134.77	3923.9	ppb	134.77	3.43%
Mn 257.610†	572833.3	645.20	ug/L	0.697	645.20	ppb	0.697	0.11%
Mo 202.031†	-7.5	1.9613	ug/L	0.53080	1.9613	ppb	0.53080	27.06%
Na 589.592 Radial†	1496.6	434.33	ug/L	1.785	434.33	ppb	1.785	0.41%
Ni 231.604†	1899.6	48.275	ug/L	0.4283	48.275	ppb	0.4283	0.89%
P 214.914†	2402.6	870.17	ug/L	15.521	870.17	ppb	15.521	1.78%
Pb 220.353†	2214964.7	274450	ug/L	511.1	274450	ppb	511.1	0.19%
S 181.975 Axial†	98.5	141.42	ug/L	12.433	141.42	ppb	12.433	8.79%
Sb 206.836†	3477.1	1209.4	ug/L	4.61	1209.4	ppb	4.61	0.38%
Se 196.026†	-125.4	15.225	ug/L	3.8183	15.225	ppb	3.8183	25.08%
Si 251.611†	353531.7	11341	ug/L	58.2	11341	ppb	58.2	0.51%
Sn 189.927†	176.9	31.291	ug/L	1.4853	31.291	ppb	1.4853	4.75%
Sr 421.552†	4159.6	27.523	ug/L	0.2758	27.523	ppb	0.2758	1.00%
Ti 334.940†	514442.8	777.68	ug/L	0.655	777.68	ppb	0.655	0.08%
Tl 190.801†	-42.8	-4.3547	ug/L	2.90267	-4.3547	ppb	2.90267	66.66%
U 409.014†	72582.7	1957.5	ug/L	11.01	1957.5	ppb	11.01	0.56%
V 292.402†	6756.8	45.310	ug/L	0.5434	45.310	ppb	0.5434	1.20%
Zn 213.857†	58017.6	573.29	ug/L	3.014	573.29	ppb	3.014	0.53%
SiO2†	361529.1	24840	ug/L	40.7	24840	ppb	40.7	0.16%

Sequence No.: 16
Sample ID: 245806006|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 2/23/2010 15:48:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806006|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4030.7	4030.7	94.8	%			15:50:43
1	Y RADIAL	4673.4	4673.4	99.60	%			15:50:43
1	Al 396.153Radial†	13619.1	14482.7	13116	ug/L	13116	ppb	15:50:43
1	Ca 317.933Radial†	3074.4	3228.8	6424.1	ug/L	6424.1	ppb	15:51:03
1	Fe 238.204 Radial†	2239.8	2353.4	30321	ug/L	30321	ppb	15:51:03
1	K 766.490 Radial†	11915.8	10017.7	1871.6	ug/L	1871.6	ppb	15:50:43
1	Mg 279.077 IEC†	65.0	65.8	2960.8	ug/L	2960.8	ppb	15:51:03
1	Na 589.592 Radial†	983.4	1778.2	516.03	ug/L	516.03	ppb	15:50:43
1	Sr 421.552†	4597.7	4815.1	31.866	ug/L	31.866	ppb	15:50:43
1	Sc 361.383	913322.1	913322.1	101.47	%			15:52:00
1	Y 371.029	806757.3	806757.3	105.81	%			15:52:00
1	Ag 328.068†	-654.7	-874.6	4.3172	ug/L	4.3172	ppb	15:52:05
1	As 188.979†	-1.3	19.2	21.098	ug/L	21.098	ppb	15:52:25
1	B 249.677†	-226.0	150.2	-1.3926	ug/L	-1.3926	ppb	15:52:05
1	Ba 233.527†	51246.0	50511.2	395.55	ug/L	395.55	ppb	15:52:05
1	Be 313.107†	461605.9	458757.9	172.36	ug/L	172.36	ppb	15:52:00
1	Cd 226.502†	168.7	349.6	1.2041	ug/L	1.2041	ppb	15:52:25
1	Co 228.616†	853.1	902.7	17.317	ug/L	17.317	ppb	15:52:25
1	Cr 267.716†	4135.1	4009.1	47.390	ug/L	47.390	ppb	15:52:05
1	Cu 324.752†	674532.8	658663.3	1978.8	ug/L	1978.8	ppb	15:52:00
1	Mn 257.610†	591454.7	582431.6	655.89	ug/L	655.89	ppb	15:52:00
1	Mo 202.031†	10.6	4.4	2.7537	ug/L	2.7537	ppb	15:52:25
1	Ni 231.604†	1670.5	1593.9	40.502	ug/L	40.502	ppb	15:52:25
1	P 214.914†	2316.7	2081.0	848.86	ug/L	848.86	ppb	15:52:25
1	Pb 220.353†	34621.5	34183.9	4234.0	ug/L	4234.0	ppb	15:52:05
1	S 181.975 Axial†	114.6	75.9	108.76	ug/L	108.76	ppb	15:52:25
1	Sb 206.836†	137.2	98.5	31.964	ug/L	31.964	ppb	15:52:25
1	Se 196.026†	-144.7	-121.9	14.066	ug/L	14.066	ppb	15:52:25
1	Si 251.611†	411217.0	404713.1	12983	ug/L	12983	ppb	15:52:00
1	Sn 189.927†	85.5	73.8	12.760	ug/L	12.760	ppb	15:52:25
1	Ti 334.940†	411351.0	406661.1	615.08	ug/L	615.08	ppb	15:52:00
1	Tl 190.801†	-64.1	-32.0	-2.1927	ug/L	-2.1927	ppb	15:52:25
1	U 409.014†	45904.5	48054.4	1294.9	ug/L	1294.9	ppb	15:52:00
1	V 292.402†	4376.9	5743.8	37.340	ug/L	37.340	ppb	15:52:05
1	Zn 213.857†	25764.8	24833.1	241.71	ug/L	241.71	ppb	15:52:05
1	SiO2†	409208.7	402716.6	27670	ug/L	27670	ppb	15:53:32
2	Sc Radial	4077.7	4077.7	95.9	%			15:51:08
2	Y RADIAL	4711.3	4711.3	100.4	%			15:51:08
2	Al 396.153Radial†	13598.1	14295.5	12947	ug/L	12947	ppb	15:51:08
2	Ca 317.933Radial†	2987.8	3101.3	6170.2	ug/L	6170.2	ppb	15:51:28
2	Fe 238.204 Radial†	2185.7	2269.8	29243	ug/L	29243	ppb	15:51:28
2	K 766.490 Radial†	11952.2	9911.0	1851.7	ug/L	1851.7	ppb	15:51:08
2	Mg 279.077 IEC†	66.0	66.1	2974.5	ug/L	2974.5	ppb	15:51:28
2	Na 589.592 Radial†	991.9	1775.0	515.11	ug/L	515.11	ppb	15:51:08
2	Sr 421.552†	4529.5	4688.1	31.026	ug/L	31.026	ppb	15:51:08
2	Sc 361.383	905537.5	905537.5	100.61	%			15:52:30
2	Y 371.029	799854.6	799854.6	104.91	%			15:52:30
2	Ag 328.068†	-681.1	-906.3	3.8459	ug/L	3.8459	ppb	15:52:36
2	As 188.979†	-12.4	8.2	15.855	ug/L	15.855	ppb	15:52:56
2	B 249.677†	-226.8	147.6	-1.2816	ug/L	-1.2816	ppb	15:52:36
2	Ba 233.527†	51324.2	51023.1	399.52	ug/L	399.52	ppb	15:52:36
2	Be 313.107†	458176.6	459260.0	172.55	ug/L	172.55	ppb	15:52:30
2	Cd 226.502†	190.5	372.7	1.5834	ug/L	1.5834	ppb	15:52:56
2	Co 228.616†	853.6	910.3	17.496	ug/L	17.496	ppb	15:52:56
2	Cr 267.716†	4081.4	3990.8	47.084	ug/L	47.084	ppb	15:52:36
2	Cu 324.752†	667213.9	657103.2	1974.1	ug/L	1974.1	ppb	15:52:30
2	Mn 257.610†	586842.4	582857.9	656.26	ug/L	656.26	ppb	15:52:30
2	Mo 202.031†	6.8	0.7	2.3958	ug/L	2.3958	ppb	15:52:56
2	Ni 231.604†	1685.7	1623.2	41.248	ug/L	41.248	ppb	15:52:56

2	P 214.914†	2341.6	2125.4	877.53 ug/L	877.53 ppb	15:52:56
2	Pb 220.353†	34605.4	34461.2	4268.5 ug/L	4268.5 ppb	15:52:36
2	S 181.975 Axial†	114.7	76.9	110.27 ug/L	110.27 ppb	15:52:56
2	Sb 206.836†	155.1	117.5	38.602 ug/L	38.602 ppb	15:52:56
2	Se 196.026†	-151.3	-129.7	5.5578 ug/L	5.5578 ppb	15:52:56
2	Si 251.611†	407675.1	404676.4	12982 ug/L	12982 ppb	15:52:30
2	Sn 189.927†	83.0	72.1	12.458 ug/L	12.458 ppb	15:52:56
2	Ti 334.940†	407282.0	406101.6	614.20 ug/L	614.20 ppb	15:52:30
2	Tl 190.801†	-68.2	-36.6	-3.6845 ug/L	-3.6845 ppb	15:52:56
2	U 409.014†	45280.0	47822.5	1288.8 ug/L	1288.8 ppb	15:52:30
2	V 292.402†	4240.0	5644.8	36.796 ug/L	36.796 ppb	15:52:36
2	Zn 213.857†	25764.4	25050.9	244.06 ug/L	244.06 ppb	15:52:36
2	SiO2†	411939.3	408897.4	28095 ug/L	28095 ppb	15:53:38
3	Sc Radial	3990.7	3990.7	93.8 %		15:51:33
3	Y RADIAL	4663.9	4663.9	99.40 %		15:51:33
3	Al 396.153Radial†	13652.1	14662.2	13279 ug/L	13279 ppb	15:51:33
3	Ca 317.933Radial†	3034.6	3219.0	6404.6 ug/L	6404.6 ppb	15:51:53
3	Fe 238.204 Radial†	2229.5	2366.1	30484 ug/L	30484 ppb	15:51:53
3	K 766.490 Radial†	11987.2	10220.0	1909.4 ug/L	1909.4 ppb	15:51:33
3	Mg 279.077 IEC†	61.1	62.3	2801.1 ug/L	2801.1 ppb	15:51:53
3	Na 589.592 Radial†	959.7	1763.3	511.72 ug/L	511.72 ppb	15:51:33
3	Sr 421.552†	4570.4	4834.7	31.996 ug/L	31.996 ppb	15:51:33
3	Sc 361.383	914302.9	914302.9	101.58 %		15:53:01
3	Y 371.029	806830.4	806830.4	105.82 %		15:53:01
3	Ag 328.068†	-773.7	-991.0	3.8264 ug/L	3.8264 ppb	15:53:06
3	As 188.979†	-7.4	13.3	18.451 ug/L	18.451 ppb	15:53:26
3	B 249.677†	-175.4	200.3	-0.2240 ug/L	-0.2240 ppb	15:53:06
3	Ba 233.527†	51459.8	50667.5	396.78 ug/L	396.78 ppb	15:53:06
3	Be 313.107†	461864.2	458524.2	172.28 ug/L	172.28 ppb	15:53:01
3	Cd 226.502†	177.2	357.8	1.2833 ug/L	1.2833 ppb	15:53:26
3	Co 228.616†	856.3	904.9	17.359 ug/L	17.359 ppb	15:53:26
3	Cr 267.716†	4168.8	4037.9	47.727 ug/L	47.727 ppb	15:53:06
3	Cu 324.752†	675560.8	658962.2	1979.7 ug/L	1979.7 ppb	15:53:01
3	Mn 257.610†	593179.9	583504.6	657.11 ug/L	657.11 ppb	15:53:01
3	Mo 202.031†	2.6	-3.5	2.1855 ug/L	2.1855 ppb	15:53:26
3	Ni 231.604†	1651.9	1573.9	39.993 ug/L	39.993 ppb	15:53:26
3	P 214.914†	2307.0	2069.0	841.29 ug/L	841.29 ppb	15:53:26
3	Pb 220.353†	34674.7	34199.7	4236.0 ug/L	4236.0 ppb	15:53:06
3	S 181.975 Axial†	109.7	71.0	101.52 ug/L	101.52 ppb	15:53:26
3	Sb 206.836†	147.3	108.3	35.330 ug/L	35.330 ppb	15:53:26
3	Se 196.026†	-145.8	-122.8	13.995 ug/L	13.995 ppb	15:53:26
3	Si 251.611†	412922.9	405957.7	13023 ug/L	13023 ppb	15:53:01
3	Sn 189.927†	77.1	65.5	11.229 ug/L	11.229 ppb	15:53:26
3	Ti 334.940†	412248.9	407110.2	615.77 ug/L	615.77 ppb	15:53:01
3	Tl 190.801†	-69.8	-37.5	-3.9614 ug/L	-3.9614 ppb	15:53:26
3	U 409.014†	46128.6	48226.4	1299.5 ug/L	1299.5 ppb	15:53:01
3	V 292.402†	4273.3	5637.2	36.573 ug/L	36.573 ppb	15:53:06
3	Zn 213.857†	25972.1	25009.9	243.46 ug/L	243.46 ppb	15:53:06
3	SiO2†	409751.5	402818.4	27677 ug/L	27677 ppb	15:53:43

Mean Data: 245806006|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911054.2	101.22	%	0.534				0.53%
Sc Radial	4033.0	94.8	%	1.02				1.08%
Y 371.029	804480.8	105.51	%	0.525				0.50%
Y RADIAL	4682.9	99.80	%	0.534				0.54%
Ag 328.068†	-924.0	3.9965	ug/L	0.27792	3.9965	ppb	0.27792	6.95%
Al 396.153Radial†	14480.1	13114	ug/L	166.1	13114	ppb	166.1	1.27%
As 188.979†	13.6	18.468	ug/L	2.6218	18.468	ppb	2.6218	14.20%
B 249.677†	166.0	-0.9661	ug/L	0.64507	-0.9661	ppb	0.64507	66.77%
Ba 233.527†	50733.9	397.28	ug/L	2.030	397.28	ppb	2.030	0.51%
Be 313.107†	458847.3	172.40	ug/L	0.138	172.40	ppb	0.138	0.08%
Ca 317.933Radial†	3183.0	6333.0	ug/L	141.26	6333.0	ppb	141.26	2.23%
Cd 226.502†	360.0	1.3569	ug/L	0.20007	1.3569	ppb	0.20007	14.74%
Co 228.616†	906.0	17.391	ug/L	0.0937	17.391	ppb	0.0937	0.54%
Cr 267.716†	4012.6	47.400	ug/L	0.3214	47.400	ppb	0.3214	0.68%
Cu 324.752†	658242.9	1977.5	ug/L	3.03	1977.5	ppb	3.03	0.15%
Fe 238.204 Radial†	2329.8	30016	ug/L	674.2	30016	ppb	674.2	2.25%
K 766.490 Radial†	10049.6	1877.6	ug/L	29.33	1877.6	ppb	29.33	1.56%

Mg 279.077 IEC†	64.8	2912.1	ug/L	96.40	2912.1	ppb	96.40	3.31%
Mn 257.610†	582931.4	656.42	ug/L	0.629	656.42	ppb	0.629	0.10%
Mo 202.031†	0.5	2.4450	ug/L	0.28730	2.4450	ppb	0.28730	11.75%
Na 589.592 Radial†	1772.2	514.29	ug/L	2.272	514.29	ppb	2.272	0.44%
Ni 231.604†	1597.0	40.581	ug/L	0.6310	40.581	ppb	0.6310	1.56%
P 214.914†	2091.8	855.89	ug/L	19.119	855.89	ppb	19.119	2.23%
Pb 220.353†	34281.6	4246.2	ug/L	19.34	4246.2	ppb	19.34	0.46%
S 181.975 Axial†	74.6	106.85	ug/L	4.681	106.85	ppb	4.681	4.38%
Sb 206.836†	108.1	35.298	ug/L	3.3192	35.298	ppb	3.3192	9.40%
Se 196.026†	-124.8	11.206	ug/L	4.8918	11.206	ppb	4.8918	43.65%
Si 251.611†	405115.7	12996	ug/L	23.4	12996	ppb	23.4	0.18%
Sn 189.927†	70.5	12.149	ug/L	0.8106	12.149	ppb	0.8106	6.67%
Sr 421.552†	4779.3	31.629	ug/L	0.5263	31.629	ppb	0.5263	1.66%
Ti 334.940†	406624.3	615.01	ug/L	0.785	615.01	ppb	0.785	0.13%
Tl 190.801†	-35.4	-3.2795	ug/L	0.95135	-3.2795	ppb	0.95135	29.01%
U 409.014†	48034.4	1294.4	ug/L	5.40	1294.4	ppb	5.40	0.42%
V 292.402†	5675.3	36.903	ug/L	0.3949	36.903	ppb	0.3949	1.07%
Zn 213.857†	24964.6	243.08	ug/L	1.221	243.08	ppb	1.221	0.50%
SiO2†	404810.8	27814	ug/L	243.2	27814	ppb	243.2	0.87%

Sequence No.: 17
Sample ID: 245806007|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 2/23/2010 15:55:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806007|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4143.4	4143.4	97.4	%			15:57:48
1	Y RADIAL	4798.6	4798.6	102.3	%			15:57:48
1	Al 396.153Radial†	28500.8	29369.1	26598	ug/L	26598	ppb	15:57:48
1	Ca 317.933Radial†	6113.6	6260.6	12456	ug/L	12456	ppb	15:57:48
1	Fe 238.204 Radial†	2816.9	2881.6	37125	ug/L	37125	ppb	15:58:08
1	K 766.490 Radial†	30059.6	28301.8	5290.2	ug/L	5290.2	ppb	15:57:48
1	Mg 279.077 IEC†	121.1	121.6	5487.1	ug/L	5487.1	ppb	15:58:08
1	Na 589.592 Radial†	62.6	804.6	233.50	ug/L	233.50	ppb	15:57:48
1	Sr 421.552†	14403.6	14749.6	97.666	ug/L	97.666	ppb	15:57:48
1	Sc 361.383	910865.1	910865.1	101.20	%			15:59:05
1	Y 371.029	796082.4	796082.4	104.41	%			15:59:05
1	Ag 328.068†	-1963.1	-2169.1	1.4628	ug/L	1.4628	ppb	15:59:05
1	As 188.979†	-17.1	3.6	19.112	ug/L	19.112	ppb	15:59:25
1	B 249.677†	18.8	391.6	3.2538	ug/L	3.2538	ppb	15:59:05
1	Ba 233.527†	50030.9	49446.7	387.53	ug/L	387.53	ppb	15:59:05
1	Be 313.107†	18074.3	21713.2	10.391	ug/L	10.391	ppb	15:59:05
1	Cd 226.502†	420.4	598.8	3.1656	ug/L	3.1656	ppb	15:59:25
1	Co 228.616†	986.9	1037.1	19.193	ug/L	19.193	ppb	15:59:25
1	Cr 267.716†	3360.1	3254.2	40.076	ug/L	40.076	ppb	15:59:25
1	Cu 324.752†	169417.9	161331.6	486.34	ug/L	486.34	ppb	15:59:05
1	Mn 257.610†	1121945.6	1108203.5	1245.9	ug/L	1245.9	ppb	15:59:05
1	Mo 202.031†	-9.8	-15.8	1.8754	ug/L	1.8754	ppb	15:59:25
1	Ni 231.604†	1355.7	1287.3	32.708	ug/L	32.708	ppb	15:59:25
1	P 214.914†	1594.3	1373.3	713.68	ug/L	713.68	ppb	15:59:25
1	Pb 220.353†	3708.9	3730.0	463.59	ug/L	463.59	ppb	15:59:25
1	S 181.975 Axial†	582.9	539.0	784.61	ug/L	784.61	ppb	15:59:25
1	Sb 206.836†	60.3	22.9	3.4626	ug/L	3.4626	ppb	15:59:25
1	Se 196.026†	-170.9	-148.2	17.818	ug/L	17.818	ppb	15:59:25
1	Si 251.611†	578196.6	570805.6	18311	ug/L	18311	ppb	15:59:05
1	Sn 189.927†	-78.0	-87.5	-15.750	ug/L	-15.750	ppb	15:59:25
1	Ti 334.940†	676285.5	669547.2	1013.8	ug/L	1013.8	ppb	15:59:05
1	Tl 190.801†	-86.9	-54.7	-3.4475	ug/L	-3.4475	ppb	15:59:25
1	U 409.014†	2860.3	5642.7	148.16	ug/L	148.16	ppb	15:59:05
1	V 292.402†	9617.4	10933.7	69.798	ug/L	69.798	ppb	15:59:05
1	Zn 213.857†	24371.3	23524.6	229.63	ug/L	229.63	ppb	15:59:05
1	SiO2†	582366.8	574909.0	39501	ug/L	39501	ppb	16:00:23
2	Sc Radial	4207.7	4207.7	98.9	%			15:58:13
2	Y RADIAL	4839.5	4839.5	103.1	%			15:58:13
2	Al 396.153Radial†	28890.8	29316.6	26550	ug/L	26550	ppb	15:58:13
2	Ca 317.933Radial†	6213.8	6266.1	12467	ug/L	12467	ppb	15:58:13
2	Fe 238.204 Radial†	2833.1	2853.8	36767	ug/L	36767	ppb	15:58:33
2	K 766.490 Radial†	30435.1	28210.2	5273.0	ug/L	5273.0	ppb	15:58:13
2	Mg 279.077 IEC†	117.8	116.3	5247.0	ug/L	5247.0	ppb	15:58:33
2	Na 589.592 Radial†	107.9	849.5	246.52	ug/L	246.52	ppb	15:58:13
2	Sr 421.552†	14579.4	14701.6	97.347	ug/L	97.347	ppb	15:58:13
2	Sc 361.383	907776.6	907776.6	100.86	%			15:59:31
2	Y 371.029	793522.7	793522.7	104.08	%			15:59:31
2	Ag 328.068†	-2028.7	-2240.8	1.0284	ug/L	1.0284	ppb	15:59:31
2	As 188.979†	-23.2	-2.5	16.275	ug/L	16.275	ppb	15:59:51
2	B 249.677†	54.2	426.7	4.1499	ug/L	4.1499	ppb	15:59:31
2	Ba 233.527†	50130.4	49713.6	389.60	ug/L	389.60	ppb	15:59:31
2	Be 313.107†	18223.0	21921.5	10.470	ug/L	10.470	ppb	15:59:31
2	Cd 226.502†	415.7	595.5	3.1632	ug/L	3.1632	ppb	15:59:51
2	Co 228.616†	984.1	1037.6	19.210	ug/L	19.210	ppb	15:59:51
2	Cr 267.716†	3362.8	3268.2	40.202	ug/L	40.202	ppb	15:59:51
2	Cu 324.752†	168111.7	160606.1	484.15	ug/L	484.15	ppb	15:59:31
2	Mn 257.610†	1121804.1	1111835.2	1250.0	ug/L	1250.0	ppb	15:59:31
2	Mo 202.031†	-1.6	-7.6	2.4448	ug/L	2.4448	ppb	15:59:51
2	Ni 231.604†	1319.5	1256.0	31.911	ug/L	31.911	ppb	15:59:51

2	P 214.914†	1586.2	1370.7	712.80	ug/L	712.80 ppb	15:59:51
2	Pb 220.353†	3692.2	3725.9	463.11	ug/L	463.11 ppb	15:59:51
2	S 181.975 Axial†	586.0	544.0	791.91	ug/L	791.91 ppb	15:59:51
2	Sb 206.836†	73.3	36.0	8.0627	ug/L	8.0627 ppb	15:59:51
2	Se 196.026†	-169.8	-147.6	17.080	ug/L	17.080 ppb	15:59:51
2	Si 251.611†	576507.1	571074.3	18320	ug/L	18320 ppb	15:59:31
2	Sn 189.927†	-73.9	-83.7	-15.035	ug/L	-15.035 ppb	15:59:51
2	Ti 334.940†	674432.3	669983.5	1014.5	ug/L	1014.5 ppb	15:59:31
2	Tl 190.801†	-90.6	-58.6	-4.6884	ug/L	-4.6884 ppb	15:59:51
2	U 409.014†	2567.4	5361.9	140.61	ug/L	140.61 ppb	15:59:31
2	V 292.402†	9538.9	10888.3	69.523	ug/L	69.523 ppb	15:59:31
2	Zn 213.857†	24283.1	23519.1	229.64	ug/L	229.64 ppb	15:59:31
2	SiO2†	577982.7	572520.1	39337	ug/L	39337 ppb	16:00:28
3	Sc Radial	4127.9	4127.9	97.0	%		15:58:38
3	Y RADIAL	4762.6	4762.6	101.5	%		15:58:38
3	Al 396.153Radial†	28478.4	29455.9	26677	ug/L	26677 ppb	15:58:38
3	Ca 317.933Radial†	6087.9	6257.7	12450	ug/L	12450 ppb	15:58:38
3	Fe 238.204 Radial†	2820.7	2896.4	37316	ug/L	37316 ppb	15:58:58
3	K 766.490 Radial†	29761.1	28110.0	5254.3	ug/L	5254.3 ppb	15:58:38
3	Mg 279.077 IEC†	120.3	121.2	5467.6	ug/L	5467.6 ppb	15:58:58
3	Na 589.592 Radial†	70.4	812.9	235.89	ug/L	235.89 ppb	15:58:38
3	Sr 421.552†	14295.0	14693.3	97.292	ug/L	97.292 ppb	15:58:38
3	Sc 361.383	904274.3	904274.3	100.47	%		15:59:57
3	Y 371.029	789669.1	789669.1	103.57	%		15:59:57
3	Ag 328.068†	-1935.9	-2156.2	1.5800	ug/L	1.5800 ppb	15:59:57
3	As 188.979†	-25.1	-4.4	15.527	ug/L	15.527 ppb	16:00:17
3	B 249.677†	-42.4	330.7	1.7711	ug/L	1.7711 ppb	15:59:57
3	Ba 233.527†	49806.1	49583.3	388.60	ug/L	388.60 ppb	15:59:57
3	Be 313.107†	17893.1	21663.0	10.374	ug/L	10.374 ppb	15:59:57
3	Cd 226.502†	433.0	614.3	3.3251	ug/L	3.3251 ppb	16:00:17
3	Co 228.616†	986.4	1043.7	19.329	ug/L	19.329 ppb	16:00:17
3	Cr 267.716†	3345.8	3264.2	40.207	ug/L	40.207 ppb	16:00:17
3	Cu 324.752†	167640.4	160782.6	484.71	ug/L	484.71 ppb	15:59:57
3	Mn 257.610†	1116572.2	1110935.6	1249.0	ug/L	1249.0 ppb	15:59:57
3	Mo 202.031†	-0.4	-6.5	2.5679	ug/L	2.5679 ppb	16:00:17
3	Ni 231.604†	1350.2	1291.6	32.818	ug/L	32.818 ppb	16:00:17
3	P 214.914†	1593.6	1384.2	720.45	ug/L	720.45 ppb	16:00:17
3	Pb 220.353†	3668.1	3716.1	461.86	ug/L	461.86 ppb	16:00:17
3	S 181.975 Axial†	584.4	544.6	792.86	ug/L	792.86 ppb	16:00:17
3	Sb 206.836†	60.4	23.4	3.6667	ug/L	3.6667 ppb	16:00:17
3	Se 196.026†	-181.1	-159.6	10.907	ug/L	10.907 ppb	16:00:17
3	Si 251.611†	574705.3	571494.8	18333	ug/L	18333 ppb	15:59:57
3	Sn 189.927†	-72.0	-82.1	-14.785	ug/L	-14.785 ppb	16:00:17
3	Ti 334.940†	671854.4	670007.5	1014.5	ug/L	1014.5 ppb	15:59:57
3	Tl 190.801†	-81.8	-50.2	-1.9920	ug/L	-1.9920 ppb	16:00:17
3	U 409.014†	2670.5	5474.4	143.59	ug/L	143.59 ppb	15:59:57
3	V 292.402†	9381.5	10768.2	68.620	ug/L	68.620 ppb	15:59:57
3	Zn 213.857†	24166.7	23496.4	229.32	ug/L	229.32 ppb	15:59:57
3	SiO2†	572884.6	569665.2	39141	ug/L	39141 ppb	16:00:34

Mean Data: 245806007|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907638.7	100.84	%	0.366				0.36%
Sc Radial	4159.7	97.8	%	0.99				1.02%
Y 371.029	793091.4	104.02	%	0.423				0.41%
Y RADIAL	4800.2	102.3	%	0.82				0.80%
Ag 328.068†	-2188.7	1.3571	ug/L	0.29063	1.3571	ppb	0.29063	21.42%
Al 396.153Radial†	29380.5	26608	ug/L	63.7	26608	ppb	63.7	0.24%
As 188.979†	-1.1	16.971	ug/L	1.8912	16.971	ppb	1.8912	11.14%
B 249.677†	383.0	3.0583	ug/L	1.20141	3.0583	ppb	1.20141	39.28%
Ba 233.527†	49581.2	388.57	ug/L	1.037	388.57	ppb	1.037	0.27%
Be 313.107†	21765.9	10.412	ug/L	0.0513	10.412	ppb	0.0513	0.49%
Ca 317.933Radial†	6261.5	12458	ug/L	8.4	12458	ppb	8.4	0.07%
Cd 226.502†	602.8	3.2180	ug/L	0.09276	3.2180	ppb	0.09276	2.88%
Co 228.616†	1039.5	19.244	ug/L	0.0743	19.244	ppb	0.0743	0.39%
Cr 267.716†	3262.2	40.162	ug/L	0.0739	40.162	ppb	0.0739	0.18%
Cu 324.752†	160906.8	485.07	ug/L	1.140	485.07	ppb	1.140	0.24%
Fe 238.204 Radial†	2877.3	37069	ug/L	278.9	37069	ppb	278.9	0.75%
K 766.490 Radial†	28207.3	5272.5	ug/L	17.94	5272.5	ppb	17.94	0.34%

Mg 279.077 IEC†	119.7	5400.6	ug/L	133.35	5400.6	ppb	133.35	2.47%
Mn 257.610†	1110324.8	1248.3	ug/L	2.11	1248.3	ppb	2.11	0.17%
Mo 202.031†	-10.0	2.2960	ug/L	0.36944	2.2960	ppb	0.36944	16.09%
Na 589.592 Radial†	822.3	238.64	ug/L	6.929	238.64	ppb	6.929	2.90%
Ni 231.604†	1278.3	32.479	ug/L	0.4949	32.479	ppb	0.4949	1.52%
P 214.914†	1376.1	715.64	ug/L	4.186	715.64	ppb	4.186	0.58%
Pb 220.353†	3724.0	462.86	ug/L	0.891	462.86	ppb	0.891	0.19%
S 181.975 Axial†	542.5	789.80	ug/L	4.515	789.80	ppb	4.515	0.57%
Sb 206.836†	27.4	5.0640	ug/L	2.59897	5.0640	ppb	2.59897	51.32%
Se 196.026†	-151.8	15.268	ug/L	3.7953	15.268	ppb	3.7953	24.86%
Si 251.611†	571124.9	18322	ug/L	11.1	18322	ppb	11.1	0.06%
Sn 189.927†	-84.4	-15.190	ug/L	0.5012	-15.190	ppb	0.5012	3.30%
Sr 421.552†	14714.8	97.435	ug/L	0.2017	97.435	ppb	0.2017	0.21%
Ti 334.940†	669846.0	1014.2	ug/L	0.40	1014.2	ppb	0.40	0.04%
Tl 190.801†	-54.5	-3.3760	ug/L	1.34964	-3.3760	ppb	1.34964	39.98%
U 409.014†	5493.0	144.12	ug/L	3.801	144.12	ppb	3.801	2.64%
V 292.402†	10863.4	69.314	ug/L	0.6160	69.314	ppb	0.6160	0.89%
Zn 213.857†	23513.4	229.53	ug/L	0.181	229.53	ppb	0.181	0.08%
SiO2†	572364.8	39326	ug/L	180.4	39326	ppb	180.4	0.46%

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 16:09:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4074.5	4074.5	95.8	%			16:11:40
1	Y RADIAL	4466.8	4466.8	95.20	%			16:11:40
1	Al 396.153Radial†	5168.3	5506.3	4962.8	ug/L	4962.8	ppb	16:11:40
1	Ca 317.933Radial†	2483.6	2577.3	5127.8	ug/L	5127.8	ppb	16:12:00
1	Fe 238.204 Radial†	382.6	389.2	5029.5	ug/L	5029.5	ppb	16:12:00
1	K 766.490 Radial†	28349.6	27038.9	5052.3	ug/L	5052.3	ppb	16:11:40
1	Mg 279.077 IEC†	111.2	113.3	5149.8	ug/L	5149.8	ppb	16:12:00
1	Na 589.592 Radial†	31834.0	33973.6	9859.3	ug/L	9859.3	ppb	16:11:40
1	Sr 421.552†	71143.0	74233.2	491.97	ug/L	491.97	ppb	16:11:40
1	Sc 361.383	915957.5	915957.5	101.77	%			16:12:57
1	Y 371.029	761917.7	761917.7	99.931	%			16:12:57
1	Ag 328.068†	108312.5	106203.7	490.77	ug/L	490.77	ppb	16:13:03
1	As 188.979†	1100.2	1101.7	500.69	ug/L	500.69	ppb	16:13:23
1	B 249.677†	19704.7	19735.7	468.78	ug/L	468.78	ppb	16:13:03
1	Ba 233.527†	63748.1	62651.1	490.59	ug/L	490.59	ppb	16:13:03
1	Be 313.107†	1333845.9	1314553.4	490.97	ug/L	490.97	ppb	16:12:57
1	Cd 226.502†	43136.9	42571.6	494.03	ug/L	494.03	ppb	16:13:03
1	Co 228.616†	23905.0	23552.1	492.52	ug/L	492.52	ppb	16:13:03
1	Cr 267.716†	44346.6	43511.1	488.99	ug/L	488.99	ppb	16:13:03
1	Cu 324.752†	167978.8	158986.8	477.42	ug/L	477.42	ppb	16:13:03
1	Mn 257.610†	447493.5	439291.4	492.81	ug/L	492.81	ppb	16:12:57
1	Mo 202.031†	6865.4	6740.2	493.72	ug/L	493.72	ppb	16:13:23
1	Ni 231.604†	19795.5	19399.7	492.80	ug/L	492.80	ppb	16:13:03
1	P 214.914†	4357.6	4080.0	2382.7	ug/L	2382.7	ppb	16:13:23
1	Pb 220.353†	4183.6	4176.0	518.95	ug/L	518.95	ppb	16:13:23
1	S 181.975 Axial†	735.6	685.8	1003.8	ug/L	1003.8	ppb	16:13:23
1	Sb 206.836†	1462.4	1400.3	505.95	ug/L	505.95	ppb	16:13:23
1	Se 196.026†	731.8	739.8	504.86	ug/L	504.86	ppb	16:13:23
1	Si 251.611†	77780.3	75896.4	2428.7	ug/L	2428.7	ppb	16:13:03
1	Sn 189.927†	2799.6	2740.6	496.43	ug/L	496.43	ppb	16:13:23
1	Ti 334.940†	316918.7	312701.2	472.82	ug/L	472.82	ppb	16:13:03
1	Tl 190.801†	1515.0	1519.9	490.97	ug/L	490.97	ppb	16:13:23
1	U 409.014†	15057.4	17612.4	474.24	ug/L	474.24	ppb	16:13:03
1	V 292.402†	69445.3	69670.6	490.26	ug/L	490.26	ppb	16:13:03
1	Zn 213.857†	50348.9	48917.5	486.31	ug/L	486.31	ppb	16:13:03
1	SiO2†	78349.1	76438.1	5238.5	ug/L	5238.5	ppb	16:14:30
2	Sc Radial	4060.0	4060.0	95.4	%			16:12:05
2	Y RADIAL	4461.9	4461.9	95.10	%			16:12:05
2	Al 396.153Radial†	5229.2	5589.2	5037.5	ug/L	5037.5	ppb	16:12:05
2	Ca 317.933Radial†	2458.1	2559.8	5093.0	ug/L	5093.0	ppb	16:12:25
2	Fe 238.204 Radial†	382.3	390.4	5044.3	ug/L	5044.3	ppb	16:12:25
2	K 766.490 Radial†	28453.3	27252.9	5092.3	ug/L	5092.3	ppb	16:12:05
2	Mg 279.077 IEC†	111.5	114.1	5183.9	ug/L	5183.9	ppb	16:12:25
2	Na 589.592 Radial†	32145.8	34418.6	9988.4	ug/L	9988.4	ppb	16:12:05
2	Sr 421.552†	71917.5	75309.1	499.10	ug/L	499.10	ppb	16:12:05
2	Sc 361.383	897731.4	897731.4	99.741	%			16:13:28
2	Y 371.029	748121.4	748121.4	98.122	%			16:13:28
2	Ag 328.068†	110089.2	110145.8	508.93	ug/L	508.93	ppb	16:13:34
2	As 188.979†	1094.7	1118.0	508.20	ug/L	508.20	ppb	16:13:54
2	B 249.677†	20205.3	20630.7	490.09	ug/L	490.09	ppb	16:13:34
2	Ba 233.527†	64403.0	64579.4	505.69	ug/L	505.69	ppb	16:13:34
2	Be 313.107†	1306911.1	1314158.9	490.86	ug/L	490.86	ppb	16:13:28
2	Cd 226.502†	43768.2	44065.2	511.37	ug/L	511.37	ppb	16:13:34
2	Co 228.616†	24261.7	24386.7	509.96	ug/L	509.96	ppb	16:13:34
2	Cr 267.716†	44986.3	45037.1	506.12	ug/L	506.12	ppb	16:13:34
2	Cu 324.752†	171449.8	165818.0	497.93	ug/L	497.93	ppb	16:13:34
2	Mn 257.610†	437942.5	438643.2	492.09	ug/L	492.09	ppb	16:13:28
2	Mo 202.031†	6857.7	6869.4	503.18	ug/L	503.18	ppb	16:13:54
2	Ni 231.604†	20098.1	20098.0	510.54	ug/L	510.54	ppb	16:13:34

2	P 214.914†	4347.0	4156.3	2425.1 ug/L	2425.1 ppb	16:13:54
2	Pb 220.353†	4197.0	4272.9	530.99 ug/L	530.99 ppb	16:13:54
2	S 181.975 Axial†	730.1	694.9	1017.1 ug/L	1017.1 ppb	16:13:54
2	Sb 206.836†	1448.7	1415.8	511.70 ug/L	511.70 ppb	16:13:54
2	Se 196.026†	735.4	758.1	516.99 ug/L	516.99 ppb	16:13:54
2	Si 251.611†	79239.7	78911.3	2525.3 ug/L	2525.3 ppb	16:13:34
2	Sn 189.927†	2805.9	2802.8	507.67 ug/L	507.67 ppb	16:13:54
2	Ti 334.940†	321889.1	324006.9	489.90 ug/L	489.90 ppb	16:13:34
2	Tl 190.801†	1529.1	1564.3	505.23 ug/L	505.23 ppb	16:13:54
2	U 409.014†	15183.8	18039.5	485.74 ug/L	485.74 ppb	16:13:34
2	V 292.402†	70444.6	72058.0	506.97 ug/L	506.97 ppb	16:13:34
2	Zn 213.857†	51140.7	50715.8	504.21 ug/L	504.21 ppb	16:13:34
2	SiO2†	77437.7	77087.3	5282.9 ug/L	5282.9 ppb	16:14:35
3	Sc Radial	4025.0	4025.0	94.6 %		16:12:30
3	Y RADIAL	4432.7	4432.7	94.47 %		16:12:30
3	Al 396.153Radial†	5150.6	5553.8	5005.8 ug/L	5005.8 ppb	16:12:30
3	Ca 317.933Radial†	2465.8	2590.4	5153.8 ug/L	5153.8 ppb	16:12:50
3	Fe 238.204 Radial†	384.7	396.4	5121.4 ug/L	5121.4 ppb	16:12:50
3	K 766.490 Radial†	28185.4	27229.1	5087.8 ug/L	5087.8 ppb	16:12:30
3	Mg 279.077 IEC†	112.5	116.1	5275.9 ug/L	5275.9 ppb	16:12:50
3	Na 589.592 Radial†	31707.7	34248.5	9939.0 ug/L	9939.0 ppb	16:12:30
3	Sr 421.552†	70879.0	74866.9	496.17 ug/L	496.17 ppb	16:12:30
3	Sc 361.383	910144.2	910144.2	101.12 %		16:13:59
3	Y 371.029	757936.6	757936.6	99.409 %		16:13:59
3	Ag 328.068†	107929.6	106504.8	492.18 ug/L	492.18 ppb	16:14:05
3	As 188.979†	1085.8	1094.3	497.39 ug/L	497.39 ppb	16:14:25
3	B 249.677†	19711.3	19865.9	471.87 ug/L	471.87 ppb	16:14:05
3	Ba 233.527†	63522.2	62827.7	491.97 ug/L	491.97 ppb	16:14:05
3	Be 313.107†	1323555.5	1312748.6	490.30 ug/L	490.30 ppb	16:13:59
3	Cd 226.502†	43080.4	42786.5	496.51 ug/L	496.51 ppb	16:14:05
3	Co 228.616†	23826.6	23624.6	494.04 ug/L	494.04 ppb	16:14:05
3	Cr 267.716†	44215.9	43660.2	490.67 ug/L	490.67 ppb	16:14:05
3	Cu 324.752†	167502.7	159570.2	479.18 ug/L	479.18 ppb	16:14:05
3	Mn 257.610†	444655.0	439293.0	492.82 ug/L	492.82 ppb	16:13:59
3	Mo 202.031†	6847.6	6765.7	495.59 ug/L	495.59 ppb	16:14:25
3	Ni 231.604†	19755.7	19484.6	494.96 ug/L	494.96 ppb	16:14:05
3	P 214.914†	4354.0	4103.8	2396.8 ug/L	2396.8 ppb	16:14:25
3	Pb 220.353†	4190.8	4209.4	523.10 ug/L	523.10 ppb	16:14:25
3	S 181.975 Axial†	729.7	684.6	1001.9 ug/L	1001.9 ppb	16:14:25
3	Sb 206.836†	1469.7	1416.7	511.75 ug/L	511.75 ppb	16:14:25
3	Se 196.026†	729.6	742.3	506.79 ug/L	506.79 ppb	16:14:25
3	Si 251.611†	77539.7	76146.7	2436.7 ug/L	2436.7 ppb	16:14:05
3	Sn 189.927†	2803.6	2762.1	500.32 ug/L	500.32 ppb	16:14:25
3	Ti 334.940†	315909.5	313692.1	474.31 ug/L	474.31 ppb	16:14:05
3	Tl 190.801†	1519.0	1533.4	495.29 ug/L	495.29 ppb	16:14:25
3	U 409.014†	14925.9	17576.9	473.26 ug/L	473.26 ppb	16:14:05
3	V 292.402†	69145.4	69809.9	491.24 ug/L	491.24 ppb	16:14:05
3	Zn 213.857†	50291.0	49176.3	488.88 ug/L	488.88 ppb	16:14:05
3	SiO2†	77224.2	75817.4	5195.8 ug/L	5195.8 ppb	16:14:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	907944.4	100.88	%	1.034				1.03%
Sc Radial	4053.1	95.3	%	0.60				0.63%
Y 371.029	755991.9	99.154	%	0.9313				0.94%
Y RADIAL	4453.8	94.92	%	0.394				0.41%
Ag 328.068†	107618.1	497.29	ug/L	10.104	497.29	ppb	10.104	2.03%
QC value within limits for Ag 328.068 Recovery = 99.46%								
Al 396.153Radial†	5549.8	5002.0	ug/L	37.47	5002.0	ppb	37.47	0.75%
QC value within limits for Al 396.153Radial Recovery = 100.04%								
As 188.979†	1104.7	502.09	ug/L	5.542	502.09	ppb	5.542	1.10%
QC value within limits for As 188.979 Recovery = 100.42%								
B 249.677†	20077.5	476.91	ug/L	11.514	476.91	ppb	11.514	2.41%
QC value within limits for B 249.677 Recovery = 95.38%								
Ba 233.527†	63352.7	496.08	ug/L	8.347	496.08	ppb	8.347	1.68%
QC value within limits for Ba 233.527 Recovery = 99.22%								
Be 313.107†	1313820.3	490.71	ug/L	0.359	490.71	ppb	0.359	0.07%
QC value within limits for Be 313.107 Recovery = 98.14%								
Ca 317.933Radial†	2575.8	5124.9	ug/L	30.53	5124.9	ppb	30.53	0.60%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.50%
Cd 226.502†            43141.1      500.64 ug/L         9.381      500.64 ppb          9.381   1.87%
   QC value within limits for Cd 226.502  Recovery = 100.13%
Co 228.616†            23854.5      498.84 ug/L         9.658      498.84 ppb          9.658   1.94%
   QC value within limits for Co 228.616  Recovery = 99.77%
Cr 267.716†            44069.5      495.26 ug/L         9.445      495.26 ppb          9.445   1.91%
   QC value within limits for Cr 267.716  Recovery = 99.05%
Cu 324.752†           161458.3      484.85 ug/L        11.367      484.85 ppb         11.367   2.34%
   QC value within limits for Cu 324.752  Recovery = 96.97%
Fe 238.204 Radial†       392.0      5065.1 ug/L         49.31      5065.1 ppb          49.31   0.97%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.30%
K 766.490 Radial†      27173.6      5077.5 ug/L         21.92      5077.5 ppb          21.92   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 101.55%
Mg 279.077 IEC†          114.5      5203.2 ug/L         65.19      5203.2 ppb          65.19   1.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.06%
Mn 257.610†           439075.9      492.57 ug/L         0.421      492.57 ppb          0.421   0.09%
   QC value within limits for Mn 257.610  Recovery = 98.51%
Mo 202.031†             6791.8      497.49 ug/L         5.008      497.49 ppb          5.008   1.01%
   QC value within limits for Mo 202.031  Recovery = 99.50%
Na 589.592 Radial†     34213.6      9928.9 ug/L         65.16      9928.9 ppb          65.16   0.66%
   QC value within limits for Na 589.592 Radial  Recovery = 99.29%
Ni 231.604†            19660.8      499.43 ug/L         9.679      499.43 ppb          9.679   1.94%
   QC value within limits for Ni 231.604  Recovery = 99.89%
P 214.914†              4113.3      2401.5 ug/L         21.58      2401.5 ppb          21.58   0.90%
   QC value within limits for P 214.914  Recovery = 96.06%
Pb 220.353†             4219.4      524.35 ug/L         6.114      524.35 ppb          6.114   1.17%
   QC value within limits for Pb 220.353  Recovery = 104.87%
S 181.975 Axial†         688.4      1007.6 ug/L          8.26      1007.6 ppb           8.26   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 100.76%
Sb 206.836†             1410.9      509.80 ug/L         3.330      509.80 ppb          3.330   0.65%
   QC value within limits for Sb 206.836  Recovery = 101.96%
Se 196.026†              746.7      509.54 ug/L         6.517      509.54 ppb          6.517   1.28%
   QC value within limits for Se 196.026  Recovery = 101.91%
Si 251.611†            76984.8      2463.5 ug/L         53.61      2463.5 ppb          53.61   2.18%
   QC value within limits for Si 251.611  Recovery = 98.54%
Sn 189.927†             2768.5      501.47 ug/L         5.711      501.47 ppb          5.711   1.14%
   QC value within limits for Sn 189.927  Recovery = 100.29%
Sr 421.552†            74803.1      495.75 ug/L         3.584      495.75 ppb          3.584   0.72%
   QC value within limits for Sr 421.552  Recovery = 99.15%
Ti 334.940†           316800.1      479.01 ug/L         9.460      479.01 ppb          9.460   1.97%
   QC value within limits for Ti 334.940  Recovery = 95.80%
Tl 190.801†             1539.2      497.16 ug/L         7.310      497.16 ppb          7.310   1.47%
   QC value within limits for Tl 190.801  Recovery = 99.43%
U 409.014†             17742.9      477.75 ug/L         6.939      477.75 ppb          6.939   1.45%
   QC value within limits for U 409.014  Recovery = 95.55%
V 292.402†             70512.9      496.16 ug/L         9.375      496.16 ppb          9.375   1.89%
   QC value within limits for V 292.402  Recovery = 99.23%
Zn 213.857†            49603.2      493.13 ug/L         9.680      493.13 ppb          9.680   1.96%
   QC value within limits for Zn 213.857  Recovery = 98.63%
SiO2†                  76447.6      5239.1 ug/L         43.53      5239.1 ppb          43.53   0.83%
   QC value within limits for SiO2  Recovery = 97.97%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 16:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4059.7	4059.7	95.4	%			16:18:43
1	Y RADIAL	4484.4	4484.4	95.57	%			16:18:43
1	Al 396.153Radial†	-104.4	1.3	1.2056	ug/L	1.2056	ppb	16:18:43
1	Ca 317.933Radial†	19.3	4.8	9.4994	ug/L	9.4994	ppb	16:19:03
1	Fe 238.204 Radial†	10.4	0.7	9.0777	ug/L	9.0777	ppb	16:19:03
1	K 766.490 Radial†	2540.7	105.2	19.686	ug/L	19.686	ppb	16:18:43
1	Mg 279.077 IEC†	1.9	-0.8	-36.410	ug/L	-36.410	ppb	16:19:03
1	Na 589.592 Radial†	-704.1	2.7	0.7736	ug/L	0.7736	ppb	16:18:43
1	Sr 421.552†	74.1	40.9	0.2710	ug/L	0.2710	ppb	16:18:43
1	Sc 361.383	890757.6	890757.6	98.966	%			16:20:00
1	Y 371.029	753742.0	753742.0	98.859	%			16:20:00
1	Ag 328.068†	255.5	28.8	0.1372	ug/L	0.1372	ppb	16:20:00
1	As 188.979†	-13.5	6.9	3.1206	ug/L	3.1206	ppb	16:20:20
1	B 249.677†	-448.2	-79.9	-1.9074	ug/L	-1.9074	ppb	16:20:20
1	Ba 233.527†	-15.6	-6.6	-0.0524	ug/L	-0.0524	ppb	16:20:20
1	Be 313.107†	-3846.2	-33.1	-0.0128	ug/L	-0.0128	ppb	16:20:00
1	Cd 226.502†	-178.6	2.8	0.0307	ug/L	0.0307	ppb	16:20:20
1	Co 228.616†	-77.5	-16.4	-0.3413	ug/L	-0.3413	ppb	16:20:20
1	Cr 267.716†	71.7	6.4	0.0745	ug/L	0.0745	ppb	16:20:20
1	Cu 324.752†	6177.4	164.8	0.4985	ug/L	0.4985	ppb	16:20:00
1	Mn 257.610†	476.6	44.8	0.0526	ug/L	0.0526	ppb	16:20:20
1	Mo 202.031†	8.2	2.3	0.1661	ug/L	0.1661	ppb	16:20:20
1	Ni 231.604†	58.0	6.3	0.1606	ug/L	0.1606	ppb	16:20:20
1	P 214.914†	212.9	13.1	7.8471	ug/L	7.8471	ppb	16:20:20
1	Pb 220.353†	120.6	186.9	23.158	ug/L	23.158	ppb	16:20:20
1	S 181.975 Axial†	42.0	5.4	7.9821	ug/L	7.9821	ppb	16:20:20
1	Sb 206.836†	41.0	4.7	1.6637	ug/L	1.6637	ppb	16:20:20
1	Se 196.026†	-17.7	2.8	1.8644	ug/L	1.8644	ppb	16:20:20
1	Si 251.611†	595.9	68.0	2.1790	ug/L	2.1790	ppb	16:20:20
1	Sn 189.927†	16.2	6.0	1.0835	ug/L	1.0835	ppb	16:20:20
1	Ti 334.940†	-1401.8	-134.7	-0.1971	ug/L	-0.1971	ppb	16:20:00
1	Tl 190.801†	-34.0	-3.1	-1.0025	ug/L	-1.0025	ppb	16:20:20
1	U 409.014†	-2989.8	-204.8	-5.5339	ug/L	-5.5339	ppb	16:20:00
1	V 292.402†	-1493.3	-78.5	-0.5550	ug/L	-0.5550	ppb	16:20:00
1	Zn 213.857†	629.8	78.7	0.7870	ug/L	0.7870	ppb	16:20:20
1	SiO2†	576.5	31.1	2.1294	ug/L	2.1294	ppb	16:21:16
2	Sc Radial	3897.0	3897.0	91.6	%			16:19:08
2	Y RADIAL	4299.2	4299.2	91.63	%			16:19:08
2	Al 396.153Radial†	-125.6	-26.3	-23.855	ug/L	-23.855	ppb	16:19:08
2	Ca 317.933Radial†	25.2	12.0	23.956	ug/L	23.956	ppb	16:19:28
2	Fe 238.204 Radial†	12.1	3.0	38.864	ug/L	38.864	ppb	16:19:28
2	K 766.490 Radial†	2624.3	307.7	57.553	ug/L	57.553	ppb	16:19:08
2	Mg 279.077 IEC†	1.8	-0.8	-36.585	ug/L	-36.585	ppb	16:19:28
2	Na 589.592 Radial†	-703.1	-27.1	-7.8717	ug/L	-7.8717	ppb	16:19:08
2	Sr 421.552†	31.4	-2.5	-0.0167	ug/L	-0.0167	ppb	16:19:08
2	Sc 361.383	911609.3	911609.3	101.28	%			16:20:25
2	Y 371.029	771686.3	771686.3	101.21	%			16:20:25
2	Ag 328.068†	212.1	-20.0	-0.0823	ug/L	-0.0823	ppb	16:20:25
2	As 188.979†	-22.9	-2.0	-0.9107	ug/L	-0.9107	ppb	16:20:45
2	B 249.677†	-482.0	-102.9	-2.4617	ug/L	-2.4617	ppb	16:20:45
2	Ba 233.527†	2.9	12.0	0.0939	ug/L	0.0939	ppb	16:20:45
2	Be 313.107†	-3867.6	34.7	0.0125	ug/L	0.0125	ppb	16:20:25
2	Cd 226.502†	-177.9	7.7	0.0855	ug/L	0.0855	ppb	16:20:45
2	Co 228.616†	-73.1	-10.2	-0.2117	ug/L	-0.2117	ppb	16:20:45
2	Cr 267.716†	69.3	2.5	0.0306	ug/L	0.0306	ppb	16:20:45
2	Cu 324.752†	6144.6	-10.4	-0.0296	ug/L	-0.0296	ppb	16:20:25
2	Mn 257.610†	500.5	57.4	0.0696	ug/L	0.0696	ppb	16:20:45
2	Mo 202.031†	16.4	10.2	0.7464	ug/L	0.7464	ppb	16:20:45
2	Ni 231.604†	63.0	9.9	0.2518	ug/L	0.2518	ppb	16:20:45

2	P 214.914†	208.9	4.2	2.5135 ug/L	2.5135 ppb	16:20:45
2	Pb 220.353†	99.3	163.1	20.197 ug/L	20.197 ppb	16:20:45
2	S 181.975 Axial†	48.0	10.4	15.179 ug/L	15.179 ppb	16:20:45
2	Sb 206.836†	41.1	3.9	1.3724 ug/L	1.3724 ppb	16:20:45
2	Se 196.026†	-33.9	-12.8	-8.2863 ug/L	-8.2863 ppb	16:20:45
2	Si 251.611†	602.2	60.4	1.9297 ug/L	1.9297 ppb	16:20:45
2	Sn 189.927†	14.1	3.5	0.6413 ug/L	0.6413 ppb	16:20:45
2	Ti 334.940†	-1434.7	-134.7	-0.1979 ug/L	-0.1979 ppb	16:20:25
2	Tl 190.801†	-24.6	6.9	2.2184 ug/L	2.2184 ppb	16:20:45
2	U 409.014†	-2821.9	30.1	0.8078 ug/L	0.8078 ppb	16:20:25
2	V 292.402†	-1504.7	-55.2	-0.3770 ug/L	-0.3770 ppb	16:20:25
2	Zn 213.857†	633.4	67.7	0.6717 ug/L	0.6717 ppb	16:20:45
2	SiO2†	628.5	69.1	4.7257 ug/L	4.7257 ppb	16:21:21
3	Sc Radial	4155.6	4155.6	97.7 %		16:19:33
3	Y RADIAL	4616.6	4616.6	98.39 %		16:19:33
3	Al 396.153Radial†	-113.5	-5.4	-4.9417 ug/L	-4.9417 ppb	16:19:33
3	Ca 317.933Radial†	24.3	9.4	18.749 ug/L	18.749 ppb	16:19:54
3	Fe 238.204 Radial†	9.6	-0.3	-4.2419 ug/L	-4.2419 ppb	16:19:54
3	K 766.490 Radial†	2696.2	203.0	37.963 ug/L	37.963 ppb	16:19:33
3	Mg 279.077 IEC†	0.9	-1.8	-82.717 ug/L	-82.717 ppb	16:19:54
3	Na 589.592 Radial†	-652.3	72.7	21.089 ug/L	21.089 ppb	16:19:33
3	Sr 421.552†	61.1	25.8	0.1707 ug/L	0.1707 ppb	16:19:33
3	Sc 361.383	901597.6	901597.6	100.17 %		16:20:51
3	Y 371.029	763905.7	763905.7	100.19 %		16:20:51
3	Ag 328.068†	229.6	-0.1	-0.0039 ug/L	-0.0039 ppb	16:20:51
3	As 188.979†	-23.5	-3.0	-1.3440 ug/L	-1.3440 ppb	16:21:11
3	B 249.677†	-457.3	-83.6	-1.9945 ug/L	-1.9945 ppb	16:21:11
3	Ba 233.527†	-0.9	8.2	0.0628 ug/L	0.0628 ppb	16:21:11
3	Be 313.107†	-3913.0	-53.1	-0.0201 ug/L	-0.0201 ppb	16:20:51
3	Cd 226.502†	-190.3	-6.7	-0.0775 ug/L	-0.0775 ppb	16:21:11
3	Co 228.616†	-61.1	0.9	0.0196 ug/L	0.0196 ppb	16:21:11
3	Cr 267.716†	75.0	8.9	0.0985 ug/L	0.0985 ppb	16:21:11
3	Cu 324.752†	6102.8	15.2	0.0461 ug/L	0.0461 ppb	16:20:51
3	Mn 257.610†	514.4	76.7	0.0889 ug/L	0.0889 ppb	16:21:11
3	Mo 202.031†	9.0	2.9	0.2096 ug/L	0.2096 ppb	16:21:11
3	Ni 231.604†	59.0	6.5	0.1663 ug/L	0.1663 ppb	16:21:11
3	P 214.914†	212.1	9.7	5.8912 ug/L	5.8912 ppb	16:21:11
3	Pb 220.353†	100.9	165.7	20.534 ug/L	20.534 ppb	16:21:11
3	S 181.975 Axial†	37.8	0.7	1.0278 ug/L	1.0278 ppb	16:21:11
3	Sb 206.836†	39.6	2.9	0.9980 ug/L	0.9980 ppb	16:21:11
3	Se 196.026†	-31.6	-10.8	-7.1640 ug/L	-7.1640 ppb	16:21:11
3	Si 251.611†	587.8	52.6	1.6853 ug/L	1.6853 ppb	16:21:11
3	Sn 189.927†	7.6	-2.8	-0.5079 ug/L	-0.5079 ppb	16:21:11
3	Ti 334.940†	-1365.4	-81.3	-0.1132 ug/L	-0.1132 ppb	16:20:51
3	Tl 190.801†	-26.4	4.8	1.5477 ug/L	1.5477 ppb	16:21:11
3	U 409.014†	-2860.0	-38.8	-1.0494 ug/L	-1.0494 ppb	16:20:51
3	V 292.402†	-1524.6	-91.6	-0.6359 ug/L	-0.6359 ppb	16:20:51
3	Zn 213.857†	625.2	66.4	0.6661 ug/L	0.6661 ppb	16:21:11
3	SiO2†	578.8	26.3	1.8002 ug/L	1.8002 ppb	16:21:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901321.5	100.14	%	1.159				1.16%
Sc Radial	4037.4	94.9	%	3.07				3.24%
Y 371.029	763111.3	100.09	%	1.180				1.18%
Y RADIAL	4466.7	95.20	%	3.397				3.57%
Ag 328.068†	2.9	0.0170	ug/L	0.11122	0.0170	ppb	0.11122	653.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.1	-9.1970	ug/L	13.06094	-9.1970	ppb	13.06094	142.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.6	0.2886	ug/L	2.46209	0.2886	ppb	2.46209	852.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-88.8	-2.1212	ug/L	0.29805	-2.1212	ppb	0.29805	14.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.5	0.0348	ug/L	0.07706	0.0348	ppb	0.07706	221.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-17.2	-0.0068	ug/L	0.01707	-0.0068	ppb	0.01707	251.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.7	17.401	ug/L	7.3218	17.401	ppb	7.3218	42.08%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 1.3      0.0129 ug/L       0.08294      0.0129 ppb        0.08294 643.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -8.6     -0.1778 ug/L       0.18281     -0.1778 ppb        0.18281 102.84%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.9      0.0679 ug/L       0.03445      0.0679 ppb        0.03445  50.75%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                56.6      0.1717 ug/L       0.28553      0.1717 ppb        0.28553 166.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1      14.567 ug/L       22.0710      14.567 ppb        22.0710 151.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         205.3      38.401 ug/L       18.9369      38.401 ppb        18.9369  49.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -51.904 ug/L       26.6851     -51.904 ppb        26.6851  51.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                59.6      0.0704 ug/L       0.01818      0.0704 ppb        0.01818  25.83%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.1      0.3740 ug/L       0.32320      0.3740 ppb        0.32320  86.42%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         16.1      4.6636 ug/L      14.86691      4.6636 ppb       14.86691 318.79%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.6      0.1929 ug/L       0.05107      0.1929 ppb        0.05107  26.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  9.0      5.4172 ug/L       2.69820      5.4172 ppb        2.69820  49.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               171.9      21.297 ug/L        1.6208      21.297 ppb         1.6208   7.61%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.5      8.0630 ug/L       7.07599      8.0630 ppb        7.07599  87.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.8      1.3447 ug/L       0.33370      1.3447 ppb        0.33370  24.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.9     -4.5286 ug/L       5.56490     -4.5286 ppb        5.56490 122.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                60.3      1.9313 ug/L       0.24689      1.9313 ppb        0.24689  12.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.2      0.4057 ug/L       0.82143      0.4057 ppb        0.82143 202.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                21.4      0.1416 ug/L       0.14605      0.1416 ppb        0.14605 103.11%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -116.9     -0.1694 ug/L       0.04867     -0.1694 ppb        0.04867  28.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.9      0.9212 ug/L       1.69939      0.9212 ppb        1.69939 184.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -71.2     -1.9252 ug/L       3.26030     -1.9252 ppb        3.26030 169.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -75.1     -0.5226 ug/L       0.13241     -0.5226 ppb        0.13241  25.34%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                70.9      0.7083 ug/L       0.06821      0.7083 ppb        0.06821   9.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      42.1      2.8851 ug/L       1.60248      2.8851 ppb        1.60248  55.54%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

==========

Analysis Begun

Start Time: 2/23/2010 16:57:44 **Plasma On Time:** 2/22/2010 05:55:10
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\022310C.sif
Batch ID:
Results Data Set: 022310A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location:** 7
Sample ID: CCV **Date Collected:** 2/23/2010 16:57:45
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4106.2	4106.2	96.5	%			16:59:37
1	Y RADIAL	4490.6	4490.6	95.71	%			16:59:37
1	Al 396.153Radial†	5225.7	5524.0	4978.4	ug/L	4978.4	ppb	16:59:37
1	Ca 317.933Radial†	2453.7	2526.3	5026.4	ug/L	5026.4	ppb	16:59:57
1	Fe 238.204 Radial†	379.9	383.3	4953.7	ug/L	4953.7	ppb	16:59:57
1	K 766.490 Radial†	28306.7	26765.8	5001.2	ug/L	5001.2	ppb	16:59:37
1	Mg 279.077 IEC†	109.5	110.7	5031.2	ug/L	5031.2	ppb	16:59:57
1	Na 589.592 Radial†	32107.9	34000.5	9867.1	ug/L	9867.1	ppb	16:59:37
1	Sr 421.552†	71659.7	74194.6	491.71	ug/L	491.71	ppb	16:59:37
1	Sc 361.383	898824.3	898824.3	99.862	%			17:00:55
1	Y 371.029	748492.7	748492.7	98.170	%			17:00:55
1	Ag 328.068†	106888.8	106806.8	493.53	ug/L	493.53	ppb	17:01:00
1	As 188.979†	1077.8	1099.8	499.83	ug/L	499.83	ppb	17:01:20
1	B 249.677†	19370.8	19770.4	469.61	ug/L	469.61	ppb	17:01:00
1	Ba 233.527†	62886.6	62982.4	493.18	ug/L	493.18	ppb	17:01:00
1	Be 313.107†	1313541.7	1319205.5	492.71	ug/L	492.71	ppb	17:00:55
1	Cd 226.502†	42718.3	42960.5	498.55	ug/L	498.55	ppb	17:01:00
1	Co 228.616†	23615.5	23710.0	495.84	ug/L	495.84	ppb	17:01:00
1	Cr 267.716†	43805.9	43800.3	492.23	ug/L	492.23	ppb	17:01:00
1	Cu 324.752†	165723.7	159875.0	480.09	ug/L	480.09	ppb	17:01:00
1	Mn 257.610†	440367.7	440537.8	494.21	ug/L	494.21	ppb	17:00:55
1	Mo 202.031†	6860.1	6863.5	502.74	ug/L	502.74	ppb	17:01:20
1	Ni 231.604†	19621.0	19595.7	497.78	ug/L	497.78	ppb	17:01:00
1	P 214.914†	4340.7	4144.6	2421.6	ug/L	2421.6	ppb	17:01:20
1	Pb 220.353†	4104.0	4174.7	518.82	ug/L	518.82	ppb	17:01:20
1	S 181.975 Axial†	738.1	702.1	1027.6	ug/L	1027.6	ppb	17:01:20
1	Sb 206.836†	1455.9	1421.2	513.56	ug/L	513.56	ppb	17:01:20
1	Se 196.026†	732.5	754.2	514.15	ug/L	514.15	ppb	17:01:20
1	Si 251.611†	76758.0	76329.6	2442.5	ug/L	2442.5	ppb	17:01:00
1	Sn 189.927†	2799.3	2792.7	505.85	ug/L	505.85	ppb	17:01:20
1	Ti 334.940†	312841.4	314554.4	475.62	ug/L	475.62	ppb	17:01:00
1	Tl 190.801†	1526.6	1559.9	503.82	ug/L	503.82	ppb	17:01:20
1	U 409.014†	14700.5	17537.1	472.20	ug/L	472.20	ppb	17:01:00
1	V 292.402†	68596.8	70121.8	493.53	ug/L	493.53	ppb	17:01:00
1	Zn 213.857†	49795.4	49306.3	490.19	ug/L	490.19	ppb	17:01:00
1	SiO2†	76812.2	76366.5	5233.4	ug/L	5233.4	ppb	17:02:27
2	Sc Radial	3981.5	3981.5	93.6	%			17:00:02
2	Y RADIAL	4401.0	4401.0	93.80	%			17:00:02
2	Al 396.153Radial†	5090.1	5548.7	5000.7	ug/L	5000.7	ppb	17:00:02
2	Ca 317.933Radial†	2445.5	2597.2	5167.3	ug/L	5167.3	ppb	17:00:22
2	Fe 238.204 Radial†	376.5	392.1	5066.4	ug/L	5066.4	ppb	17:00:22
2	K 766.490 Radial†	27980.6	27335.8	5107.8	ug/L	5107.8	ppb	17:00:02
2	Mg 279.077 IEC†	112.7	117.7	5347.8	ug/L	5347.8	ppb	17:00:22
2	Na 589.592 Radial†	31326.9	34207.8	9927.2	ug/L	9927.2	ppb	17:00:02
2	Sr 421.552†	70050.6	74800.4	495.73	ug/L	495.73	ppb	17:00:02
2	Sc 361.383	892062.3	892062.3	99.111	%			17:01:26
2	Y 371.029	742174.7	742174.7	97.342	%			17:01:26

2	Ag 328.068†	107549.0	108284.2	500.36 ug/L	500.36 ppb	17:01:31
2	As 188.979†	1087.4	1117.7	507.95 ug/L	507.95 ppb	17:01:51
2	B 249.677†	19518.3	20066.3	476.64 ug/L	476.64 ppb	17:01:31
2	Ba 233.527†	63005.8	63580.1	497.86 ug/L	497.86 ppb	17:01:31
2	Be 313.107†	1301873.5	1317403.2	492.05 ug/L	492.05 ppb	17:01:26
2	Cd 226.502†	42819.8	43387.1	503.49 ug/L	503.49 ppb	17:01:31
2	Co 228.616†	23722.5	23997.2	501.84 ug/L	501.84 ppb	17:01:31
2	Cr 267.716†	44030.3	44359.2	498.51 ug/L	498.51 ppb	17:01:31
2	Cu 324.752†	166333.2	161747.9	485.72 ug/L	485.72 ppb	17:01:31
2	Mn 257.610†	437501.2	440988.3	494.71 ug/L	494.71 ppb	17:01:26
2	Mo 202.031†	6838.8	6894.1	504.98 ug/L	504.98 ppb	17:01:51
2	Ni 231.604†	19638.0	19761.8	502.00 ug/L	502.00 ppb	17:01:31
2	P 214.914†	4337.7	4174.6	2438.6 ug/L	2438.6 ppb	17:01:51
2	Pb 220.353†	4066.5	4168.0	517.99 ug/L	517.99 ppb	17:01:51
2	S 181.975 Axial†	727.3	696.8	1019.9 ug/L	1019.9 ppb	17:01:51
2	Sb 206.836†	1463.5	1440.0	520.17 ug/L	520.17 ppb	17:01:51
2	Se 196.026†	724.8	752.0	513.07 ug/L	513.07 ppb	17:01:51
2	Si 251.611†	77025.2	77181.9	2469.8 ug/L	2469.8 ppb	17:01:31
2	Sn 189.927†	2787.8	2802.4	507.60 ug/L	507.60 ppb	17:01:51
2	Ti 334.940†	314156.9	318256.4	481.21 ug/L	481.21 ppb	17:01:31
2	Tl 190.801†	1524.1	1569.0	506.74 ug/L	506.74 ppb	17:01:51
2	U 409.014†	14784.5	17733.4	477.48 ug/L	477.48 ppb	17:01:31
2	V 292.402†	68752.5	70799.6	498.25 ug/L	498.25 ppb	17:01:31
2	Zn 213.857†	49935.9	49826.1	495.35 ug/L	495.35 ppb	17:01:31
2	SiO2†	76296.8	76429.6	5237.6 ug/L	5237.6 ppb	17:02:32
3	Sc Radial	4008.9	4008.9	94.2 %		17:00:27
3	Y RADIAL	4385.8	4385.8	93.47 %		17:00:27
3	Al 396.153Radial†	5104.2	5526.4	4980.8 ug/L	4980.8 ppb	17:00:27
3	Ca 317.933Radial†	2453.0	2587.2	5147.6 ug/L	5147.6 ppb	17:00:47
3	Fe 238.204 Radial†	380.2	393.2	5080.9 ug/L	5080.9 ppb	17:00:47
3	K 766.490 Radial†	28068.6	27224.5	5087.0 ug/L	5087.0 ppb	17:00:27
3	Mg 279.077 IEC†	111.0	115.0	5228.7 ug/L	5228.7 ppb	17:00:47
3	Na 589.592 Radial†	31534.8	34199.3	9924.8 ug/L	9924.8 ppb	17:00:27
3	Sr 421.552†	70670.7	74946.0	496.69 ug/L	496.69 ppb	17:00:27
3	Sc 361.383	896894.6	896894.6	99.648 %		17:01:57
3	Y 371.029	747047.1	747047.1	97.981 %		17:01:57
3	Ag 328.068†	106815.7	106963.7	494.28 ug/L	494.28 ppb	17:02:02
3	As 188.979†	1083.7	1108.0	503.59 ug/L	503.59 ppb	17:02:22
3	B 249.677†	19389.2	19830.7	471.03 ug/L	471.03 ppb	17:02:02
3	Ba 233.527†	62762.9	62993.8	493.27 ug/L	493.27 ppb	17:02:02
3	Be 313.107†	1310115.6	1318597.3	492.49 ug/L	492.49 ppb	17:01:57
3	Cd 226.502†	42625.9	42959.8	498.53 ug/L	498.53 ppb	17:02:02
3	Co 228.616†	23542.1	23687.2	495.35 ug/L	495.35 ppb	17:02:02
3	Cr 267.716†	43785.1	43873.8	493.06 ug/L	493.06 ppb	17:02:02
3	Cu 324.752†	165456.7	159964.1	480.36 ug/L	480.36 ppb	17:02:02
3	Mn 257.610†	440344.8	441463.6	495.25 ug/L	495.25 ppb	17:01:57
3	Mo 202.031†	6797.4	6815.3	499.22 ug/L	499.22 ppb	17:02:22
3	Ni 231.604†	19508.3	19524.9	495.98 ug/L	495.98 ppb	17:02:02
3	P 214.914†	4311.3	4124.5	2409.2 ug/L	2409.2 ppb	17:02:22
3	Pb 220.353†	4064.7	4144.1	515.01 ug/L	515.01 ppb	17:02:22
3	S 181.975 Axial†	732.6	698.2	1021.9 ug/L	1021.9 ppb	17:02:22
3	Sb 206.836†	1457.3	1425.7	515.05 ug/L	515.05 ppb	17:02:22
3	Se 196.026†	743.2	766.5	522.69 ug/L	522.69 ppb	17:02:22
3	Si 251.611†	76553.8	76290.2	2441.2 ug/L	2441.2 ppb	17:02:02
3	Sn 189.927†	2787.2	2786.6	504.75 ug/L	504.75 ppb	17:02:22
3	Ti 334.940†	312598.3	314984.5	476.27 ug/L	476.27 ppb	17:02:02
3	Tl 190.801†	1530.7	1567.4	506.21 ug/L	506.21 ppb	17:02:22
3	U 409.014†	14879.2	17748.0	477.89 ug/L	477.89 ppb	17:02:02
3	V 292.402†	68349.0	70020.9	492.77 ug/L	492.77 ppb	17:02:02
3	Zn 213.857†	49583.2	49200.7	489.12 ug/L	489.12 ppb	17:02:02
3	SiO2†	77728.0	77451.1	5308.0 ug/L	5308.0 ppb	17:02:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895927.0	99.540	%	0.3870				0.39%
Sc Radial	4032.2	94.8	%	1.54				1.63%
Y 371.029	745904.8	97.831	%	0.4342				0.44%
Y RADIAL	4425.8	94.33	%	1.207				1.28%
Ag 328.068†	107351.6	496.06	ug/L	3.747	496.06	ppb	3.747	0.76%

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   QC value within limits for Ag 328.068  Recovery = 99.21%
Al 396.153Radial†       5533.0      4986.6 ug/L        12.20      4986.6 ppb          12.20   0.24%
   QC value within limits for Al 396.153Radial  Recovery = 99.73%
As 188.979†             1108.5      503.79 ug/L        4.064      503.79 ppb          4.064   0.81%
   QC value within limits for As 188.979  Recovery = 100.76%
B 249.677†             19889.1      472.43 ug/L        3.716      472.43 ppb          3.716   0.79%
   QC value within limits for B 249.677  Recovery = 94.49%
Ba 233.527†            63185.4      494.77 ug/L        2.677      494.77 ppb          2.677   0.54%
   QC value within limits for Ba 233.527  Recovery = 98.95%
Be 313.107†          1318402.0      492.42 ug/L        0.335      492.42 ppb          0.335   0.07%
   QC value within limits for Be 313.107  Recovery = 98.48%
Ca 317.933Radial†       2570.2      5113.7 ug/L        76.31      5113.7 ppb          76.31   1.49%
   QC value within limits for Ca 317.933Radial  Recovery = 102.27%
Cd 226.502†            43102.5      500.19 ug/L        2.861      500.19 ppb          2.861   0.57%
   QC value within limits for Cd 226.502  Recovery = 100.04%
Co 228.616†            23798.1      497.68 ug/L        3.611      497.68 ppb          3.611   0.73%
   QC value within limits for Co 228.616  Recovery = 99.54%
Cr 267.716†            44011.1      494.60 ug/L        3.413      494.60 ppb          3.413   0.69%
   QC value within limits for Cr 267.716  Recovery = 98.92%
Cu 324.752†           160529.0      482.05 ug/L        3.173      482.05 ppb          3.173   0.66%
   QC value within limits for Cu 324.752  Recovery = 96.41%
Fe 238.204 Radial†       389.6      5033.6 ug/L        69.65      5033.6 ppb          69.65   1.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.67%
K 766.490 Radial†      27108.7      5065.3 ug/L        56.49      5065.3 ppb          56.49   1.12%
   QC value within limits for K 766.490 Radial  Recovery = 101.31%
Mg 279.077 IEC†          114.5      5202.6 ug/L       159.89      5202.6 ppb         159.89   3.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.05%
Mn 257.610†           440996.6      494.72 ug/L        0.521      494.72 ppb          0.521   0.11%
   QC value within limits for Mn 257.610  Recovery = 98.94%
Mo 202.031†             6857.6      502.31 ug/L        2.906      502.31 ppb          2.906   0.58%
   QC value within limits for Mo 202.031  Recovery = 100.46%
Na 589.592 Radial†     34135.8      9906.4 ug/L        34.04      9906.4 ppb          34.04   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 99.06%
Ni 231.604†            19627.5      498.59 ug/L        3.088      498.59 ppb          3.088   0.62%
   QC value within limits for Ni 231.604  Recovery = 99.72%
P 214.914†              4147.9      2423.1 ug/L        14.75      2423.1 ppb          14.75   0.61%
   QC value within limits for P 214.914  Recovery = 96.92%
Pb 220.353†             4162.3      517.28 ug/L        2.003      517.28 ppb          2.003   0.39%
   QC value within limits for Pb 220.353  Recovery = 103.46%
S 181.975 Axial†         699.0      1023.1 ug/L         3.97      1023.1 ppb           3.97   0.39%
   QC value within limits for S 181.975 Axial  Recovery = 102.31%
Sb 206.836†             1429.0      516.26 ug/L        3.470      516.26 ppb          3.470   0.67%
   QC value within limits for Sb 206.836  Recovery = 103.25%
Se 196.026†              757.6      516.64 ug/L        5.268      516.64 ppb          5.268   1.02%
   QC value within limits for Se 196.026  Recovery = 103.33%
Si 251.611†            76600.6      2451.2 ug/L        16.13      2451.2 ppb          16.13   0.66%
   QC value within limits for Si 251.611  Recovery = 98.05%
Sn 189.927†             2793.9      506.07 ug/L        1.437      506.07 ppb          1.437   0.28%
   QC value within limits for Sn 189.927  Recovery = 101.21%
Sr 421.552†            74647.0      494.71 ug/L        2.641      494.71 ppb          2.641   0.53%
   QC value within limits for Sr 421.552  Recovery = 98.94%
Ti 334.940†           315931.7      477.70 ug/L        3.056      477.70 ppb          3.056   0.64%
   QC value within limits for Ti 334.940  Recovery = 95.54%
Tl 190.801†             1565.4      505.59 ug/L        1.556      505.59 ppb          1.556   0.31%
   QC value within limits for Tl 190.801  Recovery = 101.12%
U 409.014†             17672.8      475.86 ug/L        3.171      475.86 ppb          3.171   0.67%
   QC value within limits for U 409.014  Recovery = 95.17%
V 292.402†             70314.1      494.85 ug/L        2.972      494.85 ppb          2.972   0.60%
   QC value within limits for V 292.402  Recovery = 98.97%
Zn 213.857†            49444.4      491.55 ug/L        3.333      491.55 ppb          3.333   0.68%
   QC value within limits for Zn 213.857  Recovery = 98.31%
SiO2†                  76749.1      5259.7 ug/L        41.90      5259.7 ppb          41.90   0.80%
   QC value within limits for SiO2  Recovery = 98.36%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 17:04:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3968.0	3968.0	93.3	%			17:07:00
1	Y RADIAL	4383.8	4383.8	93.43	%			17:06:40
1	Al 396.153Radial†	-90.7	13.5	12.207	ug/L	12.207	ppb	17:06:40
1	Ca 317.933Radial†	21.5	7.6	15.131	ug/L	15.131	ppb	17:07:00
1	Fe 238.204 Radial†	11.2	1.8	23.468	ug/L	23.468	ppb	17:07:00
1	K 766.490 Radial†	2690.7	327.5	61.273	ug/L	61.273	ppb	17:06:40
1	Mg 279.077 IEC†	1.1	-1.6	-73.139	ug/L	-73.139	ppb	17:07:00
1	Na 589.592 Radial†	-716.7	-27.9	-8.1095	ug/L	-8.1095	ppb	17:06:40
1	Sr 421.552†	52.8	19.8	0.1310	ug/L	0.1310	ppb	17:06:40
1	Sc 361.383	889032.5	889032.5	98.774	%			17:07:57
1	Y 371.029	752324.2	752324.2	98.673	%			17:07:57
1	Ag 328.068†	306.3	80.8	0.3812	ug/L	0.3812	ppb	17:07:57
1	As 188.979†	-25.9	-5.7	-2.5512	ug/L	-2.5512	ppb	17:08:17
1	B 249.677†	-454.3	-87.0	-2.0792	ug/L	-2.0792	ppb	17:08:17
1	Ba 233.527†	-10.3	-1.3	-0.0108	ug/L	-0.0108	ppb	17:08:17
1	Be 313.107†	-3789.5	16.8	0.0058	ug/L	0.0058	ppb	17:07:57
1	Cd 226.502†	-194.8	-13.9	-0.1656	ug/L	-0.1656	ppb	17:08:17
1	Co 228.616†	-71.9	-10.9	-0.2264	ug/L	-0.2264	ppb	17:08:17
1	Cr 267.716†	51.5	-13.9	-0.1517	ug/L	-0.1517	ppb	17:08:17
1	Cu 324.752†	6040.1	37.9	0.1188	ug/L	0.1188	ppb	17:07:57
1	Mn 257.610†	488.8	58.0	0.0704	ug/L	0.0704	ppb	17:08:17
1	Mo 202.031†	8.5	2.6	0.1891	ug/L	0.1891	ppb	17:08:17
1	Ni 231.604†	49.2	-2.5	-0.0624	ug/L	-0.0624	ppb	17:08:17
1	P 214.914†	196.9	-2.7	-1.6827	ug/L	-1.6827	ppb	17:08:17
1	Pb 220.353†	26.8	92.2	11.420	ug/L	11.420	ppb	17:08:17
1	S 181.975 Axial†	31.4	-5.3	-7.7184	ug/L	-7.7184	ppb	17:08:17
1	Sb 206.836†	33.6	-2.6	-0.8864	ug/L	-0.8864	ppb	17:08:17
1	Se 196.026†	-27.2	-6.8	-4.4301	ug/L	-4.4301	ppb	17:08:17
1	Si 251.611†	540.9	13.5	0.4305	ug/L	0.4305	ppb	17:08:17
1	Sn 189.927†	22.5	12.3	2.2321	ug/L	2.2321	ppb	17:08:17
1	Ti 334.940†	-1407.3	-143.0	-0.2052	ug/L	-0.2052	ppb	17:07:57
1	Tl 190.801†	-31.5	-0.7	-0.2103	ug/L	-0.2103	ppb	17:08:17
1	U 409.014†	-3025.8	-247.1	-6.6789	ug/L	-6.6789	ppb	17:07:57
1	V 292.402†	-1495.9	-84.0	-0.5978	ug/L	-0.5978	ppb	17:07:57
1	Zn 213.857†	646.2	96.6	0.9656	ug/L	0.9656	ppb	17:08:17
1	SiO2†	555.8	11.2	0.7638	ug/L	0.7638	ppb	17:09:13
2	Sc Radial	3990.8	3990.8	93.8	%			17:07:25
2	Y RADIAL	4522.7	4522.7	96.39	%			17:07:05
2	Al 396.153Radial†	-104.7	-0.8	-0.7963	ug/L	-0.7963	ppb	17:07:05
2	Ca 317.933Radial†	19.9	5.7	11.437	ug/L	11.437	ppb	17:07:25
2	Fe 238.204 Radial†	11.6	2.2	28.406	ug/L	28.406	ppb	17:07:25
2	K 766.490 Radial†	2633.6	250.2	46.810	ug/L	46.810	ppb	17:07:05
2	Mg 279.077 IEC†	4.6	2.2	99.490	ug/L	99.490	ppb	17:07:25
2	Na 589.592 Radial†	-678.5	17.2	4.9936	ug/L	4.9936	ppb	17:07:05
2	Sr 421.552†	25.8	-9.2	-0.0614	ug/L	-0.0614	ppb	17:07:05
2	Sc 361.383	887062.8	887062.8	98.556	%			17:08:22
2	Y 371.029	750654.2	750654.2	98.454	%			17:08:22
2	Ag 328.068†	205.4	-20.9	-0.0865	ug/L	-0.0865	ppb	17:08:22
2	As 188.979†	-26.3	-6.1	-2.7523	ug/L	-2.7523	ppb	17:08:42
2	B 249.677†	-494.3	-128.6	-3.0723	ug/L	-3.0723	ppb	17:08:42
2	Ba 233.527†	9.5	18.8	0.1460	ug/L	0.1460	ppb	17:08:42
2	Be 313.107†	-3885.0	-88.7	-0.0337	ug/L	-0.0337	ppb	17:08:22
2	Cd 226.502†	-165.5	15.4	0.1751	ug/L	0.1751	ppb	17:08:42
2	Co 228.616†	-65.7	-4.7	-0.0964	ug/L	-0.0964	ppb	17:08:42
2	Cr 267.716†	68.3	3.3	0.0408	ug/L	0.0408	ppb	17:08:42
2	Cu 324.752†	6073.7	85.6	0.2610	ug/L	0.2610	ppb	17:08:22
2	Mn 257.610†	491.1	61.4	0.0676	ug/L	0.0676	ppb	17:08:42
2	Mo 202.031†	21.3	15.6	1.1425	ug/L	1.1425	ppb	17:08:42
2	Ni 231.604†	54.4	2.9	0.0740	ug/L	0.0740	ppb	17:08:42

2	P 214.914†	210.0	11.0	6.5997	ug/L	6.5997 ppb	17:08:42
2	Pb 220.353†	22.9	88.3	10.940	ug/L	10.940 ppb	17:08:42
2	S 181.975 Axial†	45.8	9.5	13.883	ug/L	13.883 ppb	17:08:42
2	Sb 206.836†	34.2	-2.0	-0.6531	ug/L	-0.6531 ppb	17:08:42
2	Se 196.026†	-23.3	-2.9	-1.8326	ug/L	-1.8326 ppb	17:08:42
2	Si 251.611†	550.7	24.6	0.7761	ug/L	0.7761 ppb	17:08:42
2	Sn 189.927†	12.5	2.2	0.3991	ug/L	0.3991 ppb	17:08:42
2	Ti 334.940†	-1440.9	-180.2	-0.2772	ug/L	-0.2772 ppb	17:08:22
2	Tl 190.801†	-33.0	-2.3	-0.7381	ug/L	-0.7381 ppb	17:08:42
2	U 409.014†	-2935.6	-162.4	-4.3915	ug/L	-4.3915 ppb	17:08:22
2	V 292.402†	-1504.3	-95.9	-0.6600	ug/L	-0.6600 ppb	17:08:22
2	Zn 213.857†	627.6	79.1	0.7886	ug/L	0.7886 ppb	17:08:42
2	SiO2†	529.4	-14.4	-1.0187	ug/L	-1.0187 ppb	17:09:18
3	Sc Radial	3967.1	3967.1	93.3	%		17:07:50
3	Y RADIAL	4436.9	4436.9	94.56	%		17:07:30
3	Al 396.153Radial†	-108.3	-5.3	-4.8405	ug/L	-4.8405 ppb	17:07:30
3	Ca 317.933Radial†	24.5	10.8	21.447	ug/L	21.447 ppb	17:07:50
3	Fe 238.204 Radial†	11.0	1.6	21.162	ug/L	21.162 ppb	17:07:50
3	K 766.490 Radial†	2617.7	249.9	46.745	ug/L	46.745 ppb	17:07:30
3	Mg 279.077 IEC†	3.6	1.1	49.192	ug/L	49.192 ppb	17:07:50
3	Na 589.592 Radial†	-718.7	-30.3	-8.7800	ug/L	-8.7800 ppb	17:07:30
3	Sr 421.552†	12.8	-23.1	-0.1531	ug/L	-0.1531 ppb	17:07:30
3	Sc 361.383	895237.9	895237.9	99.464	%		17:08:48
3	Y 371.029	758264.4	758264.4	99.452	%		17:08:48
3	Ag 328.068†	186.1	-42.3	-0.1856	ug/L	-0.1856 ppb	17:08:48
3	As 188.979†	-16.0	4.5	2.0216	ug/L	2.0216 ppb	17:09:08
3	B 249.677†	-444.6	-74.1	-1.7703	ug/L	-1.7703 ppb	17:09:08
3	Ba 233.527†	8.9	18.1	0.1422	ug/L	0.1422 ppb	17:09:08
3	Be 313.107†	-3904.1	-71.9	-0.0274	ug/L	-0.0274 ppb	17:08:48
3	Cd 226.502†	-180.6	1.8	0.0182	ug/L	0.0182 ppb	17:09:08
3	Co 228.616†	-71.4	-9.8	-0.2053	ug/L	-0.2053 ppb	17:09:08
3	Cr 267.716†	81.8	16.3	0.1855	ug/L	0.1855 ppb	17:09:08
3	Cu 324.752†	6102.5	58.3	0.1778	ug/L	0.1778 ppb	17:08:48
3	Mn 257.610†	481.4	47.2	0.0529	ug/L	0.0529 ppb	17:09:08
3	Mo 202.031†	8.1	2.1	0.1569	ug/L	0.1569 ppb	17:09:08
3	Ni 231.604†	65.6	13.7	0.3471	ug/L	0.3471 ppb	17:09:08
3	P 214.914†	210.8	9.9	5.9851	ug/L	5.9851 ppb	17:09:08
3	Pb 220.353†	39.1	104.3	12.920	ug/L	12.920 ppb	17:09:08
3	S 181.975 Axial†	39.8	3.0	4.3755	ug/L	4.3755 ppb	17:09:08
3	Sb 206.836†	44.5	8.1	2.8238	ug/L	2.8238 ppb	17:09:08
3	Se 196.026†	-17.7	2.9	2.0100	ug/L	2.0100 ppb	17:09:08
3	Si 251.611†	558.7	27.6	0.8819	ug/L	0.8819 ppb	17:09:08
3	Sn 189.927†	14.1	3.7	0.6776	ug/L	0.6776 ppb	17:09:08
3	Ti 334.940†	-1446.2	-172.2	-0.2604	ug/L	-0.2604 ppb	17:08:48
3	Tl 190.801†	-35.4	-4.4	-1.4194	ug/L	-1.4194 ppb	17:09:08
3	U 409.014†	-2906.2	-105.6	-2.8572	ug/L	-2.8572 ppb	17:08:48
3	V 292.402†	-1423.7	-1.0	-0.0119	ug/L	-0.0119 ppb	17:08:48
3	Zn 213.857†	616.2	61.8	0.6145	ug/L	0.6145 ppb	17:09:08
3	SiO2†	545.0	-3.5	-0.2462	ug/L	-0.2462 ppb	17:09:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890444.4	98.931	%	0.4740				0.48%
Sc Radial	3975.3	93.5	%	0.32				0.34%
Y 371.029	753747.6	98.860	%	0.5246				0.53%
Y RADIAL	4447.8	94.79	%	1.493				1.58%
Ag 328.068†	5.9	0.0364	ug/L	0.30274	0.0364	ppb	0.30274	832.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.4	2.1900	ug/L	8.90738	2.1900	ppb	8.90738	406.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-1.0940	ug/L	2.70000	-1.0940	ppb	2.70000	246.81%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-96.5	-2.3073	ug/L	0.68030	-2.3073	ppb	0.68030	29.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.9	0.0925	ug/L	0.08943	0.0925	ppb	0.08943	96.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-47.9	-0.0184	ug/L	0.02119	-0.0184	ppb	0.02119	114.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.0	16.005	ug/L	5.0618	16.005	ppb	5.0618	31.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                1.1      0.0093 ug/L       0.17053      0.0093 ppb        0.17053 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -8.5     -0.1760 ug/L       0.06978     -0.1760 ppb        0.06978  39.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.9      0.0249 ug/L       0.16917      0.0249 ppb        0.16917 680.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               60.6      0.1859 ug/L       0.07147      0.1859 ppb        0.07147  38.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.9     24.345 ug/L        3.7005     24.345 ppb         3.7005  15.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        275.9     51.609 ug/L        8.3692     51.609 ppb         8.3692  16.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.6     25.181 ug/L       88.7841     25.181 ppb        88.7841 352.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               55.5      0.0636 ug/L       0.00936      0.0636 ppb        0.00936  14.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.8      0.4962 ug/L       0.55996      0.4962 ppb        0.55996 112.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -13.7     -3.9653 ug/L       7.76590     -3.9653 ppb        7.76590 195.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                4.7      0.1196 ug/L       0.20854      0.1196 ppb        0.20854 174.39%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 6.1      3.6340 ug/L       4.61470      3.6340 ppb        4.61470 126.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               94.9     11.760 ug/L        1.0326     11.760 ppb         1.0326   8.78%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.4      3.5132 ug/L      10.82628      3.5132 ppb       10.82628 308.16%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.2      0.4281 ug/L       2.07802      0.4281 ppb        2.07802 485.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.3     -1.4176 ug/L       3.24007     -1.4176 ppb        3.24007 228.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               21.9      0.6962 ug/L       0.23608      0.6962 ppb        0.23608  33.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.1      1.1029 ug/L       0.98774      1.1029 ppb        0.98774  89.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -4.2     -0.0278 ug/L       0.14499     -0.0278 ppb        0.14499 521.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -165.1     -0.2476 ug/L       0.03767     -0.2476 ppb        0.03767  15.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -2.5     -0.7893 ug/L       0.60619     -0.7893 ppb        0.60619  76.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -171.7     -4.6425 ug/L       1.92316     -4.6425 ppb        1.92316  41.42%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -60.3     -0.4232 ug/L       0.35758     -0.4232 ppb        0.35758  84.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               79.2      0.7896 ug/L       0.17558      0.7896 ppb        0.17558  22.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -2.2     -0.1670 ug/L       0.89390     -0.1670 ppb        0.89390 535.15%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Analysis Begun

Start Time: 2/23/2010 17:25:38 **Plasma On Time: 2/22/2010 05:55:10**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022310C.sif
Batch ID:
Results Data Set: 022310A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/23/2010 17:25:39**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3991.4	3991.4	93.8	%			17:27:32
1	Y RADIAL	4358.2	4358.2	92.88	%			17:27:32
1	Al 396.153Radial†	5151.5	5600.7	5047.9	ug/L	5047.9	ppb	17:27:32
1	Ca 317.933Radial†	2489.4	2637.4	5247.4	ug/L	5247.4	ppb	17:27:52
1	Fe 238.204 Radial†	384.9	400.0	5168.6	ug/L	5168.6	ppb	17:27:52
1	K 766.490 Radial†	28009.5	27292.6	5099.6	ug/L	5099.6	ppb	17:27:32
1	Mg 279.077 IEC†	115.3	120.1	5459.1	ug/L	5459.1	ppb	17:27:52
1	Na 589.592 Radial†	32214.8	35071.3	10178	ug/L	10178	ppb	17:27:32
1	Sr 421.552†	71131.1	75766.7	502.13	ug/L	502.13	ppb	17:27:32
1	Sc 361.383	888136.2	888136.2	98.675	%			17:28:49
1	Y 371.029	739501.5	739501.5	96.991	%			17:28:49
1	Ag 328.068†	106829.5	108034.8	499.25	ug/L	499.25	ppb	17:28:54
1	As 188.979†	1071.9	1106.9	503.10	ug/L	503.10	ppb	17:29:14
1	B 249.677†	19349.3	19982.1	474.61	ug/L	474.61	ppb	17:28:54
1	Ba 233.527†	62716.1	63567.4	497.77	ug/L	497.77	ppb	17:28:54
1	Be 313.107†	1302809.7	1324158.6	494.57	ug/L	494.57	ppb	17:28:49
1	Cd 226.502†	42610.9	43366.5	503.24	ug/L	503.24	ppb	17:28:54
1	Co 228.616†	23572.8	23951.3	500.87	ug/L	500.87	ppb	17:28:54
1	Cr 267.716†	43775.7	44297.6	497.83	ug/L	497.83	ppb	17:28:54
1	Cu 324.752†	165839.6	161989.5	486.45	ug/L	486.45	ppb	17:28:54
1	Mn 257.610†	437072.3	442505.0	496.42	ug/L	496.42	ppb	17:28:49
1	Mo 202.031†	6787.9	6873.0	503.45	ug/L	503.45	ppb	17:29:14
1	Ni 231.604†	19542.0	19752.1	501.76	ug/L	501.76	ppb	17:28:54
1	P 214.914†	4334.5	4190.6	2448.1	ug/L	2448.1	ppb	17:29:14
1	Pb 220.353†	4034.2	4153.4	516.18	ug/L	516.18	ppb	17:29:14
1	S 181.975 Axial†	726.1	698.8	1022.7	ug/L	1022.7	ppb	17:29:14
1	Sb 206.836†	1445.8	1428.5	516.14	ug/L	516.14	ppb	17:29:14
1	Se 196.026†	722.9	753.3	514.25	ug/L	514.25	ppb	17:29:14
1	Si 251.611†	76672.2	77167.7	2469.3	ug/L	2469.3	ppb	17:28:54
1	Sn 189.927†	2776.5	2803.4	507.80	ug/L	507.80	ppb	17:29:14
1	Ti 334.940†	312510.8	317989.4	480.80	ug/L	480.80	ppb	17:28:54
1	Tl 190.801†	1520.0	1571.6	507.58	ug/L	507.58	ppb	17:29:14
1	U 409.014†	14791.5	17806.4	479.44	ug/L	479.44	ppb	17:28:54
1	V 292.402†	68465.3	70815.1	498.33	ug/L	498.33	ppb	17:28:54
1	Zn 213.857†	49646.6	49755.6	494.63	ug/L	494.63	ppb	17:28:54
1	SiO2†	76750.6	77229.8	5292.6	ug/L	5292.6	ppb	17:30:22
2	Sc Radial	3982.8	3982.8	93.6	%			17:27:57
2	Y RADIAL	4375.7	4375.7	93.26	%			17:27:57
2	Al 396.153Radial†	5134.8	5594.6	5042.5	ug/L	5042.5	ppb	17:27:57
2	Ca 317.933Radial†	2442.9	2593.4	5159.9	ug/L	5159.9	ppb	17:28:17
2	Fe 238.204 Radial†	379.1	394.7	5099.7	ug/L	5099.7	ppb	17:28:17
2	K 766.490 Radial†	28009.4	27356.5	5111.6	ug/L	5111.6	ppb	17:27:57
2	Mg 279.077 IEC†	113.5	118.4	5382.4	ug/L	5382.4	ppb	17:28:17
2	Na 589.592 Radial†	32016.9	34933.4	10138	ug/L	10138	ppb	17:27:57
2	Sr 421.552†	70935.6	75720.3	501.83	ug/L	501.83	ppb	17:27:57
2	Sc 361.383	891162.3	891162.3	99.011	%			17:29:20
2	Y 371.029	741011.3	741011.3	97.189	%			17:29:20

2	Ag 328.068†	109321.2	110183.8	509.11 ug/L	509.11 ppb	17:29:25
2	As 188.979†	1080.5	1111.9	505.43 ug/L	505.43 ppb	17:29:45
2	B 249.677†	20039.1	20612.2	489.64 ug/L	489.64 ppb	17:29:25
2	Ba 233.527†	64018.3	64666.9	506.37 ug/L	506.37 ppb	17:29:25
2	Be 313.107†	1303773.8	1320649.0	493.28 ug/L	493.28 ppb	17:29:20
2	Cd 226.502†	43399.9	44016.7	510.81 ug/L	510.81 ppb	17:29:25
2	Co 228.616†	24054.8	24357.0	509.33 ug/L	509.33 ppb	17:29:25
2	Cr 267.716†	44534.1	44912.9	504.73 ug/L	504.73 ppb	17:29:25
2	Cu 324.752†	170515.5	166141.5	498.90 ug/L	498.90 ppb	17:29:25
2	Mn 257.610†	439631.6	443585.8	497.62 ug/L	497.62 ppb	17:29:20
2	Mo 202.031†	6761.4	6822.8	499.77 ug/L	499.77 ppb	17:29:45
2	Ni 231.604†	19910.1	20056.6	509.49 ug/L	509.49 ppb	17:29:25
2	P 214.914†	4323.7	4164.9	2430.0 ug/L	2430.0 ppb	17:29:45
2	Pb 220.353†	4012.5	4117.6	511.74 ug/L	511.74 ppb	17:29:45
2	S 181.975 Axial†	723.8	694.0	1015.7 ug/L	1015.7 ppb	17:29:45
2	Sb 206.836†	1446.8	1424.5	514.60 ug/L	514.60 ppb	17:29:45
2	Se 196.026†	728.9	756.9	516.37 ug/L	516.37 ppb	17:29:45
2	Si 251.611†	78535.3	78785.6	2521.3 ug/L	2521.3 ppb	17:29:25
2	Sn 189.927†	2757.3	2774.4	502.54 ug/L	502.54 ppb	17:29:45
2	Ti 334.940†	319592.7	324066.6	489.98 ug/L	489.98 ppb	17:29:25
2	Tl 190.801†	1507.3	1553.6	501.82 ug/L	501.82 ppb	17:29:45
2	U 409.014†	15349.7	18319.3	493.29 ug/L	493.29 ppb	17:29:25
2	V 292.402†	69783.8	71911.2	505.91 ug/L	505.91 ppb	17:29:25
2	Zn 213.857†	50722.9	50671.8	503.77 ug/L	503.77 ppb	17:29:25
2	SiO2†	76406.1	76617.7	5250.7 ug/L	5250.7 ppb	17:30:27
3	Sc Radial	4077.8	4077.8	95.9 %		17:28:22
3	Y RADIAL	4474.1	4474.1	95.36 %		17:28:22
3	Al 396.153Radial†	5261.7	5599.2	5046.4 ug/L	5046.4 ppb	17:28:22
3	Ca 317.933Radial†	2480.0	2571.4	5116.1 ug/L	5116.1 ppb	17:28:42
3	Fe 238.204 Radial†	387.1	393.6	5085.6 ug/L	5085.6 ppb	17:28:42
3	K 766.490 Radial†	28765.8	27448.7	5128.8 ug/L	5128.8 ppb	17:28:22
3	Mg 279.077 IEC†	110.4	112.4	5108.6 ug/L	5108.6 ppb	17:28:42
3	Na 589.592 Radial†	32900.2	35058.4	10174 ug/L	10174 ppb	17:28:22
3	Sr 421.552†	72960.1	76067.6	504.13 ug/L	504.13 ppb	17:28:22
3	Sc 361.383	882659.4	882659.4	98.066 %		17:29:51
3	Y 371.029	735061.8	735061.8	96.409 %		17:29:51
3	Ag 328.068†	108265.3	110170.7	509.06 ug/L	509.06 ppb	17:29:56
3	As 188.979†	1074.7	1116.4	507.47 ug/L	507.47 ppb	17:30:16
3	B 249.677†	19821.0	20584.8	488.99 ug/L	488.99 ppb	17:29:56
3	Ba 233.527†	63361.4	64619.8	506.00 ug/L	506.00 ppb	17:29:56
3	Be 313.107†	1290713.5	1320016.2	493.05 ug/L	493.05 ppb	17:29:51
3	Cd 226.502†	43080.9	44113.6	511.93 ug/L	511.93 ppb	17:29:56
3	Co 228.616†	23806.4	24337.7	508.94 ug/L	508.94 ppb	17:29:56
3	Cr 267.716†	44303.5	45111.1	506.96 ug/L	506.96 ppb	17:29:56
3	Cu 324.752†	168019.4	165255.2	496.24 ug/L	496.24 ppb	17:29:56
3	Mn 257.610†	433903.7	442022.3	495.88 ug/L	495.88 ppb	17:29:51
3	Mo 202.031†	6786.4	6914.1	506.45 ug/L	506.45 ppb	17:30:16
3	Ni 231.604†	19710.0	20046.4	509.23 ug/L	509.23 ppb	17:29:56
3	P 214.914†	4291.7	4174.3	2436.3 ug/L	2436.3 ppb	17:30:16
3	Pb 220.353†	4031.6	4176.1	519.00 ug/L	519.00 ppb	17:30:16
3	S 181.975 Axial†	732.5	709.9	1039.1 ug/L	1039.1 ppb	17:30:16
3	Sb 206.836†	1449.5	1441.4	520.73 ug/L	520.73 ppb	17:30:16
3	Se 196.026†	727.5	762.6	520.12 ug/L	520.12 ppb	17:30:16
3	Si 251.611†	77582.9	78578.5	2514.6 ug/L	2514.6 ppb	17:29:56
3	Sn 189.927†	2769.7	2813.9	509.69 ug/L	509.69 ppb	17:30:16
3	Ti 334.940†	316415.9	323936.6	489.80 ug/L	489.80 ppb	17:29:56
3	Tl 190.801†	1519.9	1581.1	510.64 ug/L	510.64 ppb	17:30:16
3	U 409.014†	14943.0	18053.9	486.12 ug/L	486.12 ppb	17:29:56
3	V 292.402†	69342.7	72140.4	507.58 ug/L	507.58 ppb	17:29:56
3	Zn 213.857†	50181.5	50613.3	503.19 ug/L	503.19 ppb	17:29:56
3	SiO2†	78336.3	79329.3	5436.8 ug/L	5436.8 ppb	17:30:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887319.3	98.584	%	0.4788				0.49%
Sc Radial	4017.3	94.4	%	1.24				1.31%
Y 371.029	738524.8	96.863	%	0.4056				0.42%
Y RADIAL	4402.7	93.83	%	1.332				1.42%
Ag 328.068†	109463.1	505.81	ug/L	5.683	505.81	ppb	5.683	1.12%

```
   QC value within limits for Ag 328.068  Recovery = 101.16%
Al 396.153Radial†       5598.2      5045.6 ug/L          2.77      5045.6 ppb          2.77   0.05%
   QC value within limits for Al 396.153Radial  Recovery = 100.91%
As 188.979†             1111.7      505.34 ug/L         2.185      505.34 ppb         2.185   0.43%
   QC value within limits for As 188.979  Recovery = 101.07%
B 249.677†             20393.0      484.41 ug/L         8.492      484.41 ppb         8.492   1.75%
   QC value within limits for B 249.677  Recovery = 96.88%
Ba 233.527†            64284.7      503.38 ug/L         4.865      503.38 ppb         4.865   0.97%
   QC value within limits for Ba 233.527  Recovery = 100.68%
Be 313.107†          1321608.0      493.63 ug/L         0.820      493.63 ppb         0.820   0.17%
   QC value within limits for Be 313.107  Recovery = 98.73%
Ca 317.933Radial†       2600.8      5174.5 ug/L         66.85      5174.5 ppb         66.85   1.29%
   QC value within limits for Ca 317.933Radial  Recovery = 103.49%
Cd 226.502†            43832.3      508.66 ug/L         4.724      508.66 ppb         4.724   0.93%
   QC value within limits for Cd 226.502  Recovery = 101.73%
Co 228.616†            24215.3      506.38 ug/L         4.774      506.38 ppb         4.774   0.94%
   QC value within limits for Co 228.616  Recovery = 101.28%
Cr 267.716†            44773.9      503.17 ug/L         4.758      503.17 ppb         4.758   0.95%
   QC value within limits for Cr 267.716  Recovery = 100.63%
Cu 324.752†           164462.1      493.86 ug/L         6.561      493.86 ppb         6.561   1.33%
   QC value within limits for Cu 324.752  Recovery = 98.77%
Fe 238.204 Radial†       396.1      5118.0 ug/L         44.41      5118.0 ppb         44.41   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.36%
K 766.490 Radial†      27365.9      5113.3 ug/L         14.70      5113.3 ppb         14.70   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 102.27%
Mg 279.077 IEC†          117.0      5316.7 ug/L        184.27      5316.7 ppb        184.27   3.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.33%
Mn 257.610†           442704.4      496.64 ug/L         0.893      496.64 ppb         0.893   0.18%
   QC value within limits for Mn 257.610  Recovery = 99.33%
Mo 202.031†             6870.0      503.22 ug/L         3.346      503.22 ppb         3.346   0.66%
   QC value within limits for Mo 202.031  Recovery = 100.64%
Na 589.592 Radial†     35021.0       10163 ug/L          22.1       10163 ppb          22.1   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 101.63%
Ni 231.604†            19951.7      506.82 ug/L         4.392      506.82 ppb         4.392   0.87%
   QC value within limits for Ni 231.604  Recovery = 101.36%
P 214.914†              4176.6      2438.1 ug/L         9.19      2438.1 ppb          9.19   0.38%
   QC value within limits for P 214.914  Recovery = 97.53%
Pb 220.353†             4149.1      515.64 ug/L         3.662      515.64 ppb         3.662   0.71%
   QC value within limits for Pb 220.353  Recovery = 103.13%
S 181.975 Axial†         700.9      1025.9 ug/L         11.99      1025.9 ppb         11.99   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 102.59%
Sb 206.836†             1431.5      517.15 ug/L         3.189      517.15 ppb         3.189   0.62%
   QC value within limits for Sb 206.836  Recovery = 103.43%
Se 196.026†              757.6      516.91 ug/L         2.970      516.91 ppb         2.970   0.57%
   QC value within limits for Se 196.026  Recovery = 103.38%
Si 251.611†            78177.3      2501.7 ug/L         28.25      2501.7 ppb         28.25   1.13%
   QC value within limits for Si 251.611  Recovery = 100.07%
Sn 189.927†             2797.2      506.67 ug/L         3.701      506.67 ppb         3.701   0.73%
   QC value within limits for Sn 189.927  Recovery = 101.33%
Sr 421.552†            75851.5      502.70 ug/L         1.250      502.70 ppb         1.250   0.25%
   QC value within limits for Sr 421.552  Recovery = 100.54%
Ti 334.940†           321997.5      486.86 ug/L         5.248      486.86 ppb         5.248   1.08%
   QC value within limits for Ti 334.940  Recovery = 97.37%
Tl 190.801†             1568.7      506.68 ug/L         4.475      506.68 ppb         4.475   0.88%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†             18059.9      486.29 ug/L         6.927      486.29 ppb         6.927   1.42%
   QC value within limits for U 409.014  Recovery = 97.26%
V 292.402†             71622.2      503.94 ug/L         4.929      503.94 ppb         4.929   0.98%
   QC value within limits for V 292.402  Recovery = 100.79%
Zn 213.857†            50346.9      500.53 ug/L         5.116      500.53 ppb         5.116   1.02%
   QC value within limits for Zn 213.857  Recovery = 100.11%
SiO2†                  77725.6      5326.7 ug/L         97.63      5326.7 ppb         97.63   1.83%
   QC value within limits for SiO2  Recovery = 99.61%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 17:32:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3935.7	3935.7	92.5	%			17:34:56
1	Y RADIAL	4539.1	4539.1	96.74	%			17:34:36
1	Al 396.153Radial†	-94.2	8.9	8.0821	ug/L	8.0821	ppb	17:34:36
1	Ca 317.933Radial†	15.2	0.9	1.8312	ug/L	1.8312	ppb	17:34:56
1	Fe 238.204 Radial†	11.8	2.6	33.149	ug/L	33.149	ppb	17:34:56
1	K 766.490 Radial†	2675.3	334.6	62.602	ug/L	62.602	ppb	17:34:36
1	Mg 279.077 IEC†	1.8	-0.9	-38.709	ug/L	-38.709	ppb	17:34:56
1	Na 589.592 Radial†	-720.8	-38.6	-11.215	ug/L	-11.215	ppb	17:34:36
1	Sr 421.552†	35.6	1.6	0.0109	ug/L	0.0109	ppb	17:34:36
1	Sc 361.383	915744.6	915744.6	101.74	%			17:35:52
1	Y 371.029	774721.8	774721.8	101.61	%			17:35:52
1	Ag 328.068†	274.3	40.2	0.1958	ug/L	0.1958	ppb	17:35:57
1	As 188.979†	-19.5	1.3	0.6129	ug/L	0.6129	ppb	17:36:17
1	B 249.677†	-426.7	-46.4	-1.1131	ug/L	-1.1131	ppb	17:36:17
1	Ba 233.527†	5.8	14.8	0.1169	ug/L	0.1169	ppb	17:36:17
1	Be 313.107†	-3870.5	49.0	0.0180	ug/L	0.0180	ppb	17:35:57
1	Cd 226.502†	-173.8	12.5	0.1419	ug/L	0.1419	ppb	17:36:17
1	Co 228.616†	-70.6	-7.5	-0.1558	ug/L	-0.1558	ppb	17:36:17
1	Cr 267.716†	88.5	21.0	0.2385	ug/L	0.2385	ppb	17:36:17
1	Cu 324.752†	6161.6	-21.0	-0.0613	ug/L	-0.0613	ppb	17:35:57
1	Mn 257.610†	439.8	-4.6	-0.0003	ug/L	-0.0003	ppb	17:36:17
1	Mo 202.031†	12.0	5.7	0.4194	ug/L	0.4194	ppb	17:36:17
1	Ni 231.604†	63.9	10.5	0.2678	ug/L	0.2678	ppb	17:36:17
1	P 214.914†	210.7	5.0	3.0468	ug/L	3.0468	ppb	17:36:17
1	Pb 220.353†	12.0	76.8	9.5129	ug/L	9.5129	ppb	17:36:17
1	S 181.975 Axial†	38.1	0.4	0.5467	ug/L	0.5467	ppb	17:36:17
1	Sb 206.836†	44.2	6.8	2.3767	ug/L	2.3767	ppb	17:36:17
1	Se 196.026†	-26.7	-5.5	-3.5186	ug/L	-3.5186	ppb	17:36:17
1	Si 251.611†	526.0	-17.2	-0.5569	ug/L	-0.5569	ppb	17:36:17
1	Sn 189.927†	13.5	2.8	0.5035	ug/L	0.5035	ppb	17:36:17
1	Ti 334.940†	-1380.7	-75.2	-0.1104	ug/L	-0.1104	ppb	17:35:57
1	Tl 190.801†	-43.2	-11.3	-3.6260	ug/L	-3.6260	ppb	17:36:17
1	U 409.014†	-2873.8	-8.3	-0.2290	ug/L	-0.2290	ppb	17:35:52
1	V 292.402†	-1432.9	22.1	0.1534	ug/L	0.1534	ppb	17:35:57
1	Zn 213.857†	570.5	3.1	0.0242	ug/L	0.0242	ppb	17:36:17
1	SiO2†	557.6	-3.4	-0.2458	ug/L	-0.2458	ppb	17:37:23
2	Sc Radial	3951.6	3951.6	92.9	%			17:35:21
2	Y RADIAL	4479.2	4479.2	95.46	%			17:35:01
2	Al 396.153Radial†	-127.7	-26.7	-24.210	ug/L	-24.210	ppb	17:35:01
2	Ca 317.933Radial†	19.8	5.8	11.622	ug/L	11.622	ppb	17:35:21
2	Fe 238.204 Radial†	12.3	3.1	39.980	ug/L	39.980	ppb	17:35:21
2	K 766.490 Radial†	2570.1	209.7	39.244	ug/L	39.244	ppb	17:35:01
2	Mg 279.077 IEC†	0.9	-1.8	-82.747	ug/L	-82.747	ppb	17:35:21
2	Na 589.592 Radial†	-745.3	-61.9	-17.967	ug/L	-17.967	ppb	17:35:01
2	Sr 421.552†	51.3	18.4	0.1219	ug/L	0.1219	ppb	17:35:01
2	Sc 361.383	901866.4	901866.4	100.20	%			17:36:23
2	Y 371.029	762131.7	762131.7	99.959	%			17:36:23
2	Ag 328.068†	275.8	46.0	0.2204	ug/L	0.2204	ppb	17:36:28
2	As 188.979†	-25.1	-4.5	-2.0223	ug/L	-2.0223	ppb	17:36:48
2	B 249.677†	-427.4	-53.6	-1.2851	ug/L	-1.2851	ppb	17:36:48
2	Ba 233.527†	-10.8	-1.7	-0.0127	ug/L	-0.0127	ppb	17:36:48
2	Be 313.107†	-3927.6	-66.4	-0.0253	ug/L	-0.0253	ppb	17:36:28
2	Cd 226.502†	-189.3	-5.6	-0.0684	ug/L	-0.0684	ppb	17:36:48
2	Co 228.616†	-67.3	-5.3	-0.1104	ug/L	-0.1104	ppb	17:36:48
2	Cr 267.716†	86.4	20.2	0.2295	ug/L	0.2295	ppb	17:36:48
2	Cu 324.752†	6093.6	4.3	0.0142	ug/L	0.0142	ppb	17:36:28
2	Mn 257.610†	453.2	15.4	0.0246	ug/L	0.0246	ppb	17:36:48
2	Mo 202.031†	7.3	1.3	0.0951	ug/L	0.0951	ppb	17:36:48
2	Ni 231.604†	52.0	-0.4	-0.0101	ug/L	-0.0101	ppb	17:36:48

2	P 214.914†	207.4	4.9	2.9332 ug/L	2.9332 ppb	17:36:48
2	Pb 220.353†	-8.6	56.5	6.9865 ug/L	6.9865 ppb	17:36:48
2	S 181.975 Axial†	39.2	2.1	3.1220 ug/L	3.1220 ppb	17:36:48
2	Sb 206.836†	44.6	7.8	2.7257 ug/L	2.7257 ppb	17:36:48
2	Se 196.026†	-25.0	-4.3	-2.7002 ug/L	-2.7002 ppb	17:36:48
2	Si 251.611†	546.7	11.4	0.3660 ug/L	0.3660 ppb	17:36:48
2	Sn 189.927†	10.3	-0.2	-0.0279 ug/L	-0.0279 ppb	17:36:48
2	Ti 334.940†	-1451.7	-167.0	-0.2451 ug/L	-0.2451 ppb	17:36:28
2	Tl 190.801†	-33.8	-2.6	-0.8202 ug/L	-0.8202 ppb	17:36:48
2	U 409.014†	-2757.7	64.1	1.7275 ug/L	1.7275 ppb	17:36:23
2	V 292.402†	-1481.4	-48.0	-0.3361 ug/L	-0.3361 ppb	17:36:28
2	Zn 213.857†	575.7	16.8	0.1631 ug/L	0.1631 ppb	17:36:48
2	SiO2†	574.1	21.4	1.4690 ug/L	1.4690 ppb	17:37:28
3	Sc Radial	3967.2	3967.2	93.3 %		17:35:46
3	Y RADIAL	4492.5	4492.5	95.75 %		17:35:26
3	Al 396.153Radial†	-117.2	-14.9	-13.490 ug/L	-13.490 ppb	17:35:26
3	Ca 317.933Radial†	17.7	3.5	6.9224 ug/L	6.9224 ppb	17:35:46
3	Fe 238.204 Radial†	12.3	3.0	38.084 ug/L	38.084 ppb	17:35:46
3	K 766.490 Radial†	2720.1	359.7	67.293 ug/L	67.293 ppb	17:35:26
3	Mg 279.077 IEC†	2.6	0.1	2.7160 ug/L	2.7160 ppb	17:35:46
3	Na 589.592 Radial†	-712.4	-23.4	-6.8014 ug/L	-6.8014 ppb	17:35:26
3	Sr 421.552†	48.1	14.8	0.0982 ug/L	0.0982 ppb	17:35:26
3	Sc 361.383	905862.8	905862.8	100.64 %		17:36:53
3	Y 371.029	765400.7	765400.7	100.39 %		17:36:53
3	Ag 328.068†	257.1	26.2	0.1373 ug/L	0.1373 ppb	17:36:58
3	As 188.979†	-16.9	3.8	1.7067 ug/L	1.7067 ppb	17:37:18
3	B 249.677†	-476.4	-100.4	-2.4029 ug/L	-2.4029 ppb	17:37:18
3	Ba 233.527†	-12.4	-3.2	-0.0233 ug/L	-0.0233 ppb	17:37:18
3	Be 313.107†	-3839.6	38.3	0.0141 ug/L	0.0141 ppb	17:36:58
3	Cd 226.502†	-192.1	-7.6	-0.0932 ug/L	-0.0932 ppb	17:37:18
3	Co 228.616†	-64.3	-2.0	-0.0406 ug/L	-0.0406 ppb	17:37:18
3	Cr 267.716†	58.8	-7.6	-0.0788 ug/L	-0.0788 ppb	17:37:18
3	Cu 324.752†	6041.9	-73.9	-0.2164 ug/L	-0.2164 ppb	17:36:58
3	Mn 257.610†	463.2	23.4	0.0299 ug/L	0.0299 ppb	17:37:18
3	Mo 202.031†	17.1	10.9	0.8004 ug/L	0.8004 ppb	17:37:18
3	Ni 231.604†	54.6	2.0	0.0503 ug/L	0.0503 ppb	17:37:18
3	P 214.914†	214.0	10.6	6.4522 ug/L	6.4522 ppb	17:37:18
3	Pb 220.353†	13.8	78.7	9.7517 ug/L	9.7517 ppb	17:37:18
3	S 181.975 Axial†	43.4	6.0	8.8555 ug/L	8.8555 ppb	17:37:18
3	Sb 206.836†	39.7	2.8	1.0056 ug/L	1.0056 ppb	17:37:18
3	Se 196.026†	-21.7	-0.8	-0.4206 ug/L	-0.4206 ppb	17:37:18
3	Si 251.611†	547.9	10.3	0.3195 ug/L	0.3195 ppb	17:37:18
3	Sn 189.927†	15.9	5.4	0.9792 ug/L	0.9792 ppb	17:37:18
3	Ti 334.940†	-1326.6	-36.3	-0.0514 ug/L	-0.0514 ppb	17:36:58
3	Tl 190.801†	-40.5	-9.0	-2.9021 ug/L	-2.9021 ppb	17:37:18
3	U 409.014†	-3068.7	-232.8	-6.2953 ug/L	-6.2953 ppb	17:36:53
3	V 292.402†	-1427.3	12.2	0.0788 ug/L	0.0788 ppb	17:36:58
3	Zn 213.857†	583.2	21.7	0.2125 ug/L	0.2125 ppb	17:37:18
3	SiO2†	554.2	-0.9	-0.0806 ug/L	-0.0806 ppb	17:37:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907824.6	100.86	%	0.794				0.79%
Sc Radial	3951.5	92.9	%	0.37				0.40%
Y 371.029	767418.0	100.65	%	0.857				0.85%
Y RADIAL	4503.6	95.98	%	0.671				0.70%
Ag 328.068†	37.5	0.1845	ug/L	0.04268	0.1845	ppb	0.04268	23.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.9	-9.8727	ug/L	16.44711	-9.8727	ppb	16.44711	166.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.2	0.0991	ug/L	1.91687	0.0991	ppb	1.91687	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-66.8	-1.6004	ug/L	0.70031	-1.6004	ppb	0.70031	43.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.3	0.0270	ug/L	0.07807	0.0270	ppb	0.07807	289.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	6.9	0.0023	ug/L	0.02398	0.0023	ppb	0.02398	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.4	6.7920	ug/L	4.89682	6.7920	ppb	4.89682	72.10%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -0.2     -0.0065 ug/L       0.12920     -0.0065 ppb        0.12920 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.9     -0.1023 ug/L       0.05806     -0.1023 ppb        0.05806  56.78%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.2      0.1297 ug/L       0.18067      0.1297 ppb        0.18067 139.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -30.2     -0.0878 ug/L       0.11756     -0.0878 ppb        0.11756 133.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.9      37.071 ug/L        3.5268      37.071 ppb         3.5268   9.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         301.3      56.379 ug/L       15.0242      56.379 ppb        15.0242  26.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.9     -39.580 ug/L       42.7384     -39.580 ppb        42.7384 107.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.4      0.0181 ug/L       0.01609      0.0181 ppb        0.01609  89.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.9      0.4383 ug/L       0.35301      0.4383 ppb        0.35301  80.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -41.3     -11.995 ug/L        5.6236     -11.995 ppb         5.6236  46.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.0      0.1026 ug/L       0.14615      0.1026 ppb        0.14615 142.40%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.8      4.1441 ug/L       1.99971      4.1441 ppb        1.99971  48.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                70.7      8.7504 ug/L       1.53222      8.7504 ppb        1.53222  17.51%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.8      4.1747 ug/L       4.25329      4.1747 ppb        4.25329 101.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.8      2.0360 ug/L       0.90925      2.0360 ppb        0.90925  44.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.5     -2.2131 ug/L       1.60538     -2.2131 ppb        1.60538  72.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 1.5      0.0429 ug/L       0.51993      0.0429 ppb        0.51993 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      0.4849 ug/L       0.50380      0.4849 ppb        0.50380 103.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.6      0.0770 ug/L       0.05848      0.0770 ppb        0.05848  75.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -92.8     -0.1356 ug/L       0.09926     -0.1356 ppb        0.09926  73.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -7.6     -2.4494 ug/L       1.45665     -2.4494 ppb        1.45665  59.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -59.0     -1.5989 ug/L       4.18313     -1.5989 ppb        4.18313 261.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -4.6     -0.0346 ug/L       0.26370     -0.0346 ppb        0.26370 761.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                13.9      0.1333 ug/L       0.09763      0.1333 ppb        0.09763  73.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       5.7      0.3809 ug/L       0.94599      0.3809 ppb        0.94599 248.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: 245806004|948071|100
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 2/23/2010 17:46:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806004|948071|100

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3999.4	3999.4	94.0	%			17:48:41
1	Y RADIAL	4411.1	4411.1	94.01	%			17:48:41
1	Al 396.153Radial†	540.9	686.1	621.30	ug/L	621.30	ppb	17:48:41
1	Ca 317.933Radial†	143.0	136.6	271.77	ug/L	271.77	ppb	17:49:02
1	Fe 238.204 Radial†	105.9	102.4	1319.7	ug/L	1319.7	ppb	17:49:02
1	K 766.490 Radial†	3015.8	650.7	121.62	ug/L	121.62	ppb	17:48:41
1	Mg 279.077 IEC†	5.1	2.7	122.39	ug/L	122.39	ppb	17:49:02
1	Na 589.592 Radial†	-584.6	118.6	34.415	ug/L	34.415	ppb	17:48:41
1	Sr 421.552†	184.8	159.7	1.0566	ug/L	1.0566	ppb	17:48:41
1	Sc 361.383	887103.1	887103.1	98.560	%			17:49:58
1	Y 371.029	750509.9	750509.9	98.435	%			17:49:58
1	Ag 328.068†	258.6	33.1	0.4913	ug/L	0.4913	ppb	17:49:58
1	As 188.979†	8.6	29.3	13.779	ug/L	13.779	ppb	17:50:18
1	B 249.677†	-571.3	-206.7	-5.1496	ug/L	-5.1496	ppb	17:50:18
1	Ba 233.527†	2217.3	2258.8	17.687	ug/L	17.687	ppb	17:50:18
1	Be 313.107†	1060.2	4929.0	1.9114	ug/L	1.9114	ppb	17:49:58
1	Cd 226.502†	-174.4	6.3	-0.0447	ug/L	-0.0447	ppb	17:50:18
1	Co 228.616†	-40.9	20.4	0.3486	ug/L	0.3486	ppb	17:50:18
1	Cr 267.716†	247.1	184.7	2.1659	ug/L	2.1659	ppb	17:50:18
1	Cu 324.752†	44880.9	39459.5	118.52	ug/L	118.52	ppb	17:49:58
1	Mn 257.610†	24824.2	24750.1	27.875	ug/L	27.875	ppb	17:49:58
1	Mo 202.031†	15.1	9.2	0.7813	ug/L	0.7813	ppb	17:50:18
1	Ni 231.604†	147.7	97.6	2.4798	ug/L	2.4798	ppb	17:50:18
1	P 214.914†	309.1	111.6	43.280	ug/L	43.280	ppb	17:50:18
1	Pb 220.353†	100078.4	101605.5	12590	ug/L	12590	ppb	17:49:58
1	S 181.975 Axial†	40.0	3.5	5.0238	ug/L	5.0238	ppb	17:50:18
1	Sb 206.836†	192.2	158.3	55.078	ug/L	55.078	ppb	17:50:18
1	Se 196.026†	-30.4	-10.1	-2.5633	ug/L	-2.5633	ppb	17:50:18
1	Si 251.611†	15915.7	15614.1	500.89	ug/L	500.89	ppb	17:49:58
1	Sn 189.927†	14.0	3.8	0.6633	ug/L	0.6633	ppb	17:50:18
1	Ti 334.940†	20121.1	21696.9	32.804	ug/L	32.804	ppb	17:49:58
1	Tl 190.801†	-29.7	1.1	0.7563	ug/L	0.7563	ppb	17:50:18
1	U 409.014†	282.5	3102.9	83.688	ug/L	83.688	ppb	17:49:58
1	V 292.402†	-1207.6	205.2	1.3694	ug/L	1.3694	ppb	17:49:58
1	Zn 213.857†	2977.5	2463.3	24.344	ug/L	24.344	ppb	17:50:18
1	SiO2†	15946.6	15628.1	1073.8	ug/L	1073.8	ppb	17:51:15
2	Sc Radial	4029.2	4029.2	94.7	%			17:49:07
2	Y RADIAL	4430.8	4430.8	94.43	%			17:49:07
2	Al 396.153Radial†	522.2	662.1	599.60	ug/L	599.60	ppb	17:49:07
2	Ca 317.933Radial†	142.5	134.9	268.45	ug/L	268.45	ppb	17:49:27
2	Fe 238.204 Radial†	107.2	103.0	1326.6	ug/L	1326.6	ppb	17:49:27
2	K 766.490 Radial†	2877.1	480.5	89.793	ug/L	89.793	ppb	17:49:07
2	Mg 279.077 IEC†	3.9	1.4	60.714	ug/L	60.714	ppb	17:49:27
2	Na 589.592 Radial†	-660.4	43.2	12.526	ug/L	12.526	ppb	17:49:07
2	Sr 421.552†	206.0	180.7	1.1957	ug/L	1.1957	ppb	17:49:07
2	Sc 361.383	895212.0	895212.0	99.461	%			17:50:24
2	Y 371.029	756854.1	756854.1	99.267	%			17:50:24
2	Ag 328.068†	194.4	-33.9	0.1881	ug/L	0.1881	ppb	17:50:24
2	As 188.979†	16.2	36.8	17.185	ug/L	17.185	ppb	17:50:44
2	B 249.677†	-587.8	-218.0	-5.4199	ug/L	-5.4199	ppb	17:50:44
2	Ba 233.527†	2208.7	2229.8	17.461	ug/L	17.461	ppb	17:50:44
2	Be 313.107†	1021.2	4880.0	1.8928	ug/L	1.8928	ppb	17:50:24
2	Cd 226.502†	-166.6	15.8	0.0639	ug/L	0.0639	ppb	17:50:44
2	Co 228.616†	-39.2	22.5	0.3903	ug/L	0.3903	ppb	17:50:44
2	Cr 267.716†	261.7	197.1	2.3066	ug/L	2.3066	ppb	17:50:44
2	Cu 324.752†	45258.3	39426.4	118.42	ug/L	118.42	ppb	17:50:24
2	Mn 257.610†	24979.8	24678.3	27.797	ug/L	27.797	ppb	17:50:24
2	Mo 202.031†	6.4	0.3	0.1295	ug/L	0.1295	ppb	17:50:44
2	Ni 231.604†	139.3	87.7	2.2294	ug/L	2.2294	ppb	17:50:44

2	P 214.914†	320.5	120.1	48.488 ug/L	48.488 ppb	17:50:44
2	Pb 220.353†	100789.6	101400.8	12564 ug/L	12564 ppb	17:50:24
2	S 181.975 Axial†	40.6	3.8	5.4975 ug/L	5.4975 ppb	17:50:44
2	Sb 206.836†	178.3	142.5	49.580 ug/L	49.580 ppb	17:50:44
2	Se 196.026†	-26.2	-5.7	0.3953 ug/L	0.3953 ppb	17:50:44
2	Si 251.611†	16022.0	15574.7	499.63 ug/L	499.63 ppb	17:50:24
2	Sn 189.927†	20.6	10.3	1.8378 ug/L	1.8378 ppb	17:50:44
2	Ti 334.940†	20192.1	21583.3	32.637 ug/L	32.637 ppb	17:50:24
2	Tl 190.801†	-27.7	3.4	1.4853 ug/L	1.4853 ppb	17:50:44
2	U 409.014†	212.0	3029.4	81.699 ug/L	81.699 ppb	17:50:24
2	V 292.402†	-1189.9	234.1	1.5547 ug/L	1.5547 ppb	17:50:24
2	Zn 213.857†	2968.6	2427.0	23.980 ug/L	23.980 ppb	17:50:44
2	SiO2†	15795.5	15329.6	1053.3 ug/L	1053.3 ppb	17:51:20
3	Sc Radial	4112.4	4112.4	96.7 %		17:49:32
3	Y RADIAL	4529.9	4529.9	96.54 %		17:49:32
3	Al 396.153Radial†	533.9	663.0	600.43 ug/L	600.43 ppb	17:49:32
3	Ca 317.933Radial†	142.8	132.2	263.06 ug/L	263.06 ppb	17:49:52
3	Fe 238.204 Radial†	107.3	100.8	1298.9 ug/L	1298.9 ppb	17:49:52
3	K 766.490 Radial†	2995.0	541.0	101.11 ug/L	101.11 ppb	17:49:32
3	Mg 279.077 IEC†	6.7	4.2	188.91 ug/L	188.91 ppb	17:49:52
3	Na 589.592 Radial†	-658.2	59.6	17.286 ug/L	17.286 ppb	17:49:32
3	Sr 421.552†	161.8	130.6	0.8633 ug/L	0.8633 ppb	17:49:32
3	Sc 361.383	888085.6	888085.6	98.669 %		17:50:49
3	Y 371.029	751603.2	751603.2	98.578 %		17:50:49
3	Ag 328.068†	174.9	-52.0	0.0990 ug/L	0.0990 ppb	17:50:49
3	As 188.979†	5.9	26.5	12.524 ug/L	12.524 ppb	17:51:09
3	B 249.677†	-580.9	-215.8	-5.3630 ug/L	-5.3630 ppb	17:51:09
3	Ba 233.527†	2184.6	2223.2	17.409 ug/L	17.409 ppb	17:51:09
3	Be 313.107†	973.9	4840.3	1.8776 ug/L	1.8776 ppb	17:50:49
3	Cd 226.502†	-172.9	8.1	-0.0229 ug/L	-0.0229 ppb	17:51:09
3	Co 228.616†	-41.6	19.8	0.3345 ug/L	0.3345 ppb	17:51:09
3	Cr 267.716†	245.7	183.0	2.1473 ug/L	2.1473 ppb	17:51:09
3	Cu 324.752†	44483.4	39006.2	117.16 ug/L	117.16 ppb	17:50:49
3	Mn 257.610†	24655.5	24551.2	27.647 ug/L	27.647 ppb	17:50:49
3	Mo 202.031†	8.1	2.1	0.2572 ug/L	0.2572 ppb	17:51:09
3	Ni 231.604†	133.1	82.5	2.0979 ug/L	2.0979 ppb	17:51:09
3	P 214.914†	296.2	98.2	35.419 ug/L	35.419 ppb	17:51:09
3	Pb 220.353†	99464.0	100870.5	12498 ug/L	12498 ppb	17:50:49
3	S 181.975 Axial†	33.7	-2.9	-4.4096 ug/L	-4.4096 ppb	17:51:09
3	Sb 206.836†	175.1	140.7	48.944 ug/L	48.944 ppb	17:51:09
3	Se 196.026†	-24.3	-3.9	1.4558 ug/L	1.4558 ppb	17:51:09
3	Si 251.611†	15745.4	15423.6	494.78 ug/L	494.78 ppb	17:50:49
3	Sn 189.927†	16.2	6.0	1.0610 ug/L	1.0610 ppb	17:51:09
3	Ti 334.940†	19919.1	21469.6	32.455 ug/L	32.455 ppb	17:50:49
3	Tl 190.801†	-32.0	-1.2	-0.0006 ug/L	-0.0006 ppb	17:51:09
3	U 409.014†	169.8	2988.4	80.596 ug/L	80.596 ppb	17:50:49
3	V 292.402†	-1126.5	288.7	1.9406 ug/L	1.9406 ppb	17:50:49
3	Zn 213.857†	2972.5	2454.9	24.266 ug/L	24.266 ppb	17:51:09
3	SiO2†	15745.3	15406.2	1058.5 ug/L	1058.5 ppb	17:51:25

Mean Data: 245806004|948071|100

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890133.6	98.897	%	0.4917				0.50%
Sc Radial	4047.0	95.1	%	1.38				1.45%
Y 371.029	752989.1	98.760	%	0.4448				0.45%
Y RADIAL	4457.3	95.00	%	1.357				1.43%
Ag 328.068†	-17.6	0.2594	ug/L	0.20565	0.2594	ppb	0.20565	79.27%
Al 396.153Radial†	670.4	607.11	ug/L	12.299	607.11	ppb	12.299	2.03%
As 188.979†	30.8	14.496	ug/L	2.4116	14.496	ppb	2.4116	16.64%
B 249.677†	-213.5	-5.3108	ug/L	0.14253	-5.3108	ppb	0.14253	2.68%
Ba 233.527†	2237.3	17.519	ug/L	0.1478	17.519	ppb	0.1478	0.84%
Be 313.107†	4883.1	1.8939	ug/L	0.01695	1.8939	ppb	0.01695	0.89%
Ca 317.933Radial†	134.6	267.76	ug/L	4.394	267.76	ppb	4.394	1.64%
Cd 226.502†	10.1	-0.0013	ug/L	0.05747	-0.0013	ppb	0.05747	>999.9%
Co 228.616†	20.9	0.3578	ug/L	0.02901	0.3578	ppb	0.02901	8.11%
Cr 267.716†	188.3	2.2066	ug/L	0.08707	2.2066	ppb	0.08707	3.95%
Cu 324.752†	39297.4	118.03	ug/L	0.759	118.03	ppb	0.759	0.64%
Fe 238.204 Radial†	102.1	1315.1	ug/L	14.44	1315.1	ppb	14.44	1.10%
K 766.490 Radial†	557.4	104.17	ug/L	16.133	104.17	ppb	16.133	15.49%

Mg 279.077 IEC†	2.8	124.01 ug/L	64.115	124.01 ppb	64.115	51.70%
Mn 257.610†	24659.8	27.773 ug/L	0.1158	27.773 ppb	0.1158	0.42%
Mo 202.031†	3.9	0.3893 ug/L	0.34542	0.3893 ppb	0.34542	88.72%
Na 589.592 Radial†	73.8	21.409 ug/L	11.5125	21.409 ppb	11.5125	53.77%
Ni 231.604†	89.3	2.2691 ug/L	0.19400	2.2691 ppb	0.19400	8.55%
P 214.914†	110.0	42.396 ug/L	6.5794	42.396 ppb	6.5794	15.52%
Pb 220.353†	101292.3	12551 ug/L	47.0	12551 ppb	47.0	0.37%
S 181.975 Axial†	1.5	2.0372 ug/L	5.58814	2.0372 ppb	5.58814	274.30%
Sb 206.836†	147.2	51.201 ug/L	3.3727	51.201 ppb	3.3727	6.59%
Se 196.026†	-6.6	-0.2374 ug/L	2.08289	-0.2374 ppb	2.08289	877.41%
Si 251.611†	15537.5	498.44 ug/L	3.224	498.44 ppb	3.224	0.65%
Sn 189.927†	6.7	1.1874 ug/L	0.59733	1.1874 ppb	0.59733	50.31%
Sr 421.552†	157.0	1.0385 ug/L	0.16691	1.0385 ppb	0.16691	16.07%
Ti 334.940†	21583.3	32.632 ug/L	0.1746	32.632 ppb	0.1746	0.53%
Tl 190.801†	1.1	0.7470 ug/L	0.74302	0.7470 ppb	0.74302	99.47%
U 409.014†	3040.2	81.994 ug/L	1.5672	81.994 ppb	1.5672	1.91%
V 292.402†	242.7	1.6215 ug/L	0.29141	1.6215 ppb	0.29141	17.97%
Zn 213.857†	2448.4	24.197 ug/L	0.1916	24.197 ppb	0.1916	0.79%
SiO2†	15454.6	1061.9 ug/L	10.64	1061.9 ppb	10.64	1.00%

Sequence No.: 5
Sample ID: 245806005|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 2/23/2010 17:53:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806005|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4120.6	4120.6	96.9	%			17:55:27
1	Y RADIAL	5181.7	5181.7	110.4	%			17:55:27
1	Al 396.153Radial†	10805.6	11265.1	10202	ug/L	10202	ppb	17:55:27
1	Ca 317.933Radial†	1466.9	1498.8	2981.9	ug/L	2981.9	ppb	17:55:47
1	Fe 238.204 Radial†	3065.1	3153.8	40632	ug/L	40632	ppb	17:55:47
1	K 766.490 Radial†	15097.2	13027.7	2435.1	ug/L	2435.1	ppb	17:55:27
1	Mg 279.077 IEC†	45.0	43.7	1944.4	ug/L	1944.4	ppb	17:55:47
1	Na 589.592 Radial†	3759.1	4620.7	1341.0	ug/L	1341.0	ppb	17:55:27
1	Sr 421.552†	3404.3	3477.4	23.025	ug/L	23.025	ppb	17:55:27
1	Sc 361.383	924978.0	924978.0	102.77	%			17:56:45
1	Y 371.029	883916.1	883916.1	115.93	%			17:56:45
1	Ag 328.068†	-2353.8	-2519.8	1.1035	ug/L	1.1035	ppb	17:56:50
1	As 188.979†	-24.2	-3.0	13.563	ug/L	13.563	ppb	17:57:10
1	B 249.677†	-267.9	112.2	-3.9923	ug/L	-3.9923	ppb	17:56:50
1	Ba 233.527†	30933.3	30109.2	236.48	ug/L	236.48	ppb	17:56:50
1	Be 313.107†	-3736.4	217.5	1.5020	ug/L	1.5020	ppb	17:56:50
1	Cd 226.502†	151.2	330.4	-0.3420	ug/L	-0.3420	ppb	17:57:10
1	Co 228.616†	1185.8	1215.8	23.588	ug/L	23.588	ppb	17:57:10
1	Cr 267.716†	10753.1	10397.5	120.58	ug/L	120.58	ppb	17:56:50
1	Cu 324.752†	12211.5	5805.4	19.665	ug/L	19.665	ppb	17:56:50
1	Mn 257.610†	1569696.4	1526978.9	1716.0	ug/L	1716.0	ppb	17:56:45
1	Mo 202.031†	41.6	34.4	5.7099	ug/L	5.7099	ppb	17:57:10
1	Ni 231.604†	3134.7	2998.0	76.187	ug/L	76.187	ppb	17:57:10
1	P 214.914†	534.0	317.5	159.04	ug/L	159.04	ppb	17:57:10
1	Pb 220.353†	253.6	311.8	36.406	ug/L	36.406	ppb	17:57:10
1	S 181.975 Axial†	75.4	36.3	51.328	ug/L	51.328	ppb	17:57:10
1	Sb 206.836†	56.4	18.2	3.7402	ug/L	3.7402	ppb	17:57:10
1	Se 196.026†	-197.2	-171.1	13.802	ug/L	13.802	ppb	17:57:10
1	Si 251.611†	457940.6	445071.5	14278	ug/L	14278	ppb	17:56:45
1	Sn 189.927†	11.9	1.2	-1.5889	ug/L	-1.5889	ppb	17:57:10
1	Ti 334.940†	423972.9	413834.7	626.16	ug/L	626.16	ppb	17:56:45
1	Tl 190.801†	-89.7	-56.1	-4.7931	ug/L	-4.7931	ppb	17:57:10
1	U 409.014†	-8463.2	-5419.0	-151.32	ug/L	-151.32	ppb	17:56:45
1	V 292.402†	2454.1	3818.4	19.680	ug/L	19.680	ppb	17:56:50
1	Zn 213.857†	19869.2	18776.3	181.82	ug/L	181.82	ppb	17:56:50
1	SiO2†	442508.9	430038.1	29547	ug/L	29547	ppb	17:58:18
2	Sc Radial	4050.8	4050.8	95.2	%			17:55:53
2	Y RADIAL	5073.8	5073.8	108.1	%			17:55:53
2	Al 396.153Radial†	10554.1	11193.1	10137	ug/L	10137	ppb	17:55:53
2	Ca 317.933Radial†	1463.8	1521.6	3027.3	ug/L	3027.3	ppb	17:56:13
2	Fe 238.204 Radial†	3058.6	3201.5	41247	ug/L	41247	ppb	17:56:13
2	K 766.490 Radial†	14891.6	13080.3	2445.0	ug/L	2445.0	ppb	17:55:53
2	Mg 279.077 IEC†	40.8	40.1	1778.5	ug/L	1778.5	ppb	17:56:13
2	Na 589.592 Radial†	3597.8	4518.3	1311.2	ug/L	1311.2	ppb	17:55:53
2	Sr 421.552†	3287.4	3415.2	22.613	ug/L	22.613	ppb	17:55:53
2	Sc 361.383	914032.3	914032.3	101.55	%			17:57:16
2	Y 371.029	873019.4	873019.4	114.50	%			17:57:16
2	Ag 328.068†	-2345.2	-2538.7	1.2079	ug/L	1.2079	ppb	17:57:21
2	As 188.979†	-22.1	-1.3	14.463	ug/L	14.463	ppb	17:57:41
2	B 249.677†	-165.4	210.1	-1.7571	ug/L	-1.7571	ppb	17:57:21
2	Ba 233.527†	30904.4	30441.2	239.09	ug/L	239.09	ppb	17:57:21
2	Be 313.107†	-3790.8	120.4	1.4558	ug/L	1.4558	ppb	17:57:21
2	Cd 226.502†	147.4	328.5	-0.4289	ug/L	-0.4289	ppb	17:57:41
2	Co 228.616†	1162.3	1206.4	23.394	ug/L	23.394	ppb	17:57:41
2	Cr 267.716†	10681.0	10451.8	121.25	ug/L	121.25	ppb	17:57:21
2	Cu 324.752†	12202.3	5938.7	20.098	ug/L	20.098	ppb	17:57:21
2	Mn 257.610†	1543862.3	1519830.6	1708.0	ug/L	1708.0	ppb	17:57:16
2	Mo 202.031†	43.0	36.3	5.8937	ug/L	5.8937	ppb	17:57:41
2	Ni 231.604†	3066.5	2967.3	75.408	ug/L	75.408	ppb	17:57:41

2	P 214.914†	511.3	301.5	148.71 ug/L	148.71 ppb	17:57:41
2	Pb 220.353†	251.9	313.1	36.482 ug/L	36.482 ppb	17:57:41
2	S 181.975 Axial†	77.4	39.2	55.516 ug/L	55.516 ppb	17:57:41
2	Sb 206.836†	47.0	9.6	0.7480 ug/L	0.7480 ppb	17:57:41
2	Se 196.026†	-184.0	-160.5	22.753 ug/L	22.753 ppb	17:57:41
2	Si 251.611†	448960.4	441564.8	14165 ug/L	14165 ppb	17:57:16
2	Sn 189.927†	13.0	2.3	-1.4074 ug/L	-1.4074 ppb	17:57:41
2	Ti 334.940†	415990.6	410914.8	621.76 ug/L	621.76 ppb	17:57:16
2	Tl 190.801†	-79.1	-46.7	-1.8486 ug/L	-1.8486 ppb	17:57:41
2	U 409.014†	-8429.7	-5484.6	-153.16 ug/L	-153.16 ppb	17:57:16
2	V 292.402†	2472.8	3865.5	19.917 ug/L	19.917 ppb	17:57:21
2	Zn 213.857†	19887.5	19025.8	184.23 ug/L	184.23 ppb	17:57:21
2	SiO2†	445696.8	438333.8	30117 ug/L	30117 ppb	17:58:24
3	Sc Radial	4065.2	4065.2	95.6 %		17:56:18
3	Y RADIAL	5130.9	5130.9	109.4 %		17:56:18
3	Al 396.153Radial†	10563.3	11163.4	10110 ug/L	10110 ppb	17:56:18
3	Ca 317.933Radial†	1453.7	1505.5	2995.4 ug/L	2995.4 ppb	17:56:38
3	Fe 238.204 Radial†	3043.0	3173.8	40890 ug/L	40890 ppb	17:56:38
3	K 766.490 Radial†	14997.1	13135.0	2455.2 ug/L	2455.2 ppb	17:56:18
3	Mg 279.077 IEC†	42.9	42.1	1870.8 ug/L	1870.8 ppb	17:56:38
3	Na 589.592 Radial†	3580.6	4486.8	1302.1 ug/L	1302.1 ppb	17:56:18
3	Sr 421.552†	3304.4	3420.6	22.649 ug/L	22.649 ppb	17:56:18
3	Sc 361.383	909346.4	909346.4	101.03 %		17:57:47
3	Y 371.029	867673.2	867673.2	113.80 %		17:57:47
3	Ag 328.068†	-2240.3	-2446.8	1.5233 ug/L	1.5233 ppb	17:57:52
3	As 188.979†	-21.9	-1.2	14.406 ug/L	14.406 ppb	17:58:12
3	B 249.677†	-120.5	253.7	-0.6594 ug/L	-0.6594 ppb	17:57:52
3	Ba 233.527†	30991.4	30684.1	240.98 ug/L	240.98 ppb	17:57:52
3	Be 313.107†	-3805.3	86.9	1.4359 ug/L	1.4359 ppb	17:57:52
3	Cd 226.502†	170.4	352.0	-0.1195 ug/L	-0.1195 ppb	17:58:12
3	Co 228.616†	1168.9	1218.8	23.667 ug/L	23.667 ppb	17:58:12
3	Cr 267.716†	10813.5	10637.1	123.29 ug/L	123.29 ppb	17:57:52
3	Cu 324.752†	12265.3	6062.9	20.455 ug/L	20.455 ppb	17:57:52
3	Mn 257.610†	1527337.1	1511308.1	1698.4 ug/L	1698.4 ppb	17:57:47
3	Mo 202.031†	47.8	41.2	6.2246 ug/L	6.2246 ppb	17:58:12
3	Ni 231.604†	3059.1	2975.6	75.617 ug/L	75.617 ppb	17:58:12
3	P 214.914†	540.8	333.3	168.17 ug/L	168.17 ppb	17:58:12
3	Pb 220.353†	231.6	294.3	34.186 ug/L	34.186 ppb	17:58:12
3	S 181.975 Axial†	64.5	26.8	37.409 ug/L	37.409 ppb	17:58:12
3	Sb 206.836†	44.6	7.4	-0.0080 ug/L	-0.0080 ppb	17:58:12
3	Se 196.026†	-188.5	-165.9	18.057 ug/L	18.057 ppb	17:58:12
3	Si 251.611†	444135.2	439067.0	14085 ug/L	14085 ppb	17:57:47
3	Sn 189.927†	1.7	-8.7	-3.3910 ug/L	-3.3910 ppb	17:58:12
3	Ti 334.940†	411686.5	408765.5	618.50 ug/L	618.50 ppb	17:57:47
3	Tl 190.801†	-88.9	-56.8	-5.1539 ug/L	-5.1539 ppb	17:58:12
3	U 409.014†	-8530.1	-5626.8	-156.97 ug/L	-156.97 ppb	17:57:47
3	V 292.402†	2449.8	3855.2	19.900 ug/L	19.900 ppb	17:57:52
3	Zn 213.857†	19900.9	19140.0	185.43 ug/L	185.43 ppb	17:57:52
3	SiO2†	445779.3	440677.0	30278 ug/L	30278 ppb	17:58:29

Mean Data: 245806005|948071|2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	916118.9	101.78	%	0.891				0.88%
Sc Radial	4078.9	95.9	%	0.87				0.90%
Y 371.029	874869.6	114.75	%	1.086				0.95%
Y RADIAL	5128.8	109.3	%	1.15				1.05%
Ag 328.068†	-2501.7	1.2783	ug/L	0.21856	1.2783	ppb	0.21856	17.10%
Al 396.153Radial†	11207.2	10150	ug/L	47.4	10150	ppb	47.4	0.47%
As 188.979†	-1.8	14.144	ug/L	0.5040	14.144	ppb	0.5040	3.56%
B 249.677†	192.0	-2.1363	ug/L	1.69848	-2.1363	ppb	1.69848	79.51%
Ba 233.527†	30411.5	238.85	ug/L	2.259	238.85	ppb	2.259	0.95%
Be 313.107†	141.6	1.4646	ug/L	0.03392	1.4646	ppb	0.03392	2.32%
Ca 317.933Radial†	1508.6	3001.5	ug/L	23.28	3001.5	ppb	23.28	0.78%
Cd 226.502†	337.0	-0.2968	ug/L	0.15954	-0.2968	ppb	0.15954	53.76%
Co 228.616†	1213.7	23.550	ug/L	0.1404	23.550	ppb	0.1404	0.60%
Cr 267.716†	10495.5	121.70	ug/L	1.414	121.70	ppb	1.414	1.16%
Cu 324.752†	5935.7	20.073	ug/L	0.3957	20.073	ppb	0.3957	1.97%
Fe 238.204 Radial†	3176.4	40923	ug/L	308.9	40923	ppb	308.9	0.75%
K 766.490 Radial†	13081.0	2445.1	ug/L	10.04	2445.1	ppb	10.04	0.41%

Mg 279.077 IEC†	42.0	1864.6	ug/L	83.13	1864.6	ppb	83.13	4.46%
Mn 257.610†	1519372.5	1707.5	ug/L	8.78	1707.5	ppb	8.78	0.51%
Mo 202.031†	37.3	5.9428	ug/L	0.26083	5.9428	ppb	0.26083	4.39%
Na 589.592 Radial†	4541.9	1318.1	ug/L	20.33	1318.1	ppb	20.33	1.54%
Ni 231.604†	2980.3	75.737	ug/L	0.4034	75.737	ppb	0.4034	0.53%
P 214.914†	317.4	158.64	ug/L	9.737	158.64	ppb	9.737	6.14%
Pb 220.353†	306.4	35.691	ug/L	1.3042	35.691	ppb	1.3042	3.65%
S 181.975 Axial†	34.1	48.084	ug/L	9.4797	48.084	ppb	9.4797	19.71%
Sb 206.836†	11.7	1.4934	ug/L	1.98218	1.4934	ppb	1.98218	132.73%
Se 196.026†	-165.8	18.204	ug/L	4.4774	18.204	ppb	4.4774	24.60%
Si 251.611†	441901.1	14176	ug/L	96.8	14176	ppb	96.8	0.68%
Sn 189.927†	-1.7	-2.1291	ug/L	1.09662	-2.1291	ppb	1.09662	51.51%
Sr 421.552†	3437.7	22.762	ug/L	0.2283	22.762	ppb	0.2283	1.00%
Ti 334.940†	411171.7	622.14	ug/L	3.843	622.14	ppb	3.843	0.62%
Tl 190.801†	-53.2	-3.9319	ug/L	1.81319	-3.9319	ppb	1.81319	46.12%
U 409.014†	-5510.1	-153.82	ug/L	2.881	-153.82	ppb	2.881	1.87%
V 292.402†	3846.4	19.832	ug/L	0.1321	19.832	ppb	0.1321	0.67%
Zn 213.857†	18980.7	183.83	ug/L	1.841	183.83	ppb	1.841	1.00%
SiO2†	436349.6	29981	ug/L	384.1	29981	ppb	384.1	1.28%

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Analysis Begun

Start Time: 2/23/2010 17:59:26
Plasma On Time: 2/22/2010 05:55:10
Logged In Analyst: Optima3
Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601**Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\022310C.sif
Batch ID:
Results Data Set: 022310A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1
Autosampler Location: 41
Sample ID: 245806008|948071|2
Date Collected: 2/23/2010 17:59:27
Analyst: HSC
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: 245806008|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4132.7	4132.7	97.2	%			18:01:20
1	Y RADIAL	5046.6	5046.6	107.6	%			18:01:20
1	Al 396.153Radial†	11139.7	11576.1	10484	ug/L	10484	ppb	18:01:20
1	Ca 317.933Radial†	1825.8	1863.7	3708.0	ug/L	3708.0	ppb	18:01:40
1	Fe 238.204 Radial†	3061.1	3140.3	40460	ug/L	40460	ppb	18:01:40
1	K 766.490 Radial†	15646.0	13546.6	2532.3	ug/L	2532.3	ppb	18:01:20
1	Mg 279.077 IEC†	46.4	45.0	2002.7	ug/L	2002.7	ppb	18:01:40
1	Na 589.592 Radial†	3175.4	4008.6	1163.3	ug/L	1163.3	ppb	18:01:20
1	Sr 421.552†	4651.3	4750.5	31.458	ug/L	31.458	ppb	18:01:20
1	Sc 361.383	903304.9	903304.9	100.36	%			18:02:37
1	Y 371.029	832007.1	832007.1	109.12	%			18:02:37
1	Ag 328.068†	-2323.5	-2544.5	0.9319	ug/L	0.9319	ppb	18:02:42
1	As 188.979†	-41.1	-20.4	7.7389	ug/L	7.7389	ppb	18:03:02
1	B 249.677†	17.8	390.6	2.5597	ug/L	2.5597	ppb	18:02:42
1	Ba 233.527†	18770.4	18712.2	147.47	ug/L	147.47	ppb	18:02:42
1	Be 313.107†	-7618.0	-3737.4	0.5623	ug/L	0.5623	ppb	18:02:42
1	Cd 226.502†	143.5	326.3	-0.3847	ug/L	-0.3847	ppb	18:03:02
1	Co 228.616†	3180.3	3230.8	65.202	ug/L	65.202	ppb	18:03:02
1	Cr 267.716†	6888.1	6797.4	80.181	ug/L	80.181	ppb	18:02:42
1	Cu 324.752†	13238.1	7113.5	23.566	ug/L	23.566	ppb	18:02:42
1	Mn 257.610†	893082.5	889440.7	1001.1	ug/L	1001.1	ppb	18:02:37
1	Mo 202.031†	37.5	31.3	5.4721	ug/L	5.4721	ppb	18:03:02
1	Ni 231.604†	1898.2	1839.0	46.703	ug/L	46.703	ppb	18:03:02
1	P 214.914†	575.9	371.8	191.38	ug/L	191.38	ppb	18:03:02
1	Pb 220.353†	202.8	267.1	30.953	ug/L	30.953	ppb	18:03:02
1	S 181.975 Axial†	110.8	73.4	105.57	ug/L	105.57	ppb	18:03:02
1	Sb 206.836†	41.1	4.3	-1.9277	ug/L	-1.9277	ppb	18:03:02
1	Se 196.026†	-179.9	-158.5	21.580	ug/L	21.580	ppb	18:03:02
1	Si 251.611†	392535.5	390592.7	12530	ug/L	12530	ppb	18:02:37
1	Sn 189.927†	3.2	-7.3	-2.9824	ug/L	-2.9824	ppb	18:03:02
1	Ti 334.940†	570178.8	569414.4	861.55	ug/L	861.55	ppb	18:02:37
1	Tl 190.801†	-68.9	-37.4	-0.4567	ug/L	-0.4567	ppb	18:03:02
1	U 409.014†	-7084.3	-4242.6	-119.42	ug/L	-119.42	ppb	18:02:37
1	V 292.402†	3510.0	4927.8	27.232	ug/L	27.232	ppb	18:02:42
1	Zn 213.857†	16697.5	16079.9	154.97	ug/L	154.97	ppb	18:02:42
1	SiO2†	395023.1	393054.0	27006	ug/L	27006	ppb	18:04:09
2	Sc Radial	4079.0	4079.0	95.9	%			18:01:45
2	Y RADIAL	4996.9	4996.9	106.5	%			18:01:45
2	Al 396.153Radial†	11049.8	11633.3	10536	ug/L	10536	ppb	18:01:45
2	Ca 317.933Radial†	1811.2	1873.2	3726.9	ug/L	3726.9	ppb	18:02:05
2	Fe 238.204 Radial†	3040.2	3160.0	40714	ug/L	40714	ppb	18:02:05
2	K 766.490 Radial†	15492.7	13598.7	2542.1	ug/L	2542.1	ppb	18:01:45
2	Mg 279.077 IEC†	41.0	40.0	1776.5	ug/L	1776.5	ppb	18:02:05
2	Na 589.592 Radial†	3071.6	3943.4	1144.4	ug/L	1144.4	ppb	18:01:45
2	Sr 421.552†	4622.2	4783.2	31.675	ug/L	31.675	ppb	18:01:45
2	Sc 361.383	911960.2	911960.2	101.32	%			18:03:08
2	Y 371.029	838808.0	838808.0	110.02	%			18:03:08

2	Ag 328.068†	-2432.5	-2630.1	0.6097 ug/L	0.6097 ppb	18:03:13
2	As 188.979†	-41.3	-20.2	7.8972 ug/L	7.8972 ppb	18:03:33
2	B 249.677†	117.9	489.3	4.8744 ug/L	4.8744 ppb	18:03:13
2	Ba 233.527†	18720.5	18485.4	145.70 ug/L	145.70 ppb	18:03:13
2	Be 313.107†	-7695.6	-3741.9	0.5659 ug/L	0.5659 ppb	18:03:13
2	Cd 226.502†	150.2	331.6	-0.3487 ug/L	-0.3487 ppb	18:03:33
2	Co 228.616†	3191.9	3212.2	64.802 ug/L	64.802 ppb	18:03:33
2	Cr 267.716†	6919.5	6763.3	79.819 ug/L	79.819 ppb	18:03:13
2	Cu 324.752†	13388.5	7136.8	23.648 ug/L	23.648 ppb	18:03:13
2	Mn 257.610†	904510.9	892274.2	1004.4 ug/L	1004.4 ppb	18:03:08
2	Mo 202.031†	28.2	21.8	4.7972 ug/L	4.7972 ppb	18:03:33
2	Ni 231.604†	1902.7	1825.6	46.361 ug/L	46.361 ppb	18:03:33
2	P 214.914†	563.0	353.6	180.13 ug/L	180.13 ppb	18:03:33
2	Pb 220.353†	232.3	294.3	34.301 ug/L	34.301 ppb	18:03:33
2	S 181.975 Axial†	110.4	72.0	103.45 ug/L	103.45 ppb	18:03:33
2	Sb 206.836†	37.7	0.5	-3.2676 ug/L	-3.2676 ppb	18:03:33
2	Se 196.026†	-177.9	-154.9	24.774 ug/L	24.774 ppb	18:03:33
2	Si 251.611†	397265.4	391548.7	12561 ug/L	12561 ppb	18:03:08
2	Sn 189.927†	4.5	-6.0	-2.7584 ug/L	-2.7584 ppb	18:03:33
2	Ti 334.940†	577183.1	570935.2	863.87 ug/L	863.87 ppb	18:03:08
2	Tl 190.801†	-78.4	-46.2	-3.2255 ug/L	-3.2255 ppb	18:03:33
2	U 409.014†	-7058.8	-4150.5	-116.96 ug/L	-116.96 ppb	18:03:08
2	V 292.402†	3368.5	4755.0	25.983 ug/L	25.983 ppb	18:03:13
2	Zn 213.857†	16693.8	15918.3	153.31 ug/L	153.31 ppb	18:03:13
2	SiO2†	393972.0	388280.9	26678 ug/L	26678 ppb	18:04:15
3	Sc Radial	4108.6	4108.6	96.6 %		18:02:10
3	Y RADIAL	4983.2	4983.2	106.2 %		18:02:10
3	Al 396.153Radial†	11087.9	11589.8	10496 ug/L	10496 ppb	18:02:10
3	Ca 317.933Radial†	1815.4	1864.0	3708.5 ug/L	3708.5 ppb	18:02:30
3	Fe 238.204 Radial†	3038.8	3135.8	40402 ug/L	40402 ppb	18:02:30
3	K 766.490 Radial†	15536.2	13527.5	2528.7 ug/L	2528.7 ppb	18:02:10
3	Mg 279.077 IEC†	40.6	39.3	1743.7 ug/L	1743.7 ppb	18:02:30
3	Na 589.592 Radial†	3183.8	4036.4	1171.4 ug/L	1171.4 ppb	18:02:10
3	Sr 421.552†	4667.5	4795.4	31.756 ug/L	31.756 ppb	18:02:10
3	Sc 361.383	900492.3	900492.3	100.05 %		18:03:38
3	Y 371.029	829467.6	829467.6	108.79 %		18:03:38
3	Ag 328.068†	-2369.3	-2597.5	0.6666 ug/L	0.6666 ppb	18:03:43
3	As 188.979†	-35.0	-14.4	10.395 ug/L	10.395 ppb	18:04:03
3	B 249.677†	-15.3	357.7	1.7823 ug/L	1.7823 ppb	18:03:43
3	Ba 233.527†	18525.3	18525.7	146.01 ug/L	146.01 ppb	18:03:43
3	Be 313.107†	-7613.1	-3756.2	0.5517 ug/L	0.5517 ppb	18:03:43
3	Cd 226.502†	157.1	340.3	-0.2155 ug/L	-0.2155 ppb	18:04:03
3	Co 228.616†	3176.7	3237.1	65.334 ug/L	65.334 ppb	18:04:03
3	Cr 267.716†	6813.7	6744.5	79.579 ug/L	79.579 ppb	18:03:43
3	Cu 324.752†	13152.2	7068.9	23.429 ug/L	23.429 ppb	18:03:43
3	Mn 257.610†	889614.2	888753.3	1000.4 ug/L	1000.4 ppb	18:03:38
3	Mo 202.031†	16.6	10.5	3.9505 ug/L	3.9505 ppb	18:04:03
3	Ni 231.604†	1874.0	1820.8	46.241 ug/L	46.241 ppb	18:04:03
3	P 214.914†	564.0	361.7	185.29 ug/L	185.29 ppb	18:04:03
3	Pb 220.353†	221.7	286.7	33.380 ug/L	33.380 ppb	18:04:03
3	S 181.975 Axial†	107.4	70.3	101.05 ug/L	101.05 ppb	18:04:03
3	Sb 206.836†	55.4	18.7	3.0563 ug/L	3.0563 ppb	18:04:03
3	Se 196.026†	-184.2	-163.5	18.139 ug/L	18.139 ppb	18:04:03
3	Si 251.611†	390346.5	389626.3	12499 ug/L	12499 ppb	18:03:38
3	Sn 189.927†	-1.2	-11.7	-3.7712 ug/L	-3.7712 ppb	18:04:03
3	Ti 334.940†	567351.7	568363.1	859.99 ug/L	859.99 ppb	18:03:38
3	Tl 190.801†	-67.4	-36.1	-0.0571 ug/L	-0.0571 ppb	18:04:03
3	U 409.014†	-7040.6	-4221.0	-118.83 ug/L	-118.83 ppb	18:03:38
3	V 292.402†	3369.0	4797.9	26.314 ug/L	26.314 ppb	18:03:43
3	Zn 213.857†	16526.0	15960.5	153.78 ug/L	153.78 ppb	18:03:43
3	SiO2†	393707.9	392968.7	27000 ug/L	27000 ppb	18:04:20

Mean Data: 245806008|948071|2

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	905252.5	100.58	%	0.664				0.66%
Sc Radial	4106.8	96.5	%	0.63				0.65%
Y 371.029	833427.5	109.31	%	0.633				0.58%
Y RADIAL	5008.9	106.8	%	0.71				0.67%
Ag 328.068†	-2590.7	0.7361	ug/L	0.17198	0.7361	ppb	0.17198	23.36%

Al 396.153Radial†	11599.8	10505	ug/L	27.1	10505	ppb	27.1	0.26%
As 188.979†	-18.4	8.6771	ug/L	1.49013	8.6771	ppb	1.49013	17.17%
B 249.677†	412.5	3.0721	ug/L	1.60846	3.0721	ppb	1.60846	52.36%
Ba 233.527†	18574.4	146.39	ug/L	0.944	146.39	ppb	0.944	0.64%
Be 313.107†	-3745.2	0.5600	ug/L	0.00736	0.5600	ppb	0.00736	1.31%
Ca 317.933Radial†	1867.0	3714.5	ug/L	10.80	3714.5	ppb	10.80	0.29%
Cd 226.502†	332.7	-0.3163	ug/L	0.08914	-0.3163	ppb	0.08914	28.18%
Co 228.616†	3226.7	65.113	ug/L	0.2770	65.113	ppb	0.2770	0.43%
Cr 267.716†	6768.4	79.860	ug/L	0.3027	79.860	ppb	0.3027	0.38%
Cu 324.752†	7106.4	23.548	ug/L	0.1109	23.548	ppb	0.1109	0.47%
Fe 238.204 Radial†	3145.4	40525	ug/L	165.9	40525	ppb	165.9	0.41%
K 766.490 Radial†	13557.6	2534.4	ug/L	6.90	2534.4	ppb	6.90	0.27%
Mg 279.077 IEC†	41.4	1841.0	ug/L	141.05	1841.0	ppb	141.05	7.66%
Mn 257.610†	890156.1	1002.0	ug/L	2.11	1002.0	ppb	2.11	0.21%
Mo 202.031†	21.2	4.7399	ug/L	0.76239	4.7399	ppb	0.76239	16.08%
Na 589.592 Radial†	3996.1	1159.7	ug/L	13.86	1159.7	ppb	13.86	1.19%
Ni 231.604†	1828.5	46.435	ug/L	0.2399	46.435	ppb	0.2399	0.52%
P 214.914†	362.4	185.60	ug/L	5.630	185.60	ppb	5.630	3.03%
Pb 220.353†	282.7	32.878	ug/L	1.7300	32.878	ppb	1.7300	5.26%
S 181.975 Axial†	71.9	103.36	ug/L	2.262	103.36	ppb	2.262	2.19%
Sb 206.836†	7.8	-0.7130	ug/L	3.33238	-0.7130	ppb	3.33238	467.37%
Se 196.026†	-159.0	21.498	ug/L	3.3181	21.498	ppb	3.3181	15.43%
Si 251.611†	390589.2	12530	ug/L	30.8	12530	ppb	30.8	0.25%
Sn 189.927†	-8.3	-3.1707	ug/L	0.53200	-3.1707	ppb	0.53200	16.78%
Sr 421.552†	4776.4	31.629	ug/L	0.1539	31.629	ppb	0.1539	0.49%
Ti 334.940†	569570.9	861.80	ug/L	1.957	861.80	ppb	1.957	0.23%
Tl 190.801†	-39.9	-1.2464	ug/L	1.72554	-1.2464	ppb	1.72554	138.44%
U 409.014†	-4204.7	-118.40	ug/L	1.285	-118.40	ppb	1.285	1.09%
V 292.402†	4826.9	26.510	ug/L	0.6468	26.510	ppb	0.6468	2.44%
Zn 213.857†	15986.2	154.02	ug/L	0.854	154.02	ppb	0.854	0.55%
SiO2†	391434.5	26895	ug/L	187.7	26895	ppb	187.7	0.70%

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/23/2010 18:40:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3876.0	3876.0	91.1	%			18:42:44
1	Y RADIAL	4433.9	4433.9	94.50	%			18:42:23
1	Al 396.153Radial†	5244.9	5866.6	5288.6	ug/L	5288.6	ppb	18:42:23
1	Ca 317.933Radial†	2448.5	2671.6	5315.3	ug/L	5315.3	ppb	18:42:44
1	Fe 238.204 Radial†	375.4	401.8	5191.4	ug/L	5191.4	ppb	18:42:44
1	K 766.490 Radial†	28460.4	28676.2	5358.3	ug/L	5358.3	ppb	18:42:23
1	Mg 279.077 IEC†	108.5	116.3	5286.4	ug/L	5286.4	ppb	18:42:44
1	Na 589.592 Radial†	32141.1	36012.5	10451	ug/L	10451	ppb	18:42:23
1	Sr 421.552†	72080.3	79065.4	523.99	ug/L	523.99	ppb	18:42:23
1	Sc 361.383	894270.7	894270.7	99.356	%			18:43:41
1	Y 371.029	746702.0	746702.0	97.936	%			18:43:41
1	Ag 328.068†	107923.5	108393.2	500.91	ug/L	500.91	ppb	18:43:46
1	As 188.979†	1097.0	1124.6	511.13	ug/L	511.13	ppb	18:44:06
1	B 249.677†	19539.4	20038.9	475.97	ug/L	475.97	ppb	18:43:46
1	Ba 233.527†	63215.7	63634.3	498.29	ug/L	498.29	ppb	18:43:46
1	Be 313.107†	1315242.7	1327615.1	495.86	ug/L	495.86	ppb	18:43:41
1	Cd 226.502†	42799.5	43260.0	502.01	ug/L	502.01	ppb	18:43:46
1	Co 228.616†	23624.2	23839.1	498.52	ug/L	498.52	ppb	18:43:46
1	Cr 267.716†	44243.5	44464.1	499.70	ug/L	499.70	ppb	18:43:46
1	Cu 324.752†	167595.7	162604.2	488.29	ug/L	488.29	ppb	18:43:46
1	Mn 257.610†	437336.6	439732.5	493.32	ug/L	493.32	ppb	18:43:41
1	Mo 202.031†	6841.9	6880.2	503.98	ug/L	503.98	ppb	18:44:06
1	Ni 231.604†	19695.8	19771.1	502.24	ug/L	502.24	ppb	18:43:46
1	P 214.914†	4329.0	4155.0	2426.2	ug/L	2426.2	ppb	18:44:06
1	Pb 220.353†	4027.4	4118.5	511.90	ug/L	511.90	ppb	18:44:06
1	S 181.975 Axial†	726.2	693.9	1015.5	ug/L	1015.5	ppb	18:44:06
1	Sb 206.836†	1467.4	1440.2	520.20	ug/L	520.20	ppb	18:44:06
1	Se 196.026†	735.3	760.8	519.23	ug/L	519.23	ppb	18:44:06
1	Si 251.611†	77282.8	77249.3	2471.9	ug/L	2471.9	ppb	18:43:46
1	Sn 189.927†	2789.9	2797.6	506.76	ug/L	506.76	ppb	18:44:06
1	Ti 334.940†	315176.4	318499.7	481.60	ug/L	481.60	ppb	18:43:46
1	Tl 190.801†	1516.8	1557.8	503.17	ug/L	503.17	ppb	18:44:06
1	U 409.014†	14881.6	17794.3	479.11	ug/L	479.11	ppb	18:43:46
1	V 292.402†	69209.6	71088.3	500.23	ug/L	500.23	ppb	18:43:46
1	Zn 213.857†	50032.4	49798.8	495.05	ug/L	495.05	ppb	18:43:46
1	SiO2†	76912.7	76859.4	5267.2	ug/L	5267.2	ppb	18:45:14
2	Sc Radial	3835.6	3835.6	90.2	%			18:43:09
2	Y RADIAL	4397.5	4397.5	93.72	%			18:42:49
2	Al 396.153Radial†	5209.8	5888.2	5308.5	ug/L	5308.5	ppb	18:42:49
2	Ca 317.933Radial†	2427.0	2676.0	5324.1	ug/L	5324.1	ppb	18:43:09
2	Fe 238.204 Radial†	372.7	403.1	5208.6	ug/L	5208.6	ppb	18:43:09
2	K 766.490 Radial†	28163.0	28674.8	5358.1	ug/L	5358.1	ppb	18:42:49
2	Mg 279.077 IEC†	109.6	118.8	5397.6	ug/L	5397.6	ppb	18:43:09
2	Na 589.592 Radial†	31781.9	35985.2	10443	ug/L	10443	ppb	18:42:49
2	Sr 421.552†	71346.9	79084.1	524.12	ug/L	524.12	ppb	18:42:49
2	Sc 361.383	904171.8	904171.8	100.46	%			18:44:12
2	Y 371.029	753473.3	753473.3	98.824	%			18:44:12
2	Ag 328.068†	109499.4	108772.5	502.65	ug/L	502.65	ppb	18:44:17
2	As 188.979†	1088.7	1104.2	501.96	ug/L	501.96	ppb	18:44:37
2	B 249.677†	19925.5	20207.9	480.00	ug/L	480.00	ppb	18:44:17
2	Ba 233.527†	63813.0	63532.2	497.50	ug/L	497.50	ppb	18:44:17
2	Be 313.107†	1330846.4	1328652.2	496.25	ug/L	496.25	ppb	18:44:12
2	Cd 226.502†	43425.5	43411.5	503.76	ug/L	503.76	ppb	18:44:17
2	Co 228.616†	23936.7	23889.9	499.57	ug/L	499.57	ppb	18:44:17
2	Cr 267.716†	44739.0	44469.8	499.77	ug/L	499.77	ppb	18:44:17
2	Cu 324.752†	170004.5	163154.8	489.95	ug/L	489.95	ppb	18:44:17
2	Mn 257.610†	443913.5	441459.5	495.25	ug/L	495.25	ppb	18:44:12
2	Mo 202.031†	6835.2	6798.0	497.97	ug/L	497.97	ppb	18:44:37
2	Ni 231.604†	19946.2	19803.2	503.06	ug/L	503.06	ppb	18:44:17

2	P 214.914†	4315.4	4093.7	2388.5 ug/L	2388.5 ppb	18:44:37
2	Pb 220.353†	4017.5	4064.3	505.17 ug/L	505.17 ppb	18:44:37
2	S 181.975 Axial†	736.0	695.6	1018.0 ug/L	1018.0 ppb	18:44:37
2	Sb 206.836†	1440.1	1396.8	504.83 ug/L	504.83 ppb	18:44:37
2	Se 196.026†	727.2	744.6	508.63 ug/L	508.63 ppb	18:44:37
2	Si 251.611†	78315.0	77425.0	2477.7 ug/L	2477.7 ppb	18:44:17
2	Sn 189.927†	2772.2	2749.1	498.00 ug/L	498.00 ppb	18:44:37
2	Ti 334.940†	319174.5	319006.0	482.36 ug/L	482.36 ppb	18:44:17
2	Tl 190.801†	1532.6	1556.9	502.87 ug/L	502.87 ppb	18:44:37
2	U 409.014†	15181.7	17928.9	482.74 ug/L	482.74 ppb	18:44:17
2	V 292.402†	70083.7	71195.6	500.89 ug/L	500.89 ppb	18:44:17
2	Zn 213.857†	50712.4	49924.3	496.30 ug/L	496.30 ppb	18:44:17
2	SiO2†	78177.8	77271.0	5295.6 ug/L	5295.6 ppb	18:45:19
3	Sc Radial	3890.9	3890.9	91.5 %		18:43:34
3	Y RADIAL	4402.1	4402.1	93.82 %		18:43:14
3	Al 396.153Radial†	5185.7	5779.8	5210.2 ug/L	5210.2 ppb	18:43:14
3	Ca 317.933Radial†	2458.7	2672.4	5316.9 ug/L	5316.9 ppb	18:43:34
3	Fe 238.204 Radial†	379.8	405.1	5233.4 ug/L	5233.4 ppb	18:43:34
3	K 766.490 Radial†	28197.2	28268.7	5282.2 ug/L	5282.2 ppb	18:43:14
3	Mg 279.077 IEC†	113.5	121.3	5514.7 ug/L	5514.7 ppb	18:43:34
3	Na 589.592 Radial†	31585.0	35269.4	10235 ug/L	10235 ppb	18:43:14
3	Sr 421.552†	71272.6	77879.2	516.13 ug/L	516.13 ppb	18:43:14
3	Sc 361.383	898710.2	898710.2	99.850 %		18:44:43
3	Y 371.029	749591.0	749591.0	98.314 %		18:44:43
3	Ag 328.068†	107910.1	107843.3	498.38 ug/L	498.38 ppb	18:44:48
3	As 188.979†	1086.3	1108.5	503.86 ug/L	503.86 ppb	18:45:08
3	B 249.677†	19712.5	20115.1	477.79 ug/L	477.79 ppb	18:44:48
3	Ba 233.527†	63138.5	63242.7	495.23 ug/L	495.23 ppb	18:44:48
3	Be 313.107†	1321927.0	1327770.4	495.91 ug/L	495.91 ppb	18:44:43
3	Cd 226.502†	42810.1	43057.8	499.65 ug/L	499.65 ppb	18:44:48
3	Co 228.616†	23691.2	23788.8	497.47 ug/L	497.47 ppb	18:44:48
3	Cr 267.716†	44301.1	44301.8	497.88 ug/L	497.88 ppb	18:44:48
3	Cu 324.752†	167388.6	161563.5	485.17 ug/L	485.17 ppb	18:44:48
3	Mn 257.610†	440914.2	441141.2	494.89 ug/L	494.89 ppb	18:44:43
3	Mo 202.031†	6830.2	6834.5	500.63 ug/L	500.63 ppb	18:45:08
3	Ni 231.604†	19607.2	19584.4	497.49 ug/L	497.49 ppb	18:44:48
3	P 214.914†	4306.9	4111.4	2400.2 ug/L	2400.2 ppb	18:45:08
3	Pb 220.353†	4029.0	4100.1	509.60 ug/L	509.60 ppb	18:45:08
3	S 181.975 Axial†	722.8	686.8	1005.2 ug/L	1005.2 ppb	18:45:08
3	Sb 206.836†	1455.7	1421.2	513.45 ug/L	513.45 ppb	18:45:08
3	Se 196.026†	723.9	745.7	509.41 ug/L	509.41 ppb	18:45:08
3	Si 251.611†	77190.6	76772.6	2456.7 ug/L	2456.7 ppb	18:44:48
3	Sn 189.927†	2784.7	2778.4	503.30 ug/L	503.30 ppb	18:45:08
3	Ti 334.940†	314844.3	316600.1	478.71 ug/L	478.71 ppb	18:44:48
3	Tl 190.801†	1503.5	1537.0	496.47 ug/L	496.47 ppb	18:45:08
3	U 409.014†	14927.0	17765.7	478.34 ug/L	478.34 ppb	18:44:48
3	V 292.402†	69195.2	70729.8	497.69 ug/L	497.69 ppb	18:44:48
3	Zn 213.857†	50054.4	49572.0	492.81 ug/L	492.81 ppb	18:44:48
3	SiO2†	76743.7	76307.7	5229.4 ug/L	5229.4 ppb	18:45:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899050.9	99.888	%	0.5510				0.55%
Sc Radial	3867.5	90.9	%	0.67				0.74%
Y 371.029	749922.1	98.358	%	0.4456				0.45%
Y RADIAL	4411.2	94.01	%	0.422				0.45%
Ag 328.068†	108336.3	500.65	ug/L	2.146	500.65	ppb	2.146	0.43%
QC value within limits for Ag 328.068 Recovery = 100.13%								
Al 396.153Radial†	5844.9	5269.1	ug/L	51.94	5269.1	ppb	51.94	0.99%
QC value within limits for Al 396.153Radial Recovery = 105.38%								
As 188.979†	1112.5	505.65	ug/L	4.839	505.65	ppb	4.839	0.96%
QC value within limits for As 188.979 Recovery = 101.13%								
B 249.677†	20120.6	477.92	ug/L	2.017	477.92	ppb	2.017	0.42%
QC value within limits for B 249.677 Recovery = 95.58%								
Ba 233.527†	63469.7	497.01	ug/L	1.589	497.01	ppb	1.589	0.32%
QC value within limits for Ba 233.527 Recovery = 99.40%								
Be 313.107†	1328012.6	496.01	ug/L	0.211	496.01	ppb	0.211	0.04%
QC value within limits for Be 313.107 Recovery = 99.20%								
Ca 317.933Radial†	2673.3	5318.8	ug/L	4.66	5318.8	ppb	4.66	0.09%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.38%
Cd 226.502†            43243.1      501.81 ug/L         2.063      501.81 ppb          2.063   0.41%
   QC value within limits for Cd 226.502  Recovery = 100.36%
Co 228.616†            23839.3      498.52 ug/L         1.051      498.52 ppb          1.051   0.21%
   QC value within limits for Co 228.616  Recovery = 99.70%
Cr 267.716†            44411.9      499.12 ug/L         1.070      499.12 ppb          1.070   0.21%
   QC value within limits for Cr 267.716  Recovery = 99.82%
Cu 324.752†           162440.8      487.80 ug/L         2.425      487.80 ppb          2.425   0.50%
   QC value within limits for Cu 324.752  Recovery = 97.56%
Fe 238.204 Radial†       403.3      5211.1 ug/L        21.12      5211.1 ppb         21.12   0.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.22%
K 766.490 Radial†      28539.9      5332.8 ug/L        43.89      5332.8 ppb         43.89   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 106.66%
Mg 279.077 IEC†          118.8      5399.6 ug/L       114.17      5399.6 ppb        114.17   2.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.99%
Mn 257.610†           440777.7      494.49 ug/L         1.028      494.49 ppb          1.028   0.21%
   QC value within limits for Mn 257.610  Recovery = 98.90%
Mo 202.031†             6837.6      500.86 ug/L         3.011      500.86 ppb          3.011   0.60%
   QC value within limits for Mo 202.031  Recovery = 100.17%
Na 589.592 Radial†     35755.7       10376 ug/L       122.3         10376 ppb        122.3   1.18%
   QC value within limits for Na 589.592 Radial  Recovery = 103.76%
Ni 231.604†            19719.6      500.93 ug/L         3.003      500.93 ppb          3.003   0.60%
   QC value within limits for Ni 231.604  Recovery = 100.19%
P 214.914†              4120.0      2405.0 ug/L        19.26      2405.0 ppb         19.26   0.80%
   QC value within limits for P 214.914  Recovery = 96.20%
Pb 220.353†             4094.3      508.89 ug/L         3.419      508.89 ppb          3.419   0.67%
   QC value within limits for Pb 220.353  Recovery = 101.78%
S 181.975 Axial†         692.1      1012.9 ug/L         6.80      1012.9 ppb          6.80   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 101.29%
Sb 206.836†             1419.4      512.83 ug/L         7.705      512.83 ppb          7.705   1.50%
   QC value within limits for Sb 206.836  Recovery = 102.57%
Se 196.026†              750.4      512.42 ug/L         5.908      512.42 ppb          5.908   1.15%
   QC value within limits for Se 196.026  Recovery = 102.48%
Si 251.611†            77149.0      2468.8 ug/L        10.84      2468.8 ppb         10.84   0.44%
   QC value within limits for Si 251.611  Recovery = 98.75%
Sn 189.927†             2775.1      502.68 ug/L         4.412      502.68 ppb          4.412   0.88%
   QC value within limits for Sn 189.927  Recovery = 100.54%
Sr 421.552†            78676.2      521.42 ug/L         4.575      521.42 ppb          4.575   0.88%
   QC value within limits for Sr 421.552  Recovery = 104.28%
Ti 334.940†           318035.3      480.89 ug/L         1.925      480.89 ppb          1.925   0.40%
   QC value within limits for Ti 334.940  Recovery = 96.18%
Tl 190.801†             1550.6      500.83 ug/L         3.783      500.83 ppb          3.783   0.76%
   QC value within limits for Tl 190.801  Recovery = 100.17%
U 409.014†             17829.6      480.06 ug/L         2.354      480.06 ppb          2.354   0.49%
   QC value within limits for U 409.014  Recovery = 96.01%
V 292.402†             71004.6      499.60 ug/L         1.689      499.60 ppb          1.689   0.34%
   QC value within limits for V 292.402  Recovery = 99.92%
Zn 213.857†            49765.1      494.72 ug/L         1.772      494.72 ppb          1.772   0.36%
   QC value within limits for Zn 213.857  Recovery = 98.94%
SiO2†                  76812.7      5264.1 ug/L        33.24      5264.1 ppb         33.24   0.63%
   QC value within limits for SiO2  Recovery = 98.44%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/23/2010 18:47:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4120.3	4120.3	96.9	%			18:49:26
1	Y RADIAL	4579.2	4579.2	97.59	%			18:49:26
1	Al 396.153Radial†	-106.0	1.3	1.1577	ug/L	1.1577	ppb	18:49:26
1	Ca 317.933Radial†	22.7	8.0	15.859	ug/L	15.859	ppb	18:49:46
1	Fe 238.204 Radial†	12.9	3.2	40.614	ug/L	40.614	ppb	18:49:46
1	K 766.490 Radial†	2662.8	192.1	35.947	ug/L	35.947	ppb	18:49:26
1	Mg 279.077 IEC†	-2.5	-5.4	-243.91	ug/L	-243.91	ppb	18:49:46
1	Na 589.592 Radial†	-800.6	-86.1	-25.000	ug/L	-25.000	ppb	18:49:26
1	Sr 421.552†	18.6	-17.6	-0.1167	ug/L	-0.1167	ppb	18:49:26
1	Sc 361.383	892622.1	892622.1	99.173	%			18:50:43
1	Y 371.029	756417.9	756417.9	99.210	%			18:50:43
1	Ag 328.068†	234.7	7.4	0.0455	ug/L	0.0455	ppb	18:50:43
1	As 188.979†	-24.0	-3.7	-1.6577	ug/L	-1.6577	ppb	18:51:03
1	B 249.677†	-413.7	-44.1	-1.0592	ug/L	-1.0592	ppb	18:51:03
1	Ba 233.527†	9.5	18.7	0.1464	ug/L	0.1464	ppb	18:51:03
1	Be 313.107†	-3773.9	47.9	0.0177	ug/L	0.0177	ppb	18:50:43
1	Cd 226.502†	-191.3	-9.6	-0.1159	ug/L	-0.1159	ppb	18:51:03
1	Co 228.616†	-78.5	-17.3	-0.3602	ug/L	-0.3602	ppb	18:51:03
1	Cr 267.716†	77.5	12.2	0.1403	ug/L	0.1403	ppb	18:51:03
1	Cu 324.752†	6073.8	47.3	0.1449	ug/L	0.1449	ppb	18:50:43
1	Mn 257.610†	502.3	69.6	0.0920	ug/L	0.0920	ppb	18:51:03
1	Mo 202.031†	12.0	6.1	0.4476	ug/L	0.4476	ppb	18:51:03
1	Ni 231.604†	53.2	1.3	0.0345	ug/L	0.0345	ppb	18:51:03
1	P 214.914†	197.7	-2.7	-1.6738	ug/L	-1.6738	ppb	18:51:03
1	Pb 220.353†	-9.9	55.0	6.8172	ug/L	6.8172	ppb	18:51:03
1	S 181.975 Axial†	36.4	-0.4	-0.5607	ug/L	-0.5607	ppb	18:51:03
1	Sb 206.836†	45.9	9.6	3.3585	ug/L	3.3585	ppb	18:51:03
1	Se 196.026†	-22.3	-1.8	-1.0661	ug/L	-1.0661	ppb	18:51:03
1	Si 251.611†	561.3	31.8	1.0144	ug/L	1.0144	ppb	18:51:03
1	Sn 189.927†	11.5	1.2	0.2123	ug/L	0.2123	ppb	18:51:03
1	Ti 334.940†	-1329.3	-58.5	-0.0661	ug/L	-0.0661	ppb	18:50:43
1	Tl 190.801†	-25.0	6.0	1.9373	ug/L	1.9373	ppb	18:51:03
1	U 409.014†	-2833.6	-41.0	-1.1122	ug/L	-1.1122	ppb	18:50:43
1	V 292.402†	-1468.9	-50.7	-0.3583	ug/L	-0.3583	ppb	18:50:43
1	Zn 213.857†	573.7	20.8	0.2024	ug/L	0.2024	ppb	18:51:03
1	SiO2†	626.5	80.3	5.5027	ug/L	5.5027	ppb	18:51:59
2	Sc Radial	4026.2	4026.2	94.7	%			18:49:51
2	Y RADIAL	4451.1	4451.1	94.86	%			18:49:51
2	Al 396.153Radial†	-131.0	-27.6	-25.003	ug/L	-25.003	ppb	18:49:51
2	Ca 317.933Radial†	17.4	2.9	5.7351	ug/L	5.7351	ppb	18:50:11
2	Fe 238.204 Radial†	11.6	2.1	27.154	ug/L	27.154	ppb	18:50:11
2	K 766.490 Radial†	2677.3	271.6	50.823	ug/L	50.823	ppb	18:49:51
2	Mg 279.077 IEC†	-1.5	-4.3	-194.78	ug/L	-194.78	ppb	18:50:11
2	Na 589.592 Radial†	-751.4	-53.4	-15.501	ug/L	-15.501	ppb	18:49:51
2	Sr 421.552†	21.8	-13.7	-0.0911	ug/L	-0.0911	ppb	18:49:51
2	Sc 361.383	887516.8	887516.8	98.606	%			18:51:08
2	Y 371.029	751755.2	751755.2	98.598	%			18:51:08
2	Ag 328.068†	179.0	-47.8	-0.2074	ug/L	-0.2074	ppb	18:51:08
2	As 188.979†	-24.3	-4.1	-1.8445	ug/L	-1.8445	ppb	18:51:28
2	B 249.677†	-451.9	-85.3	-2.0394	ug/L	-2.0394	ppb	18:51:28
2	Ba 233.527†	-4.3	4.8	0.0373	ug/L	0.0373	ppb	18:51:28
2	Be 313.107†	-3761.4	38.7	0.0142	ug/L	0.0142	ppb	18:51:08
2	Cd 226.502†	-187.9	-7.2	-0.0879	ug/L	-0.0879	ppb	18:51:28
2	Co 228.616†	-75.2	-14.3	-0.2996	ug/L	-0.2996	ppb	18:51:28
2	Cr 267.716†	65.9	0.9	0.0147	ug/L	0.0147	ppb	18:51:28
2	Cu 324.752†	6018.2	26.2	0.0838	ug/L	0.0838	ppb	18:51:08
2	Mn 257.610†	486.5	56.5	0.0740	ug/L	0.0740	ppb	18:51:28
2	Mo 202.031†	7.4	1.4	0.1054	ug/L	0.1054	ppb	18:51:28
2	Ni 231.604†	53.3	1.7	0.0435	ug/L	0.0435	ppb	18:51:28

2	P 214.914†	189.6	-9.7	-5.9385 ug/L	-5.9385 ppb	18:51:28
2	Pb 220.353†	-18.7	46.0	5.6969 ug/L	5.6969 ppb	18:51:28
2	S 181.975 Axial†	35.5	-1.1	-1.5433 ug/L	-1.5433 ppb	18:51:28
2	Sb 206.836†	44.9	8.8	3.0688 ug/L	3.0688 ppb	18:51:28
2	Se 196.026†	-27.3	-7.0	-4.5416 ug/L	-4.5416 ppb	18:51:28
2	Si 251.611†	607.6	82.0	2.6291 ug/L	2.6291 ppb	18:51:28
2	Sn 189.927†	9.8	-0.5	-0.0858 ug/L	-0.0858 ppb	18:51:28
2	Ti 334.940†	-1335.3	-72.4	-0.0898 ug/L	-0.0898 ppb	18:51:08
2	Tl 190.801†	-32.6	-1.8	-0.5801 ug/L	-0.5801 ppb	18:51:28
2	U 409.014†	-3026.4	-252.9	-6.8377 ug/L	-6.8377 ppb	18:51:08
2	V 292.402†	-1466.5	-56.8	-0.4133 ug/L	-0.4133 ppb	18:51:08
2	Zn 213.857†	563.1	13.3	0.1292 ug/L	0.1292 ppb	18:51:28
2	SiO2†	620.8	78.1	5.3629 ug/L	5.3629 ppb	18:52:04
3	Sc Radial	4034.5	4034.5	94.9 %		18:50:16
3	Y RADIAL	4444.1	4444.1	94.71 %		18:50:16
3	Al 396.153Radial†	-133.8	-30.3	-27.475 ug/L	-27.475 ppb	18:50:16
3	Ca 317.933Radial†	25.5	11.4	22.756 ug/L	22.756 ppb	18:50:36
3	Fe 238.204 Radial†	11.1	1.5	19.868 ug/L	19.868 ppb	18:50:36
3	K 766.490 Radial†	2432.6	7.8	1.4593 ug/L	1.4593 ppb	18:50:16
3	Mg 279.077 IEC†	4.0	1.4	65.333 ug/L	65.333 ppb	18:50:36
3	Na 589.592 Radial†	-729.9	-29.2	-8.4647 ug/L	-8.4647 ppb	18:50:16
3	Sr 421.552†	19.9	-15.8	-0.1047 ug/L	-0.1047 ppb	18:50:16
3	Sc 361.383	889928.6	889928.6	98.874 %		18:51:33
3	Y 371.029	752888.1	752888.1	98.747 %		18:51:33
3	Ag 328.068†	215.6	-11.3	-0.0465 ug/L	-0.0465 ppb	18:51:33
3	As 188.979†	-24.2	-3.9	-1.7611 ug/L	-1.7611 ppb	18:51:53
3	B 249.677†	-440.3	-72.3	-1.7296 ug/L	-1.7296 ppb	18:51:53
3	Ba 233.527†	0.8	9.9	0.0769 ug/L	0.0769 ppb	18:51:53
3	Be 313.107†	-3854.4	-45.1	-0.0172 ug/L	-0.0172 ppb	18:51:33
3	Cd 226.502†	-170.3	11.1	0.1258 ug/L	0.1258 ppb	18:51:53
3	Co 228.616†	-53.3	8.0	0.1678 ug/L	0.1678 ppb	18:51:53
3	Cr 267.716†	52.2	-13.2	-0.1455 ug/L	-0.1455 ppb	18:51:53
3	Cu 324.752†	6008.5	-0.2	0.0016 ug/L	0.0016 ppb	18:51:33
3	Mn 257.610†	467.7	36.2	0.0399 ug/L	0.0399 ppb	18:51:53
3	Mo 202.031†	6.1	0.1	0.0088 ug/L	0.0088 ppb	18:51:53
3	Ni 231.604†	48.4	-3.4	-0.0855 ug/L	-0.0855 ppb	18:51:53
3	P 214.914†	206.9	7.3	4.3875 ug/L	4.3875 ppb	18:51:53
3	Pb 220.353†	-15.8	49.1	6.0703 ug/L	6.0703 ppb	18:51:53
3	S 181.975 Axial†	37.0	0.4	0.5876 ug/L	0.5876 ppb	18:51:53
3	Sb 206.836†	33.9	-2.4	-0.8210 ug/L	-0.8210 ppb	18:51:53
3	Se 196.026†	-23.6	-3.2	-2.0495 ug/L	-2.0495 ppb	18:51:53
3	Si 251.611†	614.6	87.5	2.8066 ug/L	2.8066 ppb	18:51:53
3	Sn 189.927†	13.7	3.5	0.6279 ug/L	0.6279 ppb	18:51:53
3	Ti 334.940†	-1390.9	-124.9	-0.1901 ug/L	-0.1901 ppb	18:51:33
3	Tl 190.801†	-30.3	0.6	0.1795 ug/L	0.1795 ppb	18:51:53
3	U 409.014†	-2868.7	-85.1	-2.3004 ug/L	-2.3004 ppb	18:51:33
3	V 292.402†	-1491.1	-77.7	-0.5450 ug/L	-0.5450 ppb	18:51:33
3	Zn 213.857†	565.0	13.7	0.1350 ug/L	0.1350 ppb	18:51:53
3	SiO2†	574.3	29.3	2.0129 ug/L	2.0129 ppb	18:52:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890022.5	98.884	%	0.2837				0.29%
Sc Radial	4060.4	95.5	%	1.22				1.28%
Y 371.029	753687.1	98.852	%	0.3190				0.32%
Y RADIAL	4491.4	95.72	%	1.621				1.69%
Ag 328.068†	-17.3	-0.0694	ug/L	0.12802	-0.0694	ppb	0.12802	184.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.9	-17.107	ug/L	15.8656	-17.107	ppb	15.8656	92.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.9	-1.7544	ug/L	0.09358	-1.7544	ppb	0.09358	5.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-67.3	-1.6094	ug/L	0.50106	-1.6094	ppb	0.50106	31.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.1	0.0869	ug/L	0.05521	0.0869	ppb	0.05521	63.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	13.8	0.0049	ug/L	0.01921	0.0049	ppb	0.01921	394.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.4	14.783	ug/L	8.5611	14.783	ppb	8.5611	57.91%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -1.9     -0.0260 ug/L       0.13223     -0.0260 ppb        0.13223 508.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -7.9     -0.1640 ug/L       0.28896     -0.1640 ppb        0.28896 176.20%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.0      0.0032 ug/L       0.14326      0.0032 ppb        0.14326 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                24.4      0.0768 ug/L       0.07191      0.0768 ppb        0.07191  93.65%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3     29.212 ug/L       10.5253     29.212 ppb        10.5253  36.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         157.2     29.410 ug/L       25.3229     29.410 ppb        25.3229  86.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.7    -124.45 ug/L      166.183    -124.45 ppb       166.183 133.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                54.1      0.0687 ug/L       0.02648      0.0687 ppb        0.02648  38.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.5      0.1873 ug/L       0.23055      0.1873 ppb        0.23055 123.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -56.2    -16.322 ug/L        8.2980    -16.322 ppb         8.2980  50.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.1     -0.0025 ug/L       0.07204     -0.0025 ppb        0.07204 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.7     -1.0749 ug/L       5.18899     -1.0749 ppb        5.18899 482.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                50.0      6.1948 ug/L       0.57040      6.1948 ppb        0.57040   9.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.3     -0.5055 ug/L       1.06653     -0.5055 ppb        1.06653 211.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.3      1.8688 ug/L       2.33390      1.8688 ppb        2.33390 124.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.0     -2.5524 ug/L       1.79151     -2.5524 ppb        1.79151  70.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                67.1      2.1500 ug/L       0.98750      2.1500 ppb        0.98750  45.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.4      0.2515 ug/L       0.35848      0.2515 ppb        0.35848 142.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -15.7     -0.1042 ug/L       0.01285     -0.1042 ppb        0.01285  12.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -85.3     -0.1153 ug/L       0.06586     -0.1153 ppb        0.06586  57.11%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.6      0.5122 ug/L       1.29129      0.5122 ppb        1.29129 252.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -126.3     -3.4168 ug/L       3.02160     -3.4168 ppb        3.02160  88.43%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -61.7     -0.4388 ug/L       0.09593     -0.4388 ppb        0.09593  21.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.9      0.1555 ug/L       0.04072      0.1555 ppb        0.04072  26.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      62.6      4.2929 ug/L       1.97570      4.2929 ppb        1.97570  46.02%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/23/2010 19:55:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4089.7	4089.7	96.1	%			19:57:35
1	Y RADIAL	4464.9	4464.9	95.16	%			19:57:35
1	Al 396.153Radial†	5293.8	5616.7	5061.9	ug/L	5061.9	ppb	19:57:35
1	Ca 317.933Radial†	2545.3	2631.9	5236.3	ug/L	5236.3	ppb	19:57:55
1	Fe 238.204 Radial†	391.3	396.8	5127.8	ug/L	5127.8	ppb	19:57:55
1	K 766.490 Radial†	28830.9	27429.4	5125.2	ug/L	5125.2	ppb	19:57:35
1	Mg 279.077 IEC†	112.2	114.0	5179.3	ug/L	5179.3	ppb	19:57:55
1	Na 589.592 Radial†	32871.4	34928.9	10136	ug/L	10136	ppb	19:57:35
1	Sr 421.552†	72793.3	75673.3	501.51	ug/L	501.51	ppb	19:57:35
1	Sc 361.383	887119.7	887119.7	98.562	%			19:58:52
1	Y 371.029	738907.0	738907.0	96.913	%			19:58:52
1	Ag 328.068†	110727.6	112113.8	518.03	ug/L	518.03	ppb	19:58:57
1	As 188.979†	1112.6	1149.4	522.40	ug/L	522.40	ppb	19:59:18
1	B 249.677†	20297.6	20966.7	498.06	ug/L	498.06	ppb	19:58:57
1	Ba 233.527†	64935.7	65892.3	515.97	ug/L	515.97	ppb	19:58:57
1	Be 313.107†	1318190.4	1341276.5	500.99	ug/L	500.99	ppb	19:58:52
1	Cd 226.502†	44237.3	45066.0	522.99	ug/L	522.99	ppb	19:58:57
1	Co 228.616†	24449.1	24867.8	520.02	ug/L	520.02	ppb	19:58:57
1	Cr 267.716†	45372.4	45968.4	516.59	ug/L	516.59	ppb	19:58:57
1	Cu 324.752†	172144.8	168579.3	506.22	ug/L	506.22	ppb	19:58:57
1	Mn 257.610†	441538.2	447543.6	502.07	ug/L	502.07	ppb	19:58:52
1	Mo 202.031†	6902.2	6996.9	512.51	ug/L	512.51	ppb	19:59:18
1	Ni 231.604†	20227.1	20469.9	519.99	ug/L	519.99	ppb	19:58:57
1	P 214.914†	4406.0	4268.2	2491.4	ug/L	2491.4	ppb	19:59:18
1	Pb 220.353†	4083.8	4208.4	523.02	ug/L	523.02	ppb	19:59:18
1	S 181.975 Axial†	741.5	715.3	1046.9	ug/L	1046.9	ppb	19:59:18
1	Sb 206.836†	1492.2	1477.2	533.52	ug/L	533.52	ppb	19:59:18
1	Se 196.026†	748.4	780.0	531.77	ug/L	531.77	ppb	19:59:18
1	Si 251.611†	79728.9	80358.0	2571.6	ug/L	2571.6	ppb	19:58:57
1	Sn 189.927†	2842.4	2873.4	520.47	ug/L	520.47	ppb	19:59:18
1	Ti 334.940†	323938.6	329946.8	498.90	ug/L	498.90	ppb	19:58:57
1	Tl 190.801†	1546.6	1600.4	516.88	ug/L	516.88	ppb	19:59:18
1	U 409.014†	15463.4	18505.3	498.29	ug/L	498.29	ppb	19:58:57
1	V 292.402†	71076.3	73543.7	517.41	ug/L	517.41	ppb	19:58:57
1	Zn 213.857†	51650.2	51846.1	515.47	ug/L	515.47	ppb	19:58:57
1	SiO2†	77607.3	78188.1	5358.2	ug/L	5358.2	ppb	20:00:25
2	Sc Radial	4010.2	4010.2	94.3	%			19:58:00
2	Y RADIAL	4409.9	4409.9	93.99	%			19:58:00
2	Al 396.153Radial†	5198.9	5625.0	5069.8	ug/L	5069.8	ppb	19:58:00
2	Ca 317.933Radial†	2537.3	2675.8	5323.8	ug/L	5323.8	ppb	19:58:20
2	Fe 238.204 Radial†	393.8	407.5	5264.8	ug/L	5264.8	ppb	19:58:20
2	K 766.490 Radial†	28370.0	27534.5	5144.8	ug/L	5144.8	ppb	19:58:00
2	Mg 279.077 IEC†	114.7	118.9	5401.9	ug/L	5401.9	ppb	19:58:20
2	Na 589.592 Radial†	32200.2	34894.1	10126	ug/L	10126	ppb	19:58:00
2	Sr 421.552†	71627.1	75936.0	503.25	ug/L	503.25	ppb	19:58:00
2	Sc 361.383	899002.7	899002.7	99.882	%			19:59:23
2	Y 371.029	748358.9	748358.9	98.153	%			19:59:23
2	Ag 328.068†	108729.4	108628.3	502.02	ug/L	502.02	ppb	19:59:29
2	As 188.979†	1105.4	1127.2	512.32	ug/L	512.32	ppb	19:59:49
2	B 249.677†	19847.4	20243.7	480.83	ug/L	480.83	ppb	19:59:29
2	Ba 233.527†	63927.3	64011.8	501.25	ug/L	501.25	ppb	19:59:29
2	Be 313.107†	1335072.9	1340501.0	500.67	ug/L	500.67	ppb	19:59:23
2	Cd 226.502†	43575.6	43810.3	508.39	ug/L	508.39	ppb	19:59:29
2	Co 228.616†	24112.6	24203.0	506.13	ug/L	506.13	ppb	19:59:29
2	Cr 267.716†	44716.1	44702.9	502.39	ug/L	502.39	ppb	19:59:29
2	Cu 324.752†	168670.6	162792.4	488.86	ug/L	488.86	ppb	19:59:29
2	Mn 257.610†	446724.8	446814.9	501.26	ug/L	501.26	ppb	19:59:23
2	Mo 202.031†	6909.3	6911.4	506.27	ug/L	506.27	ppb	19:59:49
2	Ni 231.604†	19984.3	19955.6	506.92	ug/L	506.92	ppb	19:59:29

2	P 214.914†	4390.0	4193.1	2449.1 ug/L	2449.1 ppb	19:59:49
2	Pb 220.353†	4103.6	4173.5	518.67 ug/L	518.67 ppb	19:59:49
2	S 181.975 Axial†	737.3	701.1	1026.1 ug/L	1026.1 ppb	19:59:49
2	Sb 206.836†	1489.5	1454.5	525.39 ug/L	525.39 ppb	19:59:49
2	Se 196.026†	740.9	762.5	520.59 ug/L	520.59 ppb	19:59:49
2	Si 251.611†	78306.1	77864.3	2491.7 ug/L	2491.7 ppb	19:59:29
2	Sn 189.927†	2847.3	2840.2	514.47 ug/L	514.47 ppb	19:59:49
2	Ti 334.940†	318402.8	320060.2	483.95 ug/L	483.95 ppb	19:59:29
2	Tl 190.801†	1541.5	1574.5	508.55 ug/L	508.55 ppb	19:59:49
2	U 409.014†	14952.5	17786.4	478.88 ug/L	478.88 ppb	19:59:29
2	V 292.402†	69928.0	71440.9	502.70 ug/L	502.70 ppb	19:59:29
2	Zn 213.857†	50786.0	50288.2	499.92 ug/L	499.92 ppb	19:59:29
2	SiO2†	79343.6	78885.7	5406.3 ug/L	5406.3 ppb	20:00:30
3	Sc Radial	4054.7	4054.7	95.3 %		19:58:25
3	Y RADIAL	4421.6	4421.6	94.24 %		19:58:25
3	Al 396.153Radial†	5296.3	5666.9	5107.9 ug/L	5107.9 ppb	19:58:25
3	Ca 317.933Radial†	2522.8	2631.1	5234.8 ug/L	5234.8 ppb	19:58:45
3	Fe 238.204 Radial†	390.9	399.8	5166.4 ug/L	5166.4 ppb	19:58:45
3	K 766.490 Radial†	28846.6	27704.9	5176.7 ug/L	5176.7 ppb	19:58:25
3	Mg 279.077 IEC†	115.4	118.3	5377.0 ug/L	5377.0 ppb	19:58:45
3	Na 589.592 Radial†	32850.9	35202.6	10216 ug/L	10216 ppb	19:58:25
3	Sr 421.552†	73176.8	76729.5	508.51 ug/L	508.51 ppb	19:58:25
3	Sc 361.383	907783.5	907783.5	100.86 %		19:59:54
3	Y 371.029	755254.2	755254.2	99.057 %		19:59:54
3	Ag 328.068†	109419.7	108259.8	500.29 ug/L	500.29 ppb	20:00:00
3	As 188.979†	1109.6	1120.7	509.34 ug/L	509.34 ppb	20:00:20
3	B 249.677†	20120.2	20322.0	482.72 ug/L	482.72 ppb	20:00:00
3	Ba 233.527†	64214.0	63677.0	498.63 ug/L	498.63 ppb	20:00:00
3	Be 313.107†	1346634.3	1339035.0	500.12 ug/L	500.12 ppb	19:59:54
3	Cd 226.502†	43823.8	43634.4	506.35 ug/L	506.35 ppb	20:00:00
3	Co 228.616†	24145.6	24002.1	501.93 ug/L	501.93 ppb	20:00:00
3	Cr 267.716†	44930.1	44482.1	499.90 ug/L	499.90 ppb	20:00:00
3	Cu 324.752†	169850.0	162328.4	487.46 ug/L	487.46 ppb	20:00:00
3	Mn 257.610†	450104.4	445839.6	500.16 ug/L	500.16 ppb	19:59:54
3	Mo 202.031†	6903.8	6839.0	500.96 ug/L	500.96 ppb	20:00:20
3	Ni 231.604†	20057.0	19834.1	503.84 ug/L	503.84 ppb	20:00:00
3	P 214.914†	4389.7	4150.3	2423.5 ug/L	2423.5 ppb	20:00:20
3	Pb 220.353†	4077.2	4107.6	510.51 ug/L	510.51 ppb	20:00:20
3	S 181.975 Axial†	735.0	691.7	1012.4 ug/L	1012.4 ppb	20:00:20
3	Sb 206.836†	1488.0	1438.6	519.67 ug/L	519.67 ppb	20:00:20
3	Se 196.026†	740.3	754.7	515.18 ug/L	515.18 ppb	20:00:20
3	Si 251.611†	78653.6	77450.6	2478.4 ug/L	2478.4 ppb	20:00:00
3	Sn 189.927†	2852.0	2817.3	510.31 ug/L	510.31 ppb	20:00:20
3	Ti 334.940†	319864.7	318426.2	481.47 ug/L	481.47 ppb	20:00:00
3	Tl 190.801†	1552.5	1570.5	507.24 ug/L	507.24 ppb	20:00:20
3	U 409.014†	15005.3	17694.0	476.40 ug/L	476.40 ppb	20:00:00
3	V 292.402†	70248.0	71081.0	500.13 ug/L	500.13 ppb	20:00:00
3	Zn 213.857†	51065.6	50073.6	497.81 ug/L	497.81 ppb	20:00:00
3	SiO2†	78385.4	77167.2	5288.4 ug/L	5288.4 ppb	20:00:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897968.6	99.767	%	1.1522				1.15%
Sc Radial	4051.5	95.3	%	0.94				0.98%
Y 371.029	747506.7	98.041	%	1.0764				1.10%
Y RADIAL	4432.2	94.46	%	0.617				0.65%
Ag 328.068†	109667.3	506.78	ug/L	9.780	506.78	ppb	9.780	1.93%
QC value within limits for Ag 328.068 Recovery = 101.36%								
Al 396.153Radial†	5636.2	5079.9	ug/L	24.62	5079.9	ppb	24.62	0.48%
QC value within limits for Al 396.153Radial Recovery = 101.60%								
As 188.979†	1132.4	514.69	ug/L	6.842	514.69	ppb	6.842	1.33%
QC value within limits for As 188.979 Recovery = 102.94%								
B 249.677†	20510.8	487.20	ug/L	9.452	487.20	ppb	9.452	1.94%
QC value within limits for B 249.677 Recovery = 97.44%								
Ba 233.527†	64527.0	505.28	ug/L	9.346	505.28	ppb	9.346	1.85%
QC value within limits for Ba 233.527 Recovery = 101.06%								
Be 313.107†	1340270.9	500.59	ug/L	0.442	500.59	ppb	0.442	0.09%
QC value within limits for Be 313.107 Recovery = 100.12%								
Ca 317.933Radial†	2646.2	5265.0	ug/L	50.94	5265.0	ppb	50.94	0.97%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.30%
Cd 226.502†          44170.3      512.58 ug/L        9.075      512.58 ppb        9.075   1.77%
   QC value within limits for Cd 226.502  Recovery = 102.52%
Co 228.616†          24357.6      509.36 ug/L        9.467      509.36 ppb        9.467   1.86%
   QC value within limits for Co 228.616  Recovery = 101.87%
Cr 267.716†          45051.1      506.29 ug/L        9.000      506.29 ppb        9.000   1.78%
   QC value within limits for Cr 267.716  Recovery = 101.26%
Cu 324.752†         164566.7      494.18 ug/L       10.449      494.18 ppb       10.449   2.11%
   QC value within limits for Cu 324.752  Recovery = 98.84%
Fe 238.204 Radial†     401.4      5186.3 ug/L       70.63      5186.3 ppb        70.63   1.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.73%
K 766.490 Radial†    27556.2      5148.9 ug/L       26.00      5148.9 ppb        26.00   0.51%
   QC value within limits for K 766.490 Radial  Recovery = 102.98%
Mg 279.077 IEC†        117.0      5319.4 ug/L      121.98      5319.4 ppb       121.98   2.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.39%
Mn 257.610†         446732.7      501.16 ug/L        0.961      501.16 ppb        0.961   0.19%
   QC value within limits for Mn 257.610  Recovery = 100.23%
Mo 202.031†          6915.8      506.58 ug/L        5.781      506.58 ppb        5.781   1.14%
   QC value within limits for Mo 202.031  Recovery = 101.32%
Na 589.592 Radial†   35008.6       10160 ug/L         49.0       10160 ppb         49.0   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 101.60%
Ni 231.604†          20086.5      510.25 ug/L        8.574      510.25 ppb        8.574   1.68%
   QC value within limits for Ni 231.604  Recovery = 102.05%
P 214.914†            4203.9      2454.7 ug/L       34.31      2454.7 ppb        34.31   1.40%
   QC value within limits for P 214.914  Recovery = 98.19%
Pb 220.353†           4163.2      517.40 ug/L        6.349      517.40 ppb        6.349   1.23%
   QC value within limits for Pb 220.353  Recovery = 103.48%
S 181.975 Axial†       702.7      1028.5 ug/L       17.41      1028.5 ppb        17.41   1.69%
   QC value within limits for S 181.975 Axial  Recovery = 102.85%
Sb 206.836†           1456.8      526.19 ug/L        6.961      526.19 ppb        6.961   1.32%
   QC value within limits for Sb 206.836  Recovery = 105.24%
Se 196.026†            765.7      522.51 ug/L        8.461      522.51 ppb        8.461   1.62%
   QC value within limits for Se 196.026  Recovery = 104.50%
Si 251.611†          78557.6      2513.9 ug/L       50.39      2513.9 ppb        50.39   2.00%
   QC value within limits for Si 251.611  Recovery = 100.56%
Sn 189.927†           2843.6      515.08 ug/L        5.106      515.08 ppb        5.106   0.99%
   QC value within limits for Sn 189.927  Recovery = 103.02%
Sr 421.552†          76112.9      504.43 ug/L        3.645      504.43 ppb        3.645   0.72%
   QC value within limits for Sr 421.552  Recovery = 100.89%
Ti 334.940†         322811.1      488.11 ug/L        9.426      488.11 ppb        9.426   1.93%
   QC value within limits for Ti 334.940  Recovery = 97.62%
Tl 190.801†           1581.8      510.89 ug/L        5.230      510.89 ppb        5.230   1.02%
   QC value within limits for Tl 190.801  Recovery = 102.18%
U 409.014†           17995.2      484.52 ug/L       11.986      484.52 ppb       11.986   2.47%
   QC value within limits for U 409.014  Recovery = 96.90%
V 292.402†           72021.9      506.75 ug/L        9.326      506.75 ppb        9.326   1.84%
   QC value within limits for V 292.402  Recovery = 101.35%
Zn 213.857†          50736.0      504.40 ug/L        9.645      504.40 ppb        9.645   1.91%
   QC value within limits for Zn 213.857  Recovery = 100.88%
SiO2†                78080.4      5351.0 ug/L       59.30      5351.0 ppb        59.30   1.11%
   QC value within limits for SiO2  Recovery = 100.07%
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/23/2010 20:02:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3933.6	3933.6	92.5	%			20:04:57
1	Y RADIAL	4486.8	4486.8	95.62	%			20:04:37
1	Al 396.153Radial†	-144.9	-45.9	-41.655	ug/L	-41.655	ppb	20:04:37
1	Ca 317.933Radial†	14.6	0.3	0.5996	ug/L	0.5996	ppb	20:04:57
1	Fe 238.204 Radial†	13.1	4.0	51.465	ug/L	51.465	ppb	20:04:57
1	K 766.490 Radial†	2712.9	376.7	70.486	ug/L	70.486	ppb	20:04:37
1	Mg 279.077 IEC†	1.9	-0.7	-32.088	ug/L	-32.088	ppb	20:04:57
1	Na 589.592 Radial†	-726.9	-45.6	-13.243	ug/L	-13.243	ppb	20:04:37
1	Sr 421.552†	-0.2	-37.0	-0.2451	ug/L	-0.2451	ppb	20:04:37
1	Sc 361.383	916157.8	916157.8	101.79	%			20:05:54
1	Y 371.029	773781.7	773781.7	101.49	%			20:05:54
1	Ag 328.068†	240.9	7.4	0.0489	ug/L	0.0489	ppb	20:05:59
1	As 188.979†	-24.3	-3.4	-1.5144	ug/L	-1.5144	ppb	20:06:19
1	B 249.677†	-465.3	-84.2	-2.0154	ug/L	-2.0154	ppb	20:06:19
1	Ba 233.527†	-3.1	6.1	0.0484	ug/L	0.0484	ppb	20:06:19
1	Be 313.107†	-3889.6	32.0	0.0116	ug/L	0.0116	ppb	20:05:59
1	Cd 226.502†	-191.8	-5.2	-0.0652	ug/L	-0.0652	ppb	20:06:19
1	Co 228.616†	-87.6	-24.1	-0.5023	ug/L	-0.5023	ppb	20:06:19
1	Cr 267.716†	70.6	3.4	0.0423	ug/L	0.0423	ppb	20:06:19
1	Cu 324.752†	6184.2	-1.6	-0.0014	ug/L	-0.0014	ppb	20:05:59
1	Mn 257.610†	489.9	44.5	0.0562	ug/L	0.0562	ppb	20:06:19
1	Mo 202.031†	18.4	12.0	0.8837	ug/L	0.8837	ppb	20:06:19
1	Ni 231.604†	64.4	10.9	0.2776	ug/L	0.2776	ppb	20:06:19
1	P 214.914†	220.2	14.3	8.6383	ug/L	8.6383	ppb	20:06:19
1	Pb 220.353†	-36.0	29.6	3.6588	ug/L	3.6588	ppb	20:06:19
1	S 181.975 Axial†	33.8	-3.8	-5.5895	ug/L	-5.5895	ppb	20:06:19
1	Sb 206.836†	44.2	6.8	2.3621	ug/L	2.3621	ppb	20:06:19
1	Se 196.026†	-22.1	-1.0	-0.5120	ug/L	-0.5120	ppb	20:06:19
1	Si 251.611†	606.0	61.2	1.9513	ug/L	1.9513	ppb	20:06:19
1	Sn 189.927†	7.2	-3.3	-0.6035	ug/L	-0.6035	ppb	20:06:19
1	Ti 334.940†	-1409.0	-102.5	-0.1518	ug/L	-0.1518	ppb	20:05:59
1	Tl 190.801†	-37.3	-5.4	-1.7385	ug/L	-1.7385	ppb	20:06:19
1	U 409.014†	-2912.8	-45.4	-1.2322	ug/L	-1.2322	ppb	20:05:54
1	V 292.402†	-1525.0	-67.7	-0.4682	ug/L	-0.4682	ppb	20:05:59
1	Zn 213.857†	563.8	-3.8	-0.0476	ug/L	-0.0476	ppb	20:06:19
1	SiO2†	639.5	76.8	5.2535	ug/L	5.2535	ppb	20:07:25
2	Sc Radial	3937.4	3937.4	92.6	%			20:05:22
2	Y RADIAL	4423.5	4423.5	94.28	%			20:05:02
2	Al 396.153Radial†	-128.3	-27.9	-25.243	ug/L	-25.243	ppb	20:05:02
2	Ca 317.933Radial†	15.4	1.1	2.2634	ug/L	2.2634	ppb	20:05:22
2	Fe 238.204 Radial†	11.1	1.8	22.922	ug/L	22.922	ppb	20:05:22
2	K 766.490 Radial†	2754.1	418.5	78.298	ug/L	78.298	ppb	20:05:02
2	Mg 279.077 IEC†	4.3	1.9	85.876	ug/L	85.876	ppb	20:05:22
2	Na 589.592 Radial†	-755.5	-75.8	-22.010	ug/L	-22.010	ppb	20:05:02
2	Sr 421.552†	34.2	0.2	0.0014	ug/L	0.0014	ppb	20:05:02
2	Sc 361.383	899766.5	899766.5	99.967	%			20:06:24
2	Y 371.029	759001.3	759001.3	99.549	%			20:06:24
2	Ag 328.068†	157.5	-71.8	-0.3182	ug/L	-0.3182	ppb	20:06:29
2	As 188.979†	-16.2	4.3	1.9372	ug/L	1.9372	ppb	20:06:49
2	B 249.677†	-468.4	-95.6	-2.2861	ug/L	-2.2861	ppb	20:06:49
2	Ba 233.527†	2.8	11.9	0.0941	ug/L	0.0941	ppb	20:06:49
2	Be 313.107†	-3880.8	-28.8	-0.0112	ug/L	-0.0112	ppb	20:06:29
2	Cd 226.502†	-190.0	-6.8	-0.0818	ug/L	-0.0818	ppb	20:06:49
2	Co 228.616†	-62.3	-0.4	-0.0074	ug/L	-0.0074	ppb	20:06:49
2	Cr 267.716†	63.7	-2.2	-0.0210	ug/L	-0.0210	ppb	20:06:49
2	Cu 324.752†	6119.1	44.0	0.1359	ug/L	0.1359	ppb	20:06:29
2	Mn 257.610†	490.2	53.5	0.0587	ug/L	0.0587	ppb	20:06:49
2	Mo 202.031†	6.4	0.3	0.0251	ug/L	0.0251	ppb	20:06:49
2	Ni 231.604†	65.2	12.9	0.3279	ug/L	0.3279	ppb	20:06:49

2	P 214.914†	200.9	-1.1	-0.7034 ug/L	-0.7034 ppb	20:06:49
2	Pb 220.353†	-38.2	26.8	3.3132 ug/L	3.3132 ppb	20:06:49
2	S 181.975 Axial†	38.8	1.8	2.6424 ug/L	2.6424 ppb	20:06:49
2	Sb 206.836†	38.4	1.7	0.6033 ug/L	0.6033 ppb	20:06:49
2	Se 196.026†	-28.6	-7.9	-5.1441 ug/L	-5.1441 ppb	20:06:49
2	Si 251.611†	616.6	82.7	2.6513 ug/L	2.6513 ppb	20:06:49
2	Sn 189.927†	9.4	-1.0	-0.1820 ug/L	-0.1820 ppb	20:06:49
2	Ti 334.940†	-1420.9	-139.6	-0.2158 ug/L	-0.2158 ppb	20:06:29
2	Tl 190.801†	-34.9	-3.7	-1.1912 ug/L	-1.1912 ppb	20:06:49
2	U 409.014†	-2983.1	-167.8	-4.5367 ug/L	-4.5367 ppb	20:06:24
2	V 292.402†	-1407.5	22.5	0.1466 ug/L	0.1466 ppb	20:06:29
2	Zn 213.857†	576.2	18.7	0.1815 ug/L	0.1815 ppb	20:06:49
2	SiO2†	593.6	42.3	2.9032 ug/L	2.9032 ppb	20:07:30
3	Sc Radial	3954.2	3954.2	93.0 %		20:05:47
3	Y RADIAL	4413.6	4413.6	94.06 %		20:05:27
3	Al 396.153Radial†	-117.2	-15.3	-13.861 ug/L	-13.861 ppb	20:05:27
3	Ca 317.933Radial†	19.7	5.7	11.291 ug/L	11.291 ppb	20:05:47
3	Fe 238.204 Radial†	9.1	-0.4	-5.6494 ug/L	-5.6494 ppb	20:05:47
3	K 766.490 Radial†	2623.6	265.5	49.679 ug/L	49.679 ppb	20:05:27
3	Mg 279.077 IEC†	-2.0	-4.9	-221.97 ug/L	-221.97 ppb	20:05:47
3	Na 589.592 Radial†	-821.3	-143.1	-41.527 ug/L	-41.527 ppb	20:05:27
3	Sr 421.552†	18.9	-16.5	-0.1095 ug/L	-0.1095 ppb	20:05:27
3	Sc 361.383	906085.7	906085.7	100.67 %		20:06:54
3	Y 371.029	765417.0	765417.0	100.39 %		20:06:54
3	Ag 328.068†	303.9	72.6	0.3319 ug/L	0.3319 ppb	20:06:59
3	As 188.979†	-15.1	5.5	2.4776 ug/L	2.4776 ppb	20:07:19
3	B 249.677†	-450.7	-74.7	-1.7829 ug/L	-1.7829 ppb	20:07:19
3	Ba 233.527†	2.2	11.4	0.0883 ug/L	0.0883 ppb	20:07:19
3	Be 313.107†	-3932.1	-52.7	-0.0199 ug/L	-0.0199 ppb	20:06:59
3	Cd 226.502†	-187.6	-3.1	-0.0351 ug/L	-0.0351 ppb	20:07:19
3	Co 228.616†	-52.8	9.5	0.1996 ug/L	0.1996 ppb	20:07:19
3	Cr 267.716†	64.0	-2.4	-0.0272 ug/L	-0.0272 ppb	20:07:19
3	Cu 324.752†	6217.5	99.1	0.2980 ug/L	0.2980 ppb	20:06:59
3	Mn 257.610†	457.9	18.0	0.0287 ug/L	0.0287 ppb	20:07:19
3	Mo 202.031†	10.2	4.1	0.2962 ug/L	0.2962 ppb	20:07:19
3	Ni 231.604†	57.8	5.1	0.1295 ug/L	0.1295 ppb	20:07:19
3	P 214.914†	210.5	7.0	4.2130 ug/L	4.2130 ppb	20:07:19
3	Pb 220.353†	-36.9	28.4	3.5148 ug/L	3.5148 ppb	20:07:19
3	S 181.975 Axial†	40.2	2.9	4.1922 ug/L	4.1922 ppb	20:07:19
3	Sb 206.836†	42.3	5.4	1.8740 ug/L	1.8740 ppb	20:07:19
3	Se 196.026†	-22.7	-1.9	-1.2521 ug/L	-1.2521 ppb	20:07:19
3	Si 251.611†	618.8	80.5	2.5802 ug/L	2.5802 ppb	20:07:19
3	Sn 189.927†	10.6	0.1	0.0268 ug/L	0.0268 ppb	20:07:19
3	Ti 334.940†	-1365.8	-74.9	-0.0931 ug/L	-0.0931 ppb	20:06:59
3	Tl 190.801†	-29.0	2.4	0.7747 ug/L	0.7747 ppb	20:07:19
3	U 409.014†	-2887.3	-51.8	-1.3998 ug/L	-1.3998 ppb	20:06:54
3	V 292.402†	-1463.0	-22.8	-0.1602 ug/L	-0.1602 ppb	20:06:59
3	Zn 213.857†	577.2	15.7	0.1572 ug/L	0.1572 ppb	20:07:19
3	SiO2†	642.6	86.9	5.9599 ug/L	5.9599 ppb	20:07:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907336.7	100.81	%	0.918				0.91%
Sc Radial	3941.7	92.7	%	0.26				0.28%
Y 371.029	766066.6	100.48	%	0.972				0.97%
Y RADIAL	4441.3	94.65	%	0.846				0.89%
Ag 328.068†	2.7	0.0209	ug/L	0.32597	0.0209	ppb	0.32597	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-29.7	-26.920	ug/L	13.9727	-26.920	ppb	13.9727	51.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	0.9668	ug/L	2.16566	0.9668	ppb	2.16566	224.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-84.8	-2.0281	ug/L	0.25185	-2.0281	ppb	0.25185	12.42%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.8	0.0769	ug/L	0.02485	0.0769	ppb	0.02485	32.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-16.5	-0.0065	ug/L	0.01626	-0.0065	ppb	0.01626	249.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	4.7180	ug/L	5.75289	4.7180	ppb	5.75289	121.93%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -5.0     -0.0607 ug/L       0.02369     -0.0607 ppb        0.02369  39.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -5.0     -0.1034 ug/L       0.36069     -0.1034 ppb        0.36069 348.95%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.4     -0.0020 ug/L       0.03847     -0.0020 ppb        0.03847 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              47.2      0.1442 ug/L       0.14991      0.1442 ppb        0.14991 103.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      22.913 ug/L       28.5574      22.913 ppb        28.5574 124.64%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       353.6      66.154 ug/L       14.7926      66.154 ppb        14.7926  22.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -56.062 ug/L      155.3189     -56.062 ppb       155.3189 277.05%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              38.7      0.0479 ug/L       0.01665      0.0479 ppb        0.01665  34.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.5      0.4017 ug/L       0.43893      0.4017 ppb        0.43893 109.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -88.2     -25.594 ug/L       14.4787     -25.594 ppb        14.4787  56.57%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.6      0.2450 ug/L       0.10315      0.2450 ppb        0.10315  42.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                6.8      4.0493 ug/L       4.67303      4.0493 ppb        4.67303 115.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              28.3      3.4956 ug/L       0.17359      3.4956 ppb        0.17359   4.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.3      0.4150 ug/L       5.25751      0.4150 ppb        5.25751 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.6      1.6131 ug/L       0.90795      1.6131 ppb        0.90795  56.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.6     -2.3027 ug/L       2.48836     -2.3027 ppb        2.48836 108.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              74.8      2.3943 ug/L       0.38528      2.3943 ppb        0.38528  16.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.4     -0.2529 ug/L       0.32108     -0.2529 ppb        0.32108 126.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -17.8     -0.1177 ug/L       0.12346     -0.1177 ppb        0.12346 104.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -105.7     -0.1536 ug/L       0.06140     -0.1536 ppb        0.06140  39.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.2     -0.7183 ug/L       1.32163     -0.7183 ppb        1.32163 183.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -88.3     -2.3896 ug/L       1.86139     -2.3896 ppb        1.86139  77.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -22.7     -0.1606 ug/L       0.30735     -0.1606 ppb        0.30735 191.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.2      0.0971 ug/L       0.12582      0.0971 ppb        0.12582 129.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    68.6      4.7056 ug/L       1.60032      4.7056 ppb        1.60032  34.01%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/23/2010 21:12:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4104.2	4104.2	96.5	%			21:14:32
1	Y RADIAL	4529.0	4529.0	96.53	%			21:14:32
1	Al 396.153Radial†	5440.5	5749.3	5181.8	ug/L	5181.8	ppb	21:14:32
1	Ca 317.933Radial†	2546.7	2623.9	5220.6	ug/L	5220.6	ppb	21:14:52
1	Fe 238.204 Radial†	376.7	380.2	4913.9	ug/L	4913.9	ppb	21:14:52
1	K 766.490 Radial†	29643.3	28165.2	5262.7	ug/L	5262.7	ppb	21:14:32
1	Mg 279.077 IEC†	115.6	117.0	5318.7	ug/L	5318.7	ppb	21:14:52
1	Na 589.592 Radial†	33775.5	35744.8	10373	ug/L	10373	ppb	21:14:32
1	Sr 421.552†	74441.8	77113.6	511.06	ug/L	511.06	ppb	21:14:32
1	Sc 361.383	894540.6	894540.6	99.386	%			21:15:50
1	Y 371.029	742791.9	742791.9	97.423	%			21:15:50
1	Ag 328.068†	109112.5	109556.8	506.19	ug/L	506.19	ppb	21:15:55
1	As 188.979†	1120.1	1147.5	521.51	ug/L	521.51	ppb	21:16:15
1	B 249.677†	19899.1	20394.9	484.47	ug/L	484.47	ppb	21:15:55
1	Ba 233.527†	64703.0	65111.6	509.84	ug/L	509.84	ppb	21:15:55
1	Be 313.107†	1332006.0	1344082.6	502.04	ug/L	502.04	ppb	21:15:50
1	Cd 226.502†	43973.5	44428.3	515.60	ug/L	515.60	ppb	21:15:55
1	Co 228.616†	24284.8	24496.6	512.27	ug/L	512.27	ppb	21:15:55
1	Cr 267.716†	44987.1	45198.8	507.93	ug/L	507.93	ppb	21:15:55
1	Cu 324.752†	169044.2	164010.7	492.50	ug/L	492.50	ppb	21:15:55
1	Mn 257.610†	447279.7	449604.2	504.36	ug/L	504.36	ppb	21:15:50
1	Mo 202.031†	6996.8	7033.9	515.20	ug/L	515.20	ppb	21:16:15
1	Ni 231.604†	20104.6	20176.4	512.53	ug/L	512.53	ppb	21:15:55
1	P 214.914†	4470.1	4295.6	2511.0	ug/L	2511.0	ppb	21:16:15
1	Pb 220.353†	4146.5	4237.1	526.63	ug/L	526.63	ppb	21:16:15
1	S 181.975 Axial†	756.4	724.1	1059.7	ug/L	1059.7	ppb	21:16:15
1	Sb 206.836†	1502.8	1475.4	532.98	ug/L	532.98	ppb	21:16:15
1	Se 196.026†	763.2	788.6	536.77	ug/L	536.77	ppb	21:16:15
1	Si 251.611†	78712.3	78664.1	2517.2	ug/L	2517.2	ppb	21:15:55
1	Sn 189.927†	2894.4	2901.9	525.62	ug/L	525.62	ppb	21:16:15
1	Ti 334.940†	326805.8	330105.2	499.13	ug/L	499.13	ppb	21:15:50
1	Tl 190.801†	1566.7	1607.6	519.26	ug/L	519.26	ppb	21:16:15
1	U 409.014†	14809.8	17717.5	477.05	ug/L	477.05	ppb	21:15:55
1	V 292.402†	70143.2	72006.7	506.78	ug/L	506.78	ppb	21:15:55
1	Zn 213.857†	51199.3	50957.6	506.65	ug/L	506.65	ppb	21:15:55
1	SiO2†	78547.5	78480.9	5378.3	ug/L	5378.3	ppb	21:17:23
2	Sc Radial	4113.8	4113.8	96.7	%			21:14:57
2	Y RADIAL	4481.0	4481.0	95.50	%			21:14:57
2	Al 396.153Radial†	5405.5	5699.8	5137.2	ug/L	5137.2	ppb	21:14:57
2	Ca 317.933Radial†	2572.0	2643.9	5260.2	ug/L	5260.2	ppb	21:15:17
2	Fe 238.204 Radial†	388.1	391.1	5053.9	ug/L	5053.9	ppb	21:15:17
2	K 766.490 Radial†	29500.9	27946.0	5221.8	ug/L	5221.8	ppb	21:14:57
2	Mg 279.077 IEC†	118.4	119.7	5440.8	ug/L	5440.8	ppb	21:15:17
2	Na 589.592 Radial†	33389.5	35263.7	10234	ug/L	10234	ppb	21:14:57
2	Sr 421.552†	73604.7	76067.5	504.13	ug/L	504.13	ppb	21:14:57
2	Sc 361.383	899290.6	899290.6	99.914	%			21:16:21
2	Y 371.029	747105.5	747105.5	97.988	%			21:16:21
2	Ag 328.068†	110572.6	110438.3	510.29	ug/L	510.29	ppb	21:16:26
2	As 188.979†	1134.3	1155.8	525.26	ug/L	525.26	ppb	21:16:46
2	B 249.677†	20299.4	20689.8	491.48	ug/L	491.48	ppb	21:16:26
2	Ba 233.527†	65208.7	65273.9	511.12	ug/L	511.12	ppb	21:16:26
2	Be 313.107†	1341517.0	1346522.8	502.95	ug/L	502.95	ppb	21:16:21
2	Cd 226.502†	44465.2	44686.7	518.59	ug/L	518.59	ppb	21:16:26
2	Co 228.616†	24505.8	24588.8	514.18	ug/L	514.18	ppb	21:16:26
2	Cr 267.716†	45554.1	45527.2	511.63	ug/L	511.63	ppb	21:16:26
2	Cu 324.752†	171749.1	165819.5	497.94	ug/L	497.94	ppb	21:16:26
2	Mn 257.610†	449791.8	449741.4	504.52	ug/L	504.52	ppb	21:16:21
2	Mo 202.031†	6983.7	6983.7	511.54	ug/L	511.54	ppb	21:16:46
2	Ni 231.604†	20313.5	20278.6	515.13	ug/L	515.13	ppb	21:16:26

2	P 214.914†	4482.4	4284.2	2502.8 ug/L	2502.8 ppb	21:16:46
2	Pb 220.353†	4145.3	4213.9	523.72 ug/L	523.72 ppb	21:16:46
2	S 181.975 Axial†	756.1	719.7	1053.3 ug/L	1053.3 ppb	21:16:46
2	Sb 206.836†	1512.5	1477.1	533.43 ug/L	533.43 ppb	21:16:46
2	Se 196.026†	754.1	775.4	528.51 ug/L	528.51 ppb	21:16:46
2	Si 251.611†	79759.9	79294.3	2537.5 ug/L	2537.5 ppb	21:16:26
2	Sn 189.927†	2884.2	2876.3	520.99 ug/L	520.99 ppb	21:16:46
2	Ti 334.940†	328571.5	330135.6	499.17 ug/L	499.17 ppb	21:16:21
2	Tl 190.801†	1559.0	1591.5	514.10 ug/L	514.10 ppb	21:16:46
2	U 409.014†	15070.7	17899.9	481.95 ug/L	481.95 ppb	21:16:26
2	V 292.402†	71026.2	72517.6	510.26 ug/L	510.26 ppb	21:16:26
2	Zn 213.857†	51728.8	51215.5	509.20 ug/L	509.20 ppb	21:16:26
2	SiO2†	79084.3	78600.7	5386.6 ug/L	5386.6 ppb	21:17:28
3	Sc Radial	4069.3	4069.3	95.7 %		21:15:22
3	Y RADIAL	4512.8	4512.8	96.18 %		21:15:22
3	Al 396.153Radial†	5359.4	5712.9	5149.3 ug/L	5149.3 ppb	21:15:22
3	Ca 317.933Radial†	2536.1	2635.5	5243.6 ug/L	5243.6 ppb	21:15:42
3	Fe 238.204 Radial†	378.5	385.4	4980.6 ug/L	4980.6 ppb	21:15:42
3	K 766.490 Radial†	29457.6	28234.7	5275.8 ug/L	5275.8 ppb	21:15:22
3	Mg 279.077 IEC†	112.8	115.2	5236.1 ug/L	5236.1 ppb	21:15:42
3	Na 589.592 Radial†	33477.2	35733.5	10370 ug/L	10370 ppb	21:15:22
3	Sr 421.552†	73505.7	76797.5	508.96 ug/L	508.96 ppb	21:15:22
3	Sc 361.383	905610.0	905610.0	100.62 %		21:16:52
3	Y 371.029	751059.0	751059.0	98.507 %		21:16:52
3	Ag 328.068†	109011.5	108114.4	499.57 ug/L	499.57 ppb	21:16:57
3	As 188.979†	1113.0	1126.7	512.19 ug/L	512.19 ppb	21:17:18
3	B 249.677†	19952.3	20203.0	479.90 ug/L	479.90 ppb	21:16:57
3	Ba 233.527†	64593.3	64206.8	502.76 ug/L	502.76 ppb	21:16:57
3	Be 313.107†	1349324.8	1344913.6	502.35 ug/L	502.35 ppb	21:16:52
3	Cd 226.502†	44108.5	44021.7	510.87 ug/L	510.87 ppb	21:16:57
3	Co 228.616†	24380.2	24292.8	507.98 ug/L	507.98 ppb	21:16:57
3	Cr 267.716†	45097.4	44755.2	502.95 ug/L	502.95 ppb	21:16:57
3	Cu 324.752†	168887.3	161775.7	485.80 ug/L	485.80 ppb	21:16:57
3	Mn 257.610†	453289.6	450076.4	504.90 ug/L	504.90 ppb	21:16:52
3	Mo 202.031†	6962.8	6914.1	506.44 ug/L	506.44 ppb	21:17:18
3	Ni 231.604†	20183.5	20007.5	508.24 ug/L	508.24 ppb	21:16:57
3	P 214.914†	4457.0	4227.7	2470.9 ug/L	2470.9 ppb	21:17:18
3	Pb 220.353†	4111.0	4150.9	515.91 ug/L	515.91 ppb	21:17:18
3	S 181.975 Axial†	756.4	714.7	1046.0 ug/L	1046.0 ppb	21:17:18
3	Sb 206.836†	1495.8	1450.0	523.76 ug/L	523.76 ppb	21:17:18
3	Se 196.026†	749.4	765.5	521.74 ug/L	521.74 ppb	21:17:18
3	Si 251.611†	78821.3	77804.4	2489.7 ug/L	2489.7 ppb	21:16:57
3	Sn 189.927†	2871.6	2843.6	515.09 ug/L	515.09 ppb	21:17:18
3	Ti 334.940†	331326.2	330578.6	499.86 ug/L	499.86 ppb	21:16:52
3	Tl 190.801†	1557.2	1578.9	510.08 ug/L	510.08 ppb	21:17:18
3	U 409.014†	14766.4	17492.2	470.96 ug/L	470.96 ppb	21:16:57
3	V 292.402†	70197.2	71197.7	501.02 ug/L	501.02 ppb	21:16:57
3	Zn 213.857†	51256.8	50385.1	500.93 ug/L	500.93 ppb	21:16:57
3	SiO2†	78460.8	77428.8	5306.2 ug/L	5306.2 ppb	21:17:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899813.7	99.972	%	0.6170				0.62%
Sc Radial	4095.8	96.3	%	0.55				0.57%
Y 371.029	746985.5	97.973	%	0.5423				0.55%
Y RADIAL	4507.6	96.07	%	0.520				0.54%
Ag 328.068†	109369.9	505.35	ug/L	5.410	505.35	ppb	5.410	1.07%
QC value within limits for Ag 328.068 Recovery = 101.07%								
Al 396.153Radial†	5720.7	5156.1	ug/L	23.06	5156.1	ppb	23.06	0.45%
QC value within limits for Al 396.153Radial Recovery = 103.12%								
As 188.979†	1143.3	519.65	ug/L	6.733	519.65	ppb	6.733	1.30%
QC value within limits for As 188.979 Recovery = 103.93%								
B 249.677†	20429.3	485.28	ug/L	5.836	485.28	ppb	5.836	1.20%
QC value within limits for B 249.677 Recovery = 97.06%								
Ba 233.527†	64864.1	507.91	ug/L	4.501	507.91	ppb	4.501	0.89%
QC value within limits for Ba 233.527 Recovery = 101.58%								
Be 313.107†	1345173.0	502.44	ug/L	0.462	502.44	ppb	0.462	0.09%
QC value within limits for Be 313.107 Recovery = 100.49%								
Ca 317.933Radial†	2634.4	5241.5	ug/L	19.92	5241.5	ppb	19.92	0.38%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.83%
Cd 226.502†          44378.9      515.02 ug/L        3.892      515.02 ppb        3.892   0.76%
   QC value within limits for Cd 226.502  Recovery = 103.00%
Co 228.616†          24459.4      511.48 ug/L        3.175      511.48 ppb        3.175   0.62%
   QC value within limits for Co 228.616  Recovery = 102.30%
Cr 267.716†          45160.4      507.50 ug/L        4.353      507.50 ppb        4.353   0.86%
   QC value within limits for Cr 267.716  Recovery = 101.50%
Cu 324.752†         163868.6      492.08 ug/L        6.081      492.08 ppb        6.081   1.24%
   QC value within limits for Cu 324.752  Recovery = 98.42%
Fe 238.204 Radial†     385.6      4982.8 ug/L       70.04      4982.8 ppb       70.04   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.66%
K 766.490 Radial†    28115.3      5253.4 ug/L       28.17      5253.4 ppb       28.17   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 105.07%
Mg 279.077 IEC†        117.3      5331.9 ug/L      102.94      5331.9 ppb      102.94   1.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.64%
Mn 257.610†         449807.3      504.59 ug/L        0.277      504.59 ppb        0.277   0.05%
   QC value within limits for Mn 257.610  Recovery = 100.92%
Mo 202.031†          6977.2      511.06 ug/L        4.400      511.06 ppb        4.400   0.86%
   QC value within limits for Mo 202.031  Recovery = 102.21%
Na 589.592 Radial†   35580.7       10326 ug/L         79.7       10326 ppb         79.7   0.77%
   QC value within limits for Na 589.592 Radial  Recovery = 103.26%
Ni 231.604†          20154.2      511.97 ug/L        3.478      511.97 ppb        3.478   0.68%
   QC value within limits for Ni 231.604  Recovery = 102.39%
P 214.914†            4269.2      2494.9 ug/L       21.16      2494.9 ppb       21.16   0.85%
   QC value within limits for P 214.914  Recovery = 99.80%
Pb 220.353†           4200.6      522.09 ug/L        5.542      522.09 ppb        5.542   1.06%
   QC value within limits for Pb 220.353  Recovery = 104.42%
S 181.975 Axial†       719.5      1053.0 ug/L        6.85      1053.0 ppb        6.85   0.65%
   QC value within limits for S 181.975 Axial  Recovery = 105.30%
Sb 206.836†           1467.5      530.06 ug/L        5.459      530.06 ppb        5.459   1.03%
   QC value within limits for Sb 206.836  Recovery = 106.01%
Se 196.026†            776.5      529.01 ug/L        7.526      529.01 ppb        7.526   1.42%
   QC value within limits for Se 196.026  Recovery = 105.80%
Si 251.611†          78587.6      2514.8 ug/L       23.96      2514.8 ppb       23.96   0.95%
   QC value within limits for Si 251.611  Recovery = 100.59%
Sn 189.927†           2873.9      520.57 ug/L        5.281      520.57 ppb        5.281   1.01%
   QC value within limits for Sn 189.927  Recovery = 104.11%
Sr 421.552†          76659.5      508.05 ug/L        3.556      508.05 ppb        3.556   0.70%
   QC value within limits for Sr 421.552  Recovery = 101.61%
Ti 334.940†         330273.1      499.39 ug/L        0.411      499.39 ppb        0.411   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.88%
Tl 190.801†           1592.7      514.48 ug/L        4.603      514.48 ppb        4.603   0.89%
   QC value within limits for Tl 190.801  Recovery = 102.90%
U 409.014†           17703.2      476.65 ug/L        5.506      476.65 ppb        5.506   1.16%
   QC value within limits for U 409.014  Recovery = 95.33%
V 292.402†           71907.4      506.02 ug/L        4.670      506.02 ppb        4.670   0.92%
   QC value within limits for V 292.402  Recovery = 101.20%
Zn 213.857†          50852.8      505.59 ug/L        4.231      505.59 ppb        4.231   0.84%
   QC value within limits for Zn 213.857  Recovery = 101.12%
SiO2†                78170.1      5357.0 ug/L       44.20      5357.0 ppb       44.20   0.83%
   QC value within limits for SiO2  Recovery = 100.18%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/23/2010 21:19:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4079.9	4079.9	95.9	%			21:21:35
1	Y RADIAL	4544.0	4544.0	96.84	%			21:21:35
1	Al 396.153Radial†	-114.8	-8.9	-8.1061	ug/L	-8.1061	ppb	21:21:35
1	Ca 317.933Radial†	16.0	1.2	2.3684	ug/L	2.3684	ppb	21:21:55
1	Fe 238.204 Radial†	11.0	1.3	16.578	ug/L	16.578	ppb	21:21:55
1	K 766.490 Radial†	2912.6	479.8	89.736	ug/L	89.736	ppb	21:21:35
1	Mg 279.077 IEC†	0.8	-1.9	-88.054	ug/L	-88.054	ppb	21:21:55
1	Na 589.592 Radial†	-399.5	323.9	93.995	ug/L	93.995	ppb	21:21:35
1	Sr 421.552†	82.0	48.7	0.3227	ug/L	0.3227	ppb	21:21:35
1	Sc 361.383	913981.6	913981.6	101.55	%			21:22:52
1	Y 371.029	769281.3	769281.3	100.90	%			21:22:52
1	Ag 328.068†	269.8	36.4	0.1725	ug/L	0.1725	ppb	21:22:57
1	As 188.979†	-23.3	-2.4	-1.0702	ug/L	-1.0702	ppb	21:23:17
1	B 249.677†	-511.5	-130.7	-3.1225	ug/L	-3.1225	ppb	21:23:17
1	Ba 233.527†	10.0	19.0	0.1485	ug/L	0.1485	ppb	21:23:17
1	Be 313.107†	-3936.1	-22.9	-0.0091	ug/L	-0.0091	ppb	21:22:57
1	Cd 226.502†	-185.8	0.4	0.0025	ug/L	0.0025	ppb	21:23:17
1	Co 228.616†	-71.5	-8.5	-0.1758	ug/L	-0.1758	ppb	21:23:17
1	Cr 267.716†	77.6	10.4	0.1184	ug/L	0.1184	ppb	21:23:17
1	Cu 324.752†	6033.8	-135.2	-0.4044	ug/L	-0.4044	ppb	21:22:57
1	Mn 257.610†	463.7	19.8	0.0275	ug/L	0.0275	ppb	21:23:17
1	Mo 202.031†	10.2	4.0	0.2924	ug/L	0.2924	ppb	21:23:17
1	Ni 231.604†	62.5	9.2	0.2349	ug/L	0.2349	ppb	21:23:17
1	P 214.914†	224.7	19.2	11.722	ug/L	11.722	ppb	21:23:17
1	Pb 220.353†	-36.5	29.1	3.6073	ug/L	3.6073	ppb	21:23:17
1	S 181.975 Axial†	47.4	9.6	14.061	ug/L	14.061	ppb	21:23:17
1	Sb 206.836†	40.7	3.4	1.2127	ug/L	1.2127	ppb	21:23:17
1	Se 196.026†	-25.7	-4.6	-2.9790	ug/L	-2.9790	ppb	21:23:17
1	Si 251.611†	563.5	20.8	0.6636	ug/L	0.6636	ppb	21:23:17
1	Sn 189.927†	16.7	6.0	1.0937	ug/L	1.0937	ppb	21:23:17
1	Ti 334.940†	-1460.6	-156.6	-0.2287	ug/L	-0.2287	ppb	21:22:57
1	Tl 190.801†	-25.3	6.3	2.0199	ug/L	2.0199	ppb	21:23:17
1	U 409.014†	-2919.9	-59.2	-1.6005	ug/L	-1.6005	ppb	21:22:52
1	V 292.402†	-1486.3	-33.2	-0.2334	ug/L	-0.2334	ppb	21:22:57
1	Zn 213.857†	563.8	-2.4	-0.0279	ug/L	-0.0279	ppb	21:23:17
1	SiO2†	571.0	10.8	0.7343	ug/L	0.7343	ppb	21:24:23
2	Sc Radial	4098.4	4098.4	96.4	%			21:22:00
2	Y RADIAL	4528.6	4528.6	96.52	%			21:22:00
2	Al 396.153Radial†	-137.4	-31.8	-28.833	ug/L	-28.833	ppb	21:22:00
2	Ca 317.933Radial†	19.0	4.3	8.4818	ug/L	8.4818	ppb	21:22:20
2	Fe 238.204 Radial†	8.5	-1.4	-17.891	ug/L	-17.891	ppb	21:22:20
2	K 766.490 Radial†	2731.5	278.2	52.013	ug/L	52.013	ppb	21:22:00
2	Mg 279.077 IEC†	2.0	-0.7	-32.447	ug/L	-32.447	ppb	21:22:20
2	Na 589.592 Radial†	-514.9	205.9	59.759	ug/L	59.759	ppb	21:22:00
2	Sr 421.552†	91.4	58.1	0.3852	ug/L	0.3852	ppb	21:22:00
2	Sc 361.383	915140.5	915140.5	101.68	%			21:23:22
2	Y 371.029	771725.3	771725.3	101.22	%			21:23:22
2	Ag 328.068†	287.2	53.1	0.2368	ug/L	0.2368	ppb	21:23:27
2	As 188.979†	-17.0	3.8	1.7058	ug/L	1.7058	ppb	21:23:47
2	B 249.677†	-520.3	-138.8	-3.3094	ug/L	-3.3094	ppb	21:23:47
2	Ba 233.527†	37.7	46.2	0.3589	ug/L	0.3589	ppb	21:23:47
2	Be 313.107†	-3878.9	38.3	0.0134	ug/L	0.0134	ppb	21:23:27
2	Cd 226.502†	-185.3	1.1	0.0140	ug/L	0.0140	ppb	21:23:47
2	Co 228.616†	-75.8	-12.6	-0.2617	ug/L	-0.2617	ppb	21:23:47
2	Cr 267.716†	65.3	-1.8	-0.0218	ug/L	-0.0218	ppb	21:23:47
2	Cu 324.752†	6073.6	-103.6	-0.3113	ug/L	-0.3113	ppb	21:23:27
2	Mn 257.610†	482.8	38.0	0.0422	ug/L	0.0422	ppb	21:23:47
2	Mo 202.031†	8.9	2.7	0.1940	ug/L	0.1940	ppb	21:23:47
2	Ni 231.604†	54.5	1.3	0.0329	ug/L	0.0329	ppb	21:23:47

2	P 214.914†	206.4	1.0	0.6538	ug/L	0.6538 ppb	21:23:47
2	Pb 220.353†	-44.1	21.7	2.6813	ug/L	2.6813 ppb	21:23:47
2	S 181.975 Axial†	37.9	0.2	0.3633	ug/L	0.3633 ppb	21:23:47
2	Sb 206.836†	53.0	15.4	5.3902	ug/L	5.3902 ppb	21:23:47
2	Se 196.026†	-23.3	-2.2	-1.5273	ug/L	-1.5273 ppb	21:23:47
2	Si 251.611†	571.4	27.8	0.8903	ug/L	0.8903 ppb	21:23:47
2	Sn 189.927†	15.6	4.9	0.8920	ug/L	0.8920 ppb	21:23:47
2	Ti 334.940†	-1565.8	-258.2	-0.3861	ug/L	-0.3861 ppb	21:23:27
2	Tl 190.801†	-35.3	-3.5	-1.1391	ug/L	-1.1391 ppb	21:23:47
2	U 409.014†	-2915.7	-51.4	-1.3871	ug/L	-1.3871 ppb	21:23:22
2	V 292.402†	-1550.3	-94.4	-0.6526	ug/L	-0.6526 ppb	21:23:27
2	Zn 213.857†	563.8	-3.1	-0.0286	ug/L	-0.0286 ppb	21:23:47
2	SiO2†	578.6	17.5	1.1984	ug/L	1.1984 ppb	21:24:28
3	Sc Radial	4071.3	4071.3	95.7	%		21:22:25
3	Y RADIAL	4480.9	4480.9	95.50	%		21:22:25
3	Al 396.153Radial†	-152.3	-48.3	-43.791	ug/L	-43.791 ppb	21:22:25
3	Ca 317.933Radial†	18.0	3.4	6.6656	ug/L	6.6656 ppb	21:22:45
3	Fe 238.204 Radial†	12.2	2.6	33.032	ug/L	33.032 ppb	21:22:45
3	K 766.490 Radial†	2823.2	392.8	73.456	ug/L	73.456 ppb	21:22:25
3	Mg 279.077 IEC†	1.4	-1.3	-57.233	ug/L	-57.233 ppb	21:22:45
3	Na 589.592 Radial†	-513.7	203.7	59.100	ug/L	59.100 ppb	21:22:25
3	Sr 421.552†	104.9	72.9	0.4829	ug/L	0.4829 ppb	21:22:25
3	Sc 361.383	919690.2	919690.2	102.18	%		21:23:52
3	Y 371.029	774865.5	774865.5	101.63	%		21:23:52
3	Ag 328.068†	128.5	-103.6	-0.4666	ug/L	-0.4666 ppb	21:23:58
3	As 188.979†	-30.1	-9.0	-4.0375	ug/L	-4.0375 ppb	21:24:18
3	B 249.677†	-533.4	-149.1	-3.5635	ug/L	-3.5635 ppb	21:24:18
3	Ba 233.527†	19.5	28.2	0.2206	ug/L	0.2206 ppb	21:24:18
3	Be 313.107†	-3775.9	158.0	0.0583	ug/L	0.0583 ppb	21:23:58
3	Cd 226.502†	-187.0	0.3	0.0004	ug/L	0.0004 ppb	21:24:18
3	Co 228.616†	-70.4	-7.0	-0.1440	ug/L	-0.1440 ppb	21:24:18
3	Cr 267.716†	43.2	-23.7	-0.2627	ug/L	-0.2627 ppb	21:24:18
3	Cu 324.752†	6198.3	-11.1	-0.0314	ug/L	-0.0314 ppb	21:23:58
3	Mn 257.610†	471.0	24.1	0.0326	ug/L	0.0326 ppb	21:24:18
3	Mo 202.031†	13.0	6.7	0.4916	ug/L	0.4916 ppb	21:24:18
3	Ni 231.604†	68.8	15.0	0.3806	ug/L	0.3806 ppb	21:24:18
3	P 214.914†	204.4	-2.0	-1.2702	ug/L	-1.2702 ppb	21:24:18
3	Pb 220.353†	-35.5	30.2	3.7368	ug/L	3.7368 ppb	21:24:18
3	S 181.975 Axial†	40.4	2.5	3.6052	ug/L	3.6052 ppb	21:24:18
3	Sb 206.836†	39.9	2.3	0.8181	ug/L	0.8181 ppb	21:24:18
3	Se 196.026†	-32.3	-10.9	-7.0769	ug/L	-7.0769 ppb	21:24:18
3	Si 251.611†	571.5	25.2	0.8023	ug/L	0.8023 ppb	21:24:18
3	Sn 189.927†	10.8	0.1	0.0214	ug/L	0.0214 ppb	21:24:18
3	Ti 334.940†	-1475.1	-161.8	-0.2388	ug/L	-0.2388 ppb	21:23:58
3	Tl 190.801†	-31.7	0.2	0.0673	ug/L	0.0673 ppb	21:24:18
3	U 409.014†	-2893.4	-15.4	-0.4203	ug/L	-0.4203 ppb	21:23:52
3	V 292.402†	-1505.8	-43.2	-0.2996	ug/L	-0.2996 ppb	21:23:58
3	Zn 213.857†	572.2	2.3	0.0160	ug/L	0.0160 ppb	21:24:18
3	SiO2†	611.0	46.5	3.1787	ug/L	3.1787 ppb	21:24:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	916270.8	101.80	%	0.335				0.33%
Sc Radial	4083.2	96.0	%	0.33				0.34%
Y 371.029	771957.4	101.25	%	0.367				0.36%
Y RADIAL	4517.8	96.29	%	0.700				0.73%
Ag 328.068†	-4.7	-0.0191	ug/L	0.38890	-0.0191	ppb	0.38890	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-29.7	-26.910	ug/L	17.9202	-26.910	ppb	17.9202	66.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.5	-1.1340	ug/L	2.87222	-1.1340	ppb	2.87222	253.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-139.6	-3.3318	ug/L	0.22133	-3.3318	ppb	0.22133	6.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	31.1	0.2427	ug/L	0.10691	0.2427	ppb	0.10691	44.06%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	57.8	0.0209	ug/L	0.03432	0.0209	ppb	0.03432	164.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.9	5.8386	ug/L	3.13953	5.8386	ppb	3.13953	53.77%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.6      0.0056 ug/L       0.00733      0.0056 ppb        0.00733 130.48%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -9.3     -0.1938 ug/L       0.06092     -0.1938 ppb        0.06092  31.43%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -5.0     -0.0554 ug/L       0.19277     -0.0554 ppb        0.19277 348.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -83.3     -0.2490 ug/L       0.19416     -0.2490 ppb        0.19416  77.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.8      10.573 ug/L       25.9871      10.573 ppb        25.9871 245.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        383.6      71.735 ug/L       18.9198      71.735 ppb        18.9198  26.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.3     -59.245 ug/L       27.8579     -59.245 ppb        27.8579  47.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               27.3      0.0341 ug/L       0.00749      0.0341 ppb        0.00749  21.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.4      0.3260 ug/L       0.15163      0.3260 ppb        0.15163  46.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       244.5      70.951 ug/L       19.9591      70.951 ppb        19.9591  28.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.5      0.2161 ug/L       0.17459      0.2161 ppb        0.17459  80.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 6.0      3.7018 ug/L       7.01173      3.7018 ppb        7.01173 189.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               27.0      3.3418 ug/L       0.57563      3.3418 ppb        0.57563  17.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.1      6.0098 ug/L       7.15847      6.0098 ppb        7.15847 119.11%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.0      2.4737 ug/L       2.53344      2.4737 ppb        2.53344 102.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -5.9     -3.8611 ug/L       2.87804     -3.8611 ppb        2.87804  74.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               24.6      0.7854 ug/L       0.11430      0.7854 ppb        0.11430  14.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.7      0.6690 ug/L       0.56984      0.6690 ppb        0.56984  85.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               59.9      0.3969 ug/L       0.08073      0.3969 ppb        0.08073  20.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -192.2     -0.2845 ug/L       0.08808     -0.2845 ppb        0.08808  30.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.0      0.3161 ug/L       1.59408      0.3161 ppb        1.59408 504.37%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -42.0     -1.1360 ug/L       0.62888     -1.1360 ppb        0.62888  55.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -56.9     -0.3952 ug/L       0.22535     -0.3952 ppb        0.22535  57.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -1.1     -0.0135 ug/L       0.02553     -0.0135 ppb        0.02553 188.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     24.9      1.7038 ug/L       1.29825      1.7038 ppb        1.29825  76.20%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/23/2010 22:21:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3841.3	3841.3	90.3	%			22:23:47
1	Y RADIAL	4242.2	4242.2	90.41	%			22:23:27
1	Al 396.153Radial†	5336.8	6020.3	5427.7	ug/L	5427.7	ppb	22:23:27
1	Ca 317.933Radial†	2510.5	2764.5	5500.2	ug/L	5500.2	ppb	22:23:47
1	Fe 238.204 Radial†	376.6	406.9	5256.9	ug/L	5256.9	ppb	22:23:47
1	K 766.490 Radial†	28833.0	29370.9	5488.3	ug/L	5488.3	ppb	22:23:27
1	Mg 279.077 IEC†	110.0	119.0	5409.4	ug/L	5409.4	ppb	22:23:47
1	Na 589.592 Radial†	31405.8	35516.9	10307	ug/L	10307	ppb	22:23:27
1	Sr 421.552†	71381.1	79005.6	523.60	ug/L	523.60	ppb	22:23:27
1	Sc 361.383	904620.6	904620.6	100.51	%			22:24:44
1	Y 371.029	751980.7	751980.7	98.628	%			22:24:44
1	Ag 328.068†	110459.9	109674.1	506.84	ug/L	506.84	ppb	22:24:49
1	As 188.979†	1112.8	1127.7	512.62	ug/L	512.62	ppb	22:25:10
1	B 249.677†	20196.6	20467.8	486.16	ug/L	486.16	ppb	22:24:49
1	Ba 233.527†	65323.3	65003.3	509.00	ug/L	509.00	ppb	22:24:49
1	Be 313.107†	1340888.9	1337986.9	499.76	ug/L	499.76	ppb	22:24:44
1	Cd 226.502†	44523.9	44482.9	516.20	ug/L	516.20	ppb	22:24:49
1	Co 228.616†	24583.9	24522.0	512.78	ug/L	512.78	ppb	22:24:49
1	Cr 267.716†	45567.8	45272.3	508.78	ug/L	508.78	ppb	22:24:49
1	Cu 324.752†	171383.9	164443.3	493.82	ug/L	493.82	ppb	22:24:49
1	Mn 257.610†	448923.2	446224.8	500.60	ug/L	500.60	ppb	22:24:44
1	Mo 202.031†	6974.3	6933.1	507.86	ug/L	507.86	ppb	22:25:10
1	Ni 231.604†	20398.3	20243.2	514.23	ug/L	514.23	ppb	22:24:49
1	P 214.914†	4458.3	4233.8	2472.9	ug/L	2472.9	ppb	22:25:10
1	Pb 220.353†	4101.9	4146.3	515.38	ug/L	515.38	ppb	22:25:10
1	S 181.975 Axial†	756.2	715.4	1047.0	ug/L	1047.0	ppb	22:25:10
1	Sb 206.836†	1511.0	1466.7	529.70	ug/L	529.70	ppb	22:25:10
1	Se 196.026†	764.5	781.3	532.99	ug/L	532.99	ppb	22:25:10
1	Si 251.611†	79925.3	78988.5	2527.7	ug/L	2527.7	ppb	22:24:49
1	Sn 189.927†	2890.2	2865.2	519.02	ug/L	519.02	ppb	22:25:10
1	Ti 334.940†	327646.2	327277.4	494.89	ug/L	494.89	ppb	22:24:44
1	Tl 190.801†	1557.8	1581.2	510.73	ug/L	510.73	ppb	22:25:10
1	U 409.014†	14980.3	17721.1	477.10	ug/L	477.10	ppb	22:24:49
1	V 292.402†	71021.0	72093.6	507.23	ug/L	507.23	ppb	22:24:49
1	Zn 213.857†	51862.0	51043.0	507.44	ug/L	507.44	ppb	22:24:49
1	SiO2†	78270.4	77324.6	5299.0	ug/L	5299.0	ppb	22:26:17
2	Sc Radial	3904.2	3904.2	91.8	%			22:24:12
2	Y RADIAL	4345.8	4345.8	92.62	%			22:23:52
2	Al 396.153Radial†	5198.1	5774.0	5204.5	ug/L	5204.5	ppb	22:23:52
2	Ca 317.933Radial†	2520.2	2730.2	5432.0	ug/L	5432.0	ppb	22:24:12
2	Fe 238.204 Radial†	372.0	395.1	5105.9	ug/L	5105.9	ppb	22:24:12
2	K 766.490 Radial†	28297.0	28272.1	5282.9	ug/L	5282.9	ppb	22:23:52
2	Mg 279.077 IEC†	114.5	122.0	5543.6	ug/L	5543.6	ppb	22:24:12
2	Na 589.592 Radial†	30291.7	33742.3	9792.2	ug/L	9792.2	ppb	22:23:52
2	Sr 421.552†	69213.9	75369.9	499.50	ug/L	499.50	ppb	22:23:52
2	Sc 361.383	898911.0	898911.0	99.872	%			22:25:15
2	Y 371.029	748412.3	748412.3	98.160	%			22:25:15
2	Ag 328.068†	110063.1	109974.8	508.17	ug/L	508.17	ppb	22:25:21
2	As 188.979†	1108.9	1130.9	514.01	ug/L	514.01	ppb	22:25:41
2	B 249.677†	20219.6	20618.4	489.77	ug/L	489.77	ppb	22:25:21
2	Ba 233.527†	64958.9	65051.3	509.38	ug/L	509.38	ppb	22:25:21
2	Be 313.107†	1329146.7	1334703.6	498.53	ug/L	498.53	ppb	22:25:15
2	Cd 226.502†	44224.8	44464.8	516.01	ug/L	516.01	ppb	22:25:21
2	Co 228.616†	24456.4	24549.7	513.37	ug/L	513.37	ppb	22:25:21
2	Cr 267.716†	45360.4	45352.6	509.67	ug/L	509.67	ppb	22:25:21
2	Cu 324.752†	170821.1	164962.9	495.37	ug/L	495.37	ppb	22:25:21
2	Mn 257.610†	443483.6	443615.2	497.65	ug/L	497.65	ppb	22:25:15
2	Mo 202.031†	6952.9	6955.8	509.50	ug/L	509.50	ppb	22:25:41
2	Ni 231.604†	20342.9	20316.6	516.10	ug/L	516.10	ppb	22:25:21

2	P 214.914†	4412.8	4216.4	2462.1 ug/L	2462.1 ppb	22:25:41
2	Pb 220.353†	4096.4	4166.7	517.87 ug/L	517.87 ppb	22:25:41
2	S 181.975 Axial†	749.1	713.0	1043.6 ug/L	1043.6 ppb	22:25:41
2	Sb 206.836†	1489.3	1454.5	525.49 ug/L	525.49 ppb	22:25:41
2	Se 196.026†	756.8	778.5	530.67 ug/L	530.67 ppb	22:25:41
2	Si 251.611†	79381.7	78949.3	2526.4 ug/L	2526.4 ppb	22:25:21
2	Sn 189.927†	2866.1	2859.4	517.97 ug/L	517.97 ppb	22:25:41
2	Ti 334.940†	324630.4	326328.3	493.43 ug/L	493.43 ppb	22:25:15
2	Tl 190.801†	1556.9	1590.1	513.57 ug/L	513.57 ppb	22:25:41
2	U 409.014†	15125.8	17961.4	483.61 ug/L	483.61 ppb	22:25:21
2	V 292.402†	70815.8	72337.0	508.98 ug/L	508.98 ppb	22:25:21
2	Zn 213.857†	51466.0	50974.3	506.76 ug/L	506.76 ppb	22:25:21
2	SiO2†	79789.0	79339.8	5437.5 ug/L	5437.5 ppb	22:26:23
3	Sc Radial	3936.1	3936.1	92.5 %		22:24:37
3	Y RADIAL	4428.2	4428.2	94.38 %		22:24:17
3	Al 396.153Radial†	5324.5	5864.7	5286.8 ug/L	5286.8 ppb	22:24:17
3	Ca 317.933Radial†	2526.7	2715.0	5401.8 ug/L	5401.8 ppb	22:24:37
3	Fe 238.204 Radial†	378.9	399.2	5158.7 ug/L	5158.7 ppb	22:24:37
3	K 766.490 Radial†	28845.6	28615.4	5347.1 ug/L	5347.1 ppb	22:24:17
3	Mg 279.077 IEC†	116.0	122.6	5573.8 ug/L	5573.8 ppb	22:24:37
3	Na 589.592 Radial†	31022.2	34264.8	9943.8 ug/L	9943.8 ppb	22:24:17
3	Sr 421.552†	70648.0	76309.5	505.73 ug/L	505.73 ppb	22:24:17
3	Sc 361.383	911047.1	911047.1	101.22 %		22:25:47
3	Y 371.029	758587.4	758587.4	99.494 %		22:25:47
3	Ag 328.068†	110357.8	108798.0	502.76 ug/L	502.76 ppb	22:25:52
3	As 188.979†	1134.3	1141.1	518.65 ug/L	518.65 ppb	22:26:12
3	B 249.677†	20179.9	20309.6	482.42 ug/L	482.42 ppb	22:25:52
3	Ba 233.527†	64932.5	64158.8	502.39 ug/L	502.39 ppb	22:25:52
3	Be 313.107†	1354089.3	1341617.2	501.11 ug/L	501.11 ppb	22:25:47
3	Cd 226.502†	44243.4	43893.4	509.37 ug/L	509.37 ppb	22:25:52
3	Co 228.616†	24433.7	24201.1	506.07 ug/L	506.07 ppb	22:25:52
3	Cr 267.716†	45439.2	44825.4	503.75 ug/L	503.75 ppb	22:25:52
3	Cu 324.752†	171164.3	163023.5	489.55 ug/L	489.55 ppb	22:25:52
3	Mn 257.610†	450527.7	444659.1	498.83 ug/L	498.83 ppb	22:25:47
3	Mo 202.031†	7017.6	6926.9	507.40 ug/L	507.40 ppb	22:26:12
3	Ni 231.604†	20336.3	20038.8	509.04 ug/L	509.04 ppb	22:25:52
3	P 214.914†	4482.5	4226.4	2469.3 ug/L	2469.3 ppb	22:26:12
3	Pb 220.353†	4136.0	4151.2	515.96 ug/L	515.96 ppb	22:26:12
3	S 181.975 Axial†	762.6	716.3	1048.4 ug/L	1048.4 ppb	22:26:12
3	Sb 206.836†	1510.0	1455.1	525.63 ug/L	525.63 ppb	22:26:12
3	Se 196.026†	762.1	773.6	527.60 ug/L	527.60 ppb	22:26:12
3	Si 251.611†	79509.2	78016.4	2496.5 ug/L	2496.5 ppb	22:25:52
3	Sn 189.927†	2904.2	2858.8	517.85 ug/L	517.85 ppb	22:26:12
3	Ti 334.940†	329454.1	326763.9	494.08 ug/L	494.08 ppb	22:25:47
3	Tl 190.801†	1579.7	1591.8	514.17 ug/L	514.17 ppb	22:26:12
3	U 409.014†	15222.3	17855.0	480.74 ug/L	480.74 ppb	22:25:52
3	V 292.402†	70839.0	71415.4	502.55 ug/L	502.55 ppb	22:25:52
3	Zn 213.857†	51630.0	50449.8	501.55 ug/L	501.55 ppb	22:25:52
3	SiO2†	78966.6	77463.1	5308.6 ug/L	5308.6 ppb	22:26:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904859.5	100.53	%	0.675				0.67%
Sc Radial	3893.8	91.5	%	1.13				1.24%
Y 371.029	752993.5	98.761	%	0.6771				0.69%
Y RADIAL	4338.7	92.47	%	1.987				2.15%
Ag 328.068†	109482.3	505.92	ug/L	2.819	505.92	ppb	2.819	0.56%
QC value within limits for Ag 328.068 Recovery = 101.18%								
Al 396.153Radial†	5886.3	5306.3	ug/L	112.89	5306.3	ppb	112.89	2.13%
QC value within limits for Al 396.153Radial Recovery = 106.13%								
As 188.979†	1133.2	515.10	ug/L	3.159	515.10	ppb	3.159	0.61%
QC value within limits for As 188.979 Recovery = 103.02%								
B 249.677†	20465.3	486.12	ug/L	3.679	486.12	ppb	3.679	0.76%
QC value within limits for B 249.677 Recovery = 97.22%								
Ba 233.527†	64737.8	506.93	ug/L	3.929	506.93	ppb	3.929	0.77%
QC value within limits for Ba 233.527 Recovery = 101.39%								
Be 313.107†	1338102.5	499.80	ug/L	1.290	499.80	ppb	1.290	0.26%
QC value within limits for Be 313.107 Recovery = 99.96%								
Ca 317.933Radial†	2736.6	5444.7	ug/L	50.40	5444.7	ppb	50.40	0.93%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.89%
Cd 226.502†            44280.3      513.86 ug/L        3.892      513.86 ppb        3.892   0.76%
   QC value within limits for Cd 226.502  Recovery = 102.77%
Co 228.616†            24424.3      510.74 ug/L        4.054      510.74 ppb        4.054   0.79%
   QC value within limits for Co 228.616  Recovery = 102.15%
Cr 267.716†            45150.1      507.40 ug/L        3.191      507.40 ppb        3.191   0.63%
   QC value within limits for Cr 267.716  Recovery = 101.48%
Cu 324.752†           164143.3      492.91 ug/L        3.014      492.91 ppb        3.014   0.61%
   QC value within limits for Cu 324.752  Recovery = 98.58%
Fe 238.204 Radial†       400.4      5173.8 ug/L       76.66      5173.8 ppb       76.66   1.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.48%
K 766.490 Radial†      28752.8      5372.8 ug/L      105.05      5372.8 ppb      105.05   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 107.46%
Mg 279.077 IEC†          121.2      5508.9 ug/L       87.51      5508.9 ppb       87.51   1.59%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.18%
Mn 257.610†           444833.0      499.03 ug/L        1.483      499.03 ppb        1.483   0.30%
   QC value within limits for Mn 257.610  Recovery = 99.81%
Mo 202.031†             6938.6      508.25 ug/L        1.107      508.25 ppb        1.107   0.22%
   QC value within limits for Mo 202.031  Recovery = 101.65%
Na 589.592 Radial†     34508.0       10014 ug/L       264.6       10014 ppb       264.6   2.64%
   QC value within limits for Na 589.592 Radial  Recovery = 100.14%
Ni 231.604†            20199.5      513.12 ug/L        3.656      513.12 ppb        3.656   0.71%
   QC value within limits for Ni 231.604  Recovery = 102.62%
P 214.914†              4225.5      2468.1 ug/L         5.49      2468.1 ppb         5.49   0.22%
   QC value within limits for P 214.914  Recovery = 98.73%
Pb 220.353†             4154.7      516.40 ug/L        1.305      516.40 ppb        1.305   0.25%
   QC value within limits for Pb 220.353  Recovery = 103.28%
S 181.975 Axial†         714.9      1046.3 ug/L         2.48      1046.3 ppb         2.48   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 104.63%
Sb 206.836†             1458.8      526.94 ug/L        2.390      526.94 ppb        2.390   0.45%
   QC value within limits for Sb 206.836  Recovery = 105.39%
Se 196.026†              777.8      530.42 ug/L        2.706      530.42 ppb        2.706   0.51%
   QC value within limits for Se 196.026  Recovery = 106.08%
Si 251.611†            78651.4      2516.9 ug/L       17.64      2516.9 ppb       17.64   0.70%
   QC value within limits for Si 251.611  Recovery = 100.68%
Sn 189.927†             2861.1      518.28 ug/L        0.646      518.28 ppb        0.646   0.12%
   QC value within limits for Sn 189.927  Recovery = 103.66%
Sr 421.552†            76895.0      509.61 ug/L       12.508      509.61 ppb       12.508   2.45%
   QC value within limits for Sr 421.552  Recovery = 101.92%
Ti 334.940†           326789.8      494.13 ug/L        0.731      494.13 ppb        0.731   0.15%
   QC value within limits for Ti 334.940  Recovery = 98.83%
Tl 190.801†             1587.7      512.82 ug/L        1.838      512.82 ppb        1.838   0.36%
   QC value within limits for Tl 190.801  Recovery = 102.56%
U 409.014†             17845.9      480.49 ug/L        3.262      480.49 ppb        3.262   0.68%
   QC value within limits for U 409.014  Recovery = 96.10%
V 292.402†             71948.7      506.25 ug/L        3.329      506.25 ppb        3.329   0.66%
   QC value within limits for V 292.402  Recovery = 101.25%
Zn 213.857†            50822.4      505.25 ug/L        3.227      505.25 ppb        3.227   0.64%
   QC value within limits for Zn 213.857  Recovery = 101.05%
SiO2†                  78042.5      5348.4 ug/L       77.31      5348.4 ppb       77.31   1.45%
   QC value within limits for SiO2  Recovery = 100.02%
QC Failed.  Continue with analysis.
```

Sequence No.: 40
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/23/2010 22:28:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3950.6	3950.6	92.9	%			22:30:49
1	Y RADIAL	4521.2	4521.2	96.36	%			22:30:29
1	Al 396.153Radial†	-138.3	-38.2	-34.609	ug/L	-34.609	ppb	22:30:29
1	Ca 317.933Radial†	17.1	3.0	5.8719	ug/L	5.8719	ppb	22:30:49
1	Fe 238.204 Radial†	12.0	2.8	35.835	ug/L	35.835	ppb	22:30:49
1	K 766.490 Radial†	2655.2	302.0	56.505	ug/L	56.505	ppb	22:30:29
1	Mg 279.077 IEC†	-0.0	-2.8	-126.47	ug/L	-126.47	ppb	22:30:49
1	Na 589.592 Radial†	-730.5	-46.2	-13.397	ug/L	-13.397	ppb	22:30:29
1	Sr 421.552†	48.1	15.0	0.0996	ug/L	0.0996	ppb	22:30:29
1	Sc 361.383	893209.9	893209.9	99.239	%			22:31:46
1	Y 371.029	754717.8	754717.8	98.987	%			22:31:46
1	Ag 328.068†	246.2	18.8	0.1026	ug/L	0.1026	ppb	22:31:46
1	As 188.979†	-26.0	-5.6	-2.5375	ug/L	-2.5375	ppb	22:32:06
1	B 249.677†	-449.1	-79.6	-1.9050	ug/L	-1.9050	ppb	22:32:06
1	Ba 233.527†	12.7	21.9	0.1704	ug/L	0.1704	ppb	22:32:06
1	Be 313.107†	-3776.8	47.5	0.0170	ug/L	0.0170	ppb	22:31:46
1	Cd 226.502†	-192.8	-11.0	-0.1325	ug/L	-0.1325	ppb	22:32:06
1	Co 228.616†	-69.7	-8.3	-0.1720	ug/L	-0.1720	ppb	22:32:06
1	Cr 267.716†	63.1	-2.4	-0.0204	ug/L	-0.0204	ppb	22:32:06
1	Cu 324.752†	6039.1	8.3	0.0326	ug/L	0.0326	ppb	22:31:46
1	Mn 257.610†	467.4	34.1	0.0470	ug/L	0.0470	ppb	22:32:06
1	Mo 202.031†	14.4	8.5	0.6227	ug/L	0.6227	ppb	22:32:06
1	Ni 231.604†	83.2	31.5	0.8005	ug/L	0.8005	ppb	22:32:06
1	P 214.914†	198.2	-2.3	-1.4407	ug/L	-1.4407	ppb	22:32:06
1	Pb 220.353†	-52.0	12.7	1.5615	ug/L	1.5615	ppb	22:32:06
1	S 181.975 Axial†	46.4	9.7	14.227	ug/L	14.227	ppb	22:32:06
1	Sb 206.836†	35.6	-0.9	-0.2687	ug/L	-0.2687	ppb	22:32:06
1	Se 196.026†	-28.0	-7.5	-4.8334	ug/L	-4.8334	ppb	22:32:06
1	Si 251.611†	590.3	60.7	1.9383	ug/L	1.9383	ppb	22:32:06
1	Sn 189.927†	17.3	7.0	1.2673	ug/L	1.2673	ppb	22:32:06
1	Ti 334.940†	-1486.9	-216.5	-0.3117	ug/L	-0.3117	ppb	22:31:46
1	Tl 190.801†	-22.8	8.2	2.6431	ug/L	2.6431	ppb	22:32:06
1	U 409.014†	-3174.3	-382.3	-10.335	ug/L	-10.335	ppb	22:31:46
1	V 292.402†	-1530.7	-112.0	-0.7958	ug/L	-0.7958	ppb	22:31:46
1	Zn 213.857†	576.1	22.8	0.2182	ug/L	0.2182	ppb	22:32:06
1	SiO2†	606.6	59.8	4.0898	ug/L	4.0898	ppb	22:33:02
2	Sc Radial	3959.8	3959.8	93.1	%			22:31:15
2	Y RADIAL	4470.8	4470.8	95.28	%			22:30:55
2	Al 396.153Radial†	-105.9	-2.9	-2.6547	ug/L	-2.6547	ppb	22:30:55
2	Ca 317.933Radial†	17.6	3.4	6.8225	ug/L	6.8225	ppb	22:31:15
2	Fe 238.204 Radial†	8.9	-0.6	-7.8672	ug/L	-7.8672	ppb	22:31:15
2	K 766.490 Radial†	2634.8	273.5	51.168	ug/L	51.168	ppb	22:30:55
2	Mg 279.077 IEC†	0.2	-2.6	-117.18	ug/L	-117.18	ppb	22:31:15
2	Na 589.592 Radial†	-704.0	-15.8	-4.5915	ug/L	-4.5915	ppb	22:30:55
2	Sr 421.552†	62.4	30.3	0.2006	ug/L	0.2006	ppb	22:30:55
2	Sc 361.383	906674.6	906674.6	100.73	%			22:32:12
2	Y 371.029	766427.4	766427.4	100.52	%			22:32:12
2	Ag 328.068†	256.4	25.2	0.1138	ug/L	0.1138	ppb	22:32:12
2	As 188.979†	-19.8	0.8	0.3719	ug/L	0.3719	ppb	22:32:32
2	B 249.677†	-451.1	-74.9	-1.7854	ug/L	-1.7854	ppb	22:32:32
2	Ba 233.527†	22.4	31.4	0.2443	ug/L	0.2443	ppb	22:32:32
2	Be 313.107†	-3790.1	90.8	0.0334	ug/L	0.0334	ppb	22:32:12
2	Cd 226.502†	-190.0	-5.3	-0.0604	ug/L	-0.0604	ppb	22:32:32
2	Co 228.616†	-64.5	-2.1	-0.0444	ug/L	-0.0444	ppb	22:32:32
2	Cr 267.716†	67.1	0.7	0.0070	ug/L	0.0070	ppb	22:32:32
2	Cu 324.752†	6053.2	-68.1	-0.2037	ug/L	-0.2037	ppb	22:32:12
2	Mn 257.610†	464.2	24.0	0.0309	ug/L	0.0309	ppb	22:32:32
2	Mo 202.031†	1.7	-4.4	-0.3246	ug/L	-0.3246	ppb	22:32:32
2	Ni 231.604†	62.4	9.7	0.2453	ug/L	0.2453	ppb	22:32:32

2	P 214.914†	197.3	-6.2	-3.7101	ug/L	-3.7101 ppb	22:32:32
2	Pb 220.353†	-42.1	23.3	2.8811	ug/L	2.8811 ppb	22:32:32
2	S 181.975 Axial†	44.6	7.3	10.656	ug/L	10.656 ppb	22:32:32
2	Sb 206.836†	41.1	4.1	1.4143	ug/L	1.4143 ppb	22:32:32
2	Se 196.026†	-34.9	-14.0	-9.2268	ug/L	-9.2268 ppb	22:32:32
2	Si 251.611†	592.3	53.8	1.7295	ug/L	1.7295 ppb	22:32:32
2	Sn 189.927†	2.6	-7.9	-1.4263	ug/L	-1.4263 ppb	22:32:32
2	Ti 334.940†	-1413.4	-121.3	-0.1721	ug/L	-0.1721 ppb	22:32:12
2	Tl 190.801†	-33.5	-2.0	-0.6537	ug/L	-0.6537 ppb	22:32:32
2	U 409.014†	-2910.0	-72.5	-1.9578	ug/L	-1.9578 ppb	22:32:12
2	V 292.402†	-1481.1	-39.9	-0.2860	ug/L	-0.2860 ppb	22:32:12
2	Zn 213.857†	575.1	13.2	0.1320	ug/L	0.1320 ppb	22:32:32
2	SiO2†	614.6	58.6	4.0359	ug/L	4.0359 ppb	22:33:07
3	Sc Radial	3985.5	3985.5	93.7	%		22:31:40
3	Y RADIAL	4481.5	4481.5	95.51	%		22:31:20
3	Al 396.153Radial†	-104.7	-0.9	-0.8614	ug/L	-0.8614 ppb	22:31:20
3	Ca 317.933Radial†	20.6	6.5	13.027	ug/L	13.027 ppb	22:31:40
3	Fe 238.204 Radial†	10.0	0.4	5.6066	ug/L	5.6066 ppb	22:31:40
3	K 766.490 Radial†	2840.4	474.7	88.805	ug/L	88.805 ppb	22:31:20
3	Mg 279.077 IEC†	2.5	-0.1	-4.9124	ug/L	-4.9124 ppb	22:31:40
3	Na 589.592 Radial†	-713.0	-20.6	-5.9751	ug/L	-5.9751 ppb	22:31:20
3	Sr 421.552†	80.7	49.3	0.3267	ug/L	0.3267 ppb	22:31:20
3	Sc 361.383	891052.3	891052.3	98.999	%		22:32:37
3	Y 371.029	753542.1	753542.1	98.833	%		22:32:37
3	Ag 328.068†	244.9	18.0	0.0867	ug/L	0.0867 ppb	22:32:37
3	As 188.979†	-30.0	-9.7	-4.3954	ug/L	-4.3954 ppb	22:32:57
3	B 249.677†	-490.3	-122.3	-2.9194	ug/L	-2.9194 ppb	22:32:57
3	Ba 233.527†	3.2	12.3	0.0946	ug/L	0.0946 ppb	22:32:57
3	Be 313.107†	-3709.4	106.4	0.0388	ug/L	0.0388 ppb	22:32:37
3	Cd 226.502†	-194.4	-13.1	-0.1535	ug/L	-0.1535 ppb	22:32:57
3	Co 228.616†	-76.9	-15.8	-0.3276	ug/L	-0.3276 ppb	22:32:57
3	Cr 267.716†	68.3	3.0	0.0356	ug/L	0.0356 ppb	22:32:57
3	Cu 324.752†	6095.2	79.7	0.2437	ug/L	0.2437 ppb	22:32:37
3	Mn 257.610†	455.3	23.0	0.0266	ug/L	0.0266 ppb	22:32:57
3	Mo 202.031†	12.4	6.5	0.4764	ug/L	0.4764 ppb	22:32:57
3	Ni 231.604†	70.1	18.5	0.4710	ug/L	0.4710 ppb	22:32:57
3	P 214.914†	201.4	1.4	0.7991	ug/L	0.7991 ppb	22:32:57
3	Pb 220.353†	-45.5	19.1	2.3691	ug/L	2.3691 ppb	22:32:57
3	S 181.975 Axial†	39.6	3.0	4.4071	ug/L	4.4071 ppb	22:32:57
3	Sb 206.836†	42.5	6.2	2.1701	ug/L	2.1701 ppb	22:32:57
3	Se 196.026†	-30.7	-10.3	-6.7638	ug/L	-6.7638 ppb	22:32:57
3	Si 251.611†	592.2	64.1	2.0491	ug/L	2.0491 ppb	22:32:57
3	Sn 189.927†	10.9	0.6	0.1064	ug/L	0.1064 ppb	22:32:57
3	Ti 334.940†	-1512.9	-246.4	-0.3673	ug/L	-0.3673 ppb	22:32:37
3	Tl 190.801†	-33.9	-3.0	-0.9707	ug/L	-0.9707 ppb	22:32:57
3	U 409.014†	-3057.2	-271.9	-7.3465	ug/L	-7.3465 ppb	22:32:37
3	V 292.402†	-1549.2	-134.5	-0.9414	ug/L	-0.9414 ppb	22:32:37
3	Zn 213.857†	564.3	12.3	0.1197	ug/L	0.1197 ppb	22:32:57
3	SiO2†	600.9	55.4	3.7952	ug/L	3.7952 ppb	22:33:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896978.9	99.657	%	0.9406				0.94%
Sc Radial	3965.3	93.2	%	0.42				0.46%
Y 371.029	758229.1	99.447	%	0.9344				0.94%
Y RADIAL	4491.2	95.72	%	0.566				0.59%
Ag 328.068†	20.7	0.1010	ug/L	0.01363	0.1010	ppb	0.01363	13.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.0	-12.708	ug/L	18.9874	-12.708	ppb	18.9874	149.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.9	-2.1870	ug/L	2.40291	-2.1870	ppb	2.40291	109.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-92.3	-2.2033	ug/L	0.62308	-2.2033	ppb	0.62308	28.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.9	0.1698	ug/L	0.07489	0.1698	ppb	0.07489	44.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	81.6	0.0297	ug/L	0.01138	0.0297	ppb	0.01138	38.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.3	8.5738	ug/L	3.88575	8.5738	ppb	3.88575	45.32%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -9.8     -0.1154 ug/L       0.04886     -0.1154 ppb        0.04886  42.32%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -8.7     -0.1813 ug/L       0.14185     -0.1813 ppb        0.14185  78.22%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.4      0.0074 ug/L       0.02803      0.0074 ppb        0.02803 378.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 6.7      0.0242 ug/L       0.22383      0.0242 ppb        0.22383 924.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9     11.192 ug/L       22.3802     11.192 ppb        22.3802 199.97%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         350.1     65.493 ug/L       20.3646     65.493 ppb        20.3646  31.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.8    -82.857 ug/L       67.6611    -82.857 ppb        67.6611  81.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                27.0      0.0348 ug/L       0.01074      0.0348 ppb        0.01074  30.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.5      0.2582 ug/L       0.50997      0.2582 ppb        0.50997 197.55%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -27.5     -7.9878 ug/L       4.73519     -7.9878 ppb        4.73519  59.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                19.9      0.5056 ug/L       0.27923      0.5056 ppb        0.27923  55.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.4     -1.4506 ug/L       2.25461     -1.4506 ppb        2.25461 155.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                18.3      2.2706 ug/L       0.66534      2.2706 ppb        0.66534  29.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.7      9.7632 ug/L       4.97020      9.7632 ppb        4.97020  50.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.2      1.1052 ug/L       1.24842      1.1052 ppb        1.24842 112.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -10.6     -6.9414 ug/L       2.20207     -6.9414 ppb        2.20207  31.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                59.5      1.9056 ug/L       0.16225      1.9056 ppb        0.16225   8.51%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.1     -0.0175 ug/L       1.35109     -0.0175 ppb        1.35109 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.5      0.2089 ug/L       0.11377      0.2089 ppb        0.11377  54.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -194.7     -0.2837 ug/L       0.10057     -0.2837 ppb        0.10057  35.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.1      0.3396 ug/L       2.00118      0.3396 ppb        2.00118 589.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -242.2     -6.5465 ug/L       4.24568     -6.5465 ppb        4.24568  64.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -95.4     -0.6744 ug/L       0.34413     -0.6744 ppb        0.34413  51.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                16.1      0.1566 ug/L       0.05368      0.1566 ppb        0.05368  34.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      57.9      3.9736 ug/L       0.15686      3.9736 ppb        0.15686   3.95%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/23/2010 23:09:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3963.7	3963.7	93.2	%			23:11:36
1	Y RADIAL	4405.5	4405.5	93.89	%			23:11:16
1	Al 396.153Radial†	5313.7	5813.1	5239.9	ug/L	5239.9	ppb	23:11:16
1	Ca 317.933Radial†	2563.1	2735.1	5441.7	ug/L	5441.7	ppb	23:11:36
1	Fe 238.204 Radial†	394.7	413.4	5340.7	ug/L	5340.7	ppb	23:11:36
1	K 766.490 Radial†	28883.4	28439.0	5313.9	ug/L	5313.9	ppb	23:11:16
1	Mg 279.077 IEC†	118.7	124.6	5662.0	ug/L	5662.0	ppb	23:11:36
1	Na 589.592 Radial†	32694.3	35825.6	10397	ug/L	10397	ppb	23:11:16
1	Sr 421.552†	72298.3	77548.8	513.94	ug/L	513.94	ppb	23:11:16
1	Sc 361.383	907323.5	907323.5	100.81	%			23:12:34
1	Y 371.029	754397.0	754397.0	98.945	%			23:12:34
1	Ag 328.068†	110397.4	109284.7	505.06	ug/L	505.06	ppb	23:12:39
1	As 188.979†	1129.8	1141.3	518.82	ug/L	518.82	ppb	23:12:59
1	B 249.677†	20275.1	20485.8	486.58	ug/L	486.58	ppb	23:12:39
1	Ba 233.527†	65010.5	64499.5	505.07	ug/L	505.07	ppb	23:12:39
1	Be 313.107†	1357457.6	1350448.6	504.41	ug/L	504.41	ppb	23:12:34
1	Cd 226.502†	44443.5	44271.2	513.73	ug/L	513.73	ppb	23:12:39
1	Co 228.616†	24548.6	24414.1	510.52	ug/L	510.52	ppb	23:12:39
1	Cr 267.716†	45459.9	45030.1	506.07	ug/L	506.07	ppb	23:12:39
1	Cu 324.752†	171704.1	164253.0	493.25	ug/L	493.25	ppb	23:12:39
1	Mn 257.610†	453863.0	449794.4	504.60	ug/L	504.60	ppb	23:12:34
1	Mo 202.031†	7018.8	6956.5	509.58	ug/L	509.58	ppb	23:12:59
1	Ni 231.604†	20349.7	20134.6	511.47	ug/L	511.47	ppb	23:12:39
1	P 214.914†	4485.7	4247.7	2481.4	ug/L	2481.4	ppb	23:12:59
1	Pb 220.353†	4128.9	4160.9	517.14	ug/L	517.14	ppb	23:12:59
1	S 181.975 Axial†	761.5	718.3	1051.3	ug/L	1051.3	ppb	23:12:59
1	Sb 206.836†	1511.0	1462.2	528.19	ug/L	528.19	ppb	23:12:59
1	Se 196.026†	763.2	777.8	530.96	ug/L	530.96	ppb	23:12:59
1	Si 251.611†	79642.2	78470.7	2511.1	ug/L	2511.1	ppb	23:12:39
1	Sn 189.927†	2913.1	2879.4	521.57	ug/L	521.57	ppb	23:12:59
1	Ti 334.940†	331871.5	330497.7	499.73	ug/L	499.73	ppb	23:12:34
1	Tl 190.801†	1569.1	1587.7	512.91	ug/L	512.91	ppb	23:12:59
1	U 409.014†	15189.5	17884.3	481.51	ug/L	481.51	ppb	23:12:39
1	V 292.402†	70873.9	71737.2	504.78	ug/L	504.78	ppb	23:12:39
1	Zn 213.857†	51742.9	50771.1	504.72	ug/L	504.72	ppb	23:12:39
1	SiO2†	80561.2	79365.0	5439.2	ug/L	5439.2	ppb	23:14:07
2	Sc Radial	3921.5	3921.5	92.2	%			23:12:01
2	Y RADIAL	4364.2	4364.2	93.01	%			23:11:41
2	Al 396.153Radial†	5272.6	5829.8	5254.7	ug/L	5254.7	ppb	23:11:41
2	Ca 317.933Radial†	2528.3	2726.9	5425.5	ug/L	5425.5	ppb	23:12:01
2	Fe 238.204 Radial†	387.4	410.0	5298.2	ug/L	5298.2	ppb	23:12:01
2	K 766.490 Radial†	28841.2	28726.3	5367.6	ug/L	5367.6	ppb	23:11:41
2	Mg 279.077 IEC†	114.0	120.9	5492.8	ug/L	5492.8	ppb	23:12:01
2	Na 589.592 Radial†	32676.4	36183.2	10501	ug/L	10501	ppb	23:11:41
2	Sr 421.552†	72029.7	78091.2	517.54	ug/L	517.54	ppb	23:11:41
2	Sc 361.383	897149.9	897149.9	99.676	%			23:13:05
2	Y 371.029	745043.7	745043.7	97.718	%			23:13:05
2	Ag 328.068†	110184.4	110312.9	509.80	ug/L	509.80	ppb	23:13:10
2	As 188.979†	1122.5	1146.7	521.23	ug/L	521.23	ppb	23:13:30
2	B 249.677†	20157.7	20596.1	489.20	ug/L	489.20	ppb	23:13:10
2	Ba 233.527†	65091.0	65311.5	511.42	ug/L	511.42	ppb	23:13:10
2	Be 313.107†	1343271.5	1351486.7	504.80	ug/L	504.80	ppb	23:13:05
2	Cd 226.502†	44413.6	44741.1	519.20	ug/L	519.20	ppb	23:13:10
2	Co 228.616†	24549.5	24691.2	516.32	ug/L	516.32	ppb	23:13:10
2	Cr 267.716†	45440.0	45521.6	511.59	ug/L	511.59	ppb	23:13:10
2	Cu 324.752†	170847.9	165325.6	496.47	ug/L	496.47	ppb	23:13:10
2	Mn 257.610†	450367.8	451393.4	506.39	ug/L	506.39	ppb	23:13:05
2	Mo 202.031†	7024.0	7040.8	515.74	ug/L	515.74	ppb	23:13:30
2	Ni 231.604†	20424.1	20438.1	519.18	ug/L	519.18	ppb	23:13:10

2	P 214.914†	4480.3	4292.8	2508.2 ug/L	2508.2 ppb	23:13:30
2	Pb 220.353†	4133.9	4212.4	523.54 ug/L	523.54 ppb	23:13:30
2	S 181.975 Axial†	757.1	722.5	1057.4 ug/L	1057.4 ppb	23:13:30
2	Sb 206.836†	1513.6	1481.8	535.21 ug/L	535.21 ppb	23:13:30
2	Se 196.026†	768.1	791.3	539.71 ug/L	539.71 ppb	23:13:30
2	Si 251.611†	79511.6	79235.6	2535.5 ug/L	2535.5 ppb	23:13:10
2	Sn 189.927†	2899.0	2898.0	524.94 ug/L	524.94 ppb	23:13:30
2	Ti 334.940†	329056.2	331406.5	501.11 ug/L	501.11 ppb	23:13:05
2	Tl 190.801†	1570.5	1606.8	518.99 ug/L	518.99 ppb	23:13:30
2	U 409.014†	14918.2	17782.8	478.76 ug/L	478.76 ppb	23:13:10
2	V 292.402†	70998.4	72659.4	511.26 ug/L	511.26 ppb	23:13:10
2	Zn 213.857†	51655.4	51265.4	509.64 ug/L	509.64 ppb	23:13:10
2	SiO2†	78936.9	78641.8	5389.3 ug/L	5389.3 ppb	23:14:12
3	Sc Radial	3923.2	3923.2	92.2 %		23:12:27
3	Y RADIAL	4475.7	4475.7	95.39 %		23:12:06
3	Al 396.153Radial†	5385.1	5949.3	5363.0 ug/L	5363.0 ppb	23:12:06
3	Ca 317.933Radial†	2539.4	2737.7	5447.0 ug/L	5447.0 ppb	23:12:27
3	Fe 238.204 Radial†	387.5	410.0	5297.3 ug/L	5297.3 ppb	23:12:27
3	K 766.490 Radial†	29275.4	29183.5	5453.1 ug/L	5453.1 ppb	23:12:06
3	Mg 279.077 IEC†	115.2	122.1	5549.6 ug/L	5549.6 ppb	23:12:27
3	Na 589.592 Radial†	32988.9	36506.7	10594 ug/L	10594 ppb	23:12:06
3	Sr 421.552†	73650.3	79814.5	528.96 ug/L	528.96 ppb	23:12:06
3	Sc 361.383	894029.5	894029.5	99.330 %		23:13:36
3	Y 371.029	743180.0	743180.0	97.474 %		23:13:36
3	Ag 328.068†	110038.0	110551.3	510.89 ug/L	510.89 ppb	23:13:42
3	As 188.979†	1130.8	1159.0	526.78 ug/L	526.78 ppb	23:14:02
3	B 249.677†	20139.0	20647.9	490.44 ug/L	490.44 ppb	23:13:42
3	Ba 233.527†	64710.1	65156.0	510.21 ug/L	510.21 ppb	23:13:42
3	Be 313.107†	1336578.8	1349452.5	504.04 ug/L	504.04 ppb	23:13:36
3	Cd 226.502†	44107.7	44588.7	517.43 ug/L	517.43 ppb	23:13:42
3	Co 228.616†	24390.5	24617.0	514.77 ug/L	514.77 ppb	23:13:42
3	Cr 267.716†	45274.6	45514.1	511.50 ug/L	511.50 ppb	23:13:42
3	Cu 324.752†	170865.7	165941.7	498.32 ug/L	498.32 ppb	23:13:42
3	Mn 257.610†	447523.7	450107.2	504.95 ug/L	504.95 ppb	23:13:36
3	Mo 202.031†	6977.9	7018.9	514.14 ug/L	514.14 ppb	23:14:02
3	Ni 231.604†	20185.4	20269.3	514.89 ug/L	514.89 ppb	23:13:42
3	P 214.914†	4469.7	4297.8	2510.9 ug/L	2510.9 ppb	23:14:02
3	Pb 220.353†	4130.8	4223.7	524.97 ug/L	524.97 ppb	23:14:02
3	S 181.975 Axial†	756.7	724.7	1060.7 ug/L	1060.7 ppb	23:14:02
3	Sb 206.836†	1506.0	1479.5	534.38 ug/L	534.38 ppb	23:14:02
3	Se 196.026†	763.9	789.8	538.74 ug/L	538.74 ppb	23:14:02
3	Si 251.611†	79305.9	79307.0	2537.8 ug/L	2537.8 ppb	23:13:42
3	Sn 189.927†	2890.5	2899.6	525.23 ug/L	525.23 ppb	23:14:02
3	Ti 334.940†	327444.3	330936.0	500.40 ug/L	500.40 ppb	23:13:36
3	Tl 190.801†	1563.5	1605.3	518.52 ug/L	518.52 ppb	23:14:02
3	U 409.014†	14976.8	17894.2	481.77 ug/L	481.77 ppb	23:13:42
3	V 292.402†	70674.3	72581.7	510.71 ug/L	510.71 ppb	23:13:42
3	Zn 213.857†	51423.8	51213.2	509.14 ug/L	509.14 ppb	23:13:42
3	SiO2†	79150.7	79133.4	5423.1 ug/L	5423.1 ppb	23:14:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	899501.0	99.938	%	0.7724				0.77%
Sc Radial	3936.1	92.5	%	0.56				0.61%
Y 371.029	747540.2	98.045	%	0.7884				0.80%
Y RADIAL	4415.1	94.10	%	1.202				1.28%
Ag 328.068†	110049.6	508.58	ug/L	3.098	508.58	ppb	3.098	0.61%
QC value within limits for Ag 328.068 Recovery = 101.72%								
Al 396.153Radial†	5864.1	5285.9	ug/L	67.23	5285.9	ppb	67.23	1.27%
QC value within limits for Al 396.153Radial Recovery = 105.72%								
As 188.979†	1149.0	522.28	ug/L	4.083	522.28	ppb	4.083	0.78%
QC value within limits for As 188.979 Recovery = 104.46%								
B 249.677†	20576.6	488.74	ug/L	1.972	488.74	ppb	1.972	0.40%
QC value within limits for B 249.677 Recovery = 97.75%								
Ba 233.527†	64989.0	508.90	ug/L	3.374	508.90	ppb	3.374	0.66%
QC value within limits for Ba 233.527 Recovery = 101.78%								
Be 313.107†	1350462.6	504.42	ug/L	0.380	504.42	ppb	0.380	0.08%
QC value within limits for Be 313.107 Recovery = 100.88%								
Ca 317.933Radial†	2733.2	5438.0	ug/L	11.21	5438.0	ppb	11.21	0.21%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.76%
Cd 226.502†            44533.7      516.79 ug/L          2.787      516.79 ppb          2.787   0.54%
   QC value within limits for Cd 226.502  Recovery = 103.36%
Co 228.616†            24574.1      513.87 ug/L          3.005      513.87 ppb          3.005   0.58%
   QC value within limits for Co 228.616  Recovery = 102.77%
Cr 267.716†            45355.3      509.72 ug/L          3.162      509.72 ppb          3.162   0.62%
   QC value within limits for Cr 267.716  Recovery = 101.94%
Cu 324.752†           165173.4      496.01 ug/L          2.565      496.01 ppb          2.565   0.52%
   QC value within limits for Cu 324.752  Recovery = 99.20%
Fe 238.204 Radial†       411.1      5312.1 ug/L         24.82      5312.1 ppb         24.82   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.24%
K 766.490 Radial†      28782.9      5378.2 ug/L         70.21      5378.2 ppb         70.21   1.31%
   QC value within limits for K 766.490 Radial  Recovery = 107.56%
Mg 279.077 IEC†          122.5      5568.1 ug/L         86.14      5568.1 ppb         86.14   1.55%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 111.36%
Mn 257.610†           450431.6      505.31 ug/L          0.952      505.31 ppb          0.952   0.19%
   QC value within limits for Mn 257.610  Recovery = 101.06%
Mo 202.031†             7005.4      513.15 ug/L          3.196      513.15 ppb          3.196   0.62%
   QC value within limits for Mo 202.031  Recovery = 102.63%
Na 589.592 Radial†     36171.9       10497 ug/L         98.9        10497 ppb         98.9   0.94%
   QC value within limits for Na 589.592 Radial  Recovery = 104.97%
Ni 231.604†            20280.7      515.18 ug/L          3.864      515.18 ppb          3.864   0.75%
   QC value within limits for Ni 231.604  Recovery = 103.04%
P 214.914†              4279.5      2500.2 ug/L         16.30      2500.2 ppb         16.30   0.65%
   QC value within limits for P 214.914  Recovery = 100.01%
Pb 220.353†             4199.0      521.88 ug/L          4.168      521.88 ppb          4.168   0.80%
   QC value within limits for Pb 220.353  Recovery = 104.38%
S 181.975 Axial†         721.9      1056.5 ug/L          4.75      1056.5 ppb          4.75   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 105.65%
Sb 206.836†             1474.5      532.59 ug/L          3.836      532.59 ppb          3.836   0.72%
   QC value within limits for Sb 206.836  Recovery = 106.52%
Se 196.026†              786.3      536.47 ug/L          4.795      536.47 ppb          4.795   0.89%
   QC value within limits for Se 196.026  Recovery = 107.29%
Si 251.611†            79004.4      2528.1 ug/L         14.83      2528.1 ppb         14.83   0.59%
   QC value within limits for Si 251.611  Recovery = 101.13%
Sn 189.927†             2892.3      523.92 ug/L          2.033      523.92 ppb          2.033   0.39%
   QC value within limits for Sn 189.927  Recovery = 104.78%
Sr 421.552†            78484.8      520.15 ug/L          7.841      520.15 ppb          7.841   1.51%
   QC value within limits for Sr 421.552  Recovery = 104.03%
Ti 334.940†           330946.7      500.41 ug/L          0.693      500.41 ppb          0.693   0.14%
   QC value within limits for Ti 334.940  Recovery = 100.08%
Tl 190.801†             1599.9      516.81 ug/L          3.386      516.81 ppb          3.386   0.66%
   QC value within limits for Tl 190.801  Recovery = 103.36%
U 409.014†             17853.8      480.68 ug/L          1.667      480.68 ppb          1.667   0.35%
   QC value within limits for U 409.014  Recovery = 96.14%
V 292.402†             72326.1      508.92 ug/L          3.594      508.92 ppb          3.594   0.71%
   QC value within limits for V 292.402  Recovery = 101.78%
Zn 213.857†            51083.2      507.83 ug/L          2.704      507.83 ppb          2.704   0.53%
   QC value within limits for Zn 213.857  Recovery = 101.57%
SiO2†                  79046.7      5417.2 ug/L         25.45      5417.2 ppb         25.45   0.47%
   QC value within limits for SiO2  Recovery = 101.30%
QC Failed.  Continue with analysis.
```

Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/23/2010 23:16:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3983.1	3983.1	93.6	%			23:18:39
1	Y RADIAL	4442.8	4442.8	94.69	%			23:18:19
1	Al 396.153Radial†	-131.3	-29.4	-26.676	ug/L	-26.676	ppb	23:18:19
1	Ca 317.933Radial†	17.7	3.4	6.7546	ug/L	6.7546	ppb	23:18:39
1	Fe 238.204 Radial†	9.2	-0.4	-4.5428	ug/L	-4.5428	ppb	23:18:39
1	K 766.490 Radial†	2794.5	427.5	79.984	ug/L	79.984	ppb	23:18:19
1	Mg 279.077 IEC†	0.7	-2.0	-89.827	ug/L	-89.827	ppb	23:18:39
1	Na 589.592 Radial†	-789.0	-102.2	-29.654	ug/L	-29.654	ppb	23:18:19
1	Sr 421.552†	96.8	66.6	0.4416	ug/L	0.4416	ppb	23:18:19
1	Sc 361.383	894012.1	894012.1	99.328	%			23:19:36
1	Y 371.029	755366.5	755366.5	99.072	%			23:19:36
1	Ag 328.068†	237.1	9.4	0.0431	ug/L	0.0431	ppb	23:19:36
1	As 188.979†	-25.1	-4.8	-2.1528	ug/L	-2.1528	ppb	23:19:56
1	B 249.677†	-452.0	-82.1	-1.9583	ug/L	-1.9583	ppb	23:19:56
1	Ba 233.527†	7.8	17.0	0.1307	ug/L	0.1307	ppb	23:19:56
1	Be 313.107†	-3835.9	-8.6	-0.0038	ug/L	-0.0038	ppb	23:19:36
1	Cd 226.502†	-192.4	-10.4	-0.1215	ug/L	-0.1215	ppb	23:19:56
1	Co 228.616†	-70.7	-9.3	-0.1917	ug/L	-0.1917	ppb	23:19:56
1	Cr 267.716†	69.6	4.1	0.0465	ug/L	0.0465	ppb	23:19:56
1	Cu 324.752†	6139.7	104.1	0.3157	ug/L	0.3157	ppb	23:19:36
1	Mn 257.610†	448.9	15.1	0.0201	ug/L	0.0201	ppb	23:19:56
1	Mo 202.031†	17.4	11.4	0.8368	ug/L	0.8368	ppb	23:19:56
1	Ni 231.604†	56.3	4.4	0.1114	ug/L	0.1114	ppb	23:19:56
1	P 214.914†	200.0	-0.7	-0.4454	ug/L	-0.4454	ppb	23:19:56
1	Pb 220.353†	-56.4	8.3	1.0241	ug/L	1.0241	ppb	23:19:56
1	S 181.975 Axial†	38.9	2.2	3.1718	ug/L	3.1718	ppb	23:19:56
1	Sb 206.836†	35.7	-0.8	-0.2187	ug/L	-0.2187	ppb	23:19:56
1	Se 196.026†	-20.9	-0.3	-0.2356	ug/L	-0.2356	ppb	23:19:56
1	Si 251.611†	602.8	72.7	2.3231	ug/L	2.3231	ppb	23:19:56
1	Sn 189.927†	23.0	12.7	2.2950	ug/L	2.2950	ppb	23:19:56
1	Ti 334.940†	-1439.0	-166.9	-0.2416	ug/L	-0.2416	ppb	23:19:36
1	Tl 190.801†	-31.6	-0.6	-0.1883	ug/L	-0.1883	ppb	23:19:56
1	U 409.014†	-3016.2	-220.4	-5.9550	ug/L	-5.9550	ppb	23:19:36
1	V 292.402†	-1536.2	-116.2	-0.8072	ug/L	-0.8072	ppb	23:19:36
1	Zn 213.857†	568.7	14.8	0.1482	ug/L	0.1482	ppb	23:19:56
1	SiO2†	630.3	83.0	5.6834	ug/L	5.6834	ppb	23:20:52
2	Sc Radial	3946.0	3946.0	92.8	%			23:19:04
2	Y RADIAL	4517.5	4517.5	96.28	%			23:18:44
2	Al 396.153Radial†	-106.5	-4.0	-3.6190	ug/L	-3.6190	ppb	23:18:44
2	Ca 317.933Radial†	17.3	3.2	6.3777	ug/L	6.3777	ppb	23:19:04
2	Fe 238.204 Radial†	11.5	2.3	29.009	ug/L	29.009	ppb	23:19:04
2	K 766.490 Radial†	2755.2	413.1	77.305	ug/L	77.305	ppb	23:18:44
2	Mg 279.077 IEC†	2.6	0.0	1.1464	ug/L	1.1464	ppb	23:19:04
2	Na 589.592 Radial†	-818.3	-141.7	-41.134	ug/L	-41.134	ppb	23:18:44
2	Sr 421.552†	12.3	-23.5	-0.1557	ug/L	-0.1557	ppb	23:18:44
2	Sc 361.383	896804.0	896804.0	99.638	%			23:20:01
2	Y 371.029	757231.2	757231.2	99.317	%			23:20:01
2	Ag 328.068†	204.8	-23.7	-0.0963	ug/L	-0.0963	ppb	23:20:01
2	As 188.979†	-18.0	2.5	1.1330	ug/L	1.1330	ppb	23:20:21
2	B 249.677†	-498.5	-127.3	-3.0429	ug/L	-3.0429	ppb	23:20:21
2	Ba 233.527†	9.8	19.0	0.1485	ug/L	0.1485	ppb	23:20:21
2	Be 313.107†	-3880.7	-41.6	-0.0161	ug/L	-0.0161	ppb	23:20:01
2	Cd 226.502†	-197.9	-15.3	-0.1814	ug/L	-0.1814	ppb	23:20:21
2	Co 228.616†	-67.1	-5.4	-0.1133	ug/L	-0.1133	ppb	23:20:21
2	Cr 267.716†	76.3	10.6	0.1239	ug/L	0.1239	ppb	23:20:21
2	Cu 324.752†	6024.5	-30.7	-0.0870	ug/L	-0.0870	ppb	23:20:01
2	Mn 257.610†	461.5	26.3	0.0324	ug/L	0.0324	ppb	23:20:21
2	Mo 202.031†	7.9	1.8	0.1359	ug/L	0.1359	ppb	23:20:21
2	Ni 231.604†	71.9	19.9	0.5049	ug/L	0.5049	ppb	23:20:21

2	P 214.914†	201.6	0.3	0.1909 ug/L	0.1909 ppb	23:20:21
2	Pb 220.353†	-41.6	23.3	2.8822 ug/L	2.8822 ppb	23:20:21
2	S 181.975 Axial†	38.7	1.8	2.6897 ug/L	2.6897 ppb	23:20:21
2	Sb 206.836†	44.0	7.4	2.6019 ug/L	2.6019 ppb	23:20:21
2	Se 196.026†	-36.8	-16.2	-10.587 ug/L	-10.587 ppb	23:20:21
2	Si 251.611†	598.0	66.0	2.1153 ug/L	2.1153 ppb	23:20:21
2	Sn 189.927†	13.9	3.5	0.6338 ug/L	0.6338 ppb	23:20:21
2	Ti 334.940†	-1442.0	-165.4	-0.2466 ug/L	-0.2466 ppb	23:20:01
2	Tl 190.801†	-19.7	11.5	3.6849 ug/L	3.6849 ppb	23:20:21
2	U 409.014†	-3052.6	-247.5	-6.6903 ug/L	-6.6903 ppb	23:20:01
2	V 292.402†	-1481.9	-56.9	-0.4097 ug/L	-0.4097 ppb	23:20:01
2	Zn 213.857†	585.8	30.3	0.2963 ug/L	0.2963 ppb	23:20:21
2	SiO2†	656.3	107.2	7.3627 ug/L	7.3627 ppb	23:20:57
3	Sc Radial	3978.1	3978.1	93.5 %		23:19:29
3	Y RADIAL	4588.1	4588.1	97.78 %		23:19:09
3	Al 396.153Radial†	-101.2	2.6	2.3117 ug/L	2.3117 ppb	23:19:09
3	Ca 317.933Radial†	14.6	0.2	0.3040 ug/L	0.3040 ppb	23:19:29
3	Fe 238.204 Radial†	11.0	1.5	19.859 ug/L	19.859 ppb	23:19:29
3	K 766.490 Radial†	2831.0	470.3	87.991 ug/L	87.991 ppb	23:19:09
3	Mg 279.077 IEC†	0.7	-2.0	-90.406 ug/L	-90.406 ppb	23:19:29
3	Na 589.592 Radial†	-795.9	-110.7	-32.113 ug/L	-32.113 ppb	23:19:09
3	Sr 421.552†	22.3	-13.0	-0.0858 ug/L	-0.0858 ppb	23:19:09
3	Sc 361.383	894633.2	894633.2	99.397 %		23:20:26
3	Y 371.029	755399.8	755399.8	99.076 %		23:20:26
3	Ag 328.068†	242.6	14.8	0.0753 ug/L	0.0753 ppb	23:20:26
3	As 188.979†	-11.1	9.4	4.2183 ug/L	4.2183 ppb	23:20:47
3	B 249.677†	-504.8	-134.9	-3.2219 ug/L	-3.2219 ppb	23:20:47
3	Ba 233.527†	-4.4	4.7	0.0353 ug/L	0.0353 ppb	23:20:47
3	Be 313.107†	-3835.9	-6.0	-0.0029 ug/L	-0.0029 ppb	23:20:26
3	Cd 226.502†	-207.8	-25.8	-0.3027 ug/L	-0.3027 ppb	23:20:47
3	Co 228.616†	-74.1	-12.6	-0.2636 ug/L	-0.2636 ppb	23:20:47
3	Cr 267.716†	60.7	-4.9	-0.0516 ug/L	-0.0516 ppb	23:20:47
3	Cu 324.752†	6045.5	5.1	0.0202 ug/L	0.0202 ppb	23:20:26
3	Mn 257.610†	454.3	20.2	0.0283 ug/L	0.0283 ppb	23:20:47
3	Mo 202.031†	8.8	2.8	0.2030 ug/L	0.2030 ppb	23:20:47
3	Ni 231.604†	55.6	3.6	0.0910 ug/L	0.0910 ppb	23:20:47
3	P 214.914†	206.0	5.2	3.1575 ug/L	3.1575 ppb	23:20:47
3	Pb 220.353†	-46.7	18.0	2.2306 ug/L	2.2306 ppb	23:20:47
3	S 181.975 Axial†	41.9	5.2	7.5590 ug/L	7.5590 ppb	23:20:47
3	Sb 206.836†	29.4	-7.1	-2.4578 ug/L	-2.4578 ppb	23:20:47
3	Se 196.026†	-34.1	-13.6	-8.8851 ug/L	-8.8851 ppb	23:20:47
3	Si 251.611†	596.7	66.2	2.1201 ug/L	2.1201 ppb	23:20:47
3	Sn 189.927†	16.7	6.4	1.1552 ug/L	1.1552 ppb	23:20:47
3	Ti 334.940†	-1473.0	-200.1	-0.2922 ug/L	-0.2922 ppb	23:20:26
3	Tl 190.801†	-49.0	-18.1	-5.8163 ug/L	-5.8163 ppb	23:20:47
3	U 409.014†	-3049.6	-251.9	-6.8085 ug/L	-6.8085 ppb	23:20:26
3	V 292.402†	-1566.8	-145.9	-1.0275 ug/L	-1.0275 ppb	23:20:26
3	Zn 213.857†	575.4	21.1	0.2086 ug/L	0.2086 ppb	23:20:47
3	SiO2†	587.5	39.6	2.7157 ug/L	2.7157 ppb	23:21:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895149.8	99.454	%	0.1629				0.16%
Sc Radial	3969.1	93.3	%	0.47				0.51%
Y 371.029	755999.2	99.155	%	0.1400				0.14%
Y RADIAL	4516.1	96.25	%	1.548				1.61%
Ag 328.068†	0.1	0.0074	ug/L	0.09123	0.0074	ppb	0.09123	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.3	-9.3276	ug/L	15.31359	-9.3276	ppb	15.31359	164.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	1.0662	ug/L	3.18610	1.0662	ppb	3.18610	298.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-114.8	-2.7410	ug/L	0.68375	-2.7410	ppb	0.68375	24.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.6	0.1048	ug/L	0.06088	0.1048	ppb	0.06088	58.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-18.7	-0.0076	ug/L	0.00736	-0.0076	ppb	0.00736	97.08%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.3	4.4787	ug/L	3.62034	4.4787	ppb	3.62034	80.83%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -17.2     -0.2018 ug/L       0.09234     -0.2018 ppb        0.09234  45.75%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -9.1     -0.1895 ug/L       0.07515     -0.1895 ppb        0.07515  39.65%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.3      0.0396 ug/L       0.08793      0.0396 ppb        0.08793 222.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               26.2      0.0830 ug/L       0.20858      0.0830 ppb        0.20858 251.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.1     14.775 ug/L       17.3438     14.775 ppb        17.3438 117.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        437.0     81.760 ug/L        5.5601     81.760 ppb         5.5601   6.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.3    -59.696 ug/L       52.6915    -59.696 ppb        52.6915  88.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               20.5      0.0269 ug/L       0.00622      0.0269 ppb        0.00622  23.11%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.3      0.3919 ug/L       0.38675      0.3919 ppb        0.38675  98.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -118.2    -34.300 ug/L        6.0445    -34.300 ppb         6.0445  17.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.3      0.2358 ug/L       0.23326      0.2358 ppb        0.23326  98.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 1.6      0.9676 ug/L       1.92293      0.9676 ppb        1.92293 198.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               16.5      2.0456 ug/L       0.94277      2.0456 ppb        0.94277  46.09%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.1      4.4735 ug/L       2.68297      4.4735 ppb        2.68297  59.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.2     -0.0249 ug/L       2.53542     -0.0249 ppb        2.53542 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -10.0     -6.5691 ug/L       5.55065     -6.5691 ppb        5.55065  84.50%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               68.3      2.1861 ug/L       0.11860      2.1861 ppb        0.11860   5.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.5      1.3613 ug/L       0.84958      1.3613 ppb        0.84958  62.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.1      0.0667 ug/L       0.32657      0.0667 ppb        0.32657 489.70%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -177.5     -0.2601 ug/L       0.02791     -0.2601 ppb        0.02791  10.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -2.4     -0.7732 ug/L       4.77753     -0.7732 ppb        4.77753 617.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -239.9     -6.4846 ug/L       0.46244     -6.4846 ppb        0.46244   7.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -106.3     -0.7481 ug/L       0.31314     -0.7481 ppb        0.31314  41.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               22.1      0.2177 ug/L       0.07448      0.2177 ppb        0.07448  34.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     76.6      5.2539 ug/L       2.35304      5.2539 ppb        2.35304  44.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 54
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 00:05:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3900.0	3900.0	91.7	%			00:07:14
1	Y RADIAL	4424.4	4424.4	94.30	%			00:06:54
1	Al 396.153Radial†	5359.1	5955.7	5369.0	ug/L	5369.0	ppb	00:06:54
1	Ca 317.933Radial†	2533.9	2748.1	5467.7	ug/L	5467.7	ppb	00:07:14
1	Fe 238.204 Radial†	386.0	410.8	5308.3	ug/L	5308.3	ppb	00:07:14
1	K 766.490 Radial†	29175.4	29263.2	5467.9	ug/L	5467.9	ppb	00:06:54
1	Mg 279.077 IEC†	114.0	121.5	5523.4	ug/L	5523.4	ppb	00:07:14
1	Na 589.592 Radial†	33476.9	37251.7	10811	ug/L	10811	ppb	00:06:54
1	Sr 421.552†	73501.6	80127.3	531.03	ug/L	531.03	ppb	00:06:54
1	Sc 361.383	902167.3	902167.3	100.23	%			00:08:11
1	Y 371.029	750751.6	750751.6	98.467	%			00:08:11
1	Ag 328.068†	109690.3	109205.2	504.69	ug/L	504.69	ppb	00:08:16
1	As 188.979†	1124.1	1142.0	519.10	ug/L	519.10	ppb	00:08:37
1	B 249.677†	20035.2	20361.4	483.62	ug/L	483.62	ppb	00:08:16
1	Ba 233.527†	64681.2	64539.5	505.38	ug/L	505.38	ppb	00:08:16
1	Be 313.107†	1343530.3	1344250.1	502.09	ug/L	502.09	ppb	00:08:11
1	Cd 226.502†	44041.3	44121.9	512.00	ug/L	512.00	ppb	00:08:16
1	Co 228.616†	24276.9	24282.2	507.77	ug/L	507.77	ppb	00:08:16
1	Cr 267.716†	45213.4	45042.0	506.20	ug/L	506.20	ppb	00:08:16
1	Cu 324.752†	170536.3	164061.5	492.67	ug/L	492.67	ppb	00:08:16
1	Mn 257.610†	447204.2	445724.3	500.04	ug/L	500.04	ppb	00:08:11
1	Mo 202.031†	6989.0	6966.6	510.31	ug/L	510.31	ppb	00:08:37
1	Ni 231.604†	20254.4	20154.9	511.99	ug/L	511.99	ppb	00:08:16
1	P 214.914†	4454.0	4241.6	2477.8	ug/L	2477.8	ppb	00:08:37
1	Pb 220.353†	4086.0	4141.5	514.77	ug/L	514.77	ppb	00:08:37
1	S 181.975 Axial†	760.9	722.1	1056.9	ug/L	1056.9	ppb	00:08:37
1	Sb 206.836†	1501.8	1461.6	527.94	ug/L	527.94	ppb	00:08:37
1	Se 196.026†	741.4	760.4	519.36	ug/L	519.36	ppb	00:08:37
1	Si 251.611†	78962.8	78244.5	2503.8	ug/L	2503.8	ppb	00:08:16
1	Sn 189.927†	2876.3	2859.1	517.92	ug/L	517.92	ppb	00:08:37
1	Ti 334.940†	327553.6	328071.4	496.07	ug/L	496.07	ppb	00:08:11
1	Tl 190.801†	1564.5	1592.1	514.26	ug/L	514.26	ppb	00:08:37
1	U 409.014†	15036.6	17817.8	479.71	ug/L	479.71	ppb	00:08:16
1	V 292.402†	70693.9	71959.4	506.34	ug/L	506.34	ppb	00:08:16
1	Zn 213.857†	51344.2	50666.7	503.68	ug/L	503.68	ppb	00:08:16
1	SiO2†	78426.3	77691.9	5324.2	ug/L	5324.2	ppb	00:09:44
2	Sc Radial	3924.8	3924.8	92.3	%			00:07:39
2	Y RADIAL	4412.9	4412.9	94.05	%			00:07:19
2	Al 396.153Radial†	5330.4	5887.7	5307.6	ug/L	5307.6	ppb	00:07:19
2	Ca 317.933Radial†	2534.8	2731.7	5435.0	ug/L	5435.0	ppb	00:07:39
2	Fe 238.204 Radial†	376.2	397.5	5136.8	ug/L	5136.8	ppb	00:07:39
2	K 766.490 Radial†	29094.2	28974.5	5414.0	ug/L	5414.0	ppb	00:07:19
2	Mg 279.077 IEC†	116.0	122.9	5587.4	ug/L	5587.4	ppb	00:07:39
2	Na 589.592 Radial†	33284.0	36812.3	10683	ug/L	10683	ppb	00:07:19
2	Sr 421.552†	73206.3	79301.6	525.56	ug/L	525.56	ppb	00:07:19
2	Sc 361.383	900374.6	900374.6	100.03	%			00:08:43
2	Y 371.029	748682.1	748682.1	98.195	%			00:08:43
2	Ag 328.068†	110865.0	110597.3	511.05	ug/L	511.05	ppb	00:08:48
2	As 188.979†	1106.7	1126.8	512.22	ug/L	512.22	ppb	00:09:08
2	B 249.677†	20371.9	20737.8	492.61	ug/L	492.61	ppb	00:08:48
2	Ba 233.527†	65488.3	65474.7	512.69	ug/L	512.69	ppb	00:08:48
2	Be 313.107†	1341511.1	1344900.4	502.34	ug/L	502.34	ppb	00:08:43
2	Cd 226.502†	44525.3	44693.2	518.66	ug/L	518.66	ppb	00:08:48
2	Co 228.616†	24628.0	24681.4	516.11	ug/L	516.11	ppb	00:08:48
2	Cr 267.716†	45715.8	45634.0	512.83	ug/L	512.83	ppb	00:08:48
2	Cu 324.752†	172222.7	166086.0	498.74	ug/L	498.74	ppb	00:08:48
2	Mn 257.610†	447453.3	446861.7	501.29	ug/L	501.29	ppb	00:08:43
2	Mo 202.031†	6939.7	6931.2	507.71	ug/L	507.71	ppb	00:09:08
2	Ni 231.604†	20480.3	20420.9	518.75	ug/L	518.75	ppb	00:08:48

2	P 214.914†	4392.9	4189.4	2445.0	ug/L	2445.0 ppb	00:09:08
2	Pb 220.353†	4083.8	4147.4	515.50	ug/L	515.50 ppb	00:09:08
2	S 181.975 Axial†	744.0	706.7	1034.3	ug/L	1034.3 ppb	00:09:08
2	Sb 206.836†	1490.3	1453.1	524.88	ug/L	524.88 ppb	00:09:08
2	Se 196.026†	752.3	772.7	526.96	ug/L	526.96 ppb	00:09:08
2	Si 251.611†	79896.7	79335.0	2538.8	ug/L	2538.8 ppb	00:08:48
2	Sn 189.927†	2848.9	2837.5	514.01	ug/L	514.01 ppb	00:09:08
2	Ti 334.940†	327462.7	328631.2	496.91	ug/L	496.91 ppb	00:08:43
2	Tl 190.801†	1545.4	1576.1	509.10	ug/L	509.10 ppb	00:09:08
2	U 409.014†	15274.5	18085.5	486.95	ug/L	486.95 ppb	00:08:48
2	V 292.402†	71292.2	72698.0	511.46	ug/L	511.46 ppb	00:08:48
2	Zn 213.857†	52005.3	51429.6	511.31	ug/L	511.31 ppb	00:08:48
2	SiO2†	80008.9	79429.7	5443.7	ug/L	5443.7 ppb	00:09:50
3	Sc Radial	3926.5	3926.5	92.3	%		00:08:04
3	Y RADIAL	4491.7	4491.7	95.73	%		00:07:44
3	Al 396.153Radial†	5436.5	6000.1	5409.0	ug/L	5409.0 ppb	00:07:44
3	Ca 317.933Radial†	2529.2	2724.4	5420.5	ug/L	5420.5 ppb	00:08:04
3	Fe 238.204 Radial†	380.5	402.0	5194.6	ug/L	5194.6 ppb	00:08:04
3	K 766.490 Radial†	29512.1	29413.7	5496.1	ug/L	5496.1 ppb	00:07:44
3	Mg 279.077 IEC†	113.5	120.2	5463.5	ug/L	5463.5 ppb	00:08:04
3	Na 589.592 Radial†	33611.2	37151.4	10781	ug/L	10781 ppb	00:07:44
3	Sr 421.552†	74234.7	80381.7	532.72	ug/L	532.72 ppb	00:07:44
3	Sc 361.383	889350.2	889350.2	98.810	%		00:09:14
3	Y 371.029	740152.9	740152.9	97.077	%		00:09:14
3	Ag 328.068†	108541.0	109619.2	506.57	ug/L	506.57 ppb	00:09:19
3	As 188.979†	1121.1	1155.1	524.98	ug/L	524.98 ppb	00:09:39
3	B 249.677†	19852.3	20464.3	486.10	ug/L	486.10 ppb	00:09:19
3	Ba 233.527†	63865.4	64643.8	506.19	ug/L	506.19 ppb	00:09:19
3	Be 313.107†	1322336.3	1342118.1	501.30	ug/L	501.30 ppb	00:09:14
3	Cd 226.502†	43431.8	44138.3	512.20	ug/L	512.20 ppb	00:09:19
3	Co 228.616†	23929.1	24279.2	507.72	ug/L	507.72 ppb	00:09:19
3	Cr 267.716†	44733.0	45205.8	508.03	ug/L	508.03 ppb	00:09:19
3	Cu 324.752†	168191.6	164140.5	492.91	ug/L	492.91 ppb	00:09:19
3	Mn 257.610†	441009.2	445884.7	500.21	ug/L	500.21 ppb	00:09:14
3	Mo 202.031†	6959.0	7036.8	515.44	ug/L	515.44 ppb	00:09:39
3	Ni 231.604†	19930.3	20118.1	511.05	ug/L	511.05 ppb	00:09:19
3	P 214.914†	4424.8	4276.1	2498.8	ug/L	2498.8 ppb	00:09:39
3	Pb 220.353†	4074.9	4189.0	520.70	ug/L	520.70 ppb	00:09:39
3	S 181.975 Axial†	757.4	729.5	1067.7	ug/L	1067.7 ppb	00:09:39
3	Sb 206.836†	1495.7	1477.0	533.51	ug/L	533.51 ppb	00:09:39
3	Se 196.026†	743.8	773.5	527.67	ug/L	527.67 ppb	00:09:39
3	Si 251.611†	77960.0	78364.9	2507.6	ug/L	2507.6 ppb	00:09:19
3	Sn 189.927†	2861.3	2885.3	522.65	ug/L	522.65 ppb	00:09:39
3	Ti 334.940†	322720.7	327890.0	495.80	ug/L	495.80 ppb	00:09:14
3	Tl 190.801†	1560.4	1610.4	520.14	ug/L	520.14 ppb	00:09:39
3	U 409.014†	14580.2	17572.1	473.09	ug/L	473.09 ppb	00:09:19
3	V 292.402†	69756.6	72027.3	506.88	ug/L	506.88 ppb	00:09:19
3	Zn 213.857†	50606.0	50657.9	503.61	ug/L	503.61 ppb	00:09:19
3	SiO2†	78123.4	78512.9	5380.5	ug/L	5380.5 ppb	00:09:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	897297.4	99.693	%	0.7711				0.77%
Sc Radial	3917.1	92.1	%	0.35				0.38%
Y 371.029	746528.9	97.913	%	0.7368				0.75%
Y RADIAL	4443.0	94.69	%	0.907				0.96%
Ag 328.068†	109807.2	507.44	ug/L	3.266	507.44	ppb	3.266	0.64%
QC value within limits for Ag 328.068 Recovery = 101.49%								
Al 396.153Radial†	5947.8	5361.9	ug/L	51.08	5361.9	ppb	51.08	0.95%
QC value within limits for Al 396.153Radial Recovery = 107.24%								
As 188.979†	1141.3	518.77	ug/L	6.387	518.77	ppb	6.387	1.23%
QC value within limits for As 188.979 Recovery = 103.75%								
B 249.677†	20521.2	487.44	ug/L	4.643	487.44	ppb	4.643	0.95%
QC value within limits for B 249.677 Recovery = 97.49%								
Ba 233.527†	64886.0	508.09	ug/L	4.007	508.09	ppb	4.007	0.79%
QC value within limits for Ba 233.527 Recovery = 101.62%								
Be 313.107†	1343756.2	501.91	ug/L	0.543	501.91	ppb	0.543	0.11%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	2734.8	5441.0	ug/L	24.15	5441.0	ppb	24.15	0.44%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.82%
Cd 226.502†            44317.8      514.29 ug/L         3.786      514.29 ppb          3.786   0.74%
   QC value within limits for Cd 226.502  Recovery = 102.86%
Co 228.616†            24414.3      510.54 ug/L         4.831      510.54 ppb          4.831   0.95%
   QC value within limits for Co 228.616  Recovery = 102.11%
Cr 267.716†            45293.9      509.02 ug/L         3.423      509.02 ppb          3.423   0.67%
   QC value within limits for Cr 267.716  Recovery = 101.80%
Cu 324.752†           164762.7      494.78 ug/L         3.437      494.78 ppb          3.437   0.69%
   QC value within limits for Cu 324.752  Recovery = 98.96%
Fe 238.204 Radial†       403.5      5213.2 ug/L        87.24      5213.2 ppb         87.24   1.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.26%
K 766.490 Radial†      29217.1      5459.3 ug/L        41.74      5459.3 ppb         41.74   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 109.19%
Mg 279.077 IEC†          121.6      5524.8 ug/L        61.98      5524.8 ppb         61.98   1.12%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.50%
Mn 257.610†           446156.9      500.51 ug/L         0.681      500.51 ppb          0.681   0.14%
   QC value within limits for Mn 257.610  Recovery = 100.10%
Mo 202.031†             6978.2      511.15 ug/L         3.932      511.15 ppb          3.932   0.77%
   QC value within limits for Mo 202.031  Recovery = 102.23%
Na 589.592 Radial†     37071.8       10758 ug/L          66.8       10758 ppb           66.8   0.62%
   QC value within limits for Na 589.592 Radial  Recovery = 107.58%
Ni 231.604†            20231.3      513.93 ug/L         4.197      513.93 ppb          4.197   0.82%
   QC value within limits for Ni 231.604  Recovery = 102.79%
P 214.914†              4235.7      2473.9 ug/L        27.13      2473.9 ppb         27.13   1.10%
   QC value within limits for P 214.914  Recovery = 98.96%
Pb 220.353†             4159.3      516.99 ug/L         3.231      516.99 ppb          3.231   0.63%
   QC value within limits for Pb 220.353  Recovery = 103.40%
S 181.975 Axial†         719.5      1053.0 ug/L        17.02      1053.0 ppb         17.02   1.62%
   QC value within limits for S 181.975 Axial  Recovery = 105.30%
Sb 206.836†             1463.9      528.77 ug/L         4.376      528.77 ppb          4.376   0.83%
   QC value within limits for Sb 206.836  Recovery = 105.75%
Se 196.026†              768.9      524.66 ug/L         4.607      524.66 ppb          4.607   0.88%
   QC value within limits for Se 196.026  Recovery = 104.93%
Si 251.611†            78648.1      2516.7 ug/L        19.21      2516.7 ppb         19.21   0.76%
   QC value within limits for Si 251.611  Recovery = 100.67%
Sn 189.927†             2860.7      518.19 ug/L         4.327      518.19 ppb          4.327   0.83%
   QC value within limits for Sn 189.927  Recovery = 103.64%
Sr 421.552†            79936.9      529.77 ug/L         3.742      529.77 ppb          3.742   0.71%
   QC value within limits for Sr 421.552  Recovery = 105.95%
Ti 334.940†           328197.5      496.26 ug/L         0.576      496.26 ppb          0.576   0.12%
   QC value within limits for Ti 334.940  Recovery = 99.25%
Tl 190.801†             1592.9      514.50 ug/L         5.526      514.50 ppb          5.526   1.07%
   QC value within limits for Tl 190.801  Recovery = 102.90%
U 409.014†             17825.1      479.92 ug/L         6.936      479.92 ppb          6.936   1.45%
   QC value within limits for U 409.014  Recovery = 95.98%
V 292.402†             72228.2      508.23 ug/L         2.816      508.23 ppb          2.816   0.55%
   QC value within limits for V 292.402  Recovery = 101.65%
Zn 213.857†            50918.1      506.20 ug/L         4.424      506.20 ppb          4.424   0.87%
   QC value within limits for Zn 213.857  Recovery = 101.24%
SiO2†                  78544.9      5382.8 ug/L        59.77      5382.8 ppb         59.77   1.11%
   QC value within limits for SiO2  Recovery = 100.66%
QC Failed.  Continue with analysis.
```

Sequence No.: 55
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 00:12:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4030.6	4030.6	94.8	%			00:13:56
1	Y RADIAL	4506.0	4506.0	96.03	%			00:13:56
1	Al 396.153Radial†	-104.1	0.9	0.7916	ug/L	0.7916	ppb	00:13:56
1	Ca 317.933Radial†	18.2	3.7	7.4144	ug/L	7.4144	ppb	00:14:16
1	Fe 238.204 Radial†	12.8	3.3	42.595	ug/L	42.595	ppb	00:14:16
1	K 766.490 Radial†	2817.9	417.0	77.994	ug/L	77.994	ppb	00:13:56
1	Mg 279.077 IEC†	-2.0	-4.9	-221.48	ug/L	-221.48	ppb	00:14:16
1	Na 589.592 Radial†	-505.7	206.7	59.978	ug/L	59.978	ppb	00:13:56
1	Sr 421.552†	80.5	48.2	0.3191	ug/L	0.3191	ppb	00:13:56
1	Sc 361.383	897287.6	897287.6	99.692	%			00:15:13
1	Y 371.029	758201.2	758201.2	99.444	%			00:15:13
1	Ag 328.068†	216.5	-12.1	-0.0352	ug/L	-0.0352	ppb	00:15:13
1	As 188.979†	-20.6	-0.1	-0.0609	ug/L	-0.0609	ppb	00:15:33
1	B 249.677†	-430.0	-58.4	-1.3996	ug/L	-1.3996	ppb	00:15:33
1	Ba 233.527†	19.5	28.7	0.2254	ug/L	0.2254	ppb	00:15:33
1	Be 313.107†	-3745.5	96.1	0.0354	ug/L	0.0354	ppb	00:15:13
1	Cd 226.502†	-184.4	-1.6	-0.0249	ug/L	-0.0249	ppb	00:15:33
1	Co 228.616†	-59.6	2.2	0.0472	ug/L	0.0472	ppb	00:15:33
1	Cr 267.716†	57.9	-8.0	-0.0815	ug/L	-0.0815	ppb	00:15:33
1	Cu 324.752†	6068.0	9.7	0.0366	ug/L	0.0366	ppb	00:15:13
1	Mn 257.610†	478.9	43.5	0.0621	ug/L	0.0621	ppb	00:15:33
1	Mo 202.031†	16.6	10.6	0.7779	ug/L	0.7779	ppb	00:15:33
1	Ni 231.604†	58.6	6.5	0.1651	ug/L	0.1651	ppb	00:15:33
1	P 214.914†	219.3	17.9	10.824	ug/L	10.824	ppb	00:15:33
1	Pb 220.353†	-66.1	-1.3	-0.1624	ug/L	-0.1624	ppb	00:15:33
1	S 181.975 Axial†	42.7	5.8	8.5495	ug/L	8.5495	ppb	00:15:33
1	Sb 206.836†	40.9	4.3	1.5119	ug/L	1.5119	ppb	00:15:33
1	Se 196.026†	-27.3	-6.7	-4.2922	ug/L	-4.2922	ppb	00:15:33
1	Si 251.611†	612.6	80.3	2.5679	ug/L	2.5679	ppb	00:15:33
1	Sn 189.927†	4.9	-5.5	-0.9944	ug/L	-0.9944	ppb	00:15:33
1	Ti 334.940†	-1402.9	-125.4	-0.1663	ug/L	-0.1663	ppb	00:15:13
1	Tl 190.801†	-29.2	1.9	0.6210	ug/L	0.6210	ppb	00:15:33
1	U 409.014†	-3164.7	-358.3	-9.6850	ug/L	-9.6850	ppb	00:15:13
1	V 292.402†	-1439.3	-13.4	-0.1105	ug/L	-0.1105	ppb	00:15:13
1	Zn 213.857†	567.2	11.2	0.1053	ug/L	0.1053	ppb	00:15:33
1	SiO2†	611.2	61.6	4.2124	ug/L	4.2124	ppb	00:16:29
2	Sc Radial	4131.6	4131.6	97.1	%			00:14:21
2	Y RADIAL	4604.2	4604.2	98.13	%			00:14:21
2	Al 396.153Radial†	-110.4	-2.9	-2.6942	ug/L	-2.6942	ppb	00:14:21
2	Ca 317.933Radial†	19.7	4.8	9.4904	ug/L	9.4904	ppb	00:14:41
2	Fe 238.204 Radial†	10.2	0.3	3.8567	ug/L	3.8567	ppb	00:14:41
2	K 766.490 Radial†	2775.6	300.7	56.229	ug/L	56.229	ppb	00:14:21
2	Mg 279.077 IEC†	3.1	0.4	18.529	ug/L	18.529	ppb	00:14:41
2	Na 589.592 Radial†	-511.8	213.5	61.958	ug/L	61.958	ppb	00:14:21
2	Sr 421.552†	65.7	30.9	0.2047	ug/L	0.2047	ppb	00:14:21
2	Sc 361.383	891155.7	891155.7	99.010	%			00:15:38
2	Y 371.029	753386.0	753386.0	98.812	%			00:15:38
2	Ag 328.068†	266.8	40.1	0.1897	ug/L	0.1897	ppb	00:15:38
2	As 188.979†	-21.2	-0.9	-0.3901	ug/L	-0.3901	ppb	00:15:58
2	B 249.677†	-448.8	-80.4	-1.9188	ug/L	-1.9188	ppb	00:15:58
2	Ba 233.527†	18.5	27.8	0.2158	ug/L	0.2158	ppb	00:15:58
2	Be 313.107†	-3669.4	147.2	0.0538	ug/L	0.0538	ppb	00:15:38
2	Cd 226.502†	-193.4	-12.0	-0.1416	ug/L	-0.1416	ppb	00:15:58
2	Co 228.616†	-62.1	-0.8	-0.0135	ug/L	-0.0135	ppb	00:15:58
2	Cr 267.716†	65.3	-0.0	0.0023	ug/L	0.0023	ppb	00:15:58
2	Cu 324.752†	6014.1	-3.0	-0.0038	ug/L	-0.0038	ppb	00:15:38
2	Mn 257.610†	468.7	36.5	0.0405	ug/L	0.0405	ppb	00:15:58
2	Mo 202.031†	19.5	13.6	0.9950	ug/L	0.9950	ppb	00:15:58
2	Ni 231.604†	64.0	12.3	0.3134	ug/L	0.3134	ppb	00:15:58

2	P 214.914†	206.0	6.0	3.6493 ug/L	3.6493 ppb	00:15:58
2	Pb 220.353†	-61.4	3.0	0.3765 ug/L	0.3765 ppb	00:15:58
2	S 181.975 Axial†	42.8	6.1	9.0085 ug/L	9.0085 ppb	00:15:58
2	Sb 206.836†	38.7	2.4	0.8432 ug/L	0.8432 ppb	00:15:58
2	Se 196.026†	-20.4	0.1	0.0588 ug/L	0.0588 ppb	00:15:58
2	Si 251.611†	562.8	34.3	1.0885 ug/L	1.0885 ppb	00:15:58
2	Sn 189.927†	6.0	-4.3	-0.7844 ug/L	-0.7844 ppb	00:15:58
2	Ti 334.940†	-1558.0	-291.8	-0.4376 ug/L	-0.4376 ppb	00:15:38
2	Tl 190.801†	-34.8	-3.9	-1.2525 ug/L	-1.2525 ppb	00:15:58
2	U 409.014†	-3112.6	-327.5	-8.8493 ug/L	-8.8493 ppb	00:15:38
2	V 292.402†	-1519.0	-103.8	-0.7231 ug/L	-0.7231 ppb	00:15:38
2	Zn 213.857†	571.9	19.9	0.1972 ug/L	0.1972 ppb	00:15:58
2	SiO2†	632.6	87.4	5.9805 ug/L	5.9805 ppb	00:16:34
3	Sc Radial	4107.9	4107.9	96.6 %		00:14:46
3	Y RADIAL	4525.5	4525.5	96.45 %		00:14:46
3	Al 396.153Radial†	-112.8	-6.1	-5.4988 ug/L	-5.4988 ppb	00:14:46
3	Ca 317.933Radial†	19.9	5.2	10.253 ug/L	10.253 ppb	00:15:06
3	Fe 238.204 Radial†	13.7	4.0	51.413 ug/L	51.413 ppb	00:15:06
3	K 766.490 Radial†	2813.9	356.9	66.750 ug/L	66.750 ppb	00:14:46
3	Mg 279.077 IEC†	2.1	-0.6	-27.325 ug/L	-27.325 ppb	00:15:06
3	Na 589.592 Radial†	-582.4	137.3	39.847 ug/L	39.847 ppb	00:14:46
3	Sr 421.552†	71.0	36.7	0.2430 ug/L	0.2430 ppb	00:14:46
3	Sc 361.383	894856.4	894856.4	99.422 %		00:16:03
3	Y 371.029	755828.2	755828.2	99.133 %		00:16:03
3	Ag 328.068†	205.6	-22.5	-0.0829 ug/L	-0.0829 ppb	00:16:03
3	As 188.979†	-18.1	2.3	1.0492 ug/L	1.0492 ppb	00:16:24
3	B 249.677†	-429.6	-59.1	-1.4193 ug/L	-1.4193 ppb	00:16:24
3	Ba 233.527†	9.4	18.6	0.1453 ug/L	0.1453 ppb	00:16:24
3	Be 313.107†	-3783.0	48.2	0.0173 ug/L	0.0173 ppb	00:16:03
3	Cd 226.502†	-177.5	4.8	0.0485 ug/L	0.0485 ppb	00:16:24
3	Co 228.616†	-62.2	-0.6	-0.0130 ug/L	-0.0130 ppb	00:16:24
3	Cr 267.716†	67.0	1.5	0.0240 ug/L	0.0240 ppb	00:16:24
3	Cu 324.752†	6008.5	-33.7	-0.0927 ug/L	-0.0927 ppb	00:16:03
3	Mn 257.610†	443.1	8.9	0.0161 ug/L	0.0161 ppb	00:16:24
3	Mo 202.031†	5.6	-0.5	-0.0299 ug/L	-0.0299 ppb	00:16:24
3	Ni 231.604†	63.7	11.7	0.2983 ug/L	0.2983 ppb	00:16:24
3	P 214.914†	197.5	-3.4	-2.0959 ug/L	-2.0959 ppb	00:16:24
3	Pb 220.353†	-78.4	-13.8	-1.7144 ug/L	-1.7144 ppb	00:16:24
3	S 181.975 Axial†	33.5	-3.3	-4.8286 ug/L	-4.8286 ppb	00:16:24
3	Sb 206.836†	46.9	10.4	3.6542 ug/L	3.6542 ppb	00:16:24
3	Se 196.026†	-29.0	-8.4	-5.4010 ug/L	-5.4010 ppb	00:16:24
3	Si 251.611†	586.2	55.5	1.7797 ug/L	1.7797 ppb	00:16:24
3	Sn 189.927†	16.6	6.2	1.1256 ug/L	1.1256 ppb	00:16:24
3	Ti 334.940†	-1481.9	-208.8	-0.3076 ug/L	-0.3076 ppb	00:16:03
3	Tl 190.801†	-24.1	7.0	2.2468 ug/L	2.2468 ppb	00:16:24
3	U 409.014†	-3178.9	-381.1	-10.304 ug/L	-10.304 ppb	00:16:03
3	V 292.402†	-1543.9	-122.5	-0.8781 ug/L	-0.8781 ppb	00:16:03
3	Zn 213.857†	580.9	26.6	0.2578 ug/L	0.2578 ppb	00:16:24
3	SiO2†	613.0	65.1	4.4738 ug/L	4.4738 ppb	00:16:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894433.2	99.374	%	0.3431				0.35%
Sc Radial	4090.0	96.2	%	1.24				1.29%
Y 371.029	755805.1	99.129	%	0.3158				0.32%
Y RADIAL	4545.2	96.87	%	1.109				1.14%
Ag 328.068†	1.8	0.0239	ug/L	0.14558	0.0239	ppb	0.14558	609.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.7	-2.4671	ug/L	3.15131	-2.4671	ppb	3.15131	127.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.4	0.1994	ug/L	0.75411	0.1994	ppb	0.75411	378.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-66.0	-1.5792	ug/L	0.29426	-1.5792	ppb	0.29426	18.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.1	0.1955	ug/L	0.04373	0.1955	ppb	0.04373	22.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	97.2	0.0355	ug/L	0.01829	0.0355	ppb	0.01829	51.52%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	9.0527	ug/L	1.46916	9.0527	ppb	1.46916	16.23%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.0     -0.0393 ug/L       0.09586     -0.0393 ppb        0.09586 243.66%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.3      0.0069 ug/L       0.03488      0.0069 ppb        0.03488 506.31%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.2     -0.0184 ug/L       0.05571     -0.0184 ppb        0.05571 303.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -9.0     -0.0200 ug/L       0.06617     -0.0200 ppb        0.06617 331.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.5      32.622 ug/L       25.2984      32.622 ppb        25.2984  77.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         358.2      66.991 ug/L       10.8842      66.991 ppb        10.8842  16.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.7     -76.758 ug/L      127.4107     -76.758 ppb       127.4107 165.99%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                29.6      0.0396 ug/L       0.02298      0.0396 ppb        0.02298  58.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.9      0.5810 ug/L       0.54009      0.5810 ppb        0.54009  92.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        185.8      53.927 ug/L       12.2345      53.927 ppb        12.2345  22.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.2      0.2589 ug/L       0.08166      0.2589 ppb        0.08166  31.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.8      4.1257 ug/L       6.47298      4.1257 ppb        6.47298 156.89%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.0     -0.5001 ug/L       1.08556     -0.5001 ppb        1.08556 217.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.9      4.2431 ug/L       7.85971      4.2431 ppb        7.85971 185.23%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.7      2.0031 ug/L       1.46846      2.0031 ppb        1.46846  73.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.0     -3.2115 ug/L       2.88590     -3.2115 ppb        2.88590  89.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                56.7      1.8120 ug/L       0.74026      1.8120 ppb        0.74026  40.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.2     -0.2177 ug/L       1.16810     -0.2177 ppb        1.16810 536.46%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                38.6      0.2556 ug/L       0.05822      0.2556 ppb        0.05822  22.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -208.6     -0.3038 ug/L       0.13573     -0.3038 ppb        0.13573  44.67%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.7      0.5384 ug/L       1.75113      0.5384 ppb        1.75113 325.23%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -355.6     -9.6127 ug/L       0.72991     -9.6127 ppb        0.72991   7.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -79.9     -0.5706 ug/L       0.40586     -0.5706 ppb        0.40586  71.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                19.3      0.1868 ug/L       0.07677      0.1868 ppb        0.07677  41.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      71.4      4.8889 ug/L       0.95432      4.8889 ppb        0.95432  19.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 63
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 01:06:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3977.6	3977.6	93.5	%			01:09:06
1	Y RADIAL	4479.5	4479.5	95.47	%			01:08:46
1	Al 396.153Radial†	5391.5	5876.3	5297.0	ug/L	5297.0	ppb	01:08:46
1	Ca 317.933Radial†	2606.0	2771.3	5513.7	ug/L	5513.7	ppb	01:09:06
1	Fe 238.204 Radial†	398.2	415.6	5370.3	ug/L	5370.3	ppb	01:09:06
1	K 766.490 Radial†	29439.9	28925.2	5404.5	ug/L	5404.5	ppb	01:08:46
1	Mg 279.077 IEC†	121.4	127.1	5774.8	ug/L	5774.8	ppb	01:09:06
1	Na 589.592 Radial†	35576.7	38784.8	11256	ug/L	11256	ppb	01:08:46
1	Sr 421.552†	76648.5	81928.5	542.97	ug/L	542.97	ppb	01:08:46
1	Sc 361.383	908306.6	908306.6	100.92	%			01:10:03
1	Y 371.029	757297.9	757297.9	99.325	%			01:10:03
1	Ag 328.068†	112631.2	111379.7	514.72	ug/L	514.72	ppb	01:10:09
1	As 188.979†	1126.2	1136.5	516.73	ug/L	516.73	ppb	01:10:29
1	B 249.677†	20687.2	20872.4	495.79	ug/L	495.79	ppb	01:10:09
1	Ba 233.527†	65949.5	65360.2	511.81	ug/L	511.81	ppb	01:10:09
1	Be 313.107†	1380026.4	1371355.1	512.22	ug/L	512.22	ppb	01:10:03
1	Cd 226.502†	44706.4	44484.0	516.20	ug/L	516.20	ppb	01:10:09
1	Co 228.616†	24706.8	24544.5	513.24	ug/L	513.24	ppb	01:10:09
1	Cr 267.716†	46090.6	45606.3	512.55	ug/L	512.55	ppb	01:10:09
1	Cu 324.752†	175102.6	167436.3	502.81	ug/L	502.81	ppb	01:10:09
1	Mn 257.610†	457410.8	452822.6	507.99	ug/L	507.99	ppb	01:10:03
1	Mo 202.031†	7062.7	6992.5	512.21	ug/L	512.21	ppb	01:10:29
1	Ni 231.604†	20556.1	20317.2	516.11	ug/L	516.11	ppb	01:10:09
1	P 214.914†	4479.5	4236.8	2472.8	ug/L	2472.8	ppb	01:10:29
1	Pb 220.353†	4118.9	4146.6	515.38	ug/L	515.38	ppb	01:10:29
1	S 181.975 Axial†	754.4	710.5	1039.9	ug/L	1039.9	ppb	01:10:29
1	Sb 206.836†	1506.5	1456.1	526.07	ug/L	526.07	ppb	01:10:29
1	Se 196.026†	764.4	778.2	531.30	ug/L	531.30	ppb	01:10:29
1	Si 251.611†	80711.3	79444.6	2542.3	ug/L	2542.3	ppb	01:10:09
1	Sn 189.927†	2890.7	2854.0	516.99	ug/L	516.99	ppb	01:10:29
1	Ti 334.940†	336231.1	334461.4	505.72	ug/L	505.72	ppb	01:10:03
1	Tl 190.801†	1581.5	1598.4	516.35	ug/L	516.35	ppb	01:10:29
1	U 409.014†	15477.2	18153.0	488.75	ug/L	488.75	ppb	01:10:09
1	V 292.402†	72372.9	73146.5	514.60	ug/L	514.60	ppb	01:10:09
1	Zn 213.857†	52310.2	51277.7	509.76	ug/L	509.76	ppb	01:10:09
1	SiO2†	79596.4	78322.5	5367.5	ug/L	5367.5	ppb	01:11:37
2	Sc Radial	3974.9	3974.9	93.5	%			01:09:31
2	Y RADIAL	4472.0	4472.0	95.31	%			01:09:11
2	Al 396.153Radial†	5450.0	5942.8	5356.8	ug/L	5356.8	ppb	01:09:11
2	Ca 317.933Radial†	2606.9	2774.1	5519.3	ug/L	5519.3	ppb	01:09:31
2	Fe 238.204 Radial†	405.0	423.2	5467.4	ug/L	5467.4	ppb	01:09:31
2	K 766.490 Radial†	29450.6	28957.9	5410.6	ug/L	5410.6	ppb	01:09:11
2	Mg 279.077 IEC†	115.4	120.8	5488.9	ug/L	5488.9	ppb	01:09:31
2	Na 589.592 Radial†	35588.5	38823.1	11267	ug/L	11267	ppb	01:09:11
2	Sr 421.552†	76825.1	82172.8	544.59	ug/L	544.59	ppb	01:09:11
2	Sc 361.383	898435.0	898435.0	99.819	%			01:10:35
2	Y 371.029	748796.3	748796.3	98.210	%			01:10:35
2	Ag 328.068†	112801.3	112776.4	521.18	ug/L	521.18	ppb	01:10:40
2	As 188.979†	1155.0	1177.6	535.24	ug/L	535.24	ppb	01:11:00
2	B 249.677†	20836.2	21246.9	504.69	ug/L	504.69	ppb	01:10:40
2	Ba 233.527†	66024.4	66153.2	518.02	ug/L	518.02	ppb	01:10:40
2	Be 313.107†	1363447.9	1369772.1	511.63	ug/L	511.63	ppb	01:10:35
2	Cd 226.502†	44791.3	45055.8	522.84	ug/L	522.84	ppb	01:10:40
2	Co 228.616†	24812.6	24919.5	521.10	ug/L	521.10	ppb	01:10:40
2	Cr 267.716†	46187.5	46205.2	519.28	ug/L	519.28	ppb	01:10:40
2	Cu 324.752†	175744.0	169985.4	510.46	ug/L	510.46	ppb	01:10:40
2	Mn 257.610†	452736.4	453120.0	508.35	ug/L	508.35	ppb	01:10:35
2	Mo 202.031†	7098.8	7105.6	520.49	ug/L	520.49	ppb	01:11:00
2	Ni 231.604†	20568.4	20553.4	522.11	ug/L	522.11	ppb	01:10:40

2	P 214.914†	4486.9	4293.0	2505.5 ug/L	2505.5 ppb	01:11:00
2	Pb 220.353†	4152.1	4224.6	525.07 ug/L	525.07 ppb	01:11:00
2	S 181.975 Axial†	775.8	740.2	1083.3 ug/L	1083.3 ppb	01:11:00
2	Sb 206.836†	1533.7	1499.7	541.65 ug/L	541.65 ppb	01:11:00
2	Se 196.026†	767.1	789.2	538.89 ug/L	538.89 ppb	01:11:00
2	Si 251.611†	80922.2	80534.7	2577.1 ug/L	2577.1 ppb	01:10:40
2	Sn 189.927†	2928.1	2922.9	529.46 ug/L	529.46 ppb	01:11:00
2	Ti 334.940†	332419.0	334303.2	505.50 ug/L	505.50 ppb	01:10:35
2	Tl 190.801†	1579.1	1613.2	521.06 ug/L	521.06 ppb	01:11:00
2	U 409.014†	15604.6	18449.1	496.73 ug/L	496.73 ppb	01:10:40
2	V 292.402†	72392.2	73953.8	520.32 ug/L	520.32 ppb	01:10:40
2	Zn 213.857†	52526.4	52063.9	517.59 ug/L	517.59 ppb	01:10:40
2	SiO2†	80949.1	80544.3	5519.9 ug/L	5519.9 ppb	01:11:42
3	Sc Radial	3960.6	3960.6	93.1 %		01:09:56
3	Y RADIAL	4456.3	4456.3	94.98 %		01:09:36
3	Al 396.153Radial†	5383.6	5892.5	5311.6 ug/L	5311.6 ppb	01:09:36
3	Ca 317.933Radial†	2588.8	2764.8	5500.7 ug/L	5500.7 ppb	01:09:56
3	Fe 238.204 Radial†	404.8	424.6	5485.7 ug/L	5485.7 ppb	01:09:56
3	K 766.490 Radial†	29237.2	28842.8	5389.1 ug/L	5389.1 ppb	01:09:36
3	Mg 279.077 IEC†	115.5	121.3	5514.3 ug/L	5514.3 ppb	01:09:56
3	Na 589.592 Radial†	34944.2	38269.0	11106 ug/L	11106 ppb	01:09:36
3	Sr 421.552†	75477.3	81022.7	536.97 ug/L	536.97 ppb	01:09:36
3	Sc 361.383	899287.5	899287.5	99.914 %		01:11:06
3	Y 371.029	749258.0	749258.0	98.271 %		01:11:06
3	Ag 328.068†	112562.7	112430.5	519.59 ug/L	519.59 ppb	01:11:11
3	As 188.979†	1130.8	1152.3	523.85 ug/L	523.85 ppb	01:11:31
3	B 249.677†	20745.2	21136.0	502.05 ug/L	502.05 ppb	01:11:11
3	Ba 233.527†	65837.1	65903.0	516.06 ug/L	516.06 ppb	01:11:11
3	Be 313.107†	1365275.5	1370306.4	511.82 ug/L	511.82 ppb	01:11:06
3	Cd 226.502†	44666.1	44888.0	520.89 ug/L	520.89 ppb	01:11:11
3	Co 228.616†	24716.5	24799.7	518.58 ug/L	518.58 ppb	01:11:11
3	Cr 267.716†	46161.7	46135.6	518.50 ug/L	518.50 ppb	01:11:11
3	Cu 324.752†	175154.4	169228.4	508.19 ug/L	508.19 ppb	01:11:11
3	Mn 257.610†	453470.4	453424.7	508.69 ug/L	508.69 ppb	01:11:06
3	Mo 202.031†	7041.7	7041.7	515.82 ug/L	515.82 ppb	01:11:31
3	Ni 231.604†	20567.8	20533.2	521.60 ug/L	521.60 ppb	01:11:11
3	P 214.914†	4458.1	4259.9	2485.8 ug/L	2485.8 ppb	01:11:31
3	Pb 220.353†	4106.8	4175.3	518.94 ug/L	518.94 ppb	01:11:31
3	S 181.975 Axial†	739.4	703.0	1028.8 ug/L	1028.8 ppb	01:11:31
3	Sb 206.836†	1509.6	1474.2	532.54 ug/L	532.54 ppb	01:11:31
3	Se 196.026†	760.3	781.6	533.94 ug/L	533.94 ppb	01:11:31
3	Si 251.611†	80680.3	80215.7	2567.0 ug/L	2567.0 ppb	01:11:11
3	Sn 189.927†	2889.7	2881.8	522.01 ug/L	522.01 ppb	01:11:31
3	Ti 334.940†	332805.0	334373.8	505.60 ug/L	505.60 ppb	01:11:06
3	Tl 190.801†	1571.4	1604.0	518.13 ug/L	518.13 ppb	01:11:31
3	U 409.014†	15594.6	18424.3	496.06 ug/L	496.06 ppb	01:11:11
3	V 292.402†	72200.0	73692.7	518.44 ug/L	518.44 ppb	01:11:11
3	Zn 213.857†	52321.2	51808.6	515.03 ug/L	515.03 ppb	01:11:11
3	SiO2†	78501.7	78017.9	5346.5 ug/L	5346.5 ppb	01:11:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902009.7	100.22	%	0.608				0.61%
Sc Radial	3971.1	93.4	%	0.22				0.23%
Y 371.029	751784.1	98.602	%	0.6270				0.64%
Y RADIAL	4469.3	95.25	%	0.252				0.26%
Ag 328.068†	112195.5	518.50	ug/L	3.366	518.50	ppb	3.366	0.65%
QC value within limits for Ag 328.068 Recovery = 103.70%								
Al 396.153Radial†	5903.9	5321.8	ug/L	31.20	5321.8	ppb	31.20	0.59%
QC value within limits for Al 396.153Radial Recovery = 106.44%								
As 188.979†	1155.5	525.27	ug/L	9.336	525.27	ppb	9.336	1.78%
QC value within limits for As 188.979 Recovery = 105.05%								
B 249.677†	21085.1	500.84	ug/L	4.570	500.84	ppb	4.570	0.91%
QC value within limits for B 249.677 Recovery = 100.17%								
Ba 233.527†	65805.5	515.30	ug/L	3.175	515.30	ppb	3.175	0.62%
QC value within limits for Ba 233.527 Recovery = 103.06%								
Be 313.107†	1370477.9	511.89	ug/L	0.300	511.89	ppb	0.300	0.06%
QC value within limits for Be 313.107 Recovery = 102.38%								
Ca 317.933Radial†	2770.0	5511.3	ug/L	9.55	5511.3	ppb	9.55	0.17%

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   QC value greater than the upper limit for Ca 317.933Radial  Recovery = 110.23%
Cd 226.502†            44809.2      519.98 ug/L        3.409      519.98 ppb         3.409   0.66%
   QC value within limits for Cd 226.502  Recovery = 104.00%
Co 228.616†            24754.6      517.64 ug/L        4.013      517.64 ppb         4.013   0.78%
   QC value within limits for Co 228.616  Recovery = 103.53%
Cr 267.716†            45982.4      516.77 ug/L        3.681      516.77 ppb         3.681   0.71%
   QC value within limits for Cr 267.716  Recovery = 103.35%
Cu 324.752†           168883.4      507.15 ug/L        3.932      507.15 ppb         3.932   0.78%
   QC value within limits for Cu 324.752  Recovery = 101.43%
Fe 238.204 Radial†       421.1      5441.1 ug/L       62.02      5441.1 ppb         62.02   1.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.82%
K 766.490 Radial†      28908.6      5401.4 ug/L       11.06      5401.4 ppb         11.06   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 108.03%
Mg 279.077 IEC†          123.1      5592.6 ug/L      158.23      5592.6 ppb        158.23   2.83%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 111.85%
Mn 257.610†           453122.5      508.34 ug/L        0.349      508.34 ppb         0.349   0.07%
   QC value within limits for Mn 257.610  Recovery = 101.67%
Mo 202.031†             7046.6      516.18 ug/L        4.151      516.18 ppb         4.151   0.80%
   QC value within limits for Mo 202.031  Recovery = 103.24%
Na 589.592 Radial†     38625.7       11209 ug/L         89.8       11209 ppb          89.8   0.80%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 112.09%
Ni 231.604†            20467.9      519.94 ug/L        3.326      519.94 ppb         3.326   0.64%
   QC value within limits for Ni 231.604  Recovery = 103.99%
P 214.914†              4263.3      2488.0 ug/L       16.43      2488.0 ppb         16.43   0.66%
   QC value within limits for P 214.914  Recovery = 99.52%
Pb 220.353†             4182.2      519.80 ug/L        4.900      519.80 ppb         4.900   0.94%
   QC value within limits for Pb 220.353  Recovery = 103.96%
S 181.975 Axial†         717.9      1050.7 ug/L       28.79      1050.7 ppb         28.79   2.74%
   QC value within limits for S 181.975 Axial  Recovery = 105.07%
Sb 206.836†             1476.7      533.42 ug/L        7.827      533.42 ppb         7.827   1.47%
   QC value within limits for Sb 206.836  Recovery = 106.68%
Se 196.026†              783.0      534.71 ug/L        3.853      534.71 ppb         3.853   0.72%
   QC value within limits for Se 196.026  Recovery = 106.94%
Si 251.611†            80065.0      2562.1 ug/L       17.93      2562.1 ppb         17.93   0.70%
   QC value within limits for Si 251.611  Recovery = 102.49%
Sn 189.927†             2886.2      522.82 ug/L        6.273      522.82 ppb         6.273   1.20%
   QC value within limits for Sn 189.927  Recovery = 104.56%
Sr 421.552†            81708.0      541.51 ug/L        4.016      541.51 ppb         4.016   0.74%
   QC value within limits for Sr 421.552  Recovery = 108.30%
Ti 334.940†           334379.5      505.60 ug/L        0.111      505.60 ppb         0.111   0.02%
   QC value within limits for Ti 334.940  Recovery = 101.12%
Tl 190.801†             1605.2      518.52 ug/L        2.380      518.52 ppb         2.380   0.46%
   QC value within limits for Tl 190.801  Recovery = 103.70%
U 409.014†             18342.2      493.85 ug/L        4.424      493.85 ppb         4.424   0.90%
   QC value within limits for U 409.014  Recovery = 98.77%
V 292.402†             73597.7      517.79 ug/L        2.912      517.79 ppb         2.912   0.56%
   QC value within limits for V 292.402  Recovery = 103.56%
Zn 213.857†            51716.8      514.12 ug/L        3.990      514.12 ppb         3.990   0.78%
   QC value within limits for Zn 213.857  Recovery = 102.82%
SiO2†                  78961.6      5411.3 ug/L       94.66      5411.3 ppb         94.66   1.75%
   QC value within limits for SiO2  Recovery = 101.19%
QC Failed.  Continue with analysis.
```

Sequence No.: 64
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 01:13:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3912.6	3912.6	92.0	%			01:16:09
1	Y RADIAL	4485.5	4485.5	95.60	%			01:15:49
1	Al 396.153Radial†	-115.8	-15.1	-13.701	ug/L	-13.701	ppb	01:15:49
1	Ca 317.933Radial†	17.4	3.5	6.8825	ug/L	6.8825	ppb	01:16:09
1	Fe 238.204 Radial†	12.4	3.3	42.794	ug/L	42.794	ppb	01:16:09
1	K 766.490 Radial†	2866.7	559.8	104.73	ug/L	104.73	ppb	01:15:49
1	Mg 279.077 IEC†	1.4	-1.2	-55.979	ug/L	-55.979	ppb	01:16:09
1	Na 589.592 Radial†	-742.8	-67.2	-19.505	ug/L	-19.505	ppb	01:15:49
1	Sr 421.552†	59.3	27.7	0.1834	ug/L	0.1834	ppb	01:15:49
1	Sc 361.383	893579.4	893579.4	99.280	%			01:17:06
1	Y 371.029	756602.6	756602.6	99.234	%			01:17:06
1	Ag 328.068†	325.5	98.5	0.4686	ug/L	0.4686	ppb	01:17:06
1	As 188.979†	-22.8	-2.5	-1.0977	ug/L	-1.0977	ppb	01:17:26
1	B 249.677†	-374.3	-4.0	-0.1033	ug/L	-0.1033	ppb	01:17:26
1	Ba 233.527†	16.5	25.7	0.2012	ug/L	0.2012	ppb	01:17:26
1	Be 313.107†	-3589.6	237.6	0.0882	ug/L	0.0882	ppb	01:17:06
1	Cd 226.502†	-180.7	1.3	0.0099	ug/L	0.0099	ppb	01:17:26
1	Co 228.616†	-57.8	3.7	0.0780	ug/L	0.0780	ppb	01:17:26
1	Cr 267.716†	91.7	26.4	0.3021	ug/L	0.3021	ppb	01:17:26
1	Cu 324.752†	6051.5	18.3	0.0607	ug/L	0.0607	ppb	01:17:06
1	Mn 257.610†	485.7	52.4	0.0653	ug/L	0.0653	ppb	01:17:26
1	Mo 202.031†	16.4	10.5	0.7714	ug/L	0.7714	ppb	01:17:26
1	Ni 231.604†	71.0	19.2	0.4877	ug/L	0.4877	ppb	01:17:26
1	P 214.914†	208.3	7.8	4.6881	ug/L	4.6881	ppb	01:17:26
1	Pb 220.353†	-52.5	12.1	1.4971	ug/L	1.4971	ppb	01:17:26
1	S 181.975 Axial†	41.1	4.3	6.3226	ug/L	6.3226	ppb	01:17:26
1	Sb 206.836†	51.5	15.2	5.3110	ug/L	5.3110	ppb	01:17:26
1	Se 196.026†	-25.9	-5.4	-3.4011	ug/L	-3.4011	ppb	01:17:26
1	Si 251.611†	587.0	57.1	1.8229	ug/L	1.8229	ppb	01:17:26
1	Sn 189.927†	10.9	0.6	0.1048	ug/L	0.1048	ppb	01:17:26
1	Ti 334.940†	-1370.6	-98.8	-0.1411	ug/L	-0.1411	ppb	01:17:06
1	Tl 190.801†	-29.1	1.9	0.6179	ug/L	0.6179	ppb	01:17:26
1	U 409.014†	-3036.6	-242.3	-6.5537	ug/L	-6.5537	ppb	01:17:06
1	V 292.402†	-1496.6	-77.0	-0.5435	ug/L	-0.5435	ppb	01:17:06
1	Zn 213.857†	571.5	18.0	0.1710	ug/L	0.1710	ppb	01:17:26
1	SiO2†	555.5	8.1	0.5328	ug/L	0.5328	ppb	01:18:22
2	Sc Radial	3985.0	3985.0	93.7	%			01:16:34
2	Y RADIAL	4487.3	4487.3	95.64	%			01:16:14
2	Al 396.153Radial†	-100.7	3.3	2.9533	ug/L	2.9533	ppb	01:16:14
2	Ca 317.933Radial†	17.2	2.9	5.7657	ug/L	5.7657	ppb	01:16:34
2	Fe 238.204 Radial†	11.2	1.8	23.184	ug/L	23.184	ppb	01:16:34
2	K 766.490 Radial†	2810.6	443.2	82.934	ug/L	82.934	ppb	01:16:14
2	Mg 279.077 IEC†	1.5	-1.1	-50.400	ug/L	-50.400	ppb	01:16:34
2	Na 589.592 Radial†	-832.9	-148.6	-43.136	ug/L	-43.136	ppb	01:16:14
2	Sr 421.552†	79.6	48.1	0.3190	ug/L	0.3190	ppb	01:16:14
2	Sc 361.383	883431.1	883431.1	98.152	%			01:17:31
2	Y 371.029	746881.5	746881.5	97.959	%			01:17:31
2	Ag 328.068†	344.2	121.4	0.5729	ug/L	0.5729	ppb	01:17:31
2	As 188.979†	-22.0	-1.9	-0.8604	ug/L	-0.8604	ppb	01:17:51
2	B 249.677†	-382.9	-17.1	-0.4131	ug/L	-0.4131	ppb	01:17:51
2	Ba 233.527†	12.1	21.5	0.1686	ug/L	0.1686	ppb	01:17:51
2	Be 313.107†	-3697.6	86.0	0.0315	ug/L	0.0315	ppb	01:17:31
2	Cd 226.502†	-183.0	-3.1	-0.0406	ug/L	-0.0406	ppb	01:17:51
2	Co 228.616†	-54.6	6.3	0.1343	ug/L	0.1343	ppb	01:17:51
2	Cr 267.716†	86.0	21.6	0.2489	ug/L	0.2489	ppb	01:17:51
2	Cu 324.752†	6024.5	60.8	0.1898	ug/L	0.1898	ppb	01:17:31
2	Mn 257.610†	463.0	34.9	0.0435	ug/L	0.0435	ppb	01:17:51
2	Mo 202.031†	14.7	8.9	0.6564	ug/L	0.6564	ppb	01:17:51
2	Ni 231.604†	63.0	11.8	0.3004	ug/L	0.3004	ppb	01:17:51

2	P 214.914†	200.0	1.7	0.9802 ug/L	0.9802 ppb	01:17:51
2	Pb 220.353†	-45.8	18.4	2.2795 ug/L	2.2795 ppb	01:17:51
2	S 181.975 Axial†	37.6	1.3	1.9215 ug/L	1.9215 ppb	01:17:51
2	Sb 206.836†	38.1	2.1	0.7372 ug/L	0.7372 ppb	01:17:51
2	Se 196.026†	-27.3	-7.1	-4.6324 ug/L	-4.6324 ppb	01:17:51
2	Si 251.611†	576.1	52.8	1.6870 ug/L	1.6870 ppb	01:17:51
2	Sn 189.927†	7.9	-2.4	-0.4299 ug/L	-0.4299 ppb	01:17:51
2	Ti 334.940†	-1418.0	-162.9	-0.2368 ug/L	-0.2368 ppb	01:17:31
2	Tl 190.801†	-35.9	-5.4	-1.7347 ug/L	-1.7347 ppb	01:17:51
2	U 409.014†	-3153.3	-396.4	-10.714 ug/L	-10.714 ppb	01:17:31
2	V 292.402†	-1411.4	-7.6	-0.0681 ug/L	-0.0681 ppb	01:17:31
2	Zn 213.857†	592.3	45.8	0.4537 ug/L	0.4537 ppb	01:17:51
2	SiO2†	581.6	41.1	2.8035 ug/L	2.8035 ppb	01:18:27
3	Sc Radial	3979.3	3979.3	93.6 %		01:16:59
3	Y RADIAL	4518.5	4518.5	96.30 %		01:16:39
3	Al 396.153Radial†	-109.9	-6.7	-6.1435 ug/L	-6.1435 ppb	01:16:39
3	Ca 317.933Radial†	16.4	2.1	4.2075 ug/L	4.2075 ppb	01:16:59
3	Fe 238.204 Radial†	12.9	3.6	46.218 ug/L	46.218 ppb	01:16:59
3	K 766.490 Radial†	2765.5	399.4	74.723 ug/L	74.723 ppb	01:16:39
3	Mg 279.077 IEC†	2.5	-0.1	-3.5038 ug/L	-3.5038 ppb	01:16:59
3	Na 589.592 Radial†	-790.6	-104.7	-30.393 ug/L	-30.393 ppb	01:16:39
3	Sr 421.552†	102.3	72.6	0.4811 ug/L	0.4811 ppb	01:16:39
3	Sc 361.383	899771.0	899771.0	99.968 %		01:17:56
3	Y 371.029	760814.7	760814.7	99.787 %		01:17:56
3	Ag 328.068†	282.8	53.5	0.2612 ug/L	0.2612 ppb	01:17:56
3	As 188.979†	-23.9	-3.4	-1.5311 ug/L	-1.5311 ppb	01:18:16
3	B 249.677†	-369.3	3.6	0.0777 ug/L	0.0777 ppb	01:18:16
3	Ba 233.527†	11.1	20.3	0.1582 ug/L	0.1582 ppb	01:18:16
3	Be 313.107†	-3798.0	54.1	0.0196 ug/L	0.0196 ppb	01:17:56
3	Cd 226.502†	-191.5	-8.3	-0.1016 ug/L	-0.1016 ppb	01:18:16
3	Co 228.616†	-66.3	-4.4	-0.0894 ug/L	-0.0894 ppb	01:18:16
3	Cr 267.716†	83.9	17.9	0.2061 ug/L	0.2061 ppb	01:18:16
3	Cu 324.752†	5978.2	-97.0	-0.2860 ug/L	-0.2860 ppb	01:17:56
3	Mn 257.610†	469.3	32.6	0.0413 ug/L	0.0413 ppb	01:18:16
3	Mo 202.031†	23.0	17.0	1.2464 ug/L	1.2464 ppb	01:18:16
3	Ni 231.604†	73.2	20.9	0.5318 ug/L	0.5318 ppb	01:18:16
3	P 214.914†	210.5	8.5	5.1996 ug/L	5.1996 ppb	01:18:16
3	Pb 220.353†	-48.1	16.9	2.0946 ug/L	2.0946 ppb	01:18:16
3	S 181.975 Axial†	35.9	-1.2	-1.6904 ug/L	-1.6904 ppb	01:18:16
3	Sb 206.836†	35.0	-1.7	-0.5609 ug/L	-0.5609 ppb	01:18:16
3	Se 196.026†	-32.7	-12.0	-7.7516 ug/L	-7.7516 ppb	01:18:16
3	Si 251.611†	565.9	32.0	1.0105 ug/L	1.0105 ppb	01:18:16
3	Sn 189.927†	12.8	2.4	0.4323 ug/L	0.4323 ppb	01:18:16
3	Ti 334.940†	-1437.2	-155.9	-0.2329 ug/L	-0.2329 ppb	01:17:56
3	Tl 190.801†	-41.1	-9.9	-3.1747 ug/L	-3.1747 ppb	01:18:16
3	U 409.014†	-2995.9	-180.7	-4.8872 ug/L	-4.8872 ppb	01:17:56
3	V 292.402†	-1527.7	-97.8	-0.6771 ug/L	-0.6771 ppb	01:17:56
3	Zn 213.857†	594.6	37.0	0.3618 ug/L	0.3618 ppb	01:18:16
3	SiO2†	591.9	40.6	2.7534 ug/L	2.7534 ppb	01:18:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892260.5	99.133	%	0.9165				0.92%
Sc Radial	3959.0	93.1	%	0.95				1.02%
Y 371.029	754766.3	98.993	%	0.9372				0.95%
Y RADIAL	4497.1	95.84	%	0.395				0.41%
Ag 328.068†	91.1	0.4342	ug/L	0.15864	0.4342	ppb	0.15864	36.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.2	-5.6306	ug/L	8.33920	-5.6306	ppb	8.33920	148.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-1.1631	ug/L	0.34008	-1.1631	ppb	0.34008	29.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-5.9	-0.1462	ug/L	0.24822	-0.1462	ppb	0.24822	169.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.5	0.1760	ug/L	0.02239	0.1760	ppb	0.02239	12.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	125.9	0.0464	ug/L	0.03666	0.0464	ppb	0.03666	78.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.8	5.6186	ug/L	1.34352	5.6186	ppb	1.34352	23.91%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.4     -0.0441 ug/L       0.05584     -0.0441 ppb        0.05584 126.55%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.9      0.0410 ug/L       0.11633      0.0410 ppb        0.11633 283.82%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                22.0      0.2524 ug/L       0.04811      0.2524 ppb        0.04811  19.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -6.0     -0.0119 ug/L       0.24606     -0.0119 ppb        0.24606 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.9      37.399 ug/L       12.4289      37.399 ppb        12.4289  33.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         467.4      87.461 ug/L       15.5059      87.461 ppb        15.5059  17.73%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -36.628 ug/L       28.8214     -36.628 ppb        28.8214  78.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                40.0      0.0500 ug/L       0.01326      0.0500 ppb        0.01326  26.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.1      0.8914 ug/L       0.31276      0.8914 ppb        0.31276  35.09%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -106.9     -31.012 ug/L       11.8277     -31.012 ppb        11.8277  38.14%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                17.3      0.4400 ug/L       0.12287      0.4400 ppb        0.12287  27.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.0      3.6226 ug/L       2.30267      3.6226 ppb        2.30267  63.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.8      1.9570 ug/L       0.40893      1.9570 ppb        0.40893  20.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      2.1846 ug/L       4.01296      2.1846 ppb        4.01296 183.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.2      1.8291 ug/L       3.08445      1.8291 ppb        3.08445 168.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -8.2     -5.2617 ug/L       2.24249     -5.2617 ppb        2.24249  42.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                47.3      1.5068 ug/L       0.43513      1.5068 ppb        0.43513  28.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.2      0.0358 ug/L       0.43524      0.0358 ppb        0.43524 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                49.5      0.3279 ug/L       0.14905      0.3279 ppb        0.14905  45.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -139.2     -0.2036 ug/L       0.05416     -0.2036 ppb        0.05416  26.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.5     -1.4305 ug/L       1.91452     -1.4305 ppb        1.91452 133.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -273.1     -7.3850 ug/L       3.00116     -7.3850 ppb        3.00116  40.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -60.8     -0.4296 ug/L       0.32012     -0.4296 ppb        0.32012  74.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                33.6      0.3289 ug/L       0.14421      0.3289 ppb        0.14421  43.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      29.9      2.0299 ug/L       1.29674      2.0299 ppb        1.29674  63.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 74
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 02:22:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3658.7	3658.7	86.0	%			02:24:07
1	Y RADIAL	4044.0	4044.0	86.19	%			02:24:07
1	Al 396.153Radial†	5592.1	6612.1	5963.2	ug/L	5963.2	ppb	02:24:07
1	Ca 317.933Radial†	2606.5	3014.9	5998.3	ug/L	5998.3	ppb	02:24:27
1	Fe 238.204 Radial†	399.4	454.1	5866.0	ug/L	5866.0	ppb	02:24:27
1	K 766.490 Radial†	29876.1	32177.1	6012.6	ug/L	6012.6	ppb	02:24:07
1	Mg 279.077 IEC†	116.6	132.8	6033.1	ug/L	6033.1	ppb	02:24:27
1	Na 589.592 Radial†	33540.4	39734.2	11531	ug/L	11531	ppb	02:24:07
1	Sr 421.552†	75569.0	87819.5	582.01	ug/L	582.01	ppb	02:24:07
1	Sc 361.383	907511.4	907511.4	100.83	%			02:25:25
1	Y 371.029	754227.9	754227.9	98.923	%			02:25:25
1	Ag 328.068†	112524.5	111371.6	514.83	ug/L	514.83	ppb	02:25:30
1	As 188.979†	1139.0	1150.2	522.97	ug/L	522.97	ppb	02:25:50
1	B 249.677†	20578.7	20782.8	493.56	ug/L	493.56	ppb	02:25:30
1	Ba 233.527†	66210.9	65676.6	514.30	ug/L	514.30	ppb	02:25:30
1	Be 313.107†	1370813.3	1363415.9	509.26	ug/L	509.26	ppb	02:25:25
1	Cd 226.502†	45023.8	44837.6	520.26	ug/L	520.26	ppb	02:25:30
1	Co 228.616†	24874.9	24732.6	517.17	ug/L	517.17	ppb	02:25:30
1	Cr 267.716†	46203.2	45758.0	514.29	ug/L	514.29	ppb	02:25:30
1	Cu 324.752†	174568.1	167058.2	501.70	ug/L	501.70	ppb	02:25:30
1	Mn 257.610†	458062.0	453865.7	509.20	ug/L	509.20	ppb	02:25:25
1	Mo 202.031†	7093.4	7029.1	514.94	ug/L	514.94	ppb	02:25:50
1	Ni 231.604†	20619.8	20398.3	518.17	ug/L	518.17	ppb	02:25:30
1	P 214.914†	4512.9	4273.8	2495.3	ug/L	2495.3	ppb	02:25:50
1	Pb 220.353†	4170.2	4201.1	522.23	ug/L	522.23	ppb	02:25:50
1	S 181.975 Axial†	761.9	718.6	1051.6	ug/L	1051.6	ppb	02:25:50
1	Sb 206.836†	1509.0	1460.0	527.52	ug/L	527.52	ppb	02:25:50
1	Se 196.026†	771.9	786.3	538.20	ug/L	538.20	ppb	02:25:50
1	Si 251.611†	80932.2	79733.9	2551.5	ug/L	2551.5	ppb	02:25:30
1	Sn 189.927†	2920.5	2886.1	522.85	ug/L	522.85	ppb	02:25:50
1	Ti 334.940†	335575.5	334103.2	505.22	ug/L	505.22	ppb	02:25:25
1	Tl 190.801†	1590.6	1608.8	519.68	ug/L	519.68	ppb	02:25:50
1	U 409.014†	15405.4	18095.2	487.13	ug/L	487.13	ppb	02:25:30
1	V 292.402†	72193.8	73031.7	513.77	ug/L	513.77	ppb	02:25:30
1	Zn 213.857†	52497.2	51508.7	511.99	ug/L	511.99	ppb	02:25:30
1	SiO2†	79755.0	78548.9	5383.0	ug/L	5383.0	ppb	02:26:58
2	Sc Radial	3998.5	3998.5	94.0	%			02:24:32
2	Y RADIAL	4409.5	4409.5	93.98	%			02:24:32
2	Al 396.153Radial†	5380.7	5834.7	5259.2	ug/L	5259.2	ppb	02:24:32
2	Ca 317.933Radial†	2577.3	2726.3	5424.1	ug/L	5424.1	ppb	02:24:52
2	Fe 238.204 Radial†	394.9	409.9	5295.8	ug/L	5295.8	ppb	02:24:52
2	K 766.490 Radial†	29192.8	28498.0	5325.0	ug/L	5325.0	ppb	02:24:32
2	Mg 279.077 IEC†	115.4	120.1	5456.1	ug/L	5456.1	ppb	02:24:52
2	Na 589.592 Radial†	32662.4	35485.9	10298	ug/L	10298	ppb	02:24:32
2	Sr 421.552†	73153.8	77782.7	515.49	ug/L	515.49	ppb	02:24:32
2	Sc 361.383	908406.2	908406.2	100.93	%			02:25:56
2	Y 371.029	755790.4	755790.4	99.128	%			02:25:56
2	Ag 328.068†	113313.3	112043.2	517.76	ug/L	517.76	ppb	02:26:01
2	As 188.979†	1140.7	1150.7	523.08	ug/L	523.08	ppb	02:26:21
2	B 249.677†	20776.0	20958.1	497.83	ug/L	497.83	ppb	02:26:01
2	Ba 233.527†	66473.3	65872.0	515.81	ug/L	515.81	ppb	02:26:01
2	Be 313.107†	1373274.5	1364515.3	509.67	ug/L	509.67	ppb	02:25:56
2	Cd 226.502†	45211.7	44979.8	521.97	ug/L	521.97	ppb	02:26:01
2	Co 228.616†	25022.0	24854.1	519.72	ug/L	519.72	ppb	02:26:01
2	Cr 267.716†	46418.5	45926.2	516.13	ug/L	516.13	ppb	02:26:01
2	Cu 324.752†	176348.0	168651.2	506.45	ug/L	506.45	ppb	02:26:01
2	Mn 257.610†	457661.3	453021.2	508.22	ug/L	508.22	ppb	02:25:56
2	Mo 202.031†	7110.8	7039.4	515.64	ug/L	515.64	ppb	02:26:21
2	Ni 231.604†	20695.3	20453.0	519.56	ug/L	519.56	ppb	02:26:01

2	P 214.914†	4517.1	4273.6	2494.5 ug/L	2494.5 ppb	02:26:21
2	Pb 220.353†	4144.3	4171.3	518.45 ug/L	518.45 ppb	02:26:21
2	S 181.975 Axial†	773.1	728.9	1066.8 ug/L	1066.8 ppb	02:26:21
2	Sb 206.836†	1525.7	1475.0	532.80 ug/L	532.80 ppb	02:26:21
2	Se 196.026†	764.3	778.0	530.94 ug/L	530.94 ppb	02:26:21
2	Si 251.611†	81660.2	80376.1	2572.1 ug/L	2572.1 ppb	02:26:01
2	Sn 189.927†	2923.9	2886.6	522.87 ug/L	522.87 ppb	02:26:21
2	Ti 334.940†	335886.0	334082.9	505.16 ug/L	505.16 ppb	02:25:56
2	Tl 190.801†	1579.5	1596.2	515.61 ug/L	515.61 ppb	02:26:21
2	U 409.014†	15373.7	18048.8	485.94 ug/L	485.94 ppb	02:26:01
2	V 292.402†	72770.8	73532.9	517.33 ug/L	517.33 ppb	02:26:01
2	Zn 213.857†	52825.6	51782.8	514.81 ug/L	514.81 ppb	02:26:01
2	SiO2†	79810.9	78526.4	5381.4 ug/L	5381.4 ppb	02:27:03
3	Sc Radial	3960.8	3960.8	93.1 %		02:24:57
3	Y RADIAL	4350.2	4350.2	92.71 %		02:24:57
3	Al 396.153Radial†	5336.1	5841.2	5265.1 ug/L	5265.1 ppb	02:24:57
3	Ca 317.933Radial†	2554.1	2727.4	5426.3 ug/L	5426.3 ppb	02:25:17
3	Fe 238.204 Radial†	389.8	408.4	5277.6 ug/L	5277.6 ppb	02:25:17
3	K 766.490 Radial†	29084.3	28677.0	5358.5 ug/L	5358.5 ppb	02:24:57
3	Mg 279.077 IEC†	116.6	122.5	5565.5 ug/L	5565.5 ppb	02:25:17
3	Na 589.592 Radial†	32244.9	35368.3	10264 ug/L	10264 ppb	02:24:57
3	Sr 421.552†	72124.5	77418.1	513.08 ug/L	513.08 ppb	02:24:57
3	Sc 361.383	909464.6	909464.6	101.04 %		02:26:27
3	Y 371.029	756008.9	756008.9	99.156 %		02:26:27
3	Ag 328.068†	112763.3	111368.3	514.65 ug/L	514.65 ppb	02:26:32
3	As 188.979†	1147.2	1155.9	525.43 ug/L	525.43 ppb	02:26:52
3	B 249.677†	20700.9	20859.8	495.49 ug/L	495.49 ppb	02:26:32
3	Ba 233.527†	66367.5	65690.5	514.39 ug/L	514.39 ppb	02:26:32
3	Be 313.107†	1374101.1	1363749.8	509.38 ug/L	509.38 ppb	02:26:27
3	Cd 226.502†	45054.2	44771.8	519.56 ug/L	519.56 ppb	02:26:32
3	Co 228.616†	24983.6	24787.3	518.33 ug/L	518.33 ppb	02:26:32
3	Cr 267.716†	46267.0	45722.7	513.84 ug/L	513.84 ppb	02:26:32
3	Cu 324.752†	175333.1	167443.5	502.82 ug/L	502.82 ppb	02:26:32
3	Mn 257.610†	458923.8	453742.9	509.02 ug/L	509.02 ppb	02:26:27
3	Mo 202.031†	7115.2	7035.6	515.36 ug/L	515.36 ppb	02:26:52
3	Ni 231.604†	20734.3	20467.6	519.93 ug/L	519.93 ppb	02:26:32
3	P 214.914†	4528.9	4280.0	2499.2 ug/L	2499.2 ppb	02:26:52
3	Pb 220.353†	4185.4	4207.1	522.89 ug/L	522.89 ppb	02:26:52
3	S 181.975 Axial†	773.6	728.6	1066.3 ug/L	1066.3 ppb	02:26:52
3	Sb 206.836†	1537.3	1484.7	536.23 ug/L	536.23 ppb	02:26:52
3	Se 196.026†	766.8	779.6	531.96 ug/L	531.96 ppb	02:26:52
3	Si 251.611†	81177.6	79804.3	2553.8 ug/L	2553.8 ppb	02:26:32
3	Sn 189.927†	2940.6	2899.8	525.26 ug/L	525.26 ppb	02:26:52
3	Ti 334.940†	336312.3	334117.5	505.20 ug/L	505.20 ppb	02:26:27
3	Tl 190.801†	1604.7	1619.3	523.05 ug/L	523.05 ppb	02:26:52
3	U 409.014†	15471.8	18128.2	488.09 ug/L	488.09 ppb	02:26:32
3	V 292.402†	72519.9	73200.7	515.03 ug/L	515.03 ppb	02:26:32
3	Zn 213.857†	52683.8	51581.5	512.80 ug/L	512.80 ppb	02:26:32
3	SiO2†	80352.9	78970.7	5411.9 ug/L	5411.9 ppb	02:27:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908460.7	100.93	%	0.109				0.11%
Sc Radial	3872.7	91.0	%	4.38				4.81%
Y 371.029	755342.4	99.069	%	0.1274				0.13%
Y RADIAL	4267.9	90.96	%	4.180				4.60%
Ag 328.068†	111594.4	515.75	ug/L	1.748	515.75	ppb	1.748	0.34%
QC value within limits for Ag 328.068 Recovery = 103.15%								
Al 396.153Radial†	6096.0	5495.8	ug/L	404.80	5495.8	ppb	404.80	7.37%
QC value within limits for Al 396.153Radial Recovery = 109.92%								
As 188.979†	1152.3	523.83	ug/L	1.388	523.83	ppb	1.388	0.27%
QC value within limits for As 188.979 Recovery = 104.77%								
B 249.677†	20866.9	495.63	ug/L	2.138	495.63	ppb	2.138	0.43%
QC value within limits for B 249.677 Recovery = 99.13%								
Ba 233.527†	65746.4	514.83	ug/L	0.850	514.83	ppb	0.850	0.17%
QC value within limits for Ba 233.527 Recovery = 102.97%								
Be 313.107†	1363893.7	509.43	ug/L	0.210	509.43	ppb	0.210	0.04%
QC value within limits for Be 313.107 Recovery = 101.89%								
Ca 317.933Radial†	2822.8	5616.3	ug/L	330.88	5616.3	ppb	330.88	5.89%

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   QC value greater than the upper limit for Ca 317.933Radial  Recovery = 112.33%
Cd 226.502†            44863.0      520.59 ug/L        1.241      520.59 ppb         1.241   0.24%
   QC value within limits for Cd 226.502  Recovery = 104.12%
Co 228.616†            24791.3      518.41 ug/L        1.276      518.41 ppb         1.276   0.25%
   QC value within limits for Co 228.616  Recovery = 103.68%
Cr 267.716†            45802.3      514.76 ug/L        1.212      514.76 ppb         1.212   0.24%
   QC value within limits for Cr 267.716  Recovery = 102.95%
Cu 324.752†           167717.7      503.66 ug/L        2.485      503.66 ppb         2.485   0.49%
   QC value within limits for Cu 324.752  Recovery = 100.73%
Fe 238.204 Radial†       424.1      5479.8 ug/L       334.57      5479.8 ppb        334.57   6.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 109.60%
K 766.490 Radial†      29784.0      5565.3 ug/L       387.70      5565.3 ppb        387.70   6.97%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 111.31%
Mg 279.077 IEC†          125.1      5684.9 ug/L       306.48      5684.9 ppb        306.48   5.39%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 113.70%
Mn 257.610†           453543.3      508.81 ug/L        0.522      508.81 ppb         0.522   0.10%
   QC value within limits for Mn 257.610  Recovery = 101.76%
Mo 202.031†             7034.7      515.31 ug/L        0.355      515.31 ppb         0.355   0.07%
   QC value within limits for Mo 202.031  Recovery = 103.06%
Na 589.592 Radial†     36862.8       10698 ug/L        721.9       10698 ppb         721.9   6.75%
   QC value within limits for Na 589.592 Radial  Recovery = 106.98%
Ni 231.604†            20439.6      519.22 ug/L        0.928      519.22 ppb         0.928   0.18%
   QC value within limits for Ni 231.604  Recovery = 103.84%
P 214.914†              4275.8      2496.4 ug/L         2.51      2496.4 ppb          2.51   0.10%
   QC value within limits for P 214.914  Recovery = 99.85%
Pb 220.353†             4193.2      521.19 ug/L        2.397      521.19 ppb         2.397   0.46%
   QC value within limits for Pb 220.353  Recovery = 104.24%
S 181.975 Axial†         725.4      1061.6 ug/L         8.67      1061.6 ppb          8.67   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 106.16%
Sb 206.836†             1473.2      532.18 ug/L        4.387      532.18 ppb         4.387   0.82%
   QC value within limits for Sb 206.836  Recovery = 106.44%
Se 196.026†              781.3      533.70 ug/L        3.931      533.70 ppb         3.931   0.74%
   QC value within limits for Se 196.026  Recovery = 106.74%
Si 251.611†            79971.4      2559.1 ug/L        11.30      2559.1 ppb         11.30   0.44%
   QC value within limits for Si 251.611  Recovery = 102.37%
Sn 189.927†             2890.8      523.66 ug/L        1.383      523.66 ppb         1.383   0.26%
   QC value within limits for Sn 189.927  Recovery = 104.73%
Sr 421.552†            81006.8      536.86 ug/L       39.121      536.86 ppb        39.121   7.29%
   QC value within limits for Sr 421.552  Recovery = 107.37%
Ti 334.940†           334101.2      505.19 ug/L        0.031      505.19 ppb         0.031   0.01%
   QC value within limits for Ti 334.940  Recovery = 101.04%
Tl 190.801†             1608.1      519.44 ug/L        3.729      519.44 ppb         3.729   0.72%
   QC value within limits for Tl 190.801  Recovery = 103.89%
U 409.014†             18090.7      487.05 ug/L        1.079      487.05 ppb         1.079   0.22%
   QC value within limits for U 409.014  Recovery = 97.41%
V 292.402†             73255.1      515.38 ug/L        1.805      515.38 ppb         1.805   0.35%
   QC value within limits for V 292.402  Recovery = 103.08%
Zn 213.857†            51624.3      513.20 ug/L        1.453      513.20 ppb         1.453   0.28%
   QC value within limits for Zn 213.857  Recovery = 102.64%
SiO2†                  78682.0      5392.1 ug/L        17.20      5392.1 ppb         17.20   0.32%
   QC value within limits for SiO2  Recovery = 100.83%
QC Failed.  Continue with analysis.
```

Sequence No.: 75
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 02:29:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3969.6	3969.6	93.3	%			02:31:32
1	Y RADIAL	4508.4	4508.4	96.09	%			02:31:12
1	Al 396.153Radial†	-118.3	-15.9	-14.456	ug/L	-14.456	ppb	02:31:12
1	Ca 317.933Radial†	20.9	6.9	13.693	ug/L	13.693	ppb	02:31:32
1	Fe 238.204 Radial†	9.2	-0.3	-3.7871	ug/L	-3.7871	ppb	02:31:32
1	K 766.490 Radial†	2681.3	316.3	59.186	ug/L	59.186	ppb	02:31:12
1	Mg 279.077 IEC†	0.5	-2.3	-102.43	ug/L	-102.43	ppb	02:31:32
1	Na 589.592 Radial†	-775.7	-90.9	-26.368	ug/L	-26.368	ppb	02:31:12
1	Sr 421.552†	74.7	43.3	0.2866	ug/L	0.2866	ppb	02:31:12
1	Sc 361.383	890238.3	890238.3	98.908	%			02:32:28
1	Y 371.029	751595.6	751595.6	98.577	%			02:32:28
1	Ag 328.068†	267.0	40.7	0.1925	ug/L	0.1925	ppb	02:32:28
1	As 188.979†	-31.9	-11.7	-5.2928	ug/L	-5.2928	ppb	02:32:48
1	B 249.677†	-424.7	-56.4	-1.3453	ug/L	-1.3453	ppb	02:32:48
1	Ba 233.527†	2.0	11.2	0.0870	ug/L	0.0870	ppb	02:32:48
1	Be 313.107†	-3744.2	67.7	0.0247	ug/L	0.0247	ppb	02:32:28
1	Cd 226.502†	-186.5	-5.2	-0.0619	ug/L	-0.0619	ppb	02:32:48
1	Co 228.616†	-74.0	-12.9	-0.2676	ug/L	-0.2676	ppb	02:32:48
1	Cr 267.716†	83.2	18.2	0.2069	ug/L	0.2069	ppb	02:32:48
1	Cu 324.752†	5974.1	-37.0	-0.1063	ug/L	-0.1063	ppb	02:32:28
1	Mn 257.610†	434.1	2.1	0.0061	ug/L	0.0061	ppb	02:32:48
1	Mo 202.031†	9.7	3.7	0.2741	ug/L	0.2741	ppb	02:32:48
1	Ni 231.604†	66.3	14.7	0.3734	ug/L	0.3734	ppb	02:32:48
1	P 214.914†	200.2	0.4	0.2525	ug/L	0.2525	ppb	02:32:48
1	Pb 220.353†	-51.1	13.3	1.6483	ug/L	1.6483	ppb	02:32:48
1	S 181.975 Axial†	43.4	6.8	9.9568	ug/L	9.9568	ppb	02:32:48
1	Sb 206.836†	42.2	6.0	2.0881	ug/L	2.0881	ppb	02:32:48
1	Se 196.026†	-26.6	-6.1	-4.0644	ug/L	-4.0644	ppb	02:32:48
1	Si 251.611†	565.9	38.0	1.2151	ug/L	1.2151	ppb	02:32:48
1	Sn 189.927†	7.2	-3.2	-0.5688	ug/L	-0.5688	ppb	02:32:48
1	Ti 334.940†	-1426.3	-160.2	-0.2281	ug/L	-0.2281	ppb	02:32:28
1	Tl 190.801†	-37.8	-7.0	-2.2540	ug/L	-2.2540	ppb	02:32:48
1	U 409.014†	-3126.5	-344.7	-9.3144	ug/L	-9.3144	ppb	02:32:28
1	V 292.402†	-1430.8	-16.2	-0.1274	ug/L	-0.1274	ppb	02:32:28
1	Zn 213.857†	583.9	32.7	0.3264	ug/L	0.3264	ppb	02:32:48
1	SiO2†	556.2	10.9	0.7388	ug/L	0.7388	ppb	02:33:44
2	Sc Radial	3961.5	3961.5	93.1	%			02:31:57
2	Y RADIAL	4504.9	4504.9	96.01	%			02:31:37
2	Al 396.153Radial†	-121.7	-19.9	-18.088	ug/L	-18.088	ppb	02:31:37
2	Ca 317.933Radial†	15.8	1.5	2.9577	ug/L	2.9577	ppb	02:31:57
2	Fe 238.204 Radial†	12.7	3.5	44.467	ug/L	44.467	ppb	02:31:57
2	K 766.490 Radial†	2720.1	363.9	68.090	ug/L	68.090	ppb	02:31:37
2	Mg 279.077 IEC†	2.2	-0.3	-15.411	ug/L	-15.411	ppb	02:31:57
2	Na 589.592 Radial†	-803.1	-122.0	-35.399	ug/L	-35.399	ppb	02:31:37
2	Sr 421.552†	38.7	4.8	0.0318	ug/L	0.0318	ppb	02:31:37
2	Sc 361.383	898218.7	898218.7	99.795	%			02:32:54
2	Y 371.029	759977.6	759977.6	99.677	%			02:32:54
2	Ag 328.068†	211.8	-17.1	-0.0627	ug/L	-0.0627	ppb	02:32:54
2	As 188.979†	-24.1	-3.6	-1.6078	ug/L	-1.6078	ppb	02:33:14
2	B 249.677†	-448.1	-76.1	-1.8234	ug/L	-1.8234	ppb	02:33:14
2	Ba 233.527†	20.4	29.6	0.2317	ug/L	0.2317	ppb	02:33:14
2	Be 313.107†	-3773.1	72.4	0.0264	ug/L	0.0264	ppb	02:32:54
2	Cd 226.502†	-188.3	-5.4	-0.0678	ug/L	-0.0678	ppb	02:33:14
2	Co 228.616†	-66.0	-4.2	-0.0871	ug/L	-0.0871	ppb	02:33:14
2	Cr 267.716†	71.4	5.5	0.0676	ug/L	0.0676	ppb	02:33:14
2	Cu 324.752†	5987.0	-77.8	-0.2288	ug/L	-0.2288	ppb	02:32:54
2	Mn 257.610†	459.4	23.5	0.0313	ug/L	0.0313	ppb	02:33:14
2	Mo 202.031†	14.9	8.9	0.6525	ug/L	0.6525	ppb	02:33:14
2	Ni 231.604†	77.5	25.3	0.6441	ug/L	0.6441	ppb	02:33:14

2	P 214.914†	213.1	11.5	6.9690 ug/L	6.9690 ppb		02:33:14
2	Pb 220.353†	-66.7	-1.8	-0.2355 ug/L	-0.2355 ppb		02:33:14
2	S 181.975 Axial†	41.3	4.3	6.3007 ug/L	6.3007 ppb		02:33:14
2	Sb 206.836†	43.9	7.3	2.5870 ug/L	2.5870 ppb		02:33:14
2	Se 196.026†	-23.4	-2.8	-1.6935 ug/L	-1.6935 ppb		02:33:14
2	Si 251.611†	567.2	34.2	1.0902 ug/L	1.0902 ppb		02:33:14
2	Sn 189.927†	19.2	8.8	1.5892 ug/L	1.5892 ppb		02:33:14
2	Ti 334.940†	-1447.7	-168.9	-0.2517 ug/L	-0.2517 ppb		02:32:54
2	Tl 190.801†	-39.7	-8.6	-2.7589 ug/L	-2.7589 ppb		02:33:14
2	U 409.014†	-2985.4	-175.2	-4.7404 ug/L	-4.7404 ppb		02:32:54
2	V 292.402†	-1491.3	-63.9	-0.4502 ug/L	-0.4502 ppb		02:32:54
2	Zn 213.857†	576.6	20.1	0.1915 ug/L	0.1915 ppb		02:33:14
2	SiO2†	569.5	19.2	1.3003 ug/L	1.3003 ppb		02:33:49
3	Sc Radial	3907.1	3907.1	91.9 %			02:32:22
3	Y RADIAL	4561.8	4561.8	97.22 %			02:32:02
3	Al 396.153Radial†	-115.6	-15.0	-13.623 ug/L	-13.623 ppb		02:32:02
3	Ca 317.933Radial†	15.3	1.2	2.3919 ug/L	2.3919 ppb		02:32:22
3	Fe 238.204 Radial†	12.9	3.9	50.225 ug/L	50.225 ppb		02:32:22
3	K 766.490 Radial†	2747.8	434.6	81.336 ug/L	81.336 ppb		02:32:02
3	Mg 279.077 IEC†	2.2	-0.3	-15.753 ug/L	-15.753 ppb		02:32:22
3	Na 589.592 Radial†	-842.4	-176.8	-51.299 ug/L	-51.299 ppb		02:32:02
3	Sr 421.552†	29.5	-4.7	-0.0309 ug/L	-0.0309 ppb		02:32:02
3	Sc 361.383	894282.7	894282.7	99.358 %			02:33:19
3	Y 371.029	755897.1	755897.1	99.142 %			02:33:19
3	Ag 328.068†	290.8	63.3	0.3075 ug/L	0.3075 ppb		02:33:19
3	As 188.979†	-9.3	11.2	5.0633 ug/L	5.0633 ppb		02:33:39
3	B 249.677†	-465.0	-95.0	-2.2750 ug/L	-2.2750 ppb		02:33:39
3	Ba 233.527†	10.2	19.4	0.1520 ug/L	0.1520 ppb		02:33:39
3	Be 313.107†	-3767.6	61.3	0.0221 ug/L	0.0221 ppb		02:33:19
3	Cd 226.502†	-203.1	-21.1	-0.2506 ug/L	-0.2506 ppb		02:33:39
3	Co 228.616†	-76.4	-14.9	-0.3118 ug/L	-0.3118 ppb		02:33:39
3	Cr 267.716†	76.4	10.9	0.1275 ug/L	0.1275 ppb		02:33:39
3	Cu 324.752†	5921.8	-117.1	-0.3466 ug/L	-0.3466 ppb		02:33:19
3	Mn 257.610†	461.2	27.4	0.0363 ug/L	0.0363 ppb		02:33:39
3	Mo 202.031†	9.2	3.2	0.2372 ug/L	0.2372 ppb		02:33:39
3	Ni 231.604†	58.9	6.9	0.1765 ug/L	0.1765 ppb		02:33:39
3	P 214.914†	201.4	0.7	0.4547 ug/L	0.4547 ppb		02:33:39
3	Pb 220.353†	-54.2	10.5	1.2911 ug/L	1.2911 ppb		02:33:39
3	S 181.975 Axial†	39.6	2.8	4.1186 ug/L	4.1186 ppb		02:33:39
3	Sb 206.836†	40.1	3.7	1.2886 ug/L	1.2886 ppb		02:33:39
3	Se 196.026†	-26.8	-6.3	-4.0020 ug/L	-4.0020 ppb		02:33:39
3	Si 251.611†	589.2	58.8	1.8847 ug/L	1.8847 ppb		02:33:39
3	Sn 189.927†	8.5	-1.9	-0.3442 ug/L	-0.3442 ppb		02:33:39
3	Ti 334.940†	-1501.4	-229.3	-0.3435 ug/L	-0.3435 ppb		02:33:19
3	Tl 190.801†	-27.7	3.3	1.0536 ug/L	1.0536 ppb		02:33:39
3	U 409.014†	-2948.9	-151.7	-4.1053 ug/L	-4.1053 ppb		02:33:19
3	V 292.402†	-1494.2	-73.5	-0.5218 ug/L	-0.5218 ppb		02:33:19
3	Zn 213.857†	575.4	21.5	0.2071 ug/L	0.2071 ppb		02:33:39
3	SiO2†	558.5	10.6	0.7234 ug/L	0.7234 ppb		02:33:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894246.5	99.354	%	0.4433				0.45%
Sc Radial	3946.1	92.8	%	0.80				0.86%
Y 371.029	755823.4	99.132	%	0.5497				0.55%
Y RADIAL	4525.0	96.44	%	0.679				0.70%
Ag 328.068†	29.0	0.1458	ug/L	0.18949	0.1458	ppb	0.18949	130.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-17.0	-15.389	ug/L	2.3744	-15.389	ppb	2.3744	15.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-0.6124	ug/L	5.24930	-0.6124	ppb	5.24930	857.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-75.9	-1.8146	ug/L	0.46492	-1.8146	ppb	0.46492	25.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.1	0.1569	ug/L	0.07245	0.1569	ppb	0.07245	46.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	67.1	0.0244	ug/L	0.00218	0.0244	ppb	0.00218	8.96%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.2	6.3474	ug/L	6.36740	6.3474	ppb	6.36740	100.31%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.6     -0.1267 ug/L       0.10727     -0.1267 ppb        0.10727  84.64%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -10.7     -0.2222 ug/L       0.11905     -0.2222 ppb        0.11905  53.58%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               11.5      0.1340 ug/L       0.06991      0.1340 ppb        0.06991  52.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -77.3     -0.2272 ug/L       0.12016     -0.2272 ppb        0.12016  52.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.4      30.302 ug/L      29.6619      30.302 ppb        29.6619  97.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        371.6      69.537 ug/L      11.1455      69.537 ppb        11.1455  16.03%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.0     -44.531 ug/L      50.1422     -44.531 ppb        50.1422 112.60%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               17.6      0.0246 ug/L       0.01616      0.0246 ppb        0.01616  65.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.3      0.3879 ug/L       0.22988      0.3879 ppb        0.22988  59.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -129.9     -37.689 ug/L      12.6224     -37.689 ppb        12.6224  33.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               15.7      0.3980 ug/L       0.23476      0.3980 ppb        0.23476  58.99%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 4.2      2.5587 ug/L       3.82077      2.5587 ppb        3.82077 149.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                7.3      0.9013 ug/L       1.00056      0.9013 ppb        1.00056 111.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.6      6.7920 ug/L       2.94997      6.7920 ppb        2.94997  43.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.7      1.9879 ug/L       0.65498      1.9879 ppb        0.65498  32.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -5.1     -3.2533 ug/L       1.35116     -3.2533 ppb        1.35116  41.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               43.7      1.3967 ug/L       0.42725      1.3967 ppb        0.42725  30.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.2      0.2254 ug/L       1.18638      0.2254 ppb        1.18638 526.39%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               14.5      0.0958 ug/L       0.16813      0.0958 ppb        0.16813 175.44%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -186.2     -0.2744 ug/L       0.06096     -0.2744 ppb        0.06096  22.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -4.1     -1.3198 ug/L       2.07083     -1.3198 ppb        2.07083 156.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -223.9     -6.0534 ug/L       2.84192     -6.0534 ppb        2.84192  46.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -51.2     -0.3664 ug/L       0.21013     -0.3664 ppb        0.21013  57.34%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               24.8      0.2417 ug/L       0.07377      0.2417 ppb        0.07377  30.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     13.6      0.9208 ug/L       0.32870      0.9208 ppb        0.32870  35.70%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 83
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 03:23:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3986.3	3986.3	93.7	%			03:25:51
1	Y RADIAL	4397.1	4397.1	93.71	%			03:25:51
1	Al 396.153Radial†	5406.0	5879.1	5299.1	ug/L	5299.1	ppb	03:25:51
1	Ca 317.933Radial†	2582.4	2740.1	5451.6	ug/L	5451.6	ppb	03:26:11
1	Fe 238.204 Radial†	396.9	413.3	5340.0	ug/L	5340.0	ppb	03:26:11
1	K 766.490 Radial†	29414.8	28829.9	5387.0	ug/L	5387.0	ppb	03:25:51
1	Mg 279.077 IEC†	114.4	119.3	5423.2	ug/L	5423.2	ppb	03:26:11
1	Na 589.592 Radial†	33205.8	36172.3	10497	ug/L	10497	ppb	03:25:51
1	Sr 421.552†	73748.0	78655.3	521.28	ug/L	521.28	ppb	03:25:51
1	Sc 361.383	901667.5	901667.5	100.18	%			03:27:08
1	Y 371.029	749008.8	749008.8	98.238	%			03:27:08
1	Ag 328.068†	112100.4	111671.6	516.05	ug/L	516.05	ppb	03:27:14
1	As 188.979†	1147.6	1166.1	530.08	ug/L	530.08	ppb	03:27:34
1	B 249.677†	20514.4	20850.9	495.27	ug/L	495.27	ppb	03:27:14
1	Ba 233.527†	65877.2	65769.1	515.00	ug/L	515.00	ppb	03:27:14
1	Be 313.107†	1377119.0	1378522.0	514.90	ug/L	514.90	ppb	03:27:08
1	Cd 226.502†	44755.0	44858.7	520.56	ug/L	520.56	ppb	03:27:14
1	Co 228.616†	24773.0	24790.8	518.41	ug/L	518.41	ppb	03:27:14
1	Cr 267.716†	45930.6	45782.9	514.52	ug/L	514.52	ppb	03:27:14
1	Cu 324.752†	174070.8	167684.0	503.55	ug/L	503.55	ppb	03:27:14
1	Mn 257.610†	460526.4	459270.2	515.23	ug/L	515.23	ppb	03:27:08
1	Mo 202.031†	7160.9	7142.0	523.15	ug/L	523.15	ppb	03:27:34
1	Ni 231.604†	20540.6	20451.7	519.53	ug/L	519.53	ppb	03:27:14
1	P 214.914†	4549.6	4339.5	2535.2	ug/L	2535.2	ppb	03:27:34
1	Pb 220.353†	4191.3	4248.9	528.08	ug/L	528.08	ppb	03:27:34
1	S 181.975 Axial†	782.6	744.1	1089.1	ug/L	1089.1	ppb	03:27:34
1	Sb 206.836†	1555.6	1516.1	547.43	ug/L	547.43	ppb	03:27:34
1	Se 196.026†	777.5	796.8	543.50	ug/L	543.50	ppb	03:27:34
1	Si 251.611†	80724.9	80047.1	2561.5	ug/L	2561.5	ppb	03:27:14
1	Sn 189.927†	2958.1	2942.4	532.98	ug/L	532.98	ppb	03:27:34
1	Ti 334.940†	337368.8	338050.4	511.16	ug/L	511.16	ppb	03:27:08
1	Tl 190.801†	1574.1	1602.5	517.73	ug/L	517.73	ppb	03:27:34
1	U 409.014†	15449.3	18238.0	491.05	ug/L	491.05	ppb	03:27:14
1	V 292.402†	71813.6	73116.3	514.54	ug/L	514.54	ppb	03:27:14
1	Zn 213.857†	52191.5	51541.0	512.38	ug/L	512.38	ppb	03:27:14
1	SiO2†	80993.2	80297.6	5502.9	ug/L	5502.9	ppb	03:28:42
2	Sc Radial	4047.6	4047.6	95.2	%			03:26:16
2	Y RADIAL	4452.9	4452.9	94.90	%			03:26:16
2	Al 396.153Radial†	5451.2	5839.3	5263.0	ug/L	5263.0	ppb	03:26:16
2	Ca 317.933Radial†	2593.5	2710.0	5391.8	ug/L	5391.8	ppb	03:26:36
2	Fe 238.204 Radial†	397.2	407.2	5261.8	ug/L	5261.8	ppb	03:26:36
2	K 766.490 Radial†	29681.5	28634.6	5350.5	ug/L	5350.5	ppb	03:26:16
2	Mg 279.077 IEC†	113.2	116.2	5279.4	ug/L	5279.4	ppb	03:26:36
2	Na 589.592 Radial†	33285.8	35719.4	10366	ug/L	10366	ppb	03:26:16
2	Sr 421.552†	74308.2	78051.4	517.27	ug/L	517.27	ppb	03:26:16
2	Sc 361.383	898192.0	898192.0	99.792	%			03:27:40
2	Y 371.029	746101.9	746101.9	97.857	%			03:27:40
2	Ag 328.068†	112782.7	112788.4	521.17	ug/L	521.17	ppb	03:27:45
2	As 188.979†	1138.2	1161.1	527.82	ug/L	527.82	ppb	03:28:05
2	B 249.677†	20777.0	21193.3	503.44	ug/L	503.44	ppb	03:27:45
2	Ba 233.527†	66306.0	66453.3	520.36	ug/L	520.36	ppb	03:27:45
2	Be 313.107†	1370987.7	1377697.0	514.59	ug/L	514.59	ppb	03:27:40
2	Cd 226.502†	45116.9	45394.2	526.79	ug/L	526.79	ppb	03:27:45
2	Co 228.616†	24953.4	25067.3	524.19	ug/L	524.19	ppb	03:27:45
2	Cr 267.716†	46376.9	46407.5	521.53	ug/L	521.53	ppb	03:27:45
2	Cu 324.752†	175335.1	169623.3	509.36	ug/L	509.36	ppb	03:27:45
2	Mn 257.610†	459200.7	459720.5	515.73	ug/L	515.73	ppb	03:27:40
2	Mo 202.031†	7135.9	7144.7	523.34	ug/L	523.34	ppb	03:28:05
2	Ni 231.604†	20721.6	20712.5	526.15	ug/L	526.15	ppb	03:27:45

2	P 214.914†	4549.1	4356.6	2544.4 ug/L	2544.4 ppb	03:28:05
2	Pb 220.353†	4211.6	4285.4	532.61 ug/L	532.61 ppb	03:28:05
2	S 181.975 Axial†	771.5	736.1	1077.4 ug/L	1077.4 ppb	03:28:05
2	Sb 206.836†	1543.1	1509.6	545.22 ug/L	545.22 ppb	03:28:05
2	Se 196.026†	770.3	792.6	540.51 ug/L	540.51 ppb	03:28:05
2	Si 251.611†	81130.9	80765.7	2584.5 ug/L	2584.5 ppb	03:27:45
2	Sn 189.927†	2953.5	2949.3	534.21 ug/L	534.21 ppb	03:28:05
2	Ti 334.940†	336310.1	338292.5	511.53 ug/L	511.53 ppb	03:27:40
2	Tl 190.801†	1582.0	1616.5	522.20 ug/L	522.20 ppb	03:28:05
2	U 409.014†	15777.7	18626.8	501.55 ug/L	501.55 ppb	03:27:45
2	V 292.402†	72472.0	74053.5	521.08 ug/L	521.08 ppb	03:27:45
2	Zn 213.857†	52741.3	52293.4	519.89 ug/L	519.89 ppb	03:27:45
2	SiO2†	80101.6	79717.0	5463.0 ug/L	5463.0 ppb	03:28:47
3	Sc Radial	3984.7	3984.7	93.7 %		03:26:41
3	Y RADIAL	4333.7	4333.7	92.36 %		03:26:41
3	Al 396.153Radial†	5401.5	5876.7	5296.9 ug/L	5296.9 ppb	03:26:41
3	Ca 317.933Radial†	2590.4	2749.7	5470.8 ug/L	5470.8 ppb	03:27:01
3	Fe 238.204 Radial†	400.4	417.2	5390.3 ug/L	5390.3 ppb	03:27:01
3	K 766.490 Radial†	29087.5	28493.1	5324.0 ug/L	5324.0 ppb	03:26:41
3	Mg 279.077 IEC†	116.6	121.7	5529.8 ug/L	5529.8 ppb	03:27:01
3	Na 589.592 Radial†	32576.4	35514.5	10306 ug/L	10306 ppb	03:26:41
3	Sr 421.552†	73066.9	77959.4	516.66 ug/L	516.66 ppb	03:26:41
3	Sc 361.383	892746.3	892746.3	99.187 %		03:28:11
3	Y 371.029	742435.2	742435.2	97.376 %		03:28:11
3	Ag 328.068†	112293.3	112984.3	522.12 ug/L	522.12 ppb	03:28:16
3	As 188.979†	1134.6	1164.4	529.30 ug/L	529.30 ppb	03:28:36
3	B 249.677†	20622.8	21164.8	502.74 ug/L	502.74 ppb	03:28:16
3	Ba 233.527†	65964.0	66513.8	520.84 ug/L	520.84 ppb	03:28:16
3	Be 313.107†	1361348.7	1376359.4	514.09 ug/L	514.09 ppb	03:28:11
3	Cd 226.502†	44834.1	45384.9	526.67 ug/L	526.67 ppb	03:28:16
3	Co 228.616†	24802.4	25067.6	524.19 ug/L	524.19 ppb	03:28:16
3	Cr 267.716†	46030.6	46341.8	520.81 ug/L	520.81 ppb	03:28:16
3	Cu 324.752†	174106.2	169456.0	508.87 ug/L	508.87 ppb	03:28:16
3	Mn 257.610†	455477.7	458773.9	514.68 ug/L	514.68 ppb	03:28:11
3	Mo 202.031†	7095.1	7147.2	523.53 ug/L	523.53 ppb	03:28:36
3	Ni 231.604†	20594.8	20711.2	526.12 ug/L	526.12 ppb	03:28:16
3	P 214.914†	4532.4	4367.5	2551.0 ug/L	2551.0 ppb	03:28:36
3	Pb 220.353†	4164.3	4263.5	529.89 ug/L	529.89 ppb	03:28:36
3	S 181.975 Axial†	762.4	731.6	1070.8 ug/L	1070.8 ppb	03:28:36
3	Sb 206.836†	1547.9	1523.9	550.16 ug/L	550.16 ppb	03:28:36
3	Se 196.026†	756.5	783.4	534.87 ug/L	534.87 ppb	03:28:36
3	Si 251.611†	80837.9	80966.3	2590.9 ug/L	2590.9 ppb	03:28:16
3	Sn 189.927†	2927.4	2941.0	532.71 ug/L	532.71 ppb	03:28:36
3	Ti 334.940†	333989.3	338008.5	511.09 ug/L	511.09 ppb	03:28:11
3	Tl 190.801†	1565.7	1609.8	520.03 ug/L	520.03 ppb	03:28:36
3	U 409.014†	15473.8	18416.8	495.86 ug/L	495.86 ppb	03:28:16
3	V 292.402†	72090.1	74111.4	521.46 ug/L	521.46 ppb	03:28:16
3	Zn 213.857†	52311.8	52182.9	518.77 ug/L	518.77 ppb	03:28:16
3	SiO2†	80970.8	81082.9	5556.8 ug/L	5556.8 ppb	03:28:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897535.3	99.719	%	0.4996				0.50%
Sc Radial	4006.2	94.2	%	0.84				0.90%
Y 371.029	745848.6	97.824	%	0.4321				0.44%
Y RADIAL	4394.5	93.66	%	1.271				1.36%
Ag 328.068†	112481.4	519.78	ug/L	3.265	519.78	ppb	3.265	0.63%
QC value within limits for Ag 328.068 Recovery = 103.96%								
Al 396.153Radial†	5865.1	5286.3	ug/L	20.22	5286.3	ppb	20.22	0.38%
QC value within limits for Al 396.153Radial Recovery = 105.73%								
As 188.979†	1163.9	529.07	ug/L	1.151	529.07	ppb	1.151	0.22%
QC value within limits for As 188.979 Recovery = 105.81%								
B 249.677†	21069.6	500.48	ug/L	4.527	500.48	ppb	4.527	0.90%
QC value within limits for B 249.677 Recovery = 100.10%								
Ba 233.527†	66245.4	518.73	ug/L	3.239	518.73	ppb	3.239	0.62%
QC value within limits for Ba 233.527 Recovery = 103.75%								
Be 313.107†	1377526.1	514.53	ug/L	0.407	514.53	ppb	0.407	0.08%
QC value within limits for Be 313.107 Recovery = 102.91%								
Ca 317.933Radial†	2733.3	5438.1	ug/L	41.24	5438.1	ppb	41.24	0.76%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.76%
Cd 226.502†            45212.6      524.67 ug/L        3.562      524.67 ppb        3.562   0.68%
   QC value within limits for Cd 226.502  Recovery = 104.93%
Co 228.616†            24975.2      522.26 ug/L        3.339      522.26 ppb        3.339   0.64%
   QC value within limits for Co 228.616  Recovery = 104.45%
Cr 267.716†            46177.4      518.95 ug/L        3.852      518.95 ppb        3.852   0.74%
   QC value within limits for Cr 267.716  Recovery = 103.79%
Cu 324.752†           168921.1      507.26 ug/L        3.224      507.26 ppb        3.224   0.64%
   QC value within limits for Cu 324.752  Recovery = 101.45%
Fe 238.204 Radial†       412.6      5330.7 ug/L       64.78      5330.7 ppb       64.78   1.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.61%
K 766.490 Radial†      28652.5      5353.8 ug/L       31.61      5353.8 ppb       31.61   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 107.08%
Mg 279.077 IEC†          119.1      5410.8 ug/L      125.69      5410.8 ppb      125.69   2.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.22%
Mn 257.610†           459254.9      515.21 ug/L        0.530      515.21 ppb        0.530   0.10%
   QC value within limits for Mn 257.610  Recovery = 103.04%
Mo 202.031†             7144.6      523.34 ug/L        0.189      523.34 ppb        0.189   0.04%
   QC value within limits for Mo 202.031  Recovery = 104.67%
Na 589.592 Radial†     35802.0       10390 ug/L         97.7       10390 ppb         97.7   0.94%
   QC value within limits for Na 589.592 Radial  Recovery = 103.90%
Ni 231.604†            20625.1      523.93 ug/L        3.816      523.93 ppb        3.816   0.73%
   QC value within limits for Ni 231.604  Recovery = 104.79%
P 214.914†              4354.5      2543.6 ug/L        7.97      2543.6 ppb        7.97   0.31%
   QC value within limits for P 214.914  Recovery = 101.74%
Pb 220.353†             4265.9      530.19 ug/L        2.277      530.19 ppb        2.277   0.43%
   QC value within limits for Pb 220.353  Recovery = 106.04%
S 181.975 Axial†         737.3      1079.1 ug/L        9.27      1079.1 ppb        9.27   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 107.91%
Sb 206.836†             1516.5      547.60 ug/L        2.476      547.60 ppb        2.476   0.45%
   QC value within limits for Sb 206.836  Recovery = 109.52%
Se 196.026†              790.9      539.63 ug/L        4.382      539.63 ppb        4.382   0.81%
   QC value within limits for Se 196.026  Recovery = 107.93%
Si 251.611†            80593.0      2579.0 ug/L       15.50      2579.0 ppb       15.50   0.60%
   QC value within limits for Si 251.611  Recovery = 103.16%
Sn 189.927†             2944.2      533.30 ug/L        0.797      533.30 ppb        0.797   0.15%
   QC value within limits for Sn 189.927  Recovery = 106.66%
Sr 421.552†            78222.0      518.40 ug/L        2.505      518.40 ppb        2.505   0.48%
   QC value within limits for Sr 421.552  Recovery = 103.68%
Ti 334.940†           338117.1      511.26 ug/L        0.234      511.26 ppb        0.234   0.05%
   QC value within limits for Ti 334.940  Recovery = 102.25%
Tl 190.801†             1609.6      519.99 ug/L        2.236      519.99 ppb        2.236   0.43%
   QC value within limits for Tl 190.801  Recovery = 104.00%
U 409.014†             18427.2      496.15 ug/L        5.256      496.15 ppb        5.256   1.06%
   QC value within limits for U 409.014  Recovery = 99.23%
V 292.402†             73760.4      519.03 ug/L        3.887      519.03 ppb        3.887   0.75%
   QC value within limits for V 292.402  Recovery = 103.81%
Zn 213.857†            52005.8      517.01 ug/L        4.051      517.01 ppb        4.051   0.78%
   QC value within limits for Zn 213.857  Recovery = 103.40%
SiO2†                  80365.8      5507.6 ug/L       47.10      5507.6 ppb       47.10   0.86%
   QC value within limits for SiO2  Recovery = 102.99%
All analyte(s) passed QC.
```

Sequence No.: 84
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 03:31:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4070.8	4070.8	95.7	%			03:32:54
1	Y RADIAL	4492.0	4492.0	95.74	%			03:32:54
1	Al 396.153Radial†	-115.3	-9.7	-8.8092	ug/L	-8.8092	ppb	03:32:54
1	Ca 317.933Radial†	19.5	4.9	9.8448	ug/L	9.8448	ppb	03:33:14
1	Fe 238.204 Radial†	13.7	4.2	53.492	ug/L	53.492	ppb	03:33:14
1	K 766.490 Radial†	2650.6	212.8	39.825	ug/L	39.825	ppb	03:32:54
1	Mg 279.077 IEC†	1.4	-1.3	-60.804	ug/L	-60.804	ppb	03:33:14
1	Na 589.592 Radial†	-799.6	-95.2	-27.615	ug/L	-27.615	ppb	03:32:54
1	Sr 421.552†	83.7	50.7	0.3357	ug/L	0.3357	ppb	03:32:54
1	Sc 361.383	917171.0	917171.0	101.90	%			03:34:11
1	Y 371.029	773105.4	773105.4	101.40	%			03:34:11
1	Ag 328.068†	274.2	39.8	0.1961	ug/L	0.1961	ppb	03:34:16
1	As 188.979†	-23.1	-2.2	-0.9701	ug/L	-0.9701	ppb	03:34:36
1	B 249.677†	-393.3	-13.1	-0.3202	ug/L	-0.3202	ppb	03:34:36
1	Ba 233.527†	3.1	12.2	0.0959	ug/L	0.0959	ppb	03:34:36
1	Be 313.107†	-3729.9	192.9	0.0712	ug/L	0.0712	ppb	03:34:16
1	Cd 226.502†	-181.3	5.4	0.0572	ug/L	0.0572	ppb	03:34:36
1	Co 228.616†	-64.7	-1.5	-0.0319	ug/L	-0.0319	ppb	03:34:36
1	Cr 267.716†	68.6	1.3	0.0186	ug/L	0.0186	ppb	03:34:36
1	Cu 324.752†	6009.7	-179.5	-0.5371	ug/L	-0.5371	ppb	03:34:16
1	Mn 257.610†	478.1	32.3	0.0440	ug/L	0.0440	ppb	03:34:36
1	Mo 202.031†	8.0	1.8	0.1366	ug/L	0.1366	ppb	03:34:36
1	Ni 231.604†	65.2	11.7	0.2964	ug/L	0.2964	ppb	03:34:36
1	P 214.914†	209.4	3.4	2.1554	ug/L	2.1554	ppb	03:34:36
1	Pb 220.353†	-53.1	13.0	1.5986	ug/L	1.5986	ppb	03:34:36
1	S 181.975 Axial†	39.9	2.1	3.1146	ug/L	3.1146	ppb	03:34:36
1	Sb 206.836†	52.4	14.7	5.1444	ug/L	5.1444	ppb	03:34:36
1	Se 196.026†	-34.9	-13.6	-8.7984	ug/L	-8.7984	ppb	03:34:36
1	Si 251.611†	570.5	25.7	0.8233	ug/L	0.8233	ppb	03:34:36
1	Sn 189.927†	12.4	1.7	0.3106	ug/L	0.3106	ppb	03:34:36
1	Ti 334.940†	-1499.0	-189.2	-0.2806	ug/L	-0.2806	ppb	03:34:16
1	Tl 190.801†	-30.3	1.5	0.4683	ug/L	0.4683	ppb	03:34:36
1	U 409.014†	-2812.7	56.0	1.5073	ug/L	1.5073	ppb	03:34:11
1	V 292.402†	-1512.8	-54.1	-0.3797	ug/L	-0.3797	ppb	03:34:16
1	Zn 213.857†	576.5	8.1	0.0719	ug/L	0.0719	ppb	03:34:36
1	SiO2†	604.6	41.8	2.8709	ug/L	2.8709	ppb	03:35:42
2	Sc Radial	4080.0	4080.0	95.9	%			03:33:19
2	Y RADIAL	4518.1	4518.1	96.29	%			03:33:19
2	Al 396.153Radial†	-122.2	-16.7	-15.141	ug/L	-15.141	ppb	03:33:19
2	Ca 317.933Radial†	17.3	2.6	5.1335	ug/L	5.1335	ppb	03:33:39
2	Fe 238.204 Radial†	10.1	0.4	4.7130	ug/L	4.7130	ppb	03:33:39
2	K 766.490 Radial†	2755.1	315.4	59.026	ug/L	59.026	ppb	03:33:19
2	Mg 279.077 IEC†	4.0	1.4	65.509	ug/L	65.509	ppb	03:33:39
2	Na 589.592 Radial†	-818.0	-112.4	-32.613	ug/L	-32.613	ppb	03:33:19
2	Sr 421.552†	24.6	-11.1	-0.0739	ug/L	-0.0739	ppb	03:33:19
2	Sc 361.383	909531.2	909531.2	101.05	%			03:34:41
2	Y 371.029	766723.8	766723.8	100.56	%			03:34:41
2	Ag 328.068†	271.5	39.3	0.1778	ug/L	0.1778	ppb	03:34:46
2	As 188.979†	-23.4	-2.6	-1.1749	ug/L	-1.1749	ppb	03:35:06
2	B 249.677†	-398.2	-21.1	-0.5034	ug/L	-0.5034	ppb	03:35:06
2	Ba 233.527†	-1.3	7.9	0.0602	ug/L	0.0602	ppb	03:35:06
2	Be 313.107†	-3821.5	71.5	0.0265	ug/L	0.0265	ppb	03:34:46
2	Cd 226.502†	-191.5	-6.2	-0.0717	ug/L	-0.0717	ppb	03:35:06
2	Co 228.616†	-61.9	0.7	0.0175	ug/L	0.0175	ppb	03:35:06
2	Cr 267.716†	74.2	7.5	0.0825	ug/L	0.0825	ppb	03:35:06
2	Cu 324.752†	6044.1	-95.9	-0.2888	ug/L	-0.2888	ppb	03:34:46
2	Mn 257.610†	457.7	16.1	0.0158	ug/L	0.0158	ppb	03:35:06
2	Mo 202.031†	23.4	17.1	1.2501	ug/L	1.2501	ppb	03:35:06
2	Ni 231.604†	49.6	-3.2	-0.0810	ug/L	-0.0810	ppb	03:35:06

2	P 214.914†	222.4	18.0	10.998 ug/L	10.998 ppb	03:35:06
2	Pb 220.353†	-56.0	9.6	1.1889 ug/L	1.1889 ppb	03:35:06
2	S 181.975 Axial†	27.8	-9.5	-13.985 ug/L	-13.985 ppb	03:35:06
2	Sb 206.836†	47.8	10.6	3.7162 ug/L	3.7162 ppb	03:35:06
2	Se 196.026†	-24.4	-3.5	-2.2784 ug/L	-2.2784 ppb	03:35:06
2	Si 251.611†	582.5	42.3	1.3419 ug/L	1.3419 ppb	03:35:06
2	Sn 189.927†	11.3	0.8	0.1456 ug/L	0.1456 ppb	03:35:06
2	Ti 334.940†	-1352.9	-57.0	-0.0918 ug/L	-0.0918 ppb	03:34:46
2	Tl 190.801†	-18.1	13.3	4.2662 ug/L	4.2662 ppb	03:35:06
2	U 409.014†	-2774.4	70.7	1.9106 ug/L	1.9106 ppb	03:34:41
2	V 292.402†	-1543.9	-97.4	-0.6545 ug/L	-0.6545 ppb	03:34:46
2	Zn 213.857†	585.1	21.3	0.2137 ug/L	0.2137 ppb	03:35:06
2	SiO2†	605.9	48.1	3.2679 ug/L	3.2679 ppb	03:35:47
3	Sc Radial	4151.2	4151.2	97.6 %		03:33:44
3	Y RADIAL	4604.6	4604.6	98.14 %		03:33:44
3	Al 396.153Radial†	-121.7	-13.9	-12.632 ug/L	-12.632 ppb	03:33:44
3	Ca 317.933Radial†	19.2	4.2	8.4283 ug/L	8.4283 ppb	03:34:04
3	Fe 238.204 Radial†	10.4	0.5	6.2628 ug/L	6.2628 ppb	03:34:04
3	K 766.490 Radial†	2790.2	302.2	56.544 ug/L	56.544 ppb	03:33:44
3	Mg 279.077 IEC†	1.4	-1.3	-60.061 ug/L	-60.061 ppb	03:34:04
3	Na 589.592 Radial†	-788.7	-67.7	-19.660 ug/L	-19.660 ppb	03:33:44
3	Sr 421.552†	32.2	-3.8	-0.0254 ug/L	-0.0254 ppb	03:33:44
3	Sc 361.383	907903.9	907903.9	100.87 %		03:35:11
3	Y 371.029	765878.7	765878.7	100.45 %		03:35:11
3	Ag 328.068†	192.1	-38.9	-0.1775 ug/L	-0.1775 ppb	03:35:16
3	As 188.979†	-25.3	-4.5	-2.0458 ug/L	-2.0458 ppb	03:35:36
3	B 249.677†	-432.4	-55.7	-1.3308 ug/L	-1.3308 ppb	03:35:36
3	Ba 233.527†	12.1	21.1	0.1651 ug/L	0.1651 ppb	03:35:36
3	Be 313.107†	-3680.6	204.5	0.0754 ug/L	0.0754 ppb	03:35:16
3	Cd 226.502†	-189.8	-4.8	-0.0564 ug/L	-0.0564 ppb	03:35:36
3	Co 228.616†	-70.6	-8.1	-0.1663 ug/L	-0.1663 ppb	03:35:36
3	Cr 267.716†	75.7	9.0	0.1018 ug/L	0.1018 ppb	03:35:36
3	Cu 324.752†	5971.5	-157.2	-0.4719 ug/L	-0.4719 ppb	03:35:16
3	Mn 257.610†	480.1	39.1	0.0470 ug/L	0.0470 ppb	03:35:36
3	Mo 202.031†	19.8	13.6	0.9946 ug/L	0.9946 ppb	03:35:36
3	Ni 231.604†	68.5	15.6	0.3969 ug/L	0.3969 ppb	03:35:36
3	P 214.914†	202.9	-0.9	-0.4489 ug/L	-0.4489 ppb	03:35:36
3	Pb 220.353†	-41.5	23.9	2.9648 ug/L	2.9648 ppb	03:35:36
3	S 181.975 Axial†	33.7	-3.6	-5.3003 ug/L	-5.3003 ppb	03:35:36
3	Sb 206.836†	47.9	10.8	3.8067 ug/L	3.8067 ppb	03:35:36
3	Se 196.026†	-24.3	-3.4	-2.2027 ug/L	-2.2027 ppb	03:35:36
3	Si 251.611†	589.4	50.1	1.5956 ug/L	1.5956 ppb	03:35:36
3	Sn 189.927†	16.2	5.7	1.0280 ug/L	1.0280 ppb	03:35:36
3	Ti 334.940†	-1514.2	-219.3	-0.3257 ug/L	-0.3257 ppb	03:35:16
3	Tl 190.801†	-24.9	6.6	2.1011 ug/L	2.1011 ppb	03:35:36
3	U 409.014†	-2831.1	9.6	0.2583 ug/L	0.2583 ppb	03:35:11
3	V 292.402†	-1456.4	-13.4	-0.0804 ug/L	-0.0804 ppb	03:35:16
3	Zn 213.857†	582.3	19.6	0.1934 ug/L	0.1934 ppb	03:35:36
3	SiO2†	585.4	28.9	1.9564 ug/L	1.9564 ppb	03:35:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911535.4	101.27	%	0.550				0.54%
Sc Radial	4100.7	96.4	%	1.03				1.07%
Y 371.029	768569.3	100.80	%	0.518				0.51%
Y RADIAL	4538.2	96.72	%	1.256				1.30%
Ag 328.068†	13.4	0.0655	ug/L	0.21062	0.0655	ppb	0.21062	321.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.4	-12.194	ug/L	3.1887	-12.194	ppb	3.1887	26.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-1.3969	ug/L	0.57120	-1.3969	ppb	0.57120	40.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.0	-0.7181	ug/L	0.53843	-0.7181	ppb	0.53843	74.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.7	0.1071	ug/L	0.05334	0.1071	ppb	0.05334	49.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	156.3	0.0577	ug/L	0.02715	0.0577	ppb	0.02715	47.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.9	7.8022	ug/L	2.41725	7.8022	ppb	2.41725	30.98%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -1.9     -0.0237 ug/L       0.07041     -0.0237 ppb        0.07041 297.69%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -3.0     -0.0602 ug/L       0.09511     -0.0602 ppb        0.09511 157.91%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.9      0.0676 ug/L       0.04352      0.0676 ppb        0.04352  64.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -144.2     -0.4326 ug/L       0.12875     -0.4326 ppb        0.12875  29.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.7      21.489 ug/L       27.7260      21.489 ppb        27.7260 129.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         276.8      51.798 ug/L       10.4433      51.798 ppb        10.4433  20.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -18.452 ug/L       72.7131     -18.452 ppb        72.7131 394.06%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                29.2      0.0356 ug/L       0.01719      0.0356 ppb        0.01719  48.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.8      0.7938 ug/L       0.58331      0.7938 ppb        0.58331  73.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -91.8     -26.629 ug/L        6.5329     -26.629 ppb         6.5329  24.53%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.0      0.2041 ug/L       0.25194      0.2041 ppb        0.25194 123.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.9      4.2348 ug/L       5.99998      4.2348 ppb        5.99998 141.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.5      1.9175 ug/L       0.92989      1.9175 ppb        0.92989  48.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.7     -5.3902 ug/L       8.55016     -5.3902 ppb        8.55016 158.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                12.0      4.2224 ug/L       0.79972      4.2224 ppb        0.79972  18.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.8     -4.4265 ug/L       3.78638     -4.4265 ppb        3.78638  85.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.4      1.2536 ug/L       0.39366      1.2536 ppb        0.39366  31.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      0.4947 ug/L       0.46913      0.4947 ppb        0.46913  94.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.9      0.0788 ug/L       0.22380      0.0788 ppb        0.22380 284.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -155.2     -0.2327 ug/L       0.12409     -0.2327 ppb        0.12409  53.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.1      2.2785 ug/L       1.90514      2.2785 ppb        1.90514  83.61%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 45.4      1.2254 ug/L       0.86149      1.2254 ppb        0.86149  70.30%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -55.0     -0.3715 ug/L       0.28714     -0.3715 ppb        0.28714  77.29%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                16.3      0.1596 ug/L       0.07668      0.1596 ppb        0.07668  48.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      39.6      2.6984 ug/L       0.67259      2.6984 ppb        0.67259  24.93%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 93
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 04:33:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3903.9	3903.9	91.8	%			04:35:51
1	Y RADIAL	4463.7	4463.7	95.13	%			04:35:31
1	Al 396.153Radial†	5511.1	6115.5	5513.3	ug/L	5513.3	ppb	04:35:31
1	Ca 317.933Radial†	2565.7	2780.0	5531.0	ug/L	5531.0	ppb	04:35:51
1	Fe 238.204 Radial†	397.7	423.1	5466.7	ug/L	5466.7	ppb	04:35:51
1	K 766.490 Radial†	29880.0	29999.3	5605.5	ug/L	5605.5	ppb	04:35:31
1	Mg 279.077 IEC†	116.0	123.6	5619.2	ug/L	5619.2	ppb	04:35:51
1	Na 589.592 Radial†	34588.2	38426.2	11151	ug/L	11151	ppb	04:35:31
1	Sr 421.552†	76004.5	82774.6	548.58	ug/L	548.58	ppb	04:35:31
1	Sc 361.383	904807.2	904807.2	100.53	%			04:36:49
1	Y 371.029	751021.5	751021.5	98.502	%			04:36:49
1	Ag 328.068†	111976.9	111160.5	513.74	ug/L	513.74	ppb	04:36:54
1	As 188.979†	1145.2	1159.7	527.09	ug/L	527.09	ppb	04:37:14
1	B 249.677†	21630.5	21890.1	520.05	ug/L	520.05	ppb	04:36:54
1	Ba 233.527†	65947.4	65610.8	513.77	ug/L	513.77	ppb	04:36:54
1	Be 313.107†	1366671.2	1363358.8	509.21	ug/L	509.21	ppb	04:36:49
1	Cd 226.502†	44711.5	44660.4	518.24	ug/L	518.24	ppb	04:36:54
1	Co 228.616†	24822.2	24754.0	517.66	ug/L	517.66	ppb	04:36:54
1	Cr 267.716†	45910.1	45603.4	512.52	ug/L	512.52	ppb	04:36:54
1	Cu 324.752†	173692.6	166704.8	500.61	ug/L	500.61	ppb	04:36:54
1	Mn 257.610†	458165.6	455326.5	510.81	ug/L	510.81	ppb	04:36:49
1	Mo 202.031†	7132.2	7088.7	519.26	ug/L	519.26	ppb	04:37:14
1	Ni 231.604†	20489.1	20329.4	516.42	ug/L	516.42	ppb	04:36:54
1	P 214.914†	4524.7	4298.9	2511.0	ug/L	2511.0	ppb	04:37:14
1	Pb 220.353†	4176.0	4219.2	524.43	ug/L	524.43	ppb	04:37:14
1	S 181.975 Axial†	767.4	726.3	1062.9	ug/L	1062.9	ppb	04:37:14
1	Sb 206.836†	1532.8	1488.1	537.50	ug/L	537.50	ppb	04:37:14
1	Se 196.026†	774.0	790.6	539.82	ug/L	539.82	ppb	04:37:14
1	Si 251.611†	80553.6	79597.1	2547.1	ug/L	2547.1	ppb	04:36:54
1	Sn 189.927†	2923.4	2897.6	524.88	ug/L	524.88	ppb	04:37:14
1	Ti 334.940†	327883.0	327445.6	495.12	ug/L	495.12	ppb	04:36:54
1	Tl 190.801†	1585.9	1608.8	519.59	ug/L	519.59	ppb	04:37:14
1	U 409.014†	15465.0	18200.2	490.02	ug/L	490.02	ppb	04:36:54
1	V 292.402†	71827.4	72881.2	512.86	ug/L	512.86	ppb	04:36:54
1	Zn 213.857†	52251.2	51419.5	511.17	ug/L	511.17	ppb	04:36:54
1	SiO2†	80524.9	79551.2	5451.7	ug/L	5451.7	ppb	04:38:21
2	Sc Radial	3927.7	3927.7	92.3	%			04:36:16
2	Y RADIAL	4403.9	4403.9	93.86	%			04:35:56
2	Al 396.153Radial†	5423.6	5984.2	5394.2	ug/L	5394.2	ppb	04:35:56
2	Ca 317.933Radial†	2569.5	2767.1	5505.5	ug/L	5505.5	ppb	04:36:16
2	Fe 238.204 Radial†	396.4	419.1	5414.6	ug/L	5414.6	ppb	04:36:16
2	K 766.490 Radial†	29661.3	29565.0	5524.3	ug/L	5524.3	ppb	04:35:56
2	Mg 279.077 IEC†	116.6	123.6	5615.7	ug/L	5615.7	ppb	04:36:16
2	Na 589.592 Radial†	34041.0	37605.1	10913	ug/L	10913	ppb	04:35:56
2	Sr 421.552†	75082.0	81273.2	538.63	ug/L	538.63	ppb	04:35:56
2	Sc 361.383	895426.9	895426.9	99.485	%			04:37:20
2	Y 371.029	743666.8	743666.8	97.537	%			04:37:20
2	Ag 328.068†	112091.3	112442.4	519.63	ug/L	519.63	ppb	04:37:25
2	As 188.979†	1143.7	1170.1	531.82	ug/L	531.82	ppb	04:37:45
2	B 249.677†	21703.3	22188.7	527.17	ug/L	527.17	ppb	04:37:25
2	Ba 233.527†	65879.1	66229.3	518.61	ug/L	518.61	ppb	04:37:25
2	Be 313.107†	1372903.7	1383865.4	516.87	ug/L	516.87	ppb	04:37:20
2	Cd 226.502†	44735.2	45150.1	523.94	ug/L	523.94	ppb	04:37:25
2	Co 228.616†	24811.1	25001.5	522.83	ug/L	522.83	ppb	04:37:25
2	Cr 267.716†	46035.4	46207.8	519.30	ug/L	519.30	ppb	04:37:25
2	Cu 324.752†	174263.8	169089.0	507.77	ug/L	507.77	ppb	04:37:25
2	Mn 257.610†	458828.9	460767.7	516.91	ug/L	516.91	ppb	04:37:20
2	Mo 202.031†	7110.4	7141.2	523.10	ug/L	523.10	ppb	04:37:45
2	Ni 231.604†	20491.9	20545.7	521.91	ug/L	521.91	ppb	04:37:25

2	P 214.914†	4537.5	4359.0	2546.1	ug/L	2546.1 ppb	04:37:45
2	Pb 220.353†	4179.7	4266.4	530.27	ug/L	530.27 ppb	04:37:45
2	S 181.975 Axial†	771.2	738.2	1080.4	ug/L	1080.4 ppb	04:37:45
2	Sb 206.836†	1529.6	1500.8	542.12	ug/L	542.12 ppb	04:37:45
2	Se 196.026†	765.0	789.7	539.06	ug/L	539.06 ppb	04:37:45
2	Si 251.611†	80576.6	80459.7	2574.7	ug/L	2574.7 ppb	04:37:25
2	Sn 189.927†	2931.1	2935.9	531.80	ug/L	531.80 ppb	04:37:45
2	Ti 334.940†	328415.2	331397.5	501.09	ug/L	501.09 ppb	04:37:25
2	Tl 190.801†	1592.3	1631.7	527.01	ug/L	527.01 ppb	04:37:45
2	U 409.014†	15594.7	18491.7	497.88	ug/L	497.88 ppb	04:37:25
2	V 292.402†	72007.8	73811.0	519.38	ug/L	519.38 ppb	04:37:25
2	Zn 213.857†	52294.2	52007.2	517.03	ug/L	517.03 ppb	04:37:25
2	SiO2†	80192.7	80056.4	5486.3	ug/L	5486.3 ppb	04:38:27
3	Sc Radial	3960.0	3960.0	93.1	%		04:36:42
3	Y RADIAL	4514.0	4514.0	96.21	%		04:36:22
3	Al 396.153Radial†	5446.0	5960.5	5373.1	ug/L	5373.1 ppb	04:36:22
3	Ca 317.933Radial†	2592.3	2768.9	5509.0	ug/L	5509.0 ppb	04:36:42
3	Fe 238.204 Radial†	402.4	422.0	5452.5	ug/L	5452.5 ppb	04:36:42
3	K 766.490 Radial†	30050.5	29721.2	5553.5	ug/L	5553.5 ppb	04:36:22
3	Mg 279.077 IEC†	118.2	124.2	5642.4	ug/L	5642.4 ppb	04:36:42
3	Na 589.592 Radial†	34675.9	37986.5	11024	ug/L	11024 ppb	04:36:22
3	Sr 421.552†	75878.6	81466.2	539.91	ug/L	539.91 ppb	04:36:22
3	Sc 361.383	905588.7	905588.7	100.61	%		04:37:51
3	Y 371.029	753033.3	753033.3	98.766	%		04:37:51
3	Ag 328.068†	111589.6	110679.5	511.52	ug/L	511.52 ppb	04:37:56
3	As 188.979†	1128.6	1142.2	519.18	ug/L	519.18 ppb	04:38:16
3	B 249.677†	21519.9	21761.6	517.00	ug/L	517.00 ppb	04:37:56
3	Ba 233.527†	65690.3	65298.7	511.33	ug/L	511.33 ppb	04:37:56
3	Be 313.107†	1387119.4	1382509.1	516.34	ug/L	516.34 ppb	04:37:51
3	Cd 226.502†	44560.7	44472.2	516.06	ug/L	516.06 ppb	04:37:56
3	Co 228.616†	24630.5	24542.1	513.22	ug/L	513.22 ppb	04:37:56
3	Cr 267.716†	45820.3	45474.8	511.08	ug/L	511.08 ppb	04:37:56
3	Cu 324.752†	173113.3	165980.0	498.44	ug/L	498.44 ppb	04:37:56
3	Mn 257.610†	462483.9	459225.2	515.18	ug/L	515.18 ppb	04:37:51
3	Mo 202.031†	7081.0	7031.7	515.09	ug/L	515.09 ppb	04:38:16
3	Ni 231.604†	20458.5	20281.3	515.20	ug/L	515.20 ppb	04:37:56
3	P 214.914†	4501.8	4272.3	2495.3	ug/L	2495.3 ppb	04:38:16
3	Pb 220.353†	4170.6	4210.2	523.28	ug/L	523.28 ppb	04:38:16
3	S 181.975 Axial†	759.2	717.5	1050.1	ug/L	1050.1 ppb	04:38:16
3	Sb 206.836†	1523.3	1477.3	533.66	ug/L	533.66 ppb	04:38:16
3	Se 196.026†	763.5	779.6	532.47	ug/L	532.47 ppb	04:38:16
3	Si 251.611†	80275.3	79251.4	2536.0	ug/L	2536.0 ppb	04:37:56
3	Sn 189.927†	2931.4	2903.1	525.87	ug/L	525.87 ppb	04:38:16
3	Ti 334.940†	326791.9	326079.7	493.05	ug/L	493.05 ppb	04:37:56
3	Tl 190.801†	1580.6	1602.2	517.51	ug/L	517.51 ppb	04:38:16
3	U 409.014†	15405.3	18127.5	488.06	ug/L	488.06 ppb	04:37:56
3	V 292.402†	71739.8	72732.5	511.77	ug/L	511.77 ppb	04:37:56
3	Zn 213.857†	51993.2	51118.3	508.16	ug/L	508.16 ppb	04:37:56
3	SiO2†	81229.3	80182.2	5495.2	ug/L	5495.2 ppb	04:38:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	901940.9	100.21	%	0.628				0.63%
Sc Radial	3930.6	92.4	%	0.66				0.72%
Y 371.029	749240.5	98.268	%	0.6467				0.66%
Y RADIAL	4460.5	95.07	%	1.175				1.24%
Ag 328.068†	111427.4	514.96	ug/L	4.190	514.96	ppb	4.190	0.81%
QC value within limits for Ag 328.068 Recovery = 102.99%								
Al 396.153Radial†	6020.1	5426.9	ug/L	75.57	5426.9	ppb	75.57	1.39%
QC value within limits for Al 396.153Radial Recovery = 108.54%								
As 188.979†	1157.4	526.03	ug/L	6.386	526.03	ppb	6.386	1.21%
QC value within limits for As 188.979 Recovery = 105.21%								
B 249.677†	21946.8	521.41	ug/L	5.220	521.41	ppb	5.220	1.00%
QC value within limits for B 249.677 Recovery = 104.28%								
Ba 233.527†	65712.9	514.57	ug/L	3.708	514.57	ppb	3.708	0.72%
QC value within limits for Ba 233.527 Recovery = 102.91%								
Be 313.107†	1376577.8	514.14	ug/L	4.277	514.14	ppb	4.277	0.83%
QC value within limits for Be 313.107 Recovery = 102.83%								
Ca 317.933Radial†	2772.0	5515.2	ug/L	13.85	5515.2	ppb	13.85	0.25%

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   QC value greater than the upper limit for Ca 317.933Radial  Recovery = 110.30%
Cd 226.502†          44760.9      519.41 ug/L        4.068      519.41 ppb        4.068   0.78%
   QC value within limits for Cd 226.502  Recovery = 103.88%
Co 228.616†          24765.9      517.90 ug/L        4.808      517.90 ppb        4.808   0.93%
   QC value within limits for Co 228.616  Recovery = 103.58%
Cr 267.716†          45762.0      514.30 ug/L        4.391      514.30 ppb        4.391   0.85%
   QC value within limits for Cr 267.716  Recovery = 102.86%
Cu 324.752†         167257.9      502.27 ug/L        4.880      502.27 ppb        4.880   0.97%
   QC value within limits for Cu 324.752  Recovery = 100.45%
Fe 238.204 Radial†     421.4      5444.6 ug/L       26.91      5444.6 ppb        26.91   0.49%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.89%
K 766.490 Radial†    29761.8      5561.1 ug/L       41.11      5561.1 ppb        41.11   0.74%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 111.22%
Mg 279.077 IEC†        123.8      5625.8 ug/L       14.51      5625.8 ppb        14.51   0.26%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 112.52%
Mn 257.610†         458439.8      514.30 ug/L        3.142      514.30 ppb        3.142   0.61%
   QC value within limits for Mn 257.610  Recovery = 102.86%
Mo 202.031†          7087.2       519.15 ug/L        4.006      519.15 ppb        4.006   0.77%
   QC value within limits for Mo 202.031  Recovery = 103.83%
Na 589.592 Radial†   38005.9       11029 ug/L       119.2        11029 ppb       119.2   1.08%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 110.29%
Ni 231.604†          20385.5      517.84 ug/L        3.577      517.84 ppb        3.577   0.69%
   QC value within limits for Ni 231.604  Recovery = 103.57%
P 214.914†            4310.1      2517.5 ug/L       26.03      2517.5 ppb        26.03   1.03%
   QC value within limits for P 214.914  Recovery = 100.70%
Pb 220.353†           4231.9      525.99 ug/L        3.746      525.99 ppb        3.746   0.71%
   QC value within limits for Pb 220.353  Recovery = 105.20%
S 181.975 Axial†       727.3      1064.5 ug/L       15.17      1064.5 ppb        15.17   1.43%
   QC value within limits for S 181.975 Axial  Recovery = 106.45%
Sb 206.836†           1488.7      537.76 ug/L        4.235      537.76 ppb        4.235   0.79%
   QC value within limits for Sb 206.836  Recovery = 107.55%
Se 196.026†            786.6      537.12 ug/L        4.041      537.12 ppb        4.041   0.75%
   QC value within limits for Se 196.026  Recovery = 107.42%
Si 251.611†          79769.4      2552.6 ug/L       19.92      2552.6 ppb        19.92   0.78%
   QC value within limits for Si 251.611  Recovery = 102.10%
Sn 189.927†           2912.2      527.52 ug/L        3.744      527.52 ppb        3.744   0.71%
   QC value within limits for Sn 189.927  Recovery = 105.50%
Sr 421.552†          81838.0      542.37 ug/L        5.414      542.37 ppb        5.414   1.00%
   QC value within limits for Sr 421.552  Recovery = 108.47%
Ti 334.940†         328307.6      496.42 ug/L        4.173      496.42 ppb        4.173   0.84%
   QC value within limits for Ti 334.940  Recovery = 99.28%
Tl 190.801†           1614.2      521.37 ug/L        4.991      521.37 ppb        4.991   0.96%
   QC value within limits for Tl 190.801  Recovery = 104.27%
U 409.014†           18273.2      491.99 ug/L        5.201      491.99 ppb        5.201   1.06%
   QC value within limits for U 409.014  Recovery = 98.40%
V 292.402†           73141.6      514.67 ug/L        4.117      514.67 ppb        4.117   0.80%
   QC value within limits for V 292.402  Recovery = 102.93%
Zn 213.857†          51515.0      512.12 ug/L        4.511      512.12 ppb        4.511   0.88%
   QC value within limits for Zn 213.857  Recovery = 102.42%
SiO2†                79930.0      5477.7 ug/L       22.97      5477.7 ppb        22.97   0.42%
   QC value within limits for SiO2  Recovery = 102.44%
QC Failed.  Continue with analysis.
```

Sequence No.: 94
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 04:40:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3954.3	3954.3	93.0	%			04:42:54
1	Y RADIAL	4445.5	4445.5	94.75	%			04:42:34
1	Al 396.153Radial†	-95.7	7.8	7.0770	ug/L	7.0770	ppb	04:42:34
1	Ca 317.933Radial†	18.8	4.7	9.3747	ug/L	9.3747	ppb	04:42:54
1	Fe 238.204 Radial†	11.6	2.3	29.593	ug/L	29.593	ppb	04:42:54
1	K 766.490 Radial†	2642.7	285.9	53.508	ug/L	53.508	ppb	04:42:34
1	Mg 279.077 IEC†	1.7	-0.9	-41.259	ug/L	-41.259	ppb	04:42:54
1	Na 589.592 Radial†	-825.4	-147.5	-42.812	ug/L	-42.812	ppb	04:42:34
1	Sr 421.552†	114.7	86.5	0.5736	ug/L	0.5736	ppb	04:42:34
1	Sc 361.383	893015.0	893015.0	99.217	%			04:43:51
1	Y 371.029	752889.6	752889.6	98.747	%			04:43:51
1	Ag 328.068†	242.6	15.2	0.0775	ug/L	0.0775	ppb	04:43:56
1	As 188.979†	-18.2	2.2	0.9764	ug/L	0.9764	ppb	04:44:16
1	B 249.677†	141.2	515.3	12.294	ug/L	12.294	ppb	04:44:16
1	Ba 233.527†	-3.5	5.6	0.0434	ug/L	0.0434	ppb	04:44:16
1	Be 313.107†	-3769.7	53.8	0.0195	ug/L	0.0195	ppb	04:43:56
1	Cd 226.502†	-181.4	0.5	0.0023	ug/L	0.0023	ppb	04:44:16
1	Co 228.616†	-68.1	-6.8	-0.1401	ug/L	-0.1401	ppb	04:44:16
1	Cr 267.716†	66.1	0.6	0.0094	ug/L	0.0094	ppb	04:44:16
1	Cu 324.752†	5974.1	-55.8	-0.1657	ug/L	-0.1657	ppb	04:43:56
1	Mn 257.610†	476.4	43.4	0.0532	ug/L	0.0532	ppb	04:44:16
1	Mo 202.031†	11.7	5.8	0.4238	ug/L	0.4238	ppb	04:44:16
1	Ni 231.604†	50.9	-1.0	-0.0258	ug/L	-0.0258	ppb	04:44:16
1	P 214.914†	193.0	-7.6	-4.5611	ug/L	-4.5611	ppb	04:44:16
1	Pb 220.353†	-54.8	9.8	1.2107	ug/L	1.2107	ppb	04:44:16
1	S 181.975 Axial†	44.9	8.2	12.012	ug/L	12.012	ppb	04:44:16
1	Sb 206.836†	42.1	5.8	2.0289	ug/L	2.0289	ppb	04:44:16
1	Se 196.026†	-31.4	-10.9	-7.0937	ug/L	-7.0937	ppb	04:44:16
1	Si 251.611†	580.4	50.8	1.6245	ug/L	1.6245	ppb	04:44:16
1	Sn 189.927†	15.8	5.5	0.9897	ug/L	0.9897	ppb	04:44:16
1	Ti 334.940†	-1426.3	-155.8	-0.2307	ug/L	-0.2307	ppb	04:43:56
1	Tl 190.801†	-24.3	6.7	2.1427	ug/L	2.1427	ppb	04:44:16
1	U 409.014†	-2816.3	-22.3	-0.6064	ug/L	-0.6064	ppb	04:43:51
1	V 292.402†	-1488.9	-70.2	-0.4872	ug/L	-0.4872	ppb	04:43:56
1	Zn 213.857†	588.2	35.1	0.3486	ug/L	0.3486	ppb	04:44:16
1	SiO2†	622.8	76.2	5.2274	ug/L	5.2274	ppb	04:45:22
2	Sc Radial	3954.3	3954.3	93.0	%			04:43:19
2	Y RADIAL	4486.4	4486.4	95.62	%			04:42:59
2	Al 396.153Radial†	-117.1	-15.2	-13.812	ug/L	-13.812	ppb	04:42:59
2	Ca 317.933Radial†	19.3	5.2	10.426	ug/L	10.426	ppb	04:43:19
2	Fe 238.204 Radial†	12.5	3.3	42.641	ug/L	42.641	ppb	04:43:19
2	K 766.490 Radial†	2803.4	458.8	85.853	ug/L	85.853	ppb	04:42:59
2	Mg 279.077 IEC†	-0.9	-3.7	-167.37	ug/L	-167.37	ppb	04:43:19
2	Na 589.592 Radial†	-858.4	-183.0	-53.115	ug/L	-53.115	ppb	04:42:59
2	Sr 421.552†	33.8	-0.4	-0.0029	ug/L	-0.0029	ppb	04:42:59
2	Sc 361.383	905940.3	905940.3	100.65	%			04:44:21
2	Y 371.029	763989.2	763989.2	100.20	%			04:44:21
2	Ag 328.068†	260.3	29.3	0.1481	ug/L	0.1481	ppb	04:44:26
2	As 188.979†	-22.7	-2.0	-0.8999	ug/L	-0.8999	ppb	04:44:46
2	B 249.677†	124.1	496.2	11.836	ug/L	11.836	ppb	04:44:46
2	Ba 233.527†	-4.0	5.2	0.0415	ug/L	0.0415	ppb	04:44:46
2	Be 313.107†	-3716.8	160.5	0.0589	ug/L	0.0589	ppb	04:44:26
2	Cd 226.502†	-164.1	20.3	0.2309	ug/L	0.2309	ppb	04:44:46
2	Co 228.616†	-71.1	-8.7	-0.1791	ug/L	-0.1791	ppb	04:44:46
2	Cr 267.716†	92.2	25.6	0.2913	ug/L	0.2913	ppb	04:44:46
2	Cu 324.752†	5999.7	-116.4	-0.3464	ug/L	-0.3464	ppb	04:44:26
2	Mn 257.610†	460.8	21.0	0.0346	ug/L	0.0346	ppb	04:44:46
2	Mo 202.031†	21.2	15.0	1.1007	ug/L	1.1007	ppb	04:44:46
2	Ni 231.604†	52.0	-0.7	-0.0173	ug/L	-0.0173	ppb	04:44:46

2	P 214.914†	208.8	5.4	3.3386 ug/L	3.3386 ppb	04:44:46
2	Pb 220.353†	-55.0	10.4	1.2865 ug/L	1.2865 ppb	04:44:46
2	S 181.975 Axial†	43.5	6.1	9.0035 ug/L	9.0035 ppb	04:44:46
2	Sb 206.836†	29.3	-7.6	-2.6148 ug/L	-2.6148 ppb	04:44:46
2	Se 196.026†	-19.7	1.2	0.9042 ug/L	0.9042 ppb	04:44:46
2	Si 251.611†	572.0	34.1	1.0807 ug/L	1.0807 ppb	04:44:46
2	Sn 189.927†	11.9	1.4	0.2577 ug/L	0.2577 ppb	04:44:46
2	Ti 334.940†	-1552.1	-260.2	-0.3779 ug/L	-0.3779 ppb	04:44:26
2	Tl 190.801†	-27.3	4.1	1.3197 ug/L	1.3197 ppb	04:44:46
2	U 409.014†	-2891.6	-56.6	-1.5343 ug/L	-1.5343 ppb	04:44:21
2	V 292.402†	-1464.0	-24.0	-0.1635 ug/L	-0.1635 ppb	04:44:26
2	Zn 213.857†	576.1	14.6	0.1409 ug/L	0.1409 ppb	04:44:46
2	SiO2†	579.7	24.5	1.6515 ug/L	1.6515 ppb	04:45:27
3	Sc Radial	3971.2	3971.2	93.4 %		04:43:44
3	Y RADIAL	4574.7	4574.7	97.50 %		04:43:24
3	Al 396.153Radial†	-111.1	-8.2	-7.4625 ug/L	-7.4625 ppb	04:43:24
3	Ca 317.933Radial†	15.9	1.6	3.2134 ug/L	3.2134 ppb	04:43:44
3	Fe 238.204 Radial†	11.9	2.6	33.518 ug/L	33.518 ppb	04:43:44
3	K 766.490 Radial†	2706.8	342.4	64.083 ug/L	64.083 ppb	04:43:24
3	Mg 279.077 IEC†	1.8	-0.8	-36.254 ug/L	-36.254 ppb	04:43:44
3	Na 589.592 Radial†	-839.0	-158.3	-45.952 ug/L	-45.952 ppb	04:43:24
3	Sr 421.552†	40.6	6.7	0.0442 ug/L	0.0442 ppb	04:43:24
3	Sc 361.383	900646.4	900646.4	100.06 %		04:44:51
3	Y 371.029	759933.8	759933.8	99.671 %		04:44:51
3	Ag 328.068†	228.7	-0.8	0.0079 ug/L	0.0079 ppb	04:44:56
3	As 188.979†	-20.8	-0.3	-0.1139 ug/L	-0.1139 ppb	04:45:16
3	B 249.677†	101.8	474.7	11.323 ug/L	11.323 ppb	04:45:16
3	Ba 233.527†	9.3	18.5	0.1452 ug/L	0.1452 ppb	04:45:16
3	Be 313.107†	-3698.2	157.4	0.0580 ug/L	0.0580 ppb	04:44:56
3	Cd 226.502†	-184.1	-0.6	-0.0109 ug/L	-0.0109 ppb	04:45:16
3	Co 228.616†	-62.0	-0.1	-0.0005 ug/L	-0.0005 ppb	04:45:16
3	Cr 267.716†	96.1	30.1	0.3414 ug/L	0.3414 ppb	04:45:16
3	Cu 324.752†	5916.0	-164.9	-0.4925 ug/L	-0.4925 ppb	04:44:56
3	Mn 257.610†	471.5	34.4	0.0434 ug/L	0.0434 ppb	04:45:16
3	Mo 202.031†	12.5	6.4	0.4736 ug/L	0.4736 ppb	04:45:16
3	Ni 231.604†	64.8	12.5	0.3168 ug/L	0.3168 ppb	04:45:16
3	P 214.914†	209.7	7.6	4.6621 ug/L	4.6621 ppb	04:45:16
3	Pb 220.353†	-50.6	14.4	1.7823 ug/L	1.7823 ppb	04:45:16
3	S 181.975 Axial†	44.4	7.4	10.784 ug/L	10.784 ppb	04:45:16
3	Sb 206.836†	40.5	3.8	1.3433 ug/L	1.3433 ppb	04:45:16
3	Se 196.026†	-23.1	-2.4	-1.4624 ug/L	-1.4624 ppb	04:45:16
3	Si 251.611†	598.4	63.8	2.0420 ug/L	2.0420 ppb	04:45:16
3	Sn 189.927†	13.1	2.7	0.4820 ug/L	0.4820 ppb	04:45:16
3	Ti 334.940†	-1486.8	-204.1	-0.3045 ug/L	-0.3045 ppb	04:44:56
3	Tl 190.801†	-27.3	3.9	1.2432 ug/L	1.2432 ppb	04:45:16
3	U 409.014†	-2889.1	-70.9	-1.9216 ug/L	-1.9216 ppb	04:44:51
3	V 292.402†	-1439.9	-8.6	-0.0620 ug/L	-0.0620 ppb	04:44:56
3	Zn 213.857†	590.7	32.6	0.3211 ug/L	0.3211 ppb	04:45:16
3	SiO2†	579.3	27.5	1.8735 ug/L	1.8735 ppb	04:45:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899867.2	99.978	%	0.7219				0.72%
Sc Radial	3959.9	93.1	%	0.23				0.25%
Y 371.029	758937.5	99.540	%	0.7366				0.74%
Y RADIAL	4502.2	95.95	%	1.407				1.47%
Ag 328.068†	14.6	0.0778	ug/L	0.07013	0.0778	ppb	0.07013	90.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.2	-4.7326	ug/L	10.70887	-4.7326	ppb	10.70887	226.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0125	ug/L	0.94227	-0.0125	ppb	0.94227	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	495.4	11.817	ug/L	0.4858	11.817	ppb	0.4858	4.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.7	0.0767	ug/L	0.05932	0.0767	ppb	0.05932	77.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.9	0.0455	ug/L	0.02249	0.0455	ppb	0.02249	49.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.9	7.6715	ug/L	3.89646	7.6715	ppb	3.89646	50.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.7      0.0741 ug/L       0.13596      0.0741 ppb        0.13596 183.55%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.2     -0.1066 ug/L       0.09390     -0.1066 ppb        0.09390  88.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.8      0.2140 ug/L       0.17901      0.2140 ppb        0.17901  83.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -112.4     -0.3349 ug/L       0.16366     -0.3349 ppb        0.16366  48.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.7      35.251 ug/L        6.6940      35.251 ppb         6.6940  18.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         362.4      67.815 ug/L       16.4926      67.815 ppb        16.4926  24.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.8     -81.627 ug/L       74.2965     -81.627 ppb        74.2965  91.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.9      0.0437 ug/L       0.00933      0.0437 ppb        0.00933  21.35%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.1      0.6660 ug/L       0.37726      0.6660 ppb        0.37726  56.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -163.0     -47.293 ug/L        5.2807     -47.293 ppb         5.2807  11.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.6      0.0912 ug/L       0.19539      0.0912 ppb        0.19539 214.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.8      1.1465 ug/L       4.98705      1.1465 ppb        4.98705 434.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                11.5      1.4265 ug/L       0.31043      1.4265 ppb        0.31043  21.76%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.2      10.600 ug/L        1.5125      10.600 ppb         1.5125  14.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.7      0.2525 ug/L       2.50669      0.2525 ppb        2.50669 992.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.0     -2.5506 ug/L       4.10853     -2.5506 ppb        4.10853 161.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                49.6      1.5824 ug/L       0.48206      1.5824 ppb        0.48206  30.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.2      0.5765 ug/L       0.37503      0.5765 ppb        0.37503  65.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                30.9      0.2049 ug/L       0.32011      0.2049 ppb        0.32011 156.21%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -206.7     -0.3044 ug/L       0.07358     -0.3044 ppb        0.07358  24.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.9      1.5685 ug/L       0.49873      1.5685 ppb        0.49873  31.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -49.9     -1.3541 ug/L       0.67585     -1.3541 ppb        0.67585  49.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -34.3     -0.2376 ug/L       0.22209     -0.2376 ppb        0.22209  93.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                27.5      0.2702 ug/L       0.11282      0.2702 ppb        0.11282  41.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      42.7      2.9175 ug/L       2.00354      2.9175 ppb        2.00354  68.67%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 104
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 05:51:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3844.7	3844.7	90.4	%			05:53:31
1	Y RADIAL	4356.6	4356.6	92.85	%			05:53:11
1	Al 396.153Radial†	5271.9	5943.2	5357.8	ug/L	5357.8	ppb	05:53:11
1	Ca 317.933Radial†	2441.1	2685.2	5342.5	ug/L	5342.5	ppb	05:53:31
1	Fe 238.204 Radial†	372.7	402.2	5196.7	ug/L	5196.7	ppb	05:53:31
1	K 766.490 Radial†	32610.6	33521.7	6264.9	ug/L	6264.9	ppb	05:53:11
1	Mg 279.077 IEC†	109.2	118.1	5366.9	ug/L	5366.9	ppb	05:53:31
1	Na 589.592 Radial†	31190.6	35247.8	10229	ug/L	10229	ppb	05:53:11
1	Sr 421.552†	70510.2	77971.6	516.75	ug/L	516.75	ppb	05:53:11
1	Sc 361.383	886306.6	886306.6	98.472	%			05:54:29
1	Y 371.029	737464.2	737464.2	96.724	%			05:54:29
1	Ag 328.068†	108790.1	110249.3	509.46	ug/L	509.46	ppb	05:54:34
1	As 188.979†	1102.8	1140.5	518.34	ug/L	518.34	ppb	05:54:54
1	B 249.677†	20140.4	20825.9	494.72	ug/L	494.72	ppb	05:54:34
1	Ba 233.527†	63892.2	64893.0	508.14	ug/L	508.14	ppb	05:54:34
1	Be 313.107†	1301968.5	1326030.0	495.29	ug/L	495.29	ppb	05:54:29
1	Cd 226.502†	43413.0	44270.2	513.74	ug/L	513.74	ppb	05:54:34
1	Co 228.616†	23973.1	24407.2	510.39	ug/L	510.39	ppb	05:54:34
1	Cr 267.716†	44595.0	45221.1	508.20	ug/L	508.20	ppb	05:54:34
1	Cu 324.752†	169215.8	165765.2	497.78	ug/L	497.78	ppb	05:54:34
1	Mn 257.610†	433755.3	440050.9	493.67	ug/L	493.67	ppb	05:54:29
1	Mo 202.031†	6837.4	6937.4	508.17	ug/L	508.17	ppb	05:54:54
1	Ni 231.604†	19949.5	20206.8	513.31	ug/L	513.31	ppb	05:54:34
1	P 214.914†	4356.1	4221.6	2464.8	ug/L	2464.8	ppb	05:54:54
1	Pb 220.353†	4004.0	4131.1	513.49	ug/L	513.49	ppb	05:54:54
1	S 181.975 Axial†	747.5	722.1	1056.8	ug/L	1056.8	ppb	05:54:54
1	Sb 206.836†	1489.5	1475.9	532.93	ug/L	532.93	ppb	05:54:54
1	Se 196.026†	747.3	779.6	531.67	ug/L	531.67	ppb	05:54:54
1	Si 251.611†	78378.8	79061.2	2530.0	ug/L	2530.0	ppb	05:54:34
1	Sn 189.927†	2830.2	2863.7	518.72	ug/L	518.72	ppb	05:54:54
1	Ti 334.940†	318066.4	324285.0	490.34	ug/L	490.34	ppb	05:54:34
1	Tl 190.801†	1524.2	1579.1	509.99	ug/L	509.99	ppb	05:54:54
1	U 409.014†	14822.2	17868.5	481.09	ug/L	481.09	ppb	05:54:34
1	V 292.402†	69741.9	72254.8	508.38	ug/L	508.38	ppb	05:54:34
1	Zn 213.857†	50762.4	50992.6	506.95	ug/L	506.95	ppb	05:54:34
1	SiO2†	78520.6	79187.8	5427.1	ug/L	5427.1	ppb	05:56:01
2	Sc Radial	3915.3	3915.3	92.0	%			05:53:56
2	Y RADIAL	4325.7	4325.7	92.19	%			05:53:36
2	Al 396.153Radial†	5224.2	5786.3	5216.1	ug/L	5216.1	ppb	05:53:36
2	Ca 317.933Radial†	2472.8	2670.9	5314.1	ug/L	5314.1	ppb	05:53:56
2	Fe 238.204 Radial†	372.2	394.2	5094.1	ug/L	5094.1	ppb	05:53:56
2	K 766.490 Radial†	31871.7	32068.5	5993.2	ug/L	5993.2	ppb	05:53:36
2	Mg 279.077 IEC†	109.2	115.9	5265.7	ug/L	5265.7	ppb	05:53:56
2	Na 589.592 Radial†	30615.9	34001.3	9867.3	ug/L	9867.3	ppb	05:53:36
2	Sr 421.552†	69894.8	75896.5	502.99	ug/L	502.99	ppb	05:53:36
2	Sc 361.383	899704.5	899704.5	99.960	%			05:55:00
2	Y 371.029	747981.1	747981.1	98.103	%			05:55:00
2	Ag 328.068†	109650.3	109464.6	505.81	ug/L	505.81	ppb	05:55:05
2	As 188.979†	1088.6	1109.6	504.39	ug/L	504.39	ppb	05:55:25
2	B 249.677†	20402.6	20783.7	493.74	ug/L	493.74	ppb	05:55:05
2	Ba 233.527†	64526.9	64561.7	505.54	ug/L	505.54	ppb	05:55:05
2	Be 313.107†	1318842.5	1323221.5	494.24	ug/L	494.24	ppb	05:55:00
2	Cd 226.502†	43802.1	44002.9	510.64	ug/L	510.64	ppb	05:55:05
2	Co 228.616†	24217.5	24289.1	507.91	ug/L	507.91	ppb	05:55:05
2	Cr 267.716†	44895.4	44847.3	504.00	ug/L	504.00	ppb	05:55:05
2	Cu 324.752†	170819.1	164810.1	494.91	ug/L	494.91	ppb	05:55:05
2	Mn 257.610†	441023.5	440762.5	494.46	ug/L	494.46	ppb	05:55:00
2	Mo 202.031†	6824.0	6820.6	499.61	ug/L	499.61	ppb	05:55:25
2	Ni 231.604†	20017.2	19972.9	507.36	ug/L	507.36	ppb	05:55:05

2	P 214.914†	4327.2	4126.9	2407.8	ug/L	2407.8	ppb	05:55:25
2	Pb 220.353†	3998.1	4064.7	505.22	ug/L	505.22	ppb	05:55:25
2	S 181.975 Axial†	740.7	704.0	1030.3	ug/L	1030.3	ppb	05:55:25
2	Sb 206.836†	1493.1	1457.0	526.01	ug/L	526.01	ppb	05:55:25
2	Se 196.026†	731.7	752.6	513.57	ug/L	513.57	ppb	05:55:25
2	Si 251.611†	79170.1	78667.5	2517.5	ug/L	2517.5	ppb	05:55:05
2	Sn 189.927†	2821.7	2812.4	509.44	ug/L	509.44	ppb	05:55:25
2	Ti 334.940†	320811.5	322221.2	487.23	ug/L	487.23	ppb	05:55:05
2	Tl 190.801†	1518.5	1550.3	500.75	ug/L	500.75	ppb	05:55:25
2	U 409.014†	14893.9	17716.0	477.00	ug/L	477.00	ppb	05:55:05
2	V 292.402†	70213.1	71671.6	504.22	ug/L	504.22	ppb	05:55:05
2	Zn 213.857†	51347.7	50810.4	505.18	ug/L	505.18	ppb	05:55:05
2	SiO2†	77915.8	77395.4	5304.1	ug/L	5304.1	ppb	05:56:07
3	Sc Radial	3871.3	3871.3	91.0	%			05:54:22
3	Y RADIAL	4434.2	4434.2	94.50	%			05:54:01
3	Al 396.153Radial†	5321.9	5958.1	5371.6	ug/L	5371.6	ppb	05:54:01
3	Ca 317.933Radial†	2449.1	2675.5	5323.1	ug/L	5323.1	ppb	05:54:22
3	Fe 238.204 Radial†	363.8	389.5	5032.7	ug/L	5032.7	ppb	05:54:22
3	K 766.490 Radial†	32174.1	32794.3	6128.9	ug/L	6128.9	ppb	05:54:01
3	Mg 279.077 IEC†	108.8	116.8	5308.1	ug/L	5308.1	ppb	05:54:22
3	Na 589.592 Radial†	31353.4	35189.6	10212	ug/L	10212	ppb	05:54:01
3	Sr 421.552†	71282.2	78284.1	518.82	ug/L	518.82	ppb	05:54:01
3	Sc 361.383	900124.7	900124.7	100.01	%			05:55:31
3	Y 371.029	748656.0	748656.0	98.192	%			05:55:31
3	Ag 328.068†	107186.0	106949.3	494.21	ug/L	494.21	ppb	05:55:36
3	As 188.979†	1114.1	1134.6	515.53	ug/L	515.53	ppb	05:55:56
3	B 249.677†	19824.3	20195.9	479.75	ug/L	479.75	ppb	05:55:36
3	Ba 233.527†	63183.7	63188.6	494.79	ug/L	494.79	ppb	05:55:36
3	Be 313.107†	1321148.0	1324910.9	494.84	ug/L	494.84	ppb	05:55:31
3	Cd 226.502†	42842.0	43022.4	499.26	ug/L	499.26	ppb	05:55:36
3	Co 228.616†	23695.9	23756.2	496.80	ug/L	496.80	ppb	05:55:36
3	Cr 267.716†	44155.8	44086.8	495.45	ug/L	495.45	ppb	05:55:36
3	Cu 324.752†	166673.3	160584.8	482.23	ug/L	482.23	ppb	05:55:36
3	Mn 257.610†	440286.9	439820.0	493.40	ug/L	493.40	ppb	05:55:31
3	Mo 202.031†	6862.1	6855.6	502.16	ug/L	502.16	ppb	05:55:56
3	Ni 231.604†	19671.5	19617.8	498.34	ug/L	498.34	ppb	05:55:36
3	P 214.914†	4394.1	4191.8	2449.9	ug/L	2449.9	ppb	05:55:56
3	Pb 220.353†	4040.4	4105.2	510.29	ug/L	510.29	ppb	05:55:56
3	S 181.975 Axial†	756.3	719.2	1052.6	ug/L	1052.6	ppb	05:55:56
3	Sb 206.836†	1495.4	1458.6	526.71	ug/L	526.71	ppb	05:55:56
3	Se 196.026†	731.1	751.8	512.80	ug/L	512.80	ppb	05:55:56
3	Si 251.611†	77203.4	76664.0	2453.2	ug/L	2453.2	ppb	05:55:36
3	Sn 189.927†	2849.9	2839.3	514.32	ug/L	514.32	ppb	05:55:56
3	Ti 334.940†	313647.3	314907.7	476.17	ug/L	476.17	ppb	05:55:36
3	Tl 190.801†	1524.7	1555.8	502.49	ug/L	502.49	ppb	05:55:56
3	U 409.014†	14516.0	17331.2	466.62	ug/L	466.62	ppb	05:55:36
3	V 292.402†	68844.5	70270.2	494.53	ug/L	494.53	ppb	05:55:36
3	Zn 213.857†	50022.4	49461.3	491.72	ug/L	491.72	ppb	05:55:36
3	SiO2†	78397.1	77840.2	5334.6	ug/L	5334.6	ppb	05:56:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895378.6	99.480	%	0.8732				0.88%
Sc Radial	3877.1	91.1	%	0.84				0.92%
Y 371.029	744700.4	97.673	%	0.8231				0.84%
Y RADIAL	4372.2	93.18	%	1.191				1.28%
Ag 328.068†	108887.8	503.16	ug/L	7.963	503.16	ppb	7.963	1.58%
QC value within limits for Ag 328.068 Recovery = 100.63%								
Al 396.153Radial†	5895.9	5315.2	ug/L	86.09	5315.2	ppb	86.09	1.62%
QC value within limits for Al 396.153Radial Recovery = 106.30%								
As 188.979†	1128.2	512.76	ug/L	7.376	512.76	ppb	7.376	1.44%
QC value within limits for As 188.979 Recovery = 102.55%								
B 249.677†	20601.8	489.40	ug/L	8.373	489.40	ppb	8.373	1.71%
QC value within limits for B 249.677 Recovery = 97.88%								
Ba 233.527†	64214.4	502.83	ug/L	7.077	502.83	ppb	7.077	1.41%
QC value within limits for Ba 233.527 Recovery = 100.57%								
Be 313.107†	1324720.8	494.79	ug/L	0.529	494.79	ppb	0.529	0.11%
QC value within limits for Be 313.107 Recovery = 98.96%								
Ca 317.933Radial†	2677.2	5326.6	ug/L	14.51	5326.6	ppb	14.51	0.27%

```
   QC value within limits for Ca 317.933Radial  Recovery = 106.53%
Cd 226.502†          43765.2      507.88 ug/L        7.624      507.88 ppb        7.624   1.50%
   QC value within limits for Cd 226.502  Recovery = 101.58%
Co 228.616†          24150.8      505.04 ug/L        7.239      505.04 ppb        7.239   1.43%
   QC value within limits for Co 228.616  Recovery = 101.01%
Cr 267.716†          44718.4      502.55 ug/L        6.498      502.55 ppb        6.498   1.29%
   QC value within limits for Cr 267.716  Recovery = 100.51%
Cu 324.752†         163720.0      491.64 ug/L        8.278      491.64 ppb        8.278   1.68%
   QC value within limits for Cu 324.752  Recovery = 98.33%
Fe 238.204 Radial†     395.3      5107.8 ug/L        82.89      5107.8 ppb        82.89   1.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.16%
K 766.490 Radial†    32794.8      6129.0 ug/L       135.86      6129.0 ppb       135.86   2.22%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 122.58%
Mg 279.077 IEC†        116.9      5313.6 ug/L        50.81      5313.6 ppb        50.81   0.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.27%
Mn 257.610†         440211.1      493.84 ug/L        0.553      493.84 ppb        0.553   0.11%
   QC value within limits for Mn 257.610  Recovery = 98.77%
Mo 202.031†          6871.2      503.31 ug/L        4.393      503.31 ppb        4.393   0.87%
   QC value within limits for Mo 202.031  Recovery = 100.66%
Na 589.592 Radial†   34812.9       10103 ug/L        204.2       10103 ppb        204.2   2.02%
   QC value within limits for Na 589.592 Radial  Recovery = 101.03%
Ni 231.604†          19932.5      506.34 ug/L        7.534      506.34 ppb        7.534   1.49%
   QC value within limits for Ni 231.604  Recovery = 101.27%
P 214.914†            4180.1      2440.8 ug/L        29.54      2440.8 ppb        29.54   1.21%
   QC value within limits for P 214.914  Recovery = 97.63%
Pb 220.353†           4100.3      509.66 ug/L        4.171      509.66 ppb        4.171   0.82%
   QC value within limits for Pb 220.353  Recovery = 101.93%
S 181.975 Axial†       715.1      1046.6 ug/L        14.25      1046.6 ppb        14.25   1.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.66%
Sb 206.836†           1463.8      528.55 ug/L        3.810      528.55 ppb        3.810   0.72%
   QC value within limits for Sb 206.836  Recovery = 105.71%
Se 196.026†            761.3      519.35 ug/L       10.683      519.35 ppb       10.683   2.06%
   QC value within limits for Se 196.026  Recovery = 103.87%
Si 251.611†          78130.9      2500.2 ug/L        41.22      2500.2 ppb        41.22   1.65%
   QC value within limits for Si 251.611  Recovery = 100.01%
Sn 189.927†           2838.5      514.16 ug/L        4.644      514.16 ppb        4.644   0.90%
   QC value within limits for Sn 189.927  Recovery = 102.83%
Sr 421.552†          77384.1      512.85 ug/L        8.601      512.85 ppb        8.601   1.68%
   QC value within limits for Sr 421.552  Recovery = 102.57%
Ti 334.940†         320471.3      484.58 ug/L        7.446      484.58 ppb        7.446   1.54%
   QC value within limits for Ti 334.940  Recovery = 96.92%
Tl 190.801†           1561.7      504.41 ug/L        4.911      504.41 ppb        4.911   0.97%
   QC value within limits for Tl 190.801  Recovery = 100.88%
U 409.014†           17638.6      474.90 ug/L        7.458      474.90 ppb        7.458   1.57%
   QC value within limits for U 409.014  Recovery = 94.98%
V 292.402†           71398.9      502.37 ug/L        7.106      502.37 ppb        7.106   1.41%
   QC value within limits for V 292.402  Recovery = 100.47%
Zn 213.857†          50421.4      501.28 ug/L        8.326      501.28 ppb        8.326   1.66%
   QC value within limits for Zn 213.857  Recovery = 100.26%
SiO2†                78141.1      5355.3 ug/L        64.01      5355.3 ppb        64.01   1.20%
   QC value within limits for SiO2  Recovery = 100.15%
QC Failed.  Continue with analysis.
```

Sequence No.: 105
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 05:58:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3868.0	3868.0	90.9	%			06:00:35
1	Y RADIAL	4419.5	4419.5	94.19	%			06:00:15
1	Al 396.153Radial†	-130.7	-32.9	-29.812	ug/L	-29.812	ppb	06:00:15
1	Ca 317.933Radial†	16.1	2.2	4.3864	ug/L	4.3864	ppb	06:00:35
1	Fe 238.204 Radial†	8.7	-0.6	-7.3506	ug/L	-7.3506	ppb	06:00:35
1	K 766.490 Radial†	4577.7	2477.1	463.44	ug/L	463.44	ppb	06:00:15
1	Mg 279.077 IEC†	2.2	-0.4	-17.373	ug/L	-17.373	ppb	06:00:35
1	Na 589.592 Radial†	-680.8	-8.3	-2.4174	ug/L	-2.4174	ppb	06:00:15
1	Sr 421.552†	106.1	79.9	0.5292	ug/L	0.5292	ppb	06:00:15
1	Sc 361.383	898968.5	898968.5	99.878	%			06:01:32
1	Y 371.029	759931.2	759931.2	99.671	%			06:01:32
1	Ag 328.068†	364.8	135.9	0.6264	ug/L	0.6264	ppb	06:01:32
1	As 188.979†	-25.0	-4.5	-2.0147	ug/L	-2.0147	ppb	06:01:52
1	B 249.677†	-291.7	80.8	1.9309	ug/L	1.9309	ppb	06:01:52
1	Ba 233.527†	12.8	21.9	0.1693	ug/L	0.1693	ppb	06:01:52
1	Be 313.107†	-3707.6	141.1	0.0517	ug/L	0.0517	ppb	06:01:32
1	Cd 226.502†	-190.7	-7.6	-0.0893	ug/L	-0.0893	ppb	06:01:52
1	Co 228.616†	-64.9	-3.0	-0.0620	ug/L	-0.0620	ppb	06:01:52
1	Cr 267.716†	79.2	13.3	0.1507	ug/L	0.1507	ppb	06:01:52
1	Cu 324.752†	6060.1	-9.7	-0.0244	ug/L	-0.0244	ppb	06:01:32
1	Mn 257.610†	499.7	63.5	0.0711	ug/L	0.0711	ppb	06:01:52
1	Mo 202.031†	8.9	2.8	0.2076	ug/L	0.2076	ppb	06:01:52
1	Ni 231.604†	85.3	33.1	0.8419	ug/L	0.8419	ppb	06:01:52
1	P 214.914†	216.1	14.3	8.7034	ug/L	8.7034	ppb	06:01:52
1	Pb 220.353†	-59.4	5.6	0.6871	ug/L	0.6871	ppb	06:01:52
1	S 181.975 Axial†	45.0	8.0	11.690	ug/L	11.690	ppb	06:01:52
1	Sb 206.836†	40.3	3.7	1.2864	ug/L	1.2864	ppb	06:01:52
1	Se 196.026†	-25.6	-5.0	-3.2984	ug/L	-3.2984	ppb	06:01:52
1	Si 251.611†	641.3	107.9	3.4584	ug/L	3.4584	ppb	06:01:52
1	Sn 189.927†	13.3	2.9	0.5322	ug/L	0.5322	ppb	06:01:52
1	Ti 334.940†	-1538.5	-258.6	-0.3852	ug/L	-0.3852	ppb	06:01:32
1	Tl 190.801†	-29.4	1.7	0.5601	ug/L	0.5601	ppb	06:01:52
1	U 409.014†	-3148.3	-335.9	-9.0751	ug/L	-9.0751	ppb	06:01:32
1	V 292.402†	-1533.2	-104.6	-0.7398	ug/L	-0.7398	ppb	06:01:32
1	Zn 213.857†	565.1	8.1	0.0772	ug/L	0.0772	ppb	06:01:52
1	SiO2†	671.2	120.6	8.2777	ug/L	8.2777	ppb	06:02:48
2	Sc Radial	3889.2	3889.2	91.4	%			06:01:00
2	Y RADIAL	4465.7	4465.7	95.18	%			06:00:40
2	Al 396.153Radial†	-117.4	-17.7	-16.046	ug/L	-16.046	ppb	06:00:40
2	Ca 317.933Radial†	17.1	3.3	6.5037	ug/L	6.5037	ppb	06:01:00
2	Fe 238.204 Radial†	10.9	1.8	22.938	ug/L	22.938	ppb	06:01:00
2	K 766.490 Radial†	4401.4	2256.9	422.24	ug/L	422.24	ppb	06:00:40
2	Mg 279.077 IEC†	4.0	1.7	75.222	ug/L	75.222	ppb	06:01:00
2	Na 589.592 Radial†	-689.8	-14.1	-4.0852	ug/L	-4.0852	ppb	06:00:40
2	Sr 421.552†	63.5	32.7	0.2167	ug/L	0.2167	ppb	06:00:40
2	Sc 361.383	891783.7	891783.7	99.080	%			06:01:57
2	Y 371.029	751795.3	751795.3	98.604	%			06:01:57
2	Ag 328.068†	179.4	-48.2	-0.2076	ug/L	-0.2076	ppb	06:01:57
2	As 188.979†	-19.6	0.8	0.3417	ug/L	0.3417	ppb	06:02:17
2	B 249.677†	-275.5	94.9	2.2604	ug/L	2.2604	ppb	06:02:17
2	Ba 233.527†	8.7	18.0	0.1398	ug/L	0.1398	ppb	06:02:17
2	Be 313.107†	-3747.4	71.1	0.0256	ug/L	0.0256	ppb	06:01:57
2	Cd 226.502†	-205.2	-23.8	-0.2803	ug/L	-0.2803	ppb	06:02:17
2	Co 228.616†	-64.9	-3.6	-0.0725	ug/L	-0.0725	ppb	06:02:17
2	Cr 267.716†	49.8	-15.7	-0.1708	ug/L	-0.1708	ppb	06:02:17
2	Cu 324.752†	6121.9	101.7	0.3126	ug/L	0.3126	ppb	06:01:57
2	Mn 257.610†	460.7	28.1	0.0307	ug/L	0.0307	ppb	06:02:17
2	Mo 202.031†	14.4	8.5	0.6238	ug/L	0.6238	ppb	06:02:17
2	Ni 231.604†	46.5	-5.3	-0.1357	ug/L	-0.1357	ppb	06:02:17

2	P 214.914†	204.1	3.9	2.2985	ug/L	2.2985 ppb	06:02:17
2	Pb 220.353†	-44.9	19.7	2.4361	ug/L	2.4361 ppb	06:02:17
2	S 181.975 Axial†	42.5	5.8	8.5187	ug/L	8.5187 ppb	06:02:17
2	Sb 206.836†	31.6	-4.8	-1.6480	ug/L	-1.6480 ppb	06:02:17
2	Se 196.026†	-27.8	-7.3	-4.7473	ug/L	-4.7473 ppb	06:02:17
2	Si 251.611†	635.7	107.5	3.4398	ug/L	3.4398 ppb	06:02:17
2	Sn 189.927†	9.1	-1.2	-0.2217	ug/L	-0.2217 ppb	06:02:17
2	Ti 334.940†	-1527.8	-260.2	-0.3939	ug/L	-0.3939 ppb	06:01:57
2	Tl 190.801†	-36.5	-5.6	-1.7988	ug/L	-1.7988 ppb	06:02:17
2	U 409.014†	-3194.4	-407.8	-11.021	ug/L	-11.021 ppb	06:01:57
2	V 292.402†	-1489.3	-72.7	-0.5181	ug/L	-0.5181 ppb	06:01:57
2	Zn 213.857†	578.7	26.4	0.2619	ug/L	0.2619 ppb	06:02:17
2	SiO2†	644.5	99.0	6.7828	ug/L	6.7828 ppb	06:02:53
3	Sc Radial	3912.2	3912.2	92.0	%		06:01:25
3	Y RADIAL	4509.5	4509.5	96.11	%		06:01:05
3	Al 396.153Radial†	-117.2	-16.7	-15.077	ug/L	-15.077 ppb	06:01:05
3	Ca 317.933Radial†	16.4	2.4	4.7650	ug/L	4.7650 ppb	06:01:25
3	Fe 238.204 Radial†	8.7	-0.7	-9.5597	ug/L	-9.5597 ppb	06:01:25
3	K 766.490 Radial†	4243.9	2057.3	384.91	ug/L	384.91 ppb	06:01:05
3	Mg 279.077 IEC†	3.3	0.9	40.429	ug/L	40.429 ppb	06:01:25
3	Na 589.592 Radial†	-711.3	-33.0	-9.5777	ug/L	-9.5777 ppb	06:01:05
3	Sr 421.552†	70.0	39.4	0.2608	ug/L	0.2608 ppb	06:01:05
3	Sc 361.383	887351.6	887351.6	98.588	%		06:02:22
3	Y 371.029	749326.0	749326.0	98.280	%		06:02:22
3	Ag 328.068†	208.4	-17.9	-0.0808	ug/L	-0.0808 ppb	06:02:22
3	As 188.979†	-22.4	-2.2	-0.9875	ug/L	-0.9875 ppb	06:02:42
3	B 249.677†	-278.2	90.8	2.1695	ug/L	2.1695 ppb	06:02:42
3	Ba 233.527†	3.7	12.9	0.0990	ug/L	0.0990 ppb	06:02:42
3	Be 313.107†	-3775.8	23.4	0.0080	ug/L	0.0080 ppb	06:02:22
3	Cd 226.502†	-191.1	-10.5	-0.1225	ug/L	-0.1225 ppb	06:02:42
3	Co 228.616†	-76.6	-15.8	-0.3300	ug/L	-0.3300 ppb	06:02:42
3	Cr 267.716†	49.2	-16.1	-0.1787	ug/L	-0.1787 ppb	06:02:42
3	Cu 324.752†	6086.6	96.7	0.2946	ug/L	0.2946 ppb	06:02:22
3	Mn 257.610†	479.4	49.4	0.0528	ug/L	0.0528 ppb	06:02:42
3	Mo 202.031†	5.3	-0.7	-0.0529	ug/L	-0.0529 ppb	06:02:42
3	Ni 231.604†	49.9	-1.7	-0.0439	ug/L	-0.0439 ppb	06:02:42
3	P 214.914†	202.9	3.8	2.2467	ug/L	2.2467 ppb	06:02:42
3	Pb 220.353†	-67.6	-3.6	-0.4424	ug/L	-0.4424 ppb	06:02:42
3	S 181.975 Axial†	37.8	1.3	1.9183	ug/L	1.9183 ppb	06:02:42
3	Sb 206.836†	44.4	8.3	2.8899	ug/L	2.8899 ppb	06:02:42
3	Se 196.026†	-17.1	3.4	2.1960	ug/L	2.1960 ppb	06:02:42
3	Si 251.611†	644.3	119.4	3.8311	ug/L	3.8311 ppb	06:02:42
3	Sn 189.927†	7.7	-2.6	-0.4728	ug/L	-0.4728 ppb	06:02:42
3	Ti 334.940†	-1484.1	-223.6	-0.3370	ug/L	-0.3370 ppb	06:02:22
3	Tl 190.801†	-29.5	1.3	0.4128	ug/L	0.4128 ppb	06:02:42
3	U 409.014†	-3087.2	-315.2	-8.5145	ug/L	-8.5145 ppb	06:02:22
3	V 292.402†	-1501.4	-92.4	-0.6562	ug/L	-0.6562 ppb	06:02:22
3	Zn 213.857†	573.0	23.5	0.2374	ug/L	0.2374 ppb	06:02:42
3	SiO2†	663.8	121.8	8.3690	ug/L	8.3690 ppb	06:02:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892701.3	99.182	%	0.6513				0.66%
Sc Radial	3889.8	91.4	%	0.52				0.57%
Y 371.029	753684.1	98.851	%	0.7278				0.74%
Y RADIAL	4464.9	95.16	%	0.959				1.01%
Ag 328.068†	23.3	0.1127	ug/L	0.44938	0.1127	ppb	0.44938	398.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-22.4	-20.311	ug/L	8.2418	-20.311	ppb	8.2418	40.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.0	-0.8868	ug/L	1.18143	-0.8868	ppb	1.18143	133.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.8	2.1202	ug/L	0.17019	2.1202	ppb	0.17019	8.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.6	0.1360	ug/L	0.03532	0.1360	ppb	0.03532	25.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	78.5	0.0284	ug/L	0.02201	0.0284	ppb	0.02201	77.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.6	5.2184	ug/L	1.12911	5.2184	ppb	1.12911	21.64%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -14.0     -0.1640 ug/L       0.10209     -0.1640 ppb        0.10209  62.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -7.5     -0.1548 ug/L       0.15180     -0.1548 ppb        0.15180  98.05%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -6.2     -0.0663 ug/L       0.18792     -0.0663 ppb        0.18792 283.51%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               62.9      0.1942 ug/L       0.18959      0.1942 ppb        0.18959  97.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.2      2.0093 ug/L      18.15854      2.0093 ppb       18.15854 903.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       2263.8      423.53 ug/L        39.284      423.53 ppb         39.284   9.28%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.7      32.760 ug/L       46.7715      32.760 ppb        46.7715 142.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               47.0      0.0516 ug/L       0.02023      0.0516 ppb        0.02023  39.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.5      0.2595 ug/L       0.34132      0.2595 ppb        0.34132 131.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -18.5     -5.3601 ug/L       3.74651     -5.3601 ppb        3.74651  69.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.7      0.2208 ug/L       0.53983      0.2208 ppb        0.53983 244.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 7.4      4.4162 ug/L       3.71291      4.4162 ppb        3.71291  84.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                7.2      0.8936 ug/L       1.45031      0.8936 ppb        1.45031 162.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.0      7.3757 ug/L       4.98518      7.3757 ppb        4.98518  67.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.4      0.8428 ug/L       2.30125      0.8428 ppb        2.30125 273.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.0     -1.9499 ug/L       3.66278     -1.9499 ppb        3.66278 187.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              111.6      3.5764 ug/L       0.22076      3.5764 ppb        0.22076   6.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.3     -0.0541 ug/L       0.52303     -0.0541 ppb        0.52303 966.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               50.6      0.3356 ug/L       0.16913      0.3356 ppb        0.16913  50.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -247.4     -0.3720 ug/L       0.03062     -0.3720 ppb        0.03062   8.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.9     -0.2753 ug/L       1.32144     -0.2753 ppb        1.32144 479.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -352.9     -9.5368 ug/L       1.31543     -9.5368 ppb        1.31543  13.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -89.9     -0.6380 ug/L       0.11195     -0.6380 ppb        0.11195  17.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               19.3      0.1922 ug/L       0.10030      0.1922 ppb        0.10030  52.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    113.8      7.8098 ug/L       0.89060      7.8098 ppb        0.89060  11.40%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

User canceled analysis.

==========

Analysis Begun

Start Time: 2/24/2010 06:17:09 **Plasma On Time: 2/22/2010 05:55:10**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022310C.sif
Batch ID:
Results Data Set: 022310A
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 104 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/24/2010 06:17:10**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4033.5	4033.5	94.8	%			06:19:02
1	Y RADIAL	4436.5	4436.5	94.55	%			06:19:02
1	Al 396.153Radial†	5272.5	5671.0	5111.6	ug/L	5111.6	ppb	06:19:02
1	Ca 317.933Radial†	2490.1	2610.4	5193.7	ug/L	5193.7	ppb	06:19:22
1	Fe 238.204 Radial†	375.4	385.7	4984.2	ug/L	4984.2	ppb	06:19:22
1	K 766.490 Radial†	29290.2	28331.6	5294.1	ug/L	5294.1	ppb	06:19:02
1	Mg 279.077 IEC†	109.5	112.7	5124.2	ug/L	5124.2	ppb	06:19:22
1	Na 589.592 Radial†	31786.2	34260.9	9942.6	ug/L	9942.6	ppb	06:19:02
1	Sr 421.552†	71406.2	75265.5	498.81	ug/L	498.81	ppb	06:19:02
1	Sc 361.383	900638.3	900638.3	100.06	%			06:20:19
1	Y 371.029	749075.0	749075.0	98.247	%			06:20:19
1	Ag 328.068†	107720.8	107422.7	496.39	ug/L	496.39	ppb	06:20:25
1	As 188.979†	1111.4	1131.3	514.15	ug/L	514.15	ppb	06:20:45
1	B 249.677†	19698.7	20059.1	476.48	ug/L	476.48	ppb	06:20:25
1	Ba 233.527†	63608.1	63576.7	497.83	ug/L	497.83	ppb	06:20:25
1	Be 313.107†	1329644.7	1332648.8	497.76	ug/L	497.76	ppb	06:20:19
1	Cd 226.502†	43297.6	43453.2	504.27	ug/L	504.27	ppb	06:20:25
1	Co 228.616†	23985.6	24032.2	502.54	ug/L	502.54	ppb	06:20:25
1	Cr 267.716†	44474.4	44380.0	498.74	ug/L	498.74	ppb	06:20:25
1	Cu 324.752†	167152.6	160968.7	483.38	ug/L	483.38	ppb	06:20:25
1	Mn 257.610†	442662.3	441942.8	495.78	ug/L	495.78	ppb	06:20:19
1	Mo 202.031†	6863.8	6853.3	501.99	ug/L	501.99	ppb	06:20:45
1	Ni 231.604†	19898.4	19833.4	503.82	ug/L	503.82	ppb	06:20:25
1	P 214.914†	4387.6	4182.8	2444.1	ug/L	2444.1	ppb	06:20:45
1	Pb 220.353†	4041.9	4104.3	510.13	ug/L	510.13	ppb	06:20:45
1	S 181.975 Axial†	754.3	716.7	1049.0	ug/L	1049.0	ppb	06:20:45
1	Sb 206.836†	1495.2	1457.5	526.26	ug/L	526.26	ppb	06:20:45
1	Se 196.026†	743.8	764.0	520.71	ug/L	520.71	ppb	06:20:45
1	Si 251.611†	77669.3	77085.5	2466.7	ug/L	2466.7	ppb	06:20:25
1	Sn 189.927†	2835.5	2823.2	511.39	ug/L	511.39	ppb	06:20:45
1	Ti 334.940†	323565.7	324640.9	490.89	ug/L	490.89	ppb	06:20:19
1	Tl 190.801†	1530.7	1561.0	504.25	ug/L	504.25	ppb	06:20:45
1	U 409.014†	14467.3	17274.3	465.08	ug/L	465.08	ppb	06:20:25
1	V 292.402†	69345.0	70731.2	497.71	ug/L	497.71	ppb	06:20:25
1	Zn 213.857†	50452.1	49862.2	495.72	ug/L	495.72	ppb	06:20:25
1	SiO2†	76791.5	76190.9	5221.3	ug/L	5221.3	ppb	06:21:53
2	Sc Radial	4003.6	4003.6	94.1	%			06:19:27
2	Y RADIAL	4383.7	4383.7	93.43	%			06:19:27
2	Al 396.153Radial†	5244.4	5682.7	5122.5	ug/L	5122.5	ppb	06:19:27
2	Ca 317.933Radial†	2469.6	2608.4	5189.6	ug/L	5189.6	ppb	06:19:47
2	Fe 238.204 Radial†	375.1	388.4	5018.4	ug/L	5018.4	ppb	06:19:47
2	K 766.490 Radial†	29146.9	28410.0	5308.8	ug/L	5308.8	ppb	06:19:27
2	Mg 279.077 IEC†	110.9	115.1	5230.0	ug/L	5230.0	ppb	06:19:47
2	Na 589.592 Radial†	31374.1	34073.5	9888.2	ug/L	9888.2	ppb	06:19:27
2	Sr 421.552†	70667.3	75042.9	497.34	ug/L	497.34	ppb	06:19:27
2	Sc 361.383	908257.7	908257.7	100.91	%			06:20:51

2	Y 371.029	753518.5	753518.5	98.830	%		06:20:51
2	Ag 328.068†	108151.2	106946.1	494.20	ug/L	494.20 ppb	06:20:56
2	As 188.979†	1100.8	1111.4	505.21	ug/L	505.21 ppb	06:21:16
2	B 249.677†	19907.6	20100.9	477.48	ug/L	477.48 ppb	06:20:56
2	Ba 233.527†	63871.8	63304.7	495.70	ug/L	495.70 ppb	06:20:56
2	Be 313.107†	1333304.1	1325127.9	494.95	ug/L	494.95 ppb	06:20:51
2	Cd 226.502†	43489.8	43280.7	502.26	ug/L	502.26 ppb	06:20:56
2	Co 228.616†	24055.0	23899.9	499.76	ug/L	499.76 ppb	06:20:56
2	Cr 267.716†	44520.5	44052.8	495.07	ug/L	495.07 ppb	06:20:56
2	Cu 324.752†	168022.1	160429.0	481.76	ug/L	481.76 ppb	06:20:56
2	Mn 257.610†	445430.2	440974.5	494.70	ug/L	494.70 ppb	06:20:51
2	Mo 202.031†	6820.1	6752.5	494.62	ug/L	494.62 ppb	06:21:16
2	Ni 231.604†	19944.3	19712.0	500.74	ug/L	500.74 ppb	06:20:56
2	P 214.914†	4349.7	4108.4	2399.2	ug/L	2399.2 ppb	06:21:16
2	Pb 220.353†	4017.9	4046.7	502.96	ug/L	502.96 ppb	06:21:16
2	S 181.975 Axial†	748.3	704.5	1031.1	ug/L	1031.1 ppb	06:21:16
2	Sb 206.836†	1482.6	1432.6	517.28	ug/L	517.28 ppb	06:21:16
2	Se 196.026†	735.6	749.6	511.33	ug/L	511.33 ppb	06:21:16
2	Si 251.611†	78053.5	76815.1	2458.1	ug/L	2458.1 ppb	06:20:56
2	Sn 189.927†	2819.0	2783.1	504.13	ug/L	504.13 ppb	06:21:16
2	Ti 334.940†	325005.2	323354.7	488.94	ug/L	488.94 ppb	06:20:51
2	Tl 190.801†	1523.7	1541.2	497.89	ug/L	497.89 ppb	06:21:16
2	U 409.014†	14565.8	17250.7	464.45	ug/L	464.45 ppb	06:20:56
2	V 292.402†	69452.3	70256.1	494.31	ug/L	494.31 ppb	06:20:56
2	Zn 213.857†	50798.2	49782.2	494.93	ug/L	494.93 ppb	06:20:56
2	SiO2†	78631.7	77370.8	5302.6	ug/L	5302.6 ppb	06:21:58
3	Sc Radial	4016.7	4016.7	94.4	%		06:19:52
3	Y RADIAL	4384.9	4384.9	93.45	%		06:19:52
3	Al 396.153Radial†	5268.6	5690.0	5128.9	ug/L	5128.9 ppb	06:19:52
3	Ca 317.933Radial†	2483.1	2614.0	5200.9	ug/L	5200.9 ppb	06:20:12
3	Fe 238.204 Radial†	377.5	389.5	5033.3	ug/L	5033.3 ppb	06:20:12
3	K 766.490 Radial†	29181.6	28345.2	5296.7	ug/L	5296.7 ppb	06:19:52
3	Mg 279.077 IEC†	116.9	121.0	5500.5	ug/L	5500.5 ppb	06:20:12
3	Na 589.592 Radial†	31049.8	33620.7	9756.8	ug/L	9756.8 ppb	06:19:52
3	Sr 421.552†	70691.2	74821.9	495.87	ug/L	495.87 ppb	06:19:52
3	Sc 361.383	909191.6	909191.6	101.01	%		06:21:22
3	Y 371.029	755388.1	755388.1	99.075	%		06:21:22
3	Ag 328.068†	108199.7	106884.0	493.91	ug/L	493.91 ppb	06:21:27
3	As 188.979†	1110.6	1120.0	509.06	ug/L	509.06 ppb	06:21:47
3	B 249.677†	19857.0	20030.5	475.80	ug/L	475.80 ppb	06:21:27
3	Ba 233.527†	63805.9	63174.4	494.68	ug/L	494.68 ppb	06:21:27
3	Be 313.107†	1335114.5	1325562.9	495.11	ug/L	495.11 ppb	06:21:22
3	Cd 226.502†	43500.5	43247.1	501.87	ug/L	501.87 ppb	06:21:27
3	Co 228.616†	23977.3	23798.5	497.65	ug/L	497.65 ppb	06:21:27
3	Cr 267.716†	44564.1	44050.7	495.05	ug/L	495.05 ppb	06:21:27
3	Cu 324.752†	167675.3	159914.7	480.22	ug/L	480.22 ppb	06:21:27
3	Mn 257.610†	444740.0	439837.9	493.41	ug/L	493.41 ppb	06:21:22
3	Mo 202.031†	6898.5	6823.1	499.79	ug/L	499.79 ppb	06:21:47
3	Ni 231.604†	19893.3	19641.3	498.94	ug/L	498.94 ppb	06:21:27
3	P 214.914†	4403.8	4157.6	2429.4	ug/L	2429.4 ppb	06:21:47
3	Pb 220.353†	4049.6	4073.9	506.36	ug/L	506.36 ppb	06:21:47
3	S 181.975 Axial†	754.6	710.0	1039.2	ug/L	1039.2 ppb	06:21:47
3	Sb 206.836†	1485.1	1433.4	517.81	ug/L	517.81 ppb	06:21:47
3	Se 196.026†	739.1	752.4	513.20	ug/L	513.20 ppb	06:21:47
3	Si 251.611†	77857.0	76541.1	2449.3	ug/L	2449.3 ppb	06:21:27
3	Sn 189.927†	2863.5	2824.3	511.59	ug/L	511.59 ppb	06:21:47
3	Ti 334.940†	325209.2	323225.8	488.72	ug/L	488.72 ppb	06:21:22
3	Tl 190.801†	1532.8	1548.6	500.27	ug/L	500.27 ppb	06:21:47
3	U 409.014†	14644.7	17313.9	466.16	ug/L	466.16 ppb	06:21:27
3	V 292.402†	69469.7	70202.6	494.02	ug/L	494.02 ppb	06:21:27
3	Zn 213.857†	50705.1	49638.3	493.50	ug/L	493.50 ppb	06:21:27
3	SiO2†	78330.2	76992.3	5276.4	ug/L	5276.4 ppb	06:22:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	906029.2	100.66	%	0.521				0.52%
Sc Radial	4017.9	94.5	%	0.35				0.37%
Y 371.029	752660.5	98.717	%	0.4253				0.43%
Y RADIAL	4401.7	93.81	%	0.643				0.68%

Ag 328.068†	107084.2	494.83 ug/L	1.354	494.83 ppb	1.354	0.27%
QC value within limits for Ag 328.068 Recovery = 98.97%						
Al 396.153Radial†	5681.2	5121.0 ug/L	8.74	5121.0 ppb	8.74	0.17%
QC value within limits for Al 396.153Radial Recovery = 102.42%						
As 188.979†	1120.9	509.47 ug/L	4.485	509.47 ppb	4.485	0.88%
QC value within limits for As 188.979 Recovery = 101.89%						
B 249.677†	20063.5	476.58 ug/L	0.843	476.58 ppb	0.843	0.18%
QC value within limits for B 249.677 Recovery = 95.32%						
Ba 233.527†	63351.9	496.07 ug/L	1.607	496.07 ppb	1.607	0.32%
QC value within limits for Ba 233.527 Recovery = 99.21%						
Be 313.107†	1327779.9	495.94 ug/L	1.576	495.94 ppb	1.576	0.32%
QC value within limits for Be 313.107 Recovery = 99.19%						
Ca 317.933Radial†	2611.0	5194.7 ug/L	5.72	5194.7 ppb	5.72	0.11%
QC value within limits for Ca 317.933Radial Recovery = 103.89%						
Cd 226.502†	43327.0	502.80 ug/L	1.288	502.80 ppb	1.288	0.26%
QC value within limits for Cd 226.502 Recovery = 100.56%						
Co 228.616†	23910.2	499.99 ug/L	2.452	499.99 ppb	2.452	0.49%
QC value within limits for Co 228.616 Recovery = 100.00%						
Cr 267.716†	44161.2	496.29 ug/L	2.126	496.29 ppb	2.126	0.43%
QC value within limits for Cr 267.716 Recovery = 99.26%						
Cu 324.752†	160437.5	481.78 ug/L	1.582	481.78 ppb	1.582	0.33%
QC value within limits for Cu 324.752 Recovery = 96.36%						
Fe 238.204 Radial†	387.9	5011.9 ug/L	25.17	5011.9 ppb	25.17	0.50%
QC value within limits for Fe 238.204 Radial Recovery = 100.24%						
K 766.490 Radial†	28362.3	5299.8 ug/L	7.84	5299.8 ppb	7.84	0.15%
QC value within limits for K 766.490 Radial Recovery = 106.00%						
Mg 279.077 IEC†	116.3	5284.9 ug/L	194.10	5284.9 ppb	194.10	3.67%
QC value within limits for Mg 279.077 IEC Recovery = 105.70%						
Mn 257.610†	440918.4	494.63 ug/L	1.187	494.63 ppb	1.187	0.24%
QC value within limits for Mn 257.610 Recovery = 98.93%						
Mo 202.031†	6809.6	498.80 ug/L	3.787	498.80 ppb	3.787	0.76%
QC value within limits for Mo 202.031 Recovery = 99.76%						
Na 589.592 Radial†	33985.0	9862.6 ug/L	95.52	9862.6 ppb	95.52	0.97%
QC value within limits for Na 589.592 Radial Recovery = 98.63%						
Ni 231.604†	19728.9	501.17 ug/L	2.468	501.17 ppb	2.468	0.49%
QC value within limits for Ni 231.604 Recovery = 100.23%						
P 214.914†	4149.6	2424.3 ug/L	22.90	2424.3 ppb	22.90	0.94%
QC value within limits for P 214.914 Recovery = 96.97%						
Pb 220.353†	4075.0	506.48 ug/L	3.585	506.48 ppb	3.585	0.71%
QC value within limits for Pb 220.353 Recovery = 101.30%						
S 181.975 Axial†	710.4	1039.8 ug/L	8.97	1039.8 ppb	8.97	0.86%
QC value within limits for S 181.975 Axial Recovery = 103.98%						
Sb 206.836†	1441.2	520.45 ug/L	5.038	520.45 ppb	5.038	0.97%
QC value within limits for Sb 206.836 Recovery = 104.09%						
Se 196.026†	755.3	515.08 ug/L	4.965	515.08 ppb	4.965	0.96%
QC value within limits for Se 196.026 Recovery = 103.02%						
Si 251.611†	76813.9	2458.0 ug/L	8.72	2458.0 ppb	8.72	0.35%
QC value within limits for Si 251.611 Recovery = 98.32%						
Sn 189.927†	2810.2	509.04 ug/L	4.248	509.04 ppb	4.248	0.83%
QC value within limits for Sn 189.927 Recovery = 101.81%						
Sr 421.552†	75043.4	497.34 ug/L	1.470	497.34 ppb	1.470	0.30%
QC value within limits for Sr 421.552 Recovery = 99.47%						
Ti 334.940†	323740.5	489.52 ug/L	1.195	489.52 ppb	1.195	0.24%
QC value within limits for Ti 334.940 Recovery = 97.90%						
Tl 190.801†	1550.2	500.81 ug/L	3.211	500.81 ppb	3.211	0.64%
QC value within limits for Tl 190.801 Recovery = 100.16%						
U 409.014†	17279.6	465.23 ug/L	0.864	465.23 ppb	0.864	0.19%
QC value within limits for U 409.014 Recovery = 93.05%						
V 292.402†	70396.6	495.34 ug/L	2.054	495.34 ppb	2.054	0.41%
QC value within limits for V 292.402 Recovery = 99.07%						
Zn 213.857†	49760.9	494.72 ug/L	1.125	494.72 ppb	1.125	0.23%
QC value within limits for Zn 213.857 Recovery = 98.94%						
SiO2†	76851.3	5266.8 ug/L	41.48	5266.8 ppb	41.48	0.79%
QC value within limits for SiO2 Recovery = 98.49%						

All analyte(s) passed QC.

Sequence No.: 105
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 06:24:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3907.7	3907.7	91.9	%			06:26:26
1	Y RADIAL	4482.7	4482.7	95.54	%			06:26:06
1	Al 396.153Radial†	-117.6	-17.2	-15.673	ug/L	-15.673	ppb	06:26:06
1	Ca 317.933Radial†	16.2	2.2	4.3690	ug/L	4.3690	ppb	06:26:26
1	Fe 238.204 Radial†	10.4	1.2	15.290	ug/L	15.290	ppb	06:26:26
1	K 766.490 Radial†	3359.5	1100.0	205.81	ug/L	205.81	ppb	06:26:06
1	Mg 279.077 IEC†	2.6	0.1	6.0058	ug/L	6.0058	ppb	06:26:26
1	Na 589.592 Radial†	-784.1	-113.1	-32.824	ug/L	-32.824	ppb	06:26:06
1	Sr 421.552†	26.2	-8.3	-0.0550	ug/L	-0.0550	ppb	06:26:06
1	Sc 361.383	896138.7	896138.7	99.564	%			06:27:23
1	Y 371.029	756516.3	756516.3	99.223	%			06:27:23
1	Ag 328.068†	272.0	43.9	0.2078	ug/L	0.2078	ppb	06:27:23
1	As 188.979†	-29.7	-9.3	-4.2054	ug/L	-4.2054	ppb	06:27:43
1	B 249.677†	-402.1	-30.9	-0.7405	ug/L	-0.7405	ppb	06:27:43
1	Ba 233.527†	1.2	10.4	0.0795	ug/L	0.0795	ppb	06:27:43
1	Be 313.107†	-3703.8	133.3	0.0489	ug/L	0.0489	ppb	06:27:23
1	Cd 226.502†	-187.0	-4.5	-0.0547	ug/L	-0.0547	ppb	06:27:43
1	Co 228.616†	-67.5	-5.9	-0.1198	ug/L	-0.1198	ppb	06:27:43
1	Cr 267.716†	74.3	8.6	0.0993	ug/L	0.0993	ppb	06:27:43
1	Cu 324.752†	6104.3	53.9	0.1660	ug/L	0.1660	ppb	06:27:23
1	Mn 257.610†	486.2	51.5	0.0590	ug/L	0.0590	ppb	06:27:43
1	Mo 202.031†	21.4	15.4	1.1266	ug/L	1.1266	ppb	06:27:43
1	Ni 231.604†	81.4	29.4	0.7471	ug/L	0.7471	ppb	06:27:43
1	P 214.914†	197.7	-3.5	-2.1551	ug/L	-2.1551	ppb	06:27:43
1	Pb 220.353†	-79.1	-14.4	-1.7883	ug/L	-1.7883	ppb	06:27:43
1	S 181.975 Axial†	41.7	4.9	7.1335	ug/L	7.1335	ppb	06:27:43
1	Sb 206.836†	38.9	2.3	0.8399	ug/L	0.8399	ppb	06:27:43
1	Se 196.026†	-26.7	-6.1	-3.9879	ug/L	-3.9879	ppb	06:27:43
1	Si 251.611†	598.6	67.1	2.1387	ug/L	2.1387	ppb	06:27:43
1	Sn 189.927†	9.9	-0.4	-0.0808	ug/L	-0.0808	ppb	06:27:43
1	Ti 334.940†	-1485.6	-210.3	-0.3154	ug/L	-0.3154	ppb	06:27:23
1	Tl 190.801†	-33.5	-2.4	-0.7847	ug/L	-0.7847	ppb	06:27:43
1	U 409.014†	-3022.1	-219.0	-5.9204	ug/L	-5.9204	ppb	06:27:23
1	V 292.402†	-1541.4	-117.7	-0.8144	ug/L	-0.8144	ppb	06:27:23
1	Zn 213.857†	592.2	37.1	0.3646	ug/L	0.3646	ppb	06:27:43
1	SiO2†	594.3	45.4	3.0859	ug/L	3.0859	ppb	06:28:39
2	Sc Radial	3882.4	3882.4	91.3	%			06:26:52
2	Y RADIAL	4431.0	4431.0	94.44	%			06:26:32
2	Al 396.153Radial†	-117.2	-17.6	-16.032	ug/L	-16.032	ppb	06:26:32
2	Ca 317.933Radial†	18.2	4.5	8.8951	ug/L	8.8951	ppb	06:26:52
2	Fe 238.204 Radial†	10.6	1.4	18.149	ug/L	18.149	ppb	06:26:52
2	K 766.490 Radial†	3343.8	1106.7	207.06	ug/L	207.06	ppb	06:26:32
2	Mg 279.077 IEC†	3.9	1.6	71.032	ug/L	71.032	ppb	06:26:52
2	Na 589.592 Radial†	-840.0	-180.0	-52.236	ug/L	-52.236	ppb	06:26:32
2	Sr 421.552†	57.6	26.3	0.1742	ug/L	0.1742	ppb	06:26:32
2	Sc 361.383	889663.8	889663.8	98.845	%			06:27:49
2	Y 371.029	750618.1	750618.1	98.449	%			06:27:49
2	Ag 328.068†	212.4	-14.5	-0.0553	ug/L	-0.0553	ppb	06:27:49
2	As 188.979†	-19.1	1.2	0.5286	ug/L	0.5286	ppb	06:28:09
2	B 249.677†	-381.2	-12.7	-0.3049	ug/L	-0.3049	ppb	06:28:09
2	Ba 233.527†	-9.6	-0.6	-0.0049	ug/L	-0.0049	ppb	06:28:09
2	Be 313.107†	-3751.4	58.0	0.0207	ug/L	0.0207	ppb	06:27:49
2	Cd 226.502†	-175.8	5.4	0.0595	ug/L	0.0595	ppb	06:28:09
2	Co 228.616†	-66.5	-5.4	-0.1081	ug/L	-0.1081	ppb	06:28:09
2	Cr 267.716†	52.2	-13.2	-0.1430	ug/L	-0.1430	ppb	06:28:09
2	Cu 324.752†	6058.5	52.2	0.1628	ug/L	0.1628	ppb	06:27:49
2	Mn 257.610†	472.3	40.9	0.0448	ug/L	0.0448	ppb	06:28:09
2	Mo 202.031†	27.2	21.4	1.5705	ug/L	1.5705	ppb	06:28:09
2	Ni 231.604†	71.7	20.3	0.5149	ug/L	0.5149	ppb	06:28:09

2	P 214.914†	209.5	9.9	5.9708	ug/L	5.9708 ppb	06:28:09
2	Pb 220.353†	-50.5	14.0	1.7303	ug/L	1.7303 ppb	06:28:09
2	S 181.975 Axial†	36.9	0.3	0.4237	ug/L	0.4237 ppb	06:28:09
2	Sb 206.836†	49.8	13.7	4.7933	ug/L	4.7933 ppb	06:28:09
2	Se 196.026†	-33.6	-13.3	-8.7307	ug/L	-8.7307 ppb	06:28:09
2	Si 251.611†	589.2	62.0	1.9682	ug/L	1.9682 ppb	06:28:09
2	Sn 189.927†	8.3	-2.0	-0.3585	ug/L	-0.3585 ppb	06:28:09
2	Ti 334.940†	-1539.7	-275.9	-0.4177	ug/L	-0.4177 ppb	06:27:49
2	Tl 190.801†	-34.6	-3.8	-1.2121	ug/L	-1.2121 ppb	06:28:09
2	U 409.014†	-3124.4	-344.6	-9.3139	ug/L	-9.3139 ppb	06:27:49
2	V 292.402†	-1480.4	-67.2	-0.4632	ug/L	-0.4632 ppb	06:27:49
2	Zn 213.857†	559.5	8.3	0.0772	ug/L	0.0772 ppb	06:28:09
2	SiO2†	636.8	92.7	6.3272	ug/L	6.3272 ppb	06:28:44
3	Sc Radial	3892.9	3892.9	91.5	%		06:27:17
3	Y RADIAL	4357.2	4357.2	92.86	%		06:26:57
3	Al 396.153Radial†	-135.9	-37.7	-34.170	ug/L	-34.170 ppb	06:26:57
3	Ca 317.933Radial†	15.1	1.0	2.0376	ug/L	2.0376 ppb	06:27:17
3	Fe 238.204 Radial†	11.9	2.8	35.603	ug/L	35.603 ppb	06:27:17
3	K 766.490 Radial†	3327.2	1078.8	201.83	ug/L	201.83 ppb	06:26:57
3	Mg 279.077 IEC†	0.9	-1.8	-82.791	ug/L	-82.791 ppb	06:27:17
3	Na 589.592 Radial†	-778.8	-110.6	-32.095	ug/L	-32.095 ppb	06:26:57
3	Sr 421.552†	23.5	-11.1	-0.0739	ug/L	-0.0739 ppb	06:26:57
3	Sc 361.383	885640.0	885640.0	98.398	%		06:28:14
3	Y 371.029	748115.1	748115.1	98.121	%		06:28:14
3	Ag 328.068†	231.1	5.5	0.0399	ug/L	0.0399 ppb	06:28:14
3	As 188.979†	-21.0	-0.8	-0.3644	ug/L	-0.3644 ppb	06:28:34
3	B 249.677†	-391.7	-25.1	-0.6054	ug/L	-0.6054 ppb	06:28:34
3	Ba 233.527†	1.3	10.4	0.0812	ug/L	0.0812 ppb	06:28:34
3	Be 313.107†	-3653.8	140.0	0.0518	ug/L	0.0518 ppb	06:28:14
3	Cd 226.502†	-197.5	-17.4	-0.2062	ug/L	-0.2062 ppb	06:28:34
3	Co 228.616†	-60.5	0.5	0.0099	ug/L	0.0099 ppb	06:28:34
3	Cr 267.716†	79.1	14.4	0.1668	ug/L	0.1668 ppb	06:28:34
3	Cu 324.752†	5959.8	-20.3	-0.0549	ug/L	-0.0549 ppb	06:28:14
3	Mn 257.610†	472.0	42.8	0.0549	ug/L	0.0549 ppb	06:28:34
3	Mo 202.031†	8.1	2.1	0.1583	ug/L	0.1583 ppb	06:28:34
3	Ni 231.604†	84.3	33.3	0.8472	ug/L	0.8472 ppb	06:28:34
3	P 214.914†	207.4	8.8	5.2838	ug/L	5.2838 ppb	06:28:34
3	Pb 220.353†	-53.2	11.0	1.3529	ug/L	1.3529 ppb	06:28:34
3	S 181.975 Axial†	32.7	-3.8	-5.6223	ug/L	-5.6223 ppb	06:28:34
3	Sb 206.836†	47.0	11.1	3.8536	ug/L	3.8536 ppb	06:28:34
3	Se 196.026†	-20.6	-0.2	-0.0248	ug/L	-0.0248 ppb	06:28:34
3	Si 251.611†	598.6	74.3	2.3801	ug/L	2.3801 ppb	06:28:34
3	Sn 189.927†	8.2	-2.1	-0.3884	ug/L	-0.3884 ppb	06:28:34
3	Ti 334.940†	-1378.1	-118.8	-0.1694	ug/L	-0.1694 ppb	06:28:14
3	Tl 190.801†	-35.2	-4.6	-1.4722	ug/L	-1.4722 ppb	06:28:34
3	U 409.014†	-3040.7	-273.9	-7.4061	ug/L	-7.4061 ppb	06:28:14
3	V 292.402†	-1491.0	-84.9	-0.6077	ug/L	-0.6077 ppb	06:28:14
3	Zn 213.857†	578.2	29.9	0.2898	ug/L	0.2898 ppb	06:28:34
3	SiO2†	607.3	65.7	4.5068	ug/L	4.5068 ppb	06:28:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890480.8	98.935	%	0.5885				0.59%
Sc Radial	3894.3	91.6	%	0.30				0.33%
Y 371.029	751749.9	98.598	%	0.5657				0.57%
Y RADIAL	4423.6	94.28	%	1.344				1.43%
Ag 328.068†	11.6	0.0641	ug/L	0.13318	0.0641	ppb	0.13318	207.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-24.2	-21.958	ug/L	10.5769	-21.958	ppb	10.5769	48.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.0	-1.3471	ug/L	2.51533	-1.3471	ppb	2.51533	186.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-22.9	-0.5503	ug/L	0.22297	-0.5503	ppb	0.22297	40.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0519	ug/L	0.04924	0.0519	ppb	0.04924	94.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.4	0.0405	ug/L	0.01720	0.0405	ppb	0.01720	42.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.6	5.1005	ug/L	3.48681	5.1005	ppb	3.48681	68.36%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -5.5     -0.0671 ug/L      0.13325     -0.0671 ppb       0.13325 198.54%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -3.6     -0.0727 ug/L      0.07178     -0.0727 ppb       0.07178  98.79%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               3.3      0.0410 ug/L      0.16289      0.0410 ppb       0.16289 396.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              28.6      0.0913 ug/L      0.12662      0.0913 ppb       0.12662 138.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8     23.014 ug/L      10.9958     23.014 ppb       10.9958  47.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      1095.1     204.90 ug/L        2.729     204.90 ppb         2.729   1.33%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.0     -1.9177 ug/L     77.21722     -1.9177 ppb      77.21722 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              45.1      0.0529 ug/L      0.00732      0.0529 ppb       0.00732  13.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              13.0      0.9518 ug/L      0.72217      0.9518 ppb       0.72217  75.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -134.6    -39.052 ug/L      11.4235    -39.052 ppb       11.4235  29.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              27.7      0.7030 ug/L      0.17049      0.7030 ppb       0.17049  24.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                5.1      3.0332 ug/L      4.50628      3.0332 ppb       4.50628 148.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.5      0.4316 ug/L      1.93174      0.4316 ppb       1.93174 447.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.4      0.6450 ug/L      6.38081      0.6450 ppb       6.38081 989.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               9.0      3.1623 ug/L      2.06536      3.1623 ppb       2.06536  65.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.6     -4.2478 ug/L      4.35878     -4.2478 ppb       4.35878 102.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              67.8      2.1623 ug/L      0.20692      2.1623 ppb       0.20692   9.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.5     -0.2759 ug/L      0.16966     -0.2759 ppb       0.16966  61.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               2.3      0.0151 ug/L      0.13808      0.0151 ppb       0.13808 913.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -201.6     -0.3008 ug/L      0.12480     -0.3008 ppb       0.12480  41.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.6     -1.1564 ug/L      0.34711     -1.1564 ppb       0.34711  30.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -279.2     -7.5468 ug/L      1.70110     -7.5468 ppb       1.70110  22.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -89.9     -0.6284 ug/L      0.17651     -0.6284 ppb       0.17651  28.09%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              25.1      0.2439 ug/L      0.14913      0.2439 ppb       0.14913  61.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    67.9      4.6400 ug/L      1.62478      4.6400 ppb       1.62478  35.02%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 07:41:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3842.0	3842.0	90.3	%			07:43:16
1	Y RADIAL	4305.0	4305.0	91.75	%			07:42:56
1	Al 396.153Radial†	5183.4	5849.4	5273.3	ug/L	5273.3	ppb	07:42:56
1	Ca 317.933Radial†	2461.8	2710.1	5391.9	ug/L	5391.9	ppb	07:43:16
1	Fe 238.204 Radial†	370.2	399.7	5164.0	ug/L	5164.0	ppb	07:43:16
1	K 766.490 Radial†	28202.7	28667.1	5356.7	ug/L	5356.7	ppb	07:42:56
1	Mg 279.077 IEC†	111.4	120.5	5478.7	ug/L	5478.7	ppb	07:43:16
1	Na 589.592 Radial†	30575.2	34590.9	10038	ug/L	10038	ppb	07:42:56
1	Sr 421.552†	69501.9	76910.4	509.71	ug/L	509.71	ppb	07:42:56
1	Sc 361.383	900706.2	900706.2	100.07	%			07:44:14
1	Y 371.029	749868.7	749868.7	98.351	%			07:44:14
1	Ag 328.068†	106619.7	106314.3	491.33	ug/L	491.33	ppb	07:44:19
1	As 188.979†	1103.8	1123.5	510.56	ug/L	510.56	ppb	07:44:39
1	B 249.677†	19406.3	19765.4	469.46	ug/L	469.46	ppb	07:44:19
1	Ba 233.527†	62981.8	62946.0	492.90	ug/L	492.90	ppb	07:44:19
1	Be 313.107†	1336660.4	1339559.4	500.29	ug/L	500.29	ppb	07:44:14
1	Cd 226.502†	42926.3	43079.0	499.90	ug/L	499.90	ppb	07:44:19
1	Co 228.616†	23602.0	23647.0	494.52	ug/L	494.52	ppb	07:44:19
1	Cr 267.716†	44130.1	44032.6	494.86	ug/L	494.86	ppb	07:44:19
1	Cu 324.752†	165185.9	158990.9	477.45	ug/L	477.45	ppb	07:44:19
1	Mn 257.610†	443691.3	442937.7	496.90	ug/L	496.90	ppb	07:44:14
1	Mo 202.031†	6838.2	6827.2	500.10	ug/L	500.10	ppb	07:44:39
1	Ni 231.604†	19648.0	19581.7	497.43	ug/L	497.43	ppb	07:44:19
1	P 214.914†	4326.3	4121.2	2407.8	ug/L	2407.8	ppb	07:44:39
1	Pb 220.353†	4002.0	4064.2	505.17	ug/L	505.17	ppb	07:44:39
1	S 181.975 Axial†	759.5	721.9	1056.6	ug/L	1056.6	ppb	07:44:39
1	Sb 206.836†	1468.9	1431.2	516.98	ug/L	516.98	ppb	07:44:39
1	Se 196.026†	731.1	751.2	512.86	ug/L	512.86	ppb	07:44:39
1	Si 251.611†	76635.1	76046.3	2433.4	ug/L	2433.4	ppb	07:44:19
1	Sn 189.927†	2807.9	2795.5	506.39	ug/L	506.39	ppb	07:44:39
1	Ti 334.940†	312338.3	313397.1	473.88	ug/L	473.88	ppb	07:44:19
1	Tl 190.801†	1535.9	1566.0	505.76	ug/L	505.76	ppb	07:44:39
1	U 409.014†	14450.0	17255.9	464.58	ug/L	464.58	ppb	07:44:19
1	V 292.402†	68760.8	70142.2	493.59	ug/L	493.59	ppb	07:44:19
1	Zn 213.857†	50001.4	49408.0	491.18	ug/L	491.18	ppb	07:44:19
1	SiO2†	77931.8	77324.7	5299.3	ug/L	5299.3	ppb	07:45:46
2	Sc Radial	3848.9	3848.9	90.5	%			07:43:41
2	Y RADIAL	4355.9	4355.9	92.83	%			07:43:21
2	Al 396.153Radial†	5266.8	5931.4	5347.3	ug/L	5347.3	ppb	07:43:21
2	Ca 317.933Radial†	2459.0	2702.1	5376.1	ug/L	5376.1	ppb	07:43:41
2	Fe 238.204 Radial†	369.5	398.2	5145.2	ug/L	5145.2	ppb	07:43:41
2	K 766.490 Radial†	28631.6	29085.2	5434.9	ug/L	5434.9	ppb	07:43:21
2	Mg 279.077 IEC†	109.8	118.6	5388.7	ug/L	5388.7	ppb	07:43:41
2	Na 589.592 Radial†	31187.9	35207.4	10217	ug/L	10217	ppb	07:43:21
2	Sr 421.552†	70870.2	78284.8	518.82	ug/L	518.82	ppb	07:43:21
2	Sc 361.383	900169.0	900169.0	100.01	%			07:44:45
2	Y 371.029	749041.9	749041.9	98.242	%			07:44:45
2	Ag 328.068†	106953.4	106711.5	493.15	ug/L	493.15	ppb	07:44:50
2	As 188.979†	1102.7	1123.1	510.38	ug/L	510.38	ppb	07:45:10
2	B 249.677†	19588.5	19959.2	474.08	ug/L	474.08	ppb	07:44:50
2	Ba 233.527†	63064.1	63065.8	493.84	ug/L	493.84	ppb	07:44:50
2	Be 313.107†	1337332.9	1341028.9	500.85	ug/L	500.85	ppb	07:44:45
2	Cd 226.502†	42915.7	43093.9	500.08	ug/L	500.08	ppb	07:44:50
2	Co 228.616†	23657.0	23716.2	495.97	ug/L	495.97	ppb	07:44:50
2	Cr 267.716†	44161.2	44090.0	495.50	ug/L	495.50	ppb	07:44:50
2	Cu 324.752†	166167.8	160071.2	480.69	ug/L	480.69	ppb	07:44:50
2	Mn 257.610†	444340.3	443851.2	497.93	ug/L	497.93	ppb	07:44:45
2	Mo 202.031†	6879.6	6872.8	503.43	ug/L	503.43	ppb	07:45:10
2	Ni 231.604†	19730.5	19675.8	499.82	ug/L	499.82	ppb	07:44:50

2	P 214.914†	4392.0	4189.5	2448.7 ug/L	2448.7 ppb	07:45:10
2	Pb 220.353†	4080.3	4144.8	515.19 ug/L	515.19 ppb	07:45:10
2	S 181.975 Axial†	770.9	733.7	1073.9 ug/L	1073.9 ppb	07:45:10
2	Sb 206.836†	1493.5	1456.6	526.03 ug/L	526.03 ppb	07:45:10
2	Se 196.026†	742.7	763.3	520.79 ug/L	520.79 ppb	07:45:10
2	Si 251.611†	76952.2	76409.0	2445.0 ug/L	2445.0 ppb	07:44:50
2	Sn 189.927†	2847.7	2837.0	513.90 ug/L	513.90 ppb	07:45:10
2	Ti 334.940†	313066.9	314311.9	475.27 ug/L	475.27 ppb	07:44:50
2	Tl 190.801†	1539.6	1570.6	507.25 ug/L	507.25 ppb	07:45:10
2	U 409.014†	14451.7	17266.2	464.85 ug/L	464.85 ppb	07:44:50
2	V 292.402†	68766.0	70188.3	493.96 ug/L	493.96 ppb	07:44:50
2	Zn 213.857†	50116.9	49553.3	492.62 ug/L	492.62 ppb	07:44:50
2	SiO2†	76407.9	75847.4	5197.7 ug/L	5197.7 ppb	07:45:51
3	Sc Radial	3850.7	3850.7	90.5 %		07:44:06
3	Y RADIAL	4348.4	4348.4	92.68 %		07:43:46
3	Al 396.153Radial†	5237.3	5896.0	5315.3 ug/L	5315.3 ppb	07:43:46
3	Ca 317.933Radial†	2466.3	2708.9	5389.5 ug/L	5389.5 ppb	07:44:06
3	Fe 238.204 Radial†	373.6	402.5	5200.6 ug/L	5200.6 ppb	07:44:06
3	K 766.490 Radial†	28627.1	29065.3	5431.2 ug/L	5431.2 ppb	07:43:46
3	Mg 279.077 IEC†	110.5	119.3	5423.9 ug/L	5423.9 ppb	07:44:06
3	Na 589.592 Radial†	30872.1	34842.4	10111 ug/L	10111 ppb	07:43:46
3	Sr 421.552†	70486.4	77824.1	515.77 ug/L	515.77 ppb	07:43:46
3	Sc 361.383	893209.0	893209.0	99.238 %		07:45:16
3	Y 371.029	743207.8	743207.8	97.477 %		07:45:16
3	Ag 328.068†	107826.4	108424.5	501.06 ug/L	501.06 ppb	07:45:21
3	As 188.979†	1095.2	1124.1	510.90 ug/L	510.90 ppb	07:45:41
3	B 249.677†	19798.4	20323.3	482.75 ug/L	482.75 ppb	07:45:21
3	Ba 233.527†	63262.7	63757.3	499.25 ug/L	499.25 ppb	07:45:21
3	Be 313.107†	1321674.1	1335669.4	498.86 ug/L	498.86 ppb	07:45:16
3	Cd 226.502†	42916.2	43428.8	503.96 ug/L	503.96 ppb	07:45:21
3	Co 228.616†	23684.5	23928.2	500.39 ug/L	500.39 ppb	07:45:21
3	Cr 267.716†	44313.7	44587.8	501.09 ug/L	501.09 ppb	07:45:21
3	Cu 324.752†	167241.1	162447.4	487.83 ug/L	487.83 ppb	07:45:21
3	Mn 257.610†	439476.9	442412.5	496.32 ug/L	496.32 ppb	07:45:16
3	Mo 202.031†	6826.6	6872.9	503.44 ug/L	503.44 ppb	07:45:41
3	Ni 231.604†	19754.9	19854.2	504.35 ug/L	504.35 ppb	07:45:21
3	P 214.914†	4355.4	4186.8	2445.6 ug/L	2445.6 ppb	07:45:41
3	Pb 220.353†	3985.3	4080.9	507.25 ug/L	507.25 ppb	07:45:41
3	S 181.975 Axial†	756.8	725.6	1061.9 ug/L	1061.9 ppb	07:45:41
3	Sb 206.836†	1472.0	1446.7	522.51 ug/L	522.51 ppb	07:45:41
3	Se 196.026†	738.8	765.2	522.17 ug/L	522.17 ppb	07:45:41
3	Si 251.611†	77268.3	77327.1	2474.5 ug/L	2474.5 ppb	07:45:21
3	Sn 189.927†	2807.5	2818.6	510.58 ug/L	510.58 ppb	07:45:41
3	Ti 334.940†	314647.7	318344.0	481.36 ug/L	481.36 ppb	07:45:21
3	Tl 190.801†	1524.0	1566.9	506.09 ug/L	506.09 ppb	07:45:41
3	U 409.014†	14633.4	17562.0	472.83 ug/L	472.83 ppb	07:45:21
3	V 292.402†	69127.8	71088.7	500.21 ug/L	500.21 ppb	07:45:21
3	Zn 213.857†	50232.6	50060.4	497.67 ug/L	497.67 ppb	07:45:21
3	SiO2†	77838.5	77884.3	5337.6 ug/L	5337.6 ppb	07:45:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898028.1	99.774	%	0.4646				0.47%
Sc Radial	3847.2	90.4	%	0.11				0.12%
Y 371.029	747372.8	98.024	%	0.4762				0.49%
Y RADIAL	4336.4	92.42	%	0.585				0.63%
Ag 328.068†	107150.1	495.18	ug/L	5.168	495.18	ppb	5.168	1.04%
QC value within limits for Ag 328.068 Recovery = 99.04%								
Al 396.153Radial†	5892.3	5312.0	ug/L	37.14	5312.0	ppb	37.14	0.70%
QC value within limits for Al 396.153Radial Recovery = 106.24%								
As 188.979†	1123.6	510.61	ug/L	0.262	510.61	ppb	0.262	0.05%
QC value within limits for As 188.979 Recovery = 102.12%								
B 249.677†	20016.0	475.43	ug/L	6.747	475.43	ppb	6.747	1.42%
QC value within limits for B 249.677 Recovery = 95.09%								
Ba 233.527†	63256.4	495.33	ug/L	3.430	495.33	ppb	3.430	0.69%
QC value within limits for Ba 233.527 Recovery = 99.07%								
Be 313.107†	1338752.6	500.00	ug/L	1.024	500.00	ppb	1.024	0.20%
QC value within limits for Be 313.107 Recovery = 100.00%								
Ca 317.933Radial†	2707.0	5385.8	ug/L	8.53	5385.8	ppb	8.53	0.16%

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   QC value within limits for Ca 317.933Radial  Recovery = 107.72%
Cd 226.502†            43200.6      501.31 ug/L        2.297      501.31 ppb          2.297   0.46%
   QC value within limits for Cd 226.502  Recovery = 100.26%
Co 228.616†            23763.8      496.96 ug/L        3.058      496.96 ppb          3.058   0.62%
   QC value within limits for Co 228.616  Recovery = 99.39%
Cr 267.716†            44236.8      497.15 ug/L        3.430      497.15 ppb          3.430   0.69%
   QC value within limits for Cr 267.716  Recovery = 99.43%
Cu 324.752†           160503.1      481.99 ug/L        5.309      481.99 ppb          5.309   1.10%
   QC value within limits for Cu 324.752  Recovery = 96.40%
Fe 238.204 Radial†       400.1      5169.9 ug/L       28.18      5169.9 ppb          28.18   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.40%
K 766.490 Radial†      28939.2      5407.6 ug/L       44.09      5407.6 ppb          44.09   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 108.15%
Mg 279.077 IEC†          119.5      5430.4 ug/L       45.33      5430.4 ppb          45.33   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.61%
Mn 257.610†           443067.1      497.05 ug/L        0.815      497.05 ppb          0.815   0.16%
   QC value within limits for Mn 257.610  Recovery = 99.41%
Mo 202.031†             6857.6      502.33 ug/L        1.927      502.33 ppb          1.927   0.38%
   QC value within limits for Mo 202.031  Recovery = 100.47%
Na 589.592 Radial†     34880.2       10122 ug/L         90.0       10122 ppb           90.0   0.89%
   QC value within limits for Na 589.592 Radial  Recovery = 101.22%
Ni 231.604†            19703.9      500.53 ug/L        3.516      500.53 ppb          3.516   0.70%
   QC value within limits for Ni 231.604  Recovery = 100.11%
P 214.914†              4165.8      2434.0 ug/L       22.76      2434.0 ppb          22.76   0.94%
   QC value within limits for P 214.914  Recovery = 97.36%
Pb 220.353†             4096.7      509.20 ug/L        5.284      509.20 ppb          5.284   1.04%
   QC value within limits for Pb 220.353  Recovery = 101.84%
S 181.975 Axial†         727.1      1064.1 ug/L        8.84      1064.1 ppb           8.84   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 106.41%
Sb 206.836†             1444.8      521.84 ug/L        4.563      521.84 ppb          4.563   0.87%
   QC value within limits for Sb 206.836  Recovery = 104.37%
Se 196.026†              759.9      518.61 ug/L        5.024      518.61 ppb          5.024   0.97%
   QC value within limits for Se 196.026  Recovery = 103.72%
Si 251.611†            76594.1      2451.0 ug/L       21.16      2451.0 ppb          21.16   0.86%
   QC value within limits for Si 251.611  Recovery = 98.04%
Sn 189.927†             2817.0      510.29 ug/L        3.761      510.29 ppb          3.761   0.74%
   QC value within limits for Sn 189.927  Recovery = 102.06%
Sr 421.552†            77673.1      514.77 ug/L        4.636      514.77 ppb          4.636   0.90%
   QC value within limits for Sr 421.552  Recovery = 102.95%
Ti 334.940†           315351.0      476.84 ug/L        3.979      476.84 ppb          3.979   0.83%
   QC value within limits for Ti 334.940  Recovery = 95.37%
Tl 190.801†             1567.8      506.36 ug/L        0.784      506.36 ppb          0.784   0.15%
   QC value within limits for Tl 190.801  Recovery = 101.27%
U 409.014†             17361.4      467.42 ug/L        4.685      467.42 ppb          4.685   1.00%
   QC value within limits for U 409.014  Recovery = 93.48%
V 292.402†             70473.1      495.92 ug/L        3.719      495.92 ppb          3.719   0.75%
   QC value within limits for V 292.402  Recovery = 99.18%
Zn 213.857†            49673.9      493.82 ug/L        3.404      493.82 ppb          3.404   0.69%
   QC value within limits for Zn 213.857  Recovery = 98.76%
SiO2†                  77018.8      5278.2 ug/L       72.32      5278.2 ppb          72.32   1.37%
   QC value within limits for SiO2  Recovery = 98.70%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 07:48:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4046.3	4046.3	95.1	%			07:49:59
1	Y RADIAL	4467.8	4467.8	95.22	%			07:49:59
1	Al 396.153Radial†	-112.9	-7.9	-7.1911	ug/L	-7.1911	ppb	07:49:59
1	Ca 317.933Radial†	21.6	7.2	14.303	ug/L	14.303	ppb	07:50:19
1	Fe 238.204 Radial†	13.1	3.6	45.757	ug/L	45.757	ppb	07:50:19
1	K 766.490 Radial†	2865.2	455.3	85.182	ug/L	85.182	ppb	07:49:59
1	Mg 279.077 IEC†	2.3	-0.3	-15.454	ug/L	-15.454	ppb	07:50:19
1	Na 589.592 Radial†	-820.5	-122.1	-35.444	ug/L	-35.444	ppb	07:49:59
1	Sr 421.552†	64.5	31.0	0.2055	ug/L	0.2055	ppb	07:49:59
1	Sc 361.383	885902.5	885902.5	98.427	%			07:51:16
1	Y 371.029	749245.1	749245.1	98.269	%			07:51:16
1	Ag 328.068†	222.4	-3.4	0.0022	ug/L	0.0022	ppb	07:51:16
1	As 188.979†	-30.4	-10.3	-4.6492	ug/L	-4.6492	ppb	07:51:36
1	B 249.677†	-398.7	-32.1	-0.7743	ug/L	-0.7743	ppb	07:51:36
1	Ba 233.527†	9.2	18.5	0.1442	ug/L	0.1442	ppb	07:51:36
1	Be 313.107†	-3593.5	202.3	0.0745	ug/L	0.0745	ppb	07:51:16
1	Cd 226.502†	-194.0	-13.8	-0.1661	ug/L	-0.1661	ppb	07:51:36
1	Co 228.616†	-55.7	5.4	0.1145	ug/L	0.1145	ppb	07:51:36
1	Cr 267.716†	80.1	15.4	0.1794	ug/L	0.1794	ppb	07:51:36
1	Cu 324.752†	5950.1	-31.9	-0.0885	ug/L	-0.0885	ppb	07:51:16
1	Mn 257.610†	453.0	23.4	0.0314	ug/L	0.0314	ppb	07:51:36
1	Mo 202.031†	17.1	11.3	0.8273	ug/L	0.8273	ppb	07:51:36
1	Ni 231.604†	69.6	18.4	0.4685	ug/L	0.4685	ppb	07:51:36
1	P 214.914†	205.5	6.7	4.0453	ug/L	4.0453	ppb	07:51:36
1	Pb 220.353†	-58.4	5.7	0.6988	ug/L	0.6988	ppb	07:51:36
1	S 181.975 Axial†	47.8	11.5	16.852	ug/L	16.852	ppb	07:51:36
1	Sb 206.836†	32.8	-3.4	-1.1700	ug/L	-1.1700	ppb	07:51:36
1	Se 196.026†	-14.3	6.2	4.2181	ug/L	4.2181	ppb	07:51:36
1	Si 251.611†	586.3	61.6	1.9649	ug/L	1.9649	ppb	07:51:36
1	Sn 189.927†	6.6	-3.7	-0.6681	ug/L	-0.6681	ppb	07:51:36
1	Ti 334.940†	-1512.1	-254.4	-0.3777	ug/L	-0.3777	ppb	07:51:16
1	Tl 190.801†	-27.8	2.9	0.9396	ug/L	0.9396	ppb	07:51:36
1	U 409.014†	-3100.3	-333.6	-9.0187	ug/L	-9.0187	ppb	07:51:16
1	V 292.402†	-1528.3	-122.3	-0.8610	ug/L	-0.8610	ppb	07:51:16
1	Zn 213.857†	574.8	26.3	0.2542	ug/L	0.2542	ppb	07:51:36
1	SiO2†	614.8	73.1	5.0022	ug/L	5.0022	ppb	07:52:32
2	Sc Radial	4082.3	4082.3	96.0	%			07:50:24
2	Y RADIAL	4514.6	4514.6	96.22	%			07:50:24
2	Al 396.153Radial†	-109.7	-3.5	-3.1860	ug/L	-3.1860	ppb	07:50:24
2	Ca 317.933Radial†	18.0	3.2	6.4593	ug/L	6.4593	ppb	07:50:44
2	Fe 238.204 Radial†	11.7	2.1	26.420	ug/L	26.420	ppb	07:50:44
2	K 766.490 Radial†	2980.3	548.5	102.63	ug/L	102.63	ppb	07:50:24
2	Mg 279.077 IEC†	2.6	-0.1	-3.5029	ug/L	-3.5029	ppb	07:50:44
2	Na 589.592 Radial†	-834.8	-129.5	-37.574	ug/L	-37.574	ppb	07:50:24
2	Sr 421.552†	71.0	37.2	0.2462	ug/L	0.2462	ppb	07:50:24
2	Sc 361.383	889783.9	889783.9	98.858	%			07:51:41
2	Y 371.029	751614.8	751614.8	98.580	%			07:51:41
2	Ag 328.068†	216.0	-10.8	-0.0404	ug/L	-0.0404	ppb	07:51:41
2	As 188.979†	-18.2	2.1	0.9504	ug/L	0.9504	ppb	07:52:01
2	B 249.677†	-426.7	-58.6	-1.4032	ug/L	-1.4032	ppb	07:52:01
2	Ba 233.527†	12.1	21.4	0.1662	ug/L	0.1662	ppb	07:52:01
2	Be 313.107†	-3756.1	53.8	0.0194	ug/L	0.0194	ppb	07:51:41
2	Cd 226.502†	-190.2	-9.1	-0.1089	ug/L	-0.1089	ppb	07:52:01
2	Co 228.616†	-71.9	-10.8	-0.2249	ug/L	-0.2249	ppb	07:52:01
2	Cr 267.716†	66.3	1.1	0.0155	ug/L	0.0155	ppb	07:52:01
2	Cu 324.752†	6074.2	67.3	0.2060	ug/L	0.2060	ppb	07:51:41
2	Mn 257.610†	488.9	57.8	0.0675	ug/L	0.0675	ppb	07:52:01
2	Mo 202.031†	9.7	3.7	0.2747	ug/L	0.2747	ppb	07:52:01
2	Ni 231.604†	68.1	16.6	0.4216	ug/L	0.4216	ppb	07:52:01

2	P 214.914†	210.4	10.8	6.5011 ug/L	6.5011 ppb	07:52:01
2	Pb 220.353†	-58.7	5.7	0.6980 ug/L	0.6980 ppb	07:52:01
2	S 181.975 Axial†	56.0	19.6	28.662 ug/L	28.662 ppb	07:52:01
2	Sb 206.836†	41.8	5.6	1.9709 ug/L	1.9709 ppb	07:52:01
2	Se 196.026†	-30.4	-10.1	-6.5661 ug/L	-6.5661 ppb	07:52:01
2	Si 251.611†	611.9	84.8	2.7166 ug/L	2.7166 ppb	07:52:01
2	Sn 189.927†	14.9	4.6	0.8314 ug/L	0.8314 ppb	07:52:01
2	Ti 334.940†	-1443.7	-178.6	-0.2670 ug/L	-0.2670 ppb	07:51:41
2	Tl 190.801†	-33.6	-2.8	-0.8877 ug/L	-0.8877 ppb	07:52:01
2	U 409.014†	-2953.1	-170.9	-4.6218 ug/L	-4.6218 ppb	07:51:41
2	V 292.402†	-1504.6	-91.5	-0.6442 ug/L	-0.6442 ppb	07:51:41
2	Zn 213.857†	561.3	10.1	0.0940 ug/L	0.0940 ppb	07:52:01
2	SiO2†	642.1	98.0	6.7293 ug/L	6.7293 ppb	07:52:37
3	Sc Radial	3946.8	3946.8	92.8 %		07:50:49
3	Y RADIAL	4396.9	4396.9	93.71 %		07:50:49
3	Al 396.153Radial†	-99.1	4.0	3.5845 ug/L	3.5845 ppb	07:50:49
3	Ca 317.933Radial†	27.9	14.6	29.123 ug/L	29.123 ppb	07:51:09
3	Fe 238.204 Radial†	9.2	-0.3	-3.8675 ug/L	-3.8675 ppb	07:51:09
3	K 766.490 Radial†	2994.1	670.0	125.38 ug/L	125.38 ppb	07:50:49
3	Mg 279.077 IEC†	3.8	1.4	62.848 ug/L	62.848 ppb	07:51:09
3	Na 589.592 Radial†	-967.0	-301.8	-87.571 ug/L	-87.571 ppb	07:50:49
3	Sr 421.552†	34.2	0.1	0.0003 ug/L	0.0003 ppb	07:50:49
3	Sc 361.383	881488.8	881488.8	97.936 %		07:52:06
3	Y 371.029	745084.3	745084.3	97.723 %		07:52:06
3	Ag 328.068†	224.3	-0.3	0.0008 ug/L	0.0008 ppb	07:52:06
3	As 188.979†	-29.8	-9.9	-4.4730 ug/L	-4.4730 ppb	07:52:26
3	B 249.677†	-388.5	-23.7	-0.5665 ug/L	-0.5665 ppb	07:52:26
3	Ba 233.527†	17.9	27.4	0.2125 ug/L	0.2125 ppb	07:52:26
3	Be 313.107†	-3569.7	208.4	0.0770 ug/L	0.0770 ppb	07:52:06
3	Cd 226.502†	-182.6	-3.1	-0.0375 ug/L	-0.0375 ppb	07:52:26
3	Co 228.616†	-51.4	9.5	0.2008 ug/L	0.2008 ppb	07:52:26
3	Cr 267.716†	61.0	-3.7	-0.0393 ug/L	-0.0393 ppb	07:52:26
3	Cu 324.752†	6017.9	67.6	0.2073 ug/L	0.2073 ppb	07:52:06
3	Mn 257.610†	477.1	50.3	0.0534 ug/L	0.0534 ppb	07:52:26
3	Mo 202.031†	19.3	13.6	0.9975 ug/L	0.9975 ppb	07:52:26
3	Ni 231.604†	60.9	9.9	0.2507 ug/L	0.2507 ppb	07:52:26
3	P 214.914†	202.0	4.2	2.5072 ug/L	2.5072 ppb	07:52:26
3	Pb 220.353†	-73.0	-9.5	-1.1721 ug/L	-1.1721 ppb	07:52:26
3	S 181.975 Axial†	48.4	12.4	18.114 ug/L	18.114 ppb	07:52:26
3	Sb 206.836†	36.8	0.9	0.3324 ug/L	0.3324 ppb	07:52:26
3	Se 196.026†	-23.7	-3.5	-2.2859 ug/L	-2.2859 ppb	07:52:26
3	Si 251.611†	586.2	64.4	2.0546 ug/L	2.0546 ppb	07:52:26
3	Sn 189.927†	12.3	2.2	0.3989 ug/L	0.3989 ppb	07:52:26
3	Ti 334.940†	-1441.9	-190.5	-0.2857 ug/L	-0.2857 ppb	07:52:06
3	Tl 190.801†	-26.4	4.3	1.3749 ug/L	1.3749 ppb	07:52:26
3	U 409.014†	-3055.0	-303.1	-8.1886 ug/L	-8.1886 ppb	07:52:06
3	V 292.402†	-1500.5	-101.6	-0.7051 ug/L	-0.7051 ppb	07:52:06
3	Zn 213.857†	576.0	30.4	0.3042 ug/L	0.3042 ppb	07:52:26
3	SiO2†	642.3	104.4	7.1438 ug/L	7.1438 ppb	07:52:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885725.1	98.407	%	0.4611				0.47%
Sc Radial	4025.1	94.6	%	1.65				1.74%
Y 371.029	748648.1	98.191	%	0.4336				0.44%
Y RADIAL	4459.8	95.05	%	1.263				1.33%
Ag 328.068†	-4.8	-0.0125	ug/L	0.02418	-0.0125	ppb	0.02418	193.63%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.5	-2.2642	ug/L	5.44658	-2.2642	ppb	5.44658	240.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.0	-2.7239	ug/L	3.18326	-2.7239	ppb	3.18326	116.86%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-38.2	-0.9147	ug/L	0.43562	-0.9147	ppb	0.43562	47.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.4	0.1743	ug/L	0.03484	0.1743	ppb	0.03484	19.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	154.8	0.0570	ug/L	0.03255	0.0570	ppb	0.03255	57.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.4	16.629	ug/L	11.5096	16.629	ppb	11.5096	69.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -8.7     -0.1042 ug/L       0.06443     -0.1042 ppb        0.06443  61.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               1.3      0.0301 ug/L       0.22504      0.0301 ppb        0.22504 747.06%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               4.3      0.0519 ug/L       0.11382      0.0519 ppb        0.11382 219.42%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              34.3      0.1083 ug/L       0.17038      0.1083 ppb        0.17038 157.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8     22.770 ug/L       25.0129     22.770 ppb        25.0129 109.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       557.9     104.40 ug/L        20.155     104.40 ppb         20.155  19.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.3     14.630 ug/L       42.1830     14.630 ppb        42.1830 288.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              43.8      0.0508 ug/L       0.01820      0.0508 ppb        0.01820  35.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.5      0.6998 ug/L       0.37791      0.6998 ppb        0.37791  54.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -184.5    -53.530 ug/L       29.5002    -53.530 ppb        29.5002  55.11%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              15.0      0.3803 ug/L       0.11463      0.3803 ppb        0.11463  30.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.2      4.3512 ug/L       2.01444      4.3512 ppb        2.01444  46.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.6      0.0749 ug/L       1.07991      0.0749 ppb        1.07991 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         14.5     21.209 ug/L        6.4852     21.209 ppb         6.4852  30.58%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.0      0.3777 ug/L       1.57093      0.3777 ppb        1.57093 415.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.5     -1.5446 ug/L       5.43017     -1.5446 ppb        5.43017 351.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              70.3      2.2454 ug/L       0.41055      2.2454 ppb        0.41055  18.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.0      0.1874 ug/L       0.77178      0.1874 ppb        0.77178 411.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              22.8      0.1507 ug/L       0.13180      0.1507 ppb        0.13180  87.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -207.8     -0.3101 ug/L       0.05930     -0.3101 ppb        0.05930  19.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.5      0.4756 ug/L       1.20051      0.4756 ppb        1.20051 252.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -269.2     -7.2764 ug/L       2.33607     -7.2764 ppb        2.33607  32.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -105.1     -0.7368 ug/L       0.11184     -0.7368 ppb        0.11184  15.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.3      0.2175 ug/L       0.10984      0.2175 ppb        0.10984  50.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    91.8      6.2917 ug/L       1.13587      6.2917 ppb        1.13587  18.05%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/24/2010 08:48:43
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601

Plasma On Time: 2/22/2010 05:55:10
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022310I.SIF
Batch ID:
Results Data Set: 022310A
Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 1
Sample ID: 245806001|948071|2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 2/24/2010 08:48:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245806001|948071|2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4011.7	4011.7	94.3	%			08:50:58
1	Y RADIAL	5015.2	5015.2	106.9	%			08:50:38
1	Al 396.153Radial†	27321.5	29079.3	26336	ug/L	26336	ppb	08:50:38
1	Ca 317.933Radial†	5516.3	5833.3	11606	ug/L	11606	ppb	08:50:38
1	Fe 238.204 Radial†	3229.8	3414.3	43988	ug/L	43988	ppb	08:50:58
1	K 766.490 Radial†	21177.2	19897.0	3718.1	ug/L	3718.1	ppb	08:50:38
1	Mg 279.077 IEC†	108.4	112.2	5051.6	ug/L	5051.6	ppb	08:50:58
1	Na 589.592 Radial†	603.8	1380.5	400.63	ug/L	400.63	ppb	08:50:38
1	Sr 421.552†	12050.2	12739.9	84.351	ug/L	84.351	ppb	08:50:38
1	Sc 361.383	921015.0	921015.0	102.33	%			08:51:56
1	Y 371.029	840622.7	840622.7	110.25	%			08:51:56
1	Ag 328.068†	-2583.4	-2753.9	0.8139	ug/L	0.8139	ppb	08:51:56
1	As 188.979†	-9.7	11.1	22.327	ug/L	22.327	ppb	08:52:16
1	B 249.677†	576.5	936.3	15.167	ug/L	15.167	ppb	08:51:56
1	Ba 233.527†	35373.1	34577.6	271.57	ug/L	271.57	ppb	08:51:56
1	Be 313.107†	3839.1	7605.1	4.6764	ug/L	4.6764	ppb	08:51:56
1	Cd 226.502†	217.3	395.7	0.1099	ug/L	0.1099	ppb	08:52:16
1	Co 228.616†	536.0	585.7	10.018	ug/L	10.018	ppb	08:52:16
1	Cr 267.716†	5024.7	4844.4	58.530	ug/L	58.530	ppb	08:52:16
1	Cu 324.752†	125179.8	116255.0	351.32	ug/L	351.32	ppb	08:51:56
1	Mn 257.610†	818912.5	799846.6	900.91	ug/L	900.91	ppb	08:51:56
1	Mo 202.031†	13.8	7.4	4.0924	ug/L	4.0924	ppb	08:52:16
1	Ni 231.604†	1484.6	1398.5	35.540	ug/L	35.540	ppb	08:52:16
1	P 214.914†	859.1	637.6	288.59	ug/L	288.59	ppb	08:52:16
1	Pb 220.353†	883.9	928.8	115.78	ug/L	115.78	ppb	08:52:16
1	S 181.975 Axial†	147.8	107.4	152.37	ug/L	152.37	ppb	08:52:16
1	Sb 206.836†	48.6	10.8	0.0018	ug/L	0.0018	ppb	08:52:16
1	Se 196.026†	-218.9	-193.3	9.5277	ug/L	9.5277	ppb	08:52:16
1	Si 251.611†	613045.4	598565.3	19202	ug/L	19202	ppb	08:51:56
1	Sn 189.927†	-29.9	-39.7	-7.6435	ug/L	-7.6435	ppb	08:52:16
1	Ti 334.940†	547694.4	536516.9	812.48	ug/L	812.48	ppb	08:51:56
1	Tl 190.801†	-71.0	-38.2	-1.4135	ug/L	-1.4135	ppb	08:52:16
1	U 409.014†	4576.1	7288.2	191.80	ug/L	191.80	ppb	08:51:56
1	V 292.402†	7970.7	9219.8	57.207	ug/L	57.207	ppb	08:51:56
1	Zn 213.857†	17749.6	16788.1	161.17	ug/L	161.17	ppb	08:51:56
1	SiO2†	608339.4	593949.0	40809	ug/L	40809	ppb	08:53:13
2	Sc Radial	4044.0	4044.0	95.1	%			08:51:23
2	Y RADIAL	4963.9	4963.9	105.8	%			08:51:03
2	Al 396.153Radial†	27374.0	28903.4	26176	ug/L	26176	ppb	08:51:03
2	Ca 317.933Radial†	5551.5	5823.7	11587	ug/L	11587	ppb	08:51:03
2	Fe 238.204 Radial†	3266.5	3425.6	44133	ug/L	44133	ppb	08:51:23
2	K 766.490 Radial†	21113.9	19651.4	3672.1	ug/L	3672.1	ppb	08:51:03
2	Mg 279.077 IEC†	110.7	113.7	5122.9	ug/L	5122.9	ppb	08:51:23
2	Na 589.592 Radial†	587.4	1358.2	394.15	ug/L	394.15	ppb	08:51:03
2	Sr 421.552†	12045.5	12632.9	83.643	ug/L	83.643	ppb	08:51:03
2	Sc 361.383	913403.8	913403.8	101.48	%			08:52:21
2	Y 371.029	833921.7	833921.7	109.38	%			08:52:21

2	Ag 328.068†	-2514.2	-2706.8	1.0765 ug/L	1.0765 ppb	08:52:21
2	As 188.979†	-14.3	6.5	20.287 ug/L	20.287 ppb	08:52:42
2	B 249.677†	571.8	936.4	15.145 ug/L	15.145 ppb	08:52:21
2	Ba 233.527†	35077.2	34574.0	271.54 ug/L	271.54 ppb	08:52:21
2	Be 313.107†	3727.9	7526.7	4.6471 ug/L	4.6471 ppb	08:52:21
2	Cd 226.502†	212.1	392.3	0.0559 ug/L	0.0559 ppb	08:52:42
2	Co 228.616†	539.9	594.0	10.189 ug/L	10.189 ppb	08:52:42
2	Cr 267.716†	5006.4	4867.3	58.801 ug/L	58.801 ppb	08:52:42
2	Cu 324.752†	124383.2	116489.4	352.03 ug/L	352.03 ppb	08:52:21
2	Mn 257.610†	812005.0	799708.5	900.77 ug/L	900.77 ppb	08:52:21
2	Mo 202.031†	19.1	12.7	4.4944 ug/L	4.4944 ppb	08:52:42
2	Ni 231.604†	1488.6	1414.5	35.947 ug/L	35.947 ppb	08:52:42
2	P 214.914†	862.9	648.3	294.81 ug/L	294.81 ppb	08:52:42
2	Pb 220.353†	890.4	942.4	117.42 ug/L	117.42 ppb	08:52:42
2	S 181.975 Axial†	161.5	122.1	174.03 ug/L	174.03 ppb	08:52:42
2	Sb 206.836†	50.3	12.8	0.7174 ug/L	0.7174 ppb	08:52:42
2	Se 196.026†	-224.8	-200.8	4.9888 ug/L	4.9888 ppb	08:52:42
2	Si 251.611†	608209.0	598791.6	19209 ug/L	19209 ppb	08:52:21
2	Sn 189.927†	-28.4	-38.4	-7.4240 ug/L	-7.4240 ppb	08:52:42
2	Ti 334.940†	543135.4	536484.5	812.42 ug/L	812.42 ppb	08:52:21
2	Tl 190.801†	-69.2	-37.0	-1.0150 ug/L	-1.0150 ppb	08:52:42
2	U 409.014†	4451.7	7202.9	189.47 ug/L	189.47 ppb	08:52:21
2	V 292.402†	7888.7	9203.9	57.077 ug/L	57.077 ppb	08:52:21
2	Zn 213.857†	17642.8	16827.4	161.54 ug/L	161.54 ppb	08:52:21
2	SiO2†	611490.6	602008.0	41363 ug/L	41363 ppb	08:53:19
3	Sc Radial	3997.3	3997.3	94.0 %		08:51:48
3	Y RADIAL	4920.4	4920.4	104.9 %		08:51:28
3	Al 396.153Radial†	27359.9	29224.4	26467 ug/L	26467 ppb	08:51:28
3	Ca 317.933Radial†	5507.6	5845.1	11629 ug/L	11629 ppb	08:51:28
3	Fe 238.204 Radial†	3241.2	3438.7	44303 ug/L	44303 ppb	08:51:48
3	K 766.490 Radial†	21127.1	19924.5	3723.2 ug/L	3723.2 ppb	08:51:28
3	Mg 279.077 IEC†	112.6	117.0	5272.4 ug/L	5272.4 ppb	08:51:48
3	Na 589.592 Radial†	541.2	1316.2	381.98 ug/L	381.98 ppb	08:51:28
3	Sr 421.552†	11949.3	12678.4	83.944 ug/L	83.944 ppb	08:51:28
3	Sc 361.383	903988.3	903988.3	100.44 %		08:52:47
3	Y 371.029	827293.1	827293.1	108.51 %		08:52:47
3	Ag 328.068†	-2468.9	-2687.5	1.2171 ug/L	1.2171 ppb	08:52:47
3	As 188.979†	-23.5	-2.9	16.115 ug/L	16.115 ppb	08:53:07
3	B 249.677†	521.6	892.3	14.064 ug/L	14.064 ppb	08:52:47
3	Ba 233.527†	34845.4	34703.2	272.56 ug/L	272.56 ppb	08:52:47
3	Be 313.107†	3698.8	7536.0	4.6540 ug/L	4.6540 ppb	08:52:47
3	Cd 226.502†	198.5	381.0	-0.0934 ug/L	-0.0934 ppb	08:53:07
3	Co 228.616†	543.7	603.2	10.378 ug/L	10.378 ppb	08:53:07
3	Cr 267.716†	5007.3	4919.5	59.403 ug/L	59.403 ppb	08:53:07
3	Cu 324.752†	123332.2	116719.6	352.74 ug/L	352.74 ppb	08:52:47
3	Mn 257.610†	804543.4	800613.2	901.79 ug/L	901.79 ppb	08:52:47
3	Mo 202.031†	22.6	16.4	4.7768 ug/L	4.7768 ppb	08:53:07
3	Ni 231.604†	1491.2	1432.4	36.400 ug/L	36.400 ppb	08:53:07
3	P 214.914†	861.4	655.6	299.08 ug/L	299.08 ppb	08:53:07
3	Pb 220.353†	891.6	952.7	118.74 ug/L	118.74 ppb	08:53:07
3	S 181.975 Axial†	154.5	116.8	166.20 ug/L	166.20 ppb	08:53:07
3	Sb 206.836†	56.2	19.3	2.9674 ug/L	2.9674 ppb	08:53:07
3	Se 196.026†	-224.6	-202.9	4.1282 ug/L	4.1282 ppb	08:53:07
3	Si 251.611†	602180.5	599031.7	19217 ug/L	19217 ppb	08:52:47
3	Sn 189.927†	-27.3	-37.6	-7.2757 ug/L	-7.2757 ppb	08:53:07
3	Ti 334.940†	538529.0	537472.5	813.91 ug/L	813.91 ppb	08:52:47
3	Tl 190.801†	-88.2	-56.6	-7.3179 ug/L	-7.3179 ppb	08:53:07
3	U 409.014†	4395.5	7192.7	189.18 ug/L	189.18 ppb	08:52:47
3	V 292.402†	7804.2	9200.8	57.035 ug/L	57.035 ppb	08:52:47
3	Zn 213.857†	17455.9	16822.4	161.46 ug/L	161.46 ppb	08:52:47
3	SiO2†	607968.0	604776.6	41553 ug/L	41553 ppb	08:53:24

2 2/26/10

Mean Data: 245806001|948071|2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912802.4	101.42	%	0.948				0.93%
Sc Radial	4017.7	94.5	%	0.56				0.59%
Y 371.029	833945.8	109.38	%	0.874				0.80%
Y RADIAL	4966.5	105.8	%	1.01				0.96%
Ag 328.068†	-2716.1	1.0358	ug/L	0.20465	1.0358	ppb	0.20465	19.76%

Al 396.153Radial†	29069.0	26326	ug/L	145.6	26326	ppb	145.6	0.55%
As 188.979†	4.9	19.576	ug/L	3.1665	19.576	ppb	3.1665	16.18%
B 249.677†	921.7	14.792	ug/L	0.6305	14.792	ppb	0.6305	4.26%
Ba 233.527†	34618.3	271.89	ug/L	0.579	271.89	ppb	0.579	0.21%
Be 313.107†	7555.9	4.6591	ug/L	0.01533	4.6591	ppb	0.01533	0.33%
Ca 317.933Radial†	5834.0	11607	ug/L	21.4	11607	ppb	21.4	0.18%
Cd 226.502†	389.6	0.0241	ug/L	0.10529	0.0241	ppb	0.10529	436.07%
Co 228.616†	594.3	10.195	ug/L	0.1802	10.195	ppb	0.1802	1.77%
Cr 267.716†	4877.1	58.911	ug/L	0.4470	58.911	ppb	0.4470	0.76%
Cu 324.752†	116488.0	352.03	ug/L	0.707	352.03	ppb	0.707	0.20%
Fe 238.204 Radial†	3426.2	44141	ug/L	157.5	44141	ppb	157.5	0.36%
K 766.490 Radial†	19824.3	3704.5	ug/L	28.13	3704.5	ppb	28.13	0.76%
Mg 279.077 IEC†	114.3	5149.0	ug/L	112.68	5149.0	ppb	112.68	2.19%
Mn 257.610†	800056.1	901.16	ug/L	0.555	901.16	ppb	0.555	0.06%
Mo 202.031†	12.2	4.4545	ug/L	0.34396	4.4545	ppb	0.34396	7.72%
Na 589.592 Radial†	1351.6	392.25	ug/L	9.469	392.25	ppb	9.469	2.41%
Ni 231.604†	1415.1	35.962	ug/L	0.4301	35.962	ppb	0.4301	1.20%
P 214.914†	647.2	294.16	ug/L	5.270	294.16	ppb	5.270	1.79%
Pb 220.353†	941.3	117.31	ug/L	1.480	117.31	ppb	1.480	1.26%
S 181.975 Axial†	115.5	164.20	ug/L	10.969	164.20	ppb	10.969	6.68%
Sb 206.836†	14.3	1.2289	ug/L	1.54758	1.2289	ppb	1.54758	125.93%
Se 196.026†	-199.0	6.2149	ug/L	2.90106	6.2149	ppb	2.90106	46.68%
Si 251.611†	598796.2	19209	ug/L	7.5	19209	ppb	7.5	0.04%
Sn 189.927†	-38.6	-7.4477	ug/L	0.18502	-7.4477	ppb	0.18502	2.48%
Sr 421.552†	12683.7	83.979	ug/L	0.3556	83.979	ppb	0.3556	0.42%
Ti 334.940†	536824.6	812.94	ug/L	0.843	812.94	ppb	0.843	0.10%
Tl 190.801†	-43.9	-3.2488	ug/L	3.52959	-3.2488	ppb	3.52959	108.64%
U 409.014†	7227.9	190.15	ug/L	1.434	190.15	ppb	1.434	0.75%
V 292.402†	9208.2	57.106	ug/L	0.0893	57.106	ppb	0.0893	0.16%
Zn 213.857†	16812.6	161.39	ug/L	0.194	161.39	ppb	0.194	0.12%
SiO2†	600244.5	41242	ug/L	386.5	41242	ppb	386.5	0.94%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 08:55:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3844.7	3844.7	90.4	%			08:57:49
1	Y RADIAL	4256.5	4256.5	90.72	%			08:57:29
1	Al 396.153Radial†	5359.4	6040.1	5445.9	ug/L	5445.9	ppb	08:57:29
1	Ca 317.933Radial†	2499.4	2749.7	5470.9	ug/L	5470.9	ppb	08:57:49
1	Fe 238.204 Radial†	383.5	414.1	5349.4	ug/L	5349.4	ppb	08:57:49
1	K 766.490 Radial†	29075.8	29611.0	5532.9	ug/L	5532.9	ppb	08:57:29
1	Mg 279.077 IEC†	106.3	114.9	5220.6	ug/L	5220.6	ppb	08:57:49
1	Na 589.592 Radial†	33441.9	37738.4	10952	ug/L	10952	ppb	08:57:29
1	Sr 421.552†	74200.7	82054.5	543.81	ug/L	543.81	ppb	08:57:29
1	Sc 361.383	891251.1	891251.1	99.021	%			08:58:46
1	Y 371.029	743852.0	743852.0	97.562	%			08:58:46
1	Ag 328.068†	106824.0	107650.9	497.54	ug/L	497.54	ppb	08:58:51
1	As 188.979†	1081.3	1112.5	505.68	ug/L	505.68	ppb	08:59:11
1	B 249.677†	19378.9	19943.5	473.67	ug/L	473.67	ppb	08:58:51
1	Ba 233.527†	62648.6	63277.2	495.50	ug/L	495.50	ppb	08:58:51
1	Be 313.107†	1320981.1	1337895.3	499.68	ug/L	499.68	ppb	08:58:46
1	Cd 226.502†	42298.2	42899.7	497.80	ug/L	497.80	ppb	08:58:51
1	Co 228.616†	23449.9	23743.7	496.53	ug/L	496.53	ppb	08:58:51
1	Cr 267.716†	43807.2	44174.3	496.47	ug/L	496.47	ppb	08:58:51
1	Cu 324.752†	166018.2	161582.6	485.23	ug/L	485.23	ppb	08:58:51
1	Mn 257.610†	437519.4	441408.5	495.21	ug/L	495.21	ppb	08:58:46
1	Mo 202.031†	6791.6	6852.7	501.98	ug/L	501.98	ppb	08:59:11
1	Ni 231.604†	19505.9	19646.5	499.07	ug/L	499.07	ppb	08:58:51
1	P 214.914†	4275.2	4115.5	2402.6	ug/L	2402.6	ppb	08:59:11
1	Pb 220.353†	3965.2	4069.4	505.84	ug/L	505.84	ppb	08:59:11
1	S 181.975 Axial†	726.0	696.1	1018.8	ug/L	1018.8	ppb	08:59:11
1	Sb 206.836†	1437.7	1415.2	511.42	ug/L	511.42	ppb	08:59:11
1	Se 196.026†	729.6	757.5	517.55	ug/L	517.55	ppb	08:59:11
1	Si 251.611†	76478.0	76700.0	2454.4	ug/L	2454.4	ppb	08:58:51
1	Sn 189.927†	2767.0	2783.9	504.31	ug/L	504.31	ppb	08:59:11
1	Ti 334.940†	312130.9	316498.9	478.60	ug/L	478.60	ppb	08:58:51
1	Tl 190.801†	1506.1	1552.2	501.35	ug/L	501.35	ppb	08:59:11
1	U 409.014†	14756.0	17718.2	477.04	ug/L	477.04	ppb	08:58:51
1	V 292.402†	68671.5	70780.9	498.04	ug/L	498.04	ppb	08:58:51
1	Zn 213.857†	49683.3	49616.8	493.23	ug/L	493.23	ppb	08:58:51
1	SiO2†	78418.4	78642.2	5389.7	ug/L	5389.7	ppb	09:00:19
2	Sc Radial	3946.8	3946.8	92.8	%			08:58:14
2	Y RADIAL	4406.1	4406.1	93.91	%			08:57:54
2	Al 396.153Radial†	5276.1	5796.9	5225.5	ug/L	5225.5	ppb	08:57:54
2	Ca 317.933Radial†	2515.1	2695.1	5362.2	ug/L	5362.2	ppb	08:58:14
2	Fe 238.204 Radial†	382.0	401.5	5187.5	ug/L	5187.5	ppb	08:58:14
2	K 766.490 Radial†	28530.2	28190.9	5267.5	ug/L	5267.5	ppb	08:57:54
2	Mg 279.077 IEC†	115.9	122.2	5552.7	ug/L	5552.7	ppb	08:58:14
2	Na 589.592 Radial†	32409.4	35668.8	10351	ug/L	10351	ppb	08:57:54
2	Sr 421.552†	72305.7	77889.0	516.20	ug/L	516.20	ppb	08:57:54
2	Sc 361.383	889514.3	889514.3	98.828	%			08:59:17
2	Y 371.029	742567.5	742567.5	97.393	%			08:59:17
2	Ag 328.068†	106632.4	107667.6	497.57	ug/L	497.57	ppb	08:59:22
2	As 188.979†	1098.4	1132.0	514.41	ug/L	514.41	ppb	08:59:42
2	B 249.677†	19413.9	20017.1	475.47	ug/L	475.47	ppb	08:59:22
2	Ba 233.527†	62305.7	63053.8	493.75	ug/L	493.75	ppb	08:59:22
2	Be 313.107†	1320060.9	1339569.0	500.31	ug/L	500.31	ppb	08:59:17
2	Cd 226.502†	42185.4	42869.0	497.46	ug/L	497.46	ppb	08:59:22
2	Co 228.616†	23244.2	23581.8	493.15	ug/L	493.15	ppb	08:59:22
2	Cr 267.716†	43717.9	44170.3	496.41	ug/L	496.41	ppb	08:59:22
2	Cu 324.752†	165772.0	161660.8	485.47	ug/L	485.47	ppb	08:59:22
2	Mn 257.610†	436106.8	440841.8	494.55	ug/L	494.55	ppb	08:59:17
2	Mo 202.031†	6815.8	6890.6	504.74	ug/L	504.74	ppb	08:59:42
2	Ni 231.604†	19419.5	19597.5	497.83	ug/L	497.83	ppb	08:59:22

2	P 214.914†	4286.3	4135.1	2414.6	ug/L	2414.6 ppb	08:59:42
2	Pb 220.353†	3967.5	4079.5	507.07	ug/L	507.07 ppb	08:59:42
2	S 181.975 Axial†	730.0	701.7	1026.9	ug/L	1026.9 ppb	08:59:42
2	Sb 206.836†	1448.7	1429.2	516.37	ug/L	516.37 ppb	08:59:42
2	Se 196.026†	741.8	771.3	526.14	ug/L	526.14 ppb	08:59:42
2	Si 251.611†	76227.2	76597.1	2451.0	ug/L	2451.0 ppb	08:59:22
2	Sn 189.927†	2768.0	2790.4	505.47	ug/L	505.47 ppb	08:59:42
2	Ti 334.940†	311066.9	316037.7	477.87	ug/L	477.87 ppb	08:59:22
2	Tl 190.801†	1521.2	1570.4	507.22	ug/L	507.22 ppb	08:59:42
2	U 409.014†	14419.1	17406.4	468.63	ug/L	468.63 ppb	08:59:22
2	V 292.402†	68466.9	70709.3	497.60	ug/L	497.60 ppb	08:59:22
2	Zn 213.857†	49430.8	49459.3	491.68	ug/L	491.68 ppb	08:59:22
2	SiO2†	78372.8	78750.7	5397.1	ug/L	5397.1 ppb	09:00:24
3	Sc Radial	3880.2	3880.2	91.2	%		08:58:39
3	Y RADIAL	4399.2	4399.2	93.76	%		08:58:19
3	Al 396.153Radial†	5256.3	5872.8	5294.2	ug/L	5294.2 ppb	08:58:19
3	Ca 317.933Radial†	2489.4	2713.4	5398.6	ug/L	5398.6 ppb	08:58:39
3	Fe 238.204 Radial†	378.5	404.7	5228.7	ug/L	5228.7 ppb	08:58:39
3	K 766.490 Radial†	28608.3	28804.5	5382.2	ug/L	5382.2 ppb	08:58:19
3	Mg 279.077 IEC†	110.5	118.4	5380.6	ug/L	5380.6 ppb	08:58:39
3	Na 589.592 Radial†	32656.4	36539.2	10604	ug/L	10604 ppb	08:58:19
3	Sr 421.552†	72270.0	79187.6	524.80	ug/L	524.80 ppb	08:58:19
3	Sc 361.383	882848.2	882848.2	98.087	%		08:59:48
3	Y 371.029	739137.4	739137.4	96.943	%		08:59:48
3	Ag 328.068†	107987.1	109863.4	507.70	ug/L	507.70 ppb	08:59:53
3	As 188.979†	1074.1	1115.6	507.10	ug/L	507.10 ppb	09:00:13
3	B 249.677†	19746.4	20504.4	487.06	ug/L	487.06 ppb	08:59:53
3	Ba 233.527†	63076.9	64316.0	503.64	ug/L	503.64 ppb	08:59:53
3	Be 313.107†	1315633.4	1345140.7	502.41	ug/L	502.41 ppb	08:59:48
3	Cd 226.502†	42679.8	43695.3	507.06	ug/L	507.06 ppb	08:59:53
3	Co 228.616†	23534.8	24055.6	503.04	ug/L	503.04 ppb	08:59:53
3	Cr 267.716†	44371.8	45171.0	507.65	ug/L	507.65 ppb	08:59:53
3	Cu 324.752†	167851.2	165047.0	495.63	ug/L	495.63 ppb	08:59:53
3	Mn 257.610†	433719.9	441740.3	495.57	ug/L	495.57 ppb	08:59:48
3	Mo 202.031†	6786.1	6912.3	506.33	ug/L	506.33 ppb	09:00:13
3	Ni 231.604†	19680.1	20011.5	508.35	ug/L	508.35 ppb	08:59:53
3	P 214.914†	4256.8	4137.8	2414.2	ug/L	2414.2 ppb	09:00:13
3	Pb 220.353†	3956.5	4098.7	509.44	ug/L	509.44 ppb	09:00:13
3	S 181.975 Axial†	729.5	706.7	1034.3	ug/L	1034.3 ppb	09:00:13
3	Sb 206.836†	1440.0	1431.4	517.21	ug/L	517.21 ppb	09:00:13
3	Se 196.026†	733.4	768.4	524.36	ug/L	524.36 ppb	09:00:13
3	Si 251.611†	77186.6	78157.5	2501.1	ug/L	2501.1 ppb	08:59:53
3	Sn 189.927†	2762.3	2805.8	508.25	ug/L	508.25 ppb	09:00:13
3	Ti 334.940†	315133.8	322560.5	487.74	ug/L	487.74 ppb	08:59:53
3	Tl 190.801†	1511.9	1572.6	507.92	ug/L	507.92 ppb	09:00:13
3	U 409.014†	14762.2	17866.3	481.03	ug/L	481.03 ppb	08:59:53
3	V 292.402†	69443.1	72227.6	508.16	ug/L	508.16 ppb	08:59:53
3	Zn 213.857†	50023.7	50441.5	501.45	ug/L	501.45 ppb	08:59:53
3	SiO2†	76726.8	77671.4	5322.9	ug/L	5322.9 ppb	09:00:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	887871.2	98.645	%	0.4928				0.50%
Sc Radial	3890.5	91.5	%	1.22				1.33%
Y 371.029	741852.3	97.299	%	0.3197				0.33%
Y RADIAL	4354.0	92.79	%	1.800				1.94%
Ag 328.068†	108394.0	500.93	ug/L	5.857	500.93	ppb	5.857	1.17%
QC value within limits for Ag 328.068 Recovery = 100.19%								
Al 396.153Radial†	5903.3	5321.9	ug/L	112.79	5321.9	ppb	112.79	2.12%
QC value within limits for Al 396.153Radial Recovery = 106.44%								
As 188.979†	1120.0	509.06	ug/L	4.687	509.06	ppb	4.687	0.92%
QC value within limits for As 188.979 Recovery = 101.81%								
B 249.677†	20155.0	478.73	ug/L	7.267	478.73	ppb	7.267	1.52%
QC value within limits for B 249.677 Recovery = 95.75%								
Ba 233.527†	63549.0	497.63	ug/L	5.274	497.63	ppb	5.274	1.06%
QC value within limits for Ba 233.527 Recovery = 99.53%								
Be 313.107†	1340868.3	500.80	ug/L	1.426	500.80	ppb	1.426	0.28%
QC value within limits for Be 313.107 Recovery = 100.16%								
Ca 317.933Radial†	2719.4	5410.6	ug/L	55.30	5410.6	ppb	55.30	1.02%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.21%
Cd 226.502†            43154.7      500.78 ug/L         5.444      500.78 ppb          5.444   1.09%
   QC value within limits for Cd 226.502  Recovery = 100.16%
Co 228.616†            23793.7      497.58 ug/L         5.027      497.58 ppb          5.027   1.01%
   QC value within limits for Co 228.616  Recovery = 99.52%
Cr 267.716†            44505.2      500.17 ug/L         6.471      500.17 ppb          6.471   1.29%
   QC value within limits for Cr 267.716  Recovery = 100.03%
Cu 324.752†           162763.5      488.78 ug/L         5.936      488.78 ppb          5.936   1.21%
   QC value within limits for Cu 324.752  Recovery = 97.76%
Fe 238.204 Radial†       406.8      5255.2 ug/L        84.12      5255.2 ppb         84.12   1.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.10%
K 766.490 Radial†      28868.8      5394.2 ug/L       133.11      5394.2 ppb        133.11   2.47%
   QC value within limits for K 766.490 Radial  Recovery = 107.88%
Mg 279.077 IEC†          118.5      5384.6 ug/L       166.08      5384.6 ppb        166.08   3.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.69%
Mn 257.610†           441330.2      495.11 ug/L         0.517      495.11 ppb          0.517   0.10%
   QC value within limits for Mn 257.610  Recovery = 99.02%
Mo 202.031†             6885.2      504.35 ug/L         2.202      504.35 ppb          2.202   0.44%
   QC value within limits for Mo 202.031  Recovery = 100.87%
Na 589.592 Radial†     36648.8       10636 ug/L       301.6       10636 ppb        301.6   2.84%
   QC value within limits for Na 589.592 Radial  Recovery = 106.36%
Ni 231.604†            19751.8      501.75 ug/L         5.747      501.75 ppb          5.747   1.15%
   QC value within limits for Ni 231.604  Recovery = 100.35%
P 214.914†              4129.5      2410.5 ug/L         6.80      2410.5 ppb          6.80   0.28%
   QC value within limits for P 214.914  Recovery = 96.42%
Pb 220.353†             4082.5      507.45 ug/L         1.833      507.45 ppb          1.833   0.36%
   QC value within limits for Pb 220.353  Recovery = 101.49%
S 181.975 Axial†         701.5      1026.7 ug/L         7.79      1026.7 ppb          7.79   0.76%
   QC value within limits for S 181.975 Axial  Recovery = 102.67%
Sb 206.836†             1425.3      515.00 ug/L         3.132      515.00 ppb          3.132   0.61%
   QC value within limits for Sb 206.836  Recovery = 103.00%
Se 196.026†              765.7      522.68 ug/L         4.538      522.68 ppb          4.538   0.87%
   QC value within limits for Se 196.026  Recovery = 104.54%
Si 251.611†            77151.5      2468.8 ug/L        27.98      2468.8 ppb         27.98   1.13%
   QC value within limits for Si 251.611  Recovery = 98.75%
Sn 189.927†             2793.4      506.01 ug/L         2.028      506.01 ppb          2.028   0.40%
   QC value within limits for Sn 189.927  Recovery = 101.20%
Sr 421.552†            79710.4      528.27 ug/L        14.126      528.27 ppb         14.126   2.67%
   QC value within limits for Sr 421.552  Recovery = 105.65%
Ti 334.940†           318365.7      481.40 ug/L         5.501      481.40 ppb          5.501   1.14%
   QC value within limits for Ti 334.940  Recovery = 96.28%
Tl 190.801†             1565.1      505.50 ug/L         3.605      505.50 ppb          3.605   0.71%
   QC value within limits for Tl 190.801  Recovery = 101.10%
U 409.014†             17663.6      475.57 ug/L         6.328      475.57 ppb          6.328   1.33%
   QC value within limits for U 409.014  Recovery = 95.11%
V 292.402†             71239.3      501.27 ug/L         5.975      501.27 ppb          5.975   1.19%
   QC value within limits for V 292.402  Recovery = 100.25%
Zn 213.857†            49839.2      495.45 ug/L         5.250      495.45 ppb          5.250   1.06%
   QC value within limits for Zn 213.857  Recovery = 99.09%
SiO2†                  78354.8      5369.9 ug/L        40.88      5369.9 ppb         40.88   0.76%
   QC value within limits for SiO2  Recovery = 100.42%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 09:02:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3917.7	3917.7	92.1	%			09:04:52
1	Y RADIAL	4583.2	4583.2	97.68	%			09:04:32
1	Al 396.153Radial†	-131.8	-32.3	-29.327	ug/L	-29.327	ppb	09:04:32
1	Ca 317.933Radial†	19.7	6.0	11.843	ug/L	11.843	ppb	09:04:52
1	Fe 238.204 Radial†	14.4	5.4	69.737	ug/L	69.737	ppb	09:04:52
1	K 766.490 Radial†	2802.3	485.8	90.909	ug/L	90.909	ppb	09:04:32
1	Mg 279.077 IEC†	3.0	0.5	21.925	ug/L	21.925	ppb	09:04:52
1	Na 589.592 Radial†	-905.5	-242.8	-70.458	ug/L	-70.458	ppb	09:04:32
1	Sr 421.552†	32.0	-2.0	-0.0134	ug/L	-0.0134	ppb	09:04:32
1	Sc 361.383	906943.6	906943.6	100.76	%			09:05:49
1	Y 371.029	766758.9	766758.9	100.57	%			09:05:49
1	Ag 328.068†	381.1	148.9	0.7062	ug/L	0.7062	ppb	09:05:54
1	As 188.979†	-22.4	-1.7	-0.7606	ug/L	-0.7606	ppb	09:06:14
1	B 249.677†	-336.3	39.2	0.9236	ug/L	0.9236	ppb	09:06:14
1	Ba 233.527†	25.5	34.5	0.2712	ug/L	0.2712	ppb	09:06:14
1	Be 313.107†	-3662.0	219.0	0.0814	ug/L	0.0814	ppb	09:05:54
1	Cd 226.502†	-192.4	-7.7	-0.0963	ug/L	-0.0963	ppb	09:06:14
1	Co 228.616†	-69.3	-6.8	-0.1410	ug/L	-0.1410	ppb	09:06:14
1	Cr 267.716†	45.0	-21.3	-0.2319	ug/L	-0.2319	ppb	09:06:14
1	Cu 324.752†	6098.1	-25.3	-0.0713	ug/L	-0.0713	ppb	09:05:54
1	Mn 257.610†	490.5	50.0	0.0620	ug/L	0.0620	ppb	09:06:14
1	Mo 202.031†	18.4	12.2	0.9000	ug/L	0.9000	ppb	09:06:14
1	Ni 231.604†	62.7	9.9	0.2523	ug/L	0.2523	ppb	09:06:14
1	P 214.914†	203.6	0.0	-0.0313	ug/L	-0.0313	ppb	09:06:14
1	Pb 220.353†	-72.9	-7.3	-0.9218	ug/L	-0.9218	ppb	09:06:14
1	S 181.975 Axial†	38.4	1.1	1.6295	ug/L	1.6295	ppb	09:06:14
1	Sb 206.836†	39.4	2.4	0.8776	ug/L	0.8776	ppb	09:06:14
1	Se 196.026†	-17.1	3.8	2.7089	ug/L	2.7089	ppb	09:06:14
1	Si 251.611†	616.5	77.7	2.4822	ug/L	2.4822	ppb	09:06:14
1	Sn 189.927†	15.7	5.1	0.9262	ug/L	0.9262	ppb	09:06:14
1	Ti 334.940†	-1371.2	-79.0	-0.1188	ug/L	-0.1188	ppb	09:05:54
1	Tl 190.801†	-18.2	13.2	4.2275	ug/L	4.2275	ppb	09:06:14
1	U 409.014†	-2898.7	-60.4	-1.6396	ug/L	-1.6396	ppb	09:05:49
1	V 292.402†	-1446.7	-5.3	-0.0365	ug/L	-0.0365	ppb	09:05:54
1	Zn 213.857†	570.0	8.0	0.0680	ug/L	0.0680	ppb	09:06:14
1	SiO2†	609.0	52.9	3.6098	ug/L	3.6098	ppb	09:07:20
2	Sc Radial	3938.7	3938.7	92.6	%			09:05:17
2	Y RADIAL	4430.8	4430.8	94.43	%			09:04:57
2	Al 396.153Radial†	-125.4	-24.7	-22.391	ug/L	-22.391	ppb	09:04:57
2	Ca 317.933Radial†	18.9	4.9	9.8344	ug/L	9.8344	ppb	09:05:17
2	Fe 238.204 Radial†	11.2	1.9	24.704	ug/L	24.704	ppb	09:05:17
2	K 766.490 Radial†	2857.4	529.1	99.003	ug/L	99.003	ppb	09:04:57
2	Mg 279.077 IEC†	0.2	-2.6	-116.87	ug/L	-116.87	ppb	09:05:17
2	Na 589.592 Radial†	-920.2	-253.5	-73.553	ug/L	-73.553	ppb	09:04:57
2	Sr 421.552†	25.2	-9.6	-0.0634	ug/L	-0.0634	ppb	09:04:57
2	Sc 361.383	906639.5	906639.5	100.73	%			09:06:19
2	Y 371.029	767212.7	767212.7	100.63	%			09:06:19
2	Ag 328.068†	273.5	42.2	0.1967	ug/L	0.1967	ppb	09:06:24
2	As 188.979†	-23.8	-3.1	-1.3875	ug/L	-1.3875	ppb	09:06:44
2	B 249.677†	-367.0	8.6	0.2020	ug/L	0.2020	ppb	09:06:44
2	Ba 233.527†	6.4	15.5	0.1207	ug/L	0.1207	ppb	09:06:44
2	Be 313.107†	-3553.4	325.6	0.1211	ug/L	0.1211	ppb	09:06:24
2	Cd 226.502†	-185.1	-0.4	-0.0062	ug/L	-0.0062	ppb	09:06:44
2	Co 228.616†	-78.0	-15.5	-0.3223	ug/L	-0.3223	ppb	09:06:44
2	Cr 267.716†	82.3	15.7	0.1766	ug/L	0.1766	ppb	09:06:44
2	Cu 324.752†	6064.5	-56.6	-0.1705	ug/L	-0.1705	ppb	09:06:24
2	Mn 257.610†	508.8	68.3	0.0838	ug/L	0.0838	ppb	09:06:44
2	Mo 202.031†	13.8	7.7	0.5624	ug/L	0.5624	ppb	09:06:44
2	Ni 231.604†	75.6	22.8	0.5791	ug/L	0.5791	ppb	09:06:44

2	P 214.914†	210.8	7.2	4.3813	ug/L	4.3813 ppb	09:06:44
2	Pb 220.353†	-64.4	1.1	0.1288	ug/L	0.1288 ppb	09:06:44
2	S 181.975 Axial†	33.4	-3.9	-5.6535	ug/L	-5.6535 ppb	09:06:44
2	Sb 206.836†	34.2	-2.7	-0.9266	ug/L	-0.9266 ppb	09:06:44
2	Se 196.026†	-15.9	5.0	3.3451	ug/L	3.3451 ppb	09:06:44
2	Si 251.611†	602.9	64.3	2.0573	ug/L	2.0573 ppb	09:06:44
2	Sn 189.927†	15.0	4.5	0.8152	ug/L	0.8152 ppb	09:06:44
2	Ti 334.940†	-1360.0	-68.4	-0.0941	ug/L	-0.0941 ppb	09:06:24
2	Tl 190.801†	-34.3	-2.8	-0.8979	ug/L	-0.8979 ppb	09:06:44
2	U 409.014†	-2711.9	124.0	3.3475	ug/L	3.3475 ppb	09:06:19
2	V 292.402†	-1499.2	-57.8	-0.3931	ug/L	-0.3931 ppb	09:06:24
2	Zn 213.857†	586.9	25.0	0.2434	ug/L	0.2434 ppb	09:06:44
2	SiO2†	560.4	4.8	0.3144	ug/L	0.3144 ppb	09:07:25
3	Sc Radial	3930.6	3930.6	92.4	%		09:05:42
3	Y RADIAL	4435.4	4435.4	94.53	%		09:05:22
3	Al 396.153Radial†	-113.2	-11.8	-10.681	ug/L	-10.681 ppb	09:05:22
3	Ca 317.933Radial†	19.5	5.6	11.179	ug/L	11.179 ppb	09:05:42
3	Fe 238.204 Radial†	10.8	1.5	18.955	ug/L	18.955 ppb	09:05:42
3	K 766.490 Radial†	2808.5	482.4	90.276	ug/L	90.276 ppb	09:05:22
3	Mg 279.077 IEC†	1.9	-0.7	-30.868	ug/L	-30.868 ppb	09:05:42
3	Na 589.592 Radial†	-859.7	-190.0	-55.136	ug/L	-55.136 ppb	09:05:22
3	Sr 421.552†	63.7	32.2	0.2130	ug/L	0.2130 ppb	09:05:22
3	Sc 361.383	894844.7	894844.7	99.420	%		09:06:50
3	Y 371.029	758612.7	758612.7	99.498	%		09:06:50
3	Ag 328.068†	261.1	33.3	0.1586	ug/L	0.1586 ppb	09:06:55
3	As 188.979†	-22.8	-2.4	-1.0972	ug/L	-1.0972 ppb	09:07:15
3	B 249.677†	-371.2	-0.4	-0.0129	ug/L	-0.0129 ppb	09:07:15
3	Ba 233.527†	4.4	13.5	0.1054	ug/L	0.1054 ppb	09:07:15
3	Be 313.107†	-3655.5	176.4	0.0655	ug/L	0.0655 ppb	09:06:55
3	Cd 226.502†	-188.6	-6.3	-0.0754	ug/L	-0.0754 ppb	09:07:15
3	Co 228.616†	-60.4	1.2	0.0262	ug/L	0.0262 ppb	09:07:15
3	Cr 267.716†	75.6	10.0	0.1147	ug/L	0.1147 ppb	09:07:15
3	Cu 324.752†	6044.6	2.7	0.0103	ug/L	0.0103 ppb	09:06:55
3	Mn 257.610†	507.2	73.4	0.0854	ug/L	0.0854 ppb	09:07:15
3	Mo 202.031†	15.0	9.0	0.6594	ug/L	0.6594 ppb	09:07:15
3	Ni 231.604†	84.1	32.3	0.8198	ug/L	0.8198 ppb	09:07:15
3	P 214.914†	203.7	2.8	1.7046	ug/L	1.7046 ppb	09:07:15
3	Pb 220.353†	-49.9	14.9	1.8404	ug/L	1.8404 ppb	09:07:15
3	S 181.975 Axial†	38.4	1.6	2.2982	ug/L	2.2982 ppb	09:07:15
3	Sb 206.836†	36.1	-0.4	-0.1244	ug/L	-0.1244 ppb	09:07:15
3	Se 196.026†	-32.7	-12.2	-7.9653	ug/L	-7.9653 ppb	09:07:15
3	Si 251.611†	610.4	79.8	2.5532	ug/L	2.5532 ppb	09:07:15
3	Sn 189.927†	9.2	-1.2	-0.2131	ug/L	-0.2131 ppb	09:07:15
3	Ti 334.940†	-1341.2	-67.2	-0.0969	ug/L	-0.0969 ppb	09:06:55
3	Tl 190.801†	-40.1	-9.1	-2.9127	ug/L	-2.9127 ppb	09:07:15
3	U 409.014†	-2869.9	-70.4	-1.9042	ug/L	-1.9042 ppb	09:06:50
3	V 292.402†	-1472.4	-50.6	-0.3488	ug/L	-0.3488 ppb	09:06:55
3	Zn 213.857†	589.9	35.7	0.3497	ug/L	0.3497 ppb	09:07:15
3	SiO2†	663.8	116.2	7.9664	ug/L	7.9664 ppb	09:07:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902809.3	100.31	%	0.767				0.76%
Sc Radial	3929.0	92.4	%	0.25				0.27%
Y 371.029	764194.8	100.23	%	0.635				0.63%
Y RADIAL	4483.2	95.55	%	1.847				1.93%
Ag 328.068†	74.8	0.3539	ug/L	0.30577	0.3539	ppb	0.30577	86.41%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-22.9	-20.799	ug/L	9.4244	-20.799	ppb	9.4244	45.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-1.0818	ug/L	0.31375	-1.0818	ppb	0.31375	29.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	15.8	0.3709	ug/L	0.49058	0.3709	ppb	0.49058	132.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.2	0.1658	ug/L	0.09163	0.1658	ppb	0.09163	55.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	240.4	0.0893	ug/L	0.02864	0.0893	ppb	0.02864	32.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.5	10.952	ug/L	1.0234	10.952	ppb	1.0234	9.34%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -4.8     -0.0593 ug/L       0.04716     -0.0593 ppb        0.04716  79.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -7.0     -0.1457 ug/L       0.17431     -0.1457 ppb        0.17431 119.62%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               1.5      0.0198 ug/L       0.22015      0.0198 ppb        0.22015 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -26.4     -0.0772 ug/L       0.09055     -0.0772 ppb        0.09055 117.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.9      37.798 ug/L       27.8082      37.798 ppb        27.8082  73.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       499.1      93.396 ug/L        4.8662      93.396 ppb         4.8662   5.21%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.9     -41.938 ug/L       70.0569     -41.938 ppb        70.0569 167.05%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              63.9      0.0771 ug/L       0.01305      0.0771 ppb        0.01305  16.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.6      0.7073 ug/L       0.17380      0.7073 ppb        0.17380  24.57%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -228.7     -66.382 ug/L        9.8620     -66.382 ppb         9.8620  14.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              21.6      0.5504 ug/L       0.28486      0.5504 ppb        0.28486  51.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.4      2.0182 ug/L       2.22298      2.0182 ppb        2.22298 110.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.9      0.3491 ug/L       1.39422      0.3491 ppb        1.39422 399.32%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.4     -0.5753 ug/L       4.41060     -0.5753 ppb        4.41060 766.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.2     -0.0578 ug/L       0.90392     -0.0578 ppb        0.90392 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.1     -0.6371 ug/L       6.35436     -0.6371 ppb        6.35436 997.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              74.0      2.3643 ug/L       0.26817      2.3643 ppb        0.26817  11.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.8      0.5094 ug/L       0.62818      0.5094 ppb        0.62818 123.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.9      0.0454 ug/L       0.14730      0.0454 ppb        0.14730 324.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -71.5     -0.1032 ug/L       0.01356     -0.1032 ppb        0.01356  13.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.1389 ug/L       3.68129      0.1389 ppb        3.68129 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -2.3     -0.0654 ug/L       2.95867     -0.0654 ppb        2.95867 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -37.9     -0.2595 ug/L       0.19433     -0.2595 ppb        0.19433  74.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.9      0.2204 ug/L       0.14229      0.2204 ppb        0.14229  64.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    58.0      3.9635 ug/L       3.83826      3.9635 ppb        3.83826  96.84%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 18, 2010 11:08:36
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.327
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1492.1	1492.078	20.751	1.4
	Mg	24.0	24345.7	24345.729	268.827	1.1
	Co	58.9	55141.4	55141.422	488.165	0.9
	Rh	102.9	96829.3	96829.251	315.538	0.3
	In	114.9	134330.2	134330.213	527.859	0.4
	Pb	208.0	55155.9	55155.879	547.143	1.0
⌈>	Ba	137.9	106513.9	106513.875	754.642	0.7
⌊	Ba++	69.0	1320.2	0.012	0.000	2.6
⌈>	Ce	139.9	124580.7	124580.670	766.142	0.6
⌊	CeO	155.9	2940.0	0.024	0.001	2.5
	Bkgd	220.0	1.2	1.200	0.837	69.7

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.5	1242.4
Co	59	17	5.3	38851.1
In	115	17	6.3	99610.1

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	604	2060	0.671
Be	9.0	8.9	2041	2045	0.681
Mg	24.0	24.0	5678	2065	0.682
Mg	25.0	25.1	5953	2080	0.666
Mg	26.0	26.0	6159	2085	0.636
Co	58.9	58.9	14186	2140	0.644
Rh	102.9	102.9	24873	2230	0.647
In	114.9	114.9	27785	2255	0.669
Ce	139.9	139.9	33847	2310	0.627
Pb	206.0	206.0	49940	2500	0.601
Pb	207.0	207.0	50113	2375	0.623
Pb	208.0	208.0	50436	2570	0.608
U	238.1	238.0	57688	2510	0.682

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 18, 2010 23:02:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: c:\elandata\Dataset\100218\Blank.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		6	
>	Sc	45		ug/L		1100591	
	Ni	60		ug/L		48	
>	Ge	74		ug/L		247373	
	As	75		ug/L		-501	
	Se	77		ug/L		4793	
	Se	82		ug/L		25	
	Kr	83		ug/L		43	
>	Lu	175		ug/L		153953	
	Tl	205		ug/L		152	
	U	238		ug/L		321	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 18, 2010 23:06:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\Standard 1.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.020	1450	0.001
>	Sc	45		ug/L		1096251	1096251.409
	Ni	60	10.000	ug/L	1.511	10591	0.010
>	Ge	74		ug/L		242112	242111.509
	As	75	10.000	ug/L	4.941	5997	0.027
	Se	77		ug/L		6239	0.006
	Se	82	10.000	ug/L	1.670	760	0.003
	Kr	83		ug/L		38	-0.000
>	Lu	175		ug/L		149798	149798.114
	Tl	205	10.000	ug/L	1.833	17095	0.113
	U	238	10.000	ug/L	0.828	109430	0.728

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 18, 2010 23:10:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\Standard 2.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.954**	ug/L	0.785	13685	0.013
>	Sc	45		ug/L		1087261	1087261.185
	Ni	60	**99.950**	ug/L	1.321	99620	0.092
>	Ge	74		ug/L		237644	237644.436
	As	75	**100.013**	ug/L	0.558	64037	0.272
	Se	77		ug/L		11602	0.029
	Se	82	**99.969**	ug/L	0.952	7029	0.029
	Kr	83		ug/L		47	0.000
>	Lu	175		ug/L		147824	147824.099
	Tl	205	**99.984**	ug/L	0.973	164647	1.113
	U	238	**99.975**	ug/L	1.026	1051030	7.108

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 18, 2010 23:14:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 1.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.431**	ug/L	1.792	7157	0.007
>	Sc	45		ug/L		1083620	1083619.719
	Ni	60	**52.172**	ug/L	0.847	51846	0.048
>	Ge	74		ug/L		239741	239741.232
	As	75	**49.357**	ug/L	1.178	31639	0.134
	Se	77		ug/L		8761	0.017
	Se	82	**50.161**	ug/L	0.586	3570	0.015
	Kr	83		ug/L		45	0.000
>	Lu	175		ug/L		149686	149686.412
	Tl	205	**48.389**	ug/L	0.595	80754	0.539
	U	238	**52.783**	ug/L	1.028	561960	3.753

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	104.862				
>	Sc	45		98.5			
	Ni	60	104.343				
>	Ge	74		96.9			
	As	75	98.713				
	Se	77					
	Se	82	100.322				
	Kr	83					
>	Lu	175		97.2			
	Tl	205	96.777				
	U	238	105.566				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 18, 2010 23:18:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 2.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.003**	**ug/L**	1169.608	6	0.000
>	Sc	45		**ug/L**		1090622	1090621.875
	Ni	60	**0.015**	**ug/L**	34.323	62	0.000
>	Ge	74		**ug/L**		246907	246907.308
	As	75	**0.023**	**ug/L**	2726.919	-484	0.000
	Se	77		**ug/L**		4910	0.001
	Se	82	**0.180**	**ug/L**	91.561	38	0.000
	Kr	83		**ug/L**		40	-0.000
>	Lu	175		**ug/L**		152376	152375.930
	Tl	205	**0.228**	**ug/L**	5.966	538	0.003
	U	238	**0.019**	**ug/L**	6.810	524	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			99.1		
	Ni	60					
>	Ge	74			99.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175			99.0		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 18, 2010 23:23:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 3.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.635**	**ug/L**	4.623	93	0.000
>	Sc	45		**ug/L**		1089785	1089785.492
	Ni	60	**2.286**	**ug/L**	2.191	2329	0.002
>	Ge	74		**ug/L**		243048	243047.659
	As	75	**5.988**	**ug/L**	7.193	3461	0.016
	Se	77		**ug/L**		5978	0.005
	Se	82	**5.911**	**ug/L**	7.295	448	0.002
	Kr	83		**ug/L**		39	-0.000
>	Lu	175		**ug/L**		150807	150807.015
	Tl	205	**1.123**	**ug/L**	0.963	2035	0.013
	U	238	**0.229**	**ug/L**	1.542	2768	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	126.959				
>	Sc	45		99.0			
	Ni	60	114.282				
>	Ge	74		98.3			
	As	75	119.754				
	Se	77					
	Se	82	118.221				
	Kr	83					
>	Lu	175		98.0			
	Tl	205	112.349				
	U	238	114.427				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 18, 2010 23:27:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 4.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.076**	**ug/L**	68.469	14	0.000
>	Sc	45		**ug/L**		948851	948850.913
	Ni	60	**4.907**	**ug/L**	2.113	4307	0.004
>	Ge	74		**ug/L**		206336	206335.806
	As	75	**-0.361**	**ug/L**	119.845	-620	-0.001
	Se	77		**ug/L**		6325	0.011
	Se	82	**-0.571**	**ug/L**	13.130	-14	-0.000
	Kr	83		**ug/L**		100	0.000
>	Lu	175		**ug/L**		131482	131482.277
	Tl	205	**0.021**	**ug/L**	48.394	160	0.000
	U	238	**-0.016**	**ug/L**	9.238	122	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		86.2			
	Ni	60	148.240				
>	Ge	74		83.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		85.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 18, 2010 23:31:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 5.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.659**	**ug/L**	2.035	2248	0.002
>	Sc	45		**ug/L**		906767	906766.975
	Ni	60	**24.405**	**ug/L**	1.964	20313	0.022
>	Ge	74		**ug/L**		200416	200415.698
	As	75	**19.841**	**ug/L**	2.284	10389	0.054
	Se	77		**ug/L**		7640	0.019
	Se	82	**21.097**	**ug/L**	3.704	1267	0.006
	Kr	83		**ug/L**		108	0.000
>	Lu	175		**ug/L**		127796	127796.049
	Tl	205	**17.937**	**ug/L**	1.124	25640	0.200
	U	238	**21.499**	**ug/L**	0.432	195603	1.528

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	98.297				
>	Sc	45		82.4			
	Ni	60	104.698				
>	Ge	74		81.0			
	As	75	99.206				
	Se	77					
	Se	82	105.485				
	Kr	83					
>	Lu	175		83.0			
	Tl	205	89.687				
	U	238	107.495				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 23:35:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.784**	**ug/L**	0.816	6839	0.007
>	Sc	45		**ug/L**		1048387	1048387.349
	Ni	60	**52.039**	**ug/L**	1.113	50034	0.048
>	Ge	74		**ug/L**		233709	233708.567
	As	75	**47.677**	**ug/L**	0.898	29775	0.129
	Se	77		**ug/L**		8464	0.017
	Se	82	**49.937**	**ug/L**	1.479	3465	0.015
	Kr	83		**ug/L**		39	-0.000
>	Lu	175		**ug/L**		146986	146985.764
	Tl	205	**47.313**	**ug/L**	0.867	77541	0.527
	U	238	**51.860**	**ug/L**	0.921	542224	3.687

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.568				
>	Sc	45			95.3		
	Ni	60	104.079				
>	Ge	74			94.5		
	As	75	95.355				
	Se	77					
	Se	82	99.873				
	Kr	83					
>	Lu	175			95.5		
	Tl	205	94.626				
	U	238	103.720				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 23:39:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.008**	**ug/L**	280.248	7	0.000
>	Sc	45		**ug/L**		1084765	1084764.750
	Ni	60	**0.016**	**ug/L**	32.163	63	0.000
>	Ge	74		**ug/L**		242949	242948.878
	As	75	**-0.171**	**ug/L**	163.694	-604	-0.000
	Se	77		**ug/L**		4988	0.001
	Se	82	**0.226**	**ug/L**	33.131	40	0.000
	Kr	83		**ug/L**		36	-0.000
>	Lu	175		**ug/L**		151807	151806.836
	Tl	205	**0.216**	**ug/L**	5.157	516	0.002
	U	238	**0.014**	**ug/L**	6.980	469	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			98.6		
	Ni	60					
>	Ge	74			98.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175			98.6		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, February 18, 2010 23:43:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 10.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1008.870**	**ug/L**	1.164	119213	0.127
>	Sc	45		**ug/L**		938761	938760.582
	Ni	60	**932.998**	**ug/L**	1.134	802533	0.855
>	Ge	74		**ug/L**		208263	208262.867
	As	75	**922.279**	**ug/L**	0.681	520995	2.504
	Se	77		**ug/L**		28092	0.116
	Se	82	**491.363**	**ug/L**	1.213	30198	0.145
	Kr	83		**ug/L**		80	0.000
>	Lu	175		**ug/L**		129481	129480.787
	Tl	205	**459.892**	**ug/L**	0.403	662859	5.118
	U	238	**4960.205**	**ug/L**	0.816	45662282	352.641

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	100.887				
>	Sc	45			85.3		
	Ni	60	93.300				
>	Ge	74			84.2		
	As	75	92.228				
	Se	77					
	Se	82	98.273				
	Kr	83					
>	Lu	175			84.1		
	Tl	205	91.978				
	U	238	99.204				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, February 18, 2010 23:47:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 11.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.724**	ug/L	1.005	6845	0.007
>	Sc	45		ug/L		1030583	1030583.161
	Ni	60	**52.986**	ug/L	0.147	50078	0.049
>	Ge	74		ug/L		230063	230063.156
	As	75	**49.491**	ug/L	0.252	30444	0.134
	Se	77		ug/L		8126	0.016
	Se	82	**52.221**	ug/L	1.705	3565	0.015
	Kr	83		ug/L		39	-0.000
>	Lu	175		ug/L		144528	144527.513
	Tl	205	**49.483**	ug/L	1.428	79737	0.551
	U	238	**54.693**	ug/L	1.370	562279	3.888

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	105.449				
>	Sc	45		93.6			
	Ni	60	105.971				
>	Ge	74		93.0			
	As	75	98.982				
	Se	77					
	Se	82	104.442				
	Kr	83					
>	Lu	175		93.9			
	Tl	205	98.966				
	U	238	109.386				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, February 18, 2010 23:51:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 12.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.058**	**ug/L**	27.497	13	0.000
>	Sc	45		**ug/L**		1069079	1069078.668
	Ni	60	**0.052**	**ug/L**	7.754	97	0.000
>	Ge	74		**ug/L**		239734	239733.962
	As	75	**0.019**	**ug/L**	1784.688	-475	0.000
	Se	77		**ug/L**		4698	0.000
	Se	82	**0.103**	**ug/L**	153.057	31	0.000
	Kr	83		**ug/L**		45	0.000
>	Lu	175		**ug/L**		150818	150818.484
	Tl	205	**0.350**	**ug/L**	3.080	736	0.004
	U	238	**0.190**	**ug/L**	6.574	2347	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.1			
	Ni	60					
>	Ge	74		96.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030975
Sample Date/Time: Thursday, February 18, 2010 23:56:01
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\1202030975.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.008**	ug/L	430.732	7	0.000
>	Sc	45		ug/L		1081865	1081865.117
	Ni	60	**0.192**	ug/L	1.946	237	0.000
>	Ge	74		ug/L		234744	234744.098
	As	75	**0.116**	ug/L	144.091	-402	0.000
	Se	77		ug/L		3504	-0.004
	Se	82	**0.376**	ug/L	45.272	49	0.000
	Kr	83		ug/L		40	-0.000
>	Lu	175		ug/L		150351	150350.971
	Tl	205	**0.189**	ug/L	1.478	465	0.002
	U	238	**0.150**	ug/L	9.942	1914	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		98.3			
	Ni	60					
>	Ge	74		94.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030980
Sample Date/Time: Friday, February 19, 2010 00:00:12
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948073|40|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\1202030980.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.134**	**ug/L**	1.814	3059	0.003
>	Sc	45		**ug/L**		1096205	1096204.890
	Ni	60	**37.728**	**ug/L**	1.258	37936	0.035
>	Ge	74		**ug/L**		243326	243326.054
	As	75	**30.376**	**ug/L**	2.157	19573	0.082
	Se	77		**ug/L**		8613	0.016
	Se	82	**81.683**	**ug/L**	0.818	5885	0.024
	Kr	83		**ug/L**		45	0.000
>	Lu	175		**ug/L**		153816	153815.962
	Tl	205	**31.757**	**ug/L**	0.930	54519	0.353
	U	238	**0.543**	**ug/L**	1.945	6255	0.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.6			
	Ni	60					
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 00:04:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.442**	**ug/L**	1.812	6853	0.006
>	Sc	45		**ug/L**		1057695	1057695.424
	Ni	60	**51.322**	**ug/L**	0.678	49780	0.047
>	Ge	74		**ug/L**		234056	234056.127
	As	75	**48.693**	**ug/L**	0.708	30465	0.132
	Se	77		**ug/L**		8202	0.016
	Se	82	**49.404**	**ug/L**	2.971	3433	0.015
	Kr	83		**ug/L**		45	0.000
>	Lu	175		**ug/L**		146388	146388.399
	Tl	205	**47.883**	**ug/L**	0.535	78160	0.533
	U	238	**52.756**	**ug/L**	0.152	549345	3.751

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	102.885				
>	Sc	45		96.1			
	Ni	60	102.645				
>	Ge	74		94.6			
	As	75	97.387				
	Se	77					
	Se	82	98.809				
	Kr	83					
>	Lu	175		95.1			
	Tl	205	95.767				
	U	238	105.511				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 00:08:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.011	ug/L	202.806	7	0.000
>	Sc	45		ug/L		1074701	1074700.799
	Ni	60	0.024	ug/L	26.213	70	0.000
>	Ge	74		ug/L		241361	241361.305
	As	75	-0.131	ug/L	233.673	-574	-0.000
	Se	77		ug/L		4780	0.000
	Se	82	0.042	ug/L	181.102	27	0.000
	Kr	83		ug/L		37	-0.000
>	Lu	175		ug/L		151374	151374.304
	Tl	205	0.304	ug/L	6.350	662	0.003
	U	238	0.034	ug/L	9.854	680	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.6			
	Ni	60					
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806001
Sample Date/Time: Friday, February 19, 2010 00:12:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\245806001.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**6.617**	**ug/L**	3.256	931	0.001
>	Sc	45		**ug/L**		1110803	1110803.361
	Ni	60	**34.343**	**ug/L**	3.674	34993	0.031
>	Ge	74		**ug/L**		224910	224909.954
	As	75	**7.053**	**ug/L**	6.405	3849	0.019
	Se	77		**ug/L**		3196	-0.005
	Se	82	**2.324**	**ug/L**	5.742	177	0.001
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		157787	157786.814
	Tl	205	**0.419**	**ug/L**	19.830	889	0.005
	U	238	**402.886**	**ug/L**	3.435	4517386	28.643

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.9			
	Ni	60					
>	Ge	74		90.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030976
Sample Date/Time: Friday, February 19, 2010 00:16:54
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\1202030976.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.279**	**ug/L**	1.798	715	0.001
>	Sc	45		**ug/L**		1068224	1068223.617
	Ni	60	**22.577**	**ug/L**	5.189	22122	0.021
>	Ge	74		**ug/L**		220576	220576.146
	As	75	**6.243**	**ug/L**	7.964	3286	0.017
	Se	77		**ug/L**		2928	-0.006
	Se	82	**2.194**	**ug/L**	13.533	165	0.001
	Kr	83		**ug/L**		93	0.000
>	Lu	175		**ug/L**		157584	157583.609
	Tl	205	**0.332**	**ug/L**	2.050	738	0.004
	U	238	**327.019**	**ug/L**	5.407	3659481	23.249

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.1			
	Ni	60					
>	Ge	74		89.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030978
Sample Date/Time: Friday, February 19, 2010 00:21:07
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\1202030978.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**32.061**	ug/L	2.157	4438	0.004
>	Sc	45		ug/L		1098340	1098340.353
	Ni	60	**56.683**	ug/L	0.263	57091	0.052
>	Ge	74		ug/L		217104	217104.449
	As	75	**50.346**	ug/L	0.820	29232	0.137
	Se	77		ug/L		3278	-0.004
	Se	82	**11.215**	ug/L	5.522	740	0.003
	Kr	83		ug/L		136	0.000
>	Lu	175		ug/L		159072	159071.648
	Tl	205	**41.844**	ug/L	0.974	74237	0.466
	U	238	**496.495**	ug/L	1.253	5615219	35.298

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.8			
	Ni	60					
>	Ge	74		87.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030979
Sample Date/Time: Friday, February 19, 2010 00:25:21
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948073|2|sk|
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\1202030979.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**33.979**	**ug/L**	2.457	4615	0.004
>	Sc	45		**ug/L**		1077836	1077836.498
	Ni	60	**51.271**	**ug/L**	1.313	50677	0.047
>	Ge	74		**ug/L**		217876	217876.125
	As	75	**44.119**	**ug/L**	1.013	25653	0.120
	Se	77		**ug/L**		3161	-0.005
	Se	82	**10.338**	**ug/L**	5.983	686	0.003
	Kr	83		**ug/L**		113	0.000
>	Lu	175		**ug/L**		159023	159022.811
	Tl	205	**41.721**	**ug/L**	0.998	74001	0.464
	U	238	**498.739**	**ug/L**	0.172	5638906	35.457

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		97.9			
	Ni	60					
>	Ge	74		88.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030977
Sample Date/Time: Friday, February 19, 2010 00:29:34
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948073|10|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\1202030977.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.728**	**ug/L**	4.136	225	0.000
>	Sc	45		**ug/L**		1009029	1009028.670
	Ni	60	**7.745**	**ug/L**	0.891	7204	0.007
>	Ge	74		**ug/L**		222362	222362.106
	As	75	**2.136**	**ug/L**	13.995	839	0.006
	Se	77		**ug/L**		3119	-0.005
	Se	82	**0.775**	**ug/L**	21.245	73	0.000
	Kr	83		**ug/L**		49	0.000
>	Lu	175		**ug/L**		151151	151150.934
	Tl	205	**0.306**	**ug/L**	7.595	664	0.003
	U	238	**87.759**	**ug/L**	0.430	943362	6.239

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		91.7			
	Ni	60					
>	Ge	74		89.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 00:33:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**56.556**	ug/L	0.507	7179	0.007
>	Sc	45		ug/L		1007777	1007777.067
	Ni	60	**50.851**	ug/L	0.589	46995	0.047
>	Ge	74		ug/L		221917	221916.790
	As	75	**49.088**	ug/L	1.194	29121	0.133
	Se	77		ug/L		7303	0.014
	Se	82	**50.691**	ug/L	0.699	3340	0.015
	Kr	83		ug/L		43	0.000
>	Lu	175		ug/L		148582	148581.949
	Tl	205	**46.658**	ug/L	0.708	77306	0.519
	U	238	**50.957**	ug/L	0.445	538574	3.623

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	113.113				
>	Sc	45			91.6		
	Ni	60	101.701				
>	Ge	74			89.7		
	As	75	98.175				
	Se	77					
	Se	82	101.381				
	Kr	83					
>	Lu	175			96.5		
	Tl	205	93.315				
	U	238	101.914				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 00:37:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	263.038	6	0.000
>	Sc	45		**ug/L**		1004654	1004654.229
	Ni	60	**0.015**	**ug/L**	26.726	57	0.000
>	Ge	74		**ug/L**		226621	226620.945
	As	75	**0.269**	**ug/L**	127.081	-293	0.001
	Se	77		**ug/L**		3955	-0.002
	Se	82	**0.222**	**ug/L**	67.785	37	0.000
	Kr	83		**ug/L**		34	-0.000
>	Lu	175		**ug/L**		148210	148210.495
	Tl	205	**0.212**	**ug/L**	14.950	496	0.002
	U	238	**0.033**	**ug/L**	2.568	661	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		91.3			
	Ni	60					
>	Ge	74		91.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806002
Sample Date/Time: Friday, February 19, 2010 00:42:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\245806002.229

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**164.139**	**ug/L**	0.999	22369	0.021
>	Sc	45		**ug/L**		1082545	1082545.013
	Ni	60	**34.817**	**ug/L**	0.762	34578	0.032
>	Ge	74		**ug/L**		216759	216759.418
	As	75	**13.698**	**ug/L**	1.508	7622	0.037
	Se	77		**ug/L**		3079	-0.005
	Se	82	**3.105**	**ug/L**	14.748	220	0.001
	Kr	83		**ug/L**		137	0.000
>	Lu	175		**ug/L**		156806	156806.143
	Tl	205	**0.676**	**ug/L**	3.686	1335	0.008
	U	238	**338.501**	**ug/L**	1.428	3773732	24.065

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		98.4			
	Ni	60					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806003
Sample Date/Time: Friday, February 19, 2010 00:46:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\245806003.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**35.520**	**ug/L**	2.938	4536	0.004
>	Sc	45		**ug/L**		1013974	1013974.129
	Ni	60	**27.739**	**ug/L**	2.427	25803	0.025
>	Ge	74		**ug/L**		210916	210916.197
	As	75	**7.699**	**ug/L**	5.639	3976	0.021
	Se	77		**ug/L**		2638	-0.007
	Se	82	**1.901**	**ug/L**	15.679	140	0.001
	Kr	83		**ug/L**		83	0.000
>	Lu	175		**ug/L**		150377	150376.724
	Tl	205	**0.314**	**ug/L**	5.465	674	0.003
	U	238	**784.247**	**ug/L**	1.995	8382203	55.755

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		92.1			
	Ni	60					
>	Ge	74		85.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806004
Sample Date/Time: Friday, February 19, 2010 00:50:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\245806004.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**66.069**	**ug/L**	2.591	8168	0.008
>	Sc	45		**ug/L**		981871	981871.263
	Ni	60	**37.928**	**ug/L**	0.519	34163	0.035
>	Ge	74		**ug/L**		209015	209015.474
	As	75	**10.260**	**ug/L**	4.572	5396	0.028
	Se	77		**ug/L**		3161	-0.004
	Se	82	**1.125**	**ug/L**	5.500	90	0.000
	Kr	83		**ug/L**		62	0.000
>	Lu	175		**ug/L**		149801	149800.806
	Tl	205	**0.169**	**ug/L**	3.376	429	0.002
	U	238	**1622.319**	**ug/L**	1.334	17277971	115.337

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			89.2		
	Ni	60					
>	Ge	74			84.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175			97.3		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806005
Sample Date/Time: Friday, February 19, 2010 00:54:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\245806005.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.822**	**ug/L**	0.807	231	0.000
>	Sc	45		**ug/L**		985144	985144.120
	Ni	60	**20.190**	**ug/L**	0.373	18267	0.018
>	Ge	74		**ug/L**		207159	207158.981
	As	75	**4.163**	**ug/L**	13.407	1921	0.011
	Se	77		**ug/L**		3174	-0.004
	Se	82	**1.538**	**ug/L**	32.987	115	0.000
	Kr	83		**ug/L**		94	0.000
>	Lu	175		**ug/L**		159001	159000.553
	Tl	205	**0.143**	**ug/L**	4.111	410	0.002
	U	238	**2.577**	**ug/L**	3.174	29462	0.183

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.5			
	Ni	60					
>	Ge	74		83.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		103.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 00:58:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**58.649**	**ug/L**	1.584	7089	0.007
>	Sc	45		**ug/L**		959859	959858.789
	Ni	60	**51.599**	**ug/L**	0.812	45419	0.047
>	Ge	74		**ug/L**		214635	214634.637
	As	75	**49.507**	**ug/L**	2.150	28410	0.134
	Se	77		**ug/L**		6755	0.012
	Se	82	**49.422**	**ug/L**	0.544	3150	0.015
	Kr	83		**ug/L**		38	0.000
>	Lu	175		**ug/L**		149958	149957.791
	Tl	205	**45.794**	**ug/L**	0.299	76576	0.510
	U	238	**50.206**	**ug/L**	0.853	535570	3.569

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	117.299				
>	Sc	45			87.2		
	Ni	60	103.198				
>	Ge	74			86.8		
	As	75	99.015				
	Se	77					
	Se	82	98.844				
	Kr	83					
>	Lu	175			97.4		
	Tl	205	91.588				
	U	238	100.413				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 01:02:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\Nanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.012	ug/L	142.433	6	0.000
>	Sc	45		ug/L		947390	947390.465
	Ni	60	0.024	ug/L	20.659	62	0.000
>	Ge	74		ug/L		217441	217441.212
	As	75	0.270	ug/L	138.613	-281	0.001
	Se	77		ug/L		3664	-0.003
	Se	82	0.141	ug/L	117.735	31	0.000
	Kr	83		ug/L		37	-0.000
>	Lu	175		ug/L		148384	148383.864
	Tl	205	0.174	ug/L	11.421	434	0.002
	U	238	0.049	ug/L	4.476	827	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		86.1			
	Ni	60					
>	Ge	74		87.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806006
Sample Date/Time: Friday, February 19, 2010 01:07:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\245806006.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.892**	**ug/L**	1.728	5924	0.006
>	Sc	45		**ug/L**		961743	961742.817
	Ni	60	**34.614**	**ug/L**	2.445	30544	0.032
>	Ge	74		**ug/L**		204066	204065.858
	As	75	**16.871**	**ug/L**	3.794	8930	0.046
	Se	77		**ug/L**		3100	-0.004
	Se	82	**1.435**	**ug/L**	3.616	107	0.000
	Kr	83		**ug/L**		74	0.000
>	Lu	175		**ug/L**		148158	148157.568
	Tl	205	**0.238**	**ug/L**	5.764	539	0.003
	U	238	**1604.796**	**ug/L**	1.180	16902694	114.091

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			87.4		
	Ni	60					
>	Ge	74			82.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175			96.2		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806007
Sample Date/Time: Friday, February 19, 2010 01:11:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\245806007.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**11.286**	**ug/L**	2.399	1456	0.001
>	Sc	45		**ug/L**		1021354	1021353.722
	Ni	60	**26.669**	**ug/L**	0.201	25001	0.024
>	Ge	74		**ug/L**		208153	208152.682
	As	75	**9.766**	**ug/L**	6.918	5094	0.027
	Se	77		**ug/L**		3223	-0.004
	Se	82	**1.850**	**ug/L**	34.311	134	0.001
	Kr	83		**ug/L**		76	0.000
>	Lu	175		**ug/L**		152765	152765.052
	Tl	205	**0.459**	**ug/L**	3.823	932	0.005
	U	238	**177.591**	**ug/L**	0.294	1929089	12.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		92.8			
	Ni	60					
>	Ge	74		84.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806008
Sample Date/Time: Friday, February 19, 2010 01:15:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\245806008.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.552**	**ug/L**	5.773	201	0.000
>	Sc	45		**ug/L**		1002469	1002469.316
	Ni	60	**20.237**	**ug/L**	0.641	18631	0.019
>	Ge	74		**ug/L**		210377	210377.307
	As	75	**4.010**	**ug/L**	16.661	1867	0.011
	Se	77		**ug/L**		3176	-0.004
	Se	82	**1.373**	**ug/L**	46.354	106	0.000
	Kr	83		**ug/L**		87	0.000
>	Lu	175		**ug/L**		160491	160491.115
	Tl	205	**0.144**	**ug/L**	12.649	416	0.002
	U	238	**2.773**	**ug/L**	0.974	31977	0.197

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		91.1			
	Ni	60					
>	Ge	74		85.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 01:19:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**58.279**	ug/L	0.970	7087	0.007
>	Sc	45		ug/L		965473	965473.149
	Ni	60	**50.797**	ug/L	0.959	44979	0.047
>	Ge	74		ug/L		214526	214526.421
	As	75	**48.922**	ug/L	0.596	28057	0.133
	Se	77		ug/L		6801	0.012
	Se	82	**49.654**	ug/L	0.967	3163	0.015
	Kr	83		ug/L		39	0.000
>	Lu	175		ug/L		148764	148763.731
	Tl	205	**46.056**	ug/L	1.012	76400	0.513
	U	238	**50.584**	ug/L	1.594	535291	3.596

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	116.559				
>	Sc	45		87.7			
	Ni	60	101.594				
>	Ge	74		86.7			
	As	75	97.844				
	Se	77					
	Se	82	99.308				
	Kr	83					
>	Lu	175		96.6			
	Tl	205	92.112				
	U	238	101.169				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 01:23:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.036**	**ug/L**	86.516	9	0.000
>	Sc	45		**ug/L**		963845	963844.841
	Ni	60	**0.010**	**ug/L**	50.238	51	0.000
>	Ge	74		**ug/L**		219621	219621.200
	As	75	**-0.016**	**ug/L**	2348.859	-454	-0.000
	Se	77		**ug/L**		3674	-0.003
	Se	82	**0.203**	**ug/L**	21.801	35	0.000
	Kr	83		**ug/L**		34	-0.000
>	Lu	175		**ug/L**		149844	149843.932
	Tl	205	**0.171**	**ug/L**	17.037	434	0.002
	U	238	**0.037**	**ug/L**	7.247	705	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			87.6		
	Ni	60					
>	Ge	74			88.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175			97.3		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, February 19, 2010 10:06:02
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.328
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1489.1	1489.078	43.184	2.9
	Mg	24.0	28749.5	28749.501	232.437	0.8
	Co	58.9	59460.1	59460.089	361.476	0.6
	Rh	102.9	98298.8	98298.839	439.007	0.4
	In	114.9	131859.2	131859.189	1277.638	1.0
	Pb	208.0	52661.5	52661.486	238.973	0.5
⌈>	Ba	137.9	107737.7	107737.683	629.177	0.6
⌊	Ba++	69.0	1366.9	0.013	0.000	1.4
⌈>	Ce	139.9	127413.9	127413.911	1095.808	0.9
⌊	CeO	155.9	3206.9	0.025	0.000	0.8
	Bkgd	220.0	1.3	1.300	1.037	79.8

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.8	1330.7
Co	59	17	5.5	40861.7
In	115	17	6.8	95754.8

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	606	2060	0.687
Be	9.0	9.0	2044	2045	0.721
Mg	24.0	24.0	5676	2065	0.654
Mg	25.0	25.0	5951	2080	0.655
Mg	26.0	26.0	6158	2085	0.650
Co	58.9	58.9	14184	2140	0.635
Rh	102.9	102.9	24866	2230	0.658
In	114.9	114.9	27778	2255	0.676
Ce	139.9	139.9	33852	2310	0.641
Pb	206.0	206.0	49941	2500	0.663
Pb	207.0	207.0	50113	2375	0.686
Pb	208.0	208.0	50436	2570	0.793
U	238.1	238.1	57706	2510	0.711

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 19, 2010 14:11:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\Blank.058

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L		0	
Sc	45		ug/L		839247	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 19, 2010 14:14:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\Standard 1.059

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	10.000	ug/L	6.843	1301	0.002
Sc	45		ug/L		861432	861431.651

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 19, 2010 14:16:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\Standard 2.060

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	100.016	ug/L	3.428	12372	0.015
Sc	45		ug/L		805612	805612.142

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 19, 2010 14:18:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 1.061

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	52.075	ug/L	0.900	6407	0.008
Sc	45		ug/L		800967	800967.104

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	104.149				
Sc	45		95.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 19, 2010 14:20:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 2.062

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.052	ug/L	40.369	7	0.000
Sc	45		ug/L		793930	793929.982

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45			94.6		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 19, 2010 14:22:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 3.063

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.496	ug/L	12.307	64	0.000
Sc	45		ug/L		835674	835673.666

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	99.196				
Sc	45		99.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 19, 2010 14:24:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 4.064

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.102	ug/L	48.484	12	0.000
Sc	45		ug/L		728967	728967.432

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45			86.9		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 19, 2010 14:27:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 5.065

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	17.927	ug/L	4.768	1909	0.003
Sc	45		ug/L		693507	693506.724

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	89.635				
Sc	45		82.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 14:29:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 6.066

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.142	ug/L	1.932	6156	0.008
Sc	45		ug/L		799544	799544.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	100.284				
Sc	45			95.3		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 14:31:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 7.067

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.033	ug/L	15.585	4	0.000
Sc	45		ug/L		787111	787111.041

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		93.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030975
Sample Date/Time: Friday, February 19, 2010 14:33:51
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\1202030975.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.011	ug/L	42.317	2	0.000
⌊>	Sc	45		ug/L		812170	812170.215

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		96.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030980
Sample Date/Time: Friday, February 19, 2010 14:36:07
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948073|40|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\1202030980.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	21.271	ug/L	2.499	2764	0.003
⌊>	Sc	45		ug/L		846077	846076.780

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		100.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 14:38:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 6.070

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	49.997	ug/L	1.075	6264	0.008
Sc	45		ug/L		815746	815746.484

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	99.994				
Sc	45		97.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 14:40:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 7.071

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.011	ug/L	43.411	2	0.000
Sc	45		ug/L		800752	800752.085

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45			95.4		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806001
Sample Date/Time: Friday, February 19, 2010 14:42:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|sk|
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\245806001.072

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	6.540	ug/L	0.692	821	0.001
Sc	45		ug/L		817067	817066.636

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		97.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030976
Sample Date/Time: Friday, February 19, 2010 14:45:07
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\1202030976.073

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	4.373	ug/L	2.344	562	0.001
Sc	45		ug/L		835955	835955.087

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		99.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030978
Sample Date/Time: Friday, February 19, 2010 14:47:24
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948073|2|sk|
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\1202030978.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	28.373	ug/L	3.126	3507	0.004
>	Sc	45		ug/L		804738	804737.838

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		95.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030979
Sample Date/Time: Friday, February 19, 2010 14:49:43
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\1202030979.075

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	28.991	ug/L	1.396	3589	0.004
Sc	45		ug/L		806061	806061.152

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45			96.0		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 14:51:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 6.076

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**50.412**	**ug/L**	3.532	5967	0.008
Sc	45		**ug/L**		771150	771150.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	100.824				
Sc	45		91.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 14:54:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 7.077

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.039	ug/L	42.923	5	0.000
Sc	45		ug/L		785965	785964.801

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		93.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030977
Sample Date/Time: Friday, February 19, 2010 14:56:26
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948073|10|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\1202030977.078

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.464	ug/L	3.055	179	0.000
Sc	45		ug/L		795000	794999.662

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		94.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806002
Sample Date/Time: Friday, February 19, 2010 14:58:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|sk|
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\245806002.079

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	141.378	ug/L	1.316	17320	0.022
Sc	45		ug/L		797658	797658.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45			95.0		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806003
Sample Date/Time: Friday, February 19, 2010 15:00:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\245806003.080

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	29.347	ug/L	2.946	3515	0.005
Sc	45		ug/L		779851	779850.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		92.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806004
Sample Date/Time: Friday, February 19, 2010 15:03:15
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\245806004.081

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	54.825	ug/L	0.551	6328	0.008
Sc	45		ug/L		751494	751493.812

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		89.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 15:05:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 6.082

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	50.238	ug/L	1.772	6175	0.008
Sc	45		ug/L		800328	800328.372

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	100.475				
Sc	45		95.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 15:07:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 7.083

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.031	ug/L	53.222	4	0.000
Sc	45		ug/L		778134	778134.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		92.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806005
Sample Date/Time: Friday, February 19, 2010 15:10:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\245806005.084

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.540	ug/L	14.263	182	0.000
Sc	45		ug/L		765963	765963.311

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		91.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806006
Sample Date/Time: Friday, February 19, 2010 15:12:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\245806006.085

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	41.396	ug/L	1.605	4711	0.006
Sc	45		ug/L		740849	740848.801

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		88.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806007
Sample Date/Time: Friday, February 19, 2010 15:14:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\245806007.086

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	9.375	ug/L	5.017	1141	0.001
Sc	45		ug/L		792420	792420.108

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45		94.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245806008
Sample Date/Time: Friday, February 19, 2010 15:16:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948073|2|skj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\245806008.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.444	ug/L	13.957	176	0.000
⌊>	Sc	45		ug/L		791397	791397.187

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		94.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 19, 2010 15:19:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 6.088

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	52.516	ug/L	4.072	6239	0.008
Sc	45		ug/L		774118	774117.686

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9	105.032				
Sc	45		92.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 19, 2010 15:21:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100219\QC Std 7.089

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.017	ug/L	76.203	2	0.000
Sc	45		ug/L		758978	758978.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Be	9					
Sc	45			90.4		

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/16/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021610S1.SIF Results Data Set Name: 021610S2

==========

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/16/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0025	0.0025	08:48:33	No
2			0.0023	0.0023	08:49:08	No
Mean:			0.0024			
SD :			0.0001			
%RSD:			3.2649			

Auto-zero performed.

==========

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/16/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0017	0.0041	08:50:31	No
2			0.0018	0.0042	08:51:05	No
Mean:			0.0017			
SD :			0.0000			
%RSD:			2.5015			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00873
Intercept : 0.00000

==========

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/16/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0035	0.0059	08:52:29	No
2			0.0032	0.0056	08:53:04	No
Mean:			0.0033			
SD :			0.0002			
%RSD:			5.1881			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.98999 Slope: 0.00657
Intercept : 0.00016

==========

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/16/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0104	0.0128	08:54:30	No
2			0.0105	0.0129	08:55:05	No
Mean:			0.0104			
SD :			0.0000			
%RSD:			0.2507			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99659 Slope: 0.00503
Intercept : 0.00048

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/16/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0257	0.0281	08:56:30	No
2			0.0257	0.0281	08:57:05	No
Mean:			0.0257			
SD :			0.0000			
%RSD:			0.1116			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99952 Slope: 0.00504
Intercept : 0.00048

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/16/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0498	0.0522	08:58:31	No
2			0.0500	0.0524	08:59:06	No
Mean:			0.0499			
SD :			0.0001			
%RSD:			0.1977			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99983 Slope: 0.00495
Intercept : 0.00058

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0024	---	----	----	----
S0.2	0.0017	0.200	0.235	0.0000	2.5
S0.5	0.0033	0.500	0.557	0.0002	5.2
S2.0	0.0104	2.000	1.990	0.0000	0.3
S5.0	0.0257	5.000	5.075	0.0000	0.1
S10	0.0499	10.000	9.961	0.0001	0.2

Correlation Coefficient: 0.99983 Slope: 0.00495 Intercept: 0.0006

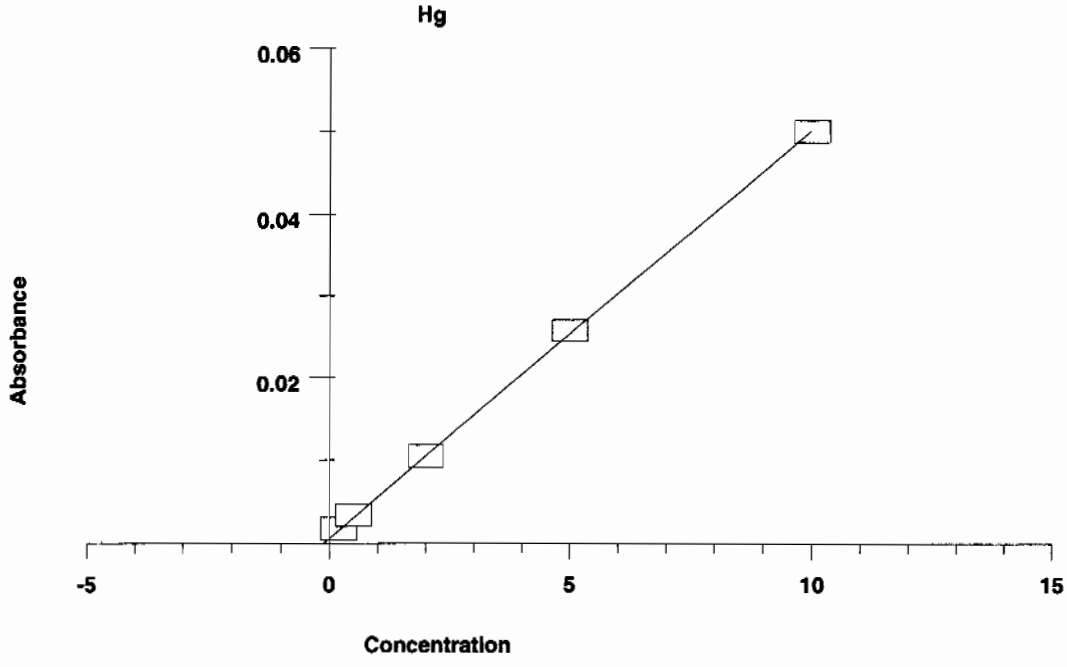

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/16/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.030	5.030	0.0255	0.0279	09:00:34	No
2	5.059	5.059	0.0256	0.0280	09:01:09	No
Mean:	5.044	5.044	0.0256			
SD :	0.0203	0.0203	0.0001			
%RSD:	0.4	0.4	0.3931			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/16/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0005	0.0029	09:02:31	No
2	-0.070	-0.070	0.0002	0.0026	09:03:06	No
Mean:	-0.045	-0.045	0.0004			
SD :	0.0354	0.0354	0.0002			
%RSD:	78.9	78.9	48.4674			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/16/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.255	0.255	0.0018	0.0042	09:04:28	No
2	0.255	0.255	0.0018	0.0042	09:05:02	No
Mean:	0.255	0.255	0.0018			
SD :	0.0000	0.0000	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.135	5.135	0.0260	0.0284	09:06:27	No
2	5.108	5.108	0.0259	0.0283	09:07:02	No
Mean:	5.122	5.122	0.0259			
SD :	0.0194	0.0194	0.0001			
%RSD:	0.4	0.4	0.3705			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.030	0.030	0.0007	0.0031	09:08:30	No
2	0.038	0.038	0.0008	0.0032	09:09:05	No
Mean:	0.034	0.034	0.0008			
SD :	0.0054	0.0054	0.0000			
%RSD:	16.1	16.1	3.5883			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/16/2010
Sample ID: 1202029970|i||947650|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0006	0.0030	09:10:31	No
2	-0.032	-0.032	0.0004	0.0028	09:11:06	No
Mean:	-0.018	-0.018	0.0005			
SD :	0.0208	0.0208	0.0001			
%RSD:	117.0	117.0	20.7886			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/16/2010
Sample ID: 1202029971|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.056	4.056	0.0207	0.0231	09:12:30	No
2	4.021	4.021	0.0205	0.0229	09:13:05	No
Mean:	4.038	4.038	0.0206			
SD :	0.0245	0.0245	0.0001			
%RSD:	0.6	0.6	0.5896			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/16/2010
Sample ID: 245682001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0007	0.0031	09:14:31	No
2	-0.020	-0.020	0.0005	0.0029	09:15:06	No
Mean:	0.007	0.007	0.0006			
SD :	0.0375	0.0375	0.0002			
%RSD:	551.5	551.5	30.1200			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/16/2010
Sample ID: 245682002|i|||

%RSD: 8.9 8.9 6.5532

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/16/2010
Sample ID: 245682008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.236	0.236	0.0018	0.0042	09:28:22	No
2	0.226	0.226	0.0017	0.0041	09:28:58	No
Mean:	0.231	0.231	0.0017			
SD :	0.0068	0.0068	0.0000			
%RSD:	3.0	3.0	1.9600			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.287	5.287	0.0268	0.0292	09:30:23	No
2	5.240	5.240	0.0265	0.0289	09:30:58	No
Mean:	5.263	5.263	0.0266			
SD :	0.0336	0.0336	0.0002			
%RSD:	0.6	0.6	0.6245			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0006	0.0030	09:32:26	No
2	-0.012	-0.012	0.0005	0.0029	09:33:01	No
Mean:	-0.009	-0.009	0.0005			
SD :	0.0042	0.0042	0.0000			
%RSD:	48.8	48.8	3.8689			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/16/2010
Sample ID: 245682009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.275	0.275	0.0019	0.0043	09:34:26	No
2	0.238	0.238	0.0018	0.0042	09:35:01	No
Mean:	0.257	0.257	0.0019			
SD :	0.0259	0.0259	0.0001			
%RSD:	10.1	10.1	6.9142			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/16/2010
Sample ID: 245682010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.378	0.378	0.0025	0.0049	09:36:24	No
2	0.359	0.359	0.0024	0.0048	09:36:59	No
Mean:	0.369	0.369	0.0024			
SD :	0.0136	0.0136	0.0001			
%RSD:	3.7	3.7	2.7863			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/16/2010
Sample ID: 245786001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.139	0.139	0.0013	0.0037	09:38:23	No
2	0.130	0.130	0.0012	0.0036	09:38:58	No
Mean:	0.134	0.134	0.0012			
SD :	0.0064	0.0064	0.0000			
%RSD:	4.7	4.7	2.5206			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 02/16/2010
Sample ID: 245806001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0018	0.0042	09:40:23	No
2	0.229	0.229	0.0017	0.0041	09:40:58	No
Mean:	0.237	0.237	0.0018			
SD :	0.0115	0.0115	0.0001			
%RSD:	4.8	4.8	3.2354			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 02/16/2010
Sample ID: 1202029972|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.270	0.270	0.0019	0.0043	09:42:23	No
2	0.246	0.246	0.0018	0.0042	09:42:58	No
Mean:	0.258	0.258	0.0019			
SD :	0.0169	0.0169	0.0001			
%RSD:	6.6	6.6	4.5045			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 02/16/2010
Sample ID: 1202029973|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.601	2.601	0.0135	0.0159	09:44:23	No
2	2.542	2.542	0.0132	0.0156	09:44:57	No
Mean:	2.572	2.572	0.0133			
SD :	0.0412	0.0412	0.0002			
%RSD:	1.6	1.6	1.5334			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 02/16/2010
Sample ID: 1202029975|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.548	2.548	0.0132	0.0156	09:46:23	No
2	2.555	2.555	0.0132	0.0156	09:46:58	No
Mean:	2.551	2.551	0.0132			
SD :	0.0053	0.0053	0.0000			
%RSD:	0.2	0.2	0.2004			

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 02/16/2010
Sample ID: 1202029974|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.070	-0.070	0.0002	0.0026	09:48:24	No
2	-0.067	-0.067	0.0002	0.0026	09:48:59	No
Mean:	-0.069	-0.069	0.0002			
SD :	0.0021	0.0021	0.0000			

%RSD: 3.0 3.0 4.1967

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/16/2010
Sample ID: 245806002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.309	0.309	0.0021	0.0045	09:50:25	No
2	0.246	0.246	0.0018	0.0042	09:51:00	No
Mean:	0.277	0.277	0.0020			
SD :	0.0445	0.0445	0.0002			
%RSD:	16.0	16.0	11.2574			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/16/2010
Sample ID: 245806003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.246	0.246	0.0018	0.0042	09:52:27	No
2	0.220	0.220	0.0017	0.0041	09:53:03	No
Mean:	0.233	0.233	0.0017			
SD :	0.0178	0.0178	0.0001			
%RSD:	7.6	7.6	5.0805			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.598	5.598	0.0283	0.0307	09:54:30	No
2	5.744	5.744	0.0290	0.0314	09:55:05	No
Mean:	5.671	5.671	0.0287			
SD :	0.1031	0.1031	0.0005			
%RSD:	1.8	1.8	1.7811			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0007	0.0031	09:56:33	No
2	0.001	0.001	0.0006	0.0030	09:57:08	No
Mean:	0.009	0.009	0.0006			
SD :	0.0107	0.0107	0.0001			
%RSD:	118.3	118.3	8.4126			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/16/2010
Sample ID: 245806004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.315	0.315	0.0021	0.0045	09:58:32	No
2	0.254	0.254	0.0018	0.0042	09:59:06	No
Mean:	0.285	0.285	0.0020			
SD :	0.0429	0.0429	0.0002			
%RSD:	15.1	15.1	10.6570			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/16/2010
Sample ID: 245806005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.340	0.340	0.0023	0.0047	10:00:26	No
2	0.379	0.379	0.0025	0.0049	10:01:01	No
Mean:	0.359	0.359	0.0024			
SD :	0.0278	0.0278	0.0001			
%RSD:	7.7	7.7	5.8285			

Element: Hg Seq. No.: 38 AS Loc.: 34 Date: 02/16/2010
Sample ID: 245806006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.252	0.252	0.0018	0.0042	10:02:22	No
2	0.247	0.247	0.0018	0.0042	10:02:57	No
Mean:	0.250	0.250	0.0018			
SD :	0.0033	0.0033	0.0000			
%RSD:	1.3	1.3	0.9112			

Element: Hg Seq. No.: 39 AS Loc.: 35 Date: 02/16/2010
Sample ID: 245806007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.466	0.466	0.0029	0.0053	10:04:18	No
2	0.421	0.421	0.0027	0.0051	10:04:53	No
Mean:	0.444	0.444	0.0028			
SD :	0.0315	0.0315	0.0002			
%RSD:	7.1	7.1	5.6140			

Element: Hg Seq. No.: 40 AS Loc.: 36 Date: 02/16/2010
Sample ID: 245806008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.423	0.423	0.0027	0.0051	10:06:15	No
2	0.409	0.409	0.0026	0.0050	10:06:50	No
Mean:	0.416	0.416	0.0026			
SD :	0.0099	0.0099	0.0000			
%RSD:	2.4	2.4	1.8551			

Element: Hg Seq. No.: 41 AS Loc.: 37 Date: 02/16/2010
Sample ID: 1202029993|i||947654|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.104	0.104	0.0011	0.0035	10:08:12	No
2	0.069	0.069	0.0009	0.0033	10:08:47	No
Mean:	0.087	0.087	0.0010			
SD :	0.0250	0.0250	0.0001			
%RSD:	28.9	28.9	12.2296			

Element: Hg Seq. No.: 42 AS Loc.: 38 Date: 02/16/2010
Sample ID: 1202029994|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.793	4.793	0.0243	0.0267	10:10:10	No
2	4.858	4.858	0.0246	0.0270	10:10:45	No
Mean:	4.826	4.826	0.0245			
SD :	0.0458	0.0458	0.0002			

%RSD: 0.9 0.9 0.9273

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/16/2010
Sample ID: 245688001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored

==========

Element: Hg Seq. No.: 43 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.564	5.564	0.0281	0.0305	10:13:29	No
2	5.567	5.567	0.0281	0.0305	10:14:03	No
Mean:	5.566	5.566	0.0281			
SD :	0.0016	0.0016	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 44 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.092	0.092	0.0010	0.0034	10:15:32	No
2	0.097	0.097	0.0011	0.0035	10:16:06	No
Mean:	0.094	0.094	0.0010			
SD :	0.0035	0.0035	0.0000			
%RSD:	3.7	3.7	1.6345			

==========

Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/16/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021610S1.SIF Results Data Set Name: 021610S2

==========

Element: Hg Seq. No.: 45 AS Loc.: 1 Date: 02/16/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0032	0.0032	10:18:51	No
2			0.0031	0.0031	10:19:26	No
Mean:			0.0031			
SD :			0.0000			
%RSD:			1.1573			

Auto-zero performed.

==========

Element: Hg Seq. No.: 46 AS Loc.: 2 Date: 02/16/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0029	0.0060	10:20:48	No
2			0.0029	0.0060	10:21:23	No
Mean:			0.0029			

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948070

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030974	UI062540-I	.514	g
MS	1202030972	UI100120-01	.25	mL
MS	1202030972	UI100120-06	.25	mL
MSD	1202030973	UI100120-01	.25	mL
MSD	1202030973	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030969		SW846 3050B	08-FEB-2010 14:00	0.523 g	50 mL	95.60229	SOIL
LCS	1202030974		SW846 3050B	08-FEB-2010 14:00	0.514 g	50 mL	97.27626	SOIL
SAMPLE	245806001		SW846 3050B	08-FEB-2010 14:00	0.532 g	50 mL	93.98496	SOIL
DUP	1202030970	245806001	SW846 3050B	08-FEB-2010 14:00	0.532 g	50 mL	93.98496	SOIL
SDILT	1202030971	245806001	SW846 3050B	08-FEB-2010 14:00	0.532 g	50 mL	93.98496	SOIL
MS	1202030972	245806001	SW846 3050B	08-FEB-2010 14:00	0.52 g	50 mL	96.15385	SOIL
MSD	1202030973	245806001	SW846 3050B	08-FEB-2010 14:00	0.526 g	50 mL	95.05703	SOIL
SAMPLE	245806002		SW846 3050B	08-FEB-2010 14:00	0.523 g	50 mL	95.60229	SOIL
SAMPLE	245806003		SW846 3050B	08-FEB-2010 14:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	245806004		SW846 3050B	08-FEB-2010 14:00	0.53 g	50 mL	94.33962	SOIL
SAMPLE	245806005		SW846 3050B	08-FEB-2010 14:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	245806006		SW846 3050B	08-FEB-2010 14:00	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245806007		SW846 3050B	08-FEB-2010 14:00	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245806008		SW846 3050B	08-FEB-2010 14:00	0.514 g	50 mL	97.27626	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1264396	1.25 mL	Nitric Acid CONC.

Comments Gray,soil w/artifacts.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948072

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030980	UI062540-MS	.515	g
MS	1202030978	UI091015-A	.5	mL
MS	1202030978	UI091015-B	.5	mL
MSD	1202030979	UI091015-A	.5	mL
MSD	1202030979	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030975		SW846 3050B	08-FEB-2010 14:00	0.506 g	50 mL	98.81423	SOIL
LCS	1202030980		SW846 3050B	08-FEB-2010 14:00	0.515 g	50 mL	97.08738	SOIL
SAMPLE	245806001		SW846 3050B	08-FEB-2010 14:00	0.507 g	50 mL	98.61933	SOIL
DUP	1202030976	245806001	SW846 3050B	08-FEB-2010 14:00	0.504 g	50 mL	99.20635	SOIL
SDILT	1202030977	245806001	SW846 3050B	08-FEB-2010 14:00	0.507 g	50 mL	98.61933	SOIL
MS	1202030978	245806001	SW846 3050B	08-FEB-2010 14:00	0.502 g	50 mL	99.60159	SOIL
MSD	1202030979	245806001	SW846 3050B	08-FEB-2010 14:00	0.509 g	50 mL	98.23183	SOIL
SAMPLE	245806002		SW846 3050B	08-FEB-2010 14:00	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245806003		SW846 3050B	08-FEB-2010 14:00	0.523 g	50 mL	95.60229	SOIL
SAMPLE	245806004		SW846 3050B	08-FEB-2010 14:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	245806005		SW846 3050B	08-FEB-2010 14:00	0.532 g	50 mL	93.98496	SOIL
SAMPLE	245806006		SW846 3050B	08-FEB-2010 14:00	0.534 g	50 mL	93.63296	SOIL
SAMPLE	245806007		SW846 3050B	08-FEB-2010 14:00	0.515 g	50 mL	97.08738	SOIL
SAMPLE	245806008		SW846 3050B	08-FEB-2010 14:00	0.512 g	50 mL	97.65625	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1264396	5 mL	Nitric Acid CONC.

Comments: Gray,soil w/artifacts.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 947648

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029971	UI031809A	.209	g
MS	1202029973	WHG100215-14	.3	mL
MSD	1202029975	WHG100215-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029970		SW846 7471A Prep	15-FEB-2010 16:45	0.535 g	30 mL	56.07477	SOIL
LCS	1202029971		SW846 7471A Prep	15-FEB-2010 16:45	0.209 g	30 mL	143.54067	SOIL
SAMPLE	245682001		SW846 7471A Prep	15-FEB-2010 16:45	0.51 g	30 mL	58.82353	SOIL
SAMPLE	245682002		SW846 7471A Prep	15-FEB-2010 16:45	0.5 g	30 mL	60	SOIL
SAMPLE	245682003		SW846 7471A Prep	15-FEB-2010 16:45	0.557 g	30 mL	53.85996	SOIL
SAMPLE	245682004		SW846 7471A Prep	15-FEB-2010 16:45	0.586 g	30 mL	51.19454	SOIL
SAMPLE	245682005		SW846 7471A Prep	15-FEB-2010 16:45	0.598 g	30 mL	50.16722	SOIL
SAMPLE	245682006		SW846 7471A Prep	15-FEB-2010 16:45	0.554 g	30 mL	54.15162	SOIL
SAMPLE	245682007		SW846 7471A Prep	15-FEB-2010 16:45	0.58 g	30 mL	51.72414	SOIL
SAMPLE	245682008		SW846 7471A Prep	15-FEB-2010 16:45	0.581 g	30 mL	51.63511	SOIL
SAMPLE	245682009		SW846 7471A Prep	15-FEB-2010 16:45	0.504 g	30 mL	59.52381	SOIL
SAMPLE	245682010		SW846 7471A Prep	15-FEB-2010 16:45	0.555 g	30 mL	54.05405	SOIL
SAMPLE	245786001		SW846 7471A Prep	15-FEB-2010 16:45	0.58 g	30 mL	51.72414	SOIL
SAMPLE	245806001		SW846 7471A Prep	15-FEB-2010 16:45	0.524 g	30 mL	57.25191	SOIL
DUP	1202029972	245806001	SW846 7471A Prep	15-FEB-2010 16:45	0.504 g	30 mL	59.52381	SOIL
MS	1202029973	245806001	SW846 7471A Prep	15-FEB-2010 16:45	0.595 g	30 mL	50.42017	SOIL
MSD	1202029975	245806001	SW846 7471A Prep	15-FEB-2010 16:45	0.593 g	30 mL	50.59022	SOIL
SDILT	1202029974	245806001	SW846 7471A Prep	15-FEB-2010 16:45	0.524 g	30 mL	57.25191	SOIL
SAMPLE	245806002		SW846 7471A Prep	15-FEB-2010 16:45	0.572 g	30 mL	52.44755	SOIL
SAMPLE	245806003		SW846 7471A Prep	15-FEB-2010 16:45	0.544 g	30 mL	55.14706	SOIL
SAMPLE	245806004		SW846 7471A Prep	15-FEB-2010 16:45	0.562 g	30 mL	53.38078	SOIL
SAMPLE	245806005		SW846 7471A Prep	15-FEB-2010 16:45	0.521 g	30 mL	57.58157	SOIL
SAMPLE	245806006		SW846 7471A Prep	15-FEB-2010 16:45	0.5 g	30 mL	60	SOIL
SAMPLE	245806007		SW846 7471A Prep	15-FEB-2010 16:45	0.501 g	30 mL	59.88024	SOIL
SAMPLE	245806008		SW846 7471A Prep	15-FEB-2010 16:45	0.508 g	30 mL	59.05512	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent

Comments: Sample 245806001 is a dry brown soil.
Digestion Start Date: 15-FEB-10 16:45
Digestion End Date: 15-FEB-10 17:15

Prep LogBook

WHG100215-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100215-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100215-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100215-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100215-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100215-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
948073	See Below		

Potentially affected work order(s)(SDG): 245806(10-1474)

Application Issues:

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202030976DUP	The matrix spike duplicate recovery failed outside of the control limits for Ni due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
2. Failed Recovery for MSD/PSD: QC 1202030979MSD	The sample and sample duplicate % RPD failed outside the control limits for Ni, U, and Be due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Samantha Jacobs 23-FEB-10

Data Validator/Group Leader:

Rose Jenkins 24-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
948071	See Below		

Potentially affected work order(s)(SDG): 245806(10-1474)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202030972MS 2. Failed RPD for DUP: QC 1202030970DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202030973MSD 4. Failed Recovery for MSD/PSD: QC 1202030973MSD	1. The matrix spike recovery failed outside of the control limits for copper,magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for antimony,chromium,cobalt and copper due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for copper due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 4. The matrix spike duplicate recovery failed outside of the control limits for copper,magnesium,manganese and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 24-FEB-10

Data Validator/Group Leader:
Louise Smith 24-FEB-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I

Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100126-11 **Opened:** 26-JAN-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 26-JAN-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 26-JAN-11 **Lot Number :** 1018321
Employee: Elizabeth Janssen **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100215-01 **Opened:** 15-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 15-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 16-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100215-02 **Opened:** 15-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 16-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100215-07 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100215-08 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100215-09 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100215-10 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100215-11 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100215-12 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100215-14 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100216-42 **Opened:** 16-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100216-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100216-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100216-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100216-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100216-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100216-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100216-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100216-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100216-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100216-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100216-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100216-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100216-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100216-43 **Opened:** 16-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100216-44 **Opened:** 16-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100216-45 **Opened:** 16-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100216-46 **Opened:** 16-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100216-47 **Opened:** 16-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100223-42 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100223-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100223-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100223-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100223-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100223-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100223-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100223-43 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100223-44 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1272839
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100223-45 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100223-46 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1272839
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100223-47 **Opened:** 23-FEB-10 **Balance Id :** 216

Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809

Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL &1%HNO3-1272839

Employee: Helen Camello

Supplier: 02si

Description: PQL Working Standard

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100217-04B **Opened:** 17-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 18-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100218-04 **Opened:** 18-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 18-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 19-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100218-04A **Opened:** 18-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 18-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100217-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100217-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100218-05 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 18-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100218-06 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 18-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100218-07 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 18-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 19-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100218-08 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 18-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100218-70 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 18-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100219-04 **Opened:** 19-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 19-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 20-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100219-04A **Opened:** 19-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 19-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 20-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100219-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100219-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100219-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100219-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100219-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100219-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100219-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100219-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100219-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100219-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100219-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100219-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100219-05 **Opened:** 19-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 19-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 20-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100219-06 **Opened:** 19-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 19-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 20-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100219-07 **Opened:** 19-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 19-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 20-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100219-08 **Opened:** 19-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 19-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 20-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1269792 **Opened:** 15-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 15-FEB-10
Type: Reagent/Solvent **Expires:** 22-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1270010 **Opened:** 15-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272839 **Opened:** 22-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1474-1

Sample Analysis

Sample ID	**Client ID**
245807001	RE15-10-8081
245807002	RE15-10-8082
1202031021	Method Blank (MB) **ICP**
1202031026	Laboratory Control Sample (LCS)
1202031023	245673001(CAMO-10-9311L) Serial Dilution (SD)
1202031022	245673001(CAMO-10-9311D) Sample Duplicate (DUP)
1202031024	245673001(CAMO-10-9311S) Matrix Spike (MS)
1202031027	Method Blank (MB) **ICP-MS**
1202031028	Laboratory Control Sample (LCS)
1202031031	245676001(CAWR-10-11786L) Serial Dilution (SD)
1202031029	245676001(CAWR-10-11786D) Sample Duplicate (DUP)
1202031030	245676001(CAWR-10-11786S) Matrix Spike (MS)
1202029965	Method Blank (MB) **CVAA**
1202029966	Laboratory Control Sample (LCS)
1202029969	245807001(RE15-10-8081L) Serial Dilution (SD)
1202029967	245807001(RE15-10-8081D) Sample Duplicate (DUP)
1202029968	245807001(RE15-10-8081S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	948088, 948090 and 947646
Prep Batch :	948085, 948089 and 947645
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of magnesium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 245673001, 245676001 and 245807001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. Dilutions were required for this SDG in order to minimize tin suppression due to matrix interferences.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 2/26/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245807001 **BASIS:** As Received **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8081 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/20/10 22:38	100220-2	948090
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/21/10 11:54	100220-7	948090
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/20/10 22:38	100220-2	948090
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/25/10 16:33	022510-1	948088
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/25/10 16:33	022510-1	948088
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/21/10 11:54	100220-7	948090
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/25/10 16:33	022510-1	948088
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/21/10 11:54	100220-7	948090
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:13	021510W1-9	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-09-7	Potassium	180	ug/L		50	150	150	1	P	HSC	02/25/10 16:33	022510-1	948088
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-23-5	Sodium	160	ug/L	J	100	300	300	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/20/10 22:38	100220-2	948090
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/21/10 13:39	100221-8	948090
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:33	022510-1	948088
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/25/10 16:33	022510-1	948088

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948088	948085	SW846 3005A	25	mL	25	mL	02/25/10	AXG2
948090	948089	SW846 3005A	50	mL	50	mL	02/03/10	LYH1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1474-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245807002 **BASIS:** As Received **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-8082 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/20/10 22:44	100220-2	948090
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/21/10 11:56	100220-7	948090
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/20/10 22:44	100220-2	948090
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/25/10 16:39	022510-1	948088
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/25/10 16:39	022510-1	948088
7439-92-1	Lead	0.604	ug/L	J	0.5	2	2	1	MS	BAJ	02/21/10 11:56	100220-7	948090
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/25/10 16:39	022510-1	948088
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/21/10 11:56	100220-7	948090
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:25	021510W1-9	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-09-7	Potassium	82.7	ug/L	J	50	150	150	1	P	HSC	02/25/10 16:39	022510-1	948088
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-23-5	Sodium	154	ug/L	J	100	300	300	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/20/10 22:44	100220-2	948090
7440-61-1	Uranium	0.088	ug/L	J	0.05	0.2	0.2	1	MS	BAJ	02/21/10 13:41	100221-8	948090
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/25/10 16:39	022510-1	948088
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/25/10 16:39	022510-1	948088

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948088	948085	SW846 3005A	25	mL	25	mL	02/25/10	AXG2
948090	948089	SW846 3005A	50	mL	50	mL	02/03/10	LYH1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.02	ug/L	5	ug/L	100.4	90.0 - 110.0	AV	15-FEB-10 09:34	021510W1-9
	Antimony	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	20-FEB-10 16:41	100220-2
	Cadmium	50.6	ug/L	50	ug/L	101.2	90.0 - 110.0	MS	20-FEB-10 16:41	100220-2
	Thallium	52.3	ug/L	50	ug/L	104.6	90.0 - 110.0	MS	20-FEB-10 16:41	100220-2
	Beryllium	51.8	ug/L	50	ug/L	103.6	90.0 - 110.0	MS	21-FEB-10 10:39	100220-7
	Lead	51.6	ug/L	50	ug/L	103.2	90.0 - 110.0	MS	21-FEB-10 10:39	100220-7
	Manganese	54.7	ug/L	50	ug/L	109.5	90.0 - 110.0	MS	21-FEB-10 10:39	100220-7
	Uranium	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	21-FEB-10 12:09	100221-8
	Aluminum	5520	ug/L	5000	ug/L	110.5	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Arsenic	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Barium	524	ug/L	500	ug/L	104.9	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Calcium	5410	ug/L	5000	ug/L	108.1	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Chromium	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Cobalt	518	ug/L	500	ug/L	103.7	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Copper	521	ug/L	500	ug/L	104.1	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Iron	5250	ug/L	5000	ug/L	105	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Magnesium	5370	ug/L	5000	ug/L	107.5	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Nickel	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Potassium	2630	ug/L	2500	ug/L	105.1	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Selenium	2650	ug/L	2500	ug/L	106.1	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Silver	252	ug/L	250	ug/L	101	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Sodium	2380	ug/L	2500	ug/L	95.2	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
	Zinc	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	25-FEB-10 12:50	022510-1
CCV01										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 - 120.0	AV	15-FEB-10 09:40	021510W1-9
	Antimony	51.5	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	20-FEB-10 17:11	100220-2
	Cadmium	51.4	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	20-FEB-10 17:11	100220-2
	Thallium	53.3	ug/L	50	ug/L	106.6	90.0 - 110.0	MS	20-FEB-10 17:11	100220-2
	Beryllium	51.8	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	21-FEB-10 10:50	100220-7

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	51	ug/L	50	ug/L	102.1	90.0 - 110.0	MS	21-FEB-10 10:50	100220-7
	Manganese	51.7	ug/L	50	ug/L	103.4	90.0 - 110.0	MS	21-FEB-10 10:50	100220-7
	Uranium	49.1	ug/L	50	ug/L	98.2	90.0 - 110.0	MS	21-FEB-10 12:17	100221-8
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Arsenic	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Barium	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Calcium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Copper	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Nickel	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Potassium	5200	ug/L	5000	ug/L	104	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Selenium	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Silver	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Sodium	10000	ug/L	10000	ug/L	100.3	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Vanadium	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
	Zinc	475	ug/L	500	ug/L	95.1	90.0 - 110.0	P	25-FEB-10 13:38	022510-1
CCV02										
	Mercury	5.12	ug/L	5	ug/L	102.3	80.0 - 120.0	AV	15-FEB-10 10:04	021510W1-9
	Antimony	52.4	ug/L	50	ug/L	104.9	90.0 - 110.0	MS	20-FEB-10 17:30	100220-2
	Cadmium	51.4	ug/L	50	ug/L	102.8	90.0 - 110.0	MS	20-FEB-10 17:30	100220-2
	Thallium	53.8	ug/L	50	ug/L	107.5	90.0 - 110.0	MS	20-FEB-10 17:30	100220-2
	Beryllium	54	ug/L	50	ug/L	108	90.0 - 110.0	MS	21-FEB-10 11:03	100220-7
	Lead	50.3	ug/L	50	ug/L	100.7	90.0 - 110.0	MS	21-FEB-10 11:03	100220-7
	Manganese	50.4	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	21-FEB-10 11:03	100220-7
	Uranium	47.7	ug/L	50	ug/L	95.4	90.0 - 110.0	MS	21-FEB-10 12:35	100221-8
	Aluminum	5060	ug/L	5000	ug/L	101.1	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Arsenic	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	25-FEB-10 14:08	022510-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	475	ug/L	500	ug/L	94.9	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Calcium	5360	ug/L	5000	ug/L	107.3	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Cobalt	475	ug/L	500	ug/L	94.9	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Copper	470	ug/L	500	ug/L	94	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Iron	5320	ug/L	5000	ug/L	106.4	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Magnesium	5440	ug/L	5000	ug/L	108.8	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Nickel	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Selenium	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Silver	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Sodium	10600	ug/L	10000	ug/L	105.8	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Vanadium	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
	Zinc	469	ug/L	500	ug/L	93.8	90.0 - 110.0	P	25-FEB-10 14:08	022510-1
CCV03										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 - 120.0	AV	15-FEB-10 10:28	021510W1-9
	Antimony	50.7	ug/L	50	ug/L	101.4	90.0 - 110.0	MS	20-FEB-10 18:19	100220-2
	Cadmium	50.6	ug/L	50	ug/L	101.3	90.0 - 110.0	MS	20-FEB-10 18:19	100220-2
	Thallium	53.4	ug/L	50	ug/L	106.7	90.0 - 110.0	MS	20-FEB-10 18:19	100220-2
	Beryllium	51.4	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	21-FEB-10 11:25	100220-7
	Lead	50.7	ug/L	50	ug/L	101.3	90.0 - 110.0	MS	21-FEB-10 11:25	100220-7
	Manganese	52.5	ug/L	50	ug/L	104.9	90.0 - 110.0	MS	21-FEB-10 11:25	100220-7
	Uranium	46.9	ug/L	50	ug/L	93.8	90.0 - 110.0	MS	21-FEB-10 12:52	100221-8
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Arsenic	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Barium	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Calcium	5170	ug/L	5000	ug/L	103.5	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Chromium	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Cobalt	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Copper	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	25-FEB-10 15:31	022510-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Nickel	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Selenium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
	Zinc	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	25-FEB-10 15:31	022510-1
CCV04										
	Mercury	5.1	ug/L	5	ug/L	102.1	80.0 - 120.0	AV	15-FEB-10 10:51	021510W1-9
	Antimony	52.9	ug/L	50	ug/L	105.8	90.0 - 110.0	MS	20-FEB-10 18:44	100220-2
	Cadmium	52.9	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	20-FEB-10 18:44	100220-2
	Thallium	54.2	ug/L	50	ug/L	108.3	90.0 - 110.0	MS	20-FEB-10 18:44	100220-2
	Beryllium	51.3	ug/L	50	ug/L	102.6	90.0 - 110.0	MS	21-FEB-10 11:43	100220-7
	Lead	49.9	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	21-FEB-10 11:43	100220-7
	Manganese	51.6	ug/L	50	ug/L	103.1	90.0 - 110.0	MS	21-FEB-10 11:43	100220-7
	Uranium	46.2	ug/L	50	ug/L	92.4	90.0 - 110.0	MS	21-FEB-10 13:13	100221-8
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Arsenic	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Barium	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Cobalt	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Copper	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Iron	4880	ug/L	5000	ug/L	97.6	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Nickel	495	ug/L	500	ug/L	98.9	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Selenium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	25-FEB-10 16:46	022510-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	25-FEB-10 16:46	022510-1
CCV05										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 - 120.0	AV	15-FEB-10 11:15	021510W1-9
	Antimony	50.4	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	20-FEB-10 19:21	100220-2
	Cadmium	49.6	ug/L	50	ug/L	99.2	90.0 - 110.0	MS	20-FEB-10 19:21	100220-2
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	20-FEB-10 19:21	100220-2
	Beryllium	49.9	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	21-FEB-10 11:58	100220-7
	Lead	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	21-FEB-10 11:58	100220-7
	Manganese	50.8	ug/L	50	ug/L	101.6	90.0 - 110.0	MS	21-FEB-10 11:58	100220-7
	Uranium	46.4	ug/L	50	ug/L	92.8	90.0 - 110.0	MS	21-FEB-10 13:27	100221-8
CCV06										
	Mercury	5.2	ug/L	5	ug/L	103.9	80.0 - 120.0	AV	15-FEB-10 11:39	021510W1-9
	Antimony	51	ug/L	50	ug/L	102.1	90.0 - 110.0	MS	20-FEB-10 20:04	100220-2
	Cadmium	49.4	ug/L	50	ug/L	98.8	90.0 - 110.0	MS	20-FEB-10 20:04	100220-2
	Thallium	52.5	ug/L	50	ug/L	105.1	90.0 - 110.0	MS	20-FEB-10 20:04	100220-2
	Uranium	46.3	ug/L	50	ug/L	92.6	90.0 - 110.0	MS	21-FEB-10 13:43	100221-8
CCV07										
	Antimony	50.6	ug/L	50	ug/L	101.2	90.0 - 110.0	MS	20-FEB-10 20:28	100220-2
	Cadmium	49.2	ug/L	50	ug/L	98.3	90.0 - 110.0	MS	20-FEB-10 20:28	100220-2
	Thallium	52.4	ug/L	50	ug/L	104.8	90.0 - 110.0	MS	20-FEB-10 20:28	100220-2
CCV08										
	Antimony	51.7	ug/L	50	ug/L	103.3	90.0 - 110.0	MS	20-FEB-10 21:05	100220-2
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	20-FEB-10 21:05	100220-2
	Thallium	53.6	ug/L	50	ug/L	107.2	90.0 - 110.0	MS	20-FEB-10 21:05	100220-2
CCV09										
	Antimony	52.5	ug/L	50	ug/L	104.9	90.0 - 110.0	MS	20-FEB-10 21:55	100220-2
	Cadmium	49.7	ug/L	50	ug/L	99.5	90.0 - 110.0	MS	20-FEB-10 21:55	100220-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	54.5	ug/L	50	ug/L	109.1	90.0 - 110.0	MS	20-FEB-10 21:55	100220-2
CCV10										
	Antimony	51.3	ug/L	50	ug/L	102.6	90.0 - 110.0	MS	20-FEB-10 22:50	100220-2
	Cadmium	50	ug/L	50	ug/L	100.1	90.0 - 110.0	MS	20-FEB-10 22:50	100220-2
	Thallium	48.2	ug/L	50	ug/L	96.4	90.0 - 110.0	MS	20-FEB-10 22:50	100220-2

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.197	ug/L	.2	ug/L	98.4	70.0 – 130.0	AV	15-FEB-10 09:38	021510W1-9
	Thallium	1.28	ug/L	1	ug/L	127.6	70.0 – 130.0	MS	20-FEB-10 16:53	100220-2
	Antimony	3.32	ug/L	3	ug/L	110.6	70.0 – 130.0	MS	20-FEB-10 16:53	100220-2
	Cadmium	1.13	ug/L	1	ug/L	113.4	70.0 – 130.0	MS	20-FEB-10 16:53	100220-2
	Lead	2.45	ug/L	2	ug/L	122.5	70.0 – 130.0	MS	21-FEB-10 10:44	100220-7
	Manganese	6.07	ug/L	5	ug/L	121.3	70.0 – 130.0	MS	21-FEB-10 10:44	100220-7
	Beryllium	.541	ug/L	.5	ug/L	108.2	70.0 – 130.0	MS	21-FEB-10 10:44	100220-7
	Uranium	.25	ug/L	.2	ug/L	125	70.0 – 130.0	MS	21-FEB-10 12:12	100221-8
PQL01										
	Aluminum	206	ug/L	200	ug/L	103	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Iron	96.6	ug/L	100	ug/L	96.6	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Magnesium	401	ug/L	300	ug/L	133.8	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Nickel	4.93	ug/L	5	ug/L	98.6	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Potassium	155	ug/L	150	ug/L	103.1	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Silver	5.26	ug/L	5	ug/L	105.3	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Sodium	272	ug/L	300	ug/L	90.6	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Arsenic	29.1	ug/L	30	ug/L	97.1	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Barium	5.14	ug/L	5	ug/L	102.8	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Chromium	4.73	ug/L	5	ug/L	94.6	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Cobalt	4.94	ug/L	5	ug/L	98.8	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Copper	9.72	ug/L	10	ug/L	97.2	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Vanadium	4.95	ug/L	5	ug/L	99	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Zinc	11.5	ug/L	10	ug/L	114.9	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Calcium	213	ug/L	200	ug/L	106.3	70.0 – 130.0	P	25-FEB-10 13:04	022510-1
	Selenium	30.7	ug/L	30	ug/L	102.4	70.0 – 130.0	P	25-FEB-10 13:04	022510-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	15-FEB-10 09:36	021510W1-9
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 16:47	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 16:47	100220-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-FEB-10 16:47	100220-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	21-FEB-10 10:41	100220-7
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	21-FEB-10 10:41	100220-7
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	21-FEB-10 10:41	100220-7
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	21-FEB-10 12:10	100221-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	25-FEB-10 12:57	022510-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 12:57	022510-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 12:57	022510-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	25-FEB-10 12:57	022510-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 12:57	022510-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 12:57	022510-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	25-FEB-10 12:57	022510-1
	Iron	-42.67	+/-100	J	30.0	100	LIQ	P	25-FEB-10 12:57	022510-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	25-FEB-10 12:57	022510-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	25-FEB-10 12:57	022510-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	25-FEB-10 12:57	022510-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 12:57	022510-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 12:57	022510-1
	Sodium	100	+/-300	U	100	300	LIQ	P	25-FEB-10 12:57	022510-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 12:57	022510-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	25-FEB-10 12:57	022510-1
CCB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	15-FEB-10 09:42	021510W1-9
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 17:17	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 17:17	100220-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-FEB-10 17:17	100220-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	21-FEB-10 10:52	100220-7
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	21-FEB-10 10:52	100220-7

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	21-FEB-10 10:52	100220-7
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	21-FEB-10 12:19	100221-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	25-FEB-10 13:45	022510-1
	Arsenic	11.14	+/-30	J	5.0	30.0	LIQ	P	25-FEB-10 13:45	022510-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 13:45	022510-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	25-FEB-10 13:45	022510-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 13:45	022510-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 13:45	022510-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	25-FEB-10 13:45	022510-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	25-FEB-10 13:45	022510-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	25-FEB-10 13:45	022510-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	25-FEB-10 13:45	022510-1
	Potassium	117.82	+/-150	J	50.0	150	LIQ	P	25-FEB-10 13:45	022510-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 13:45	022510-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 13:45	022510-1
	Sodium	100	+/-300	U	100	300	LIQ	P	25-FEB-10 13:45	022510-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 13:45	022510-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	25-FEB-10 13:45	022510-1
CCB02										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	15-FEB-10 10:06	021510W1-9
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 17:36	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 17:36	100220-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-FEB-10 17:36	100220-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	21-FEB-10 11:05	100220-7
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	21-FEB-10 11:05	100220-7
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	21-FEB-10 11:05	100220-7
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	21-FEB-10 12:37	100221-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	25-FEB-10 14:15	022510-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 14:15	022510-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 14:15	022510-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	25-FEB-10 14:15	022510-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 14:15	022510-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 14:15	022510-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	25-FEB-10 14:15	022510-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	25-FEB-10 14:15	022510-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	25-FEB-10 14:15	022510-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	25-FEB-10 14:15	022510-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	25-FEB-10 14:15	022510-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 14:15	022510-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 14:15	022510-1
	Sodium	100	+/-300	U	100	300	LIQ	P	25-FEB-10 14:15	022510-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 14:15	022510-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	25-FEB-10 14:15	022510-1
CCB03										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	15-FEB-10 10:30	021510W1-9
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 18:26	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 18:26	100220-2
	Thallium	0.332	+/-1	J	0.3	1.0	LIQ	MS	20-FEB-10 18:26	100220-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	21-FEB-10 11:27	100220-7
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	21-FEB-10 11:27	100220-7
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	21-FEB-10 11:27	100220-7
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	21-FEB-10 12:54	100221-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	25-FEB-10 15:38	022510-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 15:38	022510-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 15:38	022510-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	25-FEB-10 15:38	022510-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 15:38	022510-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 15:38	022510-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	25-FEB-10 15:38	022510-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	25-FEB-10 15:38	022510-1
	Magnesium	112.52	+/-300	J	85.0	300	LIQ	P	25-FEB-10 15:38	022510-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	25-FEB-10 15:38	022510-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	25-FEB-10 15:38	022510-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 15:38	022510-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 15:38	022510-1
	Sodium	100	+/-300	U	100	300	LIQ	P	25-FEB-10 15:38	022510-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 15:38	022510-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	25-FEB-10 15:38	022510-1
CCB04										
	Mercury	-0.097	+/-.2	J	0.066	0.2	LIQ	AV	15-FEB-10 10:53	021510W1-9
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 18:50	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 18:50	100220-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-FEB-10 18:50	100220-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	21-FEB-10 11:45	100220-7
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	21-FEB-10 11:45	100220-7
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	21-FEB-10 11:45	100220-7
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	21-FEB-10 13:14	100221-8
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	25-FEB-10 16:53	022510-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 16:53	022510-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 16:53	022510-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	25-FEB-10 16:53	022510-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 16:53	022510-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 16:53	022510-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	25-FEB-10 16:53	022510-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	25-FEB-10 16:53	022510-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	25-FEB-10 16:53	022510-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	25-FEB-10 16:53	022510-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	25-FEB-10 16:53	022510-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	25-FEB-10 16:53	022510-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 16:53	022510-1
	Sodium	100	+/-300	U	100	300	LIQ	P	25-FEB-10 16:53	022510-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	25-FEB-10 16:53	022510-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	25-FEB-10 16:53	022510-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1474-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Mercury	-0.108	+/-.2	J	0.066	0.2	LIQ	AV	15-FEB-10 11:17	021510W1-9
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 19:27	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 19:27	100220-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-FEB-10 19:27	100220-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	21-FEB-10 12:00	100220-7
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	21-FEB-10 12:00	100220-7
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	21-FEB-10 12:00	100220-7
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	21-FEB-10 13:29	100221-8
CCB06										
	Mercury	-0.096	+/-.2	J	0.066	0.2	LIQ	AV	15-FEB-10 11:41	021510W1-9
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 20:10	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 20:10	100220-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-FEB-10 20:10	100220-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	21-FEB-10 13:44	100221-8
CCB07										
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 20:35	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 20:35	100220-2
	Thallium	0.33	+/-1	J	0.3	1.0	LIQ	MS	20-FEB-10 20:35	100220-2
CCB08										
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 21:11	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 21:11	100220-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	20-FEB-10 21:11	100220-2
CCB09										
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 22:01	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 22:01	100220-2
	Thallium	0.426	+/-1	J	0.3	1.0	LIQ	MS	20-FEB-10 22:01	100220-2
CCB10										
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	20-FEB-10 22:56	100220-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	20-FEB-10 22:56	100220-2
	Thallium	0.983	+/-1	J	0.3	1.0	LIQ	MS	20-FEB-10 22:56	100220-2

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1474-1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202029965								
	Mercury	-0.115	ug/L	+/-0.2	J	AV	0.066	0.2
1202031021								
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Magnesium	107	ug/L	+/-300	J	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Potassium	50	ug/L	+/-150	U	P	50	150
	Selenium	5	ug/L	+/-30	U	P	5	30
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1202031027								
	Antimony	0.5	ug/L	+/-3	U	MS	0.5	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	531000	ug/L	500000	ug/L	106	80.0 – 120.0	25-FEB-10 13:11	022510-1
	Arsenic	9.55	ug/L					25-FEB-10 13:11	022510-1
	Barium	0.543	ug/L					25-FEB-10 13:11	022510-1
	Calcium	492000	ug/L	500000	ug/L	98.4	80.0 – 120.0	25-FEB-10 13:11	022510-1
	Chromium	-0.041	ug/L					25-FEB-10 13:11	022510-1
	Cobalt	-1.44	ug/L					25-FEB-10 13:11	022510-1
	Copper	2.08	ug/L					25-FEB-10 13:11	022510-1
	Iron	187000	ug/L	200000	ug/L	93.5	80.0 – 120.0	25-FEB-10 13:11	022510-1
	Magnesium	500000	ug/L	500000	ug/L	100	80.0 – 120.0	25-FEB-10 13:11	022510-1
	Nickel	3.15	ug/L					25-FEB-10 13:11	022510-1
	Potassium	-183.0	ug/L					25-FEB-10 13:11	022510-1
	Selenium	-48.8	ug/L					25-FEB-10 13:11	022510-1
	Silver	-2.52	ug/L					25-FEB-10 13:11	022510-1
	Sodium	22.8	ug/L					25-FEB-10 13:11	022510-1
	Vanadium	-1.23	ug/L					25-FEB-10 13:11	022510-1
	Zinc	-2.74	ug/L					25-FEB-10 13:11	022510-1
ICSAB01									
	Aluminum	524000	ug/L	500000	ug/L	105	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Arsenic	514	ug/L	500	ug/L	103	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Barium	485	ug/L	500	ug/L	97.1	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Calcium	487000	ug/L	500000	ug/L	97.3	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Chromium	473	ug/L	500	ug/L	94.6	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Cobalt	431	ug/L	500	ug/L	86.2	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Copper	536	ug/L	500	ug/L	107	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Iron	188000	ug/L	200000	ug/L	93.8	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Magnesium	498000	ug/L	500000	ug/L	99.5	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Nickel	437	ug/L	500	ug/L	87.3	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Potassium	5400	ug/L	5000	ug/L	108	80.0 – 120.0	25-FEB-10 13:18	022510-1
	Selenium	2470	ug/L	2500	ug/L	98.9	80.0 – 120.0	25-FEB-10 13:18	022510-1

METALS
-4-
Interference Check Sample

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	265	ug/L	250	ug/L	106	80.0 - 120.0	25-FEB-10 13:18	022510-1
	Sodium	5310	ug/L	5000	ug/L	106	80.0 - 120.0	25-FEB-10 13:18	022510-1
	Vanadium	498	ug/L	500	ug/L	99.7	80.0 - 120.0	25-FEB-10 13:18	022510-1
	Zinc	482	ug/L	500	ug/L	96.5	80.0 - 120.0	25-FEB-10 13:18	022510-1

METALS
–4–
Interference Check Sample

SDG No: 10–1474–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.132	ug/L					20–FEB–10 16:59	100220–2
	Cadmium	0.65	ug/L					20–FEB–10 16:59	100220–2
	Thallium	0.064	ug/L					20–FEB–10 16:59	100220–2
ICSAB01									
	Antimony	21.6	ug/L	20	ug/L	108	80.0 – 120.0	20–FEB–10 17:05	100220–2
	Cadmium	20.1	ug/L	20.44	ug/L	98.5	80.0 – 120.0	20–FEB–10 17:05	100220–2
	Thallium	21.9	ug/L	20	ug/L	109	80.0 – 120.0	20–FEB–10 17:05	100220–2

METALS
-4-
Interference Check Sample

SDG No: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.106	ug/L					21-FEB-10 10:46	100220-7
	Lead	0.257	ug/L					21-FEB-10 10:46	100220-7
	Manganese	6.84	ug/L					21-FEB-10 10:46	100220-7
ICSAB01									
	Beryllium	20.2	ug/L	20	ug/L	101	80.0 - 120.0	21-FEB-10 10:48	100220-7
	Lead	22.1	ug/L	20.19	ug/L	109	80.0 - 120.0	21-FEB-10 10:48	100220-7
	Manganese	29.9	ug/L	25.8	ug/L	116	80.0 - 120.0	21-FEB-10 10:48	100220-7

METALS
–4–
Interference Check Sample

SDG No: 10–1474–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	0.0	ug/L					21–FEB–10 12:14	100221–8
ICSAB01									
	Uranium	23.7	ug/L	20	ug/L	118	80.0 – 120.0	21–FEB–10 12:15	100221–8

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1474-1 **Client ID:** RE15-10-8081S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 245807001 **Spike ID:** 1202029968

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.11		0.066	U	2	106		AV

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1474-1 **Client ID** CAMO-10-9311S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 245673001 **Spike ID:** 1202031024

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5270		68	U	5000	105		P
Arsenic	ug/L	75-125	501		5	U	500	99.9		P
Barium	ug/L	75-125	510		12.5		500	99.4		P
Calcium	ug/L		33700		30000		5000	74.2	N/A	P
Chromium	ug/L	75-125	491		4.86	J	500	97.3		P
Cobalt	ug/L	75-125	467		1	U	500	93.4		P
Copper	ug/L	75-125	516		4.84	J	500	102		P
Iron	ug/L	75-125	5380		30	U	5000	108		P
Magnesium	ug/L	75-125	9790		4690		5000	102		P
Nickel	ug/L	75-125	479		3.7	J	500	95		P
Potassium	ug/L	75-125	5870		745		5000	102		P
Selenium	ug/L	75-125	496		5	U	500	99.1		P
Silver	ug/L	75-125	486		1	U	500	97.2		P
Sodium	ug/L		26500		22300		5000	84.7	N/A	P
Vanadium	ug/L	75-125	505		1.55	J	500	101		P
Zinc	ug/L	75-125	512		28.1		500	96.8		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1474-1 **Client ID** CAWR-10-11786S

Contract: ESHL01000 **Level:** Low

Matrix: SURFACE WATER **% Solids:**

Sample ID: 245676001 **Spike ID:** 1202031030

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	217		0.5	U	200	108		MS
Beryllium	ug/L	75-125	54.4		0.1	U	50	109		MS
Cadmium	ug/L	75-125	11.1		0.11	U	10	110		MS
Lead	ug/L	75-125	48.1		0.762	J	40	118		MS
Manganese	ug/L	75-125	88.1		40.3		50	95.7		MS
Thallium	ug/L	75-125	100		0.3	U	100	99.9		MS
Uranium	ug/L	75-125	60.1		3.49		50	113		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1474-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15-10-8081D

Sample ID: 245807001 **Duplicate ID:** 1202029967 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1474–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAMO–10–9311D

Sample ID: 245673001 **Duplicate ID:** 1202031022 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L	+/–5	12.5		11.4		9.42		P
Calcium	ug/L	+/–20%	30000		26600		11.8		P
Chromium	ug/L	+/–5	4.86	J	4.55	J	6.62		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L	+/–10	4.84	J	4.23	J	13.5		P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L	+/–20%	4690		4320		8.12		P
Nickel	ug/L	+/–5	3.7	J	2.82	J	26.8		P
Potassium	ug/L	+/–150	745		655		12.8		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–20%	22300		19700		12.2		P
Vanadium	ug/L	+/–5	1.55	J	1.3	J	17		P
Zinc	ug/L	+/–10	28.1		25.3		10.5		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1474–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAWR–10–11786D

Sample ID: 245676001 **Duplicate ID:** 1202031029 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L	+/–2	0.762	J	0.689	J	10.1		MS
Manganese	ug/L	+/–20%	40.3		41.4		2.88		MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L	+/–20%	3.49		3.59		2.94		MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1474-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202029966								
	Mercury	ug/L	2	2.04		102	80-120	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1474-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202031026								
	Copper	ug/L	500	506		101	80-120	P
	Iron	ug/L	5000	5000		100	80-120	P
	Magnesium	ug/L	5000	5330		107	80-120	P
	Nickel	ug/L	500	502		100	80-120	P
	Potassium	ug/L	5000	5050		101	80-120	P
	Selenium	ug/L	500	504		101	80-120	P
	Silver	ug/L	500	482		96.3	80-120	P
	Sodium	ug/L	5000	5180		104	80-120	P
	Vanadium	ug/L	500	505		101	80-120	P
	Zinc	ug/L	500	489		97.7	80-120	P
	Aluminum	ug/L	5000	5220		104	80-120	P
	Arsenic	ug/L	500	499		99.9	80-120	P
	Barium	ug/L	500	499		99.7	80-120	P
	Calcium	ug/L	5000	5270		105	80-120	P
	Chromium	ug/L	500	496		99.1	80-120	P
	Cobalt	ug/L	500	480		96	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1474-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202031028								
	Antimony	ug/L	50	58		116	80-120	MS
	Beryllium	ug/L	50	59.4		119	80-120	MS
	Cadmium	ug/L	50	53.4		107	80-120	MS
	Lead	ug/L	50	58.2		116	80-120	MS
	Manganese	ug/L	50	54.9		110	80-120	MS
	Thallium	ug/L	50	54.7		109	80-120	MS
	Uranium	ug/L	50	56.7		113	80-120	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1474-1 **Client ID** RE15-10-8081L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 245807001 **Serial Dilution ID:** 1202029969

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1474-1 **Client ID** CAMO-10-9311L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 245673001 **Serial Dilution ID:** 1202031023

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	12.5		12.2	J	2.4			P
Calcium	30000		28300		5.83		10	P
Chromium	4.86	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	4.84	J	15	U	100			P
Iron	30	U	150	U				P
Magnesium	4690		5000		6.61		10	P
Nickel	3.7	J	7.5	U	100			P
Potassium	745		755		1.34			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	22300		20300		9.19		10	P
Vanadium	1.55	J	5	U	100			P
Zinc	28.1		36.9	J	31.1			P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1474–1 **Client ID** CAWR–10–11786L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 245676001 **Serial Dilution ID:** 1202031031

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.762	J	2.5	U	100			MS
Manganese	40.3		47.1		16.9			MS
Thallium	.3	U	6.5					MS
Uranium	3.49		3.41		2.44			MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1474-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948085						
1202031021	MB for batch 948085	MB	G	25-FEB-10	25mL	25mL	
1202031026	LCS for batch 948085	LCS	G	25-FEB-10	25mL	25mL	
1202031024	CAMO-10-9311S	MS	G	25-FEB-10	25mL	25mL	
1202031022	CAMO-10-9311D	DUP	G	25-FEB-10	25mL	25mL	
245807001	RE15-10-8081	SAMPLE	W	25-FEB-10	25mL	25mL	
245807002	RE15-10-8082	SAMPLE	W	25-FEB-10	25mL	25mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1474-1 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948089						
1202031027	MB for batch 948089	MB	SU	03-FEB-10	50mL	50mL	
1202031028	LCS for batch 948089	LCS	SU	03-FEB-10	50mL	50mL	
1202031030	CAWR-10-11786S	MS	SU	03-FEB-10	50mL	50mL	
1202031029	CAWR-10-11786D	DUP	SU	03-FEB-10	50mL	50mL	
245807001	RE15-10-8081	SAMPLE	W	03-FEB-10	50mL	50mL	
245807002	RE15-10-8082	SAMPLE	W	03-FEB-10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1474–1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 947645							
1202029965	MB for batch 947645	MB	W	12–FEB–10	20mL	20mL	
1202029966	LCS for batch 947645	LCS	W	12–FEB–10	20mL	20mL	
1202029968	RE15–10–8081S	MS	W	12–FEB–10	20mL	20mL	
1202029967	RE15–10–8081D	DUP	W	12–FEB–10	20mL	20mL	
245807001	RE15–10–8081	SAMPLE	W	12–FEB–10	20mL	20mL	
245807002	RE15–10–8082	SAMPLE	W	12–FEB–10	20mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 20-FEB-10
End Date: 21-FEB-10
Client Sdg: 10-1474-1
Method MS
Data File: 100220-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:22		X				X															X			
S10	1	16:29		X				X															X			
S100	1	16:35		X				X															X			
ICV01	1	16:41		X				X															X			
ICB01	1	16:47		X				X															X			
CRDL01	1	16:53		X				X															X			
ICSA01	1	16:59		X				X															X			
ICSAB01	1	17:05		X				X															X			
CCV01	1	17:11		X				X															X			
CCB01	1	17:17		X				X															X			
LR01	1	17:23		X				X															X			
CCV02	1	17:30		X				X															X			
CCB02	1	17:36		X				X															X			
ZZZZZZ	1	17:43																								
ZZZZZZ	1	17:49																								
ZZZZZZ	1	17:55																								
ZZZZZZ	1	18:01																								
ZZZZZZ	1	18:07																								
ZZZZZZ	5	18:13																								
CCV03	1	18:19		X				X															X			
CCB03	1	18:26		X				X															X			
ZZZZZZ	1	18:32																								
ZZZZZZ	1	18:38																								
CCV04	1	18:44		X				X															X			
CCB04	1	18:50		X				X															X			
ZZZZZZ	1	18:56																								
ZZZZZZ	1	19:03																								
ZZZZZZ	1	19:09																								
ZZZZZZ	1	19:15																								
CCV05	1	19:21		X				X															X			
CCB05	1	19:27		X				X															X			
ZZZZZZ	1	19:33																								
ZZZZZZ	1	19:39																								
ZZZZZZ	1	19:46																								
ZZZZZZ	1	19:52																								
ZZZZZZ	1	19:58																								
CCV06	1	20:04		X				X															X			
CCB06	1	20:10		X				X															X			
1202031027	1	20:16		X				X															X			
1202031028	1	20:22		X				X															X			

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV07	1	20:28		X				X														X			
CCB07	1	20:35		X				X														X			
ZZZZZZ	1	20:41																							
ZZZZZZ	1	20:47																							
ZZZZZZ	1	20:53																							
ZZZZZZ	1	20:59																							
CCV08	1	21:05		X				X														X			
CCB08	1	21:11		X				X														X			
ZZZZZZ	1	21:18																							
ZZZZZZ	1	21:24																							
ZZZZZZ	1	21:30																							
1202031029	1	21:36		X				X														X			
1202031030	1	21:42		X				X														X			
1202031031	5	21:48		X				X														X			
CCV09	1	21:55		X				X														X			
CCB09	1	22:01		X				X														X			
ZZZZZZ	1	22:07																							
ZZZZZZ	1	22:13																							
ZZZZZZ	1	22:19																							
ZZZZZZ	1	22:25																							
ZZZZZZ	1	22:32																							
245807001	1	22:38		X				X														X			
245807002	1	22:44		X				X														X			
CCV10	1	22:50		X				X														X			
CCB10	1	22:56		X				X														X			

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 20–FEB–10
End Date: 21–FEB–10

Client Sdg: 10–1474–1
Method MS
Data File: 100220–7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:33					X							X		X										
S10	1	10:35					X							X		X										
S100	1	10:37					X							X		X										
ICV01	1	10:39					X							X		X										
ICB01	1	10:41					X							X		X										
CRDL01	1	10:44					X							X		X										
ICSA01	1	10:46					X							X		X										
ICSAB01	1	10:48					X							X		X										
CCV01	1	10:50					X							X		X										
CCB01	1	10:52					X							X		X										
ZZZZZZ	1	10:54																								
ZZZZZZ	1	10:56																								
ZZZZZZ	1	10:59																								
ZZZZZZ	1	11:01																								
CCV02	1	11:03					X							X		X										
CCB02	1	11:05					X							X		X										
1202031027	1	11:08					X							X		X										
1202031028	1	11:10					X							X		X										
ZZZZZZ	1	11:12																								
ZZZZZZ	1	11:14																								
ZZZZZZ	1	11:16																								
ZZZZZZ	1	11:18																								
ZZZZZZ	1	11:21																								
ZZZZZZ	1	11:23																								
CCV03	1	11:25					X							X		X										
CCB03	1	11:27					X							X		X										
ZZZZZZ	1	11:30																								
1202031030	1	11:32					X							X		X										
1202031029	1	11:34					X							X		X										
1202031031	5	11:36					X							X		X										
ZZZZZZ	1	11:38																								
ZZZZZZ	1	11:40																								
CCV04	1	11:43					X							X		X										
CCB04	1	11:45					X							X		X										
ZZZZZZ	1	11:47																								
ZZZZZZ	1	11:49																								
ZZZZZZ	1	11:51																								
245807001	1	11:54					X							X		X										
245807002	1	11:56					X							X		X										
CCV05	1	11:58					X							X		X										

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCB05	1	12:00					X							X		X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 21–FEB–10
End Date: 21–FEB–10

Client Sdg: 10–1474–1
Method MS
Data File: 100221–8

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	12:04																						X		
S10	1	12:05																						X		
S100	1	12:07																						X		
ICV01	1	12:09																						X		
ICB01	1	12:10																						X		
CRDL01	1	12:12																						X		
ICSA01	1	12:14																						X		
ICSAB01	1	12:15																						X		
CCV01	1	12:17																						X		
CCB01	1	12:19																						X		
ZZZZZZ	1	12:20																								
ZZZZZZ	1	12:22																								
ZZZZZZ	1	12:24																								
ZZZZZZ	1	12:25																								
ZZZZZZ	1	12:27																								
ZZZZZZ	5	12:29																								
ZZZZZZ	1	12:30																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:34																								
CCV02	1	12:35																						X		
CCB02	1	12:37																						X		
ZZZZZZ	1	12:39																								
ZZZZZZ	1	12:40																								
ZZZZZZ	1	12:42																								
ZZZZZZ	1	12:44																								
ZZZZZZ	1	12:45																								
ZZZZZZ	1	12:47																								
ZZZZZZ	1	12:49																								
ZZZZZZ	1	12:50																								
CCV03	1	12:52																						X		
CCB03	1	12:54																						X		
1202031027	1	12:59																						X		
1202031028	1	13:01																						X		
ZZZZZZ	1	13:02																								
ZZZZZZ	1	13:04																								
ZZZZZZ	1	13:06																								
ZZZZZZ	1	13:08																								
ZZZZZZ	1	13:09																								
ZZZZZZ	1	13:11																								
CCV04	1	13:13																						X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCB04	1	13:14																						X		
ZZZZZZ	1	13:16																								
ZZZZZZ	1	13:18																								
ZZZZZZ	1	13:19																								
1202031029	1	13:22																						X		
1202031030	1	13:24																						X		
1202031031	5	13:25																						X		
CCV05	1	13:27																						X		
CCB05	1	13:29																						X		
ZZZZZZ	1	13:31																								
ZZZZZZ	1	13:32																								
ZZZZZZ	1	13:34																								
ZZZZZZ	1	13:36																								
ZZZZZZ	1	13:37																								
245807001	1	13:39																						X		
245807002	1	13:41																						X		
CCV06	1	13:43																						X		
CCB06	1	13:44																						X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 25-FEB-10 **End Date:** 25-FEB-10

Client Sdg: 10-1474-1
Method P
Data File: 022510-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	12:17	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	12:24			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	12:31	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	12:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	12:45	X						X				X		X							X				
ICV01	1	12:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	12:57	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	13:04	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	13:11	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	13:18	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	13:25	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	13:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	13:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	13:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	13:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR04	1	14:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	14:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	14:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202031021	1	14:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202031026	1	14:29	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	14:36																								
1202031022	1	14:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202031024	1	14:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202031023	5	14:57	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:04																								
ZZZZZZ	1	15:10																								
ZZZZZZ	1	15:17																								
ZZZZZZ	1	15:24																								
CCV03	1	15:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	15:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:45																								
ZZZZZZ	1	15:52																								
ZZZZZZ	1	15:59																								
ZZZZZZ	1	16:06																								
ZZZZZZ	1	16:12																								
ZZZZZZ	1	16:19																								
ZZZZZZ	1	16:26																								
245807001	1	16:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
245807002	1	16:39	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV04	1	16:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																						
CCB04	1	16:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 15–FEB–10
End Date: 15–FEB–10
Client Sdg: 10–1474–1
Method AV
Data File: 021510W1–9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:22															X									
S0.2	1	09:24															X									
S0.5	1	09:26															X									
S2.0	1	09:28															X									
S5.0	1	09:30															X									
S10	1	09:32															X									
ICV01	1	09:34															X									
ICB01	1	09:36															X									
CRDL01	1	09:38															X									
CCV01	1	09:40															X									
CCB01	1	09:42															X									
ZZZZZZ	1	09:44																								
ZZZZZZ	1	09:46																								
ZZZZZZ	1	09:48																								
ZZZZZZ	1	09:50																								
ZZZZZZ	1	09:52																								
ZZZZZZ	1	09:54																								
ZZZZZZ	1	09:56																								
ZZZZZZ	1	09:58																								
ZZZZZZ	1	10:00																								
ZZZZZZ	5	10:02																								
CCV02	1	10:04															X									
CCB02	1	10:06															X									
ZZZZZZ	1	10:08																								
ZZZZZZ	1	10:10																								
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
ZZZZZZ	1	10:16																								
ZZZZZZ	1	10:18																								
ZZZZZZ	1	10:20																								
ZZZZZZ	1	10:22																								
ZZZZZZ	1	10:24																								
ZZZZZZ	1	10:26																								
CCV03	1	10:28															X									
CCB03	1	10:30															X									
ZZZZZZ	5	10:32																								
ZZZZZZ	1	10:34																								
ZZZZZZ	1	10:36																								
ZZZZZZ	1	10:37																								
ZZZZZZ	1	10:39																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:41																							
ZZZZZZ	1	10:43																							
ZZZZZZ	1	10:45																							
ZZZZZZ	1	10:47																							
ZZZZZZ	5	10:49																							
CCV04	1	10:51														X									
CCB04	1	10:53														X									
ZZZZZZ	1	10:55																							
ZZZZZZ	1	10:57																							
ZZZZZZ	1	10:59																							
1202029965	1	11:01														X									
1202029966	1	11:03														X									
ZZZZZZ	1	11:05																							
ZZZZZZ	1	11:07																							
ZZZZZZ	1	11:09																							
ZZZZZZ	1	11:11																							
245807001	1	11:13														X									
CCV05	1	11:15														X									
CCB05	1	11:17														X									
1202029967	1	11:19														X									
1202029968	1	11:21														X									
1202029969	5	11:23														X									
245807002	1	11:25														X									
ZZZZZZ	1	11:27																							
ZZZZZZ	1	11:29																							
ZZZZZZ	1	11:31																							
ZZZZZZ	1	11:33																							
ZZZZZZ	1	11:35																							
ZZZZZZ	1	11:37																							
CCV06	1	11:39														X									
CCB06	1	11:41														X									

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1474–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1474–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1474–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb,analyte/ppm interferent)

GEL Job No: 10-1474-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1474-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1474–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-1474-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Aluminum	20	500000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

Raw Data

Method: Hg_ReAlign
Result: 022610

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

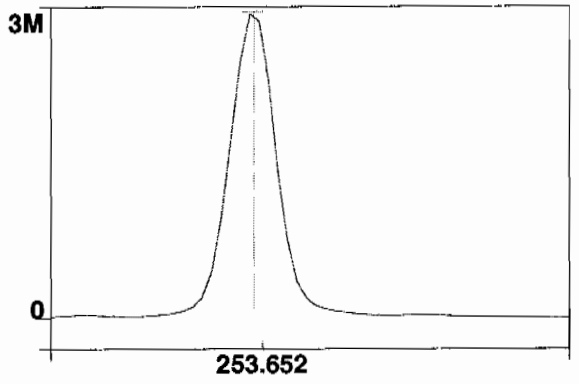

Intensity: 3249806.5 cps
Conc:

1

==========

Analysis Begun

Start Time: 2/25/2010 12:17:29 **Plasma On Time: 00:00:00**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022510.sif
Batch ID:
Results Data Set: 022510
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/25/2010 12:17:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3863.0	3863.0	100	%	12:19:42
1	Y RADIAL	4433.2	4433.2	99.58	%	12:19:22
1	Al 396.153Radial†	-101.8	-101.6	[0.00]	ug/L	12:19:22
1	Ca 317.933Radial†	15.9	15.9	[0.00]	ug/L	12:19:42
1	Fe 238.204 Radial†	13.3	13.2	[0.00]	ug/L	12:19:42
1	K 766.490 Radial†	2816.1	2811.7	[0.00]	ug/L	12:19:22
1	Mg 279.077 IEC†	0.7	0.7	[0.00]	ug/L	12:19:42
1	Na 589.592 Radial†	-900.1	-898.6	[0.00]	ug/L	12:19:22
1	Sr 421.552†	27.0	27.0	[0.00]	ug/L	12:19:22
1	Sc 361.383	880399.5	880399.5	100.04	%	12:20:38
1	Y 371.029	761132.7	761132.7	100.07	%	12:20:38
1	Ag 328.068†	208.2	208.1	[0.00]	ug/L	12:20:38
1	As 188.979†	-19.3	-19.3	[0.00]	ug/L	12:20:59
1	B 249.677†	-241.1	-241.0	[0.00]	ug/L	12:20:59
1	Ba 233.527†	3.9	3.9	[0.00]	ug/L	12:20:59
1	Be 313.107†	-3561.3	-3560.0	[0.00]	ug/L	12:20:38
1	Cd 226.502†	-178.2	-178.2	[0.00]	ug/L	12:20:59
1	Co 228.616†	-62.9	-62.9	[0.00]	ug/L	12:20:59
1	Cr 267.716†	78.5	78.4	[0.00]	ug/L	12:20:59
1	Cu 324.752†	5965.4	5963.2	[0.00]	ug/L	12:20:38
1	Mn 257.610†	483.8	483.7	[0.00]	ug/L	12:20:59
1	Mo 202.031†	7.5	7.5	[0.00]	ug/L	12:20:59
1	Ni 231.604†	95.3	95.3	[0.00]	ug/L	12:20:59
1	P 214.914†	207.0	206.9	[0.00]	ug/L	12:20:59
1	Pb 220.353†	60.8	60.7	[0.00]	ug/L	12:20:59
1	S 181.975 Axial†	40.5	40.5	[0.00]	ug/L	12:20:59
1	Sb 206.836†	37.5	37.5	[0.00]	ug/L	12:20:59
1	Se 196.026†	-25.9	-25.8	[0.00]	ug/L	12:20:59
1	Si 251.611†	568.7	568.5	[0.00]	ug/L	12:20:59
1	Sn 189.927†	10.9	10.9	[0.00]	ug/L	12:20:59
1	Ti 334.940†	-1416.0	-1415.5	[0.00]	ug/L	12:20:38
1	Tl 190.801†	-19.8	-19.8	[0.00]	ug/L	12:20:59
1	U 409.014†	-2793.3	-2792.2	[0.00]	ug/L	12:20:38
1	V 292.402†	-1416.6	-1416.0	[0.00]	ug/L	12:20:38
1	Zn 213.857†	741.5	741.2	[0.00]	ug/L	12:20:59
1	SiO2†	592.2	592.0	[0.00]	ug/L	12:21:54
2	Sc Radial	3860.4	3860.4	100	%	12:20:07
2	Y RADIAL	4567.4	4567.4	102.6	%	12:19:47
2	Al 396.153Radial†	-111.4	-111.3	[0.00]	ug/L	12:19:47
2	Ca 317.933Radial†	21.1	21.1	[0.00]	ug/L	12:20:07
2	Fe 238.204 Radial†	11.6	11.6	[0.00]	ug/L	12:20:07
2	K 766.490 Radial†	2716.4	2714.0	[0.00]	ug/L	12:19:47
2	Mg 279.077 IEC†	-0.3	-0.3	[0.00]	ug/L	12:20:07
2	Na 589.592 Radial†	-889.6	-888.8	[0.00]	ug/L	12:19:47
2	Sr 421.552†	0.7	0.7	[0.00]	ug/L	12:19:47
2	Sc 361.383	876161.3	876161.3	99.556	%	12:21:04
2	Y 371.029	755204.3	755204.3	99.286	%	12:21:04

2	Ag 328.068†	232.2	233.3	[0.00]	ug/L	12:21:04
2	As 188.979†	-20.5	-20.6	[0.00]	ug/L	12:21:24
2	B 249.677†	-265.9	-267.1	[0.00]	ug/L	12:21:24
2	Ba 233.527†	23.5	23.6	[0.00]	ug/L	12:21:24
2	Be 313.107†	-3567.2	-3583.2	[0.00]	ug/L	12:21:04
2	Cd 226.502†	-170.3	-171.1	[0.00]	ug/L	12:21:24
2	Co 228.616†	-67.7	-68.0	[0.00]	ug/L	12:21:24
2	Cr 267.716†	80.2	80.6	[0.00]	ug/L	12:21:24
2	Cu 324.752†	5955.3	5981.9	[0.00]	ug/L	12:21:04
2	Mn 257.610†	488.5	490.7	[0.00]	ug/L	12:21:24
2	Mo 202.031†	-1.9	-1.9	[0.00]	ug/L	12:21:24
2	Ni 231.604†	81.0	81.4	[0.00]	ug/L	12:21:24
2	P 214.914†	213.0	214.0	[0.00]	ug/L	12:21:24
2	Pb 220.353†	60.0	60.3	[0.00]	ug/L	12:21:24
2	S 181.975 Axial†	35.9	36.0	[0.00]	ug/L	12:21:24
2	Sb 206.836†	43.6	43.8	[0.00]	ug/L	12:21:24
2	Se 196.026†	-26.4	-26.5	[0.00]	ug/L	12:21:24
2	Si 251.611†	542.0	544.5	[0.00]	ug/L	12:21:24
2	Sn 189.927†	11.3	11.4	[0.00]	ug/L	12:21:24
2	Ti 334.940†	-1403.6	-1409.9	[0.00]	ug/L	12:21:04
2	Tl 190.801†	-27.1	-27.2	[0.00]	ug/L	12:21:24
2	U 409.014†	-3037.6	-3051.1	[0.00]	ug/L	12:21:04
2	V 292.402†	-1469.7	-1476.3	[0.00]	ug/L	12:21:04
2	Zn 213.857†	740.3	743.6	[0.00]	ug/L	12:21:24
2	SiO2†	578.0	580.6	[0.00]	ug/L	12:22:00
3	Sc Radial	3847.5	3847.5	99.8	%	12:20:32
3	Y RADIAL	4354.5	4354.5	97.82	%	12:20:12
3	Al 396.153Radial†	-131.9	-132.2	[0.00]	ug/L	12:20:12
3	Ca 317.933Radial†	19.0	19.0	[0.00]	ug/L	12:20:32
3	Fe 238.204 Radial†	10.2	10.2	[0.00]	ug/L	12:20:32
3	K 766.490 Radial†	2762.7	2769.5	[0.00]	ug/L	12:20:12
3	Mg 279.077 IEC†	3.1	3.1	[0.00]	ug/L	12:20:32
3	Na 589.592 Radial†	-915.4	-917.6	[0.00]	ug/L	12:20:12
3	Sr 421.552†	-1.4	-1.4	[0.00]	ug/L	12:20:12
3	Sc 361.383	883658.1	883658.1	100.41	%	12:21:29
3	Y 371.029	765568.9	765568.9	100.65	%	12:21:29
3	Ag 328.068†	262.2	261.1	[0.00]	ug/L	12:21:29
3	As 188.979†	-20.0	-19.9	[0.00]	ug/L	12:21:49
3	B 249.677†	-327.3	-325.9	[0.00]	ug/L	12:21:49
3	Ba 233.527†	5.6	5.6	[0.00]	ug/L	12:21:49
3	Be 313.107†	-3545.9	-3531.6	[0.00]	ug/L	12:21:29
3	Cd 226.502†	-180.0	-179.3	[0.00]	ug/L	12:21:49
3	Co 228.616†	-63.9	-63.7	[0.00]	ug/L	12:21:49
3	Cr 267.716†	96.7	96.3	[0.00]	ug/L	12:21:49
3	Cu 324.752†	5944.3	5920.2	[0.00]	ug/L	12:21:29
3	Mn 257.610†	460.5	458.6	[0.00]	ug/L	12:21:49
3	Mo 202.031†	8.5	8.4	[0.00]	ug/L	12:21:49
3	Ni 231.604†	72.0	71.7	[0.00]	ug/L	12:21:49
3	P 214.914†	197.4	196.6	[0.00]	ug/L	12:21:49
3	Pb 220.353†	62.8	62.5	[0.00]	ug/L	12:21:49
3	S 181.975 Axial†	31.1	31.0	[0.00]	ug/L	12:21:49
3	Sb 206.836†	35.9	35.8	[0.00]	ug/L	12:21:49
3	Se 196.026†	-21.9	-21.8	[0.00]	ug/L	12:21:49
3	Si 251.611†	583.6	581.2	[0.00]	ug/L	12:21:49
3	Sn 189.927†	6.0	6.0	[0.00]	ug/L	12:21:49
3	Ti 334.940†	-1410.0	-1404.3	[0.00]	ug/L	12:21:29
3	Tl 190.801†	-35.4	-35.3	[0.00]	ug/L	12:21:49
3	U 409.014†	-2873.9	-2862.2	[0.00]	ug/L	12:21:29
3	V 292.402†	-1519.9	-1513.7	[0.00]	ug/L	12:21:29
3	Zn 213.857†	736.5	733.5	[0.00]	ug/L	12:21:49
3	SiO2†	594.5	592.1	[0.00]	ug/L	12:22:05

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	880073.0	3759.05	0.43%	100.00	%
Sc Radial	3857.0	8.33	0.22%	100	%
Y 371.029	760635.3	5200.16	0.68%	100.00	%
Y RADIAL	4451.7	107.66	2.42%	100.0	%
Ag 328.068†	234.2	26.52	11.32%	[0.00]	ug/L

Al 396.153Radial†	-115.1	15.65	13.60%	[0.00]	ug/L
As 188.979†	-19.9	0.64	3.22%	[0.00]	ug/L
B 249.677†	-278.0	43.52	15.65%	[0.00]	ug/L
Ba 233.527†	11.0	10.92	98.84%	[0.00]	ug/L
Be 313.107†	-3558.2	25.85	0.73%	[0.00]	ug/L
Ca 317.933Radial†	18.7	2.61	13.97%	[0.00]	ug/L
Cd 226.502†	-176.2	4.44	2.52%	[0.00]	ug/L
Co 228.616†	-64.8	2.74	4.22%	[0.00]	ug/L
Cr 267.716†	85.1	9.76	11.47%	[0.00]	ug/L
Cu 324.752†	5955.1	31.63	0.53%	[0.00]	ug/L
Fe 238.204 Radial†	11.7	1.50	12.87%	[0.00]	ug/L
K 766.490 Radial†	2765.1	49.02	1.77%	[0.00]	ug/L
Mg 279.077 IEC†	1.2	1.72	146.81%	[0.00]	ug/L
Mn 257.610†	477.7	16.86	3.53%	[0.00]	ug/L
Mo 202.031†	4.7	5.74	122.92%	[0.00]	ug/L
Na 589.592 Radial†	-901.7	14.66	1.63%	[0.00]	ug/L
Ni 231.604†	82.8	11.86	14.32%	[0.00]	ug/L
P 214.914†	205.8	8.74	4.25%	[0.00]	ug/L
Pb 220.353†	61.2	1.20	1.96%	[0.00]	ug/L
S 181.975 Axial†	35.8	4.76	13.27%	[0.00]	ug/L
Sb 206.836†	39.0	4.22	10.82%	[0.00]	ug/L
Se 196.026†	-24.7	2.56	10.34%	[0.00]	ug/L
Si 251.611†	564.7	18.66	3.30%	[0.00]	ug/L
Sn 189.927†	9.4	3.01	31.95%	[0.00]	ug/L
Sr 421.552†	8.7	15.83	180.99%	[0.00]	ug/L
Ti 334.940†	-1409.9	5.58	0.40%	[0.00]	ug/L
Tl 190.801†	-27.4	7.75	28.25%	[0.00]	ug/L
U 409.014†	-2901.9	133.92	4.61%	[0.00]	ug/L
V 292.402†	-1468.7	49.29	3.36%	[0.00]	ug/L
Zn 213.857†	739.4	5.26	0.71%	[0.00]	ug/L
SiO2†	588.2	6.60	1.12%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/25/2010 12:24:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3996.7	3996.7	104	%	12:26:27
1	Y RADIAL	4411.5	4411.5	99.10	%	12:26:27
1	K 766.490 Radial†	7718.5	4683.6	[1000]	ug/L	12:26:07
1	Sr 421.552†	14526.4	14009.7	[100]	ug/L	12:26:27
1	Sc 361.383	921764.2	921764.2	104.74	%	12:27:24
1	Y 371.029	774346.2	774346.2	101.80	%	12:27:24
1	Ag 328.068†	21403.4	20201.1	[100]	ug/L	12:27:29
1	As 188.979†	192.8	204.0	[100]	ug/L	12:27:49
1	B 249.677†	3460.2	3581.7	[100]	ug/L	12:27:29
1	Ba 233.527†	12498.7	11922.3	[100]	ug/L	12:27:29
1	Be 313.107†	262851.0	254520.5	[100]	ug/L	12:27:24
1	Cd 226.502†	8249.2	8052.3	[100]	ug/L	12:27:29
1	Co 228.616†	4589.3	4446.5	[100]	ug/L	12:27:49
1	Cr 267.716†	8841.0	8356.0	[100]	ug/L	12:27:29
1	Cu 324.752†	37712.1	30051.3	[100]	ug/L	12:27:29
1	Mn 257.610†	87168.5	82748.3	[100]	ug/L	12:27:29
1	Mo 202.031†	1343.2	1277.8	[100]	ug/L	12:27:49
1	Ni 231.604†	3912.9	3653.1	[100]	ug/L	12:27:49
1	P 214.914†	1011.4	759.8	[500]	ug/L	12:27:49
1	Pb 220.353†	866.3	765.9	[100]	ug/L	12:27:49
1	S 181.975 Axial†	170.1	126.6	[200]	ug/L	12:27:49
1	Sb 206.836†	315.0	261.7	[100]	ug/L	12:27:49
1	Se 196.026†	129.1	148.0	[100]	ug/L	12:27:49
1	Si 251.611†	15482.3	14217.3	[500]	ug/L	12:27:29
1	Sn 189.927†	550.6	516.3	[100]	ug/L	12:27:49
1	Ti 334.940†	60602.8	59271.7	[100]	ug/L	12:27:29
1	Tl 190.801†	278.0	292.9	[100]	ug/L	12:27:49
1	U 409.014†	717.2	3586.6	[100]	ug/L	12:27:24
1	V 292.402†	12383.5	13292.1	[100]	ug/L	12:27:29
1	Zn 213.857†	10624.8	9404.8	[100]	ug/L	12:27:29
1	SiO2†	15603.5	14309.5	[1069.5]	ug/L	12:28:55
2	Sc Radial	3937.0	3937.0	102	%	12:26:52
2	Y RADIAL	4360.1	4360.1	97.94	%	12:26:52
2	K 766.490 Radial†	7980.5	5053.2	[1000]	ug/L	12:26:32
2	Sr 421.552†	14327.3	14027.3	[100]	ug/L	12:26:52
2	Sc 361.383	922629.0	922629.0	104.84	%	12:27:54
2	Y 371.029	774609.2	774609.2	101.84	%	12:27:54
2	Ag 328.068†	21598.8	20368.4	[100]	ug/L	12:27:59
2	As 188.979†	195.4	206.3	[100]	ug/L	12:28:19
2	B 249.677†	3489.7	3606.7	[100]	ug/L	12:27:59
2	Ba 233.527†	12569.5	11978.7	[100]	ug/L	12:27:59
2	Be 313.107†	263659.5	255056.5	[100]	ug/L	12:27:54
2	Cd 226.502†	8398.3	8187.1	[100]	ug/L	12:27:59
2	Co 228.616†	4551.9	4406.8	[100]	ug/L	12:28:19
2	Cr 267.716†	8909.1	8413.0	[100]	ug/L	12:27:59
2	Cu 324.752†	37970.2	30263.8	[100]	ug/L	12:27:59
2	Mn 257.610†	88128.9	83586.3	[100]	ug/L	12:27:59
2	Mo 202.031†	1342.3	1275.7	[100]	ug/L	12:28:19
2	Ni 231.604†	3884.7	3622.7	[100]	ug/L	12:28:19
2	P 214.914†	1013.0	760.4	[500]	ug/L	12:28:19
2	Pb 220.353†	860.1	759.2	[100]	ug/L	12:28:19
2	S 181.975 Axial†	170.7	126.9	[200]	ug/L	12:28:19
2	Sb 206.836†	305.5	252.4	[100]	ug/L	12:28:19
2	Se 196.026†	124.3	143.3	[100]	ug/L	12:28:19
2	Si 251.611†	15581.0	14297.6	[500]	ug/L	12:27:59
2	Sn 189.927†	545.1	510.5	[100]	ug/L	12:28:19
2	Ti 334.940†	61248.0	59832.9	[100]	ug/L	12:27:59
2	Tl 190.801†	265.1	280.3	[100]	ug/L	12:28:19
2	U 409.014†	891.9	3752.6	[100]	ug/L	12:27:54

2	V 292.402†	12572.2	13461.0	[100]	ug/L	12:27:59
2	Zn 213.857†	10711.0	9477.5	[100]	ug/L	12:27:59
2	SiO2†	15621.0	14312.3	[1069.5]	ug/L	12:29:00
3	Sc Radial	3955.0	3955.0	103	%	12:27:17
3	Y RADIAL	4388.0	4388.0	98.57	%	12:27:17
3	K 766.490 Radial†	7936.9	4975.1	[1000]	ug/L	12:26:57
3	Sr 421.552†	14365.6	14000.8	[100]	ug/L	12:27:17
3	Sc 361.383	913005.5	913005.5	103.74	%	12:28:25
3	Y 371.029	765538.5	765538.5	100.64	%	12:28:25
3	Ag 328.068†	21712.9	20695.5	[100]	ug/L	12:28:30
3	As 188.979†	203.0	215.6	[100]	ug/L	12:28:50
3	B 249.677†	3510.3	3661.7	[100]	ug/L	12:28:30
3	Ba 233.527†	12749.1	12278.2	[100]	ug/L	12:28:30
3	Be 313.107†	260377.4	254543.7	[100]	ug/L	12:28:25
3	Cd 226.502†	8441.8	8313.5	[100]	ug/L	12:28:30
3	Co 228.616†	4569.3	4469.4	[100]	ug/L	12:28:50
3	Cr 267.716†	8935.8	8528.3	[100]	ug/L	12:28:30
3	Cu 324.752†	38476.6	31133.6	[100]	ug/L	12:28:30
3	Mn 257.610†	88881.0	85197.4	[100]	ug/L	12:28:30
3	Mo 202.031†	1356.8	1303.2	[100]	ug/L	12:28:50
3	Ni 231.604†	3881.5	3658.7	[100]	ug/L	12:28:50
3	P 214.914†	1001.0	759.0	[500]	ug/L	12:28:50
3	Pb 220.353†	870.2	777.6	[100]	ug/L	12:28:50
3	S 181.975 Axial†	178.2	136.0	[200]	ug/L	12:28:50
3	Sb 206.836†	316.6	266.2	[100]	ug/L	12:28:50
3	Se 196.026†	121.7	142.1	[100]	ug/L	12:28:50
3	Si 251.611†	15690.2	14559.6	[500]	ug/L	12:28:30
3	Sn 189.927†	547.8	518.6	[100]	ug/L	12:28:50
3	Ti 334.940†	61734.4	60917.5	[100]	ug/L	12:28:30
3	Tl 190.801†	274.4	292.0	[100]	ug/L	12:28:50
3	U 409.014†	805.7	3678.5	[100]	ug/L	12:28:25
3	V 292.402†	12683.6	13694.8	[100]	ug/L	12:28:30
3	Zn 213.857†	10835.1	9704.9	[100]	ug/L	12:28:30
3	SiO2†	15685.3	14531.3	[1069.5]	ug/L	12:29:05

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	919132.9	5324.05	0.58%	104.44	%
Sc Radial	3962.9	30.64	0.77%	103	%
Y 371.029	771498.0	5162.73	0.67%	101.43	%
Y RADIAL	4386.5	25.72	0.59%	98.54	%
Ag 328.068†	20421.7	251.46	1.23%	[100]	ug/L
As 188.979†	208.6	6.16	2.95%	[100]	ug/L
B 249.677†	3616.7	40.92	1.13%	[100]	ug/L
Ba 233.527†	12059.7	191.28	1.59%	[100]	ug/L
Be 313.107†	254706.9	302.97	0.12%	[100]	ug/L
Cd 226.502†	8184.3	130.64	1.60%	[100]	ug/L
Co 228.616†	4440.9	31.68	0.71%	[100]	ug/L
Cr 267.716†	8432.5	87.79	1.04%	[100]	ug/L
Cu 324.752†	30482.9	573.44	1.88%	[100]	ug/L
K 766.490 Radial†	4904.0	194.83	3.97%	[1000]	ug/L
Mn 257.610†	83844.0	1244.72	1.48%	[100]	ug/L
Mo 202.031†	1285.6	15.26	1.19%	[100]	ug/L
Ni 231.604†	3644.8	19.34	0.53%	[100]	ug/L
P 214.914†	759.8	0.70	0.09%	[500]	ug/L
Pb 220.353†	767.6	9.33	1.21%	[100]	ug/L
S 181.975 Axial†	129.8	5.33	4.10%	[200]	ug/L
Sb 206.836†	260.1	7.06	2.71%	[100]	ug/L
Se 196.026†	144.5	3.12	2.16%	[100]	ug/L
Si 251.611†	14358.2	178.97	1.25%	[500]	ug/L
Sn 189.927†	515.1	4.15	0.81%	[100]	ug/L
Sr 421.552†	14012.6	13.45	0.10%	[100]	ug/L
Ti 334.940†	60007.4	836.69	1.39%	[100]	ug/L
Tl 190.801†	288.4	6.99	2.42%	[100]	ug/L
U 409.014†	3672.6	83.13	2.26%	[100]	ug/L
V 292.402†	13482.6	202.25	1.50%	[100]	ug/L
Zn 213.857†	9529.0	156.55	1.64%	[100]	ug/L
SiO2†	14384.4	127.28	0.88%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/25/2010 12:31:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3815.9	3815.9	98.9	%	12:33:28
1	Y RADIAL	4273.1	4273.1	95.99	%	12:33:08
1	Al 396.153Radial†	5270.3	5442.1	[5000]	ug/L	12:33:08
1	Ca 317.933Radial†	2362.7	2369.5	[5000]	ug/L	12:33:28
1	K 766.490 Radial†	28474.2	26015.9	[5000]	ug/L	12:33:08
1	Mg 279.077 IEC†	96.2	96.0	[5000]	ug/L	12:33:28
1	Sr 421.552†	70971.0	71726.8	[500]	ug/L	12:33:08
1	Sc 361.383	909073.5	909073.5	103.30	%	12:34:26
1	Y 371.029	755222.6	755222.6	99.288	%	12:34:26
1	Ag 328.068†	108576.0	104878.1	[500]	ug/L	12:34:31
1	As 188.979†	1099.8	1084.6	[500]	ug/L	12:34:51
1	B 249.677†	20107.1	19743.7	[500]	ug/L	12:34:31
1	Ba 233.527†	63954.8	61903.5	[500]	ug/L	12:34:31
1	Be 313.107†	1320359.0	1281796.3	[500]	ug/L	12:34:26
1	Cd 226.502†	43069.5	41871.7	[500]	ug/L	12:34:31
1	Co 228.616†	23930.0	23231.4	[500]	ug/L	12:34:31
1	Cr 267.716†	44886.0	43369.0	[500]	ug/L	12:34:31
1	Cu 324.752†	171029.0	159617.9	[500]	ug/L	12:34:31
1	Mn 257.610†	435290.4	420926.4	[500]	ug/L	12:34:26
1	Mo 202.031†	6740.4	6520.7	[500]	ug/L	12:34:51
1	Ni 231.604†	19830.5	19115.1	[500]	ug/L	12:34:31
1	P 214.914†	4309.5	3966.3	[2500]	ug/L	12:34:51
1	Pb 220.353†	4033.9	3844.1	[500]	ug/L	12:34:51
1	S 181.975 Axial†	745.4	685.8	[1000]	ug/L	12:34:51
1	Sb 206.836†	1446.9	1361.7	[500]	ug/L	12:34:51
1	Se 196.026†	733.5	734.9	[500]	ug/L	12:34:51
1	Si 251.611†	78117.1	75060.3	[2500]	ug/L	12:34:31
1	Sn 189.927†	2755.5	2658.1	[500]	ug/L	12:34:51
1	Ti 334.940†	317468.0	308750.3	[500]	ug/L	12:34:31
1	Tl 190.801†	1526.1	1504.8	[500]	ug/L	12:34:51
1	U 409.014†	15013.4	17436.4	[500]	ug/L	12:34:31
1	V 292.402†	70392.7	69615.8	[500]	ug/L	12:34:31
1	Zn 213.857†	50458.4	48109.3	[500]	ug/L	12:34:31
1	SiO2†	76580.7	73549.4	[5347.5]	ug/L	12:35:58
2	Sc Radial	3837.8	3837.8	99.5	%	12:33:53
2	Y RADIAL	4236.0	4236.0	95.15	%	12:33:33
2	Al 396.153Radial†	5207.1	5348.2	[5000]	ug/L	12:33:33
2	Ca 317.933Radial†	2351.6	2344.7	[5000]	ug/L	12:33:53
2	K 766.490 Radial†	27888.0	25262.3	[5000]	ug/L	12:33:33
2	Mg 279.077 IEC†	100.2	99.5	[5000]	ug/L	12:33:53
2	Sr 421.552†	69303.4	69641.1	[500]	ug/L	12:33:33
2	Sc 361.383	900648.1	900648.1	102.34	%	12:34:57
2	Y 371.029	747540.3	747540.3	98.278	%	12:34:57
2	Ag 328.068†	107323.5	104637.6	[500]	ug/L	12:35:02
2	As 188.979†	1099.6	1094.4	[500]	ug/L	12:35:22
2	B 249.677†	19798.2	19624.0	[500]	ug/L	12:35:02
2	Ba 233.527†	63354.3	61896.0	[500]	ug/L	12:35:02
2	Be 313.107†	1341770.2	1314675.9	[500]	ug/L	12:34:57
2	Cd 226.502†	42812.2	42010.3	[500]	ug/L	12:35:02
2	Co 228.616†	23624.5	23149.6	[500]	ug/L	12:35:02
2	Cr 267.716†	44408.7	43309.1	[500]	ug/L	12:35:02
2	Cu 324.752†	168474.8	158670.9	[500]	ug/L	12:35:02
2	Mn 257.610†	442284.4	431702.8	[500]	ug/L	12:34:57
2	Mo 202.031†	6757.9	6598.9	[500]	ug/L	12:35:22
2	Ni 231.604†	19702.1	19169.2	[500]	ug/L	12:35:02
2	P 214.914†	4328.7	4024.0	[2500]	ug/L	12:35:22
2	Pb 220.353†	4064.7	3910.7	[500]	ug/L	12:35:22
2	S 181.975 Axial†	733.3	680.7	[1000]	ug/L	12:35:22
2	Sb 206.836†	1426.3	1354.7	[500]	ug/L	12:35:22

2	Se 196.026†	722.6	730.8	[500]	ug/L	12:35:22
2	Si 251.611†	77199.6	74871.3	[2500]	ug/L	12:35:02
2	Sn 189.927†	2764.5	2691.9	[500]	ug/L	12:35:22
2	Ti 334.940†	313638.3	307883.1	[500]	ug/L	12:35:02
2	Tl 190.801†	1533.1	1525.5	[500]	ug/L	12:35:22
2	U 409.014†	14833.2	17396.2	[500]	ug/L	12:35:02
2	V 292.402†	69582.3	69461.4	[500]	ug/L	12:35:02
2	Zn 213.857†	50065.1	48181.9	[500]	ug/L	12:35:02
2	SiO2†	77056.7	74708.1	[5347.5]	ug/L	12:36:03
3	Sc Radial	3880.2	3880.2	101	%	12:34:18
3	Y RADIAL	4406.4	4406.4	98.98	%	12:33:58
3	Al 396.153Radial†	5270.8	5354.2	[5000]	ug/L	12:33:58
3	Ca 317.933Radial†	2374.3	2341.3	[5000]	ug/L	12:34:18
3	K 766.490 Radial†	28524.3	25588.1	[5000]	ug/L	12:33:58
3	Mg 279.077 IEC†	102.5	100.8	[5000]	ug/L	12:34:18
3	Sr 421.552†	70910.1	70475.9	[500]	ug/L	12:33:58
3	Sc 361.383	902117.6	902117.6	102.50	%	12:35:28
3	Y 371.029	748965.4	748965.4	98.466	%	12:35:28
3	Ag 328.068†	107987.3	105114.3	[500]	ug/L	12:35:33
3	As 188.979†	1101.7	1094.7	[500]	ug/L	12:35:53
3	B 249.677†	19923.8	19714.9	[500]	ug/L	12:35:33
3	Ba 233.527†	63787.9	62218.1	[500]	ug/L	12:35:33
3	Be 313.107†	1323920.3	1295126.6	[500]	ug/L	12:35:28
3	Cd 226.502†	42964.4	42090.7	[500]	ug/L	12:35:33
3	Co 228.616†	23840.8	23323.0	[500]	ug/L	12:35:33
3	Cr 267.716†	44608.0	43432.8	[500]	ug/L	12:35:33
3	Cu 324.752†	169488.4	159391.6	[500]	ug/L	12:35:33
3	Mn 257.610†	436662.0	425513.9	[500]	ug/L	12:35:28
3	Mo 202.031†	6746.8	6577.2	[500]	ug/L	12:35:53
3	Ni 231.604†	19817.3	19250.3	[500]	ug/L	12:35:33
3	P 214.914†	4289.0	3978.4	[2500]	ug/L	12:35:53
3	Pb 220.353†	4030.4	3870.7	[500]	ug/L	12:35:53
3	S 181.975 Axial†	740.7	686.8	[1000]	ug/L	12:35:53
3	Sb 206.836†	1438.6	1364.4	[500]	ug/L	12:35:53
3	Se 196.026†	733.5	740.3	[500]	ug/L	12:35:53
3	Si 251.611†	77722.8	75258.8	[2500]	ug/L	12:35:33
3	Sn 189.927†	2749.7	2673.1	[500]	ug/L	12:35:53
3	Ti 334.940†	315604.6	309302.2	[500]	ug/L	12:35:33
3	Tl 190.801†	1510.3	1500.9	[500]	ug/L	12:35:53
3	U 409.014†	14830.6	17370.1	[500]	ug/L	12:35:33
3	V 292.402†	69999.6	69757.8	[500]	ug/L	12:35:33
3	Zn 213.857†	50312.8	48343.9	[500]	ug/L	12:35:33
3	SiO2†	77192.6	74718.0	[5347.5]	ug/L	12:36:09

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	903946.4	4500.55	0.50%	102.71	%
Sc Radial	3844.6	32.74	0.85%	99.7	%
Y 371.029	750576.1	4086.60	0.54%	98.678	%
Y RADIAL	4305.2	89.63	2.08%	96.71	%
Ag 328.068†	104876.7	238.39	0.23%	[500]	ug/L
Al 396.153Radial†	5381.5	52.57	0.98%	[5000]	ug/L
As 188.979†	1091.2	5.74	0.53%	[500]	ug/L
B 249.677†	19694.2	62.49	0.32%	[500]	ug/L
Ba 233.527†	62005.9	183.86	0.30%	[500]	ug/L
Be 313.107†	1297199.6	16537.56	1.27%	[500]	ug/L
Ca 317.933Radial†	2351.8	15.36	0.65%	[5000]	ug/L
Cd 226.502†	41990.9	110.76	0.26%	[500]	ug/L
Co 228.616†	23234.7	86.75	0.37%	[500]	ug/L
Cr 267.716†	43370.3	61.86	0.14%	[500]	ug/L
Cu 324.752†	159226.8	494.55	0.31%	[500]	ug/L
K 766.490 Radial†	25622.1	377.93	1.48%	[5000]	ug/L
Mg 279.077 IEC†	98.8	2.45	2.48%	[5000]	ug/L
Mn 257.610†	426047.7	5407.96	1.27%	[500]	ug/L
Mo 202.031†	6565.6	40.35	0.61%	[500]	ug/L
Ni 231.604†	19178.2	68.06	0.35%	[500]	ug/L
P 214.914†	3989.6	30.47	0.76%	[2500]	ug/L
Pb 220.353†	3875.2	33.54	0.87%	[500]	ug/L
S 181.975 Axial†	684.4	3.25	0.47%	[1000]	ug/L

Sb 206.836†	1360.3	5.04	0.37%	[500]	ug/L
Se 196.026†	735.3	4.78	0.65%	[500]	ug/L
Si 251.611†	75063.5	193.81	0.26%	[2500]	ug/L
Sn 189.927†	2674.4	16.90	0.63%	[500]	ug/L
Sr 421.552†	70614.6	1049.72	1.49%	[500]	ug/L
Ti 334.940†	308645.2	715.33	0.23%	[500]	ug/L
Tl 190.801†	1510.4	13.22	0.88%	[500]	ug/L
U 409.014†	17400.9	33.40	0.19%	[500]	ug/L
V 292.402†	69611.7	148.23	0.21%	[500]	ug/L
Zn 213.857†	48211.7	120.14	0.25%	[500]	ug/L
SiO2†	74325.2	671.84	0.90%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/25/2010 12:38:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3808.4	3808.4	98.7	%	12:40:32
1	Y RADIAL	4299.5	4299.5	96.58	%	12:40:12
1	Al 396.153Radial†	10748.7	11000.8	[10000]	ug/L	12:40:12
1	Ca 317.933Radial†	4773.6	4815.8	[10000]	ug/L	12:40:12
1	Fe 238.204 Radial†	642.1	638.7	[10000]	ug/L	12:40:32
1	K 766.490 Radial†	54727.0	52659.5	[10000]	ug/L	12:40:12
1	Mg 279.077 IEC†	197.2	198.5	[10000]	ug/L	12:40:32
1	Na 589.592 Radial†	31596.4	32900.8	[10000]	ug/L	12:40:12
1	Sr 421.552†	143041.0	144855.5	[1000]	ug/L	12:40:12
1	Sc 361.383	865537.0	865537.0	98.348	%	12:41:35
1	Y 371.029	733545.9	733545.9	96.439	%	12:41:35
1	Ag 328.068†	213787.7	217143.9	[1000]	ug/L	12:41:35
1	As 188.979†	2209.9	2266.9	[1000]	ug/L	12:41:55
1	B 249.677†	40255.2	41209.3	[1000]	ug/L	12:41:35
1	Ba 233.527†	126205.4	128313.9	[1000]	ug/L	12:41:35
1	Be 313.107†	2632289.2	2680054.4	[1000]	ug/L	12:41:30
1	Cd 226.502†	85209.0	86816.3	[1000]	ug/L	12:41:35
1	Co 228.616†	47185.3	48042.6	[1000]	ug/L	12:41:35
1	Cr 267.716†	88600.0	90002.8	[1000]	ug/L	12:41:35
1	Cu 324.752†	332064.5	331686.1	[1000]	ug/L	12:41:35
1	Mn 257.610†	863783.8	877812.7	[1000]	ug/L	12:41:30
1	Mo 202.031†	13404.2	13624.7	[1000]	ug/L	12:41:55
1	Ni 231.604†	38923.9	39494.8	[1000]	ug/L	12:41:35
1	P 214.914†	8447.6	8383.7	[5000]	ug/L	12:41:55
1	Pb 220.353†	8063.5	8137.8	[1000]	ug/L	12:41:55
1	S 181.975 Axial†	1434.4	1422.7	[2000]	ug/L	12:41:55
1	Sb 206.836†	2844.1	2852.8	[1000]	ug/L	12:41:55
1	Se 196.026†	1478.1	1527.6	[1000]	ug/L	12:41:55
1	Si 251.611†	153849.1	155868.2	[5000]	ug/L	12:41:35
1	Sn 189.927†	5468.5	5551.0	[1000]	ug/L	12:41:55
1	Ti 334.940†	628706.2	640674.6	[1000]	ug/L	12:41:35
1	Tl 190.801†	3043.6	3122.2	[1000]	ug/L	12:41:55
1	U 409.014†	32570.8	36019.7	[1000]	ug/L	12:41:35
1	V 292.402†	140700.8	144532.5	[1000]	ug/L	12:41:35
1	Zn 213.857†	98914.5	99836.2	[1000]	ug/L	12:41:35
1	SiO2†	153891.4	155887.7	[10695]	ug/L	12:43:04
2	Sc Radial	3791.3	3791.3	98.3	%	12:40:57
2	Y RADIAL	4275.5	4275.5	96.04	%	12:40:37
2	Al 396.153Radial†	10639.9	10939.2	[10000]	ug/L	12:40:37
2	Ca 317.933Radial†	4752.5	4816.2	[10000]	ug/L	12:40:37
2	Fe 238.204 Radial†	639.9	639.3	[10000]	ug/L	12:40:57
2	K 766.490 Radial†	54149.5	52322.3	[10000]	ug/L	12:40:37
2	Mg 279.077 IEC†	198.9	201.2	[10000]	ug/L	12:40:57
2	Na 589.592 Radial†	31096.3	32536.6	[10000]	ug/L	12:40:37
2	Sr 421.552†	141512.6	143954.7	[1000]	ug/L	12:40:37
2	Sc 361.383	858880.8	858880.8	97.592	%	12:42:07
2	Y 371.029	724636.9	724636.9	95.267	%	12:42:07
2	Ag 328.068†	211388.0	216369.7	[1000]	ug/L	12:42:07
2	As 188.979†	2193.0	2267.0	[1000]	ug/L	12:42:27
2	B 249.677†	39871.5	41133.3	[1000]	ug/L	12:42:07
2	Ba 233.527†	124842.6	127912.0	[1000]	ug/L	12:42:07
2	Be 313.107†	2643274.2	2712053.0	[1000]	ug/L	12:42:01
2	Cd 226.502†	84171.8	86424.9	[1000]	ug/L	12:42:07
2	Co 228.616†	46623.3	47838.6	[1000]	ug/L	12:42:07
2	Cr 267.716†	87574.9	89650.6	[1000]	ug/L	12:42:07
2	Cu 324.752†	328101.6	330242.1	[1000]	ug/L	12:42:07
2	Mn 257.610†	869143.4	890111.1	[1000]	ug/L	12:42:01
2	Mo 202.031†	13414.2	13740.6	[1000]	ug/L	12:42:27
2	Ni 231.604†	38507.3	39374.6	[1000]	ug/L	12:42:07

2	P 214.914†	8424.5	8426.5	[5000]	ug/L	12:42:27
2	Pb 220.353†	8076.4	8214.5	[1000]	ug/L	12:42:27
2	S 181.975 Axial†	1442.7	1442.4	[2000]	ug/L	12:42:27
2	Sb 206.836†	2843.0	2874.1	[1000]	ug/L	12:42:27
2	Se 196.026†	1478.9	1540.1	[1000]	ug/L	12:42:27
2	Si 251.611†	151986.3	155171.7	[5000]	ug/L	12:42:07
2	Sn 189.927†	5497.4	5623.6	[1000]	ug/L	12:42:27
2	Ti 334.940†	621431.0	638174.2	[1000]	ug/L	12:42:07
2	Tl 190.801†	3030.9	3133.2	[1000]	ug/L	12:42:27
2	U 409.014†	32352.1	36052.2	[1000]	ug/L	12:42:07
2	V 292.402†	139014.6	143913.4	[1000]	ug/L	12:42:07
2	Zn 213.857†	98021.1	99700.2	[1000]	ug/L	12:42:07
2	SiO2†	152854.1	156037.5	[10695]	ug/L	12:43:09
3	Sc Radial	3798.6	3798.6	98.5	%	12:41:22
3	Y RADIAL	4291.5	4291.5	96.40	%	12:41:02
3	Al 396.153Radial†	10724.6	11004.3	[10000]	ug/L	12:41:02
3	Ca 317.933Radial†	4765.6	4820.1	[10000]	ug/L	12:41:02
3	Fe 238.204 Radial†	639.3	637.4	[10000]	ug/L	12:41:22
3	K 766.490 Radial†	54339.7	52409.1	[10000]	ug/L	12:41:02
3	Mg 279.077 IEC†	199.0	200.9	[10000]	ug/L	12:41:22
3	Na 589.592 Radial†	31138.9	32518.7	[10000]	ug/L	12:41:02
3	Sr 421.552†	142255.3	144431.0	[1000]	ug/L	12:41:02
3	Sc 361.383	863416.3	863416.3	98.107	%	12:42:38
3	Y 371.029	730824.4	730824.4	96.081	%	12:42:38
3	Ag 328.068†	212621.8	216489.4	[1000]	ug/L	12:42:38
3	As 188.979†	2204.5	2267.0	[1000]	ug/L	12:42:58
3	B 249.677†	40203.0	41256.6	[1000]	ug/L	12:42:38
3	Ba 233.527†	125631.2	128043.8	[1000]	ug/L	12:42:38
3	Be 313.107†	2647845.5	2702484.8	[1000]	ug/L	12:42:33
3	Cd 226.502†	84783.5	86595.3	[1000]	ug/L	12:42:38
3	Co 228.616†	46929.5	47899.7	[1000]	ug/L	12:42:38
3	Cr 267.716†	88024.9	89637.9	[1000]	ug/L	12:42:38
3	Cu 324.752†	330297.0	330713.9	[1000]	ug/L	12:42:38
3	Mn 257.610†	869497.7	885794.0	[1000]	ug/L	12:42:33
3	Mo 202.031†	13465.8	13720.9	[1000]	ug/L	12:42:58
3	Ni 231.604†	38723.4	39387.6	[1000]	ug/L	12:42:38
3	P 214.914†	8447.1	8404.3	[5000]	ug/L	12:42:58
3	Pb 220.353†	8065.7	8160.1	[1000]	ug/L	12:42:58
3	S 181.975 Axial†	1439.2	1431.1	[2000]	ug/L	12:42:58
3	Sb 206.836†	2851.6	2867.6	[1000]	ug/L	12:42:58
3	Se 196.026†	1484.4	1537.8	[1000]	ug/L	12:42:58
3	Si 251.611†	153082.1	155470.6	[5000]	ug/L	12:42:38
3	Sn 189.927†	5523.7	5620.9	[1000]	ug/L	12:42:58
3	Ti 334.940†	625737.3	639218.6	[1000]	ug/L	12:42:38
3	Tl 190.801†	3058.4	3144.8	[1000]	ug/L	12:42:58
3	U 409.014†	32562.2	36092.3	[1000]	ug/L	12:42:38
3	V 292.402†	140010.9	144180.6	[1000]	ug/L	12:42:38
3	Zn 213.857†	98551.7	99713.5	[1000]	ug/L	12:42:38
3	SiO2†	152217.1	154565.4	[10695]	ug/L	12:43:14

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	862611.4	3400.33	0.39%	98.016	%
Sc Radial	3799.5	8.59	0.23%	98.5	%
Y 371.029	729669.1	4565.49	0.63%	95.929	%
Y RADIAL	4288.8	12.19	0.28%	96.34	%
Ag 328.068†	216667.7	416.77	0.19%	[1000]	ug/L
Al 396.153Radial†	10981.4	36.61	0.33%	[10000]	ug/L
As 188.979†	2267.0	0.05	0.00%	[1000]	ug/L
B 249.677†	41199.7	62.17	0.15%	[1000]	ug/L
Ba 233.527†	128089.9	204.86	0.16%	[1000]	ug/L
Be 313.107†	2698197.4	16424.47	0.61%	[1000]	ug/L
Ca 317.933Radial†	4817.4	2.40	0.05%	[10000]	ug/L
Cd 226.502†	86612.2	196.23	0.23%	[1000]	ug/L
Co 228.616†	47926.9	104.71	0.22%	[1000]	ug/L
Cr 267.716†	89763.8	207.11	0.23%	[1000]	ug/L
Cu 324.752†	330880.7	736.33	0.22%	[1000]	ug/L
Fe 238.204 Radial†	638.5	0.97	0.15%	[10000]	ug/L
K 766.490 Radial†	52463.6	175.10	0.33%	[10000]	ug/L

Mg 279.077 IEC†	200.2	1.44	0.72%	[10000]	ug/L
Mn 257.610†	884572.6	6239.51	0.71%	[1000]	ug/L
Mo 202.031†	13695.4	62.01	0.45%	[1000]	ug/L
Na 589.592 Radial†	32652.0	215.63	0.66%	[10000]	ug/L
Ni 231.604†	39419.0	65.99	0.17%	[1000]	ug/L
P 214.914†	8404.8	21.43	0.26%	[5000]	ug/L
Pb 220.353†	8170.8	39.46	0.48%	[1000]	ug/L
S 181.975 Axial†	1432.1	9.92	0.69%	[2000]	ug/L
Sb 206.836†	2864.8	10.91	0.38%	[1000]	ug/L
Se 196.026†	1535.2	6.61	0.43%	[1000]	ug/L
Si 251.611†	155503.5	349.42	0.22%	[5000]	ug/L
Sn 189.927†	5598.5	41.17	0.74%	[1000]	ug/L
Sr 421.552†	144413.7	450.65	0.31%	[1000]	ug/L
Ti 334.940†	639355.8	1255.85	0.20%	[1000]	ug/L
Tl 190.801†	3133.4	11.34	0.36%	[1000]	ug/L
U 409.014†	36054.7	36.36	0.10%	[1000]	ug/L
V 292.402†	144208.8	310.51	0.22%	[1000]	ug/L
Zn 213.857†	99750.0	74.99	0.08%	[1000]	ug/L
SiO2†	155496.9	810.12	0.52%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/25/2010 12:45:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3844.6	3844.6	99.7	%	12:47:39
1	Y RADIAL	4222.1	4222.1	94.84	%	12:47:39
1	Al 396.153Radial†	53274.2	53560.6	[50000]	ug/L	12:47:19
1	Ca 317.933Radial†	23013.9	23069.3	[50000]	ug/L	12:47:19
1	Fe 238.204 Radial†	1244.5	1236.8	[20000]	ug/L	12:47:39
1	Mg 279.077 IEC†	943.8	945.6	[50000]	ug/L	12:47:39
1	Na 589.592 Radial†	63855.3	64962.3	[20000]	ug/L	12:47:19
1	Sc 361.383	893028.0	893028.0	101.47	%	12:48:36
1	Y 371.029	734538.4	734538.4	96.569	%	12:48:36
2	Sc Radial	3811.3	3811.3	98.8	%	12:48:04
2	Y RADIAL	4182.4	4182.4	93.95	%	12:48:04
2	Al 396.153Radial†	52033.4	52771.9	[50000]	ug/L	12:47:44
2	Ca 317.933Radial†	22452.6	22702.9	[50000]	ug/L	12:47:44
2	Fe 238.204 Radial†	1220.0	1222.9	[20000]	ug/L	12:48:04
2	Mg 279.077 IEC†	937.2	947.3	[50000]	ug/L	12:48:04
2	Na 589.592 Radial†	61735.0	63376.4	[20000]	ug/L	12:47:44
2	Sc 361.383	882359.1	882359.1	100.26	%	12:48:42
2	Y 371.029	726086.3	726086.3	95.458	%	12:48:42
3	Sc Radial	3845.7	3845.7	99.7	%	12:48:29
3	Y RADIAL	4207.0	4207.0	94.50	%	12:48:29
3	Al 396.153Radial†	52784.0	53054.1	[50000]	ug/L	12:48:09
3	Ca 317.933Radial†	22806.9	22855.2	[50000]	ug/L	12:48:09
3	Fe 238.204 Radial†	1231.6	1223.6	[20000]	ug/L	12:48:29
3	Mg 279.077 IEC†	940.4	942.0	[50000]	ug/L	12:48:29
3	Na 589.592 Radial†	62627.9	63713.6	[20000]	ug/L	12:48:09
3	Sc 361.383	889473.5	889473.5	101.07	%	12:48:48
3	Y 371.029	731482.8	731482.8	96.167	%	12:48:48

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	888286.8	5432.52	0.61%	100.93	%
Sc Radial	3833.9	19.54	0.51%	99.4	%
Y 371.029	730702.5	4279.75	0.59%	96.065	%
Y RADIAL	4203.8	20.07	0.48%	94.43	%
Al 396.153Radial†	53128.9	399.58	0.75%	[50000]	ug/L
Ca 317.933Radial†	22875.8	184.05	0.80%	[50000]	ug/L
Fe 238.204 Radial†	1227.8	7.85	0.64%	[20000]	ug/L
Mg 279.077 IEC†	945.0	2.72	0.29%	[50000]	ug/L
Na 589.592 Radial†	64017.4	835.48	1.31%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	215.2	0.00000	0.999908	
Al 396.153Radial	3	Lin Thru 0	0.0	1.064	0.00000	0.999979	
As 188.979	3	Lin Thru 0	0.0	2.249	0.00000	0.999867	
B 249.677	3	Lin Thru 0	0.0	40.80	0.00000	0.999792	
Ba 233.527	3	Lin Thru 0	0.0	127.2	0.00000	0.999908	
Be 313.107	3	Lin Thru 0	0.0	2676	0.00000	0.999871	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4586	0.00000	0.999946	
Cd 226.502	3	Lin Thru 0	0.0	86.05	0.00000	0.999916	
Co 228.616	3	Lin Thru 0	0.0	47.61	0.00000	0.999908	
Cr 267.716	3	Lin Thru 0	0.0	89.12	0.00000	0.999897	
Cu 324.752	3	Lin Thru 0	0.0	328.2	0.00000	0.999866	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0619	0.00000	0.999874	
K 766.490 Radial	3	Lin Thru 0	0.0	5.219	0.00000	0.999942	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0189	0.00000	0.999927
Mn 257.610	3	Lin Thru 0	0.0	877.8	0.00000	0.999883
Mo 202.031	3	Lin Thru 0	0.0	13.58	0.00000	0.999852
Na 589.592 Radia	2	Lin Thru 0	0.0	3.214	0.00000	0.999968
Ni 231.604	3	Lin Thru 0	0.0	39.18	0.00000	0.999922
P 214.914	3	Lin Thru 0	0.0	1.663	0.00000	0.999762
Pb 220.353	3	Lin Thru 0	0.0	8.083	0.00000	0.999775
S 181.975 Axial	3	Lin Thru 0	0.0	0.7092	0.00000	0.999814
Sb 206.836	3	Lin Thru 0	0.0	2.834	0.00000	0.999767
Se 196.026	3	Lin Thru 0	0.0	1.522	0.00000	0.999847
Si 251.611	3	Lin Thru 0	0.0	30.87	0.00000	0.999884
Sn 189.927	3	Lin Thru 0	0.0	5.545	0.00000	0.999819
Sr 421.552	3	Lin Thru 0	0.0	143.7	0.00000	0.999959
Ti 334.940	3	Lin Thru 0	0.0	634.7	0.00000	0.999892
Tl 190.801	3	Lin Thru 0	0.0	3.109	0.00000	0.999875
U 409.014	3	Lin Thru 0	0.0	35.81	0.00000	0.999900
V 292.402	3	Lin Thru 0	0.0	143.1	0.00000	0.999890
Zn 213.857	3	Lin Thru 0	0.0	99.05	0.00000	0.999905
SiO2	3	Lin Thru 0	0.0	14.40	0.00000	0.999826

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/25/2010 12:50:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3787.2	3787.2	98.2	%			12:53:12
1	Y RADIAL	4280.9	4280.9	96.16	%			12:52:52
1	Al 396.153Radial†	5715.9	5936.3	5553.3	ug/L	5553.3	ppb	12:52:52
1	Ca 317.933Radial†	2447.2	2473.7	5394.4	ug/L	5394.4	ppb	12:53:12
1	Fe 238.204 Radial†	327.0	321.3	5208.4	ug/L	5208.4	ppb	12:53:12
1	K 766.490 Radial†	16243.6	13777.8	2636.1	ug/L	2636.1	ppb	12:52:52
1	Mg 279.077 IEC†	101.3	102.0	5381.0	ug/L	5381.0	ppb	12:53:12
1	Na 589.592 Radial†	6673.1	7697.7	2395.3	ug/L	2395.3	ppb	12:52:52
1	Sr 421.552†	75430.1	76811.2	534.31	ug/L	534.31	ppb	12:52:52
1	Sc 361.383	913785.7	913785.7	103.83	%			12:54:10
1	Y 371.029	759719.5	759719.5	99.880	%			12:54:10
1	Ag 328.068†	55833.2	53539.1	251.92	ug/L	251.92	ppb	12:54:10
1	As 188.979†	1112.4	1091.2	489.46	ug/L	489.46	ppb	12:54:30
1	B 249.677†	21795.9	21269.7	518.98	ug/L	518.98	ppb	12:54:10
1	Ba 233.527†	69195.7	66631.8	524.99	ug/L	524.99	ppb	12:54:10
1	Be 313.107†	702109.3	679764.3	255.10	ug/L	255.10	ppb	12:54:10
1	Cd 226.502†	44823.0	43345.5	503.58	ug/L	503.58	ppb	12:54:30
1	Co 228.616†	25647.3	24766.0	520.34	ug/L	520.34	ppb	12:54:30
1	Cr 267.716†	46283.5	44490.8	500.22	ug/L	500.22	ppb	12:54:10
1	Cu 324.752†	183346.3	170626.9	519.89	ug/L	519.89	ppb	12:54:10
1	Mn 257.610†	459402.6	441975.9	503.82	ug/L	503.82	ppb	12:54:10
1	Mo 202.031†	7431.0	7152.2	527.26	ug/L	527.26	ppb	12:54:30
1	Ni 231.604†	20024.2	19202.6	489.74	ug/L	489.74	ppb	12:54:30
1	P 214.914†	4716.9	4337.1	2507.2	ug/L	2507.2	ppb	12:54:30
1	Pb 220.353†	4416.1	4192.0	520.28	ug/L	520.28	ppb	12:54:30
1	S 181.975 Axial†	1836.8	1733.2	2442.7	ug/L	2442.7	ppb	12:54:30
1	Sb 206.836†	1475.4	1382.0	506.56	ug/L	506.56	ppb	12:54:30
1	Se 196.026†	4149.3	4021.0	2660.3	ug/L	2660.3	ppb	12:54:30
1	Si 251.611†	156519.8	150180.5	4858.7	ug/L	4858.7	ppb	12:54:10
1	Sn 189.927†	3044.2	2922.4	527.66	ug/L	527.66	ppb	12:54:30
1	Ti 334.940†	322705.7	312209.9	491.82	ug/L	491.82	ppb	12:54:10
1	Tl 190.801†	1658.3	1624.6	525.81	ug/L	525.81	ppb	12:54:30
1	U 409.014†	14690.8	17050.7	474.41	ug/L	474.41	ppb	12:54:10
1	V 292.402†	71767.5	70588.4	500.12	ug/L	500.12	ppb	12:54:10
1	Zn 213.857†	51846.5	49194.2	492.04	ug/L	492.04	ppb	12:54:10
1	SiO2†	156150.9	149801.7	10386	ug/L	10386	ppb	12:55:27
2	Sc Radial	3776.4	3776.4	97.9	%			12:53:37
2	Y RADIAL	4279.7	4279.7	96.14	%			12:53:17
2	Al 396.153Radial†	5650.6	5886.2	5506.4	ug/L	5506.4	ppb	12:53:17
2	Ca 317.933Radial†	2452.7	2486.4	5422.1	ug/L	5422.1	ppb	12:53:37
2	Fe 238.204 Radial†	324.4	319.7	5181.4	ug/L	5181.4	ppb	12:53:37
2	K 766.490 Radial†	16093.5	13671.7	2615.8	ug/L	2615.8	ppb	12:53:17
2	Mg 279.077 IEC†	99.9	100.8	5320.4	ug/L	5320.4	ppb	12:53:37
2	Na 589.592 Radial†	6606.3	7648.8	2380.0	ug/L	2380.0	ppb	12:53:17
2	Sr 421.552†	74450.1	76029.1	528.87	ug/L	528.87	ppb	12:53:17
2	Sc 361.383	915363.3	915363.3	104.01	%			12:54:36
2	Y 371.029	761399.8	761399.8	100.10	%			12:54:36
2	Ag 328.068†	56102.2	53705.1	252.68	ug/L	252.68	ppb	12:54:36
2	As 188.979†	1129.9	1106.3	496.17	ug/L	496.17	ppb	12:54:56
2	B 249.677†	21989.5	21419.7	522.67	ug/L	522.67	ppb	12:54:36
2	Ba 233.527†	69182.7	66504.4	523.99	ug/L	523.99	ppb	12:54:36
2	Be 313.107†	704685.7	681075.9	255.59	ug/L	255.59	ppb	12:54:36
2	Cd 226.502†	44811.3	43259.9	502.59	ug/L	502.59	ppb	12:54:56
2	Co 228.616†	25631.0	24707.7	519.11	ug/L	519.11	ppb	12:54:56
2	Cr 267.716†	46424.9	44550.0	500.88	ug/L	500.88	ppb	12:54:36
2	Cu 324.752†	184186.0	171129.9	521.42	ug/L	521.42	ppb	12:54:36
2	Mn 257.610†	460311.5	442087.2	503.95	ug/L	503.95	ppb	12:54:36
2	Mo 202.031†	7414.9	7124.4	525.21	ug/L	525.21	ppb	12:54:56
2	Ni 231.604†	20010.1	19155.9	488.55	ug/L	488.55	ppb	12:54:56

2	P 214.914†	4688.2	4301.6	2485.6	ug/L	2485.6 ppb	12:54:56
2	Pb 220.353†	4408.8	4177.7	518.50	ug/L	518.50 ppb	12:54:56
2	S 181.975 Axial†	1836.8	1730.1	2438.4	ug/L	2438.4 ppb	12:54:56
2	Sb 206.836†	1484.6	1388.4	508.78	ug/L	508.78 ppb	12:54:56
2	Se 196.026†	4153.1	4017.7	2658.1	ug/L	2658.1 ppb	12:54:56
2	Si 251.611†	157101.6	150480.0	4868.4	ug/L	4868.4 ppb	12:54:36
2	Sn 189.927†	3050.8	2923.8	527.92	ug/L	527.92 ppb	12:54:56
2	Ti 334.940†	323603.6	312537.4	492.35	ug/L	492.35 ppb	12:54:36
2	Tl 190.801†	1655.0	1618.6	523.91	ug/L	523.91 ppb	12:54:56
2	U 409.014†	14732.2	17066.0	474.85	ug/L	474.85 ppb	12:54:36
2	V 292.402†	71862.6	70560.7	499.90	ug/L	499.90 ppb	12:54:36
2	Zn 213.857†	51865.3	49126.2	491.36	ug/L	491.36 ppb	12:54:36
2	SiO2†	156137.2	149529.4	10367	ug/L	10367 ppb	12:55:32
3	Sc Radial	3713.3	3713.3	96.3	%		12:54:02
3	Y RADIAL	4164.7	4164.7	93.55	%		12:53:42
3	Al 396.153Radial†	5560.7	5891.0	5510.9	ug/L	5510.9 ppb	12:53:42
3	Ca 317.933Radial†	2401.3	2475.5	5398.5	ug/L	5398.5 ppb	12:54:02
3	Fe 238.204 Radial†	329.3	330.4	5354.4	ug/L	5354.4 ppb	12:54:02
3	K 766.490 Radial†	15891.4	13741.2	2629.1	ug/L	2629.1 ppb	12:53:42
3	Mg 279.077 IEC†	100.0	102.7	5421.2	ug/L	5421.2 ppb	12:54:02
3	Na 589.592 Radial†	6440.8	7591.7	2362.3	ug/L	2362.3 ppb	12:53:42
3	Sr 421.552†	72780.2	75587.5	525.79	ug/L	525.79 ppb	12:53:42
3	Sc 361.383	912594.3	912594.3	103.70	%		12:55:02
3	Y 371.029	760061.1	760061.1	99.925	%		12:55:02
3	Ag 328.068†	55908.1	53681.6	252.63	ug/L	252.63 ppb	12:55:02
3	As 188.979†	1118.2	1098.3	492.63	ug/L	492.63 ppb	12:55:22
3	B 249.677†	21817.8	21318.3	520.16	ug/L	520.16 ppb	12:55:02
3	Ba 233.527†	69017.4	66546.9	524.33	ug/L	524.33 ppb	12:55:02
3	Be 313.107†	702397.1	680924.6	255.53	ug/L	255.53 ppb	12:55:02
3	Cd 226.502†	44434.4	43027.1	499.86	ug/L	499.86 ppb	12:55:22
3	Co 228.616†	25383.2	24543.5	515.65	ug/L	515.65 ppb	12:55:22
3	Cr 267.716†	46254.2	44520.8	500.57	ug/L	500.57 ppb	12:55:02
3	Cu 324.752†	183319.8	170831.9	520.52	ug/L	520.52 ppb	12:55:02
3	Mn 257.610†	458440.7	441626.0	503.43	ug/L	503.43 ppb	12:55:02
3	Mo 202.031†	7370.8	7103.5	523.68	ug/L	523.68 ppb	12:55:22
3	Ni 231.604†	19840.5	19050.6	485.87	ug/L	485.87 ppb	12:55:22
3	P 214.914†	4657.5	4285.8	2476.1	ug/L	2476.1 ppb	12:55:22
3	Pb 220.353†	4372.0	4155.0	515.67	ug/L	515.67 ppb	12:55:22
3	S 181.975 Axial†	1819.2	1718.5	2422.1	ug/L	2422.1 ppb	12:55:22
3	Sb 206.836†	1463.6	1372.4	503.07	ug/L	503.07 ppb	12:55:22
3	Se 196.026†	4108.5	3986.9	2638.3	ug/L	2638.3 ppb	12:55:22
3	Si 251.611†	156318.5	150183.2	4858.8	ug/L	4858.8 ppb	12:55:02
3	Sn 189.927†	3026.3	2909.0	525.23	ug/L	525.23 ppb	12:55:22
3	Ti 334.940†	322101.2	312032.7	491.54	ug/L	491.54 ppb	12:55:02
3	Tl 190.801†	1644.2	1613.0	522.11	ug/L	522.11 ppb	12:55:22
3	U 409.014†	14665.8	17045.0	474.24	ug/L	474.24 ppb	12:55:02
3	V 292.402†	71773.4	70684.4	500.72	ug/L	500.72 ppb	12:55:02
3	Zn 213.857†	51710.8	49128.6	491.38	ug/L	491.38 ppb	12:55:02
3	SiO2†	155733.1	149595.2	10372	ug/L	10372 ppb	12:55:38

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	913914.4	103.85	%	0.158				0.15%
Sc Radial	3759.0	97.5	%	1.04				1.06%
Y 371.029	760393.4	99.968	%	0.1168				0.12%
Y RADIAL	4241.8	95.28	%	1.500				1.57%
Ag 328.068†	53641.9	252.41	ug/L	0.426	252.41	ppb	0.426	0.17%
QC value within limits for Ag 328.068 Recovery = 100.96%								
Al 396.153Radial†	5904.5	5523.5	ug/L	25.90	5523.5	ppb	25.90	0.47%
QC value greater than the upper limit for Al 396.153Radial Recovery = 110.47%								
As 188.979†	1098.6	492.75	ug/L	3.355	492.75	ppb	3.355	0.68%
QC value within limits for As 188.979 Recovery = 98.55%								
B 249.677†	21335.9	520.60	ug/L	1.881	520.60	ppb	1.881	0.36%
QC value within limits for B 249.677 Recovery = 104.12%								
Ba 233.527†	66561.0	524.44	ug/L	0.510	524.44	ppb	0.510	0.10%
QC value within limits for Ba 233.527 Recovery = 104.89%								
Be 313.107†	680588.3	255.41	ug/L	0.268	255.41	ppb	0.268	0.11%
QC value within limits for Be 313.107 Recovery = 102.16%								
Ca 317.933Radial†	2478.5	5405.0	ug/L	14.97	5405.0	ppb	14.97	0.28%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.10%
Cd 226.502†          43210.8      502.01 ug/L        1.925      502.01 ppb        1.925   0.38%
   QC value within limits for Cd 226.502  Recovery = 100.40%
Co 228.616†          24672.4      518.37 ug/L        2.428      518.37 ppb        2.428   0.47%
   QC value within limits for Co 228.616  Recovery = 103.67%
Cr 267.716†          44520.5      500.56 ug/L        0.331      500.56 ppb        0.331   0.07%
   QC value within limits for Cr 267.716  Recovery = 100.11%
Cu 324.752†         170862.9      520.61 ug/L        0.769      520.61 ppb        0.769   0.15%
   QC value within limits for Cu 324.752  Recovery = 104.12%
Fe 238.204 Radial†     323.8      5248.1 ug/L        93.10      5248.1 ppb        93.10   1.77%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.96%
K 766.490 Radial†    13730.2      2627.0 ug/L        10.33      2627.0 ppb        10.33   0.39%
   QC value within limits for K 766.490 Radial  Recovery = 105.08%
Mg 279.077 IEC†        101.8      5374.2 ug/L        50.71      5374.2 ppb        50.71   0.94%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.48%
Mn 257.610†         441896.4      503.73 ug/L        0.267      503.73 ppb        0.267   0.05%
   QC value within limits for Mn 257.610  Recovery = 100.75%
Mo 202.031†          7126.7      525.39 ug/L        1.796      525.39 ppb        1.796   0.34%
   QC value within limits for Mo 202.031  Recovery = 105.08%
Na 589.592 Radial†   7646.1      2379.2 ug/L        16.52      2379.2 ppb        16.52   0.69%
   QC value within limits for Na 589.592 Radial  Recovery = 95.17%
Ni 231.604†         19136.4      488.05 ug/L        1.985      488.05 ppb        1.985   0.41%
   QC value within limits for Ni 231.604  Recovery = 97.61%
P 214.914†           4308.2      2489.6 ug/L        15.96      2489.6 ppb        15.96   0.64%
   QC value within limits for P 214.914  Recovery = 99.59%
Pb 220.353†          4174.9      518.15 ug/L        2.326      518.15 ppb        2.326   0.45%
   QC value within limits for Pb 220.353  Recovery = 103.63%
S 181.975 Axial†     1727.3      2434.4 ug/L        10.90      2434.4 ppb        10.90   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 97.38%
Sb 206.836†          1380.9      506.14 ug/L        2.876      506.14 ppb        2.876   0.57%
   QC value within limits for Sb 206.836  Recovery = 101.23%
Se 196.026†          4008.5      2652.2 ug/L        12.09      2652.2 ppb        12.09   0.46%
   QC value within limits for Se 196.026  Recovery = 106.09%
Si 251.611†         150281.3      4862.0 ug/L         5.58      4862.0 ppb         5.58   0.11%
   QC value within limits for Si 251.611  Recovery = 97.24%
Sn 189.927†          2918.4      526.94 ug/L        1.483      526.94 ppb        1.483   0.28%
   QC value within limits for Sn 189.927  Recovery = 105.39%
Sr 421.552†         76142.6      529.66 ug/L        4.311      529.66 ppb        4.311   0.81%
   QC value within limits for Sr 421.552  Recovery = 105.93%
Ti 334.940†         312260.0      491.90 ug/L        0.409      491.90 ppb        0.409   0.08%
   QC value within limits for Ti 334.940  Recovery = 98.38%
Tl 190.801†          1618.7      523.94 ug/L        1.849      523.94 ppb        1.849   0.35%
   QC value within limits for Tl 190.801  Recovery = 104.79%
U 409.014†          17053.9      474.50 ug/L        0.312      474.50 ppb        0.312   0.07%
   QC value within limits for U 409.014  Recovery = 94.90%
V 292.402†          70611.2      500.25 ug/L        0.424      500.25 ppb        0.424   0.08%
   QC value within limits for V 292.402  Recovery = 100.05%
Zn 213.857†         49149.7      491.59 ug/L        0.386      491.59 ppb        0.386   0.08%
   QC value within limits for Zn 213.857  Recovery = 98.32%
SiO2†               149642.1       10375 ug/L          9.8       10375 ppb          9.8   0.09%
   QC value within limits for SiO2  Recovery = 97.01%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/25/2010 12:57:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3864.4	3864.4	100	%			13:00:01
1	Y RADIAL	4333.3	4333.3	97.34	%			12:59:41
1	Al 396.153Radial†	-114.9	0.4	0.4047	ug/L	0.4047	ppb	12:59:41
1	Ca 317.933Radial†	18.1	-0.7	-1.4345	ug/L	-1.4345	ppb	13:00:01
1	Fe 238.204 Radial†	8.6	-3.1	-50.577	ug/L	-50.577	ppb	13:00:01
1	K 766.490 Radial†	2812.4	42.0	8.0380	ug/L	8.0380	ppb	12:59:41
1	Mg 279.077 IEC†	1.7	0.5	26.336	ug/L	26.336	ppb	13:00:01
1	Na 589.592 Radial†	-864.9	38.4	11.962	ug/L	11.962	ppb	12:59:41
1	Sr 421.552†	12.8	4.0	0.0279	ug/L	0.0279	ppb	12:59:41
1	Sc 361.383	903426.7	903426.7	102.65	%			13:00:58
1	Y 371.029	759979.1	759979.1	99.914	%			13:00:58
1	Ag 328.068†	312.6	70.4	0.3161	ug/L	0.3161	ppb	13:00:58
1	As 188.979†	-22.9	-2.4	-1.0673	ug/L	-1.0673	ppb	13:01:18
1	B 249.677†	-163.6	118.6	2.9153	ug/L	2.9153	ppb	13:01:18
1	Ba 233.527†	2.9	-8.2	-0.0658	ug/L	-0.0658	ppb	13:01:18
1	Be 313.107†	-3630.0	22.1	0.0078	ug/L	0.0078	ppb	13:00:58
1	Cd 226.502†	-180.6	0.3	0.0076	ug/L	0.0076	ppb	13:01:18
1	Co 228.616†	-67.6	-1.0	-0.0193	ug/L	-0.0193	ppb	13:01:18
1	Cr 267.716†	64.6	-22.2	-0.2514	ug/L	-0.2514	ppb	13:01:18
1	Cu 324.752†	6040.2	-71.0	-0.2162	ug/L	-0.2162	ppb	13:00:58
1	Mn 257.610†	496.9	6.4	0.0012	ug/L	0.0012	ppb	13:01:18
1	Mo 202.031†	6.1	1.3	0.0918	ug/L	0.0918	ppb	13:01:18
1	Ni 231.604†	78.3	-6.5	-0.1664	ug/L	-0.1664	ppb	13:01:18
1	P 214.914†	205.3	-5.8	-3.3911	ug/L	-3.3911	ppb	13:01:18
1	Pb 220.353†	26.4	-35.4	-4.3757	ug/L	-4.3757	ppb	13:01:18
1	S 181.975 Axial†	43.4	6.4	9.0514	ug/L	9.0514	ppb	13:01:18
1	Sb 206.836†	30.1	-9.7	-3.4076	ug/L	-3.4076	ppb	13:01:18
1	Se 196.026†	-23.4	1.9	1.1192	ug/L	1.1192	ppb	13:01:18
1	Si 251.611†	581.9	2.2	0.0691	ug/L	0.0691	ppb	13:01:18
1	Sn 189.927†	8.4	-1.2	-0.2146	ug/L	-0.2146	ppb	13:01:18
1	Ti 334.940†	-1585.8	-134.9	-0.2126	ug/L	-0.2126	ppb	13:00:58
1	Tl 190.801†	-33.6	-5.3	-1.7107	ug/L	-1.7107	ppb	13:01:18
1	U 409.014†	-3169.7	-185.9	-5.1858	ug/L	-5.1858	ppb	13:00:58
1	V 292.402†	-1492.6	14.7	0.1022	ug/L	0.1022	ppb	13:00:58
1	Zn 213.857†	991.4	226.3	2.2935	ug/L	2.2935	ppb	13:01:18
1	SiO2†	638.3	33.5	2.3257	ug/L	2.3257	ppb	13:02:14
2	Sc Radial	3835.8	3835.8	99.5	%			13:00:26
2	Y RADIAL	4369.6	4369.6	98.16	%			13:00:06
2	Al 396.153Radial†	-106.5	8.0	7.4720	ug/L	7.4720	ppb	13:00:06
2	Ca 317.933Radial†	12.7	-5.9	-12.883	ug/L	-12.883	ppb	13:00:26
2	Fe 238.204 Radial†	8.0	-3.6	-58.396	ug/L	-58.396	ppb	13:00:26
2	K 766.490 Radial†	2770.3	20.5	3.9467	ug/L	3.9467	ppb	13:00:06
2	Mg 279.077 IEC†	2.4	1.3	66.800	ug/L	66.800	ppb	13:00:26
2	Na 589.592 Radial†	-962.1	-65.7	-20.454	ug/L	-20.454	ppb	13:00:06
2	Sr 421.552†	26.1	17.5	0.1217	ug/L	0.1217	ppb	13:00:06
2	Sc 361.383	895507.8	895507.8	101.75	%			13:01:23
2	Y 371.029	754233.9	754233.9	99.158	%			13:01:23
2	Ag 328.068†	160.1	-76.8	-0.3725	ug/L	-0.3725	ppb	13:01:23
2	As 188.979†	-22.0	-1.7	-0.7867	ug/L	-0.7867	ppb	13:01:43
2	B 249.677†	-148.3	132.3	3.2511	ug/L	3.2511	ppb	13:01:43
2	Ba 233.527†	5.1	-6.0	-0.0496	ug/L	-0.0496	ppb	13:01:43
2	Be 313.107†	-3647.0	-25.9	-0.0099	ug/L	-0.0099	ppb	13:01:23
2	Cd 226.502†	-169.3	9.8	0.1200	ug/L	0.1200	ppb	13:01:43
2	Co 228.616†	-64.5	1.4	0.0324	ug/L	0.0324	ppb	13:01:43
2	Cr 267.716†	81.9	-4.6	-0.0562	ug/L	-0.0562	ppb	13:01:43
2	Cu 324.752†	5918.8	-138.4	-0.4226	ug/L	-0.4226	ppb	13:01:23
2	Mn 257.610†	504.3	18.0	0.0120	ug/L	0.0120	ppb	13:01:43
2	Mo 202.031†	13.2	8.3	0.6044	ug/L	0.6044	ppb	13:01:43
2	Ni 231.604†	101.3	16.8	0.4275	ug/L	0.4275	ppb	13:01:43

2	P 214.914†	208.6	-0.8	-0.3650	ug/L	-0.3650 ppb	13:01:43
2	Pb 220.353†	-3.3	-64.5	-7.9643	ug/L	-7.9643 ppb	13:01:43
2	S 181.975 Axial†	37.1	0.6	0.8137	ug/L	0.8137 ppb	13:01:43
2	Sb 206.836†	42.3	2.5	0.9066	ug/L	0.9066 ppb	13:01:43
2	Se 196.026†	-23.8	1.4	0.7220	ug/L	0.7220 ppb	13:01:43
2	Si 251.611†	599.4	24.4	0.7817	ug/L	0.7817 ppb	13:01:43
2	Sn 189.927†	8.6	-0.9	-0.1666	ug/L	-0.1666 ppb	13:01:43
2	Ti 334.940†	-1488.5	-52.9	-0.0889	ug/L	-0.0889 ppb	13:01:23
2	Tl 190.801†	-33.6	-5.6	-1.8005	ug/L	-1.8005 ppb	13:01:43
2	U 409.014†	-3087.8	-132.7	-3.6995	ug/L	-3.6995 ppb	13:01:23
2	V 292.402†	-1527.3	-32.3	-0.2140	ug/L	-0.2140 ppb	13:01:23
2	Zn 213.857†	997.1	240.5	2.4342	ug/L	2.4342 ppb	13:01:43
2	SiO2†	628.5	29.5	2.0302	ug/L	2.0302 ppb	13:02:19
3	Sc Radial	3871.2	3871.2	100	%		13:00:51
3	Y RADIAL	4314.0	4314.0	96.91	%		13:00:31
3	Al 396.153Radial†	-120.0	-4.5	-4.2645	ug/L	-4.2645 ppb	13:00:31
3	Ca 317.933Radial†	14.5	-4.2	-9.1832	ug/L	-9.1832 ppb	13:00:51
3	Fe 238.204 Radial†	10.5	-1.2	-19.042	ug/L	-19.042 ppb	13:00:51
3	K 766.490 Radial†	2693.2	-81.8	-15.657	ug/L	-15.657 ppb	13:00:31
3	Mg 279.077 IEC†	-0.9	-2.1	-110.80	ug/L	-110.80 ppb	13:00:51
3	Na 589.592 Radial†	-932.9	-27.8	-8.6403	ug/L	-8.6403 ppb	13:00:31
3	Sr 421.552†	72.9	63.9	0.4447	ug/L	0.4447 ppb	13:00:31
3	Sc 361.383	910445.1	910445.1	103.45	%		13:01:49
3	Y 371.029	767542.4	767542.4	100.91	%		13:01:49
3	Ag 328.068†	306.2	61.8	0.2821	ug/L	0.2821 ppb	13:01:49
3	As 188.979†	-28.2	-7.3	-3.2559	ug/L	-3.2559 ppb	13:02:09
3	B 249.677†	-184.1	100.1	2.4564	ug/L	2.4564 ppb	13:02:09
3	Ba 233.527†	11.8	0.3	0.0022	ug/L	0.0022 ppb	13:02:09
3	Be 313.107†	-3689.4	-8.1	-0.0031	ug/L	-0.0031 ppb	13:01:49
3	Cd 226.502†	-179.3	2.9	0.0356	ug/L	0.0356 ppb	13:02:09
3	Co 228.616†	-67.5	-0.4	-0.0069	ug/L	-0.0069 ppb	13:02:09
3	Cr 267.716†	76.4	-11.2	-0.1275	ug/L	-0.1275 ppb	13:02:09
3	Cu 324.752†	6052.4	-104.7	-0.3197	ug/L	-0.3197 ppb	13:01:49
3	Mn 257.610†	483.3	-10.5	-0.0093	ug/L	-0.0093 ppb	13:02:09
3	Mo 202.031†	12.4	7.3	0.5369	ug/L	0.5369 ppb	13:02:09
3	Ni 231.604†	80.0	-5.5	-0.1401	ug/L	-0.1401 ppb	13:02:09
3	P 214.914†	206.0	-6.7	-3.9068	ug/L	-3.9068 ppb	13:02:09
3	Pb 220.353†	-1.3	-62.4	-7.7165	ug/L	-7.7165 ppb	13:02:09
3	S 181.975 Axial†	40.0	2.8	4.0137	ug/L	4.0137 ppb	13:02:09
3	Sb 206.836†	37.6	-2.7	-0.9114	ug/L	-0.9114 ppb	13:02:09
3	Se 196.026†	-35.7	-9.8	-6.4957	ug/L	-6.4957 ppb	13:02:09
3	Si 251.611†	586.0	1.7	0.0491	ug/L	0.0491 ppb	13:02:09
3	Sn 189.927†	21.7	11.6	2.0872	ug/L	2.0872 ppb	13:02:09
3	Ti 334.940†	-1476.1	-17.0	-0.0187	ug/L	-0.0187 ppb	13:01:49
3	Tl 190.801†	-28.1	0.3	0.0940	ug/L	0.0940 ppb	13:02:09
3	U 409.014†	-3013.7	-11.3	-0.3119	ug/L	-0.3119 ppb	13:01:49
3	V 292.402†	-1506.5	12.5	0.0950	ug/L	0.0950 ppb	13:01:49
3	Zn 213.857†	990.0	217.5	2.1998	ug/L	2.1998 ppb	13:02:09
3	SiO2†	605.8	-2.7	-0.2002	ug/L	-0.2002 ppb	13:02:24

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903126.6	102.62	%	0.849				0.83%
Sc Radial	3857.1	100	%	0.5				0.49%
Y 371.029	760585.1	99.993	%	0.8775				0.88%
Y RADIAL	4338.9	97.47	%	0.634				0.65%
Ag 328.068†	18.5	0.0752	ug/L	0.38811	0.0752	ppb	0.38811	515.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.3	1.2041	ug/L	5.90893	1.2041	ppb	5.90893	490.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.8	-1.7033	ug/L	1.35190	-1.7033	ppb	1.35190	79.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	117.0	2.8743	ug/L	0.39894	2.8743	ppb	0.39894	13.88%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.6	-0.0378	ug/L	0.03553	-0.0378	ppb	0.03553	94.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-4.0	-0.0017	ug/L	0.00890	-0.0017	ppb	0.00890	516.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.6	-7.8334	ug/L	5.84221	-7.8334	ppb	5.84221	74.58%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.4      0.0544 ug/L       0.05853      0.0544 ppb        0.05853 107.55%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.0      0.0021 ug/L       0.02698      0.0021 ppb        0.02698 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -12.7     -0.1450 ug/L       0.09874     -0.1450 ppb        0.09874  68.09%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -104.7     -0.3195 ug/L       0.10318     -0.3195 ppb        0.10318  32.29%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.6     -42.672 ug/L       20.8341     -42.672 ppb        20.8341  48.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -6.4     -1.2241 ug/L      12.66554     -1.2241 ppb       12.66554 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.1     -5.8890 ug/L      93.08322     -5.8890 ppb       93.08322 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 4.6      0.0013 ug/L       0.01066      0.0013 ppb        0.01066 825.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.6      0.4110 ug/L       0.27851      0.4110 ppb        0.27851  67.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -18.4     -5.7109 ug/L      16.40515     -5.7109 ppb       16.40515 287.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.6      0.0403 ug/L       0.33556      0.0403 ppb        0.33556 831.71%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.4     -2.5543 ug/L       1.91347     -2.5543 ppb        1.91347  74.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -54.1     -6.6855 ug/L       2.00419     -6.6855 ppb        2.00419  29.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.3      4.6263 ug/L       4.15289      4.6263 ppb        4.15289  89.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.3     -1.1374 ug/L       2.16596     -1.1374 ppb        2.16596 190.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.5515 ug/L       4.28639     -1.5515 ppb        4.28639 276.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 9.4      0.3000 ug/L       0.41734      0.3000 ppb        0.41734 139.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.1      0.5687 ug/L       1.31527      0.5687 ppb        1.31527 231.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                28.5      0.1981 ug/L       0.21867      0.1981 ppb        0.21867 110.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -68.3     -0.1068 ug/L       0.09816     -0.1068 ppb        0.09816  91.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.5     -1.1391 ug/L       1.06882     -1.1391 ppb        1.06882  93.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -110.0     -3.0657 ug/L       2.49799     -3.0657 ppb        2.49799  81.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -1.7     -0.0056 ug/L       0.18052     -0.0056 ppb        0.18052 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               228.1      2.3092 ug/L       0.11796      2.3092 ppb        0.11796   5.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      20.1      1.3852 ug/L       1.38096      1.3852 ppb        1.38096  99.69%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/25/2010 13:04:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3821.9	3821.9	99.1	%			13:06:48
1	Y RADIAL	4386.9	4386.9	98.54	%			13:06:28
1	Al 396.153Radial†	120.3	236.5	221.72	ug/L	221.72	ppb	13:06:28
1	Ca 317.933Radial†	116.5	98.9	215.62	ug/L	215.62	ppb	13:06:48
1	Fe 238.204 Radial†	17.8	6.3	102.00	ug/L	102.00	ppb	13:06:48
1	K 766.490 Radial†	3621.3	889.5	170.22	ug/L	170.22	ppb	13:06:28
1	Mg 279.077 IEC†	8.8	7.7	406.41	ug/L	406.41	ppb	13:06:48
1	Na 589.592 Radial†	-6.4	895.3	278.57	ug/L	278.57	ppb	13:06:28
1	Sr 421.552†	718.5	716.3	4.9814	ug/L	4.9814	ppb	13:06:28
1	Sc 361.383	902846.8	902846.8	102.59	%			13:07:45
1	Y 371.029	758909.8	758909.8	99.773	%			13:07:45
1	Ag 328.068†	1352.6	1084.3	5.0463	ug/L	5.0463	ppb	13:07:45
1	As 188.979†	50.4	69.0	30.748	ug/L	30.748	ppb	13:08:05
1	B 249.677†	1702.1	1937.2	47.450	ug/L	47.450	ppb	13:07:45
1	Ba 233.527†	679.9	651.7	5.1348	ug/L	5.1348	ppb	13:08:05
1	Be 313.107†	10117.4	13420.4	5.0258	ug/L	5.0258	ppb	13:07:45
1	Cd 226.502†	271.8	441.1	5.1279	ug/L	5.1279	ppb	13:08:05
1	Co 228.616†	178.5	238.8	5.0287	ug/L	5.0287	ppb	13:08:05
1	Cr 267.716†	526.0	427.6	4.7956	ug/L	4.7956	ppb	13:08:05
1	Cu 324.752†	9386.2	3194.3	9.7122	ug/L	9.7122	ppb	13:07:45
1	Mn 257.610†	10009.0	9278.8	10.564	ug/L	10.564	ppb	13:07:45
1	Mo 202.031†	147.5	139.1	10.259	ug/L	10.259	ppb	13:08:05
1	Ni 231.604†	292.7	202.5	5.1652	ug/L	5.1652	ppb	13:08:05
1	P 214.914†	452.2	235.0	139.44	ug/L	139.44	ppb	13:08:05
1	Pb 220.353†	100.0	36.3	4.5433	ug/L	4.5433	ppb	13:08:05
1	S 181.975 Axial†	109.1	70.5	99.410	ug/L	99.410	ppb	13:08:05
1	Sb 206.836†	62.2	21.6	7.9731	ug/L	7.9731	ppb	13:08:05
1	Se 196.026†	22.6	46.7	31.053	ug/L	31.053	ppb	13:08:05
1	Si 251.611†	3803.8	3143.1	101.70	ug/L	101.70	ppb	13:07:45
1	Sn 189.927†	63.8	52.7	9.5440	ug/L	9.5440	ppb	13:08:05
1	Ti 334.940†	1836.2	3199.7	5.0152	ug/L	5.0152	ppb	13:07:45
1	Tl 190.801†	31.4	58.0	18.722	ug/L	18.722	ppb	13:08:05
1	U 409.014†	-1266.7	1667.1	46.531	ug/L	46.531	ppb	13:07:45
1	V 292.402†	-886.8	604.3	4.4412	ug/L	4.4412	ppb	13:07:45
1	Zn 213.857†	2091.9	1299.7	13.060	ug/L	13.060	ppb	13:08:05
1	SiO2†	3861.4	3175.8	220.21	ug/L	220.21	ppb	13:09:02
2	Sc Radial	3915.0	3915.0	102	%			13:07:14
2	Y RADIAL	4311.1	4311.1	96.84	%			13:06:53
2	Al 396.153Radial†	95.7	209.4	196.25	ug/L	196.25	ppb	13:06:53
2	Ca 317.933Radial†	119.3	98.9	215.58	ug/L	215.58	ppb	13:07:14
2	Fe 238.204 Radial†	15.9	4.0	64.447	ug/L	64.447	ppb	13:07:14
2	K 766.490 Radial†	3573.8	755.8	144.61	ug/L	144.61	ppb	13:06:53
2	Mg 279.077 IEC†	9.6	8.3	436.57	ug/L	436.57	ppb	13:07:14
2	Na 589.592 Radial†	-55.8	846.7	263.48	ug/L	263.48	ppb	13:06:53
2	Sr 421.552†	695.5	676.4	4.7042	ug/L	4.7042	ppb	13:06:53
2	Sc 361.383	894126.4	894126.4	101.60	%			13:08:11
2	Y 371.029	751832.7	751832.7	98.843	%			13:08:11
2	Ag 328.068†	1403.6	1147.4	5.3299	ug/L	5.3299	ppb	13:08:11
2	As 188.979†	44.7	63.9	28.441	ug/L	28.441	ppb	13:08:31
2	B 249.677†	1723.2	1974.1	48.359	ug/L	48.359	ppb	13:08:11
2	Ba 233.527†	682.3	660.6	5.2044	ug/L	5.2044	ppb	13:08:31
2	Be 313.107†	9942.7	13344.7	4.9973	ug/L	4.9973	ppb	13:08:11
2	Cd 226.502†	268.0	440.0	5.1188	ug/L	5.1188	ppb	13:08:31
2	Co 228.616†	183.5	245.5	5.1708	ug/L	5.1708	ppb	13:08:31
2	Cr 267.716†	511.7	418.5	4.6906	ug/L	4.6906	ppb	13:08:31
2	Cu 324.752†	9274.2	3173.3	9.6463	ug/L	9.6463	ppb	13:08:11
2	Mn 257.610†	9833.1	9200.9	10.471	ug/L	10.471	ppb	13:08:11
2	Mo 202.031†	154.6	147.5	10.870	ug/L	10.870	ppb	13:08:31
2	Ni 231.604†	274.5	187.4	4.7793	ug/L	4.7793	ppb	13:08:31

2	P 214.914†	446.6	233.8	138.79	ug/L	138.79 ppb	13:08:31
2	Pb 220.353†	104.2	41.4	5.1749	ug/L	5.1749 ppb	13:08:31
2	S 181.975 Axial†	107.2	69.7	98.259	ug/L	98.259 ppb	13:08:31
2	Sb 206.836†	60.2	20.2	7.5393	ug/L	7.5393 ppb	13:08:31
2	Se 196.026†	26.2	50.5	33.411	ug/L	33.411 ppb	13:08:31
2	Si 251.611†	3711.0	3088.0	99.904	ug/L	99.904 ppb	13:08:11
2	Sn 189.927†	74.3	63.7	11.522	ug/L	11.522 ppb	13:08:31
2	Ti 334.940†	1765.9	3148.0	4.9314	ug/L	4.9314 ppb	13:08:11
2	Tl 190.801†	36.5	63.4	20.449	ug/L	20.449 ppb	13:08:31
2	U 409.014†	-1267.4	1654.4	46.181	ug/L	46.181 ppb	13:08:11
2	V 292.402†	-811.2	670.2	4.9160	ug/L	4.9160 ppb	13:08:11
2	Zn 213.857†	1886.8	1117.7	11.230	ug/L	11.230 ppb	13:08:31
2	SiO2†	3823.2	3174.9	220.13	ug/L	220.13 ppb	13:09:07
3	Sc Radial	3814.9	3814.9	98.9	%		13:07:39
3	Y RADIAL	4340.8	4340.8	97.51	%		13:07:19
3	Al 396.153Radial†	97.2	213.3	199.94	ug/L	199.94 ppb	13:07:19
3	Ca 317.933Radial†	112.1	94.7	206.51	ug/L	206.51 ppb	13:07:39
3	Fe 238.204 Radial†	19.1	7.6	123.28	ug/L	123.28 ppb	13:07:39
3	K 766.490 Radial†	3506.5	780.1	149.27	ug/L	149.27 ppb	13:07:19
3	Mg 279.077 IEC†	7.9	6.8	361.03	ug/L	361.03 ppb	13:07:39
3	Na 589.592 Radial†	-23.5	877.9	273.18	ug/L	273.18 ppb	13:07:19
3	Sr 421.552†	738.7	738.1	5.1332	ug/L	5.1332 ppb	13:07:19
3	Sc 361.383	901053.1	901053.1	102.38	%		13:08:36
3	Y 371.029	758912.2	758912.2	99.773	%		13:08:36
3	Ag 328.068†	1427.6	1160.2	5.4126	ug/L	5.4126 ppb	13:08:36
3	As 188.979†	44.5	63.4	28.240	ug/L	28.240 ppb	13:08:56
3	B 249.677†	1714.3	1952.4	47.820	ug/L	47.820 ppb	13:08:36
3	Ba 233.527†	671.0	644.3	5.0799	ug/L	5.0799 ppb	13:08:56
3	Be 313.107†	10136.8	13459.0	5.0402	ug/L	5.0402 ppb	13:08:36
3	Cd 226.502†	268.8	438.8	5.0975	ug/L	5.0975 ppb	13:08:56
3	Co 228.616†	158.2	219.4	4.6205	ug/L	4.6205 ppb	13:08:56
3	Cr 267.716†	516.2	419.1	4.7042	ug/L	4.7042 ppb	13:08:56
3	Cu 324.752†	9396.3	3222.4	9.8010	ug/L	9.8010 ppb	13:08:36
3	Mn 257.610†	9914.9	9206.4	10.486	ug/L	10.486 ppb	13:08:36
3	Mo 202.031†	151.9	143.6	10.592	ug/L	10.592 ppb	13:08:56
3	Ni 231.604†	279.3	190.1	4.8474	ug/L	4.8474 ppb	13:08:56
3	P 214.914†	458.2	241.7	143.48	ug/L	143.48 ppb	13:08:56
3	Pb 220.353†	81.1	18.0	2.2765	ug/L	2.2765 ppb	13:08:56
3	S 181.975 Axial†	116.8	78.2	110.23	ug/L	110.23 ppb	13:08:56
3	Sb 206.836†	64.3	23.8	8.7659	ug/L	8.7659 ppb	13:08:56
3	Se 196.026†	17.2	41.6	27.724	ug/L	27.724 ppb	13:08:56
3	Si 251.611†	3778.5	3125.8	101.13	ug/L	101.13 ppb	13:08:36
3	Sn 189.927†	66.3	55.3	10.007	ug/L	10.007 ppb	13:08:56
3	Ti 334.940†	1834.2	3201.4	5.0218	ug/L	5.0218 ppb	13:08:36
3	Tl 190.801†	38.6	65.1	21.016	ug/L	21.016 ppb	13:08:56
3	U 409.014†	-1393.2	1541.1	43.009	ug/L	43.009 ppb	13:08:36
3	V 292.402†	-729.2	756.5	5.4984	ug/L	5.4984 ppb	13:08:36
3	Zn 213.857†	1794.6	1013.4	10.168	ug/L	10.168 ppb	13:08:56
3	SiO2†	3768.8	3092.9	214.44	ug/L	214.44 ppb	13:09:12

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	899342.1	102.19	%	0.523				0.51%
Sc Radial	3850.6	99.8	%	1.45				1.45%
Y 371.029	756551.6	99.463	%	0.5373				0.54%
Y RADIAL	4346.3	97.63	%	0.858				0.88%
Ag 328.068†	1130.6	5.2629	ug/L	0.19210	5.2629	ppb	0.19210	3.65%
QC value within limits for Ag 328.068 Recovery = 105.26%								
Al 396.153Radial†	219.7	205.97	ug/L	13.762	205.97	ppb	13.762	6.68%
QC value within limits for Al 396.153Radial Recovery = 102.99%								
As 188.979†	65.4	29.143	ug/L	1.3936	29.143	ppb	1.3936	4.78%
QC value within limits for As 188.979 Recovery = 97.14%								
B 249.677†	1954.6	47.876	ug/L	0.4573	47.876	ppb	0.4573	0.96%
QC value within limits for B 249.677 Recovery = 95.75%								
Ba 233.527†	652.2	5.1397	ug/L	0.06238	5.1397	ppb	0.06238	1.21%
QC value within limits for Ba 233.527 Recovery = 102.79%								
Be 313.107†	13408.0	5.0211	ug/L	0.02184	5.0211	ppb	0.02184	0.43%
QC value within limits for Be 313.107 Recovery = 100.42%								
Ca 317.933Radial†	97.5	212.57	ug/L	5.247	212.57	ppb	5.247	2.47%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.29%
Cd 226.502†              440.0      5.1147 ug/L       0.01558      5.1147 ppb        0.01558   0.30%
   QC value within limits for Cd 226.502  Recovery = 102.29%
Co 228.616†              234.6      4.9400 ug/L       0.28568      4.9400 ppb        0.28568   5.78%
   QC value within limits for Co 228.616  Recovery = 98.80%
Cr 267.716†              421.7      4.7301 ug/L       0.05710      4.7301 ppb        0.05710   1.21%
   QC value within limits for Cr 267.716  Recovery = 94.60%
Cu 324.752†             3196.7      9.7198 ug/L       0.07762      9.7198 ppb        0.07762   0.80%
   QC value within limits for Cu 324.752  Recovery = 97.20%
Fe 238.204 Radial†        6.0      96.577 ug/L       29.7902      96.577 ppb        29.7902  30.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.58%
K 766.490 Radial†        808.5     154.70 ug/L        13.639      154.70 ppb         13.639   8.82%
   QC value within limits for K 766.490 Radial  Recovery = 103.13%
Mg 279.077 IEC†           7.6      401.34 ug/L       38.026      401.34 ppb         38.026   9.47%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 133.78%
Mn 257.610†             9228.7      10.507 ug/L       0.0503      10.507 ppb         0.0503   0.48%
   QC value within limits for Mn 257.610  Recovery = 105.07%
Mo 202.031†              143.4      10.574 ug/L       0.3062      10.574 ppb         0.3062   2.90%
   QC value within limits for Mo 202.031  Recovery = 105.74%
Na 589.592 Radial†       873.3     271.74 ug/L         7.649      271.74 ppb          7.649   2.81%
   QC value within limits for Na 589.592 Radial  Recovery = 90.58%
Ni 231.604†              193.3      4.9306 ug/L       0.20596      4.9306 ppb        0.20596   4.18%
   QC value within limits for Ni 231.604  Recovery = 98.61%
P 214.914†               236.8     140.57 ug/L         2.539      140.57 ppb          2.539   1.81%
   QC value within limits for P 214.914  Recovery = 93.71%
Pb 220.353†               31.9      3.9982 ug/L       1.52417      3.9982 ppb        1.52417  38.12%
   QC value less than the lower limit for Pb 220.353  Recovery = 39.98%
S 181.975 Axial†          72.8     102.63 ug/L         6.605      102.63 ppb          6.605   6.44%
   QC value within limits for S 181.975 Axial  Recovery = 102.63%
Sb 206.836†               21.9      8.0928 ug/L       0.62200      8.0928 ppb        0.62200   7.69%
   QC value within limits for Sb 206.836  Recovery = 80.93%
Se 196.026†               46.3     30.729 ug/L        2.8573      30.729 ppb         2.8573   9.30%
   QC value within limits for Se 196.026  Recovery = 102.43%
Si 251.611†             3119.0     100.91 ug/L         0.916      100.91 ppb          0.916   0.91%
   QC value within limits for Si 251.611  Recovery = 100.91%
Sn 189.927†               57.3      10.358 ug/L       1.0347      10.358 ppb         1.0347   9.99%
   QC value within limits for Sn 189.927  Recovery = 103.58%
Sr 421.552†              710.3      4.9396 ug/L       0.21754      4.9396 ppb        0.21754   4.40%
   QC value within limits for Sr 421.552  Recovery = 98.79%
Ti 334.940†             3183.0      4.9894 ug/L       0.05037      4.9894 ppb        0.05037   1.01%
   QC value within limits for Ti 334.940  Recovery = 99.79%
Tl 190.801†               62.2     20.063 ug/L        1.1948      20.063 ppb         1.1948   5.96%
   QC value within limits for Tl 190.801  Recovery = 100.31%
U 409.014†              1620.9     45.240 ug/L        1.9398      45.240 ppb         1.9398   4.29%
   QC value within limits for U 409.014  Recovery = 90.48%
V 292.402†               677.0      4.9519 ug/L       0.52953      4.9519 ppb        0.52953  10.69%
   QC value within limits for V 292.402  Recovery = 99.04%
Zn 213.857†             1143.6     11.486 ug/L        1.4627      11.486 ppb         1.4627  12.73%
   QC value within limits for Zn 213.857  Recovery = 114.86%
SiO2†                   3147.9     218.26 ug/L         3.308      218.26 ppb          3.308   1.52%
   QC value within limits for SiO2  Recovery = 102.47%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/25/2010 13:11:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3516.8	3516.8	91.2	%			13:13:36
1	Y RADIAL	3851.0	3851.0	86.51	%			13:13:36
1	Al 396.153Radial†	512124.4	561772.4	527950	ug/L	527950	ppb	13:13:16
1	Ca 317.933Radial†	205043.0	224856.1	490350	ug/L	490350	ppb	13:13:16
1	Fe 238.204 Radial†	10540.7	11548.5	186630	ug/L	186630	ppb	13:13:36
1	K 766.490 Radial†	2375.9	-159.3	-194.54	ug/L	-194.54	ppb	13:13:16
1	Mg 279.077 IEC†	8643.7	9478.5	500000	ug/L	500000	ppb	13:13:36
1	Na 589.592 Radial†	-763.4	64.4	20.041	ug/L	20.041	ppb	13:13:36
1	Sr 421.552†	507.6	548.0	0.1505	ug/L	0.1505	ppb	13:13:36
1	Sc 361.383	776594.5	776594.5	88.242	%			13:14:34
1	Y 371.029	636459.0	636459.0	83.675	%			13:14:34
1	Ag 328.068†	-9986.1	-11550.9	-2.9488	ug/L	-2.9488	ppb	13:14:34
1	As 188.979†	-82.9	-74.0	10.658	ug/L	10.658	ppb	13:14:54
1	B 249.677†	547.8	898.8	-8.2804	ug/L	-8.2804	ppb	13:14:34
1	Ba 233.527†	-566.1	-652.6	0.5857	ug/L	0.5857	ppb	13:14:54
1	Be 313.107†	-4021.8	-999.4	-0.4230	ug/L	-0.4230	ppb	13:14:34
1	Cd 226.502†	1198.7	1534.6	-1.4332	ug/L	-1.4332	ppb	13:14:54
1	Co 228.616†	-18.3	44.2	-1.7674	ug/L	-1.7674	ppb	13:14:54
1	Cr 267.716†	-1328.4	-1590.6	-0.0936	ug/L	-0.0936	ppb	13:14:54
1	Cu 324.752†	3059.0	-2488.5	2.2700	ug/L	2.2700	ppb	13:14:34
1	Mn 257.610†	1007.3	663.8	-1.2626	ug/L	-1.2626	ppb	13:14:34
1	Mo 202.031†	-256.3	-295.2	-1.4175	ug/L	-1.4175	ppb	13:14:54
1	Ni 231.604†	182.2	123.7	3.1551	ug/L	3.1551	ppb	13:14:54
1	P 214.914†	168.3	-15.1	-26.963	ug/L	-26.963	ppb	13:14:54
1	Pb 220.353†	-748.0	-908.8	-15.831	ug/L	-15.831	ppb	13:14:54
1	S 181.975 Axial†	62.7	35.2	-49.369	ug/L	-49.369	ppb	13:14:54
1	Sb 206.836†	80.9	52.7	0.8027	ug/L	0.8027	ppb	13:14:54
1	Se 196.026†	-858.5	-948.2	-46.155	ug/L	-46.155	ppb	13:14:54
1	Si 251.611†	499.4	1.3	0.3081	ug/L	0.3081	ppb	13:14:54
1	Sn 189.927†	-354.7	-411.4	2.2179	ug/L	2.2179	ppb	13:14:54
1	Ti 334.940†	-13483.9	-13870.7	3.0447	ug/L	3.0447	ppb	13:14:34
1	Tl 190.801†	-74.8	-57.3	-18.649	ug/L	-18.649	ppb	13:14:54
1	U 409.014†	-1061.1	1699.3	26.217	ug/L	26.217	ppb	13:14:34
1	V 292.402†	825.6	2404.3	-0.9114	ug/L	-0.9114	ppb	13:14:54
1	Zn 213.857†	2867.4	2510.1	-2.5985	ug/L	-2.5985	ppb	13:14:54
1	SiO2†	544.0	28.3	2.5577	ug/L	2.5577	ppb	13:15:50
2	Sc Radial	3499.3	3499.3	90.7	%			13:14:02
2	Y RADIAL	3852.6	3852.6	86.54	%			13:14:02
2	Al 396.153Radial†	516438.1	569344.8	535070	ug/L	535070	ppb	13:13:42
2	Ca 317.933Radial†	206409.9	227491.0	496100	ug/L	496100	ppb	13:13:42
2	Fe 238.204 Radial†	10509.1	11571.7	187000	ug/L	187000	ppb	13:14:02
2	K 766.490 Radial†	2376.8	-145.3	-193.77	ug/L	-193.77	ppb	13:13:42
2	Mg 279.077 IEC†	8605.7	9484.2	500290	ug/L	500290	ppb	13:14:02
2	Na 589.592 Radial†	-773.8	48.8	15.184	ug/L	15.184	ppb	13:14:02
2	Sr 421.552†	504.3	547.1	0.1015	ug/L	0.1015	ppb	13:14:02
2	Sc 361.383	778719.7	778719.7	88.484	%			13:14:59
2	Y 371.029	637401.9	637401.9	83.799	%			13:14:59
2	Ag 328.068†	-10017.8	-11555.8	-2.9304	ug/L	-2.9304	ppb	13:14:59
2	As 188.979†	-77.7	-67.9	13.490	ug/L	13.490	ppb	13:15:19
2	B 249.677†	514.9	859.9	-9.2953	ug/L	-9.2953	ppb	13:14:59
2	Ba 233.527†	-582.0	-668.8	0.4696	ug/L	0.4696	ppb	13:15:19
2	Be 313.107†	-4011.7	-975.6	-0.4132	ug/L	-0.4132	ppb	13:14:59
2	Cd 226.502†	1206.1	1539.3	-1.4176	ug/L	-1.4176	ppb	13:15:19
2	Co 228.616†	3.2	68.5	-1.2577	ug/L	-1.2577	ppb	13:15:19
2	Cr 267.716†	-1316.7	-1573.2	0.1391	ug/L	0.1391	ppb	13:15:19
2	Cu 324.752†	3036.9	-2522.9	2.1882	ug/L	2.1882	ppb	13:14:59
2	Mn 257.610†	974.1	623.2	-1.2840	ug/L	-1.2840	ppb	13:14:59
2	Mo 202.031†	-228.2	-262.6	1.0788	ug/L	1.0788	ppb	13:15:19
2	Ni 231.604†	197.2	140.1	3.5751	ug/L	3.5751	ppb	13:15:19

2	P 214.914†	167.3	-16.7	-26.390 ug/L	-26.390 ppb	13:15:19
2	Pb 220.353†	-745.3	-903.5	-13.650 ug/L	-13.650 ppb	13:15:19
2	S 181.975 Axial†	67.6	40.6	-43.037 ug/L	-43.037 ppb	13:15:19
2	Sb 206.836†	77.5	48.6	-0.7479 ug/L	-0.7479 ppb	13:15:19
2	Se 196.026†	-865.2	-953.1	-48.312 ug/L	-48.312 ppb	13:15:19
2	Si 251.611†	491.8	-8.9	-0.0490 ug/L	-0.0490 ppb	13:15:19
2	Sn 189.927†	-339.1	-392.7	6.5805 ug/L	6.5805 ppb	13:15:19
2	Ti 334.940†	-13286.3	-13605.7	4.2113 ug/L	4.2113 ppb	13:14:59
2	Tl 190.801†	-81.6	-64.8	-21.064 ug/L	-21.064 ppb	13:15:19
2	U 409.014†	-1253.7	1484.9	20.186 ug/L	20.186 ppb	13:14:59
2	V 292.402†	812.8	2387.3	-1.0569 ug/L	-1.0569 ppb	13:15:19
2	Zn 213.857†	2860.5	2493.4	-2.8254 ug/L	-2.8254 ppb	13:15:19
2	SiO2†	503.9	-18.7	-0.7710 ug/L	-0.7710 ppb	13:15:55
3	Sc Radial	3514.5	3514.5	91.1 %		13:14:27
3	Y RADIAL	3875.9	3875.9	87.07 %		13:14:27
3	Al 396.153Radial†	513660.9	563821.6	529880 ug/L	529880 ppb	13:14:07
3	Ca 317.933Radial†	204750.2	224680.2	489970 ug/L	489970 ppb	13:14:07
3	Fe 238.204 Radial†	10586.5	11606.3	187560 ug/L	187560 ppb	13:14:27
3	K 766.490 Radial†	2531.0	12.5	-161.50 ug/L	-161.50 ppb	13:14:07
3	Mg 279.077 IEC†	8656.8	9499.0	501080 ug/L	501080 ppb	13:14:27
3	Na 589.592 Radial†	-724.1	107.0	33.293 ug/L	33.293 ppb	13:14:27
3	Sr 421.552†	493.8	533.1	0.0503 ug/L	0.0503 ppb	13:14:27
3	Sc 361.383	784074.2	784074.2	89.092 %		13:15:25
3	Y 371.029	643503.1	643503.1	84.601 %		13:15:25
3	Ag 328.068†	-9896.1	-11341.9	-1.6837 ug/L	-1.6837 ppb	13:15:25
3	As 188.979†	-96.5	-88.3	4.5092 ug/L	4.5092 ppb	13:15:45
3	B 249.677†	537.4	881.2	-8.8657 ug/L	-8.8657 ppb	13:15:25
3	Ba 233.527†	-576.0	-657.5	0.5737 ug/L	0.5737 ppb	13:15:45
3	Be 313.107†	-3936.2	-859.8	-0.3706 ug/L	-0.3706 ppb	13:15:25
3	Cd 226.502†	1189.0	1510.7	-1.8081 ug/L	-1.8081 ppb	13:15:45
3	Co 228.616†	2.4	67.5	-1.2857 ug/L	-1.2857 ppb	13:15:45
3	Cr 267.716†	-1354.4	-1605.3	-0.1691 ug/L	-0.1691 ppb	13:15:45
3	Cu 324.752†	2927.7	-2668.9	1.7728 ug/L	1.7728 ppb	13:15:25
3	Mn 257.610†	753.9	368.5	-1.5509 ug/L	-1.5509 ppb	13:15:25
3	Mo 202.031†	-232.5	-265.7	0.8201 ug/L	0.8201 ppb	13:15:45
3	Ni 231.604†	169.0	106.9	2.7270 ug/L	2.7270 ppb	13:15:45
3	P 214.914†	170.5	-14.4	-26.645 ug/L	-26.645 ppb	13:15:45
3	Pb 220.353†	-736.1	-887.5	-12.890 ug/L	-12.890 ppb	13:15:45
3	S 181.975 Axial†	80.5	54.6	-22.371 ug/L	-22.371 ppb	13:15:45
3	Sb 206.836†	50.8	18.0	-11.378 ug/L	-11.378 ppb	13:15:45
3	Se 196.026†	-878.3	-961.1	-51.778 ug/L	-51.778 ppb	13:15:45
3	Si 251.611†	502.4	-0.8	0.2152 ug/L	0.2152 ppb	13:15:45
3	Sn 189.927†	-335.7	-386.2	6.6395 ug/L	6.6395 ppb	13:15:45
3	Ti 334.940†	-13538.4	-13786.1	3.0410 ug/L	3.0410 ppb	13:15:25
3	Tl 190.801†	-61.8	-41.9	-13.683 ug/L	-13.683 ppb	13:15:45
3	U 409.014†	-1255.9	1492.2	20.327 ug/L	20.327 ppb	13:15:25
3	V 292.402†	743.6	2303.3	-1.7123 ug/L	-1.7123 ppb	13:15:45
3	Zn 213.857†	2889.4	2503.7	-2.7992 ug/L	-2.7992 ppb	13:15:45
3	SiO2†	485.2	-43.6	-2.4972 ug/L	-2.4972 ppb	13:16:00

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	779796.2	88.606	%	0.4380				0.49%
Sc Radial	3510.2	91.0	%	0.25				0.27%
Y 371.029	639121.3	84.025	%	0.5027				0.60%
Y RADIAL	3859.8	86.70	%	0.313				0.36%
Ag 328.068†	-11482.9	-2.5209	ug/L	0.72516	-2.5209	ppb	0.72516	28.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	564979.6	530970	ug/L	3680.9	530970	ppb	3680.9	0.69%
QC value within limits for Al 396.153Radial Recovery = 106.19%								
As 188.979†	-76.7	9.5526	ug/L	4.59153	9.5526	ppb	4.59153	48.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	880.0	-8.8138	ug/L	0.50947	-8.8138	ppb	0.50947	5.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-659.6	0.5430	ug/L	0.06381	0.5430	ppb	0.06381	11.75%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-945.0	-0.4023	ug/L	0.02789	-0.4023	ppb	0.02789	6.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	225675.8	492140	ug/L	3433.5	492140	ppb	3433.5	0.70%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.43%
Cd 226.502†            1528.2     -1.5529 ug/L       0.22109     -1.5529 ppb        0.22109  14.24%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              60.0     -1.4369 ug/L       0.28653     -1.4369 ppb        0.28653  19.94%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1589.7     -0.0412 ug/L       0.16064     -0.0412 ppb        0.16064 389.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2560.1      2.0770 ug/L       0.26659      2.0770 ppb        0.26659  12.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    11575.5      187060 ug/L         470.0      187060 ppb          470.0   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.53%
K 766.490 Radial†       -97.4     -183.27 ug/L        18.859     -183.27 ppb         18.859  10.29%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        9487.2      500450 ug/L         557.7      500450 ppb          557.7   0.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.09%
Mn 257.610†             551.8     -1.3658 ug/L       0.16064     -1.3658 ppb        0.16064  11.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -274.5      0.1605 ug/L       1.37265      0.1605 ppb        1.37265 855.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      73.4      22.839 ug/L        9.3736      22.839 ppb         9.3736  41.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             123.6      3.1524 ug/L       0.42404      3.1524 ppb        0.42404  13.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -15.4     -26.666 ug/L        0.2870     -26.666 ppb         0.2870   1.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -899.9     -14.124 ug/L        1.5267     -14.124 ppb         1.5267  10.81%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        43.4     -38.259 ug/L       14.1188     -38.259 ppb        14.1188  36.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             39.8     -3.7744 ug/L       6.63034     -3.7744 ppb        6.63034 175.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -954.1     -48.748 ug/L        2.8368     -48.748 ppb         2.8368   5.82%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -2.8      0.1581 ug/L       0.18527      0.1581 ppb        0.18527 117.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -396.7      5.1459 ug/L       2.53597      5.1459 ppb        2.53597  49.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             542.7      0.1008 ug/L       0.05013      0.1008 ppb        0.05013  49.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13754.1      3.4324 ug/L       0.67461      3.4324 ppb        0.67461  19.65%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -54.7     -17.798 ug/L        3.7633     -17.798 ppb         3.7633  21.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1558.8      22.243 ug/L        3.4419      22.243 ppb         3.4419  15.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2365.0     -1.2268 ug/L       0.42663     -1.2268 ppb        0.42663  34.77%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2502.4     -2.7411 ug/L       0.12411     -2.7411 ppb        0.12411   4.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -11.3     -0.2368 ug/L       2.56942     -0.2368 ppb        2.56942 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/25/2010 13:18:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3513.3	3513.3	91.1	%			13:20:25
1	Y RADIAL	3875.0	3875.0	87.05	%			13:20:25
1	Al 396.153Radial†	512153.2	562373.6	528490	ug/L	528490	ppb	13:20:05
1	Ca 317.933Radial†	205399.9	225476.0	491700	ug/L	491700	ppb	13:20:05
1	Fe 238.204 Radial†	10618.9	11646.1	188220	ug/L	188220	ppb	13:20:25
1	K 766.490 Radial†	29267.8	29366.1	5459.0	ug/L	5459.0	ppb	13:20:05
1	Mg 279.077 IEC†	8604.2	9444.8	498220	ug/L	498220	ppb	13:20:25
1	Na 589.592 Radial†	14934.8	17297.6	5382.4	ug/L	5382.4	ppb	13:20:05
1	Sr 421.552†	65939.7	72382.1	499.86	ug/L	499.86	ppb	13:20:05
1	Sc 361.383	782319.6	782319.6	88.893	%			13:21:23
1	Y 371.029	640245.9	640245.9	84.173	%			13:21:23
1	Ag 328.068†	40921.5	45800.6	265.64	ug/L	265.64	ppb	13:21:23
1	As 188.979†	919.7	1054.6	516.11	ug/L	516.11	ppb	13:21:43
1	B 249.677†	18984.2	21634.3	498.44	ug/L	498.44	ppb	13:21:23
1	Ba 233.527†	54226.9	60991.7	486.26	ug/L	486.26	ppb	13:21:23
1	Be 313.107†	572334.6	647408.0	242.99	ug/L	242.99	ppb	13:21:23
1	Cd 226.502†	35907.0	40569.8	452.39	ug/L	452.39	ppb	13:21:43
1	Co 228.616†	18357.4	20716.0	432.50	ug/L	432.50	ppb	13:21:43
1	Cr 267.716†	36131.0	40560.6	473.53	ug/L	473.53	ppb	13:21:23
1	Cu 324.752†	158733.5	172612.7	535.60	ug/L	535.60	ppb	13:21:23
1	Mn 257.610†	371879.7	417869.7	474.27	ug/L	474.27	ppb	13:21:23
1	Mo 202.031†	5594.1	6288.4	483.63	ug/L	483.63	ppb	13:21:43
1	Ni 231.604†	15368.0	17205.5	438.83	ug/L	438.83	ppb	13:21:43
1	P 214.914†	3884.8	4164.4	2384.1	ug/L	2384.1	ppb	13:21:43
1	Pb 220.353†	2597.2	2860.5	451.33	ug/L	451.33	ppb	13:21:43
1	S 181.975 Axial†	1714.1	1892.4	2569.2	ug/L	2569.2	ppb	13:21:43
1	Sb 206.836†	1392.5	1527.4	538.68	ug/L	538.68	ppb	13:21:43
1	Se 196.026†	2548.1	2891.2	2483.4	ug/L	2483.4	ppb	13:21:43
1	Si 251.611†	141887.6	159052.2	5146.9	ug/L	5146.9	ppb	13:21:23
1	Sn 189.927†	2039.2	2284.6	488.53	ug/L	488.53	ppb	13:21:43
1	Ti 334.940†	272124.4	307537.2	509.42	ug/L	509.42	ppb	13:21:23
1	Tl 190.801†	1200.9	1378.4	446.79	ug/L	446.79	ppb	13:21:43
1	U 409.014†	13691.8	18304.5	488.66	ug/L	488.66	ppb	13:21:23
1	V 292.402†	63473.7	72873.6	498.15	ug/L	498.15	ppb	13:21:23
1	Zn 213.857†	45960.0	50963.4	482.83	ug/L	482.83	ppb	13:21:23
1	SiO2†	142505.8	159724.1	11077	ug/L	11077	ppb	13:22:41
2	Sc Radial	3546.1	3546.1	91.9	%			13:20:50
2	Y RADIAL	3889.8	3889.8	87.38	%			13:20:50
2	Al 396.153Radial†	509339.0	554108.6	520730	ug/L	520730	ppb	13:20:30
2	Ca 317.933Radial†	203931.3	221791.7	483670	ug/L	483670	ppb	13:20:30
2	Fe 238.204 Radial†	10648.6	11570.5	187000	ug/L	187000	ppb	13:20:50
2	K 766.490 Radial†	29106.3	28893.1	5371.1	ug/L	5371.1	ppb	13:20:30
2	Mg 279.077 IEC†	8651.7	9409.0	496330	ug/L	496330	ppb	13:20:50
2	Na 589.592 Radial†	14773.9	16970.9	5280.7	ug/L	5280.7	ppb	13:20:30
2	Sr 421.552†	65581.6	71322.5	492.55	ug/L	492.55	ppb	13:20:30
2	Sc 361.383	784901.8	784901.8	89.186	%			13:21:49
2	Y 371.029	641411.4	641411.4	84.326	%			13:21:49
2	Ag 328.068†	40951.6	45682.9	264.82	ug/L	264.82	ppb	13:21:49
2	As 188.979†	915.0	1045.9	511.97	ug/L	511.97	ppb	13:22:09
2	B 249.677†	19121.4	21717.9	500.69	ug/L	500.69	ppb	13:21:49
2	Ba 233.527†	54324.6	60900.5	485.51	ug/L	485.51	ppb	13:21:49
2	Be 313.107†	574294.3	647487.1	243.02	ug/L	243.02	ppb	13:21:49
2	Cd 226.502†	35980.5	40519.4	451.93	ug/L	451.93	ppb	13:22:09
2	Co 228.616†	18395.5	20690.8	431.98	ug/L	431.98	ppb	13:22:09
2	Cr 267.716†	36164.0	40463.9	472.33	ug/L	472.33	ppb	13:21:49
2	Cu 324.752†	159413.3	172787.4	536.07	ug/L	536.07	ppb	13:21:49
2	Mn 257.610†	372746.1	417464.8	473.77	ug/L	473.77	ppb	13:21:49
2	Mo 202.031†	5603.7	6278.4	482.71	ug/L	482.71	ppb	13:22:09
2	Ni 231.604†	15376.2	17157.8	437.61	ug/L	437.61	ppb	13:22:09

2	P 214.914†	3878.4	4142.8	2370.0	ug/L	2370.0 ppb	13:22:09
2	Pb 220.353†	2591.9	2845.0	447.82	ug/L	447.82 ppb	13:22:09
2	S 181.975 Axial†	1716.5	1888.8	2565.5	ug/L	2565.5 ppb	13:22:09
2	Sb 206.836†	1414.0	1546.5	545.60	ug/L	545.60 ppb	13:22:09
2	Se 196.026†	2547.1	2880.7	2472.8	ug/L	2472.8 ppb	13:22:09
2	Si 251.611†	142214.6	158893.7	5141.8	ug/L	5141.8 ppb	13:21:49
2	Sn 189.927†	2046.2	2284.9	487.23	ug/L	487.23 ppb	13:22:09
2	Ti 334.940†	272971.9	307480.3	508.40	ug/L	508.40 ppb	13:21:49
2	Tl 190.801†	1184.6	1355.7	439.48	ug/L	439.48 ppb	13:22:09
2	U 409.014†	13809.4	18385.7	491.07	ug/L	491.07 ppb	13:21:49
2	V 292.402†	63754.3	72953.4	498.84	ug/L	498.84 ppb	13:21:49
2	Zn 213.857†	46053.9	50898.5	482.36	ug/L	482.36 ppb	13:21:49
2	SiO2†	142304.4	158971.0	11024	ug/L	11024 ppb	13:22:46
3	Sc Radial	3521.8	3521.8	91.3	%		13:21:16
3	Y RADIAL	3862.6	3862.6	86.77	%		13:21:16
3	Al 396.153Radial†	507164.7	555553.4	522080	ug/L	522080 ppb	13:20:56
3	Ca 317.933Radial†	202842.9	222131.5	484410	ug/L	484410 ppb	13:20:56
3	Fe 238.204 Radial†	10603.7	11601.4	187500	ug/L	187500 ppb	13:21:16
3	K 766.490 Radial†	28957.6	28948.8	5381.5	ug/L	5381.5 ppb	13:20:56
3	Mg 279.077 IEC†	8626.6	9446.5	498310	ug/L	498310 ppb	13:21:16
3	Na 589.592 Radial†	14654.6	16951.2	5274.6	ug/L	5274.6 ppb	13:20:56
3	Sr 421.552†	64941.8	71114.5	491.10	ug/L	491.10 ppb	13:20:56
3	Sc 361.383	785255.2	785255.2	89.226	%		13:22:15
3	Y 371.029	643966.9	643966.9	84.662	%		13:22:15
3	Ag 328.068†	41141.5	45875.1	265.86	ug/L	265.86 ppb	13:22:15
3	As 188.979†	920.8	1051.9	514.74	ug/L	514.74 ppb	13:22:35
3	B 249.677†	19147.3	21737.3	501.10	ug/L	501.10 ppb	13:22:15
3	Ba 233.527†	54245.1	60784.0	484.61	ug/L	484.61 ppb	13:22:15
3	Be 313.107†	575688.4	648759.7	243.50	ug/L	243.50 ppb	13:22:15
3	Cd 226.502†	35725.2	40215.1	448.34	ug/L	448.34 ppb	13:22:35
3	Co 228.616†	18229.5	20495.5	427.87	ug/L	427.87 ppb	13:22:35
3	Cr 267.716†	36244.9	40536.3	473.19	ug/L	473.19 ppb	13:22:15
3	Cu 324.752†	159459.1	172758.3	536.01	ug/L	536.01 ppb	13:22:15
3	Mn 257.610†	372233.6	416702.3	472.87	ug/L	472.87 ppb	13:22:15
3	Mo 202.031†	5576.8	6245.5	480.33	ug/L	480.33 ppb	13:22:35
3	Ni 231.604†	15236.2	16993.1	433.41	ug/L	433.41 ppb	13:22:35
3	P 214.914†	3857.4	4117.3	2354.6	ug/L	2354.6 ppb	13:22:35
3	Pb 220.353†	2569.2	2818.2	444.74	ug/L	444.74 ppb	13:22:35
3	S 181.975 Axial†	1700.4	1869.9	2538.6	ug/L	2538.6 ppb	13:22:35
3	Sb 206.836†	1398.1	1527.9	538.89	ug/L	538.89 ppb	13:22:35
3	Se 196.026†	2533.6	2864.2	2463.5	ug/L	2463.5 ppb	13:22:35
3	Si 251.611†	142070.7	158660.7	5134.2	ug/L	5134.2 ppb	13:22:15
3	Sn 189.927†	2028.4	2264.0	483.55	ug/L	483.55 ppb	13:22:35
3	Ti 334.940†	272791.7	307140.6	507.81	ug/L	507.81 ppb	13:22:15
3	Tl 190.801†	1170.4	1339.1	434.15	ug/L	434.15 ppb	13:22:35
3	U 409.014†	13885.1	18463.6	493.19	ug/L	493.19 ppb	13:22:15
3	V 292.402†	63705.0	72866.0	498.16	ug/L	498.16 ppb	13:22:15
3	Zn 213.857†	46002.3	50817.6	481.49	ug/L	481.49 ppb	13:22:15
3	SiO2†	142989.0	159666.4	11073	ug/L	11073 ppb	13:22:51

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	784158.8	89.102	%	0.1821				0.20%
Sc Radial	3527.0	91.4	%	0.44				0.48%
Y 371.029	641874.7	84.387	%	0.2502				0.30%
Y RADIAL	3875.8	87.06	%	0.307				0.35%
Ag 328.068†	45786.2	265.44	ug/L	0.544	265.44	ppb	0.544	0.20%
QC value within limits for Ag 328.068 Recovery = 106.18%								
Al 396.153Radial†	557345.2	523770	ug/L	4148.4	523770	ppb	4148.4	0.79%
QC value within limits for Al 396.153Radial Recovery = 104.75%								
As 188.979†	1050.8	514.27	ug/L	2.109	514.27	ppb	2.109	0.41%
QC value within limits for As 188.979 Recovery = 102.85%								
B 249.677†	21696.5	500.08	ug/L	1.430	500.08	ppb	1.430	0.29%
QC value within limits for B 249.677 Recovery = 100.02%								
Ba 233.527†	60892.1	485.46	ug/L	0.828	485.46	ppb	0.828	0.17%
QC value within limits for Ba 233.527 Recovery = 97.09%								
Be 313.107†	647884.9	243.17	ug/L	0.283	243.17	ppb	0.283	0.12%
QC value within limits for Be 313.107 Recovery = 97.27%								
Ca 317.933Radial†	223133.1	486590	ug/L	4440.3	486590	ppb	4440.3	0.91%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.32%
Cd 226.502†            40434.8      450.89 ug/L         2.217      450.89 ppb          2.217   0.49%
   QC value within limits for Cd 226.502  Recovery = 90.18%
Co 228.616†            20634.1      430.78 ug/L         2.537      430.78 ppb          2.537   0.59%
   QC value within limits for Co 228.616  Recovery = 86.16%
Cr 267.716†            40520.3      473.02 ug/L         0.619      473.02 ppb          0.619   0.13%
   QC value within limits for Cr 267.716  Recovery = 94.60%
Cu 324.752†           172719.5      535.89 ug/L         0.253      535.89 ppb          0.253   0.05%
   QC value within limits for Cu 324.752  Recovery = 107.18%
Fe 238.204 Radial†     11606.0      187570 ug/L         613.8      187570 ppb          613.8   0.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.78%
K 766.490 Radial†      29069.3      5403.8 ug/L         48.02      5403.8 ppb          48.02   0.89%
   QC value within limits for K 766.490 Radial  Recovery = 108.08%
Mg 279.077 IEC†         9433.4      497620 ug/L        1117.1      497620 ppb         1117.1   0.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.52%
Mn 257.610†           417345.6      473.64 ug/L         0.712      473.64 ppb          0.712   0.15%
   QC value within limits for Mn 257.610  Recovery = 94.73%
Mo 202.031†             6270.8      482.22 ug/L         1.705      482.22 ppb          1.705   0.35%
   QC value within limits for Mo 202.031  Recovery = 96.44%
Na 589.592 Radial†     17073.2      5312.6 ug/L         60.55      5312.6 ppb          60.55   1.14%
   QC value within limits for Na 589.592 Radial  Recovery = 106.25%
Ni 231.604†            17118.8      436.61 ug/L         2.842      436.61 ppb          2.842   0.65%
   QC value within limits for Ni 231.604  Recovery = 87.32%
P 214.914†              4141.5      2369.6 ug/L         14.74      2369.6 ppb          14.74   0.62%
   QC value within limits for P 214.914  Recovery = 94.78%
Pb 220.353†             2841.2      447.96 ug/L         3.300      447.96 ppb          3.300   0.74%
   QC value within limits for Pb 220.353  Recovery = 89.59%
S 181.975 Axial†        1883.7      2557.8 ug/L         16.71      2557.8 ppb          16.71   0.65%
   QC value within limits for S 181.975 Axial  Recovery = 102.31%
Sb 206.836†             1533.9      541.06 ug/L         3.935      541.06 ppb          3.935   0.73%
   QC value within limits for Sb 206.836  Recovery = 108.21%
Se 196.026†             2878.7      2473.2 ug/L          9.99      2473.2 ppb           9.99   0.40%
   QC value within limits for Se 196.026  Recovery = 98.93%
Si 251.611†           158868.9      5141.0 ug/L          6.36      5141.0 ppb           6.36   0.12%
   QC value within limits for Si 251.611  Recovery = 102.82%
Sn 189.927†             2277.8      486.44 ug/L         2.581      486.44 ppb          2.581   0.53%
   QC value within limits for Sn 189.927  Recovery = 97.29%
Sr 421.552†            71606.3      494.51 ug/L         4.697      494.51 ppb          4.697   0.95%
   QC value within limits for Sr 421.552  Recovery = 98.90%
Ti 334.940†           307386.0      508.54 ug/L         0.815      508.54 ppb          0.815   0.16%
   QC value within limits for Ti 334.940  Recovery = 101.71%
Tl 190.801†             1357.7      440.14 ug/L         6.344      440.14 ppb          6.344   1.44%
   QC value within limits for Tl 190.801  Recovery = 88.03%
U 409.014†             18384.6      490.97 ug/L         2.264      490.97 ppb          2.264   0.46%
   QC value within limits for U 409.014  Recovery = 98.19%
V 292.402†             72897.6      498.38 ug/L         0.395      498.38 ppb          0.395   0.08%
   QC value within limits for V 292.402  Recovery = 99.68%
Zn 213.857†            50893.2      482.23 ug/L         0.675      482.23 ppb          0.675   0.14%
   QC value within limits for Zn 213.857  Recovery = 96.45%
SiO2†                 159453.8       11058 ug/L          29.1       11058 ppb           29.1   0.26%
   QC value within limits for SiO2  Recovery = 103.39%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/25/2010 13:25:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3553.2	3553.2	92.1	%			13:27:14
1	Y RADIAL	3936.1	3936.1	88.42	%			13:27:14
1	Al 396.153Radial†	492600.4	534834.6	502640	ug/L	502640	ppb	13:26:54
1	Ca 317.933Radial†	197343.5	214198.4	467110	ug/L	467110	ppb	13:26:54
1	Fe 238.204 Radial†	24241.3	26302.3	425050	ug/L	425050	ppb	13:27:14
1	K 766.490 Radial†	3394.9	920.1	-172.35	ug/L	-172.35	ppb	13:26:54
1	Mg 279.077 IEC†	8333.3	9044.7	476850	ug/L	476850	ppb	13:27:14
1	Na 589.592 Radial†	1459646.4	1585353.1	493300	ug/L	493300	ppb	13:26:54
1	Sr 421.552†	718.4	771.1	1.8765	ug/L	1.8765	ppb	13:27:14
1	Sc 361.383	759227.4	759227.4	86.269	%			13:28:12
1	Y 371.029	625373.1	625373.1	82.217	%			13:28:12
1	Ag 328.068†	-22970.0	-26860.2	-11.287	ug/L	-11.287	ppb	13:28:12
1	As 188.979†	-196.9	-208.3	6.9407	ug/L	6.9407	ppb	13:28:33
1	B 249.677†	1658.2	2200.2	-15.121	ug/L	-15.121	ppb	13:28:12
1	Ba 233.527†	-1635.3	-1906.6	-1.9879	ug/L	-1.9879	ppb	13:28:33
1	Be 313.107†	-9559.3	-7522.6	-2.8413	ug/L	-2.8413	ppb	13:28:12
1	Cd 226.502†	3059.6	3722.8	1.9587	ug/L	1.9587	ppb	13:28:33
1	Co 228.616†	227.6	328.6	0.6923	ug/L	0.6923	ppb	13:28:33
1	Cr 267.716†	-1168.4	-1439.5	19.025	ug/L	19.025	ppb	13:28:33
1	Cu 324.752†	388.9	-5504.3	-1.6594	ug/L	-1.6594	ppb	13:28:12
1	Mn 257.610†	-20250.1	-23951.0	-4.8206	ug/L	-4.8206	ppb	13:28:12
1	Mo 202.031†	-495.0	-578.4	-4.0496	ug/L	-4.0496	ppb	13:28:33
1	Ni 231.604†	279.7	241.4	6.1571	ug/L	6.1571	ppb	13:28:33
1	P 214.914†	537.7	417.5	36.648	ug/L	36.648	ppb	13:28:33
1	Pb 220.353†	-462.4	-597.2	-8.6933	ug/L	-8.6933	ppb	13:28:33
1	S 181.975 Axial†	74.2	50.1	-23.512	ug/L	-23.512	ppb	13:28:33
1	Sb 206.836†	69.5	41.5	-5.5938	ug/L	-5.5938	ppb	13:28:33
1	Se 196.026†	-1947.4	-2232.6	-146.42	ug/L	-146.42	ppb	13:28:33
1	Si 251.611†	-446.5	-1082.2	-34.535	ug/L	-34.535	ppb	13:28:33
1	Sn 189.927†	-369.0	-437.1	-20.247	ug/L	-20.247	ppb	13:28:33
1	Ti 334.940†	-8581.5	-8537.5	4.3615	ug/L	4.3615	ppb	13:28:12
1	Tl 190.801†	-97.4	-85.5	-27.821	ug/L	-27.821	ppb	13:28:33
1	U 409.014†	409715.3	477831.2	13295	ug/L	13295	ppb	13:28:12
1	V 292.402†	2472.0	4334.2	2.5441	ug/L	2.5441	ppb	13:28:33
1	Zn 213.857†	5262.5	5360.6	-9.5081	ug/L	-9.5081	ppb	13:28:33
1	SiO2†	-402.7	-1055.0	-72.082	ug/L	-72.082	ppb	13:29:29
2	Sc Radial	3479.0	3479.0	90.2	%			13:27:40
2	Y RADIAL	3870.2	3870.2	86.94	%			13:27:40
2	Al 396.153Radial†	485998.8	538908.2	506460	ug/L	506460	ppb	13:27:20
2	Ca 317.933Radial†	194518.3	215630.3	470230	ug/L	470230	ppb	13:27:20
2	Fe 238.204 Radial†	24330.3	26961.6	435710	ug/L	435710	ppb	13:27:40
2	K 766.490 Radial†	3211.8	795.6	-197.73	ug/L	-197.73	ppb	13:27:20
2	Mg 279.077 IEC†	8383.0	9292.5	489920	ug/L	489920	ppb	13:27:40
2	Na 589.592 Radial†	1432846.8	1589399.7	494560	ug/L	494560	ppb	13:27:20
2	Sr 421.552†	716.8	785.9	1.9560	ug/L	1.9560	ppb	13:27:40
2	Sc 361.383	762018.1	762018.1	86.586	%			13:28:38
2	Y 371.029	627331.4	627331.4	82.475	%			13:28:38
2	Ag 328.068†	-23087.7	-26898.7	-8.2606	ug/L	-8.2606	ppb	13:28:38
2	As 188.979†	-197.6	-208.3	9.4042	ug/L	9.4042	ppb	13:28:58
2	B 249.677†	1465.5	1970.6	-22.476	ug/L	-22.476	ppb	13:28:38
2	Ba 233.527†	-1578.4	-1833.9	-1.0955	ug/L	-1.0955	ppb	13:28:58
2	Be 313.107†	-9615.9	-7547.4	-2.8506	ug/L	-2.8506	ppb	13:28:38
2	Cd 226.502†	3045.1	3693.1	0.5176	ug/L	0.5176	ppb	13:28:58
2	Co 228.616†	204.5	301.0	-0.0414	ug/L	-0.0414	ppb	13:28:58
2	Cr 267.716†	-1154.1	-1418.0	20.266	ug/L	20.266	ppb	13:28:58
2	Cu 324.752†	311.4	-5595.4	-1.3871	ug/L	-1.3871	ppb	13:28:38
2	Mn 257.610†	-20473.3	-24122.8	-4.4986	ug/L	-4.4986	ppb	13:28:38
2	Mo 202.031†	-498.9	-580.8	-3.3624	ug/L	-3.3624	ppb	13:28:58
2	Ni 231.604†	257.0	214.0	5.4567	ug/L	5.4567	ppb	13:28:58

2	P 214.914†	539.1	416.8	28.649	ug/L	28.649 ppb	13:28:58
2	Pb 220.353†	-499.5	-638.1	-14.069	ug/L	-14.069 ppb	13:28:58
2	S 181.975 Axial†	75.6	51.5	-22.271	ug/L	-22.271 ppb	13:28:58
2	Sb 206.836†	74.3	46.8	-4.0260	ug/L	-4.0260 ppb	13:28:58
2	Se 196.026†	-1943.4	-2219.7	-104.75	ug/L	-104.75 ppb	13:28:58
2	Si 251.611†	-481.4	-1120.7	-35.778	ug/L	-35.778 ppb	13:28:58
2	Sn 189.927†	-386.2	-455.5	-23.609	ug/L	-23.609 ppb	13:28:58
2	Ti 334.940†	-8630.8	-8558.0	3.6686	ug/L	3.6686 ppb	13:28:38
2	Tl 190.801†	-96.4	-83.9	-27.320	ug/L	-27.320 ppb	13:28:58
2	U 409.014†	412016.4	478749.4	13319	ug/L	13319 ppb	13:28:38
2	V 292.402†	2289.2	4112.6	-0.2566	ug/L	-0.2566 ppb	13:28:58
2	Zn 213.857†	5235.9	5307.6	-11.633	ug/L	-11.633 ppb	13:28:58
2	SiO2†	-611.4	-1294.4	-88.699	ug/L	-88.699 ppb	13:29:35
3	Sc Radial	3474.7	3474.7	90.1	%		13:28:05
3	Y RADIAL	3838.0	3838.0	86.22	%		13:28:05
3	Al 396.153Radial†	497415.3	552258.1	519010	ug/L	519010 ppb	13:27:45
3	Ca 317.933Radial†	198416.2	220228.1	480260	ug/L	480260 ppb	13:27:45
3	Fe 238.204 Radial†	24271.8	26930.6	435210	ug/L	435210 ppb	13:28:05
3	K 766.490 Radial†	3083.1	657.3	-231.38	ug/L	-231.38 ppb	13:27:45
3	Mg 279.077 IEC†	8348.4	9265.8	488510	ug/L	488510 ppb	13:28:05
3	Na 589.592 Radial†	1459207.4	1620657.3	504290	ug/L	504290 ppb	13:27:45
3	Sr 421.552†	722.0	792.7	1.9286	ug/L	1.9286 ppb	13:28:05
3	Sc 361.383	765983.5	765983.5	87.036	%		13:29:04
3	Y 371.029	631124.3	631124.3	82.973	%		13:29:04
3	Ag 328.068†	-23102.6	-26777.8	-7.9701	ug/L	-7.9701 ppb	13:29:04
3	As 188.979†	-186.5	-194.3	15.541	ug/L	15.541 ppb	13:29:24
3	B 249.677†	1456.9	1951.9	-22.854	ug/L	-22.854 ppb	13:29:04
3	Ba 233.527†	-1608.7	-1859.3	-1.3101	ug/L	-1.3101 ppb	13:29:24
3	Be 313.107†	-9655.8	-7535.8	-2.8387	ug/L	-2.8387 ppb	13:29:04
3	Cd 226.502†	3082.1	3717.3	0.8469	ug/L	0.8469 ppb	13:29:24
3	Co 228.616†	224.8	323.2	0.4282	ug/L	0.4282 ppb	13:29:24
3	Cr 267.716†	-1066.0	-1309.8	21.441	ug/L	21.441 ppb	13:29:24
3	Cu 324.752†	152.4	-5780.0	-1.9635	ug/L	-1.9635 ppb	13:29:04
3	Mn 257.610†	-21111.3	-24733.4	-5.1862	ug/L	-5.1862 ppb	13:29:04
3	Mo 202.031†	-474.9	-550.3	-1.0305	ug/L	-1.0305 ppb	13:29:24
3	Ni 231.604†	266.6	223.5	5.6989	ug/L	5.6989 ppb	13:29:24
3	P 214.914†	531.4	404.8	25.080	ug/L	25.080 ppb	13:29:24
3	Pb 220.353†	-488.7	-622.6	-9.3415	ug/L	-9.3415 ppb	13:29:24
3	S 181.975 Axial†	92.1	69.9	1.3203	ug/L	1.3203 ppb	13:29:24
3	Sb 206.836†	50.5	19.0	-14.053	ug/L	-14.053 ppb	13:29:24
3	Se 196.026†	-1967.7	-2236.1	-117.18	ug/L	-117.18 ppb	13:29:24
3	Si 251.611†	-424.3	-1052.2	-33.588	ug/L	-33.588 ppb	13:29:24
3	Sn 189.927†	-366.5	-430.5	-17.291	ug/L	-17.291 ppb	13:29:24
3	Ti 334.940†	-6826.0	-6432.8	8.4862	ug/L	8.4862 ppb	13:29:04
3	Tl 190.801†	-105.3	-93.5	-30.379	ug/L	-30.379 ppb	13:29:24
3	U 409.014†	413463.7	477949.0	13297	ug/L	13297 ppb	13:29:04
3	V 292.402†	2325.6	4140.7	-0.0295	ug/L	-0.0295 ppb	13:29:24
3	Zn 213.857†	5266.7	5311.7	-11.517	ug/L	-11.517 ppb	13:29:24
3	SiO2†	-346.5	-986.3	-67.374	ug/L	-67.374 ppb	13:29:40

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	762409.7	86.630	%	0.3858				0.45%
Sc Radial	3502.3	90.8	%	1.14				1.26%
Y 371.029	627942.9	82.555	%	0.3844				0.47%
Y RADIAL	3881.5	87.19	%	1.123				1.29%
Ag 328.068†	-26845.6	-9.1726	ug/L	1.83698	-9.1726	ppb	1.83698	20.03%
Al 396.153Radial†	542000.3	509370	ug/L	8565.3	509370	ppb	8565.3	1.68%
QC value within limits for Al 396.153Radial Recovery = 101.87%								
As 188.979†	-203.6	10.629	ug/L	4.4290	10.629	ppb	4.4290	41.67%
B 249.677†	2040.9	-20.150	ug/L	4.3598	-20.150	ppb	4.3598	21.64%
Ba 233.527†	-1866.6	-1.4645	ug/L	0.46579	-1.4645	ppb	0.46579	31.80%
Be 313.107†	-7535.3	-2.8435	ug/L	0.00628	-2.8435	ppb	0.00628	0.22%
Ca 317.933Radial†	216685.6	472530	ug/L	6870.1	472530	ppb	6870.1	1.45%
QC value within limits for Ca 317.933Radial Recovery = 94.51%								
Cd 226.502†	3711.0	1.1077	ug/L	0.75513	1.1077	ppb	0.75513	68.17%
Co 228.616†	317.6	0.3597	ug/L	0.37163	0.3597	ppb	0.37163	103.32%
Cr 267.716†	-1389.1	20.244	ug/L	1.2086	20.244	ppb	1.2086	5.97%
Cu 324.752†	-5626.6	-1.6700	ug/L	0.28835	-1.6700	ppb	0.28835	17.27%

Fe 238.204 Radial†	26731.5	431990 ug/L	6011.9	431990 ppb	6011.9	1.39%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.40%						
K 766.490 Radial†	791.0	-200.48 ug/L	29.611	-200.48 ppb	29.611	14.77%
Mg 279.077 IEC†	9201.0	485090 ug/L	7171.9	485090 ppb	7171.9	1.48%
QC value within limits for Mg 279.077 IEC Recovery = 97.02%						
Mn 257.610†	-24269.1	-4.8351 ug/L	0.34403	-4.8351 ppb	0.34403	7.12%
Mo 202.031†	-569.8	-2.8142 ug/L	1.58245	-2.8142 ppb	1.58245	56.23%
Na 589.592 Radial†	1598470.0	497390 ug/L	6012.0	497390 ppb	6012.0	1.21%
QC value within limits for Na 589.592 Radial Recovery = 99.48%						
Ni 231.604†	226.3	5.7709 ug/L	0.35568	5.7709 ppb	0.35568	6.16%
P 214.914†	413.0	30.126 ug/L	5.9240	30.126 ppb	5.9240	19.66%
Pb 220.353†	-619.3	-10.701 ug/L	2.9345	-10.701 ppb	2.9345	27.42%
S 181.975 Axial†	57.2	-14.821 ug/L	13.9926	-14.821 ppb	13.9926	94.41%
Sb 206.836†	35.8	-7.8908 ug/L	5.39357	-7.8908 ppb	5.39357	68.35%
Se 196.026†	-2229.5	-122.78 ug/L	21.394	-122.78 ppb	21.394	17.42%
Si 251.611†	-1085.0	-34.633 ug/L	1.0983	-34.633 ppb	1.0983	3.17%
Sn 189.927†	-441.0	-20.382 ug/L	3.1614	-20.382 ppb	3.1614	15.51%
Sr 421.552†	783.2	1.9204 ug/L	0.04041	1.9204 ppb	0.04041	2.10%
Ti 334.940†	-7842.8	5.5054 ug/L	2.60456	5.5054 ppb	2.60456	47.31%
Tl 190.801†	-87.6	-28.506 ug/L	1.6410	-28.506 ppb	1.6410	5.76%
U 409.014†	478176.5	13303 ug/L	13.5	13303 ppb	13.5	0.10%
QC value less than the lower limit for U 409.014 Recovery = 88.69%						
V 292.402†	4195.8	0.7527 ug/L	1.55559	0.7527 ppb	1.55559	206.68%
Zn 213.857†	5326.7	-10.886 ug/L	1.1947	-10.886 ppb	1.1947	10.97%
SiO2†	-1111.9	-76.052 ug/L	11.2029	-76.052 ppb	11.2029	14.73%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/25/2010 13:31:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3745.6	3745.6	97.1	%			13:34:07
1	Y RADIAL	4258.4	4258.4	95.66	%			13:33:47
1	Al 396.153Radial†	374.7	500.9	13.549	ug/L	13.549	ppb	13:33:47
1	Ca 317.933Radial†	28.9	11.1	24.262	ug/L	24.262	ppb	13:34:07
1	Fe 238.204 Radial†	-3.7	-15.4	22.052	ug/L	22.052	ppb	13:34:07
1	K 766.490 Radial†	1555288.4	1598762.3	306290	ug/L	306290	ppb	13:33:42
1	Mg 279.077 IEC†	-1.4	-2.6	-37.682	ug/L	-37.682	ppb	13:34:07
1	Na 589.592 Radial†	-77.4	822.0	255.79	ug/L	255.79	ppb	13:33:47
1	Sr 421.552†	1358065.6	1398432.3	9728.4	ug/L	9728.4	ppb	13:33:42
1	Sc 361.383	873121.5	873121.5	99.210	%			13:35:24
1	Y 371.029	716222.2	716222.2	94.161	%			13:35:24
1	Ag 328.068†	-7965.4	-8263.0	0.7196	ug/L	0.7196	ppb	13:35:30
1	As 188.979†	20905.5	21091.9	9441.5	ug/L	9441.5	ppb	13:35:30
1	B 249.677†	195748.5	197585.0	4816.8	ug/L	4816.8	ppb	13:35:24
1	Ba 233.527†	1622778.9	1635687.8	12878	ug/L	12878	ppb	13:35:24
1	Be 313.107†	7434417.6	7497165.9	2823.5	ug/L	2823.5	ppb	13:35:18
1	Cd 226.502†	802451.8	809016.8	9407.4	ug/L	9407.4	ppb	13:35:24
1	Co 228.616†	428579.8	432056.8	9072.3	ug/L	9072.3	ppb	13:35:30
1	Cr 267.716†	2043521.3	2059705.9	23125	ug/L	23125	ppb	13:35:24
1	Cu 324.752†	6418716.2	6463864.5	19694	ug/L	19694	ppb	13:35:18
1	Mn 257.610†	8086458.7	8150362.4	9285.4	ug/L	9285.4	ppb	13:35:18
1	Mo 202.031†	126986.1	127992.4	9427.3	ug/L	9427.3	ppb	13:35:30
1	Ni 231.604†	360639.7	363428.2	9269.3	ug/L	9269.3	ppb	13:35:30
1	P 214.914†	29735.8	29766.8	14085	ug/L	14085	ppb	13:35:30
1	Pb 220.353†	191021.2	192480.8	23824	ug/L	23824	ppb	13:35:30
1	S 181.975 Axial†	36268.2	36521.1	51494	ug/L	51494	ppb	13:35:30
1	Sb 206.836†	29445.8	29641.2	10811	ug/L	10811	ppb	13:35:30
1	Se 196.026†	14845.1	14988.1	9878.1	ug/L	9878.1	ppb	13:35:30
1	Si 251.611†	1408402.7	1419051.2	45855	ug/L	45855	ppb	13:35:24
1	Sn 189.927†	55544.9	55977.7	10094	ug/L	10094	ppb	13:35:30
1	Ti 334.940†	6180044.6	6230657.6	9808.9	ug/L	9808.9	ppb	13:35:18
1	Tl 190.801†	28770.7	29027.2	9404.1	ug/L	9404.1	ppb	13:35:30
1	U 409.014†	-1725.3	1162.8	-19.221	ug/L	-19.221	ppb	13:35:30
1	V 292.402†	1375858.4	1388281.1	9812.8	ug/L	9812.8	ppb	13:35:24
1	Zn 213.857†	1348023.5	1358016.5	13624	ug/L	13624	ppb	13:35:24
1	SiO2†	1431326.8	1442134.3	99867	ug/L	99867	ppb	13:36:15
2	Sc Radial	3758.0	3758.0	97.4	%			13:34:38
2	Y RADIAL	4267.2	4267.2	95.86	%			13:34:18
2	Al 396.153Radial†	402.4	528.1	33.337	ug/L	33.337	ppb	13:34:18
2	Ca 317.933Radial†	24.0	5.9	12.955	ug/L	12.955	ppb	13:34:38
2	Fe 238.204 Radial†	-4.7	-16.5	8.6177	ug/L	8.6177	ppb	13:34:38
2	K 766.490 Radial†	1588055.8	1627095.3	311720	ug/L	311720	ppb	13:34:13
2	Mg 279.077 IEC†	-0.8	-2.0	-3.5043	ug/L	-3.5043	ppb	13:34:38
2	Na 589.592 Radial†	-55.8	844.4	262.75	ug/L	262.75	ppb	13:34:18
2	Sr 421.552†	1382697.5	1419087.4	9872.1	ug/L	9872.1	ppb	13:34:13
2	Sc 361.383	863117.3	863117.3	98.073	%			13:35:44
2	Y 371.029	708663.3	708663.3	93.167	%			13:35:44
2	Ag 328.068†	-7871.5	-8260.3	0.7549	ug/L	0.7549	ppb	13:35:49
2	As 188.979†	20961.0	21392.7	9575.9	ug/L	9575.9	ppb	13:35:49
2	B 249.677†	193293.8	197369.0	4811.2	ug/L	4811.2	ppb	13:35:44
2	Ba 233.527†	1603606.3	1635097.6	12874	ug/L	12874	ppb	13:35:44
2	Be 313.107†	7433521.2	7583108.8	2855.9	ug/L	2855.9	ppb	13:35:38
2	Cd 226.502†	792297.7	808038.3	9396.1	ug/L	9396.1	ppb	13:35:44
2	Co 228.616†	429817.6	438326.1	9204.0	ug/L	9204.0	ppb	13:35:49
2	Cr 267.716†	2021588.8	2061217.2	23142	ug/L	23142	ppb	13:35:44
2	Cu 324.752†	6426601.6	6546895.2	19947	ug/L	19947	ppb	13:35:38
2	Mn 257.610†	8079678.8	8237924.0	9385.1	ug/L	9385.1	ppb	13:35:38
2	Mo 202.031†	127118.8	129611.4	9546.5	ug/L	9546.5	ppb	13:35:49
2	Ni 231.604†	361723.3	368746.5	9404.9	ug/L	9404.9	ppb	13:35:49

2	P 214.914†	29729.0	30107.2	14241	ug/L	14241 ppb	13:35:49
2	Pb 220.353†	191583.0	195285.4	24171	ug/L	24171 ppb	13:35:49
2	S 181.975 Axial†	36380.7	37059.6	52253	ug/L	52253 ppb	13:35:49
2	Sb 206.836†	29419.2	29958.1	10928	ug/L	10928 ppb	13:35:49
2	Se 196.026†	14828.2	15144.2	9981.0	ug/L	9981.0 ppb	13:35:49
2	Si 251.611†	1389637.4	1416371.7	45767	ug/L	45767 ppb	13:35:44
2	Sn 189.927†	55775.0	56861.3	10254	ug/L	10254 ppb	13:35:49
2	Ti 334.940†	6179428.2	6302231.1	9921.6	ug/L	9921.6 ppb	13:35:38
2	Tl 190.801†	28803.9	29397.2	9524.0	ug/L	9524.0 ppb	13:35:49
2	U 409.014†	-1883.7	981.2	-24.329	ug/L	-24.329 ppb	13:35:49
2	V 292.402†	1360920.2	1389123.8	9820.2	ug/L	9820.2 ppb	13:35:44
2	Zn 213.857†	1332244.0	1357676.1	13619	ug/L	13619 ppb	13:35:44
2	SiO2†	1420583.7	1447902.4	100260	ug/L	100260 ppb	13:36:21
3	Sc Radial	3709.4	3709.4	96.2	%		13:35:08
3	Y RADIAL	4174.0	4174.0	93.76	%		13:34:48
3	Al 396.153Radial†	382.4	512.7	24.604	ug/L	24.604 ppb	13:34:48
3	Ca 317.933Radial†	25.7	8.1	17.634	ug/L	17.634 ppb	13:35:08
3	Fe 238.204 Radial†	-4.8	-16.6	2.7442	ug/L	2.7442 ppb	13:35:08
3	K 766.490 Radial†	1541290.5	1599850.3	306500	ug/L	306500 ppb	13:34:43
3	Mg 279.077 IEC†	0.2	-1.0	46.326	ug/L	46.326 ppb	13:35:08
3	Na 589.592 Radial†	-187.9	706.3	219.77	ug/L	219.77 ppb	13:34:48
3	Sr 421.552†	1339097.5	1392368.8	9686.2	ug/L	9686.2 ppb	13:34:43
3	Sc 361.383	879758.2	879758.2	99.964	%		13:36:04
3	Y 371.029	722260.2	722260.2	94.955	%		13:36:04
3	Ag 328.068†	-7837.9	-8074.9	1.5741	ug/L	1.5741 ppb	13:36:09
3	As 188.979†	21206.9	21234.4	9504.4	ug/L	9504.4 ppb	13:36:09
3	B 249.677†	197619.5	197968.2	4826.2	ug/L	4826.2 ppb	13:36:04
3	Ba 233.527†	1630861.1	1631433.6	12845	ug/L	12845 ppb	13:36:04
3	Be 313.107†	7475497.2	7481730.5	2817.6	ug/L	2817.6 ppb	13:35:58
3	Cd 226.502†	806322.3	806787.1	9381.5	ug/L	9381.5 ppb	13:36:04
3	Co 228.616†	432264.3	432483.8	9081.3	ug/L	9081.3 ppb	13:36:09
3	Cr 267.716†	2056218.3	2056869.0	23093	ug/L	23093 ppb	13:36:04
3	Cu 324.752†	6446101.2	6442452.8	19629	ug/L	19629 ppb	13:35:58
3	Mn 257.610†	8101328.3	8103749.6	9232.3	ug/L	9232.3 ppb	13:35:58
3	Mo 202.031†	127958.4	127999.5	9427.8	ug/L	9427.8 ppb	13:36:09
3	Ni 231.604†	363511.8	363559.1	9272.6	ug/L	9272.6 ppb	13:36:09
3	P 214.914†	29891.5	29696.4	14056	ug/L	14056 ppb	13:36:09
3	Pb 220.353†	192609.6	192617.4	23841	ug/L	23841 ppb	13:36:09
3	S 181.975 Axial†	36613.2	36590.4	51591	ug/L	51591 ppb	13:36:09
3	Sb 206.836†	29777.3	29748.9	10850	ug/L	10850 ppb	13:36:09
3	Se 196.026†	15045.7	15075.8	9935.7	ug/L	9935.7 ppb	13:36:09
3	Si 251.611†	1420445.8	1420389.3	45898	ug/L	45898 ppb	13:36:04
3	Sn 189.927†	56045.0	56055.6	10109	ug/L	10109 ppb	13:36:09
3	Ti 334.940†	6196874.8	6200502.2	9761.4	ug/L	9761.4 ppb	13:35:58
3	Tl 190.801†	29089.9	29127.7	9435.8	ug/L	9435.8 ppb	13:36:09
3	U 409.014†	-1573.3	1328.0	-14.534	ug/L	-14.534 ppb	13:36:09
3	V 292.402†	1385967.9	1387932.5	9810.4	ug/L	9810.4 ppb	13:36:04
3	Zn 213.857†	1355057.0	1354802.4	13592	ug/L	13592 ppb	13:36:04
3	SiO2†	1423284.7	1423205.8	98553	ug/L	98553 ppb	13:36:27

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871999.0	99.083	%	0.9519				0.96%
Sc Radial	3737.7	96.9	%	0.66				0.68%
Y 371.029	715715.3	94.094	%	0.8956				0.95%
Y RADIAL	4233.2	95.09	%	1.156				1.22%
Ag 328.068†	-8199.4	1.0162	ug/L	0.48351	1.0162	ppb	0.48351	47.58%
Al 396.153Radial†	513.9	23.830	ug/L	9.9170	23.830	ppb	9.9170	41.62%
As 188.979†	21239.7	9507.3	ug/L	67.28	9507.3	ppb	67.28	0.71%
QC value within limits for As 188.979 Recovery = 95.07%								
B 249.677†	197640.7	4818.1	ug/L	7.59	4818.1	ppb	7.59	0.16%
QC value within limits for B 249.677 Recovery = 96.36%								
Ba 233.527†	1634073.0	12866	ug/L	18.1	12866	ppb	18.1	0.14%
QC value less than the lower limit for Ba 233.527 Recovery = 85.77%								
Be 313.107†	7520668.4	2832.3	ug/L	20.59	2832.3	ppb	20.59	0.73%
QC value within limits for Be 313.107 Recovery = 94.41%								
Ca 317.933Radial†	8.4	18.284	ug/L	5.6812	18.284	ppb	5.6812	31.07%
Cd 226.502†	807947.4	9395.0	ug/L	12.99	9395.0	ppb	12.99	0.14%
QC value within limits for Cd 226.502 Recovery = 93.95%								

```
Co 228.616†          434288.9      9119.2 ug/L        73.57      9119.2 ppb        73.57   0.81%
   QC value within limits for Co 228.616  Recovery = 91.19%
Cr 267.716†         2059264.0       23120 ug/L         24.8       23120 ppb         24.8   0.11%
   QC value within limits for Cr 267.716  Recovery = 92.48%
Cu 324.752†         6484404.2       19757 ug/L        168.1       19757 ppb        168.1   0.85%
   QC value within limits for Cu 324.752  Recovery = 98.78%
Fe 238.204 Radial†      -16.2      11.138 ug/L       9.8975      11.138 ppb       9.8975  88.86%
K 766.490 Radial†   1608569.3      308170 ug/L       3075.5      308170 ppb       3075.5   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 102.72%
Mg 279.077 IEC†         -1.9      1.7131 ug/L     42.24636      1.7131 ppb     42.24636 >999.9%
Mn 257.610†         8164012.0      9300.9 ug/L        77.61      9300.9 ppb        77.61   0.83%
   QC value within limits for Mn 257.610  Recovery = 93.01%
Mo 202.031†          128534.4      9467.2 ug/L        68.69      9467.2 ppb        68.69   0.73%
   QC value within limits for Mo 202.031  Recovery = 94.67%
Na 589.592 Radial†      790.9      246.10 ug/L       23.070      246.10 ppb       23.070   9.37%
Ni 231.604†          365244.6      9315.6 ug/L        77.37      9315.6 ppb        77.37   0.83%
   QC value within limits for Ni 231.604  Recovery = 93.16%
P 214.914†            29856.8       14127 ug/L         99.6       14127 ppb         99.6   0.70%
   QC value within limits for P 214.914  Recovery = 94.18%
Pb 220.353†          193461.2       23945 ug/L        195.7       23945 ppb        195.7   0.82%
   QC value within limits for Pb 220.353  Recovery = 95.78%
S 181.975 Axial†      36723.7       51779 ug/L        413.0       51779 ppb        413.0   0.80%
   QC value within limits for S 181.975 Axial  Recovery = 103.56%
Sb 206.836†           29782.7       10863 ug/L         59.4       10863 ppb         59.4   0.55%
   QC value within limits for Sb 206.836  Recovery = 108.63%
Se 196.026†           15069.4      9931.6 ug/L        51.58      9931.6 ppb        51.58   0.52%
   QC value within limits for Se 196.026  Recovery = 99.32%
Si 251.611†         1418604.1       45840 ug/L         67.1       45840 ppb         67.1   0.15%
   QC value within limits for Si 251.611  Recovery = 91.68%
Sn 189.927†           56298.2       10152 ug/L         88.2       10152 ppb         88.2   0.87%
   QC value within limits for Sn 189.927  Recovery = 101.52%
Sr 421.552†         1403296.2      9762.2 ug/L        97.45      9762.2 ppb        97.45   1.00%
   QC value within limits for Sr 421.552  Recovery = 97.62%
Ti 334.940†         6244463.6      9830.6 ug/L        82.32      9830.6 ppb        82.32   0.84%
   QC value within limits for Ti 334.940  Recovery = 98.31%
Tl 190.801†           29184.1      9454.6 ug/L        62.10      9454.6 ppb        62.10   0.66%
   QC value within limits for Tl 190.801  Recovery = 94.55%
U 409.014†             1157.4     -19.361 ug/L       4.8990     -19.361 ppb       4.8990  25.30%
V 292.402†          1388445.8      9814.5 ug/L         5.11      9814.5 ppb         5.11   0.05%
   QC value within limits for V 292.402  Recovery = 98.14%
Zn 213.857†         1356831.7       13612 ug/L         17.5       13612 ppb         17.5   0.13%
   QC value within limits for Zn 213.857  Recovery = 90.75%
SiO2†               1437747.5       99561 ug/L        895.7       99561 ppb        895.7   0.90%
   QC value within limits for SiO2  Recovery = 93.05%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 13:38:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3790.4	3790.4	98.3	%			13:40:50
1	Y RADIAL	4282.6	4282.6	96.20	%			13:40:30
1	Al 396.153Radial†	5206.3	5412.8	5063.9	ug/L	5063.9	ppb	13:40:30
1	Ca 317.933Radial†	2323.1	2345.2	5114.3	ug/L	5114.3	ppb	13:40:50
1	Fe 238.204 Radial†	313.9	307.7	4987.0	ug/L	4987.0	ppb	13:40:50
1	K 766.490 Radial†	29590.4	27344.6	5232.6	ug/L	5232.6	ppb	13:40:30
1	Mg 279.077 IEC†	99.4	99.9	5273.8	ug/L	5273.8	ppb	13:40:50
1	Na 589.592 Radial†	31137.3	32585.4	10139	ug/L	10139	ppb	13:40:30
1	Sr 421.552†	70101.9	71323.4	496.13	ug/L	496.13	ppb	13:40:30
1	Sc 361.383	916114.7	916114.7	104.10	%			13:41:48
1	Y 371.029	759809.7	759809.7	99.891	%			13:41:48
1	Ag 328.068†	106763.5	102329.1	478.51	ug/L	478.51	ppb	13:41:53
1	As 188.979†	1147.6	1122.3	503.20	ug/L	503.20	ppb	13:42:13
1	B 249.677†	21047.9	20497.8	500.22	ug/L	500.22	ppb	13:41:53
1	Ba 233.527†	63031.3	60540.5	477.06	ug/L	477.06	ppb	13:41:53
1	Be 313.107†	1334110.2	1285181.9	481.26	ug/L	481.26	ppb	13:41:48
1	Cd 226.502†	42804.8	41297.0	479.79	ug/L	479.79	ppb	13:41:53
1	Co 228.616†	23550.7	22689.0	476.62	ug/L	476.62	ppb	13:41:53
1	Cr 267.716†	44265.5	42438.9	477.15	ug/L	477.15	ppb	13:41:53
1	Cu 324.752†	167584.4	155036.2	472.38	ug/L	472.38	ppb	13:41:53
1	Mn 257.610†	441588.5	423737.9	483.02	ug/L	483.02	ppb	13:41:48
1	Mo 202.031†	6713.1	6444.3	475.10	ug/L	475.10	ppb	13:42:13
1	Ni 231.604†	19598.8	18745.0	478.09	ug/L	478.09	ppb	13:41:53
1	P 214.914†	4307.5	3932.3	2272.8	ug/L	2272.8	ppb	13:42:13
1	Pb 220.353†	4107.0	3884.2	482.02	ug/L	482.02	ppb	13:42:13
1	S 181.975 Axial†	744.6	679.5	957.07	ug/L	957.07	ppb	13:42:13
1	Sb 206.836†	1470.9	1374.1	501.94	ug/L	501.94	ppb	13:42:13
1	Se 196.026†	741.0	736.5	500.97	ug/L	500.97	ppb	13:42:13
1	Si 251.611†	77222.0	73619.2	2379.1	ug/L	2379.1	ppb	13:41:53
1	Sn 189.927†	2767.6	2649.3	478.36	ug/L	478.36	ppb	13:42:13
1	Ti 334.940†	311314.9	300477.1	473.32	ug/L	473.32	ppb	13:41:53
1	Tl 190.801†	1529.1	1496.4	484.56	ug/L	484.56	ppb	13:42:13
1	U 409.014†	14449.1	16782.5	467.00	ug/L	467.00	ppb	13:41:53
1	V 292.402†	69091.3	67841.8	480.24	ug/L	480.24	ppb	13:41:53
1	Zn 213.857†	50208.7	47493.9	475.04	ug/L	475.04	ppb	13:41:53
1	SiO2†	77219.9	73593.7	5096.5	ug/L	5096.5	ppb	13:43:20
2	Sc Radial	3821.8	3821.8	99.1	%			13:41:15
2	Y RADIAL	4288.7	4288.7	96.34	%			13:40:55
2	Al 396.153Radial†	5232.5	5395.7	5047.5	ug/L	5047.5	ppb	13:40:55
2	Ca 317.933Radial†	2345.4	2348.3	5121.0	ug/L	5121.0	ppb	13:41:15
2	Fe 238.204 Radial†	315.7	306.9	4973.9	ug/L	4973.9	ppb	13:41:15
2	K 766.490 Radial†	29660.8	27168.8	5198.9	ug/L	5198.9	ppb	13:40:55
2	Mg 279.077 IEC†	95.9	95.6	5045.5	ug/L	5045.5	ppb	13:41:15
2	Na 589.592 Radial†	31014.1	32201.3	10020	ug/L	10020	ppb	13:40:55
2	Sr 421.552†	70200.0	70837.5	492.75	ug/L	492.75	ppb	13:40:55
2	Sc 361.383	904548.9	904548.9	102.78	%			13:42:19
2	Y 371.029	750200.0	750200.0	98.628	%			13:42:19
2	Ag 328.068†	106718.7	103596.8	484.41	ug/L	484.41	ppb	13:42:24
2	As 188.979†	1153.1	1141.8	511.92	ug/L	511.92	ppb	13:42:44
2	B 249.677†	21032.0	20740.9	506.16	ug/L	506.16	ppb	13:42:24
2	Ba 233.527†	63115.8	61396.9	483.81	ug/L	483.81	ppb	13:42:24
2	Be 313.107†	1304528.8	1272788.1	476.65	ug/L	476.65	ppb	13:42:19
2	Cd 226.502†	42788.8	41807.2	485.72	ug/L	485.72	ppb	13:42:24
2	Co 228.616†	23690.4	23114.2	485.55	ug/L	485.55	ppb	13:42:24
2	Cr 267.716†	44225.9	42944.1	482.83	ug/L	482.83	ppb	13:42:24
2	Cu 324.752†	167673.7	157181.6	478.91	ug/L	478.91	ppb	13:42:24
2	Mn 257.610†	432797.9	420609.2	479.47	ug/L	479.47	ppb	13:42:19
2	Mo 202.031†	6723.9	6537.3	481.95	ug/L	481.95	ppb	13:42:44
2	Ni 231.604†	19611.1	18997.6	484.53	ug/L	484.53	ppb	13:42:24

2	P 214.914†	4312.5	3990.0	2306.2 ug/L	2306.2 ppb	13:42:44
2	Pb 220.353†	4100.3	3928.2	487.47 ug/L	487.47 ppb	13:42:44
2	S 181.975 Axial†	750.0	693.8	977.32 ug/L	977.32 ppb	13:42:44
2	Sb 206.836†	1480.4	1401.3	511.76 ug/L	511.76 ppb	13:42:44
2	Se 196.026†	736.5	741.3	504.05 ug/L	504.05 ppb	13:42:44
2	Si 251.611†	77219.4	74565.2	2409.7 ug/L	2409.7 ppb	13:42:24
2	Sn 189.927†	2757.7	2673.6	482.76 ug/L	482.76 ppb	13:42:44
2	Ti 334.940†	311832.3	304804.4	480.15 ug/L	480.15 ppb	13:42:24
2	Tl 190.801†	1515.3	1501.7	486.26 ug/L	486.26 ppb	13:42:44
2	U 409.014†	14503.1	17012.5	473.41 ug/L	473.41 ppb	13:42:24
2	V 292.402†	69144.9	68742.6	486.63 ug/L	486.63 ppb	13:42:24
2	Zn 213.857†	50137.3	48041.2	480.52 ug/L	480.52 ppb	13:42:24
2	SiO2†	76754.0	74088.9	5130.7 ug/L	5130.7 ppb	13:43:25
3	Sc Radial	3826.5	3826.5	99.2 %		13:41:40
3	Y RADIAL	4257.3	4257.3	95.63 %		13:41:20
3	Al 396.153Radial†	5192.1	5348.5	5003.7 ug/L	5003.7 ppb	13:41:20
3	Ca 317.933Radial†	2360.3	2360.4	5147.5 ug/L	5147.5 ppb	13:41:40
3	Fe 238.204 Radial†	320.6	311.5	5047.5 ug/L	5047.5 ppb	13:41:40
3	K 766.490 Radial†	29510.6	26980.7	5162.9 ug/L	5162.9 ppb	13:41:20
3	Mg 279.077 IEC†	101.0	100.6	5310.8 ug/L	5310.8 ppb	13:41:40
3	Na 589.592 Radial†	30745.0	31891.8	9923.6 ug/L	9923.6 ppb	13:41:20
3	Sr 421.552†	69836.2	70384.1	489.60 ug/L	489.60 ppb	13:41:20
3	Sc 361.383	921894.5	921894.5	104.75 %		13:42:50
3	Y 371.029	765386.9	765386.9	100.62 %		13:42:50
3	Ag 328.068†	106637.3	101565.5	474.97 ug/L	474.97 ppb	13:42:55
3	As 188.979†	1136.9	1105.3	495.61 ug/L	495.61 ppb	13:43:15
3	B 249.677†	21019.3	20343.8	496.45 ug/L	496.45 ppb	13:42:55
3	Ba 233.527†	63000.6	60131.6	473.84 ug/L	473.84 ppb	13:42:55
3	Be 313.107†	1334145.6	1277180.6	478.27 ug/L	478.27 ppb	13:42:50
3	Cd 226.502†	42764.9	41001.1	476.34 ug/L	476.34 ppb	13:42:55
3	Co 228.616†	23582.9	22577.9	474.29 ug/L	474.29 ppb	13:42:55
3	Cr 267.716†	44260.4	42167.5	474.11 ug/L	474.11 ppb	13:42:55
3	Cu 324.752†	167221.0	153679.9	468.25 ug/L	468.25 ppb	13:42:55
3	Mn 257.610†	440866.9	420389.4	479.21 ug/L	479.21 ppb	13:42:50
3	Mo 202.031†	6715.2	6405.9	472.28 ug/L	472.28 ppb	13:43:15
3	Ni 231.604†	19597.2	18625.4	475.04 ug/L	475.04 ppb	13:42:55
3	P 214.914†	4325.7	3923.7	2268.3 ug/L	2268.3 ppb	13:43:15
3	Pb 220.353†	4108.4	3860.9	479.11 ug/L	479.11 ppb	13:43:15
3	S 181.975 Axial†	737.0	667.8	940.57 ug/L	940.57 ppb	13:43:15
3	Sb 206.836†	1449.6	1344.8	491.53 ug/L	491.53 ppb	13:43:15
3	Se 196.026†	731.3	722.8	492.14 ug/L	492.14 ppb	13:43:15
3	Si 251.611†	77030.2	72971.0	2358.1 ug/L	2358.1 ppb	13:42:55
3	Sn 189.927†	2775.4	2640.1	476.71 ug/L	476.71 ppb	13:43:15
3	Ti 334.940†	311294.3	298582.4	470.34 ug/L	470.34 ppb	13:42:55
3	Tl 190.801†	1522.1	1480.5	479.43 ug/L	479.43 ppb	13:43:15
3	U 409.014†	14396.6	16645.3	463.17 ug/L	463.17 ppb	13:42:55
3	V 292.402†	69123.9	67456.8	477.50 ug/L	477.50 ppb	13:42:55
3	Zn 213.857†	50046.9	47037.1	470.45 ug/L	470.45 ppb	13:42:55
3	SiO2†	77888.0	73766.4	5108.6 ug/L	5108.6 ppb	13:43:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914186.1	103.88	%	1.004				0.97%
Sc Radial	3812.9	98.9	%	0.51				0.51%
Y 371.029	758465.5	99.715	%	1.0100				1.01%
Y RADIAL	4276.2	96.06	%	0.373				0.39%
Ag 328.068†	102497.1	479.30	ug/L	4.772	479.30	ppb	4.772	1.00%
QC value within limits for Ag 328.068 Recovery = 95.86%								
Al 396.153Radial†	5385.7	5038.3	ug/L	31.13	5038.3	ppb	31.13	0.62%
QC value within limits for Al 396.153Radial Recovery = 100.77%								
As 188.979†	1123.1	503.58	ug/L	8.162	503.58	ppb	8.162	1.62%
QC value within limits for As 188.979 Recovery = 100.72%								
B 249.677†	20527.5	500.94	ug/L	4.897	500.94	ppb	4.897	0.98%
QC value within limits for B 249.677 Recovery = 100.19%								
Ba 233.527†	60689.6	478.24	ug/L	5.085	478.24	ppb	5.085	1.06%
QC value within limits for Ba 233.527 Recovery = 95.65%								
Be 313.107†	1278383.6	478.73	ug/L	2.342	478.73	ppb	2.342	0.49%
QC value within limits for Be 313.107 Recovery = 95.75%								
Ca 317.933Radial†	2351.3	5127.6	ug/L	17.52	5127.6	ppb	17.52	0.34%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.55%
Cd 226.502†            41368.4      480.62 ug/L         4.746      480.62 ppb          4.746   0.99%
   QC value within limits for Cd 226.502  Recovery = 96.12%
Co 228.616†            22793.7      478.82 ug/L         5.947      478.82 ppb          5.947   1.24%
   QC value within limits for Co 228.616  Recovery = 95.76%
Cr 267.716†            42516.8      478.03 ug/L         4.424      478.03 ppb          4.424   0.93%
   QC value within limits for Cr 267.716  Recovery = 95.61%
Cu 324.752†           155299.2      473.18 ug/L         5.375      473.18 ppb          5.375   1.14%
   QC value within limits for Cu 324.752  Recovery = 94.64%
Fe 238.204 Radial†       308.7      5002.8 ug/L        39.26      5002.8 ppb         39.26   0.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.06%
K 766.490 Radial†      27164.7      5198.1 ug/L        34.82      5198.1 ppb         34.82   0.67%
   QC value within limits for K 766.490 Radial  Recovery = 103.96%
Mg 279.077 IEC†           98.7      5210.1 ug/L       143.70      5210.1 ppb        143.70   2.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.20%
Mn 257.610†           421578.8      480.57 ug/L         2.130      480.57 ppb          2.130   0.44%
   QC value within limits for Mn 257.610  Recovery = 96.11%
Mo 202.031†             6462.5      476.44 ug/L         4.974      476.44 ppb          4.974   1.04%
   QC value within limits for Mo 202.031  Recovery = 95.29%
Na 589.592 Radial†     32226.2       10028 ug/L        108.1       10028 ppb        108.1   1.08%
   QC value within limits for Na 589.592 Radial  Recovery = 100.28%
Ni 231.604†            18789.3      479.22 ug/L         4.847      479.22 ppb          4.847   1.01%
   QC value within limits for Ni 231.604  Recovery = 95.84%
P 214.914†              3948.6      2282.5 ug/L        20.72      2282.5 ppb         20.72   0.91%
   QC value within limits for P 214.914  Recovery = 91.30%
Pb 220.353†             3891.1      482.86 ug/L         4.248      482.86 ppb          4.248   0.88%
   QC value within limits for Pb 220.353  Recovery = 96.57%
S 181.975 Axial†         680.3      958.32 ug/L        18.405      958.32 ppb         18.405   1.92%
   QC value within limits for S 181.975 Axial  Recovery = 95.83%
Sb 206.836†             1373.4      501.75 ug/L        10.114      501.75 ppb         10.114   2.02%
   QC value within limits for Sb 206.836  Recovery = 100.35%
Se 196.026†              733.6      499.05 ug/L         6.179      499.05 ppb          6.179   1.24%
   QC value within limits for Se 196.026  Recovery = 99.81%
Si 251.611†            73718.5      2382.3 ug/L        25.91      2382.3 ppb         25.91   1.09%
   QC value within limits for Si 251.611  Recovery = 95.29%
Sn 189.927†             2654.3      479.28 ug/L         3.128      479.28 ppb          3.128   0.65%
   QC value within limits for Sn 189.927  Recovery = 95.86%
Sr 421.552†            70848.3      492.83 ug/L         3.268      492.83 ppb          3.268   0.66%
   QC value within limits for Sr 421.552  Recovery = 98.57%
Ti 334.940†           301288.0      474.60 ug/L         5.031      474.60 ppb          5.031   1.06%
   QC value within limits for Ti 334.940  Recovery = 94.92%
Tl 190.801†             1492.9      483.41 ug/L         3.557      483.41 ppb          3.557   0.74%
   QC value within limits for Tl 190.801  Recovery = 96.68%
U 409.014†             16813.4      467.86 ug/L         5.175      467.86 ppb          5.175   1.11%
   QC value within limits for U 409.014  Recovery = 93.57%
V 292.402†             68013.7      481.46 ug/L         4.685      481.46 ppb          4.685   0.97%
   QC value within limits for V 292.402  Recovery = 96.29%
Zn 213.857†            47524.1      475.34 ug/L         5.043      475.34 ppb          5.043   1.06%
   QC value within limits for Zn 213.857  Recovery = 95.07%
SiO2†                  73816.3      5111.9 ug/L        17.34      5111.9 ppb         17.34   0.34%
   QC value within limits for SiO2  Recovery = 95.59%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 13:45:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3921.6	3921.6	102	%			13:47:53
1	Y RADIAL	4517.7	4517.7	101.5	%			13:47:33
1	Al 396.153Radial†	-114.4	2.6	2.3499	ug/L	2.3499	ppb	13:47:33
1	Ca 317.933Radial†	21.8	2.8	6.0275	ug/L	6.0275	ppb	13:47:53
1	Fe 238.204 Radial†	11.0	-0.9	-14.020	ug/L	-14.020	ppb	13:47:53
1	K 766.490 Radial†	3360.7	540.2	103.47	ug/L	103.47	ppb	13:47:33
1	Mg 279.077 IEC†	1.9	0.7	34.871	ug/L	34.871	ppb	13:47:53
1	Na 589.592 Radial†	-794.9	119.9	37.303	ug/L	37.303	ppb	13:47:33
1	Sr 421.552†	50.1	40.5	0.2818	ug/L	0.2818	ppb	13:47:33
1	Sc 361.383	900421.0	900421.0	102.31	%			13:48:50
1	Y 371.029	758138.7	758138.7	99.672	%			13:48:50
1	Ag 328.068†	230.1	-9.3	-0.0406	ug/L	-0.0406	ppb	13:48:50
1	As 188.979†	4.8	24.6	10.928	ug/L	10.928	ppb	13:49:10
1	B 249.677†	521.4	787.6	19.307	ug/L	19.307	ppb	13:48:50
1	Ba 233.527†	26.1	14.5	0.1132	ug/L	0.1132	ppb	13:49:10
1	Be 313.107†	-3553.0	85.5	0.0320	ug/L	0.0320	ppb	13:48:50
1	Cd 226.502†	-114.8	64.0	0.7438	ug/L	0.7438	ppb	13:49:10
1	Co 228.616†	-70.4	-3.9	-0.0796	ug/L	-0.0796	ppb	13:49:10
1	Cr 267.716†	98.6	11.3	0.1287	ug/L	0.1287	ppb	13:49:10
1	Cu 324.752†	6171.2	76.6	0.2374	ug/L	0.2374	ppb	13:48:50
1	Mn 257.610†	514.4	25.1	0.0257	ug/L	0.0257	ppb	13:49:10
1	Mo 202.031†	19.9	14.8	1.0873	ug/L	1.0873	ppb	13:49:10
1	Ni 231.604†	86.7	2.0	0.0501	ug/L	0.0501	ppb	13:49:10
1	P 214.914†	211.3	0.7	0.4016	ug/L	0.4016	ppb	13:49:10
1	Pb 220.353†	62.4	-0.2	-0.0243	ug/L	-0.0243	ppb	13:49:10
1	S 181.975 Axial†	51.9	14.8	20.936	ug/L	20.936	ppb	13:49:10
1	Sb 206.836†	56.4	16.2	5.7446	ug/L	5.7446	ppb	13:49:10
1	Se 196.026†	-23.6	1.6	1.0374	ug/L	1.0374	ppb	13:49:10
1	Si 251.611†	660.7	81.0	2.6117	ug/L	2.6117	ppb	13:49:10
1	Sn 189.927†	18.1	8.3	1.4976	ug/L	1.4976	ppb	13:49:10
1	Ti 334.940†	-1433.6	8.7	0.0154	ug/L	0.0154	ppb	13:48:50
1	Tl 190.801†	-30.5	-2.4	-0.7627	ug/L	-0.7627	ppb	13:49:10
1	U 409.014†	-3279.6	-303.7	-8.4785	ug/L	-8.4785	ppb	13:48:50
1	V 292.402†	-1498.9	3.7	0.0278	ug/L	0.0278	ppb	13:48:50
1	Zn 213.857†	892.4	132.8	1.3417	ug/L	1.3417	ppb	13:49:10
1	SiO2†	649.5	46.6	3.2035	ug/L	3.2035	ppb	13:50:06
2	Sc Radial	3897.8	3897.8	101	%			13:48:18
2	Y RADIAL	4482.0	4482.0	100.7	%			13:47:58
2	Al 396.153Radial†	-106.0	10.2	9.5528	ug/L	9.5528	ppb	13:47:58
2	Ca 317.933Radial†	25.0	6.0	13.151	ug/L	13.151	ppb	13:48:18
2	Fe 238.204 Radial†	12.1	0.3	4.6055	ug/L	4.6055	ppb	13:48:18
2	K 766.490 Radial†	3449.4	648.3	124.19	ug/L	124.19	ppb	13:47:58
2	Mg 279.077 IEC†	1.1	-0.1	-6.1782	ug/L	-6.1782	ppb	13:48:18
2	Na 589.592 Radial†	-880.2	30.7	9.5675	ug/L	9.5675	ppb	13:47:58
2	Sr 421.552†	23.8	14.8	0.1028	ug/L	0.1028	ppb	13:47:58
2	Sc 361.383	892824.5	892824.5	101.45	%			13:49:16
2	Y 371.029	752703.7	752703.7	98.957	%			13:49:16
2	Ag 328.068†	321.0	82.2	0.3888	ug/L	0.3888	ppb	13:49:16
2	As 188.979†	5.5	25.3	11.256	ug/L	11.256	ppb	13:49:36
2	B 249.677†	394.0	666.4	16.332	ug/L	16.332	ppb	13:49:16
2	Ba 233.527†	24.8	13.4	0.1056	ug/L	0.1056	ppb	13:49:36
2	Be 313.107†	-3527.2	81.4	0.0304	ug/L	0.0304	ppb	13:49:16
2	Cd 226.502†	-111.5	66.3	0.7693	ug/L	0.7693	ppb	13:49:36
2	Co 228.616†	-61.9	3.8	0.0828	ug/L	0.0828	ppb	13:49:36
2	Cr 267.716†	86.5	0.2	0.0052	ug/L	0.0052	ppb	13:49:36
2	Cu 324.752†	5998.8	-41.9	-0.1242	ug/L	-0.1242	ppb	13:49:16
2	Mn 257.610†	528.0	42.7	0.0494	ug/L	0.0494	ppb	13:49:36
2	Mo 202.031†	17.7	12.7	0.9382	ug/L	0.9382	ppb	13:49:36
2	Ni 231.604†	93.0	8.9	0.2275	ug/L	0.2275	ppb	13:49:36

2	P 214.914†	205.5	-3.2	-1.8924 ug/L	-1.8924 ppb	13:49:36
2	Pb 220.353†	48.2	-13.6	-1.6824 ug/L	-1.6824 ppb	13:49:36
2	S 181.975 Axial†	39.8	3.4	4.8180 ug/L	4.8180 ppb	13:49:36
2	Sb 206.836†	58.1	18.3	6.5025 ug/L	6.5025 ppb	13:49:36
2	Se 196.026†	-23.3	1.8	1.1679 ug/L	1.1679 ppb	13:49:36
2	Si 251.611†	696.6	122.0	3.9399 ug/L	3.9399 ppb	13:49:36
2	Sn 189.927†	25.1	15.3	2.7598 ug/L	2.7598 ppb	13:49:36
2	Ti 334.940†	-1439.5	-9.1	-0.0094 ug/L	-0.0094 ppb	13:49:16
2	Tl 190.801†	-25.8	2.0	0.6358 ug/L	0.6358 ppb	13:49:36
2	U 409.014†	-3162.5	-215.5	-6.0183 ug/L	-6.0183 ppb	13:49:16
2	V 292.402†	-1473.6	16.2	0.1140 ug/L	0.1140 ppb	13:49:16
2	Zn 213.857†	871.0	119.1	1.2006 ug/L	1.2006 ppb	13:49:36
2	SiO2†	659.5	61.8	4.2680 ug/L	4.2680 ppb	13:50:11
3	Sc Radial	3887.9	3887.9	101 %		13:48:44
3	Y RADIAL	4557.5	4557.5	102.4 %		13:48:23
3	Al 396.153Radial†	-110.4	5.6	5.1570 ug/L	5.1570 ppb	13:48:23
3	Ca 317.933Radial†	23.5	4.6	10.053 ug/L	10.053 ppb	13:48:44
3	Fe 238.204 Radial†	10.7	-1.0	-16.790 ug/L	-16.790 ppb	13:48:44
3	K 766.490 Radial†	3449.2	656.6	125.79 ug/L	125.79 ppb	13:48:23
3	Mg 279.077 IEC†	1.0	-0.1	-7.4965 ug/L	-7.4965 ppb	13:48:44
3	Na 589.592 Radial†	-811.0	97.2	30.233 ug/L	30.233 ppb	13:48:23
3	Sr 421.552†	48.8	39.7	0.2758 ug/L	0.2758 ppb	13:48:23
3	Sc 361.383	905298.4	905298.4	102.87 %		13:49:41
3	Y 371.029	763531.6	763531.6	100.38 %		13:49:41
3	Ag 328.068†	252.2	11.0	0.0444 ug/L	0.0444 ppb	13:49:41
3	As 188.979†	5.5	25.3	11.245 ug/L	11.245 ppb	13:50:01
3	B 249.677†	431.1	697.1	17.088 ug/L	17.088 ppb	13:49:41
3	Ba 233.527†	23.4	11.7	0.0919 ug/L	0.0919 ppb	13:50:01
3	Be 313.107†	-3560.6	96.9	0.0362 ug/L	0.0362 ppb	13:49:41
3	Cd 226.502†	-112.8	66.5	0.7747 ug/L	0.7747 ppb	13:50:01
3	Co 228.616†	-65.7	1.0	0.0244 ug/L	0.0244 ppb	13:50:01
3	Cr 267.716†	87.2	-0.4	-0.0066 ug/L	-0.0066 ppb	13:50:01
3	Cu 324.752†	6151.4	24.9	0.0737 ug/L	0.0737 ppb	13:49:41
3	Mn 257.610†	520.8	28.7	0.0313 ug/L	0.0313 ppb	13:50:01
3	Mo 202.031†	22.8	17.5	1.2844 ug/L	1.2844 ppb	13:50:01
3	Ni 231.604†	75.3	-9.6	-0.2448 ug/L	-0.2448 ppb	13:50:01
3	P 214.914†	200.9	-10.5	-6.3225 ug/L	-6.3225 ppb	13:50:01
3	Pb 220.353†	66.3	3.3	0.4136 ug/L	0.4136 ppb	13:50:01
3	S 181.975 Axial†	47.4	10.3	14.475 ug/L	14.475 ppb	13:50:01
3	Sb 206.836†	52.0	11.5	4.1182 ug/L	4.1182 ppb	13:50:01
3	Se 196.026†	-23.4	2.0	1.2784 ug/L	1.2784 ppb	13:50:01
3	Si 251.611†	667.6	84.3	2.7136 ug/L	2.7136 ppb	13:50:01
3	Sn 189.927†	23.2	13.2	2.3765 ug/L	2.3765 ppb	13:50:01
3	Ti 334.940†	-1437.9	12.0	0.0200 ug/L	0.0200 ppb	13:49:41
3	Tl 190.801†	-33.3	-5.0	-1.5954 ug/L	-1.5954 ppb	13:50:01
3	U 409.014†	-2908.3	74.6	2.0861 ug/L	2.0861 ppb	13:49:41
3	V 292.402†	-1504.9	5.7	0.0644 ug/L	0.0644 ppb	13:49:41
3	Zn 213.857†	878.6	114.7	1.1618 ug/L	1.1618 ppb	13:50:01
3	SiO2†	714.8	106.7	7.3698 ug/L	7.3698 ppb	13:50:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899514.6	102.21	%	0.714				0.70%
Sc Radial	3902.5	101	%	0.4				0.44%
Y 371.029	758124.7	99.670	%	0.7118				0.71%
Y RADIAL	4519.1	101.5	%	0.85				0.84%
Ag 328.068†	28.0	0.1308	ug/L	0.22736	0.1308	ppb	0.22736	173.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.1	5.6866	ug/L	3.63051	5.6866	ppb	3.63051	63.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	25.1	11.143	ug/L	0.1861	11.143	ppb	0.1861	1.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	717.0	17.576	ug/L	1.5464	17.576	ppb	1.5464	8.80%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.2	0.1036	ug/L	0.01081	0.1036	ppb	0.01081	10.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	87.9	0.0329	ug/L	0.00303	0.0329	ppb	0.00303	9.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.5	9.7439	ug/L	3.57168	9.7439	ppb	3.57168	36.66%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                65.6      0.7626 ug/L       0.01648      0.7626 ppb        0.01648   2.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.3      0.0092 ug/L       0.08227      0.0092 ppb        0.08227 897.23%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.7      0.0424 ug/L       0.07495      0.0424 ppb        0.07495 176.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                19.8      0.0623 ug/L       0.18104      0.0623 ppb        0.18104 290.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -8.7346 ug/L      11.63557     -8.7346 ppb       11.63557 133.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         615.0      117.82 ug/L        12.450      117.82 ppb         12.450  10.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.1      7.0654 ug/L      24.08932      7.0654 ppb       24.08932 340.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.2      0.0355 ug/L       0.01237      0.0355 ppb        0.01237  34.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.0      1.1033 ug/L       0.17367      1.1033 ppb        0.17367  15.74%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         82.6      25.701 ug/L       14.4122      25.701 ppb        14.4122  56.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.4      0.0109 ug/L       0.23856      0.0109 ppb        0.23856 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.4     -2.6044 ug/L       3.41812     -2.6044 ppb        3.41812 131.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.5     -0.4310 ug/L       1.10563     -0.4310 ppb        1.10563 256.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            9.5      13.409 ug/L        8.1115      13.409 ppb         8.1115  60.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                15.3      5.4551 ug/L       1.21823      5.4551 ppb        1.21823  22.33%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.8      1.1612 ug/L       0.12065      1.1612 ppb        0.12065  10.39%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                95.8      3.0884 ug/L       0.73918      3.0884 ppb        0.73918  23.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                12.2      2.2113 ug/L       0.64713      2.2113 ppb        0.64713  29.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.7      0.2201 ug/L       0.10168      0.2201 ppb        0.10168  46.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 3.9      0.0087 ug/L       0.01582      0.0087 ppb        0.01582 182.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.8     -0.5741 ug/L       1.12750     -0.5741 ppb        1.12750 196.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -148.2     -4.1369 ug/L       5.52787     -4.1369 ppb        5.52787 133.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  8.5      0.0687 ug/L       0.04328      0.0687 ppb        0.04328  62.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               122.2      1.2347 ug/L       0.09466      1.2347 ppb        0.09466   7.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      71.7      4.9471 ug/L       2.16457      4.9471 ppb        2.16457  43.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Analysis Begun

Start Time: 2/25/2010 13:55:01 **Plasma On Time:** 00:00:00
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\022510.sif
Batch ID:
Results Data Set: 022510
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved:** 2/25/2010 11:39:31
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location:** 36
Sample ID: LR1 **Date Collected:** 2/25/2010 13:55:02
Analyst: HSC **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3816.7	3816.7	99.0	%			13:57:15
1	Y RADIAL	4397.6	4397.6	98.78	%			13:56:55
1	Al 396.153Radial†	-139.4	-25.8	-22.943	ug/L	-22.943	ppb	13:56:55

1	Ca 317.933Radial†	9.1	-9.5	-20.737 ug/L	-20.737 ppb	13:57:15
1	Fe 238.204 Radial†	23840.6	24080.2	389140 ug/L	389140 ppb	13:56:55
1	K 766.490 Radial†	3035.6	302.5	58.023 ug/L	58.023 ppb	13:56:55
1	Mg 279.077 IEC†	10.0	9.0	66.777 ug/L	66.777 ppb	13:57:15
1	Na 589.592 Radial†	-935.0	-43.1	-13.420 ug/L	-13.420 ppb	13:56:55
1	Sr 421.552†	139.4	132.1	0.9191 ug/L	0.9191 ppb	13:56:55
1	Sc 361.383	881329.5	881329.5	100.14 %		13:58:13
1	Y 371.029	738732.3	738732.3	97.120 %		13:58:13
1	Ag 328.068†	-23689.6	-23890.0	0.5324 ug/L	0.5324 ppb	13:58:13
1	As 188.979†	-199.5	-179.2	11.549 ug/L	11.549 ppb	13:58:33
1	B 249.677†	1764.0	2039.5	-13.259 ug/L	-13.259 ppb	13:58:13
1	Ba 233.527†	-1857.5	-1865.9	-2.7512 ug/L	-2.7512 ppb	13:58:13
1	Be 313.107†	-8430.4	-4860.1	-1.8060 ug/L	-1.8060 ppb	13:58:13
1	Cd 226.502†	2838.7	3010.8	-3.2482 ug/L	-3.2482 ppb	13:58:13
1	Co 228.616†	781.8	845.5	12.064 ug/L	12.064 ppb	13:58:33
1	Cr 267.716†	-253.7	-338.4	29.275 ug/L	29.275 ppb	13:58:13
1	Cu 324.752†	64.5	-5890.7	-2.9150 ug/L	-2.9150 ppb	13:58:13
1	Mn 257.610†	-32601.6	-33032.8	0.7820 ug/L	0.7820 ppb	13:58:13
1	Mo 202.031†	-351.9	-356.1	3.9820 ug/L	3.9820 ppb	13:58:13
1	Ni 231.604†	197.9	114.8	2.9199 ug/L	2.9199 ppb	13:58:33
1	P 214.914†	715.0	508.1	-4.3556 ug/L	-4.3556 ppb	13:58:33
1	Pb 220.353†	298.3	236.7	-12.844 ug/L	-12.844 ppb	13:58:33
1	S 181.975 Axial†	52.3	16.4	23.145 ug/L	23.145 ppb	13:58:33
1	Sb 206.836†	21.9	-17.2	-10.967 ug/L	-10.967 ppb	13:58:33
1	Se 196.026†	-1790.4	-1763.2	54.982 ug/L	54.982 ppb	13:58:33
1	Si 251.611†	-709.0	-1272.7	-40.907 ug/L	-40.907 ppb	13:58:13
1	Sn 189.927†	-33.4	-42.8	-30.065 ug/L	-30.065 ppb	13:58:33
1	Ti 334.940†	1355.9	2763.9	-0.0993 ug/L	-0.0993 ppb	13:58:13
1	Tl 190.801†	-64.6	-37.1	-12.212 ug/L	-12.212 ppb	13:58:33
1	U 409.014†	357563.8	359955.8	10007 ug/L	10007 ppb	13:58:13
1	V 292.402†	3473.1	4936.8	-3.3158 ug/L	-3.3158 ppb	13:58:13
1	Zn 213.857†	4428.7	3682.9	-21.049 ug/L	-21.049 ppb	13:58:33
1	SiO2†	-725.6	-1312.8	-90.432 ug/L	-90.432 ppb	13:59:30
2	Sc Radial	3787.3	3787.3	98.2 %		13:57:40
2	Y RADIAL	4358.4	4358.4	97.90 %		13:57:20
2	Al 396.153Radial†	-136.5	-24.0	-21.103 ug/L	-21.103 ppb	13:57:20
2	Ca 317.933Radial†	12.7	-5.7	-12.492 ug/L	-12.492 ppb	13:57:40
2	Fe 238.204 Radial†	23731.4	24156.0	390370 ug/L	390370 ppb	13:57:20
2	K 766.490 Radial†	2882.7	170.7	32.759 ug/L	32.759 ppb	13:57:20
2	Mg 279.077 IEC†	11.7	10.7	158.29 ug/L	158.29 ppb	13:57:40
2	Na 589.592 Radial†	-920.2	-35.4	-11.027 ug/L	-11.027 ppb	13:57:20
2	Sr 421.552†	150.2	144.2	1.0031 ug/L	1.0031 ppb	13:57:20
2	Sc 361.383	888834.6	888834.6	101.00 %		13:58:39
2	Y 371.029	744730.9	744730.9	97.909 %		13:58:39
2	Ag 328.068†	-23818.7	-23818.1	1.2475 ug/L	1.2475 ppb	13:58:39
2	As 188.979†	-189.3	-167.6	17.043 ug/L	17.043 ppb	13:58:59
2	B 249.677†	1900.0	2159.3	-10.518 ug/L	-10.518 ppb	13:58:39
2	Ba 233.527†	-1877.7	-1870.2	-2.7443 ug/L	-2.7443 ppb	13:58:39
2	Be 313.107†	-8535.6	-4893.2	-1.8183 ug/L	-1.8183 ppb	13:58:39
2	Cd 226.502†	2790.1	2938.8	-4.2115 ug/L	-4.2115 ppb	13:58:39
2	Co 228.616†	746.6	804.1	11.169 ug/L	11.169 ppb	13:58:59
2	Cr 267.716†	-259.8	-342.4	29.349 ug/L	29.349 ppb	13:58:39
2	Cu 324.752†	118.8	-5837.4	-2.6890 ug/L	-2.6890 ppb	13:58:39
2	Mn 257.610†	-32694.5	-32849.9	1.1075 ug/L	1.1075 ppb	13:58:39
2	Mo 202.031†	-395.3	-396.0	1.1340 ug/L	1.1340 ppb	13:58:39
2	Ni 231.604†	213.0	128.2	3.2603 ug/L	3.2603 ppb	13:58:59
2	P 214.914†	727.9	514.9	-1.2910 ug/L	-1.2910 ppb	13:58:59
2	Pb 220.353†	282.0	218.1	-15.287 ug/L	-15.287 ppb	13:58:59
2	S 181.975 Axial†	50.6	14.2	20.064 ug/L	20.064 ppb	13:58:59
2	Sb 206.836†	21.1	-18.1	-11.326 ug/L	-11.326 ppb	13:58:59
2	Se 196.026†	-1756.9	-1714.8	90.543 ug/L	90.543 ppb	13:58:59
2	Si 251.611†	-763.8	-1321.0	-42.434 ug/L	-42.434 ppb	13:58:39
2	Sn 189.927†	-19.9	-29.1	-27.661 ug/L	-27.661 ppb	13:58:59
2	Ti 334.940†	1391.8	2788.0	-0.0686 ug/L	-0.0686 ppb	13:58:39
2	Tl 190.801†	-56.3	-28.3	-9.3943 ug/L	-9.3943 ppb	13:58:59
2	U 409.014†	360681.4	360027.9	10009 ug/L	10009 ppb	13:58:39
2	V 292.402†	3727.2	5159.2	-1.9767 ug/L	-1.9767 ppb	13:58:39
2	Zn 213.857†	4389.0	3606.3	-22.009 ug/L	-22.009 ppb	13:58:59
2	SiO2†	-650.9	-1232.7	-84.790 ug/L	-84.790 ppb	13:59:35
3	Sc Radial	3799.6	3799.6	98.5 %		13:58:06
3	Y RADIAL	4366.4	4366.4	98.08 %		13:57:45

3	Al 396.153Radial†	-121.8	-8.6	-6.8083	ug/L	-6.8083 ppb	13:57:45
3	Ca 317.933Radial†	10.9	-7.7	-16.691	ug/L	-16.691 ppb	13:58:06
3	Fe 238.204 Radial†	23731.6	24078.4	389120	ug/L	389120 ppb	13:57:45
3	K 766.490 Radial†	2912.0	190.9	36.631	ug/L	36.631 ppb	13:57:45
3	Mg 279.077 IEC†	8.8	7.8	1.9668	ug/L	1.9668 ppb	13:58:06
3	Na 589.592 Radial†	-922.7	-35.0	-10.877	ug/L	-10.877 ppb	13:57:45
3	Sr 421.552†	155.7	149.3	1.0386	ug/L	1.0386 ppb	13:57:45
3	Sc 361.383	889833.9	889833.9	101.11	%		13:59:05
3	Y 371.029	744818.3	744818.3	97.921	%		13:59:05
3	Ag 328.068†	-23790.0	-23763.2	1.1319	ug/L	1.1319 ppb	13:59:05
3	As 188.979†	-193.0	-170.9	15.234	ug/L	15.234 ppb	13:59:25
3	B 249.677†	1797.8	2056.1	-12.845	ug/L	-12.845 ppb	13:59:05
3	Ba 233.527†	-1788.2	-1779.6	-2.0717	ug/L	-2.0717 ppb	13:59:05
3	Be 313.107†	-8541.2	-4889.3	-1.8171	ug/L	-1.8171 ppb	13:59:05
3	Cd 226.502†	2858.4	3003.2	-3.3377	ug/L	-3.3377 ppb	13:59:05
3	Co 228.616†	753.8	810.4	11.326	ug/L	11.326 ppb	13:59:25
3	Cr 267.716†	-222.4	-305.1	29.655	ug/L	29.655 ppb	13:59:05
3	Cu 324.752†	186.5	-5770.7	-2.5405	ug/L	-2.5405 ppb	13:59:05
3	Mn 257.610†	-32510.7	-32631.7	1.2386	ug/L	1.2386 ppb	13:59:05
3	Mo 202.031†	-358.7	-359.5	3.7301	ug/L	3.7301 ppb	13:59:05
3	Ni 231.604†	199.6	114.6	2.9142	ug/L	2.9142 ppb	13:59:25
3	P 214.914†	721.5	507.8	-4.5740	ug/L	-4.5740 ppb	13:59:25
3	Pb 220.353†	289.0	224.6	-14.327	ug/L	-14.327 ppb	13:59:25
3	S 181.975 Axial†	61.9	25.4	35.841	ug/L	35.841 ppb	13:59:25
3	Sb 206.836†	22.3	-16.9	-10.855	ug/L	-10.855 ppb	13:59:25
3	Se 196.026†	-1756.0	-1712.0	88.530	ug/L	88.530 ppb	13:59:25
3	Si 251.611†	-739.1	-1295.7	-41.649	ug/L	-41.649 ppb	13:59:05
3	Sn 189.927†	-24.0	-33.2	-28.326	ug/L	-28.326 ppb	13:59:25
3	Ti 334.940†	1326.2	2721.5	-0.1520	ug/L	-0.1520 ppb	13:59:05
3	Tl 190.801†	-65.4	-37.2	-12.260	ug/L	-12.260 ppb	13:59:25
3	U 409.014†	360329.2	359278.5	9988.2	ug/L	9988.2 ppb	13:59:05
3	V 292.402†	3641.2	5070.0	-2.4225	ug/L	-2.4225 ppb	13:59:05
3	Zn 213.857†	4395.0	3607.4	-21.808	ug/L	-21.808 ppb	13:59:25
3	SiO2†	-686.3	-1266.9	-87.240	ug/L	-87.240 ppb	13:59:40

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	886666.0	100.75	%	0.528				0.52%
Sc Radial	3801.2	98.6	%	0.38				0.39%
Y 371.029	742760.5	97.650	%	0.4587				0.47%
Y RADIAL	4374.1	98.26	%	0.465				0.47%
Ag 328.068†	-23823.8	0.9706	ug/L	0.38386	0.9706	ppb	0.38386	39.55%
Al 396.153Radial†	-19.4	-16.951	ug/L	8.8324	-16.951	ppb	8.8324	52.10%
As 188.979†	-172.6	14.609	ug/L	2.7998	14.609	ppb	2.7998	19.17%
B 249.677†	2085.0	-12.207	ug/L	1.4776	-12.207	ppb	1.4776	12.10%
Ba 233.527†	-1838.6	-2.5224	ug/L	0.39029	-2.5224	ppb	0.39029	15.47%
Be 313.107†	-4880.9	-1.8138	ug/L	0.00676	-1.8138	ppb	0.00676	0.37%
Ca 317.933Radial†	-7.6	-16.640	ug/L	4.1231	-16.640	ppb	4.1231	24.78%
Cd 226.502†	2984.3	-3.5991	ug/L	0.53220	-3.5991	ppb	0.53220	14.79%
Co 228.616†	820.0	11.519	ug/L	0.4781	11.519	ppb	0.4781	4.15%
Cr 267.716†	-328.6	29.426	ug/L	0.2016	29.426	ppb	0.2016	0.69%
Cu 324.752†	-5832.9	-2.7148	ug/L	0.18858	-2.7148	ppb	0.18858	6.95%
Fe 238.204 Radial†	24104.8	389540	ug/L	715.6	389540	ppb	715.6	0.18%
K 766.490 Radial†	221.4	42.471	ug/L	13.6067	42.471	ppb	13.6067	32.04%
Mg 279.077 IEC†	9.2	75.678	ug/L	78.5407	75.678	ppb	78.5407	103.78%
Mn 257.610†	-32838.2	1.0427	ug/L	0.23514	1.0427	ppb	0.23514	22.55%
Mo 202.031†	-370.5	2.9487	ug/L	1.57661	2.9487	ppb	1.57661	53.47%
Na 589.592 Radial†	-37.8	-11.775	ug/L	1.4268	-11.775	ppb	1.4268	12.12%
Ni 231.604†	119.2	3.0315	ug/L	0.19818	3.0315	ppb	0.19818	6.54%
P 214.914†	510.3	-3.4069	ug/L	1.83564	-3.4069	ppb	1.83564	53.88%
Pb 220.353†	226.5	-14.153	ug/L	1.2307	-14.153	ppb	1.2307	8.70%
S 181.975 Axial†	18.7	26.350	ug/L	8.3625	26.350	ppb	8.3625	31.74%
Sb 206.836†	-17.4	-11.049	ug/L	0.2457	-11.049	ppb	0.2457	2.22%
Se 196.026†	-1730.0	78.018	ug/L	19.9755	78.018	ppb	19.9755	25.60%
Si 251.611†	-1296.5	-41.663	ug/L	0.7637	-41.663	ppb	0.7637	1.83%
Sn 189.927†	-35.0	-28.684	ug/L	1.2412	-28.684	ppb	1.2412	4.33%
Sr 421.552†	141.9	0.9870	ug/L	0.06136	0.9870	ppb	0.06136	6.22%
Ti 334.940†	2757.8	-0.1066	ug/L	0.04218	-0.1066	ppb	0.04218	39.55%
Tl 190.801†	-34.2	-11.289	ug/L	1.6409	-11.289	ppb	1.6409	14.54%

U 409.014†	359754.1	10001	ug/L	11.5	10001	ppb	11.5	0.11%
V 292.402†	5055.3	-2.5717	ug/L	0.68190	-2.5717	ppb	0.68190	26.52%
Zn 213.857†	3632.2	-21.622	ug/L	0.5061	-21.622	ppb	0.5061	2.34%
SiO2†	-1270.8	-87.487	ug/L	2.8290	-87.487	ppb	2.8290	3.23%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 2/25/2010 14:01:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4403.2	4403.2	114	%			14:03:45
1	Y RADIAL	4900.7	4900.7	110.1	%			14:03:45
1	Al 396.153Radial†	-119.5	10.4	9.7096	ug/L	9.7096	ppb	14:03:45
1	Ca 317.933Radial†	18.0	-2.9	-6.4170	ug/L	-6.4170	ppb	14:04:05
1	Fe 238.204 Radial†	12.1	-1.1	-17.618	ug/L	-17.618	ppb	14:04:05
1	K 766.490 Radial†	3047.6	-95.6	-18.320	ug/L	-18.320	ppb	14:03:45
1	Mg 279.077 IEC†	0.8	-0.5	-25.000	ug/L	-25.000	ppb	14:04:05
1	Na 589.592 Radial†	-906.7	107.4	33.429	ug/L	33.429	ppb	14:03:45
1	Sr 421.552†	46.8	32.3	0.2245	ug/L	0.2245	ppb	14:03:45
1	Sc 361.383	911543.9	911543.9	103.58	%			14:05:02
1	Y 371.029	768995.6	768995.6	101.10	%			14:05:02
1	Ag 328.068†	323.1	77.8	0.3594	ug/L	0.3594	ppb	14:05:07
1	As 188.979†	-12.0	8.4	3.7109	ug/L	3.7109	ppb	14:05:27
1	B 249.677†	-38.0	241.3	5.9293	ug/L	5.9293	ppb	14:05:27
1	Ba 233.527†	1250815.2	1207619.9	9492.3	ug/L	9492.3	ppb	14:05:02
1	Be 313.107†	-3508.7	170.7	0.0638	ug/L	0.0638	ppb	14:05:07
1	Cd 226.502†	-130.7	50.1	0.5829	ug/L	0.5829	ppb	14:05:27
1	Co 228.616†	-285.3	-210.6	0.1485	ug/L	0.1485	ppb	14:05:27
1	Cr 267.716†	81.4	-6.5	-0.0733	ug/L	-0.0733	ppb	14:05:27
1	Cu 324.752†	5966.6	-194.5	-0.5928	ug/L	-0.5928	ppb	14:05:07
1	Mn 257.610†	513.8	18.4	0.0202	ug/L	0.0202	ppb	14:05:27
1	Mo 202.031†	15.2	10.0	0.7375	ug/L	0.7375	ppb	14:05:27
1	Ni 231.604†	66.2	-18.8	-0.4779	ug/L	-0.4779	ppb	14:05:27
1	P 214.914†	206.7	-6.2	-3.5895	ug/L	-3.5895	ppb	14:05:27
1	Pb 220.353†	36.7	-25.8	-3.1799	ug/L	-3.1799	ppb	14:05:27
1	S 181.975 Axial†	43.1	5.7	8.0818	ug/L	8.0818	ppb	14:05:27
1	Sb 206.836†	39.9	-0.4	-0.1266	ug/L	-0.1266	ppb	14:05:27
1	Se 196.026†	-24.5	1.0	0.6337	ug/L	0.6337	ppb	14:05:27
1	Si 251.611†	619.8	33.7	1.0812	ug/L	1.0812	ppb	14:05:27
1	Sn 189.927†	15.4	5.5	0.9852	ug/L	0.9852	ppb	14:05:27
1	Ti 334.940†	-1446.1	13.7	0.0233	ug/L	0.0233	ppb	14:05:07
1	Tl 190.801†	-28.6	-0.2	-0.0438	ug/L	-0.0438	ppb	14:05:27
1	U 409.014†	-3049.9	-42.7	-1.1914	ug/L	-1.1914	ppb	14:05:02
1	V 292.402†	-1441.0	77.5	0.5515	ug/L	0.5515	ppb	14:05:07
1	Zn 213.857†	1017.7	243.1	2.4608	ug/L	2.4608	ppb	14:05:27
1	SiO2†	661.5	50.5	3.4838	ug/L	3.4838	ppb	14:06:33
2	Sc Radial	4038.8	4038.8	105	%			14:04:10
2	Y RADIAL	4530.4	4530.4	101.8	%			14:04:10
2	Al 396.153Radial†	-97.5	22.0	20.609	ug/L	20.609	ppb	14:04:10
2	Ca 317.933Radial†	23.8	4.0	8.8098	ug/L	8.8098	ppb	14:04:30
2	Fe 238.204 Radial†	10.6	-1.5	-24.640	ug/L	-24.640	ppb	14:04:30
2	K 766.490 Radial†	3021.8	120.7	23.112	ug/L	23.112	ppb	14:04:10
2	Mg 279.077 IEC†	3.8	2.4	128.58	ug/L	128.58	ppb	14:04:30
2	Na 589.592 Radial†	-846.5	93.3	29.031	ug/L	29.031	ppb	14:04:10
2	Sr 421.552†	-13.1	-21.3	-0.1479	ug/L	-0.1479	ppb	14:04:10
2	Sc 361.383	920825.7	920825.7	104.63	%			14:05:33
2	Y 371.029	775725.2	775725.2	101.98	%			14:05:33
2	Ag 328.068†	249.6	4.4	0.0102	ug/L	0.0102	ppb	14:05:38
2	As 188.979†	-10.3	10.1	4.4894	ug/L	4.4894	ppb	14:05:58
2	B 249.677†	-71.0	210.1	5.1659	ug/L	5.1659	ppb	14:05:58
2	Ba 233.527†	1260388.6	1204596.9	9468.5	ug/L	9468.5	ppb	14:05:33
2	Be 313.107†	-3672.5	48.3	0.0182	ug/L	0.0182	ppb	14:05:38
2	Cd 226.502†	-130.4	51.5	0.6026	ug/L	0.6026	ppb	14:05:58
2	Co 228.616†	-278.2	-201.0	0.3388	ug/L	0.3388	ppb	14:05:58
2	Cr 267.716†	95.5	6.1	0.0650	ug/L	0.0650	ppb	14:05:58
2	Cu 324.752†	6051.5	-171.5	-0.5267	ug/L	-0.5267	ppb	14:05:38
2	Mn 257.610†	509.8	9.6	0.0033	ug/L	0.0033	ppb	14:05:58
2	Mo 202.031†	15.9	10.6	0.7753	ug/L	0.7753	ppb	14:05:58
2	Ni 231.604†	97.0	10.0	0.2567	ug/L	0.2567	ppb	14:05:58

2	P 214.914†	202.8	-11.9	-7.0405	ug/L	-7.0405 ppb	14:05:58
2	Pb 220.353†	18.3	-43.7	-5.3955	ug/L	-5.3955 ppb	14:05:58
2	S 181.975 Axial†	43.4	5.7	7.9635	ug/L	7.9635 ppb	14:05:58
2	Sb 206.836†	36.9	-3.8	-1.2911	ug/L	-1.2911 ppb	14:05:58
2	Se 196.026†	-28.6	-2.6	-1.7791	ug/L	-1.7791 ppb	14:05:58
2	Si 251.611†	614.3	22.4	0.7170	ug/L	0.7170 ppb	14:05:58
2	Sn 189.927†	16.7	6.6	1.1896	ug/L	1.1896 ppb	14:05:58
2	Ti 334.940†	-1420.7	52.1	0.0704	ug/L	0.0704 ppb	14:05:38
2	Tl 190.801†	-29.5	-0.7	-0.2133	ug/L	-0.2133 ppb	14:05:58
2	U 409.014†	-2835.2	192.1	5.3673	ug/L	5.3673 ppb	14:05:33
2	V 292.402†	-1471.0	62.8	0.4658	ug/L	0.4658 ppb	14:05:38
2	Zn 213.857†	1009.9	225.7	2.2818	ug/L	2.2818 ppb	14:05:58
2	SiO2†	647.5	30.6	2.1023	ug/L	2.1023 ppb	14:06:38
3	Sc Radial	3944.9	3944.9	102	%		14:04:36
3	Y RADIAL	4420.4	4420.4	99.30	%		14:04:36
3	Al 396.153Radial†	-127.0	-9.1	-8.4911	ug/L	-8.4911 ppb	14:04:36
3	Ca 317.933Radial†	27.1	7.8	17.105	ug/L	17.105 ppb	14:04:56
3	Fe 238.204 Radial†	12.2	0.2	3.3843	ug/L	3.3843 ppb	14:04:56
3	K 766.490 Radial†	2981.3	149.7	28.685	ug/L	28.685 ppb	14:04:36
3	Mg 279.077 IEC†	2.3	1.1	58.425	ug/L	58.425 ppb	14:04:56
3	Na 589.592 Radial†	-947.4	-24.6	-7.6621	ug/L	-7.6621 ppb	14:04:36
3	Sr 421.552†	21.5	12.3	0.0852	ug/L	0.0852 ppb	14:04:36
3	Sc 361.383	922407.0	922407.0	104.81	%		14:06:03
3	Y 371.029	777523.1	777523.1	102.22	%		14:06:03
3	Ag 328.068†	232.5	-12.3	-0.0617	ug/L	-0.0617 ppb	14:06:08
3	As 188.979†	-8.3	12.0	5.3228	ug/L	5.3228 ppb	14:06:28
3	B 249.677†	-61.7	219.2	5.3837	ug/L	5.3837 ppb	14:06:28
3	Ba 233.527†	1245409.9	1188240.5	9340.0	ug/L	9340.0 ppb	14:06:03
3	Be 313.107†	-3576.9	145.5	0.0546	ug/L	0.0546 ppb	14:06:08
3	Cd 226.502†	-118.8	62.8	0.7307	ug/L	0.7307 ppb	14:06:28
3	Co 228.616†	-284.4	-206.5	0.1588	ug/L	0.1588 ppb	14:06:28
3	Cr 267.716†	81.3	-7.5	-0.0868	ug/L	-0.0868 ppb	14:06:28
3	Cu 324.752†	6098.8	-136.2	-0.4182	ug/L	-0.4182 ppb	14:06:08
3	Mn 257.610†	491.0	-9.2	-0.0126	ug/L	-0.0126 ppb	14:06:28
3	Mo 202.031†	-2.0	-6.6	-0.4852	ug/L	-0.4852 ppb	14:06:28
3	Ni 231.604†	62.6	-23.0	-0.5848	ug/L	-0.5848 ppb	14:06:28
3	P 214.914†	211.4	-4.1	-2.4025	ug/L	-2.4025 ppb	14:06:28
3	Pb 220.353†	41.9	-21.2	-2.6292	ug/L	-2.6292 ppb	14:06:28
3	S 181.975 Axial†	41.2	3.5	4.9609	ug/L	4.9609 ppb	14:06:28
3	Sb 206.836†	44.1	3.0	1.0736	ug/L	1.0736 ppb	14:06:28
3	Se 196.026†	-25.2	0.7	0.4744	ug/L	0.4744 ppb	14:06:28
3	Si 251.611†	594.7	2.7	0.0941	ug/L	0.0941 ppb	14:06:28
3	Sn 189.927†	15.0	4.9	0.8864	ug/L	0.8864 ppb	14:06:28
3	Ti 334.940†	-1398.4	75.7	0.1140	ug/L	0.1140 ppb	14:06:08
3	Tl 190.801†	-28.8	-0.0	0.0111	ug/L	0.0111 ppb	14:06:28
3	U 409.014†	-2804.5	226.0	6.3119	ug/L	6.3119 ppb	14:06:03
3	V 292.402†	-1544.6	-5.0	-0.0290	ug/L	-0.0290 ppb	14:06:08
3	Zn 213.857†	1021.1	234.8	2.3743	ug/L	2.3743 ppb	14:06:28
3	SiO2†	604.2	-11.7	-0.8013	ug/L	-0.8013 ppb	14:06:43

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918258.9	104.34	%	0.667				0.64%
Sc Radial	4129.0	107	%	6.3				5.86%
Y 371.029	774081.3	101.77	%	0.591				0.58%
Y RADIAL	4617.2	103.7	%	5.65				5.45%
Ag 328.068†	23.3	0.1026	ug/L	0.22523	0.1026	ppb	0.22523	219.50%
Al 396.153Radial†	7.8	7.2759	ug/L	14.70201	7.2759	ppb	14.70201	202.06%
As 188.979†	10.1	4.5077	ug/L	0.80614	4.5077	ppb	0.80614	17.88%
B 249.677†	223.5	5.4930	ug/L	0.39327	5.4930	ppb	0.39327	7.16%
Ba 233.527†	1200152.4	9433.6	ug/L	81.95	9433.6	ppb	81.95	0.87%
Be 313.107†	121.5	0.0456	ug/L	0.02412	0.0456	ppb	0.02412	52.93%
Ca 317.933Radial†	3.0	6.4992	ug/L	11.92986	6.4992	ppb	11.92986	183.56%
Cd 226.502†	54.8	0.6387	ug/L	0.08024	0.6387	ppb	0.08024	12.56%
Co 228.616†	-206.0	0.2153	ug/L	0.10701	0.2153	ppb	0.10701	49.69%
Cr 267.716†	-2.6	-0.0317	ug/L	0.08403	-0.0317	ppb	0.08403	265.15%
Cu 324.752†	-167.4	-0.5126	ug/L	0.08813	-0.5126	ppb	0.08813	17.20%
Fe 238.204 Radial†	-0.8	-12.958	ug/L	14.5816	-12.958	ppb	14.5816	112.53%
K 766.490 Radial†	58.3	11.159	ug/L	25.6812	11.159	ppb	25.6812	230.13%

Mg 279.077 IEC†	1.0	54.002 ug/L	76.8852	54.002 ppb	76.8852	142.38%
Mn 257.610†	6.2	0.0036 ug/L	0.01639	0.0036 ppb	0.01639	449.97%
Mo 202.031†	4.7	0.3425 ug/L	0.71706	0.3425 ppb	0.71706	209.34%
Na 589.592 Radial†	58.7	18.266 ug/L	22.5619	18.266 ppb	22.5619	123.52%
Ni 231.604†	-10.6	-0.2686 ug/L	0.45813	-0.2686 ppb	0.45813	170.54%
P 214.914†	-7.4	-4.3442 ug/L	2.40932	-4.3442 ppb	2.40932	55.46%
Pb 220.353†	-30.2	-3.7349 ug/L	1.46427	-3.7349 ppb	1.46427	39.21%
S 181.975 Axial†	5.0	7.0021 ug/L	1.76869	7.0021 ppb	1.76869	25.26%
Sb 206.836†	-0.4	-0.1147 ug/L	1.18240	-0.1147 ppb	1.18240	>999.9%
Se 196.026†	-0.3	-0.2237 ug/L	1.34940	-0.2237 ppb	1.34940	603.27%
Si 251.611†	19.6	0.6308 ug/L	0.49913	0.6308 ppb	0.49913	79.13%
Sn 189.927†	5.6	1.0204 ug/L	0.15460	1.0204 ppb	0.15460	15.15%
Sr 421.552†	7.8	0.0539 ug/L	0.18816	0.0539 ppb	0.18816	348.93%
Ti 334.940†	47.2	0.0693 ug/L	0.04537	0.0693 ppb	0.04537	65.51%
Tl 190.801†	-0.3	-0.0820 ug/L	0.11701	-0.0820 ppb	0.11701	142.71%
U 409.014†	125.1	3.4959 ug/L	4.08670	3.4959 ppb	4.08670	116.90%
V 292.402†	45.1	0.3294 ug/L	0.31334	0.3294 ppb	0.31334	95.12%
Zn 213.857†	234.6	2.3723 ug/L	0.08953	2.3723 ppb	0.08953	3.77%
SiO2†	23.1	1.5949 ug/L	2.18718	1.5949 ppb	2.18718	137.13%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 14:08:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3878.2	3878.2	101	%			14:11:08
1	Y RADIAL	4371.2	4371.2	98.19	%			14:10:48
1	Al 396.153Radial†	5250.9	5337.3	4993.2	ug/L	4993.2	ppb	14:10:48
1	Ca 317.933Radial†	2366.9	2335.3	5092.6	ug/L	5092.6	ppb	14:11:08
1	Fe 238.204 Radial†	322.7	309.3	5012.5	ug/L	5012.5	ppb	14:11:08
1	K 766.490 Radial†	28785.8	25863.4	4948.7	ug/L	4948.7	ppb	14:10:48
1	Mg 279.077 IEC†	98.7	97.0	5119.9	ug/L	5119.9	ppb	14:11:08
1	Na 589.592 Radial†	32999.6	33720.9	10493	ug/L	10493	ppb	14:10:48
1	Sr 421.552†	72250.2	71846.6	499.77	ug/L	499.77	ppb	14:10:48
1	Sc 361.383	922334.5	922334.5	104.80	%			14:12:05
1	Y 371.029	765696.2	765696.2	100.67	%			14:12:05
1	Ag 328.068†	105655.8	100580.5	470.36	ug/L	470.36	ppb	14:12:10
1	As 188.979†	1091.7	1061.6	476.13	ug/L	476.13	ppb	14:12:31
1	B 249.677†	19737.3	19110.9	466.25	ug/L	466.25	ppb	14:12:10
1	Ba 233.527†	62386.8	59517.2	469.00	ug/L	469.00	ppb	14:12:10
1	Be 313.107†	1341490.9	1283581.8	480.65	ug/L	480.65	ppb	14:12:05
1	Cd 226.502†	42109.4	40356.2	468.85	ug/L	468.85	ppb	14:12:10
1	Co 228.616†	23336.1	22331.7	469.12	ug/L	469.12	ppb	14:12:10
1	Cr 267.716†	43688.4	41601.5	467.75	ug/L	467.75	ppb	14:12:10
1	Cu 324.752†	165981.8	152421.4	464.41	ug/L	464.41	ppb	14:12:10
1	Mn 257.610†	442228.4	421487.8	480.47	ug/L	480.47	ppb	14:12:05
1	Mo 202.031†	6667.2	6357.1	468.68	ug/L	468.68	ppb	14:12:31
1	Ni 231.604†	19416.9	18444.5	470.42	ug/L	470.42	ppb	14:12:10
1	P 214.914†	4280.0	3878.1	2241.7	ug/L	2241.7	ppb	14:12:31
1	Pb 220.353†	3984.1	3740.4	464.20	ug/L	464.20	ppb	14:12:31
1	S 181.975 Axial†	734.1	664.6	936.14	ug/L	936.14	ppb	14:12:31
1	Sb 206.836†	1421.7	1317.6	481.74	ug/L	481.74	ppb	14:12:31
1	Se 196.026†	719.8	711.6	484.60	ug/L	484.60	ppb	14:12:31
1	Si 251.611†	76057.9	72008.2	2327.0	ug/L	2327.0	ppb	14:12:10
1	Sn 189.927†	2731.7	2597.1	468.96	ug/L	468.96	ppb	14:12:31
1	Ti 334.940†	308172.0	295461.4	465.43	ug/L	465.43	ppb	14:12:10
1	Tl 190.801†	1520.6	1478.4	478.73	ug/L	478.73	ppb	14:12:31
1	U 409.014†	14568.1	16802.4	467.58	ug/L	467.58	ppb	14:12:10
1	V 292.402†	68375.4	66711.1	472.26	ug/L	472.26	ppb	14:12:10
1	Zn 213.857†	49313.7	46314.7	463.19	ug/L	463.19	ppb	14:12:10
1	SiO2†	76564.8	72468.4	5018.5	ug/L	5018.5	ppb	14:13:38
2	Sc Radial	3515.4	3515.4	91.1	%			14:11:33
2	Y RADIAL	4401.4	4401.4	98.87	%			14:11:13
2	Al 396.153Radial†	4848.8	5434.9	5084.5	ug/L	5084.5	ppb	14:11:13
2	Ca 317.933Radial†	2454.7	2674.5	5832.4	ug/L	5832.4	ppb	14:11:33
2	Fe 238.204 Radial†	337.7	358.8	5812.8	ug/L	5812.8	ppb	14:11:33
2	K 766.490 Radial†	26678.3	26505.1	5071.3	ug/L	5071.3	ppb	14:11:13
2	Mg 279.077 IEC†	101.4	110.1	5809.0	ug/L	5809.0	ppb	14:11:33
2	Na 589.592 Radial†	30386.2	34240.1	10654	ug/L	10654	ppb	14:11:13
2	Sr 421.552†	66778.6	73257.8	509.58	ug/L	509.58	ppb	14:11:13
2	Sc 361.383	908111.5	908111.5	103.19	%			14:12:36
2	Y 371.029	753785.4	753785.4	99.099	%			14:12:36
2	Ag 328.068†	106298.0	102781.8	480.86	ug/L	480.86	ppb	14:12:41
2	As 188.979†	1093.5	1079.7	484.43	ug/L	484.43	ppb	14:13:02
2	B 249.677†	19863.7	19528.4	476.32	ug/L	476.32	ppb	14:12:41
2	Ba 233.527†	62792.9	60843.1	479.47	ug/L	479.47	ppb	14:12:41
2	Be 313.107†	1318537.7	1281385.3	479.85	ug/L	479.85	ppb	14:12:36
2	Cd 226.502†	42446.3	41311.9	479.88	ug/L	479.88	ppb	14:12:41
2	Co 228.616†	23484.3	22824.1	479.45	ug/L	479.45	ppb	14:12:41
2	Cr 267.716†	43961.8	42519.3	478.13	ug/L	478.13	ppb	14:12:41
2	Cu 324.752†	166839.1	155732.7	474.54	ug/L	474.54	ppb	14:12:41
2	Mn 257.610†	435755.4	421823.5	480.90	ug/L	480.90	ppb	14:12:36
2	Mo 202.031†	6720.4	6508.2	479.88	ug/L	479.88	ppb	14:13:02
2	Ni 231.604†	19611.8	18923.5	482.64	ug/L	482.64	ppb	14:12:41

2	P 214.914†	4319.4	3980.2	2300.5 ug/L	2300.5 ppb	14:13:02
2	Pb 220.353†	4019.3	3834.0	475.74 ug/L	475.74 ppb	14:13:02
2	S 181.975 Axial†	740.9	682.2	960.97 ug/L	960.97 ppb	14:13:02
2	Sb 206.836†	1430.7	1347.5	492.70 ug/L	492.70 ppb	14:13:02
2	Se 196.026†	724.7	727.1	497.32 ug/L	497.32 ppb	14:13:02
2	Si 251.611†	76491.5	73565.1	2377.3 ug/L	2377.3 ppb	14:12:41
2	Sn 189.927†	2758.5	2663.9	481.08 ug/L	481.08 ppb	14:13:02
2	Ti 334.940†	309963.1	301802.7	475.46 ug/L	475.46 ppb	14:12:41
2	Tl 190.801†	1512.0	1492.8	483.38 ug/L	483.38 ppb	14:13:02
2	U 409.014†	14476.4	16931.3	471.06 ug/L	471.06 ppb	14:12:41
2	V 292.402†	68782.2	68127.2	482.20 ug/L	482.20 ppb	14:12:41
2	Zn 213.857†	49649.6	47377.2	473.71 ug/L	473.71 ppb	14:12:41
2	SiO2†	75671.1	72746.5	5037.5 ug/L	5037.5 ppb	14:13:43
3	Sc Radial	3853.6	3853.6	99.9 %		14:11:58
3	Y RADIAL	4352.3	4352.3	97.77 %		14:11:38
3	Al 396.153Radial†	5324.7	5444.4	5093.4 ug/L	5093.4 ppb	14:11:38
3	Ca 317.933Radial†	2384.5	2367.9	5163.7 ug/L	5163.7 ppb	14:11:58
3	Fe 238.204 Radial†	328.5	317.1	5138.1 ug/L	5138.1 ppb	14:11:58
3	K 766.490 Radial†	28809.9	26069.9	4988.2 ug/L	4988.2 ppb	14:11:38
3	Mg 279.077 IEC†	103.2	102.1	5386.5 ug/L	5386.5 ppb	14:11:58
3	Na 589.592 Radial†	33075.6	34006.1	10581 ug/L	10581 ppb	14:11:38
3	Sr 421.552†	73032.9	73087.8	508.41 ug/L	508.41 ppb	14:11:38
3	Sc 361.383	913347.6	913347.6	103.78 %		14:13:07
3	Y 371.029	757937.7	757937.7	99.645 %		14:13:07
3	Ag 328.068†	106128.5	102027.9	477.15 ug/L	477.15 ppb	14:13:13
3	As 188.979†	1107.1	1086.7	487.38 ug/L	487.38 ppb	14:13:33
3	B 249.677†	19878.5	19432.3	474.09 ug/L	474.09 ppb	14:13:13
3	Ba 233.527†	62624.9	60332.3	475.43 ug/L	475.43 ppb	14:13:13
3	Be 313.107†	1324169.2	1279486.0	479.13 ug/L	479.13 ppb	14:13:07
3	Cd 226.502†	42247.5	40884.6	474.98 ug/L	474.98 ppb	14:13:13
3	Co 228.616†	23400.7	22613.0	475.03 ug/L	475.03 ppb	14:13:13
3	Cr 267.716†	43972.7	42285.6	475.44 ug/L	475.44 ppb	14:13:13
3	Cu 324.752†	166772.6	154741.7	471.48 ug/L	471.48 ppb	14:13:13
3	Mn 257.610†	436917.8	420522.6	479.37 ug/L	479.37 ppb	14:13:07
3	Mo 202.031†	6743.5	6493.1	478.71 ug/L	478.71 ppb	14:13:33
3	Ni 231.604†	19450.4	18659.0	475.89 ug/L	475.89 ppb	14:13:13
3	P 214.914†	4303.9	3941.3	2278.3 ug/L	2278.3 ppb	14:13:33
3	Pb 220.353†	4036.3	3828.0	475.07 ug/L	475.07 ppb	14:13:33
3	S 181.975 Axial†	740.3	677.5	954.26 ug/L	954.26 ppb	14:13:33
3	Sb 206.836†	1445.4	1353.7	494.84 ug/L	494.84 ppb	14:13:33
3	Se 196.026†	722.6	721.0	491.25 ug/L	491.25 ppb	14:13:33
3	Si 251.611†	76279.7	72936.0	2356.9 ug/L	2356.9 ppb	14:13:13
3	Sn 189.927†	2762.5	2652.4	478.93 ug/L	478.93 ppb	14:13:33
3	Ti 334.940†	309664.8	299793.2	472.24 ug/L	472.24 ppb	14:13:13
3	Tl 190.801†	1510.3	1482.7	480.14 ug/L	480.14 ppb	14:13:33
3	U 409.014†	14490.3	16864.3	469.27 ug/L	469.27 ppb	14:13:13
3	V 292.402†	68739.6	67704.0	479.32 ug/L	479.32 ppb	14:13:13
3	Zn 213.857†	49496.4	46953.8	469.58 ug/L	469.58 ppb	14:13:13
3	SiO2†	76319.6	72951.0	5051.8 ug/L	5051.8 ppb	14:13:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914597.9	103.92	%	0.817				0.79%
Sc Radial	3749.1	97.2	%	5.26				5.41%
Y 371.029	759139.8	99.803	%	0.7948				0.80%
Y RADIAL	4375.0	98.28	%	0.557				0.57%
Ag 328.068†	101796.7	476.12	ug/L	5.326	476.12	ppb	5.326	1.12%
QC value within limits for Ag 328.068 Recovery = 95.22%								
Al 396.153Radial†	5405.5	5057.0	ug/L	55.44	5057.0	ppb	55.44	1.10%
QC value within limits for Al 396.153Radial Recovery = 101.14%								
As 188.979†	1076.0	482.65	ug/L	5.832	482.65	ppb	5.832	1.21%
QC value within limits for As 188.979 Recovery = 96.53%								
B 249.677†	19357.2	472.22	ug/L	5.290	472.22	ppb	5.290	1.12%
QC value within limits for B 249.677 Recovery = 94.44%								
Ba 233.527†	60230.9	474.63	ug/L	5.279	474.63	ppb	5.279	1.11%
QC value within limits for Ba 233.527 Recovery = 94.93%								
Be 313.107†	1281484.4	479.88	ug/L	0.758	479.88	ppb	0.758	0.16%
QC value within limits for Be 313.107 Recovery = 95.98%								
Ca 317.933Radial†	2459.2	5362.9	ug/L	408.16	5362.9	ppb	408.16	7.61%

```
   QC value within limits for Ca 317.933Radial  Recovery = 107.26%
Cd 226.502†            40850.9      474.57 ug/L         5.527      474.57 ppb          5.527   1.16%
   QC value within limits for Cd 226.502  Recovery = 94.91%
Co 228.616†            22589.6      474.53 ug/L         5.187      474.53 ppb          5.187   1.09%
   QC value within limits for Co 228.616  Recovery = 94.91%
Cr 267.716†            42135.5      473.77 ug/L         5.391      473.77 ppb          5.391   1.14%
   QC value within limits for Cr 267.716  Recovery = 94.75%
Cu 324.752†           154298.6      470.14 ug/L         5.196      470.14 ppb          5.196   1.11%
   QC value within limits for Cu 324.752  Recovery = 94.03%
Fe 238.204 Radial†       328.4      5321.2 ug/L        430.38      5321.2 ppb         430.38   8.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.42%
K 766.490 Radial†      26146.2      5002.7 ug/L         62.59      5002.7 ppb          62.59   1.25%
   QC value within limits for K 766.490 Radial  Recovery = 100.05%
Mg 279.077 IEC†          103.1      5438.5 ug/L        347.45      5438.5 ppb         347.45   6.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.77%
Mn 257.610†           421278.0      480.25 ug/L         0.789      480.25 ppb          0.789   0.16%
   QC value within limits for Mn 257.610  Recovery = 96.05%
Mo 202.031†             6452.8      475.76 ug/L         6.158      475.76 ppb          6.158   1.29%
   QC value within limits for Mo 202.031  Recovery = 95.15%
Na 589.592 Radial†     33989.0       10576 ug/L          80.9       10576 ppb           80.9   0.76%
   QC value within limits for Na 589.592 Radial  Recovery = 105.76%
Ni 231.604†            18675.7      476.32 ug/L         6.121      476.32 ppb          6.121   1.29%
   QC value within limits for Ni 231.604  Recovery = 95.26%
P 214.914†              3933.2      2273.5 ug/L        29.73      2273.5 ppb          29.73   1.31%
   QC value within limits for P 214.914  Recovery = 90.94%
Pb 220.353†             3800.8      471.67 ug/L         6.481      471.67 ppb          6.481   1.37%
   QC value within limits for Pb 220.353  Recovery = 94.33%
S 181.975 Axial†         674.8      950.46 ug/L        12.844      950.46 ppb         12.844   1.35%
   QC value within limits for S 181.975 Axial  Recovery = 95.05%
Sb 206.836†             1339.6      489.76 ug/L         7.030      489.76 ppb          7.030   1.44%
   QC value within limits for Sb 206.836  Recovery = 97.95%
Se 196.026†              719.9      491.06 ug/L         6.361      491.06 ppb          6.361   1.30%
   QC value within limits for Se 196.026  Recovery = 98.21%
Si 251.611†            72836.4      2353.7 ug/L        25.30      2353.7 ppb          25.30   1.07%
   QC value within limits for Si 251.611  Recovery = 94.15%
Sn 189.927†             2637.8      476.32 ug/L         6.471      476.32 ppb          6.471   1.36%
   QC value within limits for Sn 189.927  Recovery = 95.26%
Sr 421.552†            72730.7      505.92 ug/L         5.357      505.92 ppb          5.357   1.06%
   QC value within limits for Sr 421.552  Recovery = 101.18%
Ti 334.940†           299019.1      471.04 ug/L         5.121      471.04 ppb          5.121   1.09%
   QC value within limits for Ti 334.940  Recovery = 94.21%
Tl 190.801†             1484.6      480.75 ug/L         2.384      480.75 ppb          2.384   0.50%
   QC value within limits for Tl 190.801  Recovery = 96.15%
U 409.014†             16866.0      469.30 ug/L         1.742      469.30 ppb          1.742   0.37%
   QC value within limits for U 409.014  Recovery = 93.86%
V 292.402†             67514.1      477.92 ug/L         5.114      477.92 ppb          5.114   1.07%
   QC value within limits for V 292.402  Recovery = 95.58%
Zn 213.857†            46881.9      468.83 ug/L         5.298      468.83 ppb          5.298   1.13%
   QC value within limits for Zn 213.857  Recovery = 93.77%
SiO2†                  72722.0      5035.9 ug/L        16.67      5035.9 ppb          16.67   0.33%
   QC value within limits for SiO2  Recovery = 94.17%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 14:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3875.6	3875.6	100	%			14:18:11
1	Y RADIAL	4377.8	4377.8	98.34	%			14:17:51
1	Al 396.153Radial†	-113.7	1.9	1.7357	ug/L	1.7357	ppb	14:17:51
1	Ca 317.933Radial†	25.9	7.1	15.504	ug/L	15.504	ppb	14:18:11
1	Fe 238.204 Radial†	13.4	1.6	26.121	ug/L	26.121	ppb	14:18:11
1	K 766.490 Radial†	2981.1	201.7	38.628	ug/L	38.628	ppb	14:17:51
1	Mg 279.077 IEC†	4.7	3.5	184.34	ug/L	184.34	ppb	14:18:11
1	Na 589.592 Radial†	-845.5	60.2	18.738	ug/L	18.738	ppb	14:17:51
1	Sr 421.552†	39.7	30.8	0.2141	ug/L	0.2141	ppb	14:17:51
1	Sc 361.383	941381.5	941381.5	106.97	%			14:19:08
1	Y 371.029	792706.6	792706.6	104.22	%			14:19:08
1	Ag 328.068†	263.6	12.3	0.0604	ug/L	0.0604	ppb	14:19:13
1	As 188.979†	-14.3	6.5	2.9136	ug/L	2.9136	ppb	14:19:33
1	B 249.677†	-62.0	220.1	5.3899	ug/L	5.3899	ppb	14:19:33
1	Ba 233.527†	16.4	4.3	0.0369	ug/L	0.0369	ppb	14:19:33
1	Be 313.107†	-3530.7	257.4	0.0965	ug/L	0.0965	ppb	14:19:13
1	Cd 226.502†	-153.3	32.8	0.3806	ug/L	0.3806	ppb	14:19:33
1	Co 228.616†	-70.2	-0.8	-0.0154	ug/L	-0.0154	ppb	14:19:33
1	Cr 267.716†	76.6	-13.5	-0.1518	ug/L	-0.1518	ppb	14:19:33
1	Cu 324.752†	6033.2	-314.9	-0.9637	ug/L	-0.9637	ppb	14:19:13
1	Mn 257.610†	497.7	-12.4	-0.0191	ug/L	-0.0191	ppb	14:19:33
1	Mo 202.031†	18.4	12.6	0.9277	ug/L	0.9277	ppb	14:19:33
1	Ni 231.604†	71.0	-16.4	-0.4192	ug/L	-0.4192	ppb	14:19:33
1	P 214.914†	205.1	-14.1	-8.3008	ug/L	-8.3008	ppb	14:19:33
1	Pb 220.353†	3.0	-58.4	-7.2179	ug/L	-7.2179	ppb	14:19:33
1	S 181.975 Axial†	40.3	1.8	2.5914	ug/L	2.5914	ppb	14:19:33
1	Sb 206.836†	43.6	1.7	0.6194	ug/L	0.6194	ppb	14:19:33
1	Se 196.026†	-15.1	10.6	7.0724	ug/L	7.0724	ppb	14:19:33
1	Si 251.611†	592.9	-10.4	-0.3498	ug/L	-0.3498	ppb	14:19:33
1	Sn 189.927†	6.4	-3.5	-0.6249	ug/L	-0.6249	ppb	14:19:33
1	Ti 334.940†	-1423.4	79.2	0.1073	ug/L	0.1073	ppb	14:19:13
1	Tl 190.801†	-36.2	-6.4	-2.0672	ug/L	-2.0672	ppb	14:19:33
1	U 409.014†	-2706.5	371.6	10.374	ug/L	10.374	ppb	14:19:08
1	V 292.402†	-1416.6	144.4	1.0412	ug/L	1.0412	ppb	14:19:13
1	Zn 213.857†	784.0	-6.5	-0.0657	ug/L	-0.0657	ppb	14:19:33
1	SiO2†	548.7	-75.3	-5.2523	ug/L	-5.2523	ppb	14:20:39
2	Sc Radial	3910.7	3910.7	101	%			14:18:37
2	Y RADIAL	4439.5	4439.5	99.73	%			14:18:17
2	Al 396.153Radial†	-123.2	-6.4	-6.0793	ug/L	-6.0793	ppb	14:18:17
2	Ca 317.933Radial†	27.2	8.1	17.762	ug/L	17.762	ppb	14:18:37
2	Fe 238.204 Radial†	13.6	1.7	27.502	ug/L	27.502	ppb	14:18:37
2	K 766.490 Radial†	2980.2	174.2	33.373	ug/L	33.373	ppb	14:18:17
2	Mg 279.077 IEC†	2.4	1.2	63.600	ug/L	63.600	ppb	14:18:37
2	Na 589.592 Radial†	-956.3	-41.4	-12.896	ug/L	-12.896	ppb	14:18:17
2	Sr 421.552†	40.2	30.9	0.2146	ug/L	0.2146	ppb	14:18:17
2	Sc 361.383	920185.7	920185.7	104.56	%			14:19:39
2	Y 371.029	773906.6	773906.6	101.74	%			14:19:39
2	Ag 328.068†	258.4	13.0	0.0686	ug/L	0.0686	ppb	14:19:44
2	As 188.979†	-13.8	6.8	3.0112	ug/L	3.0112	ppb	14:20:04
2	B 249.677†	-57.7	222.8	5.4567	ug/L	5.4567	ppb	14:20:04
2	Ba 233.527†	21.3	9.3	0.0750	ug/L	0.0750	ppb	14:20:04
2	Be 313.107†	-3675.2	43.2	0.0161	ug/L	0.0161	ppb	14:19:44
2	Cd 226.502†	-164.9	18.5	0.2124	ug/L	0.2124	ppb	14:20:04
2	Co 228.616†	-65.8	1.9	0.0418	ug/L	0.0418	ppb	14:20:04
2	Cr 267.716†	79.3	-9.3	-0.1016	ug/L	-0.1016	ppb	14:20:04
2	Cu 324.752†	6099.4	-121.6	-0.3701	ug/L	-0.3701	ppb	14:19:44
2	Mn 257.610†	474.0	-24.3	-0.0276	ug/L	-0.0276	ppb	14:20:04
2	Mo 202.031†	14.1	8.8	0.6487	ug/L	0.6487	ppb	14:20:04
2	Ni 231.604†	76.7	-9.4	-0.2402	ug/L	-0.2402	ppb	14:20:04

2	P 214.914†	207.3	-7.5	-4.4808	ug/L	-4.4808 ppb	14:20:04
2	Pb 220.353†	16.2	-45.7	-5.6497	ug/L	-5.6497 ppb	14:20:04
2	S 181.975 Axial†	34.3	-3.1	-4.3134	ug/L	-4.3134 ppb	14:20:04
2	Sb 206.836†	41.6	0.8	0.2870	ug/L	0.2870 ppb	14:20:04
2	Se 196.026†	-31.1	-5.0	-3.1999	ug/L	-3.1999 ppb	14:20:04
2	Si 251.611†	586.5	-3.8	-0.1300	ug/L	-0.1300 ppb	14:20:04
2	Sn 189.927†	11.7	1.8	0.3239	ug/L	0.3239 ppb	14:20:04
2	Ti 334.940†	-1477.8	-3.5	-0.0092	ug/L	-0.0092 ppb	14:19:44
2	Tl 190.801†	-29.5	-0.8	-0.2625	ug/L	-0.2625 ppb	14:20:04
2	U 409.014†	-2959.4	71.5	1.9939	ug/L	1.9939 ppb	14:19:39
2	V 292.402†	-1480.7	52.5	0.3772	ug/L	0.3772 ppb	14:19:44
2	Zn 213.857†	770.4	-2.6	-0.0284	ug/L	-0.0284 ppb	14:20:04
2	SiO2†	614.5	-0.5	-0.0531	ug/L	-0.0531 ppb	14:20:44
3	Sc Radial	3948.4	3948.4	102	%		14:19:02
3	Y RADIAL	4468.9	4468.9	100.4	%		14:18:42
3	Al 396.153Radial†	-120.8	-2.9	-2.7898	ug/L	-2.7898 ppb	14:18:42
3	Ca 317.933Radial†	21.3	2.1	4.6845	ug/L	4.6845 ppb	14:19:02
3	Fe 238.204 Radial†	11.4	-0.5	-8.5000	ug/L	-8.5000 ppb	14:19:02
3	K 766.490 Radial†	3032.3	197.0	37.727	ug/L	37.727 ppb	14:18:42
3	Mg 279.077 IEC†	1.1	-0.1	-4.0850	ug/L	-4.0850 ppb	14:19:02
3	Na 589.592 Radial†	-869.4	52.5	16.325	ug/L	16.325 ppb	14:18:42
3	Sr 421.552†	17.4	8.2	0.0571	ug/L	0.0571 ppb	14:18:42
3	Sc 361.383	936346.5	936346.5	106.39	%		14:20:09
3	Y 371.029	787511.1	787511.1	103.53	%		14:20:09
3	Ag 328.068†	356.1	100.6	0.4637	ug/L	0.4637 ppb	14:20:14
3	As 188.979†	-26.5	-5.0	-2.2276	ug/L	-2.2276 ppb	14:20:34
3	B 249.677†	-45.3	235.5	5.7724	ug/L	5.7724 ppb	14:20:34
3	Ba 233.527†	23.5	11.0	0.0876	ug/L	0.0876 ppb	14:20:34
3	Be 313.107†	-3544.5	226.8	0.0849	ug/L	0.0849 ppb	14:20:14
3	Cd 226.502†	-165.4	20.8	0.2428	ug/L	0.2428 ppb	14:20:34
3	Co 228.616†	-64.2	4.5	0.0955	ug/L	0.0955 ppb	14:20:34
3	Cr 267.716†	69.9	-19.4	-0.2195	ug/L	-0.2195 ppb	14:20:34
3	Cu 324.752†	6018.6	-298.3	-0.9111	ug/L	-0.9111 ppb	14:20:14
3	Mn 257.610†	488.6	-18.4	-0.0217	ug/L	-0.0217 ppb	14:20:34
3	Mo 202.031†	12.0	6.6	0.4887	ug/L	0.4887 ppb	14:20:34
3	Ni 231.604†	77.9	-9.6	-0.2454	ug/L	-0.2454 ppb	14:20:34
3	P 214.914†	208.9	-9.5	-5.4977	ug/L	-5.4977 ppb	14:20:34
3	Pb 220.353†	-17.8	-78.0	-9.6423	ug/L	-9.6423 ppb	14:20:34
3	S 181.975 Axial†	38.9	0.7	1.0472	ug/L	1.0472 ppb	14:20:34
3	Sb 206.836†	48.4	6.5	2.3077	ug/L	2.3077 ppb	14:20:34
3	Se 196.026†	-26.9	-0.5	-0.3619	ug/L	-0.3619 ppb	14:20:34
3	Si 251.611†	588.2	-11.9	-0.3904	ug/L	-0.3904 ppb	14:20:34
3	Sn 189.927†	12.8	2.6	0.4768	ug/L	0.4768 ppb	14:20:34
3	Ti 334.940†	-1447.5	49.4	0.0774	ug/L	0.0774 ppb	14:20:14
3	Tl 190.801†	-39.6	-9.7	-3.1343	ug/L	-3.1343 ppb	14:20:34
3	U 409.014†	-2960.0	119.8	3.3460	ug/L	3.3460 ppb	14:20:09
3	V 292.402†	-1496.3	62.4	0.4501	ug/L	0.4501 ppb	14:20:14
3	Zn 213.857†	777.3	-8.9	-0.0856	ug/L	-0.0856 ppb	14:20:34
3	SiO2†	637.6	11.1	0.7575	ug/L	0.7575 ppb	14:20:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	932637.9	105.97	%	1.258				1.19%
Sc Radial	3911.6	101	%	0.9				0.93%
Y 371.029	784708.1	103.16	%	1.276				1.24%
Y RADIAL	4428.7	99.48	%	1.045				1.05%
Ag 328.068†	42.0	0.1976	ug/L	0.23053	0.1976	ppb	0.23053	116.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.5	-2.3778	ug/L	3.92375	-2.3778	ppb	3.92375	165.02%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	1.2324	ug/L	2.99683	1.2324	ppb	2.99683	243.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	226.1	5.5397	ug/L	0.20431	5.5397	ppb	0.20431	3.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.0665	ug/L	0.02640	0.0665	ppb	0.02640	39.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	175.8	0.0658	ug/L	0.04344	0.0658	ppb	0.04344	65.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.8	12.650	ug/L	6.9901	12.650	ppb	6.9901	55.26%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              24.0      0.2786 ug/L       0.08966      0.2786 ppb        0.08966  32.18%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               1.9      0.0406 ug/L       0.05545      0.0406 ppb        0.05545 136.48%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -14.1     -0.1576 ug/L       0.05915     -0.1576 ppb        0.05915  37.53%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -244.9     -0.7483 ug/L       0.32855     -0.7483 ppb        0.32855  43.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.9      15.041 ug/L       20.3988      15.041 ppb        20.3988 135.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       190.9      36.576 ug/L        2.8103      36.576 ppb         2.8103   7.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.5      81.285 ug/L       95.4504      81.285 ppb        95.4504 117.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -18.4     -0.0228 ug/L       0.00438     -0.0228 ppb        0.00438  19.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.3      0.6884 ug/L       0.22219      0.6884 ppb        0.22219  32.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       23.7      7.3888 ug/L      17.60869      7.3888 ppb       17.60869 238.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -11.8     -0.3016 ug/L       0.10190     -0.3016 ppb        0.10190  33.79%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -10.4     -6.0931 ug/L       1.97836     -6.0931 ppb        1.97836  32.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -60.7     -7.5033 ug/L       2.01156     -7.5033 ppb        2.01156  26.81%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.2     -0.2249 ug/L       3.62395     -0.2249 ppb        3.62395 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.0      1.0714 ug/L       1.08356      1.0714 ppb        1.08356 101.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7      1.1702 ug/L       5.30476      1.1702 ppb        5.30476 453.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -8.7     -0.2900 ug/L       0.14009     -0.2900 ppb        0.14009  48.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.3      0.0586 ug/L       0.59684      0.0586 ppb        0.59684 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              23.3      0.1619 ug/L       0.09078      0.1619 ppb        0.09078  56.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              41.7      0.0585 ug/L       0.06047      0.0585 ppb        0.06047 103.37%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.7     -1.8213 ug/L       1.45160     -1.8213 ppb        1.45160  79.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              187.6      5.2380 ug/L       4.49905      5.2380 ppb        4.49905  85.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               86.4      0.6228 ug/L       0.36413      0.6228 ppb        0.36413  58.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -6.0     -0.0599 ug/L       0.02900     -0.0599 ppb        0.02900  48.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -21.6     -1.5160 ug/L       3.26102     -1.5160 ppb        3.26102 215.11%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 5
Sample ID: 1202031021|948088|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 2/25/2010 14:23:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202031021|948088|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4173.6	4173.6	108	%			14:25:12
1	Y RADIAL	4735.2	4735.2	106.4	%			14:24:52
1	Al 396.153Radial†	-117.8	6.2	5.7976	ug/L	5.7976	ppb	14:24:52
1	Ca 317.933Radial†	23.8	3.4	7.3147	ug/L	7.3147	ppb	14:25:12
1	Fe 238.204 Radial†	13.4	0.7	11.755	ug/L	11.755	ppb	14:25:12
1	K 766.490 Radial†	2787.9	-188.6	-36.153	ug/L	-36.153	ppb	14:24:52
1	Mg 279.077 IEC†	1.8	0.5	26.904	ug/L	26.904	ppb	14:25:12
1	Na 589.592 Radial†	-853.0	113.4	35.297	ug/L	35.297	ppb	14:24:52
1	Sr 421.552†	56.0	43.0	0.2990	ug/L	0.2990	ppb	14:24:52
1	Sc 361.383	907559.7	907559.7	103.12	%			14:26:09
1	Y 371.029	764445.4	764445.4	100.50	%			14:26:09
1	Ag 328.068†	250.4	8.7	0.0425	ug/L	0.0425	ppb	14:26:09
1	As 188.979†	-7.3	12.9	5.7214	ug/L	5.7214	ppb	14:26:29
1	B 249.677†	-126.8	155.1	3.7982	ug/L	3.7982	ppb	14:26:29
1	Ba 233.527†	24.8	13.0	0.1037	ug/L	0.1037	ppb	14:26:29
1	Be 313.107†	-3582.0	84.8	0.0321	ug/L	0.0321	ppb	14:26:09
1	Cd 226.502†	-158.4	22.6	0.2624	ug/L	0.2624	ppb	14:26:29
1	Co 228.616†	-57.8	8.8	0.1873	ug/L	0.1873	ppb	14:26:29
1	Cr 267.716†	76.8	-10.6	-0.1187	ug/L	-0.1187	ppb	14:26:29
1	Cu 324.752†	6065.3	-73.5	-0.2256	ug/L	-0.2256	ppb	14:26:09
1	Mn 257.610†	666.6	168.7	0.1923	ug/L	0.1923	ppb	14:26:29
1	Mo 202.031†	19.3	14.0	1.0355	ug/L	1.0355	ppb	14:26:29
1	Ni 231.604†	90.1	4.6	0.1164	ug/L	0.1164	ppb	14:26:29
1	P 214.914†	215.5	3.2	1.9594	ug/L	1.9594	ppb	14:26:29
1	Pb 220.353†	25.7	-36.3	-4.4882	ug/L	-4.4882	ppb	14:26:29
1	S 181.975 Axial†	45.3	8.1	11.435	ug/L	11.435	ppb	14:26:29
1	Sb 206.836†	42.5	2.2	0.8491	ug/L	0.8491	ppb	14:26:29
1	Se 196.026†	-25.0	0.5	0.3522	ug/L	0.3522	ppb	14:26:29
1	Si 251.611†	870.3	279.2	9.0328	ug/L	9.0328	ppb	14:26:29
1	Sn 189.927†	26.8	16.6	2.9932	ug/L	2.9932	ppb	14:26:29
1	Ti 334.940†	-1318.8	131.1	0.2035	ug/L	0.2035	ppb	14:26:09
1	Tl 190.801†	-33.1	-4.6	-1.4865	ug/L	-1.4865	ppb	14:26:29
1	U 409.014†	-2840.1	147.7	4.1243	ug/L	4.1243	ppb	14:26:09
1	V 292.402†	-1440.1	72.2	0.5253	ug/L	0.5253	ppb	14:26:09
1	Zn 213.857†	875.2	109.3	1.1010	ug/L	1.1010	ppb	14:26:29
1	SiO2†	882.1	267.2	18.520	ug/L	18.520	ppb	14:27:25
2	Sc Radial	3964.4	3964.4	103	%			14:25:38
2	Y RADIAL	4583.5	4583.5	103.0	%			14:25:17
2	Al 396.153Radial†	-118.1	0.2	0.1638	ug/L	0.1638	ppb	14:25:17
2	Ca 317.933Radial†	30.5	11.0	24.053	ug/L	24.053	ppb	14:25:38
2	Fe 238.204 Radial†	13.2	1.2	18.803	ug/L	18.803	ppb	14:25:38
2	K 766.490 Radial†	2913.8	69.7	13.344	ug/L	13.344	ppb	14:25:17
2	Mg 279.077 IEC†	5.8	4.5	237.87	ug/L	237.87	ppb	14:25:38
2	Na 589.592 Radial†	-892.4	33.5	10.411	ug/L	10.411	ppb	14:25:17
2	Sr 421.552†	53.9	43.7	0.3039	ug/L	0.3039	ppb	14:25:17
2	Sc 361.383	910486.2	910486.2	103.46	%			14:26:35
2	Y 371.029	766670.8	766670.8	100.79	%			14:26:35
2	Ag 328.068†	319.0	74.2	0.3503	ug/L	0.3503	ppb	14:26:35
2	As 188.979†	-9.9	10.4	4.6115	ug/L	4.6115	ppb	14:26:55
2	B 249.677†	-136.2	146.3	3.5825	ug/L	3.5825	ppb	14:26:55
2	Ba 233.527†	29.8	17.8	0.1403	ug/L	0.1403	ppb	14:26:55
2	Be 313.107†	-3637.7	42.0	0.0165	ug/L	0.0165	ppb	14:26:35
2	Cd 226.502†	-192.0	-9.4	-0.1114	ug/L	-0.1114	ppb	14:26:55
2	Co 228.616†	-51.0	15.6	0.3258	ug/L	0.3258	ppb	14:26:55
2	Cr 267.716†	76.5	-11.2	-0.1240	ug/L	-0.1240	ppb	14:26:55
2	Cu 324.752†	6050.2	-107.0	-0.3252	ug/L	-0.3252	ppb	14:26:35
2	Mn 257.610†	645.8	146.5	0.1591	ug/L	0.1591	ppb	14:26:55
2	Mo 202.031†	2.1	-2.7	-0.1943	ug/L	-0.1943	ppb	14:26:55
2	Ni 231.604†	75.0	-10.3	-0.2624	ug/L	-0.2624	ppb	14:26:55

2	P 214.914†	218.1	5.0	3.0855	ug/L	3.0855 ppb	14:26:55
2	Pb 220.353†	23.2	-38.8	-4.8018	ug/L	-4.8018 ppb	14:26:55
2	S 181.975 Axial†	39.1	2.0	2.8200	ug/L	2.8200 ppb	14:26:55
2	Sb 206.836†	54.9	14.1	4.9971	ug/L	4.9971 ppb	14:26:55
2	Se 196.026†	-18.9	6.5	4.3101	ug/L	4.3101 ppb	14:26:55
2	Si 251.611†	864.6	271.0	8.7808	ug/L	8.7808 ppb	14:26:55
2	Sn 189.927†	24.1	13.9	2.5073	ug/L	2.5073 ppb	14:26:55
2	Ti 334.940†	-1237.1	214.1	0.3209	ug/L	0.3209 ppb	14:26:35
2	Tl 190.801†	-26.0	2.3	0.7413	ug/L	0.7413 ppb	14:26:55
2	U 409.014†	-2981.4	20.1	0.5585	ug/L	0.5585 ppb	14:26:35
2	V 292.402†	-1504.7	14.3	0.0995	ug/L	0.0995 ppb	14:26:35
2	Zn 213.857†	878.3	109.5	1.1046	ug/L	1.1046 ppb	14:26:55
2	SiO2†	888.2	270.4	18.775	ug/L	18.775 ppb	14:27:30
3	Sc Radial	3951.5	3951.5	102	%		14:26:03
3	Y RADIAL	4474.8	4474.8	100.5	%		14:25:43
3	Al 396.153Radial†	-107.8	9.8	9.2010	ug/L	9.2010 ppb	14:25:43
3	Ca 317.933Radial†	27.7	8.3	18.175	ug/L	18.175 ppb	14:26:03
3	Fe 238.204 Radial†	12.3	0.4	5.7923	ug/L	5.7923 ppb	14:26:03
3	K 766.490 Radial†	2824.5	-8.1	-1.5634	ug/L	-1.5634 ppb	14:25:43
3	Mg 279.077 IEC†	2.3	1.1	55.498	ug/L	55.498 ppb	14:26:03
3	Na 589.592 Radial†	-879.4	43.4	13.491	ug/L	13.491 ppb	14:25:43
3	Sr 421.552†	63.4	53.2	0.3698	ug/L	0.3698 ppb	14:25:43
3	Sc 361.383	914711.5	914711.5	103.94	%		14:27:00
3	Y 371.029	771675.1	771675.1	101.45	%		14:27:00
3	Ag 328.068†	145.8	-93.9	-0.4343	ug/L	-0.4343 ppb	14:27:00
3	As 188.979†	-14.2	6.3	2.7872	ug/L	2.7872 ppb	14:27:20
3	B 249.677†	-152.6	131.1	3.2126	ug/L	3.2126 ppb	14:27:20
3	Ba 233.527†	19.5	7.7	0.0617	ug/L	0.0617 ppb	14:27:20
3	Be 313.107†	-3634.4	61.4	0.0237	ug/L	0.0237 ppb	14:27:00
3	Cd 226.502†	-166.9	15.6	0.1806	ug/L	0.1806 ppb	14:27:20
3	Co 228.616†	-53.4	13.4	0.2834	ug/L	0.2834 ppb	14:27:20
3	Cr 267.716†	81.8	-6.4	-0.0711	ug/L	-0.0711 ppb	14:27:20
3	Cu 324.752†	6073.0	-112.0	-0.3418	ug/L	-0.3418 ppb	14:27:00
3	Mn 257.610†	664.8	162.0	0.1828	ug/L	0.1828 ppb	14:27:20
3	Mo 202.031†	17.4	12.1	0.8912	ug/L	0.8912 ppb	14:27:20
3	Ni 231.604†	85.3	-0.7	-0.0183	ug/L	-0.0183 ppb	14:27:20
3	P 214.914†	209.8	-4.0	-2.3304	ug/L	-2.3304 ppb	14:27:20
3	Pb 220.353†	21.8	-40.2	-4.9748	ug/L	-4.9748 ppb	14:27:20
3	S 181.975 Axial†	46.4	8.8	12.446	ug/L	12.446 ppb	14:27:20
3	Sb 206.836†	52.6	11.6	4.1278	ug/L	4.1278 ppb	14:27:20
3	Se 196.026†	-29.7	-3.8	-2.5019	ug/L	-2.5019 ppb	14:27:20
3	Si 251.611†	860.3	263.0	8.5094	ug/L	8.5094 ppb	14:27:20
3	Sn 189.927†	16.1	6.1	1.1034	ug/L	1.1034 ppb	14:27:20
3	Ti 334.940†	-1237.1	219.7	0.3435	ug/L	0.3435 ppb	14:27:00
3	Tl 190.801†	-35.4	-6.7	-2.1391	ug/L	-2.1391 ppb	14:27:20
3	U 409.014†	-2965.6	48.6	1.3553	ug/L	1.3553 ppb	14:27:00
3	V 292.402†	-1463.2	60.9	0.4407	ug/L	0.4407 ppb	14:27:00
3	Zn 213.857†	870.8	98.4	0.9926	ug/L	0.9926 ppb	14:27:20
3	SiO2†	1092.6	463.0	32.123	ug/L	32.123 ppb	14:27:35

Mean Data: 1202031021|948088|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910919.1	103.50	%	0.409				0.39%
Sc Radial	4029.8	104	%	3.2				3.09%
Y 371.029	767597.1	100.92	%	0.487				0.48%
Y RADIAL	4597.8	103.3	%	2.94				2.84%
Ag 328.068†	-3.7	-0.0138	ug/L	0.39530	-0.0138	ppb	0.39530	>999.9%
Al 396.153Radial†	5.4	5.0541	ug/L	4.56424	5.0541	ppb	4.56424	90.31%
As 188.979†	9.8	4.3734	ug/L	1.48149	4.3734	ppb	1.48149	33.88%
B 249.677†	144.2	3.5311	ug/L	0.29614	3.5311	ppb	0.29614	8.39%
Ba 233.527†	12.8	0.1019	ug/L	0.03936	0.1019	ppb	0.03936	38.62%
Be 313.107†	62.7	0.0241	ug/L	0.00784	0.0241	ppb	0.00784	32.50%
Ca 317.933Radial†	7.6	16.514	ug/L	8.4918	16.514	ppb	8.4918	51.42%
Cd 226.502†	9.6	0.1105	ug/L	0.19647	0.1105	ppb	0.19647	177.75%
Co 228.616†	12.6	0.2655	ug/L	0.07096	0.2655	ppb	0.07096	26.73%
Cr 267.716†	-9.4	-0.1046	ug/L	0.02914	-0.1046	ppb	0.02914	27.86%
Cu 324.752†	-97.5	-0.2975	ug/L	0.06287	-0.2975	ppb	0.06287	21.13%
Fe 238.204 Radial†	0.7	12.117	ug/L	6.5127	12.117	ppb	6.5127	53.75%
K 766.490 Radial†	-42.3	-8.1242	ug/L	25.39262	-8.1242	ppb	25.39262	312.56%

Mg 279.077 IEC†	2.0	106.76	ug/L	114.441	106.76	ppb	114.441 107.20%
Mn 257.610†	159.1	0.1781	ug/L	0.01711	0.1781	ppb	0.01711 9.61%
Mo 202.031†	7.8	0.5774	ug/L	0.67225	0.5774	ppb	0.67225 116.42%
Na 589.592 Radial†	63.4	19.733	ug/L	13.5664	19.733	ppb	13.5664 68.75%
Ni 231.604†	-2.1	-0.0548	ug/L	0.19201	-0.0548	ppb	0.19201 350.65%
P 214.914†	1.4	0.9048	ug/L	2.85782	0.9048	ppb	2.85782 315.83%
Pb 220.353†	-38.4	-4.7549	ug/L	0.24663	-4.7549	ppb	0.24663 5.19%
S 181.975 Axial†	6.3	8.9000	ug/L	5.28966	8.9000	ppb	5.28966 59.43%
Sb 206.836†	9.3	3.3246	ug/L	2.18750	3.3246	ppb	2.18750 65.80%
Se 196.026†	1.0	0.7201	ug/L	3.42089	0.7201	ppb	3.42089 475.03%
Si 251.611†	271.1	8.7743	ug/L	0.26176	8.7743	ppb	0.26176 2.98%
Sn 189.927†	12.2	2.2013	ug/L	0.98135	2.2013	ppb	0.98135 44.58%
Sr 421.552†	46.6	0.3243	ug/L	0.03955	0.3243	ppb	0.03955 12.20%
Ti 334.940†	188.3	0.2893	ug/L	0.07513	0.2893	ppb	0.07513 25.97%
Tl 190.801†	-3.0	-0.9614	ug/L	1.51027	-0.9614	ppb	1.51027 157.08%
U 409.014†	72.1	2.0127	ug/L	1.87155	2.0127	ppb	1.87155 92.99%
V 292.402†	49.1	0.3552	ug/L	0.22542	0.3552	ppb	0.22542 63.47%
Zn 213.857†	105.7	1.0661	ug/L	0.06364	1.0661	ppb	0.06364 5.97%
SiO2†	333.5	23.139	ug/L	7.7807	23.139	ppb	7.7807 33.63%

Sequence No.: 6
Sample ID: 1202031026|948088|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 2/25/2010 14:29:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202031026|948088|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3911.4	3911.4	101	%			14:31:59
1	Y RADIAL	4357.2	4357.2	97.88	%			14:31:39
1	Al 396.153Radial†	5501.2	5539.7	5181.8	ug/L	5181.8	ppb	14:31:39
1	Ca 317.933Radial†	2480.3	2427.1	5292.9	ug/L	5292.9	ppb	14:31:59
1	Fe 238.204 Radial†	325.4	309.2	5011.7	ug/L	5011.7	ppb	14:31:59
1	K 766.490 Radial†	29409.0	26234.6	5021.7	ug/L	5021.7	ppb	14:31:39
1	Mg 279.077 IEC†	103.1	100.5	5302.2	ug/L	5302.2	ppb	14:31:59
1	Na 589.592 Radial†	15929.4	16609.4	5168.2	ug/L	5168.2	ppb	14:31:39
1	Sr 421.552†	73727.4	72692.5	505.65	ug/L	505.65	ppb	14:31:39
1	Sc 361.383	912818.2	912818.2	103.72	%			14:32:58
1	Y 371.029	758859.1	758859.1	99.766	%			14:32:58
1	Ag 328.068†	107205.9	103125.9	482.29	ug/L	482.29	ppb	14:32:58
1	As 188.979†	1140.6	1119.6	502.22	ug/L	502.22	ppb	14:33:18
1	B 249.677†	20181.0	19735.1	481.51	ug/L	481.51	ppb	14:32:58
1	Ba 233.527†	65654.7	63288.5	498.72	ug/L	498.72	ppb	14:32:58
1	Be 313.107†	1369181.3	1323623.4	495.71	ug/L	495.71	ppb	14:32:58
1	Cd 226.502†	42749.1	41391.7	480.91	ug/L	480.91	ppb	14:33:18
1	Co 228.616†	23736.2	22949.6	482.09	ug/L	482.09	ppb	14:33:18
1	Cr 267.716†	45822.3	44093.4	495.74	ug/L	495.74	ppb	14:32:58
1	Cu 324.752†	178450.3	166093.7	506.05	ug/L	506.05	ppb	14:32:58
1	Mn 257.610†	457768.4	440869.3	502.54	ug/L	502.54	ppb	14:32:58
1	Mo 202.031†	7065.1	6807.0	501.82	ug/L	501.82	ppb	14:33:18
1	Ni 231.604†	20579.5	19758.5	503.95	ug/L	503.95	ppb	14:33:18
1	P 214.914†	1192.0	943.4	468.91	ug/L	468.91	ppb	14:33:18
1	Pb 220.353†	4199.8	3988.0	494.93	ug/L	494.93	ppb	14:33:18
1	S 181.975 Axial†	3761.7	3591.0	5062.2	ug/L	5062.2	ppb	14:33:18
1	Sb 206.836†	1586.5	1490.6	544.11	ug/L	544.11	ppb	14:33:18
1	Se 196.026†	748.0	745.9	507.27	ug/L	507.27	ppb	14:33:18
1	Si 251.611†	156439.1	150262.5	4861.7	ug/L	4861.7	ppb	14:32:58
1	Sn 189.927†	2956.6	2841.1	513.00	ug/L	513.00	ppb	14:33:18
1	Ti 334.940†	333027.6	322490.9	508.01	ug/L	508.01	ppb	14:32:58
1	Tl 190.801†	1591.4	1561.8	505.90	ug/L	505.90	ppb	14:33:18
1	U 409.014†	15527.4	17872.3	497.39	ug/L	497.39	ppb	14:32:58
1	V 292.402†	72387.3	71259.3	504.50	ug/L	504.50	ppb	14:32:58
1	Zn 213.857†	51564.1	48974.9	489.78	ug/L	489.78	ppb	14:32:58
1	SiO2†	158885.8	152598.0	10581	ug/L	10581	ppb	14:34:18
2	Sc Radial	3894.3	3894.3	101	%			14:32:24
2	Y RADIAL	4381.7	4381.7	98.43	%			14:32:04
2	Al 396.153Radial†	5543.9	5605.9	5244.3	ug/L	5244.3	ppb	14:32:04
2	Ca 317.933Radial†	2464.5	2422.2	5282.1	ug/L	5282.1	ppb	14:32:24
2	Fe 238.204 Radial†	321.5	306.8	4971.7	ug/L	4971.7	ppb	14:32:24
2	K 766.490 Radial†	29611.0	26562.4	5084.5	ug/L	5084.5	ppb	14:32:04
2	Mg 279.077 IEC†	103.3	101.2	5338.6	ug/L	5338.6	ppb	14:32:24
2	Na 589.592 Radial†	15945.8	16694.8	5194.8	ug/L	5194.8	ppb	14:32:04
2	Sr 421.552†	74238.7	73519.1	511.41	ug/L	511.41	ppb	14:32:04
2	Sc 361.383	917130.6	917130.6	104.21	%			14:33:25
2	Y 371.029	761644.8	761644.8	100.13	%			14:33:25
2	Ag 328.068†	107618.9	103036.3	481.86	ug/L	481.86	ppb	14:33:25
2	As 188.979†	1138.7	1112.6	499.12	ug/L	499.12	ppb	14:33:45
2	B 249.677†	20282.2	19740.6	481.66	ug/L	481.66	ppb	14:33:25
2	Ba 233.527†	65926.1	63251.2	498.42	ug/L	498.42	ppb	14:33:25
2	Be 313.107†	1374067.8	1322105.4	495.14	ug/L	495.14	ppb	14:33:25
2	Cd 226.502†	42551.3	41008.1	476.45	ug/L	476.45	ppb	14:33:45
2	Co 228.616†	23650.7	22759.9	478.09	ug/L	478.09	ppb	14:33:45
2	Cr 267.716†	46032.2	44087.1	495.67	ug/L	495.67	ppb	14:33:25
2	Cu 324.752†	179305.2	166105.0	506.08	ug/L	506.08	ppb	14:33:25
2	Mn 257.610†	459635.4	440585.7	502.21	ug/L	502.21	ppb	14:33:25
2	Mo 202.031†	7043.2	6754.0	497.91	ug/L	497.91	ppb	14:33:45
2	Ni 231.604†	20473.6	19563.6	498.98	ug/L	498.98	ppb	14:33:45

2	P 214.914†	1191.8	937.8	465.54 ug/L	465.54 ppb	14:33:45
2	Pb 220.353†	4179.3	3949.3	490.15 ug/L	490.15 ppb	14:33:45
2	S 181.975 Axial†	3735.2	3548.4	5002.2 ug/L	5002.2 ppb	14:33:45
2	Sb 206.836†	1568.5	1466.1	535.30 ug/L	535.30 ppb	14:33:45
2	Se 196.026†	748.1	742.6	504.99 ug/L	504.99 ppb	14:33:45
2	Si 251.611†	156913.2	150008.3	4853.5 ug/L	4853.5 ppb	14:33:25
2	Sn 189.927†	2928.4	2800.7	505.70 ug/L	505.70 ppb	14:33:45
2	Ti 334.940†	334806.6	322688.3	508.31 ug/L	508.31 ppb	14:33:25
2	Tl 190.801†	1601.9	1564.6	506.83 ug/L	506.83 ppb	14:33:45
2	U 409.014†	15657.1	17926.3	498.90 ug/L	498.90 ppb	14:33:25
2	V 292.402†	72879.8	71403.7	505.47 ug/L	505.47 ppb	14:33:25
2	Zn 213.857†	51705.1	48876.5	488.82 ug/L	488.82 ppb	14:33:25
2	SiO2†	156106.1	149210.2	10346 ug/L	10346 ppb	14:34:23
3	Sc Radial	3902.2	3902.2	101 %		14:32:49
3	Y RADIAL	4382.6	4382.6	98.45 %		14:32:29
3	Al 396.153Radial†	5530.4	5581.3	5221.0 ug/L	5221.0 ppb	14:32:29
3	Ca 317.933Radial†	2452.1	2405.0	5244.6 ug/L	5244.6 ppb	14:32:49
3	Fe 238.204 Radial†	325.1	309.7	5019.0 ug/L	5019.0 ppb	14:32:49
3	K 766.490 Radial†	29518.0	26410.5	5055.4 ug/L	5055.4 ppb	14:32:29
3	Mg 279.077 IEC†	104.0	101.6	5361.6 ug/L	5361.6 ppb	14:32:49
3	Na 589.592 Radial†	15885.5	16602.9	5166.2 ug/L	5166.2 ppb	14:32:29
3	Sr 421.552†	74240.4	73370.3	510.37 ug/L	510.37 ppb	14:32:29
3	Sc 361.383	912740.0	912740.0	103.71 %		14:33:52
3	Y 371.029	758941.7	758941.7	99.777 %		14:33:52
3	Ag 328.068†	106856.7	102798.1	480.76 ug/L	480.76 ppb	14:33:52
3	As 188.979†	1127.4	1107.0	496.62 ug/L	496.62 ppb	14:34:12
3	B 249.677†	20218.9	19773.3	482.45 ug/L	482.45 ppb	14:33:52
3	Ba 233.527†	65631.0	63271.0	498.58 ug/L	498.58 ppb	14:33:52
3	Be 313.107†	1366302.6	1320960.9	494.71 ug/L	494.71 ppb	14:33:52
3	Cd 226.502†	42519.4	41173.9	478.37 ug/L	478.37 ppb	14:34:12
3	Co 228.616†	23610.3	22830.1	479.57 ug/L	479.57 ppb	14:34:12
3	Cr 267.716†	45779.6	44056.0	495.32 ug/L	495.32 ppb	14:33:52
3	Cu 324.752†	177941.6	165617.9	504.60 ug/L	504.60 ppb	14:33:52
3	Mn 257.610†	456429.3	439616.0	501.11 ug/L	501.11 ppb	14:33:52
3	Mo 202.031†	7036.7	6780.2	499.85 ug/L	499.85 ppb	14:34:12
3	Ni 231.604†	20506.1	19689.4	502.19 ug/L	502.19 ppb	14:34:12
3	P 214.914†	1191.1	942.6	468.68 ug/L	468.68 ppb	14:34:12
3	Pb 220.353†	4163.0	3952.8	490.58 ug/L	490.58 ppb	14:34:12
3	S 181.975 Axial†	3740.1	3570.4	5033.3 ug/L	5033.3 ppb	14:34:12
3	Sb 206.836†	1575.4	1480.0	540.25 ug/L	540.25 ppb	14:34:12
3	Se 196.026†	735.0	733.4	499.09 ug/L	499.09 ppb	14:34:12
3	Si 251.611†	155786.5	149646.1	4841.7 ug/L	4841.7 ppb	14:33:52
3	Sn 189.927†	2921.0	2807.0	506.84 ug/L	506.84 ppb	14:34:12
3	Ti 334.940†	332452.6	321964.0	507.16 ug/L	507.16 ppb	14:33:52
3	Tl 190.801†	1600.5	1570.7	508.75 ug/L	508.75 ppb	14:34:12
3	U 409.014†	15685.7	18026.2	501.69 ug/L	501.69 ppb	14:33:52
3	V 292.402†	72464.2	71339.4	505.05 ug/L	505.05 ppb	14:33:52
3	Zn 213.857†	51279.7	48705.0	487.07 ug/L	487.07 ppb	14:33:52
3	SiO2†	156206.2	150027.4	10402 ug/L	10402 ppb	14:34:28

Mean Data: 1202031026|948088|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914229.6	103.88	%	0.286				0.27%
Sc Radial	3902.6	101	%	0.2				0.22%
Y 371.029	759815.2	99.892	%	0.2084				0.21%
Y RADIAL	4373.8	98.25	%	0.324				0.33%
Ag 328.068†	102986.8	481.64	ug/L	0.785	481.64	ppb	0.785	0.16%
Al 396.153Radial†	5575.6	5215.7	ug/L	31.56	5215.7	ppb	31.56	0.61%
As 188.979†	1113.1	499.32	ug/L	2.808	499.32	ppb	2.808	0.56%
B 249.677†	19749.7	481.88	ug/L	0.505	481.88	ppb	0.505	0.10%
Ba 233.527†	63270.2	498.57	ug/L	0.146	498.57	ppb	0.146	0.03%
Be 313.107†	1322229.9	495.19	ug/L	0.500	495.19	ppb	0.500	0.10%
Ca 317.933Radial†	2418.1	5273.2	ug/L	25.36	5273.2	ppb	25.36	0.48%
Cd 226.502†	41191.2	478.58	ug/L	2.235	478.58	ppb	2.235	0.47%
Co 228.616†	22846.5	479.92	ug/L	2.019	479.92	ppb	2.019	0.42%
Cr 267.716†	44078.9	495.58	ug/L	0.224	495.58	ppb	0.224	0.05%
Cu 324.752†	165938.9	505.58	ug/L	0.847	505.58	ppb	0.847	0.17%
Fe 238.204 Radial†	308.6	5000.8	ug/L	25.51	5000.8	ppb	25.51	0.51%
K 766.490 Radial†	26402.5	5053.9	ug/L	31.43	5053.9	ppb	31.43	0.62%

Mg 279.077 IEC†	101.1	5334.2 ug/L	29.93	5334.2 ppb	29.93	0.56%
Mn 257.610†	440357.0	501.96 ug/L	0.749	501.96 ppb	0.749	0.15%
Mo 202.031†	6780.4	499.86 ug/L	1.956	499.86 ppb	1.956	0.39%
Na 589.592 Radial†	16635.7	5176.4 ug/L	15.96	5176.4 ppb	15.96	0.31%
Ni 231.604†	19670.5	501.71 ug/L	2.520	501.71 ppb	2.520	0.50%
P 214.914†	941.3	467.71 ug/L	1.888	467.71 ppb	1.888	0.40%
Pb 220.353†	3963.4	491.88 ug/L	2.645	491.88 ppb	2.645	0.54%
S 181.975 Axial†	3569.9	5032.5 ug/L	30.02	5032.5 ppb	30.02	0.60%
Sb 206.836†	1478.9	539.88 ug/L	4.417	539.88 ppb	4.417	0.82%
Se 196.026†	740.7	503.78 ug/L	4.221	503.78 ppb	4.221	0.84%
Si 251.611†	149972.3	4852.3 ug/L	10.02	4852.3 ppb	10.02	0.21%
Sn 189.927†	2816.3	508.51 ug/L	3.926	508.51 ppb	3.926	0.77%
Sr 421.552†	73193.9	509.14 ug/L	3.065	509.14 ppb	3.065	0.60%
Ti 334.940†	322381.1	507.83 ug/L	0.595	507.83 ppb	0.595	0.12%
Tl 190.801†	1565.7	507.16 ug/L	1.451	507.16 ppb	1.451	0.29%
U 409.014†	17941.6	499.33 ug/L	2.180	499.33 ppb	2.180	0.44%
V 292.402†	71334.1	505.01 ug/L	0.483	505.01 ppb	0.483	0.10%
Zn 213.857†	48852.1	488.56 ug/L	1.376	488.56 ppb	1.376	0.28%
SiO2†	150611.9	10443 ug/L	122.7	10443 ppb	122.7	1.17%

Sequence No.: 8
Sample ID: 1202031022|948088|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 2/25/2010 14:43:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202031022|948088|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3941.6	3941.6	102	%			14:45:41
1	Y RADIAL	4329.1	4329.1	97.25	%			14:45:21
1	Al 396.153Radial†	-95.7	21.4	20.134	ug/L	20.134	ppb	14:45:21
1	Ca 317.933Radial†	12389.5	12104.7	26397	ug/L	26397	ppb	14:45:21
1	Fe 238.204 Radial†	11.5	-0.4	-7.0724	ug/L	-7.0724	ppb	14:45:41
1	K 766.490 Radial†	6275.6	3375.7	630.31	ug/L	630.31	ppb	14:45:21
1	Mg 279.077 IEC†	83.3	80.4	4241.9	ug/L	4241.9	ppb	14:45:41
1	Na 589.592 Radial†	63271.7	62814.4	19546	ug/L	19546	ppb	14:45:21
1	Sr 421.552†	18392.9	17989.1	124.95	ug/L	124.95	ppb	14:45:21
1	Sc 361.383	904902.6	904902.6	102.82	%			14:46:38
1	Y 371.029	751073.6	751073.6	98.743	%			14:46:38
1	Ag 328.068†	304.8	62.3	-0.0686	ug/L	-0.0686	ppb	14:46:38
1	As 188.979†	-21.5	-1.0	-0.4544	ug/L	-0.4544	ppb	14:46:59
1	B 249.677†	537.5	800.7	19.627	ug/L	19.627	ppb	14:46:59
1	Ba 233.527†	1492.7	1440.7	11.327	ug/L	11.327	ppb	14:46:59
1	Be 313.107†	-3624.8	32.9	0.0055	ug/L	0.0055	ppb	14:46:38
1	Cd 226.502†	-152.6	27.8	0.3259	ug/L	0.3259	ppb	14:46:59
1	Co 228.616†	-66.7	0.0	0.0090	ug/L	0.0090	ppb	14:46:59
1	Cr 267.716†	513.9	414.7	4.6530	ug/L	4.6530	ppb	14:46:59
1	Cu 324.752†	7543.4	1381.3	4.2071	ug/L	4.2071	ppb	14:46:38
1	Mn 257.610†	1565.3	1044.7	1.0161	ug/L	1.0161	ppb	14:46:59
1	Mo 202.031†	-1.9	-6.5	-0.1671	ug/L	-0.1671	ppb	14:46:59
1	Ni 231.604†	200.7	112.4	2.8684	ug/L	2.8684	ppb	14:46:59
1	P 214.914†	302.3	88.2	51.927	ug/L	51.927	ppb	14:46:59
1	Pb 220.353†	-8.6	-69.6	-8.2374	ug/L	-8.2374	ppb	14:46:59
1	S 181.975 Axial†	5525.2	5337.8	7526.1	ug/L	7526.1	ppb	14:46:59
1	Sb 206.836†	27.7	-12.0	-4.7314	ug/L	-4.7314	ppb	14:46:59
1	Se 196.026†	-27.8	-2.3	-1.5617	ug/L	-1.5617	ppb	14:46:59
1	Si 251.611†	974457.3	947154.4	30684	ug/L	30684	ppb	14:46:38
1	Sn 189.927†	-170.7	-175.4	-26.947	ug/L	-26.947	ppb	14:46:59
1	Ti 334.940†	-3388.4	-1885.5	0.2205	ug/L	0.2205	ppb	14:46:38
1	Tl 190.801†	-38.7	-10.2	-3.2996	ug/L	-3.2996	ppb	14:46:59
1	U 409.014†	-2901.2	80.3	2.2330	ug/L	2.2330	ppb	14:46:38
1	V 292.402†	-1328.3	176.9	1.3175	ug/L	1.3175	ppb	14:46:59
1	Zn 213.857†	3329.7	2498.9	25.205	ug/L	25.205	ppb	14:46:59
1	SiO2†	976663.4	949276.5	65906	ug/L	65906	ppb	14:47:56
2	Sc Radial	3928.6	3928.6	102	%			14:46:06
2	Y RADIAL	4467.9	4467.9	100.4	%			14:45:46
2	Al 396.153Radial†	-105.3	11.7	11.009	ug/L	11.009	ppb	14:45:46
2	Ca 317.933Radial†	12650.8	12401.5	27044	ug/L	27044	ppb	14:45:46
2	Fe 238.204 Radial†	12.4	0.5	7.6709	ug/L	7.6709	ppb	14:46:06
2	K 766.490 Radial†	6497.2	3613.7	675.47	ug/L	675.47	ppb	14:45:46
2	Mg 279.077 IEC†	85.0	82.3	4342.8	ug/L	4342.8	ppb	14:46:06
2	Na 589.592 Radial†	64760.3	64481.3	20064	ug/L	20064	ppb	14:45:46
2	Sr 421.552†	18878.6	18525.7	128.67	ug/L	128.67	ppb	14:45:46
2	Sc 361.383	896913.8	896913.8	101.91	%			14:47:04
2	Y 371.029	744545.6	744545.6	97.885	%			14:47:04
2	Ag 328.068†	208.4	-29.7	-0.5007	ug/L	-0.5007	ppb	14:47:04
2	As 188.979†	-17.9	2.4	1.0439	ug/L	1.0439	ppb	14:47:24
2	B 249.677†	563.0	830.5	20.354	ug/L	20.354	ppb	14:47:24
2	Ba 233.527†	1485.0	1446.1	11.370	ug/L	11.370	ppb	14:47:24
2	Be 313.107†	-3562.6	62.5	0.0165	ug/L	0.0165	ppb	14:47:04
2	Cd 226.502†	-154.4	24.7	0.2889	ug/L	0.2889	ppb	14:47:24
2	Co 228.616†	-72.1	-5.9	-0.1140	ug/L	-0.1140	ppb	14:47:24
2	Cr 267.716†	483.2	389.0	4.3663	ug/L	4.3663	ppb	14:47:24
2	Cu 324.752†	7436.6	1341.9	4.0872	ug/L	4.0872	ppb	14:47:04
2	Mn 257.610†	1549.1	1042.4	1.0107	ug/L	1.0107	ppb	14:47:24
2	Mo 202.031†	7.7	2.8	0.5313	ug/L	0.5313	ppb	14:47:24
2	Ni 231.604†	200.9	114.3	2.9173	ug/L	2.9173	ppb	14:47:24

2	P 214.914†	295.2	83.8	49.283	ug/L	49.283 ppb	14:47:24
2	Pb 220.353†	16.8	-44.7	-5.1569	ug/L	-5.1569 ppb	14:47:24
2	S 181.975 Axial†	5508.6	5369.3	7570.6	ug/L	7570.6 ppb	14:47:24
2	Sb 206.836†	38.7	-1.0	-0.8610	ug/L	-0.8610 ppb	14:47:24
2	Se 196.026†	-19.8	5.3	3.4872	ug/L	3.4872 ppb	14:47:24
2	Si 251.611†	966536.5	947823.6	30705	ug/L	30705 ppb	14:47:04
2	Sn 189.927†	-181.2	-187.2	-28.962	ug/L	-28.962 ppb	14:47:24
2	Ti 334.940†	-3379.9	-1906.6	0.2656	ug/L	0.2656 ppb	14:47:04
2	Tl 190.801†	-46.2	-17.9	-5.7798	ug/L	-5.7798 ppb	14:47:24
2	U 409.014†	-2844.3	111.0	3.0878	ug/L	3.0878 ppb	14:47:04
2	V 292.402†	-1309.4	183.9	1.3777	ug/L	1.3777 ppb	14:47:24
2	Zn 213.857†	3311.6	2509.9	25.314	ug/L	25.314 ppb	14:47:24
2	SiO2†	988811.0	969656.4	67321	ug/L	67321 ppb	14:48:02
3	Sc Radial	3942.0	3942.0	102	%		14:46:32
3	Y RADIAL	4354.0	4354.0	97.81	%		14:46:12
3	Al 396.153Radial†	-80.3	36.5	34.266	ug/L	34.266 ppb	14:46:12
3	Ca 317.933Radial†	12431.1	12144.2	26483	ug/L	26483 ppb	14:46:12
3	Fe 238.204 Radial†	11.0	-0.9	-15.322	ug/L	-15.322 ppb	14:46:32
3	K 766.490 Radial†	6437.1	3533.1	660.45	ug/L	660.45 ppb	14:46:12
3	Mg 279.077 IEC†	86.2	83.1	4387.5	ug/L	4387.5 ppb	14:46:32
3	Na 589.592 Radial†	63184.3	62722.7	19517	ug/L	19517 ppb	14:46:12
3	Sr 421.552†	18517.5	18109.2	125.78	ug/L	125.78 ppb	14:46:12
3	Sc 361.383	898167.2	898167.2	102.06	%		14:47:30
3	Y 371.029	745798.1	745798.1	98.049	%		14:47:30
3	Ag 328.068†	297.1	57.0	-0.1014	ug/L	-0.1014 ppb	14:47:30
3	As 188.979†	-9.2	10.9	4.8388	ug/L	4.8388 ppb	14:47:50
3	B 249.677†	545.0	812.1	19.905	ug/L	19.905 ppb	14:47:50
3	Ba 233.527†	1490.8	1449.7	11.397	ug/L	11.397 ppb	14:47:50
3	Be 313.107†	-3553.3	76.5	0.0220	ug/L	0.0220 ppb	14:47:30
3	Cd 226.502†	-159.8	19.6	0.2329	ug/L	0.2329 ppb	14:47:50
3	Co 228.616†	-55.3	10.6	0.2336	ug/L	0.2336 ppb	14:47:50
3	Cr 267.716†	507.6	412.3	4.6235	ug/L	4.6235 ppb	14:47:50
3	Cu 324.752†	7552.4	1445.1	4.3984	ug/L	4.3984 ppb	14:47:30
3	Mn 257.610†	1562.2	1053.0	1.0187	ug/L	1.0187 ppb	14:47:50
3	Mo 202.031†	9.2	4.3	0.6305	ug/L	0.6305 ppb	14:47:50
3	Ni 231.604†	191.5	104.9	2.6768	ug/L	2.6768 ppb	14:47:50
3	P 214.914†	309.2	97.1	57.254	ug/L	57.254 ppb	14:47:50
3	Pb 220.353†	6.5	-54.8	-6.4017	ug/L	-6.4017 ppb	14:47:50
3	S 181.975 Axial†	5550.7	5403.0	7618.2	ug/L	7618.2 ppb	14:47:50
3	Sb 206.836†	33.7	-6.0	-2.5843	ug/L	-2.5843 ppb	14:47:50
3	Se 196.026†	-28.9	-3.6	-2.3967	ug/L	-2.3967 ppb	14:47:50
3	Si 251.611†	965948.9	945924.4	30644	ug/L	30644 ppb	14:47:30
3	Sn 189.927†	-172.9	-178.8	-27.543	ug/L	-27.543 ppb	14:47:50
3	Ti 334.940†	-3318.0	-1841.2	0.2878	ug/L	0.2878 ppb	14:47:30
3	Tl 190.801†	-34.1	-6.0	-1.9519	ug/L	-1.9519 ppb	14:47:50
3	U 409.014†	-2704.3	252.1	7.0301	ug/L	7.0301 ppb	14:47:30
3	V 292.402†	-1336.5	159.1	1.2180	ug/L	1.2180 ppb	14:47:50
3	Zn 213.857†	3333.3	2526.7	25.488	ug/L	25.488 ppb	14:47:50
3	SiO2†	976871.9	956603.9	66414	ug/L	66414 ppb	14:48:08

Mean Data: 1202031022|948088|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899994.6	102.26	%	0.488				0.48%
Sc Radial	3937.4	102	%	0.2				0.19%
Y 371.029	747139.1	98.226	%	0.4555				0.46%
Y RADIAL	4383.7	98.47	%	1.661				1.69%
Ag 328.068†	29.8	-0.2235	ug/L	0.24056	-0.2235	ppb	0.24056	107.61%
Al 396.153Radial†	23.2	21.803	ug/L	11.7184	21.803	ppb	11.7184	53.75%
As 188.979†	4.1	1.8094	ug/L	2.72834	1.8094	ppb	2.72834	150.78%
B 249.677†	814.4	19.962	ug/L	0.3668	19.962	ppb	0.3668	1.84%
Ba 233.527†	1445.5	11.365	ug/L	0.0353	11.365	ppb	0.0353	0.31%
Be 313.107†	57.3	0.0147	ug/L	0.00839	0.0147	ppb	0.00839	57.11%
Ca 317.933Radial†	12216.8	26642	ug/L	351.4	26642	ppb	351.4	1.32%
Cd 226.502†	24.0	0.2826	ug/L	0.04681	0.2826	ppb	0.04681	16.57%
Co 228.616†	1.6	0.0429	ug/L	0.17629	0.0429	ppb	0.17629	411.16%
Cr 267.716†	405.3	4.5476	ug/L	0.15771	4.5476	ppb	0.15771	3.47%
Cu 324.752†	1389.4	4.2309	ug/L	0.15696	4.2309	ppb	0.15696	3.71%
Fe 238.204 Radial†	-0.3	-4.9079	ug/L	11.64838	-4.9079	ppb	11.64838	237.34%
K 766.490 Radial†	3507.5	655.41	ug/L	22.999	655.41	ppb	22.999	3.51%

Mg 279.077 IEC†	81.9	4324.1	ug/L	74.60	4324.1	ppb	74.60	1.73%
Mn 257.610†	1046.7	1.0152	ug/L	0.00409	1.0152	ppb	0.00409	0.40%
Mo 202.031†	0.2	0.3316	ug/L	0.43472	0.3316	ppb	0.43472	131.11%
Na 589.592 Radial†	63339.5	19709	ug/L	308.0	19709	ppb	308.0	1.56%
Ni 231.604†	110.5	2.8208	ug/L	0.12709	2.8208	ppb	0.12709	4.51%
P 214.914†	89.7	52.822	ug/L	4.0599	52.822	ppb	4.0599	7.69%
Pb 220.353†	-56.4	-6.5987	ug/L	1.54969	-6.5987	ppb	1.54969	23.48%
S 181.975 Axial†	5370.0	7571.6	ug/L	46.02	7571.6	ppb	46.02	0.61%
Sb 206.836†	-6.3	-2.7256	ug/L	1.93906	-2.7256	ppb	1.93906	71.14%
Se 196.026†	-0.2	-0.1571	ug/L	3.18351	-0.1571	ppb	3.18351	>999.9%
Si 251.611†	946967.5	30678	ug/L	31.2	30678	ppb	31.2	0.10%
Sn 189.927†	-180.5	-27.817	ug/L	1.0354	-27.817	ppb	1.0354	3.72%
Sr 421.552†	18208.0	126.47	ug/L	1.956	126.47	ppb	1.956	1.55%
Ti 334.940†	-1877.8	0.2580	ug/L	0.03431	0.2580	ppb	0.03431	13.30%
Tl 190.801†	-11.4	-3.6771	ug/L	1.94166	-3.6771	ppb	1.94166	52.80%
U 409.014†	147.8	4.1170	ug/L	2.55877	4.1170	ppb	2.55877	62.15%
V 292.402†	173.3	1.3044	ug/L	0.08062	1.3044	ppb	0.08062	6.18%
Zn 213.857†	2511.8	25.335	ug/L	0.1427	25.335	ppb	0.1427	0.56%
SiO2†	958512.3	66547	ug/L	716.7	66547	ppb	716.7	1.08%

Sequence No.: 9
Sample ID: 1202031024|948088|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 2/25/2010 14:50:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202031024|948088|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3884.9	3884.9	101	%			14:52:32
1	Y RADIAL	4456.5	4456.5	100.1	%			14:52:12
1	Al 396.153Radial†	5577.5	5652.5	5288.2	ug/L	5288.2	ppb	14:52:12
1	Ca 317.933Radial†	15641.6	15510.6	33824	ug/L	33824	ppb	14:52:12
1	Fe 238.204 Radial†	344.2	330.1	5347.9	ug/L	5347.9	ppb	14:52:32
1	K 766.490 Radial†	33940.1	30931.3	5903.6	ug/L	5903.6	ppb	14:52:12
1	Mg 279.077 IEC†	186.1	183.6	9688.2	ug/L	9688.2	ppb	14:52:32
1	Na 589.592 Radial†	85433.9	85721.9	26674	ug/L	26674	ppb	14:52:12
1	Sr 421.552†	96237.4	95537.3	664.37	ug/L	664.37	ppb	14:52:12
1	Sc 361.383	894858.9	894858.9	101.68	%			14:53:31
1	Y 371.029	739833.6	739833.6	97.265	%			14:53:31
1	Ag 328.068†	105954.0	103969.1	485.94	ug/L	485.94	ppb	14:53:31
1	As 188.979†	1127.9	1129.2	506.55	ug/L	506.55	ppb	14:53:51
1	B 249.677†	20806.7	20740.9	506.14	ug/L	506.14	ppb	14:53:31
1	Ba 233.527†	65592.9	64498.0	508.24	ug/L	508.24	ppb	14:53:31
1	Be 313.107†	1361672.4	1342731.5	502.84	ug/L	502.84	ppb	14:53:31
1	Cd 226.502†	41336.9	40830.1	474.33	ug/L	474.33	ppb	14:53:51
1	Co 228.616†	22718.5	22408.0	470.70	ug/L	470.70	ppb	14:53:51
1	Cr 267.716†	44467.2	43647.4	490.78	ug/L	490.78	ppb	14:53:31
1	Cu 324.752†	177859.0	168965.1	514.83	ug/L	514.83	ppb	14:53:31
1	Mn 257.610†	444505.3	436683.0	497.63	ug/L	497.63	ppb	14:53:31
1	Mo 202.031†	6837.4	6719.7	495.76	ug/L	495.76	ppb	14:53:51
1	Ni 231.604†	19296.1	18894.5	481.91	ug/L	481.91	ppb	14:53:51
1	P 214.914†	1266.5	1039.8	524.66	ug/L	524.66	ppb	14:53:51
1	Pb 220.353†	4019.4	3891.8	483.39	ug/L	483.39	ppb	14:53:51
1	S 181.975 Axial†	9345.5	9155.3	12908	ug/L	12908	ppb	14:53:51
1	Sb 206.836†	1533.9	1469.5	536.12	ug/L	536.12	ppb	14:53:51
1	Se 196.026†	720.9	733.7	500.27	ug/L	500.27	ppb	14:53:51
1	Si 251.611†	1155508.6	1135851.2	36790	ug/L	36790	ppb	14:53:31
1	Sn 189.927†	2747.1	2692.3	491.21	ug/L	491.21	ppb	14:53:51
1	Ti 334.940†	324271.4	320323.3	508.07	ug/L	508.07	ppb	14:53:31
1	Tl 190.801†	1508.1	1510.6	489.44	ug/L	489.44	ppb	14:53:51
1	U 409.014†	14631.0	17291.1	481.13	ug/L	481.13	ppb	14:53:31
1	V 292.402†	71087.8	71381.9	505.28	ug/L	505.28	ppb	14:53:31
1	Zn 213.857†	52759.9	51148.7	511.80	ug/L	511.80	ppb	14:53:31
1	SiO2†	1177838.6	1157788.8	80369	ug/L	80369	ppb	14:54:52
2	Sc Radial	3865.0	3865.0	100	%			14:52:57
2	Y RADIAL	4353.7	4353.7	97.80	%			14:52:37
2	Al 396.153Radial†	5512.9	5616.5	5254.5	ug/L	5254.5	ppb	14:52:37
2	Ca 317.933Radial†	15435.7	15384.9	33550	ug/L	33550	ppb	14:52:37
2	Fe 238.204 Radial†	347.7	335.3	5432.9	ug/L	5432.9	ppb	14:52:57
2	K 766.490 Radial†	33435.4	30600.6	5840.5	ug/L	5840.5	ppb	14:52:37
2	Mg 279.077 IEC†	189.9	188.3	9938.1	ug/L	9938.1	ppb	14:52:57
2	Na 589.592 Radial†	83906.3	84632.9	26335	ug/L	26335	ppb	14:52:37
2	Sr 421.552†	94808.2	94601.7	657.86	ug/L	657.86	ppb	14:52:37
2	Sc 361.383	905105.5	905105.5	102.84	%			14:53:58
2	Y 371.029	746481.9	746481.9	98.139	%			14:53:58
2	Ag 328.068†	107340.2	104137.4	486.75	ug/L	486.75	ppb	14:53:58
2	As 188.979†	1126.1	1114.8	500.22	ug/L	500.22	ppb	14:54:18
2	B 249.677†	21260.5	20950.5	511.27	ug/L	511.27	ppb	14:53:58
2	Ba 233.527†	66748.9	64891.8	511.34	ug/L	511.34	ppb	14:53:58
2	Be 313.107†	1382718.0	1348034.3	504.82	ug/L	504.82	ppb	14:53:58
2	Cd 226.502†	41665.0	40688.9	472.68	ug/L	472.68	ppb	14:54:18
2	Co 228.616†	22877.6	22309.7	468.63	ug/L	468.63	ppb	14:54:18
2	Cr 267.716†	45171.3	43836.9	492.91	ug/L	492.91	ppb	14:53:58
2	Cu 324.752†	180733.3	169779.6	517.31	ug/L	517.31	ppb	14:53:58
2	Mn 257.610†	451317.3	438357.6	499.53	ug/L	499.53	ppb	14:53:58
2	Mo 202.031†	6877.3	6682.4	493.01	ug/L	493.01	ppb	14:54:18
2	Ni 231.604†	19440.2	18819.8	480.00	ug/L	480.00	ppb	14:54:18

2	P 214.914†	1272.5	1031.5	519.09 ug/L	519.09 ppb	14:54:18
2	Pb 220.353†	4061.1	3887.6	482.85 ug/L	482.85 ppb	14:54:18
2	S 181.975 Axial†	9410.3	9114.2	12850 ug/L	12850 ppb	14:54:18
2	Sb 206.836†	1529.1	1447.8	528.36 ug/L	528.36 ppb	14:54:18
2	Se 196.026†	733.3	737.7	503.19 ug/L	503.19 ppb	14:54:18
2	Si 251.611†	1174353.4	1141309.6	36967 ug/L	36967 ppb	14:53:58
2	Sn 189.927†	2764.6	2678.7	488.69 ug/L	488.69 ppb	14:54:18
2	Ti 334.940†	329279.9	321582.9	509.99 ug/L	509.99 ppb	14:53:58
2	Tl 190.801†	1524.8	1510.1	489.29 ug/L	489.29 ppb	14:54:18
2	U 409.014†	15148.6	17631.5	490.62 ug/L	490.62 ppb	14:53:58
2	V 292.402†	72076.7	71552.0	506.44 ug/L	506.44 ppb	14:53:58
2	Zn 213.857†	53449.0	51231.3	512.63 ug/L	512.63 ppb	14:53:58
2	SiO2†	1174791.1	1141711.6	79253 ug/L	79253 ppb	14:54:58
3	Sc Radial	3863.5	3863.5	100 %		14:53:22
3	Y RADIAL	4411.9	4411.9	99.11 %		14:53:02
3	Al 396.153Radial†	5525.9	5631.6	5268.9 ug/L	5268.9 ppb	14:53:02
3	Ca 317.933Radial†	15491.4	15446.4	33685 ug/L	33685 ppb	14:53:02
3	Fe 238.204 Radial†	343.7	331.4	5369.5 ug/L	5369.5 ppb	14:53:22
3	K 766.490 Radial†	33498.4	30676.5	5855.0 ug/L	5855.0 ppb	14:53:02
3	Mg 279.077 IEC†	186.3	184.8	9750.5 ug/L	9750.5 ppb	14:53:22
3	Na 589.592 Radial†	84374.4	85133.0	26490 ug/L	26490 ppb	14:53:02
3	Sr 421.552†	95376.4	95205.8	662.06 ug/L	662.06 ppb	14:53:02
3	Sc 361.383	909538.1	909538.1	103.35 %		14:54:26
3	Y 371.029	750811.0	750811.0	98.708 %		14:54:26
3	Ag 328.068†	107625.8	103905.0	485.64 ug/L	485.64 ppb	14:54:26
3	As 188.979†	1121.3	1104.9	495.78 ug/L	495.78 ppb	14:54:46
3	B 249.677†	21333.4	20920.3	510.56 ug/L	510.56 ppb	14:54:26
3	Ba 233.527†	66779.5	64605.1	509.08 ug/L	509.08 ppb	14:54:26
3	Be 313.107†	1383972.5	1342695.9	502.83 ug/L	502.83 ppb	14:54:26
3	Cd 226.502†	41291.6	40130.1	466.19 ug/L	466.19 ppb	14:54:46
3	Co 228.616†	22676.6	22006.8	462.26 ug/L	462.26 ppb	14:54:46
3	Cr 267.716†	45193.4	43644.2	490.74 ug/L	490.74 ppb	14:54:26
3	Cu 324.752†	181210.4	169384.8	516.10 ug/L	516.10 ppb	14:54:26
3	Mn 257.610†	451578.0	436471.1	497.38 ug/L	497.38 ppb	14:54:26
3	Mo 202.031†	6837.2	6611.1	487.76 ug/L	487.76 ppb	14:54:46
3	Ni 231.604†	19305.2	18597.0	474.32 ug/L	474.32 ppb	14:54:46
3	P 214.914†	1249.9	1003.6	502.52 ug/L	502.52 ppb	14:54:46
3	Pb 220.353†	3989.1	3798.7	471.84 ug/L	471.84 ppb	14:54:46
3	S 181.975 Axial†	9323.0	8985.2	12668 ug/L	12668 ppb	14:54:46
3	Sb 206.836†	1521.5	1433.2	522.98 ug/L	522.98 ppb	14:54:46
3	Se 196.026†	709.5	711.3	485.59 ug/L	485.59 ppb	14:54:46
3	Si 251.611†	1175919.3	1137259.8	36836 ug/L	36836 ppb	14:54:26
3	Sn 189.927†	2736.6	2638.5	481.48 ug/L	481.48 ppb	14:54:46
3	Ti 334.940†	329572.0	320305.1	508.01 ug/L	508.01 ppb	14:54:26
3	Tl 190.801†	1507.7	1486.3	481.65 ug/L	481.65 ppb	14:54:46
3	U 409.014†	15099.1	17511.9	487.30 ug/L	487.30 ppb	14:54:26
3	V 292.402†	72187.0	71317.1	504.72 ug/L	504.72 ppb	14:54:26
3	Zn 213.857†	53583.7	51108.4	511.44 ug/L	511.44 ppb	14:54:26
3	SiO2†	1172613.0	1134037.1	78720 ug/L	78720 ppb	14:55:04

Mean Data: 1202031024|948088|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903167.5	102.62	%	0.856				0.83%
Sc Radial	3871.1	100	%	0.3				0.31%
Y 371.029	745708.9	98.038	%	0.7269				0.74%
Y RADIAL	4407.4	99.00	%	1.158				1.17%
Ag 328.068†	104003.8	486.11	ug/L	0.572	486.11	ppb	0.572	0.12%
Al 396.153Radial†	5633.5	5270.5	ug/L	16.90	5270.5	ppb	16.90	0.32%
As 188.979†	1116.3	500.85	ug/L	5.412	500.85	ppb	5.412	1.08%
B 249.677†	20870.6	509.32	ug/L	2.778	509.32	ppb	2.778	0.55%
Ba 233.527†	64665.0	509.55	ug/L	1.603	509.55	ppb	1.603	0.31%
Be 313.107†	1344487.2	503.50	ug/L	1.150	503.50	ppb	1.150	0.23%
Ca 317.933Radial†	15447.3	33686	ug/L	137.1	33686	ppb	137.1	0.41%
Cd 226.502†	40549.7	471.07	ug/L	4.304	471.07	ppb	4.304	0.91%
Co 228.616†	22241.5	467.20	ug/L	4.401	467.20	ppb	4.401	0.94%
Cr 267.716†	43709.5	491.47	ug/L	1.242	491.47	ppb	1.242	0.25%
Cu 324.752†	169376.5	516.08	ug/L	1.241	516.08	ppb	1.241	0.24%
Fe 238.204 Radial†	332.3	5383.4	ug/L	44.16	5383.4	ppb	44.16	0.82%
K 766.490 Radial†	30736.1	5866.4	ug/L	33.07	5866.4	ppb	33.07	0.56%

Mg 279.077 IEC†	185.6	9792.3 ug/L	130.06	9792.3 ppb	130.06	1.33%
Mn 257.610†	437170.6	498.18 ug/L	1.176	498.18 ppb	1.176	0.24%
Mo 202.031†	6671.1	492.18 ug/L	4.066	492.18 ppb	4.066	0.83%
Na 589.592 Radial†	85162.6	26500 ug/L	169.6	26500 ppb	169.6	0.64%
Ni 231.604†	18770.4	478.74 ug/L	3.947	478.74 ppb	3.947	0.82%
P 214.914†	1025.0	515.42 ug/L	11.516	515.42 ppb	11.516	2.23%
Pb 220.353†	3859.4	479.36 ug/L	6.515	479.36 ppb	6.515	1.36%
S 181.975 Axial†	9084.9	12808 ug/L	125.2	12808 ppb	125.2	0.98%
Sb 206.836†	1450.2	529.15 ug/L	6.607	529.15 ppb	6.607	1.25%
Se 196.026†	727.6	496.35 ug/L	9.434	496.35 ppb	9.434	1.90%
Si 251.611†	1138140.2	36865 ug/L	91.8	36865 ppb	91.8	0.25%
Sn 189.927†	2669.8	487.13 ug/L	5.049	487.13 ppb	5.049	1.04%
Sr 421.552†	95115.0	661.43 ug/L	3.299	661.43 ppb	3.299	0.50%
Ti 334.940†	320737.1	508.69 ug/L	1.126	508.69 ppb	1.126	0.22%
Tl 190.801†	1502.3	486.79 ug/L	4.457	486.79 ppb	4.457	0.92%
U 409.014†	17478.1	486.35 ug/L	4.816	486.35 ppb	4.816	0.99%
V 292.402†	71417.0	505.48 ug/L	0.874	505.48 ppb	0.874	0.17%
Zn 213.857†	51162.8	511.96 ug/L	0.612	511.96 ppb	0.612	0.12%
SiO2†	1144512.5	79447 ug/L	841.4	79447 ppb	841.4	1.06%

Sequence No.: 10
Sample ID: 1202031023|948088|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 2/25/2010 14:57:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202031023|948088|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3923.5	3923.5	102	%			14:59:07
1	Y RADIAL	4314.4	4314.4	96.92	%			14:59:07
1	Al 396.153Radial†	-107.9	9.0	8.4622	ug/L	8.4622	ppb	14:59:07
1	Ca 317.933Radial†	2652.9	2589.2	5646.5	ug/L	5646.5	ppb	14:59:27
1	Fe 238.204 Radial†	13.1	1.2	18.921	ug/L	18.921	ppb	14:59:27
1	K 766.490 Radial†	3642.9	816.1	152.87	ug/L	152.87	ppb	14:59:07
1	Mg 279.077 IEC†	21.8	20.2	1066.7	ug/L	1066.7	ppb	14:59:27
1	Na 589.592 Radial†	12450.4	13141.0	4089.0	ug/L	4089.0	ppb	14:59:07
1	Sr 421.552†	3904.4	3829.4	26.598	ug/L	26.598	ppb	14:59:07
1	Sc 361.383	903019.5	903019.5	102.61	%			15:00:24
1	Y 371.029	756449.5	756449.5	99.450	%			15:00:24
1	Ag 328.068†	245.0	4.6	-0.0464	ug/L	-0.0464	ppb	15:00:24
1	As 188.979†	-25.3	-4.8	-2.1149	ug/L	-2.1149	ppb	15:00:44
1	B 249.677†	-110.2	170.6	4.1778	ug/L	4.1778	ppb	15:00:44
1	Ba 233.527†	341.3	321.6	2.5288	ug/L	2.5288	ppb	15:00:44
1	Be 313.107†	-3612.9	37.1	0.0125	ug/L	0.0125	ppb	15:00:24
1	Cd 226.502†	-173.6	7.0	0.0791	ug/L	0.0791	ppb	15:00:44
1	Co 228.616†	-64.5	2.0	0.0448	ug/L	0.0448	ppb	15:00:44
1	Cr 267.716†	174.0	84.4	0.9506	ug/L	0.9506	ppb	15:00:44
1	Cu 324.752†	6336.5	220.4	0.6743	ug/L	0.6743	ppb	15:00:24
1	Mn 257.610†	753.8	257.0	0.2510	ug/L	0.2510	ppb	15:00:44
1	Mo 202.031†	9.4	4.5	0.3991	ug/L	0.3991	ppb	15:00:44
1	Ni 231.604†	99.8	14.5	0.3700	ug/L	0.3700	ppb	15:00:44
1	P 214.914†	235.7	23.9	14.126	ug/L	14.126	ppb	15:00:44
1	Pb 220.353†	-10.7	-71.6	-8.7774	ug/L	-8.7774	ppb	15:00:44
1	S 181.975 Axial†	1232.3	1165.1	1642.8	ug/L	1642.8	ppb	15:00:44
1	Sb 206.836†	37.5	-2.5	-1.0062	ug/L	-1.0062	ppb	15:00:44
1	Se 196.026†	-23.9	1.4	0.9867	ug/L	0.9867	ppb	15:00:44
1	Si 251.611†	212563.4	206597.2	6692.8	ug/L	6692.8	ppb	15:00:24
1	Sn 189.927†	-45.1	-53.4	-8.6225	ug/L	-8.6225	ppb	15:00:44
1	Ti 334.940†	-1843.9	-387.2	0.0612	ug/L	0.0612	ppb	15:00:24
1	Tl 190.801†	-31.3	-3.1	-0.9861	ug/L	-0.9861	ppb	15:00:44
1	U 409.014†	-3089.9	-109.5	-3.0620	ug/L	-3.0620	ppb	15:00:24
1	V 292.402†	-1481.5	24.8	0.1902	ug/L	0.1902	ppb	15:00:24
1	Zn 213.857†	1489.5	712.3	7.1844	ug/L	7.1844	ppb	15:00:44
1	SiO2†	209612.0	203697.3	14142	ug/L	14142	ppb	15:01:41
2	Sc Radial	3931.8	3931.8	102	%			14:59:32
2	Y RADIAL	4375.8	4375.8	98.29	%			14:59:32
2	Al 396.153Radial†	-130.8	-13.2	-12.466	ug/L	-12.466	ppb	14:59:32
2	Ca 317.933Radial†	2660.5	2591.2	5650.6	ug/L	5650.6	ppb	14:59:53
2	Fe 238.204 Radial†	10.4	-1.5	-24.254	ug/L	-24.254	ppb	14:59:53
2	K 766.490 Radial†	3634.1	799.9	149.78	ug/L	149.78	ppb	14:59:32
2	Mg 279.077 IEC†	19.2	17.7	934.05	ug/L	934.05	ppb	14:59:53
2	Na 589.592 Radial†	12327.0	12993.9	4043.2	ug/L	4043.2	ppb	14:59:32
2	Sr 421.552†	3904.7	3821.6	26.543	ug/L	26.543	ppb	14:59:32
2	Sc 361.383	885868.6	885868.6	100.66	%			15:00:50
2	Y 371.029	742203.8	742203.8	97.577	%			15:00:50
2	Ag 328.068†	264.5	28.6	0.0510	ug/L	0.0510	ppb	15:00:50
2	As 188.979†	-13.7	6.3	2.7883	ug/L	2.7883	ppb	15:01:10
2	B 249.677†	-90.3	188.3	4.6187	ug/L	4.6187	ppb	15:01:10
2	Ba 233.527†	321.8	308.6	2.4253	ug/L	2.4253	ppb	15:01:10
2	Be 313.107†	-3547.5	33.9	0.0110	ug/L	0.0110	ppb	15:00:50
2	Cd 226.502†	-154.0	23.2	0.2724	ug/L	0.2724	ppb	15:01:10
2	Co 228.616†	-63.3	2.0	0.0455	ug/L	0.0455	ppb	15:01:10
2	Cr 267.716†	159.4	73.3	0.8209	ug/L	0.8209	ppb	15:01:10
2	Cu 324.752†	6247.4	251.4	0.7663	ug/L	0.7663	ppb	15:00:50
2	Mn 257.610†	694.3	212.1	0.2010	ug/L	0.2010	ppb	15:01:10
2	Mo 202.031†	14.1	9.3	0.7510	ug/L	0.7510	ppb	15:01:10
2	Ni 231.604†	103.2	19.7	0.5026	ug/L	0.5026	ppb	15:01:10

2	P 214.914†	240.5	33.1	19.684	ug/L	19.684	ppb	15:01:10
2	Pb 220.353†	-18.6	-79.6	-9.7691	ug/L	-9.7691	ppb	15:01:10
2	S 181.975 Axial†	1237.8	1193.9	1683.3	ug/L	1683.3	ppb	15:01:10
2	Sb 206.836†	30.0	-9.2	-3.4090	ug/L	-3.4090	ppb	15:01:10
2	Se 196.026†	-15.9	8.9	5.7863	ug/L	5.7863	ppb	15:01:10
2	Si 251.611†	208291.5	206364.1	6685.3	ug/L	6685.3	ppb	15:00:50
2	Sn 189.927†	-50.4	-59.5	-9.7198	ug/L	-9.7198	ppb	15:01:10
2	Ti 334.940†	-1899.1	-476.8	-0.0687	ug/L	-0.0687	ppb	15:00:50
2	Tl 190.801†	-24.4	3.2	1.0137	ug/L	1.0137	ppb	15:01:10
2	U 409.014†	-3026.0	-104.3	-2.9129	ug/L	-2.9129	ppb	15:00:50
2	V 292.402†	-1483.9	-5.5	-0.0123	ug/L	-0.0123	ppb	15:00:50
2	Zn 213.857†	1507.5	758.2	7.6537	ug/L	7.6537	ppb	15:01:10
2	SiO2†	212355.2	210377.7	14606	ug/L	14606	ppb	15:01:46
3	Sc Radial	3957.3	3957.3	103	%			14:59:58
3	Y RADIAL	4354.6	4354.6	97.82	%			14:59:58
3	Al 396.153Radial†	-108.3	9.5	8.9446	ug/L	8.9446	ppb	14:59:58
3	Ca 317.933Radial†	2677.5	2590.9	5650.1	ug/L	5650.1	ppb	15:00:18
3	Fe 238.204 Radial†	13.0	1.0	15.927	ug/L	15.927	ppb	15:00:18
3	K 766.490 Radial†	3654.9	797.2	149.27	ug/L	149.27	ppb	14:59:58
3	Mg 279.077 IEC†	20.9	19.2	1012.6	ug/L	1012.6	ppb	15:00:18
3	Na 589.592 Radial†	12333.9	12922.9	4021.1	ug/L	4021.1	ppb	14:59:58
3	Sr 421.552†	3938.6	3830.1	26.602	ug/L	26.602	ppb	14:59:58
3	Sc 361.383	901549.9	901549.9	102.44	%			15:01:15
3	Y 371.029	755217.9	755217.9	99.288	%			15:01:15
3	Ag 328.068†	276.3	35.5	0.0907	ug/L	0.0907	ppb	15:01:15
3	As 188.979†	-13.2	7.0	3.1243	ug/L	3.1243	ppb	15:01:35
3	B 249.677†	-99.5	180.9	4.4304	ug/L	4.4304	ppb	15:01:35
3	Ba 233.527†	320.8	302.1	2.3751	ug/L	2.3751	ppb	15:01:35
3	Be 313.107†	-3591.5	52.3	0.0182	ug/L	0.0182	ppb	15:01:15
3	Cd 226.502†	-163.9	16.2	0.1878	ug/L	0.1878	ppb	15:01:35
3	Co 228.616†	-58.4	7.9	0.1685	ug/L	0.1685	ppb	15:01:35
3	Cr 267.716†	160.2	71.3	0.8004	ug/L	0.8004	ppb	15:01:35
3	Cu 324.752†	6373.1	266.2	0.8107	ug/L	0.8107	ppb	15:01:15
3	Mn 257.610†	728.9	233.8	0.2266	ug/L	0.2266	ppb	15:01:35
3	Mo 202.031†	13.0	8.0	0.6582	ug/L	0.6582	ppb	15:01:35
3	Ni 231.604†	118.6	33.0	0.8416	ug/L	0.8416	ppb	15:01:35
3	P 214.914†	221.2	10.1	5.8309	ug/L	5.8309	ppb	15:01:35
3	Pb 220.353†	-16.6	-77.4	-9.4900	ug/L	-9.4900	ppb	15:01:35
3	S 181.975 Axial†	1217.9	1153.1	1625.8	ug/L	1625.8	ppb	15:01:35
3	Sb 206.836†	31.4	-8.4	-3.0903	ug/L	-3.0903	ppb	15:01:35
3	Se 196.026†	-24.0	1.3	0.8979	ug/L	0.8979	ppb	15:01:35
3	Si 251.611†	212246.4	206625.5	6693.7	ug/L	6693.7	ppb	15:01:15
3	Sn 189.927†	-47.9	-56.1	-9.1205	ug/L	-9.1205	ppb	15:01:35
3	Ti 334.940†	-1837.9	-384.3	0.0685	ug/L	0.0685	ppb	15:01:15
3	Tl 190.801†	-32.4	-4.2	-1.3540	ug/L	-1.3540	ppb	15:01:35
3	U 409.014†	-2897.3	73.6	2.0503	ug/L	2.0503	ppb	15:01:15
3	V 292.402†	-1529.5	-24.4	-0.1403	ug/L	-0.1403	ppb	15:01:15
3	Zn 213.857†	1496.2	721.1	7.2709	ug/L	7.2709	ppb	15:01:35
3	SiO2†	211418.9	205794.3	14288	ug/L	14288	ppb	15:01:51

Mean Data: 1202031023|948088|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896812.7	101.90	%	1.080				1.06%
Sc Radial	3937.5	102	%	0.5				0.45%
Y 371.029	751290.4	98.771	%	1.0377				1.05%
Y RADIAL	4348.3	97.68	%	0.700				0.72%
Ag 328.068†	22.9	0.0318	ug/L	0.07055	0.0318	ppb	0.07055	222.07%
Al 396.153Radial†	1.8	1.6469	ug/L	12.22450	1.6469	ppb	12.22450	742.25%
As 188.979†	2.9	1.2659	ug/L	2.93268	1.2659	ppb	2.93268	231.67%
B 249.677†	179.9	4.4090	ug/L	0.22126	4.4090	ppb	0.22126	5.02%
Ba 233.527†	310.8	2.4430	ug/L	0.07837	2.4430	ppb	0.07837	3.21%
Be 313.107†	41.1	0.0139	ug/L	0.00379	0.0139	ppb	0.00379	27.31%
Ca 317.933Radial†	2590.4	5649.1	ug/L	2.28	5649.1	ppb	2.28	0.04%
Cd 226.502†	15.5	0.1797	ug/L	0.09693	0.1797	ppb	0.09693	53.92%
Co 228.616†	3.9	0.0863	ug/L	0.07121	0.0863	ppb	0.07121	82.53%
Cr 267.716†	76.3	0.8573	ug/L	0.08144	0.8573	ppb	0.08144	9.50%
Cu 324.752†	246.0	0.7504	ug/L	0.06959	0.7504	ppb	0.06959	9.27%
Fe 238.204 Radial†	0.2	3.5310	ug/L	24.10935	3.5310	ppb	24.10935	682.80%
K 766.490 Radial†	804.4	150.64	ug/L	1.950	150.64	ppb	1.950	1.29%

Mg 279.077 IEC†	19.0	1004.4	ug/L	66.68	1004.4	ppb	66.68	6.64%
Mn 257.610†	234.3	0.2262	ug/L	0.02500	0.2262	ppb	0.02500	11.05%
Mo 202.031†	7.3	0.6028	ug/L	0.18239	0.6028	ppb	0.18239	30.26%
Na 589.592 Radial†	13019.3	4051.1	ug/L	34.61	4051.1	ppb	34.61	0.85%
Ni 231.604†	22.4	0.5714	ug/L	0.24320	0.5714	ppb	0.24320	42.57%
P 214.914†	22.4	13.214	ug/L	6.9713	13.214	ppb	6.9713	52.76%
Pb 220.353†	-76.2	-9.3455	ug/L	0.51138	-9.3455	ppb	0.51138	5.47%
S 181.975 Axial†	1170.7	1650.6	ug/L	29.54	1650.6	ppb	29.54	1.79%
Sb 206.836†	-6.7	-2.5018	ug/L	1.30503	-2.5018	ppb	1.30503	52.16%
Se 196.026†	3.9	2.5570	ug/L	2.79703	2.5570	ppb	2.79703	109.39%
Si 251.611†	206528.9	6690.6	ug/L	4.65	6690.6	ppb	4.65	0.07%
Sn 189.927†	-56.3	-9.1543	ug/L	0.54945	-9.1543	ppb	0.54945	6.00%
Sr 421.552†	3827.0	26.581	ug/L	0.0329	26.581	ppb	0.0329	0.12%
Ti 334.940†	-416.1	0.0203	ug/L	0.07716	0.0203	ppb	0.07716	379.71%
Tl 190.801†	-1.4	-0.4422	ug/L	1.27414	-0.4422	ppb	1.27414	288.16%
U 409.014†	-46.8	-1.3082	ug/L	2.90947	-1.3082	ppb	2.90947	222.40%
V 292.402†	-1.7	0.0125	ug/L	0.16666	0.0125	ppb	0.16666	>999.9%
Zn 213.857†	730.5	7.3697	ug/L	0.24974	7.3697	ppb	0.24974	3.39%
SiO2†	206623.1	14345	ug/L	237.2	14345	ppb	237.2	1.65%

Sequence No.: 15
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 15:31:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3822.3	3822.3	99.1	%			15:33:38
1	Y RADIAL	4351.8	4351.8	97.75	%			15:33:18
1	Al 396.153Radial†	5337.8	5501.3	5146.9	ug/L	5146.9	ppb	15:33:18
1	Ca 317.933Radial†	2364.4	2367.1	5162.1	ug/L	5162.1	ppb	15:33:38
1	Fe 238.204 Radial†	318.4	309.7	5018.7	ug/L	5018.7	ppb	15:33:38
1	K 766.490 Radial†	28887.8	26384.9	5048.6	ug/L	5048.6	ppb	15:33:18
1	Mg 279.077 IEC†	97.7	97.4	5140.8	ug/L	5140.8	ppb	15:33:38
1	Na 589.592 Radial†	32248.3	33442.7	10406	ug/L	10406	ppb	15:33:18
1	Sr 421.552†	72101.0	72746.6	506.03	ug/L	506.03	ppb	15:33:18
1	Sc 361.383	915184.9	915184.9	103.99	%			15:34:35
1	Y 371.029	756963.9	756963.9	99.517	%			15:34:35
1	Ag 328.068†	107515.4	103156.3	482.37	ug/L	482.37	ppb	15:34:41
1	As 188.979†	1098.9	1076.6	482.94	ug/L	482.94	ppb	15:35:01
1	B 249.677†	19719.4	19240.9	469.39	ug/L	469.39	ppb	15:34:41
1	Ba 233.527†	63882.9	61421.0	483.99	ug/L	483.99	ppb	15:34:41
1	Be 313.107†	1339358.4	1291530.9	483.65	ug/L	483.65	ppb	15:34:35
1	Cd 226.502†	43218.4	41736.5	484.90	ug/L	484.90	ppb	15:34:41
1	Co 228.616†	23905.6	23053.3	484.27	ug/L	484.27	ppb	15:34:41
1	Cr 267.716†	44626.2	42829.0	481.54	ug/L	481.54	ppb	15:34:41
1	Cu 324.752†	168851.2	156418.0	476.59	ug/L	476.59	ppb	15:34:41
1	Mn 257.610†	444457.5	426927.7	486.67	ug/L	486.67	ppb	15:34:35
1	Mo 202.031†	6761.0	6496.9	478.98	ug/L	478.98	ppb	15:35:01
1	Ni 231.604†	19841.0	18997.0	484.51	ug/L	484.51	ppb	15:34:41
1	P 214.914†	4371.4	3997.9	2311.4	ug/L	2311.4	ppb	15:35:01
1	Pb 220.353†	4017.0	3801.7	471.83	ug/L	471.83	ppb	15:35:01
1	S 181.975 Axial†	763.9	698.7	984.24	ug/L	984.24	ppb	15:35:01
1	Sb 206.836†	1451.8	1357.1	496.10	ug/L	496.10	ppb	15:35:01
1	Se 196.026†	739.0	735.4	500.33	ug/L	500.33	ppb	15:35:01
1	Si 251.611†	77977.2	74420.9	2405.0	ug/L	2405.0	ppb	15:34:41
1	Sn 189.927†	2785.6	2669.3	481.98	ug/L	481.98	ppb	15:35:01
1	Ti 334.940†	314897.8	304226.3	479.24	ug/L	479.24	ppb	15:34:41
1	Tl 190.801†	1530.4	1499.1	485.46	ug/L	485.46	ppb	15:35:01
1	U 409.014†	14549.7	16893.3	470.08	ug/L	470.08	ppb	15:34:41
1	V 292.402†	69573.1	68372.5	483.99	ug/L	483.99	ppb	15:34:41
1	Zn 213.857†	50505.0	47827.9	478.36	ug/L	478.36	ppb	15:34:41
1	SiO2†	77661.6	74093.9	5131.1	ug/L	5131.1	ppb	15:36:08
2	Sc Radial	3837.0	3837.0	99.5	%			15:34:03
2	Y RADIAL	4298.4	4298.4	96.56	%			15:33:43
2	Al 396.153Radial†	5301.6	5444.2	5093.0	ug/L	5093.0	ppb	15:33:43
2	Ca 317.933Radial†	2379.2	2372.9	5174.6	ug/L	5174.6	ppb	15:34:03
2	Fe 238.204 Radial†	320.0	310.0	5024.7	ug/L	5024.7	ppb	15:34:03
2	K 766.490 Radial†	28576.1	25959.7	4967.2	ug/L	4967.2	ppb	15:33:43
2	Mg 279.077 IEC†	100.7	100.0	5277.9	ug/L	5277.9	ppb	15:34:03
2	Na 589.592 Radial†	31729.4	32796.1	10205	ug/L	10205	ppb	15:33:43
2	Sr 421.552†	71294.3	71656.4	498.45	ug/L	498.45	ppb	15:33:43
2	Sc 361.383	901218.9	901218.9	102.40	%			15:35:06
2	Y 371.029	745740.2	745740.2	98.042	%			15:35:06
2	Ag 328.068†	107564.6	104806.5	490.06	ug/L	490.06	ppb	15:35:12
2	As 188.979†	1098.6	1092.7	490.12	ug/L	490.12	ppb	15:35:32
2	B 249.677†	19777.2	19591.2	477.95	ug/L	477.95	ppb	15:35:12
2	Ba 233.527†	63697.6	62192.0	490.07	ug/L	490.07	ppb	15:35:12
2	Be 313.107†	1320165.1	1292747.4	484.12	ug/L	484.12	ppb	15:35:06
2	Cd 226.502†	43218.3	42380.4	492.38	ug/L	492.38	ppb	15:35:12
2	Co 228.616†	23909.6	23413.4	491.84	ug/L	491.84	ppb	15:35:12
2	Cr 267.716†	44553.3	43422.8	488.20	ug/L	488.20	ppb	15:35:12
2	Cu 324.752†	168849.9	158933.0	484.24	ug/L	484.24	ppb	15:35:12
2	Mn 257.610†	438621.3	427851.9	487.71	ug/L	487.71	ppb	15:35:06
2	Mo 202.031†	6738.8	6576.1	484.81	ug/L	484.81	ppb	15:35:32
2	Ni 231.604†	19797.6	19250.3	490.97	ug/L	490.97	ppb	15:35:12

2	P 214.914†	4356.9	4048.8	2340.6 ug/L	2340.6 ppb	15:35:32
2	Pb 220.353†	4044.6	3888.5	482.57 ug/L	482.57 ppb	15:35:32
2	S 181.975 Axial†	746.1	692.8	975.87 ug/L	975.87 ppb	15:35:32
2	Sb 206.836†	1464.2	1390.8	508.23 ug/L	508.23 ppb	15:35:32
2	Se 196.026†	730.5	738.1	502.12 ug/L	502.12 ppb	15:35:32
2	Si 251.611†	77874.9	75482.9	2439.3 ug/L	2439.3 ppb	15:35:12
2	Sn 189.927†	2789.9	2715.0	490.23 ug/L	490.23 ppb	15:35:32
2	Ti 334.940†	314150.0	308188.8	485.47 ug/L	485.47 ppb	15:35:12
2	Tl 190.801†	1521.0	1512.8	489.86 ug/L	489.86 ppb	15:35:32
2	U 409.014†	14669.1	17226.8	479.38 ug/L	479.38 ppb	15:35:12
2	V 292.402†	69478.7	69317.2	490.69 ug/L	490.69 ppb	15:35:12
2	Zn 213.857†	50465.8	48542.2	485.52 ug/L	485.52 ppb	15:35:12
2	SiO2†	77722.7	75310.9	5215.4 ug/L	5215.4 ppb	15:36:13
3	Sc Radial	3813.7	3813.7	98.9 %		15:34:28
3	Y RADIAL	4348.2	4348.2	97.68 %		15:34:08
3	Al 396.153Radial†	5356.1	5531.9	5175.5 ug/L	5175.5 ppb	15:34:08
3	Ca 317.933Radial†	2369.4	2377.6	5184.9 ug/L	5184.9 ppb	15:34:28
3	Fe 238.204 Radial†	322.8	314.8	5101.2 ug/L	5101.2 ppb	15:34:28
3	K 766.490 Radial†	29032.7	26596.7	5089.2 ug/L	5089.2 ppb	15:34:08
3	Mg 279.077 IEC†	100.0	99.9	5273.6 ug/L	5273.6 ppb	15:34:28
3	Na 589.592 Radial†	31923.5	33187.0	10327 ug/L	10327 ppb	15:34:08
3	Sr 421.552†	72090.5	72898.6	507.09 ug/L	507.09 ppb	15:34:08
3	Sc 361.383	909996.9	909996.9	103.40 %		15:35:37
3	Y 371.029	754076.8	754076.8	99.138 %		15:35:37
3	Ag 328.068†	107489.9	103721.1	485.03 ug/L	485.03 ppb	15:35:43
3	As 188.979†	1111.9	1095.2	491.23 ug/L	491.23 ppb	15:36:03
3	B 249.677†	19788.0	19415.3	473.64 ug/L	473.64 ppb	15:35:43
3	Ba 233.527†	63758.5	61650.8	485.81 ug/L	485.81 ppb	15:35:43
3	Be 313.107†	1331413.0	1291189.7	483.53 ug/L	483.53 ppb	15:35:37
3	Cd 226.502†	43208.3	41963.6	487.53 ug/L	487.53 ppb	15:35:43
3	Co 228.616†	23890.1	23169.3	486.71 ug/L	486.71 ppb	15:35:43
3	Cr 267.716†	44633.7	43080.9	484.37 ug/L	484.37 ppb	15:35:43
3	Cu 324.752†	168445.2	156951.0	478.21 ug/L	478.21 ppb	15:35:43
3	Mn 257.610†	440858.9	425884.2	485.48 ug/L	485.48 ppb	15:35:37
3	Mo 202.031†	6771.0	6543.7	482.43 ug/L	482.43 ppb	15:36:03
3	Ni 231.604†	19806.7	19072.6	486.44 ug/L	486.44 ppb	15:35:43
3	P 214.914†	4374.0	4024.3	2327.0 ug/L	2327.0 ppb	15:36:03
3	Pb 220.353†	4028.7	3835.0	475.96 ug/L	475.96 ppb	15:36:03
3	S 181.975 Axial†	763.3	702.4	989.35 ug/L	989.35 ppb	15:36:03
3	Sb 206.836†	1471.0	1383.6	505.61 ug/L	505.61 ppb	15:36:03
3	Se 196.026†	742.7	743.0	505.58 ug/L	505.58 ppb	15:36:03
3	Si 251.611†	77755.0	74633.5	2411.9 ug/L	2411.9 ppb	15:35:43
3	Sn 189.927†	2808.5	2706.7	488.73 ug/L	488.73 ppb	15:36:03
3	Ti 334.940†	314432.7	305502.9	481.24 ug/L	481.24 ppb	15:35:43
3	Tl 190.801†	1536.3	1513.2	489.97 ug/L	489.97 ppb	15:36:03
3	U 409.014†	14666.7	17086.3	475.46 ug/L	475.46 ppb	15:35:43
3	V 292.402†	69728.2	68904.0	487.75 ug/L	487.75 ppb	15:35:43
3	Zn 213.857†	50484.2	48084.7	480.93 ug/L	480.93 ppb	15:35:43
3	SiO2†	76951.4	73832.7	5112.9 ug/L	5112.9 ppb	15:36:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908800.2	103.26	%	0.802				0.78%
Sc Radial	3824.3	99.2	%	0.31				0.31%
Y 371.029	752260.3	98.899	%	0.7662				0.77%
Y RADIAL	4332.8	97.33	%	0.670				0.69%
Ag 328.068†	103894.6	485.82	ug/L	3.905	485.82	ppb	3.905	0.80%
QC value within limits for Ag 328.068 Recovery = 97.16%								
Al 396.153Radial†	5492.5	5138.4	ug/L	41.89	5138.4	ppb	41.89	0.82%
QC value within limits for Al 396.153Radial Recovery = 102.77%								
As 188.979†	1088.2	488.10	ug/L	4.502	488.10	ppb	4.502	0.92%
QC value within limits for As 188.979 Recovery = 97.62%								
B 249.677†	19415.8	473.66	ug/L	4.282	473.66	ppb	4.282	0.90%
QC value within limits for B 249.677 Recovery = 94.73%								
Ba 233.527†	61754.6	486.62	ug/L	3.118	486.62	ppb	3.118	0.64%
QC value within limits for Ba 233.527 Recovery = 97.32%								
Be 313.107†	1291822.7	483.77	ug/L	0.312	483.77	ppb	0.312	0.06%
QC value within limits for Be 313.107 Recovery = 96.75%								
Ca 317.933Radial†	2372.5	5173.9	ug/L	11.42	5173.9	ppb	11.42	0.22%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.48%
Cd 226.502†            42026.8      488.27 ug/L          3.799      488.27 ppb          3.799   0.78%
   QC value within limits for Cd 226.502  Recovery = 97.65%
Co 228.616†            23212.0      487.61 ug/L          3.861      487.61 ppb          3.861   0.79%
   QC value within limits for Co 228.616  Recovery = 97.52%
Cr 267.716†            43110.9      484.70 ug/L          3.347      484.70 ppb          3.347   0.69%
   QC value within limits for Cr 267.716  Recovery = 96.94%
Cu 324.752†           157434.0      479.68 ug/L          4.035      479.68 ppb          4.035   0.84%
   QC value within limits for Cu 324.752  Recovery = 95.94%
Fe 238.204 Radial†       311.5      5048.2 ug/L         45.97      5048.2 ppb         45.97   0.91%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      26313.8      5035.0 ug/L         62.13      5035.0 ppb         62.13   1.23%
   QC value within limits for K 766.490 Radial  Recovery = 100.70%
Mg 279.077 IEC†           99.1      5230.8 ug/L         77.95      5230.8 ppb         77.95   1.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.62%
Mn 257.610†           426888.0      486.62 ug/L          1.118      486.62 ppb          1.118   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.32%
Mo 202.031†             6538.9      482.08 ug/L          2.930      482.08 ppb          2.930   0.61%
   QC value within limits for Mo 202.031  Recovery = 96.42%
Na 589.592 Radial†     33141.9       10313 ug/L        101.3       10313 ppb        101.3   0.98%
   QC value within limits for Na 589.592 Radial  Recovery = 103.13%
Ni 231.604†            19106.6      487.31 ug/L          3.316      487.31 ppb          3.316   0.68%
   QC value within limits for Ni 231.604  Recovery = 97.46%
P 214.914†              4023.7      2326.3 ug/L         14.61      2326.3 ppb         14.61   0.63%
   QC value within limits for P 214.914  Recovery = 93.05%
Pb 220.353†             3841.7      476.78 ug/L          5.416      476.78 ppb          5.416   1.14%
   QC value within limits for Pb 220.353  Recovery = 95.36%
S 181.975 Axial†         698.0      983.15 ug/L          6.806      983.15 ppb          6.806   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 98.32%
Sb 206.836†             1377.2      503.31 ug/L          6.383      503.31 ppb          6.383   1.27%
   QC value within limits for Sb 206.836  Recovery = 100.66%
Se 196.026†              738.8      502.68 ug/L          2.673      502.68 ppb          2.673   0.53%
   QC value within limits for Se 196.026  Recovery = 100.54%
Si 251.611†            74845.7      2418.7 ug/L         18.17      2418.7 ppb         18.17   0.75%
   QC value within limits for Si 251.611  Recovery = 96.75%
Sn 189.927†             2697.0      486.98 ug/L          4.394      486.98 ppb          4.394   0.90%
   QC value within limits for Sn 189.927  Recovery = 97.40%
Sr 421.552†            72433.9      503.86 ug/L          4.714      503.86 ppb          4.714   0.94%
   QC value within limits for Sr 421.552  Recovery = 100.77%
Ti 334.940†           305972.7      481.98 ug/L          3.179      481.98 ppb          3.179   0.66%
   QC value within limits for Ti 334.940  Recovery = 96.40%
Tl 190.801†             1508.4      488.43 ug/L          2.574      488.43 ppb          2.574   0.53%
   QC value within limits for Tl 190.801  Recovery = 97.69%
U 409.014†             17068.8      474.97 ug/L          4.667      474.97 ppb          4.667   0.98%
   QC value within limits for U 409.014  Recovery = 94.99%
V 292.402†             68864.6      487.48 ug/L          3.355      487.48 ppb          3.355   0.69%
   QC value within limits for V 292.402  Recovery = 97.50%
Zn 213.857†            48151.6      481.60 ug/L          3.627      481.60 ppb          3.627   0.75%
   QC value within limits for Zn 213.857  Recovery = 96.32%
SiO2†                  74412.5      5153.1 ug/L         54.71      5153.1 ppb         54.71   1.06%
   QC value within limits for SiO2  Recovery = 96.37%
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 15:38:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3830.8	3830.8	99.3	%			15:40:41
1	Y RADIAL	4328.3	4328.3	97.23	%			15:40:21
1	Al 396.153Radial†	-130.5	-16.3	-15.417	ug/L	-15.417	ppb	15:40:21
1	Ca 317.933Radial†	23.2	4.6	10.136	ug/L	10.136	ppb	15:40:41
1	Fe 238.204 Radial†	11.3	-0.3	-4.7671	ug/L	-4.7671	ppb	15:40:41
1	K 766.490 Radial†	2839.5	93.9	17.973	ug/L	17.973	ppb	15:40:21
1	Mg 279.077 IEC†	2.3	1.1	59.322	ug/L	59.322	ppb	15:40:41
1	Na 589.592 Radial†	-854.8	41.0	12.757	ug/L	12.757	ppb	15:40:21
1	Sr 421.552†	26.8	18.3	0.1270	ug/L	0.1270	ppb	15:40:21
1	Sc 361.383	916923.8	916923.8	104.19	%			15:41:38
1	Y 371.029	768910.2	768910.2	101.09	%			15:41:38
1	Ag 328.068†	303.6	57.2	0.2629	ug/L	0.2629	ppb	15:41:43
1	As 188.979†	-13.3	7.1	3.1672	ug/L	3.1672	ppb	15:42:03
1	B 249.677†	-382.0	-88.6	-2.1729	ug/L	-2.1729	ppb	15:42:03
1	Ba 233.527†	3.4	-7.8	-0.0607	ug/L	-0.0607	ppb	15:42:03
1	Be 313.107†	-3778.9	-68.8	-0.0258	ug/L	-0.0258	ppb	15:41:43
1	Cd 226.502†	-176.1	7.2	0.0842	ug/L	0.0842	ppb	15:42:03
1	Co 228.616†	-49.9	17.0	0.3601	ug/L	0.3601	ppb	15:42:03
1	Cr 267.716†	79.2	-9.1	-0.1030	ug/L	-0.1030	ppb	15:42:03
1	Cu 324.752†	5999.9	-196.4	-0.6001	ug/L	-0.6001	ppb	15:41:43
1	Mn 257.610†	484.3	-12.9	-0.0176	ug/L	-0.0176	ppb	15:42:03
1	Mo 202.031†	24.5	18.9	1.3905	ug/L	1.3905	ppb	15:42:03
1	Ni 231.604†	77.4	-8.5	-0.2177	ug/L	-0.2177	ppb	15:42:03
1	P 214.914†	206.6	-7.5	-4.4024	ug/L	-4.4024	ppb	15:42:03
1	Pb 220.353†	-44.3	-103.7	-12.826	ug/L	-12.826	ppb	15:42:03
1	S 181.975 Axial†	50.7	12.9	18.146	ug/L	18.146	ppb	15:42:03
1	Sb 206.836†	43.7	2.9	1.0542	ug/L	1.0542	ppb	15:42:03
1	Se 196.026†	-21.3	4.3	2.8369	ug/L	2.8369	ppb	15:42:03
1	Si 251.611†	614.1	24.7	0.7824	ug/L	0.7824	ppb	15:42:03
1	Sn 189.927†	11.8	1.9	0.3413	ug/L	0.3413	ppb	15:42:03
1	Ti 334.940†	-1487.5	-17.8	-0.0328	ug/L	-0.0328	ppb	15:41:43
1	Tl 190.801†	-34.8	-6.0	-1.9212	ug/L	-1.9212	ppb	15:42:03
1	U 409.014†	-2916.7	102.4	2.8609	ug/L	2.8609	ppb	15:41:38
1	V 292.402†	-1496.8	32.1	0.2511	ug/L	0.2511	ppb	15:41:43
1	Zn 213.857†	796.0	24.5	0.2507	ug/L	0.2507	ppb	15:42:03
1	SiO2†	616.4	3.4	0.1984	ug/L	0.1984	ppb	15:43:09
2	Sc Radial	3830.3	3830.3	99.3	%			15:41:06
2	Y RADIAL	4387.9	4387.9	98.57	%			15:40:46
2	Al 396.153Radial†	-131.5	-17.4	-16.354	ug/L	-16.354	ppb	15:40:46
2	Ca 317.933Radial†	22.1	3.6	7.8009	ug/L	7.8009	ppb	15:41:06
2	Fe 238.204 Radial†	9.9	-1.7	-26.953	ug/L	-26.953	ppb	15:41:06
2	K 766.490 Radial†	2812.0	66.5	12.744	ug/L	12.744	ppb	15:40:46
2	Mg 279.077 IEC†	4.3	3.2	168.69	ug/L	168.69	ppb	15:41:06
2	Na 589.592 Radial†	-902.9	-7.5	-2.3304	ug/L	-2.3304	ppb	15:40:46
2	Sr 421.552†	45.0	36.6	0.2547	ug/L	0.2547	ppb	15:40:46
2	Sc 361.383	922108.3	922108.3	104.78	%			15:42:08
2	Y 371.029	773456.1	773456.1	101.69	%			15:42:08
2	Ag 328.068†	242.4	-2.8	-0.0221	ug/L	-0.0221	ppb	15:42:13
2	As 188.979†	-25.7	-4.6	-2.0610	ug/L	-2.0610	ppb	15:42:33
2	B 249.677†	-419.8	-122.7	-3.0022	ug/L	-3.0022	ppb	15:42:33
2	Ba 233.527†	21.0	9.0	0.0703	ug/L	0.0703	ppb	15:42:33
2	Be 313.107†	-3663.2	62.1	0.0231	ug/L	0.0231	ppb	15:42:13
2	Cd 226.502†	-189.6	-4.8	-0.0529	ug/L	-0.0529	ppb	15:42:33
2	Co 228.616†	-60.9	6.7	0.1440	ug/L	0.1440	ppb	15:42:33
2	Cr 267.716†	82.0	-6.9	-0.0799	ug/L	-0.0799	ppb	15:42:33
2	Cu 324.752†	6015.6	-213.7	-0.6533	ug/L	-0.6533	ppb	15:42:13
2	Mn 257.610†	465.3	-33.6	-0.0479	ug/L	-0.0479	ppb	15:42:33
2	Mo 202.031†	18.9	13.3	0.9798	ug/L	0.9798	ppb	15:42:33
2	Ni 231.604†	78.3	-8.1	-0.2058	ug/L	-0.2058	ppb	15:42:33

2	P 214.914†	218.4	2.6	1.7338 ug/L	1.7338 ppb	15:42:33
2	Pb 220.353†	-27.8	-87.7	-10.846 ug/L	-10.846 ppb	15:42:33
2	S 181.975 Axial†	51.5	13.3	18.761 ug/L	18.761 ppb	15:42:33
2	Sb 206.836†	27.9	-12.4	-4.3566 ug/L	-4.3566 ppb	15:42:33
2	Se 196.026†	-27.5	-1.5	-1.0994 ug/L	-1.0994 ppb	15:42:33
2	Si 251.611†	604.0	11.7	0.3669 ug/L	0.3669 ppb	15:42:33
2	Sn 189.927†	7.1	-2.6	-0.4728 ug/L	-0.4728 ppb	15:42:33
2	Ti 334.940†	-1509.9	-31.2	-0.0624 ug/L	-0.0624 ppb	15:42:13
2	Tl 190.801†	-29.2	-0.5	-0.1490 ug/L	-0.1490 ppb	15:42:33
2	U 409.014†	-2987.7	50.3	1.4084 ug/L	1.4084 ppb	15:42:08
2	V 292.402†	-1523.1	15.0	0.1286 ug/L	0.1286 ppb	15:42:13
2	Zn 213.857†	793.0	17.4	0.1817 ug/L	0.1817 ppb	15:42:33
2	SiO2†	580.4	-34.2	-2.4032 ug/L	-2.4032 ppb	15:43:14
3	Sc Radial	3858.4	3858.4	100 %		15:41:31
3	Y RADIAL	4398.9	4398.9	98.81 %		15:41:11
3	Al 396.153Radial†	-123.5	-8.4	-7.8996 ug/L	-7.8996 ppb	15:41:11
3	Ca 317.933Radial†	16.6	-2.0	-4.4358 ug/L	-4.4358 ppb	15:41:31
3	Fe 238.204 Radial†	10.3	-1.4	-22.360 ug/L	-22.360 ppb	15:41:31
3	K 766.490 Radial†	2802.3	36.2	6.9312 ug/L	6.9312 ppb	15:41:11
3	Mg 279.077 IEC†	3.2	2.1	109.54 ug/L	109.54 ppb	15:41:31
3	Na 589.592 Radial†	-899.3	2.7	0.8554 ug/L	0.8554 ppb	15:41:11
3	Sr 421.552†	15.9	7.1	0.0496 ug/L	0.0496 ppb	15:41:11
3	Sc 361.383	936425.3	936425.3	106.40 %		15:42:39
3	Y 371.029	786015.7	786015.7	103.34 %		15:42:39
3	Ag 328.068†	228.6	-19.3	-0.0998 ug/L	-0.0998 ppb	15:42:44
3	As 188.979†	-18.1	3.0	1.3085 ug/L	1.3085 ppb	15:43:04
3	B 249.677†	-383.2	-82.2	-2.0109 ug/L	-2.0109 ppb	15:43:04
3	Ba 233.527†	10.5	-1.2	-0.0091 ug/L	-0.0091 ppb	15:43:04
3	Be 313.107†	-3640.8	136.6	0.0510 ug/L	0.0510 ppb	15:42:44
3	Cd 226.502†	-182.6	4.5	0.0561 ug/L	0.0561 ppb	15:43:04
3	Co 228.616†	-52.3	15.7	0.3316 ug/L	0.3316 ppb	15:43:04
3	Cr 267.716†	61.0	-27.8	-0.3157 ug/L	-0.3157 ppb	15:43:04
3	Cu 324.752†	5969.5	-344.9	-1.0551 ug/L	-1.0551 ppb	15:42:44
3	Mn 257.610†	473.9	-32.3	-0.0435 ug/L	-0.0435 ppb	15:43:04
3	Mo 202.031†	17.4	11.7	0.8585 ug/L	0.8585 ppb	15:43:04
3	Ni 231.604†	77.3	-10.2	-0.2601 ug/L	-0.2601 ppb	15:43:04
3	P 214.914†	216.0	-2.9	-1.4951 ug/L	-1.4951 ppb	15:43:04
3	Pb 220.353†	-25.2	-84.9	-10.497 ug/L	-10.497 ppb	15:43:04
3	S 181.975 Axial†	42.2	3.8	5.3594 ug/L	5.3594 ppb	15:43:04
3	Sb 206.836†	42.7	1.1	0.4039 ug/L	0.4039 ppb	15:43:04
3	Se 196.026†	-29.9	-3.4	-2.2779 ug/L	-2.2779 ppb	15:43:04
3	Si 251.611†	614.5	12.8	0.4035 ug/L	0.4035 ppb	15:43:04
3	Sn 189.927†	8.1	-1.8	-0.3300 ug/L	-0.3300 ppb	15:43:04
3	Ti 334.940†	-1491.8	7.9	0.0005 ug/L	0.0005 ppb	15:42:44
3	Tl 190.801†	-22.9	5.9	1.8994 ug/L	1.8994 ppb	15:43:04
3	U 409.014†	-2867.8	206.6	5.7731 ug/L	5.7731 ppb	15:42:39
3	V 292.402†	-1510.7	48.9	0.3701 ug/L	0.3701 ppb	15:42:44
3	Zn 213.857†	792.6	5.5	0.0619 ug/L	0.0619 ppb	15:43:04
3	SiO2†	561.4	-60.6	-4.2275 ug/L	-4.2275 ppb	15:43:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925152.5	105.12	%	1.148				1.09%
Sc Radial	3839.8	99.6	%	0.42				0.42%
Y 371.029	776127.3	102.04	%	1.165				1.14%
Y RADIAL	4371.7	98.20	%	0.853				0.87%
Ag 328.068†	11.7	0.0470	ug/L	0.19095	0.0470	ppb	0.19095	406.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.0	-13.224	ug/L	4.6344	-13.224	ppb	4.6344	35.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	0.8049	ug/L	2.65022	0.8049	ppb	2.65022	329.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-97.8	-2.3953	ug/L	0.53177	-2.3953	ppb	0.53177	22.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.0	0.0002	ug/L	0.06598	0.0002	ppb	0.06598	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	43.3	0.0161	ug/L	0.03887	0.0161	ppb	0.03887	241.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.1	4.5002	ug/L	7.82640	4.5002	ppb	7.82640	173.91%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                2.3      0.0291 ug/L       0.07239      0.0291 ppb        0.07239 248.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               13.1      0.2786 ug/L       0.11739      0.2786 ppb        0.11739  42.14%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.6     -0.1662 ug/L       0.12998     -0.1662 ppb        0.12998  78.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -251.6     -0.7695 ug/L       0.24877     -0.7695 ppb        0.24877  32.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.1     -18.027 ug/L       11.7105     -18.027 ppb        11.7105  64.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         65.5      12.549 ug/L        5.5235      12.549 ppb         5.5235  44.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.1      112.52 ug/L        54.744      112.52 ppb         54.744  48.65%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -26.3     -0.0363 ug/L       0.01638     -0.0363 ppb        0.01638  45.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               14.6      1.0763 ug/L       0.27881      1.0763 ppb        0.27881  25.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        12.1      3.7608 ug/L       7.95233      3.7608 ppb        7.95233 211.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -8.9     -0.2279 ug/L       0.02852     -0.2279 ppb        0.02852  12.52%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.6     -1.3879 ug/L       3.06951     -1.3879 ppb        3.06951 221.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -92.1     -11.389 ug/L        1.2563     -11.389 ppb         1.2563  11.03%
   QC value less than the lower limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          10.0      14.089 ug/L        7.5662      14.089 ppb         7.5662  53.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.8     -0.9662 ug/L       2.95413     -0.9662 ppb        2.95413 305.76%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.1801 ug/L       2.67843     -0.1801 ppb        2.67843 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               16.4      0.5176 ug/L       0.23004      0.5176 ppb        0.23004  44.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.9     -0.1538 ug/L       0.43468     -0.1538 ppb        0.43468 282.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               20.7      0.1437 ug/L       0.10357      0.1437 ppb        0.10357  72.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -13.7     -0.0316 ug/L       0.03147     -0.0316 ppb        0.03147  99.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.2     -0.0569 ug/L       1.91195     -0.0569 ppb        1.91195 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               119.8      3.3475 ug/L       2.22267      3.3475 ppb        2.22267  66.40%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                32.0      0.2499 ug/L       0.12073      0.2499 ppb        0.12073  48.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               15.8      0.1647 ug/L       0.09556      0.1647 ppb        0.09556  58.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -30.5     -2.1441 ug/L       2.22429     -2.1441 ppb        2.22429 103.74%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 24
Sample ID: 245807001|948088|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 55
Date Collected: 2/25/2010 16:33:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245807001|948088|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3925.9	3925.9	102	%			16:35:24
1	Y RADIAL	4491.3	4491.3	100.9	%			16:35:04
1	Al 396.153Radial†	-127.3	-10.0	-9.4306	ug/L	-9.4306	ppb	16:35:04
1	Ca 317.933Radial†	36.0	16.7	36.497	ug/L	36.497	ppb	16:35:24
1	Fe 238.204 Radial†	11.2	-0.7	-11.149	ug/L	-11.149	ppb	16:35:24
1	K 766.490 Radial†	3784.0	952.5	182.42	ug/L	182.42	ppb	16:35:04
1	Mg 279.077 IEC†	2.9	1.7	89.221	ug/L	89.221	ppb	16:35:24
1	Na 589.592 Radial†	-399.7	509.0	158.39	ug/L	158.39	ppb	16:35:04
1	Sr 421.552†	99.9	89.4	0.6220	ug/L	0.6220	ppb	16:35:04
1	Sc 361.383	904982.4	904982.4	102.83	%			16:36:21
1	Y 371.029	760262.0	760262.0	99.951	%			16:36:21
1	Ag 328.068†	149.9	-88.4	-0.4114	ug/L	-0.4114	ppb	16:36:21
1	As 188.979†	-22.9	-2.3	-1.0376	ug/L	-1.0376	ppb	16:36:41
1	B 249.677†	58.2	334.6	8.2028	ug/L	8.2028	ppb	16:36:41
1	Ba 233.527†	43.2	30.9	0.2436	ug/L	0.2436	ppb	16:36:41
1	Be 313.107†	-3757.2	-95.5	-0.0351	ug/L	-0.0351	ppb	16:36:21
1	Cd 226.502†	-206.5	-24.6	-0.2852	ug/L	-0.2852	ppb	16:36:41
1	Co 228.616†	-62.1	4.4	0.0953	ug/L	0.0953	ppb	16:36:41
1	Cr 267.716†	85.2	-2.3	-0.0254	ug/L	-0.0254	ppb	16:36:41
1	Cu 324.752†	6296.5	168.1	0.5125	ug/L	0.5125	ppb	16:36:21
1	Mn 257.610†	951.9	448.0	0.5056	ug/L	0.5056	ppb	16:36:41
1	Mo 202.031†	19.0	13.8	1.0177	ug/L	1.0177	ppb	16:36:41
1	Ni 231.604†	86.0	0.9	0.0223	ug/L	0.0223	ppb	16:36:41
1	P 214.914†	229.5	17.4	10.348	ug/L	10.348	ppb	16:36:41
1	Pb 220.353†	-20.7	-81.3	-10.061	ug/L	-10.061	ppb	16:36:41
1	S 181.975 Axial†	77.8	39.8	56.089	ug/L	56.089	ppb	16:36:41
1	Sb 206.836†	42.7	2.5	0.9205	ug/L	0.9205	ppb	16:36:41
1	Se 196.026†	-29.8	-4.3	-2.8480	ug/L	-2.8480	ppb	16:36:41
1	Si 251.611†	41278.8	39577.9	1282.1	ug/L	1282.1	ppb	16:36:21
1	Sn 189.927†	12.7	2.9	0.5376	ug/L	0.5376	ppb	16:36:41
1	Ti 334.940†	-1268.2	176.6	0.2768	ug/L	0.2768	ppb	16:36:21
1	Tl 190.801†	-36.8	-8.3	-2.6693	ug/L	-2.6693	ppb	16:36:41
1	U 409.014†	-3056.3	-70.3	-1.9621	ug/L	-1.9621	ppb	16:36:21
1	V 292.402†	-1448.6	59.9	0.4324	ug/L	0.4324	ppb	16:36:21
1	Zn 213.857†	805.1	43.5	0.4400	ug/L	0.4400	ppb	16:36:41
1	SiO2†	42158.9	40410.3	2805.6	ug/L	2805.6	ppb	16:37:37
2	Sc Radial	3928.3	3928.3	102	%			16:35:49
2	Y RADIAL	4443.9	4443.9	99.83	%			16:35:29
2	Al 396.153Radial†	-115.3	1.9	1.7647	ug/L	1.7647	ppb	16:35:29
2	Ca 317.933Radial†	31.5	12.3	26.806	ug/L	26.806	ppb	16:35:49
2	Fe 238.204 Radial†	11.6	-0.3	-4.7320	ug/L	-4.7320	ppb	16:35:49
2	K 766.490 Radial†	3799.7	965.6	184.93	ug/L	184.93	ppb	16:35:29
2	Mg 279.077 IEC†	1.1	-0.1	-6.7766	ug/L	-6.7766	ppb	16:35:49
2	Na 589.592 Radial†	-409.9	499.2	155.34	ug/L	155.34	ppb	16:35:29
2	Sr 421.552†	28.2	18.9	0.1313	ug/L	0.1313	ppb	16:35:29
2	Sc 361.383	916638.5	916638.5	104.15	%			16:36:46
2	Y 371.029	770227.5	770227.5	101.26	%			16:36:46
2	Ag 328.068†	184.5	-57.1	-0.2699	ug/L	-0.2699	ppb	16:36:46
2	As 188.979†	-19.1	1.6	0.7023	ug/L	0.7023	ppb	16:37:06
2	B 249.677†	79.5	354.4	8.6859	ug/L	8.6859	ppb	16:37:06
2	Ba 233.527†	47.7	34.7	0.2723	ug/L	0.2723	ppb	16:37:06
2	Be 313.107†	-3739.3	-31.9	-0.0114	ug/L	-0.0114	ppb	16:36:46
2	Cd 226.502†	-201.2	-17.0	-0.1966	ug/L	-0.1966	ppb	16:37:06
2	Co 228.616†	-68.0	-0.4	-0.0091	ug/L	-0.0091	ppb	16:37:06
2	Cr 267.716†	79.6	-8.7	-0.0993	ug/L	-0.0993	ppb	16:37:06
2	Cu 324.752†	6256.1	51.4	0.1552	ug/L	0.1552	ppb	16:36:46
2	Mn 257.610†	909.2	395.3	0.4501	ug/L	0.4501	ppb	16:37:06
2	Mo 202.031†	6.0	1.1	0.0786	ug/L	0.0786	ppb	16:37:06
2	Ni 231.604†	68.3	-17.2	-0.4386	ug/L	-0.4386	ppb	16:37:06

2	P 214.914†	221.0	6.4	3.8227	ug/L	3.8227 ppb	16:37:06
2	Pb 220.353†	-2.8	-63.8	-7.8958	ug/L	-7.8958 ppb	16:37:06
2	S 181.975 Axial†	77.5	38.5	54.322	ug/L	54.322 ppb	16:37:06
2	Sb 206.836†	38.0	-2.6	-0.8609	ug/L	-0.8609 ppb	16:37:06
2	Se 196.026†	-23.7	2.0	1.3170	ug/L	1.3170 ppb	16:37:06
2	Si 251.611†	41886.1	39650.5	1284.5	ug/L	1284.5 ppb	16:36:46
2	Sn 189.927†	25.7	15.2	2.7529	ug/L	2.7529 ppb	16:37:06
2	Ti 334.940†	-1327.9	134.9	0.2158	ug/L	0.2158 ppb	16:36:46
2	Tl 190.801†	-46.2	-16.9	-5.4445	ug/L	-5.4445 ppb	16:37:06
2	U 409.014†	-2941.6	77.6	2.1671	ug/L	2.1671 ppb	16:36:46
2	V 292.402†	-1572.4	-40.9	-0.2804	ug/L	-0.2804 ppb	16:36:46
2	Zn 213.857†	814.4	42.4	0.4317	ug/L	0.4317 ppb	16:37:06
2	SiO2†	41240.6	39007.3	2708.2	ug/L	2708.2 ppb	16:37:42
3	Sc Radial	3913.5	3913.5	101	%		16:36:14
3	Y RADIAL	4502.7	4502.7	101.1	%		16:35:54
3	Al 396.153Radial†	-116.3	0.4	0.3522	ug/L	0.3522 ppb	16:35:54
3	Ca 317.933Radial†	32.0	12.9	28.106	ug/L	28.106 ppb	16:36:14
3	Fe 238.204 Radial†	10.4	-1.5	-23.730	ug/L	-23.730 ppb	16:36:14
3	K 766.490 Radial†	3727.9	909.0	174.07	ug/L	174.07 ppb	16:35:54
3	Mg 279.077 IEC†	3.1	1.9	98.141	ug/L	98.141 ppb	16:36:14
3	Na 589.592 Radial†	-374.9	532.2	165.59	ug/L	165.59 ppb	16:35:54
3	Sr 421.552†	71.7	61.9	0.4306	ug/L	0.4306 ppb	16:35:54
3	Sc 361.383	914102.9	914102.9	103.87	%		16:37:11
3	Y 371.029	768408.6	768408.6	101.02	%		16:37:11
3	Ag 328.068†	224.8	-17.8	-0.0878	ug/L	-0.0878 ppb	16:37:11
3	As 188.979†	-29.1	-8.1	-3.6013	ug/L	-3.6013 ppb	16:37:31
3	B 249.677†	60.1	335.8	8.2356	ug/L	8.2356 ppb	16:37:31
3	Ba 233.527†	49.8	36.9	0.2889	ug/L	0.2889 ppb	16:37:31
3	Be 313.107†	-3681.7	13.6	0.0055	ug/L	0.0055 ppb	16:37:11
3	Cd 226.502†	-187.7	-4.5	-0.0511	ug/L	-0.0511 ppb	16:37:31
3	Co 228.616†	-79.5	-11.7	-0.2434	ug/L	-0.2434 ppb	16:37:31
3	Cr 267.716†	105.6	16.5	0.1846	ug/L	0.1846 ppb	16:37:31
3	Cu 324.752†	6311.4	121.3	0.3703	ug/L	0.3703 ppb	16:37:11
3	Mn 257.610†	957.7	444.4	0.4999	ug/L	0.4999 ppb	16:37:31
3	Mo 202.031†	17.2	11.9	0.8752	ug/L	0.8752 ppb	16:37:31
3	Ni 231.604†	69.0	-16.3	-0.4171	ug/L	-0.4171 ppb	16:37:31
3	P 214.914†	225.0	10.8	6.4460	ug/L	6.4460 ppb	16:37:31
3	Pb 220.353†	-19.8	-80.3	-9.9229	ug/L	-9.9229 ppb	16:37:31
3	S 181.975 Axial†	71.3	32.9	46.320	ug/L	46.320 ppb	16:37:31
3	Sb 206.836†	37.8	-2.7	-0.8876	ug/L	-0.8876 ppb	16:37:31
3	Se 196.026†	-23.4	2.2	1.3726	ug/L	1.3726 ppb	16:37:31
3	Si 251.611†	41906.7	39781.9	1288.7	ug/L	1288.7 ppb	16:37:11
3	Sn 189.927†	22.7	12.4	2.2470	ug/L	2.2470 ppb	16:37:31
3	Ti 334.940†	-1355.1	105.3	0.1631	ug/L	0.1631 ppb	16:37:11
3	Tl 190.801†	-39.4	-10.5	-3.3817	ug/L	-3.3817 ppb	16:37:31
3	U 409.014†	-3143.5	-124.6	-3.4781	ug/L	-3.4781 ppb	16:37:11
3	V 292.402†	-1539.8	-13.7	-0.0852	ug/L	-0.0852 ppb	16:37:11
3	Zn 213.857†	806.1	36.7	0.3760	ug/L	0.3760 ppb	16:37:31
3	SiO2†	41290.0	39164.7	2719.1	ug/L	2719.1 ppb	16:37:47

Mean Data: 245807001|948088|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911907.9	103.62	%	0.697				0.67%
Sc Radial	3922.6	102	%	0.2				0.20%
Y 371.029	766299.4	100.74	%	0.698				0.69%
Y RADIAL	4479.3	100.6	%	0.70				0.70%
Ag 328.068†	-54.4	-0.2564	ug/L	0.16221	-0.2564	ppb	0.16221	63.27%
Al 396.153Radial†	-2.6	-2.4379	ug/L	6.09689	-2.4379	ppb	6.09689	250.09%
As 188.979†	-2.9	-1.3122	ug/L	2.16486	-1.3122	ppb	2.16486	164.98%
B 249.677†	341.6	8.3748	ug/L	0.26993	8.3748	ppb	0.26993	3.22%
Ba 233.527†	34.2	0.2683	ug/L	0.02290	0.2683	ppb	0.02290	8.54%
Be 313.107†	-37.9	-0.0137	ug/L	0.02036	-0.0137	ppb	0.02036	148.83%
Ca 317.933Radial†	14.0	30.469	ug/L	5.2601	30.469	ppb	5.2601	17.26%
Cd 226.502†	-15.4	-0.1776	ug/L	0.11816	-0.1776	ppb	0.11816	66.52%
Co 228.616†	-2.6	-0.0524	ug/L	0.17350	-0.0524	ppb	0.17350	331.18%
Cr 267.716†	1.8	0.0199	ug/L	0.14729	0.0199	ppb	0.14729	738.44%
Cu 324.752†	113.6	0.3460	ug/L	0.17989	0.3460	ppb	0.17989	51.99%
Fe 238.204 Radial†	-0.8	-13.204	ug/L	9.6640	-13.204	ppb	9.6640	73.19%
K 766.490 Radial†	942.4	180.48	ug/L	5.686	180.48	ppb	5.686	3.15%

Mg 279.077 IEC†	1.1	60.195	ug/L	58.1706	60.195	ppb	58.1706	96.64%
Mn 257.610†	429.2	0.4852	ug/L	0.03052	0.4852	ppb	0.03052	6.29%
Mo 202.031†	8.9	0.6572	ug/L	0.50610	0.6572	ppb	0.50610	77.01%
Na 589.592 Radial†	513.5	159.77	ug/L	5.262	159.77	ppb	5.262	3.29%
Ni 231.604†	-10.9	-0.2778	ug/L	0.26009	-0.2778	ppb	0.26009	93.62%
P 214.914†	11.5	6.8723	ug/L	3.28363	6.8723	ppb	3.28363	47.78%
Pb 220.353†	-75.1	-9.2931	ug/L	1.21204	-9.2931	ppb	1.21204	13.04%
S 181.975 Axial†	37.1	52.244	ug/L	5.2060	52.244	ppb	5.2060	9.96%
Sb 206.836†	-0.9	-0.2760	ug/L	1.03629	-0.2760	ppb	1.03629	375.51%
Se 196.026†	-0.0	-0.0528	ug/L	2.42085	-0.0528	ppb	2.42085	>999.9%
Si 251.611†	39670.1	1285.1	ug/L	3.35	1285.1	ppb	3.35	0.26%
Sn 189.927†	10.2	1.8458	ug/L	1.16087	1.8458	ppb	1.16087	62.89%
Sr 421.552†	56.8	0.3946	ug/L	0.24731	0.3946	ppb	0.24731	62.67%
Ti 334.940†	138.9	0.2186	ug/L	0.05689	0.2186	ppb	0.05689	26.03%
Tl 190.801†	-11.9	-3.8318	ug/L	1.44132	-3.8318	ppb	1.44132	37.61%
U 409.014†	-39.1	-1.0910	ug/L	2.92170	-1.0910	ppb	2.92170	267.79%
V 292.402†	1.7	0.0223	ug/L	0.36834	0.0223	ppb	0.36834	>999.9%
Zn 213.857†	40.9	0.4159	ug/L	0.03483	0.4159	ppb	0.03483	8.37%
SiO2†	39527.4	2744.3	ug/L	53.36	2744.3	ppb	53.36	1.94%

Sequence No.: 25
Sample ID: 245807002|948088|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 56
Date Collected: 2/25/2010 16:39:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245807002|948088|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3973.7	3973.7	103	%			16:41:50
1	Y RADIAL	4425.0	4425.0	99.40	%			16:41:50
1	Al 396.153Radial†	-115.3	3.1	2.8751	ug/L	2.8751	ppb	16:41:50
1	Ca 317.933Radial†	34.9	15.2	33.179	ug/L	33.179	ppb	16:42:10
1	Fe 238.204 Radial†	10.9	-1.1	-18.293	ug/L	-18.293	ppb	16:42:10
1	K 766.490 Radial†	3367.3	503.4	96.370	ug/L	96.370	ppb	16:41:50
1	Mg 279.077 IEC†	0.7	-0.5	-25.592	ug/L	-25.592	ppb	16:42:10
1	Na 589.592 Radial†	-436.1	478.4	148.87	ug/L	148.87	ppb	16:41:50
1	Sr 421.552†	91.6	80.1	0.5571	ug/L	0.5571	ppb	16:41:50
1	Sc 361.383	915062.4	915062.4	103.98	%			16:43:07
1	Y 371.029	768853.2	768853.2	101.08	%			16:43:07
1	Ag 328.068†	260.4	16.3	0.0681	ug/L	0.0681	ppb	16:43:07
1	As 188.979†	-23.5	-2.7	-1.1957	ug/L	-1.1957	ppb	16:43:27
1	B 249.677†	119.5	392.9	9.6339	ug/L	9.6339	ppb	16:43:27
1	Ba 233.527†	50.0	37.0	0.2902	ug/L	0.2902	ppb	16:43:27
1	Be 313.107†	-3589.2	106.3	0.0404	ug/L	0.0404	ppb	16:43:07
1	Cd 226.502†	-193.6	-10.0	-0.1147	ug/L	-0.1147	ppb	16:43:27
1	Co 228.616†	-66.9	0.5	0.0121	ug/L	0.0121	ppb	16:43:27
1	Cr 267.716†	89.0	0.5	0.0030	ug/L	0.0030	ppb	16:43:27
1	Cu 324.752†	6245.4	51.5	0.1554	ug/L	0.1554	ppb	16:43:07
1	Mn 257.610†	1032.1	514.9	0.5859	ug/L	0.5859	ppb	16:43:27
1	Mo 202.031†	18.7	13.3	0.9771	ug/L	0.9771	ppb	16:43:27
1	Ni 231.604†	75.6	-10.0	-0.2563	ug/L	-0.2563	ppb	16:43:27
1	P 214.914†	222.8	8.5	5.0972	ug/L	5.0972	ppb	16:43:27
1	Pb 220.353†	-24.3	-84.5	-10.453	ug/L	-10.453	ppb	16:43:27
1	S 181.975 Axial†	77.4	38.6	54.479	ug/L	54.479	ppb	16:43:27
1	Sb 206.836†	33.6	-6.7	-2.3410	ug/L	-2.3410	ppb	16:43:27
1	Se 196.026†	-29.5	-3.6	-2.4394	ug/L	-2.4394	ppb	16:43:27
1	Si 251.611†	45738.8	43425.1	1406.8	ug/L	1406.8	ppb	16:43:07
1	Sn 189.927†	9.1	-0.7	-0.1176	ug/L	-0.1176	ppb	16:43:27
1	Ti 334.940†	-1253.5	204.3	0.3281	ug/L	0.3281	ppb	16:43:07
1	Tl 190.801†	-46.8	-17.5	-5.6330	ug/L	-5.6330	ppb	16:43:27
1	U 409.014†	-2978.1	37.7	1.0539	ug/L	1.0539	ppb	16:43:07
1	V 292.402†	-1550.3	-22.4	-0.1385	ug/L	-0.1385	ppb	16:43:07
1	Zn 213.857†	892.5	119.0	1.2052	ug/L	1.2052	ppb	16:43:27
1	SiO2†	45620.8	43288.1	3005.4	ug/L	3005.4	ppb	16:44:23
2	Sc Radial	4033.9	4033.9	105	%			16:42:15
2	Y RADIAL	4478.2	4478.2	100.6	%			16:42:15
2	Al 396.153Radial†	-105.8	13.9	13.065	ug/L	13.065	ppb	16:42:15
2	Ca 317.933Radial†	34.6	14.4	31.492	ug/L	31.492	ppb	16:42:35
2	Fe 238.204 Radial†	10.6	-1.5	-24.363	ug/L	-24.363	ppb	16:42:35
2	K 766.490 Radial†	3367.2	454.5	87.001	ug/L	87.001	ppb	16:42:15
2	Mg 279.077 IEC†	2.3	1.0	54.501	ug/L	54.501	ppb	16:42:35
2	Na 589.592 Radial†	-455.9	465.8	144.94	ug/L	144.94	ppb	16:42:15
2	Sr 421.552†	18.9	9.4	0.0649	ug/L	0.0649	ppb	16:42:15
2	Sc 361.383	898432.7	898432.7	102.09	%			16:43:32
2	Y 371.029	753783.4	753783.4	99.099	%			16:43:32
2	Ag 328.068†	214.9	-23.6	-0.1125	ug/L	-0.1125	ppb	16:43:32
2	As 188.979†	-34.5	-13.9	-6.1807	ug/L	-6.1807	ppb	16:43:52
2	B 249.677†	108.6	384.4	9.4240	ug/L	9.4240	ppb	16:43:52
2	Ba 233.527†	32.2	20.5	0.1602	ug/L	0.1602	ppb	16:43:52
2	Be 313.107†	-3745.4	-110.6	-0.0404	ug/L	-0.0404	ppb	16:43:32
2	Cd 226.502†	-194.3	-14.1	-0.1627	ug/L	-0.1627	ppb	16:43:52
2	Co 228.616†	-62.2	3.9	0.0821	ug/L	0.0821	ppb	16:43:52
2	Cr 267.716†	109.1	21.8	0.2444	ug/L	0.2444	ppb	16:43:52
2	Cu 324.752†	6285.6	202.0	0.6178	ug/L	0.6178	ppb	16:43:32
2	Mn 257.610†	1026.6	527.9	0.5968	ug/L	0.5968	ppb	16:43:52
2	Mo 202.031†	8.8	4.0	0.2914	ug/L	0.2914	ppb	16:43:52
2	Ni 231.604†	81.1	-3.4	-0.0859	ug/L	-0.0859	ppb	16:43:52

2	P 214.914†	218.7	8.4	4.9828 ug/L	4.9828 ppb	16:43:52
2	Pb 220.353†	-25.9	-86.6	-10.704 ug/L	-10.704 ppb	16:43:52
2	S 181.975 Axial†	75.9	38.5	54.249 ug/L	54.249 ppb	16:43:52
2	Sb 206.836†	48.0	8.0	2.8266 ug/L	2.8266 ppb	16:43:52
2	Se 196.026†	-24.3	1.0	0.5493 ug/L	0.5493 ppb	16:43:52
2	Si 251.611†	46186.8	44678.2	1447.4 ug/L	1447.4 ppb	16:43:32
2	Sn 189.927†	10.7	1.0	0.1950 ug/L	0.1950 ppb	16:43:52
2	Ti 334.940†	-1172.2	261.6	0.4147 ug/L	0.4147 ppb	16:43:32
2	Tl 190.801†	-28.5	-0.5	-0.1548 ug/L	-0.1548 ppb	16:43:52
2	U 409.014†	-3193.2	-226.1	-6.3124 ug/L	-6.3124 ppb	16:43:32
2	V 292.402†	-1496.2	3.0	0.0173 ug/L	0.0173 ppb	16:43:32
2	Zn 213.857†	901.2	143.4	1.4506 ug/L	1.4506 ppb	16:43:52
2	SiO2†	45792.0	44268.0	3073.4 ug/L	3073.4 ppb	16:44:28
3	Sc Radial	4098.4	4098.4	106 %		16:42:40
3	Y RADIAL	4547.3	4547.3	102.1 %		16:42:40
3	Al 396.153Radial†	-108.2	13.2	12.425 ug/L	12.425 ppb	16:42:40
3	Ca 317.933Radial†	34.8	14.0	30.627 ug/L	30.627 ppb	16:43:00
3	Fe 238.204 Radial†	11.1	-1.2	-19.244 ug/L	-19.244 ppb	16:43:00
3	K 766.490 Radial†	3297.0	337.6	64.615 ug/L	64.615 ppb	16:42:40
3	Mg 279.077 IEC†	0.9	-0.3	-16.340 ug/L	-16.340 ppb	16:43:00
3	Na 589.592 Radial†	-386.8	537.6	167.29 ug/L	167.29 ppb	16:42:40
3	Sr 421.552†	32.6	21.9	0.1523 ug/L	0.1523 ppb	16:42:40
3	Sc 361.383	915312.2	915312.2	104.00 %		16:43:57
3	Y 371.029	769351.7	769351.7	101.15 %		16:43:57
3	Ag 328.068†	228.5	-14.4	-0.0714 ug/L	-0.0714 ppb	16:43:57
3	As 188.979†	-19.9	0.8	0.3398 ug/L	0.3398 ppb	16:44:17
3	B 249.677†	135.5	408.3	10.010 ug/L	10.010 ppb	16:44:17
3	Ba 233.527†	38.8	26.2	0.2056 ug/L	0.2056 ppb	16:44:17
3	Be 313.107†	-3743.9	-41.5	-0.0146 ug/L	-0.0146 ppb	16:43:57
3	Cd 226.502†	-187.9	-4.5	-0.0504 ug/L	-0.0504 ppb	16:44:17
3	Co 228.616†	-68.3	-0.8	-0.0182 ug/L	-0.0182 ppb	16:44:17
3	Cr 267.716†	116.7	27.1	0.3032 ug/L	0.3032 ppb	16:44:17
3	Cu 324.752†	6349.9	150.3	0.4581 ug/L	0.4581 ppb	16:43:57
3	Mn 257.610†	1011.6	495.0	0.5627 ug/L	0.5627 ppb	16:44:17
3	Mo 202.031†	-1.4	-6.0	-0.4466 ug/L	-0.4466 ppb	16:44:17
3	Ni 231.604†	87.5	1.3	0.0335 ug/L	0.0335 ppb	16:44:17
3	P 214.914†	232.4	17.6	10.529 ug/L	10.529 ppb	16:44:17
3	Pb 220.353†	-10.2	-71.0	-8.7785 ug/L	-8.7785 ppb	16:44:17
3	S 181.975 Axial†	75.9	37.1	52.370 ug/L	52.370 ppb	16:44:17
3	Sb 206.836†	40.6	0.1	-0.0082 ug/L	-0.0082 ppb	16:44:17
3	Se 196.026†	-14.7	10.6	6.9101 ug/L	6.9101 ppb	16:44:17
3	Si 251.611†	45903.9	43571.9	1411.5 ug/L	1411.5 ppb	16:43:57
3	Sn 189.927†	2.2	-7.3	-1.3141 ug/L	-1.3141 ppb	16:44:17
3	Ti 334.940†	-1207.5	248.9	0.3984 ug/L	0.3984 ppb	16:43:57
3	Tl 190.801†	-29.3	-0.8	-0.2426 ug/L	-0.2426 ppb	16:44:17
3	U 409.014†	-3098.9	-77.7	-2.1686 ug/L	-2.1686 ppb	16:43:57
3	V 292.402†	-1523.6	3.7	0.0175 ug/L	0.0175 ppb	16:43:57
3	Zn 213.857†	866.3	93.5	0.9460 ug/L	0.9460 ppb	16:44:17
3	SiO2†	45687.2	43340.0	3009.0 ug/L	3009.0 ppb	16:44:33

Mean Data: 245807002|948088|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909602.4	103.36	%	1.099				1.06%
Sc Radial	4035.3	105	%	1.6				1.55%
Y 371.029	763996.1	100.44	%	1.163				1.16%
Y RADIAL	4483.5	100.7	%	1.38				1.37%
Ag 328.068†	-7.3	-0.0386	ug/L	0.09469	-0.0386	ppb	0.09469	245.19%
Al 396.153Radial†	10.1	9.4551	ug/L	5.70740	9.4551	ppb	5.70740	60.36%
As 188.979†	-5.3	-2.3455	ug/L	3.40895	-2.3455	ppb	3.40895	145.34%
B 249.677†	395.2	9.6892	ug/L	0.29668	9.6892	ppb	0.29668	3.06%
Ba 233.527†	27.9	0.2187	ug/L	0.06597	0.2187	ppb	0.06597	30.17%
Be 313.107†	-15.3	-0.0049	ug/L	0.04129	-0.0049	ppb	0.04129	849.34%
Ca 317.933Radial†	14.6	31.766	ug/L	1.2983	31.766	ppb	1.2983	4.09%
Cd 226.502†	-9.5	-0.1093	ug/L	0.05632	-0.1093	ppb	0.05632	51.54%
Co 228.616†	1.2	0.0253	ug/L	0.05146	0.0253	ppb	0.05146	203.01%
Cr 267.716†	16.4	0.1835	ug/L	0.15906	0.1835	ppb	0.15906	86.67%
Cu 324.752†	134.6	0.4105	ug/L	0.23484	0.4105	ppb	0.23484	57.21%
Fe 238.204 Radial†	-1.3	-20.633	ug/L	3.2651	-20.633	ppb	3.2651	15.82%
K 766.490 Radial†	431.8	82.662	ug/L	16.3161	82.662	ppb	16.3161	19.74%

Mg 279.077 IEC†	0.1	4.1897	ug/L	43.81617	4.1897	ppb	43.81617 >999.9%
Mn 257.610†	512.6	0.5818	ug/L	0.01743	0.5818	ppb	0.01743 3.00%
Mo 202.031†	3.7	0.2740	ug/L	0.71200	0.2740	ppb	0.71200 259.89%
Na 589.592 Radial†	494.0	153.70	ug/L	11.934	153.70	ppb	11.934 7.76%
Ni 231.604†	-4.0	-0.1029	ug/L	0.14565	-0.1029	ppb	0.14565 141.57%
P 214.914†	11.5	6.8696	ug/L	3.16943	6.8696	ppb	3.16943 46.14%
Pb 220.353†	-80.7	-9.9786	ug/L	1.04680	-9.9786	ppb	1.04680 10.49%
S 181.975 Axial†	38.1	53.699	ug/L	1.1566	53.699	ppb	1.1566 2.15%
Sb 206.836†	0.5	0.1591	ug/L	2.58786	0.1591	ppb	2.58786 >999.9%
Se 196.026†	2.6	1.6733	ug/L	4.77503	1.6733	ppb	4.77503 285.36%
Si 251.611†	43891.7	1421.9	ug/L	22.19	1421.9	ppb	22.19 1.56%
Sn 189.927†	-2.3	-0.4122	ug/L	0.79654	-0.4122	ppb	0.79654 193.22%
Sr 421.552†	37.1	0.2581	ug/L	0.26261	0.2581	ppb	0.26261 101.74%
Ti 334.940†	238.3	0.3804	ug/L	0.04603	0.3804	ppb	0.04603 12.10%
Tl 190.801†	-6.3	-2.0101	ug/L	3.13780	-2.0101	ppb	3.13780 156.10%
U 409.014†	-88.7	-2.4757	ug/L	3.69274	-2.4757	ppb	3.69274 149.16%
V 292.402†	-5.2	-0.0346	ug/L	0.09003	-0.0346	ppb	0.09003 260.35%
Zn 213.857†	118.6	1.2006	ug/L	0.25230	1.2006	ppb	0.25230 21.01%
SiO2†	43632.1	3029.3	ug/L	38.28	3029.3	ppb	38.28 1.26%

Sequence No.: 26
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 16:46:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3853.1	3853.1	99.9	%			16:48:37
1	Y RADIAL	4262.5	4262.5	95.75	%			16:48:37
1	Al 396.153Radial†	5279.2	5399.5	5050.8	ug/L	5050.8	ppb	16:48:37
1	Ca 317.933Radial†	2359.8	2343.4	5110.4	ug/L	5110.4	ppb	16:48:57
1	Fe 238.204 Radial†	317.2	305.8	4957.4	ug/L	4957.4	ppb	16:48:57
1	K 766.490 Radial†	28601.3	25864.8	4949.2	ug/L	4949.2	ppb	16:48:37
1	Mg 279.077 IEC†	98.7	97.6	5151.2	ug/L	5151.2	ppb	16:48:57
1	Na 589.592 Radial†	30236.2	31168.1	9698.4	ug/L	9698.4	ppb	16:48:37
1	Sr 421.552†	69411.4	69472.0	483.25	ug/L	483.25	ppb	16:48:37
1	Sc 361.383	905210.8	905210.8	102.86	%			16:49:54
1	Y 371.029	750007.9	750007.9	98.603	%			16:49:54
1	Ag 328.068†	108672.9	105420.9	492.91	ug/L	492.91	ppb	16:49:59
1	As 188.979†	1120.4	1109.2	497.47	ug/L	497.47	ppb	16:50:19
1	B 249.677†	19881.3	19607.2	478.35	ug/L	478.35	ppb	16:49:59
1	Ba 233.527†	64433.8	62633.4	493.54	ug/L	493.54	ppb	16:49:59
1	Be 313.107†	1343973.2	1310209.2	490.65	ug/L	490.65	ppb	16:49:54
1	Cd 226.502†	43760.4	42721.4	496.36	ug/L	496.36	ppb	16:49:59
1	Co 228.616†	24180.2	23573.6	495.20	ug/L	495.20	ppb	16:49:59
1	Cr 267.716†	45123.2	43785.0	492.27	ug/L	492.27	ppb	16:49:59
1	Cu 324.752†	170453.3	159764.7	486.77	ug/L	486.77	ppb	16:49:59
1	Mn 257.610†	444674.7	431848.3	492.27	ug/L	492.27	ppb	16:49:54
1	Mo 202.031†	6805.2	6611.5	487.42	ug/L	487.42	ppb	16:50:19
1	Ni 231.604†	20098.8	19457.9	496.27	ug/L	496.27	ppb	16:49:59
1	P 214.914†	4413.8	4085.4	2362.2	ug/L	2362.2	ppb	16:50:19
1	Pb 220.353†	4071.4	3897.2	483.64	ug/L	483.64	ppb	16:50:19
1	S 181.975 Axial†	762.9	705.9	994.32	ug/L	994.32	ppb	16:50:19
1	Sb 206.836†	1469.1	1389.3	507.81	ug/L	507.81	ppb	16:50:19
1	Se 196.026†	739.8	744.0	505.79	ug/L	505.79	ppb	16:50:19
1	Si 251.611†	78661.6	75912.5	2453.2	ug/L	2453.2	ppb	16:49:59
1	Sn 189.927†	2821.7	2733.9	493.63	ug/L	493.63	ppb	16:50:19
1	Ti 334.940†	317401.0	309996.6	488.32	ug/L	488.32	ppb	16:49:59
1	Tl 190.801†	1512.1	1497.6	485.00	ug/L	485.00	ppb	16:50:19
1	U 409.014†	14779.0	17270.4	480.60	ug/L	480.60	ppb	16:49:59
1	V 292.402†	70354.6	69869.5	494.59	ug/L	494.59	ppb	16:49:59
1	Zn 213.857†	51065.2	48907.7	489.18	ug/L	489.18	ppb	16:49:59
1	SiO2†	77599.5	74856.4	5183.8	ug/L	5183.8	ppb	16:51:27
2	Sc Radial	3946.8	3946.8	102	%			16:49:02
2	Y RADIAL	4312.7	4312.7	96.88	%			16:49:02
2	Al 396.153Radial†	5385.6	5378.0	5030.5	ug/L	5030.5	ppb	16:49:02
2	Ca 317.933Radial†	2371.6	2298.9	5013.3	ug/L	5013.3	ppb	16:49:22
2	Fe 238.204 Radial†	312.8	294.0	4766.2	ug/L	4766.2	ppb	16:49:22
2	K 766.490 Radial†	28820.3	25399.1	4860.0	ug/L	4860.0	ppb	16:49:02
2	Mg 279.077 IEC†	98.7	95.3	5030.2	ug/L	5030.2	ppb	16:49:22
2	Na 589.592 Radial†	30812.9	31013.0	9650.1	ug/L	9650.1	ppb	16:49:02
2	Sr 421.552†	70878.0	69255.6	481.75	ug/L	481.75	ppb	16:49:02
2	Sc 361.383	899258.0	899258.0	102.18	%			16:50:25
2	Y 371.029	744528.8	744528.8	97.882	%			16:50:25
2	Ag 328.068†	107458.4	104931.7	490.57	ug/L	490.57	ppb	16:50:30
2	As 188.979†	1106.3	1102.6	494.46	ug/L	494.46	ppb	16:50:50
2	B 249.677†	19490.3	19352.5	472.14	ug/L	472.14	ppb	16:50:30
2	Ba 233.527†	63694.7	62324.8	491.11	ug/L	491.11	ppb	16:50:30
2	Be 313.107†	1333663.7	1308769.2	490.11	ug/L	490.11	ppb	16:50:25
2	Cd 226.502†	43252.3	42505.8	493.87	ug/L	493.87	ppb	16:50:30
2	Co 228.616†	23884.6	23439.8	492.41	ug/L	492.41	ppb	16:50:30
2	Cr 267.716†	44576.0	43539.9	489.50	ug/L	489.50	ppb	16:50:30
2	Cu 324.752†	168055.0	158514.6	482.95	ug/L	482.95	ppb	16:50:30
2	Mn 257.610†	442291.4	432377.8	492.85	ug/L	492.85	ppb	16:50:25
2	Mo 202.031†	6796.1	6646.5	489.97	ug/L	489.97	ppb	16:50:50
2	Ni 231.604†	19914.9	19407.3	494.98	ug/L	494.98	ppb	16:50:30

2	P 214.914†	4376.0	4076.8	2357.9 ug/L	2357.9 ppb	16:50:50
2	Pb 220.353†	4061.8	3914.0	485.75 ug/L	485.75 ppb	16:50:50
2	S 181.975 Axial†	752.4	700.5	986.76 ug/L	986.76 ppb	16:50:50
2	Sb 206.836†	1472.3	1401.9	512.31 ug/L	512.31 ppb	16:50:50
2	Se 196.026†	734.6	743.7	505.00 ug/L	505.00 ppb	16:50:50
2	Si 251.611†	77540.8	75321.8	2434.1 ug/L	2434.1 ppb	16:50:30
2	Sn 189.927†	2800.8	2731.7	493.22 ug/L	493.22 ppb	16:50:50
2	Ti 334.940†	313396.9	308120.7	485.36 ug/L	485.36 ppb	16:50:30
2	Tl 190.801†	1517.5	1512.6	489.83 ug/L	489.83 ppb	16:50:50
2	U 409.014†	14624.4	17214.3	479.06 ug/L	479.06 ppb	16:50:30
2	V 292.402†	69521.4	69506.9	492.12 ug/L	492.12 ppb	16:50:30
2	Zn 213.857†	50397.9	48583.3	485.95 ug/L	485.95 ppb	16:50:30
2	SiO2†	77164.0	74929.5	5188.8 ug/L	5188.8 ppb	16:51:32
3	Sc Radial	3866.7	3866.7	100 %		16:49:27
3	Y RADIAL	4272.7	4272.7	95.98 %		16:49:27
3	Al 396.153Radial†	5350.4	5451.9	5100.1 ug/L	5100.1 ppb	16:49:27
3	Ca 317.933Radial†	2379.2	2354.6	5134.7 ug/L	5134.7 ppb	16:49:47
3	Fe 238.204 Radial†	315.9	303.4	4918.2 ug/L	4918.2 ppb	16:49:47
3	K 766.490 Radial†	28866.9	26029.0	4980.6 ug/L	4980.6 ppb	16:49:27
3	Mg 279.077 IEC†	98.4	97.0	5117.2 ug/L	5117.2 ppb	16:49:47
3	Na 589.592 Radial†	30432.2	31257.1	9726.1 ug/L	9726.1 ppb	16:49:27
3	Sr 421.552†	70254.6	70068.6	487.40 ug/L	487.40 ppb	16:49:27
3	Sc 361.383	905125.5	905125.5	102.85 %		16:50:56
3	Y 371.029	750418.5	750418.5	98.657 %		16:50:56
3	Ag 328.068†	107818.8	104600.4	489.08 ug/L	489.08 ppb	16:51:01
3	As 188.979†	1097.2	1086.7	487.43 ug/L	487.43 ppb	16:51:21
3	B 249.677†	19693.2	19426.1	473.93 ug/L	473.93 ppb	16:51:01
3	Ba 233.527†	63993.3	62211.0	490.22 ug/L	490.22 ppb	16:51:01
3	Be 313.107†	1343247.2	1309626.4	490.42 ug/L	490.42 ppb	16:50:56
3	Cd 226.502†	43462.5	42435.7	493.04 ug/L	493.04 ppb	16:51:01
3	Co 228.616†	23986.8	23387.8	491.30 ug/L	491.30 ppb	16:51:01
3	Cr 267.716†	44869.0	43542.0	489.54 ug/L	489.54 ppb	16:51:01
3	Cu 324.752†	168790.2	158163.2	481.89 ug/L	481.89 ppb	16:51:01
3	Mn 257.610†	443560.8	430806.0	491.08 ug/L	491.08 ppb	16:50:56
3	Mo 202.031†	6797.4	6604.6	486.90 ug/L	486.90 ppb	16:51:21
3	Ni 231.604†	19956.1	19320.9	492.78 ug/L	492.78 ppb	16:51:01
3	P 214.914†	4400.1	4072.5	2355.4 ug/L	2355.4 ppb	16:51:21
3	Pb 220.353†	4067.4	3893.7	483.23 ug/L	483.23 ppb	16:51:21
3	S 181.975 Axial†	754.8	698.0	983.25 ug/L	983.25 ppb	16:51:21
3	Sb 206.836†	1481.4	1401.4	512.06 ug/L	512.06 ppb	16:51:21
3	Se 196.026†	738.3	742.6	504.74 ug/L	504.74 ppb	16:51:21
3	Si 251.611†	77927.3	75205.7	2430.3 ug/L	2430.3 ppb	16:51:01
3	Sn 189.927†	2813.1	2725.9	492.18 ug/L	492.18 ppb	16:51:21
3	Ti 334.940†	315096.6	307785.1	484.84 ug/L	484.84 ppb	16:51:01
3	Tl 190.801†	1517.7	1503.1	486.77 ug/L	486.77 ppb	16:51:21
3	U 409.014†	14583.5	17081.7	475.34 ug/L	475.34 ppb	16:51:01
3	V 292.402†	70069.7	69599.0	492.69 ug/L	492.69 ppb	16:51:01
3	Zn 213.857†	50641.2	48500.1	485.10 ug/L	485.10 ppb	16:51:01
3	SiO2†	76011.8	73319.7	5077.1 ug/L	5077.1 ppb	16:51:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903198.1	102.63	%	0.388				0.38%
Sc Radial	3888.9	101	%	1.3				1.30%
Y 371.029	748318.4	98.381	%	0.4323				0.44%
Y RADIAL	4282.6	96.20	%	0.597				0.62%
Ag 328.068†	104984.3	490.85	ug/L	1.930	490.85	ppb	1.930	0.39%
QC value within limits for Ag 328.068 Recovery = 98.17%								
Al 396.153Radial†	5409.8	5060.5	ug/L	35.79	5060.5	ppb	35.79	0.71%
QC value within limits for Al 396.153Radial Recovery = 101.21%								
As 188.979†	1099.5	493.12	ug/L	5.150	493.12	ppb	5.150	1.04%
QC value within limits for As 188.979 Recovery = 98.62%								
B 249.677†	19462.0	474.81	ug/L	3.194	474.81	ppb	3.194	0.67%
QC value within limits for B 249.677 Recovery = 94.96%								
Ba 233.527†	62389.7	491.62	ug/L	1.722	491.62	ppb	1.722	0.35%
QC value within limits for Ba 233.527 Recovery = 98.32%								
Be 313.107†	1309534.9	490.39	ug/L	0.274	490.39	ppb	0.274	0.06%
QC value within limits for Be 313.107 Recovery = 98.08%								
Ca 317.933Radial†	2332.3	5086.1	ug/L	64.26	5086.1	ppb	64.26	1.26%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.72%
Cd 226.502†            42554.3      494.42 ug/L         1.727      494.42 ppb          1.727   0.35%
   QC value within limits for Cd 226.502  Recovery = 98.88%
Co 228.616†            23467.1      492.97 ug/L         2.008      492.97 ppb          2.008   0.41%
   QC value within limits for Co 228.616  Recovery = 98.59%
Cr 267.716†            43622.3      490.43 ug/L         1.588      490.43 ppb          1.588   0.32%
   QC value within limits for Cr 267.716  Recovery = 98.09%
Cu 324.752†           158814.2      483.87 ug/L         2.566      483.87 ppb          2.566   0.53%
   QC value within limits for Cu 324.752  Recovery = 96.77%
Fe 238.204 Radial†       301.1      4880.6 ug/L        100.98      4880.6 ppb         100.98   2.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.61%
K 766.490 Radial†      25764.3      4930.0 ug/L         62.57      4930.0 ppb          62.57   1.27%
   QC value within limits for K 766.490 Radial  Recovery = 98.60%
Mg 279.077 IEC†           96.6      5099.5 ug/L         62.40      5099.5 ppb          62.40   1.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.99%
Mn 257.610†           431677.4      492.06 ug/L         0.906      492.06 ppb          0.906   0.18%
   QC value within limits for Mn 257.610  Recovery = 98.41%
Mo 202.031†             6620.8      488.10 ug/L         1.646      488.10 ppb          1.646   0.34%
   QC value within limits for Mo 202.031  Recovery = 97.62%
Na 589.592 Radial†     31146.1      9691.5 ug/L         38.44      9691.5 ppb          38.44   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 96.92%
Ni 231.604†            19395.4      494.68 ug/L         1.766      494.68 ppb          1.766   0.36%
   QC value within limits for Ni 231.604  Recovery = 98.94%
P 214.914†              4078.2      2358.5 ug/L          3.41      2358.5 ppb           3.41   0.14%
   QC value within limits for P 214.914  Recovery = 94.34%
Pb 220.353†             3901.6      484.21 ug/L         1.351      484.21 ppb          1.351   0.28%
   QC value within limits for Pb 220.353  Recovery = 96.84%
S 181.975 Axial†         701.5      988.11 ug/L         5.655      988.11 ppb          5.655   0.57%
   QC value within limits for S 181.975 Axial  Recovery = 98.81%
Sb 206.836†             1397.5      510.73 ug/L         2.530      510.73 ppb          2.530   0.50%
   QC value within limits for Sb 206.836  Recovery = 102.15%
Se 196.026†              743.4      505.18 ug/L         0.544      505.18 ppb          0.544   0.11%
   QC value within limits for Se 196.026  Recovery = 101.04%
Si 251.611†            75480.0      2439.2 ug/L         12.28      2439.2 ppb          12.28   0.50%
   QC value within limits for Si 251.611  Recovery = 97.57%
Sn 189.927†             2730.5      493.01 ug/L         0.744      493.01 ppb          0.744   0.15%
   QC value within limits for Sn 189.927  Recovery = 98.60%
Sr 421.552†            69598.7      484.13 ug/L         2.929      484.13 ppb          2.929   0.60%
   QC value within limits for Sr 421.552  Recovery = 96.83%
Ti 334.940†           308634.1      486.17 ug/L         1.875      486.17 ppb          1.875   0.39%
   QC value within limits for Ti 334.940  Recovery = 97.23%
Tl 190.801†             1504.4      487.20 ug/L         2.442      487.20 ppb          2.442   0.50%
   QC value within limits for Tl 190.801  Recovery = 97.44%
U 409.014†             17188.8      478.33 ug/L         2.704      478.33 ppb          2.704   0.57%
   QC value within limits for U 409.014  Recovery = 95.67%
V 292.402†             69658.5      493.13 ug/L         1.293      493.13 ppb          1.293   0.26%
   QC value within limits for V 292.402  Recovery = 98.63%
Zn 213.857†            48663.7      486.75 ug/L         2.153      486.75 ppb          2.153   0.44%
   QC value within limits for Zn 213.857  Recovery = 97.35%
SiO2†                  74368.5      5149.9 ug/L         63.08      5149.9 ppb          63.08   1.22%
   QC value within limits for SiO2  Recovery = 96.31%
All analyte(s) passed QC.
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Sequence No.: 27
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 16:53:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3747.2	3747.2	97.2	%			16:56:00
1	Y RADIAL	4313.4	4313.4	96.89	%			16:55:40
1	Al 396.153Radial†	-102.3	9.7	9.1086	ug/L	9.1086	ppb	16:55:40
1	Ca 317.933Radial†	24.4	6.4	14.053	ug/L	14.053	ppb	16:56:00
1	Fe 238.204 Radial†	9.8	-1.6	-25.339	ug/L	-25.339	ppb	16:56:00
1	K 766.490 Radial†	2782.1	98.5	18.863	ug/L	18.863	ppb	16:55:40
1	Mg 279.077 IEC†	2.8	1.7	89.185	ug/L	89.185	ppb	16:56:00
1	Na 589.592 Radial†	-895.0	-19.6	-6.0896	ug/L	-6.0896	ppb	16:55:40
1	Sr 421.552†	55.7	48.6	0.3380	ug/L	0.3380	ppb	16:55:40
1	Sc 361.383	919369.4	919369.4	104.47	%			16:56:57
1	Y 371.029	771783.1	771783.1	101.47	%			16:56:57
1	Ag 328.068†	263.4	17.9	0.0712	ug/L	0.0712	ppb	16:57:02
1	As 188.979†	-20.7	0.1	0.0238	ug/L	0.0238	ppb	16:57:22
1	B 249.677†	-499.7	-200.3	-4.9059	ug/L	-4.9059	ppb	16:57:22
1	Ba 233.527†	10.6	-0.9	-0.0091	ug/L	-0.0091	ppb	16:57:22
1	Be 313.107†	-3592.0	119.8	0.0446	ug/L	0.0446	ppb	16:57:02
1	Cd 226.502†	-192.0	-7.6	-0.0851	ug/L	-0.0851	ppb	16:57:22
1	Co 228.616†	-60.2	7.2	0.1549	ug/L	0.1549	ppb	16:57:22
1	Cr 267.716†	76.7	-11.7	-0.1358	ug/L	-0.1358	ppb	16:57:22
1	Cu 324.752†	6084.7	-130.4	-0.4004	ug/L	-0.4004	ppb	16:57:02
1	Mn 257.610†	519.1	19.2	0.0157	ug/L	0.0157	ppb	16:57:22
1	Mo 202.031†	20.7	15.1	1.1112	ug/L	1.1112	ppb	16:57:22
1	Ni 231.604†	73.3	-12.7	-0.3232	ug/L	-0.3232	ppb	16:57:22
1	P 214.914†	217.7	2.5	1.6228	ug/L	1.6228	ppb	16:57:22
1	Pb 220.353†	-27.2	-87.2	-10.777	ug/L	-10.777	ppb	16:57:22
1	S 181.975 Axial†	46.1	8.3	11.641	ug/L	11.641	ppb	16:57:22
1	Sb 206.836†	47.0	6.0	2.1289	ug/L	2.1289	ppb	16:57:22
1	Se 196.026†	-27.2	-1.3	-0.9618	ug/L	-0.9618	ppb	16:57:22
1	Si 251.611†	594.8	4.7	0.1382	ug/L	0.1382	ppb	16:57:22
1	Sn 189.927†	7.3	-2.4	-0.4324	ug/L	-0.4324	ppb	16:57:22
1	Ti 334.940†	-1528.4	-53.2	-0.0904	ug/L	-0.0904	ppb	16:57:02
1	Tl 190.801†	-27.8	0.9	0.2755	ug/L	0.2755	ppb	16:57:22
1	U 409.014†	-2924.9	101.9	2.8495	ug/L	2.8495	ppb	16:56:57
1	V 292.402†	-1601.7	-64.5	-0.4239	ug/L	-0.4239	ppb	16:57:02
1	Zn 213.857†	757.7	-14.2	-0.1365	ug/L	-0.1365	ppb	16:57:22
1	SiO2†	604.5	-9.6	-0.6935	ug/L	-0.6935	ppb	16:58:28
2	Sc Radial	3755.2	3755.2	97.4	%			16:56:25
2	Y RADIAL	4279.1	4279.1	96.12	%			16:56:05
2	Al 396.153Radial†	-122.6	-10.9	-10.288	ug/L	-10.288	ppb	16:56:05
2	Ca 317.933Radial†	22.6	4.5	9.8277	ug/L	9.8277	ppb	16:56:25
2	Fe 238.204 Radial†	10.7	-0.7	-11.497	ug/L	-11.497	ppb	16:56:25
2	K 766.490 Radial†	2877.2	190.1	36.414	ug/L	36.414	ppb	16:56:05
2	Mg 279.077 IEC†	1.5	0.4	21.323	ug/L	21.323	ppb	16:56:25
2	Na 589.592 Radial†	-860.1	18.3	5.6924	ug/L	5.6924	ppb	16:56:05
2	Sr 421.552†	5.8	-2.8	-0.0195	ug/L	-0.0195	ppb	16:56:05
2	Sc 361.383	918565.8	918565.8	104.37	%			16:57:27
2	Y 371.029	771672.6	771672.6	101.45	%			16:57:27
2	Ag 328.068†	297.0	50.4	0.2246	ug/L	0.2246	ppb	16:57:32
2	As 188.979†	-21.0	-0.2	-0.0799	ug/L	-0.0799	ppb	16:57:52
2	B 249.677†	-491.5	-192.9	-4.7256	ug/L	-4.7256	ppb	16:57:52
2	Ba 233.527†	11.0	-0.5	-0.0057	ug/L	-0.0057	ppb	16:57:52
2	Be 313.107†	-3623.7	86.4	0.0321	ug/L	0.0321	ppb	16:57:32
2	Cd 226.502†	-177.5	6.1	0.0727	ug/L	0.0727	ppb	16:57:52
2	Co 228.616†	-72.1	-4.2	-0.0858	ug/L	-0.0858	ppb	16:57:52
2	Cr 267.716†	89.5	0.7	0.0037	ug/L	0.0037	ppb	16:57:52
2	Cu 324.752†	5941.8	-262.3	-0.8023	ug/L	-0.8023	ppb	16:57:32
2	Mn 257.610†	479.9	-17.9	-0.0224	ug/L	-0.0224	ppb	16:57:52
2	Mo 202.031†	16.5	11.1	0.8166	ug/L	0.8166	ppb	16:57:52
2	Ni 231.604†	74.7	-11.2	-0.2868	ug/L	-0.2868	ppb	16:57:52

2	P 214.914†	222.9	7.8	4.8500	ug/L	4.8500 ppb	16:57:52
2	Pb 220.353†	-20.2	-80.5	-9.9607	ug/L	-9.9607 ppb	16:57:52
2	S 181.975 Axial†	37.2	-0.2	-0.3407	ug/L	-0.3407 ppb	16:57:52
2	Sb 206.836†	41.7	0.9	0.3314	ug/L	0.3314 ppb	16:57:52
2	Se 196.026†	-31.2	-5.2	-3.4409	ug/L	-3.4409 ppb	16:57:52
2	Si 251.611†	593.3	3.7	0.1095	ug/L	0.1095 ppb	16:57:52
2	Sn 189.927†	9.2	-0.6	-0.1002	ug/L	-0.1002 ppb	16:57:52
2	Ti 334.940†	-1511.5	-38.3	-0.0626	ug/L	-0.0626 ppb	16:57:32
2	Tl 190.801†	-23.6	4.8	1.5420	ug/L	1.5420 ppb	16:57:52
2	U 409.014†	-2871.2	151.0	4.2173	ug/L	4.2173 ppb	16:57:27
2	V 292.402†	-1626.5	-89.6	-0.6042	ug/L	-0.6042 ppb	16:57:32
2	Zn 213.857†	758.6	-12.6	-0.1225	ug/L	-0.1225 ppb	16:57:52
2	SiO2†	598.7	-14.6	-1.0368	ug/L	-1.0368 ppb	16:58:33
3	Sc Radial	3770.8	3770.8	97.8	%		16:56:50
3	Y RADIAL	4230.5	4230.5	95.03	%		16:56:30
3	Al 396.153Radial†	-130.4	-18.3	-17.241	ug/L	-17.241 ppb	16:56:30
3	Ca 317.933Radial†	17.8	-0.5	-1.1191	ug/L	-1.1191 ppb	16:56:50
3	Fe 238.204 Radial†	8.3	-3.2	-51.849	ug/L	-51.849 ppb	16:56:50
3	K 766.490 Radial†	2775.6	73.9	14.170	ug/L	14.170 ppb	16:56:30
3	Mg 279.077 IEC†	1.9	0.8	40.777	ug/L	40.777 ppb	16:56:50
3	Na 589.592 Radial†	-908.9	-28.0	-8.7045	ug/L	-8.7045 ppb	16:56:30
3	Sr 421.552†	33.5	25.5	0.1776	ug/L	0.1776 ppb	16:56:30
3	Sc 361.383	924614.4	924614.4	105.06	%		16:57:57
3	Y 371.029	776500.8	776500.8	102.09	%		16:57:57
3	Ag 328.068†	233.0	-12.4	-0.0743	ug/L	-0.0743 ppb	16:58:03
3	As 188.979†	-25.7	-4.6	-2.0498	ug/L	-2.0498 ppb	16:58:23
3	B 249.677†	-488.0	-186.5	-4.5612	ug/L	-4.5612 ppb	16:58:23
3	Ba 233.527†	3.8	-7.4	-0.0595	ug/L	-0.0595 ppb	16:58:23
3	Be 313.107†	-3509.3	218.0	0.0814	ug/L	0.0814 ppb	16:58:03
3	Cd 226.502†	-197.0	-11.3	-0.1261	ug/L	-0.1261 ppb	16:58:23
3	Co 228.616†	-75.9	-7.4	-0.1540	ug/L	-0.1540 ppb	16:58:23
3	Cr 267.716†	70.5	-18.0	-0.2072	ug/L	-0.2072 ppb	16:58:23
3	Cu 324.752†	5982.6	-260.7	-0.7984	ug/L	-0.7984 ppb	16:58:03
3	Mn 257.610†	510.5	8.3	0.0026	ug/L	0.0026 ppb	16:58:23
3	Mo 202.031†	10.0	4.8	0.3502	ug/L	0.3502 ppb	16:58:23
3	Ni 231.604†	76.3	-10.2	-0.2604	ug/L	-0.2604 ppb	16:58:23
3	P 214.914†	213.3	-2.8	-1.4635	ug/L	-1.4635 ppb	16:58:23
3	Pb 220.353†	-38.8	-98.1	-12.133	ug/L	-12.133 ppb	16:58:23
3	S 181.975 Axial†	44.9	6.9	9.7132	ug/L	9.7132 ppb	16:58:23
3	Sb 206.836†	33.4	-7.3	-2.5585	ug/L	-2.5585 ppb	16:58:23
3	Se 196.026†	-20.8	5.0	3.1038	ug/L	3.1038 ppb	16:58:23
3	Si 251.611†	591.1	-2.1	-0.0737	ug/L	-0.0737 ppb	16:58:23
3	Sn 189.927†	8.8	-1.0	-0.1839	ug/L	-0.1839 ppb	16:58:23
3	Ti 334.940†	-1500.4	-18.2	-0.0331	ug/L	-0.0331 ppb	16:58:03
3	Tl 190.801†	-35.8	-6.6	-2.1210	ug/L	-2.1210 ppb	16:58:23
3	U 409.014†	-2963.4	81.2	2.2748	ug/L	2.2748 ppb	16:57:57
3	V 292.402†	-1502.8	38.3	0.2855	ug/L	0.2855 ppb	16:58:03
3	Zn 213.857†	749.4	-26.1	-0.2531	ug/L	-0.2531 ppb	16:58:23
3	SiO2†	614.7	-3.1	-0.2244	ug/L	-0.2244 ppb	16:58:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920849.9	104.63	%	0.373				0.36%
Sc Radial	3757.8	97.4	%	0.31				0.32%
Y 371.029	773318.8	101.67	%	0.362				0.36%
Y RADIAL	4274.3	96.02	%	0.935				0.97%
Ag 328.068†	18.7	0.0739	ug/L	0.14949	0.0739	ppb	0.14949	202.41%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.5	-6.1402	ug/L	13.65593	-6.1402	ppb	13.65593	222.40%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-0.7020	ug/L	1.16843	-0.7020	ppb	1.16843	166.45%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-193.2	-4.7309	ug/L	0.17237	-4.7309	ppb	0.17237	3.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0248	ug/L	0.03012	-0.0248	ppb	0.03012	121.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.4	0.0527	ug/L	0.02561	0.0527	ppb	0.02561	48.60%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	7.5872	ug/L	7.83026	7.5872	ppb	7.83026	103.20%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -4.3     -0.0462 ug/L       0.10495     -0.0462 ppb        0.10495 227.30%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.5     -0.0283 ug/L       0.16229     -0.0283 ppb        0.16229 574.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.7     -0.1131 ug/L       0.10724     -0.1131 ppb        0.10724  94.82%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -217.8     -0.6670 ug/L       0.23091     -0.6670 ppb        0.23091  34.62%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.8     -29.562 ug/L       20.5045     -29.562 ppb        20.5045  69.36%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       120.8      23.149 ug/L       11.7246      23.149 ppb        11.7246  50.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          1.0      50.428 ug/L       34.9452      50.428 ppb        34.9452  69.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              3.2     -0.0013 ug/L       0.01936     -0.0013 ppb        0.01936 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             10.3      0.7593 ug/L       0.38374      0.7593 ppb        0.38374  50.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -9.8     -3.0339 ug/L       7.66948     -3.0339 ppb        7.66948 252.79%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -11.4     -0.2902 ug/L       0.03154     -0.2902 ppb        0.03154  10.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               2.5      1.6698 ug/L       3.15700      1.6698 ppb        3.15700 189.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -88.6     -10.957 ug/L        1.0975     -10.957 ppb         1.0975  10.02%
   QC value less than the lower limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         5.0      7.0044 ug/L       6.43371      7.0044 ppb        6.43371  91.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.1     -0.0328 ug/L       2.36482     -0.0328 ppb        2.36482 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.5     -0.4330 ug/L       3.30421     -0.4330 ppb        3.30421 763.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              2.1      0.0580 ug/L       0.11496      0.0580 ppb        0.11496 198.20%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.3     -0.2388 ug/L       0.17280     -0.2388 ppb        0.17280  72.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              23.8      0.1654 ug/L       0.17909      0.1654 ppb        0.17909 108.30%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -36.6     -0.0620 ug/L       0.02863     -0.0620 ppb        0.02863  46.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.3     -0.1012 ug/L       1.86029     -0.1012 ppb        1.86029 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              111.4      3.1139 ug/L       0.99786      3.1139 ppb        0.99786  32.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -38.6     -0.2475 ug/L       0.47034     -0.2475 ppb        0.47034 190.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -17.6     -0.1707 ug/L       0.07172     -0.1707 ppb        0.07172  42.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -9.1     -0.6516 ug/L       0.40781     -0.6516 ppb        0.40781  62.59%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, February 20, 2010 16:07:39
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.554
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4591.9	4591.938	57.696	1.3
	Mg	24.0	33007.3	33007.292	368.932	1.1
	Co	58.9	104259.1	104259.120	1398.049	1.3
	Rh	102.9	219366.5	219366.513	1785.593	0.8
	In	114.9	300656.4	300656.403	2344.252	0.8
	Pb	208.0	241741.5	241741.500	1886.659	0.8
⌈>	Ba	137.9	268936.6	268936.638	1503.430	0.6
⌊	Ba++	69.0	4410.8	0.016	0.000	1.8
⌈>	Ce	139.9	330534.9	330534.935	2716.455	0.8
⌊	CeO	155.9	7621.2	0.023	0.000	1.7
	Bkgd	220.0	26.2	26.200	4.368	16.7

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.5	4528.7
Co	59	13	6.0	106814.5
In	115	13	6.3	294109.3

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	594	2072	0.613
Be	9.0	9.0	2051	2088	0.619
Mg	24.0	24.0	5689	2100	0.590
Mg	25.0	25.0	5941	2100	0.614
Mg	26.0	26.0	6166	2100	0.609
Co	58.9	58.9	14183	2125	0.602
Rh	102.9	102.9	24869	2180	0.587
In	114.9	114.9	27795	2200	0.581
Ce	139.9	139.9	33867	2220	0.593
Pb	206.0	206.0	49948	2305	0.592
Pb	207.0	206.9	50147	2240	0.635
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57728	2275	0.740

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, February 20, 2010 16:22:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\Blank.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		34	
	Be	9		ug/L		19	
	B	11		ug/L		181	
	Na	23		ug/L		30701	
	Mg	24		ug/L		0	
	Al	27		ug/L		2334	
	P	31		ug/L		7846	
	K	39		ug/L		652306	
	Ca	43		ug/L		561	
>	Sc	45		ug/L		840010	
	Ti	47		ug/L		826	
	V	51		ug/L		-1033	
	Cr	52		ug/L		-771	
	Cr	53		ug/L		121930	
	Mn	55		ug/L		1473	
	Fe	57		ug/L		7144	
	Co	59		ug/L		119	
	Ni	60		ug/L		194	
	Cu	63		ug/L		326	
	Cu	65		ug/L		212	
	Zn	66		ug/L		2747	
	Zn	67		ug/L		14577	
	Zn	68		ug/L		3327	
>	Ge	74		ug/L		623930	
	As	75		ug/L		-192	
	Se	77		ug/L		8093	
	Se	82		ug/L		-3	
	Kr	83		ug/L		221	
	Sr	88		ug/L		164	
	Y	89		ug/L		101	
	Mo	98		ug/L		55	
	Ag	107		ug/L		35	
	Cd	111		ug/L		12	
	Cd	114		ug/L		54	
>	In	115		ug/L		397371	
	Sn	120		ug/L		877	
	Sb	121		ug/L		179	
	Sb	123		ug/L		132	
	Ba	135		ug/L		48	
	Ba	137		ug/L		66	
	Ho	165		ug/L		30	
>	Lu	175		ug/L		534424	
	Tl	205		ug/L		342	
	Pb	208		ug/L		362	
	Bi	209		ug/L		1131	
	Th	232		ug/L		228	
	U	238		ug/L		99	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, February 20, 2010 16:29:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\Standard 1.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.090	18124	0.022
	Be	9	10.000	ug/L	3.610	4460	0.005
	B	11	20.000	ug/L	3.749	8743	0.010
	Na	23	1000.000	ug/L	10.479	3753442	4.526
	Mg	24	1000.000	ug/L	9.681	2460727	2.991
	Al	27	1000.000	ug/L	18.311	3728229	4.530
	P	31	1000.000	ug/L	2.961	272661	0.322
	K	39	1000.000	ug/L	4.359	6327674	6.903
	Ca	43	1000.000	ug/L	1.149	15787	0.019
>	Sc	45		ug/L		823593	823592.854
	Ti	47	10.000	ug/L	2.897	8864	0.010
	V	51	10.000	ug/L	4.070	100289	0.123
	Cr	52	10.000	ug/L	1.813	77677	0.095
	Cr	53		ug/L		120397	0.001
	Mn	55	10.000	ug/L	3.602	134634	0.162
	Fe	57	1000.000	ug/L	2.829	270453	0.320
	Co	59	10.000	ug/L	0.789	101630	0.123
	Ni	60	10.000	ug/L	2.199	22299	0.027
	Cu	63		ug/L		54787	0.066
	Cu	65	10.000	ug/L	4.064	27729	0.033
	Zn	66	10.000	ug/L	3.256	23432	0.033
	Zn	67		ug/L		16712	0.003
	Zn	68		ug/L		18484	0.024
>	Ge	74		ug/L		624081	624081.176
	As	75	10.000	ug/L	3.919	19178	0.031
	Se	77		ug/L		8532	0.001
	Se	82	10.000	ug/L	2.493	2026	0.003
	Kr	83		ug/L		203	-0.000
	Sr	88	10.000	ug/L	1.730	239121	0.588
	Y	89		ug/L		123	0.000
	Mo	98	10.000	ug/L	1.658	54772	0.135
	Ag	107	10.000	ug/L	2.321	97598	0.240
	Cd	111	10.000	ug/L	1.109	23877	0.059
	Cd	114		ug/L		57647	0.142
>	In	115		ug/L		406471	406471.166
	Sn	120	10.000	ug/L	0.202	99112	0.242
	Sb	121	10.000	ug/L	2.183	82621	0.203
	Sb	123		ug/L		63743	0.157
	Ba	135		ug/L		23452	0.044
	Ba	137	10.000	ug/L	1.705	41028	0.076
	Ho	165		ug/L		26	-0.000
>	Lu	175		ug/L		537572	537571.772
	Tl	205	10.000	ug/L	1.369	230931	0.429
	Pb	208	10.000	ug/L	0.809	418717	0.778
	Bi	209		ug/L		913	-0.000
	Th	232	10.000	ug/L	1.375	499473	0.929
	U	238	10.000	ug/L	1.404	509313	0.947

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, February 20, 2010 16:35:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\Standard 2.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.024**	**ug/L**	2.429	178636	0.225
	Be	9	**100.020**	**ug/L**	2.442	43713	0.055
	B	11	**200.046**	**ug/L**	6.797	84579	0.107
	Na	23	**9999.462**	**ug/L**	7.166	35747985	45.017
	Mg	24	**10010.231**	**ug/L**	3.953	26474033	33.356
	Al	27	**10006.528**	**ug/L**	10.999	38467789	48.497
	P	31	**9998.169**	**ug/L**	3.637	2512696	3.160
	K	39	**10008.531**	**ug/L**	3.940	60596507	75.534
	Ca	43	**9999.687**	**ug/L**	5.226	146718	0.184
>	Sc	45		**ug/L**		793510	793510.032
	Ti	47	**99.999**	**ug/L**	3.812	78274	0.098
	V	51	**99.959**	**ug/L**	4.707	934951	1.181
	Cr	52	**99.964**	**ug/L**	2.892	728188	0.919
	Cr	53		**ug/L**		196030	0.102
	Mn	55	**99.919**	**ug/L**	3.416	1187330	1.496
	Fe	57	**9997.892**	**ug/L**	5.011	2490233	3.133
	Co	59	**99.956**	**ug/L**	4.027	935380	1.180
	Ni	60	**99.981**	**ug/L**	3.389	209029	0.263
	Cu	63		**ug/L**		499231	0.629
	Cu	65	**99.967**	**ug/L**	1.545	256755	0.323
	Zn	66	**99.859**	**ug/L**	2.659	178863	0.290
	Zn	67		**ug/L**		42870	0.047
	Zn	68		**ug/L**		135789	0.218
>	Ge	74		**ug/L**		607536	607536.323
	As	75	**99.994**	**ug/L**	1.033	187213	0.308
	Se	77		**ug/L**		21390	0.022
	Se	82	**99.971**	**ug/L**	2.206	19192	0.032
	Kr	83		**ug/L**		213	-0.000
	Sr	88	**99.878**	**ug/L**	1.388	2034454	5.234
	Y	89		**ug/L**		279	0.000
	Mo	98	**100.004**	**ug/L**	1.767	525264	1.351
	Ag	107	**99.926**	**ug/L**	1.704	868429	2.234
	Cd	111	**99.993**	**ug/L**	2.460	226672	0.583
	Cd	114		**ug/L**		527739	1.358
>	In	115		**ug/L**		388739	388739.020
	Sn	120	**99.954**	**ug/L**	1.108	898465	2.309
	Sb	121	**99.984**	**ug/L**	1.682	776017	1.996
	Sb	123		**ug/L**		603176	1.552
	Ba	135		**ug/L**		225683	0.426
	Ba	137	**99.958**	**ug/L**	1.623	387179	0.731
	Ho	165		**ug/L**		40	0.000
>	Lu	175		**ug/L**		529618	529617.924
	Tl	205	**99.828**	**ug/L**	1.940	1934898	3.653
	Pb	208	**99.861**	**ug/L**	1.487	3614953	6.826
	Bi	209		**ug/L**		1216	0.000
	Th	232	**99.842**	**ug/L**	0.885	4240695	8.007
	U	238	**99.821**	**ug/L**	2.057	4246164	8.019

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	0.9999
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, February 20, 2010 16:41:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 1.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.009**	ug/L	5.030	90579	0.115
	Be	9	**51.077**	ug/L	6.384	22199	0.028
	B	11	**108.707**	ug/L	4.396	45821	0.058
	Na	23	**5142.677**	ug/L	17.632	18336251	23.152
	Mg	24	**4993.622**	ug/L	9.309	13112389	16.640
	Al	27	**4732.206**	ug/L	12.585	18062244	22.935
	P	31	**4756.694**	ug/L	7.603	1192055	1.503
	K	39	**4879.700**	ug/L	9.884	29721422	36.827
	Ca	43	**4875.303**	ug/L	7.271	71396	0.090
>	Sc	45		ug/L		789161	789161.475
	Ti	47	**48.720**	ug/L	4.684	38323	0.048
	V	51	**49.106**	ug/L	5.560	456553	0.580
	Cr	52	**50.553**	ug/L	4.809	365861	0.465
	Cr	53		ug/L		141763	0.035
	Mn	55	**51.900**	ug/L	2.461	614142	0.777
	Fe	57	**4613.637**	ug/L	2.214	1147280	1.446
	Co	59	**49.335**	ug/L	4.336	459226	0.582
	Ni	60	**49.917**	ug/L	3.474	103903	0.132
	Cu	63		ug/L		251414	0.318
	Cu	65	**49.898**	ug/L	3.442	127510	0.161
	Zn	66	**51.261**	ug/L	3.169	94673	0.149
	Zn	67		ug/L		27449	0.021
	Zn	68		ug/L		73042	0.113
>	Ge	74		ug/L		617633	617632.534
	As	75	**47.877**	ug/L	1.432	91032	0.148
	Se	77		ug/L		13681	0.009
	Se	82	**50.379**	ug/L	1.632	9832	0.016
	Kr	83		ug/L		217	-0.000
	Sr	88	**53.708**	ug/L	1.310	1098189	2.814
	Y	89		ug/L		154	0.000
	Mo	98	**48.967**	ug/L	0.413	258229	0.662
	Ag	107	**52.398**	ug/L	0.874	457116	1.172
	Cd	111	**50.581**	ug/L	0.712	115118	0.295
	Cd	114		ug/L		270023	0.692
>	In	115		ug/L		390169	390169.185
	Sn	120	**51.271**	ug/L	0.708	463065	1.185
	Sb	121	**51.215**	ug/L	1.078	399080	1.022
	Sb	123		ug/L		305129	0.782
	Ba	135		ug/L		112556	0.211
	Ba	137	**50.622**	ug/L	1.680	197222	0.370
	Ho	165		ug/L		61	0.000
>	Lu	175		ug/L		532590	532590.461
	Tl	205	**52.287**	ug/L	0.612	1019415	1.914
	Pb	208	**53.244**	ug/L	1.190	1938463	3.639
	Bi	209		ug/L		1198	0.000
	Th	232	**50.579**	ug/L	1.451	2160426	4.056
	U	238	**52.433**	ug/L	0.150	2243358	4.212

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.018				
	Be	9	102.155				
	B	11	108.707				
	Na	23	102.854				
	Mg	24	99.872				
	Al	27	93.707				
	P	31	95.134				
	K	39	97.594				
	Ca	43	97.506				
>	Sc	45		93.9			
	Ti	47	97.439				
	V	51	98.213				
	Cr	52	101.105				
	Cr	53					
	Mn	55	103.799				
	Fe	57	92.273				
	Co	59	98.671				
	Ni	60	99.834				
	Cu	63					
	Cu	65	99.797				
	Zn	66	102.522				
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75	95.755				
	Se	77					
	Se	82	100.757				
	Kr	83					
	Sr	88	107.417				
	Y	89					
	Mo	98	97.935				
	Ag	107	104.795				
	Cd	111	101.161				
	Cd	114					
>	In	115		98.2			
	Sn	120	102.543				
	Sb	121	102.430				
	Sb	123					
	Ba	135					
	Ba	137	101.245				
	Ho	165					
>	Lu	175		99.7			
	Tl	205	104.574				
	Pb	208	106.487				
	Bi	209					
	Th	232	101.158				
	U	238	104.867				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, February 20, 2010 16:47:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 2.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.017**	**ug/L**	25.783	66	0.000
	Be	9	**0.003**	**ug/L**	337.670	20	0.000
	B	11	**5.905**	**ug/L**	9.487	2802	0.003
	Na	23	**-2.399**	**ug/L**	38.233	21349	-0.011
	Mg	24	**0.597**	**ug/L**	122.251	1667	0.002
	Al	27	**0.836**	**ug/L**	73.832	5668	0.004
	P	31	**-1.050**	**ug/L**	18.261	7495	-0.000
	K	39	**1.608**	**ug/L**	473.814	654673	0.012
	Ca	43	**-4.011**	**ug/L**	63.828	493	-0.000
>	Sc	45		**ug/L**		831853	831852.893
	Ti	47	**-0.108**	**ug/L**	46.345	729	-0.000
	V	51	**0.713**	**ug/L**	35.710	5978	0.008
	Cr	52	**0.106**	**ug/L**	62.841	34	0.001
	Cr	53		**ug/L**		129896	0.011
	Mn	55	**0.008**	**ug/L**	106.007	1556	0.000
	Fe	57	**1.891**	**ug/L**	107.366	7553	0.001
	Co	59	**0.004**	**ug/L**	9.218	154	0.000
	Ni	60	**0.007**	**ug/L**	126.816	206	0.000
	Cu	63		**ug/L**		365	0.000
	Cu	65	**-0.002**	**ug/L**	366.484	205	-0.000
	Zn	66	**-0.006**	**ug/L**	768.103	2670	-0.000
	Zn	67		**ug/L**		15619	0.002
	Zn	68		**ug/L**		3357	0.000
>	Ge	74		**ug/L**		609009	609009.296
	As	75	**0.357**	**ug/L**	21.815	483	0.001
	Se	77		**ug/L**		8925	0.002
	Se	82	**-0.012**	**ug/L**	1047.471	-5	-0.000
	Kr	83		**ug/L**		205	-0.000
	Sr	88	**0.003**	**ug/L**	44.365	214	0.000
	Y	89		**ug/L**		66	-0.000
	Mo	98	**0.050**	**ug/L**	22.685	316	0.001
	Ag	107	**0.005**	**ug/L**	25.123	76	0.000
	Cd	111	**0.013**	**ug/L**	36.797	40	0.000
	Cd	114		**ug/L**		65	0.000
>	In	115		**ug/L**		385964	385964.165
	Sn	120	**0.021**	**ug/L**	47.955	1041	0.000
	Sb	121	**0.394**	**ug/L**	15.905	3203	0.008
	Sb	123		**ug/L**		2431	0.006
	Ba	135		**ug/L**		59	0.000
	Ba	137	**0.001**	**ug/L**	126.158	70	0.000
	Ho	165		**ug/L**		29	-0.000
>	Lu	175		**ug/L**		524452	524451.714
	Tl	205	**0.192**	**ug/L**	18.971	4020	0.007
	Pb	208	**0.003**	**ug/L**	11.276	453	0.000
	Bi	209		**ug/L**		829	-0.001
	Th	232	**0.042**	**ug/L**	19.232	1982	0.003
	U	238	**0.006**	**ug/L**	21.084	354	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, February 20, 2010 16:53:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 3.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.036**	**ug/L**	3.189	20643	0.025
	Be	9	**0.560**	**ug/L**	5.826	275	0.000
	B	11	**18.577**	**ug/L**	3.073	8383	0.010
	Na	23	**255.851**	**ug/L**	9.559	987602	1.152
	Mg	24	**21.066**	**ug/L**	24.143	58122	0.070
	Al	27	**42.690**	**ug/L**	20.948	174086	0.207
	P	31	**48.905**	**ug/L**	4.745	20566	0.015
	K	39	**306.515**	**ug/L**	12.267	2560785	2.313
	Ca	43	**212.389**	**ug/L**	4.331	3803	0.004
>	Sc	45		**ug/L**		829854	829854.209
	Ti	47	**8.807**	**ug/L**	3.404	7954	0.009
	V	51	**11.321**	**ug/L**	2.888	109897	0.134
	Cr	52	**11.010**	**ug/L**	2.904	83216	0.101
	Cr	53		**ug/L**		121957	0.002
	Mn	55	**5.961**	**ug/L**	2.804	75471	0.089
	Fe	57	**112.040**	**ug/L**	4.182	36177	0.035
	Co	59	**1.125**	**ug/L**	1.127	11136	0.013
	Ni	60	**2.199**	**ug/L**	4.467	4996	0.006
	Cu	63		**ug/L**		6463	0.007
	Cu	65	**1.148**	**ug/L**	6.439	3290	0.004
	Zn	66	**12.181**	**ug/L**	1.506	24902	0.035
	Zn	67		**ug/L**		16942	0.004
	Zn	68		**ug/L**		19664	0.026
>	Ge	74		**ug/L**		625895	625895.405
	As	75	**5.617**	**ug/L**	3.312	10653	0.017
	Se	77		**ug/L**		8287	0.000
	Se	82	**5.747**	**ug/L**	6.517	1134	0.002
	Kr	83		**ug/L**		187	-0.000
	Sr	88	**12.451**	**ug/L**	0.757	261147	0.652
	Y	89		**ug/L**		84	-0.000
	Mo	98	**0.556**	**ug/L**	4.188	3058	0.008
	Ag	107	**1.092**	**ug/L**	1.052	9806	0.024
	Cd	111	**1.134**	**ug/L**	1.069	2658	0.007
	Cd	114		**ug/L**		6091	0.015
>	In	115		**ug/L**		400025	400024.979
	Sn	120	**5.574**	**ug/L**	1.257	52398	0.129
	Sb	121	**3.318**	**ug/L**	2.159	26671	0.066
	Sb	123		**ug/L**		20420	0.051
	Ba	135		**ug/L**		4908	0.009
	Ba	137	**2.195**	**ug/L**	2.251	8702	0.016
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		538059	538058.671
	Tl	205	**1.276**	**ug/L**	2.543	25466	0.047
	Pb	208	**2.454**	**ug/L**	1.436	90616	0.168
	Bi	209		**ug/L**		820	-0.001
	Th	232	**1.294**	**ug/L**	2.816	56041	0.104
	U	238	**0.284**	**ug/L**	1.415	12370	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	110.360				
	Be	9	112.016				
	B	11	123.845				
	Na	23	102.340				
	Mg	24	140.441				
	Al	27	142.299				
	P	31	97.810				
	K	39	102.172				
	Ca	43	106.194				
>	Sc	45		98.8			
	Ti	47	88.067				
	V	51	113.213				
	Cr	52	110.100				
	Cr	53					
	Mn	55	119.229				
	Fe	57	112.040				
	Co	59	112.526				
	Ni	60	109.958				
	Cu	63					
	Cu	65	114.838				
	Zn	66	121.806				
	Zn	67					
	Zn	68					
>	Ge	74		100.3			
	As	75	112.349				
	Se	77					
	Se	82	114.934				
	Kr	83					
	Sr	88	124.505				
	Y	89					
	Mo	98	111.134				
	Ag	107	109.245				
	Cd	111	113.444				
	Cd	114					
>	In	115		100.7			
	Sn	120	111.486				
	Sb	121	110.587				
	Sb	123					
	Ba	135					
	Ba	137	109.757				
	Ho	165					
>	Lu	175		100.7			
	Tl	205	127.608				
	Pb	208	122.718				
	Bi	209					
	Th	232	129.382				
	U	238	141.962				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Mg	24CRDL is out of limits
QC Std 3	Al	27CRDL is out of limits
QC Std 3	U	238CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, February 20, 2010 16:59:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 4.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.063**	**ug/L**	9.285	132	0.000
	Be	9	**0.104**	**ug/L**	16.876	58	0.000
	B	11	**2.611**	**ug/L**	5.734	1156	0.001
	Na	23	**91373.326**	**ug/L**	11.697	296153562	411.362
	Mg	24	**87188.285**	**ug/L**	5.163	209246681	290.529
	Al	27	**95194.380**	**ug/L**	8.866	332205696	461.359
	P	31	**97338.262**	**ug/L**	3.876	22162910	30.761
	K	39	**93977.730**	**ug/L**	7.923	511248072	709.248
	Ca	43	**96170.167**	**ug/L**	5.835	1278040	1.774
>	Sc	45		**ug/L**		720406	720406.024
	Ti	47	**1763.749**	**ug/L**	2.801	1242308	1.724
	V	51	**0.879**	**ug/L**	16.798	6589	0.010
	Cr	52	**3.375**	**ug/L**	2.405	21695	0.031
	Cr	53		**ug/L**		95429	-0.013
	Mn	55	**6.330**	**ug/L**	1.611	69509	0.095
	Fe	57	**98483.428**	**ug/L**	2.077	22238279	30.864
	Co	59	**0.277**	**ug/L**	5.717	2457	0.003
	Ni	60	**3.223**	**ug/L**	5.843	6281	0.008
	Cu	63		**ug/L**		11652	0.016
	Cu	65	**3.445**	**ug/L**	1.073	8211	0.011
	Zn	66	**4.698**	**ug/L**	2.577	9828	0.014
	Zn	67		**ug/L**		14159	0.003
	Zn	68		**ug/L**		5041	0.004
>	Ge	74		**ug/L**		544496	544496.038
	As	75	**0.349**	**ug/L**	45.256	418	0.001
	Se	77		**ug/L**		8784	0.003
	Se	82	**-1.044**	**ug/L**	9.113	-183	-0.000
	Kr	83		**ug/L**		444	0.000
	Sr	88	**3.402**	**ug/L**	0.467	61355	0.178
	Y	89		**ug/L**		633	0.002
	Mo	98	**1958.588**	**ug/L**	1.677	9088642	26.466
	Ag	107	**0.124**	**ug/L**	6.293	981	0.003
	Cd	111	**0.650**	**ug/L**	23.457	1314	0.004
	Cd	114		**ug/L**		15626	0.045
>	In	115		**ug/L**		343422	343422.352
	Sn	120	**0.288**	**ug/L**	7.061	3045	0.007
	Sb	121	**0.132**	**ug/L**	15.201	1063	0.003
	Sb	123		**ug/L**		815	0.002
	Ba	135		**ug/L**		1588	0.003
	Ba	137	**0.740**	**ug/L**	1.012	2728	0.005
	Ho	165		**ug/L**		11480	0.023
>	Lu	175		**ug/L**		492875	492874.669
	Tl	205	**0.064**	**ug/L**	5.578	1463	0.002
	Pb	208	**0.245**	**ug/L**	0.521	8575	0.017
	Bi	209		**ug/L**		6815	0.012
	Th	232	**0.034**	**ug/L**	28.977	1556	0.003
	U	238	**0.003**	**ug/L**	6.217	202	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	91.373				
	Mg	24	87.188				
	Al	27	95.194				
	P	31	97.338				
	K	39	93.978				
	Ca	43	96.170				
>	Sc	45		85.8			
	Ti	47	88.187				
	V	51					
	Cr	52	102.279				
	Cr	53					
	Mn	55	109.133				
	Fe	57	98.483				
	Co	59	117.881				
	Ni	60	97.369				
	Cu	63					
	Cu	65	103.151				
	Zn	66	124.949				
	Zn	67					
	Zn	68					
>	Ge	74		87.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	114.918				
	Y	89					
	Mo	98	97.929				
	Ag	107					
	Cd	111	146.402				
	Cd	114					
>	In	115		86.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	92.706				
	Ho	165					
>	Lu	175		92.2			
	Tl	205					
	Pb	208	129.429				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, February 20, 2010 17:05:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 5.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.458**	**ug/L**	2.240	31582	0.046
	Be	9	**19.721**	**ug/L**	2.891	7458	0.011
	B	11	**20.414**	**ug/L**	2.364	7593	0.011
	Na	23	**87437.731**	**ug/L**	4.004	269804832	393.644
	Mg	24	**94925.454**	**ug/L**	3.328	216713716	316.311
	Al	27	**86769.448**	**ug/L**	9.592	287887967	420.528
	P	31	**90907.570**	**ug/L**	2.250	19690071	28.728
	K	39	**94851.105**	**ug/L**	3.513	490924936	715.840
	Ca	43	**92413.962**	**ug/L**	1.396	1168344	1.705
>	Sc	45		**ug/L**		685252	685251.922
	Ti	47	**1804.688**	**ug/L**	4.713	1209045	1.764
	V	51	**22.421**	**ug/L**	4.228	180538	0.265
	Cr	52	**24.575**	**ug/L**	4.155	154144	0.226
	Cr	53		**ug/L**		101196	0.003
	Mn	55	**28.349**	**ug/L**	3.580	291881	0.424
	Fe	57	**97964.780**	**ug/L**	1.844	21039740	30.702
	Co	59	**21.034**	**ug/L**	2.713	170151	0.248
	Ni	60	**22.964**	**ug/L**	3.456	41596	0.060
	Cu	63		**ug/L**		93923	0.137
	Cu	65	**21.933**	**ug/L**	3.938	48779	0.071
	Zn	66	**22.864**	**ug/L**	0.699	37558	0.066
	Zn	67		**ug/L**		17303	0.009
	Zn	68		**ug/L**		26114	0.044
>	Ge	74		**ug/L**		530322	530321.636
	As	75	**20.889**	**ug/L**	4.827	34014	0.064
	Se	77		**ug/L**		10651	0.007
	Se	82	**19.210**	**ug/L**	1.042	3218	0.006
	Kr	83		**ug/L**		449	0.000
	Sr	88	**26.083**	**ug/L**	0.891	477099	1.367
	Y	89		**ug/L**		627	0.002
	Mo	98	**1888.936**	**ug/L**	1.086	8907030	25.525
	Ag	107	**20.047**	**ug/L**	1.570	156440	0.448
	Cd	111	**20.127**	**ug/L**	1.456	40974	0.117
	Cd	114		**ug/L**		109662	0.314
>	In	115		**ug/L**		348957	348957.039
	Sn	120	**21.719**	**ug/L**	0.985	175872	0.502
	Sb	121	**21.586**	**ug/L**	0.586	150539	0.431
	Sb	123		**ug/L**		115727	0.331
	Ba	135		**ug/L**		42873	0.085
	Ba	137	**20.294**	**ug/L**	2.019	75160	0.148
	Ho	165		**ug/L**		11501	0.023
>	Lu	175		**ug/L**		506049	506049.209
	Tl	205	**21.876**	**ug/L**	1.855	405396	0.801
	Pb	208	**22.014**	**ug/L**	0.920	761747	1.505
	Bi	209		**ug/L**		7580	0.013
	Th	232	**23.474**	**ug/L**	1.732	952722	1.883
	U	238	**24.960**	**ug/L**	1.744	1014583	2.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	102.288				
	Be	9	98.605				
	B	11	102.072				
	Na	23	87.438				
	Mg	24	94.925				
	Al	27	86.769				
	P	31	90.908				
	K	39	94.851				
	Ca	43	92.414				
>	Sc	45		81.6			
	Ti	47	90.234				
	V	51	112.104				
	Cr	52	105.471				
	Cr	53					
	Mn	55	109.880				
	Fe	57	97.965				
	Co	59	103.947				
	Ni	60	98.514				
	Cu	63					
	Cu	65	93.972				
	Zn	66	96.229				
	Zn	67					
	Zn	68					
>	Ge	74		85.0			
	As	75	104.447				
	Se	77					
	Se	82	96.048				
	Kr	83					
	Sr	88	113.603				
	Y	89					
	Mo	98	94.447				
	Ag	107	100.236				
	Cd	111	98.447				
	Cd	114					
>	In	115		87.8			
	Sn	120	108.596				
	Sb	121	107.932				
	Sb	123					
	Ba	135					
	Ba	137	97.576				
	Ho	165					
>	Lu	175		94.7			
	Tl	205	109.379				
	Pb	208	109.040				
	Bi	209					
	Th	232	117.372				
	U	238	124.798				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 20, 2010 17:11:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 6.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.258**	ug/L	1.843	90037	0.124
	Be	9	**54.515**	ug/L	1.274	21744	0.030
	B	11	**103.354**	ug/L	4.966	39938	0.055
	Na	23	**4637.922**	ug/L	10.916	15102849	20.880
	Mg	24	**4951.636**	ug/L	4.536	11945665	16.500
	Al	27	**4973.524**	ug/L	5.815	17425177	24.104
	P	31	**4723.461**	ug/L	4.089	1086175	1.493
	K	39	**5057.587**	ug/L	7.187	28154070	38.170
	Ca	43	**4863.761**	ug/L	1.253	65393	0.090
>	Sc	45		ug/L		723705	723704.623
	Ti	47	**49.070**	ug/L	2.709	35403	0.048
	V	51	**50.157**	ug/L	3.290	427611	0.592
	Cr	52	**51.076**	ug/L	3.527	338975	0.470
	Cr	53		ug/L		133639	0.040
	Mn	55	**53.397**	ug/L	2.973	579317	0.799
	Fe	57	**4795.682**	ug/L	2.333	1093324	1.503
	Co	59	**51.041**	ug/L	4.324	435689	0.602
	Ni	60	**51.887**	ug/L	4.099	99016	0.137
	Cu	63		ug/L		236865	0.327
	Cu	65	**51.704**	ug/L	2.497	121185	0.167
	Zn	66	**53.159**	ug/L	2.623	90464	0.154
	Zn	67		ug/L		25426	0.021
	Zn	68		ug/L		68227	0.114
>	Ge	74		ug/L		569851	569850.788
	As	75	**48.200**	ug/L	2.220	84532	0.149
	Se	77		ug/L		13494	0.011
	Se	82	**51.847**	ug/L	2.434	9332	0.016
	Kr	83		ug/L		174	-0.000
	Sr	88	**53.545**	ug/L	0.624	1036626	2.806
	Y	89		ug/L		117	0.000
	Mo	98	**49.378**	ug/L	1.178	246526	0.667
	Ag	107	**51.934**	ug/L	0.836	428973	1.161
	Cd	111	**51.437**	ug/L	1.393	110831	0.300
	Cd	114		ug/L		261158	0.707
>	In	115		ug/L		369392	369391.812
	Sn	120	**52.310**	ug/L	0.587	447249	1.209
	Sb	121	**51.460**	ug/L	2.496	379633	1.027
	Sb	123		ug/L		289484	0.783
	Ba	135		ug/L		108140	0.200
	Ba	137	**48.580**	ug/L	0.290	192394	0.355
	Ho	165		ug/L		68	0.000
>	Lu	175		ug/L		541330	541330.313
	Tl	205	**53.289**	ug/L	1.405	1055983	1.950
	Pb	208	**54.369**	ug/L	0.633	2012023	3.716
	Bi	209		ug/L		1183	0.000
	Th	232	**53.017**	ug/L	1.714	2301631	4.252
	U	238	**55.104**	ug/L	1.444	2396100	4.426

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	110.517				
	Be	9	109.030				
	B	11	103.354				
	Na	23	92.758				
	Mg	24	99.033				
	Al	27	98.486				
	P	31	94.469				
	K	39	101.152				
	Ca	43	97.275				
>	Sc	45		86.2			
	Ti	47	98.141				
	V	51	100.313				
	Cr	52	102.152				
	Cr	53					
	Mn	55	106.795				
	Fe	57	95.914				
	Co	59	102.082				
	Ni	60	103.775				
	Cu	63					
	Cu	65	103.408				
	Zn	66	106.317				
	Zn	67					
	Zn	68					
>	Ge	74		91.3			
	As	75	96.399				
	Se	77					
	Se	82	103.695				
	Kr	83					
	Sr	88	107.090				
	Y	89					
	Mo	98	98.756				
	Ag	107	103.868				
	Cd	111	102.875				
	Cd	114					
>	In	115		93.0			
	Sn	120	104.619				
	Sb	121	102.921				
	Sb	123					
	Ba	135					
	Ba	137	97.160				
	Ho	165					
>	Lu	175		101.3			
	Tl	205	106.579				
	Pb	208	108.738				
	Bi	209					
	Th	232	106.034				
	U	238	110.207				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 20, 2010 17:17:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 7.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.017**	ug/L	11.359	60	0.000
	Be	9	**0.001**	ug/L	510.448	18	0.000
	B	11	**3.763**	ug/L	9.928	1686	0.002
	Na	23	**-0.127**	ug/L	1727.802	27361	-0.001
	Mg	24	**0.529**	ug/L	114.663	1333	0.002
	Al	27	**1.689**	ug/L	33.012	8336	0.008
	P	31	**-5.522**	ug/L	12.407	5770	-0.002
	K	39	**-2.836**	ug/L	120.934	573629	-0.021
	Ca	43	**-3.962**	ug/L	113.429	451	-0.000
>	Sc	45		ug/L		759739	759739.455
	Ti	47	**-0.187**	ug/L	13.561	608	-0.000
	V	51	**-0.608**	ug/L	47.660	-6393	-0.007
	Cr	52	**-0.016**	ug/L	326.781	-808	-0.000
	Cr	53		ug/L		124988	0.019
	Mn	55	**0.006**	ug/L	22.201	1400	0.000
	Fe	57	**2.783**	ug/L	23.545	7124	0.001
	Co	59	**0.000**	ug/L	429.275	112	0.000
	Ni	60	**-0.003**	ug/L	192.700	170	-0.000
	Cu	63		ug/L		321	0.000
	Cu	65	**0.008**	ug/L	122.821	210	0.000
	Zn	66	**-0.036**	ug/L	98.522	2431	-0.000
	Zn	67		ug/L		14224	0.002
	Zn	68		ug/L		2948	-0.000
>	Ge	74		ug/L		565521	565520.874
	As	75	**-0.028**	ug/L	849.867	-224	-0.000
	Se	77		ug/L		9332	0.004
	Se	82	**-0.032**	ug/L	303.967	-9	-0.000
	Kr	83		ug/L		194	-0.000
	Sr	88	**0.003**	ug/L	77.385	218	0.000
	Y	89		ug/L		69	-0.000
	Mo	98	**0.080**	ug/L	5.323	449	0.001
	Ag	107	**0.005**	ug/L	31.906	71	0.000
	Cd	111	**0.007**	ug/L	93.035	26	0.000
	Cd	114		ug/L		68	0.000
>	In	115		ug/L		369257	369257.357
	Sn	120	**0.009**	ug/L	92.304	888	0.000
	Sb	121	**0.231**	ug/L	16.430	1868	0.005
	Sb	123		ug/L		1447	0.004
	Ba	135		ug/L		51	0.000
	Ba	137	**-0.001**	ug/L	156.280	61	-0.000
	Ho	165		ug/L		21	-0.000
>	Lu	175		ug/L		539429	539429.182
	Tl	205	**0.167**	ug/L	19.379	3647	0.006
	Pb	208	**0.004**	ug/L	36.566	504	0.000
	Bi	209		ug/L		757	-0.001
	Th	232	**0.045**	ug/L	13.405	2199	0.004
	U	238	**0.007**	ug/L	14.264	391	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, February 20, 2010 17:23:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 10.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**964.530**	**ug/L**	1.495	1451209	2.172
	Be	9	**974.948**	**ug/L**	2.155	358849	0.537
	B	11	**2.462**	**ug/L**	4.330	1020	0.001
	Na	23	**43333.719**	**ug/L**	5.949	130510961	195.088
	Mg	24	**44355.396**	**ug/L**	4.920	98768506	147.801
	Al	27	**43989.439**	**ug/L**	7.431	142348545	213.195
	P	31	**22767.876**	**ug/L**	3.544	4812819	7.195
	K	39	**49940.802**	**ug/L**	5.544	252267922	376.902
	Ca	43	**47197.496**	**ug/L**	2.386	582110	0.871
>	Sc	45		**ug/L**		668361	668360.564
	Ti	47	**40.012**	**ug/L**	1.778	26789	0.039
	V	51	**845.020**	**ug/L**	4.280	6666070	9.981
	Cr	52	**857.039**	**ug/L**	4.644	5263249	7.881
	Cr	53		**ug/L**		781759	1.025
	Mn	55	**933.517**	**ug/L**	1.438	9338332	13.973
	Fe	57	**48201.410**	**ug/L**	2.377	10098749	15.106
	Co	59	**827.708**	**ug/L**	4.169	6525358	9.769
	Ni	60	**829.818**	**ug/L**	1.643	1460989	2.186
	Cu	63		**ug/L**		3519134	5.267
	Cu	65	**791.000**	**ug/L**	1.491	1710264	2.559
	Zn	66	**2183.567**	**ug/L**	1.380	3307146	6.343
	Zn	67		**ug/L**		538964	1.011
	Zn	68		**ug/L**		1548516	2.966
>	Ge	74		**ug/L**		521099	521098.715
	As	75	**818.797**	**ug/L**	1.457	1315949	2.526
	Se	77		**ug/L**		63161	0.108
	Se	82	**466.499**	**ug/L**	2.831	76819	0.147
	Kr	83		**ug/L**		276	0.000
	Sr	88	**956.175**	**ug/L**	0.852	17140715	50.106
	Y	89		**ug/L**		616	0.002
	Mo	98	**924.088**	**ug/L**	0.667	4271767	12.487
	Ag	107	**214.151**	**ug/L**	1.241	1637984	4.788
	Cd	111	**832.251**	**ug/L**	1.436	1660512	4.854
	Cd	114		**ug/L**		4149547	12.130
>	In	115		**ug/L**		342100	342100.156
	Sn	120	**876.996**	**ug/L**	1.110	6932537	20.262
	Sb	121	**225.037**	**ug/L**	1.071	1537069	4.493
	Sb	123		**ug/L**		1226199	3.584
	Ba	135		**ug/L**		1718204	3.300
	Ba	137	**837.564**	**ug/L**	0.752	3188957	6.125
	Ho	165		**ug/L**		160	0.000
>	Lu	175		**ug/L**		520600	520599.709
	Tl	205	**455.416**	**ug/L**	0.628	8676875	16.667
	Pb	208	**4639.172**	**ug/L**	0.486	165079517	317.097
	Bi	209		**ug/L**		5474	0.008
	Th	232	**2456.883**	**ug/L**	1.253	102568692	197.028
	U	238	**5206.887**	**ug/L**	1.427	217740319	418.266

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	96.453				
	Be	9	97.495				
	B	11					
	Na	23	86.667				
	Mg	24	88.711				
	Al	27	87.979				
	P	31	91.072				
	K	39	99.882				
	Ca	43	94.395				
>	Sc	45		79.6			
	Ti	47					
	V	51	84.502				
	Cr	52	85.704				
	Cr	53					
	Mn	55	93.352				
	Fe	57	96.403				
	Co	59	82.771				
	Ni	60	82.982				
	Cu	63					
	Cu	65	79.100				
	Zn	66	87.343				
	Zn	67					
	Zn	68					
>	Ge	74		83.5			
	As	75	81.880				
	Se	77					
	Se	82	93.300				
	Kr	83					
	Sr	88	95.618				
	Y	89					
	Mo	98	92.409				
	Ag	107	85.661				
	Cd	111	83.225				
	Cd	114					
>	In	115		86.1			
	Sn	120	87.700				
	Sb	121	90.015				
	Sb	123					
	Ba	135					
	Ba	137	83.756				
	Ho	165					
>	Lu	175		97.4			
	Tl	205	91.083				
	Pb	208	92.783				
	Bi	209					
	Th	232	98.275				
	U	238	104.138				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Na	23	LRS is out of limits (+/- 10%)
QC Std 10	Mg	24	LRS is out of limits (+/- 10%)
QC Std 10	Al	27	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	V	51	LRS is out of limits (+/- 10%)
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)

QC Std 10	Ni	60LRS is out of limits (+/- 10%)
QC Std 10	Cu	65LRS is out of limits (+/- 10%)
QC Std 10	Zn	66LRS is out of limits (+/- 10%)
QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, February 20, 2010 17:30:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 11.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.906**	**ug/L**	1.110	90043	0.121
	Be	9	**53.030**	**ug/L**	2.002	21679	0.029
	B	11	**100.639**	**ug/L**	3.162	39894	0.054
	Na	23	**4391.687**	**ug/L**	0.756	14691150	19.771
	Mg	24	**4760.342**	**ug/L**	6.872	11762701	15.862
	Al	27	**4562.569**	**ug/L**	5.033	16405869	22.112
	P	31	**4687.380**	**ug/L**	1.067	1105581	1.481
	K	39	**4826.804**	**ug/L**	2.712	27594717	36.428
	Ca	43	**4819.223**	**ug/L**	2.170	66419	0.089
>	Sc	45		**ug/L**		741674	741674.026
	Ti	47	**49.109**	**ug/L**	2.564	36321	0.048
	V	51	**49.093**	**ug/L**	1.868	429129	0.580
	Cr	52	**50.445**	**ug/L**	2.070	343298	0.464
	Cr	53		**ug/L**		135762	0.038
	Mn	55	**52.609**	**ug/L**	0.972	585279	0.787
	Fe	57	**4722.084**	**ug/L**	1.616	1103831	1.480
	Co	59	**49.240**	**ug/L**	0.818	431100	0.581
	Ni	60	**50.223**	**ug/L**	2.209	98284	0.132
	Cu	63		**ug/L**		236959	0.319
	Cu	65	**50.049**	**ug/L**	2.660	120290	0.162
	Zn	66	**53.732**	**ug/L**	1.292	90770	0.156
	Zn	67		**ug/L**		26220	0.023
	Zn	68		**ug/L**		69079	0.117
>	Ge	74		**ug/L**		565608	565608.058
	As	75	**49.514**	**ug/L**	1.568	86212	0.153
	Se	77		**ug/L**		13100	0.010
	Se	82	**52.253**	**ug/L**	3.638	9336	0.017
	Kr	83		**ug/L**		186	-0.000
	Sr	88	**54.071**	**ug/L**	1.025	1044896	2.833
	Y	89		**ug/L**		120	0.000
	Mo	98	**49.410**	**ug/L**	0.641	246239	0.668
	Ag	107	**52.274**	**ug/L**	0.577	431001	1.169
	Cd	111	**51.373**	**ug/L**	0.888	110497	0.300
	Cd	114		**ug/L**		261011	0.708
>	In	115		**ug/L**		368747	368747.288
	Sn	120	**52.295**	**ug/L**	1.064	446306	1.208
	Sb	121	**52.425**	**ug/L**	1.975	386038	1.047
	Sb	123		**ug/L**		296700	0.804
	Ba	135		**ug/L**		108882	0.207
	Ba	137	**49.585**	**ug/L**	1.124	190893	0.363
	Ho	165		**ug/L**		53	0.000
>	Lu	175		**ug/L**		526274	526273.585
	Tl	205	**53.761**	**ug/L**	2.863	1035488	1.967
	Pb	208	**55.253**	**ug/L**	1.561	1987616	3.777
	Bi	209		**ug/L**		1125	0.000
	Th	232	**54.185**	**ug/L**	2.652	2286454	4.345
	U	238	**56.694**	**ug/L**	0.526	2396768	4.554

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	107.813				
	Be	9	106.060				
	B	11	100.639				
	Na	23	87.834				
	Mg	24	95.207				
	Al	27	90.348				
	P	31	93.748				
	K	39	96.536				
	Ca	43	96.384				
>	Sc	45		88.3			
	Ti	47	98.217				
	V	51	98.186				
	Cr	52	100.890				
	Cr	53					
	Mn	55	105.218				
	Fe	57	94.442				
	Co	59	98.480				
	Ni	60	100.446				
	Cu	63					
	Cu	65	100.097				
	Zn	66	107.464				
	Zn	67					
	Zn	68					
>	Ge	74		90.7			
	As	75	99.028				
	Se	77					
	Se	82	104.505				
	Kr	83					
	Sr	88	108.143				
	Y	89					
	Mo	98	98.821				
	Ag	107	104.548				
	Cd	111	102.746				
	Cd	114					
>	In	115		92.8			
	Sn	120	104.591				
	Sb	121	104.851				
	Sb	123					
	Ba	135					
	Ba	137	99.170				
	Ho	165					
>	Lu	175		98.5			
	Tl	205	107.522				
	Pb	208	110.507				
	Bi	209					
	Th	232	108.369				
	U	238	113.388				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, February 20, 2010 17:36:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 12.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.093**	**ug/L**	7.051	186	0.000
	Be	9	**0.018**	**ug/L**	110.189	25	0.000
	B	11	**3.966**	**ug/L**	17.087	1733	0.002
	Na	23	**-0.386**	**ug/L**	167.768	26024	-0.002
	Mg	24	**0.544**	**ug/L**	173.205	1334	0.002
	Al	27	**0.632**	**ug/L**	71.528	4334	0.003
	P	31	**-5.085**	**ug/L**	48.355	5765	-0.002
	K	39	**0.706**	**ug/L**	817.719	583704	0.005
	Ca	43	**-6.152**	**ug/L**	37.934	413	-0.000
>	Sc	45		**ug/L**		746945	746945.286
	Ti	47	**-0.291**	**ug/L**	16.504	522	-0.000
	V	51	**0.518**	**ug/L**	112.457	3548	0.006
	Cr	52	**0.042**	**ug/L**	96.460	-402	0.000
	Cr	53		**ug/L**		122855	0.019
	Mn	55	**0.012**	**ug/L**	30.131	1446	0.000
	Fe	57	**1.361**	**ug/L**	61.062	6668	0.000
	Co	59	**0.014**	**ug/L**	10.513	229	0.000
	Ni	60	**0.017**	**ug/L**	53.887	206	0.000
	Cu	63		**ug/L**		400	0.000
	Cu	65	**0.034**	**ug/L**	20.840	269	0.000
	Zn	66	**-0.058**	**ug/L**	56.236	2439	-0.000
	Zn	67		**ug/L**		15037	0.003
	Zn	68		**ug/L**		3125	0.000
>	Ge	74		**ug/L**		575829	575828.640
	As	75	**-0.028**	**ug/L**	520.187	-227	-0.000
	Se	77		**ug/L**		8598	0.002
	Se	82	**0.138**	**ug/L**	91.990	22	0.000
	Kr	83		**ug/L**		183	-0.000
	Sr	88	**0.005**	**ug/L**	6.531	245	0.000
	Y	89		**ug/L**		77	-0.000
	Mo	98	**0.120**	**ug/L**	10.656	651	0.002
	Ag	107	**0.005**	**ug/L**	22.549	74	0.000
	Cd	111	**0.006**	**ug/L**	93.920	24	0.000
	Cd	114		**ug/L**		66	0.000
>	In	115		**ug/L**		369771	369770.533
	Sn	120	**0.101**	**ug/L**	10.087	1676	0.002
	Sb	121	**0.783**	**ug/L**	13.242	5947	0.016
	Sb	123		**ug/L**		4619	0.012
	Ba	135		**ug/L**		61	0.000
	Ba	137	**0.001**	**ug/L**	162.875	70	0.000
	Ho	165		**ug/L**		28	-0.000
>	Lu	175		**ug/L**		528533	528532.662
	Tl	205	**0.279**	**ug/L**	13.166	5744	0.010
	Pb	208	**0.014**	**ug/L**	11.216	856	0.001
	Bi	209		**ug/L**		704	-0.001
	Th	232	**0.111**	**ug/L**	12.337	4939	0.009
	U	238	**0.041**	**ug/L**	10.249	1844	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		88.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 20, 2010 18:19:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 6.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.493**	**ug/L**	4.013	92543	0.118
	Be	9	**51.586**	**ug/L**	6.542	22245	0.028
	B	11	**101.904**	**ug/L**	5.117	42623	0.054
	Na	23	**4893.504**	**ug/L**	9.712	17245610	22.031
	Mg	24	**4959.243**	**ug/L**	2.701	12958594	16.525
	Al	27	**4614.803**	**ug/L**	0.770	17527662	22.366
	P	31	**4806.542**	**ug/L**	2.497	1196868	1.519
	K	39	**5039.639**	**ug/L**	5.954	30391479	38.034
	Ca	43	**4879.835**	**ug/L**	1.351	71029	0.090
>	Sc	45		**ug/L**		783620	783619.885
	Ti	47	**49.030**	**ug/L**	4.635	38267	0.048
	V	51	**47.321**	**ug/L**	2.626	436705	0.559
	Cr	52	**49.127**	**ug/L**	2.870	352998	0.452
	Cr	53		**ug/L**		161336	0.061
	Mn	55	**52.006**	**ug/L**	4.449	610566	0.778
	Fe	57	**4577.297**	**ug/L**	3.452	1129666	1.434
	Co	59	**47.632**	**ug/L**	4.570	440230	0.562
	Ni	60	**48.080**	**ug/L**	3.653	99334	0.127
	Cu	63		**ug/L**		242971	0.310
	Cu	65	**48.073**	**ug/L**	5.440	121897	0.156
	Zn	66	**53.350**	**ug/L**	1.733	92233	0.155
	Zn	67		**ug/L**		27353	0.024
	Zn	68		**ug/L**		69608	0.115
>	Ge	74		**ug/L**		578833	578832.598
	As	75	**48.091**	**ug/L**	3.435	85660	0.148
	Se	77		**ug/L**		16763	0.016
	Se	82	**51.052**	**ug/L**	2.873	9335	0.016
	Kr	83		**ug/L**		175	-0.000
	Sr	88	**53.718**	**ug/L**	0.896	1025329	2.815
	Y	89		**ug/L**		140	0.000
	Mo	98	**48.970**	**ug/L**	1.806	241002	0.662
	Ag	107	**51.426**	**ug/L**	2.022	418704	1.150
	Cd	111	**50.624**	**ug/L**	1.954	107532	0.295
	Cd	114		**ug/L**		255111	0.701
>	In	115		**ug/L**		364195	364195.204
	Sn	120	**51.519**	**ug/L**	2.586	434277	1.190
	Sb	121	**50.715**	**ug/L**	2.292	368807	1.012
	Sb	123		**ug/L**		283860	0.779
	Ba	135		**ug/L**		106774	0.200
	Ba	137	**48.126**	**ug/L**	2.377	187991	0.352
	Ho	165		**ug/L**		60	0.000
>	Lu	175		**ug/L**		533993	533992.714
	Tl	205	**53.352**	**ug/L**	1.255	1042891	1.952
	Pb	208	**53.775**	**ug/L**	1.272	1963003	3.676
	Bi	209		**ug/L**		946	-0.000
	Th	232	**52.618**	**ug/L**	0.252	2253509	4.220
	U	238	**54.593**	**ug/L**	1.185	2341906	4.385

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.985				
	Be	9	103.172				
	B	11	101.904				
	Na	23	97.870				
	Mg	24	99.185				
	Al	27	91.382				
	P	31	96.131				
	K	39	100.793				
	Ca	43	97.597				
>	Sc	45		93.3			
	Ti	47	98.060				
	V	51	94.642				
	Cr	52	98.255				
	Cr	53					
	Mn	55	104.011				
	Fe	57	91.546				
	Co	59	95.264				
	Ni	60	96.161				
	Cu	63					
	Cu	65	96.145				
	Zn	66	106.700				
	Zn	67					
	Zn	68					
>	Ge	74		92.8			
	As	75	96.182				
	Se	77					
	Se	82	102.105				
	Kr	83					
	Sr	88	107.437				
	Y	89					
	Mo	98	97.941				
	Ag	107	102.852				
	Cd	111	101.248				
	Cd	114					
>	In	115		91.7			
	Sn	120	103.037				
	Sb	121	101.429				
	Sb	123					
	Ba	135					
	Ba	137	96.252				
	Ho	165					
>	Lu	175		99.9			
	Tl	205	106.704				
	Pb	208	107.550				
	Bi	209					
	Th	232	105.236				
	U	238	109.186				

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 20, 2010 18:26:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 7.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.041	ug/L	5.584	107	0.000
	Be	9	0.011	ug/L	64.200	23	0.000
	B	11	4.558	ug/L	13.595	2115	0.002
	Na	23	-2.101	ug/L	65.607	21684	-0.009
	Mg	24	0.256	ug/L	173.205	667	0.001
	Al	27	0.118	ug/L	342.189	2667	0.001
	P	31	-3.252	ug/L	3.103	6654	-0.001
	K	39	-5.234	ug/L	37.420	589937	-0.040
	Ca	43	-8.702	ug/L	11.165	406	-0.000
>	Sc	45		ug/L		800532	800531.611
	Ti	47	-0.340	ug/L	12.557	521	-0.000
	V	51	0.261	ug/L	257.712	1400	0.003
	Cr	52	0.394	ug/L	16.496	2166	0.004
	Cr	53		ug/L		146483	0.038
	Mn	55	0.029	ug/L	5.759	1752	0.000
	Fe	57	1.018	ug/L	37.497	7063	0.000
	Co	59	0.004	ug/L	39.333	147	0.000
	Ni	60	0.002	ug/L	465.533	188	0.000
	Cu	63		ug/L		338	0.000
	Cu	65	-0.003	ug/L	106.060	193	-0.000
	Zn	66	-0.032	ug/L	113.844	2444	-0.000
	Zn	67		ug/L		15546	0.004
	Zn	68		ug/L		3246	0.000
>	Ge	74		ug/L		566992	566992.374
	As	75	-0.104	ug/L	144.559	-355	-0.000
	Se	77		ug/L		12467	0.009
	Se	82	-0.087	ug/L	162.499	-19	-0.000
	Kr	83		ug/L		217	0.000
	Sr	88	0.003	ug/L	67.406	204	0.000
	Y	89		ug/L		67	-0.000
	Mo	98	0.049	ug/L	8.232	286	0.001
	Ag	107	0.004	ug/L	18.007	61	0.000
	Cd	111	0.011	ug/L	64.229	32	0.000
	Cd	114		ug/L		63	0.000
>	In	115		ug/L		356092	356092.477
	Sn	120	0.018	ug/L	24.956	931	0.000
	Sb	121	0.260	ug/L	15.826	2005	0.005
	Sb	123		ug/L		1479	0.004
	Ba	135		ug/L		38	-0.000
	Ba	137	0.000	ug/L	889.374	66	0.000
	Ho	165		ug/L		18	-0.000
>	Lu	175		ug/L		519576	519575.835
	Tl	205	0.332	ug/L	13.141	6645	0.012
	Pb	208	0.003	ug/L	72.248	470	0.000
	Bi	209		ug/L		624	-0.001
	Th	232	0.048	ug/L	16.887	2210	0.004
	U	238	0.008	ug/L	24.071	425	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, February 20, 2010 18:44:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 8.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.279**	**ug/L**	3.631	94736	0.124
	Be	9	**53.776**	**ug/L**	3.621	22558	0.030
	B	11	**106.717**	**ug/L**	5.293	43372	0.057
	Na	23	**4492.198**	**ug/L**	6.391	15406206	20.224
	Mg	24	**4941.247**	**ug/L**	7.365	12513117	16.465
	Al	27	**4817.108**	**ug/L**	7.458	17801878	23.346
	P	31	**4980.419**	**ug/L**	3.826	1204716	1.574
	K	39	**4941.053**	**ug/L**	8.501	28926092	37.290
	Ca	43	**5183.699**	**ug/L**	5.995	73203	0.096
>	Sc	45		**ug/L**		761728	761727.912
	Ti	47	**51.077**	**ug/L**	4.361	38728	0.050
	V	51	**51.335**	**ug/L**	3.216	460482	0.606
	Cr	52	**52.527**	**ug/L**	2.870	366881	0.483
	Cr	53		**ug/L**		172979	0.082
	Mn	55	**53.985**	**ug/L**	3.370	616352	0.808
	Fe	57	**4867.635**	**ug/L**	3.043	1167384	1.525
	Co	59	**50.239**	**ug/L**	2.452	451413	0.593
	Ni	60	**50.964**	**ug/L**	4.536	102311	0.134
	Cu	63		**ug/L**		247359	0.325
	Cu	65	**50.324**	**ug/L**	3.699	124084	0.163
	Zn	66	**54.949**	**ug/L**	0.719	94987	0.160
	Zn	67		**ug/L**		28866	0.026
	Zn	68		**ug/L**		71921	0.119
>	Ge	74		**ug/L**		579137	579137.224
	As	75	**48.537**	**ug/L**	1.063	86538	0.150
	Se	77		**ug/L**		18300	0.019
	Se	82	**51.801**	**ug/L**	3.315	9477	0.016
	Kr	83		**ug/L**		186	-0.000
	Sr	88	**56.413**	**ug/L**	1.557	1051558	2.956
	Y	89		**ug/L**		138	0.000
	Mo	98	**51.117**	**ug/L**	1.693	245712	0.691
	Ag	107	**54.251**	**ug/L**	0.694	431507	1.213
	Cd	111	**52.934**	**ug/L**	1.992	109812	0.309
	Cd	114		**ug/L**		260910	0.734
>	In	115		**ug/L**		355752	355752.259
	Sn	120	**53.658**	**ug/L**	2.896	441611	1.240
	Sb	121	**52.902**	**ug/L**	2.917	375699	1.056
	Sb	123		**ug/L**		289383	0.814
	Ba	135		**ug/L**		110300	0.209
	Ba	137	**49.255**	**ug/L**	0.921	189963	0.360
	Ho	165		**ug/L**		65	0.000
>	Lu	175		**ug/L**		527198	527197.534
	Tl	205	**54.166**	**ug/L**	1.534	1045312	1.982
	Pb	208	**55.398**	**ug/L**	1.535	1996342	3.787
	Bi	209		**ug/L**		872	-0.000
	Th	232	**53.552**	**ug/L**	0.321	2264255	4.295
	U	238	**56.444**	**ug/L**	2.032	2390074	4.534

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	110.559				
	Be	9	107.552				
	B	11	106.717				
	Na	23	89.844				
	Mg	24	98.825				
	Al	27	95.388				
	P	31	99.608				
	K	39	98.821				
	Ca	43	103.674				
>	Sc	45		90.7			
	Ti	47	102.154				
	V	51	102.670				
	Cr	52	105.054				
	Cr	53					
	Mn	55	107.970				
	Fe	57	97.353				
	Co	59	100.478				
	Ni	60	101.929				
	Cu	63					
	Cu	65	100.647				
	Zn	66	109.898				
	Zn	67					
	Zn	68					
>	Ge	74		92.8			
	As	75	97.075				
	Se	77					
	Se	82	103.601				
	Kr	83					
	Sr	88	112.827				
	Y	89					
	Mo	98	102.234				
	Ag	107	108.501				
	Cd	111	105.868				
	Cd	114					
>	In	115		89.5			
	Sn	120	107.315				
	Sb	121	105.804				
	Sb	123					
	Ba	135					
	Ba	137	98.510				
	Ho	165					
>	Lu	175		98.6			
	Tl	205	108.332				
	Pb	208	110.795				
	Bi	209					
	Th	232	107.104				
	U	238	112.888				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Sr	88	CCV is out of limits (+/- 10%)
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, February 20, 2010 18:50:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 9.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.041**	**ug/L**	17.546	103	0.000
	Be	9	**-0.003**	**ug/L**	148.672	17	-0.000
	B	11	**4.652**	**ug/L**	17.729	2104	0.002
	Na	23	**-1.391**	**ug/L**	150.263	23688	-0.006
	Mg	24	**0.387**	**ug/L**	99.267	1000	0.001
	Al	27	**0.214**	**ug/L**	321.867	3000	0.001
	P	31	**-2.240**	**ug/L**	58.293	6764	-0.001
	K	39	**1.952**	**ug/L**	184.051	619486	0.015
	Ca	43	**-8.544**	**ug/L**	32.733	399	-0.000
>	Sc	45		**ug/L**		783209	783208.627
	Ti	47	**-0.282**	**ug/L**	15.313	553	-0.000
	V	51	**-0.012**	**ug/L**	3374.775	-1007	-0.000
	Cr	52	**0.406**	**ug/L**	10.383	2209	0.004
	Cr	53		**ug/L**		151948	0.049
	Mn	55	**0.033**	**ug/L**	18.183	1755	0.000
	Fe	57	**1.880**	**ug/L**	29.225	7120	0.001
	Co	59	**0.002**	**ug/L**	72.901	126	0.000
	Ni	60	**0.001**	**ug/L**	1062.533	183	0.000
	Cu	63		**ug/L**		313	0.000
	Cu	65	**-0.010**	**ug/L**	63.017	173	-0.000
	Zn	66	**-0.017**	**ug/L**	405.042	2473	-0.000
	Zn	67		**ug/L**		16145	0.005
	Zn	68		**ug/L**		3211	0.000
>	Ge	74		**ug/L**		568211	568210.955
	As	75	**0.149**	**ug/L**	194.407	86	0.000
	Se	77		**ug/L**		13466	0.011
	Se	82	**0.022**	**ug/L**	369.110	1	0.000
	Kr	83		**ug/L**		192	-0.000
	Sr	88	**0.004**	**ug/L**	37.296	222	0.000
	Y	89		**ug/L**		72	-0.000
	Mo	98	**0.038**	**ug/L**	16.299	231	0.001
	Ag	107	**0.004**	**ug/L**	40.721	65	0.000
	Cd	111	**0.009**	**ug/L**	49.404	28	0.000
	Cd	114		**ug/L**		65	0.000
>	In	115		**ug/L**		351028	351028.451
	Sn	120	**0.010**	**ug/L**	70.211	853	0.000
	Sb	121	**0.236**	**ug/L**	19.234	1815	0.005
	Sb	123		**ug/L**		1419	0.004
	Ba	135		**ug/L**		46	-0.000
	Ba	137	**-0.000**	**ug/L**	848.129	63	-0.000
	Ho	165		**ug/L**		31	0.000
>	Lu	175		**ug/L**		518661	518660.701
	Tl	205	**0.228**	**ug/L**	16.044	4661	0.008
	Pb	208	**0.003**	**ug/L**	29.379	464	0.000
	Bi	209		**ug/L**		607	-0.001
	Th	232	**0.043**	**ug/L**	14.057	2029	0.003
	U	238	**0.007**	**ug/L**	11.280	386	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, February 20, 2010 19:21:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 8.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.891**	ug/L	3.081	97416	0.110
	Be	9	**47.520**	ug/L	4.144	23169	0.026
	B	11	**97.780**	ug/L	5.033	46230	0.052
	Na	23	**5328.270**	ug/L	3.121	21263887	23.988
	Mg	24	**4799.783**	ug/L	5.778	14157137	15.994
	Al	27	**5225.126**	ug/L	8.076	22477398	25.324
	P	31	**4975.117**	ug/L	6.337	1397815	1.572
	K	39	**4618.239**	ug/L	8.383	31510184	34.854
	Ca	43	**4923.122**	ug/L	4.016	80910	0.091
>	Sc	45		ug/L		885541	885541.120
	Ti	47	**47.207**	ug/L	5.014	41656	0.046
	V	51	**47.309**	ug/L	6.493	492699	0.559
	Cr	52	**48.068**	ug/L	4.185	390060	0.442
	Cr	53		ug/L		177406	0.055
	Mn	55	**49.960**	ug/L	6.253	662417	0.748
	Fe	57	**4371.200**	ug/L	3.735	1219214	1.370
	Co	59	**44.670**	ug/L	4.447	466312	0.527
	Ni	60	**44.758**	ug/L	5.410	104436	0.118
	Cu	63		ug/L		253192	0.286
	Cu	65	**44.989**	ug/L	5.583	128886	0.146
	Zn	66	**51.734**	ug/L	0.811	96859	0.150
	Zn	67		ug/L		30238	0.025
	Zn	68		ug/L		75553	0.115
>	Ge	74		ug/L		626177	626176.728
	As	75	**47.165**	ug/L	1.180	90917	0.146
	Se	77		ug/L		16976	0.014
	Se	82	**50.137**	ug/L	1.148	9921	0.016
	Kr	83		ug/L		191	-0.000
	Sr	88	**54.156**	ug/L	1.485	1097772	2.838
	Y	89		ug/L		143	0.000
	Mo	98	**48.690**	ug/L	1.653	254524	0.658
	Ag	107	**50.623**	ug/L	1.780	437827	1.132
	Cd	111	**49.606**	ug/L	1.503	111924	0.289
	Cd	114		ug/L		265452	0.686
>	In	115		ug/L		386793	386793.285
	Sn	120	**51.071**	ug/L	0.682	457230	1.180
	Sb	121	**50.423**	ug/L	1.561	389506	1.007
	Sb	123		ug/L		300948	0.778
	Ba	135		ug/L		112798	0.208
	Ba	137	**50.040**	ug/L	1.218	198245	0.366
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		541586	541586.379
	Tl	205	**51.745**	ug/L	1.238	1025833	1.894
	Pb	208	**52.681**	ug/L	0.794	1950381	3.601
	Bi	209		ug/L		865	-0.001
	Th	232	**50.534**	ug/L	1.935	2194605	4.053
	U	238	**52.563**	ug/L	1.847	2286413	4.222

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	97.782				
	Be	9	95.040				
	B	11	97.780				
	Na	23	106.565				
	Mg	24	95.996				
	Al	27	103.468				
	P	31	99.502				
	K	39	92.365				
	Ca	43	98.462				
>	Sc	45		105.4			
	Ti	47	94.413				
	V	51	94.618				
	Cr	52	96.135				
	Cr	53					
	Mn	55	99.920				
	Fe	57	87.424				
	Co	59	89.341				
	Ni	60	89.517				
	Cu	63					
	Cu	65	89.979				
	Zn	66	103.469				
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
	As	75	94.331				
	Se	77					
	Se	82	100.275				
	Kr	83					
	Sr	88	108.312				
	Y	89					
	Mo	98	97.380				
	Ag	107	101.246				
	Cd	111	99.212				
	Cd	114					
>	In	115		97.3			
	Sn	120	102.142				
	Sb	121	100.846				
	Sb	123					
	Ba	135					
	Ba	137	100.081				
	Ho	165					
>	Lu	175		101.3			
	Tl	205	103.491				
	Pb	208	105.362				
	Bi	209					
	Th	232	101.069				
	U	238	105.125				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Co	59	CCV is out of limits (+/- 10%)
QC Std 8	Ni	60	CCV is out of limits (+/- 10%)
QC Std 8	Cu	65	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, February 20, 2010 19:27:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 9.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.039**	**ug/L**	1.912	111	0.000
	Be	9	**-0.010**	**ug/L**	26.066	15	-0.000
	B	11	**3.963**	**ug/L**	10.906	2009	0.002
	Na	23	**0.225**	**ug/L**	1532.931	32374	0.001
	Mg	24	**0.350**	**ug/L**	101.207	1000	0.001
	Al	27	**0.303**	**ug/L**	182.410	3667	0.001
	P	31	**-3.293**	**ug/L**	21.832	7171	-0.001
	K	39	**-0.073**	**ug/L**	1410.995	670722	-0.001
	Ca	43	**-8.283**	**ug/L**	30.116	445	-0.000
>	Sc	45		**ug/L**		864329	864329.071
	Ti	47	**-0.265**	**ug/L**	12.422	626	-0.000
	V	51	**0.317**	**ug/L**	137.281	2172	0.004
	Cr	52	**0.330**	**ug/L**	2.577	1831	0.003
	Cr	53		**ug/L**		157777	0.037
	Mn	55	**0.025**	**ug/L**	12.605	1845	0.000
	Fe	57	**-0.566**	**ug/L**	77.734	7198	-0.000
	Co	59	**0.001**	**ug/L**	54.267	127	0.000
	Ni	60	**-0.008**	**ug/L**	13.926	182	-0.000
	Cu	63		**ug/L**		376	0.000
	Cu	65	**-0.009**	**ug/L**	37.813	192	-0.000
	Zn	66	**-0.097**	**ug/L**	50.356	2433	-0.000
	Zn	67		**ug/L**		16769	0.005
	Zn	68		**ug/L**		3285	0.000
>	Ge	74		**ug/L**		590252	590252.213
	As	75	**0.372**	**ug/L**	51.295	495	0.001
	Se	77		**ug/L**		12328	0.008
	Se	82	**0.025**	**ug/L**	330.523	2	0.000
	Kr	83		**ug/L**		194	-0.000
	Sr	88	**0.005**	**ug/L**	12.554	236	0.000
	Y	89		**ug/L**		91	-0.000
	Mo	98	**0.040**	**ug/L**	11.791	246	0.001
	Ag	107	**0.004**	**ug/L**	28.298	67	0.000
	Cd	111	**0.010**	**ug/L**	60.738	31	0.000
	Cd	114		**ug/L**		45	-0.000
>	In	115		**ug/L**		358182	358182.019
	Sn	120	**0.016**	**ug/L**	41.268	925	0.000
	Sb	121	**0.246**	**ug/L**	18.304	1919	0.005
	Sb	123		**ug/L**		1490	0.004
	Ba	135		**ug/L**		46	0.000
	Ba	137	**0.000**	**ug/L**	423.517	64	0.000
	Ho	165		**ug/L**		34	0.000
>	Lu	175		**ug/L**		506097	506097.030
	Tl	205	**0.215**	**ug/L**	21.574	4307	0.008
	Pb	208	**0.004**	**ug/L**	22.393	481	0.000
	Bi	209		**ug/L**		588	-0.001
	Th	232	**0.045**	**ug/L**	21.626	2052	0.004
	U	238	**0.007**	**ug/L**	3.280	368	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, February 20, 2010 20:04:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 8.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.513**	**ug/L**	4.040	91239	0.111
	Be	9	**47.456**	**ug/L**	1.200	21419	0.026
	B	11	**102.440**	**ug/L**	2.809	44809	0.055
	Na	23	**5551.617**	**ug/L**	5.161	20512717	24.993
	Mg	24	**5444.525**	**ug/L**	2.829	14846565	18.142
	Al	27	**5122.594**	**ug/L**	9.487	20319679	24.827
	P	31	**5368.442**	**ug/L**	3.886	1395733	1.697
	K	39	**4690.749**	**ug/L**	10.359	29645676	35.401
	Ca	43	**5066.349**	**ug/L**	3.715	77019	0.093
>	Sc	45		**ug/L**		818781	818781.298
	Ti	47	**48.015**	**ug/L**	2.409	39206	0.047
	V	51	**48.803**	**ug/L**	1.501	470830	0.576
	Cr	52	**48.987**	**ug/L**	3.191	367854	0.450
	Cr	53		**ug/L**		175392	0.069
	Mn	55	**50.702**	**ug/L**	2.375	622520	0.759
	Fe	57	**4487.561**	**ug/L**	0.784	1158431	1.406
	Co	59	**45.403**	**ug/L**	2.494	438660	0.536
	Ni	60	**44.956**	**ug/L**	2.449	97116	0.118
	Cu	63		**ug/L**		233936	0.286
	Cu	65	**44.292**	**ug/L**	2.225	117488	0.143
	Zn	66	**50.522**	**ug/L**	3.455	89678	0.147
	Zn	67		**ug/L**		28840	0.025
	Zn	68		**ug/L**		70365	0.113
>	Ge	74		**ug/L**		593333	593333.349
	As	75	**47.635**	**ug/L**	1.619	87009	0.147
	Se	77		**ug/L**		15773	0.014
	Se	82	**49.069**	**ug/L**	1.577	9200	0.016
	Kr	83		**ug/L**		199	-0.000
	Sr	88	**54.899**	**ug/L**	0.555	1044383	2.877
	Y	89		**ug/L**		148	0.000
	Mo	98	**49.620**	**ug/L**	1.661	243411	0.671
	Ag	107	**50.287**	**ug/L**	0.703	408149	1.124
	Cd	111	**49.421**	**ug/L**	1.968	104631	0.288
	Cd	114		**ug/L**		250019	0.689
>	In	115		**ug/L**		362989	362989.240
	Sn	120	**52.256**	**ug/L**	0.899	439035	1.207
	Sb	121	**51.043**	**ug/L**	0.864	370036	1.019
	Sb	123		**ug/L**		286486	0.789
	Ba	135		**ug/L**		109176	0.217
	Ba	137	**51.557**	**ug/L**	1.547	189544	0.377
	Ho	165		**ug/L**		54	0.000
>	Lu	175		**ug/L**		502590	502590.023
	Tl	205	**52.530**	**ug/L**	1.677	966385	1.922
	Pb	208	**53.148**	**ug/L**	1.844	1825901	3.633
	Bi	209		**ug/L**		796	-0.001
	Th	232	**50.205**	**ug/L**	1.188	2023552	4.026
	U	238	**51.480**	**ug/L**	0.620	2078397	4.135

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	99.027				
	Be	9	94.913				
	B	11	102.440				
	Na	23	111.032				
	Mg	24	108.891				
	Al	27	101.437				
	P	31	107.369				
	K	39	93.815				
	Ca	43	101.327				
>	Sc	45		97.5			
	Ti	47	96.030				
	V	51	97.606				
	Cr	52	97.975				
	Cr	53					
	Mn	55	101.404				
	Fe	57	89.751				
	Co	59	90.806				
	Ni	60	89.912				
	Cu	63					
	Cu	65	88.583				
	Zn	66	101.043				
	Zn	67					
	Zn	68					
>	Ge	74		95.1			
	As	75	95.271				
	Se	77					
	Se	82	98.138				
	Kr	83					
	Sr	88	109.798				
	Y	89					
	Mo	98	99.240				
	Ag	107	100.574				
	Cd	111	98.842				
	Cd	114					
>	In	115		91.3			
	Sn	120	104.513				
	Sb	121	102.086				
	Sb	123					
	Ba	135					
	Ba	137	103.113				
	Ho	165					
>	Lu	175		94.0			
	Tl	205	105.059				
	Pb	208	106.295				
	Bi	209					
	Th	232	100.410				
	U	238	102.960				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Ni	60	CCV is out of limits (+/- 10%)
QC Std 8	Cu	65	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, February 20, 2010 20:10:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 9.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.036**	ug/L	8.735	99	0.000
	Be	9	**0.002**	ug/L	768.349	20	0.000
	B	11	**3.932**	ug/L	17.059	1874	0.002
	Na	23	**0.228**	ug/L	1092.153	30702	0.001
	Mg	24	**0.243**	ug/L	173.205	667	0.001
	Al	27	**0.437**	ug/L	53.614	4001	0.002
	P	31	**-1.513**	ug/L	21.642	7215	-0.000
	K	39	**2.966**	ug/L	237.297	650165	0.022
	Ca	43	**-5.645**	ug/L	43.265	458	-0.000
>	Sc	45		ug/L		814292	814291.715
	Ti	47	**-0.241**	ug/L	24.354	608	-0.000
	V	51	**0.202**	ug/L	273.427	926	0.002
	Cr	52	**0.098**	ug/L	45.852	-17	0.001
	Cr	53		ug/L		152217	0.042
	Mn	55	**0.023**	ug/L	24.454	1706	0.000
	Fe	57	**-1.087**	ug/L	65.370	6646	-0.000
	Co	59	**0.001**	ug/L	79.958	124	0.000
	Ni	60	**-0.006**	ug/L	18.112	176	-0.000
	Cu	63		ug/L		343	0.000
	Cu	65	**-0.011**	ug/L	55.396	176	-0.000
	Zn	66	**-0.137**	ug/L	23.856	2269	-0.000
	Zn	67		ug/L		16424	0.006
	Zn	68		ug/L		3169	0.000
>	Ge	74		ug/L		566693	566693.488
	As	75	**0.653**	ug/L	34.253	965	0.002
	Se	77		ug/L		10790	0.006
	Se	82	**0.003**	ug/L	5918.427	-2	0.000
	Kr	83		ug/L		234	0.000
	Sr	88	**0.004**	ug/L	19.885	219	0.000
	Y	89		ug/L		84	-0.000
	Mo	98	**0.034**	ug/L	29.593	207	0.000
	Ag	107	**0.002**	ug/L	50.313	47	0.000
	Cd	111	**0.011**	ug/L	81.803	32	0.000
	Cd	114		ug/L		46	-0.000
>	In	115		ug/L		347556	347556.215
	Sn	120	**0.010**	ug/L	68.791	847	0.000
	Sb	121	**0.242**	ug/L	22.016	1837	0.005
	Sb	123		ug/L		1426	0.004
	Ba	135		ug/L		45	0.000
	Ba	137	**-0.000**	ug/L	926.286	58	-0.000
	Ho	165		ug/L		26	-0.000
>	Lu	175		ug/L		475890	475889.695
	Tl	205	**0.182**	ug/L	24.764	3460	0.007
	Pb	208	**0.004**	ug/L	13.162	449	0.000
	Bi	209		ug/L		590	-0.001
	Th	232	**0.039**	ug/L	18.930	1681	0.003
	U	238	**0.006**	ug/L	17.613	308	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	0.9999
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031027
Sample Date/Time: Saturday, February 20, 2010 20:16:40
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\1202031027.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.034**	ug/L	14.028	109	0.000
	Be	9	**0.000**	ug/L	3279.705	21	0.000
	B	11	**1.955**	ug/L	14.543	1157	0.001
	Na	23	**-0.561**	ug/L	94.928	31368	-0.003
	Mg	24	**3.044**	ug/L	31.591	9337	0.010
	Al	27	**4.937**	ug/L	17.850	24688	0.024
	P	31	**-0.043**	ug/L	2304.609	8595	-0.000
	K	39	**12.871**	ug/L	39.817	805072	0.097
	Ca	43	**21.992**	ug/L	13.094	989	0.000
>	Sc	45		ug/L		922063	922062.537
	Ti	47	**0.115**	ug/L	15.607	1010	0.000
	V	51	**-3.839**	ug/L	36.093	-42870	-0.045
	Cr	52	**0.742**	ug/L	17.142	5437	0.007
	Cr	53		ug/L		465984	0.360
	Mn	55	**0.278**	ug/L	4.159	5453	0.004
	Fe	57	**10.469**	ug/L	8.409	10863	0.003
	Co	59	**0.001**	ug/L	275.442	137	0.000
	Ni	60	**0.087**	ug/L	6.900	423	0.000
	Cu	63		ug/L		573	0.000
	Cu	65	**0.023**	ug/L	37.484	302	0.000
	Zn	66	**0.047**	ug/L	150.265	2594	0.000
	Zn	67		ug/L		79526	0.116
	Zn	68		ug/L		6631	0.006
>	Ge	74		ug/L		571710	571710.182
	As	75	**0.815**	ug/L	159.898	1270	0.003
	Se	77		ug/L		34879	0.048
	Se	82	**0.141**	ug/L	71.310	22	0.000
	Kr	83		ug/L		178	-0.000
	Sr	88	**0.105**	ug/L	0.357	1970	0.005
	Y	89		ug/L		107	0.000
	Mo	98	**0.036**	ug/L	7.024	211	0.000
	Ag	107	**0.004**	ug/L	4.693	60	0.000
	Cd	111	**0.010**	ug/L	82.205	30	0.000
	Cd	114		ug/L		39	-0.000
>	In	115		ug/L		334457	334457.312
	Sn	120	**0.022**	ug/L	23.724	911	0.001
	Sb	121	**0.124**	ug/L	23.890	976	0.002
	Sb	123		ug/L		740	0.002
	Ba	135		ug/L		92	0.000
	Ba	137	**0.027**	ug/L	14.220	150	0.000
	Ho	165		ug/L		33	0.000
>	Lu	175		ug/L		463760	463760.009
	Tl	205	**0.071**	ug/L	3.927	1502	0.003
	Pb	208	**0.013**	ug/L	3.073	718	0.001
	Bi	209		ug/L		391	-0.001
	Th	232	**0.025**	ug/L	18.129	1125	0.002
	U	238	**0.001**	ug/L	17.659	122	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		84.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031028
Sample Date/Time: Saturday, February 20, 2010 20:22:48
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\1202031028.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.395**	ug/L	4.013	101055	0.113
	Be	9	**50.439**	ug/L	4.686	24755	0.028
	B	11	**120.055**	ug/L	3.914	57139	0.064
	Na	23	**2607.899**	ug/L	6.221	10485080	11.741
	Mg	24	**2656.236**	ug/L	11.785	7872737	8.851
	Al	27	**2651.733**	ug/L	4.872	11453363	12.852
	P	31	**2614.169**	ug/L	4.299	743780	0.826
	K	39	**2294.612**	ug/L	7.669	16093034	17.317
	Ca	43	**2357.146**	ug/L	7.520	39263	0.043
>	Sc	45		ug/L		891456	891456.401
	Ti	47	**49.860**	ug/L	4.115	44258	0.049
	V	51	**43.843**	ug/L	6.993	459539	0.518
	Cr	52	**52.311**	ug/L	4.281	427423	0.481
	Cr	53		ug/L		511632	0.429
	Mn	55	**53.869**	ug/L	4.911	719281	0.806
	Fe	57	**2003.212**	ug/L	5.204	566322	0.628
	Co	59	**46.866**	ug/L	4.514	492571	0.553
	Ni	60	**46.244**	ug/L	4.946	108636	0.122
	Cu	63		ug/L		263400	0.296
	Cu	65	**46.191**	ug/L	3.767	133288	0.149
	Zn	66	**52.060**	ug/L	0.936	91878	0.151
	Zn	67		ug/L		95843	0.139
	Zn	68		ug/L		74945	0.122
>	Ge	74		ug/L		590361	590361.280
	As	75	**50.708**	ug/L	1.992	92176	0.156
	Se	77		ug/L		41069	0.057
	Se	82	**50.054**	ug/L	2.738	9338	0.016
	Kr	83		ug/L		235	0.000
	Sr	88	**61.301**	ug/L	0.615	1096200	3.212
	Y	89		ug/L		180	0.000
	Mo	98	**55.204**	ug/L	1.564	254558	0.746
	Ag	107	**56.577**	ug/L	1.126	431658	1.265
	Cd	111	**53.354**	ug/L	0.718	106188	0.311
	Cd	114		ug/L		254158	0.745
>	In	115		ug/L		341201	341200.773
	Sn	120	**56.864**	ug/L	0.995	449011	1.314
	Sb	121	**57.992**	ug/L	0.872	395173	1.158
	Sb	123		ug/L		308307	0.903
	Ba	135		ug/L		108598	0.227
	Ba	137	**54.335**	ug/L	2.310	190337	0.397
	Ho	165		ug/L		57	0.000
>	Lu	175		ug/L		478849	478849.148
	Tl	205	**54.681**	ug/L	2.265	958521	2.001
	Pb	208	**57.202**	ug/L	1.167	1872576	3.910
	Bi	209		ug/L		1557752	3.251
	Th	232	**53.409**	ug/L	0.936	2051178	4.283
	U	238	**55.128**	ug/L	0.809	2120611	4.428

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, February 20, 2010 20:28:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 8.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.552**	**ug/L**	3.689	90256	0.107
	Be	9	**45.173**	**ug/L**	4.658	20982	0.025
	B	11	**99.380**	**ug/L**	6.464	44735	0.053
	Na	23	**4936.727**	**ug/L**	3.881	18798509	22.225
	Mg	24	**4800.513**	**ug/L**	8.841	13470361	15.996
	Al	27	**5271.771**	**ug/L**	5.816	21519027	25.550
	P	31	**5201.483**	**ug/L**	4.768	1392617	1.644
	K	39	**5121.084**	**ug/L**	7.360	33188241	38.649
	Ca	43	**4965.173**	**ug/L**	4.701	77719	0.092
>	Sc	45		**ug/L**		843631	843630.518
	Ti	47	**46.406**	**ug/L**	4.978	39033	0.045
	V	51	**46.858**	**ug/L**	2.020	465595	0.553
	Cr	52	**47.594**	**ug/L**	3.647	368113	0.438
	Cr	53		**ug/L**		181975	0.071
	Mn	55	**49.326**	**ug/L**	4.022	623607	0.738
	Fe	57	**4308.096**	**ug/L**	3.469	1145017	1.350
	Co	59	**43.771**	**ug/L**	3.410	435502	0.517
	Ni	60	**44.180**	**ug/L**	3.561	98278	0.116
	Cu	63		**ug/L**		235895	0.280
	Cu	65	**43.676**	**ug/L**	3.895	119302	0.141
	Zn	66	**50.521**	**ug/L**	2.208	90433	0.147
	Zn	67		**ug/L**		29204	0.025
	Zn	68		**ug/L**		70838	0.113
>	Ge	74		**ug/L**		598278	598277.557
	As	75	**46.764**	**ug/L**	2.477	86117	0.144
	Se	77		**ug/L**		16258	0.014
	Se	82	**48.877**	**ug/L**	3.279	9240	0.015
	Kr	83		**ug/L**		212	-0.000
	Sr	88	**54.566**	**ug/L**	0.708	1070601	2.859
	Y	89		**ug/L**		152	0.000
	Mo	98	**48.205**	**ug/L**	0.833	243901	0.651
	Ag	107	**49.398**	**ug/L**	2.156	413490	1.104
	Cd	111	**49.168**	**ug/L**	0.712	107370	0.287
	Cd	114		**ug/L**		256084	0.684
>	In	115		**ug/L**		374356	374355.544
	Sn	120	**51.007**	**ug/L**	1.519	441973	1.178
	Sb	121	**50.619**	**ug/L**	0.875	378474	1.011
	Sb	123		**ug/L**		290584	0.776
	Ba	135		**ug/L**		110050	0.215
	Ba	137	**51.379**	**ug/L**	1.749	192427	0.376
	Ho	165		**ug/L**		58	0.000
>	Lu	175		**ug/L**		512024	512024.461
	Tl	205	**52.417**	**ug/L**	2.604	982192	1.918
	Pb	208	**52.947**	**ug/L**	1.054	1853136	3.619
	Bi	209		**ug/L**		994	-0.000
	Th	232	**49.714**	**ug/L**	2.920	2040878	3.987
	U	238	**50.839**	**ug/L**	2.547	2090461	4.084

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	95.103				
	Be	9	90.345				
	B	11	99.380				
	Na	23	98.735				
	Mg	24	96.010				
	Al	27	104.391				
	P	31	104.030				
	K	39	102.422				
	Ca	43	99.303				
>	Sc	45		100.4			
	Ti	47	92.811				
	V	51	93.716				
	Cr	52	95.188				
	Cr	53					
	Mn	55	98.652				
	Fe	57	86.162				
	Co	59	87.542				
	Ni	60	88.361				
	Cu	63					
	Cu	65	87.353				
	Zn	66	101.042				
	Zn	67					
	Zn	68					
>	Ge	74		95.9			
	As	75	93.527				
	Se	77					
	Se	82	97.754				
	Kr	83					
	Sr	88	109.133				
	Y	89					
	Mo	98	96.410				
	Ag	107	98.795				
	Cd	111	98.337				
	Cd	114					
>	In	115		94.2			
	Sn	120	102.013				
	Sb	121	101.237				
	Sb	123					
	Ba	135					
	Ba	137	102.758				
	Ho	165					
>	Lu	175		95.8			
	Tl	205	104.834				
	Pb	208	105.894				
	Bi	209					
	Th	232	99.428				
	U	238	101.679				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Co	59	CCV is out of limits (+/- 10%)
QC Std 8	Ni	60	CCV is out of limits (+/- 10%)
QC Std 8	Cu	65	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, February 20, 2010 20:35:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 9.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.030**	ug/L	3.952	88	0.000
	Be	9	**0.005**	ug/L	53.140	21	0.000
	B	11	**4.996**	ug/L	15.515	2344	0.003
	Na	23	**0.507**	ug/L	294.624	31703	0.002
	Mg	24	**0.492**	ug/L	44.389	1333	0.002
	Al	27	**-0.064**	ug/L	793.299	2000	-0.000
	P	31	**-1.088**	ug/L	84.117	7340	-0.000
	K	39	**-0.318**	ug/L	1688.224	631331	-0.002
	Ca	43	**-6.278**	ug/L	7.137	450	-0.000
>	Sc	45		ug/L		815784	815783.589
	Ti	47	**-0.238**	ug/L	19.900	612	-0.000
	V	51	**0.077**	ug/L	733.195	-282	0.001
	Cr	52	**0.130**	ug/L	64.259	232	0.001
	Cr	53		ug/L		153755	0.043
	Mn	55	**0.022**	ug/L	16.167	1699	0.000
	Fe	57	**0.122**	ug/L	268.649	6969	0.000
	Co	59	**0.004**	ug/L	35.367	150	0.000
	Ni	60	**-0.006**	ug/L	71.048	175	-0.000
	Cu	63		ug/L		334	0.000
	Cu	65	**-0.010**	ug/L	21.994	180	-0.000
	Zn	66	**-0.139**	ug/L	31.574	2242	-0.000
	Zn	67		ug/L		16329	0.006
	Zn	68		ug/L		3166	0.000
>	Ge	74		ug/L		560562	560561.945
	As	75	**0.550**	ug/L	60.149	777	0.002
	Se	77		ug/L		10910	0.006
	Se	82	**-0.069**	ug/L	271.887	-15	-0.000
	Kr	83		ug/L		203	0.000
	Sr	88	**0.005**	ug/L	28.112	230	0.000
	Y	89		ug/L		92	0.000
	Mo	98	**0.038**	ug/L	9.605	224	0.001
	Ag	107	**0.004**	ug/L	57.498	62	0.000
	Cd	111	**0.008**	ug/L	19.766	27	0.000
	Cd	114		ug/L		46	-0.000
>	In	115		ug/L		343792	343792.210
	Sn	120	**0.018**	ug/L	30.911	906	0.000
	Sb	121	**0.246**	ug/L	19.297	1839	0.005
	Sb	123		ug/L		1456	0.004
	Ba	135		ug/L		51	0.000
	Ba	137	**-0.000**	ug/L	4229.108	59	-0.000
	Ho	165		ug/L		34	0.000
>	Lu	175		ug/L		476330	476329.620
	Tl	205	**0.330**	ug/L	13.852	6054	0.012
	Pb	208	**0.005**	ug/L	14.519	486	0.000
	Bi	209		ug/L		590	-0.001
	Th	232	**0.040**	ug/L	19.494	1723	0.003
	U	238	**0.007**	ug/L	25.197	349	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		97.1			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		89.8			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		86.5			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		89.1			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, February 20, 2010 21:05:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 8.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.908**	ug/L	2.848	88038	0.110
	Be	9	**46.737**	ug/L	3.578	20590	0.026
	B	11	**101.933**	ug/L	5.732	43515	0.054
	Na	23	**6074.910**	ug/L	0.691	21899493	27.349
	Mg	24	**6030.561**	ug/L	6.660	16068974	20.095
	Al	27	**5463.079**	ug/L	2.339	21189414	26.477
	P	31	**5628.520**	ug/L	3.834	1428690	1.779
	K	39	**5610.318**	ug/L	14.370	34493397	42.341
	Ca	43	**5212.095**	ug/L	3.849	77358	0.096
>	Sc	45		ug/L		799811	799811.141
	Ti	47	**49.720**	ug/L	5.427	39594	0.049
	V	51	**48.734**	ug/L	4.276	459025	0.576
	Cr	52	**50.146**	ug/L	5.291	367555	0.461
	Cr	53		ug/L		197156	0.102
	Mn	55	**50.943**	ug/L	3.397	610727	0.763
	Fe	57	**4480.298**	ug/L	6.188	1128334	1.404
	Co	59	**45.355**	ug/L	4.541	427781	0.535
	Ni	60	**45.594**	ug/L	5.514	96115	0.120
	Cu	63		ug/L		229720	0.287
	Cu	65	**44.461**	ug/L	4.147	115140	0.144
	Zn	66	**51.735**	ug/L	1.469	87935	0.150
	Zn	67		ug/L		29440	0.028
	Zn	68		ug/L		69291	0.117
>	Ge	74		ug/L		568458	568457.808
	As	75	**47.976**	ug/L	0.164	83962	0.148
	Se	77		ug/L		18115	0.019
	Se	82	**50.087**	ug/L	2.590	8997	0.016
	Kr	83		ug/L		187	-0.000
	Sr	88	**55.212**	ug/L	1.092	1025481	2.893
	Y	89		ug/L		135	0.000
	Mo	98	**49.265**	ug/L	2.964	235926	0.666
	Ag	107	**50.154**	ug/L	1.288	397426	1.121
	Cd	111	**49.936**	ug/L	3.463	103209	0.291
	Cd	114		ug/L		248651	0.702
>	In	115		ug/L		354411	354411.034
	Sn	120	**52.754**	ug/L	0.564	432732	1.219
	Sb	121	**51.671**	ug/L	2.449	365693	1.032
	Sb	123		ug/L		283789	0.801
	Ba	135		ug/L		108776	0.223
	Ba	137	**53.124**	ug/L	0.653	189372	0.389
	Ho	165		ug/L		60	0.000
>	Lu	175		ug/L		487280	487279.567
	Tl	205	**53.589**	ug/L	1.639	955879	1.961
	Pb	208	**54.008**	ug/L	0.448	1799138	3.692
	Bi	209		ug/L		839	-0.000
	Th	232	**51.181**	ug/L	1.563	2000050	4.104
	U	238	**51.237**	ug/L	0.659	2005575	4.116

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	97.815				
	Be	9	93.475				
	B	11	101.933				
	Na	23	121.498				
	Mg	24	120.611				
	Al	27	108.180				
	P	31	112.570				
	K	39	112.206				
	Ca	43	104.242				
>	Sc	45		95.2			
	Ti	47	99.440				
	V	51	97.467				
	Cr	52	100.292				
	Cr	53					
	Mn	55	101.887				
	Fe	57	89.606				
	Co	59	90.710				
	Ni	60	91.188				
	Cu	63					
	Cu	65	88.921				
	Zn	66	103.471				
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75	95.952				
	Se	77					
	Se	82	100.173				
	Kr	83					
	Sr	88	110.425				
	Y	89					
	Mo	98	98.530				
	Ag	107	100.308				
	Cd	111	99.871				
	Cd	114					
>	In	115		89.2			
	Sn	120	105.509				
	Sb	121	103.342				
	Sb	123					
	Ba	135					
	Ba	137	106.247				
	Ho	165					
>	Lu	175		91.2			
	Tl	205	107.179				
	Pb	208	108.016				
	Bi	209					
	Th	232	102.362				
	U	238	102.474				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Mg	24	CCV is out of limits (+/- 10%)
QC Std 8	P	31	CCV is out of limits (+/- 10%)
QC Std 8	K	39	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Cu	65	CCV is out of limits (+/- 10%)
QC Std 8	Sr	88	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, February 20, 2010 21:11:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 9.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.033**	ug/L	8.295	93	0.000
	Be	9	**-0.004**	ug/L	274.304	17	-0.000
	B	11	**4.359**	ug/L	16.510	2044	0.002
	Na	23	**0.251**	ug/L	1017.876	30368	0.001
	Mg	24	**0.496**	ug/L	86.605	1333	0.002
	Al	27	**0.281**	ug/L	106.220	3334	0.001
	P	31	**-0.839**	ug/L	422.592	7314	-0.000
	K	39	**15.486**	ug/L	61.340	719756	0.117
	Ca	43	**-4.732**	ug/L	59.652	467	-0.000
>	Sc	45		ug/L		805670	805669.719
	Ti	47	**-0.265**	ug/L	3.480	583	-0.000
	V	51	**0.075**	ug/L	1065.195	-268	0.001
	Cr	52	**0.071**	ug/L	72.938	-212	0.001
	Cr	53		ug/L		177379	0.075
	Mn	55	**0.035**	ug/L	14.997	1838	0.001
	Fe	57	**2.804**	ug/L	17.154	7560	0.001
	Co	59	**0.001**	ug/L	167.113	122	0.000
	Ni	60	**-0.009**	ug/L	87.772	168	-0.000
	Cu	63		ug/L		326	0.000
	Cu	65	**-0.007**	ug/L	168.291	184	-0.000
	Zn	66	**-0.171**	ug/L	20.104	2104	-0.000
	Zn	67		ug/L		17598	0.009
	Zn	68		ug/L		3339	0.001
>	Ge	74		ug/L		538742	538741.596
	As	75	**0.740**	ug/L	16.016	1064	0.002
	Se	77		ug/L		13295	0.012
	Se	82	**0.022**	ug/L	581.762	1	0.000
	Kr	83		ug/L		193	0.000
	Sr	88	**0.005**	ug/L	33.528	232	0.000
	Y	89		ug/L		88	0.000
	Mo	98	**0.039**	ug/L	25.694	224	0.001
	Ag	107	**0.006**	ug/L	16.610	72	0.000
	Cd	111	**0.015**	ug/L	17.701	38	0.000
	Cd	114		ug/L		53	0.000
>	In	115		ug/L		335953	335953.388
	Sn	120	**0.026**	ug/L	121.192	941	0.001
	Sb	121	**0.245**	ug/L	17.657	1792	0.005
	Sb	123		ug/L		1461	0.004
	Ba	135		ug/L		45	0.000
	Ba	137	**0.001**	ug/L	199.608	62	0.000
	Ho	165		ug/L		29	0.000
>	Lu	175		ug/L		462005	462004.692
	Tl	205	**0.222**	ug/L	20.198	4054	0.008
	Pb	208	**0.005**	ug/L	33.542	460	0.000
	Bi	209		ug/L		584	-0.001
	Th	232	**0.041**	ug/L	20.705	1702	0.003
	U	238	**0.007**	ug/L	19.785	342	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	0.9999
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		84.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031029
Sample Date/Time: Saturday, February 20, 2010 21:36:35
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\1202031029.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.377**	**ug/L**	3.615	36094	0.037
	Be	9	**0.046**	**ug/L**	36.108	47	0.000
	B	11	**37.252**	**ug/L**	2.968	19607	0.020
	Na	23	**25260.234**	**ug/L**	5.400	111250193	113.721
	Mg	24	**7877.537**	**ug/L**	10.648	25646719	26.250
	Al	27	**745.110**	**ug/L**	11.575	3537109	3.611
	P	31	**49.775**	**ug/L**	10.491	24510	0.016
	K	39	**2862.947**	**ug/L**	4.667	21907968	21.607
	Ca	43	**34897.849**	**ug/L**	1.990	630189	0.644
>	Sc	45		**ug/L**		978280	978279.700
	Ti	47	**13.221**	**ug/L**	0.683	13603	0.013
	V	51	**-4.304**	**ug/L**	18.231	-51065	-0.051
	Cr	52	**2.012**	**ug/L**	8.379	17184	0.019
	Cr	53		**ug/L**		638628	0.508
	Mn	55	**39.319**	**ug/L**	1.254	577390	0.589
	Fe	57	**514.237**	**ug/L**	3.398	165902	0.161
	Co	59	**0.280**	**ug/L**	4.505	3374	0.003
	Ni	60	**1.392**	**ug/L**	3.609	3812	0.004
	Cu	63		**ug/L**		9883	0.010
	Cu	65	**1.413**	**ug/L**	3.054	4719	0.005
	Zn	66	**3.347**	**ug/L**	3.572	8406	0.010
	Zn	67		**ug/L**		86673	0.122
	Zn	68		**ug/L**		13590	0.018
>	Ge	74		**ug/L**		595173	595173.179
	As	75	**3.902**	**ug/L**	34.213	6977	0.012
	Se	77		**ug/L**		67356	0.100
	Se	82	**0.214**	**ug/L**	72.722	37	0.000
	Kr	83		**ug/L**		261	0.000
	Sr	88	**289.605**	**ug/L**	1.077	5149960	15.176
	Y	89		**ug/L**		11224	0.033
	Mo	98	**5.799**	**ug/L**	1.698	26638	0.078
	Ag	107	**0.010**	**ug/L**	13.444	106	0.000
	Cd	111	**0.031**	**ug/L**	29.515	71	0.000
	Cd	114		**ug/L**		227	0.001
>	In	115		**ug/L**		339329	339328.642
	Sn	120	**0.075**	**ug/L**	4.053	1340	0.002
	Sb	121	**0.106**	**ug/L**	0.777	871	0.002
	Sb	123		**ug/L**		991	0.003
	Ba	135		**ug/L**		113087	0.242
	Ba	137	**57.668**	**ug/L**	1.521	197360	0.422
	Ho	165		**ug/L**		650	0.001
>	Lu	175		**ug/L**		467862	467861.885
	Tl	205	**0.041**	**ug/L**	7.265	997	0.001
	Pb	208	**0.652**	**ug/L**	1.173	21172	0.045
	Bi	209		**ug/L**		556	-0.001
	Th	232	**0.209**	**ug/L**	2.343	8033	0.017
	U	238	**3.429**	**ug/L**	0.196	128964	0.275

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		116.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031030
Sample Date/Time: Saturday, February 20, 2010 21:42:46
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948090|1|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\1202031030.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**59.099**	ug/L	2.581	130411	0.133
	Be	9	**43.363**	ug/L	4.032	23419	0.024
	B	11	**139.666**	ug/L	4.526	73036	0.074
	Na	23	**26676.961**	ug/L	2.167	117721811	120.099
	Mg	24	**9777.728**	ug/L	6.998	31904603	32.581
	Al	27	**3382.726**	ug/L	1.628	16067947	16.394
	P	31	**2543.486**	ug/L	2.464	796745	0.804
	K	39	**5093.061**	ug/L	5.219	38408863	38.437
	Ca	43	**36044.504**	ug/L	2.996	651980	0.665
>	Sc	45		ug/L		980236	980235.525
	Ti	47	**60.331**	ug/L	2.516	58730	0.059
	V	51	**49.644**	ug/L	2.408	573390	0.586
	Cr	52	**50.187**	ug/L	2.731	451266	0.461
	Cr	53		ug/L		633323	0.501
	Mn	55	**84.212**	ug/L	2.591	1236676	1.260
	Fe	57	**2292.281**	ug/L	3.407	712061	0.718
	Co	59	**42.434**	ug/L	2.869	490790	0.501
	Ni	60	**42.632**	ug/L	4.386	110221	0.112
	Cu	63		ug/L		269371	0.275
	Cu	65	**42.144**	ug/L	2.953	133832	0.136
	Zn	66	**54.943**	ug/L	1.129	97147	0.160
	Zn	67		ug/L		99340	0.144
	Zn	68		ug/L		81216	0.132
>	Ge	74		ug/L		592339	592338.505
	As	75	**82.395**	ug/L	3.481	150381	0.254
	Se	77		ug/L		62274	0.092
	Se	82	**19.809**	ug/L	1.183	3706	0.006
	Kr	83		ug/L		298	0.000
	Sr	88	**344.702**	ug/L	3.204	6125209	18.063
	Y	89		ug/L		11412	0.033
	Mo	98	**61.424**	ug/L	0.788	281556	0.830
	Ag	107	**54.982**	ug/L	1.763	416921	1.229
	Cd	111	**11.074**	ug/L	0.715	21916	0.065
	Cd	114		ug/L		50838	0.150
>	In	115		ug/L		339150	339150.372
	Sn	120	**57.424**	ug/L	0.625	450683	1.327
	Sb	121	**216.840**	ug/L	0.341	1468306	4.329
	Sb	123		ug/L		1167117	3.441
	Ba	135		ug/L		221884	0.473
	Ba	137	**112.515**	ug/L	0.310	385982	0.823
	Ho	165		ug/L		902	0.002
>	Lu	175		ug/L		468998	468998.397
	Tl	205	**99.993**	ug/L	1.713	1716353	3.659
	Pb	208	**46.774**	ug/L	1.187	1499629	3.197
	Bi	209		ug/L		1130	0.000
	Th	232	**53.966**	ug/L	2.481	2029624	4.328
	U	238	**57.993**	ug/L	1.592	2184693	4.659

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		116.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031031
Sample Date/Time: Saturday, February 20, 2010 21:48:55
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948090|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\1202031031.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**3.543**	ug/L	3.789	6852	0.008
	Be	9	**0.016**	ug/L	49.889	27	0.000
	B	11	**12.242**	ug/L	2.662	5756	0.007
	Na	23	**4365.258**	ug/L	3.870	16831503	19.652
	Mg	24	**1853.901**	ug/L	14.464	5287382	6.178
	Al	27	**176.553**	ug/L	8.837	734528	0.856
	P	31	**12.324**	ug/L	21.459	11306	0.004
	K	39	**581.061**	ug/L	13.653	4410727	4.385
	Ca	43	**7427.696**	ug/L	5.661	117639	0.137
>	Sc	45		ug/L		855311	855311.142
	Ti	47	**2.934**	ug/L	4.656	3291	0.003
	V	51	**-0.360**	ug/L	285.923	-4891	-0.004
	Cr	52	**0.234**	ug/L	59.802	1032	0.002
	Cr	53		ug/L		317272	0.226
	Mn	55	**8.718**	ug/L	3.111	113037	0.130
	Fe	57	**118.408**	ug/L	5.305	38981	0.037
	Co	59	**0.059**	ug/L	9.175	714	0.001
	Ni	60	**0.332**	ug/L	6.734	944	0.001
	Cu	63		ug/L		2223	0.002
	Cu	65	**0.327**	ug/L	5.459	1120	0.001
	Zn	66	**0.785**	ug/L	2.070	3805	0.002
	Zn	67		ug/L		29479	0.028
	Zn	68		ug/L		5873	0.005
>	Ge	74		ug/L		569209	569209.365
	As	75	**1.487**	ug/L	11.995	2435	0.005
	Se	77		ug/L		28962	0.038
	Se	82	**0.208**	ug/L	22.905	34	0.000
	Kr	83		ug/L		177	-0.000
	Sr	88	**60.804**	ug/L	0.829	1106242	3.186
	Y	89		ug/L		2375	0.007
	Mo	98	**1.116**	ug/L	2.173	5283	0.015
	Ag	107	**0.004**	ug/L	7.984	63	0.000
	Cd	111	**0.013**	ug/L	25.152	36	0.000
	Cd	114		ug/L		74	0.000
>	In	115		ug/L		347161	347161.448
	Sn	120	**0.014**	ug/L	26.210	875	0.000
	Sb	121	**0.041**	ug/L	12.683	443	0.001
	Sb	123		ug/L		391	0.001
	Ba	135		ug/L		23823	0.050
	Ba	137	**11.759**	ug/L	0.757	41162	0.086
	Ho	165		ug/L		152	0.000
>	Lu	175		ug/L		477959	477958.859
	Tl	205	**1.296**	ug/L	20.534	22964	0.047
	Pb	208	**0.156**	ug/L	1.944	5428	0.011
	Bi	209		ug/L		446	-0.001
	Th	232	**0.048**	ug/L	7.092	2045	0.004
	U	238	**0.678**	ug/L	0.506	26133	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, February 20, 2010 21:55:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 8.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.095**	**ug/L**	0.302	85623	0.104
	Be	9	**45.473**	**ug/L**	3.948	20677	0.025
	B	11	**99.780**	**ug/L**	4.455	43987	0.053
	Na	23	**5771.407**	**ug/L**	12.979	21458903	25.983
	Mg	24	**5438.233**	**ug/L**	6.921	14944676	18.121
	Al	27	**5865.276**	**ug/L**	6.051	23444079	28.426
	P	31	**5586.406**	**ug/L**	0.985	1463656	1.765
	K	39	**4779.846**	**ug/L**	3.772	30391479	36.073
	Ca	43	**5055.131**	**ug/L**	1.200	77449	0.093
>	Sc	45		**ug/L**		824707	824707.167
	Ti	47	**48.260**	**ug/L**	2.387	39705	0.047
	V	51	**47.403**	**ug/L**	2.319	460732	0.560
	Cr	52	**47.709**	**ug/L**	2.341	361033	0.439
	Cr	53		**ug/L**		205486	0.104
	Mn	55	**48.853**	**ug/L**	1.083	604484	0.731
	Fe	57	**4307.578**	**ug/L**	1.632	1120360	1.350
	Co	59	**43.814**	**ug/L**	0.825	426571	0.517
	Ni	60	**44.136**	**ug/L**	2.395	96082	0.116
	Cu	63		**ug/L**		226799	0.275
	Cu	65	**43.055**	**ug/L**	1.078	115088	0.139
	Zn	66	**50.702**	**ug/L**	0.986	84985	0.147
	Zn	67		**ug/L**		29069	0.029
	Zn	68		**ug/L**		68303	0.117
>	Ge	74		**ug/L**		560279	560278.807
	As	75	**48.443**	**ug/L**	1.906	83562	0.149
	Se	77		**ug/L**		19259	0.021
	Se	82	**49.671**	**ug/L**	2.595	8793	0.016
	Kr	83		**ug/L**		203	0.000
	Sr	88	**55.002**	**ug/L**	2.290	1015961	2.882
	Y	89		**ug/L**		138	0.000
	Mo	98	**49.033**	**ug/L**	1.586	233572	0.663
	Ag	107	**50.347**	**ug/L**	2.529	396764	1.126
	Cd	111	**49.736**	**ug/L**	0.869	102256	0.290
	Cd	114		**ug/L**		246104	0.698
>	In	115		**ug/L**		352474	352474.349
	Sn	120	**53.308**	**ug/L**	0.812	434870	1.232
	Sb	121	**52.464**	**ug/L**	1.018	369316	1.047
	Sb	123		**ug/L**		287275	0.815
	Ba	135		**ug/L**		109547	0.227
	Ba	137	**54.101**	**ug/L**	1.016	190533	0.396
	Ho	165		**ug/L**		59	0.000
>	Lu	175		**ug/L**		481439	481439.473
	Tl	205	**54.527**	**ug/L**	0.683	961061	1.996
	Pb	208	**54.686**	**ug/L**	0.669	1799834	3.738
	Bi	209		**ug/L**		943	-0.000
	Th	232	**51.236**	**ug/L**	0.689	1978311	4.109
	U	238	**51.652**	**ug/L**	1.302	1997549	4.149

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	92.190				
	Be	9	90.946				
	B	11	99.780				
	Na	23	115.428				
	Mg	24	108.765				
	Al	27	116.144				
	P	31	111.728				
	K	39	95.597				
	Ca	43	101.103				
>	Sc	45		98.2			
	Ti	47	96.519				
	V	51	94.807				
	Cr	52	95.418				
	Cr	53					
	Mn	55	97.706				
	Fe	57	86.152				
	Co	59	87.629				
	Ni	60	88.272				
	Cu	63					
	Cu	65	86.109				
	Zn	66	101.405				
	Zn	67					
	Zn	68					
>	Ge	74		89.8			
	As	75	96.886				
	Se	77					
	Se	82	99.343				
	Kr	83					
	Sr	88	110.004				
	Y	89					
	Mo	98	98.066				
	Ag	107	100.693				
	Cd	111	99.472				
	Cd	114					
>	In	115		88.7			
	Sn	120	106.615				
	Sb	121	104.927				
	Sb	123					
	Ba	135					
	Ba	137	108.201				
	Ho	165					
>	Lu	175		90.1			
	Tl	205	109.055				
	Pb	208	109.372				
	Bi	209					
	Th	232	102.473				
	U	238	103.303				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Al	27	CCV is out of limits (+/- 10%)
QC Std 8	P	31	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Co	59	CCV is out of limits (+/- 10%)
QC Std 8	Ni	60	CCV is out of limits (+/- 10%)
QC Std 8	Cu	65	CCV is out of limits (+/- 10%)

QC Std 8 Sr 88CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, February 20, 2010 22:01:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 9.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.028**	ug/L	27.827	85	0.000
	Be	9	**0.006**	ug/L	82.965	21	0.000
	B	11	**4.485**	ug/L	13.291	2111	0.002
	Na	23	**0.943**	ug/L	227.492	33039	0.004
	Mg	24	**0.370**	ug/L	98.801	1000	0.001
	Al	27	**0.444**	ug/L	113.662	4001	0.002
	P	31	**-0.491**	ug/L	385.203	7455	-0.000
	K	39	**12.922**	ug/L	120.417	708615	0.098
	Ca	43	**-5.595**	ug/L	82.463	457	-0.000
>	Sc	45		ug/L		812353	812352.916
	Ti	47	**-0.327**	ug/L	12.390	538	-0.000
	V	51	**0.558**	ug/L	11.510	4351	0.007
	Cr	52	**0.008**	ug/L	1157.302	-691	0.000
	Cr	53		ug/L		189322	0.088
	Mn	55	**0.033**	ug/L	24.330	1822	0.000
	Fe	57	**0.628**	ug/L	138.968	7066	0.000
	Co	59	**-0.000**	ug/L	2143.965	114	-0.000
	Ni	60	**-0.001**	ug/L	642.311	186	-0.000
	Cu	63		ug/L		354	0.000
	Cu	65	**-0.010**	ug/L	117.438	179	-0.000
	Zn	66	**-0.167**	ug/L	13.606	2161	-0.000
	Zn	67		ug/L		17320	0.008
	Zn	68		ug/L		3215	0.000
>	Ge	74		ug/L		551622	551622.275
	As	75	**0.914**	ug/L	47.367	1380	0.003
	Se	77		ug/L		15452	0.015
	Se	82	**0.003**	ug/L	7455.274	-3	0.000
	Kr	83		ug/L		189	-0.000
	Sr	88	**0.006**	ug/L	2.428	244	0.000
	Y	89		ug/L		93	0.000
	Mo	98	**0.043**	ug/L	22.894	248	0.001
	Ag	107	**0.004**	ug/L	24.578	58	0.000
	Cd	111	**0.011**	ug/L	25.490	31	0.000
	Cd	114		ug/L		60	0.000
>	In	115		ug/L		344854	344853.788
	Sn	120	**0.009**	ug/L	26.624	831	0.000
	Sb	121	**0.255**	ug/L	15.407	1912	0.005
	Sb	123		ug/L		1444	0.004
	Ba	135		ug/L		47	0.000
	Ba	137	**0.001**	ug/L	243.696	62	0.000
	Ho	165		ug/L		29	0.000
>	Lu	175		ug/L		468675	468674.901
	Tl	205	**0.426**	ug/L	13.407	7610	0.016
	Pb	208	**0.005**	ug/L	16.644	462	0.000
	Bi	209		ug/L		588	-0.001
	Th	232	**0.044**	ug/L	17.664	1839	0.004
	U	238	**0.006**	ug/L	6.676	302	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245807001
Sample Date/Time: Saturday, February 20, 2010 22:38:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\245807001.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.126**	**ug/L**	2.739	315	0.000
	Be	9	**-0.004**	**ug/L**	159.246	20	-0.000
	B	11	**21.628**	**ug/L**	6.235	11366	0.012
	Na	23	**228.858**	**ug/L**	4.634	1035683	1.030
	Mg	24	**6.700**	**ug/L**	6.745	21683	0.022
	Al	27	**12.424**	**ug/L**	3.129	61131	0.060
	P	31	**3.580**	**ug/L**	26.471	10160	0.001
	K	39	**194.195**	**ug/L**	5.937	2173317	1.466
	Ca	43	**45.552**	**ug/L**	6.755	1461	0.001
>	Sc	45		**ug/L**		969973	969972.703
	Ti	47	**0.435**	**ug/L**	6.130	1366	0.000
	V	51	**-7.792**	**ug/L**	32.568	-90499	-0.092
	Cr	52	**0.810**	**ug/L**	22.095	6312	0.007
	Cr	53		**ug/L**		672277	0.548
	Mn	55	**0.633**	**ug/L**	3.080	10887	0.009
	Fe	57	**14.011**	**ug/L**	6.152	12505	0.004
	Co	59	**0.003**	**ug/L**	66.217	171	0.000
	Ni	60	**0.057**	**ug/L**	8.250	368	0.000
	Cu	63		**ug/L**		4881	0.005
	Cu	65	**0.696**	**ug/L**	6.865	2427	0.002
	Zn	66	**0.569**	**ug/L**	8.839	3718	0.002
	Zn	67		**ug/L**		86188	0.117
	Zn	68		**ug/L**		8625	0.009
>	Ge	74		**ug/L**		613945	613944.510
	As	75	**1.689**	**ug/L**	51.177	3019	0.005
	Se	77		**ug/L**		65806	0.094
	Se	82	**0.220**	**ug/L**	119.249	40	0.000
	Kr	83		**ug/L**		192	-0.000
	Sr	88	**0.187**	**ug/L**	2.346	3600	0.010
	Y	89		**ug/L**		234	0.000
	Mo	98	**0.018**	**ug/L**	20.146	136	0.000
	Ag	107	**0.009**	**ug/L**	3.760	103	0.000
	Cd	111	**0.021**	**ug/L**	26.496	53	0.000
	Cd	114		**ug/L**		64	0.000
>	In	115		**ug/L**		353239	353238.721
	Sn	120	**0.227**	**ug/L**	2.213	2631	0.005
	Sb	121	**0.021**	**ug/L**	12.867	304	0.000
	Sb	123		**ug/L**		244	0.000
	Ba	135		**ug/L**		699	0.001
	Ba	137	**0.310**	**ug/L**	8.507	1164	0.002
	Ho	165		**ug/L**		42	0.000
>	Lu	175		**ug/L**		487811	487810.726
	Tl	205	**0.035**	**ug/L**	2.252	940	0.001
	Pb	208	**0.068**	**ug/L**	2.736	2594	0.005
	Bi	209		**ug/L**		391	-0.001
	Th	232	**0.005**	**ug/L**	3.134	399	0.000
	U	238	**0.024**	**ug/L**	4.234	1022	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		115.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245807002
Sample Date/Time: Saturday, February 20, 2010 22:44:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\245807002.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.099**	**ug/L**	10.331	266	0.000
	Be	9	**-0.008**	**ug/L**	120.868	19	-0.000
	B	11	**21.487**	**ug/L**	3.148	11733	0.011
	Na	23	**175.188**	**ug/L**	3.178	830814	0.789
	Mg	24	**6.843**	**ug/L**	13.330	23019	0.023
	Al	27	**12.832**	**ug/L**	7.930	65484	0.062
	P	31	**2.933**	**ug/L**	60.825	10333	0.001
	K	39	**114.670**	**ug/L**	5.622	1654357	0.865
	Ca	43	**49.357**	**ug/L**	6.918	1588	0.001
>	Sc	45		**ug/L**		1007205	1007205.497
	Ti	47	**0.416**	**ug/L**	14.474	1400	0.000
	V	51	**-7.574**	**ug/L**	19.691	-91564	-0.089
	Cr	52	**0.944**	**ug/L**	11.527	7797	0.009
	Cr	53		**ug/L**		674330	0.525
	Mn	55	**0.643**	**ug/L**	1.903	11462	0.010
	Fe	57	**16.819**	**ug/L**	11.185	13865	0.005
	Co	59	**0.003**	**ug/L**	40.115	172	0.000
	Ni	60	**0.068**	**ug/L**	4.869	412	0.000
	Cu	63		**ug/L**		4699	0.004
	Cu	65	**0.639**	**ug/L**	1.926	2337	0.002
	Zn	66	**0.909**	**ug/L**	4.727	4405	0.003
	Zn	67		**ug/L**		88193	0.118
	Zn	68		**ug/L**		8989	0.009
>	Ge	74		**ug/L**		625432	625432.072
	As	75	**1.935**	**ug/L**	36.253	3538	0.006
	Se	77		**ug/L**		66080	0.093
	Se	82	**0.162**	**ug/L**	79.748	29	0.000
	Kr	83		**ug/L**		181	-0.000
	Sr	88	**0.209**	**ug/L**	1.689	4140	0.011
	Y	89		**ug/L**		333	0.001
	Mo	98	**0.017**	**ug/L**	12.397	134	0.000
	Ag	107	**0.007**	**ug/L**	17.713	93	0.000
	Cd	111	**0.011**	**ug/L**	9.866	35	0.000
	Cd	114		**ug/L**		59	0.000
>	In	115		**ug/L**		364781	364781.436
	Sn	120	**0.031**	**ug/L**	11.416	1068	0.001
	Sb	121	**0.032**	**ug/L**	13.845	397	0.001
	Sb	123		**ug/L**		317	0.001
	Ba	135		**ug/L**		576	0.001
	Ba	137	**0.253**	**ug/L**	2.545	973	0.002
	Ho	165		**ug/L**		37	0.000
>	Lu	175		**ug/L**		492311	492311.013
	Tl	205	**0.033**	**ug/L**	10.690	910	0.001
	Pb	208	**0.588**	**ug/L**	1.880	20119	0.040
	Bi	209		**ug/L**		319	-0.001
	Th	232	**0.007**	**ug/L**	13.617	493	0.001
	U	238	**0.085**	**ug/L**	1.731	3464	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		119.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 20, 2010 22:50:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 6.159

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.237**	ug/L	1.951	88606	0.104
	Be	9	**44.625**	ug/L	1.396	20936	0.025
	B	11	**101.101**	ug/L	0.733	45982	0.054
	Na	23	**6031.051**	ug/L	17.317	23132182	27.152
	Mg	24	**5545.854**	ug/L	4.617	15721609	18.480
	Al	27	**5508.983**	ug/L	5.992	22715606	26.699
	P	31	**5513.993**	ug/L	1.000	1490617	1.743
	K	39	**5470.056**	ug/L	8.999	35798552	41.282
	Ca	43	**4900.679**	ug/L	1.168	77485	0.090
>	Sc	45		ug/L		850880	850879.779
	Ti	47	**48.278**	ug/L	0.994	40978	0.047
	V	51	**45.991**	ug/L	3.324	461210	0.543
	Cr	52	**46.993**	ug/L	1.577	366883	0.432
	Cr	53		ug/L		227833	0.123
	Mn	55	**47.538**	ug/L	0.493	606915	0.712
	Fe	57	**4262.817**	ug/L	1.438	1144023	1.336
	Co	59	**42.727**	ug/L	0.902	429181	0.504
	Ni	60	**43.365**	ug/L	1.408	97399	0.114
	Cu	63		ug/L		231192	0.271
	Cu	65	**42.168**	ug/L	0.927	116298	0.136
	Zn	66	**51.398**	ug/L	2.741	87315	0.149
	Zn	67		ug/L		31381	0.032
	Zn	68		ug/L		69245	0.117
>	Ge	74		ug/L		568158	568158.205
	As	75	**47.902**	ug/L	0.387	83786	0.148
	Se	77		ug/L		21231	0.024
	Se	82	**50.288**	ug/L	2.053	9027	0.016
	Kr	83		ug/L		202	0.000
	Sr	88	**54.187**	ug/L	2.228	1030936	2.840
	Y	89		ug/L		142	0.000
	Mo	98	**49.016**	ug/L	1.380	240509	0.662
	Ag	107	**50.016**	ug/L	1.324	406014	1.118
	Cd	111	**50.035**	ug/L	1.264	105958	0.292
	Cd	114		ug/L		254140	0.700
>	In	115		ug/L		363060	363060.111
	Sn	120	**52.551**	ug/L	2.400	441541	1.214
	Sb	121	**51.319**	ug/L	0.626	372145	1.025
	Sb	123		ug/L		293624	0.808
	Ba	135		ug/L		112800	0.228
	Ba	137	**54.036**	ug/L	2.693	195283	0.395
	Ho	165		ug/L		63	0.000
>	Lu	175		ug/L		494117	494116.820
	Tl	205	**48.214**	ug/L	1.581	872214	1.764
	Pb	208	**54.043**	ug/L	1.487	1825330	3.694
	Bi	209		ug/L		807	-0.000
	Th	232	**49.965**	ug/L	1.054	1979930	4.007
	U	238	**50.801**	ug/L	2.588	2016051	4.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	0.9999
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	92.473				
	Be	9	89.250				
	B	11	101.101				
	Na	23	120.621				
	Mg	24	110.917				
	Al	27	109.089				
	P	31	110.280				
	K	39	109.401				
	Ca	43	98.014				
>	Sc	45		101.3			
	Ti	47	96.555				
	V	51	91.983				
	Cr	52	93.986				
	Cr	53					
	Mn	55	95.077				
	Fe	57	85.256				
	Co	59	85.454				
	Ni	60	86.729				
	Cu	63					
	Cu	65	84.336				
	Zn	66	102.795				
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75	95.804				
	Se	77					
	Se	82	100.575				
	Kr	83					
	Sr	88	108.373				
	Y	89					
	Mo	98	98.032				
	Ag	107	100.032				
	Cd	111	100.070				
	Cd	114					
>	In	115		91.4			
	Sn	120	105.102				
	Sb	121	102.639				
	Sb	123					
	Ba	135					
	Ba	137	108.073				
	Ho	165					
>	Lu	175		92.5			
	Tl	205	96.427				
	Pb	208	108.085				
	Bi	209					
	Th	232	99.930				
	U	238	101.603				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
QC Std 6	Fe	57	CCV is out of limits (+/- 10%)
QC Std 6	Co	59	CCV is out of limits (+/- 10%)
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)

QC Std 6	Cu	65CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 20, 2010 22:56:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100220\QC Std 7.160

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	**ug/L**	22.884	68	0.000
	Be	9	**-0.001**	**ug/L**	220.383	18	-0.000
	B	11	**4.030**	**ug/L**	16.362	1927	0.002
	Na	23	**-0.348**	**ug/L**	644.409	28363	-0.002
	Mg	24	**0.736**	**ug/L**	5.893	2000	0.002
	Al	27	**0.658**	**ug/L**	146.767	5001	0.003
	P	31	**-0.230**	**ug/L**	1072.937	7549	-0.000
	K	39	**7.744**	**ug/L**	60.536	681199	0.058
	Ca	43	**-4.034**	**ug/L**	98.244	483	-0.000
>	Sc	45		**ug/L**		817125	817124.940
	Ti	47	**-0.268**	**ug/L**	28.463	587	-0.000
	V	51	**-0.222**	**ug/L**	85.175	-3146	-0.003
	Cr	52	**-0.252**	**ug/L**	31.422	-2641	-0.002
	Cr	53		**ug/L**		206334	0.108
	Mn	55	**0.031**	**ug/L**	49.691	1809	0.000
	Fe	57	**-0.643**	**ug/L**	143.514	6776	-0.000
	Co	59	**0.001**	**ug/L**	111.832	121	0.000
	Ni	60	**-0.006**	**ug/L**	95.371	176	-0.000
	Cu	63		**ug/L**		307	-0.000
	Cu	65	**-0.012**	**ug/L**	49.674	174	-0.000
	Zn	66	**-0.177**	**ug/L**	31.066	2157	-0.001
	Zn	67		**ug/L**		18552	0.010
	Zn	68		**ug/L**		3466	0.001
>	Ge	74		**ug/L**		555007	555007.346
	As	75	**0.953**	**ug/L**	38.515	1452	0.003
	Se	77		**ug/L**		16889	0.017
	Se	82	**-0.061**	**ug/L**	93.738	-14	-0.000
	Kr	83		**ug/L**		189	-0.000
	Sr	88	**0.006**	**ug/L**	18.870	257	0.000
	Y	89		**ug/L**		80	-0.000
	Mo	98	**0.043**	**ug/L**	24.779	255	0.001
	Ag	107	**0.006**	**ug/L**	28.160	78	0.000
	Cd	111	**0.013**	**ug/L**	23.498	37	0.000
	Cd	114		**ug/L**		62	0.000
>	In	115		**ug/L**		352258	352258.083
	Sn	120	**0.011**	**ug/L**	70.186	866	0.000
	Sb	121	**0.251**	**ug/L**	18.241	1924	0.005
	Sb	123		**ug/L**		1535	0.004
	Ba	135		**ug/L**		47	0.000
	Ba	137	**0.003**	**ug/L**	78.351	71	0.000
	Ho	165		**ug/L**		33	0.000
>	Lu	175		**ug/L**		487394	487394.048
	Tl	205	**0.983**	**ug/L**	12.613	17832	0.036
	Pb	208	**0.005**	**ug/L**	26.951	497	0.000
	Bi	209		**ug/L**		532	-0.001
	Th	232	**0.043**	**ug/L**	15.450	1890	0.003
	U	238	**0.008**	**ug/L**	8.465	391	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	0.9999
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, February 21, 2010 10:25:37
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.559
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6159.5	6159.528	67.321	1.1
	Mg	24.0	45969.4	45969.447	372.671	0.8
	Co	58.9	130006.7	130006.738	1424.099	1.1
	Rh	102.9	272097.6	272097.601	2330.936	0.9
	In	114.9	357150.0	357150.024	1687.204	0.5
	Pb	208.0	297749.3	297749.262	2376.144	0.8
⌈>	Ba	137.9	321676.2	321676.199	2950.879	0.9
⌊	Ba++	69.0	6095.1	0.019	0.000	1.2
⌈>	Ce	139.9	395641.1	395641.061	1671.282	0.4
⌊	CeO	155.9	10091.2	0.026	0.001	2.5
	Bkgd	220.0	26.2	26.200	2.797	10.7

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	6148.0
Co	59	13	6.0	132832.7
In	115	13	6.5	354458.2

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2072	0.628
Be	9.0	9.0	2057	2088	0.614
Mg	24.0	24.0	5685	2100	0.599
Mg	25.0	25.0	5937	2100	0.577
Mg	26.0	26.0	6175	2100	0.613
Co	58.9	59.0	14191	2125	0.607
Rh	102.9	102.9	24879	2180	0.587
In	114.9	114.9	27793	2200	0.589
Ce	139.9	139.9	33865	2220	0.588
Pb	206.0	206.0	49948	2305	0.605
Pb	207.0	206.9	50147	2240	0.644
Pb	208.0	208.0	50451	2265	0.717
U	238.1	238.1	57727	2275	0.749

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 21, 2010 10:33:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		12	
>	Sc	45		ug/L		778356	
	Cr	52		ug/L		3389	
	Cr	53		ug/L		230042	
	Mn	55		ug/L		2670	
	Ni	60		ug/L		242	
>	Lu	175		ug/L		600278	
	Pb	208		ug/L		398	
	U	238		ug/L		148	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Ni	60	Simple Linear	
Lu	175	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 21, 2010 10:35:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ani 0220.mth
Dataset File: C:\elandata\Dataset\100221\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	3.103	6068	0.008
>	Sc	45		ug/L		790482	790482.492
	Cr	52	10.000	ug/L	4.709	99618	0.122
	Cr	53		ug/L		176974	-0.071
	Mn	55	10.000	ug/L	4.223	161796	0.201
	Ni	60	10.000	ug/L	4.332	27041	0.034
>	Lu	175		ug/L		660776	660776.007
	Pb	208	10.000	ug/L	1.597	501165	0.758
	U	238	10.000	ug/L	2.479	608735	0.921

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 21, 2010 10:37:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.993**	**ug/L**	5.736	58618	0.076
>	Sc	45		**ug/L**		771536	771535.665
	Cr	52	**99.959**	**ug/L**	4.949	904239	1.170
	Cr	53		**ug/L**		272089	0.058
	Mn	55	**99.916**	**ug/L**	5.938	1432484	1.857
	Ni	60	**99.964**	**ug/L**	5.701	252228	0.327
>	Lu	175		**ug/L**		642790	642789.932
	Pb	208	**99.890**	**ug/L**	1.544	4385051	6.822
	U	238	**99.871**	**ug/L**	3.031	5236377	8.148

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 21, 2010 10:39:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.779**	**ug/L**	3.789	30091	0.039
>	Sc	45		**ug/L**		763801	763800.879
	Cr	52	**52.685**	**ug/L**	4.101	473834	0.617
	Cr	53		**ug/L**		207409	-0.024
	Mn	55	**54.730**	**ug/L**	4.236	778828	1.017
	Ni	60	**52.712**	**ug/L**	3.165	131968	0.173
>	Lu	175		**ug/L**		658340	658340.032
	Pb	208	**51.604**	**ug/L**	1.155	2320548	3.524
	U	238	**51.214**	**ug/L**	1.200	2750857	4.178

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	103.559				
>	Sc	45		98.1			
	Cr	52	105.371				
	Cr	53					
	Mn	55	109.461				
	Ni	60	105.424				
>	Lu	175		109.7			
	Pb	208	103.209				
	U	238	102.428				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 21, 2010 10:41:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.012	ug/L	82.302	19	0.000
>	Sc	45		ug/L		768885	768885.259
	Cr	52	-0.168	ug/L	14.165	1840	-0.002
	Cr	53		ug/L		242755	0.020
	Mn	55	-0.006	ug/L	34.546	2545	-0.000
	Ni	60	-0.001	ug/L	840.320	237	-0.000
>	Lu	175		ug/L		606652	606652.412
	Pb	208	0.004	ug/L	12.255	554	0.000
	U	238	0.016	ug/L	1.893	941	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		101.1			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 21, 2010 10:44:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.541**	**ug/L**	2.958	334	0.000
>	Sc	45		**ug/L**		781214	781214.098
	Cr	52	**10.908**	**ug/L**	1.406	103116	0.128
	Cr	53		**ug/L**		204994	-0.033
	Mn	55	**6.066**	**ug/L**	1.280	90763	0.113
	Ni	60	**2.212**	**ug/L**	2.736	5899	0.007
>	Lu	175		**ug/L**		637826	637826.374
	Pb	208	**2.450**	**ug/L**	1.386	107139	0.167
	U	238	**0.287**	**ug/L**	2.086	15085	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	108.174				
>	Sc	45		100.4			
	Cr	52	109.076				
	Cr	53					
	Mn	55	121.319				
	Ni	60	110.591				
>	Lu	175		106.3			
	Pb	208	122.503				
	U	238	143.447				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 21, 2010 10:46:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.106**	**ug/L**	27.388	63	0.000
>	Sc	45		**ug/L**		664771	664770.993
	Cr	52	**2.204**	**ug/L**	2.837	20030	0.026
	Cr	53		**ug/L**		140053	-0.085
	Mn	55	**6.838**	**ug/L**	5.258	86662	0.127
	Ni	60	**3.602**	**ug/L**	4.531	8038	0.012
>	Lu	175		**ug/L**		580018	580017.696
	Pb	208	**0.257**	**ug/L**	1.127	10554	0.018
	U	238	**0.004**	**ug/L**	10.732	342	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.4			
	Cr	52	66.800				
	Cr	53					
	Mn	55	117.904				
	Ni	60	108.828				
>	Lu	175		96.6			
	Pb	208	135.833				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 21, 2010 10:48:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.149**	**ug/L**	3.460	9970	0.015
>	Sc	45		**ug/L**		649869	649868.633
	Cr	52	**24.402**	**ug/L**	5.264	188159	0.286
	Cr	53		**ug/L**		149871	-0.065
	Mn	55	**29.886**	**ug/L**	3.656	362968	0.556
	Ni	60	**24.298**	**ug/L**	4.441	51843	0.080
>	Lu	175		**ug/L**		592672	592672.052
	Pb	208	**22.088**	**ug/L**	1.531	894404	1.509
	U	238	**24.112**	**ug/L**	0.647	1166058	1.967

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	100.743				
>	Sc	45		83.5			
	Cr	52	104.729				
	Cr	53					
	Mn	55	115.838				
	Ni	60	104.238				
>	Lu	175		98.7			
	Pb	208	109.406				
	U	238	120.558				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 10:50:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.767**	**ug/L**	3.928	29609	0.039
>	Sc	45		**ug/L**		751800	751800.433
	Cr	52	**50.172**	**ug/L**	4.186	444196	0.587
	Cr	53		**ug/L**		195140	-0.036
	Mn	55	**51.695**	**ug/L**	5.552	723952	0.961
	Ni	60	**50.548**	**ug/L**	4.403	124516	0.165
>	Lu	175		**ug/L**		667413	667412.956
	Pb	208	**51.034**	**ug/L**	1.879	2326368	3.485
	U	238	**51.311**	**ug/L**	1.769	2793869	4.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	103.535				
>	Sc	45		96.6			
	Cr	52	100.344				
	Cr	53					
	Mn	55	103.390				
	Ni	60	101.096				
>	Lu	175		111.2			
	Pb	208	102.069				
	U	238	102.622				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 10:52:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.016**	**ug/L**	9.348	21	0.000
>	Sc	45		**ug/L**		754928	754927.738
	Cr	52	**-0.292**	**ug/L**	21.315	707	-0.003
	Cr	53		**ug/L**		244580	0.028
	Mn	55	**0.003**	**ug/L**	106.053	2636	0.000
	Ni	60	**-0.013**	**ug/L**	51.934	203	-0.000
>	Lu	175		**ug/L**		612882	612882.233
	Pb	208	**0.003**	**ug/L**	8.492	534	0.000
	U	238	**0.013**	**ug/L**	1.792	796	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		102.1			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 11:03:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.022**	**ug/L**	5.035	31363	0.041
>	Sc	45		**ug/L**		763414	763414.365
	Cr	52	**48.946**	**ug/L**	4.002	440091	0.573
	Cr	53		**ug/L**		233016	0.010
	Mn	55	**50.437**	**ug/L**	5.377	717178	0.938
	Ni	60	**48.783**	**ug/L**	4.413	122021	0.160
>	Lu	175		**ug/L**		673390	673389.540
	Pb	208	**50.337**	**ug/L**	1.947	2314998	3.438
	U	238	**51.406**	**ug/L**	2.134	2823923	4.194

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	108.044				
>	Sc	45		98.1			
	Cr	52	97.892				
	Cr	53					
	Mn	55	100.873				
	Ni	60	97.566				
>	Lu	175		112.2			
	Pb	208	100.674				
	U	238	102.813				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 11:05:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.019**	**ug/L**	58.042	23	0.000
>	Sc	45		**ug/L**		774806	774806.022
	Cr	52	**0.483**	**ug/L**	5.985	7756	0.006
	Cr	53		**ug/L**		282176	0.069
	Mn	55	**0.024**	**ug/L**	25.375	3007	0.000
	Ni	60	**-0.023**	**ug/L**	23.007	183	-0.000
>	Lu	175		**ug/L**		621093	621093.098
	Pb	208	**0.003**	**ug/L**	8.377	540	0.000
	U	238	**0.015**	**ug/L**	4.719	897	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.5			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		103.5			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031027
Sample Date/Time: Sunday, February 21, 2010 11:08:04
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948090|1|ba|
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\1202031027.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.016**	**ug/L**	45.921	22	0.000
>	Sc	45		**ug/L**		788658	788658.444
	Cr	52	**2.686**	**ug/L**	3.695	28208	0.031
	Cr	53		**ug/L**		568916	0.426
	Mn	55	**0.289**	**ug/L**	7.277	6940	0.005
	Ni	60	**0.102**	**ug/L**	14.531	507	0.000
>	Lu	175		**ug/L**		611109	611109.143
	Pb	208	**0.011**	**ug/L**	4.563	865	0.001
	U	238	**0.001**	**ug/L**	21.438	209	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.3			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		101.8			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031028
Sample Date/Time: Sunday, February 21, 2010 11:10:13
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\1202031028.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**59.403**	**ug/L**	3.421	35170	0.045
>	Sc	45		**ug/L**		778088	778088.129
	Cr	52	**56.235**	**ug/L**	2.671	515173	0.658
	Cr	53		**ug/L**		604973	0.483
	Mn	55	**54.883**	**ug/L**	5.130	795465	1.020
	Ni	60	**53.211**	**ug/L**	2.526	135722	0.174
>	Lu	175		**ug/L**		603249	603249.134
	Pb	208	**58.168**	**ug/L**	0.429	2396881	3.973
	U	238	**59.666**	**ug/L**	1.264	2936854	4.868

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		100.5			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 11:25:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.347**	**ug/L**	4.973	29922	0.039
>	Sc	45		**ug/L**		766159	766159.384
	Cr	52	**50.438**	**ug/L**	3.223	455216	0.590
	Cr	53		**ug/L**		279780	0.070
	Mn	55	**52.469**	**ug/L**	4.404	749029	0.975
	Ni	60	**48.775**	**ug/L**	3.337	122483	0.160
>	Lu	175		**ug/L**		659389	659389.402
	Pb	208	**50.664**	**ug/L**	1.113	2281961	3.460
	U	238	**50.213**	**ug/L**	1.482	2701482	4.097

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	102.695				
>	Sc	45		98.4			
	Cr	52	100.876				
	Cr	53					
	Mn	55	104.938				
	Ni	60	97.550				
>	Lu	175		109.8			
	Pb	208	101.327				
	U	238	100.425				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 11:27:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.031	ug/L	38.381	28	0.000
>	Sc	45		ug/L		720218	720217.685
	Cr	52	0.574	ug/L	26.610	7951	0.007
	Cr	53		ug/L		318083	0.147
	Mn	55	0.063	ug/L	20.048	3307	0.001
	Ni	60	-0.011	ug/L	34.431	198	-0.000
>	Lu	175		ug/L		601050	601049.961
	Pb	208	0.004	ug/L	33.499	567	0.000
	U	238	0.014	ug/L	5.661	825	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.5			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		100.1			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031029, 30 EAG 2/21/10
Sample Date/Time: Sunday, February 21, 2010 11:32:18
Sample Type:
Sample Description: LANL 6020 ~~DUP~~ MS
Number of Replicates: 3
Batch ID: 948090|1|ba|
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\1202031029.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	54.378	ug/L	3.588	32583	0.041
>	Sc	45		ug/L		787532	787532.447
	Cr	52	55.225	ug/L	4.001	511854	0.646
	Cr	53		ug/L		666537	0.552
	Mn	55	88.118	ug/L	3.573	1291412	1.638
	Ni	60	50.253	ug/L	3.921	129688	0.165
>	Lu	175		ug/L		583181	583181.357
	Pb	208	48.054	ug/L	1.000	1914279	3.282
	U	238	63.886	ug/L	0.262	3039864	5.212

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.2			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		97.2			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031030 29
Sample Date/Time: Sunday, February 21, 2010 11:34:30
Sample Type:
Sample Description: LANL 6020 MS DUP
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\1202031030.029

EAG 2/21/10

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.059	ug/L	15.466	47	0.000
>	Sc	45		ug/L		778996	778995.842
	Cr	52	2.772	ug/L	2.920	28652	0.032
	Cr	53		ug/L		647126	0.536
	Mn	55	41.436	ug/L	2.985	602364	0.770
	Ni	60	1.687	ug/L	1.292	4544	0.006
>	Lu	175		ug/L		576016	576016.446
	Pb	208	0.689	ug/L	1.389	27506	0.047
	U	238	3.824	ug/L	1.267	179854	0.312

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.1			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		96.0			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031031
Sample Date/Time: Sunday, February 21, 2010 11:36:40
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948090|5|baj
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\1202031031.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.029**	**ug/L**	35.604	28	0.000
>	Sc	45		**ug/L**		735421	735421.479
	Cr	52	**0.193**	**ug/L**	34.738	4842	0.002
	Cr	53		**ug/L**		410120	0.263
	Mn	55	**9.418**	**ug/L**	5.058	131012	0.175
	Ni	60	**0.375**	**ug/L**	7.710	1131	0.001
>	Lu	175		**ug/L**		616575	616575.210
	Pb	208	**0.153**	**ug/L**	0.931	6871	0.010
	U	238	**0.700**	**ug/L**	1.239	35384	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.5			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		102.7			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 11:43:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.320**	**ug/L**	4.604	29347	0.039
>	Sc	45		**ug/L**		751937	751936.827
	Cr	52	**50.438**	**ug/L**	4.678	446444	0.590
	Cr	53		**ug/L**		267939	0.061
	Mn	55	**51.559**	**ug/L**	4.948	722128	0.958
	Ni	60	**49.030**	**ug/L**	5.135	120764	0.161
>	Lu	175		**ug/L**		656627	656627.249
	Pb	208	**49.853**	**ug/L**	0.899	2235990	3.405
	U	238	**49.851**	**ug/L**	1.563	2670593	4.067

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	102.639				
>	Sc	45		96.6			
	Cr	52	100.875				
	Cr	53					
	Mn	55	103.118				
	Ni	60	98.060				
>	Lu	175		109.4			
	Pb	208	99.705				
	U	238	99.702				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 11:45:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.019**	**ug/L**	49.855	21	0.000
>	Sc	45		**ug/L**		709068	709067.961
	Cr	52	**0.485**	**ug/L**	6.365	7107	0.006
	Cr	53		**ug/L**		310876	0.143
	Mn	55	**0.057**	**ug/L**	23.751	3185	0.001
	Ni	60	**-0.008**	**ug/L**	84.602	200	-0.000
>	Lu	175		**ug/L**		604968	604967.644
	Pb	208	**0.004**	**ug/L**	10.635	564	0.000
	U	238	**0.015**	**ug/L**	4.513	914	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.1			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		100.8			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245807001
Sample Date/Time: Sunday, February 21, 2010 11:54:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\245807001.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.022**	**ug/L**	18.512	26	0.000
>	Sc	45		**ug/L**		803305	803305.063
	Cr	52	**1.440**	**ug/L**	2.544	17042	0.017
	Cr	53		**ug/L**		745689	0.633
	Mn	55	**0.648**	**ug/L**	0.317	12434	0.012
	Ni	60	**0.054**	**ug/L**	3.215	392	0.000
>	Lu	175		**ug/L**		622341	622341.291
	Pb	208	**0.069**	**ug/L**	3.489	3352	0.005
	U	238	**0.027**	**ug/L**	2.926	1505	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.2			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		103.7			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245807002
Sample Date/Time: Sunday, February 21, 2010 11:56:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\245807002.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.017**	**ug/L**	94.177	23	0.000
>	Sc	45		**ug/L**		820143	820142.906
	Cr	52	**1.679**	**ug/L**	4.403	19691	0.020
	Cr	53		**ug/L**		717429	0.579
	Mn	55	**0.648**	**ug/L**	1.926	12691	0.012
	Ni	60	**0.077**	**ug/L**	9.966	460	0.000
>	Lu	175		**ug/L**		633035	633035.252
	Pb	208	**0.604**	**ug/L**	1.808	26531	0.041
	U	238	**0.093**	**ug/L**	2.867	4955	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		105.4			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		105.5			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 11:58:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.854**	**ug/L**	0.707	29834	0.038
>	Sc	45		**ug/L**		785777	785777.407
	Cr	52	**49.182**	**ug/L**	0.627	455648	0.576
	Cr	53		**ug/L**		269246	0.047
	Mn	55	**50.794**	**ug/L**	2.014	744494	0.944
	Ni	60	**48.447**	**ug/L**	1.631	124872	0.159
>	Lu	175		**ug/L**		675152	675151.688
	Pb	208	**50.500**	**ug/L**	3.227	2328124	3.449
	U	238	**50.003**	**ug/L**	3.298	2753491	4.080

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.709				
>	Sc	45		101.0			
	Cr	52	98.364				
	Cr	53					
	Mn	55	101.588				
	Ni	60	96.894				
>	Lu	175		112.5			
	Pb	208	101.001				
	U	238	100.005				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 12:00:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0220.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.016**	**ug/L**	95.165	20	0.000
>	Sc	45		**ug/L**		743646	743646.228
	Cr	52	**0.571**	**ug/L**	14.614	8212	0.007
	Cr	53		**ug/L**		313055	0.126
	Mn	55	**0.047**	**ug/L**	31.117	3187	0.001
	Ni	60	**-0.013**	**ug/L**	26.877	198	-0.000
>	Lu	175		**ug/L**		633366	633366.379
	Pb	208	**0.005**	**ug/L**	22.266	615	0.000
	U	238	**0.015**	**ug/L**	2.393	921	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.5			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		105.5			
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 21, 2010 12:04:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\Blank.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		617752	
	U	238		ug/L		374	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 21, 2010 12:05:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\Standard 1.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		664172	664172.319
	U	238	10.000	ug/L	2.543	659083	0.992

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 21, 2010 12:07:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\Standard 2.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		652973	652972.788
	U	238	99.825	ug/L	0.646	5504050	8.429

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 21, 2010 12:09:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 1.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		659537	659536.785
⌊	U	238	51.177	ug/L	2.467	2849484	4.321

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		106.8			
⌊	U	238	102.354				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 21, 2010 12:10:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 2.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		633323	633323.380
	U	238	0.013	ug/L	1.969	1077	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		102.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 21, 2010 12:12:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 3.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		646467	646466.570
⌊	U	238	0.250	ug/L	2.827	14049	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		104.6			
⌊	U	238	125.110				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 21, 2010 12:14:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 4.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		583428	583427.977
	U	238	-0.000	ug/L	2363.642	351	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 21, 2010 12:15:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 5.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		595331	595331.116
	U	238	23.650	ug/L	1.086	1189143	1.997

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.4			
	U	238	118.250				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 12:17:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		670507	670507.287
	U	238	49.111	ug/L	1.733	2780637	4.147

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		108.5			
	U	238	98.222				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 12:19:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		606909	606909.258
	U	238	0.012	ug/L	4.367	1002	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 12:35:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		657594	657593.889
	U	238	47.680	ug/L	1.141	2647696	4.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		106.4			
	U	238	95.361				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 12:37:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		613255	613255.402
	U	238	0.010	ug/L	4.739	886	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 12:52:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		659502	659501.648
	U	238	46.905	ug/L	0.926	2612293	3.960

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		106.8			
	U	238	93.810				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 12:54:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		571853	571853.062
	U	238	0.011	ug/L	4.596	860	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031027
Sample Date/Time: Sunday, February 21, 2010 12:59:33
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948090|1|ba|
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\1202031027.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		564550	564550.144
	U	238	-0.004	ug/L	7.890	147	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		91.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031028
Sample Date/Time: Sunday, February 21, 2010 13:01:15
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\1202031028.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		574994	574994.347
⌊	U	238	56.728	ug/L	1.009	2754483	4.790

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 13:13:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		642234	642234.343
	U	238	46.208	ug/L	0.746	2506027	3.902

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.0			
	U	238	92.415				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 13:14:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		564447	564446.757
⌊	U	238	0.014	ug/L	15.112	1004	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		91.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031029
Sample Date/Time: Sunday, February 21, 2010 13:22:33
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\1202031029.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		551899	551899.197
⌊	U	238	3.591	ug/L	1.281	167638	0.303

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		89.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031030
Sample Date/Time: Sunday, February 21, 2010 13:24:17
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\1202031030.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		548798	548797.541
⌊	U	238	60.067	ug/L	1.187	2783713	5.072

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		88.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202031031
Sample Date/Time: Sunday, February 21, 2010 13:25:59
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948090|5|ba|
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\1202031031.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		589161	589161.330
	U	238	0.681	ug/L	0.311	34232	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 13:27:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.089

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		647357	647356.844
	U	238	**46.422**	**ug/L**	0.412	2537723	3.920

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.8			
	U	238	92.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 13:29:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		608393	608392.911
	U	238	0.012	ug/L	6.214	978	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245807001
Sample Date/Time: Sunday, February 21, 2010 13:39:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\245807001.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		567764	567763.625
	U	238	0.022	ug/L	3.044	1421	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		91.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245807002
Sample Date/Time: Sunday, February 21, 2010 13:41:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948090|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\245807002.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		569873	569873.134
⌊	U	238	0.088	ug/L	1.634	4575	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 21, 2010 13:43:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 6.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		647094	647094.033
	U	238	46.309	ug/L	1.445	2530499	3.910

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		104.7			
	U	238	92.618				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 21, 2010 13:44:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100221\QC Std 7.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		576307	576306.908
⌊	U	238	0.012	ug/L	4.241	942	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		93.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Method Name: WATER
Method Description: 7470A, 245.2, ILM04 ANALYST JXL
Element: Hg

Date: 02/15/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021510W1.SIF Results Data Set Name: 021510W1

Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/15/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0024	0.0024	09:21:41	No
2			0.0024	0.0024	09:22:16	No
Mean:			0.0024			
SD :			0.0000			
%RSD:			0.5205			

Auto-zero performed.

Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/15/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0018	0.0042	09:23:38	No
2			0.0018	0.0042	09:24:13	No
Mean:			0.0018			
SD :			0.0000			
%RSD:						

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00889
Intercept : 0.00000

Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/15/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0042	0.0067	09:25:37	No
2			0.0041	0.0065	09:26:12	No
Mean:			0.0042			
SD :			0.0001			
%RSD:			1.7287			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99956 Slope: 0.00831
Intercept : 0.00004

Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/15/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0182	0.0206	09:27:37	No
2			0.0179	0.0203	09:28:11	No
Mean:			0.0180			
SD :			0.0002			
%RSD:			1.1683			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99980 Slope: 0.00905
Intercept : -0.00011

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/15/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0452	0.0477	09:29:36	No
2			0.0450	0.0474	09:30:11	No
Mean:			0.0451			
SD :			0.0002			
%RSD:			0.4113			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.00905
Intercept : -0.00011

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/15/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0897	0.0921	09:31:37	No
2			0.0887	0.0911	09:32:12	No
Mean:			0.0892			
SD :			0.0007			
%RSD:			0.8016			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99997 Slope: 0.00894
Intercept : 0.00001

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0024	---	----	----	----
S0.2	0.0018	0.200	0.198	0.0000	----
S0.5	0.0042	0.500	0.465	0.0001	1.7
S2.0	0.0180	2.000	2.017	0.0002	1.2
S5.0	0.0451	5.000	5.046	0.0002	0.4
S10	0.0892	10.000	9.975	0.0007	0.8

Correlation Coefficient: 0.99997 Slope: 0.00894 Intercept: 0.0000

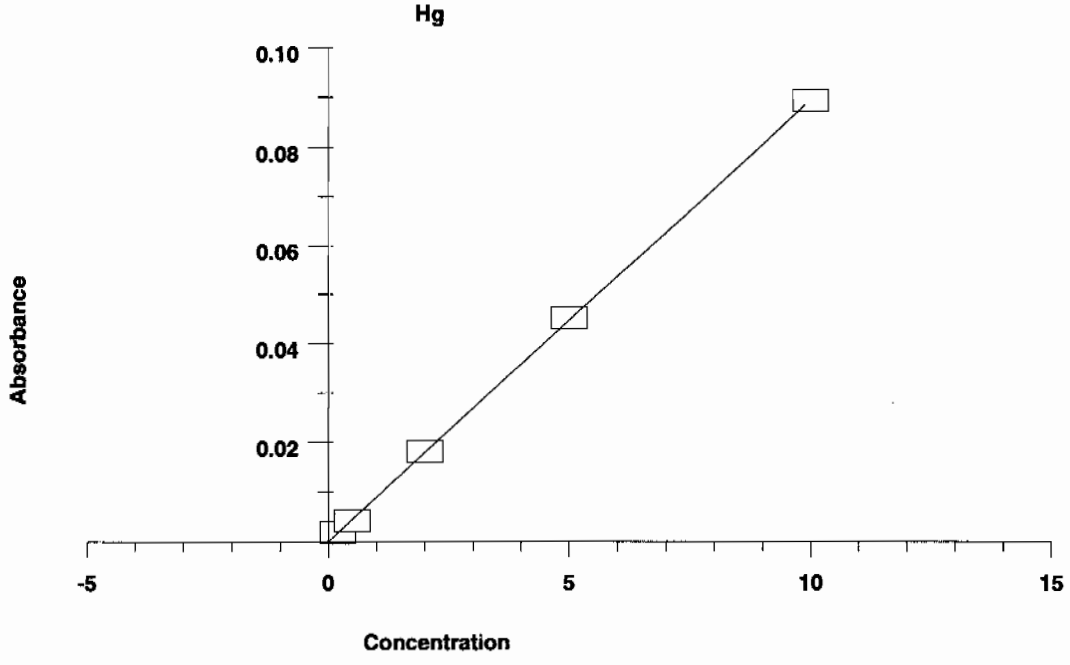

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/15/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.048	5.048	0.0451	0.0476	09:33:41	No
2	4.991	4.991	0.0446	0.0471	09:34:16	No
Mean:	5.020	5.020	0.0449			
SD :	0.0405	0.0405	0.0004			
%RSD:	0.8	0.8	0.8076			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/15/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0002	0.0022	09:35:38	No
2	-0.055	-0.055	-0.0005	0.0019	09:36:13	No
Mean:	-0.042	-0.042	-0.0004			
SD :	0.0195	0.0195	0.0002			
%RSD:	47.1	47.1	48.4306			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/15/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.200	0.200	0.0018	0.0042	09:37:35	No
2	0.193	0.193	0.0017	0.0042	09:38:10	No
Mean:	0.197	0.197	0.0018			
SD :	0.0048	0.0048	0.0000			
%RSD:	2.4	2.4	2.4178			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.071	5.071	0.0453	0.0478	09:39:35	No
2	5.003	5.003	0.0447	0.0472	09:40:10	No
Mean:	5.037	5.037	0.0450			
SD :	0.0480	0.0480	0.0004			
%RSD:	1.0	1.0	0.9530			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0003	0.0021	09:41:39	No
2	-0.033	-0.033	-0.0003	0.0021	09:42:13	No
Mean:	-0.034	-0.034	-0.0003			
SD :	0.0001	0.0001	0.0000			
%RSD:	0.3	0.3	0.3404			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/15/2010
Sample ID: 1202030001|i||947659|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0003	0.0021	09:43:40	No
2	-0.041	-0.041	-0.0004	0.0021	09:44:15	No
Mean:	-0.037	-0.037	-0.0003			
SD :	0.0063	0.0063	0.0001			
%RSD:	17.1	17.1	17.6447			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/15/2010
Sample ID: 1202030002|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.137	2.137	0.0191	0.0215	09:45:39	No
2	2.109	2.109	0.0189	0.0213	09:46:14	No
Mean:	2.123	2.123	0.0190			
SD :	0.0200	0.0200	0.0002			
%RSD:	0.9	0.9	0.9436			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/15/2010
Sample ID: 245605002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0024	09:47:39	No
2	0.002	0.002	0.0000	0.0025	09:48:14	No
Mean:	0.000	0.000	0.0000			
SD :	0.0015	0.0015	0.0000			
%RSD:	336.1	336.1	93.9525			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/15/2010
Sample ID: 245605003|i|||

%RSD: 0.7 0.7 0.6795

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/15/2010
Sample ID: 1202030005|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.099	-0.099	-0.0009	0.0016	10:01:28	No
2	-0.104	-0.104	-0.0009	0.0015	10:02:03	No
Mean:	-0.102	-0.102	-0.0009			
SD :	0.0037	0.0037	0.0000			
%RSD:	3.7	3.7	3.7087			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.145	5.145	0.0460	0.0484	10:03:28	No
2	5.088	5.088	0.0455	0.0479	10:04:03	No
Mean:	5.117	5.117	0.0457			
SD :	0.0403	0.0403	0.0004			
%RSD:	0.8	0.8	0.7877			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.043	-0.043	-0.0004	0.0021	10:05:31	No
2	-0.037	-0.037	-0.0003	0.0021	10:06:06	No
Mean:	-0.040	-0.040	-0.0003			
SD :	0.0038	0.0038	0.0000			
%RSD:	9.4	9.4	9.6735			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/15/2010
Sample ID: 245673002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.031	-0.031	-0.0003	0.0022	10:07:31	No
2	-0.051	-0.051	-0.0004	0.0020	10:08:06	No
Mean:	-0.041	-0.041	-0.0004			
SD :	0.0135	0.0135	0.0001			
%RSD:	33.0	33.0	33.9271			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/15/2010
Sample ID: 245673003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0004	0.0020	10:09:30	No
2	-0.053	-0.053	-0.0005	0.0020	10:10:04	No
Mean:	-0.050	-0.050	-0.0004			
SD :	0.0044	0.0044	0.0000			
%RSD:	8.7	8.7	8.9549			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/15/2010
Sample ID: 245673004|i|||

%RSD:

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/15/2010
Sample ID: 1202041608|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0005	0.0020	10:23:29	No
2	-0.055	-0.055	-0.0005	0.0019	10:24:04	No
Mean:	-0.054	-0.054	-0.0005			
SD :	0.0019	0.0019	0.0000			
%RSD:	3.6	3.6	3.6715			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/15/2010
Sample ID: 1202041609|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.104	2.104	0.0188	0.0212	10:25:32	No
2	2.113	2.113	0.0189	0.0213	10:26:07	No
Mean:	2.108	2.108	0.0189			
SD :	0.0059	0.0059	0.0001			
%RSD:	0.3	0.3	0.2779			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.147	5.147	0.0460	0.0484	10:27:34	No
2	5.128	5.128	0.0459	0.0483	10:28:09	No
Mean:	5.137	5.137	0.0459			
SD :	0.0129	0.0129	0.0001			
%RSD:	0.3	0.3	0.2516			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0004	0.0020	10:29:38	No
2	-0.049	-0.049	-0.0004	0.0020	10:30:12	No
Mean:	-0.048	-0.048	-0.0004			
SD :	0.0018	0.0018	0.0000			
%RSD:	3.7	3.7	3.8110			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/15/2010
Sample ID: 1202041610|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0008	0.0016	10:31:36	No
2	-0.100	-0.100	-0.0009	0.0015	10:32:11	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0063	0.0063	0.0001			
%RSD:	6.6	6.6	6.6348			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/15/2010
Sample ID: 246789002|i|||

%RSD: 5.9 5.9 5.9632

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/15/2010
Sample ID: 1202041424|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.068	2.068	0.0185	0.0209	10:45:09	No
2	2.071	2.071	0.0185	0.0209	10:45:44	No
Mean:	2.070	2.070	0.0185			
SD :	0.0017	0.0017	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/15/2010
Sample ID: 1202041425|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.101	2.101	0.0188	0.0212	10:47:08	No
2	2.106	2.106	0.0188	0.0213	10:47:43	No
Mean:	2.103	2.103	0.0188			
SD :	0.0033	0.0033	0.0000			
%RSD:	0.2	0.2	0.1587			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/15/2010
Sample ID: 1202041435|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0010	0.0014	10:49:07	No
2	-0.125	-0.125	-0.0011	0.0013	10:49:42	No
Mean:	-0.122	-0.122	-0.0011			
SD :	0.0046	0.0046	0.0000			
%RSD:	3.7	3.7	3.7805			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.101	5.101	0.0456	0.0480	10:51:08	No
2	5.106	5.106	0.0456	0.0481	10:51:43	No
Mean:	5.103	5.103	0.0456			
SD :	0.0035	0.0035	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0008	0.0016	10:53:11	No
2	-0.099	-0.099	-0.0009	0.0016	10:53:46	No
Mean:	-0.097	-0.097	-0.0009			
SD :	0.0026	0.0026	0.0000			
%RSD:	2.7	2.7	2.7104			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/15/2010
Sample ID: 246914003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.083	-0.083	-0.0007	0.0017	10:55:12	No
2	-0.092	-0.092	-0.0008	0.0016	10:55:47	No
Mean:	-0.087	-0.087	-0.0008			
SD :	0.0064	0.0064	0.0001			
%RSD:	7.3	7.3	7.3722			

Element: Hg Seq. No.: 49 AS Loc.: 43 Date: 02/15/2010
Sample ID: 246914004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.109	-0.109	-0.0010	0.0015	10:57:12	No
2	-0.113	-0.113	-0.0010	0.0014	10:57:47	No
Mean:	-0.111	-0.111	-0.0010			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.8	2.8	2.7827			

Element: Hg Seq. No.: 50 AS Loc.: 44 Date: 02/15/2010
Sample ID: 246914005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0008	0.0016	10:59:13	No
2	-0.098	-0.098	-0.0009	0.0016	10:59:48	No
Mean:	-0.095	-0.095	-0.0008			
SD :	0.0039	0.0039	0.0000			
%RSD:	4.1	4.1	4.1164			

Element: Hg Seq. No.: 51 AS Loc.: 45 Date: 02/15/2010
Sample ID: 1202029965|i||947646|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.118	-0.118	-0.0010	0.0014	11:01:14	No
2	-0.112	-0.112	-0.0010	0.0014	11:01:48	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0040	0.0040	0.0000			
%RSD:	3.4	3.4	3.4701			

Element: Hg Seq. No.: 52 AS Loc.: 46 Date: 02/15/2010
Sample ID: 1202029966|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.047	2.047	0.0183	0.0207	11:03:14	No
2	2.027	2.027	0.0181	0.0206	11:03:49	No
Mean:	2.037	2.037	0.0182			
SD :	0.0137	0.0137	0.0001			
%RSD:	0.7	0.7	0.6701			

Element: Hg Seq. No.: 53 AS Loc.: 47 Date: 02/15/2010
Sample ID: 245681001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.114	-0.114	-0.0010	0.0014	11:05:16	No
2	-0.107	-0.107	-0.0009	0.0015	11:05:51	No
Mean:	-0.111	-0.111	-0.0010			
SD :	0.0051	0.0051	0.0000			

%RSD: 4.6 4.6 4.6202

==========

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 02/15/2010
Sample ID: 245681002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0010	0.0014	11:07:15	No
2	-0.118	-0.118	-0.0010	0.0014	11:07:50	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0038	0.0038	0.0000			
%RSD:	3.3	3.3	3.3203			

==========

Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 02/15/2010
Sample ID: 245690001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.102	-0.102	-0.0009	0.0015	11:09:10	No
2	-0.107	-0.107	-0.0009	0.0015	11:09:45	No
Mean:	-0.105	-0.105	-0.0009			
SD :	0.0036	0.0036	0.0000			
%RSD:	3.4	3.4	3.4771			

==========

Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 02/15/2010
Sample ID: 245690002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.099	-0.099	-0.0009	0.0016	11:11:06	No
2	-0.109	-0.109	-0.0010	0.0015	11:11:41	No
Mean:	-0.104	-0.104	-0.0009			
SD :	0.0072	0.0072	0.0001			
%RSD:	6.9	6.9	6.9975			

==========

Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 02/15/2010
Sample ID: 245807001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.110	-0.110	-0.0010	0.0015	11:13:02	No
2	-0.115	-0.115	-0.0010	0.0014	11:13:36	No
Mean:	-0.112	-0.112	-0.0010			
SD :	0.0033	0.0033	0.0000			
%RSD:	3.0	3.0	2.9987			

==========

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.081	5.081	0.0454	0.0479	11:15:01	No
2	5.124	5.124	0.0458	0.0482	11:15:36	No
Mean:	5.102	5.102	0.0456			
SD :	0.0304	0.0304	0.0003			
%RSD:	0.6	0.6	0.5954			

QC value within specified limits.

==========

Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.104	-0.104	-0.0009	0.0015	11:17:04	No
2	-0.111	-0.111	-0.0010	0.0014	11:17:39	No
Mean:	-0.108	-0.108	-0.0010			
SD :	0.0046	0.0046	0.0000			
%RSD:	4.2	4.2	4.2806			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/15/2010
Sample ID: 1202029967|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.107	-0.107	-0.0009	0.0015	11:19:04	No
2	-0.116	-0.116	-0.0010	0.0014	11:19:39	No
Mean:	-0.111	-0.111	-0.0010			
SD :	0.0065	0.0065	0.0001			
%RSD:	5.8	5.8	5.8805			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/15/2010
Sample ID: 1202029968|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.104	2.104	0.0188	0.0212	11:21:01	No
2	2.120	2.120	0.0190	0.0214	11:21:36	No
Mean:	2.112	2.112	0.0189			
SD :	0.0117	0.0117	0.0001			
%RSD:	0.6	0.6	0.5520			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/15/2010
Sample ID: 1202029969|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.149	-0.149	-0.0013	0.0011	11:22:58	No
2	-0.148	-0.148	-0.0013	0.0011	11:23:33	No
Mean:	-0.148	-0.148	-0.0013			
SD :	0.0006	0.0006	0.0000			
%RSD:	0.4	0.4	0.3912			

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/15/2010
Sample ID: 245807002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.112	-0.112	-0.0010	0.0014	11:24:56	No
2	-0.117	-0.117	-0.0010	0.0014	11:25:30	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.7	2.7	2.7422			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/15/2010
Sample ID: 1202039059|i||951455|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0008	0.0016	11:26:55	No
2	-0.105	-0.105	-0.0009	0.0015	11:27:29	No
Mean:	-0.099	-0.099	-0.0009			
SD :	0.0076	0.0076	0.0001			

%RSD: 7.6 7.6 7.7159

==========

Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 02/15/2010
Sample ID: 1202039060|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.267	2.267	0.0203	0.0227	11:28:54	No
2	2.265	2.265	0.0203	0.0227	11:29:28	No
Mean:	2.266	2.266	0.0203			
SD :	0.0011	0.0011	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 02/15/2010
Sample ID: 246264001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.097	-0.097	-0.0009	0.0016	11:30:52	No
2	-0.104	-0.104	-0.0009	0.0015	11:31:26	No
Mean:	-0.101	-0.101	-0.0009			
SD :	0.0048	0.0048	0.0000			
%RSD:	4.7	4.7	4.7837			

==========

Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 02/15/2010
Sample ID: 246269001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.098	-0.098	-0.0009	0.0016	11:32:50	No
2	-0.108	-0.108	-0.0010	0.0015	11:33:24	No
Mean:	-0.103	-0.103	-0.0009			
SD :	0.0072	0.0072	0.0001			
%RSD:	7.0	7.0	7.0414			

==========

Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 02/15/2010
Sample ID: 246278001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.110	-0.110	-0.0010	0.0015	11:34:49	No
2	-0.110	-0.110	-0.0010	0.0015	11:35:24	No
Mean:	-0.110	-0.110	-0.0010			
SD :	0.0002	0.0002	0.0000			
%RSD:	0.2	0.2	0.1960			

==========

Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 02/15/2010
Sample ID: 246282001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0008	0.0016	11:36:50	No
2	-0.113	-0.113	-0.0010	0.0014	11:37:25	No
Mean:	-0.104	-0.104	-0.0009			
SD :	0.0134	0.0134	0.0001			
%RSD:	12.9	12.9	13.0431			

==========

Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Time	Peak

#	µg/L	µg/L	Signal	Height		Stored
1	5.193	5.193	0.0464	0.0489	11:38:52	No
2	5.202	5.202	0.0465	0.0489	11:39:27	No
Mean:	5.197	5.197	0.0465			
SD :	0.0063	0.0063	0.0001			
%RSD:	0.1	0.1	0.1218			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0008	0.0016	11:40:54	No
2	-0.097	-0.097	-0.0009	0.0016	11:41:29	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0024	0.0024	0.0000			
%RSD:	2.5	2.5	2.5414			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 02/15/2010
Sample ID: 246292001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.097	-0.097	-0.0009	0.0016	11:42:56	No
2	-0.091	-0.091	-0.0008	0.0016	11:43:31	No
Mean:	-0.094	-0.094	-0.0008			
SD :	0.0042	0.0042	0.0000			
%RSD:	4.5	4.5	4.5299			

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 02/15/2010
Sample ID: 246292002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.126	-0.126	-0.0011	0.0013	11:44:53	No
2	-0.128	-0.128	-0.0011	0.0013	11:45:28	No
Mean:	-0.127	-0.127	-0.0011			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.9	0.9	0.8800			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 02/15/2010
Sample ID: 246299001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0010	0.0014	11:46:48	No
2	-0.116	-0.116	-0.0010	0.0014	11:47:23	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0022	0.0022	0.0000			
%RSD:	1.9	1.9	1.9110			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 02/15/2010
Sample ID: 246306001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.096	-0.096	-0.0008	0.0016	11:48:44	No
2	-0.096	-0.096	-0.0008	0.0016	11:49:18	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0002	0.0002	0.0000			

Miscellaneous

Prep LogBook

Analyst: LYH1 Verified by:_____

Batch: 948089

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202031028	UI100120-A	.5	mL
LCS	1202031028	UI100120-B	.5	mL
MS	1202031030	UI090828-A	.5	mL
MS	1202031030	UI090828-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202031027		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
LCS	1202031028		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
SAMPLE	245673001		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	245673002		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	245673003		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	245673004		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	245673005		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	245673006		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	245676001		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
DUP	1202031029	245676001	SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
MS	1202031030	245676001	SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
SDILT	1202031031	245676001	SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
SAMPLE	245676002		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
SAMPLE	245676003		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
SAMPLE	245676004		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
SAMPLE	245676005		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
SAMPLE	245676006		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	SURFACE WATER
SAMPLE	245807001		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	WATER
SAMPLE	245807002		SW846 3005A	03-FEB-2010 08:35	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
100202	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 947645

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029966	WHG100212-13	.2	mL
MS	1202029968	WHG100212-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029965		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
LCS	1202029966		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245681001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245681002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245690001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245690002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245807001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
DUP	1202029967	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
MS	1202029968	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SDILT	1202029969	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245807002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1257474-1	.5 mL	NITRIC ACID
1261483-C	1.5 mL	5% Potassium Persulfate
1264984-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100212-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100212-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100212-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100212-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100212-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100212-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 12-FEB-10 14:10
Digestion End Date: 12-FEB-10 16:10

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 948085

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202031026	UI100205-01	.125	mL
LCS	1202031026	UI100205-06	.125	mL
MS	1202031024	UI100205-01	.125	mL
MS	1202031024	UI100205-06	.125	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202031021		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
LCS	1202031026		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
SAMPLE	245673001		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
DUP	1202031022	245673001	SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
SDILT	1202031023	245673001	SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
MS	1202031024	245673001	SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
SAMPLE	245673002		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
SAMPLE	245673003		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
SAMPLE	245673004		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
SAMPLE	245673005		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
SAMPLE	245673006		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	GROUND WATER
SAMPLE	245676001		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	SURFACE WATER
SAMPLE	245676002		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	SURFACE WATER
SAMPLE	245676003		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	SURFACE WATER
SAMPLE	245676004		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	SURFACE WATER
SAMPLE	245676005		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	SURFACE WATER
SAMPLE	245676006		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	SURFACE WATER
SAMPLE	245807001		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	WATER
SAMPLE	245807002		SW846 3005A	25-FEB-2010 08:00	<2	25 mL	25 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	1.25 mL	HYDROCHLORIC ACID
1274969	.5 mL	Nitric Acid CONC.

Comments:

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090828-A **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090828-B **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE

Standard Logbook

Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-A **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1018097
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100120-B **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1017644
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Standard Logbook

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100212-01 **Opened:** 12-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 12-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 13-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100212-02 **Opened:** 12-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 13-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100212-01a **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100212-02 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100212-03 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100212-04 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100212-05 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Standard Logbook

Serial ID: WHG100212-06 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100212-13 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100225-42 **Opened:** 25-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 26-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100225-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100225-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100225-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100225-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100225-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100225-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100225-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100225-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100225-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100225-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100225-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100225-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100225-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100225-43 **Opened:** 25-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 26-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100225-44 **Opened:** 25-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 26-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1272839
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100225-45 **Opened:** 25-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 26-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100225-46 **Opened:** 25-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 26-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1272839
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100225-47 **Opened:** 25-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 26-FEB-10 **Solvent :** 3%HCL &1%HNO3-1272839
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100220-04 **Opened:** 20-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 20-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 21-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100220-04A **Opened:** 20-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 20-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 21-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100220-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100220-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100220-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100220-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100220-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100220-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100220-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100220-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100220-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100220-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100220-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100220-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100220-05 **Opened:** 20-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 20-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 21-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100220-06 **Opened:** 20-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 20-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 21-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100220-07 **Opened:** 20-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 20-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 21-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100220-08 **Opened:** 20-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 20-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 21-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100220-70 **Opened:** 20-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 20-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 21-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100221-04 **Opened:** 21-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 21-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 22-FEB-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100221-04A **Opened:** 21-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 21-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 22-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100221-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100221-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100221-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100221-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100221-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100221-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100221-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100221-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100221-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100221-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100221-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100221-05 **Opened:** 21-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 21-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 22-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100221-06 **Opened:** 21-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 21-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 22-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100221-07 **Opened:** 21-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 21-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 22-FEB-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100221-08 **Opened:** 21-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 21-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 22-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1269792 **Opened:** 15-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 15-FEB-10
Type: Reagent/Solvent **Expires:** 22-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1272839 **Opened:** 22-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Serial ID:	1274969	**Opened:**	24-FEB-10	**Lot Number :**	J 04043 L
Name:	I-HNO3	**Received:**	24-FEB-10		
Type:	Reagent/Solvent	**Expires:**	24-FEB-11		
Employee:	Francena Armstrong				
Supplier:	BAKER				
Description:	Nitric Acid CONC.				
Comments:	None				

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1474

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	947318 and 947321	**Method:**	SW9012A Cyanide and Total
Prep Batch :	947317 and 947319	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245806001	RE15-10-7954
245806002	RE15-10-7956
245806003	RE15-10-7955
245806004	RE15-10-7953
245806005	RE15-10-7952
245806006	RE15-10-8060
245806007	RE15-10-8058
245806008	RE15-10-8059
1202029252	Method Blank (MB)
1202029253	245797007(RE15-10-7887) Sample Duplicate (DUP)
1202029254	245797008(RE15-10-7881) Sample Duplicate (DUP)
1202029255	245797007(RE15-10-7887) Matrix Spike (MS)
1202029256	245797008(RE15-10-7881) Matrix Spike (MS)
1202029257	245797007(RE15-10-7887) Matrix Spike Duplicate (MSD)
1202029258	245797008(RE15-10-7881) Matrix Spike Duplicate (MSD)
1202029259	Laboratory Control Sample (LCS)
1202029260	Method Blank (MB)
1202029261	245806008(RE15-10-8059) Sample Duplicate (DUP)
1202029262	245783001(RE46-10-11797) Sample Duplicate (DUP)
1202029263	245806008(RE15-10-8059) Matrix Spike (MS)
1202029264	245783001(RE46-10-11797) Matrix Spike (MS)
1202029265	245806008(RE15-10-8059) Matrix Spike Duplicate (MSD)
1202029266	245783001(RE46-10-11797) Matrix Spike Duplicate (MSD)
1202029267	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 245797007 (RE15-10-7887), 245797008 (RE15-10-7881)- Batch 947318, 245783001 (RE46-10-11797) and 245806008 (RE15-10-8059)- Batch 947321.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202029258 (RE15-10-7881)- Batch 947318.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202029254 (RE15-10-7881)- Batch 947318, 1202029261 (RE15-10-8059), 1202029262 (RE46-10-11797) and 245806008 (RE15-10-8059)- Batch 947321.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202029259 (LCS)- Batch 947318 and 1202029267 (LCS)- Batch 947321.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 788675 1202029258 (RE15-10-7881)- Batch 947318.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 22Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1474 GEL Work Order: 245806

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7954	Project:	LANL01004
Sample ID:	245806001	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	5.84%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.8	260	ug/kg	1	AXC2 02/08/10	1541	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7956	Project:	LANL01004
Sample ID:	245806002	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	6.14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	63.5	234	ug/kg	1	AXC2	02/08/10	1545	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7955	Project:	LANL01004
Sample ID:	245806003	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	18%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.5	263	ug/kg	1	AXC2 02/08/10	1546	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7953	Project:	LANL01004
Sample ID:	245806004	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	14.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2 02/08/10	1547	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-7952	Project:	LANL01004
Sample ID:	245806005	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.9	268	ug/kg	1	AXC2 02/08/10	1548	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-8060	Project:	LANL01004
Sample ID:	245806006	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	14.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.1	276	ug/kg	1	AXC2 02/08/10	1549	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-8058	Project:	LANL01004
Sample ID:	245806007	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	35.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	104	382	ug/kg	1	AXC2 02/08/10	1550	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 17, 2010

Client SDG: 10-1474

Client Sample ID:	RE15-10-8059	Project:	LANL01004
Sample ID:	245806008	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	7.28%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 02/09/10	1318	947321	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1427	947319

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: February 17, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245806

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 947318										
QC1202029253 245797007 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/08/10 15:21
QC1202029254 245797008 DUP										
Cyanide, Total	J	298	U	ND	ug/kg	200 ^				02/08/10 15:25
QC1202029259 LCS										
Cyanide, Total	67900			72500	ug/kg		107	(32%-157%)		02/08/10 15:16
QC1202029252 MB										
Cyanide, Total			U	250	ug/kg					02/08/10 15:15
QC1202029255 245797007 MS										
Cyanide, Total	7470 U	ND		6230	ug/kg		83.5	(26%-158%)		02/08/10 15:22
QC1202029256 245797008 MS										
Cyanide, Total	7640 J	298		6810	ug/kg		85.2	(26%-158%)		02/08/10 15:25
QC1202029257 245797007 MSD										
Cyanide, Total	7180 U	ND		6060	ug/kg	2.85	84.4	(0%-30%)		02/08/10 15:23
QC1202029258 245797008 MSD										
Cyanide, Total	7360 J	298		5790	ug/kg	16.2	74.7	(0%-30%)		02/08/10 15:26
Batch 947321										
QC1202029261 245806008 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/09/10 13:19
QC1202029262 245783001 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				02/09/10 12:50
QC1202029267 LCS										
Cyanide, Total	67900			77800	ug/kg		115	(32%-157%)		02/09/10 12:45
QC1202029260 MB										
Cyanide, Total			U	250	ug/kg					02/09/10 12:44
QC1202029263 245806008 MS										
Cyanide, Total	4650 U	ND		3980	ug/kg		84.7	(26%-158%)		02/09/10 13:20
QC1202029264 245783001 MS										
Cyanide, Total	5730 U	ND		5960	ug/kg		104	(26%-158%)		02/09/10 12:51
QC1202029265 245806008 MSD										
Cyanide, Total	5290 U	ND		4380	ug/kg	9.41	82	(0%-30%)		02/09/10 13:20
QC1202029266 245783001 MSD										
Cyanide, Total	4940 U	ND		4990	ug/kg	17.7	101	(0%-30%)		02/09/10 12:52

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 245806

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 17-FEB-2010 11:12

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1474**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 15:04:19	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes
CCV	08-FEB-2010 15:16:55	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes
CCV	08-FEB-2010 15:29:29	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:41:58	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:54:33	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
ICV	**09-FEB-2010 11:00:58**	**OM_2-9-2010_10-50-31**	**154**	**150**	**103**	**(90%-110%)**	**Yes**
CCV	09-FEB-2010 12:33:26	OM_2-9-2010_12-19-29	97.1	100	97.1	(90%-110%)	Yes
CCV	09-FEB-2010 12:45:51	OM_2-9-2010_12-19-29	99.6	100	99.6	(90%-110%)	Yes
CCV	09-FEB-2010 12:58:27	OM_2-9-2010_12-19-29	99.3	100	99.3	(90%-110%)	Yes
CCV	09-FEB-2010 13:10:58	OM_2-9-2010_12-19-29	101	100	101	(90%-110%)	Yes
CCV	09-FEB-2010 13:23:31	OM_2-9-2010_12-19-29	102	100	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 15:06:09	OM_2-8-2010_13-14-40	-1.82	10	Yes
CCB	08-FEB-2010 15:18:45	OM_2-8-2010_13-14-40	-1.49	10	Yes
CCB	08-FEB-2010 15:31:18	OM_2-8-2010_13-14-40	-1.86	10	Yes
CCB	08-FEB-2010 15:43:48	OM_2-8-2010_13-14-40	-1.82	10	Yes
CCB	08-FEB-2010 15:56:23	OM_2-8-2010_13-14-40	-1.93	10	Yes
ICB	**09-FEB-2010 11:02:49**	**OM_2-9-2010_10-50-31**	**-1.37**	**10**	**Yes**
CCB	09-FEB-2010 12:35:19	OM_2-9-2010_12-19-29	-1.82	10	Yes
CCB	09-FEB-2010 12:47:43	OM_2-9-2010_12-19-29	-1.49	10	Yes
CCB	09-FEB-2010 13:00:17	OM_2-9-2010_12-19-29	-1.36	10	Yes
CCB	09-FEB-2010 13:12:49	OM_2-9-2010_12-19-29	-2.21	10	Yes
CCB	09-FEB-2010 13:25:21	OM_2-9-2010_12-19-29	-1.86	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 947317

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029259	URF1200957-01	.25	g
MS	1202029255	URF1184831-02	.025	mL
MS	1202029256	URF1184831-02	.025	mL
MSD	1202029257	URF1184831-02	.025	mL
MSD	1202029258	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029252		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
LCS	1202029259		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245797007		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.58 g	25 mL	43.10345	SOIL
DUP	1202029253	245797007	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
MS	1202029255	245797007	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
MSD	1202029257	245797007	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245797008		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.51 g	25 mL	49.01961	SOIL
DUP	1202029254	245797008	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202029256	245797008	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
MSD	1202029258	245797008	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797009		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797010		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797011		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245797012		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245797013		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245797014		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797015		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245797016		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245797017		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797018		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797019		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245806001		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245806002		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245806003		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245806004		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245806005		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245806006		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245806007		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.51 g	25 mL	49.01961	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100205-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 947319

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029267	URF1200957-01	.25	g
MS	1202029263	URF1184831-02	.025	mL
MS	1202029264	URF1184831-02	.025	mL
MSD	1202029265	URF1184831-02	.025	mL
MSD	1202029266	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029260		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.5 g	25 mL	50	SOIL
LCS	1202029267		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245783001		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.5 g	25 mL	50	SOIL
DUP	1202029262	245783001	SW846 9010B Prep	08-FEB-2010 14:27	>12	0.55 g	25 mL	45.45455	SOIL
MS	1202029264	245783001	SW846 9010B Prep	08-FEB-2010 14:27	>12	0.5 g	25 mL	50	SOIL
MSD	1202029266	245783001	SW846 9010B Prep	08-FEB-2010 14:27	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245783002		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245783003		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245783004		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245783005		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245783006		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245783007		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245783008		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245783009		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245783010		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245783011		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245783012		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245783013		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245783014		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245783015		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245783016		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245786001		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245806008		SW846 9010B Prep	08-FEB-2010 14:27	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202029261	245806008	SW846 9010B Prep	08-FEB-2010 14:27	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202029263	245806008	SW846 9010B Prep	08-FEB-2010 14:27	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1202029265	245806008	SW846 9010B Prep	08-FEB-2010 14:27	>12	0.51 g	25 mL	49.01961	SOIL

Reagent/Solvent Lot ID	Amount	Description

Prep LogBook

			Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100208-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010	15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010	15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010	15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010	15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010	15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010	15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010	15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010	15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010	15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010	15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010	15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010	15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010	15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010	15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010	15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010	15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010	15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010	15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010	15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010	15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010	15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010	15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010	15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010	15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010	15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010	15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010	15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010	15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010	15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010	15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010	15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010	15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010	15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	16:02:41	OM_2-8-2010_13-14-40

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029237||LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231||DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233||MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235||MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232||DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234||MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236||MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.47 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.47 > -5.00					
		Message	CCB Passed					
		Action	Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/8/2010

Channel 1: Current View

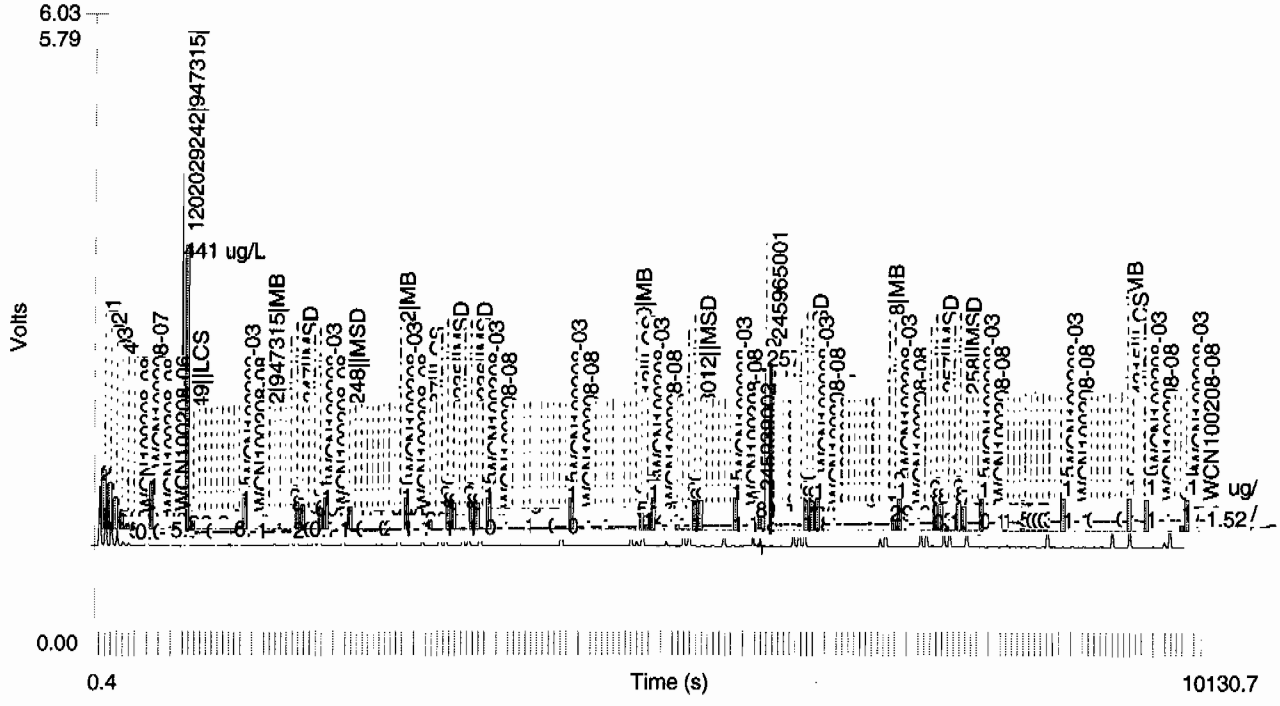

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE

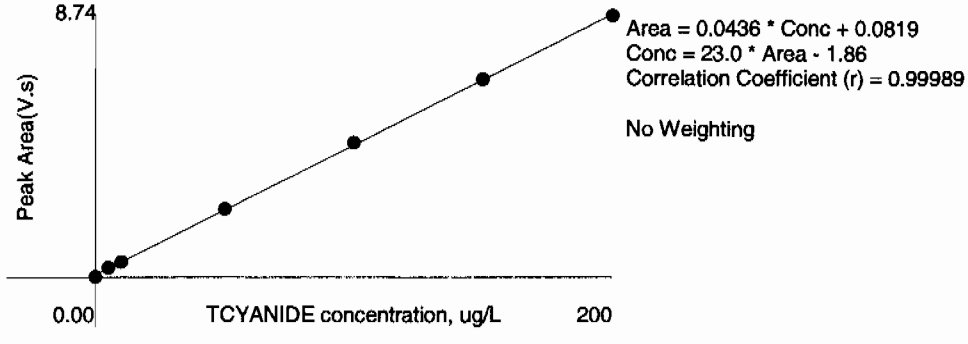

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/9/2010 10:53:49	OM_2-9-2010_10-50-31
150 ppb		1	axc2	2/9/2010 10:54:41	OM_2-9-2010_10-50-31
100 ppb		1	axc2	2/9/2010 10:55:34	OM_2-9-2010_10-50-31
50 ppb		1	axc2	2/9/2010 10:56:26	OM_2-9-2010_10-50-31
10 ppb		1	axc2	2/9/2010 10:57:20	OM_2-9-2010_10-50-31
CRDL 5.0 ppb		1	axc2	2/9/2010 10:58:13	OM_2-9-2010_10-50-31
ICAL-00		1	axc2	2/9/2010 10:59:07	OM_2-9-2010_10-50-31
ICV		1	axc2	2/9/2010 11:00:58	OM_2-9-2010_10-50-31
ICB		1	axc2	2/9/2010 11:02:49	OM_2-9-2010_10-50-31
CRDL		1	axc2	2/9/2010 11:04:39	OM_2-9-2010_10-50-31
1202034331	949513	1	axc2	2/9/2010 11:06:29	OM_2-9-2010_10-50-31
1202034335	949513	25	axc2	2/9/2010 11:07:22	OM_2-9-2010_10-50-31
246070014	949513	1	axc2	2/9/2010 11:08:15	OM_2-9-2010_10-50-31
1202034332	949513	1	axc2	2/9/2010 11:09:08	OM_2-9-2010_10-50-31
1202034333	949513	1	axc2	2/9/2010 11:10:01	OM_2-9-2010_10-50-31
1202034334	949513	1	axc2	2/9/2010 11:10:54	OM_2-9-2010_10-50-31
246070015	949513	1	axc2	2/9/2010 11:11:46	OM_2-9-2010_10-50-31
246070016	949513	1	axc2	2/9/2010 11:12:39	OM_2-9-2010_10-50-31
246070017	949513	1	axc2	2/9/2010 11:13:31	OM_2-9-2010_10-50-31
246070018	949513	1	axc2	2/9/2010 11:14:24	OM_2-9-2010_10-50-31
CCV		1	axc2	2/9/2010 11:15:16	OM_2-9-2010_10-50-31
CCB		1	axc2	2/9/2010 11:17:06	OM_2-9-2010_10-50-31
246070019*	949513	1	axc2	2/9/2010 11:18:54	OM_2-9-2010_10-50-31
246070020*	949513	1	axc2	2/9/2010 11:19:47	OM_2-9-2010_10-50-31
246268001*	949513	1	axc2	2/9/2010 11:20:38	OM_2-9-2010_10-50-31
1202036005*	949513	1	axc2	2/9/2010 11:21:30	OM_2-9-2010_10-50-31
1202036006*	949513	1	axc2	2/9/2010 11:22:22	OM_2-9-2010_10-50-31
1202036007*	949513	1	axc2	2/9/2010 11:23:15	OM_2-9-2010_10-50-31
246268002*	949513	1	axc2	2/9/2010 11:24:09	OM_2-9-2010_10-50-31
246268003*	949513	1	axc2	2/9/2010 11:25:02	OM_2-9-2010_10-50-31
246268004*	949513	1	axc2	2/9/2010 11:25:56	OM_2-9-2010_10-50-31
246268005*	949513	1	axc2	2/9/2010 11:26:49	OM_2-9-2010_10-50-31
CCV		1	axc2	2/9/2010 11:27:42	OM_2-9-2010_10-50-31

Author: axc2

Date : 2/9/2010

Original Run Filename: OM_2-9-2010_10-50-31.OMN created 2/9/2010 10:50:31
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-9-2010_10-50-31.OMN last modified 2/9/2010 11:28:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100209-01	1	S1	200	8.26	2/9/2010@10:53:49			200 ppb
WCN100209-02	1	S2	150	6.28	2/9/2010@10:54:41			150 ppb
WCN100209-03	1	S3	100	4.33	2/9/2010@10:55:34			100 ppb
WCN100209-04	1	S4	50.0	2.10	2/9/2010@10:56:26			50 ppb
WCN100209-05	1	S5	10.0	0.504	2/9/2010@10:57:20			10 ppb
WCN100209-06	1	S6	5.00	0.320	2/9/2010@10:58:13			CRDL 5.0 ppb
WCN100209-08	1	S7	0.00	-0.00404	2/9/2010@10:59:07			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100209-07	1	S8	154	6.43	2/9/2010@11:00:58			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100209-08	1	S7	-1.37	0.0203	2/9/2010@11:02:49			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.37 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.37 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100209-06	1	S6	5.96	0.322	2/9/2010@11:04:39			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.96 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.96 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202034331|949513|MB	1	1	-1.23	0.0261	2/9/2010@11:06:29			
1202034335||LCS	1	2	30.6	1.34	2/9/2010@11:07:22		25.00	
246070014	1	3	-0.400	0.0601	2/9/2010@11:08:15			
1202034332||DUP	1	4	-0.376	0.0611	2/9/2010@11:09:08			
1202034333||MS	1	5	96.8	4.07	2/9/2010@11:10:01			
1202034334||MSD	1	6	97.3	4.09	2/9/2010@11:10:54			
246070015	1	7	-0.290	0.0647	2/9/2010@11:11:46			
246070016	1	8	0.790	0.109	2/9/2010@11:12:39			
246070017	1	9	-0.535	0.0546	2/9/2010@11:13:31			
246070018	1	10	-0.0214	0.0758	2/9/2010@11:14:24			
WCN100209-03	1	S3	109	4.58	2/9/2010@11:15:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	9.2 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	9.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.86	-1.07e-4	2/9/2010@11:17:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246070019	1	11	-0.737	0.0463	2/9/2010@11:18:54			
246070020	1	12	-0.581	0.0527	2/9/2010@11:19:47			
246268001	1	13	-1.07	0.0324	2/9/2010@11:20:38			
1202036005||DUP	1	14	-0.998	0.0355	2/9/2010@11:21:30			
1202036006||MS	1	15	90.0	3.79	2/9/2010@11:22:22			
1202036007||MSD	1	16	91.5	3.85	2/9/2010@11:23:15			
246268002	1	17	0.467	0.0959	2/9/2010@11:24:09			
246268003	1	18	-0.989	0.0359	2/9/2010@11:25:02			
246268004	1	19	-0.595	0.0521	2/9/2010@11:25:56			
246268005	1	20	-0.856	0.0414	2/9/2010@11:26:49			
WCN100209-03	1	S3	110	4.63	2/9/2010@11:27:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	10.4 > 10.0					
		Message	CCV Failed					
		Action	Stop Run					
DQM Test: < - Percent Relative Difference								
		Result:	10.4 > 10.0					
		Message	CCV Passed					
		Action	Continue					

Analyte Properties Table for OM_2-9-2010_10-50-31.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/9/2010

Channel 1: Current View

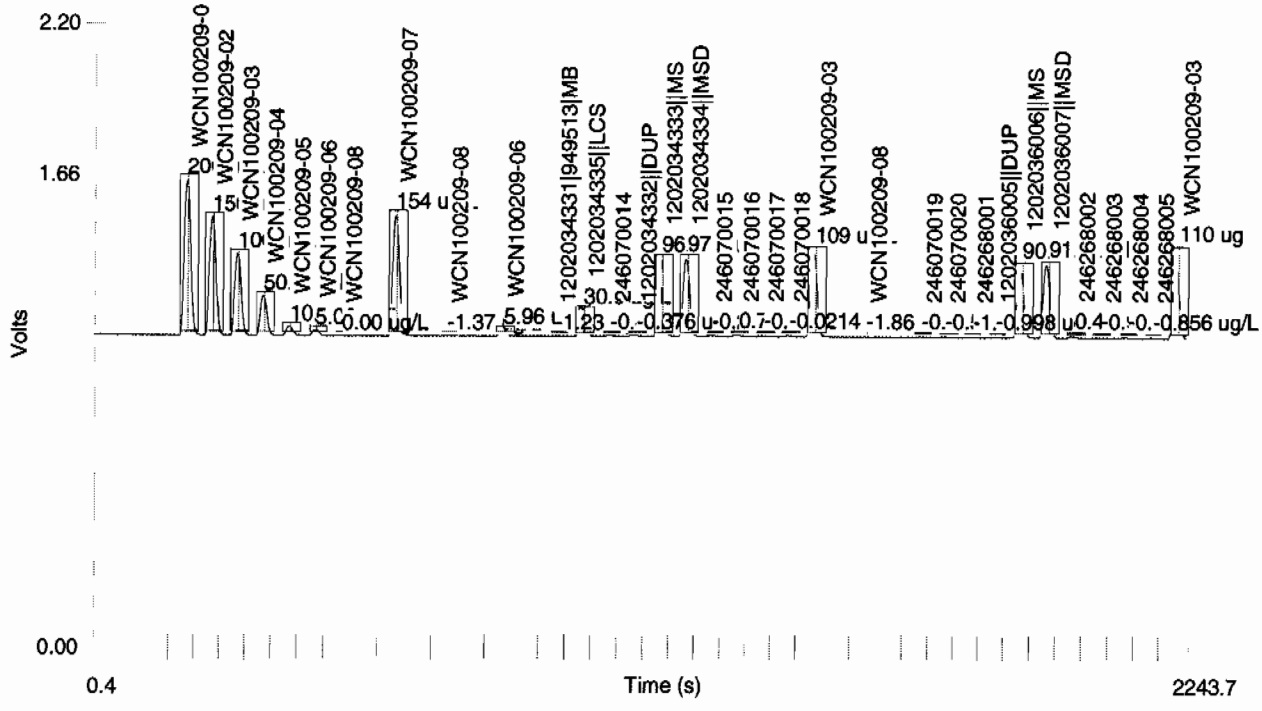

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.26	0.543	0.8	2/9/2010	10:54:52
2	150	1	6.28	0.411	-0.2	2/9/2010	10:55:44
3	100	1	4.33	0.283	-3.0	2/9/2010	10:56:37
4	50.0	1	2.10	0.137	2.0	2/9/2010	10:57:29
5	10.0	1	0.504	0.0318	-2.7	2/9/2010	10:58:23
6	5.00	1	0.320	0.0200	-12.6	2/9/2010	10:59:17
7	0.00	1	-0.00404	-9.71e-4		2/9/2010	11:00:11

Figure 1: TCYANIDE

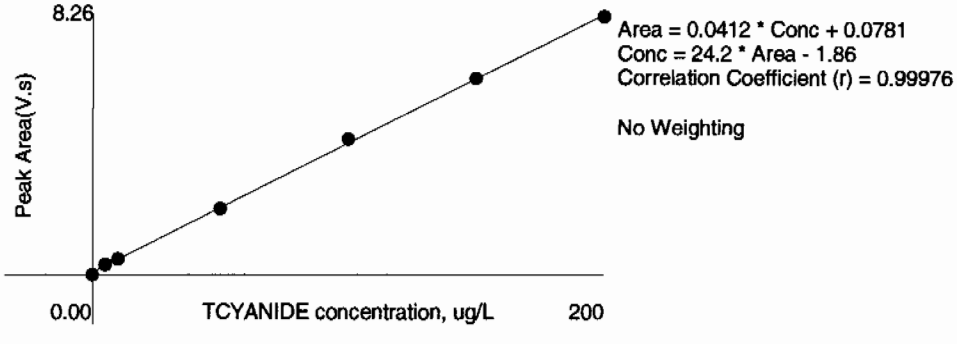

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	2/9/2010 12:21:01	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:22:51	OM_2-9-2010_12-19-29
246070019	949513	1	axc2	2/9/2010 12:24:39	OM_2-9-2010_12-19-29
246070020	949513	1	axc2	2/9/2010 12:25:31	OM_2-9-2010_12-19-29
246268001	949513	1	axc2	2/9/2010 12:26:23	OM_2-9-2010_12-19-29
1202036005	949513	1	axc2	2/9/2010 12:27:15	OM_2-9-2010_12-19-29
1202036006	949513	1	axc2	2/9/2010 12:28:07	OM_2-9-2010_12-19-29
1202036007	949513	1	axc2	2/9/2010 12:29:00	OM_2-9-2010_12-19-29
246268002	949513	1	axc2	2/9/2010 12:29:54	OM_2-9-2010_12-19-29
246268003	949513	1	axc2	2/9/2010 12:30:47	OM_2-9-2010_12-19-29
246268004	949513	1	axc2	2/9/2010 12:31:40	OM_2-9-2010_12-19-29
246268005	949513	1	axc2	2/9/2010 12:32:33	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:33:26	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:35:19	OM_2-9-2010_12-19-29
246268006	949513	1	axc2	2/9/2010 12:37:09	OM_2-9-2010_12-19-29
246280001	949513	1	axc2	2/9/2010 12:38:01	OM_2-9-2010_12-19-29
246280002	949513	1	axc2	2/9/2010 12:38:54	OM_2-9-2010_12-19-29
246280003	949513	1	axc2	2/9/2010 12:39:46	OM_2-9-2010_12-19-29
246280004	949513	1	axc2	2/9/2010 12:40:40	OM_2-9-2010_12-19-29
246333001	949513	1	axc2	2/9/2010 12:41:32	OM_2-9-2010_12-19-29
246333002	949513	1	axc2	2/9/2010 12:42:24	OM_2-9-2010_12-19-29
246415001	949513	1	axc2	2/9/2010 12:43:15	OM_2-9-2010_12-19-29
1202029260	947321	1	axc2	2/9/2010 12:44:08	OM_2-9-2010_12-19-29
1202029267	947321	25	axc2	2/9/2010 12:45:00	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:45:51	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:47:43	OM_2-9-2010_12-19-29
245783001	947321	1	axc2	2/9/2010 12:49:34	OM_2-9-2010_12-19-29
1202029262	947321	1	axc2	2/9/2010 12:50:28	OM_2-9-2010_12-19-29
1202029264	947321	1	axc2	2/9/2010 12:51:22	OM_2-9-2010_12-19-29
1202029266	947321	1	axc2	2/9/2010 12:52:15	OM_2-9-2010_12-19-29
245783002	947321	1	axc2	2/9/2010 12:53:08	OM_2-9-2010_12-19-29
245783003	947321	1	axc2	2/9/2010 12:54:01	OM_2-9-2010_12-19-29
245783004	947321	1	axc2	2/9/2010 12:54:55	OM_2-9-2010_12-19-29
245783005	947321	1	axc2	2/9/2010 12:55:48	OM_2-9-2010_12-19-29
245783006	947321	1	axc2	2/9/2010 12:56:42	OM_2-9-2010_12-19-29
245783007	947321	1	axc2	2/9/2010 12:57:34	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:58:27	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 13:00:17	OM_2-9-2010_12-19-29
245783008	947321	1	axc2	2/9/2010 13:02:08	OM_2-9-2010_12-19-29
245783009	947321	1	axc2	2/9/2010 13:03:00	OM_2-9-2010_12-19-29
245783010	947321	1	axc2	2/9/2010 13:03:53	OM_2-9-2010_12-19-29
245783011	947321	1	axc2	2/9/2010 13:04:44	OM_2-9-2010_12-19-29
245783012*	947321	1	axc2	2/9/2010 13:05:36	OM_2-9-2010_12-19-29
245783013*	947321	1	axc2	2/9/2010 13:06:31	OM_2-9-2010_12-19-29
245783014*	947321	1	axc2	2/9/2010 13:07:25	OM_2-9-2010_12-19-29
245783015*	947321	1	axc2	2/9/2010 13:08:19	OM_2-9-2010_12-19-29
245783016	947321	1	axc2	2/9/2010 13:09:12	OM_2-9-2010_12-19-29
245786001	947321	1	axc2	2/9/2010 13:10:06	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 13:10:58	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 13:12:49	OM_2-9-2010_12-19-29
245783012	947321	1	axc2	2/9/2010 13:14:39	OM_2-9-2010_12-19-29
245783013	947321	1	axc2	2/9/2010 13:15:33	OM_2-9-2010_12-19-29
245783014	947321	1	axc2	2/9/2010 13:16:26	OM_2-9-2010_12-19-29
245783015	947321	1	axc2	2/9/2010 13:17:20	OM_2-9-2010_12-19-29
245806008	947321	1	axc2	2/9/2010 13:18:13	OM_2-9-2010_12-19-29
1202029261	947321	1	axc2	2/9/2010 13:19:07	OM_2-9-2010_12-19-29
1202029263	947321	1	axc2	2/9/2010 13:20:00	OM_2-9-2010_12-19-29
1202029265	947321	1	axc2	2/9/2010 13:20:53	OM_2-9-2010_12-19-29

1202036002	950190	1	axc2	2/9/2010	13:21:46	OM_2-9-2010_12-19-29
246415001	950190	1	axc2	2/9/2010	13:22:37	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010	13:23:31	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010	13:25:21	OM_2-9-2010_12-19-29
1202036003	950190	1	axc2	2/9/2010	13:27:11	OM_2-9-2010_12-19-29
1202036004	950190	1	axc2	2/9/2010	13:28:04	OM_2-9-2010_12-19-29
246415001	950190	10	axc2	2/9/2010	13:28:55	OM_2-9-2010_12-19-29
246415001	949513	10	axc2	2/9/2010	13:29:48	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010	13:30:41	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010	13:32:31	OM_2-9-2010_12-19-29

Author: axc2 Date : 2/9/2010

Original Run Filename: OM_2-9-2010_12-19-29.OMN created 2/9/2010 12:19:29
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-9-2010_12-19-29.OMN last modified 2/9/2010 13:33:37
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100209-03	1	S3	97.2	4.09	2/9/2010@12:21:01			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.03	0.0341	2/9/2010@12:22:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.03 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.03 > -5.00					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
246070019|949513|	1	11	-0.492	0.0563	2/9/2010@12:24:39			
246070020	1	12	-1.92	-0.00255	2/9/2010@12:25:31			
246268001	1	13	-1.46	0.0165	2/9/2010@12:26:23			
1202036005||DUP	1	14	-0.928	0.0384	2/9/2010@12:27:15			
1202036006||MS	1	15	91.3	3.84	2/9/2010@12:28:07			
1202036007||MSD	1	16	89.5	3.77	2/9/2010@12:29:00			
246268002	1	17	0.633	0.103	2/9/2010@12:29:54			
246268003	1	18	-1.64	0.00906	2/9/2010@12:30:47			
246268004	1	19	-0.611	0.0514	2/9/2010@12:31:40			
246268005	1	20	-0.546	0.0541	2/9/2010@12:32:33			
WCN100209-03	1	S3	97.1	4.08	2/9/2010@12:33:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.82	0.00154	2/9/2010@12:35:19			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246268006	1	21	-1.09	0.0318	2/9/2010@12:37:09			
246280001	1	22	-1.04	0.0336	2/9/2010@12:38:01			
246280002	1	23	-0.224	0.0674	2/9/2010@12:38:54			
246280003	1	24	-0.529	0.0548	2/9/2010@12:39:46			
246280004	1	25	-1.19	0.0277	2/9/2010@12:40:40			

246333001	1	26	-0.821	0.0428	2/9/2010@12:41:32			
246333002	1	27	-1.06	0.0328	2/9/2010@12:42:24			
246415001	1	28	421	17.4	2/9/2010@12:43:15			
1202029260|947321|MB	1	29	-0.194	0.0686	2/9/2010@12:44:08			
1202029267||LCS	1	30	31.1	1.36	2/9/2010@12:45:00		25.00	
WCN100209-03	1	S3	99.6	4.19	2/9/2010@12:45:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.49	0.0152	2/9/2010@12:47:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783001	1	31	-1.21	0.0266	2/9/2010@12:49:34			
1202029262||DUP	1	32	-0.595	0.0521	2/9/2010@12:50:28			
1202029264||MS	1	33	104	4.35	2/9/2010@12:51:22			
1202029266||MSD	1	34	101	4.25	2/9/2010@12:52:15			
245783002	1	35	-0.122	0.0716	2/9/2010@12:53:08			
245783003	1	36	-0.870	0.0408	2/9/2010@12:54:01			
245783004	1	37	-0.551	0.0539	2/9/2010@12:54:55			
245783005	1	38	-1.12	0.0304	2/9/2010@12:55:48			
245783006	1	39	1.45	0.136	2/9/2010@12:56:42			
245783007	1	40	-0.793	0.0439	2/9/2010@12:57:34			
WCN100209-03	1	S3	99.3	4.17	2/9/2010@12:58:27			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.36	0.0206	2/9/2010@13:00:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.36 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.36 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783008	1	41	-1.05	0.0332	2/9/2010@13:02:08			
245783009	1	42	-0.271	0.0655	2/9/2010@13:03:00			
245783010	1	43	-0.884	0.0402	2/9/2010@13:03:53			
245783011	1	44	-1.39	0.0191	2/9/2010@13:04:44			
245783012	1	45	17.9	0.817	2/9/2010@13:05:36			
245783013	1	46	-526	-21.6	2/9/2010@13:06:31			
245783014	1	47	-550	-22.6	2/9/2010@13:07:25			
245783015	1	48	9.69	0.476	2/9/2010@13:08:19			
245783016	1	49	-0.372	0.0613	2/9/2010@13:09:12			
245786001	1	50	-1.14	0.0298	2/9/2010@13:10:06			
WCN100209-03	1	S3	101	4.23	2/9/2010@13:10:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								

		Result:	0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-2.21	-0.0143	2/9/2010@13:12:49			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783012	1	45	-0.912	0.0390	2/9/2010@13:14:39			
245783013	1	46	-0.469	0.0573	2/9/2010@13:15:33			
245783014	1	47	0.111	0.0812	2/9/2010@13:16:26			
245783015	1	48	-0.872	0.0407	2/9/2010@13:17:20			
245806008	1	51	0.862	0.112	2/9/2010@13:18:13			
1202029261||DUP	1	52	-0.0633	0.0740	2/9/2010@13:19:07			
1202029263||MS	1	53	85.7	3.61	2/9/2010@13:20:00			
1202029265||MSD	1	54	82.8	3.49	2/9/2010@13:20:53			
1202036002|950190|MB	1	55	-1.09	0.0318	2/9/2010@13:21:46			
246415001	1	58	312	13.0	2/9/2010@13:22:37			
WCN100209-03	1	S3	102	4.27	2/9/2010@13:23:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.86	-6.73e-5	2/9/2010@13:25:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202036003||LCS	1	56	-0.177	0.0694	2/9/2010@13:27:11			
1202036004||LCSD	1	57	-0.890	0.0399	2/9/2010@13:28:04			
246415001	1	58	32.2	1.41	2/9/2010@13:28:55		10.00	
246415001|949513|	1	28	61.7	2.62	2/9/2010@13:29:48		10.00	
WCN100209-03	1	S3	100	4.22	2/9/2010@13:30:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.93	-0.00315	2/9/2010@13:32:31			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								

Author: axc2

Date : 2/9/2010

Result:	-1.93 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_2-9-2010_12-19-29.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

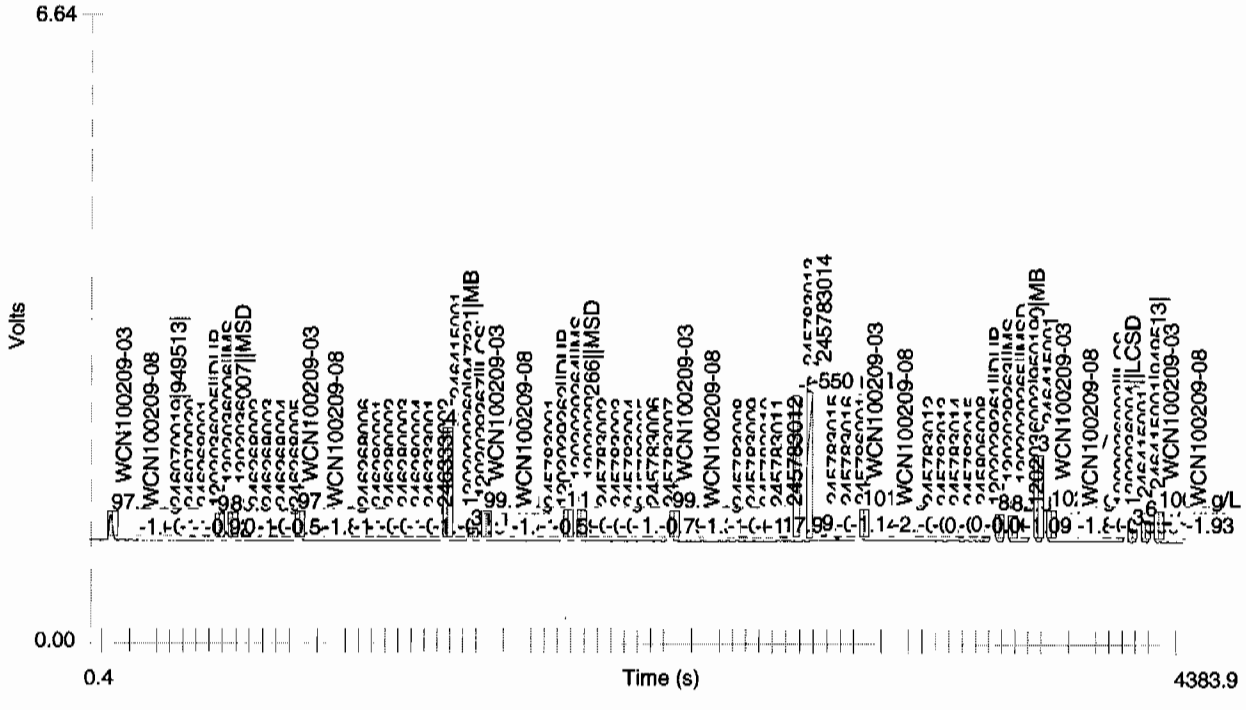

Author: axc2

Date : 2/9/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.26	0.543	0.8	2/9/2010	10:54:52
2	150	1	6.28	0.411	-0.2	2/9/2010	10:55:44
3	100	1	4.33	0.283	-3.0	2/9/2010	10:56:37
4	50.0	1	2.10	0.137	2.0	2/9/2010	10:57:29
5	10.0	1	0.504	0.0318	-2.7	2/9/2010	10:58:23
6	5.00	1	0.320	0.0200	-12.6	2/9/2010	10:59:17
7	0.00	1	-0.00404	-9.71e-4		2/9/2010	11:00:11

Figure 1: TCYANIDE

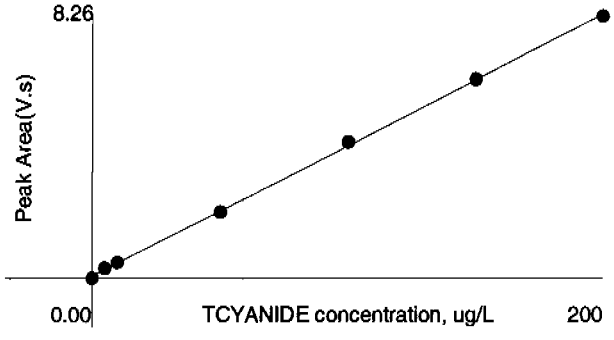

Area = 0.0412 * Conc + 0.0781
Conc = 24.2 * Area - 1.86
Correlation Coefficient (r) = 0.99976

No Weighting

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-FEB-10			
Instrument Type:	**Test / Method:** SW846 9012A	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 947318	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 245797(10-1471),245806(10-1474)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD: QC 1202029258MSD	1. The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported(soil sample).

Originator's Name:

Ashley Earl 09-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 16-FEB-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1474-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	947324	**Method:**	SW9012A Cyanide and Total
Prep Batch :	947322	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245807001	RE15-10-8081
245807002	RE15-10-8082
1202029270	Method Blank (MB)
1202029271	245619001(GW51-10-11855) Sample Duplicate (DUP)
1202029272	245605002(CAMO-10-9315) Sample Duplicate (DUP)
1202029273	245676001(CAWR-10-11786) Sample Duplicate (DUP)
1202029274	245619001(GW51-10-11855) Matrix Spike (MS)
1202029275	245605002(CAMO-10-9315) Matrix Spike (MS)
1202029276	245676001(CAWR-10-11786) Matrix Spike (MS)
1202029277	245619001(GW51-10-11855) Matrix Spike Duplicate (MSD)
1202029278	245605002(CAMO-10-9315) Matrix Spike Duplicate (MSD)
1202029279	245676001(CAWR-10-11786) Matrix Spike Duplicate (MSD)
1202029280	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245605002 (CAMO-10-9315), 245619001 (GW51-10-11855) and 245676001 (CAWR-10-11786).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202029271 (GW51-10-11855).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 22Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1474-1 GEL Work Order: 245807

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 9, 2010

Client SDG: 10-1474-1

Client Sample ID:	RE15-10-8081	Project:	LANL01004
Sample ID:	245807001	Client ID:	LANL010
Matrix:	W		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	J	2.82	1.66	5.00	ug/L	1	AXC2 02/05/10	1112	947324	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 9, 2010

Client SDG: 10-1474-1

Client Sample ID:	RE15-10-8082	Project:	LANL01004
Sample ID:	245807002	Client ID:	LANL010
Matrix:	W		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	J	2.67	1.66	5.00	ug/L	1	AXC2 02/05/10	1113	947324	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 9, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245807

Parmname	NOM		Sample	Qual	QC	Units	RPD%		REC%	Range	Anlst	Date Time
Flow Injection Analysis												
Batch 947324												
QC1202029271 245619001 DUP												
Cyanide, Total		J	2.69	J	3.37	ug/L	22.4	^		(+/-5.00)	AXC2	02/05/10 10:48
QC1202029272 245605002 DUP												
Cyanide, Total		J	3.11	J	2.62	ug/L	17.1	^		(+/-5.00)		02/05/10 10:40
QC1202029273 245676001 DUP												
Cyanide, Total		J	3.12	J	2.85	ug/L	9.05	^		(+/-5.00)		02/05/10 10:53
QC1202029280 LCS												
Cyanide, Total	50.0				46.7	ug/L			93.4	(90%-110%)		02/05/10 10:37
QC1202029270 MB												
Cyanide, Total				J	2.49	ug/L						02/05/10 10:36
QC1202029274 245619001 MS												
Cyanide, Total	100	J	2.69		102	ug/L			99.3	(60%-144%)		02/05/10 10:48
QC1202029275 245605002 MS												
Cyanide, Total	100	J	3.11		102	ug/L			98.9	(60%-144%)		02/05/10 10:40
QC1202029276 245676001 MS												
Cyanide, Total	100	J	3.12		101	ug/L			97.9	(60%-144%)		02/05/10 10:54
QC1202029277 245619001 MSD												
Cyanide, Total	100	J	2.69		91.7	ug/L	10.6		89	(0%-20%)		02/05/10 10:49
QC1202029278 245605002 MSD												
Cyanide, Total	100	J	3.11		101	ug/L	0.985		97.9	(0%-20%)		02/05/10 10:41
QC1202029279 245676001 MSD												
Cyanide, Total	100	J	3.12		99.3	ug/L	1.70		96.2	(0%-20%)		02/05/10 10:55

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded

QC Summary

Workorder: 245807

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

J	Value is estimated
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 09-FEB-2010 14:36

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1474-1

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**05-FEB-2010 10:04:21**	**OM_2-5-2010_09-56-27**	**137**	**150**	**91**	**(90%-110%)**	**Yes**
CCV	05-FEB-2010 10:31:03	OM_2-5-2010_09-56-27	96.7	100	97	(90%-110%)	Yes
CCV	05-FEB-2010 10:43:30	OM_2-5-2010_09-56-27	96.8	100	97	(90%-110%)	Yes
CCV	05-FEB-2010 10:55:59	OM_2-5-2010_09-56-27	96.2	100	96	(90%-110%)	Yes
CCV	05-FEB-2010 11:08:28	OM_2-5-2010_09-56-27	95.3	100	95	(90%-110%)	Yes
CCV	05-FEB-2010 11:20:57	OM_2-5-2010_09-56-27	95.7	100	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**05-FEB-2010 10:06:11**	**OM_2-5-2010_09-56-27**	**0.293**	**10**	**Yes**
CCB	05-FEB-2010 10:32:54	OM_2-5-2010_09-56-27	0.125	10	Yes
CCB	05-FEB-2010 10:45:20	OM_2-5-2010_09-56-27	0.121	10	Yes
CCB	05-FEB-2010 10:57:50	OM_2-5-2010_09-56-27	1.57	10	Yes
CCB	05-FEB-2010 11:10:18	OM_2-5-2010_09-56-27	1.88	10	Yes
CCB	05-FEB-2010 11:22:48	OM_2-5-2010_09-56-27	1.88	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **947322.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.3 EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202029280	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
MS	1202029274	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029275	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029276	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029277	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029278	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029279	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202029270 MB	03-FEB-2010 15:24:00	Water	25	25	1	>12
1202029280 LCS	03-FEB-2010 15:24:00	Water	25	25	1	>12
245427008	03-FEB-2010 15:24:00	Water	25	25	1	>12
245605002	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
1202029272 DUP (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
1202029275 MS (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
1202029278 MSD (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245619001	03-FEB-2010 15:24:00	Water	25	25	1	>12
1202029271 DUP (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12
1202029274 MS (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12
1202029277 MSD (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12
245673004	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245673005	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245676001	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
1202029273 DUP (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
1202029276 MS (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12

Prep Logbook

Batch ID: **947322.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.3 EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202029280	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
MS	1202029274	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029275	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029276	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029277	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029278	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029279	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202029279 MSD (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245676002	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245676005	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245681001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245681002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245690001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245690002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245777003	03-FEB-2010 15:24:00	Water	25	25	1	>12
245777006	03-FEB-2010 15:24:00	Water	25	25	1	>12
245791002	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245791004	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245807001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245807002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245818012	03-FEB-2010 15:24:00	Waste Water	25	25	1	>12
245841001	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
091211-C	0.25N Sodium Hydroxide Solution	25 mL
1176724-C	0.8N H3NO3S	1.25 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/5/2010 9:57:12	OM_2-5-2010_09-56-27
150 ppb		1	axc2	2/5/2010 9:58:04	OM_2-5-2010_09-56-27
100 ppb		1	axc2	2/5/2010 9:58:57	OM_2-5-2010_09-56-27
50 ppb		1	axc2	2/5/2010 9:59:49	OM_2-5-2010_09-56-27
10 ppb		1	axc2	2/5/2010 10:00:43	OM_2-5-2010_09-56-27
CRDL 5.0 ppb		1	axc2	2/5/2010 10:01:37	OM_2-5-2010_09-56-27
ICAL-00		1	axc2	2/5/2010 10:02:31	OM_2-5-2010_09-56-27
ICV		1	axc2	2/5/2010 10:04:21	OM_2-5-2010_09-56-27
ICB		1	axc2	2/5/2010 10:06:11	OM_2-5-2010_09-56-27
CRDL		1	axc2	2/5/2010 10:08:01	OM_2-5-2010_09-56-27
1202024505	945278	1	axc2	2/5/2010 10:09:51	OM_2-5-2010_09-56-27
1202024507	945278	250	axc2	2/5/2010 10:10:44	OM_2-5-2010_09-56-27
245307001	945278	1	axc2	2/5/2010 10:11:37	OM_2-5-2010_09-56-27
1202024506	945278	1	axc2	2/5/2010 10:12:30	OM_2-5-2010_09-56-27
245307002	945278	1	axc2	2/5/2010 10:13:23	OM_2-5-2010_09-56-27
245706001	945278	1	axc2	2/5/2010 10:14:16	OM_2-5-2010_09-56-27
1202030431*	947859	1	axc2	2/5/2010 10:15:09	OM_2-5-2010_09-56-27
1202030435	947859	1	axc2	2/5/2010 10:16:02	OM_2-5-2010_09-56-27
245791005	947859	1	axc2	2/5/2010 10:16:54	OM_2-5-2010_09-56-27
1202030432	947859	1	axc2	2/5/2010 10:17:46	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:18:39	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:20:29	OM_2-5-2010_09-56-27
245706001	945278	10	axc2	2/5/2010 10:22:18	OM_2-5-2010_09-56-27
1202030431	947859	1	axc2	2/5/2010 10:23:11	OM_2-5-2010_09-56-27
1202030433	947859	1	axc2	2/5/2010 10:24:03	OM_2-5-2010_09-56-27
1202030434	947859	1	axc2	2/5/2010 10:24:55	OM_2-5-2010_09-56-27
245791007	947859	1	axc2	2/5/2010 10:25:46	OM_2-5-2010_09-56-27
245818013	947859	1	axc2	2/5/2010 10:26:38	OM_2-5-2010_09-56-27
245893001	947859	1	axc2	2/5/2010 10:27:30	OM_2-5-2010_09-56-27
245900002	947859	1	axc2	2/5/2010 10:28:24	OM_2-5-2010_09-56-27
246007001	947859	1	axc2	2/5/2010 10:29:17	OM_2-5-2010_09-56-27
1202031533	947859	1	axc2	2/5/2010 10:30:10	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:31:03	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:32:54	OM_2-5-2010_09-56-27
1202031534	947859	1	axc2	2/5/2010 10:34:43	OM_2-5-2010_09-56-27
1202031535	947859	1	axc2	2/5/2010 10:35:37	OM_2-5-2010_09-56-27
1202029270	947324	1	axc2	2/5/2010 10:36:30	OM_2-5-2010_09-56-27
1202029280	947324	1	axc2	2/5/2010 10:37:23	OM_2-5-2010_09-56-27
245427008	947324	1	axc2	2/5/2010 10:38:15	OM_2-5-2010_09-56-27
245605002	947324	1	axc2	2/5/2010 10:39:08	OM_2-5-2010_09-56-27
1202029272	947324	1	axc2	2/5/2010 10:40:01	OM_2-5-2010_09-56-27
1202029275	947324	1	axc2	2/5/2010 10:40:53	OM_2-5-2010_09-56-27
1202029278	947324	1	axc2	2/5/2010 10:41:45	OM_2-5-2010_09-56-27
245619001	947324	1	axc2	2/5/2010 10:42:37	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:43:30	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:45:20	OM_2-5-2010_09-56-27
245427008	947324	10	axc2	2/5/2010 10:47:09	OM_2-5-2010_09-56-27
1202029271	947324	1	axc2	2/5/2010 10:48:00	OM_2-5-2010_09-56-27
1202029274	947324	1	axc2	2/5/2010 10:48:53	OM_2-5-2010_09-56-27
1202029277	947324	1	axc2	2/5/2010 10:49:47	OM_2-5-2010_09-56-27
245673004	947324	1	axc2	2/5/2010 10:50:40	OM_2-5-2010_09-56-27
245673005	947324	1	axc2	2/5/2010 10:51:34	OM_2-5-2010_09-56-27
245676001	947324	1	axc2	2/5/2010 10:52:28	OM_2-5-2010_09-56-27
1202029273	947324	1	axc2	2/5/2010 10:53:21	OM_2-5-2010_09-56-27
1202029276	947324	1	axc2	2/5/2010 10:54:14	OM_2-5-2010_09-56-27
1202029279	947324	1	axc2	2/5/2010 10:55:07	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:55:59	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:57:50	OM_2-5-2010_09-56-27

245676002	947324	1	axc2	2/5/2010	10:59:40	OM_2-5-2010_09-56-27
245676005	947324	1	axc2	2/5/2010	11:00:33	OM_2-5-2010_09-56-27
245681001	947324	1	axc2	2/5/2010	11:01:25	OM_2-5-2010_09-56-27
245681002	947324	1	axc2	2/5/2010	11:02:18	OM_2-5-2010_09-56-27
245690001*	947324	1	axc2	2/5/2010	11:03:11	OM_2-5-2010_09-56-27
245690002	947324	1	axc2	2/5/2010	11:04:02	OM_2-5-2010_09-56-27
245777003	947324	1	axc2	2/5/2010	11:04:55	OM_2-5-2010_09-56-27
245777006	947324	1	axc2	2/5/2010	11:05:46	OM_2-5-2010_09-56-27
245791002	947324	1	axc2	2/5/2010	11:06:41	OM_2-5-2010_09-56-27
245791004	947324	1	axc2	2/5/2010	11:07:35	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:08:28	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:10:18	OM_2-5-2010_09-56-27
245690001	947324	1	axc2	2/5/2010	11:12:06	OM_2-5-2010_09-56-27
245807001	947324	1	axc2	2/5/2010	11:12:59	OM_2-5-2010_09-56-27
245807002	947324	1	axc2	2/5/2010	11:13:53	OM_2-5-2010_09-56-27
245818012	947324	1	axc2	2/5/2010	11:14:46	OM_2-5-2010_09-56-27
245841001	947324	1	axc2	2/5/2010	11:15:40	OM_2-5-2010_09-56-27
1202025750	945817	1	axc2	2/5/2010	11:16:34	OM_2-5-2010_09-56-27
1202025757	945817	25	axc2	2/5/2010	11:17:26	OM_2-5-2010_09-56-27
245420011	945817	1	axc2	2/5/2010	11:18:19	OM_2-5-2010_09-56-27
245514013*	945817	1	axc2	2/5/2010	11:19:12	OM_2-5-2010_09-56-27
1202025751	945817	1	axc2	2/5/2010	11:20:04	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:20:57	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:22:48	OM_2-5-2010_09-56-27
245514013	945817	1	axc2	2/5/2010	11:24:36	OM_2-5-2010_09-56-27
1202025753	945817	1	axc2	2/5/2010	11:25:28	OM_2-5-2010_09-56-27
1202025755	945817	1	axc2	2/5/2010	11:26:22	OM_2-5-2010_09-56-27
245514014	945817	1	axc2	2/5/2010	11:27:13	OM_2-5-2010_09-56-27
245514015	945817	1	axc2	2/5/2010	11:28:05	OM_2-5-2010_09-56-27
245514016	945817	1	axc2	2/5/2010	11:28:59	OM_2-5-2010_09-56-27
245514017	945817	1	axc2	2/5/2010	11:29:53	OM_2-5-2010_09-56-27
245514018	945817	1	axc2	2/5/2010	11:30:47	OM_2-5-2010_09-56-27
245514019	945817	1	axc2	2/5/2010	11:31:41	OM_2-5-2010_09-56-27
245514020	945817	1	axc2	2/5/2010	11:32:35	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:33:28	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:35:18	OM_2-5-2010_09-56-27
245515001	945817	1	axc2	2/5/2010	11:37:07	OM_2-5-2010_09-56-27
245515002	945817	1	axc2	2/5/2010	11:38:01	OM_2-5-2010_09-56-27
245521001	945817	1	axc2	2/5/2010	11:38:54	OM_2-5-2010_09-56-27
245612001	945817	1	axc2	2/5/2010	11:39:47	OM_2-5-2010_09-56-27
1202025752*	945817	1	axc2	2/5/2010	11:40:40	OM_2-5-2010_09-56-27
1202025754	945817	1	axc2	2/5/2010	11:41:33	OM_2-5-2010_09-56-27
1202025756	945817	1	axc2	2/5/2010	11:42:25	OM_2-5-2010_09-56-27
245612002	945817	1	axc2	2/5/2010	11:43:18	OM_2-5-2010_09-56-27
245612003	945817	1	axc2	2/5/2010	11:44:10	OM_2-5-2010_09-56-27
245612004	945817	1	axc2	2/5/2010	11:45:03	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:45:55	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:47:46	OM_2-5-2010_09-56-27
1202025752	945817	1	axc2	2/5/2010	11:49:35	OM_2-5-2010_09-56-27
245612005	945817	1	axc2	2/5/2010	11:50:30	OM_2-5-2010_09-56-27
245612006	945817	1	axc2	2/5/2010	11:51:24	OM_2-5-2010_09-56-27
245740001	945817	1	axc2	2/5/2010	11:52:18	OM_2-5-2010_09-56-27
245741001	945817	1	axc2	2/5/2010	11:53:12	OM_2-5-2010_09-56-27
245420011	945817	10	axc2	2/5/2010	11:54:05	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:54:57	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:56:49	OM_2-5-2010_09-56-27

Author: axc2 Date : 2/5/2010

Original Run Filename: OM_2-5-2010_09-56-27.OMN created 2/5/2010 09:56:27
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-5-2010_09-56-27.OMN last modified 2/5/2010 11:57:54
Current Run Author's Signature: [axc2]
Description: GL-GC-E-102 EPA 420.4, 9066
LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100205-01	1	S1	200	9.56	2/5/2010@09:57:12			200 ppb
WCN100205-02	1	S2	150	7.18	2/5/2010@09:58:04			150 ppb
WCN100205-03	1	S3	100	4.47	2/5/2010@09:58:57			100 ppb
WCN100205-04	1	S4	50.0	2.22	2/5/2010@09:59:49			50 ppb
WCN100205-05	1	S5	10.0	0.464	2/5/2010@10:00:43			10 ppb
WCN100205-06	1	S6	5.00	0.275	2/5/2010@10:01:37			CRDL 5.0 ppb
WCN100205-08	1	S7	0.00	-0.0584	2/5/2010@10:02:31			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99944 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100205-07	1	S8	137	6.46	2/5/2010@10:04:21			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100205-08	1	S7	0.293	-0.0613	2/5/2010@10:06:11			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.293 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.293 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100205-06	1	S6	7.24	0.271	2/5/2010@10:08:01			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	7.24 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	7.24 > 2.50					
		Message	Pass					
		Action	None					
1202024505|945278|MB	1	1	2.51	0.0446	2/5/2010@10:09:51			
1202024507||LCS	1	2	172	8.13	2/5/2010@10:10:44		250.00	
245307001	1	3	1.97	0.0188	2/5/2010@10:11:37			
1202024506||DUP	1	4	1.58	3.83e-4	2/5/2010@10:12:30			
245307002	1	5	0.859	-0.0342	2/5/2010@10:13:23			
245706001	1	6	418	19.9	2/5/2010@10:14:16			
1202030431|947859|MB	1	7	42.8	1.97	2/5/2010@10:15:09			
1202030435||LCS	1	8	46.0	2.12	2/5/2010@10:16:02			
245791005	1	9	1.63	0.00275	2/5/2010@10:16:54			
1202030432||DUP	1	10	1.58	2.94e-4	2/5/2010@10:17:46			
WCN100205-03	1	S3	96.0	4.52	2/5/2010@10:18:39			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.0 < 10.0					
		Message	CCV Passed					

		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	0.291	-0.0614	2/5/2010@10:20:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.291 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.291 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245706001|945278|	1	6	39.5	1.81	2/5/2010@10:22:18		10.00	
1202030431|947859|MB	1	7	2.52	0.0452	2/5/2010@10:23:11			
1202030433||MS	1	11	99.9	4.70	2/5/2010@10:24:03			
1202030434||MSD	1	12	78.6	3.68	2/5/2010@10:24:55			
245791007	1	13	1.68	0.00490	2/5/2010@10:25:46			
245818013	1	14	3.49	0.0915	2/5/2010@10:26:38			
245893001	1	15	5.80	0.202	2/5/2010@10:27:30			
245900002	1	16	3.33	0.0842	2/5/2010@10:28:24			
246007001	1	17	1.74	0.00781	2/5/2010@10:29:17			
1202031533||DUP	1	18	1.78	0.00994	2/5/2010@10:30:10			
WCN100205-03	1	S3	96.7	4.55	2/5/2010@10:31:03			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	0.125	-0.0693	2/5/2010@10:32:54			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.125 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.125 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202031534||MS	1	19	86.8	4.07	2/5/2010@10:34:43			
1202031535||MSD	1	20	97.2	4.57	2/5/2010@10:35:37			
1202029270|947324|MB	1	21	2.49	0.0436	2/5/2010@10:36:30			
1202029280||LCS	1	22	46.7	2.16	2/5/2010@10:37:23			
245427008	1	23	339	16.1	2/5/2010@10:38:15			
245605002	1	24	3.11	0.0735	2/5/2010@10:39:08			
1202029272||DUP	1	25	2.62	0.0502	2/5/2010@10:40:01			
1202029275||MS	1	26	102	4.78	2/5/2010@10:40:53			
1202029278|947324|MSD	1	27	101	4.75	2/5/2010@10:41:45			
245619001	1	28	2.69	0.0533	2/5/2010@10:42:37			
WCN100205-03	1	S3	96.8	4.55	2/5/2010@10:43:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	0.121	-0.0695	2/5/2010@10:45:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								

		Result:	0.121 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.121 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245427008	1	23	28.0	1.26	2/5/2010@10:47:09		10.00	
1202029271||DUP	1	29	3.37	0.0860	2/5/2010@10:48:00			
1202029274||MS	1	30	102	4.80	2/5/2010@10:48:53			
1202029277||MSD	1	31	91.7	4.31	2/5/2010@10:49:47			
245673004	1	32	5.30	0.178	2/5/2010@10:50:40			
245673005	1	33	4.74	0.152	2/5/2010@10:51:34			
245676001	1	34	3.12	0.0738	2/5/2010@10:52:28			
1202029273||DUP	1	35	2.85	0.0609	2/5/2010@10:53:21			
1202029276||MS	1	36	101	4.76	2/5/2010@10:54:14			
1202029279||MSD	1	37	99.3	4.67	2/5/2010@10:55:07			
WCN100205-03	1	S3	96.2	4.52	2/5/2010@10:55:59			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	1.57	-1.31e-4	2/5/2010@10:57:50			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245676002	1	38	2.93	0.0649	2/5/2010@10:59:40			
245676005	1	39	3.03	0.0698	2/5/2010@11:00:33			
245681001	1	40	2.89	0.0628	2/5/2010@11:01:25			
245681002	1	41	2.79	0.0582	2/5/2010@11:02:18			
245690001	1	42	5.08	0.167	2/5/2010@11:03:11			
245690002	1	43	2.65	0.0517	2/5/2010@11:04:02			
245777003	1	44	3.52	0.0929	2/5/2010@11:04:55			
245777006	1	45	4.92	0.160	2/5/2010@11:05:46			
245791002	1	46	2.86	0.0613	2/5/2010@11:06:41			
245791004	1	47	2.60	0.0491	2/5/2010@11:07:35			
WCN100205-03	1	S3	95.3	4.48	2/5/2010@11:08:28			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	1.88	0.0145	2/5/2010@11:10:18			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	1.88 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.88 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245690001	1	42	2.79	0.0582	2/5/2010@11:12:06			

245807001	1	48	2.82	0.0594	2/5/2010@11:12:59			
245807002	1	49	2.67	0.0526	2/5/2010@11:13:53			
245818012	1	50	7.63	0.290	2/5/2010@11:14:46			
245841001	1	51	3.12	0.0740	2/5/2010@11:15:40			
1202025750|945817|MB	1	52	3.14	0.0749	2/5/2010@11:16:34			
1202025757||LCS	1	53	26.7	1.20	2/5/2010@11:17:26		25.00	
245420011	1	54	624	29.7	2/5/2010@11:18:19			
245514013	1	55	14.7	0.628	2/5/2010@11:19:12			
1202025751||DUP	1	56	4.56	0.143	2/5/2010@11:20:04			
WCN100205-03	1	S3	95.7	4.50	2/5/2010@11:20:57			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-4.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-4.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100205-08	1	S7	1.88	0.0145	2/5/2010@11:22:48			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		1.88 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.88 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245514013	1	55	4.67	0.148	2/5/2010@11:24:36			
1202025753||MS	1	57	85.5	4.01	2/5/2010@11:25:28			
1202025755||MSD	1	58	87.1	4.09	2/5/2010@11:26:22			
245514014	1	59	5.67	0.196	2/5/2010@11:27:13			
245514015	1	60	4.79	0.154	2/5/2010@11:28:05			
245514016	1	61	34.5	1.58	2/5/2010@11:28:59			
245514017	1	62	91.0	4.28	2/5/2010@11:29:53			
245514018	1	63	8.35	0.324	2/5/2010@11:30:47			
245514019	1	64	27.5	1.24	2/5/2010@11:31:41			
245514020	1	65	157	7.41	2/5/2010@11:32:35			
WCN100205-03	1	S3	96.1	4.52	2/5/2010@11:33:28			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-3.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-3.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100205-08	1	S7	1.93	0.0169	2/5/2010@11:35:18			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		1.93 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.93 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245515001	1	66	29.3	1.33	2/5/2010@11:37:07			
245515002	1	67	20.7	0.917	2/5/2010@11:38:01			
245521001	1	68	3.85	0.109	2/5/2010@11:38:54			
245612001	1	69	3.79	0.106	2/5/2010@11:39:47			
1202025752||DUP	1	70	8.08	0.311	2/5/2010@11:40:40			
1202025754||MS	1	71	96.6	4.54	2/5/2010@11:41:33			
1202025756||MSD	1	72	96.1	4.52	2/5/2010@11:42:25			
245612002	1	73	3.95	0.113	2/5/2010@11:43:18			
245612003	1	74	3.75	0.104	2/5/2010@11:44:10			

245612004	1	75	3.52	0.0928	2/5/2010@11:45:03			
WCN100205-03	1	S3	95.8	4.51	2/5/2010@11:45:55			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-4.2 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-4.2 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100205-08	1	S7	1.58	3.12e-4	2/5/2010@11:47:46			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			1.58 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.58 > -5.00					
Message			CCB Passed					
Action			Continue					
1202025752||DUP	1	70	4.24	0.127	2/5/2010@11:49:35			
245612005	1	76	4.19	0.125	2/5/2010@11:50:30			
245612006	1	77	3.44	0.0890	2/5/2010@11:51:24			
245740001	1	78	3.91	0.112	2/5/2010@11:52:18			
245741001	1	79	4.26	0.128	2/5/2010@11:53:12			
245420011	1	54	59.7	2.78	2/5/2010@11:54:05		10.00	
WCN100205-03	1	S3	96.1	4.52	2/5/2010@11:54:57			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100205-08	1	S7	1.58	3.24e-4	2/5/2010@11:56:49			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			1.58 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.58 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM_2-5-2010_09-56-27.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/5/2010

Channel 1: Current View

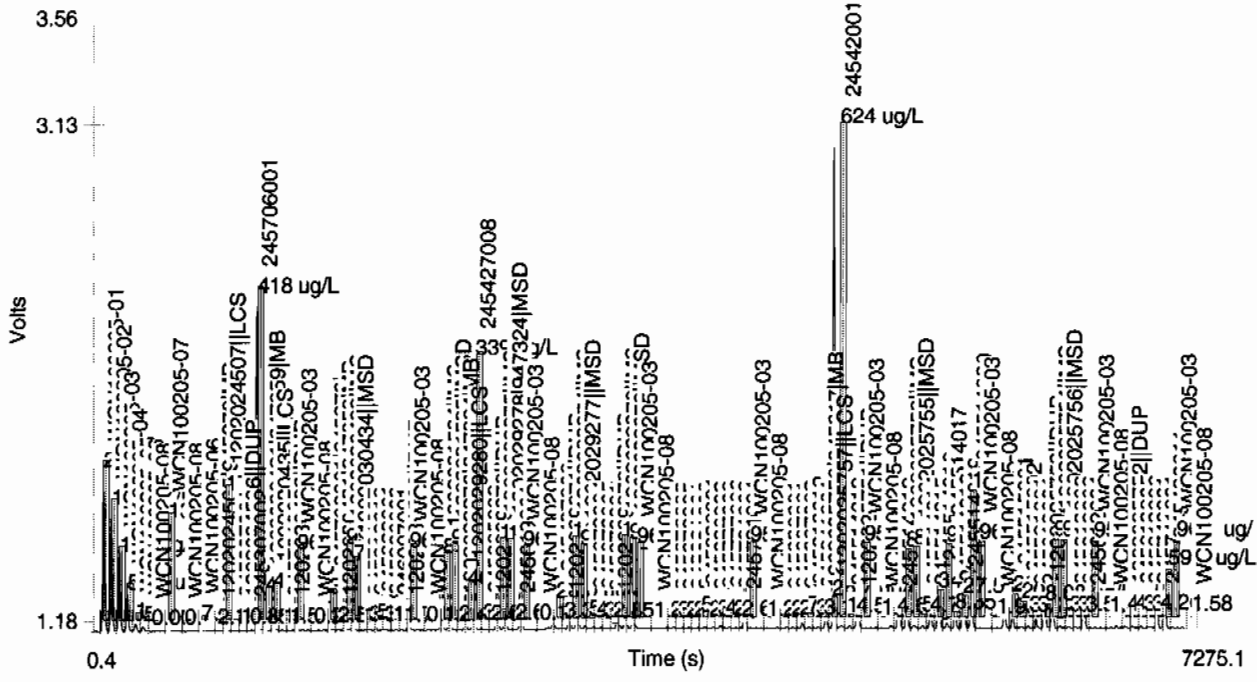

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.56	0.625	-0.8	2/5/2010	09:58:15
2	150	1	7.18	0.475	-1.2	2/5/2010	09:59:07
3	100	1	4.47	0.290	5.1	2/5/2010	09:59:59
4	50.0	1	2.22	0.141	4.3	2/5/2010	10:00:52
5	10.0	1	0.464	0.0293	-14.2	2/5/2010	10:01:46
6	5.00	1	0.275	0.0163	-64.2	2/5/2010	10:02:39
7	0.00	1	-0.0584	-0.00104		2/5/2010	10:03:34

Figure 1: TCYANIDE

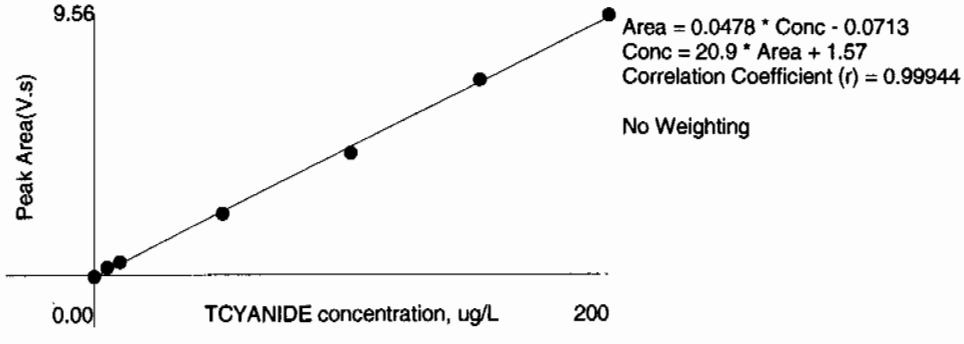

Thursday, January 28, 2010

REQUEST NUMBER: 10-1473

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1473

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNT/NR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	SW-846:8321A_MOD	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1473

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1473

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1473

REQUEST NUMBER: 10-1473

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7954	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7956	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7955	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7953	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7952	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8060	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8058	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8059	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		1/28/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7952 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1400	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610745	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray, moist tuff

SAMPLE COMMENTS: Hit tuff at 1.5 ft

LOCATION DESC: 8b-65 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 16 **dpm**
Beta/Gamma = 1997 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteven Lujan (Signature)	1/27/10 09:16 Am	(Printed Name) (Signature)	1/28/10 0938
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7953 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Alh
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610746	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.8	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand

FD RE15-10-8060

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 7970 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:15AM	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7954 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Alln
TIME COLLECTED (HH:MM)		1512	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610746	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 86-46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 33 dpm
Beta/Gamma = 3340 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:16AM	(Signature)	0916
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7955 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1515	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610747	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown silty sand with some tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-35 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha = 5 dpm
Beta/Gamma = 4250 dpm

PID Ambient 0.0 / Reading 8.9 ppm

COLLECTED BY (PRINT) R Saunders REVIEWED BY (PRINT) TLM cFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:16 AM	(Signature)	0916
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7956 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1530	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610747	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff, tuff fragments

FR RE15-10-8082

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-35 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 44 dpm
Beta/Gamma ≤ 2910 dpm

PID Ambient Reading 0.0 / 7.1 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:15AM	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8058 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	↓	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	✓	FIELD PREP:	NA	✓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER 12m 1/26/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 LC	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-7947
brown sandy silt, rocks, some roots, pine needles

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-43 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 2300 **dpm**

PID Ambient 0.1 / Reading 1.5 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:21 Am	(Signature)	938
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8059 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1047	SUB-MEDIA:	TUFF 1	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	
LOCATION ID:	UNK	15-610742	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	2.5	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER 12m 1/26/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1·11·10 LC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7946

Gray tuff

SAMPLE COMMENTS:

Tuff at 2 ft

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 2070 **dpm**

PID Ambient 0.1 / Reading 83 **ppm**

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:20 Am	(Printed Name) Sherri Sherwood	1/27/10 0920
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8060 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610746	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.8	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER 72h 1/26/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1·11·10 JC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7953

Brown sand

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-46 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 7970 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luna	1/27/10 09:15 AM	(Printed Name)	1/27/10 9:35
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8081 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1028	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610742	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	W	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7945 Rinsate

SAMPLE COMMENTS: NA

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = RS 01.26.10 dpm
Beta/Gamma = ____ dpm

PID ~~Ambient Reading~~ RS 01.26.10 = ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:19Am	(Signature) Sherri Sherwood	0919
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8082 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1547	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610747	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7956

SAMPLE COMMENTS: Rinsate

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = ____ dpm 12m 1/26/10
Beta/Gamma = ____ dpm

PID ~~Ambient Reading~~ = ppm 12m 1/26/10

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:14AM	(Signature)	0914
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7890	RE15-10-7886	RE15-10 7948
" " 7889	" " 7885	" " 7947
" " 7956	" " 7882	" " 8058
" " 7953	" " 7881	" " 7950
" " 8060	" " 7941	
" " 7954	" " 7942	
" " 7955	" " 7943	
" " 7952	" " 7944	
" " 7951	" " 8059	
" " 7949	" " 7946	
	" " 7945	

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8082

RE15-10-8081

Reason: Field Rinsate.

Print Last Name Lujan Signature [signature] Date 1/27/10

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7890	RE15-10-7886	RE15-10 7948
" " 7889	" " 7885	" " 7947
" " 7956	" " 7882	" " 8058
" " 7953	" " 7881	" " 7950
" " 8060	" " 7941	
" " 7954	" " 7942	
" " 7955	" " 7943	
" " 7952	" " 7944	
" " 7951	" " 8059	
" " 7949	" " 7946	
	" " 7945	

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8082

RE15-10-8081

Reason: Field Rinsate.

Print Last Name Lujan Signature [signature] Date 1/27/10

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00026

Client Sample ID: RE15-10-7952

Sample Collection Date: 01/26/10 14:00

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00026-007

Date Received: 01/27/10 00:00

Report Date: 01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	PQL	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	62.18	35.52	30.56	36.33		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	81.19	20.92	19.68	23.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-0.16	-12.45	5.49	-12.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.59	0.15	14.59		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	19.09	0.09	19.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.42	0.49	0.17	0.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.86	0.54	0.15	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.89	1.11	0.39	1.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	82.03	0.23	82.03		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	5.90	4.57	1.79	4.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.41	0.48	0.18	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.69

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00026

Client Sample ID: RE15-10-7953

Sample Collection Date: 01/26/10 14:57

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00026-008

Date Received: 01/27/10 00:00

Report Date: 01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	157.42	54.93	38.20	58.23		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	199.89	29.07	18.71	38.00		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-0.78	-24.74	3.32	-24.74		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	7.42	0.08	7.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.05	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.42	0.22	0.05	0.22		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.49	0.40	0.09	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.00	0.39	0.14	0.39		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	0.94	0.30	0.28	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.25	1.18	0.46	1.19		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	82.56	8.68	2.44	20.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	1.34	1.06	0.39	1.06		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.56

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7954	ARS Sample ID:	ARS2-10-00026-009
Sample Collection Date:	01/26/10 15:12	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	109.48	47.65	36.02	49.50		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	103.84	21.78	17.51	25.22		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	27.12	10.11	2.13	10.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	13.97	0.14	13.97		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.04	0.11	0.09	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.18	0.83	0.16	0.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.86	0.61	0.13	0.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.52	1.45	0.37	1.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	157.74	0.35	157.74		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	20.50	6.40	2.03	7.93		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.09	0.29	0.15	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.64

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7955	ARS Sample ID:	ARS2-10-00026-010
Sample Collection Date:	01/26/10 15:15	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	62.00	35.06	31.68	35.88		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	94.28	20.75	18.10	23.74		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.17	7.18	1.39	7.21		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.16	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.24	0.25	0.09	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.61	0.46	0.11	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.05	0.45	0.17	0.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.72	0.72	0.24	0.72		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.40	1.46	0.46	1.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	47.98	7.34	2.12	13.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.04	0.25	0.15	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.72

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7956	ARS Sample ID:	ARS2-10-00026-011
Sample Collection Date:	01/26/10 15:30	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	91.15	42.42	30.56	43.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	83.97	21.62	19.68	23.94		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	28.52	9.81	1.93	9.85		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.64	0.13	12.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.11	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	16.54	0.08	16.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	13.15	0.15	13.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.71	0.55	0.11	0.56		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.20	0.57	0.34	0.57		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.49	1.03	0.38	1.03		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	19.18	7.15	2.41	8.39		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.61	0.54	0.20	0.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.57

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # F87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00026

Client Sample ID: RE15-10-8060

Sample Collection Date: 01/26/10 14:57

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00026-012

Date Received: 01/27/10 00:00

Report Date: 01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	182.81	54.21	38.20	57.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	223.52	30.34	18.71	40.86		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.72	6.49	1.13	6.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	7.37	0.07	7.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.26	0.17	0.05	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.13	0.15	0.05	0.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.32	0.36	0.09	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.62	0.36	0.16	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.94	0.98	0.20	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.64	1.34	0.49	1.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	88.93	10.00	2.90	22.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.69	0.70	0.31	0.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.51

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-8058	ARS Sample ID:	ARS2-10-00025-014
Sample Collection Date:	01/26/10 10:29	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	182.13	58.02	31.78	62.15		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	154.91	26.46	18.25	32.55		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	-1.76	2369.70	4.25	2369.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.08	0.16	0.13	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.10	0.11	0.09	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.08	0.42	0.08	0.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.73	0.52	0.15	0.52		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.07	0.45	0.11	0.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.49	0.83	0.34	0.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.85	1.12	0.48	1.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	15.02	5.50	1.66	6.60		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.44	0.33	0.11	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.74

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-8059	ARS Sample ID:	ARS2-10-00025-015
Sample Collection Date:	01/26/10 10:47	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	149.10	53.62	30.56	56.64		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	114.64	24.84	19.68	28.54		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	0.71	9.53	5.30	9.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.06	0.17	0.14	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.36	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.02	0.12	0.11	0.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.05	0.64	0.16	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.21	0.53	0.17	0.54		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.00	0.66	0.43	0.66		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.42	1.28	0.36	1.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	2.14	2.80	1.36	2.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.29	0.35	0.14	0.35		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.83

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1473 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.
2. The CCV %Ds for PETN and 2,4,6-trinitrotoluene were >20% with positive bias. The associated sample results were NDs and, thus, were not qualified.
3. The MS and MSD %Rs for TATB were > the laboratory UAL. The TATB results for samples RE15-10-7953 and -8060 were detects and, thus, were qualified J+,HE12f. The remaining associated sample results were NDs and, thus, were not qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/10/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/10/10

DATA VALIDATION COVER SHEET

5122-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☒	☐	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7954

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208171a

Date Analyzed: 12-FEB-10 02:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7954

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120052.wiff

Date Analyzed: 13-FEB-10 00:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7956

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803002

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208172a

Date Analyzed: 12-FEB-10 02:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7956

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803002

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120053.wiff

Date Analyzed: 13-FEB-10 01:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7955

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208173a

Date Analyzed: 12-FEB-10 03:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7955

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120054.wiff

Date Analyzed: 13-FEB-10 01:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7953

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208174a

Date Analyzed: 12-FEB-10 03:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	193	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7953

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120055.wiff

Date Analyzed: 13-FEB-10 01:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB J+,HE12f	500	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7952

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208175a

Date Analyzed: 12-FEB-10 04:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7952

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120056.wiff

Date Analyzed: 13-FEB-10 01:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8060

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803006

Sample Amount 2

Moisture: 14.6

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208176a

Date Analyzed: 12-FEB-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	282	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8060

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803006

Sample Amount 2

Moisture: 14.6

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120057.wiff

Date Analyzed: 13-FEB-10 02:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB J+,HE12f	312	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8058

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803007

Sample Amount 2

Moisture: 35.9

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208177a

Date Analyzed: 12-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8058

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803007

Sample Amount 2

Moisture: 35.9

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120058.wiff

Date Analyzed: 13-FEB-10 02:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8059

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803008

Sample Amount 2

Moisture: 7.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208178a

Date Analyzed: 12-FEB-10 05:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8059

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803008

Sample Amount 2

Moisture: 7.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120059.wiff

Date Analyzed: 13-FEB-10 02:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

SEB
3/10/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1473 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The parent QC sample was from another LANL RN, and neither the raw data for the parent QC sample nor the MS/MSD samples were included in the data package. In addition, acceptable analyses for these samples were not indicated on the run log. Since the analysis of an MS/MSD pair is not a client requirement, no sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/10/10

VALIDATOR'S SIGNATURE: DATE: 03/10/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1473	Date Collected:	01/26/2010 12:00	Matrix:	R
Lab Sample ID:	245803007	Date Received:	01/29/2010 08:45	%Moisture:	35.9
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-8058	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	949033	Inst:	ECD1A.I	Dilution:	1
Run Date:	02/05/2010 11:37	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	02/04/2010 20:32	Aliquot:	30.04 g	Final Volume:	1 mL
Data File:	026f2601.d	Column:	1 CLP1	Level:	LOW
	026b2601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	5.19	ug/kg	1.73	5.19	1
11104-28-2	Aroclor-1221	U	5.19	ug/kg	1.73	5.19	1
11141-16-5	Aroclor-1232	U	5.19	ug/kg	1.73	5.19	1
53469-21-9	Aroclor-1242	U	5.19	ug/kg	1.73	5.19	1
12672-29-6	Aroclor-1248	U	5.19	ug/kg	1.73	5.19	1
11097-69-1	Aroclor-1254	JP	4.70	ug/kg	1.73	5.19	1
11096-82-5	Aroclor-1260		14.6	ug/kg	1.73	5.19	2
11100-14-4	Aroclor-1268		55.6	ug/kg	1.73	5.19	2

SEB
3/10/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1473	**Date Collected:**	01/26/2010 12:00	**Matrix:**	R
Lab Sample ID:	245803008	**Date Received:**	01/29/2010 08:45	**%Moisture:**	7.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8059	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 11:50	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP1	**Level:**	LOW
	027b2701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.59	ug/kg	1.20	3.59	1
11104-28-2	Aroclor-1221	U	3.59	ug/kg	1.20	3.59	1
11141-16-5	Aroclor-1232	U	3.59	ug/kg	1.20	3.59	1
53469-21-9	Aroclor-1242	U	3.59	ug/kg	1.20	3.59	1
12672-29-6	Aroclor-1248	U	3.59	ug/kg	1.20	3.59	1
11097-69-1	Aroclor-1254	U	3.59	ug/kg	1.20	3.59	1
11096-82-5	Aroclor-1260	U	3.59	ug/kg	1.20	3.59	1

SEB
3/10/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1473**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245803006**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8060**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 11:25**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Allquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.89	ug/kg	1.29	3.89	1
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.29	3.89	1
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.29	3.89	1
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.29	3.89	1
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.29	3.89	1
11097-69-1	Aroclor-1254	P	74.1	ug/kg	1.29	3.89	1
11096-82-5	Aroclor-1260		47.0	ug/kg	1.29	3.89	2
11100-14-4	Aroclor-1268		35.1	ug/kg	1.29	3.89	2

SEB
3/10/10

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1473

REQUEST NUMBER: 10-1473

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245803'/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7954	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7956	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7955	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7953	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7952	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8060	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8058	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8059	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	1/28/10	1400	Patricia Dover	Patricia P. Dover	1-29-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, January 28, 2010

REQUEST NUMBER: 10-1473

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1473
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/26/2010
TURNAROUND/REPORT DUE: 2/27/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	SW-846:8321A_MOD	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1473

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1473

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245803
SDG: 10-1473

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 29, 2010, and analyzed for Explosives by LCMSMS and GC Semivolatile PCB. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1473
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245803
SDG: 10-1473

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 4

Data Review Qualifier Flag Definition Sheeet..... 17

LC/MS/MS Explosives Analysis.....19
- Sample Data Summary.....25
- Quality Control Summary.....42
- Sample Data..... 149
- Standards Data.....206
- Quality Control Data.....398
- Miscellaneous Data.....414

GC Semivolatile PCB Analysis.....438
- Sample Data Summary.....444
- Quality Control Summary.....448
- Sample Data..... 452
- Standards Data.....476
- Quality Control Data.....559
- Miscellaneous Data.....574

CASE NARRATIVE

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245803
SDG # : 10-1473

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 29, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245803001	RE15-10-7954
245803002	RE15-10-7956
245803003	RE15-10-7955
245803004	RE15-10-7953
245803005	RE15-10-7952
245803006	RE15-10-8060
245803007	RE15-10-8058
245803008	RE15-10-8059

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS and GC Semivolatile PCB.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1473

REQUEST NUMBER: 10-1473

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245803'/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
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RE15-10-7956	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7955	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7953	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7952	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8060	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8058	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8059	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	1/28/10	1400	Patricia Dover-Dent	P. Dover-Dent	1-29-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, January 28, 2010

REQUEST NUMBER: 10-1473

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1473

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-8058	R	1/26/2010	
		1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	
	SW-846:8321A_MOD	1	RE15-10-7952	R	1/26/2010	
		1	RE15-10-7953	R	1/26/2010	
		1	RE15-10-7954	R	1/26/2010	
		1	RE15-10-7955	R	1/26/2010	
		1	RE15-10-7956	R	1/26/2010	
		1	RE15-10-8058	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1473

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8059	R	1/26/2010	
		1	RE15-10-8060	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1473

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1473**
Received By: Patricia Dover-Dent	**Date Received: January 29, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-6** **10-12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7419 11C	**7209 7849 7522 6C**
7209 7849 7500 5C	**7209 7849 7533 1C**
7209 7849 7452 2C	**7209 7849 7544 1C**
7209 7849 7474 1C	**7209 7849 7420 10C**
7209 7849 7441 4C	**7209 7849 7496 2C**
7209 7849 7463 3C	**7209 7849 7485 3C**
7209 7849 7430 10C	**7209 7849 7408 12C**
7209 7849 7511 6C	

PM (or PMA) review: Initials _____ Date 2/1/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

11

FedEx Express

3 of 3
MPS# 0263 7209 7849 7419
Matr# 7209 7849 7393 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

5

FedEx Express

1 of 2
TRK# 0201 7209 7849 7500
MASTER

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-9171
REF: 6B010AMR3A05529E00

2°

FedEx Express

FRI - 29JAN A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7452

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-9171
REF: 6B010AMR1A015AGWK0

1°

FedEx Express

2 of 2
MPS# 0263 7209 7849 7474
MstrW 7209 7849 7463 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

4°

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

FedEx Express

2 of 2
MPS# 0203 7209 7849 7441
Mstr# 7209 7849 7430 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

3°

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

FedEx Express

1 of 2
TRK# 0201 7209 7849 7463
MASTER

FRI - 29JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

10°C

FedEx Express

1 of 2
TRK# 9201 7209 7849 7430
MASTER

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015QGWK0

6°C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7511
Mstr# 7209 7849 7500 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG J237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A0150GWK0

6C

FedEx Express

FRI - 29JAN A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7522

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRITV3.04-0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AARDW01503500

FedEx Express

TRK# 0201 7209 7849 7533

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

238 1 B 7544 01.29

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AX49A08650000

FedEx Express

TRK# 0201 7209 7849 7544

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

10#

FedEx Express

TRK# 0201 7209 7849 7420

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-0

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2#

FedEx Express

2 of 2
MPS# 0203 7209 7849 7496
Mstr# 7209 7849 7485 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-0

[redacted]

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 40.0 LB MAN
CAD: 0014178/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

3C

FedEx Express

1 of 2

TRK# 0201 7289 7849 7485

FRI - 29JAN A1
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407
SC-US
CHS

Ext # 159148-434 NRIT V3.04-0

ORIGIN ID: SAFA (505) 665-1966
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: [illegible] LB MAN
CAD: 0014178/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A015AGWK0

12C

FedEx Express

2 of 3

MPS# 0263 7289 7849 7485

FRI - 29JAN A1
PRIORITY OVERNIGHT

Master# [illegible]

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1473

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	947084
Prep Batch Number:	947080

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
245803001	RE15-10-7954
245803002	RE15-10-7956
245803003	RE15-10-7955
245803004	RE15-10-7953
245803005	RE15-10-7952
245803006	RE15-10-8060
245803007	RE15-10-8058
245803008	RE15-10-8059
1202028676	Method Blank (MB)
1202028677	Laboratory Control Sample (LCS)
1202028678	245663001(RE16-10-1343) Matrix Spike (MS)
1202028679	245663001(RE16-10-1343) Matrix Spike Duplicate (MSD)

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 245663001 (RE16-10-1343) from SDG 10-1436 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Client sample 245663001 (RE16-10-1343) from SDG 10-1436 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recovered TATB at 175%. The limits are 29-155%. The MSD confirmed the high recovery at 178% which may be attributed to matrix interference in the sample. The LCS had a passing recovery of 160%. TATB was not detected in the parent sample. The data are considered unaffected and are reported. Please see data exception report 791288.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovered TATB at 178%. The limits are 29-155%. The MS confirmed the high recovery at 175% which may be attributed to matrix interference in the sample. The LCS had a passing recovery of 160%. TATB was not detected in the parent sample. The data are considered unaffected and are reported. Please see data exception report 791288.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 791288 was generated for this SDG.

The MS recovered TATB at 175%. The MSD recovered TATB at 178%. The limits are 29-155%. The LCS had a passing recovery of 160%. TATB was not detected in the parent sample. The data are considered unaffected and are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

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Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column: YMC:

J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Mauer **Date:** 02/17/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7954

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208171a

Date Analyzed: 12-FEB-10 02:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7954

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120052.wiff

Date Analyzed: 13-FEB-10 00:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7956

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803002

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208172a

Date Analyzed: 12-FEB-10 02:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7956

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803002

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120053.wiff

Date Analyzed: 13-FEB-10 01:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7955

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208173a

Date Analyzed: 12-FEB-10 03:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7955

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120054.wiff

Date Analyzed: 13-FEB-10 01:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7953

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208174a

Date Analyzed: 12-FEB-10 03:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	193	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7953

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120055.wiff

Date Analyzed: 13-FEB-10 01:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	500	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7952

Lab Code: GEI

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208175a

Date Analyzed: 12-FEB-10 04:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7952

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120056.wiff

Date Analyzed: 13-FEB-10 01:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8060

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803006

Sample Amount 2

Moisture: 14.6

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208176a

Date Analyzed: 12-FEB-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	282	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8060

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803006

Sample Amount 2

Moisture: 14.6

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120057.wiff

Date Analyzed: 13-FEB-10 02:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	312	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8058

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803007

Sample Amount 2

Moisture: 35.9

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208177a

Date Analyzed: 12-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8058

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803007

Sample Amount 2

Moisture: 35.9

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120058.wiff

Date Analyzed: 13-FEB-10 02:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8059

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803008

Sample Amount 2

Moisture: 7.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208178a

Date Analyzed: 12-FEB-10 05:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8059

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803008

Sample Amount 2

Moisture: 7.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120059.wiff

Date Analyzed: 13-FEB-10 02:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1473

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245803001	RE15–10–7954	117	70 – 144	
245803001	RE15–10–7954	117	70 – 144	
245803002	RE15–10–7956	109	70 – 144	
245803002	RE15–10–7956	126	70 – 144	
245803003	RE15–10–7955	102	70 – 144	
245803003	RE15–10–7955	133	70 – 144	
245803004	RE15–10–7953	111	70 – 144	
245803004	RE15–10–7953	132	70 – 144	
245803005	RE15–10–7952	106	70 – 144	
245803005	RE15–10–7952	129	70 – 144	
245803006	RE15–10–8060	114	70 – 144	
245803006	RE15–10–8060	127	70 – 144	
245803007	RE15–10–8058	108	70 – 144	
245803007	RE15–10–8058	130	70 – 144	
245803008	RE15–10–8059	113	70 – 144	
245803008	RE15–10–8059	133	70 – 144	
1202028676	MB for batch 947080	115	70 – 144	
1202028676	MB for batch 947080	124	70 – 144	
1202028677	LCS for batch 947080	104	70 – 144	
1202028677	LCS for batch 947080	126	70 – 144	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1473

Extract Batch Code: 947080

Date Extracted: 04-FEB-10

GEL LCS ID: 1202028677

GEL LCSDUP ID:

Analysis Date/Time: 11-FEB-10 20:27

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4160	83.2					69 – 126
2,4,6-Trinitrotoluene	5000	4730	94.6					73 – 149
2,4-Dinitrotoluene	5000	5080	102					87 – 137
2,6-Dinitrotoluene	5000	5010	100					89 – 120
2-Amino-4,6-dinitrotoluene	5000	4850	97.1					90 – 130
4-Amino-2,6-dinitrotoluene	5000	4700	94					84 – 130
HMX	5000	4950	98.9					58 – 138
Nitrobenzene	5000	5020	100					71 – 122
PETN	5000	5390	108					64 – 137
RDX	5000	4890	97.9					81 – 137
Tetryl	5000	2590	51.8					51 – 112
m-Dinitrobenzene	5000	5020	100					83 – 122
m-Nitrotoluene	5000	4690	93.9					73 – 118
o-Nitrotoluene	5000	4900	98					72 – 119
p-Nitrotoluene	5000	5090	102					67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1473

Extract Batch Code: 947080

Date Extracted: 04-FEB-10

GEL LCS ID: 1202028677

GEL LCSDUP ID:

Analysis Date/Time: 12-FEB-10 21:38

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	4730	94.6					52 – 114
2,6-Diamino-4-nitrotoluene	5000	5340	107					64 – 122
3,5-Dinitroaniline	5000	5310	106					70 – 127
TATB	5000	8020	160					28 – 162
tris(o-cresyl) phosphate	5000	5150	103					84 – 119

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE16-10-1343

Lab Code: GEL

GEL Job No (SDG) 10-1473

Extract Batch Code: 947080

Date Extracted: 04-FEB-10

GEL Spike ID: 1202028678

GEL SpikeDup ID: 1202028679

Analysis Date/Time: 11-FEB-10 21:26

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4630	92.6	4810	96.2	3.91	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	5840	117	5330	107	9.21	30	76 – 144
2,4-Dinitrotoluene	5000	0	4970	99.3	5390	108	8.21	30	86 – 135
2,6-Dinitrotoluene	5000	0	5130	103	5150	103	.267	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	6070	121	5970	119	1.72	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5550	111	5170	103	7.16	30	72 – 143
HMX	5000	0	4970	99.4	5670	113	13.2	30	51 – 144
Nitrobenzene	5000	0	5070	101	5380	108	5.97	30	70 – 122
PETN	5000	0	5750	115	5380	108	6.68	30	60 – 140
RDX	5000	0	5140	103	6000	120	15.6	30	59 – 152
Tetryl	5000	0	4720	94.4	4880	97.7	3.37	30	36 – 124
m-Dinitrobenzene	5000	0	5240	105	5260	105	.365	30	85 – 118
m-Nitrotoluene	5000	0	4740	94.7	4400	87.9	7.48	30	70 – 120
o-Nitrotoluene	5000	0	5010	100	4700	93.9	6.45	30	69 – 123
p-Nitrotoluene	5000	0	5300	106	4720	94.3	11.5	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE16-10-1343

Lab Code: GEL

GEL Job No (SDG) 10-1473

Extract Batch Code: 947080

Date Extracted: 04-FEB-10

GEL Spike ID: 1202028678

GEL SpikeDup ID: 1202028679

Analysis Date/Time: 12-FEB-10 22:10

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	4680	93.6	5140	103	9.37	26	34 – 135
2,6-Diamino-4-nitrotoluene	5000	0	5840	117	6040	121	3.37	30	55 – 130
3,5-Dinitroaniline	5000	0	5380	108	5780	116	7.17	30	73 – 129
TATB	5000	0	8760	175 *	8890	178 *	1.47	30	29 – 155
tris(o-cresyl) phosphate	5000	0	5310	106	5090	102	4.23	30	72 – 127

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-FEB-10 14:44

GEL Data File: EXP0208001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	481.075
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	515.914
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\020810expa.mdb, Time: Tue Feb 09 09:17:48 2010
Calibration: Untitled, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208001a
Date: 08-Feb-2010
Time: 14:44:17
ID: XIBLK01
Vial: 1:1,A

MJP 2/9/10

HMX

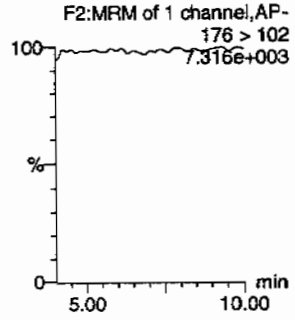

RDX

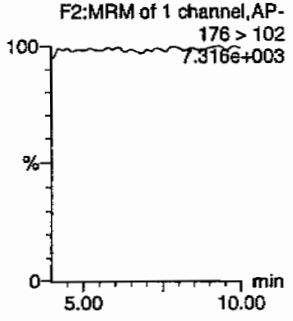

135-Trinitrobenzene

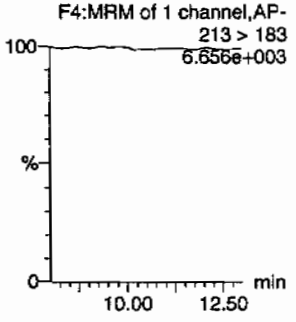

13-Dinitrobenzene-d4

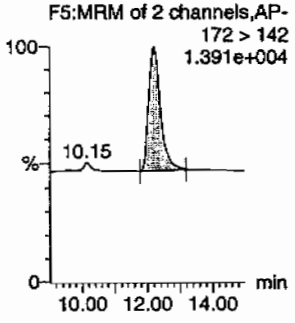

13-Dinitrobenzene

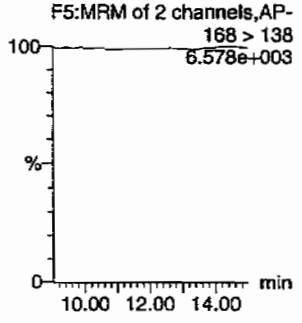

Tetryl

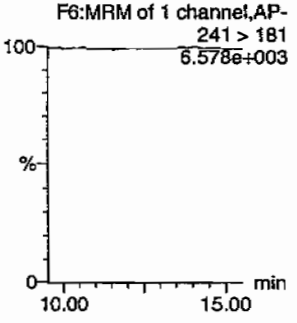

Nitrobenzene

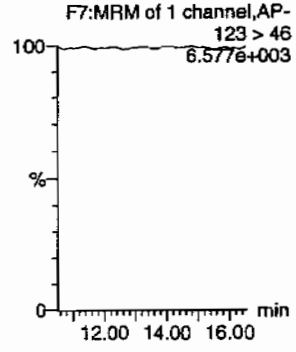

4-Amino-26-dinitrotoluene

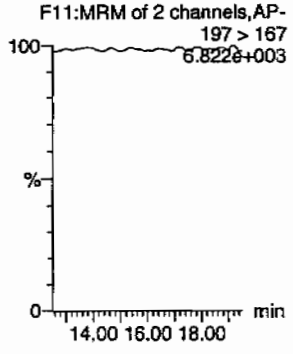

2-Amino-46-dinitrotoluene

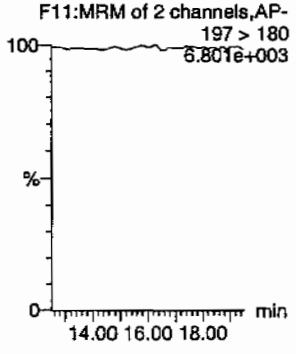

246-Trinitrotoluene

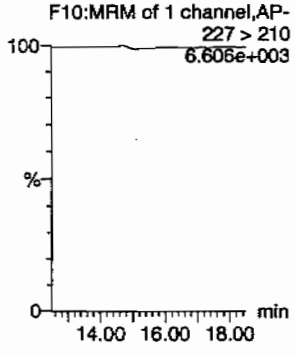

34-dinitrotoluene

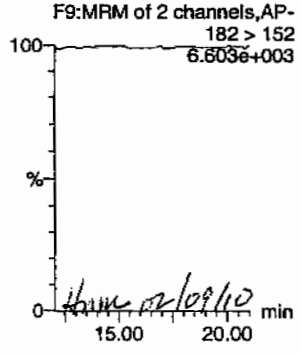

26-dinitrotoluene

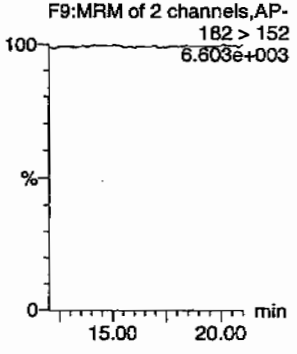

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

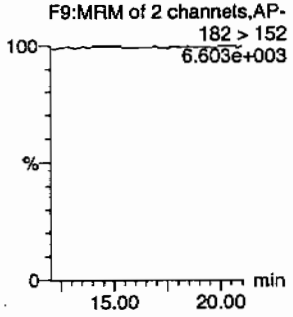

26-dinitrotoluene-d3

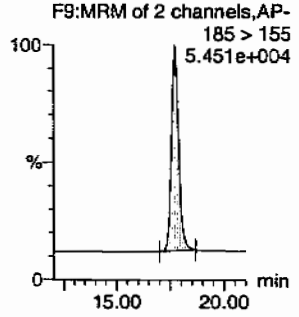

2-Nitrotoluene

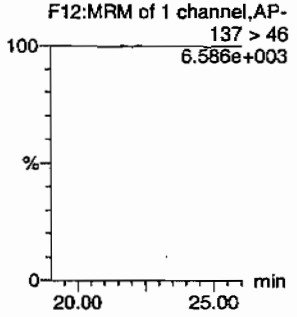

4-Nitrotoluene

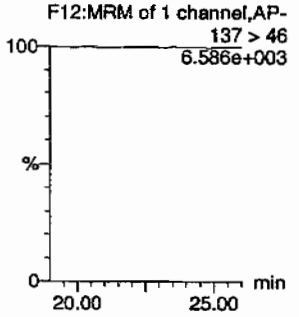

3-Nitrotoluene

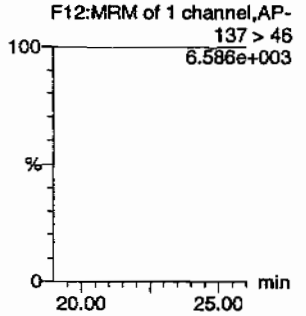

PETN

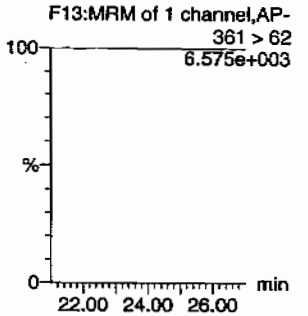

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3092.901									
XIBLK01	RDX	176 > 102			3092.901									
XIBLK01	135-Trinitrobenzene	213 > 183			3092.901									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.20	3092.901		3092.901	3092.901	bb			481.0748	96.2	-3.8	573.7
XIBLK01	13-Dinitrobenzene	168 > 138			3092.901									
XIBLK01	Tetryl	241 > 181			3092.901									
XIBLK01	Nitrobenzene	123 > 46			3092.901									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			19047.234									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			19047.234									
XIBLK01	246-Trinitrotoluene	227 > 210			19047.234									
XIBLK01	34-dinitrotoluene	182 > 152			19047.234									
XIBLK01	26-dinitrotoluene	182 > 152			19047.234									
XIBLK01	24-dinitrotoluene	182 > 152			19047.234									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.71	19047.234		19047.234	19047.234	bb			515.9145	103.2	3.2	1409.8
XIBLK01	2-Nitrotoluene	137 > 46			19047.234									
XIBLK01	4-Nitrotoluene	137 > 46			19047.234									
XIBLK01	3-Nitrotoluene	137 > 46			19047.234									
XIBLK01	PETN	361 > 62			19047.234									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08–FEB–10 15:13

GEL Data File: EXP0208002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
Tetryl	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	552.32
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	568.377
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208002a
Date: 08-Feb-2010
Time: 15:13:49
ID: XIBLK01
Vial: 1:1,A

MAT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.206e+003

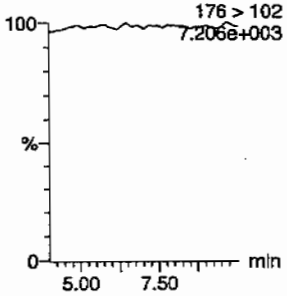

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.206e+003

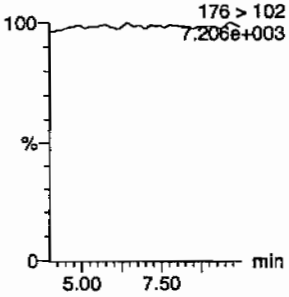

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.702e+003

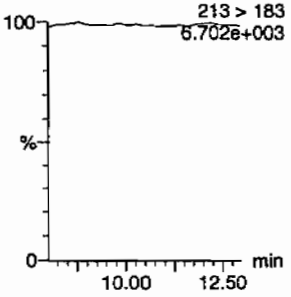

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.488e+004

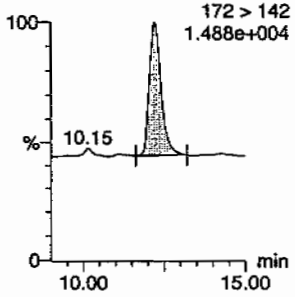

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.624e+003

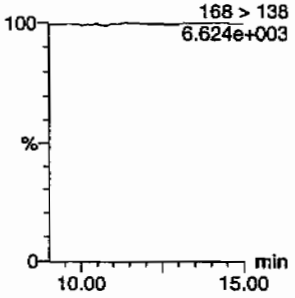

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.663e+003

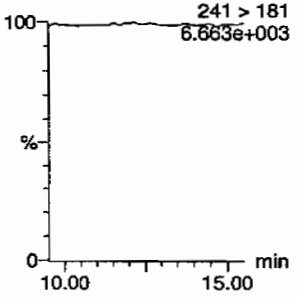

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.646e+003

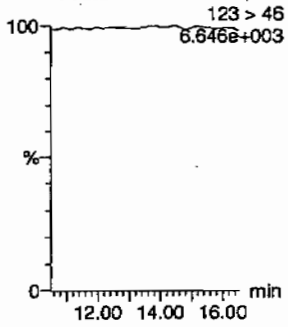

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.735e+003

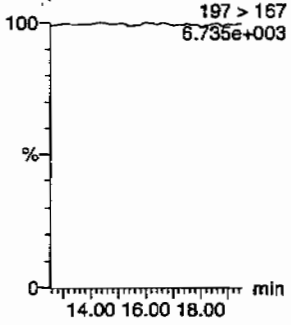

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.783e+003

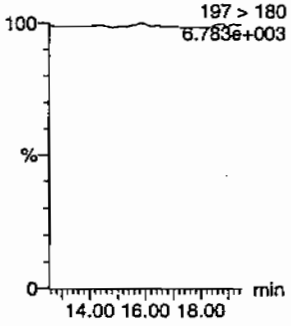

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.651e+003

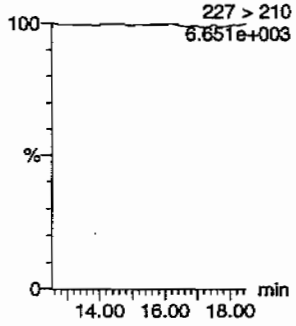

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.663e+003

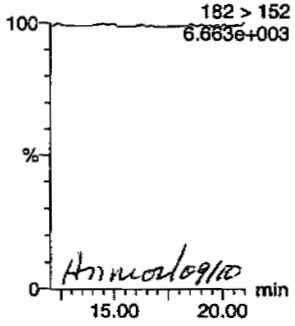

Hmcd 02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.663e+003

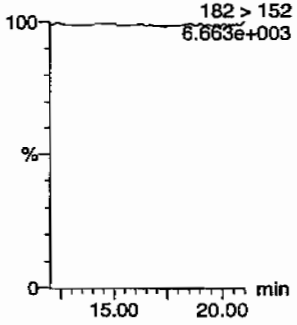

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.663e+003

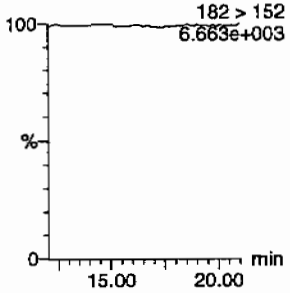

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.939e+004

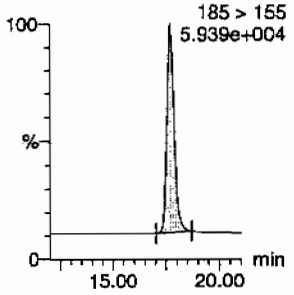

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.662e+003

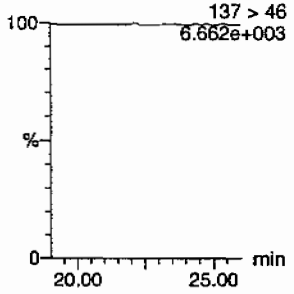

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.662e+003

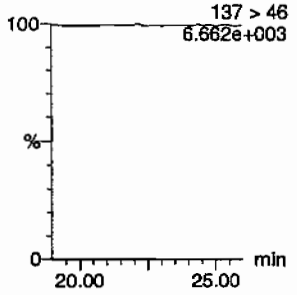

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.662e+003

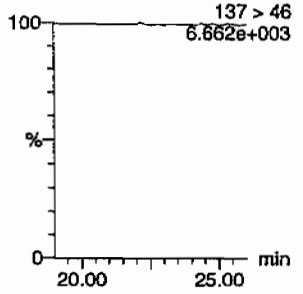

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.636e+003

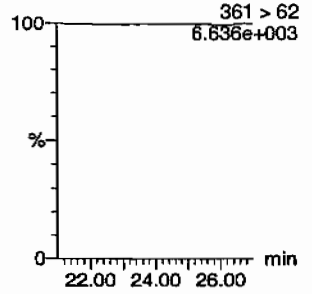

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3550.947									
XIBLK01	RDX	176 > 102			3550.947									
XIBLK01	135-Trinitrobenzene	213 > 183			3550.947									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.20	3550.947		3550.947	3550.947	bb			552.3201	110.5	10.5	593.6
XIBLK01	13-Dinitrobenzene	168 > 138			3550.947									
XIBLK01	Tetryl	241 > 181			3550.947									
XIBLK01	Nitrobenzene	123 > 46			3550.947									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			20984.104									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			20984.104									
XIBLK01	246-Trinitrotoluene	227 > 210			20984.104									
XIBLK01	34-dinitrotoluene	182 > 152			20984.104									
XIBLK01	26-dinitrotoluene	182 > 152			20984.104									
XIBLK01	24-dinitrotoluene	182 > 152			20984.104									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.72	20984.104		20984.104	20984.104	bb			568.3767	113.7	13.7	1591.1
XIBLK01	2-Nitrotoluene	137 > 46			20984.104									
XIBLK01	4-Nitrotoluene	137 > 46			20984.104									
XIBLK01	3-Nitrotoluene	137 > 46			20984.104									
XIBLK01	PETN	361 > 62			20984.104									

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12–FEB–10 11:26

GEL Data File: EXS02120001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LER 2/15/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:26:28 AM

Modified: No

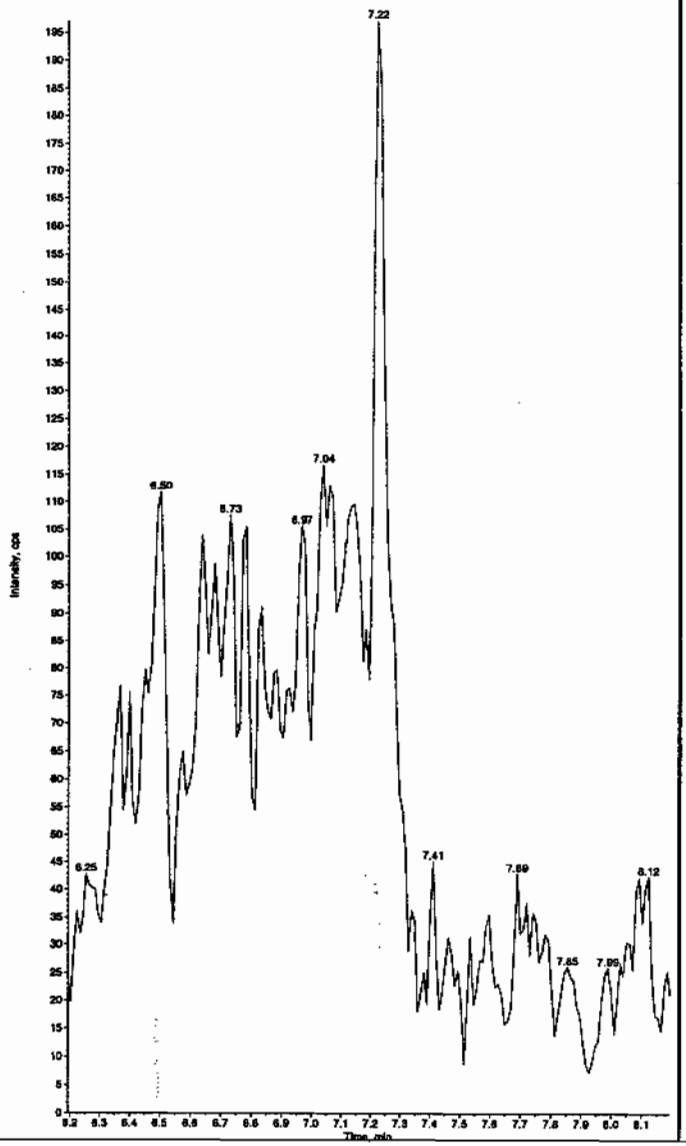

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:26:28 AM

Modified: No

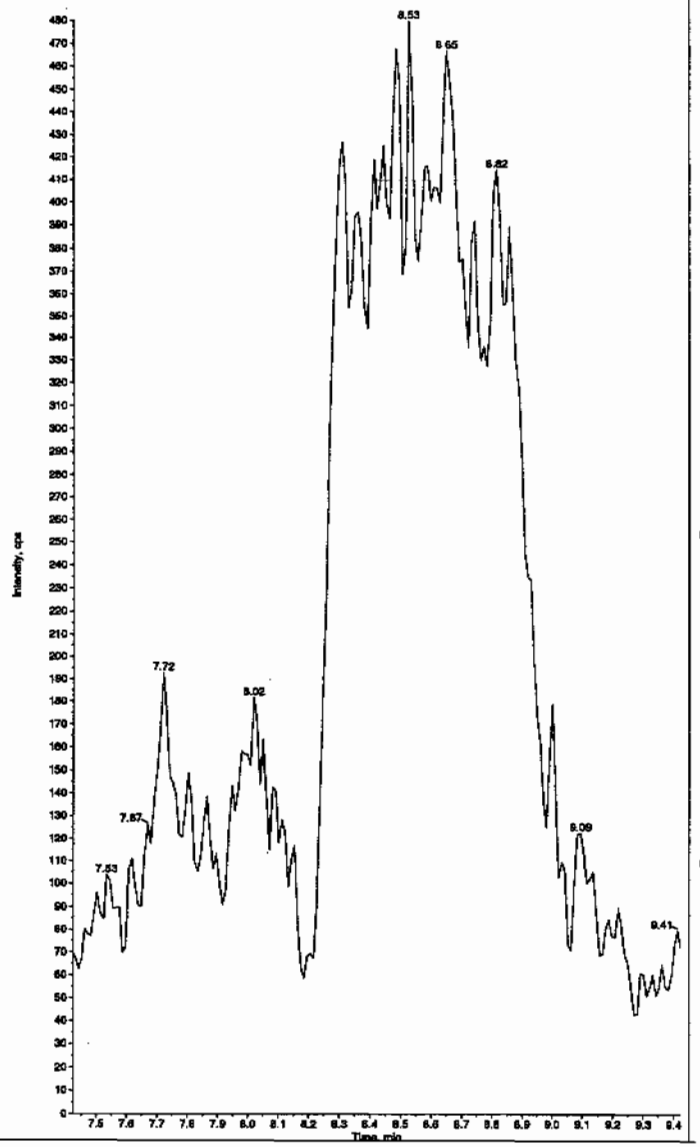

HMW 02/15/10

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:26:28 AM

Modified: No

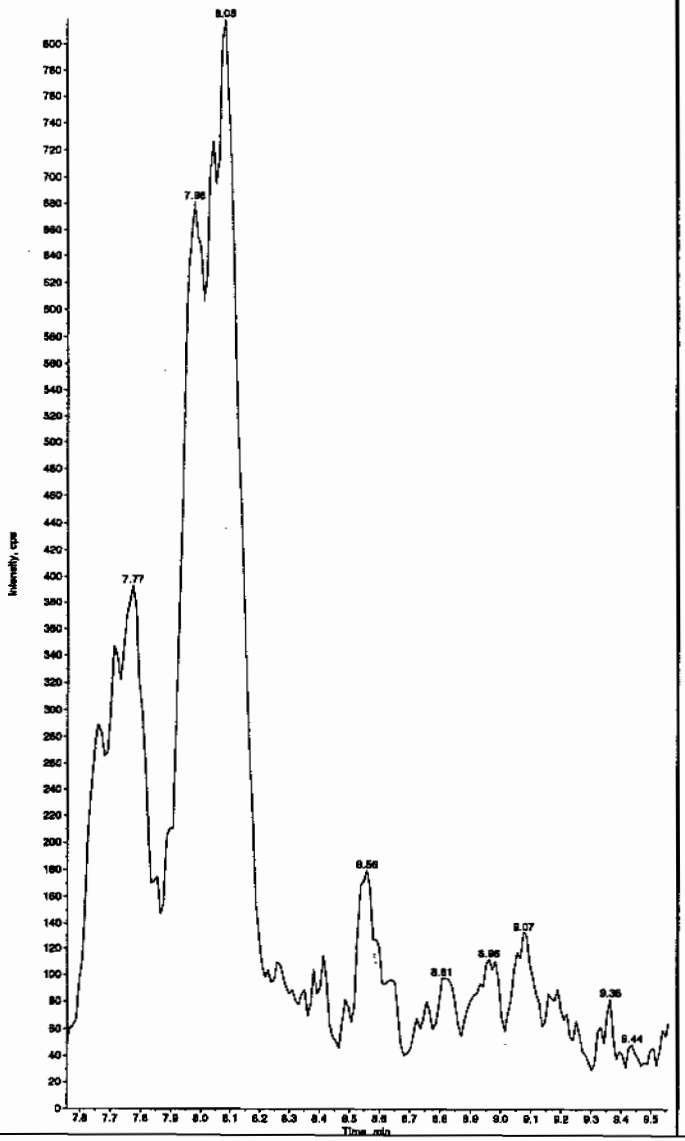

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:26:28 AM

Modified: No

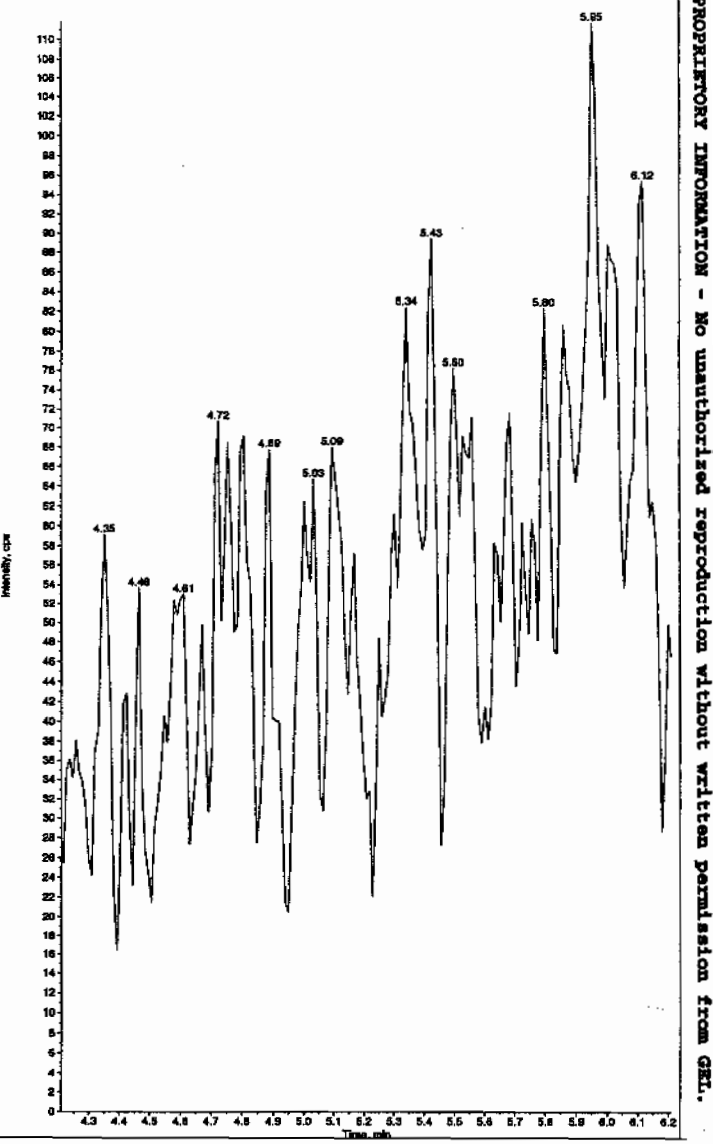

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/48.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:26:28 AM

Modified: No

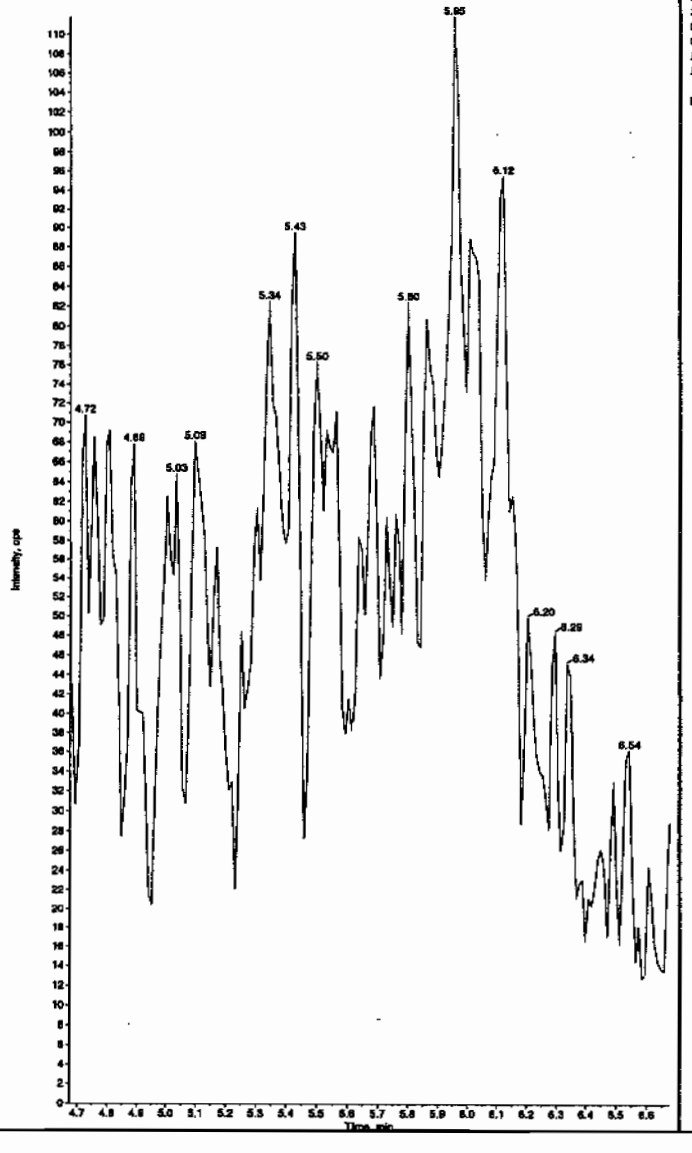

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:26:28 AM

Modified: No

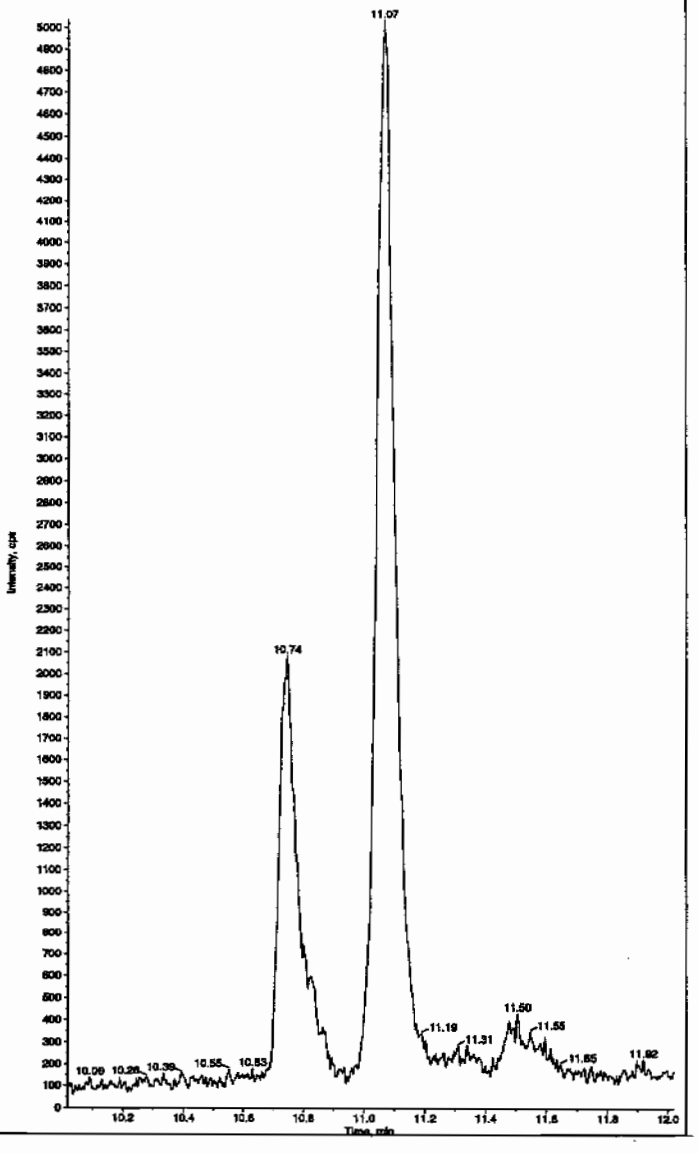

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12-FEB-10 11:42

GEL Data File: EXS02120002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 2/15/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02120002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:42:16 AM

Modified: No

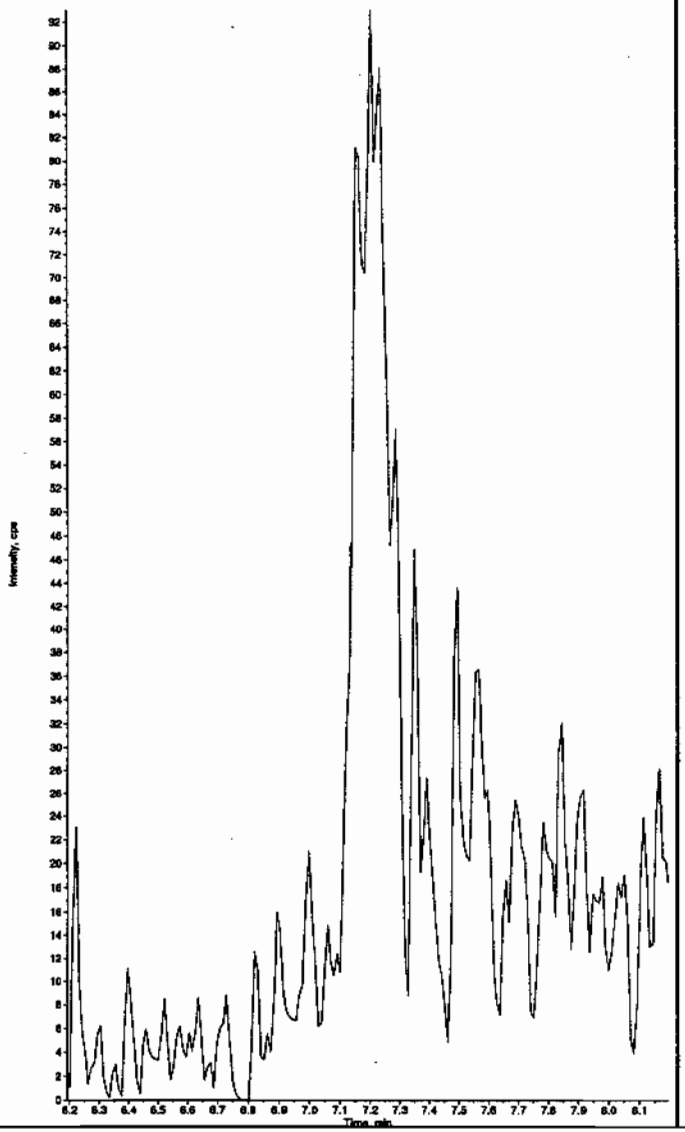

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02120002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:42:16 AM

Modified: No

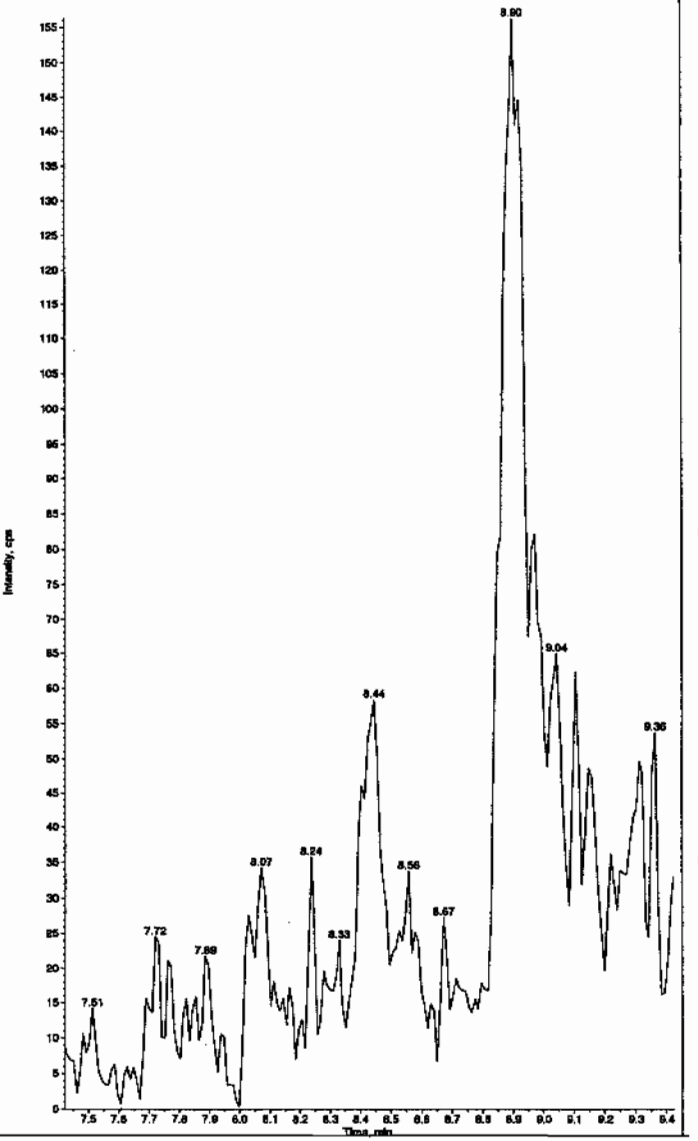

Hnm 02/15/10

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:42:16 AM

Modified: No

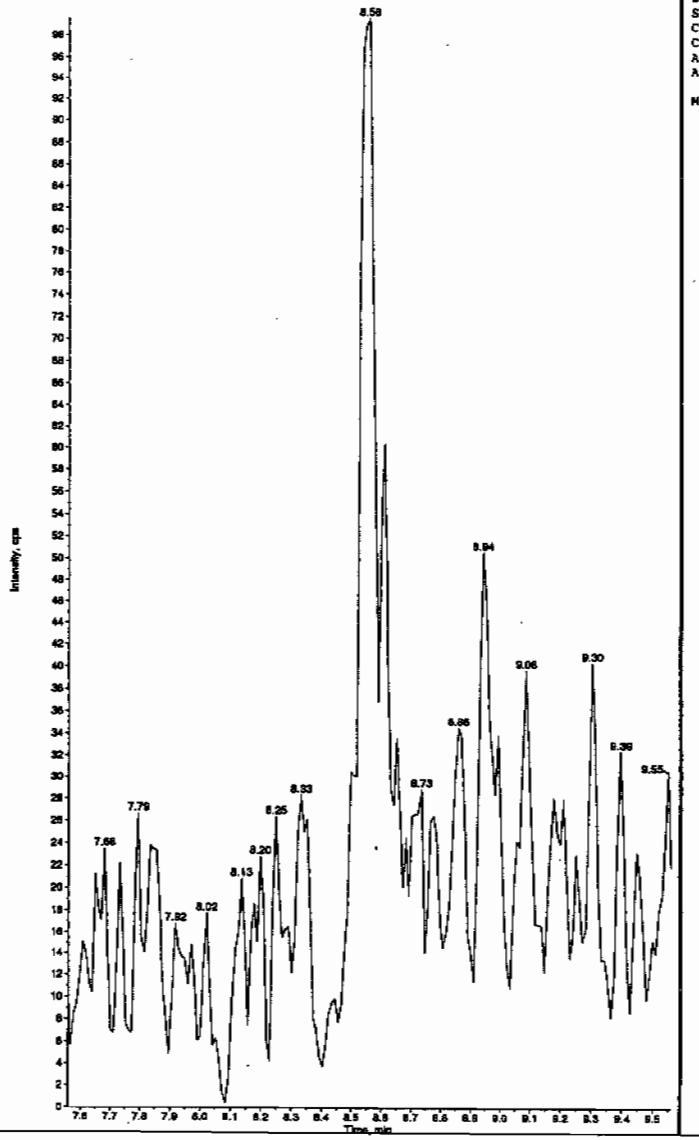

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:42:16 AM

Modified: No

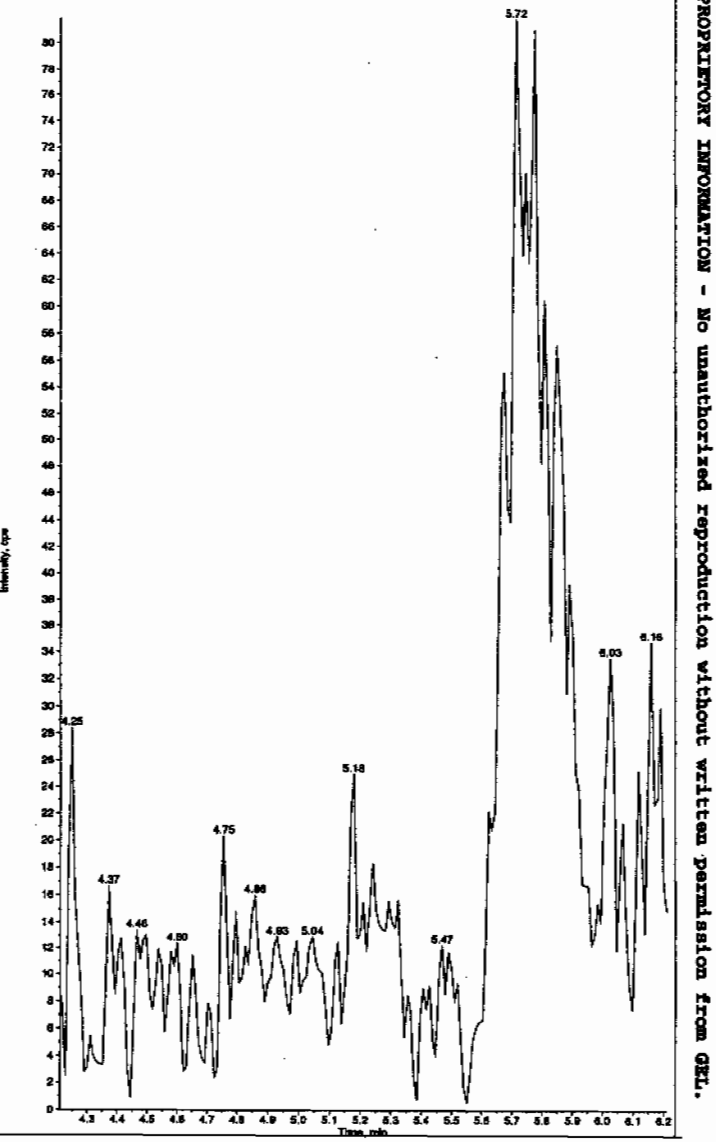

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:42:16 AM

Modified: No

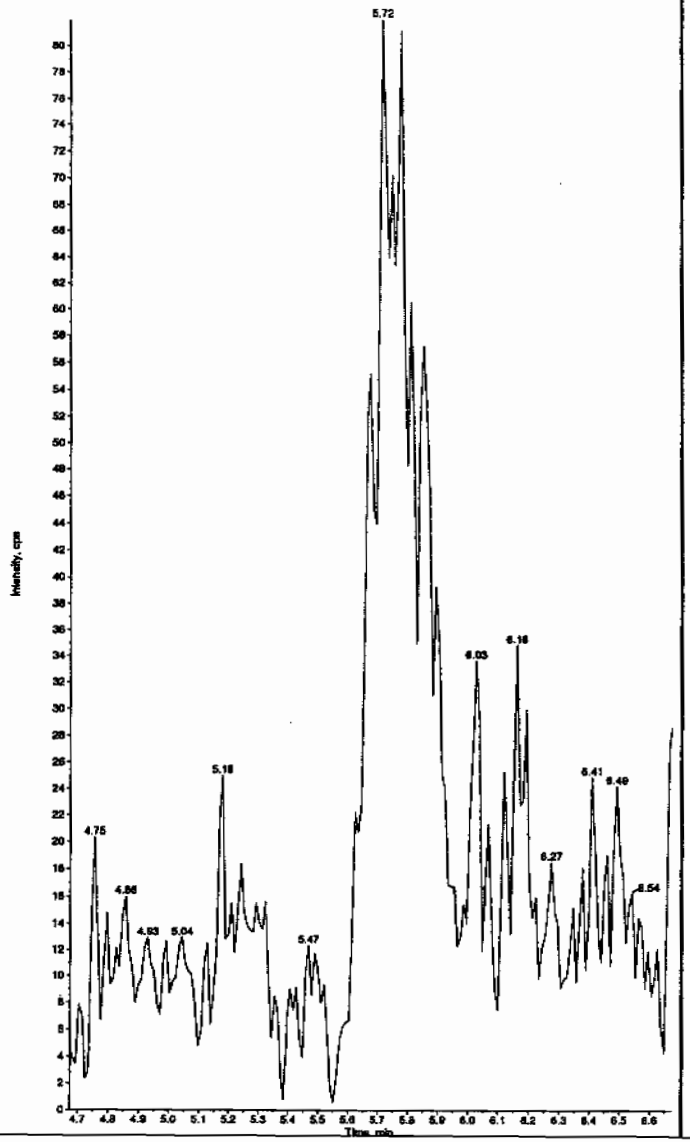

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02120002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 11:42:16 AM

Modified: No

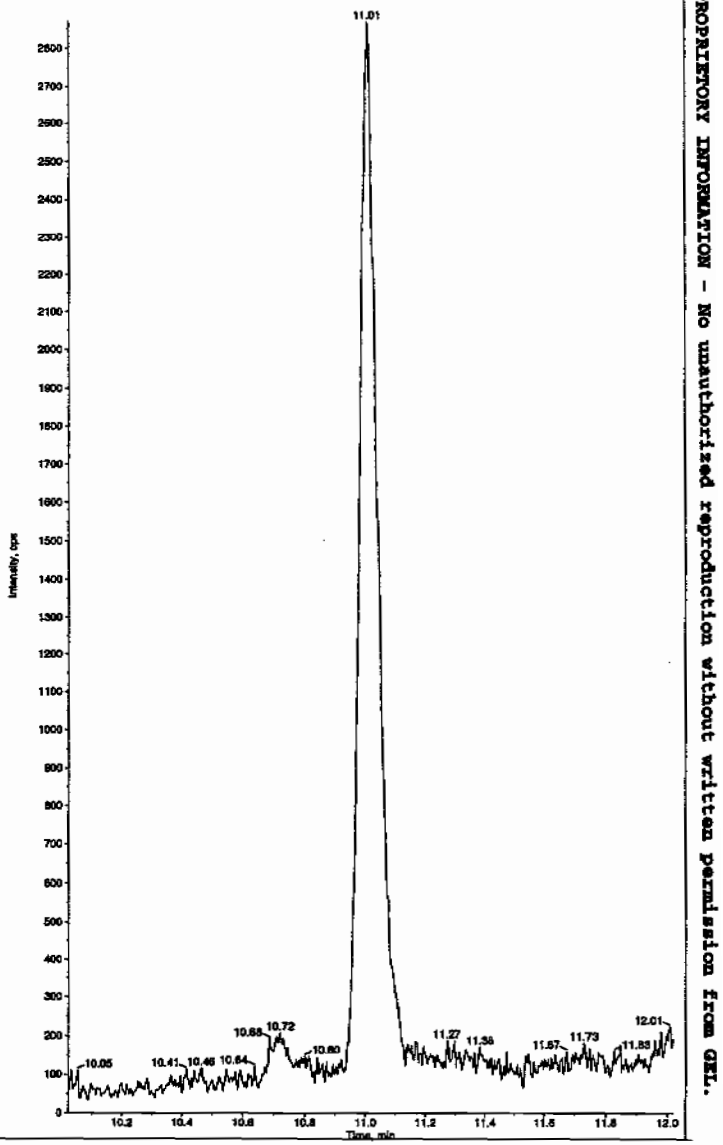

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 08-FEB-10 18:40

GEL Data File: EXP0208009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	519.67
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	546.786
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208009a
Date: 08-Feb-2010
Time: 18:40:36
ID: XIBLK02
Vial: 1:1,A

MATT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.702e+003

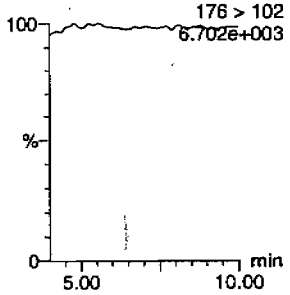

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.702e+003

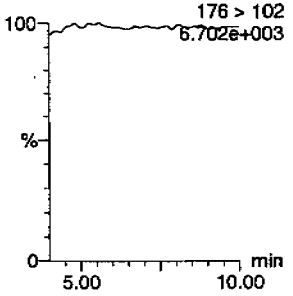

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.295e+003

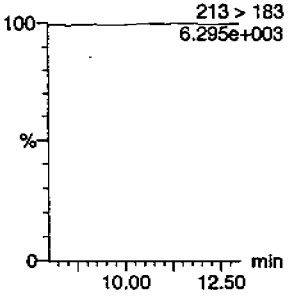

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.413e+004

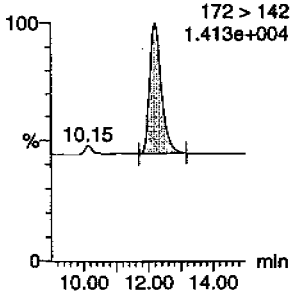

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.259e+003

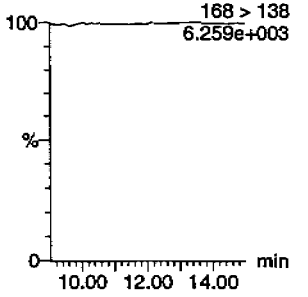

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.285e+003

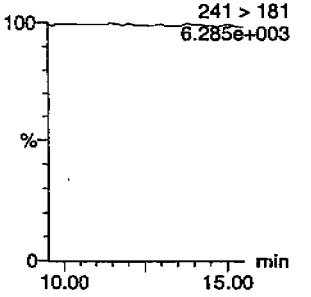

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.301e+003

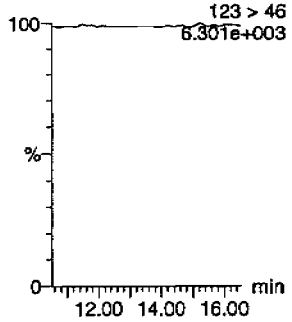

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.424e+003

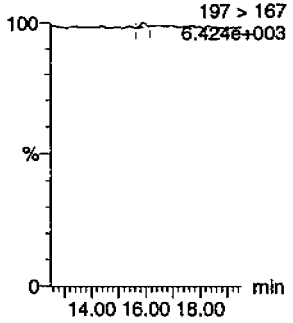

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.376e+003

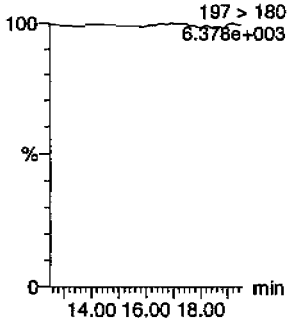

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.301e+003

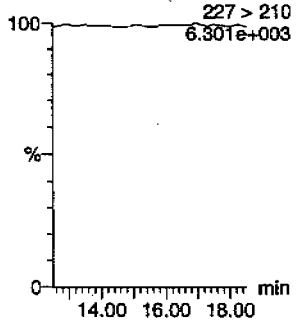

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.294e+003

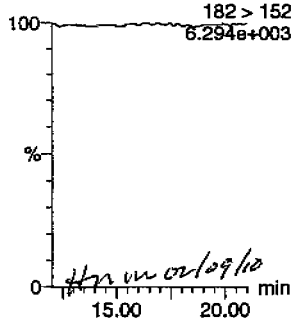

HM on 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.294e+003

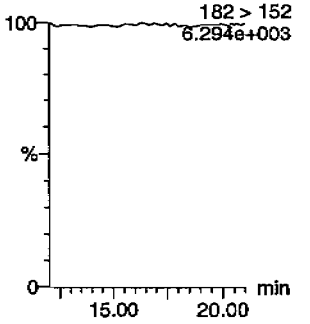

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

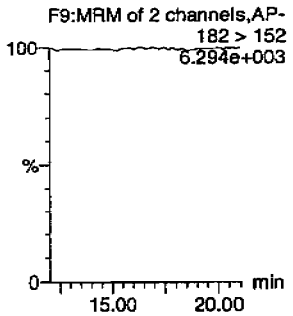

26-dinitrotoluene-d3

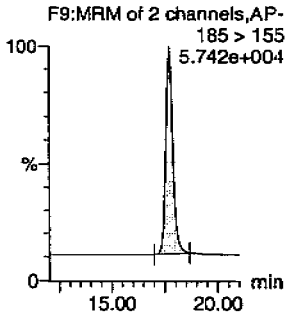

2-Nitrotoluene

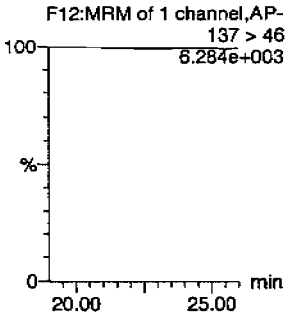

4-Nitrotoluene

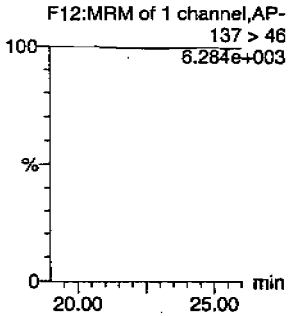

3-Nitrotoluene

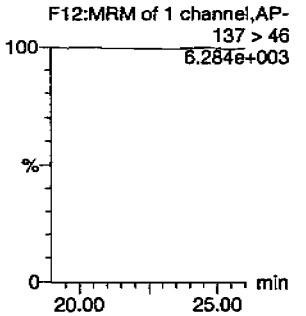

PETN

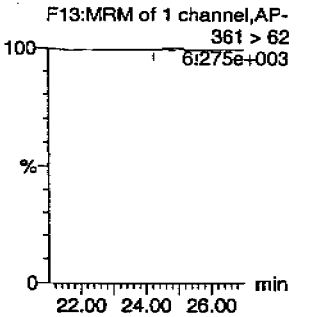

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3341.034									
XIBLK02	RDX	176 > 102			3341.034									
XIBLK02	135-Trinitrobenzene	213 > 183			3341.034									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.20	3341.034		3341.034	3341.034	bb			519.6698	103.9	3.9	344.2
XIBLK02	13-Dinitrobenzene	168 > 138			3341.034									
XIBLK02	Tetryl	241 > 181			3341.034									
XIBLK02	Nitrobenzene	123 > 46			3341.034									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			20186.990			MM-	09-Feb-10	10:07:01				
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			20186.990									
XIBLK02	246-Trinitrotoluene	227 > 210			20186.990									
XIBLK02	34-dinitrotoluene	182 > 152			20186.990									
XIBLK02	26-dinitrotoluene	182 > 152			20186.990									
XIBLK02	24-dinitrotoluene	182 > 152			20186.990									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.71	20186.990		20186.990	20186.990	bb			546.7860	109.4	9.4	1811.7
XIBLK02	2-Nitrotoluene	137 > 46			20186.990									
XIBLK02	4-Nitrotoluene	137 > 46			20186.990									
XIBLK02	3-Nitrotoluene	137 > 46			20186.990									
XIBLK02	PETN	361 > 62			20186.990			MM-	09-Feb-10	10:12:32				

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 08-FEB-10 19:39

GEL Data File: EXP0208011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	583.46
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	534.714
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208011a
Date: 08-Feb-2010
Time: 19:39:33
ID: XIBLK03
Vial: 1:1,A

MAP 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.777e+003

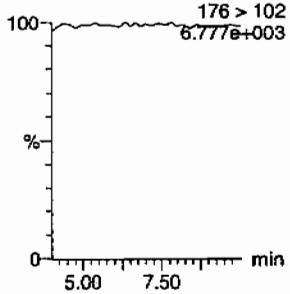

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.777e+003

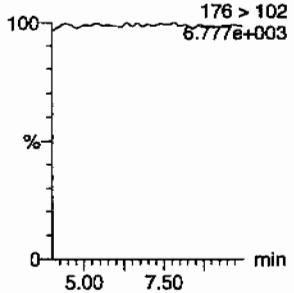

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.509e+003

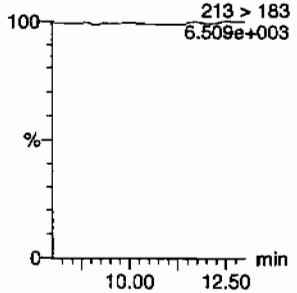

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.443e+004

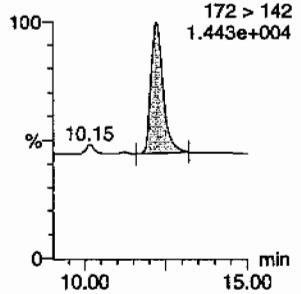

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.498e+003

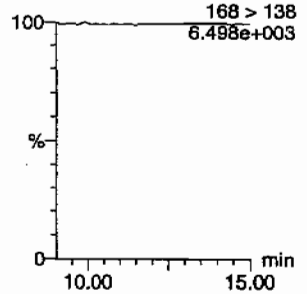

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.560e+003

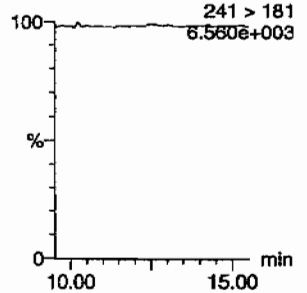

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.510e+003

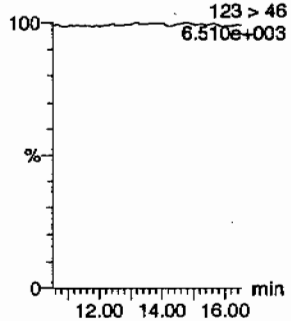

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.604e+003

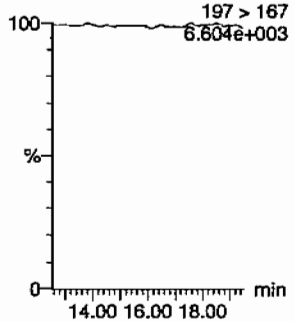

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.605e+003

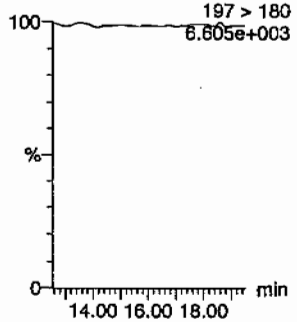

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.507e+003

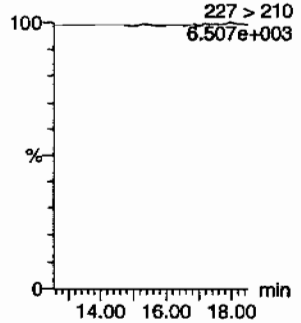

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

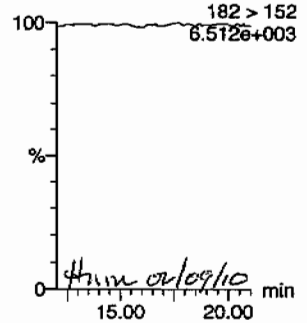

Hm 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

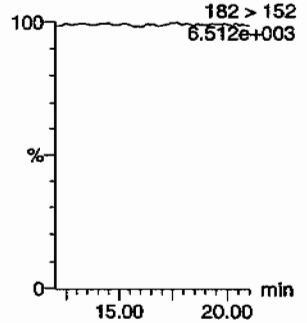

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

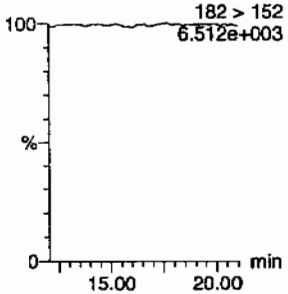

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.002e+004

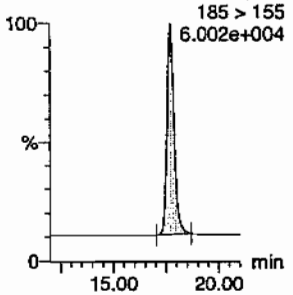

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.484e+003

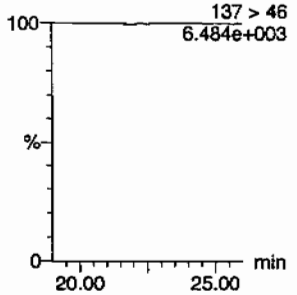

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.484e+003

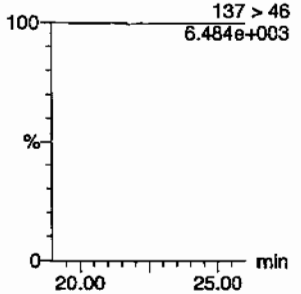

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.484e+003

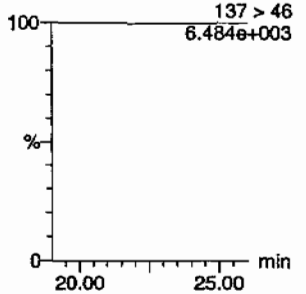

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.495e+003

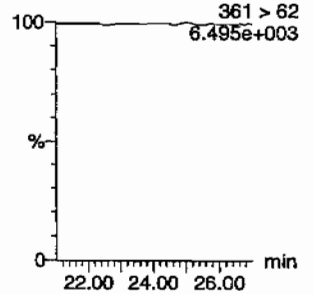

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			3437.753									
XIBLK03	RDX	176 > 102			3437.753									
XIBLK03	135-Trinitrobenzene	213 > 183			3437.753									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.20	3437.753		3437.753	3437.753	bb			534.7137	106.9	6.9	235.9
XIBLK03	13-Dinitrobenzene	168 > 138			3437.753									
XIBLK03	Tetryl	241 > 181			3437.753									
XIBLK03	Nitrobenzene	123 > 46			3437.753									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			21540.977									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			21540.977									
XIBLK03	246-Trinitrotoluene	227 > 210			21540.977									
XIBLK03	34-dinitrotoluene	182 > 152			21540.977									
XIBLK03	26-dinitrotoluene	182 > 152			21540.977									
XIBLK03	24-dinitrotoluene	182 > 152			21540.977									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.72	21540.977		21540.977	21540.977	bb			583.4602	116.7	16.7	396.6
XIBLK03	2-Nitrotoluene	137 > 46			21540.977									
XIBLK03	4-Nitrotoluene	137 > 46			21540.977									
XIBLK03	3-Nitrotoluene	137 > 46			21540.977									
XIBLK03	PETN	361 > 62			21540.977									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1473
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 09-FEB-10 02:02
GEL Data File: EXP0208024a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	594.411
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	592.137
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208024a
Date: 09-Feb-2010
Time: 02:02:53
ID: XIBLK04
Vial: 1:1,A

MMP 2/9/10

HMX
F2:MRM of 1 channel,AP-
5.30 176 > 102
6.636e+003

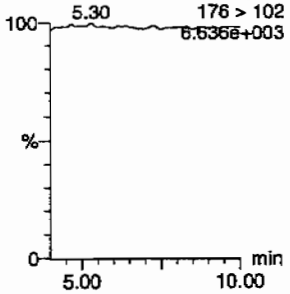

RDX
F2:MRM of 1 channel,AP-
5.30 176 > 102
6.636e+003

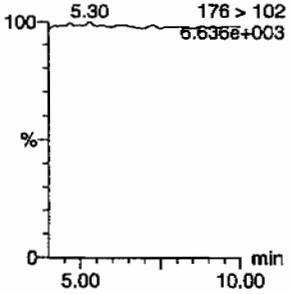

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.331e+003

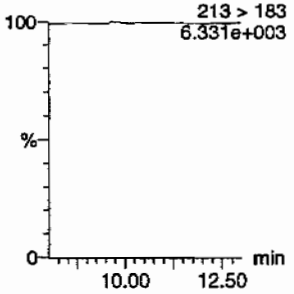

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.551e+004

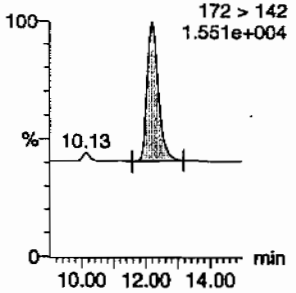

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.326e+003

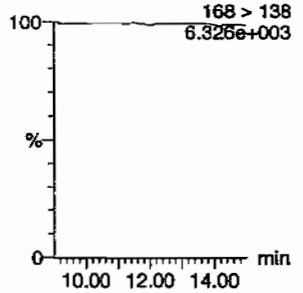

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.343e+003

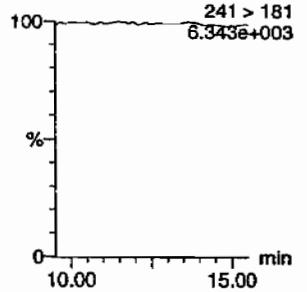

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.349e+003

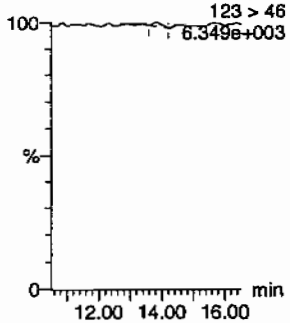

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.388e+003

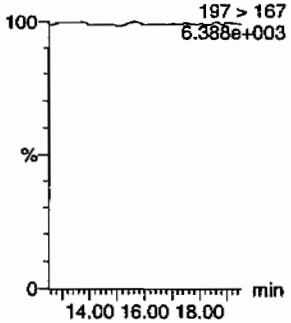

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.380e+003

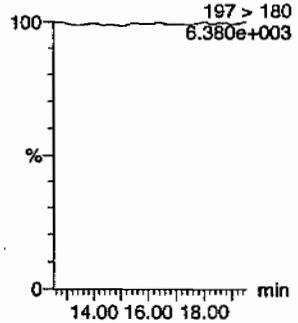

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.341e+003

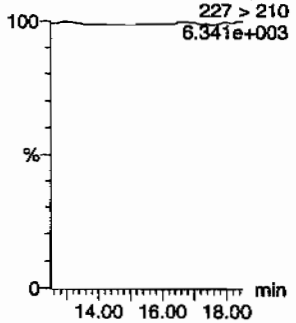

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.335e+003

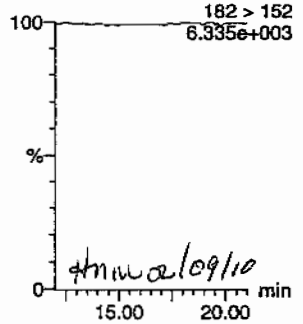

tmm 2/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.335e+003

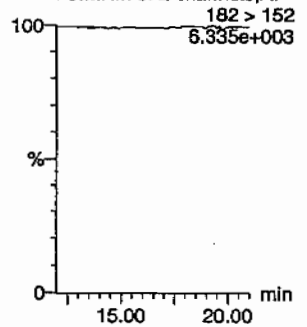

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

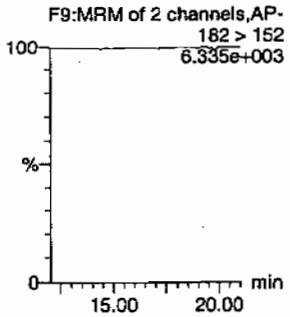

26-dinitrotoluene-d3

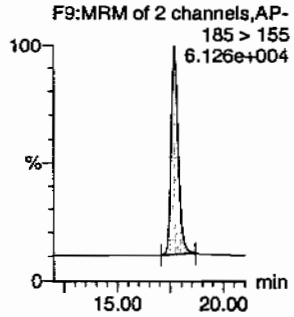

2-Nitrotoluene

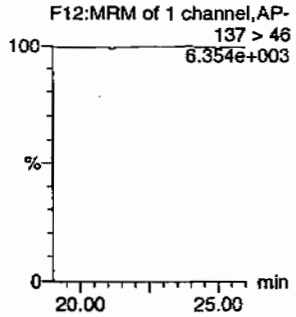

4-Nitrotoluene

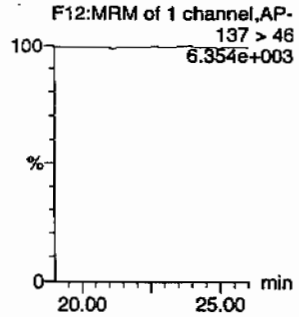

3-Nitrotoluene

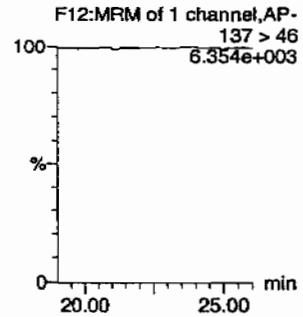

PETN

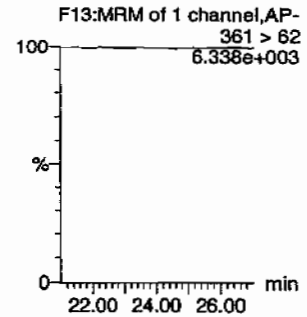

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3821.559									
XIBLK04	RDX	176 > 102			3821.559									
XIBLK04	135-Trinitrobenzene	213 > 183			3821.559									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.20	3821.559		3821.559	3821.559	bb			594.4115	118.9	18.9	582.0
XIBLK04	13-Dinitrobenzene	168 > 138			3821.559									
XIBLK04	Tetryl	241 > 181			3821.559									
XIBLK04	Nitrobenzene	123 > 46			3821.559			MM-	09-Feb-10	10:05:00				
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			21861.324									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			21861.324									
XIBLK04	246-Trinitrotoluene	227 > 210			21861.324									
XIBLK04	34-dinitrotoluene	182 > 152			21861.324									
XIBLK04	26-dinitrotoluene	182 > 152			21861.324									
XIBLK04	24-dinitrotoluene	182 > 152			21861.324									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.71	21861.324		21861.324	21861.324	bb			592.1371	118.4	18.4	2394.8
XIBLK04	2-Nitrotoluene	137 > 46			21861.324									
XIBLK04	4-Nitrotoluene	137 > 46			21861.324									
XIBLK04	3-Nitrotoluene	137 > 46			21861.324									
XIBLK04	PETN	361 > 62			21861.324									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1473
Lab Code: GEL
Lab Sample ID: XIBLK05
Analysis Date: 09–FEB–10 08:26
GEL Data File: EXP0208037a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	568.449
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	592.976
2,4,6–Trinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208037a
Date: 09-Feb-2010
Time: 08:26:48
ID: XIBLK05
Vial: 1:1,A

MTT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.138e+003

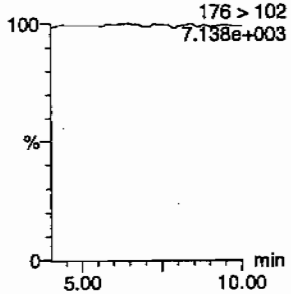

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.138e+003

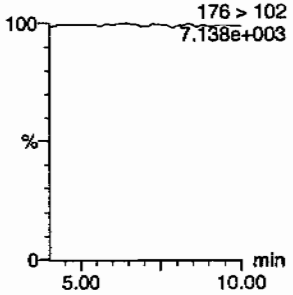

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.989e+003

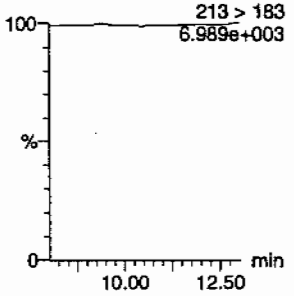

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.604e+004

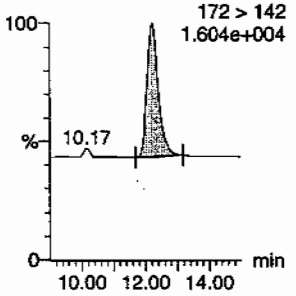

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.983e+003

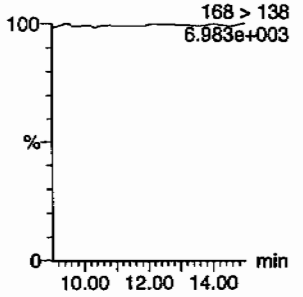

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.983e+003

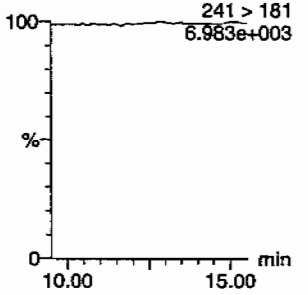

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.006e+003

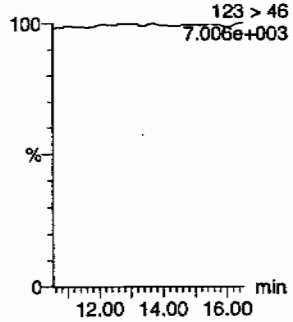

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.066e+003

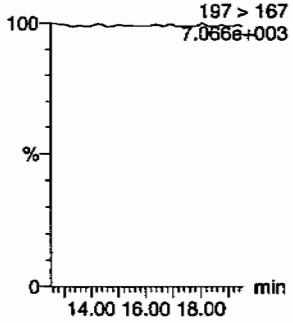

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.046e+003

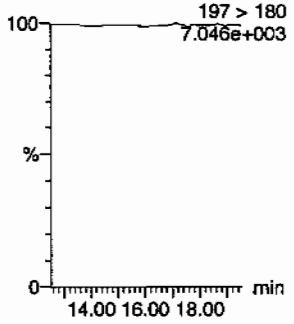

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.995e+003

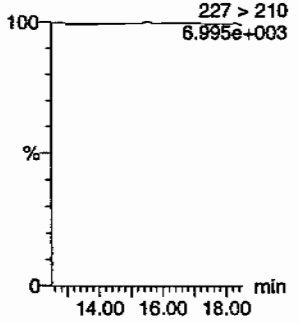

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.009e+003

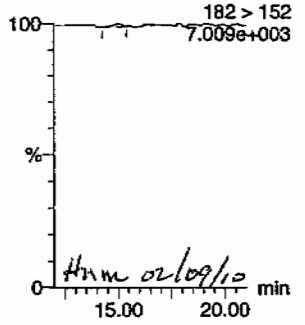

HMM 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.009e+003

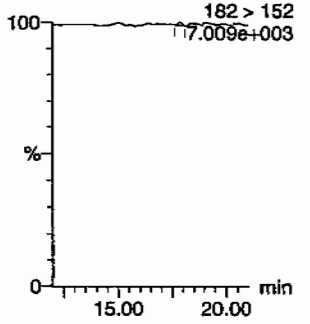

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

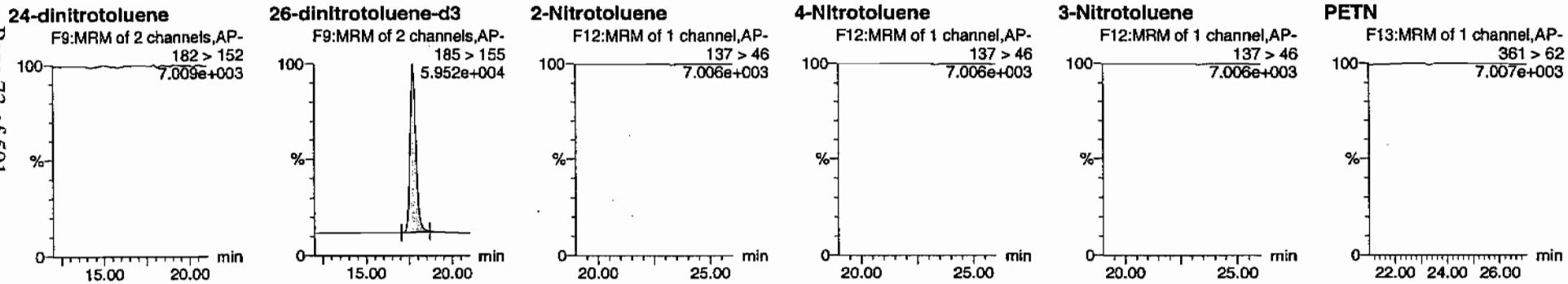

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			3812.331									
XIBLK05	RDX	176 > 102			3812.331									
XIBLK05	135-Trinitrobenzene	213 > 183			3812.331									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.20	3812.331		3812.331	3812.331	bb			592.9761	118.6	18.6	397.2
XIBLK05	13-Dinitrobenzene	168 > 138			3812.331									
XIBLK05	Tetryl	241 > 181			3812.331									
XIBLK05	Nitrobenzene	123 > 46			3812.331									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			20986.781									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			20986.781									
XIBLK05	246-Trinitrotoluene	227 > 210			20986.781									
XIBLK05	34-dinitrotoluene	182 > 152			20986.781			MM-	09-Feb-10	10:09:37				
XIBLK05	26-dinitrotoluene	182 > 152			20986.781			MM-	09-Feb-10	10:15:23				
XIBLK05	24-dinitrotoluene	182 > 152			20986.781									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.71	20986.781		20986.781	20986.781	bb			568.4492	113.7	13.7	1868.8
XIBLK05	2-Nitrotoluene	137 > 46			20986.781									
XIBLK05	4-Nitrotoluene	137 > 46			20986.781									
XIBLK05	3-Nitrotoluene	137 > 46			20986.781									
XIBLK05	PETN	361 > 62			20986.781									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09-FEB-10 14:50

GEL Data File: EXP0208050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	619.031
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	615.609
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208050a
Date: 09-Feb-2010
Time: 14:50:17
ID: XIBLK06
Vial: 1:1,A

MM 2/10/10

HMX

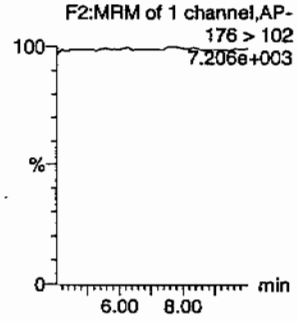

RDX

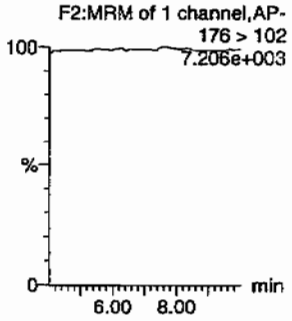

135-Trinitrobenzene

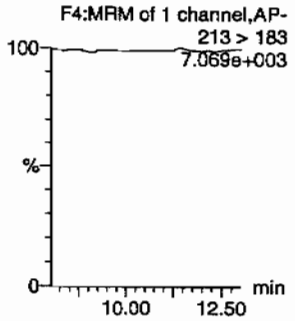

13-Dinitrobenzene-d4

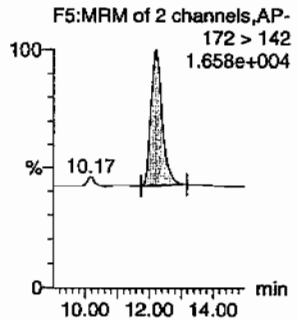

13-Dinitrobenzene

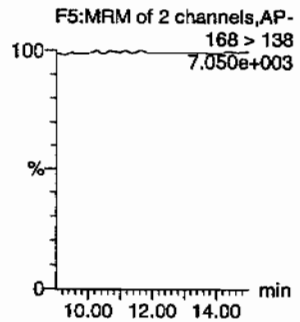

Tetryl

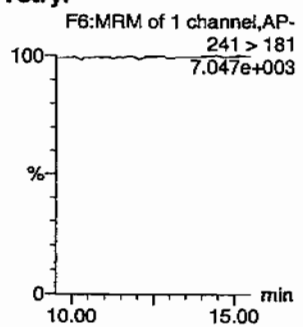

Nitrobenzene

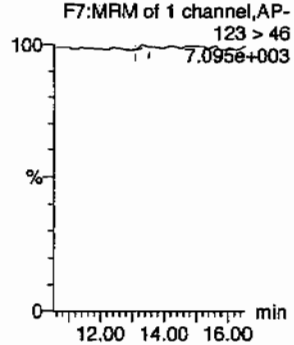

4-Amino-26-dinitrotoluene

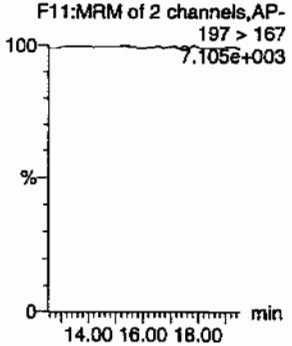

2-Amino-46-dinitrotoluene

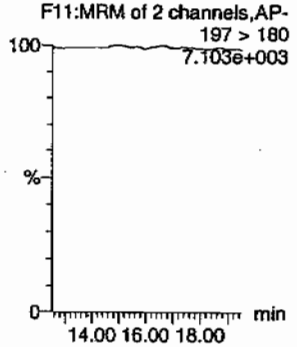

246-Trinitrotoluene

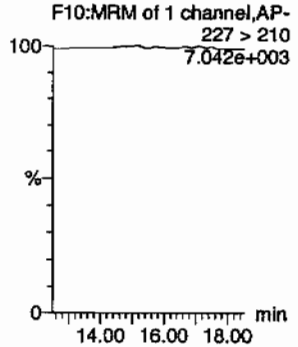

34-dinitrotoluene

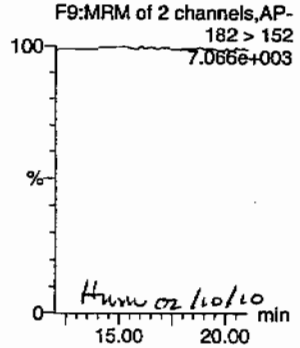

Hum 02/10/10

26-dinitrotoluene

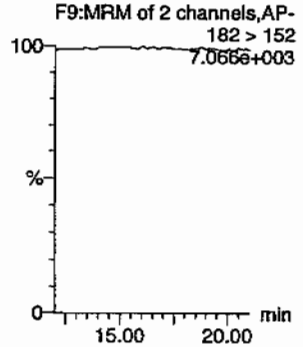

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

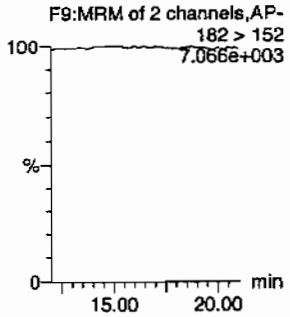

26-dinitrotoluene-d3

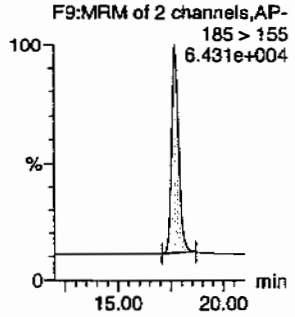

2-Nitrotoluene

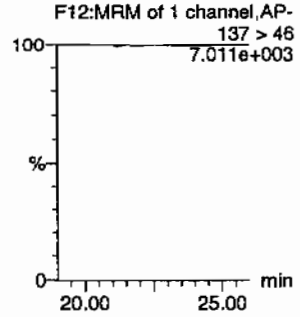

4-Nitrotoluene

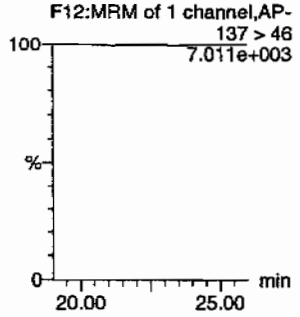

3-Nitrotoluene

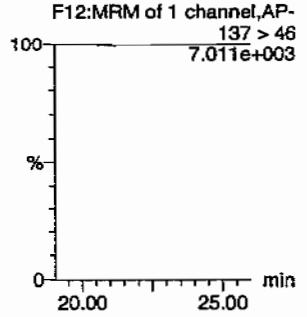

PETN

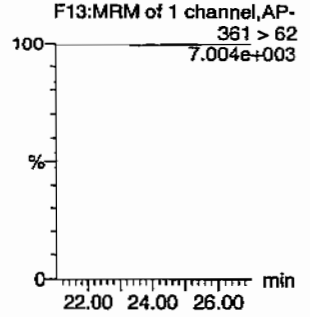

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			3979.842									
XIBLK06	RDX	176 > 102			3979.842									
XIBLK06	135-Trinitrobenzene	213 > 183			3979.842									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.20	3979.842		3979.842	3979.842	bb			619.0311	123.8	23.8	262.8
XIBLK06	13-Dinitrobenzene	168 > 138			3979.842									
XIBLK06	Tetryl	241 > 181			3979.842									
XIBLK06	Nitrobenzene	123 > 46			3979.842			MM-	10-Feb-10	09:17:09				
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			22727.891									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			22727.891									
XIBLK06	246-Trinitrotoluene	227 > 210			22727.891									
XIBLK06	34-dinitrotoluene	182 > 152			22727.891									
XIBLK06	26-dinitrotoluene	182 > 152			22727.891									
XIBLK06	24-dinitrotoluene	182 > 152			22727.891									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.71	22727.891		22727.891	22727.891	bb			615.6090	123.1	23.1	1189.9
XIBLK06	2-Nitrotoluene	137 > 46			22727.891									
XIBLK06	4-Nitrotoluene	137 > 46			22727.891									
XIBLK06	3-Nitrotoluene	137 > 46			22727.891									
XIBLK06	PETN	361 > 62			22727.891									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 09-FEB-10 21:13

GEL Data File: EXP0208063a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	577.242
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	602.957

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208063a
Date: 09-Feb-2010
Time: 21:13:58
ID: XIBLK07
Vial: 1:1,A

MMT 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.393e+003

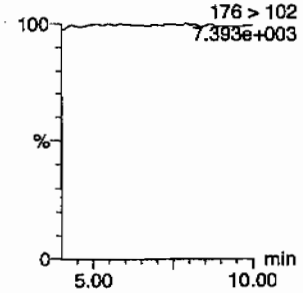

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.393e+003

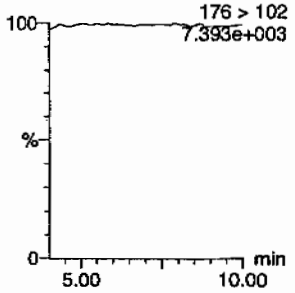

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
7.238e+003

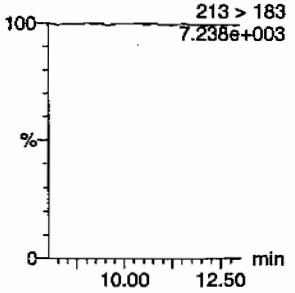

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.638e+004

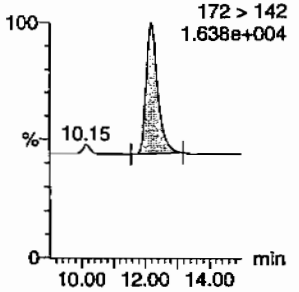

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.216e+003

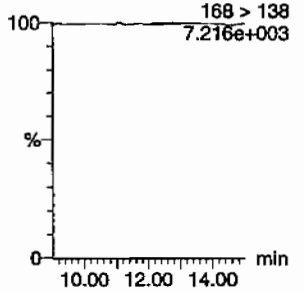

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.208e+003

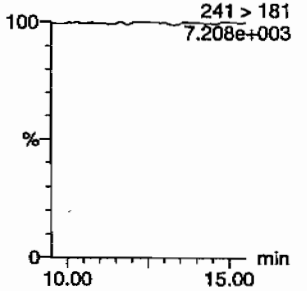

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.256e+003

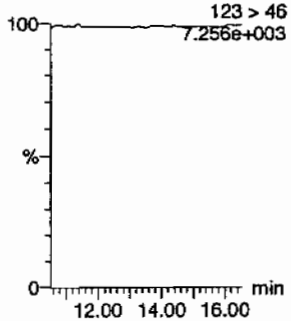

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.290e+003

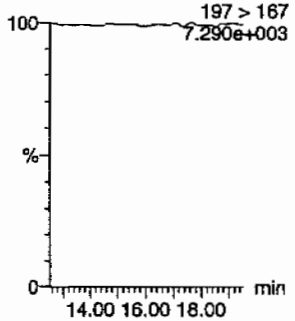

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.292e+003

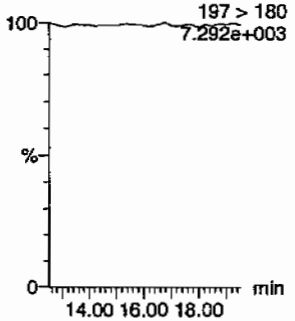

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.230e+003

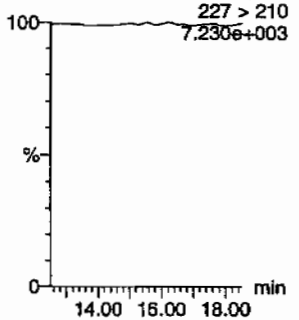

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.246e+003

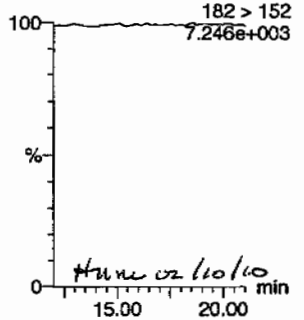

Hmw 02/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.246e+003

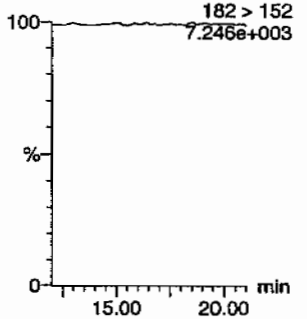

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

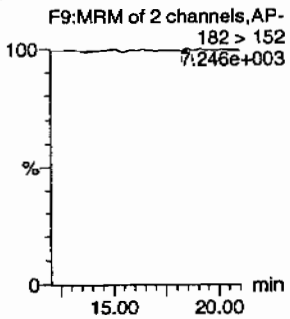

26-dinitrotoluene-d3

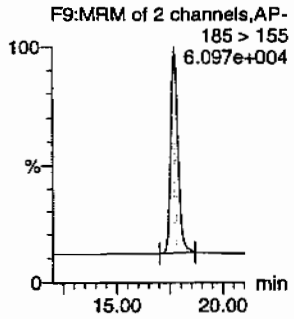

2-Nitrotoluene

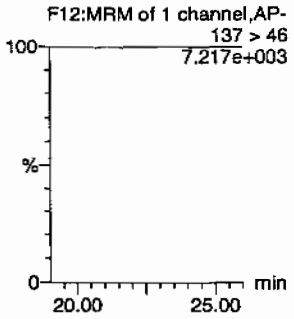

4-Nitrotoluene

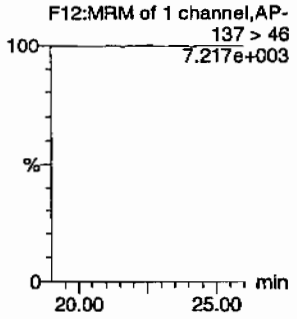

3-Nitrotoluene

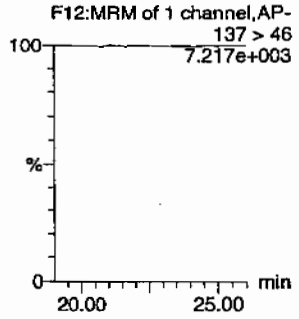

PETN

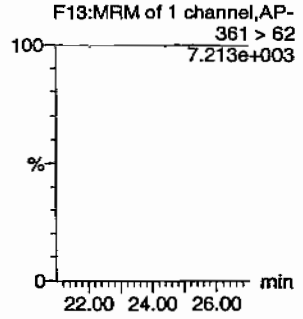

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3876.500									
XIBLK07	RDX	176 > 102			3876.500									
XIBLK07	135-Trinitrobenzene	213 > 183			3876.500									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.20	3876.500		3876.500	3876.500	bb			602.9571	120.6	20.6	383.4
XIBLK07	13-Dinitrobenzene	168 > 138			3876.500									
XIBLK07	Tetryl	241 > 181			3876.500									
XIBLK07	Nitrobenzene	123 > 46			3876.500									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			21311.416									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			21311.416									
XIBLK07	246-Trinitrotoluene	227 > 210			21311.416									
XIBLK07	34-dinitrotoluene	182 > 152			21311.416									
XIBLK07	26-dinitrotoluene	182 > 152			21311.416									
XIBLK07	24-dinitrotoluene	182 > 152			21311.416			MM-	10-Feb-10	09:08:37				
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.71	21311.416		21311.416	21311.416	bb			577.2423	115.4	15.4	1930.8
XIBLK07	2-Nitrotoluene	137 > 46			21311.416									
XIBLK07	4-Nitrotoluene	137 > 46			21311.416									
XIBLK07	3-Nitrotoluene	137 > 46			21311.416									
XIBLK07	PETN	361 > 62			21311.416									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 10-FEB-10 03:37

GEL Data File: EXP0208076a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	571.729
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	557.496
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208076a
Date: 10-Feb-2010
Time: 03:37:30
ID: XIBLK08
Vial: 1:1,A

MAH 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.986e+003

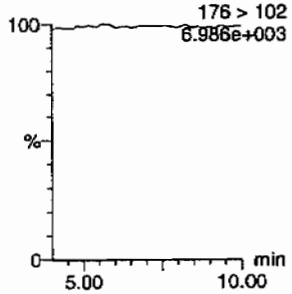

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.986e+003

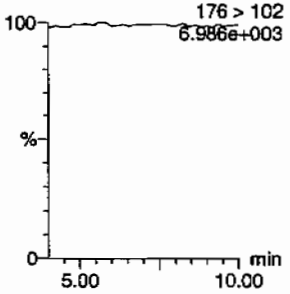

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.835e+003

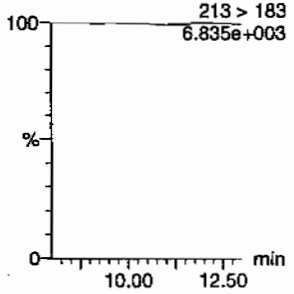

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.555e+004

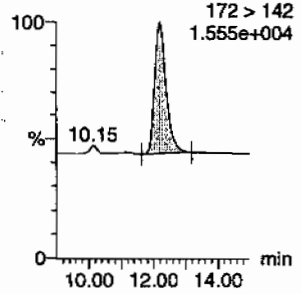

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.830e+003

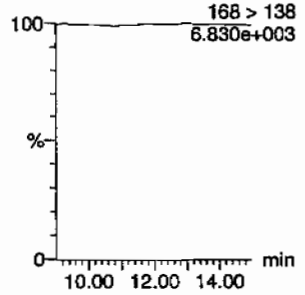

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.832e+003

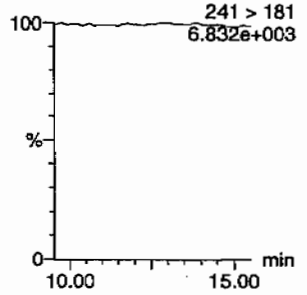

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.837e+003

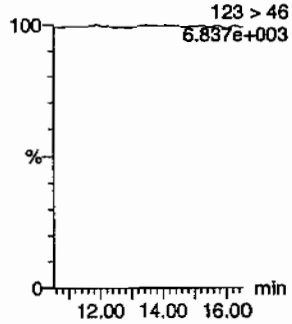

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.868e+003

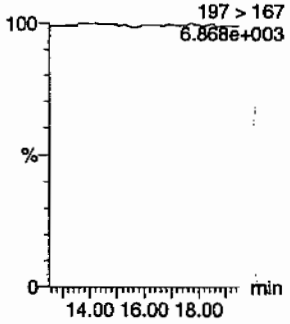

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.883e+003

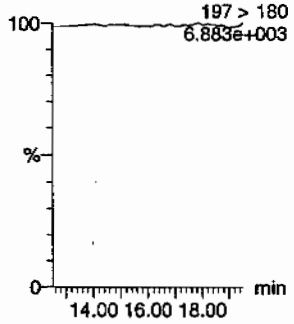

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.810e+003

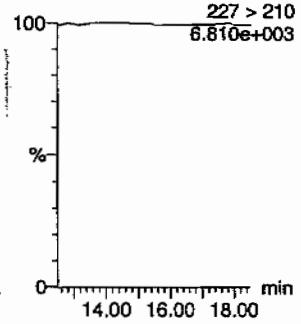

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.849e+003

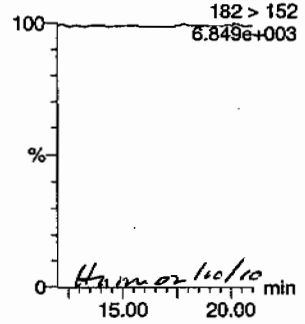

Hmm 2/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.849e+003

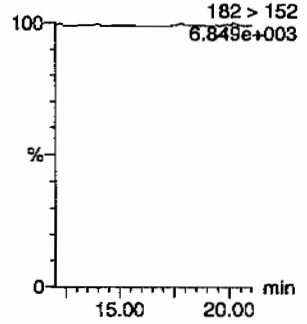

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

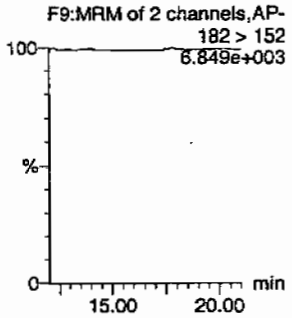

26-dinitrotoluene-d3

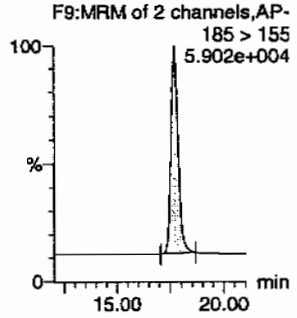

2-Nitrotoluene

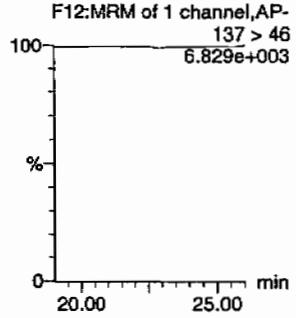

4-Nitrotoluene

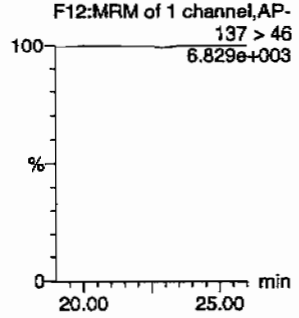

3-Nitrotoluene

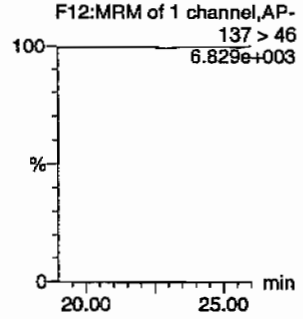

PETN

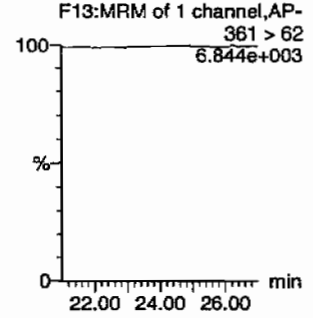

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3675.727									
XIBLK08	RDX	176 > 102			3675.727									
XIBLK08	135-Trinitrobenzene	213 > 183			3675.727									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.20	3675.727		3675.727	3675.727	bb			571.7285	114.3	14.3	285.2
XIBLK08	13-Dinitrobenzene	168 > 138			3675.727									
XIBLK08	Tetryl	241 > 181			3675.727									
XIBLK08	Nitrobenzene	123 > 46			3675.727									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			20582.389									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			20582.389									
XIBLK08	246-Trinitrotoluene	227 > 210			20582.389									
XIBLK08	34-dinitrotoluene	182 > 152			20582.389									
XIBLK08	26-dinitrotoluene	182 > 152			20582.389									
XIBLK08	24-dinitrotoluene	182 > 152			20582.389									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.71	20582.389		20582.389	20582.389	bb			557.4958	111.5	11.5	2116.4
XIBLK08	2-Nitrotoluene	137 > 46			20582.389									
XIBLK08	4-Nitrotoluene	137 > 46			20582.389									
XIBLK08	3-Nitrotoluene	137 > 46			20582.389									
XIBLK08	PETN	361 > 62			20582.389									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 10-FEB-10 10:01

GEL Data File: EXP0208089a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	589.535
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	534.323
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208089a
Date: 10-Feb-2010
Time: 10:01:12
ID: XIBLK09
Vial: 1:1,A

MMP 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.096e+003

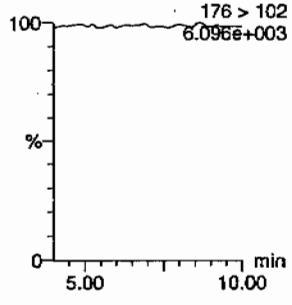

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.096e+003

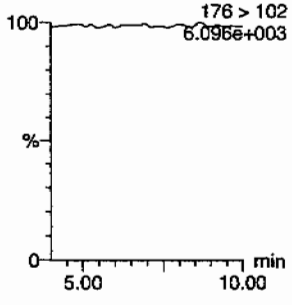

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.958e+003

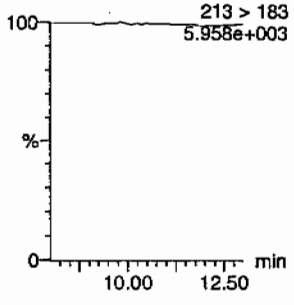

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.501e+004

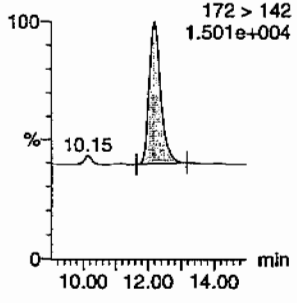

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.933e+003

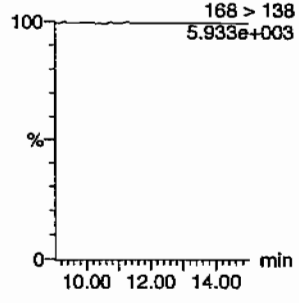

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.935e+003

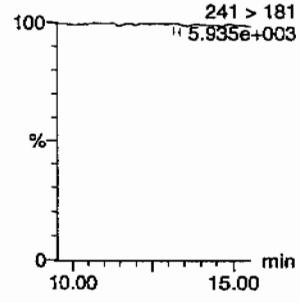

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.943e+003

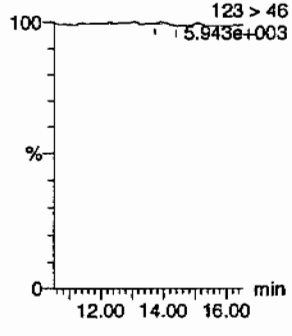

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.012e+003

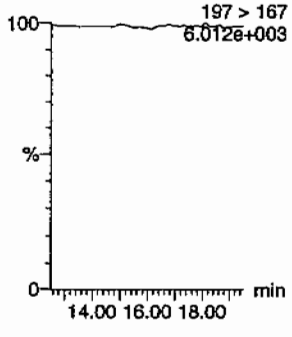

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.980e+003

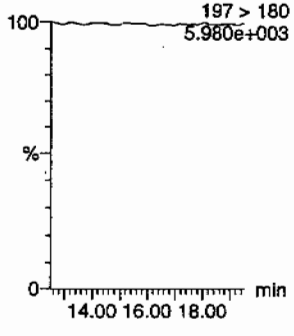

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.954e+003

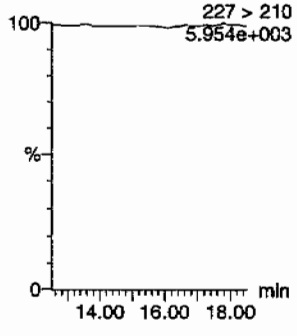

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.970e+003

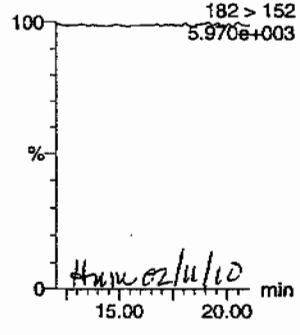

HMW 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.970e+003

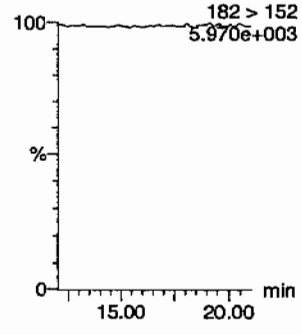

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

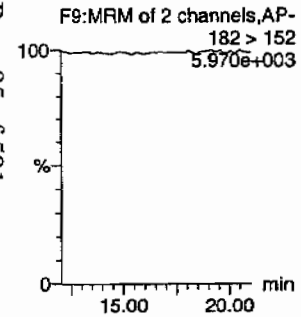

26-dinitrotoluene-d3

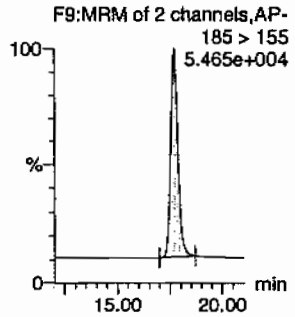

2-Nitrotoluene

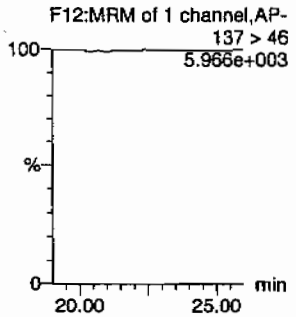

4-Nitrotoluene

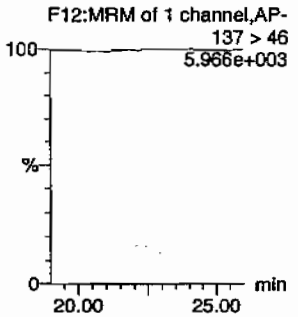

3-Nitrotoluene

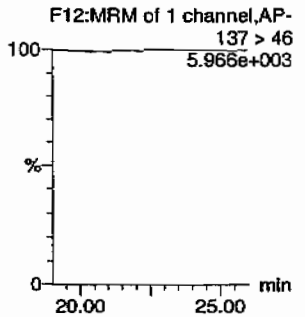

PETN

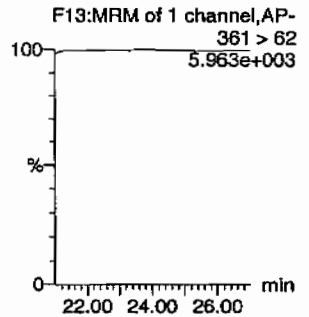

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3790.207									
XIBLK09	RDX	176 > 102			3790.207									
XIBLK09	135-Trinitrobenzene	213 > 183			3790.207									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.21	3790.207		3790.207	3790.207	bb			589.5349	117.9	17.9	289.8
XIBLK09	13-Dinitrobenzene	168 > 138			3790.207									
XIBLK09	Tetryl	241 > 181			3790.207			MM-	11-Feb-10	09:25:42				
XIBLK09	Nitrobenzene	123 > 46			3790.207			MM-	11-Feb-10	09:25:57				
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			19726.857									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			19726.857									
XIBLK09	246-Trinitrotoluene	227 > 210			19726.857									
XIBLK09	34-dinitrotoluene	182 > 152			19726.857									
XIBLK09	26-dinitrotoluene	182 > 152			19726.857									
XIBLK09	24-dinitrotoluene	182 > 152			19726.857									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.68	19726.857		19726.857	19726.857	bb			534.3228	106.9	6.9	2274.9
XIBLK09	2-Nitrotoluene	137 > 46			19726.857									
XIBLK09	4-Nitrotoluene	137 > 46			19726.857									
XIBLK09	3-Nitrotoluene	137 > 46			19726.857									
XIBLK09	PETN	361 > 62			19726.857									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1473
Lab Code: GEL
Lab Sample ID: XIBLK10
Analysis Date: 10-FEB-10 11:59
GEL Data File: EXP0208093a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	518.982
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	590.034
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208093a
Date: 10-Feb-2010
Time: 11:59:19
ID: XIBLK10
Vial: 1:1,F

MMT 2/11/10

HMX
F2:MRM of 1 channel,AP-
5.08 176 > 102
1.517e+004

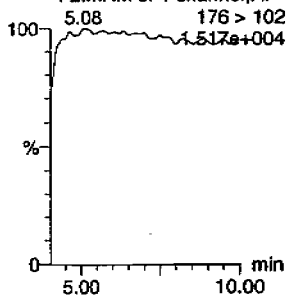

RDX
F2:MRM of 1 channel,AP-
5.08 176 > 102
1.517e+004

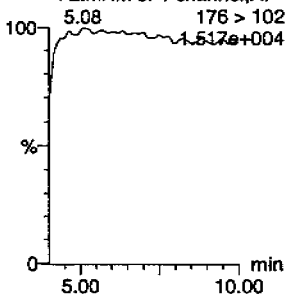

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.620e+003

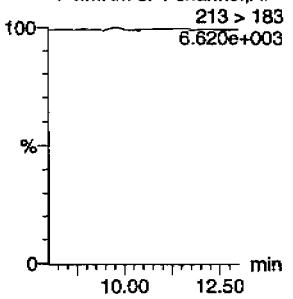

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.463e+004

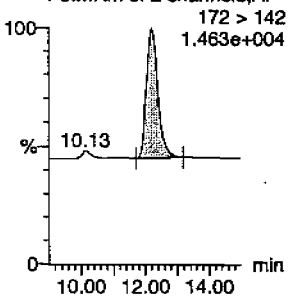

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.629e+003

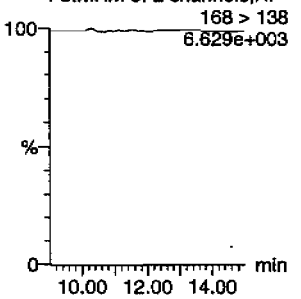

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.638e+003

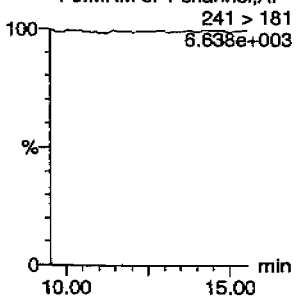

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.658e+003

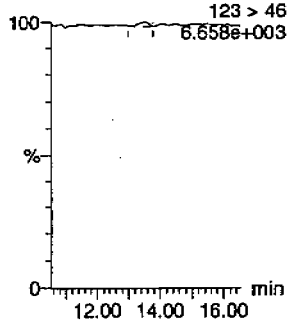

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.759e+003

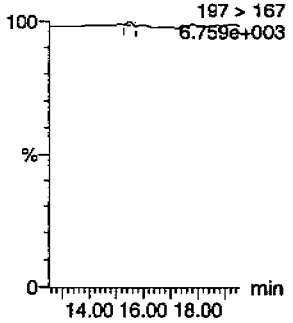

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.700e+003

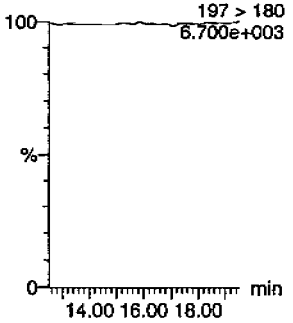

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.824e+003

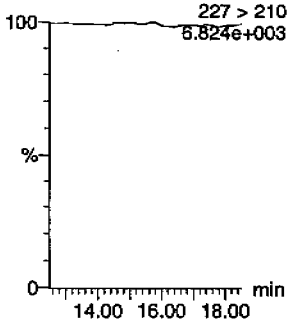

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003

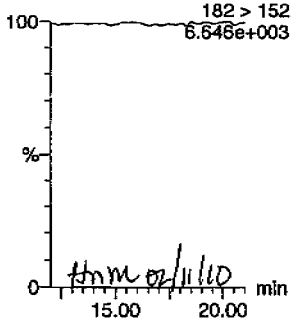

HMM 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003

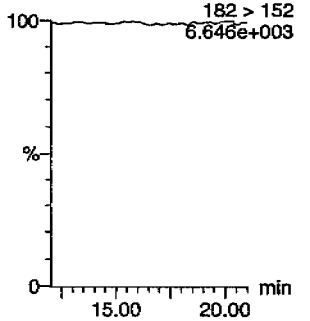

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003

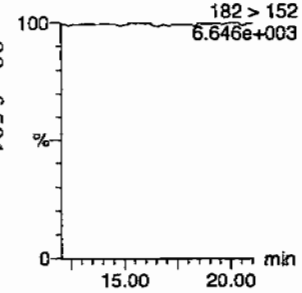

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.093e+004

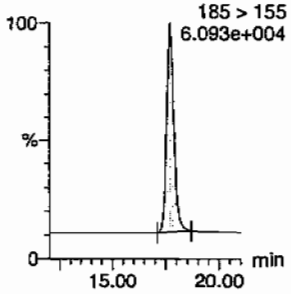

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.661e+003

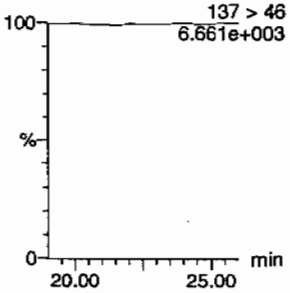

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.661e+003

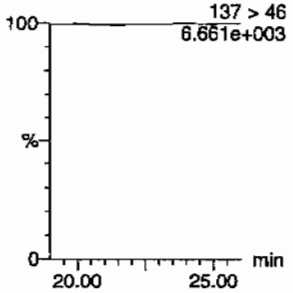

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.661e+003

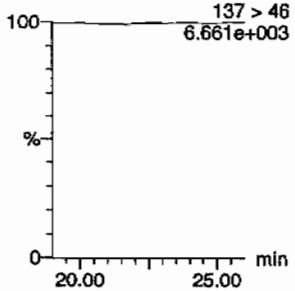

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.647e+003

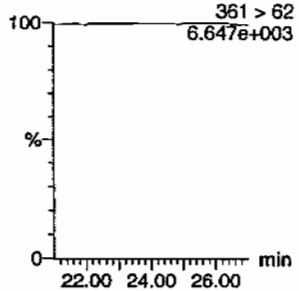

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			3336.610									
XIBLK10	RDX	176 > 102			3336.610									
XIBLK10	135-Trinitrobenzene	213 > 183			3336.610									
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.21	3336.610		3336.610	3336.610	bb			518.9817	103.8	3.8	444.8
XIBLK10	13-Dinitrobenzene	168 > 138			3336.610									
XIBLK10	Tetryl	241 > 181			3336.610									
XIBLK10	Nitrobenzene	123 > 46			3336.610			MM-	11-Feb-10	09:26:00				
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			21783.670			MM-	11-Feb-10	09:29:33				
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			21783.670									
XIBLK10	246-Trinitrotoluene	227 > 210			21783.670									
XIBLK10	34-dinitrotoluene	182 > 152			21783.670									
XIBLK10	26-dinitrotoluene	182 > 152			21783.670									
XIBLK10	24-dinitrotoluene	182 > 152			21783.670									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.71	21783.670		21783.670	21783.670	bb			590.0337	118.0	18.0	1654.2
XIBLK10	2-Nitrotoluene	137 > 46			21783.670									
XIBLK10	4-Nitrotoluene	137 > 46			21783.670									
XIBLK10	3-Nitrotoluene	137 > 46			21783.670									
XIBLK10	PETN	361 > 62			21783.670									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 10–FEB–10 13:28

GEL Data File: EXP0208096a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	515.625
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	487.539
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208096a
Date: 10-Feb-2010
Time: 13:28:03
ID: XIBLK11
Vial: 1:1,F

MMP 2/11/10

HMX

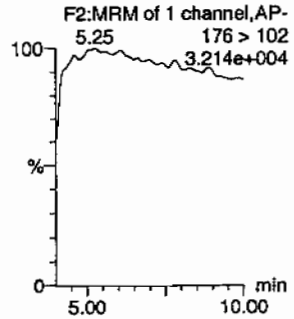

RDX

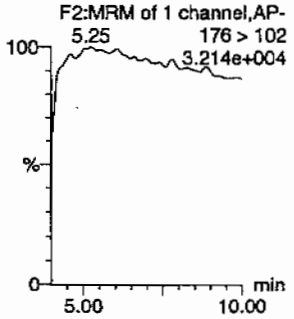

135-Trinitrobenzene

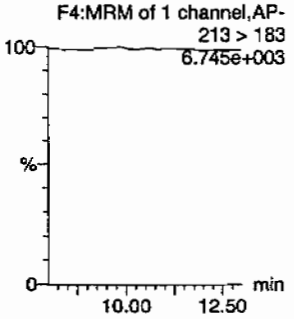

13-Dinitrobenzene-d4

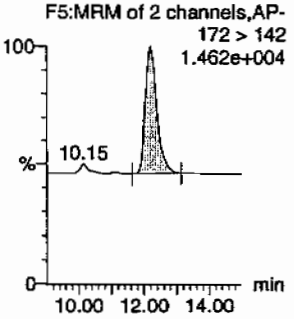

13-Dinitrobenzene

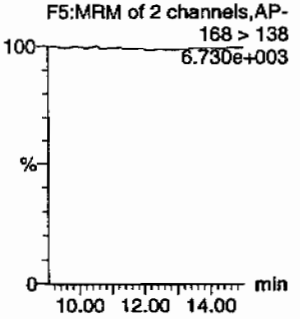

Tetryl

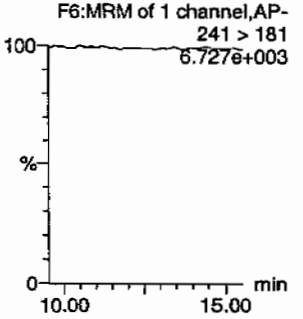

Nitrobenzene

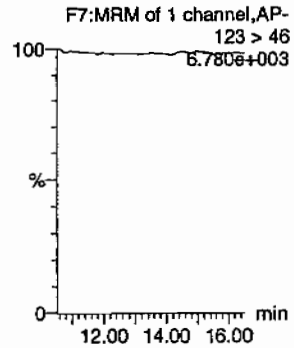

4-Amino-26-dinitrotoluene

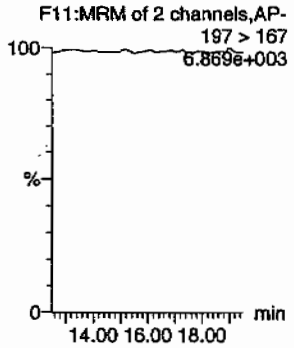

2-Amino-46-dinitrotoluene

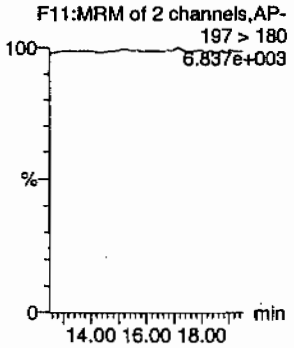

246-Trinitrotoluene

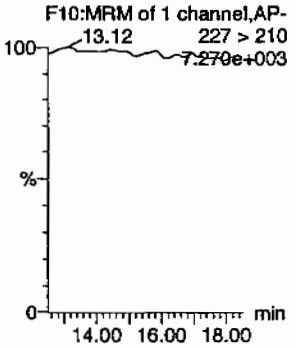

34-dinitrotoluene

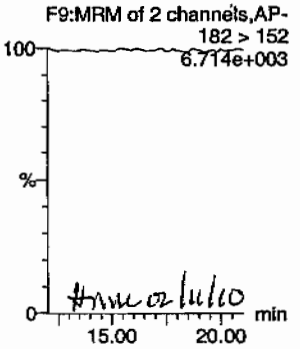

#mm 02/11/10

26-dinitrotoluene

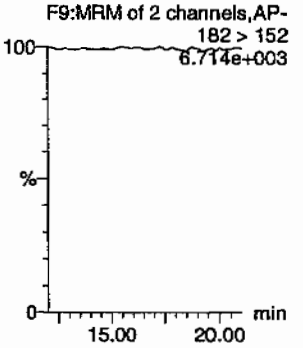

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

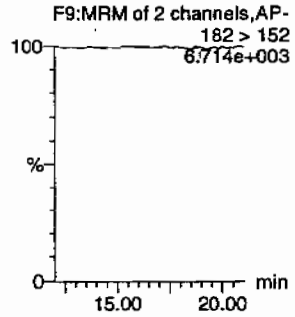

26-dinitrotoluene-d3

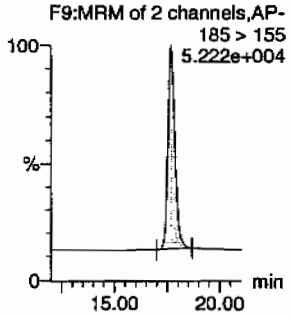

2-Nitrotoluene

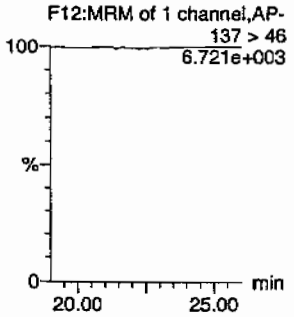

4-Nitrotoluene

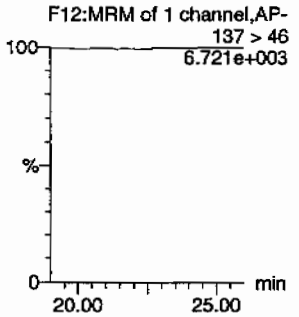

3-Nitrotoluene

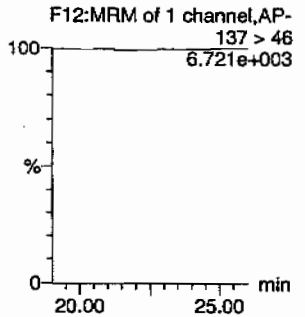

PETN

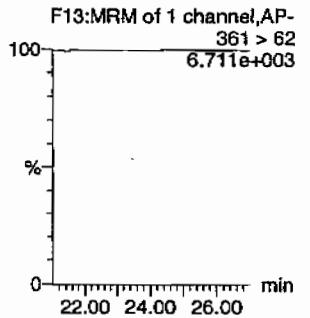

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			3315.031									
XIBLK11	RDX	176 > 102			3315.031									
XIBLK11	135-Trinitrobenzene	213 > 183			3315.031									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.21	3315.031		3315.031	3315.031	bb			515.6253	103.1	3.1	246.5
XIBLK11	13-Dinitrobenzene	168 > 138			3315.031									
XIBLK11	Tetryl	241 > 181			3315.031									
XIBLK11	Nitrobenzene	123 > 46			3315.031									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			17999.613									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			17999.613									
XIBLK11	246-Trinitrotoluene	227 > 210			17999.613									
XIBLK11	34-dinitrotoluene	182 > 152			17999.613									
XIBLK11	26-dinitrotoluene	182 > 152			17999.613									
XIBLK11	24-dinitrotoluene	182 > 152			17999.613			MM-	11-Feb-10	10:03:53				
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.70	17999.613		17999.613	17999.613	bb			487.5386	97.5	-2.5	1653.3
XIBLK11	2-Nitrotoluene	137 > 46			17999.613									
XIBLK11	4-Nitrotoluene	137 > 46			17999.613									
XIBLK11	3-Nitrotoluene	137 > 46			17999.613									
XIBLK11	PETN	361 > 62			17999.613									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 10–FEB–10 15:55

GEL Data File: EXP0208101a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	444.368
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	493.427
2,4,6–Trinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208101a
Date: 10-Feb-2010
Time: 15:55:49
ID: XIBLK12
Vial: 1:1,A

MMT 4/1/10

HMX
F2:MRM of 1 channel,AP-
5.22 7.27 176 > 102
9.801e+003

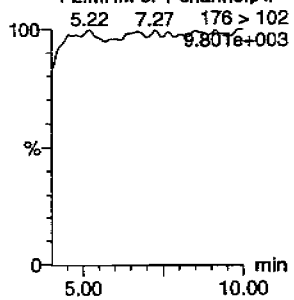

RDX
F2:MRM of 1 channel,AP-
5.22 7.27 176 > 102
9.801e+003

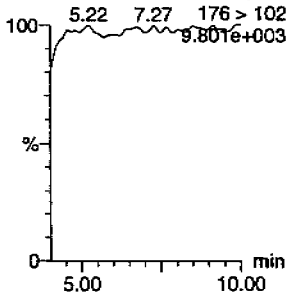

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.520e+003

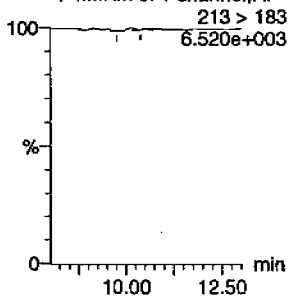

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.397e+004

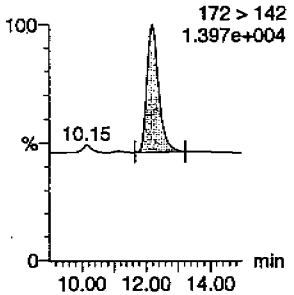

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.494e+003

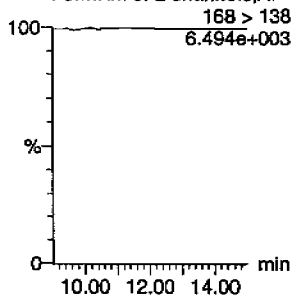

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.514e+003

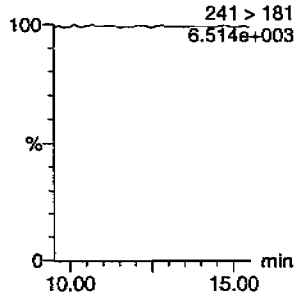

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.525e+003

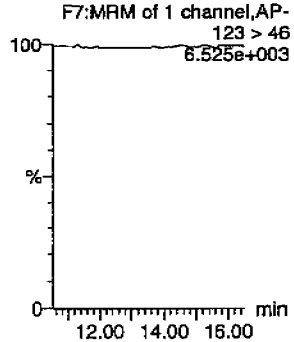

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.609e+003

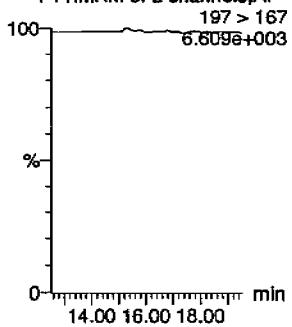

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.558e+003

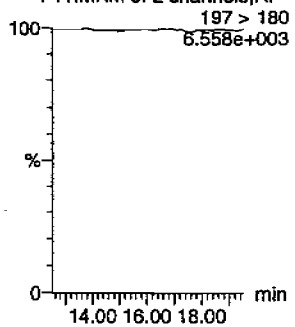

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.530e+003

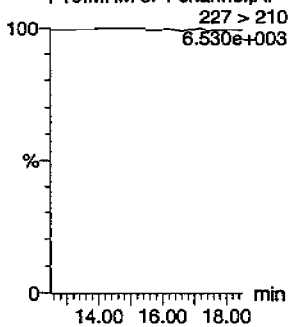

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

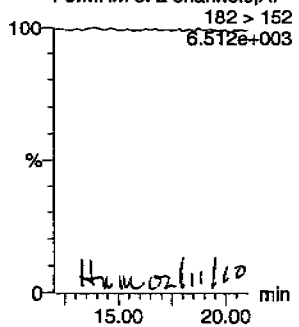

HMM 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

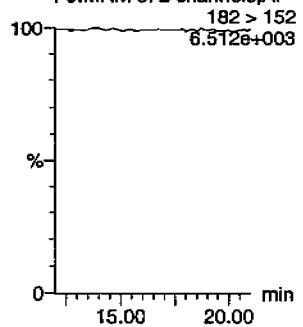

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

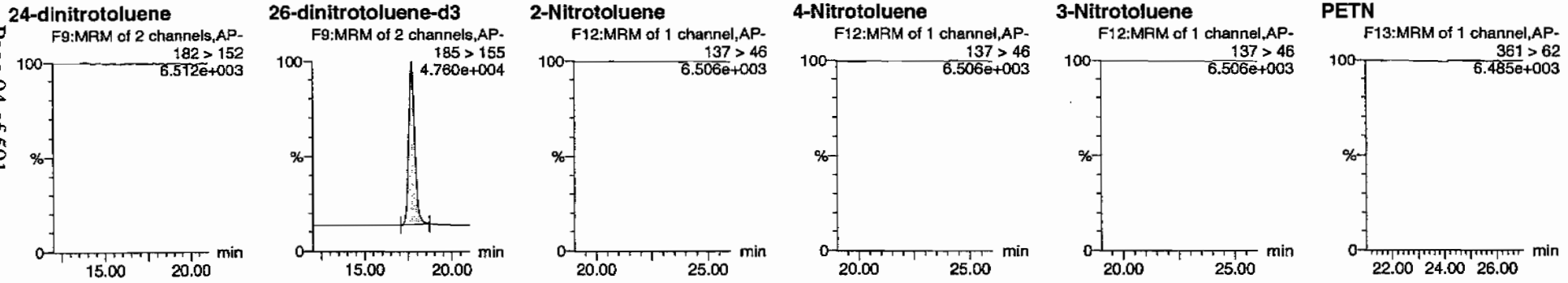

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			3172.314									
XIBLK12	RDX	176 > 102			3172.314									
XIBLK12	135-Trinitrobenzene	213 > 183			3172.314			MM-	11-Feb-10	09:24:25				
XIBLK12	13-Dinitrobenzene-d4	172 > 142	12.21	3172.314		3172.314	3172.314	bb			493.4269	98.7	-1.3	568.0
XIBLK12	13-Dinitrobenzene	168 > 138			3172.314									
XIBLK12	Tetryl	241 > 181			3172.314									
XIBLK12	Nitrobenzene	123 > 46			3172.314									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			16405.785									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			16405.785									
XIBLK12	246-Trinitrotoluene	227 > 210			16405.785									
XIBLK12	34-dinitrotoluene	182 > 152			16405.785									
XIBLK12	26-dinitrotoluene	182 > 152			16405.785									
XIBLK12	24-dinitrotoluene	182 > 152			16405.785									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.70	16405.785		16405.785	16405.785	bb			444.3680	88.9	-11.1	967.6
XIBLK12	2-Nitrotoluene	137 > 46			16405.785									
XIBLK12	4-Nitrotoluene	137 > 46			16405.785									
XIBLK12	3-Nitrotoluene	137 > 46			16405.785									
XIBLK12	PETN	361 > 62			16405.785									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10--1473

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 10-FEB-10 22:19

GEL Data File: EXP0208114a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	507.231
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	572.472
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208114a
Date: 10-Feb-2010
Time: 22:19:14
ID: XIBLK13
Vial: 1:1,A

MMP 2/11/10

HMX
F2:MRM of 1 channel,AP-
4.41 176 > 102
6.784e+003

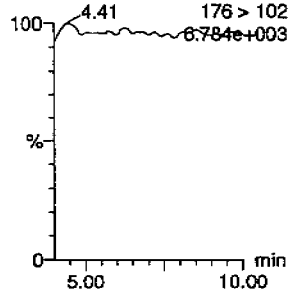

RDX
F2:MRM of 1 channel,AP-
4.41 176 > 102
6.784e+003

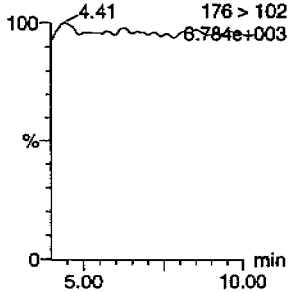

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.910e+003

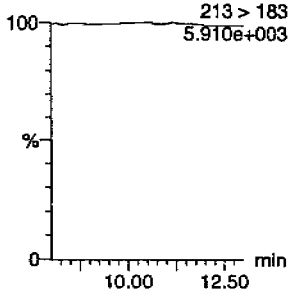

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.403e+004

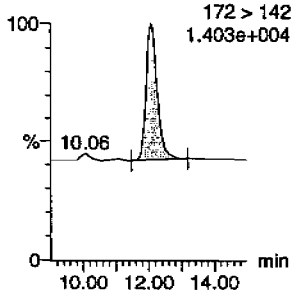

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.927e+003

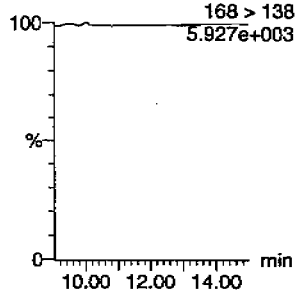

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.902e+003

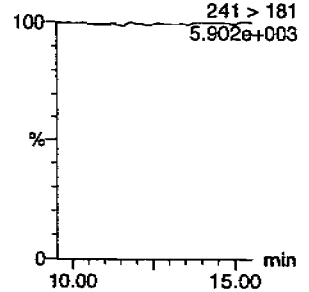

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.944e+003

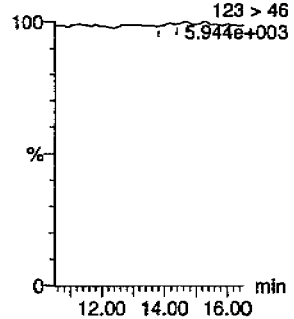

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.980e+003

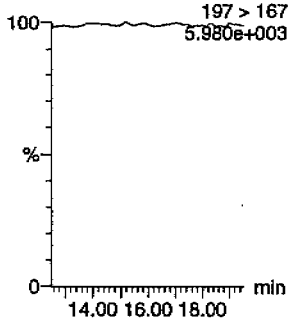

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.967e+003

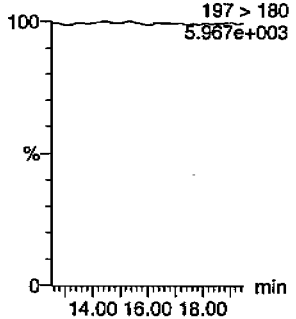

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.939e+003

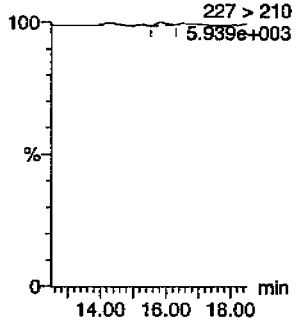

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.027e+003

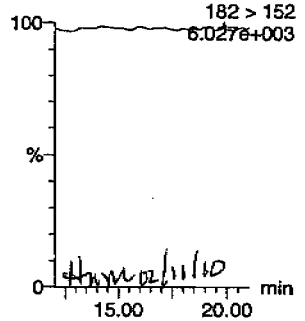

HMM 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.027e+003

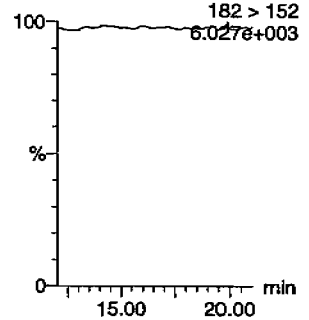

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

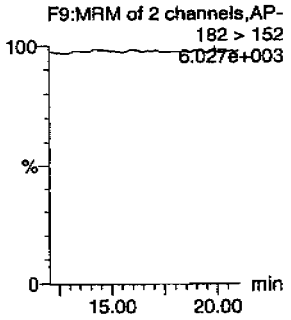

26-dinitrotoluene-d3

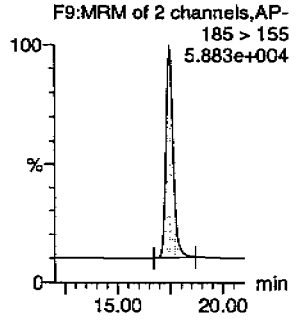

2-Nitrotoluene

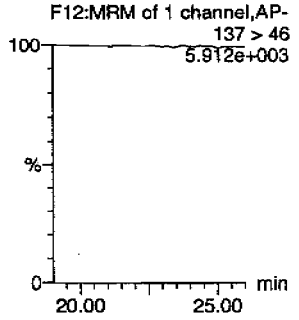

4-Nitrotoluene

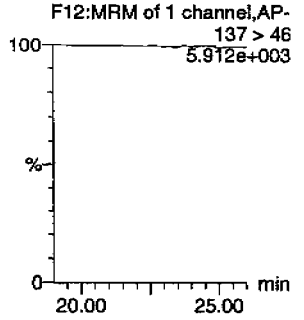

3-Nitrotoluene

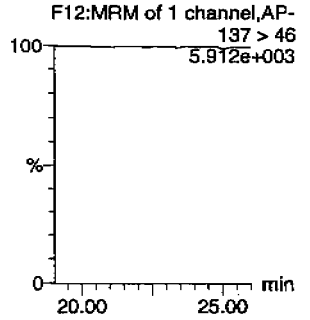

PETN

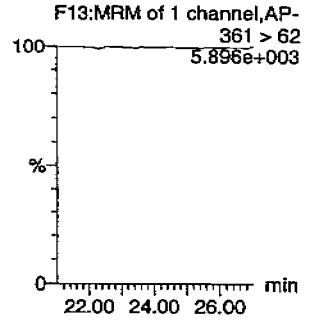

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			3261.062									
XIBLK13	RDX	176 > 102			3261.062									
XIBLK13	135-Trinitrobenzene	213 > 183			3261.062									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	12.07	3261.062		3261.062	3261.062	bb			507.2309	101.4	1.4	412.3
XIBLK13	13-Dinitrobenzene	168 > 138			3261.062									
XIBLK13	Tetryl	241 > 181			3261.062									
XIBLK13	Nitrobenzene	123 > 46			3261.062			MM-	11-Feb-10	09:26:18				
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			21135.303									
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			21135.303									
XIBLK13	246-Trinitrotoluene	227 > 210			21135.303			MM-	11-Feb-10	09:55:57				
XIBLK13	34-dinitrotoluene	182 > 152			21135.303									
XIBLK13	26-dinitrotoluene	182 > 152			21135.303									
XIBLK13	24-dinitrotoluene	182 > 152			21135.303									
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.46	21135.303		21135.303	21135.303	bb			572.4720	114.5	14.5	2332.9
XIBLK13	2-Nitrotoluene	137 > 46			21135.303									
XIBLK13	4-Nitrotoluene	137 > 46			21135.303									
XIBLK13	3-Nitrotoluene	137 > 46			21135.303									
XIBLK13	PETN	361 > 62			21135.303									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1473
Lab Code: GEL
Lab Sample ID: XIBLK14
Analysis Date: 11-FEB-10 01:45
GEL Data File: EXP0208121a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	460.845
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	484.127
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208121a
Date: 11-Feb-2010
Time: 01:45:43
ID: XIBLK14
Vial: 1:1,A

MM 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.074e+003

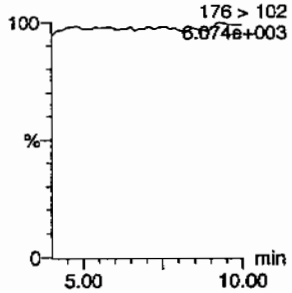

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.074e+003

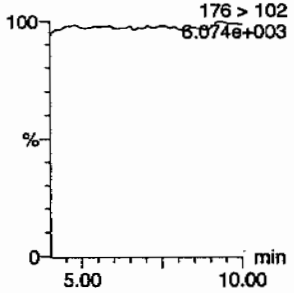

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.627e+003

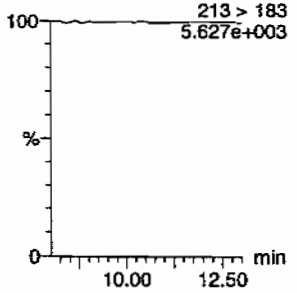

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.294e+004

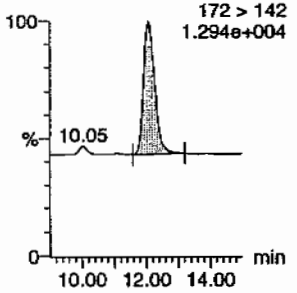

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.611e+003

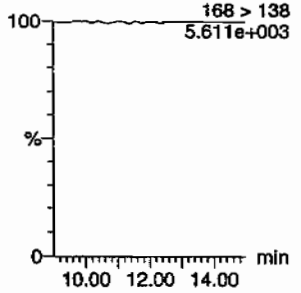

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.631e+003

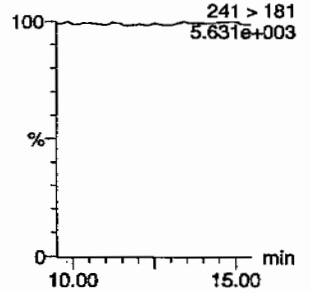

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.659e+003

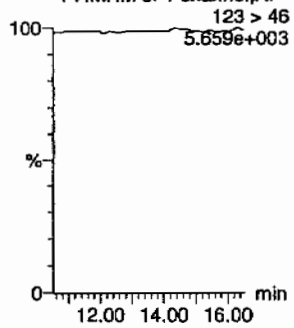

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.696e+003

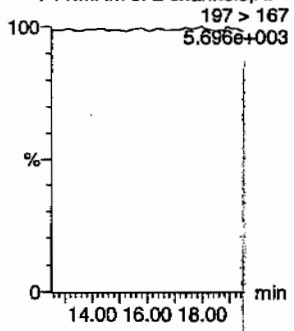

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.687e+003

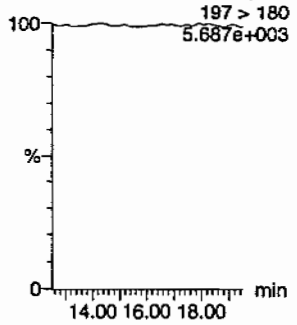

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.642e+003

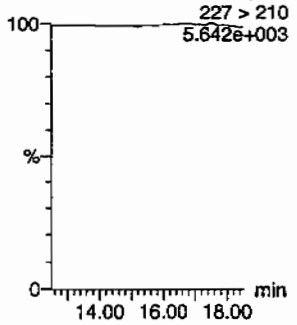

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.662e+003

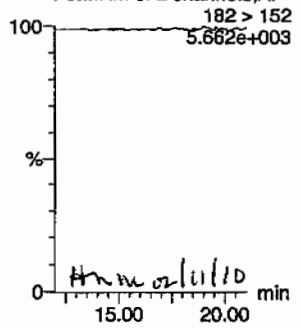

HMM 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.662e+003

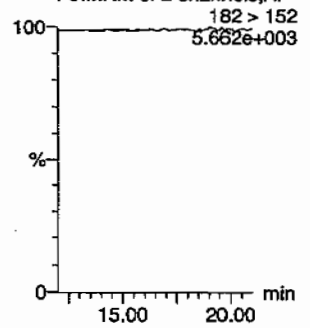

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

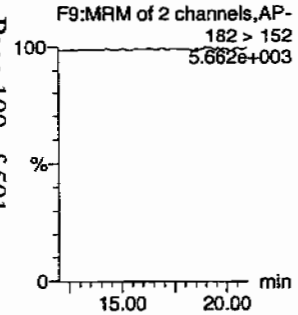

26-dinitrotoluene-d3

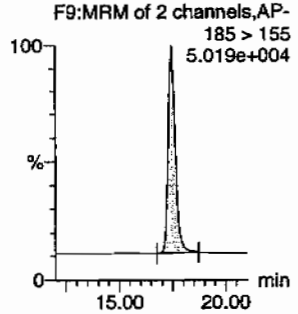

2-Nitrotoluene

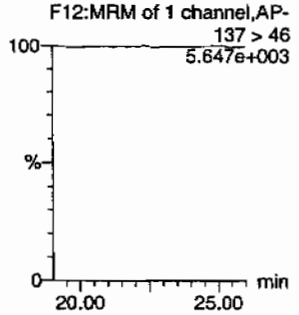

4-Nitrotoluene

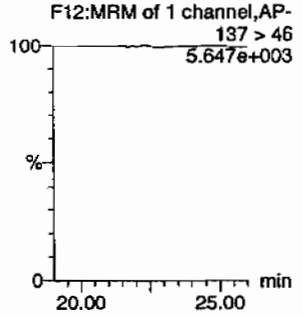

3-Nitrotoluene

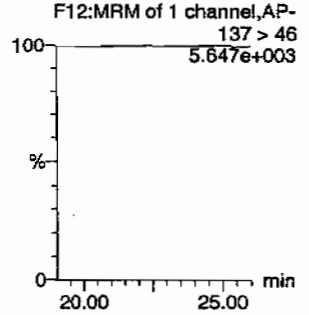

PETN

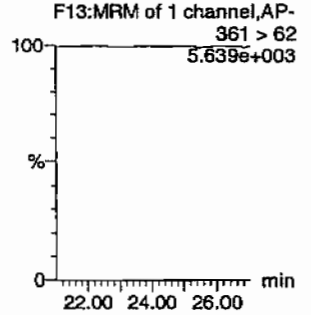

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	mg/mL	%Rec	%Dev	S/N
XIBLK14	HMX	176 > 102			2962.838									
XIBLK14	RDX	176 > 102			2962.838									
XIBLK14	135-Trinitrobenzene	213 > 183			2962.838									
XIBLK14	13-Dinitrobenzene-d4	172 > 142	12.07	2962.838		2962.838	2962.838	bb			460.8446	92.2	-7.8	93.8
XIBLK14	13-Dinitrobenzene	168 > 138			2962.838									
XIBLK14	Tetryl	241 > 181			2962.838									
XIBLK14	Nitrobenzene	123 > 46			2962.838									
XIBLK14	4-Amino-26-dinitrotoluene	197 > 167			17873.645									
XIBLK14	2-Amino-46-dinitrotoluene	197 > 180			17873.645									
XIBLK14	246-Trinitrotoluene	227 > 210			17873.645									
XIBLK14	34-dinitrotoluene	182 > 152			17873.645									
XIBLK14	26-dinitrotoluene	182 > 152			17873.645									
XIBLK14	24-dinitrotoluene	182 > 152			17873.645									
XIBLK14	26-dinitrotoluene-d3	185 > 155	17.46	17873.645		17873.645	17873.645	bb			484.1266	96.8	-3.2	1654.2
XIBLK14	2-Nitrotoluene	137 > 46			17873.645									
XIBLK14	4-Nitrotoluene	137 > 46			17873.645									
XIBLK14	3-Nitrotoluene	137 > 46			17873.645									
XIBLK14	PETN	361 > 62			17873.645									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1473
Lab Code: GEL
Lab Sample ID: XIBLK15
Analysis Date: 11-FEB-10 08:09
GEL Data File: EXP0208134a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	574.283
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	594.383
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208134a
Date: 11-Feb-2010
Time: 08:09:15
ID: XIBLK15
Vial: 1:1,A

MMT 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.112e+003

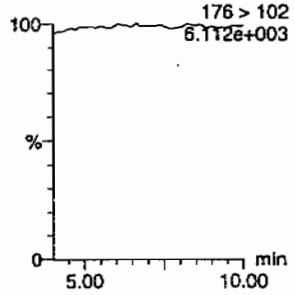

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.112e+003

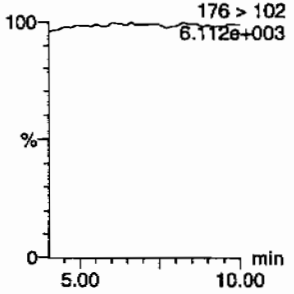

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.845e+003

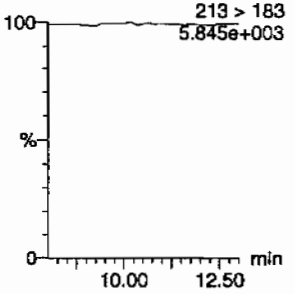

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.485e+004

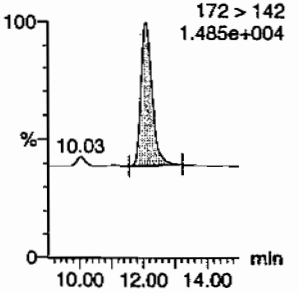

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.877e+003

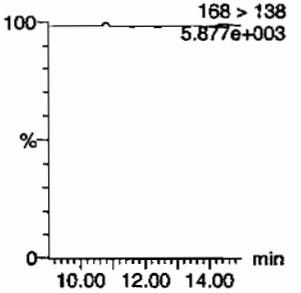

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.850e+003

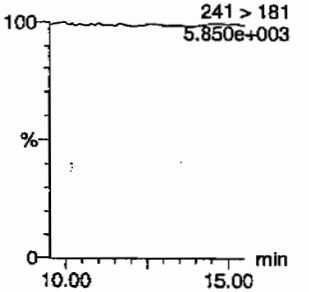

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.881e+003

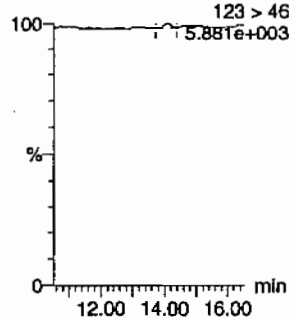

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.948e+003

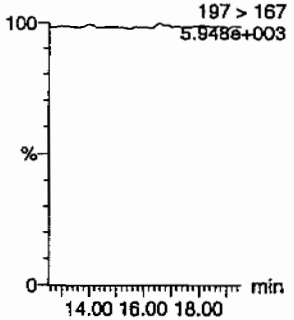

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.952e+003

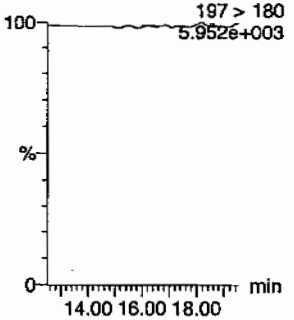

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.871e+003

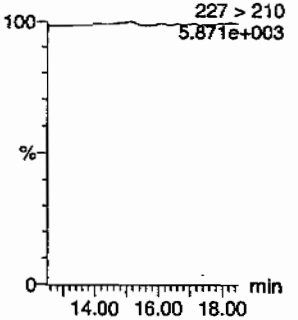

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.852e+003

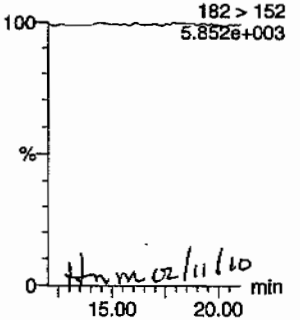

Hmm 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.852e+003

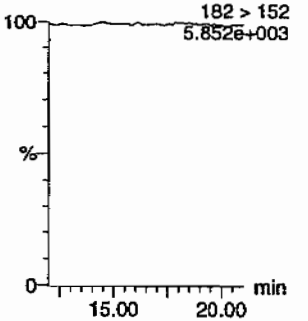

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

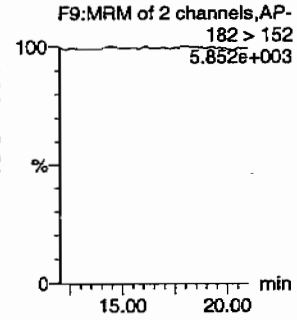

26-dinitrotoluene-d3

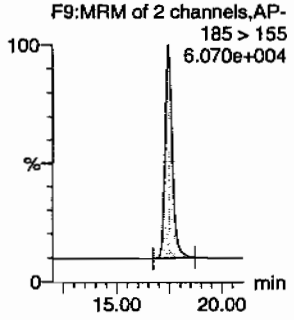

2-Nitrotoluene

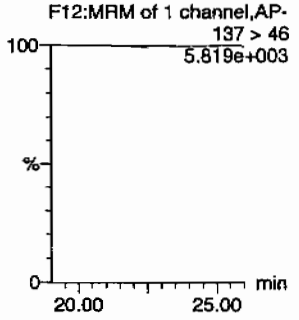

4-Nitrotoluene

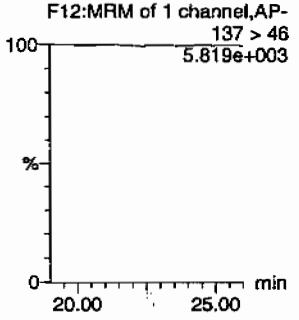

3-Nitrotoluene

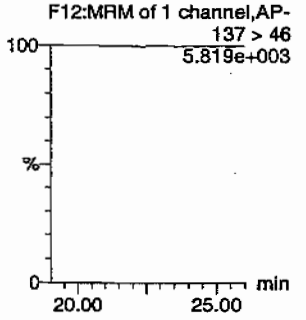

PETN

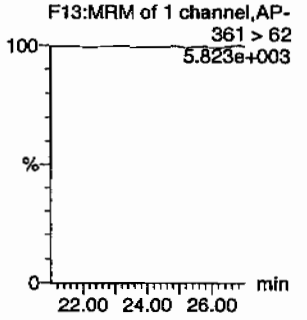

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK15	HMX	176 > 102			3692.150									
XIBLK15	RDX	176 > 102			3692.150									
XIBLK15	135-Trinitrobenzene	213 > 183			3692.150									
XIBLK15	13-Dinitrobenzene-d4	172 > 142	12.07	3692.150		3692.150	3692.150	bb			574.2830	114.9	14.9	272.1
XIBLK15	13-Dinitrobenzene	168 > 138			3692.150									
XIBLK15	Tetryl	241 > 181			3692.150									
XIBLK15	Nitrobenzene	123 > 46			3692.150			MM-	11-Feb-10	09:26:34				
XIBLK15	4-Amino-26-dinitrotoluene	197 > 167			21944.232									
XIBLK15	2-Amino-46-dinitrotoluene	197 > 180			21944.232									
XIBLK15	246-Trinitrotoluene	227 > 210			21944.232									
XIBLK15	34-dinitrotoluene	182 > 152			21944.232									
XIBLK15	26-dinitrotoluene	182 > 152			21944.232									
XIBLK15	24-dinitrotoluene	182 > 152			21944.232									
XIBLK15	26-dinitrotoluene-d3	185 > 155	17.46	21944.232		21944.232	21944.232	bb			594.3827	118.9	18.9	1682.3
XIBLK15	2-Nitrotoluene	137 > 46			21944.232									
XIBLK15	4-Nitrotoluene	137 > 46			21944.232									
XIBLK15	3-Nitrotoluene	137 > 46			21944.232									
XIBLK15	PETN	361 > 62			21944.232									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 11-FEB-10 14:03

GEL Data File: EXP0208146a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	571.158
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	588.501
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208146a
Date: 11-Feb-2010
Time: 14:03:38
ID: XIBLK16
Vial: 1:1,A

MMT 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.779e+003

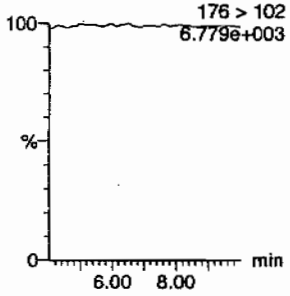

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.779e+003

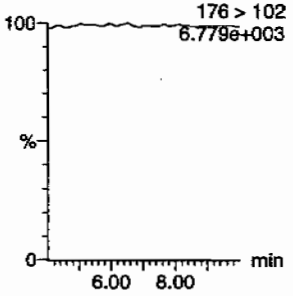

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.570e+003

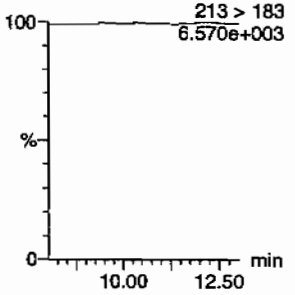

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.563e+004

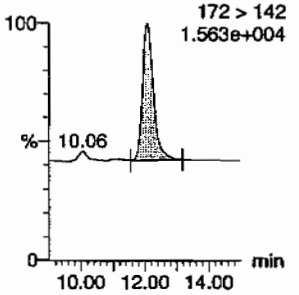

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.595e+003

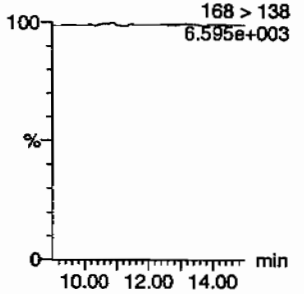

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.563e+003

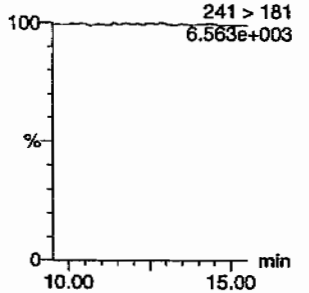

Nitrobenzene
F7:MRM of 1 channel,AP-
10.84
123 > 46
6.685e+003

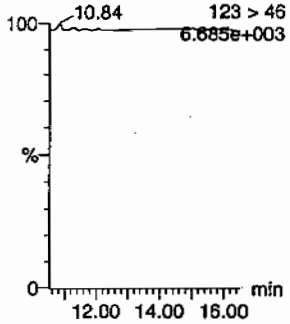

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.636e+003

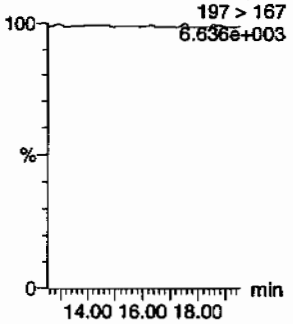

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.631e+003

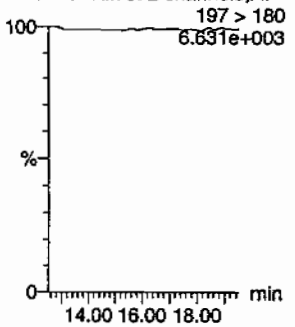

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.570e+003

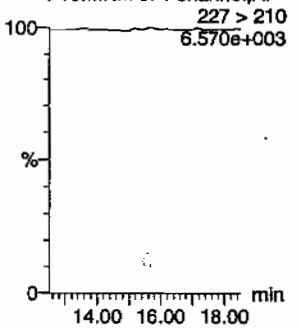

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.581e+003

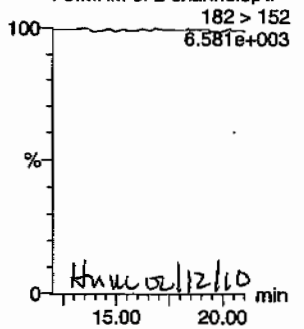

HMW 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.581e+003

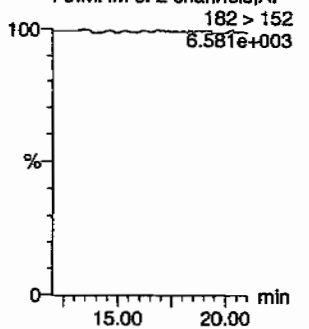

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

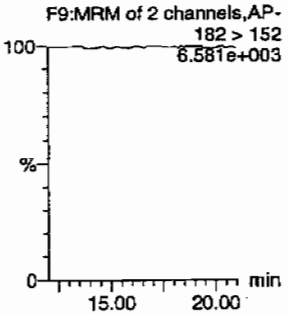

26-dinitrotoluene-d3

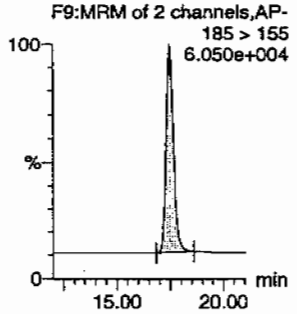

2-Nitrotoluene

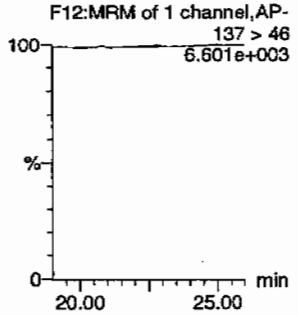

4-Nitrotoluene

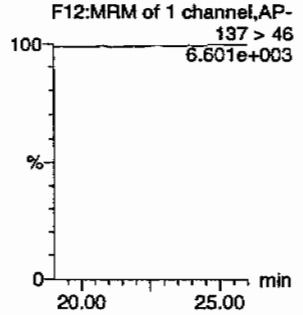

3-Nitrotoluene

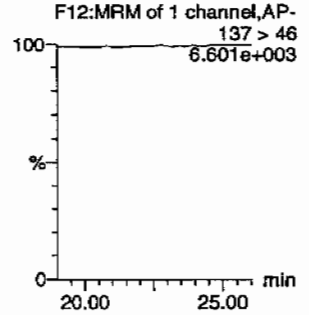

PETN

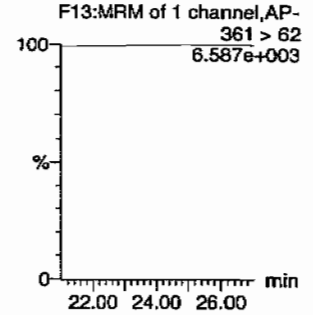

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK16	HMX	176 > 102			3672.062									
XIBLK16	RDX	176 > 102			3672.062									
XIBLK16	135-Trinitrobenzene	213 > 183			3672.062									
XIBLK16	13-Dinitrobenzene-d4	172 > 142	12.07	3672.062		3672.062	3672.062	bb			571.1585	114.2	14.2	399.7
XIBLK16	13-Dinitrobenzene	168 > 138			3672.062									
XIBLK16	Tetryl	241 > 181			3672.062									
XIBLK16	Nitrobenzene	123 > 46			3672.062									
XIBLK16	4-Amino-26-dinitrotoluene	197 > 167			21727.074									
XIBLK16	2-Amino-46-dinitrotoluene	197 > 180			21727.074									
XIBLK16	246-Trinitrotoluene	227 > 210			21727.074									
XIBLK16	34-dinitrotoluene	182 > 152			21727.074									
XIBLK16	26-dinitrotoluene	182 > 152			21727.074									
XIBLK16	24-dinitrotoluene	182 > 152			21727.074									
XIBLK16	26-dinitrotoluene-d3	185 > 155	17.46	21727.074		21727.074	21727.074	bb			588.5008	117.7	17.7	2034.5
XIBLK16	2-Nitrotoluene	137 > 46			21727.074									
XIBLK16	4-Nitrotoluene	137 > 46			21727.074									
XIBLK16	3-Nitrotoluene	137 > 46			21727.074									
XIBLK16	PETN	361 > 62			21727.074									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 11–FEB–10 18:58

GEL Data File: EXP0208156a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	492.787
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	564
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208156a
Date: 11-Feb-2010
Time: 18:58:59
ID: XIBLK17
Vial: 1:1,A

MMD 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.946e+003

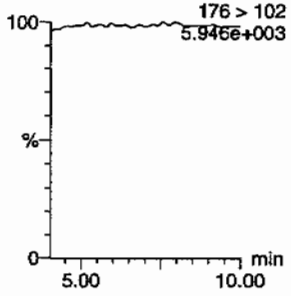

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.946e+003

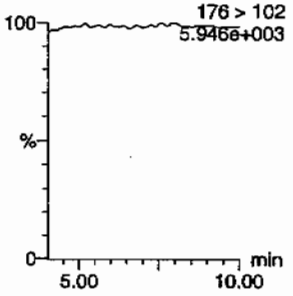

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.733e+003

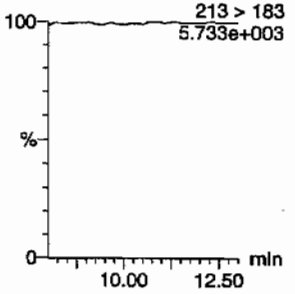

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.320e+004

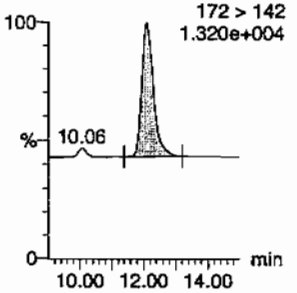

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.746e+003

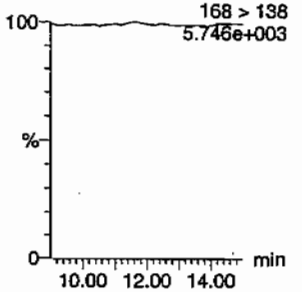

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.768e+003

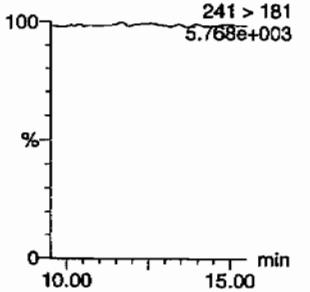

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.777e+003

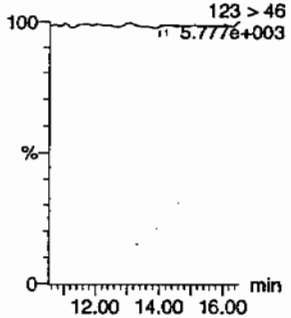

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.844e+003

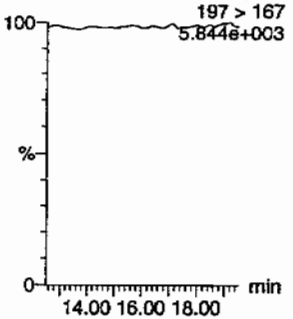

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.832e+003

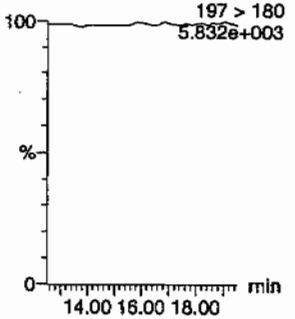

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.733e+003

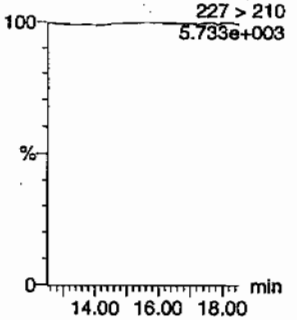

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

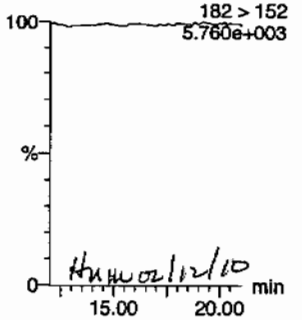

HMW 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

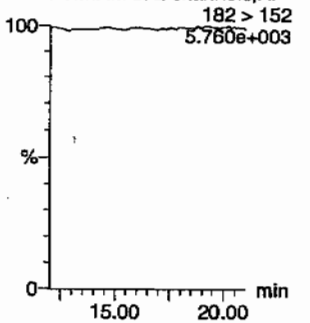

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

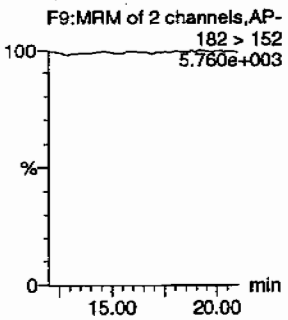

26-dinitrotoluene-d3

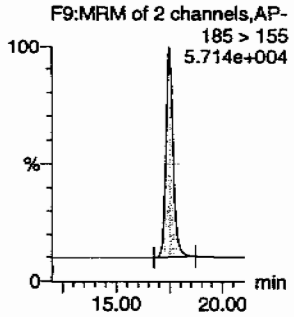

2-Nitrotoluene

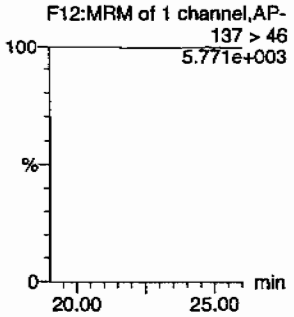

4-Nitrotoluene

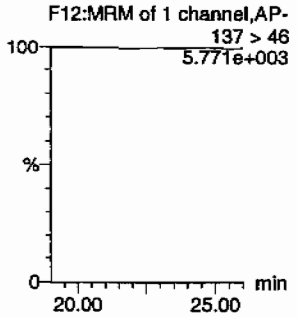

3-Nitrotoluene

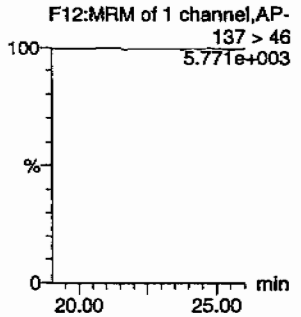

PETN

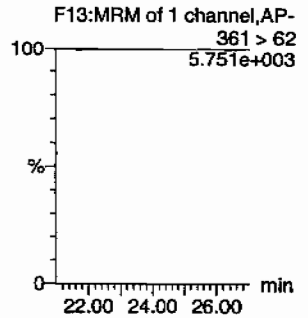

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK17	HMX	176 > 102			3168.198									
XIBLK17	RDX	176 > 102			3168.198									
XIBLK17	135-Trinitrobenzene	213 > 183			3168.198									
XIBLK17	13-Dinitrobenzene-d4	172 > 142	12.10	3168.198		3168.198	3168.198	bb			492.7867	98.6	-1.4	174.2
XIBLK17	13-Dinitrobenzene	168 > 138			3168.198									
XIBLK17	Tetryl	241 > 181			3168.198									
XIBLK17	Nitrobenzene	123 > 46			3168.198			MM-	12-Feb-10	07:57:31				
XIBLK17	4-Amino-26-dinitrotoluene	197 > 167			20822.535									
XIBLK17	2-Amino-46-dinitrotoluene	197 > 180			20822.535									
XIBLK17	246-Trinitrotoluene	227 > 210			20822.535									
XIBLK17	34-dinitrotoluene	182 > 152			20822.535									
XIBLK17	26-dinitrotoluene	182 > 152			20822.535									
XIBLK17	24-dinitrotoluene	182 > 152			20822.535									
XIBLK17	26-dinitrotoluene-d3	185 > 155	17.48	20822.535		20822.535	20822.535	bb			564.0004	112.8	12.8	2100.9
XIBLK17	2-Nitrotoluene	137 > 46			20822.535									
XIBLK17	4-Nitrotoluene	137 > 46			20822.535									
XIBLK17	3-Nitrotoluene	137 > 46			20822.535									
XIBLK17	PETN	361 > 62			20822.535									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1473
Lab Code: GEL
Lab Sample ID: XIBLK18
Analysis Date: 12-FEB-10 01:22
GEL Data File: EXP0208169a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	437.531
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	440.022
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208169a
Date: 12-Feb-2010
Time: 01:22:24
ID: XIBLK18
Vial: 1:1,A

MATT 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.815e+003

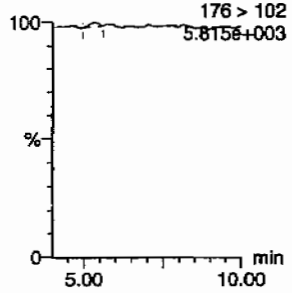

RDX
F2:MRM of 1 channel,AP-
5.35
176 > 102
5.815e+003

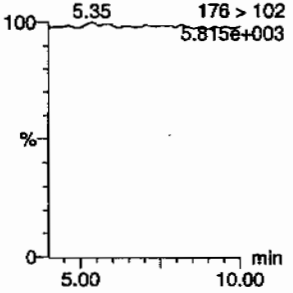

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.653e+003

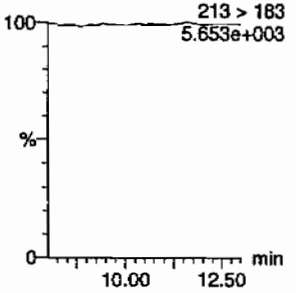

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.238e+004

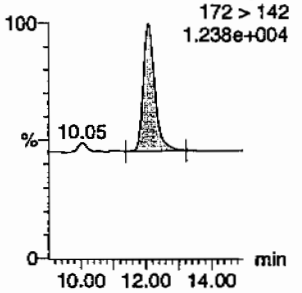

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.653e+003

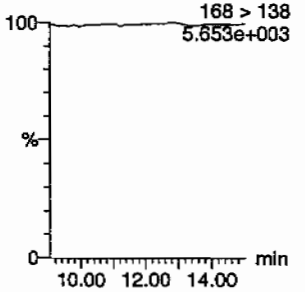

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.651e+003

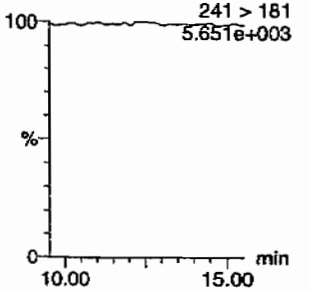

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.657e+003

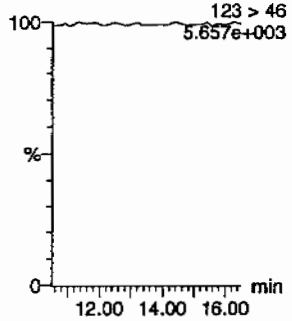

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.699e+003

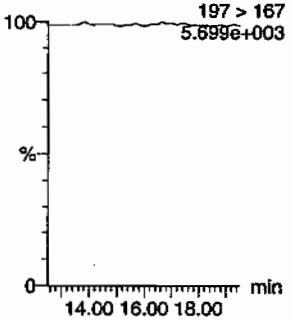

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.697e+003

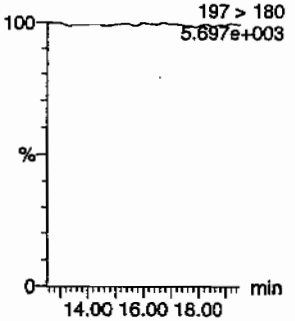

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.660e+003

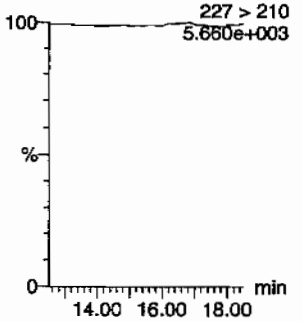

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.657e+003

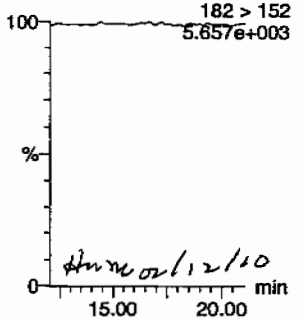

dmc 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.657e+003

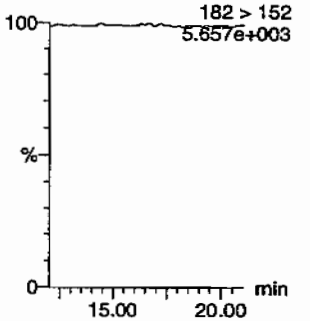

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

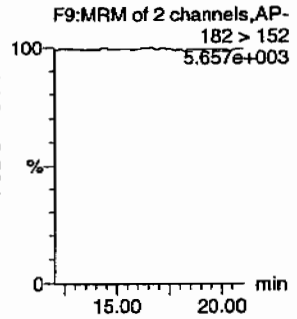

26-dinitrotoluene-d3

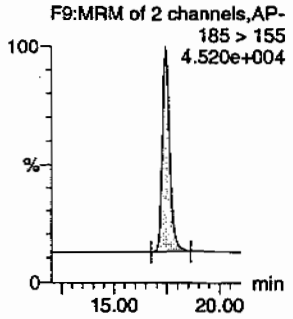

2-Nitrotoluene

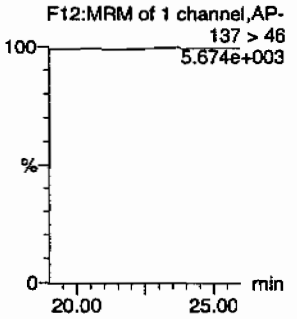

4-Nitrotoluene

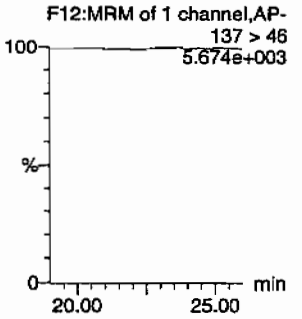

3-Nitrotoluene

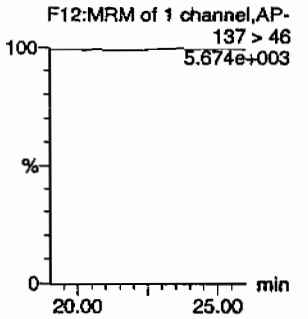

PETN

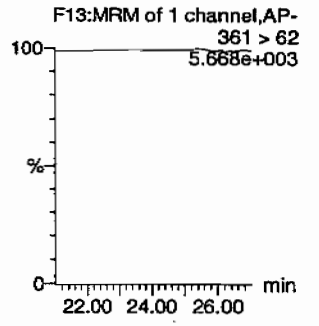

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK18	HMX	176 > 102			2812.949			MM-	12-Feb-10	07:53:15				
XIBLK18	RDX	176 > 102			2812.949									
XIBLK18	135-Trinitrobenzene	213 > 183			2812.949									
XIBLK18	13-Dinitrobenzene-d4	172 > 142	12.07	2812.949		2812.949	2812.949	bb			437.5306	87.5	-12.5	123.0
XIBLK18	13-Dinitrobenzene	168 > 138			2812.949									
XIBLK18	Tetryl	241 > 181			2812.949									
XIBLK18	Nitrobenzene	123 > 46			2812.949									
XIBLK18	4-Amino-26-dinitrotoluene	197 > 167			16245.318									
XIBLK18	2-Amino-46-dinitrotoluene	197 > 180			16245.318									
XIBLK18	246-Trinitrotoluene	227 > 210			16245.318									
XIBLK18	34-dinitrotoluene	182 > 152			16245.318									
XIBLK18	26-dinitrotoluene	182 > 152			16245.318									
XIBLK18	24-dinitrotoluene	182 > 152			16245.318									
XIBLK18	26-dinitrotoluene-d3	185 > 155	17.46	16245.318		16245.318	16245.318	bb			440.0216	88.0	-12.0	1126.2
XIBLK18	2-Nitrotoluene	137 > 46			16245.318									
XIBLK18	4-Nitrotoluene	137 > 46			16245.318									
XIBLK18	3-Nitrotoluene	137 > 46			16245.318									
XIBLK18	PETN	361 > 62			16245.318									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 12-FEB-10 06:47

GEL Data File: EXP0208180a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	487.474
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	475.411
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208180a
Date: 12-Feb-2010
Time: 06:47:03
ID: XIBLK19
Vial: 1:1,A

MAP 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.858e+003

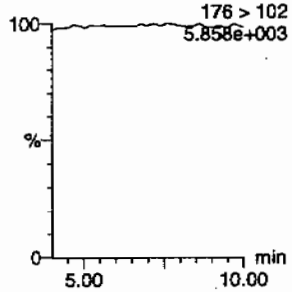

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.858e+003

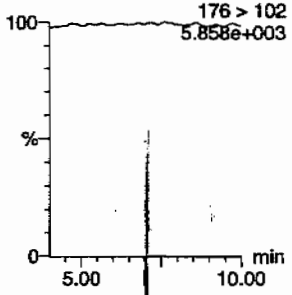

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.767e+003

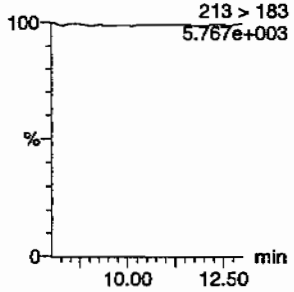

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.340e+004

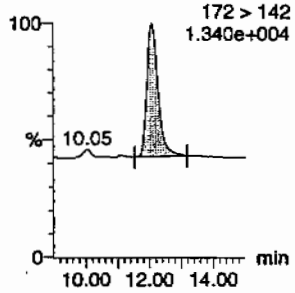

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.773e+003

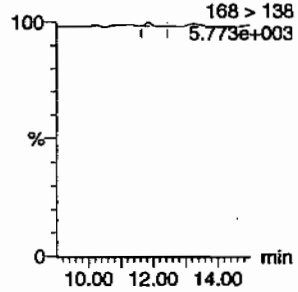

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.760e+003

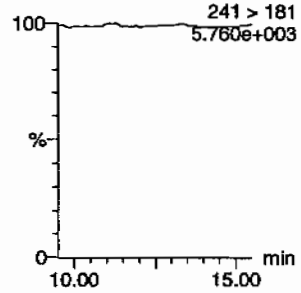

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.781e+003

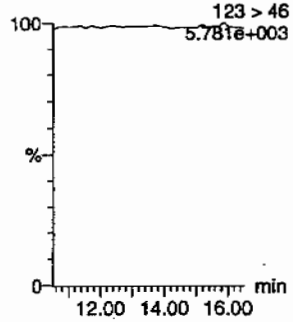

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.799e+003

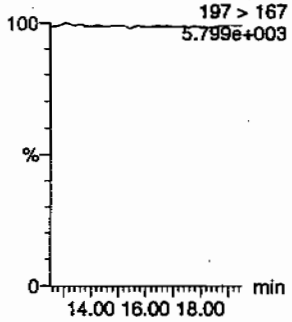

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.780e+003

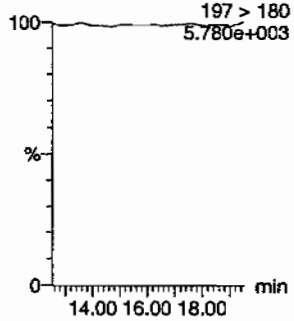

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.734e+003

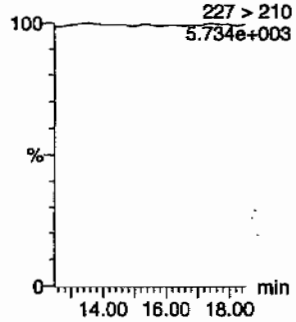

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.757e+003

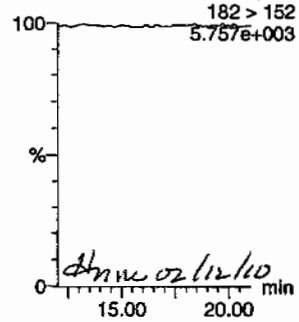

dhm 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.757e+003

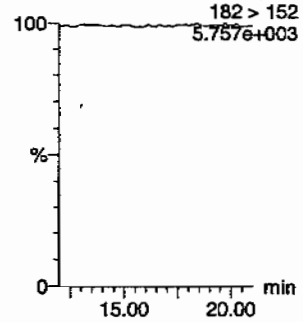

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

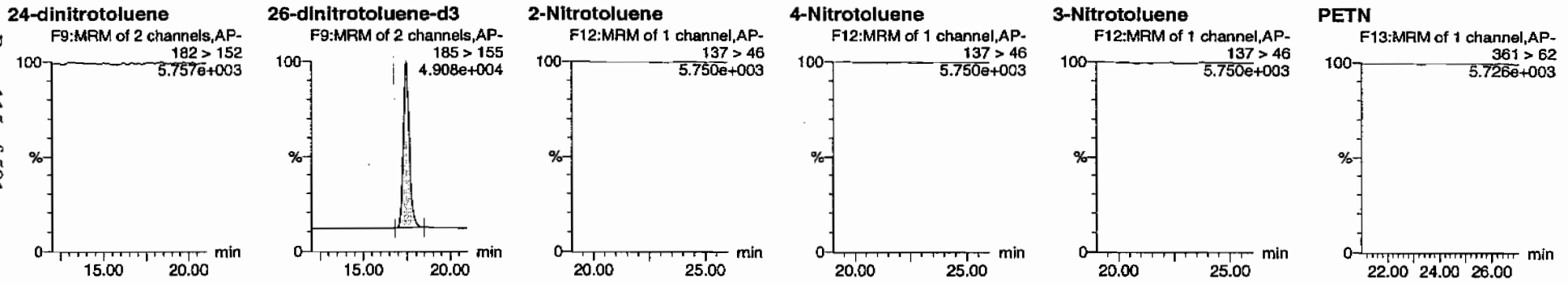

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK19	HMX	176 > 102			3134.045									
XIBLK19	RDX	176 > 102			3134.045									
XIBLK19	135-Trinitrobenzene	213 > 183			3134.045									
XIBLK19	13-Dinitrobenzene-d4	172 > 142	12.07	3134.045		3134.045	3134.045	bb			487.4744	97.5	-2.5	275.0
XIBLK19	13-Dinitrobenzene	168 > 138			3134.045			MM-	12-Feb-10	07:55:22				
XIBLK19	Tetryl	241 > 181			3134.045									
XIBLK19	Nitrobenzene	123 > 46			3134.045									
XIBLK19	4-Amino-26-dinitrotoluene	197 > 167			17551.871									
XIBLK19	2-Amino-46-dinitrotoluene	197 > 180			17551.871									
XIBLK19	246-Trinitrotoluene	227 > 210			17551.871									
XIBLK19	34-dinitrotoluene	182 > 152			17551.871									
XIBLK19	26-dinitrotoluene	182 > 152			17551.871									
XIBLK19	24-dinitrotoluene	182 > 152			17551.871									
XIBLK19	26-dinitrotoluene-d3	185 > 155	17.47	17551.871		17551.871	17551.871	bb			475.4110	95.1	-4.9	1700.9
XIBLK19	2-Nitrotoluene	137 > 46			17551.871									
XIBLK19	4-Nitrotoluene	137 > 46			17551.871									
XIBLK19	3-Nitrotoluene	137 > 46			17551.871									
XIBLK19	PETN	361 > 62			17551.871									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 12–FEB–10 13:47

GEL Data File: EXS02120010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.19
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Dan 2/15/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02120010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 1:47:51 PM

Modified: No

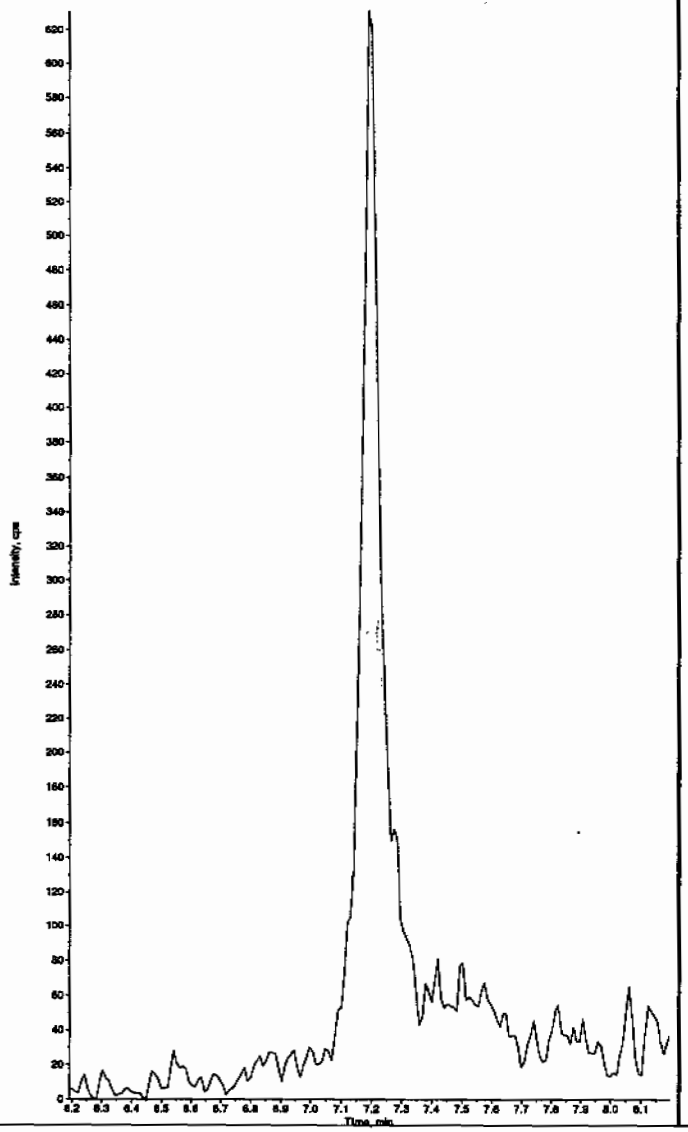

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02120010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 1:47:51 PM

Modified: No

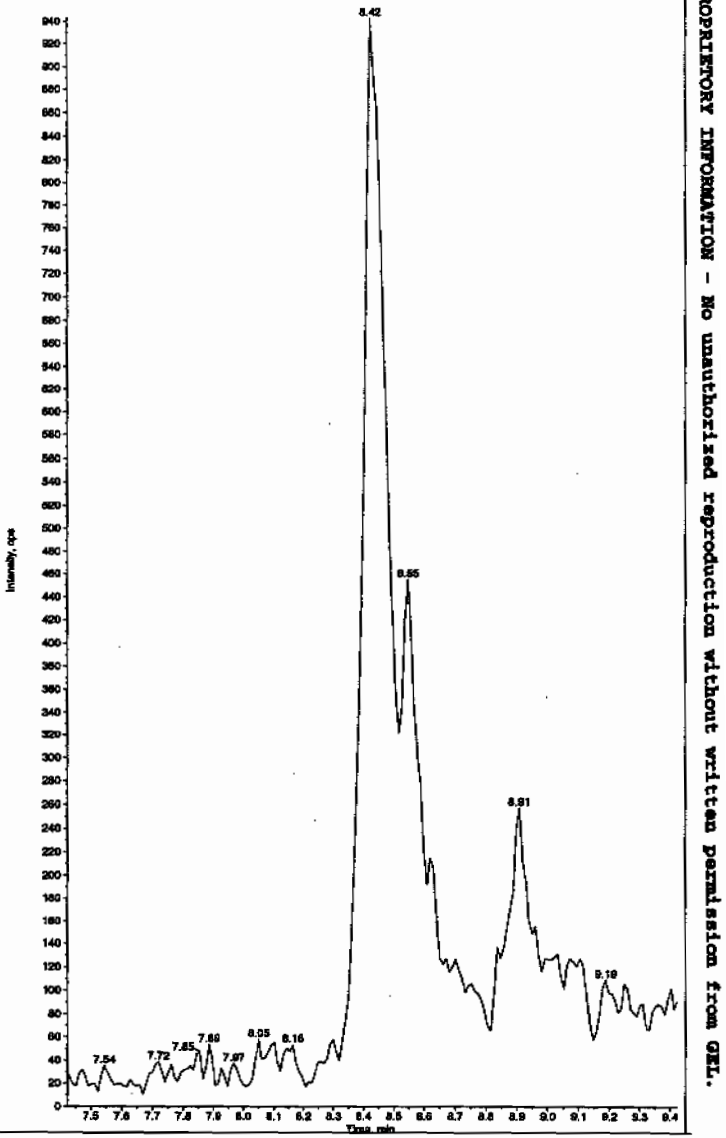

Hmm 2/15/10

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02120010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 1:47:51 PM

Modified: No

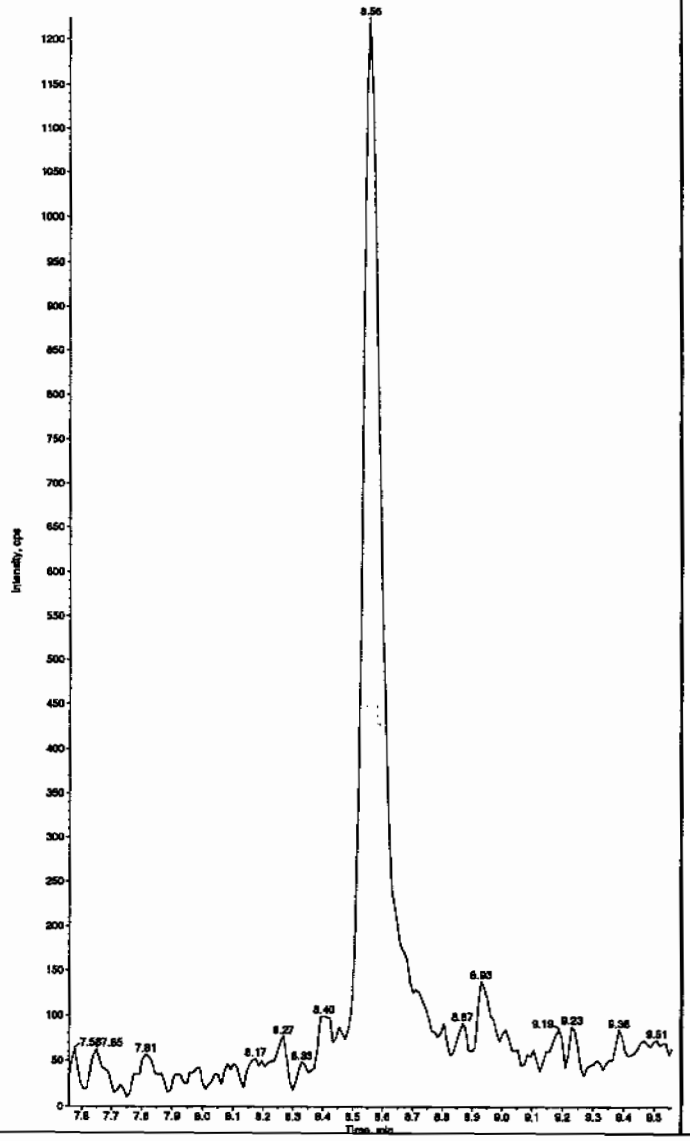

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02120010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 1:47:51 PM

Modified: No

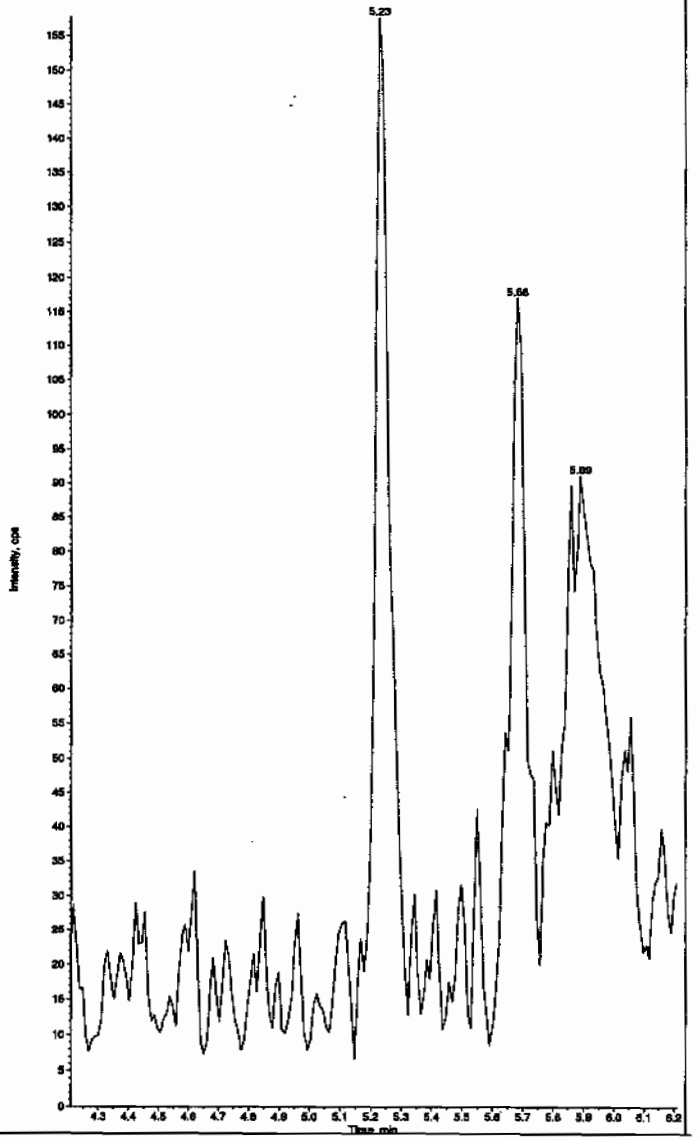

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Sample Name: "XIBLK02" Sample ID: "1|LER" File: "EXS02120010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 1:47:51 PM

Modified: No

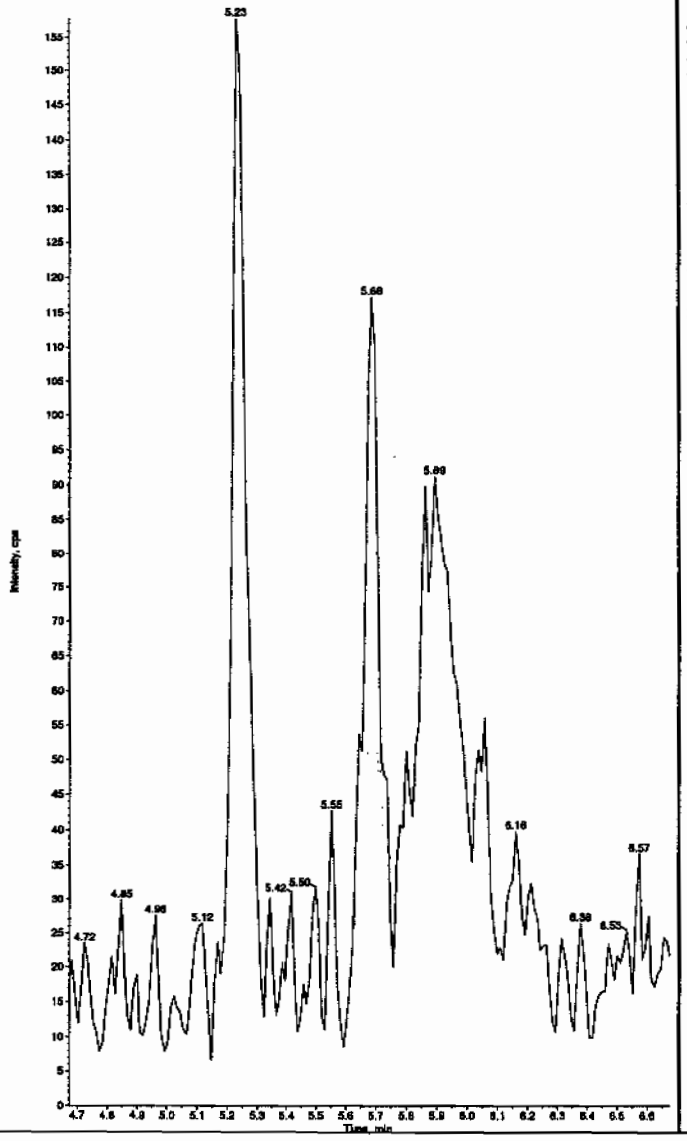

Sample Name: "XIBLK02" Sample ID: "1|LER" File: "EXS02120010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.19 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 1:47:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.1 min
Area: 2.56e+005 counts
Height: 55649.212 cps
Start Time: 11.0 min
End Time: 11.6 min

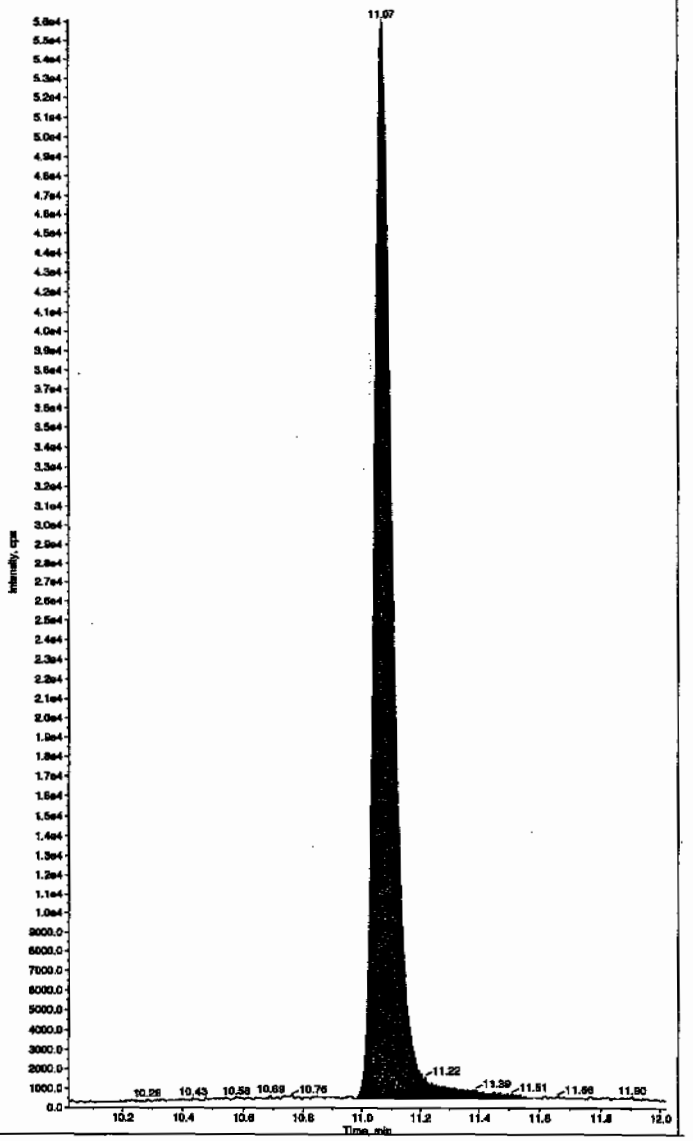

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 12–FEB–10 14:19

GEL Data File: EXS02120012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Scan 2/15/10

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02120012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:19:15 PM

Modified: No

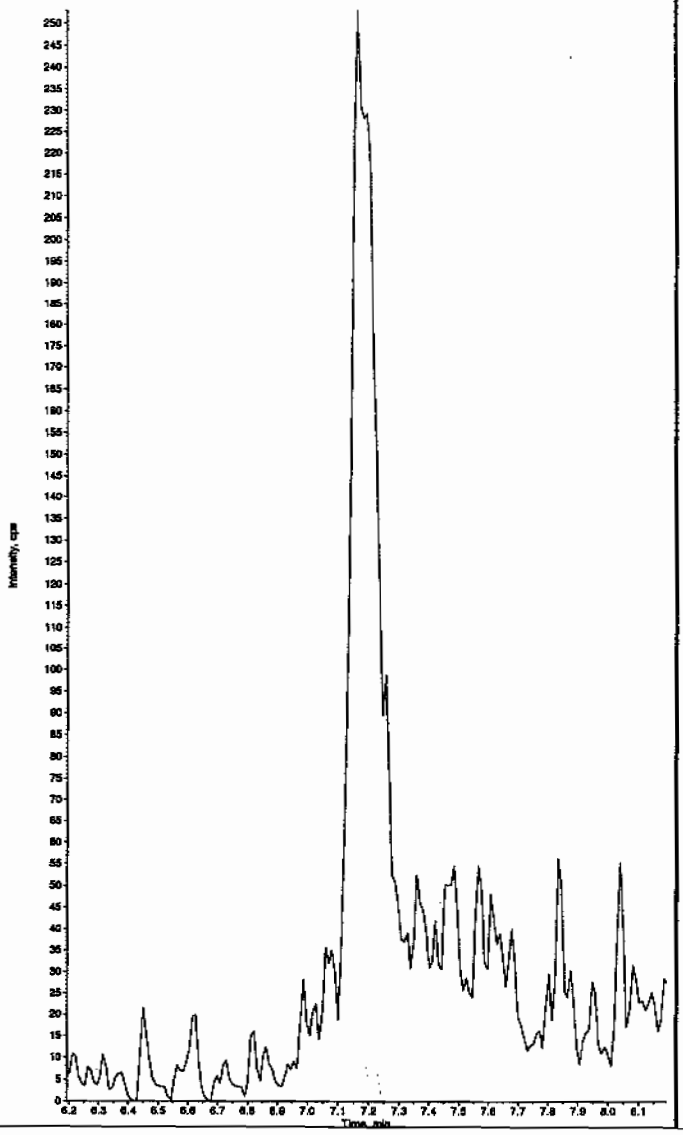

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02120012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:19:15 PM

Modified: No

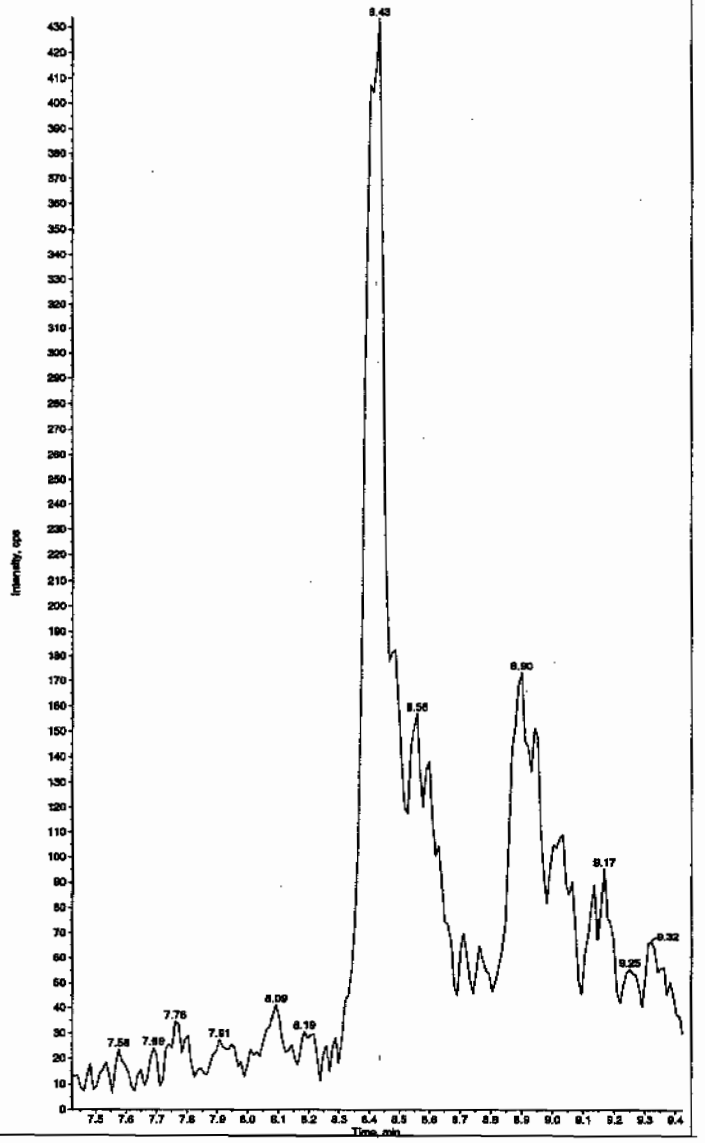

HNM 02/15/10

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02120012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:19:15 PM

Modified: No

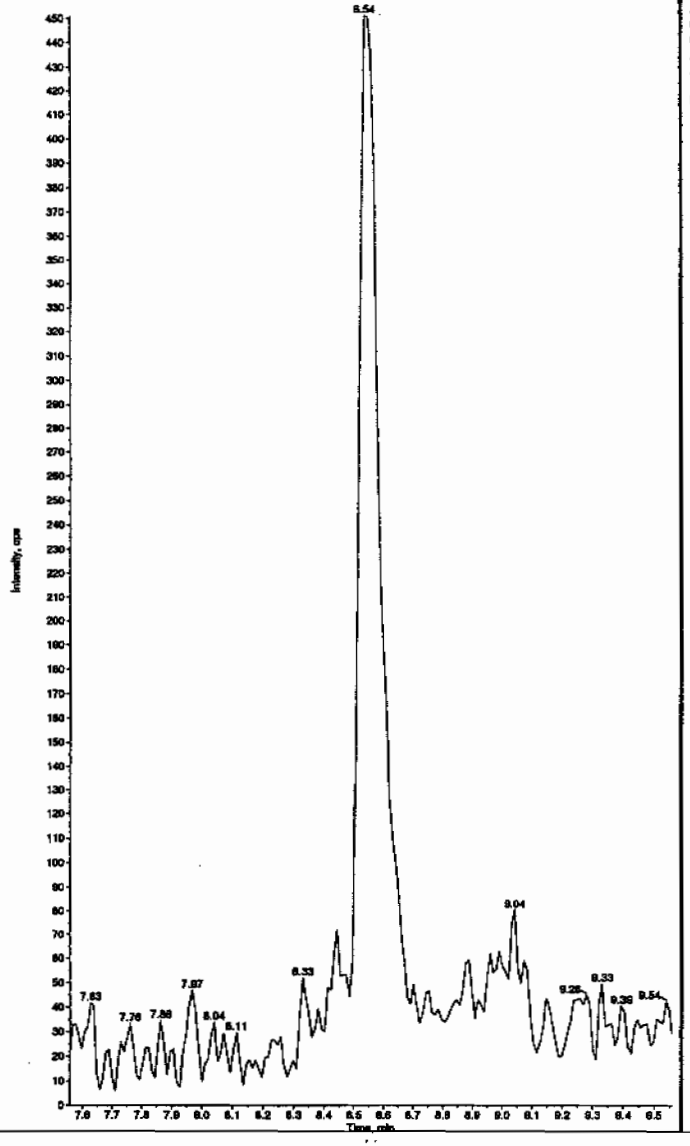

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02120012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:19:15 PM

Modified: No

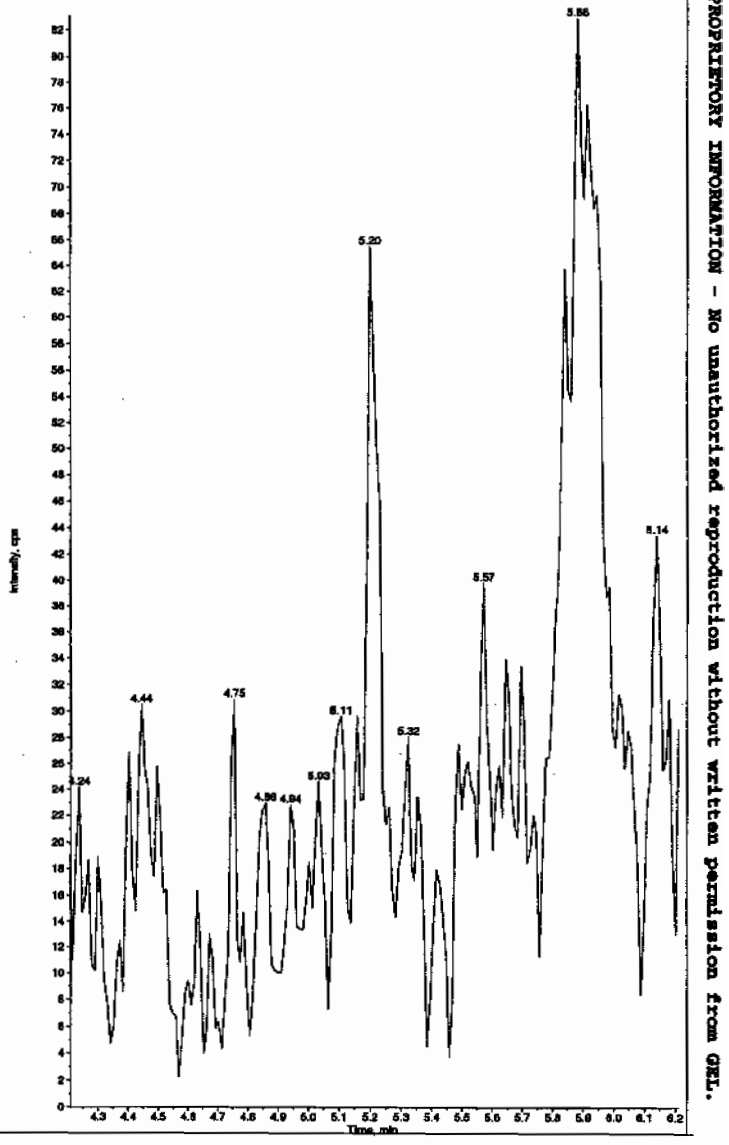

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02120012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:19:15 PM

Modified: No

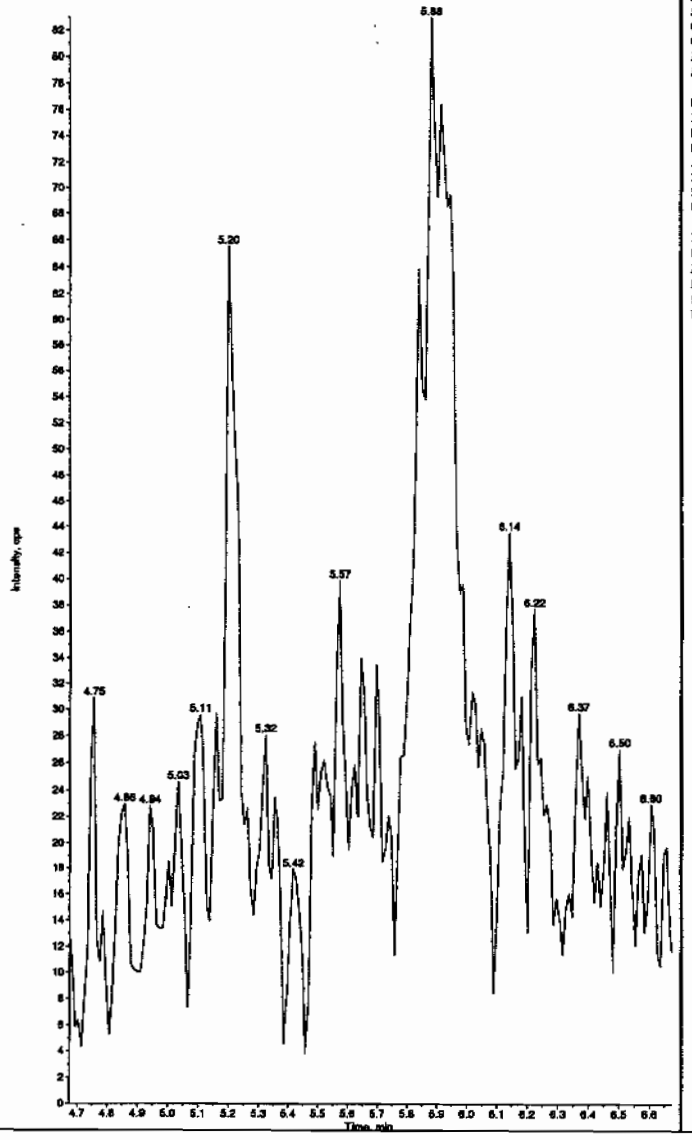

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02120012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/12/2010
Acq. Time: 2:19:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.1 min
Area: 1.08e+005 counts
Height: 24543.007 cps
Start Time: 11.0 min
End Time: 11.4 min

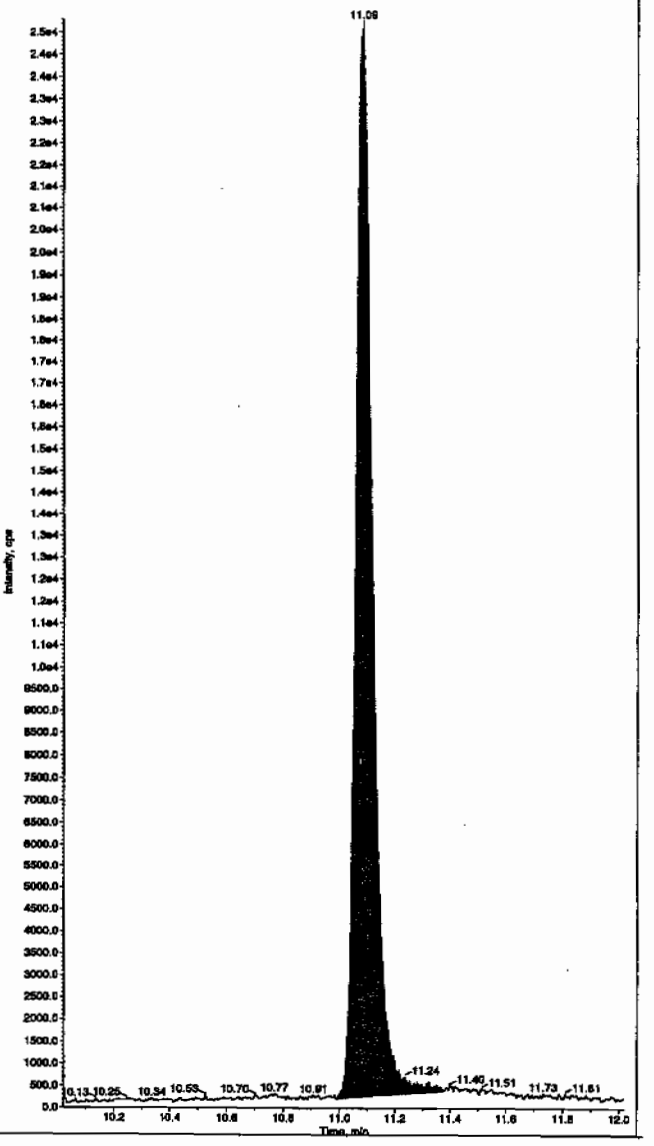

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 12–FEB–10 17:43

GEL Data File: EXS02120025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/15/10

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02120025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:43:19 PM

Modified: No

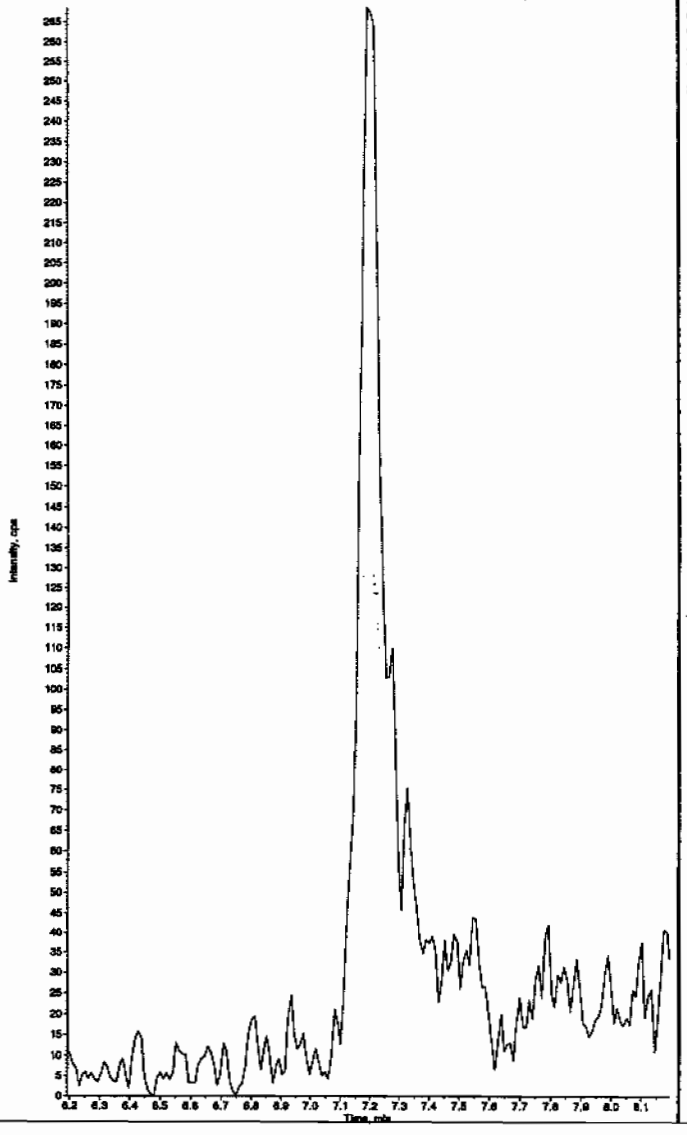

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02120025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:43:19 PM

Modified: No

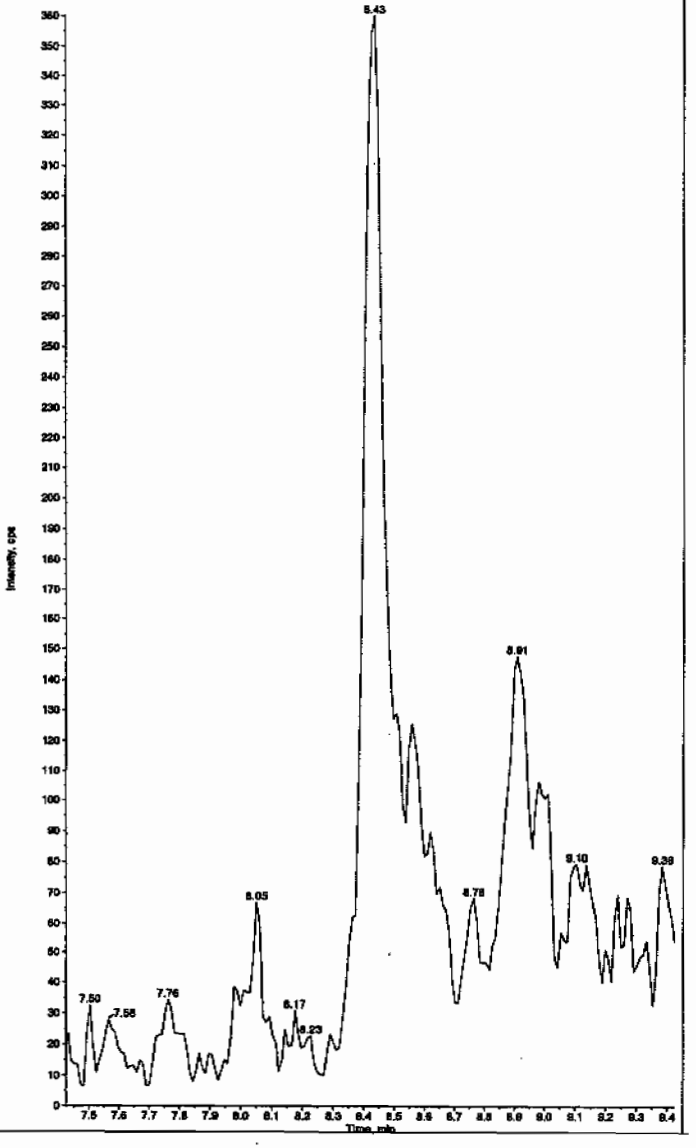

Hmm 02/15/10

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02120025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:43:19 PM

Modified: No

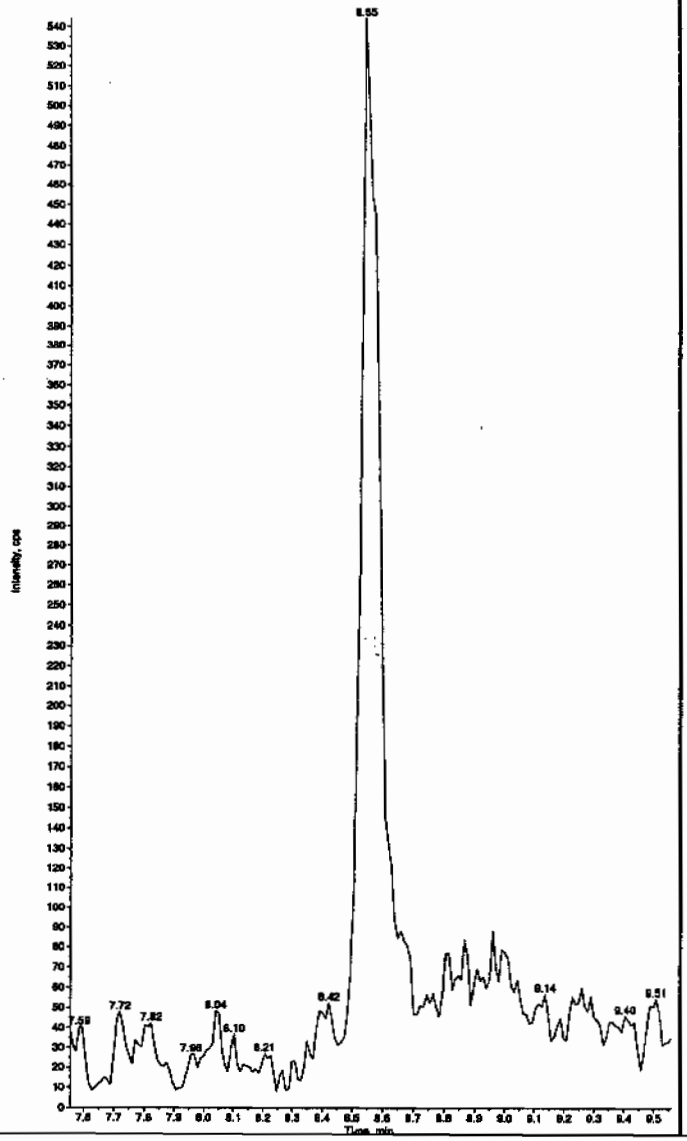

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02120025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:43:19 PM

Modified: No

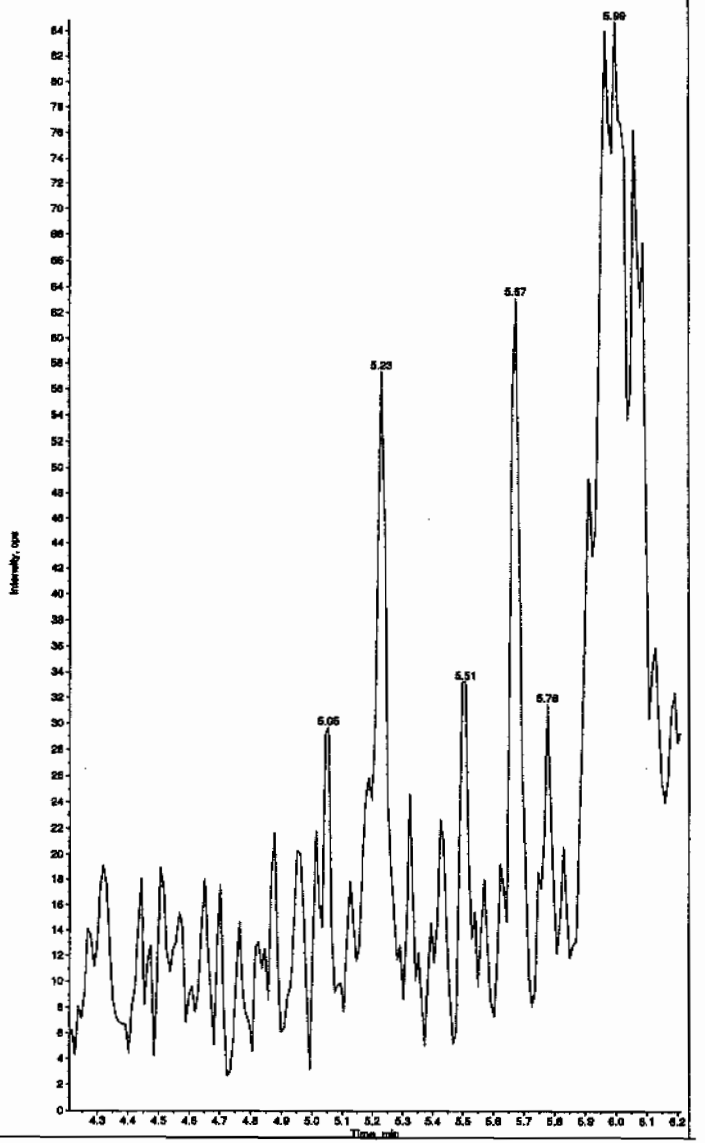

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02120025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:43:19 PM

Modified: No

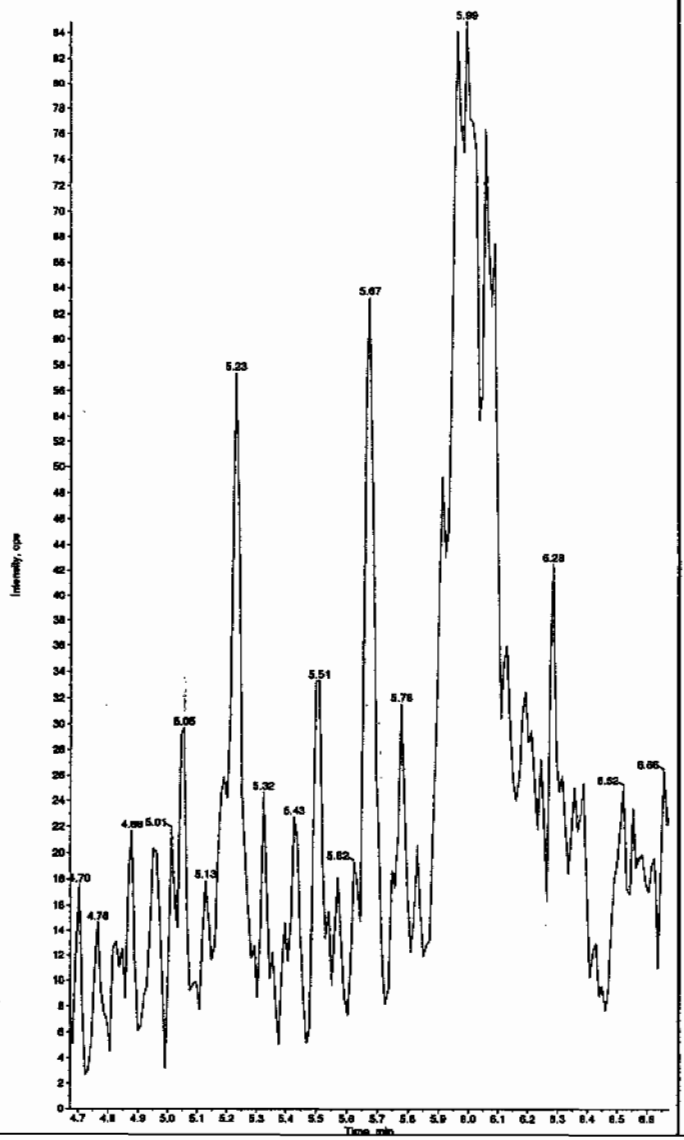

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02120025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/12/2010
Acq. Time: 5:43:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 8.84e+004 counts
Height: 19754.181 cps
Start Time: 10.9 min
End Time: 11.3 min

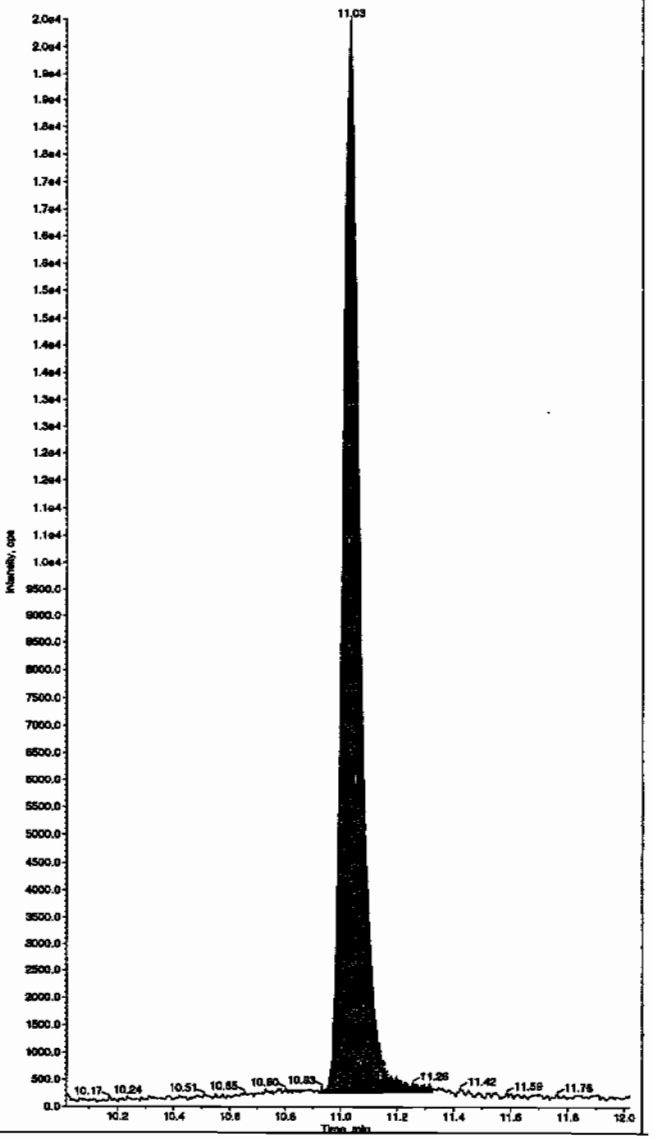

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 12–FEB–10 20:51

GEL Data File: EXS02120037.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ler 2/15/10

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS021200037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:51:42 PM

Modified: No

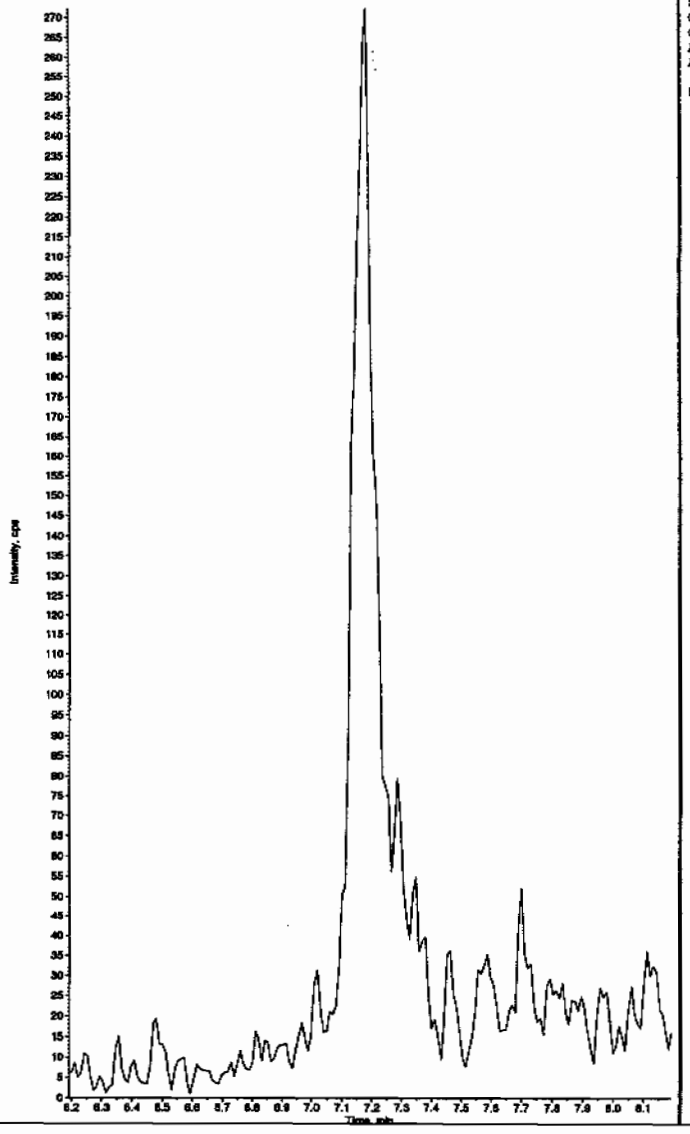

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS021200037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:51:42 PM

Modified: No

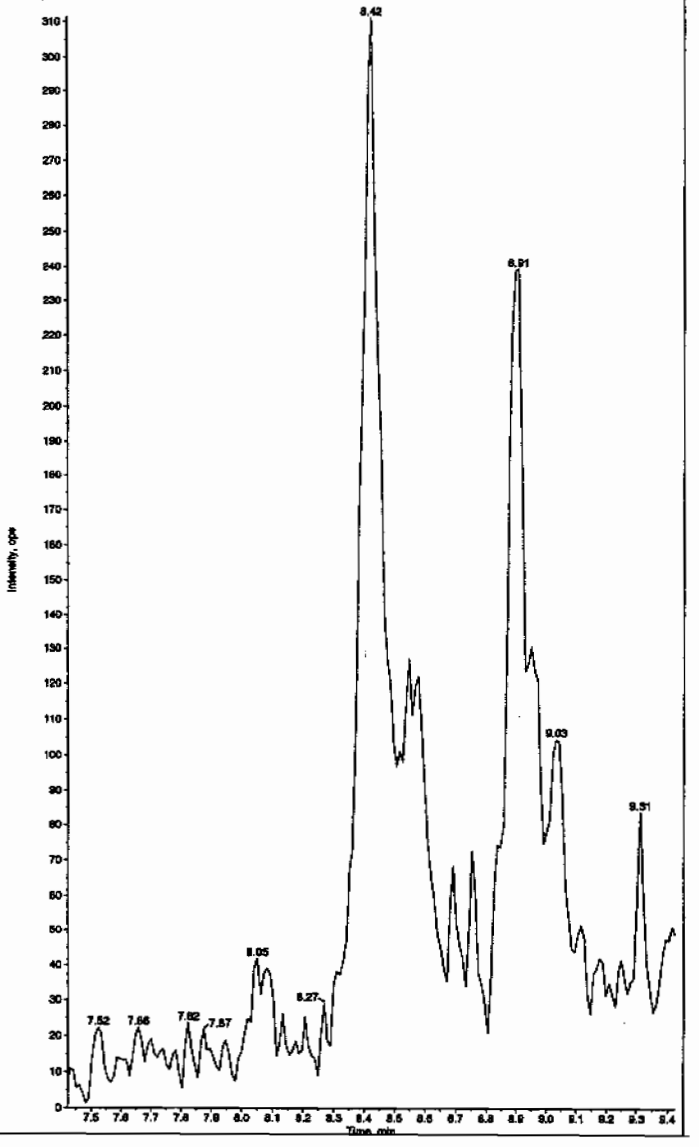

Hm 02/15/10

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02120037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:51:42 PM

Modified: No

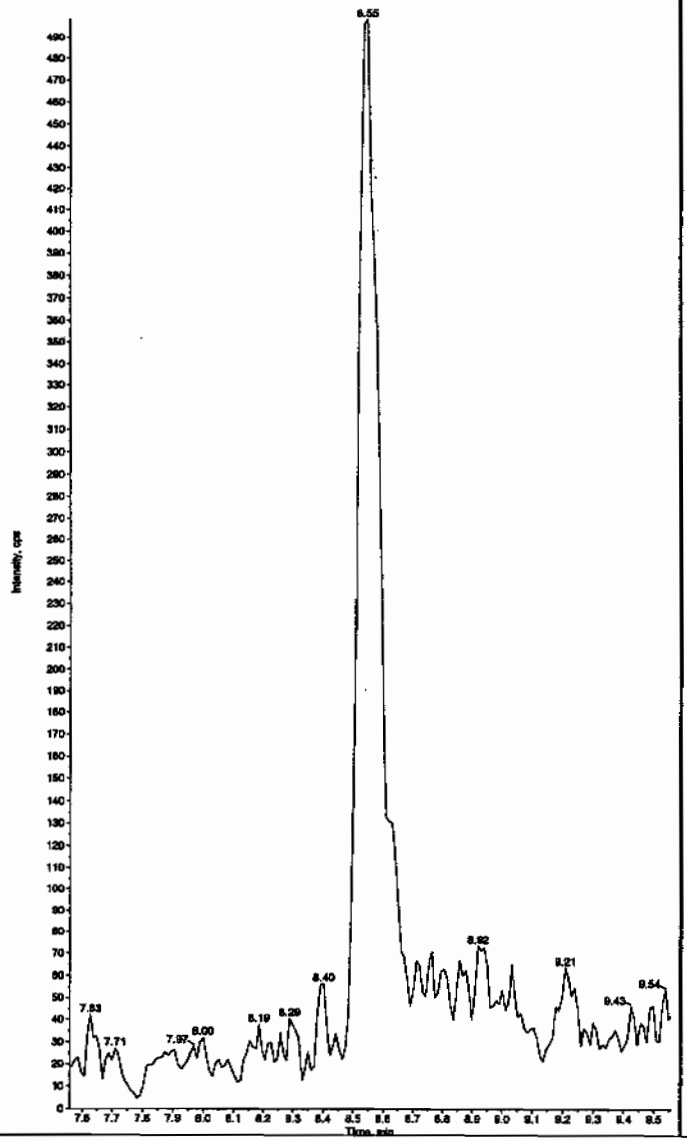

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02120037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:51:42 PM

Modified: No

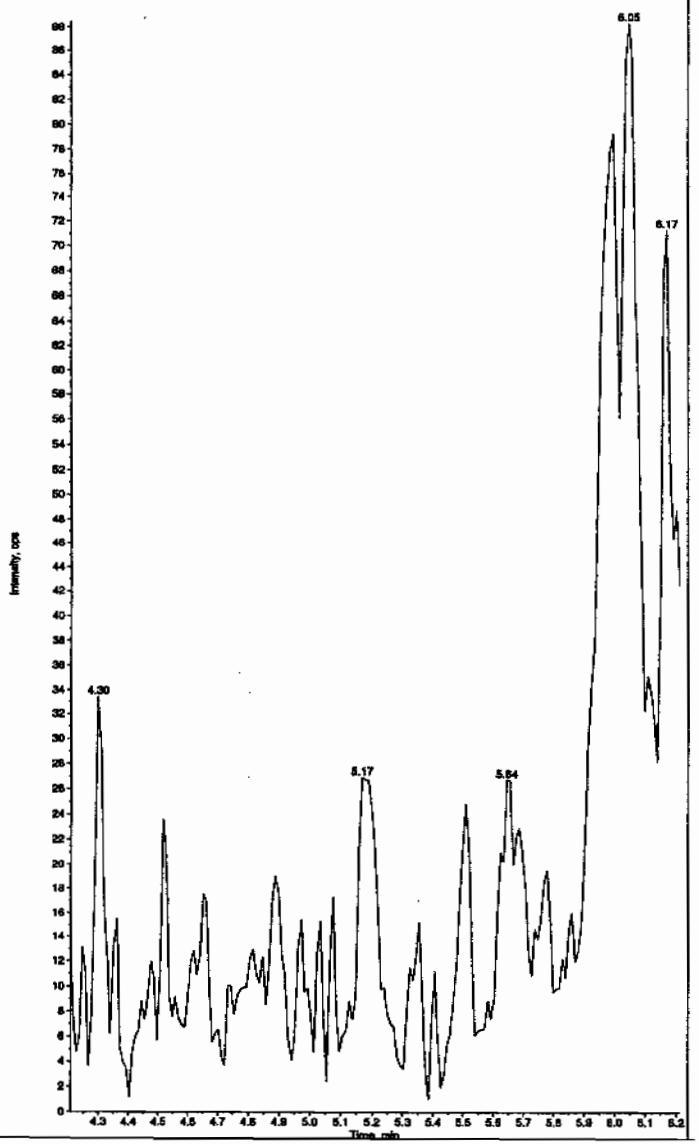

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Sample Name: "XIBLK05" Sample ID: "]1|LER" File: "EXS02120037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:51:42 PM

Modified: No

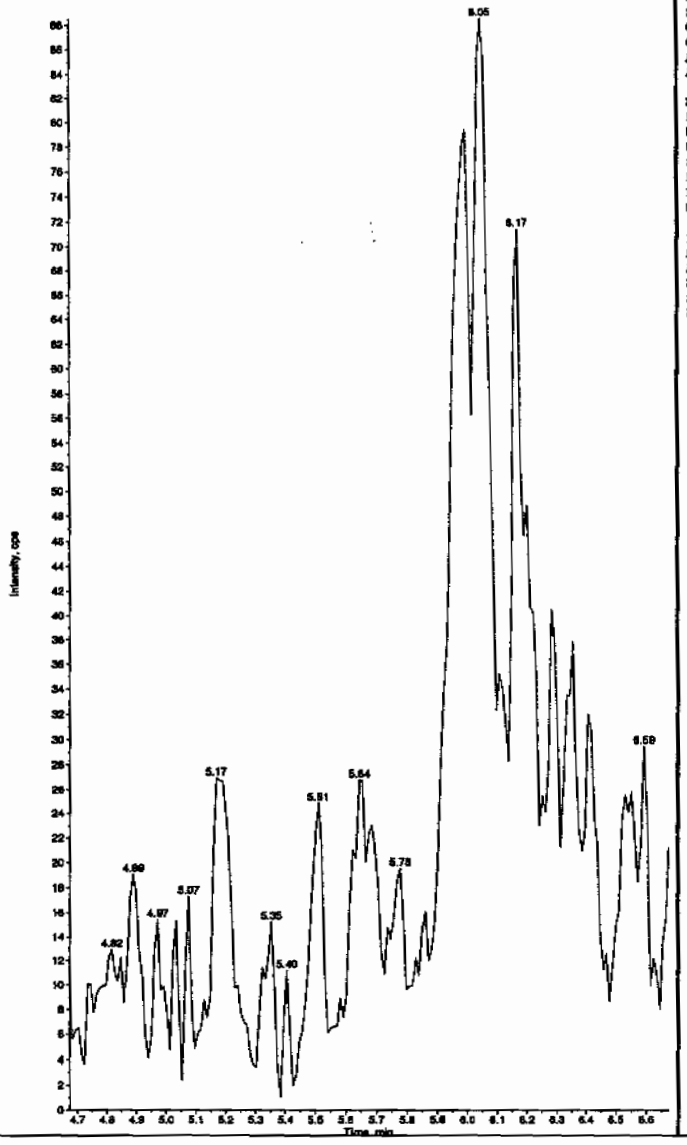

Sample Name: "XIBLK05" Sample ID: "]1|LER" File: "EXS02120037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/12/2010
Acq. Time: 8:51:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 6.84e+004 counts
Height: 16270.603 cps
Start Time: 10.9 min
End Time: 11.3 min

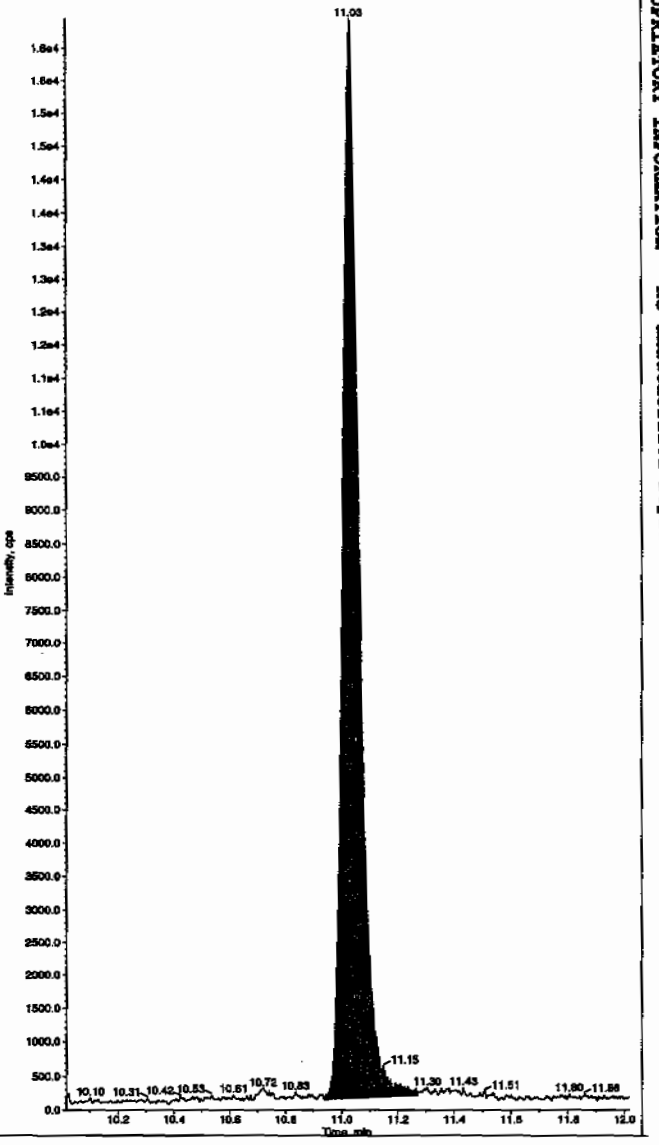

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1473

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 13–FEB–10 00:15

GEL Data File: EXS02120050.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sam 2/15/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02120050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:15:57 AM

Modified: No

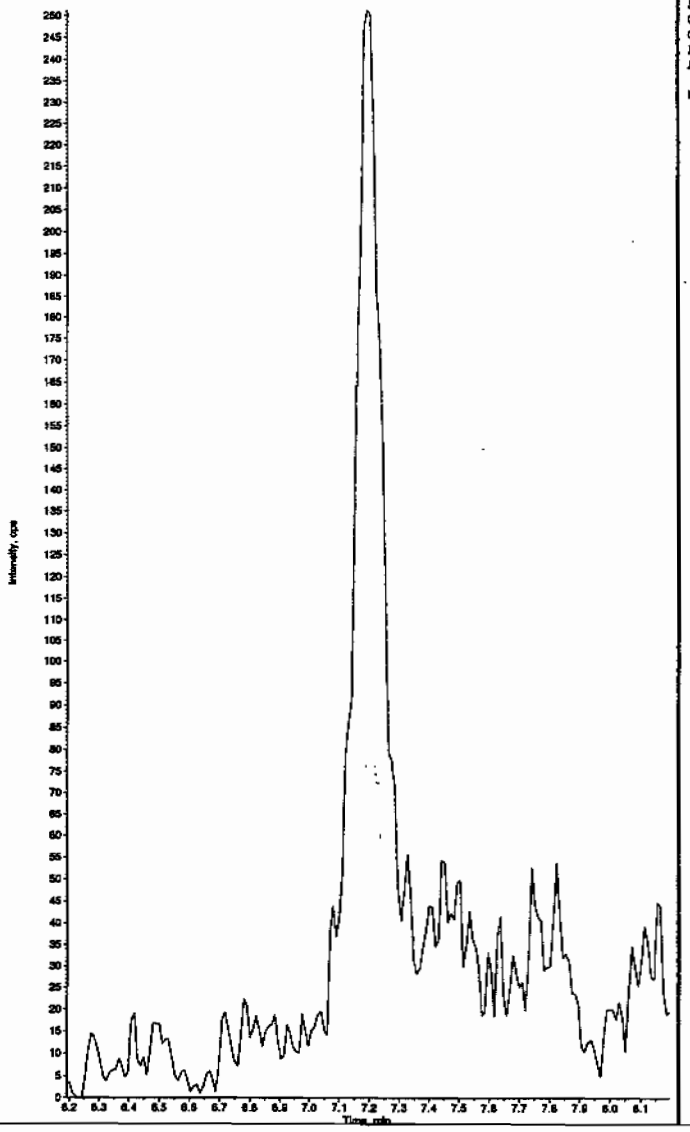

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02120050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:15:57 AM

Modified: No

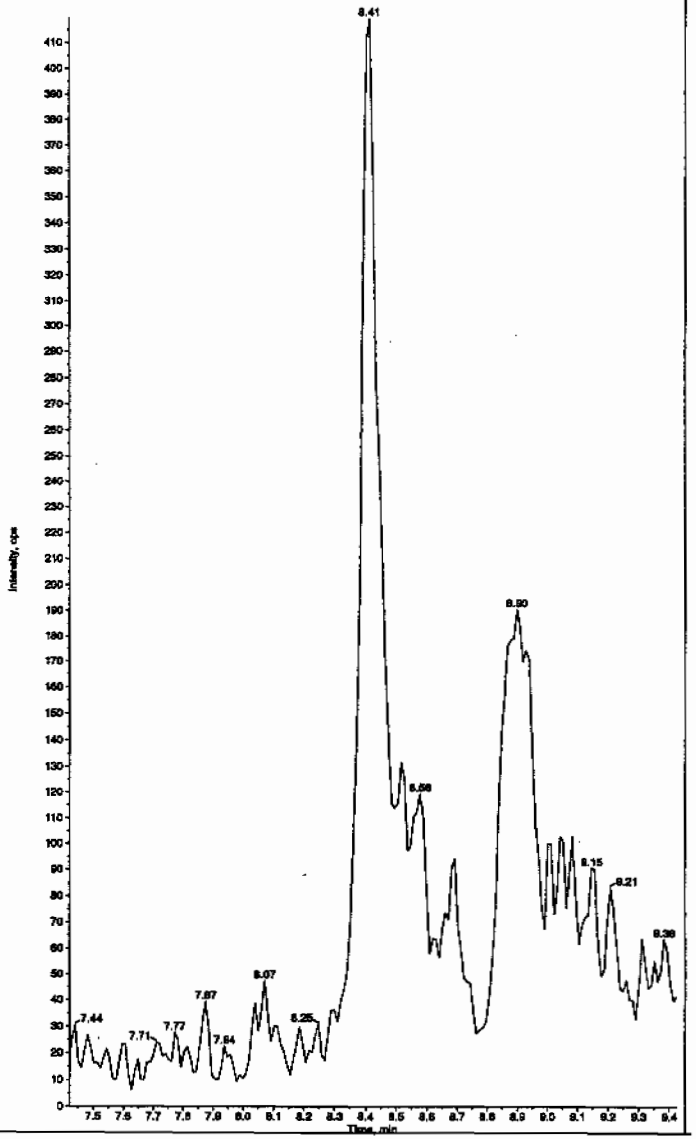

Hmm 02/15/10

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Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02120050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:15:57 AM

Modified: No

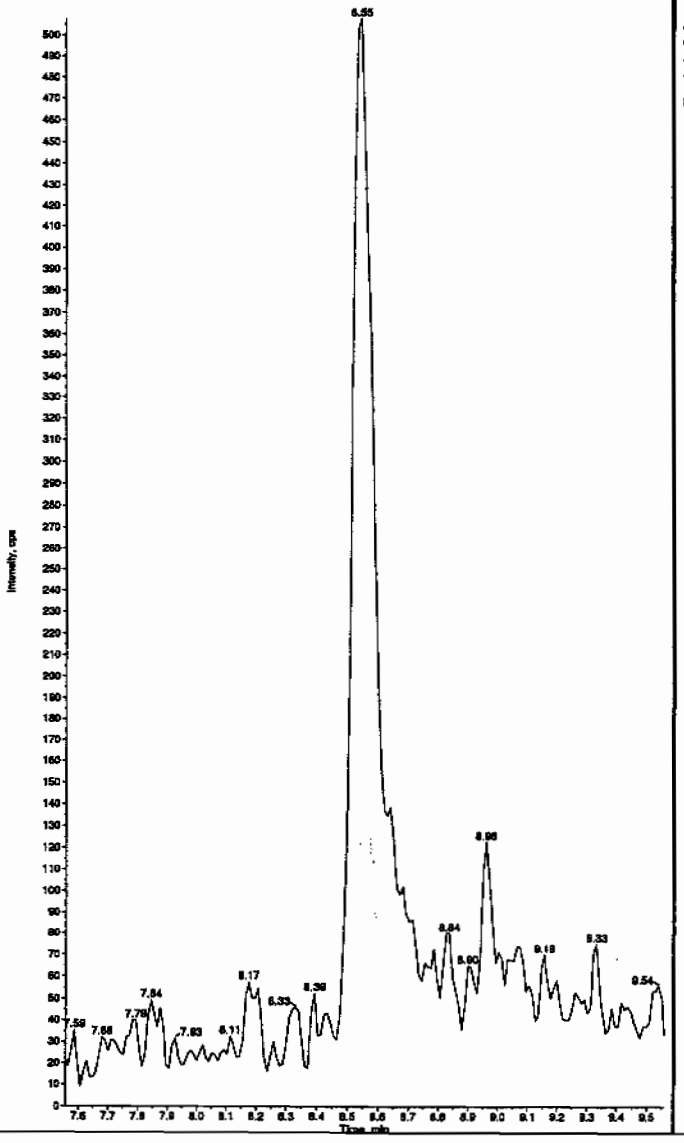

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02120050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:15:57 AM

Modified: No

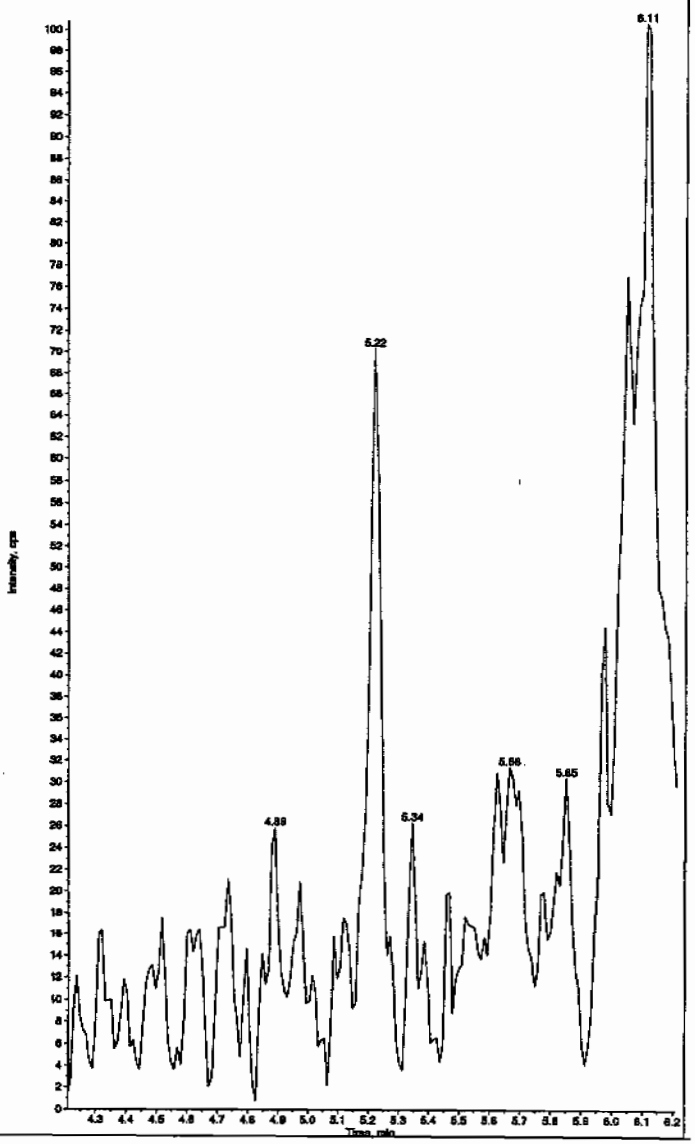

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Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02120050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:15:57 AM

Modified: No

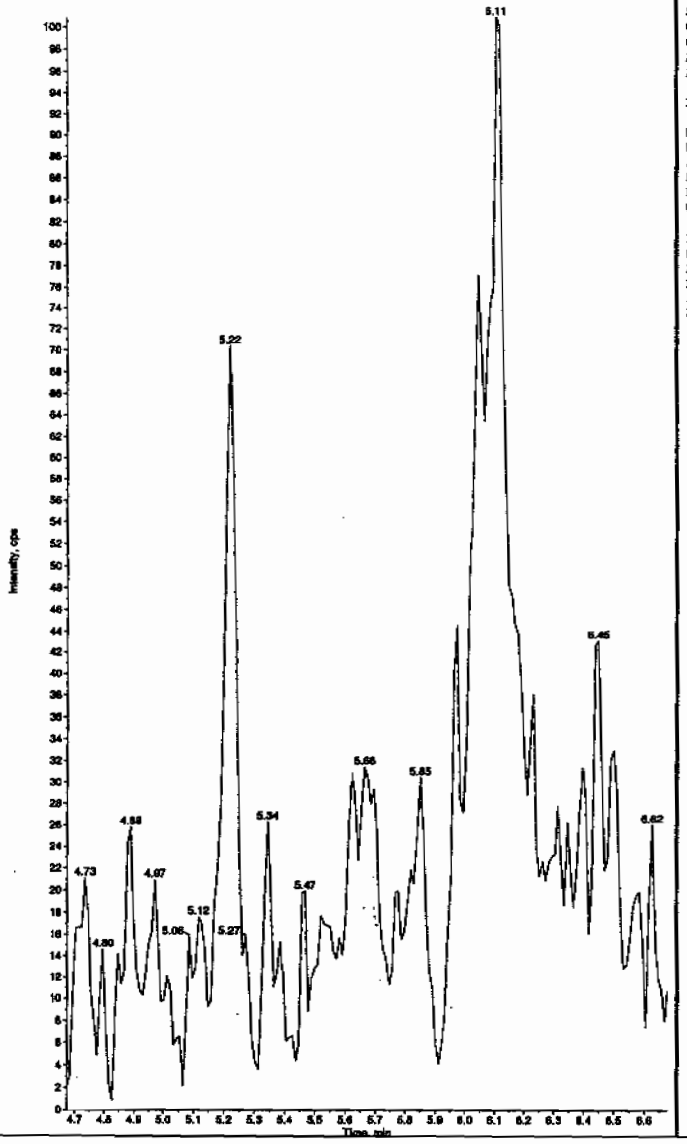

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02120050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/13/2010
Acq. Time: 12:15:57 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 6.50e+004 counts
Height: 14408.020 cps
Start Time: 10.9 min
End Time: 11.2 min

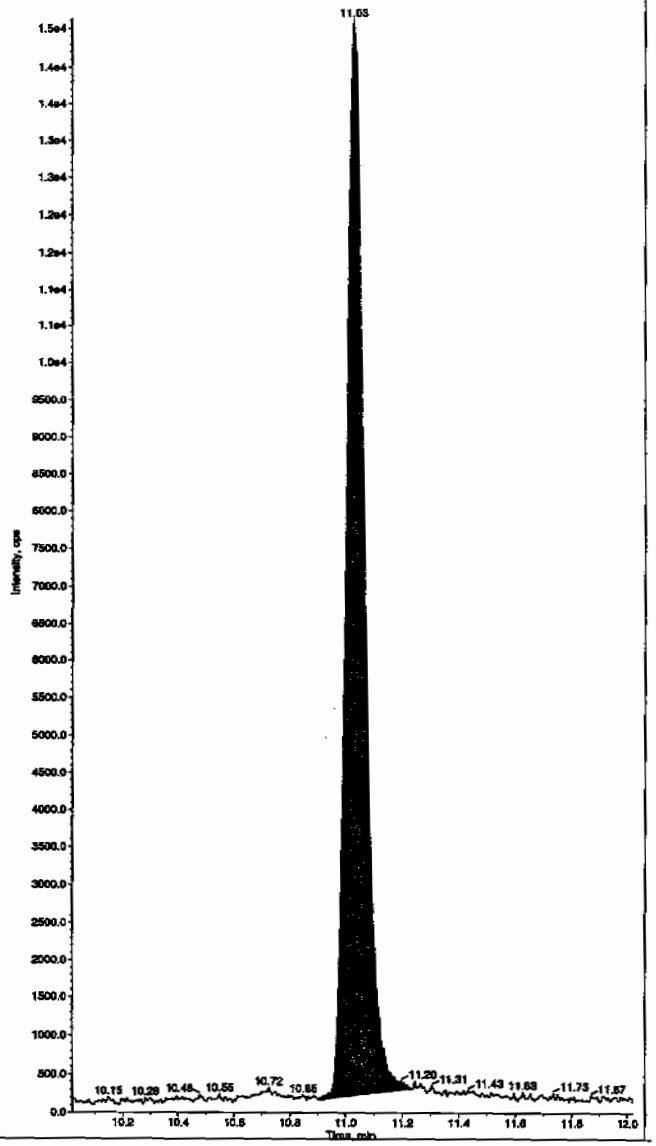

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1473

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 13-FEB-10 03:08

GEL Data File: EXS02120061.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lcm 2/15/10

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02120061.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:08:38 AM

Modified: No

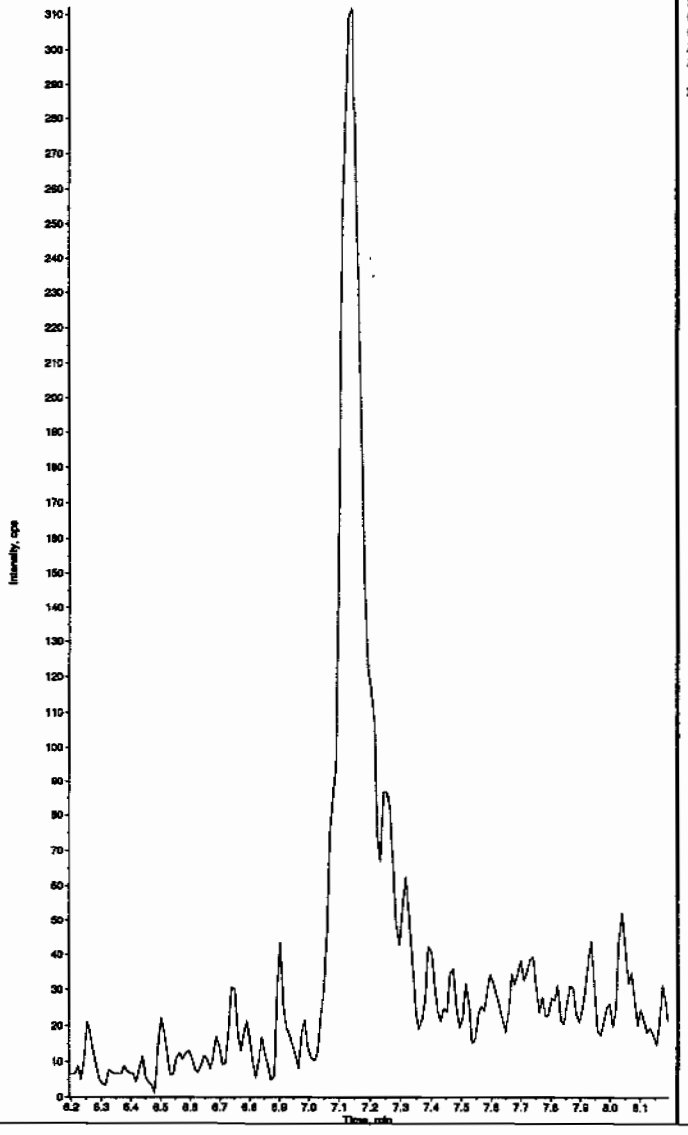

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02120061.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:08:38 AM

Modified: No

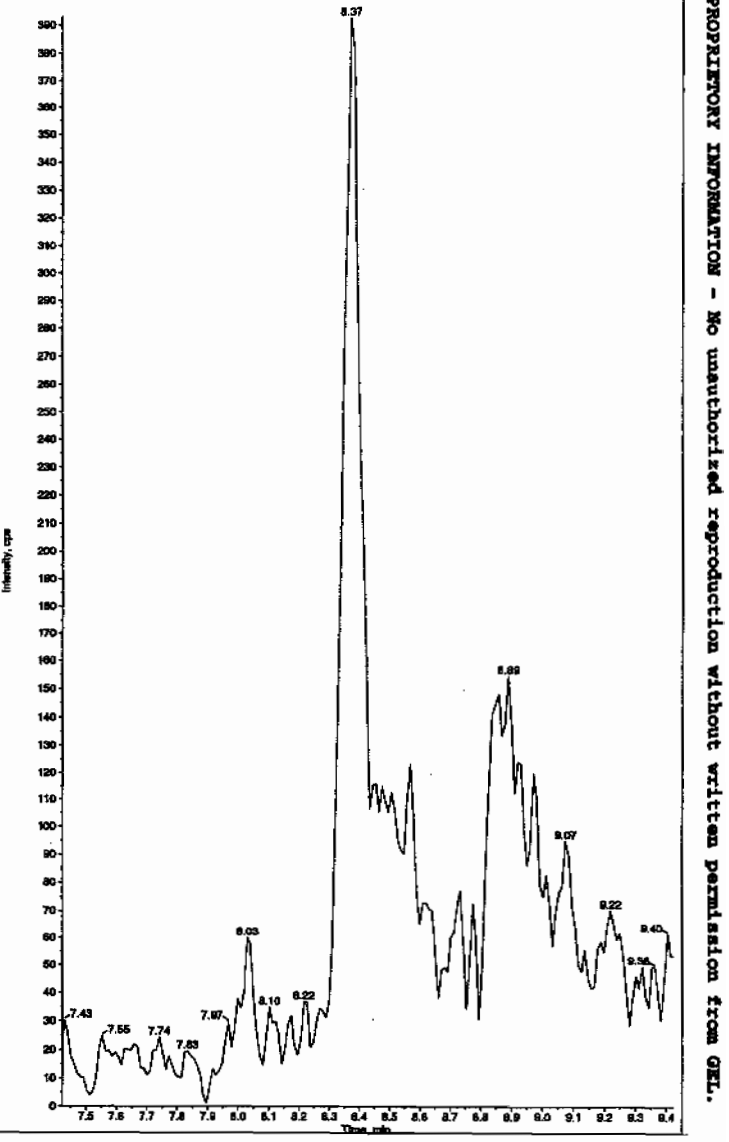

Hnm 02/15/10

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Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02120061.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:08:38 AM

Modified: No

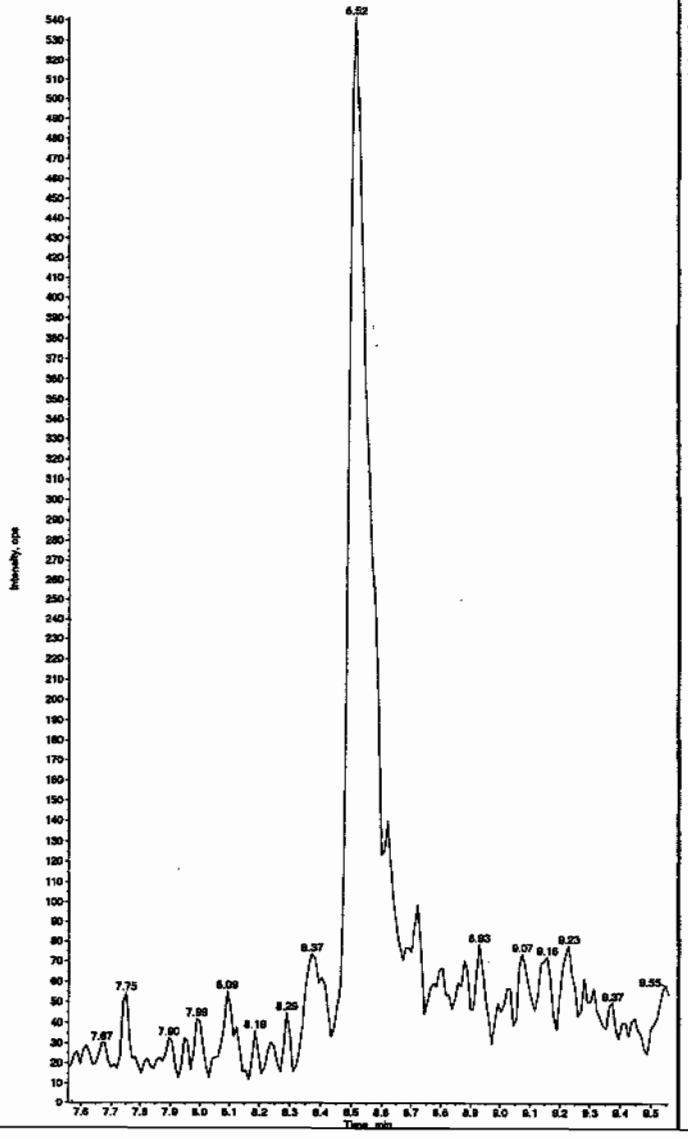

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02120061.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:08:38 AM

Modified: No

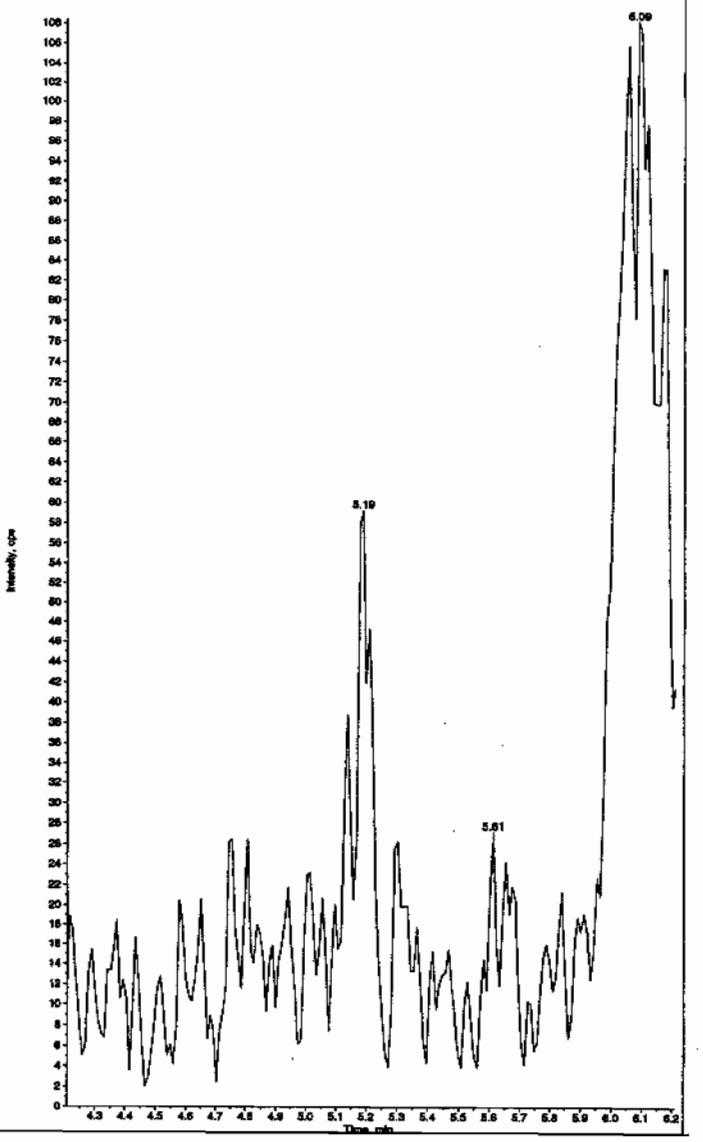

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02120061.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:08:38 AM

Modified: No

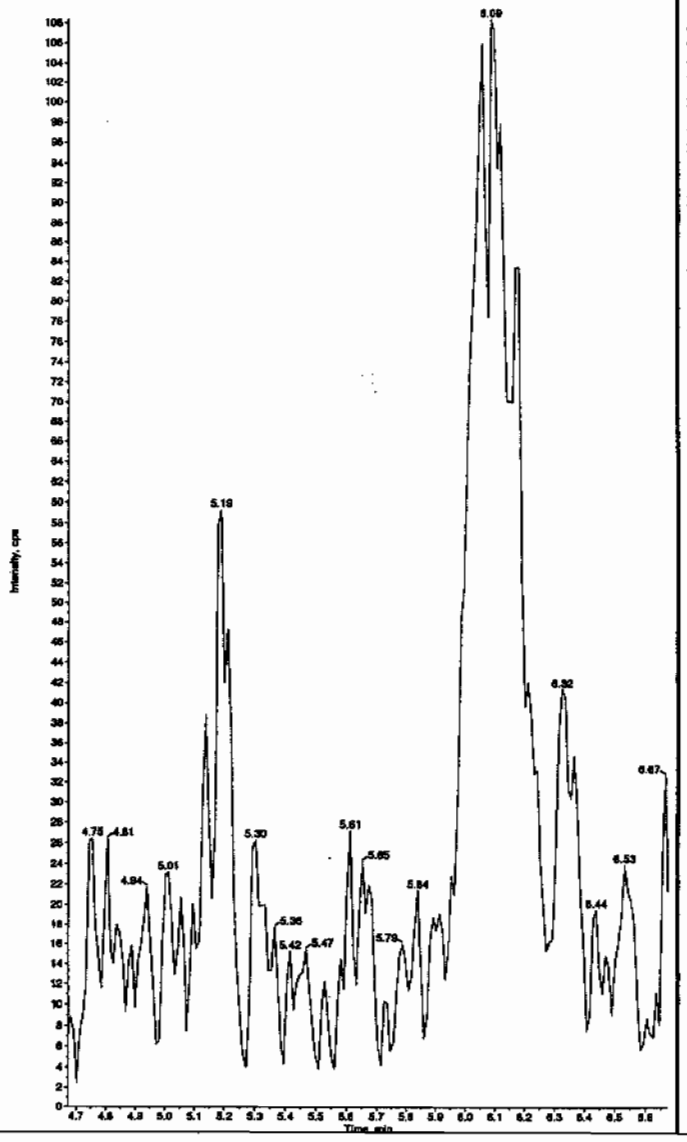

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02120061.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/13/2010
Acq. Time: 3:08:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 6.41e+004 counts
Height: 14054.829 cps
Start Time: 10.9 min
End Time: 11.2 min

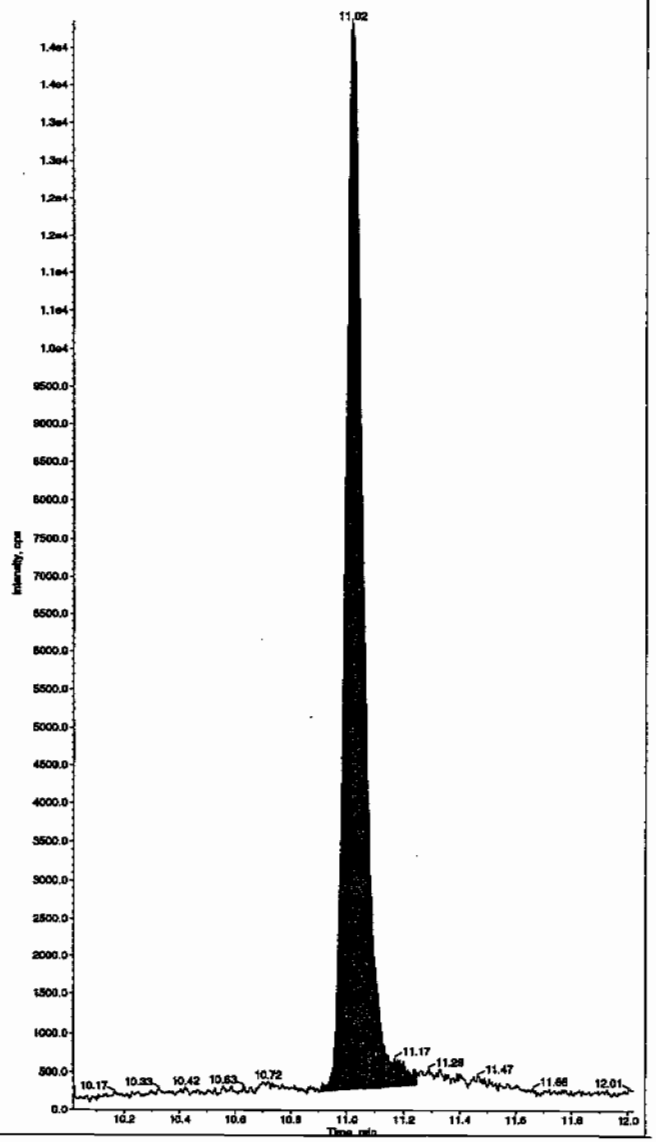

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

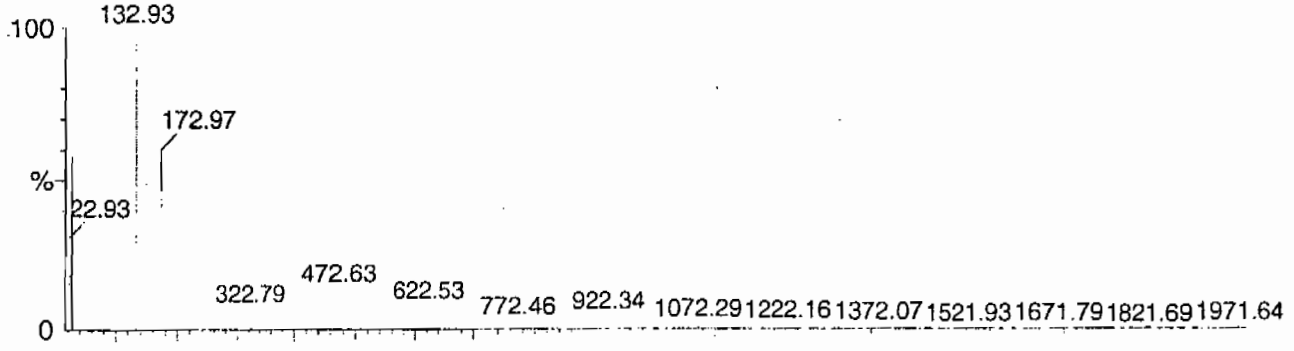

Reference file: Naics2

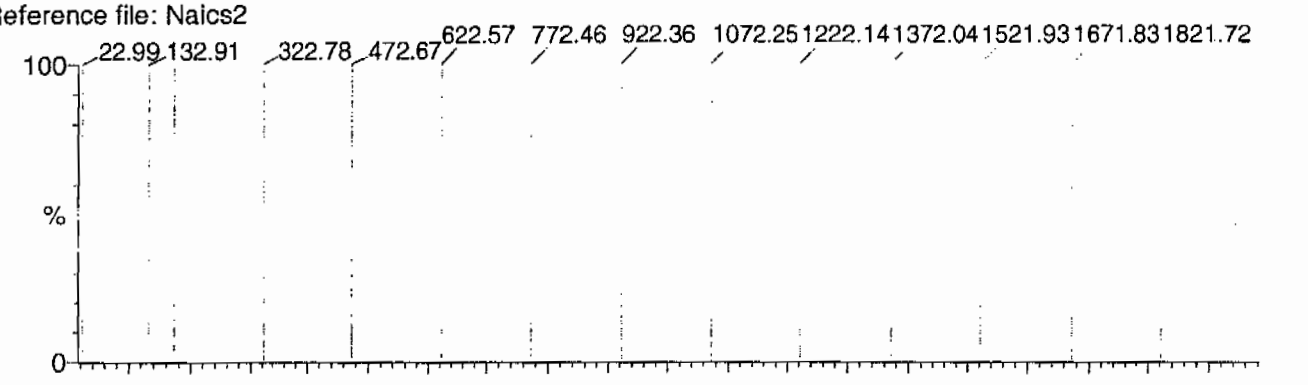

Mass difference (Raw - Ref mass)

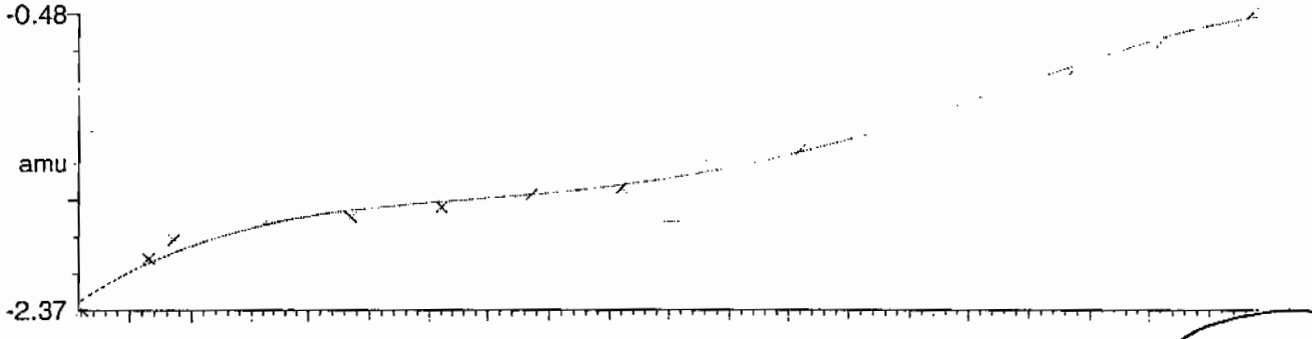

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
m

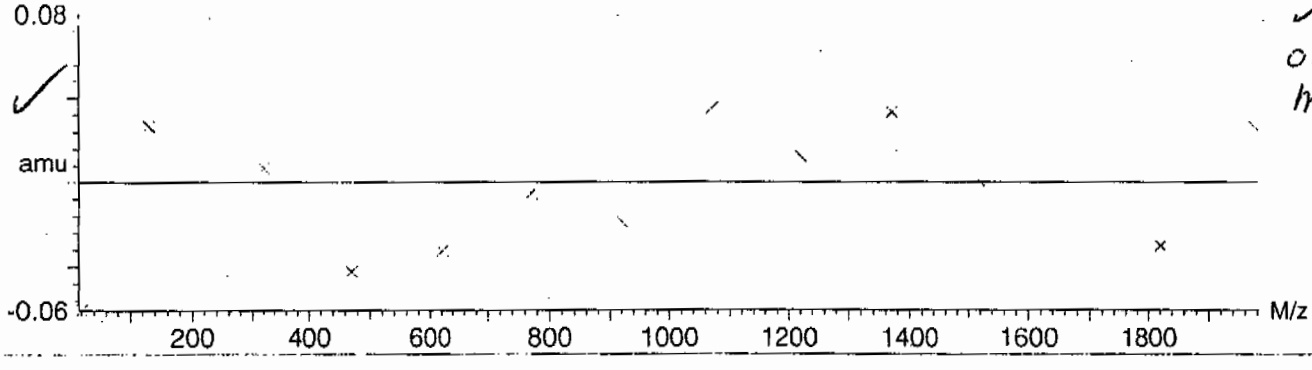

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

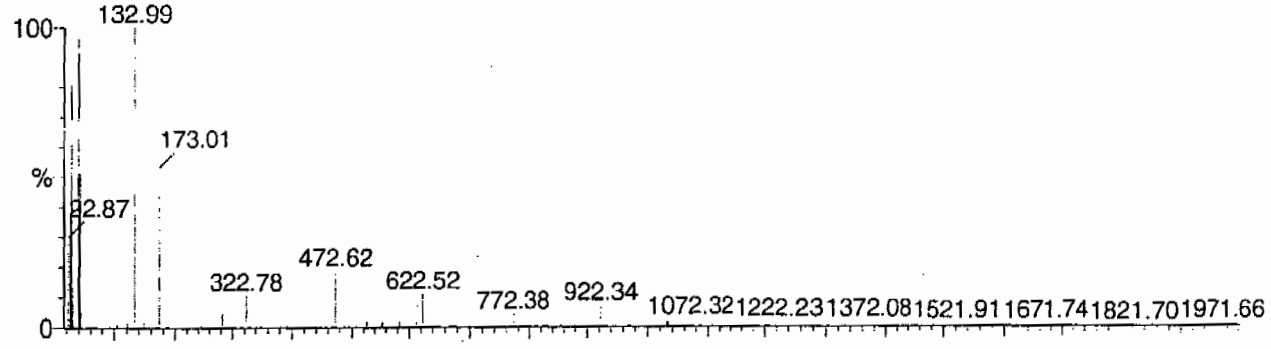

Reference file: Naics2

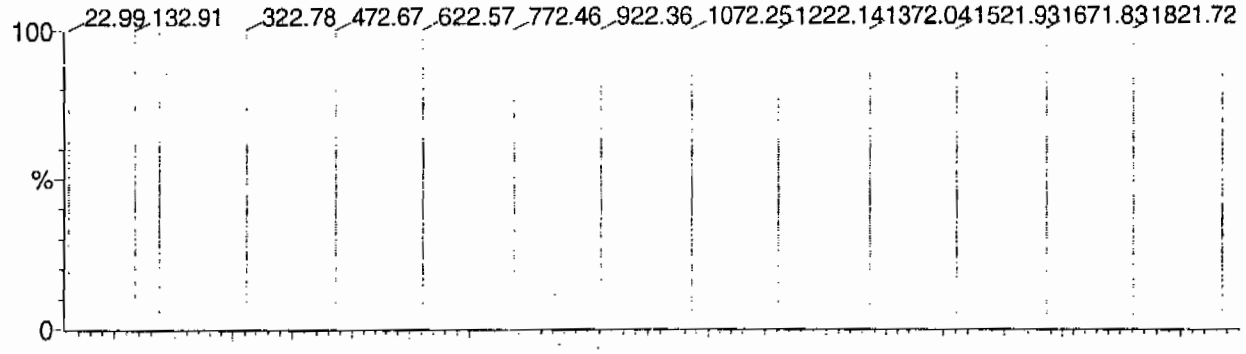

Mass difference (Raw - Ref mass)

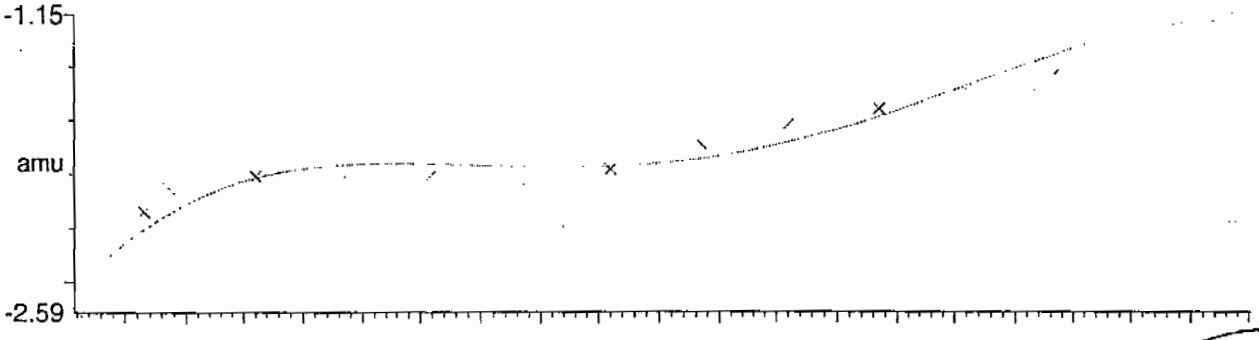

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

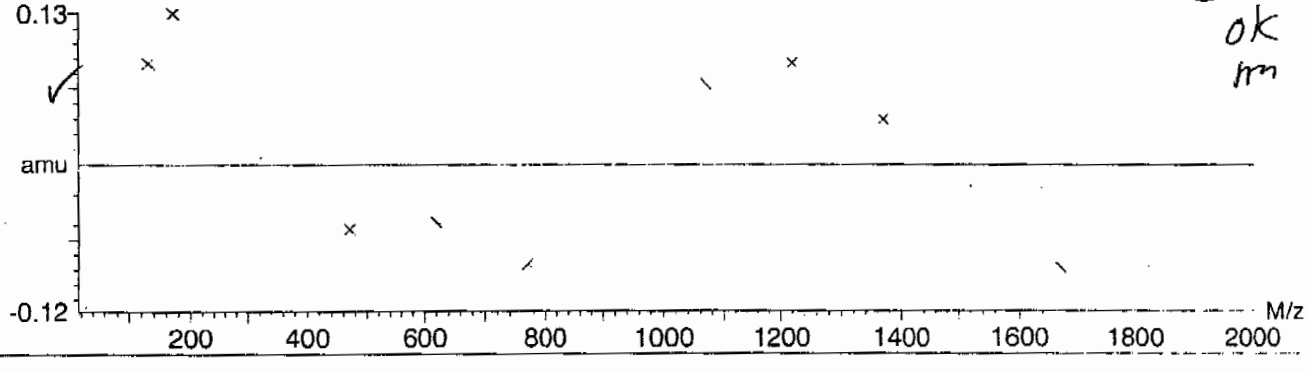

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

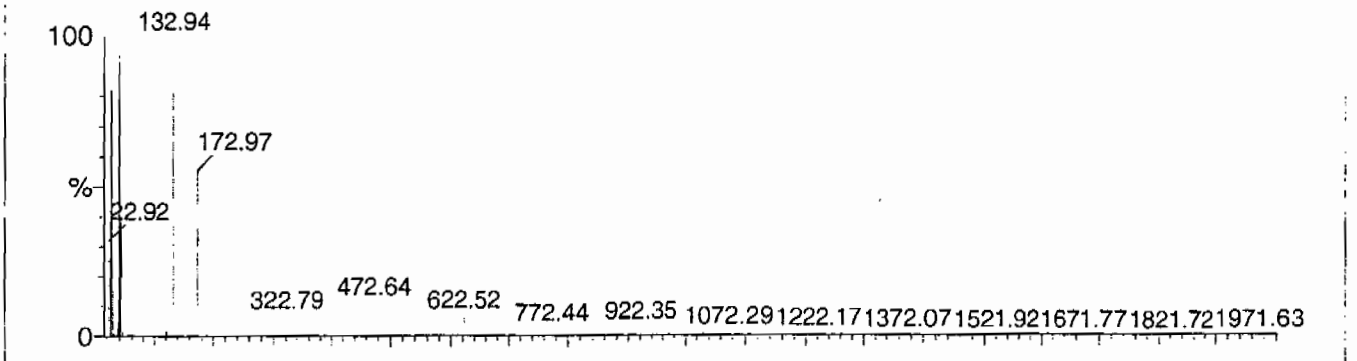

Reference file: Naics2

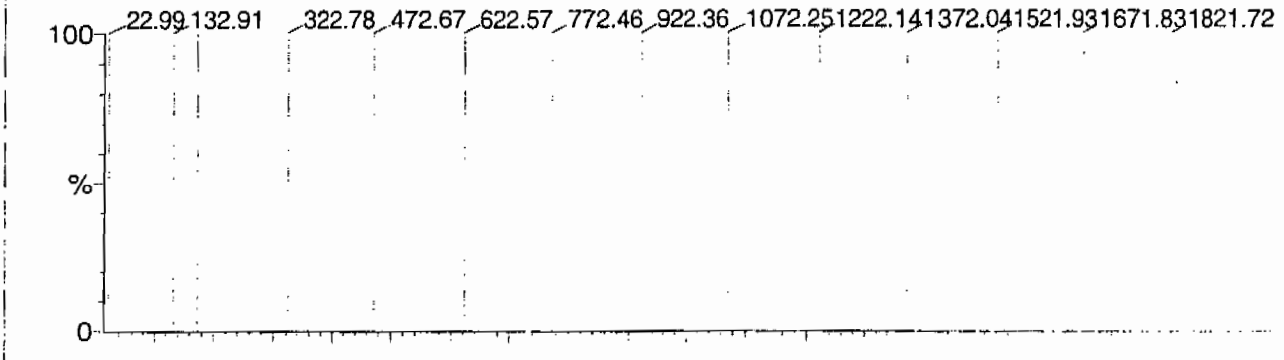

Mass difference (Raw - Ref mass)

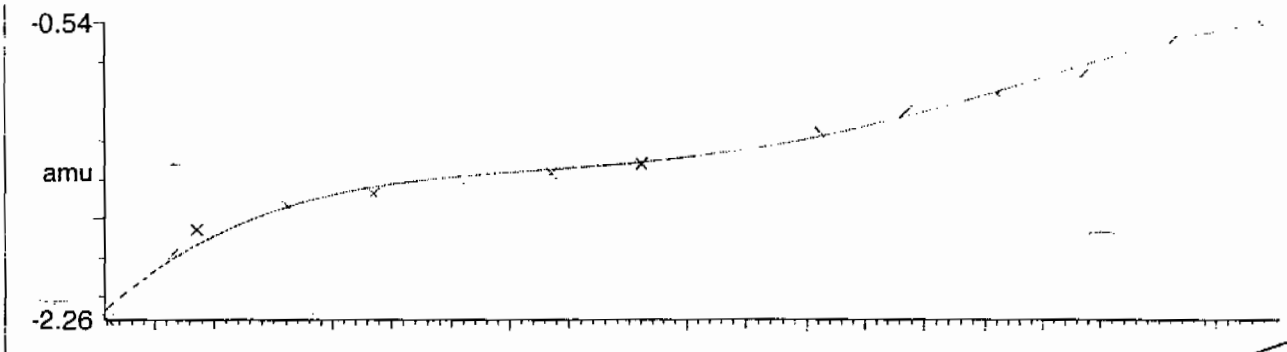

Residuals

Mean residual = 3.486639e-9 ± 0.040487

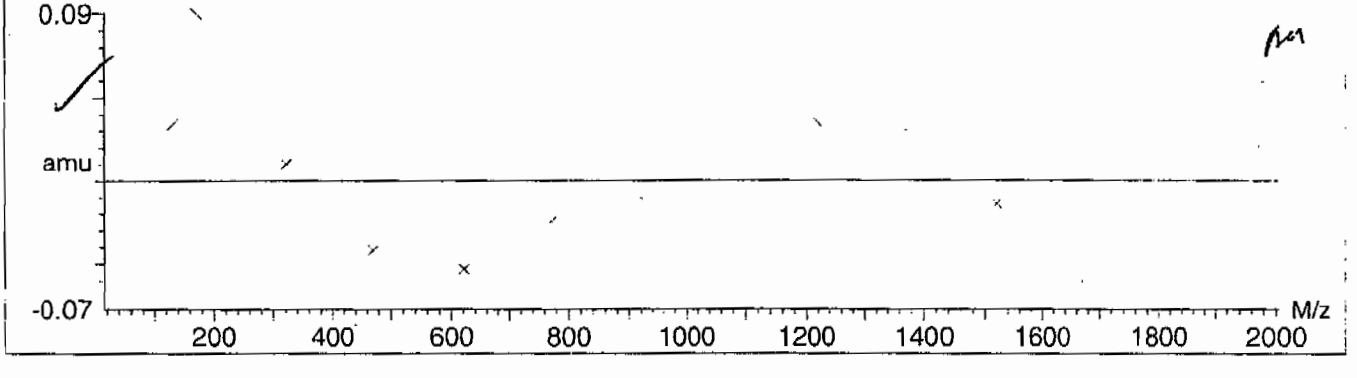

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

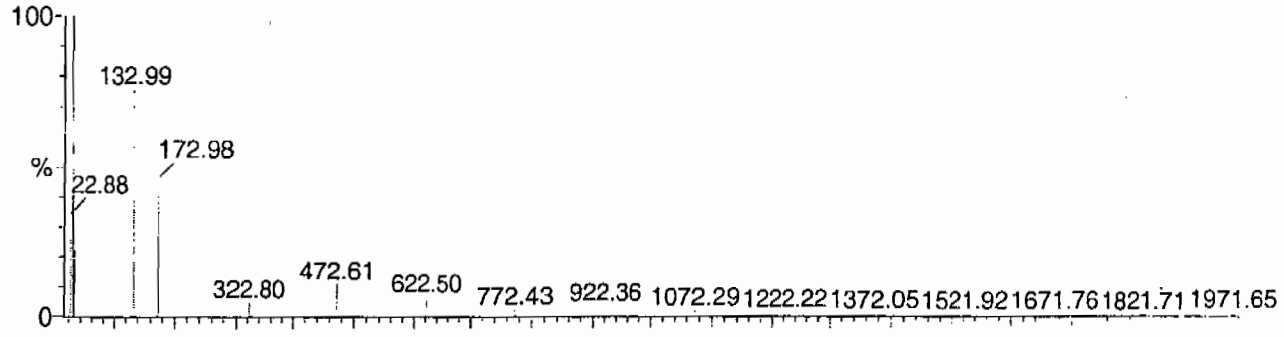

Reference file: Naics2

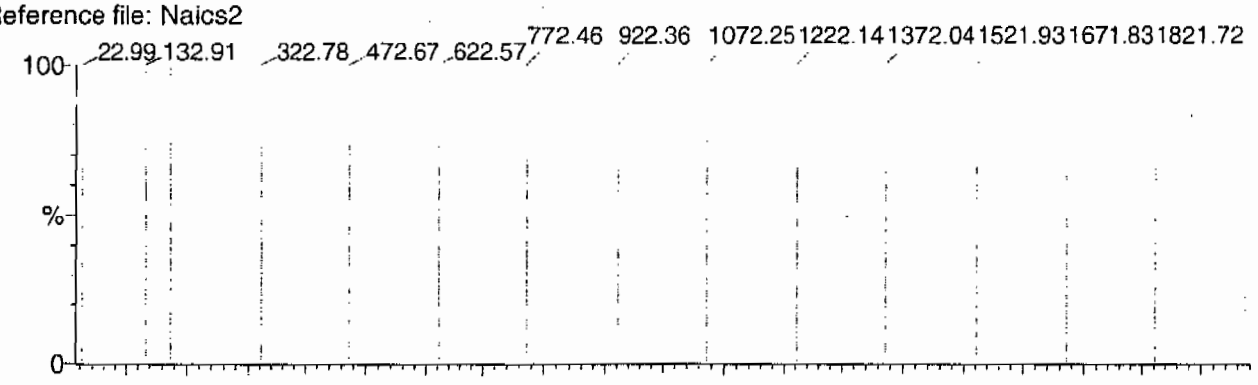

Mass difference (Raw - Ref mass)

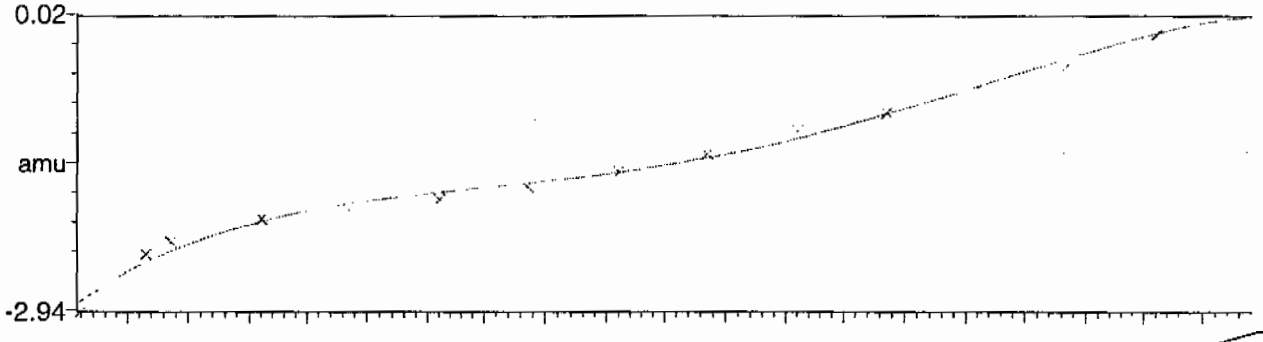

Residuals

Mean residual = 2.048910e-9 ± 0.057803

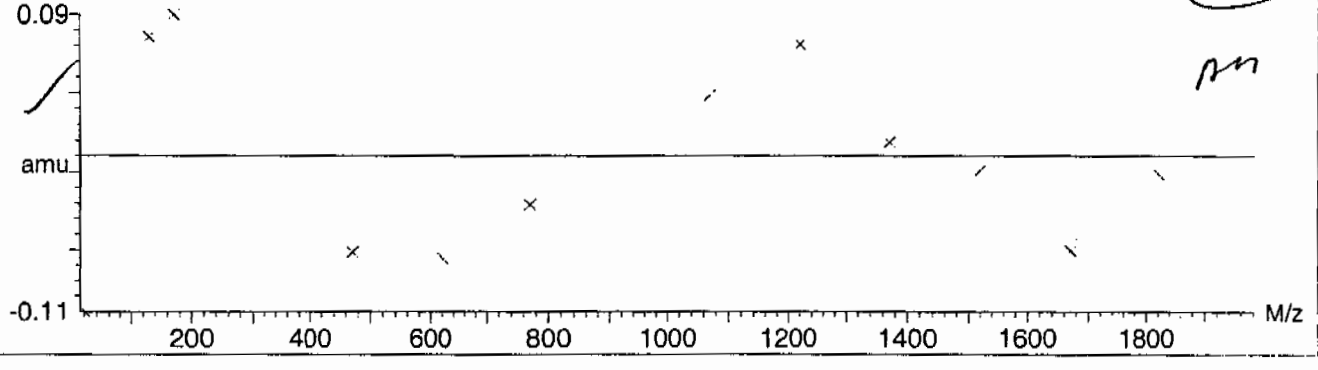

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

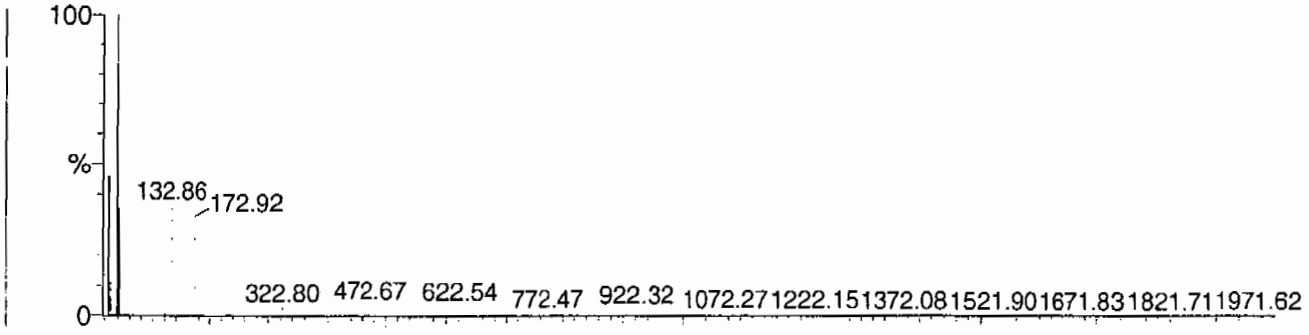

Reference file: Naics2

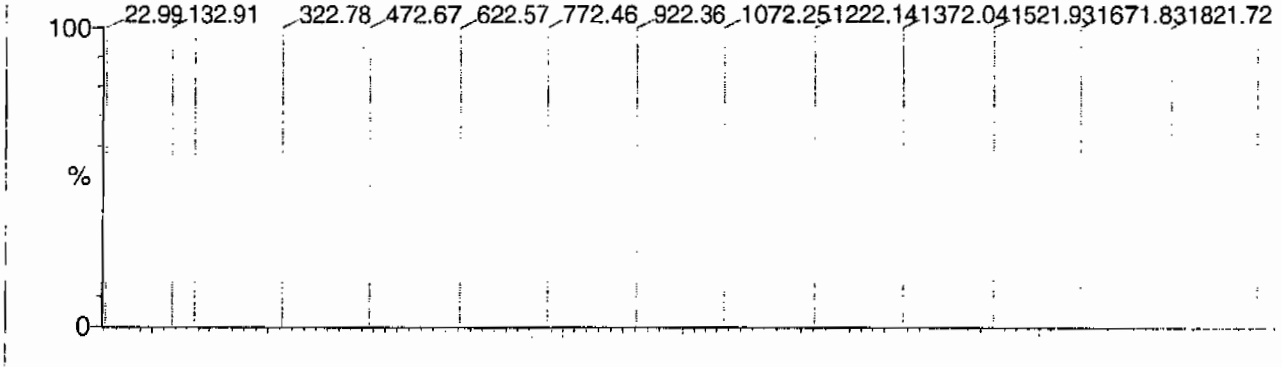

Mass difference (Raw - Ref mass)

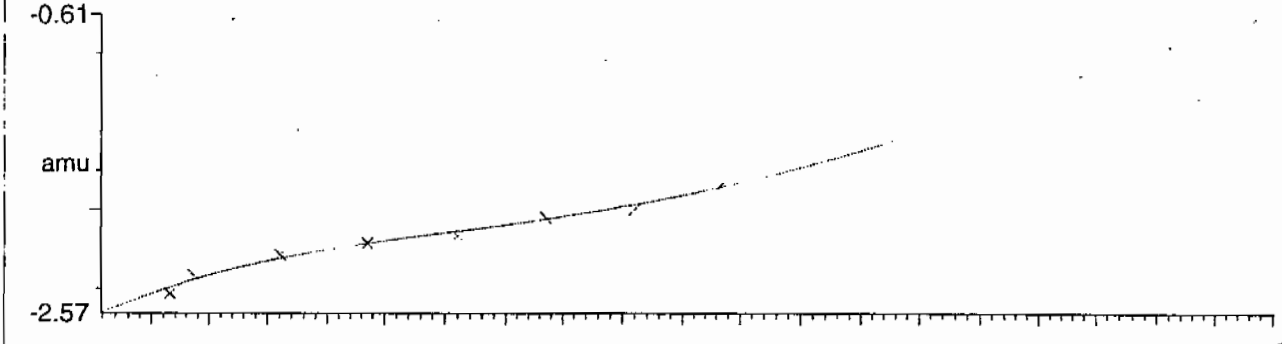

Residuals

Mean residual = -2.623502e-9 ± 0.025622

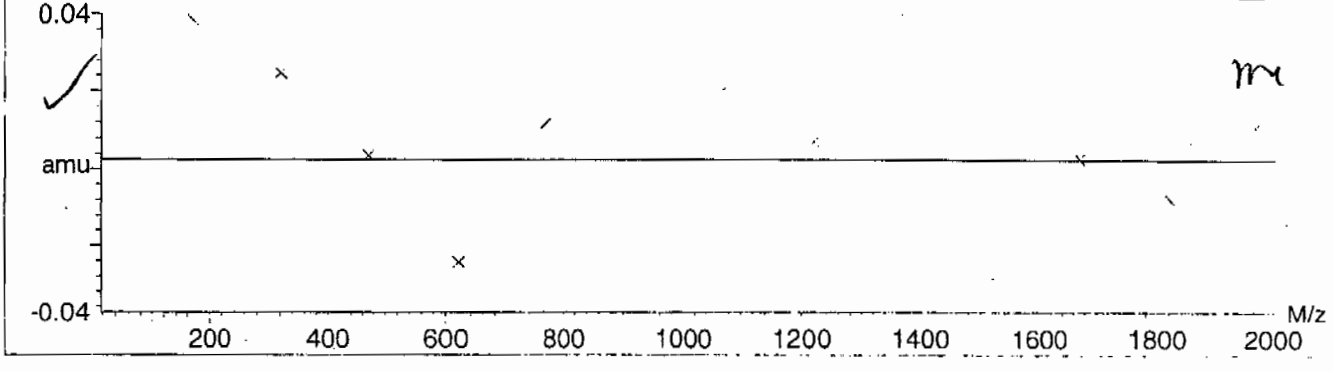

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

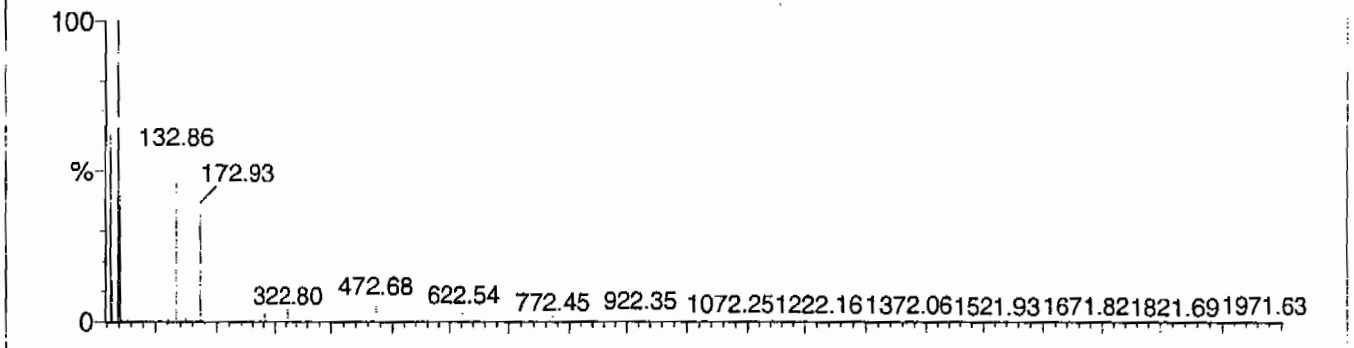

Reference file: Naics2

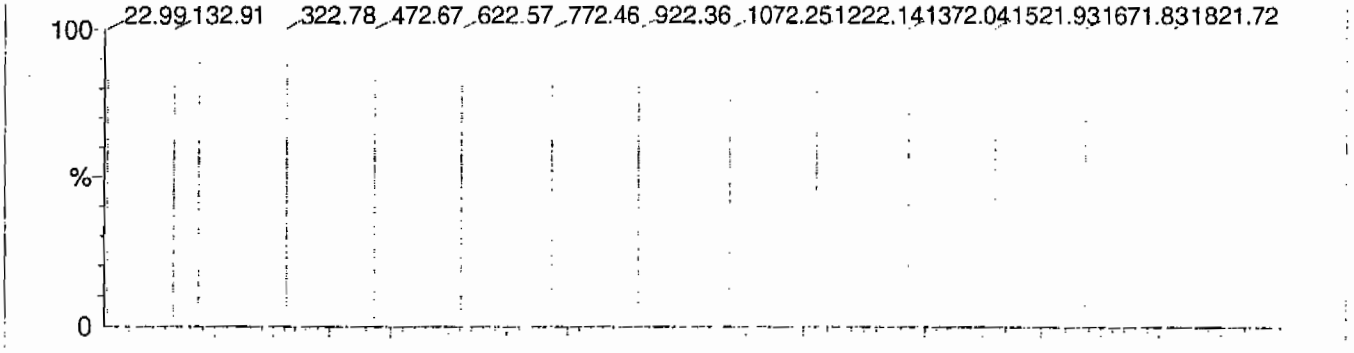

Mass difference (Raw - Ref mass)

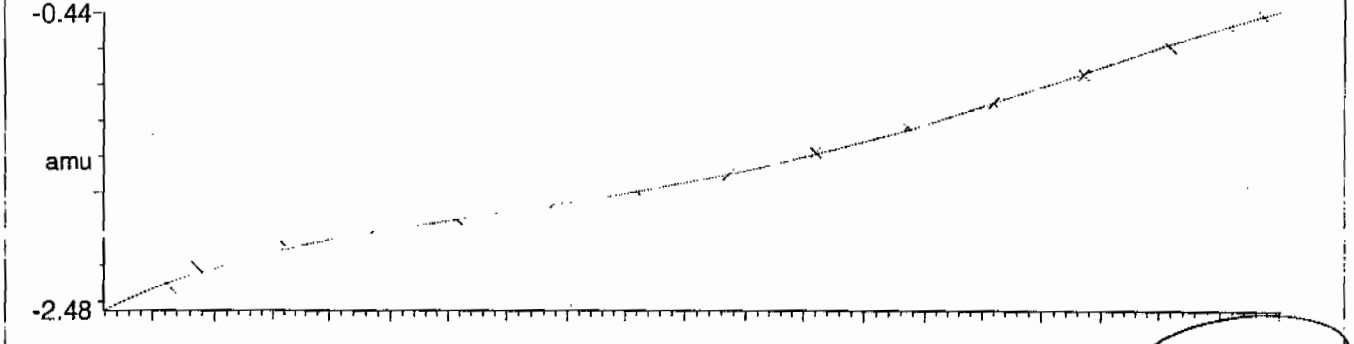

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

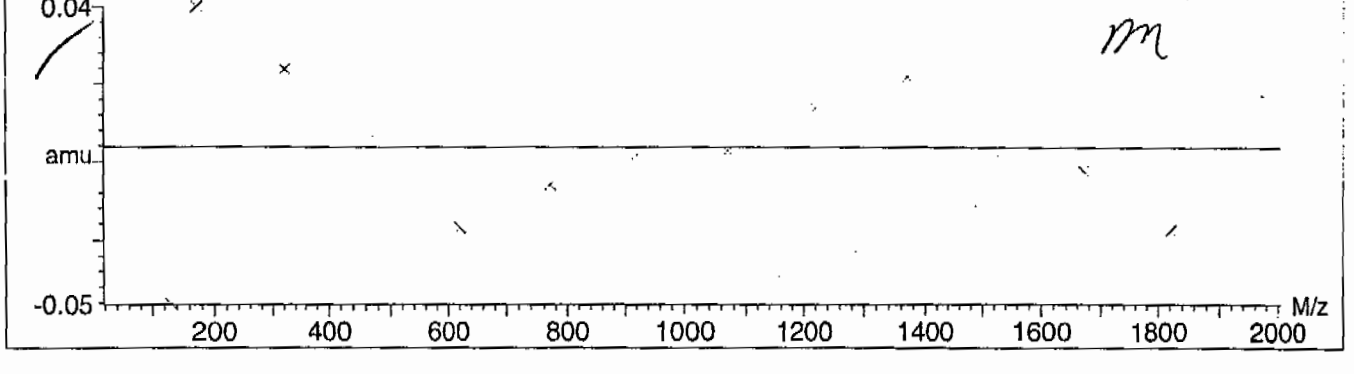

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.ipr

Printed : Mon Feb 08 14:05:58 2010

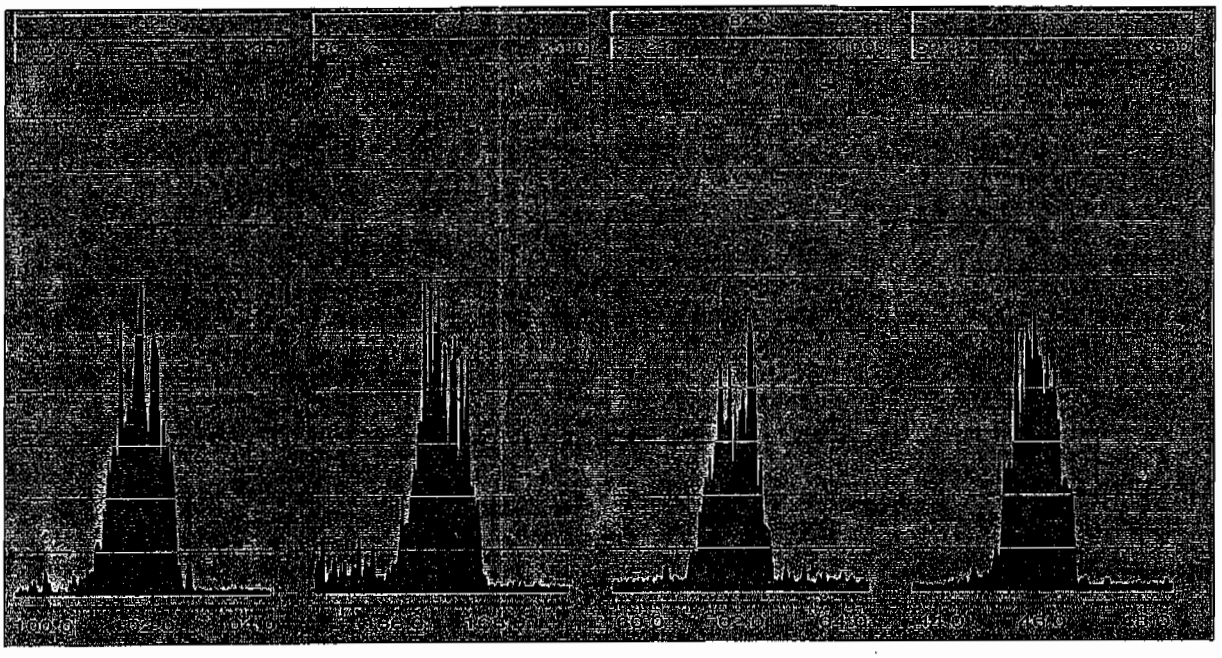

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3214.577	12.205	18459.667	17.697
Upper Limit			4178.9501	12.705	23997.5671	18.197
Lower Limit			2250.2039	11.705	12921.7669	17.197
MB for batch 947080	11–feb–10 19:57	EXP0208158a	3195.32	12.07	17686.6	17.485
LCS for batch 947080	11–feb–10 20:27	EXP0208159a	3355.93	12.103	20751.2	17.485
RE15–10–7954	12–feb–10 02:21	EXP0208171a	2935.51	12.071	15398.5	17.465
RE15–10–7956	12–feb–10 02:50	EXP0208172a	2780.03	12.068	17628.5	17.465
RE15–10–7955	12–feb–10 03:20	EXP0208173a	2836.14	12.068	17081	17.466
RE15–10–7953	12–feb–10 03:50	EXP0208174a	2962.39	12.067	16734.3	17.465
RE15–10–7952	12–feb–10 04:19	EXP0208175a	2580.03	12.068	15516.4	17.466
RE15–10–8060	12–feb–10 04:49	EXP0208176a	3367.28	12.068	20937.7	17.462
RE15–10–8058	12–feb–10 05:18	EXP0208177a	3018.93	12.071	17477.3	17.465
RE15–10–8059	12–feb–10 05:48	EXP0208178a	2916.95	12.071	17148.5	17.464

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7954

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208171a

Date Analyzed: 12-FEB-10 02:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208171a
Date: 12-Feb-2010
Time: 02:21:21
ID: 245803001 | LANL | 947084 | Soil | 2 |
Vial: 4:2,E

MAP 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.265e+003

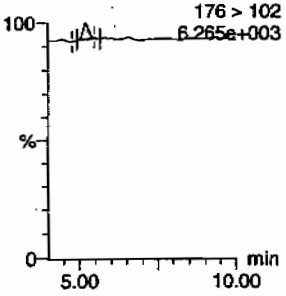

RDX
F2:MRM of 1 channel,AP-
5.20
176 > 102
6.265e+003

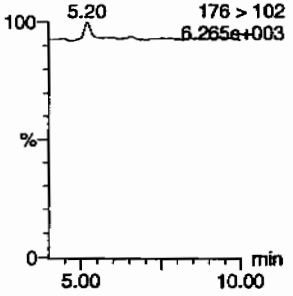

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.797e+003

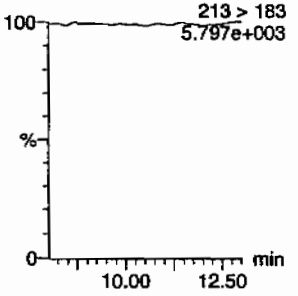

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.272e+004

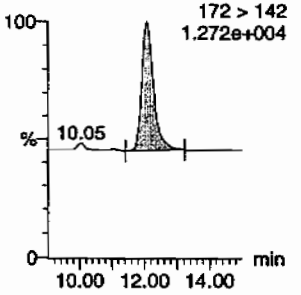

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.790e+003

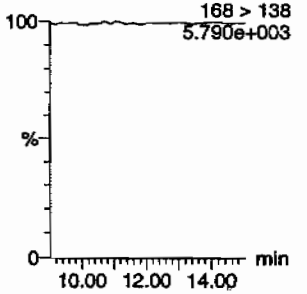

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.782e+003

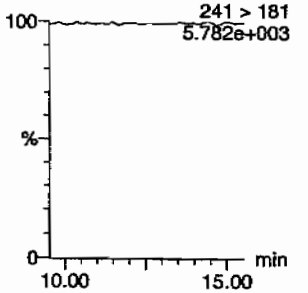

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.792e+003

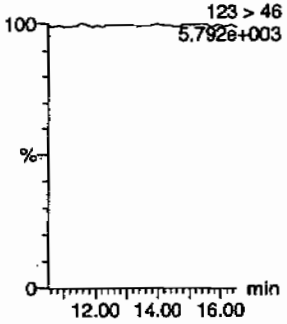

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.823e+003

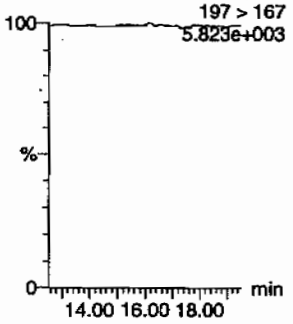

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.812e+003

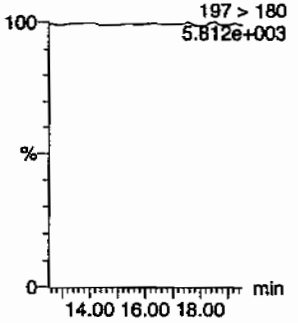

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.802e+003

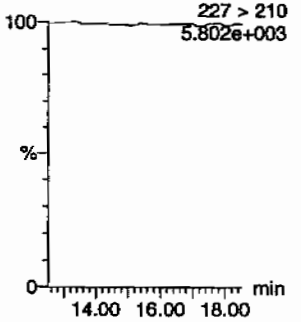

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.241e+004

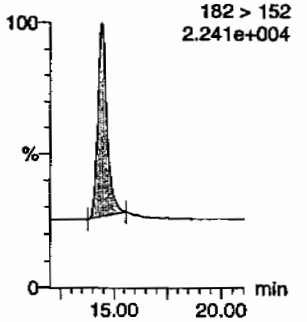

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.42
182 > 152
2.241e+004

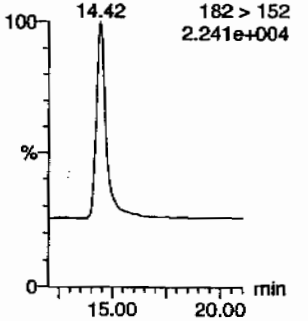

Hmm 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

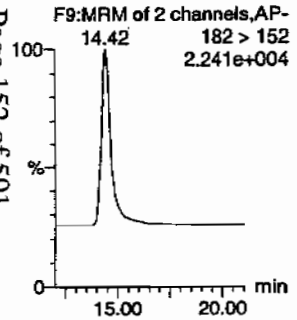

26-dinitrotoluene-d3

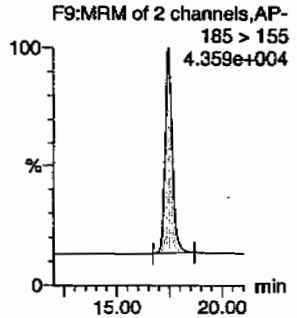

2-Nitrotoluene

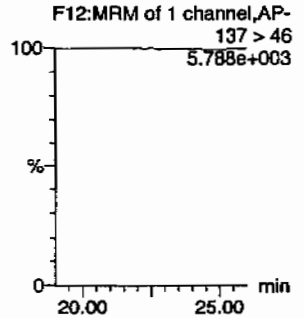

4-Nitrotoluene

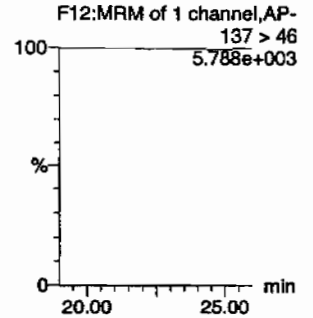

3-Nitrotoluene

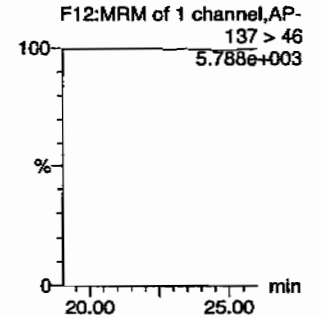

PETN

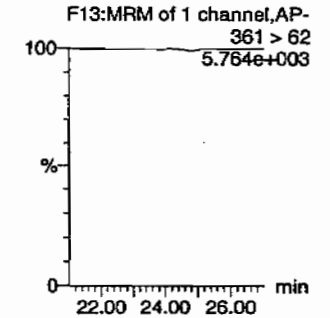

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Ng/ml	%Rec	%Dev	S/N
245803001	HMX	176 > 102	5.20	104.907	2935.507	104.907	17.869	MM	12-Feb-10	07:53:41	5.1453			13.5
245803001	RDX	176 > 102			2935.507									
245803001	135-Trinitrobenzene	213 > 183			2935.507									
245803001	13-Dinitrobenzene-d4	172 > 142	12.07	2935.507		2935.507	2935.507	bb			456.5935	91.3	-8.7	618.1
245803001	13-Dinitrobenzene	168 > 138			2935.507									
245803001	Tetryl	241 > 181			2935.507									
245803001	Nitrobenzene	123 > 46			2935.507									
245803001	4-Amino-26-dinitrotoluene	197 > 167			15398.510									
245803001	2-Amino-46-dinitrotoluene	197 > 180			15398.510									
245803001	246-Trinitrotoluene	227 > 210			15398.510									
245803001	34-dinitrotoluene	182 > 152	14.42	8101.174	15398.510	8101.174	263.051	bb			292.2810	116.9	16.9	557.9
245803001	26-dinitrotoluene	182 > 152			15398.510									
245803001	24-dinitrotoluene	182 > 152			15398.510									
245803001	26-dinitrotoluene-d3	185 > 155	17.46	15398.510		15398.510	15398.510	bb			417.0849	83.4	-16.6	1545.1
245803001	2-Nitrotoluene	137 > 46			15398.510									
245803001	4-Nitrotoluene	137 > 46			15398.510									
245803001	3-Nitrotoluene	137 > 46			15398.510									
245803001	PETN	361 > 62			15398.510									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7954

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120052.wiff

Date Analyzed: 13-FEB-10 00:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sam 2/15/10

Sample Name: "245803001" Sample ID: "947084|2|LER" File: "EXS02120052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:47:20 AM

Modified: No

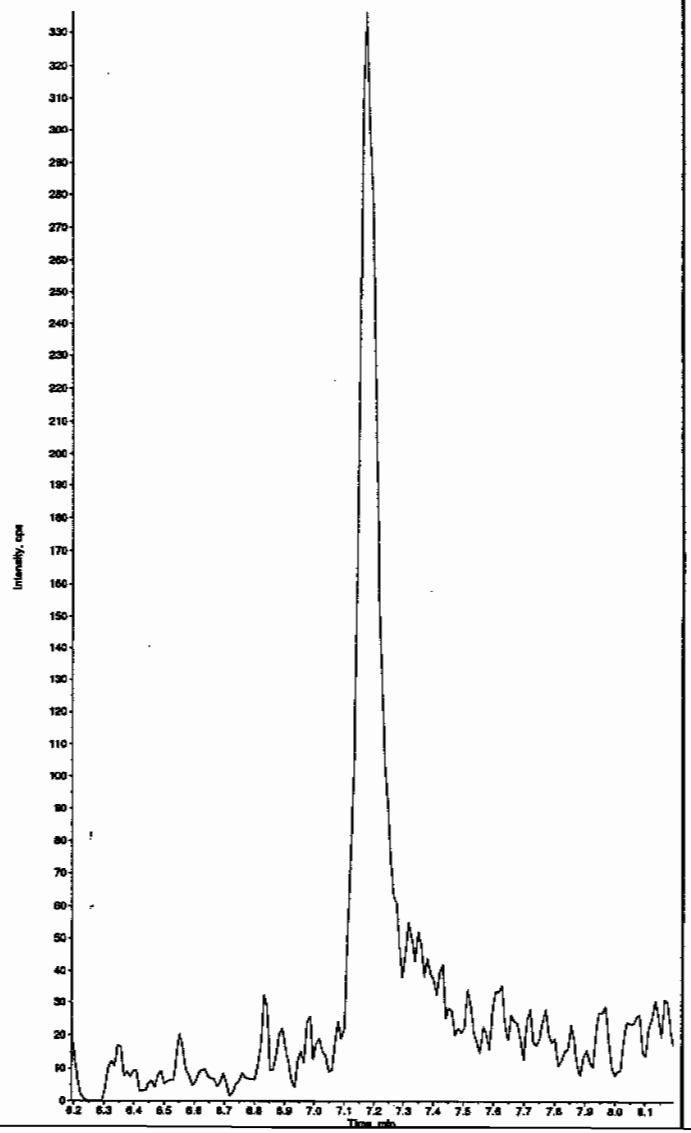

Sample Name: "245803001" Sample ID: "947084|2|LER" File: "EXS02120052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:47:20 AM

Modified: Yes

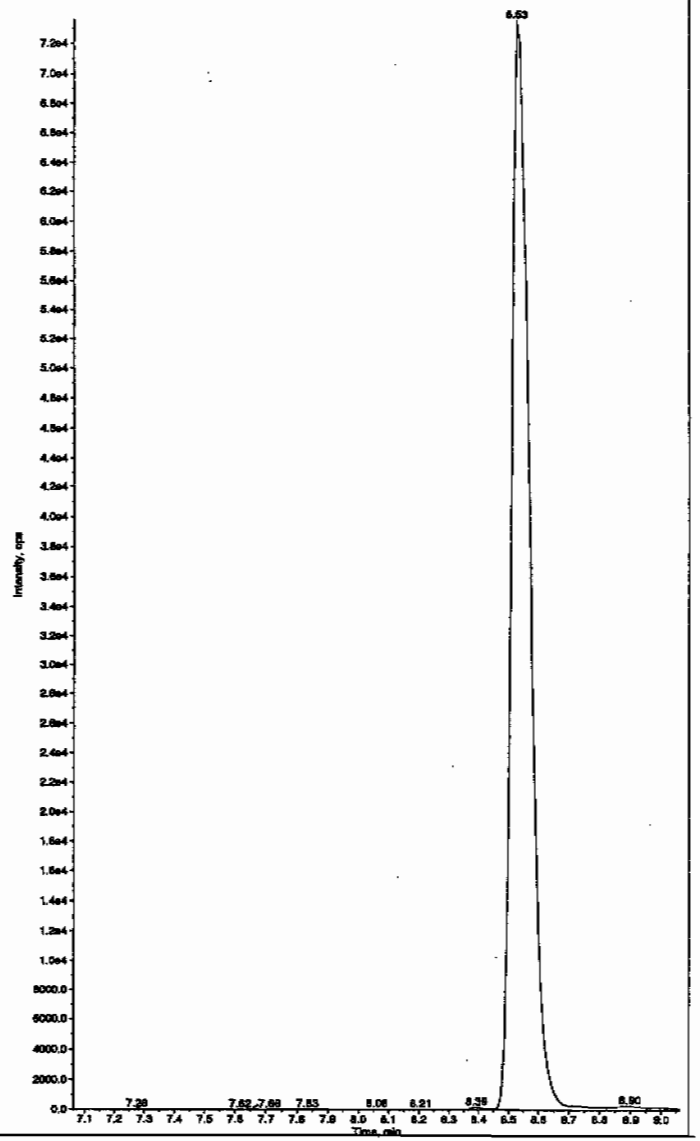

Hmm 02/16/10

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Sample Name: "245803001" Sample ID: "947084[2]LER" File: "EXS02120052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 293. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:47:20 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Max. Peak Height: 1460.00 cps
Avg. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 3.29e+006 counts
Height: 831807.190 cps
Start Time: 8.42 min
End Time: 8.94 min

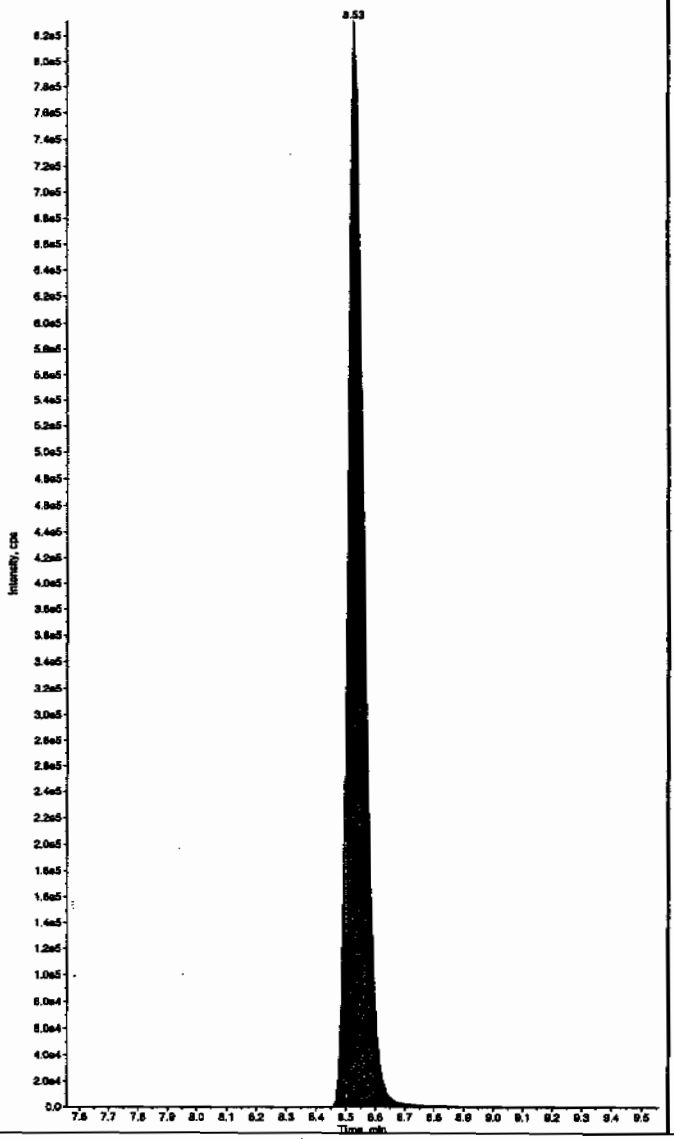

Sample Name: "245803001" Sample ID: "947084[2]LER" File: "EXS02120052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:47:20 AM

Modified: No

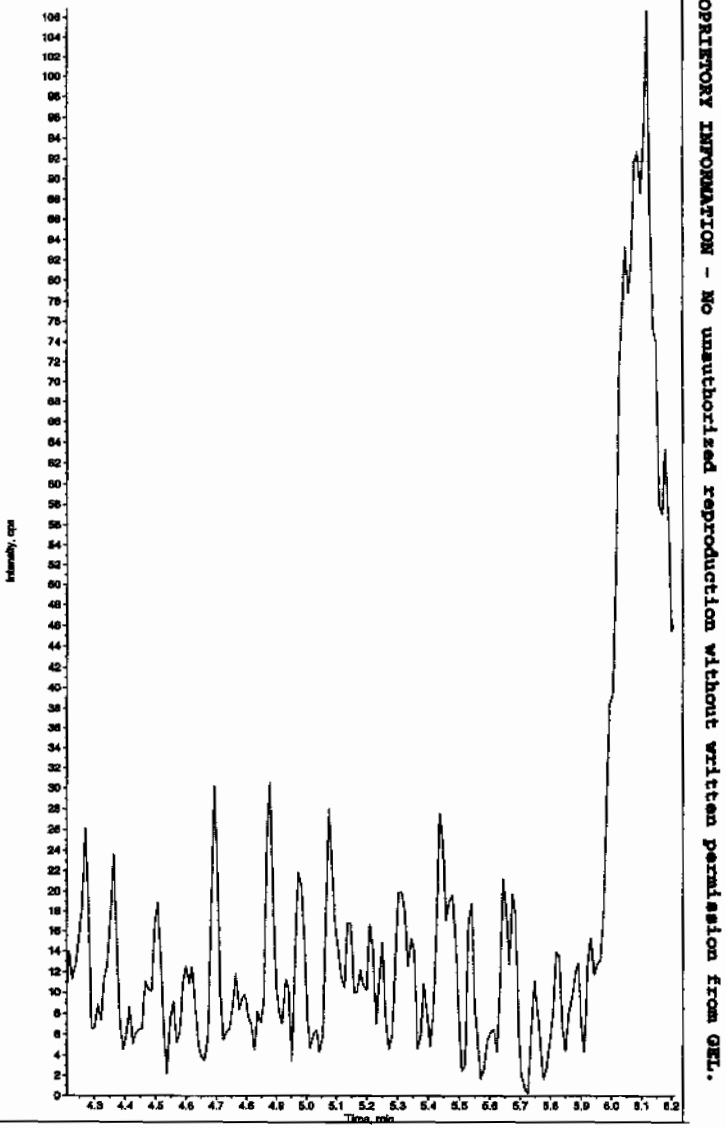

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Sample Name: "245803001" Sample ID: "947084[2]LER" File: "EXS02120052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:47:20 AM

Modified: No

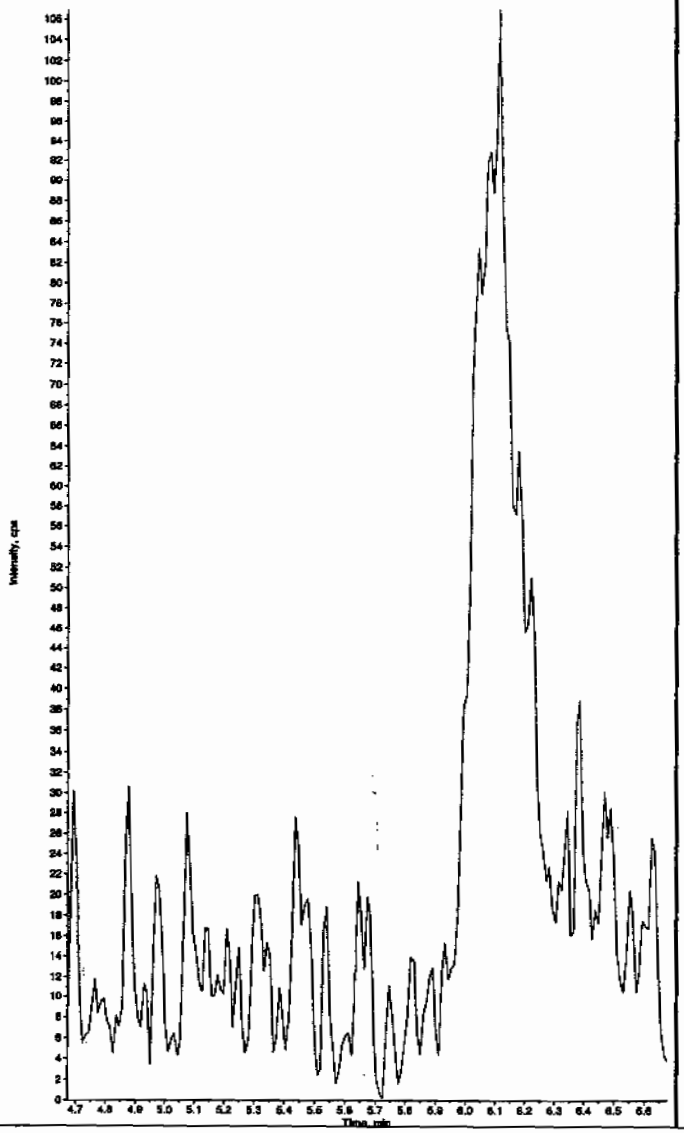

Sample Name: "245803001" Sample ID: "947084[2]LER" File: "EXS02120052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:47:20 AM

Modified: No

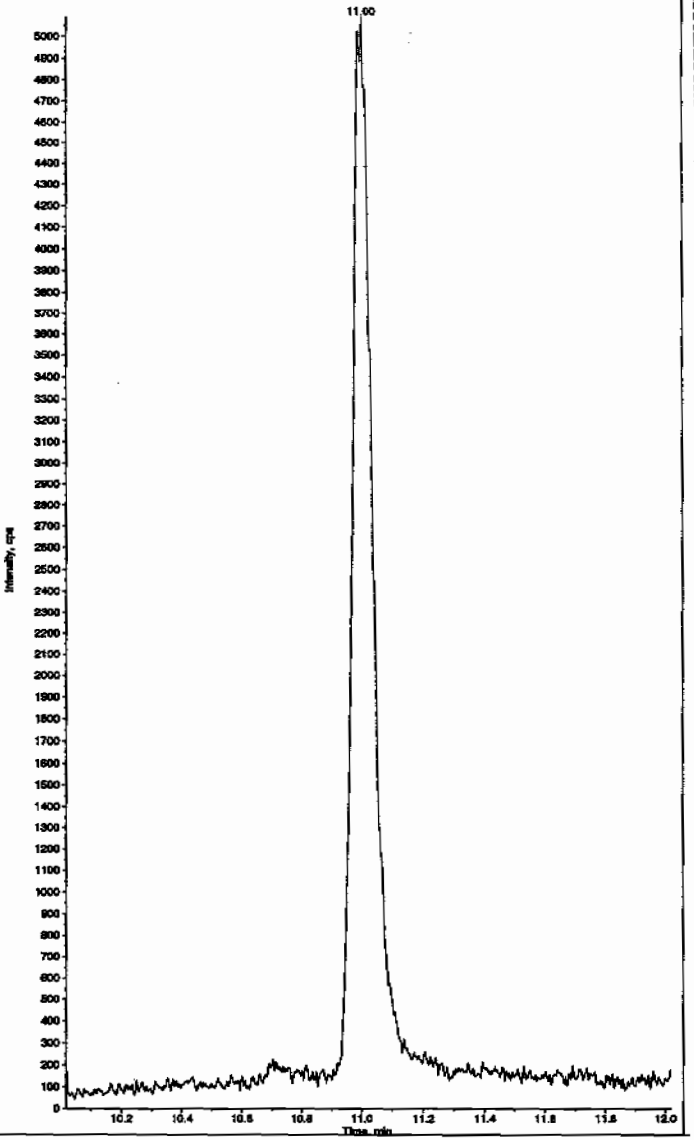

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7956

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803002

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208172a

Date Analyzed: 12-FEB-10 02:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208172a
Date: 12-Feb-2010
Time: 02:50:56
ID: 245803002 | LANL | 947084 | Soil | 2 |
Vial: 4:2,F

MAP 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.030e+003

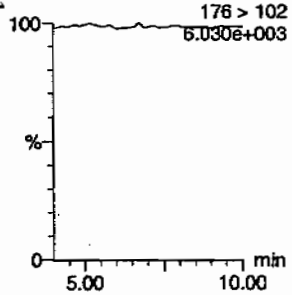

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.030e+003

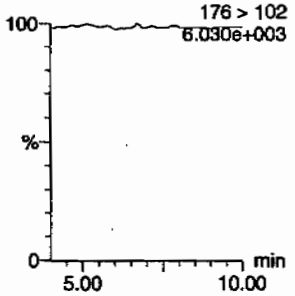

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.915e+003

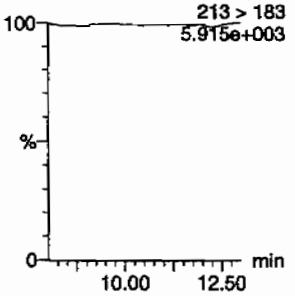

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.265e+004

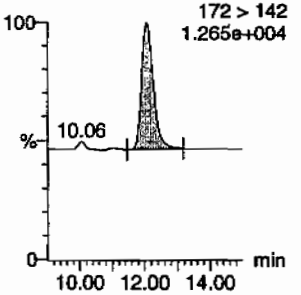

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.903e+003

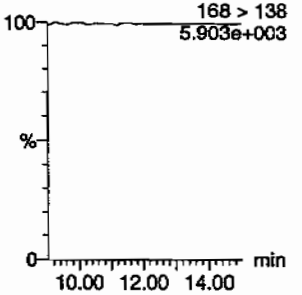

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.920e+003

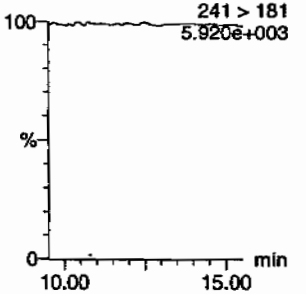

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.907e+003

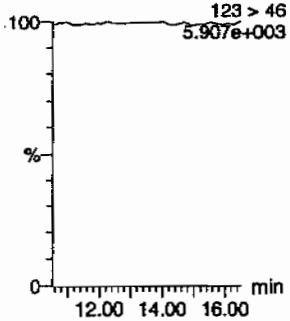

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.930e+003

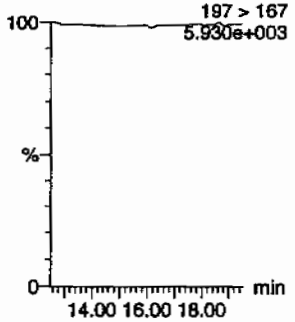

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.948e+003

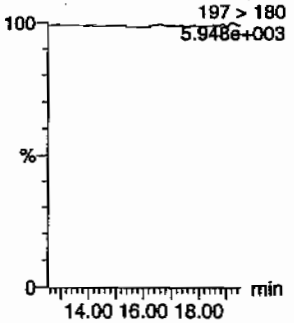

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.895e+003

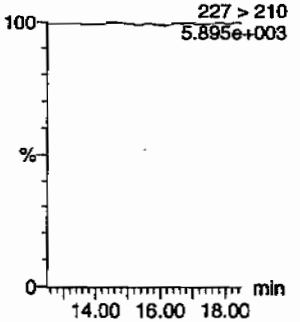

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.399e+004

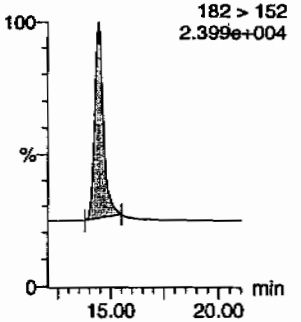

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.399e+004

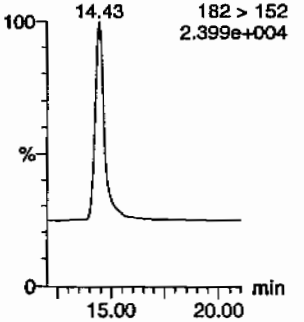

Hmw 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

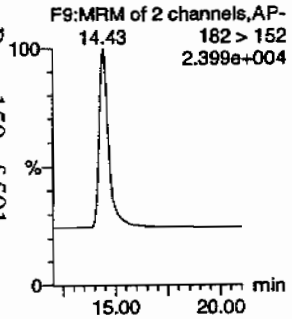

26-dinitrotoluene-d3

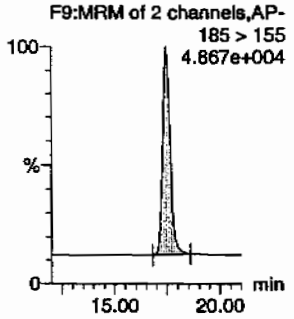

2-Nitrotoluene

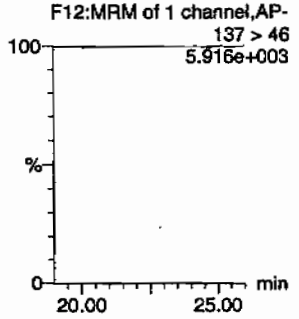

4-Nitrotoluene

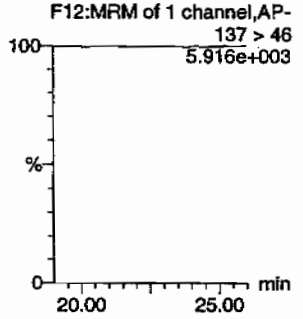

3-Nitrotoluene

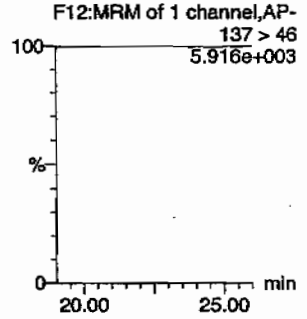

PETN

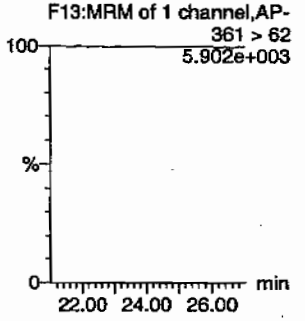

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245803002	HMX	176 > 102			2780.031									
245803002	RDX	176 > 102			2780.031									
245803002	135-Trinitrobenzene	213 > 183			2780.031									
245803002	13-Dinitrobenzene-d4	172 > 142	12.07	2780.031		2780.031	2780.031	bb			432.4105	86.5	-13.5	167.4
245803002	13-Dinitrobenzene	168 > 138			2780.031									
245803002	Tetryl	241 > 181			2780.031									
245803002	Nitrobenzene	123 > 46			2780.031									
245803002	4-Amino-26-dinitrotoluene	197 > 167			17628.498									
245803002	2-Amino-46-dinitrotoluene	197 > 180			17628.498									
245803002	246-Trinitrotoluene	227 > 210			17628.498									
245803002	34-dinitrotoluene	182 > 152	14.43	8608.405	17628.498	8608.405	244.162	bb			271.2931	108.5	8.5	742.1
245803002	26-dinitrotoluene	182 > 152			17628.498									
245803002	24-dinitrotoluene	182 > 152			17628.498									
245803002	26-dinitrotoluene-d3	185 > 155	17.47	17628.498		17628.498	17628.498	bb			477.4865	95.5	-4.5	1888.0
245803002	2-Nitrotoluene	137 > 46			17628.498									
245803002	4-Nitrotoluene	137 > 46			17628.498									
245803002	3-Nitrotoluene	137 > 46			17628.498									
245803002	PETN	361 > 62			17628.498									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7956

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803002

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120053.wiff

Date Analyzed: 13-FEB-10 01:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcr 2/15/10

Sample Name: "245803002" Sample ID: "947084|2|LER" File: "EXS02120053.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:03:03 AM

Modified: No

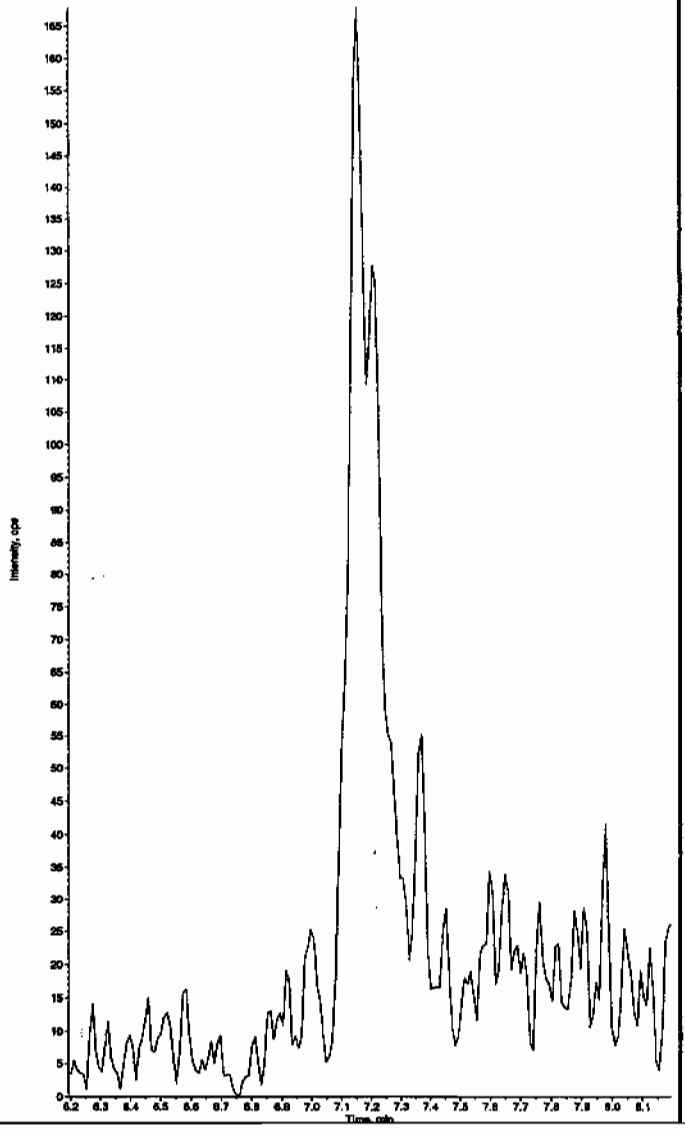

Sample Name: "245803002" Sample ID: "947084|2|LER" File: "EXS02120053.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:03:03 AM

Modified: Yes

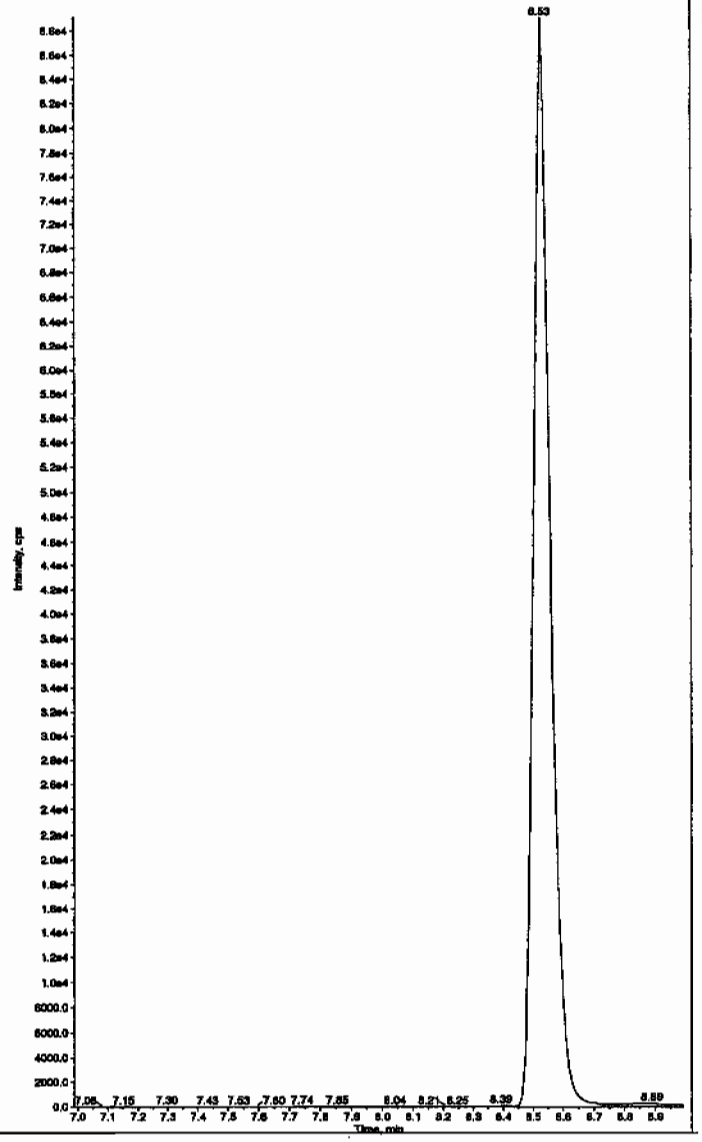

HMM 02/16/10

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Sample Name: "245803002" Sample ID: "947084|2|LER" File: "EXS02120053.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 315. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:03:03 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 3.52e+006 counts
Height: 825159.607 cps
Start Time: 8.42 min
End Time: 8.99 min

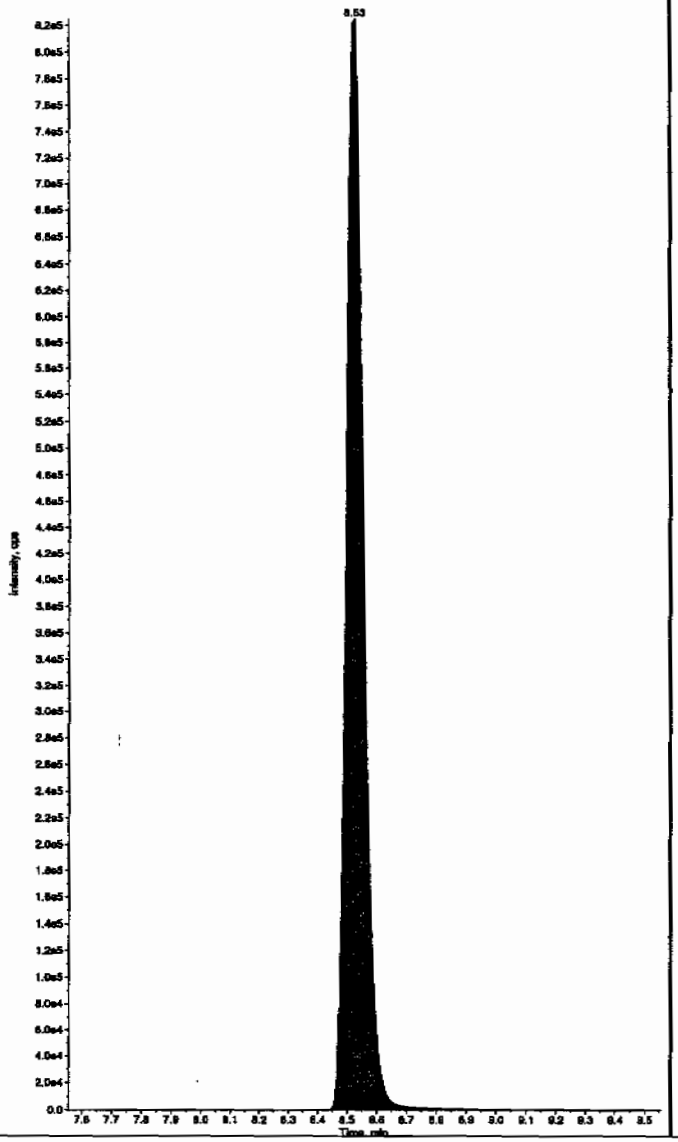

Sample Name: "245803002" Sample ID: "947084|2|LER" File: "EXS02120053.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:03:03 AM

Modified: No

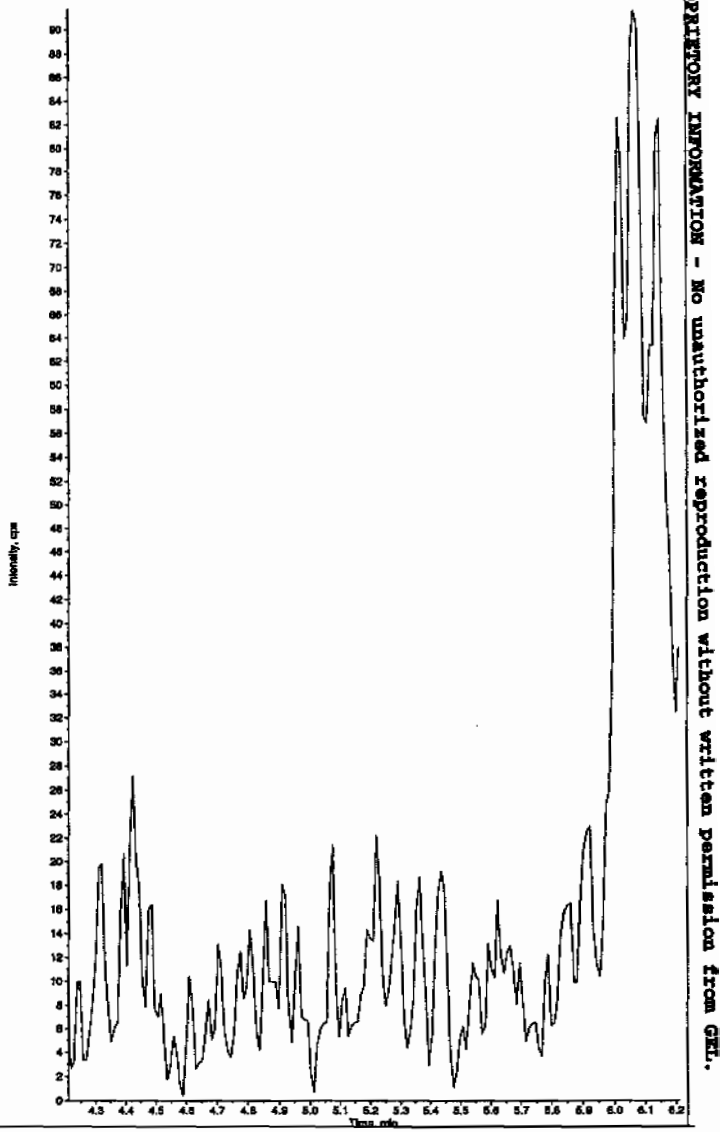

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Sample Name: "245803002" Sample ID: "947084[2]LER" File: "EXS02120053.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:03:03 AM

Modified: No

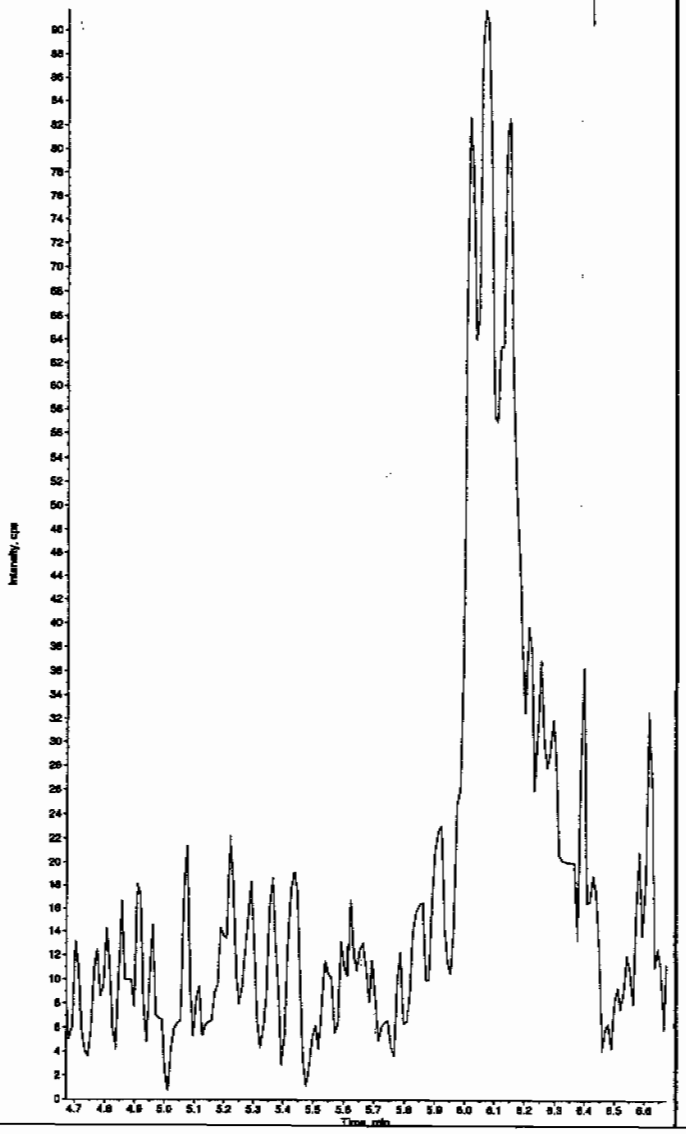

Sample Name: "245803002" Sample ID: "947084[2]LER" File: "EXS02120053.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:03:03 AM

Modified: No

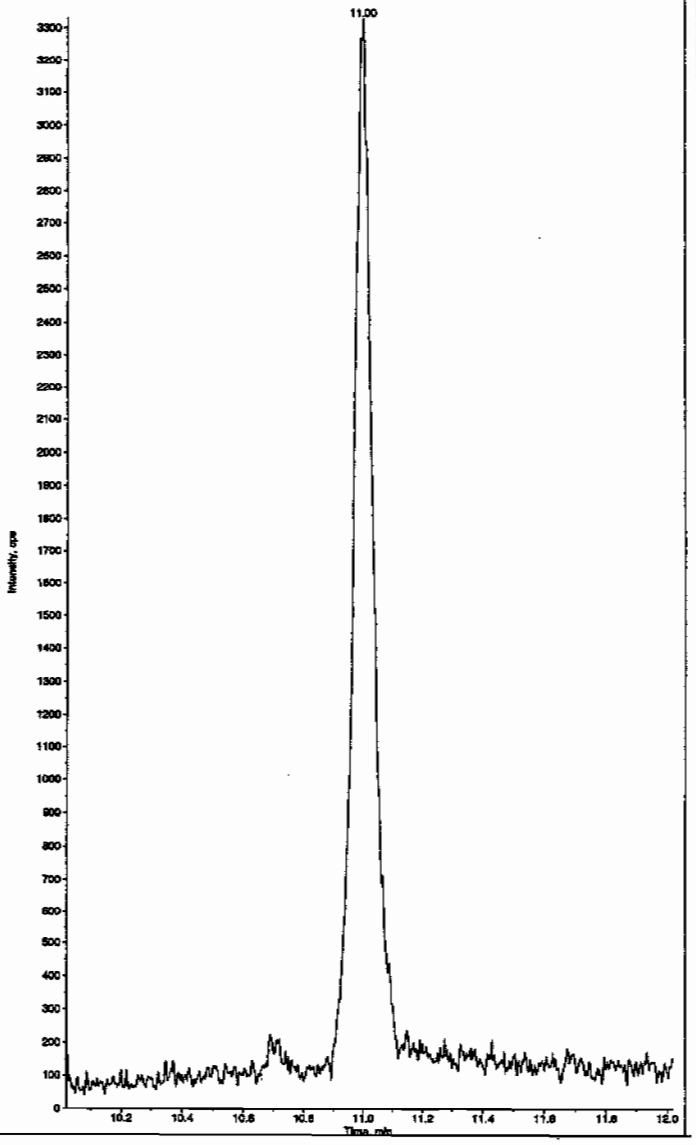

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7955

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208173a

Date Analyzed: 12-FEB-10 03:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208173a
Date: 12-Feb-2010
Time: 03:20:23
ID: 245803003
Vial: 4:3,A

LAW | 947084 | Soil | 2 |

MAH 2/12/10

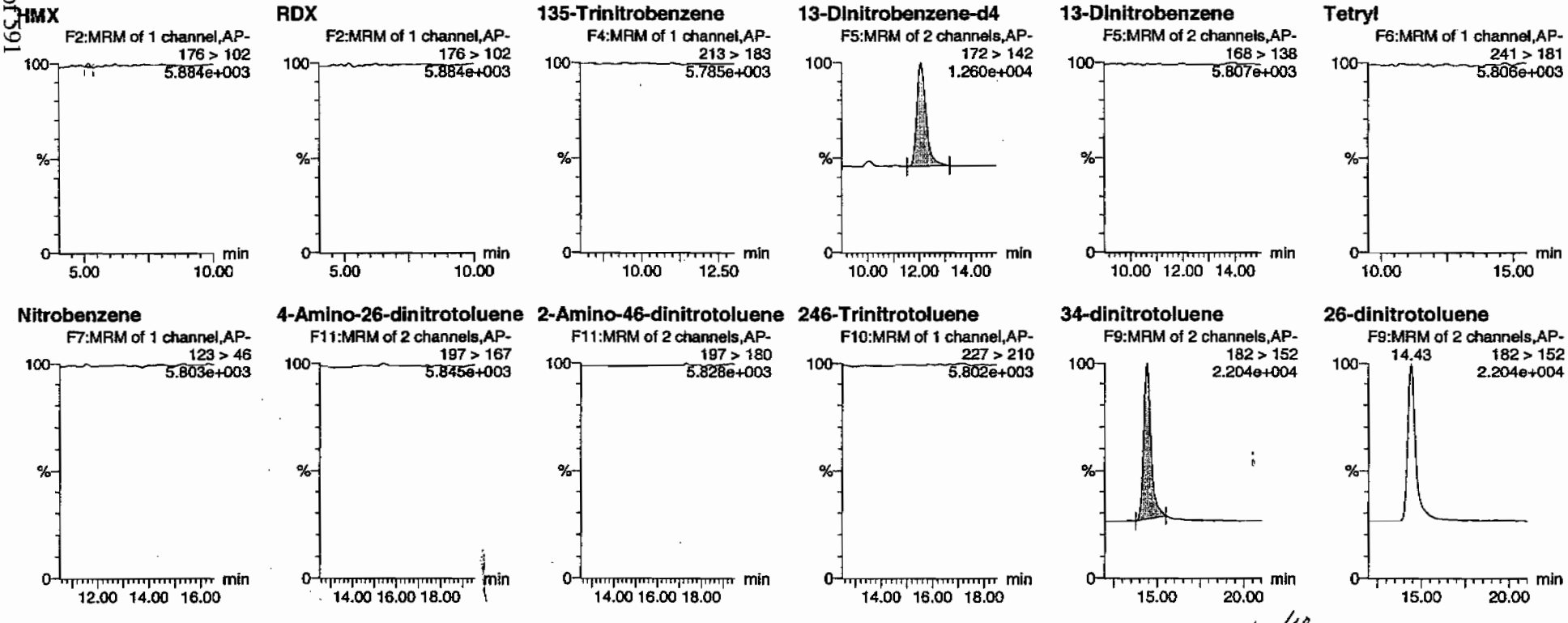

HMM 02/12/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

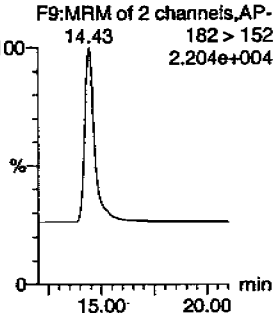

26-dinitrotoluene-d3

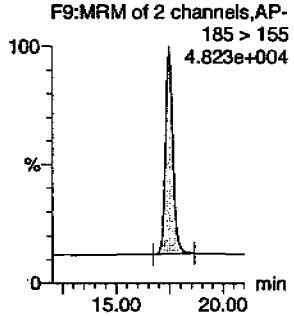

2-Nitrotoluene

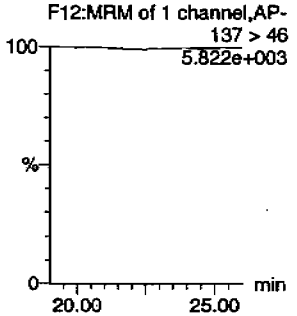

4-Nitrotoluene

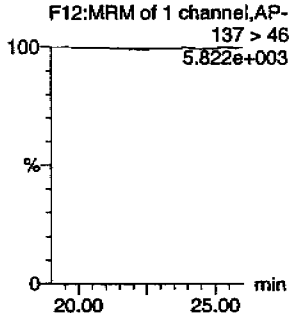

3-Nitrotoluene

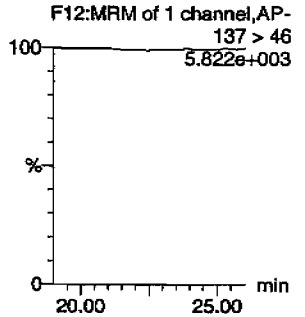

PETN

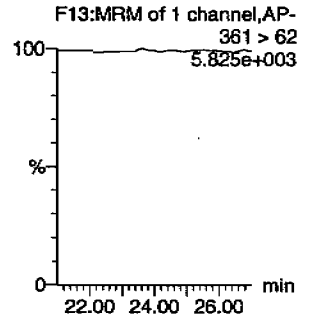

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	pg/ml	%Rec	%Dev	S/N
245803003	HMX	176 > 102			2836.139			MM-	12-Feb-10	07:53:23				
245803003	RDX	176 > 102			2836.139									
245803003	135-Trinitrobenzene	213 > 183			2836.139									
245803003	13-Dinitrobenzene-d4	172 > 142	12.07	2836.139		2836.139	2836.139	bb			441.1377	88.2	-11.8	423.2
245803003	13-Dinitrobenzene	168 > 138			2836.139									
245803003	Tetryl	241 > 181			2836.139									
245803003	Nitrobenzene	123 > 46			2836.139									
245803003	4-Amino-26-dinitrotoluene	197 > 167			17081.039									
245803003	2-Amino-46-dinitrotoluene	197 > 180			17081.039									
245803003	246-Trinitrotoluene	227 > 210			17081.039									
245803003	34-dinitrotoluene	182 > 152	14.43	7847.153	17081.039	7847.153	229.704	bb			255.2285	102.1	2.1	477.0
245803003	26-dinitrotoluene	182 > 152			17081.039									
245803003	24-dinitrotoluene	182 > 152			17081.039									
245803003	26-dinitrotoluene-d3	185 > 155	17.47	17081.039		17081.039	17081.039	bb			462.6580	92.5	-7.5	1650.7
245803003	2-Nitrotoluene	137 > 46			17081.039									
245803003	4-Nitrotoluene	137 > 46			17081.039									
245803003	3-Nitrotoluene	137 > 46			17081.039									
245803003	PETN	361 > 62			17081.039									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7955

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120054.wiff

Date Analyzed: 13-FEB-10 01:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcw 2/15/10

Sample Name: "245803003" Sample ID: "947084|2|LER" File: "EXS02120054.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:18:46 AM

Modified: No

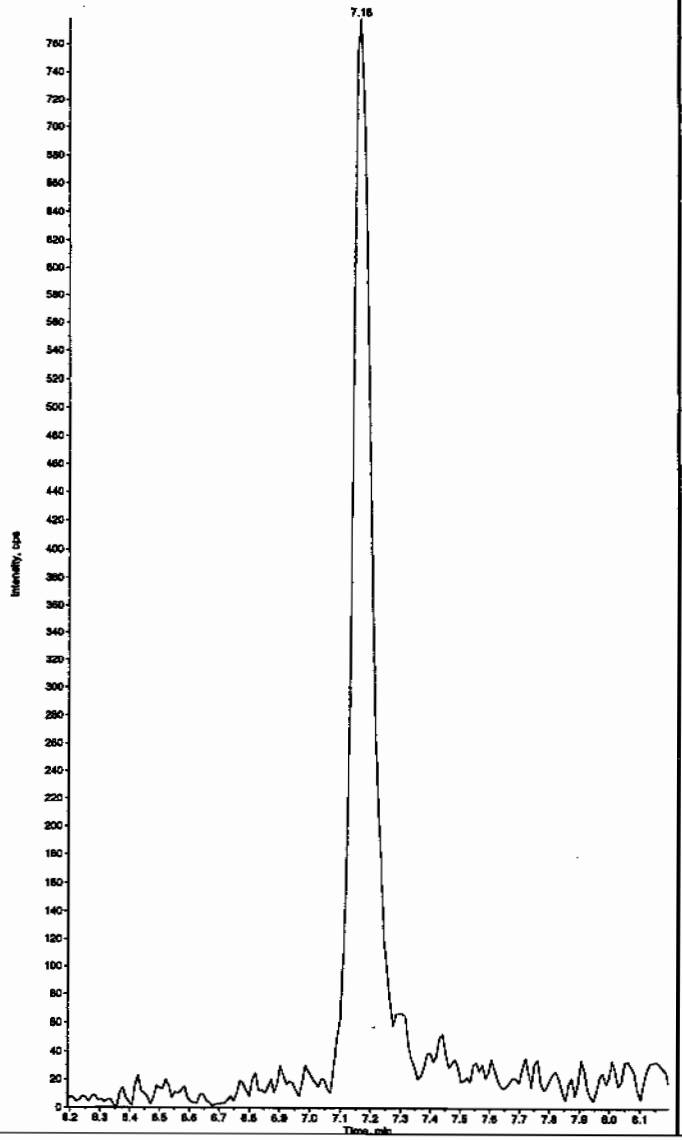

Sample Name: "245803003" Sample ID: "947084|2|LER" File: "EXS02120054.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:18:46 AM

Modified: Yes

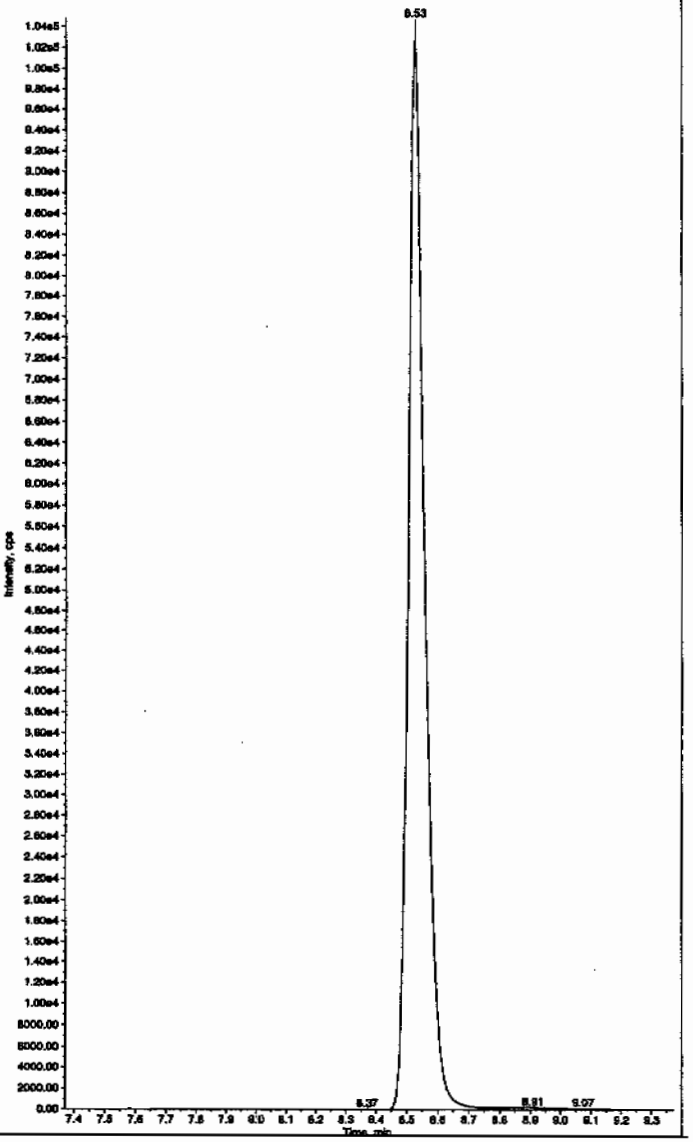

Hmm 02/16/10

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Sample Name: "245803003" Sample ID: "947084|2|LER" File: "EXS02120054.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 333. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:18:46 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.70e+006 counts
Height: 931708.252 cps
Start Time: 8.42 min
End Time: 8.90 min

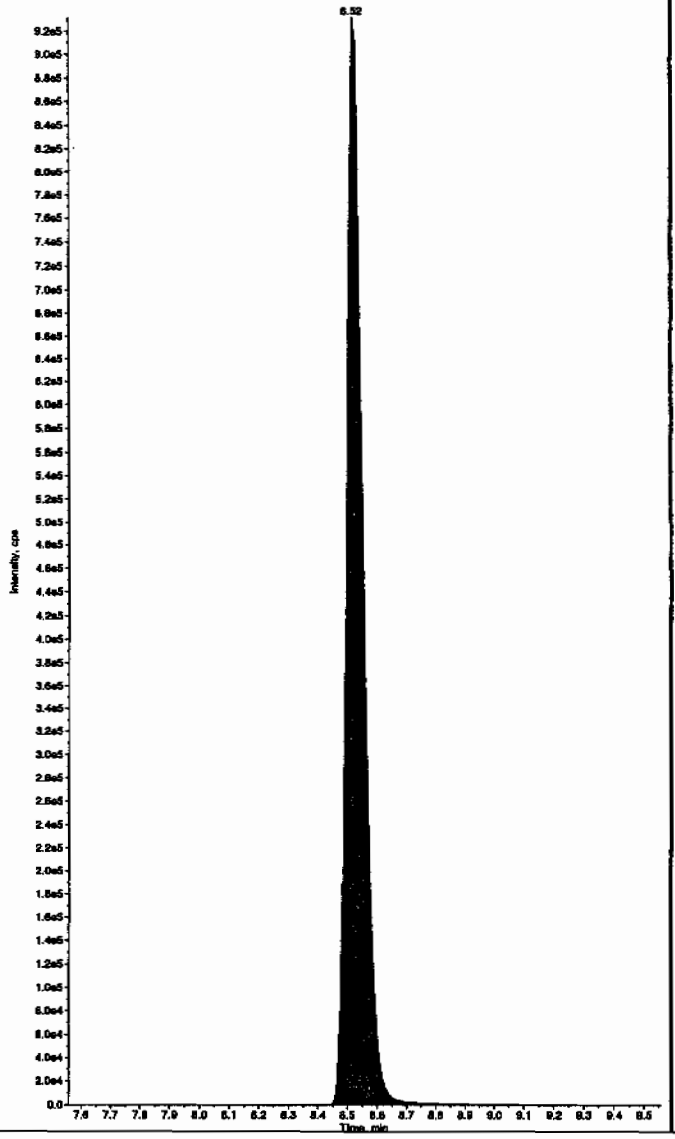

Sample Name: "245803003" Sample ID: "947084|2|LER" File: "EXS02120054.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:18:46 AM

Modified: No

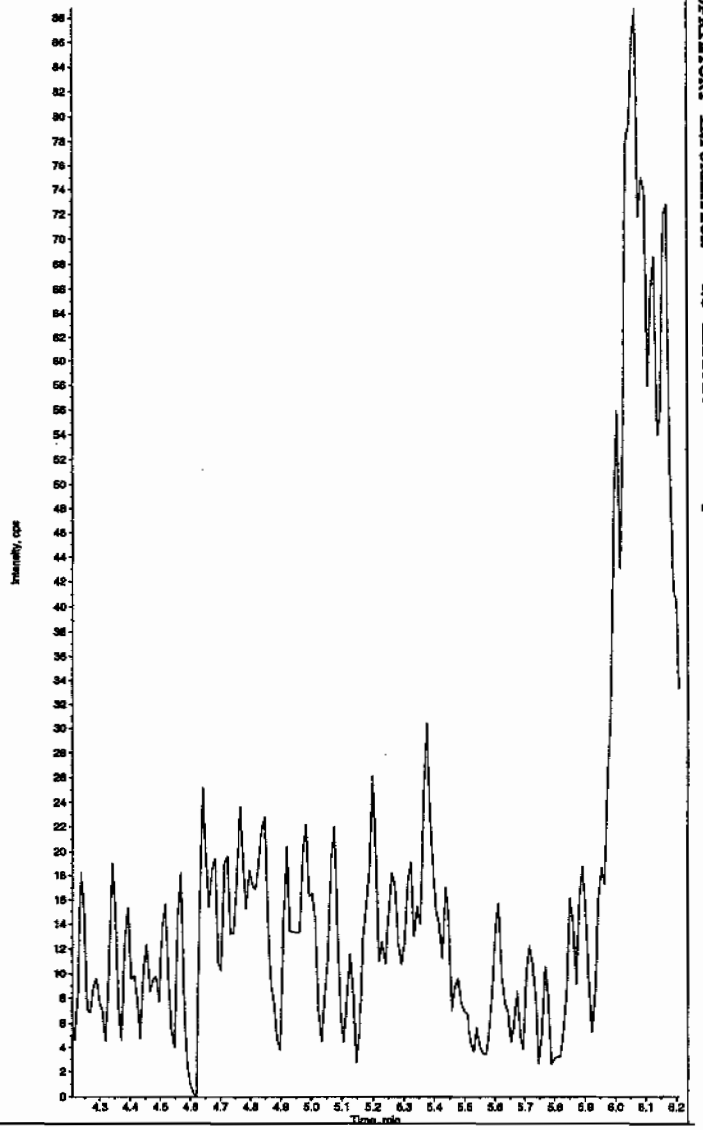

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Sample Name: "245803003" Sample ID: "947084[2]LER" File: "EXS02120054.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:18:46 AM

Modified: No

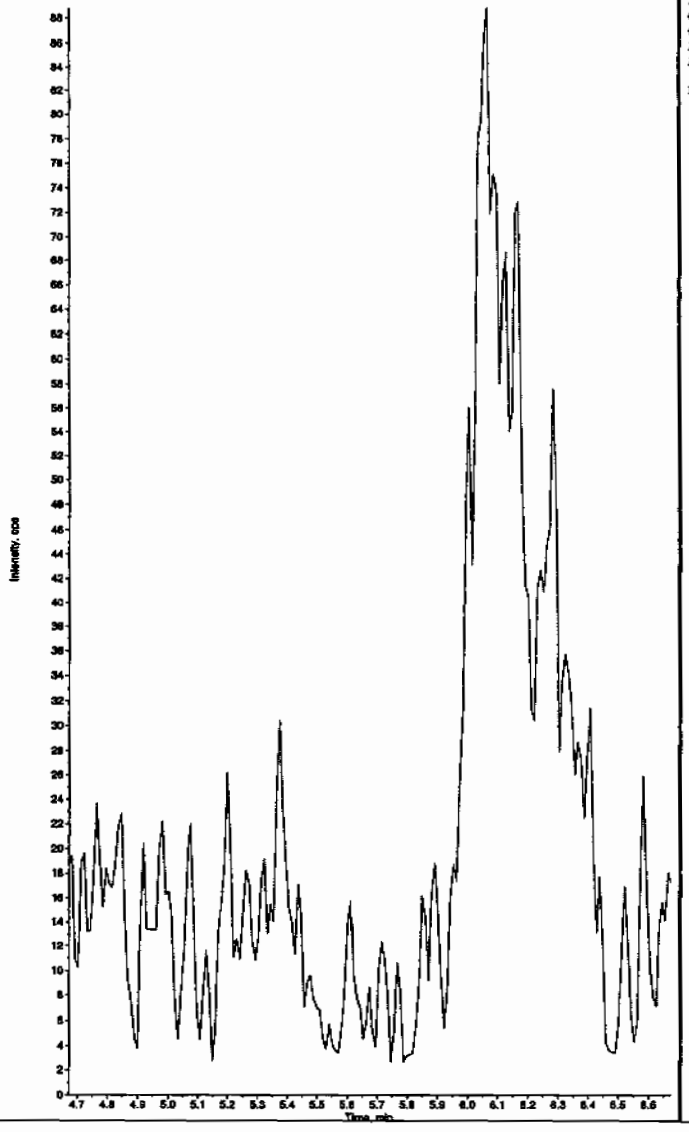

Sample Name: "245803003" Sample ID: "947084[2]LER" File: "EXS02120054.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:18:46 AM

Modified: No

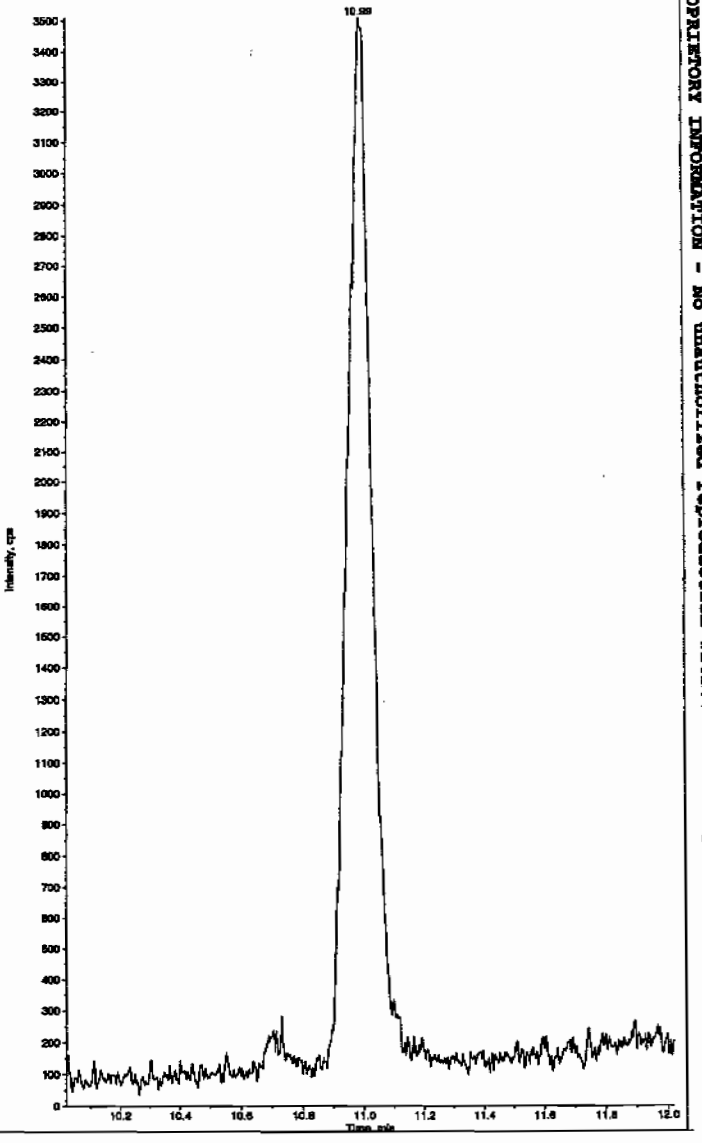

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7953

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208174a

Date Analyzed: 12-FEB-10 03:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	193	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208174a
Date: 12-Feb-2010
Time: 03:50:09
ID: 245803004 | LANL | 947084 | Soil | 21
Vial: 4:3,B

MAP 2/12/10

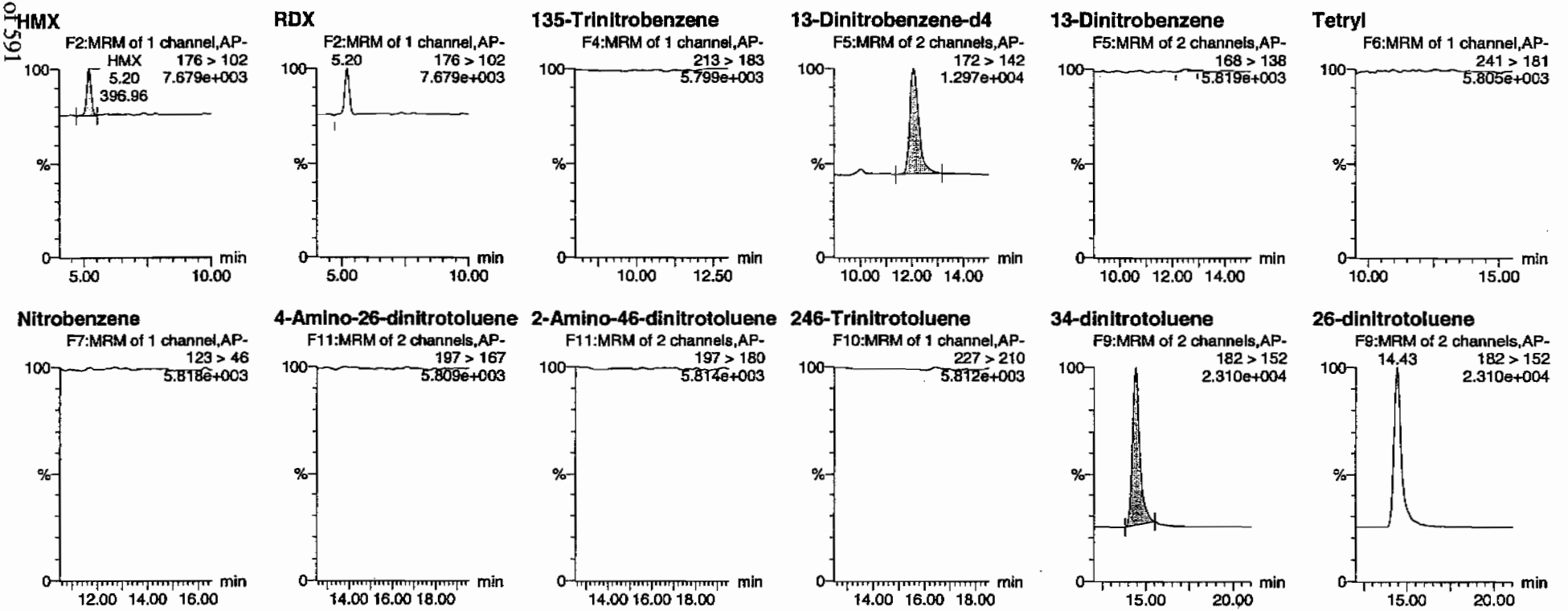

Hmm 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

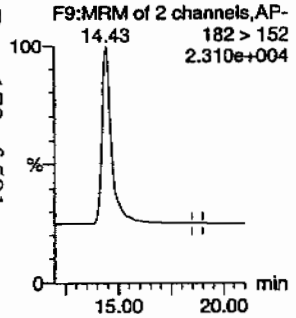

26-dinitrotoluene-d3

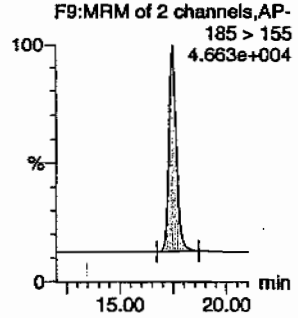

2-Nitrotoluene

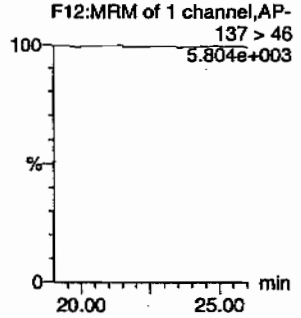

4-Nitrotoluene

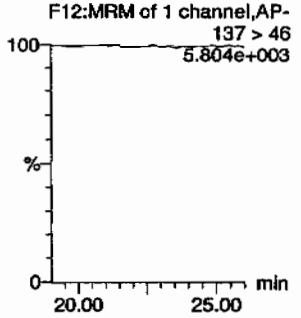

3-Nitrotoluene

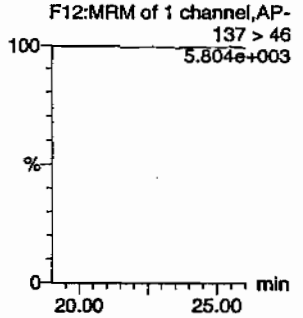

PETN

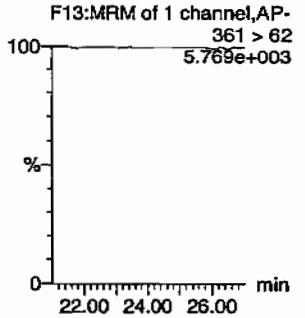

ID	Name	Trace	RT	Int. Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245803004	HMX	176 > 102	5.20	396.957	2962.385	396.957	67.000	bb			19.2926			63.0
245803004	RDX	176 > 102			2962.385									
245803004	135-Trinitrobenzene	213 > 183			2962.385									
245803004	13-Dinitrobenzene-d4	172 > 142	12.07	2962.385		2962.385	2962.385	bb			460.7742	92.2	-7.8	291.6
245803004	13-Dinitrobenzene	168 > 138			2962.385			MM-	12-Feb-10	07:55:17				
245803004	Tetryl	241 > 181			2962.385									
245803004	Nitrobenzene	123 > 46			2962.385									
245803004	4-Amino-26-dinitrotoluene	197 > 167			16734.322									
245803004	2-Amino-46-dinitrotoluene	197 > 180			16734.322									
245803004	246-Trinitrotoluene	227 > 210			16734.322									
245803004	34-dinitrotoluene	182 > 152	14.43	8373.761	16734.322	8373.761	250.197	bb			277.9993	111.2	11.2	717.0
245803004	26-dinitrotoluene	182 > 152			16734.322									
245803004	24-dinitrotoluene	182 > 152			16734.322			MM-	12-Feb-10	08:06:42				
245803004	26-dinitrotoluene-d3	185 > 155	17.47	16734.322		16734.322	16734.322	bb			453.2668	90.7	-9.3	1964.2
245803004	2-Nitrotoluene	137 > 46			16734.322									
245803004	4-Nitrotoluene	137 > 46			16734.322									
245803004	3-Nitrotoluene	137 > 46			16734.322									
245803004	PETN	361 > 62			16734.322									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7953

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120055.wiff

Date Analyzed: 13-FEB-10 01:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	500	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcm 2/15/10

Sample Name: "245803004" Sample ID: "947064[2]LER" File: "EXS02120055.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknowa
Concentration: N/A
Calculated Conc: 50.0 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:34:29 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.16 min
Area: 6.79e+004 counts
Height: 15412.611 cps
Start Time: 7.01 min
End Time: 7.56 min

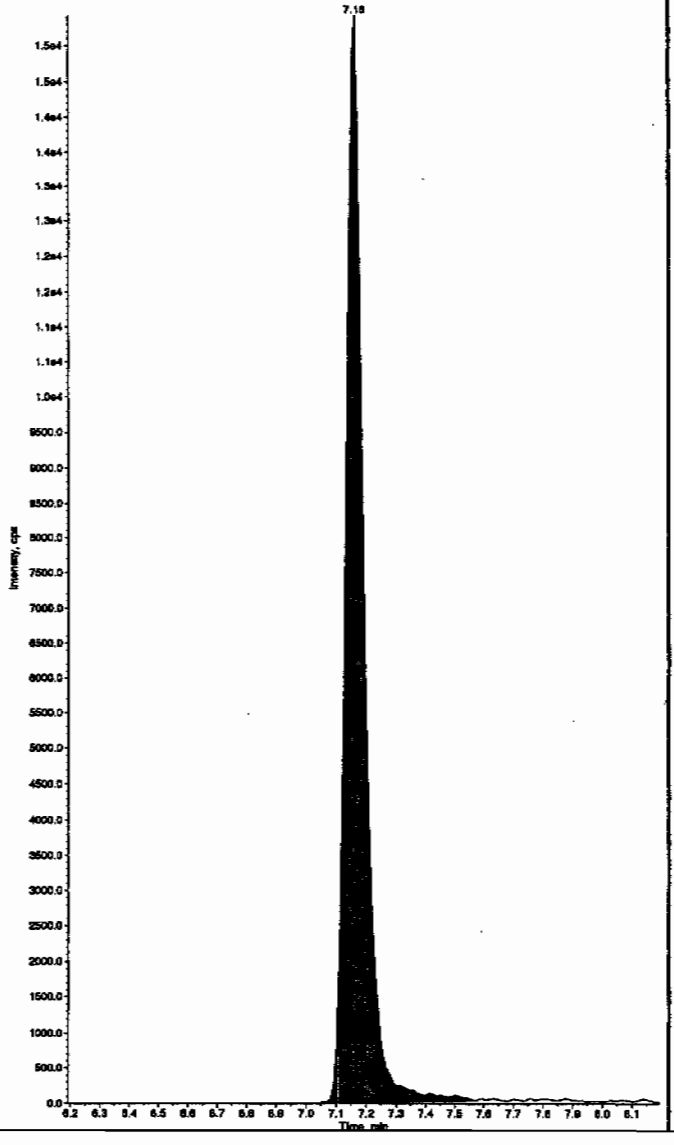

Sample Name: "245803004" Sample ID: "947064[2]LER" File: "EXS02120055.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:34:29 AM

Modified: Yes

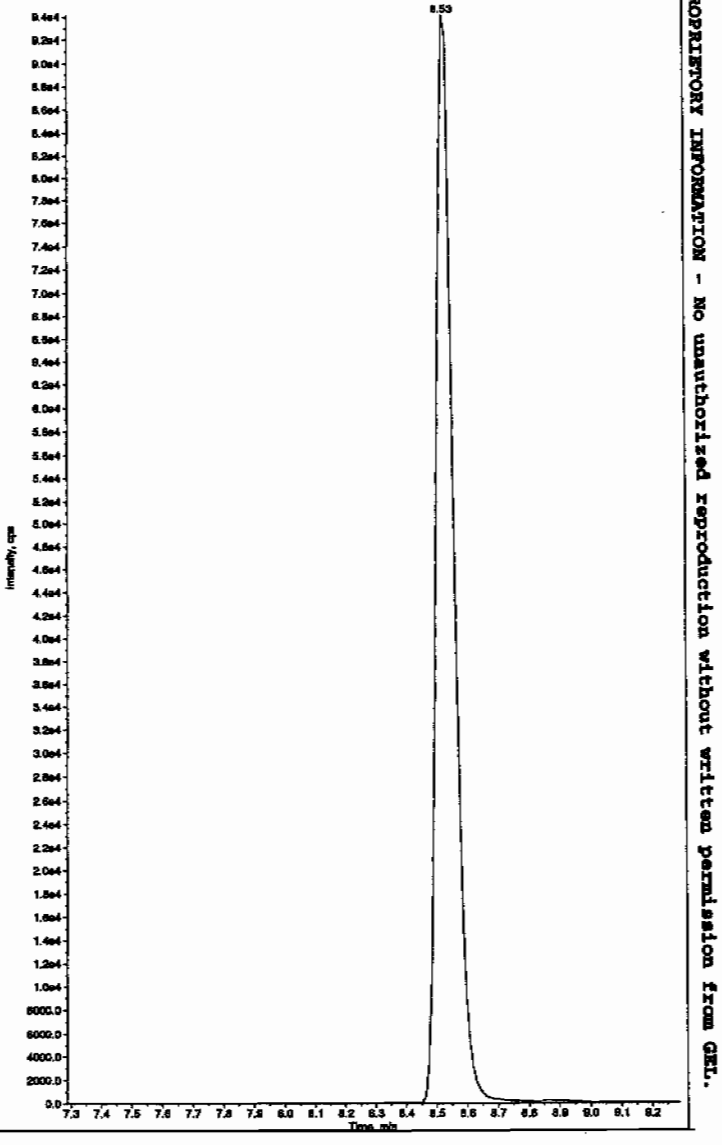

HMM 02/16/10

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Sample Name: "245803004" Sample ID: "947084|2|LER" File: "EXS02120055.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 330. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:34:29 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.68e+006 counts
Height: 914332.886 cps
Start Time: 8.42 min
End Time: 8.93 min

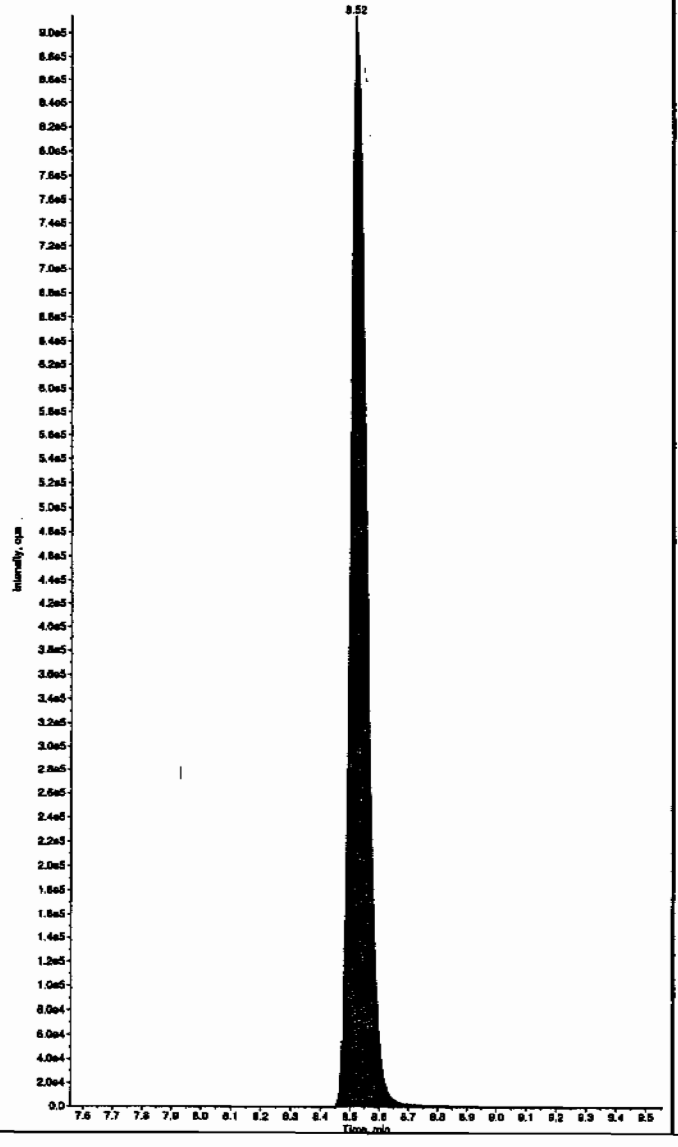

Sample Name: "245803004" Sample ID: "947084|2|LER" File: "EXS02120055.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:34:29 AM

Modified: No

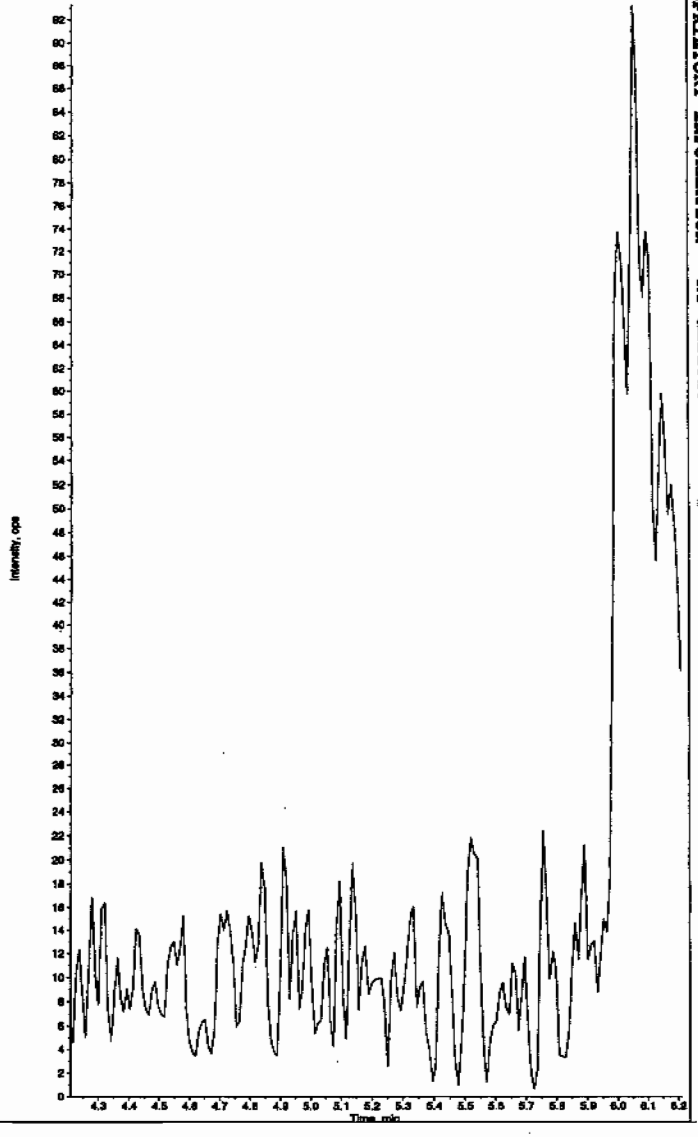

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Sample Name: "245803004" Sample ID: "947084[2]LER" File: "EXS02120055.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:34:29 AM

Modified: No

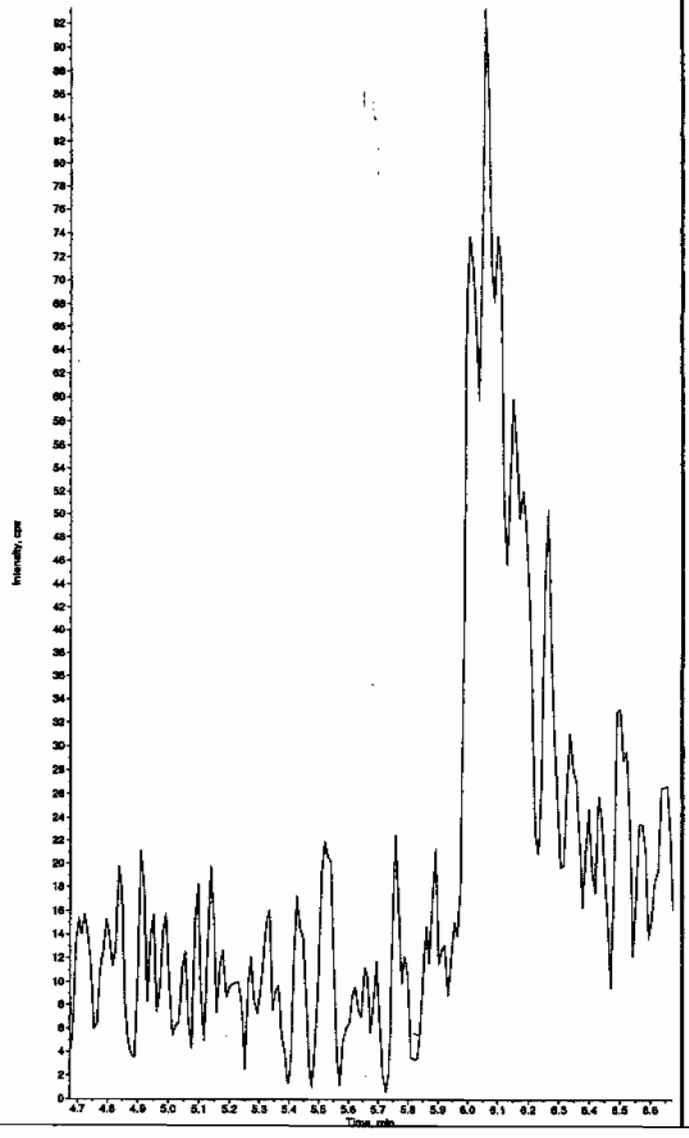

Sample Name: "245803004" Sample ID: "947084[2]LER" File: "EXS02120055.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:34:29 AM

Modified: No

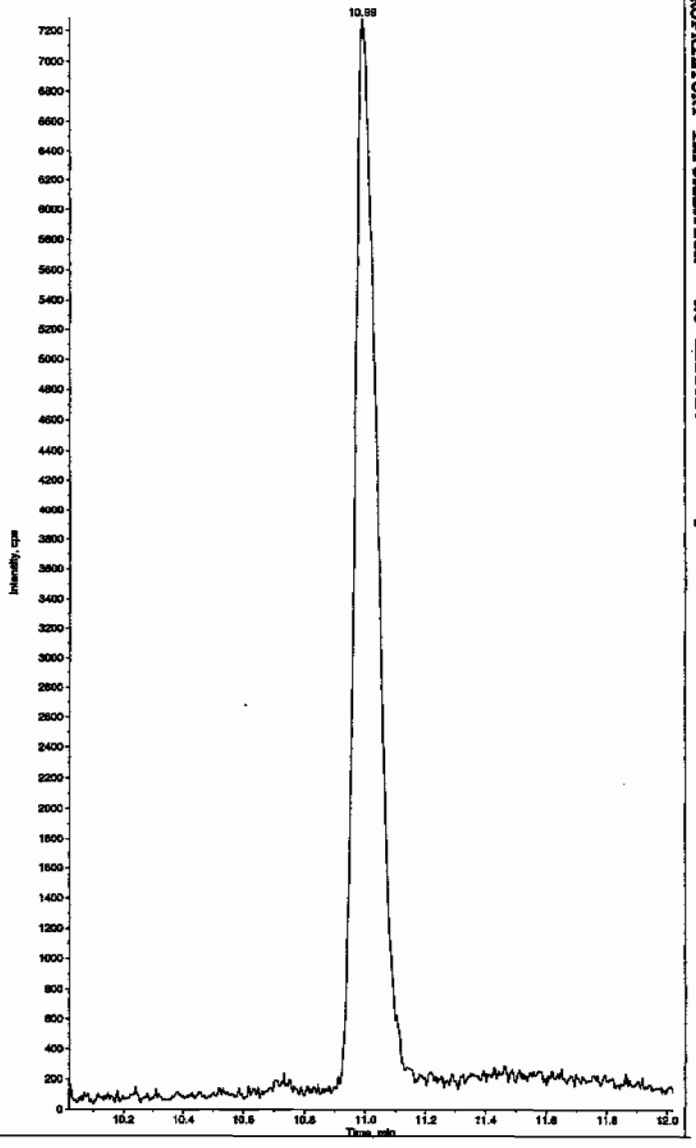

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7952

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208175a

Date Analyzed: 12-FEB-10 04:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208175a
Date: 12-Feb-2010
Time: 04:19:38
ID: 245803005
Vial: 4:3,C

LANU | 947084 | Solids | 2 |

MM 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.958e+003

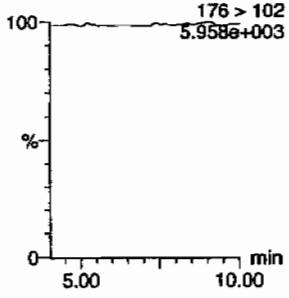

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.958e+003

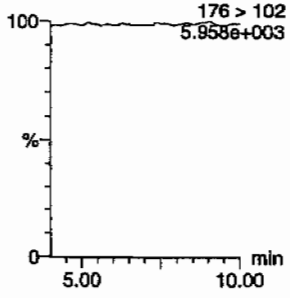

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.872e+003

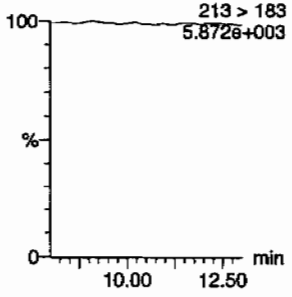

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.205e+004

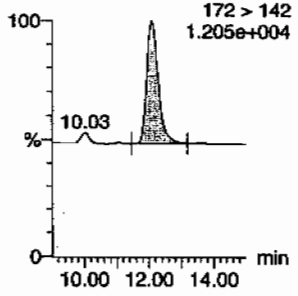

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.849e+003

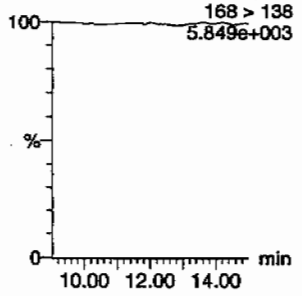

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.860e+003

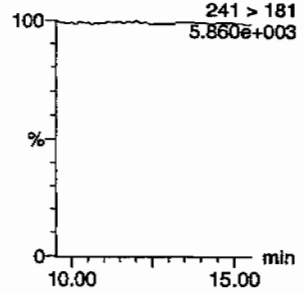

Nitrobenzene
F7:MRM of 1 channel,AP-
12.35
123 > 46
5.941e+003

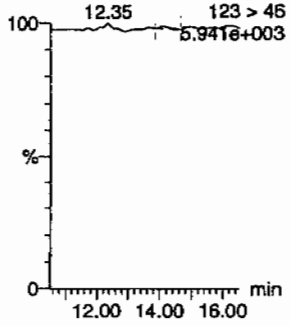

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.864e+003

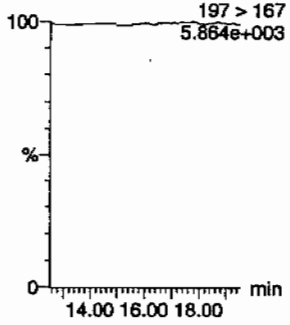

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.872e+003

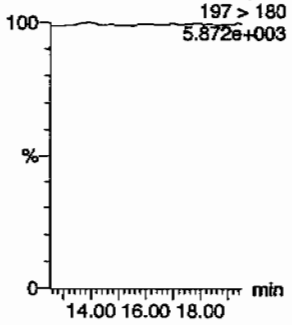

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.874e+003

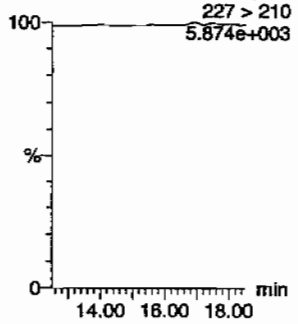

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.134e+004

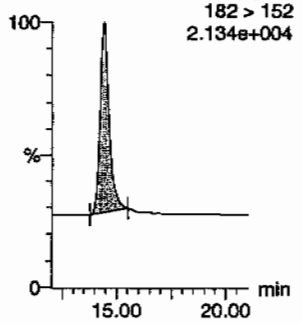

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.134e+004

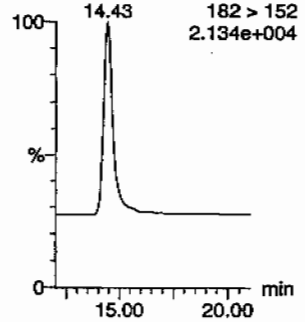

HMM on 1/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

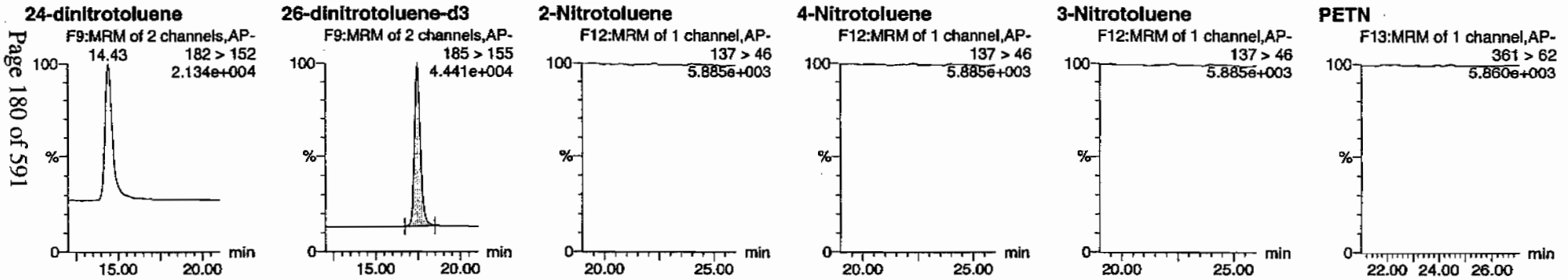

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245803005	HMX	176 > 102			2580.025									
245803005	RDX	176 > 102			2580.025									
245803005	135-Trinitrobenzene	213 > 183			2580.025									
245803005	13-Dinitrobenzene-d4	172 > 142	12.07	2580.025		2580.025	2580.025	bb			401.3013	80.3	-19.7	127.7
245803005	13-Dinitrobenzene	168 > 138			2580.025									
245803005	Tetryl	241 > 181			2580.025									
245803005	Nitrobenzene	123 > 46			2580.025			MM-	12-Feb-10	07:57:47				
245803005	4-Amino-26-dinitrotoluene	197 > 167			15516.359									
245803005	2-Amino-46-dinitrotoluene	197 > 180			15516.359									
245803005	246-Trinitrotoluene	227 > 210			15516.359									
245803005	34-dinitrotoluene	182 > 152	14.43	7400.960	15516.359	7400.960	238.489	bb			264.9900	106.0	6.0	388.5
245803005	26-dinitrotoluene	182 > 152			15516.359									
245803005	24-dinitrotoluene	182 > 152			15516.359									
245803005	26-dinitrotoluene-d3	185 > 155	17.47	15516.359		15516.359	15516.359	bb			420.2770	84.1	-15.9	1735.4
245803005	2-Nitrotoluene	137 > 46			15516.359									
245803005	4-Nitrotoluene	137 > 46			15516.359									
245803005	3-Nitrotoluene	137 > 46			15516.359									
245803005	PETN	361 > 62			15516.359									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7952

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120056.wiff

Date Analyzed: 13-FEB-10 01:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcu 2/15/10

Sample Name: "245803005" Sample ID: "947064|2|LER" File: "EXS02120056.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:50:10 AM

Modified: No

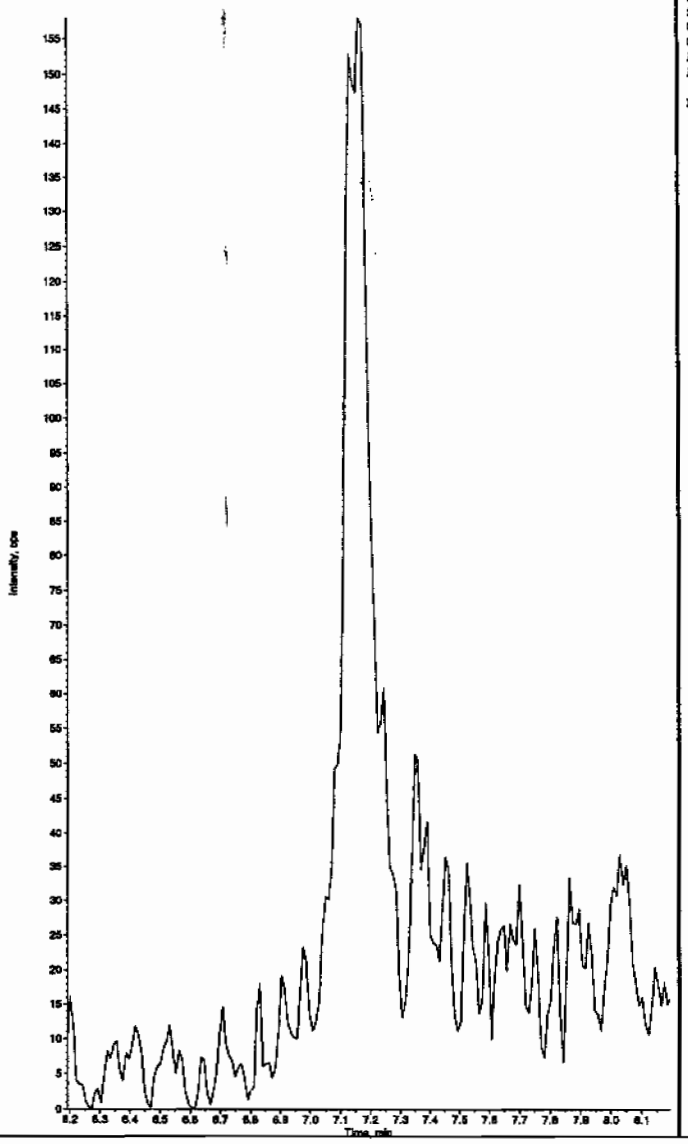

Sample Name: "245803005" Sample ID: "947064|2|LER" File: "EXS02120056.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:50:10 AM

Modified: Yes

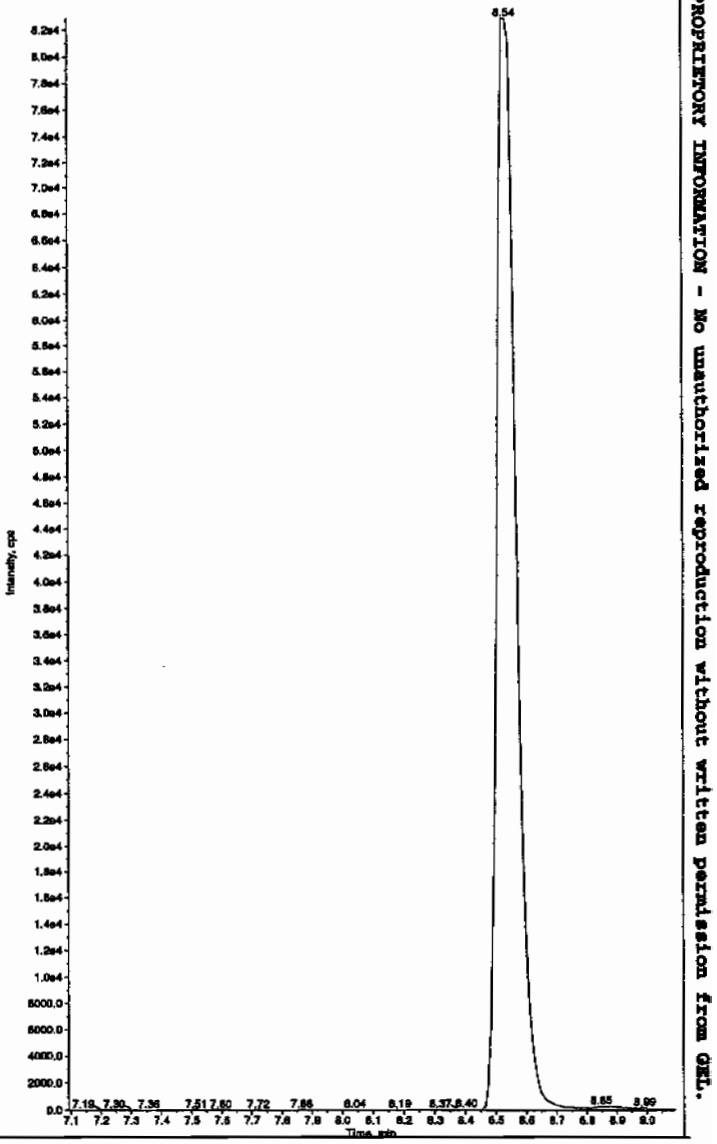

HMM 02/16/10

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Sample Name: "245803005" Sample ID: "947084|2|LER" File: "EXS02120056.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 323. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:50:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 3.60e+006 counts
Height: 598782.349 cps
Start Time: 8.43 min
End Time: 9.00 min

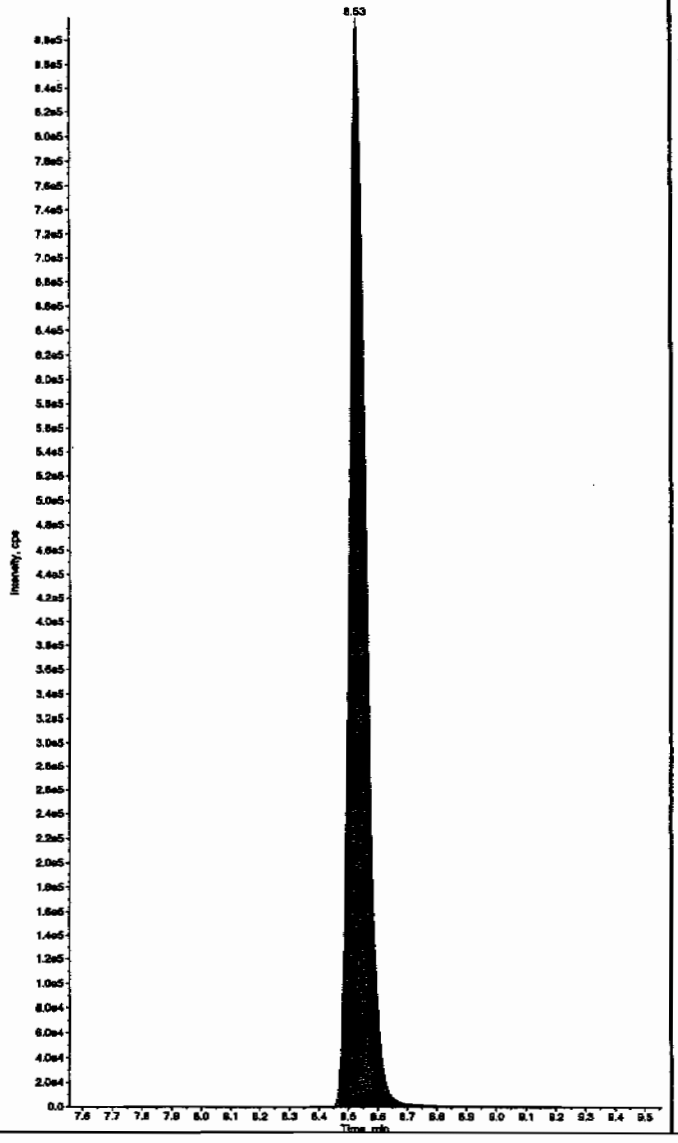

Sample Name: "245803005" Sample ID: "947084|2|LER" File: "EXS02120056.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:50:10 AM

Modified: No

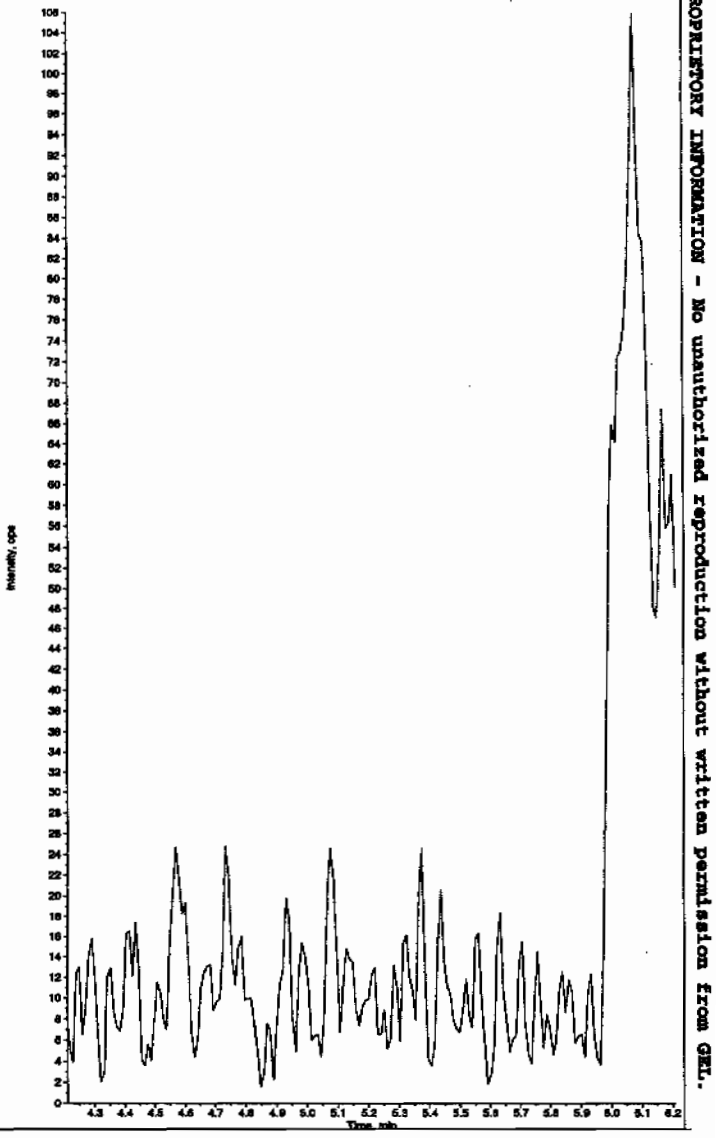

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245803005" Sample ID: "947064|2|LER" File: "EXS02120056.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:50:10 AM

Modified: No

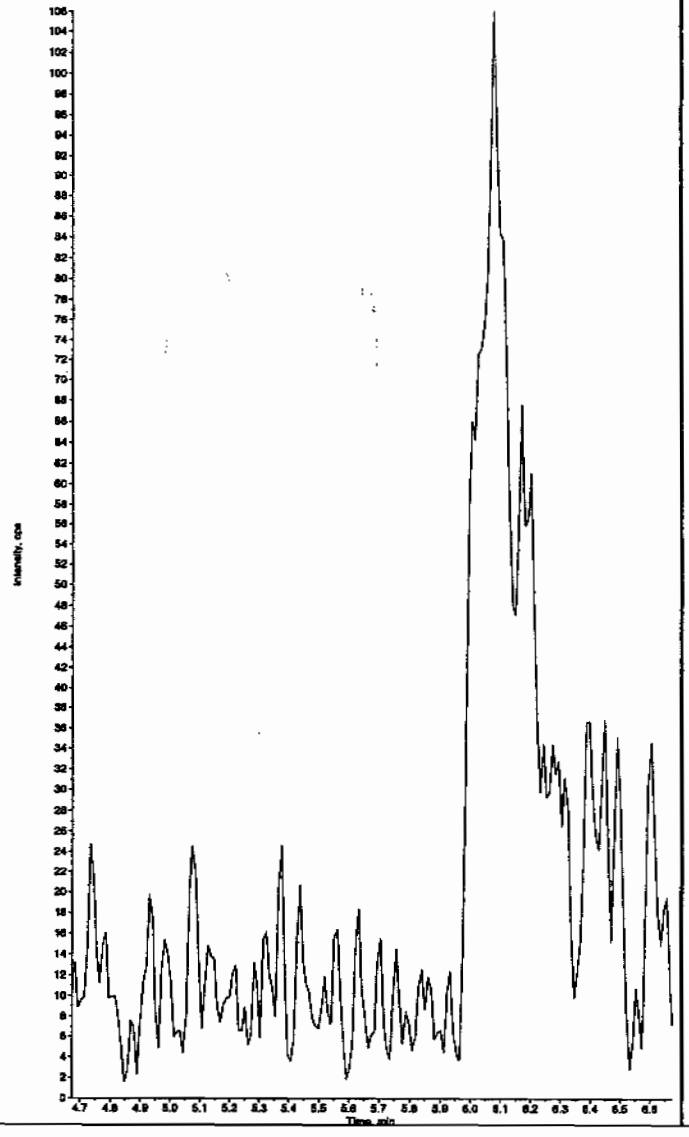

Sample Name: "245803005" Sample ID: "947064|2|LER" File: "EXS02120056.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:50:10 AM

Modified: No

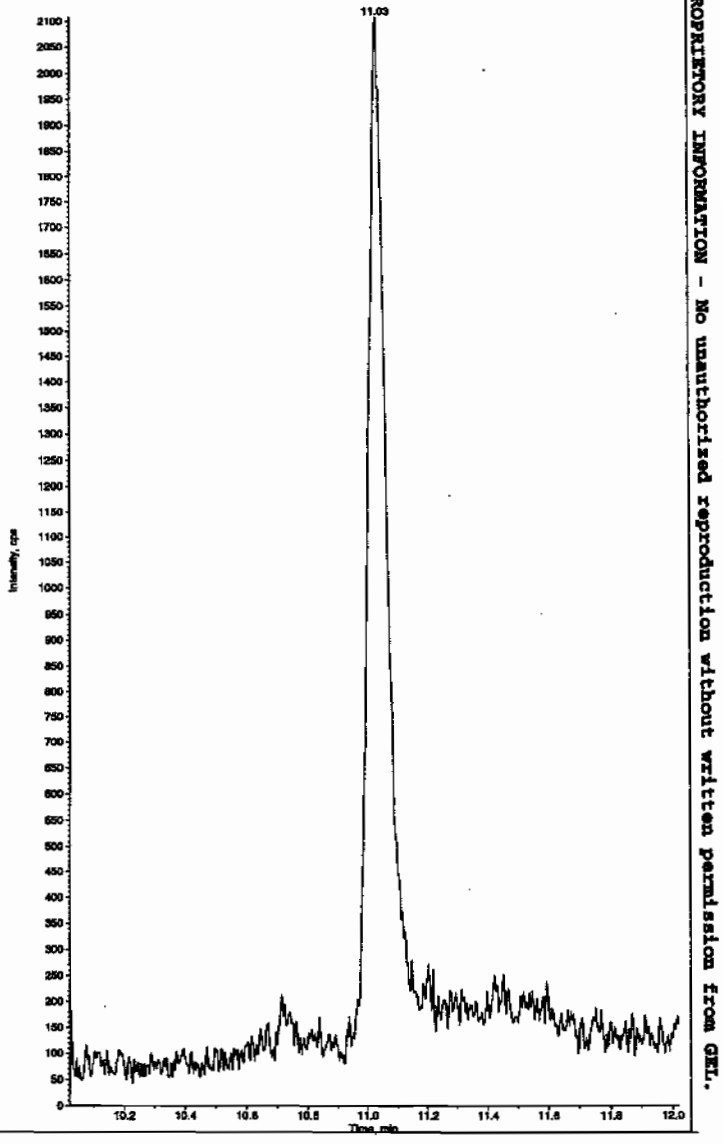

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8060

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803006

Sample Amount 2

Moisture: 14.6

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208176a

Date Analyzed: 12-FEB-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	282	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208176a
Date: 12-Feb-2010
Time: 04:49:07
ID: 245803006 | LANL | 947084 | Soil | 2 |
Vial: 4:3,D

MAP 2/12/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 9.085e+003
660.08

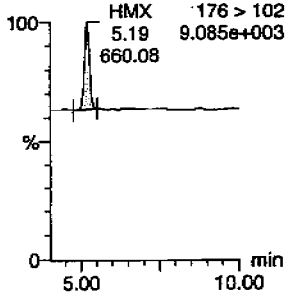

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
9.085e+003

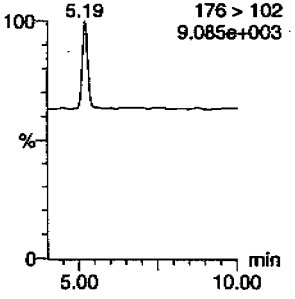

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.712e+003

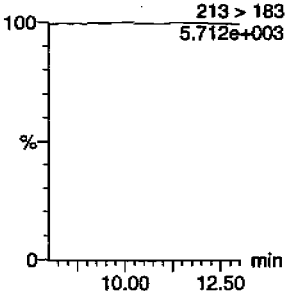

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.388e+004

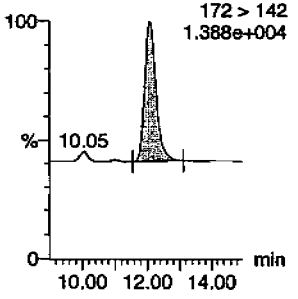

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.756e+003

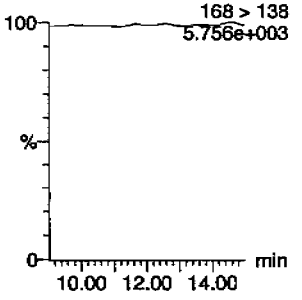

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.754e+003

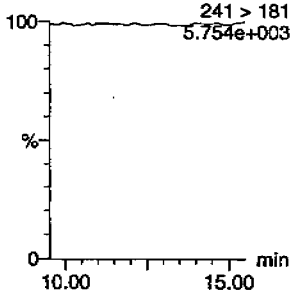

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.750e+003

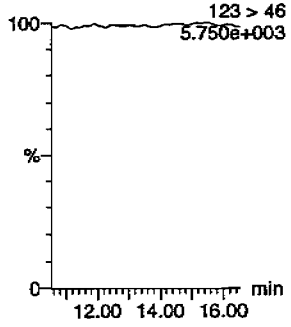

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.793e+003

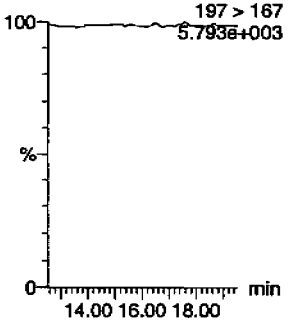

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.775e+003

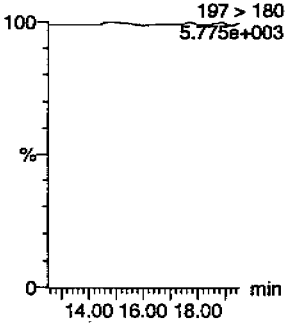

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.744e+003

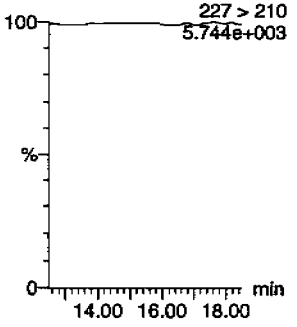

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.743e+004

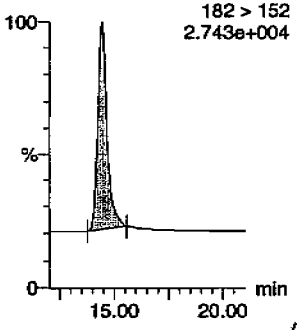

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.42 182 > 152
2.743e+004

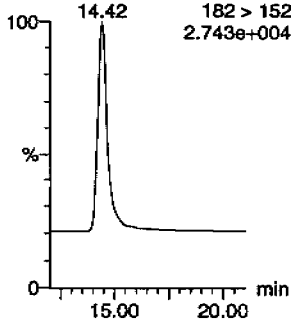

Hmm 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

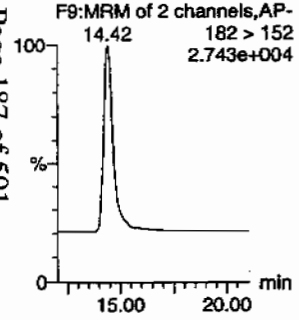

26-dinitrotoluene-d3

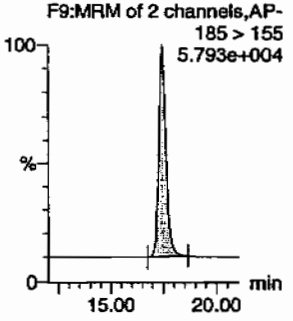

2-Nitrotoluene

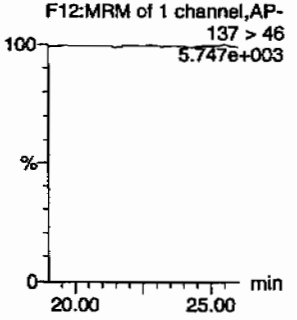

4-Nitrotoluene

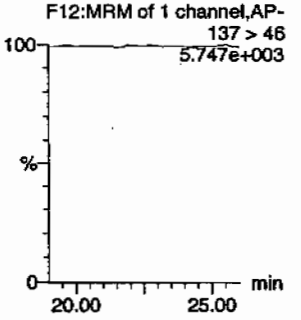

3-Nitrotoluene

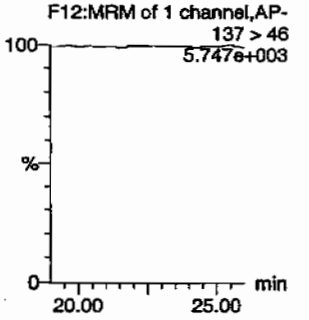

PETN

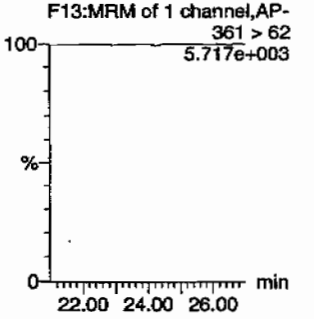

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245803006	HMX	176 > 102	5.19	660.078	3367.284	660.078	98.013	bb			28.2231			86.5
245803006	RDX	176 > 102			3367.284									
245803006	135-Trinitrobenzene	213 > 183			3367.284									
245803006	13-Dinitrobenzene-d4	172 > 142	12.07	3367.284		3367.284	3367.284	bb			523.7528	104.8	4.8	208.4
245803006	13-Dinitrobenzene	168 > 138			3367.284									
245803006	Tetryl	241 > 181			3367.284									
245803006	Nitrobenzene	123 > 46			3367.284									
245803006	4-Amino-26-dinitrotoluene	197 > 167			20937.688									
245803006	2-Amino-46-dinitrotoluene	197 > 180			20937.688									
245803006	246-Trinitrotoluene	227 > 210			20937.688									
245803006	34-dinitrotoluene	182 > 152	14.42	10711.750	20937.688	10711.750	255.801	bb			284.2255	113.7	13.7	747.8
245803006	26-dinitrotoluene	182 > 152			20937.688									
245803006	24-dinitrotoluene	182 > 152			20937.688									
245803006	26-dinitrotoluene-d3	185 > 155	17.46	20937.688		20937.688	20937.688	bb			567.1194	113.4	13.4	2171.8
245803006	2-Nitrotoluene	137 > 46			20937.688									
245803006	4-Nitrotoluene	137 > 46			20937.688									
245803006	3-Nitrotoluene	137 > 46			20937.688									
245803006	PETN	361 > 62			20937.688									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8060

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803006

Sample Amount 2

Moisture: 14.6

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120057.wiff

Date Analyzed: 13-FEB-10 02:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	312	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sar 2/15/10

Sample Name: "245803006" Sample ID: "947084[2]LER" File: "EXS02120057.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 31.2 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:05:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.16 min
Area: 4.57e+004 counts
Height: 9941.601 cps
Start Time: 7.04 min
End Time: 7.58 min

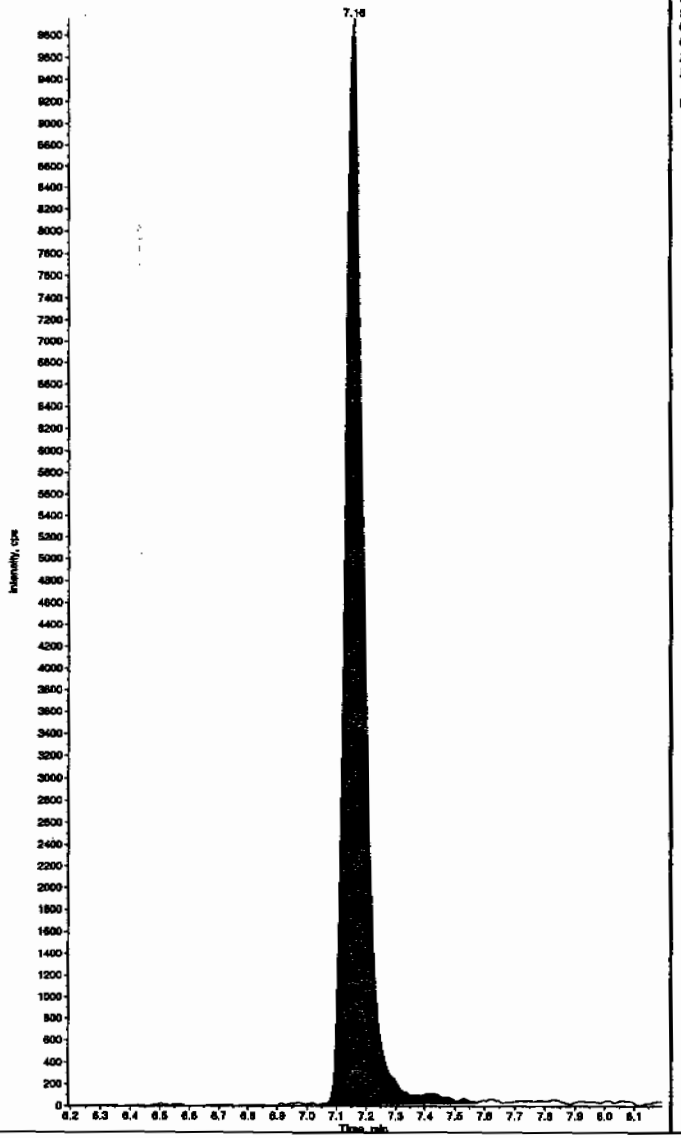

Sample Name: "245803006" Sample ID: "947084[2]LER" File: "EXS02120057.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:05:52 AM

Modified: Yes

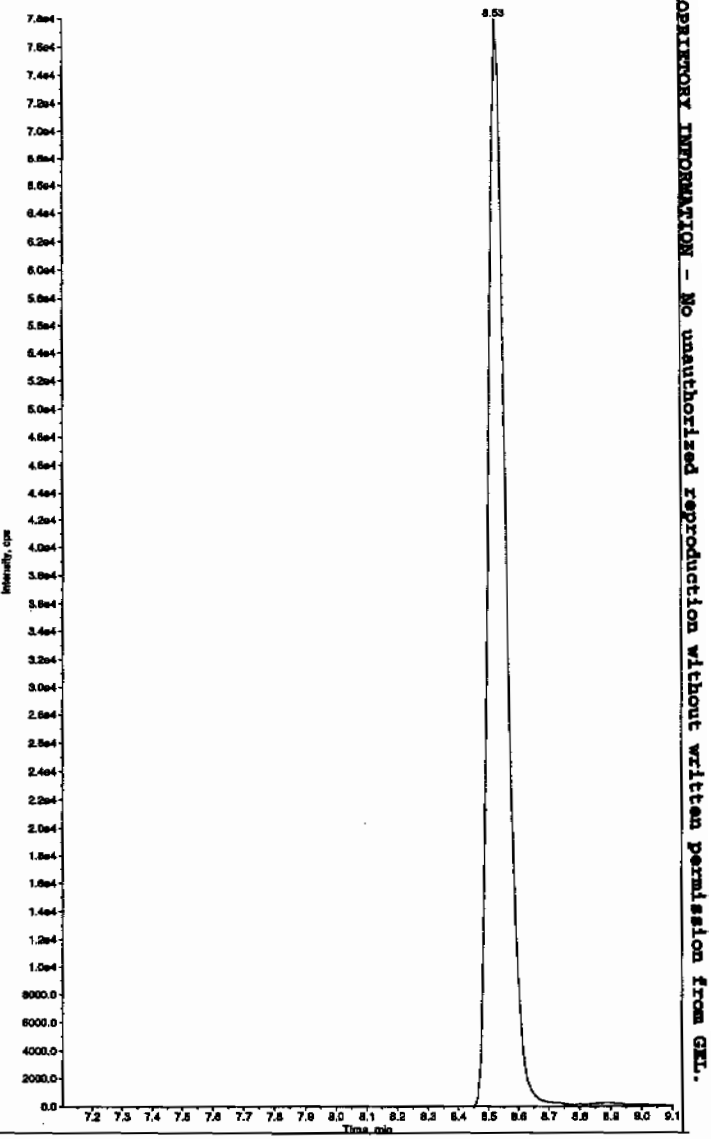

Hnm 02/16/10

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Sample Name: "245803006" Sample ID: "947084|2|LER" File: "EXS02120057.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 317. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:05:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 3.54e+006 counts
Height: 847212.463 cps
Start Time: 8.42 min
End Time: 9.00 min

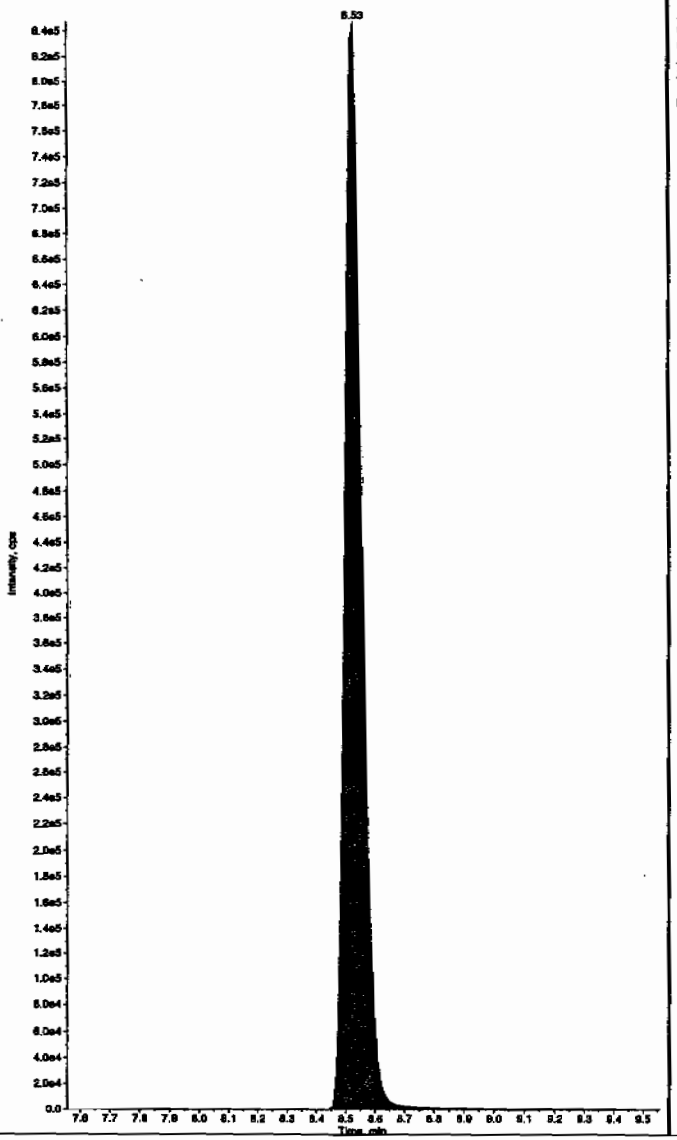

Sample Name: "245803006" Sample ID: "947084|2|LER" File: "EXS02120057.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:05:52 AM

Modified: No

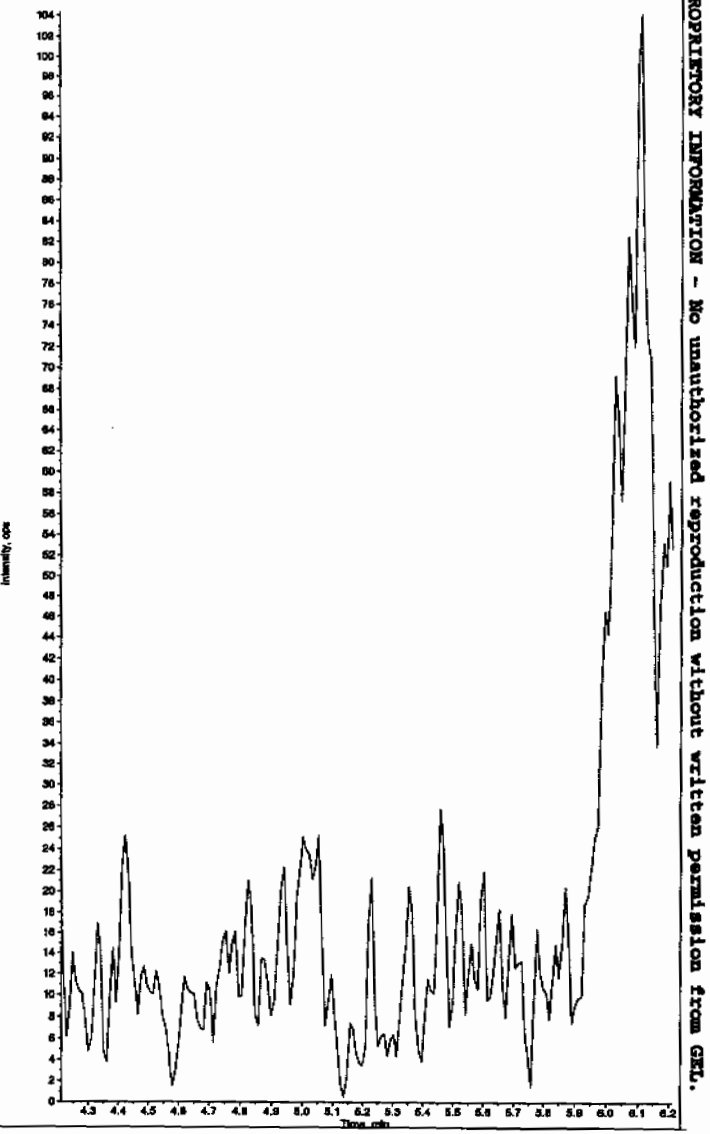

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Sample Name: "245803006" Sample ID: "947064[2]LER" File: "EXS02120057.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:05:52 AM

Modified: No

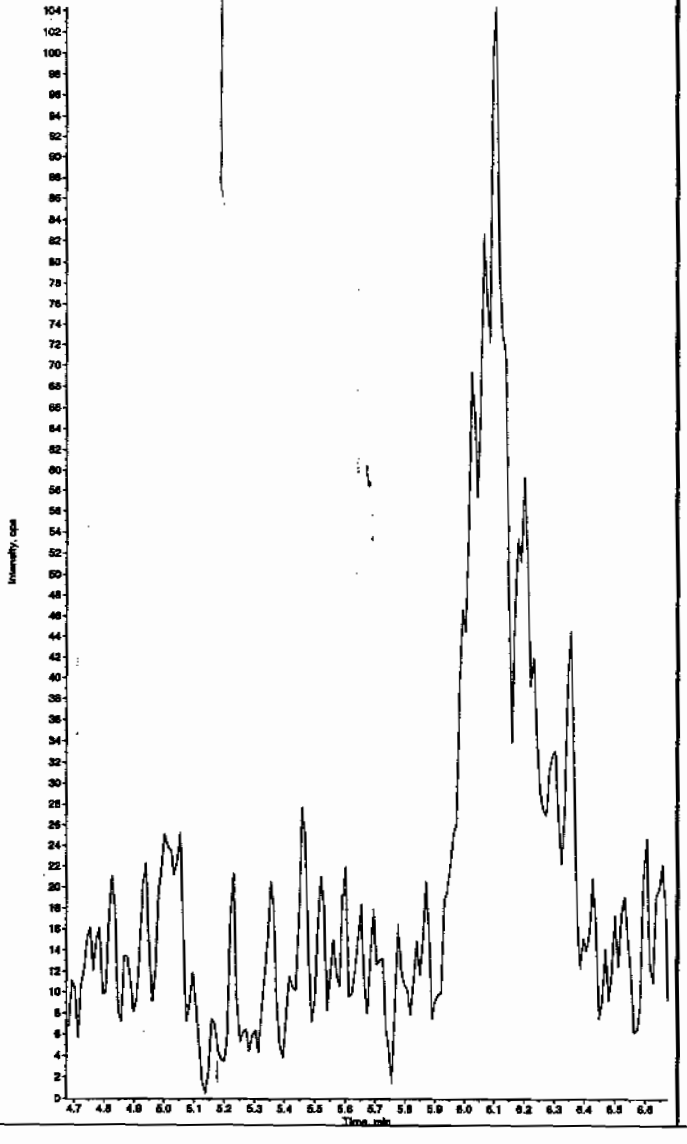

Sample Name: "245803006" Sample ID: "947064[2]LER" File: "EXS02120057.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/81.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:05:52 AM

Modified: No

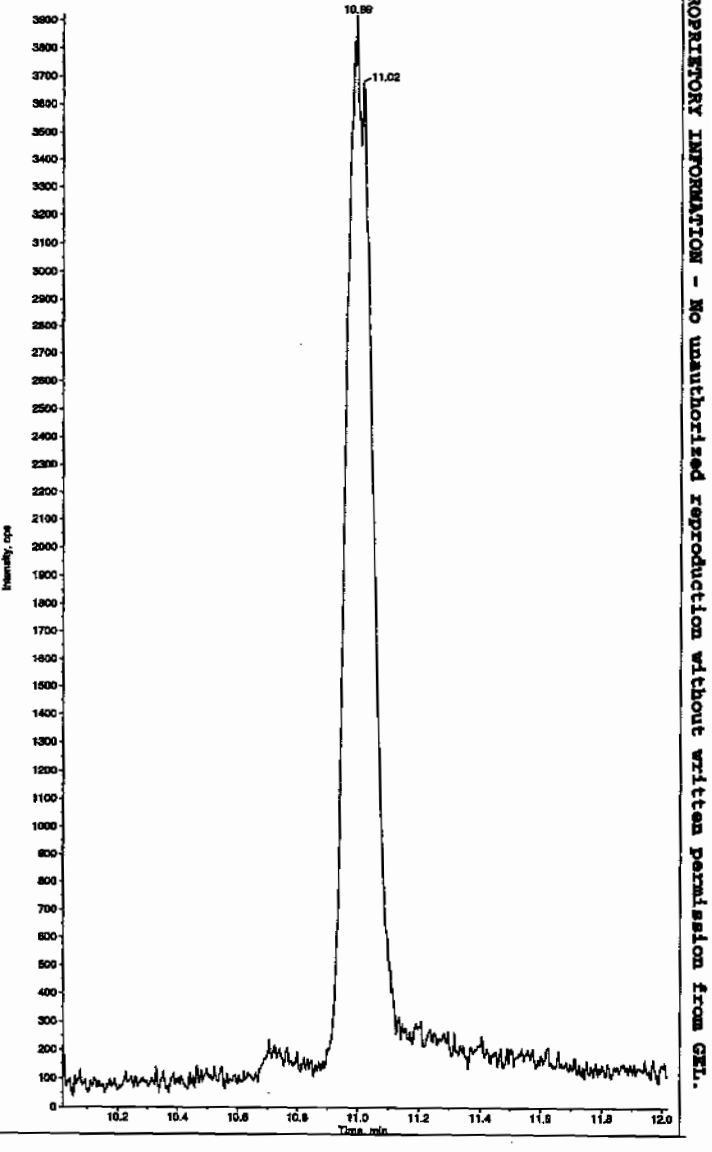

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8058

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803007

Sample Amount 2

Moisture: 35.9

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208177a

Date Analyzed: 12-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208177a
Date: 12-Feb-2010
Time: 05:18:36
ID: 245803007
Vial: 4:3,E

| LANL | 947084 | Soil | 2 |

2/12/10

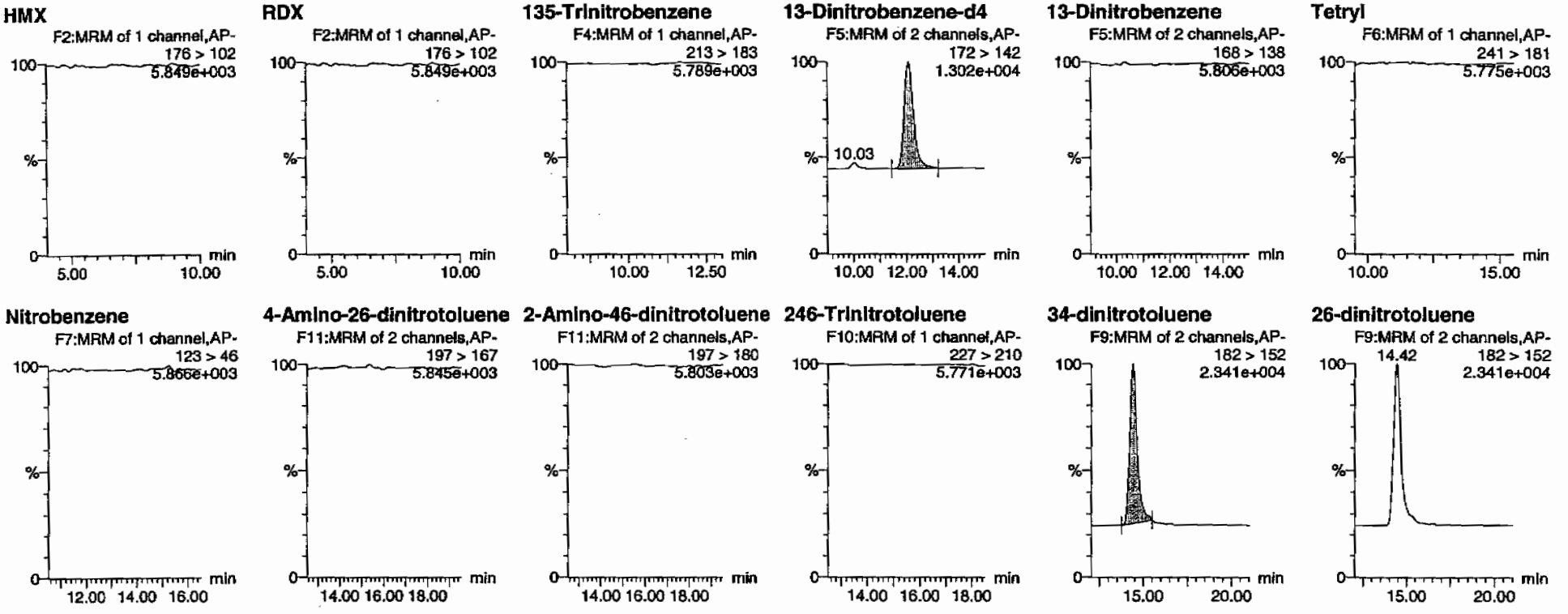

HMW 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

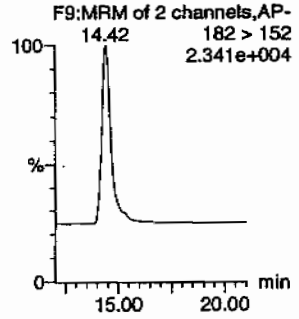

26-dinitrotoluene-d3

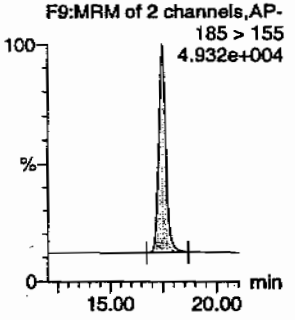

2-Nitrotoluene

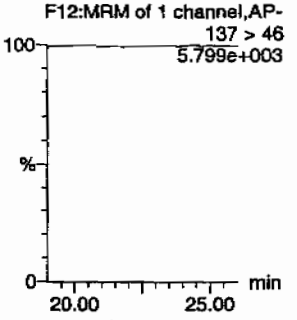

4-Nitrotoluene

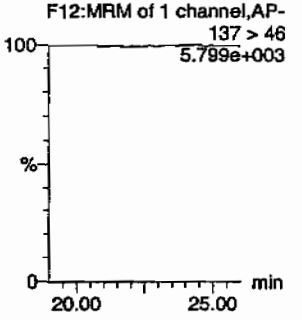

3-Nitrotoluene

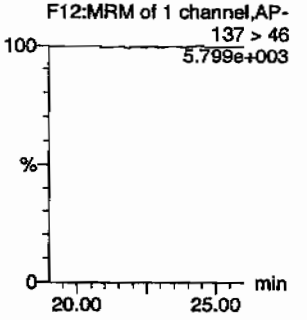

PETN

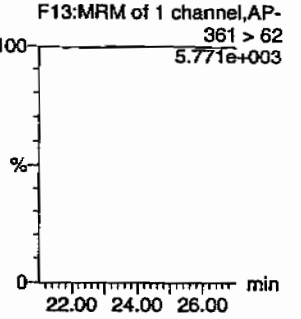

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245803007	HMX	176 > 102			3018.931									
245803007	RDX	176 > 102			3018.931									
245803007	135-Trinitrobenzene	213 > 183			3018.931									
245803007	13-Dinitrobenzene-d4	172 > 142	12.07	3018.931		3018.931	3018.931	bb			469.5694	93.9	-6.1	379.0
245803007	13-Dinitrobenzene	168 > 138			3018.931									
245803007	Tetryl	241 > 181			3018.931									
245803007	Nitrobenzene	123 > 46			3018.931									
245803007	4-Amino-26-dinitrotoluene	197 > 167			17477.262									
245803007	2-Amino-46-dinitrotoluene	197 > 180			17477.262									
245803007	246-Trinitrotoluene	227 > 210			17477.262									
245803007	34-dinitrotoluene	182 > 152	14.42	8523.978	17477.262	8523.978	243.859	bb			270.9569	108.4	8.4	568.9
245803007	26-dinitrotoluene	182 > 152			17477.262									
245803007	24-dinitrotoluene	182 > 152			17477.262									
245803007	26-dinitrotoluene-d3	185 > 155	17.47	17477.262		17477.262	17477.262	bb			473.3901	94.7	-5.3	1783.3
245803007	2-Nitrotoluene	137 > 46			17477.262									
245803007	4-Nitrotoluene	137 > 46			17477.262									
245803007	3-Nitrotoluene	137 > 46			17477.262									
245803007	PETN	361 > 62			17477.262									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8058

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803007

Sample Amount 2

Moisture: 35.9

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120058.wiff

Date Analyzed: 13-FEB-10 02:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lur 2/15/10

Sample Name: "245803007" Sample ID: "947084|2|LER" File: "EXS02120058.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:21:33 AM

Modified: No

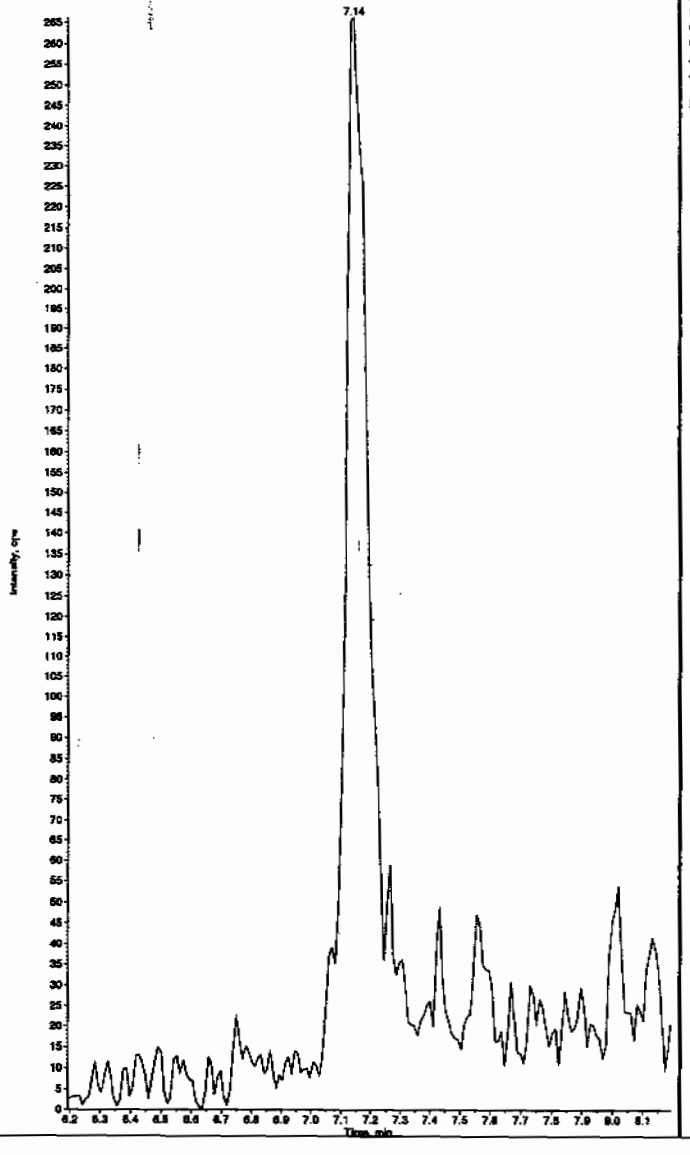

Sample Name: "245803007" Sample ID: "947084|2|LER" File: "EXS02120058.wiff"
Peak Name: "35-Dintroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:21:33 AM

Modified: Yes

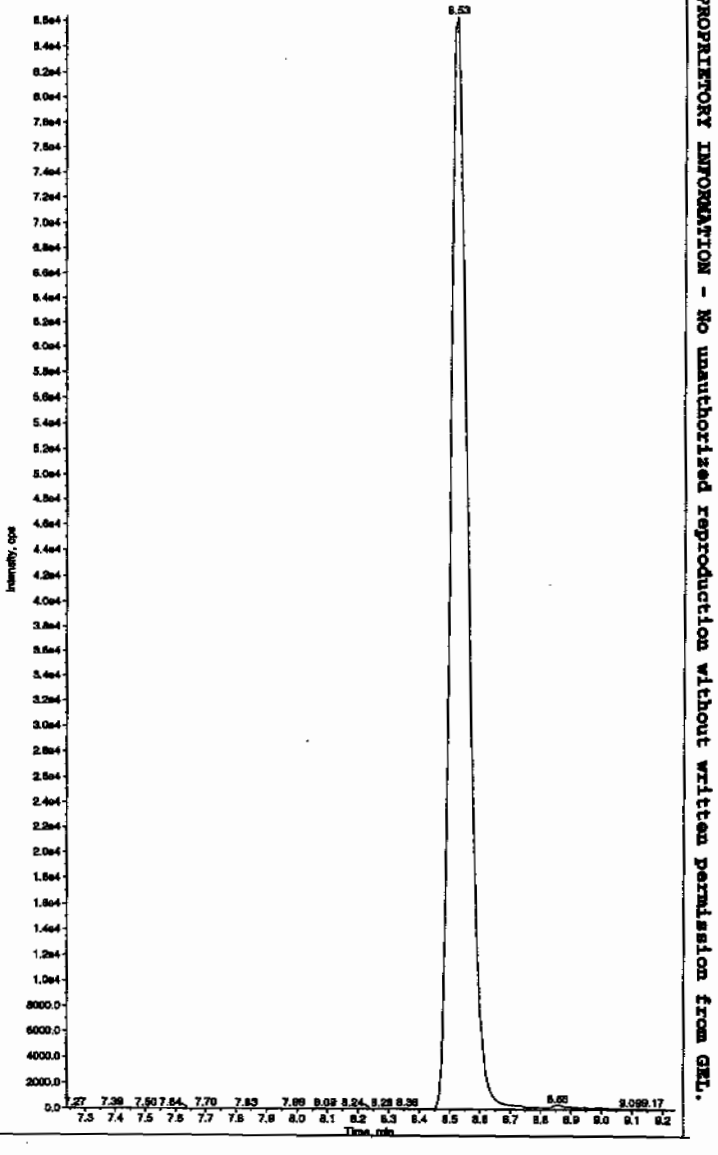

Hnm 02/16/10

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Sample Name: "245803007" Sample ID: "947084|2|LER" File: "EXS02120058.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 324. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:21:33 AM

Modified: No
Appc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.61e+006 counts
Height: 925748.718 cps
Start Time: 8.42 min
End Time: 8.92 min

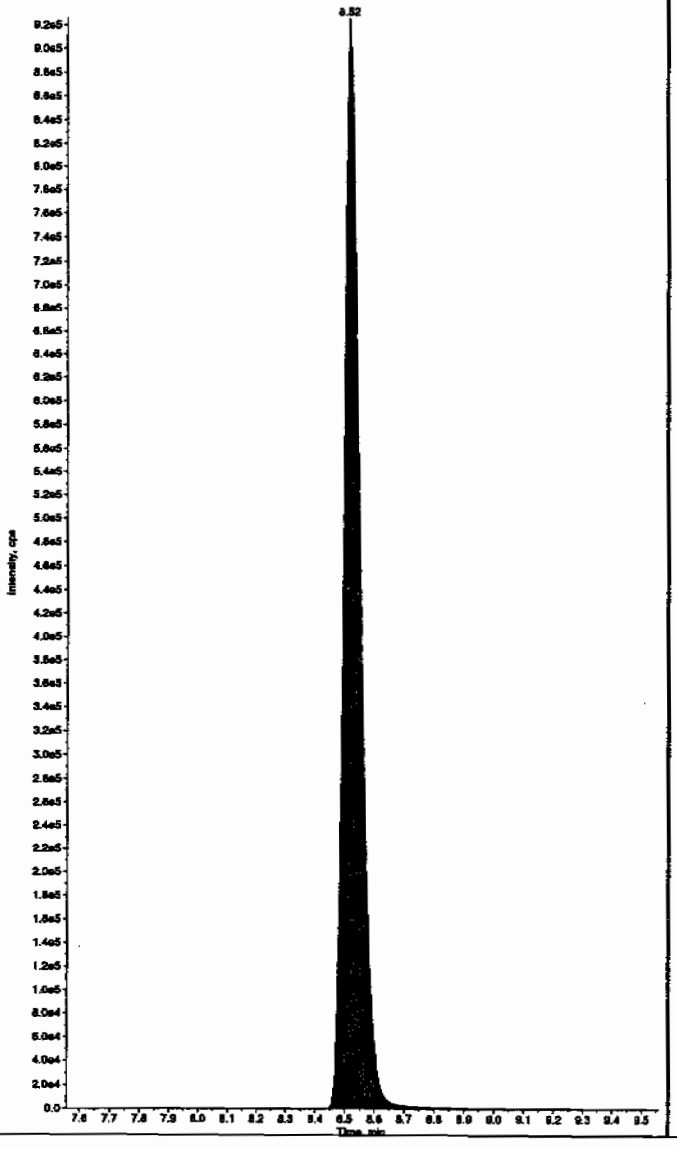

Sample Name: "245803007" Sample ID: "947084|2|LER" File: "EXS02120058.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:21:33 AM

Modified: No

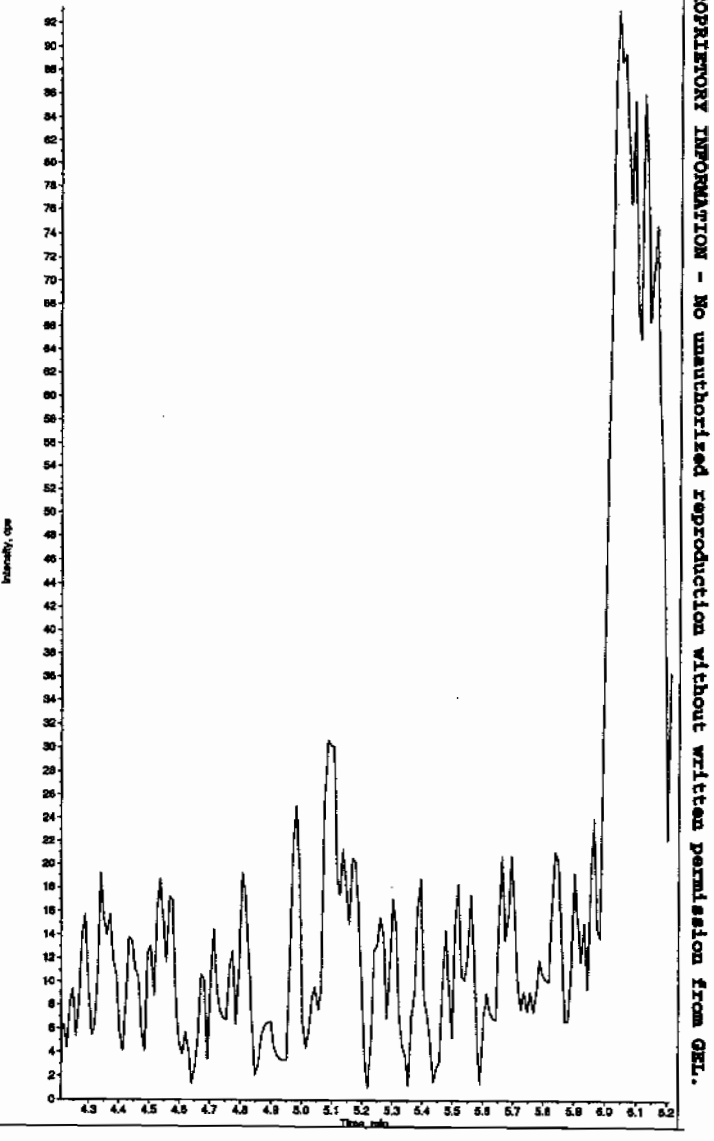

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Sample Name: "245803007" Sample ID: "947064|2|LER" File: "EXS02120058.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:21:33 AM

Modified: No

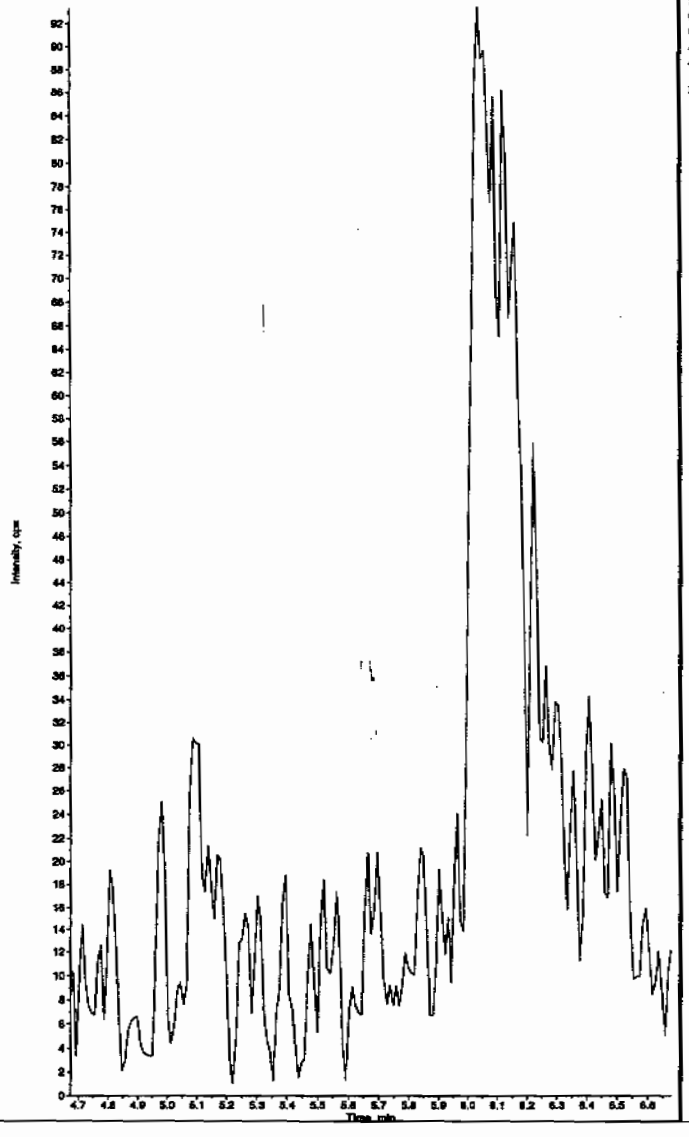

Sample Name: "245803007" Sample ID: "947064|2|LER" File: "EXS02120058.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:21:33 AM

Modified: No

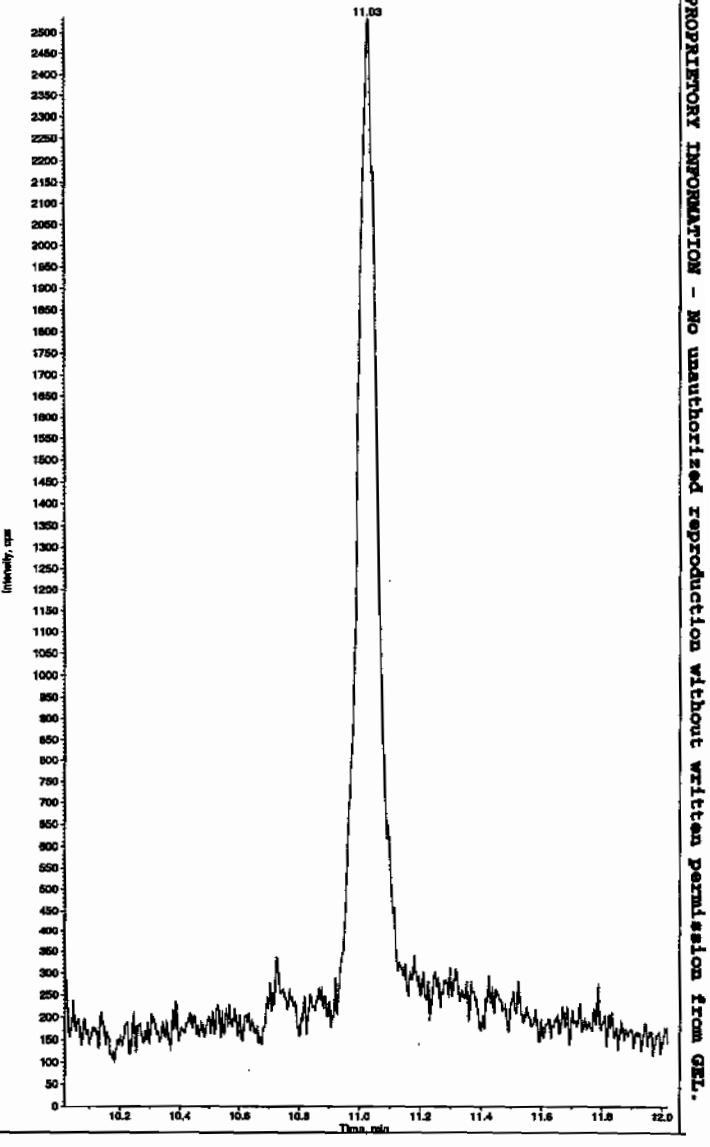

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8059

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803008

Sample Amount 2

Moisture: 7.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208178a

Date Analyzed: 12-FEB-10 05:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208178a
Date: 12-Feb-2010
Time: 05:48:03
ID: 245803008 | LANU | 947084 | Solid | 2 |
Vial: 4:3,F

MM 2/12/10

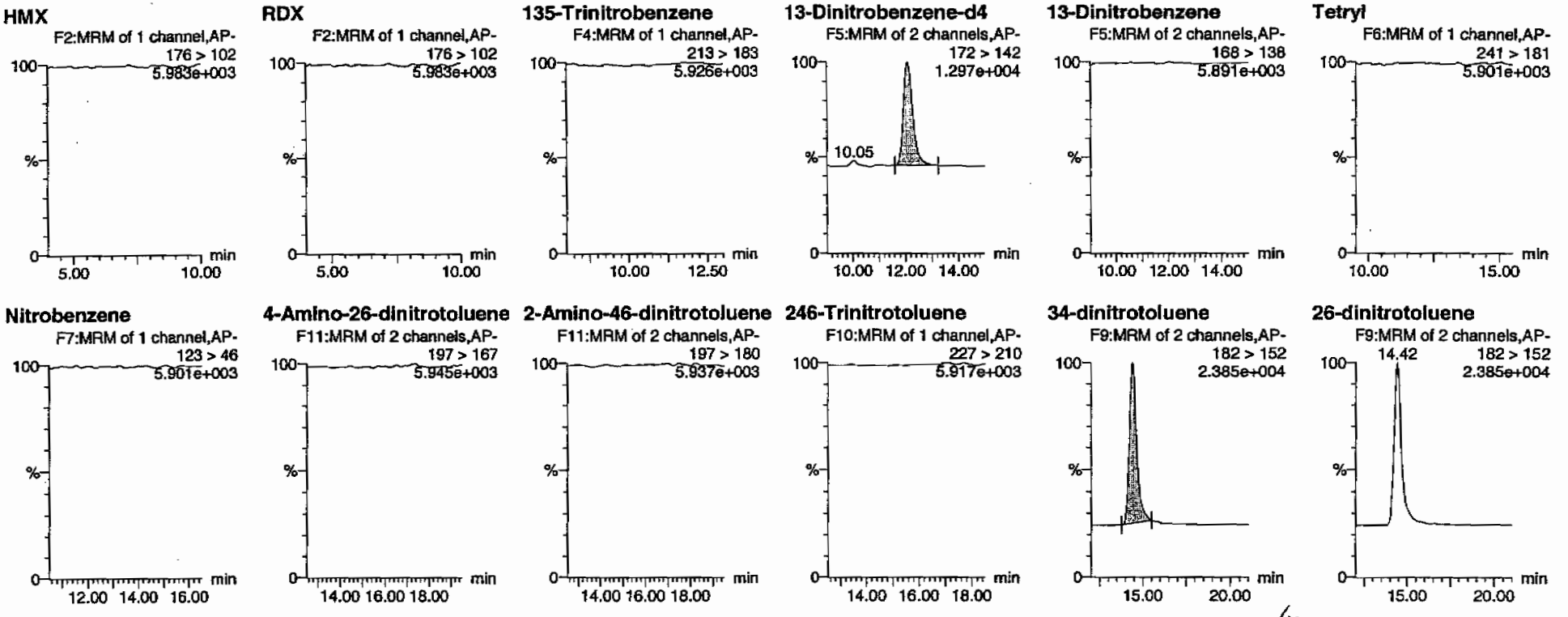

HMM 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

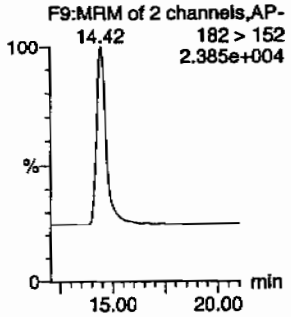

26-dinitrotoluene-d3

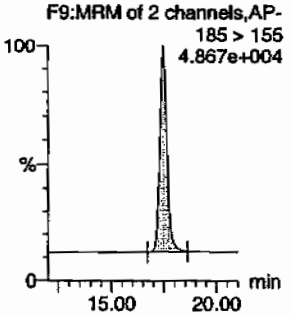

2-Nitrotoluene

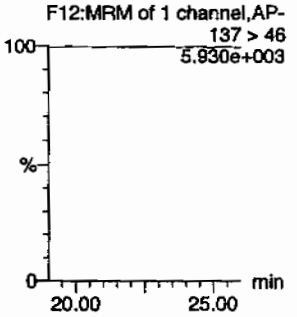

4-Nitrotoluene

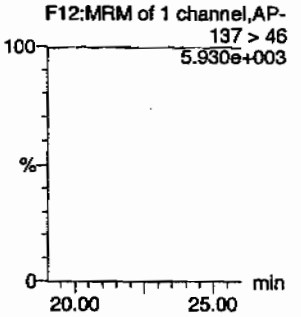

3-Nitrotoluene

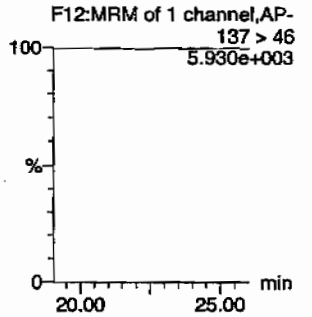

PETN

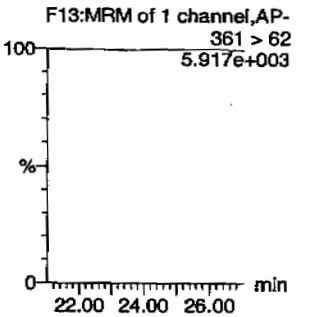

ID	Name	Trace	RT	Area	IS Area	%Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245803008	HMX	176 > 102			2916.955									
245803008	RDX	176 > 102			2916.955									
245803008	135-Trinitrobenzene	213 > 183			2916.955									
245803008	13-Dinitrobenzene-d4	172 > 142	12.07	2916.955		2916.955	2916.955	bb			453.7079	90.7	-9.3	134.2
245803008	13-Dinitrobenzene	168 > 138			2916.955									
245803008	Tetryl	241 > 181			2916.955									
245803008	Nitrobenzene	123 > 46			2916.955									
245803008	4-Amino-26-dinitrotoluene	197 > 167			17148.523									
245803008	2-Amino-46-dinitrotoluene	197 > 180			17148.523									
245803008	246-Trinitrotoluene	227 > 210			17148.523									
245803008	34-dinitrotoluene	182 > 152	14.42	8727.056	17148.523	8727.056	254.455	bb			282.7303	113.1	13.1	716.8
245803008	26-dinitrotoluene	182 > 152			17148.523									
245803008	24-dinitrotoluene	182 > 152			17148.523									
245803008	26-dinitrotoluene-d3	185 > 155	17.46	17148.523		17148.523	17148.523	bb			464.4859	92.9	-7.1	2191.7
245803008	2-Nitrotoluene	137 > 46			17148.523									
245803008	4-Nitrotoluene	137 > 46			17148.523									
245803008	3-Nitrotoluene	137 > 46			17148.523									
245803008	PETN	361 > 62			17148.523									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8059

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 245803008

Sample Amount 2

Moisture: 7.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120059.wiff

Date Analyzed: 13-FEB-10 02:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcw 2/15/10

Sample Name: "245803008" Sample ID: "947064[2]LER" File: "EXS02120059.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:37:16 AM

Modified: No

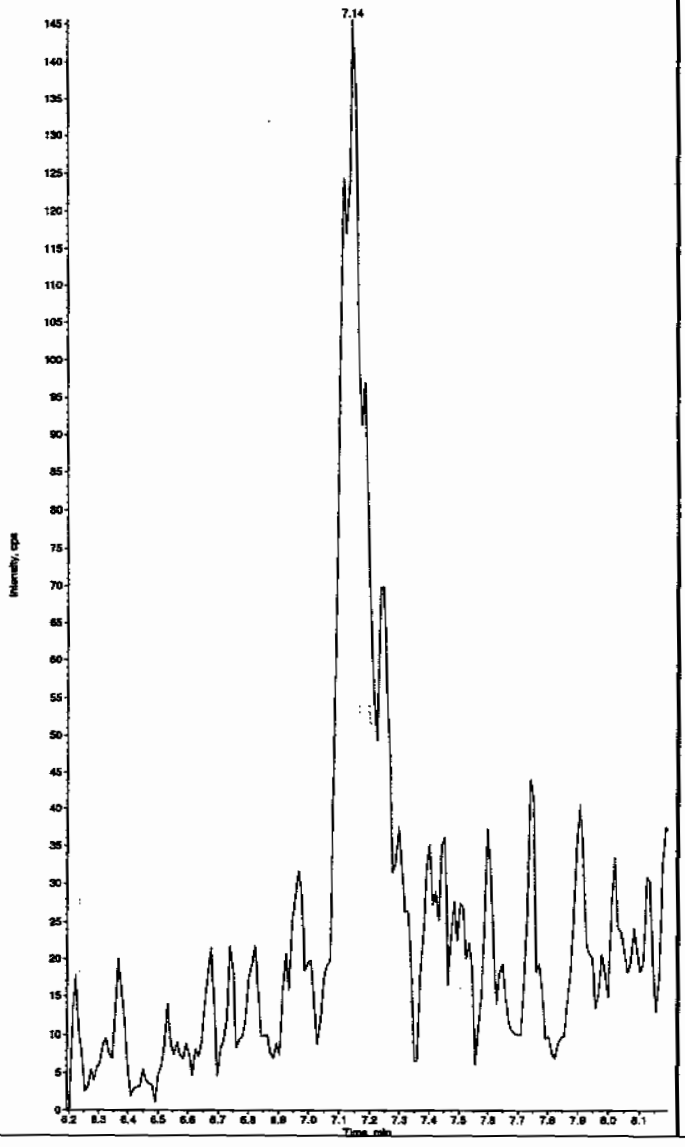

Sample Name: "245803008" Sample ID: "947064[2]LER" File: "EXS02120059.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:37:16 AM

Modified: Yes

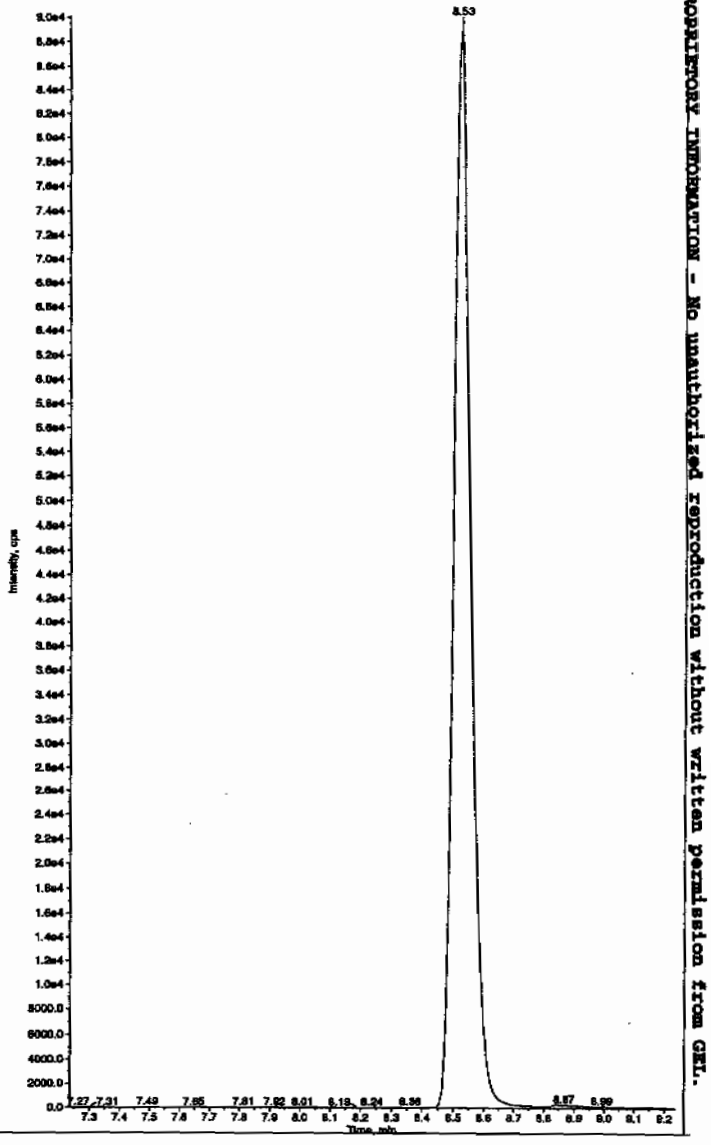

Hmm 02/16/10

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Sample Name: "245803008" Sample ID: "947084|2|LER" File: "EXS02120059.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 333. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:37:16 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.70e+006 counts
Height: 916869.507 cps
Start Time: 8.39 min
End Time: 8.97 min

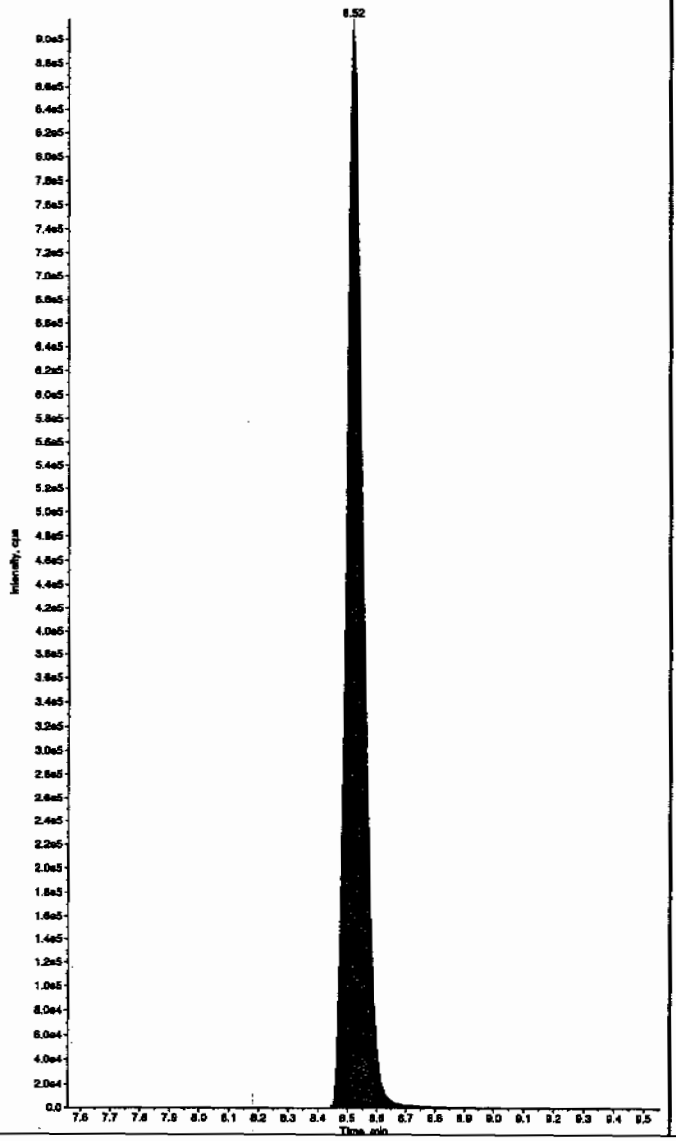

Sample Name: "245803008" Sample ID: "947084|2|LER" File: "EXS02120059.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:37:16 AM

Modified: No

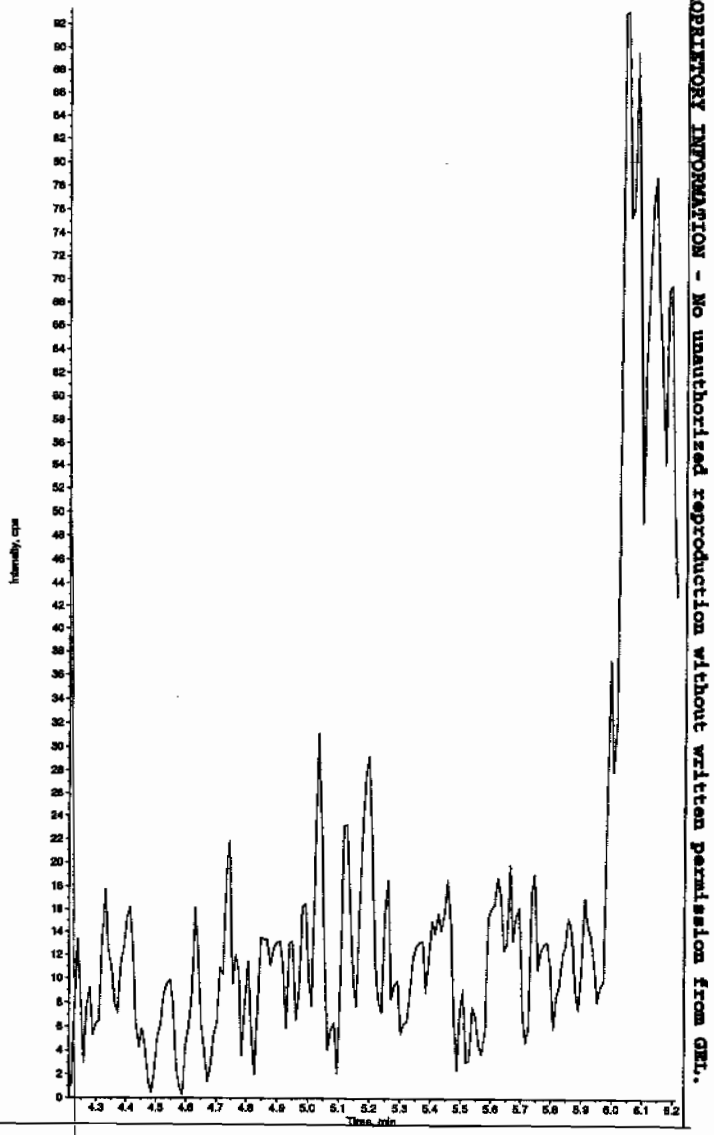

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Sample Name: "245803008" Sample ID: "947084|2|LER" File: "EXS02120059.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:37:16 AM

Modified: No

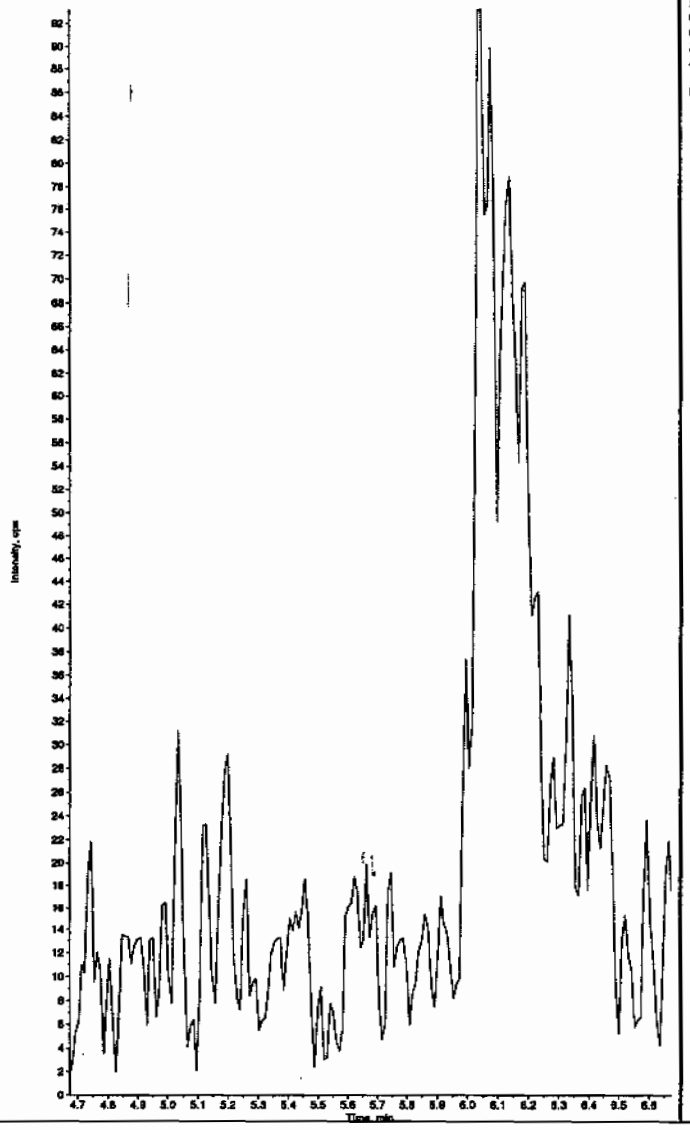

Sample Name: "245803008" Sample ID: "947084|2|LER" File: "EXS02120059.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:37:16 AM

Modified: No

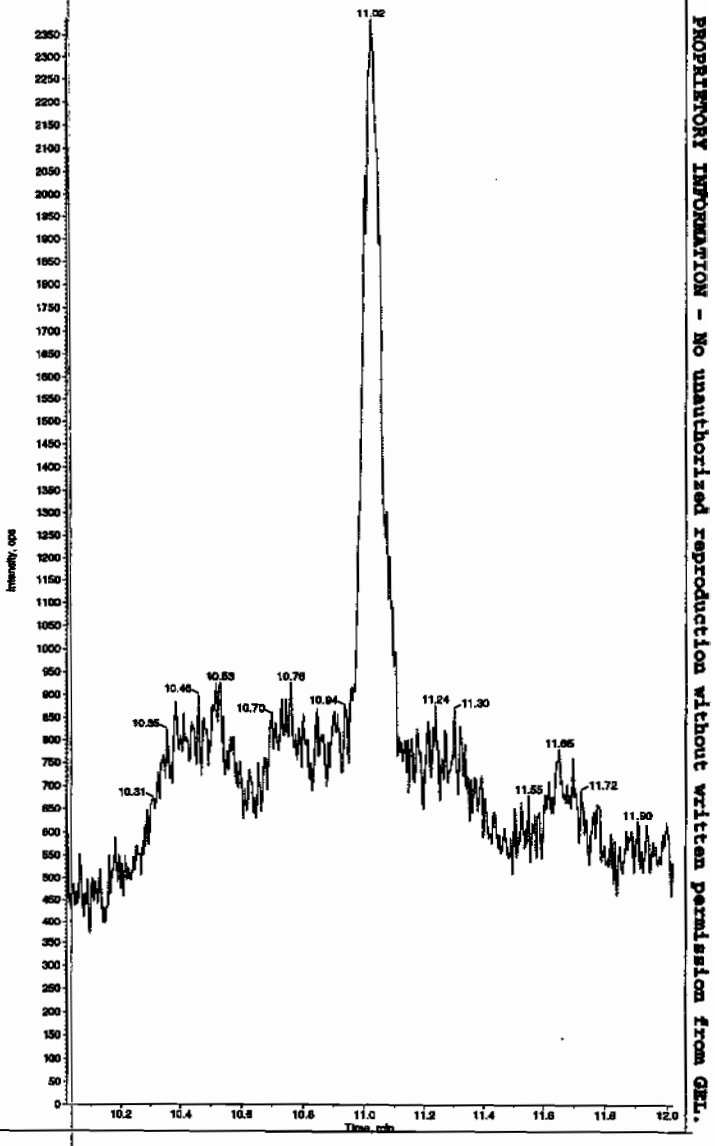

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1473

Lab Code: GEL

Run Date: 08-FEB-10,12-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0208003a	EXP0208004a	EXP0208005a	EXP0208006a	EXP0208007a	EXP0208008a			
Parmname									
1,3,5-Trinitrobenzene	3.548	3.943	4.247	3.451	3.361	3.547	3.683	9.244	
1,3-Dinitrobenzene-d4	6.149	6.436	6.465	6.633	6.717	6.174	6.429	3.612	
2,4,6-Trinitrotoluene	.299	.308	.311	.323	.348	.347	0.323	6.431	
2,4-Dinitrotoluene	.243	.236	.232	.24	.256	.258	0.244	4.271	
2,6-Dinitrotoluene	1.071	1.092	1.008	1.066	1.112	1.095	1.074	3.4	
2,6-Dinitrotoluene-d3	34.376	37.613	37.768	39.993	37.032	34.734	36.919	5.669	
2-Amino-4,6-dinitrotoluene	.361	.359	.391	.411	.422	.432	0.396	7.897	
3,4-Dinitrotoluene	.793	.884	.838	.907	.976	1	0.900	8.794	
4-Amino-2,6-dinitrotoluene	.279	.278	.264	.289	.311	.303	0.287	6.027	
HMX	3.402	3.005	4.021	3.584	3.432	3.392	3.473	9.511	
Nitrobenzene	.773	.761	.821	.856	.825	.812	0.808	4.332	
RDX	2.405	2.171	2.783	2.361	2.379	2.47	2.428	8.269	
m-Dinitrobenzene	1.257	1.065	1.193	1.226	1.214	1.259	1.202	5.994	
m-Nitrotoluene	.103	.107	.082	.087	.09	.089	0.093	10.689	
o-Nitrotoluene	.173	.148	.144	.152	.156	.157	0.155	6.405	
p-Nitrotoluene	.071	.091	.069	.074	.076	.075	0.076	10.145	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1473

Lab Code: GEL

Run Date: 08-FEB-10,12-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0208003a	EXP0208004a	EXP0208005a	EXP0208006a	EXP0208007a	EXP0208008a					
Parmname:											
PETN	1686.42	3643.3	12841.7	23262.7	39238.6	44182	1.544	-.0002977	21.056	.9994	
Tetryl	213.659	359.657	1210.76	2567.13	4763.44	5400.44	.962	-.0000981	8.004	.9996	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\020810expa.mdb, Time: Tue Feb 09 09:17:48 2010
Calibration: Untitled, Time: Tue Feb 09 10:19:05 2010

Compound name: HMX
Response Factor: 3.4728
RRF SD: 0.330307, % Relative SD: 9.51126
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

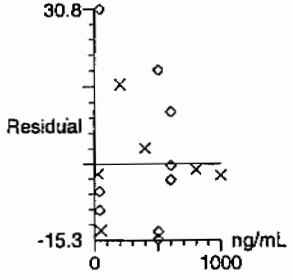

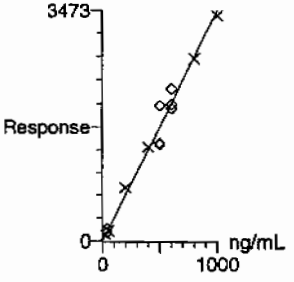

MMT
2/9/10

Compound name: RDX
Response Factor: 2.42814
RRF SD: 0.200785, % Relative SD: 8.26908
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

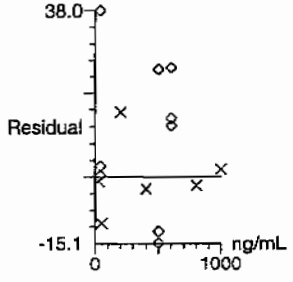

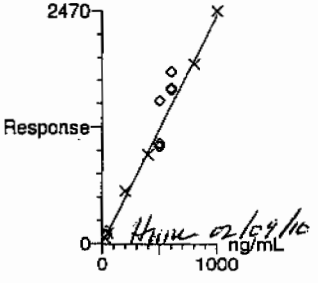

Hmm 02/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.68306
RRF SD: 0.340458, % Relative SD: 9.2439
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

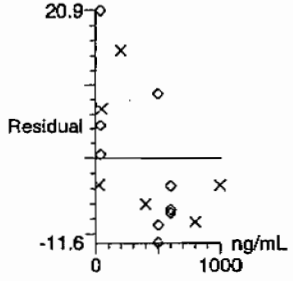

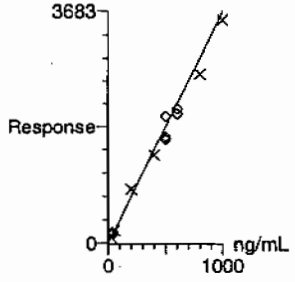

Compound name: 13-Dinitrobenzene-d4
Response Factor: 6.42915
RRF SD: 0.232214, % Relative SD: 3.6119
Response type: External Std, Area
Curve type: RF

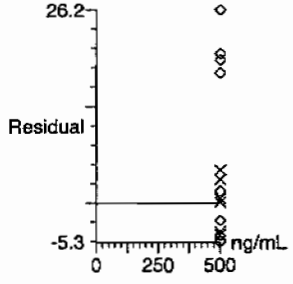

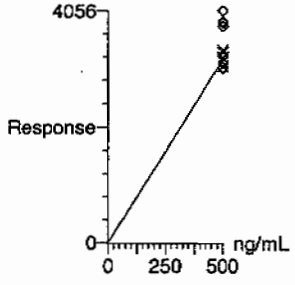

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.2024
RRF SD: 0.0720671, % Relative SD: 5.99362
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

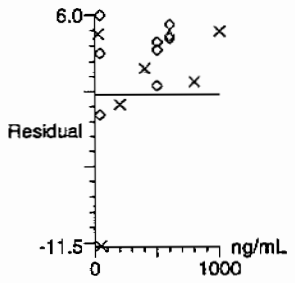

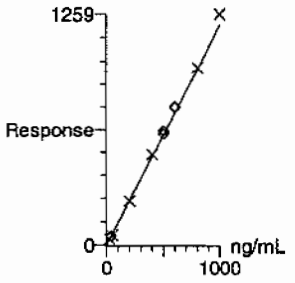

Compound name: Tetryl
Coefficient of Determination: 0.999624
Calibration curve: -9.80877e-005 * x^2 + 0.962233 * x + 8.00395
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

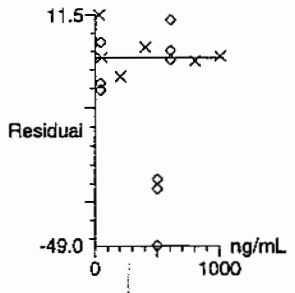

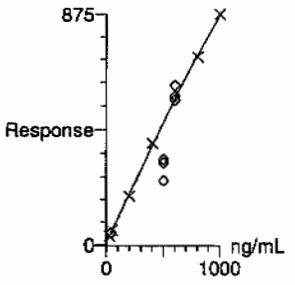

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: Nitrobenzene
Response Factor: 0.807771
RRF SD: 0.034992, % Relative SD: 4.33192
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

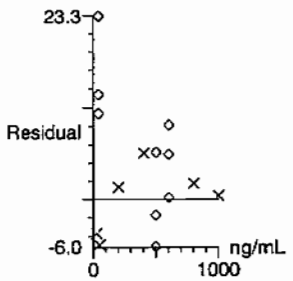

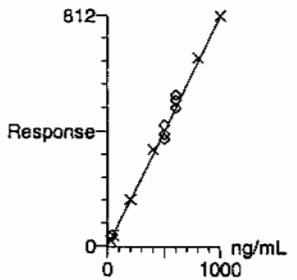

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.287245
RRF SD: 0.0173125, % Relative SD: 6.02707
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

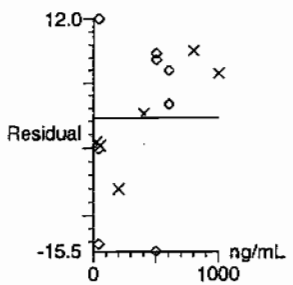

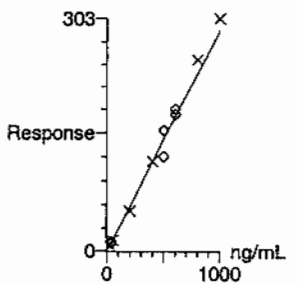

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.39603
RRF SD: 0.0312733, % Relative SD: 7.8967
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

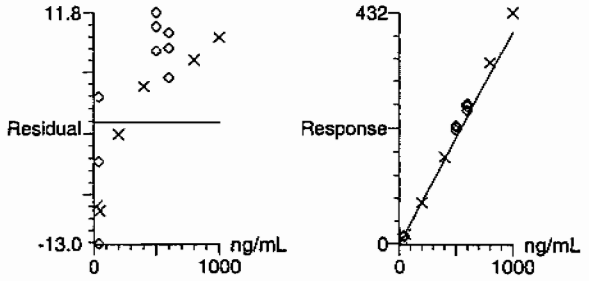

Compound name: 246-Trinitrotoluene
Response Factor: 0.322663
RRF SD: 0.0207501, % Relative SD: 6.43088
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

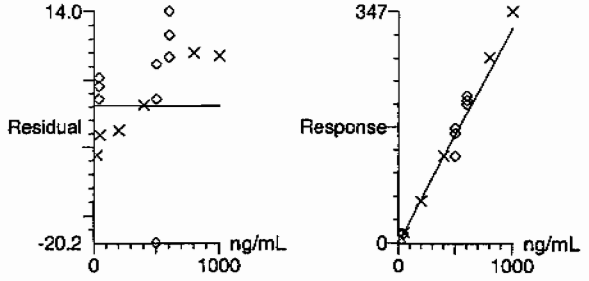

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.899992
RRF SD: 0.0791463, % Relative SD: 8.79411
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

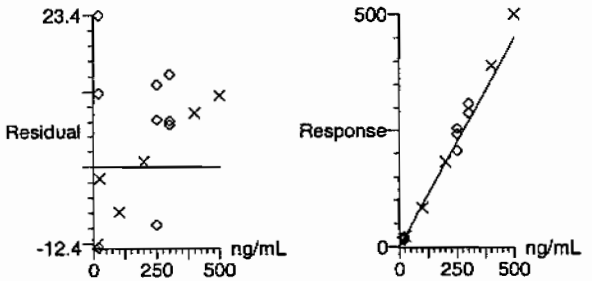

Compound name: 26-dinitrotoluene
Response Factor: 1.07409
RRF SD: 0.0365192, % Relative SD: 3.40002
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

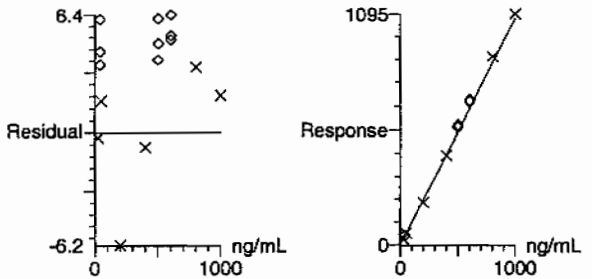

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.244052
RRF SD: 0.010423, % Relative SD: 4.27082
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

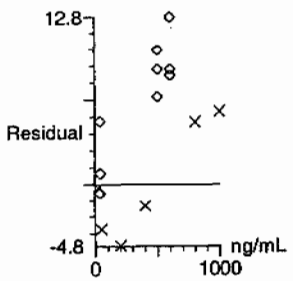

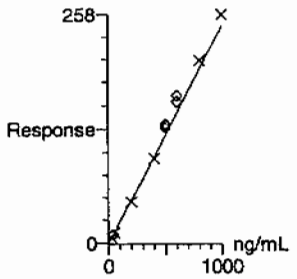

Compound name: 26-dinitrotoluene-d3
Response Factor: 36.9194
RRF SD: 2.09302, % Relative SD: 5.66917
Response type: External Std, Area
Curve type: RF

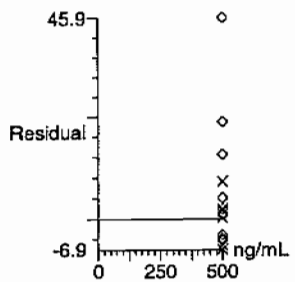

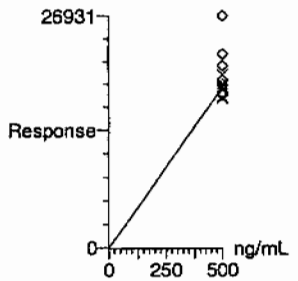

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.155048
RRF SD: 0.00993156, % Relative SD: 6.40546
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

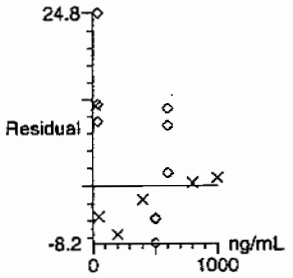

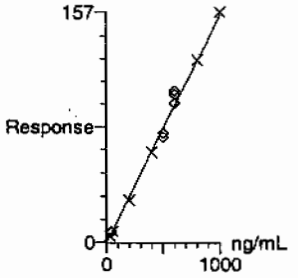

Compound name: 4-Nitrotoluene
Response Factor: 0.0760026
RRF SD: 0.00771034, % Relative SD: 10.1448
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

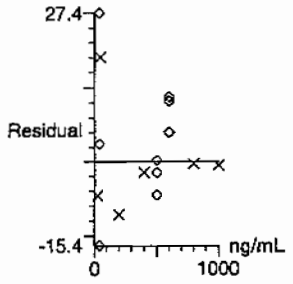

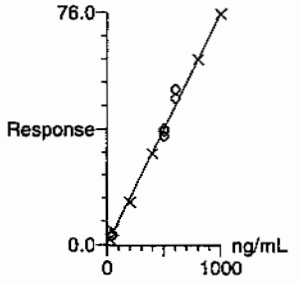

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0931713
RRF SD: 0.0099588, % Relative SD: 10.6887
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

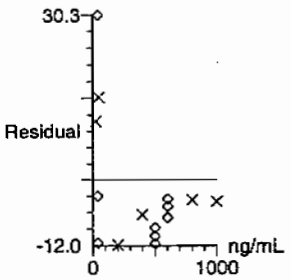

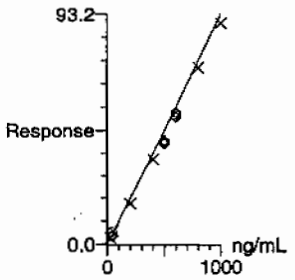

Compound name: PETN
Coefficient of Determination: 0.999420
Calibration curve: -0.000297734 * x^2 + 1.54409 * x + 21.0556
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

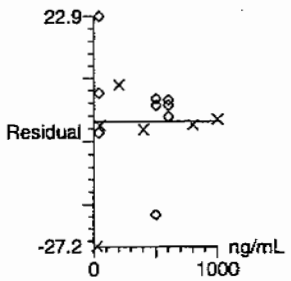

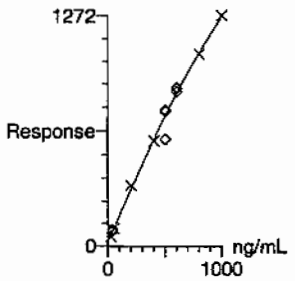

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0208010a

Analysis Date: 08-FEB-10 19:10

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	620.504	103	
RDX	600	679.292	113	
Tetryl	600	611.62	102	
m-Dinitrobenzene	600	625.274	104	
m-Nitrotoluene	600	570.29	95	
o-Nitrotoluene	600	651.604	109	
p-Nitrotoluene	600	672.143	112	
1,3,5-Trinitrobenzene	600	577.44	96	
1,3-Dinitrobenzene-d4	500	477.774	96	
2,4,6-Trinitrotoluene	600	643.695	107	
2,4-Dinitrotoluene	600	652.405	109	
2,6-Dinitrotoluene	600	631.529	105	
2,6-Dinitrotoluene-d3	500	481.745	96	
2-Amino-4,6-dinitrotoluene	600	657.981	110	
3,4-Dinitrotoluene	300	321.546	107	
4-Amino-2,6-dinitrotoluene	600	609.28	102	
HMX	600	598.223	100	
Nitrobenzene	600	634.828	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qid, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208010a
Date: 08-Feb-2010
Time: 19:10:05
ID: WXX100208-07ICV
Vial: 1:1,B

MMT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.167e+004
7.66

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.167e+004
5.22
RDX
7.66
10132.95

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.149e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.383e+004
10.13

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.800e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.589e+004
Tetryl
12.87
3439.25

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.530e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.144e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.036e+004
15.65

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.351e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.910e+004
17.88
18.57

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.910e+004
14.65
18.57

MMT 02/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

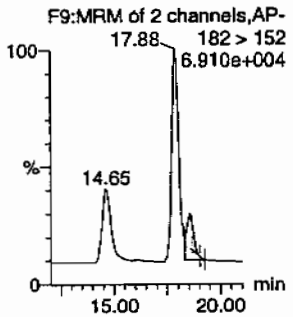

26-dinitrotoluene-d3

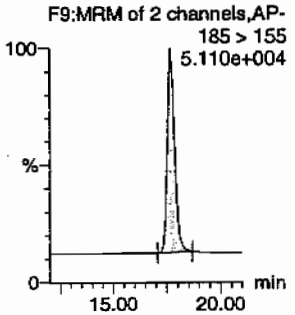

2-Nitrotoluene

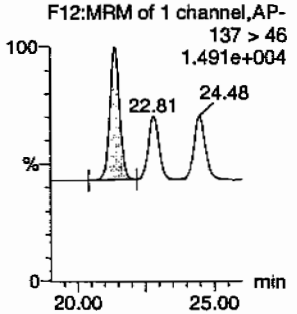

4-Nitrotoluene

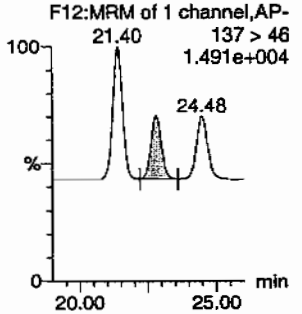

3-Nitrotoluene

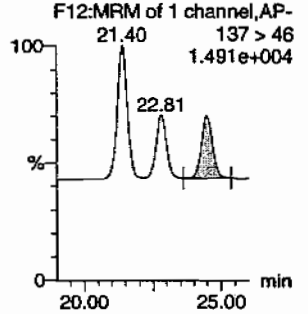

PETN

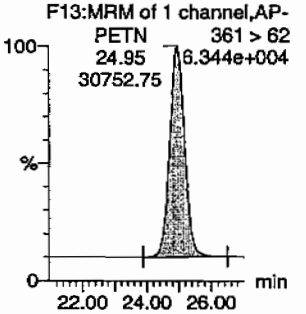

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07ICV	HMX	176 > 102	5.22	12762.877	3071.677	12762.877	2077.510	bb			598.2226	99.7	-0.3	901.4
WXX100208-07ICV	RDX	176 > 102	7.66	10132.953	3071.677	10132.953	1649.417	bb			679.2915	113.2	13.2	602.3
WXX100208-07ICV	135-Trinitrobenzene	213 > 183	10.30	13065.338	3071.677	13065.338	2126.743	bb			577.4399	96.2	-3.8	1489.3
WXX100208-07ICV	13-Dinitrobenzene-d4	172 > 142	12.21	3071.677		3071.677	3071.677	bb			477.7736	95.6	-4.4	264.9
WXX100208-07ICV	13-Dinitrobenzene	168 > 138	12.34	4618.735	3071.677	4618.735	751.826	bb			625.2737	104.2	4.2	460.8
WXX100208-07ICV	Tetryl	241 > 181	12.87	3439.246	3071.677	3439.246	559.832	bb			611.6196	101.9	1.9	207.7
WXX100208-07ICV	Nitrobenzene	123 > 46	13.76	3150.282	3071.677	3150.282	512.795	bb			634.8275	105.8	5.8	437.9
WXX100208-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.95	6225.456	17785.730	6225.456	175.013	MM	09-Feb-10	10:07:09	609.2803	101.5	1.5	219.6
WXX100208-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9269.226	17785.730	9269.226	260.580	bb			657.9810	109.7	9.7	257.1
WXX100208-07ICV	246-Trinitrotoluene	227 > 210	15.64	7388.070	17785.730	7388.070	207.697	bb			643.6946	107.3	7.3	286.9
WXX100208-07ICV	34-dinitrotoluene	182 > 152	14.65	10293.978	17785.730	10293.978	289.389	bb			321.5458	107.2	7.2	346.9
WXX100208-07ICV	26-dinitrotoluene	182 > 152	17.88	24128.742	17785.730	24128.742	678.317	MM	09-Feb-10	10:13:53	631.5288	105.3	5.3	1020.2
WXX100208-07ICV	24-dinitrotoluene	182 > 152	18.57	5663.705	17785.730	5663.705	159.220	MM	09-Feb-10	10:16:51	652.4052	108.7	8.7	223.1
WXX100208-07ICV	26-dinitrotoluene-d3	185 > 155	17.71	17785.730		17785.730	17785.730	bb			481.7453	96.3	-3.7	1501.7
WXX100208-07ICV	2-Nitrotoluene	137 > 46	21.40	3593.784	17785.730	3593.784	101.030	bb			651.6036	108.6	8.6	770.9
WXX100208-07ICV	4-Nitrotoluene	137 > 46	22.81	1817.156	17785.730	1817.156	51.085	bb			672.1432	112.0	12.0	368.6
WXX100208-07ICV	3-Nitrotoluene	137 > 46	24.48	1890.078	17785.730	1890.078	53.135	bb			570.2904	95.0	-5.0	366.4
WXX100208-07ICV	PETN	361 > 62	24.95	30752.746	17785.730	30752.746	864.534	bb			620.5038	103.4	3.4	4586.8

✓

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/08/10
Time of Injection: 1910
Standard Number: WXX100208-07ICV
Data File: EXP0208010a

HMX	99.7
RDX	113.2
135-TNB	96.2
13-DNB	104.2
Tetryl	101.9
Nitrobenzene	105.8
4A-26-DNT	101.5
2A-46-DNT	109.7
246-TNT	107.3
34-DNT(surr)	107.2
26-DNT	105.3
24-DNT	108.7
2-NT	108.6
4-NT	112.0
3-NT	95.0
PETN	103.4
Total	1679.7
Average	105.0

HMW 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

MMT 2/9/10

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1473

Lab Code: GEL

Run Date: 08-FEB-10,12-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02120003.wifl	EXS02120004.wifl	EXS02120005.wifl	EXS02120006.wifl	EXS02120007.wifl	EXS02120008.wifl	EXS02120009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	70300	155000	435000	786000	1200000	1300000	2670000	32500	1480	-.083	.9967	
2,6-Diamino-4-nitrotoluene	130000	254000	568000	1130000	1350000	2020000	3700000	58200	1980	-.081	.998	
3,4-Dinitrotoluene	302000	562000	1330000	2620000	4150000	5060000	9080000	-42100	12300	-3.22	.9965	
3,5-Dinitroaniline	290000	553000	1400000	2810000	3970000	5200000	9360000	2990	5750	-.536	.9999	
TATB	63500	124000	308000	586000	887000	1120000	2160000	8660	1190	-.055	.9999	
tris(o-cresyl) phosphate	1230000	2420000	5590000	10700000	15300000	19400000	31800000	137000	22800	-3.48	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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021210ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	8.66e+003			
a1	1.19e+003			
a2	-0.0548			
Correlation coefficient	0.9999			
Use Area				

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.99e+003			
a1	5.75e+003			
a2	-0.536			
Correlation coefficient	0.9999			
Use Area				

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-4.21e+004			
a1	1.23e+004			
a2	-3.22			
Correlation coefficient	0.9965			
Use Area				

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	5.82e+004			
a1	1.98e+003			
a2	-0.0811			
Correlation coefficient	0.9980			
Use Area				

Lau 2/15/10

Hmez 02/15/10

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	3.25e+004			
a1	1.48e+003			
a2	-0.0825			

Correlation coefficient 0.9967
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.37e+005			
a1	2.28e+004			
a2	-3.48			

Correlation coefficient 1.0000
Use Area

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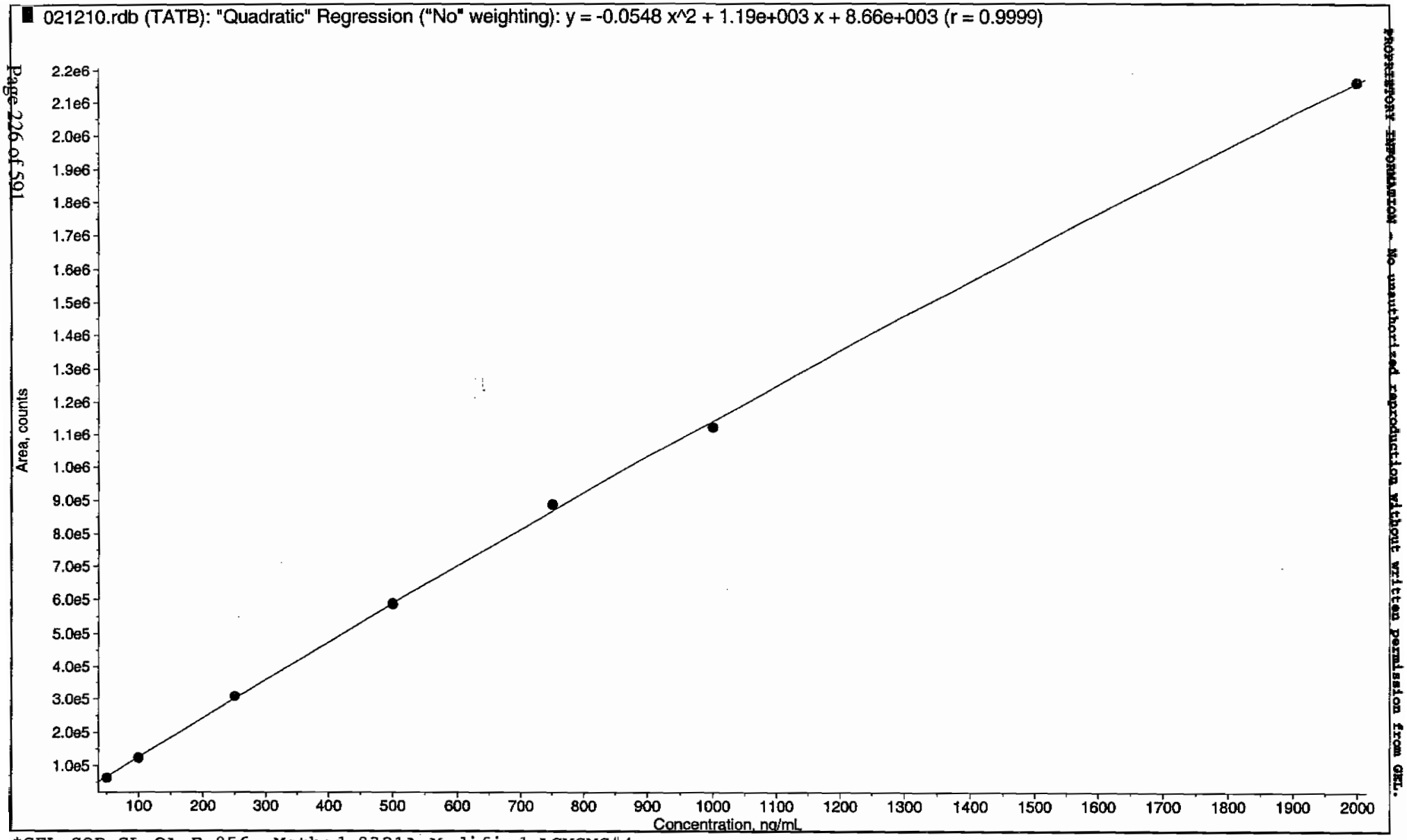

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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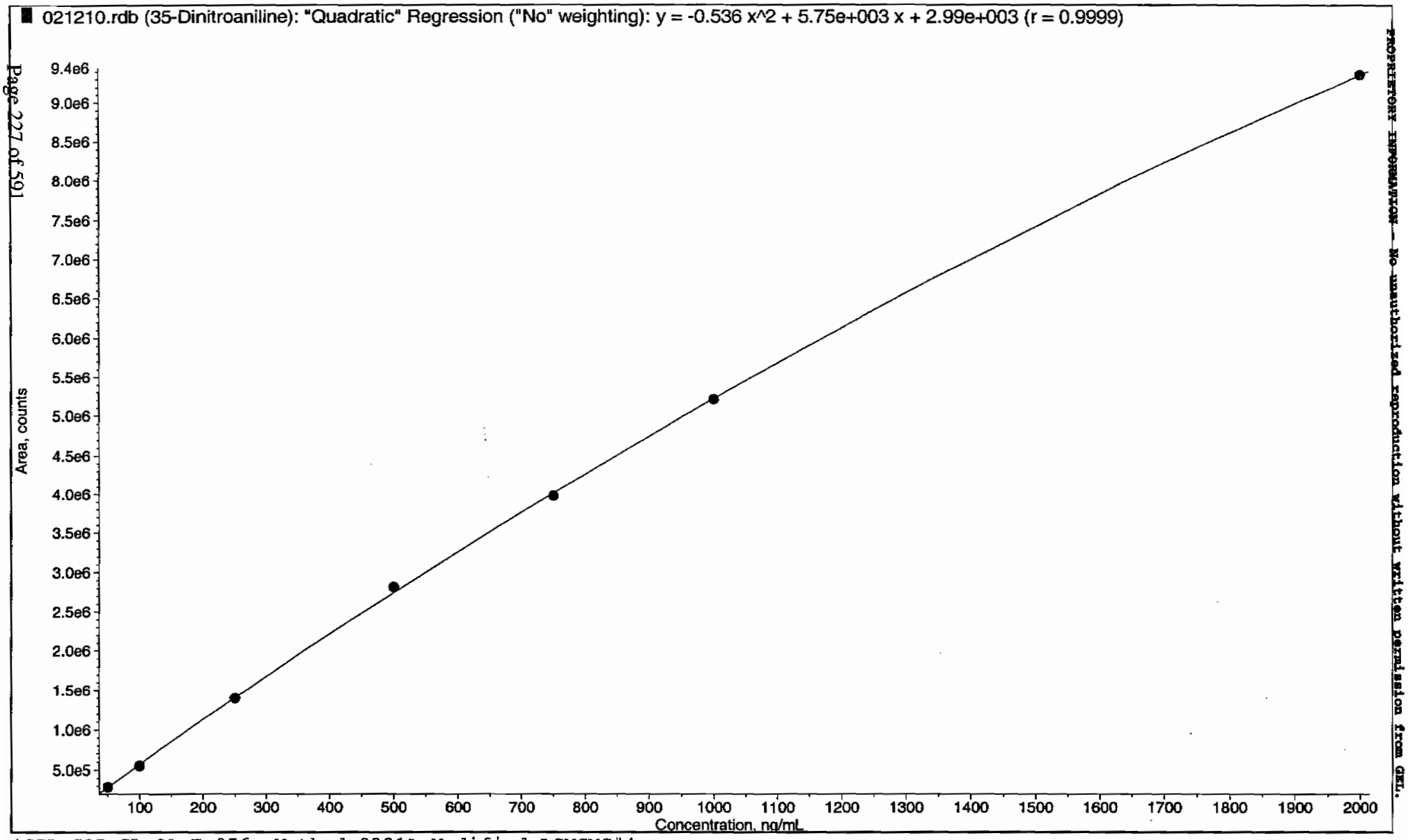

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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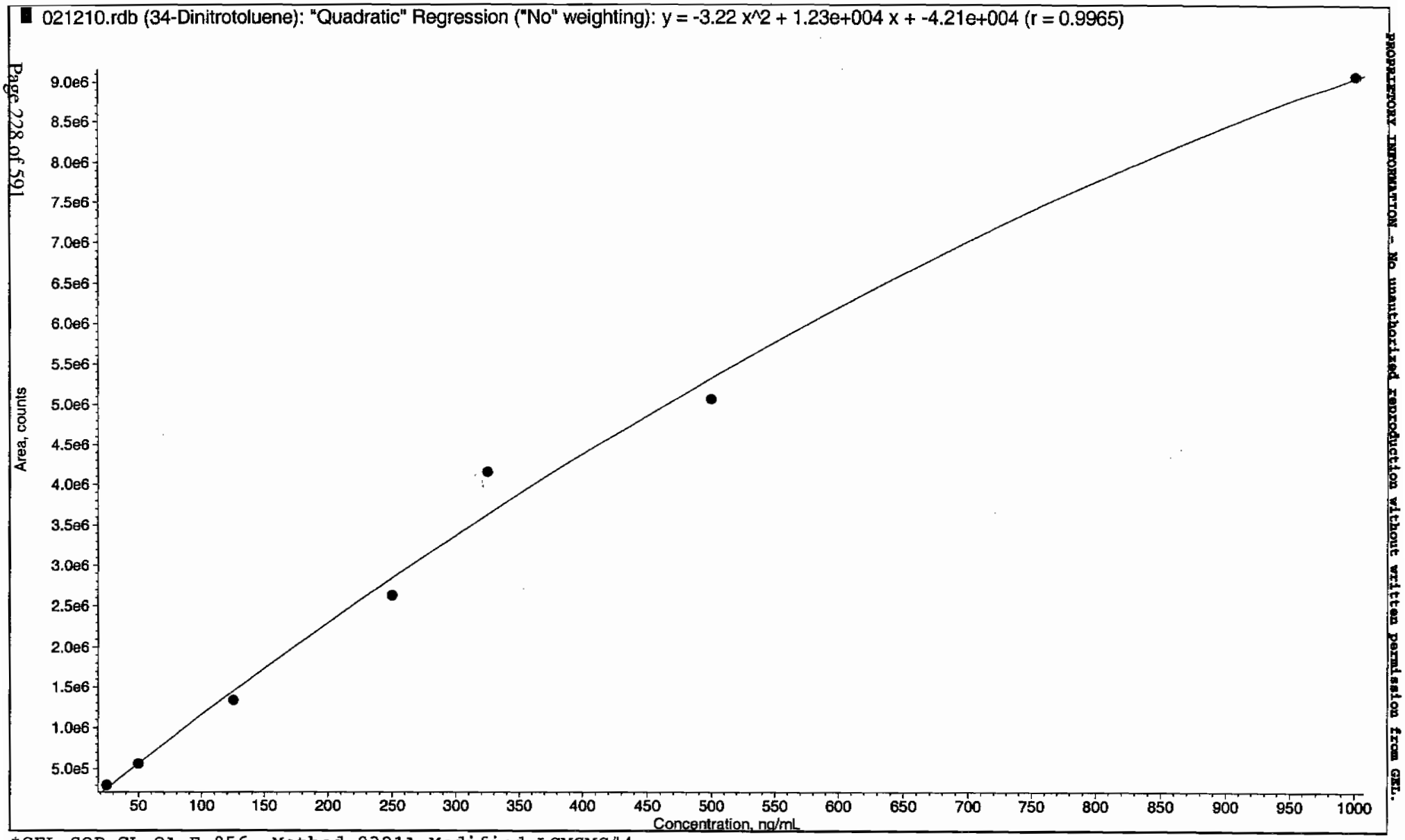

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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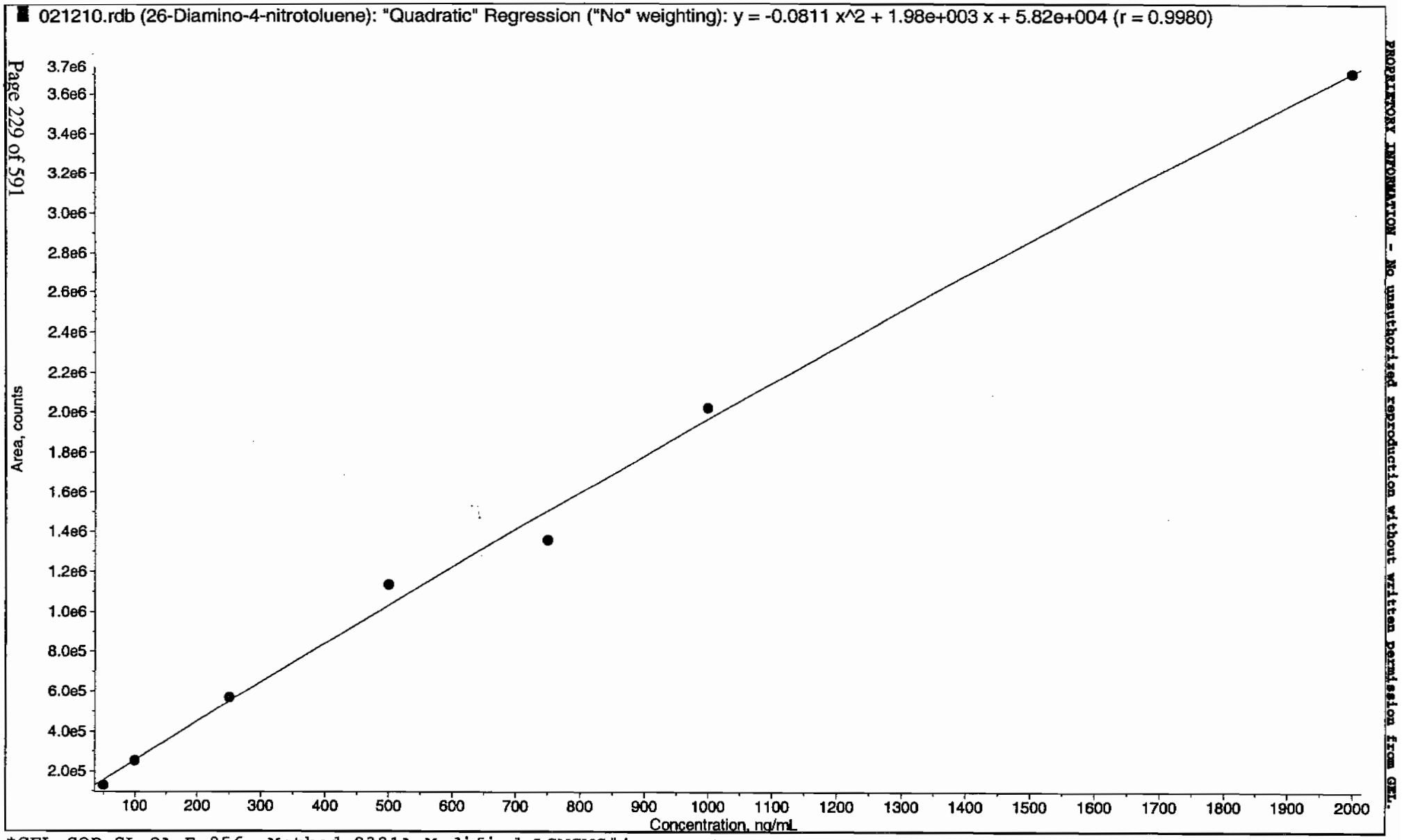

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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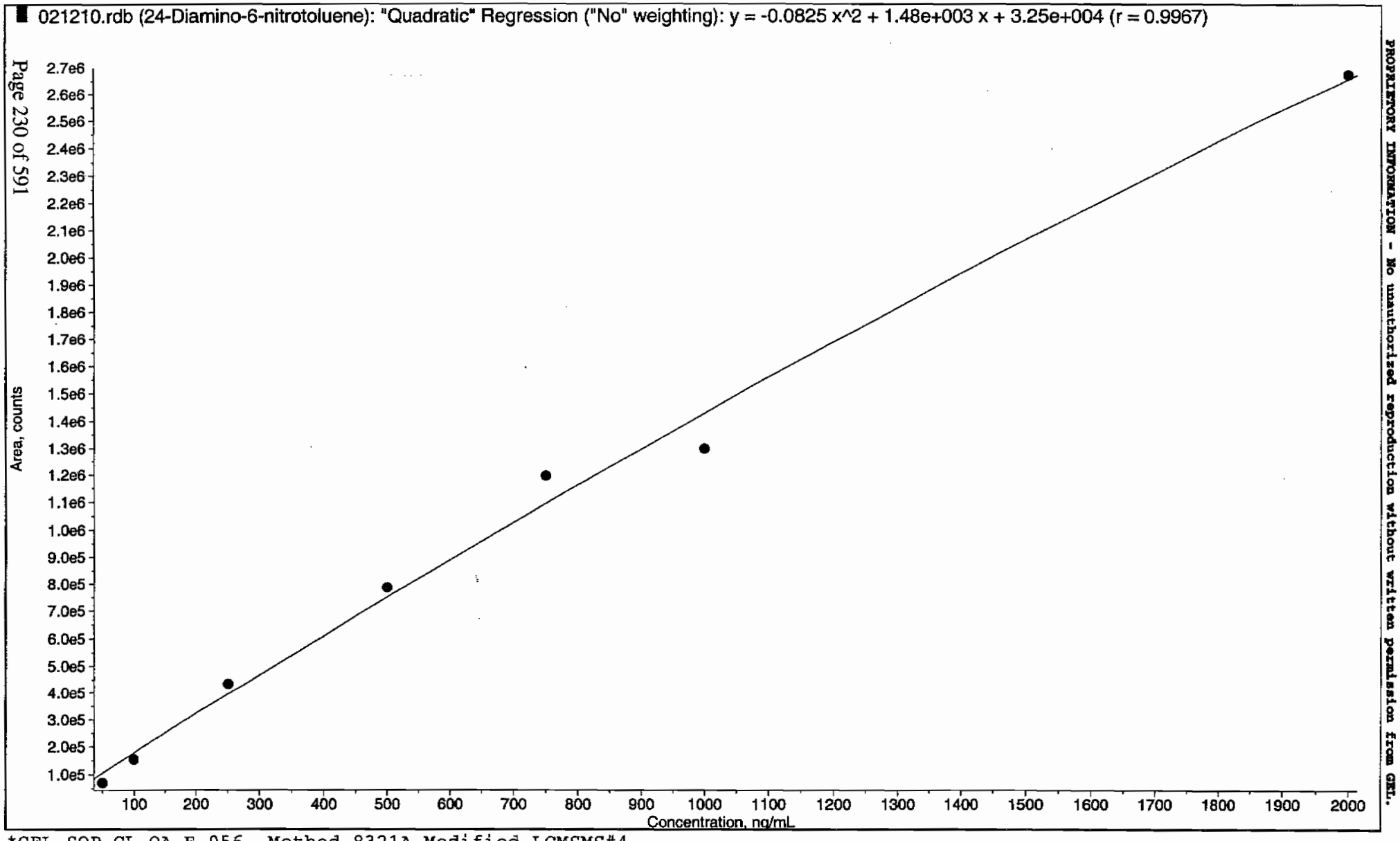

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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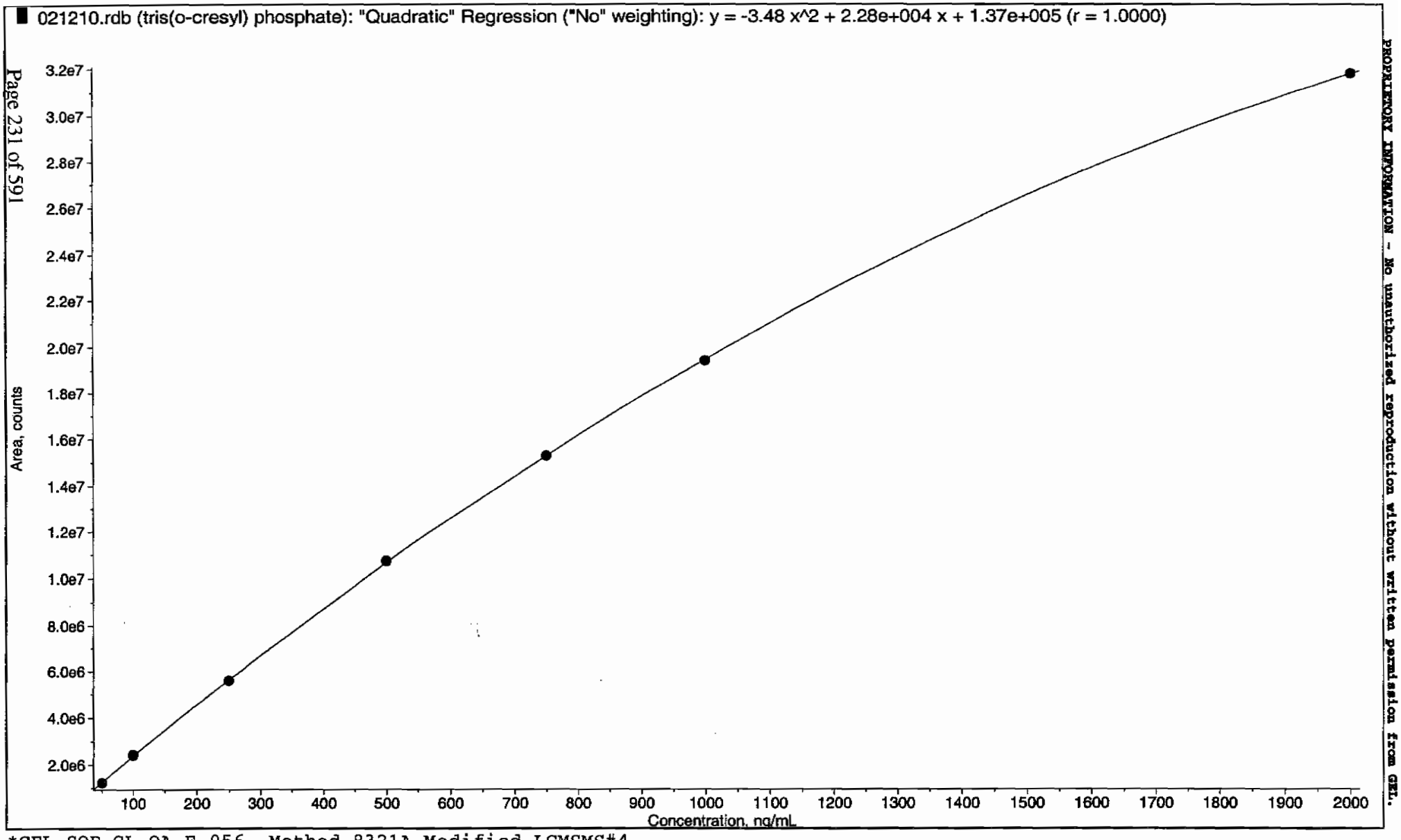

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02120011.wiff

Analysis Date: 12–FEB–10 14:03

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	433	87	
2,6–Diamino–4–nitrotoluene	500	480	96	
3,4–Dinitrotoluene	250	235	94	
3,5–Dinitroaniline	500	488	98	
TATB	500	449	90	
tris(o–cresyl) phosphate	500	486	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lan 2/15/10

Sample Name: "WXX100212-26ICV" Sample ID: "1|LER" File: "EXS02120011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 449. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:03:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.19 min
Area: 5.30e+005 counts
Height: 1.18e+005 cps
Start Time: 7.09 min
End Time: 7.96 min

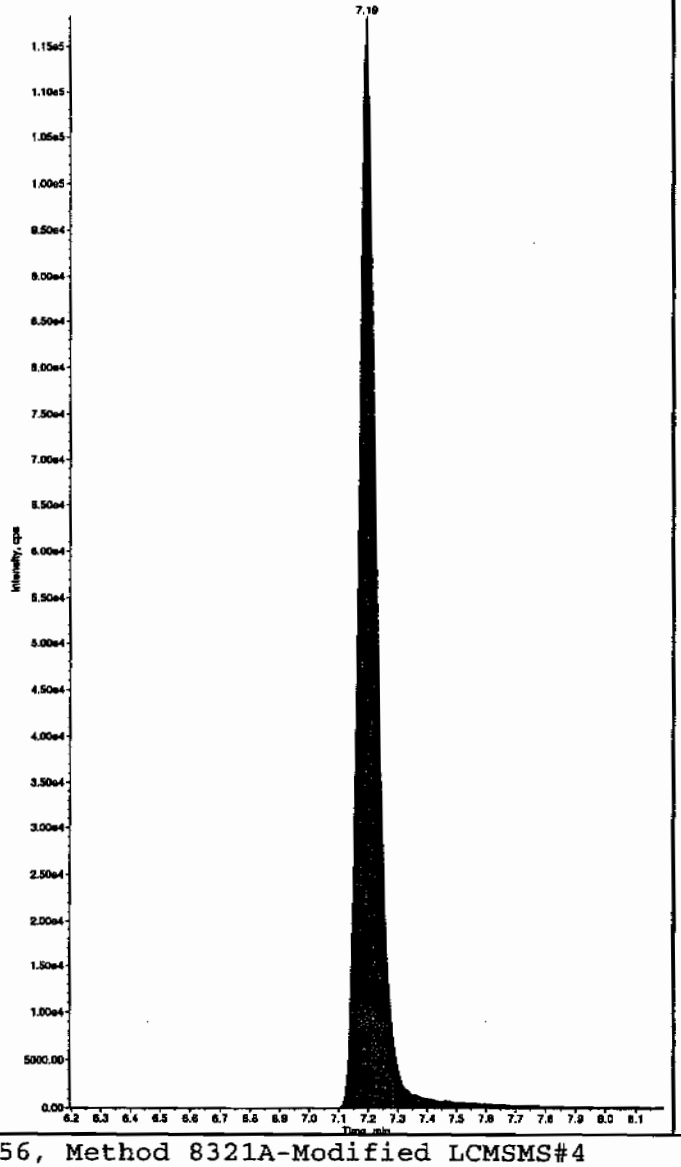

Sample Name: "WXX100212-26ICV" Sample ID: "1|LER" File: "EXS02120011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 558. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:03:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 3.04e+006 counts
Height: 6.60e+005 cps
Start Time: 8.26 min
End Time: 8.82 min

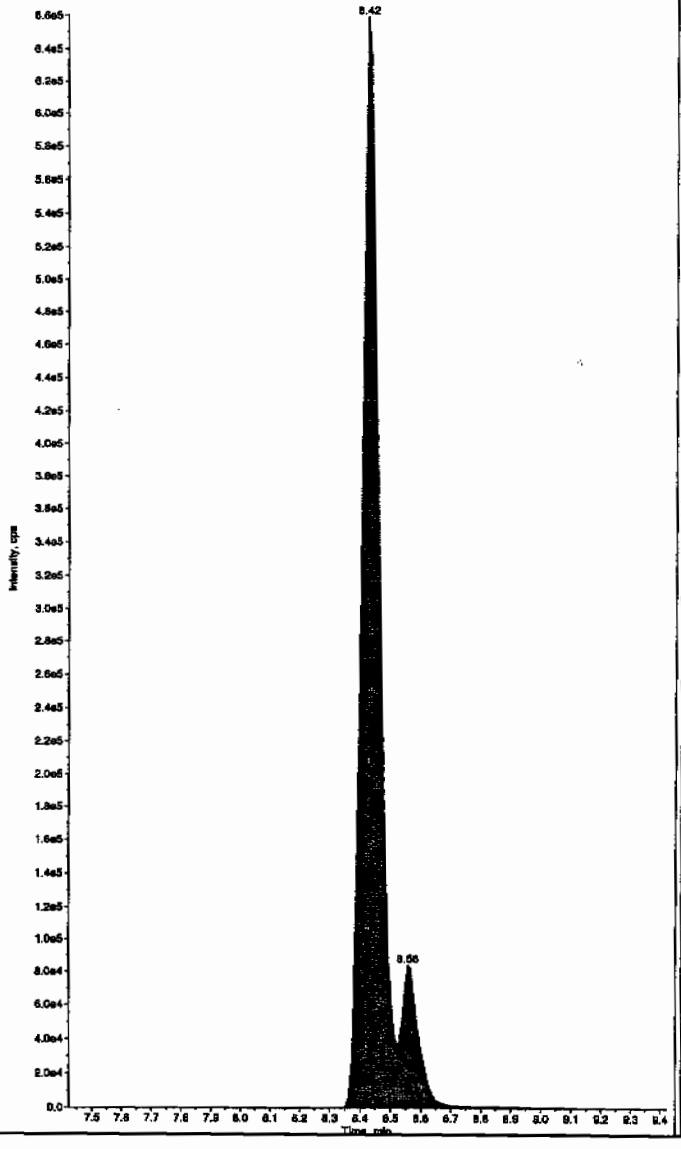

Hnm 02/15/10

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after Scan 2/15/10

Sample Name: "WXX100212-26ICV" Sample ID: "[1]LER" File: "EXS02120011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 449. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:03:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.19 min
Area: 5.30e+005 counts
Height: 118252.953 cps
Start Time: 7.09 min
End Time: 7.96 min

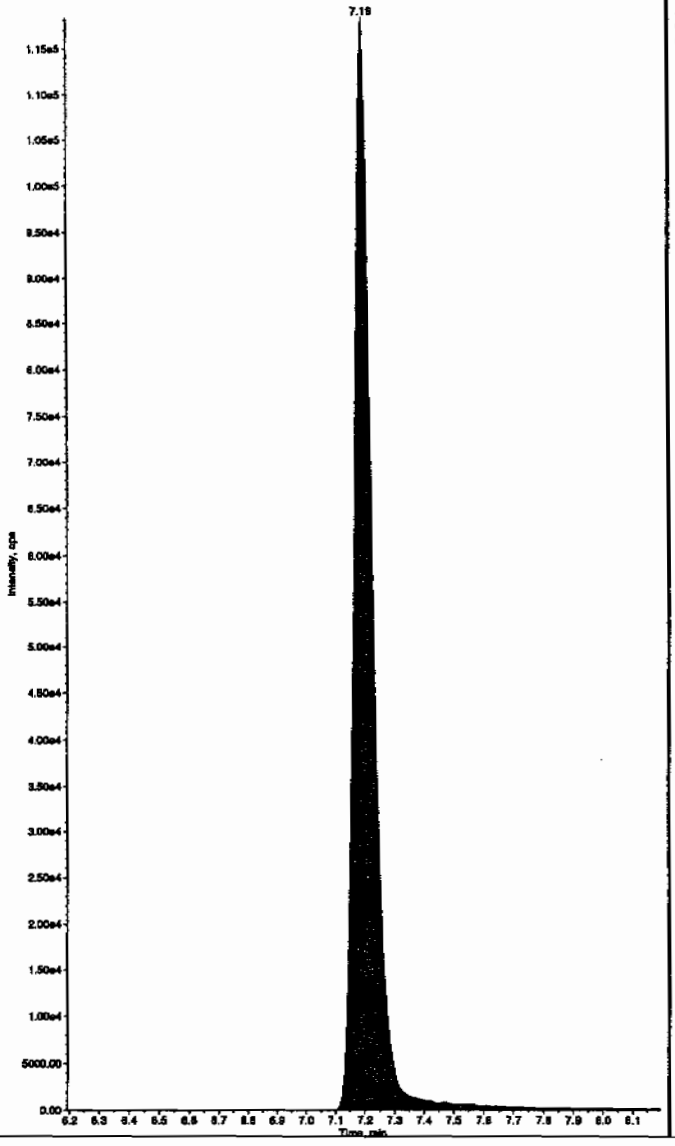

Sample Name: "WXX100212-26ICV" Sample ID: "[1]LER" File: "EXS02120011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:03:34 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.43 min
Area: 2.68e+006 counts
Height: 666522.268 cps
Start Time: 8.34 min
End Time: 8.53 min

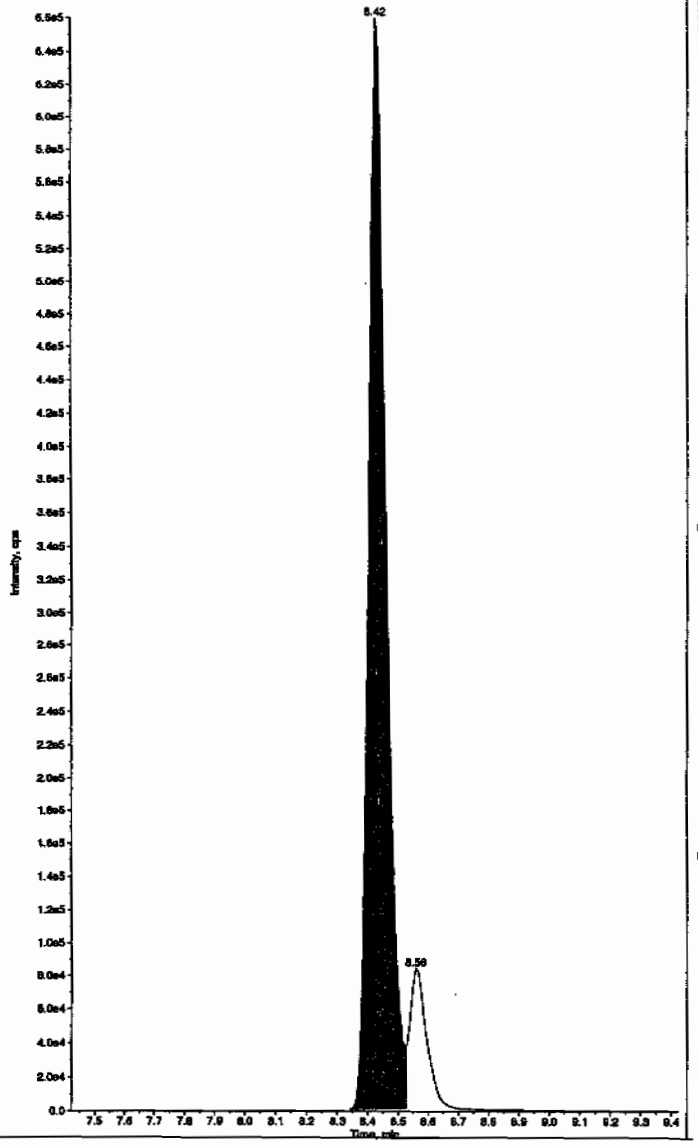

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Sample Name: "WXX100212-26ICV" Sample ID: "[1]LER" File: "EXS02120011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 235. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:03:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.56 min
Area: 2.68e+006 counts
Height: 723838.501 cps
Start Time: 8.48 min
End Time: 8.73 min

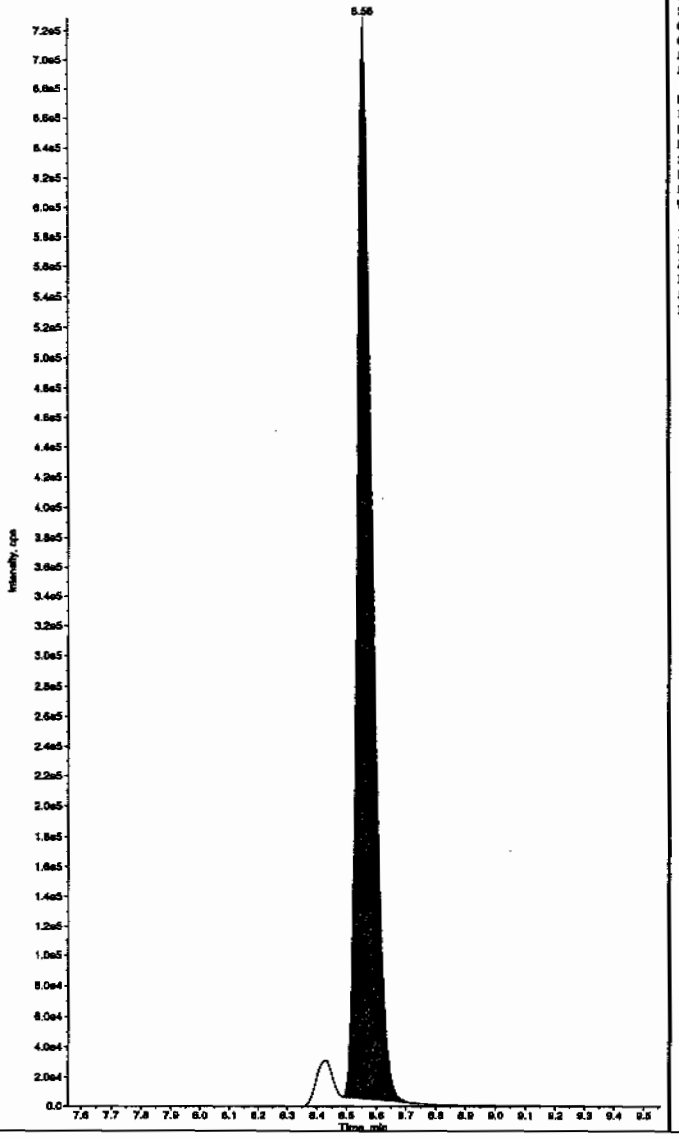

Sample Name: "WXX100212-26ICV" Sample ID: "[1]LER" File: "EXS02120011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 480. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:03:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.21 min
Area: 9.92e+005 counts
Height: 239806.107 cps
Start Time: 5.09 min
End Time: 5.50 min

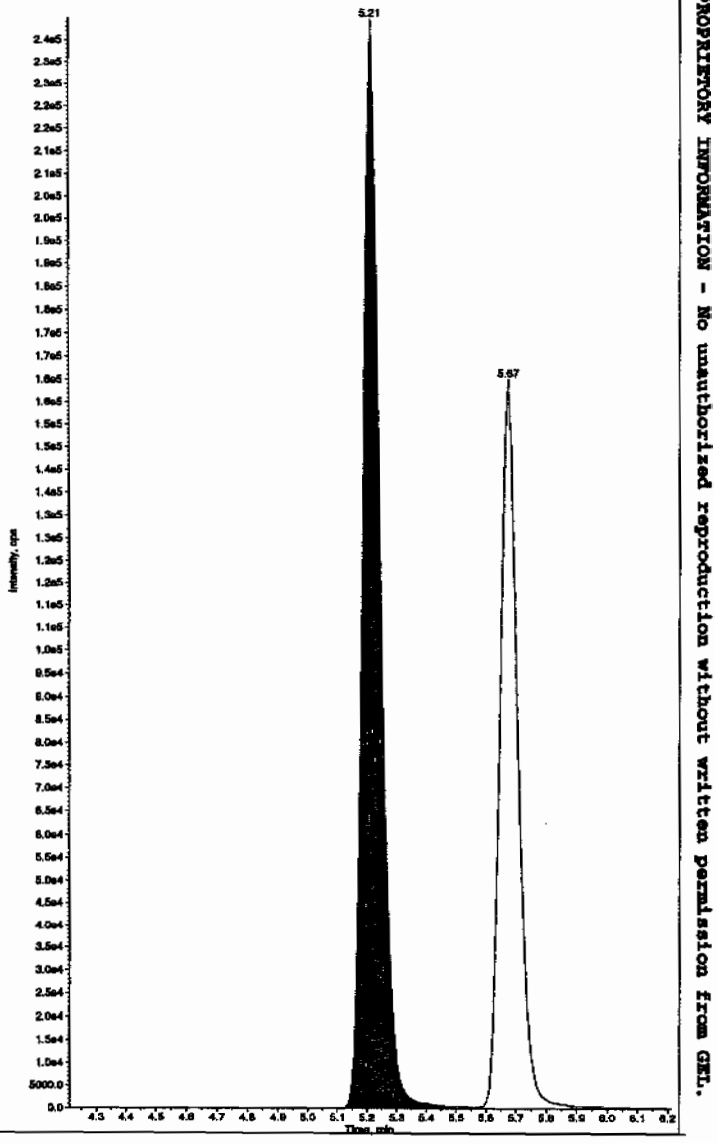

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Sample Name: "WXX100212-26ICV" Sample ID: "[1]LER" File: "EXS02120011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 433. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:03:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.67 min
Area: 6.57e+005 counts
Height: 160118.576 cps
Start Time: 5.56 min
End Time: 6.07 min

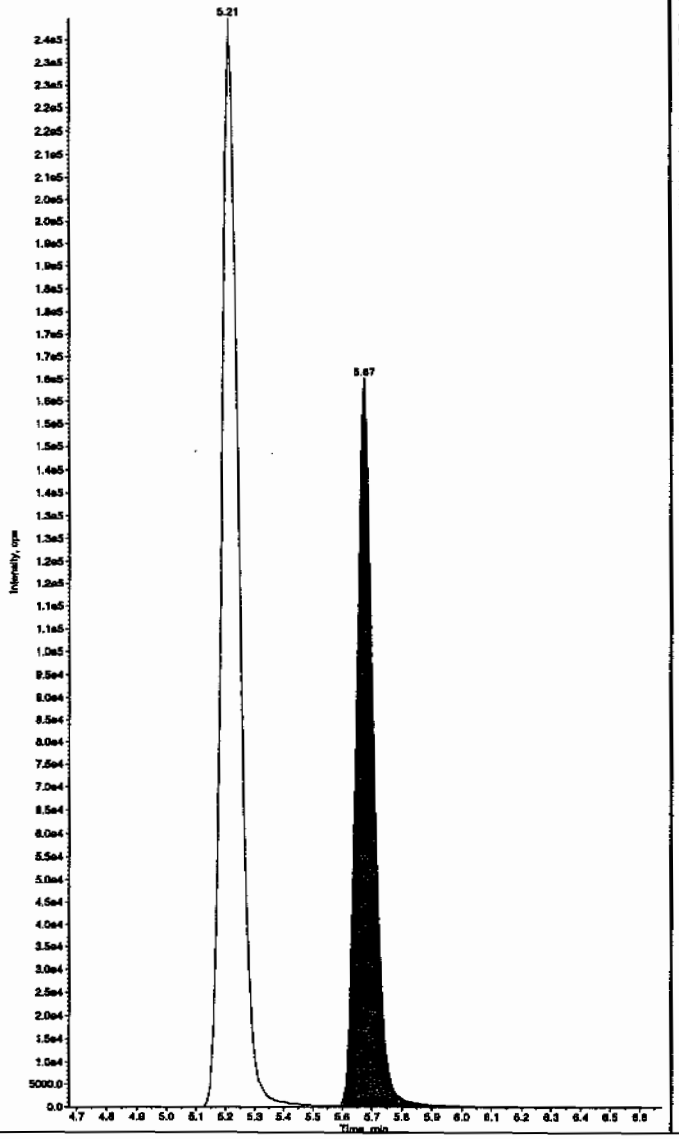

Sample Name: "WXX100212-26ICV" Sample ID: "[1]LER" File: "EXS02120011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 486. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:03:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.04e+007 counts
Height: 2304376.709 cps
Start Time: 10.9 min
End Time: 11.4 min

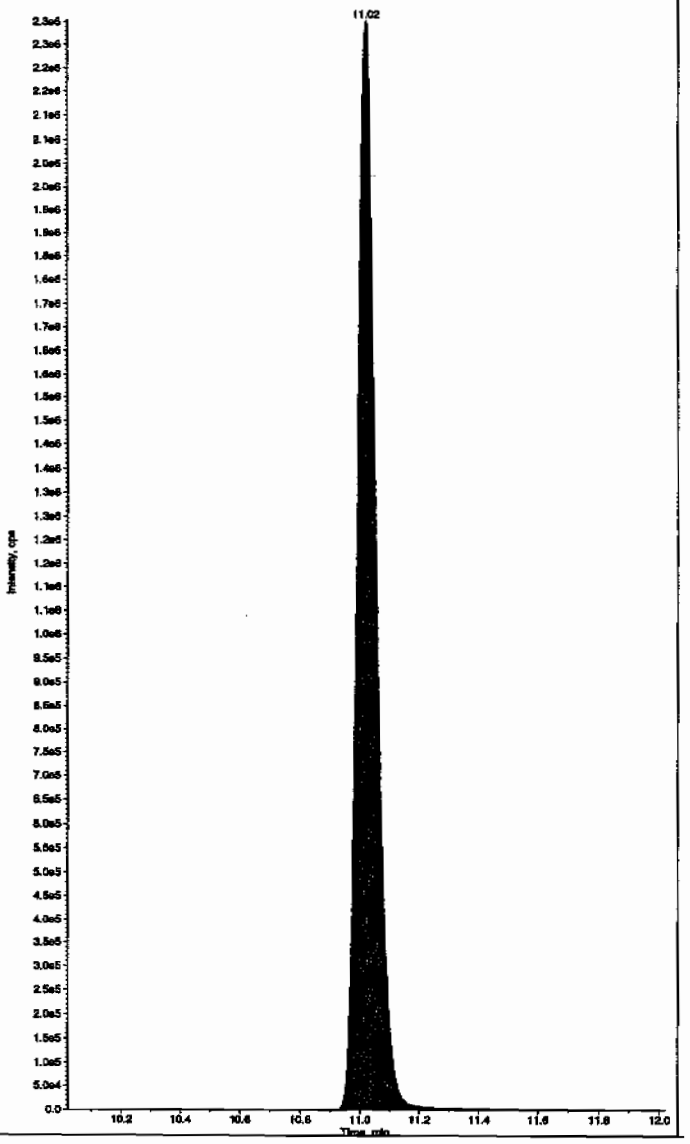

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208012a

Analysis Date: 08–FEB–10 20:09

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	40.21	101	
1,3–Dinitrobenzene–d4	500	487.883	98	
2,4,6–Trinitrotoluene	40	41.689	104	
2,4–Dinitrotoluene	40	40.338	101	
2,6–Dinitrotoluene	40	41.76	104	
2,6–Dinitrotoluene–d3	500	475.508	95	
2–Amino–4,6–dinitrotoluene	40	38.358	96	
3,4–Dinitrotoluene	20	17.528	88	
4–Amino–2,6–dinitrotoluene	40	38.578	96	
HMX	40	37.759	94	
Nitrobenzene	40	49.333	123	
PETN	40	39.026	98	
RDX	40	41.043	103	
Tetryl	40	37.278	93	
m–Dinitrobenzene	40	39.387	98	
m–Nitrotoluene	40	35.357	88	
o–Nitrotoluene	40	44.694	112	
p–Nitrotoluene	40	41.348	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208012a
Date: 08-Feb-2010
Time: 20:09:03
ID: WXX100208-08CRI
Vial: 1:1,C

MPP 2/9/10

HMX

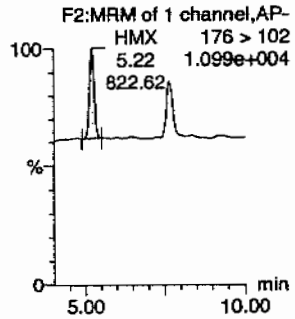

RDX

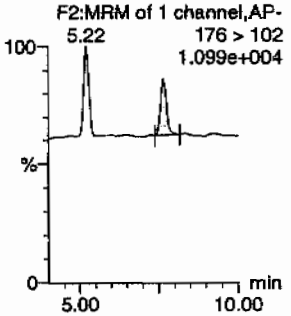

135-Trinitrobenzene

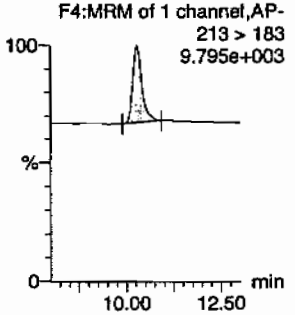

13-Dinitrobenzene-d4

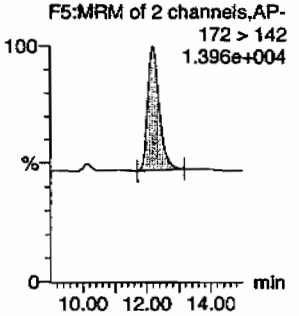

13-Dinitrobenzene

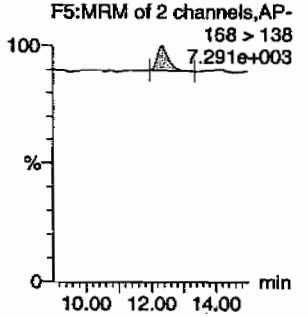

Tetryl

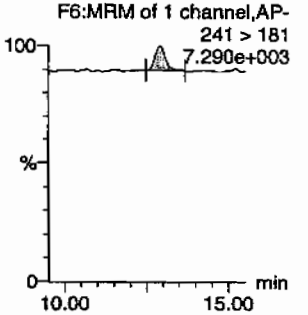

Nitrobenzene

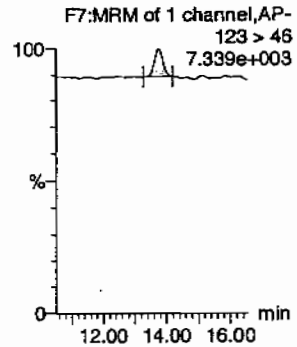

4-Amino-26-dinitrotoluene

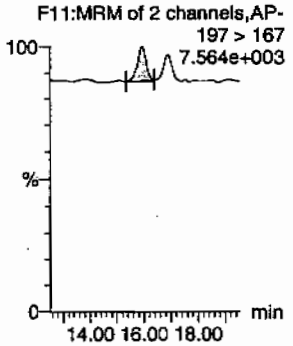

2-Amino-46-dinitrotoluene

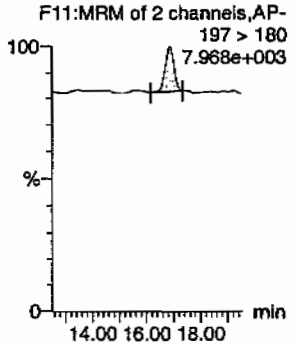

246-Trinitrotoluene

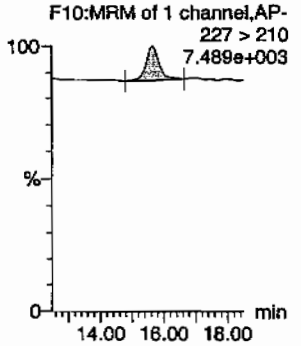

34-dinitrotoluene

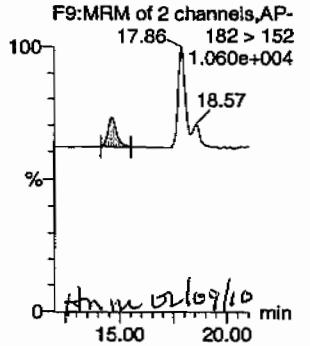

26-dinitrotoluene

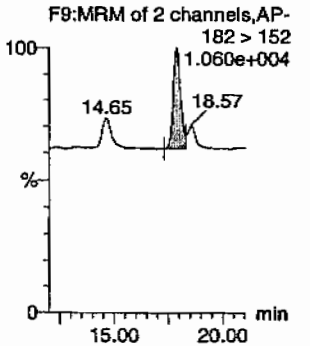

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

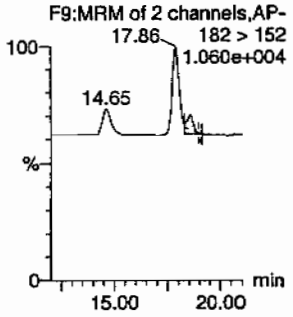

26-dinitrotoluene-d3

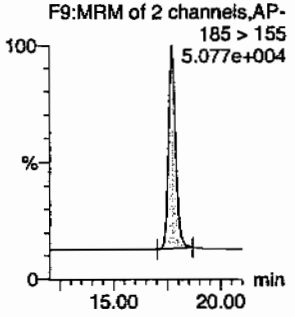

2-Nitrotoluene

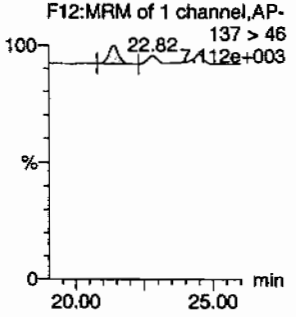

4-Nitrotoluene

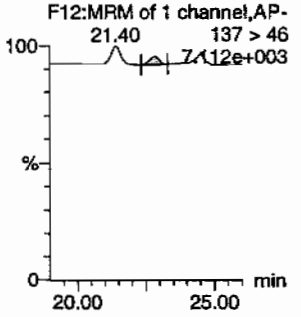

3-Nitrotoluene

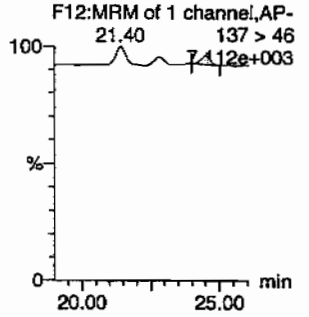

PETN

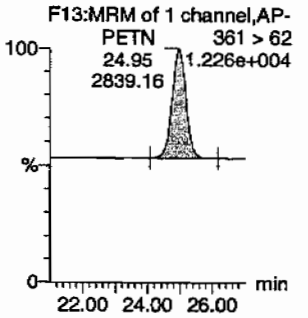

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	822.619	3136.673	822.619	131.129	bb			37.7589	94.4	-5.6	95.4
WXX100208-08CRI	RDX	176 > 102	7.66	625.184	3136.673	625.184	99.657	bb			41.0425	102.6	2.6	61.5
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.30	929.059	3136.673	929.059	148.096	bb			40.2102	100.5	0.5	111.3
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3136.673		3136.673	3136.673	bb			487.8832	97.6	-2.4	122.8
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	297.097	3136.673	297.097	47.359	bb			39.3869	98.5	-1.5	19.3
WXX100208-08CRI	Tetryl	241 > 181	12.92	274.384	3136.673	274.384	43.738	bb			37.2783	93.2	-6.8	24.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.76	249.993	3136.673	249.993	39.850	bb			49.3333	123.3	23.3	23.5
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	389.077	17555.461	389.077	11.081	MM	09-Feb-10	10:07:17	38.5781	96.4	-3.6	24.6
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.86	533.368	17555.461	533.368	15.191	bb			38.3580	95.9	-4.1	43.1
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	472.299	17555.461	472.299	13.452	bb			41.6894	104.2	4.2	65.7
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	553.874	17555.461	553.874	15.775	bb			17.5279	87.6	-12.4	33.8
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.86	1574.877	17555.461	1574.877	44.854	MM	09-Feb-10	10:14:02	41.7604	104.4	4.4	116.4
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.57	345.648	17555.461	345.648	9.844	MM	09-Feb-10	10:17:05	40.3376	100.8	0.8	25.5
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	17555.461		17555.461	17555.461	bb			475.5082	95.1	-4.9	2857.9
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	243.311	17555.461	243.311	6.930	bb			44.6944	111.7	11.7	27.5
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.82	110.338	17555.461	110.338	3.143	bb			41.3480	103.4	3.4	12.6
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.51	115.663	17555.461	115.663	3.294	bb			35.3566	88.4	-11.6	14.1
WXX100208-08CRI	PETN	361 > 62	24.95	2839.157	17555.461	2839.157	80.863	bb			39.0264	97.6	-2.4	1037.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/08/10
Time of Injection	2009
Standard Number	WXX100208-08CRI
Data File	EXP0208012a

HMX	94.4
RDX	102.6
135-TNB	100.5
13-DNB	98.5
Tetryl	93.2
Nitrobenzene	123.3
4A-26-DNT	96.4
2A-46-DNT	95.9
246-TNT	104.2
34-DNT(surr)	87.6
26-DNT	104.4
24-DNT	100.8
2-NT	111.7
4-NT	103.4
3-NT	88.4
PETN	97.6
Total	1602.9
Average	100.2

HMP 2/9/10

HMP 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208023a

Analysis Date: 09-FEB-10 01:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	578.428	96	
o-Nitrotoluene	600	666.647	111	
p-Nitrotoluene	600	667.754	111	
1,3,5-Trinitrobenzene	600	554.897	92	
1,3-Dinitrobenzene-d4	500	508.101	102	
2,4,6-Trinitrotoluene	600	663.13	111	
2,4-Dinitrotoluene	600	649.62	108	
2,6-Dinitrotoluene	600	630.157	105	
2,6-Dinitrotoluene-d3	500	523.831	105	
2-Amino-4,6-dinitrotoluene	600	647.652	108	
3,4-Dinitrotoluene	300	319.699	107	
4-Amino-2,6-dinitrotoluene	600	634.612	106	
HMX	600	662.759	110	
Nitrobenzene	600	657.025	110	
PETN	600	606.078	101	
RDX	600	749.058	125	*
Tetryl	600	660.942	110	
m-Dinitrobenzene	600	626.395	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70--130%
OtherTarget Analytes 80--120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208023a
Date: 09-Feb-2010
Time: 01:33:25
ID: WXX100208-07CCV
Vial: 1:1,B

MAT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.120e+004

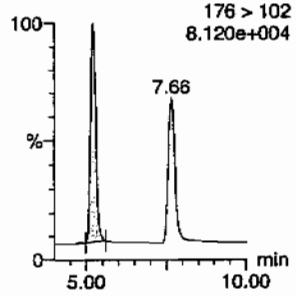

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.120e+004

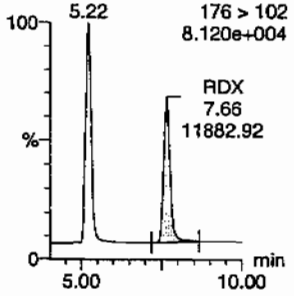

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.216e+004

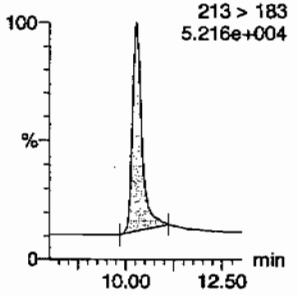

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.312e+004

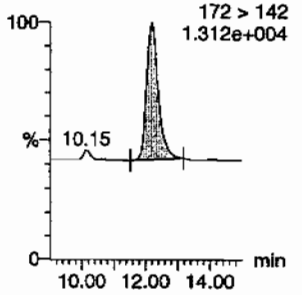

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.785e+004

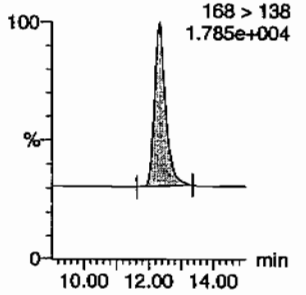

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.632e+004

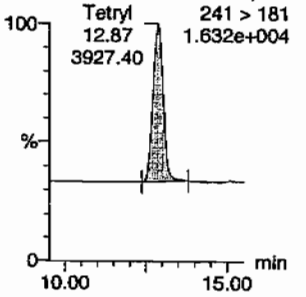

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.546e+004

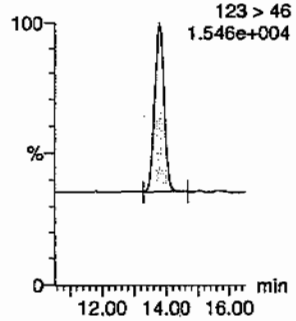

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.235e+004

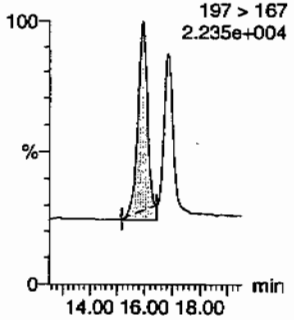

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.097e+004

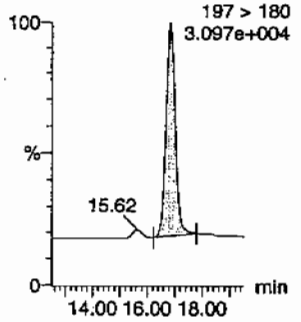

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.437e+004

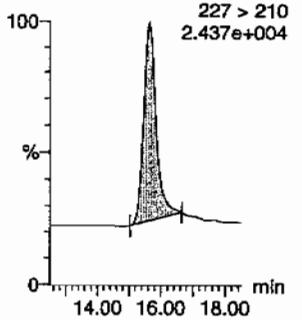

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.460e+004

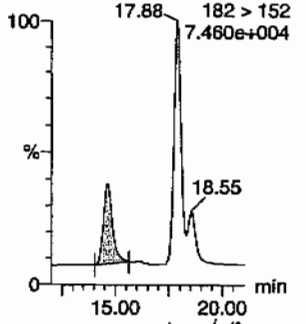

HM 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.460e+004

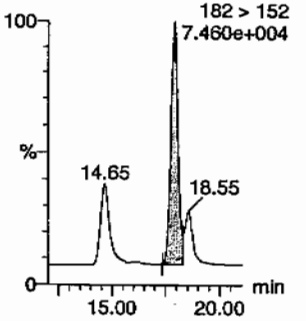

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

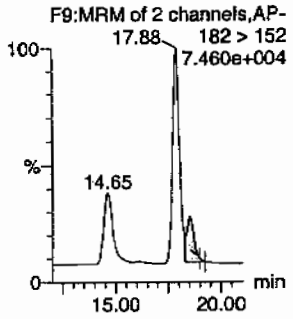

26-dinitrotoluene-d3

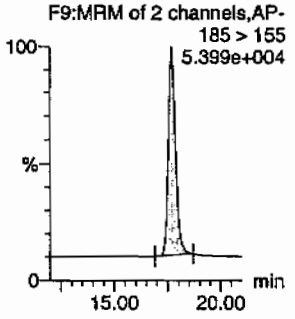

2-Nitrotoluene

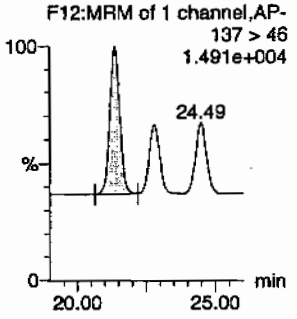

4-Nitrotoluene

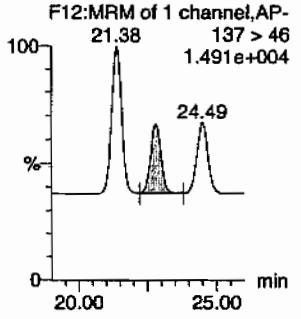

3-Nitrotoluene

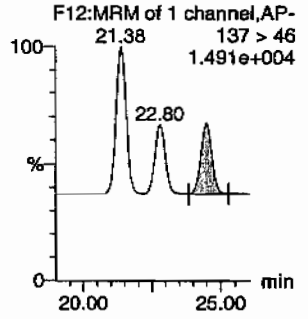

PETN

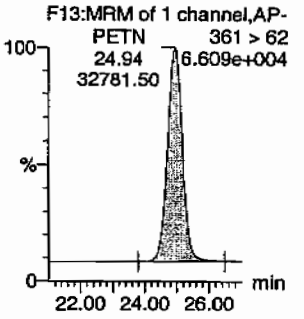

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	15037.290	3266.656	15037.290	2301.634	bb			662.7595	110.5	10.5	1639.6
WXX100208-07CCV	RDX	176 > 102	7.66	11882.921	3266.656	11882.921	1818.820	bb			749.0581	124.8	24.8	1082.1
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	13352.233	3266.656	13352.233	2043.716	bb			554.8968	92.5	-7.5	1376.9
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3266.656		3266.656	3266.656	bb			508.1010	101.6	1.6	605.5
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	4920.726	3266.656	4920.726	753.175	bb			626.3952	104.4	4.4	650.7
WXX100208-07CCV	Tetryl	241 > 181	12.87	3927.402	3266.656	3927.402	601.135	bb			660.9418	110.2	10.2	338.7
WXX100208-07CCV	Nitrobenzene	123 > 46	13.76	3467.394	3266.656	3467.394	530.725	bb			657.0246	109.5	9.5	301.8
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.95	7050.759	19339.496	7050.759	182.289	MM	09-Feb-10	10:08:16	634.6121	105.8	5.8	309.2
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9920.775	19339.496	9920.775	256.490	bb			647.6525	107.9	7.9	941.2
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	8276.058	19339.496	8276.058	213.968	bb			663.1304	110.5	10.5	495.8
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.65	11128.977	19339.496	11128.977	287.727	bb			319.6991	106.6	6.6	327.6
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.88	26179.654	19339.496	26179.654	676.844	MM	09-Feb-10	10:14:49	630.1572	105.0	5.0	989.4
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.55	6132.196	19339.496	6132.196	158.541	MM	09-Feb-10	10:18:07	649.6200	108.3	8.3	212.0
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	19339.496		19339.496	19339.496	bb			523.8307	104.8	4.8	1406.1
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.38	3997.954	19339.496	3997.954	103.362	bb			666.6469	111.1	11.1	1102.1
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.80	1963.000	19339.496	1963.000	50.751	bb			667.7539	111.3	11.3	513.0
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.49	2084.521	19339.496	2084.521	53.893	bb			578.4278	96.4	-3.6	524.4
WXX100208-07CCV	PETN	361 > 62	24.94	32781.500	19339.496	32781.500	847.527	bb			606.0775	101.0	1.0	5719.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/09/10
Time of Injection: 0133
Standard Number: WXX100208-07CCV
Data File: EXP0208023a

HMX	110.5
RDX	124.8
135-TNB	92.5
13-DNB	104.4
Tetryl	110.2
Nitrobenzene	109.5
4A-26-DNT	105.8
2A-46-DNT	107.9
246-TNT	110.5
34-DNT(surr)	106.6
26-DNT	105.0
24-DNT	108.3
2-NT	111.1
4-NT	111.3
3-NT	96.4
PETN	101.0
Total	1715.8
Average	107.2

MAP 4/9/10

Hmm 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208025a

Analysis Date: 09-FEB-10 02:32

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	40	42.477	106	
2,6-Dinitrotoluene-d3	500	478.268	96	
2-Amino-4,6-dinitrotoluene	40	34.805	87	
3,4-Dinitrotoluene	20	22.301	112	
4-Amino-2,6-dinitrotoluene	40	34.146	85	
HMX	40	52.317	131	*
Nitrobenzene	40	45.327	113	
PETN	40	49.164	123	
RDX	40	55.212	138	*
Tetryl	40	41.653	104	
m-Dinitrobenzene	40	42.381	106	
m-Nitrotoluene	40	52.115	130	*
o-Nitrotoluene	40	49.924	125	
p-Nitrotoluene	40	50.961	127	
1,3,5-Trinitrobenzene	40	48.344	121	
1,3-Dinitrobenzene-d4	500	473.5	95	
2,4,6-Trinitrotoluene	40	40.42	101	
2,4-Dinitrotoluene	40	41.928	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208025a
Date: 09-Feb-2010
Time: 02:32:22
ID: WXX100208-08CRI
Vial: 1:1,C

HMT 2/9/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.22 1.194e+004
1106.17 7.66

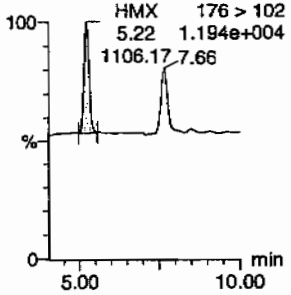

RDX
F2:MRM of 1 channel,AP-
5.22 176 > 102
1.194e+004
RDX
7.66
816.23

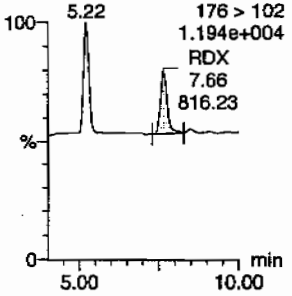

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.036e+004

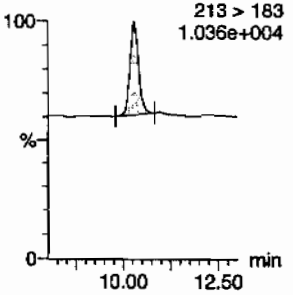

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.343e+004

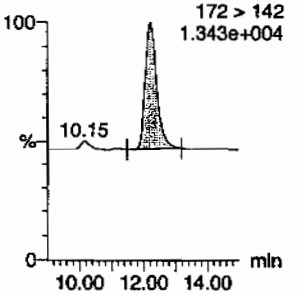

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.068e+003

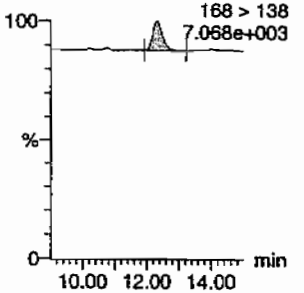

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.030e+003

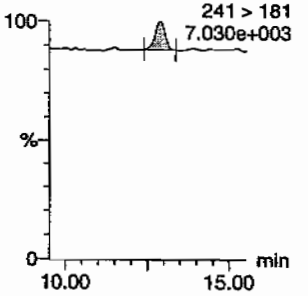

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.785e+003

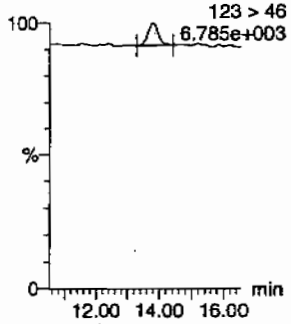

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.185e+003

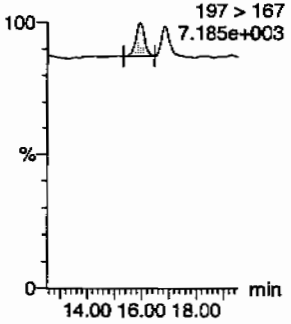

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.587e+003

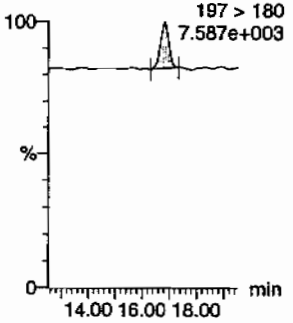

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.293e+003

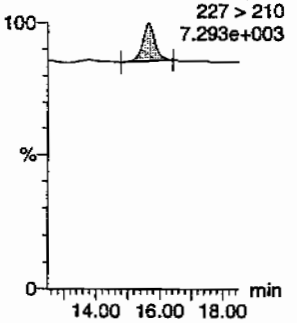

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.86 182 > 152
1.041e+004
18.53

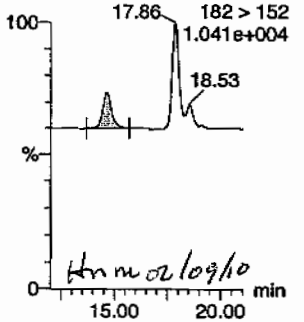

Hm m 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.041e+004
14.65
18.53

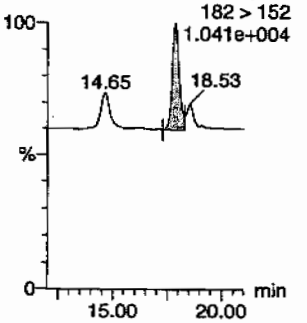

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

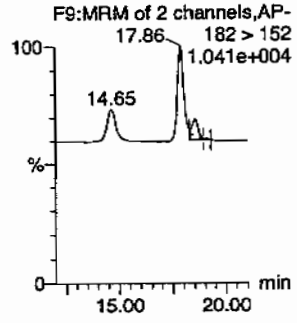

26-dinitrotoluene-d3

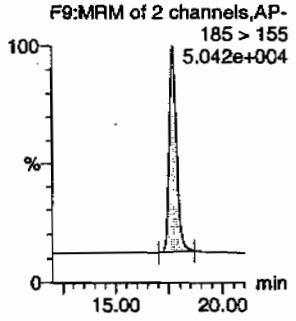

2-Nitrotoluene

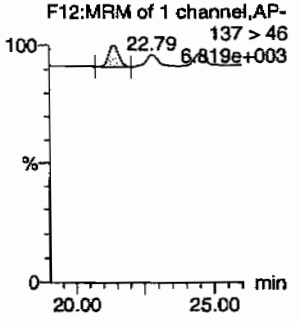

4-Nitrotoluene

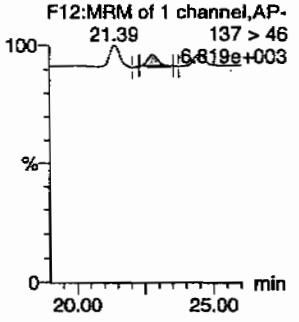

3-Nitrotoluene

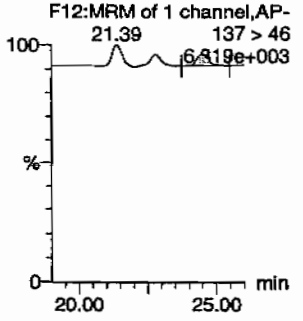

PETN

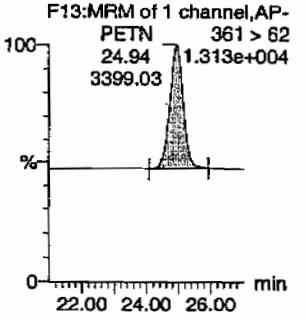

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1106.172	3044.203	1106.172	181.685	bb			52.3165	130.8	30.8	145.7
WXX100208-08CRI	RDX	176 > 102	7.66	816.232	3044.203	816.232	134.063	bb			55.2123	138.0	38.0	85.9
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1084.060	3044.203	1084.060	178.053	bb			48.3439	120.9	20.9	161.9
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3044.203		3044.203	3044.203	bb			473.5003	94.7	-5.3	257.8
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	310.255	3044.203	310.255	50.958	bb			42.3807	106.0	6.0	45.2
WXX100208-08CRI	Tetryl	241 > 181	12.87	291.717	3044.203	291.717	47.914	bb			41.6529	104.1	4.1	19.9
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	222.919	3044.203	222.919	36.614	bb			45.3268	113.3	13.3	14.9
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	346.380	17657.348	346.380	9.808	bb			34.1464	85.4	-14.6	22.4
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	486.778	17657.348	486.778	13.784	bb			34.8054	87.0	-13.0	49.4
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	460.576	17657.348	460.576	13.042	bb			40.4200	101.1	1.1	89.9
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	708.785	17657.348	708.785	20.071	bb			22.3008	111.5	11.5	40.3
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.86	1611.184	17657.348	1611.184	45.624	MM	09-Feb-10	10:14:57	42.4766	106.2	6.2	118.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.53	361.362	17657.348	361.362	10.233	MM	09-Feb-10	10:18:19	41.9281	104.8	4.8	26.4
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.68	17657.348		17657.348	17657.348	bb			478.2680	95.7	-4.3	1801.9
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.39	273.359	17657.348	273.359	7.741	bb			49.9242	124.8	24.8	22.3
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.79	136.781	17657.348	136.781	3.873	MM	09-Feb-10	10:12:02	50.9614	127.4	27.4	11.4
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.49	171.475	17657.348	171.475	4.856	bb			52.1151	130.3	30.3	12.0
WXX100208-08CRI	PETN	361 > 62	24.94	3399.029	17657.348	3399.029	96.250	bb			49.1641	122.9	22.9	286.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/09/10
Time of Injection	0232
Standard Number	WXX100208-08CRI
Data File	EXP0208025a

HMX	130.8
RDX	138.0
135-TNB	120.9
13-DNB	106.0
Tetryl	104.1
Nitrobenzene	113.3
4A-26-DNT	85.4
2A-46-DNT	87.0
246-TNT	101.1
34-DNT(surr)	111.5
26-DNT	106.2
24-DNT	104.8
2-NT	124.8
4-NT	127.4
3-NT	130.3
PETN	122.9
Total	1814.5
Average	113.4

MT 2/9/10

Hmm 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208036a

Analysis Date: 09-FEB-10 07:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	557.726	93	
1,3-Dinitrobenzene-d4	500	507.978	102	
2,4,6-Trinitrotoluene	600	683.818	114	
2,4-Dinitrotoluene	600	677.06	113	
2,6-Dinitrotoluene	600	638.573	106	
2,6-Dinitrotoluene-d3	500	505.031	101	
2-Amino-4,6-dinitrotoluene	600	628.37	105	
3,4-Dinitrotoluene	300	343.206	114	
4-Amino-2,6-dinitrotoluene	600	610.088	102	
HMX	600	580.276	97	
Nitrobenzene	600	601.509	100	
PETN	600	627.319	105	
RDX	600	669.645	112	
Tetryl	600	596.357	99	
m-Dinitrobenzene	600	631.512	105	
m-Nitrotoluene	600	558.007	93	
o-Nitrotoluene	600	611.096	102	
p-Nitrotoluene	600	633.085	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208036a
Date: 09-Feb-2010
Time: 07:57:19
ID: WXX100208-07CCV
Vial: 1:1,B

HMT 2/9/10

HMX

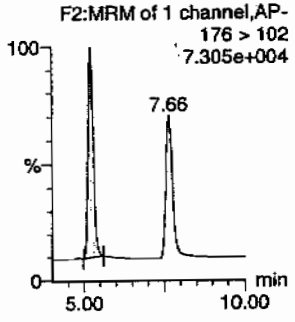

RDX

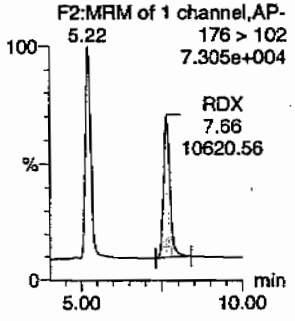

135-Trinitrobenzene

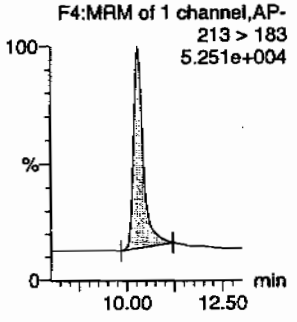

13-Dinitrobenzene-d4

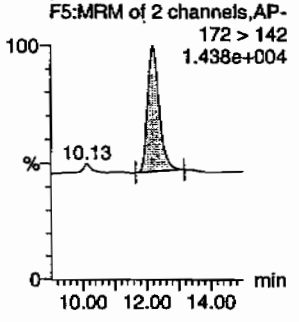

13-Dinitrobenzene

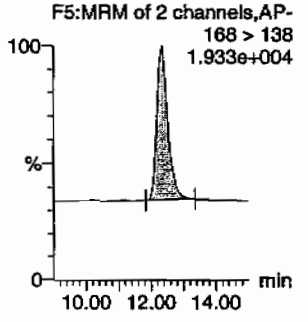

Tetryl

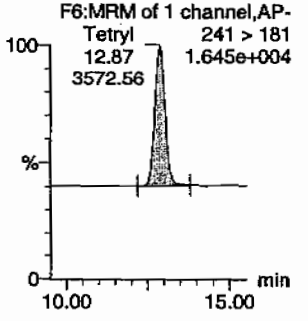

Nitrobenzene

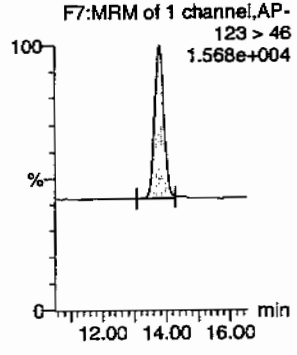

4-Amino-26-dinitrotoluene

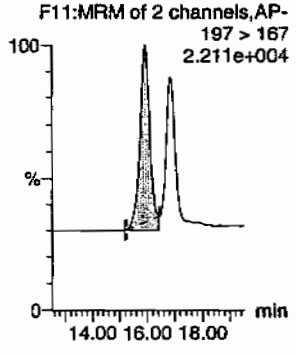

2-Amino-46-dinitrotoluene

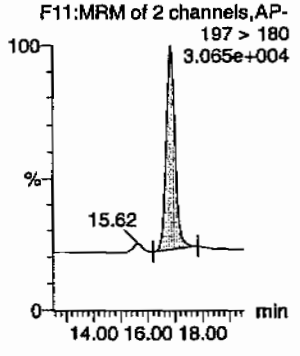

246-Trinitrotoluene

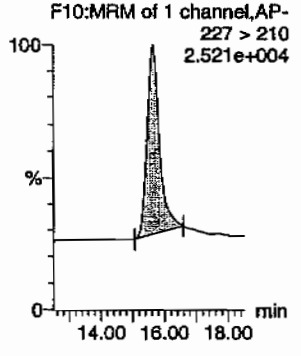

34-dinitrotoluene

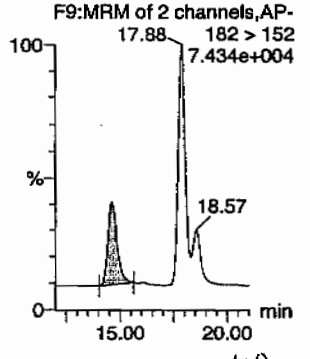

HMM 02/09/10

26-dinitrotoluene

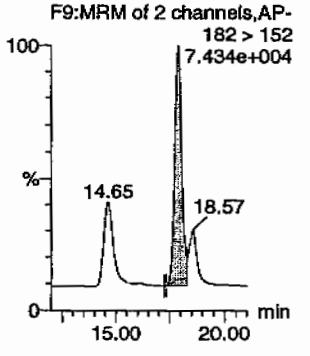

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

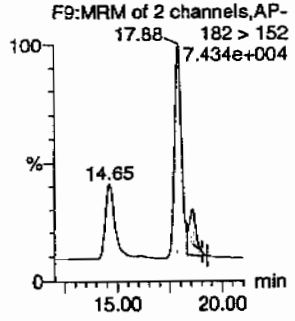

26-dinitrotoluene-d3

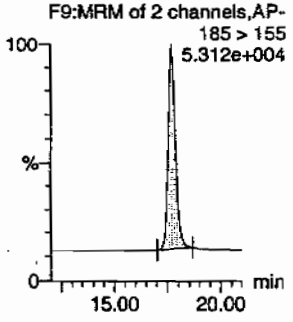

2-Nitrotoluene

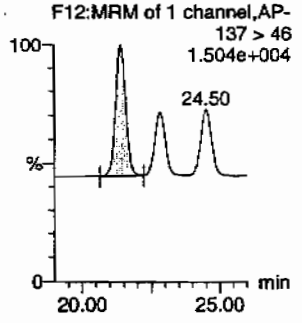

4-Nitrotoluene

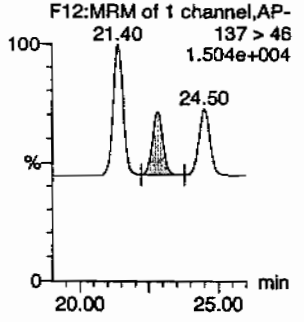

3-Nitrotoluene

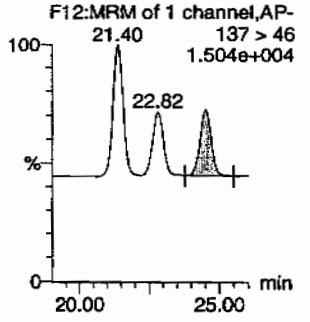

PETN

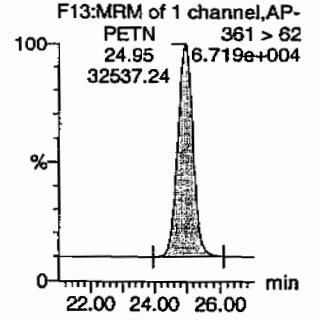

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	13162.657	3265.867	13162.657	2015.186	bb			580.2763	96.7	-3.3	1346.4
WXX100208-07CCV	RDX	176 > 102	7.66	10620.564	3265.867	10620.564	1625.995	bb			669.6453	111.6	11.6	912.9
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.30	13417.060	3265.867	13417.060	2054.134	bb			557.7256	93.0	-7.0	1689.0
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3265.867		3265.867	3265.867	bb			507.9782	101.6	1.6	605.7
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	4959.725	3265.867	4959.725	759.327	bb			631.5122	105.3	5.3	605.8
WXX100208-07CCV	Tetryl	241 > 181	12.87	3572.560	3265.867	3572.560	546.954	bb			596.3571	99.4	-0.6	266.7
WXX100208-07CCV	Nitrobenzene	123 > 46	13.80	3173.647	3265.867	3173.647	485.881	bd			601.5088	100.3	0.3	397.7
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.95	6535.022	18645.436	6535.022	175.245	MM	09-Feb-10	10:08:38	610.0875	101.7	1.7	220.1
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9279.965	18645.436	9279.965	248.854	bb			628.3699	104.7	4.7	600.3
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	8227.966	18645.436	8227.966	220.643	bb			683.8179	114.0	14.0	212.5
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.65	11518.506	18645.436	11518.506	308.883	bb			343.2061	114.4	14.4	186.4
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.88	25577.211	18645.436	25577.211	685.884	MM	09-Feb-10	10:15:19	638.5734	106.4	6.4	536.5
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.57	6161.852	18645.436	6161.852	165.238	MM	09-Feb-10	10:18:29	677.0601	112.8	12.8	117.9
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	18645.436		18645.436	18645.436	bb			505.0314	101.0	1.0	1377.3
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.40	3533.284	18645.436	3533.284	94.749	bb			611.0957	101.8	1.8	676.4
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.82	1794.293	18645.436	1794.293	48.116	bb			633.0852	105.5	5.5	322.7
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.50	1938.759	18645.436	1938.759	51.990	bb			558.0066	93.0	-7.0	336.8
WXX100208-07CCV	PETN	361 > 62	24.95	32537.242	18645.436	32537.242	872.526	bb			627.3190	104.6	4.6	16599.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/09/10
Time of Injection: 0757
Standard Number: WXX100208-07CCV
Data File: EXP0208036a

HMX		96.7
RDX		111.6
135-TNB		93.0
13-DNB		105.3
Tetryl		99.4
Nitrobenzene		100.3
4A-26-DNT		101.7
2A-46-DNT		104.7
246-TNT		114.0
34-DNT(surr)		114.4
26-DNT		106.4
24-DNT		112.8
2-NT		101.8
4-NT		105.5
3-NT		93.0
PETN		104.6
Total		1665.2
Average		104.1

MTT 2/9/10

Hnm 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208038a

Analysis Date: 09-FEB-10 08:56

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	40	38.786	97	
o-Nitrotoluene	40	43.692	109	
p-Nitrotoluene	40	33.849	85	
1,3,5-Trinitrobenzene	40	41.878	105	
1,3-Dinitrobenzene-d4	500	600.974	120	
2,4,6-Trinitrotoluene	40	41.161	103	
2,4-Dinitrotoluene	40	39.718	99	
2,6-Dinitrotoluene	40	41.46	104	
2,6-Dinitrotoluene-d3	500	511.208	102	
2-Amino-4,6-dinitrotoluene	40	41.059	103	
3,4-Dinitrotoluene	20	24.686	123	
4-Amino-2,6-dinitrotoluene	40	44.787	112	
HMX	40	36.25	91	
Nitrobenzene	40	44.383	111	
PETN	40	42.434	106	
RDX	40	40.143	100	
Tetryl	40	36.6	92	
m-Dinitrobenzene	40	41.257	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208038a
Date: 09-Feb-2010
Time: 08:56:17
ID: WXX100208-08CRI
Vial: 1:1,C

MMT 2/9/10

HMX

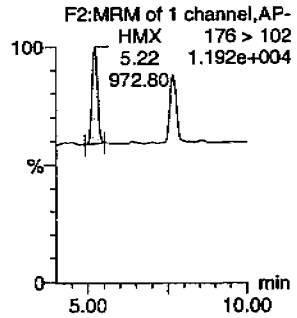

RDX

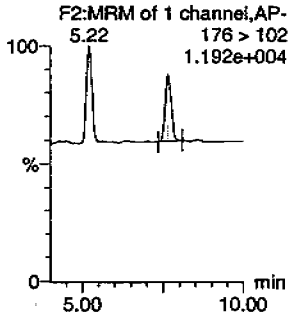

135-Trinitrobenzene

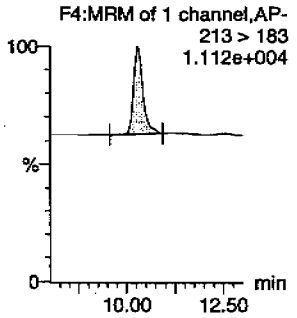

13-Dinitrobenzene-d4

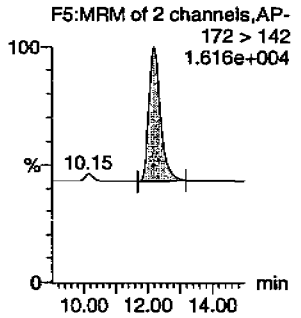

13-Dinitrobenzene

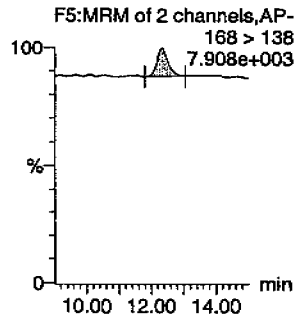

Tetryl

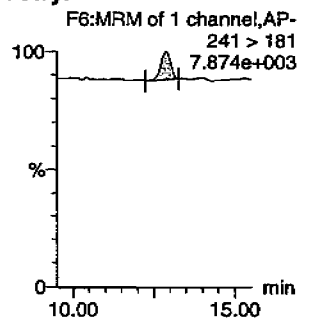

Nitrobenzene

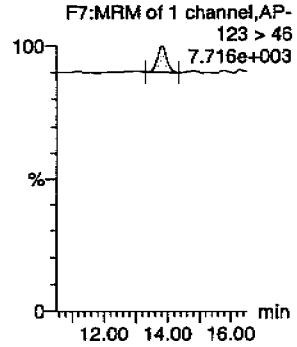

4-Amino-26-dinitrotoluene

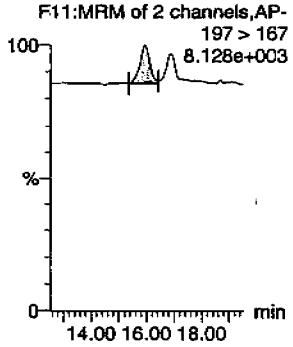

2-Amino-46-dinitrotoluene

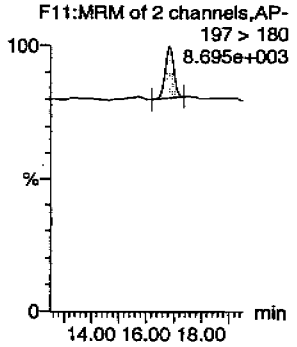

246-Trinitrotoluene

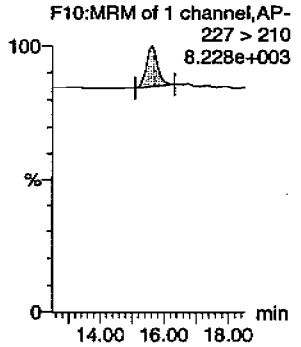

34-dinitrotoluene

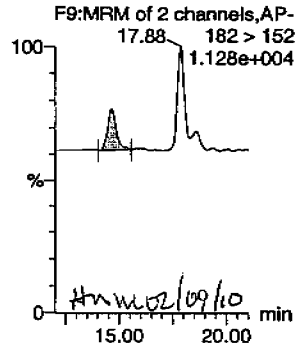

26-dinitrotoluene

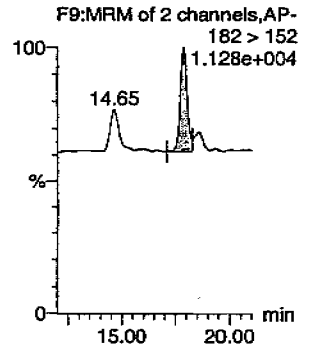

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

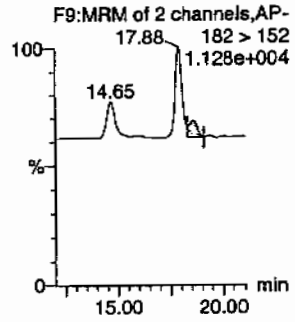

26-dinitrotoluene-d3

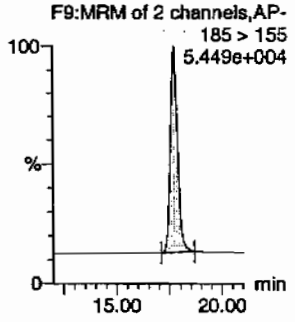

2-Nitrotoluene

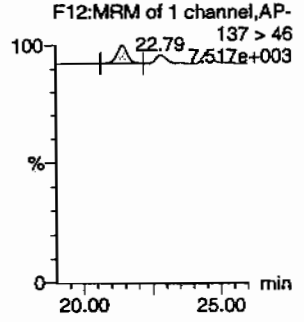

4-Nitrotoluene

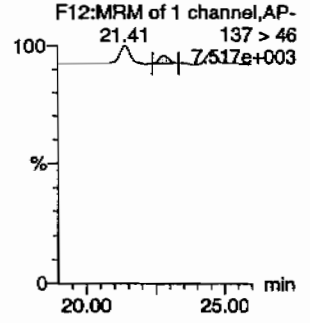

3-Nitrotoluene

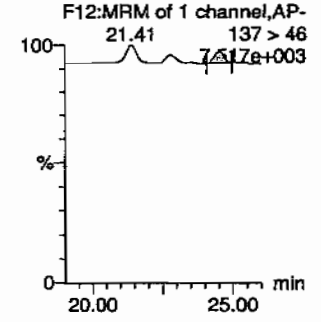

PETN

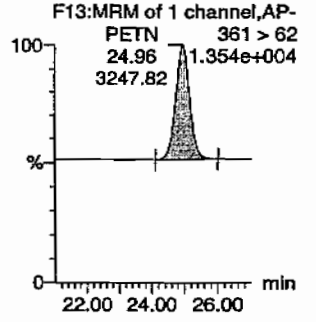

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	972.801	3863.752	972.801	125.888	bb			36.2497	90.6	-9.4	111.9
WXX100208-08CRI	RDX	176 > 102	7.66	753.223	3863.752	753.223	97.473	bb			40.1430	100.4	0.4	77.4
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1191.883	3863.752	1191.883	154.239	bb			41.8780	104.7	4.7	118.4
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3863.752		3863.752	3863.752	bb			600.9743	120.2	20.2	435.6
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	383.336	3863.752	383.336	49.607	bb			41.2566	103.1	3.1	20.7
WXX100208-08CRI	Tetryl	241 > 181	12.87	332.982	3863.752	332.982	43.090	bb			36.6002	91.5	-8.5	27.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	277.043	3863.752	277.043	35.852	bb			44.3833	111.0	11.0	19.4
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	485.610	18873.490	485.610	12.865	MM	09-Feb-10	10:08:44	44.7871	112.0	12.0	52.7
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	613.793	18873.490	613.793	16.261	bb			41.0593	102.6	2.6	87.6
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	501.319	18873.490	501.319	13.281	bb			41.1607	102.9	2.9	66.2
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	838.618	18873.490	838.618	22.217	bb			24.6856	123.4	23.4	48.7
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1680.954	18873.490	1680.954	44.532	MM	09-Feb-10	10:15:31	41.4604	103.7	3.7	121.8
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.59	365.888	18873.490	365.888	9.693	MM	09-Feb-10	10:18:38	39.7177	99.3	-0.7	22.8
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	18873.490		18873.490	18873.490	bb			511.2084	102.2	2.2	1598.8
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.41	255.711	18873.490	255.711	6.774	bb			43.6918	109.2	9.2	36.6
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.79	97.109	18873.490	97.109	2.573	bb			33.8492	84.6	-15.4	15.6
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.53	136.407	18873.490	136.407	3.614	bb			38.7858	97.0	-3.0	22.9
WXX100208-08CRI	PETN	361 > 62	24.96	3247.825	18873.490	3247.825	86.042	bb			42.4344	106.1	6.1	522.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/09/10
Time of Injection	0856
Standard Number	WXX100208-08CRI
Data File	EXP0208038a

HMX	90.6
RDX	100.4
135-TNB	104.7
13-DNB	103.1
Tetryl	91.5
Nitrobenzene	111.0
4A-26-DNT	112.0
2A-46-DNT	102.6
246-TNT	102.9
34-DNT(surr)	123.4
26-DNT	103.7
24-DNT	99.3
2-NT	109.2
4-NT	84.6
3-NT	97.0
PETN	106.1
Total	1642.1
Average	102.6

HMR 2/9/10

Hmr 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208049a

Analysis Date: 09-FEB-10 14:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	300	327.767	109	
4-Amino-2,6-dinitrotoluene	600	652.073	109	
HMX	600	648.743	108	
Nitrobenzene	600	534.529	89	
PETN	600	566.64	94	
RDX	600	721.033	120	*
Tetryl	600	576.02	96	
m-Dinitrobenzene	600	635.781	106	
m-Nitrotoluene	600	523.672	87	
o-Nitrotoluene	600	534.766	89	
p-Nitrotoluene	600	557.168	93	
1,3,5-Trinitrobenzene	600	581.172	97	
1,3-Dinitrobenzene-d4	500	549.978	110	
2,4,6-Trinitrotoluene	600	711.282	119	
2,4-Dinitrotoluene	600	646.244	108	
2,6-Dinitrotoluene	600	631.864	105	
2,6-Dinitrotoluene-d3	500	554.109	111	
2-Amino-4,6-dinitrotoluene	600	637.752	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208049a
Date: 09-Feb-2010
Time: 14:20:41
ID: WXX100208-07CCV
Vial: 1:1,B

MMT 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.800e+004

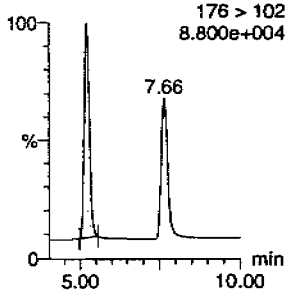

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.800e+004

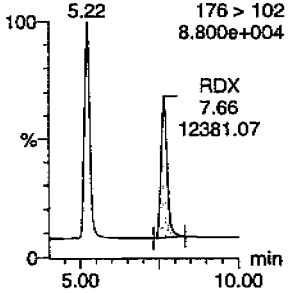

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.911e+004

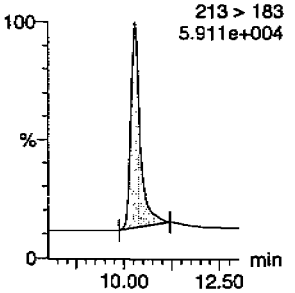

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.516e+004

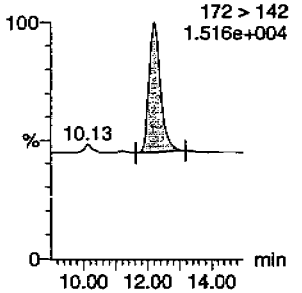

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.034e+004

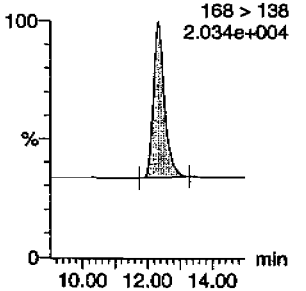

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.707e+004

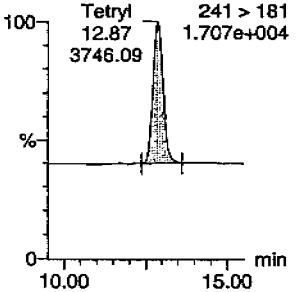

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.580e+004

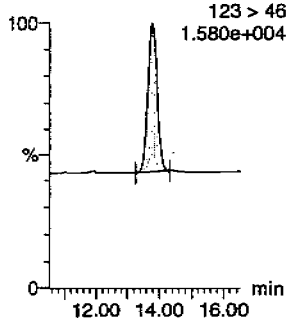

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.562e+004

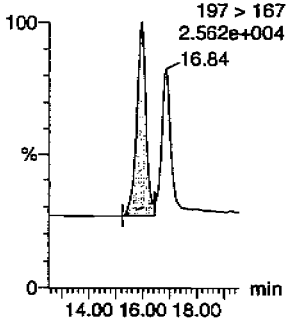

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.329e+004

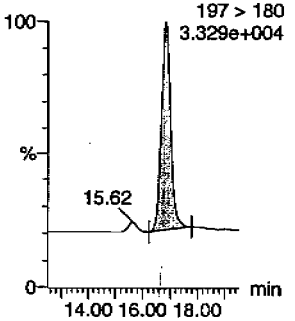

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.818e+004

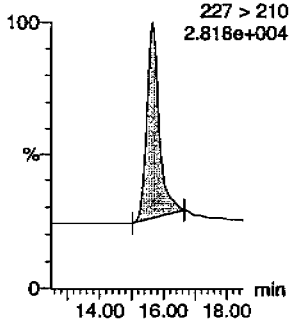

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.029e+004

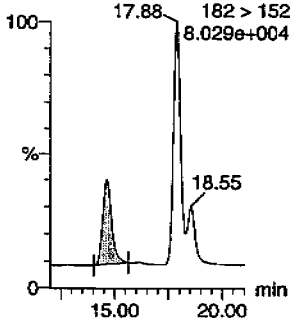

Hmm 02/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.029e+004

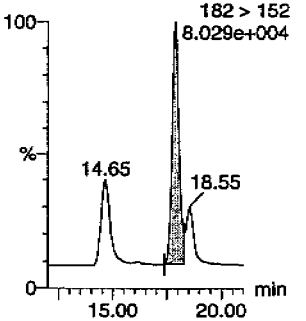

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

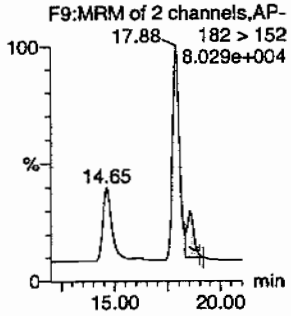

26-dinitrotoluene-d3

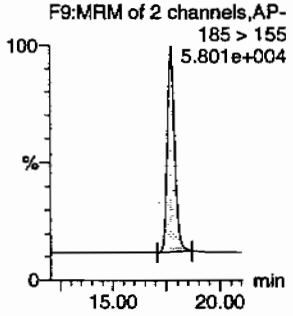

2-Nitrotoluene

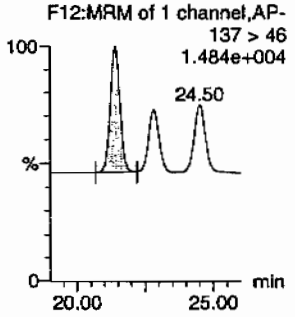

4-Nitrotoluene

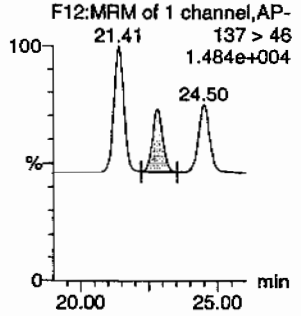

3-Nitrotoluene

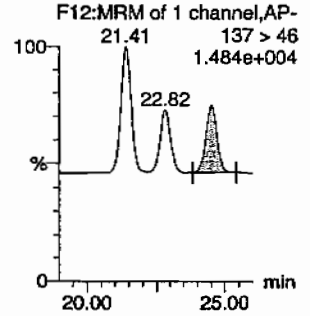

PETN

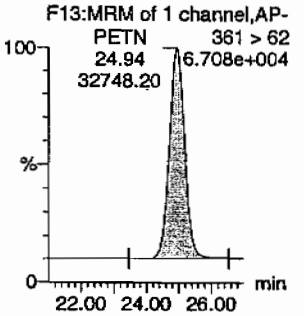

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	15932.405	3535.888	15932.405	2252.957	bb			648.7429	108.1	8.1	4227.8
WXX100208-07CCV	RDX	176 > 102	7.66	12381.069	3535.888	12381.069	1750.772	bb			721.0334	120.2	20.2	2779.7
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.30	15137.054	3535.888	15137.054	2140.488	bb			581.1718	96.9	-3.1	1149.7
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3535.888		3535.888	3535.888	bb			549.9778	110.0	10.0	208.7
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5406.091	3535.888	5406.091	764.460	bb			635.7809	106.0	6.0	279.1
WXX100208-07CCV	Tetryl	241 > 181	12.87	3746.090	3535.888	3746.090	529.724	bb			576.0201	96.0	-4.0	563.4
WXX100208-07CCV	Nitrobenzene	123 > 46	13.76	3053.430	3535.888	3053.430	431.777	bb			534.5291	89.1	-10.9	367.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.95	7663.504	20457.336	7663.504	187.305	MM	10-Feb-10	09:16:05	652.0726	108.7	8.7	438.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	10333.780	20457.336	10333.780	252.569	bb			637.7518	106.3	6.3	558.7
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	9390.103	20457.336	9390.103	229.505	bb			711.2820	118.5	18.5	550.7
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.65	12069.317	20457.336	12069.317	294.988	bb			327.7668	109.3	9.3	305.7
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.88	27767.875	20457.336	27767.875	678.678	MM	10-Feb-10	09:11:31	631.8642	105.3	5.3	893.5
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.55	6452.933	20457.336	6452.933	157.717	MM	10-Feb-10	09:09:39	646.2441	107.7	7.7	198.3
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	20457.336		20457.336	20457.336	bb			554.1086	110.8	10.8	1772.0
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.41	3392.420	20457.336	3392.420	82.915	bb			534.7660	89.1	-10.9	387.8
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.82	1732.583	20457.336	1732.583	42.346	bb			557.1681	92.9	-7.1	191.1
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.50	1996.277	20457.336	1996.277	48.791	bb			523.6725	87.3	-12.7	205.6
WXX100208-07CCV	PETN	361 > 62	24.94	32748.201	20457.336	32748.201	800.402	bb			566.6402	94.4	-5.6	6960.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/09/10
Time of Injection: 1420
Standard Number: WXX100208-07CCV
Data File: EXP0208049a

HMX	108.1
RDX	120.2
135-TNB	96.9
13-DNB	106.0
Tetryl	96.0
Nitrobenzene	89.1
4A-26-DNT	108.7
2A-46-DNT	106.3
246-TNT	118.5
34-DNT(surr)	109.3
26-DNT	105.3
24-DNT	107.7
2-NT	89.1
4-NT	92.9
3-NT	87.3
PETN	94.4
Total	1635.8
Average	102.2

MATT 2/10/10

Hume 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208051a

Analysis Date: 09-FEB-10 15:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.499	109	
1,3-Dinitrobenzene-d4	500	575.339	115	
2,4,6-Trinitrotoluene	40	37.174	93	
2,4-Dinitrotoluene	40	39.545	99	
2,6-Dinitrotoluene	40	44.458	111	
2,6-Dinitrotoluene-d3	500	556.656	111	
2-Amino-4,6-dinitrotoluene	40	44.445	111	
3,4-Dinitrotoluene	20	22.823	114	
4-Amino-2,6-dinitrotoluene	40	42.665	107	
HMX	40	42.028	105	
Nitrobenzene	40	40.451	101	
PETN	40	36.261	91	
RDX	40	37.937	95	
Tetryl	40	44.71	112	
m-Dinitrobenzene	40	44.913	112	
m-Nitrotoluene	40	32.902	82	
o-Nitrotoluene	40	39.318	98	
p-Nitrotoluene	40	38.91	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208051a
Date: 09-Feb-2010
Time: 15:19:46
ID: WXX100208-08CRI
Vial: 1:1,C

MM 2/10/10

HMX

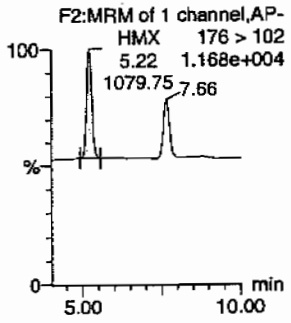

RDX

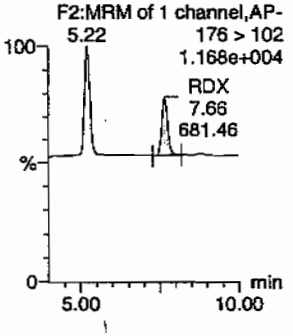

135-Trinitrobenzene

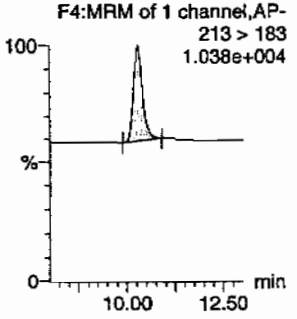

13-Dinitrobenzene-d4

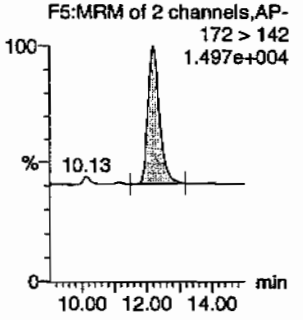

13-Dinitrobenzene

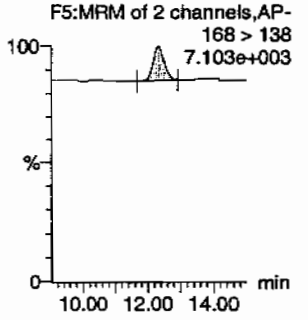

Tetryl

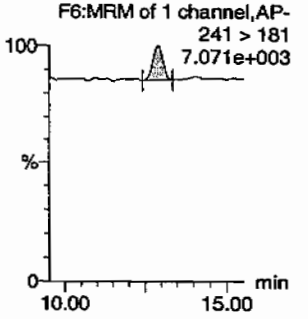

Nitrobenzene

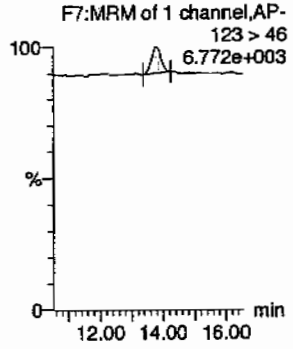

4-Amino-26-dinitrotoluene

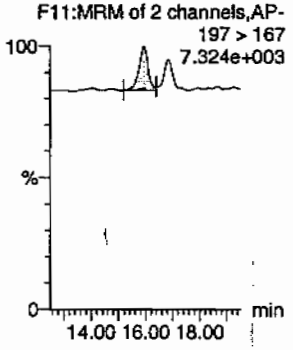

2-Amino-46-dinitrotoluene

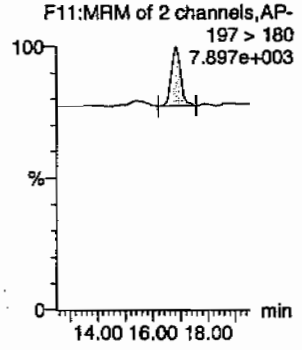

246-Trinitrotoluene

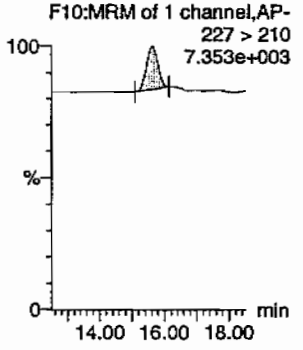

34-dinitrotoluene

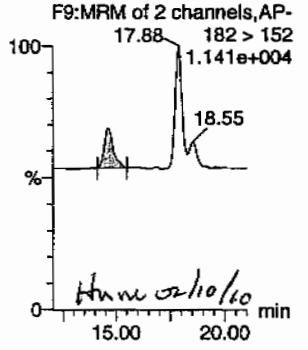

Hmm 02/10/10

26-dinitrotoluene

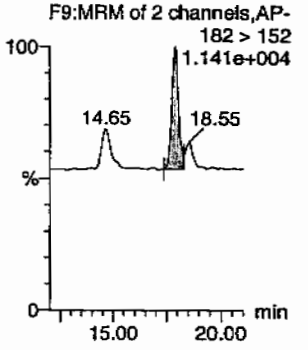

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

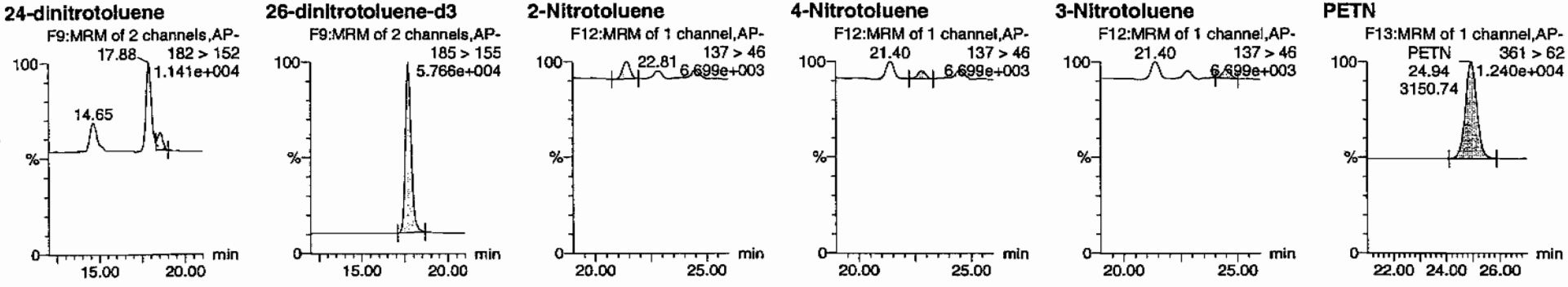

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1079.752	3698.938	1079.752	145.954	bb			42.0278	105.1	5.1	142.2
WXX100208-08CRI	RDX	176 > 102	7.66	681.462	3698.938	681.462	92.116	bb			37.9368	94.8	-5.2	77.8
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1185.200	3698.938	1185.200	160.208	bb			43.4987	108.7	8.7	112.1
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3698.938		3698.938	3698.938	bb			575.3388	115.1	15.1	520.0
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	399.509	3698.938	399.509	54.003	bb			44.9130	112.3	12.3	46.9
WXX100208-08CRI	Tetryl	241 > 181	12.87	376.028	3698.938	376.028	50.829	bb			44.7099	111.8	11.8	36.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.76	241.726	3698.938	241.726	32.675	bb			40.4509	101.1	1.1	30.0
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.95	503.725	20551.385	503.725	12.255	MM	10-Feb-10	09:15:53	42.6648	106.7	6.7	25.0
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	723.475	20551.385	723.475	17.602	bb			44.4451	111.1	11.1	30.7
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	493.014	20551.385	493.014	11.995	bb			37.1739	92.9	-7.1	37.3
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	844.283	20551.385	844.283	20.541	bb			22.8233	114.1	14.1	68.4
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1962.747	20551.385	1962.747	47.752	MM	10-Feb-10	09:11:38	44.4584	111.1	11.1	212.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.55	396.684	20551.385	396.684	9.651	MM	10-Feb-10	09:09:28	39.5450	98.9	-1.1	42.0
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	20551.385		20551.385	20551.385	bb			556.6560	111.3	11.3	1207.4
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	250.572	20551.385	250.572	6.096	bb			39.3183	98.3	-1.7	41.5
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.81	121.550	20551.385	121.550	2.957	bb			38.9095	97.3	-2.7	20.1
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.48	126.001	20551.385	126.001	3.066	bb			32.9019	82.3	-17.7	20.8
WXX100208-08CRI	PETN	361 > 62	24.94	3150.736	20551.385	3150.736	76.655	bb			36.2614	90.7	-9.3	631.2

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/09/10
Time of Injection	1519
Standard Number	WXX100208-08CRI
Data File	EXP0208051a

HMX	105.1
RDX	94.8
135-TNB	108.7
13-DNB	112.3
Tetryl	111.8
Nitrobenzene	101.1
4A-26-DNT	106.7
2A-46-DNT	111.1
246-TNT	92.9
34-DNT(surr)	114.1
26-DNT	111.1
24-DNT	98.9
2-NT	98.3
4-NT	97.3
3-NT	82.3
PETN	90.7
Total	1637.2
Average	102.3

MTT 2/10/10

Hmm 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208062a

Analysis Date: 09-FEB-10 20:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	590.193	98	
1,3,5-Trinitrobenzene	600	547.737	91	
1,3-Dinitrobenzene-d4	500	567.181	113	
2,4,6-Trinitrotoluene	600	715.292	119	
2,4-Dinitrotoluene	600	646.614	108	
2,6-Dinitrotoluene	600	637.73	106	
2,6-Dinitrotoluene-d3	500	528.196	106	
2-Amino-4,6-dinitrotoluene	600	658.061	110	
3,4-Dinitrotoluene	300	330.267	110	
4-Amino-2,6-dinitrotoluene	600	627.96	105	
HMX	600	599.91	100	
Nitrobenzene	600	551.5	92	
PETN	600	580.031	97	
RDX	600	625.098	104	
Tetryl	600	563.424	94	
m-Dinitrobenzene	600	616.138	103	
m-Nitrotoluene	600	563.078	94	
o-Nitrotoluene	600	586.398	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208062a
Date: 09-Feb-2010
Time: 20:44:30
ID: WXX100208-07CCV
Vial: 1:1,B

MM 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.466e+004
7.66

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.466e+004
5.21
RDX
7.66
11069.49

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.789e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.567e+004
10.15

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.077e+004

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.90
3785.14
241 > 181
1.749e+004

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.622e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.435e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.316e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.801e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.87
182 > 152
7.751e+004
18.56

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.751e+004
14.63
18.56

Hmm 02/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

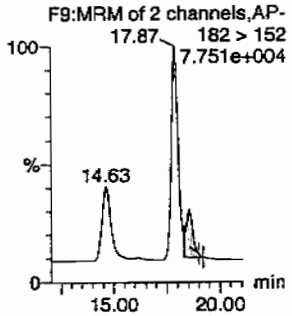

26-dinitrotoluene-d3

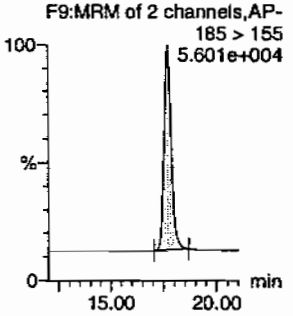

2-Nitrotoluene

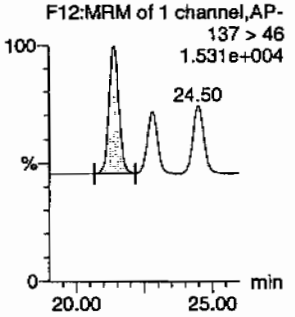

4-Nitrotoluene

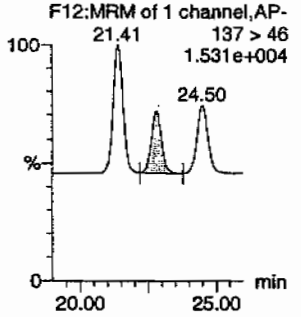

3-Nitrotoluene

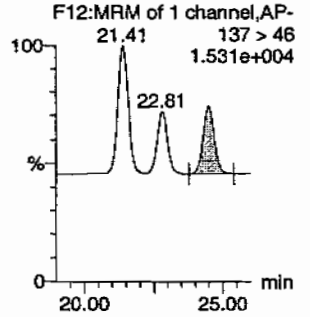

PETN

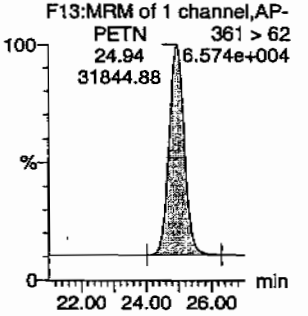

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.21	15193.972	3646.489	15193.972	2083.370	bb			599.9101	100.0	-0.0	2159.2
WXX100208-07CCV	RDX	176 > 102	7.66	11069.486	3646.489	11069.486	1517.828	bb			625.0982	104.2	4.2	1309.8
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.30	14712.466	3646.489	14712.466	2017.347	bb			547.7372	91.3	-8.7	911.4
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3646.489		3646.489	3646.489	bb			567.1808	113.4	13.4	245.8
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5402.941	3646.489	5402.941	740.842	bb			616.1379	102.7	2.7	784.8
WXX100208-07CCV	Tetryl	241 > 181	12.90	3785.138	3646.489	3785.138	519.011	bb			563.4238	93.9	-6.1	224.4
WXX100208-07CCV	Nitrobenzene	123 > 46	13.79	3248.918	3646.489	3248.918	445.486	bb			551.5002	91.9	-8.1	291.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.94	7034.992	19500.662	7034.992	180.378	MM	10-Feb-10	09:14:42	627.9599	104.7	4.7	282.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.83	10164.215	19500.662	10164.215	260.612	bb			658.0609	109.7	9.7	492.6
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.63	9001.442	19500.662	9001.442	230.798	bb			715.2919	119.2	19.2	634.3
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.63	11592.679	19500.662	11592.679	297.238	bb			330.2675	110.1	10.1	650.3
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.87	26715.053	19500.662	26715.053	684.978	MM	10-Feb-10	09:12:13	637.7300	106.3	6.3	1878.4
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.56	6154.682	19500.662	6154.682	157.807	MM	10-Feb-10	09:08:50	646.6135	107.8	7.8	424.9
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.70	19500.662		19500.662	19500.662	bb			528.1961	105.6	5.6	929.9
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.41	3546.001	19500.662	3546.001	90.920	bb			586.3983	97.7	-2.3	592.3
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.81	1749.453	19500.662	1749.453	44.856	bb			590.1932	98.4	-1.6	284.2
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.50	2046.115	19500.662	2046.115	52.463	bb			563.0782	93.8	-6.2	310.9
WXX100208-07CCV	PETN	361 > 62	24.94	31844.883	19500.662	31844.883	816.508	bb			580.0314	96.7	-3.3	6751.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/09/10
Time of Injection: 2044
Standard Number: WXX100208-07CCV
Data File: EXP0208062a

HMX	100.0
RDX	104.2
135-TNB	91.3
13-DNB	102.7
Tetryl	93.9
Nitrobenzene	91.9
4A-26-DNT	104.7
2A-46-DNT	109.7
246-TNT	119.2
34-DNT(surr)	110.1
26-DNT	106.3
24-DNT	107.8
2-NT	97.7
4-NT	98.4
3-NT	93.8
PETN	96.7
Total	1628.4
Average	101.8

MJT 2/10/10

Hmm 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208064a

Analysis Date: 09-FEB-10 21:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	20	24.084	120	
4-Amino-2,6-dinitrotoluene	40	41.143	103	
HMX	40	39.239	98	
Nitrobenzene	40	38.933	97	
PETN	40	36.686	92	
RDX	40	36.427	91	
Tetryl	40	34.123	85	
m-Dinitrobenzene	40	38.756	97	
m-Nitrotoluene	40	38.95	97	
o-Nitrotoluene	40	40.457	101	
p-Nitrotoluene	40	34.567	86	
1,3,5-Trinitrobenzene	40	43.241	108	
1,3-Dinitrobenzene-d4	500	602.61	121	
2,4,6-Trinitrotoluene	40	38.148	95	
2,4-Dinitrotoluene	40	39.085	98	
2,6-Dinitrotoluene	40	43.106	108	
2,6-Dinitrotoluene-d3	500	567.8	114	
2-Amino-4,6-dinitrotoluene	40	39.591	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208064a
Date: 09-Feb-2010
Time: 21:43:27
ID: WXX100208-08CRI
Vial: 1:1,C

MAP 2/10/10

HMX

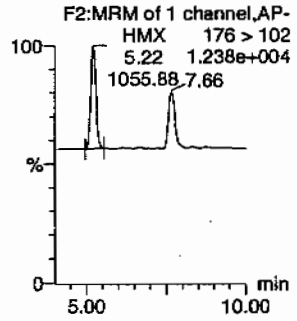

RDX

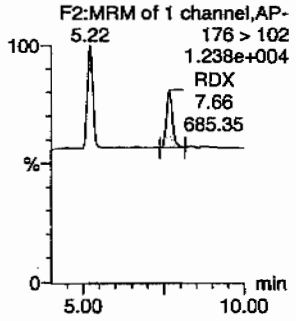

135-Trinitrobenzene

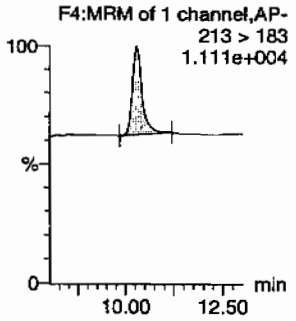

13-Dinitrobenzene-d4

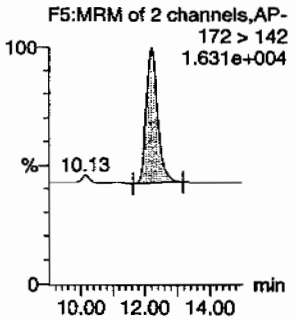

13-Dinitrobenzene

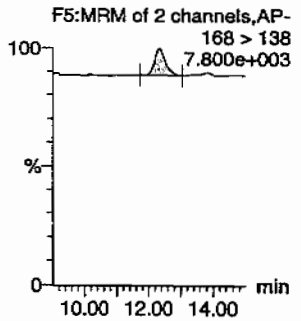

Tetryl

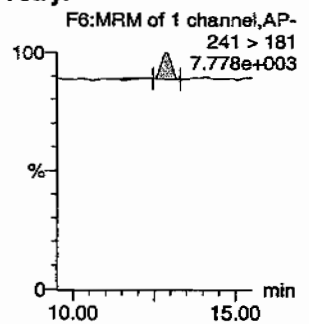

Nitrobenzene

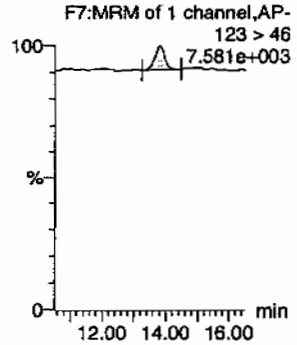

4-Amino-26-dinitrotoluene

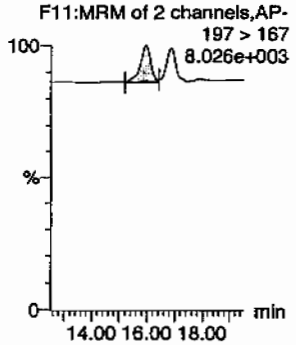

2-Amino-46-dinitrotoluene

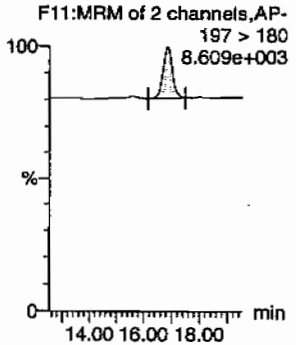

246-Trinitrotoluene

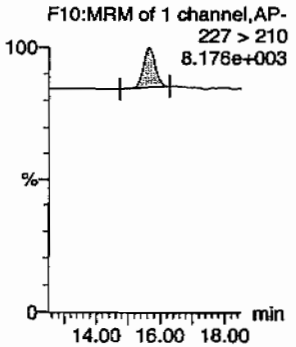

34-dinitrotoluene

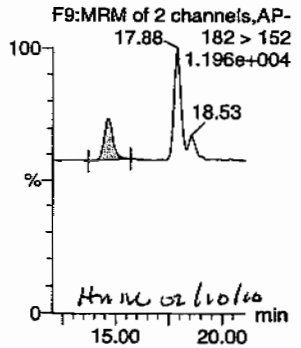

26-dinitrotoluene

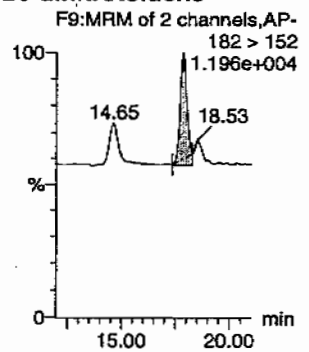

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

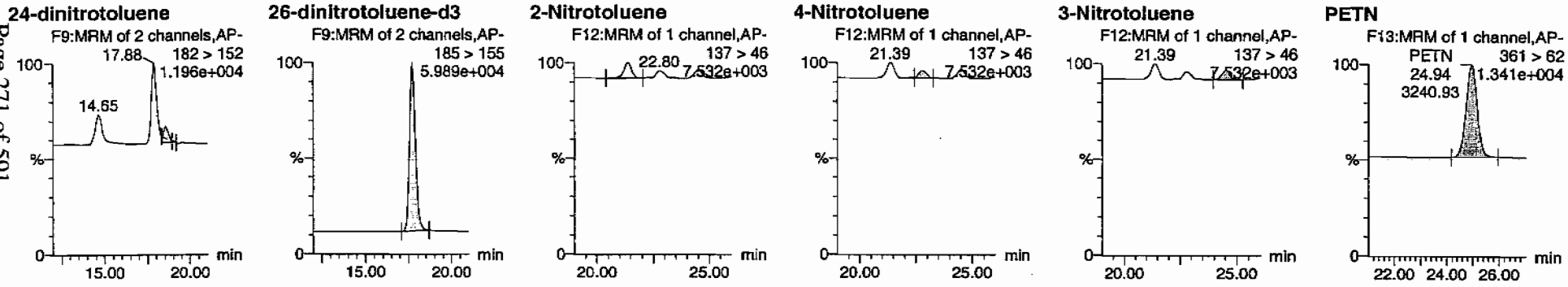

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1055.883	3874.267	1055.883	136.269	bb			39.2388	98.1	-1.9	268.1
WXX100208-08CRI	RDX	176 > 102	7.66	685.352	3874.267	685.352	88.449	bb			36.4267	91.1	-8.9	148.4
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.30	1234.027	3874.267	1234.027	159.259	bb			43.2411	108.1	8.1	146.8
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3874.267		3874.267	3874.267	bb			602.6098	120.5	20.5	308.3
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	361.083	3874.267	361.083	46.600	bb			38.7561	96.9	-3.1	29.4
WXX100208-08CRI	Tetryl	241 > 181	12.92	315.552	3874.267	315.552	40.724	bb			34.1231	85.3	-14.7	25.2
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	243.681	3874.267	243.681	31.449	bb			38.9327	97.3	-2.7	18.5
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.95	495.481	20962.824	495.481	11.818	MM	10-Feb-10	09:14:32	41.1429	102.9	2.9	52.0
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	657.359	20962.824	657.359	15.679	bb			39.5908	99.0	-1.0	64.0
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	516.055	20962.824	516.055	12.309	bb			38.1476	95.4	-4.6	49.9
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	908.764	20962.824	908.764	21.676	bb			24.0842	120.4	20.4	46.7
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1941.125	20962.824	1941.125	46.299	MM	10-Feb-10	09:12:20	43.1056	107.8	7.8	126.2
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.53	399.918	20962.824	399.918	9.539	MM	10-Feb-10	09:08:33	39.0850	97.7	-2.3	25.9
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	20962.824		20962.824	20962.824	bb			567.8003	113.6	13.6	2300.0
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.39	262.989	20962.824	262.989	6.273	bb			40.4568	101.1	1.1	52.2
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.80	110.147	20962.824	110.147	2.627	bb			34.5672	86.4	-13.6	23.8
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.53	152.150	20962.824	152.150	3.629	bb			38.9502	97.4	-2.6	30.6
WXX100208-08CRI	PETN	361 > 62	24.94	3240.928	20962.824	3240.928	77.302	bb			36.6863	91.7	-8.3	1151.2

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/09/10
Time of Injection	2143
Standard Number	WXX100208-08CRI
Data File	EXP0208064a

HMX	98.1
RDX	91.1
135-TNB	108.1
13-DNB	96.9
Tetryl	85.3
Nitrobenzene	97.3
4A-26-DNT	102.9
2A-46-DNT	99.0
246-TNT	95.4
34-DNT(surr)	120.4
26-DNT	107.8
24-DNT	97.7
2-NT	101.1
4-NT	86.4
3-NT	97.4
PETN	91.7
Total	1576.6
Average	98.5

MHP 2/10/10

Hnm 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208075a

Analysis Date: 10-FEB-10 03:07

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	550.541	92	
1,3-Dinitrobenzene-d4	500	536.255	107	
2,4,6-Trinitrotoluene	600	692.977	115	
2,4-Dinitrotoluene	600	649.004	108	
2,6-Dinitrotoluene	600	623.523	104	
2,6-Dinitrotoluene-d3	500	505.287	101	
2-Amino-4,6-dinitrotoluene	600	658.154	110	
3,4-Dinitrotoluene	300	327.707	109	
4-Amino-2,6-dinitrotoluene	600	625.18	104	
HMX	600	619.895	103	
Nitrobenzene	600	588.662	98	
PETN	600	650.959	108	
RDX	600	712.542	119	
Tetryl	600	559.722	93	
m-Dinitrobenzene	600	613.819	102	
m-Nitrotoluene	600	614.037	102	
o-Nitrotoluene	600	663.004	111	
p-Nitrotoluene	600	675.946	113	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208075a
Date: 10-Feb-2010
Time: 03:07:54
ID: WXX100208-07CCV
Vial: 1:1,B

MAT 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.196e+004
7.66

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.196e+004
5.22
RDX
7.66
11929.98

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.563e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.530e+004
10.13

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.987e+004

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.87
3557.00
241 > 181
1.693e+004

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.640e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.316e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.214e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.606e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.86
182 > 152
7.328e+004
18.55

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.328e+004
14.60
18.55

Hmm 02/10/10

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

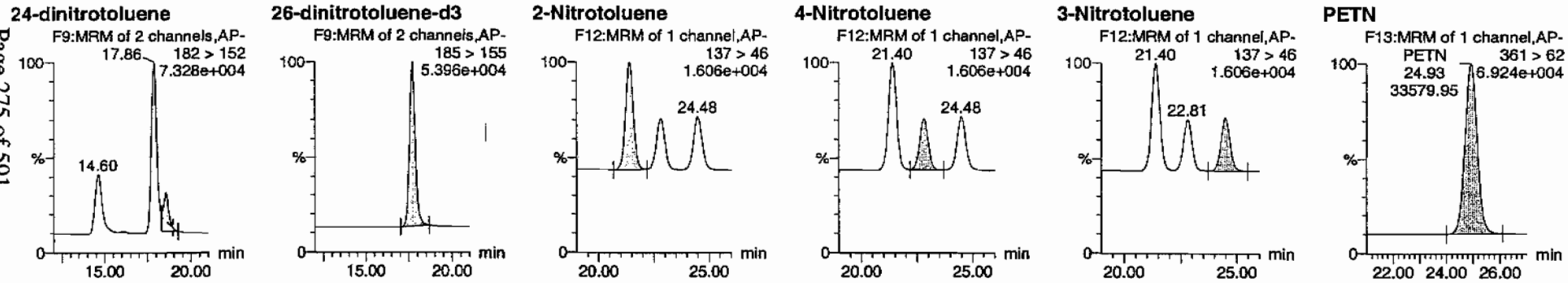

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	14844.065	3447.663	14844.065	2152.772	bb			619.8946	103.3	3.3	1246.9
WXX100208-07CCV	RDX	176 > 102	7.66	11929.981	3447.663	11929.981	1730.155	bb			712.5423	118.8	18.8	827.0
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	13981.463	3447.663	13981.463	2027.673	bb			550.5408	91.8	-8.2	944.0
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3447.663		3447.663	3447.663	bb			536.2551	107.3	7.3	275.6
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5089.118	3447.663	5089.118	738.053	bb			613.8190	102.3	2.3	369.5
WXX100208-07CCV	Tetryl	241 > 181	12.87	3557.003	3447.663	3557.003	515.857	bb			559.7220	93.3	-6.7	295.2
WXX100208-07CCV	Nitrobenzene	123 > 46	13.76	3278.754	3447.663	3278.754	475.504	bb			588.6618	98.1	-1.9	218.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.92	6700.083	18654.883	6700.083	179.580	MM	10-Feb-10	09:13:53	625.1803	104.2	4.2	198.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9724.758	18654.883	9724.758	260.649	bb			658.1545	109.7	9.7	633.0
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	8342.395	18654.883	8342.395	223.598	bb			692.9769	115.5	15.5	738.6
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.60	11003.918	18654.883	11003.918	294.934	bb			327.7073	109.2	9.2	449.6
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.86	24987.027	18654.883	24987.027	669.718	MM	10-Feb-10	09:12:57	623.5227	103.9	3.9	1289.9
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.55	5909.508	18654.883	5909.508	158.390	MM	10-Feb-10	09:07:37	649.0039	108.2	8.2	295.3
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	18654.883		18654.883	18654.883	bb			505.2872	101.1	1.1	2644.3
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.40	3835.353	18654.883	3835.353	102.798	bb			663.0038	110.5	10.5	650.4
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.81	1916.741	18654.883	1916.741	51.374	bb			675.9463	112.7	12.7	309.9
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.48	2134.515	18654.883	2134.515	57.211	bb			614.0372	102.3	2.3	323.7
WXX100208-07CCV	PETN	361 > 62	24.93	33579.945	18654.883	33579.945	900.031	bb			650.9591	108.5	8.5	11066.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/10/10
Time of Injection: 0307
Standard Number: WXX100208-07CCV
Data File: EXP0208075a

HMX		103.3
RDX		118.8
135-TNB		91.8
13-DNB		102.3
Tetryl		93.3
Nitrobenzene		98.1
4A-26-DNT		104.2
2A-46-DNT		109.7
246-TNT		115.5
34-DNT(surr)		109.2
26-DNT		103.9
24-DNT		108.2
2-NT		110.5
4-NT		112.7
3-NT		102.3
PETN		108.5
Total		1692.3
Average		105.8

MT 2/10/10

dmm 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208077a

Analysis Date: 10-FEB-10 04:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.814	110	
1,3-Dinitrobenzene-d4	500	565.719	113	
2,4,6-Trinitrotoluene	40	37.653	94	
2,4-Dinitrotoluene	40	39.671	99	
2,6-Dinitrotoluene	40	41.489	104	
2,6-Dinitrotoluene-d3	500	565.139	113	
2-Amino-4,6-dinitrotoluene	40	39.866	100	
3,4-Dinitrotoluene	20	21.452	107	
4-Amino-2,6-dinitrotoluene	40	37.145	93	
HMX	40	44.845	112	
Nitrobenzene	40	36.774	92	
PETN	40	41.094	103	
RDX	40	40.397	101	
Tetryl	40	40.051	100	
m-Dinitrobenzene	40	42.442	106	
m-Nitrotoluene	40	42.653	107	
o-Nitrotoluene	40	37.743	94	
p-Nitrotoluene	40	39.09	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208077a
Date: 10-Feb-2010
Time: 04:06:59
ID: WXX100208-08CRI
Vial: 1:1,C

MAP 2/10/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.21 1.250e+004
1132.87 7.65

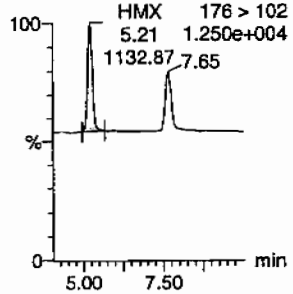

RDX
F2:MRM of 1 channel,AP-
5.21 176 > 102
1.250e+004
RDX
7.65
713.53

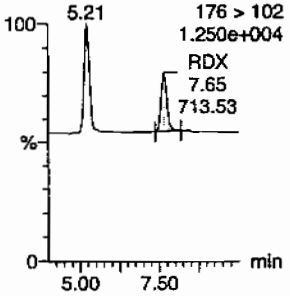

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.097e+004

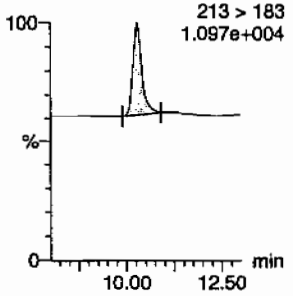

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.543e+004

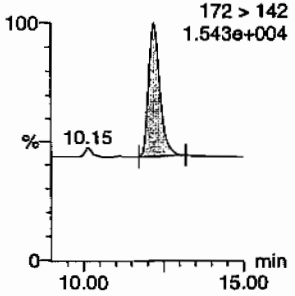

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.588e+003

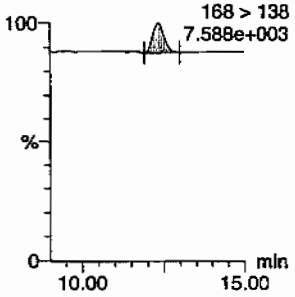

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.571e+003

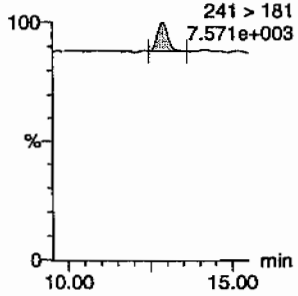

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.312e+003

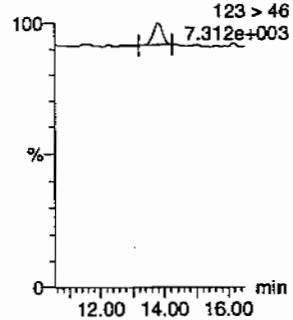

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.806e+003

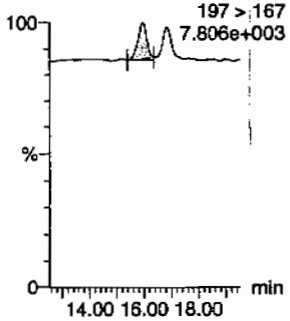

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.433e+003

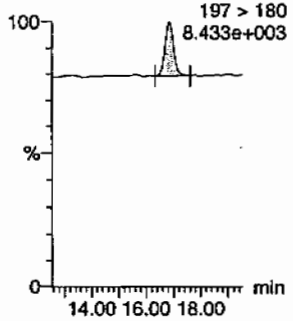

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.766e+003

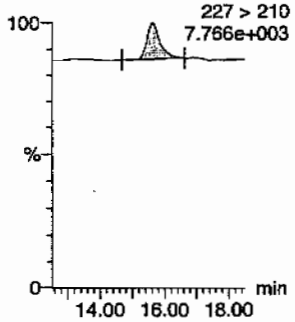

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.87 182 > 152
1.167e+004
18.54

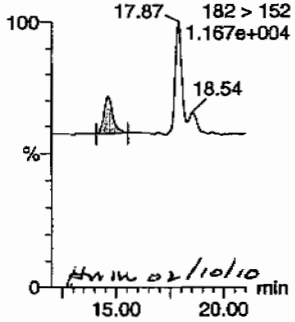

HMM 02/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.167e+004
14.63
18.54

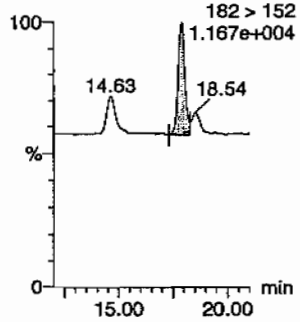

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

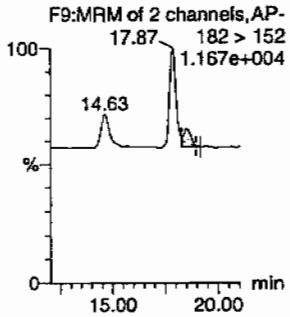

26-dinitrotoluene-d3

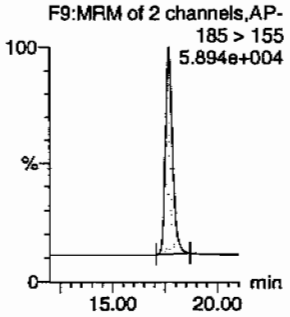

2-Nitrotoluene

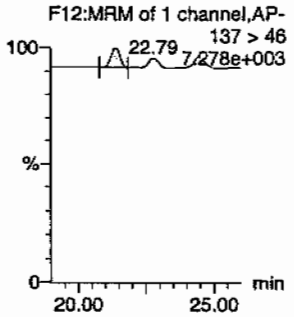

4-Nitrotoluene

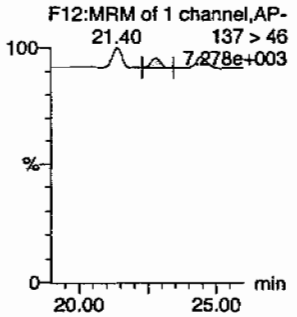

3-Nitrotoluene

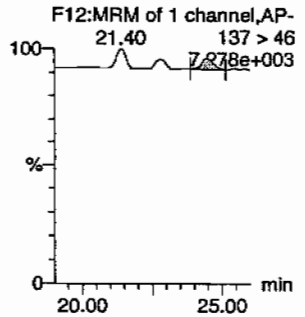

PETN

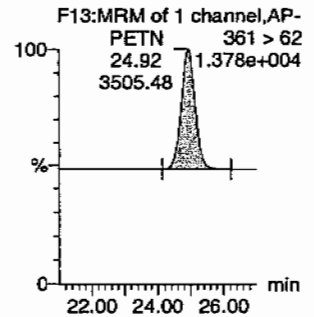

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.21	1132.865	3637.088	1132.865	155.738	bb			44.8450	112.1	12.1	170.9
WXX100208-08CRI	RDX	176 > 102	7.65	713.529	3637.088	713.529	98.091	bb			40.3974	101.0	1.0	93.3
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1173.815	3637.088	1173.815	161.367	bb			43.8135	109.5	9.5	193.8
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3637.088		3637.088	3637.088	bb			565.7186	113.1	13.1	278.8
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	371.218	3637.088	371.218	51.032	bb			42.4422	106.1	6.1	32.1
WXX100208-08CRI	Tetryl	241 > 181	12.85	337.410	3637.088	337.410	46.385	bb			40.0506	100.1	0.1	25.8
WXX100208-08CRI	Nitrobenzene	123 > 46	13.79	216.078	3637.088	216.078	29.705	bb			36.7738	91.9	-8.1	17.3
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.94	445.232	20864.584	445.232	10.670	MM	10-Feb-10	09:13:47	37.1445	92.9	-7.1	24.2
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.83	658.821	20864.584	658.821	15.788	bb			39.8657	99.7	-0.3	32.7
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.63	506.976	20864.584	506.976	12.149	bb			37.6529	94.1	-5.9	22.7
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.63	805.661	20864.584	805.661	19.307	bb			21.4523	107.3	7.3	51.9
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.87	1859.565	20864.584	1859.565	44.563	MM	10-Feb-10	09:13:03	41.4889	103.7	3.7	155.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.54	404.009	20864.584	404.009	9.682	MM	10-Feb-10	09:07:27	39.6707	99.2	-0.8	29.4
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.70	20864.584		20864.584	20864.584	bb			565.1393	113.0	13.0	1872.1
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	244.201	20864.584	244.201	5.852	bb			37.7434	94.4	-5.6	60.9
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.79	123.975	20864.584	123.975	2.971	bb			39.0900	97.7	-2.3	29.1
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.45	165.831	20864.584	165.831	3.974	bb			42.6525	106.6	6.6	33.9
WXX100208-08CRI	PETN	361 > 62	24.92	3505.484	20864.584	3505.484	84.006	bb			41.0940	102.7	2.7	796.3

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/10/10
Time of Injection	0406
Standard Number	WXX100208-08CRI
Data File	EXP0208077a

HMX	112.1
RDX	101.0
135-TNB	109.5
13-DNB	106.1
Tetryl	100.1
Nitrobenzene	91.9
4A-26-DNT	92.9
2A-46-DNT	99.7
246-TNT	94.1
34-DNT(surr)	107.3
26-DNT	103.7
24-DNT	99.2
2-NT	94.4
4-NT	97.7
3-NT	106.6
PETN	102.7
Total	1619.0
Average	101.2

MJT 2/10/10

Hanu on 1/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208088a

Analysis Date: 10–FEB–10 09:31

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	579.88	97	
Nitrobenzene	600	606.863	101	
PETN	600	627.526	105	
RDX	600	633.367	106	
Tetryl	600	602.321	100	
m–Dinitrobenzene	600	605.649	101	
m–Nitrotoluene	600	598.093	100	
o–Nitrotoluene	600	665.518	111	
p–Nitrotoluene	600	667.409	111	
1,3,5–Trinitrobenzene	600	541.95	90	
1,3–Dinitrobenzene–d4	500	565.857	113	
2,4,6–Trinitrotoluene	600	708.706	118	
2,4–Dinitrotoluene	600	606.731	101	
2,6–Dinitrotoluene	600	600.008	100	
2,6–Dinitrotoluene–d3	500	520.615	104	
2–Amino–4,6–dinitrotoluene	600	614.083	102	
3,4–Dinitrotoluene	300	347.135	116	
4–Amino–2,6–dinitrotoluene	600	606.995	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208088a
Date: 10-Feb-2010
Time: 09:31:30
ID: WXX100208-07CCV
Vial: 1:1,B

MMT 4/11/10

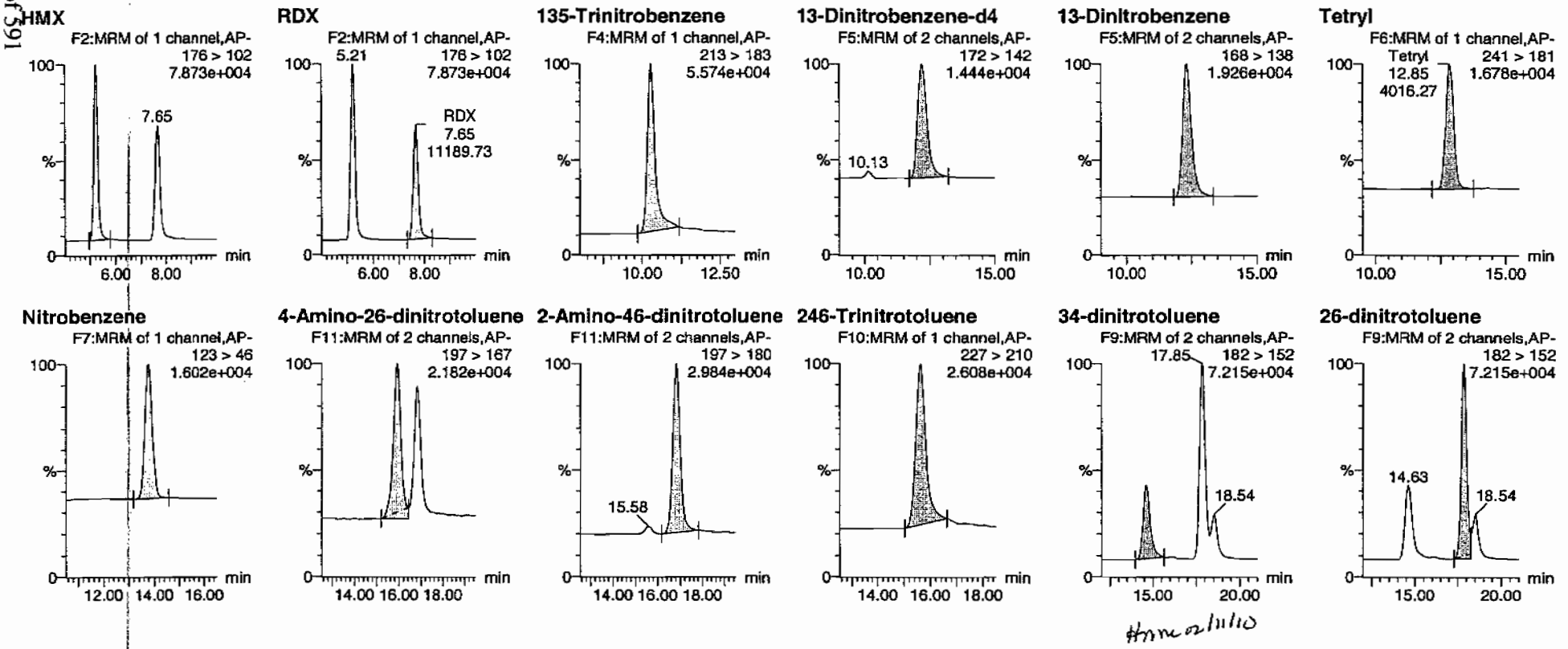

HMM 02/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

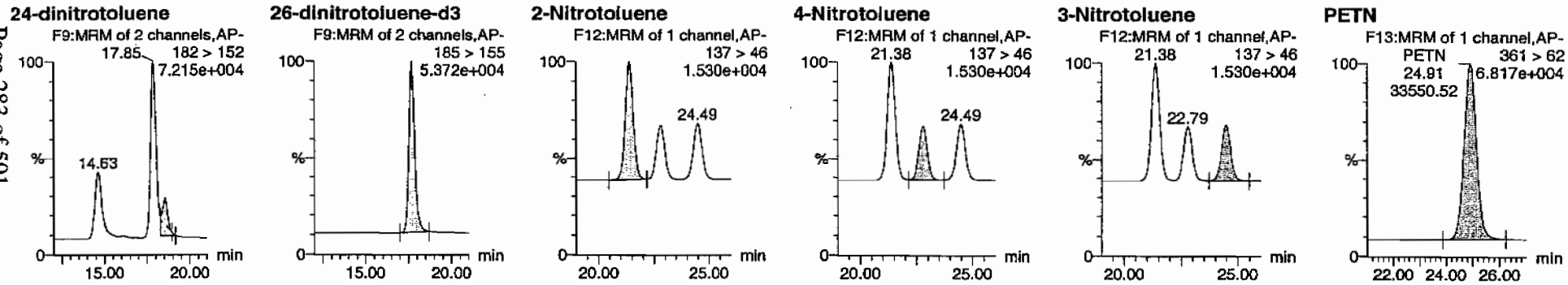

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.21	14652.377	3637.978	14652.377	2013.808	bb			579.8796	96.6	-3.4	2714.8
WXX100208-07CCV	RDX	176 > 102	7.65	11189.726	3637.978	11189.726	1537.905	bb			633.3665	105.6	5.6	1781.0
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	14523.040	3637.978	14523.040	1996.032	bb			541.9499	90.3	-9.7	563.5
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3637.978		3637.978	3637.978	bb			565.8570	113.2	13.2	469.5
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5298.564	3637.978	5298.564	728.229	bb			605.6486	100.9	0.9	921.9
WXX100208-07CCV	Tetryl	241 > 181	12.85	4016.270	3637.978	4016.270	551.992	bb			602.3214	100.4	0.4	449.6
WXX100208-07CCV	Nitrobenzene	123 > 46	13.79	3566.716	3637.978	3566.716	490.206	bb			606.8625	101.1	1.1	460.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.91	6702.521	19220.766	6702.521	174.356	MM	11-Feb-10	09:29:59	606.9950	101.2	1.2	645.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.83	9348.814	19220.766	9348.814	243.196	bb			614.0835	102.3	2.3	822.4
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.63	8790.558	19220.766	8790.558	228.673	bb			708.7063	118.1	18.1	490.0
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.63	12009.858	19220.766	12009.858	312.419	bb			347.1351	115.7	15.7	266.6
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.85	24774.061	19220.766	24774.061	644.461	MM	11-Feb-10	09:56:51	600.0075	100.0	0.0	715.2
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.54	5692.178	19220.766	5692.178	148.074	MM	11-Feb-10	10:04:27	606.7311	101.1	1.1	152.1
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.70	19220.766		19220.766	19220.766	bb			520.6148	104.1	4.1	1918.1
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.38	3966.684	19220.766	3966.684	103.187	bb			665.5185	110.9	10.9	439.7
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.79	1949.940	19220.766	1949.940	50.725	bb			667.4087	111.2	11.2	203.9
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.49	2142.158	19220.766	2142.158	55.725	bb			598.0932	99.7	-0.3	213.4
WXX100208-07CCV	PETN	361 > 62	24.91	33550.523	19220.766	33550.523	872.768	bb			627.5257	104.6	4.6	5599.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/10/10
Time of Injection: 0931
Standard Number: WXX100208-07CCV
Data File: EXP0208088a

HMX		96.6
RDX		105.6
135-TNB		90.3
13-DNB		100.9
Tetryl		100.4
Nitrobenzene		101.1
4A-26-DNT		101.2
2A-46-DNT		102.3
246-TNT		118.1
34-DNT(surr)		115.7
26-DNT		100.0
24-DNT		101.1
2-NT		110.9
4-NT		111.2
3-NT		99.7
PETN		104.6
Total		1659.7
Average		103.7

HMK 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0208090a

Analysis Date: 10-FEB-10 10:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.025	98	
1,3-Dinitrobenzene-d4	500	604.965	121	
2,4,6-Trinitrotoluene	40	40.552	101	
2,4-Dinitrotoluene	40	36.402	91	
2,6-Dinitrotoluene	40	40.121	100	
2,6-Dinitrotoluene-d3	500	599.331	120	
2-Amino-4,6-dinitrotoluene	40	39.239	98	
3,4-Dinitrotoluene	20	21.64	108	
4-Amino-2,6-dinitrotoluene	40	37.109	93	
HMX	40	43.322	108	
Nitrobenzene	40	42.181	105	
PETN	40	34.532	86	
RDX	40	50.422	126	
Tetryl	40	35.418	89	
m-Dinitrobenzene	40	44.912	112	
m-Nitrotoluene	40	42.094	105	
o-Nitrotoluene	40	35.885	90	
p-Nitrotoluene	40	39.742	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208090a
Date: 10-Feb-2010
Time: 10:30:41
ID: WXX100208-08CRI
Vial: 1:1,C

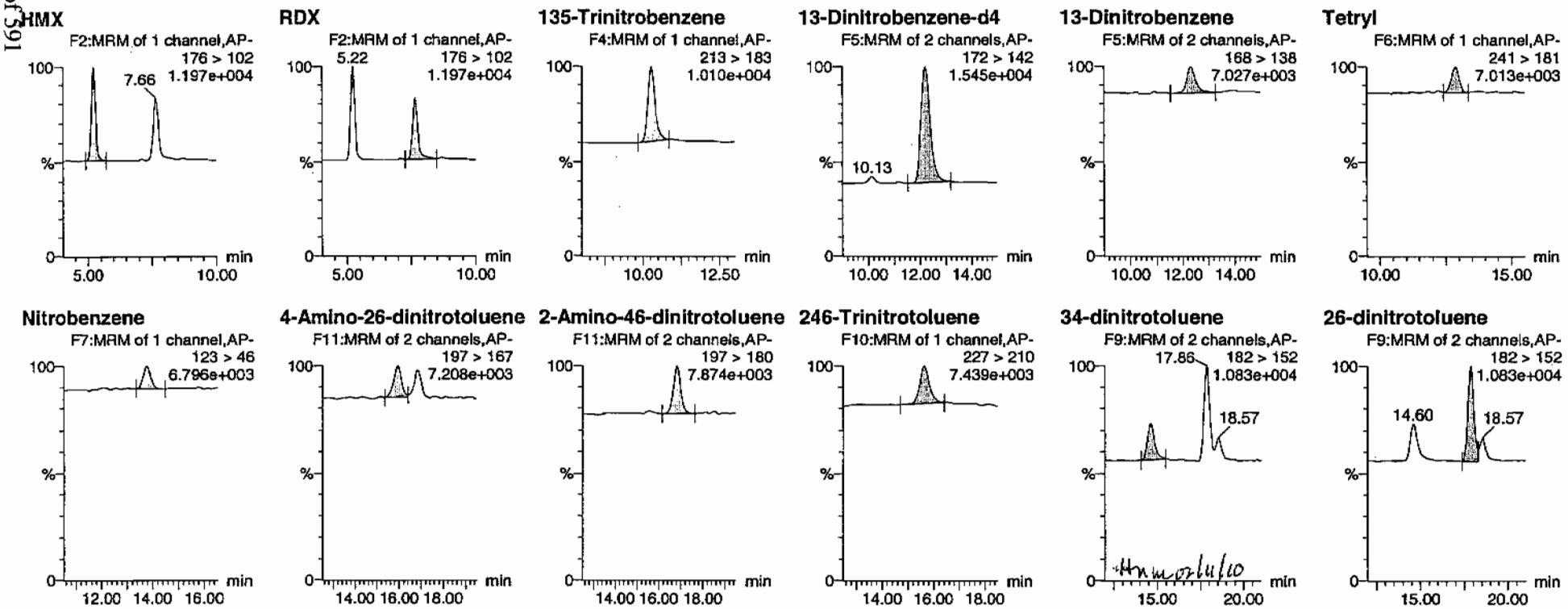

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

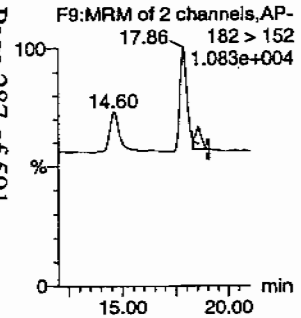

26-dinitrotoluene-d3

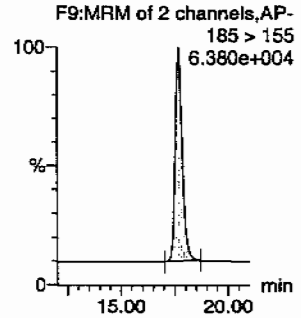

2-Nitrotoluene

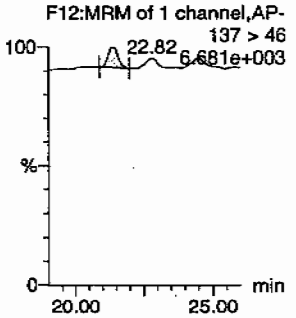

4-Nitrotoluene

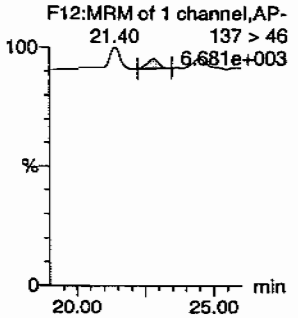

3-Nitrotoluene

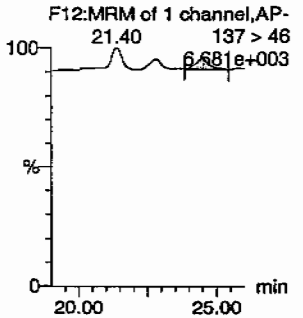

PETN

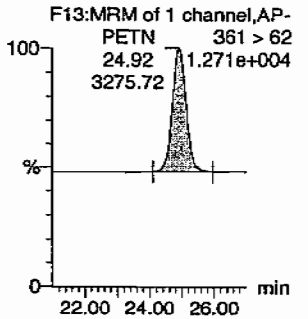

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1170.302	3889.412	1170.302	150.447	bb			43.3215	108.3	8.3	180.4
WXX100208-08CRI	RDX	176 > 102	7.66	952.380	3889.412	952.380	122.432	bb			50.4222	126.1	26.1	117.0
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1118.047	3889.412	1118.047	143.730	bb			39.0245	97.6	-2.4	121.4
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.21	3889.412		3889.412	3889.412	bb			604.9654	121.0	21.0	317.4
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.31	420.071	3889.412	420.071	54.002	bb			44.9119	112.3	12.3	59.5
WXX100208-08CRI	Tetryl	241 > 181	12.87	326.408	3889.412	326.408	41.961	bb			35.4178	88.5	-11.5	30.5
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	265.042	3889.412	265.042	34.072	bb			42.1806	105.5	5.5	27.2
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.95	471.715	22126.934	471.715	10.659	MM	11-Feb-10	09:29:49	37.1087	92.8	-7.2	31.2
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	687.696	22126.934	687.696	15.540	bb			39.2389	98.1	-1.9	58.8
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	579.040	22126.934	579.040	13.085	bb			40.5516	101.4	1.4	19.2
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.60	861.880	22126.934	861.880	19.476	bb			21.6400	108.2	8.2	20.7
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.86	1907.043	22126.934	1907.043	43.093	MM	11-Feb-10	09:57:00	40.1208	100.3	0.3	55.2
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.57	393.149	22126.934	393.149	8.884	MM	11-Feb-10	10:04:19	36.4019	91.0	-9.0	12.3
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.69	22126.934		22126.934	22126.934	bb			599.3314	119.9	19.9	1771.2
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	246.227	22126.934	246.227	5.564	bb			35.8854	89.7	-10.3	58.2
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.82	133.668	22126.934	133.668	3.020	bb			39.7418	99.4	-0.6	27.5
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.48	173.561	22126.934	173.561	3.922	bb			42.0939	105.2	5.2	29.3
WXX100208-08CRI	PETN	361 > 62	24.92	3275.725	22126.934	3275.725	74.021	bb			34.5321	86.3	-13.7	1180.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/10/10
Time of Injection	1030
Standard Number	WXX100208-08CRI
Data File	EXP0208090a

HMX	108.3
RDX	126.1
135-TNB	97.6
13-DNB	112.3
Tetryl	88.5
Nitrobenzene	105.5
4A-26-DNT	92.8
2A-46-DNT	98.1
246-TNT	101.4
34-DNT(surr)	108.2
26-DNT	100.3
24-DNT	91.0
2-NT	89.7
4-NT	99.4
3-NT	105.2
PETN	86.3
Total	1610.7
Average	100.7

HMM 2/11/10

HMM 2/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208100a

Analysis Date: 10–FEB–10 15:26

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	588.141	98	
1,3–Dinitrobenzene–d4	500	493.709	99	
2,4,6–Trinitrotoluene	600	720.831	120	*
2,4–Dinitrotoluene	600	626.987	104	
2,6–Dinitrotoluene	600	612.193	102	
2,6–Dinitrotoluene–d3	500	468.676	94	
2–Amino–4,6–dinitrotoluene	600	680.607	113	
3,4–Dinitrotoluene	300	353.233	118	
4–Amino–2,6–dinitrotoluene	600	676.006	113	
HMX	600	642.868	107	
Nitrobenzene	600	663.429	111	
PETN	600	712.886	119	
RDX	600	779.218	130	*
Tetryl	600	638.511	106	
m–Dinitrobenzene	600	612.801	102	
m–Nitrotoluene	600	608.261	101	
o–Nitrotoluene	600	723.623	121	*
p–Nitrotoluene	600	679.247	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208100a
Date: 10-Feb-2010
Time: 15:26:15
ID: WXX100208-07CCV
Vial: 1:1,B

MMT 2/11/10

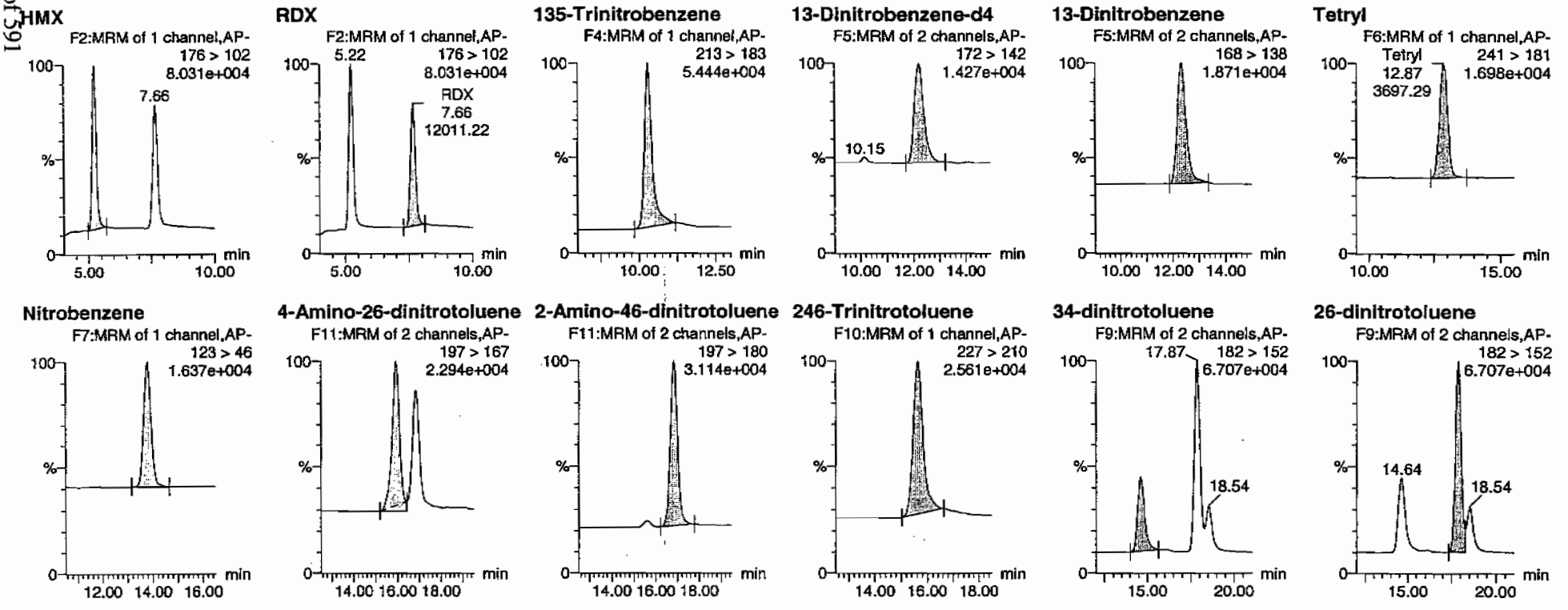

Hmw 02/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

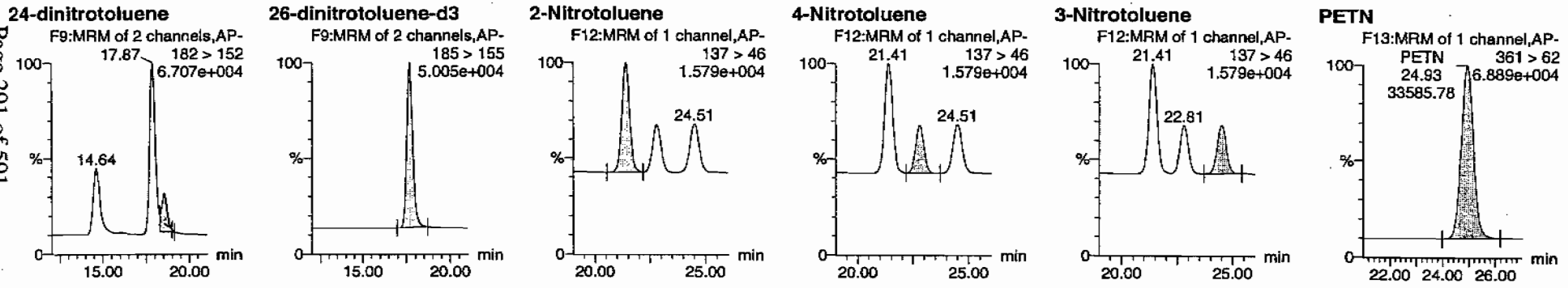

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	14172.824	3174.126	14172.824	2232.555	bb			642.8683	107.1	7.1	391.5
WXX100208-07CCV	RDX	176 > 102	7.66	12011.224	3174.126	12011.224	1892.052	bb			779.2177	129.9	29.9	292.2
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	13751.309	3174.126	13751.309	2166.157	bb			588.1412	98.0	-2.0	1601.3
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.21	3174.126		3174.126	3174.126	bb			493.7087	98.7	-1.3	212.7
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	4677.580	3174.126	4677.580	736.830	bb			612.8013	102.1	2.1	238.3
WXX100208-07CCV	Tetryl	241 > 181	12.87	3697.288	3174.126	3697.288	582.410	bb			638.5111	106.4	6.4	239.2
WXX100208-07CCV	Nitrobenzene	123 > 46	13.80	3402.021	3174.126	3402.021	535.899	bb			663.4293	110.6	10.6	356.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.94	6719.862	17303.232	6719.862	194.179	MM	11-Feb-10	09:29:13	676.0063	112.7	12.7	276.8
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.83	9327.860	17303.232	9327.860	269.541	bb			680.6069	113.4	13.4	465.7
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.63	8048.966	17303.232	8048.966	232.586	bb			720.8309	120.1	20.1	368.6
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.64	11001.619	17303.232	11001.619	317.906	bb			353.2325	117.7	17.7	332.1
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.87	22755.434	17303.232	22755.434	657.549	MM	11-Feb-10	09:57:14	612.1926	102.0	2.0	869.5
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.54	5295.381	17303.232	5295.381	153.017	MM	11-Feb-10	10:03:46	626.9869	104.5	4.5	195.9
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.70	17303.232		17303.232	17303.232	bb			468.6763	93.7	-6.3	1751.0
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.41	3882.721	17303.232	3882.721	112.196	bb			723.6227	120.6	20.6	173.9
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.81	1786.544	17303.232	1786.544	51.625	bb			679.2471	113.2	13.2	77.1
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.51	1961.233	17303.232	1961.233	56.672	bb			608.2610	101.4	1.4	77.5
WXX100208-07CCV	PETN	361 > 62	24.93	33585.777	17303.232	33585.777	970.506	bb			712.8864	118.8	18.8	9746.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/10/10
Time of Injection: 1526
Standard Number: WXX100208-07CCV
Data File: EXP0208100a

HMX	107.1
RDX	129.9
135-TNB	98.0
13-DNB	102.1
Tetryl	106.4
Nitrobenzene	110.6
4A-26-DNT	112.7
2A-46-DNT	113.4
246-TNT	120.1
34-DNT(surr)	117.7
26-DNT	102.0
24-DNT	104.5
2-NT	120.6
4-NT	113.2
3-NT	101.4
PETN	118.8
Total	1778.5
Average	111.2

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208102a

Analysis Date: 10–FEB–10 16:25

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	41.549	104	
PETN	40	52.922	132	*
RDX	40	49.375	123	
Tetryl	40	43.062	108	
m–Dinitrobenzene	40	46.526	116	
m–Nitrotoluene	40	50.438	126	
o–Nitrotoluene	40	44.438	111	
p–Nitrotoluene	40	54.684	137	*
1,3,5–Trinitrobenzene	40	51.131	128	
1,3–Dinitrobenzene–d4	500	552.166	110	
2,4,6–Trinitrotoluene	40	40.399	101	
2,4–Dinitrotoluene	40	39.25	98	
2,6–Dinitrotoluene	40	40.673	102	
2,6–Dinitrotoluene–d3	500	556.942	111	
2–Amino–4,6–dinitrotoluene	40	39.187	98	
3,4–Dinitrotoluene	20	23.623	118	
4–Amino–2,6–dinitrotoluene	40	45.282	113	
HMX	40	50.098	125	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208102a
Date: 10-Feb-2010
Time: 16:25:24
ID: WXX100208-08CRI
Vial: 1:1,C

HMX

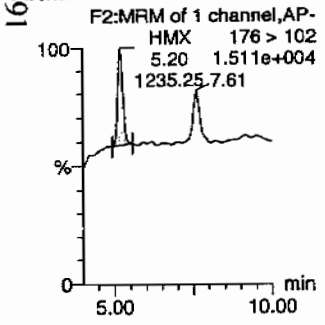

RDX

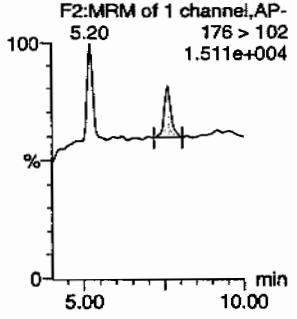

135-Trinitrobenzene

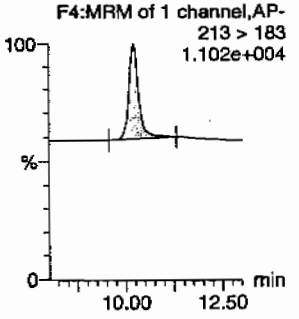

13-Dinitrobenzene-d4

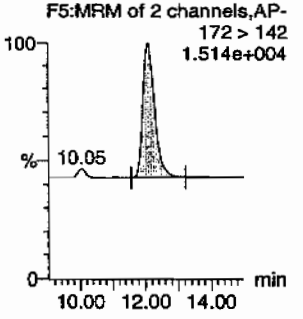

13-Dinitrobenzene

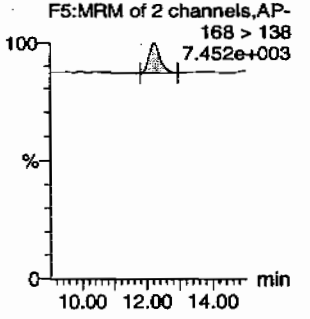

Tetryl

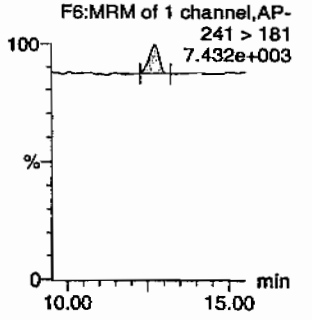

Nitrobenzene

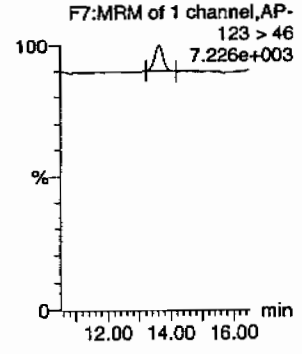

4-Amino-26-dinitrotoluene

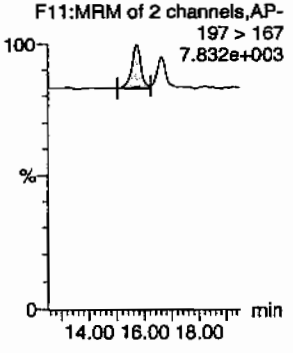

2-Amino-46-dinitrotoluene

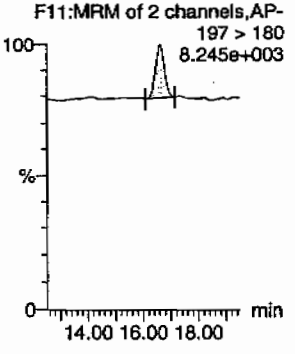

246-Trinitrotoluene

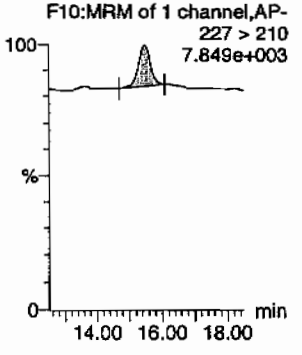

34-dinitrotoluene

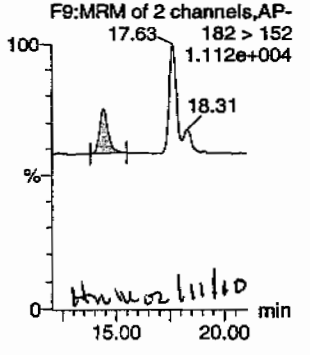

26-dinitrotoluene

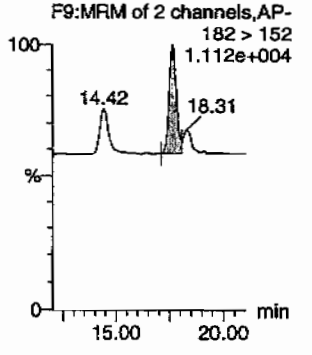

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

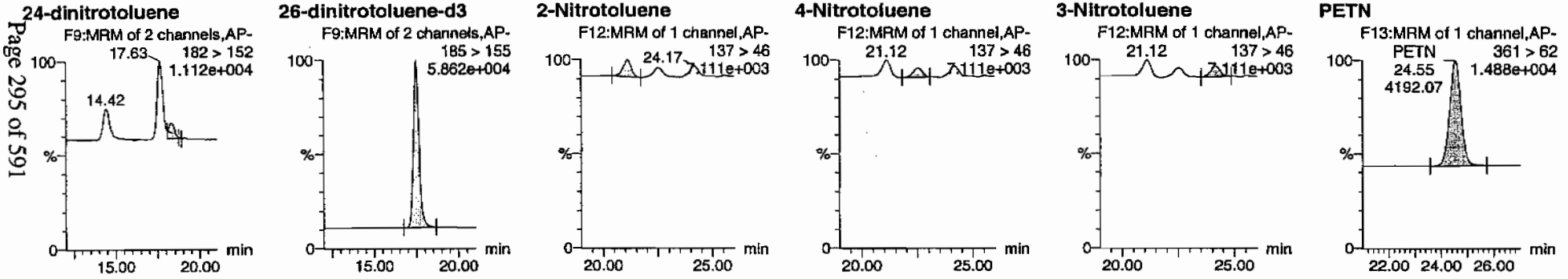

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.20	1235.246	3549.957	1235.246	173.980	bb			50.0980	125.2	25.2	49.5
WXX100208-08CRI	RDX	176 > 102	7.61	851.198	3549.957	851.198	119.888	bb			49.3746	123.4	23.4	25.8
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.21	1337.041	3549.957	1337.041	188.318	bb			51.1309	127.8	27.8	114.5
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.10	3549.957		3549.957	3549.957	bb			552.1661	110.4	10.4	439.4
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.24	397.188	3549.957	397.188	55.943	bb			46.5260	116.3	16.3	33.2
WXX100208-08CRI	Tetryl	241 > 181	12.73	349.726	3549.957	349.726	49.258	bb			43.0620	107.7	7.7	8.0
WXX100208-08CRI	Nitrobenzene	123 > 46	13.62	238.288	3549.957	238.288	33.562	bb			41.5490	103.9	3.9	23.1
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	534.904	20561.957	534.904	13.007	MM	11-Feb-10	09:29:08	45.2824	113.2	13.2	36.3
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	638.216	20561.957	638.216	15.519	bb			39.1873	98.0	-2.0	70.0
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.48	536.058	20561.957	536.058	13.035	bb			40.3987	101.0	1.0	34.2
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.42	874.296	20561.957	874.296	21.260	bb			23.6225	118.1	18.1	53.8
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.63	1796.544	20561.957	1796.544	43.686	MM	11-Feb-10	09:57:21	40.6728	101.7	1.7	132.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.31	393.929	20561.957	393.929	9.579	MM	11-Feb-10	10:03:38	39.2502	98.1	-1.9	27.1
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	20561.957		20561.957	20561.957	bb			556.9424	111.4	11.4	1502.8
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.12	283.344	20561.957	283.344	6.890	bb			44.4378	111.1	11.1	16.6
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.52	170.915	20561.957	170.915	4.156	bb			54.6836	136.7	36.7	8.9
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.17	193.256	20561.957	193.256	4.699	bb			50.4379	126.1	26.1	10.4
WXX100208-08CRI	PETN	361 > 62	24.55	4192.072	20561.957	4192.072	101.938	bb			52.9217	132.3	32.3	95.8

✓

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/10/10
Time of Injection	1625
Standard Number	WXX100208-08CRI
Data File	EXP0208102a

HMX	125.2
RDX	123.4
135-TNB	127.8
13-DNB	116.3
Tetryl	107.7
Nitrobenzene	103.9
4A-26-DNT	113.2
2A-46-DNT	98.0
246-TNT	101.0
34-DNT(surr)	118.1
26-DNT	101.7
24-DNT	98.1
2-NT	111.1
4-NT	136.7
3-NT	126.1
PETN	132.3
Total	1840.6
Average	115.0

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208113a

Analysis Date: 10–FEB–10 21:49

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3–Dinitrobenzene–d4	500	544.446	109	
2,4,6–Trinitrotoluene	600	662.584	110	
2,4–Dinitrotoluene	600	622.26	104	
2,6–Dinitrotoluene	600	605.94	101	
2,6–Dinitrotoluene–d3	500	509.3	102	
2–Amino–4,6–dinitrotoluene	600	677.413	113	
3,4–Dinitrotoluene	300	360.847	120	*
4–Amino–2,6–dinitrotoluene	600	606.515	101	
HMX	600	457.053	76	*
Nitrobenzene	600	682.529	114	
PETN	600	766.444	128	*
RDX	600	531.11	89	
Tetryl	600	667.741	111	
m–Dinitrobenzene	600	605.726	101	
m–Nitrotoluene	600	571.845	95	
o–Nitrotoluene	600	710.721	118	
p–Nitrotoluene	600	645.626	108	
1,3,5–Trinitrobenzene	600	530.336	88	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208113a
Date: 10-Feb-2010
Time: 21:49:41
ID: WXX100208-07CCV
Vial: 1:1,B

MMP 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.201e+004
7.60

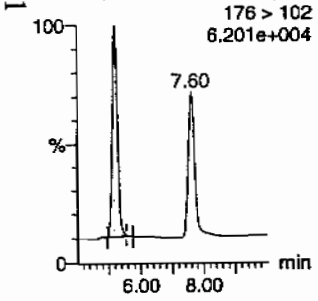

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.201e+004
5.19
RDX
7.60
9028.11

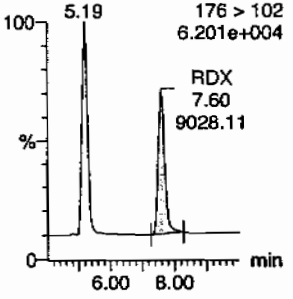

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.387e+004

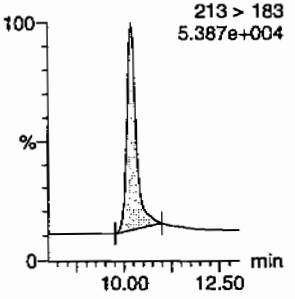

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.446e+004
10.04

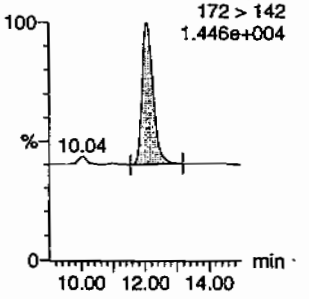

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.905e+004

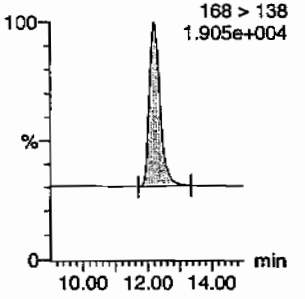

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.760e+004
Tetryl
12.72
4247.93

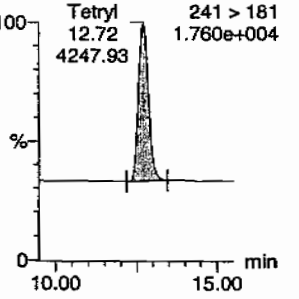

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.682e+004

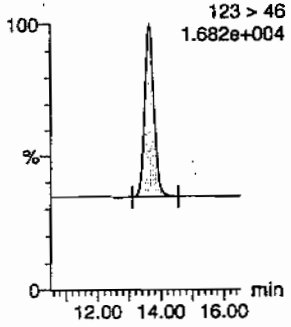

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.218e+004

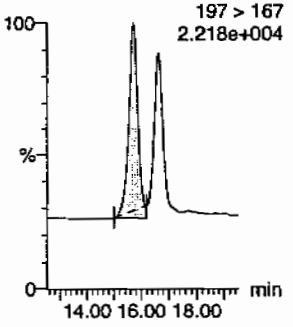

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.130e+004
15.42

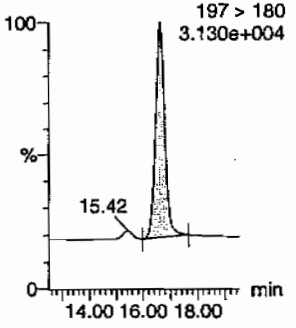

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.365e+004

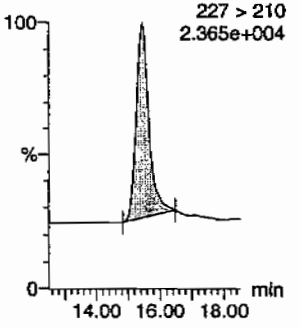

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.099e+004
17.64
18.30

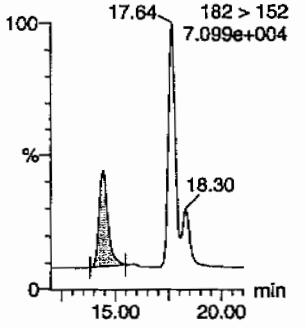

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.099e+004
14.43
18.30

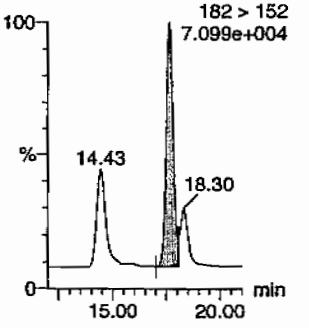

HMM 02/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

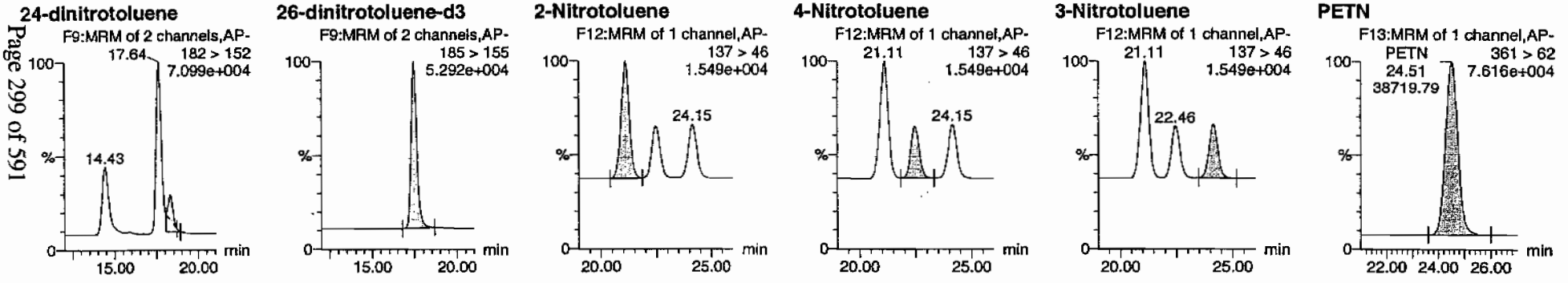

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.19	11111.813	3500.323	11111.813	1587.255	MM	11-Feb-10	09:22:41	457.0530	76.2	-23.8	909.8
WXX100208-07CCV	RDX	176 > 102	7.60	9028.113	3500.323	9028.113	1289.611	bb			531.1101	88.5	-11.5	624.4
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.19	13674.052	3500.323	13674.052	1953.256	bb			530.3356	88.4	-11.6	1522.7
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3500.323		3500.323	3500.323	bb			544.4459	108.9	8.9	256.5
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.20	5098.727	3500.323	5098.727	728.322	bb			605.7261	101.0	1.0	348.3
WXX100208-07CCV	Tetryl	241 > 181	12.72	4247.931	3500.323	4247.931	606.791	bb			667.7411	111.3	11.3	340.8
WXX100208-07CCV	Nitrobenzene	123 > 46	13.63	3859.643	3500.323	3859.643	551.327	bb			682.5286	113.8	13.8	424.7
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	6551.677	18803.047	6551.677	174.218	MM	11-Feb-10	09:28:18	606.5155	101.1	1.1	227.0
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	10088.809	18803.047	10088.809	268.276	bb			677.4125	112.9	12.9	1285.0
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.45	8039.858	18803.047	8039.858	213.791	bb			662.5836	110.4	10.4	1020.2
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.43	12212.950	18803.047	12212.950	324.760	bb			360.8475	120.3	20.3	403.2
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.64	24475.283	18803.047	24475.283	650.833	MM	11-Feb-10	09:58:14	605.9401	101.0	1.0	1031.4
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.30	5710.992	18803.047	5710.992	151.863	MM	11-Feb-10	10:02:38	622.2599	103.7	3.7	227.7
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	18803.047		18803.047	18803.047	bb			509.3004	101.9	1.9	2065.5
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.11	4144.045	18803.047	4144.045	110.196	bb			710.7215	118.5	18.5	1154.1
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.46	1845.305	18803.047	1845.305	49.069	bb			645.6263	107.6	7.6	501.6
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.15	2003.635	18803.047	2003.635	53.280	bb			571.8451	95.3	-4.7	521.6
WXX100208-07CCV	PETN	361 > 62	24.51	38719.785	18803.047	38719.785	1029.615	bb			766.4443	127.7	27.7	6959.9

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/10/10
Time of Injection: 2149
Standard Number: WXX100208-07CCV
Data File: EXP0208113a

HMX	76.2
RDX	88.5
135-TNB	88.4
13-DNB	101.0
Tetryl	111.3
Nitrobenzene	113.8
4A-26-DNT	101.1
2A-46-DNT	112.9
246-TNT	110.4
34-DNT(surr)	120.3
26-DNT	101.0
24-DNT	103.7
2-NT	118.5
4-NT	107.6
3-NT	95.3
PETN	127.7
Total	1677.7
Average	104.9

MHT 2/11/10

Hmc 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208115a

Analysis Date: 10–FEB–10 22:48

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	53.258	133	*
1,3–Dinitrobenzene–d4	500	607.853	122	
2,4,6–Trinitrotoluene	40	34.757	87	
2,4–Dinitrotoluene	40	40.974	102	
2,6–Dinitrotoluene	40	39.436	99	
2,6–Dinitrotoluene–d3	500	647.378	129	
2–Amino–4,6–dinitrotoluene	40	50.465	126	
3,4–Dinitrotoluene	20	21.441	107	
4–Amino–2,6–dinitrotoluene	40	44.161	110	
HMX	40	41.129	103	
Nitrobenzene	40	45.384	113	
PETN	40	35.443	89	
RDX	40	28.151	70	
Tetryl	40	44.571	111	
m–Dinitrobenzene	40	32.285	81	
m–Nitrotoluene	40	41.138	103	
o–Nitrotoluene	40	42.41	106	
p–Nitrotoluene	40	44.813	112	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208115a
Date: 10-Feb-2010
Time: 22:48:43
ID: WXX100208-08CRI
Vial: 1:1,C

MATT 2/11/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.118e+004
1116.38
7.61

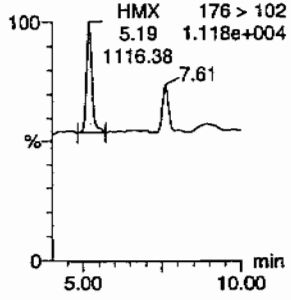

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.118e+004

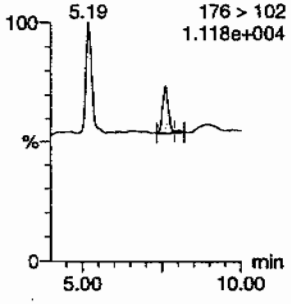

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.099e+004

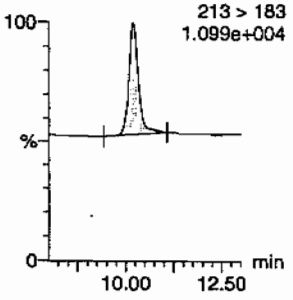

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.555e+004

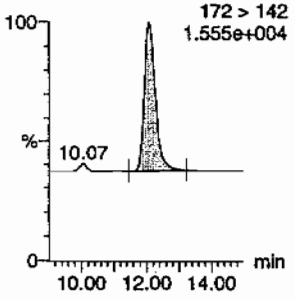

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.688e+003

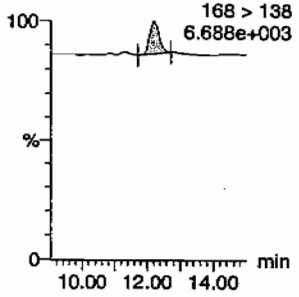

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.843e+003

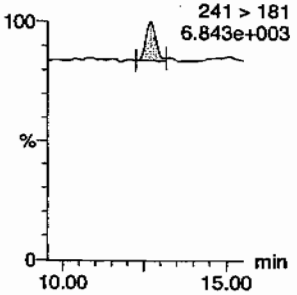

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.519e+003

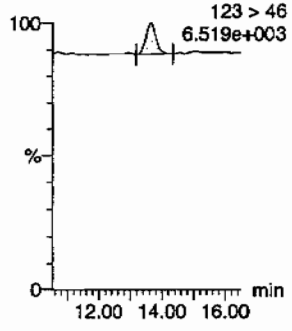

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.294e+003

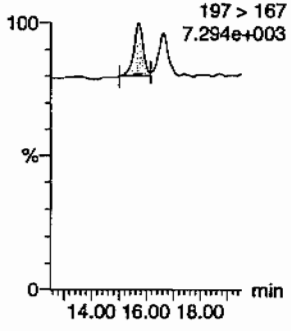

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.240e+003

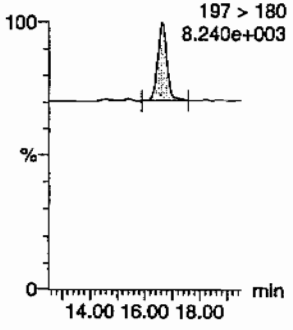

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.051e+003

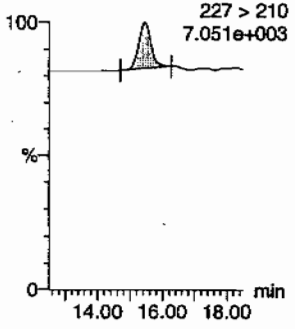

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.63 182 > 152
1.134e+004
18.27

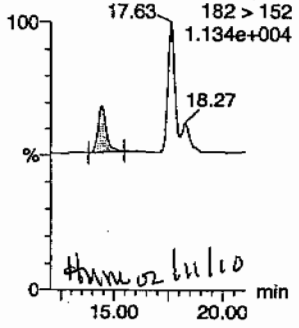

HMM 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.134e+004
14.42
18.27

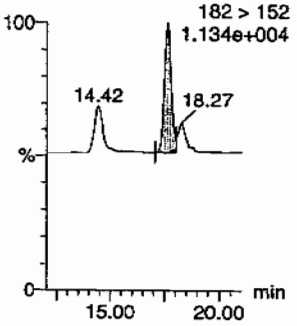

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

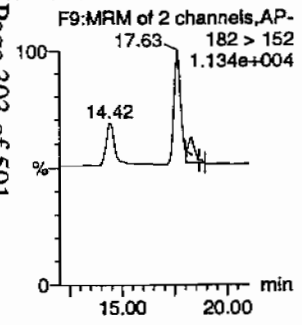

26-dinitrotoluene-d3

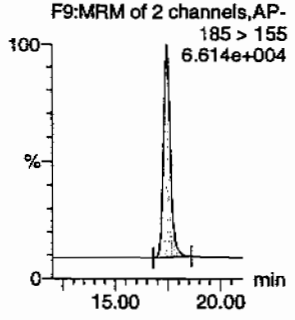

2-Nitrotoluene

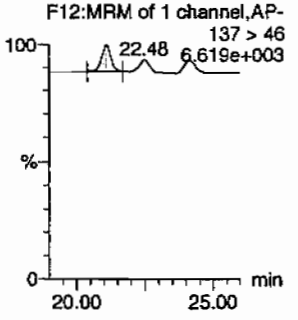

4-Nitrotoluene

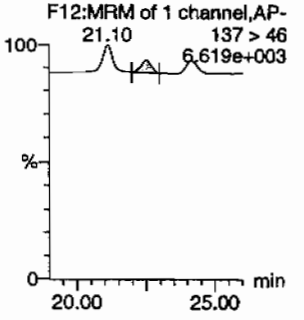

3-Nitrotoluene

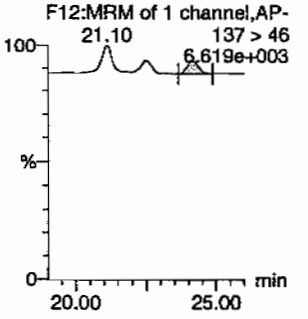

PETN

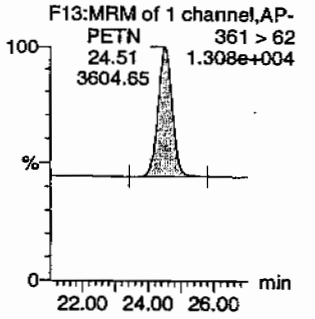

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.19	1116.380	3907.975	1116.380	142.834	bb			41.1292	102.8	2.8	133.9
WXX100208-08CRI	RDX	176 > 102	7.61	534.263	3907.975	534.263	68.355	MM	11-Feb-10	09:23:36	28.1513	70.4	-29.6	58.7
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.20	1533.123	3907.975	1533.123	196.153	bb			53.2583	133.1	33.1	211.6
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3907.975		3907.975	3907.975	bb			607.8528	121.6	21.6	220.2
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.21	303.410	3907.975	303.410	38.819	bb			32.2850	80.7	-19.3	49.5
WXX100208-08CRI	Tetryl	241 > 181	12.73	396.242	3907.975	396.242	50.697	bd			44.5708	111.4	11.4	33.5
WXX100208-08CRI	Nitrobenzene	123 > 46	13.62	286.530	3907.975	286.530	36.660	bb			45.3837	113.5	13.5	28.8
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	606.369	23900.779	606.369	12.685	MM	11-Feb-10	09:28:06	44.1614	110.4	10.4	46.6
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	955.349	23900.779	955.349	19.986	bb			50.4651	126.2	26.2	164.9
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.44	536.077	23900.779	536.077	11.215	bb			34.7565	86.9	-13.1	34.5
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.42	922.433	23900.779	922.433	19.297	bb			21.4414	107.2	7.2	73.6
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.63	2024.771	23900.779	2024.771	42.358	MM	11-Feb-10	09:58:21	39.4361	98.6	-1.4	202.5
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.27	478.002	23900.779	478.002	10.000	MM	11-Feb-10	10:02:28	40.9738	102.4	2.4	43.1
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.46	23900.779		23900.779	23900.779	bb			647.3779	129.5	29.5	4032.5
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.10	314.324	23900.779	314.324	6.576	bb			42.4100	106.0	6.0	34.3
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.48	162.806	23900.779	162.806	3.406	bb			44.8126	112.0	12.0	17.1
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.15	183.219	23900.779	183.219	3.833	bb			41.1383	102.8	2.8	16.7
WXX100208-08CRI	PETN	361 > 62	24.51	3604.646	23900.779	3604.646	75.409	bb			35.4428	88.6	-11.4	670.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/10/10
Time of Injection	2248
Standard Number	WXX100208-08CRI
Data File	EXP0208115a

HMX	102.8
RDX	70.4
135-TNB	133.1
13-DNB	80.7
Tetryl	111.4
Nitrobenzene	113.5
4A-26-DNT	110.4
2A-46-DNT	126.2
246-TNT	86.9
34-DNT(surr)	107.2
26-DNT	98.6
24-DNT	102.4
2-NT	106.0
4-NT	112.0
3-NT	102.8
PETN	88.6
Total	1653.0
Average	103.3

MJT 2/11/10

Hmm 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208120a

Analysis Date: 11–FEB–10 01:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	664	111	
RDX	600	639.449	107	
Tetryl	600	673.554	112	
m–Dinitrobenzene	600	598.675	100	
m–Nitrotoluene	600	443.701	74	*
o–Nitrotoluene	600	445.632	74	*
p–Nitrotoluene	600	466.419	78	*
1,3,5–Trinitrobenzene	600	597.957	100	
1,3–Dinitrobenzene–d4	500	521.607	104	
2,4,6–Trinitrotoluene	600	672.377	112	
2,4–Dinitrotoluene	600	600.43	100	
2,6–Dinitrotoluene	600	601.181	100	
2,6–Dinitrotoluene–d3	500	584.444	117	
2–Amino–4,6–dinitrotoluene	600	681.8	114	
3,4–Dinitrotoluene	300	325.104	108	
4–Amino–2,6–dinitrotoluene	600	602.251	100	
HMX	600	566.092	94	
Nitrobenzene	600	695.908	116	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208120a
Date: 11-Feb-2010
Time: 01:16:10
ID: WXX100208-07CCV
Vial: 1:1,B

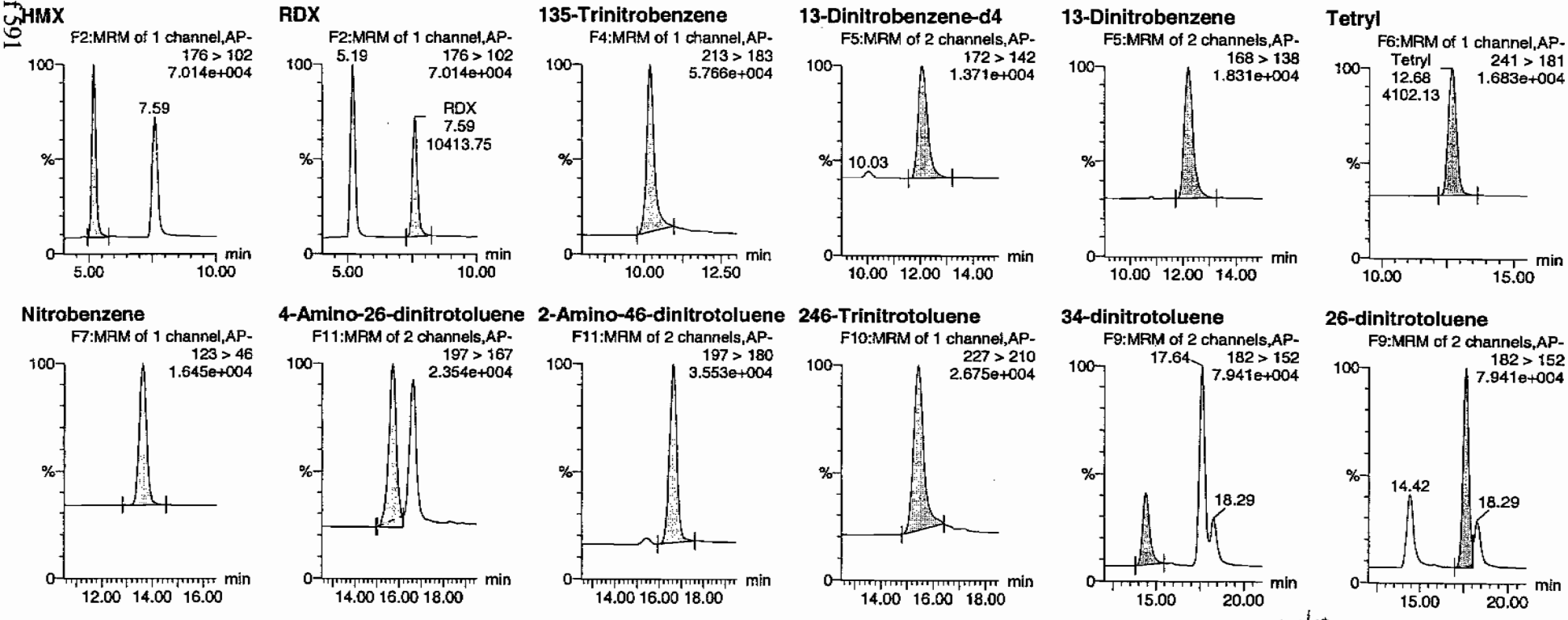

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

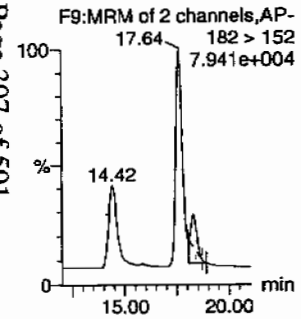

26-dinitrotoluene-d3

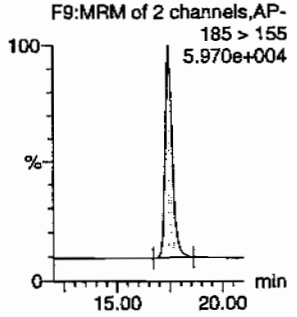

2-Nitrotoluene

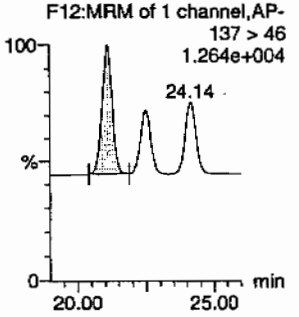

4-Nitrotoluene

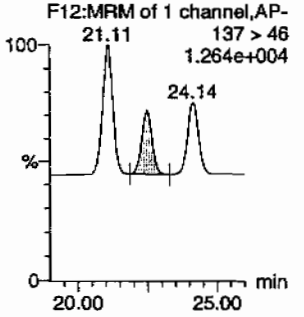

3-Nitrotoluene

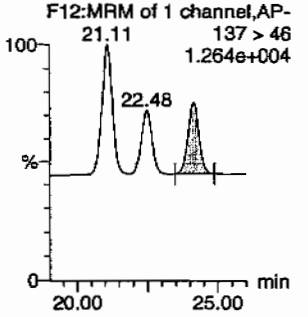

PETN

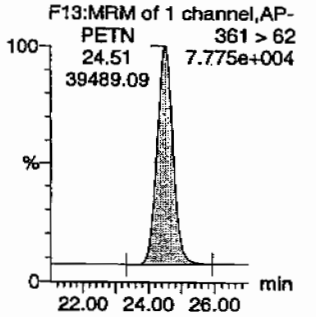

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.19	13185.422	3353.490	13185.422	1965.925	dd			566.0917	94.3	-5.7	1010.4
WXX100208-07CCV	RDX	176 > 102	7.59	10413.745	3353.490	10413.745	1552.673	bb			639.4486	106.6	6.6	694.8
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.20	14770.832	3353.490	14770.832	2202.307	bb			597.9566	99.7	-0.3	1118.6
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3353.490		3353.490	3353.490	bb			521.6073	104.3	4.3	344.2
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.21	4827.981	3353.490	4827.981	719.844	bb			598.6751	99.8	-0.2	372.3
WXX100208-07CCV	Tetryl	241 > 181	12.68	4102.125	3353.490	4102.125	611.620	bb			673.5545	112.3	12.3	228.0
WXX100208-07CCV	Nitrobenzene	123 > 46	13.62	3770.225	3353.490	3770.225	562.135	bb			695.9084	116.0	16.0	468.0
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	7465.469	21577.291	7465.469	172.994	MM	11-Feb-10	09:27:53	602.2514	100.4	0.4	1334.8
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11652.317	21577.291	11652.317	270.013	bb			681.7999	113.6	13.6	680.2
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.44	9362.438	21577.291	9362.438	216.951	bb			672.3766	112.1	12.1	499.2
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.42	12626.653	21577.291	12626.653	292.591	bb			325.1043	108.4	8.4	639.4
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.64	27865.813	21577.291	27865.813	645.721	MM	11-Feb-10	09:58:30	601.1806	100.2	0.2	1762.8
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.29	6323.689	21577.291	6323.689	146.536	MM	11-Feb-10	10:02:17	600.4296	100.1	0.1	383.4
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	21577.291		21577.291	21577.291	bb			584.4438	116.9	16.9	1252.0
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.11	2981.742	21577.291	2981.742	69.094	bb			445.6320	74.3	-25.7	863.7
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.48	1529.789	21577.291	1529.789	35.449	bb			466.4187	77.7	-22.3	428.9
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.14	1784.019	21577.291	1784.019	41.340	bb			443.7012	74.0	-26.0	480.8
WXX100208-07CCV	PETN	361 > 62	24.51	39489.086	21577.291	39489.086	915.061	bb			663.9997	110.7	10.7	8570.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/11/10
Time of Injection: 0116
Standard Number: WXX100208-07CCV
Data File: EXP0208120a

HMX	94.3
RDX	106.6
135-TNB	99.7
13-DNB	99.8
Tetryl	112.3
Nitrobenzene	116.0
4A-26-DNT	100.4
2A-46-DNT	113.6
246-TNT	112.1
34-DNT(surr)	108.4
26-DNT	100.2
24-DNT	100.1
2-NT	74.3
4-NT	77.7
3-NT	74.0
PETN	110.7
Total	1600.2
Average	100.0

MTP 2/11/10

HMW 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208122a

Analysis Date: 11-FEB-10 02:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	40	34.151	85	
2,6-Dinitrotoluene	40	39.253	98	
2,6-Dinitrotoluene-d3	500	559.761	112	
2-Amino-4,6-dinitrotoluene	40	40.238	101	
3,4-Dinitrotoluene	20	23.425	117	
4-Amino-2,6-dinitrotoluene	40	39.856	100	
HMX	40	45.073	113	
Nitrobenzene	40	45.235	113	
PETN	40	55.232	138	*
RDX	40	38.842	97	
Tetryl	40	46.548	116	
m-Dinitrobenzene	40	42.593	106	
m-Nitrotoluene	40	29.791	74	
o-Nitrotoluene	40	36.689	92	
p-Nitrotoluene	40	37.057	93	
1,3,5-Trinitrobenzene	40	54.242	136	*
1,3--Dinitrobenzene-d4	500	481.604	96	
2,4,6-Trinitrotoluene	40	39.518	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4--Diamino--6--nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208122a
Date: 11-Feb-2010
Time: 02:15:12
ID: WXX100208-08CRI
Vial: 1:1,C

MM 2/11/10

HMX

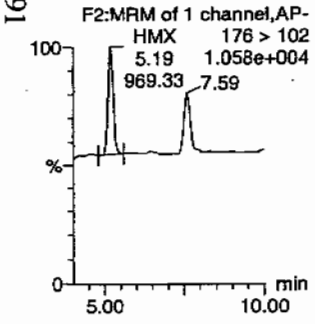

RDX

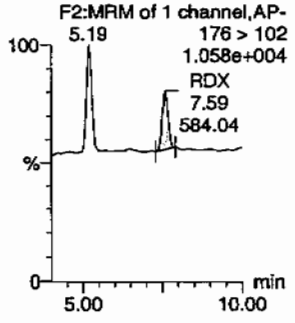

135-Trinitrobenzene

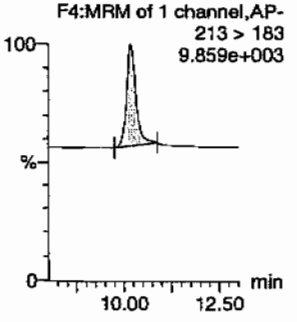

13-Dinitrobenzene-d4

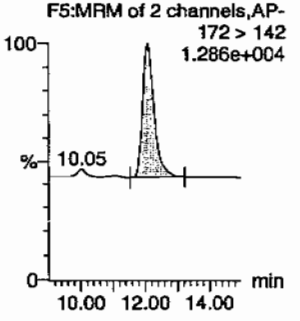

13-Dinitrobenzene

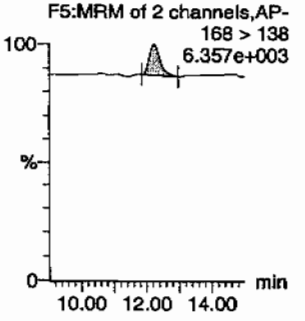

Tetryl

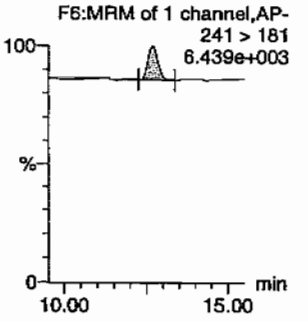

Nitrobenzene

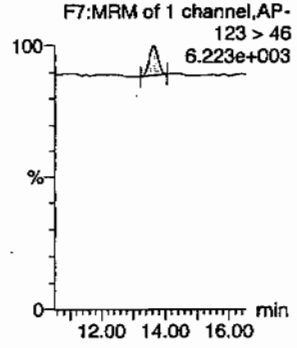

4-Amino-26-dinitrotoluene

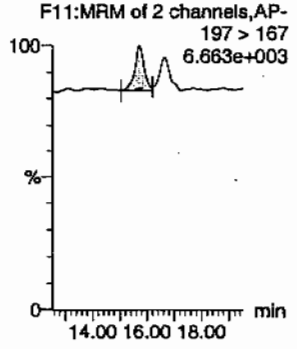

2-Amino-46-dinitrotoluene

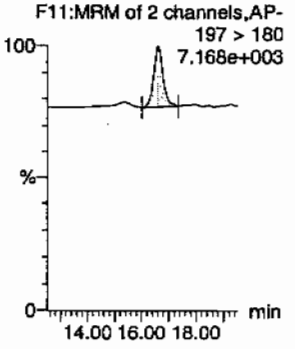

246-Trinitrotoluene

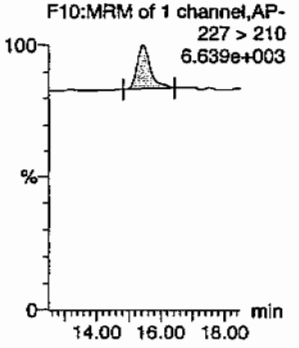

34-dinitrotoluene

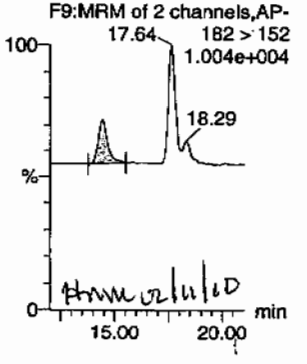

26-dinitrotoluene

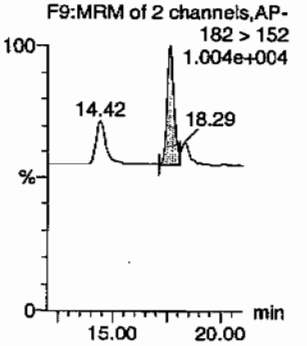

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

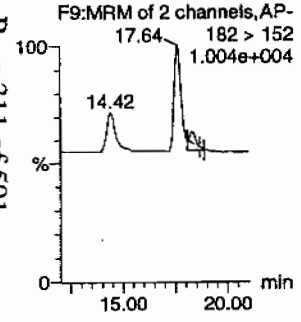

26-dinitrotoluene-d3

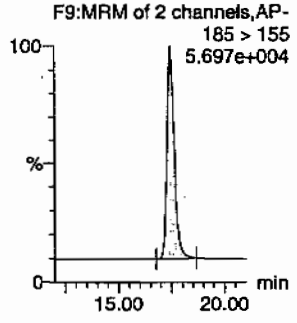

2-Nitrotoluene

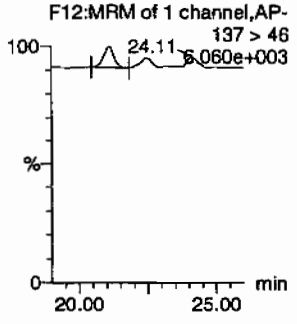

4-Nitrotoluene

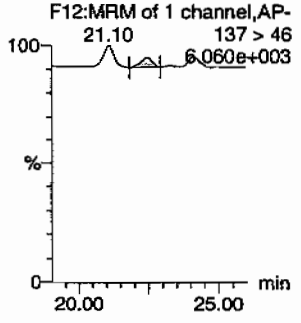

3-Nitrotoluene

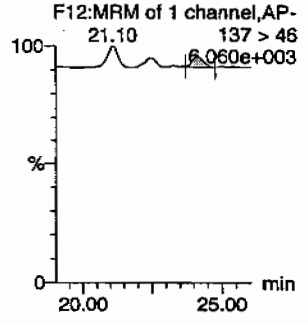

PETN

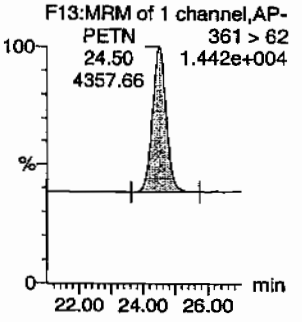

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.19	969.325	3096.302	969.325	156.529	bb			45.0729	112.7	12.7	123.6
WXX100208-08CRI	RDX	176 > 102	7.59	584.042	3096.302	584.042	94.313	bb			38.8415	97.1	-2.9	66.7
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.18	1237.129	3096.302	1237.129	199.775	bb			54.2417	135.6	35.6	118.4
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3096.302		3096.302	3096.302	bb			481.6038	96.3	-3.7	264.7
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.24	317.146	3096.302	317.146	51.214	bb			42.5930	106.5	6.5	61.6
WXX100208-08CRI	Tetryl	241 > 181	12.68	325.616	3096.302	325.616	52.581	bb			46.5480	116.4	16.4	51.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.62	226.274	3096.302	226.274	36.539	bb			45.2349	113.1	13.1	18.5
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	473.189	20666.025	473.189	11.448	MM	11-Feb-10	09:27:41	39.8561	99.6	-0.4	30.6
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	658.648	20666.025	658.648	15.936	bb			40.2381	100.6	0.6	63.8
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.44	527.022	20666.025	527.022	12.751	bb			39.5178	98.8	-1.2	64.8
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.42	871.385	20666.025	871.385	21.083	bb			23.4253	117.1	17.1	39.2
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.64	1742.586	20666.025	1742.586	42.161	MM	11-Feb-10	09:58:36	39.2525	98.1	-1.9	102.8
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.29	344.484	20666.025	344.484	8.335	MM	11-Feb-10	10:02:04	34.1508	85.4	-14.6	18.6
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.46	20666.025		20666.025	20666.025	bb			559.7612	112.0	12.0	1670.7
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.10	235.119	20666.025	235.119	5.689	bb			36.6888	91.7	-8.3	23.5
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.46	116.410	20666.025	116.410	2.816	bb			37.0574	92.6	-7.4	10.4
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.11	114.724	20666.025	114.724	2.776	bb			29.7910	74.5	-25.5	10.6
WXX100208-08CRI	PETN	361 > 62	24.50	4357.663	20666.025	4357.663	105.431	bb			55.2320	138.1	38.1	1085.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/11/10
Time of Injection	0215
Standard Number	WXX100208-08CRI
Data File	EXP0208122a

HMX	112.7
RDX	97.1
135-TNB	135.6
13-DNB	106.5
Tetryl	116.4
Nitrobenzene	113.1
4A-26-DNT	99.6
2A-46-DNT	100.6
246-TNT	98.8
34-DNT(surr)	117.1
26-DNT	98.1
24-DNT	85.4
2-NT	91.7
4-NT	92.6
3-NT	74.5
PETN	138.1
Total	1677.9
Average	104.9

MHP 2/11/10

HMM 2/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208133a

Analysis Date: 11-FEB-10 07:39

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	561.952	94	
1,3-Dinitrobenzene-d4	500	523.69	105	
2,4,6-Trinitrotoluene	600	625.562	104	
2,4-Dinitrotoluene	600	646.957	108	
2,6-Dinitrotoluene	600	613.147	102	
2,6-Dinitrotoluene-d3	500	492.682	99	
2-Amino-4,6-dinitrotoluene	600	615.832	103	
3,4-Dinitrotoluene	300	315.478	105	
4-Amino-2,6-dinitrotoluene	600	605.241	101	
HMX	600	599.884	100	
Nitrobenzene	600	602.444	100	
PETN	600	821.24	137	*
RDX	600	656.741	109	
Tetryl	600	623.813	104	
m-Dinitrobenzene	600	590.781	98	
m-Nitrotoluene	600	582.434	97	
o-Nitrotoluene	600	639.153	107	
p-Nitrotoluene	600	652.124	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208133a
Date: 11-Feb-2010
Time: 07:39:41
ID: WXX100208-07CCV
Vial: 1:1,B

HMM 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.634e+004

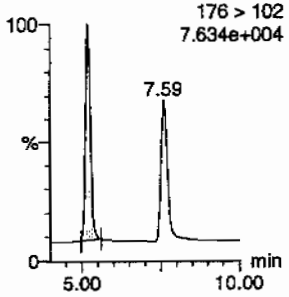

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
7.634e+004

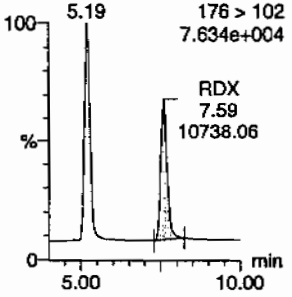

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.467e+004

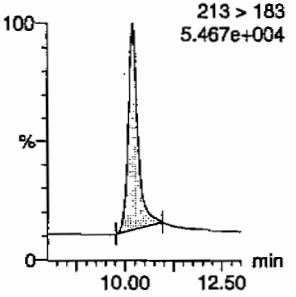

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.414e+004

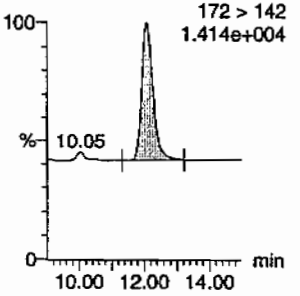

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.821e+004

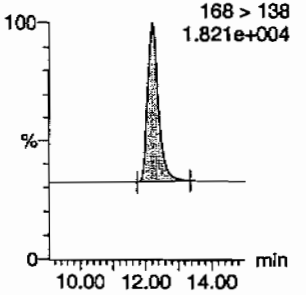

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.73
3838.83
241 > 181
1.613e+004

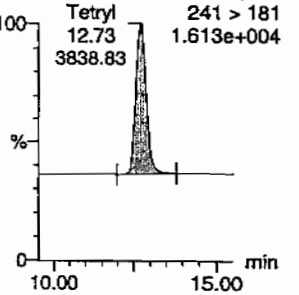

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.534e+004

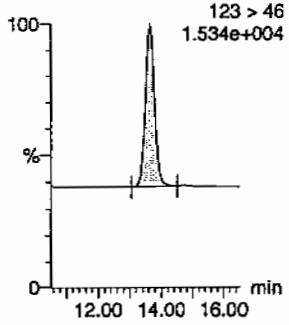

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.149e+004

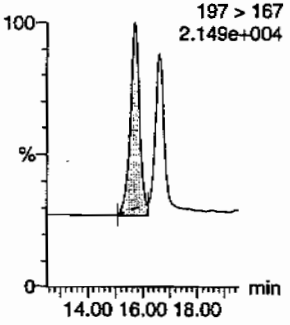

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.863e+004

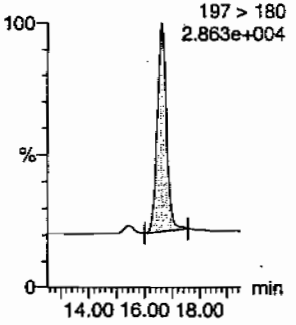

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.246e+004

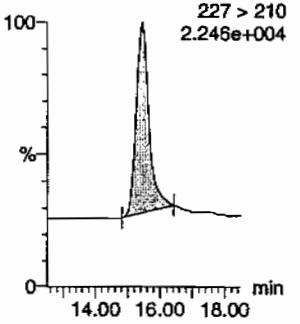

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.63
182 > 152
6.874e+004

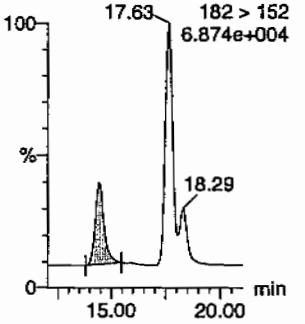

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.874e+004

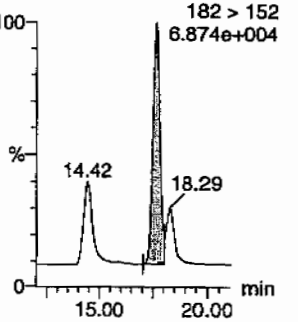

HMM 02/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

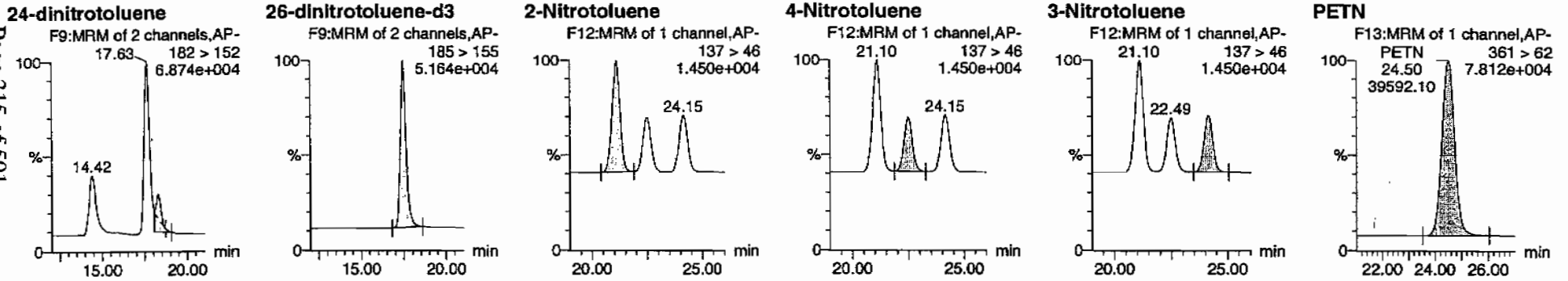

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.19	14028.293	3366.877	14028.293	2083.280	bb			599.8841	100.0	-0.0	1870.4
WXX100208-07CCV	RDX	176 > 102	7.59	10738.060	3366.877	10738.060	1594.662	bb			656.7412	109.5	9.5	1227.8
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.20	13936.843	3366.877	13936.843	2069.699	bb			561.9515	93.7	-6.3	1128.0
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3366.877		3366.877	3366.877	bb			523.6895	104.7	4.7	476.6
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.21	4783.337	3366.877	4783.337	710.352	bb			590.7808	98.5	-1.5	349.3
WXX100208-07CCV	Tetryl	241 > 181	12.73	3838.826	3366.877	3838.826	570.087	bb			623.8127	104.0	4.0	399.7
WXX100208-07CCV	Nitrobenzene	123 > 46	13.62	3276.893	3366.877	3276.893	486.637	bb			602.4442	100.4	0.4	323.7
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6324.586	18189.516	6324.586	173.853	MM	11-Feb-10	09:26:54	605.2414	100.9	0.9	419.6
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	8872.409	18189.516	8872.409	243.888	bb			615.8316	102.6	2.6	508.9
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.44	7342.954	18189.516	7342.954	201.846	bb			625.5618	104.3	4.3	106.1
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.42	10329.003	18189.516	10329.003	283.927	bb			315.4776	105.2	5.2	286.0
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.63	23958.285	18189.516	23958.285	658.574	MM	11-Feb-10	09:59:27	613.1472	102.2	2.2	840.7
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.29	5743.919	18189.516	5743.919	157.891	MM	11-Feb-10	10:01:23	646.9574	107.8	7.8	189.5
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	18189.516		18189.516	18189.516	bb			492.6823	98.5	-1.5	3079.6
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.10	3605.144	18189.516	3605.144	99.100	bb			639.1528	106.5	6.5	358.7
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.49	1803.060	18189.516	1803.060	49.563	bb			652.1242	108.7	8.7	173.2
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.15	1974.147	18189.516	1974.147	54.266	bb			582.4335	97.1	-2.9	180.9
WXX100208-07CCV	PETN	361 > 62	24.50	39592.102	18189.516	39592.102	1088.322	bb			821.2402	136.9	36.9	10580.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/11/10
Time of Injection: 0739
Standard Number: WXX100208-07CCV
Data File: EXP0208133a

HMX	100.0
RDX	109.5
135-TNB	93.7
13-DNB	98.5
Tetryl	104.0
Nitrobenzene	100.4
4A-26-DNT	100.9
2A-46-DNT	102.6
246-TNT	104.3
34-DNT(surr)	105.2
26-DNT	102.2
24-DNT	107.8
2-NT	106.5
4-NT	108.7
3-NT	97.1
PETN	136.9
Total	1678.3
Average	104.9

LMTT 2/11/10

HMM 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208135a

Analysis Date: 11-FEB-10 08:38

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	42.077	105	
m-Nitrotoluene	40	34.831	87	
o-Nitrotoluene	40	41.028	103	
p-Nitrotoluene	40	39.414	99	
1,3,5-Trinitrobenzene	40	53.251	133	*
1,3-Dinitrobenzene-d4	500	496.238	99	
2,4,6-Trinitrotoluene	40	32.077	80	
2,4-Dinitrotoluene	40	41.206	103	
2,6-Dinitrotoluene	40	39.051	98	
2,6-Dinitrotoluene-d3	500	591.836	118	
2-Amino-4,6-dinitrotoluene	40	38.537	96	
3,4-Dinitrotoluene	20	20.304	102	
4-Amino-2,6-dinitrotoluene	40	41.968	105	
HMX	40	48.07	120	
Nitrobenzene	40	41.966	105	
PETN	40	55.176	138	*
RDX	40	47.02	118	
Tetryl	40	49.996	125	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208135a
Date: 11-Feb-2010
Time: 08:38:44
ID: WXX100208-08CRI
Vial: 1:1,C

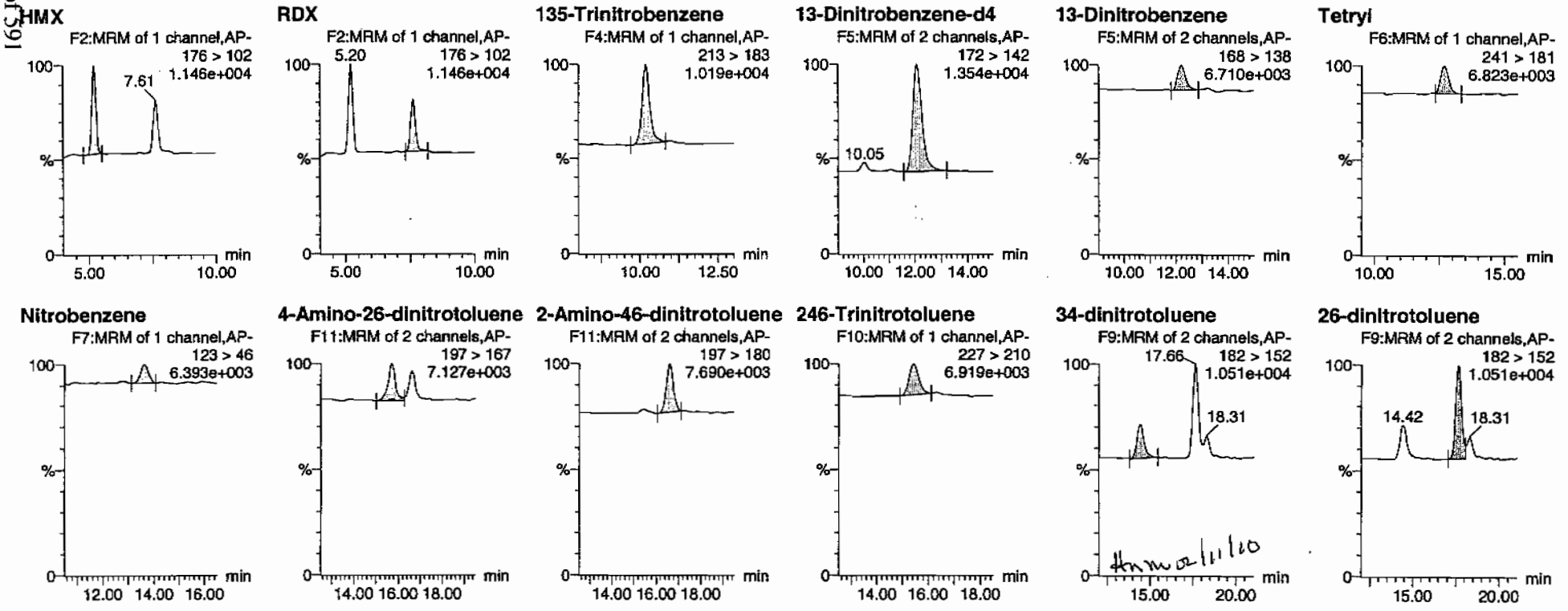

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

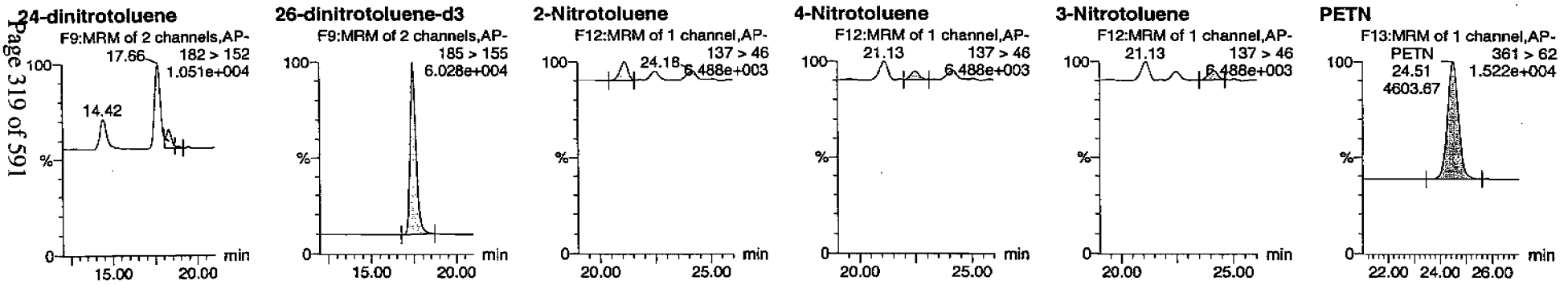

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.20	1065.193	3190.386	1065.193	166.938	bb			48.0701	120.2	20.2	123.2
WXX100208-08CRI	RDX	176 > 102	7.61	728.502	3190.386	728.502	114.171	bb			47.0201	117.6	17.6	72.9
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.20	1251.430	3190.386	1251.430	196.125	bb			53.2507	133.1	33.1	453.1
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3190.386		3190.386	3190.386	bb			496.2378	99.2	-0.8	601.5
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.21	322.827	3190.386	322.827	50.594	bb			42.0774	105.2	5.2	32.7
WXX100208-08CRI	Tetryl	241 > 181	12.73	356.470	3190.386	356.470	55.866	bb			49.9957	125.0	25.0	24.8
WXX100208-08CRI	Nitrobenzene	123 > 46	13.62	216.302	3190.386	216.302	33.899	bb			41.9662	104.9	4.9	17.6
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	526.807	21850.213	526.807	12.055	MM	11-Feb-10	09:26:46	41.9675	104.9	4.9	25.3
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	666.954	21850.213	666.954	15.262	bb			38.5373	96.3	-3.7	113.0
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.44	452.304	21850.213	452.304	10.350	bb			32.0771	80.2	-19.8	83.9
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.42	798.569	21850.213	798.569	18.274	bb			20.3043	101.5	1.5	44.1
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.66	1832.985	21850.213	1832.985	41.944	MM	11-Feb-10	09:59:36	39.0511	97.6	-2.4	123.9
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.31	439.472	21850.213	439.472	10.056	MM	11-Feb-10	10:01:11	41.2063	103.0	3.0	27.8
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.46	21850.213		21850.213	21850.213	bb			591.8361	118.4	18.4	1782.6
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.13	277.990	21850.213	277.990	6.361	bb			41.0277	102.6	2.6	61.2
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.50	130.906	21850.213	130.906	2.996	bb			39.4135	98.5	-1.5	27.6
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.18	141.817	21850.213	141.817	3.245	bb			34.8306	87.1	-12.9	29.5
WXX100208-08CRI	PETN	361 > 62	24.51	4603.666	21850.213	4603.666	105.346	bb			55.1761	137.9	37.9	894.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/11/10
Time of Injection	0838
Standard Number	WXX100208-08CRI
Data File	EXP0208135a

HMX	120.2
RDX	117.6
135-TNB	133.1
13-DNB	105.2
Tetryl	125.0
Nitrobenzene	104.9
4A-26-DNT	104.9
2A-46-DNT	96.3
246-TNT	80.2
34-DNT(surr)	101.5
26-DNT	97.6
24-DNT	103.0
2-NT	102.6
4-NT	98.5
3-NT	87.1
PETN	137.9
Total	1715.6
Average	107.2

HMT 2/11/10

Hmm 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208145a

Analysis Date: 11-FEB-10 13:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	643.853	107	
2,6-Dinitrotoluene	600	629.897	105	
2,6-Dinitrotoluene-d3	500	498.486	100	
2-Amino-4,6-dinitrotoluene	600	648.791	108	
3,4-Dinitrotoluene	300	324.255	108	
4-Amino-2,6-dinitrotoluene	600	603.46	101	
HMX	600	583.237	97	
Nitrobenzene	600	623.611	104	
PETN	600	723.874	121	*
RDX	600	637.14	106	
Tetryl	600	617.261	103	
m-Dinitrobenzene	600	611.284	102	
m-Nitrotoluene	600	566.246	94	
o-Nitrotoluene	600	608.792	101	
p-Nitrotoluene	600	612.602	102	
1,3,5-Trinitrobenzene	600	559.95	93	
1,3-Dinitrobenzene-d4	500	507.071	101	
2,4,6-Trinitrotoluene	600	636.938	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qid, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208145a
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Time: 13:34:04
ID: WXX100211-07CCV
Vial: 1:1,B

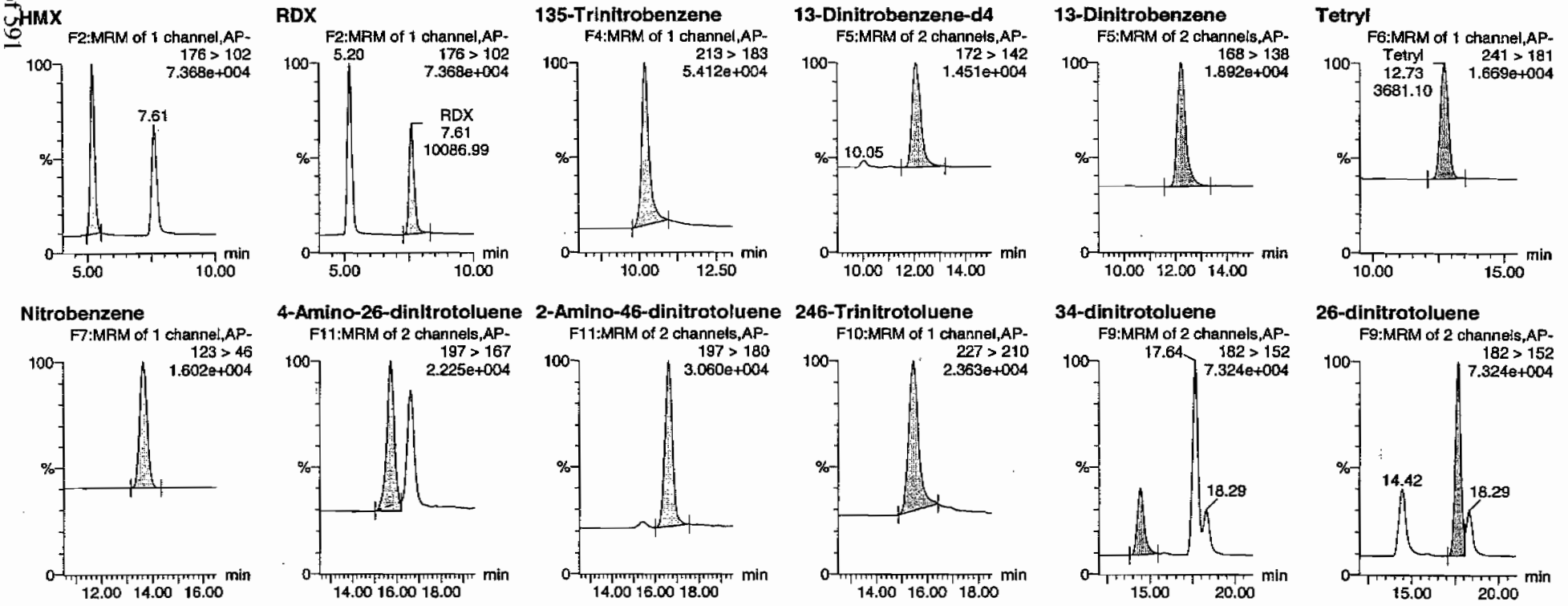

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

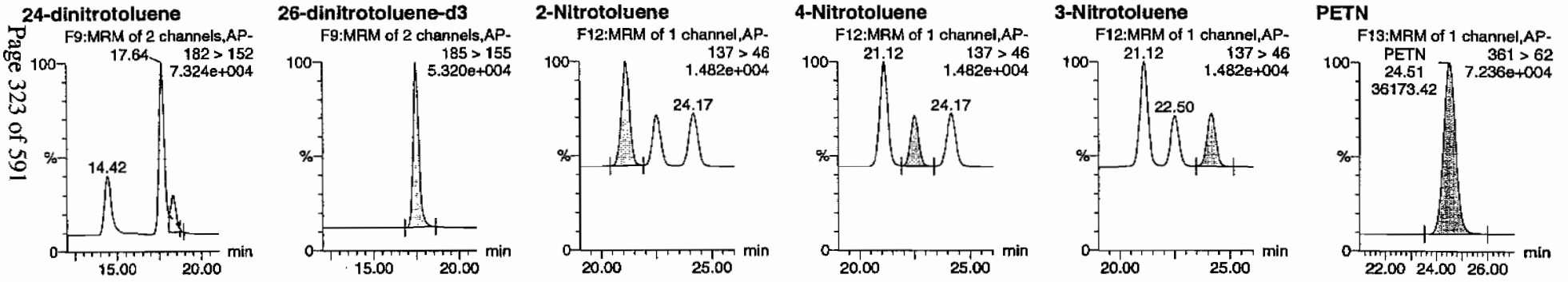

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.20	13206.193	3260.034	13206.193	2025.469	bb			583.2373	97.2	-2.8	1086.6
WXX100211-07CCV	RDX	176 > 102	7.61	10086.988	3260.034	10086.988	1547.068	bb			637.1403	106.2	6.2	710.7
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	13446.518	3260.034	13446.518	2062.328	bb			559.9502	93.3	-6.7	910.8
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3260.034		3260.034	3260.034	bb			507.0710	101.4	1.4	524.7
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	4792.287	3260.034	4792.287	735.006	bb			611.2844	101.9	1.9	606.8
WXX100211-07CCV	Tetryl	241 > 181	12.73	3681.104	3260.034	3681.104	564.581	bb			617.2613	102.9	2.9	367.3
WXX100211-07CCV	Nitrobenzene	123 > 46	13.62	3284.383	3260.034	3284.383	503.734	bb			623.6106	103.9	3.9	221.1
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6380.259	18403.783	6380.259	173.341	MM	12-Feb-10	07:58:23	603.4605	100.6	0.6	365.3
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	9457.366	18403.783	9457.366	256.941	bb			648.7908	108.1	8.1	402.1
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.44	7564.563	18403.783	7564.563	205.517	bb			636.9382	106.2	6.2	330.4
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.42	10741.435	18403.783	10741.435	291.827	bb			324.2549	108.1	8.1	440.5
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	24902.684	18403.783	24902.684	676.564	MM	12-Feb-10	08:04:29	629.8966	105.0	5.0	1301.6
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.29	5783.696	18403.783	5783.696	157.133	MM	12-Feb-10	08:08:48	643.8532	107.3	7.3	278.8
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	18403.783		18403.783	18403.783	bb			498.4859	99.7	-0.3	1269.0
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.12	3474.344	18403.783	3474.344	94.392	bb			608.7920	101.5	1.5	892.5
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.50	1713.738	18403.783	1713.738	46.559	bb			612.6023	102.1	2.1	429.0
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.17	1941.887	18403.783	1941.887	52.758	bb			566.2457	94.4	-5.6	450.7
WXX100211-07CCV	PETN	361 > 62	24.51	36173.418	18403.783	36173.418	982.771	bb			723.8738	120.6	20.6	5612.2

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/11/10
Time of Injection: 1334
Standard Number: WXX100211-07CCV
Data File: EXP0208145a

HMX	97.2
RDX	106.2
135-TNB	93.3
13-DNB	101.9
Tetryl	102.9
Nitrobenzene	103.9
4A-26-DNT	100.6
2A-46-DNT	108.1
246-TNT	106.2
34-DNT(surr)	108.1
26-DNT	105.0
24-DNT	107.3
2-NT	101.5
4-NT	102.1
3-NT	94.4
PETN	120.6
Total	1659.3
Average	103.7

HMW 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208147a

Analysis Date: 11-FEB-10 14:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.729	124	
1,3-Dinitrobenzene-d4	500	516.222	103	
2,4,6-Trinitrotoluene	40	38.92	97	
2,4-Dinitrotoluene	40	33.223	83	
2,6-Dinitrotoluene	40	40.948	102	
2,6-Dinitrotoluene-d3	500	573.135	115	
2-Amino-4,6-dinitrotoluene	40	40.905	102	
3,4-Dinitrotoluene	20	16.725	84	
4-Amino-2,6-dinitrotoluene	40	42.799	107	
HMX	40	40.54	101	
Nitrobenzene	40	39.412	99	
PETN	40	46.221	116	
RDX	40	36.181	90	
Tetryl	40	36.32	91	
m-Dinitrobenzene	40	41.498	104	
m-Nitrotoluene	40	36.824	92	
o-Nitrotoluene	40	43.119	108	
p-Nitrotoluene	40	43.135	108	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Date: 11-Feb-2010
Time: 14:33:07
ID: WXX100211-08CRI
Vial: 1:1,C

MMT 2/12/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.141e+004
934.51 7.59

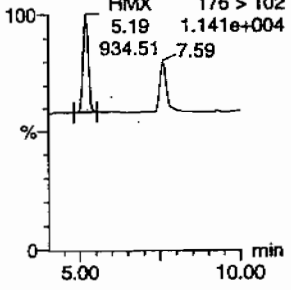

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.141e+004
RDX
7.59
583.14

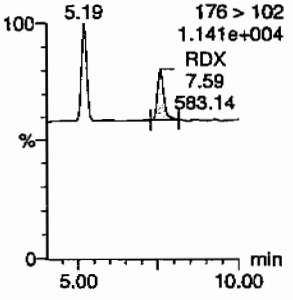

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.058e+004

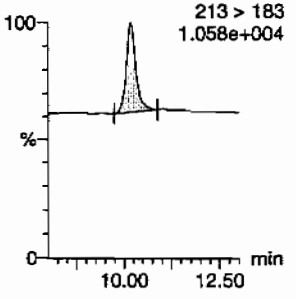

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.454e+004

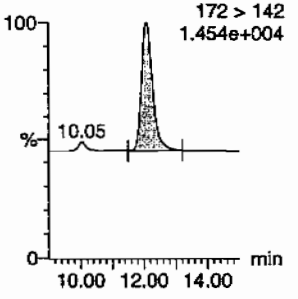

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.376e+003

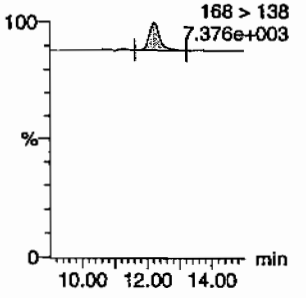

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.331e+003

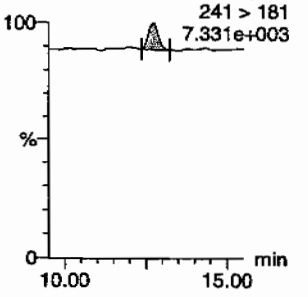

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.096e+003

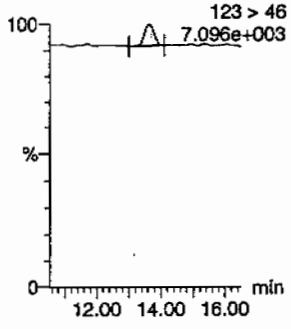

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.799e+003

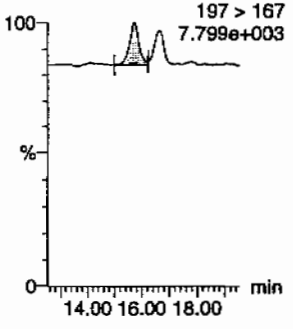

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.395e+003

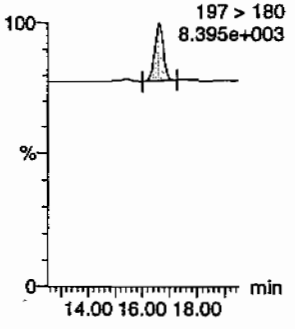

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.815e+003

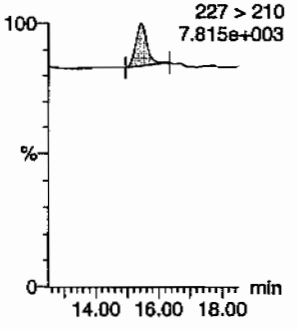

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64 182 > 152
1.139e+004
18.29

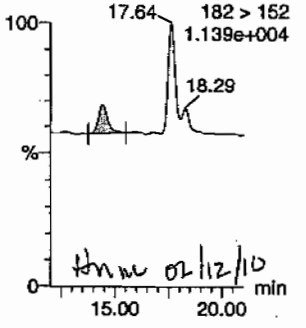

tmw 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.139e+004
14.42
18.29

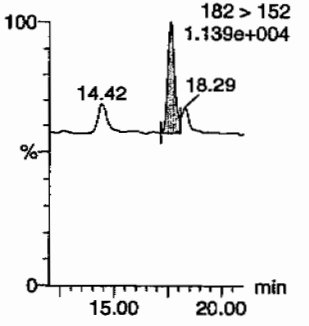

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

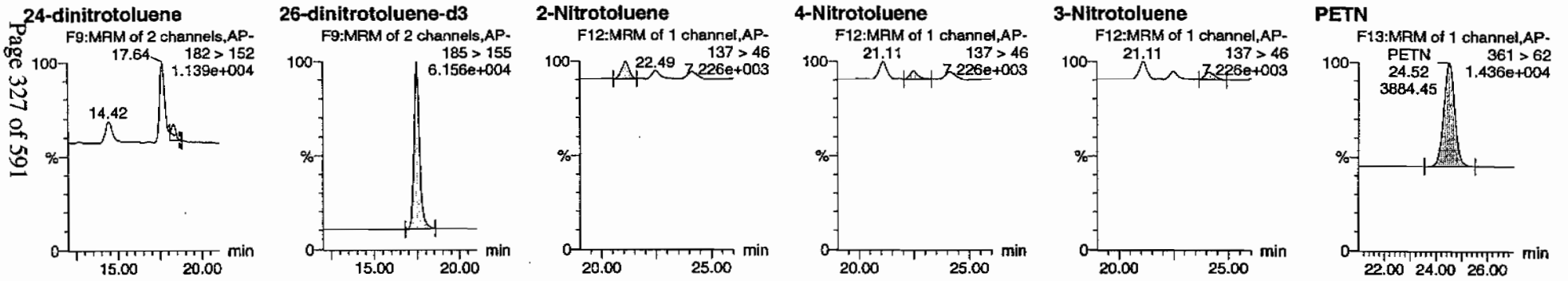

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.19	934.513	3318.865	934.513	140.788	bb			40.5402	101.4	1.4	86.8
WXX100211-08CRI	RDX	176 > 102	7.59	583.138	3318.865	583.138	87.852	bb			36.1807	90.5	-9.5	45.2
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	1215.719	3318.865	1215.719	183.153	bb			49.7285	124.3	24.3	178.3
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3318.865		3318.865	3318.865	bb			516.2216	103.2	3.2	212.4
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.21	331.204	3318.865	331.204	49.897	bb			41.4981	103.7	3.7	33.5
WXX100211-08CRI	Tetryl	241 > 181	12.73	284.245	3318.865	284.245	42.823	bb			36.3198	90.8	-9.2	42.7
WXX100211-08CRI	Nitrobenzene	123 > 46	13.62	211.320	3318.865	211.320	31.836	bb			39.4124	98.5	-1.5	17.7
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	520.271	21159.785	520.271	12.294	MM	12-Feb-10	07:58:28	42.7992	107.0	7.0	30.6
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	685.557	21159.785	685.557	16.200	bb			40.9048	102.3	2.3	141.2
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.44	531.456	21159.785	531.456	12.558	bb			38.9203	97.3	-2.7	51.3
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.42	636.993	21159.785	636.993	15.052	bb			16.7246	83.6	-16.4	15.4
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.64	1861.279	21159.785	1861.279	43.982	MM	12-Feb-10	08:04:42	40.9478	102.4	2.4	59.0
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.29	343.129	21159.785	343.129	8.108	MM	12-Feb-10	08:08:34	33.2227	83.1	-16.9	12.0
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	21159.785		21159.785	21159.785	bb			573.1352	114.6	14.6	1815.2
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.11	282.928	21159.785	282.928	6.686	bb			43.1189	107.8	7.8	36.1
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.49	138.739	21159.785	138.739	3.278	bb			43.1349	107.8	7.8	16.7
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.13	145.196	21159.785	145.196	3.431	bb			36.8240	92.1	-7.9	15.1
WXX100211-08CRI	PETN	361 > 62	24.52	3884.447	21159.785	3884.447	91.788	bb			46.2207	115.6	15.6	728.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/11/10
Time of Injection	1433
Standard Number	WXX100211-08CRI
Data File	EXP0208147a

HMX	101.4
RDX	90.5
135-TNB	124.3
13-DNB	103.7
Tetryl	90.8
Nitrobenzene	98.5
4A-26-DNT	107.0
2A-46-DNT	102.3
246-TNT	97.3
34-DNT(surr)	83.6
26-DNT	102.4
24-DNT	83.1
2-NT	107.8
4-NT	107.8
3-NT	92.1
PETN	115.6
Total	1608.2
Average	100.5

MDT 2/12/10

Hmc 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208155a

Analysis Date: 11-FEB-10 18:29

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	659.589	110	
m-Dinitrobenzene	600	643.098	107	
m-Nitrotoluene	600	479.616	80	*
o-Nitrotoluene	600	649.003	108	
p-Nitrotoluene	600	642.036	107	
1,3,5-Trinitrobenzene	600	584.955	97	
1,3-Dinitrobenzene-d4	500	537.834	108	
2,4,6-Trinitrotoluene	600	672.091	112	
2,4-Dinitrotoluene	600	651.546	109	
2,6-Dinitrotoluene	600	630.785	105	
2,6-Dinitrotoluene-d3	500	539.361	108	
2-Amino-4,6-dinitrotoluene	600	714.872	119	
3,4-Dinitrotoluene	300	341.269	114	
4-Amino-2,6-dinitrotoluene	600	641.093	107	
HMX	600	758.397	126	*
Nitrobenzene	600	633.981	106	
PETN	600	627.004	105	
RDX	600	775.743	129	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208155a
Date: 11-Feb-2010
Time: 18:29:30
ID: WXX100211-07CCV
Vial: 1:1,B

MM 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
9.707e+004

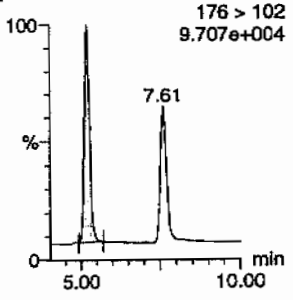

RDX
F2:MRM of 1 channel,AP-
176 > 102
9.707e+004

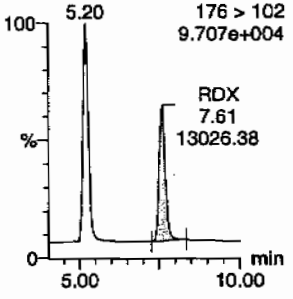

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.933e+004

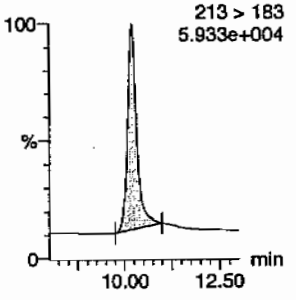

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.489e+004

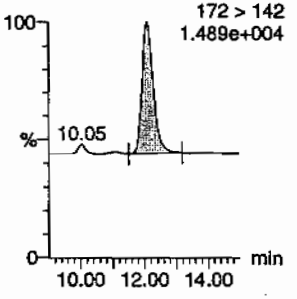

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.044e+004

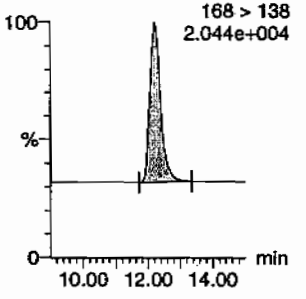

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.794e+004

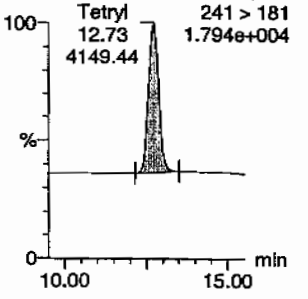

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.645e+004

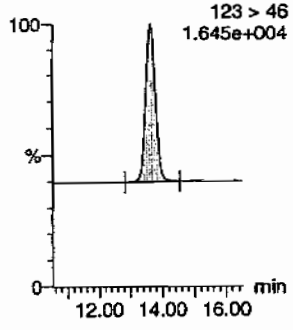

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.453e+004

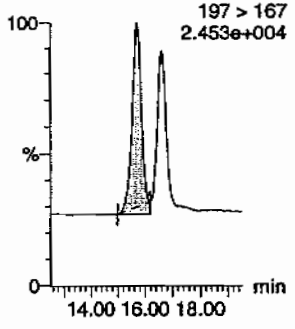

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.560e+004

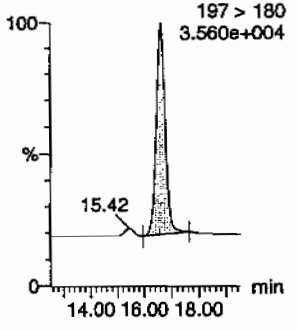

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.579e+004

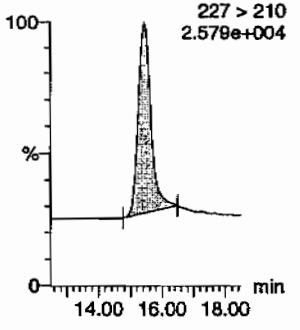

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.806e+004

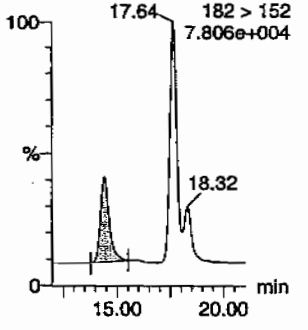

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.806e+004

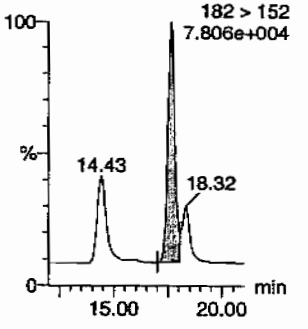

HMM 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

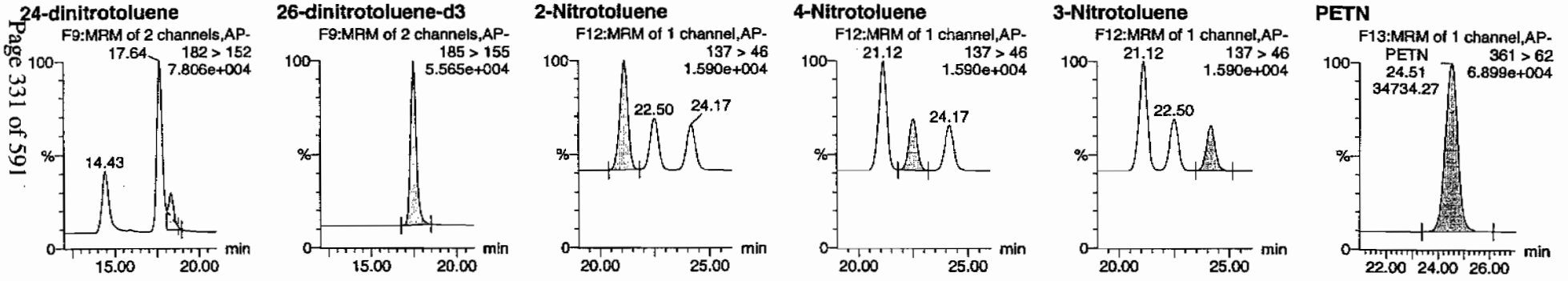

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.20	18214.146	3457.815	18214.146	2633.765	db			758.3974	126.4	26.4	912.7
WXX100211-07CCV	RDX	176 > 102	7.61	13026.384	3457.815	13026.384	1883.615	bb			775.7429	129.3	29.3	565.6
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	14899.180	3457.815	14899.180	2154.421	bb			584.9548	97.5	-2.5	1756.5
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3457.815		3457.815	3457.815	bb			537.8342	107.6	7.6	307.1
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	5347.566	3457.815	5347.566	773.258	bb			643.0978	107.2	7.2	382.2
WXX100211-07CCV	Tetryl	241 > 181	12.73	4149.437	3457.815	4149.437	600.009	bb			659.5891	109.9	9.9	617.4
WXX100211-07CCV	Nitrobenzene	123 > 46	13.63	3541.570	3457.815	3541.570	512.111	bb			633.9805	105.7	5.7	393.8
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7333.929	19912.854	7333.929	184.151	MM	12-Feb-10	07:59:47	641.0927	106.8	6.8	220.1
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	11275.101	19912.854	11275.101	283.111	bb			714.8724	119.1	19.1	499.5
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.45	8636.564	19912.854	8636.564	216.859	bb			672.0909	112.0	12.0	224.4
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.43	12232.050	19912.854	12232.050	307.140	bb			341.2692	113.8	13.8	375.9
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	26982.646	19912.854	26982.646	677.518	MM	12-Feb-10	08:05:15	630.7848	105.1	5.1	1049.0
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.32	6332.720	19912.854	6332.720	159.011	MM	12-Feb-10	08:07:53	651.5463	108.6	8.6	232.0
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	19912.854		19912.854	19912.854	bb			539.3607	107.9	7.9	3140.5
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.12	4007.529	19912.854	4007.529	100.627	bb			649.0025	108.2	8.2	957.4
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.50	1943.352	19912.854	1943.352	48.796	bb			642.0358	107.0	7.0	444.9
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.17	1779.667	19912.854	1779.667	44.686	bb			479.6156	79.9	-20.1	392.5
WXX100211-07CCV	PETN	361 > 62	24.51	34734.266	19912.854	34734.266	872.157	bb			627.0040	104.5	4.5	10028.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/11/10
Time of Injection: 1829
Standard Number: WXX100211-07CCV
Data File: EXP0208155a

HMX	126.4
RDX	129.3
135-TNB	97.5
13-DNB	107.2
Tetryl	109.9
Nitrobenzene	105.7
4A-26-DNT	106.8
2A-46-DNT	119.1
246-TNT	112.0
34-DNT(surr)	113.8
26-DNT	105.1
24-DNT	108.6
2-NT	108.2
4-NT	107.0
3-NT	79.9
PETN	104.5
Total	1741.0
Average	108.8

MAT 2/12/10

HMC 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0208157a

Analysis Date: 11-FEB-10 19:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	40.427	101	
3,4-Dinitrotoluene	20	22.689	113	
4-Amino-2,6-dinitrotoluene	40	32.487	81	
HMX	40	40.09	100	
Nitrobenzene	40	44.282	111	
PETN	40	48.308	121	
RDX	40	38.585	96	
Tetryl	40	36.534	91	
m-Dinitrobenzene	40	35.416	89	
m-Nitrotoluene	40	47.307	118	
o-Nitrotoluene	40	45.523	114	
p-Nitrotoluene	40	40.92	102	
1,3,5-Trinitrobenzene	40	47.938	120	
1,3-Dinitrobenzene-d4	500	474.289	95	
2,4,6-Trinitrotoluene	40	45.464	114	
2,4-Dinitrotoluene	40	32.491	81	
2,6-Dinitrotoluene	40	37.857	95	
2,6-Dinitrotoluene-d3	500	465.184	93	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208157a
Date: 11-Feb-2010
Time: 19:28:28
ID: WXX100211-08CRI
Vial: 1:1,C

MAP 2/12/10

HMX

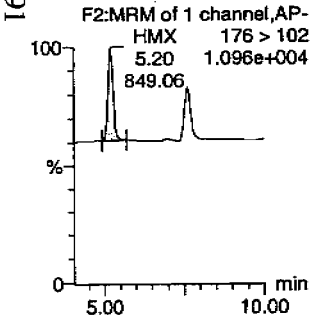

RDX

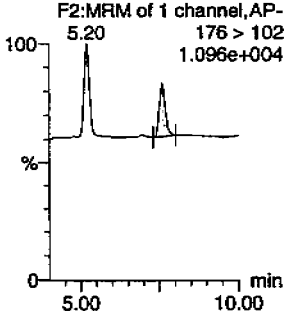

135-Trinitrobenzene

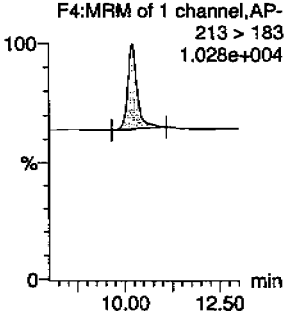

13-Dinitrobenzene-d4

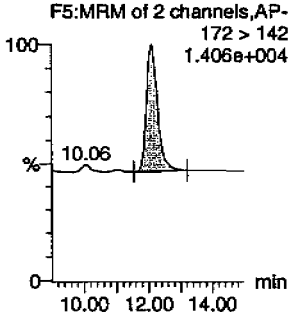

13-Dinitrobenzene

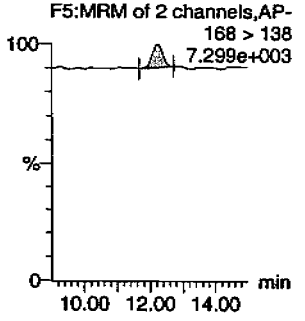

Tetryl

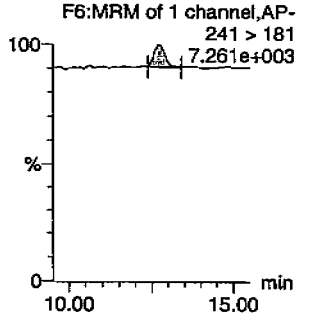

Nitrobenzene

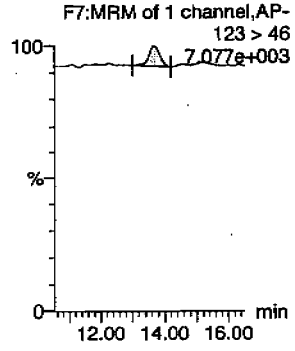

4-Amino-26-dinitrotoluene

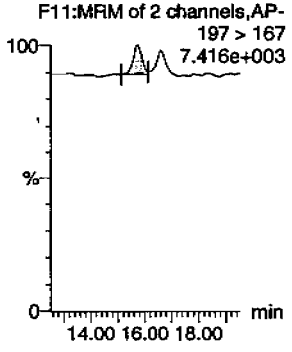

2-Amino-46-dinitrotoluene

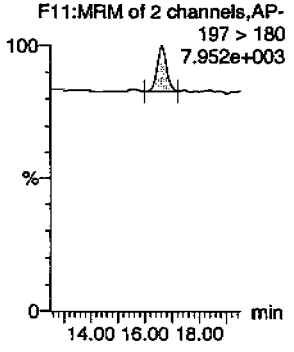

246-Trinitrotoluene

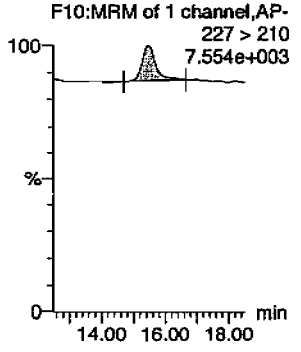

34-dinitrotoluene

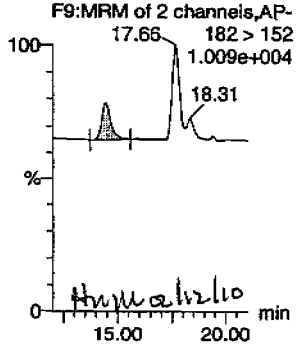

26-dinitrotoluene

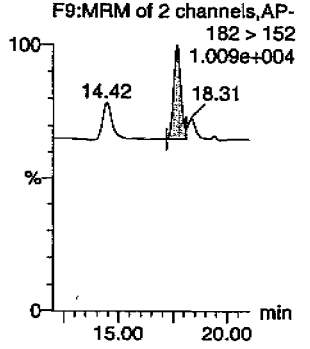

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

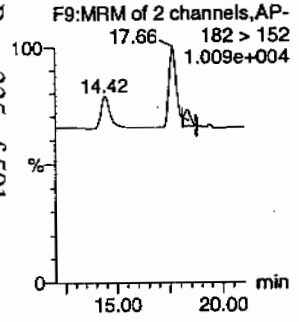

26-dinitrotoluene-d3

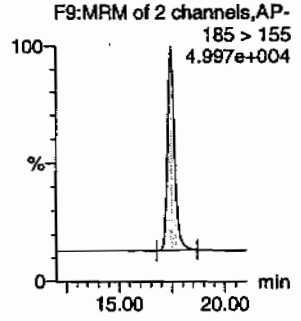

2-Nitrotoluene

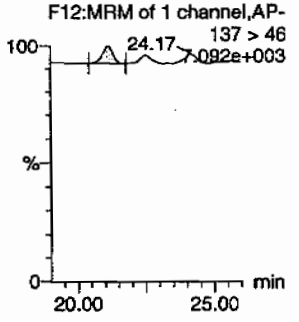

4-Nitrotoluene

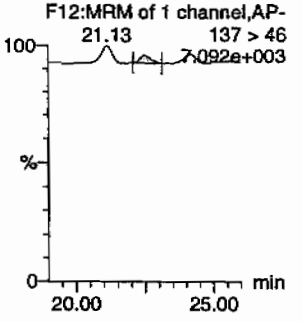

3-Nitrotoluene

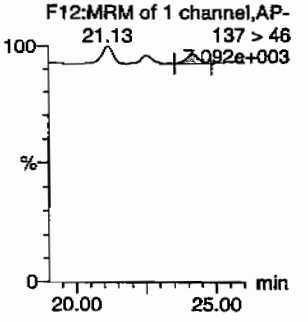

PETN

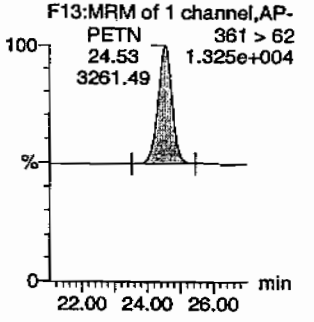

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.20	849.064	3049.273	849.064	139.224	bb			40.0898	100.2	0.2	97.7
WXX100211-08CRI	RDX	176 > 102	7.61	571.377	3049.273	571.377	93.691	bb			38.5853	96.5	-3.5	55.9
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	1076.750	3049.273	1076.750	176.558	bb			47.9380	119.8	19.8	129.4
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.10	3049.273		3049.273	3049.273	bb			474.2889	94.9	-5.1	448.0
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.24	259.700	3049.273	259.700	42.584	bb			35.4159	88.5	-11.5	24.1
WXX100211-08CRI	Tetryl	241 > 181	12.73	262.402	3049.273	262.402	43.027	bb			36.5337	91.3	-8.7	29.2
WXX100211-08CRI	Nitrobenzene	123 > 46	13.67	218.144	3049.273	218.144	35.770	bb			44.2822	110.7	10.7	15.8
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	320.534	17174.301	320.534	9.332	MM	12-Feb-10	07:59:55	32.4872	81.2	-18.8	44.2
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	549.935	17174.301	549.935	16.010	bb			40.4272	101.1	1.1	55.9
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.48	503.879	17174.301	503.879	14.670	bb			45.4640	113.7	13.7	34.5
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.42	701.380	17174.301	701.380	20.419	bb			22.6885	113.4	13.4	52.1
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.66	1396.673	17174.301	1396.673	40.662	MM	12-Feb-10	08:05:22	37.8570	94.6	-5.4	132.2
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.31	272.364	17174.301	272.364	7.929	MM	12-Feb-10	08:07:44	32.4907	81.2	-18.8	27.3
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	17174.301		17174.301	17174.301	bb			465.1841	93.0	-7.0	1502.3
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.13	242.443	17174.301	242.443	7.058	bb			45.5233	113.8	13.8	59.2
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.49	106.825	17174.301	106.825	3.110	bb			40.9200	102.3	2.3	27.1
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.17	151.398	17174.301	151.398	4.408	bb			47.3074	118.3	18.3	32.4
WXX100211-08CRI	PETN	361 > 62	24.53	3261.487	17174.301	3261.487	94.953	bb			48.3079	120.8	20.8	460.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/11/10
Time of Injection	1928
Standard Number	WXX100211-08CRI
Data File	EXP0208157a

HMX	100.2
RDX	96.5
135-TNB	119.8
13-DNB	88.5
Tetryl	91.3
Nitrobenzene	110.7
4A-26-DNT	81.2
2A-46-DNT	101.1
246-TNT	113.7
34-DNT(surr)	113.4
26-DNT	94.6
24-DNT	81.2
2-NT	113.8
4-NT	102.3
3-NT	118.3
PETN	120.8
Total	1647.4
Average	103.0

MAP 2/12/10

dhm 02/12/10

JCV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208168a

Analysis Date: 12-FEB-10 00:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	649.814	108	
1,3-Dinitrobenzene-d4	500	363.136	73	*
2,4,6-Trinitrotoluene	600	704.394	117	
2,4-Dinitrotoluene	600	605.971	101	
2,6-Dinitrotoluene	600	613.961	102	
2,6-Dinitrotoluene-d3	500	365.062	73	*
2-Amino-4,6-dinitrotoluene	600	635.413	106	
3,4-Dinitrotoluene	300	319.507	107	
4-Amino-2,6-dinitrotoluene	600	605.937	101	
HMX	600	616.353	103	
Nitrobenzene	600	690.95	115	
PETN	600	937.241	156	*
RDX	600	667.229	111	
Tetryl	600	719.32	120	
m-Dinitrobenzene	600	637.964	106	
m-Nitrotoluene	600	612.02	102	
o-Nitrotoluene	600	573.693	96	
p-Nitrotoluene	600	575.749	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208168a
Date: 12-Feb-2010
Time: 00:52:53
ID: WXX100211-07CCV
Vial: 1:1,B

HMT 2/12/10

HMX

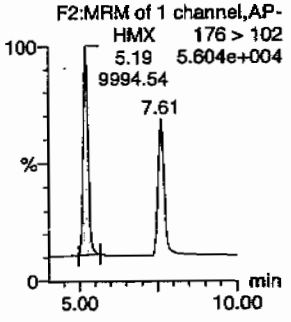

RDX

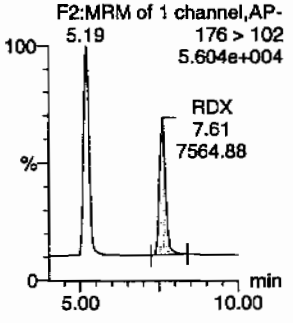

135-Trinitrobenzene

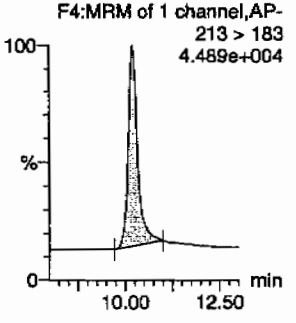

13-Dinitrobenzene-d4

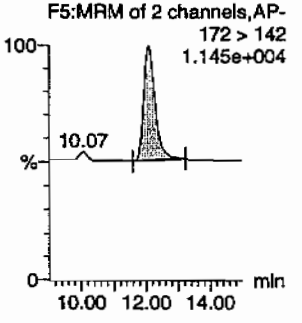

13-Dinitrobenzene

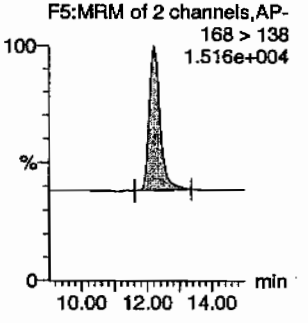

Tetryl

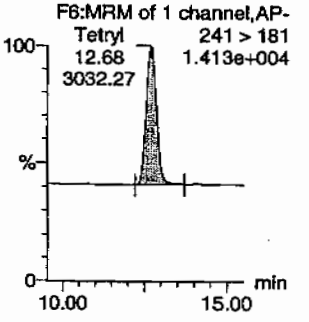

Nitrobenzene

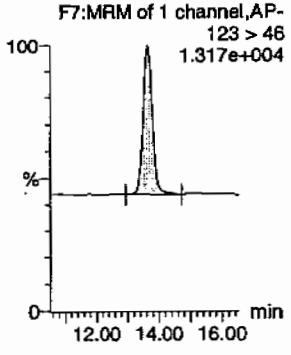

4-Amino-26-dinitrotoluene

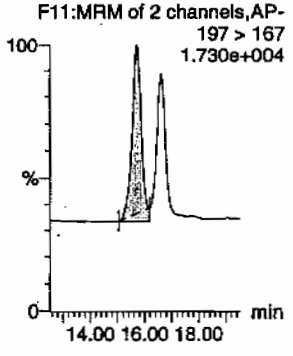

2-Amino-46-dinitrotoluene

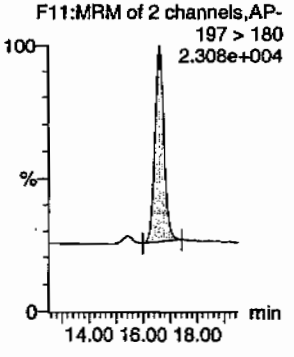

246-Trinitrotoluene

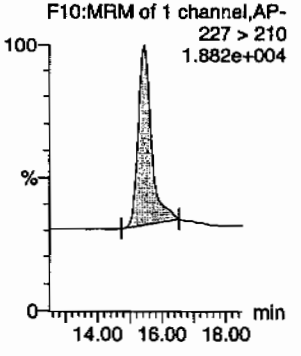

34-dinitrotoluene

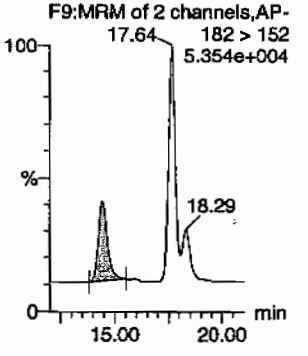

26-dinitrotoluene

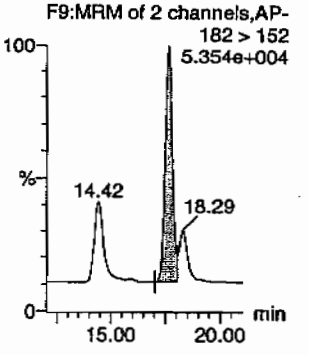

Hmc 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

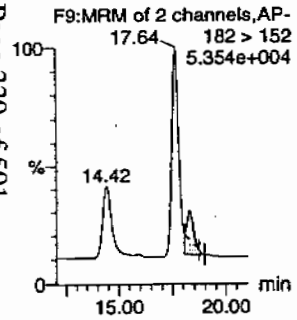

26-dinitrotoluene-d3

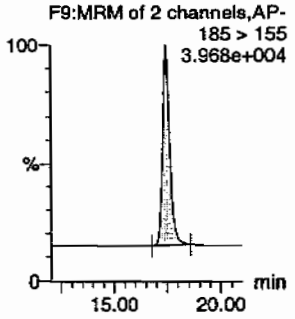

2-Nitrotoluene

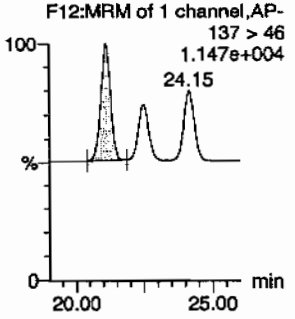

4-Nitrotoluene

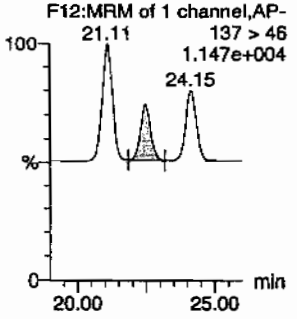

3-Nitrotoluene

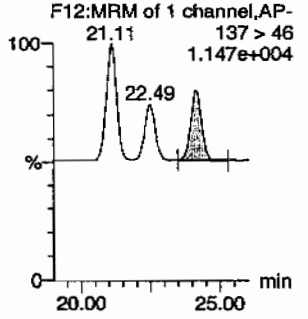

PETN

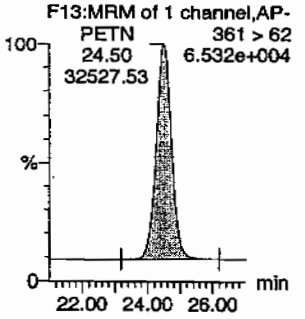

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.19	9994.540	2334.658	9994.540	2140.472	bb			616.3527	102.7	2.7	1103.1
WXX100211-07CCV	RDX	176 > 102	7.61	7564.883	2334.658	7564.883	1620.127	bb			667.2286	111.2	11.2	720.2
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	11175.075	2334.658	11175.075	2393.300	bb			649.8137	108.3	8.3	1242.6
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2334.658		2334.658	2334.658	bb			363.1365	72.6	-27.4	326.8
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	3581.761	2334.658	3581.761	767.085	bb			637.9637	106.3	6.3	394.6
WXX100211-07CCV	Tetryl	241 > 181	12.68	3032.274	2334.658	3032.274	649.404	bb			719.3195	119.9	19.9	305.9
WXX100211-07CCV	Nitrobenzene	123 > 46	13.62	2606.083	2334.658	2606.083	558.129	bb			690.9503	115.2	15.2	209.6
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	4691.699	13477.839	4691.699	174.052	MM	12-Feb-10	08:00:48	605.9371	101.0	1.0	235.4
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	6783.207	13477.839	6783.207	251.643	bb			635.4134	105.9	5.9	358.1
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.45	6126.539	13477.839	6126.539	227.282	bb			704.3937	117.4	17.4	372.1
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.42	7751.206	13477.839	7751.206	287.554	bb			319.5070	106.5	6.5	336.0
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	17775.865	13477.839	17775.865	659.448	MM	12-Feb-10	08:05:48	613.9608	102.3	2.3	993.9
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.29	3986.427	13477.839	3986.427	147.888	MM	12-Feb-10	08:07:01	605.9713	101.0	1.0	208.0
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	13477.839		13477.839	13477.839	bb			365.0615	73.0	-27.0	812.6
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.11	2397.708	13477.839	2397.708	88.950	bb			573.6926	95.6	-4.4	416.7
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.49	1179.539	13477.839	1179.539	43.758	bb			575.7492	96.0	-4.0	198.1
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.15	1537.085	13477.839	1537.085	57.023	bb			612.0200	102.0	2.0	247.7
WXX100211-07CCV	PETN	361 > 62	24.50	32527.529	13477.839	32527.529	1206.704	bb			937.2408	156.2	56.2	4271.7

✓

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/12/10
Time of Injection: 0052
Standard Number: WXX100211-07CCV
Data File: EXP0208168a

HMX	102.7
RDX	111.2
135-TNB	108.3
13-DNB	106.3
Tetryl	119.9
Nitrobenzene	115.2
4A-26-DNT	101.0
2A-46-DNT	105.9
246-TNT	117.4
34-DNT(surr)	106.5
26-DNT	102.3
24-DNT	101.0
2-NT	95.6
4-NT	96.0
3-NT	102.0
PETN	156.2
Total	1747.5
Average	109.2

HMT 2/12/10

Hyne 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208170a

Analysis Date: 12-FEB-10 01:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	43.248	108	
1,3,5-Trinitrobenzene	40	54.58	136	*
1,3-Dinitrobenzene-d4	500	414.79	83	
2,4,6-Trinitrotoluene	40	31.941	80	
2,4-Dinitrotoluene	40	36.526	91	
2,6-Dinitrotoluene	40	39.901	100	
2,6-Dinitrotoluene-d3	500	419.808	84	
2-Amino-4,6-dinitrotoluene	40	41.208	103	
3,4-Dinitrotoluene	20	18.972	95	
4-Amino-2,6-dinitrotoluene	40	36.002	90	
HMX	40	41.297	103	
Nitrobenzene	40	42.737	107	
PETN	40	58.979	147	*
RDX	40	33.84	85	
Tetryl	40	41.479	104	
m-Dinitrobenzene	40	37.812	95	
m-Nitrotoluene	40	36.746	92	
o-Nitrotoluene	40	42.552	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208170a
Date: 12-Feb-2010
Time: 01:51:53
ID: WXX100211-08CRI
Vial: 1:1,C

MMP 2/12/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 9.575e+003
764.90

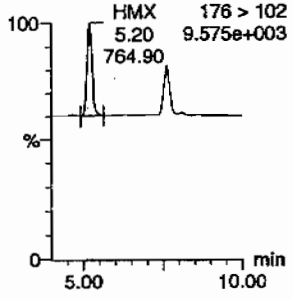

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
9.575e+003

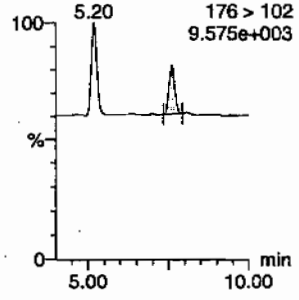

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.316e+003

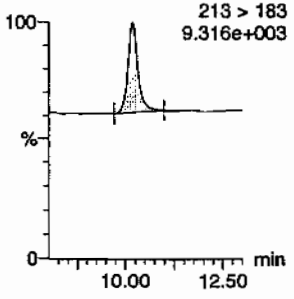

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.210e+004

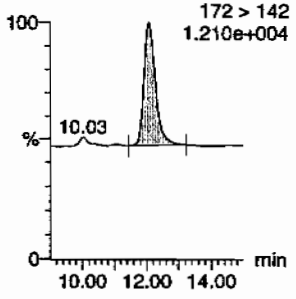

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.294e+003

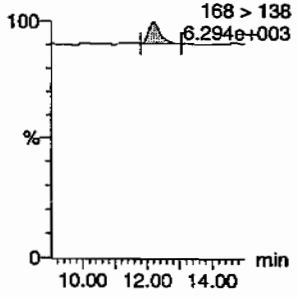

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.437e+003

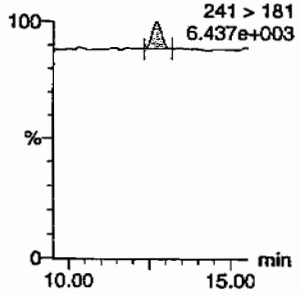

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.187e+003

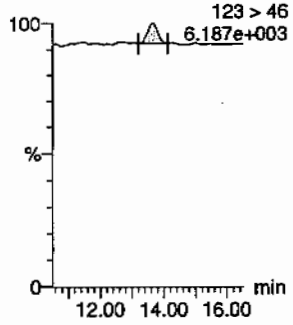

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.463e+003

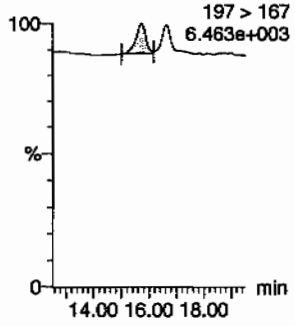

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.997e+003

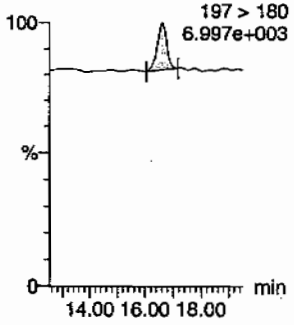

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.482e+003

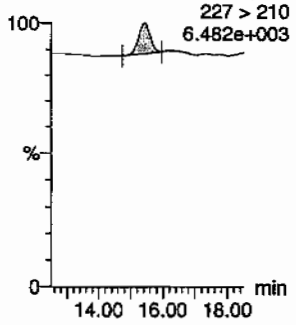

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64 182 > 152
9.253e+003

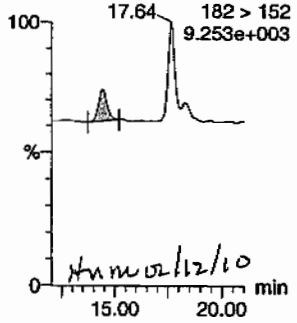

Hmm 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.253e+003

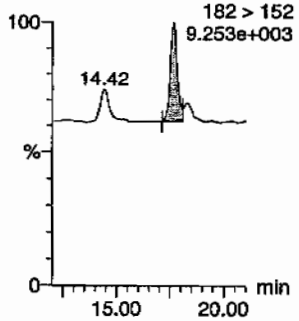

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

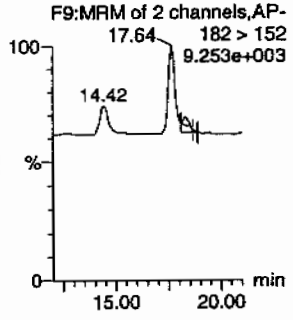

26-dinitrotoluene-d3

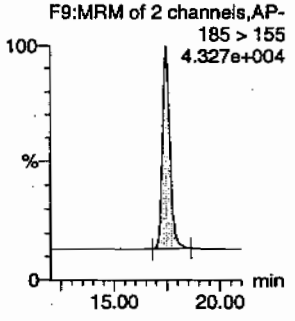

2-Nitrotoluene

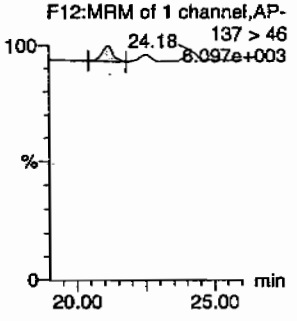

4-Nitrotoluene

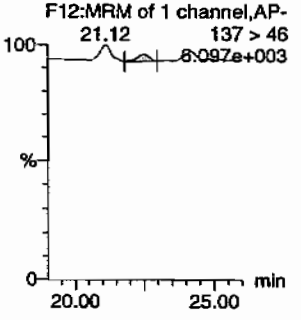

3-Nitrotoluene

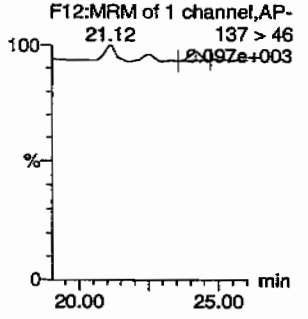

PETN

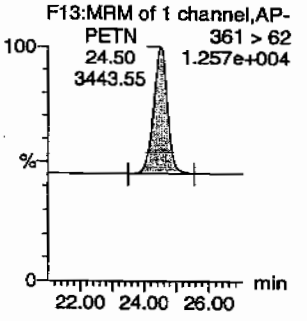

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.20	764.902	2666.746	764.902	143.415	bb			41.2966	103.2	3.2	84.1
WXX100211-08CRI	RDX	176 > 102	7.61	438.238	2666.746	438.238	82.167	bb			33.8395	84.6	-15.4	44.7
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	1072.145	2666.746	1072.145	201.021	bb			54.5800	136.5	36.5	119.3
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2666.746		2666.746	2666.746	bb			414.7900	83.0	-17.0	202.1
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.21	242.490	2666.746	242.490	45.466	bb			37.8124	94.5	-5.5	27.0
WXX100211-08CRI	Tetryl	241 > 181	12.68	254.659	2666.746	254.659	47.747	bb			41.4785	103.7	3.7	19.1
WXX100211-08CRI	Nitrobenzene	123 > 46	13.62	184.121	2666.746	184.121	34.522	bb			42.7369	106.8	6.8	21.3
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	320.565	15499.035	320.565	10.341	MM	12-Feb-10	08:00:59	36.0022	90.0	-10.0	38.6
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	505.872	15499.035	505.872	16.319	bb			41.2076	103.0	3.0	42.8
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.41	319.476	15499.035	319.476	10.306	bb			31.9414	79.9	-20.1	38.8
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.42	529.277	15499.035	529.277	17.075	bb			18.9719	94.9	-5.1	42.0
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.64	1328.482	15499.035	1328.482	42.857	MM	12-Feb-10	08:05:54	39.9008	99.8	-0.2	130.8
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.29	276.327	15499.035	276.327	8.914	MM	12-Feb-10	08:06:52	36.5264	91.3	-8.7	23.6
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.46	15499.035		15499.035	15499.035	bb			419.8078	84.0	-16.0	2320.2
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.12	204.514	15499.035	204.514	6.598	bb			42.5522	106.4	6.4	28.1
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.50	101.890	15499.035	101.890	3.287	bb			43.2482	108.1	8.1	13.0
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.18	106.126	15499.035	106.126	3.424	bb			36.7456	91.9	-8.1	15.4
WXX100211-08CRI	PETN	361 > 62	24.50	3443.553	15499.035	3443.553	111.089	bb			58.9793	147.4	47.4	2261.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/12/10
Time of Injection	0151
Standard Number	WXX100211-08CRI
Data File	EXP0208170a

HMX	103.2
RDX	84.6
135-TNB	136.5
13-DNB	94.5
Tetryl	103.7
Nitrobenzene	106.8
4A-26-DNT	90.0
2A-46-DNT	103.0
246-TNT	79.9
34-DNT(surr)	94.9
26-DNT	99.8
24-DNT	91.3
2-NT	106.4
4-NT	108.1
3-NT	91.9
PETN	147.4
Total	1642.0
Average	102.6

MHT 2/12/10

Hmm 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0208179a

Analysis Date: 12-FEB-10 06:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	413.212	83	
2-Amino-4,6-dinitrotoluene	600	595.295	99	
3,4-Dinitrotoluene	300	330.75	110	
4-Amino-2,6-dinitrotoluene	600	578.418	96	
HMX	600	534.328	89	
Nitrobenzene	600	626.915	104	
PETN	600	774.197	129	*
RDX	600	606.847	101	
Tetryl	600	700.204	117	
m-Dinitrobenzene	600	629.509	105	
m-Nitrotoluene	600	504.3	84	
o-Nitrotoluene	600	541.966	90	
p-Nitrotoluene	600	543.447	91	
1,3,5-Trinitrobenzene	600	587.089	98	
1,3-Dinitrobenzene-d4	500	399.529	80	*
2,4,6-Trinitrotoluene	600	750.342	125	*
2,4-Dinitrotoluene	600	599.438	100	
2,6-Dinitrotoluene	600	606.259	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208179a
Date: 12-Feb-2010
Time: 06:17:31
ID: WXX100211-07CCV
Vial: 1:1,B

MD 2/12/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 5.311e+004
9532.78
7.61

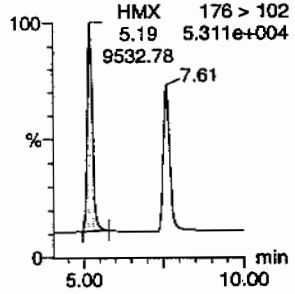

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
5.311e+004
RDX
7.61
7.569.80

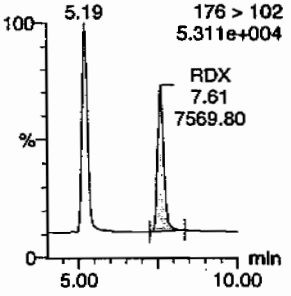

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.391e+004

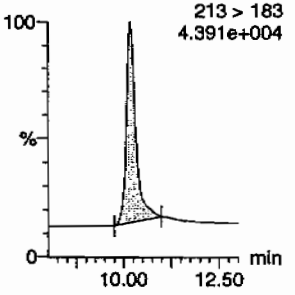

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.216e+004

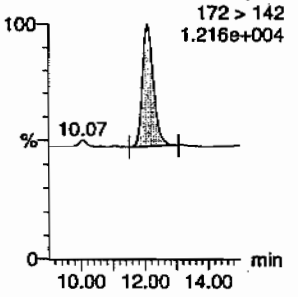

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.587e+004

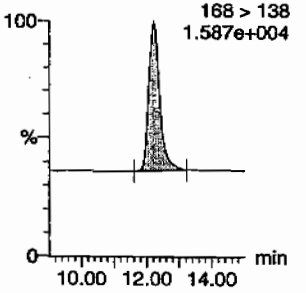

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.68 1.466e+004
3255.34

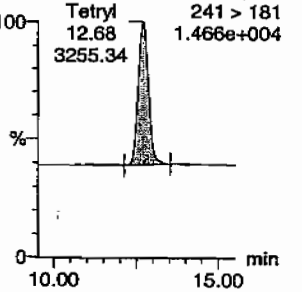

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.317e+004

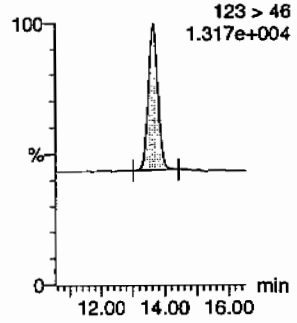

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.810e+004

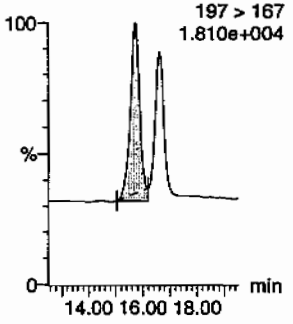

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.428e+004

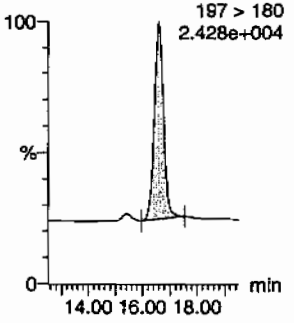

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.201e+004

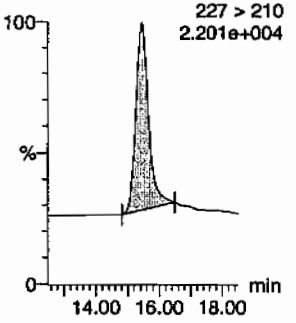

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64 182 > 152
5.755e+004
18.30

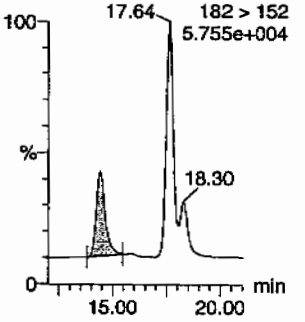

Hme 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.755e+004
14.42
18.30

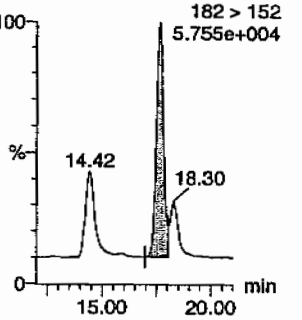

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

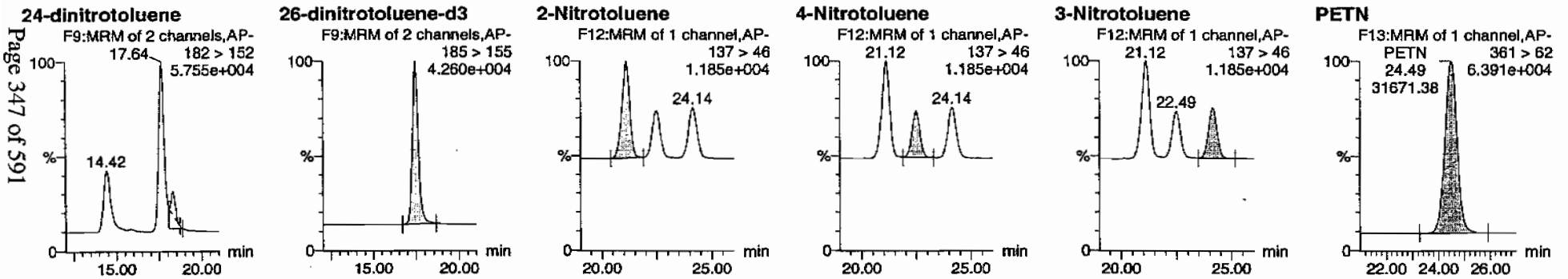

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.19	9532.778	2568.628	9532.778	1855.617	bb			534.3281	89.1	-10.9	1213.9
WXX100211-07CCV	RDX	176 > 102	7.61	7569.802	2568.628	7569.802	1473.511	bb			606.8467	101.1	1.1	843.2
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	11108.188	2568.628	11108.188	2162.280	bb			587.0887	97.8	-2.2	1301.5
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2568.628		2568.628	2568.628	bb			399.5286	79.9	-20.1	228.2
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	3888.488	2568.628	3888.488	756.919	bb			629.5094	104.9	4.9	516.5
WXX100211-07CCV	Tetryl	241 > 181	12.68	3255.336	2568.628	3255.336	633.672	bb			700.2038	116.7	16.7	330.8
WXX100211-07CCV	Nitrobenzene	123 > 46	13.62	2601.525	2568.628	2601.525	506.404	bb			626.9150	104.5	4.5	286.0
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	5069.339	15255.532	5069.339	166.148	MM	12-Feb-10	08:01:12	578.4178	96.4	-3.6	314.5
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	7193.136	15255.532	7193.136	235.755	bb			595.2953	99.2	-0.8	526.8
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.45	7386.962	15255.532	7386.962	242.108	bb			750.3417	125.1	25.1	135.1
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.42	9082.291	15255.532	9082.291	297.672	bb			330.7496	110.2	10.2	318.1
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	19868.055	15255.532	19868.055	651.175	MM	12-Feb-10	08:06:04	606.2590	101.0	1.0	880.1
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.30	4463.577	15255.532	4463.577	146.294	MM	12-Feb-10	08:06:38	599.4379	99.9	-0.1	193.7
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	15255.532		15255.532	15255.532	bb			413.2122	82.6	-17.4	2125.6
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.12	2563.873	15255.532	2563.873	84.031	bb			541.9664	90.3	-9.7	631.8
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.49	1260.210	15255.532	1260.210	41.303	bb			543.4466	90.6	-9.4	304.6
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.14	1433.602	15255.532	1433.602	46.986	bb			504.3003	84.1	-15.9	329.9
WXX100211-07CCV	PETN	361 > 62	24.49	31671.375	15255.532	31671.375	1038.029	bb			774.1968	129.0	29.0	4193.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/12/10
Time of Injection: 0617
Standard Number: WXX100211-07CCV
Data File: EXP0208179a

HMX		89.1
RDX		101.1
135-TNB		97.8
13-DNB		104.9
Tetryl		116.7
Nitrobenzene		104.5
4A-26-DNT		96.4
2A-46-DNT		99.2
246-TNT		125.1
34-DNT(surr)		110.2
26-DNT		101.0
24-DNT		99.9
2-NT		90.3
4-NT		90.6
3-NT		84.1
PETN		129.0
Total		1639.9
Average		102.5

MHT 2/12/10

Hmm 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208181a

Analysis Date: 12-FEB-10 07:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.012	110	
1,3-Dinitrobenzene-d4	500	438.92	88	
2,4,6-Trinitrotoluene	40	42.728	107	
2,4-Dinitrotoluene	40	42.259	106	
2,6-Dinitrotoluene	40	37.113	93	
2,6-Dinitrotoluene-d3	500	442.662	89	
2-Amino-4,6-dinitrotoluene	40	36.972	92	
3,4-Dinitrotoluene	20	20.284	101	
4-Amino-2,6-dinitrotoluene	40	36.006	90	
HMX	40	39.857	100	
Nitrobenzene	40	38.793	97	
PETN	40	48.869	122	
RDX	40	40.155	100	
Tetryl	40	38.51	96	
m-Dinitrobenzene	40	38.974	97	
m-Nitrotoluene	40	31.524	79	
o-Nitrotoluene	40	36.982	92	
p-Nitrotoluene	40	35.364	88	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208181a
Date: 12-Feb-2010
Time: 07:16:32
ID: WXX100211-08CRI
Vial: 1:1,C

MM 2/12/10

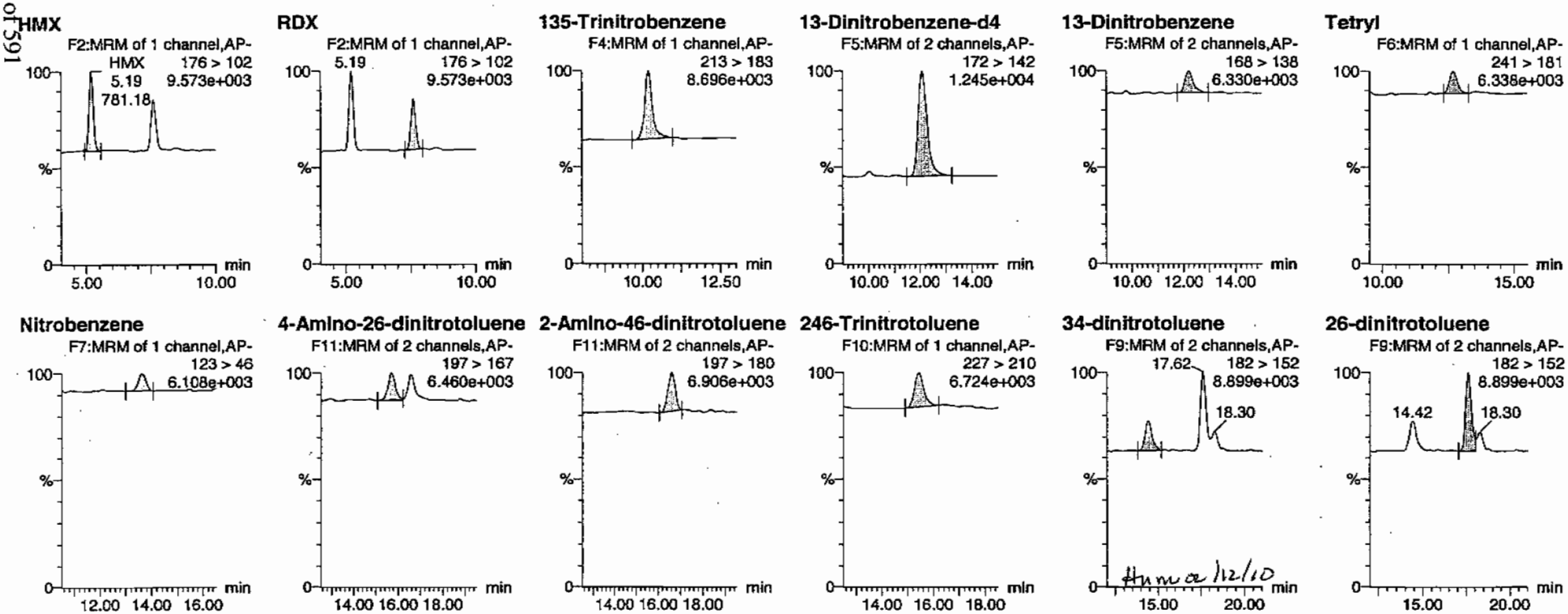

Hmw 2/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

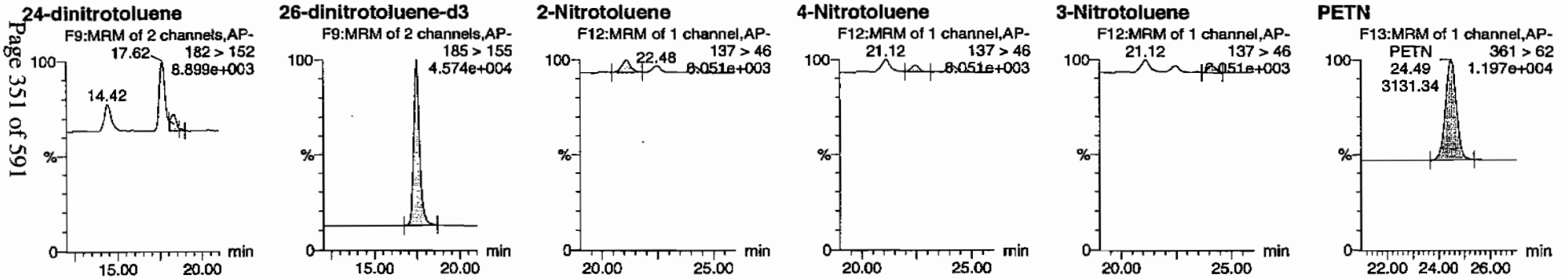

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.19	781.177	2821.884	781.177	138.414	bb			39.8566	99.6	-0.4	330.6
WXX100211-08CRI	RDX	176 > 102	7.61	550.278	2821.884	550.278	97.502	bb			40.1549	100.4	0.4	210.1
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	914.840	2821.884	914.840	162.097	bb			44.0117	110.0	10.0	114.8
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2821.884		2821.884	2821.884	bb			438.9204	87.8	-12.2	126.3
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.21	264.481	2821.884	264.481	46.862	bb			38.9743	97.4	-2.6	18.2
WXX100211-08CRI	Tetryl	241 > 181	12.68	253.485	2821.884	253.485	44.914	bb			38.5101	96.3	-3.7	23.7
WXX100211-08CRI	Nitrobenzene	123 > 46	13.62	176.851	2821.884	176.851	31.336	bb			38.7927	97.0	-3.0	19.1
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	338.056	16342.797	338.056	10.343	MM	12-Feb-10	08:01:18	36.0064	90.0	-10.0	17.2
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	478.583	16342.797	478.583	14.642	bb			36.9720	92.4	-7.6	39.1
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.45	450.624	16342.797	450.624	13.787	bb			42.7276	106.8	6.8	19.3
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.42	596.692	16342.797	596.692	18.256	bb			20.2841	101.4	1.4	43.6
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.62	1302.923	16342.797	1302.923	39.862	MM	12-Feb-10	08:06:11	37.1127	92.8	-7.2	114.1
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.30	337.100	16342.797	337.100	10.313	MM	12-Feb-10	08:06:28	42.2592	105.6	5.6	28.0
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	16342.797		16342.797	16342.797	bb			442.6619	88.5	-11.5	1289.8
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.12	187.421	16342.797	187.421	5.734	bb			36.9824	92.5	-7.5	44.6
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.48	87.852	16342.797	87.852	2.688	bb			35.3644	88.4	-11.6	23.0
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.12	96.001	16342.797	96.001	2.937	bb			31.5237	78.8	-21.2	24.1
WXX100211-08CRI	PETN	361 > 62	24.49	3131.342	16342.797	3131.342	95.802	bb			48.8685	122.2	22.2	1383.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/12/10
Time of Injection	0716
Standard Number	WXX100211-08CRI
Data File	EXP0208181a

HMX	99.6
RDX	100.4
135-TNB	110.0
13-DNB	97.4
Tetryl	96.3
Nitrobenzene	97.0
4A-26-DNT	90.0
2A-46-DNT	92.4
246-TNT	106.8
34-DNT(surr)	101.4
26-DNT	92.8
24-DNT	105.6
2-NT	92.5
4-NT	88.4
3-NT	78.8
PETN	122.2
Total	1571.6
Average	98.2

AMP 2/12/10

Hmm 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02120013.wiff

Analysis Date: 12–FEB–10 14:34

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	74	74	
2,6–Diamino–4–nitrotoluene	100	76.3	76	
3,4–Dinitrotoluene	50	47.8	96	
3,5–Dinitroaniline	100	96.7	97	
TATB	100	86.8	87	
tris(o–cresyl) phosphate	100	93.9	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Sen 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 86.6 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:34:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.19 min
Area: 1.11e+005 counts
Height: 2.50e+004 cps
Start Time: 7.03 min
End Time: 7.60 min

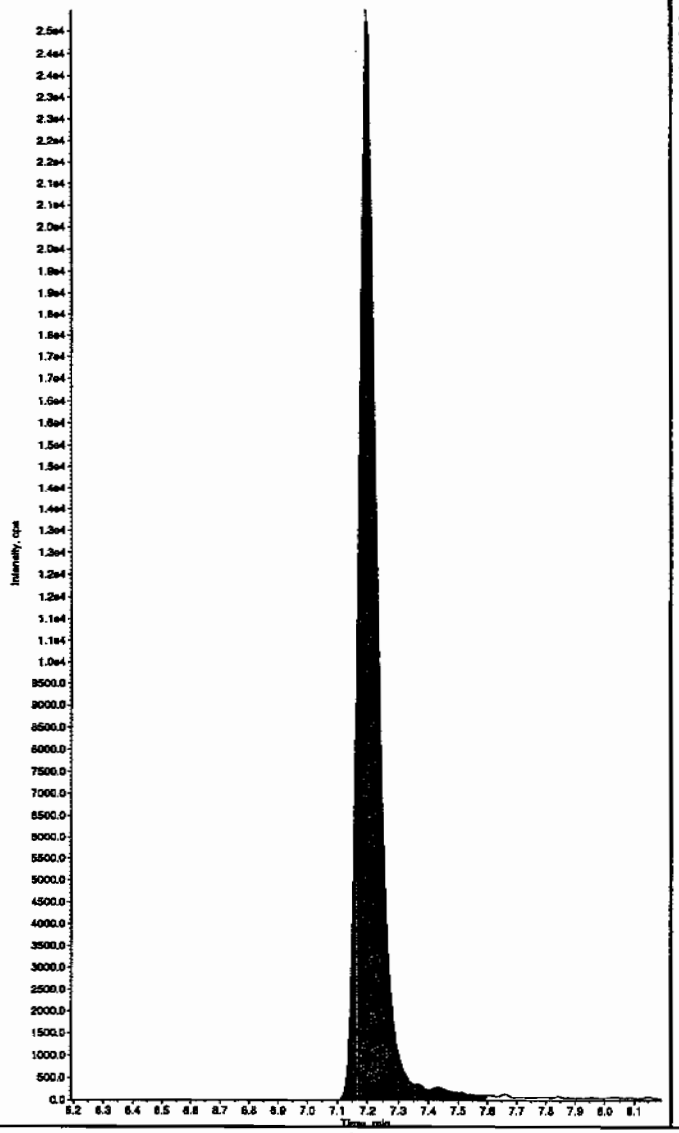

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:34:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 6.37e+005 counts
Height: 1.36e+005 cps
Start Time: 8.30 min
End Time: 8.79 min

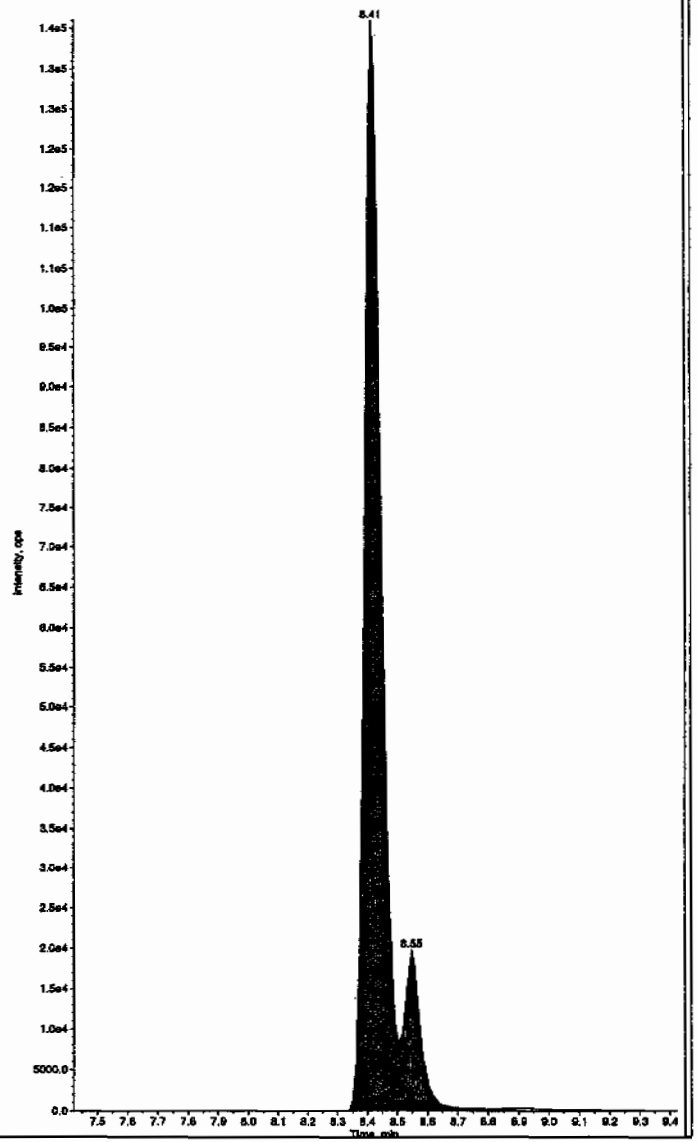

Hmm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Stan 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 86.8 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:34:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.19 min
Area: 1.11e+005 counts
Height: 24979.033 cps
Start Time: 7.03 min
End Time: 7.60 min

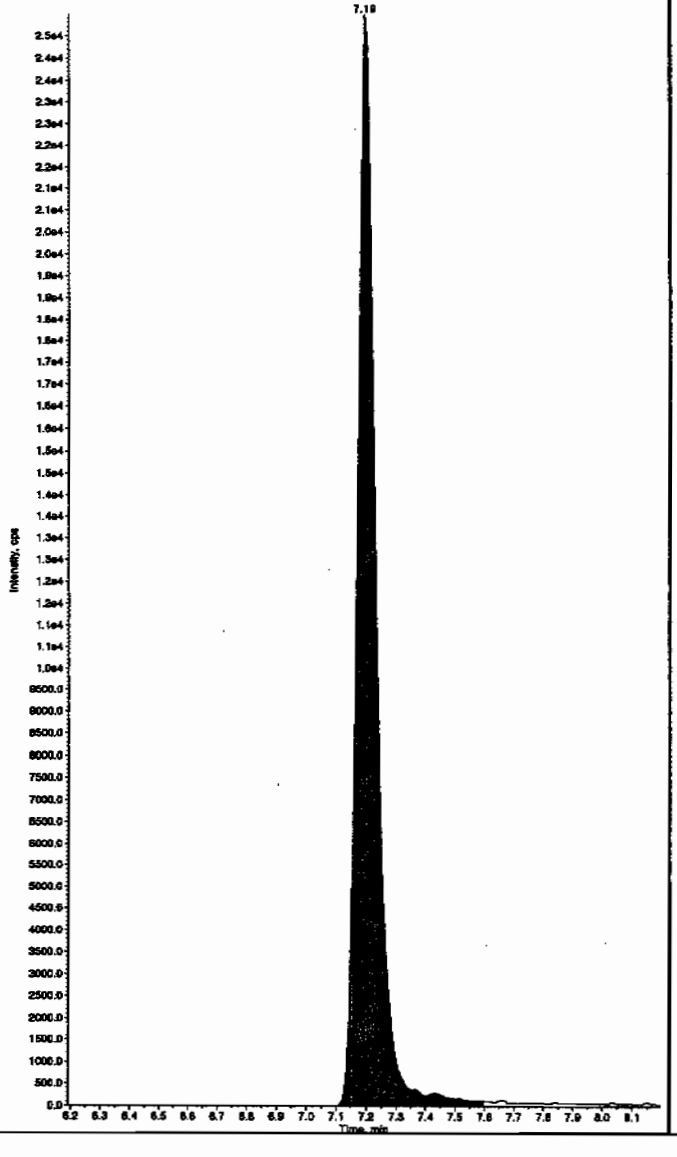

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.7 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:34:57 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.41 min
Area: 5.54e+005 counts
Height: 136051.806 cps
Start Time: 8.34 min
End Time: 8.51 min

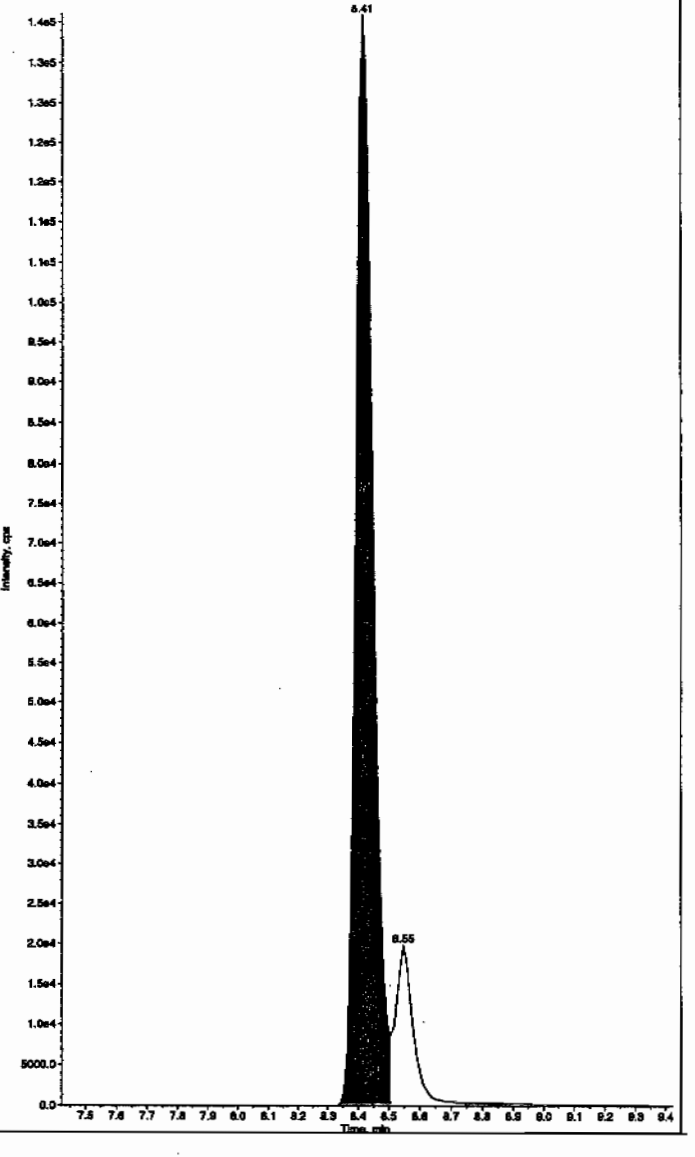

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 47.8 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:34:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.55 min
Area: 5.39e+005 counts
Height: 137995.956 cps
Start Time: 8.47 min
End Time: 8.71 min

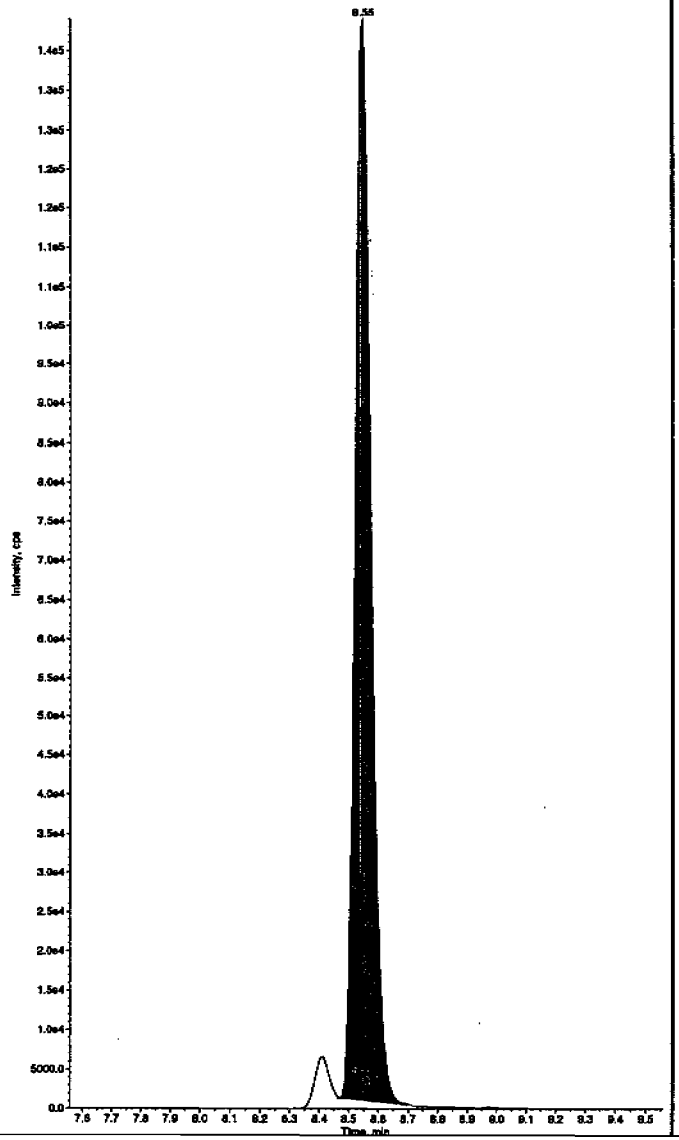

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 76.3 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:34:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.22 min
Area: 2.09e+005 counts
Height: 49943.924 cps
Start Time: 5.12 min
End Time: 5.49 min

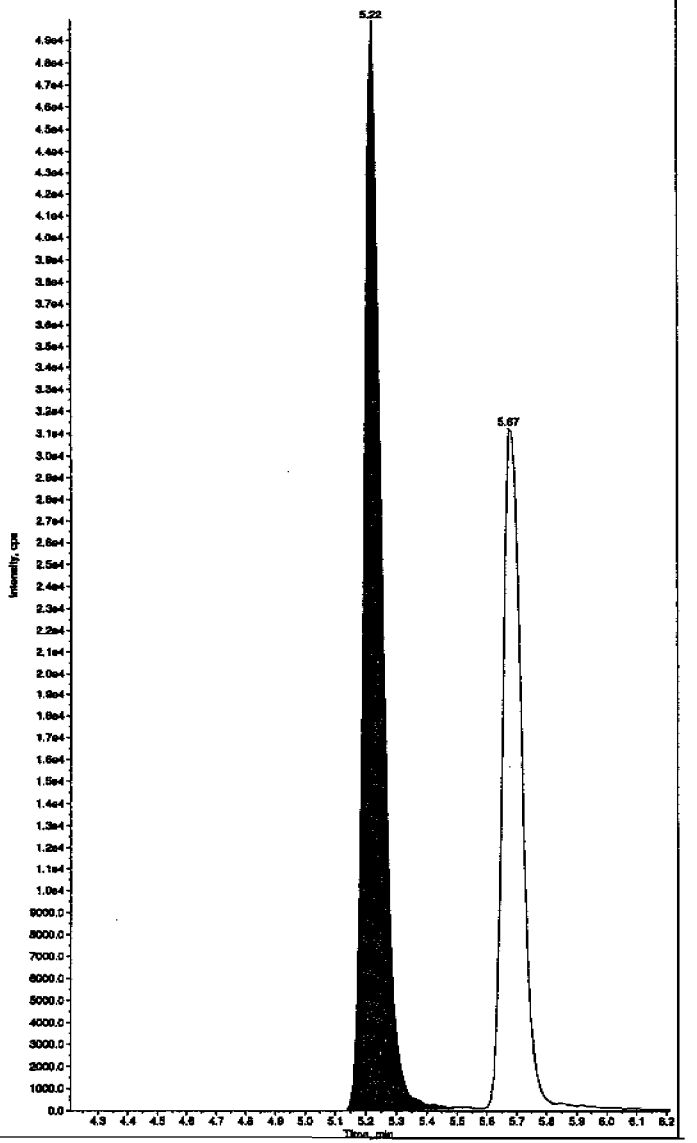

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-27CRI" Sample ID: "|1|LER" File: "EXS02120013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 74.0 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:34:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.67 min
Area: 1.41e+005 counts
Height: 31246.996 cps
Start Time: 5.56 min
End Time: 6.16 min

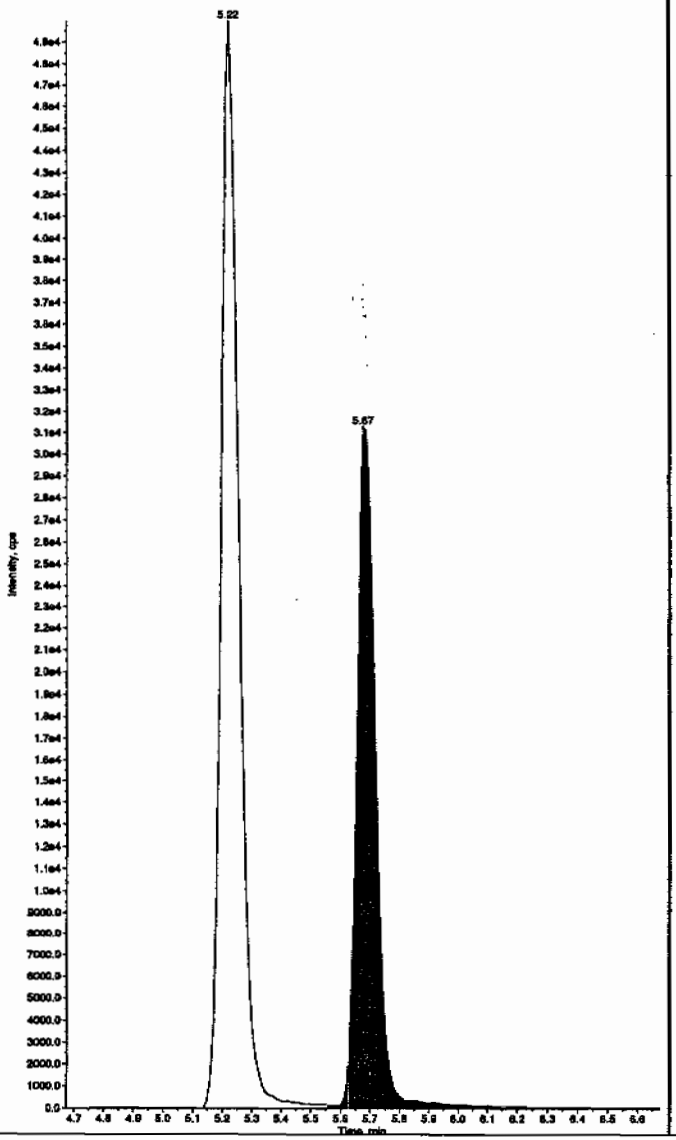

Sample Name: "WXX100212-27CRI" Sample ID: "|1|LER" File: "EXS02120013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.9 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 2:34:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.25e+006 counts
Height: 553493.774 cps
Start Time: 10.9 min
End Time: 11.3 min

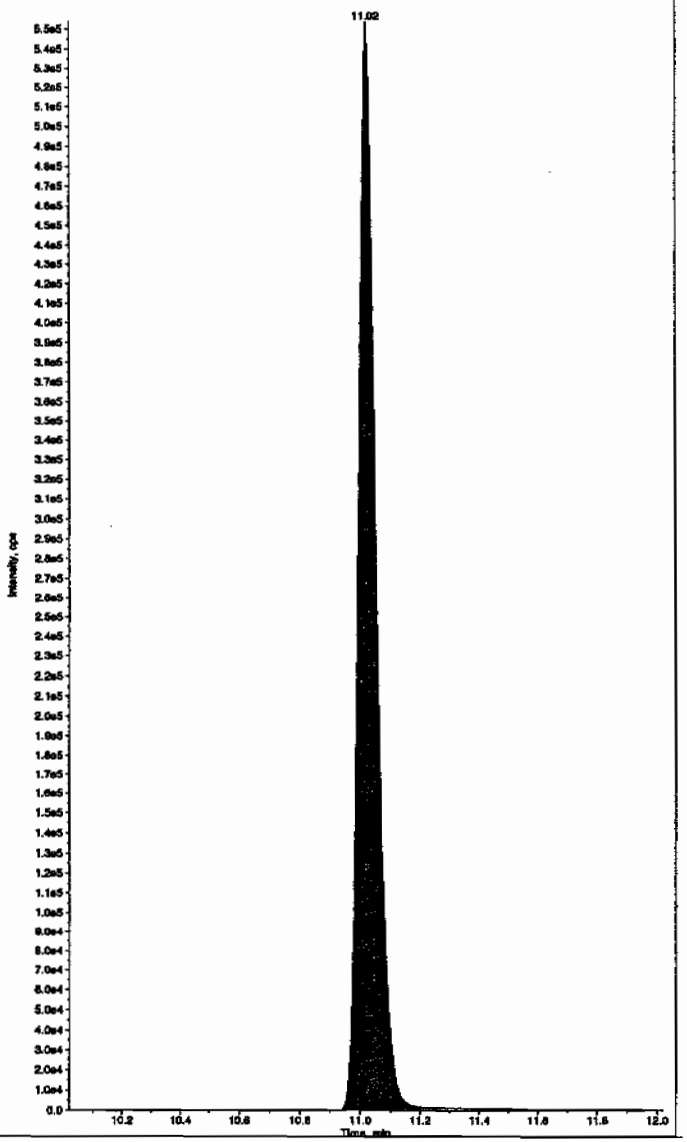

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02120024.wiff

Analysis Date: 12-FEB-10 17:27

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	496	99	
2,6-Diamino-4-nitrotoluene	500	521	104	
3,4-Dinitrotoluene	250	237	95	
3,5-Dinitroaniline	500	488	98	
TATB	500	500	100	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lar 2/15/10

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:27:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.20 min
Area: 5.88e+005 counts
Height: 1.31e+005 cps
Start Time: 7.07 min
End Time: 7.82 min

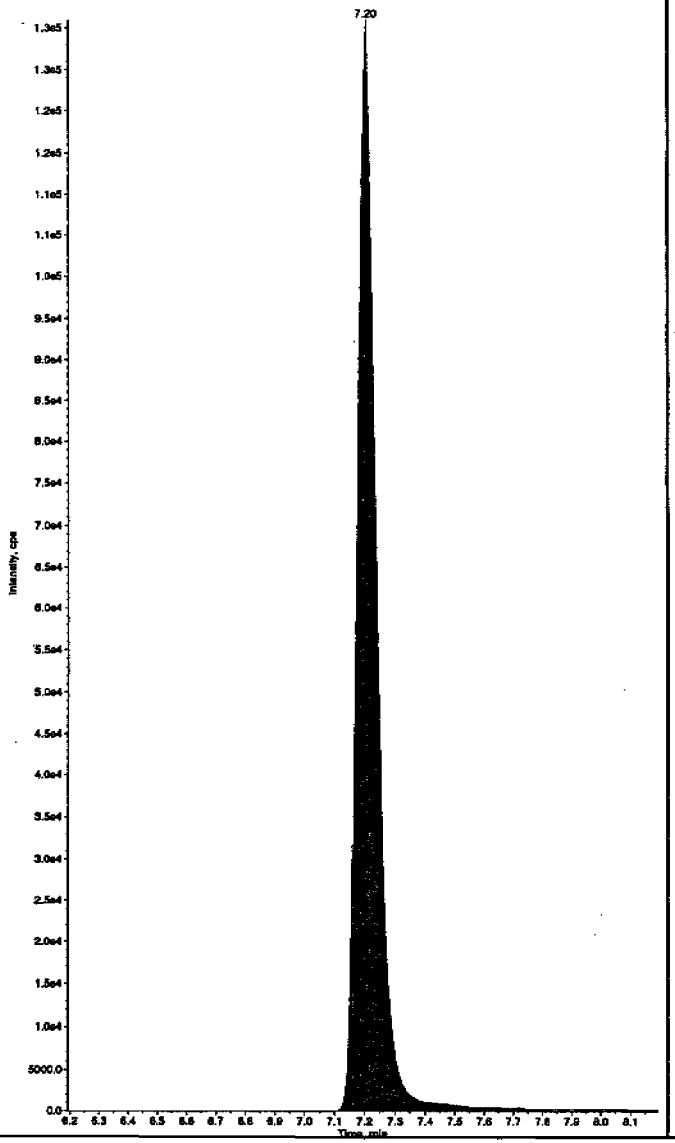

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 559. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:27:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 3.05e+006 counts
Height: 6.25e+005 cps
Start Time: 8.33 min
End Time: 8.84 min

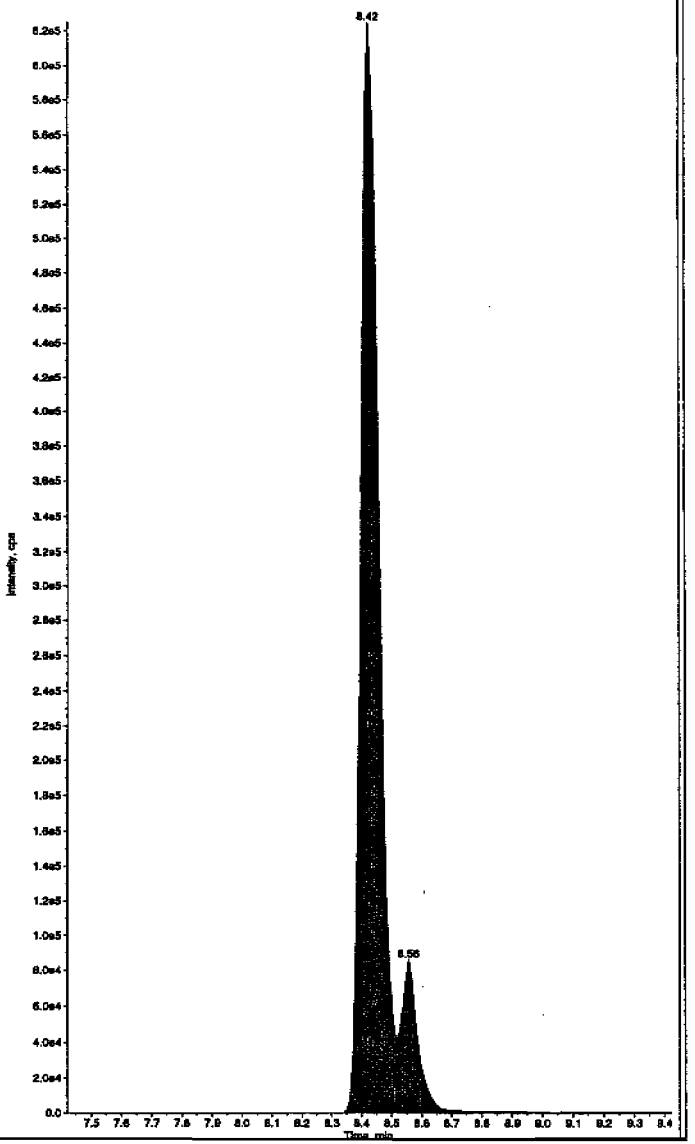

Hmm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Sum 2/15/10

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:27:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.20 min
Area: 5.88e+005 counts
Height: 130967.804 cps
Start Time: 7.07 min
End Time: 7.82 min

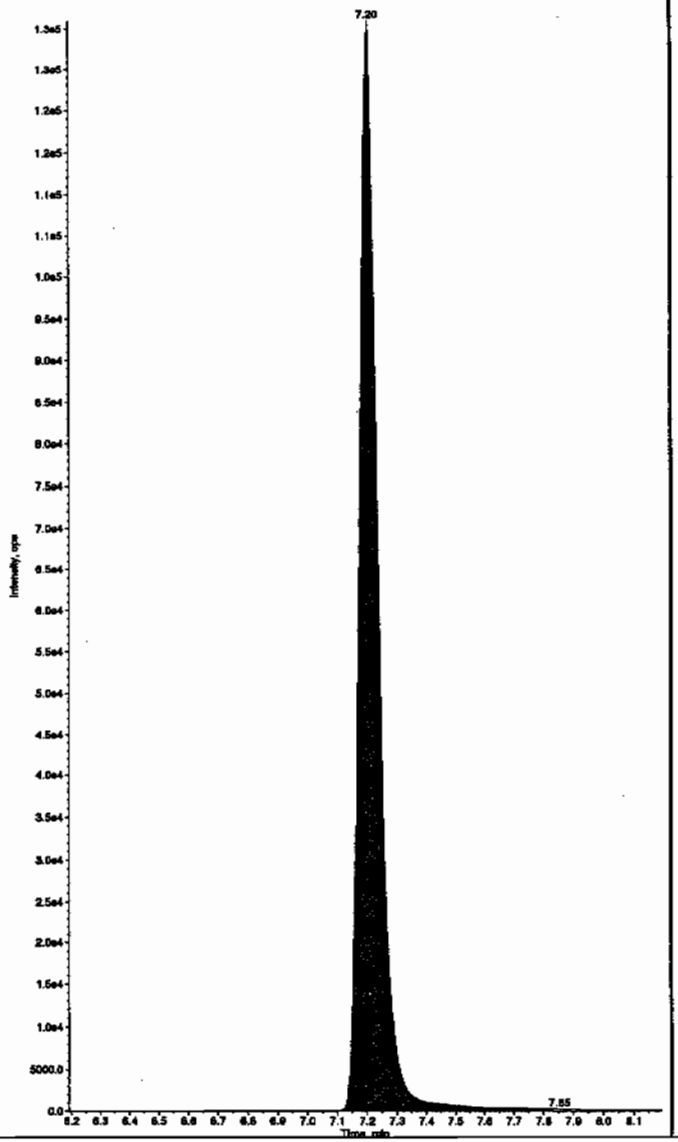

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120024.wiff"
Peak Name: "35-Dinitroaniline" Mass(ss): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 468. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:27:38 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.42 min
Area: 2.68e+006 counts
Height: 624473.497 cps
Start Time: 8.34 min
End Time: 8.52 min

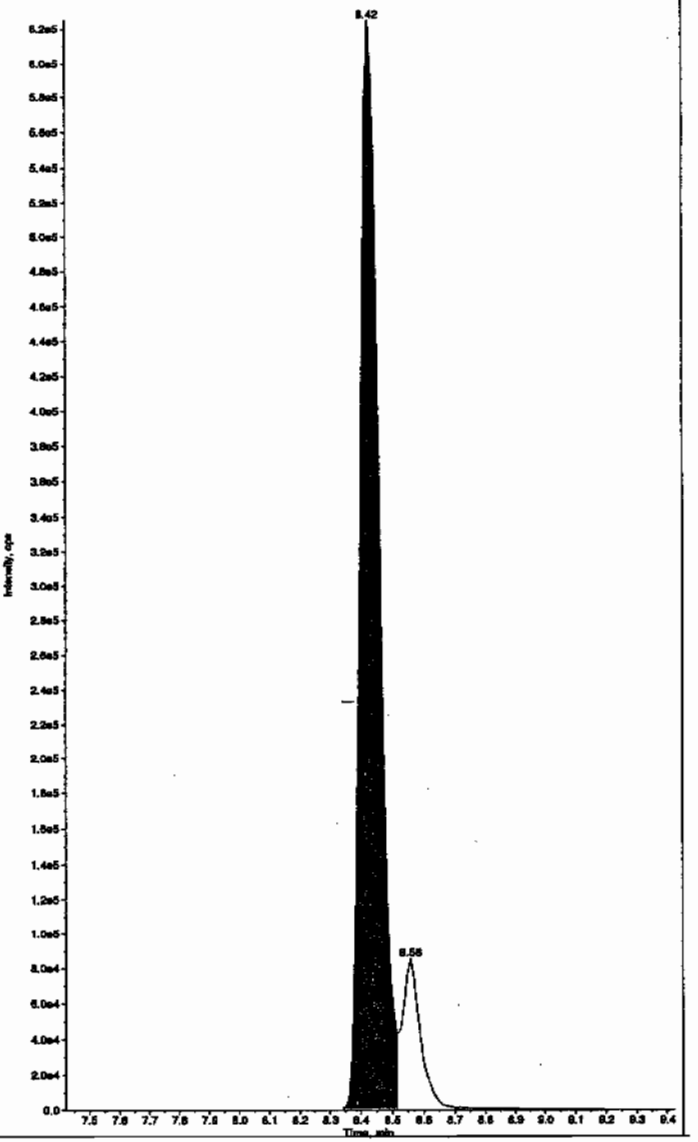

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 237. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:27:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.56 min
Area: 2.70e+006 counts
Height: 686529.785 cps
Start Time: 8.48 min
End Time: 8.72 min

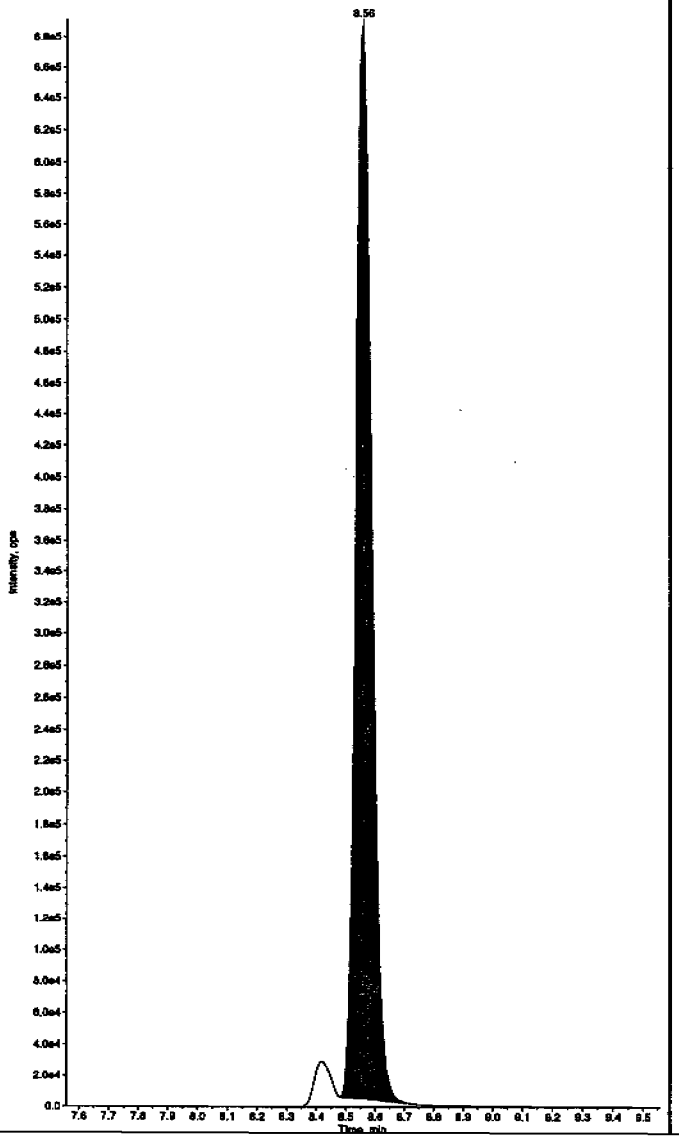

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 521. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:27:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.23 min
Area: 1.07e+006 counts
Height: 240198.288 cps
Start Time: 5.13 min
End Time: 5.50 min

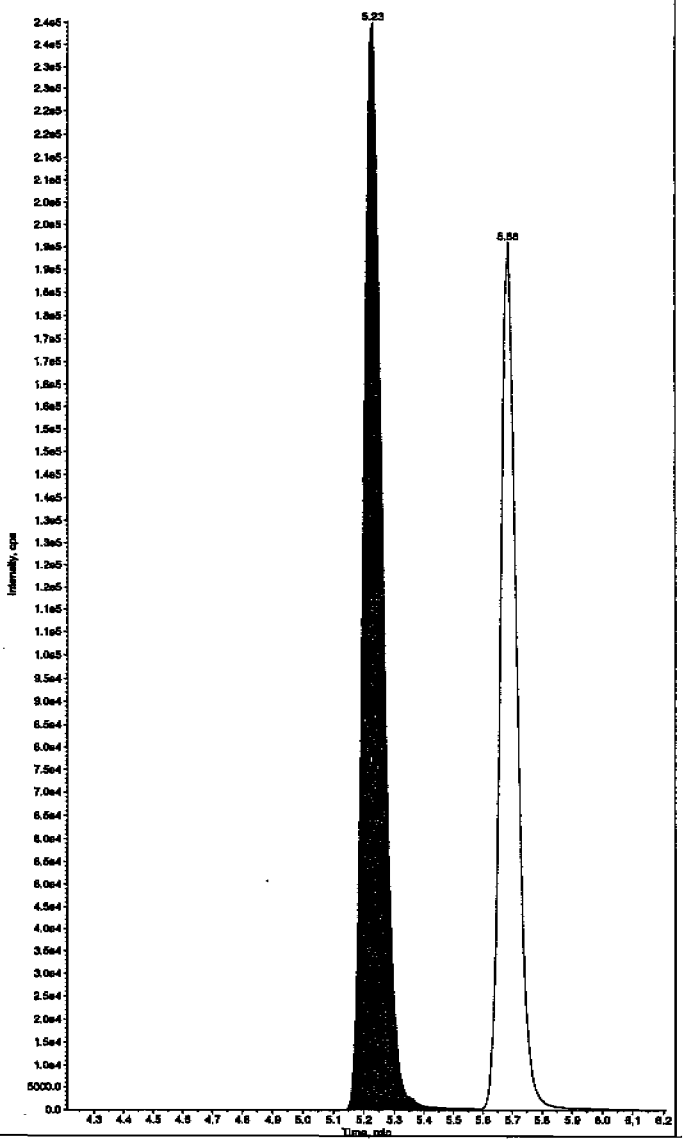

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-26CCV" Sample ID: "|1|LER" File: "EXS02120024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 496. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:27:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.68 min
Area: 7.46e+005 counts
Height: 191155.319 cps
Start Time: 5.59 min
End Time: 6.04 min

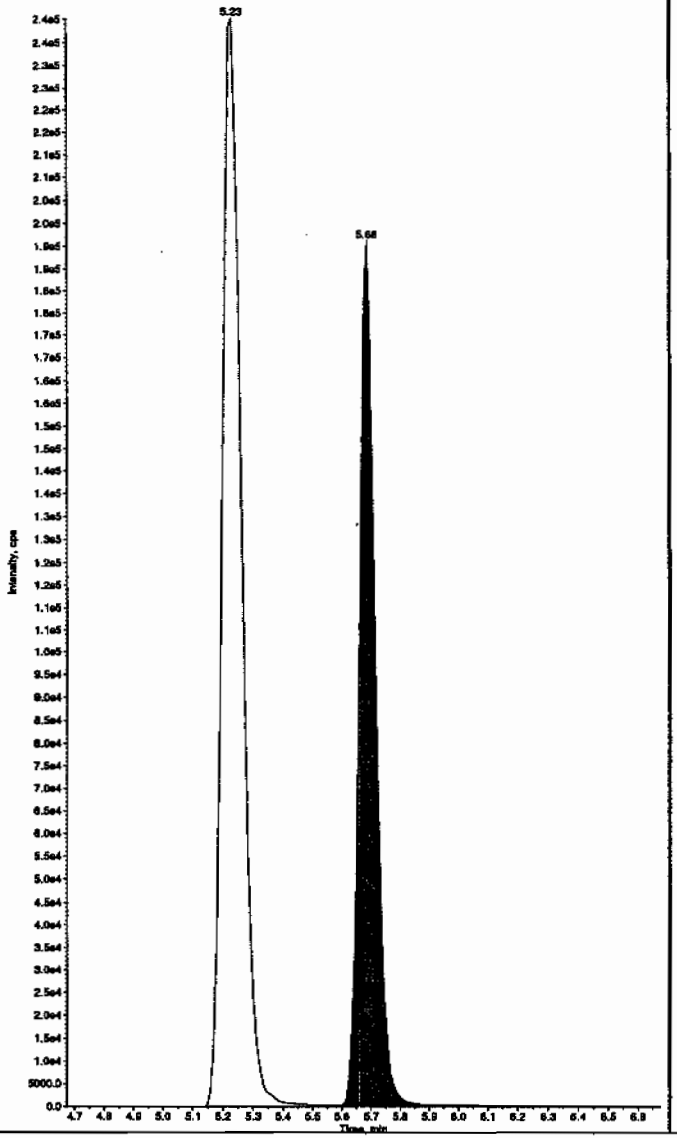

Sample Name: "WXX100212-26CCV" Sample ID: "|1|LER" File: "EXS02120024.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:27:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.06e+007 counts
Height: 2448794.678 cps
Start Time: 10.9 min
End Time: 11.4 min

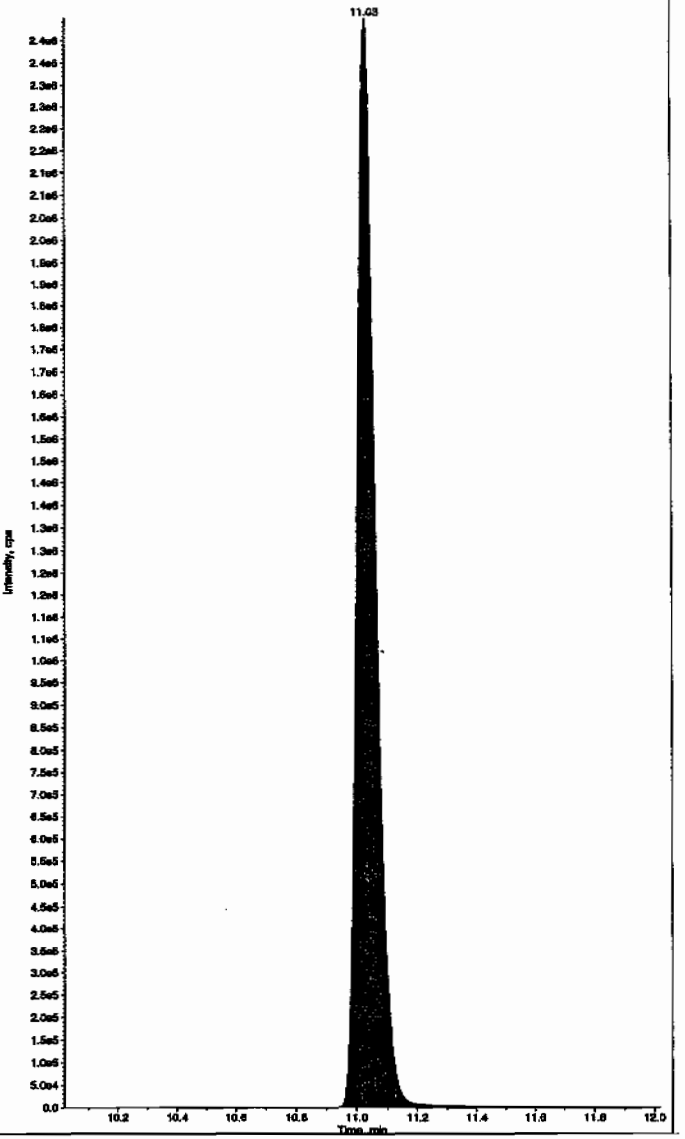

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02120026.wiff

Analysis Date: 12-FEB-10 17:59

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	100	101	101	
2,4-Diamino-6-nitrotoluene	100	74.4	74	
2,6-Diamino-4-nitrotoluene	100	80.5	81	
3,4-Dinitrotoluene	50	49.8	100	
3,5-Dinitroaniline	100	92.3	92	
TATB	100	99.7	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lar 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "|1|LER" File: "EXS02120026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.7 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:59:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.20 min
Area: 1.26e+005 counts
Height: 2.76e+004 cps
Start Time: 7.07 min
End Time: 7.74 min

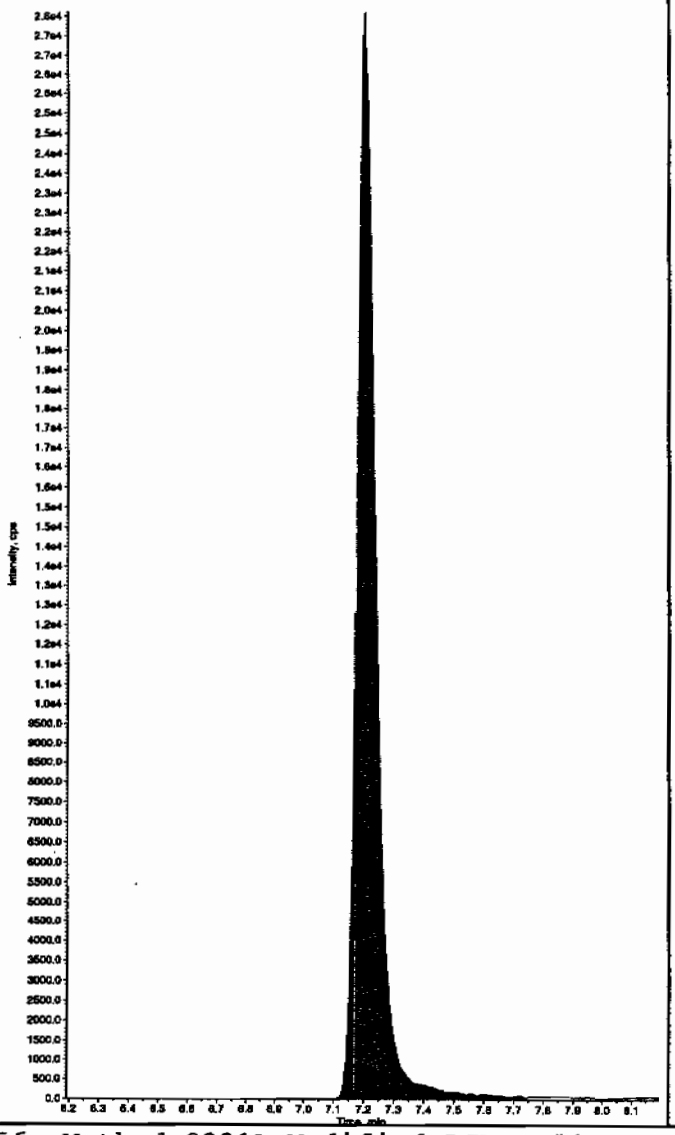

Sample Name: "WXX100212-27CRI" Sample ID: "|1|LER" File: "EXS02120026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:59:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 6.07e+005 counts
Height: 1.26e+005 cps
Start Time: 8.25 min
End Time: 8.82 min

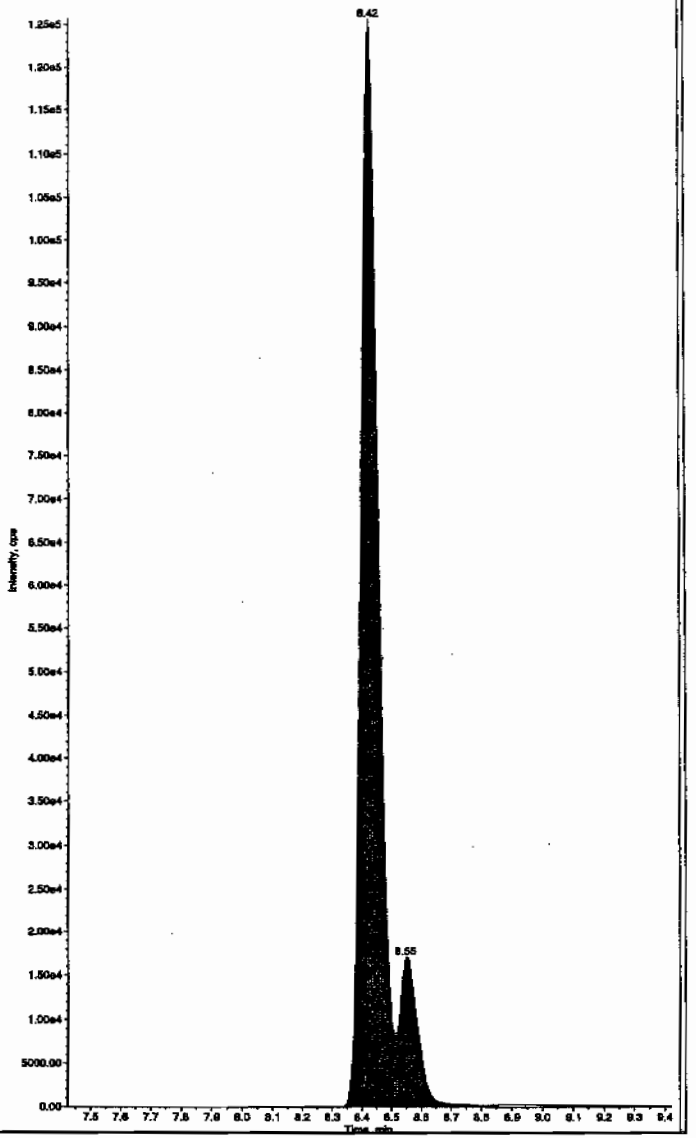

Hmm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Clean 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.7 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:59:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.20 min
Area: 1.26e+005 counts
Height: 27601.868 cps
Start Time: 7.07 min
End Time: 7.74 min

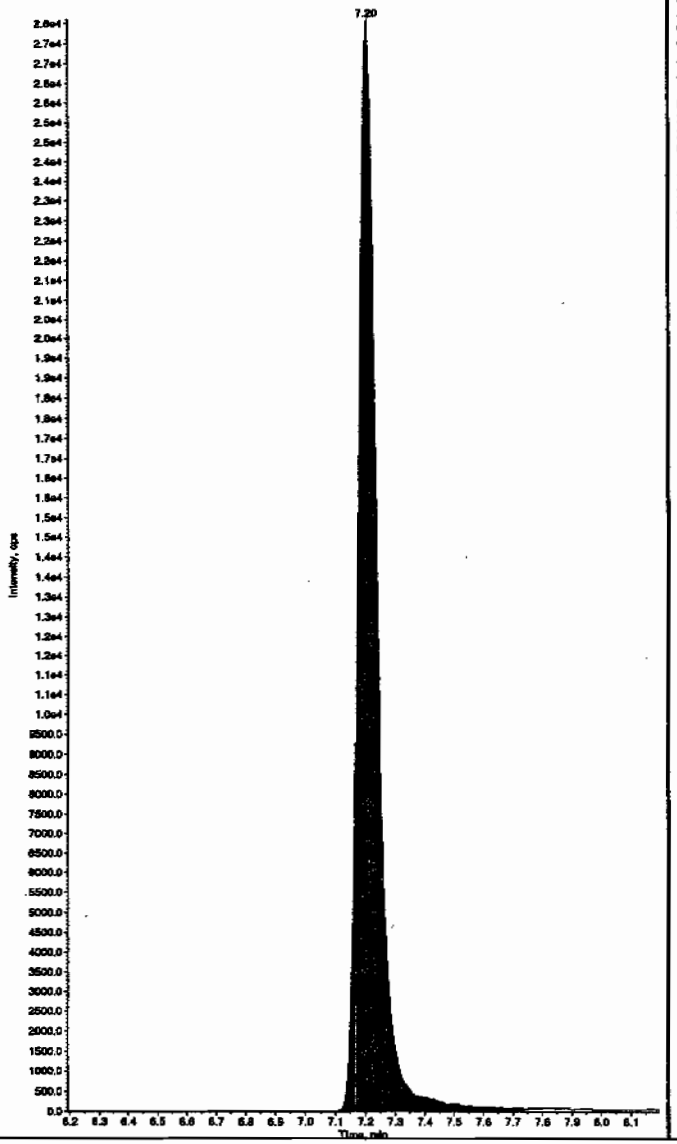

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.3 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:59:02 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.42 min
Area: 5.29e+005 counts
Height: 125542.258 cps
Start Time: 8.34 min
End Time: 8.52 min

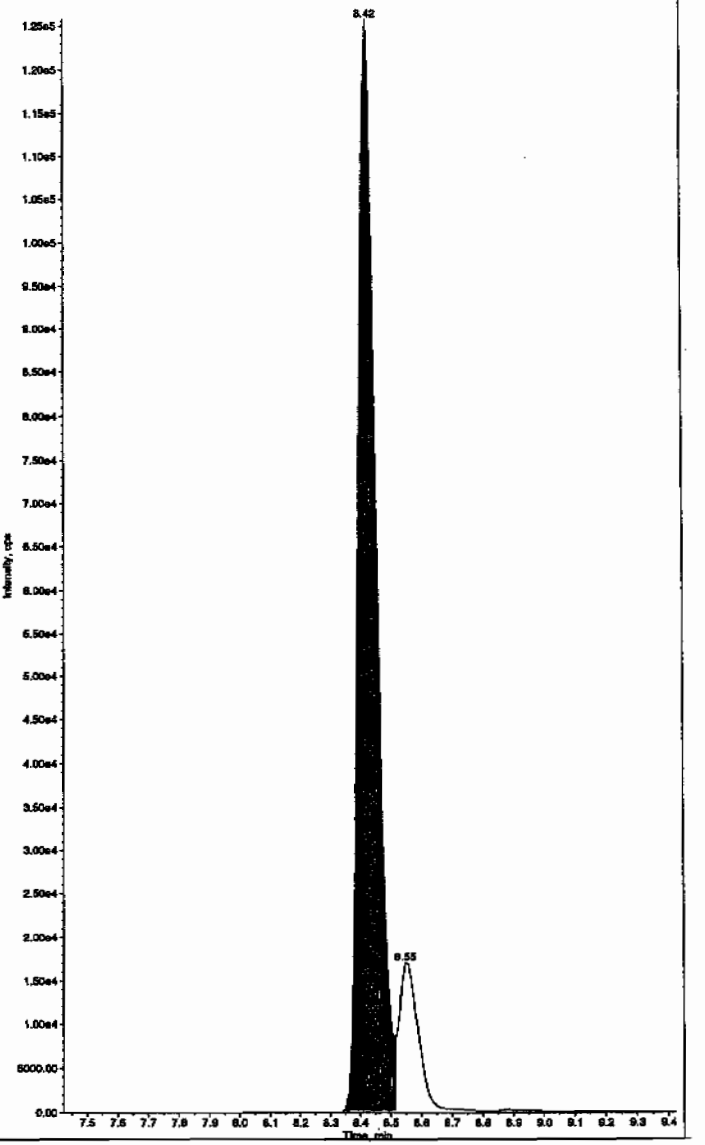

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 49.8 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:59:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.55 min
Area: 5.64e+005 counts
Height: 151079.742 cps
Start Time: 8.47 min
End Time: 8.72 min

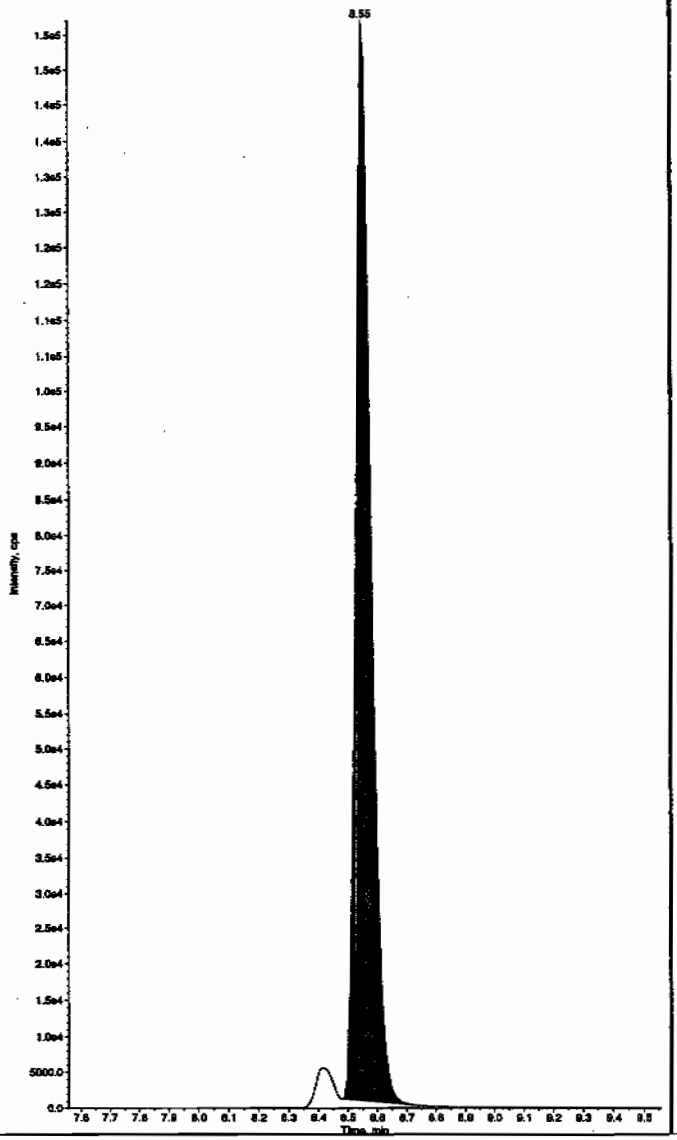

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 80.5 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:59:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.22 min
Area: 2.17e+005 counts
Height: 50947.392 cps
Start Time: 5.08 min
End Time: 5.52 min

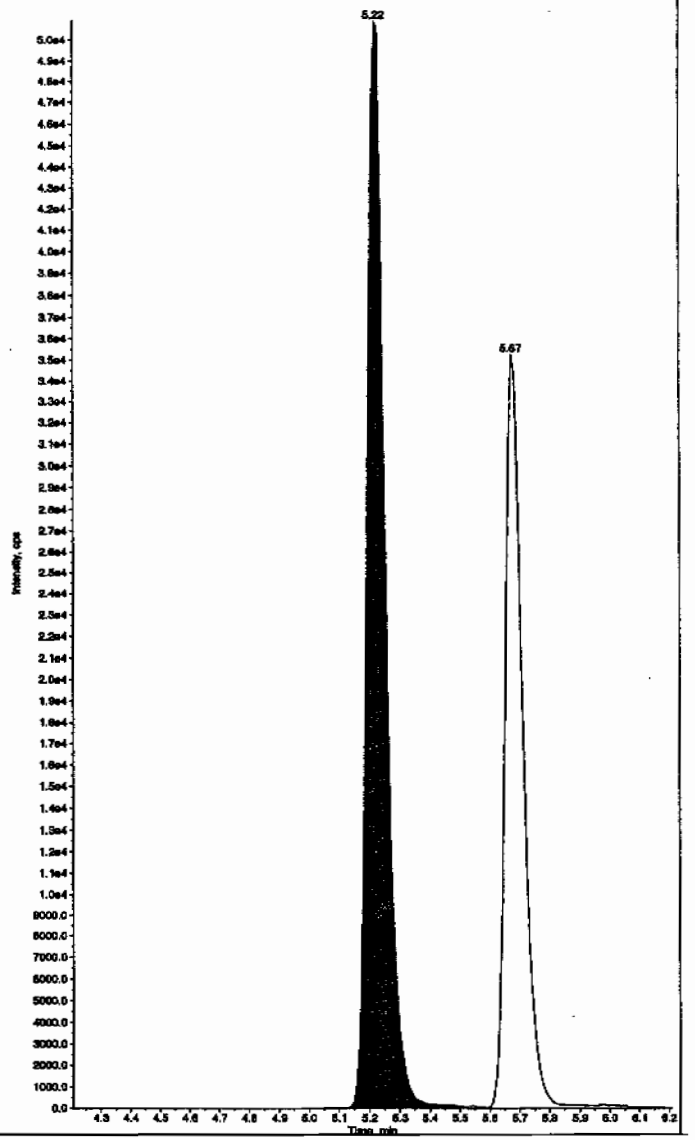

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Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 74.4 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:59:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.67 min
Area: 1.42e+005 counts
Height: 35233.486 cps
Start Time: 5.60 min
End Time: 5.92 min

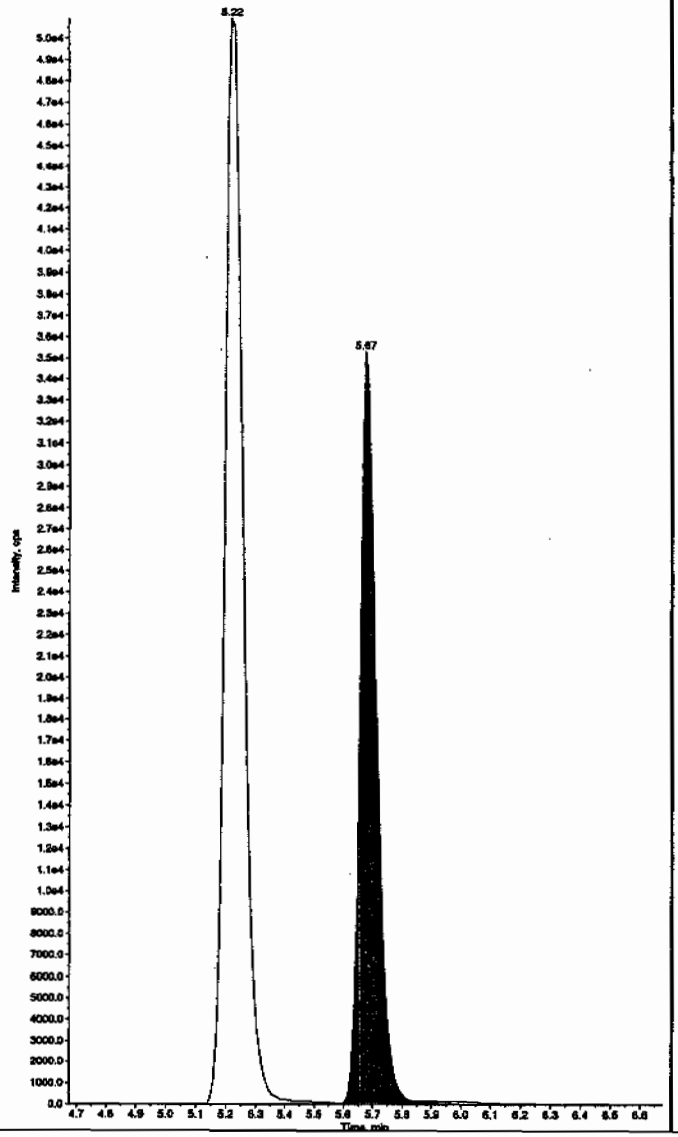

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/81.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 5:59:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.41e+006 counts
Height: 573876.770 cps
Start Time: 10.9 min
End Time: 11.4 min

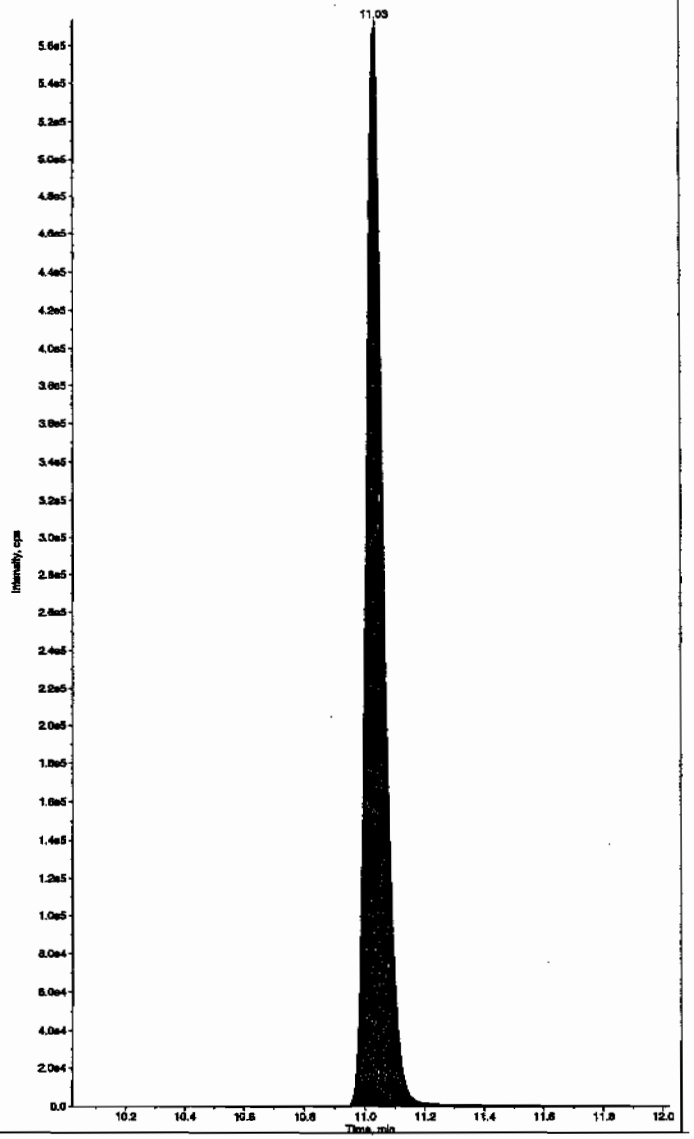

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02120036.wiff

Analysis Date: 12-FEB-10 20:36

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	448	90	
2,6-Diamino-4-nitrotoluene	500	522	104	
3,4-Dinitrotoluene	250	253	101	
3,5-Dinitroaniline	500	503	101	
TATB	500	592	118	
tris(o-cresyl) phosphate	500	516	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lan 2/15/10

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 592. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:36:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.19 min
Area: 6.92e+005 counts
Height: 1.55e+005 cps
Start Time: 7.03 min
End Time: 7.80 min

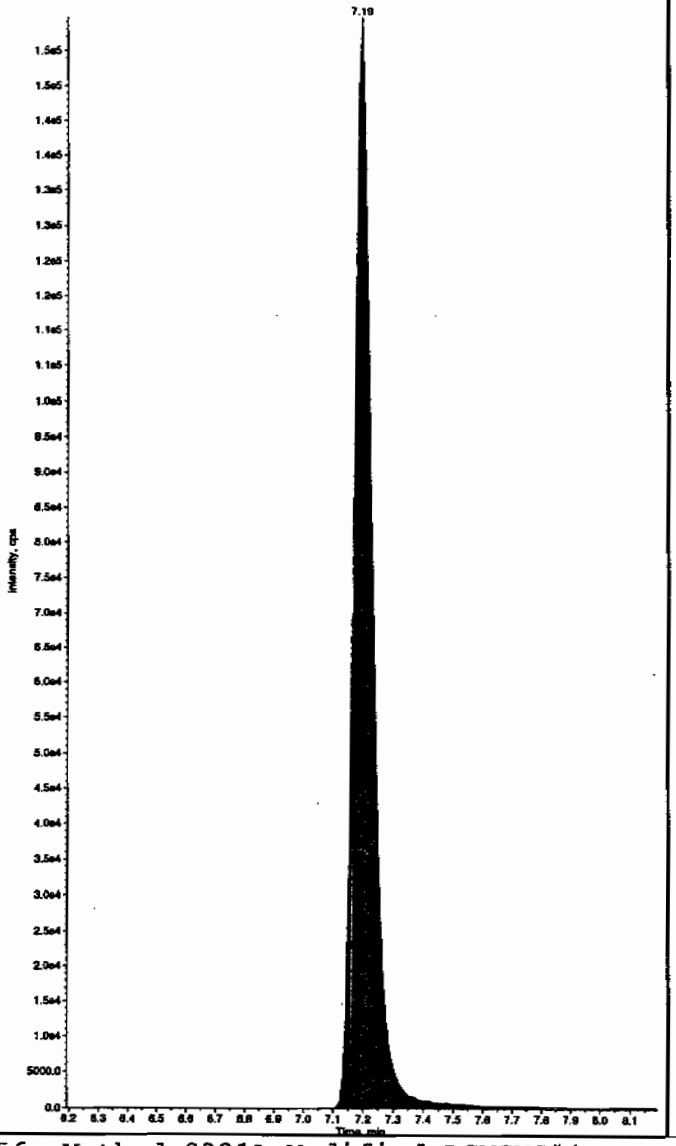

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 578. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:36:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 3.15e+006 counts
Height: 7.07e+005 cps
Start Time: 8.31 min
End Time: 8.85 min

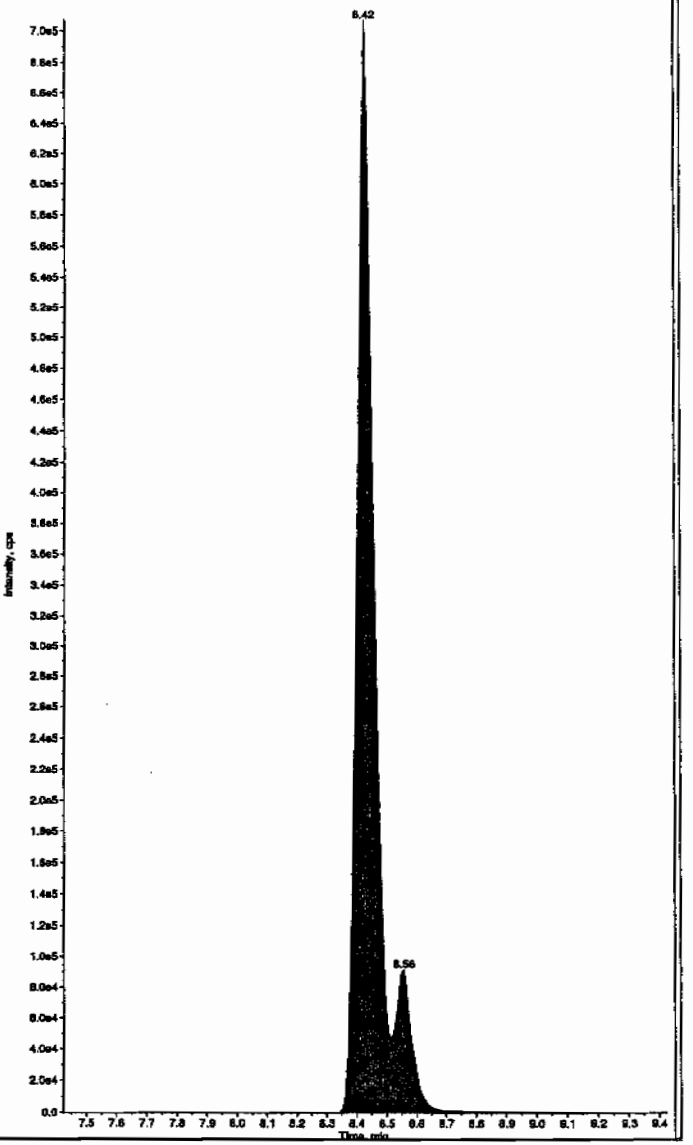

Hnm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lcu 2/15/10

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 592. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:36:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.19 min
Area: 6.92e+005 counts
Height: 154678.569 cps
Start Time: 7.03 min
End Time: 7.80 min

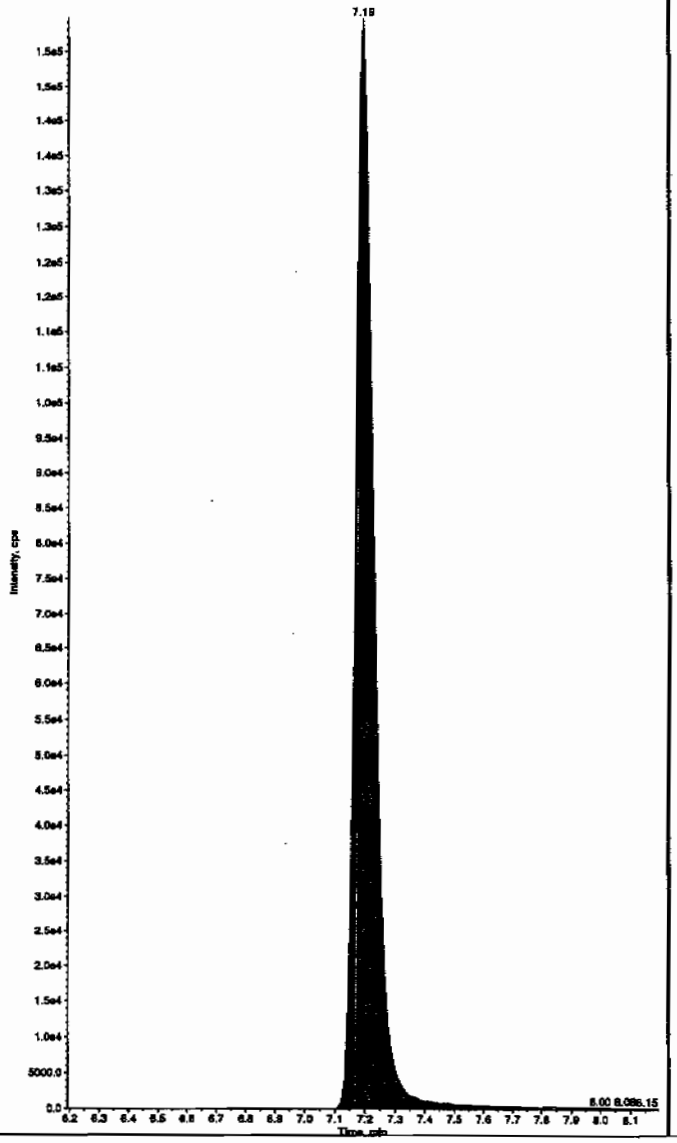

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:36:00 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.42 min
Area: 2.76e+006 counts
Height: 706828.640 cps
Start Time: 8.34 min
End Time: 8.52 min

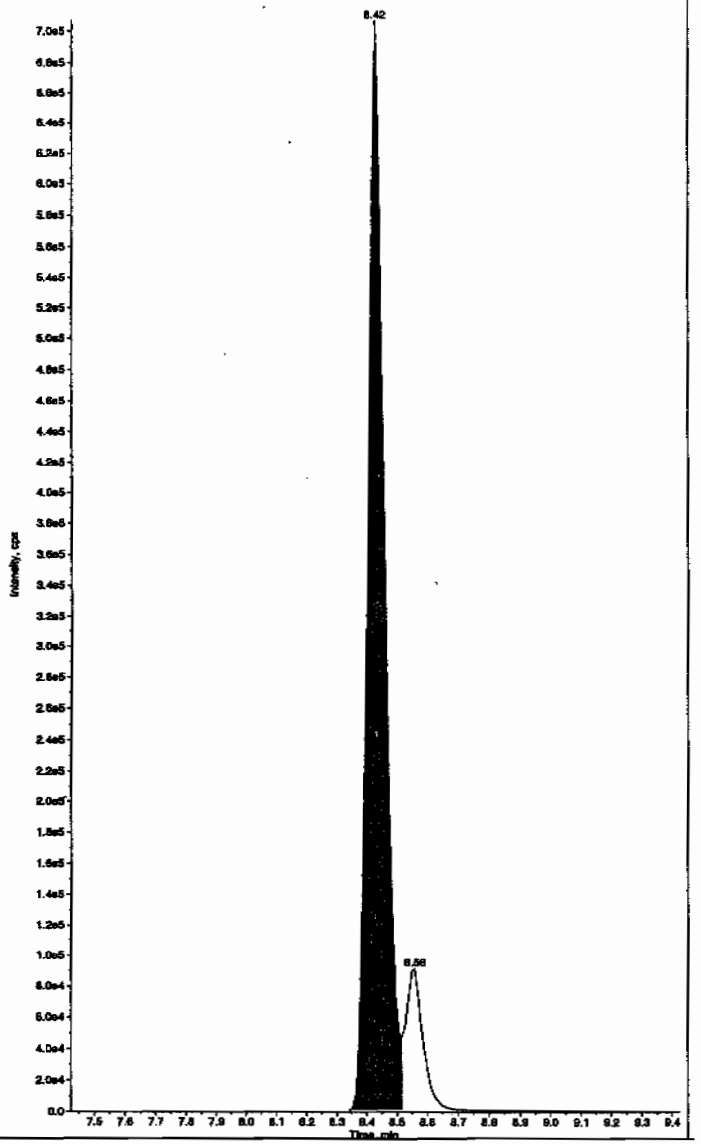

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Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 253. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:36:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.55 min
Area: 2.87e+006 counts
Height: 728818.481 cps
Start Time: 8.47 min
End Time: 8.70 min

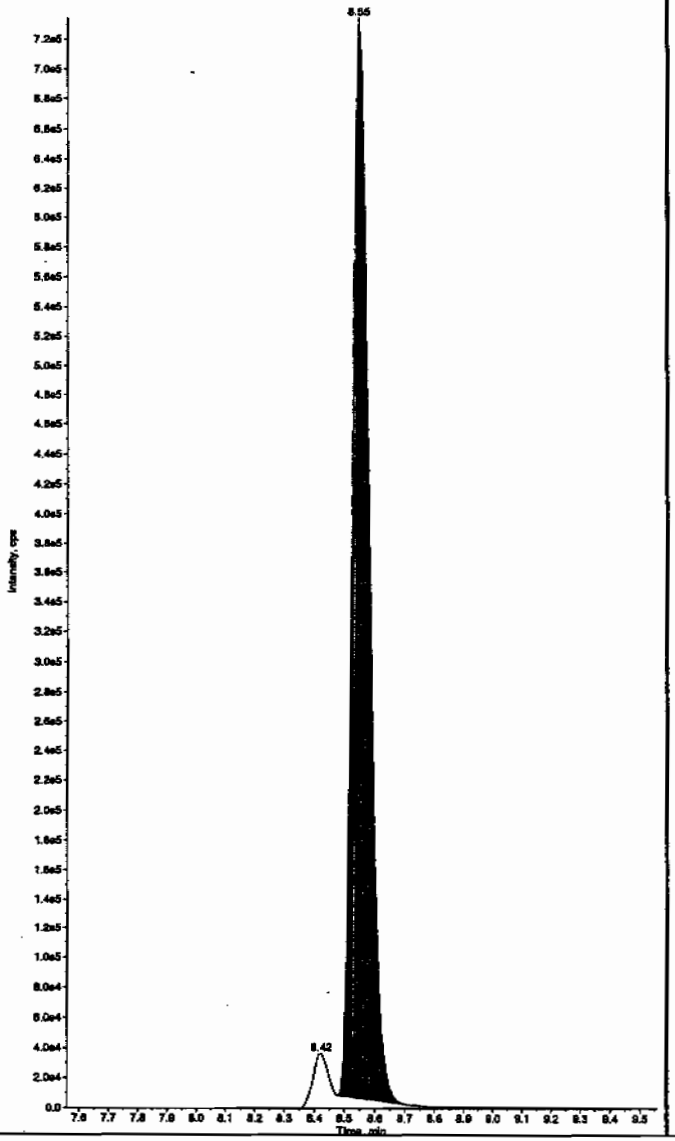

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 522. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:36:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.20 min
Area: 1.07e+006 counts
Height: 253412.521 cps
Start Time: 5.06 min
End Time: 5.49 min

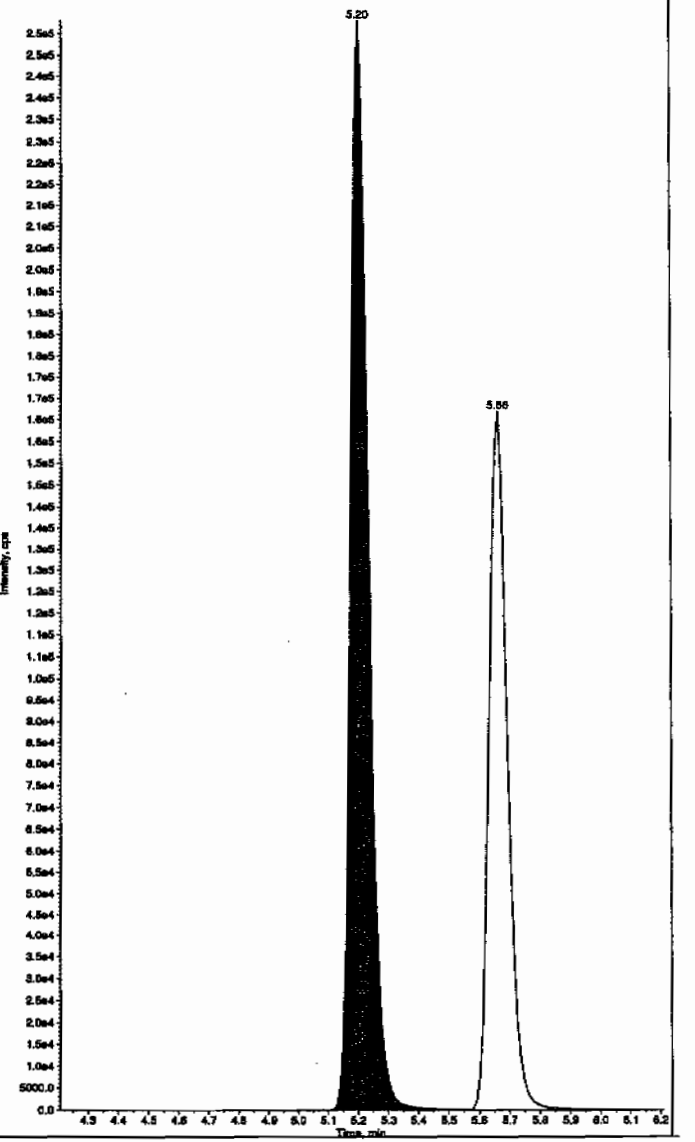

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Sample Name: "WXX100212-26CCV" Sample ID: "1(1)LER" File: "EXS02120036.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:36:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.66 min
Area: 6.78e+005 counts
Height: 162043.488 cps
Start Time: 5.53 min
End Time: 5.95 min

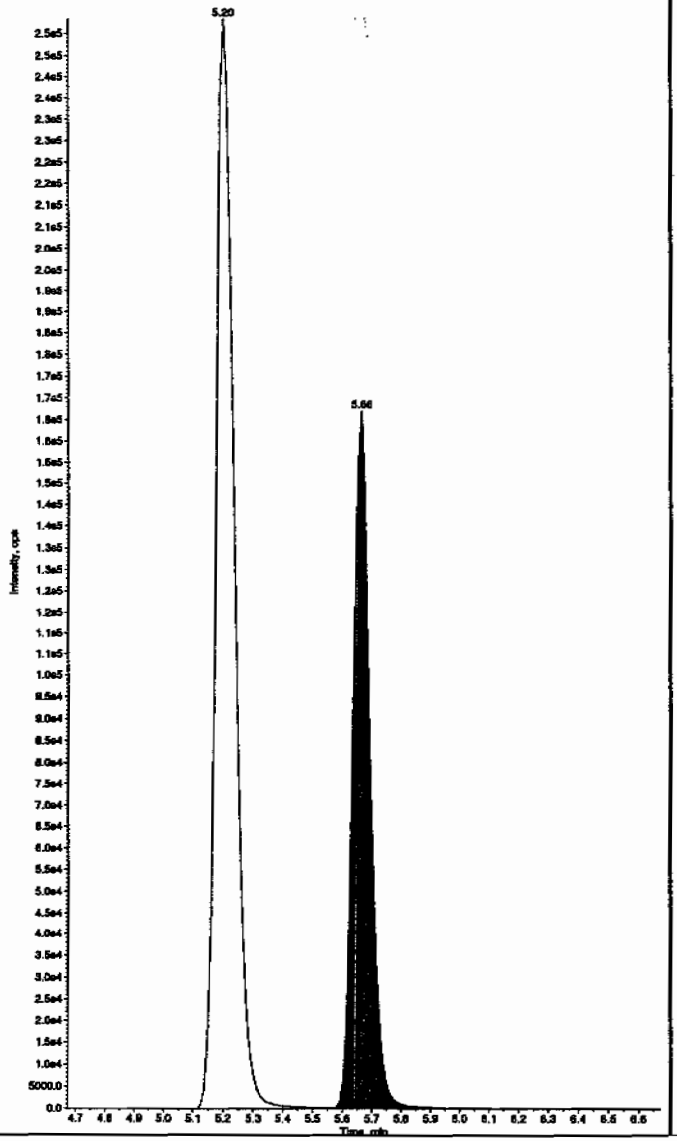

Sample Name: "WXX100212-26CCV" Sample ID: "1(1)LER" File: "EXS02120036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 516. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 8:36:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.10e+007 counts
Height: 2533025.879 cps
Start Time: 10.9 min
End Time: 11.3 min

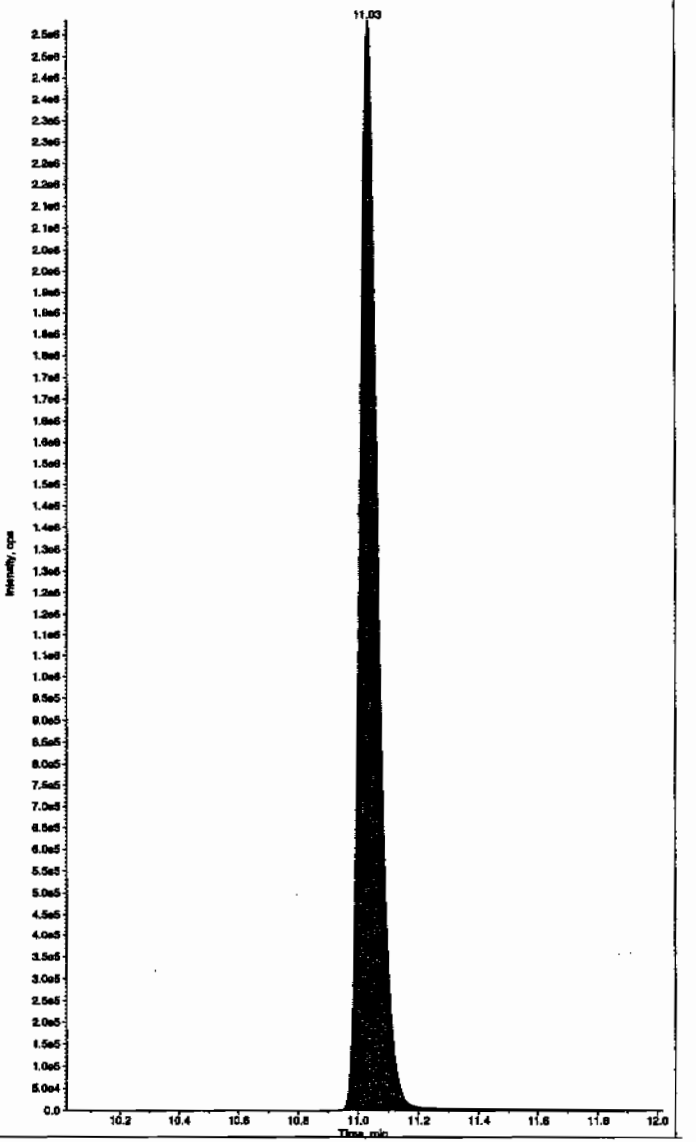

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02120038.wiff

Analysis Date: 12–FEB–10 21:07

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	72.6	73	
2,6–Diamino–4–nitrotoluene	100	85.9	86	
3,4–Dinitrotoluene	50	50	100	
3,5–Dinitroaniline	100	104	104	
TATB	100	118	118	
tris(o–cresyl) phosphate	100	105	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Chen 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "1|LER" File: "EXS02120038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 118. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:07:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.20 min
Area: 1.48e+005 counts
Height: 3.40e+004 cps
Start Time: 7.05 min
End Time: 7.52 min

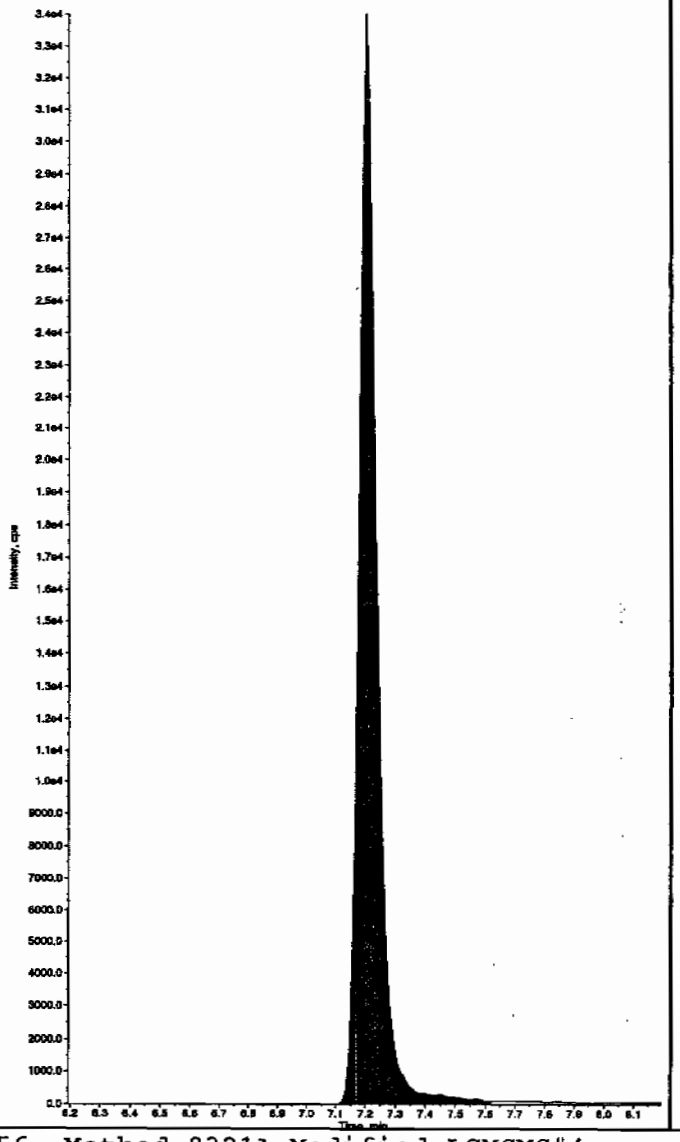

Sample Name: "WXX100212-27CRI" Sample ID: "1|LER" File: "EXS02120038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 118. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:07:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.43 min
Area: 6.73e+005 counts
Height: 1.58e+005 cps
Start Time: 8.33 min
End Time: 8.83 min

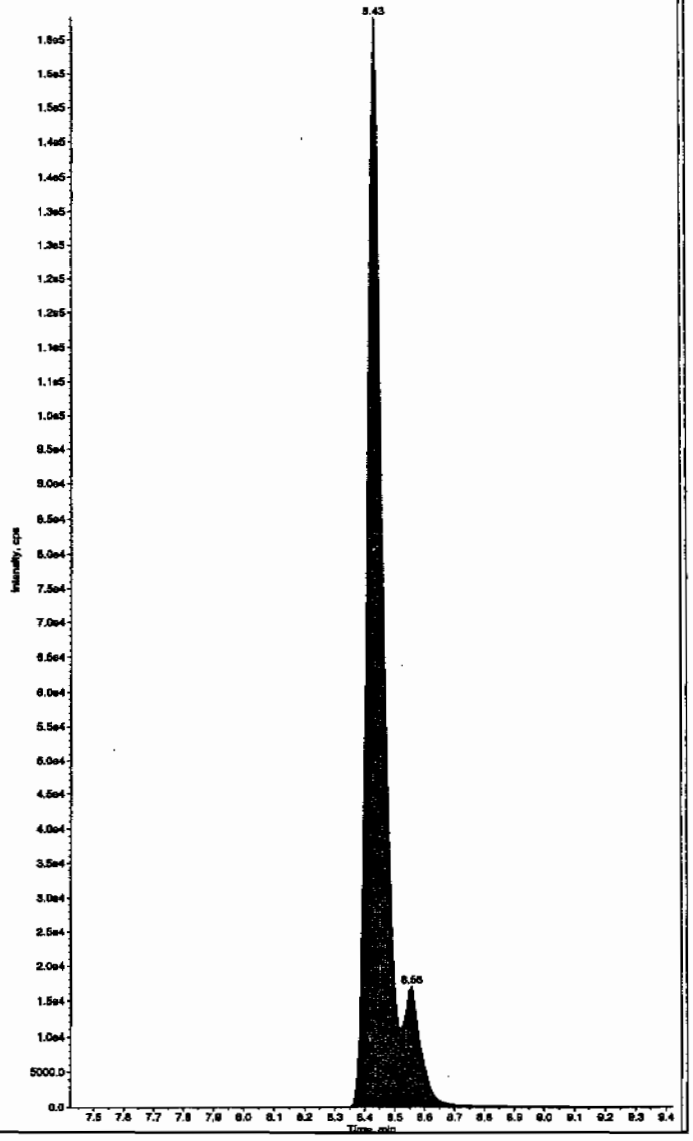

Hnw 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Ser 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 118. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:07:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.20 min
Area: 1.48e+005 counts
Height: 34001.720 cps
Start Time: 7.05 min
End Time: 7.62 min

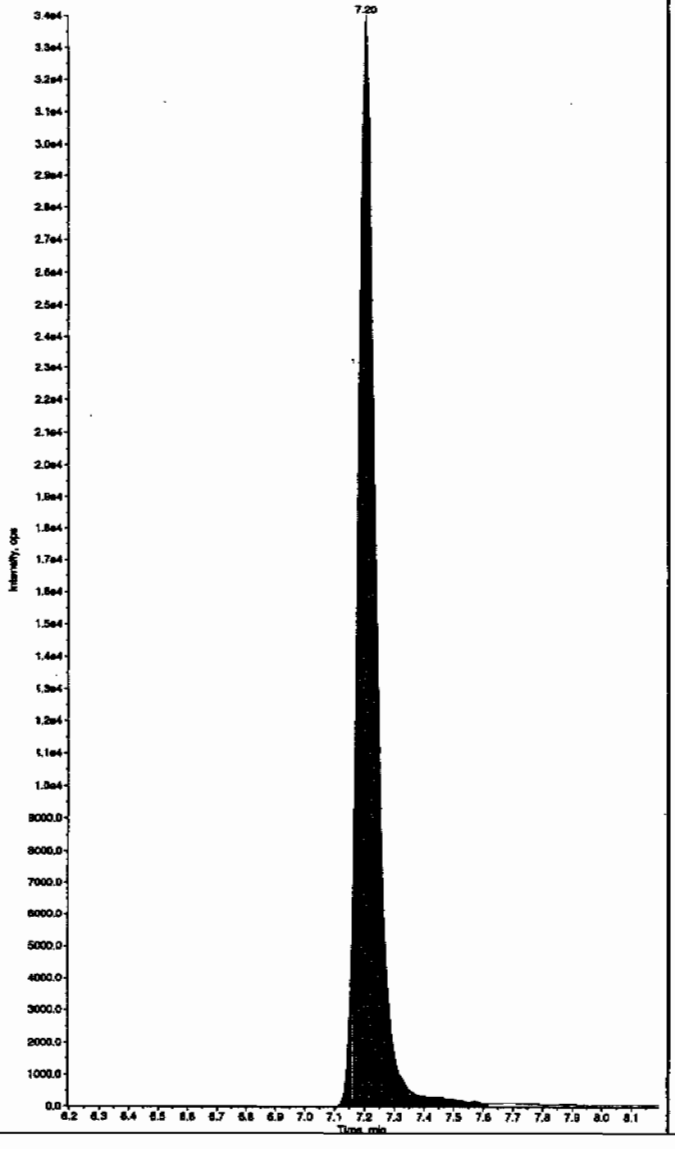

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:07:24 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.43 min
Area: 5.94e+005 counts
Height: 158070.904 cps
Start Time: 8.36 min
End Time: 8.52 min

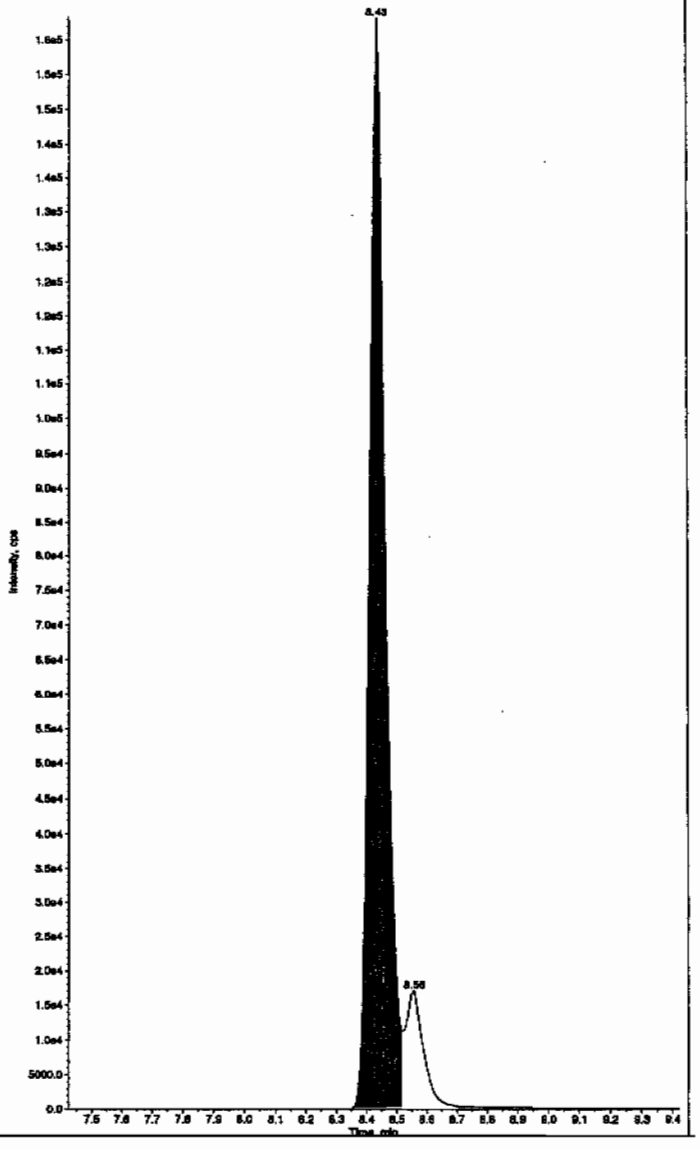

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Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 50.0 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:07:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.55 min
Area: 5.66e+005 counts
Height: 151181.564 cps
Start Time: 8.48 min
End Time: 8.70 min

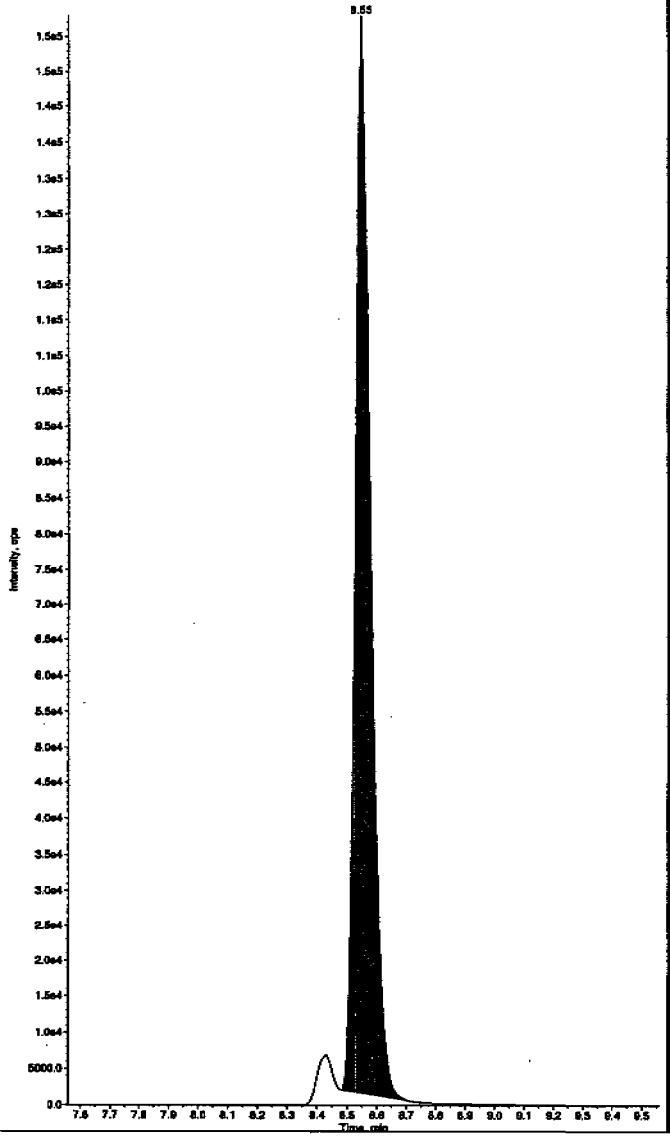

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 85.9 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:07:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.22 min
Area: 2.28e+005 counts
Height: 54916.225 cps
Start Time: 5.09 min
End Time: 5.49 min

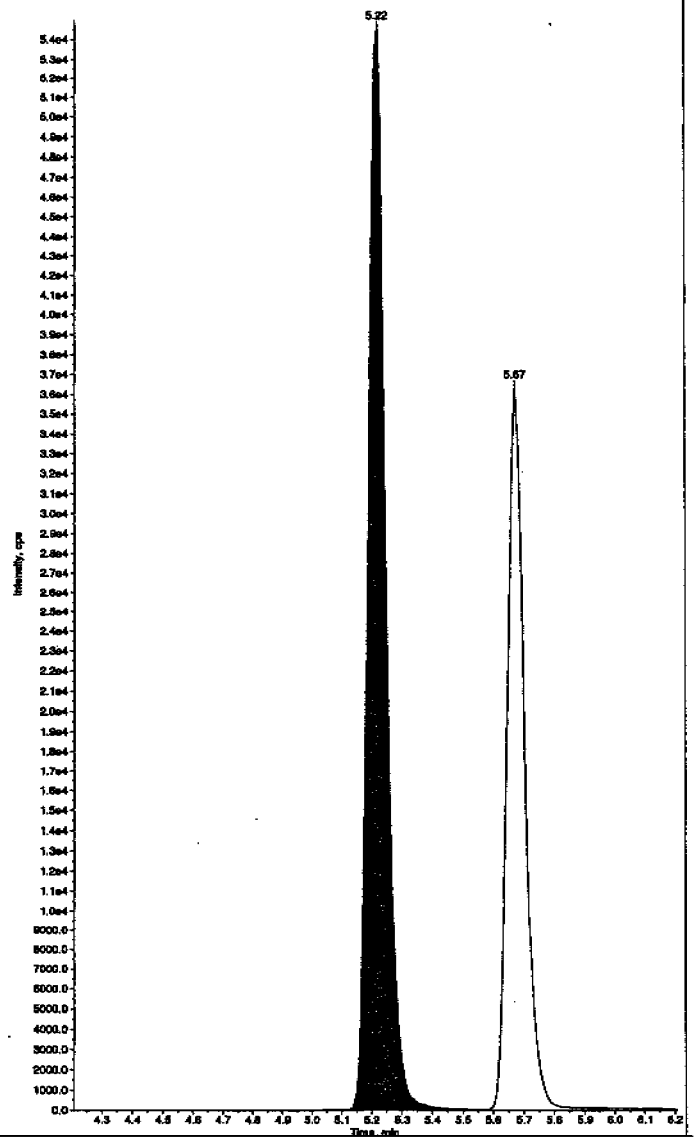

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Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 72.6 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:07:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.67 min
Area: 1.39e+005 counts
Height: 36495.548 cps
Start Time: 5.60 min
End Time: 5.81 min

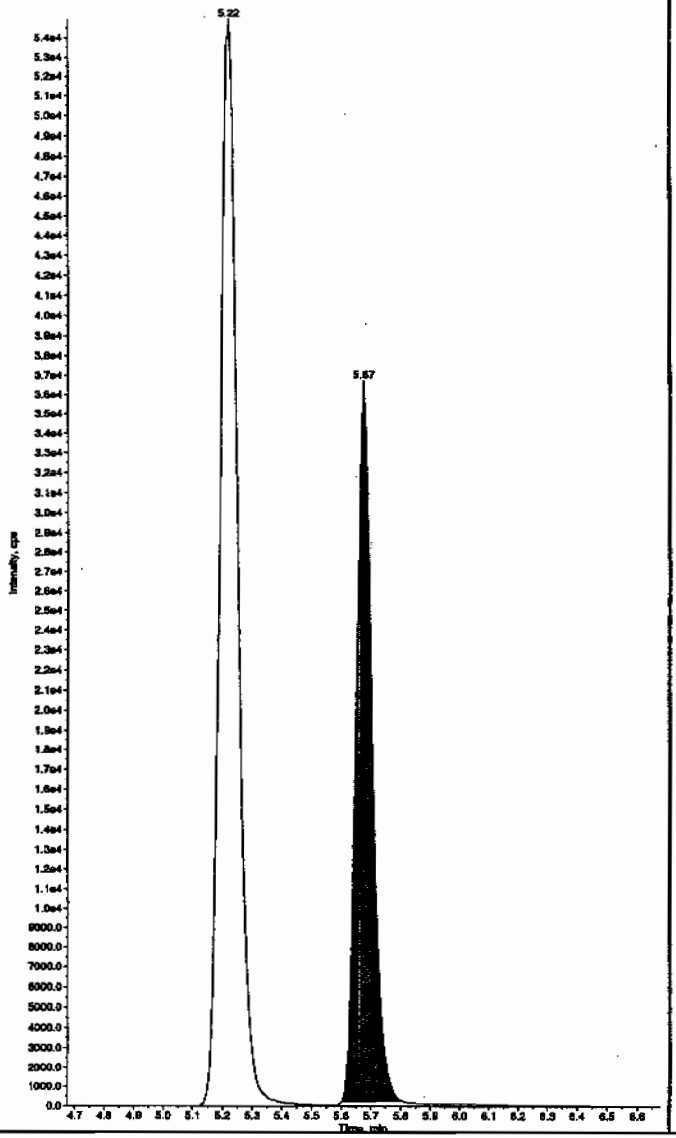

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:07:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.1 min
Area: 2.50e+006 counts
Height: 596255.493 cps
Start Time: 10.9 min
End Time: 11.4 min

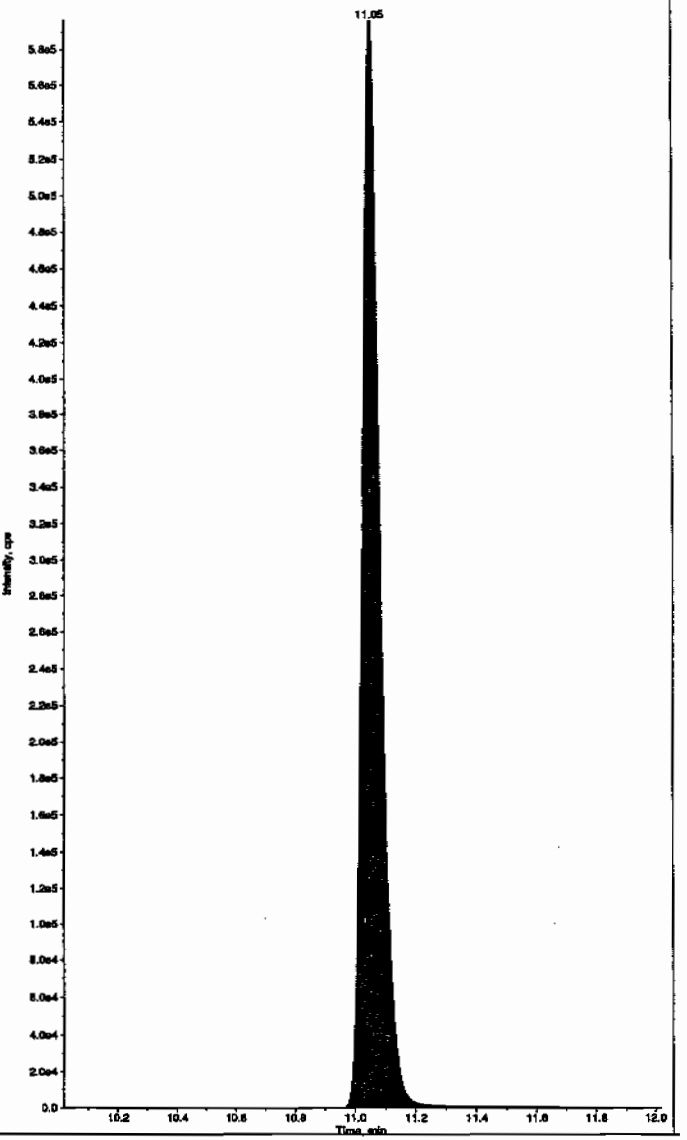

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02120049.wiff

Analysis Date: 13–FEB–10 00:00

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
tris(o–cresyl) phosphate	500	520	104	
2,4–Diamino–6–nitrotoluene	500	558	112	
2,6–Diamino–4–nitrotoluene	500	630	126	
3,4–Dinitrotoluene	250	255	102	
3,5–Dinitroaniline	500	561	112	
TATB	500	627	125	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/15/10

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120049.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 527. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:00:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.20 min
Area: 7.31e+005 counts
Height: 1.63e+005 cps
Start Time: 7.03 min
End Time: 7.72 min

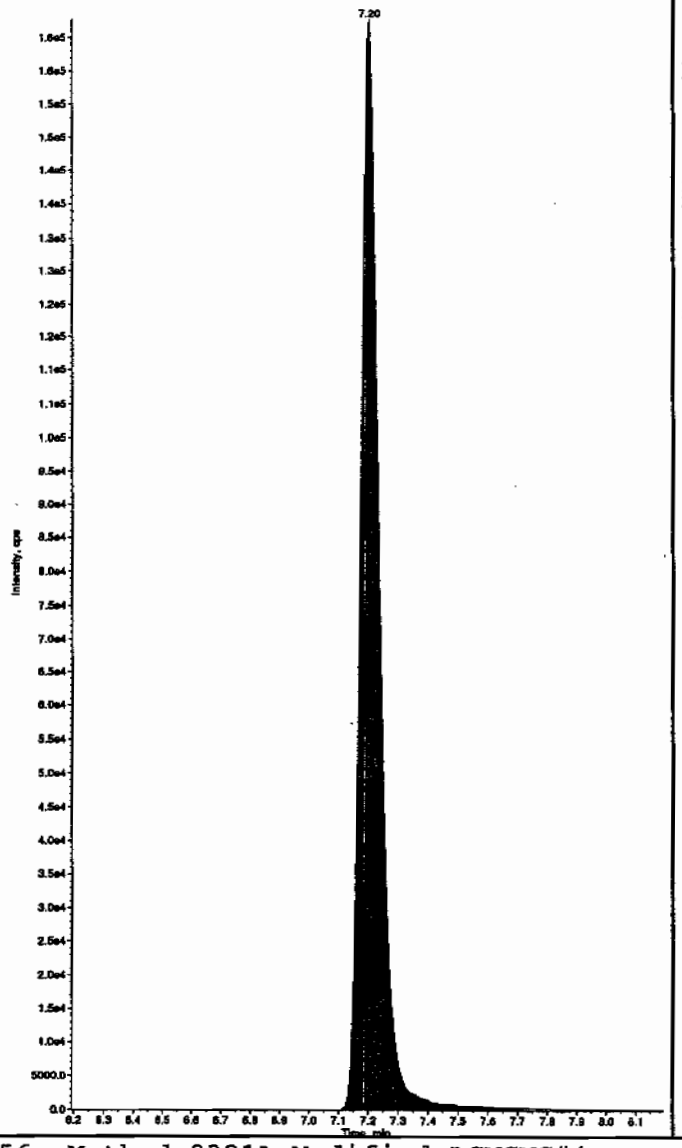

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120049.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 640. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:00:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.42 min
Area: 3.46e+006 counts
Height: 7.10e+005 cps
Start Time: 8.32 min
End Time: 8.87 min

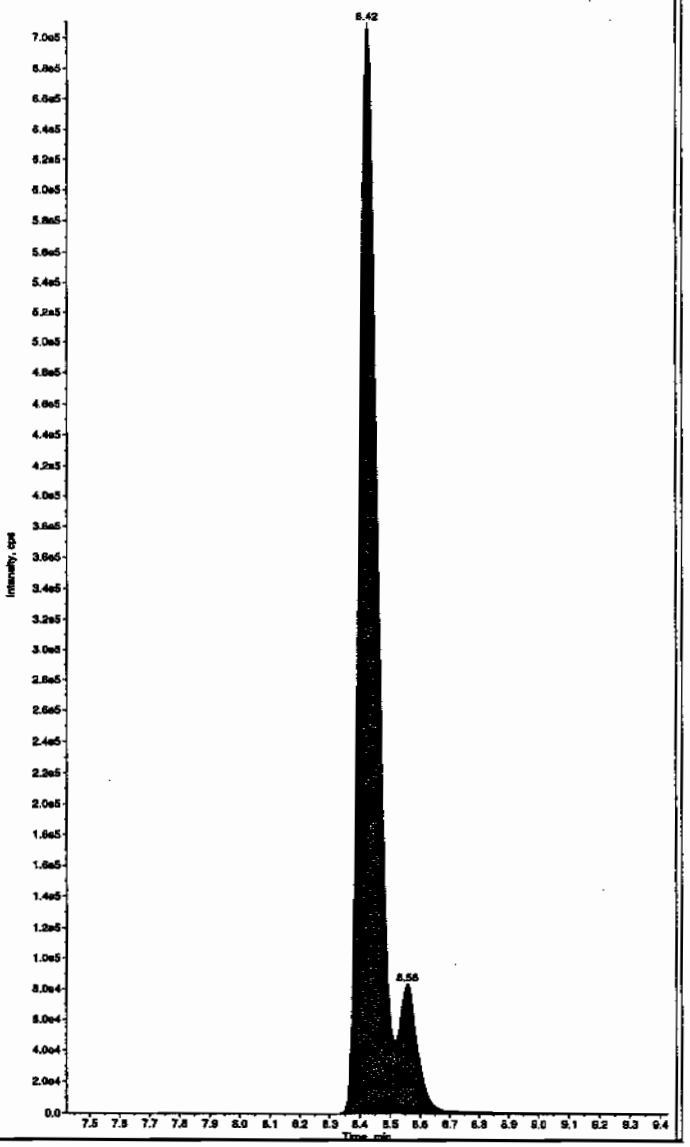

dhm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Lar 2/15/10

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120049.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 627. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:00:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.20 min
Area: 7.31e+005 counts
Height: 162675.934 cps
Start Time: 7.03 min
End Time: 7.72 min

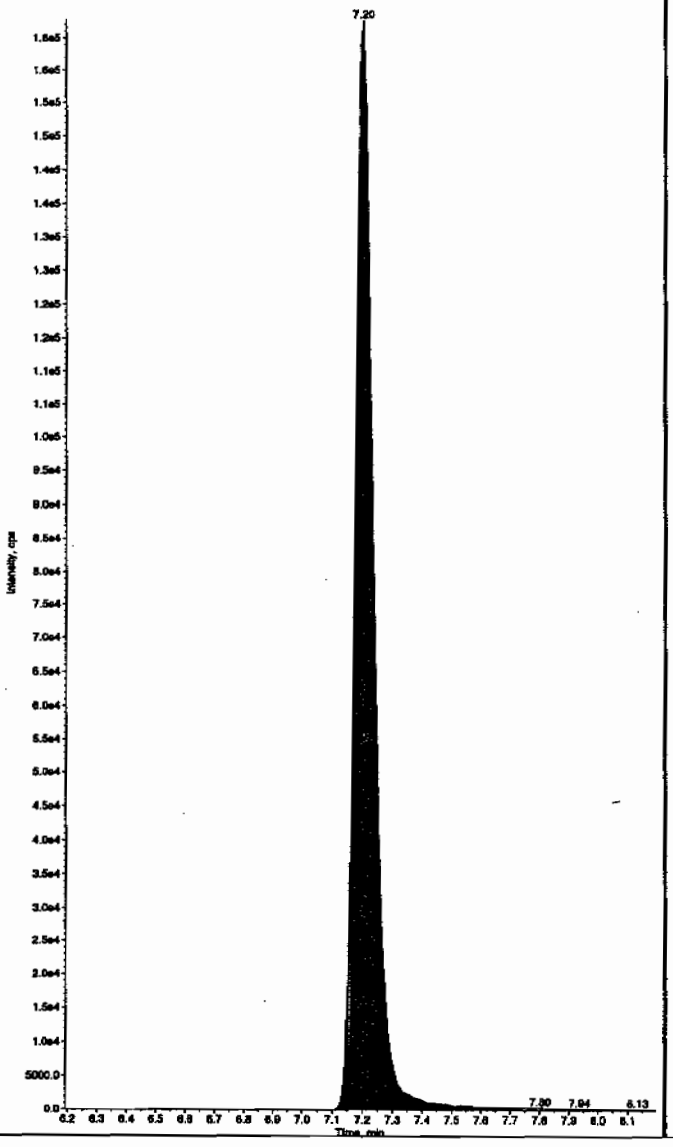

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120049.wiff"
Peak Name: "3S-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 561. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:00:15 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.42 min
Area: 3.06e+006 counts
Height: 709634.036 cps
Start Time: 8.34 min
End Time: 8.52 min

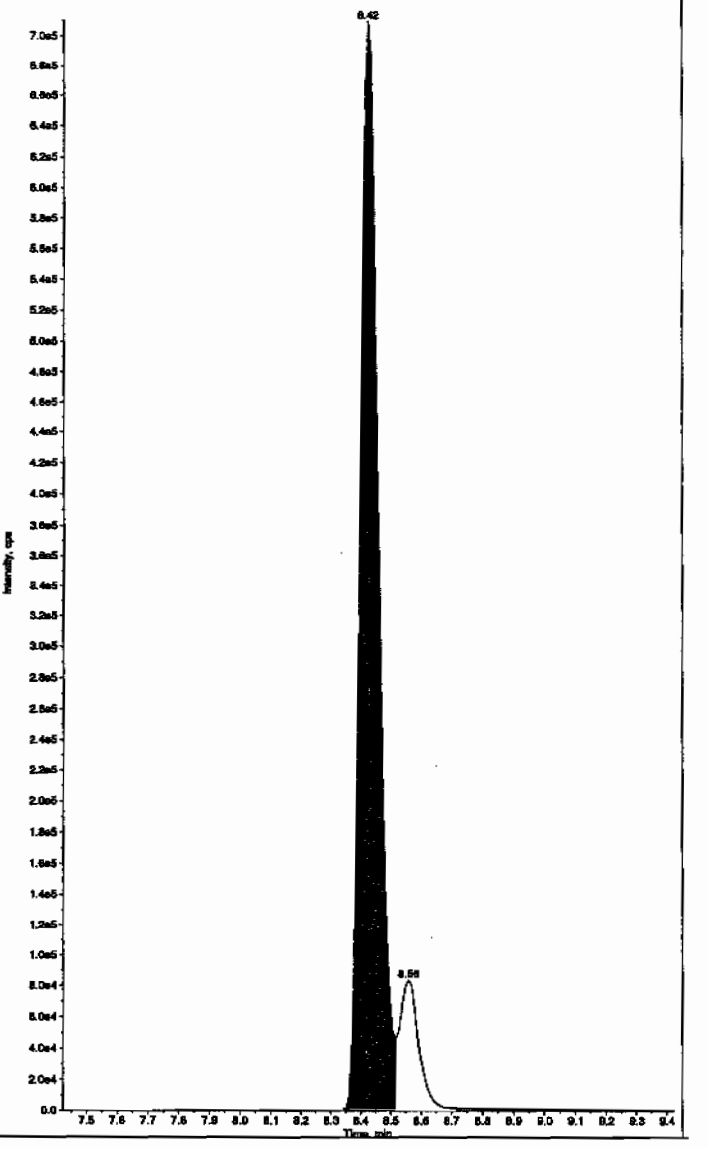

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120049.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 255. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:00:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.55 min
Area: 2.89e+006 counts
Height: 716888.123 cps
Start Time: 8.47 min
End Time: 8.71 min

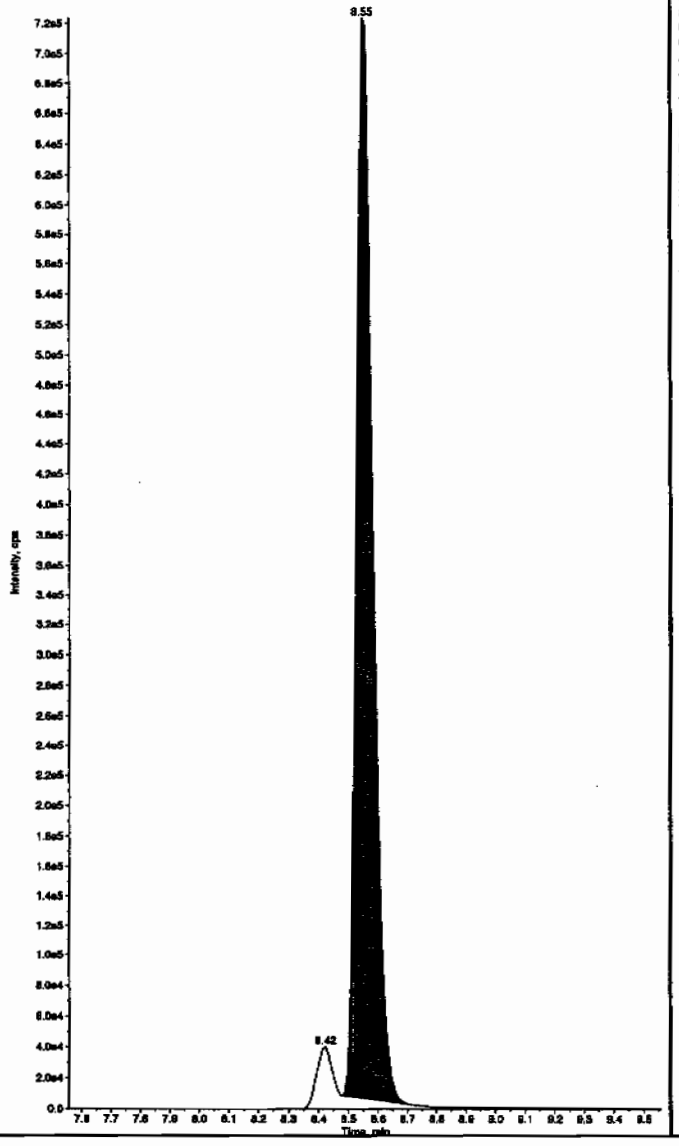

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120049.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 630. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:00:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.22 min
Area: 1.28e+006 counts
Height: 295852.325 cps
Start Time: 5.11 min
End Time: 5.52 min

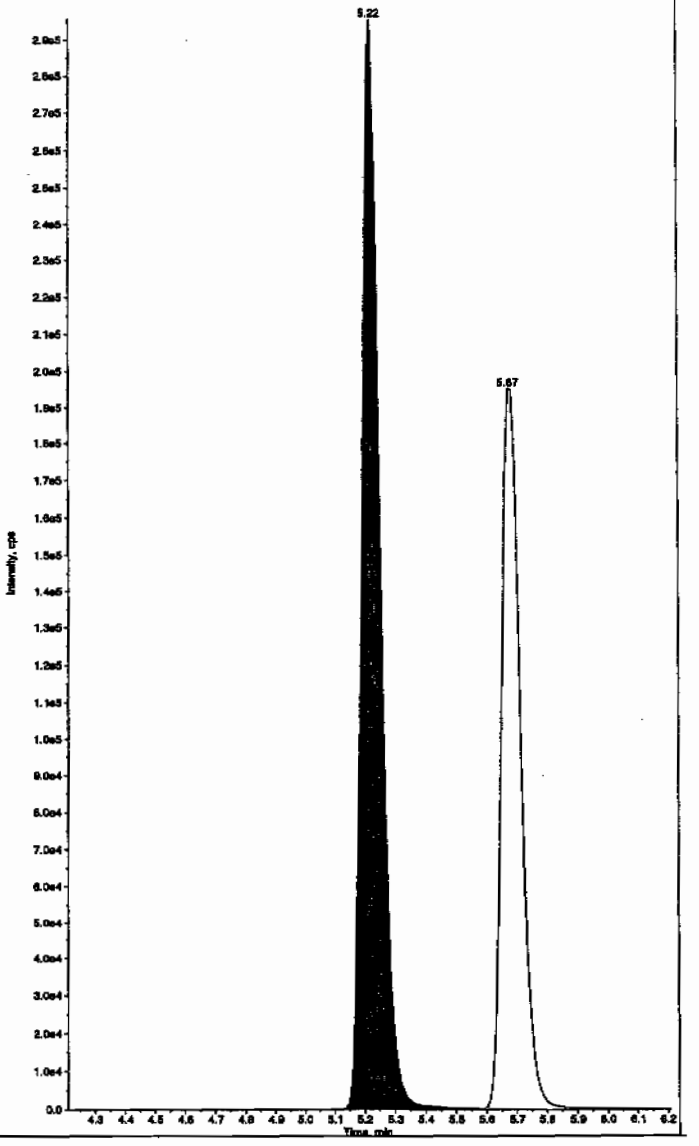

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120049.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 558. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:00:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.67 min
Area: 5.31e+005 counts
Height: 194688.477 cps
Start Time: 5.60 min
End Time: 5.84 min

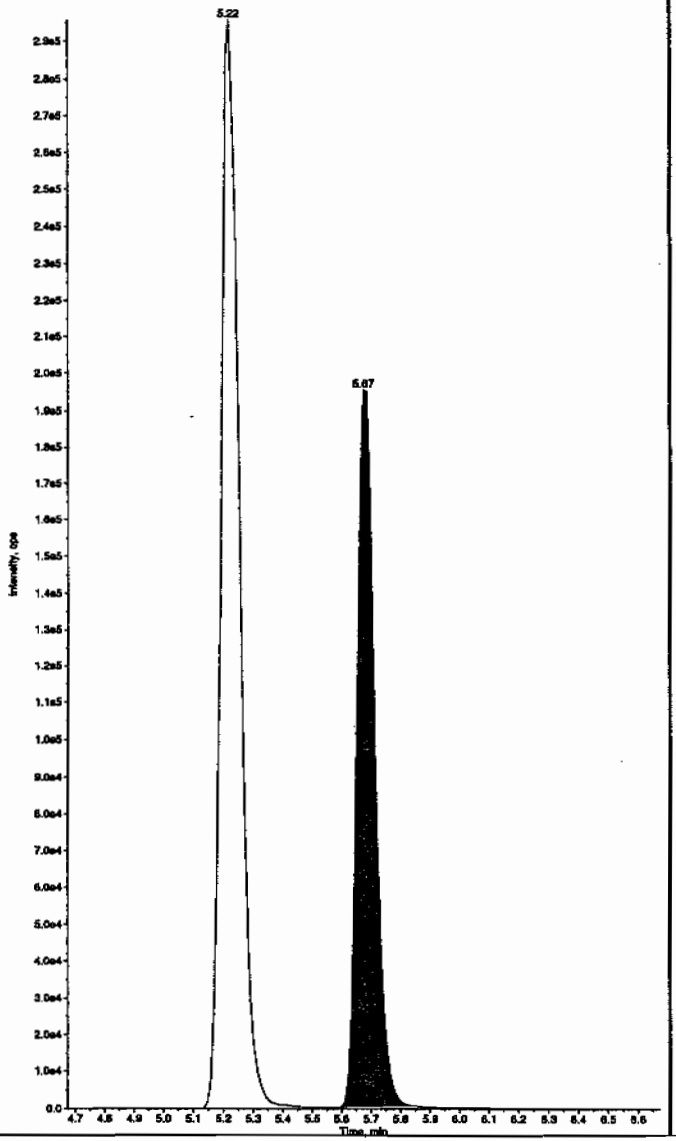

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120049.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 520. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:00:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.1 min
Area: 1.10e+007 counts
Height: 2450313.721 cps
Start Time: 11.0 min
End Time: 11.4 min

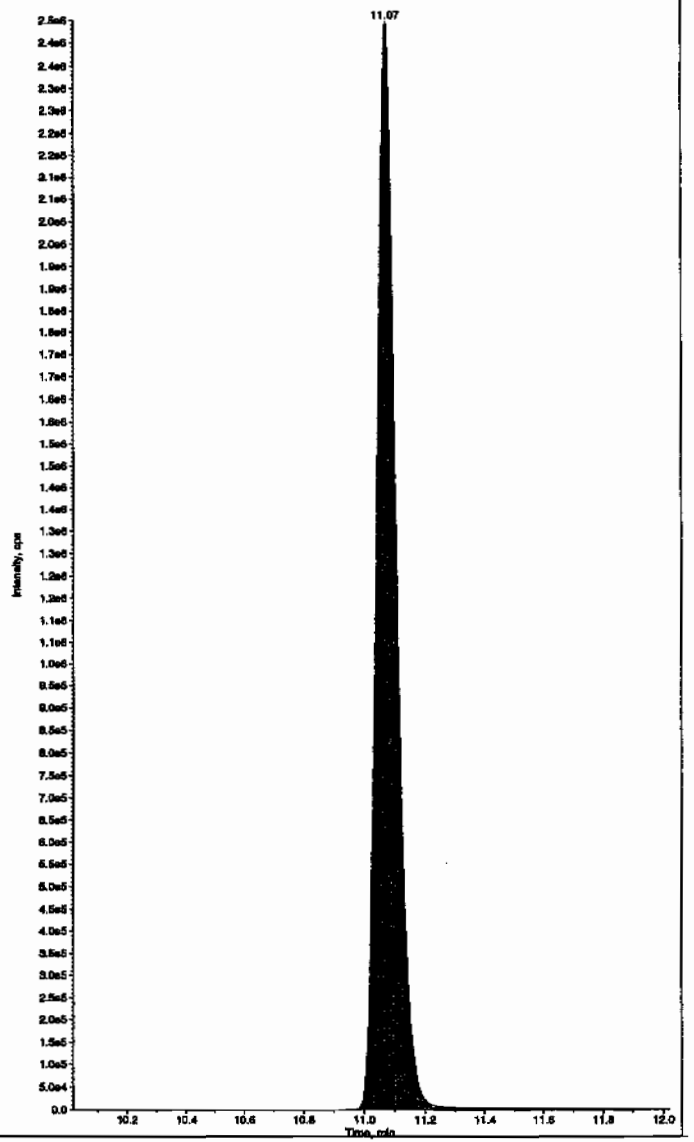

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02120051.wiff

Analysis Date: 13-FEB-10 00:31

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	81.5	82	
2,6-Diamino-4-nitrotoluene	100	91.1	91	
3,4-Dinitrotoluene	50	55.5	111	
3,5-Dinitroaniline	100	109	109	
TATB	100	114	114	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120051.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:31:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.18 min
Area: 1.43e+005 counts
Height: 3.18e+004 cps
Start Time: 7.05 min
End Time: 7.76 min

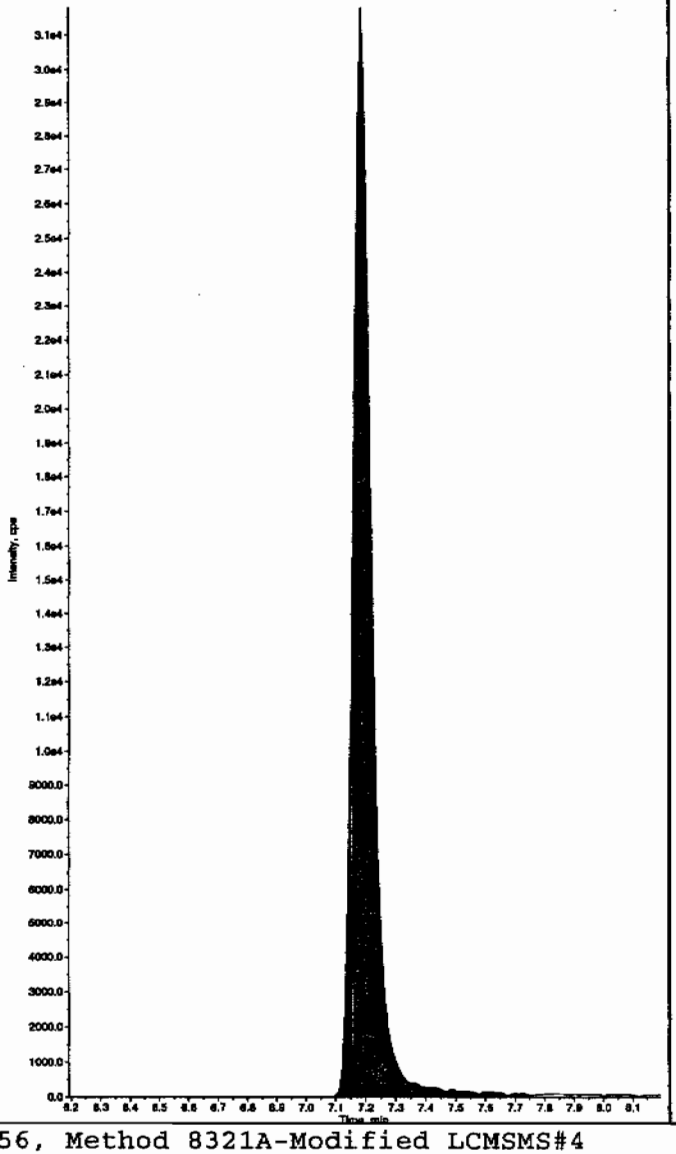

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 124. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:31:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 7.09e+005 counts
Height: 1.52e+005 cps
Start Time: 8.30 min
End Time: 8.79 min

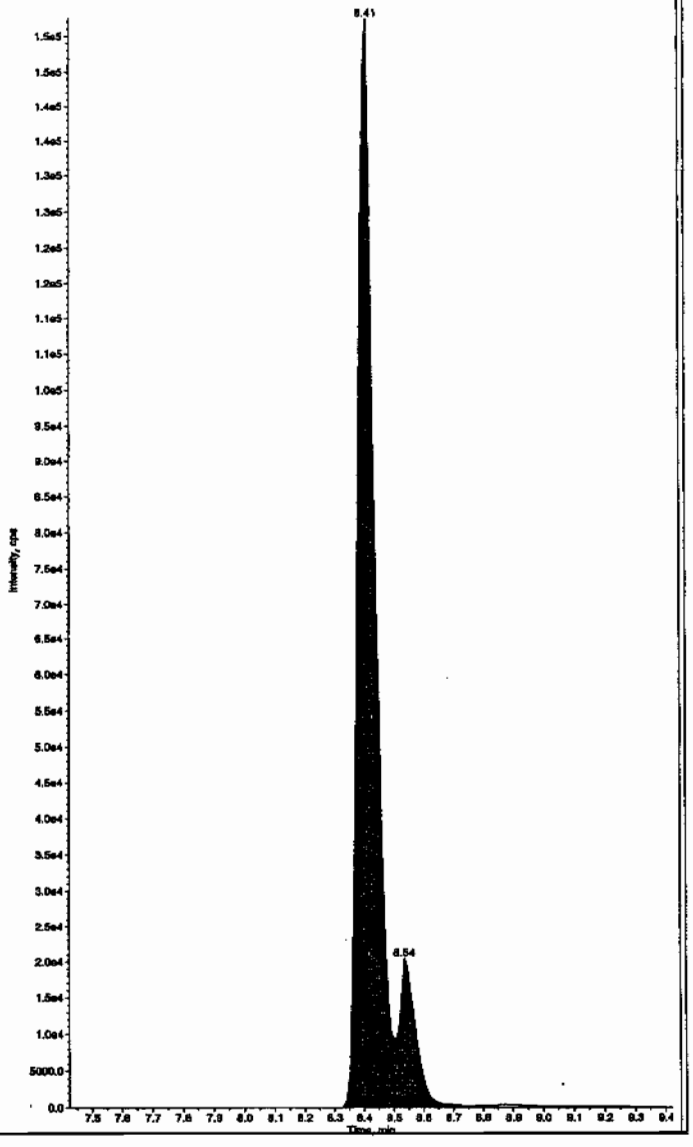

Hmm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Clean 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120051.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:31:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.18 min
Area: 1.43e+005 counts
Height: 31780.457 cps
Start Time: 7.05 min
End Time: 7.76 min

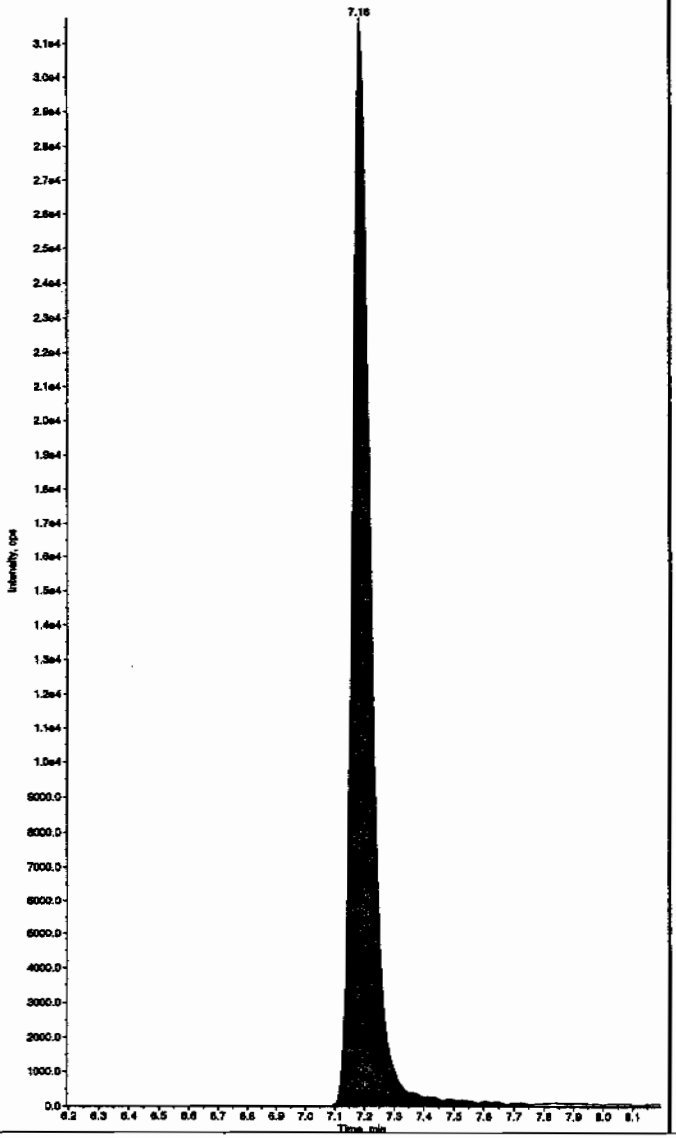

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/48.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:31:38 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.41 min
Area: 6.24e+005 counts
Height: 153758.761 cps
Start Time: 8.33 min
End Time: 8.51 min

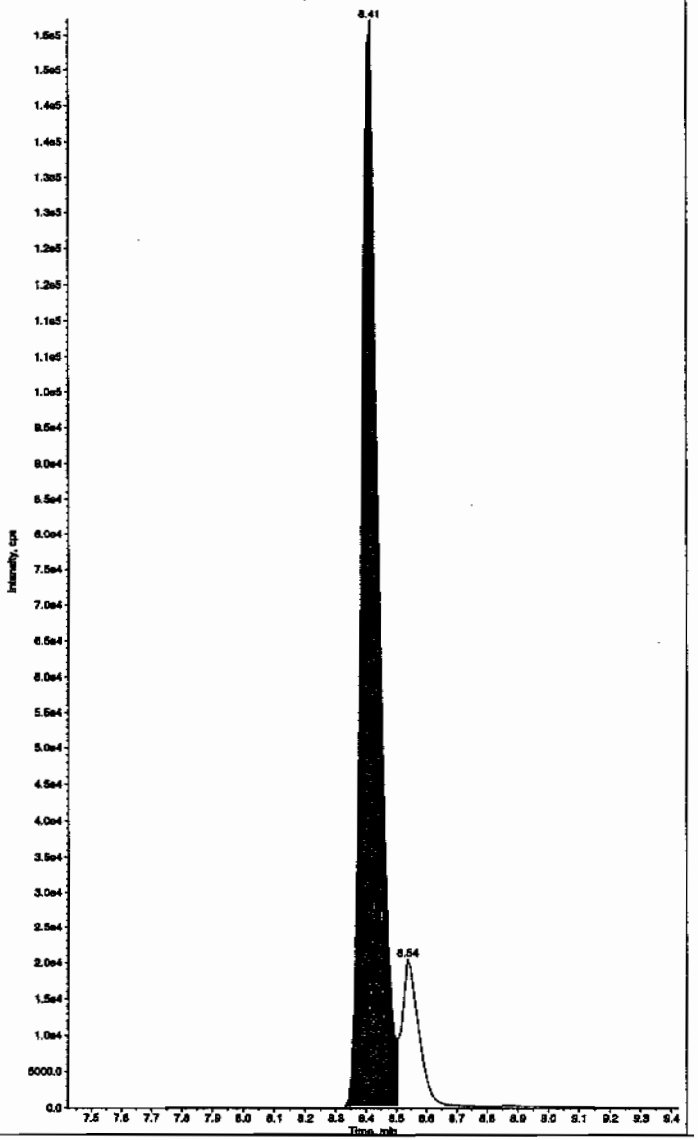

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120051.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 55.5 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:31:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.54 min
Area: 6.32e+005 counts
Height: 169925.369 cps
Start Time: 8.46 min
End Time: 8.69 min

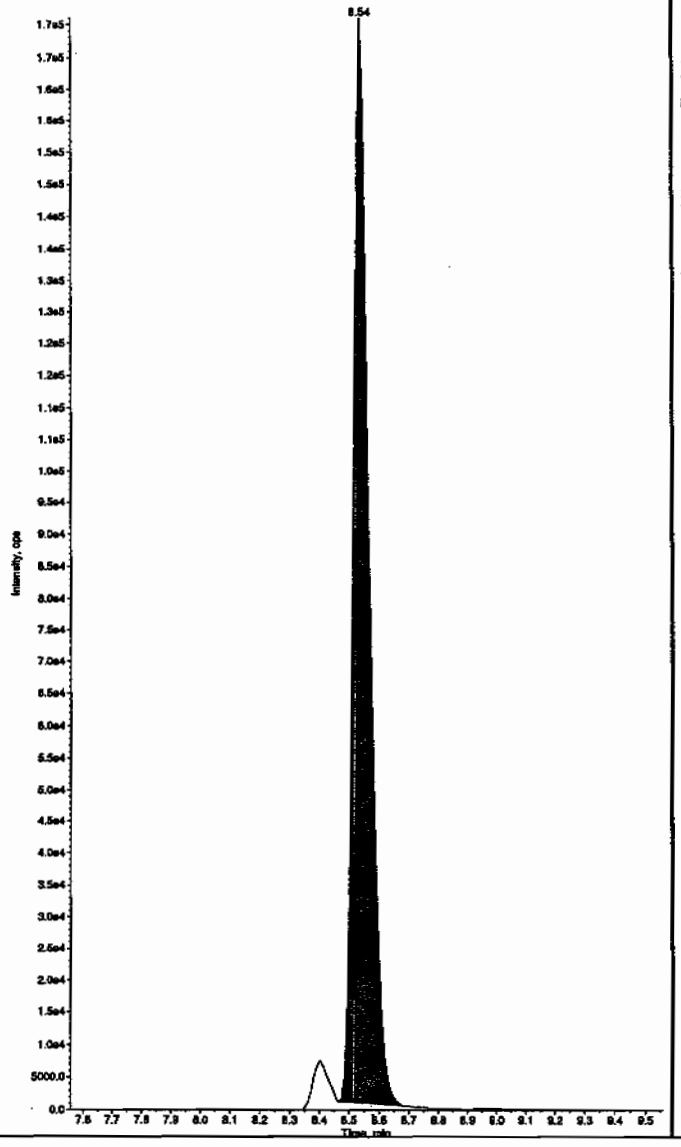

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.1 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:31:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.21 min
Area: 2.38e+005 counts
Height: 59006.546 cps
Start Time: 5.09 min
End Time: 5.51 min

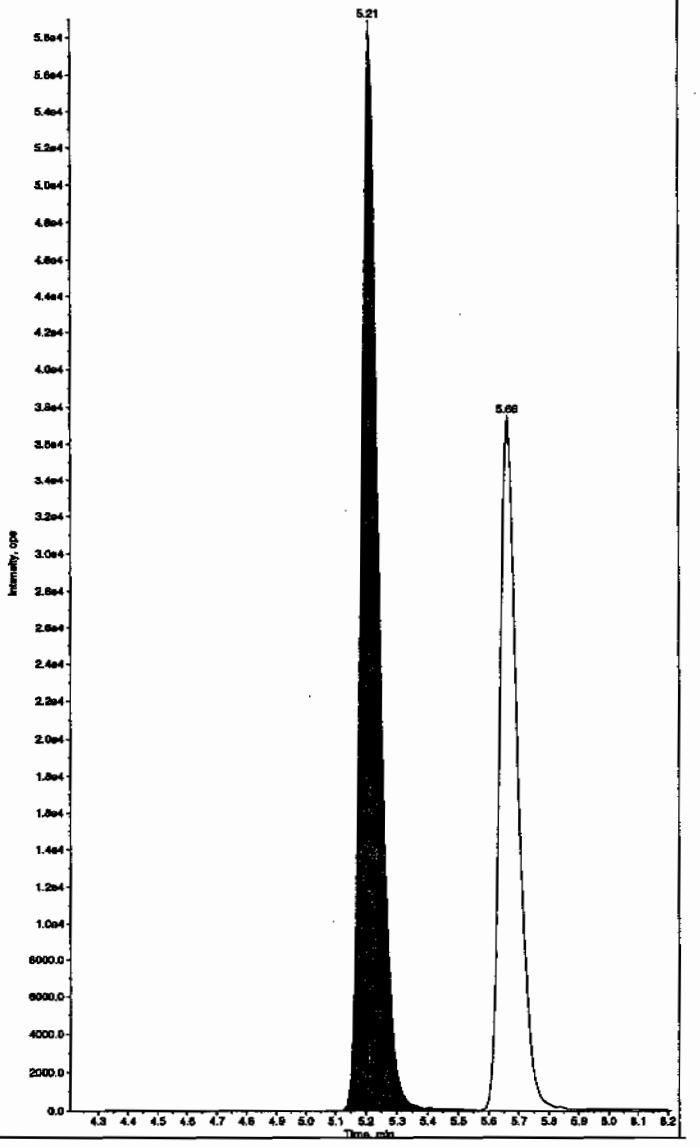

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100212-27CRI" Sample ID: "j1|LER" File: "EXS02120051.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 81.5 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:31:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.66 min
Area: 1.52e+005 counts
Height: 37515.926 cps
Start Time: 5.58 min
End Time: 5.86 min

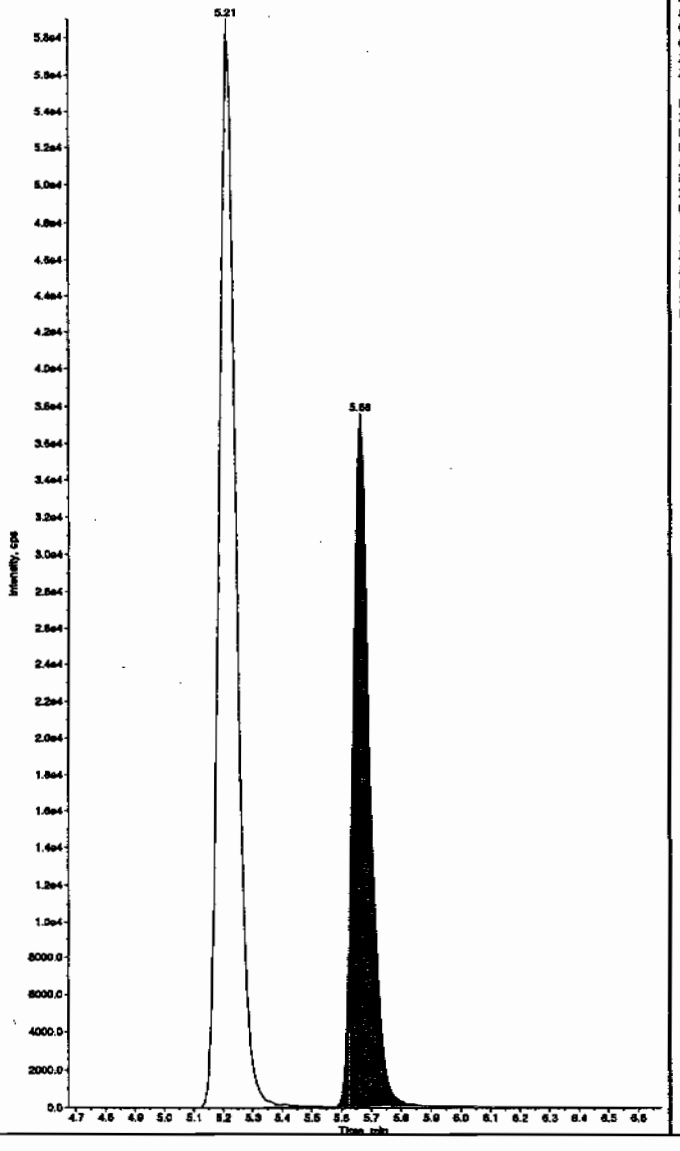

Sample Name: "WXX100212-27CRI" Sample ID: "j1|LER" File: "EXS02120051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:31:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.40e+006 counts
Height: 585455.078 cps
Start Time: 10.9 min
End Time: 11.4 min

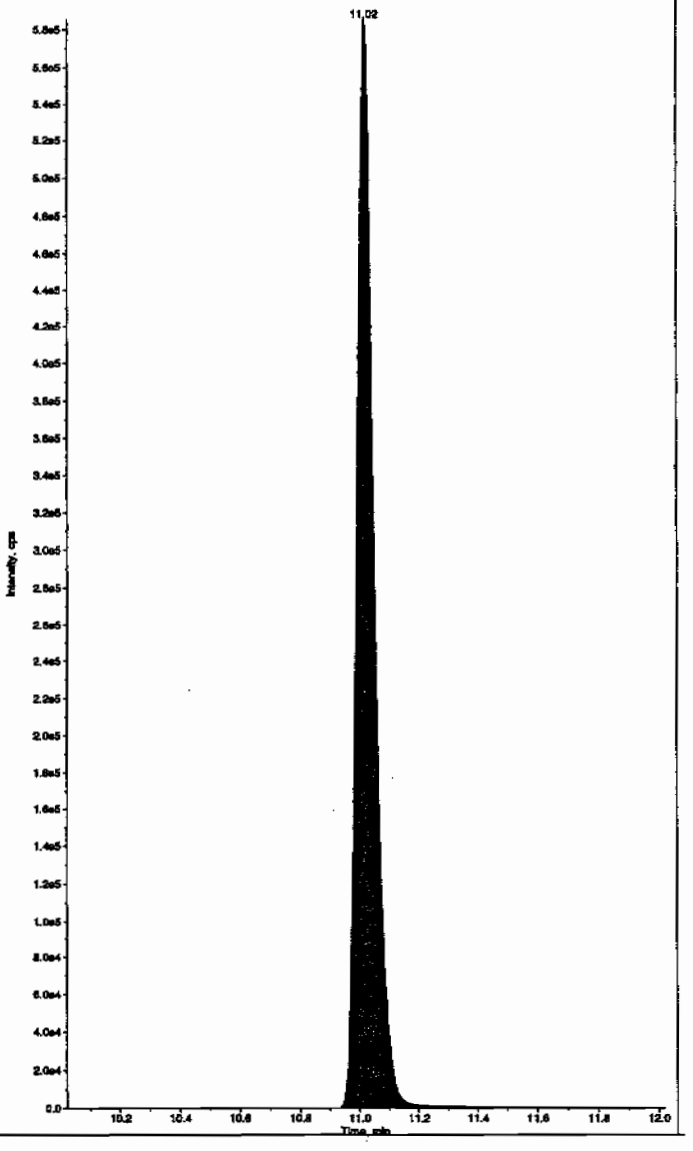

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02120060.wjff

Analysis Date: 13-FEB-10 02:52

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	569	114	
2,6-Diamino-4-nitrotoluene	500	577	115	
3,4-Dinitrotoluene	250	270	108	
3,5-Dinitroaniline	500	586	117	
TATB	500	604	121	
tris(o-cresyl) phosphate	500	505	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Dan 2/15/10

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120060.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 604. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:52:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.14 min
Area: 7.05e+005 counts
Height: 1.61e+005 cps
Start Time: 7.00 min
End Time: 7.85 min

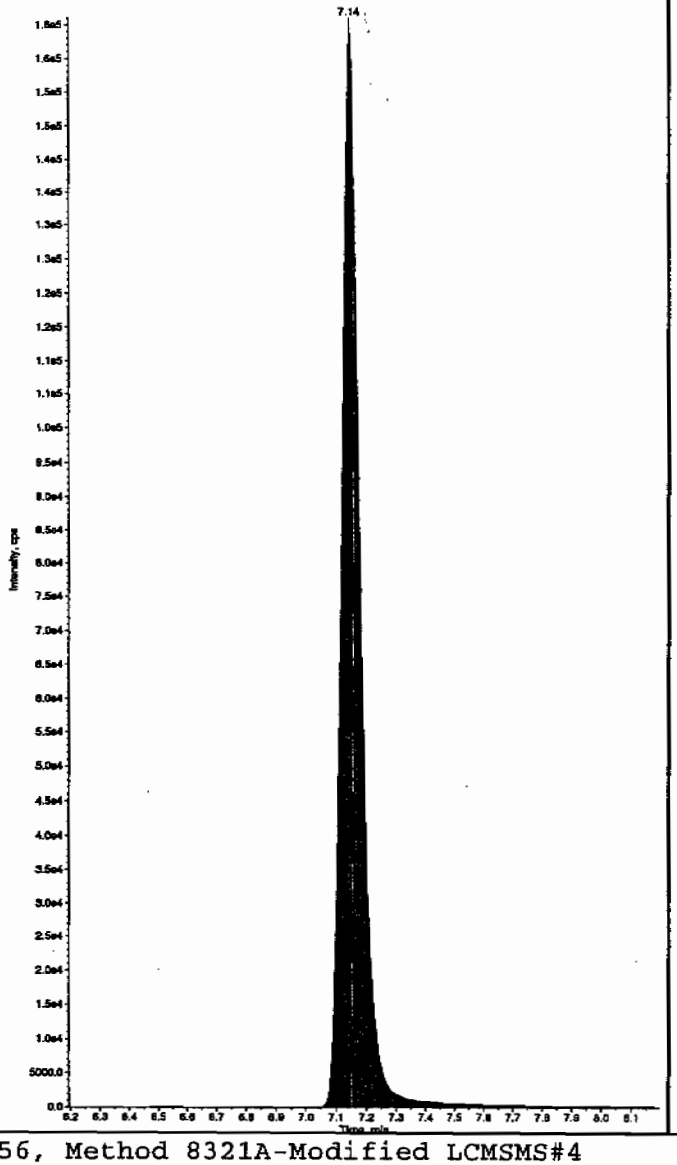

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120060.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 661. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:52:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.57e+006 counts
Height: 8.13e+005 cps
Start Time: 8.27 min
End Time: 8.79 min

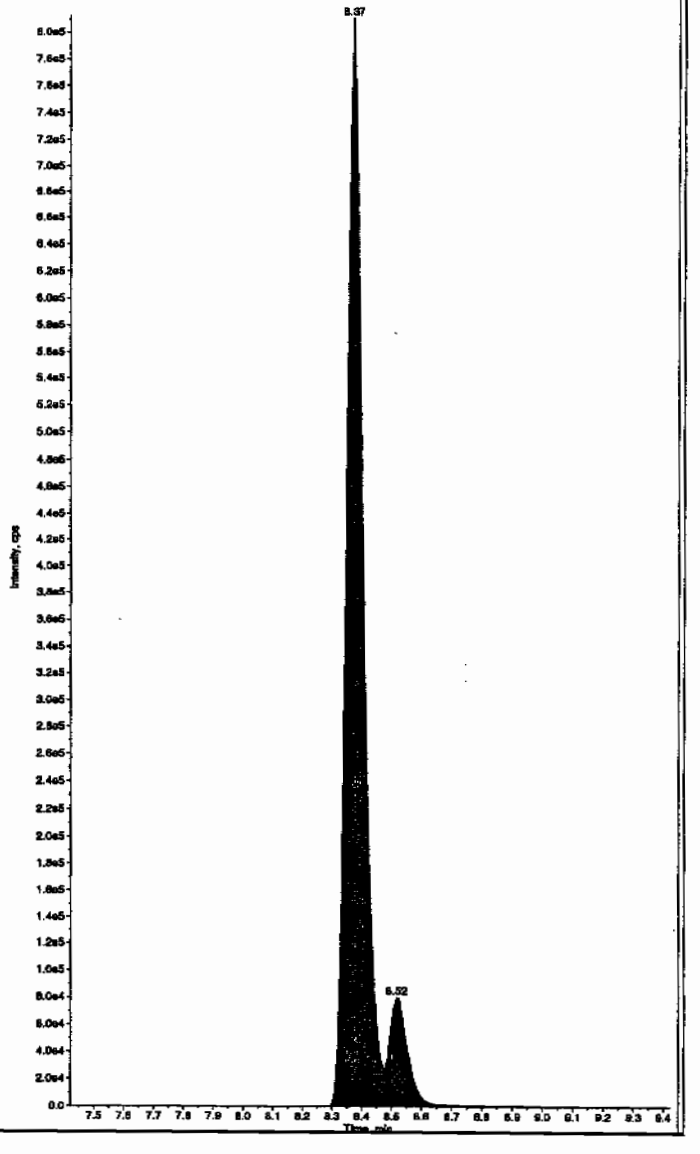

Hmm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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After Run 2/15/10

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120060.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 604. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:52:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.14 min
Area: 7.05e+005 counts
Height: 161148.331 cps
Start Time: 7.00 min
End Time: 7.85 min

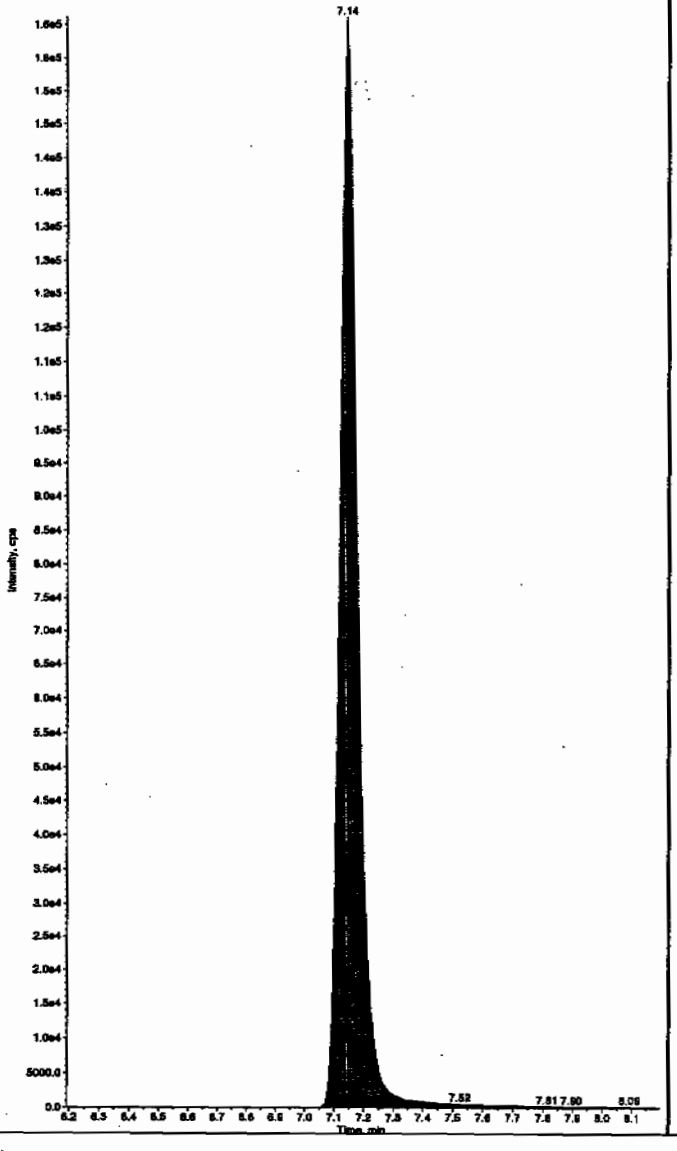

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120060.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 586. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:52:56 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.37 min
Area: 3.18e+006 counts
Height: 811517.185 cps
Start Time: 8.29 min
End Time: 8.47 min

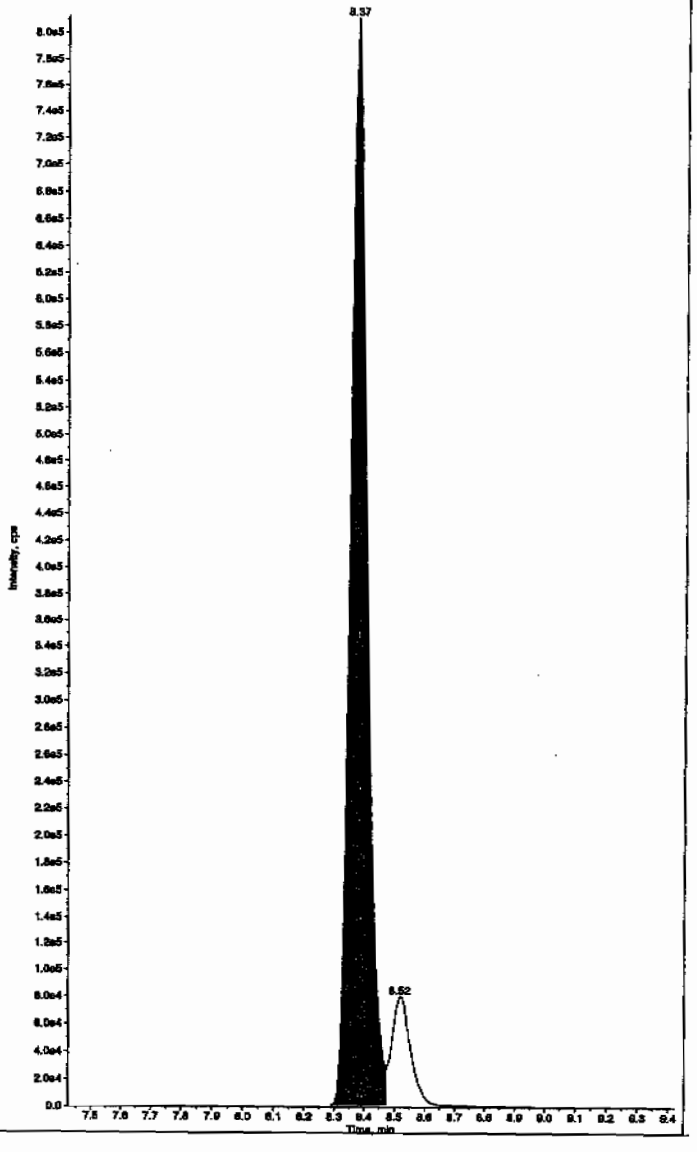

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Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120060.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 270. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:52:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.05e+006 counts
Height: 807123.169 cps
Start Time: 8.44 min
End Time: 8.70 min

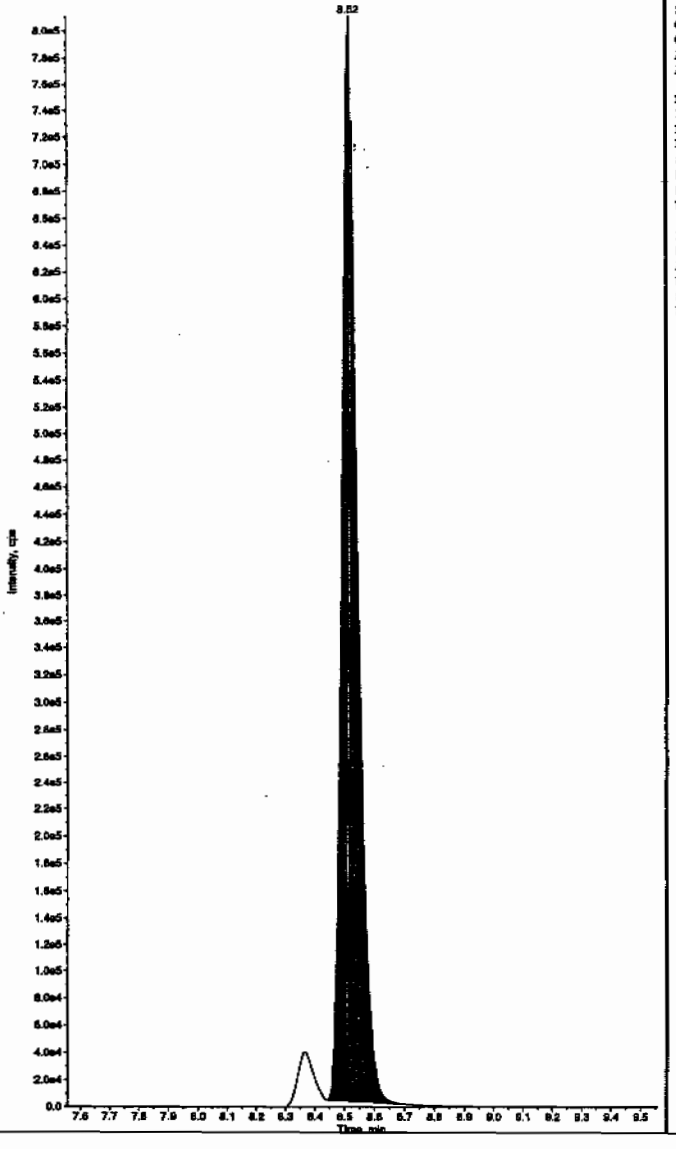

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120060.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 577. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:52:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 1.18e+006 counts
Height: 286323.578 cps
Start Time: 5.07 min
End Time: 5.48 min

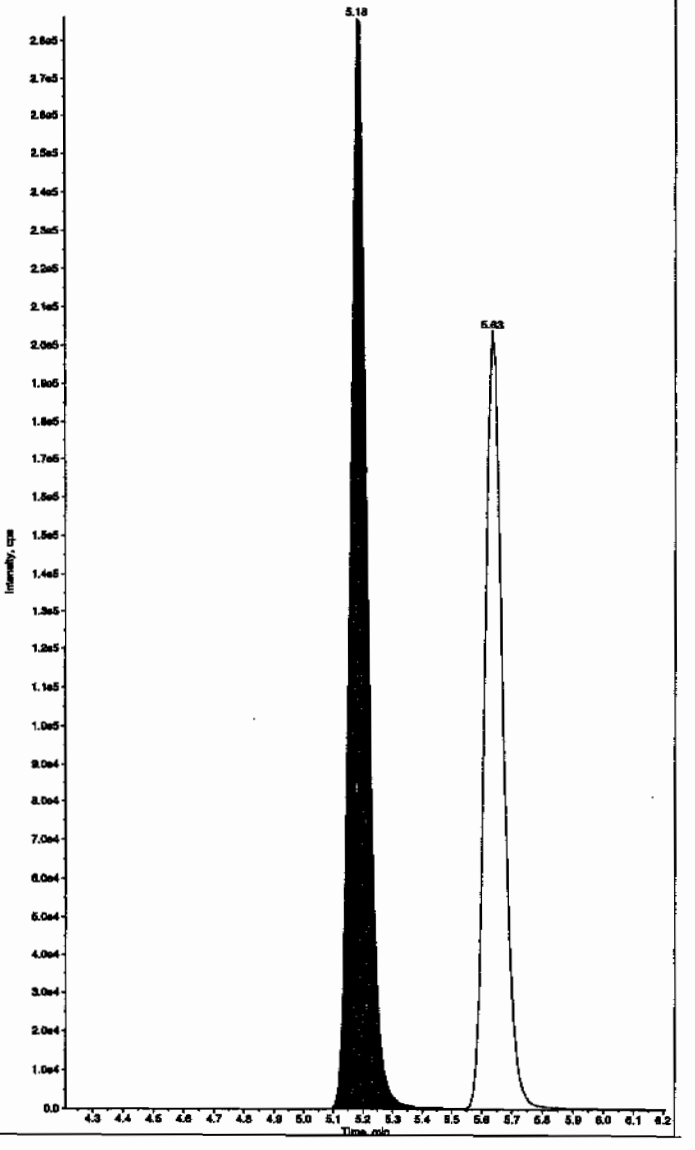

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Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120060.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 569. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:52:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.63 min
Area: 8.47e+005 counts
Height: 203963.257 cps
Start Time: 5.51 min
End Time: 5.97 min

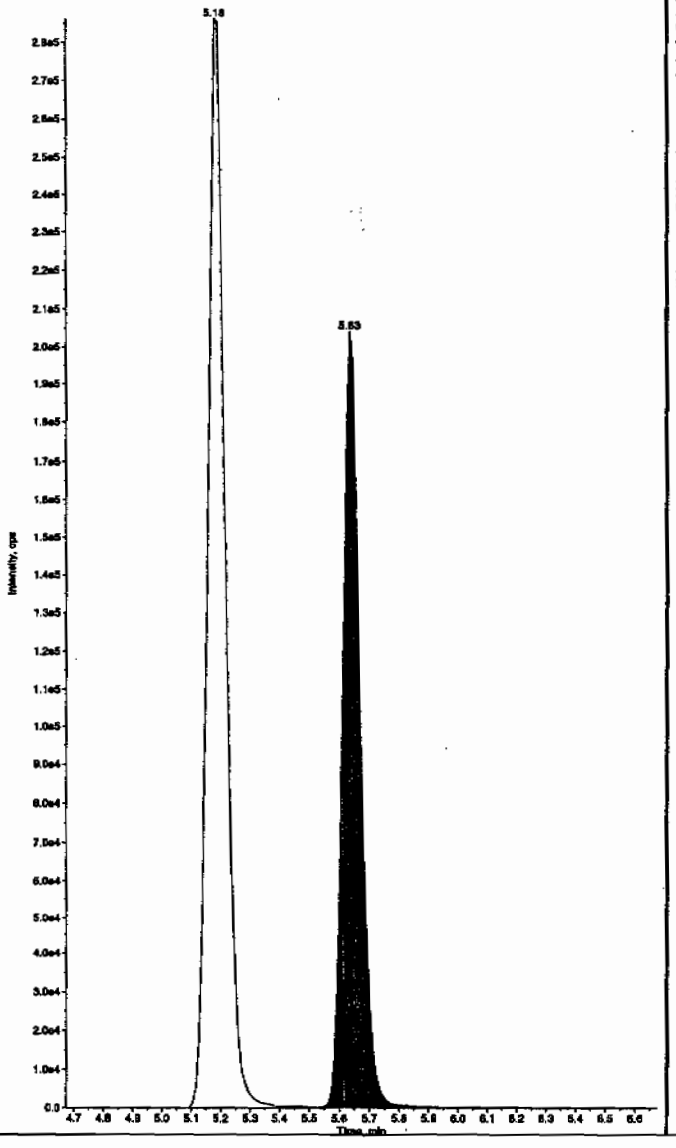

Sample Name: "WXX100212-26CCV" Sample ID: "[1]LER" File: "EXS02120060.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:52:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.08e+007 counts
Height: 2414139.648 cps
Start Time: 10.9 min
End Time: 11.3 min

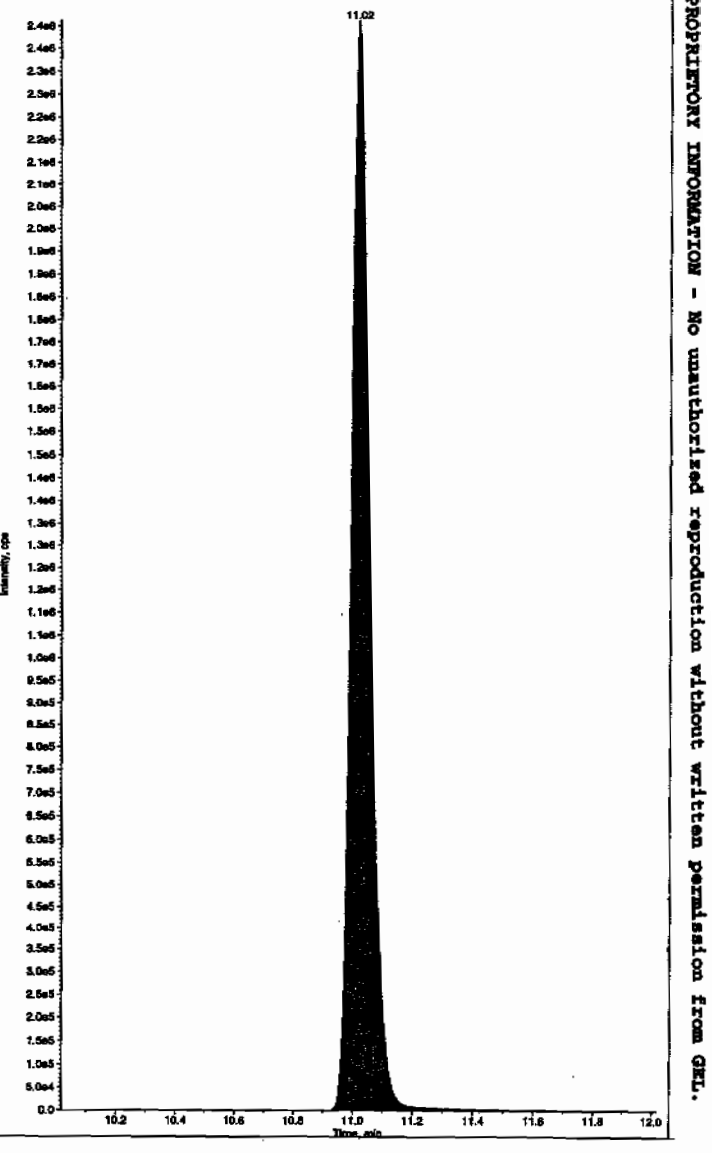

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1473

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02120062.wiff

Analysis Date: 13-FEB-10 03:24

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	84.2	84	
2,6-Diamino-4-nitrotoluene	100	91.8	92	
3,4-Dinitrotoluene	50	56.7	113	
3,5-Dinitroaniline	100	112	112	
TATB	100	113	113	
tris(o-cresyl) phosphate	100	98.5	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "|1|LER" File: "EXS02120062.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:24:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.15 min
Area: 1.42e+005 counts
Height: 3.22e+004 cps
Start Time: 6.99 min
End Time: 7.52 min

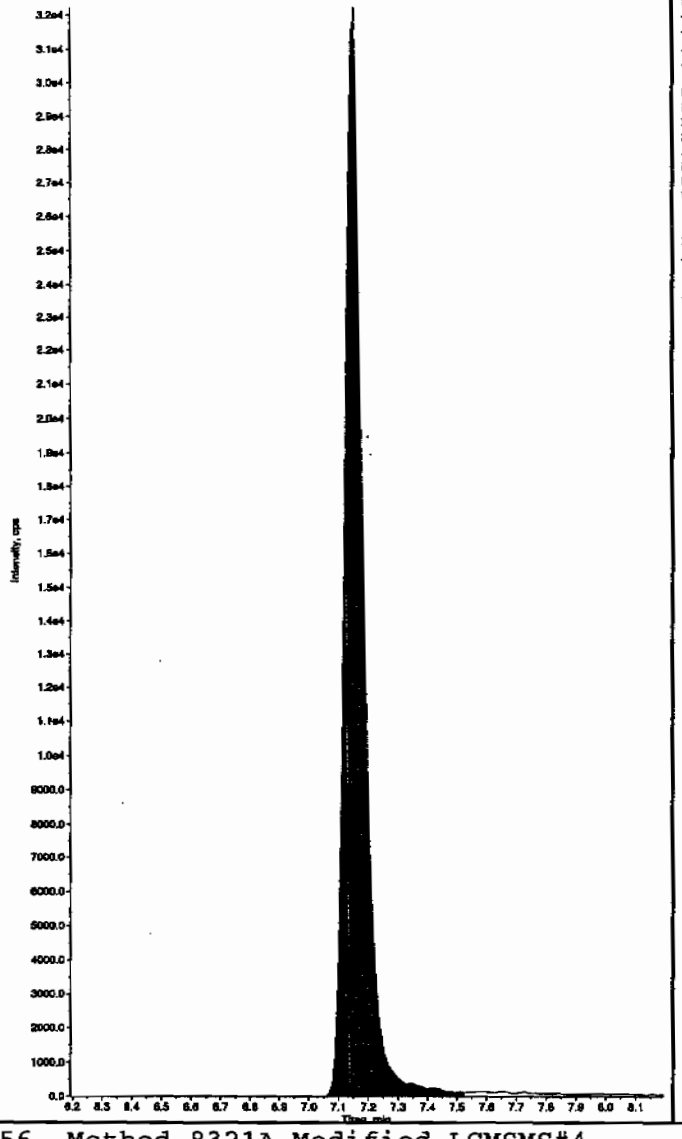

Sample Name: "WXX100212-27CRI" Sample ID: "|1|LER" File: "EXS02120062.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 127. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:24:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 7.22e+005 counts
Height: 1.61e+005 cps
Start Time: 8.27 min
End Time: 8.74 min

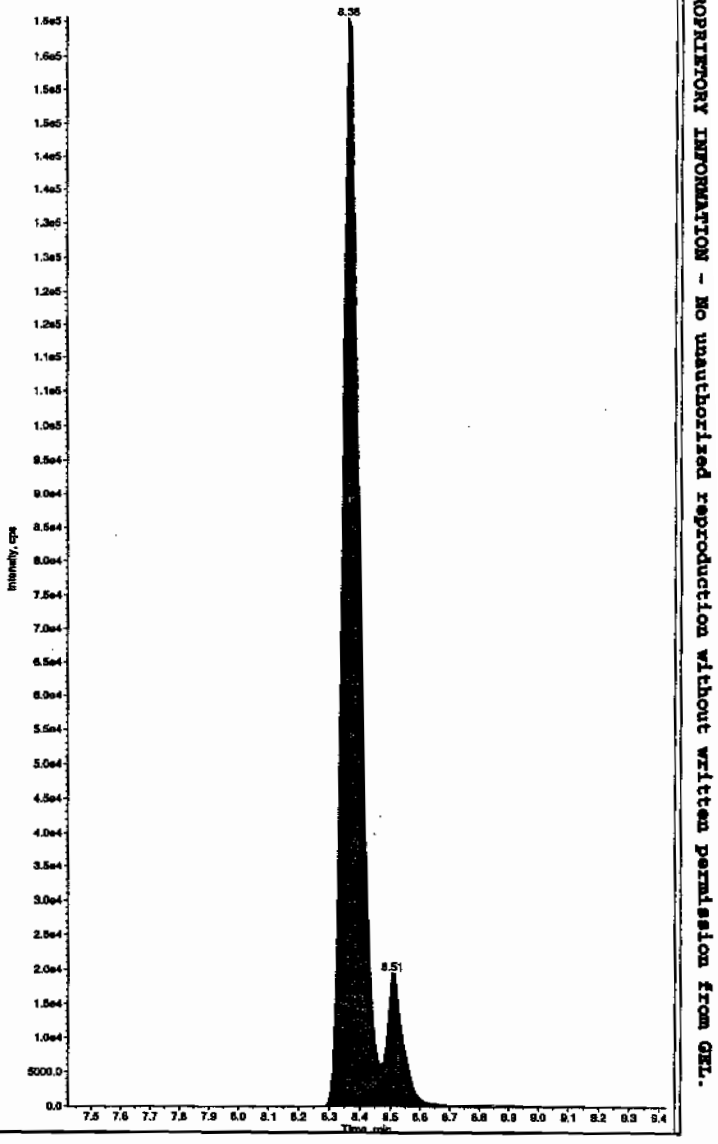

tmm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Chen 2/15/10

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120062.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:24:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.15 min
Area: 1.42e+005 counts
Height: 32198.551 cps
Start Time: 6.99 min
End Time: 7.52 min

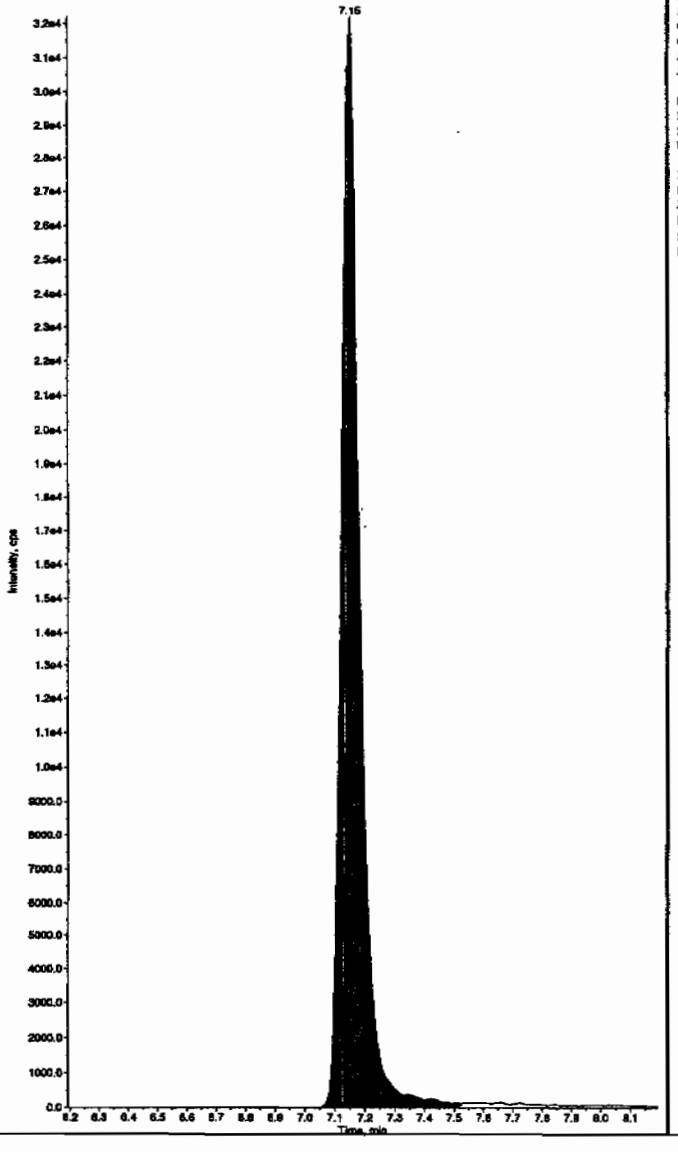

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120062.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:24:21 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.37 min
Area: 6.41e+005 counts
Height: 164297.987 cps
Start Time: 8.29 min
End Time: 8.47 min

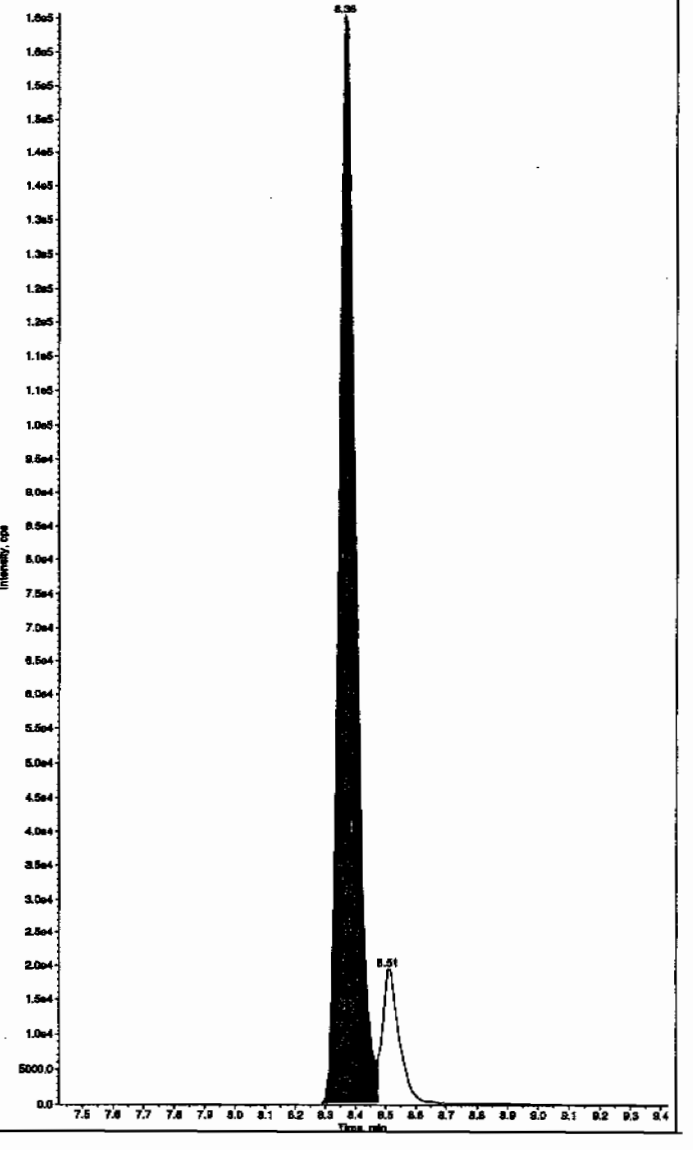

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Sample Name: "WXX100212-27CRI" Sample ID: "1|LER" File: "EXS02120062.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 56.7 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:24:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.51 min
Area: 6.46e+005 counts
Height: 171529.709 cps
Start Time: 8.43 min
End Time: 8.71 min

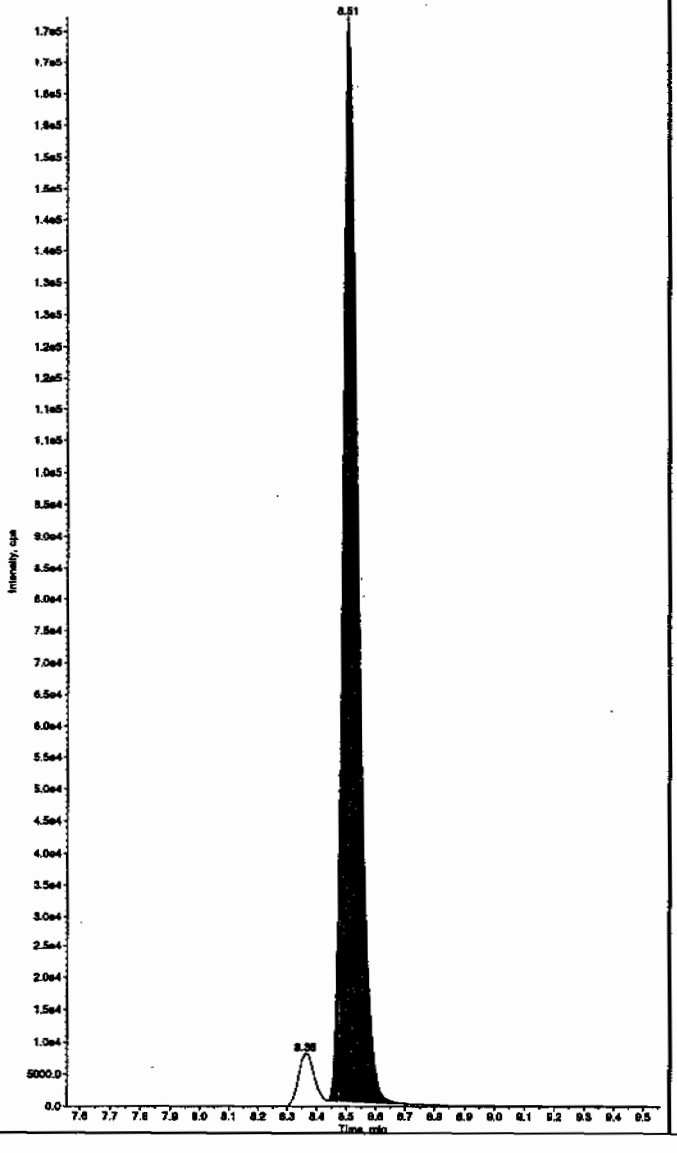

Sample Name: "WXX100212-27CRI" Sample ID: "1|LER" File: "EXS02120062.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.8 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:24:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 2.40e+005 counts
Height: 57536.930 cps
Start Time: 5.08 min
End Time: 5.48 min

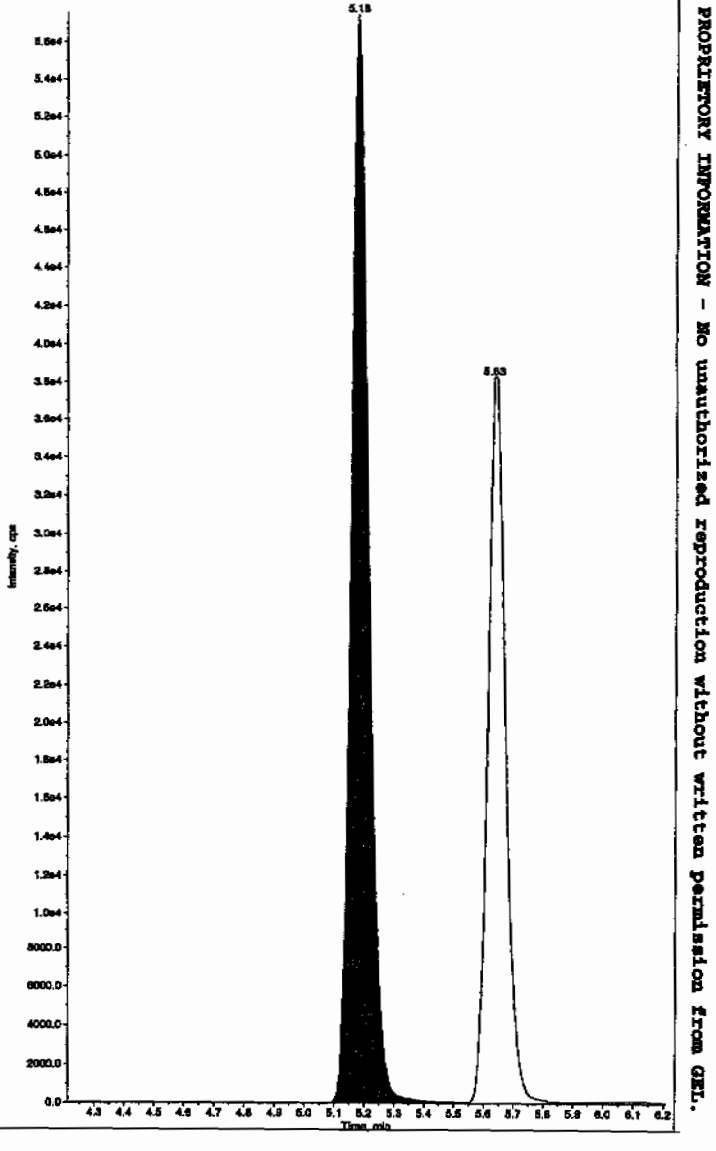

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Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120062.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 84.2 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:24:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.63 min
Area: 1.56e+005 counts
Height: 38200.291 cps
Start Time: 5.56 min
End Time: 5.81 min

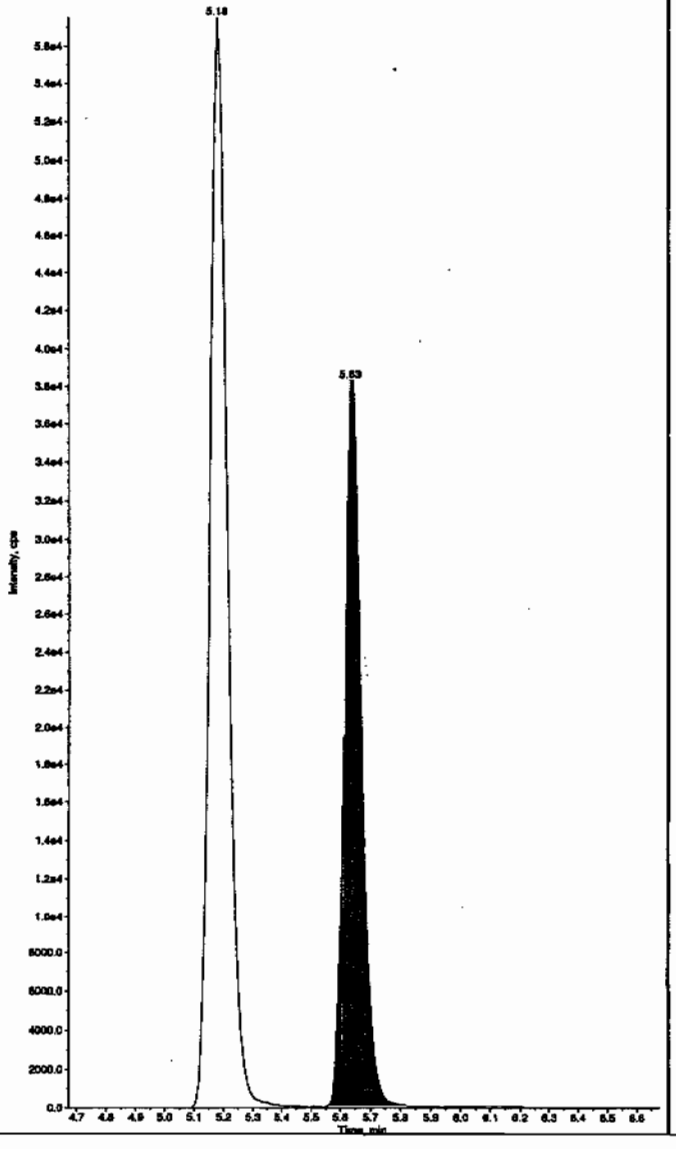

Sample Name: "WXX100212-27CRI" Sample ID: "[1]LER" File: "EXS02120062.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.5 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:24:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.35e+006 counts
Height: 549733.765 cps
Start Time: 10.9 min
End Time: 11.4 min

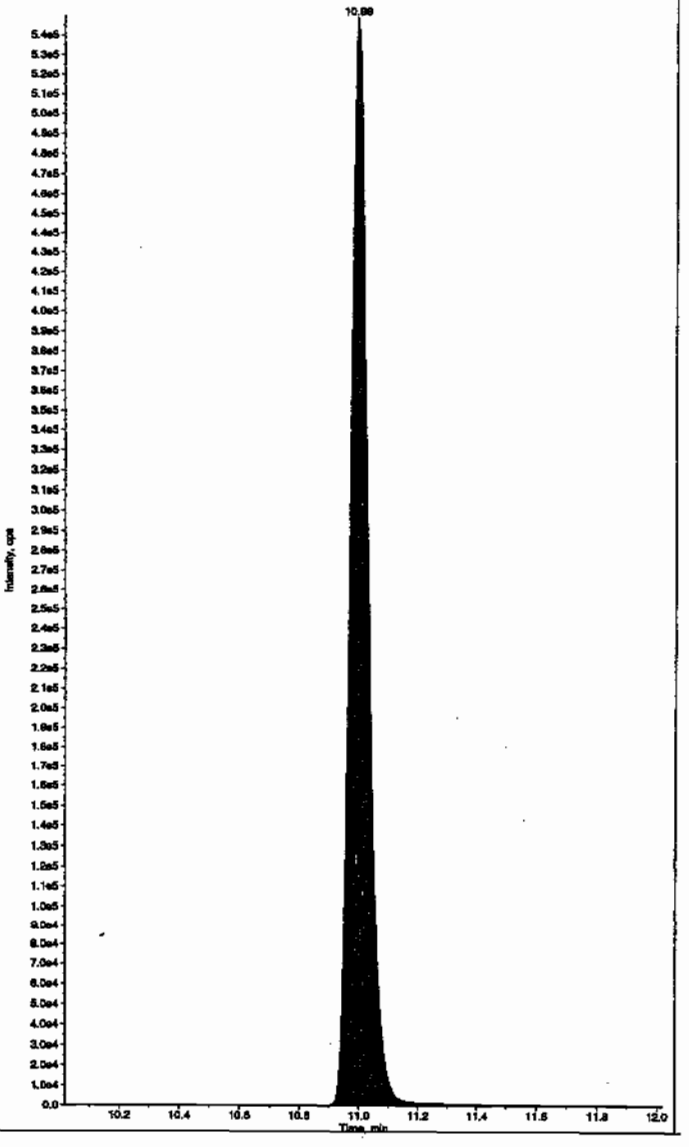

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 947080

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 1202028676

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208158a

Date Analyzed: 11-FEB-10 19:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208158a
Date: 11-Feb-2010
Time: 19:57:57
ID: 1202028676 | LANW | 947084 | Soil | MB | 21
Vial: 4:1,A

MAH 2/12/10

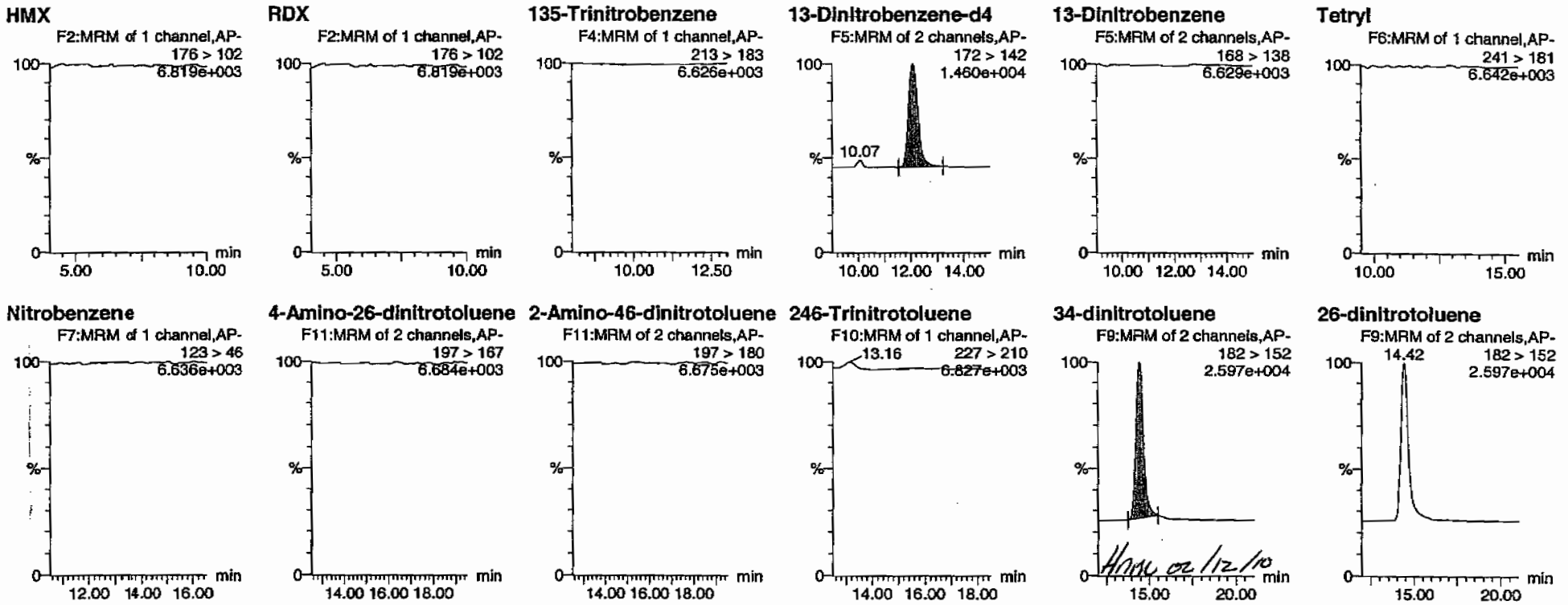

HMM 02/12/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

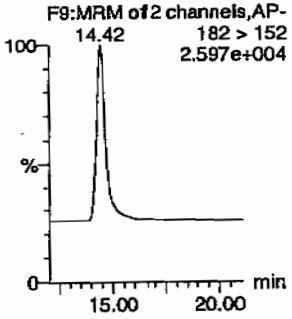

26-dinitrotoluene-d3

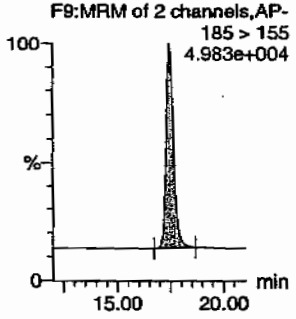

2-Nitrotoluene

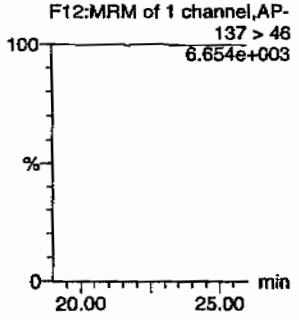

4-Nitrotoluene

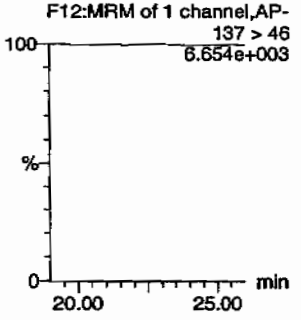

3-Nitrotoluene

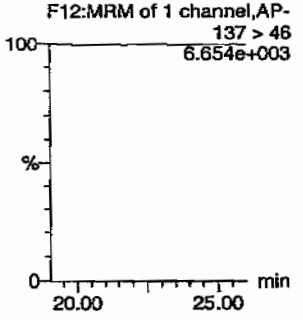

PETN

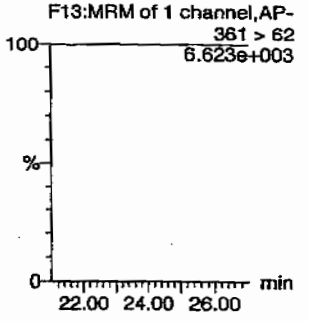

ID	Name	Trace	RT	Area	IS Area	Adjusted	Response	Flag	Mod Date	Mod Time	Conc	%Rec	%Dev	S/N
1202028676	HMX	176 > 102			3195.324									
1202028676	RDX	176 > 102			3195.324									
1202028676	135-Trinitrobenzene	213 > 183			3195.324									
1202028676	13-Dinitrobenzene-d4	172 > 142	12.07	3195.324		3195.324	3195.324	bb			497.0059	99.4	-0.6	268.5
1202028676	13-Dinitrobenzene	168 > 138			3195.324									
1202028676	Tetryl	241 > 181			3195.324									
1202028676	Nitrobenzene	123 > 46			3195.324									
1202028676	4-Amino-26-dinitrotoluene	197 > 167			17686.594									
1202028676	2-Amino-46-dinitrotoluene	197 > 180			17686.594									
1202028676	246-Trinitrotoluene	227 > 210			17686.594									
1202028676	34-dinitrotoluene	182 > 152	14.42	9189.185	17686.594	9189.185	259.778	bb			288.6451	115.5	15.5	1015.8
1202028676	26-dinitrotoluene	182 > 152			17686.594									
1202028676	24-dinitrotoluene	182 > 152			17686.594									
1202028676	26-dinitrotoluene-d3	185 > 155	17.49	17686.594		17686.594	17686.594	bb			479.0601	95.8	-4.2	2054.9
1202028676	2-Nitrotoluene	137 > 46			17686.594									
1202028676	4-Nitrotoluene	137 > 46			17686.594									
1202028676	3-Nitrotoluene	137 > 46			17686.594									
1202028676	PETN	361 > 62			17686.594									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 947080

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 1202028676

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120039.wiff

Date Analyzed: 12-FEB-10 21:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ker 2/15/10

Sample Name: "1202028676" Sample ID: "9470842|LER" File: "EXS02120039.wiff"
Peak Name: "TAT8" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:23:06 PM

Modified: No

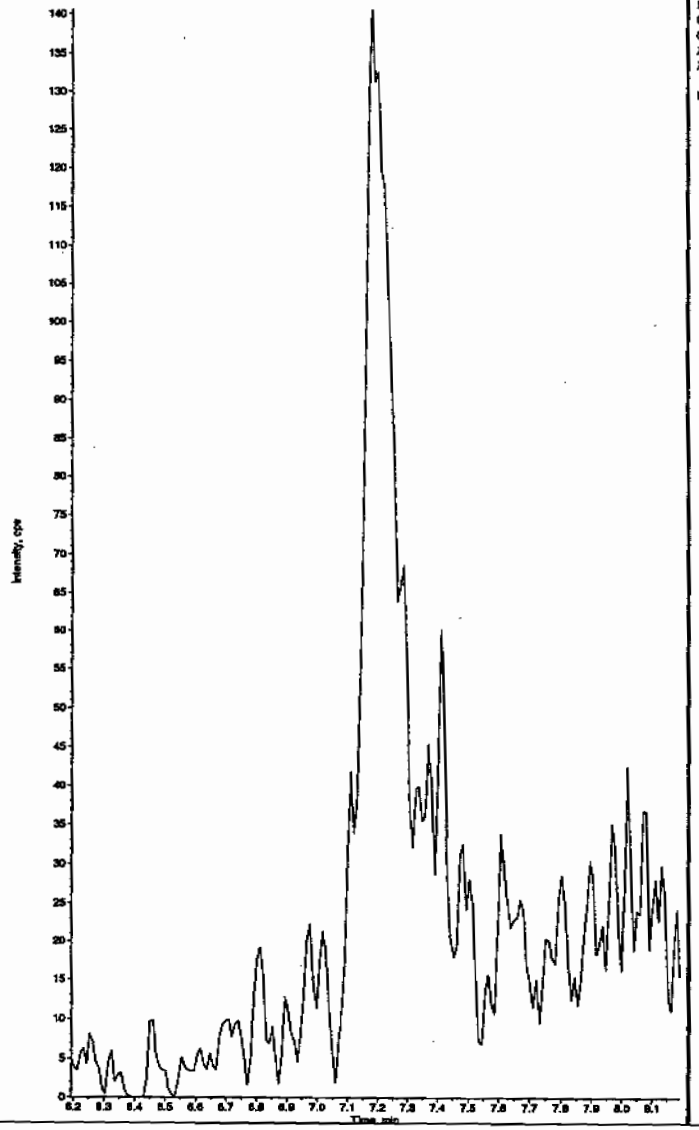

Sample Name: "1202028676" Sample ID: "9470842|LER" File: "EXS02120039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:23:06 PM

Modified: No

Hmm 02/16/10

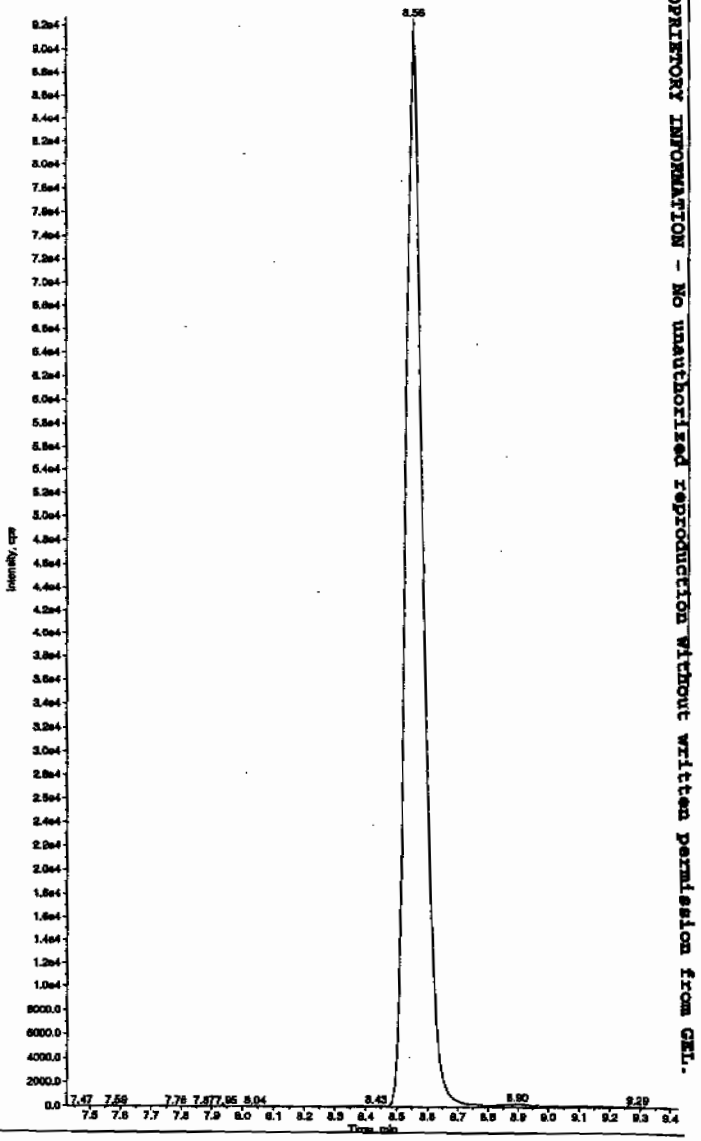

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Sample Name: "1202028676" Sample ID: "947084|2|LER" File: "EXS02120039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 309. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:23:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1440.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.55 min
Area: 3.45e+006 counts
Height: 854251.404 cps
Start Time: 8.44 min
End Time: 8.99 min

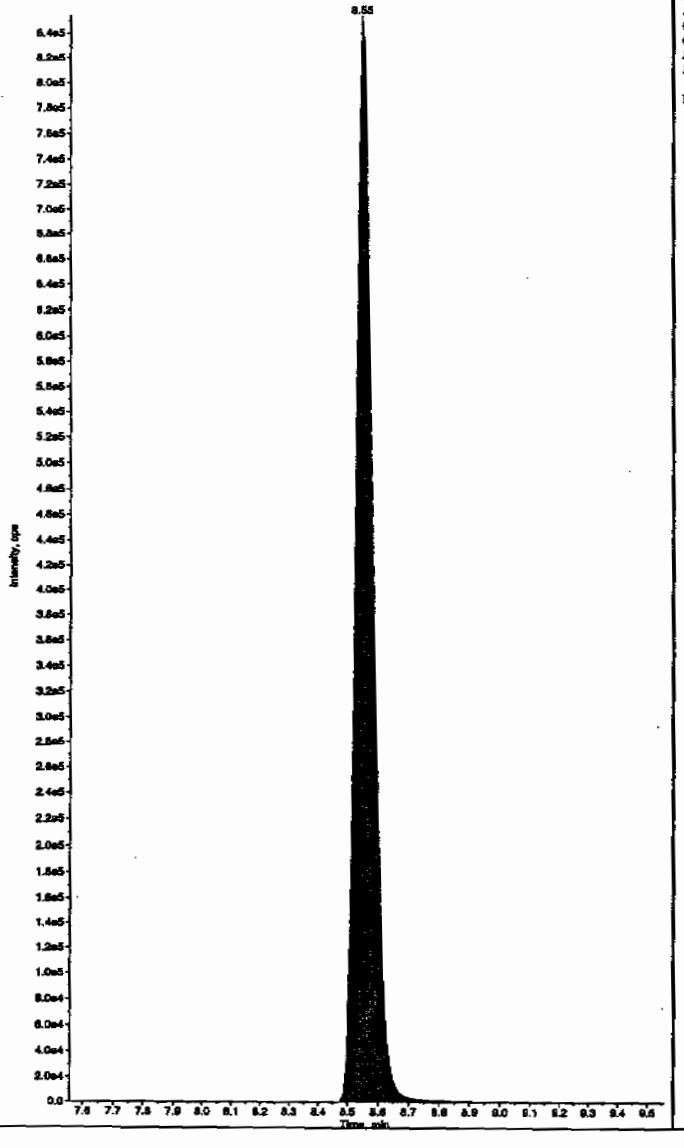

Sample Name: "1202028676" Sample ID: "947084|2|LER" File: "EXS02120039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:23:06 PM

Modified: No

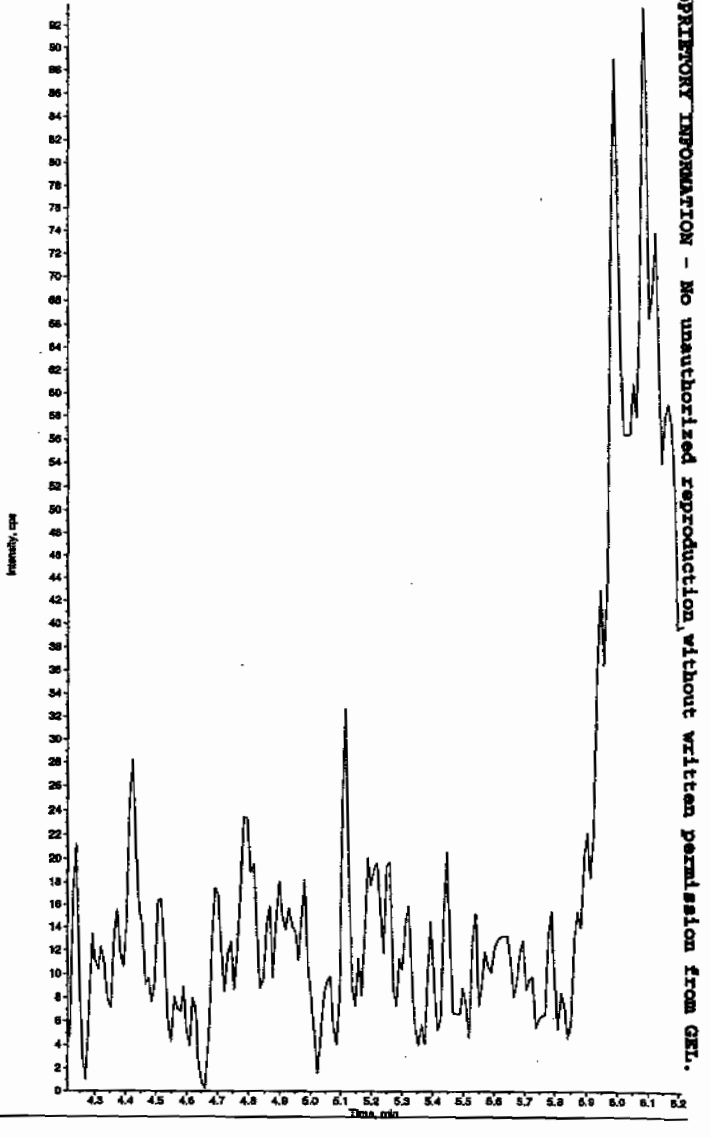

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Sample Name: "1202028676" Sample ID: "947084|2|LER" File: "EXS02120039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:21:06 PM

Modified: No

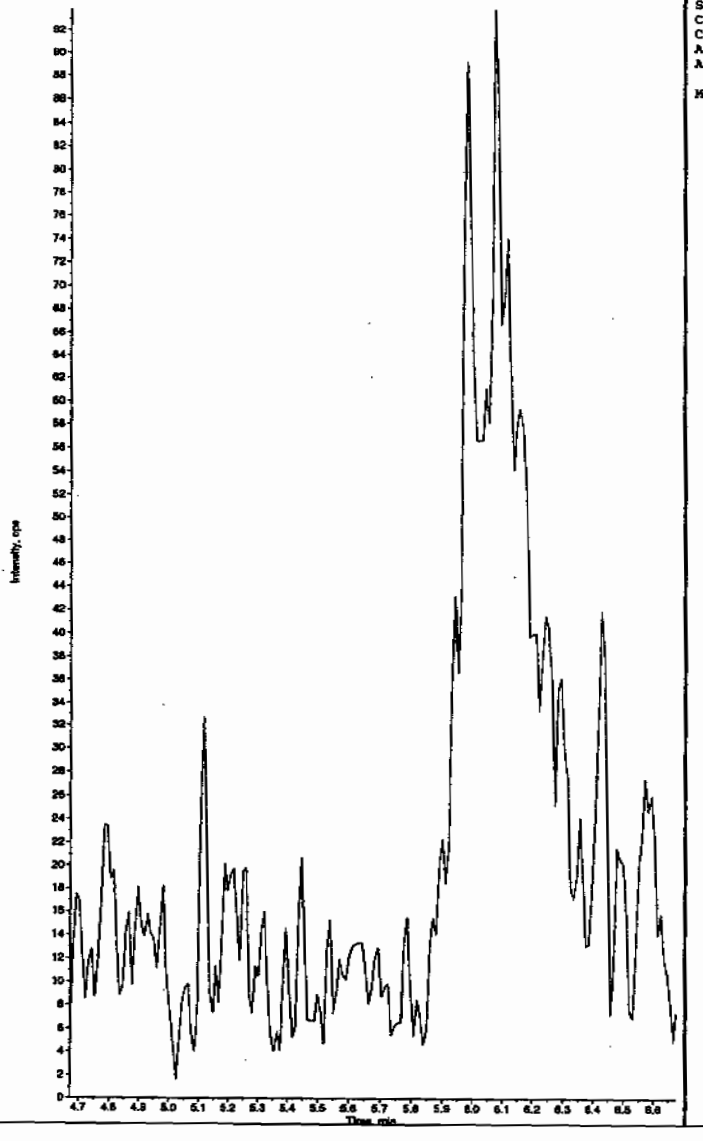

Sample Name: "1202028676" Sample ID: "947084|2|LER" File: "EXS02120039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:23:06 PM

Modified: No

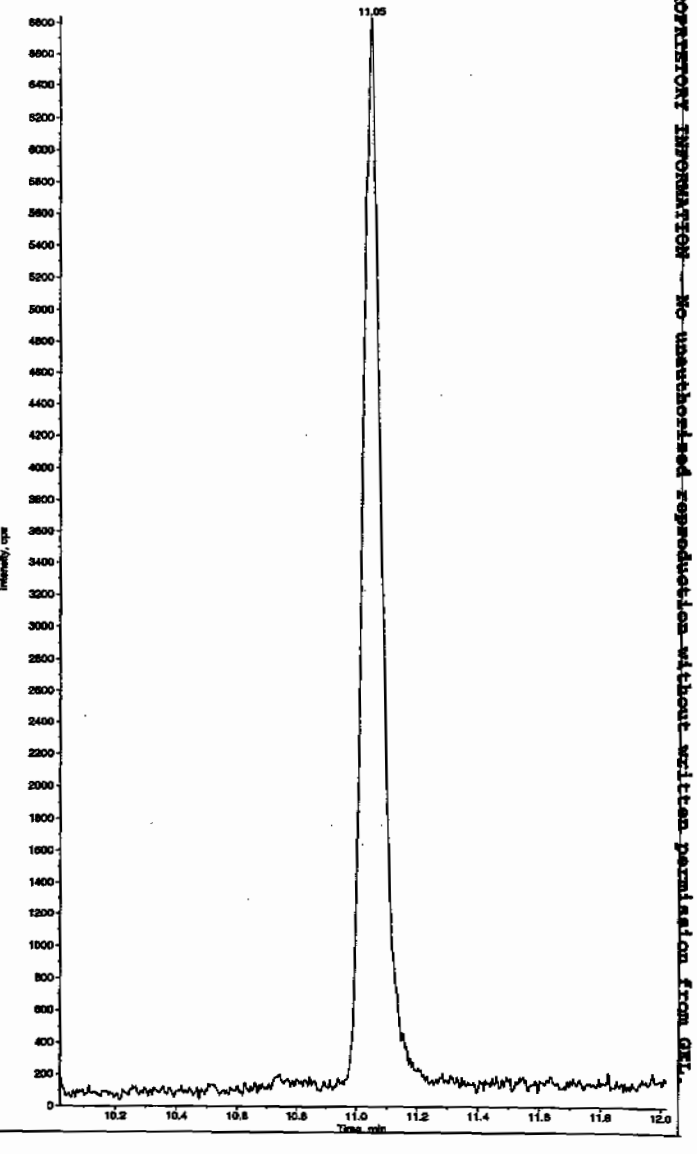

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 947080

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 1202028677

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208159a

Date Analyzed: 11-FEB-10 20:27

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4730	
121-14-2	2,4-Dinitrotoluene	5080	
121-82-4	RDX	4890	
19406-51-0	4-Amino-2,6-dinitrotoluene	4700	
2691-41-0	HMX	4950	
35572-78-2	2-Amino-4,6-dinitrotoluene	4850	
479-45-8	Tetryl	2590	
606-20-2	2,6-Dinitrotoluene	5010	
78-11-5	PETN	5390	
88-72-2	o-Nitrotoluene	4900	
98-95-3	Nitrobenzene	5020	
99-08-1	m-Nitrotoluene	4690	
99-35-4	1,3,5-Trinitrobenzene	4160	
99-65-0	m-Dinitrobenzene	5020	
99-99-0	p-Nitrotoluene	5090	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208159a
Date: 11-Feb-2010
Time: 20:27:32
ID: 1202028677 | LANU | 947084 | Soil | LCS | 2 |
Vial: 4:1,B

MAP 2/12/10

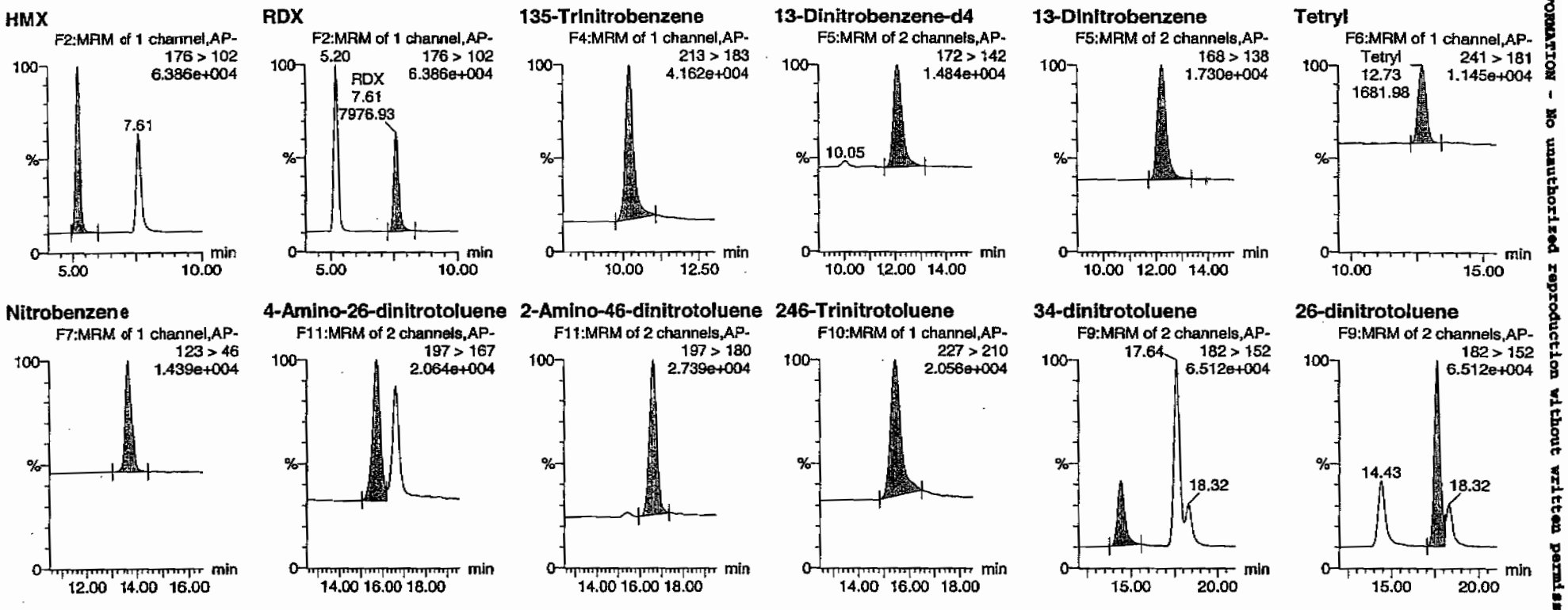

HMM 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

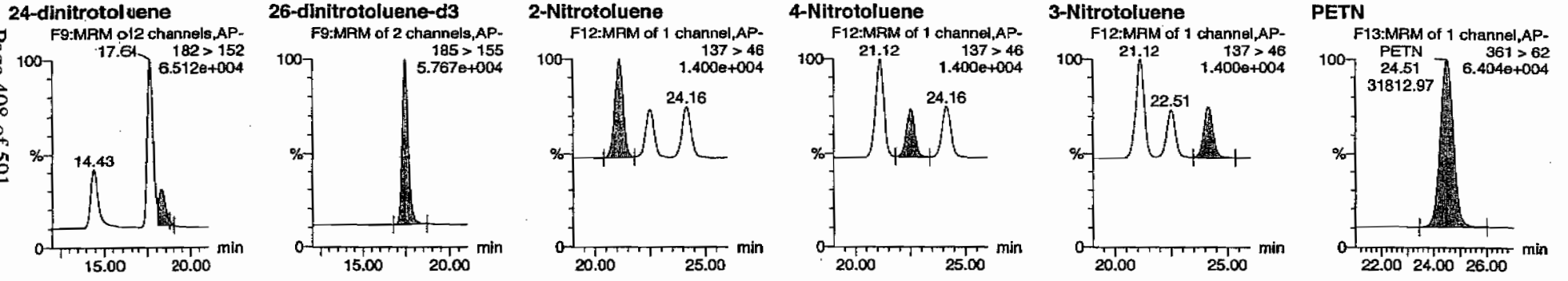

Dataset	Name	Trace	RT	Area	IS Area	Abs Resp	Rel Response	Flags	Modifiedby	Modtime	Amount	%Rec	%Dev	S/N
1202028677	HMX	176 > 102	5.20	11529.899	3355.930	11529.899	1717.840	db			494.6550	98.9	-1.1	1554.3
1202028677	RDX	176 > 102	7.61	7976.932	3355.930	7976.932	1188.483	bb			489.4617	97.9	-2.1	921.3
1202028677	135-Trinitrobenzene	213 > 183	10.21	10279.387	3355.930	10279.387	1531.526	bb			415.8302	83.2	-16.8	386.5
1202028677	13-Dinitrobenzene-d4	172 > 142	12.10	3355.930		3355.930	3355.930	bb			521.9868	104.4	4.4	331.4
1202028677	13-Dinitrobenzene	168 > 138	12.24	4054.494	3355.930	4054.494	604.079	bb			502.3963	100.5	0.5	597.7
1202028677	Tetryl	241 > 181	12.73	1681.983	3355.930	1681.983	250.599	bb			258.9519	51.8	-48.2	182.0
1202028677	Nitrobenzene	123 > 46	13.63	2722.223	3355.930	2722.223	405.584	bb			502.1028	100.4	0.4	227.2
1202028677	4-Amino-26-dinitrotoluene	197 > 167	15.74	5601.931	20751.205	5601.931	134.978	MM	12-Feb-10	08:00:07	469.9072	94.0	-6.0	347.7
1202028677	2-Amino-46-dinitrotoluene	197 > 180	16.63	7977.623	20751.205	7977.623	192.221	bb			485.3687	97.1	-2.9	463.6
1202028677	246-Trinitrotoluene	227 > 210	15.45	6331.342	20751.205	6331.342	152.554	bb			472.7951	94.6	-5.4	507.6
1202028677	34-dinitrotoluene	182 > 152	14.43	9678.535	20751.205	9678.535	233.204	bb			259.1180	103.6	3.6	343.3
1202028677	26-dinitrotoluene	182 > 152	17.64	22334.057	20751.205	22334.057	538.139	MM	12-Feb-10	08:05:28	501.0193	100.2	0.2	992.8
1202028677	24-dinitrotoluene	182 > 152	18.32	5148.683	20751.205	5148.683	124.057	MM	12-Feb-10	08:07:37	508.3248	101.7	1.7	212.2
1202028677	26-dinitrotoluene-d3	185 > 155	17.49	20751.205		20751.205	20751.205	bb			562.0683	112.4	12.4	1110.7
1202028677	2-Nitrotoluene	137 > 46	21.12	3153.804	20751.205	3153.804	75.991	bb			490.1112	98.0	-2.0	119.3
1202028677	4-Nitrotoluene	137 > 46	22.51	1606.286	20751.205	1606.286	38.703	bb			509.2381	101.8	1.8	58.2
1202028677	3-Nitrotoluene	137 > 46	24.16	1815.119	20751.205	1815.119	43.735	bb			469.4073	93.9	-6.1	62.0
1202028677	PETN	361 > 62	24.51	31812.975	20751.205	31812.975	766.533	bb			538.7638	107.8	7.8	5934.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 947080

Lab Code: GEL

GEL Job No (SDG) 10-1473

Matrix: SOIL

GEL Sample ID: 1202028677

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947080

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02120040.wiff

Date Analyzed: 12-FEB-10 21:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	8020	
59229-75-3	2,6-Diamino-4-nitrotoluene	5340	
618-87-1	3,5-Dinitroaniline	5310	
6629-29-4	2,4-Diamino-6-nitrotoluene	4730	
78-30-8	tris(o-cresyl) phosphate	5150	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Clean 2/15/10

Sample Name: "1202028577" Sample ID: "947084|2|LER" File: "EXS02120040.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 802. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:38:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 1.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.21 min
Area: 9.25e+005 counts
Height: 2.01e+005 cps
Start Time: 1.11 min
End Time: 7.91 min

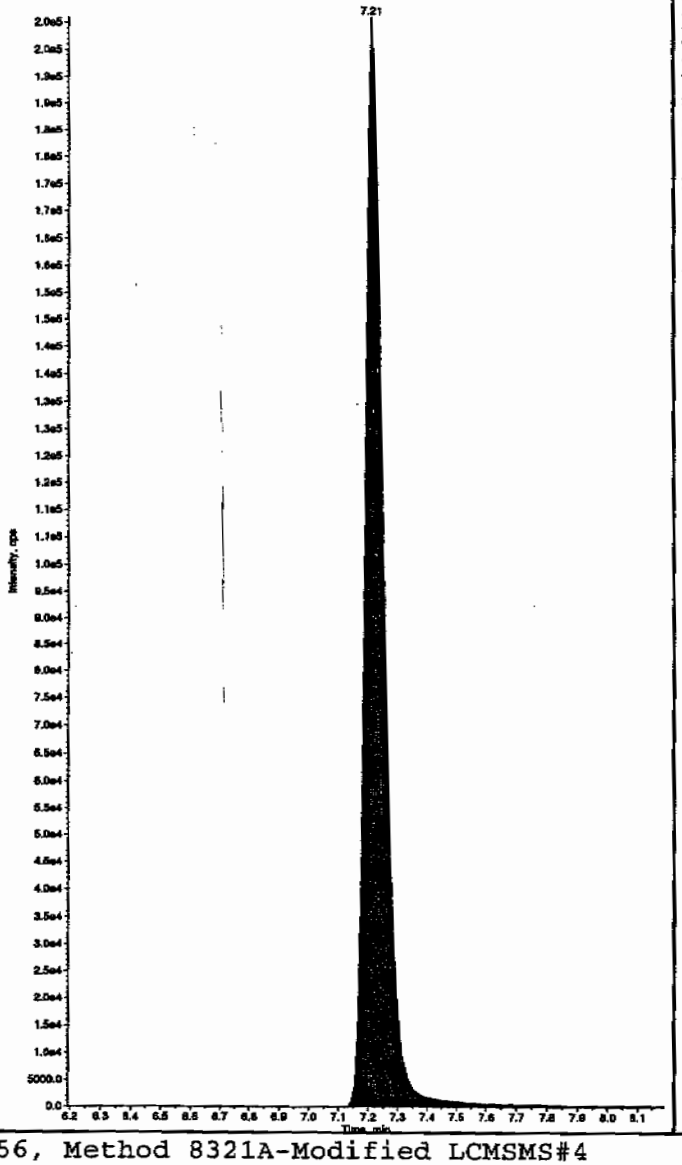

Sample Name: "1202028577" Sample ID: "947084|2|LER" File: "EXS02120040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 590. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:38:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.44 min
Area: 3.21e+006 counts
Height: 7.11e+005 cps
Start Time: 8.36 min
End Time: 8.65 min

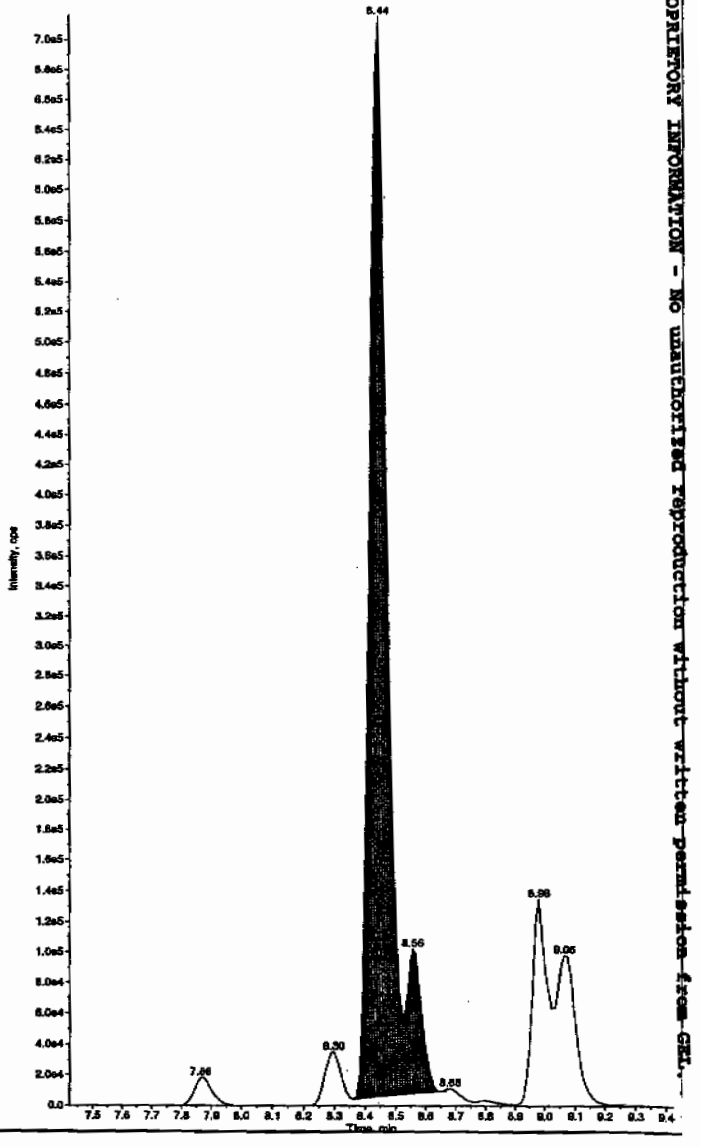

HMW 2/16/10

PROPRIETORY INFORMATION - NO unauthorized reproduction without written permission from GEL.

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

After Shen 2/15/10

Sample Name: "1202028677" Sample ID: "947084|2|LER" File: "EXS02120040.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 802. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:38:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.21 min
Area: 9.25e+005 counts
Height: 200943.985 cps
Start Time: 7.11 min
End Time: 7.91 min

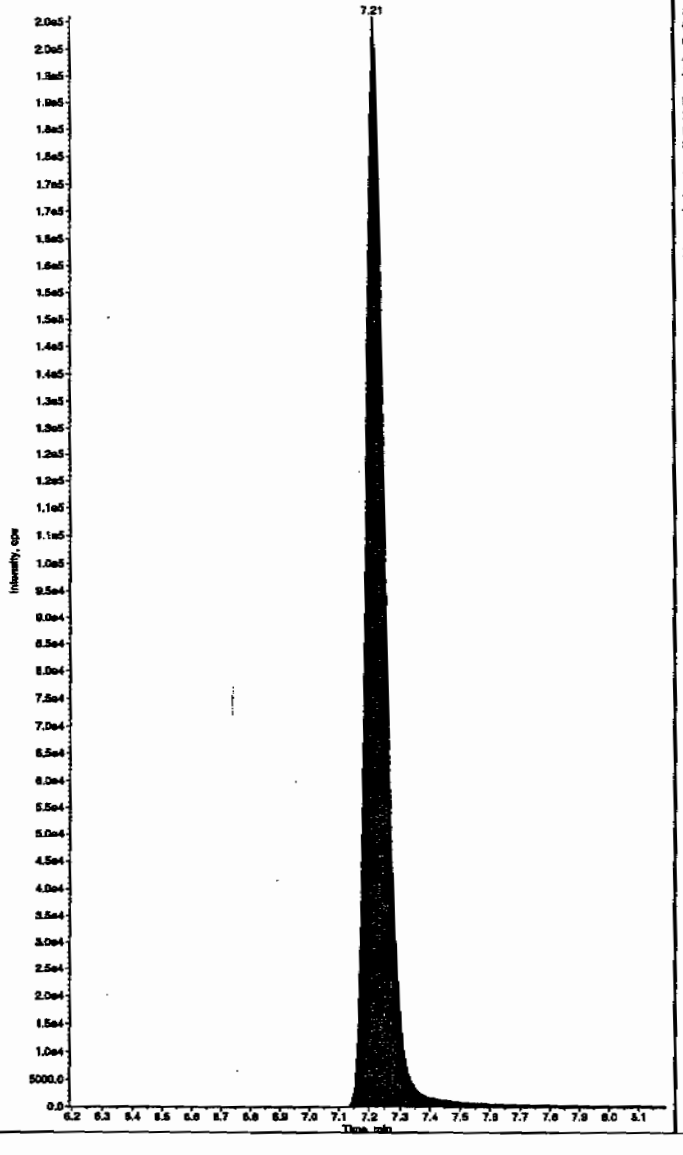

Sample Name: "1202028677" Sample ID: "947084|2|LER" File: "EXS02120040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 531. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:38:49 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.44 min
Area: 2.90e+006 counts
Height: 716335.637 cps
Start Time: 8.36 min
End Time: 8.53 min

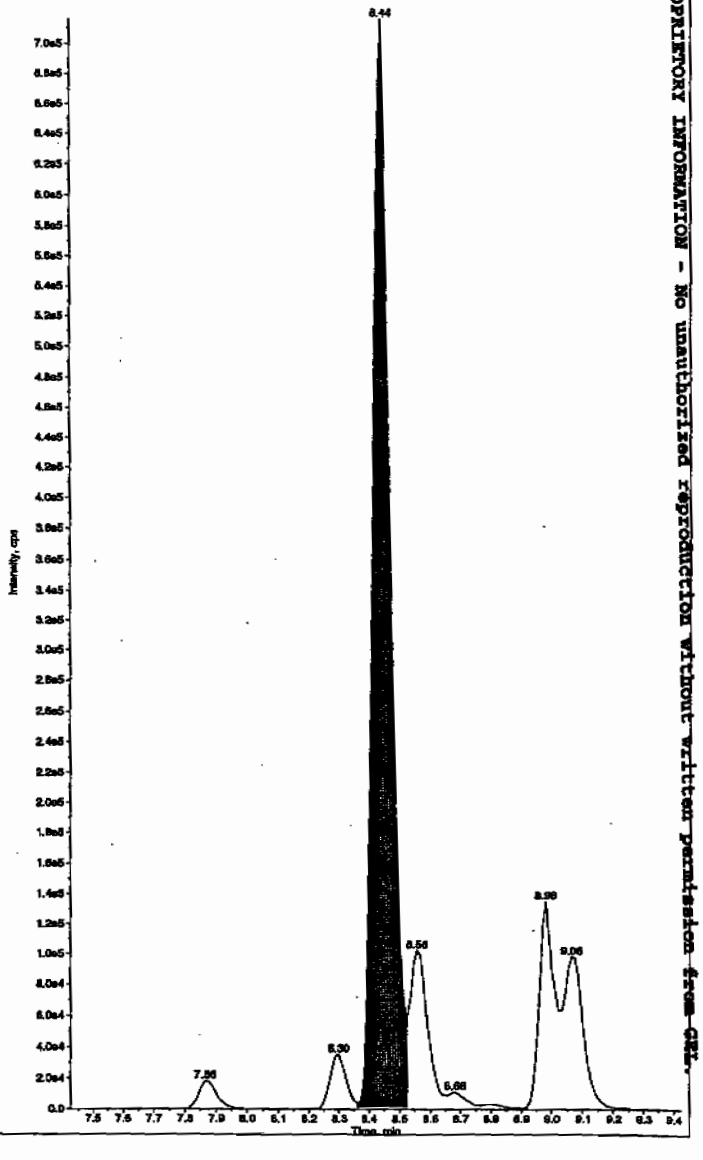

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from CRL.

Sample Name: "1202028677" Sample ID: "947084|2|LER" File: "EXS02120040.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 115. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:31:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 1.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 1.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 1.56 min
Area: 3.52e+006 counts
Height: 897217.285 cps
Start Time: 1.48 min
End Time: 1.74 min

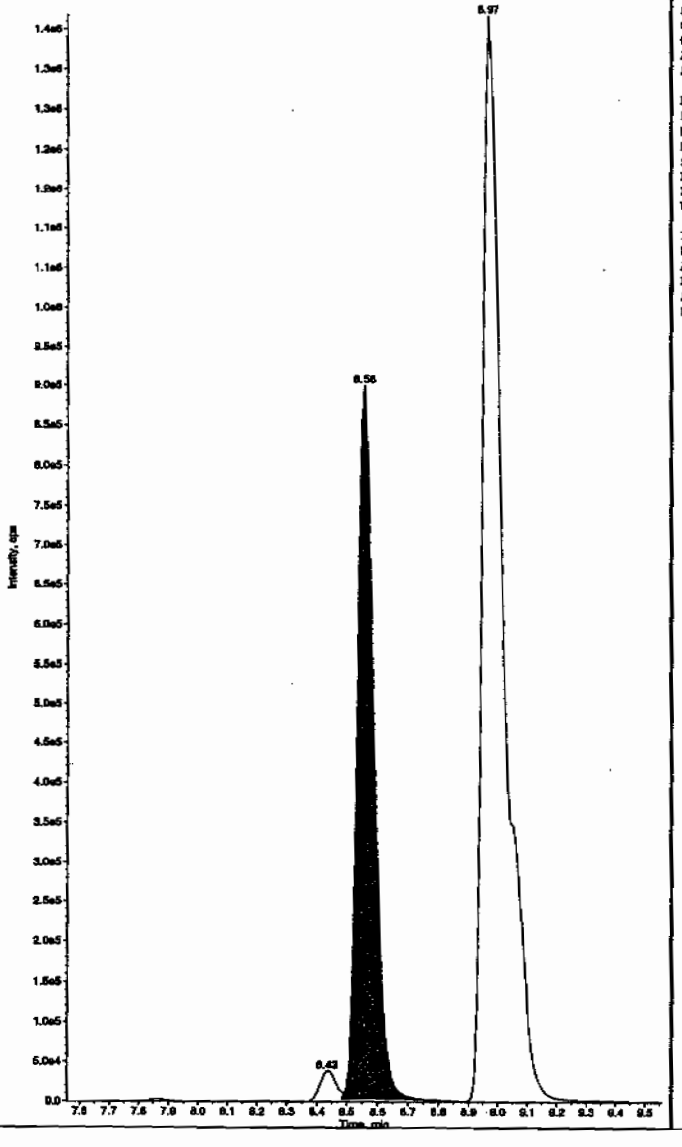

Sample Name: "1202028677" Sample ID: "947084|2|LER" File: "EXS02120040.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 534. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:38:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.23 min
Area: 1.10e+006 counts
Height: 284974.335 cps
Start Time: 5.12 min
End Time: 5.53 min

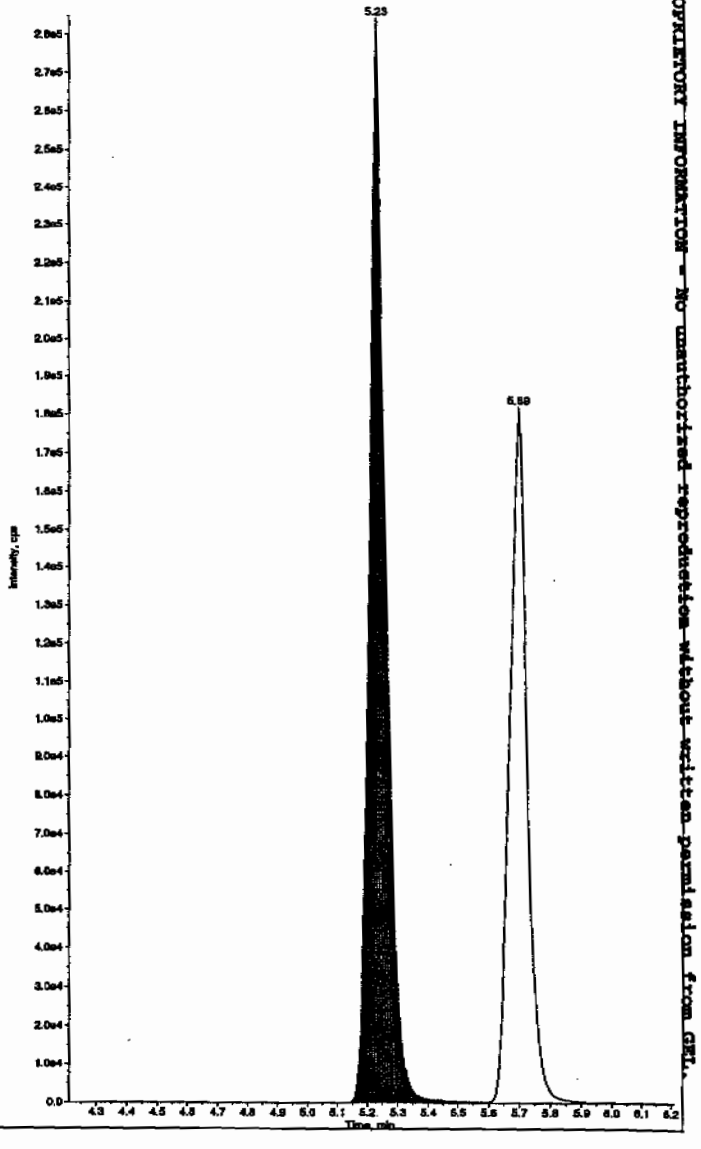

PROPRIETORY INFORMATION - NO unauthorized reproduction without written permission from GEL.

Sample Name: "1202028677" Sample ID: "947084|2|LER" File: "EXS02120040.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 473. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:38:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.69 min
Area: 7.13e+005 counts
Height: 182161.514 cps
Start Time: 5.60 min
End Time: 5.92 min

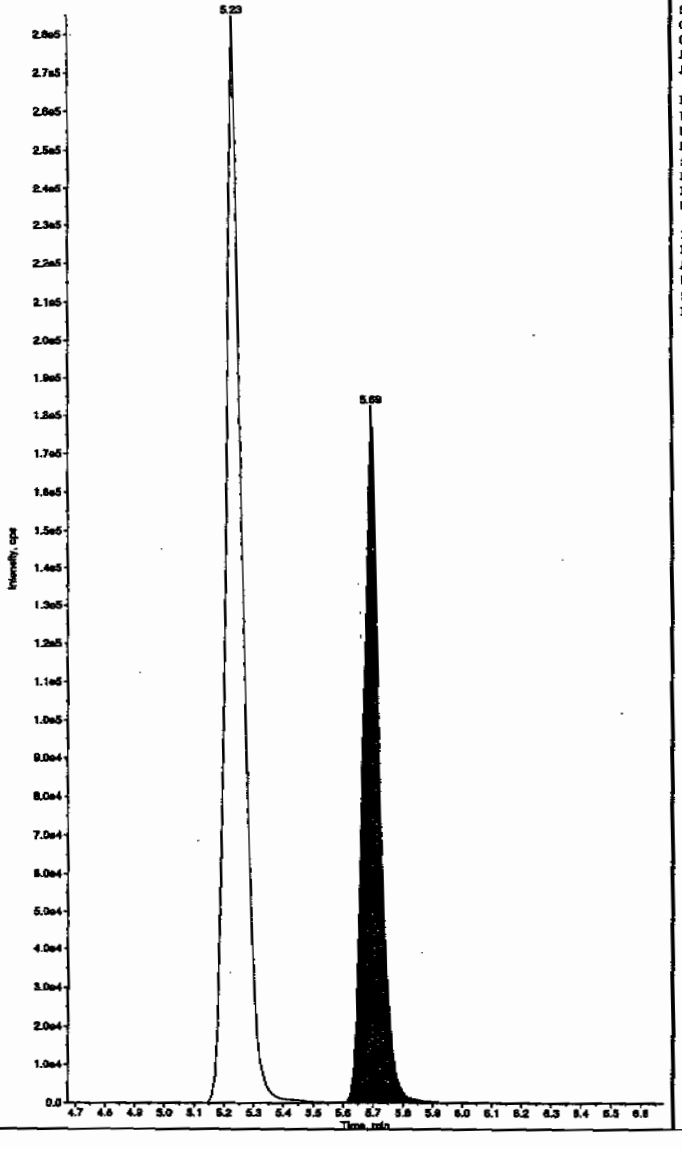

Sample Name: "1202028677" Sample ID: "947084|2|LER" File: "EXS02120040.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 515. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 9:38:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.10e+007 counts
Height: 2459059.326 cps
Start Time: 10.9 min
End Time: 11.4 min

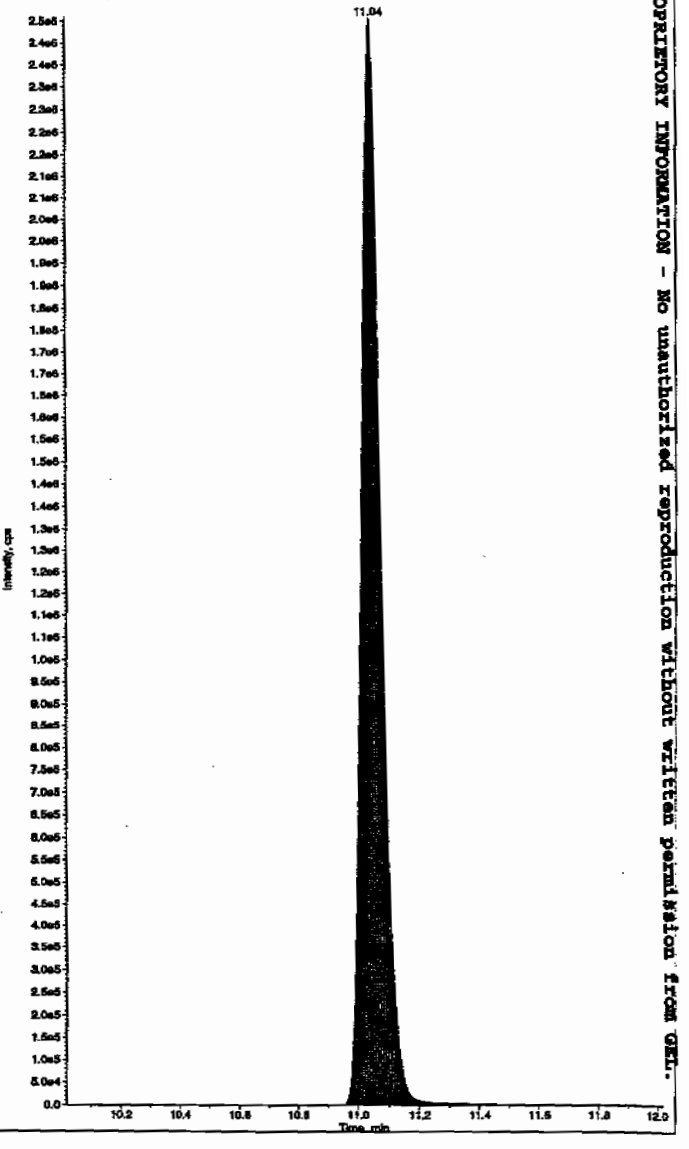

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 947080 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202028676 MB	04-FEB-2010 13:04:00	2	10	5
1202028677 LCS	04-FEB-2010 13:04:00	2	10	5
245663001	04-FEB-2010 13:04:00	2	10	5
1202028678 MS (245663001)	04-FEB-2010 13:04:00	2	10	5
1202028679 MSD (245663001)	04-FEB-2010 13:04:00	2	10	5
245663002	04-FEB-2010 13:04:00	2	10	5
245663003	04-FEB-2010 13:04:00	2	10	5
245663004	04-FEB-2010 13:04:00	2	10	5
245663005	04-FEB-2010 13:04:00	2	10	5
245663006	04-FEB-2010 13:04:00	2	10	5
245803001	04-FEB-2010 13:04:00	2	10	5
245803002	04-FEB-2010 13:04:00	2	10	5
245803003	04-FEB-2010 13:04:00	2	10	5
245803004	04-FEB-2010 13:04:00	2	10	5
245803005	04-FEB-2010 13:04:00	2	10	5
245803006	04-FEB-2010 13:04:00	2	10	5
245803007	04-FEB-2010 13:04:00	2	10	5
245803008	04-FEB-2010 13:04:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202028677	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202028677	8321 LANL Explosives Mix 10mg/L	UXX100122-01.1	1	mL
MS	1202028678	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202028678	8321 LANL Explosives Mix 10mg/L	UXX100122-01.1	1	mL
MSD	1202028679	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202028679	8321 LANL Explosives Mix 10mg/L	UXX100122-01.1	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100125-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 02/08/10
Extr. Injection Volume: 50uL
Sequence Number: 020810expA
Initial Calibration Date: 02/08/10

Method: SW846 8321A-Modified
Int. Std.: UXX100128-01.1
Mobile Phase Lot#: 1265885, 1250738
Standard-Samp Reagent Lot#: 1260901, 1246195

Reviewed BY: Hmc
Date: 02/12/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100208-07 & WXX100211-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0208001a	XIBLK01	MAP	2/8/10 14:44			1		USE	B
EXP0208002a	XIBLK01	MAP	2/8/10 15:13			1		USE	B
EXP0208003a	WXXICAL-01	MAP	2/8/10 15:43			1		USE	I
EXP0208004a	WXXICAL-02	MAP	2/8/10 16:12			1		USE	I
EXP0208005a	WXXICAL-03	MAP	2/8/10 16:42			1		USE	I
EXP0208006a	WXXICAL-04	MAP	2/8/10 17:11			1		USE	I
EXP0208007a	WXXICAL-05	MAP	2/8/10 17:41			1		USE	I
EXP0208008a	WXXICAL-06	MAP	2/8/10 18:11			1		USE	I
EXP0208009a	XIBLK02	MAP	2/8/10 18:40			1		USE	B
EXP0208010a	WXXICV	MAP	2/8/10 19:10			1		USE	C
EXP0208011a	XIBLK03	MAP	2/8/10 19:39			1		USE	B
EXP0208012a	WXXCRI	MAP	2/8/10 20:09			1		USE	C
EXP0208013a	1202021906	MAP	2/8/10 20:38	944246	10-1304	2	LANL	DUSE-RA	S
EXP0208014a	1202021907	MAP	2/8/10 21:08	944246	10-1304	2	LANL	DUSE-RA	S
EXP0208015a	245106001	MAP	2/8/10 21:37	944246	10-1304	2	LANL	USE	S
EXP0208016a	1202021908	MAP	2/8/10 22:07	944246	10-1304	2	LANL	USE	S
EXP0208017a	1202021909	MAP	2/8/10 22:36	944246	10-1304	2	LANL	USE	S
EXP0208018a	245106002	MAP	2/8/10 23:05	944246	10-1304	2	LANL	USE	S
EXP0208019a	245106003	MAP	2/8/10 23:35	944246	10-1304	2	LANL	USE	S
EXP0208020a	245106004	MAP	2/9/10 0:04	944246	10-1304	2	LANL	USE	S
EXP0208021a	245106005	MAP	2/9/10 0:34	944246	10-1304	2	LANL	USE	S
EXP0208022a	245106006	MAP	2/9/10 1:03	944246	10-1304	2	LANL	USE	S
EXP0208023a	WXXCCV	MAP	2/9/10 1:33			1		USE	C
EXP0208024a	XIBLK04	MAP	2/9/10 2:02			1		USE	B
EXP0208025a	WXXCRI	MAP	2/9/10 2:32			1		USE	C
EXP0208026a	245106007	MAP	2/9/10 3:01	944246	10-1304	2	LANL	USE	S
EXP0208027a	245106008	MAP	2/9/10 3:31	944246	10-1304	2	LANL	USE	S
EXP0208028a	245106009	MAP	2/9/10 4:00	944246	10-1304	2	LANL	USE	S
EXP0208029a	245106010	MAP	2/9/10 4:30	944246	10-1304	2	LANL	USE	S

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EXP0208030a	245106011	MAP	2/9/10 4:59	944246	10-1304	2	LANL	USE	S
EXP0208031a	245106012	MAP	2/9/10 5:29	944246	10-1304	2	LANL	USE	S
EXP0208032a	245106013	MAP	2/9/10 5:58	944246	10-1304	2	LANL	USE	S
EXP0208033a	245106014	MAP	2/9/10 6:28	944246	10-1304	2	LANL	USE	S
EXP0208034a	245106015	MAP	2/9/10 6:58	944246	10-1304	2	LANL	USE	S
EXP0208035a	245106016	MAP	2/9/10 7:27	944246	10-1304	2	LANL	USE	S
EXP0208036a	WXXCCV	MAP	2/9/10 7:57			1		USE	C
EXP0208037a	XIBLK05	MAP	2/9/10 8:26			1		USE	B
EXP0208038a	WXXCRI	MAP	2/9/10 8:56			1		USE	C
EXP0208039a	1202021914	MAP	2/9/10 9:25	944250	10-1324	2	LANL	USE	S
EXP0208040a	1202021915	MAP	2/9/10 9:55	944250	10-1324	2	LANL	USE	S
EXP0208041a	245114002	MAP	2/9/10 10:24	944250	10-1324	2	LANL	USE	S
EXP0208042a	1202021916	MAP	2/9/10 10:54	944250	10-1324	2	LANL	USE	S
EXP0208043a	1202021917	MAP	2/9/10 11:23	944250	10-1324	2	LANL	USE	S
EXP0208044a	245114003	MAP	2/9/10 11:53	944250	10-1324	2	LANL	USE	S
EXP0208045a	245114004	MAP	2/9/10 12:22	944250	10-1324	2	LANL	USE	S
EXP0208046a	245114005	MAP	2/9/10 12:52	944250	10-1324	2	LANL	USE	S
EXP0208047a	245114006	MAP	2/9/10 13:21	944250	10-1324	2	LANL	USE	S
EXP0208048a	245114007	MAP	2/9/10 13:51	944250	10-1324	2	LANL	USE	S
EXP0208049a	WXXCCV	MAP	2/9/10 14:20			1		USE	C
EXP0208050a	XIBLK06	MAP	2/9/10 14:50			1		USE	B
EXP0208051a	WXXCRI	MAP	2/9/10 15:19			1		USE	C
EXP0208052a	245114008	MAP	2/9/10 15:49	944250	10-1324	2	LANL	USE	S
EXP0208053a	245114009	MAP	2/9/10 16:18	944250	10-1324	2	LANL	USE	S
EXP0208054a	245114010	MAP	2/9/10 16:48	944250	10-1324	2	LANL	USE	S
EXP0208055a	245114011	MAP	2/9/10 17:17	944250	10-1324	2	LANL	USE	S
EXP0208056a	245114012	MAP	2/9/10 17:47	944250	10-1324	2	LANL	USE	S
EXP0208057a	245114013	MAP	2/9/10 18:16	944250	10-1324	2	LANL	USE	S
EXP0208058a	245114014	MAP	2/9/10 18:46	944250	10-1324	2	LANL	USE	S
EXP0208059a	245114015	MAP	2/9/10 19:15	944250	10-1324	2	LANL	USE	S
EXP0208060a	1202021906	MAP	2/9/10 19:45	944246	10-1304	2	LANL	USE	S
EXP0208061a	1202021907	MAP	2/9/10 20:14	944246	10-1304	2	LANL	USE	S
EXP0208062a	WXXCCV	MAP	2/9/10 20:44			1		USE	C
EXP0208063a	XIBLK07	MAP	2/9/10 21:13			1		USE	B
EXP0208064a	WXXCRI	MAP	2/9/10 21:43			1		USE	C
EXP0208065a	1202023096	MAP	2/9/10 22:12	944718	Various	2	LANL	USE	S
EXP0208066a	1202023097	MAP	2/9/10 22:42	944718	Various	2	LANL	USE	S

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EXP0208067a	245116001	MAP	2/9/10 23:12	944718	10-1327	2	LANL	USE	S
EXP0208068a	1202023098	MAP	2/9/10 23:41	944718	10-1327	2	LANL	USE	S
EXP0208069a	1202023099	MAP	2/10/10 0:10	944718	10-1327	2	LANL	USE	S
EXP0208070a	245116002	MAP	2/10/10 0:40	944718	10-1327	2	LANL	DUSE-RA	S
EXP0208071a	245116003	MAP	2/10/10 1:09	944718	10-1327	2	LANL	USE	S
EXP0208072a	245116004	MAP	2/10/10 1:39	944718	10-1327	2	LANL	USE	S
EXP0208073a	245116005	MAP	2/10/10 2:08	944718	10-1327	2	LANL	DUSE-RA	S
EXP0208074a	245116006	MAP	2/10/10 2:38	944718	10-1327	2	LANL	USE	S
EXP0208075a	WXXCCV	MAP	2/10/10 3:07			1		USE	C
EXP0208076a	XIBLK08	MAP	2/10/10 3:37			1		USE	B
EXP0208077a	WXXCRI	MAP	2/10/10 4:06			1		USE	C
EXP0208078a	245116007	MAP	2/10/10 4:36	944718	10-1327	2	LANL	USE	S
EXP0208079a	245116008	MAP	2/10/10 5:06	944718	10-1327	2	LANL	USE	S
EXP0208080a	245116009	MAP	2/10/10 5:35	944718	10-1327	2	LANL	USE	S
EXP0208081a	245116010	MAP	2/10/10 6:04	944718	10-1327	2	LANL	USE	S
EXP0208082a	245116011	MAP	2/10/10 6:34	944718	10-1327	2	LANL	USE	S
EXP0208083a	245116012	MAP	2/10/10 7:03	944718	10-1327	2	LANL	USE	S
EXP0208084a	245116013	MAP	2/10/10 7:33	944718	10-1327	2	LANL	USE	S
EXP0208085a	245116014	MAP	2/10/10 8:02	944718	10-1327	2	LANL	USE	S
EXP0208086a	245116015	MAP	2/10/10 8:32	944718	10-1327	2	LANL	USE	S
EXP0208087a	245116016	MAP	2/10/10 9:01	944718	10-1327	2	LANL	USE	S
EXP0208088a	WXXCCV	MAP	2/10/10 9:31			1		USE	C
EXP0208089a	XIBLK09	MAP	2/10/10 10:01			1		USE	B
EXP0208090a	WXXCRI	MAP	2/10/10 10:30			1		USE	C
EXP0208091a	245226001	MAP	2/10/10 11:00	944718	10-1342	250	LANL	USE	S
EXP0208092a	245226001	MAP	2/10/10 11:29	944718	10-1342	2	LANL	USE	S
EXP0208093a	XIBLK10	MAP	2/10/10 11:59			1		USE	B
EXP0208094a	245226003	MAP	2/10/10 12:28	944718	10-1342	250	LANL	DUSE	S
EXP0208095a	245226003	MAP	2/10/10 12:58	944718	10-1342	2	LANL	USE	S
EXP0208096a	XIBLK11	MAP	2/10/10 13:28			1		USE	B
EXP0208097a	245116002	MAP	2/10/10 13:57	944718	10-1327	2	LANL	USE	S
EXP0208098a	245116005	MAP	2/10/10 14:27	944718	10-1327	2	LANL	USE	S
EXP0208099a	245226003	MAP	2/10/10 14:56	944718	10-1342	500	LANL	USE	S
EXP0208100a	WXXCCV	MAP	2/10/10 15:26			1		USE	C
EXP0208101a	XIBLK12	MAP	2/10/10 15:55			1		USE	B
EXP0208102a	WXXCRI	MAP	2/10/10 16:25			1		USE	C
EXP0208103a	1202027262	MAP	2/10/10 16:54	946483	10-1408	2	LANL	USE	S

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EXP0208104a	1202027263	MAP	2/10/10 17:24	946483	10-1408	2	LANL	USE	S
EXP0208105a	245597002	MAP	2/10/10 17:53	946483	10-1408	2	LANL	USE	S
EXP0208106a	1202027264	MAP	2/10/10 18:23	946483	10-1408	2	LANL	USE	S
EXP0208107a	1202027265	MAP	2/10/10 18:52	946483	10-1408	2	LANL	USE	S
EXP0208108a	245597003	MAP	2/10/10 19:22	946483	10-1408	2	LANL	USE	S
EXP0208109a	245597004	MAP	2/10/10 19:51	946483	10-1408	2	LANL	USE	S
EXP0208110a	245597005	MAP	2/10/10 20:21	946483	10-1408	2	LANL	USE	S
EXP0208111a	245597006	MAP	2/10/10 20:50	946483	10-1408	2	LANL	USE	S
EXP0208112a	245597007	MAP	2/10/10 21:20	946483	10-1408	2	LANL	USE	S
EXP0208113a	WXXCCV	MAP	2/10/10 21:49			1		USE	C
EXP0208114a	XIBLK13	MAP	2/10/10 22:19			1		USE	B
EXP0208115a	WXXCRI	MAP	2/10/10 22:48			1		USE	C
EXP0208116a	245597008	MAP	2/10/10 23:18	946483	10-1408	2	LANL	USE	S
EXP0208117a	245597009	MAP	2/10/10 23:47	946483	10-1408	2	LANL	USE	S
EXP0208118a	245597010	MAP	2/11/10 0:17	946483	10-1408	2	LANL	USE	S
EXP0208119a	245597011	MAP	2/11/10 0:46	946483	10-1408	2	LANL	USE	S
EXP0208120a	WXXCCV	MAP	2/11/10 1:16			1		USE	C
EXP0208121a	XIBLK14	MAP	2/11/10 1:45			1		USE	B
EXP0208122a	WXXCRI	MAP	2/11/10 2:15			1		USE	C
EXP0208123a	1202027274	MAP	2/11/10 2:44	946488	Various	2	LANL	USE	S
EXP0208124a	1202027275	MAP	2/11/10 3:14	946488	Various	2	LANL	DUSE-RA	S
EXP0208125a	245621002	MAP	2/11/10 3:43	946488	10-1424	2	LANL	DUSE-RA	S
EXP0208126a	1202027276	MAP	2/11/10 4:13	946488	10-1424	2	LANL	DUSE-RA	S
EXP0208127a	1202027277	MAP	2/11/10 4:42	946488	10-1424	2	LANL	USE	S
EXP0208128a	245621003	MAP	2/11/10 5:12	946488	10-1424	2	LANL	USE	S
EXP0208129a	245621004	MAP	2/11/10 5:41	946488	10-1424	2	LANL	USE	S
EXP0208130a	245621005	MAP	2/11/10 6:11	946488	10-1424	2	LANL	USE	S
EXP0208131a	245621006	MAP	2/11/10 6:40	946488	10-1424	2	LANL	USE	S
EXP0208132a	245621007	MAP	2/11/10 7:10	946488	10-1424	2	LANL	USE	S
EXP0208133a	WXXCCV	MAP	2/11/10 7:39			1		USE	C
EXP0208134a	XIBLK15	MAP	2/11/10 8:09			1		USE	B
EXP0208135a	WXXCRI	MAP	2/11/10 8:38			1		USE	C
EXP0208136a	245621008	MAP	2/11/10 9:08	946488	10-1424	2	LANL	USE	S
EXP0208137a	245621009	MAP	2/11/10 9:37	946488	10-1424	2	LANL	USE	S
EXP0208138a	245621010	MAP	2/11/10 10:07	946488	10-1424	2	LANL	USE	S
EXP0208139a	245621011	MAP	2/11/10 10:36	946488	10-1424	2	LANL	USE	S
EXP0208140a	245628002	MAP	2/11/10 11:06	946488	10-1427	2	LANL	USE	S

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EXP0208141a	245628003	MAP	2/11/10 11:36	946488	10-1427	2	LANL	USE	S
EXP0208142a	245628004	MAP	2/11/10 12:05	946488	10-1427	2	LANL	USE	S
EXP0208143a	245631002	MAP	2/11/10 12:35	946488	10-1428	2	LANL	USE	S
EXP0208144a	245631003	MAP	2/11/10 13:04	946488	10-1428	2	LANL	USE	S
EXP0208145a	WXXCCV	MAP	2/11/10 13:34			1		USE	C
EXP0208146a	XIBLK16	MAP	2/11/10 14:03			1		USE	B
EXP0208147a	WXXCRI	MAP	2/11/10 14:33			1		USE	C
EXP0208148a	245597002	MAP	2/11/10 15:02	946483	10-1408	25	LANL	DUSE	S
EXP0208149a	245597002	MAP	2/11/10 15:32	946483	10-1408	25	LANL	USE	S
EXP0208150a	1202027275	MAP	2/11/10 16:01	946488	Various	2	LANL	USE	S
EXP0208151a	245621002	MAP	2/11/10 16:31	946488	10-1424	2	LANL	USE	S
EXP0208152a	1202027276	MAP	2/11/10 17:00	946488	10-1424	2	LANL	USE	S
EXP0208153a	IXP100210-02	MAP	2/11/10 17:30	SCREEN	NA	1	GEL	USE	S
EXP0208154a	IXX100208-03	MAP	2/11/10 18:00	SCREEN	NA	1	GEL	USE	S
EXP0208155a	WXXCCV	MAP	2/11/10 18:29			1		USE	C
EXP0208156a	XIBLK17	MAP	2/11/10 18:58			1		USE	B
EXP0208157a	WXXCRI	MAP	2/11/10 19:28			1		USE	C
EXP0208158a	1202028676	MAP	2/11/10 19:57	947084	Various	2	LANL	USE	S
EXP0208159a	1202028677	MAP	2/11/10 20:27	947084	Various	2	LANL	USE	S
EXP0208160a	245663001	MAP	2/11/10 20:57	947084	10-1436	2	LANL	USE	S
EXP0208161a	1202028678	MAP	2/11/10 21:26	947084	10-1436	2	LANL	USE	S
EXP0208162a	1202028679	MAP	2/11/10 21:55	947084	10-1436	2	LANL	USE	S
EXP0208163a	245663002	MAP	2/11/10 22:25	947084	10-1436	2	LANL	USE	S
EXP0208164a	245663003	MAP	2/11/10 22:54	947084	10-1436	2	LANL	USE	S
EXP0208165a	245663004	MAP	2/11/10 23:24	947084	10-1436	2	LANL	USE	S
EXP0208166a	245663005	MAP	2/11/10 23:53	947084	10-1436	2	LANL	USE	S
EXP0208167a	245663006	MAP	2/12/10 0:23	947084	10-1436	2	LANL	USE	S
EXP0208168a	WXXCCV	MAP	2/12/10 0:52			1		USE	C
EXP0208169a	XIBLK18	MAP	2/12/10 1:22			1		USE	B
EXP0208170a	WXXCRI	MAP	2/12/10 1:51			1		USE	C
EXP0208171a	245803001	MAP	2/12/10 2:21	947084	10-1473	2	LANL	USE	S
EXP0208172a	245803002	MAP	2/12/10 2:50	947084	10-1473	2	LANL	USE	S
EXP0208173a	245803003	MAP	2/12/10 3:20	947084	10-1473	2	LANL	USE	S
EXP0208174a	245803004	MAP	2/12/10 3:50	947084	10-1473	2	LANL	USE	S
EXP0208175a	245803005	MAP	2/12/10 4:19	947084	10-1473	2	LANL	USE	S
EXP0208176a	245803006	MAP	2/12/10 4:49	947084	10-1473	2	LANL	USE	S
EXP0208177a	245803007	MAP	2/12/10 5:18	947084	10-1473	2	LANL	USE	S

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EXP0208178a	245803008	MAP	2/12/10 5:48	947084	10-1473	2	LANL	USE	S
EXP0208179a	WXXCCV	MAP	2/12/10 6:17			1		USE	C
EXP0208180a	XIBLK19	MAP	2/12/10 6:47			1		USE	B
EXP0208181a	WXXCRI	MAP	2/12/10 7:16			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 02/12/10
Extr. Injection Volume: 10uL
Sequence Number: 021210exs
Initial Calibration Date: 021210

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1263794, 1258141
Standard-Samp Reagent Lot# :1246195, 1253092

Reviewed By: tmm
Date: 02/16/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100212-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02120001.wiff	XIBLK01	LER	2/12/2010 11:26			1		USE	B
EXS02120002.wiff	XIBLK01	LER	2/12/2010 11:42			1		USE	B
EXS02120003.wiff	WXXICAL-19	LER	2/12/2010 11:57			1		USE	I
EXS02120004.wiff	WXXICAL-20	LER	2/12/2010 12:13			1		USE	I
EXS02120005.wiff	WXXICAL-21	LER	2/12/2010 12:29			1		USE	I
EXS02120006.wiff	WXXICAL-22	LER	2/12/2010 12:45			1		USE	I
EXS02120007.wiff	WXXICAL-23	LER	2/12/2010 13:00			1		USE	I
EXS02120008.wiff	WXXICAL-24	LER	2/12/2010 13:16			1		USE	I
EXS02120009.wiff	WXXICAL-25	LER	2/12/2010 13:32			1		USE	I
EXS02120010.wiff	XIBLK02	LER	2/12/2010 13:47			1		USE	B
EXS02120011.wiff	WXXICV	LER	2/12/2010 14:03			1		USE	C
EXS02120012.wiff	XIBLK03	LER	2/12/2010 14:19			1		USE	B
EXS02120013.wiff	WXXCRI	LER	2/12/2010 14:34			1		USE	C
EXS02120014.wiff	1202027274	LER	2/12/2010 14:50	946488	VARIOUS	2	LANL	USE	S
EXS02120015.wiff	1202027275	LER	2/12/2010 15:06	946488	VARIOUS	2	LANL	USE	S
EXS02120016.wiff	245621002	LER	2/12/2010 15:22	946488	10-1424	2	LANL	USE	S
EXS02120017.wiff	1202027276	LER	2/12/2010 15:37	946488	10-1424	2	LANL	USE	S
EXS02120018.wiff	1202027277	LER	2/12/2010 15:53	946488	10-1424	2	LANL	USE	S
EXS02120019.wiff	245621003	LER	2/12/2010 16:09	946488	10-1424	2	LANL	USE	S
EXS02120020.wiff	245621004	LER	2/12/2010 16:24	946488	10-1424	2	LANL	USE	S
EXS02120021.wiff	245621005	LER	2/12/2010 16:40	946488	10-1424	2	LANL	USE	S
EXS02120022.wiff	245621006	LER	2/12/2010 16:56	946488	10-1424	2	LANL	USE	S
EXS02120023.wiff	245621007	LER	2/12/2010 17:11	946488	10-1424	2	LANL	USE	S
EXS02120024.wiff	WXXCCV	LER	2/12/2010 17:27			1		USE	C
EXS02120025.wiff	XIBLK04	LER	2/12/2010 17:43			1		USE	B
EXS02120026.wiff	WXXCRI	LER	2/12/2010 17:59			1		USE	C
EXS02120027.wiff	245621008	LER	2/12/2010 18:14	946488	10-1424	2	LANL	USE	S
EXS02120028.wiff	245621009	LER	2/12/2010 18:30	946488	10-1424	2	LANL	USE	S
EXS02120029.wiff	245621010	LER	2/12/2010 18:46	946488	10-1424	2	LANL	USE	S

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EXS02120030.wiff	245621011	LER	2/12/2010 19:01	946488	10-1424	2	LANL	USE	S
EXS02120031.wiff	245628002	LER	2/12/2010 19:17	946488	10-1427	2	LANL	USE	S
EXS02120032.wiff	245628003	LER	2/12/2010 19:33	946488	10-1427	2	LANL	USE	S
EXS02120033.wiff	245628004	LER	2/12/2010 19:48	946488	10-1427	2	LANL	USE	S
EXS02120034.wiff	245631002	LER	2/12/2010 20:04	946488	10-1428	2	LANL	USE	S
EXS02120035.wiff	245631003	LER	2/12/2010 20:20	946488	10-1428	2	LANL	USE	S
EXS02120036.wiff	WXXCCV	LER	2/12/2010 20:36			1		USE	C
EXS02120037.wiff	XIBLK05	LER	2/12/2010 20:51			1		USE	B
EXS02120038.wiff	WXXCRI	LER	2/12/2010 21:07			1		USE	C
EXS02120039.wiff	1202028676	LER	2/12/2010 21:23	947084	VARIOUS	2	LANL	USE	S
EXS02120040.wiff	1202028677	LER	2/12/2010 21:38	947084	VARIOUS	2	LANL	USE	S
EXS02120041.wiff	245663001	LER	2/12/2010 21:54	947084	10-1436	2	LANL	USE	S
EXS02120042.wiff	1202028678	LER	2/12/2010 22:10	947084	10-1436	2	LANL	USE	S
EXS02120043.wiff	1202028679	LER	2/12/2010 22:25	947084	10-1436	2	LANL	USE	S
EXS02120044.wiff	245663002	LER	2/12/2010 22:41	947084	10-1436	2	LANL	USE	S
EXS02120045.wiff	245663003	LER	2/12/2010 22:57	947084	10-1436	2	LANL	USE	S
EXS02120046.wiff	245663004	LER	2/12/2010 23:13	947084	10-1436	2	LANL	USE	S
EXS02120047.wiff	245663005	LER	2/12/2010 23:28	947084	10-1436	2	LANL	USE	S
EXS02120048.wiff	245663006	LER	2/12/2010 23:44	947084	10-1436	2	LANL	USE	S
EXS02120049.wiff	WXXCCV	LER	2/13/2010 0:00			1		USE	C
EXS02120050.wiff	XIBLK06	LER	2/13/2010 0:15			1		USE	B
EXS02120051.wiff	WXXCRI	LER	2/13/2010 0:31			1		USE	C
EXS02120052.wiff	245803001	LER	2/13/2010 0:47	947084	10-1473	2	LANL	USE	S
EXS02120053.wiff	245803002	LER	2/13/2010 1:03	947084	10-1473	2	LANL	USE	S
EXS02120054.wiff	245803003	LER	2/13/2010 1:18	947084	10-1473	2	LANL	USE	S
EXS02120055.wiff	245803004	LER	2/13/2010 1:34	947084	10-1473	2	LANL	USE	S
EXS02120056.wiff	245803005	LER	2/13/2010 1:50	947084	10-1473	2	LANL	USE	S
EXS02120057.wiff	245803006	LER	2/13/2010 2:05	947084	10-1473	2	LANL	USE	S
EXS02120058.wiff	245803007	LER	2/13/2010 2:21	947084	10-1473	2	LANL	USE	S
EXS02120059.wiff	245803008	LER	2/13/2010 2:37	947084	10-1473	2	LANL	USE	S
EXS02120060.wiff	WXXCCV	LER	2/13/2010 2:52			1		USE	C
EXS02120061.wiff	XIBLK07	LER	2/13/2010 3:08			1		USE	B
EXS02120062.wiff	WXXCRI	LER	2/13/2010 3:24			1		USE	C
EXS02120063.wiff	1202028672	LER	2/13/2010 3:40	947078	VARIOUS	2	LANL	DUSE-RA	S
EXS02120064.wiff	1202028673	LER	2/13/2010 3:55	947078	VARIOUS	2	LANL	DUSE-RA	S
EXS02120065.wiff	245661001	LER	2/13/2010 4:11	947078	10-1435	2	LANL	DUSE-RA	S
EXS02120066.wiff	245686001	LER	2/13/2010 4:27	947078	10-1432	2	LANL	DUSE-RA	S

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EXS02120067.wiff	1202028674	LER	2/13/2010 4:42	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120068.wiff	1202028675	LER	2/13/2010 4:58	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120069.wiff	245686002	LER	2/13/2010 5:14	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120070.wiff	245686003	LER	2/13/2010 5:30	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120071.wiff	245686004	LER	2/13/2010 5:45	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120072.wiff	245686005	LER	2/13/2010 6:01	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120073.wiff	WXXCCV	LER	2/13/2010 6:17			1		DUSE-RA	C
EXS02120074.wiff	XIBLK08	LER	2/13/2010 6:32			1		DUSE-RA	B
EXS02120075.wiff	WXXCRI	LER	2/13/2010 6:48			1		DUSE-RA	C
EXS02120076.wiff	245686006	LER	2/13/2010 7:04	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120077.wiff	245686007	LER	2/13/2010 7:20	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120078.wiff	245686008	LER	2/13/2010 7:35	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120079.wiff	245686009	LER	2/13/2010 7:51	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120080.wiff	245686010	LER	2/13/2010 8:07	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120081.wiff	245686011	LER	2/13/2010 8:22	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120082.wiff	245686012	LER	2/13/2010 8:38	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120083.wiff	245686013	LER	2/13/2010 8:54	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120084.wiff	245686014	LER	2/13/2010 9:09	947078	10-1432	2	LANL	DUSE-RA	S
EXS02120085.wiff	WXXCCV	LER	2/13/2010 9:25			1		DUSE-RA	C
EXS02120086.wiff	XIBLK09	LER	2/13/2010 9:41			1		DUSE-RA	B
EXS02120087.wiff	WXXCRI	LER	2/13/2010 9:57			1		DUSE-RA	C

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208161a
Date: 11-Feb-2010
Time: 21:26:28
ID: 1202028678
Vial: 4:1,D

| LANL | 947084 | Soil | 245663001 MS | 21

MAP 2/12/10

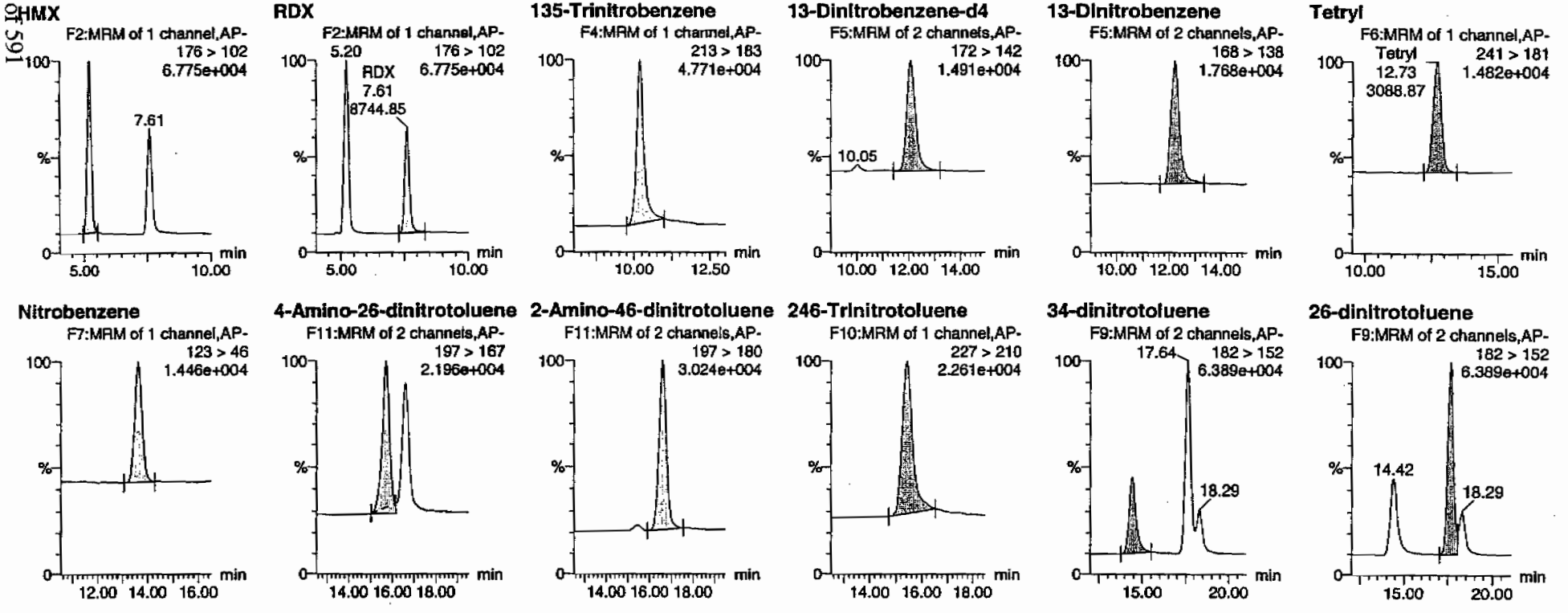

HMM 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

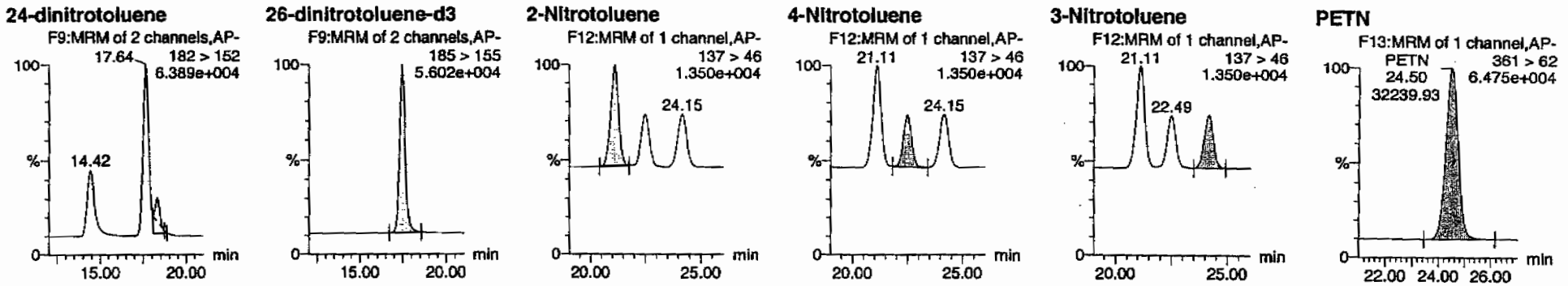

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202028678	HMX	176 > 102	5.20	12108.765	3506.178	12108.765	1726.776	bb			497.2281	99.4	-0.6	1298.0
1202028678	RDX	176 > 102	7.61	8744.855	3506.178	8744.855	1247.064	bb			513.5874	102.7	2.7	802.1
1202028678	135-Trinitrobenzene	213 > 183	10.20	11951.950	3506.178	11951.950	1704.413	bb			462.7714	92.6	-7.4	881.7
1202028678	13-Dinitrobenzene-d4	172 > 142	12.07	3506.178		3506.178	3506.178	bb			545.3566	109.1	9.1	512.5
1202028678	13-Dinitrobenzene	168 > 138	12.21	4419.226	3506.178	4419.226	630.206	bb			524.1250	104.8	4.8	235.1
1202028678	Tetryl	241 > 181	12.73	3088.870	3506.178	3088.870	440.490	bb			472.1887	94.4	-5.6	392.5
1202028678	Nitrobenzene	123 > 46	13.62	2873.237	3506.178	2873.237	409.739	bb			507.2468	101.4	1.4	268.9
1202028678	4-Amino-26-dinitrotoluene	197 > 167	15.70	6341.017	19877.320	6341.017	159.504	MM	12-Feb-10	08:00:16	555.2886	111.1	11.1	385.6
1202028678	2-Amino-46-dinitrotoluene	197 > 180	16.60	9564.265	19877.320	9564.265	240.582	bb			607.4847	121.5	21.5	338.6
1202028678	246-Trinitrotoluene	227 > 210	15.44	7493.648	19877.320	7493.648	188.497	bb			584.1925	116.8	16.8	537.8
1202028678	34-dinitrotoluene	182 > 152	14.42	10962.077	19877.320	10962.077	275.743	bb			306.3842	122.6	22.6	271.4
1202028678	26-dinitrotoluene	182 > 152	17.64	21911.875	19877.320	21911.875	551.178	MM	12-Feb-10	08:05:35	513.1589	102.6	2.6	694.0
1202028678	24-dinitrotoluene	182 > 152	18.29	4818.274	19877.320	4818.274	121.200	MM	12-Feb-10	08:07:26	496.6177	99.3	-0.7	149.5
1202028678	26-dinitrotoluene-d3	185 > 155	17.46	19877.320		19877.320	19877.320	bb			538.3982	107.7	7.7	1684.8
1202028678	2-Nitrotoluene	137 > 46	21.11	3088.387	19877.320	3088.387	77.686	bb			501.0454	100.2	0.2	578.8
1202028678	4-Nitrotoluene	137 > 46	22.49	1599.865	19877.320	1599.865	40.243	bb			529.5010	105.9	5.9	292.5
1202028678	3-Nitrotoluene	137 > 46	24.15	1754.391	19877.320	1754.391	44.130	bb			473.6490	94.7	-5.3	299.4
1202028678	PETN	361 > 62	24.50	32239.928	19877.320	32239.928	810.973	bb			575.4191	115.1	15.1	7578.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Before Lab 2/15/10

Sample Name: "1202028676" Sample ID: "947084|2|LER" File: "EXS02120042.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 876. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:10:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.23 min
Area: 1.01e+006 counts
Height: 2.21e+005 cps
Start Time: 7.13 min
End Time: 7.79 min

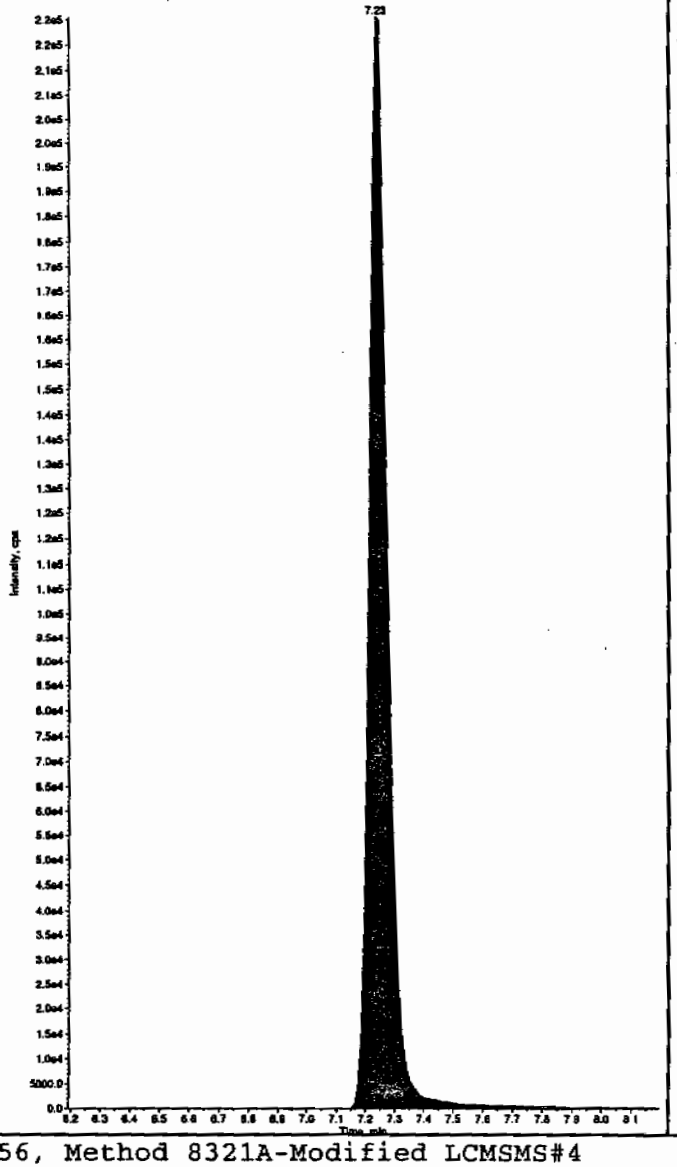

Sample Name: "1202028676" Sample ID: "947084|2|LER" File: "EXS02120042.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 596. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:10:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.24e+006 counts
Height: 7.42e+005 cps
Start Time: 8.38 min
End Time: 8.67 min

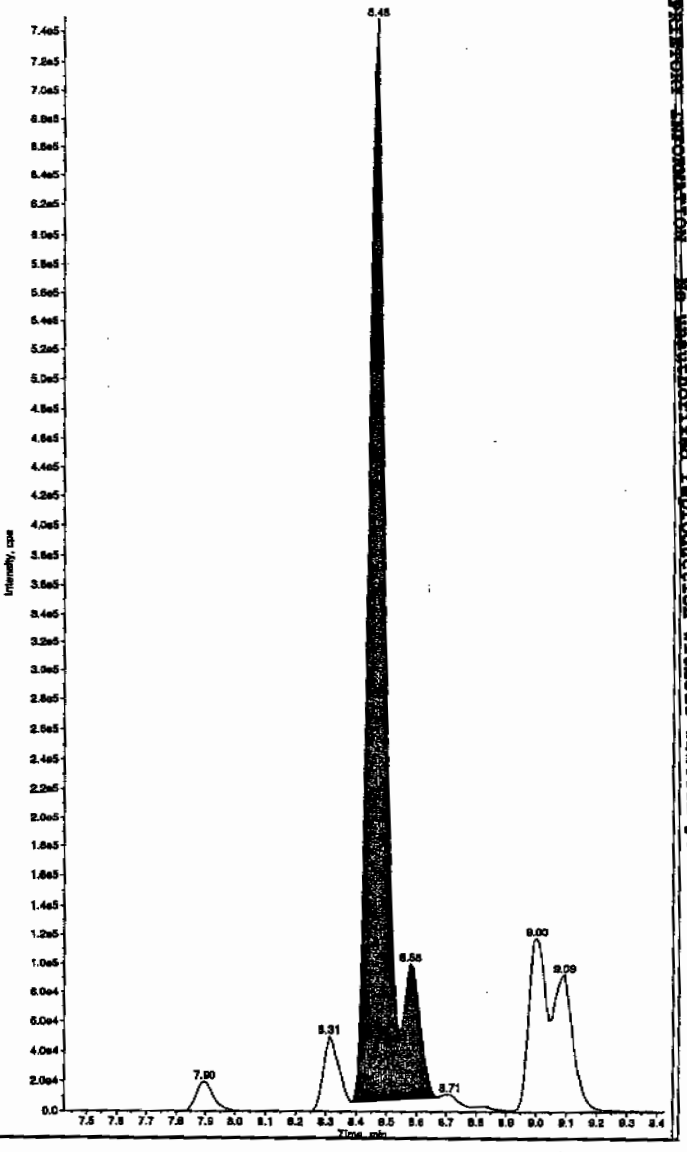

HNM 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Sen 2/15/10

Sample Name: "1202028678" Sample ID: "947084[2]LER" File: "EXS02120042.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 876. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:10:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.23 min
Area: 1.01e+006 counts
Height: 220570.770 cps
Start Time: 7.13 min
End Time: 7.79 min

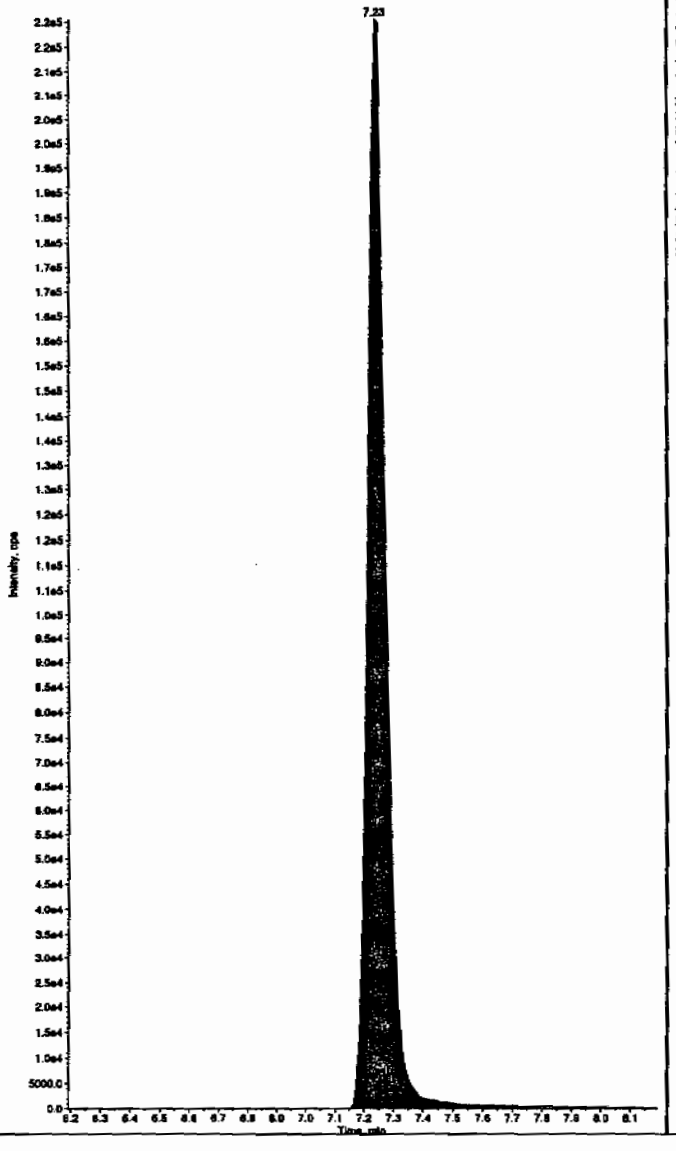

Sample Name: "1202028678" Sample ID: "947084[2]LER" File: "EXS02120042.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 538. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:10:15 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.46 min
Area: 2.94e+006 counts
Height: 751632.452 cps
Start Time: 8.38 min
End Time: 8.55 min

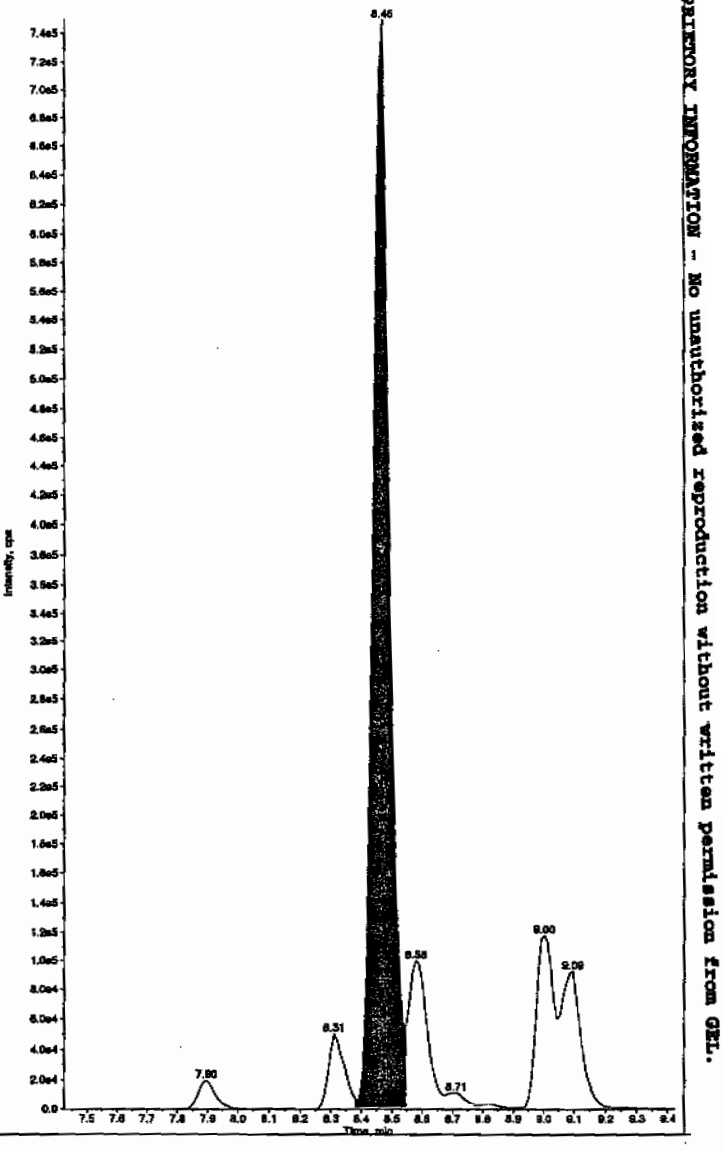

PROPRIETORY INFORMATION : No unauthorized reproduction without written permission from GEL.

Sample Name: "1202028678" Sample ID: "947084|2|LER" File: "EXS02120042.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 343. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:10:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.58 min
Area: 3.81e+006 counts
Height: 933908.936 cps
Start Time: 8.51 min
End Time: 8.76 min

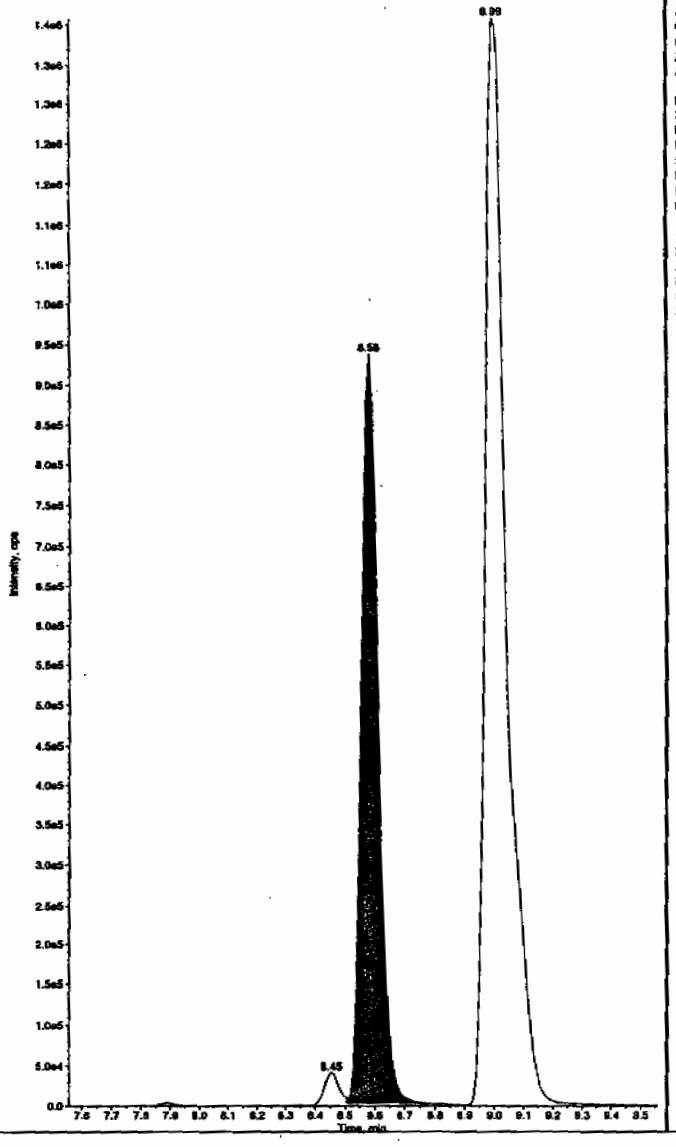

Sample Name: "1202028678" Sample ID: "947084|2|LER" File: "EXS02120042.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 584. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:10:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.23 min
Area: 1.19e+006 counts
Height: 271511.169 cps
Start Time: 5.12 min
End Time: 5.50 min

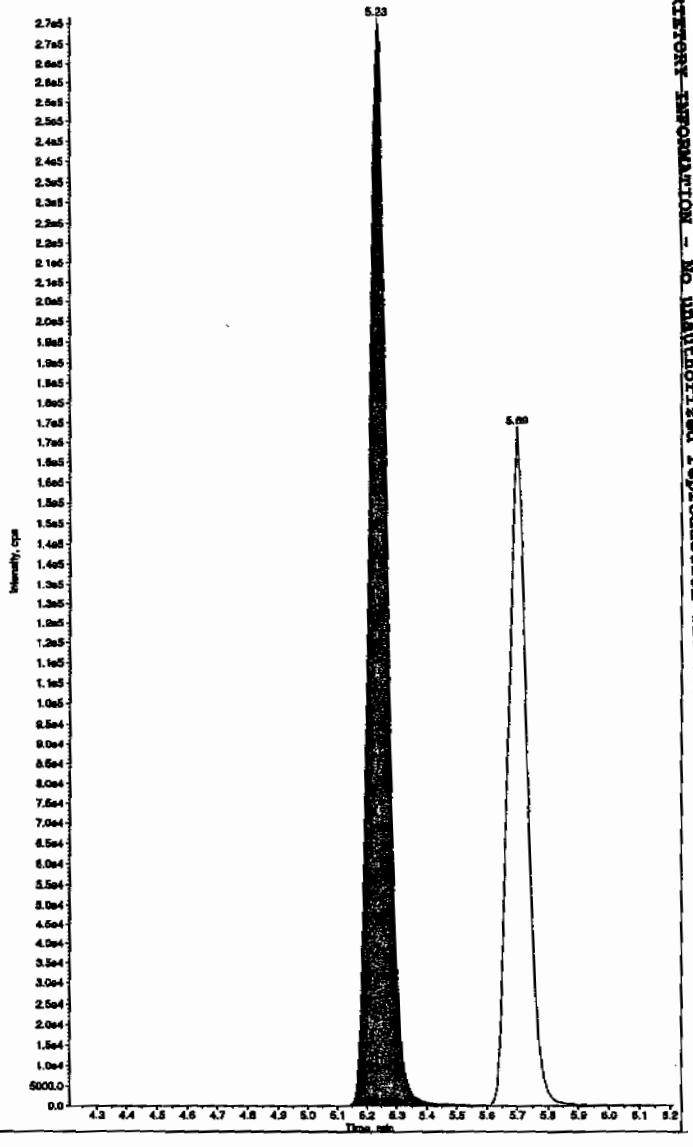

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Sample Name: "1202028678" Sample ID: "947084|2|LER" File: "EXS02120042.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 468. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:10:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.69 min
Area: 7.06e+005 counts
Height: 168792.999 cps
Start Time: 5.61 min
End Time: 5.86 min

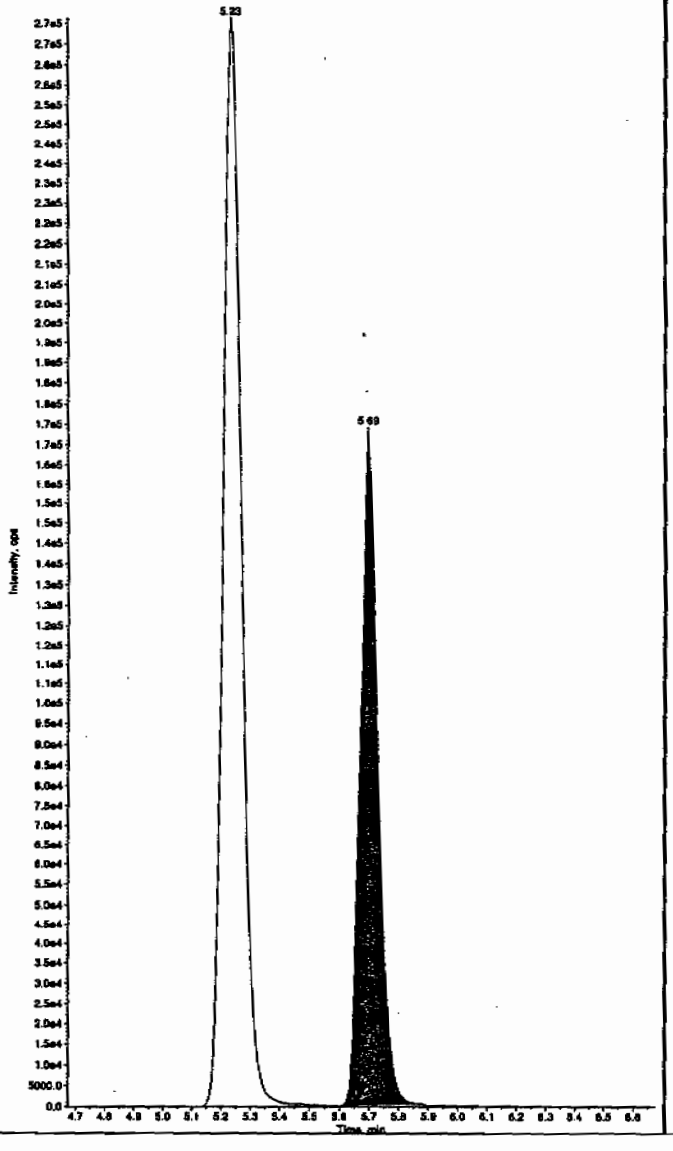

Sample Name: "1202028678" Sample ID: "947084|2|LER" File: "EXS02120042.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 531. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:10:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.13e+007 counts
Height: 2406993.896 cps
Start Time: 10.9 min
End Time: 11.4 min

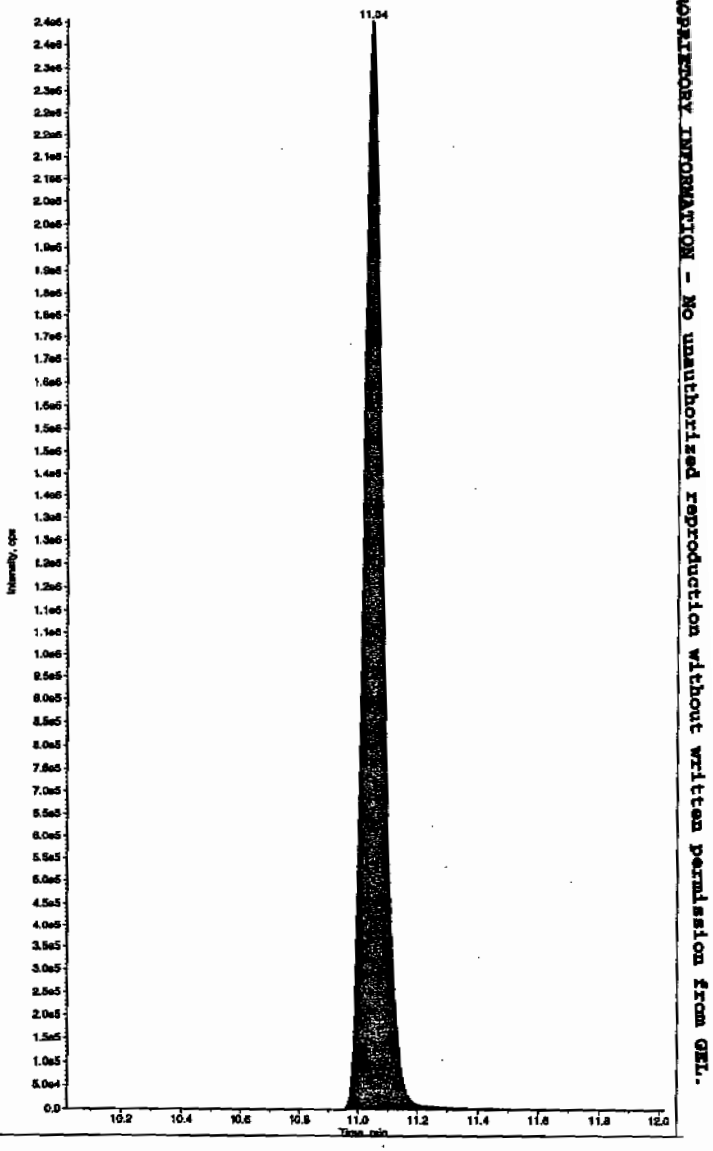

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208162a
Date: 11-Feb-2010
Time: 21:55:56
ID: 1202028679
Vial: 4:1,E

LANL | 947084 | Soil | 245663001MSD | 2

MAP 2/12/10

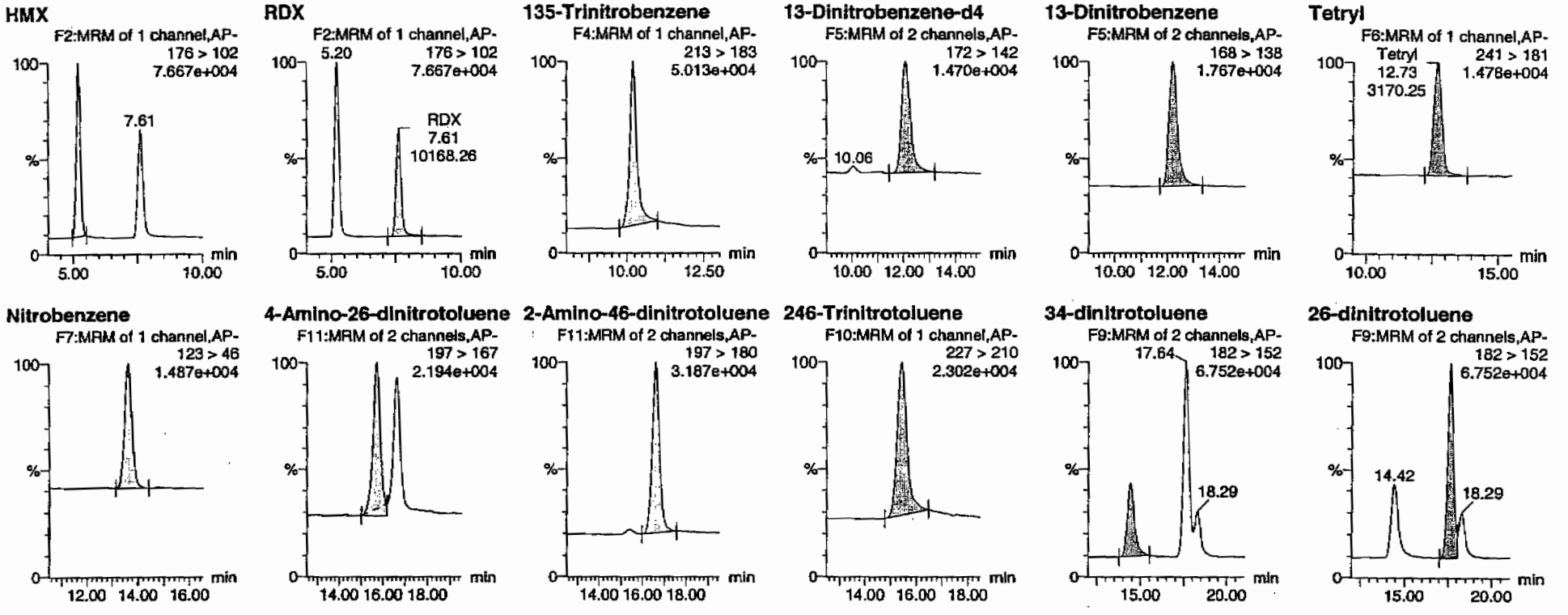

Hum 02/12/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

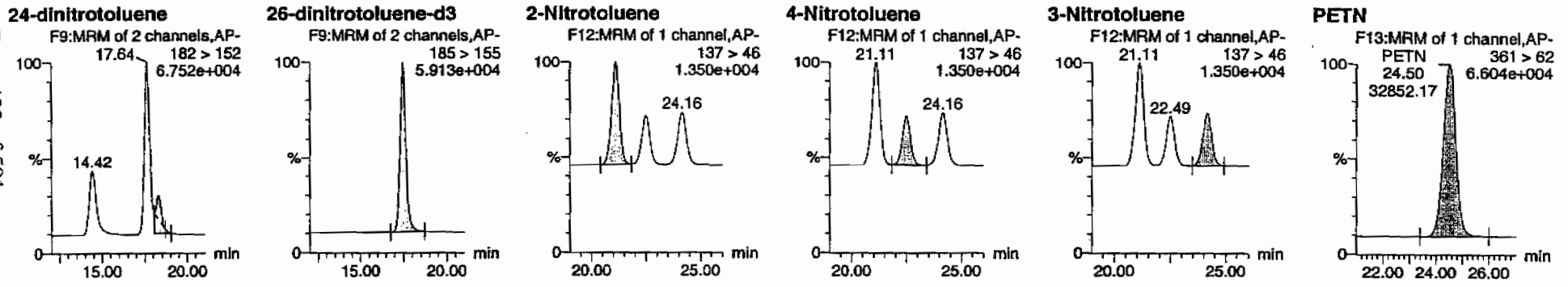

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
1202028679	HMX	176 > 102	5.20	13743.260	3487.313	13743.260	1970.466	bb			567.3991	113.5	13.5	3603.8
1202028679	RDX	176 > 102	7.61	10168.257	3487.313	10168.257	1457.893	bb			600.4147	120.1	20.1	2256.4
1202028679	135-Trinitrobenzene	213 > 183	10.20	12361.144	3487.313	12361.144	1772.302	bb			481.2042	96.2	-3.8	2141.5
1202028679	13-Dinitrobenzene-d4	172 > 142	12.07	3487.313		3487.313	3487.313	bb			542.4223	108.5	8.5	401.9
1202028679	13-Dinitrobenzene	168 > 138	12.21	4411.508	3487.313	4411.508	632.508	bb			526.0400	105.2	5.2	516.8
1202028679	Tetryl	241 > 181	12.73	3170.247	3487.313	3170.247	454.540	bb			488.3756	97.7	-2.3	240.1
1202028679	Nitrobenzene	123 > 46	13.62	3033.648	3487.313	3033.648	434.955	bb			538.4633	107.7	7.7	361.9
1202028679	4-Amino-26-dinitrotoluene	197 > 167	15.70	6369.327	21447.969	6369.327	148.483	MM	12-Feb-10	08:00:34	516.9220	103.4	3.4	357.4
1202028679	2-Amino-46-dinitrotoluene	197 > 180	16.62	10144.538	21447.969	10144.538	236.492	bb			597.1558	119.4	19.4	771.1
1202028679	246-Trinitrotoluene	227 > 210	15.44	7374.098	21447.969	7374.098	171.907	bb			532.7743	106.6	6.6	586.6
1202028679	34-dinitrotoluene	182 > 152	14.42	11010.361	21447.969	11010.361	256.676	bb			285.1982	114.1	14.1	501.9
1202028679	26-dinitrotoluene	182 > 152	17.64	23706.416	21447.969	23706.416	552.649	MM	12-Feb-10	08:05:42	514.5291	102.9	2.9	1346.5
1202028679	24-dinitrotoluene	182 > 152	18.29	5644.318	21447.969	5644.318	131.582	MM	12-Feb-10	08:07:14	539.1552	107.8	7.8	299.2
1202028679	26-dinitrotoluene-d3	185 > 155	17.46	21447.969		21447.969	21447.969	bb			580.9409	116.2	16.2	1457.5
1202028679	2-Nitrotoluene	137 > 46	21.11	3124.188	21447.969	3124.188	72.832	bb			469.7364	93.9	-6.1	890.8
1202028679	4-Nitrotoluene	137 > 46	22.49	1537.952	21447.969	1537.952	35.853	bb			471.7348	94.3	-5.7	425.2
1202028679	3-Nitrotoluene	137 > 46	24.16	1756.606	21447.969	1756.606	40.950	bb			439.5175	87.9	-12.1	455.8
1202028679	PETN	361 > 62	24.50	32852.168	21447.969	32852.168	765.857	bb			538.2113	107.6	7.6	5163.8

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Before Dan 2/15/10

Sample Name: "1202028679" Sample ID: "947084|2|LER" File: "EXS02120043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 889. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:25:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.22 min
Area: 1.02e+006 counts
Height: 2.31e+005 cps
Start Time: 7.12 min
End Time: 7.89 min

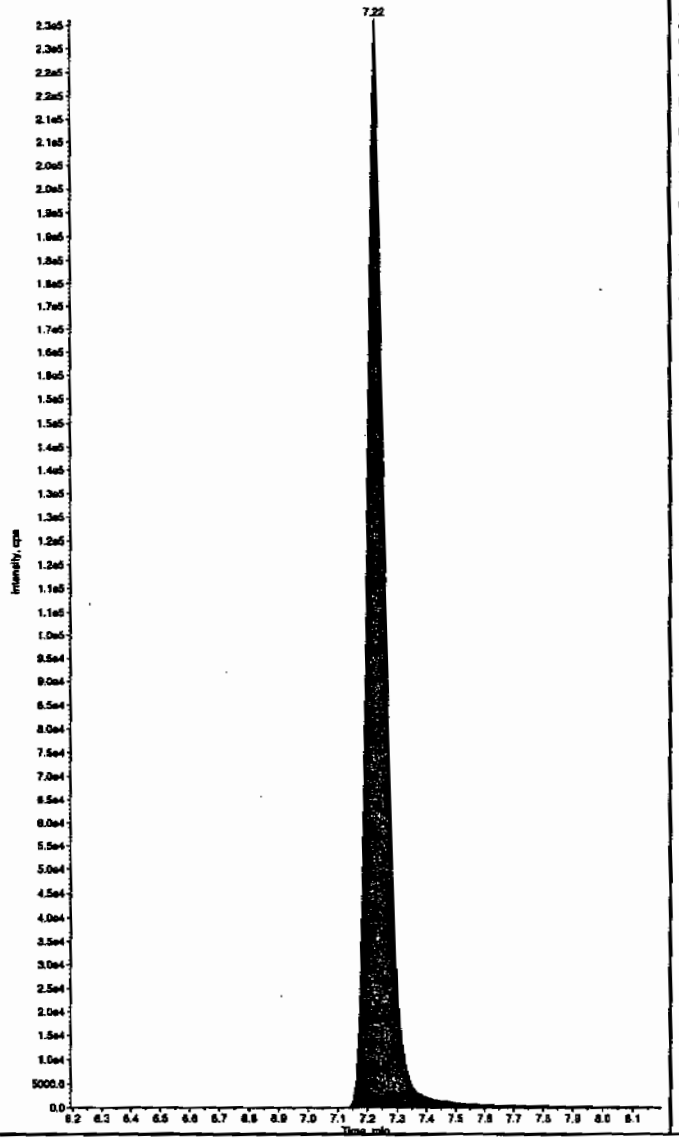

Sample Name: "1202028679" Sample ID: "947084|2|LER" File: "EXS02120043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 629. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:25:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.45 min
Area: 3.41e+006 counts
Height: 7.88e+005 cps
Start Time: 8.37 min
End Time: 8.66 min

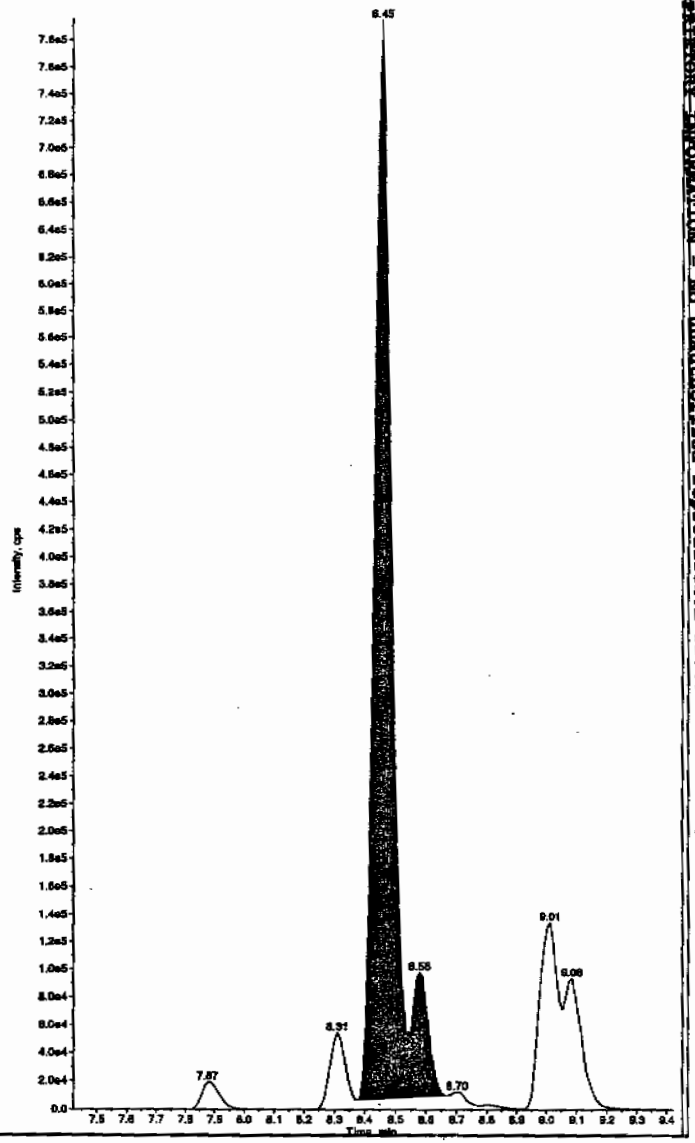

Hmm 02/16/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Scan 2/15/10

Sample Name: "1202028679" Sample ID: "947084(2)LER" File: "EXS02120043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 889. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:25:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.22 min
Area: 1.02e+006 counts
Height: 231396.317 cps
Start Time: 7.12 min
End Time: 7.89 min

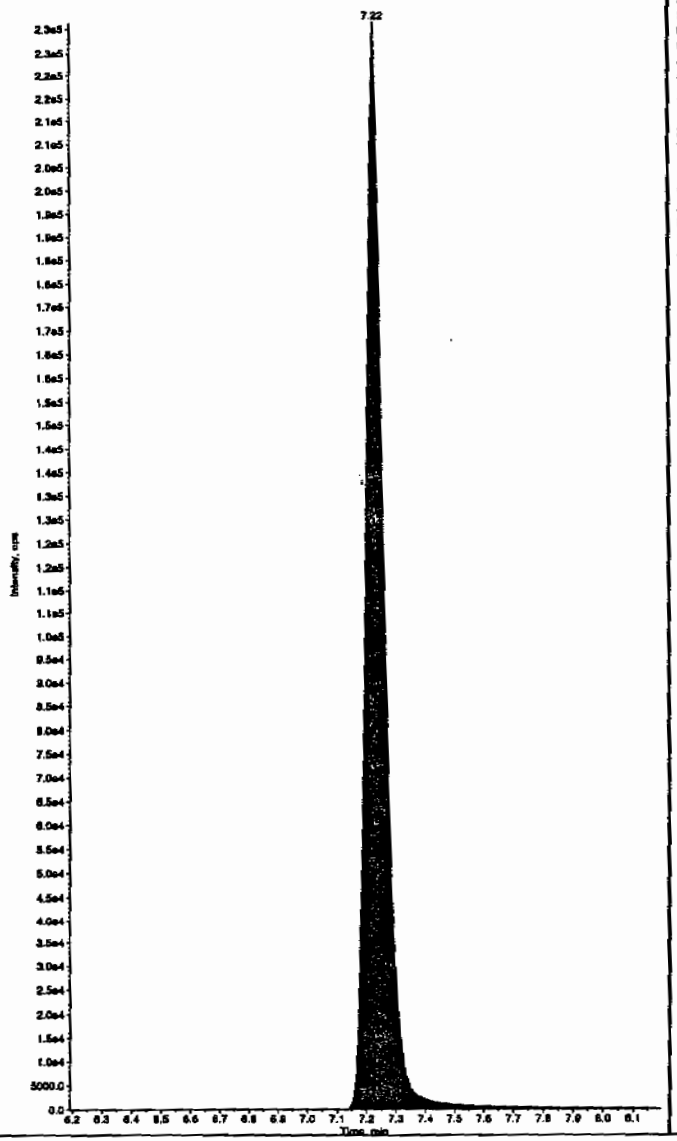

Sample Name: "1202028679" Sample ID: "947084(2)LER" File: "EXS02120043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 578. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:25:58 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.42 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.45 min
Area: 3.15e+006 counts
Height: 793829.654 cps
Start Time: 8.37 min
End Time: 8.55 min

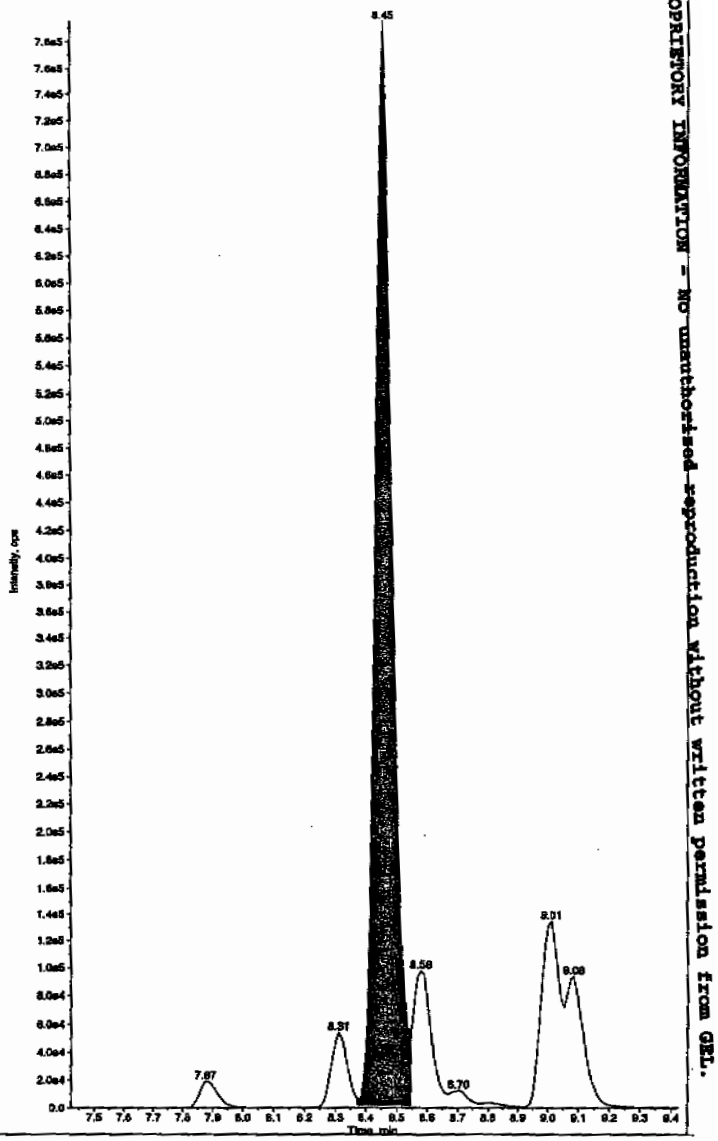

PROPRIETORY INFORMATION - No unauthorised reproduction without written permission from GSL.

Sample Name: "1202028579" Sample ID: "947084|2|LER" File: "EXS02120043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 324. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:25:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.56 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.58 min
Area: 3.61e+006 counts
Height: 917774.841 cps
Start Time: 8.51 min
End Time: 8.75 min

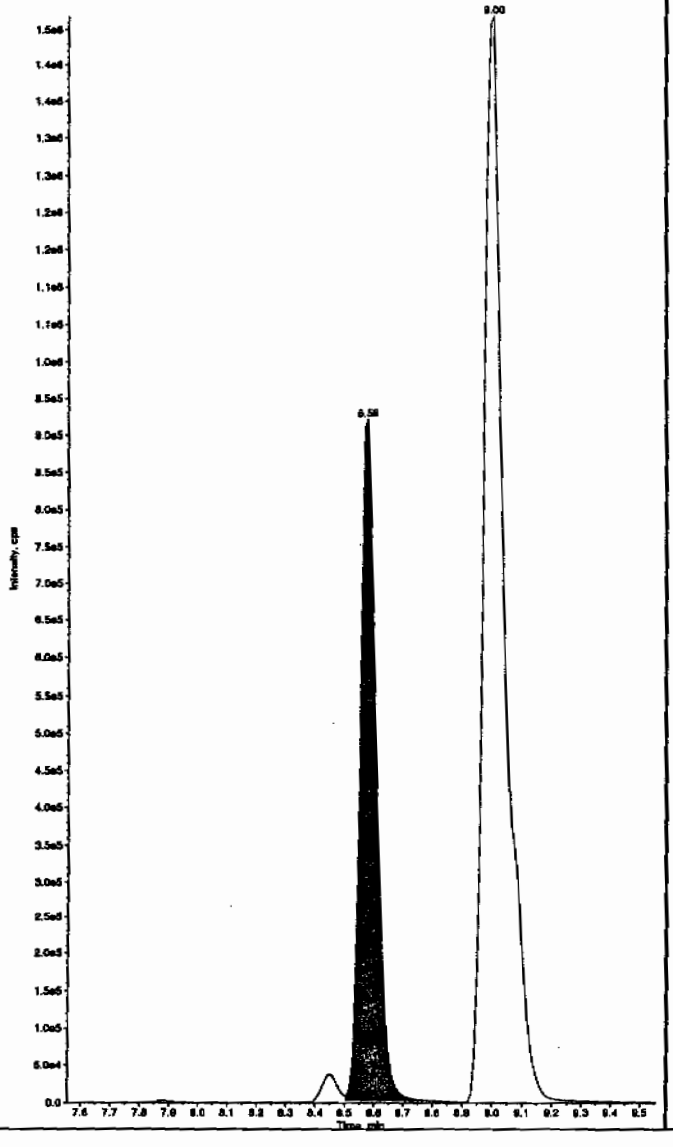

Sample Name: "1202028579" Sample ID: "947084|2|LER" File: "EXS02120043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 604. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:25:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.22 min
Area: 1.23e+006 counts
Height: 308221.008 cps
Start Time: 5.12 min
End Time: 5.52 min

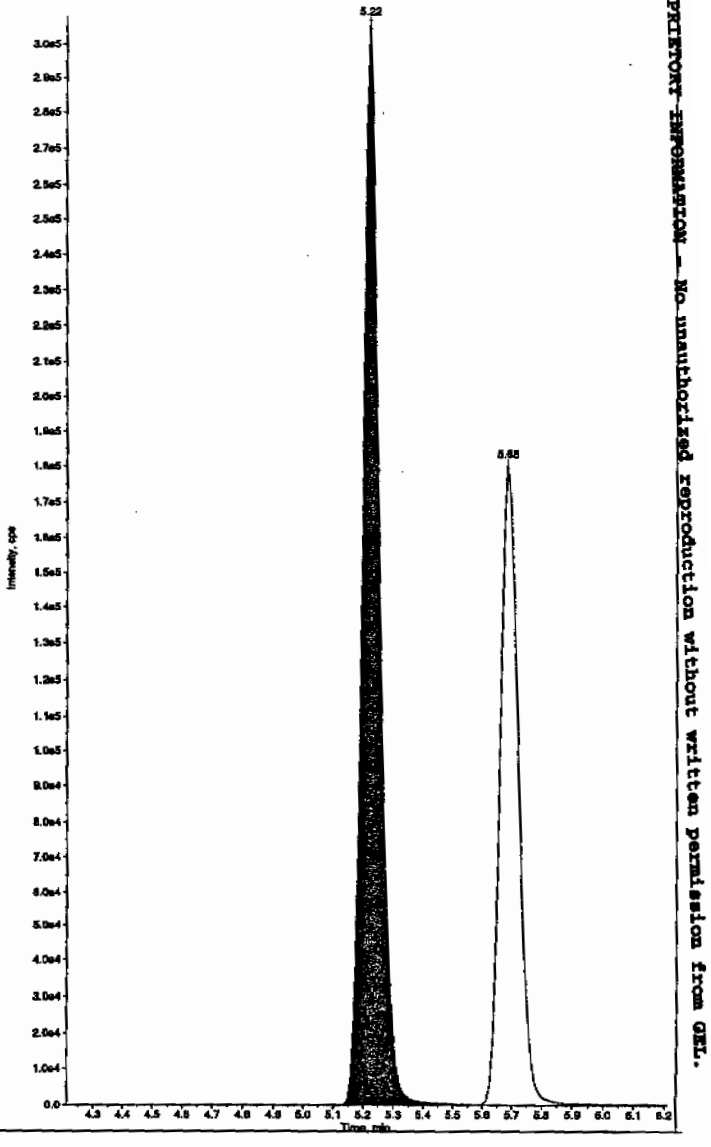

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Sample Name: "1202028679" Sample ID: "947084[2]LER" File: "EXS02120043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 514. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:25:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.67 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.68 min
Area: 7.71e+005 counts
Height: 181744.781 cps
Start Time: 5.56 min
End Time: 6.08 min

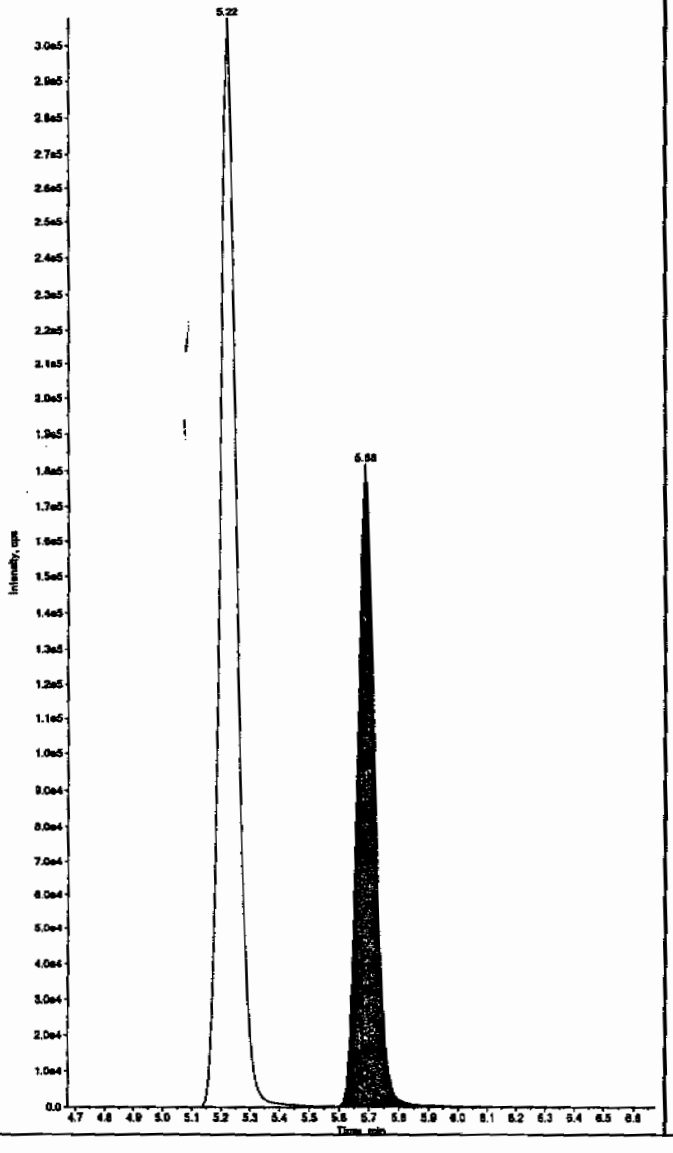

Sample Name: "1202028679" Sample ID: "947084[2]LER" File: "EXS02120043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 509. ng/mL
Acq. Date: 2/12/2010
Acq. Time: 10:25:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.1 min
Area: 1.08e+007 counts
Height: 2426131.836 cps
Start Time: 11.0 min
End Time: 11.4 min

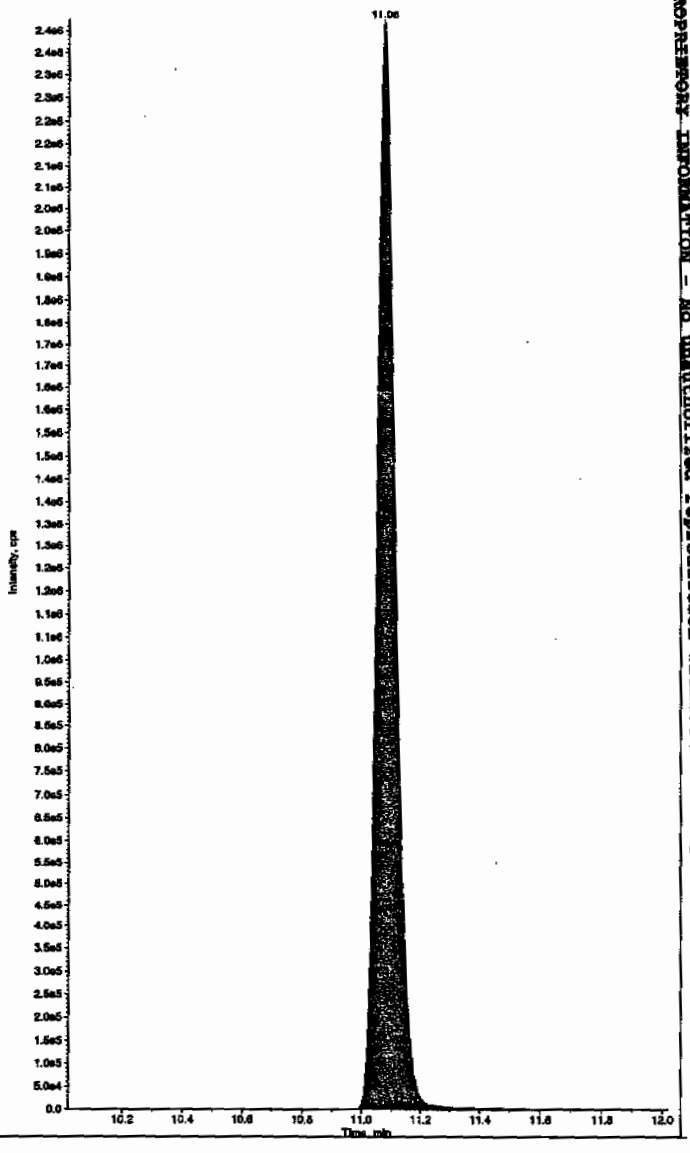

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
947084	See Below		

Potentially affected work order(s)(SDG): 245663(10-1436),245803(10-1473)

Application Issues:

Failed Recovery for MSD/PSD

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202028678) did not meet acceptance criteria for the recovery of TATB at 175%. The limits are 29-155%.	1. The MSD(1202028679) confirmed the high recovery at 178% which may be attributed to matrix interference in the sample. The LCS(1202028677) had a passing recovery of 160%. TATB was not detected in the parent sample. The data are considered unaffected and are reported.
2. The MSD(1202028679) did not meet acceptance criteria for the recovery of TATB at 178%. The limits are 29-155%.	2. The MS(1202028678) confirmed the high recovery at 175% which may be attributed to matrix interference in the sample. The LCS(1202028677) had a passing recovery of 160%. TATB was not detected in the parent sample. The data are considered unaffected and are reported.

Originator's Name:

Lynne Russell 16-FEB-10

Data Validator/Group Leader:

Herbert Maier 16-FEB-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1473

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	949033
Prep Batch Number:	949031

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
245803006	RE15-10-8060
245803007	RE15-10-8058
245803008	RE15-10-8059
1202033246	Method Blank (MB)
1202033247	Laboratory Control Sample (LCS)
1202033248	245969001(RE15-10-7880) Matrix Spike (MS)
1202033249	245969001(RE15-10-7880) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

One or more of the five quantified peaks did not meet the acceptance criteria in Aroclor-1254 and Aroclor-1268 standards analyzed for this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1512) was selected for the matrix spike and matrix spike duplicate analysis for this batch; however the MS and MSD results were not reportable because the parent sample was re-extracted and reported in another batch.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Samples 245803006 (RE15-10-8060) and 245803007 (RE15-10-8058) were extracted and analyzed twice. The two sets of the results match with each other. The first analysis was reported.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 2/25/10

Roadmap for LANL 10-1473 PCB

This roadmap was analyzed by yip00818 on 02-12-2010, 13:42.
This roadmap was reviewed by jim01140 on 02-16-2010, 09:00.
This roadmap was packaged by yml on 02-24-2010, 18:08.
This roadmap was validated by jim01140 on 02-25-2010, 08:59.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/021010b.b/019f1901.d	245803006	sample	10-FEB-2010	16:26	10-1473.sub	RE15-10-8060	1.00000	950898	DUSE CONFIRMATION FOR AR1268 HIT
□	N	/chem/ecd1a.i/020510.b/025f2501.d	245803006	sample	05-FEB-2010	11:25	10-1473.sub	RE15-10-8060	1.00000	949033	AR1268 RE TO CONFIRM
■	N	/chem/ecd1a.i/021010b.b/020f2001.d	245803007	sample	10-FEB-2010	16:39	10-1473.sub	RE15-10-8058	1.00000	950898	DUSE CONFIRMATION FOR AR1268 HIT
□	N	/chem/ecd1a.i/020510.b/026f2601.d	245803007	sample	05-FEB-2010	11:37	10-1470.sub	RE15-10-8058	1.00000	949033	AR1268 RE TO CONFIRM
□	N	/chem/ecd1a.i/020510.b/027f2701.d	245803008	sample	05-FEB-2010	11:50	10-1473.sub	RE15-10-8059	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/021010b.b/019b1901.d	245803006	sample	10-FEB-2010	16:26	10-1473.sub	RE15-10-8060	1.00000	950898	DUSE CONFIRMAIION FOR AR1268 HIT
□	N	/chem/ecd1a.i/020510.b/025b2501.d	245803006	sample	05-FEB-2010	11:25	10-1473.sub	RE15-10-8060	1.00000	949033	AR1268 RE TO CONFIRM
■	N	/chem/ecd1a.i/021010b.b/020b2001.d	245803007	sample	10-FEB-2010	16:39	10-1473.sub	RE15-10-8058	1.00000	950898	DUSE CONFIRMAIION FOR AR1268 HIT
□	N	/chem/ecd1a.i/020510.b/026b2601.d	245803007	sample	05-FEB-2010	11:37	10-1473.sub	RE15-10-8058	1.00000	949033	AR1268 RE TO CONFIRM
□	N	/chem/ecd1a.i/020510.b/027b2701.d	245803008	sample	05-FEB-2010	11:50	10-1473.sub	RE15-10-8059	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/020510.b/012f1201-2.d	1202033246	mb	05-FEB-2010	08:52	10-1473.sub	PBLK01	1.00000	949033	
□	N	/chem/ecd1a.i/020510.b/013f1301-2.d	1202033247	lcs	05-FEB-2010	09:02	10-1473.sub	PBLK01LCS	1.00000	949033	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/020510.b/012b1201-2.d	1202033246	mb	05-FEB-2010	08:52	10-1473.sub	PBLK01	1.00000	949033	
□	N	/chem/ecd1a.i/020510.b/013b1301-2.d	1202033247	lcs	05-FEB-2010	09:02	10-1473.sub	PBLK01LCS	1.00000	949033	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1473**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245803007**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**35.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8058**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 11:37**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**026f2601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	026b2601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	5.19	ug/kg	1.73	5.19	1
11104–28–2	Aroclor–1221	U	5.19	ug/kg	1.73	5.19	1
11141–16–5	Aroclor–1232	U	5.19	ug/kg	1.73	5.19	1
53469–21–9	Aroclor–1242	U	5.19	ug/kg	1.73	5.19	1
12672–29–6	Aroclor–1248	U	5.19	ug/kg	1.73	5.19	1
11097–69–1	Aroclor–1254	JP	4.70	ug/kg	1.73	5.19	1
11096–82–5	Aroclor–1260		14.6	ug/kg	1.73	5.19	2
11100–14–4	Aroclor–1268		55.6	ug/kg	1.73	5.19	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1473**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245803008**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**7.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8059**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 11:50**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.59	ug/kg	1.20	3.59	1
11104–28–2	Aroclor–1221	U	3.59	ug/kg	1.20	3.59	1
11141–16–5	Aroclor–1232	U	3.59	ug/kg	1.20	3.59	1
53469–21–9	Aroclor–1242	U	3.59	ug/kg	1.20	3.59	1
12672–29–6	Aroclor–1248	U	3.59	ug/kg	1.20	3.59	1
11097–69–1	Aroclor–1254	U	3.59	ug/kg	1.20	3.59	1
11096–82–5	Aroclor–1260	U	3.59	ug/kg	1.20	3.59	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1473**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245803006**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8060**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 11:25**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.89	ug/kg	1.29	3.89	1
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.29	3.89	1
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.29	3.89	1
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.29	3.89	1
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.29	3.89	1
11097-69-1	Aroclor-1254	P	74.1	ug/kg	1.29	3.89	1
11096-82-5	Aroclor-1260		47.0	ug/kg	1.29	3.89	2
11100-14-4	Aroclor-1268		35.1	ug/kg	1.29	3.89	2

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1473

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202033246	MB for batch 949031	61	61	56	67
1202033247	LCS for batch 949031	63	62	61	67
245803006	RE15-10-8060	66	64	90	98
245803007	RE15-10-8058	56	54	70	71
245803008	RE15-10-8059	44	44	40	44

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1473
Client ID: LCS for batch 949031
Lab Sample ID: 1202033247
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/05/2010 09:02
Prep Batch ID: 949031
Batch ID: 949033
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	20.2	61	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	23.7	71	45-118

Method Blank Summary

SDG Number:	10–1473	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 949031	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201–1.d 012f1201–1.d
Lab Sample ID:	1202033246				
Column:	CLP2 CLP1	Prep Date:	02/04/2010 20:32	Analyzed:	02/05/10 08:52
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 949031	1202033247	013f1301–1.d 013b1301–1.d	02/05/10	0902
02 RE15–10–8060	245803006	025f2501.d 025b2501.d	02/05/10	1125
03 RE15–10–8058	245803007	026f2601.d 026b2601.d	02/05/10	1137
04 RE15–10–8059	245803008	027f2701.d 027b2701.d	02/05/10	1150

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1473	**Date Collected:**	01/26/2010 12:00	**Matrix:**	R
Lab Sample ID:	245803007	**Date Received:**	01/29/2010 08:45	**%Moisture:**	35.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8058	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 11:37	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	026f2601.d	**Column:**	1 CLP1	**Level:**	LOW
	026b2601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	5.19	ug/kg	1.73	5.19	1
11104–28–2	Aroclor–1221	U	5.19	ug/kg	1.73	5.19	1
11141–16–5	Aroclor–1232	U	5.19	ug/kg	1.73	5.19	1
53469–21–9	Aroclor–1242	U	5.19	ug/kg	1.73	5.19	1
12672–29–6	Aroclor–1248	U	5.19	ug/kg	1.73	5.19	1
11097–69–1	Aroclor–1254	JP	4.70	ug/kg	1.73	5.19	1
11096–82–5	Aroclor–1260		14.6	ug/kg	1.73	5.19	2
11100–14–4	Aroclor–1268		55.6	ug/kg	1.73	5.19	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/026f2601.d
Lab Smp Id: 245803007 Client Smp ID: RE15-10-8058
Inj Date : 05-FEB-2010 11:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245803007|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-8058|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	35.88220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	44459041	111.524	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	44968544	139.085	7.2	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.265	3.266	-0.001	749395	60.0213	3.1	80.00- 120.00	100.00(a)
3.420	3.421	-0.001	966384	57.7914	3.0	118.05- 158.05	128.96
3.652	3.655	-0.003	1455689	70.2759	3.6	160.50- 200.50	194.25
3.816	3.818	-0.002	1868670	119.068	6.2	116.88- 156.88	249.36

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.924	3.926	-0.002	2214035	145.924	7.6	110.22- 150.22	295.44
Average of Peak Concentrations =					4.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	1271346	72.0859	3.7	80.00- 120.00	100.00
3.924	3.925	-0.001	2214035	83.0408	4.3	132.59- 172.59	174.15
4.153	4.155	-0.002	7503237	471.260	24.5	71.05- 111.05	590.18
4.294	4.297	-0.003	6721588	406.122	21.1	74.81- 114.81	528.70
4.475	4.477	-0.002	7851802	211.437	11.0	197.56- 237.56	617.60
Average of Peak Concentrations =					12.9		
9 Aroclor-1268					CAS #: 11100-14-4		
4.660	4.663	-0.003	39891690	760.059	39.5	80.00- 120.00	100.00
4.685	4.686	-0.001	63388136	1317.35	68.4	74.24- 114.24	158.90
4.796	4.799	-0.003	19409428	524.189	27.2	54.84- 94.84	48.66
4.999	5.001	-0.002	24307930	1491.81	77.4	17.12- 57.12	60.93
5.165	5.167	-0.002	134901870	1245.89	64.7	228.13- 268.13	338.17
Average of Peak Concentrations =					55.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/020510.b/026f2601.d

Date : 05-FEB-2010 11:37

Client ID: RE15-10-8058

Sample Info: |245803007|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

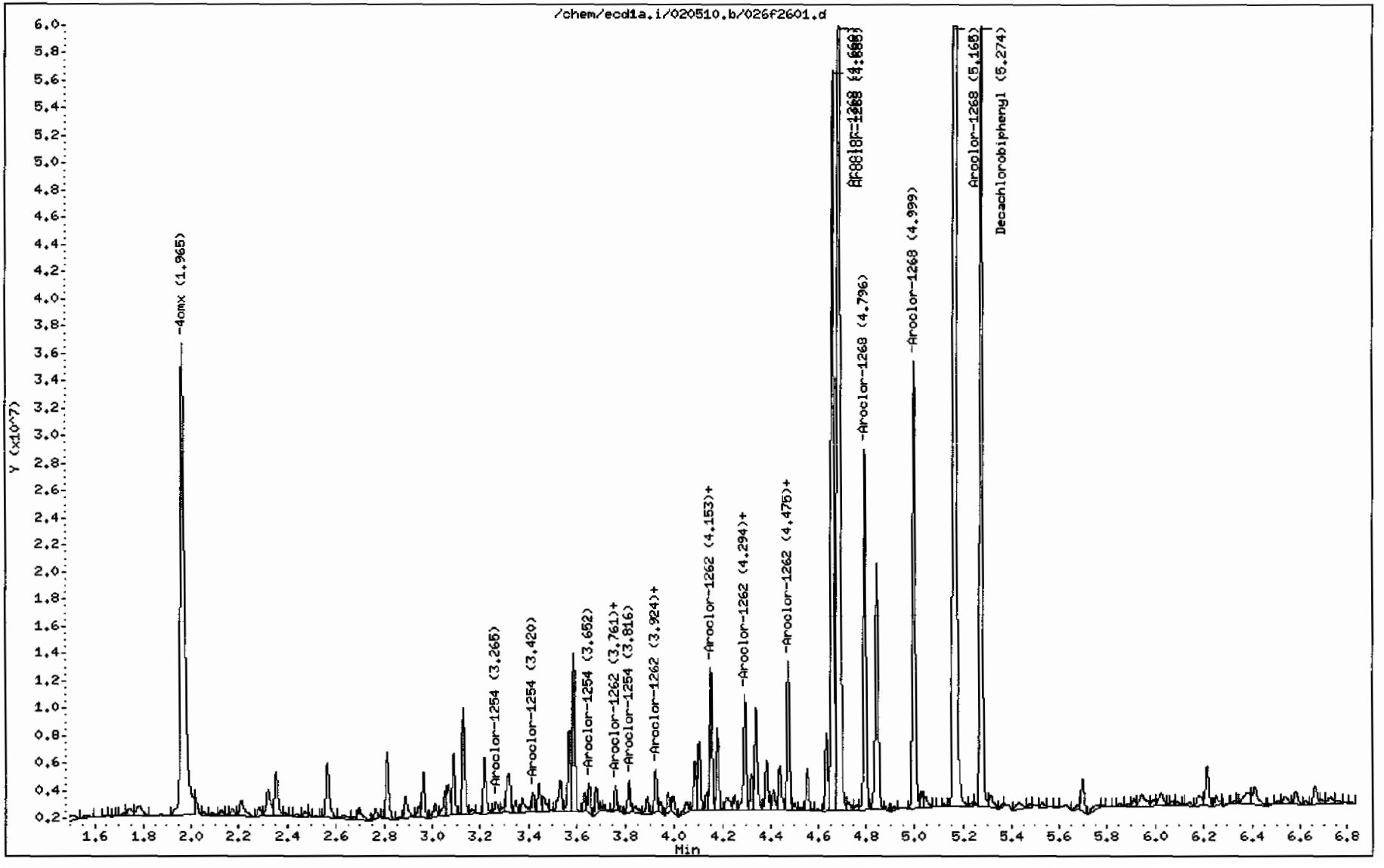

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/026b2601.d
Lab Smp Id: 245803007 Client Smp ID: RE15-10-8058
Inj Date : 05-FEB-2010 11:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245803007|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-8058|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	35.88220	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	31230371	108.724	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	30888607	141.933	7.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.402	3.401	0.001	204615	31.7959	1.6	80.00- 120.00	100.00(a)
3.822	3.824	-0.002	524201	45.3488	2.4	160.72- 200.72	256.19
3.939	3.940	-0.001	946752	76.1588	4.0	179.44- 219.44	462.70
4.216	4.216	0.000	561676	33.2745	1.7	255.74- 295.74	274.50

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.352	4.353	-0.001	868615	69.8498	3.6	176.59- 216.59	424.51
Average of Peak Concentrations =					2.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.332	-0.002	1791848	141.712	7.4	80.00- 120.00	100.00
4.456	4.457	-0.001	1292810	84.9410	4.4	101.42- 141.42	72.15
4.722	4.722	0.000	6214534	533.412	27.7	72.62- 112.62	346.82
4.897	4.896	0.001	4674230	387.790	20.1	76.48- 116.48	260.86
5.043	5.043	0.000	6810004	261.236	13.6	194.90- 234.90	380.05
Average of Peak Concentrations =					14.6		
9 Aroclor-1268					CAS #: 11100-14-4		
5.254	5.255	-0.001	27430949	756.600	39.3	80.00- 120.00	100.00(H)
5.282	5.283	-0.001	42760921	1273.31	66.1	75.81- 115.81	155.89
5.432	5.433	-0.001	13536123	520.973	27.0	55.31- 95.31	49.35
5.596	5.598	-0.002	16916570	1490.88	77.4	17.23- 57.23	61.67
5.789	5.790	-0.001	88008066	1312.06	68.1	217.43- 257.43	320.83
Average of Peak Concentrations =					55.6		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
H - Operator selected an alternate compound hit.

Data File: /chem/ecd1a.i/020510.b/026b2601.d

Date : 05-FEB-2010 11:37

Client ID: RE15-10-8058

Sample Info: |245803007|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

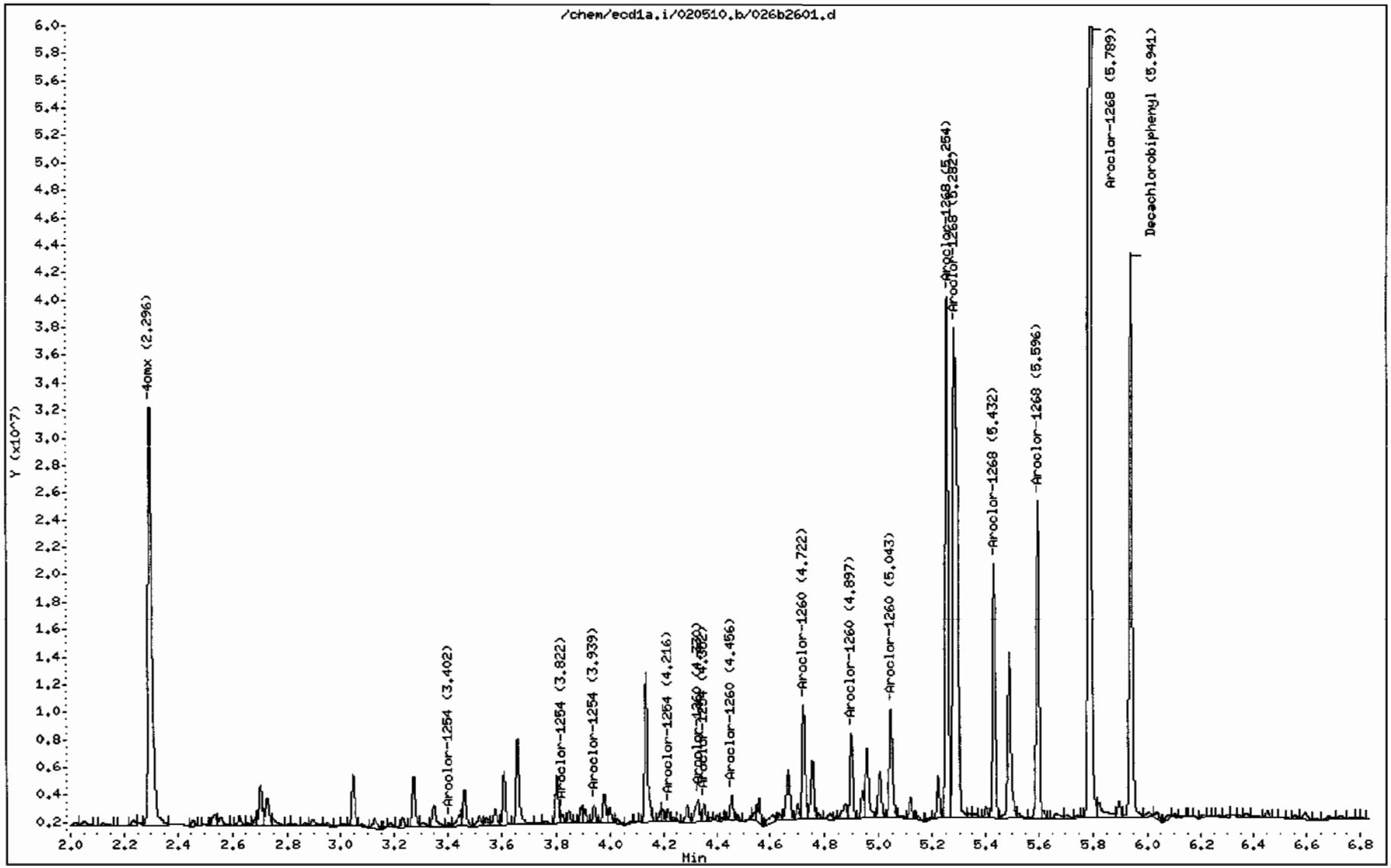

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1473	**Date Collected:**	01/26/2010 12:00	**Matrix:**	R
Lab Sample ID:	245803008	**Date Received:**	01/29/2010 08:45	**%Moisture:**	7.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8059	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 11:50	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP1	**Level:**	LOW
	027b2701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.59	ug/kg	1.20	3.59	1
11104–28–2	Aroclor–1221	U	3.59	ug/kg	1.20	3.59	1
11141–16–5	Aroclor–1232	U	3.59	ug/kg	1.20	3.59	1
53469–21–9	Aroclor–1242	U	3.59	ug/kg	1.20	3.59	1
12672–29–6	Aroclor–1248	U	3.59	ug/kg	1.20	3.59	1
11097–69–1	Aroclor–1254	U	3.59	ug/kg	1.20	3.59	1
11096–82–5	Aroclor–1260	U	3.59	ug/kg	1.20	3.59	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/027f2701.d
Lab Smp Id: 245803008 Client Smp ID: RE15-10-8059
Inj Date : 05-FEB-2010 11:50
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245803008|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-8059|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 11:31 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	7.27680	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	35130782	88.1246	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	26063836	80.6141	2.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/027f2701.d

Date : 05-FEB-2010 11:50

Client ID: RE15-10-8059

Sample Info: 1245803008111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

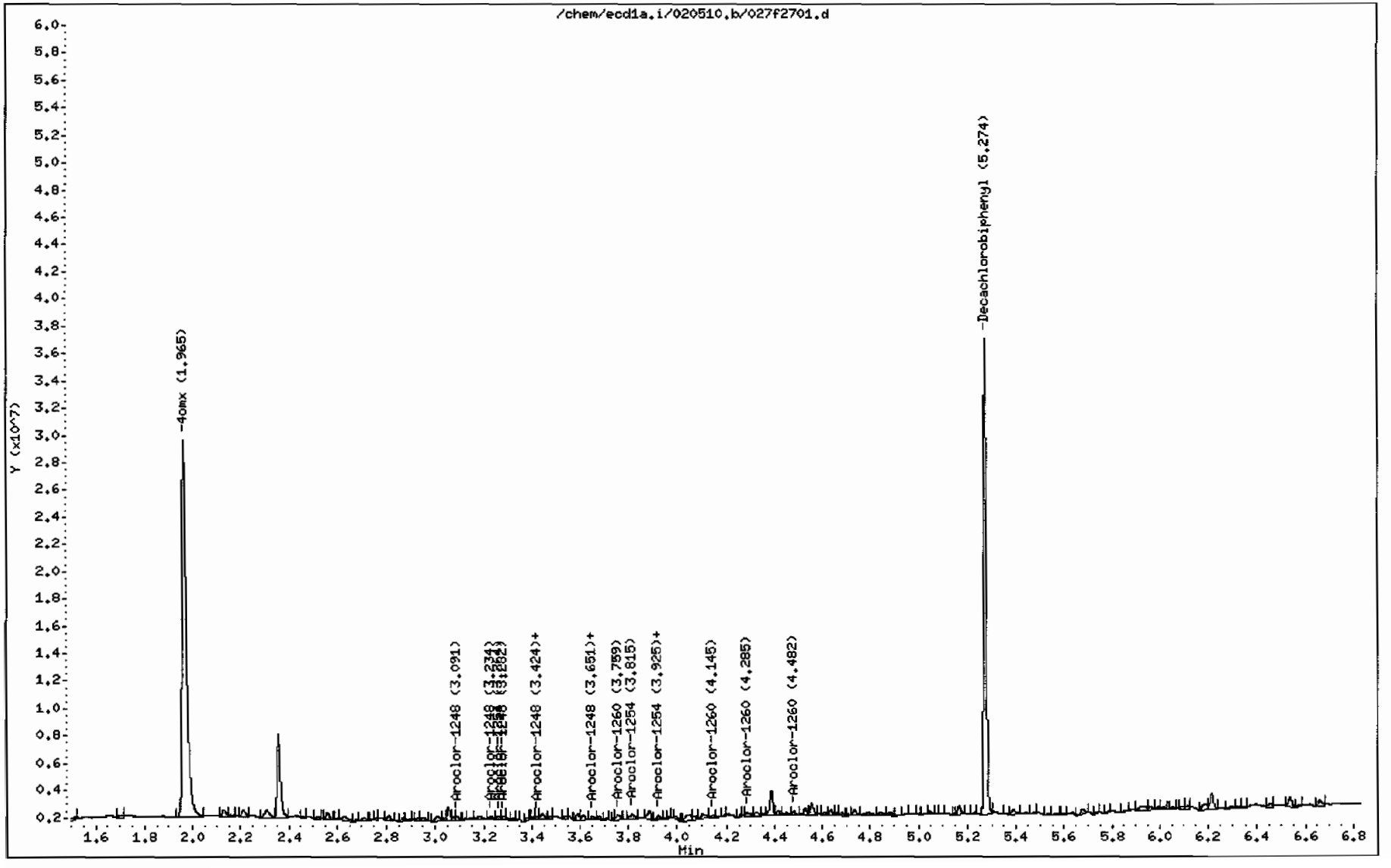

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/027b2701.d
Lab Smp Id: 245803008 Client Smp ID: RE15-10-8059
Inj Date : 05-FEB-2010 11:50
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245803008|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-8059|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	7.27680	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	25326641	88.1713	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.942	-0.002	19131483	87.9090	3.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/027b2701.d

Date : 05-FEB-2010 11:50

Client ID: RE15-10-8059

Sample Info: |245803008|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

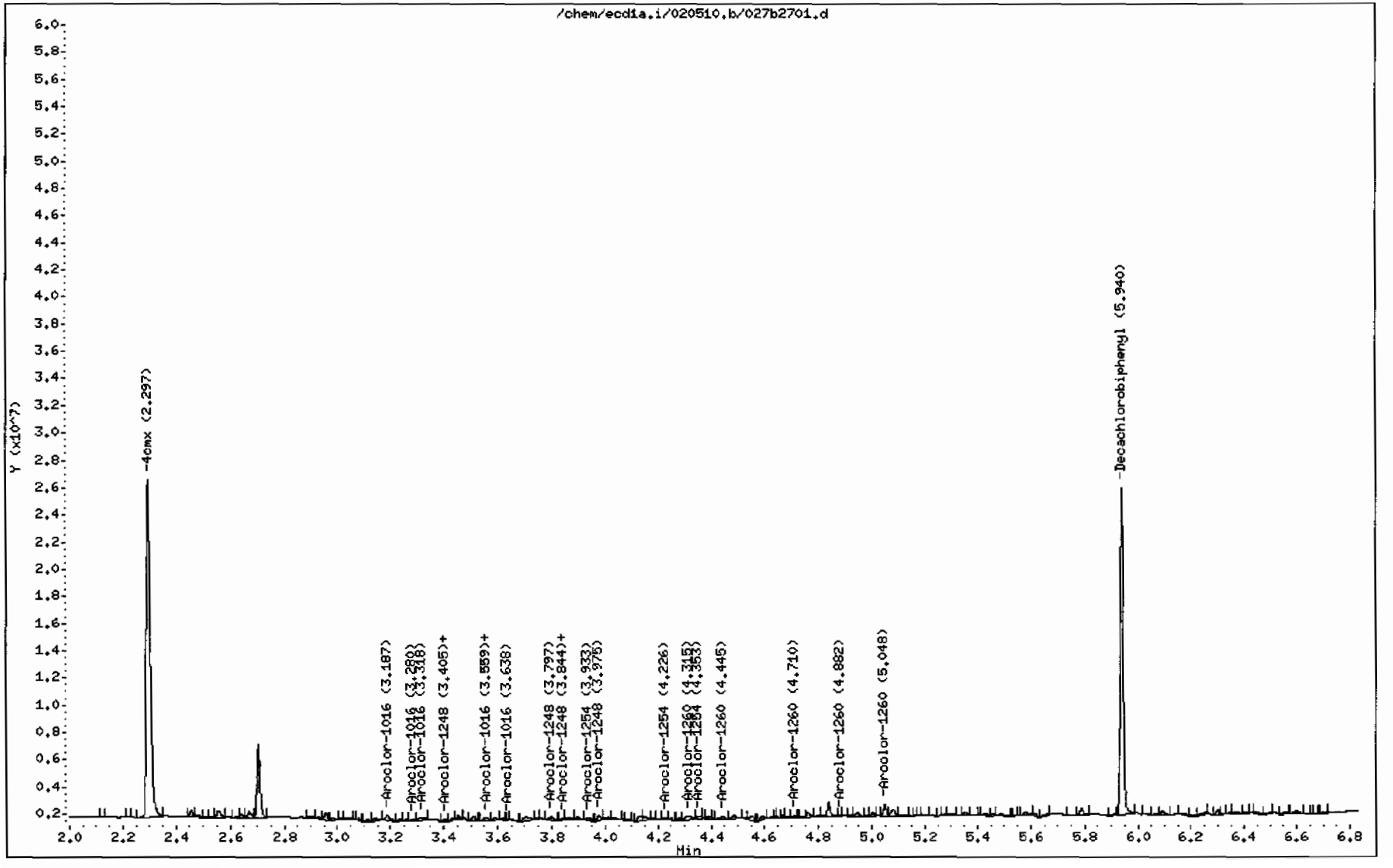

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1473**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245803006**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**14.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8060**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 11:25**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.89	ug/kg	1.29	3.89	1
11104–28–2	Aroclor–1221	U	3.89	ug/kg	1.29	3.89	1
11141–16–5	Aroclor–1232	U	3.89	ug/kg	1.29	3.89	1
53469–21–9	Aroclor–1242	U	3.89	ug/kg	1.29	3.89	1
12672–29–6	Aroclor–1248	U	3.89	ug/kg	1.29	3.89	1
11097–69–1	Aroclor–1254	P	74.1	ug/kg	1.29	3.89	1
11096–82–5	Aroclor–1260		47.0	ug/kg	1.29	3.89	2
11100–14–4	Aroclor–1268		35.1	ug/kg	1.29	3.89	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/025f2501.d
Lab Smp Id: 245803006 Client Smp ID: RE15-10-8060
Inj Date : 05-FEB-2010 11:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245803006|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-8060|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	14.59010	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	52405428	131.458	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	58197843	180.003	7.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.266	-0.002	20205511	1618.32	62.9	80.00- 120.00	100.00(M)
3.419	3.421	-0.002	33610164	2009.94	78.2	118.05- 158.05	166.34
3.655	3.655	0.000	39306350	1897.58	73.8	160.50- 200.50	194.53
3.815	3.818	-0.003	19590280	1248.25	48.5	116.88- 156.88	96.96

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.923	3.926	-0.003	41601977	2741.93	107	110.22- 150.22	205.89
Average of Peak Concentrations =					74.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.760	3.762	-0.002	25388415	1439.53	56.0	80.00- 120.00	100.00(M)
3.923	3.925	-0.002	41601977	1560.35	60.7	132.59- 172.59	163.86
4.154	4.155	-0.001	15861532	996.225	38.7	71.05- 111.05	62.48
4.295	4.297	-0.002	19250270	1163.11	45.2	74.81- 114.81	75.82
4.475	4.477	-0.002	22469715	605.076	23.5	197.56- 237.56	88.50
Average of Peak Concentrations =					44.8		
9 Aroclor-1268					CAS #: 11100-14-4		
4.660	4.663	-0.003	39301011	748.805	29.1	80.00- 120.00	100.00(H)
4.683	4.686	-0.003	37402229	777.301	30.2	74.24- 114.24	95.17
4.795	4.799	-0.004	25113207	678.230	26.4	54.84- 94.84	63.90
4.998	5.001	-0.003	18020809	1105.96	43.0	17.12- 57.12	45.85
5.164	5.167	-0.003	110586749	1021.33	39.7	228.13- 268.13	281.38
Average of Peak Concentrations =					33.7		

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/ecd1a.i/020510.b/025f2501.d
Date : 05-FEB-2010 11:25
Client ID: RE15-10-8060
Sample Info: 1245803006|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

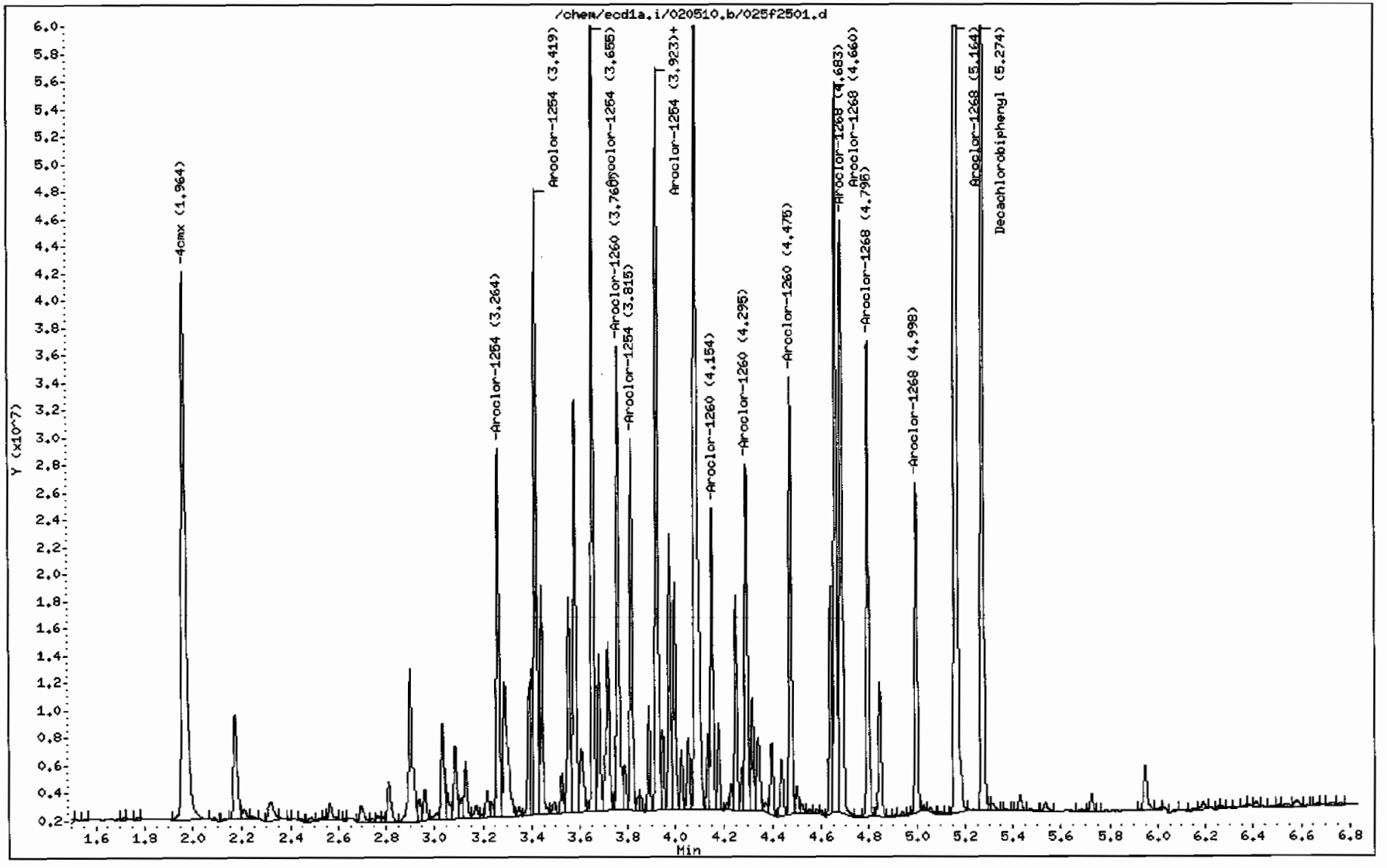

Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/025f2501.d
Operator: YS1
Injection Date: 05-FEB-2010 11:25
Instrument: ecd1a.i
Client Sample ID: RE15-10-8060

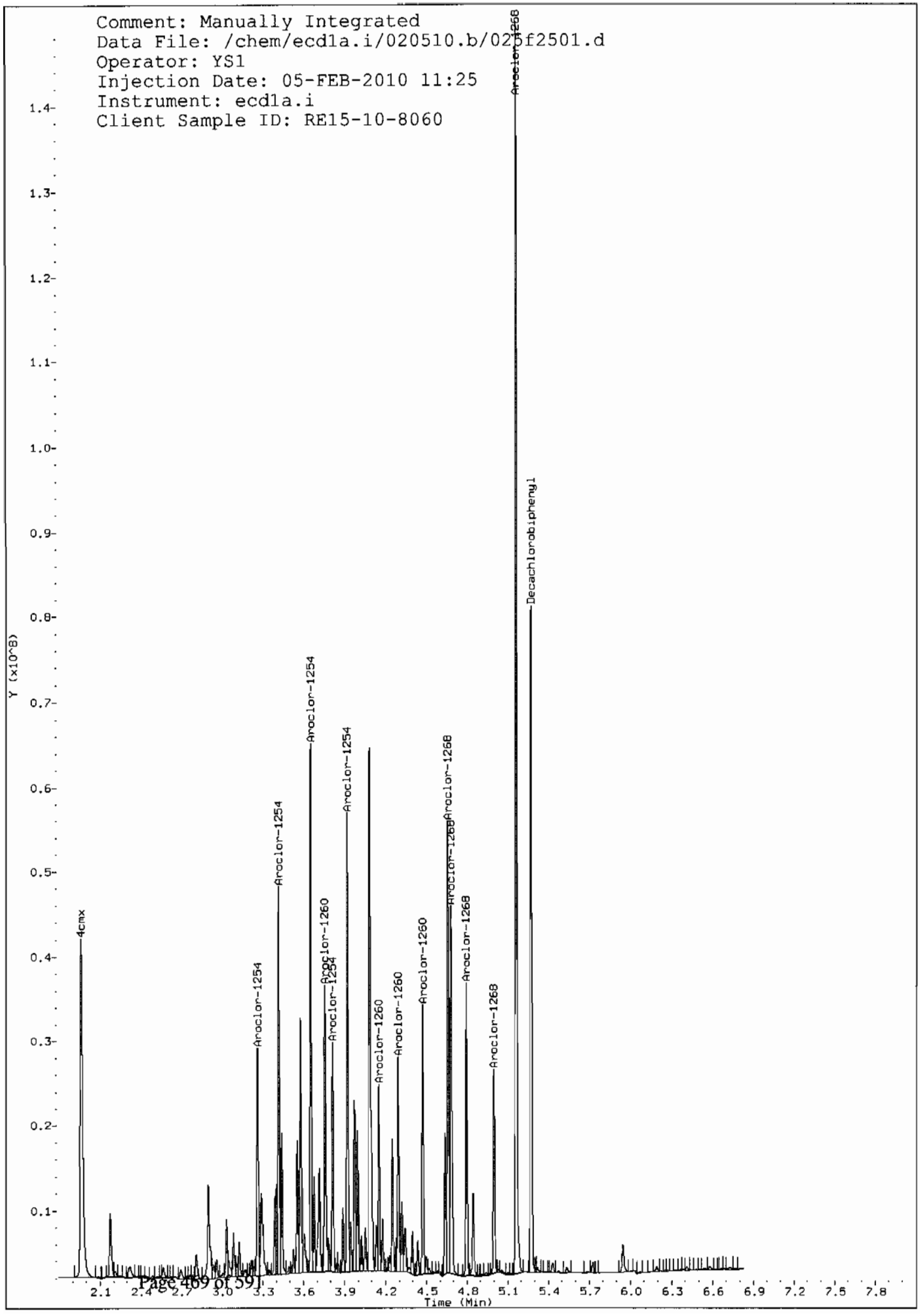

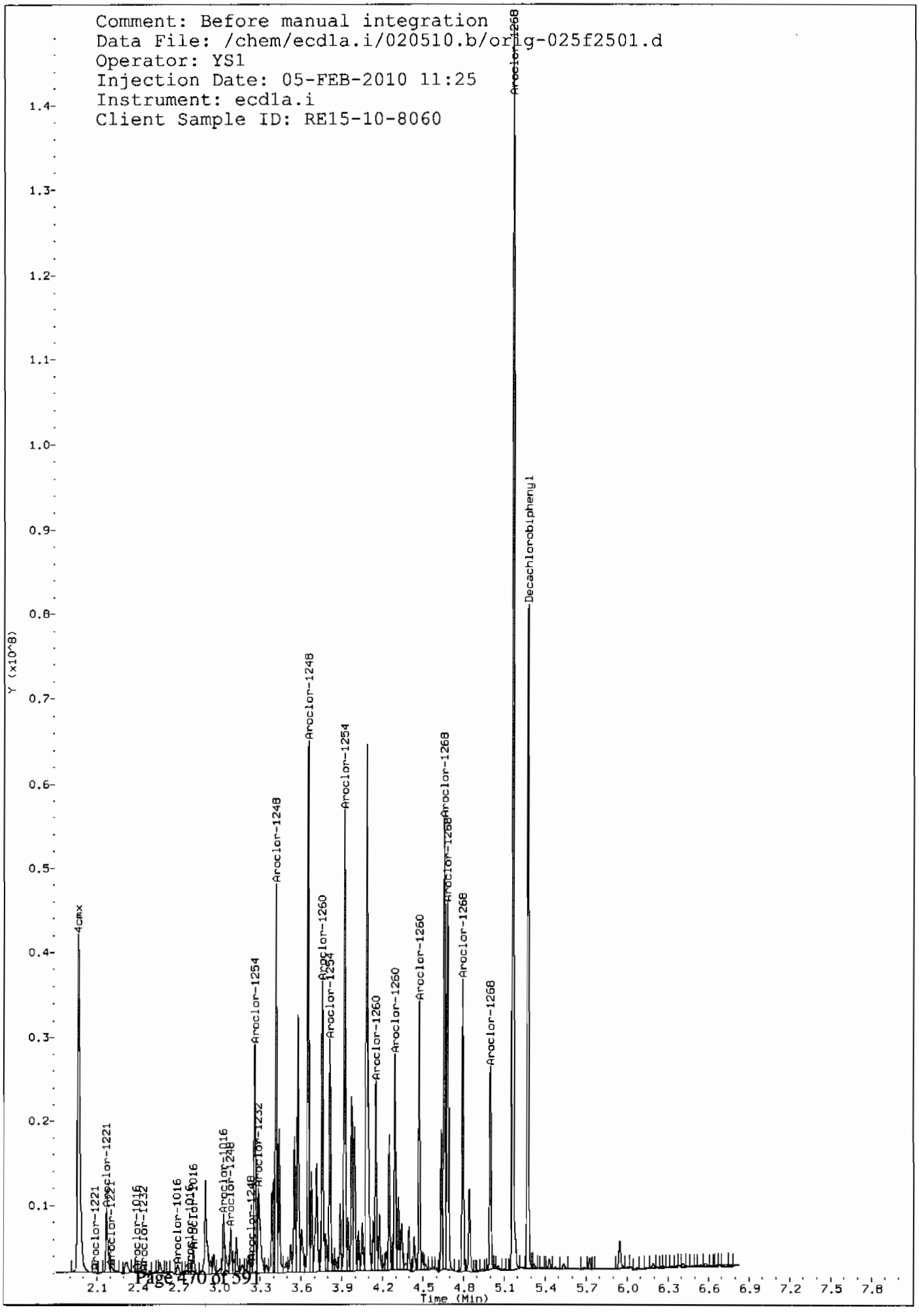
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-025f2501.d
Operator: YS1
Injection Date: 05-FEB-2010 11:25
Instrument: ecd1a.i
Client Sample ID: RE15-10-8060
Y (x10^8)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1016
Aroclor-1232
Aroclor-1248
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/025b2501.d
Lab Smp Id: 245803006 Client Smp ID: RE15-10-8060
Inj Date : 05-FEB-2010 11:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245803006|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-8060|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	14.59010	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.296	-0.001	36825471	128.203	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.942	-0.002	42472854	195.162	7.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.400	3.401	-0.001	5459490	848.372	33.0	80.00- 120.00	100.00(M)
3.821	3.824	-0.003	15839525	1370.28	53.3	160.72- 200.72	290.13
3.938	3.940	-0.002	22491416	1809.26	70.4	179.44- 219.44	411.97
4.221	4.216	0.005	9139169	541.418	21.0	255.74- 295.74	364.86
4.350	4.353	-0.003	12414372	998.303	38.8	176.59- 216.59	227.39

Average of Peak Concentrations = 43.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.332	-0.002	19397367	1534.08	59.6	80.00- 120.00	100.00(M)
4.455	4.457	-0.002	21339276	1402.05	54.5	101.42- 141.42	110.01
4.721	4.722	-0.001	14420716	1237.77	48.1	72.62- 112.62	74.34
4.895	4.896	-0.001	14293705	1185.85	46.1	76.48- 116.48	73.69
5.042	5.043	-0.001	17834182	684.131	26.6	194.90- 234.90	91.94
		Average of Peak Concentrations =			47.0		
9 Aroclor-1268					CAS #: 11100-14-4		
5.254	5.255	-0.001	36427416	1004.74	39.1	80.00- 120.00	100.00(H)
5.281	5.283	-0.002	25625982	763.074	29.7	75.81- 115.81	70.35
5.430	5.433	-0.003	19927713	766.970	29.8	55.31- 95.31	54.71
5.595	5.598	-0.003	9734216	857.892	33.4	17.23- 57.23	26.72
5.789	5.790	-0.001	75028523	1118.56	43.5	217.43- 257.43	205.97
		Average of Peak Concentrations =			35.1		

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Data File: /chem/ecd1a.i/020510.b/025b2501.d
Date : 05-FEB-2010 11:25
Client ID: RE15-10-8060
Sample Info: |245803006|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

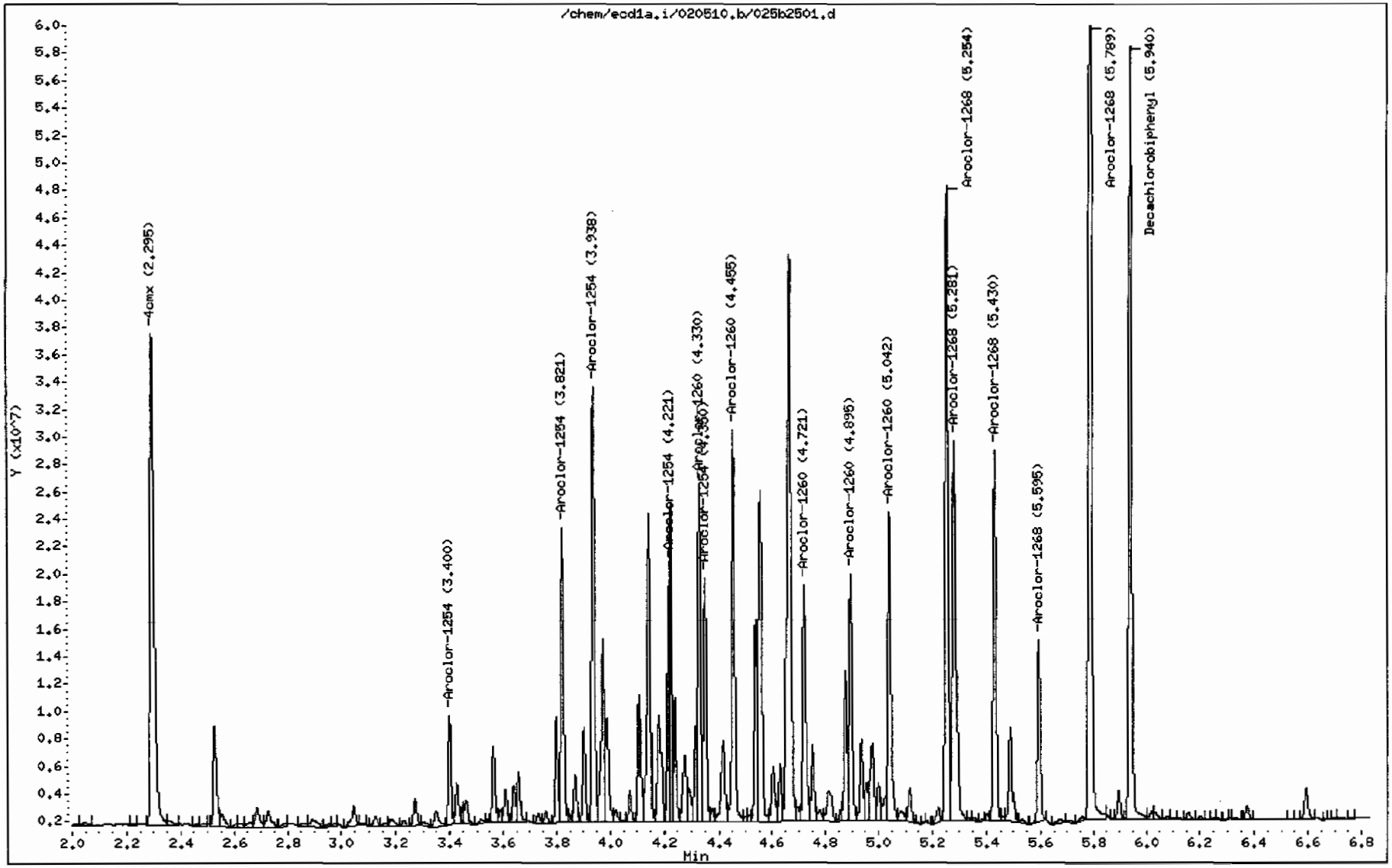

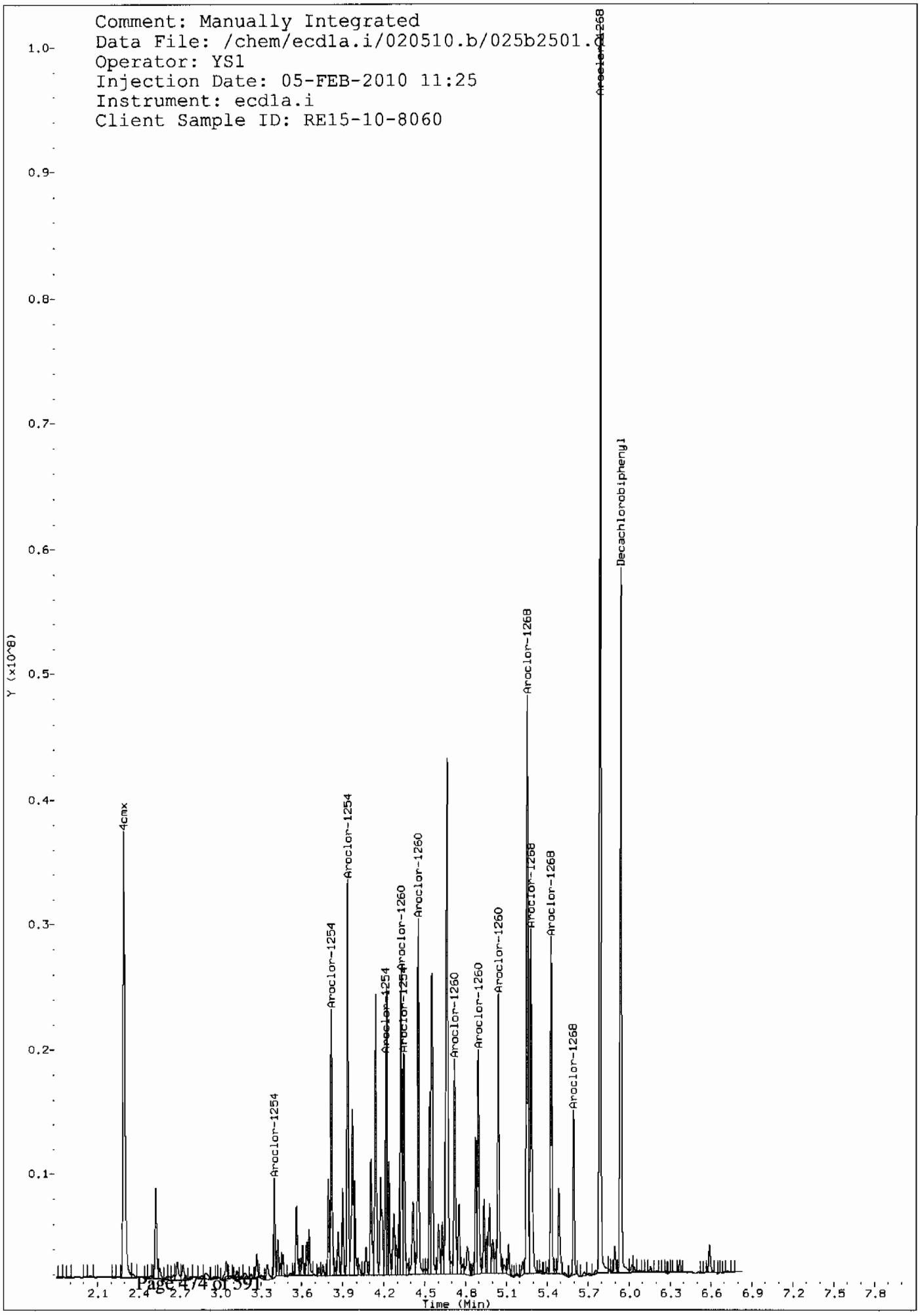
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/025b2501.d
Operator: YS1
Injection Date: 05-FEB-2010 11:25
Instrument: ecd1a.i
Client Sample ID: RE15-10-8060
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
4cmx
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1268
Aroclor-1268
Aroclor-1268
Aroclor-1268
Aroclor-1268
Aroclor-1268
Decachlorobiphenyl
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

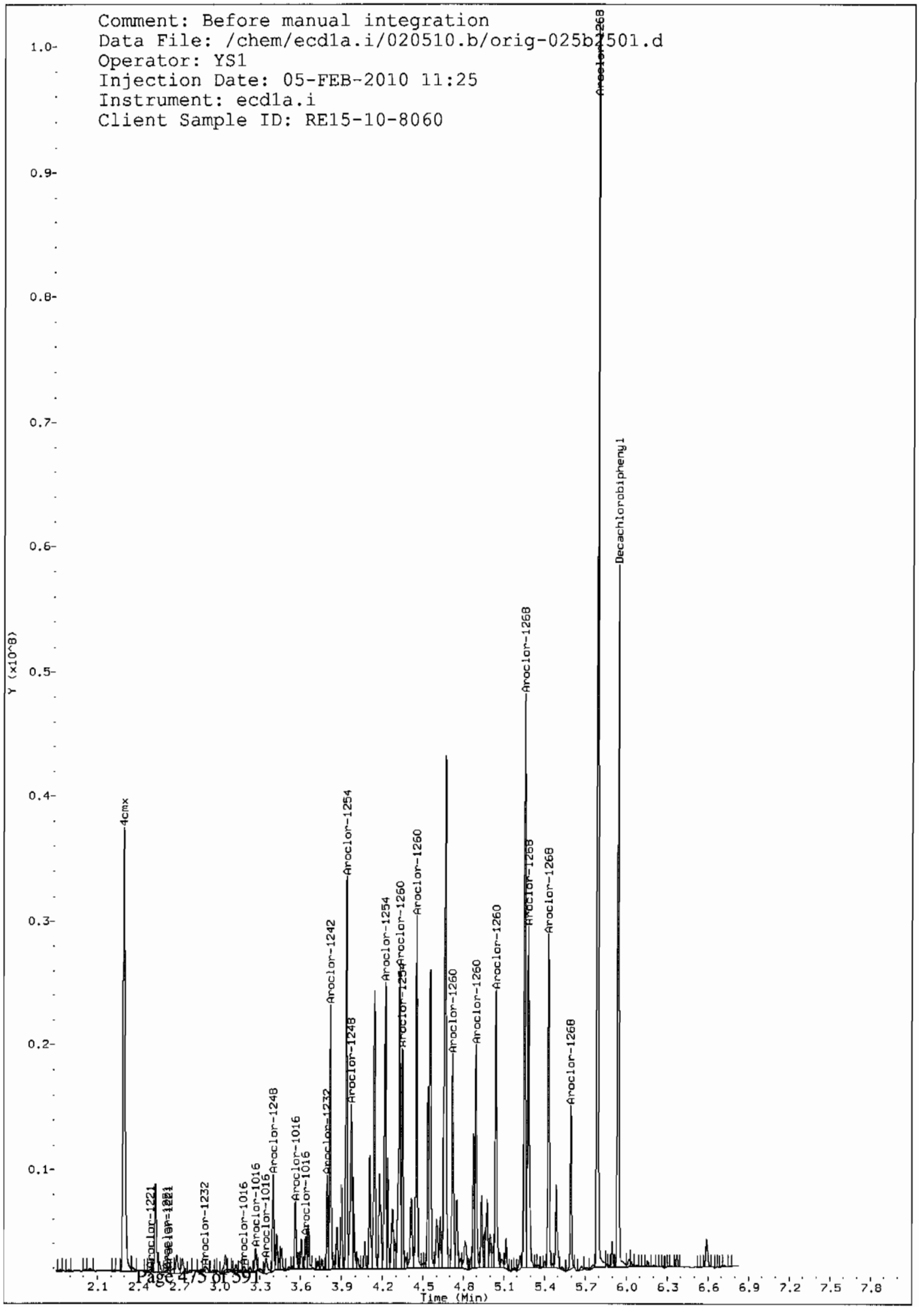
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-025b2501.d
Operator: YS1
Injection Date: 05-FEB-2010 11:25
Instrument: ecd1a.i
Client Sample ID: RE15-10-8060
Y (x10^8)
Time (Min)
4cmx
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

STANDARDS DATA

Report Date: 08-Feb-2010 09:31

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006f0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018f1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010f1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007f0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019f1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011f1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008f0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020f2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012f1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013f1301.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021f2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009f0901.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010f1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022f2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014f1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 15:29	AR1660	/chem/ecd1a.i/020510.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 14:05	AR1660	/chem/ecd1a.i/020510.b/038f3801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 12:40	AR1660	/chem/ecd1a.i/020510.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 10:51	AR1660	/chem/ecd1a.i/020510.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:20	AR1268	/chem/ecd1a.i/020510.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:59	AR1221	/chem/ecd1a.i/020510.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:48	AR1232	/chem/ecd1a.i/020510.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:38	AR1248	/chem/ecd1a.i/020510.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:27	AR1242	/chem/ecd1a.i/020510.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:17	AR1254	/chem/ecd1a.i/020510.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:06	AR1660	/chem/ecd1a.i/020510.b/002f0201.d

Report Date: 08-Feb-2010 09:45

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006b0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018b1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010b1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007b0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019b1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011b1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008b0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020b2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012b1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021b2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009b0901.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013b1301.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010b1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022b2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d

14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014b1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 15:29	AR1660	/chem/ecd1a.i/020510.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 14:05	AR1660	/chem/ecd1a.i/020510.b/038b3801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 12:40	AR1660	/chem/ecd1a.i/020510.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 10:51	AR1660	/chem/ecd1a.i/020510.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:38	AR1248	/chem/ecd1a.i/020510.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:20	AR1268	/chem/ecd1a.i/020510.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:59	AR1221	/chem/ecd1a.i/020510.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:48	AR1232	/chem/ecd1a.i/020510.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:09	AR1262	/chem/ecd1a.i/020510.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:27	AR1242	/chem/ecd1a.i/020510.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:17	AR1254	/chem/ecd1a.i/020510.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:06	AR1660	/chem/ecd1a.i/020510.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.419	2.389-2.449	1.466e+04
	2.707	2.677-2.737	1.832e+04
	2.788	2.758-2.818	1.202e+04
	2.826	2.796-2.856	7.180e+03
	3.036	3.006-3.066	9.290e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.077	2.047-2.107	4.301e+03
	2.170	2.140-2.200	2.440e+03
	2.195	2.165-2.225	1.027e+04
3 Aroclor-1232	2.421	2.391-2.451	6.849e+03
	2.709	2.679-2.739	8.426e+03
	2.789	2.759-2.819	5.627e+03
	3.038	3.008-3.068	3.983e+03
	3.291	3.261-3.321	3.858e+03
4 Aroclor-1242	2.420	2.390-2.450	1.166e+04
	2.708	2.678-2.738	1.345e+04
	2.826	2.796-2.856	5.506e+03
	3.037	3.007-3.067	7.245e+03
	3.290	3.260-3.320	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.088	3.058-3.118	7.848e+03
	3.240	3.210-3.270	6.870e+03
	3.291	3.261-3.321	1.331e+04
	3.422	3.392-3.452	1.101e+04
	3.655	3.625-3.685	7.455e+03
6 Aroclor-1254	3.266	3.236-3.296	1.249e+04
	3.421	3.391-3.451	1.672e+04
	3.655	3.625-3.685	2.071e+04
	3.818	3.788-3.848	1.569e+04
	3.926	3.896-3.956	1.517e+04
7 Aroclor-1260	3.762	3.732-3.792	1.764e+04
	3.925	3.895-3.955	2.666e+04
	4.155	4.125-4.185	1.592e+04
	4.297	4.267-4.327	1.655e+04
	4.477	4.447-4.507	3.714e+04
8 Aroclor-1262	3.763	3.733-3.793	1.500e+04
	3.926	3.896-3.956	2.038e+04
	4.156	4.126-4.186	2.520e+04
	4.299	4.269-4.329	2.299e+04
	4.478	4.448-4.508	4.717e+04
9 Aroclor-1268	4.663	4.633-4.693	5.248e+04
	4.686	4.656-4.716	4.812e+04
	4.799	4.769-4.829	3.703e+04
	5.001	4.971-5.031	1.629e+04
	5.167	5.137-5.197	1.083e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.965	1.935-1.995	3.986e+05
$ 12 Decachlorobiphenyl	5.275	5.245-5.305	3.233e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.192	3.162-3.222	1.248e+04
	3.275	3.245-3.305	8.547e+03
	3.339	3.309-3.369	5.291e+03
	3.565	3.535-3.595	6.814e+03
	3.641	3.611-3.671	6.405e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.492	2.462-2.522	3.640e+03
	2.586	2.556-2.616	2.329e+03
	2.627	2.597-2.657	8.119e+03
3 Aroclor-1232	2.895	2.865-2.925	5.892e+03
	3.193	3.163-3.223	6.222e+03
	3.276	3.246-3.306	4.345e+03
	3.567	3.537-3.597	3.111e+03
	3.800	3.770-3.830	3.193e+03
4 Aroclor-1242	3.192	3.162-3.222	1.059e+04
	3.275	3.245-3.305	8.054e+03
	3.566	3.536-3.596	5.962e+03
	3.800	3.770-3.830	6.057e+03
	3.828	3.798-3.858	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.401	3.371-3.431	8.054e+03
	3.566	3.536-3.596	9.874e+03
	3.800	3.770-3.830	1.122e+04
	3.827	3.797-3.857	1.248e+04
	3.965	3.935-3.995	1.210e+04
6 Aroclor-1254	3.401	3.371-3.431	6.435e+03
	3.824	3.794-3.854	1.156e+04
	3.940	3.910-3.970	1.243e+04
	4.216	4.186-4.246	1.688e+04
	4.353	4.323-4.383	1.244e+04
7 Aroclor-1260	4.332	4.302-4.362	1.264e+04
	4.457	4.427-4.487	1.522e+04
	4.722	4.692-4.752	1.165e+04
	4.896	4.866-4.926	1.205e+04
	5.043	5.013-5.073	2.607e+04
8 Aroclor-1262	4.457	4.427-4.487	1.356e+04
	4.723	4.693-4.753	1.889e+04
	4.897	4.867-4.927	1.747e+04
	5.044	5.014-5.074	3.453e+04
	5.257	5.227-5.287	2.487e+04
9 Aroclor-1268	5.255	5.225-5.285	3.626e+04
	5.283	5.253-5.313	3.358e+04
	5.433	5.403-5.463	2.598e+04
	5.598	5.568-5.628	1.135e+04
	5.790	5.760-5.820	6.708e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.296	2.266-2.326	2.872e+05
$ 12 Decachlorobiphenyl	5.942	5.912-5.972	2.176e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17274	15624	14668	13618	12110	14659	13.365
(2)	20414	18506	18422	17664	16607	18323	7.617
(3)	13811	12507	11857	11466	10478	12024	10.320
(4)	8094	7393	7100	6874	6439	7180	8.612
(5)	10520	9736	9158	8813	8222	9290	9.475
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	19303	18084	17596	17320	15881	17637	7.037
(2)	28906	27177	26621	26372	24235	26662	6.298
(3)	17466	16264	15774	15593	14511	15922	6.750
(4)	17694	16895	16482	16357	15325	16551	5.206
(5)	38673	37803	37114	37178	34909	37135	3.753
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25041	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor-1268(1)	55111	53385	52967	52495	48466	52485	4.676
(2)	51014	48609	47960	48222	44786	48118	4.620
(3)	39244	37391	36973	36968	34562	37028	4.505
(4)	17802	16531	16072	16029	15038	16294	6.158
(5)	113064	109648	108755	109096	100824	108277	4.162
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	416570	402663	398822	398666	376523	398649	3.607
$ 12 Decachlorobiphenyl	349811	330143	318231	316573	301823	323316	5.537

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14228	12876	12485	11870	10964	12485	9.713
(2)	10308	9112	8344	7935	7035	8547	14.474
(3)	6330	5599	5139	4929	4456	5291	13.452
(4)	8280	7111	6551	6409	5718	6814	14.062
(5)	7890	6662	6193	5904	5375	6405	14.872
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	$\overline{RRF}$	% RSD
6 Aroclor-1254 (1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260 (1)	14858	13325	12348	11932	10758	12644	12.198
(2)	17461	15979	14935	14482	13243	15220	10.456
(3)	13572	12242	11423	10976	10040	11651	11.471
(4)	14023	12666	11806	11380	10392	12054	11.383
(5)	28927	27037	25880	25311	23188	26068	8.140
8 Aroclor-1262 (1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268 (1)	40076	37508	36193	35765	31736	36256	8.369
(2)	36699	34342	33454	33223	30195	33583	6.968
(3)	29294	26633	25688	25340	22957	25982	8.826
(4)	12990	11609	11161	10996	9978	11347	9.656
(5)	67306	67058	67598	69416	64002	67076	2.911
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	314910	295845	285456	280701	259306	287244	7.105
$ 12 Decachlorobiphenyl	251054	227132	210476	206848	192632	217628	10.274

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002F0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	12837.588	0.01	-12.4	15.0
(2)	18322.626	16881.446	0.01	-7.9	15.0
(3)	12023.655	10579.542	0.01	-12.0	15.0
(4)	7180.129	6340.762	0.01	-11.7	15.0
(5)	9289.783	8310.417	0.01	-10.5	15.0
Aroclor-1260	17636.550	17492.483	0.01	-0.8	15.0
(2)	26662.025	26719.248	0.01	0.2	15.0
(3)	15921.638	15874.558	0.01	-0.3	15.0
(4)	16550.665	16698.516	0.01	0.9	15.0
(5)	37135.384	38229.555	0.01	2.9	15.0
4cmx	398648.98	371361.76	0.01	-6.8	15.0
Decachlorobiphenyl	323316.27	306305.72	0.01	-5.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002B0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	11513.111	0.01	-7.8	15.0
(2)	8546.824	7680.091	0.01	-10.1	15.0
(3)	5290.741	4732.691	0.01	-10.5	15.0
(4)	6813.513	6037.895	0.01	-11.4	15.0
(5)	6404.782	5752.367	0.01	-10.2	15.0
Aroclor-1260	12644.310	12622.486	0.01	-0.2	15.0
(2)	15220.096	15319.189	0.01	0.6	15.0
(3)	11650.528	11665.669	0.01	0.1	15.0
(4)	12053.523	12022.139	0.01	-0.3	15.0
(5)	26068.381	27036.683	0.01	3.7	15.0
4cmx	287243.52	273128.74	0.01	-4.9	15.0
Decachlorobiphenyl	217628.16	208183.20	0.01	-4.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0717

Lab File ID: 003F0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1254	12485.476	13316.408	0.01	6.6	15.0	
(2)	16721.938	18383.138	0.01	9.9	15.0	
(3)	20713.923	24035.597	0.01	16.0	15.0	<-
(4)	15694.205	18227.087	0.01	16.1	15.0	<-
(5)	15172.491	17340.088	0.01	14.3	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0717

Lab File ID: 003B0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6435.255	6210.292	0.01	-3.5	15.0
(2)	11559.316	11223.428	0.01	-2.9	15.0
(3)	12431.285	12385.662	0.01	-0.4	15.0
(4)	16880.060	17124.358	0.01	1.4	15.0
(5)	12435.475	12208.508	0.01	-1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0820

Lab File ID: 009F0901 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1268	52484.978	48680.194	0.01	-7.2	15.0
(2)	48118.088	45876.697	0.01	-4.6	15.0
(3)	37027.541	36431.401	0.01	-1.6	15.0
(4)	16294.262	18070.217	0.01	10.9	15.0
(5)	108277.36	120791.94	0.01	11.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0820

Lab File ID: 009B0901 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1268	36255.530	33206.637	0.01	-8.4	15.0	
(2)	33582.584	31815.832	0.01	-5.3	15.0	
(3)	25982.381	25007.382	0.01	-3.8	15.0	
(4)	11346.665	12362.596	0.01	9.0	15.0	
(5)	67076.083	78842.117	0.01	17.5	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022F2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14089.870	0.01	-3.9	15.0
(2)	18322.626	18254.738	0.01	-0.4	15.0
(3)	12023.655	11539.563	0.01	-4.0	15.0
(4)	7180.129	6922.359	0.01	-3.6	15.0
(5)	9289.783	8923.226	0.01	-3.9	15.0
Aroclor-1260	17636.550	19002.908	0.01	7.7	15.0
(2)	26662.025	28995.739	0.01	8.8	15.0
(3)	15921.638	17302.329	0.01	8.7	15.0
(4)	16550.665	18016.442	0.01	8.8	15.0
(5)	37135.384	41342.662	0.01	11.3	15.0
4cmx	398648.98	405041.02	0.01	1.6	15.0
Decachlorobiphenyl	323316.27	329068.95	0.01	1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022B2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12553.097	0.01	0.5	15.0
(2)	8546.824	8166.106	0.01	-4.4	15.0
(3)	5290.741	5045.053	0.01	-4.6	15.0
(4)	6813.513	6628.314	0.01	-2.7	15.0
(5)	6404.782	6123.430	0.01	-4.4	15.0
Aroclor-1260	12644.310	13388.386	0.01	5.9	15.0
(2)	15220.096	16291.509	0.01	7.0	15.0
(3)	11650.528	12420.565	0.01	6.6	15.0
(4)	12053.523	12892.266	0.01	7.0	15.0
(5)	26068.381	28894.660	0.01	10.8	15.0
4cmx	287243.52	289912.86	0.01	0.9	15.0
Decachlorobiphenyl	217628.16	222287.65	0.01	2.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031F3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14012.608	0.01	-4.4	15.0
(2)	18322.626	18319.018	0.01	-0.0	15.0
(3)	12023.655	11547.801	0.01	-4.0	15.0
(4)	7180.129	6929.943	0.01	-3.5	15.0
(5)	9289.783	8939.715	0.01	-3.8	15.0
Aroclor-1260	17636.550	18972.127	0.01	7.6	15.0
(2)	26662.025	28835.947	0.01	8.2	15.0
(3)	15921.638	17204.186	0.01	8.0	15.0
(4)	16550.665	18148.577	0.01	9.6	15.0
(5)	37135.384	41262.622	0.01	11.1	15.0
4cmx	398648.98	404599.75	0.01	1.5	15.0
Decachlorobiphenyl	323316.27	326299.17	0.01	0.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031B3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12359.615	0.01	-1.0	15.0
(2)	8546.824	8069.931	0.01	-5.6	15.0
(3)	5290.741	4988.684	0.01	-5.7	15.0
(4)	6813.513	6345.906	0.01	-6.9	15.0
(5)	6404.782	6017.327	0.01	-6.0	15.0
Aroclor-1260	12644.310	13242.341	0.01	4.7	15.0
(2)	15220.096	16223.303	0.01	6.6	15.0
(3)	11650.528	12301.397	0.01	5.6	15.0
(4)	12053.523	12694.909	0.01	5.3	15.0
(5)	26068.381	28307.638	0.01	8.6	15.0
4cmx	287243.52	286907.88	0.01	-0.1	15.0
Decachlorobiphenyl	217628.16	219266.81	0.01	0.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	37136176	100.000	93.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	30630572	100.000	94.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.419	2.419	0.000	12837588	1000.00	876	80.00- 120.00	100.00
2.707	2.707	0.000	16881446	1000.00	921	111.50- 151.50	131.50
2.788	2.788	0.000	10579542	1000.00	880	62.41- 102.41	82.41
2.826	2.826	0.000	6340762	1000.00	883	29.39- 69.39	49.39
3.036	3.036	0.000	8310417	1000.00	894	44.74- 84.74	64.74
Average of Peak Amounts =					891		
7 Aroclor-1260					CAS #: 11096-82-5		
3.762	3.762	0.000	17492483	1000.00	992	80.00- 120.00	100.00
3.925	3.925	0.000	26719248	1000.00	1000	132.75- 172.75	152.75
4.155	4.155	0.000	15874558	1000.00	997	70.75- 110.75	90.75
4.297	4.297	0.000	16698516	1000.00	1010	75.46- 115.46	95.46
4.477	4.477	0.000	38229555	1000.00	1030	198.55- 238.55	218.55
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd1a.i/020510.b/002f0201.d

Date : 05-FEB-2010 07:06

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

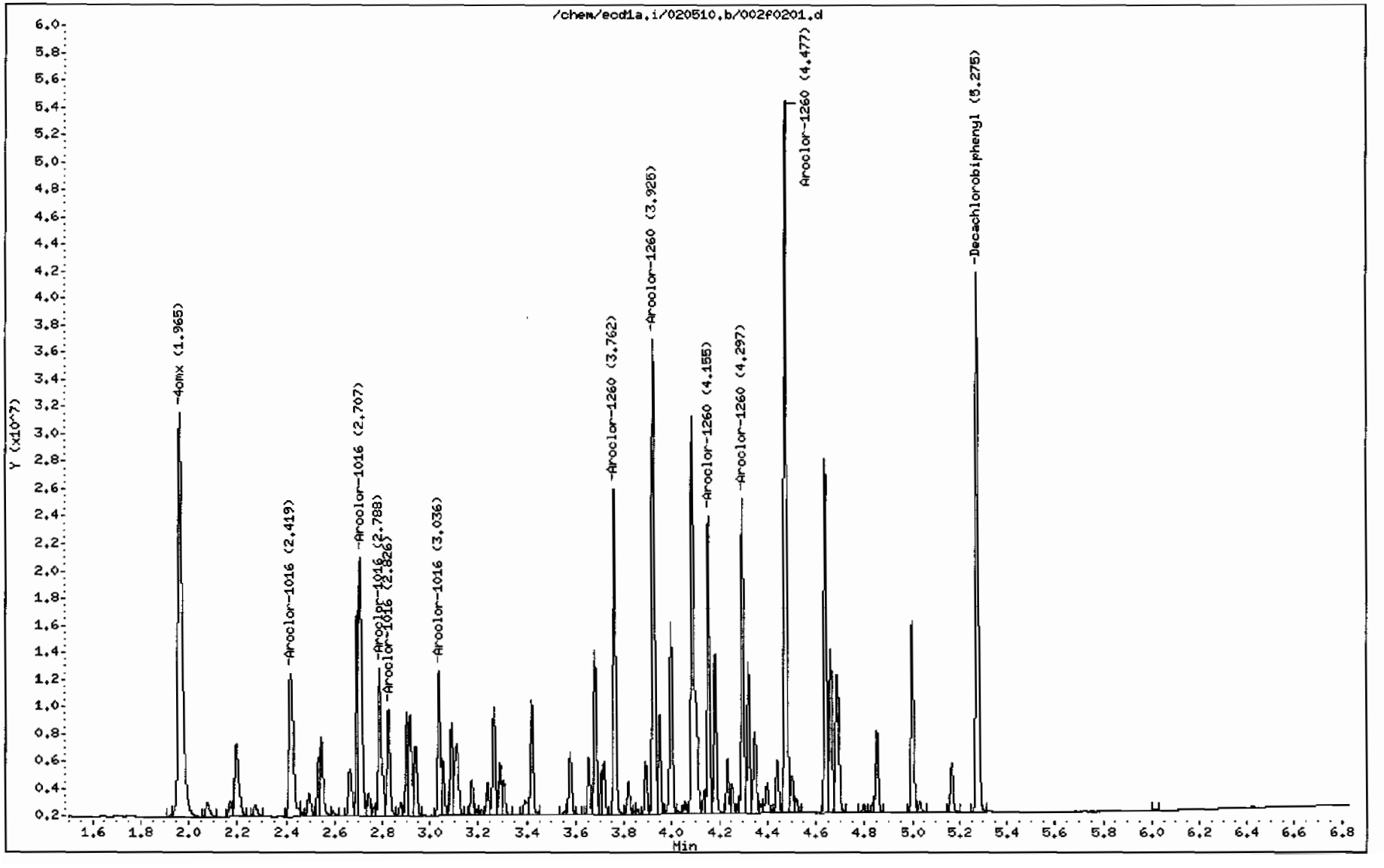

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	27312874	100.000	95.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.942	5.942	0.000	20818320	100.000	95.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	11513111	1000.00	922	80.00- 120.00	100.00(M)
3.275	3.275	0.000	7680091	1000.00	898	46.71- 86.71	66.71
3.339	3.339	0.000	4732691	1000.00	894	21.11- 61.11	41.11
3.565	3.565	0.000	6037895	1000.00	886	32.44- 72.44	52.44
3.641	3.641	0.000	5752367	1000.00	898	29.96- 69.96	49.96
Average of Peak Amounts =					900		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.332	0.000	12622486	1000.00	998	80.00- 120.00	100.00
4.457	4.457	0.000	15319189	1000.00	1010	101.36- 141.36	121.36
4.722	4.722	0.000	11665669	1000.00	1000	72.42- 112.42	92.42
4.896	4.896	0.000	12022139	1000.00	997	75.24- 115.24	95.24
5.043	5.043	0.000	27036683	1000.00	1040	194.19- 234.19	214.19
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/002b0201.d
Date : 05-FEB-2010 07:06
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

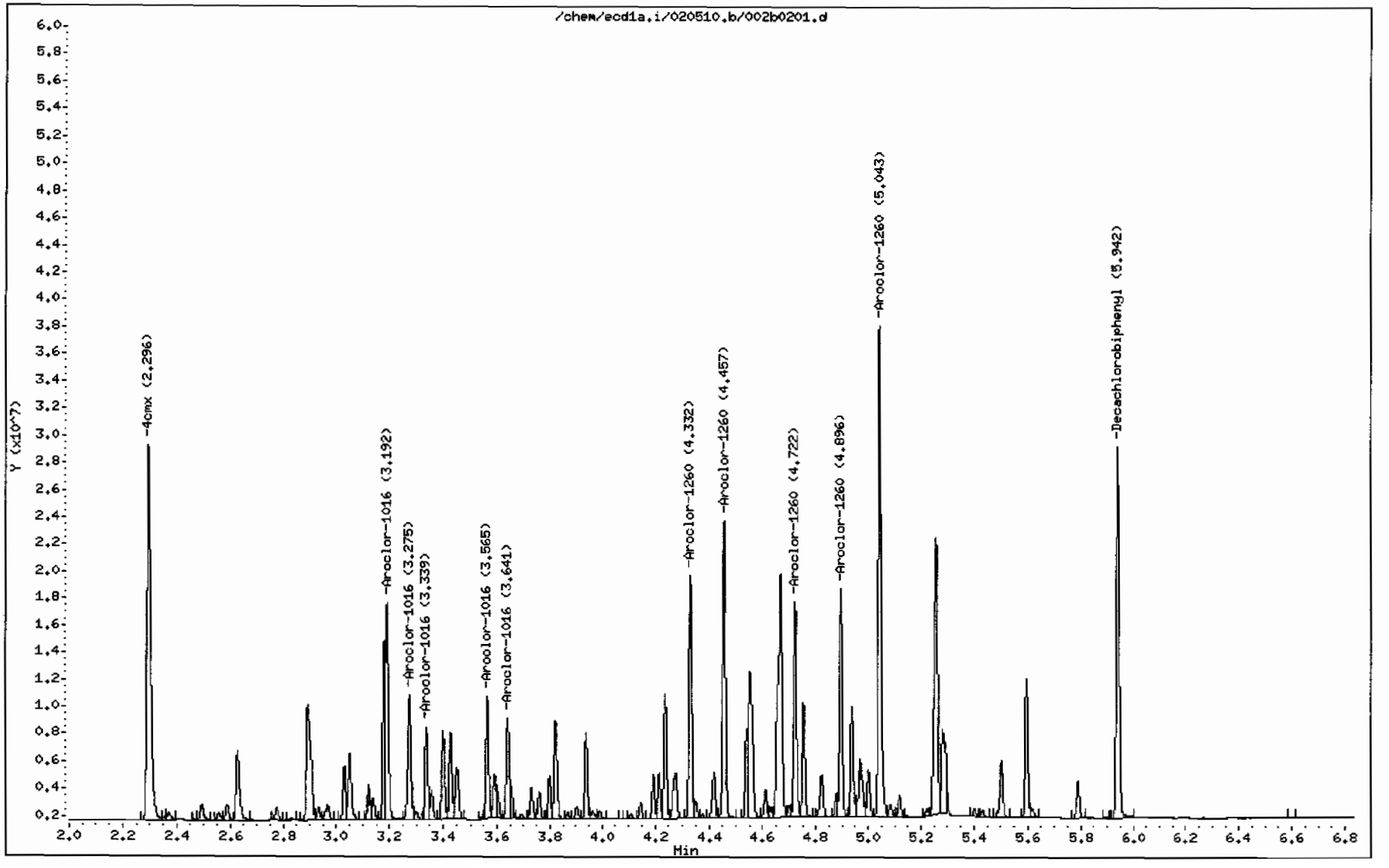

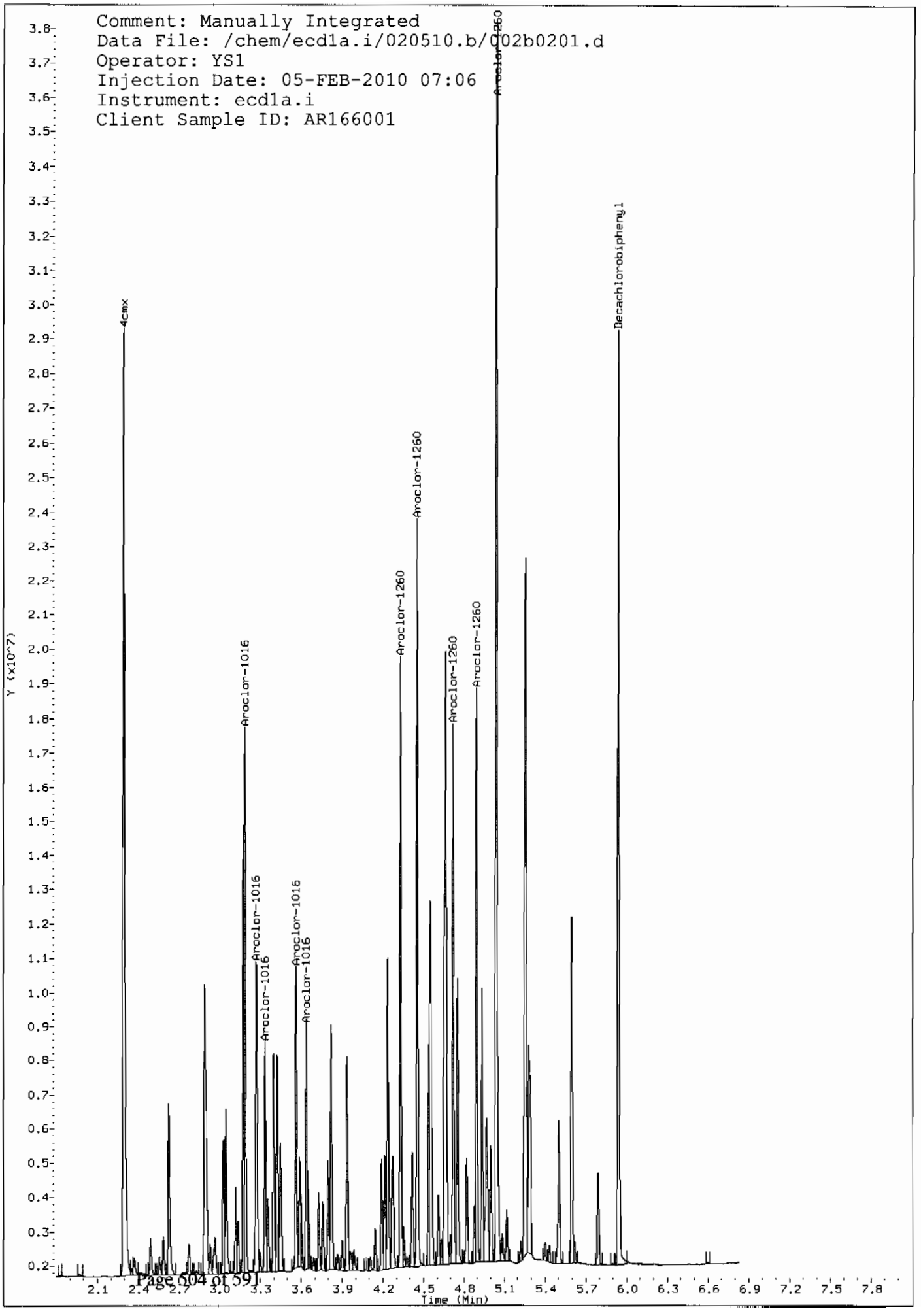
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

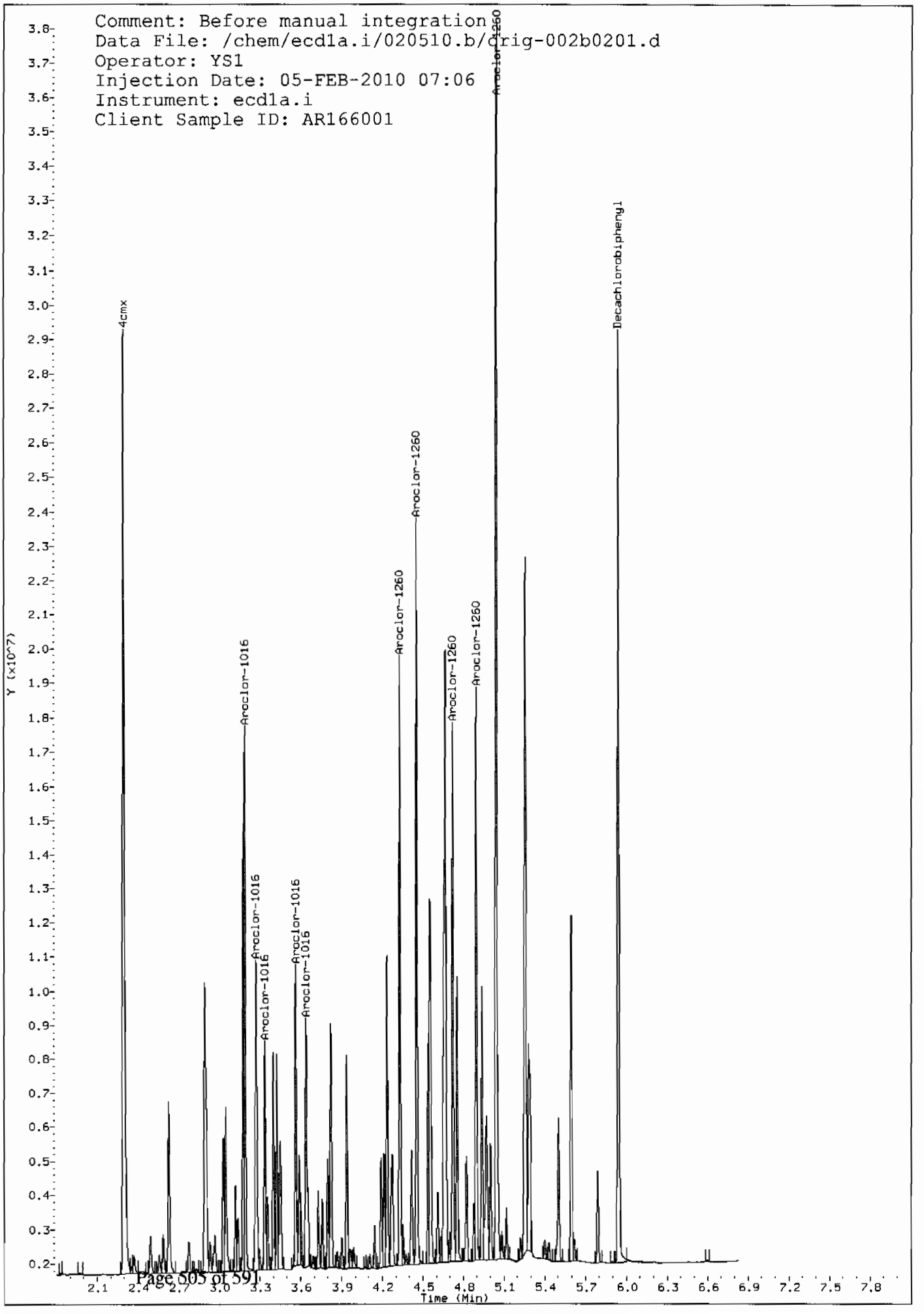
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.266	3.266	0.000	13316408	1000.00	1070	80.00- 120.00	100.00
3.421	3.421	0.000	18383138	1000.00	1100	118.05- 158.05	138.05
3.655	3.655	0.000	24035597	1000.00	1160	160.50- 200.50	180.50
3.818	3.818	0.000	18227087	1000.00	1160	116.88- 156.88	136.88
3.926	3.926	0.000	17340088	1000.00	1140	110.22- 150.22	130.22

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/020510.b/003f0301.d
Date : 05-FEB-2010 07:17
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

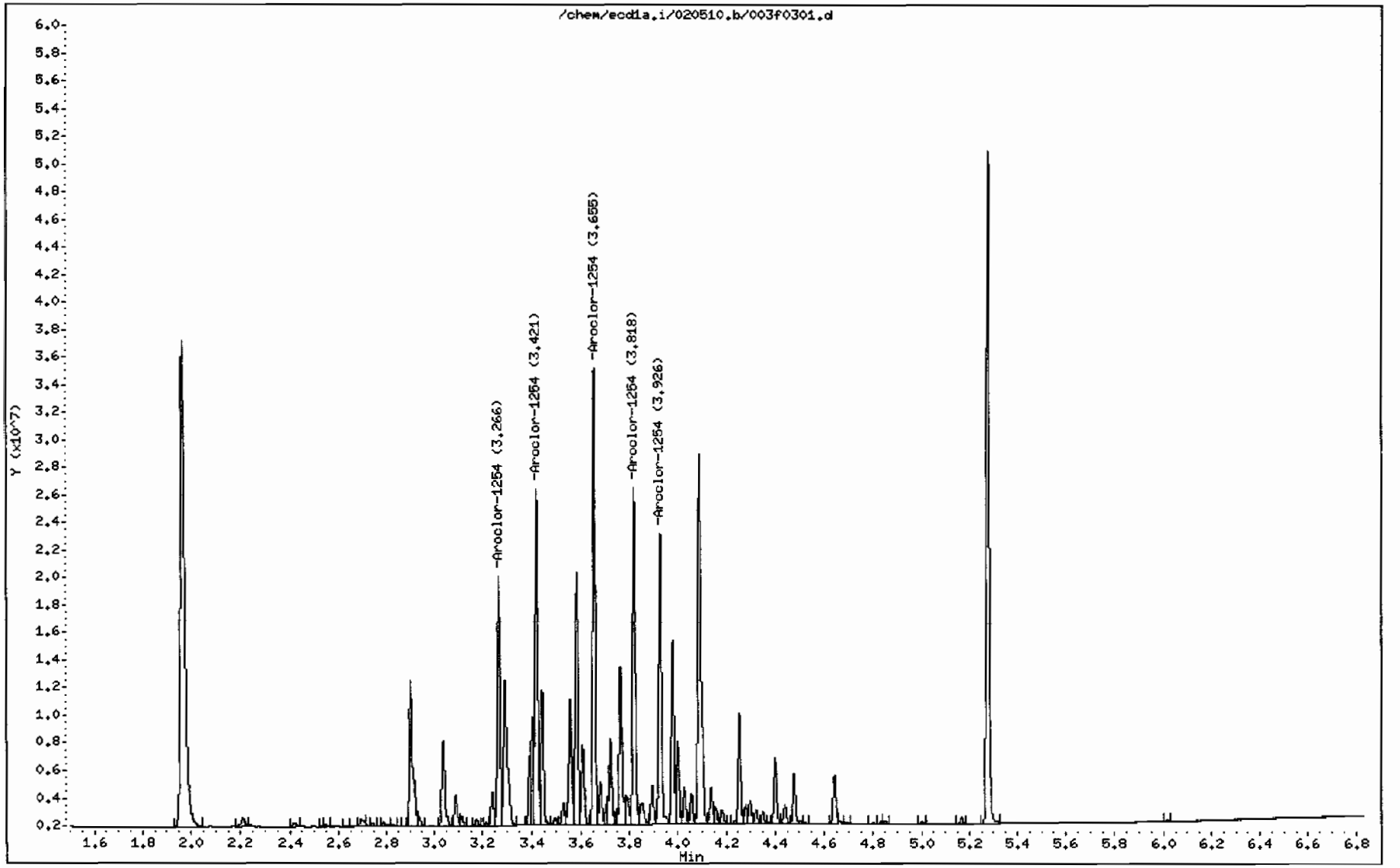

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.401	3.401	0.000	6210292	1000.00	965	80.00- 120.00	100.00
3.824	3.824	0.000	11223428	1000.00	971	160.72- 200.72	180.72
3.940	3.940	0.000	12385662	1000.00	996	179.44- 219.44	199.44
4.216	4.216	0.000	17124358	1000.00	1010	255.74- 295.74	275.74
4.353	4.353	0.000	12208508	1000.00	982	176.59- 216.59	196.59
		Average of Peak Amounts =			986		

Data File: /chem/ecd1a.i/020510.b/003b0301.d
Date : 05-FEB-2010 07:17
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

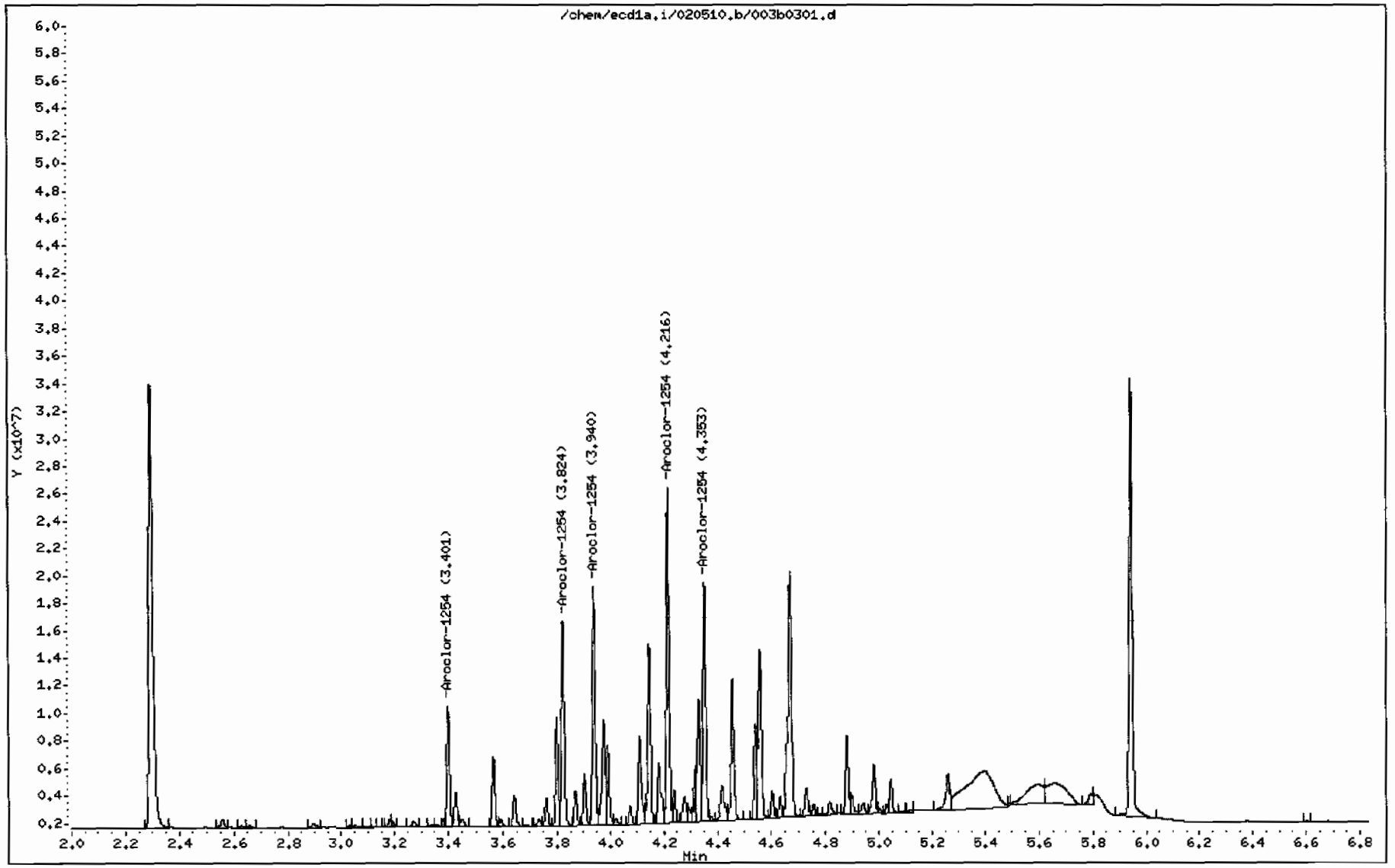

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.420	2.420	0.000	11255044	1000.00	965	80.00- 120.00	100.00
2.708	2.708	0.000	14293317	1000.00	1060	106.99- 146.99	126.99
2.826	2.826	0.000	5433097	1000.00	987	28.27- 68.27	48.27
3.037	3.037	0.000	7156483	1000.00	988	43.58- 83.58	63.58
3.290	3.290	0.000	6999007	1000.00	1030	42.19- 82.19	62.19

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/004f0401.d

Date : 05-FEB-2010 07:27

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

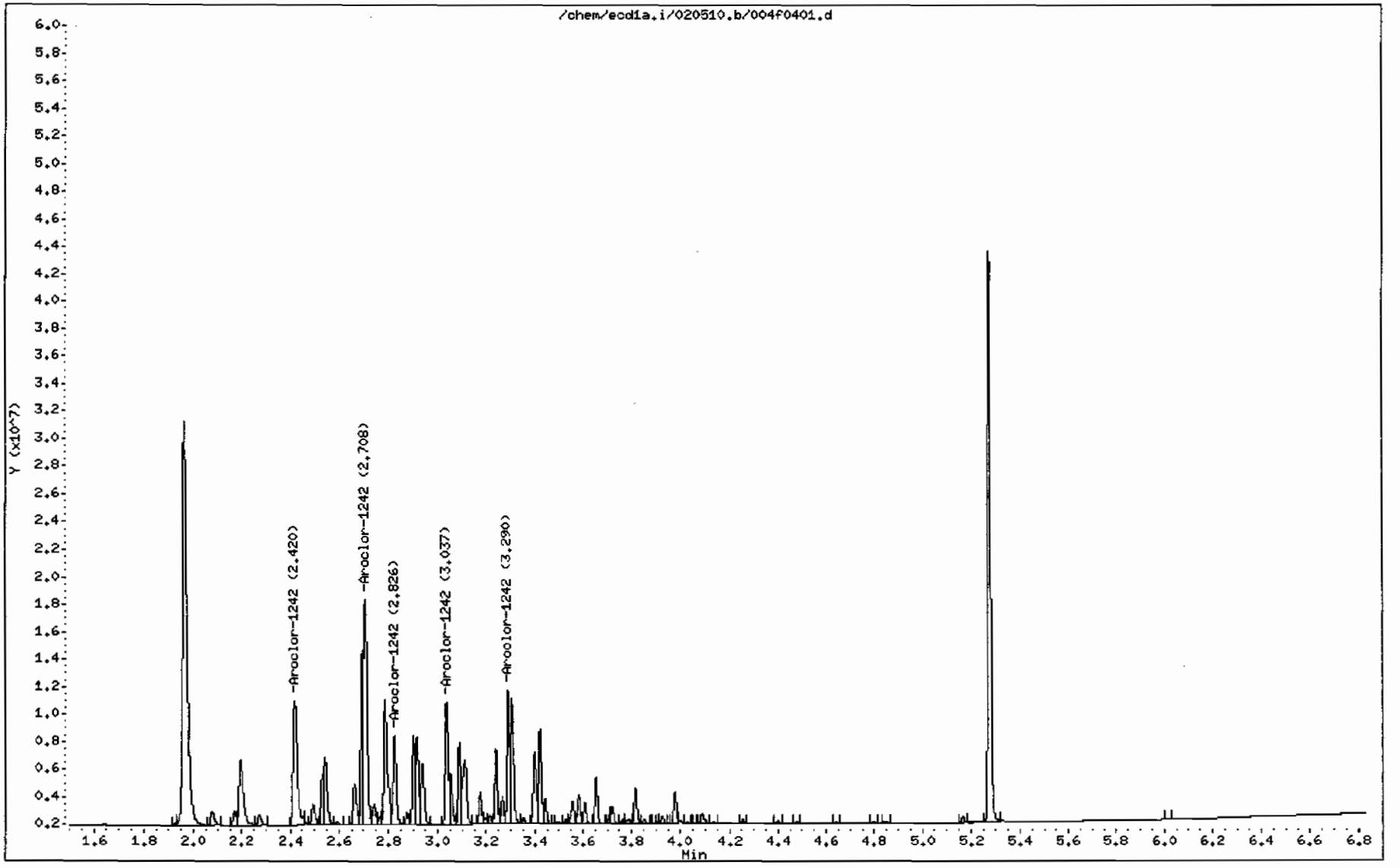

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.192	3.192	0.000	10109273	1000.00	955	80.00- 120.00	100.00
3.275	3.275	0.000	6573360	1000.00	816	45.02- 85.02	65.02
3.566	3.566	0.000	5197092	1000.00	872	31.41- 71.41	51.41
3.800	3.800	0.000	5378692	1000.00	888	33.21- 73.21	53.21
3.828	3.828	0.000	6016980	1000.00	898	39.52- 79.52	59.52
Average of Peak Amounts =					886		

Data File: /chem/ecd1a.i/020510.b/004b0401.d

Page 1

Date : 05-FEB-2010 07:27

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR091217-42

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

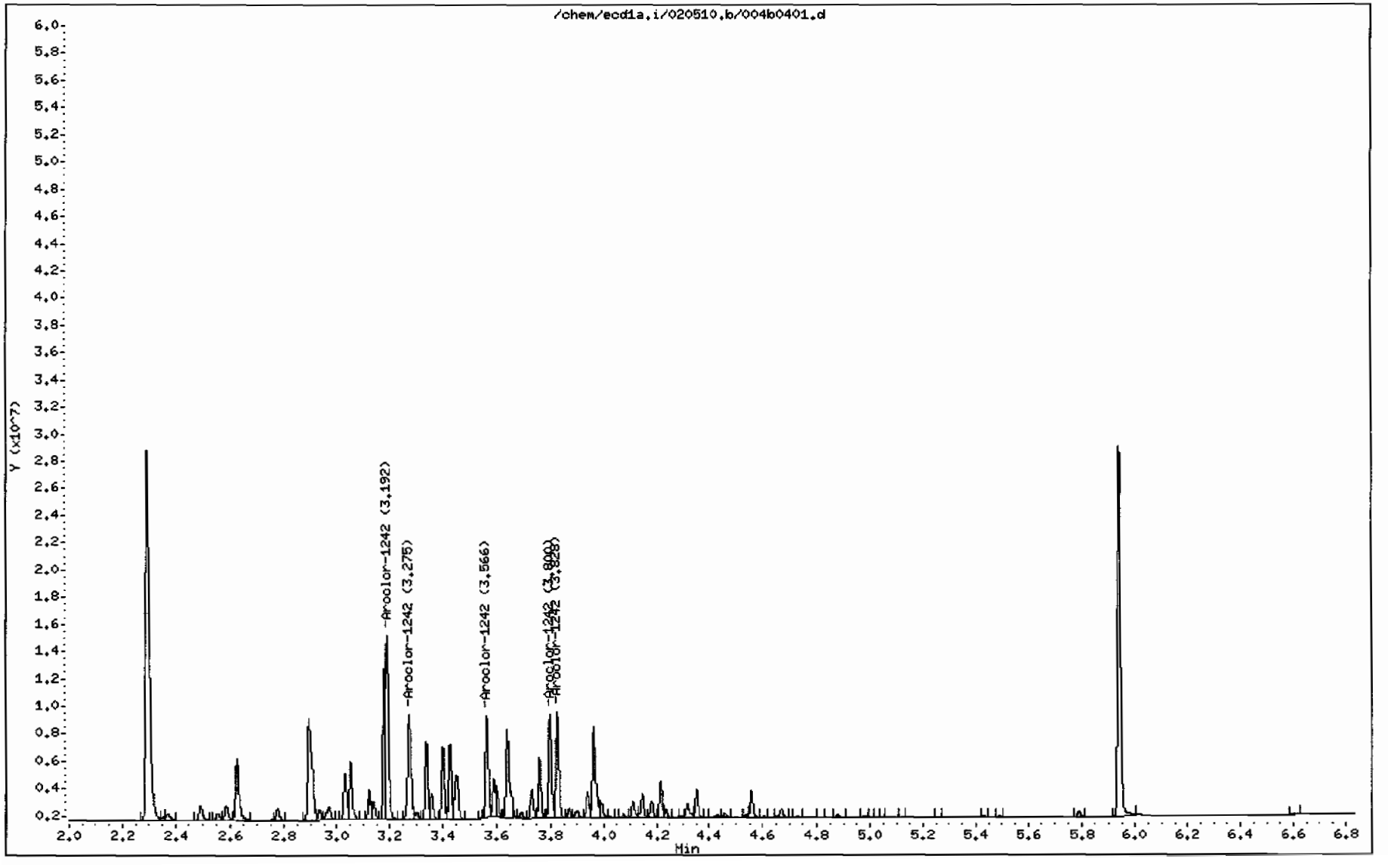

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.088	3.088	0.000	8241247	1000.00	1050	80.00- 120.00	100.00
3.240	3.240	0.000	7125731	1000.00	1040	66.46- 106.46	86.46
3.291	3.291	0.000	14052338	1000.00	1060	150.51- 190.51	170.51
3.422	3.422	0.000	11222456	1000.00	1020	116.17- 156.17	136.17
3.655	3.655	0.000	7182031	1000.00	963	67.15- 107.15	87.15

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/020510.b/005f0501.d

Date : 05-FEB-2010 07:38

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

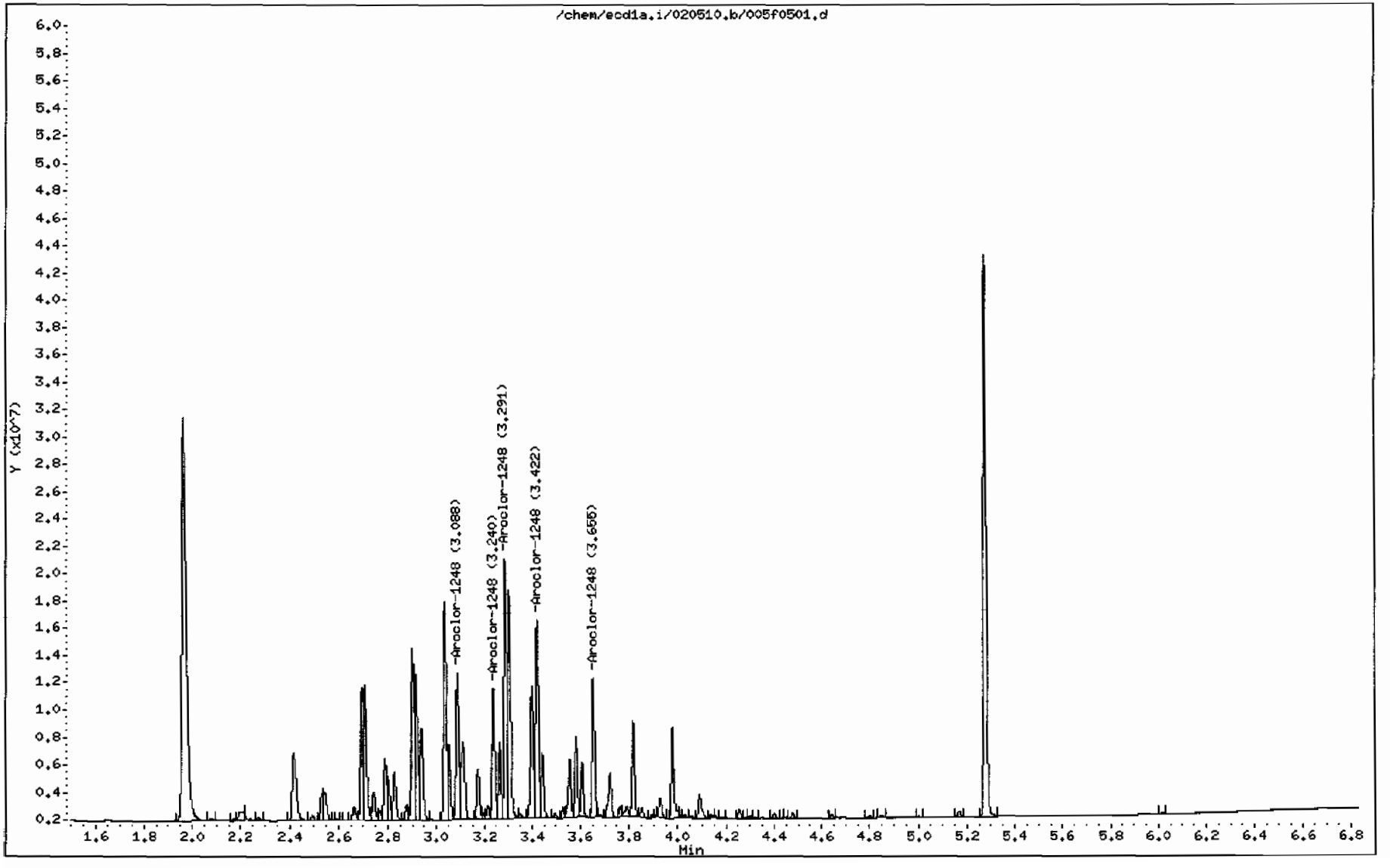

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.401	3.401	0.000	7358985	1000.00	914	80.00- 120.00	100.00
3.566	3.566	0.000	9216148	1000.00	933	105.24- 145.24	125.24
3.800	3.800	0.000	10436092	1000.00	930	121.81- 161.81	141.81
3.827	3.827	0.000	11626532	1000.00	931	137.99- 177.99	157.99
3.965	3.965	0.000	11178442	1000.00	924	131.90- 171.90	151.90
Average of Peak Amounts =					926		

Data File: /chem/ecd1a.i/020510.b/005b0501.d

Date : 05-FEB-2010 07:38

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

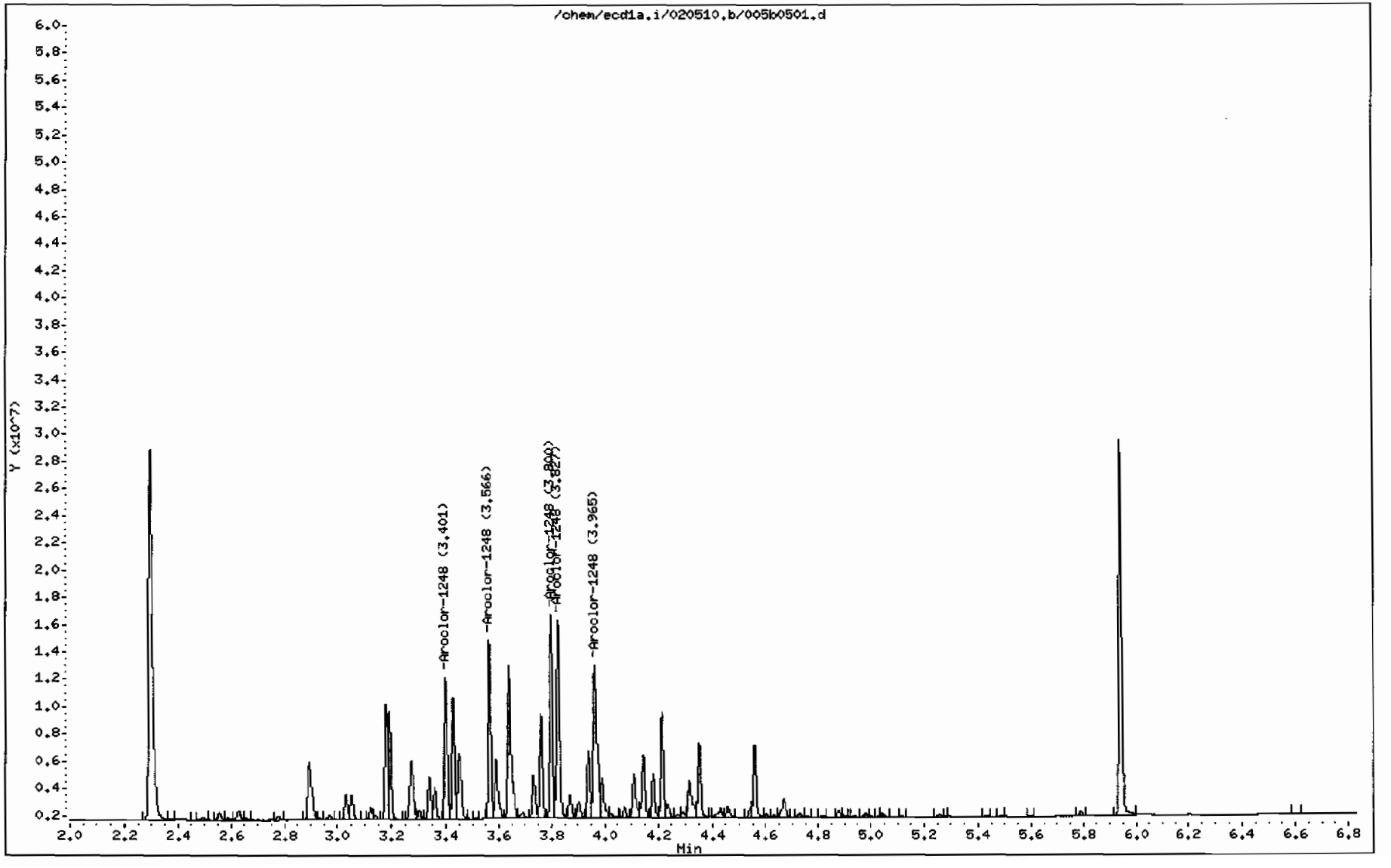

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.421	2.421	0.000	6684520	1000.00	976	80.00- 120.00	100.00
2.709	2.709	0.000	8973672	1000.00	1060	114.25- 154.25	134.25
2.789	2.789	0.000	5627474	1000.00	1000	64.19- 104.19	84.19
3.038	3.038	0.000	4163606	1000.00	1040	42.29- 82.29	62.29
3.291	3.291	0.000	3786517	1000.00	981	36.65- 76.65	56.65

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/006f0601.d

Page 1

Date : 05-FEB-2010 07:48

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

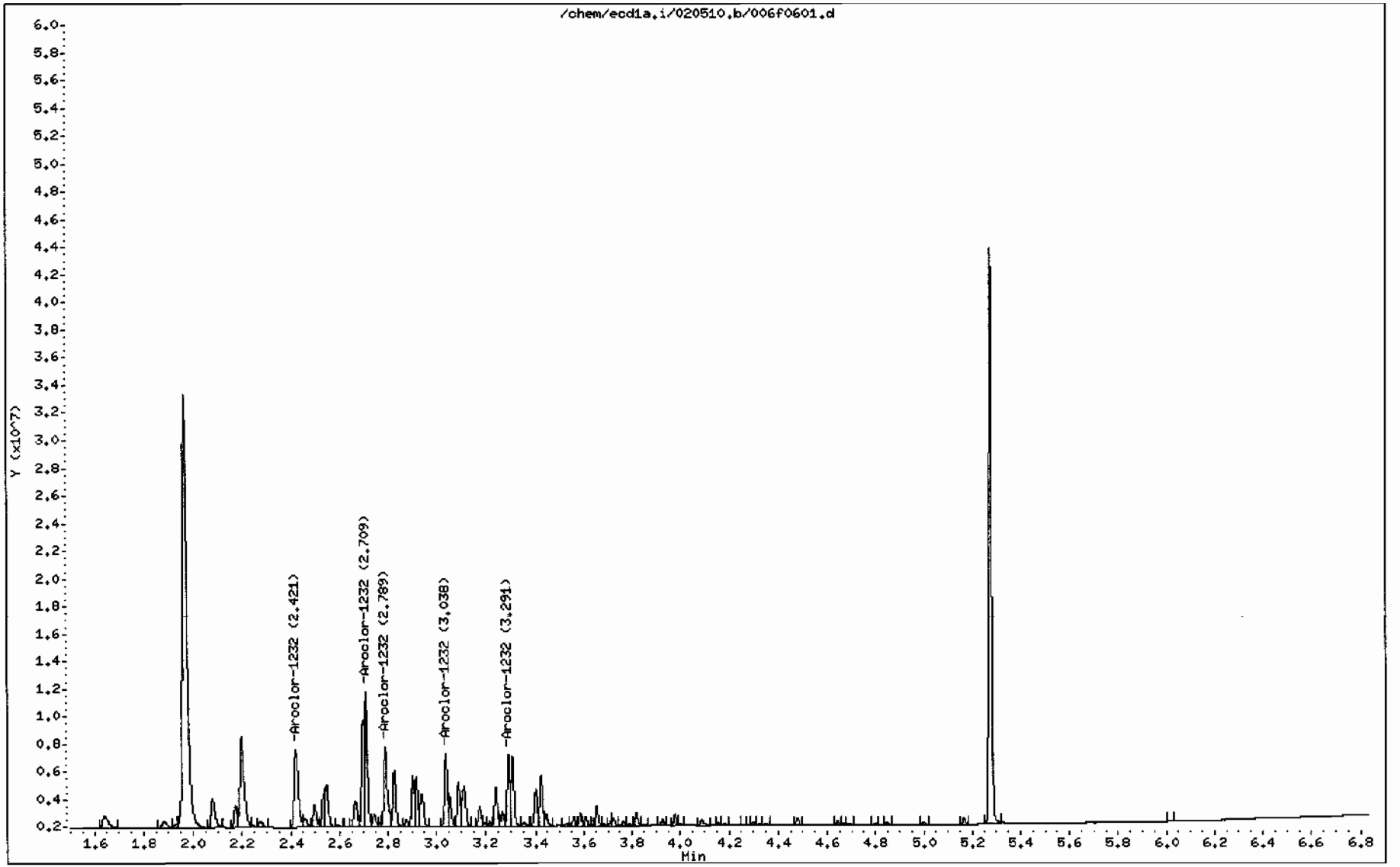

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.895	2.895	0.000	5518314	1000.00	937	80.00- 120.00	100.00
3.193	3.193	0.000	6067838	1000.00	975	89.96- 129.96	109.96
3.276	3.276	0.000	4176572	1000.00	961	55.69- 95.69	75.69
3.567	3.567	0.000	3101183	1000.00	997	36.20- 76.20	56.20
3.800	3.800	0.000	3042822	1000.00	953	35.14- 75.14	55.14
Average of Peak Amounts =					965		

Data File: /chem/ecd1a.i/020510.b/006b0601.d
Date : 05-FEB-2010 07:48
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

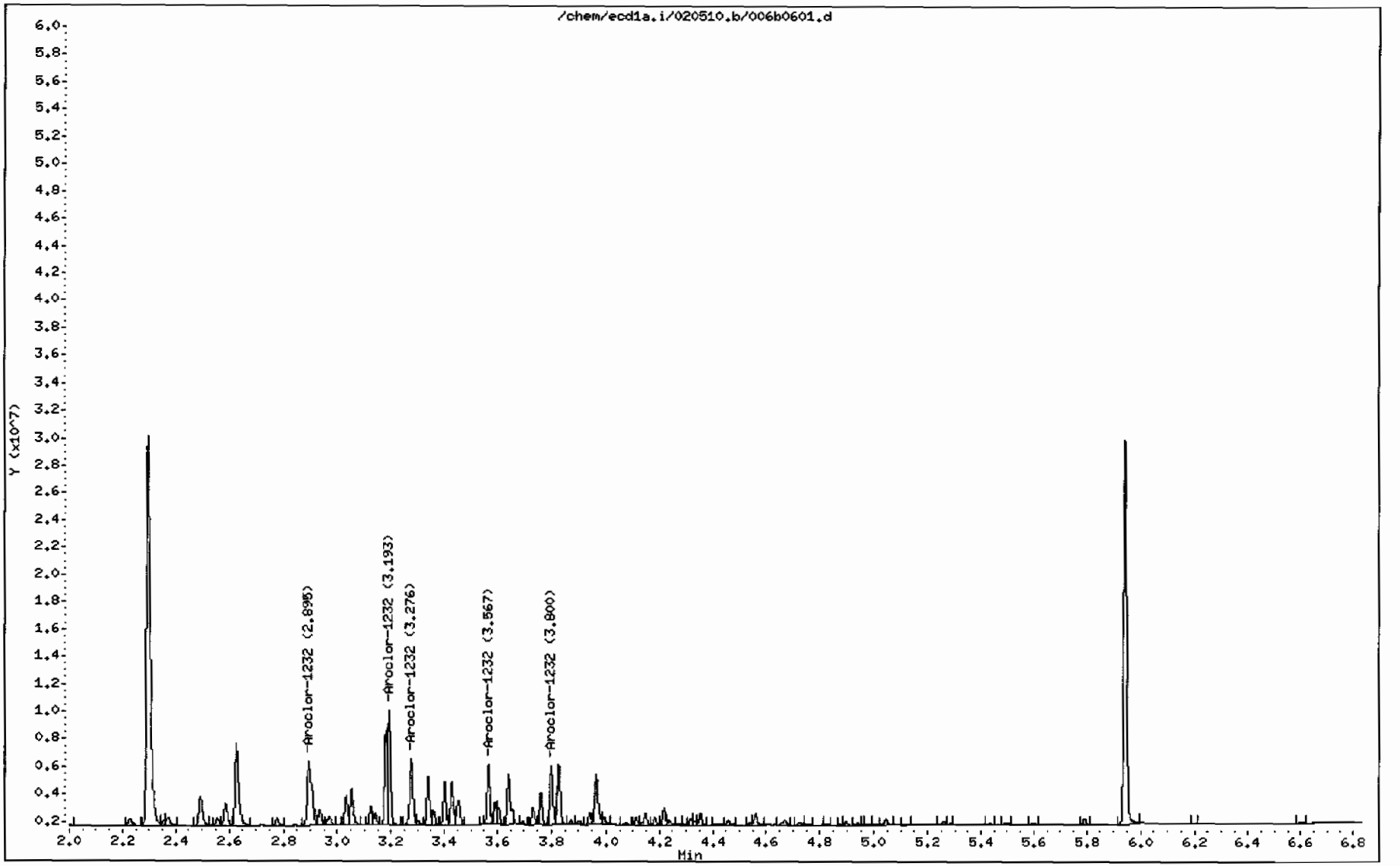

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.077	2.077	0.000	4201820	1000.00	977	80.00- 120.00	100.00
2.170	2.170	0.000	2263486	1000.00	927	33.87- 73.87	53.87
2.195	2.195	0.000	10281522	1000.00	1000	224.69- 264.69	244.69
Average of Peak Amounts =					968		

Data File: /chem/ecd1a.i/020510.b/007f0701.d

Date : 05-FEB-2010 07:59

Client ID: AR122101

Sample Info: !WAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

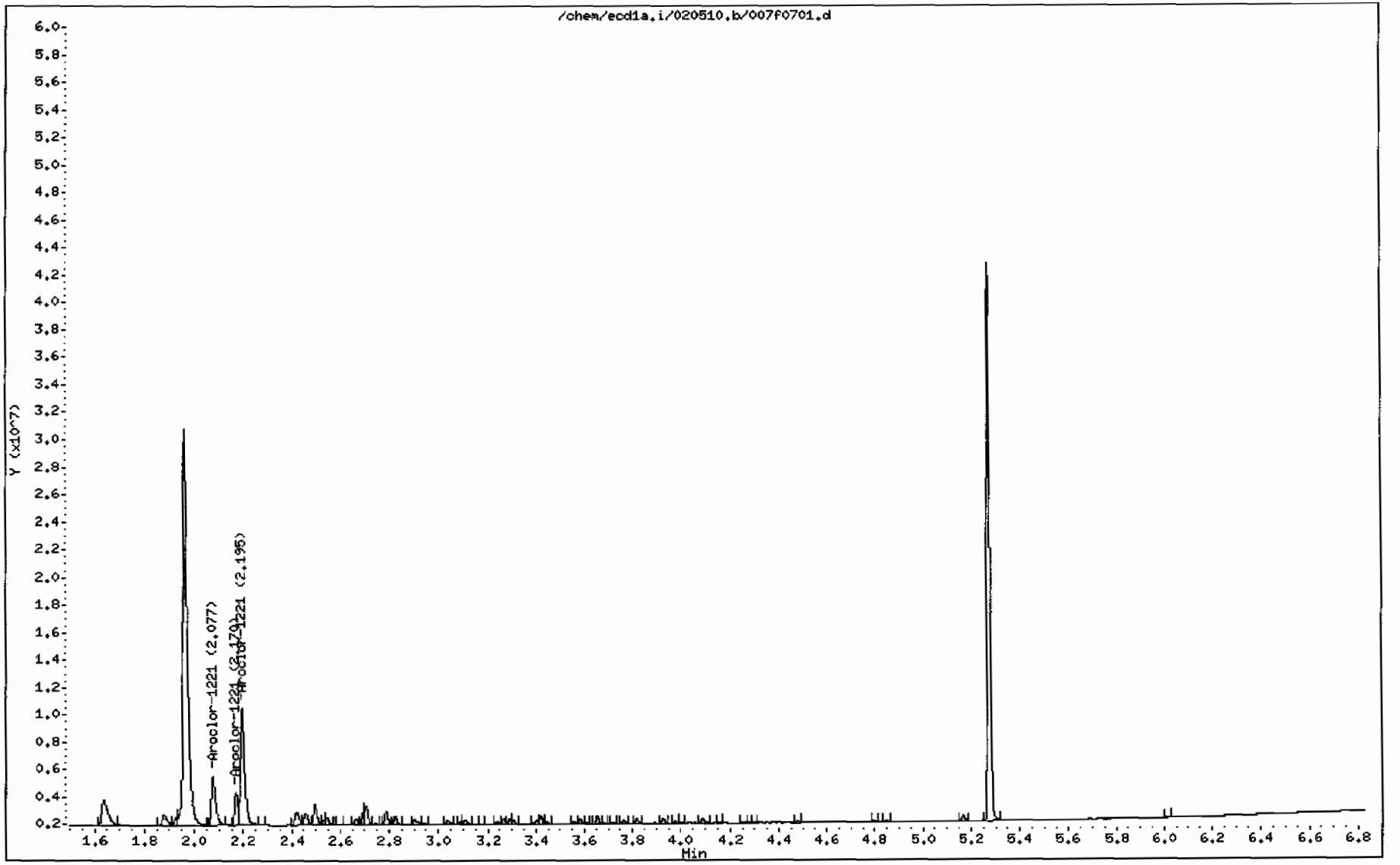

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.492	2.492	0.000	3283686	1000.00	902	80.00- 120.00	100.00
2.586	2.586	0.000	2130872	1000.00	915	44.89- 84.89	64.89
2.627	2.627	0.000	7321346	1000.00	902	202.96- 242.96	222.96
			Average of Peak Amounts =		906		

Data File: /chem/ecd1a.i/020510.b/007b0701.d

Date : 05-FEB-2010 07:59

Client ID: AR123201

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

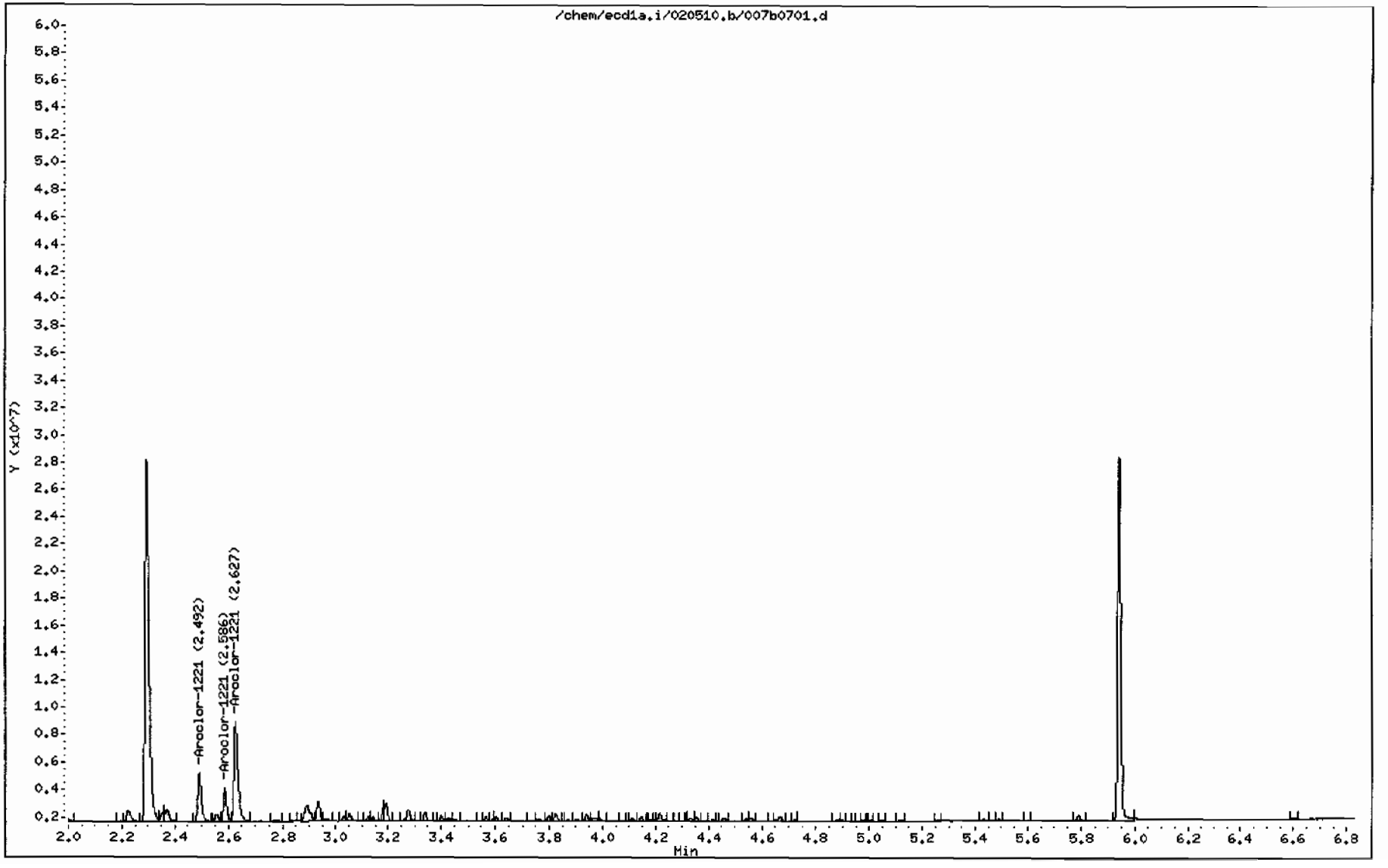

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/009f0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 05-FEB-2010 08:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
4.663	4.663	0.000	48680193	1000.00	928	80.00- 120.00	100.00
4.686	4.686	0.000	45876696	1000.00	953	74.24- 114.24	94.24
4.799	4.799	0.000	36431401	1000.00	984	54.84- 94.84	74.84
5.001	5.001	0.000	18070217	1000.00	1110	17.12- 57.12	37.12
5.167	5.167	0.000	120791943	1000.00	1120	228.13- 268.13	248.13

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/020510.b/009f0901.d
Date : 05-FEB-2010 08:20
Client ID: AR126801
Sample Info: IWAR100107-68

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

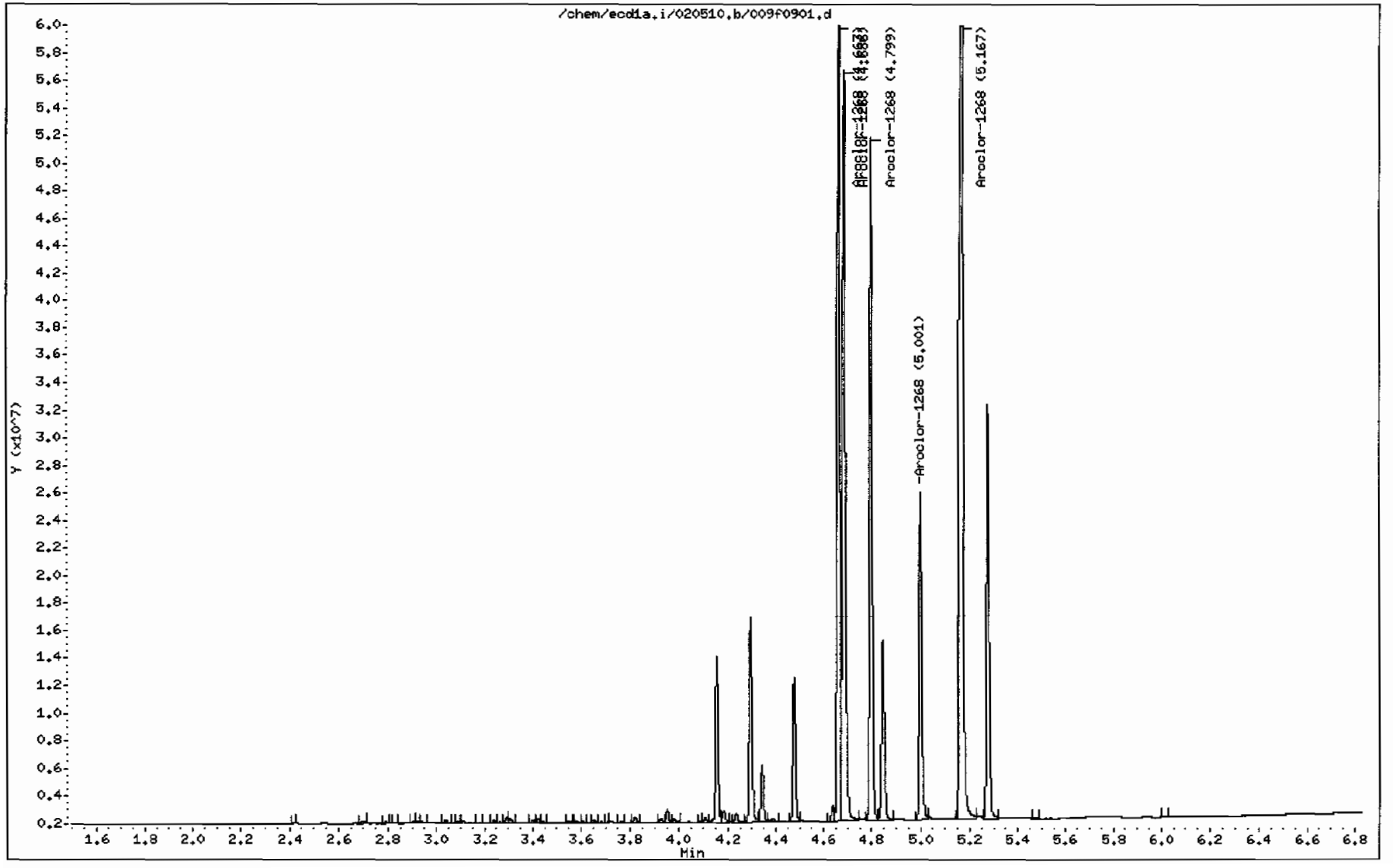

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/009b0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 05-FEB-2010 08:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
5.255	5.255	0.000	33206637	1000.00	916	80.00- 120.00	100.00
5.283	5.283	0.000	31815831	1000.00	947	75.81- 115.81	95.81
5.433	5.433	0.000	25007381	1000.00	962	55.31- 95.31	75.31
5.598	5.598	0.000	12362596	1000.00	1090	17.23- 57.23	37.23
5.790	5.790	0.000	78842117	1000.00	1180	217.43- 257.43	237.43

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/020510.b/009b0901.d
Date : 05-FEB-2010 08:20
Client ID: AR126801
Sample Info: IWAR100107-68

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

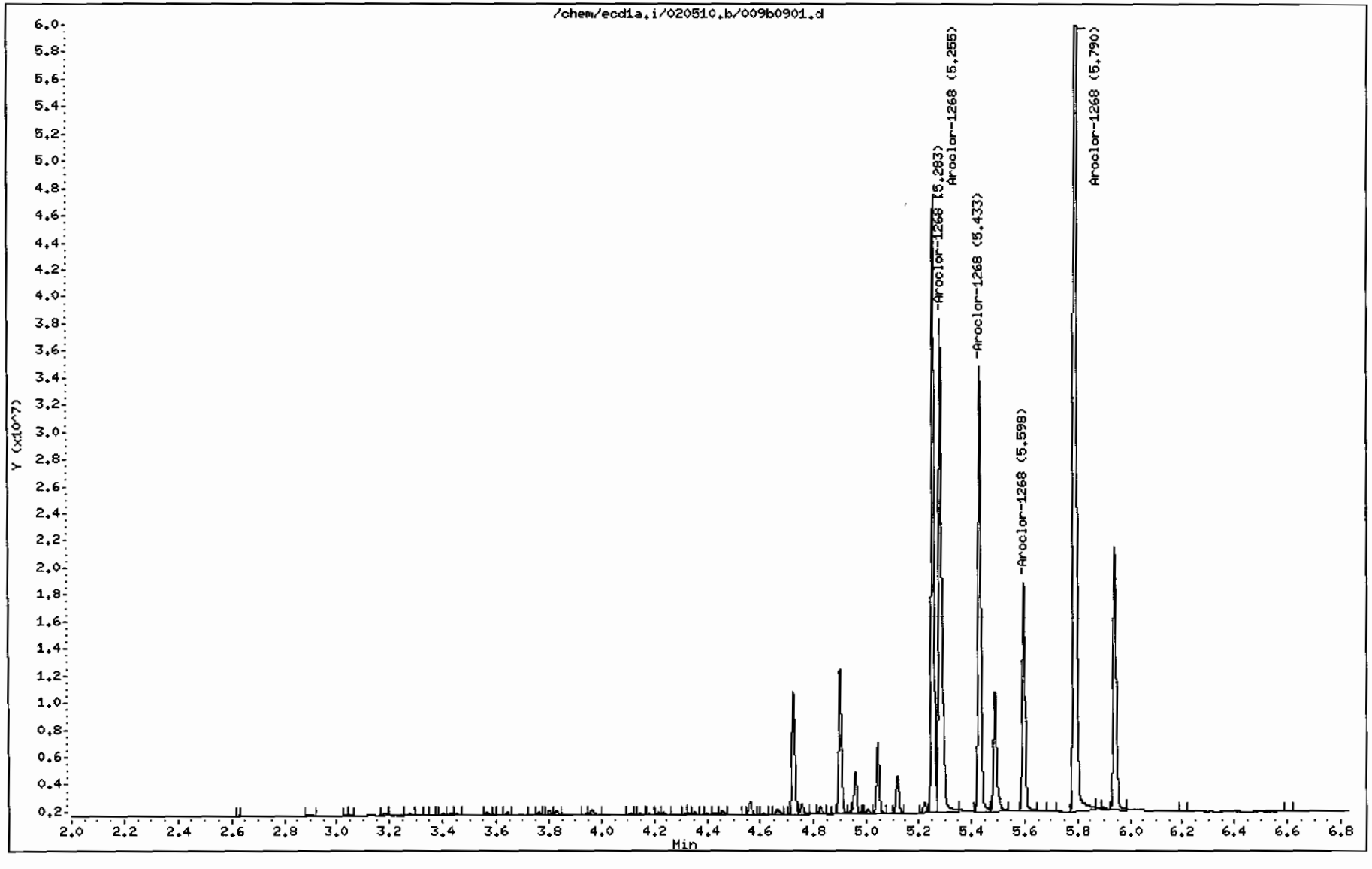

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022f2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	40504102	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32906895	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	14089870	1000.00	961	80.00- 120.00	100.00
2.707	2.707	0.000	18254738	1000.00	996	106.82- 146.82	129.56
2.787	2.788	-0.001	11539563	1000.00	960	60.66- 100.66	81.90
2.826	2.826	0.000	6922359	1000.00	964	28.59- 68.59	49.13
3.036	3.036	0.000	8923226	1000.00	960	42.97- 82.97	63.33
Average of Peak Amounts =					968		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	19002907	1000.00	1080	80.00- 120.00	100.00(M)
3.924	3.925	-0.001	28995739	1000.00	1090	132.12- 172.12	152.59
4.154	4.155	-0.001	17302329	1000.00	1090	70.53- 110.53	91.05
4.297	4.297	0.000	18016442	1000.00	1090	75.55- 115.55	94.81
4.476	4.477	-0.001	41342662	1000.00	1110	197.21- 237.21	217.56
Average of Peak Amounts =					1.09e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/022f2201.d
Date : 05-FEB-2010 10:51
Client ID: AR166002
Sample Info: IWAR100203-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

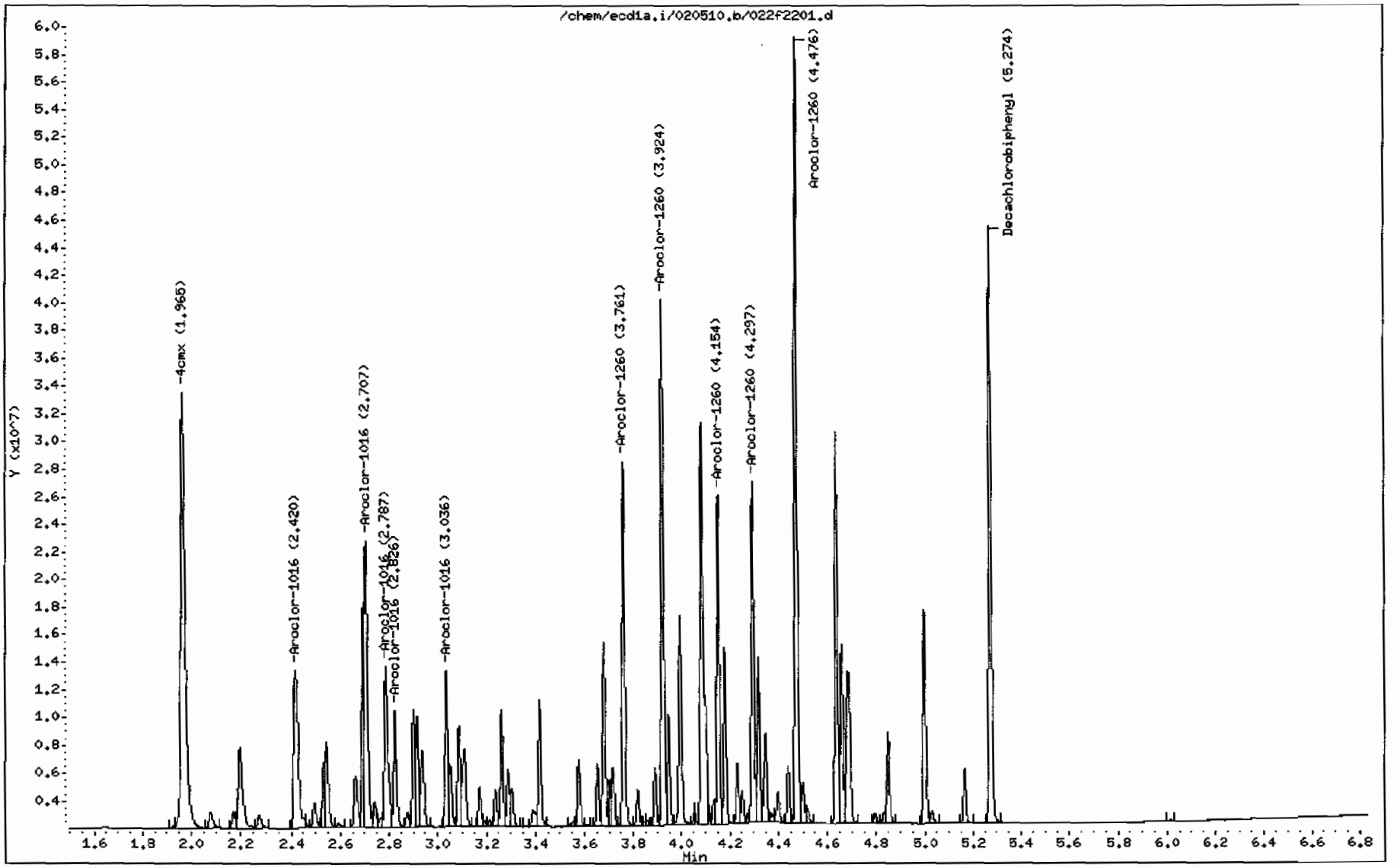

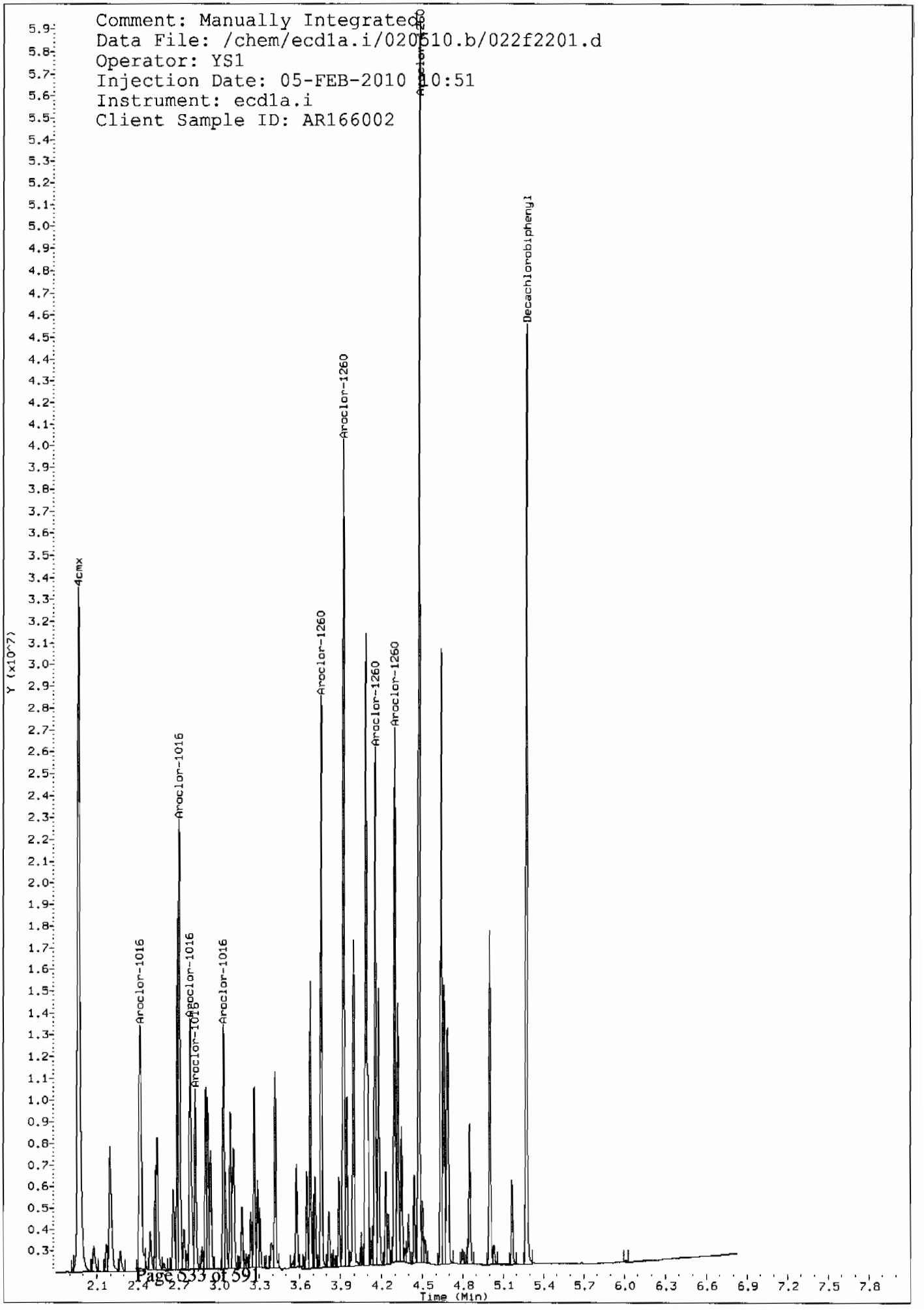
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002

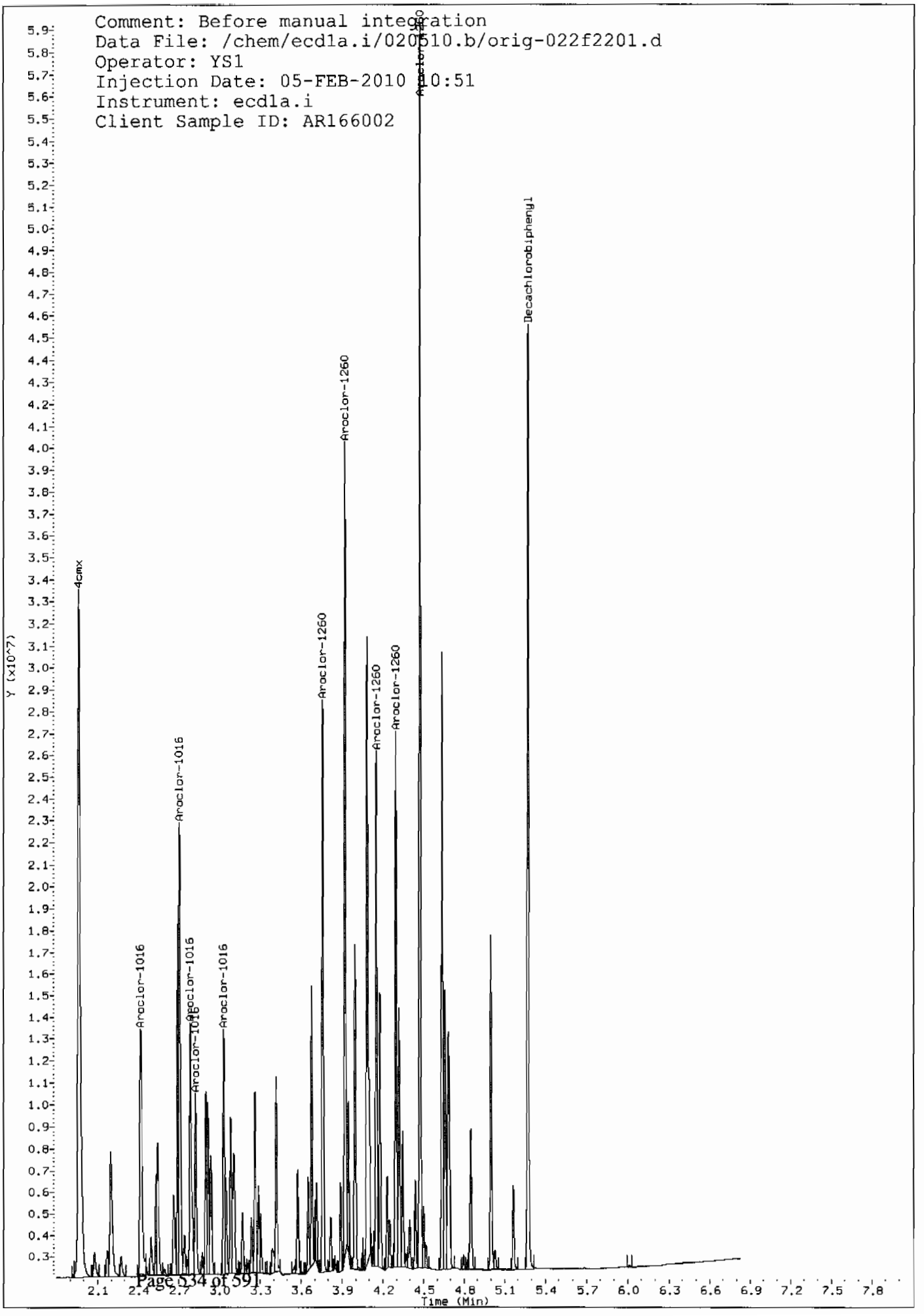

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022b2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	28991286	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	22228765	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12553096	1000.00	1000	80.00- 120.00	100.00
3.275	3.275	0.000	8166105	1000.00	955	45.05- 85.05	65.05
3.338	3.339	-0.001	5045053	1000.00	954	20.19- 60.19	40.19
3.565	3.565	0.000	6628313	1000.00	973	32.80- 72.80	52.80
3.641	3.641	0.000	6123429	1000.00	956	28.78- 68.78	48.78
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13388385	1000.00	1060	80.00- 120.00	100.00
4.456	4.457	-0.001	16291509	1000.00	1070	101.68- 141.68	121.68
4.722	4.722	0.000	12420564	1000.00	1070	72.77- 112.77	92.77
4.896	4.896	0.000	12892265	1000.00	1070	76.29- 116.29	96.29
5.042	5.043	-0.001	28894660	1000.00	1110	195.82- 235.82	215.82
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecdia.i/020510.b/022b2201.d
Date : 05-FEB-2010 10:51
Client ID: AR166002
Sample Info: IWAR100203-60 02
Column phase: CLP2

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

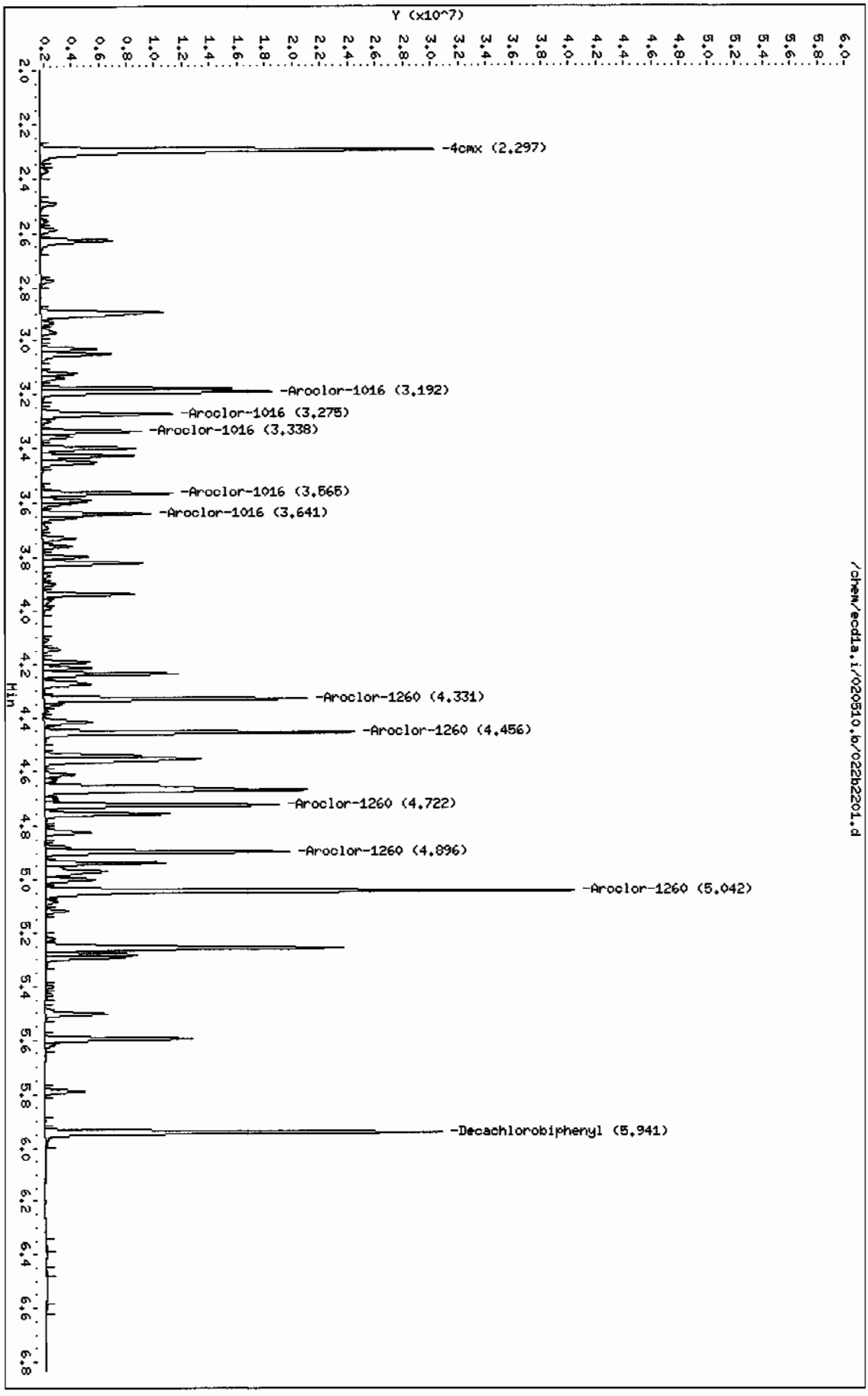

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031f3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.966	1.965	0.001	40459975	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32629917	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	14012607	1000.00	956	80.00- 120.00	100.00
2.708	2.707	0.001	18319018	1000.00	1000	110.73- 150.73	130.73
2.788	2.788	0.000	11547800	1000.00	960	62.41- 102.41	82.41
2.826	2.826	0.000	6929943	1000.00	965	29.46- 69.46	49.46
3.036	3.036	0.000	8939714	1000.00	962	43.80- 83.80	63.80
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	18972126	1000.00	1080	80.00- 120.00	100.00
3.924	3.925	-0.001	28835947	1000.00	1080	131.99- 171.99	151.99
4.154	4.155	-0.001	17204186	1000.00	1080	70.68- 110.68	90.68
4.297	4.297	0.000	18148577	1000.00	1100	75.66- 115.66	95.66
4.476	4.477	-0.001	41262621	1000.00	1110	197.49- 237.49	217.49
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd1a.i/020510.b/031f3101.d
Date : 05-FEB-2010 12:40
Client ID: AR166003
Sample Info: IWAR100203-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

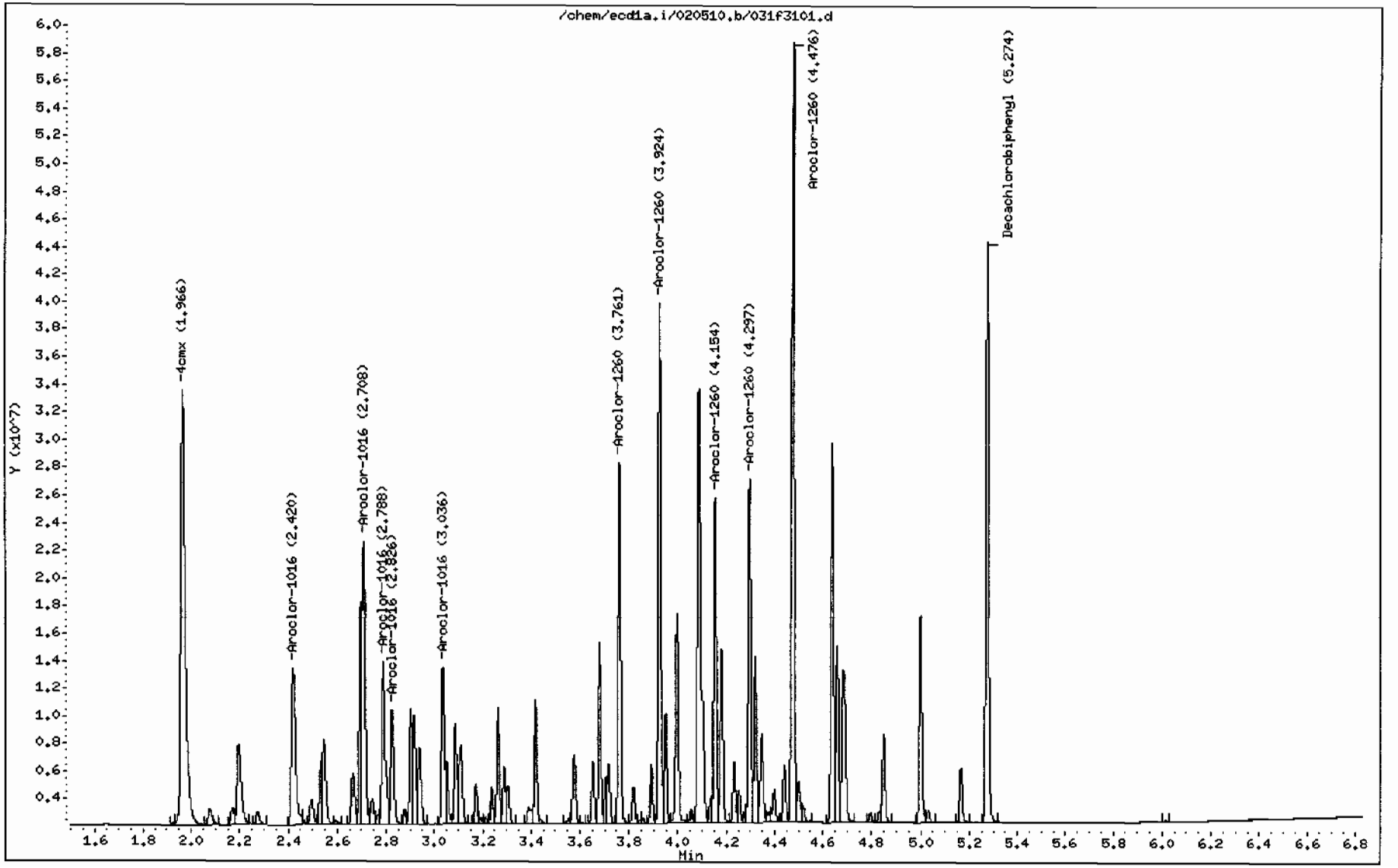

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031b3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	28690788	100.000	99.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	21926681	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12359615	1000.00	990	80.00- 120.00	100.00(M)
3.275	3.275	0.000	8069931	1000.00	944	45.29- 85.29	65.29
3.338	3.339	-0.001	4988684	1000.00	943	20.36- 60.36	40.36
3.565	3.565	0.000	6345906	1000.00	931	31.34- 71.34	51.34
3.641	3.641	0.000	6017327	1000.00	940	38.11- 78.11	58.11
Average of Peak Amounts =					950		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13242341	1000.00	1050	80.00- 120.00	100.00
4.456	4.457	-0.001	16223303	1000.00	1060	102.51- 142.51	122.51
4.722	4.722	0.000	12301397	1000.00	1060	72.89- 112.89	92.89
4.895	4.896	-0.001	12694909	1000.00	1050	75.87- 115.87	95.87
5.043	5.043	0.000	28307638	1000.00	1080	193.77- 233.77	213.77
Average of Peak Amounts =					1.06e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/031b3101.d

Date : 05-FEB-2010 12:40

Client ID: AR166003

Sample Info: IWAR100203-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

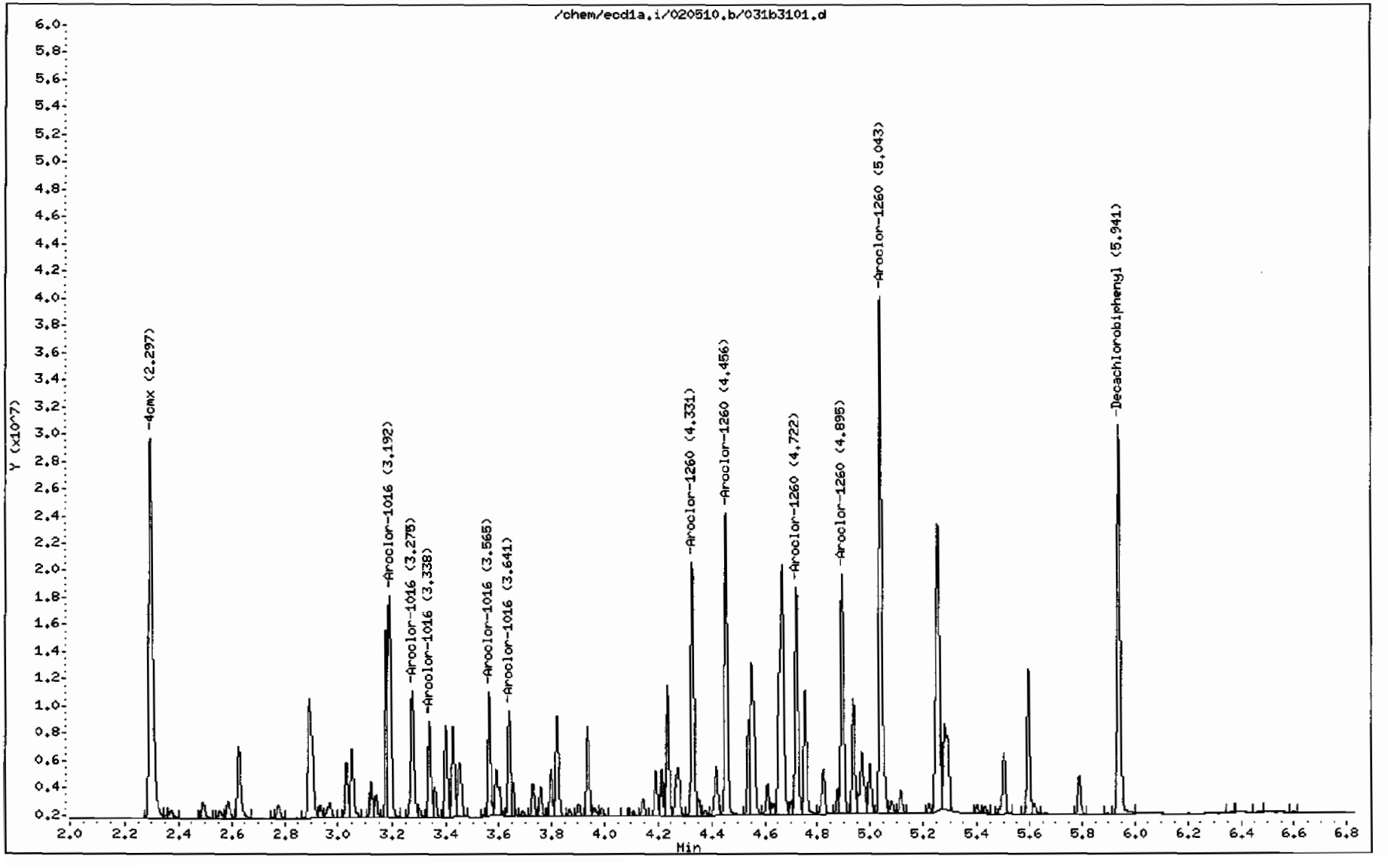

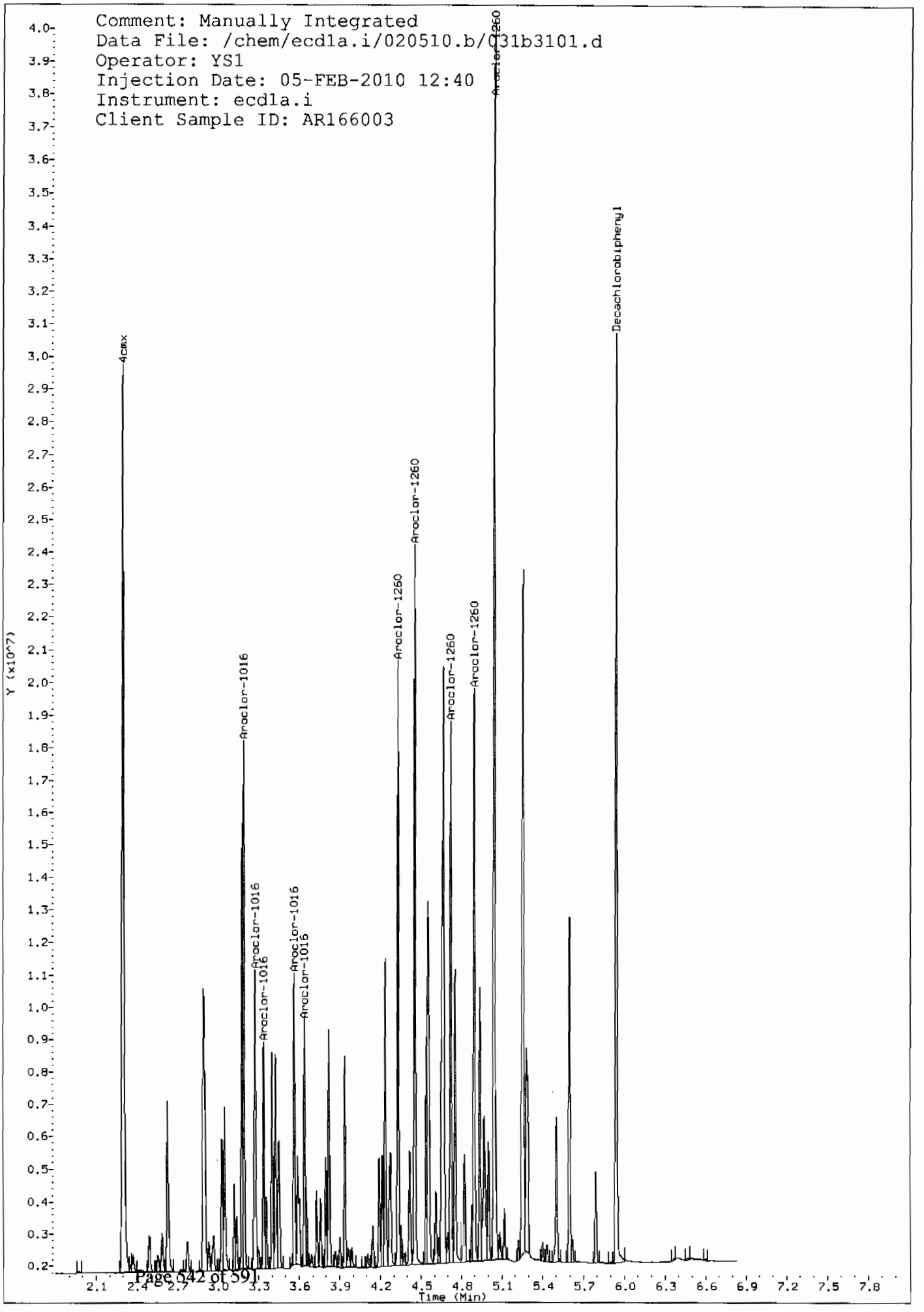
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

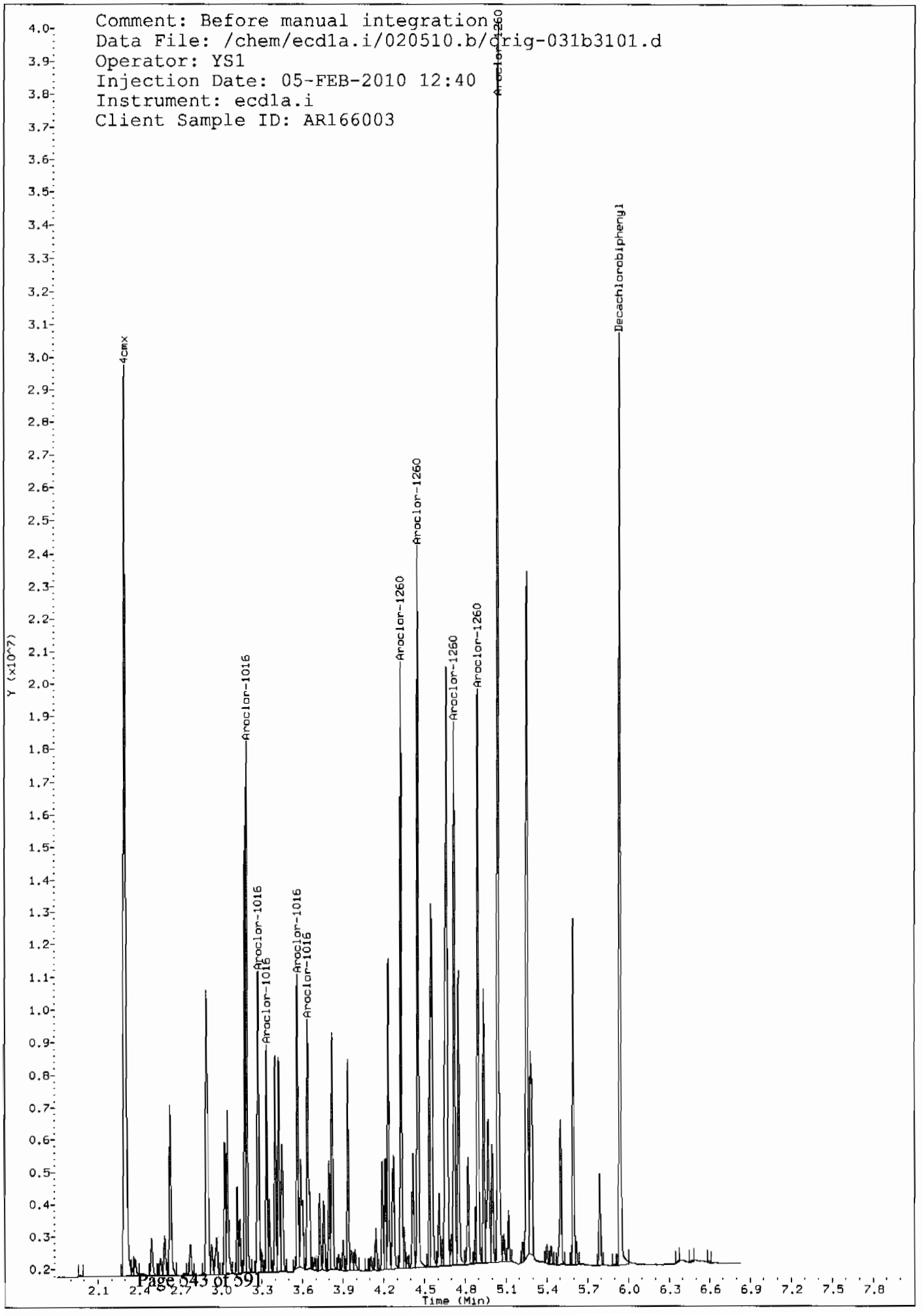
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134		
09	AR126802	WAR091214-18	12/14/09	1144		
10	AR126803	WAR091214-19	12/14/09	1155		
11	AR126804	WAR091214-20	12/14/09	1206		
12	AR126805	IAR090817-02	12/14/09	1216		
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PIBLK01	WAR100105-99	01/28/10	0916	1.97	5.28
02	ZZZZZ	ZZZZZ	01/28/10	0927		
03	AR125401	WAR091216-54	01/28/10	0937		
04	AR124201	WAR091217-42	01/28/10	0948		
05	AR124801	WAR091217-48	01/28/10	0958		
06	AR123201	WAR100104-32	01/28/10	1009		
07	AR122101	WAR100104-21	01/28/10	1019		
08	AR126201	WAR100104-62	01/28/10	1030		
09	ZZZZZ	ZZZZZ	01/28/10	1040		
10	AR166001	WAR100128-01	01/28/10	1051	1.97	5.28
11	AR166002	WAR100128-02	01/28/10	1101	1.97	5.28
12	AR166003	WAR100128-03	01/28/10	1112	1.97	5.28
13	AR166004	WAR100128-04	01/28/10	1122	1.97	5.28
14	AR166005	IAR100104-01	01/28/10	1134	1.97	5.28
15	AR166001	WAR100104-60	01/28/10	1144	1.97	5.28
16	ZZZZZ	ZZZZZ	01/28/10	1155		
17	DDTANALOGSTD	WAR091219-DD	01/28/10	1205		
18	AR126801	WAR100128-05	01/28/10	1218		
19	AR126802	WAR100128-06	01/28/10	1229		
20	AR126803	WAR100128-07	01/28/10	1239		
21	AR126804	WAR100128-08	01/28/10	1250		
22	AR126805	IAR100104-05	01/28/10	1300		
23	AR126801	WAR100107-68	01/28/10	1311		
24	PIBLK02	WAR100105-99	01/28/10	1321	1.97	5.28
25	ZZZZZ	ZZZZZ	01/28/10	1332	1.97	5.28
26	ZZZZZ	ZZZZZ	01/28/10	1342	1.97	5.28
27	ZZZZZ	ZZZZZ	01/28/10	1353	1.97	5.28
28	ZZZZZ	ZZZZZ	01/28/10	1405	1.97	5.28
29	ZZZZZ	ZZZZZ	01/28/10	1418	1.97	5.28
30	ZZZZZ	ZZZZZ	01/28/10	1430	1.97	5.28
31	ZZZZZ	ZZZZZ	01/28/10	1443	1.97	5.28
32	AR166002	WAR100104-60	01/28/10	1456	1.97	5.28

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PIBLK01	WAR100105-99	01/28/10	0916	2.30	5.94
02	ZZZZZ	ZZZZZ	01/28/10	0927		
03	AR125401	WAR091216-54	01/28/10	0937		
04	AR124201	WAR091217-42	01/28/10	0948		
05	AR124801	WAR091217-48	01/28/10	0958		
06	AR123201	WAR100104-32	01/28/10	1009		
07	AR122101	WAR100104-21	01/28/10	1019		
08	AR126201	WAR100104-62	01/28/10	1030		
09	ZZZZZ	ZZZZZ	01/28/10	1040		
10	AR166001	WAR100128-01	01/28/10	1051	2.30	5.94
11	AR166002	WAR100128-02	01/28/10	1101	2.30	5.94
12	AR166003	WAR100128-03	01/28/10	1112	2.30	5.95
13	AR166004	WAR100128-04	01/28/10	1122	2.30	5.95
14	AR166005	IAR100104-01	01/28/10	1134	2.30	5.95
15	AR166001	WAR100104-60	01/28/10	1144	2.30	5.94
16	ZZZZZ	ZZZZZ	01/28/10	1155		
17	DDTANALOGSTD	WAR091219-DD	01/28/10	1205		
18	AR126801	WAR100128-05	01/28/10	1218		
19	AR126802	WAR100128-06	01/28/10	1229		
20	AR126803	WAR100128-07	01/28/10	1239		
21	AR126804	WAR100128-08	01/28/10	1250		
22	AR126805	IAR100104-05	01/28/10	1300		
23	AR126801	WAR100107-68	01/28/10	1311		
24	PIBLK02	WAR100105-99	01/28/10	1321	2.30	5.94
25	ZZZZZ	ZZZZZ	01/28/10	1332	2.30	5.94
26	ZZZZZ	ZZZZZ	01/28/10	1342	2.30	5.94
27	ZZZZZ	ZZZZZ	01/28/10	1353	2.30	5.94
28	ZZZZZ	ZZZZZ	01/28/10	1405	2.30	5.94
29	ZZZZZ	ZZZZZ	01/28/10	1418	2.30	5.94
30	ZZZZZ	ZZZZZ	01/28/10	1430	2.30	5.94
31	ZZZZZ	ZZZZZ	01/28/10	1443	2.30	5.94
32	AR166002	WAR100104-60	01/28/10	1456	2.30	5.94

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	1.96	5.28
02	ZZZZZ	ZZZZZ	01/29/10	0622	1.97	5.28
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	1.96	5.28
11	AR166002	WAR100129-02	01/29/10	0757	1.97	5.28
12	AR166003	WAR100129-03	01/29/10	0807	1.97	5.28
13	AR166004	WAR100129-04	01/29/10	0818	1.97	5.28
14	AR166005	IAR100104-01	01/29/10	0859	1.97	5.29
15	AR166001	WAR100104-60	01/29/10	0909	1.97	5.28
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	1.97	5.28
18	ZZZZZ	ZZZZZ	01/29/10	0941	1.97	5.28
19	ZZZZZ	ZZZZZ	01/29/10	0951	1.97	5.28
20	ZZZZZ	ZZZZZ	01/29/10	1002	1.97	5.28
21	ZZZZZ	ZZZZZ	01/29/10	1014	1.97	5.28
22	ZZZZZ	ZZZZZ	01/29/10	1027	1.96	5.28
23	ZZZZZ	ZZZZZ	01/29/10	1040	1.97	5.28
24	ZZZZZ	ZZZZZ	01/29/10	1052	1.97	5.28
25	ZZZZZ	ZZZZZ	01/29/10	1105	1.97	5.28
26	ZZZZZ	ZZZZZ	01/29/10	1117	1.96	5.28
27	ZZZZZ	ZZZZZ	01/29/10	1130	1.96	5.28
28	AR166002	WAR100104-60	01/29/10	1142	1.97	5.28
29	PIBLK03	WAR100105-99	01/29/10	1153	1.97	5.28
30	ZZZZZ	ZZZZZ	01/29/10	1203	1.97	5.28
31	ZZZZZ	ZZZZZ	01/29/10	1216	1.97	5.28
32	ZZZZZ	ZZZZZ	01/29/10	1228	1.97	5.28

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	2.30	5.94
02	ZZZZZ	ZZZZZ	01/29/10	0622	2.30	5.94
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	2.30	5.94
11	AR166002	WAR100129-02	01/29/10	0757	2.30	5.94
12	AR166003	WAR100129-03	01/29/10	0807	2.30	5.94
13	AR166004	WAR100129-04	01/29/10	0818	2.30	5.94
14	AR166005	IAR100104-01	01/29/10	0859	2.30	5.95
15	AR166001	WAR100104-60	01/29/10	0909	2.30	5.95
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	2.30	5.94
18	ZZZZZ	ZZZZZ	01/29/10	0941	2.30	5.94
19	ZZZZZ	ZZZZZ	01/29/10	0951	2.30	5.94
20	ZZZZZ	ZZZZZ	01/29/10	1002	2.30	5.94
21	ZZZZZ	ZZZZZ	01/29/10	1014	2.30	5.94
22	ZZZZZ	ZZZZZ	01/29/10	1027	2.30	5.94
23	ZZZZZ	ZZZZZ	01/29/10	1040	2.30	5.94
24	ZZZZZ	ZZZZZ	01/29/10	1052	2.30	5.94
25	ZZZZZ	ZZZZZ	01/29/10	1105	2.30	5.94
26	ZZZZZ	ZZZZZ	01/29/10	1117	2.30	5.94
27	ZZZZZ	ZZZZZ	01/29/10	1130	2.30	5.94
28	AR166002	WAR100104-60	01/29/10	1142	2.30	5.94
29	PIBLK03	WAR100105-99	01/29/10	1153	2.30	5.94
30	ZZZZZ	ZZZZZ	01/29/10	1203	2.30	5.94
31	ZZZZZ	ZZZZZ	01/29/10	1216	2.30	5.94
32	ZZZZZ	ZZZZZ	01/29/10	1228	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/05/10	0656	1.96	5.27
02	AR166001	WAR100203-60	02/05/10	0706	1.96	5.27
03	AR125401	WAR091216-54	02/05/10	0717		
04	AR124201	WAR091217-42	02/05/10	0727		
05	AR124801	WAR091217-48	02/05/10	0738		
06	AR123201	WAR100104-32	02/05/10	0748		
07	AR122101	WAR100104-21	02/05/10	0759		
08	AR166002	WAR100104-62	02/05/10	0809		
09	AR126801	WAR100107-68	02/05/10	0820		
10	DDTANALOGSTD	WAR091219-DD	02/05/10	0831		
11	PIBLK02	WAR100105-99	02/05/10	0841	1.97	5.28
12	PBLK01	1202033246	02/05/10	0852	1.97	5.28
13	PBLK01LCS	1202033247	02/05/10	0902	1.96	5.28
14	ZZZZZ	ZZZZZ	02/05/10	0913	1.96	5.28
15	ZZZZZ	ZZZZZ	02/05/10	0923	1.96	5.28
16	ZZZZZ	ZZZZZ	02/05/10	0936	1.96	5.27
17	ZZZZZ	ZZZZZ	02/05/10	0948	1.96	5.27
18	ZZZZZ	ZZZZZ	02/05/10	1001	1.96	5.27
19	ZZZZZ	ZZZZZ	02/05/10	1013	1.97	5.28
20	ZZZZZ	ZZZZZ	02/05/10	1026	1.96	5.28
21	ZZZZZ	ZZZZZ	02/05/10	1039	1.96	5.27
22	AR166002	WAR100203-60	02/05/10	1051	1.96	5.27
23	PIBLK03	WAR100105-99	02/05/10	1102	1.97	5.28
24	ZZZZZ	ZZZZZ	02/05/10	1112	1.97	5.28
25	RE15-10-8060	245803006	02/05/10	1125	1.96	5.27
26	RE15-10-8058	245803007	02/05/10	1137	1.96	5.27
27	RE15-10-8059	245803008	02/05/10	1150	1.97	5.27
28	ZZZZZ	ZZZZZ	02/05/10	1203	1.96	5.27
29	ZZZZZ	ZZZZZ	02/05/10	1215	1.96	5.27
30	ZZZZZ	ZZZZZ	02/05/10	1228	1.96	5.27
31	AR166003	WAR100203-60	02/05/10	1240	1.97	5.27
32	PIBLK04	WAR100105-99	02/05/10	1251	1.97	5.28

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1473

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/05/10	0656	2.29	5.94
02	AR166001	WAR100203-60	02/05/10	0706	2.30	5.94
03	AR125401	WAR091216-54	02/05/10	0717		
04	AR124201	WAR091217-42	02/05/10	0727		
05	AR124801	WAR091217-48	02/05/10	0738		
06	AR123201	WAR100104-32	02/05/10	0748		
07	AR123201	WAR100104-21	02/05/10	0759		
08	AR126201	WAR100104-62	02/05/10	0809		
09	AR126801	WAR100107-68	02/05/10	0820		
10	DDTANALOGSTD	WAR091219-DD	02/05/10	0831		
11	PIBLK02	WAR100105-99	02/05/10	0841	2.30	5.94
12	PBLK01	1202033246	02/05/10	0852	2.30	5.94
13	PBLK01LCS	1202033247	02/05/10	0902	2.29	5.94
14	ZZZZZ	ZZZZZ	02/05/10	0913	2.30	5.94
15	ZZZZZ	ZZZZZ	02/05/10	0923	2.30	5.94
16	ZZZZZ	ZZZZZ	02/05/10	0936	2.30	5.94
17	ZZZZZ	ZZZZZ	02/05/10	0948	2.30	5.94
18	ZZZZZ	ZZZZZ	02/05/10	1001	2.30	5.94
19	ZZZZZ	ZZZZZ	02/05/10	1013	2.30	5.94
20	ZZZZZ	ZZZZZ	02/05/10	1026	2.30	5.94
21	ZZZZZ	ZZZZZ	02/05/10	1039	2.30	5.94
22	AR166002	WAR100203-60	02/05/10	1051	2.30	5.94
23	PIBLK03	WAR100105-99	02/05/10	1102	2.30	5.94
24	ZZZZZ	ZZZZZ	02/05/10	1112	2.30	5.94
25	RE15-10-8060	245803006	02/05/10	1125	2.30	5.94
26	RE15-10-8058	245803007	02/05/10	1137	2.30	5.94
27	RE15-10-8059	245803008	02/05/10	1150	2.30	5.94
28	ZZZZZ	ZZZZZ	02/05/10	1203	2.30	5.94
29	ZZZZZ	ZZZZZ	02/05/10	1215	2.30	5.94
30	ZZZZZ	ZZZZZ	02/05/10	1228	2.30	5.94
31	AR166003	WAR100203-60	02/05/10	1240	2.30	5.94
32	PIBLK04	WAR100105-99	02/05/10	1251	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1473 **Client ID:** LCS for batch 949031

Lab Sample ID: 1202033247

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 09:02	**Analyzed:**	05–FEB–10 09:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.689
Column 1	1	2.42	2.39 – 2.45	20.2		ug/kg	
	2	2.71	2.68 – 2.74	20.8		ug/kg	
	3	2.79	2.76 – 2.82	20		ug/kg	
	4	2.83	2.8 – 2.86	20.2		ug/kg	
	5	3.04	3.01 – 3.07	20		ug/kg	
					20.2		
Column 2	1	3.19	3.16 – 3.22	20.9		ug/kg	
	2	3.27	3.24 – 3.3	20.3		ug/kg	
	3	3.34	3.31 – 3.37	19.5		ug/kg	
	4	3.57	3.53 – 3.59	19.8		ug/kg	
	5	3.64	3.61 – 3.67	20		ug/kg	
					20.1		
Aroclor–1260							.412
Column 1	1	3.76	3.73 – 3.79	23.2		ug/kg	
	2	3.93	3.89 – 3.95	23.4		ug/kg	
	3	4.16	4.12 – 4.18	23.7		ug/kg	
	4	4.3	4.27 – 4.33	23.9		ug/kg	
	5	4.48	4.45 – 4.51	24.4		ug/kg	
					23.7		
Column 2	1	4.33	4.3 – 4.36	22.9		ug/kg	
	2	4.46	4.43 – 4.49	23.5		ug/kg	
	3	4.72	4.69 – 4.75	23.7		ug/kg	
	4	4.9	4.87 – 4.93	23.4		ug/kg	
	5	5.04	5.01 – 5.07	24.6		ug/kg	
					23.6		

Identification Summary

SDG Number: 10–1473 **Client ID:** RE15–10–8058

Lab Sample ID: 245803007

Data File:	026f2601.d	**Data File:**	026b2601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 11:37	**Analyzed:**	05–FEB–10 11:37

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							55.4
Column 1	1	3.26	3.24 – 3.3	3.12		ug/kg	
	2	3.42	3.39 – 3.45	3		ug/kg	
	3	3.65	3.62 – 3.68	3.65		ug/kg	
	4	3.82	3.79 – 3.85	6.18		ug/kg	
	5	3.92	3.9 – 3.96	7.58		ug/kg	
					4.7		
Column 2	1	3.4	3.37 – 3.43	1.65		ug/kg	
	2	3.82	3.79 – 3.85	2.35		ug/kg	
	3	3.94	3.91 – 3.97	3.95		ug/kg	
	4	4.22	4.19 – 4.25	1.73		ug/kg	
	5	4.35	4.32 – 4.38	3.63		ug/kg	
					2.66		
Aroclor–1260							12.4
Column 1	1	3.76	3.73 – 3.79	3.74		ug/kg	
	2	3.92	3.89 – 3.95	4.31		ug/kg	
	3	4.15	4.12 – 4.18	24.5		ug/kg	
	4	4.29	4.27 – 4.33	21.1		ug/kg	
	5	4.47	4.45 – 4.51	11		ug/kg	
					12.9		
Column 2	1	4.33	4.3 – 4.36	7.36		ug/kg	
	2	4.46	4.43 – 4.49	4.41		ug/kg	
	3	4.72	4.69 – 4.75	27.7		ug/kg	
	4	4.9	4.87 – 4.93	20.1		ug/kg	
	5	5.04	5.01 – 5.07	13.6		ug/kg	
					14.6		

Identification Summary

SDG Number: 10–1473 **Client ID:** RE15–10–8058

Lab Sample ID: 245803007

Data File:	026f2601.d	**Data File:**	026b2601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 11:37	**Analyzed:**	05–FEB–10 11:37

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1268							.272
Column 1	1	4.66	4.63 – 4.69	39.5		ug/kg	
	2	4.68	4.66 – 4.72	68.4		ug/kg	
	3	4.8	4.77 – 4.83	27.2		ug/kg	
	4	5	4.97 – 5.03	77.5		ug/kg	
	5	5.16	5.14 – 5.2	64.7		ug/kg	
					55.4		
Column 2	1	5.25	5.23 – 5.29	39.3		ug/kg	
	2	5.28	5.25 – 5.31	66.1		ug/kg	
	3	5.43	5.4 – 5.46	27		ug/kg	
	4	5.6	5.57 – 5.63	77.4		ug/kg	
	5	5.79	5.76 – 5.82	68.1		ug/kg	
					55.6		

Identification Summary

SDG Number: 10-1473 **Client ID:** RE15-10-8060

Lab Sample ID: 245803006

Data File: 025f2501.d **Data File:** 025b2501.d

Inst: ECD1A.I_1 **Inst:** ECD1A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 05-FEB-10 11:25 **Analyzed:** 05-FEB-10 11:25

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							52.4
Column 1	1	3.26	3.24 – 3.3	62.9		ug/kg	
	2	3.42	3.39 – 3.45	78.2		ug/kg	
	3	3.65	3.62 – 3.68	73.8		ug/kg	
	4	3.82	3.79 – 3.85	48.5		ug/kg	
	5	3.92	3.9 – 3.96	107		ug/kg	
					74		
Column 2	1	3.4	3.37 – 3.43	33		ug/kg	
	2	3.82	3.79 – 3.85	53.3		ug/kg	
	3	3.94	3.91 – 3.97	70.3		ug/kg	
	4	4.22	4.19 – 4.25	21.1		ug/kg	
	5	4.35	4.32 – 4.38	38.8		ug/kg	
					43.3		
Aroclor-1260							4.74
Column 1	1	3.76	3.73 – 3.79	56		ug/kg	
	2	3.92	3.89 – 3.95	60.7		ug/kg	
	3	4.15	4.12 – 4.18	38.7		ug/kg	
	4	4.29	4.27 – 4.33	45.2		ug/kg	
	5	4.48	4.45 – 4.51	23.5		ug/kg	
					44.8		
Column 2	1	4.33	4.3 – 4.36	59.6		ug/kg	
	2	4.45	4.43 – 4.49	54.5		ug/kg	
	3	4.72	4.69 – 4.75	48.1		ug/kg	
	4	4.9	4.87 – 4.93	46.1		ug/kg	
	5	5.04	5.01 – 5.07	26.6		ug/kg	
					47		

Identification Summary

SDG Number: 10–1473 **Client ID:** RE15–10–8060

Lab Sample ID: 245803006

Data File:	025f2501.d	**Data File:**	025b2501.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 11:25	**Analyzed:**	05–FEB–10 11:25

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1268							4.06
Column 1	1	4.66	4.63 – 4.69	29.1		ug/kg	
	2	4.68	4.66 – 4.72	30.2		ug/kg	
	3	4.8	4.77 – 4.83	26.4		ug/kg	
	4	5	4.97 – 5.03	43		ug/kg	
	5	5.16	5.14 – 5.2	39.7		ug/kg	
					33.7		
Column 2	1	5.25	5.23 – 5.29	39.1		ug/kg	
	2	5.28	5.25 – 5.31	29.7		ug/kg	
	3	5.43	5.4 – 5.46	29.8		ug/kg	
	4	5.6	5.57 – 5.63	33.4		ug/kg	
	5	5.79	5.76 – 5.82	43.5		ug/kg	
					35.1		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1473**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033246**				
Client Sample:	**QC for batch 949031**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949031**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 08:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1
11100–14–4	Aroclor–1268	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/012f1201-2.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	48584892	121.874	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	36515828	112.942	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/012f1201-2.d

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Sample Info: |1202033246|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

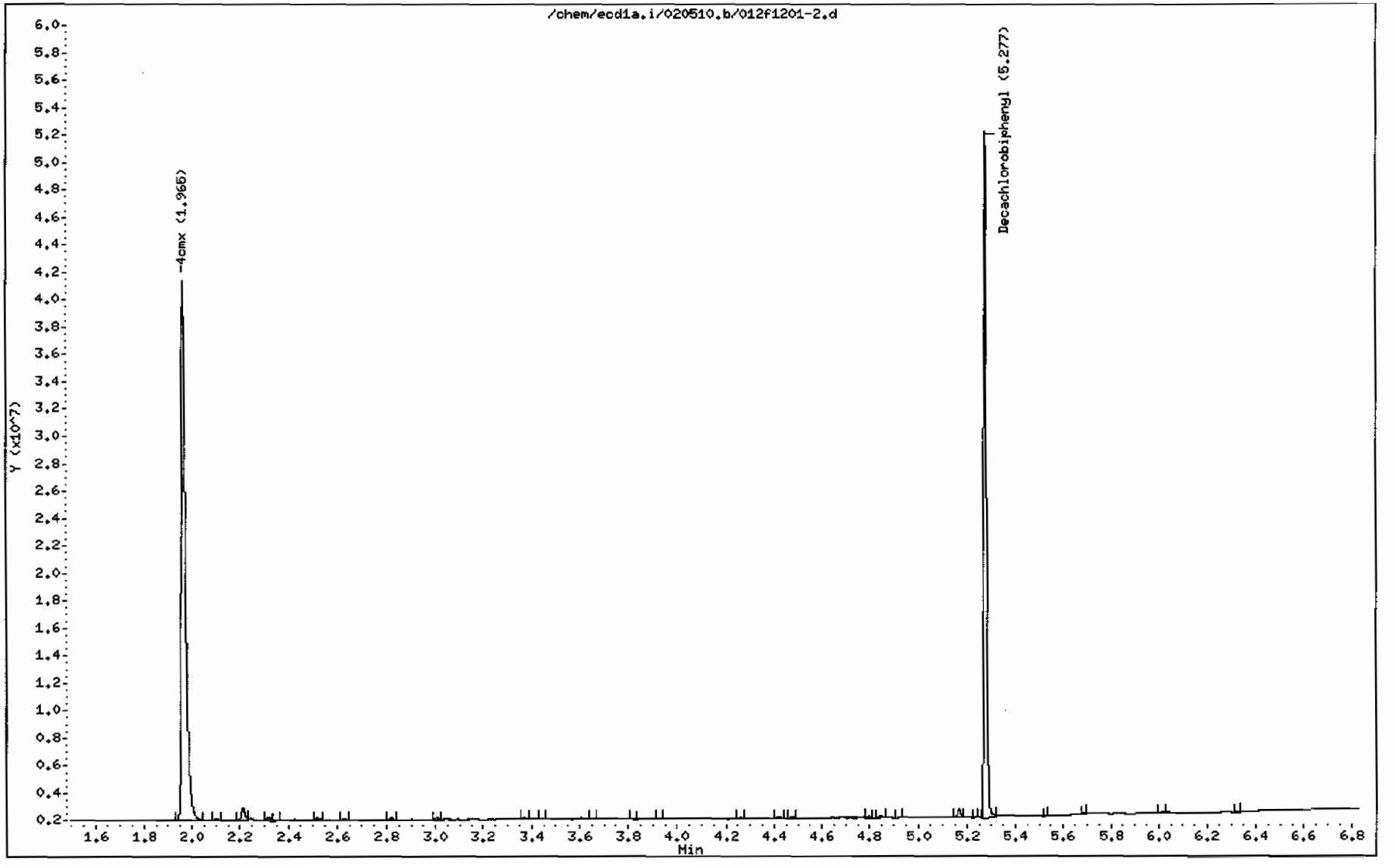

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/012b1201-2.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	34903615	121.512	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	29195934	134.155	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/012b1201-2.d
Date : 05-FEB-2010 08:52
Client ID: PBLK01
Sample Info: 1120203324611
Volume Injected (ul): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

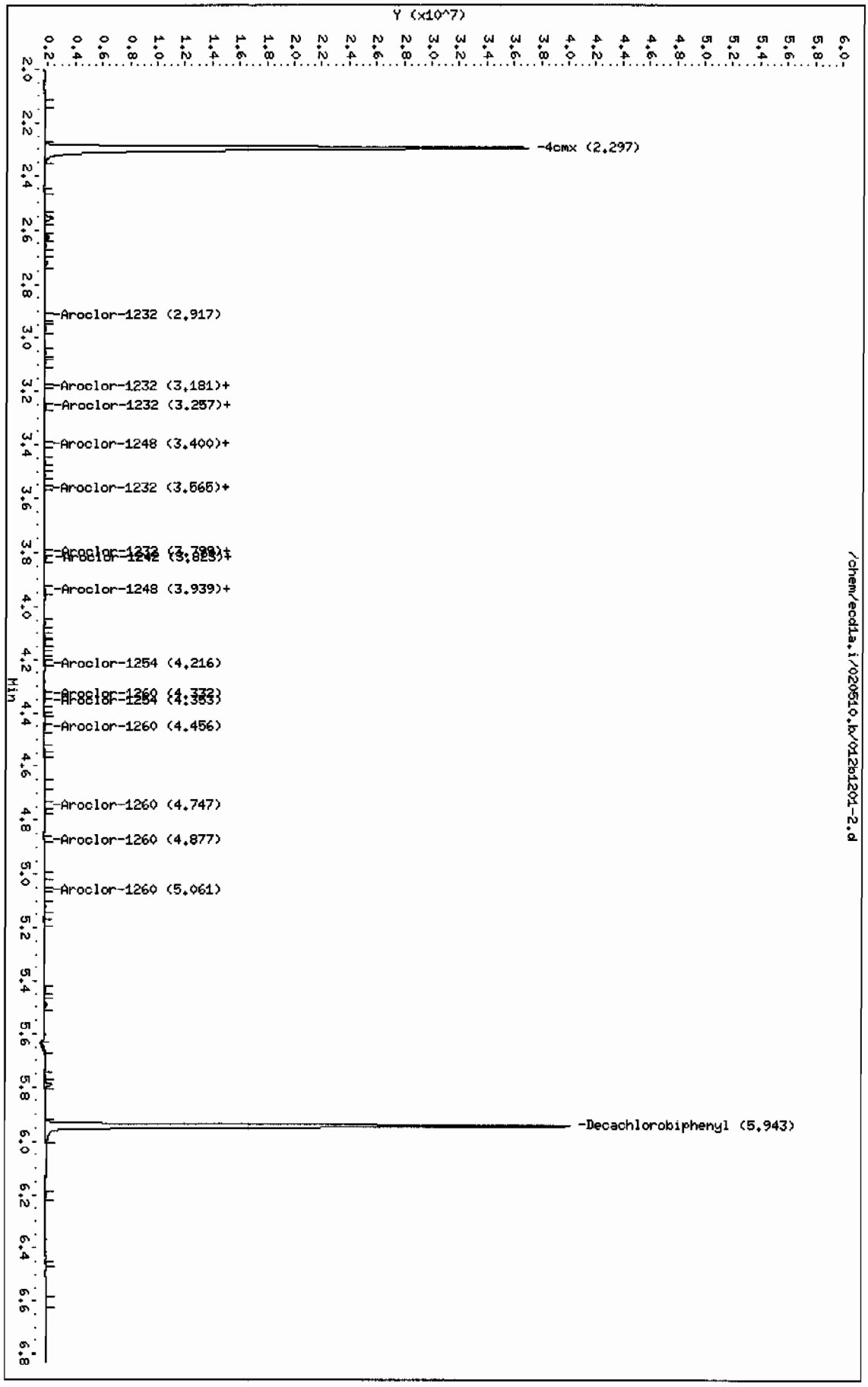

Page 1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1473**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033247**				
Client Sample:	**QC for batch 949031**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949031**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 09:02**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		20.2	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		23.7	ug/kg	1.11	3.33	1
11100–14–4	Aroclor–1268	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013f1301-2.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	50013903	125.458	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	39702847	122.799	4.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	8867856	604.950	20.2	80.00- 120.00	100.00
2.708	2.707	0.001	11431437	623.897	20.8	111.50- 151.50	128.91
2.789	2.788	0.001	7213810	599.968	20.0	62.41- 102.41	81.35
2.826	2.826	0.000	4356989	606.812	20.2	29.39- 69.39	49.13

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.037	3.036	0.001	5584390	601.132	20.0	44.74- 84.74	62.97
Average of Peak Concentrations =					20.2		
7 Aroclor-1260					CAS #: 11096-82-5		
3.763	3.762	0.001	12251339	694.656	23.2	80.00- 120.00	100.00
3.926	3.925	0.001	18755441	703.451	23.4	132.75- 172.75	153.09
4.156	4.155	0.001	11339517	712.208	23.7	70.75- 110.75	92.56
4.299	4.297	0.002	11864393	716.853	23.9	75.46- 115.46	96.84
4.478	4.477	0.001	27215780	732.880	24.4	198.55- 238.55	222.15
Average of Peak Concentrations =					23.7		

Data File: /chem/ecdla.i/020510.b/013f1301-2.d
Date : 05-FEB-2010 09:02
Client ID: PBLK01LCS
Sample Info: 1120203324711
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdla.i
Operator: YSI
Column diameter: 0.25

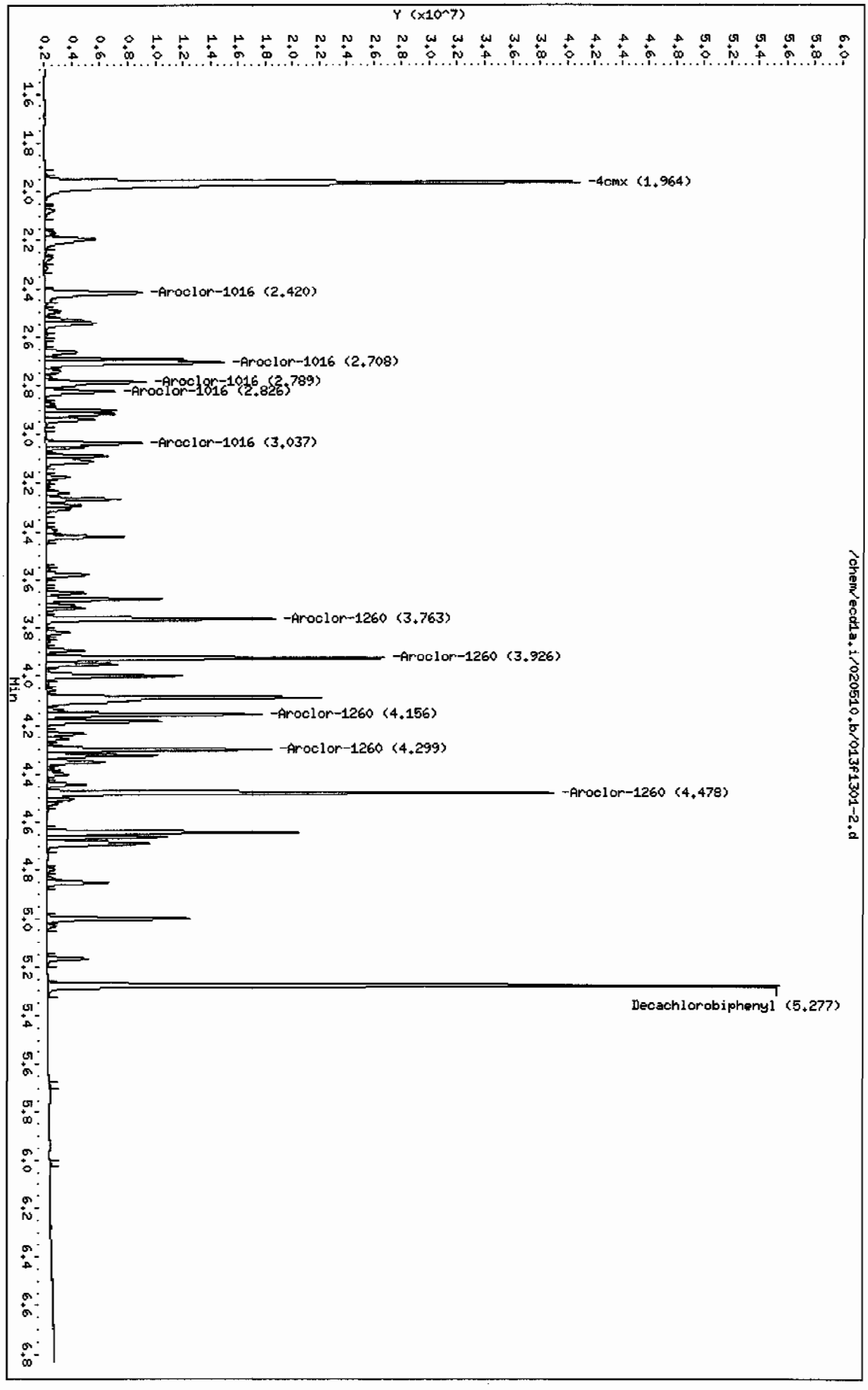

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013b1301-2.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1473.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.296	-0.001	35785063	124.581	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	29148749	133.938	4.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	7837768	627.787	20.9	80.00- 120.00	100.00(M)
3.275	3.275	0.000	5207354	609.274	20.3	46.71- 86.71	66.44
3.340	3.339	0.001	3101086	586.135	19.5	21.11- 61.11	39.57
3.566	3.565	0.001	4040701	593.042	19.8	32.44- 72.44	51.55

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.642	3.641	0.001	3840836	599.683	20.0	29.96- 69.96	49.00
Average of Peak Concentrations =					20.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.332	0.000	8683387	686.743	22.9	80.00- 120.00	100.00
4.457	4.457	0.000	10720030	704.334	23.5	101.36- 141.36	123.45
4.723	4.722	0.001	8290264	711.578	23.7	72.42- 112.42	95.47
4.896	4.896	0.000	8478479	703.403	23.4	75.24- 115.24	97.64
5.044	5.043	0.001	19273891	739.359	24.6	194.19- 234.19	221.96
Average of Peak Concentrations =					23.6		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/013b1301-2.d

Date : 05-FEB-2010 09:02

Client ID: PBLK01LCS

Sample Info: |120203324711|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

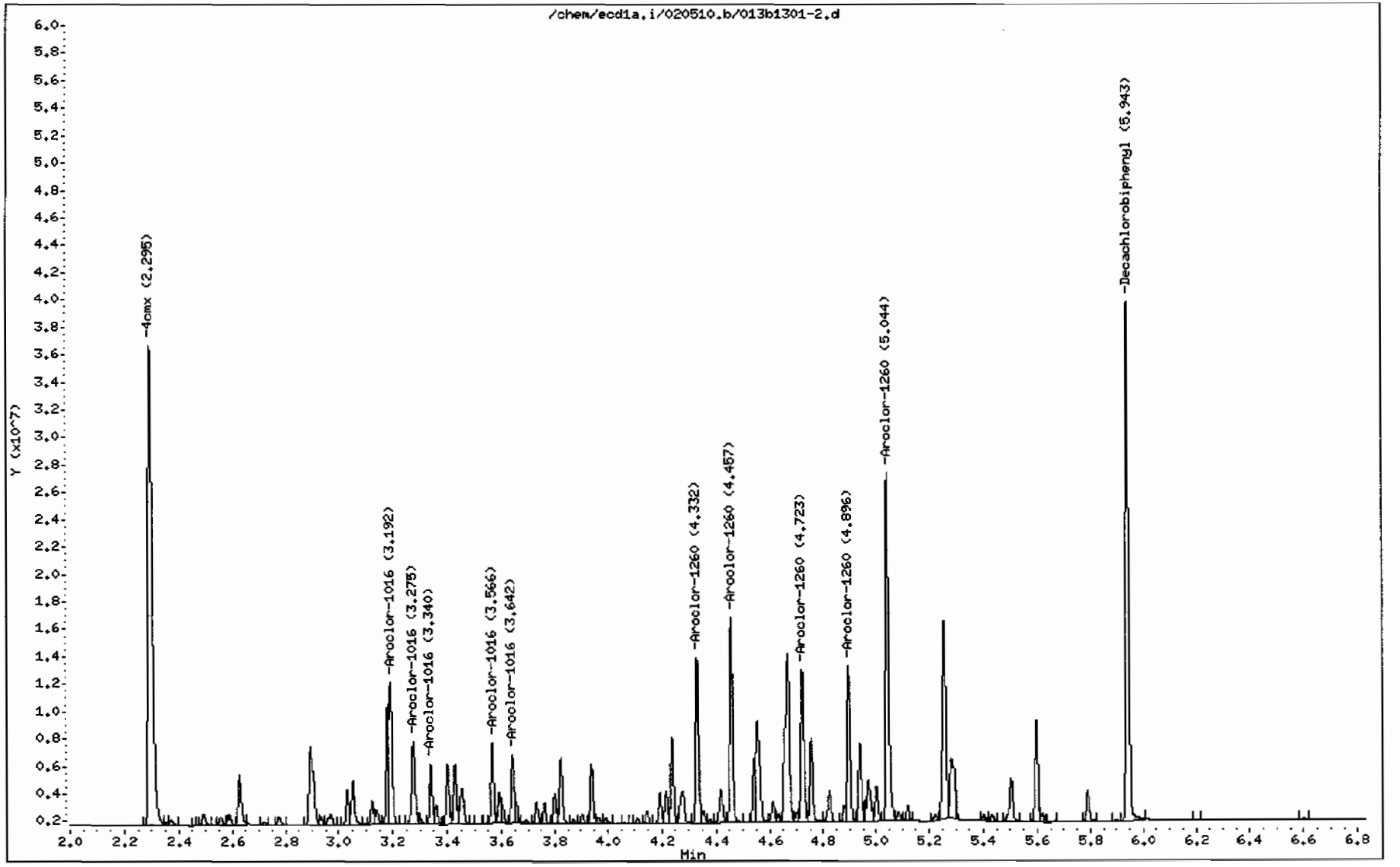

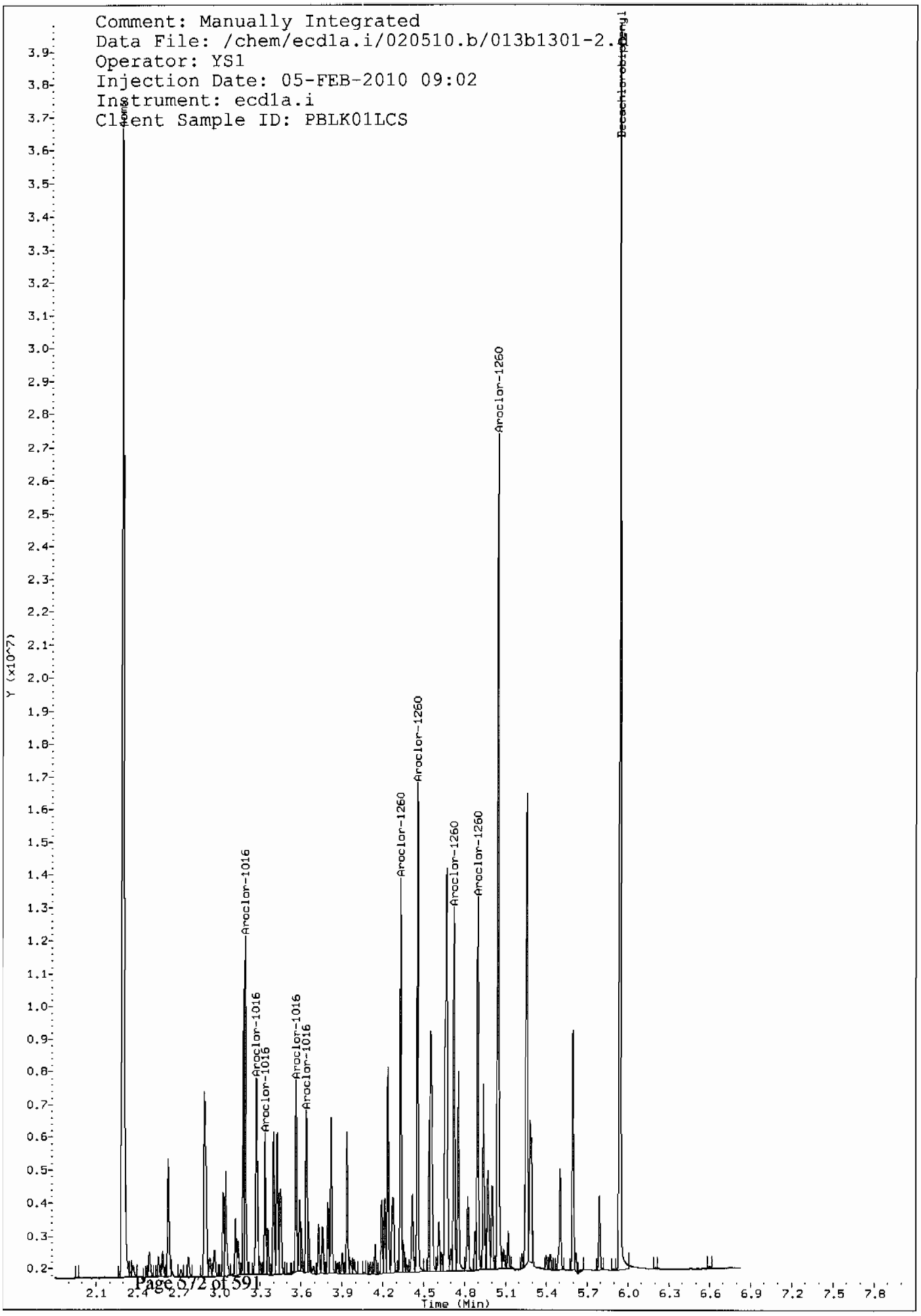
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/013b1301-2.
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

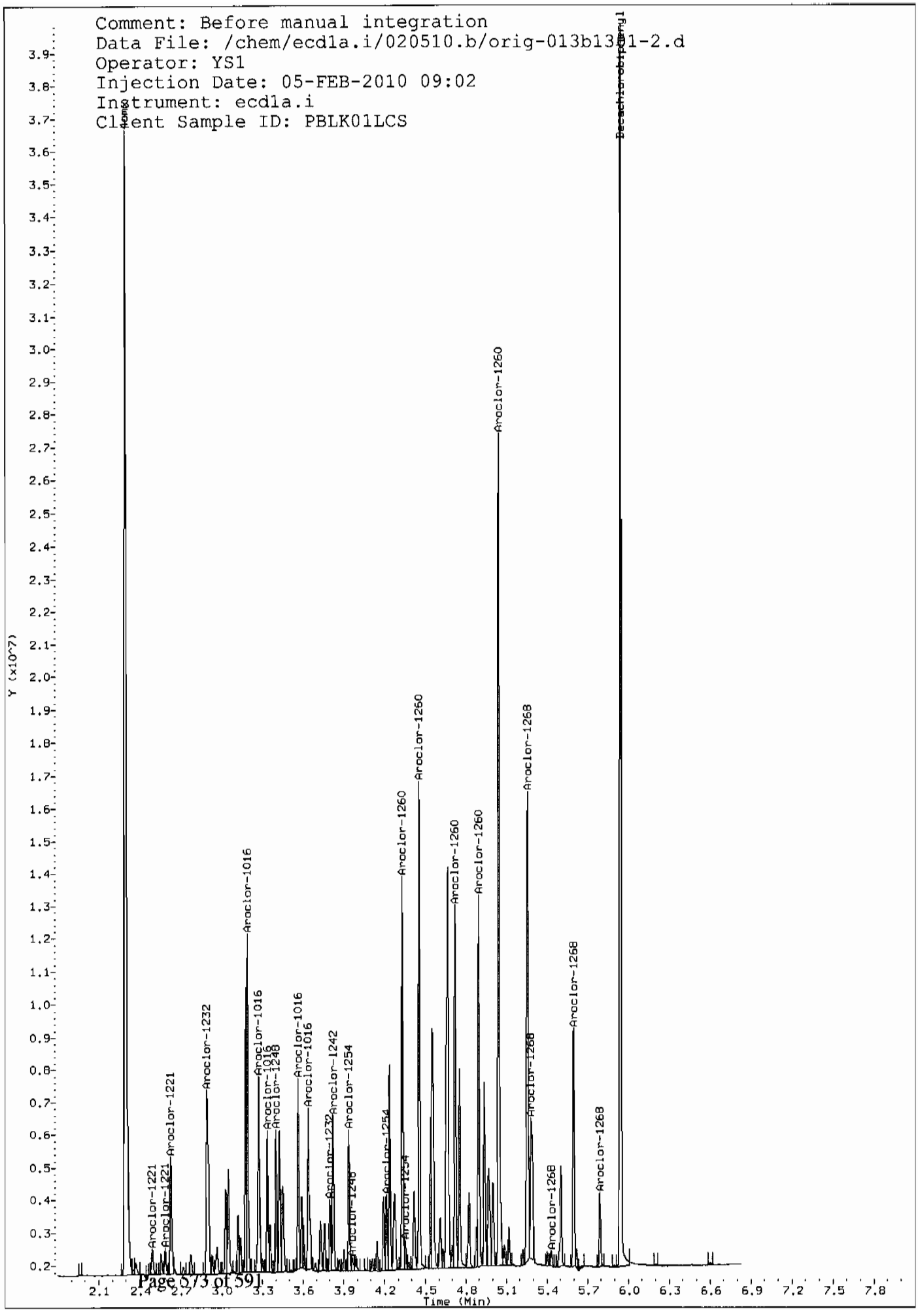
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-013b1301-2.d
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1268
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409	1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409	1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409	1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409	1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409	1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409	1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409	1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409	1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409	1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409	1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409	1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409	1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409	1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409	1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409	1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409	1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409	1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409	1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409	1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409	1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409	1.0		AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409	1.0		AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409	1.0		AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409	1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409	1.0		AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409	1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409	1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264	5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecdla.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409	1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409	1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409	1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782	1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012810a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	28-JAN-2010 09:16		012810a	1.0		CLEAN
002f0201.d	WAR100104-60 01	YS1	28-JAN-2010 09:27		012810a	1.0		DUSE RE-I-CAL
003f0301.d	WAR091216-54	YS1	28-JAN-2010 09:37		012810a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	28-JAN-2010 09:48		012810a	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	28-JAN-2010 09:58		012810a	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	28-JAN-2010 10:09		012810a	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	28-JAN-2010 10:19		012810a	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	28-JAN-2010 10:30		012810a	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	28-JAN-2010 10:40		012810a	1.0		DUSE RE-I-CAL
010f1001.d	WAR100128-01 60	YS1	28-JAN-2010 10:51		012810a	1.0		AR1660 I-CAL LEVEL 1
011f1101.d	WAR100128-02 60	YS1	28-JAN-2010 11:01		012810a	1.0		AR1660 I-CAL LEVEL 2
012f1201.d	WAR100128-03 60	YS1	28-JAN-2010 11:12		012810a	1.0		AR1660 I-CAL LEVEL 3
013f1301.d	WAR100128-04 60	YS1	28-JAN-2010 11:22		012810a	1.0		AR1660 I-CAL LEVEL 4
014f1401.d	IAR100104-01-01	YS1	28-JAN-2010 11:34		012810a	1.0		AR1660 I-CAL LEVEL 5
015f1501.d	WAR100104-60 01	YS1	28-JAN-2010 11:44		012810a	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012810a.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |

016f1601.d	WAR100122-68	YS1	28-JAN-2010 11:55		012810a		1.0		DUSE RE-ICAL
017f1701.d	WAR091219-DDT	YS1	28-JAN-2010 12:05		012810a		1.0		DDT ANALOG STANDARD
018f1801.d	WAR100128-05 68	YS1	28-JAN-2010 12:18		012810a		1.0		AR1268 I-CAL LEVEL 1
019f1901.d	WAR100128-06 68	YS1	28-JAN-2010 12:29		012810a		1.0		AR1268 I-CAL LEVEL 2
020f2001.d	WAR100128-07 68	YS1	28-JAN-2010 12:39		012810a		1.0		AR1268 I-CAL LEVEL 3
021f2101.d	WAR100128-08 68	YS1	28-JAN-2010 12:50		012810a		1.0		AR1268 I-CAL LEVEL 4
022f2201.d	IAR100104-05	YS1	28-JAN-2010 13:00		012810a		1.0		AR1268 1-CAL LEVEL 5
023f2301.d	WAR100107-68	YS1	28-JAN-2010 13:11		012810a		1.0		PASSED ON BOTH COLUMNS
024f2401.d	WAR100105-99 02	YS1	28-JAN-2010 13:21		012810a		1.0		CLEAN
025f2501.d	1202026135	YS1	28-JAN-2010 13:32	945965	245586		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	1202026136	YS1	28-JAN-2010 13:42	945965	245586		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245586001	YS1	28-JAN-2010 13:53	945965	245586		250.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202026137	YS1	28-JAN-2010 14:05	945965	245586		250.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	1202026138	YS1	28-JAN-2010 14:18	945965	245586		250.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	245586002	YS1	28-JAN-2010 14:30	945965	245586		50.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245586003	YS1	28-JAN-2010 14:43	945965	245586		1.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	WAR100104-60 02	YS1	28-JAN-2010 14:56		012810a		1.0		PASSED ON BOTH COLUMNS
033f3301.d	WAR091216-54 02	YS1	28-JAN-2010 15:06		012810a		1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR091217-42 02	YS1	28-JAN-2010 15:16		012810a		1.0		PASSED ON BOTH COLUMNS
035f3501.d	WAR091217-48 02	YS1	28-JAN-2010 15:27		012810a		1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR100104-32 02	YS1	28-JAN-2010 15:38		012810a		1.0	PATTERN ONLY
037f3701.d	WAR100104-21 02	YS1	28-JAN-2010 15:48		012810a		1.0	PATTERN ONLY
038f3801.d	WAR100104-62 02	YS1	28-JAN-2010 15:58		012810a		1.0	PATTERN ONLY
039f3901.d	WAR100122-68 02	YS1	28-JAN-2010 16:09		012810a		1.0	PASSED ON BOTH COLUMNS

040f4001.d	WAR100105-99 03	YS1	28-JAN-2010 16:19		012810a		1.0		CLEAN
041f4101.d	245096008	YS1	28-JAN-2010 16:30	944883	10-1299		20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	245096009	YS1	28-JAN-2010 16:43	944883	10-1299		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	245096010	YS1	28-JAN-2010 16:55	944883	10-1299		20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	245096011	YS1	28-JAN-2010 17:08	944883	10-1299		20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	245099015	YS1	28-JAN-2010 17:20	944883	10-1301		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	245114003	YS1	28-JAN-2010 17:33	944883	10-1324		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	1202023863	YS1	28-JAN-2010 17:45	944883	10-1324		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	1202023864	YS1	28-JAN-2010 17:58	944883	10-1324		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	245114004	YS1	28-JAN-2010 18:11	944883	10-1324		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	245114005	YS1	28-JAN-2010 18:23	944883	10-1324		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	WAR100104-60 03	YS1	28-JAN-2010 18:38		012810a		1.0		PASSED ON BOTH COLUMNS
052f5201.d	WAR100105-99 04	YS1	28-JAN-2010 18:50		012810a		1.0		CLEAN
053f5301.d	245114006	YS1	28-JAN-2010 19:03	944883	10-1324		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	WAR100104-60 04	YS1	28-JAN-2010 19:17		012810a		1.0		PASSED ON BOTH COLUMNS
055f5501.d	WAR100105-99 05	YS1	28-JAN-2010 19:30		012810a		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202026131	YS1	28-JAN-2010 19:42	945963	10-1372	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	1202026132	YS1	28-JAN-2010 19:55	945963	10-1372	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	245376001	YS1	28-JAN-2010 20:08	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	245376002	YS1	28-JAN-2010 20:20	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	245376003	YS1	28-JAN-2010 20:33	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	245376004	YS1	28-JAN-2010 20:45	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	245376005	YS1	28-JAN-2010 20:58	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	245376006	YS1	28-JAN-2010 21:10	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	245376007	YS1	28-JAN-2010 21:23	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	245381002	YS1	28-JAN-2010 21:36	945963	10-1380		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100104-60 05	YS1	28-JAN-2010 21:48		012810a		1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100105-99 06	YS1	28-JAN-2010 22:01		012810a		1.0		CLEAN
068f6801.d	245384001	YS1	28-JAN-2010 22:13	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202026133	YS1	28-JAN-2010 22:26	945963	10-1382		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	1202026134	YS1	28-JAN-2010 22:39	945963	10-1382		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	245384002	YS1	28-JAN-2010 22:51	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	245384003	YS1	28-JAN-2010 23:04	945963	10-1382		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	245384004	YS1	28-JAN-2010 23:16	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	245384005	YS1	28-JAN-2010 23:29	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	245384006	YS1	28-JAN-2010 23:41	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	245384007	YS1	28-JAN-2010 23:54	945963	10-1382		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	245384008	YS1	29-JAN-2010 00:07	945963	10-1382		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100104-60 06	YS1	29-JAN-2010 00:19		012810a		1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100105-99 07	YS1	29-JAN-2010 00:32		012810a		1.0		CLEAN
080f8001.d	245384012	YS1	29-JAN-2010 00:45	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	WAR100104-60 07	YS1	29-JAN-2010 00:57		012810a		1.0		PASSED ON BOTH COLUMNS
082f8201.d	WAR100105-99 08	YS1	29-JAN-2010 01:10		012810a		1.0		CLEAN
083f8301.d	1202026309	YS1	29-JAN-2010 01:22	946042	EUI-7483		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	1202026310	YS1	29-JAN-2010 01:35	946042	EUI-7483		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	1202026313	YS1	29-JAN-2010 01:48	946042	EUI-7483		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	245309001	YS1	29-JAN-2010 02:00	946042	EUI-7483		1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	1202026311	YS1	29-JAN-2010 02:13	946042	EUI-7483		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	1202026312	YS1	29-JAN-2010 02:25	946042	EUI-7483		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

089f8901.d	WAR100104-60 08	YS1	29-JAN-2010 02:38		012810a	1.0	PASSED ON BOTH COLUMNS
090f9001.d	WAR100105-99 09	YS1	29-JAN-2010 02:51		012810a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	29-JAN-2010 06:12		012910	1.0		CLEAN
002f0201.d	WAR100104-60 01	YS1	29-JAN-2010 06:22		012910	1.0		DUSE RE I-CAL
003f0301.d	WAR091216-54	YS1	29-JAN-2010 06:33		012910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	29-JAN-2010 06:43		012910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	29-JAN-2010 06:54		012910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	29-JAN-2010 07:04		012910	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	29-JAN-2010 07:15		012910	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	29-JAN-2010 07:25		012910	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	29-JAN-2010 07:36		012910	1.0		PATTERN ONLY
010f1001.d	WAR100129-01 60	YS1	29-JAN-2010 07:46		012910	1.0		AR1660 I-CAL LEVEL 1
011f1101.d	WAR100129-02 60	YS1	29-JAN-2010 07:57		012910	1.0		AR1660 I-CAL LEVEL 2
012f1201.d	WAR100129-03 60	YS1	29-JAN-2010 08:07		012910	1.0		AR1660 I-CAL LEVEL 3
013f1301.d	WAR100129-04 60	YS1	29-JAN-2010 08:18		012910	1.0		AR1660 I-CAL LEVEL 4
014f1401.d	IAR100104-01	YS1	29-JAN-2010 08:59		012910	1.0		AR1660 I-CAL LEVEL 5
015f1501.d	WAR100104-60 01	YS1	29-JAN-2010 09:09		012910	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091219-DDT	YS1	29-JAN-2010 09:20		012910	1.0		DDT ANALOG STANDARD
017f1701.d	WAR100105-99 02	YS1	29-JAN-2010 09:30		012910	1.0		CLEAN
018f1801.d	1202027001	YS1	29-JAN-2010 09:41	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	1202027002	YS1	29-JAN-2010 09:51	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245609001	YS1	29-JAN-2010 10:02	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245609002	YS1	29-JAN-2010 10:14	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	245609003	YS1	29-JAN-2010 10:27	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202027003	YS1	29-JAN-2010 10:40	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	1202027004	YS1	29-JAN-2010 10:52	946348	10-1416	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245609004	YS1	29-JAN-2010 11:05	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	245609005	YS1	29-JAN-2010 11:17	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245609006	YS1	29-JAN-2010 11:30	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	WAR100104-60 02	YS1	29-JAN-2010 11:42		012910	1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100105-99 03	YS1	29-JAN-2010 11:53		012910	1.0		CLEAN
030f3001.d	245609007	YS1	29-JAN-2010 12:03	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245609008	YS1	29-JAN-2010 12:16	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	245609009	YS1	29-JAN-2010 12:28	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	245609010	YS1	29-JAN-2010 12:41	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	245609011	YS1	29-JAN-2010 12:54	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	245609012	YS1	29-JAN-2010 13:06	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/012910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	245609013	YS1	29-JAN-2010 13:19	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	245609014	YS1	29-JAN-2010 13:31	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	245609015	YS1	29-JAN-2010 13:44	946348	10-1416	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	245609016	YS1	29-JAN-2010 13:56	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100104-60 03	YS1	29-JAN-2010 14:09		012910	1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/08/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/020510.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	05-FEB-2010 06:56		020510	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	05-FEB-2010 07:06		020510	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091216-54	YS1	05-FEB-2010 07:17		020510	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	05-FEB-2010 07:27		020510	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	05-FEB-2010 07:38		020510	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	05-FEB-2010 07:48		020510	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	05-FEB-2010 07:59		020510	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	05-FEB-2010 08:09		020510	1.0		PASSED ON BOTH COLUMNS
009f0901.d	WAR100107-68	YS1	05-FEB-2010 08:20		020510	1.0		PASSED ON BOTH COLUMNS
010f1001.d	WAR091219-DDT	YS1	05-FEB-2010 08:31		020510	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100105-99 02	YS1	05-FEB-2010 08:41		020510	1.0		CLEAN
012f1201.d	1202033246	YS1	05-FEB-2010 08:52	949033	10-1462	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202033247	YS1	05-FEB-2010 09:02	949033	10-1462	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	245786001	YS1	05-FEB-2010 09:13	949033	10-1462	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	245795001	YS1	05-FEB-2010 09:23	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/020510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	245795002	YS1	05-FEB-2010 09:36	949033	10-1470	1.0	LANL	AR1268 RE TO CONFIRM
017f1701.d	245795003	YS1	05-FEB-2010 09:48	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	245795004	YS1	05-FEB-2010 10:01	949033	10-1470	1.0	LANL	AR1268 RE TO CONFIRM
019f1901.d	245795005	YS1	05-FEB-2010 10:13	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245795006	YS1	05-FEB-2010 10:26	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245795007	YS1	05-FEB-2010 10:39	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	WAR100203-60 02	YS1	05-FEB-2010 10:51		020510	1.0		PASSED ON BOTH COLUMNS
023f2301.d	WAR100105-99 03	YS1	05-FEB-2010 11:02		020510	1.0		CLEAN
024f2401.d	245795008	YS1	05-FEB-2010 11:12	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245803006	YS1	05-FEB-2010 11:25	949033	10-1473	1.0	LANL	AR1268 RE TO CONFIRM
026f2601.d	245803007	YS1	05-FEB-2010 11:37	949033	10-1473	1.0	LANL	AR1268 RE TO CONFIRM
027f2701.d	245803008	YS1	05-FEB-2010 11:50	949033	10-1473	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	245959001	YS1	05-FEB-2010 12:03	949033	10-1510	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	245959002	YS1	05-FEB-2010 12:15	949033	10-1510	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	245959012	YS1	05-FEB-2010 12:28	949033	10-1510	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	WAR100203-60 03	YS1	05-FEB-2010 12:40		020510	1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100105-99 04	YS1	05-FEB-2010 12:51		020510	1.0		CLEAN
033f3301.d	245969001	YS1	05-FEB-2010 13:01	949033	10-1512	1.0	LANL	RE RESULT DID NOT MATCH WITH MS/MSD
034f3401.d	1202033248	YS1	05-FEB-2010 13:14	949033	10-1512	1.0	QC A	DUSE
035f3501.d	1202033249	YS1	05-FEB-2010 13:27	949033	10-1512	1.0	QC A	DUSE
036f3601.d	245969002	YS1	05-FEB-2010 13:39	949033	10-1512	1.0	LANL	AR1268 RE TO CONFIRM

Instrument Batch: /chem/ecd1a.i/020510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
037f3701.d	245969003	YS1	05-FEB-2010 13:52	949033	10-1512	1.0	LANL	UPLOAD BOTH COLUMNS ,USE HIGHER
038f3801.d	WAR100203-60 04	YS1	05-FEB-2010 14:05		020510	1.0		PASSED ON BOTH COLUMNS
039f3901.d	WAR100105-99 05	YS1	05-FEB-2010 14:15		020510	1.0		CLEAN
040f4001.d	1202026314	YS1	05-FEB-2010 14:26	946047	020510	1.0	QC A	REPORT FROM ECD 8

041f4101.d	1202026315	YS1	05-FEB-2010 14:36	946047			1.0	QC A	REPORT FROM ECD 8
042f4201.d	243861001	YS1	05-FEB-2010 14:47	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
043f4301.d	243861002	YS1	05-FEB-2010 14:57	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
044f4401.d	243861003	YS1	05-FEB-2010 15:08	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
045f4501.d	243861004	YS1	05-FEB-2010 15:18	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
046f4601.d	WAR100203-60 05	YS1	05-FEB-2010 15:29		020510		1.0		PASSED ON BOTH COLUMNS
047f4701.d	WAR100105-99 06	YS1	05-FEB-2010 15:39		020510		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/020510.b

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 949031 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202033246 MB	04-FEB-2010 20:32:00	30	H2SO4/KMn2		2	9	1	0.03333
1202033247 LCS	04-FEB-2010 20:32:00	30	H2SO4/KMn2		2	9	1	0.03333
245786001	04-FEB-2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795001	04-FEB-2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795002	04-FEB-2010 20:32:00	30.19	H2SO4/KMn2		2	9	1	0.03312
245795003	04-FEB-2010 20:32:00	30.18	H2SO4/KMn2		2	9	1	0.03313
245795004	04-FEB-2010 20:32:00	30.01	H2SO4/KMn2		2	9	1	0.03332
245795005	04-FEB-2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795006	04-FEB-2010 20:32:00	30.03	H2SO4/KMn2		2	9	1	0.0333
245795007	04-FEB-2010 20:32:00	30.01	H2SO4/KMn2		2	9	1	0.03332
245795008	04-FEB-2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245803006	04-FEB-2010 20:32:00	30.11	H2SO4/KMn2		2	9	1	0.03321
245803007	04-FEB-2010 20:32:00	30.04	H2SO4/KMn2		2	9	1	0.03329
245803008	04-FEB-2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245959001	04-FEB-2010 20:32:00	30.19	H2SO4/KMn2		2	9	1	0.03312
245959002	04-FEB-2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245959012	04-FEB-2010 20:32:00	30.03	H2SO4/KMn2		2	9	1	0.0333
245969001	04-FEB-2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
1202033248 MS (245969001)	04-FEB-2010 20:32:00	30.26	H2SO4/KMn2		2	9	1	0.03305
1202033249 MSD (245969001)	04-FEB-2010 20:32:00	30.04	H2SO4/KMn2		2	9	1	0.03329
245969002	04-FEB-2010 20:32:00	30.21	H2SO4/KMn2		2	9	1	0.0331
245969003	04-FEB-2010 20:32:00	30.11	H2SO4/KMn2		2	9	1	0.03321

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202033247	PCB Laboratory Control	WE100126-07	1	mL
MS	1202033248	PCB Laboratory Control	WE100126-07	1	mL
MSD	1202033249	PCB Laboratory Control	WE100126-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100108-15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/4/10
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1472

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	EPA:906.0	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-7951	R	1/26/2010	
	HASL-300:AM-241	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	HASL-300:ISOPU	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	HASL-300:ISOU	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1472

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1472

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1472

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7888	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7888	1	POLY	H3	Ice	R
RE15-10-7890	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7890	1	POLY	H3	Ice	R
RE15-10-7886	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7886	1	POLY	H3	Ice	R
RE15-10-7889	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7889	1	POLY	H3	Ice	R
RE15-10-7885	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7885	1	POLY	H3	Ice	R
RE15-10-7882	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7882	1	POLY	H3	Ice	R
RE15-10-7887	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7887	1	POLY	H3	Ice	R
RE15-10-7881	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7881	1	POLY	H3	Ice	R
RE15-10-7951	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7951	1	POLY	H3	Ice	R
RE15-10-7950	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7950	1	POLY	H3	Ice	R
RE15-10-7947	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7947	1	POLY	H3	Ice	R
RE15-10-7944	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7944	1	POLY	H3	Ice	R
RE15-10-7948	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7948	1	POLY	H3	Ice	R
RE15-10-7941	1	POLY	AM241+GS+ISOPU+ISO	None	R

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1472

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7941	1	POLY	H3	Ice	R
RE15-10-7949	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7949	1	POLY	H3	Ice	R
RE15-10-7946	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7946	1	POLY	H3	Ice	R
RE15-10-7942	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7942	1	POLY	H3	Ice	R
RE15-10-7945	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7945	1	POLY	H3	Ice	R
RE15-10-7943	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7943	1	POLY	H3	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	1/28/10	1400	Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7881 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		0908	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610710	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown silty sand - frozen - few rocks + pine needles

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-40 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG.

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1990 dpm

PID Ambient 0.0 / Reading 0.9 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 09:18 Am	(Printed Name) Brenn Sherwood (Signature) Brenn Sherwood	1/27/10 0918
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7882 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0955	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610710	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray ~~[illegible]~~ brown tuff 12:00 1/26/10

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-40 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

~~Alpha~~ ≤ 38 dpm
~~Beta/Gamma~~ ≤ 2010 dpm

PID Ambient Reading ~~0.0~~ 0.6 RS 01-26-10 / 3.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	~~1/27/10~~ 1/27/10 09:17Am	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]		(Signature) Sherri Sherwood	0917
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7885 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Alth
TIME COLLECTED (HH:MM)		1128	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610712	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown poryen silty sand, pine cone, wire

SAMPLE COMMENTS: TJM 1/26/10 ~~NA~~ Pine cone and wire not placed in sample

LOCATION DESC: 8b-39 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 2260 dpm

PID Ambient 0.0 / Reading 2.6 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 09:17AM	(Printed Name) (Signature)	1/27/10 935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7886 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1145	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610712	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-39 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm
Beta/Gamma ≤ 2130 dpm

PID Ambient 0.2 / Reading 3.5 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luian	1/27/10 9:18 Am	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7887 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALL H ~~ALLN~~ RS 01-26-10
TIME COLLECTED (HH:MM)		1315	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610713	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: redish brown silty clay

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-63 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 27 dpm
Beta/Gamma ≤ 1534 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteven Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:22 Am	(Signature) Sherri Sherwood	0922
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7888 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610713	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff, some clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-63, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 33 **dpm**
Beta/Gamma ≤ 1928 **dpm**

PID Ambient Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:21 Am	(Signature)	935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7889 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1548	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610714	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, pieces

SAMPLE COMMENTS: wire in bowl, not put in sample jar

LOCATION DESC: 8b-36, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 33 dpm
Beta/Gamma ≤ 3080 dpm

PID Ambient 0.0 / Reading 0.3 ppm

COLLECTED BY (PRINT) TL McFarlana

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	0855 AM	(Signature)	9:35
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7890 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1603	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	↓	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610714	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-36, mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 60 dpm
Beta/Gamma ≤ 2640 dpm

PID Ambient Reading 0.0 / 0.7 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 08:55 AM	(Printed Name) (Signature)	1/27/10 938
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7941 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0833	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610740	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Frozen brown silty clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-64, mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1845 dpm

PID Ambient .5 / Reading .8 ppm

COLLECTED BY (PRINT) TLMcFarlang **REVIEWED BY (PRINT)** R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:18Am	(Signature)	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7942 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		0845	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610740	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	12m 1/26/10 ~~4.0~~ 4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ 1L POLY RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b. 64 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm
Beta/Gamma = 2130 dpm

PID Ambient 0.1 / Reading 1.7 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luian	1/27/10	(Printed Name) Sherry Sherwood	1/27/10
(Signature) E. Luian	09:18 Am	(Signature) Sherry Sherwood	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7943 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		0909	SUB-MEDIA:	TUFF 1	L
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610741	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray Tuff hit tuff at surface

SAMPLE COMMENTS: NA

LOCATION DESC: 8b- 42 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 16 dpm
Beta/Gamma ≤ 2270 dpm

PID Ambient 0.1 / Reading 0.1 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	9:18 AM	(Signature) Sherri Sherwood	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7944 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610741	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Grey Tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-42, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 dpm
Beta/Gamma ≤ 2060 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) Th McFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	9:19 Am	(Signature)	935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7945 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1014	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610742	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark brown frozen silty sand, numerous rocks, few pine needles

SAMPLE COMMENTS: NA FR RE15-10-8081

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE POSITIVE

Alpha = 16 **dpm**
Beta/Gamma = 1783 **dpm**

PID Ambient Reading 0.0 / 0.1 **ppm**

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luna	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]	09:21 Am	(Signature) Sherri Sherwood	0921
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7946 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1047	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610742	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FD: RE15-10-~~8059~~ 8059 12m 1/26/10

SAMPLE COMMENTS: Tuff at 2 ft

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 2070 dpm

PID Ambient 0.1 / Reading 83 ppm

COLLECTED BY (PRINT) TLM cFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:20Am	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7947 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610743	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown sandy silt, rocks, some roots, pine needles

FD: RE15-10-8058

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-43 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 dpm
Beta/Gamma ≤ 2300 dpm

PID Ambient 0.1 / Reading 1.5 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteven Lujan	1/27/10 09:20 am	(Printed Name)	1/27/10 938
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7948 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1050	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610743	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.9	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brownish gray tuff, some roots

SAMPLE COMMENTS: Tuff at 3'4"

LOCATION DESC: 8b-43 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 **dpm**
Beta/Gamma ≤ 2050 **dpm**

PID Ambient 0.1 / Reading 0.4 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]	09:20 Am	(Signature) Sherri Sherwood	0920
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7949 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		~~1243~~ 1143	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610744	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: dark brown frozen silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-38 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 1700 **dpm**

PID Ambient 0.1 / Reading 0.6 **ppm**

COLLECTED BY (PRINT) R. Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:17AM	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7950 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1211	SUB-MEDIA:	TUFF I	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610744	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1.5	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1 L RS 01·11·10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown clay, few tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-38 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1741 dpm

PID Ambient 0.2 / Reading 0.3 ppm

COLLECTED BY (PRINT) R. Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:21 Am	(Signature) Sherri Sherwood	0921
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7951 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1338	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610745	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray moist Tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-65 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 dpm
Beta/Gamma ≤ 2050 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:17 AM	(Signature)	938
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7890	RE15-10-7886	RE15-10 7948
" " 7889	" "7885	" " 7947
" " 7956	" "7882	" " 8058
" " 7953	" "7881	" "7950
" " 8060	" " 7941	
" " 7954	" " 7942	
" " 7955	" " 7943	
" " 7952	" " 7944	
" " 7951	" "8059	
" "7949	" " 7946	
	" " 7945	

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8082

RE15-10-8081

Reason: Field Rinsate.

Print Last Name Lujan Signature [signature] Date 1/27/10

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7881	ARS Sample ID:	ARS2-10-00025-001
Sample Collection Date:	01/26/10 09:08	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	10.80	19.79	36.09	19.83		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	41.40	15.01	17.69	15.55		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	16.84	6.63	1.47	6.65		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.61	0.10	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.15	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.69	0.32	0.06	0.32		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.71	0.40	0.11	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.31	0.49	0.17	0.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.25	0.64	0.26	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.18	1.04	0.37	1.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	6.81	3.33	1.25	3.67		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.53	0.41	0.14	0.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 4.28

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7882	ARS Sample ID:	ARS2-10-00025-002
Sample Collection Date:	01/26/10 09:55	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	20.74	22.37	31.78	22.51		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	24.54	13.50	18.25	13.83		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	29.87	11.33	2.43	11.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	15.90	0.16	15.90		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.34	0.23	0.12	0.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.29	0.27	0.10	0.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.38	0.22	0.38		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	2.17	0.81	0.21	0.82		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.77	0.94	0.42	0.95		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.60	0.88	0.28	0.88		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	5.42	4.41	1.90	4.56		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.49	0.46	0.18	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.35

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7885	ARS Sample ID:	ARS2-10-00026-001
Sample Collection Date:	01/26/10 11:28	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 17:07

Analysis Description	Analysis Results	Analysis Error +/- 1 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	50.37	33.86	36.09	34.41		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	59.79	17.49	17.69	18.96		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	14.79	5.82	1.29	5.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	8.44	0.09	8.44		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.01	0.02	0.06	0.02		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.90	0.34	0.05	0.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	44.62	0.10	44.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.92	0.44	0.18	0.44		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.06	0.60	0.23	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.05	75.28	0.17	75.28		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	14.39	5.25	1.82	6.19		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.30	0.36	0.15	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.64

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

123 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7886	ARS Sample ID:	ARS2-10-00026-002
Sample Collection Date:	01/26/10 11:45	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	43.80	30.16	31.78	30.63		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	35.55	18.20	18.28	18.81		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	32.04	11.03	2.17	11.07		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.20	0.14	14.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.01	0.04	0.09	0.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.41	0.47	0.17	0.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.63	0.67	0.24	0.68		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	-0.15	221.15	0.50	221.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	79.84	0.22	79.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.90	3.23	1.38	3.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.11	0.27	0.13	0.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.72

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7887
Sample Collection Date: 01/26/10 13:15
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-003
Date Received: 01/27/10 00:00
Report Date: 01/28/10 00:33

Analysis Description	Analysis Results	Analysis Error w/+ 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.69	31.52	30.56	32.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	44.45	17.21	19.68	18.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	17.74	6.61	1.40	6.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	9.14	0.09	9.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.33	0.17	0.07	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.06	0.10	0.06	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.27	0.34	0.23	0.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.15	0.43	0.13	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.06	0.61	0.29	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.86	0.63	0.17	0.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.44	2.42	1.13	2.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.02	0.09	0.06	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.57

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RS15-10-7888	ARS Sample ID:	ARS2-10-00025-004
Sample Collection Date:	01/26/10 14:26	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	10.53	20.55	38.20	20.59		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	48.05	16.12	18.71	17.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	25.36	8.60	1.67	8.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	10.94	0.11	10.94		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.24	0.21	0.08	0.22		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.07	0.12	0.07	0.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.69	0.46	0.13	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.83	0.61	0.20	0.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.57	0.99	0.29	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.31	1.28	0.30	1.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	5.81	4.38	1.59	4.38		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.40	0.31	0.11	0.31		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.76

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7889	ARS Sample ID:	ARS2-10-00026-003
Sample Collection Date:	01/26/10 15:48	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	42.86	30.06	30.56	30.52		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	107.24	22.75	19.68	26.26		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.80	0.08	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	19.09	6.90	1.26	6.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.05	0.10	0.08	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.18	0.16	0.05	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.35	0.15	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.82	0.33	0.09	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.52	0.65	0.22	0.65		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.03	0.62	0.13	0.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	18.73	4.35	1.19	4.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.18	0.20	0.08	0.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 5.10

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7890	ARS Sample ID:	ARS2-10-00026-004
Sample Collection Date:	01/26/10 16:03	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.28	32.73	38.20	33.23		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	44.91	16.44	18.71	17.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.08	0.15	0.12	0.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	23.26	8.99	1.96	9.01		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.02	0.08	0.13	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.05	0.09	0.09	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.09	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	13.32	0.15	13.32		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.04	0.55	0.22	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.11	0.80	0.34	0.91		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.01	0.72	0.20	0.73		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	5.91	2.98	1.42	4.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.33	0.41	0.16	0.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.99

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7941	ARS Sample ID:	ARS2-10-00025-005
Sample Collection Date:	01/26/10 08:33	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	25.64	25.97	36.09	26.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	48.83	16.04	17.69	17.12		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	15.57	6.29	1.41	6.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.22	0.04	0.22		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.11	0.13	0.07	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.73	0.32	0.06	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.28	0.11	0.28		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.93	0.35	0.09	0.35		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.05	0.51	0.27	0.51		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.92	1.09	0.31	1.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	7.27	3.27	1.20	3.67		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.34	0.29	0.11	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.46

Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7942
Sample Collection Date: 01/26/10 08:45
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-006
Date Received: 01/27/10 08:00
Report Date: 01/28/10 08:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	39.18	28.76	31.78	29.17		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	49.69	16.59	18.25	17.67		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.85	8.14	1.72	8.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	11.26	0.11	11.26		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	36.94	0.08	36.94		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.01	0.05	0.07	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.84	0.58	0.13	0.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.25	0.47	0.13	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.84	0.87	0.30	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.73	0.67	0.17	0.68		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	2.67	3.65	1.58	3.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.13	0.21	0.10	0.21		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.80

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7943	ARS Sample ID:	ARS2-10-00025-007
Sample Collection Date:	01/26/10 09:09	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.30	26.91	30.56	27.22		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	34.80	15.66	19.68	16.42		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	0.13	10.71	5.46	10.71		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.83	0.13	12.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.10	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	16.79	0.08	16.79		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.24	0.30	0.15	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	2.25	0.63	0.11	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	2.61	1.10	0.34	1.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.01	1.04	0.36	1.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.46	3.12	1.49	3.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.01	0.11	0.10	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.61

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7944	ARS Sample ID:	ARS2-10-00025-008
Sample Collection Date:	01/26/10 09:34	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	15.13	22.44	38.20	22.51		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	39.91	15.35	18.71	16.11		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	26.25	9.46	1.94	9.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.70	0.13	12.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.17	0.16	0.09	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.04	0.10	0.08	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.19	0.25	0.15	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.51	0.55	0.14	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.80	1.15	0.34	1.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.46	0.69	0.29	0.69		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	3.95	3.14	1.42	3.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.01	0.04	0.05	0.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.91

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9834

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7945	ARS Sample ID:	ARS2-10-00025-009
Sample Collection Date:	01/26/10 10:14	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	70.11	39.05	36.09	39.98		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	88.28	20.23	17.69	22.94		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.08	0.16	0.13	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	14.40	7.46	2.08	7.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	13.60	0.14	13.59		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.67	0.38	0.09	0.38		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	14.13	0.16	14.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.10	0.59	0.24	0.60		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.94	1.17	0.36	1.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.62	1.25	0.53	1.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	8.04	5.09	1.87	5.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.02	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.84

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7946	ARS Sample ID:	ARS2-10-00025-010
Sample Collection Date:	01/26/10 10:47	Date Received:	01/27/10 08:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.39	31.50	31.78	32.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	68.71	18.52	18.25	20.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.77	9.78	2.42	9.80		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	15.84	0.16	15.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.15	0.20	0.12	0.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	20.73	0.10	20.73		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.63	0.57	0.18	0.57		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.04	0.50	0.13	0.50		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	3.34	1.15	0.42	1.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.84	1.08	0.25	1.08		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	4.03	4.80	1.98	4.89		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.62	0.53	0.19	0.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.70

Matthew A. Foley
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7947	ARS Sample ID:	ARS2-10-00025-011
Sample Collection Date:	01/26/10 10:29	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	91.15	42.42	30.56	43.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	80.25	21.31	19.66	23.47		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	17.04	8.29	2.20	8.31		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.37	0.15	14.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.02	0.06	0.11	0.06		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.61	0.43	0.09	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.46	0.43	0.17	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.90	0.55	0.23	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.64	0.85	0.38	0.85		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.82	0.63	0.29	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	16.48	5.34	1.70	6.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.57	0.66	0.23	0.66		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.56

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7948
Sample Collection Date: 01/26/10 10:50
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-012
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	93.20	43.38	38.20	44.86		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	68.54	19.35	18.71	21.09		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	20.40	9.39	2.38	9.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	18.86	0.16	15.56		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.52	0.36	0.10	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.47	0.55	0.18	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.38	0.57	0.15	0.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	2.67	1.55	0.41	1.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.10	1.14	0.24	1.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	6.40	4.53	1.88	4.76		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.34	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.76

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7949	ARS Sample ID:	ARS2-10-00026-005
Sample Collection Date:	01/26/10 11:43	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	55.31	35.23	36.09	35.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	64.55	18.00	17.69	19.66		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	15.70	6.88	1.67	6.89		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	10.92	0.11	10.92		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.30	0.23	0.08	0.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.33	0.24	0.07	0.24		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.48	0.42	0.13	0.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.77	0.40	0.14	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	0.98	0.59	0.29	0.59		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.07	97.41	0.22	97.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	10.04	6.76	1.99	6.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.00	0.05	0.10	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 7.62

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9834

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7950	ARS Sample ID:	ARS2-10-00025-013
Sample Collection Date:	01/26/10 12:11	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	99.82	45.72	36.09	47.32		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	91.98	20.89	17.69	23.73		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.70	8.09	1.71	8.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.06	0.09	0.11	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.55	0.17	0.08	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.03	0.09	0.07	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	11.63	0.13	11.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.95	0.51	0.13	0.52		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.47	0.87	0.10	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.44	0.99	0.35	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	3.29	3.57	1.83	3.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.23	0.30	0.12	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.96

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7951	ARS Sample ID:	ARS2-10-00026-006
Sample Collection Date:	01/26/10 13:38	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	94.55	42.54	31.78	44.09		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	52.04	17.89	18.25	18.80		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.09	0.13	0.07	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	27.84	7.46	1.17	7.50		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	7.64	0.06	7.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.02	0.05	0.06	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	10.00	0.05	10.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.08	0.47	0.09	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.93	0.36	0.11	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.64	0.68	0.20	0.60		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.18	0.86	0.29	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.41	1.89	0.90	1.92		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.25	0.29	0.11	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 2.14

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1472 VALIDATION DATE: 03/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. All reported gamma spec results that were rejected by the laboratory due to interference, high count uncertainty, and low abundance were qualified R,R5a. Also, it should be noted that several results in the matrix QC samples were rejected by the laboratory. No sample data were qualified as a result.
2. It should be noted that an MS was not analyzed for tritium. However, an LCS was analyzed and passed acceptance criteria. Thus, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 3/5/10

VALIDATOR'S SIGNATURE: Kevin A. Lambert DATE: 03/04/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7888
Sample ID: 245799001
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 9.32%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.000573		0.0199	+/-0.00236	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00135		0.0208	+/-0.00136	0.050	pCi/g		MXA1	02/15/10	2017	950405	3
Plutonium-239/240	U	0.00		0.0157	+/-0.00136	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.707		0.093	+/-0.0716	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236	U	0.0228		0.0593	+/-0.0103	0.100	pCi/g						
Uranium-238		0.788		0.0635	+/-0.0775	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.322		0.514	+/-0.155	0.200	pCi/g		RXF2	02/10/10	1413	947531	5
Bismuth-211	UI	3.67	R,R5a	0.429	+/-0.372		pCi/g						
Bismuth-214		1.06		0.131	+/-0.108	0.200	pCi/g						
Cadmium-109	UI	2.55	R,R5a	1.69	+/-0.635		pCi/g						
Cerium-139	U	-0.0224		0.0624	+/-0.0193	0.050	pCi/g						
Cesium-134	U	0.0658		0.108	+/-0.0301	0.100	pCi/g						
Cesium-137	U	-0.00636		0.0751	+/-0.0227	0.100	pCi/g						
Cobalt-60	U	-0.0349		0.0669	+/-0.0232	0.100	pCi/g						
Europium-152	U	-0.0214		0.209	+/-0.0764	0.200	pCi/g						
Lanthanum-140	U	-0.0467		0.136	+/-0.0462		pCi/g						
Lead-212		1.78		0.119	+/-0.126	0.100	pCi/g						
Lead-214		1.28		0.150	+/-0.134	0.100	pCi/g						
Mercury-203	U	0.0513		0.0925	+/-0.026	0.100	pCi/g						
Potassium-40		35.2		0.687	+/-2.03	1.00	pCi/g						
Radium-223	U	-0.0166		1.50	+/-0.442		pCi/g						
Radium-224	UI	4.79	R,R5a	1.35	+/-0.809		pCi/g						
Radium-226		1.06		0.131	+/-0.108		pCi/g						
Radium-228		1.63		0.251	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	0.524		0.708	+/-0.198	0.800	pCi/g						
Sodium-22	U	-0.034		0.0836	+/-0.0277	0.080	pCi/g						
Strontium-85	U	0.0696		0.0887	+/-0.0283		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7888
Sample ID: 245799001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.522	0.0758	+/-0.0514	0.080	pCi/g						
Thorium-227	U	0.204	0.862	+/-0.247		pCi/g						
Thorium-231	U	-0.0166	1.50	+/-0.442		pCi/g						
Thorium-234	U	1.11	4.16	+/-1.18	2.00	pCi/g						
Tin-113	U	0.00553	0.0969	+/-0.0286	0.100	pCi/g						
Uranium-235	U	-0.0456	0.459	+/-0.138	0.500	pCi/g						
Yttrium-88	U	0.0192	0.0755	+/-0.0215	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		612	253	+/-96.0	250	pCi/L		KXK2	02/17/10	1654	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7890
Sample ID: 245799002
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 9.81%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.005		0.0254	+/-0.00654	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00186		0.0198	+/-0.00185	0.050	pCi/g		MXA1	02/15/10	2017	950405	3
Plutonium-239/240	U	0.00646		0.015	+/-0.00291	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.93		0.0884	+/-0.158	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.199		0.0564	+/-0.0325	0.100	pCi/g						
Uranium-238		9.16		0.0604	+/-0.668	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0199		0.299	+/-0.0922	0.200	pCi/g		RXF2	02/10/10	1426	947531	5
Bismuth-211	UI	3.15	R,R5a	0.272	+/-0.200		pCi/g						
Bismuth-214		0.983		0.0854	+/-0.0728	0.200	pCi/g						
Cadmium-109	UI	2.31	R,R5a	1.57	+/-0.640		pCi/g						
Cerium-139	U	-0.0173		0.0415	+/-0.012	0.050	pCi/g						
Cesium-134	UI	0.101	R,R5a	0.0688	+/-0.0222	0.100	pCi/g						
Cesium-137	U	0.0458		0.0556	+/-0.0152	0.100	pCi/g						
Cobalt-60	U	-0.0131		0.0454	+/-0.0144	0.100	pCi/g						
Europium-152	U	0.021		0.131	+/-0.0446	0.200	pCi/g						
Lanthanum-140	U	0.0164		0.0979	+/-0.0294		pCi/g						
Lead-212		1.56		0.0712	+/-0.0718	0.100	pCi/g						
Lead-214		1.10		0.0948	+/-0.0753	0.100	pCi/g						
Mercury-203	UI	0.0732	R,R5a	0.051	+/-0.0286	0.100	pCi/g						
Potassium-40		33.1		0.357	+/-1.44	1.00	pCi/g						
Radium-223	U	0.0234		0.849	+/-0.291		pCi/g						
Radium-224	UI	3.52	R,R5a	0.810	+/-0.454		pCi/g						
Radium-226		0.983		0.0854	+/-0.0728		pCi/g						
Radium-228		1.63		0.165	+/-0.162	0.500	pCi/g						
Ruthenium-106	U	0.0961		0.415	+/-0.123	0.800	pCi/g						
Sodium-22	U	-0.00333		0.0561	+/-0.0171	0.080	pCi/g						
Strontium-85	UI	0.0711	R,R5a	0.0557	+/-0.0168		pCi/g						
Thallium-208		0.520		0.0411	+/-0.0381	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7890
Sample ID: 245799002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.112	0.520	+/-0.150		pCi/g						
Thorium-231	U	0.0234	0.849	+/-0.291		pCi/g						
Thorium-234		9.95	2.40	+/-1.48	2.00	pCi/g						
Tin-113	U	-0.00855	0.0561	+/-0.0164	0.100	pCi/g						
Uranium-235		0.569	0.288	+/-0.167	0.500	pCi/g						
Yttrium-88	U	-0.000278	0.0377	+/-0.0115	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		9920	165	+/-707	250	pCi/L		KXK2	02/17/10	1832	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	65.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7886
Sample ID: 245799003
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 6.53%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00496		0.0251	+/-0.00683	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.021	+/-0.00137	0.050	pCi/g		MXA1	02/15/10	2017	950405	3
Plutonium-239/240	U	0.0041		0.0158	+/-0.00237	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.724		0.0905	+/-0.0726	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236	U	0.031		0.0577	+/-0.0135	0.100	pCi/g						
Uranium-238		0.921		0.0618	+/-0.0868	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.314		0.346	+/-0.104	0.200	pCi/g		RXF2	02/10/10	1447	947531	5
Bismuth-211	UI	3.35	R,R5a	0.372	+/-0.262		pCi/g						
Bismuth-214		1.14		0.111	+/-0.0802	0.200	pCi/g						
Cadmium-109	U	0.784		1.47	+/-0.755		pCi/g						
Cerium-139	U	-0.0101		0.053	+/-0.0159	0.050	pCi/g						
Cesium-134	U	0.0384		0.0912	+/-0.0254	0.100	pCi/g						
Cesium-137	U	0.0162		0.0676	+/-0.0198	0.100	pCi/g						
Cobalt-60	U	0.00573		0.068	+/-0.0205	0.100	pCi/g						
Europium-152	U	-0.0681		0.172	+/-0.0686	0.200	pCi/g						
Lanthanum-140	U	-0.0358		0.133	+/-0.0426		pCi/g						
Lead-212		1.54		0.103	+/-0.0773	0.100	pCi/g						
Lead-214		1.16		0.130	+/-0.0962	0.100	pCi/g						
Mercury-203	U	0.0606		0.0788	+/-0.0239	0.100	pCi/g						
Potassium-40		31.7		0.618	+/-1.53	1.00	pCi/g						
Radium-223	U	0.264		1.19	+/-0.385		pCi/g						
Radium-224	UI	4.02	R,R5a	1.17	+/-0.679		pCi/g						
Radium-226		1.14		0.111	+/-0.0802		pCi/g						
Radium-228		1.53		0.235	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.305		0.601	+/-0.169	0.800	pCi/g						
Sodium-22	U	-0.0666		0.0821	+/-0.0282	0.080	pCi/g						
Strontium-85	U	0.026		0.0669	+/-0.0217		pCi/g						
Thallium-208		0.537		0.0621	+/-0.0474	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7886
Sample ID: 245799003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.299	0.706	+/-0.206		pCi/g						
Thorium-231	U	0.264	1.19	+/-0.385		pCi/g						
Thorium-234	U	2.30	3.05	+/-0.851	2.00	pCi/g						
Tin-113	U	0.00203	0.083	+/-0.0242	0.100	pCi/g						
Uranium-235	U	-0.0275	0.383	+/-0.114	0.500	pCi/g						
Yttrium-88	U	0.0109	0.0511	+/-0.0142	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		405	206	+/-73.8	250	pCi/L		KXK2	02/17/10	2010	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	70.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	98.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7889
Sample ID: 245799004
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 37.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0122		0.0223	+/-0.00727	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0207	+/-0.00135	0.050	pCi/g		MXA1	02/15/10	2017	950405	3
Plutonium-239/240		0.023		0.0157	+/-0.0057	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		7.77		0.152	+/-0.621	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.978		0.0971	+/-0.113	0.100	pCi/g						
Uranium-238		44.6		0.104	+/-3.38	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.247		0.313	+/-0.0943	0.200	pCi/g		RXF2	02/10/10	1505	947531	5
Bismuth-211	UI	3.23	R,R5a	0.282	+/-0.271		pCi/g						
Bismuth-214		0.895		0.0965	+/-0.0858	0.200	pCi/g						
Cadmium-109	UI	2.24	R,R5a	1.88	+/-0.551		pCi/g						
Cerium-139	U	0.0222		0.0501	+/-0.0158	0.050	pCi/g						
Cesium-134	U	0.0686		0.078	+/-0.0305	0.100	pCi/g						
Cesium-137		0.121		0.0548	+/-0.0273	0.100	pCi/g						
Cobalt-60	U	-0.000537		0.0508	+/-0.0153	0.100	pCi/g						
Europium-152	U	0.0384		0.144	+/-0.0592	0.200	pCi/g						
Lanthanum-140	U	-0.0668		0.108	+/-0.0357		pCi/g						
Lead-212		1.30		0.0853	+/-0.0975	0.100	pCi/g						
Lead-214		1.12		0.0982	+/-0.0987	0.100	pCi/g						
Mercury-203	U	0.0316		0.0634	+/-0.0185	0.100	pCi/g						
Potassium-40		30.2		0.425	+/-1.54	1.00	pCi/g						
Radium-223	U	-0.667		0.977	+/-0.302		pCi/g						
Radium-224	UI	3.44	R,R5a	0.969	+/-0.550		pCi/g						
Radium-226		0.895		0.0965	+/-0.0858		pCi/g						
Radium-228		1.23		0.168	+/-0.130	0.500	pCi/g						
Ruthenium-106	U	0.141		0.463	+/-0.133	0.800	pCi/g						
Sodium-22	U	-0.01		0.0601	+/-0.0183	0.080	pCi/g						
Strontium-85	UI	0.0875	R,R5a	0.063	+/-0.0199		pCi/g						
Thallium-208		0.390		0.0527	+/-0.0412	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7889
Sample ID: 245799004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.233	0.611	+/-0.203		pCi/g						
Thorium-231	U	-0.667	0.977	+/-0.302		pCi/g						
Thorium-234		36.2	2.45	+/-3.41	2.00	pCi/g						
Tin-113	U	-0.0413	0.0622	+/-0.0193	0.100	pCi/g						
Uranium-235		0.596	0.350	+/-0.146	0.500	pCi/g						
Yttrium-88	U	0.00368	0.0416	+/-0.0124	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		6540	165	+/-472	250	pCi/L		KXK2	02/17/10	2148	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	100	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	59.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7885
Sample ID: 245799005
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 33.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0144		0.0235	+/-0.00784	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00267		0.0205	+/-0.00189	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240		0.056		0.0155	+/-0.00912	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		3.43		0.0966	+/-0.269	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.345		0.0616	+/-0.0473	0.100	pCi/g						
Uranium-238		15.3		0.066	+/-1.11	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0113		0.225	+/-0.0726	0.200	pCi/g		RXF2	02/10/10	1509	947531	5
Bismuth-211	UI	3.68	R,R5a	0.289	+/-0.326		pCi/g						
Bismuth-214		1.04		0.0928	+/-0.0905	0.200	pCi/g						
Cadmium-109	UI	4.25	R,R5a	1.08	+/-0.635		pCi/g						
Cerium-139	U	-0.0315		0.0455	+/-0.0139	0.050	pCi/g						
Cesium-134	UI	0.097	R,R5a	0.0895	+/-0.026	0.100	pCi/g						
Cesium-137		0.971		0.0614	+/-0.0657	0.100	pCi/g						
Cobalt-60	U	0.004		0.0621	+/-0.0189	0.100	pCi/g						
Europium-152	U	0.0405		0.151	+/-0.0473	0.200	pCi/g						
Lanthanum-140	U	0.0214		0.120	+/-0.0344		pCi/g						
Lead-212		1.47		0.0844	+/-0.116	0.100	pCi/g						
Lead-214		1.28		0.101	+/-0.118	0.100	pCi/g						
Mercury-203	U	0.0227		0.0624	+/-0.0203	0.100	pCi/g						
Potassium-40		30.0		0.387	+/-1.54	1.00	pCi/g						
Radium-223	U	0.0785		0.993	+/-0.337		pCi/g						
Radium-224	UI	4.24	R,R5a	0.960	+/-0.625		pCi/g						
Radium-226		1.04		0.0928	+/-0.0905		pCi/g						
Radium-228		1.37		0.207	+/-0.152	0.500	pCi/g						
Ruthenium-106	U	-0.26		0.410	+/-0.137	0.800	pCi/g						
Sodium-22	U	-0.0425		0.0599	+/-0.0208	0.080	pCi/g						
Strontium-85	UI	0.0659	R,R5a	0.0646	+/-0.0192		pCi/g						
Thallium-208		0.483		0.0537	+/-0.0422	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7885
Sample ID: 245799005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.129	0.616	+/-0.181		pCi/g						
Thorium-231	U	0.0785	0.993	+/-0.337		pCi/g						
Thorium-234		16.2	1.85	+/-1.82	2.00	pCi/g						
Tin-113	U	-0.0157	0.0661	+/-0.0196	0.100	pCi/g						
Uranium-235	U	0.257	0.306	+/-0.125	0.500	pCi/g						
Yttrium-88	U	-0.0116	0.0379	+/-0.013	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1810	165	+/-148	250	pCi/L		KXK2	02/17/10	2326	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7882
Sample ID: 245799006
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 12.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00657		0.0189	+/-0.00419	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00204		0.0218	+/-0.00203	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240	U	0.00607		0.0165	+/-0.00335	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.704		0.0966	+/-0.072	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236	U	0.0473		0.0616	+/-0.0153	0.100	pCi/g						
Uranium-238		0.891		0.0659	+/-0.086	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0394		0.078	+/-0.024	0.200	pCi/g		RXF2	02/10/10	1509	947531	5
Bismuth-211	UI	4.17	R,R5a	0.278	+/-0.306		pCi/g						
Bismuth-214		1.09		0.115	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	3.65	R,R5a	0.802	+/-0.403		pCi/g						
Cerium-139	U	-0.00333		0.0414	+/-0.0121	0.050	pCi/g						
Cesium-134	UI	0.167	R,R5a	0.0922	+/-0.0315	0.100	pCi/g						
Cesium-137	U	0.0221		0.0638	+/-0.0274	0.100	pCi/g						
Cobalt-60	U	-0.0336		0.0668	+/-0.0224	0.100	pCi/g						
Europium-152	U	-0.0303		0.141	+/-0.0417	0.200	pCi/g						
Lanthanum-140	U	-0.12		0.0981	+/-0.040		pCi/g						
Lead-212		1.64		0.0746	+/-0.106	0.100	pCi/g						
Lead-214		1.45		0.0969	+/-0.113	0.100	pCi/g						
Mercury-203	U	0.0514		0.0642	+/-0.0202	0.100	pCi/g						
Potassium-40		35.8		0.615	+/-1.81	1.00	pCi/g						
Radium-223	U	0.158		0.896	+/-0.286		pCi/g						
Radium-224	UI	4.40	R,R5a	0.850	+/-0.561		pCi/g						
Radium-226		1.09		0.115	+/-0.105		pCi/g						
Radium-228		1.77		0.237	+/-0.183	0.500	pCi/g						
Ruthenium-106	U	0.449		0.601	+/-0.162	0.800	pCi/g						
Sodium-22	U	-0.0291		0.0729	+/-0.0235	0.080	pCi/g						
Strontium-85	U	0.0331		0.0634	+/-0.0204		pCi/g						
Thallium-208		0.563		0.0585	+/-0.0488	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7882
Sample ID: 245799006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.431	0.531	+/-0.178		pCi/g						
Thorium-231	U	0.158	0.896	+/-0.286		pCi/g						
Thorium-234		1.65	0.736	+/-0.433	2.00	pCi/g						
Tin-113	U	-0.0154	0.0658	+/-0.0198	0.100	pCi/g						
Uranium-235	U	0.167	0.293	+/-0.0832	0.500	pCi/g						
Yttrium-88	U	0.024	0.0621	+/-0.0167	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		207	165	+/-54.3	250	pCi/L		KXK2	02/18/10	0104	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	93.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7887
Sample ID: 245799007
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 33%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00385		0.0226	+/-0.00309	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00279		0.0214	+/-0.00198	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240	U	0.00697		0.0162	+/-0.00314	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.23		0.0963	+/-0.111	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236	U	0.0566		0.0614	+/-0.0181	0.100	pCi/g						
Uranium-238		1.93		0.0657	+/-0.161	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.247		0.501	+/-0.147	0.200	pCi/g		RXF2	02/10/10	1622	947531	5
Bismuth-211	UI	3.78	R,R5a	0.413	+/-0.317		pCi/g						
Bismuth-214		1.11		0.130	+/-0.107	0.200	pCi/g						
Cadmium-109	U	1.35		1.99	+/-0.577		pCi/g						
Cerium-139	U	-0.00668		0.060	+/-0.0179	0.050	pCi/g						
Cesium-134	UI	0.167	R,R5a	0.101	+/-0.038	0.100	pCi/g						
Cesium-137	U	-0.00311		0.0782	+/-0.0232	0.100	pCi/g						
Cobalt-60	U	-0.0137		0.0698	+/-0.0224	0.100	pCi/g						
Europium-152	U	-0.146		0.188	+/-0.0693	0.200	pCi/g						
Lanthanum-140	U	-0.0674		0.156	+/-0.0518		pCi/g						
Lead-212		1.61		0.114	+/-0.115	0.100	pCi/g						
Lead-214		1.32		0.139	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0829		0.0829	+/-0.0273	0.100	pCi/g						
Potassium-40		25.7		0.635	+/-1.57	1.00	pCi/g						
Radium-223	U	0.202		1.31	+/-0.433		pCi/g						
Radium-224	UI	5.23	R,R5a	1.29	+/-0.886		pCi/g						
Radium-226		1.11		0.130	+/-0.107		pCi/g						
Radium-228		1.34		0.249	+/-0.172	0.500	pCi/g						
Ruthenium-106	U	0.0722		0.594	+/-0.178	0.800	pCi/g						
Sodium-22	U	0.013		0.0948	+/-0.0286	0.080	pCi/g						
Strontium-85	UI	0.114	R,R5a	0.0828	+/-0.0243		pCi/g						
Thallium-208		0.527		0.0653	+/-0.0479	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7887
Sample ID: 245799007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0471	0.783	+/-0.226		pCi/g						
Thorium-231	U	0.202	1.31	+/-0.433		pCi/g						
Thorium-234	U	0.354	4.00	+/-1.13	2.00	pCi/g						
Tin-113	U	-0.0201	0.0886	+/-0.0267	0.100	pCi/g						
Uranium-235	U	0.0409	0.434	+/-0.127	0.500	pCi/g						
Yttrium-88	U	-0.00349	0.0571	+/-0.0178	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	135	165	+/-52.0	250	pCi/L		KXK2	02/18/10	0242	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	89.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7881
Sample ID: 245799008
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 37.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241		0.0258		0.022	+/-0.00649	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.000579		0.0202	+/-0.00188	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240		0.0487		0.0153	+/-0.00839	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.98		0.0959	+/-0.236	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.305		0.0611	+/-0.0446	0.100	pCi/g						
Uranium-238		11.3		0.0655	+/-0.826	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0421		0.209	+/-0.0667	0.200	pCi/g		RXF2	02/10/10	1719	947531	5
Bismuth-211	UI	3.25	R,R5a	0.288	+/-0.289		pCi/g						
Bismuth-214		1.18		0.101	+/-0.101	0.200	pCi/g						
Cadmium-109	UI	3.53	R,R5a	1.07	+/-0.486		pCi/g						
Cerium-139	U	0.00127		0.0425	+/-0.012	0.050	pCi/g						
Cesium-134	UI	0.0967	R,R5a	0.0903	+/-0.0295	0.100	pCi/g						
Cesium-137		0.725		0.0594	+/-0.0549	0.100	pCi/g						
Cobalt-60	U	0.0197		0.0532	+/-0.015	0.100	pCi/g						
Europium-152	U	-0.0687		0.137	+/-0.0461	0.200	pCi/g						
Lanthanum-140	U	0.0125		0.109	+/-0.0315		pCi/g						
Lead-212		1.46		0.0782	+/-0.113	0.100	pCi/g						
Lead-214		1.13		0.101	+/-0.105	0.100	pCi/g						
Mercury-203	UI	0.065	R,R5a	0.0616	+/-0.0172	0.100	pCi/g						
Potassium-40		29.0		0.413	+/-1.47	1.00	pCi/g						
Radium-223	U	0.593		0.945	+/-0.300		pCi/g						
Radium-224	UI	4.96	R,R5a	0.890	+/-0.675		pCi/g						
Radium-226		1.18		0.101	+/-0.101		pCi/g						
Radium-228		1.29		0.168	+/-0.159	0.500	pCi/g						
Ruthenium-106	U	-0.414		0.404	+/-0.139	0.800	pCi/g						
Sodium-22	U	-0.00531		0.0563	+/-0.018	0.080	pCi/g						
Strontium-85	U	0.0328		0.0526	+/-0.016		pCi/g						
Thallium-208		0.486		0.0504	+/-0.0418	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7881
Sample ID: 245799008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.104	0.546	+/-0.163		pCi/g						
Thorium-231	U	0.593	0.945	+/-0.300		pCi/g						
Thorium-234		13.9	1.66	+/-1.57	2.00	pCi/g						
Tin-113	U	0.0118	0.0661	+/-0.0185	0.100	pCi/g						
Uranium-235		0.300	0.296	+/-0.118	0.500	pCi/g						
Yttrium-88	U	-0.00509	0.0416	+/-0.0132	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	153	166	+/-52.7	250	pCi/L		KXK2	02/18/10	0535	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7951
Sample ID: 245799009
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 19.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00182		0.021	+/-0.00505	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0243	+/-0.00158	0.050	pCi/g		MXA1	02/18/10	1843	950405	3
Plutonium-239/240	U	0.00474		0.0183	+/-0.00275	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.624		0.0881	+/-0.0641	0.100	pCi/g		MXA1	02/16/10	2115	950406	5
Uranium-235/236	U	0.0432		0.0562	+/-0.0153	0.100	pCi/g						
Uranium-238		0.897		0.0602	+/-0.0843	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0148		0.209	+/-0.0668	0.200	pCi/g		RXF2	02/10/10	1719	947531	6
Bismuth-211	UI	3.41	R,R5a	0.300	+/-0.272		pCi/g						
Bismuth-214		1.02		0.0984	+/-0.0958	0.200	pCi/g						
Cadmium-109	UI	2.84	R,R5a	1.16	+/-0.429		pCi/g						
Cerium-139	U	-0.0179		0.0466	+/-0.0139	0.050	pCi/g						
Cesium-134	UI	0.0949	R,R5a	0.0849	+/-0.0241	0.100	pCi/g						
Cesium-137	U	0.0134		0.0607	+/-0.0179	0.100	pCi/g						
Cobalt-60	U	0.019		0.059	+/-0.0171	0.100	pCi/g						
Europium-152	U	0.00753		0.145	+/-0.0621	0.200	pCi/g						
Lanthanum-140	U	-0.0656		0.126	+/-0.0411		pCi/g						
Lead-212		1.69		0.085	+/-0.123	0.100	pCi/g						
Lead-214		1.19		0.103	+/-0.0996	0.100	pCi/g						
Mercury-203	U	0.0303		0.0665	+/-0.0225	0.100	pCi/g						
Potassium-40		37.7		0.432	+/-1.92	1.00	pCi/g						
Radium-223	U	0.335		1.02	+/-0.336		pCi/g						
Radium-224	UI	4.67	R,R5a	0.967	+/-0.617		pCi/g						
Radium-226		1.02		0.0984	+/-0.0958		pCi/g						
Radium-228		1.55		0.202	+/-0.175	0.500	pCi/g						
Ruthenium-106	U	-0.0707		0.472	+/-0.143	0.800	pCi/g						
Sodium-22	U	-0.0209		0.0701	+/-0.0218	0.080	pCi/g						
Strontium-85	UI	0.173	R,R5a	0.0737	+/-0.0225		pCi/g						
Thallium-208		0.468		0.049	+/-0.0439	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7951
Sample ID: 245799009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0964	0.615	+/-0.189		pCi/g						
Thorium-231	U	0.335	1.02	+/-0.336		pCi/g						
Thorium-234	U	1.66	1.74	+/-0.941	2.00	pCi/g						
Tin-113	U	-0.00835	0.0692	+/-0.0208	0.100	pCi/g						
Uranium-235	U	0.156	0.352	+/-0.102	0.500	pCi/g						
Yttrium-88	U	-0.00704	0.0468	+/-0.0148	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		520	165	+/-68.6	250	pCi/L		KXK2	02/18/10	0713	948403	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	76.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7950
Sample ID: 245799010
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 19.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00518		0.0223	+/-0.00556	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00269		0.0206	+/-0.00191	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240	U	0.000376		0.0156	+/-0.00166	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.07		0.095	+/-0.0991	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.0838		0.0606	+/-0.0206	0.100	pCi/g						
Uranium-238		1.77		0.0649	+/-0.149	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.00446		0.0756	+/-0.024	0.200	pCi/g		RXF2	02/10/10	1720	947531	5
Bismuth-211	UI	3.33	R,R5a	0.276	+/-0.278		pCi/g						
Bismuth-214		1.17		0.0981	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.83	R,R5a	0.722	+/-0.393		pCi/g						
Cerium-139	U	-0.00516		0.0393	+/-0.0115	0.050	pCi/g						
Cesium-134	UI	0.125	R,R5a	0.0988	+/-0.0414	0.100	pCi/g						
Cesium-137	UI	0.0693	R,R5a	0.0636	+/-0.0411	0.100	pCi/g						
Cobalt-60	U	-0.0112		0.0622	+/-0.0199	0.100	pCi/g						
Europium-152	U	0.0595		0.145	+/-0.0431	0.200	pCi/g						
Lanthanum-140	U	0.0311		0.126	+/-0.0402		pCi/g						
Lead-212		1.70		0.0775	+/-0.109	0.100	pCi/g						
Lead-214		1.16		0.0964	+/-0.101	0.100	pCi/g						
Mercury-203	U	0.0477		0.0575	+/-0.0284	0.100	pCi/g						
Potassium-40		28.3		0.429	+/-1.47	1.00	pCi/g						
Radium-223	U	-0.772		0.867	+/-0.323		pCi/g						
Radium-224	UI	4.52	R,R5a	0.883	+/-0.678		pCi/g						
Radium-226		1.17		0.0981	+/-0.104		pCi/g						
Radium-228		1.60		0.226	+/-0.185	0.500	pCi/g						
Ruthenium-106	U	-0.128		0.479	+/-0.145	0.800	pCi/g						
Sodium-22	U	-0.0246		0.0717	+/-0.0229	0.080	pCi/g						
Strontium-85	U	0.0495		0.0612	+/-0.0189		pCi/g						
Thallium-208		0.493		0.0557	+/-0.0463	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7950
Sample ID: 245799010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.128	0.573	+/-0.170		pCi/g						
Thorium-231	U	-0.772	0.867	+/-0.323		pCi/g						
Thorium-234		3.61	0.718	+/-0.558	2.00	pCi/g						
Tin-113	U	0.00434	0.0684	+/-0.0199	0.100	pCi/g						
Uranium-235		0.295	0.258	+/-0.123	0.500	pCi/g						
Yttrium-88	U	0.0193	0.0688	+/-0.0194	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		275	165	+/-57.1	250	pCi/L		KXK2	02/18/10	0851	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	98.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7947
Sample ID: 245799011
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 36.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0148		0.0203	+/-0.00766	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.0113		0.0184	+/-0.00391	0.050	pCi/g		MXA1	02/18/10	1843	950405	3
Plutonium-239/240		0.0474		0.0139	+/-0.00876	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		5.17		0.0872	+/-0.387	0.100	pCi/g		MXA1	02/16/10	2118	950406	5
Uranium-235/236		0.547		0.0556	+/-0.062	0.100	pCi/g						
Uranium-238		23.6		0.0596	+/-1.68	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0968		0.509	+/-0.163	0.200	pCi/g		RXF2	02/10/10	1811	947531	6
Bismuth-211	UI	3.46	R,R5a	0.361	+/-0.263		pCi/g						
Bismuth-214		1.23		0.127	+/-0.099	0.200	pCi/g						
Cadmium-109	UI	4.19	R,R5a	1.64	+/-0.808		pCi/g						
Cerium-139	U	-0.0269		0.0535	+/-0.0171	0.050	pCi/g						
Cesium-134	UI	0.137	R,R5a	0.112	+/-0.0402	0.100	pCi/g						
Cesium-137		0.842		0.0695	+/-0.0588	0.100	pCi/g						
Cobalt-60	U	0.0534		0.0791	+/-0.0205	0.100	pCi/g						
Europium-152	U	0.0475		0.189	+/-0.0571	0.200	pCi/g						
Lanthanum-140	U	-0.0224		0.145	+/-0.049		pCi/g						
Lead-212		1.44		0.0997	+/-0.0829	0.100	pCi/g						
Lead-214		1.20		0.138	+/-0.0969	0.100	pCi/g						
Mercury-203	U	-0.00619		0.0792	+/-0.0236	0.100	pCi/g						
Potassium-40		21.7		0.591	+/-1.15	1.00	pCi/g						
Radium-223	U	-0.263		1.20	+/-0.417		pCi/g						
Radium-224	UI	4.62	R,R5a	1.13	+/-0.810		pCi/g						
Radium-226		1.23		0.127	+/-0.099		pCi/g						
Radium-228		1.55		0.216	+/-0.177	0.500	pCi/g						
Ruthenium-106	U	0.100		0.669	+/-0.205	0.800	pCi/g						
Sodium-22	U	0.0155		0.0866	+/-0.0252	0.080	pCi/g						
Strontium-85	UI	0.0759	R,R5a	0.0752	+/-0.0205		pCi/g						
Thallium-208		0.502		0.0616	+/-0.0498	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7947
Sample ID: 245799011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.049	0.702	+/-0.205		pCi/g						
Thorium-231	U	-0.263	1.20	+/-0.417		pCi/g						
Thorium-234		22.0	3.72	+/-3.01	2.00	pCi/g						
Tin-113	U	-0.0376	0.0799	+/-0.0255	0.100	pCi/g						
Uranium-235		0.954	0.361	+/-0.266	0.500	pCi/g						
Yttrium-88	U	-0.0344	0.0289	+/-0.0152	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1440	165	+/-124	250	pCi/L		KXK2	02/18/10	1029	948403	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	79.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7944
Sample ID: 245799012
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 7.21%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.002		0.0203	+/-0.0016	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0022		0.018	+/-0.00412	0.050	pCi/g		MXA1	02/15/10	2023	950405	3
Plutonium-239/240	U	-0.0011		0.0135	+/-0.00246	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.642		0.0807	+/-0.0649	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236	U	0.0277		0.0514	+/-0.0154	0.100	pCi/g						
Uranium-238		0.687		0.0551	+/-0.067	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.00013		0.177	+/-0.0561	0.200	pCi/g		RXF2	02/10/10	1811	947531	5
Bismuth-211	UI	3.47	R,R5a	0.353	+/-0.281		pCi/g						
Bismuth-214		1.09		0.116	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.02	R,R5a	1.12	+/-0.442		pCi/g						
Cerium-139	U	-0.0255		0.0458	+/-0.0145	0.050	pCi/g						
Cesium-134	UI	0.114	R,R5a	0.0956	+/-0.0312	0.100	pCi/g						
Cesium-137	U	-0.0296		0.0605	+/-0.0191	0.100	pCi/g						
Cobalt-60	U	0.0327		0.0712	+/-0.0198	0.100	pCi/g						
Europium-152	U	0.0278		0.166	+/-0.0552	0.200	pCi/g						
Lanthanum-140	U	0.0487		0.114	+/-0.0336		pCi/g						
Lead-212		1.62		0.0916	+/-0.0955	0.100	pCi/g						
Lead-214		1.21		0.120	+/-0.103	0.100	pCi/g						
Mercury-203	U	0.0219		0.0726	+/-0.0207	0.100	pCi/g						
Potassium-40		36.1		0.522	+/-1.82	1.00	pCi/g						
Radium-223	U	0.358		1.09	+/-0.355		pCi/g						
Radium-224	UI	4.81	R,R5a	1.04	+/-0.637		pCi/g						
Radium-226		1.09		0.116	+/-0.104		pCi/g						
Radium-228		1.63		0.212	+/-0.170	0.500	pCi/g						
Ruthenium-106	U	-0.0295		0.498	+/-0.148	0.800	pCi/g						
Sodium-22	U	0.0217		0.0797	+/-0.023	0.080	pCi/g						
Strontium-85	UI	0.105	R,R5a	0.0708	+/-0.0197		pCi/g						
Thallium-208		0.581		0.0549	+/-0.0489	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7944
Sample ID: 245799012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.147	0.588	+/-0.175		pCi/g						
Thorium-231	U	0.358	1.09	+/-0.355		pCi/g						
Thorium-234	U	1.08	1.62	+/-0.597	2.00	pCi/g						
Tin-113	U	-0.0615	0.0673	+/-0.0224	0.100	pCi/g						
Uranium-235	U	-0.0603	0.334	+/-0.103	0.500	pCi/g						
Yttrium-88	U	0.018	0.0502	+/-0.0132	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		513	164	+/-67.8	250	pCi/L		KXK2	02/18/10	1207	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7948
Sample ID: 245799013
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 7.88%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00961		0.0228	+/-0.00426	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0086		0.0176	+/-0.0057	0.050	pCi/g		MXA1	02/15/10	2023	950405	3
Plutonium-239/240	U	0.0118		0.0132	+/-0.00496	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.28		0.076	+/-0.179	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.190		0.0485	+/-0.0297	0.100	pCi/g						
Uranium-238		7.11		0.0519	+/-0.515	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0281		0.324	+/-0.105	0.200	pCi/g		RXF2	02/10/10	1858	947531	5
Bismuth-211	UI	3.53	R,R5a	0.395	+/-0.320		pCi/g						
Bismuth-214		1.32		0.123	+/-0.109	0.200	pCi/g						
Cadmium-109	UI	2.58	R,R5a	1.67	+/-0.530		pCi/g						
Cerium-139	U	0.0107		0.0576	+/-0.0161	0.050	pCi/g						
Cesium-134	U	0.0268		0.0962	+/-0.0325	0.100	pCi/g						
Cesium-137		0.484		0.0671	+/-0.0474	0.100	pCi/g						
Cobalt-60	U	-0.00696		0.0726	+/-0.0221	0.100	pCi/g						
Europium-152	U	-0.00614		0.188	+/-0.064	0.200	pCi/g						
Lanthanum-140	U	-0.00223		0.161	+/-0.0491		pCi/g						
Lead-212		1.59		0.0993	+/-0.101	0.100	pCi/g						
Lead-214		1.23		0.138	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0551		0.0815	+/-0.0227	0.100	pCi/g						
Potassium-40		26.9		0.498	+/-1.51	1.00	pCi/g						
Radium-223	U	-0.561		1.19	+/-0.370		pCi/g						
Radium-224	UI	5.13	R,R5a	1.13	+/-0.642		pCi/g						
Radium-226		1.32		0.123	+/-0.109		pCi/g						
Radium-228		1.64		0.232	+/-0.215	0.500	pCi/g						
Ruthenium-106	U	0.323		0.612	+/-0.168	0.800	pCi/g						
Sodium-22	U	0.0151		0.0834	+/-0.0241	0.080	pCi/g						
Strontium-85	UI	0.123	R,R5a	0.0863	+/-0.0232		pCi/g						
Thallium-208		0.599		0.0682	+/-0.049	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7948
Sample ID: 245799013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0133	0.717	+/-0.209		pCi/g						
Thorium-231	U	-0.561	1.19	+/-0.370		pCi/g						
Thorium-234		5.21	2.59	+/-1.29	2.00	pCi/g						
Tin-113	U	0.0225	0.0935	+/-0.0273	0.100	pCi/g						
Uranium-235	U	-0.0928	0.405	+/-0.117	0.500	pCi/g						
Yttrium-88	U	-0.0114	0.0566	+/-0.0187	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		5170	166	+/-377	250	pCi/L		KXK2	02/18/10	1345	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7941
Sample ID: 245799014
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 23.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0163		0.0241	+/-0.0055	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00224		0.0183	+/-0.00224	0.050	pCi/g		MXA1	02/15/10	2023	950405	3
Plutonium-239/240		0.0347		0.0138	+/-0.00685	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		3.95		0.0773	+/-0.296	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.242		0.0493	+/-0.0351	0.100	pCi/g						
Uranium-238		9.59		0.0528	+/-0.689	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.205		0.333	+/-0.120	0.200	pCi/g		RXF2	02/10/10	1909	947531	5
Bismuth-211	UI	3.47	R,R5a	0.374	+/-0.304		pCi/g						
Bismuth-214		1.19		0.111	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.87	R,R5a	1.30	+/-0.690		pCi/g						
Cerium-139	U	-0.00795		0.0515	+/-0.0156	0.050	pCi/g						
Cesium-134	UI	0.153	R,R5a	0.102	+/-0.0409	0.100	pCi/g						
Cesium-137		0.733		0.0652	+/-0.0611	0.100	pCi/g						
Cobalt-60	U	0.0713		0.0718	+/-0.0203	0.100	pCi/g						
Europium-152	U	-0.0113		0.170	+/-0.0547	0.200	pCi/g						
Lanthanum-140	U	0.0465		0.154	+/-0.0425		pCi/g						
Lead-212		1.43		0.101	+/-0.108	0.100	pCi/g						
Lead-214		1.21		0.123	+/-0.110	0.100	pCi/g						
Mercury-203	U	-0.00943		0.0728	+/-0.0214	0.100	pCi/g						
Potassium-40		24.8		0.599	+/-1.45	1.00	pCi/g						
Radium-223	U	-0.0505		1.25	+/-0.369		pCi/g						
Radium-224	UI	4.40	R,R5a	1.15	+/-0.723		pCi/g						
Radium-226		1.19		0.111	+/-0.107		pCi/g						
Radium-228		1.31		0.231	+/-0.157	0.500	pCi/g						
Ruthenium-106	U	-0.203		0.543	+/-0.169	0.800	pCi/g						
Sodium-22	U	-0.0125		0.0841	+/-0.0261	0.080	pCi/g						
Strontium-85	U	0.0143		0.0664	+/-0.0226		pCi/g						
Thallium-208		0.391		0.0619	+/-0.0462	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7941 Project: LANL01004
Sample ID: 245799014 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0307	0.714	+/-0.207		pCi/g						
Thorium-231	U	-0.0505	1.25	+/-0.369		pCi/g						
Thorium-234		8.58	2.67	+/-1.70	2.00	pCi/g						
Tin-113	U	0.029	0.0909	+/-0.0263	0.100	pCi/g						
Uranium-235	U	0.174	0.402	+/-0.119	0.500	pCi/g						
Yttrium-88	U	0.0193	0.0572	+/-0.0152	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1640	165	+/-136	250	pCi/L		KXK2	02/18/10	1523	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	100	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7949
Sample ID: 245799015
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 40.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0194		0.0225	+/-0.00537	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00573		0.0234	+/-0.00288	0.050	pCi/g		MXA1	02/18/10	1843	950405	3
Plutonium-239/240		0.0372		0.0176	+/-0.00783	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		6.41		0.0954	+/-0.480	0.100	pCi/g		MXA1	02/16/10	2118	950406	5
Uranium-235/236		0.594		0.0609	+/-0.0687	0.100	pCi/g						
Uranium-238		28.1		0.0652	+/-2.02	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0896		0.438	+/-0.140	0.200	pCi/g		RXF2	02/10/10	1909	947531	6
Bismuth-211	UI	3.70	R,R5a	0.400	+/-0.291		pCi/g						
Bismuth-214		1.10		0.119	+/-0.0863	0.200	pCi/g						
Cadmium-109	UI	2.73	R,R5a	1.75	+/-0.577		pCi/g						
Cerium-139	U	-0.00115		0.0608	+/-0.0207	0.050	pCi/g						
Cesium-134	U	0.0822		0.103	+/-0.0273	0.100	pCi/g						
Cesium-137		0.705		0.0767	+/-0.0541	0.100	pCi/g						
Cobalt-60	U	0.0335		0.0784	+/-0.022	0.100	pCi/g						
Europium-152	U	-0.172		0.174	+/-0.0767	0.200	pCi/g						
Lanthanum-140	U	-0.049		0.161	+/-0.0519		pCi/g						
Lead-212		1.34		0.111	+/-0.0755	0.100	pCi/g						
Lead-214		1.29		0.139	+/-0.107	0.100	pCi/g						
Mercury-203	UI	0.110	R,R5a	0.0751	+/-0.0351	0.100	pCi/g						
Potassium-40		23.5		0.536	+/-1.16	1.00	pCi/g						
Radium-223	U	-0.608		1.36	+/-0.415		pCi/g						
Radium-224	UI	3.85	R,R5a	1.26	+/-0.619		pCi/g						
Radium-226		1.10		0.119	+/-0.0863		pCi/g						
Radium-228		1.39		0.226	+/-0.163	0.500	pCi/g						
Ruthenium-106	U	-0.674		0.546	+/-0.196	0.800	pCi/g						
Sodium-22	U	0.015		0.0767	+/-0.0226	0.080	pCi/g						
Strontium-85	U	0.0568		0.0841	+/-0.0267		pCi/g						
Thallium-208		0.417		0.0688	+/-0.0426	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7949
Sample ID: 245799015
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.182	0.796	+/-0.247		pCi/g						
Thorium-231	U	-0.608	1.36	+/-0.415		pCi/g						
Thorium-234		20.7	3.33	+/-2.59	2.00	pCi/g						
Tin-113	U	-0.0253	0.0826	+/-0.0252	0.100	pCi/g						
Uranium-235		0.449	0.446	+/-0.179	0.500	pCi/g						
Yttrium-88	U	0.0183	0.0702	+/-0.0196	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3420	165	+/-257	250	pCi/L		KXK2	02/18/10	1701	948403	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	66.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	73.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7946
Sample ID: 245799016
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 8.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0107		0.0221	+/-0.00555	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00119		0.0194	+/-0.00119	0.050	pCi/g		MXA1	02/15/10	2023	950405	3
Plutonium-239/240	U	-0.00118		0.0146	+/-0.00313	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.753		0.0796	+/-0.0716	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236	U	0.0507		0.0507	+/-0.0145	0.100	pCi/g						
Uranium-238		0.801		0.0543	+/-0.0751	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.00668		0.222	+/-0.0746	0.200	pCi/g		RXF2	02/10/10	1910	947531	5
Bismuth-211	UI	3.39	R,R5a	0.351	+/-0.222		pCi/g						
Bismuth-214		1.23		0.123	+/-0.0889	0.200	pCi/g						
Cadmium-109	UI	3.96	R,R5a	1.15	+/-0.550		pCi/g						
Cerium-139	U	-0.0251		0.0504	+/-0.0159	0.050	pCi/g						
Cesium-134	U	0.0768		0.0933	+/-0.0368	0.100	pCi/g						
Cesium-137	U	0.0001		0.0633	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	-0.0128		0.0609	+/-0.0194	0.100	pCi/g						
Europium-152	U	0.0112		0.175	+/-0.0568	0.200	pCi/g						
Lanthanum-140	U	0.0128		0.145	+/-0.0435		pCi/g						
Lead-212		1.60		0.0917	+/-0.0796	0.100	pCi/g						
Lead-214		1.18		0.116	+/-0.083	0.100	pCi/g						
Mercury-203	U	0.0581		0.0761	+/-0.0212	0.100	pCi/g						
Potassium-40		35.8		0.387	+/-1.61	1.00	pCi/g						
Radium-223	U	-0.846		1.03	+/-0.333		pCi/g						
Radium-224	UI	3.91	R,R5a	1.04	+/-0.604		pCi/g						
Radium-226		1.23		0.123	+/-0.0889		pCi/g						
Radium-228		1.67		0.217	+/-0.170	0.500	pCi/g						
Ruthenium-106	U	-0.169		0.505	+/-0.161	0.800	pCi/g						
Sodium-22	U	-0.0152		0.0746	+/-0.0234	0.080	pCi/g						
Strontium-85	U	0.0717		0.0741	+/-0.023		pCi/g						
Thallium-208		0.494		0.0588	+/-0.0445	0.080	pCi/g						

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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7946
Sample ID: 245799016
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0456	0.632	+/-0.186		pCi/g						
Thorium-231	U	-0.846	1.03	+/-0.333		pCi/g						
Thorium-234	U	0.875	1.92	+/-0.820	2.00	pCi/g						
Tin-113	U	-0.0181	0.074	+/-0.0226	0.100	pCi/g						
Uranium-235	U	0.032	0.381	+/-0.116	0.500	pCi/g						
Yttrium-88	U	-0.00956	0.0508	+/-0.0169	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		325	165	+/-59.3	250	pCi/L		KXK2	02/18/10	1839	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7942
Sample ID: 245799017
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 10.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0196		0.0213	+/-0.00526	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.000727		0.0233	+/-0.00683	0.050	pCi/g		MXA1	02/15/10	0807	950405	3
Plutonium-239/240	U	0.00279		0.0176	+/-0.00357	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.631		0.0806	+/-0.0634	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.0592		0.0514	+/-0.0168	0.100	pCi/g						
Uranium-238		0.916		0.055	+/-0.084	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0251		0.248	+/-0.0755	0.200	pCi/g		RXF2	02/10/10	1912	947531	5
Bismuth-211	UI	3.34	R,R5a	0.305	+/-0.236		pCi/g						
Bismuth-214		1.18		0.102	+/-0.0979	0.200	pCi/g						
Cadmium-109	UI	3.99	R,R5a	1.17	+/-0.513		pCi/g						
Cerium-139	U	0.00544		0.0465	+/-0.0137	0.050	pCi/g						
Cesium-134	UI	0.134	R,R5a	0.088	+/-0.0307	0.100	pCi/g						
Cesium-137	U	0.0157		0.0664	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	0.0111		0.0679	+/-0.020	0.100	pCi/g						
Europium-152	U	-0.0282		0.146	+/-0.0436	0.200	pCi/g						
Lanthanum-140	U	-0.0488		0.100	+/-0.037		pCi/g						
Lead-212		1.57		0.0874	+/-0.0765	0.100	pCi/g						
Lead-214		1.16		0.106	+/-0.0875	0.100	pCi/g						
Mercury-203	U	0.0336		0.0642	+/-0.0199	0.100	pCi/g						
Potassium-40		34.0		0.343	+/-1.51	1.00	pCi/g						
Radium-223	U	-0.262		0.937	+/-0.323		pCi/g						
Radium-224	UI	4.55	R,R5a	0.995	+/-0.645		pCi/g						
Radium-226		1.18		0.102	+/-0.0979		pCi/g						
Radium-228		1.73		0.179	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.187		0.472	+/-0.146	0.800	pCi/g						
Sodium-22	U	0.0243		0.081	+/-0.0234	0.080	pCi/g						
Strontium-85	U	0.0329		0.0633	+/-0.0206		pCi/g						
Thallium-208		0.549		0.060	+/-0.0474	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7942
Sample ID: 245799017

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.132	0.560	+/-0.164		pCi/g						
Thorium-231	U	-0.262	0.937	+/-0.323		pCi/g						
Thorium-234	U	1.55	2.03	+/-1.01	2.00	pCi/g						
Tin-113	U	-0.0272	0.0677	+/-0.021	0.100	pCi/g						
Uranium-235	U	0.297	0.318	+/-0.140	0.500	pCi/g						
Yttrium-88	U	0.0224	0.0544	+/-0.0143	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		366	165	+/-60.9	250	pCi/L		KXK2	02/18/10	2016	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7945
Sample ID: 245799018
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 39.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241		0.0211		0.0203	+/-0.00533	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00549		0.0229	+/-0.00498	0.050	pCi/g		MXA1	02/15/10	0807	950405	3
Plutonium-239/240		0.0773		0.0173	+/-0.0118	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		4.14		0.0845	+/-0.313	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.343		0.0538	+/-0.0447	0.100	pCi/g						
Uranium-238		15.9		0.0577	+/-1.14	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0849		0.139	+/-0.0424	0.200	pCi/g		RXF2	02/10/10	1913	947531	5
Bismuth-211	UI	3.25	R,R5a	0.416	+/-0.324		pCi/g						
Bismuth-214		1.12		0.134	+/-0.110	0.200	pCi/g						
Cadmium-109	U	0.228		1.53	+/-0.533		pCi/g						
Cerium-139	U	-0.0305		0.0532	+/-0.0168	0.050	pCi/g						
Cesium-134	U	0.0536		0.119	+/-0.0334	0.100	pCi/g						
Cesium-137		1.69		0.0833	+/-0.101	0.100	pCi/g						
Cobalt-60	U	0.000555		0.0854	+/-0.0255	0.100	pCi/g						
Europium-152	U	0.0426		0.198	+/-0.0609	0.200	pCi/g						
Lanthanum-140	U	-0.0227		0.217	+/-0.0677		pCi/g						
Lead-212		1.44		0.104	+/-0.0949	0.100	pCi/g						
Lead-214		1.13		0.145	+/-0.117	0.100	pCi/g						
Mercury-203	U	0.00967		0.0781	+/-0.0252	0.100	pCi/g						
Potassium-40		26.0		0.682	+/-1.61	1.00	pCi/g						
Radium-223	U	-1.03		1.21	+/-0.396		pCi/g						
Radium-224	UI	3.89	R,R5a	1.18	+/-0.611		pCi/g						
Radium-226		1.12		0.134	+/-0.110		pCi/g						
Radium-228		1.39		0.317	+/-0.179	0.500	pCi/g						
Ruthenium-106	U	-0.123		0.680	+/-0.216	0.800	pCi/g						
Sodium-22	U	-0.0938		0.0817	+/-0.0318	0.080	pCi/g						
Strontium-85	U	0.0209		0.0833	+/-0.0278		pCi/g						
Thallium-208		0.458		0.0702	+/-0.0573	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7945
Sample ID: 245799018

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0489	0.716	+/-0.223		pCi/g						
Thorium-231	U	-1.03	1.21	+/-0.396		pCi/g						
Thorium-234		14.5	1.27	+/-1.55	2.00	pCi/g						
Tin-113	U	-0.00749	0.0949	+/-0.0284	0.100	pCi/g						
Uranium-235		0.666	0.368	+/-0.232	0.500	pCi/g						
Yttrium-88	U	-0.0197	0.0582	+/-0.0208	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1490	165	+/-127	250	pCi/L		KXK2	02/18/10	2154	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7943
Sample ID: 245799019
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 7.55%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.000461		0.0216	+/-0.0026	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00262		0.0224	+/-0.00549	0.050	pCi/g		MXA1	02/15/10	0807	950405	3
Plutonium-239/240	U	-0.000874		0.0169	+/-0.00345	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.597		0.0677	+/-0.0575	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.053		0.0431	+/-0.016	0.100	pCi/g						
Uranium-238		0.652		0.0462	+/-0.0613	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.021		0.286	+/-0.0949	0.200	pCi/g		RXF2	02/10/10	1913	947531	5
Bismuth-211	UI	3.70	R,R5a	0.366	+/-0.269		pCi/g						
Bismuth-214		1.24		0.125	+/-0.101	0.200	pCi/g						
Cadmium-109	UI	2.52	R,R5a	1.48	+/-0.606		pCi/g						
Cerium-139	U	-0.016		0.0548	+/-0.0169	0.050	pCi/g						
Cesium-134	U	0.103		0.103	+/-0.0434	0.100	pCi/g						
Cesium-137	U	-0.0263		0.0639	+/-0.0205	0.100	pCi/g						
Cobalt-60	U	-0.0334		0.0657	+/-0.0218	0.100	pCi/g						
Europium-152	U	-0.144		0.167	+/-0.0622	0.200	pCi/g						
Lanthanum-140	U	-0.0808		0.136	+/-0.0478		pCi/g						
Lead-212		1.74		0.104	+/-0.0886	0.100	pCi/g						
Lead-214		1.29		0.136	+/-0.0995	0.100	pCi/g						
Mercury-203	U	0.0312		0.0774	+/-0.0219	0.100	pCi/g						
Potassium-40		38.5		0.631	+/-1.78	1.00	pCi/g						
Radium-223	U	0.138		1.16	+/-0.387		pCi/g						
Radium-224	UI	4.31	R,R5a	1.18	+/-0.740		pCi/g						
Radium-226		1.24		0.125	+/-0.101		pCi/g						
Radium-228		1.90		0.210	+/-0.191	0.500	pCi/g						
Ruthenium-106	U	-0.0756		0.553	+/-0.171	0.800	pCi/g						
Sodium-22	U	-0.0246		0.082	+/-0.0258	0.080	pCi/g						
Strontium-85	U	0.0442		0.074	+/-0.0237		pCi/g						
Thallium-208		0.607		0.0652	+/-0.0498	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7943
Sample ID: 245799019
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	U	-0.0104		0.705	+/-0.217		pCi/g						
Thorium-231	U	0.138		1.16	+/-0.387		pCi/g						
Thorium-234	UI	2.39	R,R5a	2.30	+/-1.22	2.00	pCi/g						
Tin-113	U	0.0124		0.0772	+/-0.0224	0.100	pCi/g						
Uranium-235	U	-0.0686		0.401	+/-0.125	0.500	pCi/g						
Yttrium-88	U	0.000263		0.0514	+/-0.0158	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium	U	53.4		220	+/-65.7	250	pCi/L		KXK2	02/18/10	2332	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1472

REQUEST NUMBER: 10-1472

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 245799 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7888	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7888	1	POLY	H3	Ice	R
RE15-10-7890	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7890	1	POLY	H3	Ice	R
RE15-10-7886	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7886	1	POLY	H3	Ice	R
RE15-10-7889	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7889	1	POLY	H3	Ice	R
RE15-10-7885	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7885	1	POLY	H3	Ice	R
RE15-10-7882	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7882	1	POLY	H3	Ice	R
RE15-10-7887	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7887	1	POLY	H3	Ice	R
RE15-10-7881	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7881	1	POLY	H3	Ice	R
RE15-10-7951	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7951	1	POLY	H3	Ice	R
RE15-10-7950	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7950	1	POLY	H3	Ice	R
RE15-10-7947	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7947	1	POLY	H3	Ice	R
RE15-10-7944	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7944	1	POLY	H3	Ice	R
RE15-10-7948	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7948	1	POLY	H3	Ice	R
RE15-10-7961	1	POLY	AM241+GS+ISOPU+ISO	None	R

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1472

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7941	1	POLY	H3	Ice	R
RE15-10-7949	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7949	1	POLY	H3	Ice	R
RE15-10-7946	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7946	1	POLY	H3	Ice	R
RE15-10-7942	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7942	1	POLY	H3	Ice	R
RE15-10-7945	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7945	1	POLY	H3	Ice	R
RE15-10-7943	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7943	1	POLY	H3	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	1/28/10	1400	Patricia Dover	[illegible]	1-29-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1472
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/28/2010
TURNAROUND/REPORT DUE: 2/27/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA 901.1	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	EPA:906.0	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-7951	R	1/26/2010	
	HASL-300:AM-241	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	HASL-300:ISOPU	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	[illegible]	R	[illegible]	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	HASL-300:ISOU	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	[illegible]	R	[illegible]	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1472

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, RmI11
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245799
SDG: 10-1472

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 29, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1472
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245799
SDG: 10-1472

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 22

Radiological Analysis..... 24
- Sample Data Summary.....39
- Quality Control Data.....98
- Raw Data..... 105
- Background and Efficiency Data.....1212
- Standards Data.....1430
- Runlogs.....1465

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245799
SDG # : 10-1472

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 29, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 10-12C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245799001	RE15-10-7888
245799002	RE15-10-7890
245799003	RE15-10-7886
245799004	RE15-10-7889
245799005	RE15-10-7885
245799006	RE15-10-7882
245799007	RE15-10-7887
245799008	RE15-10-7881
245799009	RE15-10-7951
245799010	RE15-10-7950
245799011	RE15-10-7947
245799012	RE15-10-7944
245799013	RE15-10-7948
245799014	RE15-10-7941
245799015	RE15-10-7949
245799016	RE15-10-7946
245799017	RE15-10-7942
245799018	RE15-10-7945
245799019	RE15-10-7943

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1472

REQUEST NUMBER: 10-1472

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245799 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
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RE15-10-7888	1	POLY	H3	Ice	R
RE15-10-7890	1	POLY	AM241+GS+ISOPU+ISOU	None	R
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RE15-10-7885	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7885	1	POLY	H3	Ice	R
RE15-10-7882	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7882	1	POLY	H3	Ice	R
RE15-10-7887	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7887	1	POLY	H3	Ice	R
RE15-10-7881	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7881	1	POLY	H3	Ice	R
RE15-10-7951	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7951	1	POLY	H3	Ice	R
RE15-10-7950	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7950	1	POLY	H3	Ice	R
RE15-10-7947	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7947	1	POLY	H3	Ice	R
RE15-10-7944	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7944	1	POLY	H3	Ice	R
RE15-10-7948	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7948	1	POLY	H3	Ice	R
RE15-10-7941	1	POLY	AM241+GS+ISOPU+ISO	None	R

Thursday, January 28, 2010

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RE15-10-7946	1	POLY	H3	Ice	R
RE15-10-7942	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7942	1	POLY	H3	Ice	R
RE15-10-7945	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7945	1	POLY	H3	Ice	R
RE15-10-7943	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7943	1	POLY	H3	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		1/28/10	1400	Patricia Dover-Dent	P. Dover-Dent	1-29-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

REQUEST NUMBER: 10-1472

Thursday, January 28, 2010

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1472
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/28/2010
TURNAROUND/REPORT DUE: 2/27/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
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		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
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		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	EPA:906.0	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

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	HASL-300:AM-241	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	HASL-300:ISOPU	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOPU	1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	HASL-300:ISOU	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1472

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1472

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1472**
Received By: Patricia Dover-Dent	**Date Received: January 29, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-6** **10-12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7419 11C	**7209 7849 7522 6C**
7209 7849 7500 5C	**7209 7849 7533 1C**
7209 7849 7452 2C	**7209 7849 7544 1C**
7209 7849 7474 1C	**7209 7849 7420 10C**
7209 7849 7441 4C	**7209 7849 7496 2C**
7209 7849 7463 3C	**7209 7849 7485 3C**
7209 7849 7430 10C	**7209 7849 7408 12C**
7209 7849 7511 6C	

PM (or PMA) review: Initials _____ Date 2/1/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR2A0515BYDO

11°

FedEx Express

3 of 3
MPS# 0263 7209 7849 7419
Matr# 7209 7849 7393 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9358
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGWKO

5°

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1 of 2
TRK# 0201 7209 7849 7500
** MASTER **

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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FRI - 29JAN A1
PRIORITY OVERNIGHT

TRKH 0201 7209 7849 7452

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR1A015AGWK0

1°

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2 of 2
MPS# 0263 7209 7849 7474
Matr# 7209 7849 7463 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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2 of 2
MPS# 0263 7209 7849 7441
Mstr# 7209 7849 7430 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

29407
SC-US
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XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
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3°

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REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7463
MASTER

FRI - 29JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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REF: 6B010AMR3A05529E00

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1 of 2
TRK# 0201 7209 7849 7430
MASTER

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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2 of 2
MPS# 0263 7209 7849 7511
Mstr# 7209 7849 7500 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG-1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 64.0 LB MAN
CAD: 6014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A0150GWK0

6C

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FRI - 29JAN A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7522

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AARDW01503500

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TRK# 0201 7209 7849 7533

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRITV3 04-09

238 1 B
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AX49A08650000

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TRK# 0201 7209 7849 7544

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR2A05158YDO

10c

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FRI - 29JAN A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7420

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR1A015AGWKO

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2 of 2

MPS# 0263 7209 7849 7496

Mstr# 7209 7849 7485 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156142-434 NRIT V3 04-0

[redacted]

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA60 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR1A015AGWK0

32

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1 of 2
TRK# 0201 7209 7849 7485

FRI - 29JAN A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

Part # 158148-434 NAIT V3 04-0

ORIGIN ID: SAFA (505) 665-1966
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA60 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 4.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0010

12

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2 of 3
MPS# 0263 7209 7849 7428
Master# 7209 7849 7385

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1472

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	950404
Prep Batch Number:	947374

Sample ID	Client ID
245799001	RE15-10-7888
245799002	RE15-10-7890
245799003	RE15-10-7886
245799004	RE15-10-7889
245799005	RE15-10-7885
245799006	RE15-10-7882
245799007	RE15-10-7887
245799008	RE15-10-7881
245799009	RE15-10-7951
245799010	RE15-10-7950
245799011	RE15-10-7947
245799012	RE15-10-7944
245799013	RE15-10-7948
245799014	RE15-10-7941
245799015	RE15-10-7949
245799016	RE15-10-7946
245799017	RE15-10-7942
245799018	RE15-10-7945
245799019	RE15-10-7943
1202036734	Method Blank (MB)
1202036735	245799001(RE15-10-7888) Sample Duplicate (DUP)
1202036736	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202036734 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245799001 (RE15-10-7888). The QC was from LANL work order 245799.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to low recovery.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	950405
Prep Batch Number:	947374

Sample ID	Client ID
245799001	RE15-10-7888
245799002	RE15-10-7890
245799003	RE15-10-7886
245799004	RE15-10-7889
245799005	RE15-10-7885
245799006	RE15-10-7882
245799007	RE15-10-7887
245799008	RE15-10-7881
245799009	RE15-10-7951
245799010	RE15-10-7950
245799011	RE15-10-7947
245799012	RE15-10-7944
245799013	RE15-10-7948
245799014	RE15-10-7941
245799015	RE15-10-7949
245799016	RE15-10-7946
245799017	RE15-10-7942
245799018	RE15-10-7945
245799019	RE15-10-7943
1202036737	Method Blank (MB)
1202036738	245799001(RE15-10-7888) Sample Duplicate (DUP)
1202036739	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories

LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202036737 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245799001 (RE15-10-7888). The QC was from LANL work order 245799.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245799009 (RE15-10-7951) was recounted due to a peak shift. Samples 245799011 (RE15-10-7947) and 245799015 (RE15-10-7949) were given additional clean-up steps and recounted in order to remove suspected interferences.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments

The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	950406
Prep Batch Number:	947374

Sample ID	Client ID
245799001	RE15-10-7888
245799002	RE15-10-7890
245799003	RE15-10-7886
245799004	RE15-10-7889
245799005	RE15-10-7885
245799006	RE15-10-7882
245799007	RE15-10-7887
245799008	RE15-10-7881
245799009	RE15-10-7951
245799010	RE15-10-7950
245799011	RE15-10-7947
245799012	RE15-10-7944
245799013	RE15-10-7948
245799014	RE15-10-7941
245799015	RE15-10-7949
245799016	RE15-10-7946
245799017	RE15-10-7942
245799018	RE15-10-7945
245799019	RE15-10-7943
1202036740	Method Blank (MB)
1202036741	245799001(RE15-10-7888) Sample Duplicate (DUP)
1202036742	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202036740 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245799001 (RE15-10-7888). The QC was from LANL work order 245799.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202036742 (LCS) was recounted due to a peak shift.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments

The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	947531
Prep Batch Number:	947374

Sample ID	Client ID
245799001	RE15-10-7888
245799002	RE15-10-7890
245799003	RE15-10-7886
245799004	RE15-10-7889
245799005	RE15-10-7885
245799006	RE15-10-7882
245799007	RE15-10-7887
245799008	RE15-10-7881
245799009	RE15-10-7951
245799010	RE15-10-7950
245799011	RE15-10-7947
245799012	RE15-10-7944
245799013	RE15-10-7948
245799014	RE15-10-7941
245799015	RE15-10-7949
245799016	RE15-10-7946
245799017	RE15-10-7942
245799018	RE15-10-7945
245799019	RE15-10-7943
1202029810	Method Blank (MB)
1202029811	245799005(RE15-10-7885) Sample Duplicate (DUP)
1202029812	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, April 2009, May 2009, June 2009, July 2009, October 2009, November 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245799005 (RE15-10-7885). The QC was from LANL work order 245799.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank, 1202029810 (MB), results for Co-60, Pb-212 and Ra-224 are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank, 1202029810 (MB), results for Co-60. Pb-212 and Ra-224 are greater than the decision level but less than the MDC

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high counting uncertainty.	Cesium-137	245799010	RE15-10-7950
		Thorium-234	245799019	RE15-10-7943
UI	Data rejected due to interference.	Bismuth-211	245799001	RE15-10-7888
			245799002	RE15-10-7890
			245799003	RE15-10-7886
			245799004	RE15-10-7889
			245799005	RE15-10-7885
			245799006	RE15-10-7882
			245799007	RE15-10-7887
			245799008	RE15-10-7881
			245799009	RE15-10-7951
			245799010	RE15-10-7950
			245799011	RE15-10-7947
			245799012	RE15-10-7944
			245799013	RE15-10-7948
			245799014	RE15-10-7941
			245799015	RE15-10-7949
			245799016	RE15-10-7946
			245799017	RE15-10-7942
			245799018	RE15-10-7945
			245799019	RE15-10-7943
			1202029811	RE15-10-7885(245799005DUP)

Cadmium-109	245799001	RE15-10-7888
	245799002	RE15-10-7890
	245799004	RE15-10-7889
	245799005	RE15-10-7885
	245799006	RE15-10-7882
	245799008	RE15-10-7881
	245799009	RE15-10-7951
	245799010	RE15-10-7950
	245799011	RE15-10-7947
	245799012	RE15-10-7944
	245799013	RE15-10-7948
	245799014	RE15-10-7941
	245799015	RE15-10-7949
	245799016	RE15-10-7946
	245799017	RE15-10-7942
	245799019	RE15-10-7943
	1202029811	RE15-10-7885(245799005DUP)
Mercury-203	245799002	RE15-10-7890
	245799015	RE15-10-7949
Radium-224	245799001	RE15-10-7888
	245799002	RE15-10-7890
	245799003	RE15-10-7886
	245799004	RE15-10-7889
	245799005	RE15-10-7885
	245799006	RE15-10-7882
	245799007	RE15-10-7887
	245799008	RE15-10-7881
	245799009	RE15-10-7951
	245799010	RE15-10-7950
	245799011	RE15-10-7947

			245799012	RE15-10-7944
			245799013	RE15-10-7948
			245799014	RE15-10-7941
			245799015	RE15-10-7949
			245799016	RE15-10-7946
			245799017	RE15-10-7942
			245799018	RE15-10-7945
			245799019	RE15-10-7943
			1202029811	RE15-10-7885(245799005DUP)
UI	Data rejected due to low abundance.	Cesium-134	245799002	RE15-10-7890
			245799005	RE15-10-7885
			245799006	RE15-10-7882
			245799007	RE15-10-7887
			245799008	RE15-10-7881
			245799009	RE15-10-7951
			245799010	RE15-10-7950
			245799011	RE15-10-7947
			245799012	RE15-10-7944
			245799014	RE15-10-7941
			245799017	RE15-10-7942
			1202029811	RE15-10-7885(245799005DUP)
		Mercury-203	245799008	RE15-10-7881
		Strontium-85	245799002	RE15-10-7890
			245799004	RE15-10-7889
			245799005	RE15-10-7885
			245799007	RE15-10-7887
			245799009	RE15-10-7951
			245799011	RE15-10-7947
			245799012	RE15-10-7944

245799013	RE15-10-7948
1202029810	MB for batch 947531

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	948403

Sample ID	Client ID
245799001	RE15-10-7888
245799002	RE15-10-7890
245799003	RE15-10-7886
245799004	RE15-10-7889
245799005	RE15-10-7885
245799006	RE15-10-7882
245799007	RE15-10-7887
245799008	RE15-10-7881
245799009	RE15-10-7951
245799010	RE15-10-7950
245799011	RE15-10-7947
245799012	RE15-10-7944
245799013	RE15-10-7948
245799014	RE15-10-7941
245799015	RE15-10-7949
245799016	RE15-10-7946
245799017	RE15-10-7942
245799018	RE15-10-7945
245799019	RE15-10-7943
1202031685	Method Blank (MB)
1202031686	245799008(RE15-10-7881) Sample Duplicate (DUP)
1202031687	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245799008 (RE15-10-7881). The QC was from LANL work order 245799.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 1202031685 (MB), 1202031686 (RE15-10-7881), 245799003 (RE15-10-7886), 245799006 (RE15-10-7882), 245799007 (RE15-10-7887), 245799008 (RE15-10-7881), 245799009 (RE15-10-7951), 245799010 (RE15-10-7950) and 245799016 (RE15-10-7946) were recounted due to high MDAs. Samples 245799001 (RE15-10-7888), 245799012 (RE15-10-7944), 245799017 (RE15-10-7942) and 245799019 (RE15-10-7943) were recounted due to the quench number being outside the calibration range. Recount is being reported. Samples were recounted to verify sample results.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 2/23/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1472 GEL Work Order: 245799

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7888
Sample ID: 245799001
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 9.32%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000573	0.0199	+/-0.00236	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00135	0.0208	+/-0.00136	0.050	pCi/g		MXA1	02/15/10	2017	950405	3
Plutonium-239/240	U	0.00	0.0157	+/-0.00136	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.707	0.093	+/-0.0716	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236	U	0.0228	0.0593	+/-0.0103	0.100	pCi/g						
Uranium-238		0.788	0.0635	+/-0.0775	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.322	0.514	+/-0.155	0.200	pCi/g		RXF2	02/10/10	1413	947531	5
Bismuth-211	UI	3.67	0.429	+/-0.372		pCi/g						
Bismuth-214		1.06	0.131	+/-0.108	0.200	pCi/g						
Cadmium-109	UI	2.55	1.69	+/-0.635		pCi/g						
Cerium-139	U	-0.0224	0.0624	+/-0.0193	0.050	pCi/g						
Cesium-134	U	0.0658	0.108	+/-0.0301	0.100	pCi/g						
Cesium-137	U	-0.00636	0.0751	+/-0.0227	0.100	pCi/g						
Cobalt-60	U	-0.0349	0.0669	+/-0.0232	0.100	pCi/g						
Europium-152	U	-0.0214	0.209	+/-0.0764	0.200	pCi/g						
Lanthanum-140	U	-0.0467	0.136	+/-0.0462		pCi/g						
Lead-212		1.78	0.119	+/-0.126	0.100	pCi/g						
Lead-214		1.28	0.150	+/-0.134	0.100	pCi/g						
Mercury-203	U	0.0513	0.0925	+/-0.026	0.100	pCi/g						
Potassium-40		35.2	0.687	+/-2.03	1.00	pCi/g						
Radium-223	U	-0.0166	1.50	+/-0.442		pCi/g						
Radium-224	UI	4.79	1.35	+/-0.809		pCi/g						
Radium-226		1.06	0.131	+/-0.108		pCi/g						
Radium-228		1.63	0.251	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	0.524	0.708	+/-0.198	0.800	pCi/g						
Sodium-22	U	-0.034	0.0836	+/-0.0277	0.080	pCi/g						
Strontium-85	U	0.0696	0.0887	+/-0.0283		pCi/g						

Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7888
Sample ID: 245799001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.522	0.0758	+/-0.0514	0.080	pCi/g						
Thorium-227	U	0.204	0.862	+/-0.247		pCi/g						
Thorium-231	U	-0.0166	1.50	+/-0.442		pCi/g						
Thorium-234	U	1.11	4.16	+/-1.18	2.00	pCi/g						
Tin-113	U	0.00553	0.0969	+/-0.0286	0.100	pCi/g						
Uranium-235	U	-0.0456	0.459	+/-0.138	0.500	pCi/g						
Yttrium-88	U	0.0192	0.0755	+/-0.0215	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		612	253	+/-96.0	250	pCi/L		KXK2	02/17/10	1654	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7888
Sample ID: 245799001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7890
Sample ID: 245799002
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 9.81%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.005	0.0254	+/-0.00654	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00186	0.0198	+/-0.00185	0.050	pCi/g		MXA1	02/15/10	2017	950405	3
Plutonium-239/240	U	0.00646	0.015	+/-0.00291	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.93	0.0884	+/-0.158	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.199	0.0564	+/-0.0325	0.100	pCi/g						
Uranium-238		9.16	0.0604	+/-0.668	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0199	0.299	+/-0.0922	0.200	pCi/g		RXF2	02/10/10	1426	947531	5
Bismuth-211	UI	3.15	0.272	+/-0.200		pCi/g						
Bismuth-214		0.983	0.0854	+/-0.0728	0.200	pCi/g						
Cadmium-109	UI	2.31	1.57	+/-0.640		pCi/g						
Cerium-139	U	-0.0173	0.0415	+/-0.012	0.050	pCi/g						
Cesium-134	UI	0.101	0.0688	+/-0.0222	0.100	pCi/g						
Cesium-137	U	0.0458	0.0556	+/-0.0152	0.100	pCi/g						
Cobalt-60	U	-0.0131	0.0454	+/-0.0144	0.100	pCi/g						
Europium-152	U	0.021	0.131	+/-0.0446	0.200	pCi/g						
Lanthanum-140	U	0.0164	0.0979	+/-0.0294		pCi/g						
Lead-212		1.56	0.0712	+/-0.0718	0.100	pCi/g						
Lead-214		1.10	0.0948	+/-0.0753	0.100	pCi/g						
Mercury-203	UI	0.0732	0.051	+/-0.0286	0.100	pCi/g						
Potassium-40		33.1	0.357	+/-1.44	1.00	pCi/g						
Radium-223	U	0.0234	0.849	+/-0.291		pCi/g						
Radium-224	UI	3.52	0.810	+/-0.454		pCi/g						
Radium-226		0.983	0.0854	+/-0.0728		pCi/g						
Radium-228		1.63	0.165	+/-0.162	0.500	pCi/g						
Ruthenium-106	U	0.0961	0.415	+/-0.123	0.800	pCi/g						
Sodium-22	U	-0.00333	0.0561	+/-0.0171	0.080	pCi/g						
Strontium-85	UI	0.0711	0.0557	+/-0.0168		pCi/g						
Thallium-208		0.520	0.0411	+/-0.0381	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7890
Sample ID: 245799002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.112	0.520	+/-0.150		pCi/g						
Thorium-231	U	0.0234	0.849	+/-0.291		pCi/g						
Thorium-234		9.95	2.40	+/-1.48	2.00	pCi/g						
Tin-113	U	-0.00855	0.0561	+/-0.0164	0.100	pCi/g						
Uranium-235		0.569	0.288	+/-0.167	0.500	pCi/g						
Yttrium-88	U	-0.000278	0.0377	+/-0.0115	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		9920	165	+/-707	250	pCi/L		KXK2	02/17/10	1832	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	65.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7890
Sample ID: 245799002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7886
Sample ID: 245799003
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 6.53%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00496	0.0251	+/-0.00683	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.021	+/-0.00137	0.050	pCi/g		MXA1	02/15/10	2017	950405	3
Plutonium-239/240	U	0.0041	0.0158	+/-0.00237	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.724	0.0905	+/-0.0726	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236	U	0.031	0.0577	+/-0.0135	0.100	pCi/g						
Uranium-238		0.921	0.0618	+/-0.0868	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.314	0.346	+/-0.104	0.200	pCi/g		RXF2	02/10/10	1447	947531	5
Bismuth-211	UI	3.35	0.372	+/-0.262		pCi/g						
Bismuth-214		1.14	0.111	+/-0.0802	0.200	pCi/g						
Cadmium-109	U	0.784	1.47	+/-0.755		pCi/g						
Cerium-139	U	-0.0101	0.053	+/-0.0159	0.050	pCi/g						
Cesium-134	U	0.0384	0.0912	+/-0.0254	0.100	pCi/g						
Cesium-137	U	0.0162	0.0676	+/-0.0198	0.100	pCi/g						
Cobalt-60	U	0.00573	0.068	+/-0.0205	0.100	pCi/g						
Europium-152	U	-0.0681	0.172	+/-0.0686	0.200	pCi/g						
Lanthanum-140	U	-0.0358	0.133	+/-0.0426		pCi/g						
Lead-212		1.54	0.103	+/-0.0773	0.100	pCi/g						
Lead-214		1.16	0.130	+/-0.0962	0.100	pCi/g						
Mercury-203	U	0.0606	0.0788	+/-0.0239	0.100	pCi/g						
Potassium-40		31.7	0.618	+/-1.53	1.00	pCi/g						
Radium-223	U	0.264	1.19	+/-0.385		pCi/g						
Radium-224	UI	4.02	1.17	+/-0.679		pCi/g						
Radium-226		1.14	0.111	+/-0.0802		pCi/g						
Radium-228		1.53	0.235	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.305	0.601	+/-0.169	0.800	pCi/g						
Sodium-22	U	-0.0666	0.0821	+/-0.0282	0.080	pCi/g						
Strontium-85	U	0.026	0.0669	+/-0.0217		pCi/g						
Thallium-208		0.537	0.0621	+/-0.0474	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7886
Sample ID: 245799003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.299	0.706	+/-0.206		pCi/g						
Thorium-231	U	0.264	1.19	+/-0.385		pCi/g						
Thorium-234	U	2.30	3.05	+/-0.851	2.00	pCi/g						
Tin-113	U	0.00203	0.083	+/-0.0242	0.100	pCi/g						
Uranium-235	U	-0.0275	0.383	+/-0.114	0.500	pCi/g						
Yttrium-88	U	0.0109	0.0511	+/-0.0142	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		405	206	+/-73.8	250	pCi/L		KXK2	02/17/10	2010	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	70.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	98.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7886
Sample ID: 245799003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7889
Sample ID: 245799004
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 37.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0122	0.0223	+/-0.00727	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0207	+/-0.00135	0.050	pCi/g		MXA1	02/15/10	2017	950405	3
Plutonium-239/240		0.023	0.0157	+/-0.0057	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		7.77	0.152	+/-0.621	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.978	0.0971	+/-0.113	0.100	pCi/g						
Uranium-238		44.6	0.104	+/-3.38	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.247	0.313	+/-0.0943	0.200	pCi/g		RXF2	02/10/10	1505	947531	5
Bismuth-211	UI	3.23	0.282	+/-0.271		pCi/g						
Bismuth-214		0.895	0.0965	+/-0.0858	0.200	pCi/g						
Cadmium-109	UI	2.24	1.88	+/-0.551		pCi/g						
Cerium-139	U	0.0222	0.0501	+/-0.0158	0.050	pCi/g						
Cesium-134	U	0.0686	0.078	+/-0.0305	0.100	pCi/g						
Cesium-137		0.121	0.0548	+/-0.0273	0.100	pCi/g						
Cobalt-60	U	-0.000537	0.0508	+/-0.0153	0.100	pCi/g						
Europium-152	U	0.0384	0.144	+/-0.0592	0.200	pCi/g						
Lanthanum-140	U	-0.0668	0.108	+/-0.0357		pCi/g						
Lead-212		1.30	0.0853	+/-0.0975	0.100	pCi/g						
Lead-214		1.12	0.0982	+/-0.0987	0.100	pCi/g						
Mercury-203	U	0.0316	0.0634	+/-0.0185	0.100	pCi/g						
Potassium-40		30.2	0.425	+/-1.54	1.00	pCi/g						
Radium-223	U	-0.667	0.977	+/-0.302		pCi/g						
Radium-224	UI	3.44	0.969	+/-0.550		pCi/g						
Radium-226		0.895	0.0965	+/-0.0858		pCi/g						
Radium-228		1.23	0.168	+/-0.130	0.500	pCi/g						
Ruthenium-106	U	0.141	0.463	+/-0.133	0.800	pCi/g						
Sodium-22	U	-0.01	0.0601	+/-0.0183	0.080	pCi/g						
Strontium-85	UI	0.0875	0.063	+/-0.0199		pCi/g						
Thallium-208		0.390	0.0527	+/-0.0412	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7889
Sample ID: 245799004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.233	0.611	+/-0.203		pCi/g						
Thorium-231	U	-0.667	0.977	+/-0.302		pCi/g						
Thorium-234		36.2	2.45	+/-3.41	2.00	pCi/g						
Tin-113	U	-0.0413	0.0622	+/-0.0193	0.100	pCi/g						
Uranium-235		0.596	0.350	+/-0.146	0.500	pCi/g						
Yttrium-88	U	0.00368	0.0416	+/-0.0124	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		6540	165	+/-472	250	pCi/L		KXK2	02/17/10	2148	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	100	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	59.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7889
Sample ID: 245799004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7885
Sample ID: 245799005
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 33.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0144	0.0235	+/-0.00784	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00267	0.0205	+/-0.00189	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240		0.056	0.0155	+/-0.00912	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.43	0.0966	+/-0.269	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.345	0.0616	+/-0.0473	0.100	pCi/g						
Uranium-238		15.3	0.066	+/-1.11	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0113	0.225	+/-0.0726	0.200	pCi/g		RXF2	02/10/10	1509	947531	5
Bismuth-211	UI	3.68	0.289	+/-0.326		pCi/g						
Bismuth-214		1.04	0.0928	+/-0.0905	0.200	pCi/g						
Cadmium-109	UI	4.25	1.08	+/-0.635		pCi/g						
Cerium-139	U	-0.0315	0.0455	+/-0.0139	0.050	pCi/g						
Cesium-134	UI	0.097	0.0895	+/-0.026	0.100	pCi/g						
Cesium-137		0.971	0.0614	+/-0.0657	0.100	pCi/g						
Cobalt-60	U	0.004	0.0621	+/-0.0189	0.100	pCi/g						
Europium-152	U	0.0405	0.151	+/-0.0473	0.200	pCi/g						
Lanthanum-140	U	0.0214	0.120	+/-0.0344		pCi/g						
Lead-212		1.47	0.0844	+/-0.116	0.100	pCi/g						
Lead-214		1.28	0.101	+/-0.118	0.100	pCi/g						
Mercury-203	U	0.0227	0.0624	+/-0.0203	0.100	pCi/g						
Potassium-40		30.0	0.387	+/-1.54	1.00	pCi/g						
Radium-223	U	0.0785	0.993	+/-0.337		pCi/g						
Radium-224	UI	4.24	0.960	+/-0.625		pCi/g						
Radium-226		1.04	0.0928	+/-0.0905		pCi/g						
Radium-228		1.37	0.207	+/-0.152	0.500	pCi/g						
Ruthenium-106	U	-0.26	0.410	+/-0.137	0.800	pCi/g						
Sodium-22	U	-0.0425	0.0599	+/-0.0208	0.080	pCi/g						
Strontium-85	UI	0.0659	0.0646	+/-0.0192		pCi/g						
Thallium-208		0.483	0.0537	+/-0.0422	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7885
Sample ID: 245799005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.129	0.616	+/-0.181		pCi/g						
Thorium-231	U	0.0785	0.993	+/-0.337		pCi/g						
Thorium-234		16.2	1.85	+/-1.82	2.00	pCi/g						
Tin-113	U	-0.0157	0.0661	+/-0.0196	0.100	pCi/g						
Uranium-235	U	0.257	0.306	+/-0.125	0.500	pCi/g						
Yttrium-88	U	-0.0116	0.0379	+/-0.013	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1810	165	+/-148	250	pCi/L		KXK2	02/17/10	2326	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7885
Sample ID: 245799005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7882
Sample ID: 245799006
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 12.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00657	0.0189	+/-0.00419	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00204	0.0218	+/-0.00203	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240	U	0.00607	0.0165	+/-0.00335	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.704	0.0966	+/-0.072	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236	U	0.0473	0.0616	+/-0.0153	0.100	pCi/g						
Uranium-238		0.891	0.0659	+/-0.086	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0394	0.078	+/-0.024	0.200	pCi/g		RXF2	02/10/10	1509	947531	5
Bismuth-211	UI	4.17	0.278	+/-0.306		pCi/g						
Bismuth-214		1.09	0.115	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	3.65	0.802	+/-0.403		pCi/g						
Cerium-139	U	-0.00333	0.0414	+/-0.0121	0.050	pCi/g						
Cesium-134	UI	0.167	0.0922	+/-0.0315	0.100	pCi/g						
Cesium-137	U	0.0221	0.0638	+/-0.0274	0.100	pCi/g						
Cobalt-60	U	-0.0336	0.0668	+/-0.0224	0.100	pCi/g						
Europium-152	U	-0.0303	0.141	+/-0.0417	0.200	pCi/g						
Lanthanum-140	U	-0.12	0.0981	+/-0.040		pCi/g						
Lead-212		1.64	0.0746	+/-0.106	0.100	pCi/g						
Lead-214		1.45	0.0969	+/-0.113	0.100	pCi/g						
Mercury-203	U	0.0514	0.0642	+/-0.0202	0.100	pCi/g						
Potassium-40		35.8	0.615	+/-1.81	1.00	pCi/g						
Radium-223	U	0.158	0.896	+/-0.286		pCi/g						
Radium-224	UI	4.40	0.850	+/-0.561		pCi/g						
Radium-226		1.09	0.115	+/-0.105		pCi/g						
Radium-228		1.77	0.237	+/-0.183	0.500	pCi/g						
Ruthenium-106	U	0.449	0.601	+/-0.162	0.800	pCi/g						
Sodium-22	U	-0.0291	0.0729	+/-0.0235	0.080	pCi/g						
Strontium-85	U	0.0331	0.0634	+/-0.0204		pCi/g						
Thallium-208		0.563	0.0585	+/-0.0488	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7882
Sample ID: 245799006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.431	0.531	+/-0.178		pCi/g						
Thorium-231	U	0.158	0.896	+/-0.286		pCi/g						
Thorium-234		1.65	0.736	+/-0.433	2.00	pCi/g						
Tin-113	U	-0.0154	0.0658	+/-0.0198	0.100	pCi/g						
Uranium-235	U	0.167	0.293	+/-0.0832	0.500	pCi/g						
Yttrium-88	U	0.024	0.0621	+/-0.0167	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		207	165	+/-54.3	250	pCi/L		KXK2	02/18/10	0104	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	93.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID:	RE15-10-7882	Project:	LANL01004
Sample ID:	245799006	Client ID:	LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7887
Sample ID: 245799007
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 33%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00385	0.0226	+/-0.00309	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00279	0.0214	+/-0.00198	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240	U	0.00697	0.0162	+/-0.00314	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.23	0.0963	+/-0.111	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236	U	0.0566	0.0614	+/-0.0181	0.100	pCi/g						
Uranium-238		1.93	0.0657	+/-0.161	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.247	0.501	+/-0.147	0.200	pCi/g		RXF2	02/10/10	1622	947531	5
Bismuth-211	UI	3.78	0.413	+/-0.317		pCi/g						
Bismuth-214		1.11	0.130	+/-0.107	0.200	pCi/g						
Cadmium-109	U	1.35	1.99	+/-0.577		pCi/g						
Cerium-139	U	-0.00668	0.060	+/-0.0179	0.050	pCi/g						
Cesium-134	UI	0.167	0.101	+/-0.038	0.100	pCi/g						
Cesium-137	U	-0.00311	0.0782	+/-0.0232	0.100	pCi/g						
Cobalt-60	U	-0.0137	0.0698	+/-0.0224	0.100	pCi/g						
Europium-152	U	-0.146	0.188	+/-0.0693	0.200	pCi/g						
Lanthanum-140	U	-0.0674	0.156	+/-0.0518		pCi/g						
Lead-212		1.61	0.114	+/-0.115	0.100	pCi/g						
Lead-214		1.32	0.139	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0829	0.0829	+/-0.0273	0.100	pCi/g						
Potassium-40		25.7	0.635	+/-1.57	1.00	pCi/g						
Radium-223	U	0.202	1.31	+/-0.433		pCi/g						
Radium-224	UI	5.23	1.29	+/-0.886		pCi/g						
Radium-226		1.11	0.130	+/-0.107		pCi/g						
Radium-228		1.34	0.249	+/-0.172	0.500	pCi/g						
Ruthenium-106	U	0.0722	0.594	+/-0.178	0.800	pCi/g						
Sodium-22	U	0.013	0.0948	+/-0.0286	0.080	pCi/g						
Strontium-85	UI	0.114	0.0828	+/-0.0243		pCi/g						
Thallium-208		0.527	0.0653	+/-0.0479	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7887
Sample ID: 245799007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0471	0.783	+/-0.226		pCi/g						
Thorium-231	U	0.202	1.31	+/-0.433		pCi/g						
Thorium-234	U	0.354	4.00	+/-1.13	2.00	pCi/g						
Tin-113	U	-0.0201	0.0886	+/-0.0267	0.100	pCi/g						
Uranium-235	U	0.0409	0.434	+/-0.127	0.500	pCi/g						
Yttrium-88	U	-0.00349	0.0571	+/-0.0178	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	135	165	+/-52.0	250	pCi/L		KXK2	02/18/10	0242	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	89.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7887
Sample ID: 245799007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7881
Sample ID: 245799008
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 37.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.0258	0.022	+/-0.00649	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000579	0.0202	+/-0.00188	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240		0.0487	0.0153	+/-0.00839	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.98	0.0959	+/-0.236	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.305	0.0611	+/-0.0446	0.100	pCi/g						
Uranium-238		11.3	0.0655	+/-0.826	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0421	0.209	+/-0.0667	0.200	pCi/g		RXF2	02/10/10	1719	947531	5
Bismuth-211	UI	3.25	0.288	+/-0.289		pCi/g						
Bismuth-214		1.18	0.101	+/-0.101	0.200	pCi/g						
Cadmium-109	UI	3.53	1.07	+/-0.486		pCi/g						
Cerium-139	U	0.00127	0.0425	+/-0.012	0.050	pCi/g						
Cesium-134	UI	0.0967	0.0903	+/-0.0295	0.100	pCi/g						
Cesium-137		0.725	0.0594	+/-0.0549	0.100	pCi/g						
Cobalt-60	U	0.0197	0.0532	+/-0.015	0.100	pCi/g						
Europium-152	U	-0.0687	0.137	+/-0.0461	0.200	pCi/g						
Lanthanum-140	U	0.0125	0.109	+/-0.0315		pCi/g						
Lead-212		1.46	0.0782	+/-0.113	0.100	pCi/g						
Lead-214		1.13	0.101	+/-0.105	0.100	pCi/g						
Mercury-203	UI	0.065	0.0616	+/-0.0172	0.100	pCi/g						
Potassium-40		29.0	0.413	+/-1.47	1.00	pCi/g						
Radium-223	U	0.593	0.945	+/-0.300		pCi/g						
Radium-224	UI	4.96	0.890	+/-0.675		pCi/g						
Radium-226		1.18	0.101	+/-0.101		pCi/g						
Radium-228		1.29	0.168	+/-0.159	0.500	pCi/g						
Ruthenium-106	U	-0.414	0.404	+/-0.139	0.800	pCi/g						
Sodium-22	U	-0.00531	0.0563	+/-0.018	0.080	pCi/g						
Strontium-85	U	0.0328	0.0526	+/-0.016		pCi/g						
Thallium-208		0.486	0.0504	+/-0.0418	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7881
Sample ID: 245799008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.104	0.546	+/-0.163		pCi/g						
Thorium-231	U	0.593	0.945	+/-0.300		pCi/g						
Thorium-234		13.9	1.66	+/-1.57	2.00	pCi/g						
Tin-113	U	0.0118	0.0661	+/-0.0185	0.100	pCi/g						
Uranium-235		0.300	0.296	+/-0.118	0.500	pCi/g						
Yttrium-88	U	-0.00509	0.0416	+/-0.0132	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	153	166	+/-52.7	250	pCi/L		KXK2	02/18/10	0535	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Client Sample ID: RE15-10-7881
Sample ID: 245799008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7951
Sample ID: 245799009
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 19.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00182	0.021	+/-0.00505	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0243	+/-0.00158	0.050	pCi/g		MXA1	02/18/10	1843	950405	3
Plutonium-239/240	U	0.00474	0.0183	+/-0.00275	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.624	0.0881	+/-0.0641	0.100	pCi/g		MXA1	02/16/10	2115	950406	5
Uranium-235/236	U	0.0432	0.0562	+/-0.0153	0.100	pCi/g						
Uranium-238		0.897	0.0602	+/-0.0843	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0148	0.209	+/-0.0668	0.200	pCi/g		RXF2	02/10/10	1719	947531	6
Bismuth-211	UI	3.41	0.300	+/-0.272		pCi/g						
Bismuth-214		1.02	0.0984	+/-0.0958	0.200	pCi/g						
Cadmium-109	UI	2.84	1.16	+/-0.429		pCi/g						
Cerium-139	U	-0.0179	0.0466	+/-0.0139	0.050	pCi/g						
Cesium-134	UI	0.0949	0.0849	+/-0.0241	0.100	pCi/g						
Cesium-137	U	0.0134	0.0607	+/-0.0179	0.100	pCi/g						
Cobalt-60	U	0.019	0.059	+/-0.0171	0.100	pCi/g						
Europium-152	U	0.00753	0.145	+/-0.0621	0.200	pCi/g						
Lanthanum-140	U	-0.0656	0.126	+/-0.0411		pCi/g						
Lead-212		1.69	0.085	+/-0.123	0.100	pCi/g						
Lead-214		1.19	0.103	+/-0.0996	0.100	pCi/g						
Mercury-203	U	0.0303	0.0665	+/-0.0225	0.100	pCi/g						
Potassium-40		37.7	0.432	+/-1.92	1.00	pCi/g						
Radium-223	U	0.335	1.02	+/-0.336		pCi/g						
Radium-224	UI	4.67	0.967	+/-0.617		pCi/g						
Radium-226		1.02	0.0984	+/-0.0958		pCi/g						
Radium-228		1.55	0.202	+/-0.175	0.500	pCi/g						
Ruthenium-106	U	-0.0707	0.472	+/-0.143	0.800	pCi/g						
Sodium-22	U	-0.0209	0.0701	+/-0.0218	0.080	pCi/g						
Strontium-85	UI	0.173	0.0737	+/-0.0225		pCi/g						
Thallium-208		0.468	0.049	+/-0.0439	0.080	pCi/g						

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7951
Sample ID: 245799009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0964	0.615	+/-0.189		pCi/g						
Thorium-231	U	0.335	1.02	+/-0.336		pCi/g						
Thorium-234	U	1.66	1.74	+/-0.941	2.00	pCi/g						
Tin-113	U	-0.00835	0.0692	+/-0.0208	0.100	pCi/g						
Uranium-235	U	0.156	0.352	+/-0.102	0.500	pCi/g						
Yttrium-88	U	-0.00704	0.0468	+/-0.0148	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		520	165	+/-68.6	250	pCi/L		KXK2	02/18/10	0713	948403	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	76.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7951
Sample ID: 245799009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7950
Sample ID: 245799010
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 19.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00518	0.0223	+/-0.00556	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00269	0.0206	+/-0.00191	0.050	pCi/g		MXA1	02/15/10	2018	950405	3
Plutonium-239/240	U	0.000376	0.0156	+/-0.00166	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.07	0.095	+/-0.0991	0.100	pCi/g		MXA1	02/16/10	2115	950406	4
Uranium-235/236		0.0838	0.0606	+/-0.0206	0.100	pCi/g						
Uranium-238		1.77	0.0649	+/-0.149	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00446	0.0756	+/-0.024	0.200	pCi/g		RXF2	02/10/10	1720	947531	5
Bismuth-211	UI	3.33	0.276	+/-0.278		pCi/g						
Bismuth-214		1.17	0.0981	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.83	0.722	+/-0.393		pCi/g						
Cerium-139	U	-0.00516	0.0393	+/-0.0115	0.050	pCi/g						
Cesium-134	UI	0.125	0.0988	+/-0.0414	0.100	pCi/g						
Cesium-137	UI	0.0693	0.0636	+/-0.0411	0.100	pCi/g						
Cobalt-60	U	-0.0112	0.0622	+/-0.0199	0.100	pCi/g						
Europium-152	U	0.0595	0.145	+/-0.0431	0.200	pCi/g						
Lanthanum-140	U	0.0311	0.126	+/-0.0402		pCi/g						
Lead-212		1.70	0.0775	+/-0.109	0.100	pCi/g						
Lead-214		1.16	0.0964	+/-0.101	0.100	pCi/g						
Mercury-203	U	0.0477	0.0575	+/-0.0284	0.100	pCi/g						
Potassium-40		28.3	0.429	+/-1.47	1.00	pCi/g						
Radium-223	U	-0.772	0.867	+/-0.323		pCi/g						
Radium-224	UI	4.52	0.883	+/-0.678		pCi/g						
Radium-226		1.17	0.0981	+/-0.104		pCi/g						
Radium-228		1.60	0.226	+/-0.185	0.500	pCi/g						
Ruthenium-106	U	-0.128	0.479	+/-0.145	0.800	pCi/g						
Sodium-22	U	-0.0246	0.0717	+/-0.0229	0.080	pCi/g						
Strontium-85	U	0.0495	0.0612	+/-0.0189		pCi/g						
Thallium-208		0.493	0.0557	+/-0.0463	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7950
Sample ID: 245799010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.128	0.573	+/-0.170		pCi/g						
Thorium-231	U	-0.772	0.867	+/-0.323		pCi/g						
Thorium-234		3.61	0.718	+/-0.558	2.00	pCi/g						
Tin-113	U	0.00434	0.0684	+/-0.0199	0.100	pCi/g						
Uranium-235		0.295	0.258	+/-0.123	0.500	pCi/g						
Yttrium-88	U	0.0193	0.0688	+/-0.0194	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		275	165	+/-57.1	250	pCi/L		KXK2	02/18/10	0851	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	98.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7950
Sample ID: 245799010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7947
Sample ID: 245799011
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 36.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0148	0.0203	+/-0.00766	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.0113	0.0184	+/-0.00391	0.050	pCi/g		MXA1	02/18/10	1843	950405	3
Plutonium-239/240		0.0474	0.0139	+/-0.00876	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		5.17	0.0872	+/-0.387	0.100	pCi/g		MXA1	02/16/10	2118	950406	5
Uranium-235/236		0.547	0.0556	+/-0.062	0.100	pCi/g						
Uranium-238		23.6	0.0596	+/-1.68	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0968	0.509	+/-0.163	0.200	pCi/g		RXF2	02/10/10	1811	947531	6
Bismuth-211	UI	3.46	0.361	+/-0.263		pCi/g						
Bismuth-214		1.23	0.127	+/-0.099	0.200	pCi/g						
Cadmium-109	UI	4.19	1.64	+/-0.808		pCi/g						
Cerium-139	U	-0.0269	0.0535	+/-0.0171	0.050	pCi/g						
Cesium-134	UI	0.137	0.112	+/-0.0402	0.100	pCi/g						
Cesium-137		0.842	0.0695	+/-0.0588	0.100	pCi/g						
Cobalt-60	U	0.0534	0.0791	+/-0.0205	0.100	pCi/g						
Europium-152	U	0.0475	0.189	+/-0.0571	0.200	pCi/g						
Lanthanum-140	U	-0.0224	0.145	+/-0.049		pCi/g						
Lead-212		1.44	0.0997	+/-0.0829	0.100	pCi/g						
Lead-214		1.20	0.138	+/-0.0969	0.100	pCi/g						
Mercury-203	U	-0.00619	0.0792	+/-0.0236	0.100	pCi/g						
Potassium-40		21.7	0.591	+/-1.15	1.00	pCi/g						
Radium-223	U	-0.263	1.20	+/-0.417		pCi/g						
Radium-224	UI	4.62	1.13	+/-0.810		pCi/g						
Radium-226		1.23	0.127	+/-0.099		pCi/g						
Radium-228		1.55	0.216	+/-0.177	0.500	pCi/g						
Ruthenium-106	U	0.100	0.669	+/-0.205	0.800	pCi/g						
Sodium-22	U	0.0155	0.0866	+/-0.0252	0.080	pCi/g						
Strontium-85	UI	0.0759	0.0752	+/-0.0205		pCi/g						
Thallium-208		0.502	0.0616	+/-0.0498	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7947
Sample ID: 245799011
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.049	0.702	+/-0.205		pCi/g						
Thorium-231	U	-0.263	1.20	+/-0.417		pCi/g						
Thorium-234		22.0	3.72	+/-3.01	2.00	pCi/g						
Tin-113	U	-0.0376	0.0799	+/-0.0255	0.100	pCi/g						
Uranium-235		0.954	0.361	+/-0.266	0.500	pCi/g						
Yttrium-88	U	-0.0344	0.0289	+/-0.0152	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1440	165	+/-124	250	pCi/L		KXK2	02/18/10	1029	948403	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	79.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Client Sample ID: RE15-10-7947
Sample ID: 245799011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7944
Sample ID: 245799012
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 7.21%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.002	0.0203	+/-0.0016	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0022	0.018	+/-0.00412	0.050	pCi/g		MXA1	02/15/10	2023	950405	3
Plutonium-239/240	U	-0.0011	0.0135	+/-0.00246	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.642	0.0807	+/-0.0649	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236	U	0.0277	0.0514	+/-0.0154	0.100	pCi/g						
Uranium-238		0.687	0.0551	+/-0.067	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00013	0.177	+/-0.0561	0.200	pCi/g		RXF2	02/10/10	1811	947531	5
Bismuth-211	UI	3.47	0.353	+/-0.281		pCi/g						
Bismuth-214		1.09	0.116	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.02	1.12	+/-0.442		pCi/g						
Cerium-139	U	-0.0255	0.0458	+/-0.0145	0.050	pCi/g						
Cesium-134	UI	0.114	0.0956	+/-0.0312	0.100	pCi/g						
Cesium-137	U	-0.0296	0.0605	+/-0.0191	0.100	pCi/g						
Cobalt-60	U	0.0327	0.0712	+/-0.0198	0.100	pCi/g						
Europium-152	U	0.0278	0.166	+/-0.0552	0.200	pCi/g						
Lanthanum-140	U	0.0487	0.114	+/-0.0336		pCi/g						
Lead-212		1.62	0.0916	+/-0.0955	0.100	pCi/g						
Lead-214		1.21	0.120	+/-0.103	0.100	pCi/g						
Mercury-203	U	0.0219	0.0726	+/-0.0207	0.100	pCi/g						
Potassium-40		36.1	0.522	+/-1.82	1.00	pCi/g						
Radium-223	U	0.358	1.09	+/-0.355		pCi/g						
Radium-224	UI	4.81	1.04	+/-0.637		pCi/g						
Radium-226		1.09	0.116	+/-0.104		pCi/g						
Radium-228		1.63	0.212	+/-0.170	0.500	pCi/g						
Ruthenium-106	U	-0.0295	0.498	+/-0.148	0.800	pCi/g						
Sodium-22	U	0.0217	0.0797	+/-0.023	0.080	pCi/g						
Strontium-85	UI	0.105	0.0708	+/-0.0197		pCi/g						
Thallium-208		0.581	0.0549	+/-0.0489	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7944
Sample ID: 245799012
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.147	0.588	+/-0.175		pCi/g						
Thorium-231	U	0.358	1.09	+/-0.355		pCi/g						
Thorium-234	U	1.08	1.62	+/-0.597	2.00	pCi/g						
Tin-113	U	-0.0615	0.0673	+/-0.0224	0.100	pCi/g						
Uranium-235	U	-0.0603	0.334	+/-0.103	0.500	pCi/g						
Yttrium-88	U	0.018	0.0502	+/-0.0132	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		513	164	+/-67.8	250	pCi/L		KXK2	02/18/10	1207	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7944
Sample ID: 245799012
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7948
Sample ID: 245799013
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 7.88%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00961	0.0228	+/-0.00426	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0086	0.0176	+/-0.0057	0.050	pCi/g		MXA1	02/15/10	2023	950405	3
Plutonium-239/240	U	0.0118	0.0132	+/-0.00496	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.28	0.076	+/-0.179	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.190	0.0485	+/-0.0297	0.100	pCi/g						
Uranium-238		7.11	0.0519	+/-0.515	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0281	0.324	+/-0.105	0.200	pCi/g		RXF2	02/10/10	1858	947531	5
Bismuth-211	UI	3.53	0.395	+/-0.320		pCi/g						
Bismuth-214		1.32	0.123	+/-0.109	0.200	pCi/g						
Cadmium-109	UI	2.58	1.67	+/-0.530		pCi/g						
Cerium-139	U	0.0107	0.0576	+/-0.0161	0.050	pCi/g						
Cesium-134	U	0.0268	0.0962	+/-0.0325	0.100	pCi/g						
Cesium-137		0.484	0.0671	+/-0.0474	0.100	pCi/g						
Cobalt-60	U	-0.00696	0.0726	+/-0.0221	0.100	pCi/g						
Europium-152	U	-0.00614	0.188	+/-0.064	0.200	pCi/g						
Lanthanum-140	U	-0.00223	0.161	+/-0.0491		pCi/g						
Lead-212		1.59	0.0993	+/-0.101	0.100	pCi/g						
Lead-214		1.23	0.138	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0551	0.0815	+/-0.0227	0.100	pCi/g						
Potassium-40		26.9	0.498	+/-1.51	1.00	pCi/g						
Radium-223	U	-0.561	1.19	+/-0.370		pCi/g						
Radium-224	UI	5.13	1.13	+/-0.642		pCi/g						
Radium-226		1.32	0.123	+/-0.109		pCi/g						
Radium-228		1.64	0.232	+/-0.215	0.500	pCi/g						
Ruthenium-106	U	0.323	0.612	+/-0.168	0.800	pCi/g						
Sodium-22	U	0.0151	0.0834	+/-0.0241	0.080	pCi/g						
Strontium-85	UI	0.123	0.0863	+/-0.0232		pCi/g						
Thallium-208		0.599	0.0682	+/-0.049	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7948
Sample ID: 245799013
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0133	0.717	+/-0.209		pCi/g						
Thorium-231	U	-0.561	1.19	+/-0.370		pCi/g						
Thorium-234		5.21	2.59	+/-1.29	2.00	pCi/g						
Tin-113	U	0.0225	0.0935	+/-0.0273	0.100	pCi/g						
Uranium-235	U	-0.0928	0.405	+/-0.117	0.500	pCi/g						
Yttrium-88	U	-0.0114	0.0566	+/-0.0187	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		5170	166	+/-377	250	pCi/L		KXK2	02/18/10	1345	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7948
Sample ID: 245799013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7941
Sample ID: 245799014
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 23.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0163	0.0241	+/-0.0055	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00224	0.0183	+/-0.00224	0.050	pCi/g		MXA1	02/15/10	2023	950405	3
Plutonium-239/240		0.0347	0.0138	+/-0.00685	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.95	0.0773	+/-0.296	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.242	0.0493	+/-0.0351	0.100	pCi/g						
Uranium-238		9.59	0.0528	+/-0.689	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.205	0.333	+/-0.120	0.200	pCi/g		RXF2	02/10/10	1909	947531	5
Bismuth-211	UI	3.47	0.374	+/-0.304		pCi/g						
Bismuth-214		1.19	0.111	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.87	1.30	+/-0.690		pCi/g						
Cerium-139	U	-0.00795	0.0515	+/-0.0156	0.050	pCi/g						
Cesium-134	UI	0.153	0.102	+/-0.0409	0.100	pCi/g						
Cesium-137		0.733	0.0652	+/-0.0611	0.100	pCi/g						
Cobalt-60	U	0.0713	0.0718	+/-0.0203	0.100	pCi/g						
Europium-152	U	-0.0113	0.170	+/-0.0547	0.200	pCi/g						
Lanthanum-140	U	0.0465	0.154	+/-0.0425		pCi/g						
Lead-212		1.43	0.101	+/-0.108	0.100	pCi/g						
Lead-214		1.21	0.123	+/-0.110	0.100	pCi/g						
Mercury-203	U	-0.00943	0.0728	+/-0.0214	0.100	pCi/g						
Potassium-40		24.8	0.599	+/-1.45	1.00	pCi/g						
Radium-223	U	-0.0505	1.25	+/-0.369		pCi/g						
Radium-224	UI	4.40	1.15	+/-0.723		pCi/g						
Radium-226		1.19	0.111	+/-0.107		pCi/g						
Radium-228		1.31	0.231	+/-0.157	0.500	pCi/g						
Ruthenium-106	U	-0.203	0.543	+/-0.169	0.800	pCi/g						
Sodium-22	U	-0.0125	0.0841	+/-0.0261	0.080	pCi/g						
Strontium-85	U	0.0143	0.0664	+/-0.0226		pCi/g						
Thallium-208		0.391	0.0619	+/-0.0462	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7941
Sample ID: 245799014
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0307	0.714	+/-0.207		pCi/g						
Thorium-231	U	-0.0505	1.25	+/-0.369		pCi/g						
Thorium-234		8.58	2.67	+/-1.70	2.00	pCi/g						
Tin-113	U	0.029	0.0909	+/-0.0263	0.100	pCi/g						
Uranium-235	U	0.174	0.402	+/-0.119	0.500	pCi/g						
Yttrium-88	U	0.0193	0.0572	+/-0.0152	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1640	165	+/-136	250	pCi/L		KXK2	02/18/10	1523	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	100	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Sample ID: 245799014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7949
Sample ID: 245799015
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 40.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0194	0.0225	+/-0.00537	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00573	0.0234	+/-0.00288	0.050	pCi/g		MXA1	02/18/10	1843	950405	3
Plutonium-239/240		0.0372	0.0176	+/-0.00783	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		6.41	0.0954	+/-0.480	0.100	pCi/g		MXA1	02/16/10	2118	950406	5
Uranium-235/236		0.594	0.0609	+/-0.0687	0.100	pCi/g						
Uranium-238		28.1	0.0652	+/-2.02	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0896	0.438	+/-0.140	0.200	pCi/g		RXF2	02/10/10	1909	947531	6
Bismuth-211	UI	3.70	0.400	+/-0.291		pCi/g						
Bismuth-214		1.10	0.119	+/-0.0863	0.200	pCi/g						
Cadmium-109	UI	2.73	1.75	+/-0.577		pCi/g						
Cerium-139	U	-0.00115	0.0608	+/-0.0207	0.050	pCi/g						
Cesium-134	U	0.0822	0.103	+/-0.0273	0.100	pCi/g						
Cesium-137		0.705	0.0767	+/-0.0541	0.100	pCi/g						
Cobalt-60	U	0.0335	0.0784	+/-0.022	0.100	pCi/g						
Europium-152	U	-0.172	0.174	+/-0.0767	0.200	pCi/g						
Lanthanum-140	U	-0.049	0.161	+/-0.0519		pCi/g						
Lead-212		1.34	0.111	+/-0.0755	0.100	pCi/g						
Lead-214		1.29	0.139	+/-0.107	0.100	pCi/g						
Mercury-203	UI	0.110	0.0751	+/-0.0351	0.100	pCi/g						
Potassium-40		23.5	0.536	+/-1.16	1.00	pCi/g						
Radium-223	U	-0.608	1.36	+/-0.415		pCi/g						
Radium-224	UI	3.85	1.26	+/-0.619		pCi/g						
Radium-226		1.10	0.119	+/-0.0863		pCi/g						
Radium-228		1.39	0.226	+/-0.163	0.500	pCi/g						
Ruthenium-106	U	-0.674	0.546	+/-0.196	0.800	pCi/g						
Sodium-22	U	0.015	0.0767	+/-0.0226	0.080	pCi/g						
Strontium-85	U	0.0568	0.0841	+/-0.0267		pCi/g						
Thallium-208		0.417	0.0688	+/-0.0426	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7949
Sample ID: 245799015
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.182	0.796	+/-0.247		pCi/g						
Thorium-231	U	-0.608	1.36	+/-0.415		pCi/g						
Thorium-234		20.7	3.33	+/-2.59	2.00	pCi/g						
Tin-113	U	-0.0253	0.0826	+/-0.0252	0.100	pCi/g						
Uranium-235		0.449	0.446	+/-0.179	0.500	pCi/g						
Yttrium-88	U	0.0183	0.0702	+/-0.0196	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3420	165	+/-257	250	pCi/L		KXK2	02/18/10	1701	948403	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	66.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	73.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7949
Sample ID: 245799015

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7946
Sample ID: 245799016
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 8.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0107	0.0221	+/-0.00555	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00119	0.0194	+/-0.00119	0.050	pCi/g		MXA1	02/15/10	2023	950405	3
Plutonium-239/240	U	-0.00118	0.0146	+/-0.00313	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.753	0.0796	+/-0.0716	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236	U	0.0507	0.0507	+/-0.0145	0.100	pCi/g						
Uranium-238		0.801	0.0543	+/-0.0751	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00668	0.222	+/-0.0746	0.200	pCi/g		RXF2	02/10/10	1910	947531	5
Bismuth-211	UI	3.39	0.351	+/-0.222		pCi/g						
Bismuth-214		1.23	0.123	+/-0.0889	0.200	pCi/g						
Cadmium-109	UI	3.96	1.15	+/-0.550		pCi/g						
Cerium-139	U	-0.0251	0.0504	+/-0.0159	0.050	pCi/g						
Cesium-134	U	0.0768	0.0933	+/-0.0368	0.100	pCi/g						
Cesium-137	U	0.0001	0.0633	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	-0.0128	0.0609	+/-0.0194	0.100	pCi/g						
Europium-152	U	0.0112	0.175	+/-0.0568	0.200	pCi/g						
Lanthanum-140	U	0.0128	0.145	+/-0.0435		pCi/g						
Lead-212		1.60	0.0917	+/-0.0796	0.100	pCi/g						
Lead-214		1.18	0.116	+/-0.083	0.100	pCi/g						
Mercury-203	U	0.0581	0.0761	+/-0.0212	0.100	pCi/g						
Potassium-40		35.8	0.387	+/-1.61	1.00	pCi/g						
Radium-223	U	-0.846	1.03	+/-0.333		pCi/g						
Radium-224	UI	3.91	1.04	+/-0.604		pCi/g						
Radium-226		1.23	0.123	+/-0.0889		pCi/g						
Radium-228		1.67	0.217	+/-0.170	0.500	pCi/g						
Ruthenium-106	U	-0.169	0.505	+/-0.161	0.800	pCi/g						
Sodium-22	U	-0.0152	0.0746	+/-0.0234	0.080	pCi/g						
Strontium-85	U	0.0717	0.0741	+/-0.023		pCi/g						
Thallium-208		0.494	0.0588	+/-0.0445	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7946
Sample ID: 245799016

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0456	0.632	+/-0.186		pCi/g						
Thorium-231	U	-0.846	1.03	+/-0.333		pCi/g						
Thorium-234	U	0.875	1.92	+/-0.820	2.00	pCi/g						
Tin-113	U	-0.0181	0.074	+/-0.0226	0.100	pCi/g						
Uranium-235	U	0.032	0.381	+/-0.116	0.500	pCi/g						
Yttrium-88	U	-0.00956	0.0508	+/-0.0169	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		325	165	+/-59.3	250	pCi/L		KXK2	02/18/10	1839	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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- > Result is greater than value reported
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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7946
Sample ID: 245799016

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7942
Sample ID: 245799017
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 10.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0196	0.0213	+/-0.00526	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000727	0.0233	+/-0.00683	0.050	pCi/g		MXA1	02/15/10	0807	950405	3
Plutonium-239/240	U	0.00279	0.0176	+/-0.00357	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.631	0.0806	+/-0.0634	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.0592	0.0514	+/-0.0168	0.100	pCi/g						
Uranium-238		0.916	0.055	+/-0.084	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0251	0.248	+/-0.0755	0.200	pCi/g		RXF2	02/10/10	1912	947531	5
Bismuth-211	UI	3.34	0.305	+/-0.236		pCi/g						
Bismuth-214		1.18	0.102	+/-0.0979	0.200	pCi/g						
Cadmium-109	UI	3.99	1.17	+/-0.513		pCi/g						
Cerium-139	U	0.00544	0.0465	+/-0.0137	0.050	pCi/g						
Cesium-134	UI	0.134	0.088	+/-0.0307	0.100	pCi/g						
Cesium-137	U	0.0157	0.0664	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	0.0111	0.0679	+/-0.020	0.100	pCi/g						
Europium-152	U	-0.0282	0.146	+/-0.0436	0.200	pCi/g						
Lanthanum-140	U	-0.0488	0.100	+/-0.037		pCi/g						
Lead-212		1.57	0.0874	+/-0.0765	0.100	pCi/g						
Lead-214		1.16	0.106	+/-0.0875	0.100	pCi/g						
Mercury-203	U	0.0336	0.0642	+/-0.0199	0.100	pCi/g						
Potassium-40		34.0	0.343	+/-1.51	1.00	pCi/g						
Radium-223	U	-0.262	0.937	+/-0.323		pCi/g						
Radium-224	UI	4.55	0.995	+/-0.645		pCi/g						
Radium-226		1.18	0.102	+/-0.0979		pCi/g						
Radium-228		1.73	0.179	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.187	0.472	+/-0.146	0.800	pCi/g						
Sodium-22	U	0.0243	0.081	+/-0.0234	0.080	pCi/g						
Strontium-85	U	0.0329	0.0633	+/-0.0206		pCi/g						
Thallium-208		0.549	0.060	+/-0.0474	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7942
Sample ID: 245799017

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.132	0.560	+/-0.164		pCi/g						
Thorium-231	U	-0.262	0.937	+/-0.323		pCi/g						
Thorium-234	U	1.55	2.03	+/-1.01	2.00	pCi/g						
Tin-113	U	-0.0272	0.0677	+/-0.021	0.100	pCi/g						
Uranium-235	U	0.297	0.318	+/-0.140	0.500	pCi/g						
Yttrium-88	U	0.0224	0.0544	+/-0.0143	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		366	165	+/-60.9	250	pCi/L		KXK2	02/18/10	2016	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7942
Sample ID: 245799017

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7945
Sample ID: 245799018
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 39.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.0211	0.0203	+/-0.00533	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00549	0.0229	+/-0.00498	0.050	pCi/g		MXA1	02/15/10	0807	950405	3
Plutonium-239/240		0.0773	0.0173	+/-0.0118	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		4.14	0.0845	+/-0.313	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.343	0.0538	+/-0.0447	0.100	pCi/g						
Uranium-238		15.9	0.0577	+/-1.14	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0849	0.139	+/-0.0424	0.200	pCi/g		RXF2	02/10/10	1913	947531	5
Bismuth-211	UI	3.25	0.416	+/-0.324		pCi/g						
Bismuth-214		1.12	0.134	+/-0.110	0.200	pCi/g						
Cadmium-109	U	0.228	1.53	+/-0.533		pCi/g						
Cerium-139	U	-0.0305	0.0532	+/-0.0168	0.050	pCi/g						
Cesium-134	U	0.0536	0.119	+/-0.0334	0.100	pCi/g						
Cesium-137		1.69	0.0833	+/-0.101	0.100	pCi/g						
Cobalt-60	U	0.000555	0.0854	+/-0.0255	0.100	pCi/g						
Europium-152	U	0.0426	0.198	+/-0.0609	0.200	pCi/g						
Lanthanum-140	U	-0.0227	0.217	+/-0.0677		pCi/g						
Lead-212		1.44	0.104	+/-0.0949	0.100	pCi/g						
Lead-214		1.13	0.145	+/-0.117	0.100	pCi/g						
Mercury-203	U	0.00967	0.0781	+/-0.0252	0.100	pCi/g						
Potassium-40		26.0	0.682	+/-1.61	1.00	pCi/g						
Radium-223	U	-1.03	1.21	+/-0.396		pCi/g						
Radium-224	UI	3.89	1.18	+/-0.611		pCi/g						
Radium-226		1.12	0.134	+/-0.110		pCi/g						
Radium-228		1.39	0.317	+/-0.179	0.500	pCi/g						
Ruthenium-106	U	-0.123	0.680	+/-0.216	0.800	pCi/g						
Sodium-22	U	-0.0938	0.0817	+/-0.0318	0.080	pCi/g						
Strontium-85	U	0.0209	0.0833	+/-0.0278		pCi/g						
Thallium-208		0.458	0.0702	+/-0.0573	0.080	pCi/g						

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7945
Sample ID: 245799018

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0489	0.716	+/-0.223		pCi/g						
Thorium-231	U	-1.03	1.21	+/-0.396		pCi/g						
Thorium-234		14.5	1.27	+/-1.55	2.00	pCi/g						
Tin-113	U	-0.00749	0.0949	+/-0.0284	0.100	pCi/g						
Uranium-235		0.666	0.368	+/-0.232	0.500	pCi/g						
Yttrium-88	U	-0.0197	0.0582	+/-0.0208	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1490	165	+/-127	250	pCi/L		KXK2	02/18/10	2154	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	99.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
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- > Result is greater than value reported
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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7945
Sample ID: 245799018

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
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U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
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Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7943
Sample ID: 245799019
Matrix: R
Collect Date: 26-JAN-10
Receive Date: 29-JAN-10
Collector: Client
Moisture: 7.55%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000461	0.0216	+/-0.0026	0.050	pCi/g		MXA1	02/18/10	1713	950404	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00262	0.0224	+/-0.00549	0.050	pCi/g		MXA1	02/15/10	0807	950405	3
Plutonium-239/240	U	-0.000874	0.0169	+/-0.00345	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.597	0.0677	+/-0.0575	0.100	pCi/g		MXA1	02/16/10	2118	950406	4
Uranium-235/236		0.053	0.0431	+/-0.016	0.100	pCi/g						
Uranium-238		0.652	0.0462	+/-0.0613	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.021	0.286	+/-0.0949	0.200	pCi/g		RXF2	02/10/10	1913	947531	5
Bismuth-211	UI	3.70	0.366	+/-0.269		pCi/g						
Bismuth-214		1.24	0.125	+/-0.101	0.200	pCi/g						
Cadmium-109	UI	2.52	1.48	+/-0.606		pCi/g						
Cerium-139	U	-0.016	0.0548	+/-0.0169	0.050	pCi/g						
Cesium-134	U	0.103	0.103	+/-0.0434	0.100	pCi/g						
Cesium-137	U	-0.0263	0.0639	+/-0.0205	0.100	pCi/g						
Cobalt-60	U	-0.0334	0.0657	+/-0.0218	0.100	pCi/g						
Europium-152	U	-0.144	0.167	+/-0.0622	0.200	pCi/g						
Lanthanum-140	U	-0.0808	0.136	+/-0.0478		pCi/g						
Lead-212		1.74	0.104	+/-0.0886	0.100	pCi/g						
Lead-214		1.29	0.136	+/-0.0995	0.100	pCi/g						
Mercury-203	U	0.0312	0.0774	+/-0.0219	0.100	pCi/g						
Potassium-40		38.5	0.631	+/-1.78	1.00	pCi/g						
Radium-223	U	0.138	1.16	+/-0.387		pCi/g						
Radium-224	UI	4.31	1.18	+/-0.740		pCi/g						
Radium-226		1.24	0.125	+/-0.101		pCi/g						
Radium-228		1.90	0.210	+/-0.191	0.500	pCi/g						
Ruthenium-106	U	-0.0756	0.553	+/-0.171	0.800	pCi/g						
Sodium-22	U	-0.0246	0.082	+/-0.0258	0.080	pCi/g						
Strontium-85	U	0.0442	0.074	+/-0.0237		pCi/g						
Thallium-208		0.607	0.0652	+/-0.0498	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-7943
Sample ID: 245799019

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0104	0.705	+/-0.217		pCi/g						
Thorium-231	U	0.138	1.16	+/-0.387		pCi/g						
Thorium-234	UI	2.39	2.30	+/-1.22	2.00	pCi/g						
Tin-113	U	0.0124	0.0772	+/-0.0224	0.100	pCi/g						
Uranium-235	U	-0.0686	0.401	+/-0.125	0.500	pCi/g						
Yttrium-88	U	0.000263	0.0514	+/-0.0158	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	53.4	220	+/-65.7	250	pCi/L		KXK2	02/18/10	2332	948403	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

Certificate of Analysis

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Report Date: February 23, 2010

Client Sample ID: RE15-10-7943
Sample ID: 245799019

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

QC Summary

Report Date: February 23, 2010
Page 1 of 6

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245799

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 950404										
QC1202036735 245799001 DUP										
Americium-241	U	-0.000573	U	0.00466	pCi/g	0.541		(0-1)	MXA1	02/18/1017:13
	TPU:	+/-0.00236		+/-0.00247						
	Yield:	86.2		82.5						
QC1202036736 LCS										
Americium-241	33.2			29.9	pCi/g		90.2	(75%-125%)		
	TPU:			+/-1.93						
	Yield:			90.9						
QC1202036734 MB										
Americium-241			U	0.000692	pCi/g					
	TPU:			+/-0.00705						
	Yield:			87.2						
Batch 950405										
QC1202036738 245799001 DUP										
Plutonium-238	U	0.00135	U	-0.00311	pCi/g	0.524		(0-1)	MXA1	02/15/1008:07
	TPU:	+/-0.00136		+/-0.0029						
	Yield:	99.5		91.5						
Plutonium-239/240	U	0.00	U	-0.00714	pCi/g	0.759		(0-1)		
	TPU:	+/-0.00136		+/-0.00335						
	Yield:	99.5		91.5						
QC1202036739 LCS										
Plutonium-238				6.20	pCi/g			(75%-125%)		
	TPU:			+/-0.477						
	Yield:			99.4						
Plutonium-239/240	41.8			34.6	pCi/g		82.9	(75%-125%)		
	TPU:			+/-2.02						
	Yield:			99.4						
QC1202036737 MB										
Plutonium-238			U	-0.00451	pCi/g					
	TPU:			+/-0.00334						
	Yield:			93.3						
Plutonium-239/240			U	-0.000919	pCi/g					
	TPU:			+/-0.00298						
	Yield:			93.3						
Batch 950406										
QC1202036741 245799001 DUP										
Uranium-233/234		0.707		0.729	pCi/g	0.0768		(0-1)	MXA1	02/16/1021:18
	TPU:	+/-0.0716		+/-0.0687						
	Yield:	97.1		102						
Uranium-235/236	U	0.0228	U	0.0294	pCi/g	0.160		(0-1)		
	TPU:	+/-0.0103		+/-0.0106						
	Yield:	97.1		102						
Uranium-238		0.788		0.810	pCi/g	0.071		(0-1)		
	TPU:	+/-0.0775		+/-0.0748						

QC Summary

Workorder: 245799

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 950406										
	Yield:	97.1		102						
QC1202036742 LCS										
Uranium-233/234				5.69	pCi/g			(75%-125%)		02/17/1020:14
	TPU:			+/-0.517						
	Yield:			105						
Uranium-235/236				0.374	pCi/g			(75%-125%)		
	TPU:			+/-0.0946						
	Yield:			105						
Uranium-238	5.75			5.46	pCi/g		95	(75%-125%)		
	TPU:			+/-0.500						
	Yield:			105						
QC1202036740 MB										
Uranium-233/234			U	0.00668	pCi/g					02/16/1021:18
	TPU:			+/-0.00345						
	Yield:			80.8						
Uranium-235/236			U	0.00432	pCi/g					
	TPU:			+/-0.00307						
	Yield:			80.8						
Uranium-238			U	0.00349	pCi/g					
	TPU:			+/-0.00553						
	Yield:			80.8						
Rad Gamma Spec										
Batch 947531										
QC1202029811 245799005 DUP										
Americium-241	U	0.0113	U	0.093	pCi/g	0.201		(0-1)	RXF2	02/10/1019:16
	TPU:	+/-0.0726		+/-0.131						
Bismuth-211	UI	3.68	UI	3.31	pCi/g	0.304		(0-1)		
	TPU:	+/-0.326		+/-0.288						
Bismuth-214		1.04		1.06	pCi/g	0.0438		(0-1)		
	TPU:	+/-0.0905		+/-0.0922						
Cadmium-109	UI	4.25	UI	2.58	pCi/g	0.714		(0-1)		
	TPU:	+/-0.635		+/-0.540						
Cerium-139	U	-0.0315	U	-0.0387	pCi/g	0.113		(0-1)		
	TPU:	+/-0.0139		+/-0.0183						
Cesium-134	UI	0.097	UI	0.142	pCi/g	0.370		(0-1)		
	TPU:	+/-0.026		+/-0.0348						
Cesium-137		0.971		0.908	pCi/g	0.258		(0-1)		
	TPU:	+/-0.0657		+/-0.0575						
Cobalt-60	U	0.004	U	0.00274	pCi/g	0.0159		(0-1)		
	TPU:	+/-0.0189		+/-0.0207						
Europium-152	U	0.0405	U	-0.0275	pCi/g	0.289		(0-1)		
	TPU:	+/-0.0473		+/-0.0702						
Lanthanum-140	U	0.0214	U	-0.0611	pCi/g	0.547		(0-1)		
	TPU:	+/-0.0344		+/-0.041						
Lead-212		1.47		1.36	pCi/g	0.290		(0-1)		
	TPU:	+/-0.116		+/-0.076						
Lead-214		1.28		1.15	pCi/g	0.292		(0-1)		
	TPU:	+/-0.118		+/-0.105						
Mercury-203	U	0.0227	U	0.0162	pCi/g	0.0753		(0-1)		
	TPU:	+/-0.0203		+/-0.0234						

QC Summary

Workorder: 245799

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947531										
Potassium-40		30.0		26.0	pCi/g	0.685		(0-1)		
	TPU:	+/-1.54		+/-1.38						
Radium-223	U	0.0785	U	-0.742	pCi/g	0.553		(0-1)		
	TPU:	+/-0.337		+/-0.405						
Radium-224	UI	4.24	UI	4.12	pCi/g	0.0511		(0-1)		
	TPU:	+/-0.625		+/-0.529						
Radium-226		1.04		1.06	pCi/g	0.0438		(0-1)		
	TPU:	+/-0.0905		+/-0.0922						
Radium-228		1.37		1.15	pCi/g	0.320		(0-1)		
	TPU:	+/-0.152		+/-0.187						
Ruthenium-106	U	-0.26	U	-0.0311	pCi/g	0.365		(0-1)		
	TPU:	+/-0.137		+/-0.177						
Sodium-22	U	-0.0425	U	-0.0341	pCi/g	0.0866		(0-1)		
	TPU:	+/-0.0208		+/-0.0276						
Strontium-85	UI	0.0659	U	0.0568	pCi/g	0.103		(0-1)		
	TPU:	+/-0.0192		+/-0.0249						
Thallium-208		0.483		0.419	pCi/g	0.375		(0-1)		
	TPU:	+/-0.0422		+/-0.0437						
Thorium-227	U	0.129	U	0.213	pCi/g	0.102		(0-1)		
	TPU:	+/-0.181		+/-0.232						
Thorium-231	U	0.0785	U	-0.742	pCi/g	0.553		(0-1)		
	TPU:	+/-0.337		+/-0.405						
Thorium-234		16.2		19.5	pCi/g	0.382		(0-1)		
	TPU:	+/-1.82		+/-2.43						
Tin-113	U	-0.0157	U	-0.028	pCi/g	0.129		(0-1)		
	TPU:	+/-0.0196		+/-0.0277						
Uranium-235	U	0.257	U	0.073	pCi/g	0.361		(0-1)		
	TPU:	+/-0.125		+/-0.131						
Yttrium-88	U	-0.0116	U	-0.0132	pCi/g	0.0232		(0-1)		
	TPU:	+/-0.013		+/-0.0202						
QC1202029812 LCS										
Americium-241	15.9			13.7	pCi/g		86.1	(75%-125%)		02/10/1020:23
	TPU:			+/-0.732						
Bismuth-211				2.48	pCi/g					
	TPU:			+/-0.378						
Bismuth-214				0.623	pCi/g					
	TPU:			+/-0.114						
Cadmium-109				33.1	pCi/g					
	TPU:			+/-1.95						
Cerium-139			U	-0.00687	pCi/g					
	TPU:			+/-0.0177						
Cesium-134			U	0.0514	pCi/g					
	TPU:			+/-0.0461						
Cesium-137	5.56			5.88	pCi/g		106	(75%-125%)		
	TPU:			+/-0.353						
Cobalt-60	6.41			6.45	pCi/g		101	(75%-125%)		
	TPU:			+/-0.310						
Europium-152			U	0.0635	pCi/g					
	TPU:			+/-0.0818						
Lanthanum-140			U	-0.0192	pCi/g					
	TPU:			+/-0.0426						

QC Summary

Workorder: 245799

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947531										
Lead-212				0.981	pCi/g					
	TPU:			+/-0.101						
Lead-214				0.861	pCi/g					
	TPU:			+/-0.134						
Mercury-203			U	0.0443	pCi/g					
	TPU:			+/-0.0276						
Potassium-40			U	0.781	pCi/g					
	TPU:			+/-0.267						
Radium-223			U	0.223	pCi/g					
	TPU:			+/-0.544						
Radium-224			U	1.91	pCi/g					
	TPU:			+/-0.605						
Radium-226				0.623	pCi/g					
	TPU:			+/-0.114						
Radium-228				1.53	pCi/g					
	TPU:			+/-0.284						
Ruthenium-106			U	-0.222	pCi/g					
	TPU:			+/-0.284						
Sodium-22			U	-0.0386	pCi/g					
	TPU:			+/-0.0253						
Strontium-85			U	0.0749	pCi/g					
	TPU:			+/-0.0347						
Thallium-208				0.313	pCi/g					
	TPU:			+/-0.0586						
Thorium-227			U	-0.713	pCi/g					
	TPU:			+/-0.300						
Thorium-231			U	0.223	pCi/g					
	TPU:			+/-0.544						
Thorium-234			U	0.833	pCi/g					
	TPU:			+/-0.372						
Tin-113			U	-0.0261	pCi/g					
	TPU:			+/-0.0378						
Uranium-235			U	-0.0366	pCi/g					
	TPU:			+/-0.119						
Yttrium-88			U	-0.0327	pCi/g					
	TPU:			+/-0.0227						
QC1202029810 MB										
Americium-241			U	-0.00566	pCi/g					02/10/1020:22
	TPU:			+/-0.0294						
Bismuth-211			U	0.0624	pCi/g					
	TPU:			+/-0.0579						
Bismuth-214			U	0.0273	pCi/g					
	TPU:			+/-0.0288						
Cadmium-109			U	0.124	pCi/g					
	TPU:			+/-0.182						
Cerium-139			U	0.00703	pCi/g					
	TPU:			+/-0.00712						
Cesium-134			U	0.00286	pCi/g					
	TPU:			+/-0.011						
Cesium-137			U	0.00228	pCi/g					
	TPU:			+/-0.00867						

QC Summary

Workorder: 245799

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947531										
Cobalt-60			U	0.017	pCi/g					
	TPU:			+/-0.00865						
Europium-152			U	-0.0186	pCi/g					
	TPU:			+/-0.0253						
Lanthanum-140			U	0.00497	pCi/g					
	TPU:			+/-0.0145						
Lead-212			U	0.0399	pCi/g					
	TPU:			+/-0.0238						
Lead-214			U	0.016	pCi/g					
	TPU:			+/-0.0201						
Mercury-203			U	-0.00373	pCi/g					
	TPU:			+/-0.00955						
Potassium-40			U	0.0117	pCi/g					
	TPU:			+/-0.145						
Radium-223			U	-0.14	pCi/g					
	TPU:			+/-0.168						
Radium-224			U	0.604	pCi/g					
	TPU:			+/-0.203						
Radium-226			U	0.0273	pCi/g					
	TPU:			+/-0.0288						
Radium-228			U	-0.0594	pCi/g					
	TPU:			+/-0.0357						
Ruthenium-106			U	0.0648	pCi/g					
	TPU:			+/-0.0786						
Sodium-22			U	0.0131	pCi/g					
	TPU:			+/-0.00881						
Strontium-85			UI	0.0901	pCi/g					
	TPU:			+/-0.0122						
Thallium-208			U	0.0044	pCi/g					
	TPU:			+/-0.0117						
Thorium-227			U	-0.0441	pCi/g					
	TPU:			+/-0.0965						
Thorium-231			U	-0.14	pCi/g					
	TPU:			+/-0.168						
Thorium-234			U	0.258	pCi/g					
	TPU:			+/-0.399						
Tin-113			U	-0.00276	pCi/g					
	TPU:			+/-0.0107						
Uranium-235			U	-0.0673	pCi/g					
	TPU:			+/-0.0562						
Yttrium-88			U	0.0119	pCi/g					
	TPU:			+/-0.0084						
Rad Liquid Scintillation										
Batch 948403										
QC1202031686 245799008 DUP										
Tritium	U	153		170	pCi/L	0.0788		(0-1)	KXK2	02/19/1002:48
	TPU:	+/-52.7		+/-53.1						
QC1202031687 LCS										
Tritium	5560			5790	pCi/L		104	(75%-125%)		02/19/1004:26
	TPU:			+/-420						

QC Summary

Workorder: 245799

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 948403										
QC1202031685 MB										
Tritium			U	55.2	pCi/L					02/19/1001:10
	TPU:			+/-49.5						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 950404 Product: AM Date: 2/19/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyze.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Brown 2/19/10

Secondary Review Performed By: J.L.M. 2/19/10

2/26
LANL

Am/Cm Que Sheet

08-FEB-10

Batch #: 950404 | Analyst: MXA1 | First Client Due Date: 26-FEB-10 | Internal Due Date: 15-FEB-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 5/11/10 | Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 | LCS Code(s): SRM 0244-B / N/A | Expiration Date: 4/30/20 / N/A | Vol(s): 0.1g / N/A

Spike Isotope(s): Am241/Cm244 | Spike Code(s): N/A / N/A | Expiration Date: N/A / N/A | Vol(s): N/A / N/A

Prep Date: 2/12/10 | Initials: MDA | Pipet ID: 2971058 | Balance ID: 19350208 | Witness: [illegible] 2/12/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245799001-1	RE15-10-7888	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	1	1	1.251	46 ~~65~~
245799002-1	RE15-10-7890	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	2	2	1.257	47 ~~66~~
245799003-1	RE15-10-7886	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	3	3	1.259	48 ~~67~~
245799004-1	RE15-10-7889	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	4	4	1.258	65 ~~68~~
245799005-1	RE15-10-7885	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	5	5	1.257	66 ~~69~~
245799006-1	RE15-10-7882	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	6	6	1.257	67 ~~70~~
245799007-1	RE15-10-7887	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	7	7	1.252	68 ~~71~~
245799008-1	RE15-10-7881	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	8	8	1.251	69 ~~72~~
245799009-1	RE15-10-7951	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	9	9	1.255	70 ~~73~~
245799010-1	RE15-10-7950	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	10	10	1.254	71 ~~74~~
245799011-1	RE15-10-7947	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	11	11	1.254	~~72~~ 72 ~~75~~
245799012-1	RE15-10-7944	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	12	12	1.255	73 ~~76~~
245799013-1	RE15-10-7948	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	13	13	1.250	74 ~~77~~
245799014-1	RE15-10-7941	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	14	14	1.251	75 ~~79~~
245799015-1	RE15-10-7949	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	15	15	1.252	76 ~~80~~
245799016-1	RE15-10-7946	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	16	16	1.253	77 ~~81~~
245799017-1	RE15-10-7942	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	17	17	1.255	79 ~~82~~
245799018-1	RE15-10-7945	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	18	18	1.250	81 ~~101~~
245799019-1	RE15-10-7943	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	19	19	1.256	82 ~~102~~
1202036734-1	MB for batch 950404	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1	83 ~~103~~
1202036735-1	RE15-10-7888(245799001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	26-JAN-10	21	21	1.251	84 ~~105~~
1202036736-1	LCS for batch 950404	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.100	85 ~~106~~

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [signature] 2/19/10

GEL Laboratories LLC, Radiochemistry Division

[signature] 2/19/10

Blank Correction Report

Batch ID 950404

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202036735	DUP	Americium-241	1.25 g	0.00466	0.00247	0.0206	.0005536	pCi/g	NO
1202036736	LCS	Americium-241	0.100 g	29.9	1.93	0.251	.00692	pCi/g	NO
1202036734	MB	Americium-241	1.00 g	0.000692	0.00705	0.0237	.000692	pCi/g	YES
245799001	RE15-10-7888	Americium-241	1.25 g	-0.000573	0.00236	0.0199	.0005536	pCi/g	YES
245799002	RE15-10-7890	Americium-241	1.26 g	-0.005	0.00654	0.0254	.000549206	pCi/g	YES
245799003	RE15-10-7886	Americium-241	1.26 g	-0.00496	0.00683	0.0251	.000549206	pCi/g	YES
245799004	RE15-10-7889	Americium-241	1.26 g	0.0122	0.00727	0.0223	.000549206	pCi/g	NO
245799005	RE15-10-7885	Americium-241	1.26 g	0.0144	0.00784	0.0235	.000549206	pCi/g	NO
245799006	RE15-10-7882	Americium-241	1.26 g	-0.00657	0.00419	0.0189	.000549206	pCi/g	YES
245799007	RE15-10-7887	Americium-241	1.25 g	0.00385	0.00309	0.0226	.0005536	pCi/g	NO
245799008	RE15-10-7881	Americium-241	1.25 g	0.0258	0.00649	0.022	.0005536	pCi/g	NO
245799009	RE15-10-7951	Americium-241	1.26 g	-0.00182	0.00505	0.021	.000549206	pCi/g	YES
245799010	RE15-10-7950	Americium-241	1.25 g	0.00518	0.00556	0.0223	.0005536	pCi/g	NO
245799011	RE15-10-7947	Americium-241	1.25 g	0.0148	0.00766	0.0203	.0005536	pCi/g	NO
245799012	RE15-10-7944	Americium-241	1.26 g	0.002	0.0016	0.0203	.000549206	pCi/g	YES
245799013	RE15-10-7948	Americium-241	1.25 g	0.00961	0.00426	0.0228	.0005536	pCi/g	NO
245799014	RE15-10-7941	Americium-241	1.25 g	0.0163	0.0055	0.0241	.0005536	pCi/g	NO
245799015	RE15-10-7949	Americium-241	1.25 g	0.0194	0.00537	0.0225	.0005536	pCi/g	NO
245799016	RE15-10-7946	Americium-241	1.25 g	0.0107	0.00555	0.0221	.0005536	pCi/g	NO
245799017	RE15-10-7942	Americium-241	1.26 g	0.0196	0.00526	0.0213	.000549206	pCi/g	NO
245799018	RE15-10-7945	Americium-241	1.25 g	0.0211	0.00533	0.0203	.0005536	pCi/g	NO
245799019	RE15-10-7943	Americium-241	1.26 g	-0.000461	0.0026	0.0216	.000549206	pCi/g	YES

2/19/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799001_AM
SAMPLE QTY : 1.251 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 86.170

CHAMBER : 046
DETECTOR S/N : 76544
AVERAGE %EFFICIENCY : 33.4175
COUNT DATE : 18-FEB-2010 17:13:07
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B046.CNF;1116
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W046.CNF;289
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5132E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5504.416	73.403	3.000	-0.458	2.000	2.8409	99.94000	-5.73E-04	2.36E-03	8.27E-03	1.99E-02	2.35E-03
AM243	5270.000	5267.959	39.503	840.000	838.000	2.000	1.4142	99.78000	1.05E+00	7.30E-02	4.12E-03	1.16E-02	3.64E-02
CM-242	6102.000	6070.858	102.765	4.000	4.000	0.000	4.3413	100.0000	5.54E-03	2.79E-03	1.26E-02	2.86E-02	2.77E-03
CM-3/4	5795.020	5779.688	129.679	14.000	6.000	8.000	5.1799	100.0000	7.52E-03	5.90E-03	1.51E-02	3.35E-02	5.88E-03
CM-5/6	5386.000	5379.061	0.000	5.000	5.000	0.000	14.2480	86.09000	7.26E-03	3.28E-03	4.81E-02	1.00E-01	3.25E-03
CM-247	4946.000	4910.075	129.679	22.000	19.000	3.000	13.7917	79.30000	3.00E-02	8.09E-03	5.06E-02	1.05E-01	7.88E-03
CM-248	5078.600	5062.623	66.008	32.000	32.000	0.000	19.5080	91.00000	4.40E-02	8.21E-03	6.24E-02	1.28E-01	7.77E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

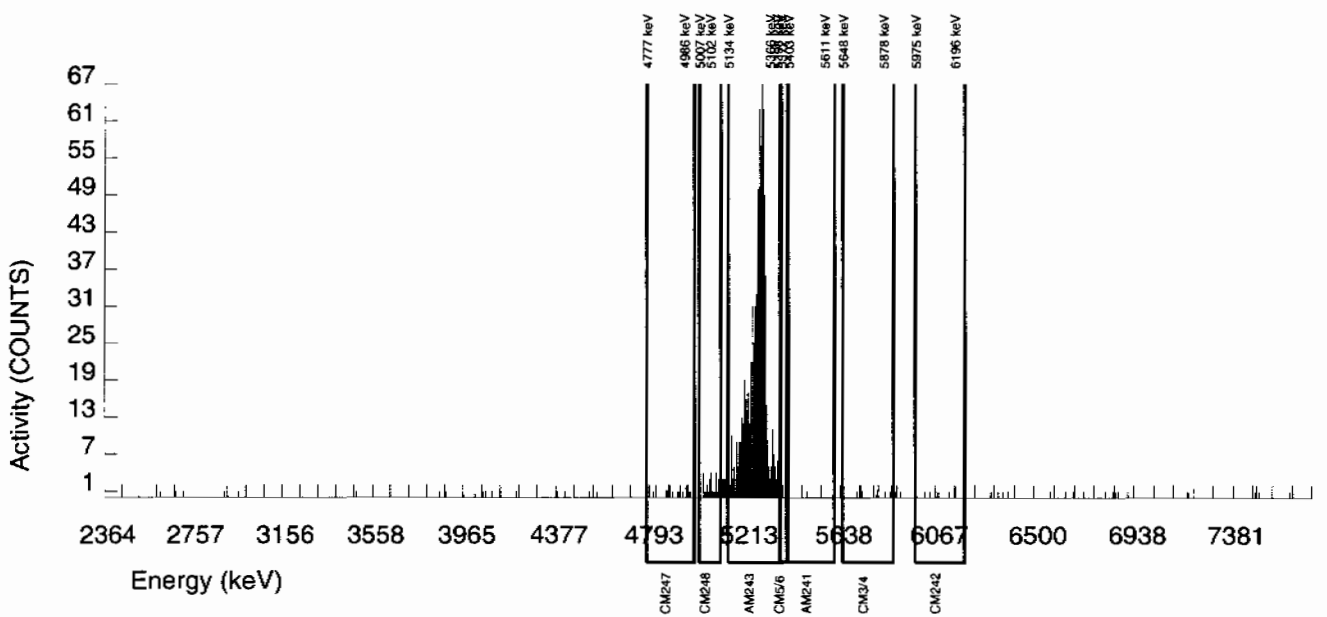

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 047	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799002_AM	DETECTOR S/N : 46-089B1	BKG FILE : B047.CNF;1111
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 34.3991	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:07	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W047.CNF;303
% YIELD : 65.431		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.9083E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5498.614	178.852	8.000	-3.140	10.000	2.8409	99.94000	-5.00E-03	6.54E-03	1.05E-02	2.54E-02	6.54E-03
AM243	5270.000	5266.675	54.637	660.000	655.000	5.000	2.2361	99.78000	1.05E+00	7.77E-02	8.30E-03	2.09E-02	4.11E-02
CM-242	6102.000	6063.840	178.231	8.000	4.000	4.000	4.3413	100.0000	7.06E-03	6.13E-03	1.61E-02	3.65E-02	6.11E-03
CM-3/4	5795.020	5765.750	34.715	17.000	10.000	7.000	5.1799	100.0000	1.60E-02	7.88E-03	1.92E-02	4.27E-02	7.82E-03
CM-5/6	5386.000	5388.280	14.283	3.000	3.000	0.000	14.2480	86.09000	5.55E-03	3.22E-03	6.13E-02	1.28E-01	3.20E-03
CM-247	4946.000	4908.109	0.000	14.000	9.000	5.000	13.7917	79.30000	1.81E-02	8.83E-03	6.44E-02	1.34E-01	8.75E-03
CM-248	5078.600	5064.930	64.586	23.000	23.000	0.000	19.5080	91.00000	4.02E-02	8.77E-03	7.94E-02	1.64E-01	8.39E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

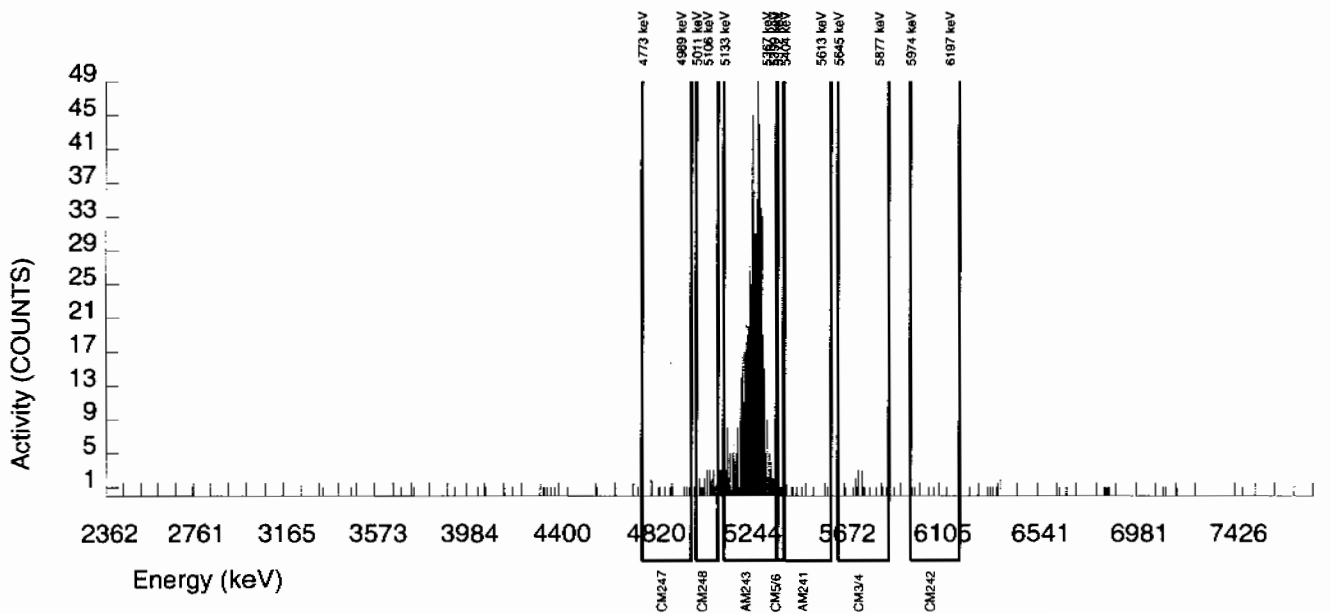

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799003_AM
SAMPLE QTY : 1.259 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 70.868

CHAMBER : 048
DETECTOR S/N : 42483
AVERAGE %EFFICIENCY : 32.0990
COUNT DATE : 18-FEB-2010 17:13:07
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B048.CNF;1112
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W048.CNF;316
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.0669E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5474.419	7.247	9.000	-3.152	11.000	2.8409	99.94000	-4.96E-03	6.83E-03	1.04E-02	2.51E-02	6.83E-03
AM243	5270.000	5264.191	66.234	674.000	662.000	12.000	3.4641	99.78000	1.04E+00	7.78E-02	1.27E-02	2.97E-02	4.13E-02
CM-242	6102.000	6057.523	0.000	3.000	2.000	1.000	4.3413	100.0000	3.48E-03	3.49E-03	1.59E-02	3.60E-02	3.48E-03
CM-3/4	5795.020	5745.071	135.527	17.000	6.000	11.000	5.1799	100.0000	9.46E-03	8.36E-03	1.90E-02	4.22E-02	8.34E-03
CM-5/6	5386.000	5385.707	9.868	6.000	2.000	4.000	14.2480	86.09000	3.65E-03	5.78E-03	6.06E-02	1.26E-01	5.78E-03
CM-247	4946.000	4896.380	4.934	18.000	12.000	6.000	13.7917	79.30000	2.38E-02	9.83E-03	6.36E-02	1.33E-01	9.72E-03
CM-248	5078.600	5075.325	0.000	30.000	27.000	3.000	19.5080	91.00000	4.67E-02	1.04E-02	7.84E-02	1.62E-01	9.93E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

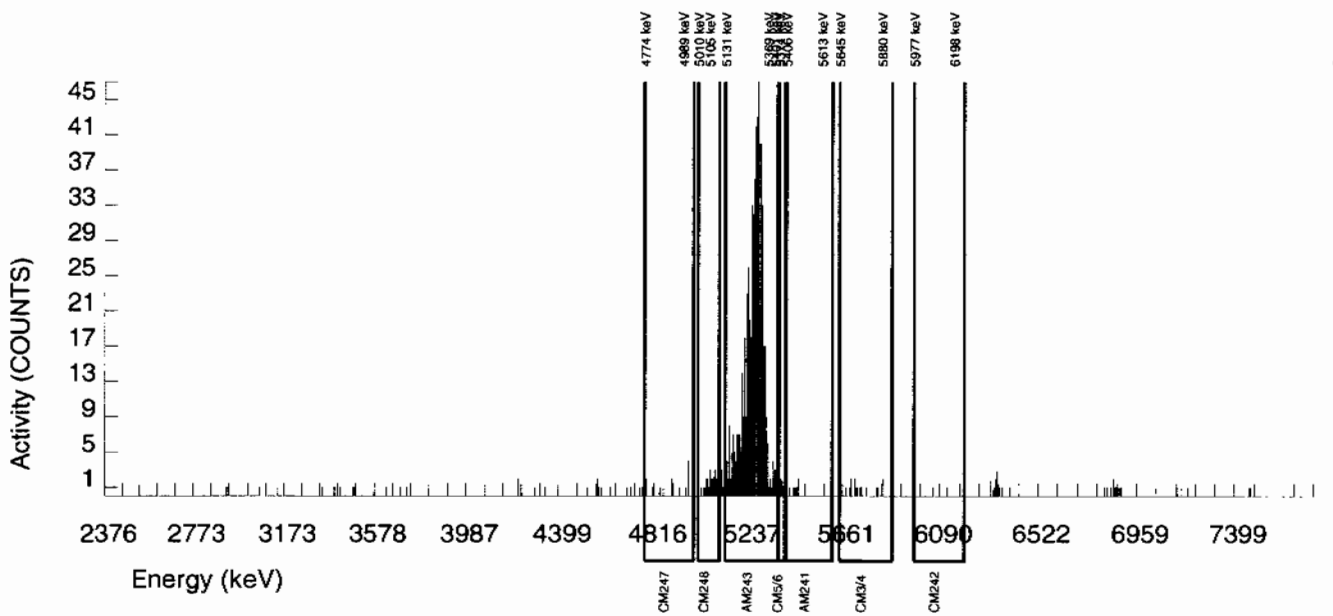

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 065	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799004_AM	DETECTOR S/N : 68551	BKG FILE : B065.CNF;1944
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 30.8199	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:08	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W065.CNF;307
% YIELD : 83.064		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4226E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5474.852	34.294	19.000	8.704	9.000	2.8409	99.94000	1.22E-02	7.27E-03	9.25E-03	2.23E-02	7.23E-03
AM243	5270.000	5276.562	50.301	746.000	745.000	1.000	1.0000	99.78000	1.04E+00	7.48E-02	3.26E-03	1.03E-02	3.83E-02
CM-242	6102.000	6075.634	165.957	10.000	8.000	2.000	4.3413	100.0000	1.24E-02	5.42E-03	1.41E-02	3.20E-02	5.37E-03
CM-3/4	5795.020	5732.861	50.981	20.000	4.000	16.000	5.1799	100.0000	5.61E-03	8.42E-03	1.69E-02	3.75E-02	8.41E-03
CM-5/6	5386.000	5380.634	0.000	7.000	7.000	0.000	14.2480	86.09000	1.14E-02	4.36E-03	5.39E-02	1.12E-01	4.30E-03
CM-247	4946.000	4865.807	0.000	8.000	2.000	6.000	13.7917	79.30000	3.53E-03	6.60E-03	5.66E-02	1.18E-01	6.60E-03
CM-248	5078.600	5068.227	6.124	20.000	20.000	0.000	19.5080	91.00000	3.07E-02	7.13E-03	6.98E-02	1.44E-01	6.87E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

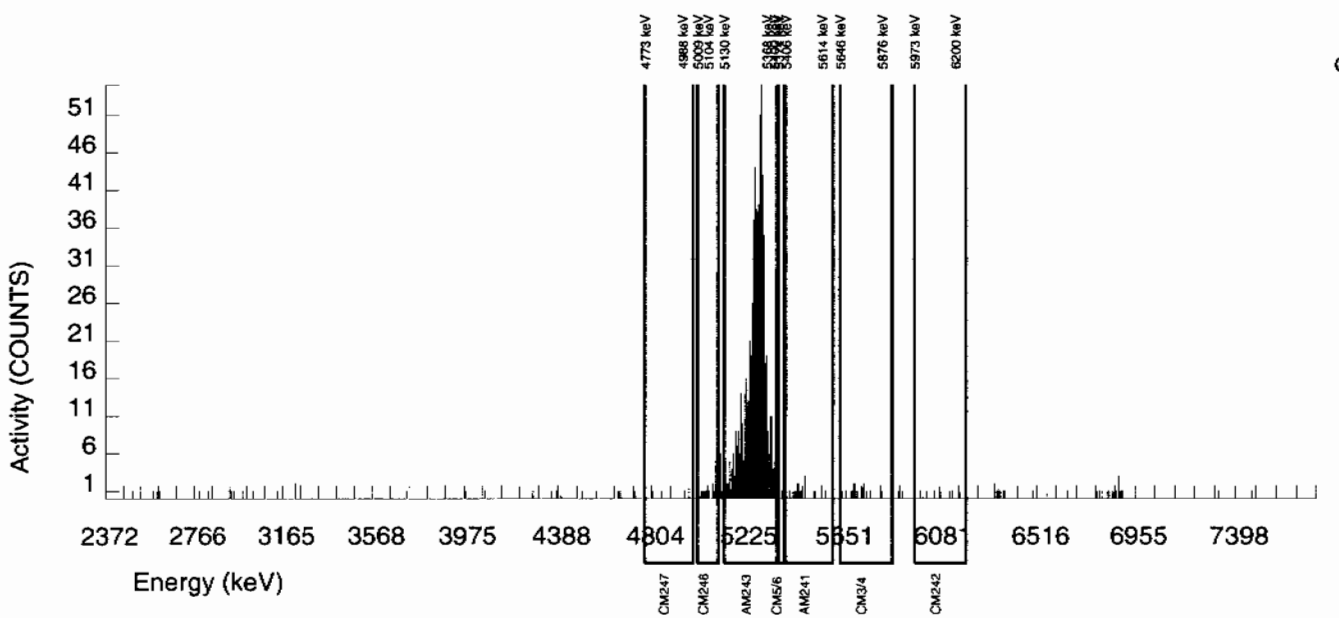

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 066	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799005_AM	DETECTOR S/N : 46-089C1	BKG FILE : B066.CNF;1105
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 31.2039	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:08	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W066.CNF;308
% YIELD : 77.747		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2675E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5483.575	49.679	20.000	9.771	9.000	2.8409	99.94000	1.44E-02	7.84E-03	9.77E-03	2.35E-02	7.79E-03
AM243	5270.000	5271.290	67.501	711.000	706.000	5.000	2.2361	99.78000	1.05E+00	7.61E-02	7.70E-03	1.94E-02	3.96E-02
CM-242	6102.000	6073.738	4.978	9.000	6.000	3.000	4.3413	100.0000	9.82E-03	5.70E-03	1.49E-02	3.38E-02	5.67E-03
CM-3/4	5795.020	5732.008	19.809	21.000	9.000	12.000	5.1799	100.0000	1.33E-02	8.55E-03	1.78E-02	3.96E-02	8.51E-03
CM-5/6	5386.000	5379.758	0.000	5.000	2.000	3.000	14.2480	86.09000	3.43E-03	4.86E-03	5.69E-02	1.18E-01	4.85E-03
CM-247	4946.000	4884.525	4.978	12.000	5.000	7.000	13.7917	79.30000	9.31E-03	8.14E-03	5.98E-02	1.25E-01	8.12E-03
CM-248	5078.600	5066.335	24.269	15.000	14.000	1.000	19.5080	91.00000	2.27E-02	6.64E-03	7.37E-02	1.52E-01	6.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

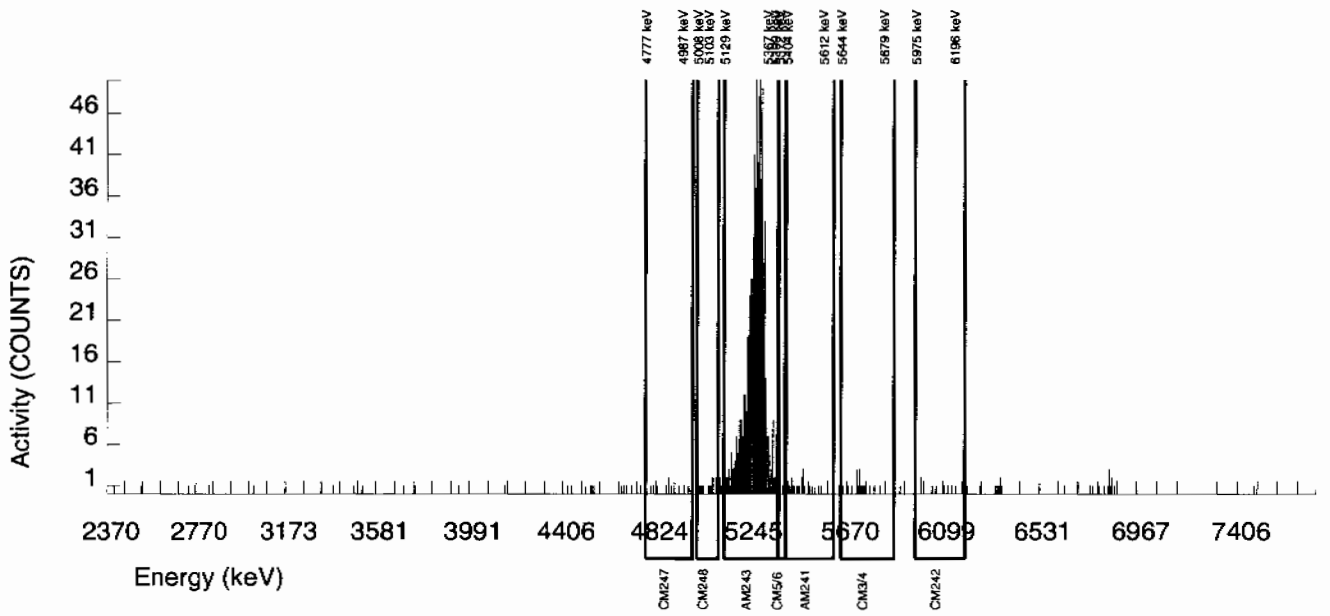

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799006_AM
SAMPLE QTY : 1.257 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 93.415

CHAMBER : 067
DETECTOR S/N : 46-089B4
AVERAGE %EFFICIENCY : 32.3338
COUNT DATE : 18-FEB-2010 17:13:08
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B067.CNF;1103
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W067.CNF;289
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.7245E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5539.324	0.000	5.000	-5.530	9.000	2.8409	99.94000	-6.56E-03	4.19E-03	7.85E-03	1.89E-02	4.19E-03
AM243	5270.000	5273.542	64.270	881.000	879.000	2.000	1.4142	99.78000	1.05E+00	7.17E-02	3.91E-03	1.10E-02	3.53E-02
CM-242	6102.000	6021.043	0.000	4.000	4.000	0.000	4.3413	100.0000	5.26E-03	2.65E-03	1.20E-02	2.72E-02	2.63E-03
CM-3/4	5795.020	5742.290	22.284	8.000	3.000	5.000	5.1799	100.0000	3.57E-03	4.29E-03	1.43E-02	3.18E-02	4.29E-03
CM-5/6	5386.000	5375.619	0.000	7.000	5.000	2.000	14.2480	86.09000	6.89E-03	4.15E-03	4.57E-02	9.51E-02	4.13E-03
CM-247	4946.000	4910.396	179.518	13.000	11.000	2.000	13.7917	79.30000	1.65E-02	5.88E-03	4.80E-02	1.00E-01	5.79E-03
CM-248	5078.600	5069.690	0.000	32.000	31.000	1.000	19.5080	91.00000	4.04E-02	7.87E-03	5.92E-02	1.22E-01	7.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

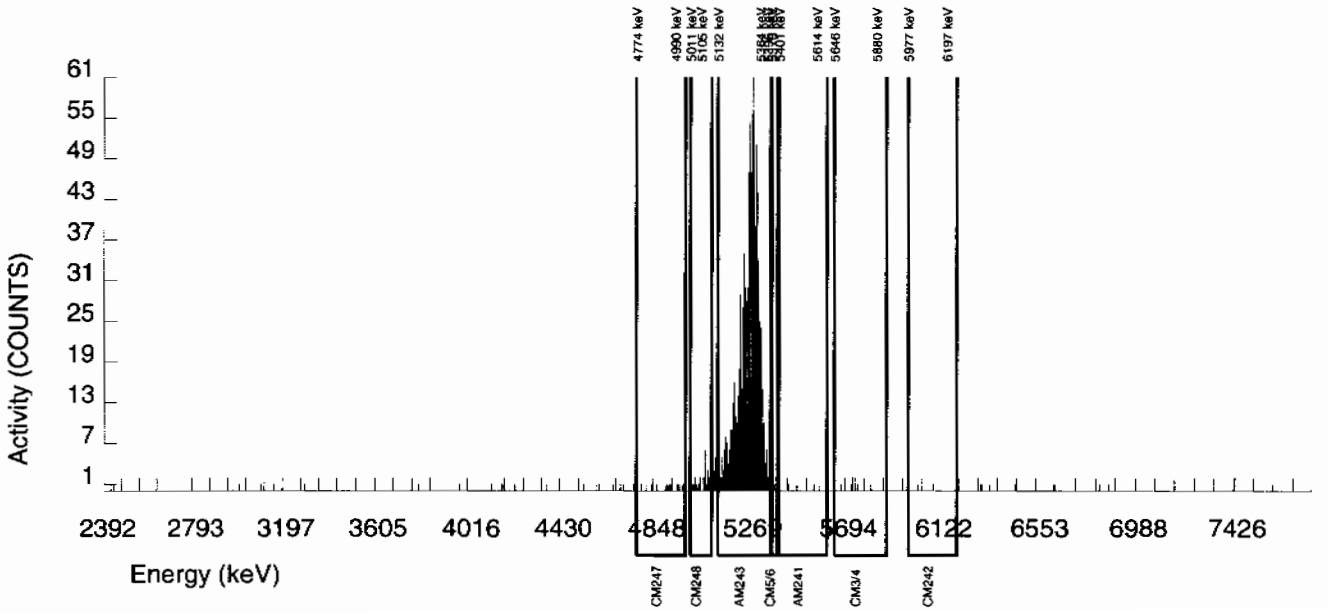

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 068	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799007_AM	DETECTOR S/N : 78794	BKG FILE : B068.CNF;1096
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 29.5953	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:08	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W068.CNF;280
% YIELD : 85.804		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5025E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5487.092	79.468	5.000	2.714	1.000	2.8409	99.94000	3.85E-03	3.09E-03	9.37E-03	2.26E-02	3.08E-03
AM243	5270.000	5281.935	44.182	743.000	739.000	4.000	2.0000	99.78000	1.05E+00	7.54E-02	6.61E-03	1.71E-02	3.88E-02
CM-242	6102.000	6065.028	4.967	6.000	6.000	0.000	4.3413	100.0000	9.42E-03	3.89E-03	1.43E-02	3.25E-02	3.84E-03
CM-3/4	5795.020	5737.664	32.284	11.000	9.000	2.000	5.1799	100.0000	1.28E-02	5.18E-03	1.71E-02	3.80E-02	5.12E-03
CM-5/6	5386.000	5378.955	7.295	7.000	6.000	1.000	14.2480	86.09000	9.87E-03	4.69E-03	5.45E-02	1.14E-01	4.65E-03
CM-247	4946.000	4876.281	153.969	9.000	9.000	0.000	13.7917	79.30000	1.61E-02	5.45E-03	5.73E-02	1.19E-01	5.36E-03
CM-248	5078.600	5070.413	6.157	11.000	10.000	1.000	19.5080	91.00000	1.56E-02	5.48E-03	7.07E-02	1.46E-01	5.39E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

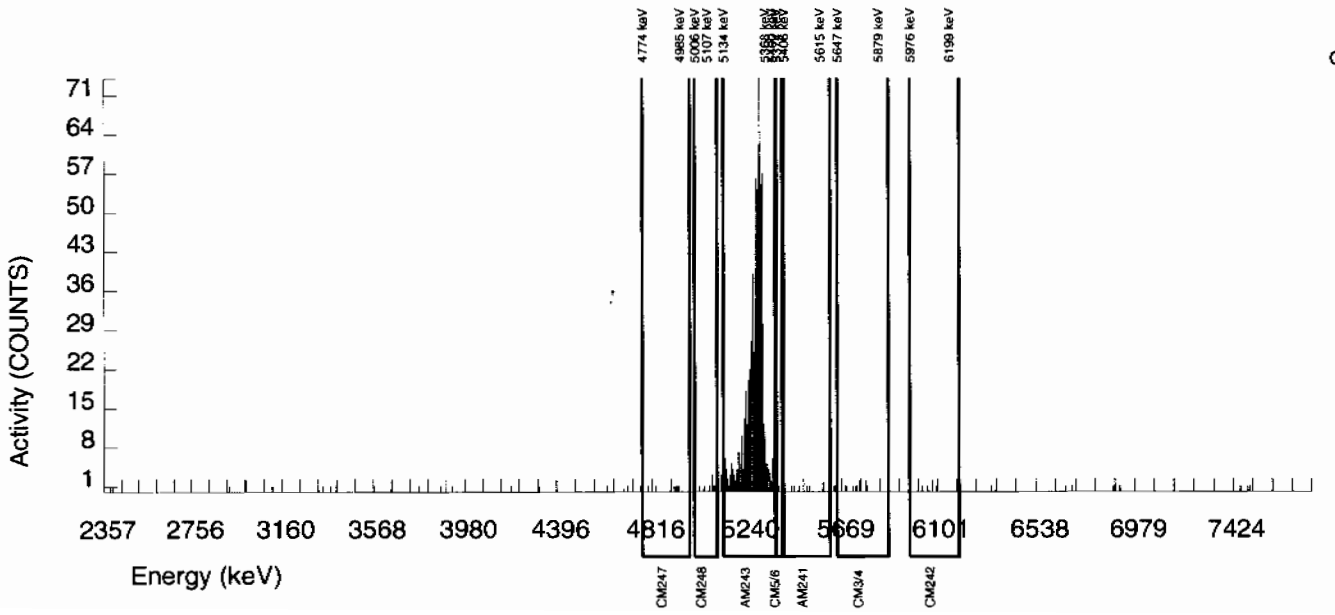

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799008_AM
SAMPLE QTY : 1.251 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 84.828

CHAMBER : 069
DETECTOR S/N : 78795
AVERAGE %EFFICIENCY : 30.7054
COUNT DATE : 18-FEB-2010 17:13:08
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B069.CNF;1098
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W069.CNF;287
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4741E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.391	18.088	21.000	18.681	1.000	2.8409	99.94000	2.58E-02	6.49E-03	9.14E-03	2.20E-02	6.29E-03
AM243	5270.000	5271.402	46.584	758.000	758.000	0.000	0.0000	99.78000	1.05E+00	7.47E-02	0.00E+00	3.75E-03	3.81E-02
CM-242	6102.000	6009.770	34.532	4.000	4.000	0.000	4.3413	100.0000	6.13E-03	3.09E-03	1.40E-02	3.17E-02	3.06E-03
CM-3/4	5795.020	5750.019	19.630	8.000	3.000	5.000	5.1799	100.0000	4.16E-03	5.00E-03	1.67E-02	3.71E-02	5.00E-03
CM-5/6	5386.000	5374.132	0.000	6.000	6.000	0.000	14.2480	86.09000	9.63E-03	3.98E-03	5.32E-02	1.11E-01	3.93E-03
CM-247	4946.000	4862.174	93.729	8.000	4.000	4.000	13.7917	79.30000	6.97E-03	6.05E-03	5.59E-02	1.17E-01	6.04E-03
CM-248	5078.600	5036.247	0.000	12.000	12.000	0.000	19.5080	91.00000	1.82E-02	5.38E-03	6.89E-02	1.42E-01	5.26E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

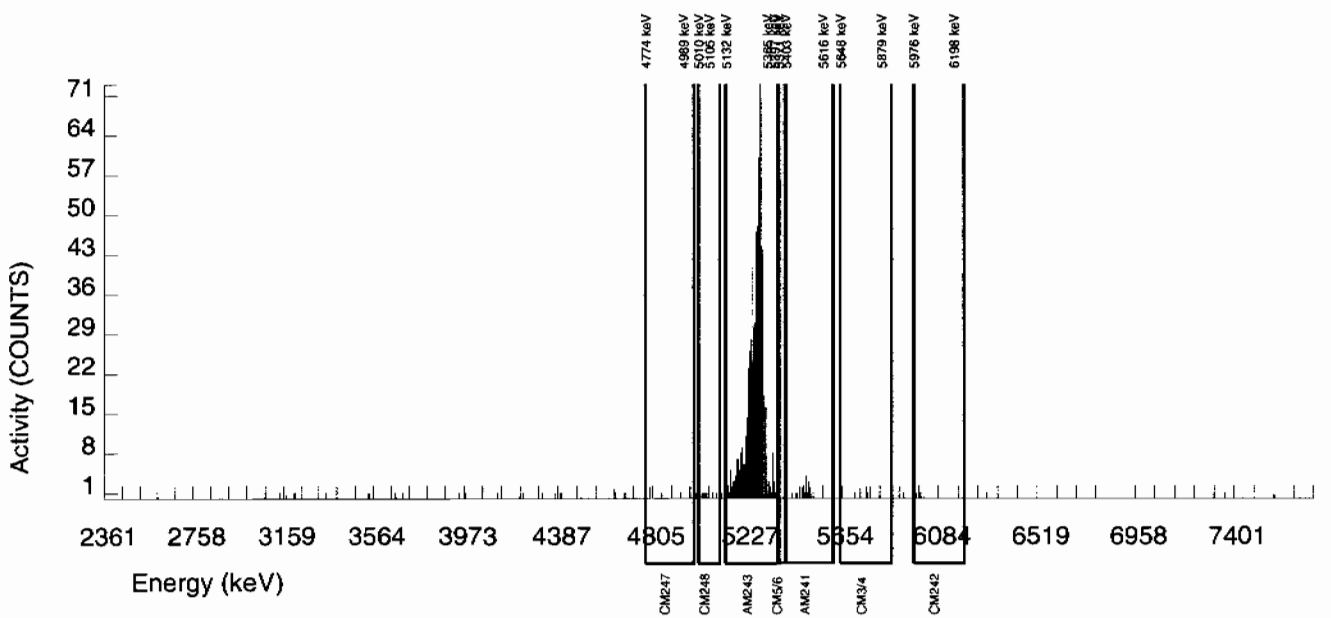

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 070	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799009_AM	DETECTOR S/N : 46-089B2	BKG FILE : B070.CNF;1108
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 35.5412	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:08	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W070.CNF;292
% YIELD : 76.574		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2333E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.802	161.900	8.000	-1.378	8.000	2.8409	99.94000	-1.82E-03	5.05E-03	8.72E-03	2.10E-02	5.05E-03
AM243	5270.000	5264.826	60.175	794.000	792.000	2.000	1.4142	99.78000	1.05E+00	7.37E-02	4.35E-03	1.23E-02	3.73E-02
CM-242	6102.000	6026.454	7.233	11.000	9.000	2.000	4.3413	100.0000	1.31E-02	5.33E-03	1.33E-02	3.02E-02	5.27E-03
CM-3/4	5795.020	5732.294	93.570	8.000	0.000	8.000	5.1799	100.0000	0.00E+00	5.29E-03	1.59E-02	3.54E-02	5.29E-03
CM-5/6	5386.000	5376.692	0.000	5.000	3.000	2.000	14.2480	86.09000	4.60E-03	4.06E-03	5.08E-02	1.06E-01	4.05E-03
CM-247	4946.000	4902.173	0.000	17.000	14.000	3.000	13.7917	79.30000	2.33E-02	7.57E-03	5.34E-02	1.11E-01	7.44E-03
CM-248	5078.600	5070.610	0.000	24.000	24.000	0.000	19.5080	91.00000	3.48E-02	7.41E-03	6.58E-02	1.35E-01	7.10E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

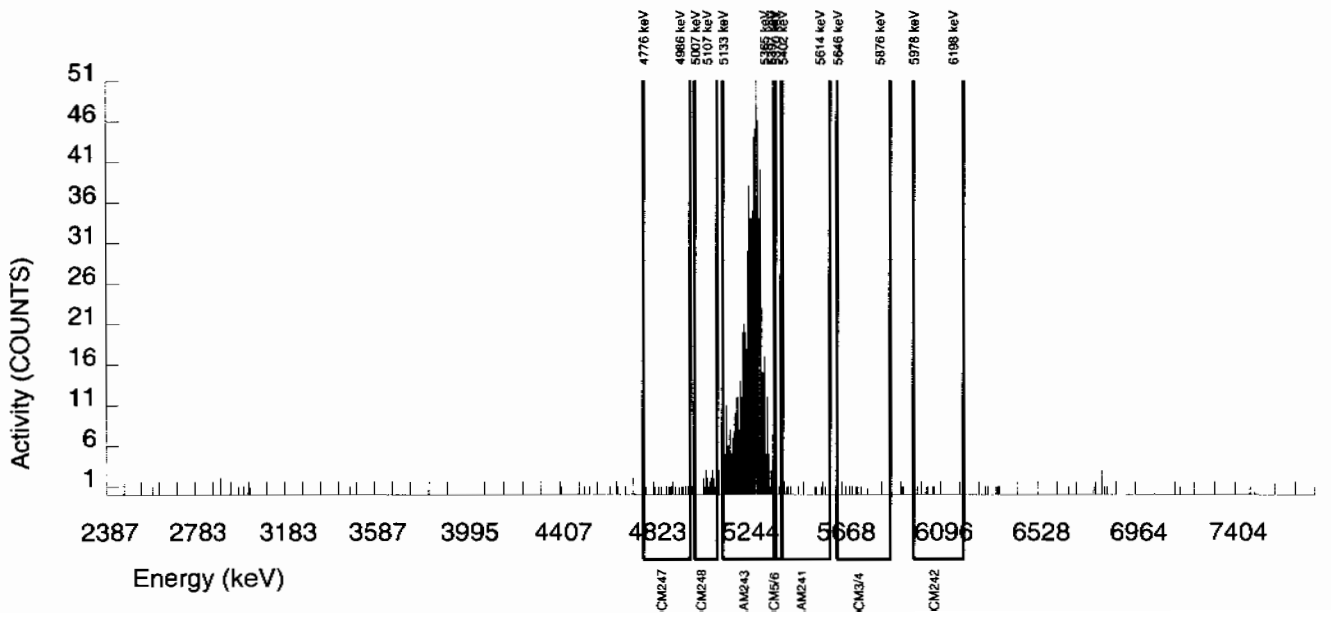

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 071	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799010_AM	DETECTOR S/N : 64259	BKG FILE : B071.CNF;1101
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 32.1673	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W071.CNF;286
% YIELD : 79.798		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3274E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5483.683	4.981	11.000	3.700	6.000	2.8409	99.94000	5.18E-03	5.56E-03	9.25E-03	2.23E-02	5.55E-03
AM243	5270.000	5270.512	34.351	748.000	747.000	1.000	1.0000	99.78000	1.05E+00	7.49E-02	3.26E-03	1.03E-02	3.84E-02
CM-242	6102.000	6060.629	9.963	13.000	13.000	0.000	4.3413	100.0000	2.02E-02	5.72E-03	1.41E-02	3.21E-02	5.59E-03
CM-3/4	5795.020	5737.793	123.912	22.000	20.000	2.000	5.1799	100.0000	2.81E-02	7.09E-03	1.69E-02	3.75E-02	6.87E-03
CM-5/6	5386.000	5378.055	0.000	5.000	5.000	0.000	14.2480	86.09000	8.13E-03	3.67E-03	5.39E-02	1.12E-01	3.63E-03
CM-247	4946.000	4891.616	4.981	9.000	6.000	3.000	13.7917	79.30000	1.06E-02	6.15E-03	5.66E-02	1.18E-01	6.11E-03
CM-248	5078.600	5064.854	0.000	13.000	12.000	1.000	19.5080	91.00000	1.85E-02	5.86E-03	6.98E-02	1.44E-01	5.75E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

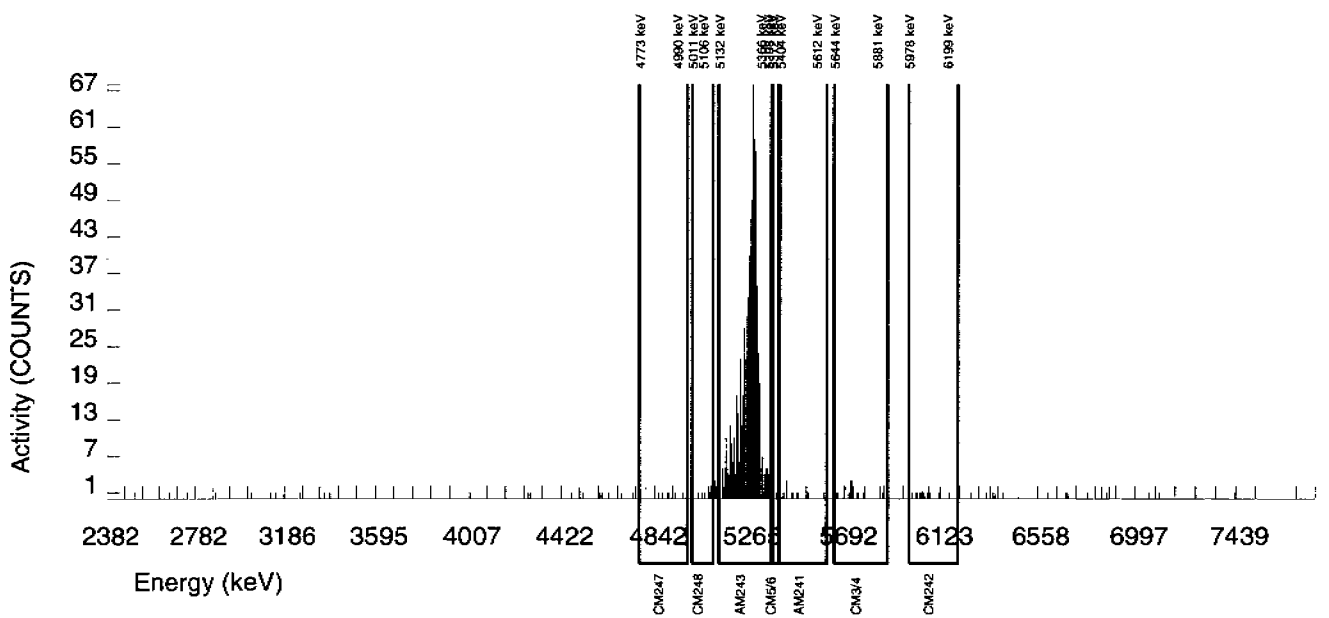

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 072	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799011_AM	DETECTOR S/N : 45-149AA3	BKG FILE : B072.CNF;1099
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 32.1107	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W072.CNF;277
% YIELD : 87.750		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5593E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.624	83.774	25.000	11.573	12.000	2.8409	99.94000	1.48E-02	7.66E-03	8.43E-03	2.03E-02	7.61E-03
AM243	5270.000	5277.146	42.205	824.000	820.000	4.000	2.0000	99.78000	1.05E+00	7.33E-02	5.94E-03	1.54E-02	3.68E-02
CM-242	6102.000	6107.376	173.753	6.000	1.000	5.000	4.3413	100.0000	1.41E-03	4.68E-03	1.29E-02	2.92E-02	4.68E-03
CM-3/4	5795.020	5750.383	89.255	15.000	11.000	4.000	5.1799	100.0000	1.41E-02	5.64E-03	1.54E-02	3.42E-02	5.57E-03
CM-5/6	5386.000	5377.896	0.000	6.000	3.000	3.000	14.2480	86.09000	4.44E-03	4.45E-03	4.91E-02	1.02E-01	4.44E-03
CM-247	4946.000	4894.186	0.000	7.000	3.000	4.000	13.7917	79.30000	4.82E-03	5.34E-03	5.16E-02	1.08E-01	5.33E-03
CM-248	5078.600	5058.534	75.267	20.000	17.000	3.000	19.5080	91.00000	2.38E-02	6.87E-03	6.36E-02	1.31E-01	6.72E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

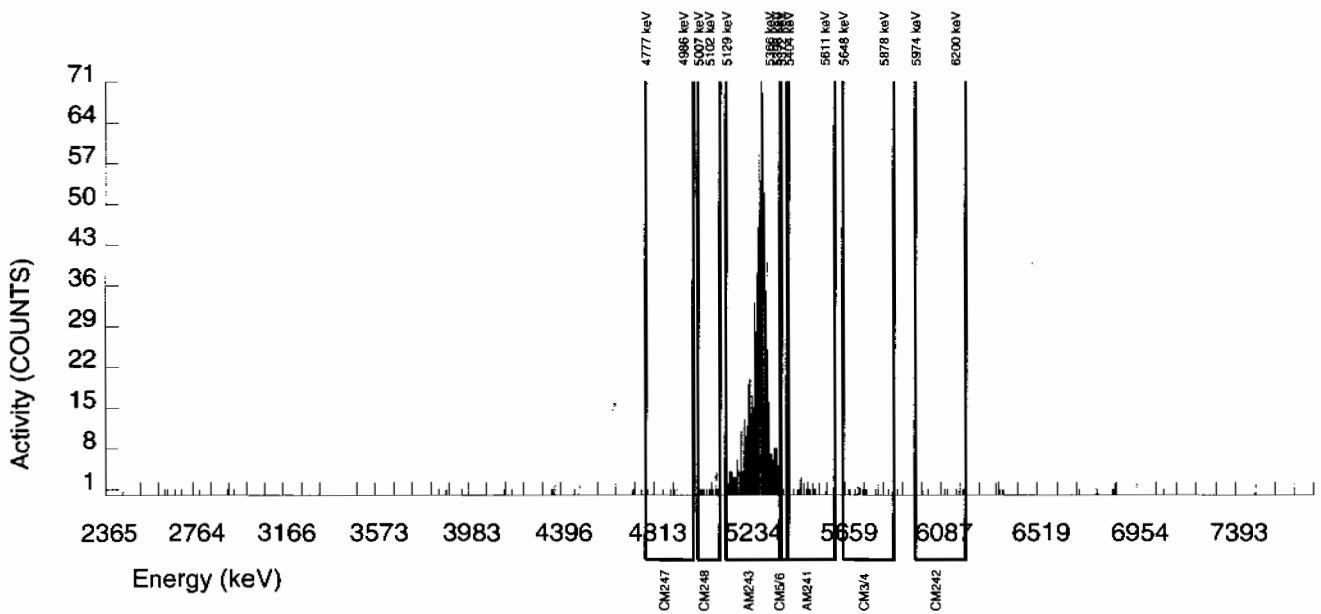

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799012_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 85.271

CHAMBER : 073
DETECTOR S/N : 78775
AVERAGE %EFFICIENCY : 33.1249
COUNT DATE : 18-FEB-2010 17:13:09
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B073.CNF;1101
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W073.CNF;285
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4870E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5524.335	98.689	3.000	1.570	0.000	2.8409	99.94000	2.00E-03	1.60E-03	8.40E-03	2.03E-02	1.59E-03
AM243	5270.000	5273.855	40.171	824.000	822.000	2.000	1.4142	99.78000	1.05E+00	7.31E-02	4.19E-03	1.18E-02	3.66E-02
CM-242	6102.000	6030.171	43.177	12.000	12.000	0.000	4.3413	100.0000	1.69E-02	4.98E-03	1.28E-02	2.91E-02	4.88E-03
CM-3/4	5795.020	5719.050	83.269	4.000	4.000	0.000	5.1799	100.0000	5.10E-03	2.57E-03	1.53E-02	3.41E-02	2.55E-03
CM-5/6	5386.000	5371.991	0.000	3.000	3.000	0.000	14.2480	86.09000	4.43E-03	2.57E-03	4.89E-02	1.02E-01	2.56E-03
CM-247	4946.000	4904.472	4.934	8.000	5.000	3.000	13.7917	79.30000	8.01E-03	5.34E-03	5.14E-02	1.07E-01	5.31E-03
CM-248	5078.600	5059.690	0.000	19.000	19.000	0.000	19.5080	91.00000	2.65E-02	6.29E-03	6.34E-02	1.31E-01	6.09E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

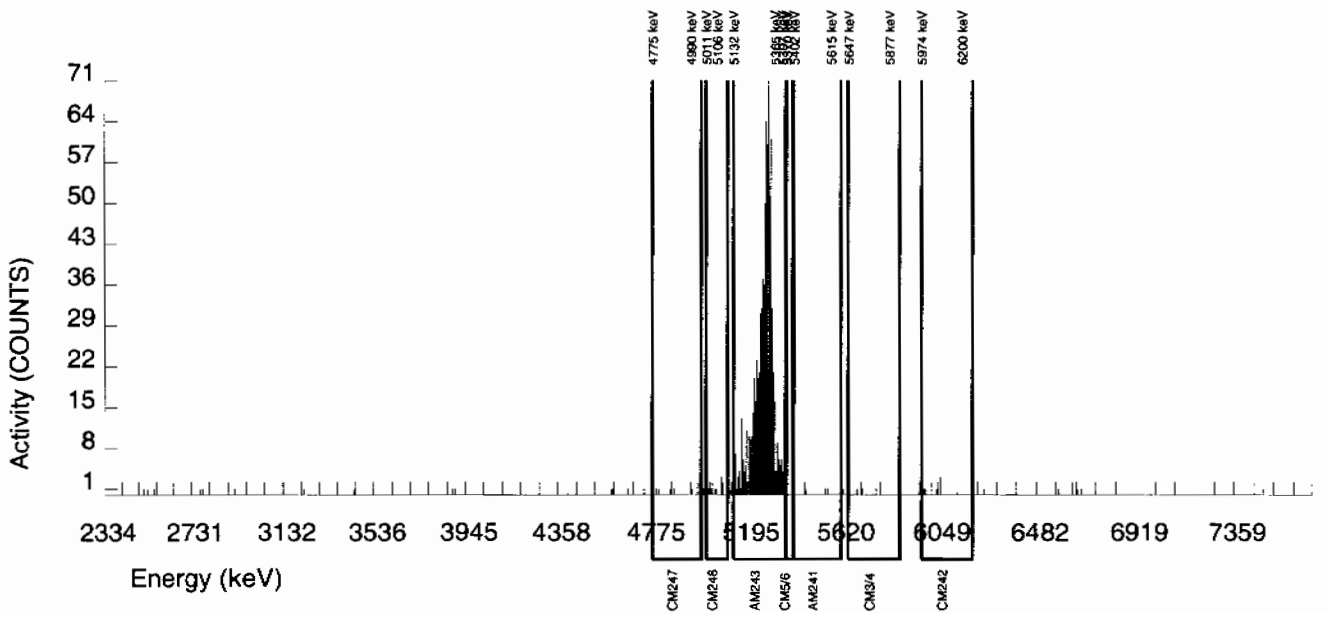

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 074	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799013_AM	DETECTOR S/N : 78266	BKG FILE : B074.CNF;1123
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 31.7390	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W074.CNF;332
% YIELD : 79.468		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3177E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5490.787	149.672	9.000	6.723	1.000	2.8409	99.94000	9.61E-03	4.26E-03	9.45E-03	2.28E-02	4.22E-03
AM243	5270.000	5282.780	36.728	736.000	734.000	2.000	1.4142	99.78000	1.05E+00	7.56E-02	4.71E-03	1.33E-02	3.89E-02
CM-242	6102.000	6044.346	7.328	10.000	9.000	1.000	4.3413	100.0000	1.42E-02	5.32E-03	1.44E-02	3.27E-02	5.25E-03
CM-3/4	5795.020	5727.271	0.000	9.000	6.000	3.000	5.1799	100.0000	8.59E-03	4.99E-03	1.72E-02	3.83E-02	4.96E-03
CM-5/6	5386.000	5377.125	0.000	10.000	9.000	1.000	14.2480	86.09000	1.49E-02	5.58E-03	5.50E-02	1.15E-01	5.50E-03
CM-247	4946.000	4868.512	4.989	6.000	4.000	2.000	13.7917	79.30000	7.21E-03	5.12E-03	5.78E-02	1.20E-01	5.10E-03
CM-248	5078.600	5070.247	7.328	5.000	5.000	0.000	19.5080	91.00000	7.85E-03	3.54E-03	7.13E-02	1.47E-01	3.51E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

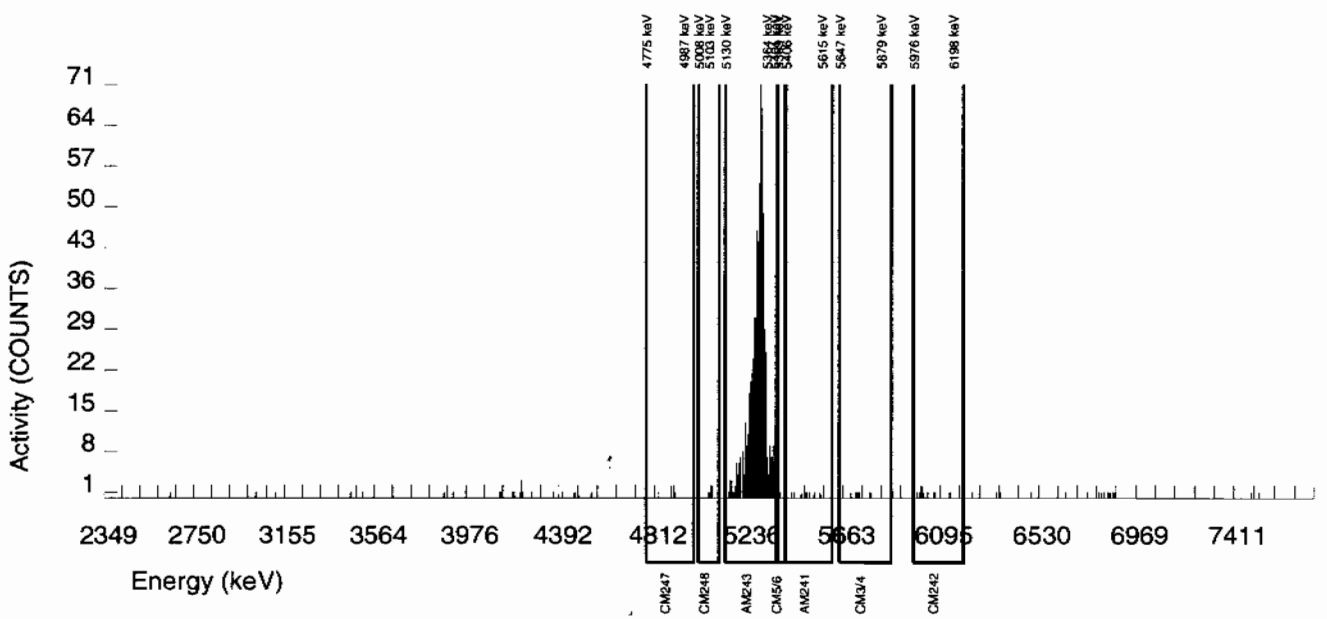

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 075	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799014_AM	DETECTOR S/N : 80010	BKG FILE : B075.CNF;1104
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 30.5707	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W075.CNF;290
% YIELD : 78.008		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2752E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5486.248	19.756	13.000	10.792	1.000	2.8409	99.94000	1.63E-02	5.50E-03	9.98E-03	2.41E-02	5.40E-03
AM243	5270.000	5260.170	48.575	697.000	694.000	3.000	1.7321	99.78000	1.05E+00	7.67E-02	6.10E-03	1.63E-02	4.00E-02
CM-242	6102.000	6048.588	0.000	7.000	7.000	0.000	4.3413	100.0000	1.17E-02	4.49E-03	1.52E-02	3.46E-02	4.43E-03
CM-3/4	5795.020	5773.354	6.123	9.000	8.000	1.000	5.1799	100.0000	1.21E-02	4.85E-03	1.82E-02	4.05E-02	4.79E-03
CM-5/6	5386.000	5389.824	14.817	2.000	2.000	0.000	14.2480	86.09000	3.51E-03	2.49E-03	5.81E-02	1.21E-01	2.48E-03
CM-247	4946.000	4918.912	127.180	15.000	13.000	2.000	13.7917	79.30000	2.48E-02	8.00E-03	6.11E-02	1.27E-01	7.85E-03
CM-248	5078.600	5073.781	48.567	15.000	15.000	0.000	19.5080	91.00000	2.49E-02	6.61E-03	7.53E-02	1.55E-01	6.43E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

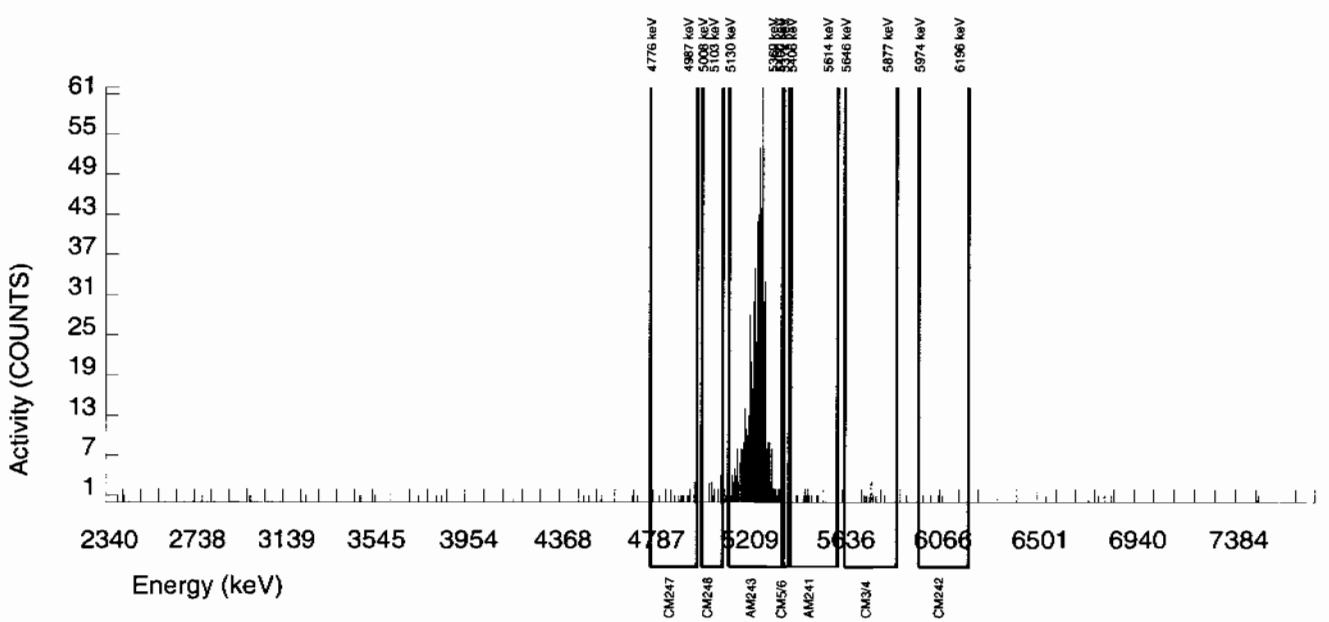

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799015_AM
SAMPLE QTY : 1.252 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 83.843

CHAMBER : 076
DETECTOR S/N : 78779
AVERAGE %EFFICIENCY : 30.3696
COUNT DATE : 18-FEB-2010 17:13:09
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B076.CNF;1107
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W076.CNF;295
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4453E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5501.554	49.557	15.000	13.711	0.000	2.8409	99.94000	1.94E-02	5.37E-03	9.34E-03	2.25E-02	5.24E-03
AM243	5270.000	5277.676	42.284	741.000	741.000	0.000	0.0000	99.78000	1.05E+00	7.51E-02	0.00E+00	3.84E-03	3.85E-02
CM-242	6102.000	6054.348	6.143	7.000	7.000	0.000	4.3413	100.0000	1.10E-02	4.20E-03	1.43E-02	3.24E-02	4.14E-03
CM-3/4	5795.020	5729.452	0.000	5.000	5.000	0.000	5.1799	100.0000	7.08E-03	3.20E-03	1.70E-02	3.79E-02	3.17E-03
CM-5/6	5386.000	5375.785	0.000	3.000	3.000	0.000	14.2480	86.09000	4.92E-03	2.86E-03	5.44E-02	1.13E-01	2.84E-03
CM-247	4946.000	4906.345	138.760	9.000	8.000	1.000	13.7917	79.30000	1.43E-02	5.70E-03	5.72E-02	1.19E-01	5.63E-03
CM-248	5078.600	5076.967	0.000	18.000	18.000	0.000	19.5080	91.00000	2.79E-02	6.81E-03	7.05E-02	1.45E-01	6.59E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

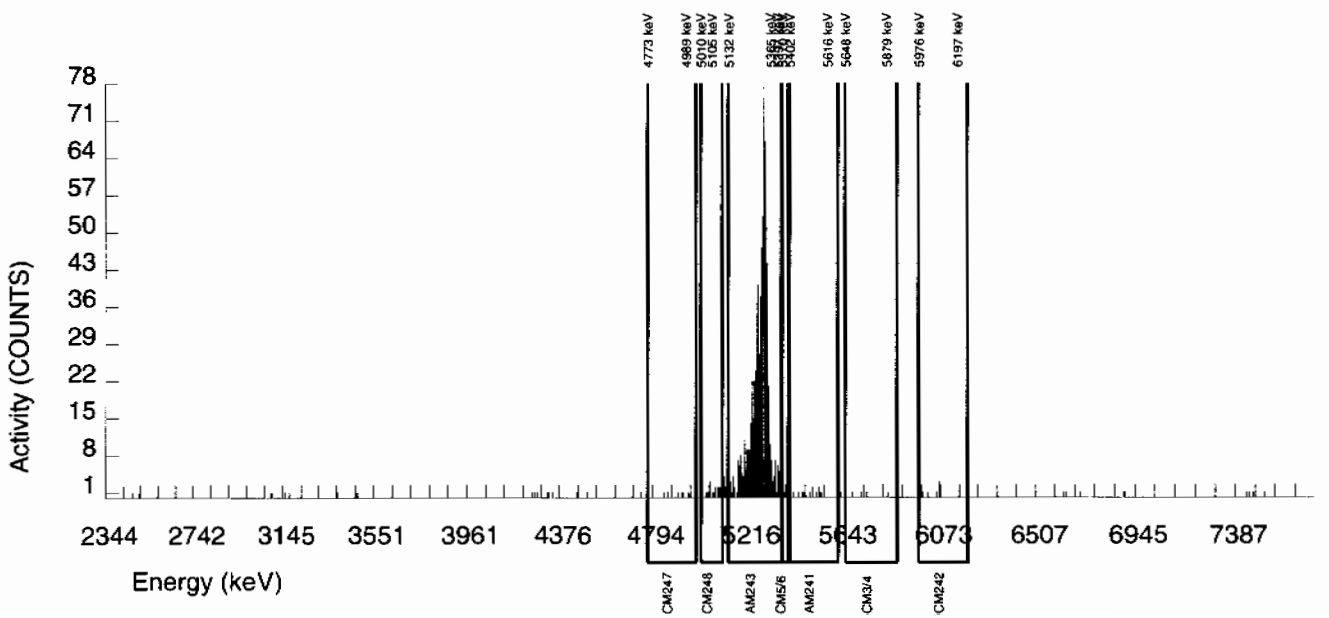

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799016_AM
SAMPLE QTY : 1.253 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 82.528

CHAMBER : 077
DETECTOR S/N : 67576
AVERAGE %EFFICIENCY : 31.3532
COUNT DATE : 18-FEB-2010 17:13:10
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B077.CNF;1016
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W077.CNF;263
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4070E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5482.854	5.735	13.000	7.690	4.000	2.8409	99.94000	1.07E-02	5.55E-03	9.19E-03	2.21E-02	5.51E-03
AM243	5270.000	5279.164	41.107	756.000	753.000	3.000	1.7321	99.78000	1.05E+00	7.49E-02	5.61E-03	1.50E-02	3.84E-02
CM-242	6102.000	6044.981	4.938	5.000	5.000	0.000	4.3413	100.0000	7.70E-03	3.47E-03	1.40E-02	3.18E-02	3.44E-03
CM-3/4	5795.020	5758.354	6.121	9.000	5.000	4.000	5.1799	100.0000	6.96E-03	5.04E-03	1.67E-02	3.72E-02	5.02E-03
CM-5/6	5386.000	5375.138	0.000	9.000	8.000	1.000	14.2480	86.09000	1.29E-02	5.16E-03	5.35E-02	1.11E-01	5.10E-03
CM-247	4946.000	4923.314	4.938	7.000	5.000	2.000	13.7917	79.30000	8.76E-03	5.28E-03	5.62E-02	1.17E-01	5.26E-03
CM-248	5078.600	5061.292	7.252	8.000	8.000	0.000	19.5080	91.00000	1.22E-02	4.38E-03	6.93E-02	1.43E-01	4.32E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

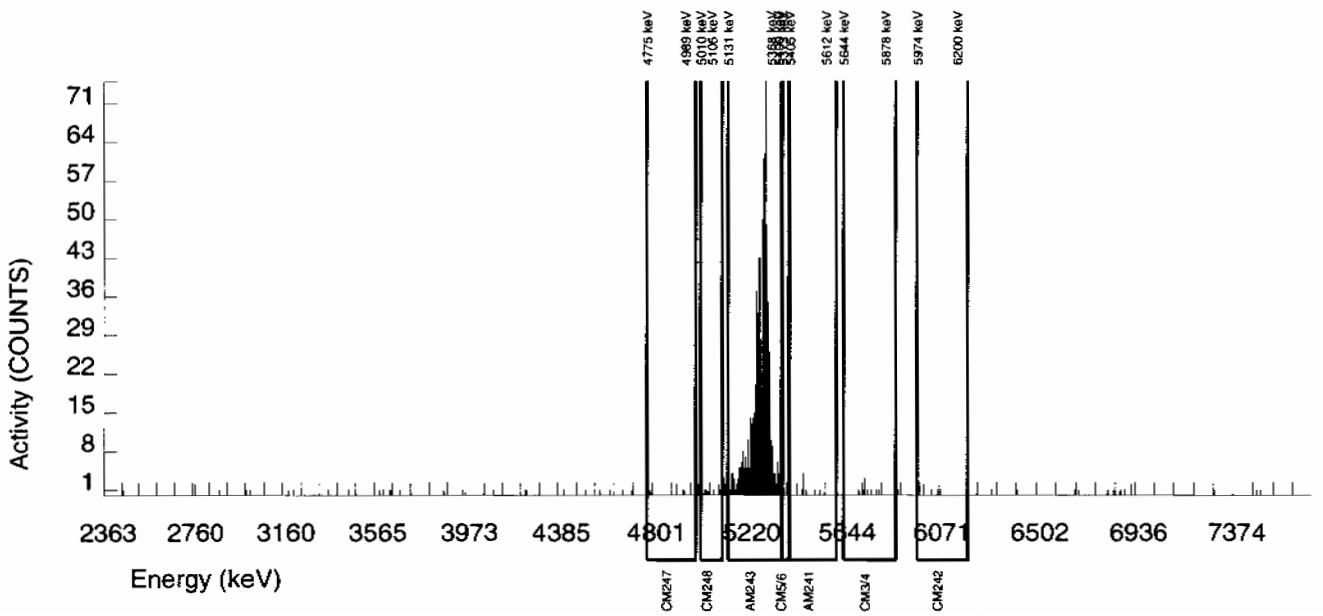

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799017_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 83.220

CHAMBER : 079
DETECTOR S/N : 79466
AVERAGE %EFFICIENCY : 32.2486
COUNT DATE : 18-FEB-2010 17:13:10
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B079.CNF;1018
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W079.CNF;268
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4272E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.627	8.693	16.000	14.641	0.000	2.8409	99.94000	1.96E-02	5.26E-03	8.84E-03	2.13E-02	5.12E-03
AM243	5270.000	5271.016	37.840	781.000	781.000	0.000	0.0000	99.78000	1.05E+00	7.39E-02	0.00E+00	3.63E-03	3.75E-02
CM-242	6102.000	6053.890	7.223	8.000	8.000	0.000	4.3413	100.0000	1.19E-02	4.25E-03	1.35E-02	3.06E-02	4.19E-03
CM-3/4	5795.020	5746.699	137.087	9.000	9.000	0.000	5.1799	100.0000	1.21E-02	4.09E-03	1.61E-02	3.59E-02	4.02E-03
CM-5/6	5386.000	5375.946	0.000	7.000	7.000	0.000	14.2480	86.09000	1.09E-02	4.16E-03	5.15E-02	1.07E-01	4.11E-03
CM-247	4946.000	4903.324	9.836	14.000	13.000	1.000	13.7917	79.30000	2.19E-02	6.67E-03	5.41E-02	1.13E-01	6.53E-03
CM-248	5078.600	5070.176	86.063	14.000	14.000	0.000	19.5080	91.00000	2.06E-02	5.64E-03	6.67E-02	1.37E-01	5.50E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

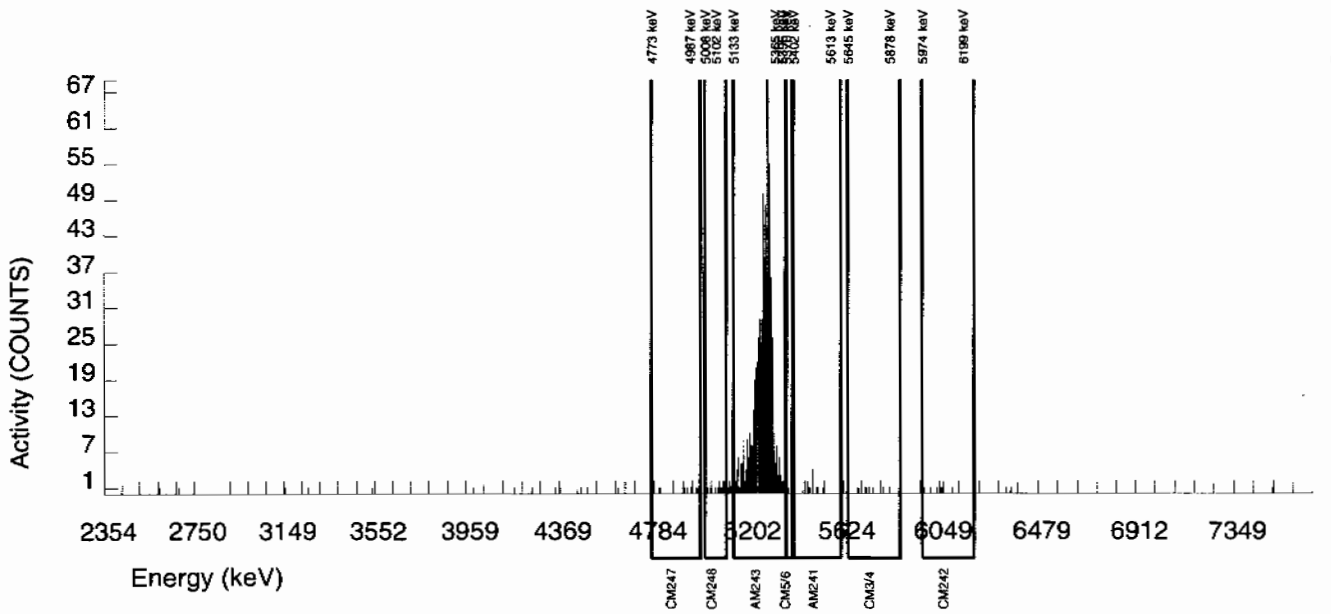

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 081	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245799018_AM	DETECTOR S/N : 79996	BKG FILE : B081.CNF;1026
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 32.2195	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:10	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W081.CNF;274
% YIELD : 87.987		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5662E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.075	37.718	18.000	16.564	0.000	2.8409	99.94000	2.11E-02	5.33E-03	8.41E-03	2.03E-02	5.18E-03
AM243	5270.000	5278.373	39.117	825.000	825.000	0.000	0.0000	99.78000	1.05E+00	7.32E-02	0.00E+00	3.45E-03	3.66E-02
CM-242	6102.000	6034.848	63.320	8.000	8.000	0.000	4.3413	100.0000	1.13E-02	4.04E-03	1.28E-02	2.91E-02	3.98E-03
CM-3/4	5795.020	5783.533	156.115	8.000	8.000	0.000	5.1799	100.0000	1.02E-02	3.66E-03	1.53E-02	3.41E-02	3.60E-03
CM-5/6	5386.000	5375.477	0.000	12.000	12.000	0.000	14.2480	86.09000	1.77E-02	5.23E-03	4.89E-02	1.02E-01	5.11E-03
CM-247	4946.000	4879.829	6.047	9.000	8.000	1.000	13.7917	79.30000	1.28E-02	5.13E-03	5.14E-02	1.07E-01	5.07E-03
CM-248	5078.600	5060.509	0.000	14.000	13.000	1.000	19.5080	91.00000	1.82E-02	5.52E-03	6.34E-02	1.31E-01	5.41E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

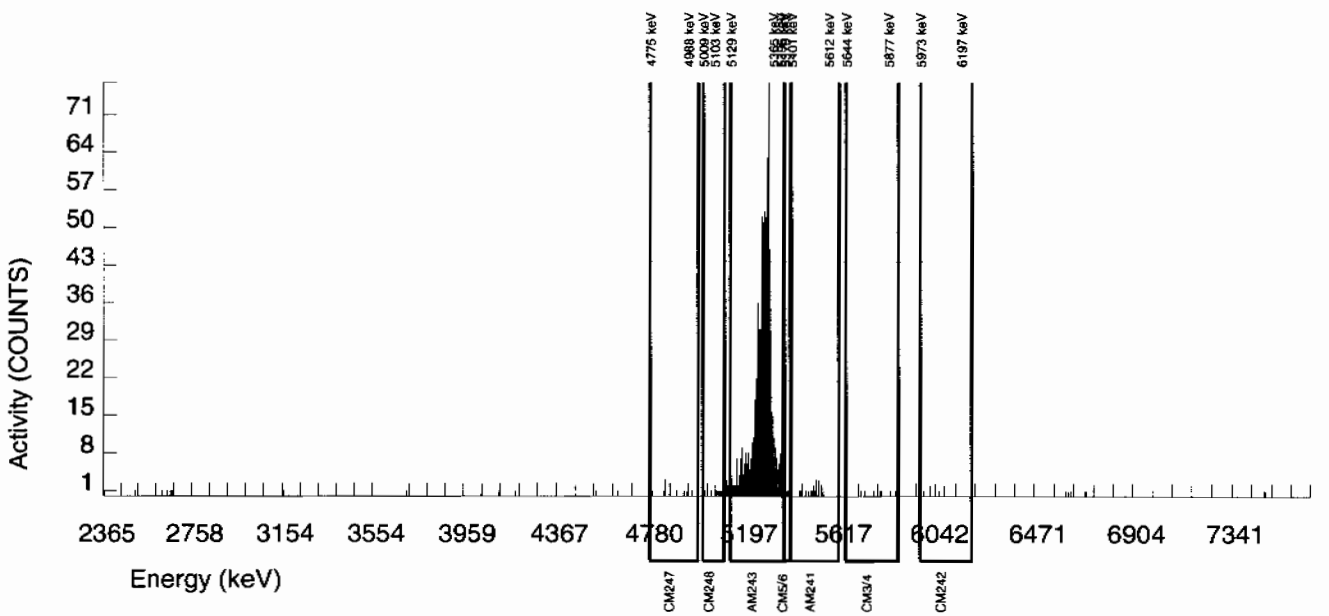

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S0245799019_AM
SAMPLE QTY : 1.256 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 82.212

CHAMBER : 082
DETECTOR S/N : 79997
AVERAGE %EFFICIENCY : 32.1841
COUNT DATE : 18-FEB-2010 17:13:10
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B082.CNF;1016
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W082.CNF;257
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.3978E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5532.539	39.539	3.000	-0.340	2.000	2.8409	99.94000	-4.61E-04	2.60E-03	8.96E-03	2.16E-02	2.59E-03
AM243	5270.000	5280.574	41.053	774.000	770.000	4.000	2.0000	99.78000	1.05E+00	7.43E-02	6.32E-03	1.63E-02	3.79E-02
CM-242	6102.000	6045.945	11.892	10.000	9.000	1.000	4.3413	100.0000	1.35E-02	5.05E-03	1.37E-02	3.11E-02	4.98E-03
CM-3/4	5795.020	5760.563	113.056	6.000	6.000	0.000	5.1799	100.0000	8.15E-03	3.37E-03	1.63E-02	3.63E-02	3.33E-03
CM-5/6	5386.000	5375.907	0.000	10.000	10.000	0.000	14.2480	86.09000	1.57E-02	5.07E-03	5.22E-02	1.09E-01	4.98E-03
CM-247	4946.000	4906.125	137.767	5.000	4.000	1.000	13.7917	79.30000	6.84E-03	4.21E-03	5.48E-02	1.14E-01	4.19E-03
CM-248	5078.600	5078.045	0.000	14.000	13.000	1.000	19.5080	91.00000	1.94E-02	5.89E-03	6.76E-02	1.39E-01	5.77E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

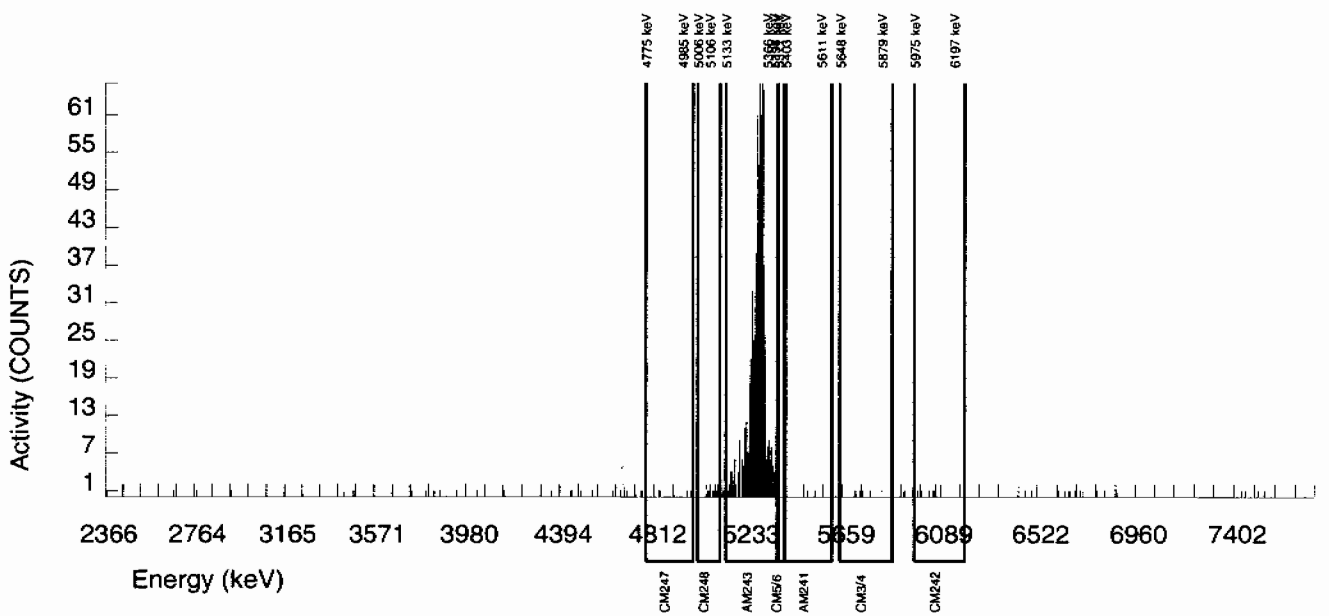

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404	CHAMBER : 083	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202036734_AM	DETECTOR S/N : 64278	BKG FILE : B083.CNF;1023
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 34.7636	BKG DATE : 14-FEB-2010
SAMPLE DATE : 12-FEB-2010 00:00:00	COUNT DATE : 18-FEB-2010 17:13:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W083.CNF;292
% YIELD : 87.183		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.5427E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5484.183	0.000	13.000	0.465	11.000	2.8409	99.94000	6.92E-04	7.05E-03	9.83E-03	2.37E-02	7.05E-03
AM243	5270.000	5288.992	48.539	883.000	882.000	1.000	1.0000	99.78000	1.31E+00	9.01E-02	3.47E-03	1.10E-02	4.43E-02
CM-242	6102.000	6045.768	75.938	13.000	12.000	1.000	4.3413	100.0000	1.84E-02	5.83E-03	1.50E-02	3.40E-02	5.73E-03
CM-3/4	5795.020	5745.091	13.922	11.000	3.000	8.000	5.1799	100.0000	4.46E-03	6.49E-03	1.79E-02	3.98E-02	6.48E-03
CM-5/6	5386.000	5387.104	0.000	20.000	19.000	1.000	14.2480	86.09000	3.28E-02	8.15E-03	5.72E-02	1.19E-01	7.91E-03
CM-247	4946.000	4891.535	7.436	16.000	12.000	4.000	13.7917	79.30000	2.25E-02	8.49E-03	6.01E-02	1.25E-01	8.38E-03
CM-248	5078.600	5059.381	0.000	28.000	26.000	2.000	19.5080	91.00000	4.25E-02	9.30E-03	7.41E-02	1.53E-01	8.95E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

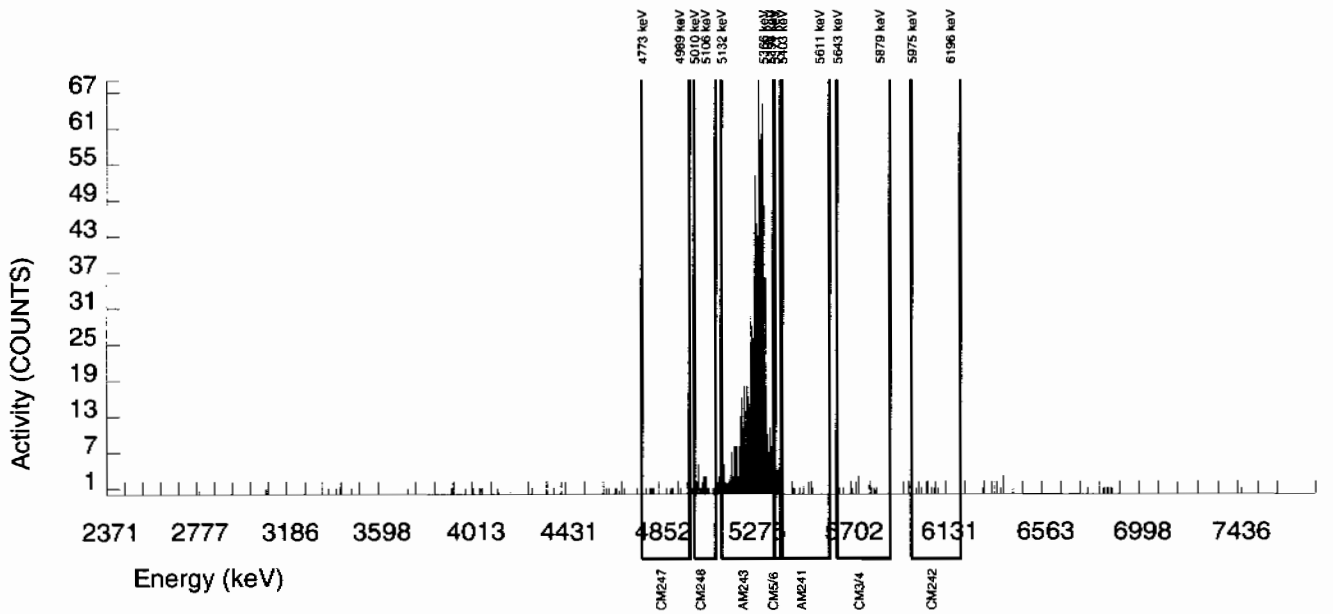

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S1202036735_AM
SAMPLE QTY : 1.251 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 82.507

CHAMBER : 084
DETECTOR S/N : 78265
AVERAGE %EFFICIENCY : 33.6931
COUNT DATE : 18-FEB-2010 17:13:11
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B084.CNF;1021
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W084.CNF;295
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4064E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5459.711	0.000	5.000	3.592	0.000	2.8409	99.94000	4.66E-03	2.47E-03	8.57E-03	2.06E-02	2.46E-03
AM243	5270.000	5279.112	49.944	810.000	809.000	1.000	1.0000	99.78000	1.05E+00	7.35E-02	3.02E-03	9.56E-03	3.70E-02
CM-242	6102.000	6037.104	0.000	9.000	9.000	0.000	4.3413	100.0000	1.29E-02	4.38E-03	1.31E-02	2.97E-02	4.30E-03
CM-3/4	5795.020	5794.246	5.035	8.000	8.000	0.000	5.1799	100.0000	1.04E-02	3.73E-03	1.56E-02	3.47E-02	3.67E-03
CM-5/6	5386.000	5376.575	0.000	13.000	13.000	0.000	14.2480	86.09000	1.96E-02	5.55E-03	4.99E-02	1.04E-01	5.42E-03
CM-247	4946.000	4897.056	135.958	6.000	4.000	2.000	13.7917	79.30000	6.53E-03	4.64E-03	5.24E-02	1.09E-01	4.62E-03
CM-248	5078.600	5060.530	33.990	10.000	8.000	2.000	19.5080	91.00000	1.14E-02	4.98E-03	6.46E-02	1.33E-01	4.93E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

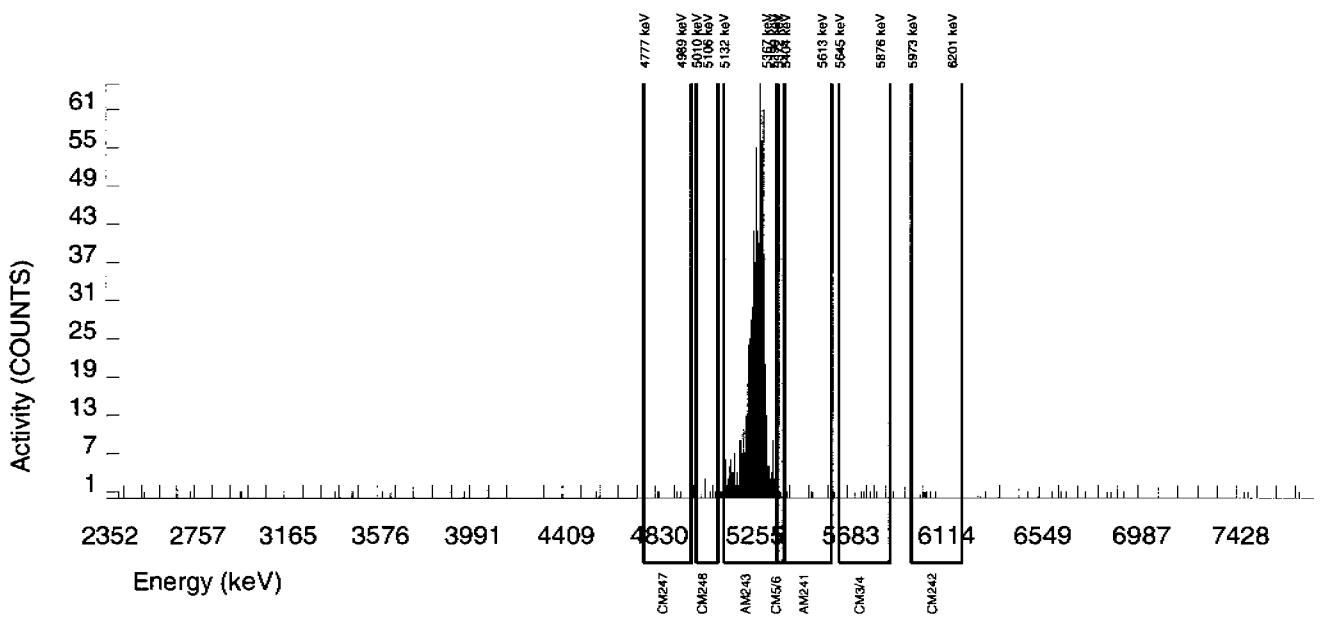

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950404
SAMPLE ID : S1202036736_AM
SAMPLE QTY : 0.100 G
SAMPLE DATE : 12-FEB-2010 00:00:00
ANALYST : MXA1
% YIELD : 90.896

CHAMBER : 085
DETECTOR S/N : 78776
AVERAGE %EFFICIENCY : 31.5289
COUNT DATE : 18-FEB-2010 17:13:11
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B085.CNF;1024
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W085.CNF;302
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.6510E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3154E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3154E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5496.034	48.516	1903.000	1900.549	1.000	2.8409	99.94000	2.99E+01	1.93E+00	1.04E-01	2.51E-01	6.86E-01
AM243	5270.000	5271.998	43.277	834.000	834.000	0.000	0.0000	99.78000	1.31E+01	9.14E-01	0.00E+00	4.27E-02	4.55E-01
CM-242	6102.000	6015.704	10.044	8.000	8.000	0.000	4.3413	100.0000	1.30E-01	4.65E-02	1.59E-01	3.60E-01	4.58E-02
CM-3/4	5795.020	5757.695	55.159	14.000	13.000	1.000	5.1799	100.0000	2.04E-01	6.22E-02	1.89E-01	4.21E-01	6.09E-02
CM-5/6	5386.000	5382.305	0.000	68.000	68.000	0.000	14.2480	86.09000	1.24E+00	1.68E-01	6.05E-01	1.26E+00	1.51E-01
CM-247	4946.000	4893.955	137.949	19.000	16.000	3.000	13.7917	79.30000	3.17E-01	9.49E-02	6.36E-01	1.33E+00	9.30E-02
CM-248	5078.600	5071.646	48.965	19.000	19.000	0.000	19.5080	91.00000	3.28E-01	7.78E-02	7.84E-01	1.61E+00	7.53E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

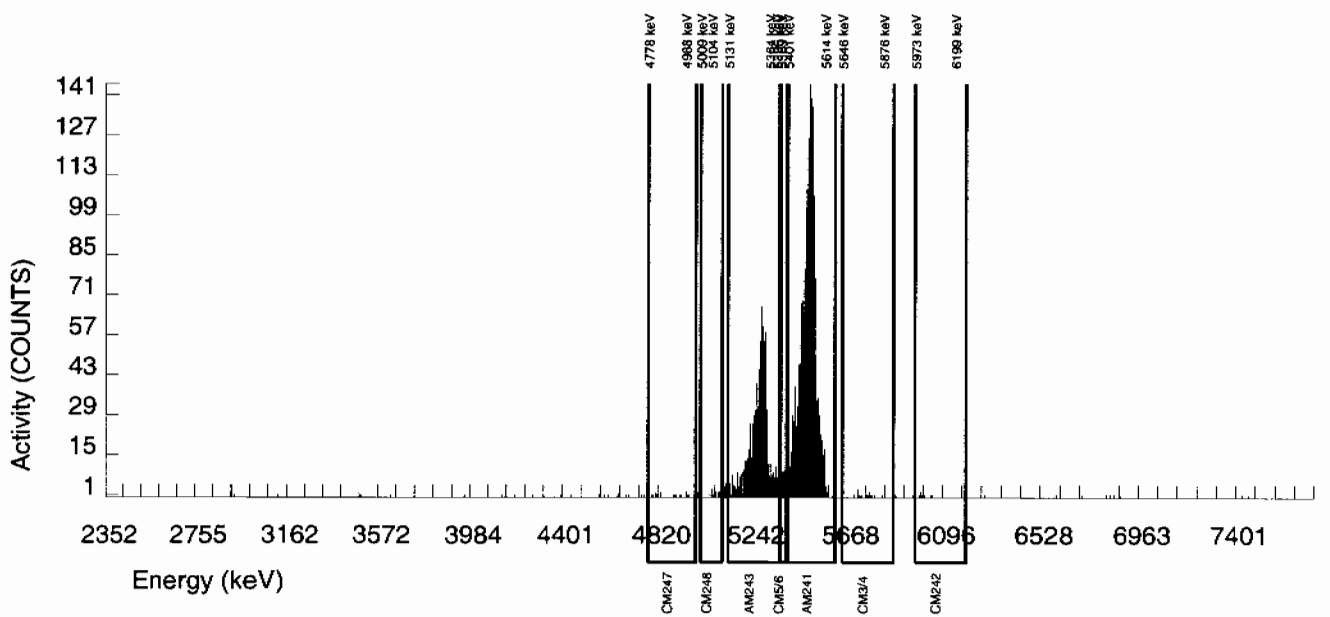

Radiochemistry Batch Checklist, Rev10

Batch# 950405 Product: PU Date: 2/19/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly stamped.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be correctness.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/19/10

Secondary Review Performed By: [illegible] 2/19/10

2/26
LANL

Plutonium Que Sheet

08-FEB-10

Batch #: 950405 Analyst: MXA1 First Client Due Date:26-FEB-10 Internal Due Date: 15-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 1/8/11 Vol: 0.1 mL

LCS Isotope(s): Pu-239/Pu-238 LCS Code: SRM 0244-B Expiration Date: 4/30/20 Vol: 0.1 g

Spike Isotope(s): Pu-239/Pu-238 Spike Code: N/A Expiration Date: N/A Vol: N/A

Prep Date: 2/12/10 Initials: MDA Pipet ID: 2971058 Balance ID: 19350208 Witness: [illegible] 2/12/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (W / I / D)	Pu Det #
245799001-1	RE15-10-7888	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	1	1	1.251	241
245799002-1	RE15-10-7890	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	2	2	1.257	242
245799003-1	RE15-10-7886	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	3	3	1.259	243
245799004-1	RE15-10-7889	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	4	4	1.258	244
245799005-1	RE15-10-7885	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	5	5	1.257	250
245799006-1	RE15-10-7882	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	6	6	1.257	251
245799007-1	RE15-10-7887	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	7	7	1.252	252
245799008-1	RE15-10-7881	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	8	8	1.251	254
245799009-1	RE15-10-7951	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	9	9	1.255	~~255~~ 209
245799010-1	RE15-10-7950	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	10	10	1.254	256
245799011-1	RE15-10-7947	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	11	11	1.254	~~37~~ 211
245799012-1	RE15-10-7944	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	12	12	1.255	38
245799013-1	RE15-10-7948	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	13	13	1.250	39
245799014-1	RE15-10-7941	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	14	14	1.251	40
245799015-1	RE15-10-7949	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	15	15	1.252	~~41~~ 212
245799016-1	RE15-10-7946	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	16	16	1.253	42
245799017-1	RE15-10-7942	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	17	17	1.255	37
245799018-1	RE15-10-7945	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	18	18	1.250	38
245799019-1	RE15-10-7943	SAMPLE		.05 pCi/g	SOIL	LANL010	26-JAN-10	19	19	1.256	39
1202036737-1	MB for batch 950405	MB		.05 pCi/g	SOIL	QC ACCOUNT		20	20	1	40
1202036738-1	RE15-10-7888(245799001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	26-JAN-10	21	21	1.251	41
1202036739-1	LCS for batch 950405	LCS		.05 pCi/g	SOIL	QC ACCOUNT		22	22	0.100	42

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [illegible] 2/19/10

GEL Laboratories LLC, , Radiochemistry Division

[illegible] 2/19/10

Blank Correction Report

Batch ID 950405

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202036738	DUP	Plutonium-238	1.25 g	-0.00311	0.0029	0.0254	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00714	0.00335	0.0192	-.0007352	pCi/g	YES
1202036739	LCS	Plutonium-238	0.100 g	6.20	0.477	0.291	-.0451	pCi/g	NO
		Plutonium-239/240	0.100 g	34.6	2.02	0.220	-.00919	pCi/g	NO
1202036737	MB	Plutonium-238	1.00 g	-0.00451	0.00334	0.0321	-.00451	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.000919	0.00298	0.0242	-.000919	pCi/g	NO
245799001	RE15-10-7888	Plutonium-238	1.25 g	0.00135	0.00136	0.0208	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00	0.00136	0.0157	-.0007352	pCi/g	NO
245799002	RE15-10-7890	Plutonium-238	1.26 g	-0.00186	0.00185	0.0198	-.00357937	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00646	0.00291	0.015	-.00072937	pCi/g	NO
245799003	RE15-10-7886	Plutonium-238	1.26 g	0.00	0.00137	0.021	-.00357937	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0041	0.00237	0.0158	-.00072937	pCi/g	NO
245799004	RE15-10-7889	Plutonium-238	1.26 g	0.00	0.00135	0.0207	-.00357937	pCi/g	NO
		Plutonium-239/240	1.26 g	0.023	0.0057	0.0157	-.00072937	pCi/g	NO
245799005	RE15-10-7885	Plutonium-238	1.26 g	0.00267	0.00189	0.0205	-.00357937	pCi/g	NO
		Plutonium-239/240	1.26 g	0.056	0.00912	0.0155	-.00072937	pCi/g	NO
245799006	RE15-10-7882	Plutonium-238	1.26 g	-0.00204	0.00203	0.0218	-.00357937	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00607	0.00335	0.0165	-.00072937	pCi/g	NO
245799007	RE15-10-7887	Plutonium-238	1.25 g	0.00279	0.00198	0.0214	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00697	0.00314	0.0162	-.0007352	pCi/g	NO
245799008	RE15-10-7881	Plutonium-238	1.25 g	-0.000579	0.00188	0.0202	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0487	0.00839	0.0153	-.0007352	pCi/g	NO
245799009	RE15-10-7951	Plutonium-238	1.26 g	0.00	0.00158	0.0243	-.00357937	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00474	0.00275	0.0183	-.00072937	pCi/g	NO
245799010	RE15-10-7950	Plutonium-238	1.25 g	0.00269	0.00191	0.0206	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.000376	0.00166	0.0156	-.0007352	pCi/g	NO
245799011	RE15-10-7947	Plutonium-238	1.25 g	-0.0113	0.00391	0.0184	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0474	0.00876	0.0139	-.0007352	pCi/g	NO
245799012	RE15-10-7944	Plutonium-238	1.26 g	0.0022	0.00412	0.018	-.00357937	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.0011	0.00246	0.0135	-.00072937	pCi/g	NO
245799013	RE15-10-7948	Plutonium-238	1.25 g	0.0086	0.0057	0.0176	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0118	0.00496	0.0132	-.0007352	pCi/g	NO
245799014	RE15-10-7941	Plutonium-238	1.25 g	-0.00224	0.00224	0.0183	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0347	0.00685	0.0138	-.0007352	pCi/g	NO
245799015	RE15-10-7949	Plutonium-238	1.25 g	0.00573	0.00288	0.0234	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0372	0.00783	0.0176	-.0007352	pCi/g	NO
245799016	RE15-10-7946	Plutonium-238	1.25 g	0.00119	0.00119	0.0194	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00118	0.00313	0.0146	-.0007352	pCi/g	NO
245799017	RE15-10-7942	Plutonium-238	1.26 g	0.000727	0.00683	0.0233	-.00357937	pCi/g	NO

2/19/10

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245799017	RE15-10-7942	Plutonium-239/240	1.26 g	0.00279	0.00357	0.0176	-.00072937	pCi/g	NO
245799018	RE15-10-7945	Plutonium-238	1.25 g	0.00549	0.00498	0.0229	-.003608	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0773	0.0118	0.0173	-.0007352	pCi/g	NO
245799019	RE15-10-7943	Plutonium-238	1.26 g	0.00262	0.00549	0.0224	-.00357937	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.000874	0.00345	0.0169	-.00072937	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799001_PU
SAMPLE QTY : 1.251 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 99.464

CHAMBER : 241
DETECTOR S/N : 79434
AVERAGE %EFFICIENCY : 37.1962
COUNT DATE : 15-FEB-2010 20:17:50
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B241.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W241.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.3626E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5695.248	4.919	1.000	0.280	0.720	2.6925	100.0000	3.84E-04	1.69E-03	7.85E-03	1.94E-02	1.69E-03
PU-238	5499.000	5508.281	4.919	1.000	1.000	0.000	2.9312	99.90000	1.35E-03	1.36E-03	8.56E-03	2.08E-02	1.35E-03
PU-9/0	5155.000	5118.338	0.000	0.000	0.000	0.000	2.0604	99.90000	0.00E+00	1.36E-03	6.01E-03	1.57E-02	1.35E-03
PU242	4890.000	4886.970	41.015	902.000	900.560	1.440	1.2000	100.0000	1.22E+00	7.69E-02	3.50E-03	1.07E-02	4.06E-02
PU-244	4589.000	4537.830	19.677	14.000	14.000	0.000	3.7241	99.90000	1.89E-02	5.16E-03	1.09E-02	2.54E-02	5.06E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

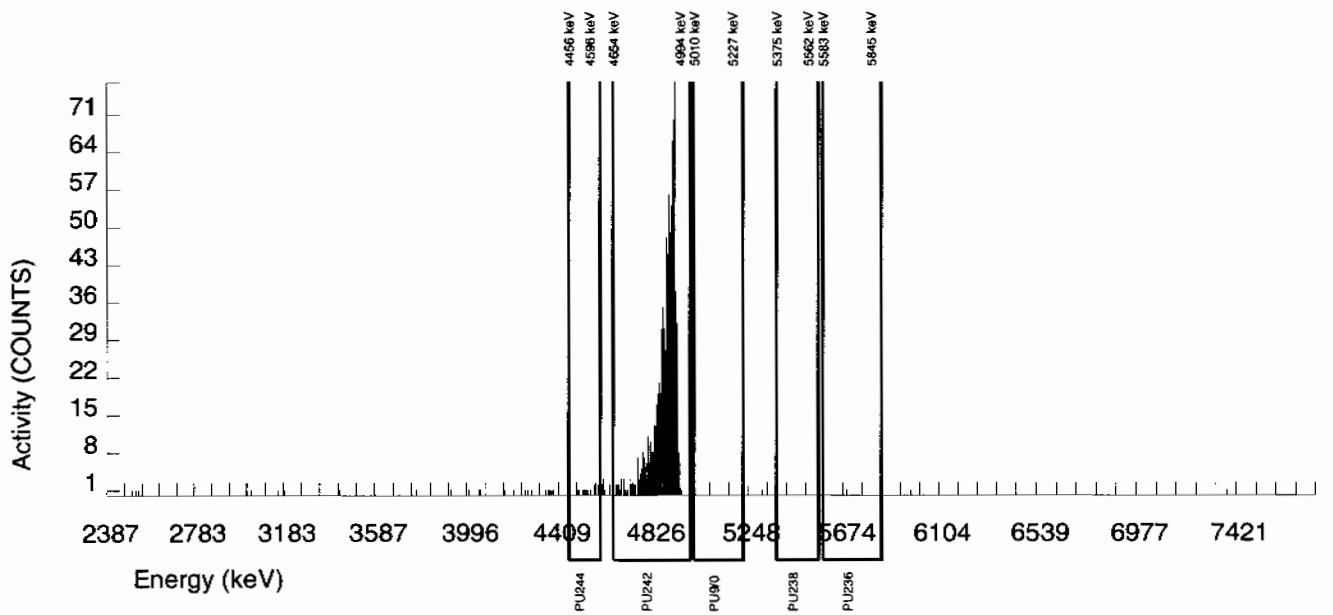

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 242	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799002_PU	DETECTOR S/N : 79435	BKG FILE : B242.CNF;80
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 38.0803	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 20:17:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W242.CNF;28
% YIELD : 101.302		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.4248E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.963	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.31E-03	7.49E-03	1.85E-02	1.31E-03
PU-238	5499.000	5465.798	0.000	0.000	-1.440	1.440	2.9312	99.90000	-1.86E-03	1.85E-03	8.17E-03	1.98E-02	1.84E-03
PU-9/0	5155.000	5158.107	53.942	5.000	5.000	0.000	2.0604	99.90000	6.46E-03	2.91E-03	5.74E-03	1.50E-02	2.89E-03
PU242	4890.000	4885.171	59.865	939.000	939.000	0.000	0.0000	100.0000	1.21E+00	7.37E-02	0.00E+00	3.50E-03	3.95E-02
PU-244	4589.000	4544.649	71.106	14.000	14.000	0.000	3.7241	99.90000	1.81E-02	4.92E-03	1.04E-02	2.43E-02	4.83E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

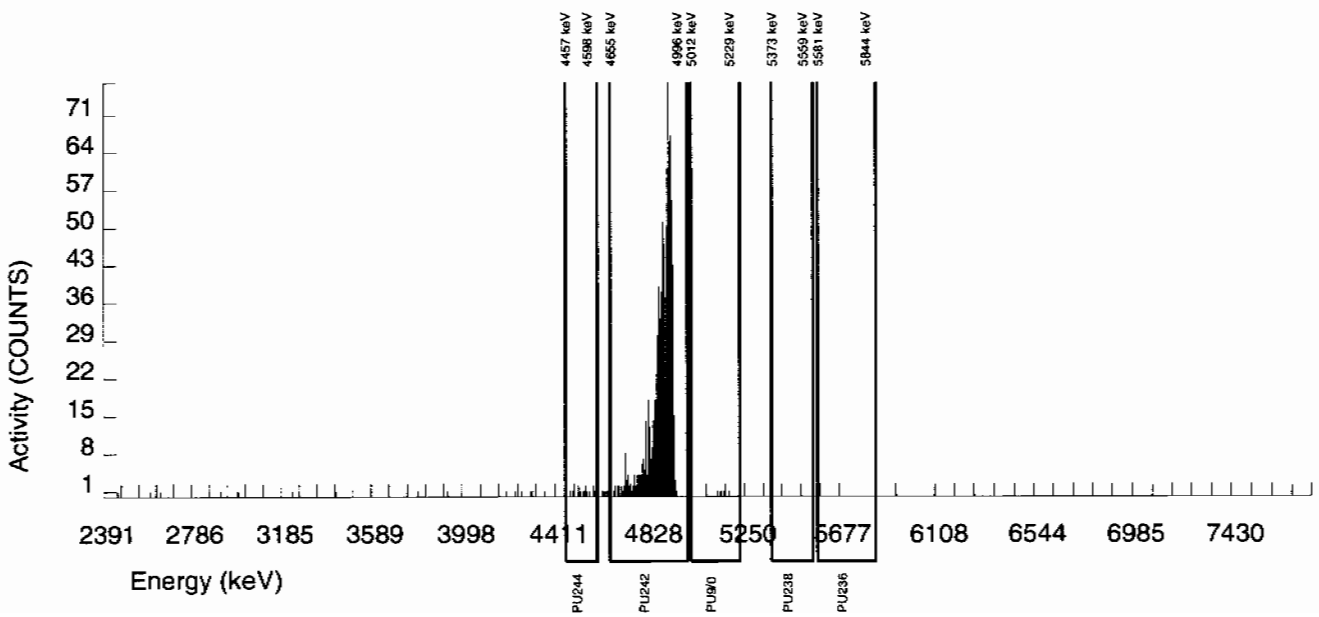

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799003_PU
SAMPLE QTY : 1.259 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 97.964

CHAMBER : 243
DETECTOR S/N : 79436
AVERAGE %EFFICIENCY : 37.1974
COUNT DATE : 15-FEB-2010 20:17:54
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B243.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W243.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.3119E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.633	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.38E-03	7.92E-03	1.95E-02	1.38E-03
PU-238	5499.000	5468.191	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.37E-03	8.63E-03	2.10E-02	1.37E-03
PU-9/0	5155.000	5186.182	64.204	3.000	3.000	0.000	2.0604	99.90000	4.10E-03	2.37E-03	6.07E-03	1.58E-02	2.36E-03
PU242	4890.000	4886.227	40.299	887.000	887.000	0.000	0.0000	100.0000	1.21E+00	7.67E-02	0.00E+00	3.70E-03	4.06E-02
PU-244	4589.000	4536.623	113.385	16.000	16.000	0.000	3.7241	99.90000	2.18E-02	5.59E-03	1.10E-02	2.56E-03	5.46E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

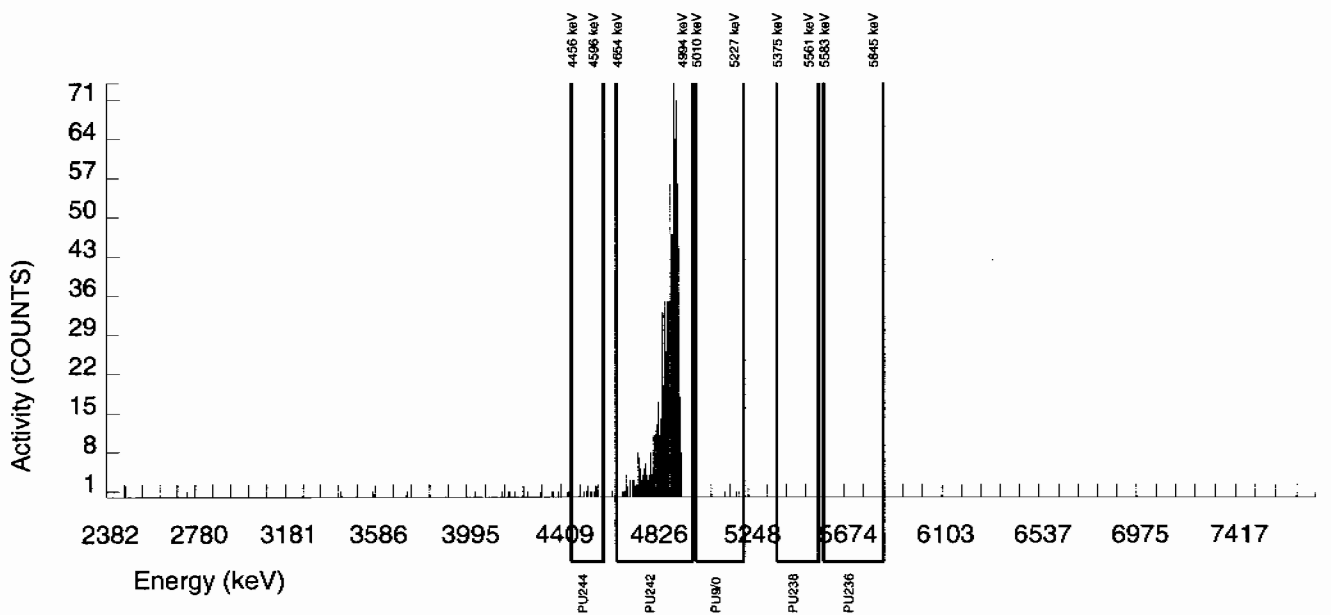

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799004_PU
SAMPLE QTY : 1.258 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 100.201

CHAMBER : 244
DETECTOR S/N : 79437
AVERAGE %EFFICIENCY : 36.7768
COUNT DATE : 15-FEB-2010 20:17:57
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B244.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W244.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.3876E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.480	0.000	0.000	-1.440	1.440	2.6925	100.0000	-1.97E-03	1.95E-03	7.84E-03	1.93E-02	1.95E-03
PU-238	5499.000	5469.272	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.35E-03	8.54E-03	2.07E-02	1.35E-03
PU-9/0	5155.000	5140.278	44.299	17.000	17.000	0.000	2.0604	99.90000	2.30E-02	5.70E-03	6.00E-03	1.57E-02	5.57E-03
PU242	4890.000	4887.473	51.176	897.000	897.000	0.000	0.0000	100.0000	1.21E+00	7.46E-02	0.00E+00	3.66E-03	4.04E-02
PU-244	4589.000	4562.921	0.000	7.000	7.000	0.000	3.7241	99.90000	9.46E-03	3.61E-03	1.09E-02	2.54E-02	3.57E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

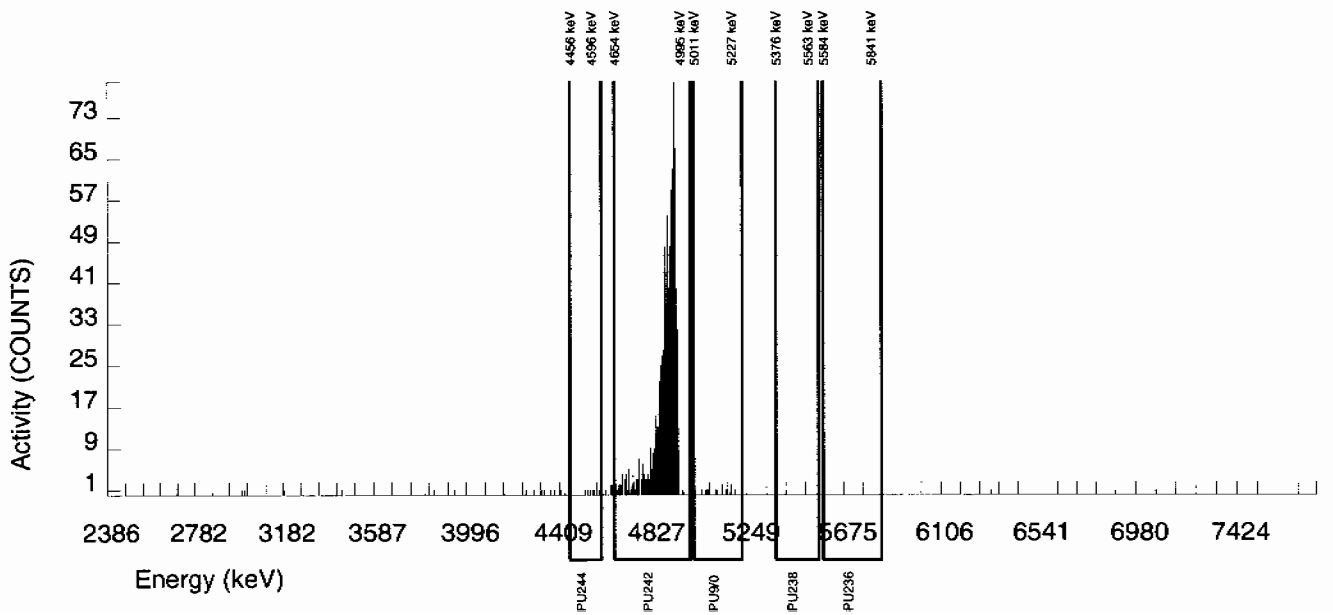

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799005_PU
SAMPLE QTY : 1.257 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 95.119

CHAMBER : 250
DETECTOR S/N : 79443
AVERAGE %EFFICIENCY : 39.2720
COUNT DATE : 15-FEB-2010 20:18:12
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B250.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W250.CNF;29
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.2157E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5682.022	4.906	1.000	-1.160	2.160	2.6925	100.0000	-1.57E-03	2.16E-03	7.74E-03	1.91E-02	2.16E-03
PU-238	5499.000	5489.362	24.532	2.000	2.000	0.000	2.9312	99.90000	2.67E-03	1.89E-03	8.43E-03	2.05E-02	1.89E-03
PU-9/0	5155.000	5152.164	28.770	42.000	42.000	0.000	2.0604	99.90000	5.60E-02	9.12E-03	5.93E-03	1.55E-02	8.64E-03
PU242	4890.000	4884.581	39.518	910.000	909.280	0.720	0.8485	100.0000	1.21E+00	7.44E-02	2.44E-03	8.49E-03	4.02E-02
PU-244	4589.000	4548.516	0.000	17.000	17.000	0.000	3.7241	99.90000	2.27E-02	5.62E-03	1.07E-02	2.50E-02	5.50E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

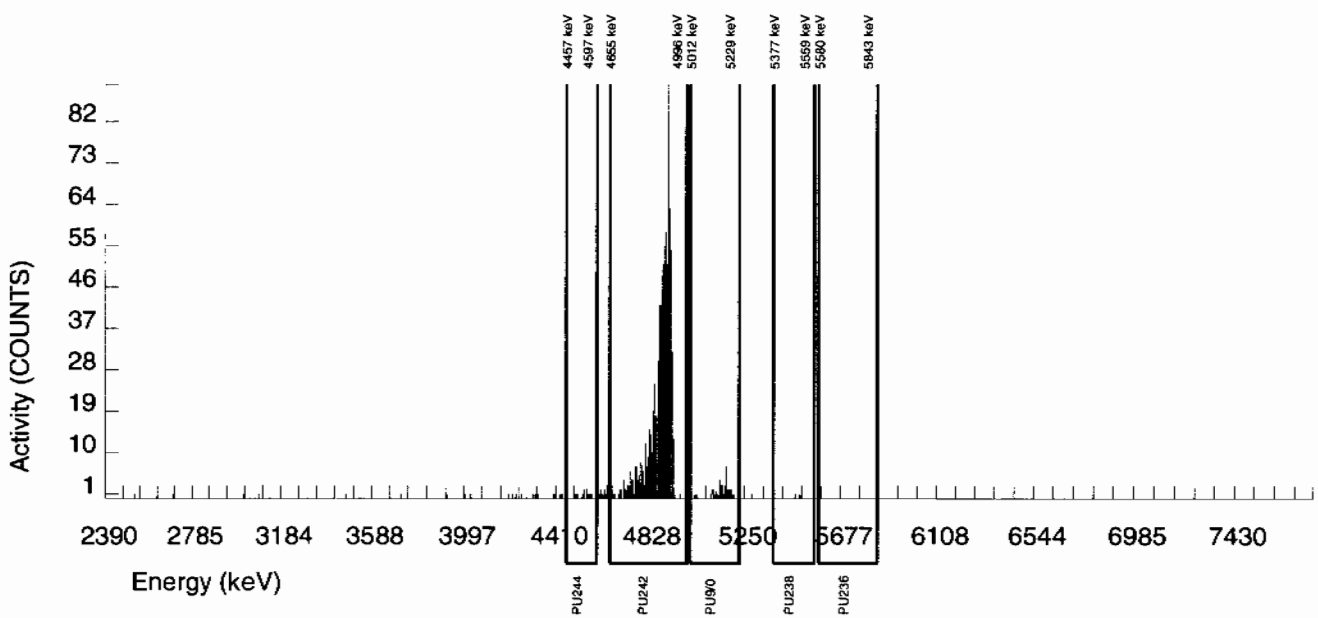

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 251	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799006_PU	DETECTOR S/N : 79444	BKG FILE : B251.CNF;80
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 38.7077	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 20:18:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W251.CNF;29
% YIELD : 90.757		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0683E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.419	0.000	0.000	-0.720	0.720	2.6925	100.0000	-1.03E-03	1.77E-03	8.23E-03	2.03E-02	1.77E-03
PU-238	5499.000	5467.235	0.000	0.000	-1.440	1.440	2.9312	99.90000	-2.04E-03	2.03E-03	8.97E-03	2.18E-02	2.02E-03
PU-9/0	5155.000	5157.212	128.554	5.000	4.280	0.720	2.0604	99.90000	6.07E-03	3.35E-03	6.30E-03	1.65E-02	3.33E-03
PU242	4890.000	4884.927	49.171	858.000	855.120	2.880	1.6971	100.0000	1.21E+00	7.58E-02	5.19E-03	1.42E-02	4.15E-02
PU-244	4589.000	4533.588	61.650	22.000	22.000	0.000	3.7241	99.90000	3.12E-02	6.85E-03	1.14E-02	2.66E-02	6.65E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

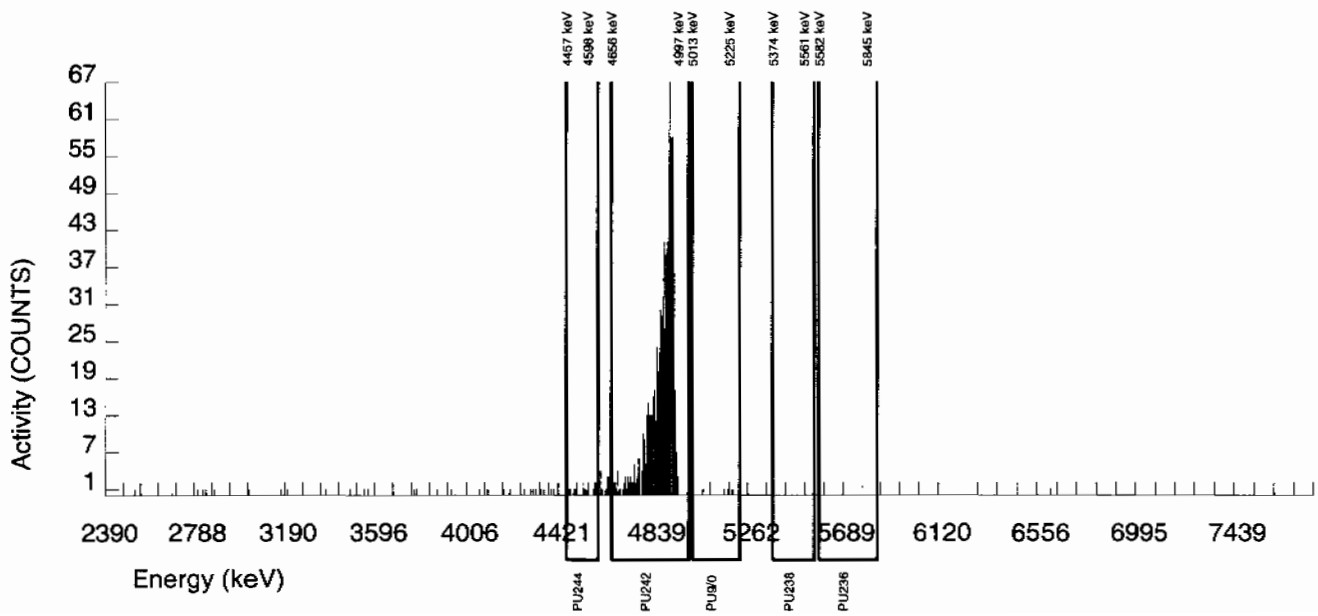

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 252	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799007_PU	DETECTOR S/N : 79445	BKG FILE : B252.CNF;80
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.8334	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 20:18:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W252.CNF;29
% YIELD : 94.827		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2059E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5613.260	4.900	1.000	1.000	0.000	2.6925	100.0000	1.41E-03	1.41E-03	8.09E-03	2.00E-02	1.41E-03
PU-238	5499.000	5532.768	44.104	2.000	2.000	0.000	2.9312	99.90000	2.79E-03	1.98E-03	8.82E-03	2.14E-02	1.97E-03
PU-9/0	5155.000	5136.021	156.815	5.000	5.000	0.000	2.0604	99.90000	6.97E-03	3.14E-03	6.20E-03	1.62E-02	3.12E-03
PU242	4890.000	4881.729	32.982	874.000	873.280	0.720	0.8485	100.0000	1.22E+00	7.56E-02	2.55E-03	8.87E-03	4.12E-02
PU-244	4589.000	4526.996	7.198	13.000	12.280	0.720	3.7241	99.90000	1.71E-02	5.20E-03	1.12E-02	2.62E-02	5.13E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

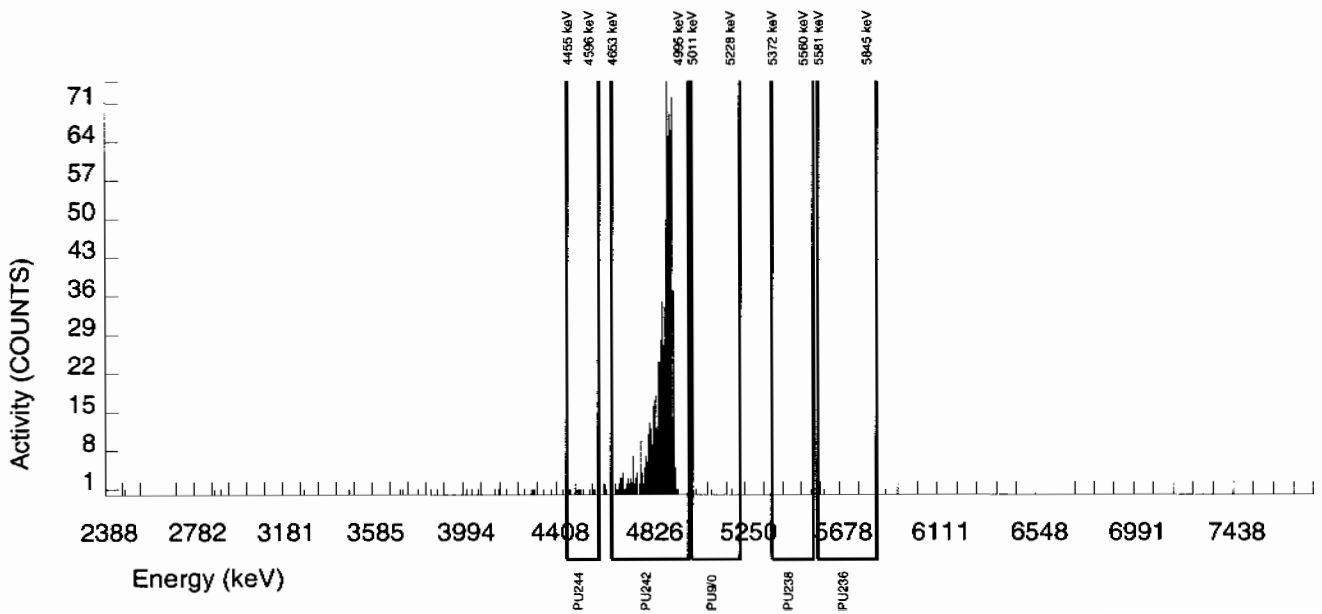

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799008_PU
SAMPLE QTY : 1.251 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 96.813

CHAMBER : 254
DETECTOR S/N : 79447
AVERAGE %EFFICIENCY : 39.2943
COUNT DATE : 15-FEB-2010 20:18:22
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B254.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W254.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.2730E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.662	0.000	0.000	-1.440	1.440	2.6925	100.0000	-1.92E-03	1.90E-03	7.64E-03	1.88E-02	1.90E-03
PU-238	5499.000	5536.515	4.937	1.000	-0.440	1.440	2.9312	99.90000	-5.79E-04	1.88E-03	8.32E-03	2.02E-02	1.88E-03
PU-9/0	5155.000	5149.648	45.993	37.000	37.000	0.000	2.0604	99.90000	4.87E-02	8.39E-03	5.85E-03	1.53E-02	8.00E-03
PU242	4890.000	4886.063	46.109	926.000	926.000	0.000	0.0000	100.0000	1.22E+00	7.43E-02	0.00E+00	3.56E-03	4.00E-02
PU-244	4589.000	4538.892	67.884	19.000	19.000	0.000	3.7241	99.90000	2.50E-02	5.88E-03	1.06E-02	2.47E-02	5.74E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

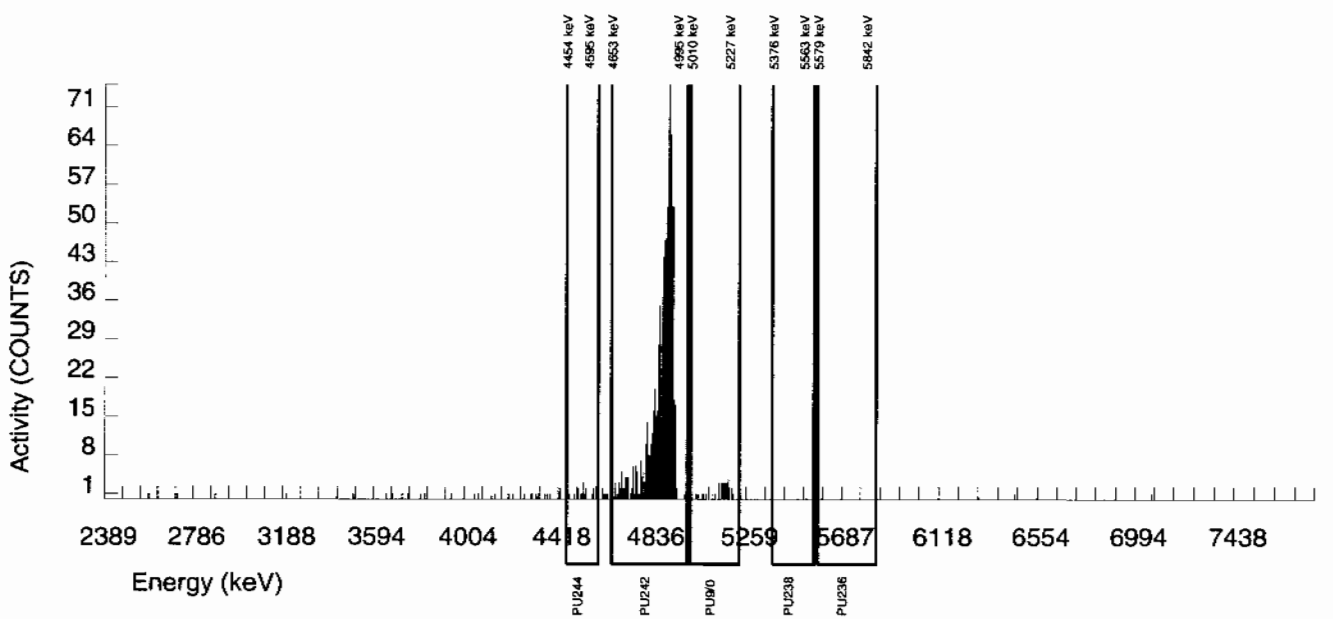

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 209	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799009_PU	DETECTOR S/N : 79188	BKG FILE : B209.CNF;81
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 36.2314	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:43:09	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W209.CNF;31
% YIELD : 87.195		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9479E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.466	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.61E-03	9.17E-03	2.26E-02	1.60E-03
PU-238	5499.000	5468.141	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.58E-03	9.99E-03	2.43E-02	1.58E-03
PU-9/0	5155.000	5137.083	63.895	3.000	3.000	0.000	2.0604	99.90000	4.74E-03	2.75E-03	7.02E-03	1.83E-02	2.74E-03
PU242	4890.000	4892.088	50.250	769.000	769.000	0.000	0.0000	100.0000	1.21E+00	7.84E-02	0.00E+00	4.28E-03	4.38E-02
PU-244	4589.000	4523.050	103.216	4.000	4.000	0.000	3.7241	99.90000	6.32E-03	3.18E-03	1.27E-02	2.97E-02	3.16E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

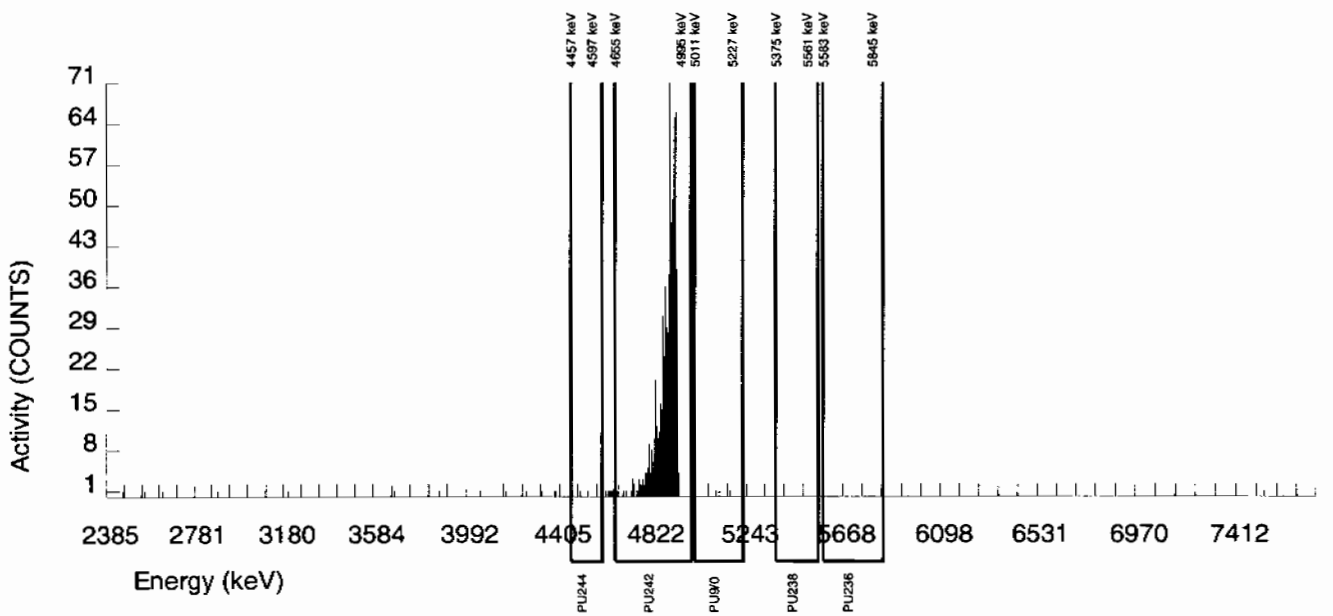

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 256	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799010_PU	DETECTOR S/N : 79449	BKG FILE : B256.CNF;82
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 37.7639	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 20:18:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;28
% YIELD : 98.404		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3268E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.499	0.000	0.000	-1.440	1.440	2.6925	100.0000	-1.96E-03	1.94E-03	7.80E-03	1.92E-02	1.94E-03
PU-238	5499.000	5537.535	29.352	2.000	2.000	0.000	2.9312	99.90000	2.69E-03	1.91E-03	8.50E-03	2.06E-02	1.90E-03
PU-9/0	5155.000	5171.456	4.892	1.000	0.280	0.720	2.0604	99.90000	3.76E-04	1.66E-03	5.97E-03	1.56E-02	1.66E-03
PU242	4890.000	4880.033	35.322	906.000	904.560	1.440	1.2000	100.0000	1.21E+00	7.47E-02	3.48E-03	1.06E-02	4.04E-02
PU-244	4589.000	4534.771	4.892	10.000	9.280	0.720	3.7241	99.90000	1.25E-02	4.41E-03	1.08E-02	2.52E-02	4.36E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

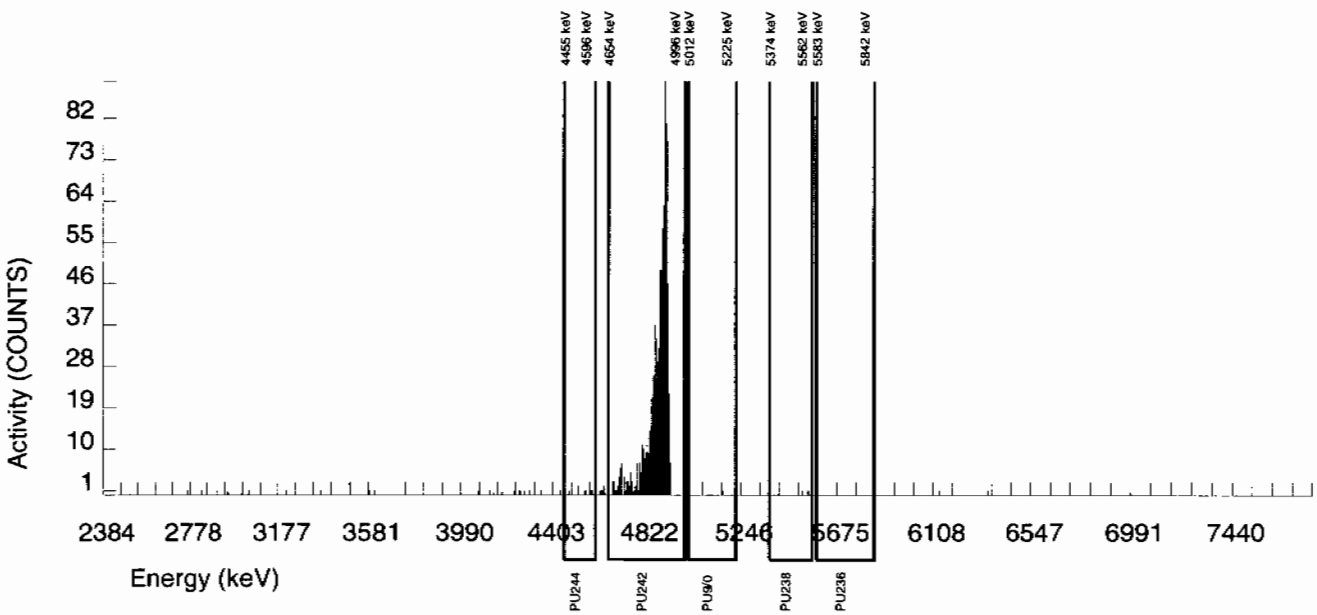

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799011_PU
SAMPLE QTY : 1.254 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 83.481

CHAMBER : 211
DETECTOR S/N : 79190
AVERAGE %EFFICIENCY : 38.1959
COUNT DATE : 18-FEB-2010 18:43:11
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B211.CNF;80
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W211.CNF;29
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.8223E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5683.701	4.951	1.000	0.000	1.000	2.6925	100.0000	0.00E+00	1.62E-03	7.06E-03	1.72E-02	1.62E-03
PU-238	5499.000	5507.555	4.951	1.000	-10.000	11.000	2.9312	99.90000	-1.13E-02	3.91E-03	7.69E-03	1.84E-02	3.91E-03
PU-9/0	5155.000	5161.058	20.712	49.000	42.000	7.000	2.0604	99.90000	4.74E-02	8.76E-03	5.41E-03	1.39E-02	8.44E-03
PU242	4890.000	4892.610	33.148	1079.000	1078.000	1.000	1.0000	100.0000	1.21E+00	7.10E-02	2.62E-03	8.29E-03	3.70E-02
PU-244	4589.000	4539.832	4.951	5.000	5.000	0.000	3.7241	99.90000	5.64E-03	2.54E-03	9.77E-03	2.26E-02	2.52E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

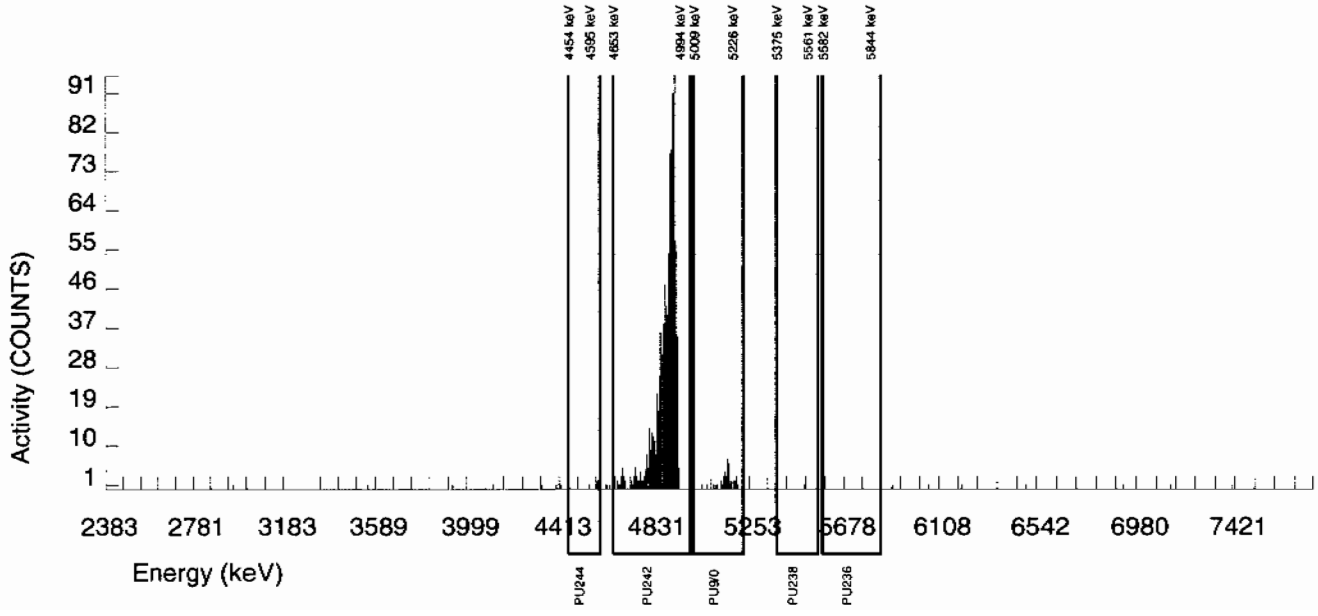

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799012_PU
SAMPLE QTY : 1.255 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 97.075

CHAMBER : 038
DETECTOR S/N : 72532
AVERAGE %EFFICIENCY : 33.6391
COUNT DATE : 15-FEB-2010 20:23:13
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B038.CNF;1113
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W038.CNF;321
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.2819E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5728.489	6.117	8.000	2.000	6.000	2.6925	100.0000	2.23E-03	4.17E-03	6.88E-03	1.67E-02	4.17E-03
PU-238	5499.000	5450.120	11.873	8.000	2.000	6.000	2.9312	99.90000	2.20E-03	4.12E-03	7.50E-03	1.80E-02	4.12E-03
PU-9/0	5155.000	5081.564	0.000	2.000	-1.000	3.000	2.0604	99.90000	-1.10E-03	2.46E-03	5.27E-03	1.35E-02	2.46E-03
PU242	4890.000	4884.713	43.686	1106.000	1104.000	2.000	1.4142	100.0000	1.21E+00	7.07E-02	3.62E-03	1.02E-02	3.66E-02
PU-244	4589.000	4545.080	0.000	11.000	11.000	0.000	3.7241	99.90000	1.21E-02	3.70E-03	9.53E-03	2.20E-02	3.65E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

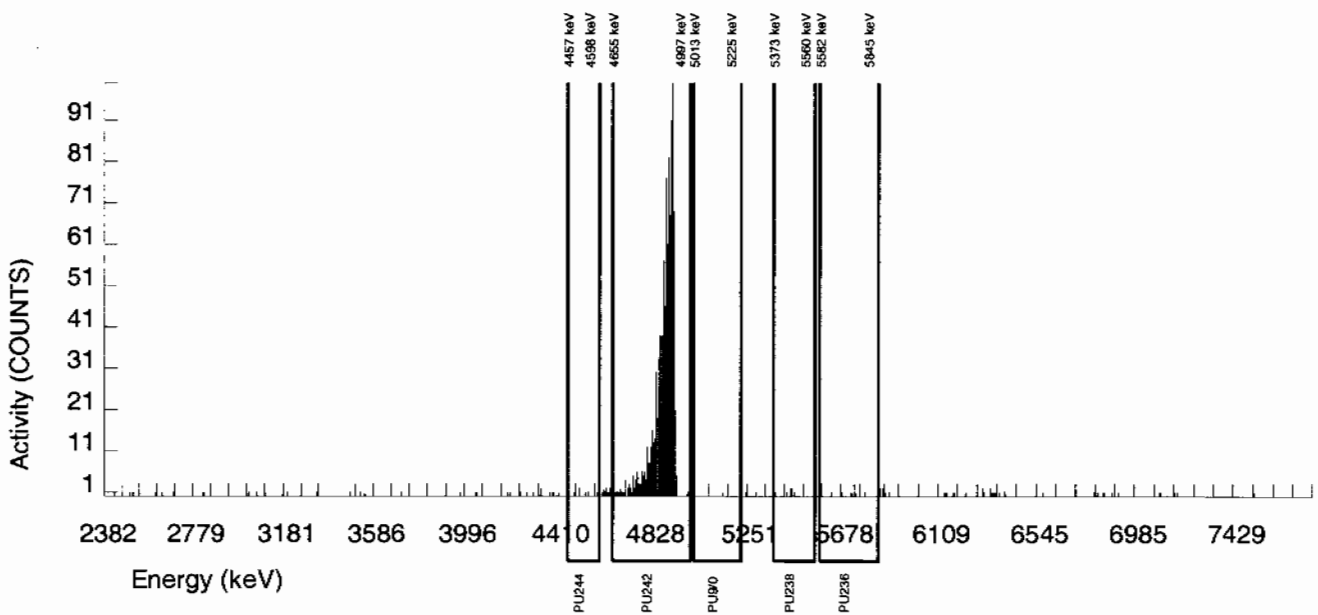

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799013_PU
SAMPLE QTY : 1.250 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 93.798

CHAMBER : 039
DETECTOR S/N : 45-149BB2
AVERAGE %EFFICIENCY : 35.7920
COUNT DATE : 15-FEB-2010 20:23:13
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B039.CNF;1113
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W039.CNF;298
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.1711E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5736.179	34.325	9.000	-1.000	10.000	2.6925	100.0000	-1.09E-03	4.75E-03	6.72E-03	1.64E-02	4.75E-03
PU-238	5499.000	5441.937	5.501	18.000	8.000	10.000	2.9312	99.90000	8.60E-03	5.70E-03	7.33E-03	1.76E-02	5.69E-03
PU-9/0	5155.000	5166.937	24.518	16.000	11.000	5.000	2.0604	99.90000	1.18E-02	4.96E-03	5.15E-03	1.32E-02	4.92E-03
PU242	4890.000	4880.260	61.242	1138.000	1135.000	3.000	1.7321	100.0000	1.22E+00	7.05E-02	4.33E-03	1.16E-02	3.63E-02
PU-244	4589.000	4517.929	93.169	17.000	16.000	1.000	3.7241	99.90000	1.72E-02	4.64E-03	9.31E-03	2.15E-02	4.56E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

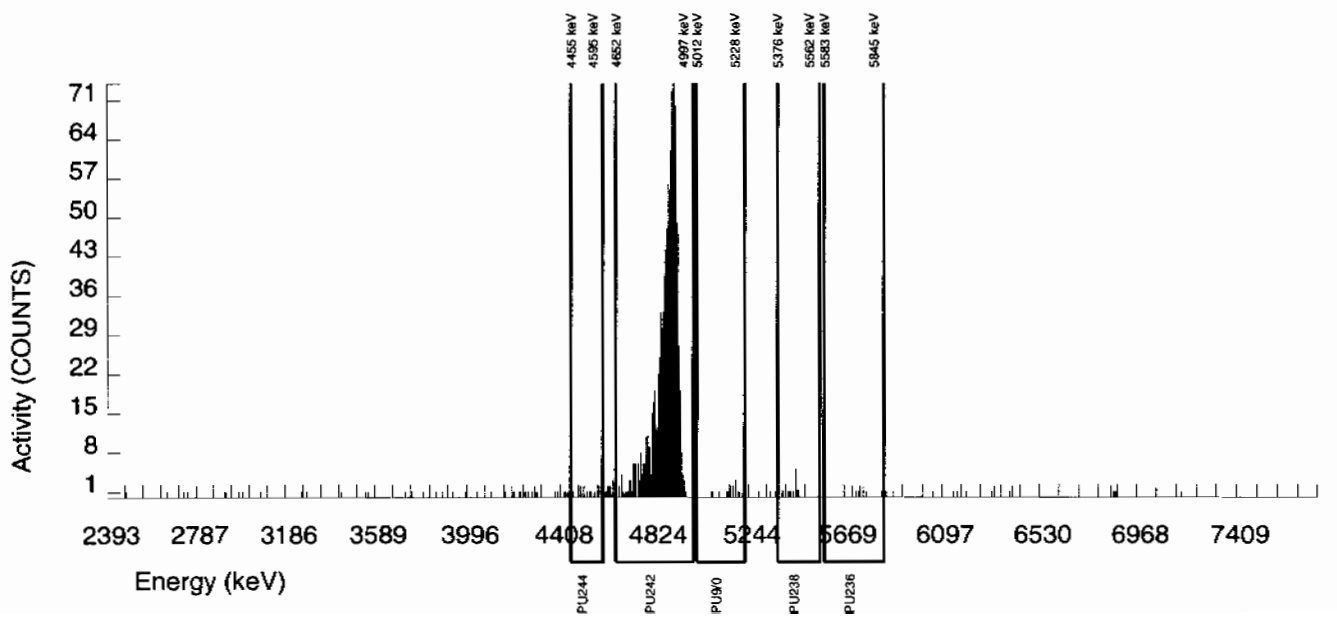

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 040	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799014_PU	DETECTOR S/N : 78773	BKG FILE : B040.CNF;1116
SAMPLE QTY : 1.251 G	AVERAGE %EFFICIENCY : 32.1221	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 20:23:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W040.CNF;317
% YIELD : 100.187		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3871E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5654.583	171.117	3.000	1.000	2.000	2.6925	100.0000	1.13E-03	2.54E-03	7.01E-03	1.70E-02	2.54E-03
PU-238	5499.000	5447.435	4.889	1.000	-2.000	3.000	2.9312	99.90000	-2.24E-03	2.24E-03	7.64E-03	1.83E-02	2.24E-03
PU-9/0	5155.000	5134.727	37.829	33.000	31.000	2.000	2.0604	99.90000	3.47E-02	6.85E-03	5.37E-03	1.38E-02	6.63E-03
PU242	4890.000	4883.432	39.305	1091.000	1088.000	3.000	1.7321	100.0000	1.22E+00	7.13E-02	4.51E-03	1.20E-02	3.70E-02
PU-244	4589.000	4548.950	9.778	9.000	7.000	2.000	3.7241	99.90000	7.84E-03	3.74E-03	9.70E-03	2.24E-02	3.71E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

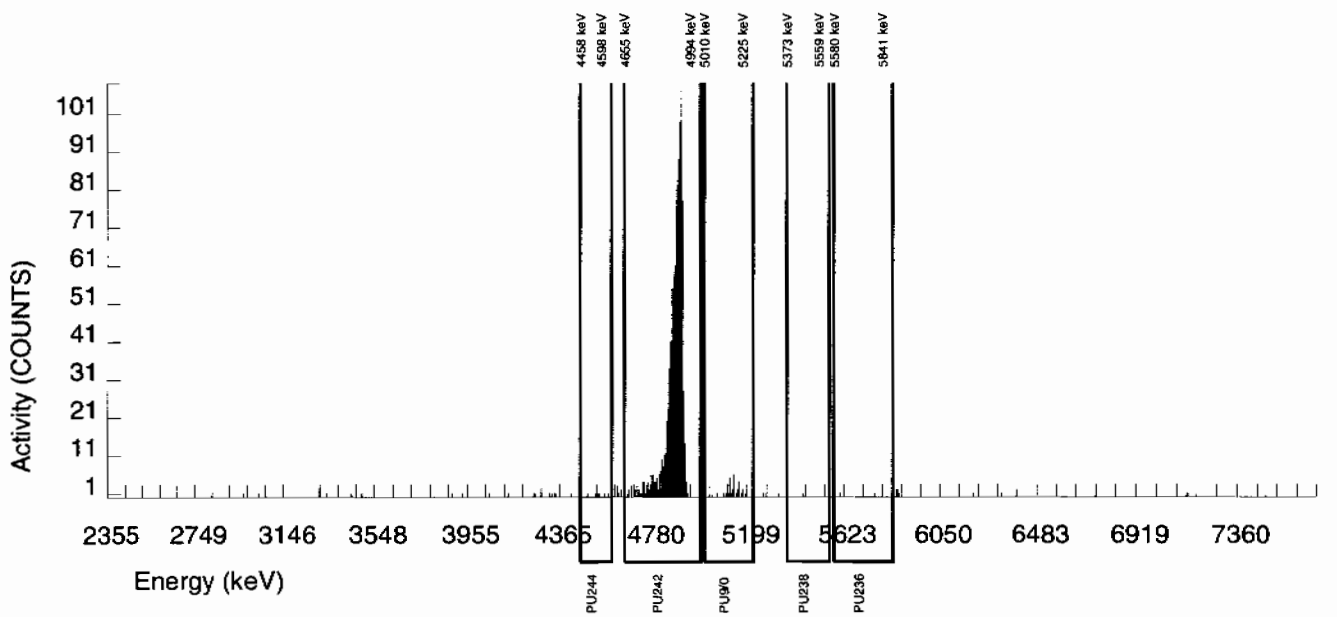

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 212	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799015_PU	DETECTOR S/N : 79191	BKG FILE : B212.CNF;80
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.7948	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:43:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W212.CNF;28
% YIELD : 66.523		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.2490E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5813.783	4.916	1.000	1.000	0.000	2.6925	100.0000	1.45E-03	1.46E-03	8.96E-03	2.18E-02	1.45E-03
PU-238	5499.000	5452.683	117.376	4.000	4.000	0.000	2.9312	99.90000	5.73E-03	2.88E-03	9.77E-03	2.34E-02	2.87E-03
PU-9/0	5155.000	5132.068	98.326	27.000	26.000	1.000	2.0604	99.90000	3.72E-02	7.83E-03	6.87E-03	1.76E-02	7.58E-03
PU242	4890.000	4893.340	46.384	850.000	850.000	0.000	0.0000	100.0000	1.22E+00	7.61E-02	0.00E+00	3.88E-03	4.17E-02
PU-244	4589.000	4557.562	0.000	5.000	5.000	0.000	3.7241	99.90000	7.16E-03	3.22E-03	1.24E-02	2.87E-02	3.20E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

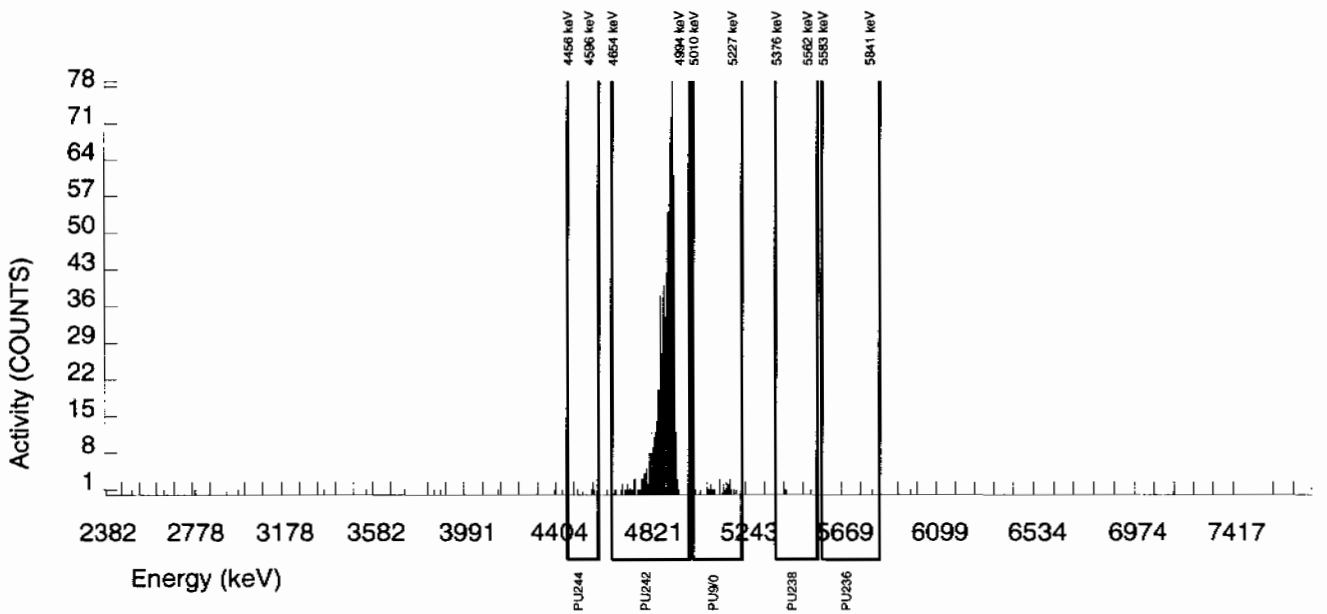

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799016_PU
SAMPLE QTY : 1.253 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 91.473

CHAMBER : 042
DETECTOR S/N : 78793
AVERAGE %EFFICIENCY : 33.2094
COUNT DATE : 15-FEB-2010 20:23:13
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B042.CNF;1108
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W042.CNF;294
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.0925E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5777.113	127.166	4.000	1.000	3.000	2.6925	100.0000	1.20E-03	3.18E-03	7.41E-03	1.80E-02	3.18E-03
PU-238	5499.000	5442.003	4.891	1.000	1.000	0.000	2.9312	99.90000	1.19E-03	1.19E-03	8.08E-03	1.94E-02	1.19E-03
PU-9/0	5155.000	5148.828	63.583	3.000	-1.000	4.000	2.0604	99.90000	-1.18E-03	3.13E-03	5.68E-03	1.46E-02	3.13E-03
PU242	4890.000	4875.510	51.860	1030.000	1027.000	3.000	1.7321	100.0000	1.22E+00	7.23E-02	4.77E-03	1.27E-02	3.80E-02
PU-244	4589.000	4566.934	0.000	10.000	8.000	2.000	3.7241	99.90000	9.48E-03	4.13E-03	1.03E-02	2.37E-02	4.10E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

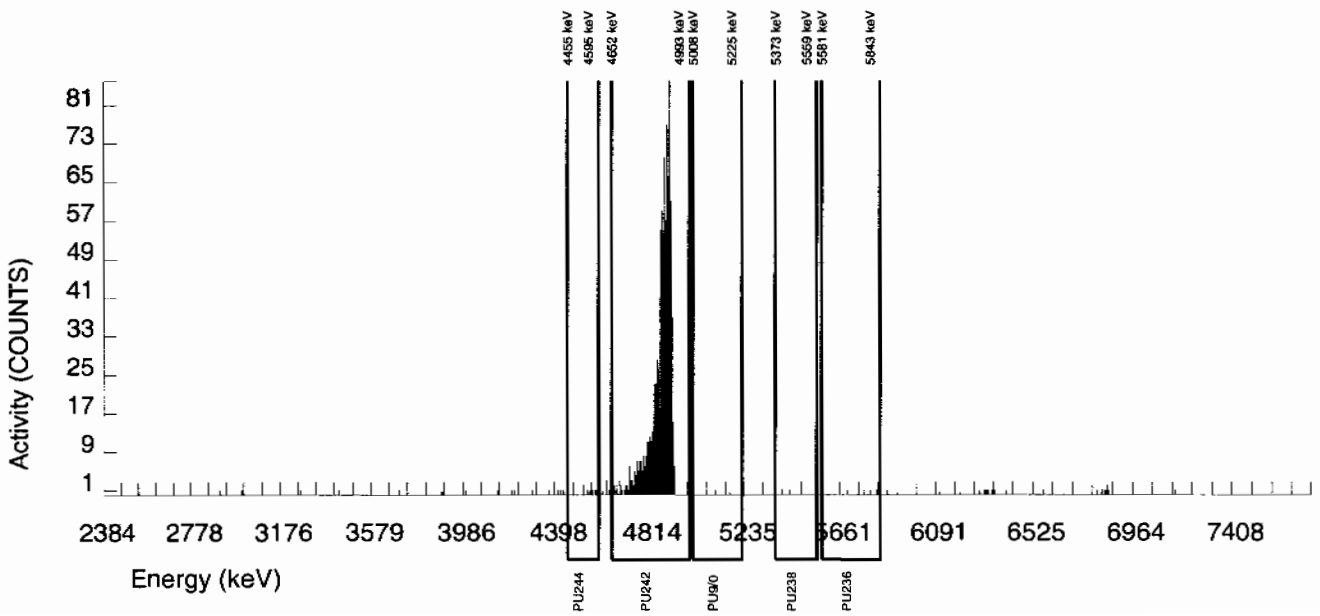

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S0245799017_PU
SAMPLE QTY : 1.255 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 91.742

CHAMBER : 037
DETECTOR S/N : 45-149BB5
AVERAGE %EFFICIENCY : 35.9189
COUNT DATE : 15-FEB-2010 08:07:29
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B037.CNF;1116
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W037.CNF;307
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.1016E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5697.749	9.866	10.000	-0.800	10.800	2.6925	100.0000	-1.23E-03	6.47E-03	8.79E-03	2.17E-02	6.47E-03
PU-238	5499.000	5448.526	7.399	12.000	0.480	11.520	2.9312	99.90000	7.27E-04	6.83E-03	9.58E-03	2.33E-02	6.82E-03
PU-9/0	5155.000	5177.663	88.794	4.000	1.840	2.160	2.0604	99.90000	2.79E-03	3.57E-03	6.73E-03	1.76E-02	3.57E-03
PU242	4890.000	4886.621	65.929	805.000	802.120	2.880	1.6971	100.0000	1.21E+00	7.76E-02	5.54E-03	1.52E-02	4.30E-02
PU-244	4589.000	4536.758	59.093	16.000	16.000	0.000	3.7241	99.90000	2.42E-02	6.19E-03	1.22E-02	2.84E-02	6.06E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

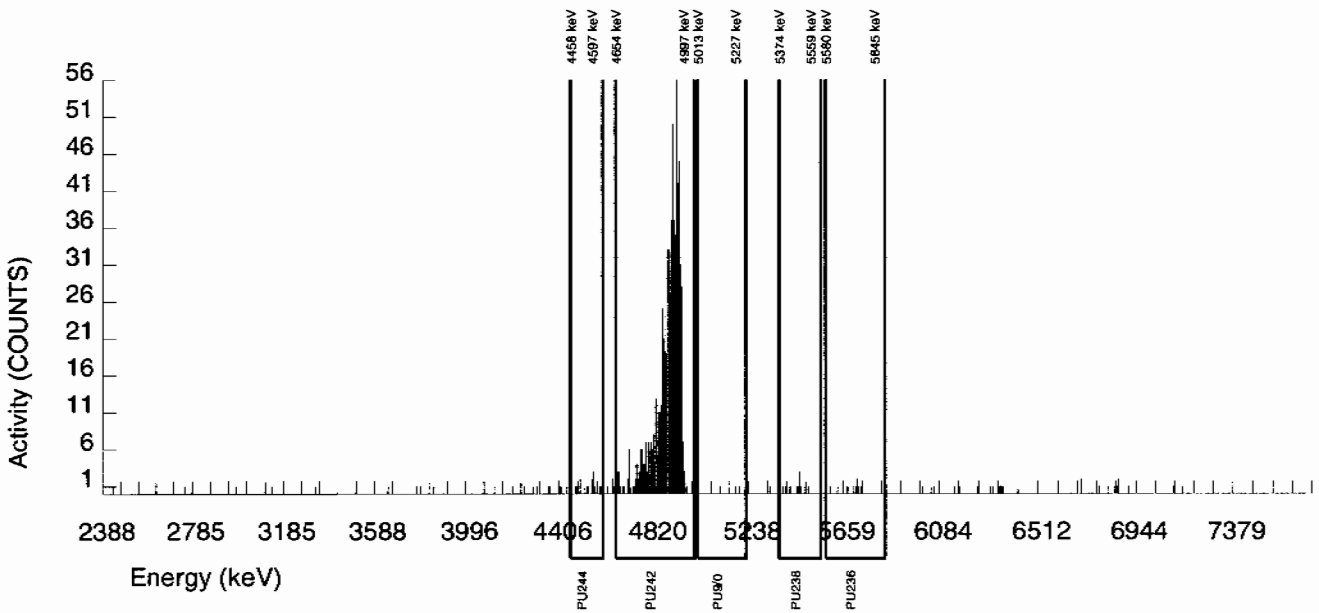

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 038	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799018_PU	DETECTOR S/N : 72532	BKG FILE : B038.CNF;1113
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 33.6391	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 08:07:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W038.CNF;321
% YIELD : 99.845		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3755E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5663.418	0.000	4.000	-0.320	4.320	2.6925	100.0000	-4.83E-04	4.03E-03	8.66E-03	2.14E-02	4.03E-03
PU-238	5499.000	5481.479	7.247	8.000	3.680	4.320	2.9312	99.90000	5.49E-03	4.98E-03	9.43E-03	2.29E-02	4.97E-03
PU-9/0	5155.000	5148.419	39.576	54.000	51.840	2.160	2.0604	99.90000	7.73E-02	1.18E-02	6.63E-03	1.73E-02	1.11E-02
PU242	4890.000	4888.020	31.001	819.000	817.560	1.440	1.2000	100.0000	1.22E+00	7.74E-02	3.86E-03	1.18E-02	4.27E-02
PU-244	4589.000	4519.459	112.870	4.000	4.000	0.000	3.7241	99.90000	5.97E-03	3.00E-03	1.20E-02	2.80E-02	2.98E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

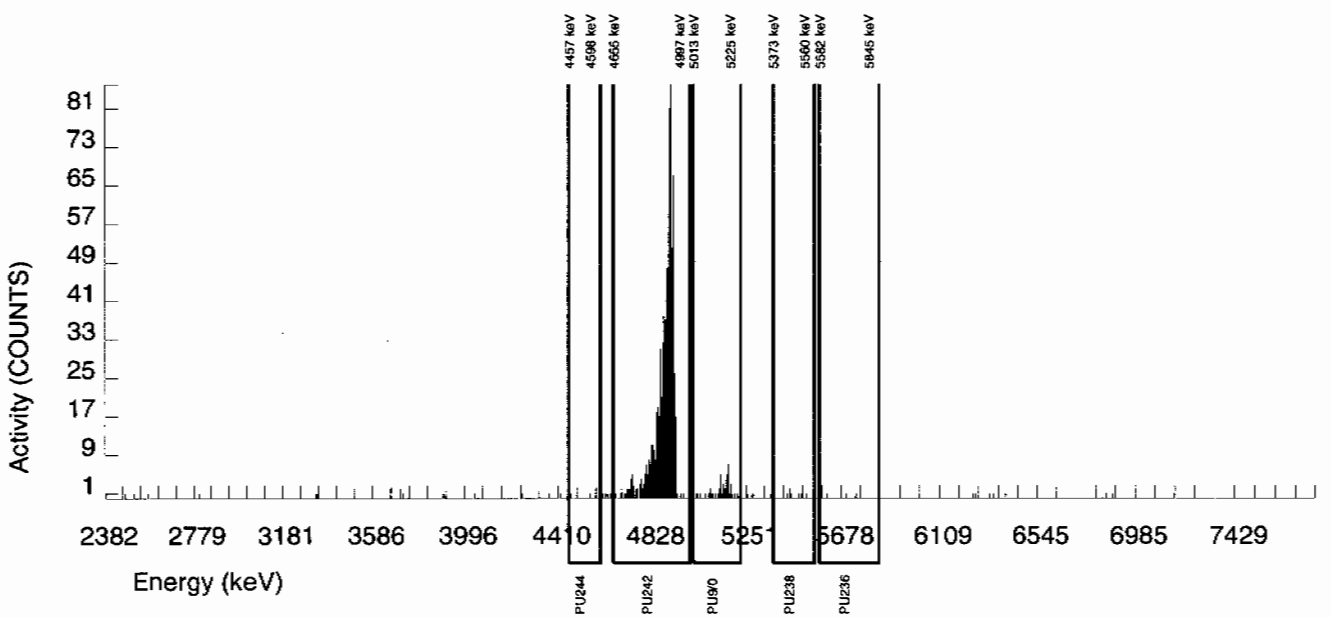

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405	CHAMBER : 039	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245799019_PU	DETECTOR S/N : 45-149BB2	BKG FILE : B039.CNF;1113
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 35.7920	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 08:07:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W039.CNF;298
% YIELD : 95.594		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2318E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5758.663	7.202	8.000	0.800	7.200	2.6925	100.0000	1.18E-03	5.36E-03	8.46E-03	2.09E-02	5.36E-03
PU-238	5499.000	5429.855	24.416	9.000	1.800	7.200	2.9312	99.90000	2.62E-03	5.49E-03	9.22E-03	2.24E-02	5.49E-03
PU-9/0	5155.000	5094.762	4.904	3.000	-0.600	3.600	2.0604	99.90000	-8.74E-04	3.45E-03	6.48E-03	1.69E-02	3.45E-03
PU242	4890.000	4879.041	52.537	835.000	832.840	2.160	1.4697	100.0000	1.21E+00	7.66E-02	4.62E-03	1.32E-02	4.21E-02
PU-244	4589.000	4553.400	5.695	14.000	13.280	0.720	3.7241	99.90000	1.94E-02	5.65E-03	1.17E-02	2.74E-02	5.55E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

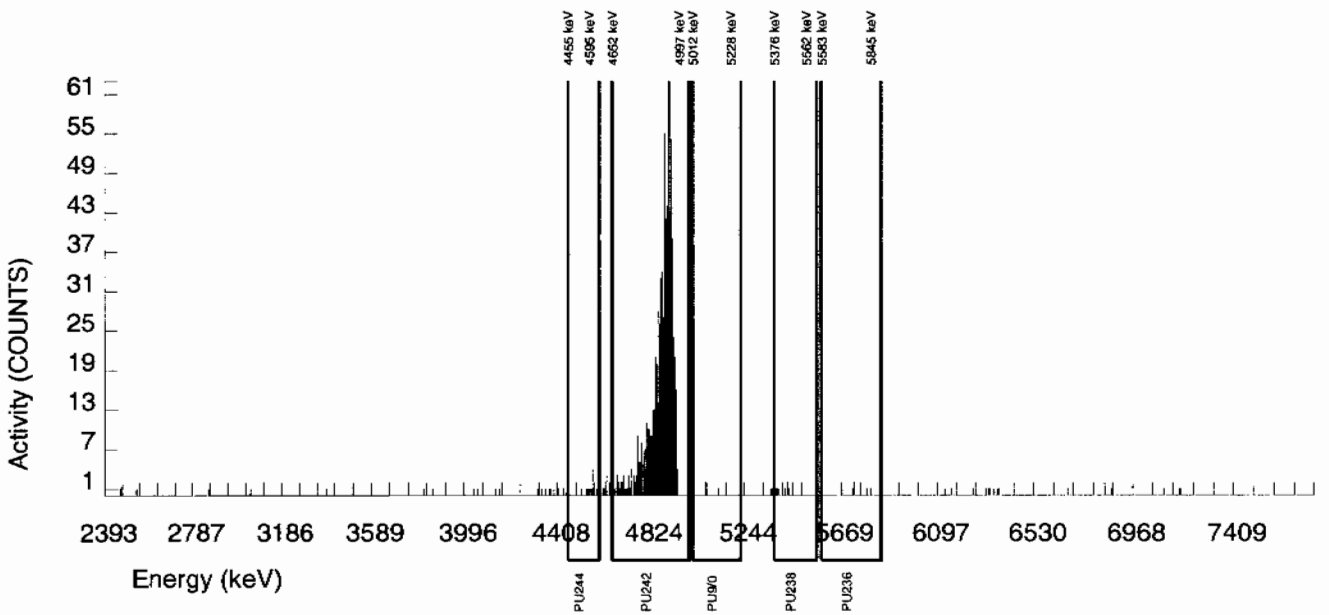

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S1202036737_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 12-FEB-2010 00:00:00
ANALYST : MXA1
% YIELD : 93.342

CHAMBER : 040
DETECTOR S/N : 78773
AVERAGE %EFFICIENCY : 32.1221
COUNT DATE : 15-FEB-2010 08:07:29
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B040.CNF;1116
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W040.CNF;317
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.1557E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5787.910	4.889	1.000	-0.440	1.440	2.6925	100.0000	-9.20E-04	2.99E-03	1.21E-02	2.99E-02	2.98E-03
PU-238	5499.000	5465.982	0.000	0.000	-2.160	2.160	2.9312	99.90000	-4.51E-03	3.34E-03	1.32E-02	3.21E-02	3.34E-03
PU-9/0	5155.000	5172.829	4.889	1.000	-0.440	1.440	2.0604	99.90000	-9.19E-04	2.98E-03	9.28E-03	2.42E-02	2.98E-03
PU242	4890.000	4883.947	57.824	732.000	729.840	2.160	1.4697	100.0000	1.52E+00	1.00E-01	6.62E-03	1.89E-02	5.65E-02
PU-244	4589.000	4540.889	0.000	6.000	4.560	1.440	3.7241	99.90000	9.52E-03	5.56E-03	1.68E-02	3.92E-02	5.54E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

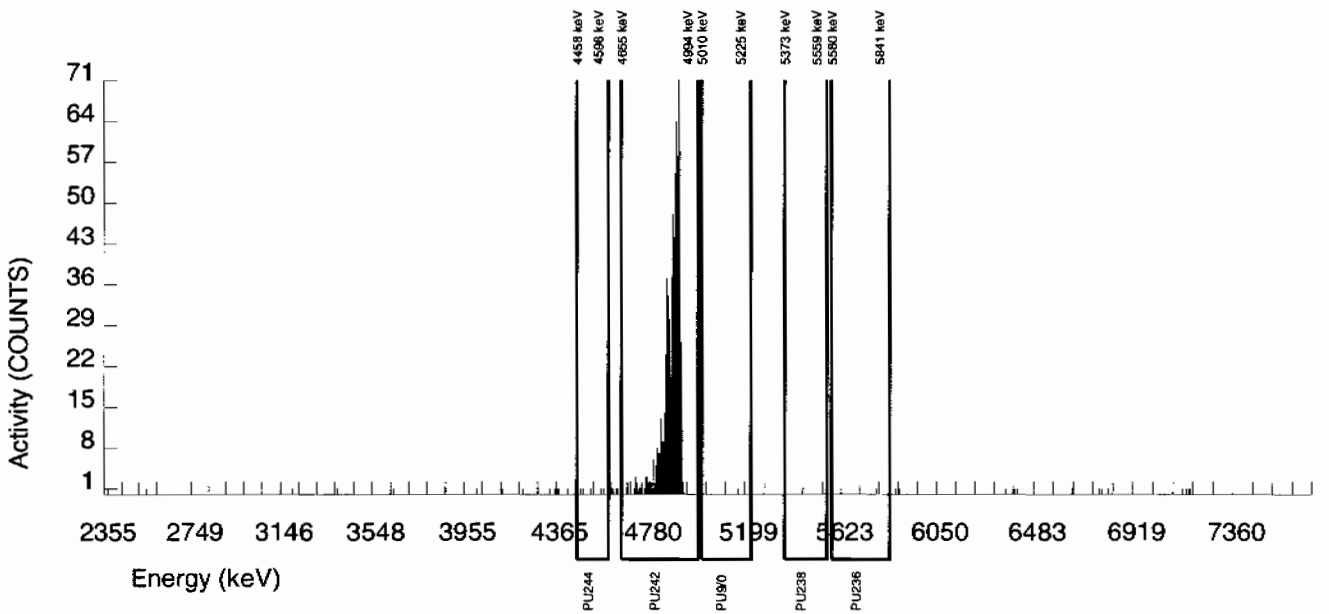

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S1202036738_PU
SAMPLE QTY : 1.251 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 91.458

CHAMBER : 041
DETECTOR S/N : 78205
AVERAGE %EFFICIENCY : 33.0982
COUNT DATE : 15-FEB-2010 08:07:29
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B041.CNF;1109
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W041.CNF;321
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.0920E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.310	4.950	4.000	1.120	2.880	2.6925	100.0000	1.88E-03	4.13E-03	9.60E-03	2.37E-02	4.13E-03
PU-238	5499.000	5534.839	4.950	1.000	-1.880	2.880	2.9312	99.90000	-3.11E-03	2.90E-03	1.05E-02	2.54E-02	2.90E-03
PU-9/0	5155.000	5119.676	0.000	0.000	-4.320	4.320	2.0604	99.90000	-7.14E-03	3.35E-03	7.35E-03	1.92E-02	3.35E-03
PU242	4890.000	4881.969	47.114	739.000	736.840	2.160	1.4697	100.0000	1.22E+00	7.99E-02	5.24E-03	1.50E-02	4.50E-02
PU-244	4589.000	4530.985	0.000	9.000	7.560	1.440	3.7241	99.90000	1.25E-02	5.28E-03	1.33E-02	3.11E-02	5.24E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

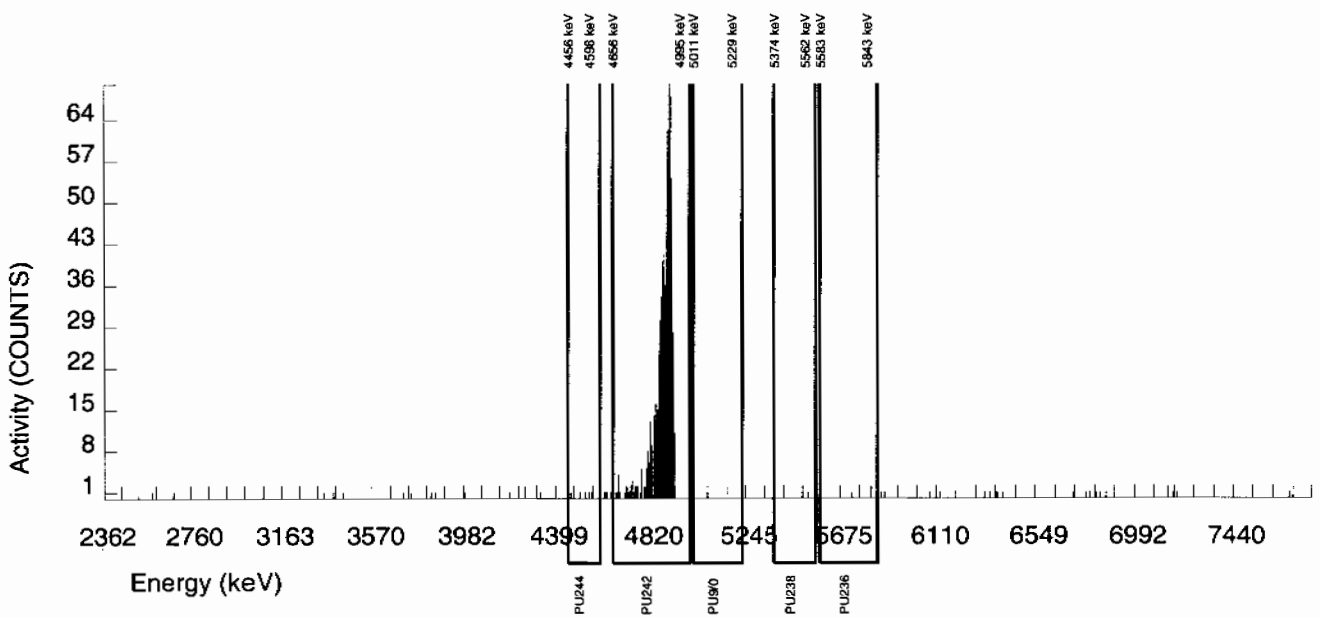

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950405
SAMPLE ID : S1202036739_PU
SAMPLE QTY : 0.100 G
SAMPLE DATE : 12-FEB-2010 00:00:00
ANALYST : MXA1
% YIELD : 99.440

CHAMBER : 042
DETECTOR S/N : 78793
AVERAGE %EFFICIENCY : 33.2094
COUNT DATE : 15-FEB-2010 08:07:29
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B042.CNF;1108
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W042.CNF;294
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.3618E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5751.647	34.237	2.000	-0.160	2.160	2.6925	100.0000	-3.04E-03	3.58E-02	1.10E-01	2.71E-01	3.58E-02
PU-238	5499.000	5495.073	49.725	327.000	327.000	0.000	2.9312	99.90000	6.20E+00	4.77E-01	1.20E-01	2.91E-01	3.43E-01
PU-9/0	5155.000	5147.230	40.053	1830.000	1827.120	2.880	2.0604	99.90000	3.46E+01	2.02E+00	8.43E-02	2.20E-01	8.12E-01
PU242	4890.000	4883.707	31.263	806.000	803.840	2.160	1.4697	100.0000	1.52E+01	9.75E-01	6.01E-02	1.71E-01	5.38E-01
PU-244	4589.000	4546.661	9.782	10.000	8.560	1.440	3.7241	99.90000	1.62E-01	6.36E-02	1.52E-01	3.56E-01	6.30E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

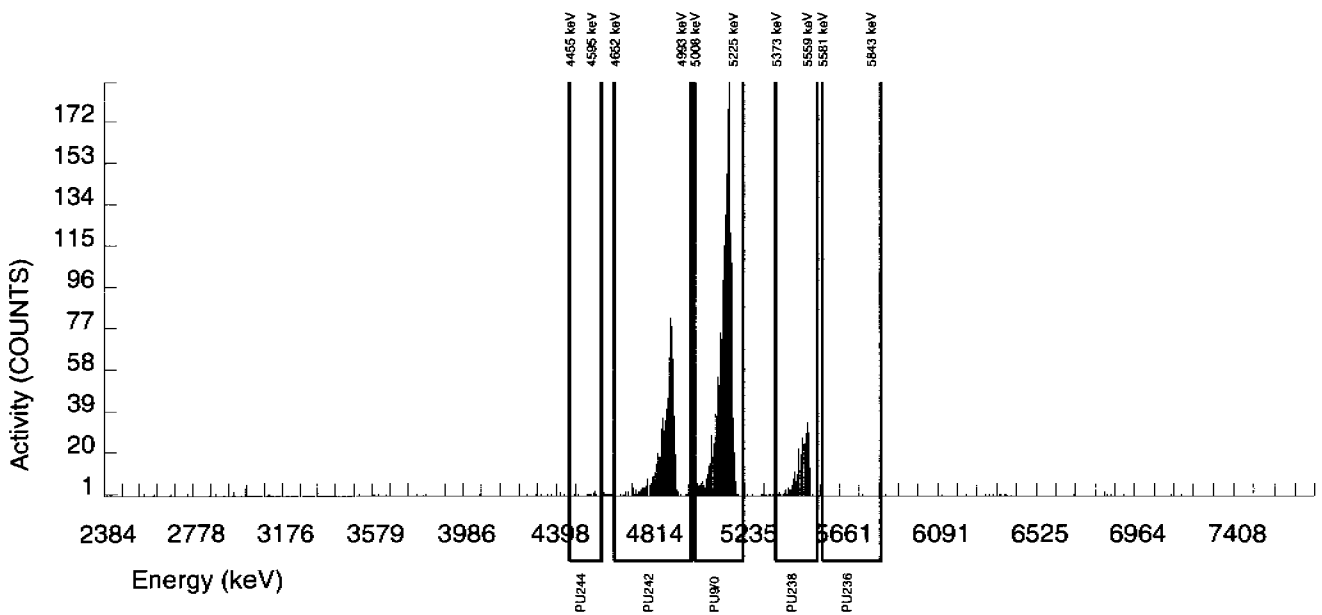

Radiochemistry Batch Checklist, Rev10

Batch# 9S04026 Product: U Date: 2/18/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 100% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive Isotopes.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly signed.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) exceed reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyze.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Brown 2/18/10

Secondary Review Performed By: [illegible] 2/19/10

2/26
LANL

Uranium Que Sheet

08-FEB-10

Batch #: 950406 Analyst: MXA1 First Client Due Date:26-FEB-10 Internal Due Date:15-FEB-10

Tracer Isotope: U-232 U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1ml

LCS Isotope: U-238 LCS Code: SRM 0244-A Expiration Date: 10/31/20 Vol: 0.1g

Spike Isotope: U-238 Spike Code: N/A Expiration Date: N/A Vol: N/A

Prep Date: 2/12/10 Initials: MDA Pipet ID: 2971058 Balance ID: 19350208 Witness: HAKD 2/12/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (D/1/f)	U Det #
245799001-1	RE15-10-7888	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	1	1	0.508	113
245799002-1	RE15-10-7890	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	2	2	0.507	114
245799003-1	RE15-10-7886	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	3	3	0.507	115
245799004-1	RE15-10-7889	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	4	4	0.500	117
245799005-1	RE15-10-7885	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	5	5	0.508	118
245799006-1	RE15-10-7882	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	6	6	0.505	119
245799007-1	RE15-10-7887	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	7	7	0.509	120
245799008-1	RE15-10-7881	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	8	8	0.501	121
245799009-1	RE15-10-7951	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	9	9	0.503	122
245799010-1	RE15-10-7950	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	10	10	0.507	123
245799011-1	RE15-10-7947	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	11	11	0.506	1
245799012-1	RE15-10-7944	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	12	12	0.509	2
245799013-1	RE15-10-7948	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	13	13	0.509	3
245799014-1	RE15-10-7941	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	14	14	0.508	4
245799015-1	RE15-10-7949	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	15	15	0.507	5
245799016-1	RE15-10-7946	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	16	16	0.509	6
245799017-1	RE15-10-7942	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	17	17	0.506	7
245799018-1	RE15-10-7945	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	18	18	0.501	8
245799019-1	RE15-10-7943	SAMPLE		.1 pCi/g	SOIL	LANL010	26-JAN-10	19	19	0.505	9
1202036740-1	MB for batch 950406	MB		.1 pCi/g	SOIL	QC ACCOUNT		20	20	1	10
1202036741-1	RE15-10-7888(245799001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	26-JAN-10	21	21	0.502	11
1202036742-1	LCS for batch 950406	LCS		.1 pCi/g	SOIL	QC ACCOUNT		22	22	0.100	143 ~~12~~

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 2/18/10

Blank Correction Report

Batch ID 950406

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202036741	DUP	Uranium-233/234	0.502 g	0.729	0.0687	0.0752	.013306773	pCi/g	NO
		Uranium-235/236	0.502 g	0.0294	0.0106	0.0479	.008605578	pCi/g	YES
		Uranium-238	0.502 g	0.810	0.0748	0.0513	.006952191	pCi/g	NO
1202036742	LCS	Uranium-233/234	0.100 g	5.69	0.517	0.449	.0668	pCi/g	NO
		Uranium-235/236	0.100 g	0.374	0.0946	0.286	.0432	pCi/g	NO
		Uranium-238	0.100 g	5.46	0.500	0.307	.0349	pCi/g	NO
1202036740	MB	Uranium-233/234	1.00 g	0.00668	0.00345	0.0441	.00668	pCi/g	YES
		Uranium-235/236	1.00 g	0.00432	0.00307	0.0281	.00432	pCi/g	YES
		Uranium-238	1.00 g	0.00349	0.00553	0.0301	.00349	pCi/g	YES
245799001	RE15-10-7888	Uranium-233/234	0.508 g	0.707	0.0716	0.093	.013149606	pCi/g	NO
		Uranium-235/236	0.508 g	0.0228	0.0103	0.0593	.008503937	pCi/g	YES
		Uranium-238	0.508 g	0.788	0.0775	0.0635	.006870079	pCi/g	NO
245799002	RE15-10-7890	Uranium-233/234	0.507 g	1.93	0.158	0.0884	.013175542	pCi/g	NO
		Uranium-235/236	0.507 g	0.199	0.0325	0.0564	.008520710	pCi/g	NO
		Uranium-238	0.507 g	9.16	0.668	0.0604	.006883629	pCi/g	NO
245799003	RE15-10-7886	Uranium-233/234	0.507 g	0.724	0.0726	0.0905	.013175542	pCi/g	NO
		Uranium-235/236	0.507 g	0.031	0.0135	0.0577	.008520710	pCi/g	YES
		Uranium-238	0.507 g	0.921	0.0868	0.0618	.006883629	pCi/g	NO
245799004	RE15-10-7889	Uranium-233/234	0.500 g	7.77	0.621	0.152	.01336	pCi/g	NO
		Uranium-235/236	0.500 g	0.978	0.113	0.0971	.00864	pCi/g	NO
		Uranium-238	0.500 g	44.6	3.38	0.104	.00698	pCi/g	NO
245799005	RE15-10-7885	Uranium-233/234	0.508 g	3.43	0.269	0.0966	.013149606	pCi/g	NO
		Uranium-235/236	0.508 g	0.345	0.0473	0.0616	.008503937	pCi/g	NO
		Uranium-238	0.508 g	15.3	1.11	0.066	.006870079	pCi/g	NO
245799006	RE15-10-7882	Uranium-233/234	0.505 g	0.704	0.072	0.0966	.013227723	pCi/g	NO
		Uranium-235/236	0.505 g	0.0473	0.0153	0.0616	.008554455	pCi/g	NO
		Uranium-238	0.505 g	0.891	0.086	0.0659	.006910891	pCi/g	NO
245799007	RE15-10-7887	Uranium-233/234	0.509 g	1.23	0.111	0.0963	.013123772	pCi/g	NO
		Uranium-235/236	0.509 g	0.0566	0.0181	0.0614	.008487230	pCi/g	NO
		Uranium-238	0.509 g	1.93	0.161	0.0657	.006856582	pCi/g	NO
245799008	RE15-10-7881	Uranium-233/234	0.501 g	2.98	0.236	0.0959	.013333333	pCi/g	NO
		Uranium-235/236	0.501 g	0.305	0.0446	0.0611	.008622754	pCi/g	NO
		Uranium-238	0.501 g	11.3	0.826	0.0655	.006966068	pCi/g	NO
245799009	RE15-10-7951	Uranium-233/234	0.503 g	0.624	0.0641	0.0881	.013280318	pCi/g	NO
		Uranium-235/236	0.503 g	0.0432	0.0153	0.0562	.008588469	pCi/g	NO
		Uranium-238	0.503 g	0.897	0.0843	0.0602	.006938370	pCi/g	NO
245799010	RE15-10-7950	Uranium-233/234	0.507 g	1.07	0.0991	0.095	.013175542	pCi/g	NO
		Uranium-235/236	0.507 g	0.0838	0.0206	0.0606	.008520710	pCi/g	NO
		Uranium-238	0.507 g	1.77	0.149	0.0649	.006883629	pCi/g	NO
245799011	RE15-10-7947	Uranium-233/234	0.506 g	5.17	0.387	0.0872	.013201581	pCi/g	NO
		Uranium-235/236	0.506 g	0.547	0.062	0.0556	.008537549	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245799011	RE15-10-7947	Uranium-238	0.506 g	23.6	1.68	0.0596	.006897233	pCi/g	NO
245799012	RE15-10-7944	Uranium-233/234	0.509 g	0.642	0.0649	0.0807	.013123772	pCi/g	NO
		Uranium-235/236	0.509 g	0.0277	0.0154	0.0514	.008487230	pCi/g	YES
		Uranium-238	0.509 g	0.687	0.067	0.0551	.006856582	pCi/g	NO
245799013	RE15-10-7948	Uranium-233/234	0.509 g	2.28	0.179	0.076	.013123772	pCi/g	NO
		Uranium-235/236	0.509 g	0.190	0.0297	0.0485	.008487230	pCi/g	NO
		Uranium-238	0.509 g	7.11	0.515	0.0519	.006856582	pCi/g	NO
245799014	RE15-10-7941	Uranium-233/234	0.508 g	3.95	0.296	0.0773	.013149606	pCi/g	NO
		Uranium-235/236	0.508 g	0.242	0.0351	0.0493	.008503937	pCi/g	NO
		Uranium-238	0.508 g	9.59	0.689	0.0528	.006870079	pCi/g	NO
245799015	RE15-10-7949	Uranium-233/234	0.507 g	6.41	0.480	0.0954	.013175542	pCi/g	NO
		Uranium-235/236	0.507 g	0.594	0.0687	0.0609	.008520710	pCi/g	NO
		Uranium-238	0.507 g	28.1	2.02	0.0652	.006883629	pCi/g	NO
245799016	RE15-10-7946	Uranium-233/234	0.509 g	0.753	0.0716	0.0796	.013123772	pCi/g	NO
		Uranium-235/236	0.509 g	0.0507	0.0145	0.0507	.008487230	pCi/g	NO
		Uranium-238	0.509 g	0.801	0.0751	0.0543	.006856582	pCi/g	NO
245799017	RE15-10-7942	Uranium-233/234	0.506 g	0.631	0.0634	0.0806	.013201581	pCi/g	NO
		Uranium-235/236	0.506 g	0.0592	0.0168	0.0514	.008537549	pCi/g	NO
		Uranium-238	0.506 g	0.916	0.084	0.055	.006897233	pCi/g	NO
245799018	RE15-10-7945	Uranium-233/234	0.501 g	4.14	0.313	0.0845	.013333333	pCi/g	NO
		Uranium-235/236	0.501 g	0.343	0.0447	0.0538	.008622754	pCi/g	NO
		Uranium-238	0.501 g	15.9	1.14	0.0577	.006966068	pCi/g	NO
245799019	RE15-10-7943	Uranium-233/234	0.505 g	0.597	0.0575	0.0677	.013227723	pCi/g	NO
		Uranium-235/236	0.505 g	0.053	0.016	0.0431	.008554455	pCi/g	NO
		Uranium-238	0.505 g	0.652	0.0613	0.0462	.006910891	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 113	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245799001_UU	DETECTOR S/N : 45-111B4	BKG FILE : B113.CNF;446
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 24.7855	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:15:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W113.CNF;123
% YIELD : 97.110		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3762E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.364	54.735	1087.000	1084.000	3.000	1.7321	100.0000	4.00E+00	3.07E-01	1.48E-02	3.97E-02	1.22E-01
U-3/4	4763.020	4747.686	55.271	194.000	191.903	1.000	4.8416	100.0000	7.07E-01	7.16E-02	4.15E-02	9.30E-02	5.13E-02
U-235	4391.000	4413.986	130.106	5.000	5.000	0.000	2.2152	80.90000	2.28E-02	1.03E-02	2.35E-02	5.93E-02	1.02E-02
U-238	4184.730	4191.443	49.440	214.000	214.000	0.000	3.1208	100.0000	7.88E-01	7.75E-02	2.67E-02	6.35E-02	5.39E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

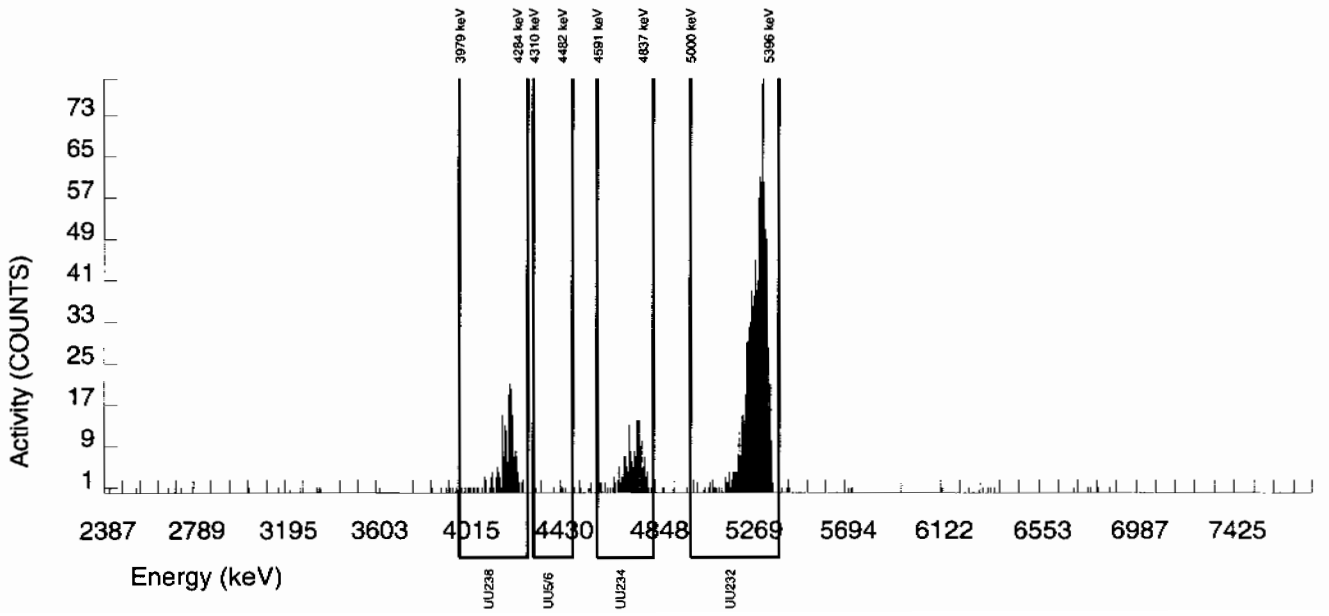

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799002_UU
SAMPLE QTY : 0.507 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 100.504

CHAMBER : 114
DETECTOR S/N : 78258
AVERAGE %EFFICIENCY : 25.2301
COUNT DATE : 16-FEB-2010 21:15:02
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B114.CNF;447
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W114.CNF;119
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.5291E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.216	30.585	1142.000	1142.000	0.000	0.0000	100.0000	4.00E+00	3.05E-01	0.00E+00	9.50E-03	1.18E-01
U-3/4	4763.020	4761.660	53.562	551.000	549.844	0.000	4.8416	100.0000	1.93E+00	1.58E-01	3.95E-02	8.84E-02	8.22E-02
U-235	4391.000	4396.628	62.005	46.000	46.000	0.000	2.2152	80.90000	1.99E-01	3.25E-02	2.23E-02	5.64E-02	2.94E-02
U-238	4184.730	4195.191	34.781	2616.000	2615.000	1.000	3.1208	100.0000	9.16E+00	6.68E-01	2.54E-02	6.04E-02	1.79E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

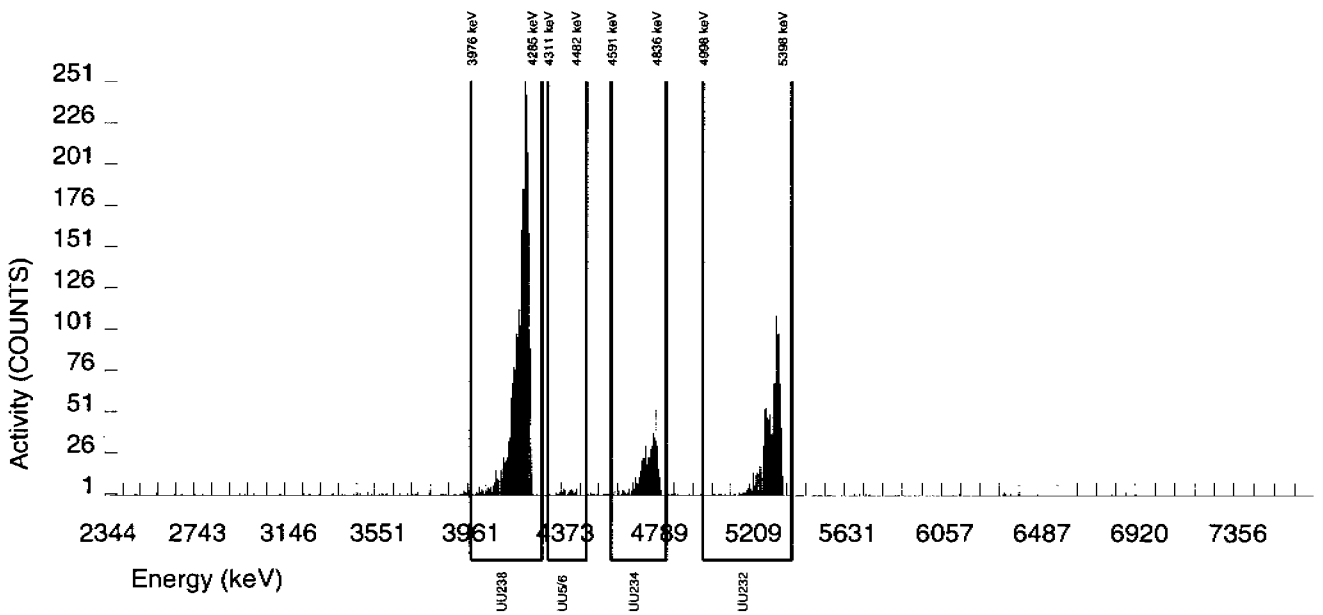

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799003_UU
SAMPLE QTY : 0.507 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 95.469

CHAMBER : 115
DETECTOR S/N : 79995
AVERAGE %EFFICIENCY : 25.9560
COUNT DATE : 16-FEB-2010 21:15:05
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B115.CNF;454
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W115.CNF;147
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.3022E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.982	25.656	1118.000	1116.000	2.000	1.4142	100.0000	4.00E+00	3.06E-01	1.18E-02	3.33E-02	1.20E-01
U-3/4	4763.020	4766.482	57.464	206.000	201.871	3.000	4.8416	100.0000	7.24E-01	7.26E-02	4.04E-02	9.05E-02	5.17E-02
U-235	4391.000	4401.036	7.318	8.000	7.000	1.000	2.2152	80.90000	3.10E-02	1.35E-02	2.28E-02	5.77E-02	1.33E-02
U-238	4184.730	4193.644	30.606	258.000	257.000	1.000	3.1208	100.0000	9.21E-01	8.68E-02	2.60E-02	6.18E-02	5.77E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

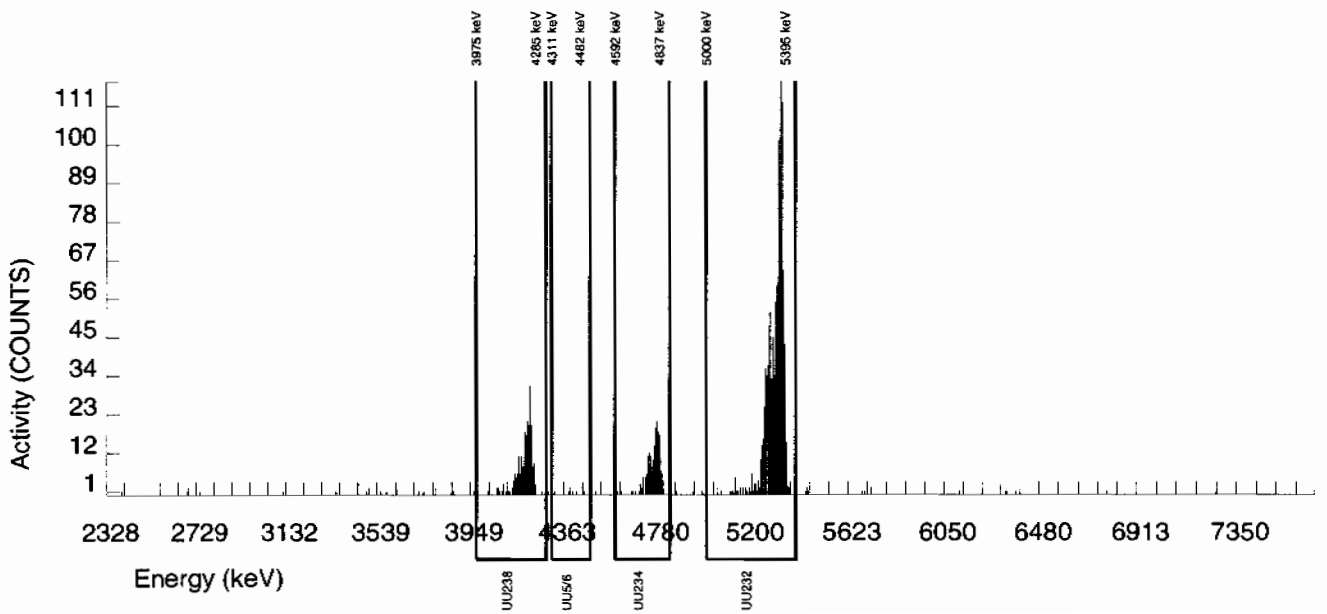

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799004_UU
SAMPLE QTY : 0.500 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 59.477

CHAMBER : 117
DETECTOR S/N : 33450
AVERAGE %EFFICIENCY : 25.0873
COUNT DATE : 16-FEB-2010 21:15:08
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B117.CNF;452
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W117.CNF;119
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 2.6803E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5284.695	86.133	685.000	672.000	13.000	3.6056	100.0000	4.06E+00	3.43E-01	5.06E-02	1.18E-01	1.60E-01
U-3/4	4763.020	4744.655	70.382	1290.000	1287.320	2.000	4.8416	100.0000	7.77E+00	6.21E-01	6.80E-02	1.52E-01	2.17E-01
U-235	4391.000	4406.842	91.493	133.000	131.000	2.000	2.2152	80.90000	9.78E-01	1.13E-01	3.85E-02	9.71E-02	8.67E-02
U-238	4184.730	4175.632	74.006	7393.000	7392.000	1.000	3.1208	100.0000	4.46E+01	3.38E+00	4.38E-02	1.04E-01	5.19E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

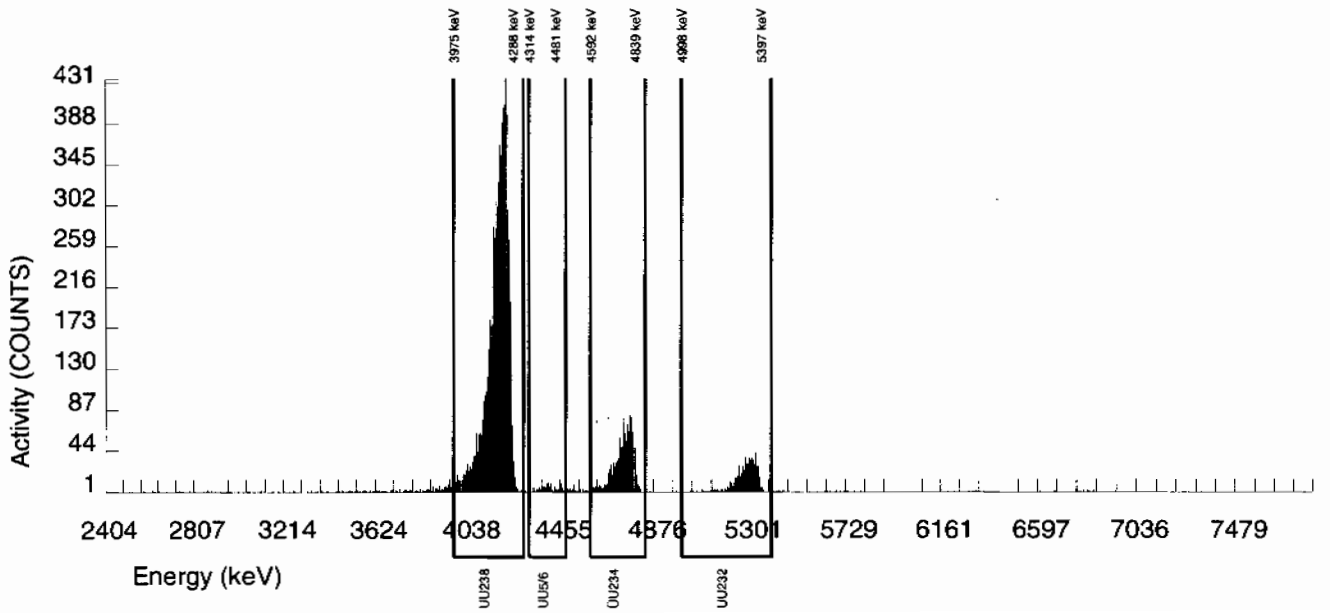

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 118	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245799005_UU	DETECTOR S/N : 75544	BKG FILE : B118.CNF;451
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 25.4737	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:15:10	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W118.CNF;116
% YIELD : 90.913		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0969E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5281.023	37.131	1048.000	1043.000	5.000	2.2361	100.0000	4.00E+00	3.09E-01	1.99E-02	5.02E-02	1.24E-01
U-3/4	4763.020	4738.766	55.959	899.000	895.944	2.000	4.8416	100.0000	3.43E+00	2.69E-01	4.31E-02	9.66E-02	1.15E-01
U-235	4391.000	4393.704	83.385	73.000	73.000	0.000	2.2152	80.90000	3.45E-01	4.73E-02	2.44E-02	6.16E-02	4.04E-02
U-238	4184.730	4169.825	52.600	4001.000	4001.000	0.000	3.1208	100.0000	1.53E+01	1.11E+00	2.78E-02	6.60E-02	2.42E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

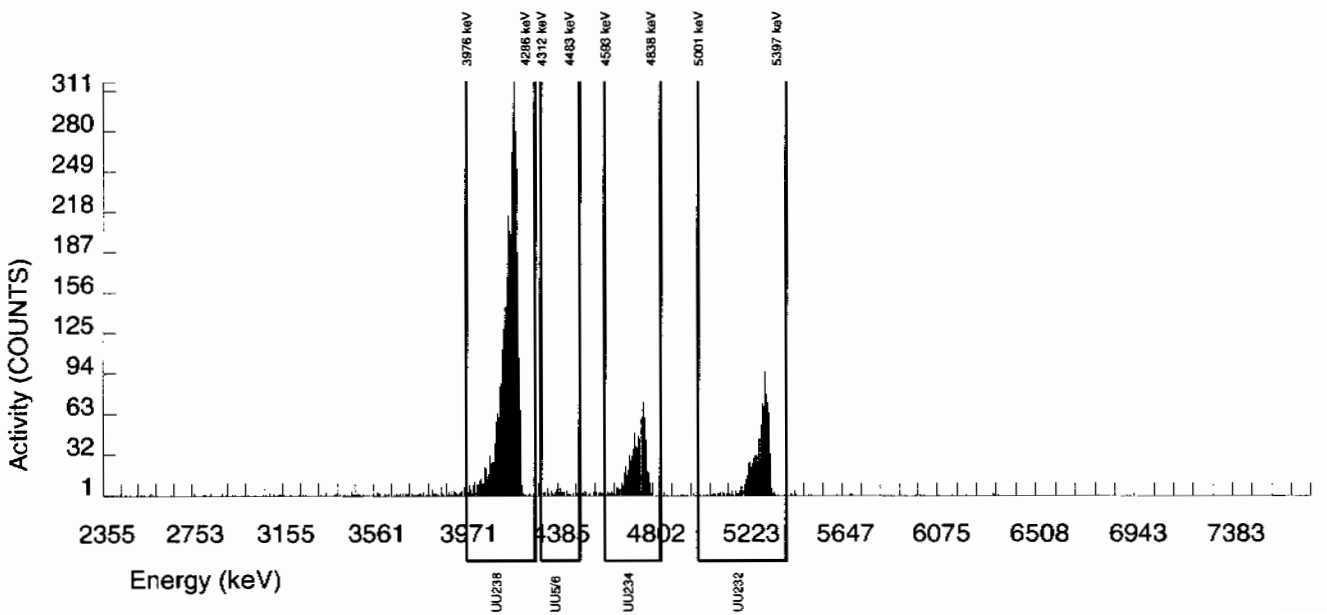

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 119	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245799006_UU	DETECTOR S/N : 79450	BKG FILE : B119.CNF;460
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 25.6819	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:15:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W119.CNF;119
% YIELD : 90.781		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0910E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.125	39.054	1054.000	1050.000	4.000	2.0000	100.0000	4.02E+00	3.11E-01	1.78E-02	4.60E-02	1.25E-01
U-3/4	4763.020	4762.281	45.163	185.000	183.937	0.000	4.8416	100.0000	7.04E-01	7.20E-02	4.31E-02	9.66E-02	5.19E-02
U-235	4391.000	4391.064	9.267	10.000	10.000	0.000	2.2152	80.90000	4.73E-02	1.53E-02	2.44E-02	6.16E-02	1.50E-02
U-238	4184.730	4196.417	49.516	233.000	233.000	0.000	3.1208	100.0000	8.91E-01	8.60E-02	2.78E-02	6.59E-02	5.84E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

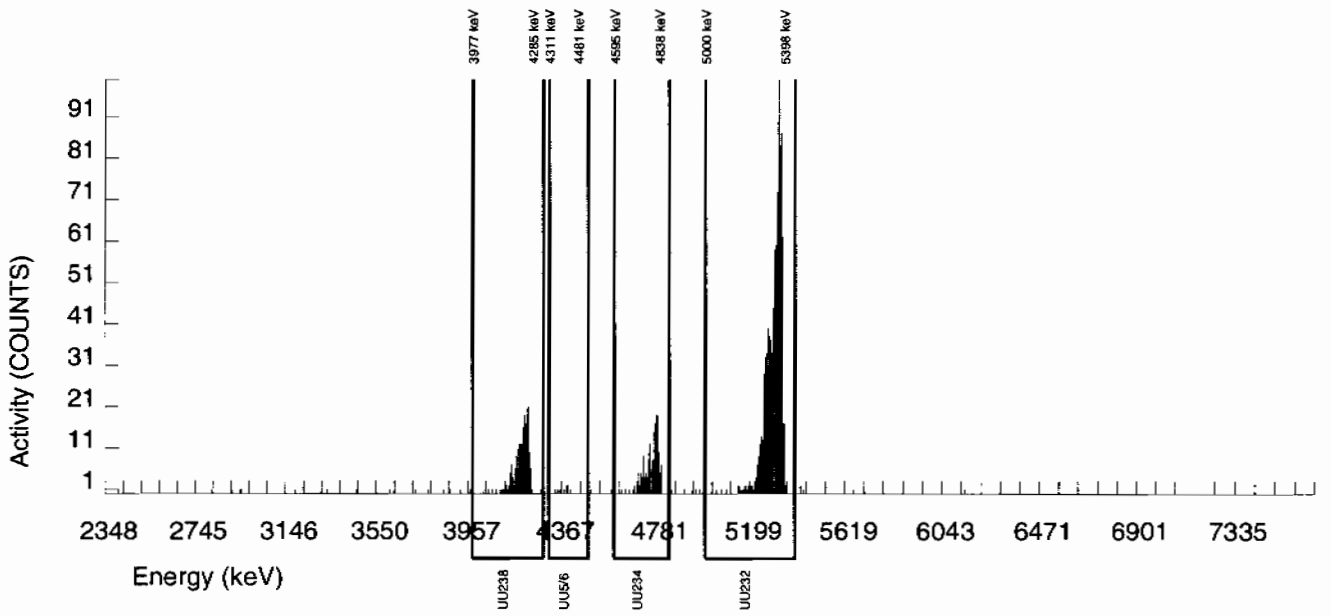

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 120	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245799007_UU	DETECTOR S/N : 74430	BKG FILE : B120.CNF;464
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 25.9820	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:15:16	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W120.CNF;126
% YIELD : 89.305		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0245E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.197	33.383	1047.000	1045.000	2.000	1.4142	100.0000	3.99E+00	3.08E-01	1.25E-02	3.54E-02	1.24E-01
U-3/4	4763.020	4762.496	59.913	324.000	321.942	1.000	4.8416	100.0000	1.23E+00	1.11E-01	4.30E-02	9.63E-02	6.86E-02
U-235	4391.000	4426.750	17.267	13.000	12.000	1.000	2.2152	80.90000	5.66E-02	1.81E-02	2.43E-02	6.14E-02	1.76E-02
U-238	4184.730	4192.226	57.609	505.000	505.000	0.000	3.1208	100.0000	1.93E+00	1.61E-01	2.77E-02	6.57E-02	8.57E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

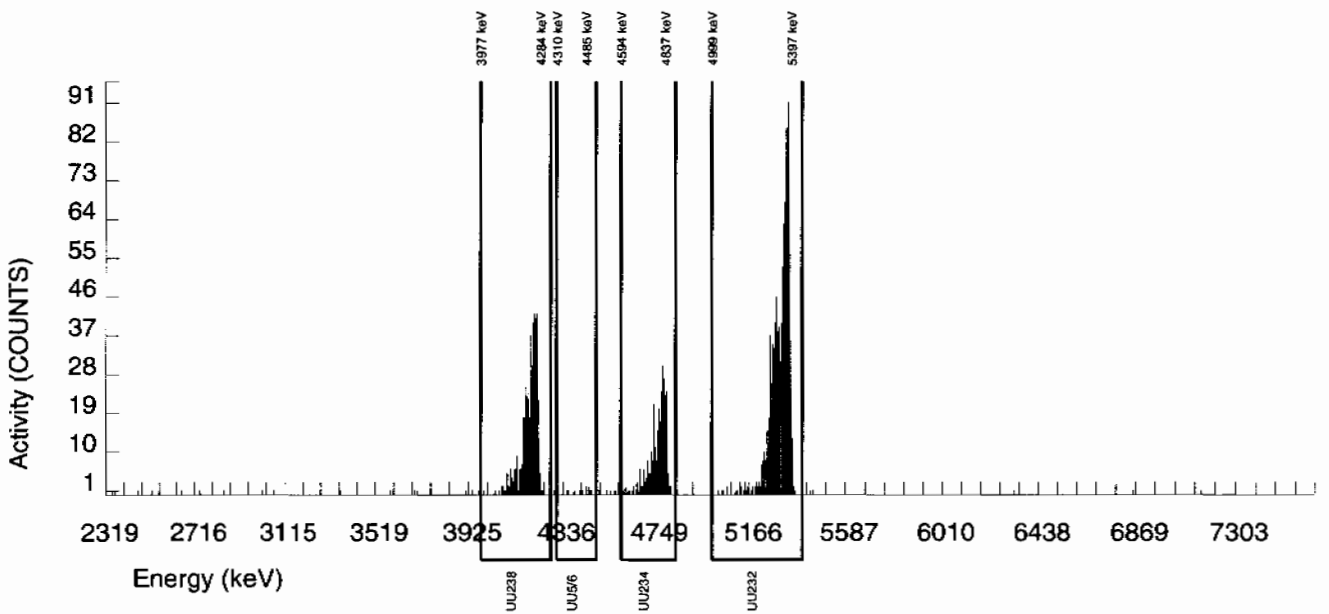

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799008_UU
SAMPLE QTY : 0.501 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 96.699

CHAMBER : 121
DETECTOR S/N : 75545
AVERAGE %EFFICIENCY : 24.4776
COUNT DATE : 16-FEB-2010 21:15:18
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B121.CNF;446
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W121.CNF;117
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.3577E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.614	36.499	1072.000	1066.000	6.000	2.4495	100.0000	4.05E+00	3.13E-01	2.16E-02	5.36E-02	1.25E-01
U-3/4	4763.020	4751.828	57.788	786.000	783.921	1.000	4.8416	100.0000	2.98E+00	2.36E-01	4.28E-02	9.59E-02	1.06E-01
U-235	4391.000	4413.350	28.271	67.000	65.000	2.000	2.2152	80.90000	3.05E-01	4.46E-02	2.42E-02	6.11E-02	3.90E-02
U-238	4184.730	4186.120	53.633	2973.000	2972.000	1.000	3.1208	100.0000	1.13E+01	8.26E-01	2.76E-02	6.55E-02	2.07E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

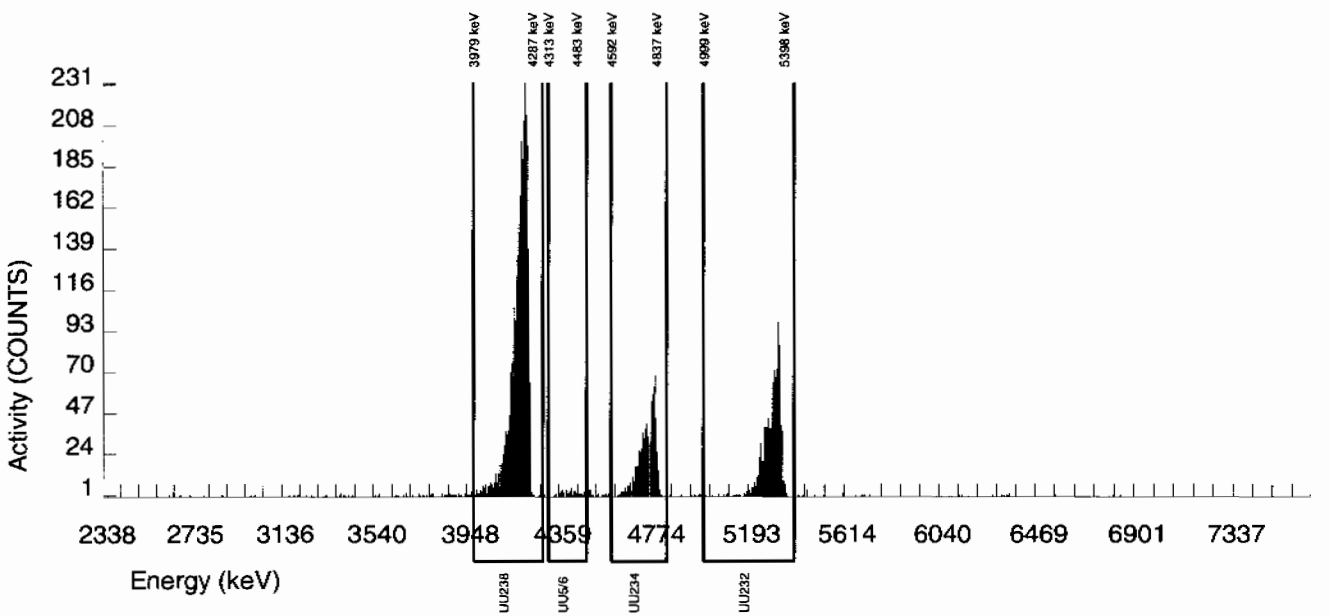

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799009_UU
SAMPLE QTY : 0.503 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 102.722

CHAMBER : 122
DETECTOR S/N : 75546
AVERAGE %EFFICIENCY : 24.9662
COUNT DATE : 16-FEB-2010 21:15:20
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B122.CNF;448
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W122.CNF;120
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.6291E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.135	33.749	1159.000	1155.000	4.000	2.0000	100.0000	4.04E+00	3.07E-01	1.62E-02	4.20E-02	1.19E-01
U-3/4	4763.020	4765.960	45.870	180.000	178.831	0.000	4.8416	100.0000	6.24E-01	6.41E-02	3.93E-02	8.81E-02	4.67E-02
U-235	4391.000	4392.508	36.995	11.000	10.000	1.000	2.2152	80.90000	4.32E-02	1.53E-02	2.22E-02	5.62E-02	1.50E-02
U-238	4184.730	4194.897	33.814	257.000	257.000	0.000	3.1208	100.0000	8.97E-01	8.43E-02	2.54E-02	6.02E-02	5.60E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

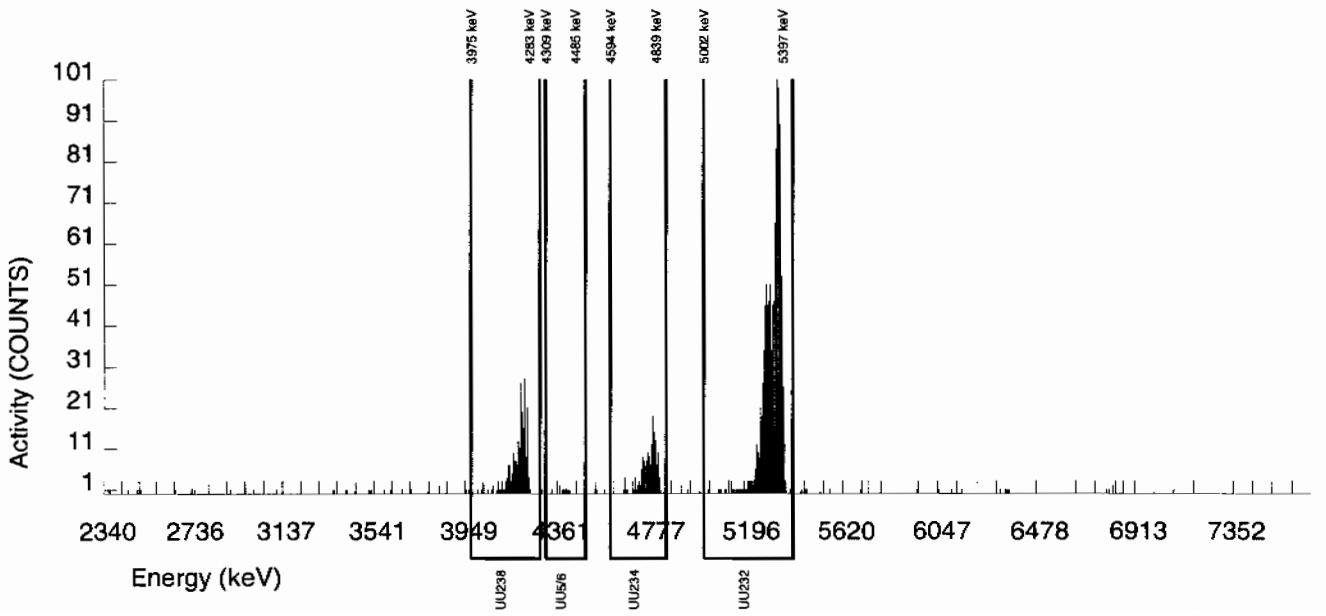

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 123	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245799010_UU	DETECTOR S/N : 45-142V3	BKG FILE : B123.CNF;446
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.9975	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:15:23	BKG LIVE TIME(SEC) : 60000.00
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W123.CNF;116
% YIELD : 90.790		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0914E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5316.214	63.947	1075.000	1063.000	12.000	3.4641	100.0000	4.00E+00	3.10E-01	3.03E-02	7.09E-02	1.24E-01
U-3/4	4763.020	4769.137	56.082	286.000	284.924	0.000	4.8416	100.0000	1.07E+00	9.91E-02	4.24E-02	9.50E-02	6.35E-02
U-235	4391.000	4398.351	93.123	18.000	18.000	0.000	2.2152	80.90000	8.38E-02	2.06E-02	2.40E-02	6.06E-02	1.97E-02
U-238	4184.730	4200.582	68.729	469.000	469.000	0.000	3.1208	100.0000	1.77E+00	1.49E-01	2.73E-02	6.49E-02	8.15E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

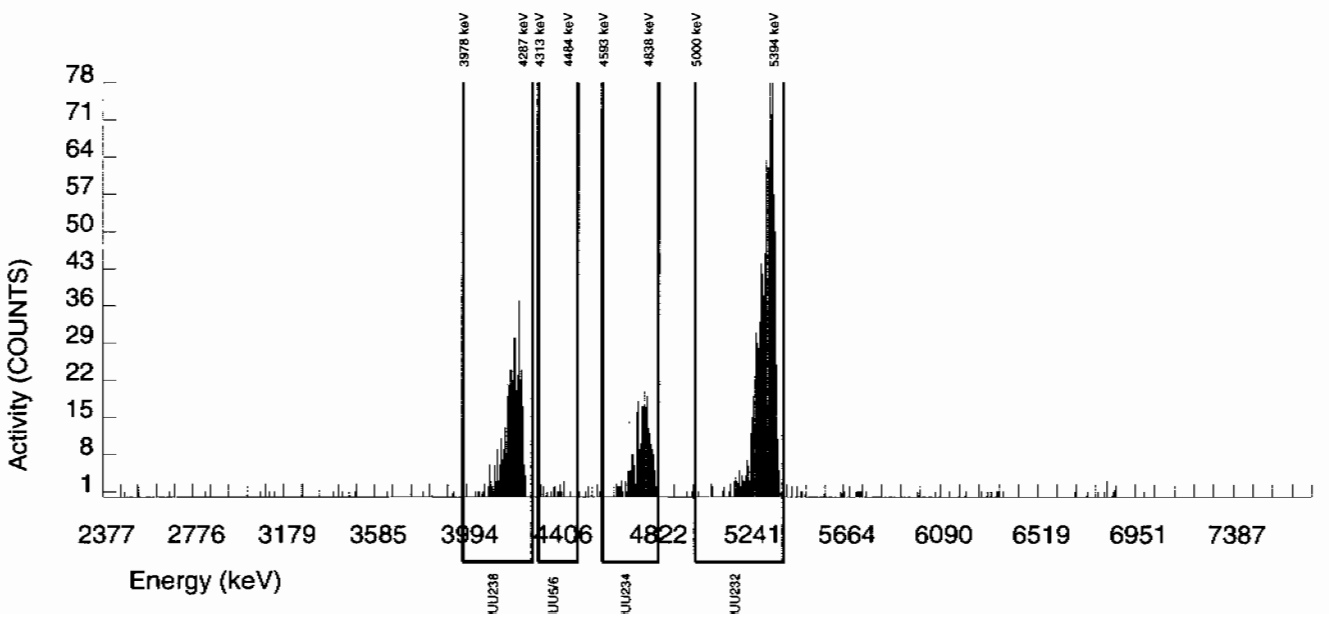

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER :	950406	CHAMBER :	001	LIB FILE :	ENV_ALPHA_UU
SAMPLE ID :	S0245799011_UU	DETECTOR S/N :	79451	BKG FILE :	B001.CNF;1125
SAMPLE QTY :	0.506 G	AVERAGE %EFFICIENCY :	32.2368	BKG DATE :	14-FEB-2010
SAMPLE DATE :	26-JAN-2010 00:00:00	COUNT DATE :	16-FEB-2010 21:18:55	BKG LIVE TIME(SEC) :	59999.99
ANALYST :	MXA1	ELAPSED LIVE TIME(SEC) :	60000.00	EFF FILE :	W001.CNF;382
% YIELD :	79.899			CAL DATE :	3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6006E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.893	57.449	1166.000	1160.000	6.000	2.4495	100.0000	4.01E+00	3.06E-01	1.97E-02	4.88E-02	1.18E-01
U-3/4	4763.020	4750.627	56.341	1499.000	1496.826	1.000	4.8416	100.0000	5.17E+00	3.87E-01	3.89E-02	8.72E-02	1.34E-01
U-235	4391.000	4399.490	63.322	129.000	128.000	1.000	2.2152	80.90000	5.47E-01	6.20E-02	2.20E-02	5.56E-02	4.87E-02
U-238	4184.730	4180.396	57.589	6825.000	6824.000	1.000	3.1208	100.0000	2.36E+01	1.68E+00	2.51E-02	5.96E-02	2.86E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

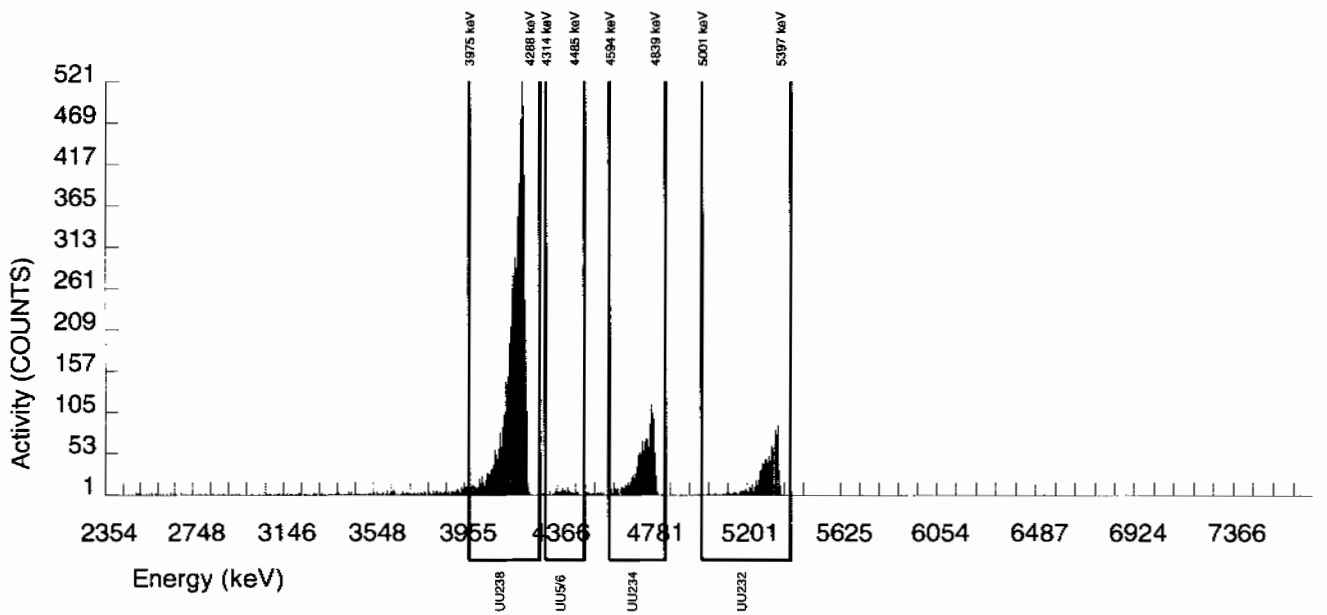

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799012_UU
SAMPLE QTY : 0.509 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 93.604

CHAMBER : 002
DETECTOR S/N : 79452
AVERAGE %EFFICIENCY : 29.5805
COUNT DATE : 16-FEB-2010 21:18:55
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B002.CNF;1115
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W002.CNF;328
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.2182E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.895	34.116	1249.000	1247.000	2.000	1.4142	100.0000	3.99E+00	3.00E-01	1.05E-02	2.97E-02	1.13E-01
U-3/4	4763.020	4765.143	20.288	210.000	200.738	8.000	4.8416	100.0000	6.42E-01	6.49E-02	3.60E-02	8.07E-02	4.71E-02
U-235	4391.000	4400.094	7.312	11.000	7.000	4.000	2.2152	80.90000	2.77E-02	1.54E-02	2.04E-02	5.14E-02	1.53E-02
U-238	4184.730	4192.335	52.429	215.000	215.000	0.000	3.1208	100.0000	6.87E-01	6.70E-02	2.32E-02	5.51E-02	4.69E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

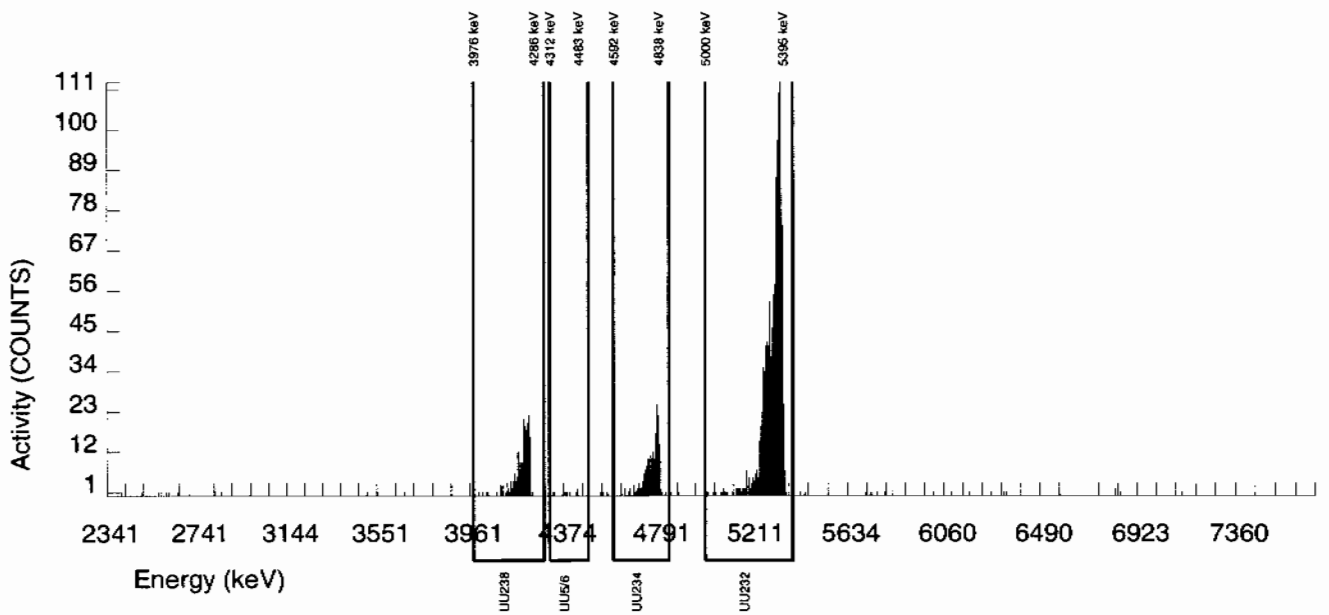

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799013_UU
SAMPLE QTY : 0.509 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 94.475

CHAMBER : 003
DETECTOR S/N : 79453
AVERAGE %EFFICIENCY : 31.0941
COUNT DATE : 16-FEB-2010 21:18:55
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B003.CNF;1110
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W003.CNF;341
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.2574E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5314.568	34.395	1325.000	1323.000	2.000	1.4142	100.0000	3.99E+00	2.98E-01	9.91E-03	2.80E-02	1.10E-01
U-3/4	4763.020	4769.699	42.412	759.000	755.661	2.000	4.8416	100.0000	2.28E+00	1.79E-01	3.39E-02	7.60E-02	8.30E-02
U-235	4391.000	4419.637	0.000	51.000	51.000	0.000	2.2152	80.90000	1.90E-01	2.97E-02	1.92E-02	4.85E-02	2.66E-02
U-238	4184.730	4199.178	33.132	2362.000	2361.000	1.000	3.1208	100.0000	7.11E+00	5.15E-01	2.19E-02	5.19E-02	1.46E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

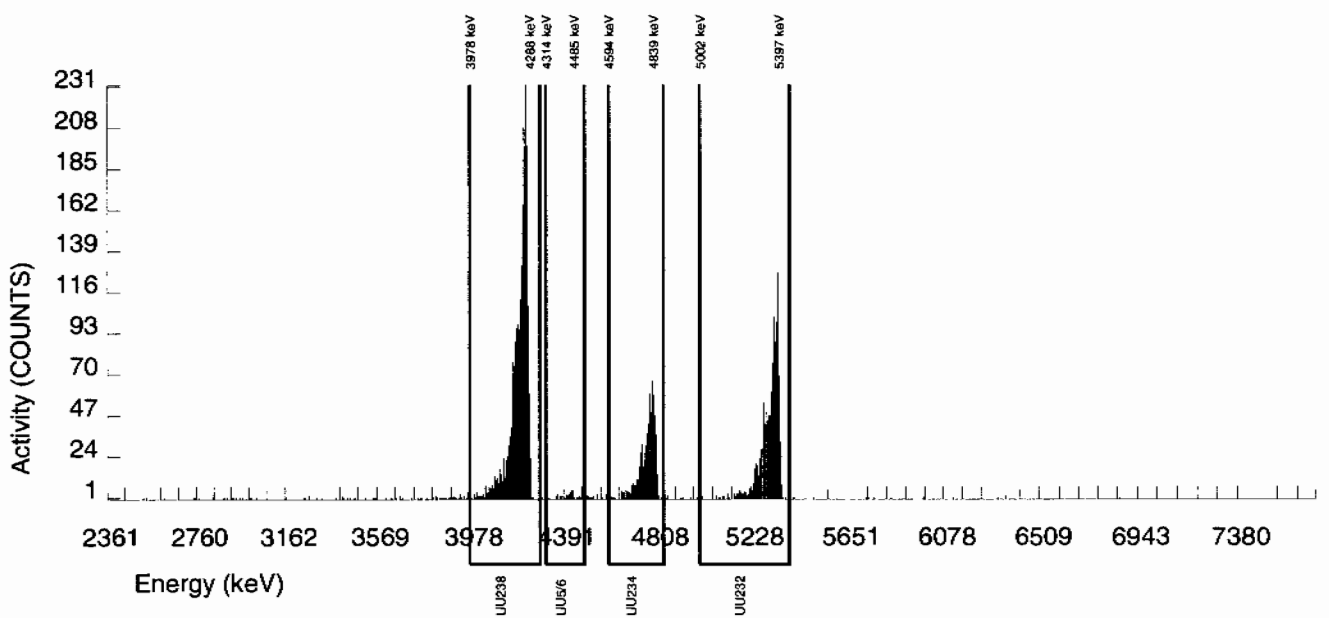

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799014_UU
SAMPLE QTY : 0.508 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 94.926

CHAMBER : 004
DETECTOR S/N : 68548
AVERAGE %EFFICIENCY : 30.4786
COUNT DATE : 16-FEB-2010 21:18:55
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B004.CNF;1119
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W004.CNF;330
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.2777E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.148	63.205	1308.000	1303.000	5.000	2.2361	100.0000	4.00E+00	2.99E-01	1.59E-02	4.02E-02	1.11E-01
U-3/4	4763.020	4761.885	57.378	1293.000	1289.681	2.000	4.8416	100.0000	3.95E+00	2.96E-01	3.45E-02	7.73E-02	1.10E-01
U-235	4391.000	4405.503	45.478	65.000	64.000	1.000	2.2152	80.90000	2.42E-01	3.51E-02	1.95E-02	4.93E-02	3.08E-02
U-238	4184.730	4189.726	38.821	3131.000	3130.000	1.000	3.1208	100.0000	9.59E+00	6.89E-01	2.23E-02	5.28E-02	1.72E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

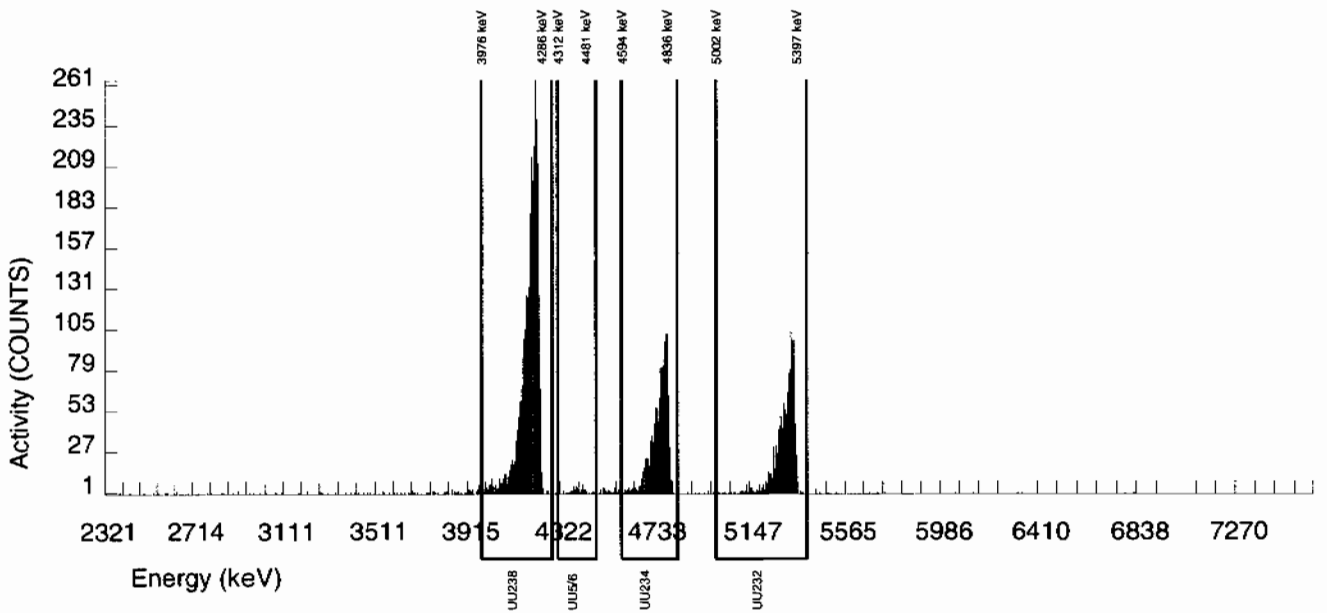

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 005	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245799015_UU	DETECTOR S/N : 79454	BKG FILE : B005.CNF;1105
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 31.9230	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:18:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W005.CNF;337
% YIELD : 73.590		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.3163E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5329.624	39.726	1064.000	1058.000	6.000	2.4495	100.0000	4.00E+00	3.09E-01	2.16E-02	5.34E-02	1.24E-01
U-3/4	4763.020	4780.061	66.423	1699.000	1695.929	2.000	4.8416	100.0000	6.41E+00	4.80E-01	4.26E-02	9.54E-02	1.56E-01
U-235	4391.000	4416.560	109.234	131.000	127.000	4.000	2.2152	80.90000	5.94E-01	6.87E-02	2.41E-02	6.09E-02	5.43E-02
U-238	4184.730	4204.513	55.148	7441.000	7440.000	1.000	3.1208	100.0000	2.81E+01	2.02E+00	2.75E-02	6.52E-02	3.26E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

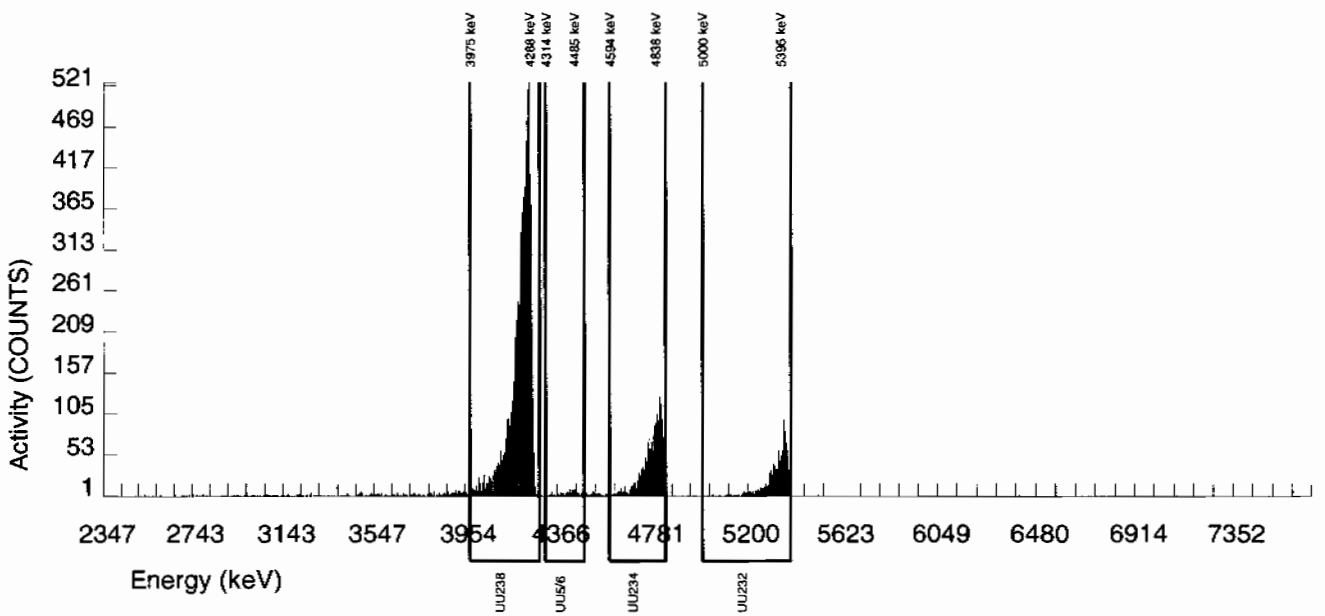

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799016_UU
SAMPLE QTY : 0.509 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 90.058

CHAMBER : 006
DETECTOR S/N : 79455
AVERAGE %EFFICIENCY : 31.1643
COUNT DATE : 16-FEB-2010 21:18:55
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B006.CNF;1118
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W006.CNF;361
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.0584E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.999	35.590	1264.000	1264.000	0.000	0.0000	100.0000	3.99E+00	3.00E-01	0.00E+00	8.55E-03	1.12E-01
U-3/4	4763.020	4766.812	29.552	240.000	238.721	0.000	4.8416	100.0000	7.53E-01	7.16E-02	3.55E-02	7.96E-02	4.87E-02
U-235	4391.000	4392.472	34.492	13.000	13.000	0.000	2.2152	80.90000	5.07E-02	1.45E-02	2.01E-02	5.07E-02	1.41E-02
U-238	4184.730	4192.472	34.602	254.000	254.000	0.000	3.1208	100.0000	8.01E-01	7.51E-02	2.29E-02	5.43E-02	5.03E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

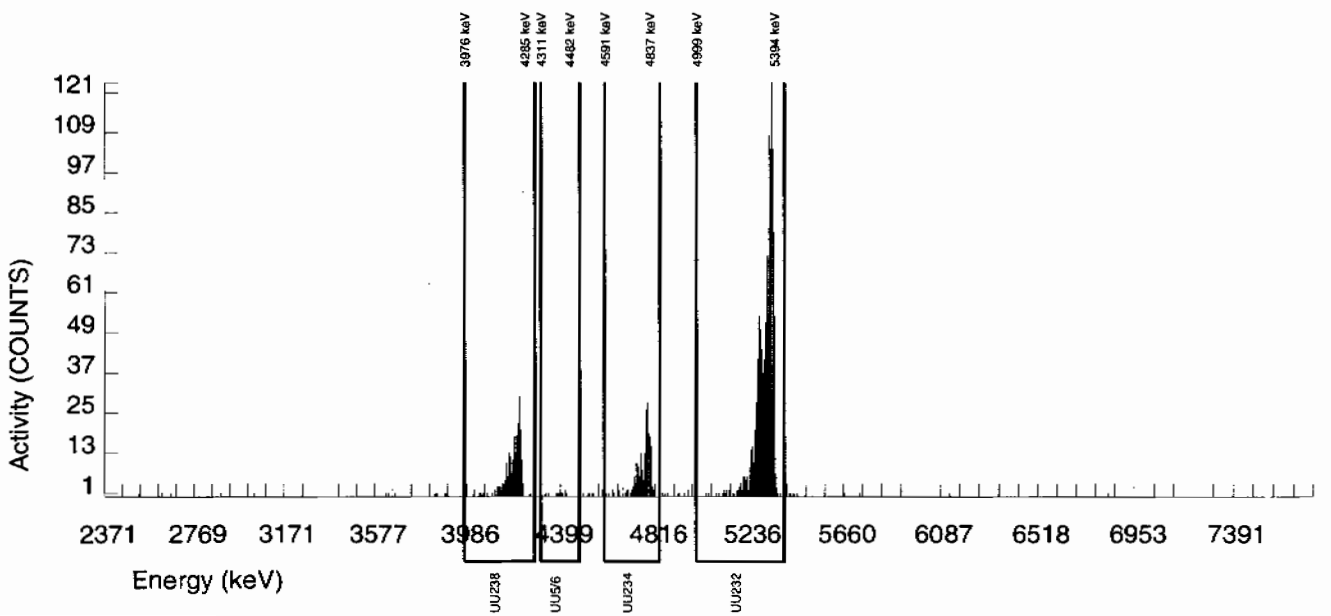

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 007	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245799017_UU	DETECTOR S/N : 67607	BKG FILE : B007.CNF;1113
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 29.5407	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:18:56	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W007.CNF;312
% YIELD : 94.407		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2544E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.474	48.195	1272.000	1256.000	16.000	4.0000	100.0000	4.01E+00	3.03E-01	2.97E-02	6.81E-02	1.15E-01
U-3/4	4763.020	4764.340	12.307	202.000	197.729	3.000	4.8416	100.0000	6.31E-01	6.34E-02	3.60E-02	8.06E-02	4.56E-02
U-235	4391.000	4400.650	69.032	16.000	15.000	1.000	2.2152	80.90000	5.92E-02	1.68E-02	2.03E-02	5.14E-02	1.63E-02
U-238	4184.730	4196.257	63.546	289.000	287.000	2.000	3.1208	100.0000	9.16E-01	8.40E-02	2.32E-02	5.50E-02	5.45E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

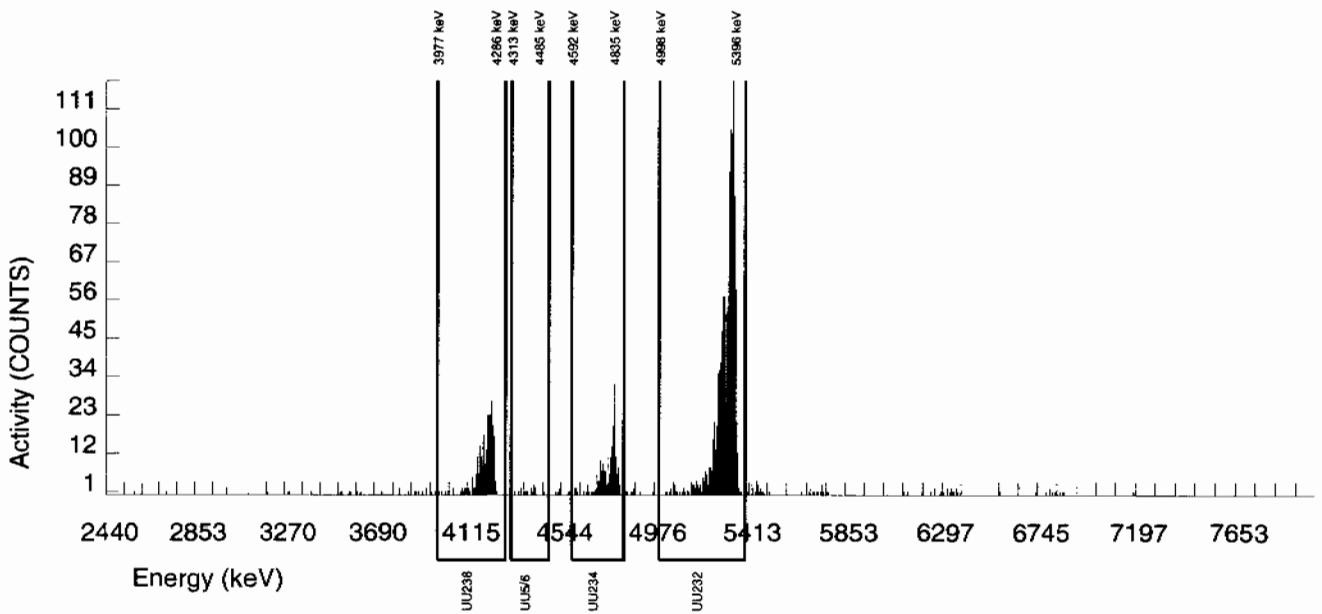

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 008	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245799018_UU	DETECTOR S/N : 78788	BKG FILE : B008.CNF;1115
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 31.7753	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:18:56	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W008.CNF;343
% YIELD : 84.553		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8103E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5296.419	36.036	1215.000	1210.000	5.000	2.2361	100.0000	4.05E+00	3.07E-01	1.74E-02	4.39E-02	1.17E-01
U-3/4	4763.020	4750.560	58.761	1240.000	1236.775	2.000	4.8416	100.0000	4.14E+00	3.13E-01	3.77E-02	8.45E-02	1.18E-01
U-235	4391.000	4406.776	65.720	83.000	83.000	0.000	2.2152	80.90000	3.43E-01	4.47E-02	2.13E-02	5.38E-02	3.77E-02
U-238	4184.730	4182.418	49.788	4760.000	4760.000	0.000	3.1208	100.0000	1.59E+01	1.14E+00	2.43E-02	5.77E-02	2.31E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

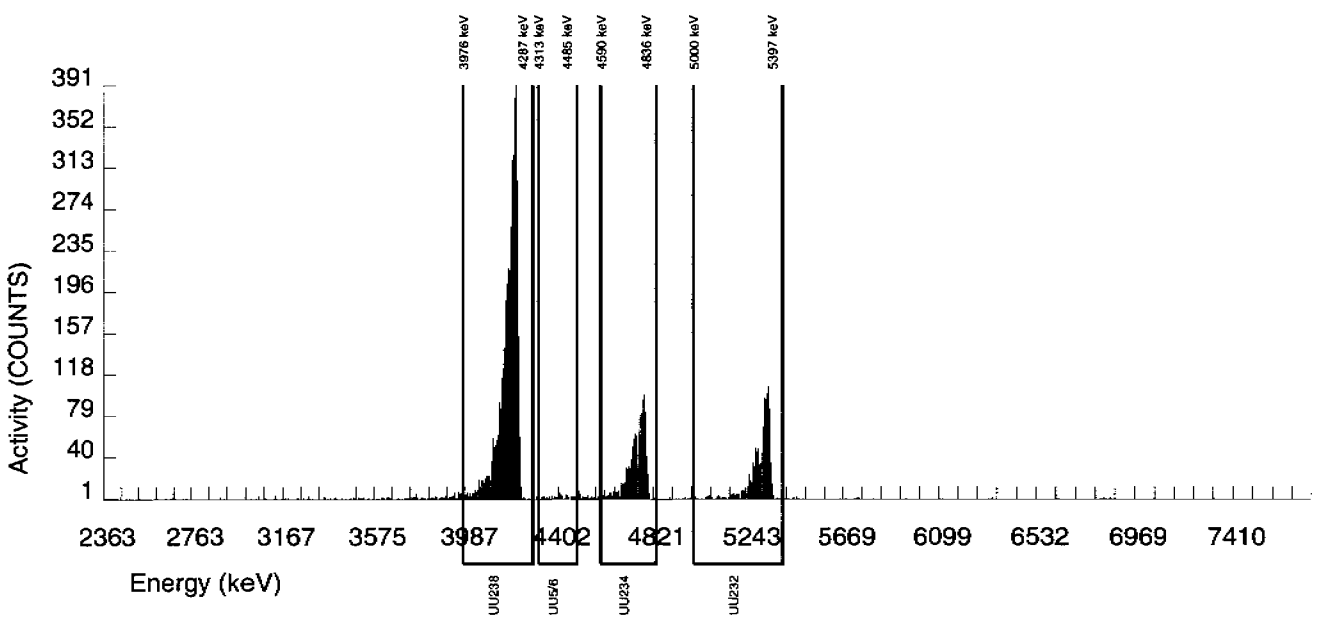

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S0245799019_UU
SAMPLE QTY : 0.505 G
SAMPLE DATE : 26-JAN-2010 00:00:00
ANALYST : MXA1
% YIELD : 97.408

CHAMBER : 009
DETECTOR S/N : 72528
AVERAGE %EFFICIENCY : 34.1471
COUNT DATE : 16-FEB-2010 21:18:56
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B009.CNF;1106
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W009.CNF;307
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5064E+00 dpm
RESULTS : 4.3896E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.953	39.886	1501.000	1498.000	3.000	1.7321	100.0000	4.02E+00	2.95E-01	1.08E-02	2.89E-02	1.04E-01
U-3/4	4763.020	4762.343	29.303	226.000	222.484	2.000	4.8416	100.0000	5.97E-01	5.75E-02	3.02E-02	6.77E-02	4.04E-02
U-235	4391.000	4407.216	97.386	19.000	16.000	3.000	2.2152	80.90000	5.30E-02	1.60E-02	1.71E-02	4.31E-02	1.55E-02
U-238	4184.730	4182.372	54.734	243.000	243.000	0.000	3.1208	100.0000	6.52E-01	6.13E-02	1.95E-02	4.62E-02	4.18E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

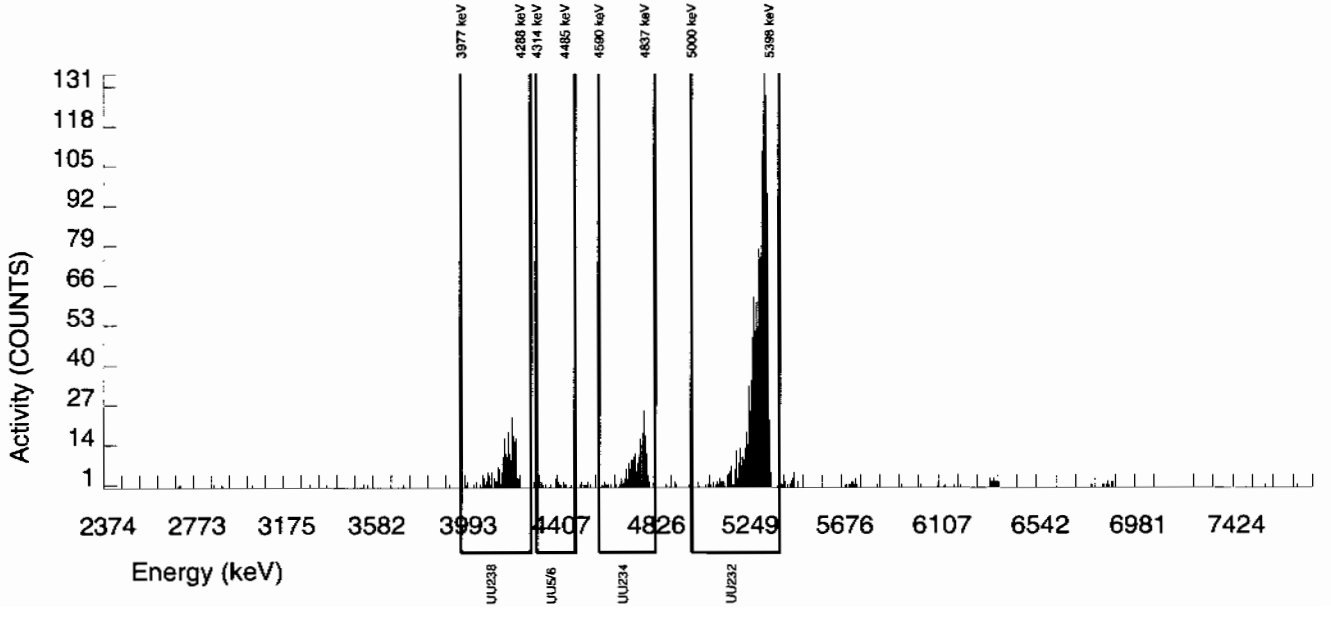

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 010	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202036740_UU	DETECTOR S/N : 72529	BKG FILE : B010.CNF;1124
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 31.8962	BKG DATE : 14-FEB-2010
SAMPLE DATE : 12-FEB-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:18:56	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W010.CNF;335
% YIELD : 80.822		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5043E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6405E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5306.147	39.254	1164.000	1161.000	3.000	1.7321	100.0000	2.03E+00	1.54E-01	7.04E-03	1.88E-02	5.97E-02
U-3/4	4763.020	4739.738	198.045	5.000	3.825	0.000	4.8416	100.0000	6.68E-03	3.45E-03	1.97E-02	4.41E-02	3.42E-03
U-235	4391.000	4407.550	123.778	2.000	2.000	0.000	2.2152	80.90000	4.32E-03	3.07E-03	1.11E-02	2.81E-02	3.05E-03
U-238	4184.730	4117.025	198.045	6.000	2.000	4.000	3.1208	100.0000	3.49E-03	5.53E-03	1.27E-02	3.01E-02	5.53E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

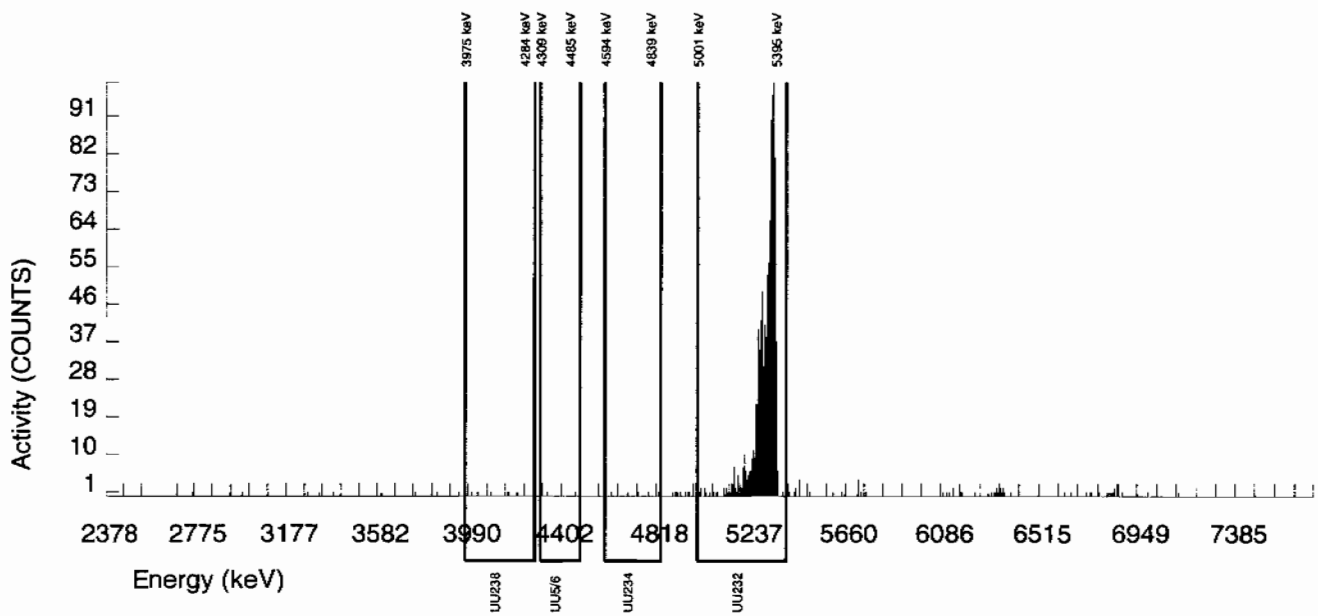

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406	CHAMBER : 011	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202036741_UU	DETECTOR S/N : 72531	BKG FILE : B011.CNF;1116
SAMPLE QTY : 0.502 G	AVERAGE %EFFICIENCY : 29.6489	BKG DATE : 14-FEB-2010
SAMPLE DATE : 26-JAN-2010 00:00:00	COUNT DATE : 16-FEB-2010 21:18:56	BKG LIVE TIME(SEC) : 59999.99
ANALYST : MXA1	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W011.CNF;313
% YIELD : 101.626		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5064E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5797E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.941	35.851	1363.000	1357.000	6.000	2.4495	100.0000	4.04E+00	3.01E-01	1.70E-02	4.20E-02	1.10E-01
U-3/4	4763.020	4763.441	45.443	246.000	244.627	0.000	4.8416	100.0000	7.29E-01	6.87E-02	3.35E-02	7.52E-02	4.66E-02
U-235	4391.000	4399.708	4.995	8.000	8.000	0.000	2.2152	80.90000	2.94E-02	1.06E-02	1.90E-02	4.79E-02	1.04E-02
U-238	4184.730	4198.473	44.152	274.000	272.000	2.000	3.1208	100.0000	8.10E-01	7.48E-02	2.16E-02	5.13E-02	4.95E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

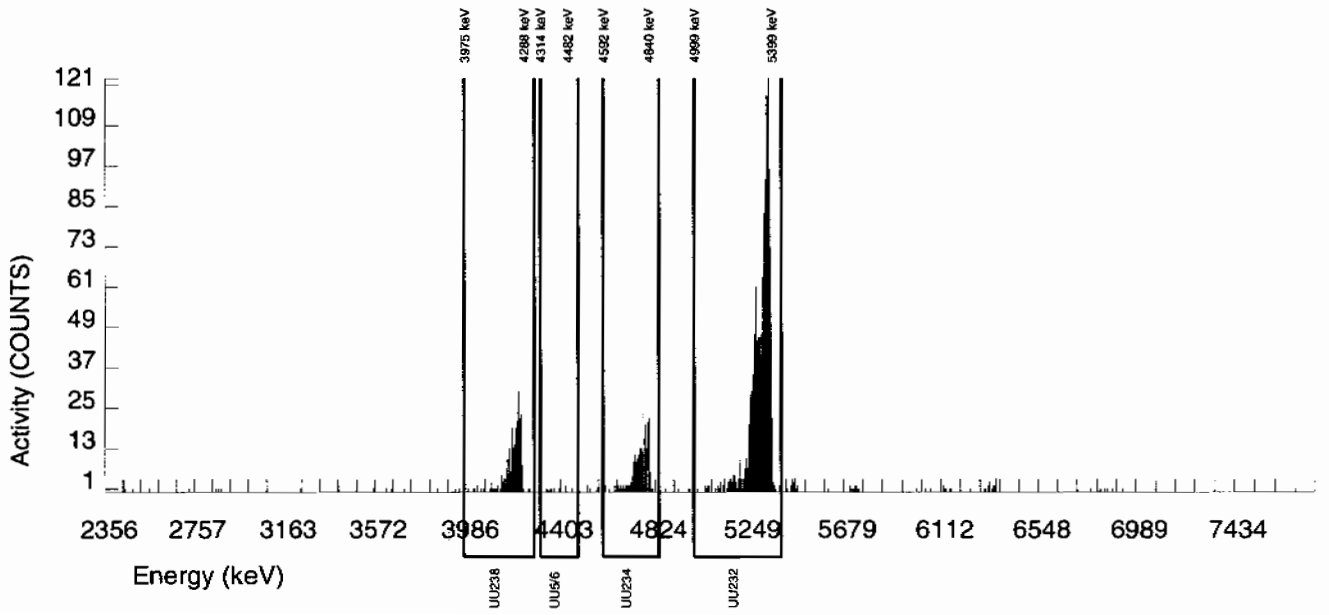

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 950406
SAMPLE ID : S1202036742_UU
SAMPLE QTY : 0.100 G
SAMPLE DATE : 12-FEB-2010 00:00:00
ANALYST : MXA1
% YIELD : 104.529

CHAMBER : 143
DETECTOR S/N : 65882
AVERAGE %EFFICIENCY : 24.2167
COUNT DATE : 17-FEB-2010 20:14:13
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B143.CNF;396
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W143.CNF;112
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5043E+00 dpm
RESULTS : 4.7083E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.846	34.582	1142.000	1140.000	2.000	1.4142	100.0000	2.03E+01	1.57E+00	5.85E-02	1.65E-01	6.02E-01
U-3/4	4763.020	4760.186	40.074	321.000	319.846	0.000	4.8416	100.0000	5.69E+00	5.17E-01	2.00E-01	4.49E-01	3.18E-01
U-235	4391.000	4404.649	66.987	17.000	17.000	0.000	2.2152	80.90000	3.74E-01	9.46E-02	1.13E-01	2.86E-01	9.07E-02
U-238	4184.730	4188.984	38.396	307.000	307.000	0.000	3.1208	100.0000	5.46E+00	5.00E-01	1.29E-01	3.07E-01	3.12E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

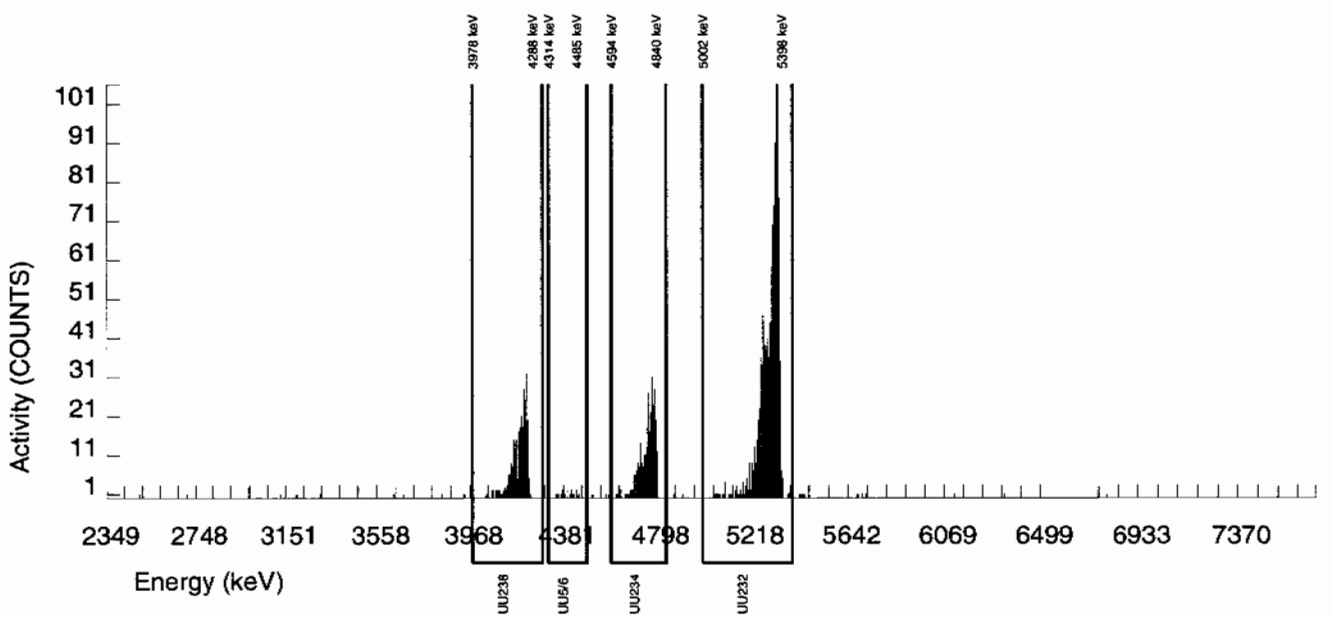

Radiochemistry Batch Checklist, Rev10

Batch# 947531 Product: Gamma Solid LANL Date: 02/15/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 2/15/10

Secondary Review Performed By: [illegible] 2/15/10

2/26

Gamma Spec Que Sheet I.G. - 2/9/10

02/01/2010

Batch #:947531 Analyst: RXF2 First Client DueDate02/26/2010 Internal Due Date: 02/15/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: na Expiration Date: na Vol: na Nominal Concentration: na

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-4 Expiration Date: 12/2/10 Vol: 1.0mL Nominal Concentration: Cs137-5.562 Co60-6.411 Am241-15.91

Initials: K Prep Date: 2/2/10 Library: Solid Witness:

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1/G/F)	Detector	Sealing Date/Time (if Applicable)
245799001-1	RE15-10-7888	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	RF	Can	129.471	15	2/2/10
245799002-1	RE15-10-7890	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	RF		141.594	18	
245799003-1	RE15-10-7886	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	RF		140.023	23	
245799004-1	RE15-10-7889	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	RF		143.742	22	
245799005-1	RE15-10-7885	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	RF		130.330	11	
245799006-1	RE15-10-7882	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	RF		137.720	25	
245799007-1	RE15-10-7887	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		140.453	15	
245799008-1	RE15-10-7881	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		148.384	11	
245799009-1	RE15-10-7951	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		125.908	22	
245799010-1	RE15-10-7950	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		137.266	25	
245799011-1	RE15-10-7947	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		107.203	4	
245799012-1	RE15-10-7944	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		134.951	7	
245799013-1	RE15-10-7948	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		137.735	1	
245799014-1	RE15-10-7941	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		127.695	2	
245799015-1	RE15-10-7949	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		127.180	6	
245799016-1	RE15-10-7946	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		122.265	14	
245799017-1	RE15-10-7942	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		138.251	12	
245799018-1	RE15-10-7945	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		120.374	17	
245799019-1	RE15-10-7943	SAMPLE		LANL010	SOIL	26-JAN-10 12:00:00	K		120.550	19	
1202029810-1	MB	MB		QC ACCOUNT	SOIL	2/2/10	K		148.384	22	
1202029811-1	DUP RE15-10-7883 (245799002) 2/8/10	DUP		QC ACCOUNT	SOIL	26-JAN-10 12:00:00	K		122.906	23	
1202029812-1	LCS 2/2/10	LCS		QC ACCOUNT	SOIL	2/2/10	K		155.44	25	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 2/15/10

✓ dates
✓ no history

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
947531	245799001	SAMPLE	10-FEB-10		Americium-241	-0.3223	0.5142	0.200
					Cerium-139	-0.02238	0.06244	0.050
					Cesium-134	0.06577	0.1082	0.100
					Europium-152	-0.02135	0.2091	0.200
					Sodium-22	-0.03402	0.08363	0.080
					Thorium-234	1.107	4.156	2.00
947531	245799002	SAMPLE	10-FEB-10		Americium-241	0.01993	0.2986	0.200
947531	245799003	SAMPLE	10-FEB-10		Americium-241	-0.3142	0.3459	0.200
					Cerium-139	-0.01007	0.05299	0.050
					Sodium-22	-0.06657	0.08206	0.080
					Thorium-234	2.296	3.051	2.00
947531	245799004	SAMPLE	10-FEB-10		Americium-241	0.2474	0.3129	0.200
					Cerium-139	0.02216	0.0501	0.050
947531	245799005	SAMPLE	10-FEB-10		Americium-241	0.01125	0.2252	0.200
947531	245799006	SAMPLE	10-FEB-10					
947531	245799007	SAMPLE	10-FEB-10		Americium-241	-0.2465	0.5009	0.200
					Cerium-139	-0.00668	0.06	0.050
					Sodium-22	0.01297	0.09483	0.080
					Thorium-234	0.3536	3.997	2.00
947531	245799008	SAMPLE	10-FEB-10		Americium-241	-0.0421	0.2091	0.200
947531	245799009	SAMPLE	10-FEB-10		Americium-241	0.01482	0.2094	0.200
947531	245799010	SAMPLE	10-FEB-10					
947531	245799011	SAMPLE	10-FEB-10		Americium-241	0.09677	0.5088	0.200
					Cerium-139	-0.02694	0.0535	0.050
					Sodium-22	0.01548	0.08664	0.080
947531	245799012	SAMPLE	10-FEB-10					
947531	245799013	SAMPLE	10-FEB-10		Americium-241	-0.02807	0.3235	0.200
					Cerium-139	0.01068	0.05755	0.050
					Sodium-22	0.01511	0.0834	0.080
947531	245799014	SAMPLE	10-FEB-10		Americium-241	0.2049	0.333	0.200
					Cerium-139	-0.00795	0.05146	0.050
					Sodium-22	-0.01245	0.0841	0.080
947531	245799015	SAMPLE	10-FEB-10		Americium-241	0.08964	0.438	0.200
					Cerium-139	-0.00115	0.06075	0.050
					Cesium-134	0.08218	0.1025	0.100
947531	245799016	SAMPLE	10-FEB-10		Americium-241	0.00668	0.2223	0.200
					Cerium-139	-0.02511	0.05038	0.050
947531	245799017	SAMPLE	10-FEB-10		Americium-241	0.02505	0.2476	0.200
					Sodium-22	0.02431	0.08098	0.080
					Thorium-234	1.551	2.029	2.00
947531	245799018	SAMPLE	10-FEB-10		Cerium-139	-0.0305	0.05318	0.050
					Cesium-134	0.05364	0.1192	0.100
					Sodium-22	-0.09375	0.08165	0.080

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
947531	245799019	SAMPLE	10-FEB-10		Americium-241	0.02096	0.2864	0.200
					Cerium-139	-0.01602	0.05476	0.050
					Cesium-134	0.1032	0.1033	0.100
					Sodium-22	-0.02461	0.08197	0.080
947531	1202029810	MB	10-FEB-10					
947531	1202029811	DUP	10-FEB-10		Americium-241	0.09298	0.4045	0.200
					Cerium-139	-0.0387	0.05773	0.050
					Sodium-22	-0.03409	0.08382	0.080
947531	1202029812	LCS	10-FEB-10		Cerium-139	-0.00687	0.06175	0.050
					Cesium-134	0.05142	0.1615	0.100
					Europium-152	0.06353	0.2842	0.200
					Potassium-40	0.7812	1.09	1.00
					Ruthenium-106	-0.2218	0.9575	0.800
					Tin-113	-0.02608	0.1283	0.100

GEL QUALS

Batch ID: 947531

Report run on: February 15, 2010 10:41 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245799001-1 10-FEB-2010 14:13	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.671			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.547			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.786			
245799002-1 10-FEB-2010 14:26	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.152			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.307			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1013		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.07318		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.524			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07107			
245799003-1 10-FEB-2010 14:47	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.345			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.018			
245799004-1 10-FEB-2010 15:05	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.226			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.24			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.444			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0875			
245799005-1 10-FEB-2010 15:09	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.68			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.254			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.097		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.235			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0659			

GEL QUALS

Batch ID: 947531

Report run on: February 15, 2010 10:41 AM

Samp id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245799006-1 10-FEB-2010 15:09	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.173			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.645			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1671		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.403			
245799007-1 10-FEB-2010 16:22	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.781			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1668		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.233			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.114			
245799008-1 10-FEB-2010 17:19	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.246			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.529			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09667		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to low abundance.		.06504		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.964			
245799009-1 10-FEB-2010 17:19	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.406			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.839			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09491		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.667			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1725			
245799010-1 10-FEB-2010 17:20	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.332			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.834			

GEL QUALS

Batch ID: 947531

Report run on: February 15, 2010 10:41 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245799010-1 10-FEB-2010 17:20	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1253		.1	.1
	Cesium-137	UI	UI	UI	Data rejected due to high counting uncertainty.		.06934		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.523			
245799011-1 10-FEB-2010 18:11	Bismuth-211	UI	UI	UI	Data rejected due to Interference.		3.459			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.192			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1368		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.618			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07588			
245799012-1 10-FEB-2010 18:11	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.467			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.019			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1143		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.81			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1051			
245799013-1 10-FEB-2010 18:58	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.529			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.583			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.125			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.123			
245799014-1 10-FEB-2010 19:09	Bismuth-211	UI	UI	UI	Data rejected due to Interference.		3.469			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.874			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1528		.1	.1

GEL QUALS

Batch ID: 947531

Report run on: February 15, 2010 10:41 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245799014-1 10-FEB-2010 19:09	Radium-224	UI	UI	UI	Data rejected due to interference.		4.401			
245799015-1 10-FEB-2010 19:09	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.702			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.726			
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.1095		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.854			
245799016-1 10-FEB-2010 19:10	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.393			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.959			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.91			
245799017-1 10-FEB-2010 19:12	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.335			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.989			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1337		.1	
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.547			
245799018-1 10-FEB-2010 19:13	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.249			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.889			
245799019-1 10-FEB-2010 19:13	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.7			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.519			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.307			
	Thorium-234	UI	UI	UI	Data rejected due to high counting uncertainty.		2.385		2	2
1202029811-1 DUP	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.307			

GEL QUALS

Batch ID: 947531

Report run on: February 15, 2010 10:41 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
1202029811-1 DUP 10-FEB-2010 19:16	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.576			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.142		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.117			
1202029810-1 MB 10-FEB-2010 20:22	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09008			

Gamma Review Report based on Result > MDA for Batch:947531

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799001	26-JAN-10 12:00	10-FEB-10 14:13	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.625	0.1799	pCi/g	0.2506	N	911	3	1.764	IDENTIFIED	9.37		
Americium-243	int nr	0.4078	0.06903	pCi/g	0.1395	N	75.15	1	1.937	IDENTIFIED	15.92		
Bismuth-211	int	3.671	0.3723	pCi/g	0.4291	Y	352	4	1.628	IDENTIFIED	8.842	ui	
Bismuth-212	HE	0.8481	0.3401	pCi/g	0.7932	N	0	6	0	FAIL_ABUND	0		
Bismuth-214	✓	1.057	0.1078	pCi/g	0.1314	0.200	609.4	4	1.636	IDENTIFIED	8.917		
Cadmium-109	int	2.547	0.6351	pCi/g	1.691	Y	87.6	3	1.184	IDENTIFIED	24.16	ui	
Cerium-143	—	927.3	154	pCi/g	0	N	0	6	0	SHORT_HLIF	0		
Gross Gamma	—	9.616	1.533	pCi/g	3.088	N		0					
Lead-212	✓	1.778	0.1257	pCi/g	0.1186	0.100	238.8	4	1.245	IDENTIFIED	3.817		
Lead-214	✓	1.277	0.1337	pCi/g	0.1495	0.100	352	4	1.628	IDENTIFIED	8.842		
Lutetium-177	HE	2.873	1.307	pCi/g	2.503	N	0	6	0	FAIL_ABUND	0		
Neptunium-237	HE	0.7351	0.1984	pCi/g	0.534	N	87.6	3	1.184	IDENTIFIED	24.16		
Polonium-212	nr	1.778	0.1257	pCi/g	0.1186	N	238.8	4	1.245	IDENTIFIED	3.817		
Polonium-214	nr	1.277	0.1337	pCi/g	0.1495	N	352	4	1.628	IDENTIFIED	8.842		
Polonium-216	nr	1.778	0.1257	pCi/g	0.1186	N	238.8	4	1.245	IDENTIFIED	3.817		
Polonium-218	nr	1.277	0.1337	pCi/g	0.1495	N	352	4	1.628	IDENTIFIED	8.842		
Potassium-40	✓	35.22	2.033	pCi/g	0.6868	1.00	1460	1	1.947	IDENTIFIED	3.03		
Radium-224	int	4.786	0.8087	pCi/g	1.349	Y	241.8	1	1.708	IDENTIFIED	15.97	ui	
Radium-226	✓	1.057	0.1078	pCi/g	0.1314	Y	609.4	4	1.636	IDENTIFIED	8.917		
Radium-228	✓	1.625	0.1799	pCi/g	0.2506	0.500	911	3	1.764	IDENTIFIED	9.37		
Thallium-200	—	620	279.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0		
Thallium-208	✓	0.5221	0.05144	pCi/g	0.07579	0.080	583.2	1	1.547	IDENTIFIED	8.725		
Thorium-228	nr	1.805	0.1276	pCi/g	0.1204	N	238.8	4	1.245	IDENTIFIED	3.817		
Thorium-230	nr	1.057	0.1078	pCi/g	0.1314	N	609.4	4	1.636	IDENTIFIED	8.917		
Thorium-232	nr	1.625	0.1799	pCi/g	0.2506	N	911	3	1.764	IDENTIFIED	9.37		
Tin-126	HE	0.2503	0.06243	pCi/g	0.1675	N	87.6	3	1.184	IDENTIFIED	24.16		
Titanium-44	la nr	0.3821	0.04225	pCi/g	0.1152	N	0	6	0	FAIL_ABUND	0		
Uranium-234	nr	1.057	0.1078	pCi/g	0.1314	N	609.4	4	1.636	IDENTIFIED	8.917		
Zirconium-97	—	5.21E+06	1.26E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799002	26-JAN-10 12:00	10-FEB-10 14:26	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.632	0.1616	pCi/g	0.1651	N	911.1	3	1.81	IDENTIFIED	7.352		
Americium-243	int nr	0.3252	0.0406	pCi/g	0.09482	N	74.96	1	1.144	IDENTIFIED	11.76		
Annihilation Rad.		0.1561	0.02934	pCi/g	0.03469	N	510.6	1	2.065	IDENTIFIED	18.5		
Bismuth-211	int	3.152	0.2001	pCi/g	0.2719	Y	351.9	4	1.35	IDENTIFIED	5.478	ui	
Bismuth-212	la nr	0.9077	0.1842	pCi/g	0.4971	N	0	9	0	FAIL_ABUND	0		
Bismuth-214	✓	0.9833	0.07277	pCi/g	0.0854	0.200	609.1	4	1.672	IDENTIFIED	5.901		
Cadmium-109	int	2.307	0.6404	pCi/g	1.572	Y	87.68	3	0.9597	IDENTIFIED	27.37	ui	

Cerium-143	—	511.7	87	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1013	0.0222	pCi/g	0.06881	0.100	0	9	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	9.964	1.303	pCi/g	2.419	N		0				☐		
Krypton-85	HE	13.86	3.282	pCi/g	10.86	N	0	9	0	NOT_IDENTI	0	☐		
Lead-212	✔	1.561	0.07183	pCi/g	0.07124	0.100	238.8	4	1.157	IDENTIFIED	2.901	☐		
Lead-214	✔	1.097	0.07527	pCi/g	0.09476	0.100	351.9	4	1.35	IDENTIFIED	5.478	☐		
Lutetium-177	HE	2.74	0.5845	pCi/g	1.652	N	0	9	0	FAIL_ABUND	0	☐		
Mercury-203	int	0.07318	0.02861	pCi/g	0.05103	0.100	278.1	1	1.45	IDENTIFIED	38.98	☐	ui	
Neptunium-237	HE	0.6659	0.1972	pCi/g	0.4408	N	87.68	3	0.9597	IDENTIFIED	27.37	☐		
Niobium-95	HE	0.09635	0.02052	pCi/g	0.06888	N	0	9	0	NOT_IDENTI	0	☐		
Polonium-212	nr	1.561	0.07183	pCi/g	0.07124	N	238.8	4	1.157	IDENTIFIED	2.901	☐		
Polonium-214	nr	1.097	0.07527	pCi/g	0.09476	N	351.9	4	1.35	IDENTIFIED	5.478	☐		
Polonium-216	nr	1.561	0.07183	pCi/g	0.07124	N	238.8	4	1.157	IDENTIFIED	2.901	☐		
Polonium-218	nr	1.097	0.07527	pCi/g	0.09476	N	351.9	4	1.35	IDENTIFIED	5.478	☐		
Potassium-40	✔	33.09	1.438	pCi/g	0.3569	1.00	1460	1	2.267	IDENTIFIED	2.119	☐		
Protactinium-234m	HE	8.066	2.838	pCi/g	5.866	N	1001	1	1.294	IDENTIFIED	34.77	☐		
Radium-224	int	3.524	0.4538	pCi/g	0.8096	Y	241.7	1	1.633	IDENTIFIED	12.57	☐	ui	
Radium-226	✔	0.9833	0.07277	pCi/g	0.0854	Y	609.1	4	1.672	IDENTIFIED	5.901	☐		
Radium-228	✔	1.632	0.1616	pCi/g	0.1651	0.500	911.1	3	1.81	IDENTIFIED	7.352	☐		
Strontium-85	la	0.07107	0.01682	pCi/g	0.05568	Y	0	9	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✔	0.5197	0.0381	pCi/g	0.04111	0.080	583.1	1	1.619	IDENTIFIED	6.195	☐		
Thorium-228	nr	1.585	0.07292	pCi/g	0.07232	N	238.8	4	1.157	IDENTIFIED	2.901	☐		
Thorium-230	nr	0.9833	0.07277	pCi/g	0.0854	N	609.1	4	1.672	IDENTIFIED	5.901	☐		
Thorium-232	nr	1.632	0.1616	pCi/g	0.1651	N	911.1	3	1.81	IDENTIFIED	7.352	☐		
Thorium-234	✔	9.945	1.484	pCi/g	2.399	2.00	63.38	2	1.088	IDENTIFIED	12.04	☐		
Tin-126	HE	0.2268	0.06294	pCi/g	0.1478	N	87.68	3	0.9597	IDENTIFIED	27.37	☐		
Titanium-44	la nr	0.3236	0.02695	pCi/g	0.08045	N	0	9	0	FAIL_ABUND	0	☐		
Total Uranium	—	29.851	4.42E-06	ug/g	3.5709	N		0				☐		
Uranium-234	nr	0.9833	0.07277	pCi/g	0.0854	N	609.1	4	1.672	IDENTIFIED	5.901	☐		
Uranium-235	✔	0.5692	0.1671	pCi/g	0.288	0.500	143.7	1	1.396	IDENTIFIED	28.21	☐		
Uranium-238	nr	9.945	1.484	pCi/g	2.399	N	63.38	2	1.088	IDENTIFIED	12.04	☐		
Zirconium-97	—	4.93E+06	8.15E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799003	26-JAN-10 12:00	10-FEB-10 14:47	15.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.532	0.1958	pCi/g	0.2353	N	910.2	3	1.816	IDENTIFIED	11.41	☐		
Americium-243	int nr	0.3687	0.04354	pCi/g	0.1079	N	74.63	1	1.194	IDENTIFIED	10.94	☐		
Annihilation Rad.	—	0.1641	0.03927	pCi/g	0.05046	N	510.2	1	1.968	IDENTIFIED	23.75	☐		
Bismuth-211	int	3.345	0.2624	pCi/g	0.3724	Y	351.6	4	1.531	IDENTIFIED	7.136	☐	ui	
Bismuth-212	HE	0.709	0.2186	pCi/g	0.6848	N	0	10	0	FAIL_ABUND	0	☐		
Bismuth-214	✔	1.135	0.08022	pCi/g	0.1111	0.200	608.7	4	1.796	IDENTIFIED	5.982	☐		
Cerium-143	—	890.2	135.7	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Gross Gamma	—	8.933	1.468	pCi/g	3.112	N		0				☐		
Iodine-123	HE	4.15E+05	3.10E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Iodine-133	HE	887.2	3309	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Iodine-135	HE	3.75E+15	3.01E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		

Lead-212 ✓		1.536	0.07733	pCi/g	0.1026	0.100	238.3	4	1.248	IDENTIFIED	3.527	☐	
Lead-214 ✓		1.164	0.09619	pCi/g	0.1298	0.100	351.6	4	1.531	IDENTIFIED	7.136	☐	
Lutetium-177	HE	2.229	0.5828	pCi/g	2.074	N	0	10	0	FAIL_ABUND	0	☐	
Niobium-95m	la nr	0.752	0.08592	pCi/g	0.2946	N	0	10	0	NOT_IDENTI	0	☐	
Polonium-212	nr	1.536	0.07733	pCi/g	0.1026	N	238.3	4	1.248	IDENTIFIED	3.527	☐	
Polonium-214	nr	1.164	0.09619	pCi/g	0.1298	N	351.6	4	1.531	IDENTIFIED	7.136	☐	
Polonium-216	nr	1.536	0.07733	pCi/g	0.1026	N	238.3	4	1.248	IDENTIFIED	3.527	☐	
Polonium-218	nr	1.164	0.09619	pCi/g	0.1298	N	351.6	4	1.531	IDENTIFIED	7.136	☐	
Potassium-40 ✓		31.65	1.527	pCi/g	0.6181	1.00	1459	1	2.289	IDENTIFIED	3.045	☐	
Radium-224	int	4.018	0.6794	pCi/g	1.168	Y	241.4	1	1.774	IDENTIFIED	16.67	☐	ui
Radium-226 ✓		1.135	0.08022	pCi/g	0.1111	Y	608.7	4	1.796	IDENTIFIED	5.982	☐	
Radium-228 ✓		1.532	0.1958	pCi/g	0.2353	0.500	910.2	3	1.816	IDENTIFIED	11.41	☐	
Thallium-200	HE	253.3	227.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208 ✓		0.5366	0.04735	pCi/g	0.06205	0.080	582.5	1	1.6	IDENTIFIED	8.205	☐	
Thorium-228	nr	1.559	0.0785	pCi/g	0.1042	N	238.3	4	1.248	IDENTIFIED	3.527	☐	
Thorium-230	nr	1.135	0.08022	pCi/g	0.1111	N	608.7	4	1.796	IDENTIFIED	5.982	☐	
Thorium-232	nr	1.532	0.1958	pCi/g	0.2353	N	910.2	3	1.816	IDENTIFIED	11.41	☐	
Titanium-44	la nr	0.4058	0.03511	pCi/g	0.09235	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium	—	6.8183	2.53E-06	ug/g	4.5417	N		0				☐	
Uranium-234	nr	1.135	0.08022	pCi/g	0.1111	N	608.7	4	1.796	IDENTIFIED	5.982	☐	
Zirconium-97	—	7.50E+06	1.23E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799004	26-JAN-10 12:00	10-FEB-10 15:05	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.231	0.1297	pCi/g	0.1675	N	911.3	3	2.058	IDENTIFIED	8.203	☐	
Americium-243	int nr	0.3652	0.0495	pCi/g	0.1031	N	74.74	1	1.481	IDENTIFIED	12.93	☐	
Annihilation Rad.	HE	0.06613	0.02826	pCi/g	0.03864	N	510.8	1	1.644	IDENTIFIED	42.43	☐	
Barium-137m		0.1143	0.02579	pCi/g	0.05179	N	661.8	2	1.802	IDENTIFIED	21.94	☐	
Bismuth-211	int	3.226	0.2709	pCi/g	0.2817	Y	351.9	4	1.403	IDENTIFIED	6.056	☐	ui
Bismuth-212	nr	1.245	0.1959	pCi/g	0.418	N	727.3	1	2.432	IDENTIFIED	14.55	☐	
Bismuth-214 ✓		0.8951	0.08584	pCi/g	0.09651	0.200	609.3	4	1.706	IDENTIFIED	7.628	☐	
Cadmium-109	int	2.24	0.5511	pCi/g	1.883	Y	87.18	3	1.134	IDENTIFIED	24.15	☐	ui
Cerium-143	—	680.3	112.1	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cesium-137 ✓		0.1208	0.02727	pCi/g	0.05475	0.100	661.8	2	1.802	IDENTIFIED	21.94	☐	
Gadolinium-153	—	0.441	0.06612	pCi/g	0.174	N	0	13	0	FAIL_ABUND	0	☐	
Gold-195	la nr	1.284	0.1925	pCi/g	0.5084	N	0	13	0	FAIL_ABUND	0	☐	
Gross Gamma		12.65	1.462	pCi/g	3.121	N		0				☐	
Krypton-85	HE	17.06	3.871	pCi/g	12.28	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212 ✓		1.304	0.09754	pCi/g	0.08527	0.100	238.7	4	1.284	IDENTIFIED	3.501	☐	
Lead-214 ✓		1.122	0.09867	pCi/g	0.09818	0.100	351.9	4	1.403	IDENTIFIED	6.056	☐	
Lutetium-177	HE	2.787	0.728	pCi/g	1.91	N	209.7	1	1.185	IDENTIFIED	25.5	☐	
Neptunium-237	HE	0.6466	0.1725	pCi/g	0.5199	N	87.18	3	1.134	IDENTIFIED	24.15	☐	
Niobium-95	int nr	0.2811	0.03861	pCi/g	0.05845	N	766.8	1	1.583	IDENTIFIED	12.6	☐	
Niobium-95m	HE	0.2415	0.06567	pCi/g	0.2057	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-97	HE	13950	50120	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.304	0.09754	pCi/g	0.08527	N	238.7	4	1.284	IDENTIFIED	3.501	☐	

Polonium-214	nr	1.122	0.09867	pCi/g	0.09818	N	351.9	4	1.403	IDENTIFIED	6.056	☐		
Polonium-216	nr	1.304	0.09754	pCi/g	0.08527	N	238.7	4	1.284	IDENTIFIED	3.501	☐		
Polonium-218	nr	1.122	0.09867	pCi/g	0.09818	N	351.9	4	1.403	IDENTIFIED	6.056	☐		
Potassium-40	✔	30.16	1.542	pCi/g	0.4254	1.00	1461	1	2.477	IDENTIFIED	2.276	☐		
Protactinium-234m		52.39	4.791	pCi/g	5.361	N	1001	1	2.035	IDENTIFIED	7.128	☐		
Radium-224	int	3.444	0.5499	pCi/g	0.9692	Y	241.7	1	1.714	IDENTIFIED	14.68	☐	ui	
Radium-226	✔	0.8951	0.08584	pCi/g	0.09651	Y	609.3	4	1.706	IDENTIFIED	7.628	☐		
Radium-228	✔	1.231	0.1297	pCi/g	0.1675	0.500	911.3	3	2.058	IDENTIFIED	8.203	☐		
Rhenium-183	HE	0.2862	0.07374	pCi/g	0.1976	N	0	13	0	FAIL_ABUND	0	☐		
Strontium-85	la	0.0875	0.01985	pCi/g	0.06297	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	6.4	193.3	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208	✔	0.3898	0.0412	pCi/g	0.05266	0.080	583.2	1	1.75	IDENTIFIED	9.073	☐		
Thorium-228	nr	1.324	0.09902	pCi/g	0.08656	N	238.7	4	1.284	IDENTIFIED	3.501	☐		
Thorium-230	nr	0.895	0.08584	pCi/g	0.09651	N	609.3	4	1.706	IDENTIFIED	7.628	☐		
Thorium-232	nr	1.231	0.1297	pCi/g	0.1675	N	911.3	3	2.058	IDENTIFIED	8.203	☐		
Thorium-234	✔	36.15	3.411	pCi/g	2.449	2.00	63.27	2	1.075	IDENTIFIED	3.649	☐		
Tin-126	HE	0.2202	0.05417	pCi/g	0.179	N	87.18	3	1.134	IDENTIFIED	24.15	☐		
Titanium-44	la nr	0.3362	0.02958	pCi/g	0.079	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium		107.81	1.01E-05	ug/g	3.6454	N		0				☐		
Tungsten-181	la nr	1.317	0.2286	pCi/g	0.765	N	0	13	0	NOT_IDENTI	0	☐		
Uranium-231	HE	3.402	1.467	pCi/g	2.17	N	0	13	0	FAIL_ABUND	0	☐		
Uranium-234	nr	0.895	0.08584	pCi/g	0.09651	N	609.3	4	1.706	IDENTIFIED	7.628	☐		
Uranium-235	✔	0.5959	0.1458	pCi/g	0.3495	0.500	143.8	1	1.095	IDENTIFIED	22.82	☐		
Uranium-238	nr	36.15	3.411	pCi/g	2.449	N	63.27	2	1.075	IDENTIFIED	3.649	☐		
Zirconium-97	—	5.07E+06	9.39E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799005	26-JAN-10 12:00	10-FEB-10 15:09	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.371	0.1518	pCi/g	0.2065	N	911.7	3	1.771	IDENTIFIED	9.254	☐		
Americium-243	int nr	0.2954	0.03281	pCi/g	0.0852	N	74.89	1	0.876	IDENTIFIED	10.34	☐		
Annihilation Rad.	HE	0.0968	0.03295	pCi/g	0.04122	N	511.2	1	1.32	IDENTIFIED	33.61	☐		
Barium-137m		0.9187	0.06206	pCi/g	0.05811	N	661.9	2	1.304	IDENTIFIED	4.821	☐		
Bismuth-210	HE	5.055	1.759	pCi/g	3.959	N	46.76	3	0.7867	IDENTIFIED	34.49	☐		
Bismuth-211	int	3.68	0.3256	pCi/g	0.2887	Y	351.9	4	1.059	IDENTIFIED	5.919	☐	ui	
Bismuth-212	HE	0.8652	0.1993	pCi/g	0.6141	N	0	13	0	FAIL_ABUND	0	☐		
Bismuth-214	✔	1.042	0.09048	pCi/g	0.09284	0.200	609.6	4	1.423	IDENTIFIED	6.591	☐		
Cadmium-109	int	4.254	0.6347	pCi/g	1.08	Y	87.33	3	1.575	IDENTIFIED	14.16	☐	ui	
Cerium-143	—	207.1	72.89	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.097	0.02604	pCi/g	0.08945	0.100	0	13	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✔	0.9712	0.06565	pCi/g	0.06143	0.100	661.9	2	1.304	IDENTIFIED	4.821	☐		
Gadolinium-153	la nr	0.2584	0.05331	pCi/g	0.1317	N	0	13	0	FAIL_ABUND	0	☐		
Gold-195	la nr	0.7524	0.1552	pCi/g	0.405	N	0	13	0	FAIL_ABUND	0	☐		
Gross Gamma	—	12	1.609	pCi/g	4.111	N		0				☐		
Krypton-85	HE	12.85	3.74	pCi/g	12.6	N	0	13	0	NOT_IDENTI	0	☐		
Lead-210	HE	5.055	1.759	pCi/g	3.959	N	46.76	3	0.7867	IDENTIFIED	34.49	☐		
Lead-212	✔	1.473	0.1156	pCi/g	0.08436	0.100	238.7	4	0.945	IDENTIFIED	3.542	☐		

Lead-214		1.28	0.1181	pCi/g	0.1006	0.100	351.9	4	1.059	IDENTIFIED	5.919	☐		
Lutetium-177	HE	2.157	0.6349	pCi/g	1.745	N	209.3	1	0.7272	IDENTIFIED	28.85	☐		
Neptunium-237	int nr	1.228	0.2227	pCi/g	0.3154	N	87.33	3	1.575	IDENTIFIED	14.16	☐		
Niobium-97	HE	18090	50920	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Polonium-210	HE	5.055	1.756	pCi/g	3.959	N	46.76	3	0.7867	IDENTIFIED	34.49	☐		
Polonium-212	nr	1.473	0.1156	pCi/g	0.08436	N	238.7	4	0.945	IDENTIFIED	3.542	☐		
Polonium-214	nr	1.28	0.1181	pCi/g	0.1006	N	351.9	4	1.059	IDENTIFIED	5.919	☐		
Polonium-216	nr	1.473	0.1156	pCi/g	0.08436	N	238.7	4	0.945	IDENTIFIED	3.542	☐		
Polonium-218	nr	1.28	0.1181	pCi/g	0.1006	N	351.9	4	1.059	IDENTIFIED	5.919	☐		
Potassium-40		30.02	1.537	pCi/g	0.3872	1.00	1462	1	1.874	IDENTIFIED	2.746	☐		
Protactinium-234m		21.9	3.987	pCi/g	11.22	N	0	13	0	FAIL_ABUND	0	☐		
Radium-224	int	4.235	0.6252	pCi/g	0.9602	Y	241.7	1	1.644	IDENTIFIED	13.15	☐	ui	
Radium-226		1.042	0.09048	pCi/g	0.09284	Y	609.6	4	1.423	IDENTIFIED	6.591	☐		
Radium-228		1.371	0.1518	pCi/g	0.2065	0.500	911.7	3	1.771	IDENTIFIED	9.254	☐		
Sodium-24	HE	3.94E+05	3.17E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.0659	0.01918	pCi/g	0.06464	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m		9.21E+15	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208		0.4834	0.04215	pCi/g	0.05365	0.080	583.3	1	1.21	IDENTIFIED	6.848	☐		
Thorium-228	nr	1.495	0.1173	pCi/g	0.08564	N	238.7	4	0.945	IDENTIFIED	3.542	☐		
Thorium-230	nr	1.042	0.09048	pCi/g	0.09284	N	609.6	4	1.423	IDENTIFIED	6.591	☐		
Thorium-232	nr	1.371	0.1518	pCi/g	0.2065	N	911.7	3	1.771	IDENTIFIED	9.254	☐		
Thorium-234		16.21	1.816	pCi/g	1.849	2.00	63.2	2	1.008	IDENTIFIED	7.057	☐		
Tin-126	int nr	0.4181	0.06238	pCi/g	0.1065	N	87.33	3	1.575	IDENTIFIED	14.16	☐		
Titanium-44	la nr	0.3281	0.0253	pCi/g	0.06348	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium		48.353	5.40E-06	ug/g	2.7522	N		0				☐		
Uranium-234	nr	1.042	0.09048	pCi/g	0.09284	N	609.6	4	1.423	IDENTIFIED	6.591	☐		
Uranium-238	nr	16.21	1.816	pCi/g	1.849	N	63.2	2	1.008	IDENTIFIED	7.057	☐		
Zirconium-97	HE	1.23E+06	8.35E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799006	26-JAN-10 12:00	10-FEB-10 15:09	15.1	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.767	0.1828	pCi/g	0.237	N	911.1	3	1.533	IDENTIFIED	8.463	☐		
Americium-243	int nr	0.3446	0.02541	pCi/g	0.04396	N	74.83	1	0.8839	IDENTIFIED	5.345	☐		
Annihilation Rad.		0.1865	0.03401	pCi/g	0.04905	N	510.5	1	1.763	IDENTIFIED	17.5	☐		
Arsenic-73	HE	0.3775	0.08449	pCi/g	0.3089	N	0	8	0	NOT_IDENTI	0	☐		
Bismuth-211	int	4.173	0.3057	pCi/g	0.2778	Y	351.9	4	1.14	IDENTIFIED	5.1	☐	ui	
Bismuth-212	la nr	1.141	0.1932	pCi/g	0.7158	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214		1.086	0.1049	pCi/g	0.115	0.200	609.1	4	1.488	IDENTIFIED	7.545	☐		
Cadmium-109	int	3.645	0.4033	pCi/g	0.8018	Y	87.07	3	0.8775	IDENTIFIED	9.686	☐	ui	
Cerium-143		388.5	81.94	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1671	0.0315	pCi/g	0.09223	0.100	0	8	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		9.938	1.396	pCi/g	2.969	N		0				☐		
Iodine-133	HE	2755	2877	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212		1.644	0.1063	pCi/g	0.0746	0.100	238.6	4	0.9433	IDENTIFIED	3.063	☐		
Lead-214		1.452	0.1129	pCi/g	0.09688	0.100	351.9	4	1.14	IDENTIFIED	5.1	☐		
Lutetium-177	HE	3.281	0.7626	pCi/g	1.893	N	0	8	0	FAIL_ABUND	0	☐		

Neptunium-237	int nr	1.052	0.1592	pCi/g	0.2076	N	87.07	3	0.8775	IDENTIFIED	9.686	☐	
Polonium-212	nr	1.644	0.1063	pCi/g	0.0746	N	238.6	4	0.9433	IDENTIFIED	3.063	☐	
Polonium-214	nr	1.452	0.1129	pCi/g	0.09688	N	351.9	4	1.14	IDENTIFIED	5.1	☐	
Polonium-216	nr	1.644	0.1063	pCi/g	0.0746	N	238.6	4	0.9433	IDENTIFIED	3.063	☐	
Polonium-218	nr	1.452	0.1129	pCi/g	0.09688	N	351.9	4	1.14	IDENTIFIED	5.1	☐	
Potassium-40		35.79	1.806	pCi/g	0.6151	1.00	1461	1	2.027	IDENTIFIED	2.71	☐	
Radium-224	int	4.403	0.5605	pCi/g	0.8499	Y	241.5	1	1.946	IDENTIFIED	11.59	☐	ui
Radium-226		1.086	0.1049	pCi/g	0.115	Y	609.1	4	1.488	IDENTIFIED	7.545	☐	
Radium-228		1.767	0.1828	pCi/g	0.237	0.500	911.1	3	1.533	IDENTIFIED	8.463	☐	
Thallium-208		0.5634	0.04876	pCi/g	0.05848	0.080	583.1	1	1.473	IDENTIFIED	6.567	☐	
Thorium-228	nr	1.669	0.1079	pCi/g	0.07573	N	238.6	4	0.9433	IDENTIFIED	3.063	☐	
Thorium-230	nr	1.086	0.1049	pCi/g	0.115	N	609.1	4	1.488	IDENTIFIED	7.545	☐	
Thorium-232	nr	1.767	0.1828	pCi/g	0.237	N	911.1	3	1.533	IDENTIFIED	8.463	☐	
Thorium-234		1.648	0.4325	pCi/g	0.7364	2.00	63.46	2	0.8553	IDENTIFIED	24.54	☐	
Tin-126	int nr	0.3583	0.03964	pCi/g	0.07652	N	87.07	3	0.8775	IDENTIFIED	9.686	☐	
Titanium-44	la nr	0.3712	0.02368	pCi/g	0.0449	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium	—	4.9799	1.29E-06	ug/g	1.0981	N		0				☐	
Uranium-234	nr	1.086	0.1049	pCi/g	0.115	N	609.1	4	1.488	IDENTIFIED	7.545	☐	
Uranium-238	nr	1.648	0.4325	pCi/g	0.7364	N	63.46	2	0.8553	IDENTIFIED	24.54	☐	
Zirconium-97	—	2.70E+06	9.76E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799007	26-JAN-10 12:00	10-FEB-10 16:22	15.2	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.34	0.1716	pCi/g	0.2494	N	911.2	3	1.34	IDENTIFIED	11.37	☐		
Americium-243	int nr	0.3747	0.06466	pCi/g	0.1281	N	74.82	1	1.601	IDENTIFIED	16.27	☐		
Annihilation Rad.	—	0.1656	0.03931	pCi/g	0.04796	N	511	1	1.561	IDENTIFIED	23.34	☐		
Bismuth-211	int	3.781	0.317	pCi/g	0.4128	Y	352.2	4	1.55	IDENTIFIED	6.757	☐	ui	
Bismuth-212	HE	0.887	0.2833	pCi/g	0.7177	N	0	9	0	FAIL_ABUND	0	☐		
Bismuth-214		1.11	0.107	pCi/g	0.1295	0.200	609.5	4	1.459	IDENTIFIED	8.267	☐		
Cerium-143	—	885.8	145.5	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1668	0.03798	pCi/g	0.1008	0.100	0	9	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	8.801	1.543	pCi/g	3.686	N		0				☐		
Iodine-123	HE	3.90E+06	3.91E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Krypton-85	HE	22.22	4.732	pCi/g	16.14	N	0	9	0	NOT_IDENTI	0	☐		
Lead-212		1.611	0.1153	pCi/g	0.1137	0.100	238.8	4	1.305	IDENTIFIED	3.972	☐		
Lead-214		1.315	0.1155	pCi/g	0.139	0.100	352.2	4	1.55	IDENTIFIED	6.757	☐		
Lutetium-177	HE	2.572	1.074	pCi/g	2.482	N	0	9	0	FAIL_ABUND	0	☐		
Polonium-212	nr	1.611	0.1153	pCi/g	0.1137	N	238.8	4	1.305	IDENTIFIED	3.972	☐		
Polonium-214	nr	1.315	0.1155	pCi/g	0.139	N	352.2	4	1.55	IDENTIFIED	6.757	☐		
Polonium-216	nr	1.611	0.1153	pCi/g	0.1137	N	238.8	4	1.305	IDENTIFIED	3.972	☐		
Polonium-218	nr	1.315	0.1155	pCi/g	0.139	N	352.2	4	1.55	IDENTIFIED	6.757	☐		
Potassium-40		25.67	1.567	pCi/g	0.6352	1.00	1461	1	2.215	IDENTIFIED	3.622	☐		
Radium-224	int	5.233	0.8862	pCi/g	1.293	Y	241.8	1	2.04	IDENTIFIED	16.01	☐	ui	
Radium-226		1.11	0.107	pCi/g	0.1295	Y	609.5	4	1.459	IDENTIFIED	8.267	☐		
Radium-228		1.34	0.1716	pCi/g	0.2494	0.500	911.2	3	1.34	IDENTIFIED	11.37	☐		
Strontium-85	la	0.114	0.02428	pCi/g	0.08281	Y	0	9	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.

Thallium-208 ✔		0.527	0.04791	pCi/g	0.06527	0.080	583.3	1	1.377	IDENTIFIED	7.853	☐
Thorium-228	nr	1.636	0.1171	pCi/g	0.1154	N	238.8	4	1.305	IDENTIFIED	3.972	☐
Thorium-230	nr	1.11	0.107	pCi/g	0.1295	N	609.5	4	1.459	IDENTIFIED	8.267	☐
Thorium-232	nr	1.34	0.1716	pCi/g	0.2494	N	911.2	3	1.34	IDENTIFIED	11.37	☐
Titanium-44	la nr	0.4235	0.04402	pCi/g	0.11	N	0	9	0	FAIL_ABUND	0	☐
Uranium-234	nr	1.11	0.107	pCi/g	0.1295	N	609.5	4	1.459	IDENTIFIED	8.267	☐
Zirconium-97		5.50E+06	1.26E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799008	26-JAN-10 12:00	10-FEB-10 17:19	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.293	0.1592	pCi/g	0.1684	N	911.9	3	1.629	IDENTIFIED	10.7	☐		
Americium-243	int nr	0.3255	0.0312	pCi/g	0.07736	N	74.89	1	0.9131	IDENTIFIED	8.686	☐		
Annihilation Rad.	HE	0.0863	0.03362	pCi/g	0.04149	N	511.1	1	1.688	IDENTIFIED	38.59	☐		
Barium-137m		0.6855	0.05191	pCi/g	0.05618	N	661.9	2	1.32	IDENTIFIED	5.912	☐		
Bismuth-211	int	3.246	0.2889	pCi/g	0.2883	Y	351.9	4	1.19	IDENTIFIED	5.997	☐	ui	
Bismuth-212	la nr	1.01	0.176	pCi/g	0.5936	N	0	11	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.176	0.1005	pCi/g	0.1014	0.200	609.6	4	1.49	IDENTIFIED	6.412	☐		
Cadmium-109	int	3.529	0.4859	pCi/g	1.07	Y	87.31	3	1.191	IDENTIFIED	12.94	☐	ui	
Cerium-143	—	367.7	77.84	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.09667	0.02948	pCi/g	0.09031	0.100	0	11	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137 ✔		0.7247	0.05491	pCi/g	0.05939	0.100	661.9	2	1.32	IDENTIFIED	5.912	☐		
Gross Gamma	—	11.12	1.687	pCi/g	3.965	N		0				☐		
Iodine-133	HE	233.5	2707	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.459	0.1128	pCi/g	0.0782	0.100	238.7	4	0.9437	IDENTIFIED	3.276	☐		
Lead-214 ✔		1.129	0.1047	pCi/g	0.1005	0.100	351.9	4	1.19	IDENTIFIED	5.997	☐		
Mercury-203	la	0.06504	0.01721	pCi/g	0.06164	0.100	0	11	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Neptunium-237	int nr	1.018	0.1752	pCi/g	0.3125	N	87.31	3	1.191	IDENTIFIED	12.94	☐		
Niobium-97	HE	73260	49300	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.459	0.1128	pCi/g	0.0782	N	238.7	4	0.9437	IDENTIFIED	3.276	☐		
Polonium-214	nr	1.129	0.1047	pCi/g	0.1005	N	351.9	4	1.19	IDENTIFIED	5.997	☐		
Polonium-216	nr	1.459	0.1128	pCi/g	0.0782	N	238.7	4	0.9437	IDENTIFIED	3.276	☐		
Polonium-218	nr	1.129	0.1047	pCi/g	0.1005	N	351.9	4	1.19	IDENTIFIED	5.997	☐		
Potassium-40 ✔		28.98	1.467	pCi/g	0.4134	1.00	1462	1	1.859	IDENTIFIED	2.634	☐		
Protactinium-234m	HE	15.45	4.076	pCi/g	9.531	N	0	11	0	FAIL_ABUND	0	☐		
Radium-224	int	4.964	0.6754	pCi/g	0.89	Y	241.7	1	1.68	IDENTIFIED	11.83	☐	ui	
Radium-226 ✔		1.176	0.1005	pCi/g	0.1014	Y	609.6	4	1.49	IDENTIFIED	6.412	☐		
Radium-228 ✔		1.293	0.1592	pCi/g	0.1684	0.500	911.9	3	1.629	IDENTIFIED	10.7	☐		
Technetium-99m		2.39E+14	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Thallium-200	HE	143.8	211.6	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.4857	0.04176	pCi/g	0.05041	0.080	583.6	1	1.264	IDENTIFIED	6.691	☐		
Thorium-228	nr	1.482	0.1146	pCi/g	0.07939	N	238.7	4	0.9437	IDENTIFIED	3.276	☐		
Thorium-230	nr	1.176	0.1005	pCi/g	0.1014	N	609.6	4	1.49	IDENTIFIED	6.412	☐		
Thorium-232	nr	1.293	0.1592	pCi/g	0.1684	N	911.9	3	1.629	IDENTIFIED	10.7	☐		
Thorium-234 ✔		13.85	1.571	pCi/g	1.664	2.00	63.31	2	1.007	IDENTIFIED	7.281	☐		
Tin-126	int nr	0.3468	0.04775	pCi/g	0.1055	N	87.31	3	1.191	IDENTIFIED	12.94	☐		
Titanium-44	la nr	0.3448	0.02411	pCi/g	0.0602	N	0	11	0	FAIL_ABUND	0	☐		

Total Uranium		41.346	4.67E-06	ug/g	2.4778	N		0				☐
Uranium-234	nr	1.176	0.1005	pCi/g	0.1014	N	609.6	4	1.49	IDENTIFIED	6.412	☐
Uranium-235	✔	0.3	0.1183	pCi/g	0.2961	0.500	143.9	1	0.933	IDENTIFIED	38.43	☐
Uranium-238	nr	13.85	1.571	pCi/g	1.664	N	63.31	2	1.007	IDENTIFIED	7.281	☐
Zirconium-97	HE	1.61E+06	9.81E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799009	26-JAN-10 12:00	10-FEB-10 17:19	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.553	0.1748	pCi/g	0.2017	N	911.2	3	2.168	IDENTIFIED	9.099	☐	
Americium-243	int nr	0.3898	0.03941	pCi/g	0.07687	N	74.77	1	1.347	IDENTIFIED	9.251	☐	
Annihilation Rad.	—	0.1427	0.03247	pCi/g	0.04241	N	510.7	1	2.472	IDENTIFIED	22.2	☐	
Bismuth-211	int	3.406	0.2723	pCi/g	0.2998	Y	351.9	4	1.521	IDENTIFIED	5.484	☐	ui
Bismuth-212	HE	0.978	0.2475	pCi/g	0.5861	N	0	12	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.017	0.0958	pCi/g	0.0984	0.200	609.4	4	1.606	IDENTIFIED	7.411	☐	
Cadmium-109	int	2.839	0.4292	pCi/g	1.164	Y	87.19	3	1.166	IDENTIFIED	14.37	☐	ui
Cerium-143	—	753.1	126.1	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.09491	0.02409	pCi/g	0.08494	0.100	0	12	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Cesium-135	HE	0.3931	0.09383	pCi/g	0.283	N	0	12	0	NOT_IDENTI	0	☐	
Gross Gamma	—	9.838	1.321	pCi/g	2.232	N		0				☐	
Iodine-133	HE	1412	2956	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.65E+15	3.42E+15	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Krypton-85	la nr	33.61	4.374	pCi/g	14.35	N	0	12	0	NOT_IDENTI	0	☐	
Lead-212	✔	1.693	0.1231	pCi/g	0.08503	0.100	238.7	4	1.281	IDENTIFIED	3.031	☐	
Lead-214	✔	1.185	0.09963	pCi/g	0.1032	0.100	351.9	4	1.521	IDENTIFIED	5.484	☐	
Lutetium-177	HE	2.429	0.7002	pCi/g	1.924	N	0	12	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	0.8192	0.15	pCi/g	0.3619	N	87.19	3	1.166	IDENTIFIED	14.37	☐	
Polonium-212	nr	1.693	0.1231	pCi/g	0.08503	N	238.7	4	1.281	IDENTIFIED	3.031	☐	
Polonium-214	nr	1.185	0.09963	pCi/g	0.1032	N	351.9	4	1.521	IDENTIFIED	5.484	☐	
Polonium-216	nr	1.693	0.1231	pCi/g	0.08503	N	238.7	4	1.281	IDENTIFIED	3.031	☐	
Polonium-218	nr	1.185	0.09963	pCi/g	0.1032	N	351.9	4	1.521	IDENTIFIED	5.484	☐	
Potassium-40	✔	37.71	1.922	pCi/g	0.4315	1.00	1461	1	2.708	IDENTIFIED	2.235	☐	
Radium-224	int	4.667	0.6168	pCi/g	0.9666	Y	241.6	1	1.719	IDENTIFIED	11.63	☐	ui
Radium-226	✔	1.017	0.0958	pCi/g	0.0984	Y	609.4	4	1.606	IDENTIFIED	7.411	☐	
Radium-228	✔	1.553	0.1748	pCi/g	0.2017	0.500	911.2	3	2.168	IDENTIFIED	9.099	☐	
Sodium-24	HE	4.91E+05	3.91E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.1725	0.02245	pCi/g	0.07366	Y	0	12	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208	✔	0.4681	0.04391	pCi/g	0.049	0.080	583.3	1	1.842	IDENTIFIED	7.655	☐	
Thorium-228	nr	1.719	0.1249	pCi/g	0.08633	N	238.7	4	1.281	IDENTIFIED	3.031	☐	
Thorium-230	nr	1.017	0.0958	pCi/g	0.0984	N	609.4	4	1.606	IDENTIFIED	7.411	☐	
Thorium-232	nr	1.553	0.1748	pCi/g	0.2017	N	911.2	3	2.168	IDENTIFIED	9.099	☐	
Tin-126	int nr	0.279	0.04218	pCi/g	0.1176	N	87.19	3	1.166	IDENTIFIED	14.37	☐	
Titanium-44	la nr	0.3495	0.02799	pCi/g	0.06772	N	0	12	0	FAIL_ABUND	0	☐	
Total Uranium	—	5.0171	2.80E-06	ug/g	2.5956	N		0				☐	
Uranium-234	nr	1.017	0.0958	pCi/g	0.0984	N	609.4	4	1.606	IDENTIFIED	7.411	☐	
Zirconium-97	—	4.68E+06	1.15E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799010	26-JAN-10 12:00	10-FEB-10 17:20	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.595	0.1848	pCi/g	0.2255	N	911.2	3	1.731	IDENTIFIED	9.937	☐	
Americium-243	int nr	0.3324	0.02479	pCi/g	0.0452	N	74.81	1	0.8592	IDENTIFIED	5.459	☐	
Annihilation Rad.		0.1254	0.03326	pCi/g	0.0422	N	510.8	1	1.561	IDENTIFIED	26.03	☐	
Barium-137m	HE	0.06559	0.03891	pCi/g	0.06016	N	661.2	2	1.325	IDENTIFIED	59.06	☐	
Bismuth-210	HE	0.6367	0.3316	pCi/g	0.5903	N	46.27	3	0.922	IDENTIFIED	51.83	☐	
Bismuth-211	int	3.332	0.2782	pCi/g	0.2763	Y	351.7	4	1.151	IDENTIFIED	6.482	☐	ui
Bismuth-212	nr	1.182	0.2671	pCi/g	0.4425	N	727.3	1	2.143	IDENTIFIED	21.79	☐	
Bismuth-214	✓	1.173	0.104	pCi/g	0.09806	0.200	609.3	4	1.342	IDENTIFIED	6.493	☐	
Cadmium-109	int	3.834	0.3932	pCi/g	0.7216	Y	87.25	3	1.142	IDENTIFIED	8.748	☐	ui
Cerium-141	HE	0.08864	0.03647	pCi/g	0.07966	N	144.5	2	2.378	IDENTIFIED	40.76	☐	
Cerium-143	—	348.3	82.14	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1253	0.04138	pCi/g	0.09884	0.100	0	9	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-137	unc	0.06934	0.04113	pCi/g	0.0636	0.100	661.2	2	1.325	IDENTIFIED	59.06	☐	ui
Gross Gamma	—	9.531	1.365	pCi/g	3.793	N		0				☐	
Iodine-123	HE	3.04E+06	2.48E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-210	HE	0.6367	0.3316	pCi/g	0.5903	N	46.27	3	0.922	IDENTIFIED	51.83	☐	
Lead-212	✓	1.7	0.1094	pCi/g	0.07747	0.100	238.6	4	0.9626	IDENTIFIED	3.01	☐	
Lead-214	✓	1.159	0.1014	pCi/g	0.09636	0.100	351.7	4	1.151	IDENTIFIED	6.482	☐	
Lutetium-177	la nr	3.433	0.6278	pCi/g	1.874	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	1.106	0.1609	pCi/g	0.2178	N	87.25	3	1.142	IDENTIFIED	8.748	☐	
Niobium-97	HE	84790	60060	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Polonium-210	HE	0.6367	0.3314	pCi/g	0.5903	N	46.27	3	0.922	IDENTIFIED	51.83	☐	
Polonium-212	nr	1.7	0.1094	pCi/g	0.07747	N	238.6	4	0.9626	IDENTIFIED	3.01	☐	
Polonium-214	nr	1.159	0.1014	pCi/g	0.09636	N	351.7	4	1.151	IDENTIFIED	6.482	☐	
Polonium-216	nr	1.7	0.1094	pCi/g	0.07747	N	238.6	4	0.9626	IDENTIFIED	3.01	☐	
Polonium-218	nr	1.159	0.1014	pCi/g	0.09636	N	351.7	4	1.151	IDENTIFIED	6.482	☐	
Potassium-40	✓	28.25	1.47	pCi/g	0.4292	1.00	1461	1	1.951	IDENTIFIED	2.988	☐	
Radium-224	int	4.523	0.6775	pCi/g	0.8826	Y	241.5	1	1.863	IDENTIFIED	14.02	☐	ui
Radium-226	✓	1.173	0.104	pCi/g	0.09806	Y	609.3	4	1.342	IDENTIFIED	6.493	☐	
Radium-228	✓	1.595	0.1848	pCi/g	0.2255	0.500	911.2	3	1.731	IDENTIFIED	9.937	☐	
Technetium-99m	—	1.47E+16	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-200	HE	14.71	201.7	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4933	0.04626	pCi/g	0.05569	0.080	583.2	1	1.276	IDENTIFIED	7.493	☐	
Thorium-228	nr	1.726	0.1111	pCi/g	0.07865	N	238.6	4	0.9626	IDENTIFIED	3.01	☐	
Thorium-230	nr	1.173	0.104	pCi/g	0.09806	N	609.3	4	1.342	IDENTIFIED	6.493	☐	
Thorium-232	nr	1.595	0.1848	pCi/g	0.2255	N	911.2	3	1.731	IDENTIFIED	9.937	☐	
Thorium-234	✓	3.609	0.5575	pCi/g	0.7175	2.00	63.3	2	0.8905	IDENTIFIED	12.33	☐	
Tin-126	int nr	0.3768	0.03864	pCi/g	0.07078	N	87.25	3	1.142	IDENTIFIED	8.748	☐	
Titanium-44	la nr	0.3505	0.02266	pCi/g	0.04155	N	0	9	0	FAIL_ABUND	0	☐	
Total Uranium	—	10.872	1.66E-06	ug/g	1.0696	N		0				☐	
Uranium-234	nr	1.173	0.104	pCi/g	0.09806	N	609.3	4	1.342	IDENTIFIED	6.493	☐	
Uranium-235	✓	0.2951	0.1234	pCi/g	0.2584	0.500	144.5	2	2.378	IDENTIFIED	40.76	☐	
Uranium-238	nr	3.609	0.5575	pCi/g	0.7175	N	63.3	2	0.8905	IDENTIFIED	12.33	☐	
Zirconium-97	—	2.07E+06	1.02E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799011	26-JAN-10 12:00	10-FEB-10 18:11	15.3	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.546	0.1765	pCi/g	0.2157	N	911.6	3	1.472	IDENTIFIED	10.03	☐		
Americium-243	int nr	0.3149	0.0484	pCi/g	0.1678	N	0	13	0	FAIL_ABUND	0	☐		
Annihilation Rad.	—	0.1481	0.04817	pCi/g	0.04701	N	511	1	2.369	IDENTIFIED	32.41	☐		
Barium-137m		0.7967	0.05559	pCi/g	0.06575	N	661.9	2	1.593	IDENTIFIED	6.537	☐		
Bismuth-211	int	3.459	0.2634	pCi/g	0.361	Y	352	4	1.239	IDENTIFIED	6.826	☐	ui	
Bismuth-212	nr	1.304	0.2726	pCi/g	0.5435	N	727.4	1	1.27	IDENTIFIED	20.56	☐		
Bismuth-214	✔	1.232	0.09901	pCi/g	0.1269	0.200	609.4	4	1.397	IDENTIFIED	7.144	☐		
Cadmium-109	int	4.192	0.8075	pCi/g	1.635	Y	87.16	3	1.252	IDENTIFIED	18.31	☐	ui	
Cerium-141	HE	0.1386	0.03667	pCi/g	0.1292	N	0	13	0	NOT_IDENTI	0	☐		
Cerium-143	—	545.7	112.9	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1368	0.04019	pCi/g	0.1118	0.100	0	13	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✔	0.8422	0.05881	pCi/g	0.0695	0.100	661.9	2	1.593	IDENTIFIED	6.537	☐		
Gadolinium-153	HE	0.322	0.07174	pCi/g	0.1821	N	0	13	0	FAIL_ABUND	0	☐		
Gold-195	HE	0.9378	0.2089	pCi/g	0.5593	N	0	13	0	FAIL_ABUND	0	☐		
Gross Gamma	—	11.7	1.842	pCi/g	4.882	N		0				☐		
Iodine-123	HE	3.30E+06	3.80E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Iodine-133	HE	3652	3782	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Krypton-85	HE	14.78	3.988	pCi/g	14.64	N	0	13	0	NOT_IDENTI	0	☐		
Lead-212	✔	1.439	0.08294	pCi/g	0.09966	0.100	238.7	4	1.051	IDENTIFIED	4.132	☐		
Lead-214	✔	1.203	0.09685	pCi/g	0.1382	0.100	352	4	1.239	IDENTIFIED	6.826	☐		
Neptunium-237	int nr	1.21	0.2643	pCi/g	0.4844	N	87.16	3	1.252	IDENTIFIED	18.31	☐		
Polonium-212	nr	1.439	0.08294	pCi/g	0.09966	N	238.7	4	1.051	IDENTIFIED	4.132	☐		
Polonium-214	nr	1.203	0.09685	pCi/g	0.1382	N	352	4	1.239	IDENTIFIED	6.826	☐		
Polonium-216	nr	1.439	0.08294	pCi/g	0.09966	N	238.7	4	1.051	IDENTIFIED	4.132	☐		
Polonium-218	nr	1.203	0.09685	pCi/g	0.1382	N	352	4	1.239	IDENTIFIED	6.826	☐		
Potassium-40	✔	21.67	1.151	pCi/g	0.5909	1.00	1461	1	1.928	IDENTIFIED	3.946	☐		
Protactinium-234m		27.52	5.59	pCi/g	7.998	N	1002	1	1.649	IDENTIFIED	19.79	☐		
Radium-224	int	4.618	0.8102	pCi/g	1.134	Y	241.7	1	1.988	IDENTIFIED	17.23	☐	ui	
Radium-226	✔	1.232	0.09901	pCi/g	0.1269	Y	609.4	4	1.397	IDENTIFIED	7.144	☐		
Radium-228	✔	1.546	0.1765	pCi/g	0.2157	0.500	911.6	3	1.472	IDENTIFIED	10.03	☐		
Strontium-85	la	0.07588	0.02048	pCi/g	0.07518	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	251.5	293.3	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208	✔	0.5017	0.04978	pCi/g	0.06158	0.080	583.5	1	1.554	IDENTIFIED	9.409	☐		
Thorium-228	nr	1.462	0.08421	pCi/g	0.1012	N	238.7	4	1.051	IDENTIFIED	4.132	☐		
Thorium-230	nr	1.232	0.099	pCi/g	0.1269	N	609.4	4	1.397	IDENTIFIED	7.144	☐		
Thorium-232	nr	1.546	0.1765	pCi/g	0.2157	N	911.6	3	1.472	IDENTIFIED	10.03	☐		
Thorium-234	✔	22.04	3.007	pCi/g	3.72	2.00	63.33	2	0.9498	IDENTIFIED	9.4	☐		
Tin-126	int nr	0.412	0.07935	pCi/g	0.1619	N	87.16	3	1.252	IDENTIFIED	18.31	☐		
Titanium-44	la nr	0.2192	0.03703	pCi/g	0.1012	N	0	13	0	NOT_IDENTI	0	☐		
Total Uranium		65.997	8.95E-06	ug/g	5.5375	N		0				☐		
Uranium-231	HE	3.132	1.211	pCi/g	1.982	N	94.82	1	1.174	IDENTIFIED	38.33	☐		
Uranium-234	nr	1.232	0.099	pCi/g	0.1269	N	609.4	4	1.397	IDENTIFIED	7.144	☐		
Uranium-235	✔	0.9539	0.266	pCi/g	0.3614	0.500	143.8	1	1.414	IDENTIFIED	26.62	☐		

Uranium-238	nr	22.04	3.007	pCi/g	3.72	N	63.33	2	0.9498	IDENTIFIED	9.4	☐	
Zirconium-97		3.77E+06	1.22E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799012	26-JAN-10 12:00	10-FEB-10 18:11	15.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.626	0.1698	pCi/g	0.2124	N	911.6	3	1.535	IDENTIFIED	8.672	☐	
Americium-243	int nr	0.3514	0.03239	pCi/g	0.07613	N	74.92	1	0.9655	IDENTIFIED	8.288	☐	
Annihilation Rad.		0.1319	0.03143	pCi/g	0.0452	N	511.4	1	1.724	IDENTIFIED	23.42	☐	
Bismuth-211	int	3.467	0.2809	pCi/g	0.3529	Y	352.1	4	1.307	IDENTIFIED	6.749	☐ ui	
Bismuth-212	la nr	1.379	0.2507	pCi/g	0.6754	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.09	0.1035	pCi/g	0.1156	0.200	609.6	4	1.344	IDENTIFIED	7.96	☐	
Cadmium-109	int	3.019	0.4422	pCi/g	1.116	Y	87.2	3	1.114	IDENTIFIED	13.88	☐ ui	
Cerium-143	—	571.9	108.3	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1143	0.03121	pCi/g	0.09561	0.100	0	10	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma	—	10.39	1.531	pCi/g	3.698	N		0				☐	
Iodine-123	HE	5.33E+05	3.34E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Krypton-85	HE	20.46	3.832	pCi/g	13.79	N	0	10	0	NOT_IDENTI	0	☐	
Lead-212	✔	1.62	0.09549	pCi/g	0.09163	0.100	238.8	4	1.113	IDENTIFIED	3.447	☐	
Lead-214	✔	1.206	0.1027	pCi/g	0.1195	0.100	352.1	4	1.307	IDENTIFIED	6.749	☐	
Lutetium-177	la nr	3.845	0.8607	pCi/g	2.035	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	0.8712	0.1561	pCi/g	0.375	N	87.2	3	1.114	IDENTIFIED	13.88	☐	
Polonium-212	nr	1.62	0.09549	pCi/g	0.09163	N	238.8	4	1.113	IDENTIFIED	3.447	☐	
Polonium-214	nr	1.206	0.1027	pCi/g	0.1195	N	352.1	4	1.307	IDENTIFIED	6.749	☐	
Polonium-216	nr	1.62	0.09549	pCi/g	0.09163	N	238.8	4	1.113	IDENTIFIED	3.447	☐	
Polonium-218	nr	1.206	0.1027	pCi/g	0.1195	N	352.1	4	1.307	IDENTIFIED	6.749	☐	
Potassium-40	✔	36.09	1.823	pCi/g	0.522	1.00	1461	1	2.146	IDENTIFIED	2.66	☐	
Radium-224	int	4.81	0.6366	pCi/g	1.043	Y	241.7	1	1.711	IDENTIFIED	12.54	☐ ui	
Radium-226	✔	1.09	0.1035	pCi/g	0.1156	Y	609.6	4	1.344	IDENTIFIED	7.96	☐	
Radium-228	✔	1.626	0.1698	pCi/g	0.2124	0.500	911.6	3	1.535	IDENTIFIED	8.672	☐	
Strontium-85	la	0.1051	0.01968	pCi/g	0.07081	Y	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		1.16E+16	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5807	0.04887	pCi/g	0.05492	0.080	583.5	1	1.585	IDENTIFIED	6.925	☐	
Thorium-228	nr	1.645	0.09695	pCi/g	0.09303	N	238.8	4	1.113	IDENTIFIED	3.447	☐	
Thorium-230	nr	1.09	0.1035	pCi/g	0.1156	N	609.6	4	1.344	IDENTIFIED	7.96	☐	
Thorium-232	nr	1.626	0.1698	pCi/g	0.2124	N	911.6	3	1.535	IDENTIFIED	8.672	☐	
Tin-126	int nr	0.2967	0.04345	pCi/g	0.11	N	87.2	3	1.114	IDENTIFIED	13.88	☐	
Titanium-44	la nr	0.3454	0.025	pCi/g	0.0702	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		3.189	1.78E-06	ug/g	2.4088	N		0				☐	
Uranium-234	nr	1.09	0.1035	pCi/g	0.1156	N	609.6	4	1.344	IDENTIFIED	7.96	☐	
Zirconium-97	HE	2.02E+06	1.05E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799013	26-JAN-10 12:00	10-FEB-10 18:58	15.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.638	0.2149	pCi/g	0.2324	N	911.4	3	1.76	IDENTIFIED	11.77	☐	

Americium-243	int nr	0.3631	0.05095	pCi/g	0.1041	N	74.83	1	1.436	IDENTIFIED	13.4	☐	
Annihilation Rad.		0.1771	0.03891	pCi/g	0.05067	N	511.6	1	2.06	IDENTIFIED	21.55	☐	
Barium-137m		0.4575	0.04482	pCi/g	0.06345	N	661.9	2	1.534	IDENTIFIED	8.898	☐	
Bismuth-211	int	3.529	0.3204	pCi/g	0.3952	Y	352.3	4	1.499	IDENTIFIED	7.862	☐	ui
Bismuth-212	HE	1.06	0.2475	pCi/g	0.6895	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214		1.322	0.1094	pCi/g	0.1225	0.200	609.8	4	1.507	IDENTIFIED	6.654	☐	
Cadmium-109	int	2.583	0.5299	pCi/g	1.668	Y	87.22	3	0.9983	IDENTIFIED	19.97	☐	ui
Cerium-143		325.2	97.93	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-137		0.4836	0.04739	pCi/g	0.06707	0.100	661.9	2	1.534	IDENTIFIED	8.898	☐	
Gross Gamma		9.845	1.331	pCi/g	4.034	N		0				☐	
Iodine-135	HE	4.99E+14	4.46E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Krypton-85	HE	23.94	4.507	pCi/g	16.8	N	0	10	0	NOT_IDENTI	0	☐	
Lead-212		1.594	0.101	pCi/g	0.09929	0.100	239	4	1.271	IDENTIFIED	3.804	☐	
Lead-214		1.228	0.116	pCi/g	0.1378	0.100	352.3	4	1.499	IDENTIFIED	7.862	☐	
Neptunium-237	HE	0.7455	0.1712	pCi/g	0.4886	N	87.22	3	0.9983	IDENTIFIED	19.97	☐	
Niobium-97	HE	21850	66670	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.594	0.101	pCi/g	0.09929	N	239	4	1.271	IDENTIFIED	3.804	☐	
Polonium-214	nr	1.228	0.116	pCi/g	0.1378	N	352.3	4	1.499	IDENTIFIED	7.862	☐	
Polonium-216	nr	1.594	0.101	pCi/g	0.09929	N	239	4	1.271	IDENTIFIED	3.804	☐	
Polonium-218	nr	1.228	0.116	pCi/g	0.1378	N	352.3	4	1.499	IDENTIFIED	7.862	☐	
Potassium-40		26.89	1.512	pCi/g	0.4981	1.00	1461	1	2.024	IDENTIFIED	3.44	☐	
Radium-224	int	5.125	0.642	pCi/g	1.13	Y	242.1	1	1.706	IDENTIFIED	11.67	☐	ui
Radium-226		1.322	0.1094	pCi/g	0.1225	Y	609.8	4	1.507	IDENTIFIED	6.654	☐	
Radium-228		1.638	0.2149	pCi/g	0.2324	0.500	911.4	3	1.76	IDENTIFIED	11.77	☐	
Strontium-85	la	0.123	0.02315	pCi/g	0.08627	Y	0	10	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Technetium-99m		1.35E+16	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-200	HE	252.2	280.7	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208		0.599	0.04903	pCi/g	0.06819	0.080	583.7	1	1.525	IDENTIFIED	6.811	☐	
Thorium-228	nr	1.619	0.1025	pCi/g	0.1008	N	239	4	1.271	IDENTIFIED	3.804	☐	
Thorium-230	nr	1.322	0.1094	pCi/g	0.1225	N	609.8	4	1.507	IDENTIFIED	6.654	☐	
Thorium-232	nr	1.638	0.2149	pCi/g	0.2324	N	911.4	3	1.76	IDENTIFIED	11.77	☐	
Thorium-234		5.213	1.291	pCi/g	2.591	2.00	63.33	2	1.118	IDENTIFIED	23.15	☐	
Tin-126	HE	0.2539	0.05207	pCi/g	0.169	N	87.22	3	0.9983	IDENTIFIED	19.97	☐	
Titanium-44	la nr	0.399	0.03477	pCi/g	0.09192	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		15.466	3.84E-06	ug/g	3.8576	N		0				☐	
Uranium-234	nr	1.322	0.1094	pCi/g	0.1225	N	609.8	4	1.507	IDENTIFIED	6.654	☐	
Uranium-238	nr	5.213	1.291	pCi/g	2.591	N	63.33	2	1.118	IDENTIFIED	23.15	☐	
Zirconium-97	HE	1.35E+06	1.26E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799014	26-JAN-10 12:00	10-FEB-10 19:09	15.3	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.306	0.1569	pCi/g	0.231	N	910.8	3	1.773	IDENTIFIED	10.27	☐
Americium-243	int nr	0.3937	0.04703	pCi/g	0.09995	N	74.58	1	1.084	IDENTIFIED	11.12	☐
Annihilation Rad.	HE	0.1048	0.04028	pCi/g	0.04798	N	510.3	1	1.543	IDENTIFIED	38.1	☐
Antimony-122	HE	4.541	1.789	pCi/g	3.603	N	562.7	1	1.372	IDENTIFIED	39.1	☐
Barium-137m		0.6937	0.05778	pCi/g	0.06166	N	661.3	2	1.645	IDENTIFIED	7.127	☐

Bismuth-211	int	3.469	0.3039	pCi/g	0.3737	Y	351.6	4	1.241	IDENTIFIED	6.599	☐	ui	
Bismuth-212	HE	0.7011	0.1825	pCi/g	0.6156	N	0	11	0	FAIL_ABUND	0	☐		
Bismuth-214 ✔		1.186	0.1065	pCi/g	0.1106	0.200	609	4	1.518	IDENTIFIED	7.261	☐		
Cadmium-109	int	3.874	0.6899	pCi/g	1.295	Y	86.87	3	1.488	IDENTIFIED	17.11	☐	ui	
Cerium-143		697.8	131.1	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1528	0.04085	pCi/g	0.1024	0.100	0	11	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137 ✔		0.7333	0.06111	pCi/g	0.06518	0.100	661.3	2	1.645	IDENTIFIED	7.127	☐		
Gold-195	HE	0.5031	0.1282	pCi/g	0.4527	N	0	11	0	FAIL_ABUND	0	☐		
Gross Gamma		9.873	1.563	pCi/g	3.689	N		0				☐		
Iodine-123	HE	7.34E+05	3.84E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Lead-212 ✔		1.427	0.1076	pCi/g	0.1006	0.100	238.4	4	1.087	IDENTIFIED	4.158	☐		
Lead-214 ✔		1.207	0.1103	pCi/g	0.1226	0.100	351.6	4	1.241	IDENTIFIED	6.599	☐		
Lutetium-177	HE	4.328	1.183	pCi/g	2.326	N	0	11	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.118	0.2301	pCi/g	0.381	N	86.87	3	1.488	IDENTIFIED	17.11	☐		
Niobium-97	HE	1.31E+05	73410	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.427	0.1076	pCi/g	0.1006	N	238.4	4	1.087	IDENTIFIED	4.158	☐		
Polonium-214	nr	1.207	0.1103	pCi/g	0.1226	N	351.6	4	1.241	IDENTIFIED	6.599	☐		
Polonium-216	nr	1.427	0.1076	pCi/g	0.1006	N	238.4	4	1.087	IDENTIFIED	4.158	☐		
Polonium-218	nr	1.207	0.1103	pCi/g	0.1226	N	351.6	4	1.241	IDENTIFIED	6.599	☐		
Potassium-40 ✔		24.84	1.449	pCi/g	0.5989	1.00	1460	1	1.997	IDENTIFIED	3.377	☐		
Protactinium-234m		20.94	3.9	pCi/g	11.62	N	0	11	0	FAIL_ABUND	0	☐		
Radium-224	int	4.401	0.7226	pCi/g	1.146	Y	241.4	1	1.621	IDENTIFIED	15.32	☐	ui	
Radium-226 ✔		1.186	0.1065	pCi/g	0.1106	Y	609	4	1.518	IDENTIFIED	7.261	☐		
Radium-228 ✔		1.306	0.1569	pCi/g	0.231	0.500	910.8	3	1.773	IDENTIFIED	10.27	☐		
Thallium-208 ✔		0.3914	0.04621	pCi/g	0.0619	0.080	583	1	1.131	IDENTIFIED	10.69	☐		
Thorium-228	nr	1.449	0.1092	pCi/g	0.1022	N	238.4	4	1.087	IDENTIFIED	4.158	☐		
Thorium-230	nr	1.186	0.1065	pCi/g	0.1106	N	609	4	1.518	IDENTIFIED	7.261	☐		
Thorium-232	nr	1.306	0.1569	pCi/g	0.231	N	910.8	3	1.773	IDENTIFIED	10.27	☐		
Thorium-234 ✔		8.582	1.699	pCi/g	2.67	2.00	62.84	2	0.9742	IDENTIFIED	17.73	☐		
Tin-126	int nr	0.3806	0.06779	pCi/g	0.128	N	86.87	3	1.488	IDENTIFIED	17.11	☐		
Titanium-44	la nr	0.1238	0.02145	pCi/g	0.07365	N	0	11	0	NOT_IDENTI	0	☐		
Total Uranium	—	25.611	5.06E-06	ug/g	3.9758	N		0				☐		
Uranium-231	HE	1.957	1.053	pCi/g	1.937	N	0	11	0	FAIL_ABUND	0	☐		
Uranium-234	nr	1.186	0.1065	pCi/g	0.1106	N	609	4	1.518	IDENTIFIED	7.261	☐		
Uranium-238	nr	8.582	1.699	pCi/g	2.67	N	62.84	2	0.9742	IDENTIFIED	17.73	☐		
Zirconium-97	—	3.53E+06	1.43E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799015	26-JAN-10 12:00	10-FEB-10 19:09	15.3	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.394	0.163	pCi/g	0.226	N	911.2	3	1.39	IDENTIFIED	10.52	☐	
Americium-243	int nr	0.3979	0.06087	pCi/g	0.1338	N	74.4	1	1.523	IDENTIFIED	14.62	☐	
Annihilation Rad.	HE	0.07438	0.03882	pCi/g	0.05668	N	510.6	1	1.36	IDENTIFIED	52.11	☐	
Barium-137m		0.6672	0.05117	pCi/g	0.07256	N	661.5	2	1.65	IDENTIFIED	7.262	☐	
Bismuth-211	int	3.702	0.2908	pCi/g	0.3996	Y	351.6	4	1.236	IDENTIFIED	7.162	☐	ui
Bismuth-212	nr	1.153	0.2705	pCi/g	0.4698	N	727.6	1	2.011	IDENTIFIED	23.15	☐	
Bismuth-214 ✔		1.096	0.08626	pCi/g	0.119	0.200	609.1	4	1.416	IDENTIFIED	6.954	☐	

Cadmium-109	int	2.726	0.5771	pCi/g	1.752	Y	87.1	3	1.408	IDENTIFIED	20.6	☐	ui
Cerium-143		881.3	149.8	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.4652	0.1149	pCi/g	0.3692	N	0	14	0	NOT_IDENTI	0	☐	
Cesium-137		0.7053	0.05413	pCi/g	0.07671	0.100	661.5	2	1.65	IDENTIFIED	7.262	☐	
Gadolinium-153	HE	0.2298	0.07222	pCi/g	0.1967	N	0	14	0	FAIL_ABUND	0	☐	
Gold-195	HE	0.6694	0.2103	pCi/g	0.5645	N	0	14	0	FAIL_ABUND	0	☐	
Gross Gamma		10.48	1.662	pCi/g	4.831	N		0				☐	
Iodine-123	HE	4.11E+06	5.14E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Lead-212		1.341	0.07547	pCi/g	0.111	0.100	238.4	4	1.183	IDENTIFIED	4.255	☐	
Lead-214		1.288	0.1066	pCi/g	0.1393	0.100	351.6	4	1.236	IDENTIFIED	7.162	☐	
Mercury-203	int	0.1095	0.03511	pCi/g	0.07505	0.100	277.8	1	1.723	IDENTIFIED	31.92	☐	ui
Neptunium-237	HE	0.7865	0.1852	pCi/g	0.547	N	87.1	3	1.408	IDENTIFIED	20.6	☐	
Niobium-95	HE	0.1579	0.02908	pCi/g	0.1113	N	0	14	0	NOT_IDENTI	0	☐	
Niobium-95m	HE	0.4231	0.09302	pCi/g	0.2985	N	0	14	0	NOT_IDENTI	0	☐	
Niobium-97		2.96E+05	83020	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.341	0.07547	pCi/g	0.111	N	238.4	4	1.183	IDENTIFIED	4.255	☐	
Polonium-214	nr	1.288	0.1066	pCi/g	0.1393	N	351.6	4	1.236	IDENTIFIED	7.162	☐	
Polonium-216	nr	1.341	0.07547	pCi/g	0.111	N	238.4	4	1.183	IDENTIFIED	4.255	☐	
Polonium-218	nr	1.288	0.1066	pCi/g	0.1393	N	351.6	4	1.236	IDENTIFIED	7.162	☐	
Potassium-40		23.52	1.159	pCi/g	0.5362	1.00	1461	1	2.05	IDENTIFIED	3.651	☐	
Protactinium-234m	HE	21.88	4.864	pCi/g	14.47	N	0	14	0	FAIL_ABUND	0	☐	
Radium-224	int	3.854	0.6185	pCi/g	1.263	Y	241.4	1	1.722	IDENTIFIED	15.78	☐	ui
Radium-226		1.096	0.08626	pCi/g	0.119	Y	609.1	4	1.416	IDENTIFIED	6.954	☐	
Radium-228		1.394	0.163	pCi/g	0.226	0.500	911.2	3	1.39	IDENTIFIED	10.52	☐	
Technetium-99m		3.65E+16	0	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Thallium-200	HE	189.5	305	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Thallium-208		0.4173	0.04255	pCi/g	0.06882	0.080	583.1	1	1.212	IDENTIFIED	9.693	☐	
Thorium-228	nr	1.361	0.07663	pCi/g	0.1127	N	238.4	4	1.183	IDENTIFIED	4.255	☐	
Thorium-230	nr	1.096	0.08626	pCi/g	0.119	N	609.1	4	1.416	IDENTIFIED	6.954	☐	
Thorium-232	nr	1.394	0.163	pCi/g	0.226	N	911.2	3	1.39	IDENTIFIED	10.52	☐	
Thorium-234		20.66	2.591	pCi/g	3.329	2.00	62.96	2	1.025	IDENTIFIED	8.641	☐	
Tin-126	HE	0.2678	0.05671	pCi/g	0.1731	N	87.1	3	1.408	IDENTIFIED	20.6	☐	
Titanium-44	la nr	0.314	0.03235	pCi/g	0.1022	N	0	14	0	FAIL_ABUND	0	☐	
Total Uranium		61.657	7.71E-06	ug/g	4.9564	N		0				☐	
Tungsten-181	HE	1.154	0.324	pCi/g	1.048	N	0	14	0	NOT_IDENTI	0	☐	
Uranium-234	nr	1.096	0.08626	pCi/g	0.119	N	609.1	4	1.416	IDENTIFIED	6.954	☐	
Uranium-235		0.4489	0.1791	pCi/g	0.4455	0.500	143.8	1	0.8575	IDENTIFIED	39.07	☐	
Uranium-238	nr	20.66	2.591	pCi/g	3.329	N	62.96	2	1.025	IDENTIFIED	8.641	☐	
Zirconium-97		3.48E+06	1.43E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799016	26-JAN-10 12:00	10-FEB-10 19:10	15.3	SAMPLE	LOAD	1	LANL	LANL01004\GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.674	0.1699	pCi/g	0.2172	N	911.7	3	1.168	IDENTIFIED	8.28	☐	
Americium-243	int nr	0.4268	0.0403	pCi/g	0.09185	N	74.87	1	1.364	IDENTIFIED	8.661	☐	
Annihilation Rad.		0.125	0.0363	pCi/g	0.04776	N	510.9	1	1.962	IDENTIFIED	28.89	☐	
Bismuth-211	int	3.393	0.2215	pCi/g	0.351	Y	351.8	4	1.381	IDENTIFIED	5.709	☐	ui

Bismuth-212	la nr	1.271	0.2389	pCi/g	0.7142	N	0	9	0	FAIL_ABUND	0		☐	
Bismuth-214	✔	1.233	0.08889	pCi/g	0.1231	0.200	609.4	4	1.651	IDENTIFIED	6.024		☐	
Cadmium-109	int	3.959	0.55	pCi/g	1.15	Y	87.11	3	1.553	IDENTIFIED	13.2		☐	ui
Cerium-143	—	1270	172.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐	
Cesium-135	int nr	0.6805	0.1172	pCi/g	0.2342	N	269.5	1	2.353	IDENTIFIED	16.79		☐	
Gross Gamma	—	9.747	1.469	pCi/g	2.855	N		0					☐	
Iodine-123	HE	1.09E+06	4.14E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐	
Iodine-135	HE	5.66E+15	5.01E+15	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐	
Lead-212	✔	1.596	0.07958	pCi/g	0.09173	0.100	238.5	4	1.412	IDENTIFIED	3.405		☐	
Lead-214	✔	1.18	0.08297	pCi/g	0.1164	0.100	351.8	4	1.381	IDENTIFIED	5.709		☐	
Neptunium-237	int nr	1.142	0.1977	pCi/g	0.3356	N	87.11	3	1.553	IDENTIFIED	13.2		☐	
Niobium-95m	la nr	0.6556	0.08368	pCi/g	0.2829	N	0	9	0	NOT_IDENTI	0		☐	
Polonium-212	nr	1.596	0.07958	pCi/g	0.09173	N	238.5	4	1.412	IDENTIFIED	3.405		☐	
Polonium-214	nr	1.18	0.08297	pCi/g	0.1164	N	351.8	4	1.381	IDENTIFIED	5.709		☐	
Polonium-216	nr	1.596	0.07958	pCi/g	0.09173	N	238.5	4	1.412	IDENTIFIED	3.405		☐	
Polonium-218	nr	1.18	0.08297	pCi/g	0.1164	N	351.8	4	1.381	IDENTIFIED	5.709		☐	
Potassium-40	✔	35.82	1.609	pCi/g	0.3865	1.00	1461	1	2.189	IDENTIFIED	2.647		☐	
Radium-224	int	3.91	0.6044	pCi/g	1.043	Y	241.6	1	1.815	IDENTIFIED	15.19		☐	ui
Radium-226	✔	1.233	0.08889	pCi/g	0.1231	Y	609.4	4	1.651	IDENTIFIED	6.024		☐	
Radium-228	✔	1.674	0.1699	pCi/g	0.2172	0.500	911.7	3	1.168	IDENTIFIED	8.28		☐	
Technetium-99m		1.70E+16	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐	
Thallium-200	HE	27.31	256.2	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐	
Thallium-208	✔	0.4938	0.04453	pCi/g	0.05879	0.080	583.2	1	1.362	IDENTIFIED	8.345		☐	
Thorium-228	nr	1.621	0.08081	pCi/g	0.09314	N	238.5	4	1.412	IDENTIFIED	3.405		☐	
Thorium-230	nr	1.233	0.08889	pCi/g	0.1231	N	609.4	4	1.651	IDENTIFIED	6.024		☐	
Thorium-232	nr	1.674	0.1699	pCi/g	0.2172	N	911.7	3	1.168	IDENTIFIED	8.28		☐	
Tin-126	int nr	0.389	0.05404	pCi/g	0.1134	N	87.11	3	1.553	IDENTIFIED	13.2		☐	
Titanium-44	la nr	0.3831	0.02937	pCi/g	0.08363	N	0	9	0	FAIL_ABUND	0		☐	
Uranium-234	nr	1.233	0.08889	pCi/g	0.1231	N	609.4	4	1.651	IDENTIFIED	6.024		☐	
Zirconium-97		5.44E+06	1.28E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0		☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799017	26-JAN-10 12:00	10-FEB-10 19:12	15.3	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.731	0.1763	pCi/g	0.179	N	911	3	1.601	IDENTIFIED	8.576	☐	
Americium-243	int nr	0.3614	0.03754	pCi/g	0.09008	N	74.74	1	0.9756	IDENTIFIED	9.814	☐	
Annihilation Rad.		0.1444	0.03241	pCi/g	0.04574	N	510.3	1	1.966	IDENTIFIED	22.23	☐	
Bismuth-211	int	3.335	0.2359	pCi/g	0.3047	Y	351.7	4	1.317	IDENTIFIED	6.335	☐	ui
Bismuth-212	la nr	1.432	0.238	pCi/g	0.644	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.179	0.09787	pCi/g	0.1017	0.200	609	4	1.589	IDENTIFIED	7.212	☐	
Cadmium-109	int	3.989	0.5128	pCi/g	1.169	Y	87.03	3	1.196	IDENTIFIED	12.28	☐	ui
Cerium-143		678.9	112.3	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1337	0.03065	pCi/g	0.08797	0.100	0	8	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Gross Gamma		9.7	1.531	pCi/g	2.861	N		0				☐	
Iodine-123	HE	5.59E+06	3.35E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.566	0.0765	pCi/g	0.08741	0.100	238.5	4	1.138	IDENTIFIED	3.358	☐	
Lead-214	✔	1.16	0.08745	pCi/g	0.1062	0.100	351.7	4	1.317	IDENTIFIED	6.335	☐	

Neptunium-237	int nr	1.151	0.1897	pCi/g	0.3429	N	87.03	3	1.196	IDENTIFIED	12.28	☐	
Polonium-212	nr	1.566	0.0765	pCi/g	0.08741	N	238.5	4	1.138	IDENTIFIED	3.358	☐	
Polonium-214	nr	1.16	0.08745	pCi/g	0.1062	N	351.7	4	1.317	IDENTIFIED	6.335	☐	
Polonium-216	nr	1.566	0.0765	pCi/g	0.08741	N	238.5	4	1.138	IDENTIFIED	3.358	☐	
Polonium-218	nr	1.16	0.08745	pCi/g	0.1062	N	351.7	4	1.317	IDENTIFIED	6.335	☐	
Potassium-40 ✔		33.97	1.505	pCi/g	0.3432	1.00	1460	1	2.3	IDENTIFIED	2.629	☐	
Radium-224	int	4.547	0.6454	pCi/g	0.9947	Y	241.5	1	1.885	IDENTIFIED	13.92	☐	ui
Radium-226 ✔		1.179	0.09787	pCi/g	0.1017	Y	609	4	1.589	IDENTIFIED	7.212	☐	
Radium-228 ✔		1.731	0.1763	pCi/g	0.179	0.500	911	3	1.601	IDENTIFIED	8.576	☐	
Sodium-24	HE	1.75E+05	4.20E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-200	HE	15.11	243.3	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.549	0.04735	pCi/g	0.05997	0.080	582.8	1	1.361	IDENTIFIED	7.847	☐	
Thorium-228	nr	1.59	0.07768	pCi/g	0.08875	N	238.5	4	1.138	IDENTIFIED	3.358	☐	
Thorium-230	nr	1.179	0.09786	pCi/g	0.1017	N	609	4	1.589	IDENTIFIED	7.212	☐	
Thorium-232	nr	1.731	0.1763	pCi/g	0.179	N	911	3	1.601	IDENTIFIED	8.576	☐	
Tin-126	int nr	0.392	0.05039	pCi/g	0.1154	N	87.03	3	1.196	IDENTIFIED	12.28	☐	
Titanium-44	la nr	0.3721	0.02718	pCi/g	0.0736	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium		4.7527	2.99E-06	ug/g	3.0201	N		0				☐	
Uranium-234	nr	1.179	0.09786	pCi/g	0.1017	N	609	4	1.589	IDENTIFIED	7.212	☐	
Zirconium-97		5.39E+06	1.12E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799018	26-JAN-10 12:00	10-FEB-10 19:13	15.3	SAMPLE	LOAD	1	LANL	LANL01004|CEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.385	0.1788	pCi/g	0.3165	N	910.6	3	1.363	IDENTIFIED	11.59	☐	
Americium-243	int nr	0.3218	0.03397	pCi/g	0.07445	N	74.82	1	0.9887	IDENTIFIED	9.36	☐	
Annihilation Rad.	HE	0.124	0.04184	pCi/g	0.07089	N	510.3	1	1.512	IDENTIFIED	33.45	☐	
Barium-137m		1.599	0.09547	pCi/g	0.07879	N	661.3	2	1.381	IDENTIFIED	4.229	☐	
Bismuth-210	nr	5.04	0.6107	pCi/g	1.095	N	46.46	3	0.9394	IDENTIFIED	10.84	☐	
Bismuth-211	int	3.249	0.324	pCi/g	0.4161	Y	351.7	4	1.145	IDENTIFIED	8.814	☐	ui
Bismuth-212	HE	1.291	0.3008	pCi/g	0.8364	N	0	12	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.12	0.1097	pCi/g	0.1339	0.200	609.1	4	1.396	IDENTIFIED	8.37	☐	
Cerium-143		588.5	124.6	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cesium-137 ✔		1.691	0.101	pCi/g	0.08329	0.100	661.3	2	1.381	IDENTIFIED	4.229	☐	
Gold-195	HE	0.6432	0.125	pCi/g	0.4395	N	0	12	0	FAIL_ABUND	0	☐	
Gross Gamma		11.61	1.584	pCi/g	5.091	N		0				☐	
Iodine-123	HE	1.65E+06	3.96E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Iodine-133	HE	1982	4579	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Iodine-135	HE	7.99E+15	6.12E+15	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Lead-210	nr	5.04	0.6107	pCi/g	1.095	N	46.46	3	0.9394	IDENTIFIED	10.84	☐	
Lead-212 ✔		1.435	0.09488	pCi/g	0.104	0.100	238.6	4	1.037	IDENTIFIED	4.283	☐	
Lead-214 ✔		1.13	0.1165	pCi/g	0.1451	0.100	351.7	4	1.145	IDENTIFIED	8.814	☐	
Lutetium-177	int nr	4.357	1.048	pCi/g	2.231	N	209.8	1	1.261	IDENTIFIED	23.64	☐	
Neptunium-237	int nr	1.39	0.2834	pCi/g	0.3989	N	85.92	1	1.289	IDENTIFIED	16.9	☐	
Niobium-97	HE	68490	96340	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Polonium-210	nr	5.04	0.6025	pCi/g	1.095	N	46.46	3	0.9394	IDENTIFIED	10.84	☐	
Polonium-212	nr	1.435	0.09488	pCi/g	0.104	N	238.6	4	1.037	IDENTIFIED	4.283	☐	

Polonium-214	nr	1.13	0.1165	pCi/g	0.1451	N	351.7	4	1.145	IDENTIFIED	8.814	☐	
Polonium-216	nr	1.435	0.09488	pCi/g	0.104	N	238.6	4	1.037	IDENTIFIED	4.283	☐	
Polonium-218	nr	1.13	0.1165	pCi/g	0.1451	N	351.7	4	1.145	IDENTIFIED	8.814	☐	
Potassium-40 ✔		26.04	1.606	pCi/g	0.6815	1.00	1460	1	1.932	IDENTIFIED	4.285	☐	
Protactinium-234m	HE	24.1	5.138	pCi/g	14.83	N	0	12	0	FAIL_ABUND	0	☐	
Radium-224	int	3.889	0.6108	pCi/g	1.184	Y	241.5	1	1.756	IDENTIFIED	15.04	☐	ui
Radium-226 ✔		1.12	0.1097	pCi/g	0.1339	Y	609.1	4	1.396	IDENTIFIED	8.37	☐	
Radium-228 ✔		1.385	0.1788	pCi/g	0.3165	0.500	910.6	3	1.363	IDENTIFIED	11.59	☐	
Sodium-24	HE	6.61E+05	5.46E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.4584	0.05728	pCi/g	0.07018	0.080	583	1	1.2	IDENTIFIED	11.56	☐	
Thorium-228	nr	1.457	0.09634	pCi/g	0.1056	N	238.6	4	1.037	IDENTIFIED	4.283	☐	
Thorium-230	nr	1.12	0.1097	pCi/g	0.1339	N	609.1	4	1.396	IDENTIFIED	8.37	☐	
Thorium-232	nr	1.385	0.1788	pCi/g	0.3165	N	910.6	3	1.363	IDENTIFIED	11.59	☐	
Thorium-234 ✔		14.53	1.545	pCi/g	1.272	2.00	63.36	2	0.881	IDENTIFIED	5.099	☐	
Titanium-44	la nr	0.3259	0.02532	pCi/g	0.0666	N	0	12	0	FAIL_ABUND	0	☐	
Total Uranium		43.526	4.60E-06	ug/g	1.8946	N		0				☐	
Uranium-231	HE	2.753	1.129	pCi/g	1.945	N	0	12	0	FAIL_ABUND	0	☐	
Uranium-234	nr	1.12	0.1097	pCi/g	0.1339	N	609.1	4	1.396	IDENTIFIED	8.37	☐	
Uranium-235 ✔		0.6662	0.2321	pCi/g	0.3679	0.500	143.5	1	0.9564	IDENTIFIED	33.61	☐	
Uranium-238	nr	14.53	1.545	pCi/g	1.272	N	63.36	2	0.881	IDENTIFIED	5.099	☐	
Zirconium-97		5.81E+06	1.59E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245799019	26-JAN-10 12:00	10-FEB-10 19:13	15.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.899	0.1905	pCi/g	0.2095	N	911.6	3	2.124	IDENTIFIED	8.289	☐	
Americium-243	int nr	0.4415	0.05477	pCi/g	0.1009	N	74.86	1	1.617	IDENTIFIED	11.76	☐	
Annihilation Rad.	HE	0.1241	0.03643	pCi/g	0.05451	N	510.5	1	1.971	IDENTIFIED	29.2	☐	
Bismuth-211	int	3.7	0.2692	pCi/g	0.3657	Y	351.9	4	1.546	IDENTIFIED	6.54	☐	ui
Bismuth-212	nr	1.162	0.2544	pCi/g	0.5016	N	727.6	1	1.754	IDENTIFIED	21.5	☐	
Bismuth-214 ✔		1.241	0.1006	pCi/g	0.1247	0.200	609.4	4	1.673	IDENTIFIED	7.092	☐	
Cadmium-109	int	2.519	0.6057	pCi/g	1.479	Y	87.3	3	1.251	IDENTIFIED	23.64	☐	ui
Cerium-143		1044	155.3	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3652	0.09212	pCi/g	0.3378	N	0	8	0	NOT_IDENTI	0	☐	
Gross Gamma		10.88	1.909	pCi/g	4.352	N		0				☐	
Iodine-133	HE	4052	3664	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.744	0.08858	pCi/g	0.1035	0.100	238.5	4	1.299	IDENTIFIED	3.573	☐	
Lead-214 ✔		1.287	0.0995	pCi/g	0.1356	0.100	351.9	4	1.546	IDENTIFIED	6.54	☐	
Lutetium-177	HE	3.846	1.041	pCi/g	2.354	N	0	8	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.7267	0.1902	pCi/g	0.4649	N	87.3	3	1.251	IDENTIFIED	23.64	☐	
Niobium-95m	la nr	0.5141	0.09053	pCi/g	0.2915	N	0	8	0	NOT_IDENTI	0	☐	
Niobium-97	HE	5048	63730	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.744	0.08858	pCi/g	0.1035	N	238.5	4	1.299	IDENTIFIED	3.573	☐	
Polonium-214	nr	1.287	0.0995	pCi/g	0.1356	N	351.9	4	1.546	IDENTIFIED	6.54	☐	
Polonium-216	nr	1.744	0.08858	pCi/g	0.1035	N	238.5	4	1.299	IDENTIFIED	3.573	☐	
Polonium-218	nr	1.287	0.0995	pCi/g	0.1356	N	351.9	4	1.546	IDENTIFIED	6.54	☐	
Potassium-40 ✔		38.48	1.775	pCi/g	0.6308	1.00	1461	1	2.044	IDENTIFIED	2.723	☐	

Radium-224	int	4.307	0.7398	pCi/g	1.177	Y	241.4	1	1.832	IDENTIFIED	16.94	☐	ui
Radium-226	✔	1.241	0.1006	pCi/g	0.1247	Y	609.4	4	1.673	IDENTIFIED	7.092	☐	
Radium-228	✔	1.899	0.1905	pCi/g	0.2095	0.500	911.6	3	2.124	IDENTIFIED	8.289	☐	
Thallium-208	✔	0.6065	0.04983	pCi/g	0.06523	0.080	583.1	1	1.589	IDENTIFIED	7.479	☐	
Thorium-228	nr	1.771	0.08994	pCi/g	0.1051	N	238.5	4	1.299	IDENTIFIED	3.573	☐	
Thorium-230	nr	1.241	0.1006	pCi/g	0.1247	N	609.4	4	1.673	IDENTIFIED	7.092	☐	
Thorium-232	nr	1.899	0.1905	pCi/g	0.2095	N	911.6	3	2.124	IDENTIFIED	8.289	☐	
Thorium-234	unc	2.385	1.219	pCi/g	2.304	2.00	63.65	2	1.418	IDENTIFIED	50.35	☐	ui
Tin-126	HE	0.2475	0.05952	pCi/g	0.1459	N	87.3	3	1.251	IDENTIFIED	23.64	☐	
Titanium-44	la nr	0.3937	0.03094	pCi/g	0.09441	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium		7.0644	3.63E-06	ug/g	3.43	N		0				☐	
Uranium-234	nr	1.241	0.1006	pCi/g	0.1247	N	609.4	4	1.673	IDENTIFIED	7.092	☐	
Uranium-238	HE	2.385	1.219	pCi/g	2.304	N	63.65	2	1.418	IDENTIFIED	50.35	☐	
Zirconium-97		5.49E+06	1.31E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202029810		10-FEB-10 20:22	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Annihilation Rad.	HE	0.04874	0.01808	pCi/g	0.02312	N	511	1	2.472	IDENTIFIED	36.76	☐	
Iodine-123	HE	335	507.8	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-133	HE	11.1	9.115	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Krypton-85	la nr	18.77	2.537	pCi/g	9.128	N	0	7	0	NOT_IDENTI	0	☐	
Sodium-24	HE	103.5	188.3	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.09008	0.01218	pCi/g	0.04382	Y	0	7	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-200	HE	0.7759	2.127	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Zirconium-97	—	8449	1224	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202029811	26-JAN-10 12:00	10-FEB-10 19:16	15.3	DUP	LOAD	1		LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.154	0.1868	pCi/g	0.2399	N	910.4	3	1.864	IDENTIFIED	15.12	☐	
Americium-243	int nr	0.4053	0.05536	pCi/g	0.1319	N	74.64	1	1.412	IDENTIFIED	12.92	☐	
Annihilation Rad.	HE	0.1114	0.04058	pCi/g	0.05757	N	510.7	1	2.206	IDENTIFIED	36.29	☐	
Barium-137m		0.8586	0.05438	pCi/g	0.06788	N	661	2	1.388	IDENTIFIED	5.795	☐	
Bismuth-211	int	3.307	0.2877	pCi/g	0.3882	Y	351.6	4	1.33	IDENTIFIED	8.069	☐	ui
Bismuth-212	HE	1.18	0.2513	pCi/g	0.7342	N	0	13	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.058	0.09224	pCi/g	0.1237	0.200	608.7	4	1.599	IDENTIFIED	7.868	☐	
Cadmium-109	int	2.576	0.5403	pCi/g	1.838	Y	87.04	3	1.193	IDENTIFIED	20.4	☐	ui
Cerium-143		1103	161.1	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.142	0.03479	pCi/g	0.09761	0.100	0	13	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-137	✔	0.9076	0.05753	pCi/g	0.07176	0.100	661	2	1.388	IDENTIFIED	5.795	☐	
Gross Gamma		10.5	1.324	pCi/g	3.832	N		0				☐	
Iodine-135	HE	1.87E+15	4.82E+15	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.362	0.07595	pCi/g	0.1128	0.100	238.4	4	1.136	IDENTIFIED	4.263	☐	
Lead-214	✔	1.15	0.1045	pCi/g	0.1353	0.100	351.6	4	1.33	IDENTIFIED	8.069	☐	
Lutetium-177	HE	2.443	0.8305	pCi/g	2.317	N	209.2	1	1.359	IDENTIFIED	33.88	☐	

Neptunium-237	HE	0.7434	0.1737	pCi/g	0.5899	N	87.04	3	1.193	IDENTIFIED	20.4	☐	
Niobium-95	HE	0.1156	0.02867	pCi/g	0.1048	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-95m	HE	0.4338	0.09719	pCi/g	0.3078	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-97		6.89E+05	1.04E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.362	0.07595	pCi/g	0.1128	N	238.4	4	1.136	IDENTIFIED	4.263	☐	
Polonium-214	nr	1.15	0.1045	pCi/g	0.1353	N	351.6	4	1.33	IDENTIFIED	8.069	☐	
Polonium-216	nr	1.362	0.07595	pCi/g	0.1128	N	238.4	4	1.136	IDENTIFIED	4.263	☐	
Polonium-218	nr	1.15	0.1045	pCi/g	0.1353	N	351.6	4	1.33	IDENTIFIED	8.069	☐	
Potassium-40 ✔		26.03	1.376	pCi/g	0.7178	1.00	1460	1	2.234	IDENTIFIED	3.737	☐	
Protactinium-234m		20.7	3.334	pCi/g	12.27	N	0	13	0	FAIL_ABUND	0	☐	
Radium-224	int	4.117	0.5285	pCi/g	1.284	Y	241.3	1	1.664	IDENTIFIED	12.52	☐	ui
Radium-226 ✔		1.058	0.09224	pCi/g	0.1237	Y	608.7	4	1.599	IDENTIFIED	7.868	☐	
Radium-228 ✔		1.154	0.1868	pCi/g	0.2399	0.500	910.4	3	1.864	IDENTIFIED	15.12	☐	
Silver-110m	HE	0.1595	0.02966	pCi/g	0.1026	N	0	13	0	NOT_IDENTI	0	☐	
Sodium-24	HE	3.27E+05	5.22E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.419	0.04373	pCi/g	0.06743	0.080	582.4	1	1.282	IDENTIFIED	9.918	☐	
Thorium-228	nr	1.383	0.07711	pCi/g	0.1146	N	238.4	4	1.136	IDENTIFIED	4.263	☐	
Thorium-230	nr	1.058	0.09224	pCi/g	0.1237	N	608.7	4	1.599	IDENTIFIED	7.868	☐	
Thorium-232	nr	1.154	0.1868	pCi/g	0.2399	N	910.4	3	1.864	IDENTIFIED	15.12	☐	
Thorium-234 ✔		19.45	2.425	pCi/g	3.209	2.00	62.97	2	1.049	IDENTIFIED	8.614	☐	
Tin-126	HE	0.2532	0.05309	pCi/g	0.1817	N	87.04	3	1.193	IDENTIFIED	20.4	☐	
Titanium-44	la nr	0.3277	0.03221	pCi/g	0.1037	N	0	13	0	FAIL_ABUND	0	☐	
Total Uranium		57.906	7.21E-06	ug/g	4.7767	N		0				☐	
Tungsten-181	HE	1.341	0.3272	pCi/g	1.063	N	0	13	0	NOT_IDENTI	0	☐	
Uranium-234	nr	1.058	0.09224	pCi/g	0.1237	N	608.7	4	1.599	IDENTIFIED	7.868	☐	
Uranium-238	nr	19.45	2.425	pCi/g	3.209	N	62.97	2	1.049	IDENTIFIED	8.614	☐	
Zirconium-97		7.53E+06	1.53E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202029812		10-FEB-10 20:23	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228		1.533	0.2844	pCi/g	0.7521	N	0	10	0	FAIL_ABUND	0	☐	
Americium-241		13.7	0.7316	pCi/g	0.1686	0.200	59.47	1	0.9847	IDENTIFIED	1.243	☐	
Americium-243		0.2342	0.02951	pCi/g	0.07025	N	74.8	1	0.9968	IDENTIFIED	11.53	☐	
Annihilation Rad.	HE	0.1467	0.0602	pCi/g	0.08767	N	510.8	1	1.651	IDENTIFIED	40.7	☐	
Barium-137m		5.564	0.3335	pCi/g	0.1109	N	661.5	2	1.481	IDENTIFIED	2.294	☐	
Bismuth-211		2.476	0.3784	pCi/g	0.5652	Y	351.8	4	1.144	IDENTIFIED	14.35	☐	
Bismuth-214		0.6234	0.1142	pCi/g	0.2054	0.200	609.3	4	1.166	IDENTIFIED	17.3	☐	
Cadmium-109		33.09	1.949	pCi/g	1.289	Y	87.95	3	0.9262	IDENTIFIED	2.417	☐	
Cesium-137		5.882	0.3529	pCi/g	0.1172	0.100	661.5	2	1.481	IDENTIFIED	2.294	☐	
Cobalt-57		0.1796	0.02795	pCi/g	0.0512	N	122	1	0.9244	IDENTIFIED	14.16	☐	
Cobalt-60		6.447	0.3103	pCi/g	0.07925	0.100	1332	1	1.886	IDENTIFIED	2.584	☐	
Gross Gamma		27.48	2.46	pCi/g	4.51	N		0				☐	
Iodine-123	HE	2085	1168	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.40E+08	4.62E+08	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212		0.9808	0.1009	pCi/g	0.1575	0.100	238.5	4	1.083	IDENTIFIED	8.568	☐	
Lead-214		0.8613	0.1335	pCi/g	0.1971	0.100	351.8	4	1.144	IDENTIFIED	14.35	☐	

Neptunium-237		9.641	1.145	pCi/g	0.3732	N	87.95	3	0.9262	IDENTIFIED	2.417	☐
Niobium-97		928.4	224.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Polonium-212		0.9808	0.1009	pCi/g	0.1575	N	238.5	4	1.083	IDENTIFIED	8.568	☐
Polonium-214		0.8613	0.1335	pCi/g	0.1971	N	351.8	4	1.144	IDENTIFIED	14.35	☐
Polonium-216		0.9808	0.1009	pCi/g	0.1575	N	238.5	4	1.083	IDENTIFIED	8.568	☐
Polonium-218		0.8613	0.1335	pCi/g	0.1971	N	351.8	4	1.144	IDENTIFIED	14.35	☐
Radium-226		0.6234	0.1142	pCi/g	0.2054	Y	609.3	4	1.166	IDENTIFIED	17.3	☐
Radium-228		1.533	0.2844	pCi/g	0.7521	0.500	0	10	0	FAIL_ABUND	0	☐
Technetium-99m	HE	4.74E+08	5.96E+08	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Thallium-200	HE	11.25	7.095	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Thallium-208		0.3129	0.05861	pCi/g	0.1243	0.080	583	1	1.423	IDENTIFIED	17.86	☐
Thorium-228		0.9895	0.1018	pCi/g	0.1589	N	238.5	4	1.083	IDENTIFIED	8.568	☐
Thorium-230		0.6234	0.1142	pCi/g	0.2054	N	609.3	4	1.166	IDENTIFIED	17.3	☐
Thorium-232		1.533	0.2844	pCi/g	0.7521	N	0	10	0	FAIL_ABUND	0	☐
Tin-126		3.283	0.1934	pCi/g	0.1277	N	87.95	3	0.9262	IDENTIFIED	2.417	☐
Titanium-44		0.2398	0.02301	pCi/g	0.05853	N	0	10	0	FAIL_ABUND	0	☐
Total Uranium		2.4614	1.11E-06	ug/g	1.906	N		0				☐
Uranium-234		0.6234	0.1142	pCi/g	0.2054	N	609.3	4	1.166	IDENTIFIED	17.3	☐
Zirconium-97	HE	6671	3468	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
947531	245799018	SAMPLE	10-FEB-10	Radium-224	3.889	0.6108	pCi/g	0.5924	Y
				Radium-226	1.12	0.1097	pCi/g	0.06701	Y
				Radium-228	1.385	0.1788	pCi/g	0.1584	0.500
				Sodium-24	6.61E+05	5.46E+05	pCi/g	0	N
				Tellurium-125m	10.78	5.455	pCi/g	8.753	N
				Thallium-208	0.4584	0.05728	pCi/g	0.03511	0.080
				Thorium-234	14.53	1.545	pCi/g	0.6362	2.00
				Uranium-235	0.6662	0.2321	pCi/g	0.1841	0.500
				Uranium-238	14.53	1.545	pCi/g	0.6362	N
				Zirconium-97	5.81E+06	1.59E+06	pCi/g	0	N
947531	245799019	SAMPLE	10-FEB-10	Bismuth-211	3.7	0.2692	pCi/g	0.183	Y
				Bismuth-214	1.241	0.1006	pCi/g	0.06237	0.200
				Cadmium-109	2.519	0.6057	pCi/g	0.7398	Y
				Cerium-143	1044	155.3	pCi/g	0	N
				Cesium-134	0.1032	0.04335	pCi/g	0.05167	0.100
				Gross Gamma	10.88	1.909	pCi/g	2.116	N
				Iodine-133	4052	3664	pCi/g	0	N
				Krypton-85	8.605	4.614	pCi/g	7.208	N
				Lead-212	1.744	0.08858	pCi/g	0.05177	0.100
				Lead-214	1.287	0.0995	pCi/g	0.06783	0.100
				Niobium-97	5048	63730	pCi/g	0	N
				Potassium-40	38.48	1.775	pCi/g	0.3156	1.00
				Radium-224	4.307	0.7398	pCi/g	0.5888	Y
				Radium-226	1.241	0.1006	pCi/g	0.06237	Y
				Radium-228	1.899	0.1905	pCi/g	0.1048	0.500
				Strontium-85	0.04421	0.0237	pCi/g	0.03703	Y
				Thallium-208	0.6065	0.04983	pCi/g	0.03263	0.080
				Thorium-234	2.385	1.219	pCi/g	1.153	2.00
				Zirconium-97	5.49E+06	1.31E+06	pCi/g	0	N
947531	1202029810	MB	10-FEB-10	Cobalt-60	0.01699	0.00865	pCi/g	0.01553	0.100
				Iodine-123	335	507.8	pCi/g	0	N
				Iodine-133	11.1	9.115	pCi/g	0	N
				Krypton-85	18.77	2.537	pCi/g	4.567	N
				Lead-212	0.03985	0.02382	pCi/g	0.0309	0.100
				Radium-224	0.6039	0.2033	pCi/g	0.332	Y
				Sodium-24	103.5	188.3	pCi/g	0	N
				Strontium-85	0.09008	0.01218	pCi/g	0.02192	Y

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
947531	1202029810	MB	10-FEB-10	Zirconium-97	8449	1224	pCi/g	0	N
947531	1202029811	DUP	10-FEB-10	Bismuth-211	3.307	0.2877	pCi/g	0.1942	Y
				Bismuth-214	1.058	0.09224	pCi/g	0.06189	0.200
				Cadmium-109	2.576	0.5403	pCi/g	0.9194	Y
				Cerium-143	1103	161.1	pCi/g	0	N
				Cesium-134	0.142	0.03479	pCi/g	0.04884	0.100
				Cesium-137	0.9076	0.05753	pCi/g	0.0359	0.100
				Gross Gamma	10.5	1.324	pCi/g	1.862	N
				Iodine-135	1.87E+15	4.82E+15	pCi/g	0	N
				Krypton-85	11.05	4.846	pCi/g	7.688	N
				Lead-212	1.362	0.07595	pCi/g	0.05646	0.100
				Lead-214	1.15	0.1045	pCi/g	0.0677	0.100
				Niobium-97	6.89E+05	1.04E+05	pCi/g	0	N
				Potassium-40	26.03	1.376	pCi/g	0.3591	1.00
				Protactinium-234m	20.7	3.334	pCi/g	6.139	N
				Radium-224	4.117	0.5285	pCi/g	0.6425	Y
				Radium-226	1.058	0.09224	pCi/g	0.06189	Y
				Radium-228	1.154	0.1868	pCi/g	0.12	0.500
				Sodium-24	3.27E+05	5.22E+05	pCi/g	0	N
				Strontium-85	0.05678	0.02489	pCi/g	0.03949	Y
				Thallium-208	0.419	0.04373	pCi/g	0.03374	0.080
				Thorium-234	19.45	2.425	pCi/g	1.605	2.00
				Uranium-238	19.45	2.425	pCi/g	1.605	N
				Zirconium-97	7.53E+06	1.53E+06	pCi/g	0	N
947531	1202029812	LCS	10-FEB-10	Americium-241	13.7	0.7316	pCi/g	0.08437	0.200
				Barium-137m	5.564	0.3335	pCi/g	0.05548	N
				Bismuth-211	2.476	0.3784	pCi/g	0.2828	Y
				Bismuth-214	0.6234	0.1142	pCi/g	0.1028	0.200
				Cadmium-109	33.09	1.949	pCi/g	0.645	Y
				Cerium-143	11.09	4.552	pCi/g	7.513	N
				Cesium-137	5.882	0.3529	pCi/g	0.05865	0.100
				Cobalt-60	6.447	0.3103	pCi/g	0.03965	0.100
				Gross Gamma	27.48	2.46	pCi/g	2.206	N
				Iodine-123	2085	1168	pCi/g	0	N
				Iodine-135	4.40E+08	4.62E+08	pCi/g	0	N
				Krypton-85	15.6	7.23	pCi/g	11.59	N
				Lead-212	0.9808	0.1009	pCi/g	0.0788	0.100

gk 2-15-10

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:14:01.65

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799001.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:13:23
Sample ID         : G245799001           Sample quantity  : 1.29471E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.34  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	75.15*	303	509	1.94	149.23	144	14	4.21E-02	15.9	4.01E+00
2	4	77.28*	450	385	1.26	153.49	144	14	6.26E-02	9.4	
3	3	87.60*	143	408	1.18	174.12	169	23	1.98E-02	24.2	2.80E+00
4	3	90.27	136	306	1.06	179.47	169	23	1.89E-02	22.0	
5	3	93.11*	169	332	1.39	185.14	169	23	2.35E-02	23.1	
6	0	185.88*	226	435	1.57	370.66	364	14	3.14E-02	21.2	
7	0	209.70	103	429	1.49	418.30	410	15	1.43E-02	45.2	
8	2	238.76*	1125	207	1.25	476.41	471	18	1.56E-01	3.8	1.65E+00
9	2	241.82	266	259	1.71	482.54	471	18	3.69E-02	16.0	
10	0	270.13*	75	196	1.84	539.15	535	10	1.04E-02	37.8	
11	0	295.30*	389	184	1.36	589.51	584	12	5.41E-02	8.8	
12	0	300.22	83	137	1.94	599.33	595	9	1.16E-02	27.6	
13	0	338.08	300	147	1.62	675.06	669	12	4.17E-02	9.9	
14	0	351.96*	515	297	1.63	702.82	696	16	7.15E-02	8.8	
15	0	409.92	64	73	1.57	818.75	815	9	8.83E-03	27.2	
16	0	463.45	65	127	0.92	925.81	917	14	8.99E-03	39.2	
17	0	510.80*	45	160	2.04	1020.50	1014	14	6.31E-03	70.5	
18	0	583.21*	332	102	1.55	1165.34	1158	14	4.61E-02	8.7	
19	0	609.37*	357	141	1.64	1217.65	1209	14	4.96E-02	8.9	
20	0	728.17	63	118	1.41	1455.28	1448	15	8.77E-03	39.8	
21	0	861.36	56	75	2.45	1721.69	1712	18	7.72E-03	39.2	
22	0	910.99*	232	53	1.76	1820.97	1815	13	3.22E-02	9.4	
23	0	967.87	149	97	1.50	1934.74	1926	17	2.08E-02	17.2	
24	0	1120.59*	64	70	2.00	2240.24	2232	14	8.92E-03	31.3	
25	0	1460.44*	1253	26	1.95	2920.14	2910	21	1.74E-01	3.0	
26	0	1587.70	38	0	1.55	3174.74	3168	12	5.28E-03	16.2	
27	0	1763.78*	62	0	1.84	3527.04	3520	13	8.63E-03	14.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 16:14:05

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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : RXF2
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:13:23
Sample ID         : G245799001           Sample quantity  : 129.47 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA15              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.34   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.522E+01	4.067E+00	6.864E-01	6.745E-02	51.315
CD-109	+	88.03	*	2.547E+00	1.270E+00	1.617E+00	2.008E-01	1.575
SN-126		64.28		9.455E-02	8.891E-01	1.472E+00	2.491E-01	0.064
	+	86.94		1.041E+00	6.683E-01	6.731E-01	2.846E-01	1.546
	+	87.57	*	2.503E-01	1.249E-01	1.602E-01	1.982E-02	1.563
TL-208		277.35		6.315E-01	4.877E-01	8.300E-01	1.160E-01	0.761
	+	510.84		2.520E-01	3.567E-01	2.679E-01	3.216E-02	0.941
	+	583.14	*	5.221E-01	1.029E-01	7.463E-02	6.834E-03	6.995
	+	860.37		8.217E-01	6.494E-01	4.743E-01	4.638E-02	1.733
BI-211		72.87		6.549E+00	5.429E+00	8.190E+00	9.381E-01	0.800
	+	351.07	*	3.671E+00	7.446E-01	4.191E-01	4.174E-02	8.759
PB-212	+	74.81		2.515E+00	8.834E-01	8.169E-01	1.211E-01	3.079
	+	77.11		2.071E+00	4.579E-01	4.504E-01	5.221E-02	4.597
	+	87.30		1.158E+00	5.890E-01	7.442E-01	1.182E-01	1.556
	+	238.63	*	1.778E+00	2.515E-01	1.152E-01	1.371E-02	15.438
	+	300.09		2.022E+00	1.142E+00	1.522E+00	1.839E-01	1.329
PO-212	+	74.81		2.515E+00	8.834E-01	8.169E-01	1.211E-01	3.079
	+	77.11		2.071E+00	4.579E-01	4.504E-01	5.221E-02	4.597
	+	87.30		1.158E+00	5.890E-01	7.442E-01	1.182E-01	1.556
		115.19		7.116E-02	4.495E+00	7.322E+00	7.411E-01	0.010
	+	238.63	*	1.778E+00	2.515E-01	1.152E-01	1.371E-02	15.438
	+	300.09		2.022E+00	1.142E+00	1.522E+00	1.839E-01	1.329
BI-214	+	609.31	*	1.057E+00	2.156E-01	1.294E-01	1.283E-02	8.163
	+	1120.29		1.005E+00	6.386E-01	5.315E-01	5.730E-02	1.891
	+	1764.49		1.333E+00	4.062E-01	1.865E-01	1.635E-02	7.145
PB-214	+	74.81		4.334E+00	1.502E+00	1.407E+00	1.926E-01	3.079
	+	77.11		3.550E+00	8.302E-01	7.721E-01	1.071E-01	4.597
	+	87.30		1.983E+00	1.001E+00	1.275E+00	1.856E-01	1.556
	+	241.98		2.524E+00	8.647E-01	6.932E-01	8.576E-02	3.642
	+	295.21		1.658E+00	3.562E-01	2.634E-01	3.247E-02	6.296
	+	351.92	*	1.277E+00	2.675E-01	1.461E-01	1.640E-02	8.742
PO-214	+	74.81		4.334E+00	1.502E+00	1.407E+00	1.926E-01	3.079
	+	77.11		3.550E+00	8.302E-01	7.721E-01	1.071E-01	4.597
	+	87.30		1.983E+00	1.001E+00	1.275E+00	1.856E-01	1.556

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.524E+00	8.647E-01	6.932E-01	8.576E-02	3.642
	+	295.21		1.658E+00	3.562E-01	2.634E-01	3.247E-02	6.296
	+	351.92	*	1.277E+00	2.675E-01	1.461E-01	1.640E-02	8.742
PO-216	+	74.81		2.515E+00	8.834E-01	8.169E-01	1.211E-01	3.079
	+	77.11		2.071E+00	4.579E-01	4.504E-01	5.221E-02	4.597
	+	87.30		1.158E+00	5.890E-01	7.442E-01	1.182E-01	1.556
	+	238.63	*	1.778E+00	2.515E-01	1.152E-01	1.371E-02	15.438
	+	300.09		2.022E+00	1.142E+00	1.522E+00	1.839E-01	1.329
PO-218	+	74.81		4.334E+00	1.502E+00	1.407E+00	1.926E-01	3.079
	+	77.11		3.550E+00	8.302E-01	7.721E-01	1.071E-01	4.597
	+	87.30		1.983E+00	1.001E+00	1.275E+00	1.856E-01	1.556
	+	241.98		2.524E+00	8.647E-01	6.932E-01	8.576E-02	3.642
	+	295.21		1.658E+00	3.562E-01	2.634E-01	3.247E-02	6.296
	+	351.92	*	1.277E+00	2.675E-01	1.461E-01	1.640E-02	8.742
RA-224	+	240.98	*	4.786E+00	1.617E+00	1.310E+00	1.445E-01	3.653
RA-226	+	609.31	*	1.057E+00	2.156E-01	1.294E-01	1.283E-02	8.163
	+	1120.29		1.005E+00	6.386E-01	5.315E-01	5.730E-02	1.891
	+	1764.49		1.333E+00	4.062E-01	1.865E-01	1.635E-02	7.145
AC-228	+	338.32		2.362E+00	1.088E+00	4.803E-01	1.995E-01	4.918
	+	911.07	*	1.625E+00	3.598E-01	2.485E-01	2.928E-02	6.540
	+	969.11		1.850E+00	7.715E-01	3.923E-01	9.238E-02	4.716
RA-228	+	338.32		2.362E+00	1.088E+00	4.803E-01	1.995E-01	4.918
	+	911.07	*	1.625E+00	3.598E-01	2.485E-01	2.928E-02	6.540
	+	969.11		1.850E+00	7.715E-01	3.923E-01	9.238E-02	4.716
TH-228	+	74.81		2.553E+00	8.650E-01	8.292E-01	9.584E-02	3.079
	+	77.11		2.102E+00	4.648E-01	4.572E-01	5.300E-02	4.597
	+	87.30		1.175E+00	5.862E-01	7.555E-01	9.328E-02	1.556
	+	238.63	*	1.805E+00	2.553E-01	1.169E-01	1.392E-02	15.438
	+	300.09		2.053E+00	1.667E+00	1.545E+00	9.209E-01	1.329
TH-230	+	609.31	*	1.057E+00	2.156E-01	1.294E-01	1.283E-02	8.163
	+	1120.29		1.005E+00	6.386E-01	5.315E-01	5.730E-02	1.891
	+	1764.49		1.333E+00	4.062E-01	1.865E-01	1.635E-02	7.145
TH-232	+	338.32		2.362E+00	5.240E-01	4.803E-01	4.735E-02	4.918
	+	911.07	*	1.625E+00	3.598E-01	2.485E-01	2.928E-02	6.540
	+	969.11		1.850E+00	7.715E-01	3.923E-01	9.238E-02	4.716
U-234	+	609.31	*	1.057E+00	2.156E-01	1.294E-01	1.283E-02	8.163
	+	1120.29		1.005E+00	6.386E-01	5.315E-01	5.730E-02	1.891
	+	1764.49		1.333E+00	4.062E-01	1.865E-01	1.635E-02	7.145
NP-237	+	86.50	*	7.351E-01	3.968E-01	5.105E-01	1.226E-01	1.440
		95.87		1.716E-01	1.429E+00	2.061E+00	5.287E-01	0.083
AM-243	+	74.67	*	4.078E-01	1.381E-01	1.331E-01	1.530E-02	3.064
	+	86.72		2.757E+01	1.375E+01	1.907E+01	2.343E+00	1.446
		117.66		2.145E+00	4.911E+00	8.118E+00	8.190E-01	0.264
		142.18		6.497E+00	2.252E+01	3.682E+01	3.737E+00	0.176
ANH-511	+	511.00	*	5.444E-02	7.691E-02	5.789E-02	5.002E-03	0.940

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.948E-01	3.979E-01	6.130E-01	5.699E-02	-0.481

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-3.402E-02	5.537E-02	8.340E-02	7.576E-03	-0.408
NA-24		1368.53	*	-2.620E-01	5.537E-02	Half-Life too short		
AL-26		1129.67		3.218E-01	2.069E+00	3.418E+00	2.887E-01	0.094
		1808.65	*	1.847E-02	3.475E-02	6.273E-02	5.366E-03	0.294
TI-44		67.85		-1.704E-02	7.711E-02	1.249E-01	1.426E-02	-0.136
	+	78.38	*	3.821E-01	8.450E-02	1.100E-01	1.282E-02	3.474
SC-46		889.25	*	1.865E-02	4.780E-02	8.157E-02	7.580E-03	0.229
	+	1120.51		1.721E-01	1.087E-01	1.451E-01	1.234E-02	1.186
V-48		944.10		-3.387E-02	1.166E+00	1.888E+00	1.746E-01	-0.018
		983.50	*	-2.594E-02	8.458E-02	1.347E-01	1.231E-02	-0.193
		1312.09		-4.760E-03	1.021E-01	1.638E-01	1.544E-02	-0.029
CR-51		320.08	*	-6.272E-01	4.768E-01	7.273E-01	7.723E-02	-0.862
MN-52		744.21		-1.567E-01	2.940E-01	4.698E-01	4.067E-02	-0.334
		848.13		5.749E+00	8.305E+00	1.450E+01	1.324E+00	0.396
		935.52		1.812E-01	3.162E-01	5.452E-01	5.050E-02	0.332
		1246.25		1.220E+00	9.339E+00	1.529E+01	1.348E+00	0.080
		1333.61		7.557E-01	6.170E+00	1.009E+01	9.702E-01	0.075
		1434.06	*	1.369E-01	2.278E-01	4.140E-01	3.985E-02	0.331
MN-54		834.83	*	-1.977E-02	4.778E-02	7.664E-02	6.955E-03	-0.258
CO-56		846.75	*	3.262E-03	5.055E-02	8.415E-02	7.679E-03	0.039
		977.42		7.700E-01	3.502E+00	5.752E+00	5.269E-01	0.134
		1037.82		-2.575E-02	3.980E-01	6.477E-01	6.078E-02	-0.040
		1175.09		7.605E-01	3.016E+00	5.004E+00	4.082E-01	0.152
		1238.25		2.218E-01	1.259E-01	2.269E-01	2.039E-02	0.978
		1360.21		6.415E-01	1.141E+00	2.033E+00	1.958E-01	0.316
		1771.40		-7.911E-01	3.686E-01	3.746E-01	3.272E-02	-2.112
CO-57		122.06	*	-2.100E-02	3.375E-02	5.340E-02	5.379E-03	-0.393
		136.48		-1.892E-01	2.736E-01	4.295E-01	4.567E-02	-0.441
CO-58		810.76	*	-3.601E-02	4.498E-02	6.909E-02	6.211E-03	-0.521
FE-59		142.65		1.109E+00	3.450E+00	5.648E+00	5.736E-01	0.196
		192.34		-4.466E-01	1.464E+00	2.003E+00	2.998E-01	-0.223
		1099.22	*	-1.106E-01	1.226E-01	1.827E-01	1.705E-02	-0.605
		1291.56		5.549E-02	1.656E-01	2.762E-01	2.853E-02	0.201
CO-60		1173.22		5.167E-03	5.823E-02	9.533E-02	7.760E-03	0.054
		1332.49	*	-3.494E-02	4.639E-02	6.679E-02	6.421E-03	-0.523
ZN-65		1115.52	*	-2.551E-02	1.341E-01	1.826E-01	1.560E-02	-0.140
GE-68		1077.35	*	5.024E-01	1.485E+00	2.504E+00	2.192E-01	0.201
AS-73		53.44	*	7.832E-01	2.118E+00	3.563E+00	4.625E-01	0.220
AS-74		595.88	*	-1.276E-02	1.131E-01	1.807E-01	1.535E-02	-0.071
		634.78		6.317E-01	4.564E-01	8.056E-01	6.727E-02	0.784
SE-75		66.05		-1.003E+01	8.418E+00	1.301E+01	1.671E+00	-0.771
		96.73		-5.925E-03	1.124E+00	1.611E+00	2.469E-01	-0.004
		121.11		-5.892E-02	1.808E-01	2.899E-01	3.586E-02	-0.203
		136.00		-3.952E-02	5.157E-02	8.069E-02	8.168E-03	-0.490
		198.60		1.835E+00	2.429E+00	3.992E+00	4.659E-01	0.460
		264.65	*	4.792E-02	6.197E-02	9.456E-02	1.037E-02	0.507
		279.53		1.202E-01	1.373E-01	2.373E-01	2.627E-02	0.506
		303.91		-6.764E-01	2.930E+00	4.158E+00	5.385E-01	-0.163
		400.65		-1.935E-02	3.200E-01	5.241E-01	5.757E-02	-0.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		5.464E+02	2.725E+02	4.454E+02	5.526E+01	1.227
		200.40		4.542E+01	2.181E+02	3.516E+02	3.842E+01	0.129
	+	239.00		2.835E+02	3.803E+01	4.607E+01	5.083E+00	6.153
		249.79		-9.687E+00	8.348E+01	1.392E+02	1.532E+01	-0.070
		281.68		-1.246E+02	1.144E+02	1.796E+02	1.937E+01	-0.694
		297.23		6.111E+02	1.207E+02	1.660E+02	1.759E+01	3.682
		303.76		-5.548E+01	2.479E+02	3.521E+02	3.699E+01	-0.158
		439.47		4.824E+01	1.767E+02	2.944E+02	2.523E+01	0.164
		484.57		7.390E+00	2.868E+02	4.681E+02	4.043E+01	0.016
		520.65	*	2.146E+00	1.317E+01	2.163E+01	1.868E+00	0.099
		574.64		-2.118E+02	2.820E+02	3.989E+02	3.412E+01	-0.531
		578.91		6.015E+01	1.176E+02	1.727E+02	1.475E+01	0.348
		585.48		1.695E+03	3.548E+02	6.062E+02	5.169E+01	2.796
		755.35		-8.987E+01	1.941E+02	3.112E+02	2.710E+01	-0.289
		817.79		-1.309E+02	1.563E+02	2.392E+02	2.153E+01	-0.548
SR-82		698.33		3.668E+00	3.952E+01	6.658E+01	5.606E+00	0.055
		776.49	*	-3.596E-01	4.494E-01	6.964E-01	6.137E-02	-0.516
		1395.20		-1.025E+01	1.245E+01	1.836E+01	1.769E+00	-0.558
RB-83		520.41	*	3.611E-02	8.702E-02	1.454E-01	1.255E-02	0.248
		529.64		-8.514E-02	1.286E-01	1.976E-01	1.705E-02	-0.431
		552.65		-1.823E-01	2.359E-01	3.570E-01	3.070E-02	-0.511
RB-84		881.50	*	-3.822E-02	7.891E-02	1.241E-01	1.150E-02	-0.308
KR-85		513.99	*	1.357E+01	1.104E+01	1.700E+01	1.469E+00	0.798
SR-85		513.99	*	6.957E-02	5.660E-02	8.716E-02	7.530E-03	0.798
RB-86		1076.63	*	3.089E-01	9.304E-01	1.569E+00	1.374E-01	0.197
Y-88		898.02		-2.947E-02	5.113E-02	7.994E-02	7.486E-03	-0.369
		1836.01	*	1.916E-02	4.289E-02	7.575E-02	6.380E-03	0.253
ZR-88		392.90	*	-1.508E-02	3.896E-02	6.258E-02	5.268E-03	-0.241
Y-91		1204.90	*	1.223E+01	2.412E+01	4.080E+01	3.440E+00	0.300
NB-94		702.63	*	2.686E-02	3.892E-02	6.824E-02	5.761E-03	0.394
		871.10		5.314E-02	4.196E-02	7.515E-02	6.931E-03	0.707
NB-95		765.79	*	6.919E-02	5.275E-02	9.508E-02	8.331E-03	0.728
NB-95M		235.69	*	2.886E-01	1.921E-01	2.980E-01	3.586E-02	0.969
ZR-95		724.18		6.012E-02	1.285E-01	1.939E-01	1.804E-02	0.310
		756.15	*	-8.974E-02	8.517E-02	1.290E-01	1.236E-02	-0.695
NB-97		657.90	*	-5.512E-02	8.517E-02	Half-Life too short		
		1024.50		-1.462E+01	8.517E-02	Half-Life too short		
ZR-97		254.15		-6.134E+00	8.517E-02	Half-Life too short		
		355.39		6.942E+00	8.517E-02	Half-Life too short		
		507.63	*	5.206E+00	8.517E-02	Half-Life too short		
		602.52		4.275E+00	8.517E-02	Half-Life too short		
		1021.30		1.247E+00	8.517E-02	Half-Life too short		
		1147.95		4.558E+00	8.517E-02	Half-Life too short		
		1362.66		-1.608E+00	8.517E-02	Half-Life too short		
		1750.46		-1.483E+00	8.517E-02	Half-Life too short		
MO-99		140.51		-1.329E+01	3.447E+01	5.382E+01	1.517E+01	-0.247
		181.06		-7.872E+00	2.483E+01	3.399E+01	6.596E+00	-0.232
		366.43		-1.760E+01	1.071E+02	1.751E+02	1.605E+01	-0.101
		739.58	*	5.547E+00	1.407E+01	2.412E+01	3.665E+00	0.230

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-4.299E+00	3.903E+01	6.435E+01	5.676E+00	-0.067
TC-99M		140.51	*	-1.817E+10	3.903E+01	Half-Life too short		
RH-101		127.23		3.110E-02	4.248E-02	7.065E-02	7.089E-03	0.440
		198.01	*	2.950E-02	4.466E-02	7.321E-02	7.987E-03	0.403
		325.23		-9.488E-02	3.019E-01	4.931E-01	4.995E-02	-0.192
RH-102		418.52		-5.226E-02	3.595E-01	5.843E-01	4.975E-02	-0.089
		475.06	*	-9.355E-03	3.595E-02	5.755E-02	4.966E-03	-0.163
		631.29		1.156E-02	6.697E-02	1.092E-01	9.132E-03	0.106
		697.49		-3.224E-03	8.792E-02	1.467E-01	1.235E-02	-0.022
		766.84		9.047E-02	1.368E-01	2.376E-01	2.083E-02	0.381
		1046.59		-8.190E-02	1.439E-01	2.223E-01	1.979E-02	-0.368
		1112.84		7.135E-02	3.378E-01	4.843E-01	4.142E-02	0.147
RU-103		497.08	*	-4.476E-02	5.110E-02	7.718E-02	1.094E-02	-0.580
	+	610.33		1.141E+01	2.779E+00	3.249E+00	5.392E-01	3.511
RH-106	+	511.85		2.719E-01	3.841E-01	5.082E-01	4.391E-02	0.535
		621.84	*	5.240E-01	3.997E-01	6.981E-01	9.228E-02	0.751
		1050.47		1.216E+00	2.929E+00	4.968E+00	4.414E-01	0.245
RU-106	+	511.85		2.719E-01	3.841E-01	5.082E-01	4.391E-02	0.535
		621.84	*	5.240E-01	3.961E-01	6.981E-01	5.867E-02	0.751
		1050.47		1.216E+00	2.929E+00	4.968E+00	4.414E-01	0.245
AG-108M		433.93	*	-5.971E-02	4.312E-02	6.373E-02	5.673E-03	-0.937
		614.37		-1.298E-02	5.230E-02	7.038E-02	6.178E-03	-0.184
		722.95		4.310E-03	5.361E-02	7.791E-02	6.925E-03	0.055
AG-110M		657.75	*	-1.832E-02	3.859E-02	6.232E-02	5.303E-03	-0.294
		677.61		-6.866E-02	3.694E-01	6.106E-01	5.227E-02	-0.112
		706.67		-8.563E-02	2.436E-01	3.965E-01	3.451E-02	-0.216
		763.93		-1.123E-01	2.127E-01	3.353E-01	3.015E-02	-0.335
		884.67		4.793E-03	5.750E-02	9.573E-02	9.126E-03	0.050
		937.48		-6.722E-02	1.406E-01	2.216E-01	2.116E-02	-0.303
		1384.27		-1.856E-01	1.939E-01	2.829E-01	2.788E-02	-0.656
IN-111		171.28		1.030E+00	1.247E+00	2.070E+00	2.217E-01	0.498
		245.39	*	-2.677E-01	1.523E+00	2.199E+00	2.423E-01	-0.122
IN-113M		391.69	*	5.527E-03	5.728E-02	9.479E-02	8.233E-03	0.058
SN-113		391.69	*	5.527E-03	5.728E-02	9.479E-02	8.233E-03	0.058
IN-114M		190.27	*	-1.858E-02	2.733E-01	3.798E-01	4.124E-02	-0.049
CD-115		260.90		-1.177E+01	1.657E+02	2.764E+02	3.029E+01	-0.043
		492.35		2.501E+01	4.459E+01	7.534E+01	6.510E+00	0.332
		527.90	*	-3.544E+00	1.289E+01	2.046E+01	1.766E+00	-0.173
SN-117M		156.02		1.019E+00	2.897E+00	4.736E+00	4.936E-01	0.215
		158.56	*	-3.289E-03	7.072E-02	1.137E-01	1.192E-02	-0.029
SB-122		563.90	*	1.109E+00	2.490E+00	4.158E+00	3.567E-01	0.267
		692.80		-1.663E+00	4.891E+01	8.168E+01	6.853E+00	-0.020
I-123		159.00	*	-2.847E+00	4.891E+01	Half-Life too short		
		528.96		-1.610E+02	4.891E+01	Half-Life too short		
TE-123M		159.00	*	-1.450E-02	3.713E-02	5.880E-02	6.196E-03	-0.247
I-124		602.71	*	4.132E-01	1.018E+00	1.469E+00	1.245E-01	0.281
		722.78		3.127E-01	5.567E+00	8.069E+00	6.897E-01	0.039
		1325.50		-1.340E+01	3.826E+01	5.859E+01	5.595E+00	-0.229
		1376.25		4.171E+01	3.876E+01	7.139E+01	6.878E+00	0.584

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1509.49		2.244E+01	1.970E+01	3.698E+01	3.532E+00	0.607
		1691.02		8.088E-01	3.758E+00	6.474E+00	5.875E-01	0.125
SB-124		602.71		2.410E-02	5.940E-02	8.573E-02	7.265E-03	0.281
		645.85		-5.186E-01	5.966E-01	8.796E-01	7.772E-02	-0.590
		709.31		-8.649E-01	3.168E+00	5.185E+00	4.395E-01	-0.167
		713.82		-3.576E-01	1.846E+00	3.037E+00	3.630E-01	-0.118
		722.78		2.645E-02	4.708E-01	6.824E-01	5.961E-02	0.039
	+	968.20		1.904E+01	6.781E+00	8.164E+00	7.499E-01	2.332
		1045.16		-5.102E-01	2.992E+00	4.813E+00	4.288E-01	-0.106
		1325.50		-1.210E+00	3.456E+00	5.292E+00	5.053E-01	-0.229
		1368.21		-8.302E-01	2.072E+00	3.285E+00	4.647E-01	-0.253
		1436.60		-1.474E+00	3.698E+00	5.758E+00	5.542E-01	-0.256
		1691.02	*	1.613E-02	7.497E-02	1.291E-01	1.214E-02	0.125
SB-125		427.89	*	1.827E-01	1.189E-01	2.110E-01	1.838E-02	0.866
	+	463.38		7.062E-01	5.581E-01	6.244E-01	5.801E-02	1.131
		600.56		7.743E-02	2.455E-01	3.819E-01	3.485E-02	0.203
		635.90		-6.465E-02	3.648E-01	5.781E-01	5.239E-02	-0.112
TE-125M		109.28	*	-1.160E+01	1.181E+01	1.837E+01	2.157E+00	-0.632
I-126		388.63		2.182E-01	2.648E-01	4.550E-01	3.872E-02	0.480
		666.33	*	2.014E-01	2.229E-01	3.952E-01	3.259E-02	0.510
		753.82		-1.235E+00	1.782E+00	2.802E+00	2.439E-01	-0.441
SB-126		223.80		3.248E+00	5.005E+00	8.624E+00	9.507E-01	0.377
		278.60		4.677E+00	3.140E+00	5.522E+00	5.974E-01	0.847
	+	296.50		1.649E+01	3.388E+00	4.492E+00	4.766E-01	3.670
		414.70		-3.628E-03	1.074E-01	1.521E-01	1.293E-02	-0.024
		415.30		5.639E+00	8.700E+00	1.307E+01	1.111E+00	0.432
		555.20		-1.093E+00	4.725E+00	7.503E+00	6.448E-01	-0.146
		573.80		-4.895E-01	1.301E+00	2.040E+00	1.746E-01	-0.240
		593.00		-1.290E+00	1.196E+00	1.757E+00	1.494E-01	-0.734
		656.30		-2.886E+00	3.595E+00	5.626E+00	4.641E-01	-0.513
		666.33		8.416E-02	9.312E-02	1.651E-01	1.362E-02	0.510
		675.00		1.199E+00	2.360E+00	4.098E+00	3.399E-01	0.292
		695.00		-2.626E-03	9.037E-02	1.509E-01	1.268E-02	-0.017
		697.00		-7.447E-02	3.043E-01	4.998E-01	4.205E-02	-0.149
		720.50	*	-1.321E-02	1.815E-01	2.592E-01	2.212E-02	-0.051
		856.80		1.074E-01	6.228E-01	9.059E-01	8.304E-02	0.119
		989.30		1.684E-01	1.503E+00	2.494E+00	2.276E-01	0.068
		1034.80		-2.605E-01	1.194E+01	1.952E+01	1.748E+00	-0.013
		1213.00		3.573E-01	6.291E+00	1.025E+01	8.716E-01	0.035
SB-127		61.10		-1.694E+01	1.067E+02	1.756E+02	2.349E+01	-0.096
		252.40		-3.407E-02	5.448E+00	9.126E+00	3.886E+00	-0.004
		290.80		-3.203E+01	3.253E+01	4.355E+01	5.581E+00	-0.736
		411.60		1.348E+01	1.761E+01	2.648E+01	4.144E+00	0.509
		444.90		7.450E+00	1.194E+01	2.028E+01	2.535E+00	0.367
		473.00		8.220E-01	2.061E+00	3.450E+00	4.438E-01	0.238
		543.00		1.405E+01	1.959E+01	3.331E+01	4.792E+00	0.422
		603.60		1.706E+00	1.792E+01	2.512E+01	3.114E+00	0.068
		685.20	*	-5.257E-01	1.580E+00	2.578E+00	2.881E-01	-0.204
		698.50		1.025E+00	1.768E+01	2.971E+01	4.667E+00	0.034

---- Non-Identified Nuclides ----

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		722.20		4.118E+00	3.755E+01	5.476E+01	6.076E+00	0.075
		783.80		2.506E+00	4.205E+00	7.300E+00	9.176E-01	0.343
XE-127		57.60		-1.034E+00	1.256E+01	2.074E+01	2.438E+00	-0.050
		145.22		-3.571E-01	9.045E-01	1.434E+00	1.462E-01	-0.249
		172.10		-2.155E-03	1.509E-01	2.422E-01	2.596E-02	-0.009
		202.84	*	-3.662E-02	7.279E-02	9.800E-02	1.072E-02	-0.374
		374.96		-4.645E-02	2.343E-01	3.815E-01	3.404E-02	-0.122
I-131		80.18		1.373E+00	6.982E+00	1.016E+01	1.199E+00	0.135
		284.30		-2.265E+00	1.931E+00	3.008E+00	3.345E-01	-0.753
		364.48	*	-1.059E-04	1.493E-01	2.465E-01	2.379E-02	0.000
		636.97		-1.434E+00	2.077E+00	3.151E+00	2.785E-01	-0.455
		722.89		6.470E-01	9.004E+00	1.307E+01	1.125E+00	0.049
TE-132		49.72		-7.859E+01	6.222E+01	9.635E+01	1.456E+01	-0.816
		111.76		-2.293E+01	3.677E+01	5.822E+01	7.068E+00	-0.394
		116.30		-7.599E+00	3.557E+01	5.739E+01	6.922E+00	-0.132
		228.16	*	-6.050E-01	8.773E-01	1.423E+00	2.441E-01	-0.425
BA-133		53.15		4.634E+00	9.319E+00	1.573E+01	2.056E+00	0.294
		79.62		4.073E+00	2.161E+00	3.216E+00	5.523E-01	1.267
		81.00		-1.895E-01	1.696E-01	2.088E-01	3.719E-02	-0.908
		276.40		5.618E-01	5.127E-01	8.171E-01	1.297E-01	0.688
		302.84		1.651E-01	2.030E-01	3.085E-01	4.501E-02	0.535
		356.01	*	2.183E-02	6.331E-02	9.311E-02	1.280E-02	0.234
		383.85		-1.054E-01	3.778E-01	6.115E-01	7.723E-02	-0.172
I-133	+	510.53		5.431E-01	3.778E-01	Half-Life too short		
		529.87	*	-7.435E-03	3.778E-01	Half-Life too short		
		706.58		-1.232E-01	3.778E-01	Half-Life too short		
		856.28		-3.130E-01	3.778E-01	Half-Life too short		
		875.33		-5.346E-04	3.778E-01	Half-Life too short		
		1236.41		1.022E+00	3.778E-01	Half-Life too short		
		1298.22		3.532E-01	3.778E-01	Half-Life too short		
CS-134		475.35		-1.290E+00	2.362E+00	3.700E+00	3.193E-01	-0.349
		563.23		2.568E-01	4.388E-01	7.395E-01	6.405E-02	0.347
		569.32		1.075E-01	2.456E-01	4.103E-01	3.563E-02	0.262
		604.70		-8.139E-04	5.205E-02	7.215E-02	6.125E-03	-0.011
		795.84	*	6.577E-02	6.014E-02	1.071E-01	9.598E-03	0.614
		801.93		4.773E-02	4.797E-01	8.033E-01	7.211E-02	0.059
		1038.57		-1.602E+00	4.971E+00	7.890E+00	7.053E-01	-0.203
		1167.94		-2.714E+00	3.399E+00	5.121E+00	4.188E-01	-0.530
		1365.15		-1.332E+00	1.514E+00	2.247E+00	2.243E-01	-0.593
CS-135		268.24	*	3.064E-01	2.286E-01	3.563E-01	4.275E-02	0.860
I-135		288.45		7.178E+10	2.286E-01	Half-Life too short		
		417.63		-6.598E+09	2.286E-01	Half-Life too short		
		546.56		-5.727E+09	2.286E-01	Half-Life too short		
		836.80		1.709E+10	2.286E-01	Half-Life too short		
		1038.76		-4.698E+09	2.286E-01	Half-Life too short		
		1124.00		1.828E+10	2.286E-01	Half-Life too short		
		1131.51		-3.594E+09	2.286E-01	Half-Life too short		
		1260.41	*	-2.811E+09	2.286E-01	Half-Life too short		
		1457.56		1.019E+12	2.286E-01	Half-Life too short		

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		1678.03		-2.389E+09	2.286E-01	Half-Life too short		
		1706.46		-1.648E+10	2.286E-01	Half-Life too short		
		1791.20		-6.141E+09	2.286E-01	Half-Life too short		
CS-136		66.91		-1.360E+00	1.363E+00	2.118E+00	3.634E-01	-0.642
	+	86.29		3.263E+00	1.657E+00	2.692E+00	4.177E-01	1.212
		153.22		6.327E-01	8.510E-01	1.409E+00	1.581E-01	0.449
		163.89		1.602E+00	1.367E+00	2.288E+00	2.626E-01	0.700
		176.55		7.182E-02	4.557E-01	7.367E-01	8.219E-02	0.097
		273.65		-1.162E+00	6.778E-01	8.513E-01	9.637E-02	-1.365
		340.57		5.164E-01	2.054E-01	3.317E-01	3.326E-02	1.557
		818.51		-4.814E-02	8.784E-02	1.385E-01	1.248E-02	-0.347
		1048.07	*	-5.235E-03	1.347E-01	2.195E-01	2.031E-02	-0.024
		1235.34		1.194E+00	8.661E-01	1.517E+00	1.808E-01	0.787
BA-137M		661.65	*	-6.014E-03	4.288E-02	7.011E-02	5.764E-03	-0.086
CS-137		661.65	*	-6.357E-03	4.533E-02	7.411E-02	6.106E-03	-0.086
CE-139		165.85	*	-2.238E-02	3.851E-02	6.028E-02	6.435E-03	-0.371
BA-140		162.64		1.046E+00	9.732E-01	1.625E+00	1.788E-01	0.644
		304.84		8.200E-01	1.750E+00	2.596E+00	7.439E-01	0.316
		423.70		-9.251E-02	2.405E+00	3.934E+00	1.274E+00	-0.024
		537.32	*	-9.925E-02	3.144E-01	4.943E-01	1.638E-01	-0.201
LA-140		328.77		4.244E-01	4.057E-01	7.008E-01	7.343E-02	0.606
		432.53		-1.365E+00	2.661E+00	4.212E+00	3.781E-01	-0.324
		487.03		-3.070E-02	1.758E-01	2.829E-01	2.594E-02	-0.109
		751.79		-3.170E-01	2.078E+00	3.423E+00	3.288E-01	-0.093
		815.85		4.203E-02	3.645E-01	6.111E-01	6.080E-02	0.069
		867.82		-1.509E+00	2.043E+00	2.621E+00	2.526E-01	-0.576
		919.63		1.679E+00	2.828E+00	4.766E+00	5.338E-01	0.352
		925.24		-6.161E-01	1.163E+00	1.802E+00	1.764E-01	-0.342
		1596.49	*	-4.667E-02	9.245E-02	1.363E-01	1.278E-02	-0.342
CE-141		145.44	*	-3.229E-02	8.197E-02	1.299E-01	1.343E-02	-0.249
CE-143		57.37		-2.835E-04	8.197E-02	Half-Life too short		
		231.56		-6.344E-05	8.197E-02	Half-Life too short		
		293.26	*	9.273E-04	8.197E-02	Half-Life too short		
	+	350.59		2.875E-02	8.197E-02	Half-Life too short		
		490.36		2.245E-03	8.197E-02	Half-Life too short		
		664.57		8.126E-04	8.197E-02	Half-Life too short		
		721.93		-9.812E-05	8.197E-02	Half-Life too short		
CE-144		80.11		1.118E+00	3.240E+00	4.747E+00	5.579E-01	0.235
		133.54	*	5.330E-02	2.710E-01	4.422E-01	7.254E-02	0.121
PM-144		476.78		-4.008E-02	8.433E-02	1.328E-01	1.253E-02	-0.302
		618.01		-2.638E-02	3.952E-02	6.000E-02	5.198E-03	-0.440
		696.49	*	-1.072E-02	3.907E-02	6.401E-02	5.385E-03	-0.167
		778.57		6.112E-01	2.594E+00	4.399E+00	3.882E-01	0.139
PR-144		696.49	*	-7.262E-01	2.647E+00	4.337E+00	3.648E-01	-0.167
		1489.15		-3.864E+00	1.153E+01	1.801E+01	1.725E+00	-0.215
PM-146		453.90	*	3.519E-02	5.758E-02	9.342E-02	1.000E-02	0.377
		633.02		2.443E+00	1.965E+00	3.099E+00	1.156E+00	0.788
		735.90		-1.325E-01	2.168E-01	2.999E-01	8.577E-02	-0.442
		747.13		-7.491E-02	1.132E-01	1.782E-01	2.508E-02	-0.420

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	91.11		7.869E-01	3.600E-01	6.778E-01	8.390E-02	1.161
		319.41		-5.011E+00	4.141E+00	6.361E+00	6.516E-01	-0.788
		439.89		1.866E+00	7.262E+00	1.208E+01	1.036E+00	0.154
		531.02	*	-3.917E-01	6.885E-01	1.064E+00	1.591E-01	-0.368
PM-149		285.90	*	4.068E+01	1.160E+02	1.963E+02	3.300E+01	0.207
EU-152		121.78		-6.607E-02	9.743E-02	1.536E-01	1.722E-02	-0.430
		244.69		3.313E-01	4.753E-01	7.215E-01	7.952E-02	0.459
		344.27	*	-2.135E-02	1.527E-01	2.042E-01	2.079E-02	-0.105
		443.98		7.948E-01	1.186E+00	2.023E+00	1.735E-01	0.393
		778.89		1.589E-01	2.966E-01	5.149E-01	4.544E-02	0.309
		867.32		-5.307E-01	1.139E+00	1.516E+00	1.396E-01	-0.350
		964.01		6.050E-01	4.343E-01	6.980E-01	6.419E-02	0.867
		1085.78		-1.538E-01	4.919E-01	7.781E-01	6.775E-02	-0.198
		1112.02		1.384E-01	4.616E-01	6.952E-01	5.949E-02	0.199
		1407.95		3.948E-02	2.396E-01	4.071E-01	3.922E-02	0.097
GD-153		69.67		1.637E+00	2.988E+00	4.430E+00	5.057E-01	0.370
		83.37		-1.489E+01	2.314E+01	3.217E+01	3.856E+00	-0.463
		97.43	*	1.478E-01	1.094E-01	1.668E-01	1.841E-02	0.886
		103.18		-1.243E-01	1.356E-01	2.123E-01	2.244E-02	-0.586
EU-154		123.07		-2.164E-03	6.804E-02	1.104E-01	1.379E-02	-0.020
		247.94		-1.453E-02	5.280E-01	7.693E-01	1.028E-01	-0.019
		591.81		-2.519E-01	7.723E-01	1.213E+00	1.405E-01	-0.208
		723.30		4.414E-02	2.236E-01	3.292E-01	3.116E-02	0.134
		756.87		-2.237E-02	9.147E-01	1.521E+00	1.833E-01	-0.015
		873.19		2.325E-01	3.556E-01	6.195E-01	7.857E-02	0.375
		996.32		1.943E-01	4.459E-01	7.585E-01	1.366E-01	0.256
		1004.76		-1.550E-01	2.426E-01	3.705E-01	4.438E-02	-0.418
		1274.45	*	-1.066E-01	1.554E-01	2.317E-01	2.702E-02	-0.460
EU-155		48.70		-4.251E+00	8.166E+00	1.327E+01	1.781E+00	-0.320
		60.01		-1.100E+01	9.856E+00	1.550E+01	1.751E+00	-0.710
	+	86.54		3.015E-01	1.504E-01	2.475E-01	3.052E-02	1.218
		105.31	*	1.677E-01	1.357E-01	2.302E-01	2.426E-02	0.729
TB-160	+	86.79		8.052E-01	4.016E-01	6.571E-01	8.080E-02	1.225
		197.04		4.880E-01	7.618E-01	1.248E+00	1.361E-01	0.391
		215.65		4.710E-01	1.042E+00	1.569E+00	1.726E-01	0.300
		298.57		5.462E-01	2.018E-01	2.635E-01	2.788E-02	2.073
		879.36	*	-5.320E-02	1.607E-01	2.571E-01	2.380E-02	-0.207
		962.29		1.092E+00	7.571E-01	1.230E+00	1.132E-01	0.888
		966.15		1.295E+00	3.621E-01	6.373E-01	5.858E-02	2.032
		1177.93		-2.467E-01	4.863E-01	7.539E-01	6.169E-02	-0.327
		1271.85		2.008E-01	8.288E-01	1.375E+00	1.245E-01	0.146
HO-166M		80.57		-2.468E-01	4.182E-01	5.840E-01	6.881E-02	-0.423
	+	184.41		1.877E-01	8.197E-02	8.619E-02	9.320E-03	2.177
		280.46		2.206E-02	1.056E-01	1.779E-01	1.922E-02	0.124
	+	410.95		5.821E-01	3.205E-01	5.390E-01	4.575E-02	1.080
		711.68	*	8.452E-03	6.718E-02	1.134E-01	9.630E-03	0.075
		752.31		-5.172E-02	3.288E-01	5.414E-01	4.707E-02	-0.096
		810.29		-6.368E-02	6.849E-02	1.038E-01	9.309E-03	-0.613
TM-171		51.35		7.269E+01	8.745E+01	1.490E+02	2.009E+01	0.488

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		52.39		5.174E+01	4.243E+01	7.287E+01	9.664E+00	0.710
		59.40		-5.891E+01	5.350E+01	8.419E+01	9.491E+00	-0.700
		66.72	*	-5.149E+01	4.952E+01	7.745E+01	8.841E+00	-0.665
LU-176	+	88.36		5.938E-01	2.961E-01	4.957E-01	6.120E-02	1.198
		201.83		-4.332E-02	4.318E-02	5.977E-02	6.536E-03	-0.725
		306.84	*	1.296E-03	3.196E-02	5.188E-02	5.425E-03	0.025
		401.10		-1.618E+00	8.449E+00	1.373E+01	1.160E+00	-0.118
LU-177		112.95		4.156E-01	1.978E+00	3.248E+00	3.302E-01	0.128
	+	208.36	*	2.873E+00	2.614E+00	2.425E+00	2.660E-01	1.185
LU-177M		52.97		2.180E+00	4.259E+00	7.195E+00	9.435E-01	0.303
		54.07		1.304E-01	2.098E+00	3.490E+00	4.467E-01	0.037
		61.30		5.727E-01	2.759E+00	4.598E+00	5.226E-01	0.125
		121.62		-4.334E-01	5.048E-01	7.895E-01	7.946E-02	-0.549
		147.16		-3.408E-01	8.413E-01	1.336E+00	1.367E-01	-0.255
		171.86		2.248E-01	6.030E-01	9.843E-01	1.055E-01	0.228
		218.09		4.127E-01	1.053E+00	1.801E+00	1.982E-01	0.229
	+	268.79		1.804E+00	1.379E+00	1.872E+00	2.041E-01	0.964
		319.02		-4.539E-01	3.336E-01	5.077E-01	5.204E-02	-0.894
		367.43		9.308E-01	1.143E+00	1.969E+00	1.798E-01	0.473
		413.65	*	2.377E-02	2.494E-01	3.575E-01	3.038E-02	0.066
HF-181		56.28		-2.252E+00	2.111E+00	3.321E+00	4.031E-01	-0.678
		57.53		-1.019E-01	1.059E+00	1.748E+00	2.058E-01	-0.058
		65.20		1.651E-01	1.628E+00	2.668E+00	3.046E-01	0.062
		133.02		-2.710E-02	8.833E-02	1.414E-01	1.421E-02	-0.192
		136.25		-4.411E-01	6.010E-01	9.420E-01	9.490E-02	-0.468
		345.85		1.639E-01	2.790E-01	4.180E-01	4.049E-02	0.392
		482.03	*	2.076E-02	5.229E-02	8.752E-02	7.557E-03	0.237
W-181		56.28		-8.809E-01	8.266E-01	1.300E+00	1.578E-01	-0.678
		57.53		-4.009E-02	4.149E-01	6.849E-01	8.065E-02	-0.059
		65.20	*	6.419E-02	6.327E-01	1.037E+00	1.184E-01	0.062
TA-182		67.75		-1.054E-01	1.864E-01	2.978E-01	3.399E-02	-0.354
		100.10		1.128E-01	2.300E-01	3.703E-01	3.998E-02	0.305
		152.43		-6.482E-04	4.368E-01	7.048E-01	7.288E-02	-0.001
		222.10		-3.222E-02	4.272E-01	7.168E-01	7.900E-02	-0.045
		1001.68		-1.438E+00	2.409E+00	3.710E+00	3.369E-01	-0.388
	+	1121.28		4.752E-01	3.002E-01	4.003E-01	3.402E-02	1.187
		1189.05		1.521E-01	3.961E-01	6.643E-01	5.504E-02	0.229
		1221.42	*	-3.308E-02	2.627E-01	4.212E-01	3.615E-02	-0.079
		1230.97		-1.000E-02	6.863E-01	1.110E+00	9.628E-02	-0.009
RE-183		57.98		9.080E-02	4.032E-01	6.738E-01	7.849E-02	0.135
		59.32		-1.725E-01	2.166E-01	3.463E-01	3.911E-02	-0.498
		67.20		-3.699E-01	3.438E-01	5.366E-01	6.125E-02	-0.689
		162.32	*	1.389E-01	1.421E-01	2.368E-01	2.505E-02	0.587
	+	208.81		2.588E+00	2.356E+00	2.176E+00	2.387E-01	1.190
		291.72		-1.537E+00	1.434E+00	1.910E+00	2.039E-01	-0.805
RE-184		57.98		3.346E-01	1.486E+00	2.483E+00	2.893E-01	0.135
		59.32		-6.354E-01	7.977E-01	1.275E+00	1.440E-01	-0.498
		67.20		-1.363E+00	1.267E+00	1.977E+00	2.256E-01	-0.689
		161.27		-1.468E-02	4.633E-01	7.451E-01	7.863E-02	-0.020

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		216.55		3.065E-01	3.536E-01	5.652E-01	6.220E-02	0.542
		252.85	*	-1.424E-01	2.965E-01	4.853E-01	5.336E-02	-0.293
		318.01		-1.162E-01	5.669E-01	9.309E-01	9.558E-02	-0.125
		792.07		8.168E-01	1.259E+00	2.187E+00	1.943E-01	0.373
		903.28		4.798E-01	1.308E+00	2.076E+00	1.935E-01	0.231
		920.93		-4.572E-02	4.463E-01	7.273E-01	6.757E-02	-0.063
OS-185		59.72		-5.633E-01	5.843E-01	9.265E-01	1.044E-01	-0.608
		61.14		-3.504E-02	3.049E-01	5.024E-01	5.707E-02	-0.070
		69.30		1.737E-01	5.112E-01	7.919E-01	9.038E-02	0.219
		592.07		-2.016E+00	3.175E+00	4.855E+00	4.131E-01	-0.415
		646.12	*	-3.167E-02	5.022E-02	7.591E-02	6.300E-03	-0.417
		717.42		-2.424E-01	9.863E-01	1.615E+00	1.376E-01	-0.150
		874.81		2.057E-01	6.905E-01	1.171E+00	1.082E-01	0.176
		880.27		8.655E-02	8.691E-01	1.450E+00	1.342E-01	0.060
RE-188		155.03	*	1.210E-01	2.211E-01	3.639E-01	3.784E-02	0.332
		477.96		-2.113E+00	3.748E+00	5.856E+00	5.054E-01	-0.361
		633.10		5.772E+00	3.501E+00	6.289E+00	5.256E-01	0.918
W-188		63.58		5.175E+01	9.300E+01	1.561E+02	1.781E+01	0.332
		227.08		-2.419E+00	1.612E+01	2.694E+01	2.971E+00	-0.090
		290.67	*	-1.077E+01	1.129E+01	1.521E+01	1.625E+00	-0.708
IR-192	+	295.96		1.264E+00	2.601E-01	3.470E-01	3.701E-02	3.643
		308.46		3.234E-02	1.195E-01	2.014E-01	2.108E-02	0.161
		316.51	*	5.223E-02	4.254E-02	7.464E-02	7.696E-03	0.700
		468.07		-3.119E-02	9.059E-02	1.232E-01	1.138E-02	-0.253
		604.41		1.228E-01	6.900E-01	9.745E-01	1.259E-01	0.126
		612.46		3.242E+00	1.063E+00	1.822E+00	1.775E-01	1.779
AU-195		65.12		4.134E-02	2.942E-01	4.829E-01	5.514E-02	0.086
		66.83		-1.609E-01	1.631E-01	2.557E-01	2.919E-02	-0.629
	+	75.70		1.320E+00	4.467E-01	6.470E-01	7.462E-02	2.040
		98.88	*	4.205E-01	3.186E-01	4.845E-01	5.281E-02	0.868
		129.76		4.799E+00	3.829E+00	6.446E+00	6.468E-01	0.745
TL-200		367.94	*	6.200E-04	3.829E+00	Half-Life too short		
		579.30		3.392E-03	3.829E+00	Half-Life too short		
		828.27		-2.044E-03	3.829E+00	Half-Life too short		
		1205.75		5.313E-04	3.829E+00	Half-Life too short		
TL-201		68.90		2.877E+00	8.232E+00	1.276E+01	1.456E+00	0.226
		70.82		-2.068E-01	4.785E+00	6.912E+00	7.896E-01	-0.030
		80.30		-4.176E+00	7.721E+00	1.082E+01	1.273E+00	-0.386
		135.34		-1.825E+01	3.308E+01	5.232E+01	5.267E+00	-0.349
		167.43	*	-9.966E+00	9.083E+00	1.381E+01	1.475E+00	-0.722
TL-202		68.90		2.599E-01	7.434E-01	1.152E+00	1.315E-01	0.226
		70.82		-1.863E-02	4.309E-01	6.225E-01	7.111E-02	-0.030
		80.30		-3.763E-01	6.956E-01	9.745E-01	1.147E-01	-0.386
		439.56	*	2.349E-02	8.605E-02	1.433E-01	1.228E-02	0.164
HG-203		70.83		-6.635E-02	1.869E+00	2.702E+00	4.197E-01	-0.025
		72.87		1.302E+00	1.087E+00	1.628E+00	2.476E-01	0.800
		82.60		-1.570E-01	1.997E+00	2.409E+00	3.861E-01	-0.065
		279.20	*	5.130E-02	5.193E-02	9.004E-02	9.913E-03	0.570
BI-207		72.80		3.195E-01	3.147E-01	4.724E-01	5.410E-02	0.676

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	+	74.97		7.320E-01	2.478E-01	3.275E-01	3.769E-02	2.235
		84.90		-3.916E-03	2.911E-01	4.181E-01	5.067E-02	-0.009
		569.67		6.013E-03	3.834E-02	6.283E-02	5.382E-03	0.096
		1063.62	*	8.478E-03	6.886E-02	1.138E-01	1.004E-02	0.075
		1770.23		-2.781E+00	8.883E-01	6.929E-01	6.057E-02	-4.014
TL-207		81.07		-4.221E-01	3.698E-01	4.598E-01	5.433E-02	-0.918
		83.78		-1.446E-01	1.953E-01	2.698E-01	3.244E-02	-0.536
		94.90		9.712E-01	3.633E-01	5.610E-01	6.349E-02	1.731
		122.32		-1.658E+00	2.355E+00	3.711E+00	3.937E-01	-0.447
		144.24		-6.190E-02	8.842E-01	1.421E+00	1.572E-01	-0.044
		154.21		1.478E-01	5.097E-01	8.314E-01	9.233E-02	0.178
	+	269.46		4.225E-01	3.229E-01	4.404E-01	4.862E-02	0.959
		323.87	*	-1.662E-02	8.839E-01	1.465E+00	2.711E-01	-0.011
	+	338.28		9.864E+00	2.354E+00	3.107E+00	4.104E-01	3.175
		445.03		1.743E+00	2.793E+00	4.745E+00	5.724E-01	0.367
PO-209		260.50		1.152E+00	1.213E+01	2.038E+01	2.234E+00	0.057
		262.80		-2.602E+01	3.460E+01	5.569E+01	6.095E+00	-0.467
		896.60	*	-8.163E-02	8.793E+00	1.450E+01	1.352E+00	-0.006
BI-210		46.50	*	3.255E+00	1.370E+01	2.265E+01	2.789E+00	0.144
PB-210		46.50	*	3.255E+00	1.370E+01	2.265E+01	2.789E+00	0.144
PO-210		46.50	*	3.255E+00	1.370E+01	2.265E+01	2.641E+00	0.144
PB-211		404.84	*	4.448E-01	1.336E+00	1.915E+00	1.199E+00	0.232
		427.08		1.702E+00	2.885E+00	4.567E+00	2.838E+00	0.373
		831.96		1.075E+00	1.600E+00	2.548E+00	1.598E+00	0.422
BI-212	+	727.18	*	8.481E-01	6.802E-01	7.839E-01	7.811E-02	1.082
		785.46		7.267E-01	2.055E+00	3.512E+00	3.110E-01	0.207
		1620.62		1.893E+00	1.520E+00	2.934E+00	2.731E-01	0.645
PO-215		81.07		-4.221E-01	3.698E-01	4.598E-01	5.433E-02	-0.918
		83.78		-1.446E-01	1.953E-01	2.698E-01	3.244E-02	-0.536
		94.90		9.712E-01	3.633E-01	5.610E-01	6.349E-02	1.731
		122.32		-1.658E+00	2.355E+00	3.711E+00	3.937E-01	-0.447
		144.24		-6.190E-02	8.842E-01	1.421E+00	1.572E-01	-0.044
		154.21		1.478E-01	5.097E-01	8.314E-01	9.233E-02	0.178
	+	269.46		4.225E-01	3.229E-01	4.404E-01	4.862E-02	0.959
		323.87	*	-1.662E-02	8.839E-01	1.465E+00	2.711E-01	-0.011
	+	338.28		9.864E+00	2.354E+00	3.107E+00	4.104E-01	3.175
		445.03		1.743E+00	2.793E+00	4.745E+00	5.724E-01	0.367
RN-219	+	271.23		5.420E-01	4.153E-01	5.460E-01	6.698E-02	0.993
		401.81	*	-1.427E-01	5.222E-01	8.436E-01	1.260E-01	-0.169
RN-220		549.76	*	1.863E+01	3.057E+01	5.179E+01	4.456E+00	0.360
RA-223		81.07		-4.221E-01	3.698E-01	4.598E-01	5.433E-02	-0.918
		83.78		-1.446E-01	1.953E-01	2.698E-01	3.244E-02	-0.536
		94.90		9.712E-01	3.633E-01	5.610E-01	6.349E-02	1.731
		122.32		-1.658E+00	2.355E+00	3.711E+00	3.937E-01	-0.447
		144.24		-6.190E-02	8.842E-01	1.421E+00	1.572E-01	-0.044
		154.21		1.478E-01	5.097E-01	8.314E-01	9.233E-02	0.178
	+	269.46		4.225E-01	3.229E-01	4.404E-01	4.862E-02	0.959
		323.87	*	-1.662E-02	8.839E-01	1.465E+00	2.711E-01	-0.011
	+	338.28		9.864E+00	2.354E+00	3.107E+00	4.104E-01	3.175

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.743E+00	2.793E+00	4.745E+00	5.724E-01	0.367
AC-227		79.80		2.535E+00	2.631E+00	3.873E+00	8.881E-01	0.655
		236.00		1.280E+00	4.151E-01	6.334E-01	8.899E-02	2.021
		256.20	*	2.042E-01	4.927E-01	8.381E-01	1.407E-01	0.244
		286.10		1.367E+00	1.958E+00	3.356E+00	4.925E-01	0.407
	+	299.80		3.748E+00	2.180E+00	3.188E+00	5.906E-01	1.176
		304.40		-1.065E+00	2.673E+00	3.736E+00	7.241E-01	-0.285
		334.20		3.366E-03	3.428E+00	4.929E+00	9.876E-01	0.001
TH-227		79.80		2.535E+00	2.633E+00	3.873E+00	8.981E-01	0.655
	+	94.00		7.238E+00	3.735E+00	4.944E+00	1.139E+00	1.464
		236.00		1.280E+00	4.097E-01	6.334E-01	8.262E-02	2.021
		256.20	*	2.042E-01	4.931E-01	8.381E-01	1.618E-01	0.244
		286.10		1.367E+00	2.384E+00	3.356E+00	3.376E+00	0.407
	+	299.80		3.748E+00	2.180E+00	3.188E+00	5.906E-01	1.176
		304.40		-1.065E+00	2.673E+00	3.736E+00	7.241E-01	-0.285
		334.20		3.366E-03	3.428E+00	4.929E+00	9.876E-01	0.001
TH-229		85.43		4.348E-01	2.900E-01	4.378E-01	5.327E-02	0.993
	+	88.47		3.418E-01	1.705E-01	2.867E-01	3.534E-02	1.192
		100.00		1.097E-01	2.386E-01	3.837E-01	4.145E-02	0.286
		193.63	*	-1.051E-01	6.872E-01	1.092E+00	1.188E-01	-0.096
	+	210.97		2.027E+00	1.845E+00	1.734E+00	1.904E-01	1.169
PA-231		283.67	*	-2.926E+00	2.007E+00	3.005E+00	4.957E-01	-0.974
	+	301.29		1.499E+00	8.518E-01	1.286E+00	1.757E-01	1.166
TH-231		81.07		-4.221E-01	3.698E-01	4.598E-01	5.433E-02	-0.918
		83.78		-1.446E-01	1.953E-01	2.698E-01	3.244E-02	-0.536
		94.90		9.712E-01	3.633E-01	5.610E-01	6.349E-02	1.731
		122.32		-1.658E+00	2.355E+00	3.711E+00	3.937E-01	-0.447
		144.24		-6.190E-02	8.842E-01	1.421E+00	1.572E-01	-0.044
		154.21		1.478E-01	5.097E-01	8.314E-01	9.233E-02	0.178
	+	269.46		4.225E-01	3.229E-01	4.404E-01	4.862E-02	0.959
		323.87	*	-1.662E-02	8.839E-01	1.465E+00	2.711E-01	-0.011
	+	338.28		9.864E+00	2.354E+00	3.107E+00	4.104E-01	3.175
		445.03		1.743E+00	2.793E+00	4.745E+00	5.724E-01	0.367
U-231		84.21		-4.230E+00	8.327E+00	1.166E+01	1.406E+00	-0.363
	+	92.29		7.120E+00	3.387E+00	5.245E+00	6.120E-01	1.357
		95.87	*	1.936E-01	1.613E+00	2.326E+00	2.606E-01	0.083
		108.00		2.272E-01	2.570E+00	4.206E+00	4.342E-01	0.054
PA-233	+	75.28		2.136E+01	7.724E+00	1.001E+01	1.716E+00	2.135
	+	86.59		4.901E+00	2.743E+00	4.018E+00	1.134E+00	1.220
	+	300.12		1.045E+00	6.002E-01	8.826E-01	1.419E-01	1.184
		311.98	*	-6.220E-02	8.306E-02	1.322E-01	1.399E-02	-0.470
		340.50		2.696E+00	1.173E+00	1.636E+00	3.973E-01	1.648
		398.62		1.424E+00	2.590E+00	4.356E+00	1.157E+00	0.327
		415.76		1.284E+00	2.324E+00	3.444E+00	7.406E-01	0.373
PA-234		63.00		1.361E+00	2.798E+00	4.678E+00	8.050E-01	0.291
		94.67		7.894E-01	2.760E-01	4.118E-01	5.943E-02	1.917
		98.44		2.451E-01	1.861E-01	1.986E-01	1.116E-01	1.235
		99.86		2.523E-01	6.032E-01	9.687E-01	1.048E-01	0.260
		111.00		-1.817E-01	2.289E-01	3.588E-01	4.763E-02	-0.506

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		131.20		7.063E-02	1.427E-01	2.354E-01	2.363E-02	0.300
		152.70		9.551E-02	4.187E-01	6.812E-01	1.225E-01	0.140
	+	186.00		6.756E+00	3.580E+00	3.281E+00	1.046E+00	2.059
		226.40		1.732E-01	5.027E-01	8.564E-01	1.275E-01	0.202
		227.20		-9.326E-02	5.440E-01	9.085E-01	1.002E-01	-0.103
		248.90		5.089E-02	1.098E+00	1.744E+00	4.087E-01	0.029
		293.70		6.365E+00	1.631E+00	2.102E+00	3.866E-01	3.029
		369.80		-2.467E-02	1.056E+00	1.741E+00	3.822E-01	-0.014
		568.70		1.204E+00	1.202E+00	2.081E+00	1.783E-01	0.579
		569.50		8.532E-02	3.388E-01	5.591E-01	4.789E-02	0.153
		574.00		-1.115E+00	1.884E+00	2.903E+00	2.483E-01	-0.384
		699.00		5.463E-02	8.281E-01	1.392E+00	2.644E-01	0.039
		706.10		4.272E-02	1.226E+00	2.055E+00	9.158E-01	0.021
		733.00		-8.646E-02	5.357E-01	7.565E-01	1.679E-01	-0.114
		742.81		-5.522E-01	1.713E+00	2.718E+00	1.827E+00	-0.203
		796.30		1.248E+00	1.222E+00	2.095E+00	5.685E-01	0.596
		805.60		1.005E+00	1.213E+00	2.083E+00	6.405E-01	0.482
		819.60		2.360E-01	1.469E+00	2.467E+00	9.402E-01	0.096
		826.30		-7.234E-01	1.022E+00	1.500E+00	6.723E-01	-0.482
		831.60		4.961E-01	7.607E-01	1.303E+00	3.905E-01	0.381
		876.40		-6.500E-01	1.187E+00	1.520E+00	1.563E+00	-0.428
		880.51		1.322E-02	3.125E-01	5.186E-01	4.802E-02	0.026
		883.24		1.338E-03	3.390E-01	5.604E-01	3.772E-01	0.002
		899.00		-4.929E-01	1.046E+00	1.617E+00	7.090E-01	-0.305
		925.00		-8.062E-01	1.235E+00	1.886E+00	1.751E-01	-0.427
		926.50		-3.820E-02	1.882E-01	3.031E-01	7.733E-02	-0.126
		946.00	*	-6.730E-02	3.896E-01	6.313E-01	1.203E-01	-0.107
		949.00		6.369E-04	5.706E-01	9.390E-01	8.671E-02	0.001
		980.50		2.463E-01	8.671E-01	1.462E+00	1.338E-01	0.168
		1394.10		-8.721E-01	1.376E+00	1.878E+00	1.225E+00	-0.464
PA-234M		766.42		1.197E+01	1.544E+01	2.498E+01	1.268E+01	0.479
		1001.03	*	-5.240E+00	5.584E+00	8.271E+00	8.576E-01	-0.634
TH-234		63.29	*	1.107E+00	2.368E+00	3.955E+00	7.704E-01	0.280
	+	92.38		1.873E+00	9.394E-01	1.369E+00	2.699E-01	1.368
U-235	+	89.95		3.139E+00	1.707E+00	2.610E+00	8.347E-01	1.203
	+	93.35		2.252E+00	1.228E+00	1.564E+00	4.543E-01	1.440
		105.00		1.501E+00	1.399E+00	2.255E+00	6.861E-01	0.666
		143.76	*	-4.564E-02	2.761E-01	4.420E-01	8.098E-02	-0.103
		163.35		5.260E-01	6.163E-01	1.013E+00	2.031E-01	0.519
	+	185.71		2.502E-01	1.093E-01	1.206E-01	1.306E-02	2.074
		205.31		5.401E-02	7.658E-01	1.070E+00	2.165E-01	0.050
NP-236		94.67		6.008E-01	2.026E-01	3.126E-01	3.546E-02	1.922
		98.44		1.853E-01	9.672E-02	1.501E-01	1.642E-02	1.235
		111.00		-1.374E-01	1.728E-01	2.714E-01	2.773E-02	-0.506
		160.31	*	-6.364E-02	1.043E-01	1.633E-01	1.719E-02	-0.390
U-238		63.29	*	1.107E+00	2.368E+00	3.955E+00	7.704E-01	0.280
	+	92.38		1.873E+00	8.910E-01	1.369E+00	1.596E-01	1.368
NP-239		99.55		7.949E-02	2.104E-01	3.238E-01	3.510E-02	0.245
		117.00	*	1.185E-02	2.477E-01	4.039E-01	4.077E-02	0.029

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	209.75		2.042E+00	1.859E+00	1.725E+00	1.894E-01	1.184
		228.18		-1.999E-01	2.872E-01	4.678E-01	5.160E-02	-0.427
		277.60		2.870E-01	2.355E-01	4.022E-01	4.355E-02	0.713
		334.30		1.170E+00	1.872E+00	2.811E+00	2.796E-01	0.416
AM-241		59.54	*	-3.223E-01	3.097E-01	4.888E-01	5.737E-02	-0.659
CM-243		99.55		8.179E-02	2.165E-01	3.332E-01	3.612E-02	0.245
		103.76	*	1.492E-02	1.226E-01	2.012E-01	2.120E-02	0.074
		117.00		1.219E-02	2.549E-01	4.155E-01	4.195E-02	0.029
	+	209.75		2.013E+00	1.832E+00	1.701E+00	1.867E-01	1.184
		228.18		-2.020E-01	2.902E-01	4.726E-01	5.214E-02	-0.427
		277.60		2.893E-01	2.375E-01	4.055E-01	4.391E-02	0.713
AM-246		798.80		-2.814E-01	1.852E-01	2.689E-01	2.398E-02	-1.046
		1036.00		1.337E-01	4.044E-01	6.805E-01	6.090E-02	0.196
		1062.04		1.854E-01	3.024E-01	5.198E-01	4.590E-02	0.357
		1078.86	*	7.380E-02	1.746E-01	2.963E-01	2.591E-02	0.249
CM-247		278.00		1.413E+00	9.534E-01	1.676E+00	1.814E-01	0.843
		287.40		1.967E+00	1.596E+00	2.790E+00	2.992E-01	0.705
		402.60	*	-1.478E-02	4.585E-02	7.383E-02	6.244E-03	-0.200
CF-249		252.85		-5.342E-01	1.113E+00	1.821E+00	2.002E-01	-0.293
		333.44		-1.861E-01	2.592E-01	3.521E-01	3.508E-02	-0.529
		387.95	*	2.486E-02	5.188E-02	8.765E-02	7.478E-03	0.284
CF-251		176.60	*	3.261E-02	1.574E-01	2.550E-01	2.742E-02	0.128
		227.00		3.846E-02	4.802E-01	8.104E-01	8.938E-02	0.047
		285.00		5.929E-01	2.181E+00	3.684E+00	3.961E-01	0.161

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799001      *
* Acquisition date : 10-FEB-2010 14:13:23 Detector SN#    :                 *
* Detector ID        : GAM15                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:01.34       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799001           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.2947E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.522E+01	3.985E+00	6.868E-01	0.000E+00
CD-109	2.547E+00	1.245E+00	1.691E+00	0.000E+00
SN-126	2.503E-01	1.224E-01	1.675E-01	0.000E+00
TL-208	5.221E-01	1.008E-01	7.579E-02	0.000E+00
BI-211	3.671E+00	7.298E-01	4.291E-01	0.000E+00
PB-212	1.778E+00	2.464E-01	1.186E-01	0.000E+00
PO-212	1.778E+00	2.464E-01	1.186E-01	0.000E+00
BI-214	1.057E+00	2.113E-01	1.314E-01	0.000E+00
PB-214	1.277E+00	2.621E-01	1.495E-01	0.000E+00
PO-214	1.277E+00	2.621E-01	1.495E-01	0.000E+00
PO-216	1.778E+00	2.464E-01	1.186E-01	0.000E+00
PO-218	1.277E+00	2.621E-01	1.495E-01	0.000E+00
RA-224	4.786E+00	1.585E+00	1.349E+00	0.000E+00
RA-226	1.057E+00	2.113E-01	1.314E-01	0.000E+00
AC-228	1.625E+00	3.526E-01	2.506E-01	0.000E+00
RA-228	1.625E+00	3.526E-01	2.506E-01	0.000E+00
TH-228	1.805E+00	2.502E-01	1.204E-01	0.000E+00
TH-230	1.057E+00	2.113E-01	1.314E-01	0.000E+00
TH-232	1.625E+00	3.526E-01	2.506E-01	0.000E+00
U-234	1.057E+00	2.113E-01	1.314E-01	0.000E+00
NP-237	7.351E-01	3.889E-01	5.340E-01	0.000E+00
AM-243	4.078E-01	1.353E-01	1.395E-01	0.000E+00
ANH-511	5.444E-02	7.537E-02	5.891E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.948E-01	3.900E-01	6.245E-01	0.000E+00	NOT IDENT.
NA-22	-3.402E-02	5.427E-02	8.363E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.429E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.847E-02	3.405E-02	6.254E-02	0.000E+00	NOT IDENT.

TI-44	0.000E+00	8.281E-02	1.152E-01	0.000E+00	FAIL ABUN
SC-46	1.865E-02	4.684E-02	8.228E-02	0.000E+00	FAIL ABUN
V-48	-2.594E-02	8.289E-02	1.356E-01	0.000E+00	NOT IDENT.
CR-51	-6.272E-01	4.673E-01	7.456E-01	0.000E+00	NOT IDENT.
MN-52	1.369E-01	2.232E-01	4.144E-01	0.000E+00	NOT IDENT.
MN-54	-1.977E-02	4.682E-02	7.738E-02	0.000E+00	NOT IDENT.
CO-56	3.262E-03	4.954E-02	8.495E-02	0.000E+00	NOT IDENT.
CO-57	-2.100E-02	3.308E-02	5.557E-02	0.000E+00	NOT IDENT.
CO-58	-3.601E-02	4.408E-02	6.979E-02	0.000E+00	NOT IDENT.
FE-59	-1.106E-01	1.201E-01	1.836E-01	0.000E+00	NOT IDENT.
CO-60	-3.494E-02	4.546E-02	6.693E-02	0.000E+00	NOT IDENT.
ZN-65	-2.551E-02	1.315E-01	1.835E-01	0.000E+00	NOT IDENT.
GE-68	5.024E-01	1.455E+00	2.518E+00	0.000E+00	NOT IDENT.
AS-73	7.832E-01	2.076E+00	3.754E+00	0.000E+00	NOT IDENT.
AS-74	-1.276E-02	1.108E-01	1.834E-01	0.000E+00	NOT IDENT.
SE-75	4.792E-02	6.073E-02	9.723E-02	0.000E+00	NOT IDENT.
BR-77	2.146E+00	1.291E+01	2.201E+01	0.000E+00	FAIL ABUN
SR-82	-3.596E-01	4.405E-01	7.040E-01	0.000E+00	NOT IDENT.
RB-83	3.611E-02	8.528E-02	1.479E-01	0.000E+00	NOT IDENT.
RB-84	-3.822E-02	7.733E-02	1.252E-01	0.000E+00	NOT IDENT.
KR-85	1.357E+01	1.082E+01	1.730E+01	0.000E+00	NOT IDENT.
SR-85	6.957E-02	5.547E-02	8.869E-02	0.000E+00	NOT IDENT.
RB-86	3.089E-01	9.118E-01	1.577E+00	0.000E+00	NOT IDENT.
Y-88	1.916E-02	4.204E-02	7.550E-02	0.000E+00	NOT IDENT.
ZR-88	-1.508E-02	3.818E-02	6.395E-02	0.000E+00	NOT IDENT.
Y-91	1.223E+01	2.364E+01	4.095E+01	0.000E+00	NOT IDENT.
NB-94	2.686E-02	3.814E-02	6.909E-02	0.000E+00	NOT IDENT.
NB-95	6.919E-02	5.170E-02	9.614E-02	0.000E+00	NOT IDENT.
NB-95M	2.886E-01	1.883E-01	3.070E-01	0.000E+00	NOT IDENT.
ZR-95	-8.974E-02	8.347E-02	1.305E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.025E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.461E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	5.547E+00	1.379E+01	2.441E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.621E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.950E-02	4.377E-02	7.562E-02	0.000E+00	NOT IDENT.
RH-102	-9.355E-03	3.524E-02	5.864E-02	0.000E+00	NOT IDENT.
RU-103	-4.476E-02	5.008E-02	7.858E-02	0.000E+00	FAIL ABUN
RH-106	5.240E-01	3.917E-01	7.082E-01	0.000E+00	FAIL ABUN
RU-106	5.240E-01	3.882E-01	7.082E-01	0.000E+00	FAIL ABUN
AG-108M	-5.971E-02	4.226E-02	6.502E-02	0.000E+00	NOT IDENT.
AG-110M	-1.832E-02	3.782E-02	6.317E-02	0.000E+00	NOT IDENT.
IN-111	-2.677E-01	1.493E+00	2.264E+00	0.000E+00	NOT IDENT.
IN-113M	5.527E-03	5.614E-02	9.688E-02	0.000E+00	NOT IDENT.
SN-113	5.527E-03	5.614E-02	9.688E-02	0.000E+00	NOT IDENT.
IN-114M	-1.858E-02	2.678E-01	3.926E-01	0.000E+00	NOT IDENT.
CD-115	-3.544E+00	1.263E+01	2.081E+01	0.000E+00	NOT IDENT.
SN-117M	-3.289E-03	6.931E-02	1.179E-01	0.000E+00	NOT IDENT.
SB-122	1.109E+00	2.440E+00	4.225E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.144E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.450E-02	3.639E-02	6.094E-02	0.000E+00	NOT IDENT.
I-124	4.132E-01	9.978E-01	1.491E+00	0.000E+00	NOT IDENT.
SB-124	1.613E-02	7.347E-02	1.289E-01	0.000E+00	FAIL ABUN
SB-125	1.827E-01	1.165E-01	2.154E-01	0.000E+00	FAIL ABUN
TE-125M	-1.160E+01	1.157E+01	1.915E+01	0.000E+00	NOT IDENT.
I-126	2.014E-01	2.184E-01	4.005E-01	0.000E+00	NOT IDENT.
SB-126	-1.321E-02	1.779E-01	2.623E-01	0.000E+00	FAIL ABUN
SB-127	-5.257E-01	1.549E+00	2.612E+00	0.000E+00	NOT IDENT.
XE-127	-3.662E-02	7.133E-02	1.012E-01	0.000E+00	NOT IDENT.
I-131	-1.059E-04	1.463E-01	2.522E-01	0.000E+00	NOT IDENT.
TE-132	-6.050E-01	8.597E-01	1.467E+00	0.000E+00	NOT IDENT.
BA-133	2.183E-02	6.205E-02	9.530E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.195E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.577E-02	5.894E-02	1.082E-01	0.000E+00	NOT IDENT.
CS-135	3.064E-01	2.241E-01	3.663E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.556E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.235E-03	1.320E-01	2.208E-01	0.000E+00	FAIL ABUN
BA-137M	-6.014E-03	4.202E-02	7.106E-02	0.000E+00	NOT IDENT.
CS-137	-6.357E-03	4.442E-02	7.511E-02	0.000E+00	NOT IDENT.
CE-139	-2.238E-02	3.774E-02	6.244E-02	0.000E+00	NOT IDENT.
BA-140	-9.925E-02	3.081E-01	5.026E-01	0.000E+00	NOT IDENT.
LA-140	-4.667E-02	9.060E-02	1.362E-01	0.000E+00	NOT IDENT.
CE-141	-3.229E-02	8.033E-02	1.348E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.019E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.330E-02	2.656E-01	4.596E-01	0.000E+00	NOT IDENT.
PM-144	-1.072E-02	3.828E-02	6.482E-02	0.000E+00	NOT IDENT.
PR-144	-7.262E-01	2.594E+00	4.392E+00	0.000E+00	NOT IDENT.
PM-146	3.519E-02	5.643E-02	9.525E-02	0.000E+00	NOT IDENT.
ND-147	-3.917E-01	6.747E-01	1.082E+00	0.000E+00	FAIL ABUN

PM-149	4.068E+01	1.136E+02	2.016E+02	0.000E+00	NOT IDENT.
EU-152	-2.135E-02	1.496E-01	2.091E-01	0.000E+00	NOT IDENT.
GD-153	1.478E-01	1.072E-01	1.742E-01	0.000E+00	NOT IDENT.
EU-154	-1.066E-01	1.523E-01	2.323E-01	0.000E+00	NOT IDENT.
EU-155	1.677E-01	1.329E-01	2.401E-01	0.000E+00	FAIL ABUN
TB-160	-5.320E-02	1.574E-01	2.594E-01	0.000E+00	FAIL ABUN
HO-166M	8.452E-03	6.583E-02	1.148E-01	0.000E+00	FAIL ABUN
TM-171	-5.149E+01	4.853E+01	8.134E+01	0.000E+00	NOT IDENT.
LU-176	1.296E-03	3.132E-02	5.322E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.562E+00	2.503E+00	0.000E+00	FAIL ABUN
LU-177M	2.377E-02	2.445E-01	3.651E-01	0.000E+00	FAIL ABUN
HF-181	2.076E-02	5.124E-02	8.915E-02	0.000E+00	NOT IDENT.
W-181	6.419E-02	6.200E-01	1.090E+00	0.000E+00	NOT IDENT.
TA-182	-3.308E-02	2.575E-01	4.226E-01	0.000E+00	FAIL ABUN
RE-183	1.389E-01	1.392E-01	2.453E-01	0.000E+00	FAIL ABUN
RE-184	-1.424E-01	2.905E-01	4.993E-01	0.000E+00	NOT IDENT.
OS-185	-3.167E-02	4.921E-02	7.696E-02	0.000E+00	NOT IDENT.
RE-188	1.210E-01	2.167E-01	3.773E-01	0.000E+00	NOT IDENT.
W-188	-1.077E+01	1.107E+01	1.561E+01	0.000E+00	NOT IDENT.
IR-192	5.223E-02	4.169E-02	7.654E-02	0.000E+00	FAIL ABUN
AU-195	4.205E-01	3.122E-01	5.059E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.471E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-9.966E+00	8.902E+00	1.430E+01	0.000E+00	NOT IDENT.
TL-202	2.349E-02	8.433E-02	1.462E-01	0.000E+00	NOT IDENT.
HG-203	5.130E-02	5.089E-02	9.251E-02	0.000E+00	NOT IDENT.
BI-207	8.478E-03	6.749E-02	1.144E-01	0.000E+00	FAIL ABUN
TL-207	-1.662E-02	8.662E-01	1.502E+00	0.000E+00	FAIL ABUN
PO-209	-8.163E-02	8.617E+00	1.463E+01	0.000E+00	NOT IDENT.
BI-210	3.255E+00	1.343E+01	2.391E+01	0.000E+00	NOT IDENT.
PB-210	3.255E+00	1.343E+01	2.391E+01	0.000E+00	NOT IDENT.
PO-210	3.255E+00	1.343E+01	2.391E+01	0.000E+00	NOT IDENT.
PB-211	4.448E-01	1.309E+00	1.956E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.666E-01	7.932E-01	0.000E+00	FAIL ABUN
PO-215	-1.662E-02	8.662E-01	1.502E+00	0.000E+00	FAIL ABUN
RN-219	-1.427E-01	5.118E-01	8.617E-01	0.000E+00	FAIL ABUN
RN-220	1.863E+01	2.996E+01	5.264E+01	0.000E+00	NOT IDENT.
RA-223	-1.662E-02	8.662E-01	1.502E+00	0.000E+00	FAIL ABUN
AC-227	2.042E-01	4.828E-01	8.623E-01	0.000E+00	FAIL ABUN
TH-227	2.042E-01	4.832E-01	8.623E-01	0.000E+00	FAIL ABUN
TH-229	-1.051E-01	6.735E-01	1.128E+00	0.000E+00	FAIL ABUN
PA-231	-2.926E+00	1.966E+00	3.087E+00	0.000E+00	FAIL ABUN
TH-231	-1.662E-02	8.662E-01	1.502E+00	0.000E+00	FAIL ABUN
U-231	1.936E-01	1.580E+00	2.429E+00	0.000E+00	FAIL ABUN
PA-233	-6.220E-02	8.140E-02	1.356E-01	0.000E+00	FAIL ABUN
PA-234	-6.730E-02	3.818E-01	6.361E-01	0.000E+00	FAIL ABUN
PA-234M	-5.240E+00	5.472E+00	8.326E+00	0.000E+00	NOT IDENT.
TH-234	1.107E+00	2.321E+00	4.156E+00	0.000E+00	FAIL ABUN
U-235	-4.564E-02	2.705E-01	4.588E-01	0.000E+00	FAIL ABUN
NP-236	-6.364E-02	1.022E-01	1.692E-01	0.000E+00	NOT IDENT.
U-238	1.107E+00	2.321E+00	4.156E+00	0.000E+00	FAIL ABUN
NP-239	1.185E-02	2.428E-01	4.206E-01	0.000E+00	FAIL ABUN
AM-241	-3.223E-01	3.035E-01	5.142E-01	0.000E+00	NOT IDENT.
CM-243	1.492E-02	1.202E-01	2.099E-01	0.000E+00	FAIL ABUN
AM-246	7.380E-02	1.711E-01	2.979E-01	0.000E+00	NOT IDENT.
CM-247	-1.478E-02	4.493E-02	7.542E-02	0.000E+00	NOT IDENT.
CF-249	2.486E-02	5.084E-02	8.959E-02	0.000E+00	NOT IDENT.
CF-251	3.261E-02	1.542E-01	2.638E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:14:02.76

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799001.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:13:23
Sample ID         : G245799001           Sample quantity  : 1.29471E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.34  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1253	10.67*	9.663E-01	3.522E+01	3.522E+01	11.55
CD-109	88.03	143	3.72*	4.468E+00	2.490E+00	2.547E+00	49.88
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	143	8.90	4.468E+00	1.041E+00	1.041E+00	64.22
	87.57	143	37.00*	4.468E+00	2.503E-01	2.503E-01	49.88
TL-208	277.35	------	6.80	3.705E+00	------ Line Not Found		------
	510.84	45	21.60	2.419E+00	2.520E-01	2.520E-01	141.53
	583.14	332	84.20*	2.191E+00	5.221E-01	5.221E-01	19.71
	860.37	56	12.46	1.574E+00	8.217E-01	8.217E-01	79.03
BI-211	72.87	------	1.27	3.001E+00	------ Line Not Found		------
	351.07	515	12.94*	3.141E+00	3.671E+00	3.671E+00	20.28
PB-212	74.81	303	10.70	3.266E+00	2.515E+00	2.515E+00	35.12
	77.11	450	18.00	3.503E+00	2.071E+00	2.071E+00	22.11
	87.30	143	8.00	4.468E+00	1.158E+00	1.158E+00	50.87
	238.63	1125	44.60*	4.114E+00	1.778E+00	1.778E+00	14.15
	300.09	83	3.41	3.506E+00	2.022E+00	2.022E+00	56.46
PO-212	74.81	303	10.70	3.266E+00	2.515E+00	2.515E+00	35.12
	77.11	450	18.00	3.503E+00	2.071E+00	2.071E+00	22.11
	87.30	143	8.00	4.468E+00	1.158E+00	1.158E+00	50.87
	115.19	------	0.60	5.586E+00	------ Line Not Found		------
	238.63	1125	44.60*	4.114E+00	1.778E+00	1.778E+00	14.15
	300.09	83	3.41	3.506E+00	2.022E+00	2.022E+00	56.46
BI-214	609.31	357	46.30*	2.117E+00	1.057E+00	1.057E+00	20.40
	1120.29	64	15.10	1.226E+00	1.005E+00	1.005E+00	63.53
	1764.49	62	15.80	8.555E-01	1.333E+00	1.333E+00	30.48
PB-214	74.81	303	6.21	3.266E+00	4.334E+00	4.334E+00	34.66
	77.11	450	10.50	3.503E+00	3.550E+00	3.550E+00	23.39
	87.30	143	4.67	4.468E+00	1.983E+00	1.983E+00	50.47
	241.98	266	7.49	4.078E+00	2.524E+00	2.524E+00	34.26
	295.21	389	19.20	3.547E+00	1.658E+00	1.658E+00	21.48
	351.92	515	37.20*	3.141E+00	1.277E+00	1.277E+00	20.94
PO-214	74.81	303	6.21	3.266E+00	4.334E+00	4.334E+00	34.66

Sample ID : G245799001 Acquisition date : 10-FEB-2010 14:13:23

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	450	10.50	3.503E+00	3.550E+00	3.550E+00	23.39
	87.30	143	4.67	4.468E+00	1.983E+00	1.983E+00	50.47
	241.98	266	7.49	4.078E+00	2.524E+00	2.524E+00	34.26
	295.21	389	19.20	3.547E+00	1.658E+00	1.658E+00	21.48
	351.92	515	37.20*	3.141E+00	1.277E+00	1.277E+00	20.94
PO-216	74.81	303	10.70	3.266E+00	2.515E+00	2.515E+00	35.12
	77.11	450	18.00	3.503E+00	2.071E+00	2.071E+00	22.11
	87.30	143	8.00	4.468E+00	1.158E+00	1.158E+00	50.87
	238.63	1125	44.60*	4.114E+00	1.778E+00	1.778E+00	14.15
	300.09	83	3.41	3.506E+00	2.022E+00	2.022E+00	56.46
PO-218	74.81	303	6.21	3.266E+00	4.334E+00	4.334E+00	34.66
	77.11	450	10.50	3.503E+00	3.550E+00	3.550E+00	23.39
	87.30	143	4.67	4.468E+00	1.983E+00	1.983E+00	50.47
	241.98	266	7.49	4.078E+00	2.524E+00	2.524E+00	34.26
	295.21	389	19.20	3.547E+00	1.658E+00	1.658E+00	21.48
	351.92	515	37.20*	3.141E+00	1.277E+00	1.277E+00	20.94
RA-224	240.98	266	3.95*	4.078E+00	4.786E+00	4.786E+00	33.79
RA-226	609.31	357	46.30*	2.117E+00	1.057E+00	1.057E+00	20.40
	1120.29	64	15.10	1.226E+00	1.005E+00	1.005E+00	63.53
	1764.49	62	15.80	8.555E-01	1.333E+00	1.333E+00	30.48
AC-228	338.32	300	11.40	3.229E+00	2.362E+00	2.362E+00	46.05
	911.07	232	27.70*	1.494E+00	1.625E+00	1.625E+00	22.13
	969.11	149	16.60	1.411E+00	1.850E+00	1.850E+00	41.70
RA-228	338.32	300	11.40	3.229E+00	2.362E+00	2.362E+00	46.05
	911.07	232	27.70*	1.494E+00	1.625E+00	1.625E+00	22.13
	969.11	149	16.60	1.411E+00	1.850E+00	1.850E+00	41.70
TH-228	74.81	303	10.70	3.266E+00	2.515E+00	2.553E+00	33.87
	77.11	450	18.00	3.503E+00	2.071E+00	2.102E+00	22.11
	87.30	143	8.00	4.468E+00	1.158E+00	1.175E+00	49.88
	238.63	1125	44.60*	4.114E+00	1.778E+00	1.805E+00	14.15
	300.09	83	3.41	3.506E+00	2.022E+00	2.053E+00	81.20
TH-230	609.31	357	46.30*	2.117E+00	1.057E+00	1.057E+00	20.40
	1120.29	64	15.10	1.226E+00	1.005E+00	1.005E+00	63.53
	1764.49	62	15.80	8.555E-01	1.333E+00	1.333E+00	30.48
TH-232	338.32	300	11.40	3.229E+00	2.362E+00	2.362E+00	22.19
	911.07	232	27.70*	1.494E+00	1.625E+00	1.625E+00	22.13
	969.11	149	16.60	1.411E+00	1.850E+00	1.850E+00	41.70
U-234	609.31	357	46.30*	2.117E+00	1.057E+00	1.057E+00	20.40
	1120.29	64	15.10	1.226E+00	1.005E+00	1.005E+00	63.53
	1764.49	62	15.80	8.555E-01	1.333E+00	1.333E+00	30.48
NP-237	86.50	143	12.60*	4.468E+00	7.351E-01	7.351E-01	53.98
	95.87	------	2.60	5.004E+00	------ Line Not Found		------
AM-243	74.67	303	66.00*	3.266E+00	4.078E-01	4.078E-01	33.85
	86.72	143	0.34	4.468E+00	2.757E+01	2.757E+01	49.88
	117.66	------	0.55	5.611E+00	------ Line Not Found		------
	142.18	------	0.13	5.525E+00	------ Line Not Found		------
ANH-511	511.00	45	100.00*	2.419E+00	5.444E-02	5.444E-02	141.28

Flag: "*" = Keyline

Sample ID : G245799001 Acquisition date : 10-FEB-2010 14:13:23

Total number of lines in spectrum 27
Number of unidentified lines 1
Number of lines tentatively identified by NID 26 96.30%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.522E+01	3.522E+01	0.407E+01	11.55	
CD-109	464.00D	1.02	2.490E+00	2.547E+00	1.270E+00	49.88	
SN-126	1.00E+05Y	1.00	2.503E-01	2.503E-01	1.249E-01	49.88	
TL-208	1.41E+10Y	1.00	5.221E-01	5.221E-01	1.029E-01	19.71	
BI-211	7.04E+08Y	1.00	3.671E+00	3.671E+00	0.745E+00	20.28	
PB-212	1.41E+10Y	1.00	1.778E+00	1.778E+00	0.251E+00	14.15	
PO-212	1.41E+10Y	1.00	1.778E+00	1.778E+00	0.251E+00	14.15	
BI-214	1600.00Y	1.00	1.057E+00	1.057E+00	0.216E+00	20.40	
PB-214	1600.00Y	1.00	1.277E+00	1.277E+00	0.267E+00	20.94	
PO-214	1600.00Y	1.00	1.277E+00	1.277E+00	0.267E+00	20.94	
PO-216	1.41E+10Y	1.00	1.778E+00	1.778E+00	0.251E+00	14.15	
PO-218	1600.00Y	1.00	1.277E+00	1.277E+00	0.267E+00	20.94	
RA-224	1.41E+10Y	1.00	4.786E+00	4.786E+00	1.617E+00	33.79	
RA-226	1600.00Y	1.00	1.057E+00	1.057E+00	0.216E+00	20.40	
AC-228	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.360E+00	22.13	
RA-228	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.360E+00	22.13	
TH-228	1.91Y	1.02	1.778E+00	1.805E+00	0.255E+00	14.15	
TH-230	4.47E+09Y	1.00	1.057E+00	1.057E+00	0.216E+00	20.40	
TH-232	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.360E+00	22.13	
U-234	4.47E+09Y	1.00	1.057E+00	1.057E+00	0.216E+00	20.40	
NP-237	2.14E+06Y	1.00	7.351E-01	7.351E-01	3.968E-01	53.98	
AM-243	7380.00Y	1.00	4.078E-01	4.078E-01	1.381E-01	33.85	
ANH-511	1.00E+09Y	1.00	5.444E-02	5.444E-02	7.691E-02	141.28	
	Total Activity :		6.819E+01	6.827E+01			

Grand Total Activity : 6.819E+01 6.827E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799001 Acquisition date : 10-FEB-2010 14:13:23

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	90.27	136	306	1.06	179.47	169	23	1.89E-02	44.0	4.66E+00	T
3	93.11	169	332	1.39	185.14	169	23	2.35E-02	46.1	4.85E+00	T
0	185.88	226	435	1.57	370.66	364	14	3.14E-02	42.3	4.86E+00	T
0	209.70	103	429	1.49	418.30	410	15	1.43E-02	90.3	4.50E+00	T
0	270.13	75	196	1.84	539.15	535	10	1.04E-02	75.6	3.77E+00	T
0	409.92	64	73	1.57	818.75	815	9	8.83E-03	54.4	2.83E+00	T
0	463.45	65	127	0.92	925.81	917	14	8.99E-03	78.5	2.59E+00	T
0	728.17	63	118	1.41	1455.28	1448	15	8.77E-03	79.6	1.83E+00	T
0	1587.70	38	0	1.55	3174.74	3168	12	5.28E-03	32.4	9.09E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:14:08.61

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799001.CNF;1  *
* Acquisition date  : 10-FEB-2010 14:13:23  Detector SN#     :               *
* Detector ID       : GAM15                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.34          Half life ratio : 8.00000        *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G245799001            Analyst initials: RXF2           *
* Batch Number      : 947531                Sample Quantity : 1.29471E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                 *
* MSD ID           :                      MSD Isotope      :                 *
* LCS ID           : 1032-A               LCS Isotope      :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.522E+01	4.067E+00	6.864E-01	6.745E-02	51.315
CD-109	2.547E+00	1.270E+00	1.617E+00	2.008E-01	1.575
SN-126	2.503E-01	1.249E-01	1.602E-01	1.982E-02	1.563
TL-208	5.221E-01	1.029E-01	7.463E-02	6.834E-03	6.995
BI-211	3.671E+00	7.446E-01	4.191E-01	4.174E-02	8.759
PB-212	1.778E+00	2.515E-01	1.152E-01	1.371E-02	15.438
PO-212	1.778E+00	2.515E-01	1.152E-01	1.371E-02	15.438
BI-214	1.057E+00	2.156E-01	1.294E-01	1.283E-02	8.163
PB-214	1.277E+00	2.675E-01	1.461E-01	1.640E-02	8.742
PO-214	1.277E+00	2.675E-01	1.461E-01	1.640E-02	8.742
PO-216	1.778E+00	2.515E-01	1.152E-01	1.371E-02	15.438
PO-218	1.277E+00	2.675E-01	1.461E-01	1.640E-02	8.742
RA-224	4.786E+00	1.617E+00	1.310E+00	1.445E-01	3.653
RA-226	1.057E+00	2.156E-01	1.294E-01	1.283E-02	8.163
AC-228	1.625E+00	3.598E-01	2.485E-01	2.928E-02	6.540
RA-228	1.625E+00	3.598E-01	2.485E-01	2.928E-02	6.540
TH-228	1.805E+00	2.553E-01	1.169E-01	1.392E-02	15.438
TH-230	1.057E+00	2.156E-01	1.294E-01	1.283E-02	8.163

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.625E+00	3.598E-01	2.485E-01	2.928E-02	6.540
U-234	1.057E+00	2.156E-01	1.294E-01	1.283E-02	8.163
NP-237	7.351E-01	3.968E-01	5.105E-01	1.226E-01	1.440
AM-243	4.078E-01	1.381E-01	1.331E-01	1.530E-02	3.064
ANH-511	5.444E-02	7.691E-02	5.789E-02	5.002E-03	0.940

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.948E-01		3.979E-01	6.130E-01	5.699E-02	-0.481
NA-22	-3.402E-02		5.537E-02	8.340E-02	7.576E-03	-0.408
NA-24	-2.620E-01		4.301E-01	Half-Life too short		
AL-26	1.847E-02		3.475E-02	6.273E-02	5.366E-03	0.294
TI-44	3.821E-01	+	8.450E-02	1.100E-01	1.282E-02	3.474
SC-46	1.865E-02		4.780E-02	8.157E-02	7.580E-03	0.229
V-48	-2.594E-02		8.458E-02	1.347E-01	1.231E-02	-0.193
CR-51	-6.272E-01		4.768E-01	7.273E-01	7.723E-02	-0.862
MN-52	1.369E-01		2.278E-01	4.140E-01	3.985E-02	0.331
MN-54	-1.977E-02		4.778E-02	7.664E-02	6.955E-03	-0.258
CO-56	3.262E-03		5.055E-02	8.415E-02	7.679E-03	0.039
CO-57	-2.100E-02		3.375E-02	5.340E-02	5.379E-03	-0.393
CO-58	-3.601E-02		4.498E-02	6.909E-02	6.211E-03	-0.521
FE-59	-1.106E-01		1.226E-01	1.827E-01	1.705E-02	-0.605
CO-60	-3.494E-02		4.639E-02	6.679E-02	6.421E-03	-0.523
ZN-65	-2.551E-02		1.341E-01	1.826E-01	1.560E-02	-0.140
GE-68	5.024E-01		1.485E+00	2.504E+00	2.192E-01	0.201
AS-73	7.832E-01		2.118E+00	3.563E+00	4.625E-01	0.220
AS-74	-1.276E-02		1.131E-01	1.807E-01	1.535E-02	-0.071
SE-75	4.792E-02		6.197E-02	9.456E-02	1.037E-02	0.507
BR-77	2.146E+00		1.317E+01	2.163E+01	1.868E+00	0.099
SR-82	-3.596E-01		4.494E-01	6.964E-01	6.137E-02	-0.516
RB-83	3.611E-02		8.702E-02	1.454E-01	1.255E-02	0.248
RB-84	-3.822E-02		7.891E-02	1.241E-01	1.150E-02	-0.308
KR-85	1.357E+01		1.104E+01	1.700E+01	1.469E+00	0.798
SR-85	6.957E-02		5.660E-02	8.716E-02	7.530E-03	0.798
RB-86	3.089E-01		9.304E-01	1.569E+00	1.374E-01	0.197
Y-88	1.916E-02		4.289E-02	7.575E-02	6.380E-03	0.253
ZR-88	-1.508E-02		3.896E-02	6.258E-02	5.268E-03	-0.241
Y-91	1.223E+01		2.412E+01	4.080E+01	3.440E+00	0.300
NB-94	2.686E-02		3.892E-02	6.824E-02	5.761E-03	0.394
NB-95	6.919E-02		5.275E-02	9.508E-02	8.331E-03	0.728
NB-95M	2.886E-01		1.921E-01	2.980E-01	3.586E-02	0.969
ZR-95	-8.974E-02		8.517E-02	1.290E-01	1.236E-02	-0.695
NB-97	-5.512E-02		5.232E-02	Half-Life too short		
ZR-97	5.206E+00		1.255E+00	Half-Life too short		
MO-99	5.547E+00		1.407E+01	2.412E+01	3.665E+00	0.230
TC-99M	-1.817E+10		2.358E+10	Half-Life too short		

Sample ID : G245799001 Acquisition date : 10-FEB-2010 14:13:23

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-101	2.950E-02		4.466E-02	7.321E-02	7.987E-03	0.403
RH-102	-9.355E-03		3.595E-02	5.755E-02	4.966E-03	-0.163
RU-103	-4.476E-02		5.110E-02	7.718E-02	1.094E-02	-0.580
RH-106	5.240E-01		3.997E-01	6.981E-01	9.228E-02	0.751
RU-106	5.240E-01		3.961E-01	6.981E-01	5.867E-02	0.751
AG-108M	-5.971E-02		4.312E-02	6.373E-02	5.673E-03	-0.937
AG-110M	-1.832E-02		3.859E-02	6.232E-02	5.303E-03	-0.294
IN-111	-2.677E-01		1.523E+00	2.199E+00	2.423E-01	-0.122
IN-113M	5.527E-03		5.728E-02	9.479E-02	8.233E-03	0.058
SN-113	5.527E-03		5.728E-02	9.479E-02	8.233E-03	0.058
IN-114M	-1.858E-02		2.733E-01	3.798E-01	4.124E-02	-0.049
CD-115	-3.544E+00		1.289E+01	2.046E+01	1.766E+00	-0.173
SN-117M	-3.289E-03		7.072E-02	1.137E-01	1.192E-02	-0.029
SB-122	1.109E+00		2.490E+00	4.158E+00	3.567E-01	0.267
I-123	-2.847E+00		3.645E+00	Half-Life too short		
TE-123M	-1.450E-02		3.713E-02	5.880E-02	6.196E-03	-0.247
I-124	4.132E-01		1.018E+00	1.469E+00	1.245E-01	0.281
SB-124	1.613E-02		7.497E-02	1.291E-01	1.214E-02	0.125
SB-125	1.827E-01		1.189E-01	2.110E-01	1.838E-02	0.866
TE-125M	-1.160E+01		1.181E+01	1.837E+01	2.157E+00	-0.632
I-126	2.014E-01		2.229E-01	3.952E-01	3.259E-02	0.510
SB-126	-1.321E-02		1.815E-01	2.592E-01	2.212E-02	-0.051
SB-127	-5.257E-01		1.580E+00	2.578E+00	2.881E-01	-0.204
XE-127	-3.662E-02		7.279E-02	9.800E-02	1.072E-02	-0.374
I-131	-1.059E-04		1.493E-01	2.465E-01	2.379E-02	0.000
TE-132	-6.050E-01		8.773E-01	1.423E+00	2.441E-01	-0.425
BA-133	2.183E-02		6.331E-02	9.311E-02	1.280E-02	0.234
I-133	-7.435E-03		3.671E-03	Half-Life too short		
CS-134	6.577E-02		6.014E-02	1.071E-01	9.598E-03	0.614
CS-135	3.064E-01		2.286E-01	3.563E-01	4.275E-02	0.860
I-135	-2.811E+09		3.345E+09	Half-Life too short		
CS-136	-5.235E-03		1.347E-01	2.195E-01	2.031E-02	-0.024
BA-137M	-6.014E-03		4.288E-02	7.011E-02	5.764E-03	-0.086
CS-137	-6.357E-03		4.533E-02	7.411E-02	6.106E-03	-0.086
CE-139	-2.238E-02		3.851E-02	6.028E-02	6.435E-03	-0.371
BA-140	-9.925E-02		3.144E-01	4.943E-01	1.638E-01	-0.201
LA-140	-4.667E-02		9.245E-02	1.363E-01	1.278E-02	-0.342
CE-141	-3.229E-02		8.197E-02	1.299E-01	1.343E-02	-0.249
CE-143	9.273E-04		1.540E-04	Half-Life too short		
CE-144	5.330E-02		2.710E-01	4.422E-01	7.254E-02	0.121
PM-144	-1.072E-02		3.907E-02	6.401E-02	5.385E-03	-0.167
PR-144	-7.262E-01		2.647E+00	4.337E+00	3.648E-01	-0.167
PM-146	3.519E-02		5.758E-02	9.342E-02	1.000E-02	0.377
ND-147	-3.917E-01		6.885E-01	1.064E+00	1.591E-01	-0.368
PM-149	4.068E+01		1.160E+02	1.963E+02	3.300E+01	0.207
EU-152	-2.135E-02		1.527E-01	2.042E-01	2.079E-02	-0.105
GD-153	1.478E-01		1.094E-01	1.668E-01	1.841E-02	0.886
EU-154	-1.066E-01		1.554E-01	2.317E-01	2.702E-02	-0.460

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	1.677E-01		1.357E-01	2.302E-01	2.426E-02	0.729
TB-160	-5.320E-02		1.607E-01	2.571E-01	2.380E-02	-0.207
HO-166M	8.452E-03		6.718E-02	1.134E-01	9.630E-03	0.075
TM-171	-5.149E+01		4.952E+01	7.745E+01	8.841E+00	-0.665
LU-176	1.296E-03		3.196E-02	5.188E-02	5.425E-03	0.025
LU-177	2.873E+00	+	2.614E+00	2.425E+00	2.660E-01	1.185
LU-177M	2.377E-02		2.494E-01	3.575E-01	3.038E-02	0.066
HF-181	2.076E-02		5.229E-02	8.752E-02	7.557E-03	0.237
W-181	6.419E-02		6.327E-01	1.037E+00	1.184E-01	0.062
TA-182	-3.308E-02		2.627E-01	4.212E-01	3.615E-02	-0.079
RE-183	1.389E-01		1.421E-01	2.368E-01	2.505E-02	0.587
RE-184	-1.424E-01		2.965E-01	4.853E-01	5.336E-02	-0.293
OS-185	-3.167E-02		5.022E-02	7.591E-02	6.300E-03	-0.417
RE-188	1.210E-01		2.211E-01	3.639E-01	3.784E-02	0.332
W-188	-1.077E+01		1.129E+01	1.521E+01	1.625E+00	-0.708
IR-192	5.223E-02		4.254E-02	7.464E-02	7.696E-03	0.700
AU-195	4.205E-01		3.186E-01	4.845E-01	5.281E-02	0.868
TL-200	6.200E-04		2.791E-04	Half-Life too short		
TL-201	-9.966E+00		9.083E+00	1.381E+01	1.475E+00	-0.722
TL-202	2.349E-02		8.605E-02	1.433E-01	1.228E-02	0.164
HG-203	5.130E-02		5.193E-02	9.004E-02	9.913E-03	0.570
BI-207	8.478E-03		6.886E-02	1.138E-01	1.004E-02	0.075
TL-207	-1.662E-02		8.839E-01	1.465E+00	2.711E-01	-0.011
PO-209	-8.163E-02		8.793E+00	1.450E+01	1.352E+00	-0.006
BI-210	3.255E+00		1.370E+01	2.265E+01	2.789E+00	0.144
PB-210	3.255E+00		1.370E+01	2.265E+01	2.789E+00	0.144
PO-210	3.255E+00		1.370E+01	2.265E+01	2.641E+00	0.144
PB-211	4.448E-01		1.336E+00	1.915E+00	1.199E+00	0.232
BI-212	8.481E-01	+	6.802E-01	7.839E-01	7.811E-02	1.082
PO-215	-1.662E-02		8.839E-01	1.465E+00	2.711E-01	-0.011
RN-219	-1.427E-01		5.222E-01	8.436E-01	1.260E-01	-0.169
RN-220	1.863E+01		3.057E+01	5.179E+01	4.456E+00	0.360
RA-223	-1.662E-02		8.839E-01	1.465E+00	2.711E-01	-0.011
AC-227	2.042E-01		4.927E-01	8.381E-01	1.407E-01	0.244
TH-227	2.042E-01		4.931E-01	8.381E-01	1.618E-01	0.244
TH-229	-1.051E-01		6.872E-01	1.092E+00	1.188E-01	-0.096
PA-231	-2.926E+00		2.007E+00	3.005E+00	4.957E-01	-0.974
TH-231	-1.662E-02		8.839E-01	1.465E+00	2.711E-01	-0.011
U-231	1.936E-01		1.613E+00	2.326E+00	2.606E-01	0.083
PA-233	-6.220E-02		8.306E-02	1.322E-01	1.399E-02	-0.470
PA-234	-6.730E-02		3.896E-01	6.313E-01	1.203E-01	-0.107
PA-234M	-5.240E+00		5.584E+00	8.271E+00	8.576E-01	-0.634
TH-234	1.107E+00		2.368E+00	3.955E+00	7.704E-01	0.280
U-235	-4.564E-02		2.761E-01	4.420E-01	8.098E-02	-0.103
NP-236	-6.364E-02		1.043E-01	1.633E-01	1.719E-02	-0.390
U-238	1.107E+00		2.368E+00	3.955E+00	7.704E-01	0.280
NP-239	1.185E-02		2.477E-01	4.039E-01	4.077E-02	0.029
AM-241	-3.223E-01		3.097E-01	4.888E-01	5.737E-02	-0.659

Sample ID : G245799001 Acquisition date : 10-FEB-2010 14:13:23

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.492E-02		1.226E-01	2.012E-01	2.120E-02	0.074
AM-246	7.380E-02		1.746E-01	2.963E-01	2.591E-02	0.249
CM-247	-1.478E-02		4.585E-02	7.383E-02	6.244E-03	-0.200
CF-249	2.486E-02		5.188E-02	8.765E-02	7.478E-03	0.284
CF-251	3.261E-02		1.574E-01	2.550E-01	2.742E-02	0.128

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799001            *
* Acquisition date : 10-FEB-2010 14:13:23 Detector SN#    :                 *
* Detector ID      : GAM15                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.34     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245799001           Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.2947E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.522E+01	3.985E+00	3.436E-01	2.033E+00
CD-109	2.547E+00	1.245E+00	8.462E-01	6.351E-01
SN-126	2.503E-01	1.224E-01	8.381E-02	6.243E-02
TL-208	5.221E-01	1.008E-01	3.792E-02	5.144E-02
BI-211	3.671E+00	7.298E-01	2.147E-01	3.723E-01
PB-212	1.778E+00	2.464E-01	5.934E-02	1.257E-01
PO-212	1.778E+00	2.464E-01	5.934E-02	1.257E-01
BI-214	1.057E+00	2.113E-01	6.572E-02	1.078E-01
PB-214	1.277E+00	2.621E-01	7.481E-02	1.337E-01
PO-214	1.277E+00	2.621E-01	7.481E-02	1.337E-01
PO-216	1.778E+00	2.464E-01	5.934E-02	1.257E-01
PO-218	1.277E+00	2.621E-01	7.481E-02	1.337E-01
RA-224	4.786E+00	1.585E+00	6.750E-01	8.087E-01
RA-226	1.057E+00	2.113E-01	6.572E-02	1.078E-01
AC-228	1.625E+00	3.526E-01	1.254E-01	1.799E-01
RA-228	1.625E+00	3.526E-01	1.254E-01	1.799E-01
TH-228	1.805E+00	2.502E-01	6.024E-02	1.276E-01
TH-230	1.057E+00	2.113E-01	6.572E-02	1.078E-01
TH-232	1.625E+00	3.526E-01	1.254E-01	1.799E-01
U-234	1.057E+00	2.113E-01	6.572E-02	1.078E-01
NP-237	7.351E-01	3.889E-01	2.672E-01	1.984E-01
AM-243	4.078E-01	1.353E-01	6.980E-02	6.903E-02
ANH-511	5.444E-02	7.537E-02	2.947E-02	3.845E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.948E-01	3.900E-01	3.124E-01	1.990E-01	NOT IDENT.
NA-22	-3.402E-02	5.427E-02	4.184E-02	2.769E-02	NOT IDENT.
NA-24	-2.620E+05	8.429E+05	0.000E+00	4.301E+05	SHORT HLIF
AL-26	1.847E-02	3.405E-02	3.129E-02	1.737E-02	NOT IDENT.

TI-44	3.821E-01	8.281E-02	5.764E-02	4.225E-02	FAIL ABUN
SC-46	1.865E-02	4.684E-02	4.116E-02	2.390E-02	FAIL ABUN
V-48	-2.594E-02	8.289E-02	6.786E-02	4.229E-02	NOT IDENT.
CR-51	-6.272E-01	4.673E-01	3.730E-01	2.384E-01	NOT IDENT.
MN-52	1.369E-01	2.232E-01	2.073E-01	1.139E-01	NOT IDENT.
MN-54	-1.977E-02	4.682E-02	3.872E-02	2.389E-02	NOT IDENT.
CO-56	3.262E-03	4.954E-02	4.250E-02	2.528E-02	NOT IDENT.
CO-57	-2.100E-02	3.308E-02	2.780E-02	1.688E-02	NOT IDENT.
CO-58	-3.601E-02	4.408E-02	3.492E-02	2.249E-02	NOT IDENT.
FE-59	-1.106E-01	1.201E-01	9.187E-02	6.128E-02	NOT IDENT.
CO-60	-3.494E-02	4.546E-02	3.348E-02	2.320E-02	NOT IDENT.
ZN-65	-2.551E-02	1.315E-01	9.179E-02	6.707E-02	NOT IDENT.
GE-68	5.024E-01	1.455E+00	1.260E+00	7.424E-01	NOT IDENT.
AS-73	7.832E-01	2.076E+00	1.878E+00	1.059E+00	NOT IDENT.
AS-74	-1.276E-02	1.108E-01	9.178E-02	5.654E-02	NOT IDENT.
SE-75	4.792E-02	6.073E-02	4.865E-02	3.098E-02	NOT IDENT.
BR-77	2.146E+00	1.291E+01	1.101E+01	6.586E+00	FAIL ABUN
SR-82	-3.596E-01	4.405E-01	3.522E-01	2.247E-01	NOT IDENT.
RB-83	3.611E-02	8.528E-02	7.399E-02	4.351E-02	NOT IDENT.
RB-84	-3.822E-02	7.733E-02	6.265E-02	3.946E-02	NOT IDENT.
KR-85	1.357E+01	1.082E+01	8.656E+00	5.521E+00	NOT IDENT.
SR-85	6.957E-02	5.547E-02	4.437E-02	2.830E-02	NOT IDENT.
RB-86	3.089E-01	9.118E-01	7.892E-01	4.652E-01	NOT IDENT.
Y-88	1.916E-02	4.204E-02	3.777E-02	2.145E-02	NOT IDENT.
ZR-88	-1.508E-02	3.818E-02	3.200E-02	1.948E-02	NOT IDENT.
Y-91	1.223E+01	2.364E+01	2.049E+01	1.206E+01	NOT IDENT.
NB-94	2.686E-02	3.814E-02	3.457E-02	1.946E-02	NOT IDENT.
NB-95	6.919E-02	5.170E-02	4.810E-02	2.638E-02	NOT IDENT.
NB-95M	2.886E-01	1.883E-01	1.536E-01	9.605E-02	NOT IDENT.
ZR-95	-8.974E-02	8.347E-02	6.528E-02	4.258E-02	NOT IDENT.
NB-97	-5.512E+04	1.025E+05	0.000E+00	5.232E+04	SHORT HLIF
ZR-97	5.206E+06	2.461E+06	0.000E+00	1.255E+06	SHORT HLIF
MO-99	5.547E+00	1.379E+01	1.221E+01	7.033E+00	NOT IDENT.
TC-99M	-1.817E+16	4.621E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.950E-02	4.377E-02	3.783E-02	2.233E-02	NOT IDENT.
RH-102	-9.355E-03	3.524E-02	2.934E-02	1.798E-02	NOT IDENT.
RU-103	-4.476E-02	5.008E-02	3.931E-02	2.555E-02	FAIL ABUN
RH-106	5.240E-01	3.917E-01	3.543E-01	1.999E-01	FAIL ABUN
RU-106	5.240E-01	3.882E-01	3.543E-01	1.981E-01	FAIL ABUN
AG-108M	-5.971E-02	4.226E-02	3.253E-02	2.156E-02	NOT IDENT.
AG-110M	-1.832E-02	3.782E-02	3.160E-02	1.929E-02	NOT IDENT.
IN-111	-2.677E-01	1.493E+00	1.133E+00	7.615E-01	NOT IDENT.
IN-113M	5.527E-03	5.614E-02	4.847E-02	2.864E-02	NOT IDENT.
SN-113	5.527E-03	5.614E-02	4.847E-02	2.864E-02	NOT IDENT.
IN-114M	-1.858E-02	2.678E-01	1.964E-01	1.366E-01	NOT IDENT.
CD-115	-3.544E+00	1.263E+01	1.041E+01	6.445E+00	NOT IDENT.
SN-117M	-3.289E-03	6.931E-02	5.898E-02	3.536E-02	NOT IDENT.
SB-122	1.109E+00	2.440E+00	2.114E+00	1.245E+00	NOT IDENT.
I-123	-2.847E+06	7.144E+06	0.000E+00	3.645E+06	SHORT HLIF
TE-123M	-1.450E-02	3.639E-02	3.049E-02	1.857E-02	NOT IDENT.
I-124	4.132E-01	9.978E-01	7.462E-01	5.091E-01	NOT IDENT.
SB-124	1.613E-02	7.347E-02	6.449E-02	3.749E-02	FAIL ABUN
SB-125	1.827E-01	1.165E-01	1.078E-01	5.945E-02	FAIL ABUN
TE-125M	-1.160E+01	1.157E+01	9.579E+00	5.906E+00	NOT IDENT.
I-126	2.014E-01	2.184E-01	2.004E-01	1.114E-01	NOT IDENT.
SB-126	-1.321E-02	1.779E-01	1.312E-01	9.077E-02	FAIL ABUN
SB-127	-5.257E-01	1.549E+00	1.307E+00	7.902E-01	NOT IDENT.
XE-127	-3.662E-02	7.133E-02	5.062E-02	3.639E-02	NOT IDENT.
I-131	-1.059E-04	1.463E-01	1.262E-01	7.465E-02	NOT IDENT.
TE-132	-6.050E-01	8.597E-01	7.338E-01	4.386E-01	NOT IDENT.
BA-133	2.183E-02	6.205E-02	4.768E-02	3.166E-02	NOT IDENT.
I-133	-7.435E+03	7.195E+03	0.000E+00	3.671E+03	SHORT HLIF
CS-134	6.577E-02	5.894E-02	5.413E-02	3.007E-02	NOT IDENT.
CS-135	3.064E-01	2.241E-01	1.833E-01	1.143E-01	NOT IDENT.
I-135	-2.811E+15	6.556E+15	0.000E+00	3.345E+15	SHORT HLIF
CS-136	-5.235E-03	1.320E-01	1.105E-01	6.734E-02	FAIL ABUN
BA-137M	-6.014E-03	4.202E-02	3.555E-02	2.144E-02	NOT IDENT.
CS-137	-6.357E-03	4.442E-02	3.758E-02	2.266E-02	NOT IDENT.
CE-139	-2.238E-02	3.774E-02	3.124E-02	1.925E-02	NOT IDENT.
BA-140	-9.925E-02	3.081E-01	2.515E-01	1.572E-01	NOT IDENT.
LA-140	-4.667E-02	9.060E-02	6.814E-02	4.622E-02	NOT IDENT.
CE-141	-3.229E-02	8.033E-02	6.745E-02	4.098E-02	NOT IDENT.
CE-143	9.273E+02	3.019E+02	0.000E+00	1.540E+02	SHORT HLIF
CE-144	5.330E-02	2.656E-01	2.299E-01	1.355E-01	NOT IDENT.
PM-144	-1.072E-02	3.828E-02	3.243E-02	1.953E-02	NOT IDENT.
PR-144	-7.262E-01	2.594E+00	2.197E+00	1.324E+00	NOT IDENT.
PM-146	3.519E-02	5.643E-02	4.765E-02	2.879E-02	NOT IDENT.
ND-147	-3.917E-01	6.747E-01	5.412E-01	3.442E-01	FAIL ABUN

PM-149	4.068E+01	1.136E+02	1.009E+02	5.798E+01	NOT IDENT.
EU-152	-2.135E-02	1.496E-01	1.046E-01	7.635E-02	NOT IDENT.
GD-153	1.478E-01	1.072E-01	8.713E-02	5.472E-02	NOT IDENT.
EU-154	-1.066E-01	1.523E-01	1.162E-01	7.771E-02	NOT IDENT.
EU-155	1.677E-01	1.329E-01	1.201E-01	6.783E-02	FAIL ABUN
TB-160	-5.320E-02	1.574E-01	1.298E-01	8.033E-02	FAIL ABUN
HO-166M	8.452E-03	6.583E-02	5.745E-02	3.359E-02	FAIL ABUN
TM-171	-5.149E+01	4.853E+01	4.069E+01	2.476E+01	NOT IDENT.
LU-176	1.296E-03	3.132E-02	2.663E-02	1.598E-02	FAIL ABUN
LU-177	2.873E+00	2.562E+00	1.252E+00	1.307E+00	FAIL ABUN
LU-177M	2.377E-02	2.445E-01	1.826E-01	1.247E-01	FAIL ABUN
HF-181	2.076E-02	5.124E-02	4.460E-02	2.615E-02	NOT IDENT.
W-181	6.419E-02	6.200E-01	5.451E-01	3.163E-01	NOT IDENT.
TA-182	-3.308E-02	2.575E-01	2.114E-01	1.314E-01	FAIL ABUN
RE-183	1.389E-01	1.392E-01	1.227E-01	7.104E-02	FAIL ABUN
RE-184	-1.424E-01	2.905E-01	2.498E-01	1.482E-01	NOT IDENT.
OS-185	-3.167E-02	4.921E-02	3.850E-02	2.511E-02	NOT IDENT.
RE-188	1.210E-01	2.167E-01	1.887E-01	1.105E-01	NOT IDENT.
W-188	-1.077E+01	1.107E+01	7.811E+00	5.647E+00	NOT IDENT.
IR-192	5.223E-02	4.169E-02	3.829E-02	2.127E-02	FAIL ABUN
AU-195	4.205E-01	3.122E-01	2.531E-01	1.593E-01	FAIL ABUN
TL-200	6.200E+02	5.471E+02	0.000E+00	2.791E+02	SHORT HLIF
TL-201	-9.966E+00	8.902E+00	7.154E+00	4.542E+00	NOT IDENT.
TL-202	2.349E-02	8.433E-02	7.314E-02	4.302E-02	NOT IDENT.
HG-203	5.130E-02	5.089E-02	4.628E-02	2.596E-02	NOT IDENT.
BI-207	8.478E-03	6.749E-02	5.725E-02	3.443E-02	FAIL ABUN
TL-207	-1.662E-02	8.662E-01	7.514E-01	4.420E-01	FAIL ABUN
PO-209	-8.163E-02	8.617E+00	7.318E+00	4.396E+00	NOT IDENT.
BI-210	3.255E+00	1.343E+01	1.196E+01	6.851E+00	NOT IDENT.
PB-210	3.255E+00	1.343E+01	1.196E+01	6.851E+00	NOT IDENT.
PO-210	3.255E+00	1.343E+01	1.196E+01	6.851E+00	NOT IDENT.
PB-211	4.448E-01	1.309E+00	9.784E-01	6.678E-01	NOT IDENT.
BI-212	8.481E-01	6.666E-01	3.968E-01	3.401E-01	FAIL ABUN
PO-215	-1.662E-02	8.662E-01	7.514E-01	4.420E-01	FAIL ABUN
RN-219	-1.427E-01	5.118E-01	4.311E-01	2.611E-01	FAIL ABUN
RN-220	1.863E+01	2.996E+01	2.634E+01	1.529E+01	NOT IDENT.
RA-223	-1.662E-02	8.662E-01	7.514E-01	4.420E-01	FAIL ABUN
AC-227	2.042E-01	4.828E-01	4.314E-01	2.463E-01	FAIL ABUN
TH-227	2.042E-01	4.832E-01	4.314E-01	2.465E-01	FAIL ABUN
TH-229	-1.051E-01	6.735E-01	5.645E-01	3.436E-01	FAIL ABUN
PA-231	-2.926E+00	1.966E+00	1.544E+00	1.003E+00	FAIL ABUN
TH-231	-1.662E-02	8.662E-01	7.514E-01	4.420E-01	FAIL ABUN
U-231	1.936E-01	1.580E+00	1.215E+00	8.063E-01	FAIL ABUN
PA-233	-6.220E-02	8.140E-02	6.785E-02	4.153E-02	FAIL ABUN
PA-234	-6.730E-02	3.818E-01	3.183E-01	1.948E-01	FAIL ABUN
PA-234M	-5.240E+00	5.472E+00	4.166E+00	2.792E+00	NOT IDENT.
TH-234	1.107E+00	2.321E+00	2.079E+00	1.184E+00	FAIL ABUN
U-235	-4.564E-02	2.705E-01	2.295E-01	1.380E-01	FAIL ABUN
NP-236	-6.364E-02	1.022E-01	8.465E-02	5.213E-02	NOT IDENT.
U-238	1.107E+00	2.321E+00	2.079E+00	1.184E+00	FAIL ABUN
NP-239	1.185E-02	2.428E-01	2.104E-01	1.239E-01	FAIL ABUN
AM-241	-3.223E-01	3.035E-01	2.572E-01	1.549E-01	NOT IDENT.
CM-243	1.492E-02	1.202E-01	1.050E-01	6.131E-02	FAIL ABUN
AM-246	7.380E-02	1.711E-01	1.490E-01	8.728E-02	NOT IDENT.
CM-247	-1.478E-02	4.493E-02	3.773E-02	2.292E-02	NOT IDENT.
CF-249	2.486E-02	5.084E-02	4.482E-02	2.594E-02	NOT IDENT.
CF-251	3.261E-02	1.542E-01	1.320E-01	7.869E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
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ENERGY	MDA COUNTS
46.50	291.0586
46.50	291.0586
46.50	291.0586
48.70	321.7623
49.72	345.2714
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52.97	293.2779
53.15	293.3634
53.44	295.4253
54.07	300.5403
56.28	334.4556
56.28	334.4576
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57.53	307.9882
57.53	307.9891
57.60	308.0213
57.98	298.5095
57.98	298.5095
59.32	354.4765
59.32	354.4765
59.40	372.9741
59.54	373.0525
59.72	373.1543
60.01	386.9274
61.10	363.2148
61.14	363.2362
61.30	355.5305
63.00	351.5395
63.29	356.5724
63.29	356.5724
63.58	352.8138
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65.20	384.9869
65.20	384.9869
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66.83	453.6295
66.91	453.6815
67.20	453.8666
67.20	453.8666
67.75	433.5694
67.85	415.9324
68.90	410.9606
68.90	410.9606
69.30	415.1277
69.67	410.0840
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70.82	440.7430
70.83	440.7498
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72.87	449.8871
72.87	449.8871
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74.81	437.7481
74.81	437.7481
74.81	437.7481
74.81	437.7481
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77.11	439.0654

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77.11	439.0654
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79.80	402.8186
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80.30	436.6634
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81.07	476.3123
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86.59	436.8452
86.72	436.9147
86.79	436.9495
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87.30	385.1884
87.30	385.1884
87.30	385.1884
87.57	385.3137
87.88	385.4565
88.03	385.5265
88.36	385.6780
88.47	385.7290
89.95	386.4066
91.11	386.9341
92.29	387.4675
92.38	387.5083
92.38	387.5083
93.35	387.9425
94.00	388.2340
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94.67	349.8828
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94.90	346.7191
94.90	346.7191
94.90	346.7191
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96.73	355.5978
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98.44	258.2206
98.44	258.2216
98.88	286.1449
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99.55	313.6307
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100.10	312.2632
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105.00	298.3556
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109.28	363.7909

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111.00	341.6658
111.76	345.0437
112.95	311.2312
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117.00	344.8073
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122.32	379.0944
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122.32	379.0944
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144.24	331.3097
144.24	331.3097
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145.44	339.1488
147.16	354.6624
152.43	340.1306
152.70	330.5183
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154.21	325.5523
154.21	325.5523
154.21	325.5523
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163.89	278.1914
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172.10	286.5905
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176.60	271.1362
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218.09	252.4861
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227.20	265.8654
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238.63	245.8324
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241.98	246.3575
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269.46	196.3110
269.46	196.3110
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284.30	224.4091
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285.90	189.6962
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295.21	177.0918
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300.09	182.3267
300.12	182.3290
301.29	176.1000
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323.87	197.5102
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351.92	160.2764
351.92	160.2764
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391.69	144.4177
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602.71	110.0264
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661.65	87.3578
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765.79	74.0216
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766.84	89.2323
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778.57	62.8633
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792.07	78.4015

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911.07	58.2282
911.07	58.2282
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969.11	46.3422
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1038.76	0.0000
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1048.07	59.1588

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1078.86	51.3550
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1112.84	63.8663
1115.52	71.0045
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1120.29	53.3078
1120.29	53.3078
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1147.95	0.0000
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1274.54	56.7222
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1325.50	32.4268
1332.49	38.9648
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1362.66	0.0000
1365.15	40.1400
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1368.53	0.0000
1376.25	30.8684
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1395.20	32.8552
1407.95	35.7549
1434.06	14.1807
1436.60	20.8084
1457.56	0.0000
1460.81	27.5486
1489.15	17.1851
1509.49	20.1204
1596.49	20.9443
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1691.02	9.8751
1691.02	9.8751
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1750.46	0.0000
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1764.49	3.4963
1764.49	3.4963
1764.49	3.4963
1770.23	64.9887
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1791.20	0.0000
1808.65	10.0569

1836.01 13.1279

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799001

Total Uranium Activity	3.2717E+00	ug/g
Total Uranium Counting Unc.	6.9064E+00	ug/g
Total Uranium Tpu	3.5237E-06	ug/g
Total Uranium Mda	6.1871E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799001       *
*   ANALYST       : RXF2                      DETECTOR   : GAM15            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 14:13:23.33    SAMPLE ALQT:  129.471 GRAM    *
*                                                                           *
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         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.616E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.533E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.088E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.496E+00
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VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:26:40.73

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799002.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:26:14
Sample ID         : G245799002           Sample quantity  : 1.41594E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.88  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.38*	441	666	1.09	125.89	121	10	6.13E-02	12.0	
2	2	74.96	399	626	1.14	149.04	142	19	5.55E-02	11.8	1.06E+00
3	2	77.26	625	554	0.97	153.63	142	19	8.69E-02	7.2	
4	0	87.68	205	901	0.96	174.48	169	9	2.85E-02	27.4	
5	0	92.98*	1071	931	1.23	185.07	181	10	1.49E-01	6.3	
6	0	98.69	93	507	1.35	196.48	193	8	1.29E-02	43.2	
7	0	128.97	116	366	1.22	257.02	254	7	1.61E-02	28.9	
8	0	143.67*	185	592	1.40	286.41	281	13	2.57E-02	28.2	
9	0	186.00*	404	485	1.35	371.04	367	10	5.61E-02	11.7	
10	0	209.46*	173	344	1.10	417.94	414	9	2.40E-02	21.2	
11	3	238.76*	1784	293	1.16	476.52	470	20	2.48E-01	2.9	7.61E-01
12	3	241.74	354	357	1.63	482.48	470	20	4.92E-02	12.6	
13	0	270.12	113	286	1.39	539.23	535	9	1.58E-02	28.4	
14	0	278.12	106	380	1.45	555.21	547	13	1.48E-02	39.0	
15	0	295.27*	525	289	1.16	589.51	584	11	7.29E-02	7.8	
16	0	300.23	134	247	1.46	599.42	595	10	1.85E-02	23.8	
17	0	328.18	105	210	0.89	655.30	650	10	1.46E-02	27.6	
18	0	338.52*	364	297	1.42	675.99	670	14	5.06E-02	11.5	
19	0	351.88*	839	298	1.35	702.70	697	12	1.16E-01	5.5	
20	0	463.46	131	148	1.07	925.78	921	11	1.82E-02	20.5	
21	0	510.61*	254	255	2.07	1020.06	1011	20	3.53E-02	18.5	
22	0	583.07*	649	173	1.62	1164.93	1157	17	9.02E-02	6.2	
23	0	609.07*	655	160	1.67	1216.92	1210	15	9.09E-02	5.9	
24	0	727.04*	135	119	1.39	1452.81	1445	14	1.87E-02	19.7	
25	0	767.90*	92	240	0.87	1534.50	1528	19	1.28E-02	41.6	
26	0	794.98*	90	67	1.48	1588.66	1584	11	1.25E-02	21.4	
27	0	861.25	56	131	1.38	1721.16	1716	13	7.79E-03	44.8	
28	0	911.09*	474	138	1.81	1820.82	1812	18	6.58E-02	7.4	
29	1	964.40	112	81	2.32	1927.42	1917	25	1.55E-02	20.3	1.03E+00
30	1	968.54*	238	63	1.96	1935.69	1917	25	3.30E-02	9.9	
31	0	1001.07*	66	104	1.29	2000.76	1997	12	9.11E-03	34.8	
32	0	1120.09*	173	113	2.06	2238.75	2230	20	2.41E-02	17.1	
33	0	1377.51	42	50	2.04	2753.53	2749	12	5.88E-03	37.6	
34	0	1460.04*	2522	46	2.27	2918.56	2907	23	3.50E-01	2.1	
35	0	1587.17	40	18	2.35	3172.81	3167	11	5.53E-03	26.5	
36	0	1763.86*	149	15	1.73	3526.17	3516	20	2.07E-02	10.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 16:26:45

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:26:14
Sample ID : G245799002 Sample quantity : 141.59 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.88 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.309E+01	2.876E+00	3.554E-01	2.697E-02	93.105
CD-109	+	88.03	*	2.307E+00	1.281E+00	1.476E+00	1.365E-01	1.563
SN-126	+	64.28		3.937E+00	1.112E+00	8.959E-01	1.324E-01	4.394
	+	86.94		9.428E-01	6.475E-01	5.822E-01	2.414E-01	1.619
	+	87.57	*	2.268E-01	1.259E-01	1.388E-01	1.279E-02	1.634
HG-203		70.83		7.791E-01	1.147E+00	1.743E+00	2.322E-01	0.447
		72.87		4.466E-01	6.010E-01	1.012E+00	1.312E-01	0.441
		82.60		-7.306E-01	1.514E+00	1.702E+00	2.361E-01	-0.429
	+	279.20	*	7.318E-02	5.723E-02	4.905E-02	2.975E-03	1.492
TL-208	+	277.35		6.641E-01	5.224E-01	4.772E-01	5.011E-02	1.392
	+	510.84		7.228E-01	2.783E-01	1.563E-01	1.662E-02	4.624
	+	583.14	*	5.197E-01	7.620E-02	4.013E-02	3.146E-03	12.952
	+	860.37		4.096E-01	3.698E-01	3.284E-01	3.674E-02	1.247
BI-211		72.87		2.246E+00	3.014E+00	5.087E+00	4.200E-01	0.441
	+	351.07	*	3.152E+00	4.003E-01	2.627E-01	1.686E-02	12.001
PB-212	+	74.81		2.006E+00	5.348E-01	5.454E-01	6.836E-02	3.678
	+	77.11		1.753E+00	2.921E-01	3.051E-01	2.586E-02	5.746
	+	87.30		1.049E+00	5.916E-01	6.443E-01	8.751E-02	1.628
	+	238.63	*	1.561E+00	1.437E-01	6.827E-02	4.877E-03	22.868
	+	300.09		1.735E+00	8.365E-01	9.218E-01	7.569E-02	1.882
PO-212	+	74.81		2.006E+00	5.348E-01	5.454E-01	6.836E-02	3.678
	+	77.11		1.753E+00	2.921E-01	3.051E-01	2.586E-02	5.746
	+	87.30		1.049E+00	5.916E-01	6.443E-01	8.751E-02	1.628
		115.19		-3.065E+00	3.242E+00	5.028E+00	3.167E-01	-0.610
	+	238.63	*	1.561E+00	1.437E-01	6.827E-02	4.877E-03	22.868
	+	300.09		1.735E+00	8.365E-01	9.218E-01	7.569E-02	1.882
BI-214	+	609.31	*	9.833E-01	1.455E-01	8.344E-02	7.454E-03	11.784
	+	1120.29		1.305E+00	4.646E-01	3.637E-01	3.482E-02	3.588
	+	1764.49		1.475E+00	3.294E-01	2.006E-01	1.219E-02	7.353
PB-214	+	74.81		3.457E+00	9.002E-01	9.398E-01	1.049E-01	3.678
	+	77.11		3.006E+00	5.507E-01	5.231E-01	5.962E-02	5.746
	+	87.30		1.797E+00	1.007E+00	1.104E+00	1.324E-01	1.628
	+	241.98		1.859E+00	4.899E-01	4.104E-01	3.245E-02	4.529
	+	295.21		1.201E+00	2.125E-01	1.641E-01	1.392E-02	7.315

Sample ID : G245799002 Acquisition date : 10-FEB-2010 14:26:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.097E+00	1.505E-01	9.153E-02	7.572E-03	11.979
PO-214	+	74.81		3.457E+00	9.002E-01	9.398E-01	1.049E-01	3.678
	+	77.11		3.006E+00	5.507E-01	5.231E-01	5.962E-02	5.746
	+	87.30		1.797E+00	1.007E+00	1.104E+00	1.324E-01	1.628
	+	241.98		1.859E+00	4.899E-01	4.104E-01	3.245E-02	4.529
	+	295.21		1.201E+00	2.125E-01	1.641E-01	1.392E-02	7.315
	+	351.92	*	1.097E+00	1.505E-01	9.153E-02	7.572E-03	11.979
PO-216	+	74.81		2.006E+00	5.348E-01	5.454E-01	6.836E-02	3.678
	+	77.11		1.753E+00	2.921E-01	3.051E-01	2.586E-02	5.746
	+	87.30		1.049E+00	5.916E-01	6.443E-01	8.751E-02	1.628
	+	238.63	*	1.561E+00	1.437E-01	6.827E-02	4.877E-03	22.868
	+	300.09		1.735E+00	8.365E-01	9.218E-01	7.569E-02	1.882
PO-218	+	74.81		3.457E+00	9.002E-01	9.398E-01	1.049E-01	3.678
	+	77.11		3.006E+00	5.507E-01	5.231E-01	5.962E-02	5.746
	+	87.30		1.797E+00	1.007E+00	1.104E+00	1.324E-01	1.628
	+	241.98		1.859E+00	4.899E-01	4.104E-01	3.245E-02	4.529
	+	295.21		1.201E+00	2.125E-01	1.641E-01	1.392E-02	7.315
	+	351.92	*	1.097E+00	1.505E-01	9.153E-02	7.572E-03	11.979
RA-224	+	240.98	*	3.524E+00	9.076E-01	7.759E-01	4.322E-02	4.542
RA-226	+	609.31	*	9.833E-01	1.455E-01	8.344E-02	7.454E-03	11.784
	+	1120.29		1.305E+00	4.646E-01	3.637E-01	3.482E-02	3.588
	+	1764.49		1.475E+00	3.294E-01	2.006E-01	1.219E-02	7.353
AC-228	+	338.32		1.519E+00	7.108E-01	2.813E-01	1.146E-01	5.399
	+	911.07	*	1.632E+00	3.231E-01	1.627E-01	2.156E-02	10.031
	+	969.11		1.439E+00	4.478E-01	2.758E-01	6.604E-02	5.217
RA-228	+	338.32		1.519E+00	7.108E-01	2.813E-01	1.146E-01	5.399
	+	911.07	*	1.632E+00	3.231E-01	1.627E-01	2.156E-02	10.031
	+	969.11		1.439E+00	4.478E-01	2.758E-01	6.604E-02	5.217
TH-228	+	74.81		2.037E+00	5.090E-01	5.537E-01	4.666E-02	3.678
	+	77.11		1.780E+00	2.965E-01	3.098E-01	2.626E-02	5.746
	+	87.30		1.065E+00	5.910E-01	6.541E-01	6.012E-02	1.628
	+	238.63	*	1.585E+00	1.458E-01	6.930E-02	4.951E-03	22.868
	+	300.09		1.761E+00	1.333E+00	9.358E-01	5.515E-01	1.882
TH-230	+	609.31	*	9.833E-01	1.455E-01	8.344E-02	7.454E-03	11.784
	+	1120.29		1.305E+00	4.646E-01	3.637E-01	3.482E-02	3.588
	+	1764.49		1.475E+00	3.293E-01	2.006E-01	1.219E-02	7.353
TH-232	+	338.32		1.519E+00	3.603E-01	2.813E-01	1.627E-02	5.399
	+	911.07	*	1.632E+00	3.231E-01	1.627E-01	2.156E-02	10.031
	+	969.11		1.439E+00	4.478E-01	2.758E-01	6.604E-02	5.217
PA-234M	+	766.42		2.396E+01	2.338E+01	1.344E+01	6.829E+00	1.784
	+	1001.03	*	8.066E+00	5.676E+00	5.793E+00	6.249E-01	1.392
TH-234	+	63.29	*	9.945E+00	2.969E+00	2.239E+00	3.947E-01	4.442
	+	92.38		7.542E+00	1.658E+00	8.410E-01	1.516E-01	8.968
U-234	+	609.31	*	9.833E-01	1.455E-01	8.344E-02	7.454E-03	11.784
	+	1120.29		1.305E+00	4.646E-01	3.637E-01	3.482E-02	3.588
	+	1764.49		1.475E+00	3.293E-01	2.006E-01	1.219E-02	7.353
U-235		89.95		-4.411E-01	1.575E+00	1.781E+00	5.510E-01	-0.248
	+	93.35		9.067E+00	2.782E+00	1.001E+00	2.797E-01	9.058
		105.00		1.050E+00	1.008E+00	1.615E+00	4.751E-01	0.650

Sample ID : G245799002 Acquisition date : 10-FEB-2010 14:26:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	143.76	*	5.692E-01	3.341E-01	2.732E-01	4.424E-02	2.084
		163.35		4.875E-02	3.885E-01	6.523E-01	1.162E-01	0.075
	+	185.71		2.591E-01	6.196E-02	5.644E-02	3.002E-03	4.592
		205.31		4.845E-02	4.625E-01	6.758E-01	1.207E-01	0.072
NP-237	+	86.50	*	6.659E-01	3.944E-01	4.139E-01	9.338E-02	1.609
		95.87		9.932E-01	1.210E+00	1.442E+00	3.523E-01	0.689
U-238	+	63.29	*	9.945E+00	2.969E+00	2.239E+00	3.947E-01	4.442
	+	92.38		7.542E+00	1.145E+00	8.410E-01	7.148E-02	8.968
AM-243	+	74.67	*	3.252E-01	8.120E-02	8.878E-02	7.408E-03	3.664
	+	86.72		2.497E+01	1.386E+01	1.547E+01	1.414E+00	1.614
		117.66		-1.227E+00	3.325E+00	5.271E+00	3.242E-01	-0.233
	+	142.18		4.782E+01	2.711E+01	2.338E+01	1.288E+00	2.045
ANH-511	+	511.00	*	1.561E-01	5.868E-02	3.377E-02	2.230E-03	4.623

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.134E-03	2.429E-01	4.009E-01	2.905E-02	0.008
NA-22		1274.54	*	-3.331E-03	3.417E-02	5.570E-02	3.790E-03	-0.060
NA-24		1368.53	*	-3.528E-01	3.417E-02	Half-Life too short		
AL-26		1129.67		-4.726E-01	1.597E+00	2.203E+00	1.471E-01	-0.215
		1808.65	*	2.162E-02	2.107E-02	3.952E-02	2.307E-03	0.547
TI-44		67.85		-3.927E-02	5.392E-02	7.772E-02	6.250E-03	-0.505
	+	78.38	*	3.236E-01	5.391E-02	7.539E-02	6.446E-03	4.292
SC-46		889.25	*	-2.167E-03	2.878E-02	4.677E-02	5.216E-03	-0.046
	+	1120.51		2.233E-01	7.813E-02	9.542E-02	6.592E-03	2.340
V-48		944.10		6.420E-02	6.907E-01	1.130E+00	1.196E-01	0.057
		983.50	*	-2.530E-03	5.465E-02	8.816E-02	8.720E-03	-0.029
		1312.09		-2.567E-02	6.433E-02	1.018E-01	7.418E-03	-0.252
CR-51		320.08	*	3.958E-02	2.894E-01	4.694E-01	3.022E-02	0.084
MN-52		744.21		-6.541E-02	1.860E-01	3.021E-01	2.664E-02	-0.217
		848.13		2.882E+00	5.308E+00	9.011E+00	9.427E-01	0.320
		935.52		2.297E-01	2.023E-01	3.519E-01	3.774E-02	0.653
		1246.25		1.865E+00	6.287E+00	1.053E+01	6.770E-01	0.177
		1333.61		-8.300E-01	3.815E+00	5.998E+00	4.531E-01	-0.138
		1434.06	*	4.738E-02	1.729E-01	2.890E-01	2.130E-02	0.164
MN-54		834.83	*	-1.133E-02	3.116E-02	5.008E-02	5.130E-03	-0.226
CO-56		846.75	*	3.507E-03	3.121E-02	5.161E-02	5.388E-03	0.068
		977.42		3.375E-02	2.317E+00	3.673E+00	3.674E-01	0.009
		1037.82		2.894E-02	2.332E-01	3.937E-01	3.648E-02	0.074
		1175.09		-1.564E+00	1.826E+00	2.850E+00	1.582E-01	-0.549
		1238.25		1.088E-01	7.716E-02	1.359E-01	9.057E-03	0.801
		1360.21		4.514E-02	6.916E-01	1.136E+00	8.539E-02	0.040
		1771.40		7.920E-02	1.298E-01	2.131E-01	1.288E-02	0.372
CO-57		122.06	*	-5.018E-03	2.243E-02	3.568E-02	2.114E-03	-0.141
		136.48		-7.921E-02	1.814E-01	2.837E-01	1.857E-02	-0.279
CO-58		810.76	*	-2.893E-02	3.009E-02	4.607E-02	4.548E-03	-0.628
FE-59	+	142.65		7.341E+00	4.162E+00	3.893E+00	2.142E-01	1.886

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		192.34		1.167E-01	7.908E-01	1.287E+00	1.492E-01	0.091
		1099.22	*	-1.185E-02	7.062E-02	1.162E-01	9.568E-03	-0.102
		1291.56		2.716E-02	9.743E-02	1.631E-01	1.371E-02	0.166
CO-60		1173.22		2.974E-02	3.533E-02	6.155E-02	3.402E-03	0.483
		1332.49	*	-1.312E-02	2.887E-02	4.513E-02	3.409E-03	-0.291
ZN-65		1115.52	*	2.180E-02	8.238E-02	1.201E-01	8.457E-03	0.182
GE-68		1077.35	*	-1.517E-01	9.816E-01	1.620E+00	1.287E-01	-0.094
AS-73		53.44	*	5.193E-01	1.031E+00	1.762E+00	1.397E-01	0.295
AS-74		595.88	*	3.736E-02	7.092E-02	1.180E-01	8.480E-03	0.317
		634.78		5.579E-02	2.582E-01	4.217E-01	3.140E-02	0.132
SE-75		66.05		-4.600E-01	5.511E+00	8.185E+00	8.107E-01	-0.056
		96.73		3.454E-01	9.700E-01	1.140E+00	1.503E-01	0.303
		121.11		9.693E-02	1.165E-01	1.926E-01	1.798E-02	0.503
		136.00		-2.791E-02	3.395E-02	5.223E-02	2.974E-03	-0.534
		198.60		-4.473E-01	1.473E+00	2.393E+00	1.623E-01	-0.187
		264.65	*	5.158E-03	3.639E-02	5.548E-02	3.173E-03	0.093
	+	279.53		1.956E-01	1.530E-01	1.547E-01	9.559E-03	1.264
		303.91		5.460E-01	1.838E+00	2.649E+00	2.520E-01	0.206
		400.65		1.090E-01	1.796E-01	3.094E-01	2.819E-02	0.352
BR-77	+	87.88		4.963E+02	2.755E+02	3.167E+02	2.927E+01	1.567
		200.40		6.027E+01	1.276E+02	2.164E+02	1.166E+01	0.278
	+	239.00		2.496E+02	2.006E+01	3.065E+01	1.705E+00	8.142
		249.79		8.383E+00	5.132E+01	8.486E+01	4.757E+00	0.099
		281.68		3.589E+00	8.073E+01	1.153E+02	6.577E+00	0.031
		297.23		2.970E+02	7.202E+01	9.815E+01	5.635E+00	3.026
		303.76		4.660E+01	1.559E+02	2.247E+02	1.293E+01	0.207
		439.47		6.396E+01	1.098E+02	1.876E+02	1.143E+01	0.341
		484.57		-5.579E+01	1.734E+02	2.804E+02	1.800E+01	-0.199
		520.65	*	1.441E+00	8.101E+00	1.305E+01	8.708E-01	0.110
		574.64		-2.045E+02	1.723E+02	2.392E+02	1.684E+01	-0.855
		578.91		7.577E+01	7.279E+01	1.109E+02	7.839E+00	0.683
		585.48		1.470E+03	2.151E+02	3.761E+02	2.676E+01	3.910
		755.35		5.854E+01	1.268E+02	2.161E+02	1.942E+01	0.271
		817.79		-2.794E+01	9.218E+01	1.483E+02	1.478E+01	-0.188
SR-82		698.33		-7.262E+00	2.664E+01	4.381E+01	3.567E+00	-0.166
		776.49	*	-1.157E-01	3.480E-01	4.798E-01	4.468E-02	-0.241
		1395.20		-1.060E+01	8.665E+00	1.225E+01	9.128E-01	-0.865
RB-83		520.41	*	8.103E-03	5.370E-02	8.639E-02	5.762E-03	0.094
		529.64		-2.447E-03	7.539E-02	1.230E-01	8.283E-03	-0.020
		552.65		-3.849E-02	1.487E-01	2.383E-01	1.642E-02	-0.162
RB-84		881.50	*	-1.114E-02	5.284E-02	8.506E-02	9.375E-03	-0.131
KR-85		513.99	*	1.386E+01	6.564E+00	1.058E+01	7.006E-01	1.311
SR-85		513.99	*	7.107E-02	3.365E-02	5.421E-02	3.592E-03	1.311
RB-86		1076.63	*	1.284E-01	6.209E-01	1.050E+00	8.357E-02	0.122
Y-88		898.02		7.973E-03	3.141E-02	5.221E-02	5.918E-03	0.153
		1836.01	*	-2.784E-04	2.309E-02	3.775E-02	2.150E-03	-0.007
ZR-88		392.90	*	-1.279E-02	2.249E-02	3.658E-02	2.104E-03	-0.350
Y-91		1204.90	*	1.078E+01	1.583E+01	2.716E+01	1.606E+00	0.397
NB-94		702.63	*	1.605E-02	2.591E-02	4.467E-02	3.665E-03	0.359

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.10		8.868E-03	2.521E-02	4.231E-02	4.588E-03	0.210
NB-95		765.79	*	9.635E-02	4.105E-02	6.764E-02	6.187E-03	1.425
NB-95M		235.69	*	1.037E-01	1.079E-01	1.637E-01	1.201E-02	0.634
ZR-95		724.18		1.044E-01	8.318E-02	1.305E-01	1.210E-02	0.800
		756.15	*	4.659E-02	5.395E-02	9.388E-02	9.237E-03	0.496
NB-97		657.90	*	-7.384E-02	5.395E-02	Half-Life too short		
		1024.50		5.523E-01	5.395E-02	Half-Life too short		
ZR-97		254.15		-3.650E+00	5.395E-02	Half-Life too short		
		355.39		9.651E-01	5.395E-02	Half-Life too short		
		507.63	*	4.934E+00	5.395E-02	Half-Life too short		
		602.52		-5.646E+00	5.395E-02	Half-Life too short		
		1021.30		5.824E-01	5.395E-02	Half-Life too short		
		1147.95		-5.755E-01	5.395E-02	Half-Life too short		
		1362.66		2.997E+00	5.395E-02	Half-Life too short		
		1750.46		-3.054E+00	5.395E-02	Half-Life too short		
MO-99		140.51		-1.123E+01	2.524E+01	3.460E+01	9.303E+00	-0.325
		181.06		1.254E+01	1.524E+01	2.324E+01	3.945E+00	0.539
		366.43		-1.044E+01	6.275E+01	1.049E+02	6.058E+00	-0.100
		739.58	*	4.930E+00	9.289E+00	1.586E+01	2.420E+00	0.311
		778.00		-1.346E+00	2.916E+01	4.304E+01	4.018E+00	-0.031
TC-99M		140.51	*	-1.570E+10	2.916E+01	Half-Life too short		
RH-101		127.23		2.715E-02	2.962E-02	4.414E-02	2.550E-03	0.615
		198.01	*	-1.258E-02	2.703E-02	4.365E-02	2.346E-03	-0.288
		325.23		-5.130E-04	1.971E-01	2.766E-01	1.598E-02	-0.002
RH-102		418.52		4.639E-02	2.279E-01	3.836E-01	2.280E-02	0.121
		475.06	*	-1.764E-04	2.184E-02	3.601E-02	2.287E-03	-0.005
		631.29		-8.994E-03	4.008E-02	6.348E-02	4.712E-03	-0.142
		697.49		1.159E-02	5.995E-02	1.012E-01	8.226E-03	0.115
	+	766.84		2.278E-01	1.909E-01	1.753E-01	1.606E-02	1.299
		1046.59		4.761E-02	8.574E-02	1.487E-01	1.283E-02	0.320
		1112.84		7.257E-02	1.976E-01	2.914E-01	2.069E-02	0.249
RU-103		497.08	*	6.200E-03	2.973E-02	4.946E-02	6.422E-03	0.125
	+	610.33		1.061E+01	2.113E+00	2.122E+00	3.403E-01	5.002
RH-106	+	511.85		7.799E-01	2.931E-01	3.481E-01	2.301E-02	2.240
		621.84	*	9.610E-02	2.455E-01	4.053E-01	5.099E-02	0.237
		1050.47		-1.170E+00	1.755E+00	2.793E+00	2.386E-01	-0.419
RU-106	+	511.85		7.799E-01	2.931E-01	3.481E-01	2.301E-02	2.240
		621.84	*	9.610E-02	2.453E-01	4.053E-01	2.982E-02	0.237
		1050.47		-1.170E+00	1.755E+00	2.793E+00	2.386E-01	-0.419
AG-108M		433.93	*	-4.995E-03	2.518E-02	4.142E-02	2.706E-03	-0.121
		614.37		-3.322E-02	3.598E-02	4.582E-02	3.530E-03	-0.725
		722.95		5.140E-03	3.459E-02	5.026E-02	4.445E-03	0.102
AG-110M		657.75	*	-2.762E-02	2.675E-02	4.209E-02	3.319E-03	-0.656
		677.61		1.286E-01	2.189E-01	3.794E-01	3.078E-02	0.339
		706.67		-1.149E-01	1.634E-01	2.612E-01	2.223E-02	-0.440
		763.93		2.091E-01	1.469E-01	2.323E-01	2.172E-02	0.900
		884.67		-3.043E-03	3.664E-02	5.954E-02	6.724E-03	-0.051
		937.48		-3.372E-02	8.698E-02	1.374E-01	1.504E-02	-0.245
		1384.27		1.213E-01	1.366E-01	2.132E-01	1.653E-02	0.569

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-111		171.28		-1.273E-01	8.000E-01	1.341E+00	7.057E-02	-0.095
		245.39	*	-4.467E-01	8.976E-01	1.254E+00	7.007E-02	-0.356
IN-113M		391.69	*	-8.548E-03	3.285E-02	5.433E-02	3.333E-03	-0.157
SN-113		391.69	*	-8.548E-03	3.285E-02	5.433E-02	3.333E-03	-0.157
IN-114M		190.27	*	-8.578E-02	1.652E-01	2.373E-01	1.267E-02	-0.361
CD-115		260.90		-1.164E+02	1.019E+02	1.578E+02	8.910E+00	-0.738
		492.35		-4.389E+00	2.719E+01	4.431E+01	2.868E+00	-0.099
		527.90	*	-1.859E+00	7.736E+00	1.246E+01	8.372E-01	-0.149
SN-117M		156.02		9.378E-01	1.843E+00	3.175E+00	1.696E-01	0.295
		158.56	*	-8.280E-03	4.359E-02	7.338E-02	3.900E-03	-0.113
SB-122		563.90	*	6.983E-01	1.500E+00	2.509E+00	1.748E-01	0.278
		692.80		2.052E+00	3.271E+01	5.487E+01	4.424E+00	0.037
I-123		159.00	*	-5.380E-01	3.271E+01	Half-Life too short		
		528.96		-2.374E+02	3.271E+01	Half-Life too short		
TE-123M		159.00	*	-2.710E-03	2.236E-02	3.772E-02	2.035E-03	-0.072
I-124		602.71	*	-3.920E-01	5.982E-01	7.827E-01	5.659E-02	-0.501
		722.78		1.597E-01	3.582E+00	5.158E+00	4.384E-01	0.031
		1325.50		2.760E+01	2.814E+01	4.953E+01	3.696E+00	0.557
	+	1376.25		4.324E+01	3.269E+01	5.001E+01	3.745E+00	0.865
		1509.49		2.177E+01	1.176E+01	2.273E+01	1.629E+00	0.958
		1691.02		-6.160E-01	2.464E+00	3.914E+00	2.525E-01	-0.157
SB-124		602.71		-2.284E-02	3.485E-02	4.560E-02	3.298E-03	-0.501
		645.85		-1.719E-01	3.996E-01	6.232E-01	5.052E-02	-0.276
		709.31		3.118E-01	2.113E+00	3.553E+00	2.950E-01	0.088
		713.82		-1.948E-01	1.245E+00	2.056E+00	2.438E-01	-0.095
		722.78		1.348E-02	3.025E-01	4.356E-01	3.785E-02	0.031
	+	968.20		1.481E+01	3.305E+00	5.541E+00	5.635E-01	2.673
		1045.16		1.740E+00	1.838E+00	3.260E+00	2.823E-01	0.534
		1325.50		2.490E+00	2.538E+00	4.467E+00	3.334E-01	0.557
		1368.21		-8.054E-01	1.425E+00	2.142E+00	2.739E-01	-0.376
		1436.60		1.823E+00	2.911E+00	5.019E+00	3.695E-01	0.363
		1691.02	*	-1.227E-02	4.908E-02	7.797E-02	5.379E-03	-0.157
SB-125		427.89	*	-1.420E-02	6.712E-02	1.104E-01	6.900E-03	-0.129
	+	463.38		7.367E-01	3.063E-01	4.299E-01	3.082E-02	1.714
		600.56		-8.168E-02	1.461E-01	2.185E-01	1.741E-02	-0.374
		635.90		4.382E-02	1.961E-01	3.204E-01	2.643E-02	0.137
TE-125M		109.28	*	-4.356E+00	8.390E+00	1.329E+01	1.168E+00	-0.328
I-126		388.63		1.135E-01	1.547E-01	2.682E-01	1.541E-02	0.423
		666.33	*	-5.371E-02	1.453E-01	2.388E-01	1.836E-02	-0.225
		753.82		6.797E-02	1.132E+00	1.885E+00	1.690E-01	0.036
SB-126		223.80		1.208E+00	3.254E+00	5.461E+00	3.002E-01	0.221
	+	278.60		4.387E+00	3.429E+00	3.547E+00	2.021E-01	1.237
	+	296.50		1.194E+01	1.977E+00	2.857E+00	1.640E-01	4.180
		414.70		-7.239E-02	5.637E-02	8.747E-02	5.173E-03	-0.828
		415.30		-4.098E+00	4.712E+00	7.499E+00	4.438E-01	-0.547
		555.20		1.350E+00	3.007E+00	5.028E+00	3.474E-01	0.268
		573.80		-7.964E-01	8.281E-01	1.220E+00	8.580E-02	-0.653
		593.00		-3.630E-01	6.860E-01	1.070E+00	7.669E-02	-0.339
		656.30		-3.503E+00	2.491E+00	3.803E+00	2.885E-01	-0.921

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		666.33		-2.245E-02	6.073E-02	9.978E-02	7.671E-03	-0.225
		675.00		-9.393E-01	1.458E+00	2.343E+00	1.830E-01	-0.401
		695.00		-3.138E-03	5.864E-02	9.768E-02	7.906E-03	-0.032
		697.00		6.241E-02	2.098E-01	3.561E-01	2.892E-02	0.175
		720.50	*	-2.627E-02	1.217E-01	1.711E-01	1.448E-02	-0.154
		856.80		-2.853E-02	4.384E-01	6.130E-01	6.501E-02	-0.047
		989.30		-5.626E-01	9.862E-01	1.523E+00	1.490E-01	-0.370
		1034.80		1.944E+00	6.839E+00	1.126E+01	9.995E-01	0.173
		1213.00		-2.776E+00	3.910E+00	6.165E+00	3.707E-01	-0.450
SB-127		61.10		-1.429E+01	6.550E+01	9.721E+01	1.018E+01	-0.147
		252.40		-1.492E+00	3.447E+00	5.456E+00	2.265E+00	-0.273
		290.80		-1.195E+00	1.858E+01	2.626E+01	2.392E+00	-0.045
		411.60		5.991E+00	8.837E+00	1.518E+01	2.188E+00	0.395
		444.90		-2.724E+00	7.344E+00	1.193E+01	1.308E+00	-0.228
		473.00		-6.599E-01	1.263E+00	2.020E+00	2.314E-01	-0.327
		543.00		-1.197E+01	1.195E+01	1.801E+01	2.412E+00	-0.665
		603.60		-5.199E+00	1.003E+01	1.327E+01	1.539E+00	-0.392
		685.20	*	-4.124E-01	9.711E-01	1.579E+00	1.718E-01	-0.261
		698.50		-3.816E+00	1.181E+01	1.935E+01	3.011E+00	-0.197
		722.20		-8.364E+00	2.442E+01	3.388E+01	3.745E+00	-0.247
		783.80		2.653E+00	2.838E+00	4.916E+00	6.384E-01	0.540
XE-127		57.60		4.229E+00	7.010E+00	1.197E+01	9.224E-01	0.353
		145.22		8.471E-01	6.019E-01	1.002E+00	5.480E-02	0.845
		172.10		3.880E-02	9.473E-02	1.619E-01	8.522E-03	0.240
		202.84	*	-1.821E-02	3.701E-02	6.057E-02	3.269E-03	-0.301
		374.96		4.452E-02	1.445E-01	2.467E-01	1.422E-02	0.181
I-131		80.18		1.787E+00	4.832E+00	7.222E+00	6.295E-01	0.248
		284.30		1.030E-01	1.213E+00	1.912E+00	1.218E-01	0.054
		364.48	*	5.513E-02	8.650E-02	1.500E-01	9.681E-03	0.368
		636.97		-9.818E-03	1.118E+00	1.797E+00	1.439E-01	-0.005
		722.89		6.503E-01	5.805E+00	8.409E+00	7.195E-01	0.077
TE-132		49.72		-1.969E+01	2.463E+01	4.021E+01	4.101E+00	-0.490
		111.76		3.947E+01	2.760E+01	4.635E+01	4.299E+00	0.851
		116.30		-2.892E+01	2.507E+01	3.837E+01	3.480E+00	-0.754
		228.16	*	2.195E-01	5.442E-01	9.122E-01	1.300E-01	0.241
BA-133		53.15		2.490E+00	4.470E+00	7.654E+00	6.074E-01	0.325
		79.62		9.591E-01	1.375E+00	2.072E+00	3.155E-01	0.463
		81.00		-7.345E-02	1.065E-01	1.515E-01	2.414E-02	-0.485
		276.40		3.101E-01	3.140E-01	5.123E-01	6.617E-02	0.605
		302.84		5.151E-02	1.274E-01	1.847E-01	2.148E-02	0.279
		356.01	*	-5.169E-03	3.908E-02	5.381E-02	6.216E-03	-0.096
		383.85		3.429E-02	2.280E-01	3.854E-01	4.181E-02	0.089
I-133	+	510.53		1.569E+00	2.280E-01	Half-Life too short		
		529.87	*	-1.387E-03	2.280E-01	Half-Life too short		
		706.58		-2.175E-01	2.280E-01	Half-Life too short		
		856.28		-4.399E-02	2.280E-01	Half-Life too short		
		875.33		3.465E-02	2.280E-01	Half-Life too short		
		1236.41		1.025E+00	2.280E-01	Half-Life too short		
		1298.22		-1.153E-01	2.280E-01	Half-Life too short		

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CS-134		475.35		4.319E-01	1.426E+00	2.392E+00	1.520E-01	0.181
		563.23		1.968E-01	2.599E-01	4.421E-01	3.123E-02	0.445
		569.32		7.391E-02	1.503E-01	2.470E-01	1.766E-02	0.299
		604.70		-1.078E-03	2.863E-02	3.967E-02	2.884E-03	-0.027
	+	795.84	*	1.013E-01	4.441E-02	6.762E-02	6.540E-03	1.498
		801.93		-1.090E-01	3.437E-01	4.979E-01	4.857E-02	-0.219
		1038.57		-1.246E+00	2.904E+00	4.711E+00	4.145E-01	-0.265
		1167.94		-2.374E+00	2.098E+00	3.216E+00	1.824E-01	-0.738
		1365.15		5.148E-01	9.069E-01	1.561E+00	1.241E-01	0.330
CS-135		268.24	*	1.494E-01	1.434E-01	2.168E-01	1.639E-02	0.689
I-135		288.45		-1.597E+09	1.434E-01	Half-Life too short		
		417.63		1.062E+10	1.434E-01	Half-Life too short		
		546.56		5.855E+09	1.434E-01	Half-Life too short		
		836.80		2.009E+10	1.434E-01	Half-Life too short		
		1038.76		-6.604E+09	1.434E-01	Half-Life too short		
		1124.00		9.689E+09	1.434E-01	Half-Life too short		
		1131.51		4.999E+08	1.434E-01	Half-Life too short		
		1260.41	*	-2.949E+09	1.434E-01	Half-Life too short		
		1457.56		1.273E+12	1.434E-01	Half-Life too short		
		1678.03		-2.862E+09	1.434E-01	Half-Life too short		
		1706.46		-9.781E+09	1.434E-01	Half-Life too short		
		1791.20		-6.661E+08	1.434E-01	Half-Life too short		
CS-136		66.91		-2.766E-01	9.021E-01	1.325E+00	2.001E-01	-0.209
	+	86.29		2.957E+00	1.665E+00	1.904E+00	2.510E-01	1.553
		153.22		6.015E-01	5.310E-01	9.310E-01	6.408E-02	0.646
		163.89		4.523E-02	8.771E-01	1.469E+00	1.004E-01	0.031
		176.55		-8.444E-02	2.871E-01	4.779E-01	2.896E-02	-0.177
		273.65		-5.608E-02	5.373E-01	5.449E-01	3.550E-02	-0.103
		340.57		3.325E-01	1.232E-01	1.971E-01	1.213E-02	1.687
		818.51		-3.460E-04	5.158E-02	8.491E-02	8.478E-03	-0.004
		1048.07	*	-3.109E-02	8.097E-02	1.317E-01	1.180E-02	-0.236
		1235.34		1.044E+00	5.145E-01	9.181E-01	9.439E-02	1.137
BA-137M		661.65	*	4.334E-02	2.868E-02	5.151E-02	3.926E-03	0.841
CS-137		661.65	*	4.581E-02	3.031E-02	5.445E-02	4.161E-03	0.841
CE-139		165.85	*	-1.731E-02	2.394E-02	3.943E-02	2.070E-03	-0.439
BA-140		162.64		2.679E-01	6.234E-01	1.057E+00	6.410E-02	0.253
		304.84		2.729E-01	1.120E+00	1.606E+00	4.381E-01	0.170
		423.70		-1.137E-03	1.438E+00	2.396E+00	7.623E-01	0.000
		537.32	*	-1.134E-02	1.853E-01	3.013E-01	9.856E-02	-0.038
LA-140	+	328.77		5.443E-01	3.030E-01	3.998E-01	2.590E-02	1.361
		432.53		-1.547E+00	1.592E+00	2.505E+00	1.661E-01	-0.617
		487.03		-4.473E-02	1.051E-01	1.689E-01	1.205E-02	-0.265
		751.79		-3.564E-01	1.293E+00	2.107E+00	2.070E-01	-0.169
		815.85		-4.027E-02	2.326E-01	3.784E-01	4.089E-02	-0.106
		867.82		-5.905E-01	1.248E+00	1.663E+00	1.856E-01	-0.355
		919.63		-9.856E-01	2.320E+00	3.221E+00	4.069E-01	-0.306
		925.24		3.733E-01	8.402E-01	1.412E+00	1.599E-01	0.264
		1596.49	*	1.640E-02	5.871E-02	9.766E-02	6.700E-03	0.168
CE-141		145.44	*	5.904E-02	5.395E-02	8.898E-02	5.079E-03	0.664

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-143		57.37		7.456E-04	5.395E-02	Half-Life too short		
		231.56		-1.833E-03	5.395E-02	Half-Life too short		
		293.26	*	5.117E-04	5.395E-02	Half-Life too short		
	+	350.59		2.479E-02	5.395E-02	Half-Life too short		
		490.36		2.786E-04	5.395E-02	Half-Life too short		
		664.57		-1.884E-04	5.395E-02	Half-Life too short		
		721.93		-3.640E-04	5.395E-02	Half-Life too short		
CE-144		80.11		8.589E-01	2.229E+00	3.334E+00	2.887E-01	0.258
		133.54	*	4.110E-02	1.840E-01	2.818E-01	3.984E-02	0.146
PM-144		476.78		-1.280E-02	5.141E-02	8.361E-02	6.204E-03	-0.153
		618.01		1.505E-02	2.651E-02	4.308E-02	3.279E-03	0.349
		696.49	*	8.608E-04	2.672E-02	4.472E-02	3.630E-03	0.019
		778.57		-3.153E-02	1.915E+00	2.932E+00	2.741E-01	-0.011
PR-144		696.49	*	5.833E-02	1.811E+00	3.030E+00	2.459E-01	0.019
		1489.15		-7.452E+00	8.410E+00	1.197E+01	8.650E-01	-0.622
PM-146		453.90	*	1.085E-02	3.156E-02	5.325E-02	4.737E-03	0.204
		633.02		1.650E-01	1.017E+00	1.651E+00	6.129E-01	0.100
		735.90		2.042E-02	1.212E-01	2.032E-01	5.816E-02	0.100
		747.13		-4.301E-02	6.792E-02	1.076E-01	1.527E-02	-0.400
ND-147		91.11		1.515E+00	4.370E-01	5.622E-01	5.288E-02	2.695
		319.41		-4.038E-01	2.622E+00	4.191E+00	2.421E-01	-0.096
		439.89		1.458E+00	4.496E+00	7.588E+00	4.630E-01	0.192
		531.02	*	2.659E-01	4.039E-01	6.845E-01	9.551E-02	0.388
PM-149		285.90	*	-7.602E-01	7.207E+01	1.171E+02	1.656E+01	-0.006
EU-152		121.78		2.290E-02	6.404E-02	1.042E-01	8.027E-03	0.220
		244.69		-9.384E-02	2.867E-01	4.054E-01	2.264E-02	-0.231
		344.27	*	2.102E-02	8.911E-02	1.265E-01	8.253E-03	0.166
		443.98		-5.301E-01	7.206E-01	1.146E+00	7.026E-02	-0.462
		778.89		-5.250E-02	2.175E-01	3.372E-01	3.153E-02	-0.156
		867.32		-4.793E-01	7.502E-01	9.799E-01	1.057E-01	-0.489
	+	964.01		7.785E-01	3.255E-01	4.824E-01	4.941E-02	1.614
		1085.78		1.190E-01	2.930E-01	5.021E-01	3.891E-02	0.237
		1112.02		1.900E-01	2.762E-01	4.194E-01	2.986E-02	0.453
		1407.95		-3.798E-02	1.571E-01	2.500E-01	1.857E-02	-0.152
GD-153		69.67		3.172E-01	1.824E+00	2.732E+00	2.217E-01	0.116
		83.37		2.007E+00	1.745E+01	2.347E+01	2.085E+00	0.086
	+	97.43	*	1.117E-01	9.689E-02	1.208E-01	9.442E-03	0.925
		103.18		-8.672E-02	1.091E-01	1.515E-01	1.092E-02	-0.573
EU-154		123.07		-2.386E-02	4.470E-02	7.006E-02	6.626E-03	-0.341
		247.94		5.387E-02	3.161E-01	4.601E-01	4.334E-02	0.117
		591.81		-1.869E-01	4.794E-01	7.072E-01	7.522E-02	-0.264
		723.30		5.963E-02	1.459E-01	2.166E-01	2.042E-02	0.275
		756.87		3.340E-01	5.941E-01	1.017E+00	1.246E-01	0.329
		873.19		-2.070E-02	2.228E-01	3.622E-01	5.045E-02	-0.057
		996.32		2.199E-01	3.289E-01	4.841E-01	8.853E-02	0.454
		1004.76		2.349E-01	1.892E-01	2.928E-01	3.599E-02	0.802
		1274.45	*	-1.995E-02	9.627E-02	1.556E-01	1.554E-02	-0.128
EU-155		48.70		-6.201E-01	3.153E+00	5.288E+00	4.011E-01	-0.117
		60.01		-5.297E-01	5.799E+00	8.667E+00	6.614E-01	-0.061

---- Non-Identified Nuclides ----

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	+	86.54		2.731E-01	1.516E-01	1.778E-01	1.638E-02	1.536
		105.31	*	1.516E-01	9.739E-02	1.655E-01	1.183E-02	0.916
TB-160	+	86.79		7.294E-01	4.049E-01	4.763E-01	4.357E-02	1.532
		197.04		1.162E-01	4.445E-01	7.492E-01	4.023E-02	0.155
		215.65		-4.667E-01	5.969E-01	9.243E-01	5.046E-02	-0.505
		298.57		1.801E-01	1.361E-01	1.579E-01	9.069E-03	1.140
		879.36	*	4.382E-02	1.033E-01	1.741E-01	1.913E-02	0.252
		962.29		1.133E+00	4.617E-01	8.212E-01	8.436E-02	1.380
		966.15		1.531E+00	2.677E-01	4.534E-01	4.628E-02	3.377
		1177.93		-2.189E-01	2.895E-01	4.547E-01	2.539E-02	-0.481
		1271.85		-4.903E-01	5.718E-01	8.765E-01	5.924E-02	-0.559
HO-166M		80.57		7.932E-02	2.852E-01	4.247E-01	3.690E-02	0.187
		184.41		1.292E-01	3.504E-02	5.812E-02	3.088E-03	2.222
		280.46		4.628E-02	7.599E-02	1.123E-01	6.404E-03	0.412
		410.95		1.462E-01	1.805E-01	3.129E-01	1.842E-02	0.467
		711.68	*	1.989E-02	4.625E-02	7.901E-02	6.585E-03	0.252
		752.31		1.668E-01	2.046E-01	3.558E-01	3.181E-02	0.469
		810.29		-3.881E-02	4.496E-02	6.941E-02	6.834E-03	-0.559
TM-171		51.35		1.144E+00	3.842E+01	6.480E+01	5.136E+00	0.018
		52.39		1.064E+01	1.964E+01	3.366E+01	2.674E+00	0.316
		59.40		6.929E+00	3.196E+01	4.846E+01	3.679E+00	0.143
		66.72	*	2.969E+00	3.216E+01	4.809E+01	3.845E+00	0.062
LU-176	+	88.36		5.379E-01	2.986E-01	3.441E-01	3.159E-02	1.563
		201.83		-2.110E-02	2.290E-02	3.687E-02	1.988E-03	-0.572
		306.84	*	-2.977E-03	2.004E-02	3.100E-02	1.785E-03	-0.096
		401.10		2.962E+00	4.722E+00	8.148E+00	4.736E-01	0.364
LU-177		112.95		1.990E+00	1.513E+00	2.542E+00	1.638E-01	0.783
	+	208.36	*	2.740E+00	1.169E+00	1.578E+00	8.562E-02	1.736
LU-177M		52.97		1.063E+00	2.031E+00	3.474E+00	2.758E-01	0.306
		54.07		4.464E-02	1.056E+00	1.778E+00	1.406E-01	0.025
		61.30		-1.867E-01	1.696E+00	2.530E+00	1.955E-01	-0.074
		121.62		1.138E-01	3.283E-01	5.339E-01	3.167E-02	0.213
		147.16		-1.649E-01	6.125E-01	8.488E-01	4.619E-02	-0.194
		171.86		4.752E-02	3.858E-01	6.530E-01	3.437E-02	0.073
		218.09		5.398E-01	6.650E-01	1.136E+00	6.212E-02	0.475
	+	268.79		1.487E+00	8.504E-01	1.163E+00	6.597E-02	1.279
		319.02		-8.715E-02	2.026E-01	3.191E-01	1.842E-02	-0.273
		367.43		-1.291E-01	6.680E-01	1.114E+00	6.436E-02	-0.116
		413.65	*	-1.685E-01	1.345E-01	2.096E-01	1.238E-02	-0.804
HF-181		56.28		-3.308E-01	1.134E+00	1.883E+00	1.467E-01	-0.176
		57.53		3.938E-01	5.888E-01	1.007E+00	7.766E-02	0.391
		65.20		1.059E+00	1.146E+00	1.766E+00	1.401E-01	0.600
		133.02		1.230E-02	6.349E-02	9.098E-02	5.146E-03	0.135
		136.25		-1.848E-01	3.941E-01	6.156E-01	3.447E-02	-0.300
		345.85		9.133E-02	2.072E-01	2.527E-01	1.462E-02	0.361
		482.03	*	1.127E-02	3.265E-02	5.482E-02	3.509E-03	0.206
W-181		56.28		-1.294E-01	4.438E-01	7.371E-01	5.742E-02	-0.176
		57.53		1.541E-01	2.307E-01	3.946E-01	3.043E-02	0.391
		65.20	*	4.117E-01	4.453E-01	6.864E-01	5.444E-02	0.600

---- Non-Identified Nuclides ----

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TA-182		67.75		-6.488E-02	1.281E-01	1.866E-01	1.500E-02	-0.348
	+	100.10		2.601E-01	2.257E-01	2.750E-01	2.067E-02	0.946
		152.43		-2.289E-01	2.958E-01	4.526E-01	2.435E-02	-0.506
		222.10		-1.002E-01	2.808E-01	4.587E-01	2.518E-02	-0.219
	+	1001.68		3.553E+00	2.494E+00	3.424E+00	3.268E-01	1.038
	+	1121.28		6.168E-01	2.158E-01	2.603E-01	1.793E-02	2.370
		1189.05		1.924E-02	2.469E-01	4.101E-01	2.345E-02	0.047
		1221.42	*	-6.192E-02	1.606E-01	2.584E-01	1.581E-02	-0.240
		1230.97		-3.827E-01	4.160E-01	6.481E-01	4.042E-02	-0.591
RE-183		57.98		1.010E-01	2.383E-01	3.872E-01	2.975E-02	0.261
		59.32		3.675E-02	1.319E-01	2.005E-01	1.524E-02	0.183
		67.20		2.503E-02	2.270E-01	3.396E-01	2.722E-02	0.074
		162.32	*	7.459E-02	9.013E-02	1.547E-01	8.168E-03	0.482
	+	208.81		2.467E+00	1.052E+00	1.436E+00	7.790E-02	1.719
		291.72		-4.194E-02	7.908E-01	1.118E+00	6.406E-02	-0.038
RE-184		57.98		3.723E-01	8.783E-01	1.427E+00	1.096E-01	0.261
		59.32		1.353E-01	4.856E-01	7.384E-01	5.610E-02	0.183
		67.20		9.223E-02	8.364E-01	1.251E+00	1.003E-01	0.074
		161.27		-1.087E-01	2.845E-01	4.753E-01	2.514E-02	-0.229
		216.55		-1.042E-01	2.085E-01	3.391E-01	1.853E-02	-0.307
		252.85	*	-1.327E-01	1.813E-01	2.875E-01	1.615E-02	-0.461
		318.01		-2.693E-01	3.575E-01	5.535E-01	3.195E-02	-0.487
		792.07		1.162E+00	8.824E-01	1.387E+00	1.325E-01	0.838
		903.28		-2.684E-01	9.102E-01	1.233E+00	1.384E-01	-0.218
		920.93		-2.674E-01	3.518E-01	5.064E-01	5.549E-02	-0.528
OS-185		59.72		-2.396E-02	3.474E-01	5.199E-01	3.954E-02	-0.046
		61.14		-3.809E-02	1.867E-01	2.773E-01	2.140E-02	-0.137
		69.30		-9.979E-02	3.335E-01	4.898E-01	3.968E-02	-0.204
		592.07		-8.745E-01	1.882E+00	2.860E+00	2.048E-01	-0.306
		646.12	*	-6.442E-03	3.364E-02	5.335E-02	4.012E-03	-0.121
		717.42		1.760E-02	6.827E-01	1.115E+00	9.388E-02	0.016
		874.81		-1.328E-01	4.475E-01	7.163E-01	7.813E-02	-0.185
		880.27		1.104E-01	5.755E-01	9.546E-01	1.050E-01	0.116
RE-188		155.03	*	1.655E-01	1.393E-01	2.447E-01	1.310E-02	0.676
		477.96		2.268E-01	2.331E+00	3.866E+00	2.463E-01	0.059
		633.10		1.839E-01	2.051E+00	3.321E+00	2.468E-01	0.055
W-188	+	63.58		3.997E+02	1.012E+02	1.197E+02	9.402E+00	3.340
		227.08		1.160E+01	1.016E+01	1.749E+01	9.639E-01	0.663
		290.67	*	-5.801E-01	6.445E+00	9.094E+00	5.209E-01	-0.064
IR-192	+	295.96		9.153E-01	1.518E-01	2.241E-01	1.307E-02	4.084
		308.46		-3.371E-02	7.553E-02	1.192E-01	6.948E-03	-0.283
		316.51	*	1.583E-02	2.696E-02	4.472E-02	2.593E-03	0.354
		468.07		2.145E-02	5.404E-02	7.993E-02	5.696E-03	0.268
		604.41		-1.056E-01	3.924E-01	5.321E-01	6.466E-02	-0.199
		612.46		1.862E+00	7.149E-01	1.152E+00	1.011E-01	1.616
AU-195		65.12		2.350E-01	2.080E-01	3.226E-01	2.558E-02	0.729
		66.83		-3.597E-02	1.084E-01	1.593E-01	1.274E-02	-0.226
	+	75.70		1.052E+00	2.628E-01	4.134E-01	3.472E-02	2.546
	+	98.88	*	3.252E-01	2.821E-01	3.574E-01	2.735E-02	0.910

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	129.76		4.865E+00	2.826E+00	4.282E+00	2.450E-01	1.136
TL-200		367.94	*	-1.579E-04	2.826E+00	Half-Life too short		
		579.30		4.236E-03	2.826E+00	Half-Life too short		
		828.27		3.034E-03	2.826E+00	Half-Life too short		
		1205.75		1.566E-03	2.826E+00	Half-Life too short		
TL-201		68.90		-2.906E+00	5.393E+00	7.840E+00	6.338E-01	-0.371
		70.82		1.988E+00	2.933E+00	4.470E+00	3.650E-01	0.445
		80.30		1.463E+00	5.264E+00	7.840E+00	6.797E-01	0.187
		135.34		-8.778E+00	2.154E+01	3.375E+01	1.895E+00	-0.260
		167.43	*	5.199E-01	5.685E+00	9.627E+00	5.054E-01	0.054
TL-202		68.90		-2.620E-01	4.863E-01	7.069E-01	5.715E-02	-0.371
		70.82		1.788E-01	2.637E-01	4.020E-01	3.282E-02	0.445
		80.30		1.316E-01	4.736E-01	7.052E-01	6.115E-02	0.187
		439.56	*	3.056E-02	5.330E-02	9.104E-02	5.550E-03	0.336
BI-207		72.80		9.343E-02	1.748E-01	2.936E-01	2.423E-02	0.318
	+	74.97		5.838E-01	1.458E-01	2.103E-01	1.759E-02	2.775
		84.90		2.346E-01	2.033E-01	3.084E-01	2.775E-02	0.761
		569.67		1.623E-02	2.313E-02	3.846E-02	2.695E-03	0.422
		1063.62	*	-1.882E-04	3.962E-02	6.454E-02	5.328E-03	-0.003
		1770.23		3.587E-01	2.736E-01	5.085E-01	3.077E-02	0.705
TL-207		81.07		-1.703E-01	2.338E-01	3.334E-01	2.907E-02	-0.511
		83.78		6.003E-02	1.364E-01	2.026E-01	1.806E-02	0.296
		94.90		9.464E-01	3.086E-01	4.113E-01	3.348E-02	2.301
		122.32		-7.142E-01	1.539E+00	2.422E+00	1.645E-01	-0.295
	+	144.24		1.845E+00	1.049E+00	9.996E-01	6.975E-02	1.846
		154.21		3.964E-01	3.226E-01	5.667E-01	3.771E-02	0.700
	+	269.46		3.483E-01	1.992E-01	2.767E-01	1.644E-02	1.259
		323.87	*	2.335E-02	5.814E-01	8.189E-01	1.352E-01	0.029
	+	338.28		6.341E+00	1.605E+00	1.903E+00	2.002E-01	3.333
		445.03		-4.498E-01	1.710E+00	2.795E+00	2.925E-01	-0.161
PO-209		260.50		-6.279E+00	7.532E+00	1.185E+01	6.689E-01	-0.530
		262.80		9.200E+00	2.011E+01	3.357E+01	1.897E+00	0.274
		896.60	*	-4.129E-01	5.574E+00	9.053E+00	1.021E+00	-0.046
BI-210		46.50	*	-1.188E+00	4.986E+00	8.184E+00	6.332E-01	-0.145
PB-210		46.50	*	-1.188E+00	4.986E+00	8.184E+00	6.332E-01	-0.145
PO-210		46.50	*	-1.188E+00	4.986E+00	8.184E+00	5.444E-01	-0.145
PB-211		404.84	*	-8.360E-01	8.525E-01	1.055E+00	6.575E-01	-0.793
		427.08		-8.815E-01	1.591E+00	2.409E+00	1.489E+00	-0.366
		831.96		-5.663E-02	9.688E-01	1.586E+00	9.977E-01	-0.036
BI-212	+	727.18	*	9.077E-01	3.684E-01	4.876E-01	4.856E-02	1.862
		785.46		2.004E-01	1.419E+00	2.324E+00	2.196E-01	0.086
		1620.62		2.310E-01	9.636E-01	1.639E+00	1.108E-01	0.141
PO-215		81.07		-1.703E-01	2.338E-01	3.334E-01	2.907E-02	-0.511
		83.78		6.003E-02	1.364E-01	2.026E-01	1.806E-02	0.296
		94.90		9.464E-01	3.086E-01	4.113E-01	3.348E-02	2.301
		122.32		-7.142E-01	1.539E+00	2.422E+00	1.645E-01	-0.295
	+	144.24		1.845E+00	1.049E+00	9.996E-01	6.975E-02	1.846
		154.21		3.964E-01	3.226E-01	5.667E-01	3.771E-02	0.700
	+	269.46		3.483E-01	1.992E-01	2.767E-01	1.644E-02	1.259

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	2.335E-02	5.814E-01	8.189E-01	1.352E-01	0.029
	+	338.28		6.341E+00	1.605E+00	1.903E+00	2.002E-01	3.333
		445.03		-4.498E-01	1.710E+00	2.795E+00	2.925E-01	-0.161
RN-219	+	271.23		4.468E-01	2.567E-01	3.571E-01	2.863E-02	1.251
		401.81	*	1.546E-01	2.949E-01	5.051E-01	6.877E-02	0.306
RN-220		549.76	*	-5.873E+00	1.956E+01	3.127E+01	2.149E+00	-0.188
RA-223		81.07		-1.703E-01	2.338E-01	3.334E-01	2.907E-02	-0.511
		83.78		6.003E-02	1.364E-01	2.026E-01	1.806E-02	0.296
		94.90		9.464E-01	3.086E-01	4.113E-01	3.348E-02	2.301
		122.32		-7.142E-01	1.539E+00	2.422E+00	1.645E-01	-0.295
	+	144.24		1.845E+00	1.049E+00	9.996E-01	6.975E-02	1.846
		154.21		3.964E-01	3.226E-01	5.667E-01	3.771E-02	0.700
	+	269.46		3.483E-01	1.992E-01	2.767E-01	1.644E-02	1.259
		323.87	*	2.335E-02	5.814E-01	8.189E-01	1.352E-01	0.029
	+	338.28		6.341E+00	1.605E+00	1.903E+00	2.002E-01	3.333
		445.03		-4.498E-01	1.710E+00	2.795E+00	2.925E-01	-0.161
AC-227		79.80		7.854E-01	1.740E+00	2.599E+00	5.591E-01	0.302
		236.00		5.319E-01	2.189E-01	3.432E-01	3.540E-02	1.550
		256.20	*	1.116E-01	2.997E-01	4.985E-01	6.924E-02	0.224
		286.10		8.392E-02	1.218E+00	1.986E+00	2.287E-01	0.042
	+	299.80		3.215E+00	1.615E+00	2.076E+00	3.377E-01	1.549
		304.40		2.371E-01	1.626E+00	2.320E+00	4.009E-01	0.102
		334.20		-2.246E-01	2.111E+00	2.719E+00	4.983E-01	-0.083
TH-227		79.80		7.854E-01	1.741E+00	2.599E+00	5.663E-01	0.302
	+	94.00		2.914E+01	7.318E+00	4.768E+00	1.032E+00	6.112
		236.00		5.319E-01	2.171E-01	3.432E-01	3.054E-02	1.550
		256.20	*	1.116E-01	2.999E-01	4.985E-01	8.395E-02	0.224
		286.10		8.392E-02	1.221E+00	1.986E+00	1.989E+00	0.042
	+	299.80		3.215E+00	1.615E+00	2.076E+00	3.377E-01	1.549
		304.40		2.371E-01	1.626E+00	2.320E+00	4.009E-01	0.102
		334.20		-2.246E-01	2.111E+00	2.719E+00	4.983E-01	-0.083
TH-229		85.43		2.301E-01	2.000E-01	3.033E-01	2.742E-02	0.759
	+	88.47		3.096E-01	1.719E-01	1.986E-01	1.819E-02	1.559
	+	100.00		2.699E-01	2.342E-01	2.877E-01	2.166E-02	0.938
		193.63	*	4.828E-01	4.041E-01	7.024E-01	3.761E-02	0.687
		210.97		1.534E+00	6.828E-01	1.086E+00	5.904E-02	1.413
PA-231		283.67	*	-9.947E-02	1.309E+00	1.959E+00	2.692E-01	-0.051
	+	301.29		1.286E+00	6.256E-01	8.296E-01	8.648E-02	1.550
TH-231		81.07		-1.703E-01	2.338E-01	3.334E-01	2.907E-02	-0.511
		83.78		6.003E-02	1.364E-01	2.026E-01	1.806E-02	0.296
		94.90		9.464E-01	3.086E-01	4.113E-01	3.348E-02	2.301
		122.32		-7.142E-01	1.539E+00	2.422E+00	1.645E-01	-0.295
	+	144.24		1.845E+00	1.049E+00	9.996E-01	6.975E-02	1.846
		154.21		3.964E-01	3.226E-01	5.667E-01	3.771E-02	0.700
	+	269.46		3.483E-01	1.992E-01	2.767E-01	1.644E-02	1.259
		323.87	*	2.335E-02	5.814E-01	8.189E-01	1.352E-01	0.029
	+	338.28		6.341E+00	1.605E+00	1.903E+00	2.002E-01	3.333
		445.03		-4.498E-01	1.710E+00	2.795E+00	2.925E-01	-0.161
U-231		84.21		6.447E+00	5.773E+00	8.758E+00	7.834E-01	0.736

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		2.871E+01	4.358E+00	5.215E+00	4.440E-01	5.504
		95.87	*	1.123E+00	1.343E+00	1.630E+00	1.306E-01	0.689
		108.00		-2.129E+00	1.861E+00	2.874E+00	1.955E-01	-0.741
PA-233	+	75.28		1.704E+01	4.772E+00	6.229E+00	9.476E-01	2.735
	+	86.59		4.439E+00	2.710E+00	2.897E+00	7.818E-01	1.533
	+	300.12		8.964E-01	4.425E-01	5.829E-01	7.819E-02	1.538
		311.98	*	-1.509E-02	5.049E-02	8.024E-02	4.916E-03	-0.188
		340.50		1.782E+00	7.227E-01	9.766E-01	2.243E-01	1.825
		398.62		2.901E-02	1.515E+00	2.538E+00	6.561E-01	0.011
		415.76		-1.679E-01	1.245E+00	2.061E+00	4.250E-01	-0.081
PA-234	+	63.00		1.159E+01	3.295E+00	3.546E+00	5.346E-01	3.269
		94.67		1.042E+00	2.549E-01	3.245E-01	3.924E-02	3.211
	+	98.44		1.318E-01	1.354E-01	1.463E-01	8.142E-02	0.901
	+	99.86		6.831E-01	5.926E-01	7.359E-01	5.552E-02	0.928
		111.00		-3.572E-02	1.731E-01	2.775E-01	2.976E-02	-0.129
		131.20		-1.857E-02	1.036E-01	1.458E-01	8.297E-03	-0.127
		152.70		7.227E-02	2.792E-01	4.453E-01	6.972E-02	0.162
	+	186.00		6.997E+00	2.684E+00	2.344E+00	7.141E-01	2.985
		226.40		1.937E-01	3.239E-01	5.466E-01	6.240E-02	0.354
		227.20		3.706E-01	3.433E-01	5.898E-01	3.251E-02	0.628
		248.90		4.767E-01	6.645E-01	1.078E+00	2.310E-01	0.442
		293.70		4.619E+00	1.041E+00	1.327E+00	2.131E-01	3.481
		369.80		-1.120E-01	6.253E-01	1.043E+00	2.171E-01	-0.107
		568.70		3.685E-01	7.639E-01	1.255E+00	8.785E-02	0.294
		569.50		1.461E-01	2.054E-01	3.417E-01	2.394E-02	0.428
		574.00		-1.400E+00	1.191E+00	1.724E+00	1.213E-01	-0.812
		699.00		-1.822E-01	5.619E-01	9.198E-01	1.736E-01	-0.198
		706.10		-3.073E-01	8.181E-01	1.316E+00	5.861E-01	-0.233
		733.00		-7.650E-03	3.433E-01	4.907E-01	1.090E-01	-0.016
		742.81		5.062E-01	1.121E+00	1.824E+00	1.227E+00	0.277
	+	796.30		1.969E+00	9.997E-01	1.323E+00	3.623E-01	1.489
		805.60		1.547E-01	7.602E-01	1.268E+00	3.929E-01	0.122
		819.60		-8.684E-01	9.195E-01	1.299E+00	4.985E-01	-0.668
		826.30		-2.321E-01	6.394E-01	1.012E+00	4.558E-01	-0.229
		831.60		-2.062E-01	5.038E-01	8.004E-01	2.428E-01	-0.258
		876.40		9.477E-02	6.371E-01	1.042E+00	1.073E+00	0.091
		880.51		9.200E-02	2.053E-01	3.465E-01	3.814E-02	0.265
		883.24		-1.448E-01	2.390E-01	3.389E-01	2.290E-01	-0.427
		899.00		2.668E-01	6.421E-01	1.062E+00	4.706E-01	0.251
		925.00		9.427E-02	8.762E-01	1.438E+00	1.567E-01	0.066
		926.50		9.821E-02	1.367E-01	2.301E-01	6.013E-02	0.427
		946.00	*	9.308E-03	2.349E-01	3.827E-01	7.549E-02	0.024
		949.00		4.832E-02	3.381E-01	5.549E-01	5.828E-02	0.087
		980.50		4.484E-01	5.653E-01	9.665E-01	9.613E-02	0.464
		1394.10		-1.234E+00	1.249E+00	1.356E+00	8.806E-01	-0.910
NP-236		94.67		7.990E-01	1.805E-01	2.468E-01	2.017E-02	3.237
	+	98.44		9.962E-02	8.642E-02	1.106E-01	8.517E-03	0.901
		111.00		-2.702E-02	1.309E-01	2.099E-01	1.380E-02	-0.129
		160.31	*	-5.810E-02	6.472E-02	1.062E-01	5.625E-03	-0.547

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		2.277E-01	1.975E-01	2.471E-01	1.872E-02	0.922
		117.00	*	-8.462E-02	1.660E-01	2.616E-01	1.619E-02	-0.323
	+	209.75		1.947E+00	8.304E-01	1.127E+00	6.119E-02	1.728
		228.18		7.059E-02	1.783E-01	2.992E-01	1.650E-02	0.236
	+	277.60		3.203E-01	2.504E-01	2.589E-01	1.475E-02	1.237
		334.30		-1.039E-01	1.197E+00	1.544E+00	8.932E-02	-0.067
AM-241		59.54	*	1.993E-02	1.845E-01	2.784E-01	2.309E-02	0.072
CM-243	+	99.55		2.343E-01	2.033E-01	2.542E-01	1.926E-02	0.922
		103.76	*	4.865E-02	9.084E-02	1.433E-01	1.026E-02	0.339
		117.00		-8.705E-02	1.708E-01	2.692E-01	1.666E-02	-0.323
	+	209.75		1.919E+00	8.186E-01	1.111E+00	6.032E-02	1.728
		228.18		7.133E-02	1.802E-01	3.023E-01	1.668E-02	0.236
	+	277.60		3.229E-01	2.524E-01	2.610E-01	1.487E-02	1.237
AM-246		798.80		-7.617E-02	1.207E-01	1.600E-01	1.546E-02	-0.476
		1036.00		8.864E-02	2.219E-01	3.815E-01	3.377E-02	0.232
		1062.04		-5.832E-02	1.740E-01	2.767E-01	2.294E-02	-0.211
		1078.86	*	-1.055E-01	1.093E-01	1.693E-01	1.339E-02	-0.623
CM-247	+	278.00		1.328E+00	1.038E+00	1.083E+00	6.171E-02	1.226
		287.40		4.909E-01	9.537E-01	1.586E+00	9.073E-02	0.310
		402.60	*	1.150E-02	2.582E-02	4.416E-02	2.572E-03	0.260
CF-249		252.85		-4.979E-01	6.803E-01	1.079E+00	6.060E-02	-0.461
		333.44		-7.401E-05	2.028E-01	2.030E-01	1.174E-02	0.000
		387.95	*	1.746E-02	3.043E-02	5.237E-02	3.011E-03	0.333
CF-251		176.60	*	-2.933E-02	9.907E-02	1.649E-01	8.709E-03	-0.178
		227.00		3.531E-01	3.050E-01	5.255E-01	2.896E-02	0.672
		285.00		2.539E-01	1.389E+00	2.277E+00	1.301E-01	0.112

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799002      *
* Acquisition date : 10-FEB-2010 14:26:14 Detector SN#     :               *
* Detector ID        : GAM18               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.88     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799002           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.4159E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.309E+01	2.819E+00	3.569E-01	0.000E+00
CD-109	2.307E+00	1.255E+00	1.572E+00	0.000E+00
SN-126	2.268E-01	1.234E-01	1.478E-01	0.000E+00
HG-203	7.318E-02	5.608E-02	5.103E-02	0.000E+00
TL-208	5.197E-01	7.468E-02	4.111E-02	0.000E+00
BI-211	3.152E+00	3.922E-01	2.719E-01	0.000E+00
PB-212	1.561E+00	1.408E-01	7.124E-02	0.000E+00
PO-212	1.561E+00	1.408E-01	7.124E-02	0.000E+00
BI-214	9.833E-01	1.426E-01	8.540E-02	0.000E+00
PB-214	1.097E+00	1.475E-01	9.476E-02	0.000E+00
PO-214	1.097E+00	1.475E-01	9.476E-02	0.000E+00
PO-216	1.561E+00	1.408E-01	7.124E-02	0.000E+00
PO-218	1.097E+00	1.475E-01	9.476E-02	0.000E+00
RA-224	3.524E+00	8.894E-01	8.096E-01	0.000E+00
RA-226	9.833E-01	1.426E-01	8.540E-02	0.000E+00
AC-228	1.632E+00	3.167E-01	1.651E-01	0.000E+00
RA-228	1.632E+00	3.167E-01	1.651E-01	0.000E+00
TH-228	1.585E+00	1.429E-01	7.232E-02	0.000E+00
TH-230	9.833E-01	1.426E-01	8.540E-02	0.000E+00
TH-232	1.632E+00	3.167E-01	1.651E-01	0.000E+00
PA-234M	8.066E+00	5.563E+00	5.866E+00	0.000E+00
TH-234	9.945E+00	2.909E+00	2.399E+00	0.000E+00
U-234	9.833E-01	1.426E-01	8.540E-02	0.000E+00
U-235	5.692E-01	3.275E-01	2.880E-01	0.000E+00
NP-237	6.659E-01	3.865E-01	4.408E-01	0.000E+00
U-238	9.945E+00	2.909E+00	2.399E+00	0.000E+00
AM-243	3.252E-01	7.958E-02	9.482E-02	0.000E+00
ANH-511	1.561E-01	5.750E-02	3.469E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	3.134E-03	2.380E-01	4.124E-01	0.000E+00	NOT IDENT.
NA-22	-3.331E-03	3.349E-02	5.610E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.881E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.162E-02	2.065E-02	3.950E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.283E-02	8.045E-02	0.000E+00	FAIL ABUN
SC-46	-2.167E-03	2.820E-02	4.748E-02	0.000E+00	FAIL ABUN
V-48	-2.530E-03	5.356E-02	8.931E-02	0.000E+00	NOT IDENT.
CR-51	3.958E-02	2.836E-01	4.869E-01	0.000E+00	NOT IDENT.
MN-52	4.738E-02	1.695E-01	2.903E-01	0.000E+00	NOT IDENT.
MN-54	-1.133E-02	3.054E-02	5.091E-02	0.000E+00	NOT IDENT.
CO-56	3.507E-03	3.058E-02	5.245E-02	0.000E+00	NOT IDENT.
CO-57	-5.018E-03	2.199E-02	3.774E-02	0.000E+00	NOT IDENT.
CO-58	-2.893E-02	2.949E-02	4.687E-02	0.000E+00	NOT IDENT.
FE-59	-1.185E-02	6.920E-02	1.175E-01	0.000E+00	FAIL ABUN
CO-60	-1.312E-02	2.829E-02	4.541E-02	0.000E+00	NOT IDENT.
ZN-65	2.180E-02	8.073E-02	1.213E-01	0.000E+00	NOT IDENT.
GE-68	-1.517E-01	9.620E-01	1.638E+00	0.000E+00	NOT IDENT.
AS-73	5.193E-01	1.010E+00	1.894E+00	0.000E+00	NOT IDENT.
AS-74	3.736E-02	6.950E-02	1.208E-01	0.000E+00	NOT IDENT.
SE-75	5.158E-03	3.567E-02	5.778E-02	0.000E+00	FAIL ABUN
BR-77	1.441E+00	7.939E+00	1.340E+01	0.000E+00	FAIL ABUN
SR-82	-1.157E-01	3.411E-01	4.885E-01	0.000E+00	NOT IDENT.
RB-83	8.103E-03	5.263E-02	8.871E-02	0.000E+00	NOT IDENT.
RB-84	-1.114E-02	5.178E-02	8.637E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.432E+00	1.086E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.297E-02	5.568E-02	0.000E+00	NOT IDENT.
RB-86	1.284E-01	6.085E-01	1.061E+00	0.000E+00	NOT IDENT.
Y-88	-2.784E-04	2.263E-02	3.772E-02	0.000E+00	NOT IDENT.
ZR-88	-1.279E-02	2.204E-02	3.779E-02	0.000E+00	NOT IDENT.
Y-91	1.078E+01	1.552E+01	2.740E+01	0.000E+00	NOT IDENT.
NB-94	1.605E-02	2.539E-02	4.558E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.023E-02	6.888E-02	0.000E+00	NOT IDENT.
NB-95M	1.037E-01	1.058E-01	1.709E-01	0.000E+00	NOT IDENT.
ZR-95	4.659E-02	5.288E-02	9.564E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.210E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.598E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.930E+00	9.104E+00	1.617E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.462E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.258E-02	2.649E-02	4.572E-02	0.000E+00	NOT IDENT.
RH-102	-1.764E-04	2.140E-02	3.705E-02	0.000E+00	FAIL ABUN
RU-103	6.200E-03	2.914E-02	5.084E-02	0.000E+00	FAIL ABUN
RH-106	9.610E-02	2.406E-01	4.146E-01	0.000E+00	FAIL ABUN
RU-106	9.610E-02	2.404E-01	4.146E-01	0.000E+00	FAIL ABUN
AG-108M	-4.995E-03	2.468E-02	4.270E-02	0.000E+00	NOT IDENT.
AG-110M	-2.762E-02	2.622E-02	4.300E-02	0.000E+00	NOT IDENT.
IN-111	-4.467E-01	8.797E-01	1.308E+00	0.000E+00	NOT IDENT.
IN-113M	-8.548E-03	3.219E-02	5.612E-02	0.000E+00	NOT IDENT.
SN-113	-8.548E-03	3.219E-02	5.612E-02	0.000E+00	NOT IDENT.
IN-114M	-8.578E-02	1.619E-01	2.488E-01	0.000E+00	NOT IDENT.
CD-115	-1.859E+00	7.581E+00	1.279E+01	0.000E+00	NOT IDENT.
SN-117M	-8.280E-03	4.272E-02	7.722E-02	0.000E+00	NOT IDENT.
SB-122	6.983E-01	1.470E+00	2.572E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.350E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.710E-03	2.191E-02	3.969E-02	0.000E+00	NOT IDENT.
I-124	-3.920E-01	5.862E-01	8.012E-01	0.000E+00	FAIL ABUN
SB-124	-1.227E-02	4.810E-02	7.805E-02	0.000E+00	FAIL ABUN
SB-125	-1.420E-02	6.578E-02	1.139E-01	0.000E+00	FAIL ABUN
TE-125M	-4.356E+00	8.222E+00	1.409E+01	0.000E+00	NOT IDENT.
I-126	-5.371E-02	1.424E-01	2.439E-01	0.000E+00	NOT IDENT.
SB-126	-2.627E-02	1.193E-01	1.745E-01	0.000E+00	FAIL ABUN
SB-127	-4.124E-01	9.516E-01	1.612E+00	0.000E+00	NOT IDENT.
XE-127	-1.821E-02	3.627E-02	6.342E-02	0.000E+00	NOT IDENT.
I-131	5.513E-02	8.477E-02	1.551E-01	0.000E+00	NOT IDENT.
TE-132	2.195E-01	5.334E-01	9.529E-01	0.000E+00	NOT IDENT.
BA-133	-5.169E-03	3.829E-02	5.570E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.274E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.352E-02	6.881E-02	0.000E+00	FAIL ABUN
CS-135	1.494E-01	1.405E-01	2.257E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.344E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.109E-02	7.935E-02	1.332E-01	0.000E+00	FAIL ABUN
BA-137M	4.334E-02	2.810E-02	5.262E-02	0.000E+00	NOT IDENT.
CS-137	4.581E-02	2.971E-02	5.563E-02	0.000E+00	NOT IDENT.
CE-139	-1.731E-02	2.346E-02	4.145E-02	0.000E+00	NOT IDENT.
BA-140	-1.134E-02	1.816E-01	3.092E-01	0.000E+00	NOT IDENT.
LA-140	1.640E-02	5.753E-02	9.788E-02	0.000E+00	FAIL ABUN
CE-141	5.904E-02	5.287E-02	9.379E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.705E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	4.110E-02	1.804E-01	2.975E-01	0.000E+00	NOT IDENT.
PM-144	8.608E-04	2.619E-02	4.564E-02	0.000E+00	NOT IDENT.
PR-144	5.833E-02	1.775E+00	3.092E+00	0.000E+00	NOT IDENT.
PM-146	1.085E-02	3.093E-02	5.484E-02	0.000E+00	NOT IDENT.
ND-147	2.659E-01	3.958E-01	7.026E-01	0.000E+00	NOT IDENT.
PM-149	-7.602E-01	7.063E+01	1.217E+02	0.000E+00	NOT IDENT.
EU-152	2.102E-02	8.733E-02	1.310E-01	0.000E+00	FAIL ABUN
GD-153	1.117E-01	9.495E-02	1.283E-01	0.000E+00	FAIL ABUN
EU-154	-1.995E-02	9.435E-02	1.567E-01	0.000E+00	NOT IDENT.
EU-155	1.516E-01	9.545E-02	1.756E-01	0.000E+00	FAIL ABUN
TB-160	4.382E-02	1.013E-01	1.768E-01	0.000E+00	FAIL ABUN
HO-166M	1.989E-02	4.533E-02	8.059E-02	0.000E+00	NOT IDENT.
TM-171	2.969E+00	3.152E+01	5.148E+01	0.000E+00	NOT IDENT.
LU-176	-2.977E-03	1.964E-02	3.219E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.146E+00	1.652E+00	0.000E+00	FAIL ABUN
LU-177M	-1.685E-01	1.318E-01	2.163E-01	0.000E+00	FAIL ABUN
HF-181	1.127E-02	3.200E-02	5.639E-02	0.000E+00	NOT IDENT.
W-181	4.117E-01	4.364E-01	7.351E-01	0.000E+00	NOT IDENT.
TA-182	-6.192E-02	1.574E-01	2.606E-01	0.000E+00	FAIL ABUN
RE-183	7.459E-02	8.833E-02	1.627E-01	0.000E+00	FAIL ABUN
RE-184	-1.327E-01	1.777E-01	2.997E-01	0.000E+00	NOT IDENT.
OS-185	-6.442E-03	3.297E-02	5.453E-02	0.000E+00	NOT IDENT.
RE-188	1.655E-01	1.365E-01	2.576E-01	0.000E+00	NOT IDENT.
W-188	-5.801E-01	6.316E+00	9.452E+00	0.000E+00	FAIL ABUN
IR-192	1.583E-02	2.642E-02	4.640E-02	0.000E+00	FAIL ABUN
AU-195	3.252E-01	2.765E-01	3.796E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.265E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.199E-01	5.571E+00	1.012E+01	0.000E+00	NOT IDENT.
TL-202	3.056E-02	5.223E-02	9.382E-02	0.000E+00	NOT IDENT.
BI-207	-1.882E-04	3.883E-02	6.527E-02	0.000E+00	FAIL ABUN
TL-207	2.335E-02	5.698E-01	8.493E-01	0.000E+00	FAIL ABUN
PO-209	-4.129E-01	5.463E+00	9.189E+00	0.000E+00	NOT IDENT.
BI-210	-1.188E+00	4.886E+00	8.821E+00	0.000E+00	NOT IDENT.
PB-210	-1.188E+00	4.886E+00	8.821E+00	0.000E+00	NOT IDENT.
PO-210	-1.188E+00	4.886E+00	8.821E+00	0.000E+00	NOT IDENT.
PB-211	-8.360E-01	8.354E-01	1.089E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.610E-01	4.971E-01	0.000E+00	FAIL ABUN
PO-215	2.335E-02	5.698E-01	8.493E-01	0.000E+00	FAIL ABUN
RN-219	1.546E-01	2.890E-01	5.215E-01	0.000E+00	FAIL ABUN
RN-220	-5.873E+00	1.917E+01	3.207E+01	0.000E+00	NOT IDENT.
RA-223	2.335E-02	5.698E-01	8.493E-01	0.000E+00	FAIL ABUN
AC-227	1.116E-01	2.937E-01	5.195E-01	0.000E+00	FAIL ABUN
TH-227	1.116E-01	2.939E-01	5.195E-01	0.000E+00	FAIL ABUN
TH-229	4.828E-01	3.960E-01	7.361E-01	0.000E+00	FAIL ABUN
PA-231	-9.947E-02	1.283E+00	2.037E+00	0.000E+00	FAIL ABUN
TH-231	2.335E-02	5.698E-01	8.493E-01	0.000E+00	FAIL ABUN
U-231	1.123E+00	1.316E+00	1.733E+00	0.000E+00	FAIL ABUN
PA-233	-1.509E-02	4.948E-02	8.328E-02	0.000E+00	FAIL ABUN
PA-234	9.308E-03	2.302E-01	3.880E-01	0.000E+00	FAIL ABUN
NP-236	-5.810E-02	6.342E-02	1.117E-01	0.000E+00	FAIL ABUN
NP-239	-8.462E-02	1.627E-01	2.770E-01	0.000E+00	FAIL ABUN
AM-241	1.993E-02	1.808E-01	2.986E-01	0.000E+00	NOT IDENT.
CM-243	4.865E-02	8.902E-02	1.521E-01	0.000E+00	FAIL ABUN
AM-246	-1.055E-01	1.071E-01	1.711E-01	0.000E+00	NOT IDENT.
CM-247	1.150E-02	2.530E-02	4.559E-02	0.000E+00	FAIL ABUN
CF-249	1.746E-02	2.982E-02	5.411E-02	0.000E+00	NOT IDENT.
CF-251	-2.933E-02	9.709E-02	1.732E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:26:42.86

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799002.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:26:14
Sample ID         : G245799002           Sample quantity  : 1.41594E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.88  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2522	10.67*	1.893E+00	3.309E+01	3.309E+01	8.69
CD-109	88.03	205	3.72*	6.486E+00	2.256E+00	2.307E+00	55.51
SN-126	64.28	441	9.60	3.096E+00	3.937E+00	3.937E+00	28.25
	86.94	205	8.90	6.486E+00	9.428E-01	9.428E-01	68.68
	87.57	205	37.00*	6.486E+00	2.268E-01	2.268E-01	55.51
HG-203	70.83	------	4.75	4.309E+00	------	Line Not Found	------
	72.87	------	8.00	4.622E+00	------	Line Not Found	------
	82.60	------	3.55	5.935E+00	------	Line Not Found	------
	279.20	106	77.30*	6.249E+00	5.842E-02	7.318E-02	78.20
TL-208	277.35	106	6.80	6.249E+00	6.641E-01	6.641E-01	78.67
	510.84	254	21.60	4.311E+00	7.228E-01	7.228E-01	38.49
	583.14	649	84.20*	3.934E+00	5.197E-01	5.197E-01	14.66
	860.37	56	12.46	2.912E+00	4.096E-01	4.096E-01	90.27
BI-211	72.87	------	1.27	4.622E+00	------	Line Not Found	------
	351.07	839	12.94*	5.451E+00	3.152E+00	3.152E+00	12.70
PB-212	74.81	399	10.70	4.931E+00	2.006E+00	2.006E+00	26.66
	77.11	625	18.00	5.254E+00	1.753E+00	1.753E+00	16.66
	87.30	205	8.00	6.486E+00	1.049E+00	1.049E+00	56.40
	238.63	1784	44.60*	6.792E+00	1.561E+00	1.561E+00	9.20
	300.09	134	3.41	5.983E+00	1.735E+00	1.735E+00	48.22
PO-212	74.81	399	10.70	4.931E+00	2.006E+00	2.006E+00	26.66
	77.11	625	18.00	5.254E+00	1.753E+00	1.753E+00	16.66
	87.30	205	8.00	6.486E+00	1.049E+00	1.049E+00	56.40
	115.19	------	0.60	8.058E+00	------	Line Not Found	------
	238.63	1784	44.60*	6.792E+00	1.561E+00	1.561E+00	9.20
	300.09	134	3.41	5.983E+00	1.735E+00	1.735E+00	48.22
BI-214	609.31	655	46.30*	3.813E+00	9.833E-01	9.833E-01	14.80
	1120.29	173	15.10	2.334E+00	1.305E+00	1.305E+00	35.61
	1764.49	149	15.80	1.695E+00	1.475E+00	1.475E+00	22.33
PB-214	74.81	399	6.21	4.931E+00	3.457E+00	3.457E+00	26.04
	77.11	625	10.50	5.254E+00	3.006E+00	3.006E+00	18.32
	87.30	205	4.67	6.486E+00	1.797E+00	1.797E+00	56.04

Sample ID : G245799002 Acquisition date : 10-FEB-2010 14:26:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	354	7.49	6.747E+00	1.859E+00	1.859E+00	26.36
	295.21	525	19.20	6.040E+00	1.201E+00	1.201E+00	17.70
	351.92	839	37.20*	5.451E+00	1.096E+00	1.097E+00	13.73
PO-214	74.81	399	6.21	4.931E+00	3.457E+00	3.457E+00	26.04
	77.11	625	10.50	5.254E+00	3.006E+00	3.006E+00	18.32
	87.30	205	4.67	6.486E+00	1.797E+00	1.797E+00	56.04
	241.98	354	7.49	6.747E+00	1.859E+00	1.859E+00	26.36
	295.21	525	19.20	6.040E+00	1.201E+00	1.201E+00	17.70
	351.92	839	37.20*	5.451E+00	1.096E+00	1.097E+00	13.73
PO-216	74.81	399	10.70	4.931E+00	2.006E+00	2.006E+00	26.66
	77.11	625	18.00	5.254E+00	1.753E+00	1.753E+00	16.66
	87.30	205	8.00	6.486E+00	1.049E+00	1.049E+00	56.40
	238.63	1784	44.60*	6.792E+00	1.561E+00	1.561E+00	9.20
	300.09	134	3.41	5.983E+00	1.735E+00	1.735E+00	48.22
PO-218	74.81	399	6.21	4.931E+00	3.457E+00	3.457E+00	26.04
	77.11	625	10.50	5.254E+00	3.006E+00	3.006E+00	18.32
	87.30	205	4.67	6.486E+00	1.797E+00	1.797E+00	56.04
	241.98	354	7.49	6.747E+00	1.859E+00	1.859E+00	26.36
	295.21	525	19.20	6.040E+00	1.201E+00	1.201E+00	17.70
	351.92	839	37.20*	5.451E+00	1.096E+00	1.097E+00	13.73
RA-224	240.98	354	3.95*	6.747E+00	3.524E+00	3.524E+00	25.75
RA-226	609.31	655	46.30*	3.813E+00	9.833E-01	9.833E-01	14.80
	1120.29	173	15.10	2.334E+00	1.305E+00	1.305E+00	35.61
	1764.49	149	15.80	1.695E+00	1.475E+00	1.475E+00	22.33
AC-228	338.32	364	11.40	5.578E+00	1.519E+00	1.519E+00	46.81
	911.07	474	27.70*	2.779E+00	1.632E+00	1.632E+00	19.79
	969.11	238	16.60	2.640E+00	1.439E+00	1.439E+00	31.12
RA-228	338.32	364	11.40	5.578E+00	1.519E+00	1.519E+00	46.81
	911.07	474	27.70*	2.779E+00	1.632E+00	1.632E+00	19.79
	969.11	238	16.60	2.640E+00	1.439E+00	1.439E+00	31.12
TH-228	74.81	399	10.70	4.931E+00	2.006E+00	2.037E+00	24.99
	77.11	625	18.00	5.254E+00	1.753E+00	1.780E+00	16.66
	87.30	205	8.00	6.486E+00	1.049E+00	1.065E+00	55.51
	238.63	1784	44.60*	6.792E+00	1.561E+00	1.585E+00	9.20
	300.09	134	3.41	5.983E+00	1.735E+00	1.761E+00	75.70
TH-230	609.31	655	46.30*	3.813E+00	9.833E-01	9.833E-01	14.80
	1120.29	173	15.10	2.334E+00	1.305E+00	1.305E+00	35.61
	1764.49	149	15.80	1.695E+00	1.475E+00	1.475E+00	22.33
TH-232	338.32	364	11.40	5.578E+00	1.519E+00	1.519E+00	23.73
	911.07	474	27.70*	2.779E+00	1.632E+00	1.632E+00	19.79
	969.11	238	16.60	2.640E+00	1.439E+00	1.439E+00	31.12
PA-234M	766.42	92	0.32	3.197E+00	2.396E+01	2.396E+01	97.57
	1001.03	66	0.84*	2.567E+00	8.066E+00	8.066E+00	70.37
TH-234	63.29	441	3.80*	3.096E+00	9.945E+00	9.945E+00	29.85
	92.38	1071	5.41	6.961E+00	7.542E+00	7.542E+00	21.98
U-234	609.31	655	46.30*	3.813E+00	9.833E-01	9.833E-01	14.80
	1120.29	173	15.10	2.334E+00	1.305E+00	1.305E+00	35.61
	1764.49	149	15.80	1.695E+00	1.475E+00	1.475E+00	22.33
U-235	89.95	------	2.70	6.701E+00	------	Line Not Found	------

Sample ID : G245799002 Acquisition date : 10-FEB-2010 14:26:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	93.35	1071	4.50	6.961E+00	9.067E+00	9.067E+00	30.69
	105.00	------	2.10	7.709E+00	------ Line Not Found		------
	143.76	185	10.50*	8.222E+00	5.692E-01	5.692E-01	58.70
	163.35	------	4.70	8.004E+00	------ Line Not Found		------
	185.71	404	54.00	7.647E+00	2.591E-01	2.591E-01	23.91
	205.31	------	4.70	7.323E+00	------ Line Not Found		------
NP-237	86.50	205	12.60*	6.486E+00	6.659E-01	6.659E-01	59.22
	95.87	------	2.60	7.180E+00	------ Line Not Found		------
U-238	63.29	441	3.80*	3.096E+00	9.945E+00	9.945E+00	29.85
	92.38	1071	5.41	6.961E+00	7.542E+00	7.542E+00	15.18
AM-243	74.67	399	66.00*	4.931E+00	3.252E-01	3.252E-01	24.97
	86.72	205	0.34	6.486E+00	2.497E+01	2.497E+01	55.51
	117.66	------	0.55	8.112E+00	------ Line Not Found		------
	142.18	185	0.13	8.222E+00	4.782E+01	4.782E+01	56.69
ANH-511	511.00	254	100.00*	4.311E+00	1.561E-01	1.561E-01	37.58

Flag: "*" = Keyline

Sample ID : G245799002 Acquisition date : 10-FEB-2010 14:26:14

Total number of lines in spectrum 36
Number of unidentified lines 1
Number of lines tentatively identified by NID 35 97.22%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.309E+01	3.309E+01	0.288E+01	8.69	
CD-109	464.00D	1.02	2.256E+00	2.307E+00	1.281E+00	55.51	
SN-126	1.00E+05Y	1.00	2.268E-01	2.268E-01	1.259E-01	55.51	
HG-203	46.60D	1.25	5.842E-02	7.318E-02	5.723E-02	78.20	
TL-208	1.41E+10Y	1.00	5.197E-01	5.197E-01	0.762E-01	14.66	
BI-211	7.04E+08Y	1.00	3.152E+00	3.152E+00	0.400E+00	12.70	
PB-212	1.41E+10Y	1.00	1.561E+00	1.561E+00	0.144E+00	9.20	
PO-212	1.41E+10Y	1.00	1.561E+00	1.561E+00	0.144E+00	9.20	
BI-214	1600.00Y	1.00	9.833E-01	9.833E-01	1.455E-01	14.80	
PB-214	1600.00Y	1.00	1.096E+00	1.097E+00	0.151E+00	13.73	
PO-214	1600.00Y	1.00	1.096E+00	1.097E+00	0.151E+00	13.73	
PO-216	1.41E+10Y	1.00	1.561E+00	1.561E+00	0.144E+00	9.20	
PO-218	1600.00Y	1.00	1.096E+00	1.097E+00	0.151E+00	13.73	
RA-224	1.41E+10Y	1.00	3.524E+00	3.524E+00	0.908E+00	25.75	
RA-226	1600.00Y	1.00	9.833E-01	9.833E-01	1.455E-01	14.80	
AC-228	1.41E+10Y	1.00	1.632E+00	1.632E+00	0.323E+00	19.79	
RA-228	1.41E+10Y	1.00	1.632E+00	1.632E+00	0.323E+00	19.79	
TH-228	1.91Y	1.02	1.561E+00	1.585E+00	0.146E+00	9.20	
TH-230	4.47E+09Y	1.00	9.833E-01	9.833E-01	1.455E-01	14.80	
TH-232	1.41E+10Y	1.00	1.632E+00	1.632E+00	0.323E+00	19.79	
PA-234M	4.47E+09Y	1.00	8.066E+00	8.066E+00	5.676E+00	70.37	
TH-234	4.47E+09Y	1.00	9.945E+00	9.945E+00	2.969E+00	29.85	
U-234	4.47E+09Y	1.00	9.833E-01	9.833E-01	1.455E-01	14.80	
U-235	7.04E+08Y	1.00	5.692E-01	5.692E-01	3.341E-01	58.70	
NP-237	2.14E+06Y	1.00	6.659E-01	6.659E-01	3.944E-01	59.22	
U-238	4.47E+09Y	1.00	9.945E+00	9.945E+00	2.969E+00	29.85	
AM-243	7380.00Y	1.00	3.252E-01	3.252E-01	0.812E-01	24.97	
ANH-511	1.00E+09Y	1.00	1.561E-01	1.561E-01	0.587E-01	37.58	
	Total Activity :		9.086E+01	9.095E+01			

Grand Total Activity : 9.086E+01 9.095E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799002 Acquisition date : 10-FEB-2010 14:26:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.69	93	507	1.35	196.48	193	8	1.29E-02	86.4	7.37E+00	T
0	128.97	116	366	1.22	257.02	254	7	1.61E-02	57.8	8.25E+00	T
0	209.46	173	344	1.10	417.94	414	9	2.40E-02	42.3	7.25E+00	T
0	270.12	113	286	1.39	539.23	535	9	1.58E-02	56.9	6.35E+00	T
0	328.18	105	210	0.89	655.30	650	10	1.46E-02	55.3	5.68E+00	T
0	463.46	131	148	1.07	925.78	921	11	1.82E-02	41.0	4.60E+00	T
0	727.04	135	119	1.39	1452.81	1445	14	1.87E-02	39.3	3.34E+00	T
0	794.98	90	67	1.48	1588.66	1584	11	1.25E-02	42.8	3.11E+00	T
1	964.40	112	81	2.32	1927.42	1917	25	1.55E-02	40.5	2.65E+00	T
0	1377.51	42	50	2.04	2753.53	2749	12	5.88E-03	75.2	1.98E+00	T
0	1587.17	40	18	2.35	3172.81	3167	11	5.53E-03	52.9	1.79E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:26:48.58

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799002.CNF;1   *
* Acquisition date  : 10-FEB-2010 14:26:14  Detector SN#     :                *
* Detector ID       : GAM18                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.88          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G245799002            Analyst initials: RXF2           *
* Batch Number      : 947531                Sample Quantity : 1.41594E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.309E+01	2.876E+00	3.554E-01	2.697E-02	93.105
CD-109	2.307E+00	1.281E+00	1.476E+00	1.365E-01	1.563
SN-126	2.268E-01	1.259E-01	1.388E-01	1.279E-02	1.634
HG-203	7.318E-02	5.723E-02	4.905E-02	2.975E-03	1.492
TL-208	5.197E-01	7.620E-02	4.013E-02	3.146E-03	12.952
BI-211	3.152E+00	4.003E-01	2.627E-01	1.686E-02	12.001
PB-212	1.561E+00	1.437E-01	6.827E-02	4.877E-03	22.868
PO-212	1.561E+00	1.437E-01	6.827E-02	4.877E-03	22.868
BI-214	9.833E-01	1.455E-01	8.344E-02	7.454E-03	11.784
PB-214	1.097E+00	1.505E-01	9.153E-02	7.572E-03	11.979
PO-214	1.097E+00	1.505E-01	9.153E-02	7.572E-03	11.979
PO-216	1.561E+00	1.437E-01	6.827E-02	4.877E-03	22.868
PO-218	1.097E+00	1.505E-01	9.153E-02	7.572E-03	11.979
RA-224	3.524E+00	9.076E-01	7.759E-01	4.322E-02	4.542
RA-226	9.833E-01	1.455E-01	8.344E-02	7.454E-03	11.784
AC-228	1.632E+00	3.231E-01	1.627E-01	2.156E-02	10.031
RA-228	1.632E+00	3.231E-01	1.627E-01	2.156E-02	10.031
TH-228	1.585E+00	1.458E-01	6.930E-02	4.951E-03	22.868

Sample ID : G245799002 Acquisition date : 10-FEB-2010 14:26:14

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	9.833E-01	1.455E-01	8.344E-02	7.454E-03	11.784
TH-232	1.632E+00	3.231E-01	1.627E-01	2.156E-02	10.031
PA-234M	8.066E+00	5.676E+00	5.793E+00	6.249E-01	1.392
TH-234	9.945E+00	2.969E+00	2.239E+00	3.947E-01	4.442
U-234	9.833E-01	1.455E-01	8.344E-02	7.454E-03	11.784
U-235	5.692E-01	3.341E-01	2.732E-01	4.424E-02	2.084
NP-237	6.659E-01	3.944E-01	4.139E-01	9.338E-02	1.609
U-238	9.945E+00	2.969E+00	2.239E+00	3.947E-01	4.442
AM-243	3.252E-01	8.120E-02	8.878E-02	7.408E-03	3.664
ANH-511	1.561E-01	5.868E-02	3.377E-02	2.230E-03	4.623

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.134E-03		2.429E-01	4.009E-01	2.905E-02	0.008
NA-22	-3.331E-03		3.417E-02	5.570E-02	3.790E-03	-0.060
NA-24	-3.528E-01		3.000E-01	Half-Life too short		
AL-26	2.162E-02		2.107E-02	3.952E-02	2.307E-03	0.547
TI-44	3.236E-01	+	5.391E-02	7.539E-02	6.446E-03	4.292
SC-46	-2.167E-03		2.878E-02	4.677E-02	5.216E-03	-0.046
V-48	-2.530E-03		5.465E-02	8.816E-02	8.720E-03	-0.029
CR-51	3.958E-02		2.894E-01	4.694E-01	3.022E-02	0.084
MN-52	4.738E-02		1.729E-01	2.890E-01	2.130E-02	0.164
MN-54	-1.133E-02		3.116E-02	5.008E-02	5.130E-03	-0.226
CO-56	3.507E-03		3.121E-02	5.161E-02	5.388E-03	0.068
CO-57	-5.018E-03		2.243E-02	3.568E-02	2.114E-03	-0.141
CO-58	-2.893E-02		3.009E-02	4.607E-02	4.548E-03	-0.628
FE-59	-1.185E-02		7.062E-02	1.162E-01	9.568E-03	-0.102
CO-60	-1.312E-02		2.887E-02	4.513E-02	3.409E-03	-0.291
ZN-65	2.180E-02		8.238E-02	1.201E-01	8.457E-03	0.182
GE-68	-1.517E-01		9.816E-01	1.620E+00	1.287E-01	-0.094
AS-73	5.193E-01		1.031E+00	1.762E+00	1.397E-01	0.295
AS-74	3.736E-02		7.092E-02	1.180E-01	8.480E-03	0.317
SE-75	5.158E-03		3.639E-02	5.548E-02	3.173E-03	0.093
BR-77	1.441E+00		8.101E+00	1.305E+01	8.708E-01	0.110
SR-82	-1.157E-01		3.480E-01	4.798E-01	4.468E-02	-0.241
RB-83	8.103E-03		5.370E-02	8.639E-02	5.762E-03	0.094
RB-84	-1.114E-02		5.284E-02	8.506E-02	9.375E-03	-0.131
KR-85	1.386E+01		6.564E+00	1.058E+01	7.006E-01	1.311
SR-85	7.107E-02		3.365E-02	5.421E-02	3.592E-03	1.311
RB-86	1.284E-01		6.209E-01	1.050E+00	8.357E-02	0.122
Y-88	-2.784E-04		2.309E-02	3.775E-02	2.150E-03	-0.007
ZR-88	-1.279E-02		2.249E-02	3.658E-02	2.104E-03	-0.350
Y-91	1.078E+01		1.583E+01	2.716E+01	1.606E+00	0.397
NB-94	1.605E-02		2.591E-02	4.467E-02	3.665E-03	0.359
NB-95	9.635E-02		4.105E-02	6.764E-02	6.187E-03	1.425
NB-95M	1.037E-01		1.079E-01	1.637E-01	1.201E-02	0.634

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	4.659E-02		5.395E-02	9.388E-02	9.237E-03	0.496
NB-97	-7.384E-02		3.679E-02	Half-Life too short		
ZR-97	4.934E+00		8.151E-01	Half-Life too short		
MO-99	4.930E+00		9.289E+00	1.586E+01	2.420E+00	0.311
TC-99M	-1.570E+10		1.766E+10	Half-Life too short		
RH-101	-1.258E-02		2.703E-02	4.365E-02	2.346E-03	-0.288
RH-102	-1.764E-04		2.184E-02	3.601E-02	2.287E-03	-0.005
RU-103	6.200E-03		2.973E-02	4.946E-02	6.422E-03	0.125
RH-106	9.610E-02		2.455E-01	4.053E-01	5.099E-02	0.237
RU-106	9.610E-02		2.453E-01	4.053E-01	2.982E-02	0.237
AG-108M	-4.995E-03		2.518E-02	4.142E-02	2.706E-03	-0.121
AG-110M	-2.762E-02		2.675E-02	4.209E-02	3.319E-03	-0.656
IN-111	-4.467E-01		8.976E-01	1.254E+00	7.007E-02	-0.356
IN-113M	-8.548E-03		3.285E-02	5.433E-02	3.333E-03	-0.157
SN-113	-8.548E-03		3.285E-02	5.433E-02	3.333E-03	-0.157
IN-114M	-8.578E-02		1.652E-01	2.373E-01	1.267E-02	-0.361
CD-115	-1.859E+00		7.736E+00	1.246E+01	8.372E-01	-0.149
SN-117M	-8.280E-03		4.359E-02	7.338E-02	3.900E-03	-0.113
SB-122	6.983E-01		1.500E+00	2.509E+00	1.748E-01	0.278
I-123	-5.380E-01		2.220E+00	Half-Life too short		
TE-123M	-2.710E-03		2.236E-02	3.772E-02	2.035E-03	-0.072
I-124	-3.920E-01		5.982E-01	7.827E-01	5.659E-02	-0.501
SB-124	-1.227E-02		4.908E-02	7.797E-02	5.379E-03	-0.157
SB-125	-1.420E-02		6.712E-02	1.104E-01	6.900E-03	-0.129
TE-125M	-4.356E+00		8.390E+00	1.329E+01	1.168E+00	-0.328
I-126	-5.371E-02		1.453E-01	2.388E-01	1.836E-02	-0.225
SB-126	-2.627E-02		1.217E-01	1.711E-01	1.448E-02	-0.154
SB-127	-4.124E-01		9.711E-01	1.579E+00	1.718E-01	-0.261
XE-127	-1.821E-02		3.701E-02	6.057E-02	3.269E-03	-0.301
I-131	5.513E-02		8.650E-02	1.500E-01	9.681E-03	0.368
TE-132	2.195E-01		5.442E-01	9.122E-01	1.300E-01	0.241
BA-133	-5.169E-03		3.908E-02	5.381E-02	6.216E-03	-0.096
I-133	-1.387E-03		2.180E-03	Half-Life too short		
CS-134	1.013E-01	+	4.441E-02	6.762E-02	6.540E-03	1.498
CS-135	1.494E-01		1.434E-01	2.168E-01	1.639E-02	0.689
I-135	-2.949E+09		2.216E+09	Half-Life too short		
CS-136	-3.109E-02		8.097E-02	1.317E-01	1.180E-02	-0.236
BA-137M	4.334E-02		2.868E-02	5.151E-02	3.926E-03	0.841
CS-137	4.581E-02		3.031E-02	5.445E-02	4.161E-03	0.841
CE-139	-1.731E-02		2.394E-02	3.943E-02	2.070E-03	-0.439
BA-140	-1.134E-02		1.853E-01	3.013E-01	9.856E-02	-0.038
LA-140	1.640E-02		5.871E-02	9.766E-02	6.700E-03	0.168
CE-141	5.904E-02		5.395E-02	8.898E-02	5.079E-03	0.664
CE-143	5.117E-04		8.700E-05	Half-Life too short		
CE-144	4.110E-02		1.840E-01	2.818E-01	3.984E-02	0.146
PM-144	8.608E-04		2.672E-02	4.472E-02	3.630E-03	0.019
PR-144	5.833E-02		1.811E+00	3.030E+00	2.459E-01	0.019
PM-146	1.085E-02		3.156E-02	5.325E-02	4.737E-03	0.204

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	2.659E-01		4.039E-01	6.845E-01	9.551E-02	0.388
PM-149	-7.602E-01		7.207E+01	1.171E+02	1.656E+01	-0.006
EU-152	2.102E-02		8.911E-02	1.265E-01	8.253E-03	0.166
GD-153	1.117E-01	+	9.689E-02	1.208E-01	9.442E-03	0.925
EU-154	-1.995E-02		9.627E-02	1.556E-01	1.554E-02	-0.128
EU-155	1.516E-01		9.739E-02	1.655E-01	1.183E-02	0.916
TB-160	4.382E-02		1.033E-01	1.741E-01	1.913E-02	0.252
HO-166M	1.989E-02		4.625E-02	7.901E-02	6.585E-03	0.252
TM-171	2.969E+00		3.216E+01	4.809E+01	3.845E+00	0.062
LU-176	-2.977E-03		2.004E-02	3.100E-02	1.785E-03	-0.096
LU-177	2.740E+00	+	1.169E+00	1.578E+00	8.562E-02	1.736
LU-177M	-1.685E-01		1.345E-01	2.096E-01	1.238E-02	-0.804
HF-181	1.127E-02		3.265E-02	5.482E-02	3.509E-03	0.206
W-181	4.117E-01		4.453E-01	6.864E-01	5.444E-02	0.600
TA-182	-6.192E-02		1.606E-01	2.584E-01	1.581E-02	-0.240
RE-183	7.459E-02		9.013E-02	1.547E-01	8.168E-03	0.482
RE-184	-1.327E-01		1.813E-01	2.875E-01	1.615E-02	-0.461
OS-185	-6.442E-03		3.364E-02	5.335E-02	4.012E-03	-0.121
RE-188	1.655E-01		1.393E-01	2.447E-01	1.310E-02	0.676
W-188	-5.801E-01		6.445E+00	9.094E+00	5.209E-01	-0.064
IR-192	1.583E-02		2.696E-02	4.472E-02	2.593E-03	0.354
AU-195	3.252E-01	+	2.821E-01	3.574E-01	2.735E-02	0.910
TL-200	-1.579E-04		1.666E-04	Half-Life too short		
TL-201	5.199E-01		5.685E+00	9.627E+00	5.054E-01	0.054
TL-202	3.056E-02		5.330E-02	9.104E-02	5.550E-03	0.336
BI-207	-1.882E-04		3.962E-02	6.454E-02	5.328E-03	-0.003
TL-207	2.335E-02		5.814E-01	8.189E-01	1.352E-01	0.029
PO-209	-4.129E-01		5.574E+00	9.053E+00	1.021E+00	-0.046
BI-210	-1.188E+00		4.986E+00	8.184E+00	6.332E-01	-0.145
PB-210	-1.188E+00		4.986E+00	8.184E+00	6.332E-01	-0.145
PO-210	-1.188E+00		4.986E+00	8.184E+00	5.444E-01	-0.145
PB-211	-8.360E-01		8.525E-01	1.055E+00	6.575E-01	-0.793
BI-212	9.077E-01	+	3.684E-01	4.876E-01	4.856E-02	1.862
PO-215	2.335E-02		5.814E-01	8.189E-01	1.352E-01	0.029
RN-219	1.546E-01		2.949E-01	5.051E-01	6.877E-02	0.306
RN-220	-5.873E+00		1.956E+01	3.127E+01	2.149E+00	-0.188
RA-223	2.335E-02		5.814E-01	8.189E-01	1.352E-01	0.029
AC-227	1.116E-01		2.997E-01	4.985E-01	6.924E-02	0.224
TH-227	1.116E-01		2.999E-01	4.985E-01	8.395E-02	0.224
TH-229	4.828E-01		4.041E-01	7.024E-01	3.761E-02	0.687
PA-231	-9.947E-02		1.309E+00	1.959E+00	2.692E-01	-0.051
TH-231	2.335E-02		5.814E-01	8.189E-01	1.352E-01	0.029
U-231	1.123E+00		1.343E+00	1.630E+00	1.306E-01	0.689
PA-233	-1.509E-02		5.049E-02	8.024E-02	4.916E-03	-0.188
PA-234	9.308E-03		2.349E-01	3.827E-01	7.549E-02	0.024
NP-236	-5.810E-02		6.472E-02	1.062E-01	5.625E-03	-0.547
NP-239	-8.462E-02		1.660E-01	2.616E-01	1.619E-02	-0.323
AM-241	1.993E-02		1.845E-01	2.784E-01	2.309E-02	0.072

Sample ID : G245799002 Acquisition date : 10-FEB-2010 14:26:14

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	4.865E-02		9.084E-02	1.433E-01	1.026E-02	0.339
AM-246	-1.055E-01		1.093E-01	1.693E-01	1.339E-02	-0.623
CM-247	1.150E-02		2.582E-02	4.416E-02	2.572E-03	0.260
CF-249	1.746E-02		3.043E-02	5.237E-02	3.011E-03	0.333
CF-251	-2.933E-02		9.907E-02	1.649E-01	8.709E-03	-0.178

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799002            *
* Acquisition date : 10-FEB-2010 14:26:14 Detector SN#     :                *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.88     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245799002           Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.4159E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.309E+01	2.819E+00	1.786E-01	1.438E+00
CD-109	2.307E+00	1.255E+00	7.863E-01	6.404E-01
SN-126	2.268E-01	1.234E-01	7.392E-02	6.294E-02
HG-203	7.318E-02	5.608E-02	2.553E-02	2.861E-02
TL-208	5.197E-01	7.468E-02	2.057E-02	3.810E-02
BI-211	3.152E+00	3.922E-01	1.361E-01	2.001E-01
PB-212	1.561E+00	1.408E-01	3.564E-02	7.183E-02
PO-212	1.561E+00	1.408E-01	3.564E-02	7.183E-02
BI-214	9.833E-01	1.426E-01	4.272E-02	7.277E-02
PB-214	1.097E+00	1.475E-01	4.741E-02	7.527E-02
PO-214	1.097E+00	1.475E-01	4.741E-02	7.527E-02
PO-216	1.561E+00	1.408E-01	3.564E-02	7.183E-02
PO-218	1.097E+00	1.475E-01	4.741E-02	7.527E-02
RA-224	3.524E+00	8.894E-01	4.050E-01	4.538E-01
RA-226	9.833E-01	1.426E-01	4.272E-02	7.277E-02
AC-228	1.632E+00	3.167E-01	8.261E-02	1.616E-01
RA-228	1.632E+00	3.167E-01	8.261E-02	1.616E-01
TH-228	1.585E+00	1.429E-01	3.618E-02	7.292E-02
TH-230	9.833E-01	1.426E-01	4.272E-02	7.277E-02
TH-232	1.632E+00	3.167E-01	8.261E-02	1.616E-01
PA-234M	8.066E+00	5.563E+00	2.935E+00	2.838E+00
TH-234	9.945E+00	2.909E+00	1.200E+00	1.484E+00
U-234	9.833E-01	1.426E-01	4.272E-02	7.277E-02
U-235	5.692E-01	3.275E-01	1.441E-01	1.671E-01
NP-237	6.659E-01	3.865E-01	2.205E-01	1.972E-01
U-238	9.945E+00	2.909E+00	1.200E+00	1.484E+00
AM-243	3.252E-01	7.958E-02	4.744E-02	4.060E-02
ANH-511	1.561E-01	5.750E-02	1.736E-02	2.934E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	3.134E-03	2.380E-01	2.063E-01	1.214E-01	NOT IDENT.
NA-22	-3.331E-03	3.349E-02	2.807E-02	1.708E-02	NOT IDENT.
NA-24	-3.528E+05	5.881E+05	0.000E+00	3.000E+05	SHORT HLIF
AL-26	2.162E-02	2.065E-02	1.976E-02	1.053E-02	NOT IDENT.
TI-44	3.236E-01	5.283E-02	4.025E-02	2.695E-02	FAIL ABUN
SC-46	-2.167E-03	2.820E-02	2.375E-02	1.439E-02	FAIL ABUN
V-48	-2.530E-03	5.356E-02	4.468E-02	2.733E-02	NOT IDENT.
CR-51	3.958E-02	2.836E-01	2.436E-01	1.447E-01	NOT IDENT.
MN-52	4.738E-02	1.695E-01	1.453E-01	8.647E-02	NOT IDENT.
MN-54	-1.133E-02	3.054E-02	2.547E-02	1.558E-02	NOT IDENT.
CO-56	3.507E-03	3.058E-02	2.624E-02	1.560E-02	NOT IDENT.
CO-57	-5.018E-03	2.199E-02	1.888E-02	1.122E-02	NOT IDENT.
CO-58	-2.893E-02	2.949E-02	2.345E-02	1.504E-02	NOT IDENT.
FE-59	-1.185E-02	6.920E-02	5.877E-02	3.531E-02	FAIL ABUN
CO-60	-1.312E-02	2.829E-02	2.272E-02	1.443E-02	NOT IDENT.
ZN-65	2.180E-02	8.073E-02	6.068E-02	4.119E-02	NOT IDENT.
GE-68	-1.517E-01	9.620E-01	8.196E-01	4.908E-01	NOT IDENT.
AS-73	5.193E-01	1.010E+00	9.474E-01	5.153E-01	NOT IDENT.
AS-74	3.736E-02	6.950E-02	6.046E-02	3.546E-02	NOT IDENT.
SE-75	5.158E-03	3.567E-02	2.890E-02	1.820E-02	FAIL ABUN
BR-77	1.441E+00	7.939E+00	6.706E+00	4.050E+00	FAIL ABUN
SR-82	-1.157E-01	3.411E-01	2.444E-01	1.740E-01	NOT IDENT.
RB-83	8.103E-03	5.263E-02	4.438E-02	2.685E-02	NOT IDENT.
RB-84	-1.114E-02	5.178E-02	4.321E-02	2.642E-02	NOT IDENT.
KR-85	1.386E+01	6.432E+00	5.434E+00	3.282E+00	NOT IDENT.
SR-85	7.107E-02	3.297E-02	2.786E-02	1.682E-02	NOT IDENT.
RB-86	1.284E-01	6.085E-01	5.310E-01	3.104E-01	NOT IDENT.
Y-88	-2.784E-04	2.263E-02	1.887E-02	1.154E-02	NOT IDENT.
ZR-88	-1.279E-02	2.204E-02	1.891E-02	1.125E-02	NOT IDENT.
Y-91	1.078E+01	1.552E+01	1.371E+01	7.917E+00	NOT IDENT.
NB-94	1.605E-02	2.539E-02	2.280E-02	1.295E-02	NOT IDENT.
NB-95	9.635E-02	4.023E-02	3.446E-02	2.052E-02	NOT IDENT.
NB-95M	1.037E-01	1.058E-01	8.549E-02	5.397E-02	NOT IDENT.
ZR-95	4.659E-02	5.288E-02	4.785E-02	2.698E-02	NOT IDENT.
NB-97	-7.384E+04	7.210E+04	0.000E+00	3.679E+04	SHORT HLIF
ZR-97	4.934E+06	1.598E+06	0.000E+00	8.151E+05	SHORT HLIF
MO-99	4.930E+00	9.104E+00	8.089E+00	4.645E+00	NOT IDENT.
TC-99M	-1.570E+16	3.462E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.258E-02	2.649E-02	2.287E-02	1.352E-02	NOT IDENT.
RH-102	-1.764E-04	2.140E-02	1.854E-02	1.092E-02	FAIL ABUN
RU-103	6.200E-03	2.914E-02	2.543E-02	1.487E-02	FAIL ABUN
RH-106	9.610E-02	2.406E-01	2.074E-01	1.228E-01	FAIL ABUN
RU-106	9.610E-02	2.404E-01	2.074E-01	1.227E-01	FAIL ABUN
AG-108M	-4.995E-03	2.468E-02	2.136E-02	1.259E-02	NOT IDENT.
AG-110M	-2.762E-02	2.622E-02	2.151E-02	1.338E-02	NOT IDENT.
IN-111	-4.467E-01	8.797E-01	6.543E-01	4.488E-01	NOT IDENT.
IN-113M	-8.548E-03	3.219E-02	2.808E-02	1.642E-02	NOT IDENT.
SN-113	-8.548E-03	3.219E-02	2.808E-02	1.642E-02	NOT IDENT.
IN-114M	-8.578E-02	1.619E-01	1.245E-01	8.262E-02	NOT IDENT.
CD-115	-1.859E+00	7.581E+00	6.397E+00	3.868E+00	NOT IDENT.
SN-117M	-8.280E-03	4.272E-02	3.863E-02	2.180E-02	NOT IDENT.
SB-122	6.983E-01	1.470E+00	1.287E+00	7.501E-01	NOT IDENT.
I-123	-5.380E+05	4.350E+06	0.000E+00	2.220E+06	SHORT HLIF
TE-123M	-2.710E-03	2.191E-02	1.986E-02	1.118E-02	NOT IDENT.
I-124	-3.920E-01	5.862E-01	4.008E-01	2.991E-01	FAIL ABUN
SB-124	-1.227E-02	4.810E-02	3.905E-02	2.454E-02	FAIL ABUN
SB-125	-1.420E-02	6.578E-02	5.696E-02	3.356E-02	FAIL ABUN
TE-125M	-4.356E+00	8.222E+00	7.047E+00	4.195E+00	NOT IDENT.
I-126	-5.371E-02	1.424E-01	1.220E-01	7.267E-02	NOT IDENT.
SB-126	-2.627E-02	1.193E-01	8.730E-02	6.085E-02	FAIL ABUN
SB-127	-4.124E-01	9.516E-01	8.065E-01	4.855E-01	NOT IDENT.
XE-127	-1.821E-02	3.627E-02	3.173E-02	1.851E-02	NOT IDENT.
I-131	5.513E-02	8.477E-02	7.762E-02	4.325E-02	NOT IDENT.
TE-132	2.195E-01	5.334E-01	4.767E-01	2.721E-01	NOT IDENT.
BA-133	-5.169E-03	3.829E-02	2.786E-02	1.954E-02	NOT IDENT.
I-133	-1.387E+03	4.274E+03	0.000E+00	2.180E+03	SHORT HLIF
CS-134	1.013E-01	4.352E-02	3.443E-02	2.220E-02	FAIL ABUN
CS-135	1.494E-01	1.405E-01	1.129E-01	7.168E-02	NOT IDENT.
I-135	-2.949E+15	4.344E+15	0.000E+00	2.216E+15	SHORT HLIF
CS-136	-3.109E-02	7.935E-02	6.665E-02	4.048E-02	FAIL ABUN
BA-137M	4.334E-02	2.810E-02	2.633E-02	1.434E-02	NOT IDENT.
CS-137	4.581E-02	2.971E-02	2.783E-02	1.516E-02	NOT IDENT.
CE-139	-1.731E-02	2.346E-02	2.074E-02	1.197E-02	NOT IDENT.
BA-140	-1.134E-02	1.816E-01	1.547E-01	9.264E-02	NOT IDENT.
LA-140	1.640E-02	5.753E-02	4.897E-02	2.935E-02	FAIL ABUN
CE-141	5.904E-02	5.287E-02	4.692E-02	2.698E-02	NOT IDENT.
CE-143	5.117E+02	1.705E+02	0.000E+00	8.700E+01	SHORT HLIF

CE-144	4.110E-02	1.804E-01	1.489E-01	9.202E-02	NOT IDENT.
PM-144	8.608E-04	2.619E-02	2.283E-02	1.336E-02	NOT IDENT.
PR-144	5.833E-02	1.775E+00	1.547E+00	9.054E-01	NOT IDENT.
PM-146	1.085E-02	3.093E-02	2.743E-02	1.578E-02	NOT IDENT.
ND-147	2.659E-01	3.958E-01	3.515E-01	2.019E-01	NOT IDENT.
PM-149	-7.602E-01	7.063E+01	6.090E+01	3.604E+01	NOT IDENT.
EU-152	2.102E-02	8.733E-02	6.554E-02	4.455E-02	FAIL ABUN
GD-153	1.117E-01	9.495E-02	6.419E-02	4.845E-02	FAIL ABUN
EU-154	-1.995E-02	9.435E-02	7.841E-02	4.814E-02	NOT IDENT.
EU-155	1.516E-01	9.545E-02	8.785E-02	4.870E-02	FAIL ABUN
TB-160	4.382E-02	1.013E-01	8.846E-02	5.167E-02	FAIL ABUN
HO-166M	1.989E-02	4.533E-02	4.032E-02	2.313E-02	NOT IDENT.
TM-171	2.969E+00	3.152E+01	2.575E+01	1.608E+01	NOT IDENT.
LU-176	-2.977E-03	1.964E-02	1.610E-02	1.002E-02	FAIL ABUN
LU-177	2.740E+00	1.146E+00	8.264E-01	5.845E-01	FAIL ABUN
LU-177M	-1.685E-01	1.318E-01	1.082E-01	6.725E-02	FAIL ABUN
HF-181	1.127E-02	3.200E-02	2.821E-02	1.633E-02	NOT IDENT.
W-181	4.117E-01	4.364E-01	3.678E-01	2.226E-01	NOT IDENT.
TA-182	-6.192E-02	1.574E-01	1.304E-01	8.030E-02	FAIL ABUN
RE-183	7.459E-02	8.833E-02	8.142E-02	4.507E-02	FAIL ABUN
RE-184	-1.327E-01	1.777E-01	1.499E-01	9.065E-02	NOT IDENT.
OS-185	-6.442E-03	3.297E-02	2.728E-02	1.682E-02	NOT IDENT.
RE-188	1.655E-01	1.365E-01	1.289E-01	6.966E-02	NOT IDENT.
W-188	-5.801E-01	6.316E+00	4.729E+00	3.223E+00	FAIL ABUN
IR-192	1.583E-02	2.642E-02	2.321E-02	1.348E-02	FAIL ABUN
AU-195	3.252E-01	2.765E-01	1.899E-01	1.411E-01	FAIL ABUN
TL-200	-1.579E+02	3.265E+02	0.000E+00	1.666E+02	SHORT HLIF
TL-201	5.199E-01	5.571E+00	5.063E+00	2.842E+00	NOT IDENT.
TL-202	3.056E-02	5.223E-02	4.694E-02	2.665E-02	NOT IDENT.
BI-207	-1.882E-04	3.883E-02	3.265E-02	1.981E-02	FAIL ABUN
TL-207	2.335E-02	5.698E-01	4.249E-01	2.907E-01	FAIL ABUN
PO-209	-4.129E-01	5.463E+00	4.597E+00	2.787E+00	NOT IDENT.
BI-210	-1.188E+00	4.886E+00	4.413E+00	2.493E+00	NOT IDENT.
PB-210	-1.188E+00	4.886E+00	4.413E+00	2.493E+00	NOT IDENT.
PO-210	-1.188E+00	4.886E+00	4.413E+00	2.493E+00	NOT IDENT.
PB-211	-8.360E-01	8.354E-01	5.446E-01	4.262E-01	NOT IDENT.
BI-212	9.077E-01	3.610E-01	2.487E-01	1.842E-01	FAIL ABUN
PO-215	2.335E-02	5.698E-01	4.249E-01	2.907E-01	FAIL ABUN
RN-219	1.546E-01	2.890E-01	2.609E-01	1.475E-01	FAIL ABUN
RN-220	-5.873E+00	1.917E+01	1.604E+01	9.780E+00	NOT IDENT.
RA-223	2.335E-02	5.698E-01	4.249E-01	2.907E-01	FAIL ABUN
AC-227	1.116E-01	2.937E-01	2.599E-01	1.499E-01	FAIL ABUN
TH-227	1.116E-01	2.939E-01	2.599E-01	1.500E-01	FAIL ABUN
TH-229	4.828E-01	3.960E-01	3.683E-01	2.020E-01	FAIL ABUN
PA-231	-9.947E-02	1.283E+00	1.019E+00	6.545E-01	FAIL ABUN
TH-231	2.335E-02	5.698E-01	4.249E-01	2.907E-01	FAIL ABUN
U-231	1.123E+00	1.316E+00	8.669E-01	6.716E-01	FAIL ABUN
PA-233	-1.509E-02	4.948E-02	4.166E-02	2.524E-02	FAIL ABUN
PA-234	9.308E-03	2.302E-01	1.941E-01	1.174E-01	FAIL ABUN
NP-236	-5.810E-02	6.342E-02	5.588E-02	3.236E-02	FAIL ABUN
NP-239	-8.462E-02	1.627E-01	1.386E-01	8.300E-02	FAIL ABUN
AM-241	1.993E-02	1.808E-01	1.494E-01	9.223E-02	NOT IDENT.
CM-243	4.865E-02	8.902E-02	7.607E-02	4.542E-02	FAIL ABUN
AM-246	-1.055E-01	1.071E-01	8.562E-02	5.465E-02	NOT IDENT.
CM-247	1.150E-02	2.530E-02	2.281E-02	1.291E-02	FAIL ABUN
CF-249	1.746E-02	2.982E-02	2.707E-02	1.521E-02	NOT IDENT.
CF-251	-2.933E-02	9.709E-02	8.663E-02	4.954E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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46.50	333.1519
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52.97	354.5950
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53.44	357.9622
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56.28	412.3961
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57.53	380.9807
57.53	380.9828
57.60	385.7008
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57.98	392.3408
59.32	390.8618
59.32	390.8618
59.40	390.9718
59.54	391.1641
59.72	392.8087
60.01	393.2075
61.10	410.1494
61.14	410.2062
61.30	410.4323
63.00	451.4598
63.29	451.9008
63.29	451.9008
63.58	452.3406
64.28	512.5601
65.12	485.5117
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65.20	485.6399
66.05	467.0014
66.72	463.7230
66.83	496.8217
66.91	496.9487
67.20	471.6122
67.20	471.6122
67.75	512.6537
67.85	524.3116
68.90	530.3898
68.90	530.3898
69.30	522.4022
69.67	494.1194
70.82	485.7413
70.82	485.7413
70.83	485.7567
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72.87	536.9624
72.87	536.9624
74.67	539.8823
74.81	540.1083
74.81	540.1083
74.81	540.1083
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74.81	540.1083
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77.11	543.7849

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79.80	522.7027
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80.18	523.2678
80.30	529.4097
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80.57	529.8159
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81.07	591.8398
81.07	591.8398
81.07	591.8398
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83.78	563.1885
83.78	563.1885
83.78	563.1885
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86.54	725.2090
86.59	725.3076
86.72	725.5591
86.79	725.6904
86.94	725.9858
87.30	726.6860
87.30	726.6860
87.30	726.6860
87.30	726.6860
87.30	726.6860
87.30	726.6860
87.30	726.6860
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87.88	805.9660
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88.47	710.6436
89.95	713.4096
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92.38	650.7349
92.38	650.7349
93.35	652.3430
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94.67	421.4722
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94.90	421.7150
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98.44	404.1522
98.44	404.1522
98.88	404.5859
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99.55	398.3439
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100.10	400.4472
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103.76	385.2528
105.00	385.5225
105.31	364.6042
108.00	454.3151
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111.00	457.4005
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117.00	392.7303
117.66	390.0184
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121.62	363.6289
121.78	363.7502
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145.44	367.0655
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154.21	366.4070
154.21	366.4070
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163.89	375.1555
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176.60	356.5450
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209.75	337.9842
210.97	290.7311
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228.18	306.2229
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236.00	320.9243
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238.63	281.5299
238.63	281.5299
238.63	281.5299
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241.98	282.6913
241.98	282.6913
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256.20	260.2009
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268.79	258.0266
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269.46	246.7053
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277.60	271.4663
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323.87	215.8254
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338.28	210.6374
338.28	210.6374
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391.69	187.7007
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513.99	156.8429
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609.31	142.6925
609.31	142.6925
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696.49	145.2589
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911.07	103.2918
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969.11	96.0200
969.11	96.0200
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1120.29	108.0815
1120.29	108.0815
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1147.95	0.0000
1167.94	144.7855
1173.22	99.2856
1175.09	133.4355
1177.93	128.6853
1189.05	118.3835
1204.90	124.8827
1205.75	0.0000
1213.00	148.8671
1221.42	139.3722
1230.97	174.4899
1235.34	127.0759
1236.41	0.0000
1238.25	141.0986
1246.25	128.5006
1260.41	0.0000
1271.85	105.4138
1274.45	93.4379
1274.54	90.4269
1291.56	80.7896
1298.22	0.0000
1312.09	83.3156
1325.50	62.2212
1325.50	62.2212
1332.49	64.3931
1333.61	51.1213
1360.21	46.3623
1362.66	0.0000
1365.15	45.3965
1368.21	65.6105
1368.53	0.0000
1376.25	57.9590
1384.27	41.7521
1394.10	72.8125
1395.20	68.6725
1407.95	72.0467
1434.06	42.0661
1436.60	43.1478
1457.56	0.0000
1460.81	33.8962
1489.15	42.6897
1509.49	29.1032
1596.49	30.7109
1620.62	37.6515
1678.03	0.0000
1691.02	23.5635
1691.02	23.5635
1706.46	0.0000
1750.46	0.0000
1764.49	18.9722
1764.49	18.9722
1764.49	18.9722
1764.49	18.9722
1770.23	7.1098
1771.40	8.8897
1791.20	0.0000
1808.65	15.1263

1836.01 21.3044

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799002

Total Uranium Activity	2.9851E+01	ug/g
Total Uranium Counting Unc.	8.6563E+00	ug/g
Total Uranium Tpu	4.4165E-06	ug/g
Total Uranium Mda	3.5709E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799002        *
*   ANALYST       : RXF2                      DETECTOR    : GAM18             *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 10-FEB-2010 14:26:14.72    SAMPLE ALQT:  141.594 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.964E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.303E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 2.419E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.176E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:47:37.88

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799003.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:47:09
Sample ID         : G245799003           Sample quantity  : 1.40023E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.83  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	1	74.63*	366	468	1.19	149.25	144	16	5.09E-02	10.9	7.94E+00
2	1	77.06	636	460	1.39	154.12	144	16	8.83E-02	7.4	
3	0	86.73*	55	768	1.14	173.46	169	10	7.67E-03	96.1	
4	0	89.87	127	292	1.18	179.74	178	5	1.76E-02	22.1	
5	0	92.77*	131	507	0.99	185.54	182	8	1.81E-02	32.3	
6	0	185.77*	156	318	1.44	371.53	367	9	2.17E-02	23.1	
7	0	208.87	97	200	0.80	417.73	415	7	1.35E-02	26.0	
8	2	238.33*	1185	191	1.25	476.66	470	20	1.65E-01	3.5	2.09E+00
9	2	241.35	272	290	1.77	482.70	470	20	3.78E-02	16.7	
10	0	270.00	129	206	1.73	540.00	535	11	1.78E-02	23.4	
11	0	276.89	57	151	1.13	553.78	551	7	7.91E-03	38.1	
12	0	294.87*	293	216	1.20	589.74	585	10	4.07E-02	11.2	
13	0	299.94	75	161	1.23	599.89	595	9	1.05E-02	32.5	
14	0	327.51	51	187	1.43	655.03	650	10	7.11E-03	52.0	
15	0	337.91	226	205	1.32	675.82	671	11	3.14E-02	13.9	
16	0	351.61*	556	205	1.53	703.22	696	15	7.72E-02	7.1	
17	0	462.44*	83	72	1.58	924.87	920	9	1.15E-02	22.0	
18	0	510.15*	156	182	1.97	1020.31	1012	19	2.17E-02	23.7	
19	0	582.54*	384	127	1.60	1165.07	1159	15	5.33E-02	8.2	
20	0	608.65*	430	51	1.80	1217.31	1212	12	5.98E-02	6.0	
21	0	726.99	59	74	2.03	1453.99	1449	10	8.13E-03	30.6	
22	0	859.93	52	68	1.25	1719.86	1713	13	7.21E-03	35.6	
23	0	910.21*	242	91	1.82	1820.43	1812	18	3.36E-02	11.4	
24	1	963.96*	69	74	2.12	1927.92	1922	37	9.64E-03	27.0	1.13E+00
25	1	968.12	124	56	2.13	1936.23	1922	37	1.72E-02	15.9	
26	0	1119.91	107	90	1.78	2239.81	2233	17	1.49E-02	22.8	
27	0	1237.32	66	47	2.14	2474.65	2469	11	9.23E-03	23.4	
28	0	1459.46*	1257	34	2.29	2918.93	2908	19	1.75E-01	3.0	
29	0	1763.09*	73	9	2.32	3526.17	3518	17	1.01E-02	15.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 16:47:41

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799003.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : RXF2
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:47:09
Sample ID         : G245799003           Sample quantity  : 140.02 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA23              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.83   0.0%
Peak Width (FWHM):      3.00             Confidence level :      5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :      8.00
Errors propagated: Yes                   Systematic Error :      0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :     75.00             WTM error limit  :      3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.165E+01	3.054E+00	6.158E-01	4.607E-02	51.399
CD-109	+	88.03	*	7.842E-01	1.510E+00	1.381E+00	1.349E-01	0.568
SN-126		64.28		5.574E-01	6.324E-01	1.067E+00	1.624E-01	0.523
	+	86.94		3.205E-01	6.303E-01	6.432E-01	2.675E-01	0.498
	+	87.57	*	7.708E-02	1.484E-01	1.366E-01	1.329E-02	0.564
TL-208	+	277.35		5.418E-01	4.170E-01	6.405E-01	6.768E-02	0.846
	+	510.84		7.599E-01	3.691E-01	2.276E-01	2.312E-02	3.339
	+	583.14	*	5.366E-01	9.469E-02	6.064E-02	3.937E-03	8.848
	+	860.37		6.939E-01	4.981E-01	5.176E-01	4.678E-02	1.341
BI-211		72.87		1.161E+01	4.298E+00	6.731E+00	5.938E-01	1.725
	+	351.07	*	3.345E+00	5.248E-01	3.602E-01	2.347E-02	9.286
PB-212	+	74.81		2.274E+00	5.777E-01	6.224E-01	8.030E-02	3.653
	+	77.11		2.199E+00	3.806E-01	3.487E-01	3.138E-02	6.306
	+	87.30		3.565E-01	6.872E-01	7.120E-01	9.923E-02	0.501
	+	238.63	*	1.536E+00	1.547E-01	9.851E-02	7.082E-03	15.590
	+	300.09		1.521E+00	9.967E-01	1.202E+00	9.984E-02	1.265
PO-212	+	74.81		2.274E+00	5.777E-01	6.224E-01	8.030E-02	3.653
	+	77.11		2.199E+00	3.806E-01	3.487E-01	3.138E-02	6.306
	+	87.30		3.565E-01	6.872E-01	7.120E-01	9.923E-02	0.501
		115.19		4.663E+00	3.627E+00	6.247E+00	3.985E-01	0.746
	+	238.63	*	1.536E+00	1.547E-01	9.851E-02	7.082E-03	15.590
	+	300.09		1.521E+00	9.967E-01	1.202E+00	9.984E-02	1.265
BI-214	+	609.31	*	1.135E+00	1.604E-01	1.087E-01	8.172E-03	10.445
	+	1120.29		1.510E+00	7.022E-01	5.338E-01	4.960E-02	2.828
	+	1764.49		1.410E+00	4.385E-01	3.717E-01	2.311E-02	3.794
PB-214	+	74.81		3.918E+00	9.700E-01	1.072E+00	1.241E-01	3.653
	+	77.11		3.770E+00	7.128E-01	5.979E-01	7.049E-02	6.306
	+	87.30		6.107E-01	1.177E+00	1.220E+00	1.512E-01	0.501
	+	241.98		2.119E+00	7.264E-01	5.933E-01	4.718E-02	3.571
	+	295.21		1.037E+00	2.483E-01	2.219E-01	1.902E-02	4.671
	+	351.92	*	1.164E+00	1.924E-01	1.256E-01	1.048E-02	9.267
PO-214	+	74.81		3.918E+00	9.700E-01	1.072E+00	1.241E-01	3.653
	+	77.11		3.770E+00	7.128E-01	5.979E-01	7.049E-02	6.306
	+	87.30		6.107E-01	1.177E+00	1.220E+00	1.512E-01	0.501

Sample ID : G245799003 Acquisition date : 10-FEB-2010 14:47:09

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.119E+00	7.264E-01	5.933E-01	4.718E-02	3.571
	+	295.21		1.037E+00	2.483E-01	2.219E-01	1.902E-02	4.671
	+	351.92	*	1.164E+00	1.924E-01	1.256E-01	1.048E-02	9.267
PO-216	+	74.81		2.274E+00	5.777E-01	6.224E-01	8.030E-02	3.653
	+	77.11		2.199E+00	3.806E-01	3.487E-01	3.138E-02	6.306
	+	87.30		3.565E-01	6.872E-01	7.120E-01	9.923E-02	0.501
	+	238.63	*	1.536E+00	1.547E-01	9.851E-02	7.082E-03	15.590
	+	300.09		1.521E+00	9.967E-01	1.202E+00	9.984E-02	1.265
PO-218	+	74.81		3.918E+00	9.700E-01	1.072E+00	1.241E-01	3.653
	+	77.11		3.770E+00	7.128E-01	5.979E-01	7.049E-02	6.306
	+	87.30		6.107E-01	1.177E+00	1.220E+00	1.512E-01	0.501
	+	241.98		2.119E+00	7.264E-01	5.933E-01	4.718E-02	3.571
	+	295.21		1.037E+00	2.483E-01	2.219E-01	1.902E-02	4.671
	+	351.92	*	1.164E+00	1.924E-01	1.256E-01	1.048E-02	9.267
RA-224	+	240.98	*	4.018E+00	1.359E+00	1.121E+00	6.317E-02	3.584
RA-226	+	609.31	*	1.135E+00	1.604E-01	1.087E-01	8.172E-03	10.445
	+	1120.29		1.510E+00	7.022E-01	5.338E-01	4.960E-02	2.828
	+	1764.49		1.410E+00	4.385E-01	3.717E-01	2.311E-02	3.794
AC-228	+	338.32		1.497E+00	7.392E-01	3.890E-01	1.586E-01	3.848
	+	911.07	*	1.532E+00	3.916E-01	2.321E-01	2.678E-02	6.599
	+	969.11		1.388E+00	5.466E-01	3.905E-01	9.092E-02	3.554
RA-228	+	338.32		1.497E+00	7.392E-01	3.890E-01	1.586E-01	3.848
	+	911.07	*	1.532E+00	3.916E-01	2.321E-01	2.678E-02	6.599
	+	969.11		1.388E+00	5.466E-01	3.905E-01	9.092E-02	3.554
TH-228	+	74.81		2.308E+00	5.459E-01	6.319E-01	5.663E-02	3.653
	+	77.11		2.232E+00	3.863E-01	3.540E-01	3.185E-02	6.306
	+	87.30		3.619E-01	6.967E-01	7.228E-01	7.016E-02	0.501
	+	238.63	*	1.559E+00	1.570E-01	1.000E-01	7.190E-03	15.590
	+	300.09		1.544E+00	1.355E+00	1.220E+00	7.194E-01	1.265
TH-230	+	609.31	*	1.135E+00	1.604E-01	1.087E-01	8.172E-03	10.445
	+	1120.29		1.510E+00	7.022E-01	5.338E-01	4.960E-02	2.828
	+	1764.49		1.410E+00	4.385E-01	3.717E-01	2.311E-02	3.794
TH-232	+	338.32		1.497E+00	4.262E-01	3.890E-01	2.298E-02	3.848
	+	911.07	*	1.532E+00	3.916E-01	2.321E-01	2.678E-02	6.599
	+	969.11		1.388E+00	5.466E-01	3.905E-01	9.092E-02	3.554
U-234	+	609.31	*	1.135E+00	1.604E-01	1.087E-01	8.172E-03	10.445
	+	1120.29		1.510E+00	7.022E-01	5.338E-01	4.960E-02	2.828
	+	1764.49		1.410E+00	4.385E-01	3.717E-01	2.311E-02	3.794
NP-237	+	86.50	*	2.264E-01	4.382E-01	4.571E-01	1.041E-01	0.495
		95.87		1.768E-01	1.129E+00	1.655E+00	4.063E-01	0.107
AM-243	+	74.67	*	3.687E-01	8.708E-02	1.013E-01	9.002E-03	3.639
	+	86.72		8.488E+00	1.634E+01	1.709E+01	1.650E+00	0.497
		117.66		-4.835E+00	3.938E+00	6.149E+00	3.808E-01	-0.786
		142.18		1.134E+01	1.856E+01	3.051E+01	1.661E+00	0.372
ANH-511	+	511.00	*	1.641E-01	7.855E-02	4.918E-02	2.857E-03	3.338

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-7.924E-02	3.287E-01	5.319E-01	3.615E-02	-0.149

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-6.657E-02	5.649E-02	8.152E-02	5.474E-03	-0.817
NA-24		1368.53	*	-7.051E-01	5.649E-02	Half-Life too short		
AL-26		1129.67		-1.390E+00	2.212E+00	3.132E+00	1.995E-01	-0.444
		1808.65	*	1.612E-02	2.694E-02	5.020E-02	3.017E-03	0.321
TI-44		67.85		-3.538E-02	5.434E-02	8.879E-02	7.732E-03	-0.398
	+	78.38	*	4.058E-01	7.023E-02	8.675E-02	7.864E-03	4.678
SC-46		889.25	*	-2.808E-02	4.246E-02	6.642E-02	5.934E-03	-0.423
	+	1120.51		2.584E-01	1.190E-01	1.435E-01	9.351E-03	1.800
V-48		944.10		-3.056E-01	1.019E+00	1.648E+00	1.436E-01	-0.185
		983.50	*	-2.206E-03	8.587E-02	1.270E-01	1.057E-02	-0.017
		1312.09		4.064E-02	9.742E-02	1.651E-01	1.175E-02	0.246
CR-51		320.08	*	-1.905E-02	3.822E-01	6.227E-01	4.083E-02	-0.031
MN-52		744.21		-9.180E-02	2.855E-01	4.467E-01	2.844E-02	-0.206
		848.13		3.297E+00	7.701E+00	1.328E+01	1.084E+00	0.248
		935.52		1.523E-01	2.708E-01	4.711E-01	4.142E-02	0.323
		1246.25		1.814E+00	9.014E+00	1.494E+01	9.560E-01	0.121
		1333.61		1.177E-01	5.267E+00	8.582E+00	6.300E-01	0.014
		1434.06	*	-3.825E-02	2.630E-01	4.164E-01	3.013E-02	-0.092
MN-54		834.83	*	-7.306E-03	3.757E-02	6.179E-02	4.892E-03	-0.118
CO-56		846.75	*	7.864E-03	4.445E-02	7.528E-02	6.124E-03	0.104
		977.42		8.043E-01	3.490E+00	5.136E+00	4.306E-01	0.157
		1037.82		1.177E-01	3.402E-01	5.793E-01	4.749E-02	0.203
		1175.09		3.224E-01	2.844E+00	4.700E+00	2.660E-01	0.069
	+	1238.25		2.644E-01	1.250E-01	1.960E-01	1.304E-02	1.349
		1360.21		-1.333E-01	1.034E+00	1.648E+00	1.206E-01	-0.081
		1771.40		-2.332E-01	2.704E-01	3.794E-01	2.347E-02	-0.615
CO-57		122.06	*	3.723E-02	2.718E-02	4.682E-02	2.760E-03	0.795
		136.48		-1.282E-01	2.209E-01	3.536E-01	2.300E-02	-0.363
CO-58		810.76	*	-1.951E-03	3.979E-02	6.637E-02	4.986E-03	-0.029
FE-59		142.65		1.250E+00	2.875E+00	4.696E+00	2.554E-01	0.266
		192.34		-2.651E-01	1.038E+00	1.662E+00	1.922E-01	-0.160
		1099.22	*	-3.713E-02	1.051E-01	1.674E-01	1.289E-02	-0.222
		1291.56		6.102E-02	1.293E-01	2.215E-01	1.838E-02	0.276
CO-60		1173.22		5.491E-02	5.470E-02	9.665E-02	5.452E-03	0.568
		1332.49	*	5.725E-03	4.090E-02	6.764E-02	4.965E-03	0.085
ZN-65		1115.52	*	1.316E-01	1.246E-01	1.965E-01	1.298E-02	0.670
GE-68		1077.35	*	-2.523E-01	1.503E+00	2.440E+00	1.746E-01	-0.103
AS-73		53.44	*	-3.803E-01	1.171E+00	1.944E+00	1.717E-01	-0.196
AS-74		595.88	*	9.346E-03	1.006E-01	1.649E-01	9.097E-03	0.057
		634.78		7.156E-02	4.317E-01	6.755E-01	3.576E-02	0.106
SE-75		66.05		-6.502E+00	5.851E+00	9.374E+00	9.838E-01	-0.694
		96.73		6.067E-01	9.045E-01	1.355E+00	1.817E-01	0.448
		121.11		6.343E-02	1.468E-01	2.452E-01	2.287E-02	0.259
		136.00		-5.290E-03	4.157E-02	6.780E-02	3.828E-03	-0.078
		198.60		5.165E-01	1.967E+00	3.214E+00	2.170E-01	0.161
		264.65	*	1.242E-02	5.094E-02	7.232E-02	4.210E-03	0.172
		279.53		8.034E-02	1.284E-01	1.963E-01	1.234E-02	0.409
		303.91		2.266E+00	2.278E+00	3.566E+00	3.421E-01	0.635
		400.65		2.198E-01	2.715E-01	4.706E-01	4.282E-02	0.467

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		1.694E+02	3.261E+02	3.834E+02	3.741E+01	0.442
		200.40		-2.088E+01	1.783E+02	2.869E+02	1.535E+01	-0.073
	+	239.00		2.465E+02	2.223E+01	3.804E+01	2.138E+00	6.482
		249.79		1.091E+01	7.112E+01	1.148E+02	6.530E+00	0.095
		281.68		-4.303E+01	1.058E+02	1.511E+02	8.805E+00	-0.285
		297.23		1.967E+02	9.351E+01	1.147E+02	6.733E+00	1.715
		303.76		1.886E+02	1.932E+02	3.029E+02	1.783E+01	0.622
		439.47		8.097E+01	1.477E+02	2.528E+02	1.479E+01	0.320
		484.57		-3.901E+01	2.409E+02	3.919E+02	2.291E+01	-0.100
		520.65	*	-4.076E+00	1.122E+01	1.790E+01	1.036E+00	-0.228
		574.64		-9.848E+01	2.268E+02	3.467E+02	1.946E+01	-0.284
		578.91		1.092E+02	1.059E+02	1.646E+02	9.208E+00	0.664
		585.48		8.211E+02	2.378E+02	4.224E+02	2.351E+01	1.944
		755.35		4.596E+01	1.822E+02	2.991E+02	1.958E+01	0.154
		817.79		6.623E+01	1.339E+02	2.335E+02	1.778E+01	0.284
SR-82		698.33		-2.390E+01	3.886E+01	5.962E+01	3.368E+00	-0.401
		776.49	*	-2.337E-01	4.384E-01	7.069E-01	4.876E-02	-0.331
		1395.20		3.470E+00	1.049E+01	1.785E+01	1.301E+00	0.194
RB-83		520.41	*	-1.813E-02	7.478E-02	1.205E-01	6.974E-03	-0.151
		529.64		-2.817E-02	1.178E-01	1.897E-01	1.094E-02	-0.148
		552.65		9.620E-02	2.008E-01	3.403E-01	1.939E-02	0.283
RB-84		881.50	*	-3.871E-03	7.301E-02	1.211E-01	1.064E-02	-0.032
KR-85		513.99	*	5.062E+00	8.480E+00	1.271E+01	7.377E-01	0.398
SR-85		513.99	*	2.595E-02	4.348E-02	6.519E-02	3.783E-03	0.398
RB-86		1076.63	*	8.894E-01	9.115E-01	1.624E+00	1.164E-01	0.548
Y-88		898.02		-4.285E-02	4.637E-02	7.067E-02	6.462E-03	-0.606
		1836.01	*	1.094E-02	2.846E-02	5.117E-02	3.013E-03	0.214
ZR-88		392.90	*	3.648E-02	3.294E-02	5.803E-02	3.350E-03	0.629
Y-91		1204.90	*	1.366E+01	2.355E+01	4.022E+01	2.400E+00	0.340
NB-94		702.63	*	-1.453E-02	3.807E-02	5.954E-02	3.402E-03	-0.244
		871.10		-2.444E-02	3.483E-02	5.413E-02	4.649E-03	-0.451
NB-95		765.79	*	2.923E-02	4.723E-02	7.889E-02	5.302E-03	0.370
NB-95M		235.69	*	7.520E-01	1.718E-01	2.827E-01	2.085E-02	2.660
ZR-95		724.18		1.012E-01	1.263E-01	1.898E-01	1.342E-02	0.533
		756.15	*	1.844E-03	7.835E-02	1.261E-01	9.676E-03	0.015
NB-97		657.90	*	-7.233E-02	7.835E-02	Half-Life too short		
		1024.50		-5.493E+00	7.835E-02	Half-Life too short		
ZR-97		254.15		-2.743E+00	7.835E-02	Half-Life too short		
		355.39		1.302E+00	7.835E-02	Half-Life too short		
		507.63	*	7.503E+00	7.835E-02	Half-Life too short		
		602.52		1.423E+00	7.835E-02	Half-Life too short		
		1021.30		2.847E+00	7.835E-02	Half-Life too short		
		1147.95		-1.594E+00	7.835E-02	Half-Life too short		
		1362.66		8.995E+00	7.835E-02	Half-Life too short		
		1750.46		-1.182E+00	7.835E-02	Half-Life too short		
MO-99		140.51		-1.213E+01	2.792E+01	4.396E+01	1.182E+01	-0.276
		181.06		1.539E+01	2.087E+01	3.062E+01	5.189E+00	0.503
		366.43		4.507E+01	8.568E+01	1.472E+02	8.625E+00	0.306
		739.58	*	5.726E+00	1.305E+01	2.174E+01	3.042E+00	0.263

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-1.843E+01	3.881E+01	6.281E+01	4.350E+00	-0.293
TC-99M		140.51	*	-1.759E+10	3.881E+01	Half-Life too short		
RH-101		127.23		2.913E-02	3.537E-02	5.971E-02	3.429E-03	0.488
		198.01	*	1.757E-02	3.591E-02	5.924E-02	3.158E-03	0.297
		325.23		9.547E-02	2.738E-01	4.089E-01	2.416E-02	0.233
RH-102		418.52		2.265E-01	3.081E-01	5.324E-01	3.102E-02	0.425
		475.06	*	-1.472E-02	2.953E-02	4.686E-02	2.743E-03	-0.314
		631.29		-2.031E-03	5.888E-02	9.530E-02	5.066E-03	-0.021
		697.49		-1.575E-02	8.642E-02	1.374E-01	7.747E-03	-0.115
		766.84		5.432E-02	1.205E-01	2.002E-01	1.349E-02	0.271
		1046.59		-4.739E-02	1.298E-01	2.069E-01	1.567E-02	-0.229
		1112.84		-5.577E-02	2.993E-01	4.120E-01	2.734E-02	-0.135
RU-103		497.08	*	1.163E-02	4.343E-02	7.265E-02	9.197E-03	0.160
		610.33		9.841E+00	2.064E+00	2.804E+00	4.287E-01	3.509
RH-106		511.85		4.883E-01	2.307E-01	4.363E-01	2.534E-02	1.119
		621.84	*	3.045E-01	3.399E-01	5.879E-01	6.779E-02	0.518
		1050.47		4.705E-01	2.611E+00	4.376E+00	3.292E-01	0.108
RU-106		511.85		4.883E-01	2.307E-01	4.363E-01	2.534E-02	1.119
		621.84	*	3.045E-01	3.385E-01	5.879E-01	3.159E-02	0.518
		1050.47		4.705E-01	2.611E+00	4.376E+00	3.292E-01	0.108
AG-108M		433.93	*	-1.550E-02	3.351E-02	5.369E-02	3.404E-03	-0.289
		614.37		6.417E-02	3.958E-02	6.621E-02	3.933E-03	0.969
		722.95		-7.552E-03	5.356E-02	7.310E-02	4.753E-03	-0.103
AG-110M		657.75	*	-2.553E-02	3.775E-02	5.762E-02	3.202E-03	-0.443
		677.61		8.214E-02	3.673E-01	6.037E-01	3.455E-02	0.136
		706.67		-2.787E-02	2.326E-01	3.715E-01	2.275E-02	-0.075
		763.93		-2.350E-01	1.888E-01	2.666E-01	1.866E-02	-0.882
		884.67		1.845E-02	5.083E-02	8.743E-02	7.971E-03	0.211
		937.48		-1.343E-01	1.241E-01	1.851E-01	1.681E-02	-0.725
		1384.27		5.488E-02	1.471E-01	2.521E-01	1.912E-02	0.218
IN-111		171.28		1.115E-01	1.046E+00	1.708E+00	8.763E-02	0.065
		245.39	*	3.585E-01	1.305E+00	1.859E+00	1.052E-01	0.193
IN-113M		391.69	*	2.025E-03	4.829E-02	8.047E-02	4.957E-03	0.025
SN-113		391.69	*	2.025E-03	4.829E-02	8.047E-02	4.957E-03	0.025
IN-114M		190.27	*	8.028E-02	2.197E-01	3.177E-01	1.675E-02	0.253
CD-115		260.90		-8.294E+01	1.395E+02	2.158E+02	1.239E+01	-0.384
		492.35		-5.895E+00	3.759E+01	6.111E+01	3.567E+00	-0.096
		527.90	*	-1.119E+01	1.219E+01	1.863E+01	1.075E+00	-0.600
SN-117M		156.02		6.605E-01	2.396E+00	3.951E+00	2.067E-01	0.167
		158.56	*	7.219E-03	5.894E-02	9.656E-02	5.018E-03	0.075
SB-122		563.90	*	-7.968E-01	2.213E+00	3.516E+00	1.989E-01	-0.227
		692.80		4.413E+01	4.809E+01	8.311E+01	4.626E+00	0.531
I-123		159.00	*	4.146E-01	4.809E+01	Half-Life too short		
		528.96		-3.602E+02	4.809E+01	Half-Life too short		
TE-123M		159.00	*	2.050E-03	3.065E-02	5.010E-02	2.644E-03	0.041
I-124		602.71	*	1.937E-01	8.171E-01	1.177E+00	6.452E-02	0.165
		722.78		-9.120E-01	5.586E+00	7.603E+00	4.581E-01	-0.120
		1325.50		-7.757E-01	3.723E+01	6.036E+01	4.384E+00	-0.013
		1376.25		4.207E+01	3.463E+01	6.356E+01	4.645E+00	0.662

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1509.49		1.195E+01	1.296E+01	2.432E+01	1.725E+00	0.491
		1691.02		2.443E-01	3.220E+00	5.439E+00	3.551E-01	0.045
SB-124		602.71		1.126E-02	4.750E-02	6.843E-02	3.752E-03	0.165
		645.85		-3.237E-01	5.463E-01	8.410E-01	5.077E-02	-0.385
		709.31		-1.033E+00	3.103E+00	4.864E+00	2.829E-01	-0.212
		713.82		1.704E+00	1.868E+00	3.214E+00	3.298E-01	0.530
		722.78		-7.684E-02	4.707E-01	6.406E-01	4.029E-02	-0.120
	+	968.20		1.429E+01	4.697E+00	7.268E+00	6.162E-01	1.966
		1045.16		-1.726E+00	2.844E+00	4.429E+00	3.362E-01	-0.390
		1325.50		-6.981E-02	3.351E+00	5.433E+00	3.946E-01	-0.013
		1368.21		-1.413E+00	1.845E+00	2.641E+00	3.349E-01	-0.535
		1436.60		-4.337E-01	4.384E+00	6.991E+00	5.056E-01	-0.062
		1691.02	*	4.855E-03	6.401E-02	1.081E-01	7.537E-03	0.045
SB-125		427.89	*	7.876E-03	9.299E-02	1.548E-01	9.416E-03	0.051
	+	463.38		7.857E-01	3.506E-01	5.849E-01	3.985E-02	1.343
		600.56		2.484E-02	1.966E-01	3.229E-01	2.080E-02	0.077
		635.90		-4.957E-02	3.145E-01	5.040E-01	3.205E-02	-0.098
TE-125M		109.28	*	1.994E+00	1.014E+01	1.685E+01	1.503E+00	0.118
I-126		388.63		-1.972E-01	2.210E-01	3.480E-01	2.013E-02	-0.567
		666.33	*	-8.485E-02	1.914E-01	2.981E-01	1.542E-02	-0.285
		753.82		1.791E-01	1.607E+00	2.607E+00	1.700E-01	0.069
SB-126		223.80		-8.254E-01	4.300E+00	6.858E+00	3.787E-01	-0.120
		278.60		4.665E+00	2.926E+00	4.709E+00	2.740E-01	0.991
		296.50		9.378E+00	2.605E+00	3.495E+00	2.052E-01	2.683
		414.70		-1.610E-02	7.905E-02	1.294E-01	7.532E-03	-0.124
		415.30		-8.654E-01	6.599E+00	1.085E+01	6.317E-01	-0.080
		555.20		-2.487E+00	4.294E+00	6.705E+00	3.814E-01	-0.371
		573.80		-7.249E-01	1.145E+00	1.778E+00	9.987E-02	-0.408
		593.00		4.147E-03	9.738E-01	1.586E+00	8.771E-02	0.003
		656.30		-1.980E+00	3.758E+00	5.826E+00	2.999E-01	-0.340
		666.33		-3.546E-02	7.998E-02	1.246E-01	6.446E-03	-0.285
		675.00		8.173E-01	2.370E+00	3.930E+00	2.083E-01	0.208
		695.00		5.641E-03	8.892E-02	1.442E-01	8.075E-03	0.039
		697.00		-8.278E-03	3.043E-01	4.901E-01	2.758E-02	-0.017
		720.50	*	-3.215E-02	1.771E-01	2.529E-01	1.515E-02	-0.127
		856.80		3.906E-01	6.141E-01	9.453E-01	7.865E-02	0.413
		989.30		1.225E+00	1.410E+00	2.504E+00	2.067E-01	0.489
		1034.80		4.576E-01	1.003E+01	1.663E+01	1.284E+00	0.028
		1213.00		-2.990E+00	5.815E+00	9.110E+00	5.511E-01	-0.328
SB-127		61.10		-5.794E+00	7.279E+01	1.216E+02	1.364E+01	-0.048
		252.40		-1.148E+00	4.740E+00	7.457E+00	3.097E+00	-0.154
		290.80		-6.028E+00	2.543E+01	3.669E+01	3.374E+00	-0.164
		411.60		-1.020E-01	1.299E+01	2.153E+01	3.096E+00	-0.005
		444.90		-4.173E+00	1.018E+01	1.634E+01	1.767E+00	-0.255
		473.00		4.379E-01	1.675E+00	2.809E+00	3.147E-01	0.156
		543.00		-1.195E+01	1.758E+01	2.715E+01	3.494E+00	-0.440
		603.60		-4.532E-01	1.372E+01	1.921E+01	2.034E+00	-0.024
		685.20	*	-7.862E-01	1.560E+00	2.413E+00	2.225E-01	-0.326
		698.50		-9.804E+00	1.731E+01	2.659E+01	3.833E+00	-0.369

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.20		1.522E+00	3.723E+01	5.192E+01	4.827E+00	0.029
		783.80		4.226E+00	3.935E+00	7.065E+00	8.030E-01	0.598
XE-127		57.60		-1.597E+00	8.163E+00	1.340E+01	1.174E+00	-0.119
		145.22		4.378E-01	7.201E-01	1.205E+00	6.498E-02	0.363
		172.10		-2.513E-02	1.255E-01	2.022E-01	1.039E-02	-0.124
		202.84	*	-5.453E-03	5.047E-02	8.116E-02	4.357E-03	-0.067
		374.96		9.530E-02	1.944E-01	3.333E-01	1.945E-02	0.286
I-131		80.18		-2.736E+00	5.632E+00	8.058E+00	7.431E-01	-0.340
		284.30		-1.026E+00	1.563E+00	2.549E+00	1.653E-01	-0.402
		364.48	*	-3.783E-02	1.179E-01	1.928E-01	1.260E-02	-0.196
		636.97		4.247E-01	1.776E+00	2.933E+00	1.770E-01	0.145
		722.89		-1.342E+00	9.016E+00	1.229E+01	7.505E-01	-0.109
TE-132		49.72		-1.662E+01	2.933E+01	4.825E+01	5.152E+00	-0.345
		111.76		-2.168E+01	3.154E+01	5.058E+01	4.740E+00	-0.429
		116.30		3.395E+00	2.859E+01	4.730E+01	4.313E+00	0.072
		228.16	*	6.941E-01	7.454E-01	1.240E+00	1.769E-01	0.560
BA-133		53.15		4.899E-01	5.093E+00	8.588E+00	7.575E-01	0.057
		79.62		4.890E-01	1.556E+00	2.307E+00	3.582E-01	0.212
		81.00		-1.654E-01	1.473E-01	1.662E-01	2.694E-02	-0.995
	+	276.40		5.354E-01	4.140E-01	6.962E-01	9.029E-02	0.769
		302.84		5.009E-02	1.637E-01	2.448E-01	2.864E-02	0.205
		356.01	*	1.847E-02	5.103E-02	7.613E-02	8.833E-03	0.243
		383.85		1.191E-01	3.226E-01	5.475E-01	5.953E-02	0.218
I-133	+	510.53		1.669E+00	3.226E-01	Half-Life too short		
		529.87	*	8.872E-04	3.226E-01	Half-Life too short		
		706.58		-5.813E-02	3.226E-01	Half-Life too short		
		856.28		-3.274E-02	3.226E-01	Half-Life too short		
		875.33		1.233E-01	3.226E-01	Half-Life too short		
	+	1236.41		1.915E+00	3.226E-01	Half-Life too short		
		1298.22		-3.471E-01	3.226E-01	Half-Life too short		
CS-134		475.35		-1.332E+00	1.953E+00	3.057E+00	1.789E-01	-0.436
		563.23		-2.189E-02	3.815E-01	6.203E-01	3.587E-02	-0.035
		569.32		9.402E-02	2.191E-01	3.611E-01	2.099E-02	0.260
		604.70		-1.760E-03	4.110E-02	5.749E-02	3.165E-03	-0.031
		795.84	*	3.844E-02	5.081E-02	8.972E-02	6.553E-03	0.428
		801.93		-5.998E-02	4.294E-01	7.062E-01	5.220E-02	-0.085
		1038.57		-3.660E-01	4.287E+00	7.021E+00	5.390E-01	-0.052
		1167.94		-8.656E-01	3.098E+00	4.959E+00	2.843E-01	-0.175
		1365.15		-5.623E-01	1.282E+00	1.914E+00	1.488E-01	-0.294
CS-135		268.24	*	2.059E-01	1.973E-01	2.937E-01	2.244E-02	0.701
I-135		288.45		1.942E+09	1.973E-01	Half-Life too short		
		417.63		1.941E+10	1.973E-01	Half-Life too short		
		546.56		-8.163E+09	1.973E-01	Half-Life too short		
		836.80		5.905E+09	1.973E-01	Half-Life too short		
		1038.76		-2.707E+09	1.973E-01	Half-Life too short		
		1124.00		2.286E+09	1.973E-01	Half-Life too short		
		1131.51		6.703E+09	1.973E-01	Half-Life too short		
		1260.41	*	3.750E+09	1.973E-01	Half-Life too short		
		1457.56		1.295E+12	1.973E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1678.03		-3.852E+09	1.973E-01	Half-Life too short		
		1706.46		-7.010E+08	1.973E-01	Half-Life too short		
		1791.20		6.744E+09	1.973E-01	Half-Life too short		
CS-136		66.91		-1.314E+00	9.632E-01	1.505E+00	2.330E-01	-0.873
	+	86.29		1.006E+00	1.939E+00	2.245E+00	3.040E-01	0.448
		153.22		-3.790E-01	7.101E-01	1.115E+00	7.593E-02	-0.340
		163.89		1.434E-01	1.139E+00	1.864E+00	1.253E-01	0.077
		176.55		-2.981E-01	3.851E-01	6.040E-01	3.601E-02	-0.494
		273.65		2.452E-01	7.230E-01	7.505E-01	4.964E-02	0.327
		340.57		2.194E-01	1.568E-01	2.484E-01	1.556E-02	0.883
		818.51		1.736E-02	7.339E-02	1.254E-01	9.574E-03	0.138
		1048.07	*	8.465E-02	1.201E-01	2.103E-01	1.676E-02	0.403
		1235.34		1.803E+00	7.834E-01	1.337E+00	1.374E-01	1.349
BA-137M		661.65	*	1.533E-02	3.744E-02	6.262E-02	3.199E-03	0.245
CS-137		661.65	*	1.620E-02	3.958E-02	6.620E-02	3.400E-03	0.245
CE-139		165.85	*	-1.007E-02	3.176E-02	5.050E-02	2.575E-03	-0.199
BA-140		162.64		4.801E-01	8.072E-01	1.345E+00	7.993E-02	0.357
		304.84		7.252E-01	1.431E+00	2.153E+00	5.879E-01	0.337
		423.70		3.318E-01	1.987E+00	3.321E+00	1.056E+00	0.100
		537.32	*	1.053E-02	2.872E-01	4.713E-01	1.532E-01	0.022
LA-140	+	328.77		4.182E-01	4.354E-01	5.812E-01	3.832E-02	0.720
		432.53		2.118E-01	2.055E+00	3.424E+00	2.208E-01	0.062
		487.03		1.735E-01	1.399E-01	2.492E-01	1.646E-02	0.696
		751.79		3.485E-01	1.799E+00	2.941E+00	2.256E-01	0.118
		815.85		9.509E-02	3.115E-01	5.357E-01	4.656E-02	0.178
		867.82		-1.752E-01	1.472E+00	2.316E+00	2.082E-01	-0.076
		919.63		-1.172E+00	2.966E+00	4.498E+00	4.903E-01	-0.261
		925.24		3.245E-02	1.183E+00	1.957E+00	1.841E-01	0.017
		1596.49	*	-3.583E-02	8.525E-02	1.328E-01	9.110E-03	-0.270
CE-141		145.44	*	2.885E-02	6.551E-02	1.089E-01	6.142E-03	0.265
CE-143		57.37		-1.484E-05	6.551E-02	Half-Life too short		
		231.56		-1.819E-03	6.551E-02	Half-Life too short		
		293.26	*	8.902E-04	6.551E-02	Half-Life too short		
	+	350.59		2.650E-02	6.551E-02	Half-Life too short		
		490.36		-1.233E-03	6.551E-02	Half-Life too short		
		664.57		-4.284E-04	6.551E-02	Half-Life too short		
		721.93		2.965E-04	6.551E-02	Half-Life too short		
CE-144		80.11		-1.176E+00	2.596E+00	3.721E+00	3.411E-01	-0.316
		133.54	*	1.087E-01	2.214E-01	3.689E-01	5.209E-02	0.295
PM-144		476.78		-5.739E-02	7.082E-02	1.098E-01	7.670E-03	-0.523
		618.01		-2.721E-02	3.457E-02	5.252E-02	3.030E-03	-0.518
		696.49	*	-9.595E-03	3.918E-02	6.200E-02	3.488E-03	-0.155
		778.57		-1.240E+00	2.496E+00	4.025E+00	2.792E-01	-0.308
PR-144		696.49	*	-6.502E-01	2.655E+00	4.202E+00	2.362E-01	-0.155
		1489.15		-8.278E+00	1.171E+01	1.637E+01	1.168E+00	-0.506
PM-146		453.90	*	1.836E-02	4.598E-02	7.782E-02	6.740E-03	0.236
		633.02		4.844E-01	1.622E+00	2.542E+00	9.341E-01	0.191
		735.90		-2.309E-01	1.836E-01	2.435E-01	6.812E-02	-0.948
		747.13		2.983E-02	1.033E-01	1.701E-01	2.177E-02	0.175

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	+	91.11		5.837E-01	2.648E-01	5.854E-01	5.755E-02	0.997
		319.41		-1.557E+00	3.301E+00	5.392E+00	3.186E-01	-0.289
		439.89		3.905E+00	6.087E+00	1.047E+01	6.127E-01	0.373
		531.02	*	6.266E-01	6.248E-01	1.084E+00	1.465E-01	0.578
PM-149		285.90	*	2.996E+01	9.527E+01	1.627E+02	2.309E+01	0.184
EU-152		121.78		1.156E-01	7.941E-02	1.368E-01	1.052E-02	0.845
		244.69		9.106E-02	4.050E-01	5.751E-01	3.253E-02	0.158
		344.27	*	-6.811E-02	1.373E-01	1.659E-01	1.100E-02	-0.411
		443.98		-1.168E-01	9.966E-01	1.634E+00	9.566E-02	-0.071
		778.89		-1.125E-01	2.906E-01	4.731E-01	3.283E-02	-0.238
		867.32		2.251E-02	9.048E-01	1.405E+00	1.196E-01	0.016
	+	964.01		8.946E-01	4.887E-01	7.099E-01	6.050E-02	1.260
		1085.78		1.619E-01	4.332E-01	7.380E-01	5.193E-02	0.219
		1112.02		-1.275E-01	4.093E-01	5.793E-01	3.851E-02	-0.220
		1407.95		-5.178E-02	2.122E-01	3.326E-01	2.419E-02	-0.156
GD-153		69.67		2.998E-01	2.162E+00	3.198E+00	2.794E-01	0.094
		83.37		4.847E+00	1.906E+01	2.630E+01	2.469E+00	0.184
		97.43	*	-1.802E-02	9.499E-02	1.368E-01	1.118E-02	-0.132
		103.18		-3.338E-02	1.140E-01	1.846E-01	1.379E-02	-0.181
EU-154		123.07		2.193E-02	5.678E-02	9.462E-02	8.931E-03	0.232
		247.94		-4.096E-01	4.625E-01	6.032E-01	5.709E-02	-0.679
		591.81		-4.462E-01	6.765E-01	1.008E+00	9.697E-02	-0.443
		723.30		4.034E-02	2.262E-01	3.204E-01	2.330E-02	0.126
		756.87		3.676E-01	8.436E-01	1.405E+00	1.489E-01	0.262
		873.19		-9.397E-03	3.082E-01	5.126E-01	6.279E-02	-0.018
		996.32		-8.925E-02	3.949E-01	6.393E-01	1.122E-01	-0.140
		1004.76		1.007E-01	2.378E-01	4.074E-01	4.583E-02	0.247
		1274.45	*	-1.859E-01	1.584E-01	2.277E-01	2.261E-02	-0.817
EU-155		48.70		-2.154E+00	3.819E+00	6.293E+00	5.075E-01	-0.342
		60.01		-9.707E+00	6.688E+00	1.045E+01	9.073E-01	-0.929
	+	86.54		9.284E-02	1.787E-01	2.069E-01	2.011E-02	0.449
		105.31	*	9.565E-03	1.177E-01	1.950E-01	1.438E-02	0.049
TB-160	+	86.79		2.480E-01	4.773E-01	5.514E-01	5.327E-02	0.450
		197.04		4.225E-01	6.130E-01	1.019E+00	5.425E-02	0.415
		215.65		7.055E-01	7.958E-01	1.332E+00	7.279E-02	0.530
	+	298.57		2.213E-01	1.445E-01	2.105E-01	1.237E-02	1.051
		879.36	*	-7.784E-02	1.484E-01	2.355E-01	2.060E-02	-0.331
		962.29		1.798E+00	7.155E-01	1.253E+00	1.070E-01	1.435
		966.15		1.456E+00	3.211E-01	6.136E-01	5.215E-02	2.373
		1177.93		-2.153E-01	4.562E-01	7.182E-01	4.086E-02	-0.300
		1271.85		-2.595E-01	8.452E-01	1.323E+00	8.831E-02	-0.196
HO-166M		80.57		-2.781E-01	3.565E-01	4.652E-01	4.277E-02	-0.598
	+	184.41		1.061E-01	4.927E-02	7.057E-02	3.688E-03	1.503
		280.46		-2.404E-02	9.955E-02	1.439E-01	8.382E-03	-0.167
		410.95		2.694E-01	2.599E-01	4.558E-01	2.650E-02	0.591
		711.68	*	-3.382E-03	7.009E-02	1.125E-01	6.587E-03	-0.030
		752.31		-7.146E-02	3.027E-01	4.761E-01	3.093E-02	-0.150
		810.29		1.491E-03	5.985E-02	1.004E-01	7.514E-03	0.015
TM-171		51.35		-1.404E+01	4.487E+01	7.458E+01	6.483E+00	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		52.39		1.531E+00	2.246E+01	3.785E+01	3.325E+00	0.040
		59.40		-3.930E+01	3.514E+01	5.561E+01	4.831E+00	-0.707
		66.72	*	-4.049E+01	3.426E+01	5.484E+01	4.769E+00	-0.738
LU-176		88.36		1.045E+00	3.406E-01	4.195E-01	4.066E-02	2.492
		201.83		-1.325E-02	3.090E-02	4.900E-02	2.626E-03	-0.270
		306.84	*	-9.218E-03	2.464E-02	4.057E-02	2.390E-03	-0.227
		401.10		5.467E+00	7.042E+00	1.221E+01	7.071E-01	0.448
LU-177		112.95		-5.607E-01	1.718E+00	2.797E+00	1.834E-01	-0.200
	+	208.36	*	2.229E+00	1.166E+00	1.985E+00	1.074E-01	1.123
LU-177M		52.97		7.607E-01	2.317E+00	3.939E+00	3.471E-01	0.193
		54.07		-5.208E-01	1.187E+00	1.961E+00	1.733E-01	-0.266
		61.30		2.766E-01	1.891E+00	3.183E+00	2.765E-01	0.087
		121.62		5.776E-01	4.039E-01	6.971E-01	4.120E-02	0.829
		147.16		-3.973E-01	6.942E-01	1.109E+00	5.950E-02	-0.358
		171.86		-1.159E-01	5.050E-01	8.130E-01	4.174E-02	-0.143
		218.09		4.783E-01	9.040E-01	1.491E+00	8.174E-02	0.321
	+	268.79		2.561E+00	1.206E+00	1.554E+00	8.980E-02	1.648
		319.02		-9.409E-02	2.604E-01	4.282E-01	2.529E-02	-0.220
		367.43		5.643E-01	9.077E-01	1.567E+00	9.180E-02	0.360
		413.65	*	-3.507E-01	1.954E-01	2.869E-01	1.669E-02	-1.223
HF-181		56.28		-9.954E-02	1.266E+00	2.118E+00	1.865E-01	-0.047
		57.53		-1.884E-01	6.892E-01	1.128E+00	9.884E-02	-0.167
		65.20		-3.176E-01	1.152E+00	1.910E+00	1.660E-01	-0.166
		133.02		-1.360E-02	7.183E-02	1.170E-01	6.567E-03	-0.116
		136.25		-2.688E-01	4.879E-01	7.823E-01	4.342E-02	-0.344
		345.85		4.004E-02	2.307E-01	3.399E-01	2.005E-02	0.118
		482.03	*	-1.010E-02	4.504E-02	7.298E-02	4.268E-03	-0.138
W-181		56.28		-4.004E-02	4.954E-01	8.291E-01	7.300E-02	-0.048
		57.53		-7.389E-02	2.700E-01	4.419E-01	3.872E-02	-0.167
		65.20	*	-1.234E-01	4.478E-01	7.425E-01	6.450E-02	-0.166
TA-182		67.75		-9.158E-02	1.296E-01	2.114E-01	1.841E-02	-0.433
		100.10		-1.958E-02	1.865E-01	3.073E-01	2.405E-02	-0.064
		152.43		-5.661E-03	3.603E-01	5.782E-01	3.056E-02	-0.010
		222.10		-4.439E-02	3.564E-01	5.703E-01	3.143E-02	-0.078
		1001.68		1.488E+00	2.278E+00	3.969E+00	3.223E-01	0.375
	+	1121.28		7.137E-01	3.286E-01	3.859E-01	2.510E-02	1.849
		1189.05		-2.055E-01	3.692E-01	5.752E-01	3.338E-02	-0.357
		1221.42	*	-6.454E-02	2.501E-01	4.006E-01	2.459E-02	-0.161
		1230.97		-6.319E-01	6.849E-01	8.503E-01	5.304E-02	-0.743
RE-183		57.98		-3.085E-02	2.649E-01	4.359E-01	3.812E-02	-0.071
		59.32		-1.582E-01	1.448E-01	2.295E-01	1.994E-02	-0.689
		67.20		-2.488E-01	2.383E-01	3.835E-01	3.337E-02	-0.649
		162.32	*	6.724E-02	1.173E-01	1.953E-01	1.005E-02	0.344
	+	208.81		2.004E+00	1.048E+00	1.776E+00	9.613E-02	1.129
		291.72		-2.051E-01	1.154E+00	1.673E+00	9.801E-02	-0.123
RE-184		57.98		-1.137E-01	9.760E-01	1.606E+00	1.405E-01	-0.071
		59.32		-5.825E-01	5.333E-01	8.449E-01	7.343E-02	-0.689
		67.20		-9.166E-01	8.777E-01	1.413E+00	1.229E-01	-0.649
		161.27		4.543E-02	3.827E-01	6.265E-01	3.232E-02	0.073

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		216.55		3.299E-01	2.847E-01	4.815E-01	2.634E-02	0.685
		252.85	*	-3.754E-02	2.524E-01	4.011E-01	2.287E-02	-0.094
		318.01		-3.244E-01	4.624E-01	7.464E-01	4.407E-02	-0.435
		792.07		1.423E+00	1.108E+00	2.017E+00	1.445E-01	0.706
		903.28		5.987E-01	1.271E+00	1.924E+00	1.744E-01	0.311
		920.93		-1.412E-01	4.684E-01	7.565E-01	6.747E-02	-0.187
OS-185		59.72		-6.265E-01	3.973E-01	6.164E-01	5.353E-02	-1.016
		61.14		-9.685E-03	2.074E-01	3.469E-01	3.013E-02	-0.028
		69.30		1.527E-01	3.841E-01	5.745E-01	5.015E-02	0.266
		592.07		-2.080E+00	2.655E+00	4.043E+00	2.237E-01	-0.515
		646.12	*	-1.835E-02	4.658E-02	7.301E-02	3.810E-03	-0.251
		717.42		-5.405E-01	1.064E+00	1.644E+00	9.769E-02	-0.329
		874.81		6.670E-01	5.976E-01	1.089E+00	9.432E-02	0.612
		880.27		-3.963E-01	8.179E-01	1.302E+00	1.141E-01	-0.304
RE-188		155.03	*	1.454E-01	1.810E-01	3.042E-01	1.596E-02	0.478
		477.96		-1.333E-01	3.131E+00	5.140E+00	3.008E-01	-0.026
		633.10		9.416E-01	3.257E+00	5.128E+00	2.720E-01	0.184
W-188		63.58		9.022E+01	6.586E+01	1.130E+02	9.809E+00	0.799
		227.08		3.534E+00	1.383E+01	2.251E+01	1.248E+00	0.157
		290.67	*	-1.832E+00	8.816E+00	1.275E+01	7.467E-01	-0.144
IR-192	+	295.96		7.904E-01	1.829E-01	2.788E-01	1.662E-02	2.835
		308.46		-7.190E-02	9.742E-02	1.571E-01	9.364E-03	-0.458
		316.51	*	-8.502E-03	3.451E-02	5.713E-02	3.389E-03	-0.149
		468.07		-1.963E-02	7.393E-02	1.080E-01	7.271E-03	-0.182
		604.41		-1.235E-01	5.498E-01	7.533E-01	8.427E-02	-0.164
		612.46		-6.300E-02	8.156E-01	1.135E+00	8.276E-02	-0.056
AU-195		65.12		-3.685E-02	2.083E-01	3.465E-01	3.010E-02	-0.106
		66.83		-1.337E-01	1.131E-01	1.810E-01	1.575E-02	-0.738
	+	75.70		1.193E+00	2.818E-01	5.301E-01	4.734E-02	2.250
		98.88	*	-1.692E-01	2.396E-01	3.857E-01	3.077E-02	-0.439
		129.76		2.077E+00	3.133E+00	5.259E+00	2.989E-01	0.395
TL-200		367.94	*	2.533E-04	3.133E+00	Half-Life too short		
		579.30		1.025E-02	3.133E+00	Half-Life too short		
		828.27		9.876E-05	3.133E+00	Half-Life too short		
		1205.75		1.843E-03	3.133E+00	Half-Life too short		
TL-201		68.90		1.547E+00	6.198E+00	9.216E+00	8.039E-01	0.168
		70.82		1.821E+00	3.516E+00	5.276E+00	4.623E-01	0.345
		80.30		-3.491E+00	6.119E+00	8.716E+00	7.999E-01	-0.401
		135.34		4.470E+00	2.666E+01	4.399E+01	2.449E+00	0.102
		167.43	*	-7.874E-01	7.455E+00	1.195E+01	6.100E-01	-0.066
TL-202		68.90		1.391E-01	5.575E-01	8.290E-01	7.231E-02	0.168
		70.82		1.634E-01	3.154E-01	4.733E-01	4.147E-02	0.345
		80.30		-3.132E-01	5.491E-01	7.821E-01	7.178E-02	-0.401
		439.56	*	4.353E-02	7.183E-02	1.233E-01	7.215E-03	0.353
HG-203		70.83		7.083E-01	1.369E+00	2.051E+00	2.809E-01	0.345
		72.87		2.309E+00	8.855E-01	1.339E+00	1.785E-01	1.725
		82.60		-6.453E-01	1.927E+00	1.985E+00	2.819E-01	-0.325
		279.20	*	6.056E-02	4.788E-02	7.585E-02	4.685E-03	0.798
BI-207		72.80		6.181E-01	2.484E-01	3.880E-01	3.421E-02	1.593

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	74.97		6.618E-01	1.563E-01	2.694E-01	2.397E-02	2.457
		84.90		2.122E-01	2.441E-01	3.603E-01	3.425E-02	0.589
		569.67		2.368E-02	3.446E-02	5.778E-02	3.255E-03	0.410
		1063.62	*	2.844E-02	5.667E-02	9.770E-02	7.178E-03	0.291
		1770.23		-7.074E-02	5.323E-01	7.243E-01	4.484E-02	-0.098
TL-207		81.07		-3.706E-01	3.213E-01	3.658E-01	3.376E-02	-1.013
		83.78		1.075E-02	1.526E-01	2.238E-01	2.108E-02	0.048
		94.90		3.750E-01	2.807E-01	4.307E-01	3.675E-02	0.871
		122.32		1.185E+00	1.916E+00	3.219E+00	2.178E-01	0.368
		144.24		2.737E-01	7.329E-01	1.194E+00	8.270E-02	0.229
		154.21		-2.700E-02	4.193E-01	6.827E-01	4.487E-02	-0.040
	+	269.46		5.995E-01	2.826E-01	3.693E-01	2.233E-02	1.623
		323.87	*	2.643E-01	7.699E-01	1.150E+00	1.904E-01	0.230
	+	338.28		6.250E+00	1.863E+00	2.579E+00	2.731E-01	2.424
		445.03		-8.053E-01	2.381E+00	3.844E+00	3.959E-01	-0.209
PO-209		260.50		-5.100E+00	1.037E+01	1.615E+01	9.270E-01	-0.316
		262.80		1.612E+00	2.782E+01	4.462E+01	2.567E+00	0.036
		896.60	*	-8.545E+00	8.269E+00	1.244E+01	1.129E+00	-0.687
BI-210		46.50	*	4.746E+00	5.749E+00	9.880E+00	7.693E-01	0.480
PB-210		46.50	*	4.746E+00	5.749E+00	9.880E+00	7.693E-01	0.480
PO-210		46.50	*	4.746E+00	5.746E+00	9.880E+00	6.628E-01	0.480
PB-211		404.84	*	-1.698E+00	1.472E+00	1.529E+00	9.529E-01	-1.111
		427.08		-7.877E-01	2.180E+00	3.433E+00	2.122E+00	-0.229
		831.96		7.093E-01	1.303E+00	2.146E+00	1.343E+00	0.330
BI-212	+	727.18	*	7.090E-01	4.371E-01	6.723E-01	5.336E-02	1.055
		785.46		1.459E-01	1.896E+00	3.200E+00	2.256E-01	0.046
		1620.62		1.211E+00	1.122E+00	2.197E+00	1.490E-01	0.551
PO-215		81.07		-3.706E-01	3.213E-01	3.658E-01	3.376E-02	-1.013
		83.78		1.075E-02	1.526E-01	2.238E-01	2.108E-02	0.048
		94.90		3.750E-01	2.807E-01	4.307E-01	3.675E-02	0.871
		122.32		1.185E+00	1.916E+00	3.219E+00	2.178E-01	0.368
		144.24		2.737E-01	7.329E-01	1.194E+00	8.270E-02	0.229
		154.21		-2.700E-02	4.193E-01	6.827E-01	4.487E-02	-0.040
	+	269.46		5.995E-01	2.826E-01	3.693E-01	2.233E-02	1.623
		323.87	*	2.643E-01	7.699E-01	1.150E+00	1.904E-01	0.230
	+	338.28		6.250E+00	1.863E+00	2.579E+00	2.731E-01	2.424
		445.03		-8.053E-01	2.381E+00	3.844E+00	3.959E-01	-0.209
RN-219	+	271.23		7.692E-01	3.649E-01	4.679E-01	3.788E-02	1.644
		401.81	*	2.787E-01	4.286E-01	7.361E-01	1.001E-01	0.379
RN-220		549.76	*	-2.460E+00	2.713E+01	4.405E+01	2.514E+00	-0.056
RA-223		81.07		-3.706E-01	3.213E-01	3.658E-01	3.376E-02	-1.013
		83.78		1.075E-02	1.526E-01	2.238E-01	2.108E-02	0.048
		94.90		3.750E-01	2.807E-01	4.307E-01	3.675E-02	0.871
		122.32		1.185E+00	1.916E+00	3.219E+00	2.178E-01	0.368
		144.24		2.737E-01	7.329E-01	1.194E+00	8.270E-02	0.229
		154.21		-2.700E-02	4.193E-01	6.827E-01	4.487E-02	-0.040
	+	269.46		5.995E-01	2.826E-01	3.693E-01	2.233E-02	1.623
		323.87	*	2.643E-01	7.699E-01	1.150E+00	1.904E-01	0.230
	+	338.28		6.250E+00	1.863E+00	2.579E+00	2.731E-01	2.424

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-8.053E-01	2.381E+00	3.844E+00	3.959E-01	-0.209
AC-227		79.80		4.349E-01	1.965E+00	2.903E+00	6.305E-01	0.150
		236.00		2.447E+00	4.223E-01	6.265E-01	6.481E-02	3.907
		256.20	*	2.991E-01	4.107E-01	6.787E-01	9.453E-02	0.441
		286.10		1.105E+00	1.587E+00	2.753E+00	3.188E-01	0.402
	+	299.80		2.818E+00	1.889E+00	2.661E+00	4.341E-01	1.059
		304.40		1.732E+00	2.090E+00	3.214E+00	5.569E-01	0.539
		334.20		-3.683E-01	2.846E+00	3.870E+00	7.107E-01	-0.095
TH-227		79.80		4.349E-01	1.965E+00	2.903E+00	6.384E-01	0.150
	+	94.00		4.474E+00	3.052E+00	4.042E+00	8.811E-01	1.107
		236.00		2.447E+00	4.025E-01	6.265E-01	5.596E-02	3.907
		256.20	*	2.991E-01	4.117E-01	6.787E-01	1.145E-01	0.441
		286.10		1.105E+00	1.931E+00	2.753E+00	2.757E+00	0.402
	+	299.80		2.818E+00	1.889E+00	2.661E+00	4.341E-01	1.059
		304.40		1.732E+00	2.090E+00	3.214E+00	5.569E-01	0.539
		334.20		-3.683E-01	2.846E+00	3.870E+00	7.107E-01	-0.095
TH-229	+	85.43		1.729E-01	3.327E-01	3.800E-01	3.629E-02	0.455
	+	88.47		2.316E-01	1.048E-01	2.397E-01	2.318E-02	0.966
		100.00		-1.729E-02	1.937E-01	3.194E-01	2.504E-02	-0.054
		193.63	*	-1.164E-01	5.611E-01	9.004E-01	4.769E-02	-0.129
		210.97		1.103E+00	9.206E-01	1.386E+00	7.524E-02	0.796
PA-231		283.67	*	-1.307E+00	1.621E+00	2.611E+00	3.602E-01	-0.501
	+	301.29		1.127E+00	7.424E-01	1.076E+00	1.129E-01	1.048
TH-231		81.07		-3.706E-01	3.213E-01	3.658E-01	3.376E-02	-1.013
		83.78		1.075E-02	1.526E-01	2.238E-01	2.108E-02	0.048
		94.90		3.750E-01	2.807E-01	4.307E-01	3.675E-02	0.871
		122.32		1.185E+00	1.916E+00	3.219E+00	2.178E-01	0.368
		144.24		2.737E-01	7.329E-01	1.194E+00	8.270E-02	0.229
		154.21		-2.700E-02	4.193E-01	6.827E-01	4.487E-02	-0.040
	+	269.46		5.995E-01	2.826E-01	3.693E-01	2.233E-02	1.623
		323.87	*	2.643E-01	7.699E-01	1.150E+00	1.904E-01	0.230
	+	338.28		6.250E+00	1.863E+00	2.579E+00	2.731E-01	2.424
		445.03		-8.053E-01	2.381E+00	3.844E+00	3.959E-01	-0.209
U-231		84.21		5.435E-01	6.518E+00	9.562E+00	9.038E-01	0.057
	+	92.29		4.417E+00	2.881E+00	4.224E+00	3.781E-01	1.046
		95.87	*	2.003E-01	1.279E+00	1.875E+00	1.573E-01	0.107
		108.00		2.160E+00	2.228E+00	3.794E+00	2.651E-01	0.569
PA-233	+	75.28		1.931E+01	5.179E+00	8.273E+00	1.283E+00	2.334
	+	86.59		1.509E+00	2.930E+00	3.361E+00	9.132E-01	0.449
	+	300.12		7.856E-01	5.217E-01	7.432E-01	1.001E-01	1.057
		311.98	*	8.537E-03	6.463E-02	1.092E-01	6.830E-03	0.078
		340.50		1.282E+00	8.218E-01	1.237E+00	2.845E-01	1.036
		398.62		-8.647E-01	2.244E+00	3.623E+00	9.368E-01	-0.239
		415.76		7.270E-01	1.755E+00	2.971E+00	6.118E-01	0.245
PA-234		63.00		2.777E+00	2.000E+00	3.378E+00	5.248E-01	0.822
		94.67		3.789E-01	2.083E-01	3.198E-01	3.954E-02	1.185
		98.44		-4.229E-02	1.028E-01	1.573E-01	8.763E-02	-0.269
		99.86		-3.346E-02	4.910E-01	8.103E-01	6.365E-02	-0.041
		111.00		-1.088E-01	1.981E-01	3.196E-01	3.457E-02	-0.340

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		131.20		-2.833E-02	1.157E-01	1.881E-01	1.063E-02	-0.151
		152.70		-2.654E-02	3.462E-01	5.541E-01	8.658E-02	-0.048
	+	186.00		3.819E+00	2.111E+00	2.538E+00	7.731E-01	1.505
		226.40		2.089E-01	4.414E-01	7.243E-01	8.280E-02	0.288
		227.20		1.241E-01	4.675E-01	7.611E-01	4.221E-02	0.163
		248.90		-3.225E-01	9.347E-01	1.413E+00	3.031E-01	-0.228
	+	293.70		4.975E+00	1.371E+00	1.759E+00	2.832E-01	2.829
		369.80		-3.633E-01	8.517E-01	1.377E+00	2.869E-01	-0.264
		568.70		3.955E-01	1.104E+00	1.811E+00	1.021E-01	0.218
		569.50		1.816E-01	3.037E-01	5.063E-01	2.853E-02	0.359
		574.00		-1.024E+00	1.619E+00	2.513E+00	1.411E-01	-0.407
		699.00		-7.022E-02	7.892E-01	1.264E+00	2.268E-01	-0.056
		706.10		2.526E-01	1.152E+00	1.883E+00	8.309E-01	0.134
		733.00		1.823E-01	4.521E-01	6.846E-01	1.463E-01	0.266
		742.81		9.328E-01	1.683E+00	2.637E+00	1.766E+00	0.354
		796.30		2.503E-01	9.714E-01	1.656E+00	4.412E-01	0.151
		805.60		5.689E-01	1.059E+00	1.826E+00	5.538E-01	0.312
		819.60		-1.683E-01	1.270E+00	2.098E+00	7.935E-01	-0.080
		826.30		5.208E-01	8.988E-01	1.524E+00	6.795E-01	0.342
		831.60		2.263E-01	6.388E-01	1.094E+00	3.242E-01	0.207
		876.40		6.503E-01	1.093E+00	1.536E+00	1.579E+00	0.423
		880.51		-9.738E-02	2.903E-01	4.687E-01	4.109E-02	-0.208
		883.24		1.137E-01	3.070E-01	5.124E-01	3.446E-01	0.222
		899.00		-6.675E-01	9.742E-01	1.450E+00	6.354E-01	-0.460
		925.00		-2.499E-01	1.256E+00	2.033E+00	1.807E-01	-0.123
		926.50		-3.264E-02	1.905E-01	3.092E-01	7.843E-02	-0.106
		946.00	*	4.722E-02	3.477E-01	5.836E-01	1.097E-01	0.081
		949.00		3.232E-01	5.319E-01	9.240E-01	8.009E-02	0.350
		980.50		-3.495E-01	9.625E-01	1.304E+00	1.089E-01	-0.268
		1394.10		-4.544E-01	1.208E+00	1.782E+00	1.157E+00	-0.255
PA-234M		766.42		6.662E+00	1.333E+01	2.138E+01	1.079E+01	0.312
		1001.03	*	3.687E-01	5.206E+00	8.663E+00	8.266E-01	0.043
TH-234		63.29	*	2.296E+00	1.703E+00	2.854E+00	5.144E-01	0.804
	+	92.38		1.158E+00	7.771E-01	1.102E+00	2.009E-01	1.051
U-235	+	89.95		2.325E+00	1.257E+00	2.088E+00	6.489E-01	1.113
	+	93.35		1.392E+00	9.806E-01	1.303E+00	3.659E-01	1.068
		105.00		-1.880E-02	1.177E+00	1.926E+00	5.678E-01	-0.010
		143.76	*	-2.748E-02	2.273E-01	3.637E-01	5.882E-02	-0.076
		163.35		2.103E-01	4.978E-01	8.222E-01	1.462E-01	0.256
	+	185.71		1.415E-01	6.569E-02	9.385E-02	4.914E-03	1.507
		205.31		-8.336E-02	6.151E-01	8.602E-01	1.536E-01	-0.097
NP-236		94.67		2.902E-01	1.560E-01	2.428E-01	2.080E-02	1.195
		98.44		-3.196E-02	7.567E-02	1.189E-01	9.556E-03	-0.269
		111.00		-8.232E-02	1.497E-01	2.418E-01	1.625E-02	-0.340
		160.31	*	-4.001E-02	8.710E-02	1.394E-01	7.208E-03	-0.287
U-238		63.29	*	2.296E+00	1.703E+00	2.854E+00	5.144E-01	0.804
	+	92.38		1.158E+00	7.550E-01	1.102E+00	9.844E-02	1.051
NP-239		99.55		-3.211E-02	1.643E-01	2.699E-01	2.130E-02	-0.119
		117.00	*	-1.596E-01	1.986E-01	3.164E-01	1.975E-02	-0.504

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	209.75		1.581E+00	8.267E-01	1.430E+00	7.753E-02	1.105
		228.18		2.269E-01	2.420E-01	4.056E-01	2.252E-02	0.559
	+	277.60		2.613E-01	1.998E-01	3.437E-01	1.998E-02	0.760
		334.30		-2.235E-01	1.612E+00	2.190E+00	1.294E-01	-0.102
AM-241		59.54	*	-3.142E-01	2.082E-01	3.233E-01	3.008E-02	-0.972
CM-243		99.55		-3.304E-02	1.691E-01	2.777E-01	2.192E-02	-0.119
		103.76	*	-3.211E-02	1.068E-01	1.729E-01	1.281E-02	-0.186
		117.00		-1.642E-01	2.043E-01	3.255E-01	2.032E-02	-0.504
	+	209.75		1.559E+00	8.150E-01	1.410E+00	7.643E-02	1.105
		228.18		2.292E-01	2.446E-01	4.098E-01	2.275E-02	0.559
	+	277.60		2.634E-01	2.014E-01	3.465E-01	2.014E-02	0.760
AM-246		798.80		-1.853E-01	1.525E-01	2.296E-01	1.671E-02	-0.807
		1036.00		-9.577E-02	3.399E-01	5.466E-01	4.214E-02	-0.175
		1062.04		2.118E-01	2.496E-01	4.423E-01	3.259E-02	0.479
		1078.86	*	2.250E-02	1.647E-01	2.745E-01	1.959E-02	0.082
CM-247	+	278.00		1.084E+00	8.284E-01	1.423E+00	8.273E-02	0.762
		287.40		2.401E-01	1.285E+00	2.183E+00	1.277E-01	0.110
		402.60	*	2.080E-02	3.833E-02	6.565E-02	3.805E-03	0.317
CF-249		252.85		-1.409E-01	9.471E-01	1.505E+00	8.581E-02	-0.094
		333.44		-2.303E-01	2.690E-01	2.777E-01	1.641E-02	-0.829
		387.95	*	-2.618E-02	4.288E-02	6.875E-02	3.978E-03	-0.381
CF-251		176.60	*	-1.041E-01	1.327E-01	2.081E-01	1.075E-02	-0.500
		227.00		7.930E-02	4.165E-01	6.758E-01	3.747E-02	0.117
		285.00		-5.923E-01	1.833E+00	3.041E+00	1.776E-01	-0.195

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799003      *
* Acquisition date : 10-FEB-2010 14:47:09 Detector SN#    :                 *
* Detector ID        : GAM23                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:01.83       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799003           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.4002E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.165E+01	2.993E+00	6.181E-01	0.000E+00
CD-109	7.842E-01	1.479E+00	1.467E+00	0.000E+00
SN-126	7.708E-02	1.454E-01	1.451E-01	0.000E+00
TL-208	5.366E-01	9.280E-02	6.205E-02	0.000E+00
BI-211	3.345E+00	5.143E-01	3.724E-01	0.000E+00
PB-212	1.536E+00	1.516E-01	1.026E-01	0.000E+00
PO-212	1.536E+00	1.516E-01	1.026E-01	0.000E+00
BI-214	1.135E+00	1.572E-01	1.111E-01	0.000E+00
PB-214	1.164E+00	1.885E-01	1.298E-01	0.000E+00
PO-214	1.164E+00	1.885E-01	1.298E-01	0.000E+00
PO-216	1.536E+00	1.516E-01	1.026E-01	0.000E+00
PO-218	1.164E+00	1.885E-01	1.298E-01	0.000E+00
RA-224	4.018E+00	1.332E+00	1.168E+00	0.000E+00
RA-226	1.135E+00	1.572E-01	1.111E-01	0.000E+00
AC-228	1.532E+00	3.838E-01	2.353E-01	0.000E+00
RA-228	1.532E+00	3.838E-01	2.353E-01	0.000E+00
TH-228	1.559E+00	1.539E-01	1.042E-01	0.000E+00
TH-230	1.135E+00	1.572E-01	1.111E-01	0.000E+00
TH-232	1.532E+00	3.838E-01	2.353E-01	0.000E+00
U-234	1.135E+00	1.572E-01	1.111E-01	0.000E+00
NP-237	2.264E-01	4.294E-01	4.857E-01	0.000E+00
AM-243	3.687E-01	8.534E-02	1.079E-01	0.000E+00
ANH-511	1.641E-01	7.697E-02	5.046E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-7.924E-02	3.221E-01	5.465E-01	0.000E+00	NOT IDENT.
NA-22	-6.657E-02	5.536E-02	8.206E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.623E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.612E-02	2.641E-02	5.016E-02	0.000E+00	NOT IDENT.

TI-44	0.000E+00	6.882E-02	9.235E-02	0.000E+00	FAIL ABUN
SC-46	-2.808E-02	4.161E-02	6.737E-02	0.000E+00	FAIL ABUN
V-48	-2.206E-03	8.415E-02	1.285E-01	0.000E+00	NOT IDENT.
CR-51	-1.905E-02	3.745E-01	6.450E-01	0.000E+00	NOT IDENT.
MN-52	-3.825E-02	2.578E-01	4.182E-01	0.000E+00	NOT IDENT.
MN-54	-7.306E-03	3.682E-02	6.276E-02	0.000E+00	NOT IDENT.
CO-56	7.864E-03	4.356E-02	7.644E-02	0.000E+00	FAIL ABUN
CO-57	3.723E-02	2.664E-02	4.942E-02	0.000E+00	NOT IDENT.
CO-58	-1.951E-03	3.900E-02	6.745E-02	0.000E+00	NOT IDENT.
FE-59	-3.713E-02	1.030E-01	1.690E-01	0.000E+00	NOT IDENT.
CO-60	5.725E-03	4.008E-02	6.803E-02	0.000E+00	NOT IDENT.
ZN-65	1.316E-01	1.221E-01	1.984E-01	0.000E+00	NOT IDENT.
GE-68	-2.523E-01	1.473E+00	2.465E+00	0.000E+00	NOT IDENT.
AS-73	-3.803E-01	1.148E+00	2.085E+00	0.000E+00	NOT IDENT.
AS-74	9.346E-03	9.861E-02	1.687E-01	0.000E+00	NOT IDENT.
SE-75	1.242E-02	4.992E-02	7.519E-02	0.000E+00	NOT IDENT.
BR-77	-4.076E+00	1.099E+01	1.836E+01	0.000E+00	FAIL ABUN
SR-82	-2.337E-01	4.297E-01	7.190E-01	0.000E+00	NOT IDENT.
RB-83	-1.813E-02	7.328E-02	1.236E-01	0.000E+00	NOT IDENT.
RB-84	-3.871E-03	7.155E-02	1.229E-01	0.000E+00	NOT IDENT.
KR-85	5.062E+00	8.310E+00	1.304E+01	0.000E+00	NOT IDENT.
SR-85	2.595E-02	4.261E-02	6.687E-02	0.000E+00	NOT IDENT.
RB-86	8.894E-01	8.932E-01	1.640E+00	0.000E+00	NOT IDENT.
Y-88	1.094E-02	2.789E-02	5.111E-02	0.000E+00	NOT IDENT.
ZR-88	3.648E-02	3.228E-02	5.986E-02	0.000E+00	NOT IDENT.
Y-91	1.366E+01	2.308E+01	4.054E+01	0.000E+00	NOT IDENT.
NB-94	-1.453E-02	3.731E-02	6.069E-02	0.000E+00	NOT IDENT.
NB-95	2.923E-02	4.628E-02	8.027E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.684E-01	2.946E-01	0.000E+00	NOT IDENT.
ZR-95	1.844E-03	7.678E-02	1.284E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.030E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.415E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	5.726E+00	1.279E+01	2.214E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.971E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.757E-02	3.520E-02	6.194E-02	0.000E+00	NOT IDENT.
RH-102	-1.472E-02	2.894E-02	4.815E-02	0.000E+00	NOT IDENT.
RU-103	1.163E-02	4.256E-02	7.459E-02	0.000E+00	NOT IDENT.
RH-106	3.045E-01	3.331E-01	6.007E-01	0.000E+00	NOT IDENT.
RU-106	3.045E-01	3.317E-01	6.007E-01	0.000E+00	NOT IDENT.
AG-108M	-1.550E-02	3.284E-02	5.527E-02	0.000E+00	NOT IDENT.
AG-110M	-2.553E-02	3.699E-02	5.881E-02	0.000E+00	NOT IDENT.
IN-111	3.585E-01	1.279E+00	1.936E+00	0.000E+00	NOT IDENT.
IN-113M	2.025E-03	4.733E-02	8.301E-02	0.000E+00	NOT IDENT.
SN-113	2.025E-03	4.733E-02	8.301E-02	0.000E+00	NOT IDENT.
IN-114M	8.028E-02	2.153E-01	3.325E-01	0.000E+00	NOT IDENT.
CD-115	-1.119E+01	1.194E+01	1.910E+01	0.000E+00	NOT IDENT.
SN-117M	7.219E-03	5.776E-02	1.014E-01	0.000E+00	NOT IDENT.
SB-122	-7.968E-01	2.169E+00	3.600E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.074E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.050E-03	3.004E-02	5.262E-02	0.000E+00	NOT IDENT.
I-124	1.937E-01	8.007E-01	1.204E+00	0.000E+00	NOT IDENT.
SB-124	4.855E-03	6.273E-02	1.082E-01	0.000E+00	FAIL ABUN
SB-125	7.876E-03	9.113E-02	1.594E-01	0.000E+00	FAIL ABUN
TE-125M	1.994E+00	9.939E+00	1.782E+01	0.000E+00	NOT IDENT.
I-126	-8.485E-02	1.876E-01	3.042E-01	0.000E+00	NOT IDENT.
SB-126	-3.215E-02	1.736E-01	2.577E-01	0.000E+00	NOT IDENT.
SB-127	-7.862E-01	1.528E+00	2.461E+00	0.000E+00	NOT IDENT.
XE-127	-5.453E-03	4.946E-02	8.483E-02	0.000E+00	NOT IDENT.
I-131	-3.783E-02	1.155E-01	1.992E-01	0.000E+00	NOT IDENT.
TE-132	6.941E-01	7.305E-01	1.293E+00	0.000E+00	NOT IDENT.
BA-133	1.847E-02	5.001E-02	7.868E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.486E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.844E-02	4.979E-02	9.122E-02	0.000E+00	NOT IDENT.
CS-135	2.059E-01	1.934E-01	3.053E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.901E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.465E-02	1.177E-01	2.126E-01	0.000E+00	FAIL ABUN
BA-137M	1.533E-02	3.670E-02	6.391E-02	0.000E+00	NOT IDENT.
CS-137	1.620E-02	3.879E-02	6.756E-02	0.000E+00	NOT IDENT.
CE-139	-1.007E-02	3.113E-02	5.299E-02	0.000E+00	NOT IDENT.
BA-140	1.053E-02	2.814E-01	4.830E-01	0.000E+00	NOT IDENT.
LA-140	-3.583E-02	8.354E-02	1.330E-01	0.000E+00	FAIL ABUN
CE-141	2.885E-02	6.420E-02	1.146E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.659E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.087E-01	2.170E-01	3.887E-01	0.000E+00	NOT IDENT.
PM-144	-9.595E-03	3.839E-02	6.321E-02	0.000E+00	NOT IDENT.
PR-144	-6.502E-01	2.602E+00	4.284E+00	0.000E+00	NOT IDENT.
PM-146	1.836E-02	4.506E-02	8.003E-02	0.000E+00	NOT IDENT.
ND-147	6.266E-01	6.123E-01	1.112E+00	0.000E+00	FAIL ABUN

PM-149	2.996E+01	9.336E+01	1.689E+02	0.000E+00	NOT IDENT.
EU-152	-6.811E-02	1.345E-01	1.716E-01	0.000E+00	FAIL ABUN
GD-153	-1.802E-02	9.309E-02	1.450E-01	0.000E+00	NOT IDENT.
EU-154	-1.859E-01	1.552E-01	2.292E-01	0.000E+00	NOT IDENT.
EU-155	9.565E-03	1.153E-01	2.064E-01	0.000E+00	FAIL ABUN
TB-160	-7.784E-02	1.455E-01	2.390E-01	0.000E+00	FAIL ABUN
HO-166M	-3.382E-03	6.869E-02	1.147E-01	0.000E+00	FAIL ABUN
TM-171	-4.049E+01	3.357E+01	5.856E+01	0.000E+00	NOT IDENT.
LU-176	-9.218E-03	2.415E-02	4.205E-02	0.000E+00	NOT IDENT.
LU-177	0.000E+00	1.142E+00	2.074E+00	0.000E+00	FAIL ABUN
LU-177M	-3.507E-01	1.915E-01	2.956E-01	0.000E+00	FAIL ABUN
HF-181	-1.010E-02	4.414E-02	7.497E-02	0.000E+00	NOT IDENT.
W-181	-1.234E-01	4.389E-01	7.932E-01	0.000E+00	NOT IDENT.
TA-182	-6.454E-02	2.451E-01	4.036E-01	0.000E+00	FAIL ABUN
RE-183	6.724E-02	1.149E-01	2.050E-01	0.000E+00	FAIL ABUN
RE-184	-3.754E-02	2.474E-01	4.174E-01	0.000E+00	NOT IDENT.
OS-185	-1.835E-02	4.564E-02	7.455E-02	0.000E+00	NOT IDENT.
RE-188	1.454E-01	1.774E-01	3.197E-01	0.000E+00	NOT IDENT.
W-188	-1.832E+00	8.640E+00	1.323E+01	0.000E+00	NOT IDENT.
IR-192	-8.502E-03	3.382E-02	5.919E-02	0.000E+00	FAIL ABUN
AU-195	-1.692E-01	2.348E-01	4.088E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.461E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-7.874E-01	7.306E+00	1.254E+01	0.000E+00	NOT IDENT.
TL-202	4.353E-02	7.039E-02	1.269E-01	0.000E+00	NOT IDENT.
HG-203	6.056E-02	4.692E-02	7.878E-02	0.000E+00	NOT IDENT.
BI-207	2.844E-02	5.554E-02	9.873E-02	0.000E+00	FAIL ABUN
TL-207	2.643E-01	7.545E-01	1.191E+00	0.000E+00	FAIL ABUN
PO-209	-8.545E+00	8.103E+00	1.262E+01	0.000E+00	NOT IDENT.
BI-210	4.746E+00	5.634E+00	1.062E+01	0.000E+00	NOT IDENT.
PB-210	4.746E+00	5.634E+00	1.062E+01	0.000E+00	NOT IDENT.
PO-210	4.746E+00	5.631E+00	1.062E+01	0.000E+00	NOT IDENT.
PB-211	-1.698E+00	1.442E+00	1.576E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.284E-01	6.848E-01	0.000E+00	FAIL ABUN
PO-215	2.643E-01	7.545E-01	1.191E+00	0.000E+00	FAIL ABUN
RN-219	2.787E-01	4.200E-01	7.589E-01	0.000E+00	FAIL ABUN
RN-220	-2.460E+00	2.659E+01	4.513E+01	0.000E+00	NOT IDENT.
RA-223	2.643E-01	7.545E-01	1.191E+00	0.000E+00	FAIL ABUN
AC-227	2.991E-01	4.025E-01	7.061E-01	0.000E+00	FAIL ABUN
TH-227	2.991E-01	4.035E-01	7.061E-01	0.000E+00	FAIL ABUN
TH-229	-1.164E-01	5.499E-01	9.419E-01	0.000E+00	FAIL ABUN
PA-231	-1.307E+00	1.588E+00	2.711E+00	0.000E+00	FAIL ABUN
TH-231	2.643E-01	7.545E-01	1.191E+00	0.000E+00	FAIL ABUN
U-231	2.003E-01	1.253E+00	1.988E+00	0.000E+00	FAIL ABUN
PA-233	8.537E-03	6.334E-02	1.132E-01	0.000E+00	FAIL ABUN
PA-234	4.722E-02	3.408E-01	5.912E-01	0.000E+00	FAIL ABUN
PA-234M	3.687E-01	5.102E+00	8.766E+00	0.000E+00	NOT IDENT.
TH-234	2.296E+00	1.669E+00	3.051E+00	0.000E+00	FAIL ABUN
U-235	-2.748E-02	2.228E-01	3.827E-01	0.000E+00	FAIL ABUN
NP-236	-4.001E-02	8.535E-02	1.463E-01	0.000E+00	NOT IDENT.
U-238	2.296E+00	1.669E+00	3.051E+00	0.000E+00	FAIL ABUN
NP-239	-1.596E-01	1.946E-01	3.342E-01	0.000E+00	FAIL ABUN
AM-241	-3.142E-01	2.040E-01	3.459E-01	0.000E+00	NOT IDENT.
CM-243	-3.211E-02	1.046E-01	1.830E-01	0.000E+00	FAIL ABUN
AM-246	2.250E-02	1.614E-01	2.773E-01	0.000E+00	NOT IDENT.
CM-247	2.080E-02	3.757E-02	6.768E-02	0.000E+00	FAIL ABUN
CF-249	-2.618E-02	4.203E-02	7.093E-02	0.000E+00	NOT IDENT.
CF-251	-1.041E-01	1.301E-01	2.181E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:47:39.08

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799003.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 14:47:09
Sample ID         : G245799003           Sample quantity  : 1.40023E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.83  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1257	10.67*	9.974E-01	3.165E+01	3.165E+01	9.65
CD-109	88.03	55	3.72*	5.189E+00	7.667E-01	7.842E-01	192.50
SN-126	64.28	------	9.60	2.723E+00	------	Line Not Found	------
	86.94	55	8.90	5.189E+00	3.205E-01	3.205E-01	196.70
	87.57	55	37.00*	5.189E+00	7.708E-02	7.708E-02	192.50
TL-208	277.35	57	6.80	4.145E+00	5.418E-01	5.418E-01	76.96
	510.84	156	21.60	2.547E+00	7.599E-01	7.599E-01	48.57
	583.14	384	84.20*	2.278E+00	5.366E-01	5.366E-01	17.65
	860.37	52	12.46	1.610E+00	6.939E-01	6.939E-01	71.79
BI-211	72.87	------	1.27	3.829E+00	------	Line Not Found	------
	351.07	556	12.94*	3.441E+00	3.345E+00	3.345E+00	15.69
PB-212	74.81	366	10.70	4.035E+00	2.274E+00	2.274E+00	25.40
	77.11	636	18.00	4.304E+00	2.199E+00	2.199E+00	17.31
	87.30	55	8.00	5.189E+00	3.565E-01	3.565E-01	192.76
	238.63	1185	44.60*	4.638E+00	1.536E+00	1.536E+00	10.07
	300.09	75	3.41	3.897E+00	1.521E+00	1.521E+00	65.55
PO-212	74.81	366	10.70	4.035E+00	2.274E+00	2.274E+00	25.40
	77.11	636	18.00	4.304E+00	2.199E+00	2.199E+00	17.31
	87.30	55	8.00	5.189E+00	3.565E-01	3.565E-01	192.76
	115.19	------	0.60	6.293E+00	------	Line Not Found	------
	238.63	1185	44.60*	4.638E+00	1.536E+00	1.536E+00	10.07
	300.09	75	3.41	3.897E+00	1.521E+00	1.521E+00	65.55
BI-214	609.31	430	46.30*	2.194E+00	1.135E+00	1.135E+00	14.13
	1120.29	107	15.10	1.258E+00	1.510E+00	1.510E+00	46.52
	1764.49	73	15.80	8.744E-01	1.410E+00	1.410E+00	31.10
PB-214	74.81	366	6.21	4.035E+00	3.918E+00	3.918E+00	24.76
	77.11	636	10.50	4.304E+00	3.770E+00	3.770E+00	18.91
	87.30	55	4.67	5.189E+00	6.107E-01	6.107E-01	192.65
	241.98	272	7.49	4.596E+00	2.119E+00	2.119E+00	34.28
	295.21	293	19.20	3.949E+00	1.037E+00	1.037E+00	23.95
	351.92	556	37.20*	3.441E+00	1.164E+00	1.164E+00	16.53
PO-214	74.81	366	6.21	4.035E+00	3.918E+00	3.918E+00	24.76

Sample ID : G245799003 Acquisition date : 10-FEB-2010 14:47:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	636	10.50	4.304E+00	3.770E+00	3.770E+00	18.91
	87.30	55	4.67	5.189E+00	6.107E-01	6.107E-01	192.65
	241.98	272	7.49	4.596E+00	2.119E+00	2.119E+00	34.28
	295.21	293	19.20	3.949E+00	1.037E+00	1.037E+00	23.95
	351.92	556	37.20*	3.441E+00	1.164E+00	1.164E+00	16.53
PO-216	74.81	366	10.70	4.035E+00	2.274E+00	2.274E+00	25.40
	77.11	636	18.00	4.304E+00	2.199E+00	2.199E+00	17.31
	87.30	55	8.00	5.189E+00	3.565E-01	3.565E-01	192.76
	238.63	1185	44.60*	4.638E+00	1.536E+00	1.536E+00	10.07
	300.09	75	3.41	3.897E+00	1.521E+00	1.521E+00	65.55
PO-218	74.81	366	6.21	4.035E+00	3.918E+00	3.918E+00	24.76
	77.11	636	10.50	4.304E+00	3.770E+00	3.770E+00	18.91
	87.30	55	4.67	5.189E+00	6.107E-01	6.107E-01	192.65
	241.98	272	7.49	4.596E+00	2.119E+00	2.119E+00	34.28
	295.21	293	19.20	3.949E+00	1.037E+00	1.037E+00	23.95
	351.92	556	37.20*	3.441E+00	1.164E+00	1.164E+00	16.53
RA-224	240.98	272	3.95*	4.596E+00	4.018E+00	4.018E+00	33.82
RA-226	609.31	430	46.30*	2.194E+00	1.135E+00	1.135E+00	14.13
	1120.29	107	15.10	1.258E+00	1.510E+00	1.510E+00	46.52
	1764.49	73	15.80	8.744E-01	1.410E+00	1.410E+00	31.10
AC-228	338.32	226	11.40	3.550E+00	1.497E+00	1.497E+00	49.39
	911.07	242	27.70*	1.527E+00	1.532E+00	1.532E+00	25.57
	969.11	124	16.60	1.441E+00	1.388E+00	1.388E+00	39.39
RA-228	338.32	226	11.40	3.550E+00	1.497E+00	1.497E+00	49.39
	911.07	242	27.70*	1.527E+00	1.532E+00	1.532E+00	25.57
	969.11	124	16.60	1.441E+00	1.388E+00	1.388E+00	39.39
TH-228	74.81	366	10.70	4.035E+00	2.274E+00	2.308E+00	23.65
	77.11	636	18.00	4.304E+00	2.199E+00	2.232E+00	17.31
	87.30	55	8.00	5.189E+00	3.565E-01	3.619E-01	192.50
	238.63	1185	44.60*	4.638E+00	1.536E+00	1.559E+00	10.07
	300.09	75	3.41	3.897E+00	1.521E+00	1.544E+00	87.76
TH-230	609.31	430	46.30*	2.194E+00	1.135E+00	1.135E+00	14.13
	1120.29	107	15.10	1.258E+00	1.510E+00	1.510E+00	46.52
	1764.49	73	15.80	8.744E-01	1.410E+00	1.410E+00	31.10
TH-232	338.32	226	11.40	3.550E+00	1.497E+00	1.497E+00	28.48
	911.07	242	27.70*	1.527E+00	1.532E+00	1.532E+00	25.57
	969.11	124	16.60	1.441E+00	1.388E+00	1.388E+00	39.39
U-234	609.31	430	46.30*	2.194E+00	1.135E+00	1.135E+00	14.13
	1120.29	107	15.10	1.258E+00	1.510E+00	1.510E+00	46.52
	1764.49	73	15.80	8.744E-01	1.410E+00	1.410E+00	31.10
NP-237	86.50	55	12.60*	5.189E+00	2.264E-01	2.264E-01	193.60
	95.87	------	2.60	5.757E+00	------ Line Not Found		------
AM-243	74.67	366	66.00*	4.035E+00	3.687E-01	3.687E-01	23.62
	86.72	55	0.34	5.189E+00	8.488E+00	8.488E+00	192.50
	117.66	------	0.55	6.314E+00	------ Line Not Found		------
	142.18	------	0.13	6.209E+00	------ Line Not Found		------
ANH-511	511.00	156	100.00*	2.547E+00	1.641E-01	1.641E-01	47.85

Flag: "*" = Keyline

Sample ID : G245799003 Acquisition date : 10-FEB-2010 14:47:09

Total number of lines in spectrum 29
Number of unidentified lines 0
Number of lines tentatively identified by NID 29 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.165E+01	3.165E+01	0.305E+01	9.65	
CD-109	464.00D	1.02	7.667E-01	7.842E-01	15.10E-01	192.50	
SN-126	1.00E+05Y	1.00	7.708E-02	7.708E-02	14.84E-02	192.50	
TL-208	1.41E+10Y	1.00	5.366E-01	5.366E-01	0.947E-01	17.65	
BI-211	7.04E+08Y	1.00	3.345E+00	3.345E+00	0.525E+00	15.69	
PB-212	1.41E+10Y	1.00	1.536E+00	1.536E+00	0.155E+00	10.07	
PO-212	1.41E+10Y	1.00	1.536E+00	1.536E+00	0.155E+00	10.07	
BI-214	1600.00Y	1.00	1.135E+00	1.135E+00	0.160E+00	14.13	
PB-214	1600.00Y	1.00	1.164E+00	1.164E+00	0.192E+00	16.53	
PO-214	1600.00Y	1.00	1.164E+00	1.164E+00	0.192E+00	16.53	
PO-216	1.41E+10Y	1.00	1.536E+00	1.536E+00	0.155E+00	10.07	
PO-218	1600.00Y	1.00	1.164E+00	1.164E+00	0.192E+00	16.53	
RA-224	1.41E+10Y	1.00	4.018E+00	4.018E+00	1.359E+00	33.82	
RA-226	1600.00Y	1.00	1.135E+00	1.135E+00	0.160E+00	14.13	
AC-228	1.41E+10Y	1.00	1.532E+00	1.532E+00	0.392E+00	25.57	
RA-228	1.41E+10Y	1.00	1.532E+00	1.532E+00	0.392E+00	25.57	
TH-228	1.91Y	1.02	1.536E+00	1.559E+00	0.157E+00	10.07	
TH-230	4.47E+09Y	1.00	1.135E+00	1.135E+00	0.160E+00	14.13	
TH-232	1.41E+10Y	1.00	1.532E+00	1.532E+00	0.392E+00	25.57	
U-234	4.47E+09Y	1.00	1.135E+00	1.135E+00	0.160E+00	14.13	
NP-237	2.14E+06Y	1.00	2.264E-01	2.264E-01	4.382E-01	193.60	
AM-243	7380.00Y	1.00	3.687E-01	3.687E-01	0.871E-01	23.62	
ANH-511	1.00E+09Y	1.00	1.641E-01	1.641E-01	0.785E-01	47.85	
		Total Activity :	5.992E+01	5.997E+01			

Grand Total Activity : 5.992E+01 5.997E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799003 Acquisition date : 10-FEB-2010 14:47:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	89.87	127	292	1.18	179.74	178	5	1.76E-02	44.3	5.41E+00	T
0	92.77	131	507	0.99	185.54	182	8	1.81E-02	64.6	5.59E+00	T
0	185.77	156	318	1.44	371.53	367	9	2.17E-02	46.1	5.49E+00	T
0	208.87	97	200	0.80	417.73	415	7	1.35E-02	52.0	5.09E+00	T
0	270.00	129	206	1.73	540.00	535	11	1.78E-02	46.7	4.23E+00	T
0	327.51	51	187	1.43	655.03	650	10	7.11E-03	****	3.64E+00	T
0	462.44	83	72	1.58	924.87	920	9	1.15E-02	44.1	2.76E+00	T
0	726.99	59	74	2.03	1453.99	1449	10	8.13E-03	61.1	1.88E+00	T
1	963.96	69	74	2.12	1927.92	1922	37	9.64E-03	54.0	1.45E+00	T
0	1237.32	66	47	2.14	2474.65	2469	11	9.23E-03	46.8	1.15E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 16:47:44.50

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799003.CNF;1 *
* Acquisition date  : 10-FEB-2010 14:47:09  Detector SN#     :             *
* Detector ID       : GAM23                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.83          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245799003            Analyst initials: RXF2         *
* Batch Number      : 947531                Sample Quantity : 1.40023E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :                *
* LCS ID           : 1032-A               LCS Isotope      :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.165E+01	3.054E+00	6.158E-01	4.607E-02	51.399
CD-109	7.842E-01	1.510E+00	1.381E+00	1.349E-01	0.568
SN-126	7.708E-02	1.484E-01	1.366E-01	1.329E-02	0.564
TL-208	5.366E-01	9.469E-02	6.064E-02	3.937E-03	8.848
BI-211	3.345E+00	5.248E-01	3.602E-01	2.347E-02	9.286
PB-212	1.536E+00	1.547E-01	9.851E-02	7.082E-03	15.590
PO-212	1.536E+00	1.547E-01	9.851E-02	7.082E-03	15.590
BI-214	1.135E+00	1.604E-01	1.087E-01	8.172E-03	10.445
PB-214	1.164E+00	1.924E-01	1.256E-01	1.048E-02	9.267
PO-214	1.164E+00	1.924E-01	1.256E-01	1.048E-02	9.267
PO-216	1.536E+00	1.547E-01	9.851E-02	7.082E-03	15.590
PO-218	1.164E+00	1.924E-01	1.256E-01	1.048E-02	9.267
RA-224	4.018E+00	1.359E+00	1.121E+00	6.317E-02	3.584
RA-226	1.135E+00	1.604E-01	1.087E-01	8.172E-03	10.445
AC-228	1.532E+00	3.916E-01	2.321E-01	2.678E-02	6.599
RA-228	1.532E+00	3.916E-01	2.321E-01	2.678E-02	6.599
TH-228	1.559E+00	1.570E-01	1.000E-01	7.190E-03	15.590
TH-230	1.135E+00	1.604E-01	1.087E-01	8.172E-03	10.445

Sample ID : G245799003 Acquisition date : 10-FEB-2010 14:47:09

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.532E+00	3.916E-01	2.321E-01	2.678E-02	6.599
U-234	1.135E+00	1.604E-01	1.087E-01	8.172E-03	10.445
NP-237	2.264E-01	4.382E-01	4.571E-01	1.041E-01	0.495
AM-243	3.687E-01	8.708E-02	1.013E-01	9.002E-03	3.639
ANH-511	1.641E-01	7.855E-02	4.918E-02	2.857E-03	3.338

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.924E-02		3.287E-01	5.319E-01	3.615E-02	-0.149
NA-22	-6.657E-02		5.649E-02	8.152E-02	5.474E-03	-0.817
NA-24	-7.051E-01		3.889E-01	Half-Life too short		
AL-26	1.612E-02		2.694E-02	5.020E-02	3.017E-03	0.321
TI-44	4.058E-01	+	7.023E-02	8.675E-02	7.864E-03	4.678
SC-46	-2.808E-02		4.246E-02	6.642E-02	5.934E-03	-0.423
V-48	-2.206E-03		8.587E-02	1.270E-01	1.057E-02	-0.017
CR-51	-1.905E-02		3.822E-01	6.227E-01	4.083E-02	-0.031
MN-52	-3.825E-02		2.630E-01	4.164E-01	3.013E-02	-0.092
MN-54	-7.306E-03		3.757E-02	6.179E-02	4.892E-03	-0.118
CO-56	7.864E-03		4.445E-02	7.528E-02	6.124E-03	0.104
CO-57	3.723E-02		2.718E-02	4.682E-02	2.760E-03	0.795
CO-58	-1.951E-03		3.979E-02	6.637E-02	4.986E-03	-0.029
FE-59	-3.713E-02		1.051E-01	1.674E-01	1.289E-02	-0.222
CO-60	5.725E-03		4.090E-02	6.764E-02	4.965E-03	0.085
ZN-65	1.316E-01		1.246E-01	1.965E-01	1.298E-02	0.670
GE-68	-2.523E-01		1.503E+00	2.440E+00	1.746E-01	-0.103
AS-73	-3.803E-01		1.171E+00	1.944E+00	1.717E-01	-0.196
AS-74	9.346E-03		1.006E-01	1.649E-01	9.097E-03	0.057
SE-75	1.242E-02		5.094E-02	7.232E-02	4.210E-03	0.172
BR-77	-4.076E+00		1.122E+01	1.790E+01	1.036E+00	-0.228
SR-82	-2.337E-01		4.384E-01	7.069E-01	4.876E-02	-0.331
RB-83	-1.813E-02		7.478E-02	1.205E-01	6.974E-03	-0.151
RB-84	-3.871E-03		7.301E-02	1.211E-01	1.064E-02	-0.032
KR-85	5.062E+00		8.480E+00	1.271E+01	7.377E-01	0.398
SR-85	2.595E-02		4.348E-02	6.519E-02	3.783E-03	0.398
RB-86	8.894E-01		9.115E-01	1.624E+00	1.164E-01	0.548
Y-88	1.094E-02		2.846E-02	5.117E-02	3.013E-03	0.214
ZR-88	3.648E-02		3.294E-02	5.803E-02	3.350E-03	0.629
Y-91	1.366E+01		2.355E+01	4.022E+01	2.400E+00	0.340
NB-94	-1.453E-02		3.807E-02	5.954E-02	3.402E-03	-0.244
NB-95	2.923E-02		4.723E-02	7.889E-02	5.302E-03	0.370
NB-95M	7.520E-01		1.718E-01	2.827E-01	2.085E-02	2.660
ZR-95	1.844E-03		7.835E-02	1.261E-01	9.676E-03	0.015
NB-97	-7.233E-02		5.253E-02	Half-Life too short		
ZR-97	7.503E+00		1.232E+00	Half-Life too short		
MO-99	5.726E+00		1.305E+01	2.174E+01	3.042E+00	0.263
TC-99M	-1.759E+10		2.026E+10	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-101	1.757E-02		3.591E-02	5.924E-02	3.158E-03	0.297
RH-102	-1.472E-02		2.953E-02	4.686E-02	2.743E-03	-0.314
RU-103	1.163E-02		4.343E-02	7.265E-02	9.197E-03	0.160
RH-106	3.045E-01		3.399E-01	5.879E-01	6.779E-02	0.518
RU-106	3.045E-01		3.385E-01	5.879E-01	3.159E-02	0.518
AG-108M	-1.550E-02		3.351E-02	5.369E-02	3.404E-03	-0.289
AG-110M	-2.553E-02		3.775E-02	5.762E-02	3.202E-03	-0.443
IN-111	3.585E-01		1.305E+00	1.859E+00	1.052E-01	0.193
IN-113M	2.025E-03		4.829E-02	8.047E-02	4.957E-03	0.025
SN-113	2.025E-03		4.829E-02	8.047E-02	4.957E-03	0.025
IN-114M	8.028E-02		2.197E-01	3.177E-01	1.675E-02	0.253
CD-115	-1.119E+01		1.219E+01	1.863E+01	1.075E+00	-0.600
SN-117M	7.219E-03		5.894E-02	9.656E-02	5.018E-03	0.075
SB-122	-7.968E-01		2.213E+00	3.516E+00	1.989E-01	-0.227
I-123	4.146E-01		3.099E+00	Half-Life too short		
TE-123M	2.050E-03		3.065E-02	5.010E-02	2.644E-03	0.041
I-124	1.937E-01		8.171E-01	1.177E+00	6.452E-02	0.165
SB-124	4.855E-03		6.401E-02	1.081E-01	7.537E-03	0.045
SB-125	7.876E-03		9.299E-02	1.548E-01	9.416E-03	0.051
TE-125M	1.994E+00		1.014E+01	1.685E+01	1.503E+00	0.118
I-126	-8.485E-02		1.914E-01	2.981E-01	1.542E-02	-0.285
SB-126	-3.215E-02		1.771E-01	2.529E-01	1.515E-02	-0.127
SB-127	-7.862E-01		1.560E+00	2.413E+00	2.225E-01	-0.326
XE-127	-5.453E-03		5.047E-02	8.116E-02	4.357E-03	-0.067
I-131	-3.783E-02		1.179E-01	1.928E-01	1.260E-02	-0.196
TE-132	6.941E-01		7.454E-01	1.240E+00	1.769E-01	0.560
BA-133	1.847E-02		5.103E-02	7.613E-02	8.833E-03	0.243
I-133	8.872E-04		3.309E-03	Half-Life too short		
CS-134	3.844E-02		5.081E-02	8.972E-02	6.553E-03	0.428
CS-135	2.059E-01		1.973E-01	2.937E-01	2.244E-02	0.701
I-135	3.750E+09		3.011E+09	Half-Life too short		
CS-136	8.465E-02		1.201E-01	2.103E-01	1.676E-02	0.403
BA-137M	1.533E-02		3.744E-02	6.262E-02	3.199E-03	0.245
CS-137	1.620E-02		3.958E-02	6.620E-02	3.400E-03	0.245
CE-139	-1.007E-02		3.176E-02	5.050E-02	2.575E-03	-0.199
BA-140	1.053E-02		2.872E-01	4.713E-01	1.532E-01	0.022
LA-140	-3.583E-02		8.525E-02	1.328E-01	9.110E-03	-0.270
CE-141	2.885E-02		6.551E-02	1.089E-01	6.142E-03	0.265
CE-143	8.902E-04		1.357E-04	Half-Life too short		
CE-144	1.087E-01		2.214E-01	3.689E-01	5.209E-02	0.295
PM-144	-9.595E-03		3.918E-02	6.200E-02	3.488E-03	-0.155
PR-144	-6.502E-01		2.655E+00	4.202E+00	2.362E-01	-0.155
PM-146	1.836E-02		4.598E-02	7.782E-02	6.740E-03	0.236
ND-147	6.266E-01		6.248E-01	1.084E+00	1.465E-01	0.578
PM-149	2.996E+01		9.527E+01	1.627E+02	2.309E+01	0.184
EU-152	-6.811E-02		1.373E-01	1.659E-01	1.100E-02	-0.411
GD-153	-1.802E-02		9.499E-02	1.368E-01	1.118E-02	-0.132
EU-154	-1.859E-01		1.584E-01	2.277E-01	2.261E-02	-0.817

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	9.565E-03		1.177E-01	1.950E-01	1.438E-02	0.049
TB-160	-7.784E-02		1.484E-01	2.355E-01	2.060E-02	-0.331
HO-166M	-3.382E-03		7.009E-02	1.125E-01	6.587E-03	-0.030
TM-171	-4.049E+01		3.426E+01	5.484E+01	4.769E+00	-0.738
LU-176	-9.218E-03		2.464E-02	4.057E-02	2.390E-03	-0.227
LU-177	2.229E+00	+	1.166E+00	1.985E+00	1.074E-01	1.123
LU-177M	-3.507E-01		1.954E-01	2.869E-01	1.669E-02	-1.223
HF-181	-1.010E-02		4.504E-02	7.298E-02	4.268E-03	-0.138
W-181	-1.234E-01		4.478E-01	7.425E-01	6.450E-02	-0.166
TA-182	-6.454E-02		2.501E-01	4.006E-01	2.459E-02	-0.161
RE-183	6.724E-02		1.173E-01	1.953E-01	1.005E-02	0.344
RE-184	-3.754E-02		2.524E-01	4.011E-01	2.287E-02	-0.094
OS-185	-1.835E-02		4.658E-02	7.301E-02	3.810E-03	-0.251
RE-188	1.454E-01		1.810E-01	3.042E-01	1.596E-02	0.478
W-188	-1.832E+00		8.816E+00	1.275E+01	7.467E-01	-0.144
IR-192	-8.502E-03		3.451E-02	5.713E-02	3.389E-03	-0.149
AU-195	-1.692E-01		2.396E-01	3.857E-01	3.077E-02	-0.439
TL-200	2.533E-04		2.276E-04	Half-Life too short		
TL-201	-7.874E-01		7.455E+00	1.195E+01	6.100E-01	-0.066
TL-202	4.353E-02		7.183E-02	1.233E-01	7.215E-03	0.353
HG-203	6.056E-02		4.788E-02	7.585E-02	4.685E-03	0.798
BI-207	2.844E-02		5.667E-02	9.770E-02	7.178E-03	0.291
TL-207	2.643E-01		7.699E-01	1.150E+00	1.904E-01	0.230
PO-209	-8.545E+00		8.269E+00	1.244E+01	1.129E+00	-0.687
BI-210	4.746E+00		5.749E+00	9.880E+00	7.693E-01	0.480
PB-210	4.746E+00		5.749E+00	9.880E+00	7.693E-01	0.480
PO-210	4.746E+00		5.746E+00	9.880E+00	6.628E-01	0.480
PB-211	-1.698E+00		1.472E+00	1.529E+00	9.529E-01	-1.111
BI-212	7.090E-01	+	4.371E-01	6.723E-01	5.336E-02	1.055
PO-215	2.643E-01		7.699E-01	1.150E+00	1.904E-01	0.230
RN-219	2.787E-01		4.286E-01	7.361E-01	1.001E-01	0.379
RN-220	-2.460E+00		2.713E+01	4.405E+01	2.514E+00	-0.056
RA-223	2.643E-01		7.699E-01	1.150E+00	1.904E-01	0.230
AC-227	2.991E-01		4.107E-01	6.787E-01	9.453E-02	0.441
TH-227	2.991E-01		4.117E-01	6.787E-01	1.145E-01	0.441
TH-229	-1.164E-01		5.611E-01	9.004E-01	4.769E-02	-0.129
PA-231	-1.307E+00		1.621E+00	2.611E+00	3.602E-01	-0.501
TH-231	2.643E-01		7.699E-01	1.150E+00	1.904E-01	0.230
U-231	2.003E-01		1.279E+00	1.875E+00	1.573E-01	0.107
PA-233	8.537E-03		6.463E-02	1.092E-01	6.830E-03	0.078
PA-234	4.722E-02		3.477E-01	5.836E-01	1.097E-01	0.081
PA-234M	3.687E-01		5.206E+00	8.663E+00	8.266E-01	0.043
TH-234	2.296E+00		1.703E+00	2.854E+00	5.144E-01	0.804
U-235	-2.748E-02		2.273E-01	3.637E-01	5.882E-02	-0.076
NP-236	-4.001E-02		8.710E-02	1.394E-01	7.208E-03	-0.287
U-238	2.296E+00		1.703E+00	2.854E+00	5.144E-01	0.804
NP-239	-1.596E-01		1.986E-01	3.164E-01	1.975E-02	-0.504
AM-241	-3.142E-01		2.082E-01	3.233E-01	3.008E-02	-0.972

Sample ID : G245799003 Acquisition date : 10-FEB-2010 14:47:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.211E-02		1.068E-01	1.729E-01	1.281E-02	-0.186
AM-246	2.250E-02		1.647E-01	2.745E-01	1.959E-02	0.082
CM-247	2.080E-02		3.833E-02	6.565E-02	3.805E-03	0.317
CF-249	-2.618E-02		4.288E-02	6.875E-02	3.978E-03	-0.381
CF-251	-1.041E-01		1.327E-01	2.081E-01	1.075E-02	-0.500

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799003           *
* Acquisition date  : 10-FEB-2010 14:47:09 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.83      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799003           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.4002E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.165E+01	2.993E+00	3.093E-01	1.527E+00
CD-109	7.842E-01	1.479E+00	7.341E-01	7.548E-01
SN-126	7.708E-02	1.454E-01	7.260E-02	7.419E-02
TL-208	5.366E-01	9.280E-02	3.104E-02	4.735E-02
BI-211	3.345E+00	5.143E-01	1.863E-01	2.624E-01
PB-212	1.536E+00	1.516E-01	5.134E-02	7.733E-02
PO-212	1.536E+00	1.516E-01	5.134E-02	7.733E-02
BI-214	1.135E+00	1.572E-01	5.560E-02	8.022E-02
PB-214	1.164E+00	1.885E-01	6.494E-02	9.619E-02
PO-214	1.164E+00	1.885E-01	6.494E-02	9.619E-02
PO-216	1.536E+00	1.516E-01	5.134E-02	7.733E-02
PO-218	1.164E+00	1.885E-01	6.494E-02	9.619E-02
RA-224	4.018E+00	1.332E+00	5.843E-01	6.794E-01
RA-226	1.135E+00	1.572E-01	5.560E-02	8.022E-02
AC-228	1.532E+00	3.838E-01	1.177E-01	1.958E-01
RA-228	1.532E+00	3.838E-01	1.177E-01	1.958E-01
TH-228	1.559E+00	1.539E-01	5.212E-02	7.850E-02
TH-230	1.135E+00	1.572E-01	5.560E-02	8.022E-02
TH-232	1.532E+00	3.838E-01	1.177E-01	1.958E-01
U-234	1.135E+00	1.572E-01	5.560E-02	8.022E-02
NP-237	2.264E-01	4.294E-01	2.430E-01	2.191E-01
AM-243	3.687E-01	8.534E-02	5.400E-02	4.354E-02
ANH-511	1.641E-01	7.697E-02	2.524E-02	3.927E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-7.924E-02	3.221E-01	2.734E-01	1.643E-01	NOT IDENT.
NA-22	-6.657E-02	5.536E-02	4.106E-02	2.824E-02	NOT IDENT.
NA-24	-7.051E+05	7.623E+05	0.000E+00	3.889E+05	SHORT HLIF
AL-26	1.612E-02	2.641E-02	2.510E-02	1.347E-02	NOT IDENT.

TI-44	4.058E-01	6.882E-02	4.620E-02	3.511E-02	FAIL ABUN
SC-46	-2.808E-02	4.161E-02	3.371E-02	2.123E-02	FAIL ABUN
V-48	-2.206E-03	8.415E-02	6.431E-02	4.293E-02	NOT IDENT.
CR-51	-1.905E-02	3.745E-01	3.227E-01	1.911E-01	NOT IDENT.
MN-52	-3.825E-02	2.578E-01	2.092E-01	1.315E-01	NOT IDENT.
MN-54	-7.306E-03	3.682E-02	3.140E-02	1.879E-02	NOT IDENT.
CO-56	7.864E-03	4.356E-02	3.824E-02	2.222E-02	FAIL ABUN
CO-57	3.723E-02	2.664E-02	2.473E-02	1.359E-02	NOT IDENT.
CO-58	-1.951E-03	3.900E-02	3.374E-02	1.990E-02	NOT IDENT.
FE-59	-3.713E-02	1.030E-01	8.457E-02	5.257E-02	NOT IDENT.
CO-60	5.725E-03	4.008E-02	3.403E-02	2.045E-02	NOT IDENT.
ZN-65	1.316E-01	1.221E-01	9.924E-02	6.231E-02	NOT IDENT.
GE-68	-2.523E-01	1.473E+00	1.233E+00	7.515E-01	NOT IDENT.
AS-73	-3.803E-01	1.148E+00	1.043E+00	5.856E-01	NOT IDENT.
AS-74	9.346E-03	9.861E-02	8.440E-02	5.031E-02	NOT IDENT.
SE-75	1.242E-02	4.992E-02	3.762E-02	2.547E-02	NOT IDENT.
BR-77	-4.076E+00	1.099E+01	9.186E+00	5.608E+00	FAIL ABUN
SR-82	-2.337E-01	4.297E-01	3.597E-01	2.192E-01	NOT IDENT.
RB-83	-1.813E-02	7.328E-02	6.182E-02	3.739E-02	NOT IDENT.
RB-84	-3.871E-03	7.155E-02	6.148E-02	3.651E-02	NOT IDENT.
KR-85	5.062E+00	8.310E+00	6.525E+00	4.240E+00	NOT IDENT.
SR-85	2.595E-02	4.261E-02	3.346E-02	2.174E-02	NOT IDENT.
RB-86	8.894E-01	8.932E-01	8.207E-01	4.557E-01	NOT IDENT.
Y-88	1.094E-02	2.789E-02	2.557E-02	1.423E-02	NOT IDENT.
ZR-88	3.648E-02	3.228E-02	2.995E-02	1.647E-02	NOT IDENT.
Y-91	1.366E+01	2.308E+01	2.028E+01	1.178E+01	NOT IDENT.
NB-94	-1.453E-02	3.731E-02	3.036E-02	1.904E-02	NOT IDENT.
NB-95	2.923E-02	4.628E-02	4.016E-02	2.361E-02	NOT IDENT.
NB-95M	7.520E-01	1.684E-01	1.474E-01	8.592E-02	NOT IDENT.
ZR-95	1.844E-03	7.678E-02	6.422E-02	3.917E-02	NOT IDENT.
NB-97	-7.233E+04	1.030E+05	0.000E+00	5.253E+04	SHORT HLIF
ZR-97	7.503E+06	2.415E+06	0.000E+00	1.232E+06	SHORT HLIF
MO-99	5.726E+00	1.279E+01	1.107E+01	6.527E+00	NOT IDENT.
TC-99M	-1.759E+16	3.971E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.757E-02	3.520E-02	3.099E-02	1.796E-02	NOT IDENT.
RH-102	-1.472E-02	2.894E-02	2.409E-02	1.476E-02	NOT IDENT.
RU-103	1.163E-02	4.256E-02	3.731E-02	2.171E-02	NOT IDENT.
RH-106	3.045E-01	3.331E-01	3.005E-01	1.699E-01	NOT IDENT.
RU-106	3.045E-01	3.317E-01	3.005E-01	1.692E-01	NOT IDENT.
AG-108M	-1.550E-02	3.284E-02	2.765E-02	1.675E-02	NOT IDENT.
AG-110M	-2.553E-02	3.699E-02	2.942E-02	1.887E-02	NOT IDENT.
IN-111	3.585E-01	1.279E+00	9.686E-01	6.525E-01	NOT IDENT.
IN-113M	2.025E-03	4.733E-02	4.153E-02	2.415E-02	NOT IDENT.
SN-113	2.025E-03	4.733E-02	4.153E-02	2.415E-02	NOT IDENT.
IN-114M	8.028E-02	2.153E-01	1.663E-01	1.099E-01	NOT IDENT.
CD-115	-1.119E+01	1.194E+01	9.556E+00	6.094E+00	NOT IDENT.
SN-117M	7.219E-03	5.776E-02	5.074E-02	2.947E-02	NOT IDENT.
SB-122	-7.968E-01	2.169E+00	1.801E+00	1.107E+00	NOT IDENT.
I-123	4.146E+05	6.074E+06	0.000E+00	3.099E+06	SHORT HLIF
TE-123M	2.050E-03	3.004E-02	2.632E-02	1.533E-02	NOT IDENT.
I-124	1.937E-01	8.007E-01	6.023E-01	4.085E-01	NOT IDENT.
SB-124	4.855E-03	6.273E-02	5.412E-02	3.200E-02	FAIL ABUN
SB-125	7.876E-03	9.113E-02	7.974E-02	4.649E-02	FAIL ABUN
TE-125M	1.994E+00	9.939E+00	8.917E+00	5.071E+00	NOT IDENT.
I-126	-8.485E-02	1.876E-01	1.522E-01	9.570E-02	NOT IDENT.
SB-126	-3.215E-02	1.736E-01	1.289E-01	8.857E-02	NOT IDENT.
SB-127	-7.862E-01	1.528E+00	1.231E+00	7.798E-01	NOT IDENT.
XE-127	-5.453E-03	4.946E-02	4.244E-02	2.523E-02	NOT IDENT.
I-131	-3.783E-02	1.155E-01	9.967E-02	5.895E-02	NOT IDENT.
TE-132	6.941E-01	7.305E-01	6.468E-01	3.727E-01	NOT IDENT.
BA-133	1.847E-02	5.001E-02	3.937E-02	2.551E-02	FAIL ABUN
I-133	8.872E+02	6.486E+03	0.000E+00	3.309E+03	SHORT HLIF
CS-134	3.844E-02	4.979E-02	4.564E-02	2.540E-02	NOT IDENT.
CS-135	2.059E-01	1.934E-01	1.527E-01	9.867E-02	NOT IDENT.
I-135	3.750E+15	5.901E+15	0.000E+00	3.011E+15	SHORT HLIF
CS-136	8.465E-02	1.177E-01	1.063E-01	6.004E-02	FAIL ABUN
BA-137M	1.533E-02	3.670E-02	3.198E-02	1.872E-02	NOT IDENT.
CS-137	1.620E-02	3.879E-02	3.380E-02	1.979E-02	NOT IDENT.
CE-139	-1.007E-02	3.113E-02	2.651E-02	1.588E-02	NOT IDENT.
BA-140	1.053E-02	2.814E-01	2.417E-01	1.436E-01	NOT IDENT.
LA-140	-3.583E-02	8.354E-02	6.656E-02	4.262E-02	FAIL ABUN
CE-141	2.885E-02	6.420E-02	5.732E-02	3.275E-02	NOT IDENT.
CE-143	8.902E+02	2.659E+02	0.000E+00	1.357E+02	SHORT HLIF
CE-144	1.087E-01	2.170E-01	1.945E-01	1.107E-01	NOT IDENT.
PM-144	-9.595E-03	3.839E-02	3.163E-02	1.959E-02	NOT IDENT.
PR-144	-6.502E-01	2.602E+00	2.143E+00	1.327E+00	NOT IDENT.
PM-146	1.836E-02	4.506E-02	4.004E-02	2.299E-02	NOT IDENT.
ND-147	6.266E-01	6.123E-01	5.562E-01	3.124E-01	FAIL ABUN

PM-149	2.996E+01	9.336E+01	8.450E+01	4.763E+01	NOT IDENT.
EU-152	-6.811E-02	1.345E-01	8.585E-02	6.864E-02	FAIL ABUN
GD-153	-1.802E-02	9.309E-02	7.256E-02	4.749E-02	NOT IDENT.
EU-154	-1.859E-01	1.552E-01	1.147E-01	7.918E-02	NOT IDENT.
EU-155	9.565E-03	1.153E-01	1.032E-01	5.884E-02	FAIL ABUN
TB-160	-7.784E-02	1.455E-01	1.195E-01	7.422E-02	FAIL ABUN
HO-166M	-3.382E-03	6.869E-02	5.738E-02	3.504E-02	FAIL ABUN
TM-171	-4.049E+01	3.357E+01	2.930E+01	1.713E+01	NOT IDENT.
LU-176	-9.218E-03	2.415E-02	2.104E-02	1.232E-02	NOT IDENT.
LU-177	2.229E+00	1.142E+00	1.038E+00	5.828E-01	FAIL ABUN
LU-177M	-3.507E-01	1.915E-01	1.479E-01	9.770E-02	FAIL ABUN
HF-181	-1.010E-02	4.414E-02	3.751E-02	2.252E-02	NOT IDENT.
W-181	-1.234E-01	4.389E-01	3.968E-01	2.239E-01	NOT IDENT.
TA-182	-6.454E-02	2.451E-01	2.019E-01	1.251E-01	FAIL ABUN
RE-183	6.724E-02	1.149E-01	1.026E-01	5.864E-02	FAIL ABUN
RE-184	-3.754E-02	2.474E-01	2.088E-01	1.262E-01	NOT IDENT.
OS-185	-1.835E-02	4.564E-02	3.730E-02	2.329E-02	NOT IDENT.
RE-188	1.454E-01	1.774E-01	1.599E-01	9.049E-02	NOT IDENT.
W-188	-1.832E+00	8.640E+00	6.620E+00	4.408E+00	NOT IDENT.
IR-192	-8.502E-03	3.382E-02	2.961E-02	1.725E-02	FAIL ABUN
AU-195	-1.692E-01	2.348E-01	2.045E-01	1.198E-01	FAIL ABUN
TL-200	2.533E+02	4.461E+02	0.000E+00	2.276E+02	SHORT HLIF
TL-201	-7.874E-01	7.306E+00	6.274E+00	3.727E+00	NOT IDENT.
TL-202	4.353E-02	7.039E-02	6.349E-02	3.591E-02	NOT IDENT.
HG-203	6.056E-02	4.692E-02	3.941E-02	2.394E-02	NOT IDENT.
BI-207	2.844E-02	5.554E-02	4.939E-02	2.834E-02	FAIL ABUN
TL-207	2.643E-01	7.545E-01	5.958E-01	3.850E-01	FAIL ABUN
PO-209	-8.545E+00	8.103E+00	6.313E+00	4.134E+00	NOT IDENT.
BI-210	4.746E+00	5.634E+00	5.314E+00	2.874E+00	NOT IDENT.
PB-210	4.746E+00	5.634E+00	5.314E+00	2.874E+00	NOT IDENT.
PO-210	4.746E+00	5.631E+00	5.314E+00	2.873E+00	NOT IDENT.
PB-211	-1.698E+00	1.442E+00	7.883E-01	7.358E-01	NOT IDENT.
BI-212	7.090E-01	4.284E-01	3.426E-01	2.186E-01	FAIL ABUN
PO-215	2.643E-01	7.545E-01	5.958E-01	3.850E-01	FAIL ABUN
RN-219	2.787E-01	4.200E-01	3.797E-01	2.143E-01	FAIL ABUN
RN-220	-2.460E+00	2.659E+01	2.258E+01	1.357E+01	NOT IDENT.
RA-223	2.643E-01	7.545E-01	5.958E-01	3.850E-01	FAIL ABUN
AC-227	2.991E-01	4.025E-01	3.533E-01	2.054E-01	FAIL ABUN
TH-227	2.991E-01	4.035E-01	3.533E-01	2.059E-01	FAIL ABUN
TH-229	-1.164E-01	5.499E-01	4.712E-01	2.806E-01	FAIL ABUN
PA-231	-1.307E+00	1.588E+00	1.356E+00	8.104E-01	FAIL ABUN
TH-231	2.643E-01	7.545E-01	5.958E-01	3.850E-01	FAIL ABUN
U-231	2.003E-01	1.253E+00	9.948E-01	6.393E-01	FAIL ABUN
PA-233	8.537E-03	6.334E-02	5.664E-02	3.231E-02	FAIL ABUN
PA-234	4.722E-02	3.408E-01	2.958E-01	1.739E-01	FAIL ABUN
PA-234M	3.687E-01	5.102E+00	4.386E+00	2.603E+00	NOT IDENT.
TH-234	2.296E+00	1.669E+00	1.526E+00	8.514E-01	FAIL ABUN
U-235	-2.748E-02	2.228E-01	1.915E-01	1.137E-01	FAIL ABUN
NP-236	-4.001E-02	8.535E-02	7.321E-02	4.355E-02	NOT IDENT.
U-238	2.296E+00	1.669E+00	1.526E+00	8.514E-01	FAIL ABUN
NP-239	-1.596E-01	1.946E-01	1.672E-01	9.929E-02	FAIL ABUN
AM-241	-3.142E-01	2.040E-01	1.731E-01	1.041E-01	NOT IDENT.
CM-243	-3.211E-02	1.046E-01	9.157E-02	5.339E-02	FAIL ABUN
AM-246	2.250E-02	1.614E-01	1.387E-01	8.234E-02	NOT IDENT.
CM-247	2.080E-02	3.757E-02	3.386E-02	1.917E-02	FAIL ABUN
CF-249	-2.618E-02	4.203E-02	3.549E-02	2.144E-02	NOT IDENT.
CF-251	-1.041E-01	1.301E-01	1.091E-01	6.636E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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46.50	300.8419
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52.97	334.4345
53.15	340.0206
53.44	351.1604
54.07	354.2781
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56.28	358.3299
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57.53	380.2326
57.53	380.2334
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57.98	374.0582
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59.32	432.1016
59.40	432.1561
59.54	459.0364
59.72	470.2538
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61.10	434.2352
61.14	435.1880
61.30	435.2965
63.00	401.1504
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63.29	403.1851
63.58	403.3635
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65.12	476.9629
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65.20	477.0195
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66.72	507.9767
66.83	508.0618
66.91	521.1986
67.20	498.0589
67.20	498.0589
67.75	476.9499
67.85	477.0200
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68.90	442.1525
69.30	440.9085
69.67	460.6518
70.82	462.9099
70.82	462.9099
70.83	462.9174
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72.87	474.8033
72.87	474.8033
74.67	469.3805
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74.81	469.4715
74.81	469.4715
74.81	469.4715
74.81	469.4715
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74.81	469.4715
74.97	469.5739
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75.70	470.0440
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77.11	470.9465

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77.11	470.9465
77.11	470.9465
77.11	470.9465
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80.30	482.6627
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83.78	477.2073
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86.94	571.2689
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88.36	453.8272
88.47	453.8902
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92.38	422.0619
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94.00	390.3570
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94.67	399.9709
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94.90	398.5304
94.90	398.5304
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98.44	378.1732
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99.55	365.4356
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105.31	382.5494
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111.00	385.9377
111.76	385.2661
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154.21	343.8208
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172.10	306.2359
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176.60	317.8481
181.06	303.1941
184.41	361.4176
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236.00	238.4134
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238.63	266.7101
238.63	266.7101
238.63	266.7101
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241.98	267.3015
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252.85	220.4483
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256.20	196.4944
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269.46	177.3033
269.46	177.3033
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338.28	159.2124
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513.99	104.1684
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602.71	92.0340
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609.31	78.3234
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911.07	61.9293
911.07	61.9293
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969.11	56.0837
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1120.29	66.1370
1120.29	66.1370
1120.29	66.1370
1120.51	66.1396
1121.28	66.1504
1124.00	0.0000
1129.67	77.6543
1131.51	0.0000
1147.95	0.0000
1167.94	79.9965
1173.22	61.8414
1175.09	79.1077
1177.93	86.2590
1189.05	80.3630
1204.90	75.5296
1205.75	0.0000
1213.00	89.9730
1221.42	92.1826
1230.97	96.7641
1235.34	51.0676
1236.41	0.0000
1238.25	81.0519
1246.25	68.9792
1260.41	0.0000
1271.85	56.9224
1274.45	79.7321
1274.54	79.7352
1291.56	36.3672
1298.22	0.0000
1312.09	44.8634
1325.50	35.5675
1325.50	35.5675
1332.49	31.4270
1333.61	32.4809
1360.21	29.4902
1362.66	0.0000
1365.15	29.5176
1368.21	33.7552
1368.53	0.0000
1376.25	27.4684
1384.27	19.0459
1394.10	26.5015
1395.20	20.1458
1407.95	36.1361
1434.06	28.8369
1436.60	30.9871
1457.56	0.0000
1460.81	27.5997
1489.15	22.6560
1509.49	9.7449
1596.49	22.6147
1620.62	8.5153
1678.03	0.0000
1691.02	9.5728
1691.02	9.5728
1706.46	0.0000
1750.46	0.0000
1764.49	16.9513
1764.49	16.9513
1764.49	16.9513
1764.49	16.9513
1770.23	13.5732
1771.40	23.2726
1791.20	0.0000
1808.65	6.8276

1836.01 6.8564

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799003

Total Uranium Activity	6.8183E+00	ug/g
Total Uranium Counting Unc.	4.9657E+00	ug/g
Total Uranium Tpu	2.5335E-06	ug/g
Total Uranium Mda	4.5417E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799003      *
*   ANALYST       : RXF2                      DETECTOR    : GAM23           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 14:47:09.44    SAMPLE ALQT:  140.023 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.933E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.468E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.112E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.512E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:06:11.85

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799004.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:05:43
Sample ID         : G245799004           Sample quantity  : 1.43742E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.76  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.27*	2278	1382	1.07	126.79	122	9	3.16E-01	3.6	
2	4	74.74	568	1439	1.48	149.71	144	16	7.89E-02	12.9	3.03E+00
3	4	77.20	813	1110	1.25	154.62	144	16	1.13E-01	7.7	
4	0	87.18*	233	1163	1.13	174.57	172	6	3.24E-02	24.1	
5	3	92.62*	5831	1368	1.17	185.43	181	14	8.10E-01	1.7	2.06E+00
6	3	94.66	238	1193	1.43	189.52	181	14	3.30E-02	42.9	
7	0	98.67	413	938	1.20	197.53	194	9	5.73E-02	14.3	
8	0	113.09*	373	1077	1.05	226.34	222	10	5.18E-02	17.5	
9	0	143.79*	200	602	1.10	287.68	284	8	2.78E-02	22.8	
10	0	163.60	177	561	1.87	327.25	323	9	2.46E-02	25.3	
11	0	185.80*	1204	719	1.22	371.62	366	11	1.67E-01	5.3	
12	0	209.66	176	521	1.19	419.28	415	10	2.44E-02	25.5	
13	2	238.70*	1495	384	1.28	477.31	469	25	2.08E-01	3.5	1.21E+00
14	2	241.75	347	422	1.71	483.41	469	25	4.82E-02	14.7	
15	0	258.64	93	330	1.55	517.16	513	9	1.29E-02	36.7	
16	0	270.09*	121	388	1.28	540.05	535	10	1.68E-02	32.3	
17	0	295.23*	507	397	1.18	590.27	583	13	7.05E-02	9.4	
18	0	300.36*	150	299	1.51	600.54	596	11	2.08E-02	24.2	
19	0	338.16*	346	351	1.67	676.07	670	12	4.81E-02	12.4	
20	0	351.86*	863	379	1.40	703.44	695	15	1.20E-01	6.1	
21	0	409.47	47	183	0.78	818.59	814	8	6.54E-03	52.0	
22	0	463.26	108	216	1.15	926.09	919	12	1.50E-02	28.8	
23	0	510.77*	109	321	1.64	1021.04	1014	16	1.51E-02	42.4	
24	0	583.22*	494	269	1.75	1165.85	1158	17	6.86E-02	9.1	
25	0	609.31*	605	274	1.71	1218.00	1210	17	8.40E-02	7.6	
26	0	661.78	141	182	1.80	1322.89	1315	14	1.96E-02	21.9	
27	0	727.27*	188	122	2.43	1453.80	1448	14	2.61E-02	14.6	
28	0	766.84	292	194	1.58	1532.91	1524	18	4.06E-02	12.6	
29	0	786.23	76	98	1.16	1571.67	1567	10	1.05E-02	27.1	
30	0	795.08	62	159	1.85	1589.37	1585	13	8.61E-03	44.1	
31	0	860.34	120	88	2.74	1719.84	1713	14	1.67E-02	18.9	
32	0	911.30*	364	98	2.06	1821.71	1814	15	5.05E-02	8.2	
33	0	969.44*	167	192	1.83	1937.96	1930	14	2.32E-02	19.9	
34	0	1001.22*	434	101	2.03	2001.51	1994	15	6.03E-02	7.1	
35	0	1121.14*	122	124	2.11	2241.30	2236	15	1.70E-02	22.8	
36	0	1460.81*	2352	63	2.48	2920.65	2908	25	3.27E-01	2.3	
37	0	1764.59*	125	24	3.13	3528.37	3516	24	1.73E-02	14.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 17:06:15

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799004.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : RXF2
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:05:43
Sample ID         : G245799004           Sample quantity  : 143.74 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA22              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.76   0.0%
Peak Width (FWHM):      3.00             Confidence level :     5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.016E+01	3.085E+00	4.233E-01	3.878E-02	71.247
NB-95	+	765.79	*	2.811E-01	7.722E-02	5.732E-02	6.268E-03	4.905
CD-109	+	88.03	*	2.240E+00	1.102E+00	1.763E+00	1.673E-01	1.271
SN-126	+	64.28		1.431E+01	2.321E+00	8.361E-01	1.214E-01	17.114
	+	86.94		9.154E-01	5.831E-01	7.114E-01	2.954E-01	1.287
	+	87.57	*	2.202E-01	1.083E-01	1.676E-01	1.583E-02	1.314
BA-137M	+	661.65	*	1.143E-01	5.158E-02	5.062E-02	5.338E-03	2.258
CS-137	+	661.65	*	1.208E-01	5.453E-02	5.351E-02	5.650E-03	2.258
LU-177	+	112.95		8.560E+00	3.088E+00	2.832E+00	2.354E-01	3.023
	+	208.36	*	2.787E+00	1.456E+00	1.820E+00	2.055E-01	1.531
TL-208		277.35		4.650E-01	3.465E-01	5.705E-01	9.406E-02	0.815
	+	510.84		3.062E-01	2.629E-01	1.738E-01	2.265E-02	1.762
	+	583.14	*	3.898E-01	8.239E-02	5.133E-02	5.566E-03	7.594
	+	860.37		8.601E-01	3.402E-01	3.695E-01	4.306E-02	2.328
BI-211		72.87		4.834E+00	3.697E+00	5.599E+00	4.482E-01	0.863
	+	351.07	*	3.226E+00	5.417E-01	2.716E-01	3.169E-02	11.878
BI-212	+	727.18	*	1.245E+00	3.919E-01	4.094E-01	4.890E-02	3.042
	+	785.46		3.198E+00	1.771E+00	2.138E+00	2.350E-01	1.496
		1620.62		6.463E-01	9.470E-01	1.683E+00	1.468E-01	0.384
PB-212	+	74.81		2.253E+00	6.459E-01	5.918E-01	7.343E-02	3.806
	+	77.11		1.822E+00	3.206E-01	3.370E-01	2.818E-02	5.406
	+	87.30		1.018E+00	5.113E-01	7.772E-01	1.067E-01	1.310
	+	238.63	*	1.304E+00	1.951E-01	8.152E-02	1.077E-02	16.001
	+	300.09		1.937E+00	9.777E-01	9.615E-01	1.402E-01	2.015
PO-212	+	74.81		2.253E+00	6.459E-01	5.918E-01	7.343E-02	3.806
	+	77.11		1.822E+00	3.206E-01	3.370E-01	2.818E-02	5.406
	+	87.30		1.018E+00	5.113E-01	7.772E-01	1.067E-01	1.310
		115.19		8.086E+00	4.170E+00	6.287E+00	5.208E-01	1.286
	+	238.63	*	1.304E+00	1.951E-01	8.152E-02	1.077E-02	16.001
	+	300.09		1.937E+00	9.777E-01	9.615E-01	1.402E-01	2.015
BI-214	+	609.31	*	8.951E-01	1.717E-01	9.416E-02	1.095E-02	9.505
	+	1120.29		9.011E-01	4.224E-01	3.611E-01	3.990E-02	2.495
	+	1764.49		1.202E+00	3.658E-01	2.088E-01	1.740E-02	5.756
PB-214	+	74.81		3.881E+00	1.091E+00	1.020E+00	1.124E-01	3.806

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.123E+00	5.989E-01	5.777E-01	6.535E-02	5.406
	+	87.30		1.745E+00	8.689E-01	1.331E+00	1.620E-01	1.310
	+	241.98		1.816E+00	5.889E-01	4.902E-01	6.741E-02	3.706
	+	295.21		1.156E+00	2.764E-01	1.864E-01	2.775E-02	6.199
	+	351.92	*	1.122E+00	1.973E-01	9.464E-02	1.206E-02	11.856
PO-214	+	74.81		3.881E+00	1.091E+00	1.020E+00	1.124E-01	3.806
	+	77.11		3.123E+00	5.989E-01	5.777E-01	6.535E-02	5.406
	+	87.30		1.745E+00	8.689E-01	1.331E+00	1.620E-01	1.310
	+	241.98		1.816E+00	5.889E-01	4.902E-01	6.741E-02	3.706
	+	295.21		1.156E+00	2.764E-01	1.864E-01	2.775E-02	6.199
	+	351.92	*	1.122E+00	1.973E-01	9.464E-02	1.206E-02	11.856
PO-216	+	74.81		2.253E+00	6.459E-01	5.918E-01	7.343E-02	3.806
	+	77.11		1.822E+00	3.206E-01	3.370E-01	2.818E-02	5.406
	+	87.30		1.018E+00	5.113E-01	7.772E-01	1.067E-01	1.310
	+	238.63	*	1.304E+00	1.951E-01	8.152E-02	1.077E-02	16.001
	+	300.09		1.937E+00	9.777E-01	9.615E-01	1.402E-01	2.015
PO-218	+	74.81		3.881E+00	1.091E+00	1.020E+00	1.124E-01	3.806
	+	77.11		3.123E+00	5.989E-01	5.777E-01	6.535E-02	5.406
	+	87.30		1.745E+00	8.689E-01	1.331E+00	1.620E-01	1.310
	+	241.98		1.816E+00	5.889E-01	4.902E-01	6.741E-02	3.706
	+	295.21		1.156E+00	2.764E-01	1.864E-01	2.775E-02	6.199
	+	351.92	*	1.122E+00	1.973E-01	9.464E-02	1.206E-02	11.856
RA-224	+	240.98	*	3.444E+00	1.100E+00	9.267E-01	1.160E-01	3.716
RA-226	+	609.31	*	8.951E-01	1.717E-01	9.416E-02	1.095E-02	9.505
	+	1120.29		9.011E-01	4.224E-01	3.611E-01	3.990E-02	2.495
	+	1764.49		1.202E+00	3.658E-01	2.088E-01	1.740E-02	5.756
AC-228	+	338.32		1.435E+00	7.005E-01	3.252E-01	1.368E-01	4.413
	+	911.07	*	1.231E+00	2.595E-01	1.649E-01	2.185E-02	7.462
	+	969.11		9.914E-01	4.610E-01	3.533E-01	8.532E-02	2.806
RA-228	+	338.32		1.435E+00	7.005E-01	3.252E-01	1.368E-01	4.413
	+	911.07	*	1.231E+00	2.595E-01	1.649E-01	2.185E-02	7.462
	+	969.11		9.914E-01	4.610E-01	3.533E-01	8.532E-02	2.806
TH-228	+	74.81		2.287E+00	6.204E-01	6.008E-01	4.950E-02	3.806
	+	77.11		1.849E+00	3.255E-01	3.421E-01	2.861E-02	5.406
	+	87.30		1.034E+00	5.087E-01	7.890E-01	7.426E-02	1.310
	+	238.63	*	1.324E+00	1.980E-01	8.276E-02	1.093E-02	16.001
	+	300.09		1.967E+00	1.517E+00	9.761E-01	5.872E-01	2.015
TH-230	+	609.31	*	8.950E-01	1.717E-01	9.416E-02	1.095E-02	9.505
	+	1120.29		9.011E-01	4.224E-01	3.611E-01	3.990E-02	2.495
	+	1764.49		1.202E+00	3.658E-01	2.088E-01	1.740E-02	5.756
TH-232	+	338.32		1.435E+00	3.940E-01	3.252E-01	3.868E-02	4.413
	+	911.07	*	1.231E+00	2.595E-01	1.649E-01	2.185E-02	7.462
	+	969.11		9.914E-01	4.610E-01	3.533E-01	8.532E-02	2.806
PA-234M	+	766.42		7.440E+01	4.245E+01	1.518E+01	7.770E+00	4.901
	+	1001.03	*	5.239E+01	9.582E+00	5.289E+00	6.061E-01	9.906
TH-234	+	63.29	*	3.615E+01	6.823E+00	2.278E+00	3.965E-01	15.871
	+	92.38		3.584E+01	6.675E+00	1.063E+00	1.947E-01	33.724
U-234	+	609.31	*	8.950E-01	1.717E-01	9.416E-02	1.095E-02	9.505
	+	1120.29		9.011E-01	4.224E-01	3.611E-01	3.990E-02	2.495

Sample ID : G245799004 Acquisition date : 10-FEB-2010 15:05:43

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1764.49		1.202E+00	3.658E-01	2.088E-01	1.740E-02	5.756
U-235		89.95		3.117E-01	2.062E+00	2.356E+00	7.318E-01	0.132
	+	93.35		4.308E+01	1.223E+01	1.270E+00	3.576E-01	33.923
		105.00		6.072E-01	1.132E+00	1.819E+00	5.422E-01	0.334
	+	143.76	*	5.959E-01	2.916E-01	3.306E-01	5.832E-02	1.802
	+	163.35		1.226E+00	6.654E-01	7.326E-01	1.435E-01	1.673
	+	185.71		7.655E-01	1.144E-01	6.855E-02	7.178E-03	11.168
		205.31		5.718E-01	5.808E-01	8.476E-01	1.726E-01	0.675
NP-237	+	86.50	*	6.466E-01	3.450E-01	4.867E-01	1.102E-01	1.329
	+	95.87		2.996E+00	2.676E+00	1.550E+00	3.834E-01	1.932
U-238	+	63.29	*	3.615E+01	6.823E+00	2.278E+00	3.965E-01	15.871
	+	92.38		3.584E+01	3.480E+00	1.063E+00	9.682E-02	33.724
AM-243	+	74.67	*	3.652E-01	9.899E-02	9.621E-02	7.842E-03	3.796
	+	86.72		2.425E+01	1.193E+01	1.896E+01	1.772E+00	1.279
		117.66		-4.886E-01	4.362E+00	6.132E+00	5.065E-01	-0.080
		142.18		3.075E+01	1.998E+01	3.107E+01	2.743E+00	0.990
ANH-511	+	511.00	*	6.613E-02	5.651E-02	3.755E-02	3.762E-03	1.761

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	9.063E-02	2.813E-01	4.618E-01	4.819E-02	0.196
NA-22		1274.54	*	-1.002E-02	3.668E-02	5.958E-02	5.134E-03	-0.168
NA-24		1368.53	*	-2.797E-01	3.668E-02	Half-Life too short		
AL-26		1129.67		-3.131E-01	1.686E+00	2.276E+00	1.982E-01	-0.138
		1808.65	*	2.301E-02	2.410E-02	4.409E-02	3.605E-03	0.522
TI-44		67.85		-1.764E-02	5.059E-02	7.884E-02	6.018E-03	-0.224
	+	78.38	*	3.362E-01	5.917E-02	7.380E-02	6.257E-03	4.555
SC-46		889.25	*	-1.947E-02	3.326E-02	5.306E-02	5.939E-03	-0.367
	+	1120.51		1.543E-01	7.159E-02	9.762E-02	8.630E-03	1.580
V-48		944.10		-1.067E+00	7.769E-01	1.153E+00	1.251E-01	-0.925
		983.50	*	5.970E-02	5.831E-02	1.016E-01	1.065E-02	0.588
		1312.09		4.115E-02	6.293E-02	1.089E-01	9.593E-03	0.378
CR-51		320.08	*	2.391E-01	3.263E-01	5.589E-01	7.237E-02	0.428
MN-52		744.21		2.327E-01	2.218E-01	3.781E-01	4.108E-02	0.615
		848.13		-1.473E+00	5.556E+00	9.105E+00	1.014E+00	-0.162
		935.52		2.472E-01	2.094E-01	3.675E-01	4.013E-02	0.673
		1246.25		-3.530E+00	5.997E+00	9.571E+00	8.091E-01	-0.369
		1333.61		-1.022E+00	3.864E+00	6.220E+00	5.547E-01	-0.164
		1434.06	*	4.174E-02	1.840E-01	3.076E-01	2.749E-02	0.136
MN-54		834.83	*	-7.066E-03	3.242E-02	5.346E-02	5.939E-03	-0.132
CO-56		846.75	*	-3.630E-02	3.314E-02	5.118E-02	5.698E-03	-0.709
		977.42		1.040E-01	2.546E+00	3.834E+00	4.043E-01	0.027
		1037.82		-1.366E-02	2.596E-01	4.227E-01	4.359E-02	-0.032
		1175.09		8.946E-02	1.916E+00	3.205E+00	2.581E-01	0.028
		1238.25		1.245E-01	7.511E-02	1.343E-01	1.163E-02	0.928
		1360.21		2.891E-01	7.967E-01	1.350E+00	1.206E-01	0.214
		1771.40		-4.035E-02	1.890E-01	2.512E-01	2.087E-02	-0.161

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	3.579E-03	2.670E-02	4.250E-02	3.505E-03	0.084
		136.48		-1.323E-01	2.059E-01	3.416E-01	3.170E-02	-0.387
CO-58		810.76	*	-2.962E-02	3.071E-02	4.800E-02	5.315E-03	-0.617
FE-59	+	142.65		7.688E+00	3.575E+00	4.906E+00	4.341E-01	1.567
		192.34		-3.776E-01	8.625E-01	1.399E+00	2.077E-01	-0.270
		1099.22	*	-1.070E-02	7.546E-02	1.214E-01	1.190E-02	-0.088
		1291.56		3.014E-02	1.036E-01	1.745E-01	1.720E-02	0.173
CO-60		1173.22		1.854E-02	3.734E-02	6.404E-02	5.150E-03	0.290
		1332.49	*	-5.366E-04	3.063E-02	5.040E-02	4.494E-03	-0.011
ZN-65		1115.52	*	5.871E-02	8.378E-02	1.231E-01	1.098E-02	0.477
GE-68		1077.35	*	1.622E-01	9.812E-01	1.616E+00	1.523E-01	0.100
AS-73		53.44	*	-6.219E-02	8.884E-01	1.463E+00	1.105E-01	-0.043
AS-74		595.88	*	-1.530E-02	8.156E-02	1.340E-01	1.388E-02	-0.114
		634.78		-1.477E-01	2.907E-01	4.645E-01	4.868E-02	-0.318
SE-75		66.05		-3.800E+00	5.499E+00	7.885E+00	7.523E-01	-0.482
		96.73		2.401E+00	1.227E+00	1.480E+00	2.037E-01	1.622
		121.11		2.042E-02	1.409E-01	2.245E-01	2.454E-02	0.091
		136.00		-1.766E-02	3.876E-02	6.470E-02	5.615E-03	-0.273
		198.60		4.540E-01	1.745E+00	2.831E+00	3.309E-01	0.160
		264.65	*	9.662E-03	4.775E-02	6.304E-02	8.484E-03	0.153
		279.53		5.093E-02	9.719E-02	1.584E-01	2.249E-02	0.321
		303.91		-1.041E-01	1.954E+00	2.850E+00	4.343E-01	-0.037
		400.65		1.107E-01	2.226E-01	3.729E-01	4.365E-02	0.297
BR-77	+	87.88		4.857E+02	2.390E+02	3.740E+02	3.545E+01	1.299
		200.40		2.242E+01	1.567E+02	2.587E+02	2.845E+01	0.087
	+	239.00		2.102E+02	2.999E+01	2.942E+01	3.661E+00	7.144
		249.79		-7.480E+00	6.966E+01	9.769E+01	1.256E+01	-0.077
		281.68		-8.379E+01	8.182E+01	1.236E+02	1.722E+01	-0.678
		297.23		3.563E+02	8.903E+01	1.051E+02	1.414E+01	3.389
		303.76		-4.162E-01	1.673E+02	2.448E+02	3.238E+01	-0.002
		439.47		5.200E+01	1.200E+02	1.995E+02	1.920E+01	0.261
		484.57		3.334E+01	2.004E+02	3.261E+02	3.224E+01	0.102
		520.65	*	3.215E+00	8.608E+00	1.441E+01	1.450E+00	0.223
		574.64		-1.704E+02	1.918E+02	2.779E+02	2.860E+01	-0.613
		578.91		6.603E+01	8.171E+01	1.234E+02	1.272E+01	0.535
		585.48		1.467E+03	2.687E+02	4.129E+02	4.265E+01	3.554
		755.35		1.302E+02	1.395E+02	2.375E+02	2.590E+01	0.548
		817.79		-1.149E+01	1.051E+02	1.745E+02	1.932E+01	-0.066
SR-82		698.33		-4.900E+00	2.917E+01	4.720E+01	5.050E+00	-0.104
		776.49	*	-9.501E-02	3.695E-01	5.590E-01	6.131E-02	-0.170
		1395.20		-5.570E+00	8.144E+00	1.240E+01	1.109E+00	-0.449
RB-83		520.41	*	2.770E-02	5.709E-02	9.604E-02	9.665E-03	0.288
		529.64		1.722E-04	8.587E-02	1.439E-01	1.454E-02	0.001
		552.65		-4.168E-02	1.558E-01	2.562E-01	2.615E-02	-0.163
RB-84		881.50	*	5.340E-02	6.078E-02	1.055E-01	1.180E-02	0.506
KR-85		513.99	*	1.706E+01	7.743E+00	1.194E+01	1.198E+00	1.430
SR-85		513.99	*	8.750E-02	3.970E-02	6.121E-02	6.141E-03	1.430
RB-86		1076.63	*	1.321E-01	6.369E-01	1.052E+00	9.923E-02	0.126
Y-88		898.02		-3.076E-02	3.437E-02	5.341E-02	6.001E-03	-0.576

---- Non-Identified Nuclides ----

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		1836.01	*	3.677E-03	2.486E-02	4.164E-02	3.367E-03	0.088
ZR-88		392.90	*	-9.679E-03	2.645E-02	4.274E-02	3.979E-03	-0.226
Y-91		1204.90	*	-5.545E+00	1.645E+01	2.686E+01	2.209E+00	-0.206
NB-94		702.63	*	9.743E-03	2.844E-02	4.726E-02	5.065E-03	0.206
		871.10		1.154E-02	2.785E-02	4.741E-02	5.296E-03	0.244
NB-95M		235.69	*	2.415E-01	1.313E-01	1.966E-01	2.599E-02	1.228
ZR-95		724.18		1.858E-01	9.356E-02	1.467E-01	1.673E-02	1.266
		756.15	*	5.950E-02	6.159E-02	1.029E-01	1.194E-02	0.578
NB-97		657.90	*	1.395E-02	6.159E-02	Half-Life too short		
		1024.50		-1.078E+00	6.159E-02	Half-Life too short		
ZR-97		254.15		3.135E+00	6.159E-02	Half-Life too short		
		355.39		2.432E+00	6.159E-02	Half-Life too short		
		507.63	*	5.073E+00	6.159E-02	Half-Life too short		
		602.52		-3.560E+00	6.159E-02	Half-Life too short		
		1021.30		-2.685E+00	6.159E-02	Half-Life too short		
		1147.95		-5.010E-01	6.159E-02	Half-Life too short		
		1362.66		1.711E+00	6.159E-02	Half-Life too short		
		1750.46		1.404E+00	6.159E-02	Half-Life too short		
MO-99		140.51		-7.826E+00	2.917E+01	4.229E+01	1.173E+01	-0.185
		181.06		5.688E-01	1.898E+01	2.766E+01	5.295E+00	0.021
		366.43		2.104E+01	7.087E+01	1.188E+02	1.260E+01	0.177
		739.58	*	3.037E+00	1.059E+01	1.746E+01	2.891E+00	0.174
		778.00		-2.640E+01	3.380E+01	4.916E+01	5.394E+00	-0.537
TC-99M		140.51	*	-1.172E+10	3.380E+01	Half-Life too short		
RH-101		127.23		-3.758E-03	3.239E-02	5.099E-02	4.262E-03	-0.074
		198.01	*	-1.008E-02	3.206E-02	5.108E-02	5.572E-03	-0.197
		325.23		-9.965E-02	1.957E-01	3.199E-01	3.977E-02	-0.311
RH-102		418.52		8.206E-02	2.364E-01	3.929E-01	3.729E-02	0.209
		475.06	*	1.909E-02	2.539E-02	4.251E-02	4.181E-03	0.449
		631.29		4.405E-02	4.457E-02	7.710E-02	8.074E-03	0.571
		697.49		-2.160E-02	6.590E-02	1.057E-01	1.130E-02	-0.204
	+	766.84		7.073E-01	1.943E-01	2.332E-01	2.551E-02	3.033
		1046.59		4.768E-03	9.496E-02	1.555E-01	1.525E-02	0.031
		1112.84		-2.223E-02	1.947E-01	2.848E-01	2.549E-02	-0.078
RU-103		497.08	*	-1.619E-02	3.622E-02	5.679E-02	8.523E-03	-0.285
	+	610.33		9.667E+00	2.257E+00	2.139E+00	3.780E-01	4.520
RH-106	+	511.85		3.303E-01	2.823E-01	3.374E-01	3.382E-02	0.979
		621.84	*	1.411E-01	2.672E-01	4.523E-01	6.604E-02	0.312
		1050.47		-2.137E+00	1.920E+00	2.870E+00	2.801E-01	-0.745
RU-106	+	511.85		3.303E-01	2.823E-01	3.374E-01	3.382E-02	0.979
		621.84	*	1.411E-01	2.668E-01	4.523E-01	4.724E-02	0.312
		1050.47		-2.137E+00	1.920E+00	2.870E+00	2.801E-01	-0.745
AG-108M		433.93	*	3.289E-03	2.808E-02	4.602E-02	4.556E-03	0.071
		614.37		5.279E-03	3.844E-02	5.517E-02	5.906E-03	0.096
		722.95		3.519E-02	3.853E-02	5.759E-02	6.372E-03	0.611
AG-110M		657.75	*	-9.779E-05	3.530E-02	4.975E-02	5.347E-03	-0.002
		677.61		-7.127E-02	2.666E-01	4.301E-01	4.651E-02	-0.166
		706.67		-1.610E-02	1.773E-01	2.878E-01	3.144E-02	-0.056
		763.93		5.935E-01	2.016E-01	3.179E-01	3.536E-02	1.867

---- Non-Identified Nuclides ----

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		884.67		4.037E-03	4.266E-02	7.119E-02	8.118E-03	0.057
		937.48		9.133E-02	9.343E-02	1.623E-01	1.810E-02	0.563
		1384.27		-2.282E-01	1.428E-01	1.993E-01	1.828E-02	-1.145
IN-111		171.28		1.997E-01	9.571E-01	1.602E+00	1.599E-01	0.125
		245.39	*	4.184E-01	1.107E+00	1.595E+00	2.023E-01	0.262
IN-113M		391.69	*	-4.130E-02	3.864E-02	6.008E-02	5.737E-03	-0.688
SN-113		391.69	*	-4.130E-02	3.864E-02	6.008E-02	5.737E-03	-0.688
IN-114M		190.27	*	1.569E-01	1.830E-01	2.745E-01	2.919E-02	0.572
CD-115		260.90		1.089E+02	1.352E+02	1.974E+02	2.623E+01	0.551
		492.35		9.613E+00	3.108E+01	5.088E+01	5.051E+00	0.189
		527.90	*	-5.054E+00	8.874E+00	1.442E+01	1.456E+00	-0.351
SN-117M		156.02		1.860E-01	2.147E+00	3.605E+00	3.380E-01	0.052
		158.56	*	-4.019E-02	6.026E-02	8.621E-02	8.176E-03	-0.466
SB-122		563.90	*	2.647E+00	1.815E+00	3.193E+00	3.273E-01	0.829
		692.80		6.420E+00	3.786E+01	6.244E+01	6.666E+00	0.103
I-123		159.00	*	-1.372E+00	3.786E+01	Half-Life too short		
		528.96		-1.648E+02	3.786E+01	Half-Life too short		
TE-123M		159.00	*	-6.677E-03	3.078E-02	4.493E-02	4.291E-03	-0.149
I-124		602.71	*	-3.687E-01	6.839E-01	9.353E-01	9.714E-02	-0.394
		722.78		3.581E+00	4.026E+00	6.010E+00	6.486E-01	0.596
		1325.50		1.342E+01	2.889E+01	4.636E+01	4.117E+00	0.289
		1376.25		4.710E+01	2.597E+01	4.778E+01	4.271E+00	0.986
		1509.49		1.762E+01	1.224E+01	2.248E+01	1.998E+00	0.784
		1691.02		4.319E-01	3.129E+00	5.262E+00	4.500E-01	0.082
SB-124		602.71		-2.139E-02	3.967E-02	5.426E-02	5.636E-03	-0.394
		645.85		3.085E-01	4.225E-01	7.206E-01	7.882E-02	0.428
		709.31		-8.517E-01	2.384E+00	3.807E+00	4.089E-01	-0.224
		713.82		-3.195E-02	1.413E+00	2.300E+00	3.140E-01	-0.014
		722.78		3.011E-01	3.386E-01	5.054E-01	5.530E-02	0.596
	+	968.20		1.021E+01	4.199E+00	5.602E+00	5.956E-01	1.822
		1045.16		-6.125E-01	2.116E+00	3.387E+00	3.328E-01	-0.181
		1325.50		1.205E+00	2.595E+00	4.164E+00	3.698E-01	0.289
		1368.21		-6.877E-01	1.454E+00	2.286E+00	3.128E-01	-0.301
		1436.60		2.281E-01	3.005E+00	4.950E+00	4.423E-01	0.046
		1691.02	*	8.567E-03	6.207E-02	1.044E-01	9.284E-03	0.082
SB-125		427.89	*	7.432E-02	7.796E-02	1.326E-01	1.286E-02	0.561
	+	463.38		6.021E-01	3.529E-01	4.440E-01	4.604E-02	1.356
		600.56		8.933E-02	1.653E-01	2.615E-01	2.854E-02	0.342
		635.90		-6.724E-02	2.225E-01	3.530E-01	3.905E-02	-0.191
TE-125M		109.28	*	1.163E+01	1.165E+01	1.709E+01	1.731E+00	0.681
I-126		388.63		1.223E-01	1.703E-01	2.889E-01	2.736E-02	0.423
		666.33	*	1.312E-02	1.752E-01	2.481E-01	2.621E-02	0.053
		753.82		3.735E-01	1.261E+00	2.079E+00	2.266E-01	0.180
SB-126		223.80		-1.781E+00	3.896E+00	6.242E+00	7.406E-01	-0.285
		278.60		2.864E+00	2.250E+00	3.727E+00	5.210E-01	0.768
	+	296.50		1.151E+01	2.658E+00	2.896E+00	3.902E-01	3.975
		414.70		-3.910E-03	7.190E-02	1.063E-01	1.007E-02	-0.037
		415.30		-1.936E-01	5.755E+00	8.858E+00	8.387E-01	-0.022
		555.20		1.445E+00	3.133E+00	5.348E+00	5.463E-01	0.270

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		573.80		-9.434E-01	9.159E-01	1.357E+00	1.396E-01	-0.695
		593.00		-6.685E-01	8.583E-01	1.331E+00	1.378E-01	-0.502
		656.30		-1.766E+00	3.339E+00	4.500E+00	4.740E-01	-0.393
		666.33		5.481E-03	7.321E-02	1.037E-01	1.095E-02	0.053
		675.00		2.099E+00	1.693E+00	2.938E+00	3.115E-01	0.714
		695.00		8.485E-03	6.631E-02	1.091E-01	1.166E-02	0.078
		697.00		-1.888E-02	2.299E-01	3.738E-01	3.998E-02	-0.050
		720.50	*	9.201E-02	1.397E-01	2.050E-01	2.211E-02	0.449
		856.80		3.952E-01	4.621E-01	7.017E-01	7.824E-02	0.563
		989.30		-3.200E-01	9.810E-01	1.572E+00	1.640E-01	-0.204
		1034.80		-5.564E+00	7.297E+00	1.125E+01	1.119E+00	-0.494
		1213.00		2.345E+00	3.925E+00	6.737E+00	5.571E-01	0.348
SB-127		61.10		1.797E+02	7.481E+01	1.154E+02	1.164E+01	1.557
		252.40		-1.169E+00	4.200E+00	6.412E+00	2.766E+00	-0.182
		290.80		-2.025E+00	2.098E+01	3.068E+01	4.720E+00	-0.066
		411.60		1.364E+01	1.255E+01	1.872E+01	3.032E+00	0.729
		444.90		-2.996E+00	8.475E+00	1.352E+01	1.794E+00	-0.222
		473.00		2.502E-01	1.451E+00	2.366E+00	3.243E-01	0.106
		543.00		6.248E+00	1.411E+01	2.403E+01	3.695E+00	0.260
		603.60		-2.865E+00	1.128E+01	1.576E+01	2.173E+00	-0.182
		685.20	*	9.565E-01	1.177E+00	2.001E+00	2.599E-01	0.478
		698.50		-1.952E+00	1.303E+01	2.110E+01	3.596E+00	-0.093
		722.20		9.237E+00	2.780E+01	3.983E+01	5.143E+00	0.232
		783.80		7.511E+00	3.890E+00	5.981E+00	8.473E-01	1.256
XE-127		57.60		-5.889E+00	6.751E+00	1.100E+01	7.898E-01	-0.536
	+	145.22		1.970E+00	9.159E-01	1.217E+00	1.088E-01	1.619
		172.10		-3.702E-02	1.145E-01	1.886E-01	1.887E-02	-0.196
		202.84	*	-2.661E-02	4.564E-02	7.345E-02	8.142E-03	-0.362
		374.96		1.637E-01	1.645E-01	2.824E-01	2.875E-02	0.580
I-131		80.18		-7.319E+00	5.799E+00	8.089E+00	7.042E-01	-0.905
		284.30		4.279E-02	1.321E+00	2.114E+00	2.988E-01	0.020
		364.48	*	-1.207E-02	9.756E-02	1.606E-01	1.779E-02	-0.075
		636.97		-8.187E-01	1.286E+00	1.996E+00	2.172E-01	-0.410
		722.89		5.874E+00	6.491E+00	9.700E+00	1.051E+00	0.606
TE-132		49.72		1.722E+00	2.027E+01	3.411E+01	3.541E+00	0.050
	+	111.76		1.558E+02	5.712E+01	6.419E+01	6.824E+00	2.427
		116.30		2.796E+01	3.149E+01	4.601E+01	4.870E+00	0.608
		228.16	*	7.786E-01	6.544E-01	1.085E+00	1.932E-01	0.718
BA-133		53.15		-1.655E+00	3.849E+00	6.278E+00	4.764E-01	-0.264
		79.62		-1.430E+00	1.619E+00	2.278E+00	3.466E-01	-0.628
		81.00		-2.540E-01	1.334E-01	1.745E-01	2.782E-02	-1.456
		276.40		2.960E-01	3.533E-01	5.592E-01	1.012E-01	0.529
		302.84		1.099E-01	1.351E-01	2.048E-01	3.416E-02	0.537
		356.01	*	-3.754E-03	4.096E-02	5.860E-02	8.756E-03	-0.064
		383.85		-1.959E-03	2.546E-01	4.193E-01	5.611E-02	-0.005
I-133	+	510.53		6.793E-01	2.546E-01	Half-Life too short		
		529.87	*	-1.044E-04	2.546E-01	Half-Life too short		
		706.58		-3.384E-02	2.546E-01	Half-Life too short		
		856.28		1.465E-01	2.546E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		875.33		-1.473E-01	2.546E-01	Half-Life too short		
		1236.41		1.306E+00	2.546E-01	Half-Life too short		
		1298.22		-2.790E-02	2.546E-01	Half-Life too short		
CS-134		475.35		9.854E-01	1.680E+00	2.792E+00	2.746E-01	0.353
		563.23		5.459E-01	3.124E-01	5.542E-01	5.717E-02	0.985
		569.32		-4.354E-02	1.657E-01	2.722E-01	2.822E-02	-0.160
		604.70		-1.449E-02	3.320E-02	4.573E-02	4.761E-03	-0.317
	+	795.84	*	6.856E-02	6.100E-02	7.657E-02	8.476E-03	0.895
		801.93		-1.752E-01	4.172E-01	5.410E-01	5.991E-02	-0.324
		1038.57		2.438E-01	3.262E+00	5.356E+00	5.303E-01	0.046
		1167.94		4.189E-01	2.019E+00	3.411E+00	2.772E-01	0.123
		1365.15		-3.354E-02	1.062E+00	1.687E+00	1.571E-01	-0.020
CS-135		268.24	*	1.752E-01	1.719E-01	2.472E-01	3.575E-02	0.709
I-135		288.45		1.398E+10	1.719E-01	Half-Life too short		
		417.63		5.032E+09	1.719E-01	Half-Life too short		
		546.56		6.143E+09	1.719E-01	Half-Life too short		
		836.80		1.295E+09	1.719E-01	Half-Life too short		
		1038.76		3.857E+09	1.719E-01	Half-Life too short		
		1124.00		1.128E+11	1.719E-01	Half-Life too short		
		1131.51		4.473E+09	1.719E-01	Half-Life too short		
		1260.41	*	-3.105E+09	1.719E-01	Half-Life too short		
		1457.56		1.075E+12	1.719E-01	Half-Life too short		
		1678.03		-3.634E+09	1.719E-01	Half-Life too short		
		1706.46		1.923E+09	1.719E-01	Half-Life too short		
		1791.20		-4.386E+09	1.719E-01	Half-Life too short		
CS-136		66.91		-1.552E-01	8.970E-01	1.310E+00	1.948E-01	-0.118
	+	86.29		2.875E+00	1.441E+00	2.198E+00	2.926E-01	1.308
		153.22		-5.461E-02	6.346E-01	1.062E+00	1.084E-01	-0.051
	+	163.89		2.779E+00	1.437E+00	1.842E+00	1.961E-01	1.509
		176.55		2.125E-01	3.614E-01	6.090E-01	6.444E-02	0.349
		273.65		-6.506E-01	5.003E-01	6.374E-01	9.017E-02	-1.021
		340.57		4.711E-01	1.480E-01	2.259E-01	2.707E-02	2.085
		818.51		-3.535E-04	5.884E-02	9.833E-02	1.090E-02	-0.004
		1048.07	*	-5.962E-02	8.824E-02	1.368E-01	1.384E-02	-0.436
		1235.34		8.239E-01	4.927E-01	8.732E-01	1.020E-01	0.944
CE-139		165.85	*	2.216E-02	3.154E-02	4.753E-02	4.661E-03	0.466
BA-140	+	162.64		1.957E+00	1.010E+00	1.293E+00	1.308E-01	1.513
		304.84		-2.842E-01	1.202E+00	1.730E+00	5.146E-01	-0.164
		423.70		-9.471E-01	1.573E+00	2.439E+00	7.967E-01	-0.388
		537.32	*	-1.015E-01	2.196E-01	3.545E-01	1.190E-01	-0.286
LA-140		328.77		3.093E-01	2.583E-01	4.455E-01	5.627E-02	0.694
		432.53		5.586E-03	1.814E+00	2.933E+00	2.922E-01	0.002
		487.03		7.262E-02	1.175E-01	1.954E-01	2.026E-02	0.372
		751.79		-6.346E-01	1.487E+00	2.347E+00	2.731E-01	-0.270
		815.85		2.437E-02	2.464E-01	4.146E-01	4.916E-02	0.059
		867.82		8.220E-01	1.299E+00	1.950E+00	2.246E-01	0.422
		919.63		-2.172E+00	2.491E+00	3.459E+00	4.389E-01	-0.628
		925.24		9.827E-01	9.343E-01	1.634E+00	1.867E-01	0.602
		1596.49	*	-6.682E-02	7.134E-02	1.077E-01	9.441E-03	-0.620

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-141		145.44	*	7.962E-02	6.971E-02	1.073E-01	9.766E-03	0.742
CE-143		57.37		-1.227E-03	6.971E-02	Half-Life too short		
		231.56		-4.690E-03	6.971E-02	Half-Life too short		
		293.26	*	6.803E-04	6.971E-02	Half-Life too short		
	+	350.59		2.573E-02	6.971E-02	Half-Life too short		
		490.36		-1.188E-03	6.971E-02	Half-Life too short		
		664.57		3.050E-03	6.971E-02	Half-Life too short		
		721.93		3.896E-04	6.971E-02	Half-Life too short		
CE-144		80.11		-3.404E+00	2.666E+00	3.718E+00	3.213E-01	-0.916
		133.54	*	1.119E-01	2.029E-01	3.471E-01	5.388E-02	0.322
PM-144		476.78		1.957E-02	5.940E-02	9.755E-02	1.030E-02	0.201
		618.01		1.355E-03	2.923E-02	4.487E-02	4.771E-03	0.030
		696.49	*	-1.697E-03	2.964E-02	4.828E-02	5.163E-03	-0.035
		778.57		-2.700E+00	2.374E+00	3.231E+00	3.546E-01	-0.836
PR-144		696.49	*	-1.150E-01	2.009E+00	3.271E+00	3.498E-01	-0.035
		1489.15		-7.357E+00	9.024E+00	1.327E+01	1.182E+00	-0.554
PM-146		453.90	*	9.764E-05	3.732E-02	6.060E-02	7.042E-03	0.002
		633.02		2.524E-01	1.149E+00	1.911E+00	7.232E-01	0.132
		735.90		-1.251E-01	1.469E-01	2.000E-01	5.869E-02	-0.626
		747.13		-6.283E-02	8.519E-02	1.316E-01	2.043E-02	-0.477
ND-147		91.11		1.046E+01	1.209E+00	1.023E+00	1.011E-01	10.217
		319.41		2.238E+00	2.918E+00	5.003E+00	6.333E-01	0.447
		439.89		-1.399E+00	4.960E+00	7.957E+00	7.662E-01	-0.176
		531.02	*	2.417E-01	4.631E-01	7.928E-01	1.257E-01	0.305
PM-149		285.90	*	3.087E+00	8.359E+01	1.337E+02	2.529E+01	0.023
EU-152		121.78		3.025E-02	7.664E-02	1.230E-01	1.180E-02	0.246
		244.69		3.997E-01	3.440E-01	5.100E-01	6.457E-02	0.784
		344.27	*	3.837E-02	1.183E-01	1.386E-01	1.666E-02	0.277
		443.98		2.262E-01	8.108E-01	1.337E+00	1.291E-01	0.169
		778.89		-3.809E-01	2.761E-01	3.669E-01	4.026E-02	-1.038
		867.32		7.524E-01	7.474E-01	1.156E+00	1.291E-01	0.651
		964.01		3.761E-01	3.137E-01	4.755E-01	5.074E-02	0.791
		1085.78		-1.008E-01	3.248E-01	5.166E-01	4.813E-02	-0.195
		1112.02		-6.539E-03	2.599E-01	4.040E-01	3.620E-02	-0.016
		1407.95		2.712E-02	1.441E-01	2.401E-01	2.146E-02	0.113
GD-153		69.67		6.272E-01	1.936E+00	2.872E+00	2.229E-01	0.218
		83.37		4.014E+01	1.946E+01	2.941E+01	2.640E+00	1.365
	+	97.43	*	4.410E-01	1.322E-01	1.633E-01	1.436E-02	2.701
		103.18		-1.022E-01	1.262E-01	1.741E-01	1.488E-02	-0.587
EU-154		123.07		4.228E-02	5.379E-02	8.705E-02	9.656E-03	0.486
		247.94		5.865E-02	3.745E-01	5.332E-01	7.925E-02	0.110
		591.81		-3.794E-02	6.192E-01	9.166E-01	1.192E-01	-0.041
		723.30		1.463E-01	1.668E-01	2.481E-01	2.861E-02	0.590
		756.87		2.384E-01	6.964E-01	1.098E+00	1.507E-01	0.217
		873.19		-1.937E-01	2.468E-01	3.873E-01	5.483E-02	-0.500
		996.32		4.929E-01	3.441E-01	5.308E-01	9.911E-02	0.929
		1004.76		1.147E+00	2.948E-01	4.658E-01	6.015E-02	2.461
		1274.45	*	-2.925E-02	1.024E-01	1.661E-01	1.878E-02	-0.176
EU-155		48.70		1.154E+00	2.507E+00	4.261E+00	3.470E-01	0.271

---- Non-Identified Nuclides ----

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		60.01		3.402E+00	6.162E+00	9.320E+00	6.619E-01	0.365
	+	86.54		2.652E-01	1.305E-01	2.035E-01	1.914E-02	1.303
		105.31	*	4.812E-02	1.147E-01	1.859E-01	1.596E-02	0.259
TB-160	+	86.79		7.085E-01	3.486E-01	5.423E-01	5.072E-02	1.306
		197.04		-1.576E-01	5.400E-01	8.608E-01	9.361E-02	-0.183
		215.65		5.838E-02	7.399E-01	1.123E+00	1.297E-01	0.052
		298.57		2.844E-01	1.534E-01	1.760E-01	2.359E-02	1.615
		879.36	*	8.306E-02	1.198E-01	2.063E-01	2.307E-02	0.403
		962.29		5.906E-01	5.368E-01	8.140E-01	8.699E-02	0.726
		966.15		1.103E+00	2.622E-01	4.237E-01	4.513E-02	2.602
		1177.93		-1.402E-01	3.121E-01	5.069E-01	4.090E-02	-0.277
		1271.85		-2.210E-01	5.991E-01	9.668E-01	8.309E-02	-0.229
HO-166M		80.57		-4.084E-01	3.416E-01	4.777E-01	4.151E-02	-0.855
	+	184.41		5.741E-01	8.579E-02	9.046E-02	9.432E-03	6.347
		280.46		-9.708E-02	7.933E-02	1.184E-01	1.654E-02	-0.820
	+	410.95		2.222E-01	2.318E-01	3.814E-01	3.600E-02	0.582
		711.68	*	2.774E-02	5.206E-02	8.726E-02	9.381E-03	0.318
		752.31		-1.133E-01	2.372E-01	3.731E-01	4.064E-02	-0.304
		810.29		-3.201E-02	4.673E-02	7.470E-02	8.258E-03	-0.429
TM-171		51.35		-1.510E+01	3.200E+01	5.297E+01	4.132E+00	-0.285
		52.39		-1.719E+01	1.702E+01	2.729E+01	2.094E+00	-0.630
		59.40		4.385E+01	3.249E+01	5.017E+01	3.546E+00	0.874
		66.72	*	-7.193E+00	3.256E+01	4.748E+01	3.588E+00	-0.151
LU-176	+	88.36		5.223E-01	2.570E-01	4.064E-01	3.843E-02	1.285
		201.83		-3.149E-02	2.849E-02	4.486E-02	4.956E-03	-0.702
		306.84	*	-4.536E-03	2.260E-02	3.419E-02	4.485E-03	-0.133
		401.10		4.667E+00	5.773E+00	9.792E+00	9.175E-01	0.477
LU-177M		52.97		-1.318E+00	1.749E+00	2.827E+00	2.151E-01	-0.466
		54.07		1.992E-01	9.205E-01	1.526E+00	1.143E-01	0.131
		61.30		7.667E+00	2.006E+00	3.169E+00	2.280E-01	2.419
		121.62		1.251E-01	3.920E-01	6.278E-01	5.171E-02	0.199
		147.16		-6.813E-01	6.989E-01	9.924E-01	8.948E-02	-0.687
		171.86		-1.352E-01	4.619E-01	7.612E-01	7.612E-02	-0.178
		218.09		-3.975E-02	8.002E-01	1.305E+00	1.520E-01	-0.030
	+	268.79		1.582E+00	1.044E+00	1.295E+00	1.760E-01	1.222
		319.02		5.708E-02	2.278E-01	3.848E-01	4.876E-02	0.148
		367.43		-3.816E-03	7.593E-01	1.255E+00	1.325E-01	-0.003
		413.65	*	9.829E-02	1.737E-01	2.549E-01	2.411E-02	0.386
HF-181		56.28		-5.877E-01	1.017E+00	1.671E+00	1.217E-01	-0.352
		57.53		-5.764E-01	5.697E-01	9.242E-01	6.643E-02	-0.624
		65.20		3.390E+00	1.177E+00	1.832E+00	1.366E-01	1.850
		133.02		6.592E-02	6.518E-02	1.128E-01	9.616E-03	0.584
		136.25		-2.425E-01	4.513E-01	7.514E-01	6.482E-02	-0.323
		345.85		-1.134E-01	1.880E-01	2.606E-01	3.014E-02	-0.435
		482.03	*	-1.725E-02	3.735E-02	5.876E-02	5.800E-03	-0.294
W-181		56.28		-2.287E-01	3.980E-01	6.540E-01	4.764E-02	-0.350
		57.53		-2.258E-01	2.231E-01	3.620E-01	2.602E-02	-0.624
		65.20	*	1.317E+00	4.572E-01	7.120E-01	5.307E-02	1.850
TA-182		67.75		-4.235E-02	1.208E-01	1.882E-01	1.435E-02	-0.225

---- Non-Identified Nuclides ----

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	+	100.10		1.027E+00	3.080E-01	3.382E-01	2.930E-02	3.037
		152.43		8.472E-02	3.247E-01	5.485E-01	5.061E-02	0.154
		222.10		3.000E-01	3.264E-01	5.457E-01	6.440E-02	0.550
	+	1001.68		2.308E+01	4.060E+00	5.751E+00	5.926E-01	4.013
	+	1121.28		4.261E-01	1.977E-01	2.681E-01	2.368E-02	1.589
		1189.05		-2.422E-01	2.589E-01	4.063E-01	3.304E-02	-0.596
		1221.42	*	-2.885E-02	1.614E-01	2.654E-01	2.207E-02	-0.109
		1230.97		-8.052E-01	4.162E-01	6.063E-01	5.074E-02	-1.328
RE-183		57.98		-1.297E-01	2.328E-01	3.643E-01	2.607E-02	-0.356
		59.32		1.833E-01	1.338E-01	2.067E-01	1.462E-02	0.887
		67.20		-1.225E-01	2.330E-01	3.363E-01	2.552E-02	-0.364
	+	162.32	*	2.862E-01	1.475E-01	1.874E-01	1.808E-02	1.527
	+	208.81		2.502E+00	1.307E+00	1.604E+00	1.813E-01	1.560
		291.72		2.110E-01	9.103E-01	1.353E+00	1.843E-01	0.156
RE-184		57.98		-4.778E-01	8.578E-01	1.342E+00	9.607E-02	-0.356
		59.32		6.750E-01	4.925E-01	7.608E-01	5.381E-02	0.887
		67.20		-4.512E-01	8.584E-01	1.239E+00	9.401E-02	-0.364
		161.27		2.538E-02	3.884E-01	5.729E-01	5.500E-02	0.044
		216.55		9.944E-02	2.462E-01	4.074E-01	4.722E-02	0.244
		252.85	*	4.736E-02	2.307E-01	3.470E-01	4.502E-02	0.137
		318.01		7.510E-02	3.893E-01	6.564E-01	8.344E-02	0.114
		792.07		2.342E-01	1.708E+00	1.489E+00	1.639E-01	0.157
		903.28		-2.004E-02	9.466E-01	1.337E+00	1.493E-01	-0.015
		920.93		-3.678E-01	3.875E-01	5.689E-01	6.277E-02	-0.647
OS-185		59.72		1.523E-01	3.662E-01	5.521E-01	3.909E-02	0.276
		61.14		5.251E-01	2.097E-01	3.284E-01	2.359E-02	1.599
		69.30		5.708E-02	3.455E-01	5.104E-01	3.948E-02	0.112
		592.07		-1.927E-01	2.437E+00	3.729E+00	3.861E-01	-0.052
		646.12	*	2.412E-02	3.657E-02	6.216E-02	6.533E-03	0.388
		717.42		-5.191E-01	7.799E-01	1.219E+00	1.313E-01	-0.426
		874.81		-5.773E-01	4.996E-01	7.634E-01	8.531E-02	-0.756
		880.27		7.185E-01	6.673E-01	1.169E+00	1.307E-01	0.615
RE-188		155.03	*	2.808E-02	1.646E-01	2.771E-01	2.587E-02	0.101
		477.96		3.013E-01	2.709E+00	4.401E+00	4.335E-01	0.068
		633.10		9.468E-01	2.291E+00	3.860E+00	4.044E-01	0.245
W-188	+	63.58		1.453E+03	1.503E+02	1.642E+02	1.206E+01	8.850
		227.08		1.365E+01	1.200E+01	2.011E+01	2.411E+00	0.679
		290.67	*	-1.196E+00	7.235E+00	1.054E+01	1.439E+00	-0.114
IR-192	+	295.96		8.813E-01	2.037E-01	2.231E-01	3.019E-02	3.950
		308.46		5.023E-03	8.076E-02	1.359E-01	1.779E-02	0.037
		316.51	*	1.548E-03	2.987E-02	5.012E-02	6.406E-03	0.031
		468.07		1.374E-03	6.431E-02	8.996E-02	9.306E-03	0.015
		604.41		-2.031E-01	4.437E-01	6.092E-01	8.683E-02	-0.333
		612.46		4.265E+00	9.510E-01	1.483E+00	1.705E-01	2.876
AU-195		65.12		6.909E-01	2.175E-01	3.392E-01	2.527E-02	2.037
		66.83		-2.078E-02	1.077E-01	1.572E-01	1.189E-02	-0.132
	+	75.70		1.182E+00	3.204E-01	4.080E-01	3.361E-02	2.897
	+	98.88	*	1.284E+00	3.850E-01	4.772E-01	4.162E-02	2.691
		129.76		1.731E-03	2.730E+00	4.632E+00	3.903E-01	0.000

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-200		367.94	*	6.400E-06	2.730E+00	Half-Life too short		
		579.30		4.625E-03	2.730E+00	Half-Life too short		
		828.27		4.625E-03	2.730E+00	Half-Life too short		
		1205.75		-2.252E-04	2.730E+00	Half-Life too short		
TL-201		68.90		-1.242E+00	5.260E+00	8.183E+00	6.307E-01	-0.152
		70.82		1.945E+00	3.164E+00	4.725E+00	3.707E-01	0.412
		80.30		-7.859E+00	6.330E+00	8.838E+00	7.656E-01	-0.889
		135.34		-1.019E+01	2.511E+01	4.200E+01	3.610E+00	-0.243
		167.43	*	-2.018E+00	7.442E+00	1.078E+01	1.063E+00	-0.187
TL-202		68.90		-1.114E-01	4.721E-01	7.345E-01	5.660E-02	-0.152
		70.82		1.741E-01	2.832E-01	4.229E-01	3.318E-02	0.412
		80.30		-7.037E-01	5.668E-01	7.913E-01	6.854E-02	-0.889
		439.56	*	3.080E-03	5.856E-02	9.560E-02	9.203E-03	0.032
HG-203		70.83		7.657E-01	1.230E+00	1.832E+00	2.406E-01	0.418
		72.87		9.616E-01	7.417E-01	1.114E+00	1.427E-01	0.863
		82.60		2.168E+00	1.451E+00	2.153E+00	2.996E-01	1.007
		279.20	*	3.162E-02	3.698E-02	6.080E-02	8.605E-03	0.520
BI-207		72.80		2.405E-01	2.148E-01	3.242E-01	2.593E-02	0.742
	+	74.97		6.555E-01	1.777E-01	2.141E-01	1.750E-02	3.062
		84.90		2.821E-01	2.508E-01	3.733E-01	3.412E-02	0.756
		569.67		2.225E-03	2.539E-02	4.245E-02	4.361E-03	0.052
		1063.62	*	3.591E-03	4.380E-02	7.177E-02	6.890E-03	0.050
		1770.23		2.719E-01	4.709E-01	7.169E-01	5.959E-02	0.379
TL-207		81.07		-5.496E-01	2.848E-01	3.859E-01	3.372E-02	-1.424
		83.78		2.978E-01	1.662E-01	2.502E-01	2.257E-02	1.190
	+	94.90		6.955E-01	6.000E-01	5.503E-01	4.919E-02	1.264
		122.32		1.139E-01	1.842E+00	2.926E+00	2.604E-01	0.039
	+	144.24		1.931E+00	9.018E-01	1.250E+00	1.237E-01	1.545
		154.21		1.122E-01	3.804E-01	6.427E-01	6.492E-02	0.175
	+	269.46		3.703E-01	2.446E-01	3.071E-01	4.218E-02	1.206
		323.87	*	-6.667E-01	6.031E-01	9.404E-01	1.869E-01	-0.709
	+	338.28		5.993E+00	1.728E+00	2.042E+00	3.021E-01	2.935
		445.03		-7.215E-01	1.969E+00	3.139E+00	4.034E-01	-0.230
PO-209		260.50		1.484E+01	9.946E+00	1.486E+01	1.972E+00	0.998
		262.80		-1.149E+01	2.758E+01	3.771E+01	5.039E+00	-0.305
		896.60	*	2.566E+00	6.169E+00	1.047E+01	1.173E+00	0.245
BI-210		46.50	*	-4.358E-02	3.532E+00	5.881E+00	5.464E-01	-0.007
PB-210		46.50	*	-4.358E-02	3.532E+00	5.881E+00	5.464E-01	-0.007
PO-210		46.50	*	-4.358E-02	3.532E+00	5.881E+00	4.945E-01	-0.007
PB-211		404.84	*	-4.118E-01	9.771E-01	1.299E+00	8.156E-01	-0.317
		427.08		1.510E+00	1.963E+00	2.933E+00	1.827E+00	0.515
		831.96		-4.990E-01	1.092E+00	1.700E+00	1.072E+00	-0.294
PO-215		81.07		-5.496E-01	2.848E-01	3.859E-01	3.372E-02	-1.424
		83.78		2.978E-01	1.662E-01	2.502E-01	2.257E-02	1.190
	+	94.90		6.955E-01	6.000E-01	5.503E-01	4.919E-02	1.264
		122.32		1.139E-01	1.842E+00	2.926E+00	2.604E-01	0.039
	+	144.24		1.931E+00	9.018E-01	1.250E+00	1.237E-01	1.545
		154.21		1.122E-01	3.804E-01	6.427E-01	6.492E-02	0.175
	+	269.46		3.703E-01	2.446E-01	3.071E-01	4.218E-02	1.206

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-6.667E-01	6.031E-01	9.404E-01	1.869E-01	-0.709
	+	338.28		5.993E+00	1.728E+00	2.042E+00	3.021E-01	2.935
		445.03		-7.215E-01	1.969E+00	3.139E+00	4.034E-01	-0.230
RN-219	+	271.23		4.751E-01	3.149E-01	3.940E-01	5.836E-02	1.206
		401.81	*	2.988E-01	3.553E-01	6.003E-01	9.288E-02	0.498
RN-220		549.76	*	-1.888E+01	2.132E+01	3.380E+01	3.445E+00	-0.559
RA-223		81.07		-5.496E-01	2.848E-01	3.859E-01	3.372E-02	-1.424
		83.78		2.978E-01	1.662E-01	2.502E-01	2.257E-02	1.190
	+	94.90		6.955E-01	6.000E-01	5.503E-01	4.919E-02	1.264
		122.32		1.139E-01	1.842E+00	2.926E+00	2.604E-01	0.039
	+	144.24		1.931E+00	9.018E-01	1.250E+00	1.237E-01	1.545
		154.21		1.122E-01	3.804E-01	6.427E-01	6.492E-02	0.175
	+	269.46		3.703E-01	2.446E-01	3.071E-01	4.218E-02	1.206
		323.87	*	-6.667E-01	6.031E-01	9.404E-01	1.869E-01	-0.709
	+	338.28		5.993E+00	1.728E+00	2.042E+00	3.021E-01	2.935
		445.03		-7.215E-01	1.969E+00	3.139E+00	4.034E-01	-0.230
AC-227		79.80		-1.958E+00	2.075E+00	2.879E+00	6.189E-01	-0.680
		236.00		9.015E-01	2.885E-01	4.142E-01	6.248E-02	2.177
		256.20	*	2.329E-01	4.053E-01	5.849E-01	1.067E-01	0.398
		286.10		4.402E-01	1.393E+00	2.251E+00	3.836E-01	0.196
	+	299.80		3.590E+00	1.881E+00	2.210E+00	4.475E-01	1.625
		304.40		2.444E-01	1.727E+00	2.546E+00	5.341E-01	0.096
		334.20		-1.069E-01	2.219E+00	3.207E+00	6.788E-01	-0.033
TH-227		79.80		-1.958E+00	2.076E+00	2.879E+00	6.269E-01	-0.680
	+	94.00		5.564E+00	4.928E+00	7.794E+00	1.709E+00	0.714
		236.00		9.015E-01	2.847E-01	4.142E-01	5.863E-02	2.177
		256.20	*	2.329E-01	4.059E-01	5.849E-01	1.204E-01	0.398
		286.10		4.402E-01	1.460E+00	2.251E+00	2.272E+00	0.196
	+	299.80		3.590E+00	1.881E+00	2.210E+00	4.475E-01	1.625
		304.40		2.444E-01	1.727E+00	2.546E+00	5.341E-01	0.096
		334.20		-1.069E-01	2.219E+00	3.207E+00	6.788E-01	-0.033
TH-229		85.43		2.789E-01	2.499E-01	3.715E-01	3.417E-02	0.751
	+	88.47		3.006E-01	1.479E-01	2.338E-01	2.208E-02	1.286
	+	100.00		1.066E+00	3.196E-01	3.586E-01	3.109E-02	2.972
		193.63	*	-3.509E-01	4.675E-01	7.491E-01	8.054E-02	-0.468
	+	210.97		1.959E+00	1.024E+00	1.239E+00	1.411E-01	1.581
PA-231		283.67	*	-6.231E-01	1.377E+00	2.148E+00	4.012E-01	-0.290
	+	301.29		1.436E+00	7.306E-01	8.874E-01	1.411E-01	1.618
TH-231		81.07		-5.496E-01	2.848E-01	3.859E-01	3.372E-02	-1.424
		83.78		2.978E-01	1.662E-01	2.502E-01	2.257E-02	1.190
	+	94.90		6.955E-01	6.000E-01	5.503E-01	4.919E-02	1.264
		122.32		1.139E-01	1.842E+00	2.926E+00	2.604E-01	0.039
	+	144.24		1.931E+00	9.018E-01	1.250E+00	1.237E-01	1.545
		154.21		1.122E-01	3.804E-01	6.427E-01	6.492E-02	0.175
	+	269.46		3.703E-01	2.446E-01	3.071E-01	4.218E-02	1.206
		323.87	*	-6.667E-01	6.031E-01	9.404E-01	1.869E-01	-0.709
	+	338.28		5.993E+00	1.728E+00	2.042E+00	3.021E-01	2.935
		445.03		-7.215E-01	1.969E+00	3.139E+00	4.034E-01	-0.230
U-231		84.21		1.194E+01	7.159E+00	1.075E+01	9.746E-01	1.111

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		1.370E+02	1.331E+01	9.311E+00	8.490E-01	14.716
	+	95.87	*	3.402E+00	2.935E+00	2.035E+00	1.807E-01	1.672
		108.00		-2.989E+00	2.606E+00	3.530E+00	2.968E-01	-0.847
PA-233	+	75.28		1.913E+01	5.726E+00	6.357E+00	9.611E-01	3.009
	+	86.59		4.311E+00	2.387E+00	3.308E+00	8.951E-01	1.303
	+	300.12		1.001E+00	5.162E-01	6.185E-01	1.115E-01	1.618
		311.98	*	5.569E-03	5.357E-02	9.018E-02	1.181E-02	0.062
		340.50		2.411E+00	9.018E-01	1.108E+00	2.789E-01	2.176
		398.62		-5.248E-01	1.834E+00	2.965E+00	7.969E-01	-0.177
		415.76		-1.177E-01	1.475E+00	2.339E+00	5.123E-01	-0.050
PA-234	+	63.00		4.213E+01	6.961E+00	4.945E+00	7.325E-01	8.521
	+	94.67		4.962E-01	4.303E-01	4.578E-01	5.785E-02	1.084
	+	98.44		5.202E-01	3.264E-01	1.948E-01	1.087E-01	2.671
	+	99.86		2.697E+00	8.087E-01	9.338E-01	8.101E-02	2.888
		111.00		5.106E-01	2.543E-01	3.754E-01	4.465E-02	1.360
		131.20		-6.011E-03	1.031E-01	1.744E-01	1.477E-02	-0.034
		152.70		9.925E-03	3.146E-01	5.283E-01	9.174E-02	0.019
	+	186.00		2.067E+01	6.927E+00	3.385E+00	1.076E+00	6.106
		226.40		3.045E-01	3.792E-01	6.296E-01	9.817E-02	0.484
		227.20		4.743E-01	4.045E-01	6.784E-01	8.137E-02	0.699
		248.90		-2.220E-01	8.668E-01	1.204E+00	2.930E-01	-0.184
		293.70		4.704E+00	1.216E+00	1.380E+00	2.790E-01	3.410
		369.80		-1.449E-01	7.268E-01	1.189E+00	2.684E-01	-0.122
		568.70		-2.827E-01	8.614E-01	1.410E+00	1.448E-01	-0.200
		569.50		1.775E-02	2.252E-01	3.764E-01	3.866E-02	0.047
		574.00		-1.442E+00	1.319E+00	1.945E+00	2.001E-01	-0.741
		699.00		-7.346E-02	6.117E-01	9.923E-01	1.995E-01	-0.074
		706.10		-9.794E-02	8.855E-01	1.434E+00	6.460E-01	-0.068
		733.00		-4.839E-02	3.596E-01	4.941E-01	1.143E-01	-0.098
		742.81		1.390E+00	1.593E+00	2.208E+00	1.491E+00	0.630
	+	796.30		1.332E+00	1.234E+00	1.498E+00	4.182E-01	0.889
		805.60		7.196E-01	8.476E-01	1.413E+00	4.440E-01	0.509
		819.60		-7.018E-02	9.711E-01	1.615E+00	6.245E-01	-0.043
		826.30		-1.985E-02	6.950E-01	1.159E+00	5.247E-01	-0.017
		831.60		-3.175E-01	5.636E-01	8.761E-01	2.686E-01	-0.362
		876.40		-5.082E-01	8.775E-01	1.118E+00	1.152E+00	-0.455
		880.51		2.412E-01	2.407E-01	4.204E-01	4.702E-02	0.574
		883.24		2.005E-01	2.828E-01	4.311E-01	2.914E-01	0.465
		899.00		-4.383E-01	7.277E-01	1.117E+00	4.948E-01	-0.392
		925.00		9.282E-01	9.704E-01	1.690E+00	1.860E-01	0.549
		926.50		8.518E-02	1.478E-01	2.501E-01	6.547E-02	0.341
		946.00	*	6.317E-02	2.476E-01	4.144E-01	8.237E-02	0.152
		949.00		3.123E-01	3.671E-01	6.347E-01	6.858E-02	0.492
		980.50		4.560E-01	6.027E-01	1.036E+00	1.089E-01	0.440
		1394.10		-5.344E-01	9.421E-01	1.347E+00	8.773E-01	-0.397
NP-236	+	94.67		3.763E-01	3.247E-01	3.488E-01	3.123E-02	1.079
	+	98.44		3.933E-01	1.179E-01	1.472E-01	1.287E-02	2.671
		111.00		3.863E-01	1.895E-01	2.840E-01	2.370E-02	1.360
		160.31	*	7.376E-03	8.582E-02	1.268E-01	1.212E-02	0.058

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		8.989E-01	2.696E-01	3.240E-01	2.816E-02	2.774
		117.00	*	5.628E-02	2.154E-01	3.078E-01	2.544E-02	0.183
	+	209.75		1.974E+00	1.031E+00	1.292E+00	1.465E-01	1.527
		228.18		2.527E-01	2.108E-01	3.537E-01	4.255E-02	0.715
		277.60		2.180E-01	1.662E-01	2.753E-01	3.838E-02	0.792
		334.30		1.516E-02	1.260E+00	1.827E+00	2.204E-01	0.008
AM-241		59.54	*	2.474E-01	1.886E-01	2.907E-01	2.272E-02	0.851
CM-243	+	99.55		9.250E-01	2.774E-01	3.334E-01	2.898E-02	2.774
		103.76	*	7.847E-02	1.129E-01	1.653E-01	1.409E-02	0.475
		117.00		5.790E-02	2.216E-01	3.167E-01	2.618E-02	0.183
	+	209.75		1.946E+00	1.017E+00	1.274E+00	1.445E-01	1.527
		228.18		2.554E-01	2.130E-01	3.574E-01	4.300E-02	0.715
		277.60		2.198E-01	1.675E-01	2.776E-01	3.869E-02	0.792
AM-246		798.80		-7.889E-02	1.469E-01	1.925E-01	2.122E-02	-0.410
		1036.00		-8.809E-02	2.445E-01	3.893E-01	3.866E-02	-0.226
		1062.04		-5.557E-02	1.902E-01	3.037E-01	2.922E-02	-0.183
		1078.86	*	-2.263E-02	1.133E-01	1.817E-01	1.709E-02	-0.125
CM-247		278.00		8.879E-01	6.909E-01	1.144E+00	1.597E-01	0.776
		287.40		1.612E-01	1.168E+00	1.808E+00	2.488E-01	0.089
		402.60	*	1.049E-02	3.382E-02	5.315E-02	4.986E-03	0.197
CF-249		252.85		1.777E-01	8.655E-01	1.302E+00	1.689E-01	0.137
		333.44		-7.513E-02	1.657E-01	2.335E-01	2.825E-02	-0.322
		387.95	*	2.210E-02	3.331E-02	5.638E-02	5.359E-03	0.392
CF-251		176.60	*	7.189E-02	1.245E-01	2.097E-01	2.131E-02	0.343
		227.00		4.146E-01	3.602E-01	6.040E-01	7.240E-02	0.686
		285.00		2.898E-01	1.571E+00	2.529E+00	3.498E-01	0.115

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799004      *
* Acquisition date : 10-FEB-2010 15:05:43 Detector SN#     :               *
* Detector ID        : GAM22               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.76      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799004           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.4374E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.016E+01	3.023E+00	4.254E-01	0.000E+00
NB-95	2.811E-01	7.567E-02	5.845E-02	0.000E+00
CD-109	2.240E+00	1.080E+00	1.883E+00	0.000E+00
SN-126	2.202E-01	1.062E-01	1.790E-01	0.000E+00
BA-137M	1.143E-01	5.055E-02	5.179E-02	0.000E+00
CS-137	1.208E-01	5.344E-02	5.475E-02	0.000E+00
LU-177	2.787E+00	1.427E+00	1.910E+00	0.000E+00
TL-208	3.898E-01	8.075E-02	5.266E-02	0.000E+00
BI-211	3.226E+00	5.309E-01	2.817E-01	0.000E+00
BI-212	1.245E+00	3.840E-01	4.180E-01	0.000E+00
PB-212	1.304E+00	1.912E-01	8.527E-02	0.000E+00
PO-212	1.304E+00	1.912E-01	8.527E-02	0.000E+00
BI-214	8.951E-01	1.682E-01	9.651E-02	0.000E+00
PB-214	1.122E+00	1.934E-01	9.818E-02	0.000E+00
PO-214	1.122E+00	1.934E-01	9.818E-02	0.000E+00
PO-216	1.304E+00	1.912E-01	8.527E-02	0.000E+00
PO-218	1.122E+00	1.934E-01	9.818E-02	0.000E+00
RA-224	3.444E+00	1.078E+00	9.692E-01	0.000E+00
RA-226	8.951E-01	1.682E-01	9.651E-02	0.000E+00
AC-228	1.231E+00	2.543E-01	1.675E-01	0.000E+00
RA-228	1.231E+00	2.543E-01	1.675E-01	0.000E+00
TH-228	1.324E+00	1.941E-01	8.656E-02	0.000E+00
TH-230	8.950E-01	1.682E-01	9.651E-02	0.000E+00
TH-232	1.231E+00	2.543E-01	1.675E-01	0.000E+00
PA-234M	5.239E+01	9.390E+00	5.361E+00	0.000E+00
TH-234	3.615E+01	6.686E+00	2.449E+00	0.000E+00
U-234	8.950E-01	1.682E-01	9.651E-02	0.000E+00
U-235	5.959E-01	2.857E-01	3.495E-01	0.000E+00
NP-237	6.466E-01	3.381E-01	5.199E-01	0.000E+00
U-238	3.615E+01	6.686E+00	2.449E+00	0.000E+00
AM-243	3.652E-01	9.701E-02	1.031E-01	0.000E+00
ANH-511	6.613E-02	5.538E-02	3.864E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	9.063E-02	2.757E-01	4.758E-01	0.000E+00	NOT IDENT.
NA-22	-1.002E-02	3.595E-02	6.006E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.054E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.301E-02	2.361E-02	4.409E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.798E-02	7.900E-02	0.000E+00	FAIL ABUN
SC-46	-1.947E-02	3.259E-02	5.393E-02	0.000E+00	FAIL ABUN
V-48	5.970E-02	5.715E-02	1.030E-01	0.000E+00	NOT IDENT.
CR-51	2.391E-01	3.198E-01	5.810E-01	0.000E+00	NOT IDENT.
MN-52	4.174E-02	1.804E-01	3.092E-01	0.000E+00	NOT IDENT.
MN-54	-7.066E-03	3.177E-02	5.441E-02	0.000E+00	NOT IDENT.
CO-56	-3.630E-02	3.248E-02	5.208E-02	0.000E+00	NOT IDENT.
CO-57	3.579E-03	2.616E-02	4.508E-02	0.000E+00	NOT IDENT.
CO-58	-2.962E-02	3.010E-02	4.889E-02	0.000E+00	NOT IDENT.
FE-59	-1.070E-02	7.396E-02	1.228E-01	0.000E+00	FAIL ABUN
CO-60	-5.366E-04	3.002E-02	5.075E-02	0.000E+00	NOT IDENT.
ZN-65	5.871E-02	8.210E-02	1.245E-01	0.000E+00	NOT IDENT.
GE-68	1.622E-01	9.616E-01	1.635E+00	0.000E+00	NOT IDENT.
AS-73	-6.219E-02	8.706E-01	1.578E+00	0.000E+00	NOT IDENT.
AS-74	-1.530E-02	7.993E-02	1.374E-01	0.000E+00	NOT IDENT.
SE-75	9.662E-03	4.679E-02	6.579E-02	0.000E+00	NOT IDENT.
BR-77	3.215E+00	8.436E+00	1.482E+01	0.000E+00	FAIL ABUN
SR-82	-9.501E-02	3.621E-01	5.699E-01	0.000E+00	NOT IDENT.
RB-83	2.770E-02	5.594E-02	9.878E-02	0.000E+00	NOT IDENT.
RB-84	5.340E-02	5.957E-02	1.073E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.588E+00	1.228E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.891E-02	6.297E-02	0.000E+00	NOT IDENT.
RB-86	1.321E-01	6.241E-01	1.064E+00	0.000E+00	NOT IDENT.
Y-88	3.677E-03	2.436E-02	4.163E-02	0.000E+00	NOT IDENT.
ZR-88	-9.679E-03	2.592E-02	4.423E-02	0.000E+00	NOT IDENT.
Y-91	-5.545E+00	1.612E+01	2.711E+01	0.000E+00	NOT IDENT.
NB-94	9.743E-03	2.787E-02	4.829E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.287E-01	2.057E-01	0.000E+00	NOT IDENT.
ZR-95	5.950E-02	6.036E-02	1.049E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.824E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.840E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.037E+00	1.038E+01	1.782E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.284E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.008E-02	3.142E-02	5.364E-02	0.000E+00	NOT IDENT.
RH-102	1.909E-02	2.489E-02	4.381E-02	0.000E+00	FAIL ABUN
RU-103	-1.619E-02	3.550E-02	5.847E-02	0.000E+00	FAIL ABUN
RH-106	1.411E-01	2.618E-01	4.633E-01	0.000E+00	FAIL ABUN
RU-106	1.411E-01	2.615E-01	4.633E-01	0.000E+00	FAIL ABUN
AG-108M	3.289E-03	2.751E-02	4.753E-02	0.000E+00	NOT IDENT.
AG-110M	-9.779E-05	3.459E-02	5.090E-02	0.000E+00	NOT IDENT.
IN-111	4.184E-01	1.085E+00	1.667E+00	0.000E+00	NOT IDENT.
IN-113M	-4.130E-02	3.787E-02	6.218E-02	0.000E+00	NOT IDENT.
SN-113	-4.130E-02	3.787E-02	6.218E-02	0.000E+00	NOT IDENT.
IN-114M	1.569E-01	1.794E-01	2.885E-01	0.000E+00	NOT IDENT.
CD-115	-5.054E+00	8.697E+00	1.482E+01	0.000E+00	NOT IDENT.
SN-117M	-4.019E-02	5.905E-02	9.096E-02	0.000E+00	NOT IDENT.
SB-122	2.647E+00	1.779E+00	3.279E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.199E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-6.677E-03	3.016E-02	4.740E-02	0.000E+00	NOT IDENT.
I-124	-3.687E-01	6.702E-01	9.588E-01	0.000E+00	NOT IDENT.
SB-124	8.567E-03	6.083E-02	1.045E-01	0.000E+00	FAIL ABUN
SB-125	7.432E-02	7.641E-02	1.369E-01	0.000E+00	FAIL ABUN
TE-125M	1.163E+01	1.142E+01	1.817E+01	0.000E+00	NOT IDENT.
I-126	1.312E-02	1.717E-01	2.538E-01	0.000E+00	NOT IDENT.
SB-126	9.201E-02	1.369E-01	2.094E-01	0.000E+00	FAIL ABUN
SB-127	9.565E-01	1.153E+00	2.045E+00	0.000E+00	NOT IDENT.
XE-127	-2.661E-02	4.473E-02	7.710E-02	0.000E+00	FAIL ABUN
I-131	-1.207E-02	9.561E-02	1.664E-01	0.000E+00	NOT IDENT.
TE-132	7.786E-01	6.413E-01	1.136E+00	0.000E+00	FAIL ABUN
BA-133	-3.754E-03	4.014E-02	6.077E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.897E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.856E-02	5.978E-02	7.802E-02	0.000E+00	FAIL ABUN
CS-135	1.752E-01	1.684E-01	2.579E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.759E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.962E-02	8.648E-02	1.386E-01	0.000E+00	FAIL ABUN
CE-139	2.216E-02	3.091E-02	5.010E-02	0.000E+00	NOT IDENT.
BA-140	-1.015E-01	2.152E-01	3.643E-01	0.000E+00	FAIL ABUN
LA-140	-6.682E-02	6.991E-02	1.080E-01	0.000E+00	NOT IDENT.
CE-141	7.962E-02	6.832E-02	1.134E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	2.196E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.119E-01	1.988E-01	3.675E-01	0.000E+00	NOT IDENT.
PM-144	-1.697E-03	2.905E-02	4.933E-02	0.000E+00	NOT IDENT.
PR-144	-1.150E-01	1.968E+00	3.343E+00	0.000E+00	NOT IDENT.
PM-146	9.764E-05	3.658E-02	6.251E-02	0.000E+00	NOT IDENT.
ND-147	2.417E-01	4.538E-01	8.151E-01	0.000E+00	NOT IDENT.
PM-149	3.087E+00	8.192E+01	1.393E+02	0.000E+00	NOT IDENT.
EU-152	3.837E-02	1.160E-01	1.438E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.296E-01	1.740E-01	0.000E+00	FAIL ABUN
EU-154	-2.925E-02	1.003E-01	1.675E-01	0.000E+00	NOT IDENT.
EU-155	4.812E-02	1.124E-01	1.978E-01	0.000E+00	FAIL ABUN
TB-160	8.306E-02	1.174E-01	2.097E-01	0.000E+00	FAIL ABUN
HO-166M	2.774E-02	5.102E-02	8.913E-02	0.000E+00	FAIL ABUN
TM-171	-7.193E+00	3.191E+01	5.099E+01	0.000E+00	NOT IDENT.
LU-176	-4.536E-03	2.215E-02	3.557E-02	0.000E+00	FAIL ABUN
LU-177M	9.829E-02	1.703E-01	2.635E-01	0.000E+00	FAIL ABUN
HF-181	-1.725E-02	3.660E-02	6.053E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	4.481E-01	7.650E-01	0.000E+00	NOT IDENT.
TA-182	-2.885E-02	1.582E-01	2.678E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.445E-01	1.976E-01	0.000E+00	FAIL ABUN
RE-184	4.736E-02	2.261E-01	3.625E-01	0.000E+00	NOT IDENT.
OS-185	2.412E-02	3.584E-02	6.363E-02	0.000E+00	NOT IDENT.
RE-188	2.808E-02	1.613E-01	2.925E-01	0.000E+00	NOT IDENT.
W-188	-1.196E+00	7.090E+00	1.098E+01	0.000E+00	FAIL ABUN
IR-192	1.548E-03	2.927E-02	5.211E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.773E-01	5.084E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.789E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.018E+00	7.293E+00	1.136E+01	0.000E+00	NOT IDENT.
TL-202	3.080E-03	5.739E-02	9.869E-02	0.000E+00	NOT IDENT.
HG-203	3.162E-02	3.624E-02	6.338E-02	0.000E+00	NOT IDENT.
BI-207	3.591E-03	4.292E-02	7.265E-02	0.000E+00	FAIL ABUN
TL-207	-6.667E-01	5.910E-01	9.772E-01	0.000E+00	FAIL ABUN
PO-209	2.566E+00	6.045E+00	1.064E+01	0.000E+00	NOT IDENT.
BI-210	-4.358E-02	3.462E+00	6.361E+00	0.000E+00	NOT IDENT.
PB-210	-4.358E-02	3.462E+00	6.361E+00	0.000E+00	NOT IDENT.
PO-210	-4.358E-02	3.462E+00	6.361E+00	0.000E+00	NOT IDENT.
PB-211	-4.118E-01	9.575E-01	1.344E+00	0.000E+00	NOT IDENT.
PO-215	-6.667E-01	5.910E-01	9.772E-01	0.000E+00	FAIL ABUN
RN-219	2.988E-01	3.482E-01	6.209E-01	0.000E+00	FAIL ABUN
RN-220	-1.888E+01	2.090E+01	3.472E+01	0.000E+00	NOT IDENT.
RA-223	-6.667E-01	5.910E-01	9.772E-01	0.000E+00	FAIL ABUN
AC-227	2.329E-01	3.971E-01	6.109E-01	0.000E+00	FAIL ABUN
TH-227	2.329E-01	3.977E-01	6.109E-01	0.000E+00	FAIL ABUN
TH-229	-3.509E-01	4.581E-01	7.871E-01	0.000E+00	FAIL ABUN
PA-231	-6.231E-01	1.350E+00	2.239E+00	0.000E+00	FAIL ABUN
TH-231	-6.667E-01	5.910E-01	9.772E-01	0.000E+00	FAIL ABUN
U-231	0.000E+00	2.876E+00	2.170E+00	0.000E+00	FAIL ABUN
PA-233	5.569E-03	5.250E-02	9.379E-02	0.000E+00	FAIL ABUN
PA-234	6.317E-02	2.427E-01	4.206E-01	0.000E+00	FAIL ABUN
NP-236	7.376E-03	8.411E-02	1.337E-01	0.000E+00	FAIL ABUN
NP-239	5.628E-02	2.111E-01	3.268E-01	0.000E+00	FAIL ABUN
AM-241	2.474E-01	1.848E-01	3.129E-01	0.000E+00	NOT IDENT.
CM-243	7.847E-02	1.106E-01	1.759E-01	0.000E+00	FAIL ABUN
AM-246	-2.263E-02	1.110E-01	1.839E-01	0.000E+00	NOT IDENT.
CM-247	1.049E-02	3.314E-02	5.497E-02	0.000E+00	NOT IDENT.
CF-249	2.210E-02	3.264E-02	5.836E-02	0.000E+00	NOT IDENT.
CF-251	7.189E-02	1.220E-01	2.208E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:06:12.98

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799004.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:05:43
Sample ID         : G245799004           Sample quantity  : 1.43742E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.76  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2352	10.67*	1.909E+00	3.016E+01	3.016E+01	10.23
NB-95	765.79	292	99.81*	3.207E+00	2.385E-01	2.811E-01	27.47
CD-109	88.03	233	3.72*	7.477E+00	2.190E+00	2.240E+00	49.20
SN-126	64.28	2278	9.60	4.331E+00	1.431E+01	1.431E+01	16.22
	86.94	233	8.90	7.477E+00	9.154E-01	9.154E-01	63.69
	87.57	233	37.00*	7.477E+00	2.202E-01	2.202E-01	49.20
BA-137M	661.65	141	89.98*	3.589E+00	1.142E-01	1.143E-01	45.13
CS-137	661.65	141	85.12*	3.589E+00	1.207E-01	1.208E-01	45.13
LU-177	112.95	373	6.40	8.516E+00	1.786E+00	8.560E+00	36.07
	208.36	176	11.00*	7.178E+00	5.814E-01	2.787E+00	52.25
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	109	21.60	4.299E+00	3.062E-01	3.062E-01	85.86
	583.14	494	84.20*	3.930E+00	3.898E-01	3.898E-01	21.14
	860.37	120	12.46	2.924E+00	8.601E-01	8.601E-01	39.56
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	863	12.94*	5.402E+00	3.226E+00	3.226E+00	16.79
BI-212	727.18	188	11.80*	3.342E+00	1.245E+00	1.245E+00	31.46
	785.46	76	1.97	3.144E+00	3.198E+00	3.198E+00	55.40
	1620.62	------	2.75	1.789E+00	------ Line Not Found		------
PB-212	74.81	568	10.70	6.156E+00	2.253E+00	2.253E+00	28.67
	77.11	813	18.00	6.472E+00	1.822E+00	1.822E+00	17.60
	87.30	233	8.00	7.477E+00	1.018E+00	1.018E+00	50.21
	238.63	1495	44.60*	6.709E+00	1.304E+00	1.304E+00	14.96
	300.09	150	3.41	5.913E+00	1.937E+00	1.937E+00	50.47
PO-212	74.81	568	10.70	6.156E+00	2.253E+00	2.253E+00	28.67
	77.11	813	18.00	6.472E+00	1.822E+00	1.822E+00	17.60
	87.30	233	8.00	7.477E+00	1.018E+00	1.018E+00	50.21
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	1495	44.60*	6.709E+00	1.304E+00	1.304E+00	14.96
	300.09	150	3.41	5.913E+00	1.937E+00	1.937E+00	50.47
BI-214	609.31	605	46.30*	3.811E+00	8.950E-01	8.951E-01	19.18
	1120.29	122	15.10	2.344E+00	9.011E-01	9.011E-01	46.87

Sample ID : G245799004 Acquisition date : 10-FEB-2010 15:05:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	125	15.80	1.716E+00	1.202E+00	1.202E+00	30.44
PB-214	74.81	568	6.21	6.156E+00	3.881E+00	3.881E+00	28.10
	77.11	813	10.50	6.472E+00	3.123E+00	3.123E+00	19.18
	87.30	233	4.67	7.477E+00	1.745E+00	1.745E+00	49.80
	241.98	347	7.49	6.664E+00	1.816E+00	1.816E+00	32.42
	295.21	507	19.20	5.970E+00	1.156E+00	1.156E+00	23.92
	351.92	863	37.20*	5.402E+00	1.122E+00	1.122E+00	17.59
PO-214	74.81	568	6.21	6.156E+00	3.881E+00	3.881E+00	28.10
	77.11	813	10.50	6.472E+00	3.123E+00	3.123E+00	19.18
	87.30	233	4.67	7.477E+00	1.745E+00	1.745E+00	49.80
	241.98	347	7.49	6.664E+00	1.816E+00	1.816E+00	32.42
	295.21	507	19.20	5.970E+00	1.156E+00	1.156E+00	23.92
	351.92	863	37.20*	5.402E+00	1.122E+00	1.122E+00	17.59
PO-216	74.81	568	10.70	6.156E+00	2.253E+00	2.253E+00	28.67
	77.11	813	18.00	6.472E+00	1.822E+00	1.822E+00	17.60
	87.30	233	8.00	7.477E+00	1.018E+00	1.018E+00	50.21
	238.63	1495	44.60*	6.709E+00	1.304E+00	1.304E+00	14.96
	300.09	150	3.41	5.913E+00	1.937E+00	1.937E+00	50.47
PO-218	74.81	568	6.21	6.156E+00	3.881E+00	3.881E+00	28.10
	77.11	813	10.50	6.472E+00	3.123E+00	3.123E+00	19.18
	87.30	233	4.67	7.477E+00	1.745E+00	1.745E+00	49.80
	241.98	347	7.49	6.664E+00	1.816E+00	1.816E+00	32.42
	295.21	507	19.20	5.970E+00	1.156E+00	1.156E+00	23.92
	351.92	863	37.20*	5.402E+00	1.122E+00	1.122E+00	17.59
RA-224	240.98	347	3.95*	6.664E+00	3.444E+00	3.444E+00	31.93
RA-226	609.31	605	46.30*	3.811E+00	8.950E-01	8.951E-01	19.18
	1120.29	122	15.10	2.344E+00	9.011E-01	9.011E-01	46.87
	1764.49	125	15.80	1.716E+00	1.202E+00	1.202E+00	30.44
AC-228	338.32	346	11.40	5.527E+00	1.435E+00	1.435E+00	48.81
	911.07	364	27.70*	2.788E+00	1.231E+00	1.231E+00	21.09
	969.11	167	16.60	2.648E+00	9.914E-01	9.914E-01	46.50
RA-228	338.32	346	11.40	5.527E+00	1.435E+00	1.435E+00	48.81
	911.07	364	27.70*	2.788E+00	1.231E+00	1.231E+00	21.09
	969.11	167	16.60	2.648E+00	9.914E-01	9.914E-01	46.50
TH-228	74.81	568	10.70	6.156E+00	2.253E+00	2.287E+00	27.13
	77.11	813	18.00	6.472E+00	1.822E+00	1.849E+00	17.60
	87.30	233	8.00	7.477E+00	1.018E+00	1.034E+00	49.20
	238.63	1495	44.60*	6.709E+00	1.304E+00	1.324E+00	14.96
	300.09	150	3.41	5.913E+00	1.937E+00	1.967E+00	77.15
TH-230	609.31	605	46.30*	3.811E+00	8.950E-01	8.950E-01	19.18
	1120.29	122	15.10	2.344E+00	9.011E-01	9.011E-01	46.87
	1764.49	125	15.80	1.716E+00	1.202E+00	1.202E+00	30.44
TH-232	338.32	346	11.40	5.527E+00	1.435E+00	1.435E+00	27.45
	911.07	364	27.70*	2.788E+00	1.231E+00	1.231E+00	21.09
	969.11	167	16.60	2.648E+00	9.914E-01	9.914E-01	46.50
PA-234M	766.42	292	0.32	3.207E+00	7.440E+01	7.440E+01	57.05
	1001.03	434	0.84*	2.577E+00	5.239E+01	5.239E+01	18.29
TH-234	63.29	2278	3.80*	4.331E+00	3.615E+01	3.615E+01	18.87
	92.38	5831	5.41	7.855E+00	3.584E+01	3.584E+01	18.63

Sample ID : G245799004 Acquisition date : 10-FEB-2010 15:05:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-234	609.31	605	46.30*	3.811E+00	8.950E-01	8.950E-01	19.18
	1120.29	122	15.10	2.344E+00	9.011E-01	9.011E-01	46.87
	1764.49	125	15.80	1.716E+00	1.202E+00	1.202E+00	30.44
U-235	89.95	------	2.70	7.683E+00	------ Line Not Found		------
	93.35	5831	4.50	7.855E+00	4.308E+01	4.308E+01	28.38
	105.00	------	2.10	8.370E+00	------ Line Not Found		------
	143.76	200	10.50*	8.364E+00	5.959E-01	5.959E-01	48.93
	163.35	177	4.70	8.026E+00	1.226E+00	1.226E+00	54.28
	185.71	1204	54.00	7.608E+00	7.655E-01	7.655E-01	14.94
	205.31	------	4.70	7.253E+00	------ Line Not Found		------
NP-237	86.50	233	12.60*	7.477E+00	6.466E-01	6.466E-01	53.35
	95.87	238	2.60	7.971E+00	2.996E+00	2.996E+00	89.31
U-238	63.29	2278	3.80*	4.331E+00	3.615E+01	3.615E+01	18.87
	92.38	5831	5.41	7.855E+00	3.584E+01	3.584E+01	9.71
AM-243	74.67	568	66.00*	6.156E+00	3.652E-01	3.652E-01	27.11
	86.72	233	0.34	7.477E+00	2.425E+01	2.425E+01	49.20
	117.66	------	0.55	8.550E+00	------ Line Not Found		------
	142.18	------	0.13	8.387E+00	------ Line Not Found		------
ANH-511	511.00	109	100.00*	4.299E+00	6.613E-02	6.613E-02	85.46

Flag: "*" = Keyline

Sample ID : G245799004 Acquisition date : 10-FEB-2010 15:05:43

Total number of lines in spectrum 37
Number of unidentified lines 1
Number of lines tentatively identified by NID 36 97.30%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.016E+01	3.016E+01	0.308E+01	10.23	
NB-95	64.02D	1.18	2.385E-01	2.811E-01	0.772E-01	27.47	
CD-109	464.00D	1.02	2.190E+00	2.240E+00	1.102E+00	49.20	
SN-126	1.00E+05Y	1.00	2.202E-01	2.202E-01	1.083E-01	49.20	
BA-137M	30.17Y	1.00	1.142E-01	1.143E-01	0.516E-01	45.13	
CS-137	30.17Y	1.00	1.207E-01	1.208E-01	0.545E-01	45.13	
LU-177	6.71D	4.79	5.814E-01	2.787E+00	1.456E+00	52.25	
TL-208	1.41E+10Y	1.00	3.898E-01	3.898E-01	0.824E-01	21.14	
BI-211	7.04E+08Y	1.00	3.226E+00	3.226E+00	0.542E+00	16.79	
BI-212	1.41E+10Y	1.00	1.245E+00	1.245E+00	0.392E+00	31.46	
PB-212	1.41E+10Y	1.00	1.304E+00	1.304E+00	0.195E+00	14.96	
PO-212	1.41E+10Y	1.00	1.304E+00	1.304E+00	0.195E+00	14.96	
BI-214	1600.00Y	1.00	8.950E-01	8.951E-01	1.717E-01	19.18	
PB-214	1600.00Y	1.00	1.122E+00	1.122E+00	0.197E+00	17.59	
PO-214	1600.00Y	1.00	1.122E+00	1.122E+00	0.197E+00	17.59	
PO-216	1.41E+10Y	1.00	1.304E+00	1.304E+00	0.195E+00	14.96	
PO-218	1600.00Y	1.00	1.122E+00	1.122E+00	0.197E+00	17.59	
RA-224	1.41E+10Y	1.00	3.444E+00	3.444E+00	1.100E+00	31.93	
RA-226	1600.00Y	1.00	8.950E-01	8.951E-01	1.717E-01	19.18	
AC-228	1.41E+10Y	1.00	1.231E+00	1.231E+00	0.259E+00	21.09	
RA-228	1.41E+10Y	1.00	1.231E+00	1.231E+00	0.259E+00	21.09	
TH-228	1.91Y	1.02	1.304E+00	1.324E+00	0.198E+00	14.96	
TH-230	4.47E+09Y	1.00	8.950E-01	8.950E-01	1.717E-01	19.18	
TH-232	1.41E+10Y	1.00	1.231E+00	1.231E+00	0.259E+00	21.09	
PA-234M	4.47E+09Y	1.00	5.239E+01	5.239E+01	0.958E+01	18.29	
TH-234	4.47E+09Y	1.00	3.615E+01	3.615E+01	0.682E+01	18.87	
U-234	4.47E+09Y	1.00	8.950E-01	8.950E-01	1.717E-01	19.18	
U-235	7.04E+08Y	1.00	5.959E-01	5.959E-01	2.916E-01	48.93	
NP-237	2.14E+06Y	1.00	6.466E-01	6.466E-01	3.450E-01	53.35	
U-238	4.47E+09Y	1.00	3.615E+01	3.615E+01	0.682E+01	18.87	
AM-243	7380.00Y	1.00	3.652E-01	3.652E-01	0.990E-01	27.11	
ANH-511	1.00E+09Y	1.00	6.613E-02	6.613E-02	5.651E-02	85.46	
	Total Activity :		1.841E+02	1.865E+02			

Grand Total Activity : 1.841E+02 1.865E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799004 Acquisition date : 10-FEB-2010 15:05:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.67	413	938	1.20	197.53	194	9	5.73E-02	28.7	8.16E+00	T
0	258.64	93	330	1.55	517.16	513	9	1.29E-02	73.5	6.42E+00	
0	270.09	121	388	1.28	540.05	535	10	1.68E-02	64.6	6.27E+00	T
0	409.47	47	183	0.78	818.59	814	8	6.54E-03	****	4.94E+00	T
0	463.26	108	216	1.15	926.09	919	12	1.50E-02	57.7	4.58E+00	T
0	795.08	62	159	1.85	1589.37	1585	13	8.61E-03	88.3	3.12E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:06:18.41

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799004.CNF;1    *
* Acquisition date : 10-FEB-2010 15:05:43  Detector SN#     :                 *
* Detector ID      : GAM22                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:02.76         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245799004            Analyst initials: RXF2             *
* Batch Number     : 947531                Sample Quantity : 1.43742E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.016E+01	3.085E+00	4.233E-01	3.878E-02	71.247
NB-95	2.811E-01	7.722E-02	5.732E-02	6.268E-03	4.905
CD-109	2.240E+00	1.102E+00	1.763E+00	1.673E-01	1.271
SN-126	2.202E-01	1.083E-01	1.676E-01	1.583E-02	1.314
BA-137M	1.143E-01	5.158E-02	5.062E-02	5.338E-03	2.258
CS-137	1.208E-01	5.453E-02	5.351E-02	5.650E-03	2.258
LU-177	2.787E+00	1.456E+00	1.820E+00	2.055E-01	1.531
TL-208	3.898E-01	8.239E-02	5.133E-02	5.566E-03	7.594
BI-211	3.226E+00	5.417E-01	2.716E-01	3.169E-02	11.878
BI-212	1.245E+00	3.919E-01	4.094E-01	4.890E-02	3.042
PB-212	1.304E+00	1.951E-01	8.152E-02	1.077E-02	16.001
PO-212	1.304E+00	1.951E-01	8.152E-02	1.077E-02	16.001
BI-214	8.951E-01	1.717E-01	9.416E-02	1.095E-02	9.505
PB-214	1.122E+00	1.973E-01	9.464E-02	1.206E-02	11.856
PO-214	1.122E+00	1.973E-01	9.464E-02	1.206E-02	11.856
PO-216	1.304E+00	1.951E-01	8.152E-02	1.077E-02	16.001
PO-218	1.122E+00	1.973E-01	9.464E-02	1.206E-02	11.856
RA-224	3.444E+00	1.100E+00	9.267E-01	1.160E-01	3.716

Sample ID : G245799004 Acquisition date : 10-FEB-2010 15:05:43

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	8.951E-01	1.717E-01	9.416E-02	1.095E-02	9.505
AC-228	1.231E+00	2.595E-01	1.649E-01	2.185E-02	7.462
RA-228	1.231E+00	2.595E-01	1.649E-01	2.185E-02	7.462
TH-228	1.324E+00	1.980E-01	8.276E-02	1.093E-02	16.001
TH-230	8.950E-01	1.717E-01	9.416E-02	1.095E-02	9.505
TH-232	1.231E+00	2.595E-01	1.649E-01	2.185E-02	7.462
PA-234M	5.239E+01	9.582E+00	5.289E+00	6.061E-01	9.906
TH-234	3.615E+01	6.823E+00	2.278E+00	3.965E-01	15.871
U-234	8.950E-01	1.717E-01	9.416E-02	1.095E-02	9.505
U-235	5.959E-01	2.916E-01	3.306E-01	5.832E-02	1.802
NP-237	6.466E-01	3.450E-01	4.867E-01	1.102E-01	1.329
U-238	3.615E+01	6.823E+00	2.278E+00	3.965E-01	15.871
AM-243	3.652E-01	9.899E-02	9.621E-02	7.842E-03	3.796
ANH-511	6.613E-02	5.651E-02	3.755E-02	3.762E-03	1.761

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.063E-02		2.813E-01	4.618E-01	4.819E-02	0.196
NA-22	-1.002E-02		3.668E-02	5.958E-02	5.134E-03	-0.168
NA-24	-2.797E-01		3.089E-01	Half-Life too short		
AL-26	2.301E-02		2.410E-02	4.409E-02	3.605E-03	0.522
TI-44	3.362E-01	+	5.917E-02	7.380E-02	6.257E-03	4.555
SC-46	-1.947E-02		3.326E-02	5.306E-02	5.939E-03	-0.367
V-48	5.970E-02		5.831E-02	1.016E-01	1.065E-02	0.588
CR-51	2.391E-01		3.263E-01	5.589E-01	7.237E-02	0.428
MN-52	4.174E-02		1.840E-01	3.076E-01	2.749E-02	0.136
MN-54	-7.066E-03		3.242E-02	5.346E-02	5.939E-03	-0.132
CO-56	-3.630E-02		3.314E-02	5.118E-02	5.698E-03	-0.709
CO-57	3.579E-03		2.670E-02	4.250E-02	3.505E-03	0.084
CO-58	-2.962E-02		3.071E-02	4.800E-02	5.315E-03	-0.617
FE-59	-1.070E-02		7.546E-02	1.214E-01	1.190E-02	-0.088
CO-60	-5.366E-04		3.063E-02	5.040E-02	4.494E-03	-0.011
ZN-65	5.871E-02		8.378E-02	1.231E-01	1.098E-02	0.477
GE-68	1.622E-01		9.812E-01	1.616E+00	1.523E-01	0.100
AS-73	-6.219E-02		8.884E-01	1.463E+00	1.105E-01	-0.043
AS-74	-1.530E-02		8.156E-02	1.340E-01	1.388E-02	-0.114
SE-75	9.662E-03		4.775E-02	6.304E-02	8.484E-03	0.153
BR-77	3.215E+00		8.608E+00	1.441E+01	1.450E+00	0.223
SR-82	-9.501E-02		3.695E-01	5.590E-01	6.131E-02	-0.170
RB-83	2.770E-02		5.709E-02	9.604E-02	9.665E-03	0.288
RB-84	5.340E-02		6.078E-02	1.055E-01	1.180E-02	0.506
KR-85	1.706E+01		7.743E+00	1.194E+01	1.198E+00	1.430
SR-85	8.750E-02		3.970E-02	6.121E-02	6.141E-03	1.430
RB-86	1.321E-01		6.369E-01	1.052E+00	9.923E-02	0.126
Y-88	3.677E-03		2.486E-02	4.164E-02	3.367E-03	0.088
ZR-88	-9.679E-03		2.645E-02	4.274E-02	3.979E-03	-0.226

Sample ID : G245799004 Acquisition date : 10-FEB-2010 15:05:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-5.545E+00		1.645E+01	2.686E+01	2.209E+00	-0.206
NB-94	9.743E-03		2.844E-02	4.726E-02	5.065E-03	0.206
NB-95M	2.415E-01		1.313E-01	1.966E-01	2.599E-02	1.228
ZR-95	5.950E-02		6.159E-02	1.029E-01	1.194E-02	0.578
NB-97	1.395E-02		5.012E-02	Half-Life too short		
ZR-97	5.073E+00		9.387E-01	Half-Life too short		
MO-99	3.037E+00		1.059E+01	1.746E+01	2.891E+00	0.174
TC-99M	-1.172E+10		2.186E+10	Half-Life too short		
RH-101	-1.008E-02		3.206E-02	5.108E-02	5.572E-03	-0.197
RH-102	1.909E-02		2.539E-02	4.251E-02	4.181E-03	0.449
RU-103	-1.619E-02		3.622E-02	5.679E-02	8.523E-03	-0.285
RH-106	1.411E-01		2.672E-01	4.523E-01	6.604E-02	0.312
RU-106	1.411E-01		2.668E-01	4.523E-01	4.724E-02	0.312
AG-108M	3.289E-03		2.808E-02	4.602E-02	4.556E-03	0.071
AG-110M	-9.779E-05		3.530E-02	4.975E-02	5.347E-03	-0.002
IN-111	4.184E-01		1.107E+00	1.595E+00	2.023E-01	0.262
IN-113M	-4.130E-02		3.864E-02	6.008E-02	5.737E-03	-0.688
SN-113	-4.130E-02		3.864E-02	6.008E-02	5.737E-03	-0.688
IN-114M	1.569E-01		1.830E-01	2.745E-01	2.919E-02	0.572
CD-115	-5.054E+00		8.874E+00	1.442E+01	1.456E+00	-0.351
SN-117M	-4.019E-02		6.026E-02	8.621E-02	8.176E-03	-0.466
SB-122	2.647E+00		1.815E+00	3.193E+00	3.273E-01	0.829
I-123	-1.372E+00		3.163E+00	Half-Life too short		
TE-123M	-6.677E-03		3.078E-02	4.493E-02	4.291E-03	-0.149
I-124	-3.687E-01		6.839E-01	9.353E-01	9.714E-02	-0.394
SB-124	8.567E-03		6.207E-02	1.044E-01	9.284E-03	0.082
SB-125	7.432E-02		7.796E-02	1.326E-01	1.286E-02	0.561
TE-125M	1.163E+01		1.165E+01	1.709E+01	1.731E+00	0.681
I-126	1.312E-02		1.752E-01	2.481E-01	2.621E-02	0.053
SB-126	9.201E-02		1.397E-01	2.050E-01	2.211E-02	0.449
SB-127	9.565E-01		1.177E+00	2.001E+00	2.599E-01	0.478
XE-127	-2.661E-02		4.564E-02	7.345E-02	8.142E-03	-0.362
I-131	-1.207E-02		9.756E-02	1.606E-01	1.779E-02	-0.075
TE-132	7.786E-01		6.544E-01	1.085E+00	1.932E-01	0.718
BA-133	-3.754E-03		4.096E-02	5.860E-02	8.756E-03	-0.064
I-133	-1.044E-04		2.498E-03	Half-Life too short		
CS-134	6.856E-02	+	6.100E-02	7.657E-02	8.476E-03	0.895
CS-135	1.752E-01		1.719E-01	2.472E-01	3.575E-02	0.709
I-135	-3.105E+09		2.428E+09	Half-Life too short		
CS-136	-5.962E-02		8.824E-02	1.368E-01	1.384E-02	-0.436
CE-139	2.216E-02		3.154E-02	4.753E-02	4.661E-03	0.466
BA-140	-1.015E-01		2.196E-01	3.545E-01	1.190E-01	-0.286
LA-140	-6.682E-02		7.134E-02	1.077E-01	9.441E-03	-0.620
CE-141	7.962E-02		6.971E-02	1.073E-01	9.766E-03	0.742
CE-143	6.803E-04		1.121E-04	Half-Life too short		
CE-144	1.119E-01		2.029E-01	3.471E-01	5.388E-02	0.322
PM-144	-1.697E-03		2.964E-02	4.828E-02	5.163E-03	-0.035
PR-144	-1.150E-01		2.009E+00	3.271E+00	3.498E-01	-0.035

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	9.764E-05		3.732E-02	6.060E-02	7.042E-03	0.002
ND-147	2.417E-01		4.631E-01	7.928E-01	1.257E-01	0.305
PM-149	3.087E+00		8.359E+01	1.337E+02	2.529E+01	0.023
EU-152	3.837E-02		1.183E-01	1.386E-01	1.666E-02	0.277
GD-153	4.410E-01	+	1.322E-01	1.633E-01	1.436E-02	2.701
EU-154	-2.925E-02		1.024E-01	1.661E-01	1.878E-02	-0.176
EU-155	4.812E-02		1.147E-01	1.859E-01	1.596E-02	0.259
TB-160	8.306E-02		1.198E-01	2.063E-01	2.307E-02	0.403
HO-166M	2.774E-02		5.206E-02	8.726E-02	9.381E-03	0.318
TM-171	-7.193E+00		3.256E+01	4.748E+01	3.588E+00	-0.151
LU-176	-4.536E-03		2.260E-02	3.419E-02	4.485E-03	-0.133
LU-177M	9.829E-02		1.737E-01	2.549E-01	2.411E-02	0.386
HF-181	-1.725E-02		3.735E-02	5.876E-02	5.800E-03	-0.294
W-181	1.317E+00		4.572E-01	7.120E-01	5.307E-02	1.850
TA-182	-2.885E-02		1.614E-01	2.654E-01	2.207E-02	-0.109
RE-183	2.862E-01	+	1.475E-01	1.874E-01	1.808E-02	1.527
RE-184	4.736E-02		2.307E-01	3.470E-01	4.502E-02	0.137
OS-185	2.412E-02		3.657E-02	6.216E-02	6.533E-03	0.388
RE-188	2.808E-02		1.646E-01	2.771E-01	2.587E-02	0.101
W-188	-1.196E+00		7.235E+00	1.054E+01	1.439E+00	-0.114
IR-192	1.548E-03		2.987E-02	5.012E-02	6.406E-03	0.031
AU-195	1.284E+00	+	3.850E-01	4.772E-01	4.162E-02	2.691
TL-200	6.400E-06		1.933E-04	Half-Life too short		
TL-201	-2.018E+00		7.442E+00	1.078E+01	1.063E+00	-0.187
TL-202	3.080E-03		5.856E-02	9.560E-02	9.203E-03	0.032
HG-203	3.162E-02		3.698E-02	6.080E-02	8.605E-03	0.520
BI-207	3.591E-03		4.380E-02	7.177E-02	6.890E-03	0.050
TL-207	-6.667E-01		6.031E-01	9.404E-01	1.869E-01	-0.709
PO-209	2.566E+00		6.169E+00	1.047E+01	1.173E+00	0.245
BI-210	-4.358E-02		3.532E+00	5.881E+00	5.464E-01	-0.007
PB-210	-4.358E-02		3.532E+00	5.881E+00	5.464E-01	-0.007
PO-210	-4.358E-02		3.532E+00	5.881E+00	4.945E-01	-0.007
PB-211	-4.118E-01		9.771E-01	1.299E+00	8.156E-01	-0.317
PO-215	-6.667E-01		6.031E-01	9.404E-01	1.869E-01	-0.709
RN-219	2.988E-01		3.553E-01	6.003E-01	9.288E-02	0.498
RN-220	-1.888E+01		2.132E+01	3.380E+01	3.445E+00	-0.559
RA-223	-6.667E-01		6.031E-01	9.404E-01	1.869E-01	-0.709
AC-227	2.329E-01		4.053E-01	5.849E-01	1.067E-01	0.398
TH-227	2.329E-01		4.059E-01	5.849E-01	1.204E-01	0.398
TH-229	-3.509E-01		4.675E-01	7.491E-01	8.054E-02	-0.468
PA-231	-6.231E-01		1.377E+00	2.148E+00	4.012E-01	-0.290
TH-231	-6.667E-01		6.031E-01	9.404E-01	1.869E-01	-0.709
U-231	3.402E+00	+	2.935E+00	2.035E+00	1.807E-01	1.672
PA-233	5.569E-03		5.357E-02	9.018E-02	1.181E-02	0.062
PA-234	6.317E-02		2.476E-01	4.144E-01	8.237E-02	0.152
NP-236	7.376E-03		8.582E-02	1.268E-01	1.212E-02	0.058
NP-239	5.628E-02		2.154E-01	3.078E-01	2.544E-02	0.183
AM-241	2.474E-01		1.886E-01	2.907E-01	2.272E-02	0.851

Sample ID : G245799004 Acquisition date : 10-FEB-2010 15:05:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	7.847E-02		1.129E-01	1.653E-01	1.409E-02	0.475
AM-246	-2.263E-02		1.133E-01	1.817E-01	1.709E-02	-0.125
CM-247	1.049E-02		3.382E-02	5.315E-02	4.986E-03	0.197
CF-249	2.210E-02		3.331E-02	5.638E-02	5.359E-03	0.392
CF-251	7.189E-02		1.245E-01	2.097E-01	2.131E-02	0.343

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                              DETECTOR DATA                                  *
*                                                                             *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799004             *
* Acquisition date  : 10-FEB-2010 15:05:43 Detector SN#     :                 *
* Detector ID       : GAM22                Sensitivity     : 5.000            *
* Geometry          : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:02.76      Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                               SAMPLE DATA                                   *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID         : G245799004           Analyst initials: RXF2             *
* Batch Number      : 947531               Sample Quantity : 1.4374E+02 GRAM  *
* Recovery          :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
*                                                                             *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.016E+01	3.023E+00	2.128E-01	1.542E+00
NB-95	2.811E-01	7.567E-02	2.924E-02	3.861E-02
CD-109	2.240E+00	1.080E+00	9.420E-01	5.511E-01
SN-126	2.202E-01	1.062E-01	8.958E-02	5.417E-02
BA-137M	1.143E-01	5.055E-02	2.591E-02	2.579E-02
CS-137	1.208E-01	5.344E-02	2.739E-02	2.727E-02
LU-177	2.787E+00	1.427E+00	9.554E-01	7.280E-01
TL-208	3.898E-01	8.075E-02	2.635E-02	4.120E-02
BI-211	3.226E+00	5.309E-01	1.410E-01	2.709E-01
BI-212	1.245E+00	3.840E-01	2.091E-01	1.959E-01
PB-212	1.304E+00	1.912E-01	4.266E-02	9.754E-02
PO-212	1.304E+00	1.912E-01	4.266E-02	9.754E-02
BI-214	8.951E-01	1.682E-01	4.828E-02	8.584E-02
PB-214	1.122E+00	1.934E-01	4.912E-02	9.867E-02
PO-214	1.122E+00	1.934E-01	4.912E-02	9.867E-02
PO-216	1.304E+00	1.912E-01	4.266E-02	9.754E-02
PO-218	1.122E+00	1.934E-01	4.912E-02	9.867E-02
RA-224	3.444E+00	1.078E+00	4.849E-01	5.499E-01
RA-226	8.951E-01	1.682E-01	4.828E-02	8.584E-02
AC-228	1.231E+00	2.543E-01	8.381E-02	1.297E-01
RA-228	1.231E+00	2.543E-01	8.381E-02	1.297E-01
TH-228	1.324E+00	1.941E-01	4.331E-02	9.902E-02
TH-230	8.950E-01	1.682E-01	4.828E-02	8.584E-02
TH-232	1.231E+00	2.543E-01	8.381E-02	1.297E-01
PA-234M	5.239E+01	9.390E+00	2.682E+00	4.791E+00
TH-234	3.615E+01	6.686E+00	1.225E+00	3.411E+00
U-234	8.950E-01	1.682E-01	4.828E-02	8.584E-02
U-235	5.959E-01	2.857E-01	1.749E-01	1.458E-01
NP-237	6.466E-01	3.381E-01	2.601E-01	1.725E-01
U-238	3.615E+01	6.686E+00	1.225E+00	3.411E+00
AM-243	3.652E-01	9.701E-02	5.158E-02	4.950E-02
ANH-511	6.613E-02	5.538E-02	1.933E-02	2.826E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	9.063E-02	2.757E-01	2.381E-01	1.406E-01	NOT IDENT.
NA-22	-1.002E-02	3.595E-02	3.005E-02	1.834E-02	NOT IDENT.
NA-24	-2.797E+05	6.054E+05	0.000E+00	3.089E+05	SHORT HLIF
AL-26	2.301E-02	2.361E-02	2.206E-02	1.205E-02	NOT IDENT.
TI-44	3.362E-01	5.798E-02	3.952E-02	2.958E-02	FAIL ABUN
SC-46	-1.947E-02	3.259E-02	2.698E-02	1.663E-02	FAIL ABUN
V-48	5.970E-02	5.715E-02	5.153E-02	2.916E-02	NOT IDENT.
CR-51	2.391E-01	3.198E-01	2.907E-01	1.632E-01	NOT IDENT.
MN-52	4.174E-02	1.804E-01	1.547E-01	9.202E-02	NOT IDENT.
MN-54	-7.066E-03	3.177E-02	2.722E-02	1.621E-02	NOT IDENT.
CO-56	-3.630E-02	3.248E-02	2.605E-02	1.657E-02	NOT IDENT.
CO-57	3.579E-03	2.616E-02	2.256E-02	1.335E-02	NOT IDENT.
CO-58	-2.962E-02	3.010E-02	2.446E-02	1.536E-02	NOT IDENT.
FE-59	-1.070E-02	7.396E-02	6.143E-02	3.773E-02	FAIL ABUN
CO-60	-5.366E-04	3.002E-02	2.539E-02	1.531E-02	NOT IDENT.
ZN-65	5.871E-02	8.210E-02	6.228E-02	4.189E-02	NOT IDENT.
GE-68	1.622E-01	9.616E-01	8.181E-01	4.906E-01	NOT IDENT.
AS-73	-6.219E-02	8.706E-01	7.893E-01	4.442E-01	NOT IDENT.
AS-74	-1.530E-02	7.993E-02	6.872E-02	4.078E-02	NOT IDENT.
SE-75	9.662E-03	4.679E-02	3.291E-02	2.387E-02	NOT IDENT.
BR-77	3.215E+00	8.436E+00	7.414E+00	4.304E+00	FAIL ABUN
SR-82	-9.501E-02	3.621E-01	2.851E-01	1.848E-01	NOT IDENT.
RB-83	2.770E-02	5.594E-02	4.942E-02	2.854E-02	NOT IDENT.
RB-84	5.340E-02	5.957E-02	5.366E-02	3.039E-02	NOT IDENT.
KR-85	1.706E+01	7.588E+00	6.144E+00	3.871E+00	NOT IDENT.
SR-85	8.750E-02	3.891E-02	3.150E-02	1.985E-02	NOT IDENT.
RB-86	1.321E-01	6.241E-01	5.324E-01	3.184E-01	NOT IDENT.
Y-88	3.677E-03	2.436E-02	2.083E-02	1.243E-02	NOT IDENT.
ZR-88	-9.679E-03	2.592E-02	2.213E-02	1.322E-02	NOT IDENT.
Y-91	-5.545E+00	1.612E+01	1.356E+01	8.226E+00	NOT IDENT.
NB-94	9.743E-03	2.787E-02	2.416E-02	1.422E-02	NOT IDENT.
NB-95M	2.415E-01	1.287E-01	1.029E-01	6.567E-02	NOT IDENT.
ZR-95	5.950E-02	6.036E-02	5.250E-02	3.080E-02	NOT IDENT.
NB-97	1.395E+04	9.824E+04	0.000E+00	5.012E+04	SHORT HLIF
ZR-97	5.073E+06	1.840E+06	0.000E+00	9.387E+05	SHORT HLIF
MO-99	3.037E+00	1.038E+01	8.917E+00	5.297E+00	NOT IDENT.
TC-99M	-1.172E+16	4.284E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.008E-02	3.142E-02	2.683E-02	1.603E-02	NOT IDENT.
RH-102	1.909E-02	2.489E-02	2.192E-02	1.270E-02	FAIL ABUN
RU-103	-1.619E-02	3.550E-02	2.925E-02	1.811E-02	FAIL ABUN
RH-106	1.411E-01	2.618E-01	2.318E-01	1.336E-01	FAIL ABUN
RU-106	1.411E-01	2.615E-01	2.318E-01	1.334E-01	FAIL ABUN
AG-108M	3.289E-03	2.751E-02	2.378E-02	1.404E-02	NOT IDENT.
AG-110M	-9.779E-05	3.459E-02	2.547E-02	1.765E-02	NOT IDENT.
IN-111	4.184E-01	1.085E+00	8.340E-01	5.537E-01	NOT IDENT.
IN-113M	-4.130E-02	3.787E-02	3.111E-02	1.932E-02	NOT IDENT.
SN-113	-4.130E-02	3.787E-02	3.111E-02	1.932E-02	NOT IDENT.
IN-114M	1.569E-01	1.794E-01	1.444E-01	9.152E-02	NOT IDENT.
CD-115	-5.054E+00	8.697E+00	7.416E+00	4.437E+00	NOT IDENT.
SN-117M	-4.019E-02	5.905E-02	4.551E-02	3.013E-02	NOT IDENT.
SB-122	2.647E+00	1.779E+00	1.640E+00	9.075E-01	NOT IDENT.
I-123	-1.372E+06	6.199E+06	0.000E+00	3.163E+06	SHORT HLIF
TE-123M	-6.677E-03	3.016E-02	2.371E-02	1.539E-02	NOT IDENT.
I-124	-3.687E-01	6.702E-01	4.797E-01	3.419E-01	NOT IDENT.
SB-124	8.567E-03	6.083E-02	5.230E-02	3.103E-02	FAIL ABUN
SB-125	7.432E-02	7.641E-02	6.851E-02	3.898E-02	FAIL ABUN
TE-125M	1.163E+01	1.142E+01	9.091E+00	5.824E+00	NOT IDENT.
I-126	1.312E-02	1.717E-01	1.270E-01	8.759E-02	NOT IDENT.
SB-126	9.201E-02	1.369E-01	1.047E-01	6.984E-02	FAIL ABUN
SB-127	9.565E-01	1.153E+00	1.023E+00	5.885E-01	NOT IDENT.
XE-127	-2.661E-02	4.473E-02	3.857E-02	2.282E-02	FAIL ABUN
I-131	-1.207E-02	9.561E-02	8.326E-02	4.878E-02	NOT IDENT.
TE-132	7.786E-01	6.413E-01	5.681E-01	3.272E-01	FAIL ABUN
BA-133	-3.754E-03	4.014E-02	3.040E-02	2.048E-02	NOT IDENT.
I-133	-1.044E+02	4.897E+03	0.000E+00	2.498E+03	SHORT HLIF
CS-134	6.856E-02	5.978E-02	3.903E-02	3.050E-02	FAIL ABUN
CS-135	1.752E-01	1.684E-01	1.290E-01	8.594E-02	NOT IDENT.
I-135	-3.105E+15	4.759E+15	0.000E+00	2.428E+15	SHORT HLIF
CS-136	-5.962E-02	8.648E-02	6.932E-02	4.412E-02	FAIL ABUN
CE-139	2.216E-02	3.091E-02	2.506E-02	1.577E-02	NOT IDENT.
BA-140	-1.015E-01	2.152E-01	1.823E-01	1.098E-01	FAIL ABUN
LA-140	-6.682E-02	6.991E-02	5.404E-02	3.567E-02	NOT IDENT.
CE-141	7.962E-02	6.832E-02	5.673E-02	3.486E-02	NOT IDENT.

CE-143	6.803E+02	2.196E+02	0.000E+00	1.121E+02	SHORT HLIF
CE-144	1.119E-01	1.988E-01	1.839E-01	1.014E-01	NOT IDENT.
PM-144	-1.697E-03	2.905E-02	2.468E-02	1.482E-02	NOT IDENT.
PR-144	-1.150E-01	1.968E+00	1.673E+00	1.004E+00	NOT IDENT.
PM-146	9.764E-05	3.658E-02	3.127E-02	1.866E-02	NOT IDENT.
ND-147	2.417E-01	4.538E-01	4.078E-01	2.315E-01	NOT IDENT.
PM-149	3.087E+00	8.192E+01	6.968E+01	4.180E+01	NOT IDENT.
EU-152	3.837E-02	1.160E-01	7.196E-02	5.916E-02	NOT IDENT.
GD-153	4.410E-01	1.296E-01	8.704E-02	6.612E-02	FAIL ABUN
EU-154	-2.925E-02	1.003E-01	8.378E-02	5.119E-02	NOT IDENT.
EU-155	4.812E-02	1.124E-01	9.897E-02	5.735E-02	FAIL ABUN
TB-160	8.306E-02	1.174E-01	1.049E-01	5.988E-02	FAIL ABUN
HO-166M	2.774E-02	5.102E-02	4.459E-02	2.603E-02	FAIL ABUN
TM-171	-7.193E+00	3.191E+01	2.551E+01	1.628E+01	NOT IDENT.
LU-176	-4.536E-03	2.215E-02	1.779E-02	1.130E-02	FAIL ABUN
LU-177M	9.829E-02	1.703E-01	1.318E-01	8.687E-02	FAIL ABUN
HF-181	-1.725E-02	3.660E-02	3.029E-02	1.867E-02	NOT IDENT.
W-181	1.317E+00	4.481E-01	3.827E-01	2.286E-01	NOT IDENT.
TA-182	-2.885E-02	1.582E-01	1.340E-01	8.069E-02	FAIL ABUN
RE-183	2.862E-01	1.445E-01	9.886E-02	7.374E-02	FAIL ABUN
RE-184	4.736E-02	2.261E-01	1.814E-01	1.153E-01	NOT IDENT.
OS-185	2.412E-02	3.584E-02	3.183E-02	1.829E-02	NOT IDENT.
RE-188	2.808E-02	1.613E-01	1.463E-01	8.231E-02	NOT IDENT.
W-188	-1.196E+00	7.090E+00	5.491E+00	3.617E+00	FAIL ABUN
IR-192	1.548E-03	2.927E-02	2.607E-02	1.494E-02	FAIL ABUN
AU-195	1.284E+00	3.773E-01	2.544E-01	1.925E-01	FAIL ABUN
TL-200	6.400E+00	3.789E+02	0.000E+00	1.933E+02	SHORT HLIF
TL-201	-2.018E+00	7.293E+00	5.685E+00	3.721E+00	NOT IDENT.
TL-202	3.080E-03	5.739E-02	4.938E-02	2.928E-02	NOT IDENT.
HG-203	3.162E-02	3.624E-02	3.171E-02	1.849E-02	NOT IDENT.
BI-207	3.591E-03	4.292E-02	3.635E-02	2.190E-02	FAIL ABUN
TL-207	-6.667E-01	5.910E-01	4.889E-01	3.015E-01	FAIL ABUN
PO-209	2.566E+00	6.045E+00	5.324E+00	3.084E+00	NOT IDENT.
BI-210	-4.358E-02	3.462E+00	3.183E+00	1.766E+00	NOT IDENT.
PB-210	-4.358E-02	3.462E+00	3.183E+00	1.766E+00	NOT IDENT.
PO-210	-4.358E-02	3.462E+00	3.183E+00	1.766E+00	NOT IDENT.
PB-211	-4.118E-01	9.575E-01	6.722E-01	4.885E-01	NOT IDENT.
PO-215	-6.667E-01	5.910E-01	4.889E-01	3.015E-01	FAIL ABUN
RN-219	2.988E-01	3.482E-01	3.107E-01	1.777E-01	FAIL ABUN
RN-220	-1.888E+01	2.090E+01	1.737E+01	1.066E+01	NOT IDENT.
RA-223	-6.667E-01	5.910E-01	4.889E-01	3.015E-01	FAIL ABUN
AC-227	2.329E-01	3.971E-01	3.056E-01	2.026E-01	FAIL ABUN
TH-227	2.329E-01	3.977E-01	3.056E-01	2.029E-01	FAIL ABUN
TH-229	-3.509E-01	4.581E-01	3.938E-01	2.337E-01	FAIL ABUN
PA-231	-6.231E-01	1.350E+00	1.120E+00	6.885E-01	FAIL ABUN
TH-231	-6.667E-01	5.910E-01	4.889E-01	3.015E-01	FAIL ABUN
U-231	3.402E+00	2.876E+00	1.085E+00	1.467E+00	FAIL ABUN
PA-233	5.569E-03	5.250E-02	4.692E-02	2.679E-02	FAIL ABUN
PA-234	6.317E-02	2.427E-01	2.104E-01	1.238E-01	FAIL ABUN
NP-236	7.376E-03	8.411E-02	6.690E-02	4.291E-02	FAIL ABUN
NP-239	5.628E-02	2.111E-01	1.635E-01	1.077E-01	FAIL ABUN
AM-241	2.474E-01	1.848E-01	1.565E-01	9.431E-02	NOT IDENT.
CM-243	7.847E-02	1.106E-01	8.802E-02	5.643E-02	FAIL ABUN
AM-246	-2.263E-02	1.110E-01	9.198E-02	5.664E-02	NOT IDENT.
CM-247	1.049E-02	3.314E-02	2.750E-02	1.691E-02	NOT IDENT.
CF-249	2.210E-02	3.264E-02	2.920E-02	1.665E-02	NOT IDENT.
CF-251	7.189E-02	1.220E-01	1.105E-01	6.224E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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46.50	635.8337
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52.97	751.4957
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53.44	719.4700
54.07	725.1516
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56.28	823.4062
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57.53	927.1968
57.60	917.9723
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57.98	920.9100
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63.29	954.2523
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65.20	877.6105
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67.20	940.1669
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67.85	965.7552
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68.90	968.2104
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70.82	953.8604
70.83	953.8945
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72.87	1054.0001
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74.81	1033.6615
74.81	1033.6615
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77.11	1041.5704

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80.30	1171.1654
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81.07	1288.4896
81.07	1288.4896
81.07	1288.4896
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83.78	1134.0627
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94.67	1386.7426
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94.90	1387.6360
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98.44	642.8544
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99.86	628.9911
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105.31	665.1677
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144.24	520.1293
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152.70	589.2969
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163.89	496.4905
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227.20	394.2153
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238.63	403.6222
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241.98	405.4378
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269.46	353.4823
269.46	353.4823
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277.60	317.4427
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351.92	245.2414
351.92	245.2414
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391.69	268.4615
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439.56	205.7803
439.89	215.1921
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445.03	220.2570
445.03	220.2570
445.03	220.2570
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510.53	0.0000
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511.00	176.6087
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511.85	176.7138
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513.99	210.6929
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529.87	0.0000
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546.56	0.0000
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552.65	165.5443
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563.90	172.4579
568.70	207.2135
569.32	195.8827
569.50	182.5938
569.67	182.6133
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574.00	206.0112
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578.91	167.2975
579.30	0.0000
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602.71	224.7426
602.71	224.7426
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609.31	187.2070
609.31	187.2070
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618.01	176.4331
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621.84	158.1732
631.29	136.3379
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633.10	148.3521
634.78	163.3484
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661.65	180.9814
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666.33	165.9074
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695.00	171.0432
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706.67	171.0929
709.31	175.4612
711.68	155.0140
713.82	165.5371
717.42	177.2552
720.50	144.1711
721.93	0.0000
722.20	144.2982
722.78	133.6513
722.78	133.6513
722.89	133.6591
722.95	133.6618
723.30	144.3829
724.18	137.3147
727.18	176.8237
733.00	146.9033
735.90	177.2295
739.58	165.6795
742.81	163.8552
744.21	156.6119
747.13	190.5302
751.79	163.5491
752.31	163.5932
753.82	147.8727
755.35	128.9598
756.15	131.5114
756.87	147.2543
763.93	167.4335
765.79	164.7033
766.42	164.7537
766.84	164.7884
776.49	178.1837
778.00	191.1427
778.57	201.0352
778.89	206.7697
783.80	134.1635
785.46	119.0983
792.07	174.3761

795.84	112.1483
796.30	125.1168
798.80	172.1661
801.93	146.4691
805.60	120.0090
810.29	136.8153
810.76	137.7770
815.85	112.9121
817.79	122.3556
818.51	122.3967
819.60	121.5236
826.30	140.6616
828.27	0.0000
831.60	163.5680
831.96	165.4757
834.83	170.4040
836.80	0.0000
846.75	155.2457
848.13	134.5043
856.28	0.0000
856.80	129.8040
860.37	122.8676
867.32	96.9776
867.82	110.3780
871.10	114.8458
873.19	136.0272
874.81	149.5444
875.33	0.0000
876.40	141.0168
879.36	121.9903
880.27	114.3516
880.51	115.3251
881.50	121.1440
883.24	122.1985
884.67	132.8669
889.25	138.9224
896.60	118.0747
898.02	138.4839
899.00	138.5412
903.28	123.9962
911.07	110.0461
911.07	110.0461
911.07	110.0461
919.63	128.6281
920.93	132.3503
925.00	102.8613
925.24	100.9128
926.50	112.7298
935.52	104.3012
937.48	111.2797
944.10	151.0843
946.00	114.6386
949.00	105.8748
962.29	146.2489
964.01	168.9981
966.15	141.2457
968.20	230.3676
969.11	163.6139
969.11	163.6139
969.11	163.6139
977.42	105.1025
980.50	102.2259
983.50	97.3315
989.30	105.6024
996.32	84.7178
1001.03	88.9162
1001.68	77.8218
1004.76	108.0196
1021.30	0.0000
1024.50	0.0000
1034.80	121.8223
1036.00	114.7070
1037.82	115.8100
1038.57	115.8455
1038.76	0.0000
1045.16	126.4105
1046.59	113.1114
1048.07	120.3788

1050.47	130.7827
1050.47	130.7827
1062.04	118.9387
1063.62	114.8714
1076.63	103.9865
1077.35	99.8538
1078.86	107.1959
1085.78	113.7254
1099.22	117.4297
1112.02	109.3669
1112.84	112.1037
1115.52	108.8893
1120.29	110.9216
1120.29	110.9216
1120.29	110.9216
1120.29	110.9216
1120.51	118.3281
1121.28	120.2087
1124.00	0.0000
1129.67	126.1304
1131.51	0.0000
1147.95	0.0000
1167.94	121.2406
1173.22	124.2817
1175.09	139.4365
1177.93	151.8317
1189.05	154.2949
1204.90	161.7770
1205.75	0.0000
1213.00	135.4954
1221.42	145.4409
1230.97	199.6465
1235.34	129.7636
1236.41	0.0000
1238.25	120.2660
1246.25	136.9731
1260.41	0.0000
1271.85	114.7590
1274.45	112.9060
1274.54	112.9095
1291.56	96.8791
1298.22	0.0000
1312.09	70.9080
1325.50	61.3113
1325.50	61.3113
1332.49	71.3518
1333.61	71.3760
1360.21	61.9565
1362.66	0.0000
1365.15	65.0496
1368.21	74.1242
1368.53	0.0000
1376.25	58.2354
1384.27	97.6246
1394.10	58.5416
1395.20	59.5690
1407.95	59.7904
1434.06	51.0498
1436.60	55.1750
1457.56	0.0000
1460.81	50.4086
1489.15	50.8049
1509.49	36.4911
1596.49	64.4860
1620.62	34.3516
1678.03	0.0000
1691.02	35.9311
1691.02	35.9311
1706.46	0.0000
1750.46	0.0000
1764.49	21.7440
1764.49	21.7440
1764.49	21.7440
1764.49	21.7440
1770.23	35.6289
1771.40	26.7290
1791.20	0.0000
1808.65	22.9669

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799004

Total Uranium Activity	1.0781E+02	ug/g
Total Uranium Counting Unc.	1.9892E+01	ug/g
Total Uranium Tpu	1.0149E-05	ug/g
Total Uranium Mda	3.6454E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799004      *
*   ANALYST       : RXF2                      DETECTOR    : GAM22           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 15:05:43.42    SAMPLE ALQT:  143.742 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.265E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.462E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.121E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.530E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:09:35.86

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799005.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:09:08
Sample ID         : G245799005           Sample quantity  : 1.30330E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.99  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.76*	110	463	0.79	92.38	89	7	1.53E-02	34.5	
2	0	63.20*	913	898	1.01	125.29	120	10	1.27E-01	7.1	
3	2	74.89*	392	559	0.88	148.67	145	19	5.45E-02	10.3	4.03E-01
4	2	77.08	669	522	0.87	153.07	145	19	9.29E-02	6.5	
5	8	84.12*	214	673	1.73	167.15	163	29	2.97E-02	21.6	5.22E+00
6	8	87.33	365	728	1.57	173.58	163	29	5.07E-02	14.2	
7	8	90.16	279	544	1.10	179.25	163	29	3.88E-02	15.1	
8	8	92.61*	2289	430	1.07	184.15	163	29	3.18E-01	2.6	
9	0	98.63	195	447	0.89	196.20	193	8	2.71E-02	20.2	
10	0	112.65*	119	439	1.03	224.26	220	8	1.66E-02	32.2	
11	0	129.14	69	352	0.79	257.26	254	7	9.58E-03	46.8	
12	0	143.62*	66	323	0.94	286.24	284	7	9.17E-03	47.6	
13	0	185.78*	559	360	1.02	370.63	367	10	7.77E-02	7.9	
14	0	209.28	98	254	0.73	417.65	414	7	1.36E-02	28.8	
15	6	238.68*	1188	222	0.95	476.51	472	21	1.65E-01	3.5	3.02E+00
16	6	241.72	300	272	1.64	482.59	472	21	4.16E-02	13.1	
17	0	270.70*	115	279	1.31	540.58	536	12	1.60E-02	30.8	
18	0	277.31	54	290	1.11	553.81	548	13	7.57E-03	65.8	
19	1	295.31	438	127	1.19	589.85	583	24	6.08E-02	6.3	3.49E+00
20	1	299.78	108	133	1.20	598.78	583	24	1.50E-02	20.1	
21	0	327.84	98	149	1.29	654.95	651	9	1.36E-02	24.2	
22	0	338.40*	228	239	0.96	676.07	671	11	3.17E-02	14.9	
23	0	351.92*	648	201	1.06	703.14	697	12	9.01E-02	5.9	
24	0	410.11	54	93	1.35	819.58	815	8	7.53E-03	34.0	
25	0	463.31	92	144	1.11	926.05	920	12	1.28E-02	28.1	
26	0	511.16*	99	170	1.32	1021.82	1016	14	1.38E-02	33.6	
27	0	583.35*	376	69	1.21	1166.28	1161	11	5.22E-02	6.8	
28	0	609.59*	430	97	1.42	1218.80	1212	11	5.98E-02	6.6	
29	0	661.94	689	108	1.30	1323.55	1319	12	9.57E-02	4.8	
30	0	727.49*	79	62	1.44	1454.72	1449	10	1.09E-02	22.4	
31	0	768.10	86	72	2.13	1535.99	1530	11	1.19E-02	22.3	
32	0	795.62*	53	42	1.76	1591.05	1585	9	7.30E-03	26.4	
33	0	911.70*	242	56	1.77	1823.32	1818	13	3.36E-02	9.3	
34	0	969.53	159	50	1.47	1939.03	1935	9	2.20E-02	11.3	
35	0	1001.63*	108	49	1.95	2003.25	1997	15	1.50E-02	17.4	
36	0	1121.09	112	49	1.50	2242.27	2235	13	1.55E-02	16.0	
37	0	1239.59	37	81	1.00	2479.34	2476	13	5.20E-03	55.7	
38	0	1378.86	25	23	1.50	2757.96	2752	9	3.42E-03	41.3	

Sample ID : G245799005 Acquisition date : 10-FEB-2010 15:09:08

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1461.59*	1362	4	1.87	2923.47	2914	18	1.89E-01	2.7	
40	0	1588.89	28	5	1.91	3178.11	3173	9	3.82E-03	23.6	
41	0	1765.46*	82	23	1.23	3531.31	3525	13	1.13E-02	16.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 17:09:39

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:09:08
Sample ID : G245799005 Sample quantity : 130.33 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.99 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.002E+01	3.075E+00	3.869E-01	3.345E-02	77.590
CD-109	+	88.03	*	4.254E+00	1.269E+00	1.032E+00	9.785E-02	4.123
SN-126	+	64.28		6.418E+00	1.298E+00	6.475E-01	9.393E-02	9.911
	+	86.94		1.738E+00	8.737E-01	4.249E-01	1.764E-01	4.091
	+	87.57	*	4.181E-01	1.248E-01	1.017E-01	9.597E-03	4.109
BA-137M	+	661.65	*	9.187E-01	1.241E-01	5.731E-02	5.423E-03	16.032
CS-137	+	661.65	*	9.712E-01	1.313E-01	6.058E-02	5.741E-03	16.032
LU-177	+	112.95		3.477E+00	2.259E+00	2.407E+00	2.044E-01	1.445
	+	208.36	*	2.157E+00	1.270E+00	1.689E+00	1.977E-01	1.277
TL-208	+	277.35		4.936E-01	6.550E-01	5.036E-01	8.929E-02	0.980
	+	510.84		4.481E-01	3.074E-01	1.874E-01	2.540E-02	2.392
	+	583.14	*	4.834E-01	8.430E-02	5.280E-02	5.702E-03	9.155
		860.37		5.177E-01	2.996E-01	5.566E-01	5.797E-02	0.930
BI-210	+	46.50	*	5.055E+00	3.518E+00	3.744E+00	3.486E-01	1.350
PB-210	+	46.50	*	5.055E+00	3.518E+00	3.744E+00	3.486E-01	1.350
PO-210	+	46.50	*	5.055E+00	3.513E+00	3.744E+00	3.156E-01	1.350
BI-211		72.87		2.064E+00	3.019E+00	4.470E+00	3.551E-01	0.462
	+	351.07	*	3.680E+00	6.513E-01	2.818E-01	3.718E-02	13.061
PB-212	+	74.81		1.822E+00	4.391E-01	4.994E-01	6.178E-02	3.648
	+	77.11		1.778E+00	2.742E-01	2.862E-01	2.379E-02	6.212
	+	87.30		1.934E+00	6.085E-01	4.715E-01	6.471E-02	4.102
	+	238.63	*	1.473E+00	2.312E-01	8.183E-02	1.146E-02	17.998
	+	300.09		2.059E+00	8.930E-01	1.074E+00	1.721E-01	1.918
PO-212	+	74.81		1.822E+00	4.391E-01	4.994E-01	6.178E-02	3.648
	+	77.11		1.778E+00	2.742E-01	2.862E-01	2.379E-02	6.212
	+	87.30		1.934E+00	6.085E-01	4.715E-01	6.471E-02	4.102
		115.19		7.983E-04	3.233E+00	4.963E+00	4.205E-01	0.000
	+	238.63	*	1.473E+00	2.312E-01	8.183E-02	1.146E-02	17.998
	+	300.09		2.059E+00	8.930E-01	1.074E+00	1.721E-01	1.918
BI-214	+	609.31	*	1.042E+00	1.810E-01	9.143E-02	1.033E-02	11.399
	+	1120.29		1.395E+00	4.704E-01	4.171E-01	4.505E-02	3.345
	+	1764.49		1.390E+00	4.797E-01	3.246E-01	2.675E-02	4.281
PB-214	+	74.81		3.139E+00	7.352E-01	8.605E-01	9.448E-02	3.648
	+	77.11		3.048E+00	5.244E-01	4.907E-01	5.532E-02	6.212

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		3.313E+00	1.021E+00	8.077E-01	9.819E-02	4.102
	+	241.98		2.233E+00	6.713E-01	4.930E-01	7.182E-02	4.530
	+	295.21		1.470E+00	3.037E-01	1.880E-01	3.065E-02	7.820
	+	351.92	*	1.280E+00	2.362E-01	9.823E-02	1.390E-02	13.033
PO-214	+	74.81		3.139E+00	7.352E-01	8.605E-01	9.448E-02	3.648
	+	77.11		3.048E+00	5.244E-01	4.907E-01	5.532E-02	6.212
	+	87.30		3.313E+00	1.021E+00	8.077E-01	9.819E-02	4.102
	+	241.98		2.233E+00	6.713E-01	4.930E-01	7.182E-02	4.530
	+	295.21		1.470E+00	3.037E-01	1.880E-01	3.065E-02	7.820
	+	351.92	*	1.280E+00	2.362E-01	9.823E-02	1.390E-02	13.033
PO-216	+	74.81		1.822E+00	4.391E-01	4.994E-01	6.178E-02	3.648
	+	77.11		1.778E+00	2.742E-01	2.862E-01	2.379E-02	6.212
	+	87.30		1.934E+00	6.085E-01	4.715E-01	6.471E-02	4.102
	+	238.63	*	1.473E+00	2.312E-01	8.183E-02	1.146E-02	17.998
	+	300.09		2.059E+00	8.930E-01	1.074E+00	1.721E-01	1.918
PO-218	+	74.81		3.139E+00	7.352E-01	8.605E-01	9.448E-02	3.648
	+	77.11		3.048E+00	5.244E-01	4.907E-01	5.532E-02	6.212
	+	87.30		3.313E+00	1.021E+00	8.077E-01	9.819E-02	4.102
	+	241.98		2.233E+00	6.713E-01	4.930E-01	7.182E-02	4.530
	+	295.21		1.470E+00	3.037E-01	1.880E-01	3.065E-02	7.820
	+	351.92	*	1.280E+00	2.362E-01	9.823E-02	1.390E-02	13.033
RA-224	+	240.98	*	4.235E+00	1.250E+00	9.315E-01	1.248E-01	4.546
RA-226	+	609.31	*	1.042E+00	1.810E-01	9.143E-02	1.033E-02	11.399
	+	1120.29		1.395E+00	4.704E-01	4.171E-01	4.505E-02	3.345
	+	1764.49		1.390E+00	4.797E-01	3.246E-01	2.675E-02	4.281
AC-228	+	338.32		1.428E+00	7.410E-01	3.290E-01	1.400E-01	4.340
	+	911.07	*	1.371E+00	3.036E-01	2.048E-01	2.493E-02	6.694
	+	969.11		1.583E+00	5.179E-01	4.312E-01	1.022E-01	3.672
RA-228	+	338.32		1.428E+00	7.410E-01	3.290E-01	1.400E-01	4.340
	+	911.07	*	1.371E+00	3.036E-01	2.048E-01	2.493E-02	6.694
	+	969.11		1.583E+00	5.179E-01	4.312E-01	1.022E-01	3.672
TH-228	+	74.81		1.850E+00	4.114E-01	5.070E-01	4.148E-02	3.648
	+	77.11		1.805E+00	2.784E-01	2.906E-01	2.415E-02	6.212
	+	87.30		1.963E+00	5.858E-01	4.786E-01	4.499E-02	4.102
	+	238.63	*	1.495E+00	2.347E-01	8.307E-02	1.163E-02	17.998
	+	300.09		2.091E+00	1.520E+00	1.090E+00	6.596E-01	1.918
TH-229	+	85.43		5.659E-01	2.499E-01	2.319E-01	2.129E-02	2.440
	+	88.47		5.708E-01	1.703E-01	1.381E-01	1.304E-02	4.135
	+	100.00		6.244E-01	2.577E-01	2.415E-01	2.120E-02	2.586
		193.63	*	-3.206E-01	4.452E-01	7.096E-01	7.792E-02	-0.452
		210.97		-6.561E-02	7.827E-01	1.146E+00	1.357E-01	-0.057
TH-230	+	609.31	*	1.042E+00	1.810E-01	9.143E-02	1.033E-02	11.399
	+	1120.29		1.395E+00	4.703E-01	4.171E-01	4.505E-02	3.345
	+	1764.49		1.390E+00	4.797E-01	3.246E-01	2.675E-02	4.281
TH-232	+	338.32		1.428E+00	4.659E-01	3.290E-01	4.437E-02	4.340
	+	911.07	*	1.371E+00	3.036E-01	2.048E-01	2.493E-02	6.694
	+	969.11		1.583E+00	5.179E-01	4.312E-01	1.022E-01	3.672
TH-234	+	63.29	*	1.621E+01	3.632E+00	1.756E+00	3.056E-01	9.231
	+	92.38		1.728E+01	3.296E+00	6.765E-01	1.241E-01	25.542

Sample ID : G245799005 Acquisition date : 10-FEB-2010 15:09:08

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-234	+	609.31	*	1.042E+00	1.810E-01	9.143E-02	1.033E-02	11.399
	+	1120.29		1.395E+00	4.703E-01	4.171E-01	4.505E-02	3.345
	+	1764.49		1.390E+00	4.797E-01	3.246E-01	2.675E-02	4.281
U-235	+	89.95		4.287E+00	1.859E+00	1.373E+00	4.265E-01	3.122
	+	93.35		2.077E+01	5.956E+00	8.098E-01	2.282E-01	25.654
		105.00		7.662E-01	8.969E-01	1.531E+00	4.570E-01	0.500
	+	143.76	*	2.574E-01	2.491E-01	2.940E-01	5.198E-02	0.876
		163.35		4.560E-01	4.413E-01	7.523E-01	1.471E-01	0.606
	+	185.71		4.845E-01	9.208E-02	5.984E-02	6.345E-03	8.097
		205.31		2.990E-01	5.293E-01	8.016E-01	1.649E-01	0.373
NP-237	+	86.50	*	1.228E+00	4.454E-01	3.011E-01	6.816E-02	4.077
		95.87		8.579E-01	1.061E+00	1.371E+00	3.394E-01	0.626
U-238	+	63.29	*	1.621E+01	3.632E+00	1.756E+00	3.056E-01	9.231
	+	92.38		1.728E+01	1.821E+00	6.765E-01	6.195E-02	25.542
AM-243	+	74.67	*	2.954E-01	6.562E-02	8.116E-02	6.568E-03	3.640
	+	86.72		4.604E+01	1.374E+01	1.127E+01	1.052E+00	4.084
		117.66		3.230E-01	3.147E+00	5.376E+00	4.547E-01	0.060
	+	142.18		2.163E+01	2.066E+01	2.566E+01	2.288E+00	0.843
ANH-511	+	511.00	*	9.680E-02	6.590E-02	4.048E-02	4.329E-03	2.391

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.152E-03	3.103E-01	5.176E-01	5.858E-02	-0.006
NA-22		1274.54	*	-4.247E-02	4.167E-02	5.967E-02	4.901E-03	-0.712
NA-24		1368.53	*	3.943E-01	4.167E-02	Half-Life too short		
AL-26		1129.67		3.740E-01	1.538E+00	2.588E+00	2.187E-01	0.144
		1808.65	*	8.806E-03	2.386E-02	4.248E-02	3.467E-03	0.207
TI-44		67.85		2.875E-02	3.996E-02	6.450E-02	4.888E-03	0.446
	+	78.38	*	3.281E-01	5.061E-02	6.051E-02	5.101E-03	5.423
SC-46		889.25	*	1.013E-02	3.510E-02	6.041E-02	5.950E-03	0.168
	+	1120.51		2.389E-01	7.896E-02	1.209E-01	1.031E-02	1.976
V-48		944.10		5.177E-01	7.945E-01	1.404E+00	1.358E-01	0.369
		983.50	*	1.556E-03	5.952E-02	9.930E-02	9.419E-03	0.016
		1312.09		2.650E-02	7.426E-02	1.255E-01	1.035E-02	0.211
CR-51		320.08	*	-2.983E-02	3.573E-01	5.682E-01	8.247E-02	-0.053
MN-52		744.21		1.416E-02	2.290E-01	3.710E-01	3.605E-02	0.038
		848.13		-1.405E+00	5.849E+00	9.633E+00	9.491E-01	-0.146
		935.52		3.740E-01	2.247E-01	4.254E-01	4.130E-02	0.879
		1246.25		1.538E+00	7.382E+00	1.071E+01	8.745E-01	0.144
		1333.61		5.809E-01	4.724E+00	7.768E+00	6.420E-01	0.075
		1434.06	*	-4.377E-02	1.932E-01	2.984E-01	2.500E-02	-0.147
MN-54		834.83	*	-7.002E-03	3.306E-02	5.476E-02	5.393E-03	-0.128
CO-56		846.75	*	-8.899E-04	3.505E-02	5.891E-02	5.804E-03	-0.015
		977.42		1.148E+00	2.391E+00	4.176E+00	3.974E-01	0.275
		1037.82		1.016E-02	3.029E-01	5.032E-01	4.829E-02	0.020
		1175.09		3.775E-01	2.130E+00	3.477E+00	2.795E-01	0.109
	+	1238.25		1.312E-01	1.465E-01	1.762E-01	1.483E-02	0.745

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1360.21		3.508E-01	8.563E-01	1.465E+00	1.216E-01	0.240
		1771.40		-4.730E-02	2.150E-01	2.834E-01	2.332E-02	-0.167
CO-57		122.06	*	8.827E-03	2.141E-02	3.692E-02	3.123E-03	0.239
		136.48		2.939E-02	1.766E-01	3.001E-01	2.819E-02	0.098
CO-58		810.76	*	-3.302E-02	3.598E-02	5.156E-02	5.077E-03	-0.640
FE-59	+	142.65		3.322E+00	3.173E+00	4.074E+00	3.638E-01	0.815
		192.34		1.589E-01	8.164E-01	1.363E+00	2.045E-01	0.117
		1099.22	*	-1.204E-02	7.768E-02	1.259E-01	1.183E-02	-0.096
		1291.56		2.692E-02	1.156E-01	1.925E-01	1.817E-02	0.140
CO-60		1173.22		2.859E-02	4.460E-02	7.579E-02	6.089E-03	0.377
		1332.49	*	3.999E-03	3.774E-02	6.192E-02	5.116E-03	0.065
ZN-65		1115.52	*	-5.008E-02	9.600E-02	1.268E-01	1.088E-02	-0.395
GE-68		1077.35	*	6.459E-01	1.154E+00	2.004E+00	1.779E-01	0.322
AS-73		53.44	*	5.667E-01	6.640E-01	1.096E+00	8.228E-02	0.517
AS-74		595.88	*	6.290E-02	8.442E-02	1.461E-01	1.486E-02	0.431
		634.78		-9.751E-02	3.229E-01	5.130E-01	5.018E-02	-0.190
SE-75		66.05		-4.761E+00	4.541E+00	6.260E+00	5.949E-01	-0.760
		96.73		3.250E-01	8.532E-01	1.090E+00	1.506E-01	0.298
		121.11		1.155E-01	1.157E-01	2.029E-01	2.251E-02	0.569
		136.00		-9.359E-03	3.355E-02	5.602E-02	4.931E-03	-0.167
		198.60		-7.249E-01	1.596E+00	2.519E+00	3.012E-01	-0.288
		264.65	*	1.499E-02	3.950E-02	6.533E-02	9.602E-03	0.229
		279.53		2.662E-02	1.064E-01	1.561E-01	2.443E-02	0.171
		303.91		1.542E+00	1.993E+00	3.018E+00	5.017E-01	0.511
		400.65		-1.395E-01	2.271E-01	3.680E-01	4.707E-02	-0.379
BR-77	+	87.88		9.229E+02	2.754E+02	3.097E+02	2.933E+01	2.980
		200.40		-2.165E+02	1.440E+02	2.169E+02	2.453E+01	-0.998
	+	239.00		2.375E+02	3.573E+01	3.527E+01	4.686E+00	6.734
		249.79		-2.589E+00	6.106E+01	9.914E+01	1.375E+01	-0.026
		281.68		2.792E+01	8.455E+01	1.249E+02	1.926E+01	0.224
		297.23		1.511E+02	5.793E+01	9.779E+01	1.467E+01	1.545
		303.76		1.439E+02	1.711E+02	2.605E+02	3.856E+01	0.552
		439.47		-4.579E+01	1.365E+02	2.241E+02	2.418E+01	-0.204
		484.57		-1.857E+02	2.075E+02	3.215E+02	3.461E+01	-0.578
		520.65	*	5.036E+00	9.509E+00	1.636E+01	1.743E+00	0.308
		574.64		-1.120E+02	1.855E+02	2.894E+02	2.993E+01	-0.387
		578.91		1.917E+01	7.477E+01	1.114E+02	1.148E+01	0.172
		585.48		9.209E+02	2.315E+02	4.044E+02	4.148E+01	2.277
		755.35		2.245E+01	1.530E+02	2.495E+02	2.430E+01	0.090
		817.79		-2.019E+01	1.193E+02	1.871E+02	1.840E+01	-0.108
SR-82		698.33		-2.481E+01	3.268E+01	4.935E+01	4.733E+00	-0.503
		776.49	*	-9.409E-02	3.297E-01	5.132E-01	5.019E-02	-0.183
		1395.20		4.225E-01	8.178E+00	1.331E+01	1.110E+00	0.032
RB-83		520.41	*	1.977E-02	6.364E-02	1.079E-01	1.150E-02	0.183
		529.64		-1.993E-02	8.793E-02	1.428E-01	1.516E-02	-0.140
		552.65		-1.313E-01	1.764E-01	2.724E-01	2.857E-02	-0.482
RB-84		881.50	*	3.040E-02	6.824E-02	1.187E-01	1.169E-02	0.256
KR-85		513.99	*	1.285E+01	7.480E+00	1.238E+01	1.322E+00	1.038
SR-85		513.99	*	6.590E-02	3.836E-02	6.348E-02	6.781E-03	1.038

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-86		1076.63	*	2.935E-01	7.267E-01	1.246E+00	1.107E-01	0.236
Y-88		898.02		-4.204E-03	3.374E-02	5.585E-02	5.519E-03	-0.075
		1836.01	*	-1.162E-02	2.602E-02	3.805E-02	3.089E-03	-0.305
ZR-88		392.90	*	3.069E-03	2.678E-02	4.565E-02	4.869E-03	0.067
Y-91		1204.90	*	-3.193E+00	1.753E+01	2.816E+01	2.280E+00	-0.113
NB-94		702.63	*	2.482E-02	3.195E-02	5.485E-02	5.267E-03	0.453
		871.10		1.564E-02	3.097E-02	5.428E-02	5.349E-03	0.288
NB-95		765.79	*	6.002E-02	4.932E-02	7.768E-02	7.583E-03	0.773
NB-95M		235.69	*	-1.326E-02	1.245E-01	1.804E-01	2.519E-02	-0.074
ZR-95		724.18		-1.712E-02	9.863E-02	1.361E-01	1.407E-02	-0.126
		756.15	*	3.655E-02	6.489E-02	1.097E-01	1.154E-02	0.333
NB-97		657.90	*	1.809E-02	6.489E-02	Half-Life too short		
		1024.50		5.081E-02	6.489E-02	Half-Life too short		
ZR-97		254.15		-2.527E+00	6.489E-02	Half-Life too short		
		355.39		-2.017E-01	6.489E-02	Half-Life too short		
		507.63	*	1.233E+00	6.489E-02	Half-Life too short		
		602.52		-8.756E-01	6.489E-02	Half-Life too short		
		1021.30		-3.999E+00	6.489E-02	Half-Life too short		
		1147.95		3.739E+00	6.489E-02	Half-Life too short		
		1362.66		3.185E+00	6.489E-02	Half-Life too short		
		1750.46		1.197E-01	6.489E-02	Half-Life too short		
MO-99		140.51		6.108E+00	2.536E+01	3.834E+01	1.065E+01	0.159
		181.06		-9.601E+00	1.612E+01	2.464E+01	4.727E+00	-0.390
		366.43		-7.957E+01	8.679E+01	1.277E+02	1.547E+01	-0.623
		739.58	*	1.796E+00	1.143E+01	1.866E+01	2.954E+00	0.096
		778.00		-2.700E+01	3.055E+01	4.426E+01	4.331E+00	-0.610
TC-99M		140.51	*	9.206E+09	3.055E+01	Half-Life too short		
RH-101		127.23		1.097E-02	2.893E-02	4.500E-02	3.844E-03	0.244
		198.01	*	1.662E-02	2.970E-02	4.917E-02	5.503E-03	0.338
		325.23		-1.048E-02	2.212E-01	3.129E-01	4.391E-02	-0.033
RH-102		418.52		1.066E-01	2.741E-01	4.720E-01	5.074E-02	0.226
		475.06	*	8.246E-03	2.757E-02	4.692E-02	5.059E-03	0.176
		631.29		-6.670E-03	5.676E-02	9.187E-02	9.022E-03	-0.073
		697.49		-1.688E-02	7.072E-02	1.121E-01	1.075E-02	-0.150
	+	766.84		3.446E-01	1.570E-01	2.198E-01	2.146E-02	1.568
		1046.59		7.146E-03	1.090E-01	1.814E-01	1.652E-02	0.039
		1112.84		1.596E-01	2.125E-01	3.568E-01	3.067E-02	0.447
RU-103		497.08	*	4.383E-04	3.355E-02	5.590E-02	8.687E-03	0.008
	+	610.33		1.126E+01	2.463E+00	2.730E+00	4.766E-01	4.123
RH-106	+	511.85		4.835E-01	3.292E-01	4.195E-01	4.485E-02	1.153
		621.84	*	-2.603E-01	2.743E-01	4.043E-01	5.753E-02	-0.644
		1050.47		-7.544E-01	2.083E+00	3.318E+00	3.012E-01	-0.227
RU-106	+	511.85		4.835E-01	3.292E-01	4.195E-01	4.485E-02	1.153
		621.84	*	-2.603E-01	2.730E-01	4.043E-01	4.011E-02	-0.644
		1050.47		-7.544E-01	2.083E+00	3.318E+00	3.012E-01	-0.227
AG-108M		433.93	*	-1.052E-02	2.931E-02	4.805E-02	5.312E-03	-0.219
		614.37		8.630E-03	3.841E-02	5.650E-02	5.813E-03	0.153
		722.95		-1.447E-02	4.349E-02	5.873E-02	5.853E-03	-0.246
AG-110M		657.75	*	7.707E-03	3.611E-02	5.274E-02	5.139E-03	0.146

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		677.61		-1.272E-01	2.892E-01	4.509E-01	4.392E-02	-0.282
		706.67		-1.039E-01	1.851E-01	2.832E-01	2.784E-02	-0.367
		763.93		-9.178E-03	1.811E-01	2.524E-01	2.518E-02	-0.036
		884.67		-3.317E-02	4.843E-02	7.630E-02	7.702E-03	-0.435
		937.48		-1.435E-02	9.848E-02	1.622E-01	1.619E-02	-0.088
		1384.27		-3.351E-02	1.535E-01	2.143E-01	1.839E-02	-0.156
IN-111		171.28		-3.016E-01	8.822E-01	1.448E+00	1.440E-01	-0.208
		245.39	*	-6.479E-01	1.027E+00	1.416E+00	1.930E-01	-0.458
IN-113M		391.69	*	-1.574E-02	3.918E-02	6.462E-02	7.029E-03	-0.244
SN-113		391.69	*	-1.574E-02	3.918E-02	6.462E-02	7.029E-03	-0.244
IN-114M		190.27	*	9.203E-02	1.695E-01	2.596E-01	2.809E-02	0.355
CD-115		260.90		-5.718E+01	1.230E+02	1.940E+02	2.807E+01	-0.295
		492.35		-2.457E+01	3.103E+01	4.824E+01	5.185E+00	-0.509
		527.90	*	1.404E+00	9.178E+00	1.539E+01	1.635E+00	0.091
SN-117M		156.02		-4.652E-01	1.939E+00	3.217E+00	3.012E-01	-0.145
		158.56	*	4.343E-03	4.693E-02	7.890E-02	7.456E-03	0.055
SB-122		563.90	*	1.214E+00	1.930E+00	3.322E+00	3.460E-01	0.366
		692.80		-5.956E+00	4.123E+01	6.599E+01	6.317E+00	-0.090
I-123		159.00	*	-1.010E+00	4.123E+01	Half-Life too short		
		528.96		-8.169E+01	4.123E+01	Half-Life too short		
TE-123M		159.00	*	-4.901E-03	2.501E-02	4.152E-02	3.951E-03	-0.118
I-124		602.71	*	-1.188E-01	6.659E-01	9.930E-01	1.004E-01	-0.120
		722.78		-1.179E+00	4.577E+00	6.246E+00	6.035E-01	-0.189
		1325.50		-1.191E+00	3.294E+01	5.314E+01	4.388E+00	-0.022
		1376.25		5.090E+01	3.358E+01	5.796E+01	4.823E+00	0.878
		1509.49		5.565E+00	1.425E+01	2.507E+01	2.110E+00	0.222
		1691.02		1.261E-01	3.446E+00	5.752E+00	4.796E-01	0.022
SB-124		602.71		-6.891E-03	3.862E-02	5.758E-02	5.821E-03	-0.120
		645.85		-1.737E-01	4.738E-01	7.476E-01	7.565E-02	-0.232
		709.31		-1.675E-01	2.494E+00	4.009E+00	3.858E-01	-0.042
		713.82		-7.361E-01	1.446E+00	2.217E+00	2.835E-01	-0.332
		722.78		-9.912E-02	3.848E-01	5.251E-01	5.161E-02	-0.189
	+	968.20		1.630E+01	3.992E+00	6.912E+00	6.610E-01	2.358
		1045.16		1.100E+00	2.437E+00	4.191E+00	3.820E-01	0.262
		1325.50		-1.069E-01	2.958E+00	4.771E+00	3.939E-01	-0.022
		1368.21		5.042E-01	1.518E+00	2.569E+00	3.412E-01	0.196
		1436.60		6.335E-01	3.366E+00	5.569E+00	4.667E-01	0.114
		1691.02	*	2.500E-03	6.832E-02	1.141E-01	9.911E-03	0.022
SB-125		427.89	*	-7.376E-02	8.125E-02	1.276E-01	1.391E-02	-0.578
	+	463.38		8.121E-01	4.655E-01	5.342E-01	6.057E-02	1.520
		600.56		9.469E-02	1.660E-01	2.833E-01	3.024E-02	0.334
		635.90		-1.349E-01	2.412E-01	3.731E-01	3.876E-02	-0.362
TE-125M		109.28	*	5.518E+00	8.804E+00	1.393E+01	1.430E+00	0.396
I-126		388.63		-1.464E-03	1.796E-01	3.042E-01	3.299E-02	-0.005
		666.33	*	1.249E-01	1.978E-01	2.981E-01	2.826E-02	0.419
		753.82		-1.293E-01	1.391E+00	2.219E+00	2.160E-01	-0.058
SB-126		223.80		1.034E+00	3.600E+00	5.982E+00	7.471E-01	0.173
	+	278.60		3.266E+00	4.324E+00	3.831E+00	5.918E-01	0.852
	+	296.50		1.465E+01	2.885E+00	3.431E+00	5.155E-01	4.268

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		414.70		-2.369E-02	7.433E-02	1.136E-01	1.220E-02	-0.209
		415.30		5.229E-01	5.847E+00	9.599E+00	1.031E+00	0.054
		555.20		1.586E+00	3.568E+00	6.025E+00	6.311E-01	0.263
		573.80		-2.168E-02	9.313E-01	1.530E+00	1.583E-01	-0.014
		593.00		-3.927E-01	8.260E-01	1.300E+00	1.325E-01	-0.302
		656.30		1.330E+00	3.400E+00	5.318E+00	5.068E-01	0.250
		666.33		5.221E-02	8.268E-02	1.246E-01	1.181E-02	0.419
		675.00		1.305E-01	1.924E+00	3.142E+00	2.988E-01	0.042
		695.00		6.187E-02	7.187E-02	1.244E-01	1.192E-02	0.497
		697.00		-9.350E-03	2.519E-01	4.067E-01	3.899E-02	-0.023
		720.50	*	1.386E-01	1.350E-01	2.303E-01	2.223E-02	0.602
		856.80		-9.273E-01	4.742E-01	6.517E-01	6.422E-02	-1.423
		989.30		-9.446E-03	1.096E+00	1.821E+00	1.722E-01	-0.005
		1034.80		7.677E+00	8.717E+00	1.551E+01	1.424E+00	0.495
		1213.00		5.064E+00	4.320E+00	7.763E+00	6.295E-01	0.652
SB-127		61.10		-6.361E+00	5.470E+01	7.969E+01	8.050E+00	-0.080
		252.40		-3.106E-01	4.009E+00	6.489E+00	2.820E+00	-0.048
		290.80		9.351E-01	2.104E+01	3.029E+01	5.078E+00	0.031
	+	411.60		2.001E+01	1.400E+01	1.851E+01	3.142E+00	1.081
		444.90		-7.511E-01	9.183E+00	1.533E+01	2.164E+00	-0.049
		473.00		-1.634E+00	1.620E+00	2.491E+00	3.589E-01	-0.656
		543.00		-5.499E-01	1.371E+01	2.258E+01	3.528E+00	-0.024
		603.60		-8.139E+00	1.268E+01	1.690E+01	2.294E+00	-0.482
		685.20	*	-1.521E-01	1.246E+00	1.999E+00	2.420E-01	-0.076
		698.50		-1.069E+01	1.468E+01	2.213E+01	3.623E+00	-0.483
		722.20		8.777E+00	3.115E+01	4.544E+01	5.447E+00	0.193
		783.80		6.270E-01	3.510E+00	5.717E+00	7.581E-01	0.110
XE-127		57.60		-1.520E+00	5.137E+00	8.091E+00	5.824E-01	-0.188
		145.22		4.593E-01	6.715E-01	1.050E+00	9.454E-02	0.438
		172.10		2.259E-02	1.039E-01	1.748E-01	1.746E-02	0.129
		202.84	*	-3.701E-03	4.205E-02	6.909E-02	7.896E-03	-0.054
		374.96		-3.743E-02	1.920E-01	2.990E-01	3.483E-02	-0.125
I-131		80.18		-4.402E+00	4.739E+00	6.528E+00	5.655E-01	-0.674
		284.30		-7.955E-01	1.333E+00	2.060E+00	3.216E-01	-0.386
		364.48	*	7.231E-02	1.118E-01	1.844E-01	2.314E-02	0.392
		636.97		-1.448E+00	1.371E+00	1.939E+00	1.975E-01	-0.747
		722.89		-2.249E+00	7.347E+00	9.959E+00	9.672E-01	-0.226
TE-132		49.72		3.910E+00	1.556E+01	2.332E+01	2.409E+00	0.168
	+	111.76		6.329E+01	4.133E+01	4.875E+01	5.250E+00	1.298
		116.30		1.781E+01	2.493E+01	3.956E+01	4.247E+00	0.450
		228.16	*	-2.997E-01	6.340E-01	1.010E+00	1.847E-01	-0.297
BA-133		53.15		2.181E+00	2.866E+00	4.715E+00	3.554E-01	0.463
		79.62		-1.288E+00	1.337E+00	1.825E+00	2.771E-01	-0.706
		81.00		-1.277E-01	1.019E-01	1.355E-01	2.156E-02	-0.943
	+	276.40		4.877E-01	6.483E-01	5.695E-01	1.094E-01	0.856
		302.84		8.813E-02	1.420E-01	2.123E-01	3.811E-02	0.415
		356.01	*	-1.217E-02	4.456E-02	6.106E-02	9.849E-03	-0.199
		383.85		4.574E-02	2.663E-01	4.559E-01	6.584E-02	0.100
I-133	+	510.53		9.962E-01	2.663E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		529.87	*	-1.254E-03	2.663E-01	Half-Life too short		
		706.58		-2.277E-01	2.663E-01	Half-Life too short		
		856.28		-1.021E+00	2.663E-01	Half-Life too short		
		875.33		-4.737E-02	2.663E-01	Half-Life too short		
		1236.41		6.540E-01	2.663E-01	Half-Life too short		
		1298.22		3.304E-02	2.663E-01	Half-Life too short		
CS-134		475.35		9.677E-01	1.818E+00	3.136E+00	3.381E-01	0.309
		563.23		4.319E-02	3.349E-01	5.573E-01	5.846E-02	0.078
		569.32		3.984E-02	1.833E-01	3.034E-01	3.179E-02	0.131
		604.70		-2.081E-02	3.535E-02	4.741E-02	4.792E-03	-0.439
	+	795.84	*	9.700E-02	5.209E-02	8.848E-02	8.729E-03	1.096
		801.93		-8.565E-02	3.743E-01	5.842E-01	5.761E-02	-0.147
		1038.57		-1.766E+00	3.825E+00	6.057E+00	5.547E-01	-0.292
		1167.94		-8.325E-02	2.231E+00	3.644E+00	2.946E-01	-0.023
		1365.15		1.652E-01	1.106E+00	1.824E+00	1.590E-01	0.091
CS-135		268.24	*	-3.107E-03	1.577E-01	2.274E-01	3.569E-02	-0.014
I-135		288.45		-2.199E+09	1.577E-01	Half-Life too short		
		417.63		2.313E+10	1.577E-01	Half-Life too short		
		546.56		1.373E+09	1.577E-01	Half-Life too short		
		836.80		1.062E+10	1.577E-01	Half-Life too short		
		1038.76		-8.907E+09	1.577E-01	Half-Life too short		
		1124.00		4.774E+10	1.577E-01	Half-Life too short		
		1131.51		-1.763E+08	1.577E-01	Half-Life too short		
		1260.41	*	-3.034E+09	1.577E-01	Half-Life too short		
		1457.56		7.592E+10	1.577E-01	Half-Life too short		
		1678.03		6.221E+09	1.577E-01	Half-Life too short		
		1706.46		1.502E+10	1.577E-01	Half-Life too short		
		1791.20		-8.315E+08	1.577E-01	Half-Life too short		
CS-136		66.91		4.148E-01	7.167E-01	1.067E+00	1.584E-01	0.389
	+	86.29		5.460E+00	1.710E+00	1.797E+00	2.391E-01	3.038
		153.22		3.401E-01	5.596E-01	9.604E-01	9.813E-02	0.354
		163.89		1.066E+00	9.850E-01	1.705E+00	1.804E-01	0.625
		176.55		-4.024E-01	3.433E-01	5.382E-01	5.710E-02	-0.748
		273.65		1.875E-01	5.296E-01	6.268E-01	9.717E-02	0.299
		340.57		9.685E-02	1.353E-01	2.016E-01	2.731E-02	0.480
		818.51		1.031E-02	6.623E-02	1.075E-01	1.058E-02	0.096
		1048.07	*	3.974E-02	1.040E-01	1.780E-01	1.681E-02	0.223
		1235.34		-2.208E-02	6.464E-01	9.073E-01	1.044E-01	-0.024
CE-139		165.85	*	-3.145E-02	2.772E-02	4.386E-02	4.263E-03	-0.717
BA-140		162.64		6.347E-01	6.983E-01	1.204E+00	1.210E-01	0.527
		304.84		-4.612E-01	1.255E+00	1.722E+00	5.249E-01	-0.268
		423.70		-4.096E-01	1.729E+00	2.858E+00	9.446E-01	-0.143
		537.32	*	2.140E-02	2.118E-01	3.531E-01	1.190E-01	0.061
LA-140	+	328.77		7.554E-01	3.818E-01	5.134E-01	7.287E-02	1.471
		432.53		8.450E-01	1.803E+00	3.121E+00	3.469E-01	0.271
		487.03		1.203E-01	1.269E-01	2.240E-01	2.507E-02	0.537
		751.79		-5.129E-01	1.592E+00	2.481E+00	2.619E-01	-0.207
		815.85		6.527E-02	2.822E-01	4.621E-01	4.951E-02	0.141
		867.82		-1.205E+00	1.238E+00	1.879E+00	1.927E-01	-0.641

---- Non-Identified Nuclides ----

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		919.63		-1.309E+00	2.419E+00	3.734E+00	4.331E-01	-0.350
		925.24		-7.501E-01	1.046E+00	1.627E+00	1.664E-01	-0.461
		1596.49	*	2.144E-02	6.884E-02	1.205E-01	1.013E-02	0.178
CE-141		145.44	*	4.690E-03	6.029E-02	9.154E-02	8.390E-03	0.051
CE-143		57.37		-1.550E-04	6.029E-02	Half-Life too short		
		231.56		8.985E-04	6.029E-02	Half-Life too short		
		293.26	*	2.071E-04	6.029E-02	Half-Life too short		
	+	350.59		2.939E-02	6.029E-02	Half-Life too short		
		490.36		-7.622E-04	6.029E-02	Half-Life too short		
		664.57		7.041E-03	6.029E-02	Half-Life too short		
		721.93		7.075E-04	6.029E-02	Half-Life too short		
CE-144		80.11		-1.969E+00	2.180E+00	3.007E+00	2.586E-01	-0.655
		133.54	*	1.750E-02	1.823E-01	2.958E-01	4.615E-02	0.059
PM-144		476.78		5.376E-02	6.416E-02	1.124E-01	1.286E-02	0.478
		618.01		8.938E-03	2.837E-02	4.761E-02	4.841E-03	0.188
		696.49	*	-2.012E-03	3.272E-02	5.273E-02	5.056E-03	-0.038
		778.57		-1.266E+00	1.977E+00	2.946E+00	2.883E-01	-0.430
PR-144		696.49	*	-1.363E-01	2.217E+00	3.573E+00	3.425E-01	-0.038
		1489.15		4.860E+00	9.661E+00	1.743E+01	1.466E+00	0.279
PM-146		453.90	*	1.301E-02	4.109E-02	7.018E-02	8.800E-03	0.185
		633.02		1.026E+00	1.370E+00	2.280E+00	8.588E-01	0.450
		735.90		-7.841E-02	1.373E-01	2.060E-01	5.962E-02	-0.381
		747.13		-9.609E-02	9.138E-02	1.317E-01	1.941E-02	-0.730
ND-147	+	91.11		1.077E+00	3.433E-01	6.067E-01	6.012E-02	1.776
		319.41		2.620E-01	3.145E+00	5.056E+00	7.208E-01	0.052
		439.89		1.607E+00	5.342E+00	9.140E+00	9.860E-01	0.176
		531.02	*	-1.117E-01	4.636E-01	7.515E-01	1.216E-01	-0.149
PM-149		285.90	*	2.140E+01	8.232E+01	1.347E+02	2.700E+01	0.159
EU-152		121.78		2.668E-02	6.236E-02	1.076E-01	1.052E-02	0.248
		244.69		-3.112E-01	2.933E-01	4.450E-01	6.048E-02	-0.699
		344.27	*	4.048E-02	9.464E-02	1.476E-01	2.001E-02	0.274
		443.98		-8.251E-02	9.028E-01	1.506E+00	1.625E-01	-0.055
		778.89		-1.205E-01	2.281E-01	3.447E-01	3.373E-02	-0.349
		867.32		-7.449E-01	7.346E-01	1.110E+00	1.094E-01	-0.671
		964.01		5.425E-01	2.734E-01	4.832E-01	4.631E-02	1.123
		1085.78		-3.216E-02	3.487E-01	5.696E-01	5.022E-02	-0.056
		1112.02		1.076E-01	2.885E-01	4.917E-01	4.229E-02	0.219
		1407.95		1.307E-01	1.859E-01	3.276E-01	2.737E-02	0.399
GD-153		69.67		-1.547E+00	1.464E+00	2.215E+00	1.706E-01	-0.699
	+	83.37		4.433E+01	1.958E+01	2.312E+01	2.068E+00	1.917
	+	97.43	*	2.584E-01	1.066E-01	1.260E-01	1.120E-02	2.050
		103.18		-8.305E-02	8.885E-02	1.393E-01	1.209E-02	-0.596
EU-154		123.07		-1.190E-02	4.303E-02	7.222E-02	8.124E-03	-0.165
		247.94		-7.724E-02	3.647E-01	5.215E-01	8.194E-02	-0.148
		591.81		-3.965E-01	5.740E-01	8.851E-01	1.140E-01	-0.448
		723.30		-1.272E-01	1.905E-01	2.458E-01	2.577E-02	-0.518
		756.87		-1.078E-01	6.852E-01	1.085E+00	1.389E-01	-0.099
		873.19		7.350E-02	2.802E-01	4.810E-01	6.322E-02	0.153
		996.32		4.121E-02	3.406E-01	5.006E-01	9.093E-02	0.082

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1004.76		1.958E-01	2.005E-01	3.276E-01	3.998E-02	0.598
		1274.45	*	-1.208E-01	1.165E-01	1.659E-01	1.824E-02	-0.728
EU-155		48.70		7.191E-01	1.872E+00	2.828E+00	2.287E-01	0.254
		60.01		2.833E+00	4.584E+00	6.902E+00	4.925E-01	0.410
	+	86.54		5.036E-01	1.504E-01	1.697E-01	1.594E-02	2.967
		105.31	*	7.696E-02	8.844E-02	1.556E-01	1.358E-02	0.495
TB-160	+	86.79		1.345E+00	4.014E-01	4.572E-01	4.270E-02	2.942
		197.04		6.938E-01	5.037E-01	8.559E-01	9.539E-02	0.811
		215.65		-1.652E-01	7.004E-01	1.138E+00	1.374E-01	-0.145
	+	298.57		2.997E-01	1.288E-01	1.853E-01	2.773E-02	1.617
		879.36	*	2.776E-02	1.408E-01	2.368E-01	2.333E-02	0.117
		962.29		-5.948E-01	4.619E-01	6.719E-01	6.444E-02	-0.885
		966.15		4.323E-01	2.069E-01	3.624E-01	3.469E-02	1.193
		1177.93		-2.690E-01	3.345E-01	5.026E-01	4.042E-02	-0.535
		1271.85		-1.676E-01	6.697E-01	1.059E+00	8.683E-02	-0.158
HO-166M		80.57		-2.980E-01	2.785E-01	3.803E-01	3.289E-02	-0.784
	+	184.41		3.634E-01	6.906E-02	7.047E-02	7.431E-03	5.157
		280.46		-9.603E-03	8.274E-02	1.179E-01	1.822E-02	-0.081
	+	410.95		3.989E-01	2.743E-01	3.922E-01	4.208E-02	1.017
		711.68	*	4.307E-02	5.307E-02	9.192E-02	8.853E-03	0.469
		752.31		2.292E-02	2.526E-01	4.100E-01	3.991E-02	0.056
		810.29		-5.395E-02	5.434E-02	7.708E-02	7.575E-03	-0.700
TM-171		51.35		-2.118E+01	2.422E+01	3.733E+01	2.887E+00	-0.567
		52.39		4.133E+00	1.246E+01	2.021E+01	1.539E+00	0.204
		59.40		2.302E+00	2.497E+01	3.677E+01	2.616E+00	0.063
		66.72	*	1.506E+01	2.595E+01	3.873E+01	2.906E+00	0.389
LU-176	+	88.36		9.917E-01	2.959E-01	3.172E-01	2.999E-02	3.127
		201.83		1.763E-02	2.481E-02	4.215E-02	4.797E-03	0.418
		306.84	*	-2.209E-02	2.276E-02	3.376E-02	4.962E-03	-0.654
		401.10		-2.820E+00	5.863E+00	9.598E+00	1.027E+00	-0.294
LU-177M		52.97		9.185E-01	1.293E+00	2.124E+00	1.605E-01	0.432
		54.07		3.819E-01	6.895E-01	1.126E+00	8.386E-02	0.339
		61.30		1.313E-01	1.419E+00	2.086E+00	1.502E-01	0.063
		121.62		1.504E-01	3.203E-01	5.535E-01	4.677E-02	0.272
		147.16		-4.517E-02	6.145E-01	9.247E-01	8.386E-02	-0.049
		171.86		5.352E-02	4.169E-01	6.987E-01	6.970E-02	0.077
		218.09		5.125E-02	7.875E-01	1.297E+00	1.582E-01	0.040
		268.79		5.713E-01	8.444E-01	1.262E+00	1.880E-01	0.453
		319.02		8.151E-03	2.452E-01	3.930E-01	5.608E-02	0.021
		367.43		-1.156E-01	8.851E-01	1.387E+00	1.673E-01	-0.083
		413.65	*	-1.375E-01	1.803E-01	2.491E-01	2.675E-02	-0.552
HF-181		56.28		-1.083E-01	7.681E-01	1.219E+00	8.869E-02	-0.089
		57.53		-1.328E-01	4.319E-01	6.801E-01	4.898E-02	-0.195
		65.20		-1.134E+00	8.913E-01	1.217E+00	9.022E-02	-0.932
		133.02		4.161E-02	6.131E-02	9.642E-02	8.360E-03	0.432
		136.25		2.440E-02	3.883E-01	6.573E-01	5.752E-02	0.037
		345.85		-2.714E-02	1.859E-01	2.776E-01	3.648E-02	-0.098
		482.03	*	9.710E-03	3.781E-02	6.421E-02	6.915E-03	0.151
W-181		56.28		-4.185E-02	3.006E-01	4.770E-01	3.472E-02	-0.088

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		57.53		-5.207E-02	1.692E-01	2.664E-01	1.918E-02	-0.195
		65.20	*	-4.407E-01	3.463E-01	4.730E-01	3.506E-02	-0.932
TA-182		67.75		6.464E-02	9.521E-02	1.535E-01	1.162E-02	0.421
	+	100.10		6.019E-01	2.484E-01	2.554E-01	2.241E-02	2.357
		152.43		2.104E-02	2.842E-01	4.784E-01	4.421E-02	0.044
		222.10		-2.034E-01	3.063E-01	4.836E-01	5.998E-02	-0.421
	+	1001.68		9.648E+00	3.479E+00	4.911E+00	4.610E-01	1.964
	+	1121.28		6.598E-01	2.181E-01	3.343E-01	2.849E-02	1.974
		1189.05		-1.187E-01	3.001E-01	4.729E-01	3.814E-02	-0.251
		1221.42	*	8.890E-02	1.611E-01	2.775E-01	2.255E-02	0.320
		1230.97		1.594E-01	4.323E-01	7.286E-01	5.931E-02	0.219
RE-183		57.98		-3.884E-02	1.711E-01	2.703E-01	1.940E-02	-0.144
		59.32		9.487E-03	1.027E-01	1.512E-01	1.076E-02	0.063
		67.20		7.019E-02	1.851E-01	2.739E-01	2.064E-02	0.256
		162.32	*	6.209E-02	1.017E-01	1.739E-01	1.667E-02	0.357
	+	208.81		1.936E+00	1.140E+00	1.652E+00	1.937E-01	1.172
		291.72		3.060E-02	9.060E-01	1.303E+00	1.975E-01	0.023
RE-184		57.98		-1.431E-01	6.305E-01	9.959E-01	7.148E-02	-0.144
		59.32		3.493E-02	3.780E-01	5.568E-01	3.963E-02	0.063
		67.20		2.585E-01	6.820E-01	1.009E+00	7.601E-02	0.256
		161.27		-1.974E-01	3.252E-01	5.297E-01	5.057E-02	-0.373
		216.55		1.145E-01	2.471E-01	4.140E-01	5.017E-02	0.277
		252.85	*	-6.731E-02	2.166E-01	3.459E-01	4.854E-02	-0.195
		318.01		3.943E-02	4.267E-01	6.867E-01	9.825E-02	0.057
		792.07		-1.110E+00	1.082E+00	1.288E+00	1.262E-01	-0.862
		903.28		-5.381E-01	8.379E-01	1.312E+00	1.289E-01	-0.410
		920.93		-6.734E-02	3.784E-01	6.216E-01	6.071E-02	-0.108
OS-185		59.72		3.169E-02	2.760E-01	4.069E-01	2.897E-02	0.078
		61.14		-1.805E-02	1.552E-01	2.261E-01	1.626E-02	-0.080
		69.30		-2.250E-01	2.582E-01	3.937E-01	3.022E-02	-0.571
		592.07		-1.050E+00	2.292E+00	3.616E+00	3.689E-01	-0.290
		646.12	*	-1.392E-03	3.997E-02	6.496E-02	6.270E-03	-0.021
		717.42		-3.720E-01	8.058E-01	1.243E+00	1.199E-01	-0.299
		874.81		5.323E-02	5.671E-01	9.602E-01	9.462E-02	0.055
		880.27		3.432E-01	7.917E-01	1.355E+00	1.335E-01	0.253
RE-188		155.03	*	1.881E-02	1.449E-01	2.442E-01	2.278E-02	0.077
		477.96		8.591E-02	2.982E+00	4.986E+00	5.373E-01	0.017
		633.10		1.937E+00	2.653E+00	4.575E+00	4.484E-01	0.423
W-188	+	63.58		6.517E+02	1.036E+02	1.191E+02	8.716E+00	5.474
		227.08		-2.221E+00	1.166E+01	1.891E+01	2.394E+00	-0.117
		290.67	*	-4.125E-01	7.271E+00	1.038E+01	1.577E+00	-0.040
IR-192	+	295.96		1.121E+00	2.211E-01	2.769E-01	4.174E-02	4.048
		308.46		3.551E-02	8.924E-02	1.464E-01	2.149E-02	0.243
		316.51	*	-1.363E-02	3.425E-02	5.337E-02	7.672E-03	-0.255
		468.07		-2.205E-02	7.177E-02	1.026E-01	1.158E-02	-0.215
		604.41		-3.242E-01	4.937E-01	6.564E-01	9.214E-02	-0.494
		612.46		2.734E-01	6.564E-01	9.869E-01	1.099E-01	0.277
AU-195		65.12		-5.457E-02	1.537E-01	2.205E-01	1.634E-02	-0.247
		66.83		4.979E-02	8.581E-02	1.281E-01	9.619E-03	0.389

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	75.70		9.559E-01	2.124E-01	3.590E-01	2.937E-02	2.663
	+	98.88	*	7.524E-01	3.105E-01	3.875E-01	3.418E-02	1.942
	+	129.76		3.566E+00	3.349E+00	4.377E+00	3.762E-01	0.815
TL-200		367.94	*	-4.683E-05	3.349E+00	Half-Life too short		
		579.30		6.821E-04	3.349E+00	Half-Life too short		
		828.27		1.397E-03	3.349E+00	Half-Life too short		
		1205.75		5.079E-04	3.349E+00	Half-Life too short		
TL-201		68.90		-1.314E+00	4.085E+00	6.374E+00	4.875E-01	-0.206
		70.82		-7.253E-01	2.583E+00	3.704E+00	2.884E-01	-0.196
		80.30		-5.028E+00	5.171E+00	7.105E+00	6.124E-01	-0.708
		135.34		-2.017E+01	2.183E+01	3.540E+01	3.090E+00	-0.570
		167.43	*	2.754E+00	6.085E+00	1.034E+01	1.012E+00	0.266
TL-202		68.90		-1.179E-01	3.665E-01	5.719E-01	4.374E-02	-0.206
		70.82		-6.489E-02	2.311E-01	3.314E-01	2.580E-02	-0.196
		80.30		-4.500E-01	4.628E-01	6.359E-01	5.481E-02	-0.708
		439.56	*	-2.250E-02	6.581E-02	1.080E-01	1.165E-02	-0.208
HG-203		70.83		-2.699E-01	1.002E+00	1.437E+00	1.881E-01	-0.188
		72.87		4.107E-01	6.020E-01	8.893E-01	1.136E-01	0.462
		82.60		1.147E+00	1.222E+00	1.604E+00	2.228E-01	0.715
		279.20	*	2.274E-02	4.053E-02	6.067E-02	9.477E-03	0.375
BI-207		72.80		1.125E-01	1.760E-01	2.602E-01	2.065E-02	0.432
	+	74.97		5.302E-01	1.178E-01	1.912E-01	1.552E-02	2.773
	+	84.90		5.734E-01	2.532E-01	2.998E-01	2.734E-02	1.912
		569.67		-9.210E-03	2.938E-02	4.670E-02	4.846E-03	-0.197
		1063.62	*	5.467E-02	4.297E-02	7.989E-02	7.177E-03	0.684
		1770.23		3.040E-02	4.165E-01	6.047E-01	4.977E-02	0.050
TL-207		81.07		-2.845E-01	2.217E-01	2.987E-01	2.599E-02	-0.952
	+	83.78		3.781E-01	1.670E-01	1.998E-01	1.797E-02	1.892
		94.90		2.274E-01	2.666E-01	3.497E-01	3.150E-02	0.650
		122.32		2.663E-01	1.472E+00	2.517E+00	2.290E-01	0.106
	+	144.24		8.343E-01	7.979E-01	1.087E+00	1.083E-01	0.767
		154.21		1.061E-01	3.395E-01	5.764E-01	5.822E-02	0.184
	+	269.46		5.135E-01	3.256E-01	3.224E-01	4.849E-02	1.593
		323.87	*	7.846E-02	6.746E-01	9.681E-01	2.025E-01	0.081
	+	338.28		5.963E+00	2.015E+00	2.413E+00	3.885E-01	2.471
		445.03		-2.330E-01	2.130E+00	3.548E+00	4.868E-01	-0.066
PO-209		260.50		3.223E+00	8.779E+00	1.452E+01	2.098E+00	0.222
		262.80		-6.608E+00	2.442E+01	3.896E+01	5.677E+00	-0.170
		896.60	*	1.689E+00	6.389E+00	1.097E+01	1.081E+00	0.154
PB-211		404.84	*	4.425E-01	9.480E-01	1.409E+00	8.872E-01	0.314
		427.08		-4.846E-01	1.829E+00	2.981E+00	1.862E+00	-0.163
		831.96		2.098E-01	1.078E+00	1.741E+00	1.094E+00	0.121
BI-212	+	727.18	*	8.652E-01	3.986E-01	6.065E-01	6.629E-02	1.426
		785.46		1.356E+00	1.835E+00	3.113E+00	3.050E-01	0.435
		1620.62		8.398E-01	1.206E+00	2.199E+00	1.846E-01	0.382
PO-215		81.07		-2.845E-01	2.217E-01	2.987E-01	2.599E-02	-0.952
	+	83.78		3.781E-01	1.670E-01	1.998E-01	1.797E-02	1.892
		94.90		2.274E-01	2.666E-01	3.497E-01	3.150E-02	0.650
		122.32		2.663E-01	1.472E+00	2.517E+00	2.290E-01	0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	144.24		8.343E-01	7.979E-01	1.087E+00	1.083E-01	0.767
		154.21		1.061E-01	3.395E-01	5.764E-01	5.822E-02	0.184
	+	269.46		5.135E-01	3.256E-01	3.224E-01	4.849E-02	1.593
		323.87	*	7.846E-02	6.746E-01	9.681E-01	2.025E-01	0.081
	+	338.28		5.963E+00	2.015E+00	2.413E+00	3.885E-01	2.471
		445.03		-2.330E-01	2.130E+00	3.548E+00	4.868E-01	-0.066
RN-219	+	271.23		6.588E-01	4.192E-01	4.297E-01	6.905E-02	1.533
		401.81	*	-4.697E-02	3.537E-01	5.926E-01	9.664E-02	-0.079
RN-220		549.76	*	1.996E+01	2.322E+01	4.074E+01	4.281E+00	0.490
RA-223		81.07		-2.845E-01	2.217E-01	2.987E-01	2.599E-02	-0.952
	+	83.78		3.781E-01	1.670E-01	1.998E-01	1.797E-02	1.892
		94.90		2.274E-01	2.666E-01	3.497E-01	3.150E-02	0.650
		122.32		2.663E-01	1.472E+00	2.517E+00	2.290E-01	0.106
	+	144.24		8.343E-01	7.979E-01	1.087E+00	1.083E-01	0.767
		154.21		1.061E-01	3.395E-01	5.764E-01	5.822E-02	0.184
	+	269.46		5.135E-01	3.256E-01	3.224E-01	4.849E-02	1.593
		323.87	*	7.846E-02	6.746E-01	9.681E-01	2.025E-01	0.081
	+	338.28		5.963E+00	2.015E+00	2.413E+00	3.885E-01	2.471
		445.03		-2.330E-01	2.130E+00	3.548E+00	4.868E-01	-0.066
AC-227		79.80		-1.584E+00	1.714E+00	2.320E+00	4.985E-01	-0.683
		236.00		-1.282E-02	2.311E-01	3.360E-01	5.291E-02	-0.038
		256.20	*	1.287E-01	3.622E-01	5.982E-01	1.140E-01	0.215
		286.10		4.452E-01	1.369E+00	2.247E+00	4.110E-01	0.198
	+	299.80		3.816E+00	1.740E+00	2.485E+00	5.296E-01	1.536
		304.40		1.058E+00	1.771E+00	2.643E+00	5.814E-01	0.400
		334.20		-1.175E+00	2.540E+00	3.441E+00	7.610E-01	-0.342
TH-227		79.80		-1.584E+00	1.715E+00	2.320E+00	5.049E-01	-0.683
	+	94.00		6.677E+01	1.509E+01	4.772E+00	1.048E+00	13.993
		236.00		-1.282E-02	2.311E-01	3.360E-01	4.993E-02	-0.038
		256.20	*	1.287E-01	3.624E-01	5.982E-01	1.274E-01	0.215
		286.10		4.452E-01	1.439E+00	2.247E+00	2.274E+00	0.198
	+	299.80		3.816E+00	1.740E+00	2.485E+00	5.296E-01	1.536
		304.40		1.058E+00	1.771E+00	2.643E+00	5.814E-01	0.400
		334.20		-1.175E+00	2.540E+00	3.441E+00	7.610E-01	-0.342
PA-231		283.67	*	-8.771E-01	1.452E+00	2.117E+00	4.194E-01	-0.414
		301.29		1.153E+00	5.936E-01	9.963E-01	1.717E-01	1.158
TH-231		81.07		-2.845E-01	2.217E-01	2.987E-01	2.599E-02	-0.952
	+	83.78		3.781E-01	1.670E-01	1.998E-01	1.797E-02	1.892
		94.90		2.274E-01	2.666E-01	3.497E-01	3.150E-02	0.650
		122.32		2.663E-01	1.472E+00	2.517E+00	2.290E-01	0.106
	+	144.24		8.343E-01	7.979E-01	1.087E+00	1.083E-01	0.767
		154.21		1.061E-01	3.395E-01	5.764E-01	5.822E-02	0.184
	+	269.46		5.135E-01	3.256E-01	3.224E-01	4.849E-02	1.593
		323.87	*	7.846E-02	6.746E-01	9.681E-01	2.025E-01	0.081
	+	338.28		5.963E+00	2.015E+00	2.413E+00	3.885E-01	2.471
		445.03		-2.330E-01	2.130E+00	3.548E+00	4.868E-01	-0.066
U-231	+	84.21		1.632E+01	7.206E+00	8.662E+00	7.830E-01	1.884
	+	92.29		6.610E+01	6.965E+00	6.978E+00	6.393E-01	9.473
		95.87	*	9.744E-01	1.184E+00	1.557E+00	1.395E-01	0.626

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.016E+00	2.033E+00	3.058E+00	2.619E-01	-0.332
PA-233	+	75.28		1.547E+01	3.959E+00	5.645E+00	8.516E-01	2.741
	+	86.59		8.185E+00	3.207E+00	2.768E+00	7.488E-01	2.957
	+	300.12		1.064E+00	4.750E-01	6.883E-01	1.323E-01	1.546
		311.98	*	1.402E-02	6.253E-02	1.015E-01	1.489E-02	0.138
		340.50		6.052E-01	6.777E-01	1.001E+00	2.596E-01	0.605
		398.62		3.287E-01	1.830E+00	3.125E+00	8.554E-01	0.105
		415.76		6.817E-01	1.558E+00	2.682E+00	6.031E-01	0.254
PA-234	+	63.00		1.890E+01	3.866E+00	3.557E+00	5.265E-01	5.313
		94.67		3.291E-01	1.986E-01	2.676E-01	3.394E-02	1.230
	+	98.44		3.048E-01	2.099E-01	1.574E-01	8.787E-02	1.937
	+	99.86		1.580E+00	6.521E-01	7.106E-01	6.242E-02	2.224
		111.00		-7.277E-02	1.865E-01	2.814E-01	3.381E-02	-0.259
		131.20		3.046E-02	9.994E-02	1.545E-01	1.333E-02	0.197
		152.70		-3.375E-02	2.782E-01	4.644E-01	8.069E-02	-0.073
	+	186.00		1.308E+01	4.646E+00	3.124E+00	9.942E-01	4.187
		226.40		2.257E-01	3.648E-01	6.127E-01	9.868E-02	0.368
		227.20		-5.308E-02	3.919E-01	6.375E-01	8.075E-02	-0.083
		248.90		-7.056E-03	8.378E-01	1.217E+00	3.027E-01	-0.006
		293.70		3.161E+00	9.835E-01	1.380E+00	2.937E-01	2.291
		369.80		3.590E-01	8.771E-01	1.419E+00	3.304E-01	0.253
		568.70		5.436E-02	9.439E-01	1.544E+00	1.604E-01	0.035
		569.50		-7.187E-02	2.614E-01	4.169E-01	4.326E-02	-0.172
		574.00		7.338E-02	1.311E+00	2.167E+00	2.241E-01	0.034
		699.00		-6.352E-01	6.995E-01	1.027E+00	2.006E-01	-0.619
		706.10		-1.319E+00	1.143E+00	1.388E+00	6.219E-01	-0.950
		733.00		-1.421E-01	3.703E-01	5.175E-01	1.171E-01	-0.275
		742.81		3.855E-01	1.396E+00	2.264E+00	1.525E+00	0.170
	+	796.30		1.885E+00	1.122E+00	1.725E+00	4.735E-01	1.093
		805.60		-1.822E-01	9.037E-01	1.413E+00	4.380E-01	-0.129
		819.60		-1.410E-01	1.084E+00	1.705E+00	6.534E-01	-0.083
		826.30		-1.889E-01	7.634E-01	1.179E+00	5.305E-01	-0.160
		831.60		1.832E-01	5.633E-01	9.242E-01	2.793E-01	0.198
		876.40		-1.669E-01	8.468E-01	1.370E+00	1.410E+00	-0.122
		880.51		1.301E-01	2.868E-01	4.916E-01	4.844E-02	0.265
		883.24		-2.644E-01	3.381E-01	4.448E-01	2.997E-01	-0.594
		899.00		-2.441E-01	7.001E-01	1.119E+00	4.919E-01	-0.218
		925.00		-4.572E-01	1.059E+00	1.697E+00	1.655E-01	-0.269
		926.50		9.224E-03	1.567E-01	2.634E-01	6.766E-02	0.035
		946.00	*	-1.125E-01	2.848E-01	4.569E-01	8.802E-02	-0.246
		949.00		2.436E-02	4.164E-01	6.985E-01	6.742E-02	0.035
		980.50		-4.929E-01	6.146E-01	9.306E-01	8.842E-02	-0.530
		1394.10		3.852E-02	8.818E-01	1.432E+00	9.318E-01	0.027
PA-234M		766.42		2.460E+01	1.826E+01	2.212E+01	1.127E+01	1.112
	+	1001.03	*	2.190E+01	7.974E+00	1.115E+01	1.186E+00	1.965
NP-236		94.67		2.523E-01	1.491E-01	2.032E-01	1.833E-02	1.241
	+	98.44		2.304E-01	9.509E-02	1.190E-01	1.052E-02	1.937
		111.00		-5.504E-02	1.410E-01	2.129E-01	1.813E-02	-0.259
		160.31	*	2.077E-03	7.063E-02	1.183E-01	1.126E-02	0.018

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		5.267E-01	2.174E-01	2.560E-01	2.252E-02	2.058
		117.00	*	-3.450E-02	1.656E-01	2.672E-01	2.261E-02	-0.129
	+	209.75		1.527E+00	8.993E-01	1.307E+00	1.539E-01	1.168
		228.18		-1.045E-01	2.066E-01	3.290E-01	4.184E-02	-0.318
	+	277.60		2.380E-01	3.152E-01	2.864E-01	4.408E-02	0.831
		334.30		-7.704E-01	1.431E+00	1.930E+00	2.636E-01	-0.399
AM-241		59.54	*	1.125E-02	1.453E-01	2.138E-01	1.680E-02	0.053
CM-243	+	99.55		5.420E-01	2.237E-01	2.634E-01	2.317E-02	2.058
		103.76	*	-3.477E-02	7.722E-02	1.299E-01	1.125E-02	-0.268
		117.00		-3.550E-02	1.704E-01	2.749E-01	2.326E-02	-0.129
	+	209.75		1.506E+00	8.865E-01	1.289E+00	1.517E-01	1.168
		228.18		-1.056E-01	2.087E-01	3.324E-01	4.228E-02	-0.318
	+	277.60		2.400E-01	3.177E-01	2.887E-01	4.444E-02	0.831
AM-246		798.80		-1.145E-02	1.455E-01	2.008E-01	1.971E-02	-0.057
		1036.00		3.497E-02	2.946E-01	4.932E-01	4.525E-02	0.071
		1062.04		8.592E-02	1.945E-01	3.359E-01	3.021E-02	0.256
		1078.86	*	2.927E-02	1.311E-01	2.210E-01	1.960E-02	0.132
CM-247	+	278.00		9.871E-01	1.307E+00	1.196E+00	1.843E-01	0.826
		287.40		4.718E-01	1.131E+00	1.864E+00	2.848E-01	0.253
		402.60	*	5.379E-03	3.239E-02	5.529E-02	5.917E-03	0.097
CF-249		252.85		-2.526E-01	8.128E-01	1.298E+00	1.821E-01	-0.195
		333.44		1.442E-01	1.769E-01	2.665E-01	3.650E-02	0.541
		387.95	*	5.931E-03	3.494E-02	5.980E-02	6.512E-03	0.099
CF-251		176.60	*	-1.356E-01	1.183E-01	1.859E-01	1.894E-02	-0.729
		227.00		-5.687E-02	3.502E-01	5.689E-01	7.200E-02	-0.100
		285.00		-4.652E-01	1.577E+00	2.494E+00	3.826E-01	-0.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799005      *
* Acquisition date : 10-FEB-2010 15:09:08 Detector SN#     :               *
* Detector ID        : GAM11               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.99     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799005           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.3033E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :     0.000            MSD Isotope     :                 *
* LCS DPM          :     0.000            LCS Isotope     :                 *
* LCSD DPM         :     0.000            LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.002E+01	3.013E+00	3.872E-01	0.000E+00
CD-109	4.254E+00	1.244E+00	1.080E+00	0.000E+00
SN-126	4.181E-01	1.223E-01	1.065E-01	0.000E+00
BA-137M	9.187E-01	1.216E-01	5.811E-02	0.000E+00
CS-137	9.712E-01	1.287E-01	6.143E-02	0.000E+00
LU-177	2.157E+00	1.244E+00	1.745E+00	0.000E+00
TL-208	4.834E-01	8.261E-02	5.365E-02	0.000E+00
BI-210	5.055E+00	3.448E+00	3.959E+00	0.000E+00
PB-210	5.055E+00	3.448E+00	3.959E+00	0.000E+00
PO-210	5.055E+00	3.442E+00	3.959E+00	0.000E+00
BI-211	3.680E+00	6.383E-01	2.887E-01	0.000E+00
PB-212	1.473E+00	2.266E-01	8.436E-02	0.000E+00
PO-212	1.473E+00	2.266E-01	8.436E-02	0.000E+00
BI-214	1.042E+00	1.773E-01	9.284E-02	0.000E+00
PB-214	1.280E+00	2.315E-01	1.006E-01	0.000E+00
PO-214	1.280E+00	2.315E-01	1.006E-01	0.000E+00
PO-216	1.473E+00	2.266E-01	8.436E-02	0.000E+00
PO-218	1.280E+00	2.315E-01	1.006E-01	0.000E+00
RA-224	4.235E+00	1.225E+00	9.602E-01	0.000E+00
RA-226	1.042E+00	1.773E-01	9.284E-02	0.000E+00
AC-228	1.371E+00	2.976E-01	2.065E-01	0.000E+00
RA-228	1.371E+00	2.976E-01	2.065E-01	0.000E+00
TH-228	1.495E+00	2.300E-01	8.564E-02	0.000E+00
TH-229	-3.206E-01	4.363E-01	7.340E-01	0.000E+00
TH-230	1.042E+00	1.773E-01	9.284E-02	0.000E+00
TH-232	1.371E+00	2.976E-01	2.065E-01	0.000E+00
TH-234	1.621E+01	3.559E+00	1.849E+00	0.000E+00
U-234	1.042E+00	1.773E-01	9.284E-02	0.000E+00
U-235	2.574E-01	2.441E-01	3.056E-01	0.000E+00
NP-237	1.228E+00	4.365E-01	3.154E-01	0.000E+00
U-238	1.621E+01	3.559E+00	1.849E+00	0.000E+00
AM-243	2.954E-01	6.431E-02	8.520E-02	0.000E+00
ANH-511	9.680E-02	6.458E-02	4.122E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-3.152E-03	3.041E-01	5.277E-01	0.000E+00	NOT IDENT.
NA-22	-4.247E-02	4.083E-02	5.986E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.214E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	8.806E-03	2.338E-02	4.236E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.959E-02	6.348E-02	0.000E+00	FAIL ABUN
SC-46	1.013E-02	3.440E-02	6.096E-02	0.000E+00	FAIL ABUN
V-48	1.556E-03	5.833E-02	1.000E-01	0.000E+00	NOT IDENT.
CR-51	-2.983E-02	3.501E-01	5.831E-01	0.000E+00	NOT IDENT.
MN-52	-4.377E-02	1.894E-01	2.987E-01	0.000E+00	NOT IDENT.
MN-54	-7.002E-03	3.240E-02	5.532E-02	0.000E+00	NOT IDENT.
CO-56	-8.899E-04	3.435E-02	5.949E-02	0.000E+00	FAIL ABUN
CO-57	8.827E-03	2.098E-02	3.846E-02	0.000E+00	NOT IDENT.
CO-58	-3.302E-02	3.526E-02	5.211E-02	0.000E+00	NOT IDENT.
FE-59	-1.204E-02	7.613E-02	1.266E-01	0.000E+00	FAIL ABUN
CO-60	3.999E-03	3.699E-02	6.206E-02	0.000E+00	NOT IDENT.
ZN-65	-5.008E-02	9.408E-02	1.275E-01	0.000E+00	NOT IDENT.
GE-68	6.459E-01	1.130E+00	2.015E+00	0.000E+00	NOT IDENT.
AS-73	5.667E-01	6.507E-01	1.156E+00	0.000E+00	NOT IDENT.
AS-74	6.290E-02	8.273E-02	1.484E-01	0.000E+00	NOT IDENT.
SE-75	1.499E-02	3.871E-02	6.724E-02	0.000E+00	NOT IDENT.
BR-77	5.036E+00	9.319E+00	1.665E+01	0.000E+00	FAIL ABUN
SR-82	-9.409E-02	3.231E-01	5.190E-01	0.000E+00	NOT IDENT.
RB-83	1.977E-02	6.236E-02	1.098E-01	0.000E+00	NOT IDENT.
RB-84	3.040E-02	6.688E-02	1.198E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.330E+00	1.260E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.759E-02	6.464E-02	0.000E+00	NOT IDENT.
RB-86	2.935E-01	7.122E-01	1.253E+00	0.000E+00	NOT IDENT.
Y-88	-1.162E-02	2.550E-02	3.794E-02	0.000E+00	NOT IDENT.
ZR-88	3.069E-03	2.625E-02	4.669E-02	0.000E+00	NOT IDENT.
Y-91	-3.193E+00	1.718E+01	2.828E+01	0.000E+00	NOT IDENT.
NB-94	2.482E-02	3.131E-02	5.556E-02	0.000E+00	NOT IDENT.
NB-95	6.002E-02	4.834E-02	7.859E-02	0.000E+00	NOT IDENT.
NB-95M	-1.326E-02	1.220E-01	1.860E-01	0.000E+00	NOT IDENT.
ZR-95	3.655E-02	6.359E-02	1.110E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.980E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.636E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.796E+00	1.120E+01	1.889E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.747E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.662E-02	2.911E-02	5.084E-02	0.000E+00	NOT IDENT.
RH-102	8.246E-03	2.702E-02	4.784E-02	0.000E+00	FAIL ABUN
RU-103	4.383E-04	3.288E-02	5.695E-02	0.000E+00	FAIL ABUN
RH-106	-2.603E-01	2.688E-01	4.104E-01	0.000E+00	FAIL ABUN
RU-106	-2.603E-01	2.675E-01	4.104E-01	0.000E+00	FAIL ABUN
AG-108M	-1.052E-02	2.873E-02	4.907E-02	0.000E+00	NOT IDENT.
AG-110M	7.707E-03	3.539E-02	5.349E-02	0.000E+00	NOT IDENT.
IN-111	-6.479E-01	1.006E+00	1.459E+00	0.000E+00	NOT IDENT.
IN-113M	-1.574E-02	3.839E-02	6.610E-02	0.000E+00	NOT IDENT.
SN-113	-1.574E-02	3.839E-02	6.610E-02	0.000E+00	NOT IDENT.
IN-114M	9.203E-02	1.661E-01	2.686E-01	0.000E+00	NOT IDENT.
CD-115	1.404E+00	8.994E+00	1.566E+01	0.000E+00	NOT IDENT.
SN-117M	4.343E-03	4.600E-02	8.186E-02	0.000E+00	NOT IDENT.
SB-122	1.214E+00	1.891E+00	3.377E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.052E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-4.901E-03	2.451E-02	4.308E-02	0.000E+00	NOT IDENT.
I-124	-1.188E-01	6.526E-01	1.008E+00	0.000E+00	NOT IDENT.
SB-124	2.500E-03	6.696E-02	1.139E-01	0.000E+00	FAIL ABUN
SB-125	-7.376E-02	7.962E-02	1.303E-01	0.000E+00	FAIL ABUN
TE-125M	5.518E+00	8.627E+00	1.454E+01	0.000E+00	NOT IDENT.
I-126	1.249E-01	1.939E-01	3.023E-01	0.000E+00	NOT IDENT.
SB-126	1.386E-01	1.323E-01	2.332E-01	0.000E+00	FAIL ABUN
SB-127	-1.521E-01	1.221E+00	2.026E+00	0.000E+00	FAIL ABUN
XE-127	-3.701E-03	4.120E-02	7.141E-02	0.000E+00	NOT IDENT.
I-131	7.231E-02	1.095E-01	1.888E-01	0.000E+00	NOT IDENT.
TE-132	-2.997E-01	6.213E-01	1.042E+00	0.000E+00	FAIL ABUN
BA-133	-1.217E-02	4.367E-02	6.255E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.985E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.105E-02	8.945E-02	0.000E+00	FAIL ABUN
CS-135	-3.107E-03	1.546E-01	2.340E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.170E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.974E-02	1.020E-01	1.792E-01	0.000E+00	FAIL ABUN
CE-139	-3.145E-02	2.717E-02	4.548E-02	0.000E+00	NOT IDENT.
BA-140	2.140E-02	2.075E-01	3.593E-01	0.000E+00	NOT IDENT.

LA-140	2.144E-02	6.746E-02	1.204E-01	0.000E+00	FAIL ABUN
CE-141	4.690E-03	5.908E-02	9.511E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.429E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.750E-02	1.786E-01	3.078E-01	0.000E+00	NOT IDENT.
PM-144	-2.012E-03	3.207E-02	5.343E-02	0.000E+00	NOT IDENT.
PR-144	-1.363E-01	2.173E+00	3.621E+00	0.000E+00	NOT IDENT.
PM-146	1.301E-02	4.027E-02	7.161E-02	0.000E+00	NOT IDENT.
ND-147	-1.117E-01	4.544E-01	7.648E-01	0.000E+00	FAIL ABUN
PM-149	2.140E+01	8.067E+01	1.384E+02	0.000E+00	NOT IDENT.
EU-152	4.048E-02	9.275E-02	1.513E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.045E-01	1.317E-01	0.000E+00	FAIL ABUN
EU-154	-1.208E-01	1.142E-01	1.664E-01	0.000E+00	NOT IDENT.
EU-155	7.696E-02	8.667E-02	1.625E-01	0.000E+00	FAIL ABUN
TB-160	2.776E-02	1.380E-01	2.390E-01	0.000E+00	FAIL ABUN
HO-166M	4.307E-02	5.201E-02	9.310E-02	0.000E+00	FAIL ABUN
TM-171	1.506E+01	2.543E+01	4.073E+01	0.000E+00	NOT IDENT.
LU-176	-2.209E-02	2.230E-02	3.466E-02	0.000E+00	FAIL ABUN
LU-177M	-1.375E-01	1.767E-01	2.545E-01	0.000E+00	NOT IDENT.
HF-181	9.710E-03	3.706E-02	6.545E-02	0.000E+00	NOT IDENT.
W-181	-4.407E-01	3.394E-01	4.976E-01	0.000E+00	NOT IDENT.
TA-182	8.890E-02	1.579E-01	2.786E-01	0.000E+00	FAIL ABUN
RE-183	6.209E-02	9.969E-02	1.803E-01	0.000E+00	FAIL ABUN
RE-184	-6.731E-02	2.123E-01	3.563E-01	0.000E+00	NOT IDENT.
OS-185	-1.392E-03	3.917E-02	6.590E-02	0.000E+00	NOT IDENT.
RE-188	1.881E-02	1.420E-01	2.535E-01	0.000E+00	NOT IDENT.
W-188	-4.125E-01	7.126E+00	1.067E+01	0.000E+00	FAIL ABUN
IR-192	-1.363E-02	3.357E-02	5.478E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.043E-01	4.050E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.518E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.754E+00	5.963E+00	1.072E+01	0.000E+00	NOT IDENT.
TL-202	-2.250E-02	6.449E-02	1.103E-01	0.000E+00	NOT IDENT.
HG-203	2.274E-02	3.972E-02	6.239E-02	0.000E+00	NOT IDENT.
BI-207	5.467E-02	4.211E-02	8.038E-02	0.000E+00	FAIL ABUN
TL-207	7.846E-02	6.611E-01	9.932E-01	0.000E+00	FAIL ABUN
PO-209	1.689E+00	6.261E+00	1.107E+01	0.000E+00	NOT IDENT.
PB-211	4.425E-01	9.291E-01	1.440E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.906E-01	6.141E-01	0.000E+00	FAIL ABUN
PO-215	7.846E-02	6.611E-01	9.932E-01	0.000E+00	FAIL ABUN
RN-219	-4.697E-02	3.466E-01	6.058E-01	0.000E+00	FAIL ABUN
RN-220	1.996E+01	2.276E+01	4.144E+01	0.000E+00	NOT IDENT.
RA-223	7.846E-02	6.611E-01	9.932E-01	0.000E+00	FAIL ABUN
AC-227	1.287E-01	3.549E-01	6.160E-01	0.000E+00	FAIL ABUN
TH-227	1.287E-01	3.551E-01	6.160E-01	0.000E+00	FAIL ABUN
PA-231	-8.771E-01	1.423E+00	2.176E+00	0.000E+00	NOT IDENT.
TH-231	7.846E-02	6.611E-01	9.932E-01	0.000E+00	FAIL ABUN
U-231	9.744E-01	1.160E+00	1.628E+00	0.000E+00	FAIL ABUN
PA-233	1.402E-02	6.128E-02	1.042E-01	0.000E+00	FAIL ABUN
PA-234	-1.125E-01	2.791E-01	4.606E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	7.815E+00	1.122E+01	0.000E+00	FAIL ABUN
NP-236	2.077E-03	6.922E-02	1.228E-01	0.000E+00	FAIL ABUN
NP-239	-3.450E-02	1.623E-01	2.785E-01	0.000E+00	FAIL ABUN
AM-241	1.125E-02	1.423E-01	2.252E-01	0.000E+00	NOT IDENT.
CM-243	-3.477E-02	7.567E-02	1.357E-01	0.000E+00	FAIL ABUN
AM-246	2.927E-02	1.284E-01	2.223E-01	0.000E+00	NOT IDENT.
CM-247	5.379E-03	3.175E-02	5.652E-02	0.000E+00	FAIL ABUN
CF-249	5.931E-03	3.425E-02	6.117E-02	0.000E+00	NOT IDENT.
CF-251	-1.356E-01	1.160E-01	1.926E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:09:36.95

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799005.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:09:08
Sample ID         : G245799005           Sample quantity  : 1.30330E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.99  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1362	10.67*	1.225E+00	3.002E+01	3.002E+01	10.24
CD-109	88.03	365	3.72*	6.797E+00	4.159E+00	4.254E+00	29.84
SN-126	64.28	913	9.60	4.269E+00	6.418E+00	6.418E+00	20.22
	86.94	365	8.90	6.797E+00	1.738E+00	1.738E+00	50.26
	87.57	365	37.00*	6.797E+00	4.181E-01	4.181E-01	29.84
BA-137M	661.65	689	89.98*	2.403E+00	9.178E-01	9.187E-01	13.51
CS-137	661.65	689	85.12*	2.403E+00	9.702E-01	9.712E-01	13.52
LU-177	112.95	119	6.40	7.410E+00	7.253E-01	3.477E+00	64.97
	208.36	98	11.00*	5.704E+00	4.498E-01	2.157E+00	58.88
TL-208	277.35	54	6.80	4.677E+00	4.936E-01	4.936E-01	132.70
	510.84	99	21.60	2.953E+00	4.481E-01	4.481E-01	68.58
	583.14	376	84.20*	2.661E+00	4.834E-01	4.834E-01	17.44
	860.37	------	12.46	1.927E+00	------ Line Not Found		------
BI-210	46.50	110	4.05*	1.550E+00	5.048E+00	5.055E+00	69.60
PB-210	46.50	110	4.05*	1.550E+00	5.048E+00	5.055E+00	69.60
PO-210	46.50	110	4.05*	1.550E+00	5.048E+00	5.055E+00	69.49
BI-211	72.87	------	1.27	5.576E+00	------ Line Not Found		------
	351.07	648	12.94*	3.921E+00	3.680E+00	3.680E+00	17.70
PB-212	74.81	392	10.70	5.798E+00	1.822E+00	1.822E+00	24.10
	77.11	669	18.00	6.020E+00	1.778E+00	1.778E+00	15.42
	87.30	365	8.00	6.797E+00	1.934E+00	1.934E+00	31.47
	238.63	1188	44.60*	5.209E+00	1.473E+00	1.473E+00	15.70
	300.09	108	3.41	4.417E+00	2.059E+00	2.059E+00	43.37
PO-212	74.81	392	10.70	5.798E+00	1.822E+00	1.822E+00	24.10
	77.11	669	18.00	6.020E+00	1.778E+00	1.778E+00	15.42
	87.30	365	8.00	6.797E+00	1.934E+00	1.934E+00	31.47
	115.19	------	0.60	7.407E+00	------ Line Not Found		------
	238.63	1188	44.60*	5.209E+00	1.473E+00	1.473E+00	15.70
	300.09	108	3.41	4.417E+00	2.059E+00	2.059E+00	43.37
BI-214	609.31	430	46.30*	2.569E+00	1.042E+00	1.042E+00	17.36
	1120.29	112	15.10	1.530E+00	1.395E+00	1.395E+00	33.71
	1764.49	82	15.80	1.070E+00	1.390E+00	1.390E+00	34.51

Sample ID : G245799005 Acquisition date : 10-FEB-2010 15:09:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	392	6.21	5.798E+00	3.139E+00	3.139E+00	23.42
	77.11	669	10.50	6.020E+00	3.048E+00	3.048E+00	17.20
	87.30	365	4.67	6.797E+00	3.313E+00	3.313E+00	30.82
	241.98	300	7.49	5.163E+00	2.233E+00	2.233E+00	30.05
	295.21	438	19.20	4.466E+00	1.470E+00	1.470E+00	20.66
	351.92	648	37.20*	3.921E+00	1.280E+00	1.280E+00	18.45
PO-214	74.81	392	6.21	5.798E+00	3.139E+00	3.139E+00	23.42
	77.11	669	10.50	6.020E+00	3.048E+00	3.048E+00	17.20
	87.30	365	4.67	6.797E+00	3.313E+00	3.313E+00	30.82
	241.98	300	7.49	5.163E+00	2.233E+00	2.233E+00	30.05
	295.21	438	19.20	4.466E+00	1.470E+00	1.470E+00	20.66
	351.92	648	37.20*	3.921E+00	1.280E+00	1.280E+00	18.45
PO-216	74.81	392	10.70	5.798E+00	1.822E+00	1.822E+00	24.10
	77.11	669	18.00	6.020E+00	1.778E+00	1.778E+00	15.42
	87.30	365	8.00	6.797E+00	1.934E+00	1.934E+00	31.47
	238.63	1188	44.60*	5.209E+00	1.473E+00	1.473E+00	15.70
	300.09	108	3.41	4.417E+00	2.059E+00	2.059E+00	43.37
PO-218	74.81	392	6.21	5.798E+00	3.139E+00	3.139E+00	23.42
	77.11	669	10.50	6.020E+00	3.048E+00	3.048E+00	17.20
	87.30	365	4.67	6.797E+00	3.313E+00	3.313E+00	30.82
	241.98	300	7.49	5.163E+00	2.233E+00	2.233E+00	30.05
	295.21	438	19.20	4.466E+00	1.470E+00	1.470E+00	20.66
	351.92	648	37.20*	3.921E+00	1.280E+00	1.280E+00	18.45
RA-224	240.98	300	3.95*	5.163E+00	4.235E+00	4.235E+00	29.53
RA-226	609.31	430	46.30*	2.569E+00	1.042E+00	1.042E+00	17.36
	1120.29	112	15.10	1.530E+00	1.395E+00	1.395E+00	33.71
	1764.49	82	15.80	1.070E+00	1.390E+00	1.390E+00	34.51
AC-228	338.32	228	11.40	4.038E+00	1.428E+00	1.428E+00	51.89
	911.07	242	27.70*	1.833E+00	1.371E+00	1.371E+00	22.15
	969.11	159	16.60	1.737E+00	1.583E+00	1.583E+00	32.71
RA-228	338.32	228	11.40	4.038E+00	1.428E+00	1.428E+00	51.89
	911.07	242	27.70*	1.833E+00	1.371E+00	1.371E+00	22.15
	969.11	159	16.60	1.737E+00	1.583E+00	1.583E+00	32.71
TH-228	74.81	392	10.70	5.798E+00	1.822E+00	1.850E+00	22.24
	77.11	669	18.00	6.020E+00	1.778E+00	1.805E+00	15.42
	87.30	365	8.00	6.797E+00	1.934E+00	1.963E+00	29.84
	238.63	1188	44.60*	5.209E+00	1.473E+00	1.495E+00	15.70
	300.09	108	3.41	4.417E+00	2.059E+00	2.091E+00	72.71
TH-229	85.43	214	16.50	6.596E+00	5.659E-01	5.659E-01	44.16
	88.47	365	27.10	6.797E+00	5.708E-01	5.708E-01	29.84
	100.00	195	12.40	7.248E+00	6.244E-01	6.244E-01	41.26
	193.63	------	4.59*	6.001E+00	------ Line Not Found		------
	210.97	------	3.26	5.673E+00	------ Line Not Found		------
TH-230	609.31	430	46.30*	2.569E+00	1.042E+00	1.042E+00	17.36
	1120.29	112	15.10	1.530E+00	1.395E+00	1.395E+00	33.71
	1764.49	82	15.80	1.070E+00	1.390E+00	1.390E+00	34.51
TH-232	338.32	228	11.40	4.038E+00	1.428E+00	1.428E+00	32.63
	911.07	242	27.70*	1.833E+00	1.371E+00	1.371E+00	22.15
	969.11	159	16.60	1.737E+00	1.583E+00	1.583E+00	32.71

Sample ID : G245799005 Acquisition date : 10-FEB-2010 15:09:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-234	63.29	913	3.80*	4.269E+00	1.621E+01	1.621E+01	22.40
	92.38	2289	5.41	7.052E+00	1.728E+01	1.728E+01	19.07
U-234	609.31	430	46.30*	2.569E+00	1.042E+00	1.042E+00	17.36
	1120.29	112	15.10	1.530E+00	1.395E+00	1.395E+00	33.71
	1764.49	82	15.80	1.070E+00	1.390E+00	1.390E+00	34.51
U-235	89.95	279	2.70	6.945E+00	4.287E+00	4.287E+00	43.37
	93.35	2289	4.50	7.052E+00	2.077E+01	2.077E+01	28.67
	105.00	------	2.10	7.364E+00	------	Line Not Found	------
	143.76	66	10.50*	7.037E+00	2.574E-01	2.574E-01	96.74
	163.35	------	4.70	6.629E+00	------	Line Not Found	------
	185.71	559	54.00	6.158E+00	4.845E-01	4.845E-01	19.00
	205.31	------	4.70	5.777E+00	------	Line Not Found	------
NP-237	86.50	365	12.60*	6.797E+00	1.228E+00	1.228E+00	36.28
	95.87	------	2.60	7.169E+00	------	Line Not Found	------
U-238	63.29	913	3.80*	4.269E+00	1.621E+01	1.621E+01	22.40
	92.38	2289	5.41	7.052E+00	1.728E+01	1.728E+01	10.54
AM-243	74.67	392	66.00*	5.798E+00	2.954E-01	2.954E-01	22.22
	86.72	365	0.34	6.797E+00	4.604E+01	4.604E+01	29.84
	117.66	------	0.55	7.397E+00	------	Line Not Found	------
	142.18	66	0.13	7.037E+00	2.163E+01	2.163E+01	95.53
ANH-511	511.00	99	100.00*	2.953E+00	9.680E-02	9.680E-02	68.07

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G245799005 Acquisition date : 10-FEB-2010 15:09:08

Total number of lines in spectrum 41
Number of unidentified lines 2
Number of lines tentatively identified by NID 39 95.12%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.002E+01	3.002E+01	0.307E+01	10.24	
CD-109	464.00D	1.02	4.159E+00	4.254E+00	1.269E+00	29.84	
SN-126	1.00E+05Y	1.00	4.181E-01	4.181E-01	1.248E-01	29.84	
BA-137M	30.17Y	1.00	9.178E-01	9.187E-01	1.241E-01	13.51	
CS-137	30.17Y	1.00	9.702E-01	9.712E-01	1.313E-01	13.52	
LU-177	6.71D	4.79	4.498E-01	2.157E+00	1.270E+00	58.88	
TL-208	1.41E+10Y	1.00	4.834E-01	4.834E-01	0.843E-01	17.44	
BI-210	22.26Y	1.00	5.048E+00	5.055E+00	3.518E+00	69.60	
PB-210	22.26Y	1.00	5.048E+00	5.055E+00	3.518E+00	69.60	
PO-210	22.26Y	1.00	5.048E+00	5.055E+00	3.513E+00	69.49	
BI-211	7.04E+08Y	1.00	3.680E+00	3.680E+00	0.651E+00	17.70	
PB-212	1.41E+10Y	1.00	1.473E+00	1.473E+00	0.231E+00	15.70	
PO-212	1.41E+10Y	1.00	1.473E+00	1.473E+00	0.231E+00	15.70	
BI-214	1600.00Y	1.00	1.042E+00	1.042E+00	0.181E+00	17.36	
PB-214	1600.00Y	1.00	1.280E+00	1.280E+00	0.236E+00	18.45	
PO-214	1600.00Y	1.00	1.280E+00	1.280E+00	0.236E+00	18.45	
PO-216	1.41E+10Y	1.00	1.473E+00	1.473E+00	0.231E+00	15.70	
PO-218	1600.00Y	1.00	1.280E+00	1.280E+00	0.236E+00	18.45	
RA-224	1.41E+10Y	1.00	4.235E+00	4.235E+00	1.250E+00	29.53	
RA-226	1600.00Y	1.00	1.042E+00	1.042E+00	0.181E+00	17.36	
AC-228	1.41E+10Y	1.00	1.371E+00	1.371E+00	0.304E+00	22.15	
RA-228	1.41E+10Y	1.00	1.371E+00	1.371E+00	0.304E+00	22.15	
TH-228	1.91Y	1.02	1.473E+00	1.495E+00	0.235E+00	15.70	
TH-229	7340.00Y	1.00	5.708E-01	5.708E-01	1.703E-01	29.84	K
TH-230	4.47E+09Y	1.00	1.042E+00	1.042E+00	0.181E+00	17.36	
TH-232	1.41E+10Y	1.00	1.371E+00	1.371E+00	0.304E+00	22.15	
TH-234	4.47E+09Y	1.00	1.621E+01	1.621E+01	0.363E+01	22.40	
U-234	4.47E+09Y	1.00	1.042E+00	1.042E+00	0.181E+00	17.36	
U-235	7.04E+08Y	1.00	2.574E-01	2.574E-01	2.491E-01	96.74	
NP-237	2.14E+06Y	1.00	1.228E+00	1.228E+00	0.445E+00	36.28	
U-238	4.47E+09Y	1.00	1.621E+01	1.621E+01	0.363E+01	22.40	
AM-243	7380.00Y	1.00	2.954E-01	2.954E-01	0.656E-01	22.22	
ANH-511	1.00E+09Y	1.00	9.680E-02	9.680E-02	6.590E-02	68.07	
	Total Activity :		1.134E+02	1.152E+02			

Grand Total Activity : 1.134E+02 1.152E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799005
Acquisition date : 10-FEB-2010 15:09:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.14	69	352	0.79	257.26	254	7	9.58E-03	93.5	7.28E+00	T
0	270.70	115	279	1.31	540.58	536	12	1.60E-02	61.6	4.76E+00	T
0	327.84	98	149	1.29	654.95	651	9	1.36E-02	48.5	4.13E+00	T
0	410.11	54	93	1.35	819.58	815	8	7.53E-03	67.9	3.50E+00	T
0	463.31	92	144	1.11	926.05	920	12	1.28E-02	56.2	3.19E+00	T
0	727.49	79	62	1.44	1454.72	1449	10	1.09E-02	44.8	2.22E+00	T
0	768.10	86	72	2.13	1535.99	1530	11	1.19E-02	44.5	2.12E+00	T
0	795.62	53	42	1.76	1591.05	1585	9	7.30E-03	52.8	2.06E+00	T
0	1001.63	108	49	1.95	2003.25	1997	15	1.50E-02	34.8	1.69E+00	T
0	1239.59	37	81	1.00	2479.34	2476	13	5.20E-03	****	1.40E+00	T
0	1378.86	25	23	1.50	2757.96	2752	9	3.42E-03	82.7	1.28E+00	
0	1588.89	28	5	1.91	3178.11	3173	9	3.82E-03	47.2	1.15E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:09:42.45

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799005.CNF;1   *
* Acquisition date  : 10-FEB-2010 15:09:08  Detector SN#     :                *
* Detector ID       : GAM11                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.99          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G245799005            Analyst initials: RXF2           *
* Batch Number      : 947531                Sample Quantity : 1.30330E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                  *
* MSD ID           :                      MSD Isotope      :                  *
* LCS ID           : 1032-A               LCS Isotope      :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.002E+01	3.075E+00	3.869E-01	3.345E-02	77.590
CD-109	4.254E+00	1.269E+00	1.032E+00	9.785E-02	4.123
SN-126	4.181E-01	1.248E-01	1.017E-01	9.597E-03	4.109
BA-137M	9.187E-01	1.241E-01	5.731E-02	5.423E-03	16.032
CS-137	9.712E-01	1.313E-01	6.058E-02	5.741E-03	16.032
LU-177	2.157E+00	1.270E+00	1.689E+00	1.977E-01	1.277
TL-208	4.834E-01	8.430E-02	5.280E-02	5.702E-03	9.155
BI-210	5.055E+00	3.518E+00	3.744E+00	3.486E-01	1.350
PB-210	5.055E+00	3.518E+00	3.744E+00	3.486E-01	1.350
PO-210	5.055E+00	3.513E+00	3.744E+00	3.156E-01	1.350
BI-211	3.680E+00	6.513E-01	2.818E-01	3.718E-02	13.061
PB-212	1.473E+00	2.312E-01	8.183E-02	1.146E-02	17.998
PO-212	1.473E+00	2.312E-01	8.183E-02	1.146E-02	17.998
BI-214	1.042E+00	1.810E-01	9.143E-02	1.033E-02	11.399
PB-214	1.280E+00	2.362E-01	9.823E-02	1.390E-02	13.033
PO-214	1.280E+00	2.362E-01	9.823E-02	1.390E-02	13.033
PO-216	1.473E+00	2.312E-01	8.183E-02	1.146E-02	17.998
PO-218	1.280E+00	2.362E-01	9.823E-02	1.390E-02	13.033

Sample ID : G245799005 Acquisition date : 10-FEB-2010 15:09:08

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	4.235E+00	1.250E+00	9.315E-01	1.248E-01	4.546
RA-226	1.042E+00	1.810E-01	9.143E-02	1.033E-02	11.399
AC-228	1.371E+00	3.036E-01	2.048E-01	2.493E-02	6.694
RA-228	1.371E+00	3.036E-01	2.048E-01	2.493E-02	6.694
TH-228	1.495E+00	2.347E-01	8.307E-02	1.163E-02	17.998
TH-229	5.708E-01	1.703E-01	7.096E-01	7.792E-02	0.804
TH-230	1.042E+00	1.810E-01	9.143E-02	1.033E-02	11.399
TH-232	1.371E+00	3.036E-01	2.048E-01	2.493E-02	6.694
TH-234	1.621E+01	3.632E+00	1.756E+00	3.056E-01	9.231
U-234	1.042E+00	1.810E-01	9.143E-02	1.033E-02	11.399
U-235	2.574E-01	2.491E-01	2.940E-01	5.198E-02	0.876
NP-237	1.228E+00	4.454E-01	3.011E-01	6.816E-02	4.077
U-238	1.621E+01	3.632E+00	1.756E+00	3.056E-01	9.231
AM-243	2.954E-01	6.562E-02	8.116E-02	6.568E-03	3.640
ANH-511	9.680E-02	6.590E-02	4.048E-02	4.329E-03	2.391

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.152E-03		3.103E-01	5.176E-01	5.858E-02	-0.006
NA-22	-4.247E-02		4.167E-02	5.967E-02	4.901E-03	-0.712
NA-24	3.943E-01		3.170E-01	Half-Life too short		
AL-26	8.806E-03		2.386E-02	4.248E-02	3.467E-03	0.207
TI-44	3.281E-01	+	5.061E-02	6.051E-02	5.101E-03	5.423
SC-46	1.013E-02		3.510E-02	6.041E-02	5.950E-03	0.168
V-48	1.556E-03		5.952E-02	9.930E-02	9.419E-03	0.016
CR-51	-2.983E-02		3.573E-01	5.682E-01	8.247E-02	-0.053
MN-52	-4.377E-02		1.932E-01	2.984E-01	2.500E-02	-0.147
MN-54	-7.002E-03		3.306E-02	5.476E-02	5.393E-03	-0.128
CO-56	-8.899E-04		3.505E-02	5.891E-02	5.804E-03	-0.015
CO-57	8.827E-03		2.141E-02	3.692E-02	3.123E-03	0.239
CO-58	-3.302E-02		3.598E-02	5.156E-02	5.077E-03	-0.640
FE-59	-1.204E-02		7.768E-02	1.259E-01	1.183E-02	-0.096
CO-60	3.999E-03		3.774E-02	6.192E-02	5.116E-03	0.065
ZN-65	-5.008E-02		9.600E-02	1.268E-01	1.088E-02	-0.395
GE-68	6.459E-01		1.154E+00	2.004E+00	1.779E-01	0.322
AS-73	5.667E-01		6.640E-01	1.096E+00	8.228E-02	0.517
AS-74	6.290E-02		8.442E-02	1.461E-01	1.486E-02	0.431
SE-75	1.499E-02		3.950E-02	6.533E-02	9.602E-03	0.229
BR-77	5.036E+00		9.509E+00	1.636E+01	1.743E+00	0.308
SR-82	-9.409E-02		3.297E-01	5.132E-01	5.019E-02	-0.183
RB-83	1.977E-02		6.364E-02	1.079E-01	1.150E-02	0.183
RB-84	3.040E-02		6.824E-02	1.187E-01	1.169E-02	0.256
KR-85	1.285E+01		7.480E+00	1.238E+01	1.322E+00	1.038
SR-85	6.590E-02		3.836E-02	6.348E-02	6.781E-03	1.038
RB-86	2.935E-01		7.267E-01	1.246E+00	1.107E-01	0.236
Y-88	-1.162E-02		2.602E-02	3.805E-02	3.089E-03	-0.305

Sample ID : G245799005 Acquisition date : 10-FEB-2010 15:09:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-88	3.069E-03		2.678E-02	4.565E-02	4.869E-03	0.067
Y-91	-3.193E+00		1.753E+01	2.816E+01	2.280E+00	-0.113
NB-94	2.482E-02		3.195E-02	5.485E-02	5.267E-03	0.453
NB-95	6.002E-02		4.932E-02	7.768E-02	7.583E-03	0.773
NB-95M	-1.326E-02		1.245E-01	1.804E-01	2.519E-02	-0.074
ZR-95	3.655E-02		6.489E-02	1.097E-01	1.154E-02	0.333
NB-97	1.809E-02		5.092E-02	Half-Life too short		
ZR-97	1.233E+00		8.346E-01	Half-Life too short		
MO-99	1.796E+00		1.143E+01	1.866E+01	2.954E+00	0.096
TC-99M	9.206E+09		1.912E+10	Half-Life too short		
RH-101	1.662E-02		2.970E-02	4.917E-02	5.503E-03	0.338
RH-102	8.246E-03		2.757E-02	4.692E-02	5.059E-03	0.176
RU-103	4.383E-04		3.355E-02	5.590E-02	8.687E-03	0.008
RH-106	-2.603E-01		2.743E-01	4.043E-01	5.753E-02	-0.644
RU-106	-2.603E-01		2.730E-01	4.043E-01	4.011E-02	-0.644
AG-108M	-1.052E-02		2.931E-02	4.805E-02	5.312E-03	-0.219
AG-110M	7.707E-03		3.611E-02	5.274E-02	5.139E-03	0.146
IN-111	-6.479E-01		1.027E+00	1.416E+00	1.930E-01	-0.458
IN-113M	-1.574E-02		3.918E-02	6.462E-02	7.029E-03	-0.244
SN-113	-1.574E-02		3.918E-02	6.462E-02	7.029E-03	-0.244
IN-114M	9.203E-02		1.695E-01	2.596E-01	2.809E-02	0.355
CD-115	1.404E+00		9.178E+00	1.539E+01	1.635E+00	0.091
SN-117M	4.343E-03		4.693E-02	7.890E-02	7.456E-03	0.055
SB-122	1.214E+00		1.930E+00	3.322E+00	3.460E-01	0.366
I-123	-1.010E+00		2.578E+00	Half-Life too short		
TE-123M	-4.901E-03		2.501E-02	4.152E-02	3.951E-03	-0.118
I-124	-1.188E-01		6.659E-01	9.930E-01	1.004E-01	-0.120
SB-124	2.500E-03		6.832E-02	1.141E-01	9.911E-03	0.022
SB-125	-7.376E-02		8.125E-02	1.276E-01	1.391E-02	-0.578
TE-125M	5.518E+00		8.804E+00	1.393E+01	1.430E+00	0.396
I-126	1.249E-01		1.978E-01	2.981E-01	2.826E-02	0.419
SB-126	1.386E-01		1.350E-01	2.303E-01	2.223E-02	0.602
SB-127	-1.521E-01		1.246E+00	1.999E+00	2.420E-01	-0.076
XE-127	-3.701E-03		4.205E-02	6.909E-02	7.896E-03	-0.054
I-131	7.231E-02		1.118E-01	1.844E-01	2.314E-02	0.392
TE-132	-2.997E-01		6.340E-01	1.010E+00	1.847E-01	-0.297
BA-133	-1.217E-02		4.456E-02	6.106E-02	9.849E-03	-0.199
I-133	-1.254E-03		2.543E-03	Half-Life too short		
CS-134	9.700E-02	+	5.209E-02	8.848E-02	8.729E-03	1.096
CS-135	-3.107E-03		1.577E-01	2.274E-01	3.569E-02	-0.014
I-135	-3.034E+09		2.638E+09	Half-Life too short		
CS-136	3.974E-02		1.040E-01	1.780E-01	1.681E-02	0.223
CE-139	-3.145E-02		2.772E-02	4.386E-02	4.263E-03	-0.717
BA-140	2.140E-02		2.118E-01	3.531E-01	1.190E-01	0.061
LA-140	2.144E-02		6.884E-02	1.205E-01	1.013E-02	0.178
CE-141	4.690E-03		6.029E-02	9.154E-02	8.390E-03	0.051
CE-143	2.071E-04		7.289E-05	Half-Life too short		
CE-144	1.750E-02		1.823E-01	2.958E-01	4.615E-02	0.059

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144	-2.012E-03		3.272E-02	5.273E-02	5.056E-03	-0.038
PR-144	-1.363E-01		2.217E+00	3.573E+00	3.425E-01	-0.038
PM-146	1.301E-02		4.109E-02	7.018E-02	8.800E-03	0.185
ND-147	-1.117E-01		4.636E-01	7.515E-01	1.216E-01	-0.149
PM-149	2.140E+01		8.232E+01	1.347E+02	2.700E+01	0.159
EU-152	4.048E-02		9.464E-02	1.476E-01	2.001E-02	0.274
GD-153	2.584E-01	+	1.066E-01	1.260E-01	1.120E-02	2.050
EU-154	-1.208E-01		1.165E-01	1.659E-01	1.824E-02	-0.728
EU-155	7.696E-02		8.844E-02	1.556E-01	1.358E-02	0.495
TB-160	2.776E-02		1.408E-01	2.368E-01	2.333E-02	0.117
HO-166M	4.307E-02		5.307E-02	9.192E-02	8.853E-03	0.469
TM-171	1.506E+01		2.595E+01	3.873E+01	2.906E+00	0.389
LU-176	-2.209E-02		2.276E-02	3.376E-02	4.962E-03	-0.654
LU-177M	-1.375E-01		1.803E-01	2.491E-01	2.675E-02	-0.552
HF-181	9.710E-03		3.781E-02	6.421E-02	6.915E-03	0.151
W-181	-4.407E-01		3.463E-01	4.730E-01	3.506E-02	-0.932
TA-182	8.890E-02		1.611E-01	2.775E-01	2.255E-02	0.320
RE-183	6.209E-02		1.017E-01	1.739E-01	1.667E-02	0.357
RE-184	-6.731E-02		2.166E-01	3.459E-01	4.854E-02	-0.195
OS-185	-1.392E-03		3.997E-02	6.496E-02	6.270E-03	-0.021
RE-188	1.881E-02		1.449E-01	2.442E-01	2.278E-02	0.077
W-188	-4.125E-01		7.271E+00	1.038E+01	1.577E+00	-0.040
IR-192	-1.363E-02		3.425E-02	5.337E-02	7.672E-03	-0.255
AU-195	7.524E-01	+	3.105E-01	3.875E-01	3.418E-02	1.942
TL-200	-4.683E-05		2.305E-04	Half-Life too short		
TL-201	2.754E+00		6.085E+00	1.034E+01	1.012E+00	0.266
TL-202	-2.250E-02		6.581E-02	1.080E-01	1.165E-02	-0.208
HG-203	2.274E-02		4.053E-02	6.067E-02	9.477E-03	0.375
BI-207	5.467E-02		4.297E-02	7.989E-02	7.177E-03	0.684
TL-207	7.846E-02		6.746E-01	9.681E-01	2.025E-01	0.081
PO-209	1.689E+00		6.389E+00	1.097E+01	1.081E+00	0.154
PB-211	4.425E-01		9.480E-01	1.409E+00	8.872E-01	0.314
BI-212	8.652E-01	+	3.986E-01	6.065E-01	6.629E-02	1.426
PO-215	7.846E-02		6.746E-01	9.681E-01	2.025E-01	0.081
RN-219	-4.697E-02		3.537E-01	5.926E-01	9.664E-02	-0.079
RN-220	1.996E+01		2.322E+01	4.074E+01	4.281E+00	0.490
RA-223	7.846E-02		6.746E-01	9.681E-01	2.025E-01	0.081
AC-227	1.287E-01		3.622E-01	5.982E-01	1.140E-01	0.215
TH-227	1.287E-01		3.624E-01	5.982E-01	1.274E-01	0.215
PA-231	-8.771E-01		1.452E+00	2.117E+00	4.194E-01	-0.414
TH-231	7.846E-02		6.746E-01	9.681E-01	2.025E-01	0.081
U-231	9.744E-01		1.184E+00	1.557E+00	1.395E-01	0.626
PA-233	1.402E-02		6.253E-02	1.015E-01	1.489E-02	0.138
PA-234	-1.125E-01		2.848E-01	4.569E-01	8.802E-02	-0.246
PA-234M	2.190E+01	+	7.974E+00	1.115E+01	1.186E+00	1.965
NP-236	2.077E-03		7.063E-02	1.183E-01	1.126E-02	0.018
NP-239	-3.450E-02		1.656E-01	2.672E-01	2.261E-02	-0.129
AM-241	1.125E-02		1.453E-01	2.138E-01	1.680E-02	0.053

Sample ID : G245799005 Acquisition date : 10-FEB-2010 15:09:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.477E-02		7.722E-02	1.299E-01	1.125E-02	-0.268
AM-246	2.927E-02		1.311E-01	2.210E-01	1.960E-02	0.132
CM-247	5.379E-03		3.239E-02	5.529E-02	5.917E-03	0.097
CF-249	5.931E-03		3.494E-02	5.980E-02	6.512E-03	0.099
CF-251	-1.356E-01		1.183E-01	1.859E-01	1.894E-02	-0.729

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799005            *
* Acquisition date : 10-FEB-2010 15:09:08 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.99     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245799005           Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.3033E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.002E+01	3.013E+00	1.937E-01	1.537E+00
CD-109	4.254E+00	1.244E+00	5.406E-01	6.347E-01
SN-126	4.181E-01	1.223E-01	5.331E-02	6.238E-02
BA-137M	9.187E-01	1.216E-01	2.907E-02	6.206E-02
CS-137	9.712E-01	1.287E-01	3.073E-02	6.565E-02
LU-177	2.157E+00	1.244E+00	8.730E-01	6.349E-01
TL-208	4.834E-01	8.261E-02	2.684E-02	4.215E-02
BI-210	5.055E+00	3.448E+00	1.981E+00	1.759E+00
PB-210	5.055E+00	3.448E+00	1.981E+00	1.759E+00
PO-210	5.055E+00	3.442E+00	1.981E+00	1.756E+00
BI-211	3.680E+00	6.383E-01	1.444E-01	3.256E-01
PB-212	1.473E+00	2.266E-01	4.220E-02	1.156E-01
PO-212	1.473E+00	2.266E-01	4.220E-02	1.156E-01
BI-214	1.042E+00	1.773E-01	4.645E-02	9.048E-02
PB-214	1.280E+00	2.315E-01	5.035E-02	1.181E-01
PO-214	1.280E+00	2.315E-01	5.035E-02	1.181E-01
PO-216	1.473E+00	2.266E-01	4.220E-02	1.156E-01
PO-218	1.280E+00	2.315E-01	5.035E-02	1.181E-01
RA-224	4.235E+00	1.225E+00	4.804E-01	6.252E-01
RA-226	1.042E+00	1.773E-01	4.645E-02	9.048E-02
AC-228	1.371E+00	2.976E-01	1.033E-01	1.518E-01
RA-228	1.371E+00	2.976E-01	1.033E-01	1.518E-01
TH-228	1.495E+00	2.300E-01	4.284E-02	1.173E-01
TH-229	-3.206E-01	4.363E-01	3.672E-01	2.226E-01
TH-230	1.042E+00	1.773E-01	4.645E-02	9.048E-02
TH-232	1.371E+00	2.976E-01	1.033E-01	1.518E-01
TH-234	1.621E+01	3.559E+00	9.248E-01	1.816E+00
U-234	1.042E+00	1.773E-01	4.645E-02	9.048E-02
U-235	2.574E-01	2.441E-01	1.529E-01	1.245E-01
NP-237	1.228E+00	4.365E-01	1.578E-01	2.227E-01
U-238	1.621E+01	3.559E+00	9.248E-01	1.816E+00
AM-243	2.954E-01	6.431E-02	4.263E-02	3.281E-02
ANH-511	9.680E-02	6.458E-02	2.062E-02	3.295E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.152E-03	3.041E-01	2.640E-01	1.551E-01	NOT IDENT.
NA-22	-4.247E-02	4.083E-02	2.995E-02	2.083E-02	NOT IDENT.
NA-24	3.943E+05	6.214E+05	0.000E+00	3.170E+05	SHORT HLIF
AL-26	8.806E-03	2.338E-02	2.119E-02	1.193E-02	NOT IDENT.
TI-44	3.281E-01	4.959E-02	3.176E-02	2.530E-02	FAIL ABUN
SC-46	1.013E-02	3.440E-02	3.050E-02	1.755E-02	FAIL ABUN
V-48	1.556E-03	5.833E-02	5.005E-02	2.976E-02	NOT IDENT.
CR-51	-2.983E-02	3.501E-01	2.917E-01	1.786E-01	NOT IDENT.
MN-52	-4.377E-02	1.894E-01	1.494E-01	9.661E-02	NOT IDENT.
MN-54	-7.002E-03	3.240E-02	2.768E-02	1.653E-02	NOT IDENT.
CO-56	-8.899E-04	3.435E-02	2.976E-02	1.752E-02	FAIL ABUN
CO-57	8.827E-03	2.098E-02	1.924E-02	1.070E-02	NOT IDENT.
CO-58	-3.302E-02	3.526E-02	2.607E-02	1.799E-02	NOT IDENT.
FE-59	-1.204E-02	7.613E-02	6.333E-02	3.884E-02	FAIL ABUN
CO-60	3.999E-03	3.699E-02	3.105E-02	1.887E-02	NOT IDENT.
ZN-65	-5.008E-02	9.408E-02	6.380E-02	4.800E-02	NOT IDENT.
GE-68	6.459E-01	1.130E+00	1.008E+00	5.768E-01	NOT IDENT.
AS-73	5.667E-01	6.507E-01	5.785E-01	3.320E-01	NOT IDENT.
AS-74	6.290E-02	8.273E-02	7.425E-02	4.221E-02	NOT IDENT.
SE-75	1.499E-02	3.871E-02	3.364E-02	1.975E-02	NOT IDENT.
BR-77	5.036E+00	9.319E+00	8.332E+00	4.754E+00	FAIL ABUN
SR-82	-9.409E-02	3.231E-01	2.597E-01	1.649E-01	NOT IDENT.
RB-83	1.977E-02	6.236E-02	5.494E-02	3.182E-02	NOT IDENT.
RB-84	3.040E-02	6.688E-02	5.991E-02	3.412E-02	NOT IDENT.
KR-85	1.285E+01	7.330E+00	6.306E+00	3.740E+00	NOT IDENT.
SR-85	6.590E-02	3.759E-02	3.234E-02	1.918E-02	NOT IDENT.
RB-86	2.935E-01	7.122E-01	6.269E-01	3.634E-01	NOT IDENT.
Y-88	-1.162E-02	2.550E-02	1.898E-02	1.301E-02	NOT IDENT.
ZR-88	3.069E-03	2.625E-02	2.336E-02	1.339E-02	NOT IDENT.
Y-91	-3.193E+00	1.718E+01	1.415E+01	8.766E+00	NOT IDENT.
NB-94	2.482E-02	3.131E-02	2.780E-02	1.597E-02	NOT IDENT.
NB-95	6.002E-02	4.834E-02	3.932E-02	2.466E-02	NOT IDENT.
NB-95M	-1.326E-02	1.220E-01	9.306E-02	6.223E-02	NOT IDENT.
ZR-95	3.655E-02	6.359E-02	5.553E-02	3.244E-02	NOT IDENT.
NB-97	1.809E+04	9.980E+04	0.000E+00	5.092E+04	SHORT HLIF
ZR-97	1.233E+06	1.636E+06	0.000E+00	8.346E+05	SHORT HLIF
MO-99	1.796E+00	1.120E+01	9.451E+00	5.713E+00	NOT IDENT.
TC-99M	9.206E+15	3.747E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.662E-02	2.911E-02	2.544E-02	1.485E-02	NOT IDENT.
RH-102	8.246E-03	2.702E-02	2.393E-02	1.378E-02	FAIL ABUN
RU-103	4.383E-04	3.288E-02	2.849E-02	1.678E-02	FAIL ABUN
RH-106	-2.603E-01	2.688E-01	2.053E-01	1.371E-01	FAIL ABUN
RU-106	-2.603E-01	2.675E-01	2.053E-01	1.365E-01	FAIL ABUN
AG-108M	-1.052E-02	2.873E-02	2.455E-02	1.466E-02	NOT IDENT.
AG-110M	7.707E-03	3.539E-02	2.676E-02	1.805E-02	NOT IDENT.
IN-111	-6.479E-01	1.006E+00	7.299E-01	5.134E-01	NOT IDENT.
IN-113M	-1.574E-02	3.839E-02	3.307E-02	1.959E-02	NOT IDENT.
SN-113	-1.574E-02	3.839E-02	3.307E-02	1.959E-02	NOT IDENT.
IN-114M	9.203E-02	1.661E-01	1.344E-01	8.476E-02	NOT IDENT.
CD-115	1.404E+00	8.994E+00	7.837E+00	4.589E+00	NOT IDENT.
SN-117M	4.343E-03	4.600E-02	4.096E-02	2.347E-02	NOT IDENT.
SB-122	1.214E+00	1.891E+00	1.690E+00	9.650E-01	NOT IDENT.
I-123	-1.010E+06	5.052E+06	0.000E+00	2.578E+06	SHORT HLIF
TE-123M	-4.901E-03	2.451E-02	2.155E-02	1.250E-02	NOT IDENT.
I-124	-1.188E-01	6.526E-01	5.045E-01	3.330E-01	NOT IDENT.
SB-124	2.500E-03	6.696E-02	5.696E-02	3.416E-02	FAIL ABUN
SB-125	-7.376E-02	7.962E-02	6.519E-02	4.062E-02	FAIL ABUN
TE-125M	5.518E+00	8.627E+00	7.274E+00	4.402E+00	NOT IDENT.
I-126	1.249E-01	1.939E-01	1.512E-01	9.892E-02	NOT IDENT.
SB-126	1.386E-01	1.323E-01	1.167E-01	6.748E-02	FAIL ABUN
SB-127	-1.521E-01	1.221E+00	1.014E+00	6.231E-01	FAIL ABUN
XE-127	-3.701E-03	4.120E-02	3.572E-02	2.102E-02	NOT IDENT.
I-131	7.231E-02	1.095E-01	9.444E-02	5.588E-02	NOT IDENT.
TE-132	-2.997E-01	6.213E-01	5.211E-01	3.170E-01	FAIL ABUN
BA-133	-1.217E-02	4.367E-02	3.129E-02	2.228E-02	FAIL ABUN
I-133	-1.254E+03	4.985E+03	0.000E+00	2.543E+03	SHORT HLIF
CS-134	9.700E-02	5.105E-02	4.475E-02	2.604E-02	FAIL ABUN
CS-135	-3.107E-03	1.546E-01	1.171E-01	7.886E-02	NOT IDENT.
I-135	-3.034E+15	5.170E+15	0.000E+00	2.638E+15	SHORT HLIF
CS-136	3.974E-02	1.020E-01	8.964E-02	5.202E-02	FAIL ABUN
CE-139	-3.145E-02	2.717E-02	2.275E-02	1.386E-02	NOT IDENT.
BA-140	2.140E-02	2.075E-01	1.798E-01	1.059E-01	NOT IDENT.

LA-140	2.144E-02	6.746E-02	6.022E-02	3.442E-02	FAIL ABUN
CE-141	4.690E-03	5.908E-02	4.758E-02	3.014E-02	NOT IDENT.
CE-143	2.071E+02	1.429E+02	0.000E+00	7.289E+01	SHORT HLIF
CE-144	1.750E-02	1.786E-01	1.540E-01	9.114E-02	NOT IDENT.
PM-144	-2.012E-03	3.207E-02	2.673E-02	1.636E-02	NOT IDENT.
PR-144	-1.363E-01	2.173E+00	1.811E+00	1.109E+00	NOT IDENT.
PM-146	1.301E-02	4.027E-02	3.583E-02	2.055E-02	NOT IDENT.
ND-147	-1.117E-01	4.544E-01	3.826E-01	2.318E-01	FAIL ABUN
PM-149	2.140E+01	8.067E+01	6.925E+01	4.116E+01	NOT IDENT.
EU-152	4.048E-02	9.275E-02	7.568E-02	4.732E-02	NOT IDENT.
GD-153	2.584E-01	1.045E-01	6.591E-02	5.331E-02	FAIL ABUN
EU-154	-1.208E-01	1.142E-01	8.323E-02	5.826E-02	NOT IDENT.
EU-155	7.696E-02	8.667E-02	8.130E-02	4.422E-02	FAIL ABUN
TB-160	2.776E-02	1.380E-01	1.196E-01	7.040E-02	FAIL ABUN
HO-166M	4.307E-02	5.201E-02	4.658E-02	2.653E-02	FAIL ABUN
TM-171	1.506E+01	2.543E+01	2.038E+01	1.297E+01	NOT IDENT.
LU-176	-2.209E-02	2.230E-02	1.734E-02	1.138E-02	FAIL ABUN
LU-177M	-1.375E-01	1.767E-01	1.273E-01	9.015E-02	NOT IDENT.
HF-181	9.710E-03	3.706E-02	3.274E-02	1.891E-02	NOT IDENT.
W-181	-4.407E-01	3.394E-01	2.489E-01	1.732E-01	NOT IDENT.
TA-182	8.890E-02	1.579E-01	1.394E-01	8.056E-02	FAIL ABUN
RE-183	6.209E-02	9.969E-02	9.022E-02	5.086E-02	FAIL ABUN
RE-184	-6.731E-02	2.123E-01	1.783E-01	1.083E-01	NOT IDENT.
OS-185	-1.392E-03	3.917E-02	3.297E-02	1.998E-02	NOT IDENT.
RE-188	1.881E-02	1.420E-01	1.268E-01	7.244E-02	NOT IDENT.
W-188	-4.125E-01	7.126E+00	5.337E+00	3.636E+00	FAIL ABUN
IR-192	-1.363E-02	3.357E-02	2.740E-02	1.713E-02	FAIL ABUN
AU-195	7.524E-01	3.043E-01	2.026E-01	1.552E-01	FAIL ABUN
TL-200	-4.683E+01	4.518E+02	0.000E+00	2.305E+02	SHORT HLIF
TL-201	2.754E+00	5.963E+00	5.365E+00	3.043E+00	NOT IDENT.
TL-202	-2.250E-02	6.449E-02	5.518E-02	3.290E-02	NOT IDENT.
HG-203	2.274E-02	3.972E-02	3.121E-02	2.026E-02	NOT IDENT.
BI-207	5.467E-02	4.211E-02	4.021E-02	2.149E-02	FAIL ABUN
TL-207	7.846E-02	6.611E-01	4.969E-01	3.373E-01	FAIL ABUN
PO-209	1.689E+00	6.261E+00	5.540E+00	3.194E+00	NOT IDENT.
PB-211	4.425E-01	9.291E-01	7.204E-01	4.740E-01	NOT IDENT.
BI-212	8.652E-01	3.906E-01	3.072E-01	1.993E-01	FAIL ABUN
PO-215	7.846E-02	6.611E-01	4.969E-01	3.373E-01	FAIL ABUN
RN-219	-4.697E-02	3.466E-01	3.031E-01	1.768E-01	FAIL ABUN
RN-220	1.996E+01	2.276E+01	2.073E+01	1.161E+01	NOT IDENT.
RA-223	7.846E-02	6.611E-01	4.969E-01	3.373E-01	FAIL ABUN
AC-227	1.287E-01	3.549E-01	3.082E-01	1.811E-01	FAIL ABUN
TH-227	1.287E-01	3.551E-01	3.082E-01	1.812E-01	FAIL ABUN
PA-231	-8.771E-01	1.423E+00	1.089E+00	7.260E-01	NOT IDENT.
TH-231	7.846E-02	6.611E-01	4.969E-01	3.373E-01	FAIL ABUN
U-231	9.744E-01	1.160E+00	8.147E-01	5.921E-01	FAIL ABUN
PA-233	1.402E-02	6.128E-02	5.213E-02	3.127E-02	FAIL ABUN
PA-234	-1.125E-01	2.791E-01	2.304E-01	1.424E-01	FAIL ABUN
PA-234M	2.190E+01	7.815E+00	5.616E+00	3.987E+00	FAIL ABUN
NP-236	2.077E-03	6.922E-02	6.142E-02	3.532E-02	FAIL ABUN
NP-239	-3.450E-02	1.623E-01	1.393E-01	8.281E-02	FAIL ABUN
AM-241	1.125E-02	1.423E-01	1.127E-01	7.263E-02	NOT IDENT.
CM-243	-3.477E-02	7.567E-02	6.787E-02	3.861E-02	FAIL ABUN
AM-246	2.927E-02	1.284E-01	1.112E-01	6.553E-02	NOT IDENT.
CM-247	5.379E-03	3.175E-02	2.828E-02	1.620E-02	FAIL ABUN
CF-249	5.931E-03	3.425E-02	3.060E-02	1.747E-02	NOT IDENT.
CF-251	-1.356E-01	1.160E-01	9.636E-02	5.916E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	291.4453
46.50	291.4453
46.50	291.4453
48.70	299.5433
49.72	319.6530
51.35	381.4907
52.39	346.1881
52.97	339.0645
53.15	339.2634
53.44	336.2420
54.07	350.3141
56.28	374.1207
56.28	374.1245
57.37	0.0000
57.53	413.9264
57.53	413.9292
57.60	414.0160
57.98	426.9241
57.98	426.9241
59.32	438.4958
59.32	438.4958
59.40	438.6020
59.54	440.2994
59.72	440.5377
60.01	416.6787
61.10	477.3181
61.14	477.3740
61.30	477.5992
63.00	455.1407
63.29	455.5223
63.29	455.5223
63.58	455.9039
64.28	423.4511
65.12	445.9948
65.20	493.7819
65.20	493.7819
66.05	481.0889
66.72	414.0145
66.83	414.1454
66.91	414.2354
67.20	430.0397
67.20	430.0397
67.75	421.7848
67.85	421.9011
68.90	459.2509
68.90	459.2509
69.30	493.5893
69.67	513.9465
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70.82	488.9765
70.83	488.9893
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72.87	499.4920
72.87	499.4920
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74.81	533.5884
74.81	533.5884
74.81	533.5884
74.81	533.5884
74.81	533.5884
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75.70	534.8091
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77.11	536.7242

77.11	536.7242
77.11	536.7242
77.11	536.7242
77.11	536.7242
77.11	536.7242
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80.30	540.9980
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81.07	542.0192
81.07	542.0192
81.07	542.0192
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83.78	363.1714
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83.78	363.1714
84.21	363.5422
84.90	364.1373
85.43	364.5905
86.29	365.3252
86.50	365.5037
86.54	365.5380
86.59	365.5815
86.72	365.6914
86.79	365.7486
86.94	365.8768
87.30	366.1835
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87.57	366.4101
87.88	366.6733
88.03	366.7992
88.36	367.0784
88.47	367.1700
89.95	368.4105
91.11	369.3741
92.29	370.3491
92.38	370.4224
92.38	370.4224
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94.00	371.7499
94.67	372.2923
94.67	372.2969
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94.90	372.4823
94.90	372.4823
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95.87	308.5696
96.73	309.1448
97.43	309.6064
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98.44	284.0011
98.88	284.2661
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99.55	264.6032
99.86	264.7771
100.00	264.8543
100.10	264.9123
103.18	308.3062
103.76	288.4338
105.00	271.4070
105.31	269.8864
108.00	354.7071
109.28	296.7650

111.00	359.3759
111.00	359.3759
111.76	315.3478
112.95	316.0740
115.19	273.0064
116.30	247.6492
117.00	278.3559
117.00	278.3559
117.66	266.0486
121.11	246.8204
121.62	261.8912
121.78	261.9675
122.06	260.3544
122.32	263.0994
122.32	263.0994
122.32	263.0994
122.32	263.0994
123.07	268.7093
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131.20	275.7084
133.02	252.5239
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135.34	295.1047
136.00	277.5286
136.25	265.1064
136.48	260.7289
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140.51	0.0000
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142.65	286.4836
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144.24	263.1724
144.24	263.1724
144.24	263.1724
145.22	268.5875
145.44	276.8638
147.16	266.6849
152.43	253.7300
152.70	266.7124
153.22	243.9168
154.21	254.4263
154.21	254.4263
154.21	254.4263
154.21	254.4263
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156.02	262.5290
158.56	245.9089
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161.27	296.2876
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162.64	266.0800
163.35	257.0124
163.89	254.4106
165.85	310.4842
167.43	235.0413
171.28	249.5786
171.86	232.7521
172.10	232.8322
176.55	296.1941
176.60	296.2162
181.06	271.3971
184.41	238.2626
185.71	220.8397
186.00	220.9236
190.27	203.7430
192.34	218.8889
193.63	243.6167
197.04	188.9006
198.01	213.6335
198.60	228.5037
200.40	253.6013
201.83	204.8219
202.84	238.6052
205.31	235.8798

208.36	273.9954
208.81	257.2611
209.75	243.1370
209.75	243.1370
210.97	255.4511
215.65	242.3717
216.55	221.5778
218.09	224.9980
222.10	214.9609
223.80	198.1972
226.40	194.7363
227.00	215.1702
227.08	215.1896
227.20	212.1742
228.16	219.5222
228.18	220.5430
228.18	220.5430
231.56	0.0000
235.69	230.6236
236.00	232.2418
236.00	232.2418
238.63	201.5568
238.63	201.5568
238.63	201.5568
238.63	201.5568
239.00	201.6385
240.98	202.0791
241.98	202.3025
241.98	202.3025
241.98	202.3025
244.69	202.9006
245.39	178.7083
247.94	177.6432
248.90	177.8258
249.79	179.0354
252.40	178.4903
252.85	186.9299
252.85	186.9299
254.15	0.0000
256.20	180.2550
256.20	180.2550
260.50	162.1148
260.90	186.4024
262.80	171.9970
264.65	153.2925
268.24	170.2994
268.79	170.3941
269.46	151.3889
269.46	151.3889
269.46	151.3889
269.46	151.3889
271.23	146.8693
273.65	140.8220
276.40	142.8134
277.35	142.9465
277.60	142.9818
277.60	142.9818
278.00	143.0388
278.60	143.1230
279.20	146.4254
279.53	146.4726
280.46	148.2169
281.68	127.4251
283.67	157.7303
284.30	154.1602
285.00	153.1862
285.90	141.4423
286.10	139.3091
286.10	139.3091
287.40	145.9726
288.45	0.0000
290.67	146.4285
290.80	144.8206
291.72	141.6883
293.26	0.0000
293.70	144.6732
295.21	144.8789
295.21	144.8789

295.21	144.8789
295.96	144.9817
296.50	145.0547
297.23	145.1549
298.57	145.3362
299.80	145.5012
299.80	145.5012
300.09	145.5418
300.09	145.5418
300.09	145.5418
300.09	145.5418
300.12	145.5445
301.29	145.7014
302.84	128.3568
303.76	113.6432
303.91	113.6580
304.40	113.7106
304.40	113.7106
304.84	136.8380
306.84	153.0521
308.46	134.5321
311.98	149.3427
316.51	162.1678
318.01	141.2498
319.02	141.3764
319.41	140.3119
320.08	147.0793
323.87	132.4783
323.87	132.4783
323.87	132.4783
323.87	132.4783
325.23	130.9561
328.77	148.1992
333.44	126.8143
334.20	164.1197
334.20	164.1197
334.30	164.1345
338.28	127.9021
338.28	127.9021
338.28	127.9021
338.28	127.9021
338.32	127.9067
338.32	127.9067
338.32	127.9067
340.50	144.5840
340.57	144.5944
344.27	120.1299
345.85	127.1212
350.59	0.0000
351.07	114.4002
351.92	114.4796
351.92	114.4796
351.92	114.4796
355.39	0.0000
356.01	122.3281
364.48	112.1760
366.43	149.4135
367.43	126.3484
367.94	0.0000
369.80	130.0697
374.96	124.7659
383.85	112.7109
387.95	110.4126
388.63	114.0049
391.69	118.6976
391.69	118.6976
392.90	108.1648
398.62	106.8475
400.65	122.1661
401.10	117.7478
401.81	107.9927
402.60	108.0555
404.84	100.1824
410.95	94.8782
411.60	93.4851
413.65	123.8707
414.70	120.1213
415.30	110.2150

415.76	112.6995
417.63	0.0000
418.52	115.6328
423.70	111.5251
427.08	103.6100
427.89	112.7629
432.53	89.4077
433.93	105.9321
439.47	117.3398
439.56	117.3457
439.89	99.9505
443.98	110.3448
444.90	108.5742
445.03	108.5832
445.03	108.5832
445.03	108.5832
445.03	108.5832
453.90	102.7549
463.38	99.6758
468.07	112.1301
473.00	119.0509
475.06	97.6206
475.35	95.7604
476.78	90.2109
477.59	106.2410
477.96	106.2668
482.03	84.8570
484.57	101.9932
487.03	79.4511
490.36	0.0000
492.35	88.2589
497.08	73.2908
507.63	0.0000
510.53	0.0000
510.84	79.6723
511.00	79.6799
511.85	79.7217
511.85	79.7217
513.99	81.5554
513.99	81.5554
520.41	83.0291
520.65	77.2485
527.90	69.8247
528.96	0.0000
529.64	72.8073
529.87	0.0000
531.02	70.9237
537.32	65.3356
543.00	67.5092
546.56	0.0000
549.76	65.8080
552.65	85.5928
555.20	66.0124
563.23	85.1155
563.90	78.2165
568.70	81.4069
569.32	76.4689
569.50	88.3943
569.67	88.4025
573.80	78.6504
574.00	74.6750
574.64	83.6667
578.91	55.9094
579.30	0.0000
583.14	78.0547
585.48	67.3312
591.81	87.4699
592.07	81.4499
593.00	78.4713
595.88	70.5319
600.56	78.7903
602.52	0.0000
602.71	88.9937
602.71	88.9937
603.60	101.9843
604.41	102.0305
604.70	95.5667
609.31	65.9641

609.31	65.9641
609.31	65.9641
609.31	65.9641
610.33	69.8561
612.46	65.0566
614.37	71.6332
618.01	67.2830
621.84	74.5684
621.84	74.5684
631.29	93.4077
633.02	66.7793
633.10	66.7813
634.78	73.0086
635.90	73.0497
636.97	68.9711
645.85	78.5884
646.12	73.4268
656.30	70.6832
657.75	68.2366
657.90	0.0000
661.65	85.4609
661.65	85.4609
664.57	0.0000
666.33	68.5248
666.33	68.5248
675.00	75.5288
677.61	76.6736
685.20	68.5210
692.80	77.2328
695.00	62.4858
696.49	78.4263
696.49	78.4263
697.00	76.3264
697.49	76.3440
698.33	89.1039
698.50	89.1090
699.00	92.3127
702.63	68.0254
706.10	90.4915
706.58	0.0000
706.67	72.4119
709.31	67.1701
711.68	52.3018
713.82	67.3105
717.42	68.4941
720.50	53.8920
721.93	0.0000
722.20	66.9284
722.78	73.8118
722.78	73.8118
722.89	73.8160
722.95	73.8181
723.30	84.1302
724.18	75.5756
727.18	67.7238
733.00	60.3579
735.90	67.9930
739.58	69.1855
742.81	71.4523
744.21	67.1635
747.13	80.2668
751.79	67.3887
752.31	61.9698
753.82	67.4492
755.35	60.9629
756.15	55.5400
756.87	59.9146
763.93	75.1807
765.79	71.7420
766.42	68.2614
766.84	75.2752
776.49	57.1321
778.00	65.9656
778.57	59.3839
778.89	58.2922
783.80	68.3347
785.46	71.6908
792.07	77.8658

795.84	49.6303
796.30	51.4127
798.80	60.3400
801.93	55.5328
805.60	57.8430
810.29	65.7574
810.76	64.6553
815.85	46.9180
817.79	52.5451
818.51	49.2059
819.60	50.3476
826.30	57.2178
828.27	0.0000
831.60	51.7191
831.96	51.7275
834.83	65.7481
836.80	0.0000
846.75	57.0138
848.13	55.2351
856.28	0.0000
856.80	97.2221
860.37	56.4146
867.32	63.8682
867.82	63.8801
871.10	49.3422
873.19	55.7846
874.81	61.3092
875.33	0.0000
876.40	67.7581
879.36	61.4188
880.27	59.6061
880.51	59.6116
881.50	57.7997
883.24	77.1176
884.67	70.7306
889.25	49.6903
896.60	46.1401
898.02	45.2413
899.00	48.9525
903.28	54.5836
911.07	60.3123
911.07	60.3123
911.07	60.3123
919.63	47.5773
920.93	46.5649
925.00	55.9629
925.24	61.5656
926.50	50.3956
935.52	33.7087
937.48	53.4111
944.10	43.2081
946.00	61.0978
949.00	55.5185
962.29	74.6970
964.01	34.6910
966.15	42.6072
968.20	86.8573
969.11	86.2545
969.11	86.2545
969.11	86.2545
977.42	36.1250
980.50	50.4393
983.50	42.8719
989.30	45.8227
996.32	39.8753
1001.03	42.1771
1001.68	42.1867
1004.76	33.5935
1021.30	0.0000
1024.50	0.0000
1034.80	47.5166
1036.00	56.2668
1037.82	56.3008
1038.57	63.1116
1038.76	0.0000
1045.16	53.5229
1046.59	53.5471
1048.07	51.6258

1050.47	52.6421
1050.47	52.6421
1062.04	39.1445
1063.62	28.3939
1076.63	46.2151
1077.35	45.2431
1078.86	48.2176
1085.78	46.3528
1099.22	45.5643
1112.02	48.7344
1112.84	43.5257
1115.52	63.0612
1120.29	51.8553
1120.29	51.8553
1120.29	51.8553
1120.29	51.8553
1120.51	51.8578
1121.28	51.5380
1124.00	0.0000
1129.67	49.0072
1131.51	0.0000
1147.95	0.0000
1167.94	51.6151
1173.22	51.6973
1175.09	51.7271
1177.93	63.9536
1189.05	67.2246
1204.90	61.4033
1205.75	0.0000
1213.00	46.1624
1221.42	42.1631
1230.97	56.7188
1235.34	72.2798
1236.41	0.0000
1238.25	77.5085
1246.25	46.6128
1260.41	0.0000
1271.85	47.9990
1274.45	56.3889
1274.54	56.3889
1291.56	39.8722
1298.22	0.0000
1312.09	33.7687
1325.50	36.0121
1325.50	36.0121
1332.49	35.0190
1333.61	32.9072
1360.21	22.4520
1362.66	0.0000
1365.15	25.6934
1368.21	22.5001
1368.53	0.0000
1376.25	23.2642
1384.27	26.1309
1394.10	17.2602
1395.20	17.2656
1407.95	24.9013
1434.06	20.7098
1436.60	21.8135
1457.56	0.0000
1460.81	14.2664
1489.15	14.7357
1509.49	22.2148
1596.49	15.1204
1620.62	17.1057
1678.03	0.0000
1691.02	14.4824
1691.02	14.4824
1706.46	0.0000
1750.46	0.0000
1764.49	16.8178
1764.49	16.8178
1764.49	16.8178
1764.49	16.8178
1770.23	10.1032
1771.40	11.7900
1791.20	0.0000
1808.65	7.9219

1836.01	10.9543

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799005

Total Uranium Activity	4.8353E+01	ug/g
Total Uranium Counting Unc.	1.0590E+01	ug/g
Total Uranium Tpu	5.4029E-06	ug/g
Total Uranium Mda	2.7522E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799005      *
*   ANALYST       : RXF2                      DETECTOR    : GAM11           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 15:09:08.04    SAMPLE ALQT:  130.330 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.200E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.609E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.111E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.999E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:11:36.39

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799006.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:09:34
Sample ID         : G245799006           Sample quantity  : 1.37720E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.09  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.55*	79	547	0.95	92.66	89	8	1.10E-02	54.7	
2	0	63.46*	225	817	0.86	126.48	122	9	3.12E-02	24.5	
3	2	74.83	809	480	0.88	149.21	143	15	1.12E-01	5.3	1.57E+00
4	2	77.11*	1282	443	0.82	153.78	143	15	1.78E-01	3.8	
5	0	84.15*	176	403	1.12	167.85	165	6	2.45E-02	19.9	
6	0	87.07*	458	542	0.88	173.70	171	7	6.36E-02	9.7	
7	0	89.94	208	378	1.00	179.43	178	5	2.89E-02	15.7	
8	0	92.84*	436	552	1.31	185.23	182	8	6.05E-02	11.1	
9	0	129.03	64	381	0.88	257.61	254	8	8.85E-03	54.6	
10	0	185.93*	233	435	1.07	371.40	365	12	3.24E-02	19.6	
11	0	209.10	163	344	0.71	417.74	413	10	2.26E-02	22.7	
12	6	238.63*	1436	176	0.94	476.79	472	16	1.99E-01	3.1	1.31E+00
13	6	241.46	338	239	1.95	482.45	472	16	4.69E-02	11.6	
14	0	270.26	153	218	1.39	540.04	534	12	2.13E-02	20.9	
15	0	277.52	76	227	1.09	554.56	551	10	1.06E-02	38.7	
16	0	295.33*	421	216	0.90	590.17	586	10	5.84E-02	8.3	
17	0	300.09	105	163	1.19	599.71	596	9	1.46E-02	23.9	
18	0	327.85	136	135	1.79	655.22	650	10	1.89E-02	18.1	
19	0	338.24*	275	144	1.06	675.99	671	9	3.82E-02	10.1	
20	0	351.87*	770	176	1.14	703.25	697	13	1.07E-01	5.1	
21	0	463.28	88	162	1.26	926.06	919	13	1.23E-02	31.5	
22	0	510.53*	192	158	1.76	1020.56	1013	15	2.67E-02	17.5	
23	0	583.10*	435	87	1.47	1165.69	1159	12	6.03E-02	6.6	
24	0	609.13*	443	142	1.49	1217.75	1212	14	6.15E-02	7.5	
25	0	661.48*	15	81	1.61	1322.45	1318	10	2.14E-03	123.9	
26	0	769.03	58	113	1.23	1537.54	1531	14	8.09E-03	40.7	
27	0	794.87	88	39	1.14	1589.22	1583	13	1.22E-02	18.1	
28	0	860.57	43	83	0.95	1720.61	1716	11	5.91E-03	43.7	
29	0	911.09*	301	84	1.53	1821.66	1816	12	4.19E-02	8.5	
30	0	969.20*	157	110	1.47	1937.88	1931	15	2.18E-02	17.1	
31	0	1121.35	86	95	1.51	2242.18	2234	15	1.20E-02	27.1	
32	0	1460.61*	1553	37	2.03	2920.74	2911	18	2.16E-01	2.7	
33	0	1620.29	10	7	0.94	3240.14	3236	12	1.38E-03	59.5	
34	0	1764.37*	74	11	2.11	3528.33	3521	15	1.03E-02	15.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 17:11:39

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:09:34
Sample ID : G245799006 Sample quantity : 137.72 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.09 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.579E+01	3.613E+00	6.132E-01	5.222E-02	58.362
CD-109	+	88.03	*	3.645E+00	8.067E-01	7.574E-01	8.139E-02	4.813
SN-126	+	64.28		6.523E-01	3.365E-01	2.741E-01	4.367E-02	2.380
	+	86.94		1.489E+00	6.867E-01	2.996E-01	1.254E-01	4.971
	+	87.57	*	3.583E-01	7.929E-02	7.227E-02	7.749E-03	4.957
BA-137M	+	661.65	*	2.089E-02	5.183E-02	5.918E-02	6.555E-03	0.353
CS-137	+	661.65	*	2.209E-02	5.479E-02	6.255E-02	6.938E-03	0.353
TL-208	+	277.35		6.437E-01	5.063E-01	5.199E-01	7.385E-02	1.238
	+	510.84		8.632E-01	3.230E-01	2.216E-01	2.935E-02	3.895
	+	583.14	*	5.634E-01	9.751E-02	5.725E-02	6.454E-03	9.841
	+	860.37		5.271E-01	4.639E-01	5.006E-01	5.233E-02	1.053
BI-210	+	46.50	*	5.798E-01	6.372E-01	5.784E-01	5.964E-02	1.002
PB-210	+	46.50	*	5.798E-01	6.372E-01	5.784E-01	5.964E-02	1.002
PO-210	+	46.50	*	5.798E-01	6.368E-01	5.784E-01	5.509E-02	1.002
BI-211		72.87		2.748E+00	1.471E+00	2.426E+00	2.449E-01	1.133
	+	351.07	*	4.173E+00	6.114E-01	2.693E-01	2.837E-02	15.495
PB-212	+	74.81		2.126E+00	3.712E-01	2.555E-01	3.527E-02	8.320
	+	77.11		2.012E+00	2.567E-01	1.531E-01	1.569E-02	13.139
	+	87.30		1.657E+00	4.024E-01	3.338E-01	4.892E-02	4.963
	+	238.63	*	1.644E+00	2.125E-01	7.178E-02	8.172E-03	22.903
	+	300.09		1.897E+00	9.354E-01	1.000E+00	1.246E-01	1.896
PO-212	+	74.81		2.126E+00	3.712E-01	2.555E-01	3.527E-02	8.320
	+	77.11		2.012E+00	2.567E-01	1.531E-01	1.569E-02	13.139
	+	87.30		1.657E+00	4.024E-01	3.338E-01	4.892E-02	4.963
		115.19		-9.508E-01	2.567E+00	4.284E+00	5.312E-01	-0.222
	+	238.63	*	1.644E+00	2.125E-01	7.178E-02	8.172E-03	22.903
	+	300.09		1.897E+00	9.354E-01	1.000E+00	1.246E-01	1.896
BI-214	+	609.31	*	1.086E+00	2.098E-01	1.127E-01	1.360E-02	9.633
	+	1120.29		1.113E+00	6.163E-01	5.614E-01	6.093E-02	1.984
	+	1764.49		1.354E+00	4.405E-01	2.795E-01	2.303E-02	4.846
PB-214	+	74.81		3.663E+00	6.045E-01	4.402E-01	5.535E-02	8.320
	+	77.11		3.449E+00	5.125E-01	2.625E-01	3.351E-02	13.139
	+	87.30		2.839E+00	6.652E-01	5.719E-01	7.546E-02	4.963
	+	241.98		2.322E+00	6.054E-01	4.330E-01	5.165E-02	5.363

Sample ID : G245799006 Acquisition date : 10-FEB-2010 15:09:34

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.327E+00	2.772E-01	1.799E-01	2.282E-02	7.377
	+	351.92	*	1.452E+00	2.258E-01	9.391E-02	1.103E-02	15.457
PO-214	+	74.81		3.663E+00	6.045E-01	4.402E-01	5.535E-02	8.320
	+	77.11		3.449E+00	5.125E-01	2.625E-01	3.351E-02	13.139
	+	87.30		2.839E+00	6.652E-01	5.719E-01	7.546E-02	4.963
	+	241.98		2.322E+00	6.054E-01	4.330E-01	5.165E-02	5.363
	+	295.21		1.327E+00	2.772E-01	1.799E-01	2.282E-02	7.377
	+	351.92	*	1.452E+00	2.258E-01	9.391E-02	1.103E-02	15.457
PO-216	+	74.81		2.126E+00	3.712E-01	2.555E-01	3.527E-02	8.320
	+	77.11		2.012E+00	2.567E-01	1.531E-01	1.569E-02	13.139
	+	87.30		1.657E+00	4.024E-01	3.338E-01	4.892E-02	4.963
	+	238.63	*	1.644E+00	2.125E-01	7.178E-02	8.172E-03	22.903
	+	300.09		1.897E+00	9.354E-01	1.000E+00	1.246E-01	1.896
PO-218	+	74.81		3.663E+00	6.045E-01	4.402E-01	5.535E-02	8.320
	+	77.11		3.449E+00	5.125E-01	2.625E-01	3.351E-02	13.139
	+	87.30		2.839E+00	6.652E-01	5.719E-01	7.546E-02	4.963
	+	241.98		2.322E+00	6.054E-01	4.330E-01	5.165E-02	5.363
	+	295.21		1.327E+00	2.772E-01	1.799E-01	2.282E-02	7.377
	+	351.92	*	1.452E+00	2.258E-01	9.391E-02	1.103E-02	15.457
RA-224	+	240.98	*	4.403E+00	1.121E+00	8.179E-01	8.595E-02	5.383
RA-226	+	609.31	*	1.086E+00	2.098E-01	1.127E-01	1.360E-02	9.633
	+	1120.29		1.113E+00	6.163E-01	5.614E-01	6.093E-02	1.984
	+	1764.49		1.354E+00	4.405E-01	2.795E-01	2.303E-02	4.846
AC-228	+	338.32		1.637E+00	7.576E-01	3.441E-01	1.434E-01	4.757
	+	911.07	*	1.767E+00	3.656E-01	2.340E-01	2.783E-02	7.553
	+	969.11		1.622E+00	6.744E-01	4.964E-01	1.172E-01	3.267
RA-228	+	338.32		1.637E+00	7.576E-01	3.441E-01	1.434E-01	4.757
	+	911.07	*	1.767E+00	3.656E-01	2.340E-01	2.783E-02	7.553
	+	969.11		1.622E+00	6.744E-01	4.964E-01	1.172E-01	3.267
TH-228	+	74.81		2.158E+00	3.192E-01	2.594E-01	2.651E-02	8.320
	+	77.11		2.042E+00	2.606E-01	1.554E-01	1.593E-02	13.139
	+	87.30		1.682E+00	3.723E-01	3.389E-01	3.629E-02	4.963
	+	238.63	*	1.669E+00	2.158E-01	7.287E-02	8.296E-03	22.903
	+	300.09		1.926E+00	1.471E+00	1.015E+00	6.060E-01	1.896
TH-230	+	609.31	*	1.086E+00	2.098E-01	1.127E-01	1.360E-02	9.633
	+	1120.29		1.113E+00	6.162E-01	5.614E-01	6.093E-02	1.984
	+	1764.49		1.354E+00	4.405E-01	2.795E-01	2.303E-02	4.846
TH-232	+	338.32		1.637E+00	3.712E-01	3.441E-01	3.586E-02	4.757
	+	911.07	*	1.767E+00	3.656E-01	2.340E-01	2.783E-02	7.553
	+	969.11		1.622E+00	6.744E-01	4.964E-01	1.172E-01	3.267
TH-234	+	63.29	*	1.648E+00	8.649E-01	6.914E-01	1.287E-01	2.383
	+	92.38		2.376E+00	6.988E-01	4.569E-01	8.826E-02	5.200
U-234	+	609.31	*	1.086E+00	2.098E-01	1.127E-01	1.360E-02	9.633
	+	1120.29		1.113E+00	6.162E-01	5.614E-01	6.093E-02	1.984
	+	1764.49		1.354E+00	4.405E-01	2.795E-01	2.303E-02	4.846
NP-237	+	86.50	*	1.052E+00	3.183E-01	1.961E-01	4.554E-02	5.366
		95.87		-5.282E-01	6.330E-01	9.163E-01	2.349E-01	-0.576
U-238	+	63.29	*	1.648E+00	8.649E-01	6.914E-01	1.287E-01	2.383
	+	92.38		2.376E+00	5.880E-01	4.569E-01	5.015E-02	5.200

Sample ID : G245799006 Acquisition date : 10-FEB-2010 15:09:34

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	74.67	*	3.446E-01	5.083E-02	4.140E-02	4.204E-03	8.324
	+	86.72		3.945E+01	8.731E+00	7.928E+00	8.467E-01	4.976
		117.66		-2.760E+00	2.676E+00	4.299E+00	5.406E-01	-0.642
		142.18		-8.403E+00	1.332E+01	2.119E+01	2.393E+00	-0.397
ANH-511	+	511.00	*	1.865E-01	6.801E-02	4.789E-02	4.929E-03	3.893

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.708E-01	3.039E-01	4.596E-01	4.866E-02	-0.589
NA-22		1274.54	*	-2.910E-02	4.698E-02	7.250E-02	5.945E-03	-0.401
NA-24		1368.53	*	-3.511E-01	4.698E-02	Half-Life too short		
AL-26		1129.67		-8.190E-01	2.157E+00	3.313E+00	2.828E-01	-0.247
		1808.65	*	2.414E-02	2.903E-02	5.523E-02	4.526E-03	0.437
TI-44		67.85		6.491E-03	1.894E-02	3.018E-02	3.003E-03	0.215
	+	78.38	*	3.712E-01	4.737E-02	4.232E-02	4.359E-03	8.771
SC-46		889.25	*	-3.379E-02	4.260E-02	6.405E-02	6.134E-03	-0.528
	+	1120.51		1.906E-01	1.047E-01	1.292E-01	1.110E-02	1.476
V-48		944.10		7.393E-02	1.043E+00	1.697E+00	1.592E-01	0.044
		983.50	*	3.373E-02	7.522E-02	1.262E-01	1.169E-02	0.267
		1312.09		3.100E-02	8.251E-02	1.406E-01	1.146E-02	0.220
CR-51		320.08	*	-1.014E-02	3.045E-01	5.121E-01	5.687E-02	-0.020
MN-52		744.21		-6.212E-02	2.209E-01	3.562E-01	3.849E-02	-0.174
		848.13		3.062E+00	7.152E+00	1.210E+01	1.213E+00	0.253
		935.52		2.857E-01	2.919E-01	5.081E-01	4.778E-02	0.562
		1246.25		-2.061E+00	7.434E+00	1.194E+01	9.804E-01	-0.173
		1333.61		1.168E-01	5.854E+00	9.491E+00	7.710E-01	0.012
		1434.06	*	1.905E-01	2.536E-01	4.500E-01	3.709E-02	0.423
MN-54		834.83	*	6.596E-03	3.730E-02	6.196E-02	6.287E-03	0.106
CO-56		846.75	*	-1.372E-02	4.227E-02	6.714E-02	6.737E-03	-0.204
		977.42		-6.261E-01	3.121E+00	4.616E+00	4.287E-01	-0.136
		1037.82		-2.716E-02	3.283E-01	5.468E-01	5.188E-02	-0.050
		1175.09		2.323E+00	2.476E+00	4.388E+00	3.612E-01	0.529
		1238.25		1.569E-01	1.017E-01	1.837E-01	1.557E-02	0.854
		1360.21		-4.082E-01	1.018E+00	1.576E+00	1.286E-01	-0.259
		1771.40		-6.883E-01	3.172E-01	3.293E-01	2.711E-02	-2.090
CO-57		122.06	*	5.517E-03	1.807E-02	3.083E-02	3.976E-03	0.179
		136.48		5.190E-02	1.553E-01	2.634E-01	3.230E-02	0.197
CO-58		810.76	*	-4.367E-02	4.070E-02	5.999E-02	6.224E-03	-0.728
FE-59		142.65		-2.592E-01	2.080E+00	3.393E+00	3.817E-01	-0.076
		192.34		4.966E-03	7.705E-01	1.259E+00	1.764E-01	0.004
		1099.22	*	1.131E-02	9.967E-02	1.678E-01	1.580E-02	0.067
		1291.56		-2.071E-02	1.356E-01	2.193E-01	2.060E-02	-0.094
CO-60		1173.22		-9.111E-03	4.901E-02	8.000E-02	6.585E-03	-0.114
		1332.49	*	-3.361E-02	4.488E-02	6.643E-02	5.395E-03	-0.506
ZN-65		1115.52	*	2.524E-02	1.150E-01	1.690E-01	1.460E-02	0.149
GE-68		1077.35	*	2.032E+00	1.440E+00	2.639E+00	2.336E-01	0.770
AS-73		53.44	*	3.775E-01	1.690E-01	2.892E-01	2.776E-02	1.305

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-74		595.88	*	-4.980E-03	8.876E-02	1.410E-01	1.528E-02	-0.035
		634.78		3.337E-01	3.436E-01	6.136E-01	6.749E-02	0.544
SE-75		66.05		-1.699E+00	2.031E+00	2.827E+00	3.259E-01	-0.601
		96.73		-5.259E-01	5.255E-01	7.628E-01	1.175E-01	-0.690
		121.11		-1.832E-02	9.707E-02	1.626E-01	2.389E-02	-0.113
		136.00		1.253E-02	2.926E-02	4.981E-02	5.909E-03	0.252
		198.60		-1.441E+00	1.510E+00	2.301E+00	2.415E-01	-0.626
		264.65	*	2.428E-03	4.232E-02	6.017E-02	6.594E-03	0.040
		279.53		1.211E-01	1.021E-01	1.563E-01	1.783E-02	0.775
		303.91		-4.592E-01	1.878E+00	2.752E+00	3.663E-01	-0.167
		400.65		-1.075E-01	2.393E-01	3.844E-01	4.447E-02	-0.280
BR-77	+	87.88		7.909E+02	1.750E+02	2.241E+02	2.406E+01	3.530
		200.40		3.744E+01	1.370E+02	2.258E+02	2.188E+01	0.166
	+	239.00		2.651E+02	3.215E+01	3.553E+01	3.720E+00	7.463
		249.79		3.889E+00	5.786E+01	9.293E+01	9.915E+00	0.042
		281.68		-6.953E+01	8.763E+01	1.142E+02	1.273E+01	-0.609
		297.23		1.548E+02	6.624E+01	8.988E+01	9.903E+00	1.722
		303.76		-2.700E+01	1.613E+02	2.379E+02	2.604E+01	-0.114
		439.47		4.296E+01	1.368E+02	2.291E+02	2.206E+01	0.188
		484.57		-2.491E+02	2.224E+02	3.286E+02	3.310E+01	-0.758
		520.65	*	-1.132E+01	9.494E+00	1.362E+01	1.412E+00	-0.831
		574.64		-3.224E+01	2.069E+02	3.272E+02	3.509E+01	-0.099
		578.91		1.872E+00	9.720E+01	1.359E+02	1.461E+01	0.014
		585.48		1.085E+03	2.582E+02	4.365E+02	4.707E+01	2.486
		755.35		-2.070E+01	1.796E+02	2.934E+02	3.152E+01	-0.071
		817.79		1.537E+00	1.341E+02	2.202E+02	2.268E+01	0.007
SR-82		698.33		-2.497E+01	3.552E+01	5.596E+01	6.153E+00	-0.446
		776.49	*	-1.708E-01	4.038E-01	6.005E-01	6.373E-02	-0.284
		1395.20		6.847E-01	1.075E+01	1.766E+01	1.448E+00	0.039
RB-83		520.41	*	-6.565E-02	6.307E-02	9.219E-02	9.557E-03	-0.712
		529.64		3.430E-02	1.006E-01	1.666E-01	1.739E-02	0.206
		552.65		-1.899E-01	1.977E-01	2.909E-01	3.081E-02	-0.653
RB-84		881.50	*	-3.052E-02	7.388E-02	1.156E-01	1.118E-02	-0.264
KR-85		513.99	*	6.447E+00	7.956E+00	1.206E+01	1.245E+00	0.534
SR-85		513.99	*	3.306E-02	4.080E-02	6.187E-02	6.383E-03	0.534
RB-86		1076.63	*	9.768E-01	9.128E-01	1.640E+00	1.453E-01	0.595
Y-88		898.02		-1.300E-02	4.290E-02	6.772E-02	6.441E-03	-0.192
		1836.01	*	2.398E-02	3.337E-02	6.219E-02	5.083E-03	0.386
ZR-88		392.90	*	-2.669E-02	2.789E-02	4.320E-02	3.932E-03	-0.618
Y-91		1204.90	*	-1.118E+01	2.126E+01	3.409E+01	2.805E+00	-0.328
NB-94		702.63	*	2.406E-02	3.581E-02	6.211E-02	6.820E-03	0.387
		871.10		-7.874E-03	3.555E-02	5.676E-02	5.552E-03	-0.139
NB-95		765.79	*	1.989E-02	4.977E-02	7.416E-02	7.922E-03	0.268
NB-95M		235.69	*	-8.022E-02	1.143E-01	1.550E-01	1.777E-02	-0.518
ZR-95		724.18		-1.677E-01	1.117E-01	1.642E-01	1.888E-02	-1.021
		756.15	*	-2.218E-02	7.652E-02	1.232E-01	1.411E-02	-0.180
NB-97		657.90	*	-7.885E-02	7.652E-02	Half-Life too short		
		1024.50		-3.348E+00	7.652E-02	Half-Life too short		
ZR-97		254.15		3.315E+00	7.652E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		355.39		1.170E-01	7.652E-02	Half-Life too short		
		507.63	*	2.695E+00	7.652E-02	Half-Life too short		
		602.52		-4.723E+00	7.652E-02	Half-Life too short		
		1021.30		6.794E+00	7.652E-02	Half-Life too short		
		1147.95		1.604E+00	7.652E-02	Half-Life too short		
		1362.66		6.629E+00	7.652E-02	Half-Life too short		
		1750.46		4.975E+00	7.652E-02	Half-Life too short		
MO-99		140.51		-1.189E+01	1.928E+01	3.087E+01	8.857E+00	-0.385
		181.06		2.341E+00	1.429E+01	2.118E+01	3.939E+00	0.111
		366.43		-7.212E+01	7.810E+01	1.224E+02	1.199E+01	-0.589
		739.58	*	-4.084E+00	1.067E+01	1.703E+01	2.816E+00	-0.240
		778.00		-5.612E+00	3.469E+01	5.639E+01	5.979E+00	-0.100
TC-99M		140.51	*	-1.793E+10	3.469E+01	Half-Life too short		
RH-101		127.23		7.670E-03	2.600E-02	3.989E-02	4.992E-03	0.192
		198.01	*	-8.647E-03	2.743E-02	4.339E-02	4.181E-03	-0.199
		325.23		-7.529E-03	2.005E-01	2.968E-01	3.161E-02	-0.025
RH-102		418.52		1.027E-01	2.669E-01	4.505E-01	4.236E-02	0.228
		475.06	*	-7.485E-03	2.655E-02	4.233E-02	4.226E-03	-0.177
		631.29		-1.972E-02	5.160E-02	8.405E-02	9.234E-03	-0.235
		697.49		-3.537E-02	7.958E-02	1.281E-01	1.409E-02	-0.276
		766.84		1.417E-01	1.332E-01	2.091E-01	2.232E-02	0.678
		1046.59		6.117E-02	1.265E-01	2.197E-01	1.980E-02	0.278
		1112.84		5.814E-02	2.903E-01	4.424E-01	3.824E-02	0.131
RU-103		497.08	*	-4.297E-03	3.620E-02	5.820E-02	8.824E-03	-0.074
	+	610.33		1.173E+01	2.752E+00	2.867E+00	5.153E-01	4.090
RH-106	+	511.85		9.313E-01	3.397E-01	4.263E-01	4.391E-02	2.184
		621.84	*	4.494E-01	3.278E-01	5.894E-01	8.822E-02	0.763
		1050.47		-2.890E-01	2.644E+00	4.391E+00	3.948E-01	-0.066
RU-106	+	511.85		9.313E-01	3.397E-01	4.263E-01	4.391E-02	2.184
		621.84	*	4.494E-01	3.246E-01	5.894E-01	6.454E-02	0.763
		1050.47		-2.890E-01	2.644E+00	4.391E+00	3.948E-01	-0.066
AG-108M		433.93	*	6.216E-04	2.852E-02	4.693E-02	4.638E-03	0.013
		614.37		2.467E-02	4.104E-02	6.368E-02	7.125E-03	0.387
		722.95		-1.693E-01	5.388E-02	6.412E-02	7.165E-03	-2.640
AG-110M		657.75	*	-3.260E-02	3.974E-02	5.237E-02	5.901E-03	-0.623
		677.61		-9.070E-03	3.118E-01	5.192E-01	5.836E-02	-0.017
		706.67		-7.133E-02	2.349E-01	3.824E-01	4.265E-02	-0.187
		763.93		-1.259E-01	2.074E-01	2.770E-01	3.017E-02	-0.454
		884.67		2.495E-02	5.015E-02	8.528E-02	8.424E-03	0.293
		937.48		-5.781E-02	1.286E-01	1.999E-01	1.936E-02	-0.289
		1384.27		-1.153E-01	1.539E-01	2.234E-01	1.887E-02	-0.516
IN-111		171.28		4.688E-02	8.068E-01	1.333E+00	1.204E-01	0.035
		245.39	*	-4.886E-01	1.007E+00	1.381E+00	1.462E-01	-0.354
IN-113M		391.69	*	-1.539E-02	3.955E-02	6.387E-02	5.966E-03	-0.241
SN-113		391.69	*	-1.539E-02	3.955E-02	6.387E-02	5.966E-03	-0.241
IN-114M		190.27	*	3.408E-02	1.640E-01	2.427E-01	2.297E-02	0.140
CD-115		260.90		-1.367E+01	1.188E+02	1.882E+02	2.045E+01	-0.073
		492.35		-8.412E+00	3.291E+01	5.237E+01	5.310E+00	-0.161
		527.90	*	-4.780E-01	1.058E+01	1.702E+01	1.774E+00	-0.028

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-117M		156.02		-1.318E+00	1.813E+00	2.908E+00	2.900E-01	-0.453
		158.56	*	-2.333E-02	4.332E-02	7.001E-02	6.797E-03	-0.333
SB-122		563.90	*	7.158E-01	2.047E+00	3.372E+00	3.596E-01	0.212
		692.80		2.194E+01	4.371E+01	7.533E+01	8.295E+00	0.291
I-123		159.00	*	-1.472E+00	4.371E+01	Half-Life too short		
		528.96		5.930E+01	4.371E+01	Half-Life too short		
TE-123M		159.00	*	-7.136E-03	2.213E-02	3.613E-02	3.508E-03	-0.198
I-124		602.71	*	-4.674E-01	6.807E-01	9.770E-01	1.062E-01	-0.478
		722.78		-1.705E+01	5.564E+00	6.721E+00	7.329E-01	-2.537
		1325.50		2.429E+01	3.795E+01	6.619E+01	5.382E+00	0.367
		1376.25		5.878E+01	3.124E+01	6.072E+01	4.967E+00	0.968
		1509.49		1.039E+01	1.483E+01	2.641E+01	2.190E+00	0.393
		1691.02		6.173E-01	2.964E+00	5.144E+00	4.264E-01	0.120
SB-124		602.71		-2.711E-02	3.947E-02	5.666E-02	6.159E-03	-0.478
		645.85		5.394E-02	4.548E-01	7.694E-01	8.803E-02	0.070
		709.31		3.758E+00	3.218E+00	5.698E+00	6.244E-01	0.659
		713.82		-1.013E+00	1.806E+00	2.871E+00	3.961E-01	-0.353
		722.78		-1.433E+00	4.684E-01	5.649E-01	6.244E-02	-2.537
	+	968.20		1.670E+01	5.925E+00	7.767E+00	7.236E-01	2.150
		1045.16		6.596E-01	2.717E+00	4.640E+00	4.183E-01	0.142
		1325.50		2.181E+00	3.407E+00	5.942E+00	4.832E-01	0.367
		1368.21		-2.832E-01	1.708E+00	2.726E+00	3.596E-01	-0.104
		1436.60		1.272E-01	3.729E+00	6.086E+00	5.017E-01	0.021
		1691.02	*	1.224E-02	5.878E-02	1.020E-01	8.816E-03	0.120
SB-125		427.89	*	-8.086E-03	8.568E-02	1.401E-01	1.353E-02	-0.058
	+	463.38		7.691E-01	4.916E-01	5.692E-01	5.958E-02	1.351
		600.56		3.110E-02	1.738E-01	2.813E-01	3.198E-02	0.111
		635.90		1.187E-01	2.617E-01	4.532E-01	5.237E-02	0.262
TE-125M		109.28	*	2.880E+00	6.179E+00	1.066E+01	1.416E+00	0.270
I-126		388.63		-4.571E-02	1.922E-01	3.107E-01	2.853E-02	-0.147
		666.33	*	4.347E-02	2.054E-01	3.051E-01	3.378E-02	0.142
		753.82		-3.777E-01	1.524E+00	2.461E+00	2.646E-01	-0.154
SB-126		223.80		2.943E+00	3.401E+00	5.710E+00	5.810E-01	0.515
	+	278.60		4.260E+00	3.329E+00	3.919E+00	4.370E-01	1.087
	+	296.50		1.322E+01	2.635E+00	3.332E+00	3.674E-01	3.968
		414.70		-2.841E-02	7.225E-02	1.162E-01	1.087E-02	-0.245
		415.30		9.906E-02	5.970E+00	9.857E+00	9.232E-01	0.010
		555.20		9.936E-01	3.861E+00	6.331E+00	6.717E-01	0.157
		573.80		-7.066E-01	1.046E+00	1.578E+00	1.692E-01	-0.448
		593.00		-2.818E-01	8.937E-01	1.387E+00	1.501E-01	-0.203
		656.30		7.332E-01	3.580E+00	5.329E+00	5.896E-01	0.138
		666.33		1.817E-02	8.585E-02	1.275E-01	1.411E-02	0.142
		675.00		4.932E-01	1.960E+00	3.332E+00	3.684E-01	0.148
		695.00		3.074E-02	7.970E-02	1.362E-01	1.499E-02	0.226
		697.00		-8.092E-02	2.777E-01	4.525E-01	4.977E-02	-0.179
		720.50	*	6.344E-02	1.475E-01	2.500E-01	2.729E-02	0.254
		856.80		2.696E-01	5.347E-01	8.022E-01	7.968E-02	0.336
		989.30		-5.545E-01	1.411E+00	2.186E+00	2.021E-01	-0.254
		1034.80		4.652E+00	9.060E+00	1.584E+01	1.436E+00	0.294

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1213.00		-7.527E+00	5.286E+00	7.666E+00	6.307E-01	-0.982
SB-127		61.10		-3.911E+00	1.945E+01	2.827E+01	3.431E+00	-0.138
		252.40		-4.988E-01	3.798E+00	6.017E+00	2.558E+00	-0.083
		290.80		-1.224E+01	1.972E+01	2.814E+01	3.701E+00	-0.435
		411.60		-1.045E+01	1.234E+01	1.916E+01	3.089E+00	-0.545
		444.90		-1.732E+00	8.728E+00	1.410E+01	1.874E+00	-0.123
		473.00		3.668E-01	1.491E+00	2.475E+00	3.417E-01	0.148
		543.00		-9.432E+00	1.683E+01	2.522E+01	3.938E+00	-0.374
		603.60		-2.667E+00	1.215E+01	1.746E+01	2.471E+00	-0.153
		685.20	*	8.477E-01	1.411E+00	2.446E+00	3.254E-01	0.347
		698.50		-1.149E+01	1.599E+01	2.503E+01	4.313E+00	-0.459
		722.20		-9.027E+01	3.750E+01	4.833E+01	6.289E+00	-1.868
		783.80		2.151E+00	3.849E+00	6.586E+00	9.115E-01	0.327
XE-127		57.60		-8.491E-01	1.568E+00	2.446E+00	2.385E-01	-0.347
		145.22		2.237E-01	5.283E-01	8.951E-01	9.862E-02	0.250
		172.10		1.665E-02	9.639E-02	1.600E-01	1.449E-02	0.104
		202.84	*	2.487E-02	3.961E-02	6.620E-02	6.448E-03	0.376
		374.96		1.329E-02	1.728E-01	2.889E-01	2.766E-02	0.046
I-131		80.18		5.253E-01	2.595E+00	3.770E+00	3.928E-01	0.139
		284.30		-4.224E-01	1.271E+00	1.966E+00	2.257E-01	-0.215
		364.48	*	9.593E-02	1.041E-01	1.821E-01	1.869E-02	0.527
		636.97		2.771E-01	1.471E+00	2.503E+00	2.850E-01	0.111
		722.89		-2.752E+01	8.963E+00	1.081E+01	1.183E+00	-2.547
TE-132		49.72		9.823E-01	2.941E+00	4.453E+00	5.162E-01	0.221
		111.76		-6.870E-02	2.024E+01	3.434E+01	4.754E+00	-0.002
		116.30		-1.012E+01	1.934E+01	3.198E+01	4.515E+00	-0.317
		228.16	*	5.899E-01	5.811E-01	9.726E-01	1.622E-01	0.607
BA-133		53.15		1.134E+00	7.278E-01	1.227E+00	1.177E-01	0.924
		79.62		-5.667E-01	7.446E-01	1.023E+00	1.664E-01	-0.554
		81.00		1.696E-02	6.261E-02	8.002E-02	1.354E-02	0.212
	+	276.40		6.361E-01	5.026E-01	5.837E-01	9.376E-02	1.090
		302.84		7.240E-02	1.256E-01	1.955E-01	2.915E-02	0.370
		356.01	*	-8.454E-03	4.325E-02	6.257E-02	8.871E-03	-0.135
		383.85		2.881E-01	2.747E-01	4.803E-01	6.290E-02	0.600
I-133	+	510.53		1.919E+00	2.747E-01	Half-Life too short		
		529.87	*	2.755E-03	2.747E-01	Half-Life too short		
		706.58		-1.537E-01	2.747E-01	Half-Life too short		
		856.28		1.770E-01	2.747E-01	Half-Life too short		
		875.33		-1.593E-02	2.747E-01	Half-Life too short		
		1236.41		4.850E-01	2.747E-01	Half-Life too short		
		1298.22		-1.099E-01	2.747E-01	Half-Life too short		
CS-134		475.35		-1.316E-01	1.702E+00	2.758E+00	2.755E-01	-0.048
		563.23		1.234E-01	3.465E-01	5.715E-01	6.130E-02	0.216
		569.32		1.715E-01	1.988E-01	3.381E-01	3.648E-02	0.507
		604.70		-1.023E-02	3.544E-02	5.053E-02	5.505E-03	-0.202
	+	795.84	*	1.671E-01	6.299E-02	9.083E-02	9.562E-03	1.839
		801.93		-1.232E-01	4.594E-01	6.712E-01	7.027E-02	-0.184
		1038.57		-1.735E-01	3.986E+00	6.658E+00	6.024E-01	-0.026
		1167.94		-3.321E-02	2.735E+00	4.530E+00	3.747E-01	-0.007

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1365.15		5.728E-01	1.255E+00	2.163E+00	1.856E-01	0.265
CS-135		268.24	*	1.137E-01	1.487E-01	2.219E-01	2.679E-02	0.513
I-135		288.45		2.268E+10	1.487E-01	Half-Life too short		
		417.63		2.121E+10	1.487E-01	Half-Life too short		
		546.56		1.088E+10	1.487E-01	Half-Life too short		
		836.80		2.515E+10	1.487E-01	Half-Life too short		
		1038.76		-6.172E+09	1.487E-01	Half-Life too short		
		1124.00		5.394E+10	1.487E-01	Half-Life too short		
		1131.51		7.116E+09	1.487E-01	Half-Life too short		
		1260.41	*	-2.858E+09	1.487E-01	Half-Life too short		
		1457.56		9.495E+11	1.487E-01	Half-Life too short		
		1678.03		-2.840E+09	1.487E-01	Half-Life too short		
		1706.46		1.082E+10	1.487E-01	Half-Life too short		
		1791.20		3.764E+09	1.487E-01	Half-Life too short		
CS-136		66.91		1.298E-01	3.354E-01	4.954E-01	8.027E-02	0.262
	+	86.29		4.679E+00	1.127E+00	1.298E+00	1.856E-01	3.605
		153.22		3.281E-01	5.214E-01	8.863E-01	9.857E-02	0.370
		163.89		-2.039E-01	8.929E-01	1.450E+00	1.467E-01	-0.141
		176.55		1.969E-01	2.966E-01	5.013E-01	4.825E-02	0.393
		273.65		3.231E-01	4.909E-01	5.798E-01	6.680E-02	0.557
		340.57		1.785E-01	1.272E-01	2.043E-01	2.163E-02	0.874
		818.51		-3.308E-02	7.461E-02	1.173E-01	1.208E-02	-0.282
		1048.07	*	-8.374E-03	1.227E-01	2.046E-01	1.913E-02	-0.041
		1235.34		-2.230E-01	6.996E-01	1.128E+00	1.304E-01	-0.198
CE-139		165.85	*	-3.334E-03	2.410E-02	3.958E-02	3.530E-03	-0.084
BA-140		162.64		4.902E-01	6.198E-01	1.047E+00	1.020E-01	0.468
		304.84		1.938E-01	1.107E+00	1.675E+00	4.828E-01	0.116
		423.70		2.822E-01	1.719E+00	2.858E+00	9.331E-01	0.099
		537.32	*	6.653E-02	2.584E-01	4.189E-01	1.411E-01	0.159
LA-140	+	328.77		9.986E-01	3.781E-01	5.071E-01	5.574E-02	1.969
		432.53		-2.814E-01	1.854E+00	3.014E+00	2.995E-01	-0.093
		487.03		8.409E-02	1.238E-01	2.113E-01	2.229E-02	0.398
		751.79		4.155E-02	1.652E+00	2.736E+00	3.151E-01	0.015
		815.85		3.496E-01	3.274E-01	5.818E-01	6.492E-02	0.601
		867.82		1.414E-01	1.510E+00	2.343E+00	2.395E-01	0.060
		919.63		-6.915E-01	3.065E+00	4.867E+00	5.508E-01	-0.142
		925.24		8.009E-02	1.185E+00	1.933E+00	1.918E-01	0.041
		1596.49	*	-1.200E-01	7.995E-02	9.797E-02	8.146E-03	-1.224
CE-141		145.44	*	-1.172E-02	4.844E-02	7.995E-02	8.892E-03	-0.147
CE-143		57.37		-4.759E-05	4.844E-02	Half-Life too short		
		231.56		-7.645E-04	4.844E-02	Half-Life too short		
		293.26	*	3.885E-04	4.844E-02	Half-Life too short		
	+	350.59		3.332E-02	4.844E-02	Half-Life too short		
		490.36		-1.098E-03	4.844E-02	Half-Life too short		
		664.57		8.704E-05	4.844E-02	Half-Life too short		
		721.93		-2.048E-03	4.844E-02	Half-Life too short		
CE-144		80.11		1.767E-01	1.189E+00	1.724E+00	1.788E-01	0.102
		133.54	*	-3.468E-02	1.553E-01	2.459E-01	4.348E-02	-0.141
PM-144		476.78		-2.018E-02	6.126E-02	9.725E-02	1.041E-02	-0.208

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		618.01		-4.169E-02	3.259E-02	4.931E-02	5.485E-03	-0.846
		696.49	*	4.253E-03	3.508E-02	5.890E-02	6.481E-03	0.072
		778.57		4.679E-01	2.335E+00	3.909E+00	4.144E-01	0.120
PR-144		696.49	*	2.882E-01	2.377E+00	3.991E+00	4.391E-01	0.072
		1489.15		1.319E+00	1.016E+01	1.682E+01	1.393E+00	0.078
PM-146		453.90	*	-9.316E-03	3.872E-02	6.222E-02	7.265E-03	-0.150
		633.02		1.693E-01	1.320E+00	2.235E+00	8.492E-01	0.076
		735.90		-7.341E-02	1.413E-01	2.208E-01	6.480E-02	-0.333
		747.13		-3.270E-02	8.207E-02	1.305E-01	2.018E-02	-0.251
ND-147	+	91.11		5.665E-01	1.894E-01	3.137E-01	3.601E-02	1.806
		319.41		6.236E-01	2.734E+00	4.666E+00	5.014E-01	0.134
		439.89		4.669E+00	5.540E+00	9.565E+00	9.218E-01	0.488
		531.02	*	4.967E-02	5.348E-01	8.693E-01	1.397E-01	0.057
PM-149		285.90	*	2.158E+01	8.018E+01	1.289E+02	2.197E+01	0.167
EU-152		121.78		6.949E-03	5.228E-02	8.867E-02	1.222E-02	0.078
		244.69		-1.286E-01	3.023E-01	4.165E-01	4.406E-02	-0.309
		344.27	*	-3.034E-02	8.333E-02	1.365E-01	1.466E-02	-0.222
		443.98		3.902E-02	8.701E-01	1.431E+00	1.385E-01	0.027
		778.89		3.975E-02	2.683E-01	4.474E-01	4.741E-02	0.089
		867.32		-1.001E-01	9.523E-01	1.390E+00	1.365E-01	-0.072
		964.01		3.557E-01	4.097E-01	6.176E-01	5.761E-02	0.576
		1085.78		6.220E-02	4.694E-01	7.917E-01	6.972E-02	0.079
		1112.02		2.153E-01	3.840E-01	6.390E-01	5.528E-02	0.337
		1407.95		5.173E-02	1.718E-01	2.910E-01	2.391E-02	0.178
GD-153		69.67		-8.956E-01	8.025E-01	1.100E+00	1.100E-01	-0.814
	+	83.37		2.404E+01	9.878E+00	1.390E+01	1.462E+00	1.730
		97.43	*	-2.224E-02	5.128E-02	8.145E-02	9.172E-03	-0.273
		103.18		-7.472E-03	6.741E-02	1.145E-01	1.329E-02	-0.065
EU-154		123.07		2.334E-02	3.744E-02	6.441E-02	9.537E-03	0.362
		247.94		2.768E-01	3.064E-01	5.123E-01	6.690E-02	0.540
		591.81		1.040E-01	5.833E-01	9.460E-01	1.265E-01	0.110
		723.30		-7.070E-01	2.288E-01	2.736E-01	3.183E-02	-2.584
		756.87		-8.883E-02	8.277E-01	1.356E+00	1.841E-01	-0.065
		873.19		-4.700E-02	3.154E-01	5.070E-01	6.627E-02	-0.093
		996.32		-7.553E-01	4.310E-01	5.354E-01	9.672E-02	-1.411
		1004.76		-1.780E-01	2.377E-01	3.533E-01	4.263E-02	-0.504
		1274.45	*	-8.284E-02	1.324E-01	2.040E-01	2.242E-02	-0.406
EU-155		48.70		-1.393E-01	3.424E-01	4.985E-01	4.745E-02	-0.279
		60.01		6.905E-01	1.620E+00	2.426E+00	2.387E-01	0.285
	+	86.54		4.315E-01	9.564E-02	1.234E-01	1.326E-02	3.496
		105.31	*	9.797E-02	7.417E-02	1.305E-01	1.543E-02	0.751
TB-160	+	86.79		1.153E+00	2.551E-01	3.381E-01	3.612E-02	3.409
		197.04		-2.554E-01	4.630E-01	7.229E-01	6.951E-02	-0.353
		215.65		2.049E-02	6.252E-01	1.014E+00	1.015E-01	0.020
		298.57		1.992E-01	1.334E-01	1.715E-01	1.887E-02	1.161
		879.36	*	-1.448E-02	1.438E-01	2.321E-01	2.249E-02	-0.062
		962.29		9.632E-01	6.902E-01	1.095E+00	1.022E-01	0.879
		966.15		7.879E-01	3.259E-01	5.334E-01	4.972E-02	1.477
		1177.93		6.407E-02	4.046E-01	6.786E-01	5.585E-02	0.094

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		6.482E-01	7.836E-01	1.380E+00	1.131E-01	0.470
HO-166M		80.57		1.468E-01	1.674E-01	2.219E-01	2.306E-02	0.661
		184.41		6.113E-02	3.045E-02	5.383E-02	5.025E-03	1.136
		280.46		7.782E-02	7.704E-02	1.171E-01	1.306E-02	0.665
		410.95		2.231E-01	2.400E-01	4.158E-01	3.874E-02	0.536
		711.68	*	4.684E-02	6.861E-02	1.188E-01	1.301E-02	0.394
		752.31		-7.617E-02	2.684E-01	4.330E-01	4.659E-02	-0.176
		810.29		-6.604E-02	6.294E-02	9.331E-02	9.669E-03	-0.708
TM-171		51.35		-5.223E+00	5.338E+00	8.197E+00	7.828E-01	-0.637
		52.39		1.594E+00	3.022E+00	4.952E+00	4.740E-01	0.322
		59.40		5.728E+00	8.178E+00	1.240E+01	1.220E+00	0.462
		66.72	*	7.302E+00	1.184E+01	1.769E+01	1.756E+00	0.413
LU-176	+	88.36		8.497E-01	1.880E-01	2.254E-01	2.426E-02	3.770
		201.83		1.661E-02	2.417E-02	4.049E-02	3.935E-03	0.410
		306.84	*	-7.739E-03	1.933E-02	3.188E-02	3.479E-03	-0.243
		401.10		-2.571E+00	6.361E+00	1.026E+01	9.437E-01	-0.251
LU-177		112.95		6.084E-01	1.166E+00	2.009E+00	2.461E-01	0.303
	+	208.36	*	3.281E+00	1.525E+00	1.817E+00	1.791E-01	1.806
LU-177M		52.97		4.047E-01	3.283E-01	5.490E-01	5.263E-02	0.737
		54.07		2.160E-01	1.812E-01	3.027E-01	2.911E-02	0.714
		61.30		-3.085E-01	5.173E-01	7.367E-01	7.254E-02	-0.419
		121.62		-5.248E-02	2.699E-01	4.518E-01	5.809E-02	-0.116
		147.16		-1.042E-01	4.914E-01	8.112E-01	8.793E-02	-0.128
		171.86		1.716E-02	3.883E-01	6.410E-01	5.800E-02	0.027
		218.09		4.049E-01	7.127E-01	1.184E+00	1.191E-01	0.342
	+	268.79		2.714E+00	1.173E+00	1.240E+00	1.364E-01	2.189
		319.02		2.812E-02	2.173E-01	3.689E-01	3.965E-02	0.076
		367.43		-4.722E-01	8.156E-01	1.309E+00	1.279E-01	-0.361
		413.65	*	-1.072E-01	1.675E-01	2.647E-01	2.474E-02	-0.405
HF-181		56.28		-2.082E-01	2.229E-01	3.410E-01	3.305E-02	-0.611
		57.53		-2.362E-02	1.293E-01	2.050E-01	1.998E-02	-0.115
		65.20		-1.443E-01	3.750E-01	5.360E-01	5.304E-02	-0.269
		133.02		-2.310E-03	5.117E-02	7.690E-02	9.277E-03	-0.030
		136.25		1.903E-01	3.386E-01	5.789E-01	6.831E-02	0.329
		345.85		1.220E-03	1.769E-01	2.611E-01	2.683E-02	0.005
		482.03	*	2.358E-02	3.924E-02	6.661E-02	6.693E-03	0.354
W-181		56.28		-8.136E-02	8.727E-02	1.335E-01	1.294E-02	-0.610
		57.53		-9.246E-03	5.063E-02	8.029E-02	7.825E-03	-0.115
		65.20	*	-5.606E-02	1.457E-01	2.083E-01	2.061E-02	-0.269
TA-182		67.75		1.093E-02	4.526E-02	7.186E-02	7.150E-03	0.152
		100.10		-7.412E-02	1.123E-01	1.836E-01	2.097E-02	-0.404
		152.43		1.400E-01	2.620E-01	4.444E-01	4.592E-02	0.315
		222.10		-2.479E-01	2.917E-01	4.485E-01	4.548E-02	-0.553
		1001.68		1.605E+00	2.177E+00	3.692E+00	3.397E-01	0.435
	+	1121.28		5.265E-01	2.893E-01	3.624E-01	3.114E-02	1.453
		1189.05		-2.576E-01	3.722E-01	5.835E-01	4.803E-02	-0.442
		1221.42	*	-1.693E-01	2.377E-01	3.716E-01	3.056E-02	-0.456
		1230.97		9.554E-02	5.690E-01	9.496E-01	7.806E-02	0.101
RE-183		57.98		-9.206E-03	5.252E-02	8.328E-02	8.133E-03	-0.111

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		1.943E-03	3.432E-02	5.061E-02	4.975E-03	0.038
		67.20		6.352E-02	8.583E-02	1.287E-01	1.279E-02	0.494
		162.32	*	8.478E-02	8.968E-02	1.524E-01	1.418E-02	0.556
	+	208.81		2.945E+00	1.369E+00	1.647E+00	1.625E-01	1.789
		291.72		-9.318E-01	9.019E-01	1.244E+00	1.377E-01	-0.749
RE-184		57.98		-3.392E-02	1.935E-01	3.069E-01	2.997E-02	-0.111
		59.32		7.155E-03	1.264E-01	1.863E-01	1.831E-02	0.038
		67.20		2.340E-01	3.161E-01	4.739E-01	4.709E-02	0.494
		161.27		1.113E-02	2.804E-01	4.649E-01	4.380E-02	0.024
		216.55		1.458E-02	2.197E-01	3.569E-01	3.579E-02	0.041
		252.85	*	3.888E-02	2.010E-01	3.247E-01	3.482E-02	0.120
		318.01		2.424E-01	3.749E-01	6.530E-01	7.029E-02	0.371
		792.07		9.933E-02	1.111E+00	1.601E+00	1.681E-01	0.062
		903.28		6.109E-01	1.101E+00	1.827E+00	1.729E-01	0.334
		920.93		2.669E-01	4.639E-01	7.914E-01	7.466E-02	0.337
OS-185		59.72		8.465E-02	9.266E-02	1.416E-01	1.393E-02	0.598
		61.14		-3.538E-02	5.653E-02	8.039E-02	7.914E-03	-0.440
		69.30		-1.123E-01	1.292E-01	1.968E-01	1.965E-02	-0.571
		592.07		7.661E-01	2.409E+00	3.951E+00	4.274E-01	0.194
		646.12	*	7.291E-03	3.894E-02	6.621E-02	7.306E-03	0.110
		717.42		3.432E-01	8.911E-01	1.522E+00	1.663E-01	0.226
		874.81		-1.375E-01	6.160E-01	9.831E-01	9.576E-02	-0.140
		880.27		-3.190E-01	8.084E-01	1.267E+00	1.226E-01	-0.252
RE-188		155.03	*	1.161E-01	1.370E-01	2.345E-01	2.362E-02	0.495
		477.96		-1.963E+00	2.844E+00	4.377E+00	4.381E-01	-0.449
		633.10		3.422E-01	2.666E+00	4.519E+00	4.967E-01	0.076
W-188	+	63.58		6.625E+01	3.316E+01	3.758E+01	3.710E+00	1.763
		227.08		-5.818E+00	1.113E+01	1.745E+01	1.787E+00	-0.333
		290.67	*	-7.264E+00	7.036E+00	9.699E+00	1.074E+00	-0.749
IR-192	+	295.96		1.012E+00	2.019E-01	2.702E-01	2.993E-02	3.746
		308.46		-4.437E-02	7.439E-02	1.210E-01	1.322E-02	-0.367
		316.51	*	9.465E-03	2.909E-02	4.992E-02	5.391E-03	0.190
		468.07		7.522E-03	6.893E-02	9.961E-02	1.042E-02	0.076
		604.41		-1.567E-01	4.782E-01	6.786E-01	9.915E-02	-0.231
		612.46		-1.237E-01	8.177E-01	1.183E+00	1.413E-01	-0.105
AU-195		65.12		-2.362E-02	6.736E-02	9.647E-02	9.546E-03	-0.245
		66.83		1.470E-02	4.009E-02	5.924E-02	5.882E-03	0.248
	+	75.70		1.115E+00	1.645E-01	2.455E-01	2.503E-02	4.542
		98.88	*	2.054E-01	1.445E-01	2.523E-01	2.863E-02	0.814
	+	129.76		2.827E+00	3.109E+00	3.695E+00	4.553E-01	0.765
TL-200		367.94	*	-7.482E-05	3.109E+00	Half-Life too short		
		579.30		-9.864E-04	3.109E+00	Half-Life too short		
		828.27		2.406E-03	3.109E+00	Half-Life too short		
		1205.75		-5.351E-04	3.109E+00	Half-Life too short		
TL-201		68.90		-1.844E-01	2.016E+00	3.174E+00	3.167E-01	-0.058
		70.82		-2.533E-02	1.303E+00	1.891E+00	1.897E-01	-0.013
		80.30		2.945E+00	3.098E+00	4.125E+00	4.281E-01	0.714
		135.34		1.611E+01	1.892E+01	3.263E+01	3.874E+00	0.494
		167.43	*	7.118E-01	5.444E+00	9.039E+00	8.086E-01	0.079

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		-1.654E-02	1.808E-01	2.848E-01	2.841E-02	-0.058
		70.82		-2.266E-03	1.166E-01	1.692E-01	1.697E-02	-0.013
		80.30		2.636E-01	2.773E-01	3.691E-01	3.831E-02	0.714
		439.56	*	4.389E-02	6.496E-02	1.112E-01	1.071E-02	0.395
HG-203		70.83		-7.002E-03	5.052E-01	7.332E-01	1.066E-01	-0.010
		72.87		5.467E-01	2.978E-01	4.827E-01	6.858E-02	1.133
		82.60		3.639E-01	6.337E-01	9.330E-01	1.398E-01	0.390
		279.20	*	5.141E-02	4.044E-02	6.192E-02	7.028E-03	0.830
BI-207		72.80		1.383E-01	8.472E-02	1.393E-01	1.406E-02	0.993
	+	74.97		6.186E-01	9.124E-02	1.267E-01	1.288E-02	4.881
	+	84.90		3.110E-01	1.278E-01	1.852E-01	1.961E-02	1.679
		569.67		2.521E-02	3.087E-02	5.238E-02	5.603E-03	0.481
		1063.62	*	3.993E-02	6.088E-02	1.067E-01	9.520E-03	0.374
		1770.23		1.078E-01	4.316E-01	6.584E-01	5.421E-02	0.164
TL-207		81.07		3.398E-02	1.381E-01	1.764E-01	1.837E-02	0.193
	+	83.78		2.050E-01	8.424E-02	1.228E-01	1.294E-02	1.670
		94.90		1.075E-01	1.428E-01	2.277E-01	2.531E-02	0.472
		122.32		6.962E-01	1.255E+00	2.157E+00	2.870E-01	0.323
		144.24		5.026E-01	5.303E-01	8.967E-01	1.069E-01	0.560
		154.21		1.970E-01	3.150E-01	5.352E-01	5.831E-02	0.368
	+	269.46		6.355E-01	2.749E-01	3.032E-01	3.380E-02	2.096
		323.87	*	1.582E-01	5.716E-01	8.676E-01	1.630E-01	0.182
	+	338.28		6.834E+00	1.662E+00	2.313E+00	3.154E-01	2.954
		445.03		-1.796E+00	2.119E+00	3.242E+00	4.173E-01	-0.554
PO-209		260.50		4.918E+00	8.622E+00	1.416E+01	1.538E+00	0.347
		262.80		-4.125E+00	2.328E+01	3.669E+01	3.997E+00	-0.112
		896.60	*	1.908E+00	7.570E+00	1.259E+01	1.195E+00	0.152
PB-211		404.84	*	-3.717E-01	9.217E-01	1.437E+00	9.017E-01	-0.259
		427.08		-2.882E-01	1.919E+00	3.111E+00	1.937E+00	-0.093
		831.96		-1.692E+00	1.605E+00	1.709E+00	1.075E+00	-0.990
BI-212		727.18	*	1.141E+00	3.863E-01	7.038E-01	8.456E-02	1.622
		785.46		8.662E-01	1.863E+00	3.082E+00	3.252E-01	0.281
	+	1620.62		9.725E-01	1.160E+00	1.876E+00	1.559E-01	0.518
PO-215		81.07		3.398E-02	1.381E-01	1.764E-01	1.837E-02	0.193
	+	83.78		2.050E-01	8.424E-02	1.228E-01	1.294E-02	1.670
		94.90		1.075E-01	1.428E-01	2.277E-01	2.531E-02	0.472
		122.32		6.962E-01	1.255E+00	2.157E+00	2.870E-01	0.323
		144.24		5.026E-01	5.303E-01	8.967E-01	1.069E-01	0.560
		154.21		1.970E-01	3.150E-01	5.352E-01	5.831E-02	0.368
	+	269.46		6.355E-01	2.749E-01	3.032E-01	3.380E-02	2.096
		323.87	*	1.582E-01	5.716E-01	8.676E-01	1.630E-01	0.182
	+	338.28		6.834E+00	1.662E+00	2.313E+00	3.154E-01	2.954
		445.03		-1.796E+00	2.119E+00	3.242E+00	4.173E-01	-0.554
RN-219	+	271.23		8.153E-01	3.554E-01	3.946E-01	4.894E-02	2.066
		401.81	*	-9.126E-02	3.892E-01	6.341E-01	9.747E-02	-0.144
RN-220		549.76	*	2.341E+01	2.537E+01	4.356E+01	4.606E+00	0.537
RA-223		81.07		3.398E-02	1.381E-01	1.764E-01	1.837E-02	0.193
	+	83.78		2.050E-01	8.424E-02	1.228E-01	1.294E-02	1.670
		94.90		1.075E-01	1.428E-01	2.277E-01	2.531E-02	0.472

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		6.962E-01	1.255E+00	2.157E+00	2.870E-01	0.323
		144.24		5.026E-01	5.303E-01	8.967E-01	1.069E-01	0.560
		154.21		1.970E-01	3.150E-01	5.352E-01	5.831E-02	0.368
	+	269.46		6.355E-01	2.749E-01	3.032E-01	3.380E-02	2.096
		323.87	*	1.582E-01	5.716E-01	8.676E-01	1.630E-01	0.182
	+	338.28		6.834E+00	1.662E+00	2.313E+00	3.154E-01	2.954
		445.03		-1.796E+00	2.119E+00	3.242E+00	4.173E-01	-0.554
AC-227		79.80		-8.424E-02	9.087E-01	1.302E+00	2.897E-01	-0.065
		236.00		-6.107E-02	2.141E-01	3.004E-01	4.075E-02	-0.203
		256.20	*	-4.311E-01	3.526E-01	5.115E-01	8.521E-02	-0.843
		286.10		4.927E-01	1.346E+00	2.174E+00	3.251E-01	0.227
	+	299.80		3.515E+00	1.802E+00	2.351E+00	4.413E-01	1.495
		304.40		3.936E-01	1.598E+00	2.433E+00	4.775E-01	0.162
		334.20		-1.364E+00	2.154E+00	2.996E+00	6.087E-01	-0.455
TH-227		79.80		-8.424E-02	9.087E-01	1.302E+00	2.932E-01	-0.065
	+	94.00		9.181E+00	2.921E+00	2.489E+00	5.689E-01	3.689
		236.00		-6.107E-02	2.141E-01	3.004E-01	3.762E-02	-0.203
		256.20	*	-4.311E-01	3.550E-01	5.115E-01	9.815E-02	-0.843
		286.10		4.927E-01	1.432E+00	2.174E+00	2.188E+00	0.227
	+	299.80		3.515E+00	1.802E+00	2.351E+00	4.413E-01	1.495
		304.40		3.936E-01	1.598E+00	2.433E+00	4.775E-01	0.162
		334.20		-1.364E+00	2.154E+00	2.996E+00	6.087E-01	-0.455
TH-229	+	85.43		3.069E-01	1.261E-01	1.866E-01	1.981E-02	1.645
	+	88.47		4.892E-01	1.083E-01	1.274E-01	1.372E-02	3.840
		100.00		-5.962E-02	1.170E-01	1.928E-01	2.201E-02	-0.309
		193.63	*	-3.285E-01	4.192E-01	6.571E-01	6.268E-02	-0.500
		210.97		7.491E-01	6.994E-01	1.074E+00	1.065E-01	0.697
PA-231		283.67	*	-1.094E-01	1.342E+00	2.005E+00	3.357E-01	-0.055
	+	301.29		1.406E+00	6.993E-01	9.220E-01	1.291E-01	1.525
TH-231		81.07		3.398E-02	1.381E-01	1.764E-01	1.837E-02	0.193
	+	83.78		2.050E-01	8.424E-02	1.228E-01	1.294E-02	1.670
		94.90		1.075E-01	1.428E-01	2.277E-01	2.531E-02	0.472
		122.32		6.962E-01	1.255E+00	2.157E+00	2.870E-01	0.323
		144.24		5.026E-01	5.303E-01	8.967E-01	1.069E-01	0.560
		154.21		1.970E-01	3.150E-01	5.352E-01	5.831E-02	0.368
	+	269.46		6.355E-01	2.749E-01	3.032E-01	3.380E-02	2.096
		323.87	*	1.582E-01	5.716E-01	8.676E-01	1.630E-01	0.182
	+	338.28		6.834E+00	1.662E+00	2.313E+00	3.154E-01	2.954
		445.03		-1.796E+00	2.119E+00	3.242E+00	4.173E-01	-0.554
U-231	+	84.21		8.850E+00	3.636E+00	5.335E+00	5.632E-01	1.659
	+	92.29		9.089E+00	2.249E+00	2.925E+00	3.209E-01	3.107
		95.87	*	-6.000E-01	7.055E-01	1.041E+00	1.163E-01	-0.576
		108.00		-8.710E-01	1.396E+00	2.313E+00	2.757E-01	-0.377
PA-233	+	75.28		1.805E+01	3.513E+00	3.678E+00	5.986E-01	4.907
	+	86.59		7.014E+00	2.363E+00	2.018E+00	5.560E-01	3.475
	+	300.12		9.800E-01	4.943E-01	6.605E-01	1.081E-01	1.484
		311.98	*	4.436E-02	5.209E-02	9.173E-02	1.013E-02	0.484
		340.50		1.005E+00	6.638E-01	1.013E+00	2.484E-01	0.992
		398.62		-9.080E-01	1.989E+00	3.176E+00	8.515E-01	-0.286

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		2.012E-02	1.579E+00	2.607E+00	5.700E-01	0.008
PA-234	+	63.00		1.921E+00	9.928E-01	1.087E+00	1.763E-01	1.767
		94.67		1.949E-01	1.063E-01	1.721E-01	2.450E-02	1.133
		98.44		8.500E-02	7.460E-02	1.015E-01	5.711E-02	0.837
		99.86		-9.205E-02	2.980E-01	4.956E-01	5.652E-02	-0.186
		111.00		-2.155E-01	1.314E-01	2.026E-01	2.995E-02	-1.064
		131.20		-1.586E-02	8.051E-02	1.200E-01	1.465E-02	-0.132
		152.70		1.908E-01	2.550E-01	4.329E-01	7.775E-02	0.441
	+	186.00		4.952E+00	2.490E+00	2.266E+00	7.123E-01	2.185
		226.40		-2.152E-01	3.526E-01	5.488E-01	7.850E-02	-0.392
		227.20		-9.218E-02	3.714E-01	5.910E-01	6.054E-02	-0.156
		248.90		2.267E-01	7.137E-01	1.160E+00	2.698E-01	0.196
		293.70		4.764E+00	1.197E+00	1.534E+00	2.858E-01	3.106
		369.80		4.061E-01	7.469E-01	1.277E+00	2.838E-01	0.318
		568.70		4.972E-01	1.018E+00	1.691E+00	1.808E-01	0.294
		569.50		2.303E-01	2.745E-01	4.663E-01	4.987E-02	0.494
		574.00		-9.710E-01	1.503E+00	2.276E+00	2.440E-01	-0.427
		699.00		-2.928E-01	7.437E-01	1.199E+00	2.430E-01	-0.244
		706.10		-5.175E-01	1.210E+00	1.917E+00	8.644E-01	-0.270
		733.00		-1.683E-01	3.806E-01	6.053E-01	1.402E-01	-0.278
		742.81		7.723E-01	1.330E+00	2.136E+00	1.443E+00	0.361
	+	796.30		3.247E+00	1.480E+00	1.719E+00	4.760E-01	1.889
		805.60		7.658E-01	1.092E+00	1.848E+00	5.766E-01	0.414
		819.60		-3.105E-02	1.196E+00	1.957E+00	7.522E-01	-0.016
		826.30		3.766E-01	7.956E-01	1.331E+00	5.998E-01	0.283
		831.60		-9.526E-01	6.799E-01	8.590E-01	2.605E-01	-1.109
		876.40		1.659E-01	8.787E-01	1.429E+00	1.470E+00	0.116
		880.51		-1.370E-01	2.952E-01	4.596E-01	4.447E-02	-0.298
		883.24		1.101E-01	3.012E-01	4.918E-01	3.313E-01	0.224
		899.00		-5.732E-01	8.955E-01	1.307E+00	5.737E-01	-0.439
		925.00		2.478E-01	1.213E+00	2.004E+00	1.889E-01	0.124
		926.50		-3.095E-02	1.841E-01	2.934E-01	7.499E-02	-0.105
		946.00	*	4.542E-02	3.541E-01	5.785E-01	1.106E-01	0.078
		949.00		-3.019E-02	5.467E-01	8.798E-01	8.243E-02	-0.034
		980.50		1.868E-01	7.608E-01	1.255E+00	1.164E-01	0.149
		1394.10		1.190E-03	1.150E+00	1.874E+00	1.219E+00	0.001
PA-234M		766.42		1.006E+01	1.499E+01	2.156E+01	1.102E+01	0.467
		1001.03	*	2.470E+00	4.997E+00	8.307E+00	8.701E-01	0.297
U-235	+	89.95		2.254E+00	1.004E+00	1.228E+00	3.873E-01	1.836
	+	93.35		2.856E+00	1.039E+00	9.132E-01	2.635E-01	3.128
		105.00		1.311E+00	8.164E-01	1.285E+00	3.968E-01	1.021
		143.76	*	1.667E-01	1.665E-01	2.789E-01	5.267E-02	0.597
		163.35		5.233E-02	3.872E-01	6.386E-01	1.235E-01	0.082
	+	185.71		1.834E-01	7.400E-02	8.371E-02	7.838E-03	2.191
		205.31		-2.288E-01	4.952E-01	6.864E-01	1.348E-01	-0.333
NP-236		94.67		1.502E-01	7.964E-02	1.308E-01	1.452E-02	1.149
		98.44		6.422E-02	4.389E-02	7.673E-02	8.686E-03	0.837
		111.00		-1.630E-01	9.845E-02	1.532E-01	1.856E-02	-1.064
		160.31	*	-5.632E-02	6.350E-02	1.007E-01	9.591E-03	-0.559

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		5.087E-02	9.902E-02	1.695E-01	1.930E-02	0.300
		117.00	*	-3.332E-02	1.307E-01	2.188E-01	2.741E-02	-0.152
	+	209.75		2.323E+00	1.080E+00	1.281E+00	1.267E-01	1.813
		228.18		1.925E-01	1.878E-01	3.172E-01	3.255E-02	0.607
	+	277.60		3.105E-01	2.426E-01	2.874E-01	3.201E-02	1.080
		334.30		-7.862E-01	1.213E+00	1.695E+00	1.779E-01	-0.464
AM-241		59.54	*	3.939E-02	4.806E-02	7.318E-02	7.604E-03	0.538
CM-243		99.55		5.234E-02	1.019E-01	1.744E-01	1.986E-02	0.300
		103.76	*	1.413E-02	6.311E-02	1.084E-01	1.263E-02	0.130
		117.00		-3.428E-02	1.345E-01	2.251E-01	2.820E-02	-0.152
	+	209.75		2.290E+00	1.065E+00	1.263E+00	1.249E-01	1.813
		228.18		1.946E-01	1.898E-01	3.205E-01	3.289E-02	0.607
	+	277.60		3.130E-01	2.446E-01	2.898E-01	3.227E-02	1.080
AM-246		798.80		2.822E-02	1.497E-01	2.183E-01	2.282E-02	0.129
		1036.00		1.670E-01	3.116E-01	5.452E-01	4.939E-02	0.306
		1062.04		-8.629E-02	2.635E-01	4.295E-01	3.837E-02	-0.201
		1078.86	*	5.762E-02	1.672E-01	2.865E-01	2.534E-02	0.201
CM-247	+	278.00		1.287E+00	1.006E+00	1.197E+00	1.334E-01	1.076
		287.40		8.684E-02	1.100E+00	1.747E+00	1.940E-01	0.050
		402.60	*	2.074E-02	3.374E-02	5.782E-02	5.330E-03	0.359
CF-249		252.85		1.459E-01	7.540E-01	1.218E+00	1.307E-01	0.120
		333.44		-7.595E-02	1.726E-01	2.283E-01	2.400E-02	-0.333
		387.95	*	-2.519E-02	3.764E-02	5.910E-02	5.439E-03	-0.426
CF-251		176.60	*	6.670E-02	1.021E-01	1.726E-01	1.580E-02	0.387
		227.00		-1.784E-01	3.339E-01	5.229E-01	5.355E-02	-0.341
		285.00		2.223E-01	1.523E+00	2.431E+00	2.704E-01	0.091

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799006      *
* Acquisition date : 10-FEB-2010 15:09:34 Detector SN#     :               *
* Detector ID        : GAM25               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:02.09     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799006           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.3772E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope     :                  *
* MSD DPM          :    0.000             MSD Isotope     :                *
* LCS DPM          :    0.000             LCS Isotope     :                *
* LCSD DPM         :    0.000             LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.579E+01	3.541E+00	6.151E-01	0.000E+00
CD-109	3.645E+00	7.905E-01	8.018E-01	0.000E+00
SN-126	3.583E-01	7.770E-02	7.652E-02	0.000E+00
BA-137M	2.089E-02	5.079E-02	6.030E-02	0.000E+00
CS-137	2.209E-02	5.369E-02	6.375E-02	0.000E+00
TL-208	5.634E-01	9.556E-02	5.848E-02	0.000E+00
BI-210	5.798E-01	6.244E-01	6.194E-01	0.000E+00
PB-210	5.798E-01	6.244E-01	6.194E-01	0.000E+00
PO-210	5.798E-01	6.240E-01	6.194E-01	0.000E+00
BI-211	4.173E+00	5.992E-01	2.778E-01	0.000E+00
PB-212	1.644E+00	2.083E-01	7.460E-02	0.000E+00
PO-212	1.644E+00	2.083E-01	7.460E-02	0.000E+00
BI-214	1.086E+00	2.056E-01	1.150E-01	0.000E+00
PB-214	1.452E+00	2.213E-01	9.688E-02	0.000E+00
PO-214	1.452E+00	2.213E-01	9.688E-02	0.000E+00
PO-216	1.644E+00	2.083E-01	7.460E-02	0.000E+00
PO-218	1.452E+00	2.213E-01	9.688E-02	0.000E+00
RA-224	4.403E+00	1.099E+00	8.499E-01	0.000E+00
RA-226	1.086E+00	2.056E-01	1.150E-01	0.000E+00
AC-228	1.767E+00	3.583E-01	2.370E-01	0.000E+00
RA-228	1.767E+00	3.583E-01	2.370E-01	0.000E+00
TH-228	1.669E+00	2.115E-01	7.573E-02	0.000E+00
TH-230	1.086E+00	2.056E-01	1.150E-01	0.000E+00
TH-232	1.767E+00	3.583E-01	2.370E-01	0.000E+00
TH-234	1.648E+00	8.476E-01	7.364E-01	0.000E+00
U-234	1.086E+00	2.056E-01	1.150E-01	0.000E+00
NP-237	1.052E+00	3.120E-01	2.076E-01	0.000E+00
U-238	1.648E+00	8.476E-01	7.364E-01	0.000E+00
AM-243	3.446E-01	4.981E-02	4.396E-02	0.000E+00
ANH-511	1.865E-01	6.665E-02	4.905E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-2.708E-01	2.979E-01	4.713E-01	0.000E+00	NOT IDENT.
NA-22	-2.910E-02	4.604E-02	7.293E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.143E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.414E-02	2.845E-02	5.516E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.642E-02	4.490E-02	0.000E+00	FAIL ABUN
SC-46	-3.379E-02	4.174E-02	6.489E-02	0.000E+00	FAIL ABUN
V-48	3.373E-02	7.371E-02	1.276E-01	0.000E+00	NOT IDENT.
CR-51	-1.014E-02	2.984E-01	5.293E-01	0.000E+00	NOT IDENT.
MN-52	1.905E-01	2.485E-01	4.516E-01	0.000E+00	NOT IDENT.
MN-54	6.596E-03	3.656E-02	6.285E-02	0.000E+00	NOT IDENT.
CO-56	-1.372E-02	4.142E-02	6.809E-02	0.000E+00	NOT IDENT.
CO-57	5.517E-03	1.771E-02	3.244E-02	0.000E+00	NOT IDENT.
CO-58	-4.367E-02	3.989E-02	6.089E-02	0.000E+00	NOT IDENT.
FE-59	1.131E-02	9.767E-02	1.692E-01	0.000E+00	NOT IDENT.
CO-60	-3.361E-02	4.398E-02	6.676E-02	0.000E+00	NOT IDENT.
ZN-65	2.524E-02	1.127E-01	1.705E-01	0.000E+00	NOT IDENT.
GE-68	2.032E+00	1.411E+00	2.663E+00	0.000E+00	NOT IDENT.
AS-73	0.000E+00	1.656E-01	3.089E-01	0.000E+00	NOT IDENT.
AS-74	-4.980E-03	8.699E-02	1.440E-01	0.000E+00	NOT IDENT.
SE-75	2.428E-03	4.147E-02	6.241E-02	0.000E+00	NOT IDENT.
BR-77	-1.132E+01	9.304E+00	1.394E+01	0.000E+00	FAIL ABUN
SR-82	-1.708E-01	3.957E-01	6.100E-01	0.000E+00	NOT IDENT.
RB-83	-6.565E-02	6.181E-02	9.439E-02	0.000E+00	NOT IDENT.
RB-84	-3.052E-02	7.240E-02	1.172E-01	0.000E+00	NOT IDENT.
KR-85	6.447E+00	7.797E+00	1.236E+01	0.000E+00	NOT IDENT.
SR-85	3.306E-02	3.998E-02	6.336E-02	0.000E+00	NOT IDENT.
RB-86	9.768E-01	8.945E-01	1.656E+00	0.000E+00	NOT IDENT.
Y-88	2.398E-02	3.270E-02	6.209E-02	0.000E+00	NOT IDENT.
ZR-88	-2.669E-02	2.734E-02	4.447E-02	0.000E+00	NOT IDENT.
Y-91	-1.118E+01	2.084E+01	3.432E+01	0.000E+00	NOT IDENT.
NB-94	2.406E-02	3.510E-02	6.321E-02	0.000E+00	NOT IDENT.
NB-95	1.989E-02	4.878E-02	7.536E-02	0.000E+00	NOT IDENT.
NB-95M	-8.022E-02	1.120E-01	1.611E-01	0.000E+00	NOT IDENT.
ZR-95	-2.218E-02	7.499E-02	1.252E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.109E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.912E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.084E+00	1.046E+01	1.731E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.854E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.647E-03	2.688E-02	4.525E-02	0.000E+00	NOT IDENT.
RH-102	-7.485E-03	2.601E-02	4.341E-02	0.000E+00	NOT IDENT.
RU-103	-4.297E-03	3.548E-02	5.964E-02	0.000E+00	FAIL ABUN
RH-106	4.494E-01	3.213E-01	6.013E-01	0.000E+00	FAIL ABUN
RU-106	4.494E-01	3.181E-01	6.013E-01	0.000E+00	FAIL ABUN
AG-108M	6.216E-04	2.795E-02	4.822E-02	0.000E+00	NOT IDENT.
AG-110M	-3.260E-02	3.894E-02	5.337E-02	0.000E+00	NOT IDENT.
IN-111	-4.886E-01	9.867E-01	1.434E+00	0.000E+00	NOT IDENT.
IN-113M	-1.539E-02	3.876E-02	6.576E-02	0.000E+00	NOT IDENT.
SN-113	-1.539E-02	3.876E-02	6.576E-02	0.000E+00	NOT IDENT.
IN-114M	3.408E-02	1.607E-01	2.533E-01	0.000E+00	NOT IDENT.
CD-115	-4.780E-01	1.037E+01	1.742E+01	0.000E+00	NOT IDENT.
SN-117M	-2.333E-02	4.245E-02	7.332E-02	0.000E+00	NOT IDENT.
SB-122	7.158E-01	2.006E+00	3.447E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.472E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-7.136E-03	2.168E-02	3.783E-02	0.000E+00	NOT IDENT.
I-124	-4.674E-01	6.670E-01	9.975E-01	0.000E+00	NOT IDENT.
SB-124	1.224E-02	5.760E-02	1.020E-01	0.000E+00	FAIL ABUN
SB-125	-8.086E-03	8.396E-02	1.440E-01	0.000E+00	FAIL ABUN
TE-125M	2.880E+00	6.055E+00	1.124E+01	0.000E+00	NOT IDENT.
I-126	4.347E-02	2.013E-01	3.109E-01	0.000E+00	NOT IDENT.
SB-126	6.344E-02	1.445E-01	2.544E-01	0.000E+00	FAIL ABUN
SB-127	8.477E-01	1.383E+00	2.491E+00	0.000E+00	NOT IDENT.
XE-127	2.487E-02	3.882E-02	6.901E-02	0.000E+00	NOT IDENT.
I-131	9.593E-02	1.020E-01	1.877E-01	0.000E+00	NOT IDENT.
TE-132	5.899E-01	5.695E-01	1.012E+00	0.000E+00	NOT IDENT.
BA-133	-8.454E-03	4.238E-02	6.453E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.638E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.173E-02	9.223E-02	0.000E+00	FAIL ABUN
CS-135	1.137E-01	1.458E-01	2.301E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.845E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.374E-03	1.203E-01	2.066E-01	0.000E+00	FAIL ABUN
CE-139	-3.334E-03	2.362E-02	4.142E-02	0.000E+00	NOT IDENT.
BA-140	6.653E-02	2.532E-01	4.286E-01	0.000E+00	NOT IDENT.
LA-140	-1.200E-01	7.835E-02	9.810E-02	0.000E+00	FAIL ABUN
CE-141	-1.172E-02	4.747E-02	8.386E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.606E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-3.468E-02	1.522E-01	2.584E-01	0.000E+00	NOT IDENT.
PM-144	4.253E-03	3.438E-02	5.996E-02	0.000E+00	NOT IDENT.
PR-144	2.882E-01	2.330E+00	4.063E+00	0.000E+00	NOT IDENT.
PM-146	-9.316E-03	3.795E-02	6.387E-02	0.000E+00	NOT IDENT.
ND-147	4.967E-02	5.241E-01	8.896E-01	0.000E+00	FAIL ABUN
PM-149	2.158E+01	7.858E+01	1.335E+02	0.000E+00	NOT IDENT.
EU-152	-3.034E-02	8.166E-02	1.409E-01	0.000E+00	NOT IDENT.
GD-153	-2.224E-02	5.025E-02	8.607E-02	0.000E+00	FAIL ABUN
EU-154	-8.284E-02	1.297E-01	2.052E-01	0.000E+00	NOT IDENT.
EU-155	9.797E-02	7.269E-02	1.377E-01	0.000E+00	FAIL ABUN
TB-160	-1.448E-02	1.410E-01	2.352E-01	0.000E+00	FAIL ABUN
HO-166M	4.684E-02	6.723E-02	1.209E-01	0.000E+00	NOT IDENT.
TM-171	7.302E+00	1.161E+01	1.882E+01	0.000E+00	NOT IDENT.
LU-176	-7.739E-03	1.894E-02	3.298E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.495E+00	1.893E+00	0.000E+00	FAIL ABUN
LU-177M	-1.072E-01	1.641E-01	2.722E-01	0.000E+00	FAIL ABUN
HF-181	2.358E-02	3.845E-02	6.830E-02	0.000E+00	NOT IDENT.
W-181	-5.606E-02	1.428E-01	2.217E-01	0.000E+00	NOT IDENT.
TA-182	-1.693E-01	2.330E-01	3.741E-01	0.000E+00	FAIL ABUN
RE-183	8.478E-02	8.789E-02	1.595E-01	0.000E+00	FAIL ABUN
RE-184	3.888E-02	1.969E-01	3.371E-01	0.000E+00	NOT IDENT.
OS-185	7.291E-03	3.816E-02	6.750E-02	0.000E+00	NOT IDENT.
RE-188	1.161E-01	1.343E-01	2.456E-01	0.000E+00	NOT IDENT.
W-188	-7.264E+00	6.895E+00	1.004E+01	0.000E+00	FAIL ABUN
IR-192	9.465E-03	2.851E-02	5.160E-02	0.000E+00	FAIL ABUN
AU-195	2.054E-01	1.416E-01	2.665E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.013E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	7.118E-01	5.335E+00	9.457E+00	0.000E+00	NOT IDENT.
TL-202	4.389E-02	6.367E-02	1.142E-01	0.000E+00	NOT IDENT.
HG-203	5.141E-02	3.963E-02	6.416E-02	0.000E+00	NOT IDENT.
BI-207	3.993E-02	5.967E-02	1.077E-01	0.000E+00	FAIL ABUN
TL-207	1.582E-01	5.602E-01	8.964E-01	0.000E+00	FAIL ABUN
PO-209	1.908E+00	7.418E+00	1.275E+01	0.000E+00	NOT IDENT.
PB-211	-3.717E-01	9.033E-01	1.478E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.786E-01	7.158E-01	0.000E+00	FAIL ABUN
PO-215	1.582E-01	5.602E-01	8.964E-01	0.000E+00	FAIL ABUN
RN-219	-9.126E-02	3.814E-01	6.525E-01	0.000E+00	FAIL ABUN
RN-220	2.341E+01	2.486E+01	4.455E+01	0.000E+00	NOT IDENT.
RA-223	1.582E-01	5.602E-01	8.964E-01	0.000E+00	FAIL ABUN
AC-227	-4.311E-01	3.456E-01	5.308E-01	0.000E+00	FAIL ABUN
TH-227	-4.311E-01	3.479E-01	5.308E-01	0.000E+00	FAIL ABUN
TH-229	-3.285E-01	4.108E-01	6.855E-01	0.000E+00	FAIL ABUN
PA-231	-1.094E-01	1.315E+00	2.077E+00	0.000E+00	FAIL ABUN
TH-231	1.582E-01	5.602E-01	8.964E-01	0.000E+00	FAIL ABUN
U-231	-6.000E-01	6.914E-01	1.100E+00	0.000E+00	FAIL ABUN
PA-233	4.436E-02	5.105E-02	9.484E-02	0.000E+00	FAIL ABUN
PA-234	4.542E-02	3.470E-01	5.854E-01	0.000E+00	FAIL ABUN
PA-234M	2.470E+00	4.897E+00	8.396E+00	0.000E+00	NOT IDENT.
U-235	1.667E-01	1.631E-01	2.926E-01	0.000E+00	FAIL ABUN
NP-236	-5.632E-02	6.223E-02	1.054E-01	0.000E+00	NOT IDENT.
NP-239	-3.332E-02	1.281E-01	2.304E-01	0.000E+00	FAIL ABUN
AM-241	3.939E-02	4.710E-02	7.803E-02	0.000E+00	NOT IDENT.
CM-243	1.413E-02	6.185E-02	1.144E-01	0.000E+00	FAIL ABUN
AM-246	5.762E-02	1.639E-01	2.891E-01	0.000E+00	NOT IDENT.
CM-247	2.074E-02	3.306E-02	5.949E-02	0.000E+00	FAIL ABUN
CF-249	-2.519E-02	3.689E-02	6.085E-02	0.000E+00	NOT IDENT.
CF-251	6.670E-02	1.001E-01	1.804E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:11:37.42

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799006.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 15:09:34
Sample ID         : G245799006           Sample quantity  : 1.37720E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.09  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1553	10.67*	1.109E+00	3.579E+01	3.579E+01	10.10
CD-109	88.03	458	3.72*	9.409E+00	3.563E+00	3.645E+00	22.13
SN-126	64.28	225	9.60	9.779E+00	6.523E-01	6.523E-01	51.59
	86.94	458	8.90	9.409E+00	1.489E+00	1.489E+00	46.11
	87.57	458	37.00*	9.409E+00	3.583E-01	3.583E-01	22.13
BA-137M	661.65	15	89.98*	2.231E+00	2.087E-02	2.089E-02	248.06
CS-137	661.65	15	85.12*	2.231E+00	2.206E-02	2.209E-02	248.06
TL-208	277.35	76	6.80	4.736E+00	6.437E-01	6.437E-01	78.65
	510.84	192	21.60	2.809E+00	8.632E-01	8.632E-01	37.42
	583.14	435	84.20*	2.497E+00	5.634E-01	5.634E-01	17.31
	860.37	43	12.46	1.765E+00	5.271E-01	5.271E-01	88.00
BI-210	46.50	79	4.05*	9.192E+00	5.791E-01	5.798E-01	109.89
PB-210	46.50	79	4.05*	9.192E+00	5.791E-01	5.798E-01	109.89
PO-210	46.50	79	4.05*	9.192E+00	5.791E-01	5.798E-01	109.82
BI-211	72.87	------	1.27	9.724E+00	------	Line Not Found	------
	351.07	770	12.94*	3.886E+00	4.173E+00	4.173E+00	14.65
PB-212	74.81	809	10.70	9.694E+00	2.126E+00	2.126E+00	17.46
	77.11	1282	18.00	9.652E+00	2.012E+00	2.012E+00	12.76
	87.30	458	8.00	9.409E+00	1.657E+00	1.657E+00	24.28
	238.63	1436	44.60*	5.339E+00	1.644E+00	1.644E+00	12.93
	300.09	105	3.41	4.442E+00	1.897E+00	1.897E+00	49.31
PO-212	74.81	809	10.70	9.694E+00	2.126E+00	2.126E+00	17.46
	77.11	1282	18.00	9.652E+00	2.012E+00	2.012E+00	12.76
	87.30	458	8.00	9.409E+00	1.657E+00	1.657E+00	24.28
	115.19	------	0.60	8.498E+00	------	Line Not Found	------
	238.63	1436	44.60*	5.339E+00	1.644E+00	1.644E+00	12.93
	300.09	105	3.41	4.442E+00	1.897E+00	1.897E+00	49.31
BI-214	609.31	443	46.30*	2.401E+00	1.086E+00	1.086E+00	19.32
	1120.29	86	15.10	1.397E+00	1.113E+00	1.113E+00	55.34
	1764.49	74	15.80	9.413E-01	1.354E+00	1.354E+00	32.52
PB-214	74.81	809	6.21	9.694E+00	3.663E+00	3.663E+00	16.51
	77.11	1282	10.50	9.652E+00	3.448E+00	3.449E+00	14.86

Sample ID : G245799006 Acquisition date : 10-FEB-2010 15:09:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	458	4.67	9.409E+00	2.839E+00	2.839E+00	23.43
	241.98	338	7.49	5.290E+00	2.322E+00	2.322E+00	26.07
	295.21	421	19.20	4.501E+00	1.327E+00	1.327E+00	20.88
	351.92	770	37.20*	3.886E+00	1.452E+00	1.452E+00	15.55
PO-214	74.81	809	6.21	9.694E+00	3.663E+00	3.663E+00	16.51
	77.11	1282	10.50	9.652E+00	3.448E+00	3.449E+00	14.86
	87.30	458	4.67	9.409E+00	2.839E+00	2.839E+00	23.43
	241.98	338	7.49	5.290E+00	2.322E+00	2.322E+00	26.07
	295.21	421	19.20	4.501E+00	1.327E+00	1.327E+00	20.88
	351.92	770	37.20*	3.886E+00	1.452E+00	1.452E+00	15.55
PO-216	74.81	809	10.70	9.694E+00	2.126E+00	2.126E+00	17.46
	77.11	1282	18.00	9.652E+00	2.012E+00	2.012E+00	12.76
	87.30	458	8.00	9.409E+00	1.657E+00	1.657E+00	24.28
	238.63	1436	44.60*	5.339E+00	1.644E+00	1.644E+00	12.93
	300.09	105	3.41	4.442E+00	1.897E+00	1.897E+00	49.31
PO-218	74.81	809	6.21	9.694E+00	3.663E+00	3.663E+00	16.51
	77.11	1282	10.50	9.652E+00	3.448E+00	3.449E+00	14.86
	87.30	458	4.67	9.409E+00	2.839E+00	2.839E+00	23.43
	241.98	338	7.49	5.290E+00	2.322E+00	2.322E+00	26.07
	295.21	421	19.20	4.501E+00	1.327E+00	1.327E+00	20.88
	351.92	770	37.20*	3.886E+00	1.452E+00	1.452E+00	15.55
RA-224	240.98	338	3.95*	5.290E+00	4.403E+00	4.403E+00	25.46
RA-226	609.31	443	46.30*	2.401E+00	1.086E+00	1.086E+00	19.32
	1120.29	86	15.10	1.397E+00	1.113E+00	1.113E+00	55.34
	1764.49	74	15.80	9.413E-01	1.354E+00	1.354E+00	32.52
AC-228	338.32	275	11.40	4.019E+00	1.637E+00	1.637E+00	46.29
	911.07	301	27.70*	1.678E+00	1.767E+00	1.767E+00	20.69
	969.11	157	16.60	1.589E+00	1.622E+00	1.622E+00	41.58
RA-228	338.32	275	11.40	4.019E+00	1.637E+00	1.637E+00	46.29
	911.07	301	27.70*	1.678E+00	1.767E+00	1.767E+00	20.69
	969.11	157	16.60	1.589E+00	1.622E+00	1.622E+00	41.58
TH-228	74.81	809	10.70	9.694E+00	2.126E+00	2.158E+00	14.79
	77.11	1282	18.00	9.652E+00	2.012E+00	2.042E+00	12.76
	87.30	458	8.00	9.409E+00	1.657E+00	1.682E+00	22.13
	238.63	1436	44.60*	5.339E+00	1.644E+00	1.669E+00	12.93
	300.09	105	3.41	4.442E+00	1.897E+00	1.926E+00	76.40
TH-230	609.31	443	46.30*	2.401E+00	1.086E+00	1.086E+00	19.32
	1120.29	86	15.10	1.397E+00	1.113E+00	1.113E+00	55.34
	1764.49	74	15.80	9.413E-01	1.354E+00	1.354E+00	32.52
TH-232	338.32	275	11.40	4.019E+00	1.637E+00	1.637E+00	22.68
	911.07	301	27.70*	1.678E+00	1.767E+00	1.767E+00	20.69
	969.11	157	16.60	1.589E+00	1.622E+00	1.622E+00	41.58
TH-234	63.29	225	3.80*	9.779E+00	1.648E+00	1.648E+00	52.48
	92.38	436	5.41	9.238E+00	2.376E+00	2.376E+00	29.41
U-234	609.31	443	46.30*	2.401E+00	1.086E+00	1.086E+00	19.32
	1120.29	86	15.10	1.397E+00	1.113E+00	1.113E+00	55.34
	1764.49	74	15.80	9.413E-01	1.354E+00	1.354E+00	32.52
NP-237	86.50	458	12.60*	9.409E+00	1.052E+00	1.052E+00	30.26
	95.87	------	2.60	9.143E+00	------ Line Not Found		------

Sample ID : G245799006 Acquisition date : 10-FEB-2010 15:09:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-238	63.29	225	3.80*	9.779E+00	1.648E+00	1.648E+00	52.48
	92.38	436	5.41	9.238E+00	2.376E+00	2.376E+00	24.75
AM-243	74.67	809	66.00*	9.694E+00	3.446E-01	3.446E-01	14.75
	86.72	458	0.34	9.409E+00	3.945E+01	3.945E+01	22.13
	117.66	------	0.55	8.415E+00	------ Line Not Found		------
	142.18	------	0.13	7.617E+00	------ Line Not Found		------
ANH-511	511.00	192	100.00*	2.809E+00	1.865E-01	1.865E-01	36.48

Flag: "*" = Keyline

Sample ID : G245799006 Acquisition date : 10-FEB-2010 15:09:34

Total number of lines in spectrum 34
Number of unidentified lines 1
Number of lines tentatively identified by NID 33 97.06%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.579E+01	3.579E+01	0.361E+01	10.10	
CD-109	464.00D	1.02	3.563E+00	3.645E+00	0.807E+00	22.13	
SN-126	1.00E+05Y	1.00	3.583E-01	3.583E-01	0.793E-01	22.13	
BA-137M	30.17Y	1.00	2.087E-02	2.089E-02	5.183E-02	248.06	
CS-137	30.17Y	1.00	2.206E-02	2.209E-02	5.479E-02	248.06	
TL-208	1.41E+10Y	1.00	5.634E-01	5.634E-01	0.975E-01	17.31	
BI-210	22.26Y	1.00	5.791E-01	5.798E-01	6.372E-01	109.89	
PB-210	22.26Y	1.00	5.791E-01	5.798E-01	6.372E-01	109.89	
PO-210	22.26Y	1.00	5.791E-01	5.798E-01	6.368E-01	109.82	
BI-211	7.04E+08Y	1.00	4.173E+00	4.173E+00	0.611E+00	14.65	
PB-212	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.213E+00	12.93	
PO-212	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.213E+00	12.93	
BI-214	1600.00Y	1.00	1.086E+00	1.086E+00	0.210E+00	19.32	
PB-214	1600.00Y	1.00	1.452E+00	1.452E+00	0.226E+00	15.55	
PO-214	1600.00Y	1.00	1.452E+00	1.452E+00	0.226E+00	15.55	
PO-216	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.213E+00	12.93	
PO-218	1600.00Y	1.00	1.452E+00	1.452E+00	0.226E+00	15.55	
RA-224	1.41E+10Y	1.00	4.403E+00	4.403E+00	1.121E+00	25.46	
RA-226	1600.00Y	1.00	1.086E+00	1.086E+00	0.210E+00	19.32	
AC-228	1.41E+10Y	1.00	1.767E+00	1.767E+00	0.366E+00	20.69	
RA-228	1.41E+10Y	1.00	1.767E+00	1.767E+00	0.366E+00	20.69	
TH-228	1.91Y	1.02	1.644E+00	1.669E+00	0.216E+00	12.93	
TH-230	4.47E+09Y	1.00	1.086E+00	1.086E+00	0.210E+00	19.32	
TH-232	1.41E+10Y	1.00	1.767E+00	1.767E+00	0.366E+00	20.69	
TH-234	4.47E+09Y	1.00	1.648E+00	1.648E+00	0.865E+00	52.48	
U-234	4.47E+09Y	1.00	1.086E+00	1.086E+00	0.210E+00	19.32	
NP-237	2.14E+06Y	1.00	1.052E+00	1.052E+00	0.318E+00	30.26	
U-238	4.47E+09Y	1.00	1.648E+00	1.648E+00	0.865E+00	52.48	
AM-243	7380.00Y	1.00	3.446E-01	3.446E-01	0.508E-01	14.75	
ANH-511	1.00E+09Y	1.00	1.865E-01	1.865E-01	0.680E-01	36.48	
	Total Activity :		7.608E+01	7.619E+01			

Grand Total Activity : 7.608E+01 7.619E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799006
Acquisition date : 10-FEB-2010 15:09:34

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.15	176	403	1.12	167.85	165	6	2.45E-02	39.7	9.49E+00	T
0	89.94	208	378	1.00	179.43	178	5	2.89E-02	31.4	9.33E+00	T
0	129.03	64	381	0.88	257.61	254	8	8.85E-03	****	8.04E+00	T
0	185.93	233	435	1.07	371.40	365	12	3.24E-02	39.2	6.42E+00	T
0	209.10	163	344	0.71	417.74	413	10	2.26E-02	45.4	5.90E+00	T
0	270.26	153	218	1.39	540.04	534	12	2.13E-02	41.8	4.84E+00	T
0	327.85	136	135	1.79	655.22	650	10	1.89E-02	36.2	4.13E+00	T
0	463.28	88	162	1.26	926.06	919	13	1.23E-02	63.1	3.06E+00	T
0	769.03	58	113	1.23	1537.54	1531	14	8.09E-03	81.5	1.95E+00	
0	794.87	88	39	1.14	1589.22	1583	13	1.22E-02	36.2	1.89E+00	T
0	1620.29	10	7	0.94	3240.14	3236	12	1.38E-03	****	1.01E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 17:11:42.83

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799006.CNF;1   *
* Acquisition date  : 10-FEB-2010 15:09:34  Detector SN#     :                *
* Detector ID       : GAM25                 Sensitivity      : 5.00000        *
* Geometry          : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:02.09          Half life ratio : 8.00000         *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245799006            Analyst initials: RXF2            *
* Batch Number      : 947531                Sample Quantity : 1.37720E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.579E+01	3.613E+00	6.132E-01	5.222E-02	58.362
CD-109	3.645E+00	8.067E-01	7.574E-01	8.139E-02	4.813
SN-126	3.583E-01	7.929E-02	7.227E-02	7.749E-03	4.957
BA-137M	2.089E-02	5.183E-02	5.918E-02	6.555E-03	0.353
CS-137	2.209E-02	5.479E-02	6.255E-02	6.938E-03	0.353
TL-208	5.634E-01	9.751E-02	5.725E-02	6.454E-03	9.841
BI-210	5.798E-01	6.372E-01	5.784E-01	5.964E-02	1.002
PB-210	5.798E-01	6.372E-01	5.784E-01	5.964E-02	1.002
PO-210	5.798E-01	6.368E-01	5.784E-01	5.509E-02	1.002
BI-211	4.173E+00	6.114E-01	2.693E-01	2.837E-02	15.495
PB-212	1.644E+00	2.125E-01	7.178E-02	8.172E-03	22.903
PO-212	1.644E+00	2.125E-01	7.178E-02	8.172E-03	22.903
BI-214	1.086E+00	2.098E-01	1.127E-01	1.360E-02	9.633
PB-214	1.452E+00	2.258E-01	9.391E-02	1.103E-02	15.457
PO-214	1.452E+00	2.258E-01	9.391E-02	1.103E-02	15.457
PO-216	1.644E+00	2.125E-01	7.178E-02	8.172E-03	22.903
PO-218	1.452E+00	2.258E-01	9.391E-02	1.103E-02	15.457
RA-224	4.403E+00	1.121E+00	8.179E-01	8.595E-02	5.383

Sample ID : G245799006 Acquisition date : 10-FEB-2010 15:09:34

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.086E+00	2.098E-01	1.127E-01	1.360E-02	9.633
AC-228	1.767E+00	3.656E-01	2.340E-01	2.783E-02	7.553
RA-228	1.767E+00	3.656E-01	2.340E-01	2.783E-02	7.553
TH-228	1.669E+00	2.158E-01	7.287E-02	8.296E-03	22.903
TH-230	1.086E+00	2.098E-01	1.127E-01	1.360E-02	9.633
TH-232	1.767E+00	3.656E-01	2.340E-01	2.783E-02	7.553
TH-234	1.648E+00	8.649E-01	6.914E-01	1.287E-01	2.383
U-234	1.086E+00	2.098E-01	1.127E-01	1.360E-02	9.633
NP-237	1.052E+00	3.183E-01	1.961E-01	4.554E-02	5.366
U-238	1.648E+00	8.649E-01	6.914E-01	1.287E-01	2.383
AM-243	3.446E-01	5.083E-02	4.140E-02	4.204E-03	8.324
ANH-511	1.865E-01	6.801E-02	4.789E-02	4.929E-03	3.893

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.708E-01		3.039E-01	4.596E-01	4.866E-02	-0.589
NA-22	-2.910E-02		4.698E-02	7.250E-02	5.945E-03	-0.401
NA-24	-3.511E-01		3.644E-01	Half-Life too short		
AL-26	2.414E-02		2.903E-02	5.523E-02	4.526E-03	0.437
TI-44	3.712E-01	+	4.737E-02	4.232E-02	4.359E-03	8.771
SC-46	-3.379E-02		4.260E-02	6.405E-02	6.134E-03	-0.528
V-48	3.373E-02		7.522E-02	1.262E-01	1.169E-02	0.267
CR-51	-1.014E-02		3.045E-01	5.121E-01	5.687E-02	-0.020
MN-52	1.905E-01		2.536E-01	4.500E-01	3.709E-02	0.423
MN-54	6.596E-03		3.730E-02	6.196E-02	6.287E-03	0.106
CO-56	-1.372E-02		4.227E-02	6.714E-02	6.737E-03	-0.204
CO-57	5.517E-03		1.807E-02	3.083E-02	3.976E-03	0.179
CO-58	-4.367E-02		4.070E-02	5.999E-02	6.224E-03	-0.728
FE-59	1.131E-02		9.967E-02	1.678E-01	1.580E-02	0.067
CO-60	-3.361E-02		4.488E-02	6.643E-02	5.395E-03	-0.506
ZN-65	2.524E-02		1.150E-01	1.690E-01	1.460E-02	0.149
GE-68	2.032E+00		1.440E+00	2.639E+00	2.336E-01	0.770
AS-73	3.775E-01		1.690E-01	2.892E-01	2.776E-02	1.305
AS-74	-4.980E-03		8.876E-02	1.410E-01	1.528E-02	-0.035
SE-75	2.428E-03		4.232E-02	6.017E-02	6.594E-03	0.040
BR-77	-1.132E+01		9.494E+00	1.362E+01	1.412E+00	-0.831
SR-82	-1.708E-01		4.038E-01	6.005E-01	6.373E-02	-0.284
RB-83	-6.565E-02		6.307E-02	9.219E-02	9.557E-03	-0.712
RB-84	-3.052E-02		7.388E-02	1.156E-01	1.118E-02	-0.264
KR-85	6.447E+00		7.956E+00	1.206E+01	1.245E+00	0.534
SR-85	3.306E-02		4.080E-02	6.187E-02	6.383E-03	0.534
RB-86	9.768E-01		9.128E-01	1.640E+00	1.453E-01	0.595
Y-88	2.398E-02		3.337E-02	6.219E-02	5.083E-03	0.386
ZR-88	-2.669E-02		2.789E-02	4.320E-02	3.932E-03	-0.618
Y-91	-1.118E+01		2.126E+01	3.409E+01	2.805E+00	-0.328
NB-94	2.406E-02		3.581E-02	6.211E-02	6.820E-03	0.387

Sample ID : G245799006 Acquisition date : 10-FEB-2010 15:09:34

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	1.989E-02		4.977E-02	7.416E-02	7.922E-03	0.268
NB-95M	-8.022E-02		1.143E-01	1.550E-01	1.777E-02	-0.518
ZR-95	-2.218E-02		7.652E-02	1.232E-01	1.411E-02	-0.180
NB-97	-7.885E-02		5.659E-02	Half-Life too short		
ZR-97	2.695E+00		9.757E-01	Half-Life too short		
MO-99	-4.084E+00		1.067E+01	1.703E+01	2.816E+00	-0.240
TC-99M	-1.793E+10		1.456E+10	Half-Life too short		
RH-101	-8.647E-03		2.743E-02	4.339E-02	4.181E-03	-0.199
RH-102	-7.485E-03		2.655E-02	4.233E-02	4.226E-03	-0.177
RU-103	-4.297E-03		3.620E-02	5.820E-02	8.824E-03	-0.074
RH-106	4.494E-01		3.278E-01	5.894E-01	8.822E-02	0.763
RU-106	4.494E-01		3.246E-01	5.894E-01	6.454E-02	0.763
AG-108M	6.216E-04		2.852E-02	4.693E-02	4.638E-03	0.013
AG-110M	-3.260E-02		3.974E-02	5.237E-02	5.901E-03	-0.623
IN-111	-4.886E-01		1.007E+00	1.381E+00	1.462E-01	-0.354
IN-113M	-1.539E-02		3.955E-02	6.387E-02	5.966E-03	-0.241
SN-113	-1.539E-02		3.955E-02	6.387E-02	5.966E-03	-0.241
IN-114M	3.408E-02		1.640E-01	2.427E-01	2.297E-02	0.140
CD-115	-4.780E-01		1.058E+01	1.702E+01	1.774E+00	-0.028
SN-117M	-2.333E-02		4.332E-02	7.001E-02	6.797E-03	-0.333
SB-122	7.158E-01		2.047E+00	3.372E+00	3.596E-01	0.212
I-123	-1.472E+00		2.281E+00	Half-Life too short		
TE-123M	-7.136E-03		2.213E-02	3.613E-02	3.508E-03	-0.198
I-124	-4.674E-01		6.807E-01	9.770E-01	1.062E-01	-0.478
SB-124	1.224E-02		5.878E-02	1.020E-01	8.816E-03	0.120
SB-125	-8.086E-03		8.568E-02	1.401E-01	1.353E-02	-0.058
TE-125M	2.880E+00		6.179E+00	1.066E+01	1.416E+00	0.270
I-126	4.347E-02		2.054E-01	3.051E-01	3.378E-02	0.142
SB-126	6.344E-02		1.475E-01	2.500E-01	2.729E-02	0.254
SB-127	8.477E-01		1.411E+00	2.446E+00	3.254E-01	0.347
XE-127	2.487E-02		3.961E-02	6.620E-02	6.448E-03	0.376
I-131	9.593E-02		1.041E-01	1.821E-01	1.869E-02	0.527
TE-132	5.899E-01		5.811E-01	9.726E-01	1.622E-01	0.607
BA-133	-8.454E-03		4.325E-02	6.257E-02	8.871E-03	-0.135
I-133	2.755E-03		2.877E-03	Half-Life too short		
CS-134	1.671E-01	+	6.299E-02	9.083E-02	9.562E-03	1.839
CS-135	1.137E-01		1.487E-01	2.219E-01	2.679E-02	0.513
I-135	-2.858E+09		2.982E+09	Half-Life too short		
CS-136	-8.374E-03		1.227E-01	2.046E-01	1.913E-02	-0.041
CE-139	-3.334E-03		2.410E-02	3.958E-02	3.530E-03	-0.084
BA-140	6.653E-02		2.584E-01	4.189E-01	1.411E-01	0.159
LA-140	-1.200E-01		7.995E-02	9.797E-02	8.146E-03	-1.224
CE-141	-1.172E-02		4.844E-02	7.995E-02	8.892E-03	-0.147
CE-143	3.885E-04		8.194E-05	Half-Life too short		
CE-144	-3.468E-02		1.553E-01	2.459E-01	4.348E-02	-0.141
PM-144	4.253E-03		3.508E-02	5.890E-02	6.481E-03	0.072
PR-144	2.882E-01		2.377E+00	3.991E+00	4.391E-01	0.072
PM-146	-9.316E-03		3.872E-02	6.222E-02	7.265E-03	-0.150

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	4.967E-02		5.348E-01	8.693E-01	1.397E-01	0.057
PM-149	2.158E+01		8.018E+01	1.289E+02	2.197E+01	0.167
EU-152	-3.034E-02		8.333E-02	1.365E-01	1.466E-02	-0.222
GD-153	-2.224E-02		5.128E-02	8.145E-02	9.172E-03	-0.273
EU-154	-8.284E-02		1.324E-01	2.040E-01	2.242E-02	-0.406
EU-155	9.797E-02		7.417E-02	1.305E-01	1.543E-02	0.751
TB-160	-1.448E-02		1.438E-01	2.321E-01	2.249E-02	-0.062
HO-166M	4.684E-02		6.861E-02	1.188E-01	1.301E-02	0.394
TM-171	7.302E+00		1.184E+01	1.769E+01	1.756E+00	0.413
LU-176	-7.739E-03		1.933E-02	3.188E-02	3.479E-03	-0.243
LU-177	3.281E+00	+	1.525E+00	1.817E+00	1.791E-01	1.806
LU-177M	-1.072E-01		1.675E-01	2.647E-01	2.474E-02	-0.405
HF-181	2.358E-02		3.924E-02	6.661E-02	6.693E-03	0.354
W-181	-5.606E-02		1.457E-01	2.083E-01	2.061E-02	-0.269
TA-182	-1.693E-01		2.377E-01	3.716E-01	3.056E-02	-0.456
RE-183	8.478E-02		8.968E-02	1.524E-01	1.418E-02	0.556
RE-184	3.888E-02		2.010E-01	3.247E-01	3.482E-02	0.120
OS-185	7.291E-03		3.894E-02	6.621E-02	7.306E-03	0.110
RE-188	1.161E-01		1.370E-01	2.345E-01	2.362E-02	0.495
W-188	-7.264E+00		7.036E+00	9.699E+00	1.074E+00	-0.749
IR-192	9.465E-03		2.909E-02	4.992E-02	5.391E-03	0.190
AU-195	2.054E-01		1.445E-01	2.523E-01	2.863E-02	0.814
TL-200	-7.482E-05		2.048E-04	Half-Life too short		
TL-201	7.118E-01		5.444E+00	9.039E+00	8.086E-01	0.079
TL-202	4.389E-02		6.496E-02	1.112E-01	1.071E-02	0.395
HG-203	5.141E-02		4.044E-02	6.192E-02	7.028E-03	0.830
BI-207	3.993E-02		6.088E-02	1.067E-01	9.520E-03	0.374
TL-207	1.582E-01		5.716E-01	8.676E-01	1.630E-01	0.182
PO-209	1.908E+00		7.570E+00	1.259E+01	1.195E+00	0.152
PB-211	-3.717E-01		9.217E-01	1.437E+00	9.017E-01	-0.259
BI-212	1.141E+00		3.863E-01	7.038E-01	8.456E-02	1.622
PO-215	1.582E-01		5.716E-01	8.676E-01	1.630E-01	0.182
RN-219	-9.126E-02		3.892E-01	6.341E-01	9.747E-02	-0.144
RN-220	2.341E+01		2.537E+01	4.356E+01	4.606E+00	0.537
RA-223	1.582E-01		5.716E-01	8.676E-01	1.630E-01	0.182
AC-227	-4.311E-01		3.526E-01	5.115E-01	8.521E-02	-0.843
TH-227	-4.311E-01		3.550E-01	5.115E-01	9.815E-02	-0.843
TH-229	-3.285E-01		4.192E-01	6.571E-01	6.268E-02	-0.500
PA-231	-1.094E-01		1.342E+00	2.005E+00	3.357E-01	-0.055
TH-231	1.582E-01		5.716E-01	8.676E-01	1.630E-01	0.182
U-231	-6.000E-01		7.055E-01	1.041E+00	1.163E-01	-0.576
PA-233	4.436E-02		5.209E-02	9.173E-02	1.013E-02	0.484
PA-234	4.542E-02		3.541E-01	5.785E-01	1.106E-01	0.078
PA-234M	2.470E+00		4.997E+00	8.307E+00	8.701E-01	0.297
U-235	1.667E-01		1.665E-01	2.789E-01	5.267E-02	0.597
NP-236	-5.632E-02		6.350E-02	1.007E-01	9.591E-03	-0.559
NP-239	-3.332E-02		1.307E-01	2.188E-01	2.741E-02	-0.152
AM-241	3.939E-02		4.806E-02	7.318E-02	7.604E-03	0.538

Sample ID : G245799006 Acquisition date : 10-FEB-2010 15:09:34

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.413E-02		6.311E-02	1.084E-01	1.263E-02	0.130
AM-246	5.762E-02		1.672E-01	2.865E-01	2.534E-02	0.201
CM-247	2.074E-02		3.374E-02	5.782E-02	5.330E-03	0.359
CF-249	-2.519E-02		3.764E-02	5.910E-02	5.439E-03	-0.426
CF-251	6.670E-02		1.021E-01	1.726E-01	1.580E-02	0.387

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799006           *
* Acquisition date  : 10-FEB-2010 15:09:34 Detector SN#     :               *
* Detector ID       : GAM25                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.09      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799006           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.3772E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.579E+01	3.541E+00	3.077E-01	1.806E+00
CD-109	3.645E+00	7.905E-01	4.011E-01	4.033E-01
SN-126	3.583E-01	7.770E-02	3.828E-02	3.964E-02
BA-137M	2.089E-02	5.079E-02	3.017E-02	2.591E-02
CS-137	2.209E-02	5.369E-02	3.189E-02	2.739E-02
TL-208	5.634E-01	9.556E-02	2.926E-02	4.876E-02
BI-210	5.798E-01	6.244E-01	3.099E-01	3.186E-01
PB-210	5.798E-01	6.244E-01	3.099E-01	3.186E-01
PO-210	5.798E-01	6.240E-01	3.099E-01	3.184E-01
BI-211	4.173E+00	5.992E-01	1.390E-01	3.057E-01
PB-212	1.644E+00	2.083E-01	3.732E-02	1.063E-01
PO-212	1.644E+00	2.083E-01	3.732E-02	1.063E-01
BI-214	1.086E+00	2.056E-01	5.756E-02	1.049E-01
PB-214	1.452E+00	2.213E-01	4.847E-02	1.129E-01
PO-214	1.452E+00	2.213E-01	4.847E-02	1.129E-01
PO-216	1.644E+00	2.083E-01	3.732E-02	1.063E-01
PO-218	1.452E+00	2.213E-01	4.847E-02	1.129E-01
RA-224	4.403E+00	1.099E+00	4.252E-01	5.605E-01
RA-226	1.086E+00	2.056E-01	5.756E-02	1.049E-01
AC-228	1.767E+00	3.583E-01	1.185E-01	1.828E-01
RA-228	1.767E+00	3.583E-01	1.185E-01	1.828E-01
TH-228	1.669E+00	2.115E-01	3.789E-02	1.079E-01
TH-230	1.086E+00	2.056E-01	5.756E-02	1.049E-01
TH-232	1.767E+00	3.583E-01	1.185E-01	1.828E-01
TH-234	1.648E+00	8.476E-01	3.684E-01	4.325E-01
U-234	1.086E+00	2.056E-01	5.756E-02	1.049E-01
NP-237	1.052E+00	3.120E-01	1.039E-01	1.592E-01
U-238	1.648E+00	8.476E-01	3.684E-01	4.325E-01
AM-243	3.446E-01	4.981E-02	2.199E-02	2.541E-02
ANH-511	1.865E-01	6.665E-02	2.454E-02	3.401E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.708E-01	2.979E-01	2.358E-01	1.520E-01	NOT IDENT.
NA-22	-2.910E-02	4.604E-02	3.648E-02	2.349E-02	NOT IDENT.
NA-24	-3.511E+05	7.143E+05	0.000E+00	3.644E+05	SHORT HLIF
AL-26	2.414E-02	2.845E-02	2.760E-02	1.451E-02	NOT IDENT.
TI-44	3.712E-01	4.642E-02	2.246E-02	2.368E-02	FAIL ABUN
SC-46	-3.379E-02	4.174E-02	3.246E-02	2.130E-02	FAIL ABUN
V-48	3.373E-02	7.371E-02	6.384E-02	3.761E-02	NOT IDENT.
CR-51	-1.014E-02	2.984E-01	2.648E-01	1.522E-01	NOT IDENT.
MN-52	1.905E-01	2.485E-01	2.259E-01	1.268E-01	NOT IDENT.
MN-54	6.596E-03	3.656E-02	3.144E-02	1.865E-02	NOT IDENT.
CO-56	-1.372E-02	4.142E-02	3.406E-02	2.113E-02	NOT IDENT.
CO-57	5.517E-03	1.771E-02	1.623E-02	9.034E-03	NOT IDENT.
CO-58	-4.367E-02	3.989E-02	3.046E-02	2.035E-02	NOT IDENT.
FE-59	1.131E-02	9.767E-02	8.467E-02	4.983E-02	NOT IDENT.
CO-60	-3.361E-02	4.398E-02	3.340E-02	2.244E-02	NOT IDENT.
ZN-65	2.524E-02	1.127E-01	8.528E-02	5.750E-02	NOT IDENT.
GE-68	2.032E+00	1.411E+00	1.332E+00	7.200E-01	NOT IDENT.
AS-73	3.775E-01	1.656E-01	1.546E-01	8.449E-02	NOT IDENT.
AS-74	-4.980E-03	8.699E-02	7.203E-02	4.438E-02	NOT IDENT.
SE-75	2.428E-03	4.147E-02	3.122E-02	2.116E-02	NOT IDENT.
BR-77	-1.132E+01	9.304E+00	6.975E+00	4.747E+00	FAIL ABUN
SR-82	-1.708E-01	3.957E-01	3.052E-01	2.019E-01	NOT IDENT.
RB-83	-6.565E-02	6.181E-02	4.722E-02	3.154E-02	NOT IDENT.
RB-84	-3.052E-02	7.240E-02	5.862E-02	3.694E-02	NOT IDENT.
KR-85	6.447E+00	7.797E+00	6.181E+00	3.978E+00	NOT IDENT.
SR-85	3.306E-02	3.998E-02	3.170E-02	2.040E-02	NOT IDENT.
RB-86	9.768E-01	8.945E-01	8.283E-01	4.564E-01	NOT IDENT.
Y-88	2.398E-02	3.270E-02	3.107E-02	1.668E-02	NOT IDENT.
ZR-88	-2.669E-02	2.734E-02	2.225E-02	1.395E-02	NOT IDENT.
Y-91	-1.118E+01	2.084E+01	1.717E+01	1.063E+01	NOT IDENT.
NB-94	2.406E-02	3.510E-02	3.163E-02	1.791E-02	NOT IDENT.
NB-95	1.989E-02	4.878E-02	3.770E-02	2.489E-02	NOT IDENT.
NB-95M	-8.022E-02	1.120E-01	8.061E-02	5.713E-02	NOT IDENT.
ZR-95	-2.218E-02	7.499E-02	6.265E-02	3.826E-02	NOT IDENT.
NB-97	-7.885E+04	1.109E+05	0.000E+00	5.659E+04	SHORT HLIF
ZR-97	2.695E+06	1.912E+06	0.000E+00	9.757E+05	SHORT HLIF
MO-99	-4.084E+00	1.046E+01	8.662E+00	5.336E+00	NOT IDENT.
TC-99M	-1.793E+16	2.854E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.647E-03	2.688E-02	2.264E-02	1.372E-02	NOT IDENT.
RH-102	-7.485E-03	2.601E-02	2.172E-02	1.327E-02	NOT IDENT.
RU-103	-4.297E-03	3.548E-02	2.984E-02	1.810E-02	FAIL ABUN
RH-106	4.494E-01	3.213E-01	3.009E-01	1.639E-01	FAIL ABUN
RU-106	4.494E-01	3.181E-01	3.009E-01	1.623E-01	FAIL ABUN
AG-108M	6.216E-04	2.795E-02	2.413E-02	1.426E-02	NOT IDENT.
AG-110M	-3.260E-02	3.894E-02	2.670E-02	1.987E-02	NOT IDENT.
IN-111	-4.886E-01	9.867E-01	7.174E-01	5.034E-01	NOT IDENT.
IN-113M	-1.539E-02	3.876E-02	3.290E-02	1.977E-02	NOT IDENT.
SN-113	-1.539E-02	3.876E-02	3.290E-02	1.977E-02	NOT IDENT.
IN-114M	3.408E-02	1.607E-01	1.267E-01	8.200E-02	NOT IDENT.
CD-115	-4.780E-01	1.037E+01	8.717E+00	5.291E+00	NOT IDENT.
SN-117M	-2.333E-02	4.245E-02	3.668E-02	2.166E-02	NOT IDENT.
SB-122	7.158E-01	2.006E+00	1.725E+00	1.024E+00	NOT IDENT.
I-123	-1.472E+06	4.472E+06	0.000E+00	2.281E+06	SHORT HLIF
TE-123M	-7.136E-03	2.168E-02	1.893E-02	1.106E-02	NOT IDENT.
I-124	-4.674E-01	6.670E-01	4.990E-01	3.403E-01	NOT IDENT.
SB-124	1.224E-02	5.760E-02	5.103E-02	2.939E-02	FAIL ABUN
SB-125	-8.086E-03	8.396E-02	7.202E-02	4.284E-02	FAIL ABUN
TE-125M	2.880E+00	6.055E+00	5.624E+00	3.089E+00	NOT IDENT.
I-126	4.347E-02	2.013E-01	1.555E-01	1.027E-01	NOT IDENT.
SB-126	6.344E-02	1.445E-01	1.273E-01	7.374E-02	FAIL ABUN
SB-127	8.477E-01	1.383E+00	1.246E+00	7.055E-01	NOT IDENT.
XE-127	2.487E-02	3.882E-02	3.452E-02	1.981E-02	NOT IDENT.
I-131	9.593E-02	1.020E-01	9.392E-02	5.203E-02	NOT IDENT.
TE-132	5.899E-01	5.695E-01	5.061E-01	2.906E-01	NOT IDENT.
BA-133	-8.454E-03	4.238E-02	3.228E-02	2.162E-02	FAIL ABUN
I-133	2.755E+03	5.638E+03	0.000E+00	2.877E+03	SHORT HLIF
CS-134	1.671E-01	6.173E-02	4.614E-02	3.150E-02	FAIL ABUN
CS-135	1.137E-01	1.458E-01	1.151E-01	7.437E-02	NOT IDENT.
I-135	-2.858E+15	5.845E+15	0.000E+00	2.982E+15	SHORT HLIF
CS-136	-8.374E-03	1.203E-01	1.033E-01	6.137E-02	FAIL ABUN
CE-139	-3.334E-03	2.362E-02	2.072E-02	1.205E-02	NOT IDENT.
BA-140	6.653E-02	2.532E-01	2.144E-01	1.292E-01	NOT IDENT.
LA-140	-1.200E-01	7.835E-02	4.908E-02	3.998E-02	FAIL ABUN
CE-141	-1.172E-02	4.747E-02	4.196E-02	2.422E-02	NOT IDENT.
CE-143	3.885E+02	1.606E+02	0.000E+00	8.194E+01	SHORT HLIF

CE-144	-3.468E-02	1.522E-01	1.293E-01	7.764E-02	NOT IDENT.
PM-144	4.253E-03	3.438E-02	3.000E-02	1.754E-02	NOT IDENT.
PR-144	2.882E-01	2.330E+00	2.033E+00	1.189E+00	NOT IDENT.
PM-146	-9.316E-03	3.795E-02	3.195E-02	1.936E-02	NOT IDENT.
ND-147	4.967E-02	5.241E-01	4.451E-01	2.674E-01	FAIL ABUN
PM-149	2.158E+01	7.858E+01	6.677E+01	4.009E+01	NOT IDENT.
EU-152	-3.034E-02	8.166E-02	7.050E-02	4.167E-02	NOT IDENT.
GD-153	-2.224E-02	5.025E-02	4.306E-02	2.564E-02	FAIL ABUN
EU-154	-8.284E-02	1.297E-01	1.027E-01	6.619E-02	NOT IDENT.
EU-155	9.797E-02	7.269E-02	6.891E-02	3.709E-02	FAIL ABUN
TB-160	-1.448E-02	1.410E-01	1.177E-01	7.192E-02	FAIL ABUN
HO-166M	4.684E-02	6.723E-02	6.048E-02	3.430E-02	NOT IDENT.
TM-171	7.302E+00	1.161E+01	9.415E+00	5.922E+00	NOT IDENT.
LU-176	-7.739E-03	1.894E-02	1.650E-02	9.664E-03	FAIL ABUN
LU-177	3.281E+00	1.495E+00	9.470E-01	7.626E-01	FAIL ABUN
LU-177M	-1.072E-01	1.641E-01	1.362E-01	8.374E-02	FAIL ABUN
HF-181	2.358E-02	3.845E-02	3.417E-02	1.962E-02	NOT IDENT.
W-181	-5.606E-02	1.428E-01	1.109E-01	7.285E-02	NOT IDENT.
TA-182	-1.693E-01	2.330E-01	1.872E-01	1.189E-01	FAIL ABUN
RE-183	8.478E-02	8.789E-02	7.981E-02	4.484E-02	FAIL ABUN
RE-184	3.888E-02	1.969E-01	1.687E-01	1.005E-01	NOT IDENT.
OS-185	7.291E-03	3.816E-02	3.377E-02	1.947E-02	NOT IDENT.
RE-188	1.161E-01	1.343E-01	1.229E-01	6.852E-02	NOT IDENT.
W-188	-7.264E+00	6.895E+00	5.024E+00	3.518E+00	FAIL ABUN
IR-192	9.465E-03	2.851E-02	2.581E-02	1.455E-02	FAIL ABUN
AU-195	2.054E-01	1.416E-01	1.334E-01	7.224E-02	FAIL ABUN
TL-200	-7.482E+01	4.013E+02	0.000E+00	2.048E+02	SHORT HLIF
TL-201	7.118E-01	5.335E+00	4.731E+00	2.722E+00	NOT IDENT.
TL-202	4.389E-02	6.367E-02	5.715E-02	3.248E-02	NOT IDENT.
HG-203	5.141E-02	3.963E-02	3.210E-02	2.022E-02	NOT IDENT.
BI-207	3.993E-02	5.967E-02	5.387E-02	3.044E-02	FAIL ABUN
TL-207	1.582E-01	5.602E-01	4.485E-01	2.858E-01	FAIL ABUN
PO-209	1.908E+00	7.418E+00	6.380E+00	3.785E+00	NOT IDENT.
PB-211	-3.717E-01	9.033E-01	7.396E-01	4.608E-01	NOT IDENT.
BI-212	1.141E+00	3.786E-01	3.581E-01	1.932E-01	FAIL ABUN
PO-215	1.582E-01	5.602E-01	4.485E-01	2.858E-01	FAIL ABUN
RN-219	-9.126E-02	3.814E-01	3.264E-01	1.946E-01	FAIL ABUN
RN-220	2.341E+01	2.486E+01	2.229E+01	1.268E+01	NOT IDENT.
RA-223	1.582E-01	5.602E-01	4.485E-01	2.858E-01	FAIL ABUN
AC-227	-4.311E-01	3.456E-01	2.656E-01	1.763E-01	FAIL ABUN
TH-227	-4.311E-01	3.479E-01	2.656E-01	1.775E-01	FAIL ABUN
TH-229	-3.285E-01	4.108E-01	3.430E-01	2.096E-01	FAIL ABUN
PA-231	-1.094E-01	1.315E+00	1.039E+00	6.709E-01	FAIL ABUN
TH-231	1.582E-01	5.602E-01	4.485E-01	2.858E-01	FAIL ABUN
U-231	-6.000E-01	6.914E-01	5.504E-01	3.528E-01	FAIL ABUN
PA-233	4.436E-02	5.105E-02	4.745E-02	2.605E-02	FAIL ABUN
PA-234	4.542E-02	3.470E-01	2.929E-01	1.770E-01	FAIL ABUN
PA-234M	2.470E+00	4.897E+00	4.200E+00	2.499E+00	NOT IDENT.
U-235	1.667E-01	1.631E-01	1.464E-01	8.323E-02	FAIL ABUN
NP-236	-5.632E-02	6.223E-02	5.275E-02	3.175E-02	NOT IDENT.
NP-239	-3.332E-02	1.281E-01	1.153E-01	6.536E-02	FAIL ABUN
AM-241	3.939E-02	4.710E-02	3.904E-02	2.403E-02	NOT IDENT.
CM-243	1.413E-02	6.185E-02	5.725E-02	3.156E-02	FAIL ABUN
AM-246	5.762E-02	1.639E-01	1.446E-01	8.360E-02	NOT IDENT.
CM-247	2.074E-02	3.306E-02	2.976E-02	1.687E-02	FAIL ABUN
CF-249	-2.519E-02	3.689E-02	3.045E-02	1.882E-02	NOT IDENT.
CF-251	6.670E-02	1.001E-01	9.023E-02	5.107E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	287.6495
46.50	287.6495
46.50	287.6495
48.70	304.1634
49.72	276.7148
51.35	359.2368
52.39	335.6841
52.97	323.3517
53.15	306.0450
53.44	270.1736
54.07	309.4211
56.28	354.4382
56.28	354.4431
57.37	0.0000
57.53	347.2804
57.53	347.2828
57.60	367.4819
57.98	362.4384
57.98	362.4384
59.32	392.8241
59.32	392.8241
59.40	356.9516
59.54	357.1441
59.72	360.3955
60.01	396.8768
61.10	418.1516
61.14	446.9012
61.30	447.1721
63.00	410.4932
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63.29	410.9333
63.58	411.3714
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65.12	429.0071
65.20	429.1317
65.20	429.1317
66.05	462.7281
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66.91	425.5927
67.20	407.5076
67.20	407.5076
67.75	432.6529
67.85	425.8445
68.90	454.1897
68.90	454.1897
69.30	496.8039
69.67	513.7888
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74.81	437.1628
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77.11	440.4169

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79.80	394.2719
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80.30	340.8884
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81.07	375.6248
81.07	375.6248
81.07	375.6248
81.07	375.6248
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83.37	405.0987
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83.78	358.3616
83.78	358.3616
83.78	358.3616
84.21	358.8226
84.90	335.8628
85.43	336.3896
86.29	337.2404
86.50	337.4474
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86.79	391.9660
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87.57	392.8588
87.88	415.4678
88.03	415.6472
88.36	416.0420
88.47	416.1753
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92.38	325.6209
92.38	325.6209
93.35	345.3320
94.00	291.8568
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94.67	279.7899
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94.90	300.1438
94.90	300.1438
94.90	300.1438
95.87	341.3974
95.87	341.3974
96.73	348.5294
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98.44	252.9350
98.44	252.9350
98.88	258.3276
99.55	274.9594
99.55	274.9594
99.86	298.1857
100.00	298.2943
100.10	298.3762
103.18	297.3226
103.76	294.3220
105.00	265.0320
105.31	285.1111
108.00	321.8210
109.28	276.5914

111.00	346.0951
111.00	346.0951
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112.95	303.7035
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116.30	293.6925
117.00	272.8410
117.00	272.8410
117.66	297.2921
121.11	273.6294
121.62	274.8425
121.78	263.2616
122.06	259.8307
122.32	254.5846
122.32	254.5846
122.32	254.5846
122.32	254.5846
123.07	256.8143
127.23	279.6424
129.76	240.0269
131.20	246.2698
133.02	245.8364
133.54	264.3558
135.34	246.1063
136.00	257.5595
136.25	249.3498
136.48	257.8140
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140.51	0.0000
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142.65	266.6920
143.76	243.7505
144.24	241.1563
144.24	241.1563
144.24	241.1563
144.24	241.1563
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147.16	269.0668
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154.21	263.1046
154.21	263.1046
155.03	257.7385
156.02	292.8981
158.56	271.0421
159.00	0.0000
159.00	258.6644
160.31	281.6190
161.27	255.8434
162.32	234.8858
162.64	243.7973
163.35	257.7776
163.89	274.6427
165.85	265.7925
167.43	235.0614
171.28	242.5800
171.86	244.8040
172.10	241.9299
176.55	227.7820
176.60	227.8005
181.06	211.3800
184.41	211.5300
185.71	211.9765
186.00	212.0743
190.27	231.4077
192.34	233.7009
193.63	254.7157
197.04	237.4799
198.01	236.8015
198.60	252.5384
200.40	234.5523
201.83	228.8220
202.84	230.2128
205.31	247.7935

208.36	226.8589
208.81	227.0105
209.75	227.3225
209.75	227.3225
210.97	210.3330
215.65	217.5977
216.55	210.4395
218.09	201.3143
222.10	227.0928
223.80	190.0503
226.40	234.9159
227.00	230.7971
227.08	230.8233
227.20	220.0724
228.16	177.1528
228.18	177.1578
228.18	177.1578
231.56	0.0000
235.69	229.1620
236.00	229.2560
236.00	229.2560
238.63	181.8546
238.63	181.8546
238.63	181.8546
238.63	181.8546
239.00	181.9424
240.98	182.4169
241.98	182.6550
241.98	182.6550
241.98	182.6550
244.69	183.8505
245.39	190.6477
247.94	155.2370
248.90	175.4098
249.79	178.9435
252.40	180.6498
252.85	171.8275
252.85	171.8275
254.15	0.0000
256.20	215.1250
256.20	215.1250
260.50	171.2165
260.90	188.2046
262.80	172.8285
264.65	161.3301
268.24	153.5010
268.79	146.7758
269.46	146.8939
269.46	146.8939
269.46	146.8939
269.46	146.8939
271.23	147.2036
273.65	120.1608
276.40	136.0489
277.35	174.7017
277.60	174.7542
277.60	174.7542
278.00	174.8346
278.60	174.9583
279.20	146.8590
279.53	131.3602
280.46	122.8503
281.68	166.3418
283.67	141.7118
284.30	150.6193
285.00	149.5814
285.90	147.4122
286.10	147.4458
286.10	147.4458
287.40	158.1299
288.45	0.0000
290.67	184.8548
290.80	168.0732
291.72	190.6789
293.26	0.0000
293.70	155.9718
295.21	150.6046
295.21	150.6046

295.21	150.6046
295.96	150.7300
296.50	123.3331
297.23	123.4335
298.57	123.6151
299.80	142.8795
299.80	142.8795
300.09	142.9239
300.09	142.9239
300.09	142.9239
300.09	142.9239
300.12	142.9288
301.29	148.7791
302.84	124.9016
303.76	142.0752
303.91	142.0972
304.40	120.8469
304.40	120.8469
304.84	125.1723
306.84	132.7463
308.46	132.0858
311.98	117.3515
316.51	134.1127
318.01	125.3091
319.02	136.2700
319.41	129.1028
320.08	131.9026
323.87	113.1914
323.87	113.1914
323.87	113.1914
323.87	113.1914
325.23	130.7878
328.77	153.1344
333.44	146.5308
334.20	145.1766
334.20	145.1766
334.30	145.1911
338.28	154.6007
338.28	154.6007
338.28	154.6007
338.28	154.6007
338.32	154.6058
338.32	154.6058
338.32	154.6058
340.50	140.1830
340.57	140.1923
344.27	138.8512
345.85	118.6680
350.59	0.0000
351.07	114.6087
351.92	114.7025
351.92	114.7025
351.92	114.7025
355.39	0.0000
356.01	136.3067
364.48	112.2943
366.43	147.4759
367.43	136.2568
367.94	0.0000
369.80	110.0014
374.96	117.1912
383.85	107.5669
387.95	135.9117
388.63	128.2775
391.69	123.7871
391.69	123.7871
392.90	136.5034
398.62	138.1540
400.65	135.4707
401.10	139.4237
401.81	134.6309
402.60	112.2678
404.84	141.8272
410.95	124.8645
411.60	160.3462
413.65	137.9556
414.70	134.1323
415.30	125.3179

415.76	125.3664
417.63	0.0000
418.52	110.8123
423.70	105.3239
427.08	114.5824
427.89	113.6608
432.53	104.0809
433.93	95.1797
439.47	107.6776
439.56	98.6281
439.89	98.6535
443.98	99.9834
444.90	99.0453
445.03	116.2389
445.03	116.2389
445.03	116.2389
445.03	116.2389
453.90	97.7065
463.38	96.3666
468.07	95.4749
473.00	84.6751
475.06	96.1815
475.35	89.9962
476.78	96.3050
477.59	110.8678
477.96	103.6438
482.03	84.2036
484.57	115.6035
487.03	77.2079
490.36	0.0000
492.35	89.0272
497.08	84.0747
507.63	0.0000
510.53	0.0000
510.84	112.4867
511.00	112.4996
511.85	112.5660
511.85	112.5660
513.99	103.8005
513.99	103.8005
520.41	94.0076
520.65	94.0210
527.90	91.2671
528.96	0.0000
529.64	82.7759
529.87	0.0000
531.02	85.0031
537.32	84.2842
543.00	95.4497
546.56	0.0000
549.76	74.0865
552.65	102.6060
555.20	82.0038
563.23	82.4295
563.90	86.8643
568.70	90.4382
569.32	82.7499
569.50	82.7614
569.67	82.7705
573.80	100.6893
574.00	100.7032
574.64	90.7811
578.91	90.5798
579.30	0.0000
583.14	90.1511
585.48	73.1173
591.81	73.8532
592.07	73.8633
593.00	82.8638
595.88	83.0106
600.56	85.4977
602.52	0.0000
602.71	99.1262
602.71	99.1262
603.60	91.6663
604.41	94.7179
604.70	94.7358
609.31	97.7115

609.31	97.7115
609.31	97.7115
609.31	97.7115
610.33	97.7722
612.46	111.7949
614.37	78.6496
618.01	112.7716
621.84	72.0084
621.84	72.0084
631.29	82.4919
633.02	77.0684
633.10	77.0725
634.78	67.0456
635.90	74.4405
636.97	75.4056
645.85	68.3976
646.12	68.4084
656.30	72.8313
657.75	94.6026
657.90	0.0000
661.65	87.6614
661.65	87.6614
664.57	0.0000
666.33	84.1487
666.33	84.1487
675.00	77.0372
677.61	84.6738
685.20	78.4123
692.80	78.7345
695.00	85.4736
696.49	88.3931
696.49	88.3931
697.00	96.9747
697.49	99.8525
698.33	104.6558
698.50	105.6153
699.00	99.9346
702.63	88.6838
706.10	116.5493
706.58	0.0000
706.67	111.8070
709.31	91.8680
711.68	92.9386
713.82	104.5532
717.42	73.0368
720.50	71.2286
721.93	0.0000
722.20	152.2177
722.78	174.4290
722.78	174.4290
722.89	174.4379
722.95	178.2974
723.30	181.2208
724.18	144.6570
727.18	79.2033
733.00	84.2834
735.90	71.7941
739.58	66.0975
742.81	52.5749
744.21	66.2519
747.13	63.4226
751.79	68.4602
752.31	74.3468
753.82	76.3623
755.35	81.3181
756.15	83.3108
756.87	86.2834
763.93	103.3107
765.79	82.0679
766.42	90.3015
766.84	83.7528
776.49	76.7224
778.00	75.2931
778.57	71.3496
778.89	71.3619
783.80	76.4981
785.46	68.6041
792.07	69.8206

795.84	58.2878
796.30	58.3006
798.80	60.0366
801.93	70.1470
805.60	68.2606
810.29	86.5207
810.76	82.5145
815.85	52.4507
817.79	63.6029
818.51	68.6740
819.60	59.6151
826.30	51.6910
828.27	0.0000
831.60	83.3133
831.96	83.3273
834.83	69.1903
836.80	0.0000
846.75	76.7267
848.13	64.4904
856.28	0.0000
856.80	58.2327
860.37	75.4800
867.32	66.3700
867.82	61.9600
871.10	66.1859
873.19	67.2804
874.81	67.3280
875.33	0.0000
876.40	60.1198
879.36	63.3113
880.27	67.4899
880.51	69.5730
881.50	69.6025
883.24	56.1397
884.67	54.0947
889.25	77.1327
896.60	57.5096
898.02	65.9147
899.00	69.0825
903.28	62.9165
911.07	73.6453
911.07	73.6453
911.07	73.6453
919.63	70.7434
920.93	52.8223
925.00	57.1456
925.24	60.3259
926.50	63.5347
935.52	64.8348
937.48	82.9702
944.10	74.6621
946.00	75.7876
949.00	85.5000
962.29	71.6341
964.01	94.9799
966.15	100.4427
968.20	106.6280
969.11	106.6667
969.11	106.6667
969.11	106.6667
977.42	55.4016
980.50	55.1985
983.50	55.2645
989.30	70.5955
996.32	89.3031
1001.03	57.8264
1001.68	53.4753
1004.76	76.4856
1021.30	0.0000
1024.50	0.0000
1034.80	53.4192
1036.00	55.2881
1037.82	64.5455
1038.57	60.8733
1038.76	0.0000
1045.16	66.5713
1046.59	63.8340
1048.07	74.9751

1050.47	76.8939
1050.47	76.8939
1062.04	80.0161
1063.62	68.8902
1076.63	61.7380
1077.35	57.0758
1078.86	73.9564
1085.78	76.9584
1099.22	67.8984
1112.02	73.8931
1112.84	79.6011
1115.52	76.4242
1120.29	87.4105
1120.29	87.4105
1120.29	87.4105
1120.29	87.4105
1120.51	87.4180
1121.28	87.4404
1124.00	0.0000
1129.67	92.6556
1131.51	0.0000
1147.95	0.0000
1167.94	73.4023
1173.22	75.4705
1175.09	62.9317
1177.93	75.5879
1189.05	101.1605
1204.90	85.0707
1205.75	0.0000
1213.00	101.9645
1221.42	108.1425
1230.97	97.6304
1235.34	111.5930
1236.41	0.0000
1238.25	75.1248
1246.25	65.4065
1260.41	0.0000
1271.85	49.9532
1274.45	63.9922
1274.54	62.9923
1291.56	56.2917
1298.22	0.0000
1312.09	39.4507
1325.50	38.5953
1325.50	38.5953
1332.49	52.9268
1333.61	46.8348
1360.21	36.9448
1362.66	0.0000
1365.15	28.7770
1368.21	30.8594
1368.53	0.0000
1376.25	20.6217
1384.27	34.1051
1394.10	27.9844
1395.20	27.9932
1407.95	24.9736
1434.06	25.1592
1436.60	26.2258
1457.56	0.0000
1460.81	32.7407
1489.15	15.9656
1509.49	18.1939
1596.49	30.0313
1620.62	17.9404
1678.03	0.0000
1691.02	8.6472
1691.02	8.6472
1706.46	0.0000
1750.46	0.0000
1764.49	10.7548
1764.49	10.7548
1764.49	10.7548
1764.49	10.7548
1770.23	8.5663
1771.40	43.0884
1791.20	0.0000
1808.65	7.9015

1836.01	8.9444

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799006

Total Uranium Activity	4.9799E+00	ug/g
Total Uranium Counting Unc.	2.5229E+00	ug/g
Total Uranium Tpu	1.2872E-06	ug/g
Total Uranium Mda	1.0981E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799006       *
*   ANALYST       : RXF2                      DETECTOR   : GAM25            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 15:09:34.78    SAMPLE ALQT:  137.720 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.938E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.396E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 2.969E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.442E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 18:22:46.11

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799007.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 16:22:05
Sample ID         : G245799007           Sample quantity  : 1.40453E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.32  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.82*	299	492	1.60	148.56	141	19	4.15E-02	16.3	4.62E+00
2	2	77.27*	541	444	1.54	153.45	141	19	7.52E-02	8.6	
3	0	87.56*	82	425	0.96	174.05	171	6	1.14E-02	42.4	
4	0	93.26*	153	649	1.46	185.44	180	10	2.12E-02	33.8	
5	0	185.97*	279	426	1.63	370.85	363	14	3.88E-02	17.2	
6	0	209.80	99	391	1.34	418.50	411	12	1.37E-02	41.4	
7	3	238.80*	1106	215	1.31	476.50	468	24	1.54E-01	4.0	9.23E-01
8	3	241.85	315	287	2.04	482.60	468	24	4.38E-02	16.0	
9	0	271.45*	37	268	1.64	541.81	534	10	5.19E-03	85.2	
10	0	277.97	71	148	1.83	554.84	552	8	9.82E-03	32.5	
11	0	295.21*	375	249	1.38	589.32	582	14	5.21E-02	10.5	
12	0	300.01	67	165	1.22	598.92	596	8	9.32E-03	35.5	
13	0	329.15	50	189	1.15	657.20	652	11	6.94E-03	55.5	
14	0	338.32	185	252	1.16	675.54	669	12	2.57E-02	18.6	
15	0	352.20*	575	231	1.55	703.29	697	11	7.98E-02	6.8	
16	0	464.41	114	143	0.84	927.72	918	18	1.59E-02	26.3	
17	0	510.97*	150	148	1.56	1020.85	1012	18	2.08E-02	23.3	
18	0	583.26*	364	95	1.38	1165.43	1157	13	5.05E-02	7.9	
19	0	609.52*	407	138	1.46	1217.95	1211	15	5.65E-02	8.3	
20	0	727.86*	72	84	1.51	1454.66	1449	15	9.95E-03	31.5	
21	0	769.40	61	94	3.05	1537.75	1530	17	8.40E-03	38.8	
22	0	794.74	80	48	1.67	1588.44	1580	16	1.11E-02	22.3	
23	0	860.86*	57	53	1.54	1720.69	1714	15	7.87E-03	32.9	
24	0	911.23*	208	73	1.34	1821.44	1815	14	2.88E-02	11.4	
25	0	964.43	62	50	1.55	1927.87	1923	10	8.58E-03	24.9	
26	0	969.48	121	66	1.80	1937.96	1933	14	1.67E-02	17.5	
27	0	1120.06*	98	59	2.09	2239.18	2231	18	1.36E-02	21.6	
28	0	1460.58*	990	40	2.22	2920.41	2909	23	1.38E-01	3.6	
29	0	1510.18	25	9	3.06	3019.66	3009	16	3.53E-03	32.0	
30	0	1728.85	39	4	2.05	3457.16	3448	17	5.37E-03	20.2	
31	0	1764.42*	81	7	2.59	3528.32	3521	14	1.13E-02	14.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 18:22:49

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 16:22:05
Sample ID : G245799007 Sample quantity : 140.45 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.32 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.567E+01	3.134E+00	6.328E-01	6.218E-02	40.574
CD-109	+	88.03	*	1.346E+00	1.153E+00	1.869E+00	2.320E-01	0.720
SN-126		64.28		-9.879E-03	8.504E-01	1.402E+00	2.374E-01	-0.007
	+	86.94		5.499E-01	5.211E-01	7.414E-01	3.135E-01	0.742
	+	87.57	*	1.323E-01	1.134E-01	1.790E-01	2.215E-02	0.739
HG-203		70.83		-3.846E-01	1.723E+00	2.467E+00	3.832E-01	-0.156
		72.87		2.167E+00	9.378E-01	1.556E+00	2.365E-01	1.393
		82.60		-2.568E+00	2.126E+00	2.336E+00	3.743E-01	-1.099
	+	279.20	*	8.290E-02	5.458E-02	7.981E-02	8.786E-03	1.039
TL-208	+	277.35		7.514E-01	4.989E-01	7.583E-01	1.059E-01	0.991
	+	510.84		7.667E-01	3.695E-01	2.163E-01	2.597E-02	3.545
	+	583.14	*	5.270E-01	9.582E-02	6.377E-02	5.839E-03	8.265
	+	860.37		7.715E-01	5.125E-01	4.504E-01	4.405E-02	1.713
BI-211		72.87		1.088E+01	4.583E+00	7.813E+00	8.949E-01	1.393
	+	351.07	*	3.781E+00	6.341E-01	3.991E-01	3.974E-02	9.473
PB-212	+	74.81		2.311E+00	8.264E-01	7.375E-01	1.093E-01	3.134
	+	77.11		2.295E+00	4.770E-01	4.066E-01	4.713E-02	5.645
	+	87.30		6.118E-01	5.278E-01	8.041E-01	1.278E-01	0.761
	+	238.63	*	1.611E+00	2.307E-01	1.091E-01	1.299E-02	14.771
	+	300.09		1.499E+00	1.080E+00	1.463E+00	1.767E-01	1.024
PO-212	+	74.81		2.311E+00	8.264E-01	7.375E-01	1.093E-01	3.134
	+	77.11		2.295E+00	4.770E-01	4.066E-01	4.713E-02	5.645
	+	87.30		6.118E-01	5.278E-01	8.041E-01	1.278E-01	0.761
		115.19		2.394E+00	4.400E+00	7.297E+00	7.386E-01	0.328
	+	238.63	*	1.611E+00	2.307E-01	1.091E-01	1.299E-02	14.771
	+	300.09		1.499E+00	1.080E+00	1.463E+00	1.767E-01	1.024
BI-214	+	609.31	*	1.110E+00	2.140E-01	1.266E-01	1.256E-02	8.765
	+	1120.29		1.409E+00	6.275E-01	4.974E-01	5.362E-02	2.833
	+	1764.49		1.604E+00	4.769E-01	3.314E-01	2.906E-02	4.839
PB-214	+	74.81		3.983E+00	1.406E+00	1.271E+00	1.739E-01	3.134
	+	77.11		3.935E+00	8.710E-01	6.970E-01	9.669E-02	5.645
	+	87.30		1.048E+00	9.018E-01	1.377E+00	2.005E-01	0.761
	+	241.98		2.760E+00	9.475E-01	6.566E-01	8.123E-02	4.204
	+	295.21		1.471E+00	3.581E-01	2.492E-01	3.073E-02	5.903

Sample ID : G245799007 Acquisition date : 10-FEB-2010 16:22:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.315E+00	2.310E-01	1.344E-01	1.508E-02	9.788
PO-214	+	74.81		3.983E+00	1.406E+00	1.271E+00	1.739E-01	3.134
	+	77.11		3.935E+00	8.710E-01	6.970E-01	9.669E-02	5.645
	+	87.30		1.048E+00	9.018E-01	1.377E+00	2.005E-01	0.761
	+	241.98		2.760E+00	9.475E-01	6.566E-01	8.123E-02	4.204
	+	295.21		1.471E+00	3.581E-01	2.492E-01	3.073E-02	5.903
	+	351.92	*	1.315E+00	2.310E-01	1.344E-01	1.508E-02	9.788
PO-216	+	74.81		2.311E+00	8.264E-01	7.375E-01	1.093E-01	3.134
	+	77.11		2.295E+00	4.770E-01	4.066E-01	4.713E-02	5.645
	+	87.30		6.118E-01	5.278E-01	8.041E-01	1.278E-01	0.761
	+	238.63	*	1.611E+00	2.307E-01	1.091E-01	1.299E-02	14.771
	+	300.09		1.499E+00	1.080E+00	1.463E+00	1.767E-01	1.024
PO-218	+	74.81		3.983E+00	1.406E+00	1.271E+00	1.739E-01	3.134
	+	77.11		3.935E+00	8.710E-01	6.970E-01	9.669E-02	5.645
	+	87.30		1.048E+00	9.018E-01	1.377E+00	2.005E-01	0.761
	+	241.98		2.760E+00	9.475E-01	6.566E-01	8.123E-02	4.204
	+	295.21		1.471E+00	3.581E-01	2.492E-01	3.073E-02	5.903
	+	351.92	*	1.315E+00	2.310E-01	1.344E-01	1.508E-02	9.788
RA-224	+	240.98	*	5.233E+00	1.772E+00	1.241E+00	1.369E-01	4.217
RA-226	+	609.31	*	1.110E+00	2.140E-01	1.266E-01	1.256E-02	8.765
	+	1120.29		1.409E+00	6.275E-01	4.974E-01	5.362E-02	2.833
	+	1764.49		1.604E+00	4.769E-01	3.314E-01	2.906E-02	4.839
AC-228	+	338.32		1.346E+00	7.512E-01	4.489E-01	1.865E-01	2.998
	+	911.07	*	1.340E+00	3.433E-01	2.460E-01	2.897E-02	5.448
	+	969.11		1.377E+00	5.808E-01	4.871E-01	1.147E-01	2.828
RA-228	+	338.32		1.346E+00	7.512E-01	4.489E-01	1.865E-01	2.998
	+	911.07	*	1.340E+00	3.433E-01	2.460E-01	2.897E-02	5.448
	+	969.11		1.377E+00	5.808E-01	4.871E-01	1.147E-01	2.828
TH-228	+	74.81		2.347E+00	8.102E-01	7.487E-01	8.654E-02	3.134
	+	77.11		2.330E+00	4.843E-01	4.128E-01	4.785E-02	5.645
	+	87.30		6.211E-01	5.323E-01	8.163E-01	1.008E-01	0.761
	+	238.63	*	1.636E+00	2.342E-01	1.107E-01	1.319E-02	14.771
	+	300.09		1.521E+00	1.411E+00	1.485E+00	8.851E-01	1.024
TH-230	+	609.31	*	1.110E+00	2.140E-01	1.266E-01	1.256E-02	8.765
	+	1120.29		1.409E+00	6.274E-01	4.974E-01	5.362E-02	2.833
	+	1764.49		1.604E+00	4.769E-01	3.314E-01	2.905E-02	4.839
TH-232	+	338.32		1.346E+00	5.190E-01	4.489E-01	4.426E-02	2.998
	+	911.07	*	1.340E+00	3.433E-01	2.460E-01	2.897E-02	5.448
	+	969.11		1.377E+00	5.808E-01	4.871E-01	1.147E-01	2.828
U-234	+	609.31	*	1.110E+00	2.140E-01	1.266E-01	1.256E-02	8.765
	+	1120.29		1.409E+00	6.274E-01	4.974E-01	5.362E-02	2.833
	+	1764.49		1.604E+00	4.769E-01	3.314E-01	2.905E-02	4.839
NP-237	+	86.50	*	3.884E-01	3.424E-01	5.238E-01	1.257E-01	0.742
		95.87		2.092E-02	1.313E+00	1.884E+00	4.832E-01	0.011
AM-243	+	74.67	*	3.747E-01	1.293E-01	1.201E-01	1.382E-02	3.119
	+	86.72		1.457E+01	1.248E+01	1.956E+01	2.404E+00	0.745
		117.66		5.497E-02	4.642E+00	7.556E+00	7.623E-01	0.007
		142.18		9.716E+00	2.088E+01	3.435E+01	3.486E+00	0.283
ANH-511	+	511.00	*	1.656E-01	7.861E-02	4.673E-02	4.038E-03	3.544

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.500E-01	3.679E-01	6.359E-01	5.912E-02	0.550
NA-22		1274.54	*	1.297E-02	5.710E-02	9.418E-02	8.556E-03	0.138
NA-24		1368.53	*	-3.651E-01	5.710E-02	Half-Life too short		
AL-26		1129.67		7.261E-01	2.008E+00	3.152E+00	2.662E-01	0.230
		1808.65	*	-1.361E-02	3.469E-02	5.265E-02	4.504E-03	-0.258
TI-44		67.85		1.713E-02	8.118E-02	1.181E-01	1.348E-02	0.145
	+	78.38	*	4.235E-01	8.803E-02	1.033E-01	1.203E-02	4.102
SC-46		889.25	*	-6.080E-03	4.371E-02	7.128E-02	6.624E-03	-0.085
	+	1120.51		2.414E-01	1.063E-01	1.378E-01	1.172E-02	1.752
V-48		944.10		-3.403E-01	9.951E-01	1.557E+00	1.440E-01	-0.219
		983.50	*	2.254E-02	7.551E-02	1.276E-01	1.166E-02	0.177
		1312.09		5.764E-02	9.287E-02	1.600E-01	1.508E-02	0.360
CR-51		320.08	*	4.624E-02	4.350E-01	7.260E-01	7.709E-02	0.064
MN-52		744.21		2.288E-01	2.850E-01	5.011E-01	4.337E-02	0.457
		848.13		-9.442E-01	7.162E+00	1.172E+01	1.070E+00	-0.081
		935.52		1.309E-01	3.022E-01	5.151E-01	4.772E-02	0.254
		1246.25		5.192E+00	7.632E+00	1.319E+01	1.162E+00	0.394
		1333.61		-2.831E+00	5.783E+00	8.717E+00	8.381E-01	-0.325
		1434.06	*	4.680E-02	2.509E-01	4.286E-01	4.125E-02	0.109
MN-54		834.83	*	-2.407E-02	4.412E-02	6.999E-02	6.352E-03	-0.344
CO-56		846.75	*	-3.855E-03	4.127E-02	6.778E-02	6.185E-03	-0.057
		977.42		5.886E-01	3.697E+00	5.329E+00	4.881E-01	0.110
		1037.82		-3.522E-01	3.413E-01	4.958E-01	4.653E-02	-0.710
		1175.09		-1.194E+00	2.423E+00	3.736E+00	3.047E-01	-0.320
		1238.25		1.214E-01	1.078E-01	1.889E-01	1.697E-02	0.642
		1360.21		2.348E-01	9.307E-01	1.610E+00	1.550E-01	0.146
		1771.40		-1.177E+00	4.229E-01	4.015E-01	3.507E-02	-2.931
CO-57		122.06	*	1.594E-02	2.982E-02	4.942E-02	4.978E-03	0.322
		136.48		4.707E-02	2.495E-01	4.070E-01	4.328E-02	0.116
CO-58		810.76	*	-4.393E-02	4.314E-02	6.491E-02	5.836E-03	-0.677
FE-59		142.65		8.672E-01	3.223E+00	5.264E+00	5.347E-01	0.165
		192.34		4.812E-01	1.233E+00	1.855E+00	2.777E-01	0.259
		1099.22	*	5.370E-02	1.016E-01	1.738E-01	1.622E-02	0.309
		1291.56		-6.747E-02	1.377E-01	2.093E-01	2.162E-02	-0.322
CO-60		1173.22		2.094E-02	4.808E-02	8.138E-02	6.624E-03	0.257
		1332.49	*	-1.371E-02	4.485E-02	6.943E-02	6.675E-03	-0.197
ZN-65		1115.52	*	1.718E-02	1.063E-01	1.519E-01	1.298E-02	0.113
GE-68		1077.35	*	8.710E-01	1.485E+00	2.549E+00	2.231E-01	0.342
AS-73		53.44	*	-1.232E-01	1.994E+00	3.302E+00	4.287E-01	-0.037
AS-74		595.88	*	1.252E-02	9.830E-02	1.601E-01	1.360E-02	0.078
		634.78		2.447E-01	3.943E-01	6.653E-01	5.556E-02	0.368
SE-75		66.05		5.642E-01	7.893E+00	1.293E+01	1.661E+00	0.044
		96.73		1.130E-01	1.048E+00	1.511E+00	2.315E-01	0.075
		121.11		-5.509E-02	1.625E-01	2.603E-01	3.219E-02	-0.212
		136.00		-1.594E-02	4.713E-02	7.525E-02	7.617E-03	-0.212
		198.60		2.937E-01	2.217E+00	3.563E+00	4.159E-01	0.082
		264.65	*	-4.235E-02	6.167E-02	8.541E-02	9.365E-03	-0.496
		279.53		2.372E-01	1.498E-01	2.358E-01	2.610E-02	1.006
		303.91		-3.873E-01	2.749E+00	3.931E+00	5.090E-01	-0.099

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		-1.857E-01	2.943E-01	4.637E-01	5.094E-02	-0.400
BR-77	+	87.88		2.963E+02	2.540E+02	4.365E+02	5.416E+01	0.679
		200.40		-8.511E+01	2.079E+02	3.259E+02	3.560E+01	-0.261
	+	239.00		2.637E+02	3.585E+01	4.318E+01	4.764E+00	6.107
		249.79		-4.193E+01	8.631E+01	1.278E+02	1.407E+01	-0.328
		281.68		5.444E+01	1.242E+02	1.853E+02	1.998E+01	0.294
		297.23		4.339E+02	1.294E+02	1.603E+02	1.699E+01	2.706
		303.76		-2.200E+01	2.391E+02	3.432E+02	3.605E+01	-0.064
		439.47		1.946E+02	1.698E+02	2.965E+02	2.541E+01	0.656
		484.57		-1.259E+01	2.623E+02	4.259E+02	3.679E+01	-0.030
		520.65	*	3.912E+00	1.157E+01	1.925E+01	1.663E+00	0.203
		574.64		-9.334E+01	2.648E+02	3.730E+02	3.190E+01	-0.250
		578.91		-3.015E+01	1.122E+02	1.515E+02	1.294E+01	-0.199
		585.48		2.005E+03	3.512E+02	6.050E+02	5.158E+01	3.314
		755.35		3.241E+01	1.851E+02	3.126E+02	2.723E+01	0.104
		817.79		3.200E+01	1.469E+02	2.483E+02	2.235E+01	0.129
SR-82		698.33		3.634E+01	4.134E+01	7.283E+01	6.132E+00	0.499
		776.49	*	2.286E-01	4.641E-01	7.036E-01	6.200E-02	0.325
		1395.20		4.557E+00	1.079E+01	1.902E+01	1.833E+00	0.240
RB-83		520.41	*	1.625E-02	7.700E-02	1.237E-01	1.068E-02	0.131
		529.64		-2.776E-02	1.195E-01	1.904E-01	1.643E-02	-0.146
		552.65		7.028E-02	2.192E-01	3.634E-01	3.125E-02	0.193
RB-84		881.50	*	-4.801E-03	7.506E-02	1.233E-01	1.142E-02	-0.039
KR-85		513.99	*	2.222E+01	9.464E+00	1.573E+01	1.359E+00	1.413
SR-85		513.99	*	1.140E-01	4.856E-02	8.069E-02	6.972E-03	1.413
RB-86		1076.63	*	2.355E-01	9.835E-01	1.639E+00	1.436E-01	0.144
Y-88		898.02		2.725E-02	4.801E-02	8.290E-02	7.764E-03	0.329
		1836.01	*	-3.493E-03	3.556E-02	5.715E-02	4.814E-03	-0.061
ZR-88		392.90	*	-1.996E-02	3.611E-02	5.737E-02	4.829E-03	-0.348
Y-91		1204.90	*	1.537E+00	2.158E+01	3.522E+01	2.970E+00	0.044
NB-94		702.63	*	-2.293E-03	3.990E-02	6.650E-02	5.614E-03	-0.034
		871.10		4.172E-02	3.575E-02	6.495E-02	5.991E-03	0.642
NB-95		765.79	*	7.490E-02	5.555E-02	8.984E-02	7.871E-03	0.834
NB-95M		235.69	*	2.662E-01	1.824E-01	2.820E-01	3.394E-02	0.944
ZR-95		724.18		1.718E-02	1.203E-01	1.758E-01	1.636E-02	0.098
		756.15	*	1.619E-02	7.756E-02	1.313E-01	1.258E-02	0.123
NB-97		657.90	*	-6.740E-02	7.756E-02	Half-Life too short		
		1024.50		5.217E+00	7.756E-02	Half-Life too short		
ZR-97		254.15		-1.767E+00	7.756E-02	Half-Life too short		
		355.39		8.638E+00	7.756E-02	Half-Life too short		
		507.63	*	5.501E+00	7.756E-02	Half-Life too short		
		602.52		5.164E+00	7.756E-02	Half-Life too short		
		1021.30		-1.962E+00	7.756E-02	Half-Life too short		
		1147.95		6.535E-01	7.756E-02	Half-Life too short		
		1362.66		6.929E-01	7.756E-02	Half-Life too short		
		1750.46		-5.874E+00	7.756E-02	Half-Life too short		
MO-99		140.51		-1.599E+01	3.328E+01	5.163E+01	1.456E+01	-0.310
		181.06		5.540E+00	2.410E+01	3.414E+01	6.624E+00	0.162
		366.43		2.688E-01	9.788E+01	1.616E+02	1.481E+01	0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	7.610E+00	1.386E+01	2.396E+01	3.640E+00	0.318
		778.00		1.526E+01	4.191E+01	6.493E+01	5.727E+00	0.235
TC-99M		140.51	*	-2.737E+10	4.191E+01	Half-Life too short		
RH-101		127.23		5.756E-02	3.986E-02	6.743E-02	6.765E-03	0.854
		198.01	*	1.628E-02	4.083E-02	6.632E-02	7.235E-03	0.245
		325.23		-2.162E-01	3.025E-01	4.111E-01	4.164E-02	-0.526
RH-102		418.52		-3.126E-01	3.315E-01	5.090E-01	4.333E-02	-0.614
		475.06	*	-1.250E-02	3.305E-02	5.244E-02	4.524E-03	-0.238
		631.29		-8.933E-03	6.188E-02	9.825E-02	8.219E-03	-0.091
		697.49		6.461E-02	9.273E-02	1.618E-01	1.362E-02	0.399
		766.84		1.979E-01	1.418E-01	2.298E-01	2.014E-02	0.861
		1046.59		4.193E-02	1.284E-01	2.164E-01	1.927E-02	0.194
		1112.84		5.344E-02	2.551E-01	3.678E-01	3.145E-02	0.145
RU-103		497.08	*	-2.436E-02	4.555E-02	7.095E-02	1.006E-02	-0.343
	+	610.33		1.200E+01	2.812E+00	3.147E+00	5.223E-01	3.813
RH-106	+	511.85		8.273E-01	3.927E-01	4.978E-01	4.301E-02	1.662
		621.84	*	7.222E-02	3.553E-01	5.808E-01	7.677E-02	0.124
		1050.47		2.868E+00	2.498E+00	4.510E+00	4.007E-01	0.636
RU-106	+	511.85		8.273E-01	3.927E-01	4.978E-01	4.301E-02	1.662
		621.84	*	7.222E-02	3.552E-01	5.808E-01	4.881E-02	0.124
		1050.47		2.868E+00	2.498E+00	4.510E+00	4.007E-01	0.636
AG-108M		433.93	*	-3.999E-03	3.658E-02	5.947E-02	5.294E-03	-0.067
		614.37		-2.024E-02	4.871E-02	6.418E-02	5.634E-03	-0.315
		722.95		-1.633E-02	5.062E-02	7.018E-02	6.238E-03	-0.233
AG-110M		657.75	*	-2.357E-02	4.000E-02	6.431E-02	5.473E-03	-0.366
		677.61		-3.556E-02	2.966E-01	4.920E-01	4.212E-02	-0.072
		706.67		-1.510E-01	2.391E-01	3.813E-01	3.319E-02	-0.396
		763.93		1.202E-01	2.142E-01	3.218E-01	2.894E-02	0.373
		884.67		2.698E-02	5.427E-02	9.352E-02	8.916E-03	0.289
		937.48		-7.074E-02	1.270E-01	1.983E-01	1.894E-02	-0.357
		1384.27		-7.388E-02	1.950E-01	3.118E-01	3.073E-02	-0.237
IN-111		171.28		1.215E+00	1.241E+00	2.065E+00	2.212E-01	0.588
		245.39	*	8.584E-01	1.384E+00	2.097E+00	2.311E-01	0.409
IN-113M		391.69	*	-2.013E-02	5.336E-02	8.583E-02	7.455E-03	-0.234
SN-113		391.69	*	-2.013E-02	5.336E-02	8.583E-02	7.455E-03	-0.234
IN-114M		190.27	*	-1.158E-01	2.506E-01	3.392E-01	3.683E-02	-0.341
CD-115		260.90		2.152E+00	1.580E+02	2.646E+02	2.900E+01	0.008
		492.35		-1.171E+01	4.082E+01	6.502E+01	5.618E+00	-0.180
		527.90	*	1.833E+00	1.292E+01	2.118E+01	1.828E+00	0.087
SN-117M		156.02		2.756E-01	2.896E+00	4.686E+00	4.885E-01	0.059
		158.56	*	8.592E-03	6.916E-02	1.120E-01	1.174E-02	0.077
SB-122		563.90	*	3.033E-01	2.373E+00	3.874E+00	3.323E-01	0.078
		692.80		-1.990E+01	4.874E+01	7.912E+01	6.638E+00	-0.252
I-123		159.00	*	3.903E+00	4.874E+01	Half-Life too short		
		528.96		-2.892E+01	4.874E+01	Half-Life too short		
TE-123M		159.00	*	1.776E-02	3.555E-02	5.833E-02	6.147E-03	0.304
I-124		602.71	*	3.108E-01	8.943E-01	1.287E+00	1.090E-01	0.242
		722.78		-1.343E+00	5.371E+00	7.513E+00	6.422E-01	-0.179
		1325.50		6.142E+00	3.808E+01	6.263E+01	5.980E+00	0.098

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1376.25		4.485E+01	3.490E+01	6.558E+01	6.318E+00	0.684
	+	1509.49		3.091E+01	2.000E+01	3.100E+01	2.961E+00	0.997
		1691.02		-1.544E+00	4.093E+00	6.264E+00	5.684E-01	-0.247
SB-124		602.71		1.789E-02	5.146E-02	7.403E-02	6.274E-03	0.242
		645.85		2.466E-03	5.669E-01	9.103E-01	8.044E-02	0.003
		709.31		-3.306E-01	3.181E+00	5.279E+00	4.476E-01	-0.063
		713.82		1.206E+00	1.884E+00	3.281E+00	3.922E-01	0.368
		722.78		-1.120E-01	4.480E-01	6.267E-01	5.474E-02	-0.179
	+	968.20		1.419E+01	5.131E+00	7.506E+00	6.895E-01	1.891
		1045.16		-2.497E+00	2.856E+00	4.259E+00	3.794E-01	-0.586
		1325.50		5.471E-01	3.392E+00	5.580E+00	5.328E-01	0.098
		1368.21		-1.345E+00	1.716E+00	2.526E+00	3.573E-01	-0.532
		1436.60		1.048E+00	3.793E+00	6.564E+00	6.318E-01	0.160
		1691.02	*	-3.038E-02	8.053E-02	1.232E-01	1.158E-02	-0.247
SB-125		427.89	*	-9.635E-03	1.073E-01	1.749E-01	1.523E-02	-0.055
	+	463.38		1.151E+00	6.154E-01	6.331E-01	5.882E-02	1.818
		600.56		-1.191E-01	2.059E-01	3.167E-01	2.891E-02	-0.376
		635.90		-4.843E-02	3.121E-01	4.950E-01	4.486E-02	-0.098
TE-125M		109.28	*	-1.093E+01	1.176E+01	1.840E+01	2.161E+00	-0.594
I-126		388.63		8.450E-02	2.444E-01	4.101E-01	3.490E-02	0.206
		666.33	*	-4.954E-02	2.123E-01	3.505E-01	2.891E-02	-0.141
		753.82		5.249E-01	1.614E+00	2.756E+00	2.399E-01	0.190
SB-126		223.80		-5.521E-01	4.822E+00	8.077E+00	8.905E-01	-0.068
	+	278.60		4.986E+00	3.281E+00	5.194E+00	5.619E-01	0.960
	+	296.50		1.470E+01	3.458E+00	4.274E+00	4.535E-01	3.440
		414.70		-4.615E-02	8.772E-02	1.391E-01	1.183E-02	-0.332
		415.30		1.546E+00	7.198E+00	1.197E+01	1.018E+00	0.129
		555.20		2.998E+00	4.546E+00	7.706E+00	6.623E-01	0.389
		573.80		-2.026E-01	1.203E+00	1.862E+00	1.593E-01	-0.109
		593.00		2.285E-01	1.012E+00	1.662E+00	1.413E-01	0.138
		656.30		-2.364E+00	3.781E+00	6.056E+00	4.996E-01	-0.390
		666.33		-2.071E-02	8.873E-02	1.465E-01	1.208E-02	-0.141
		675.00		3.567E-01	2.047E+00	3.478E+00	2.885E-01	0.103
		695.00		1.363E-02	9.205E-02	1.556E-01	1.307E-02	0.088
		697.00		2.243E-01	3.272E-01	5.705E-01	4.800E-02	0.393
		720.50	*	3.796E-02	1.762E-01	2.698E-01	2.303E-02	0.141
		856.80		-4.285E-02	6.115E-01	8.629E-01	7.909E-02	-0.050
		989.30		-7.916E-01	1.301E+00	1.994E+00	1.819E-01	-0.397
		1034.80		4.596E-01	9.718E+00	1.598E+01	1.431E+00	0.029
		1213.00		-4.245E+00	5.339E+00	7.981E+00	6.788E-01	-0.532
SB-127		61.10		-6.177E+01	1.037E+02	1.674E+02	2.243E+01	-0.369
		252.40		2.532E+00	5.158E+00	8.643E+00	3.681E+00	0.293
		290.80		-3.017E+01	2.937E+01	3.904E+01	5.012E+00	-0.773
		411.60		9.409E+00	1.441E+01	2.445E+01	3.830E+00	0.385
		444.90		-1.111E+01	1.183E+01	1.802E+01	2.256E+00	-0.617
		473.00		-1.488E+00	1.923E+00	2.848E+00	3.670E-01	-0.522
		543.00		5.264E+00	2.032E+01	3.349E+01	4.824E+00	0.157
		603.60		7.498E+00	1.572E+01	2.285E+01	2.839E+00	0.328
		685.20	*	-1.788E-02	1.316E+00	2.203E+00	2.467E-01	-0.008

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		1.675E+01	1.876E+01	3.284E+01	5.164E+00	0.510
		722.20		2.487E+00	3.661E+01	5.313E+01	5.909E+00	0.047
		783.80		4.051E+00	4.125E+00	7.306E+00	9.200E-01	0.554
XE-127		57.60		1.593E+00	1.200E+01	1.999E+01	2.350E+00	0.080
		145.22		-1.228E-01	8.272E-01	1.325E+00	1.351E-01	-0.093
		172.10		1.576E-01	1.456E-01	2.431E-01	2.605E-02	0.648
		202.84	*	-4.199E-03	6.715E-02	9.309E-02	1.018E-02	-0.045
		374.96		2.405E-01	2.460E-01	4.253E-01	3.794E-02	0.566
I-131		80.18		2.467E+00	6.811E+00	9.979E+00	1.177E+00	0.247
		284.30		-1.209E+00	1.988E+00	3.020E+00	3.359E-01	-0.400
		364.48	*	6.724E-02	1.275E-01	2.169E-01	2.095E-02	0.310
		636.97		7.197E-01	1.693E+00	2.816E+00	2.489E-01	0.256
		722.89		-2.550E+00	8.588E+00	1.194E+01	1.028E+00	-0.213
TE-132		49.72		-4.301E+01	5.803E+01	9.306E+01	1.408E+01	-0.462
		111.76		1.693E+01	3.748E+01	6.199E+01	7.538E+00	0.273
		116.30		8.575E+00	3.489E+01	5.727E+01	6.920E+00	0.150
		228.16	*	-5.372E-01	8.634E-01	1.408E+00	2.418E-01	-0.381
BA-133		53.15		3.397E-01	8.760E+00	1.456E+01	1.902E+00	0.023
		79.62		3.560E+00	2.044E+00	3.040E+00	5.221E-01	1.171
		81.00		-8.481E-02	1.465E-01	2.044E-01	3.641E-02	-0.415
		276.40		3.913E-01	6.031E-01	8.021E-01	1.273E-01	0.488
		302.84		1.134E-01	1.929E-01	2.892E-01	4.220E-02	0.392
		356.01	*	2.128E-02	5.690E-02	8.391E-02	1.154E-02	0.254
		383.85		-8.357E-03	3.435E-01	5.649E-01	7.135E-02	-0.015
I-133	+	510.53		1.775E+00	3.435E-01	Half-Life too short		
		529.87	*	-2.412E-03	3.435E-01	Half-Life too short		
		706.58		-3.002E-01	3.435E-01	Half-Life too short		
		856.28		-2.112E-01	3.435E-01	Half-Life too short		
		875.33		-7.081E-02	3.435E-01	Half-Life too short		
		1236.41		1.529E+00	3.435E-01	Half-Life too short		
		1298.22		-1.085E-01	3.435E-01	Half-Life too short		
CS-134		475.35		4.728E-02	2.145E+00	3.504E+00	3.024E-01	0.013
		563.23		1.425E-01	4.065E-01	6.742E-01	5.840E-02	0.211
		569.32		1.197E-01	2.205E-01	3.715E-01	3.226E-02	0.322
		604.70		3.176E-02	4.431E-02	6.592E-02	5.596E-03	0.482
	+	795.84	*	1.668E-01	7.596E-02	9.915E-02	8.887E-03	1.682
		801.93		-7.749E-02	5.170E-01	7.260E-01	6.518E-02	-0.107
		1038.57		-1.057E+00	4.103E+00	6.534E+00	5.841E-01	-0.162
		1167.94		3.448E-02	2.727E+00	4.436E+00	3.629E-01	0.008
		1365.15		-3.594E-01	1.142E+00	1.821E+00	1.818E-01	-0.197
CS-135		268.24	*	1.907E-01	2.227E-01	3.388E-01	4.065E-02	0.563
I-135		288.45		2.743E+10	2.227E-01	Half-Life too short		
		417.63		-1.820E+10	2.227E-01	Half-Life too short		
		546.56		2.752E+09	2.227E-01	Half-Life too short		
		836.80		3.828E+10	2.227E-01	Half-Life too short		
		1038.76		-1.200E+10	2.227E-01	Half-Life too short		
		1124.00		2.666E+10	2.227E-01	Half-Life too short		
		1131.51		-8.149E+08	2.227E-01	Half-Life too short		
		1260.41	*	-4.981E+07	2.227E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1457.56		8.253E+11	2.227E-01	Half-Life too short		
		1678.03		-6.944E+09	2.227E-01	Half-Life too short		
		1706.46		-9.210E+09	2.227E-01	Half-Life too short		
		1791.20		1.062E+10	2.227E-01	Half-Life too short		
CS-136		66.91		-4.423E-01	1.304E+00	2.033E+00	3.487E-01	-0.218
	+	86.29		1.732E+00	1.494E+00	2.642E+00	4.099E-01	0.656
		153.22		6.637E-01	8.212E-01	1.361E+00	1.526E-01	0.488
		163.89		1.849E-01	1.294E+00	2.094E+00	2.404E-01	0.088
		176.55		-2.449E-01	4.549E-01	7.120E-01	7.943E-02	-0.344
		273.65		2.189E-01	8.877E-01	8.931E-01	1.011E-01	0.245
		340.57		5.880E-01	1.976E-01	3.216E-01	3.225E-02	1.828
		818.51		2.996E-02	7.874E-02	1.349E-01	1.216E-02	0.222
		1048.07	*	9.735E-02	1.192E-01	2.094E-01	1.938E-02	0.465
		1235.34		9.306E-01	7.054E-01	1.246E+00	1.485E-01	0.747
BA-137M		661.65	*	-2.941E-03	4.390E-02	7.243E-02	5.955E-03	-0.041
CS-137		661.65	*	-3.108E-03	4.641E-02	7.656E-02	6.308E-03	-0.041
CE-139		165.85	*	-6.681E-03	3.581E-02	5.715E-02	6.100E-03	-0.117
BA-140		162.64		4.047E-01	9.213E-01	1.508E+00	1.659E-01	0.268
		304.84		4.719E-01	1.660E+00	2.441E+00	6.995E-01	0.193
		423.70		2.943E+00	2.396E+00	3.899E+00	1.263E+00	0.755
		537.32	*	4.852E-02	3.078E-01	5.039E-01	1.670E-01	0.096
LA-140	+	328.77		4.517E-01	5.036E-01	6.223E-01	6.520E-02	0.726
		432.53		3.951E-01	2.248E+00	3.726E+00	3.344E-01	0.106
		487.03		5.533E-02	1.556E-01	2.597E-01	2.381E-02	0.213
		751.79		-8.186E-01	1.883E+00	3.028E+00	2.909E-01	-0.270
		815.85		6.122E-02	3.424E-01	5.772E-01	5.742E-02	0.106
		867.82		-1.726E+00	1.776E+00	2.170E+00	2.091E-01	-0.795
		919.63		8.929E-01	3.045E+00	4.812E+00	5.390E-01	0.186
		925.24		-7.093E-01	1.206E+00	1.868E+00	1.828E-01	-0.380
		1596.49	*	-6.738E-02	1.036E-01	1.558E-01	1.460E-02	-0.433
CE-141		145.44	*	-2.782E-02	7.566E-02	1.200E-01	1.241E-02	-0.232
CE-143		57.37		1.321E-04	7.566E-02	Half-Life too short		
		231.56		6.364E-04	7.566E-02	Half-Life too short		
		293.26	*	8.858E-04	7.566E-02	Half-Life too short		
		350.59		3.068E-02	7.566E-02	Half-Life too short		
		490.36		-3.595E-04	7.566E-02	Half-Life too short		
		664.57		1.347E-03	7.566E-02	Half-Life too short		
		721.93		5.394E-04	7.566E-02	Half-Life too short		
CE-144		80.11		1.392E+00	3.130E+00	4.601E+00	5.407E-01	0.302
		133.54	*	-3.289E-01	2.541E-01	3.810E-01	6.249E-02	-0.863
PM-144		476.78		8.833E-02	7.600E-02	1.329E-01	1.254E-02	0.664
		618.01		-3.106E-03	3.888E-02	5.840E-02	5.059E-03	-0.053
		696.49	*	1.448E-02	4.140E-02	7.083E-02	5.959E-03	0.204
		778.57		1.556E+00	2.666E+00	4.344E+00	3.834E-01	0.358
PR-144		696.49	*	9.810E-01	2.805E+00	4.800E+00	4.036E-01	0.204
		1489.15		-3.090E+00	1.254E+01	2.007E+01	1.922E+00	-0.154
PM-146		453.90	*	9.399E-03	5.302E-02	8.576E-02	9.183E-03	0.110
		633.02		9.145E-02	1.596E+00	2.576E+00	9.611E-01	0.036
		735.90		-9.632E-02	2.006E-01	2.703E-01	7.730E-02	-0.356

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		747.13		-1.324E-03	1.074E-01	1.790E-01	2.518E-02	-0.007
ND-147		91.11		6.893E-01	6.155E-01	6.788E-01	8.403E-02	1.016
		319.41		-1.004E-01	3.828E+00	6.347E+00	6.501E-01	-0.016
		439.89		8.230E+00	6.870E+00	1.202E+01	1.031E+00	0.685
		531.02	*	1.342E-01	6.224E-01	1.026E+00	1.534E-01	0.131
PM-149		285.90	*	1.592E+00	1.151E+02	1.921E+02	3.229E+01	0.008
EU-152		121.78		9.144E-03	8.663E-02	1.414E-01	1.584E-02	0.065
		244.69		7.443E-01	4.400E-01	6.962E-01	7.674E-02	1.069
		344.27	*	-1.455E-01	1.387E-01	1.817E-01	1.850E-02	-0.801
		443.98		1.043E-01	1.132E+00	1.862E+00	1.598E-01	0.056
		778.89		2.153E-01	2.991E-01	5.051E-01	4.457E-02	0.426
		867.32		-1.214E+00	1.070E+00	1.271E+00	1.170E-01	-0.956
	+	964.01		8.111E-01	4.113E-01	6.647E-01	6.113E-02	1.220
		1085.78		-3.021E-01	4.388E-01	6.641E-01	5.783E-02	-0.455
		1112.02		2.052E-01	3.515E-01	5.352E-01	4.579E-02	0.383
		1407.95		9.434E-02	2.138E-01	3.740E-01	3.604E-02	0.252
GD-153		69.67		-1.263E+00	2.741E+00	3.875E+00	4.424E-01	-0.326
		83.37		3.805E-02	2.589E+01	3.156E+01	3.783E+00	0.001
		97.43	*	1.081E-02	1.088E-01	1.567E-01	1.729E-02	0.069
		103.18		-6.470E-03	1.327E-01	2.164E-01	2.288E-02	-0.030
EU-154		123.07		-2.288E-02	6.210E-02	9.930E-02	1.240E-02	-0.230
		247.94		-1.063E-01	4.713E-01	6.772E-01	9.053E-02	-0.157
		591.81		-1.246E-01	6.858E-01	1.089E+00	1.262E-01	-0.114
		723.30		-1.521E-01	2.212E-01	2.933E-01	2.776E-02	-0.519
		756.87		3.424E-01	8.634E-01	1.480E+00	1.783E-01	0.231
		873.19		3.286E-01	3.130E-01	5.619E-01	7.125E-02	0.585
		996.32		-5.396E-01	4.080E-01	5.583E-01	1.005E-01	-0.967
		1004.76		-1.867E-02	2.349E-01	3.824E-01	4.580E-02	-0.049
		1274.45	*	4.319E-02	1.588E-01	2.629E-01	3.066E-02	0.164
EU-155		48.70		-6.715E+00	7.645E+00	1.219E+01	1.636E+00	-0.551
		60.01		-9.357E+00	9.285E+00	1.471E+01	1.661E+00	-0.636
	+	86.54		1.593E-01	1.365E-01	2.417E-01	2.980E-02	0.659
		105.31	*	1.063E-01	1.349E-01	2.257E-01	2.378E-02	0.471
TB-160	+	86.79		4.258E-01	3.649E-01	6.426E-01	7.901E-02	0.663
		197.04		2.135E-01	6.849E-01	1.109E+00	1.210E-01	0.192
		215.65		2.496E-01	9.388E-01	1.513E+00	1.664E-01	0.165
	+	298.57		2.182E-01	1.568E-01	2.671E-01	2.826E-02	0.817
		879.36	*	1.503E-02	1.465E-01	2.444E-01	2.262E-02	0.061
		962.29		1.423E+00	7.023E-01	1.191E+00	1.096E-01	1.195
		966.15		9.136E-01	4.822E-01	5.719E-01	5.257E-02	1.597
		1177.93		-2.176E-01	3.907E-01	5.980E-01	4.894E-02	-0.364
		1271.85		6.975E-01	8.629E-01	1.500E+00	1.358E-01	0.465
HO-166M		80.57		3.282E-02	3.966E-01	5.741E-01	6.764E-02	0.057
		184.41		1.247E-01	4.791E-02	8.172E-02	8.836E-03	1.526
		280.46		8.904E-02	1.154E-01	1.754E-01	1.894E-02	0.508
		410.95		1.750E-01	2.836E-01	4.820E-01	4.091E-02	0.363
		711.68	*	4.852E-02	6.884E-02	1.206E-01	1.024E-02	0.402
		752.31		-7.259E-02	2.992E-01	4.891E-01	4.253E-02	-0.148
		810.29		-4.686E-02	6.411E-02	9.939E-02	8.913E-03	-0.471

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		4.209E+01	8.132E+01	1.375E+02	1.853E+01	0.306
		52.39		9.530E+00	3.947E+01	6.612E+01	8.769E+00	0.144
		59.40		-4.318E+01	5.068E+01	8.091E+01	9.121E+00	-0.534
		66.72	*	-1.287E+01	4.581E+01	7.414E+01	8.462E+00	-0.174
LU-176	+	88.36		3.137E-01	2.689E-01	4.656E-01	5.748E-02	0.674
		201.83		-1.952E-02	3.726E-02	5.584E-02	6.105E-03	-0.350
		306.84	*	-3.805E-03	2.956E-02	4.752E-02	4.969E-03	-0.080
		401.10		-4.981E+00	7.558E+00	1.189E+01	1.005E+00	-0.419
LU-177		112.95		-6.251E-01	2.056E+00	3.311E+00	3.366E-01	-0.189
	+	208.36	*	2.572E+00	2.147E+00	2.375E+00	2.605E-01	1.083
LU-177M		52.97		4.718E-01	4.015E+00	6.695E+00	8.779E-01	0.070
		54.07		-2.198E-01	1.973E+00	3.259E+00	4.172E-01	-0.067
		61.30		-9.404E-01	2.630E+00	4.293E+00	4.879E-01	-0.219
		121.62		-9.307E-02	4.476E-01	7.213E-01	7.259E-02	-0.129
		147.16		-3.241E-01	7.584E-01	1.202E+00	1.230E-01	-0.270
		171.86		5.157E-01	5.916E-01	9.810E-01	1.051E-01	0.526
		218.09		4.954E-01	9.968E-01	1.709E+00	1.882E-01	0.290
		268.79		1.509E+00	1.152E+00	1.786E+00	1.947E-01	0.845
		319.02		-2.245E-01	3.042E-01	4.838E-01	4.958E-02	-0.464
		367.43		-4.592E-01	1.024E+00	1.642E+00	1.500E-01	-0.280
		413.65	*	-9.890E-02	2.063E-01	3.284E-01	2.790E-02	-0.301
HF-181		56.28		-5.872E-02	1.975E+00	3.270E+00	3.970E-01	-0.018
		57.53		1.127E-01	1.012E+00	1.683E+00	1.982E-01	0.067
		65.20		1.072E+00	1.560E+00	2.602E+00	2.971E-01	0.412
		133.02		-1.724E-01	8.342E-02	1.212E-01	1.217E-02	-1.422
		136.25		-1.548E-01	5.512E-01	8.822E-01	8.888E-02	-0.175
		345.85		-3.173E-01	2.758E-01	3.580E-01	3.467E-02	-0.886
		482.03	*	-4.419E-02	4.994E-02	7.607E-02	6.568E-03	-0.581
W-181		56.28		-2.370E-02	7.724E-01	1.279E+00	1.552E-01	-0.019
		57.53		4.387E-02	3.961E-01	6.591E-01	7.760E-02	0.067
		65.20	*	4.165E-01	6.060E-01	1.011E+00	1.154E-01	0.412
TA-182		67.75		-5.245E-02	1.886E-01	2.829E-01	3.228E-02	-0.185
		100.10		9.476E-02	2.172E-01	3.605E-01	3.891E-02	0.263
		152.43		3.882E-01	4.112E-01	6.848E-01	7.081E-02	0.567
		222.10		-1.928E-01	4.092E-01	6.750E-01	7.438E-02	-0.286
		1001.68		8.797E-01	2.250E+00	3.812E+00	3.462E-01	0.231
	+	1121.28		6.665E-01	2.935E-01	3.744E-01	3.182E-02	1.780
		1189.05		1.094E-01	3.598E-01	5.996E-01	4.968E-02	0.182
		1221.42	*	6.658E-02	2.317E-01	3.846E-01	3.301E-02	0.173
		1230.97		-2.894E-01	5.511E-01	8.495E-01	7.367E-02	-0.341
RE-183		57.98		3.129E-02	3.890E-01	6.464E-01	7.530E-02	0.048
		59.32		-7.469E-02	2.045E-01	3.337E-01	3.769E-02	-0.224
		67.20		-1.122E-01	3.304E-01	5.156E-01	5.885E-02	-0.218
		162.32	*	2.537E-02	1.355E-01	2.197E-01	2.324E-02	0.115
	+	208.81		2.298E+00	1.919E+00	2.134E+00	2.342E-01	1.077
		291.72		-7.598E-01	1.245E+00	1.720E+00	1.835E-01	-0.442
RE-184		57.98		1.152E-01	1.433E+00	2.381E+00	2.774E-01	0.048
		59.32		-2.749E-01	7.526E-01	1.228E+00	1.387E-01	-0.224
		67.20		-4.131E-01	1.217E+00	1.899E+00	2.167E-01	-0.218

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		-2.311E-02	4.416E-01	7.096E-01	7.488E-02	-0.033
		216.55		3.794E-02	3.260E-01	5.378E-01	5.918E-02	0.071
		252.85	*	1.032E-01	2.680E-01	4.565E-01	5.020E-02	0.226
		318.01		-4.929E-01	5.406E-01	8.508E-01	8.736E-02	-0.579
		792.07		-2.267E-01	1.237E+00	1.731E+00	1.538E-01	-0.131
		903.28		-7.165E-01	1.235E+00	1.767E+00	1.646E-01	-0.406
		920.93		-2.550E-01	4.713E-01	7.337E-01	6.817E-02	-0.348
OS-185		59.72		-4.574E-01	5.524E-01	8.828E-01	9.948E-02	-0.518
		61.14		-1.646E-01	2.912E-01	4.711E-01	5.351E-02	-0.349
		69.30		-1.812E-01	4.967E-01	7.061E-01	8.059E-02	-0.257
		592.07		-1.668E-01	2.773E+00	4.450E+00	3.786E-01	-0.037
		646.12	*	2.264E-02	4.703E-02	7.851E-02	6.515E-03	0.288
		717.42		-2.591E-01	1.024E+00	1.680E+00	1.431E-01	-0.154
		874.81		-2.006E-01	6.324E-01	1.014E+00	9.371E-02	-0.198
		880.27		2.433E-01	8.178E-01	1.388E+00	1.285E-01	0.175
RE-188		155.03	*	3.119E-02	2.164E-01	3.509E-01	3.649E-02	0.089
		477.96		2.514E+00	3.561E+00	6.069E+00	5.239E-01	0.414
		633.10		1.223E+00	3.141E+00	5.206E+00	4.351E-01	0.235
W-188		63.58		-1.058E+01	8.996E+01	1.478E+02	1.688E+01	-0.072
		227.08		-3.369E+00	1.572E+01	2.622E+01	2.893E+00	-0.128
		290.67	*	-1.022E+01	1.004E+01	1.339E+01	1.431E+00	-0.763
IR-192	+	295.96		1.123E+00	2.643E-01	3.272E-01	3.490E-02	3.431
		308.46		-1.080E-01	1.178E-01	1.859E-01	1.946E-02	-0.581
		316.51	*	-3.465E-02	4.212E-02	6.675E-02	6.882E-03	-0.519
		468.07		9.519E-02	7.430E-02	1.186E-01	1.096E-02	0.802
		604.41		6.003E-01	5.870E-01	8.943E-01	1.155E-01	0.671
		612.46		3.676E+00	1.053E+00	1.814E+00	1.767E-01	2.027
AU-195		65.12		1.925E-01	2.813E-01	4.690E-01	5.356E-02	0.410
		66.83		-5.309E-02	1.563E-01	2.440E-01	2.785E-02	-0.218
	+	75.70		1.213E+00	4.186E-01	6.015E-01	6.937E-02	2.017
		98.88	*	4.681E-03	2.846E-01	4.496E-01	4.901E-02	0.010
		129.76		6.503E+00	3.551E+00	6.045E+00	6.065E-01	1.076
TL-200		367.94	*	-2.262E-05	3.551E+00	Half-Life too short		
		579.30		3.058E-04	3.551E+00	Half-Life too short		
		828.27		5.102E-03	3.551E+00	Half-Life too short		
		1205.75		1.973E-03	3.551E+00	Half-Life too short		
TL-201		68.90		1.418E+00	8.136E+00	1.188E+01	1.356E+00	0.119
		70.82		-1.025E+00	4.494E+00	6.434E+00	7.349E-01	-0.159
		80.30		1.029E+00	7.478E+00	1.085E+01	1.277E+00	0.095
		135.34		5.857E+00	3.085E+01	5.035E+01	5.067E+00	0.116
		167.43	*	-5.540E+00	8.612E+00	1.344E+01	1.436E+00	-0.412
TL-202		68.90		1.261E-01	7.237E-01	1.057E+00	1.206E-01	0.119
		70.82		-9.092E-02	3.986E-01	5.706E-01	6.518E-02	-0.159
		80.30		9.127E-02	6.635E-01	9.628E-01	1.133E-01	0.095
		439.56	*	9.509E-02	8.109E-02	1.418E-01	1.215E-02	0.671
BI-207		72.80		5.631E-01	2.635E-01	4.496E-01	5.149E-02	1.252
	+	74.97		6.727E-01	2.321E-01	3.066E-01	3.528E-02	2.194
		84.90		3.190E-02	2.925E-01	4.226E-01	5.120E-02	0.075
		569.67		3.656E-03	3.559E-02	5.809E-02	4.975E-03	0.063

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		1063.62	*	2.597E-02	5.385E-02	9.231E-02	8.144E-03	0.281
		1770.23		2.904E-01	5.055E-01	8.271E-01	7.230E-02	0.351
TL-207		81.07		-1.967E-01	3.219E-01	4.496E-01	5.313E-02	-0.437
		83.78		7.383E-02	2.208E-01	2.744E-01	3.298E-02	0.269
		94.90		7.388E-01	3.438E-01	5.258E-01	5.950E-02	1.405
		122.32		5.021E-01	2.088E+00	3.424E+00	3.633E-01	0.147
		144.24		2.609E-02	8.156E-01	1.316E+00	1.456E-01	0.020
		154.21		4.078E-01	4.951E-01	8.205E-01	9.111E-02	0.497
		269.46		4.064E-01	2.724E-01	4.247E-01	4.689E-02	0.957
		323.87	*	2.020E-01	8.661E-01	1.269E+00	2.347E-01	0.159
	+	338.28		5.620E+00	2.223E+00	2.811E+00	3.714E-01	1.999
		445.03		-2.513E+00	2.724E+00	4.158E+00	5.015E-01	-0.604
PO-209		260.50		4.447E+00	1.147E+01	1.952E+01	2.139E+00	0.228
		262.80		-3.463E+01	3.349E+01	5.146E+01	5.633E+00	-0.673
		896.60	*	8.995E+00	8.759E+00	1.560E+01	1.454E+00	0.577
BI-210		46.50	*	-1.317E+00	1.277E+01	2.085E+01	2.567E+00	-0.063
PB-210		46.50	*	-1.317E+00	1.277E+01	2.085E+01	2.567E+00	-0.063
PO-210		46.50	*	-1.317E+00	1.277E+01	2.085E+01	2.432E+00	-0.063
PB-211		404.84	*	7.875E-02	1.089E+00	1.795E+00	1.125E+00	0.044
		427.08		3.988E-01	2.415E+00	3.979E+00	2.472E+00	0.100
		831.96		8.960E-02	1.398E+00	2.328E+00	1.460E+00	0.038
BI-212	+	727.18	*	8.870E-01	5.666E-01	7.045E-01	7.020E-02	1.259
		785.46		2.832E+00	2.021E+00	3.505E+00	3.104E-01	0.808
		1620.62		8.400E-01	1.316E+00	2.385E+00	2.220E-01	0.352
PO-215		81.07		-1.967E-01	3.219E-01	4.496E-01	5.313E-02	-0.437
		83.78		7.383E-02	2.208E-01	2.744E-01	3.298E-02	0.269
		94.90		7.388E-01	3.438E-01	5.258E-01	5.950E-02	1.405
		122.32		5.021E-01	2.088E+00	3.424E+00	3.633E-01	0.147
		144.24		2.609E-02	8.156E-01	1.316E+00	1.456E-01	0.020
		154.21		4.078E-01	4.951E-01	8.205E-01	9.111E-02	0.497
		269.46		4.064E-01	2.724E-01	4.247E-01	4.689E-02	0.957
		323.87	*	2.020E-01	8.661E-01	1.269E+00	2.347E-01	0.159
	+	338.28		5.620E+00	2.223E+00	2.811E+00	3.714E-01	1.999
		445.03		-2.513E+00	2.724E+00	4.158E+00	5.015E-01	-0.604
RN-219	+	271.23		2.507E-01	4.285E-01	5.409E-01	6.636E-02	0.463
		401.81	*	-2.576E-01	4.644E-01	7.341E-01	1.096E-01	-0.351
RN-220		549.76	*	-2.772E+01	2.955E+01	4.413E+01	3.797E+00	-0.628
RA-223		81.07		-1.967E-01	3.219E-01	4.496E-01	5.313E-02	-0.437
		83.78		7.383E-02	2.208E-01	2.744E-01	3.298E-02	0.269
		94.90		7.388E-01	3.438E-01	5.258E-01	5.950E-02	1.405
		122.32		5.021E-01	2.088E+00	3.424E+00	3.633E-01	0.147
		144.24		2.609E-02	8.156E-01	1.316E+00	1.456E-01	0.020
		154.21		4.078E-01	4.951E-01	8.205E-01	9.111E-02	0.497
		269.46		4.064E-01	2.724E-01	4.247E-01	4.689E-02	0.957
		323.87	*	2.020E-01	8.661E-01	1.269E+00	2.347E-01	0.159
	+	338.28		5.620E+00	2.223E+00	2.811E+00	3.714E-01	1.999
		445.03		-2.513E+00	2.724E+00	4.158E+00	5.015E-01	-0.604
AC-227		79.80		1.981E+00	2.497E+00	3.670E+00	8.416E-01	0.540
		236.00		1.079E+00	3.821E-01	5.849E-01	8.218E-02	1.845

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		256.20	*	-4.705E-02	4.511E-01	7.519E-01	1.262E-01	-0.063
		286.10		7.894E-02	1.876E+00	3.134E+00	4.599E-01	0.025
	+	299.80		2.777E+00	2.040E+00	3.180E+00	5.890E-01	0.873
		304.40		-1.789E-01	2.494E+00	3.584E+00	6.947E-01	-0.050
		334.20		9.551E-02	4.497E+00	4.340E+00	8.695E-01	0.022
TH-227		79.80		1.981E+00	2.498E+00	3.670E+00	8.511E-01	0.540
	+	94.00		6.010E+00	4.294E+00	4.886E+00	1.126E+00	1.230
		236.00		1.079E+00	3.779E-01	5.849E-01	7.630E-02	1.845
		256.20	*	-4.705E-02	4.512E-01	7.519E-01	1.451E-01	-0.063
		286.10		7.894E-02	1.878E+00	3.134E+00	3.152E+00	0.025
	+	299.80		2.777E+00	2.040E+00	3.180E+00	5.890E-01	0.873
		304.40		-1.789E-01	2.494E+00	3.584E+00	6.947E-01	-0.050
		334.20		9.551E-02	4.497E+00	4.340E+00	8.695E-01	0.022
TH-229		85.43		4.189E-01	2.938E-01	4.406E-01	5.360E-02	0.951
	+	88.47		1.806E-01	1.548E-01	2.680E-01	3.304E-02	0.674
		100.00		9.661E-02	2.254E-01	3.740E-01	4.040E-02	0.258
		193.63	*	-2.583E-01	6.266E-01	9.832E-01	1.070E-01	-0.263
	+	210.97		1.799E+00	1.501E+00	1.678E+00	1.843E-01	1.072
PA-231		283.67	*	-8.393E-01	2.110E+00	3.120E+00	5.147E-01	-0.269
	+	301.29		1.111E+00	8.040E-01	1.247E+00	1.704E-01	0.891
TH-231		81.07		-1.967E-01	3.219E-01	4.496E-01	5.313E-02	-0.437
		83.78		7.383E-02	2.208E-01	2.744E-01	3.298E-02	0.269
		94.90		7.388E-01	3.438E-01	5.258E-01	5.950E-02	1.405
		122.32		5.021E-01	2.088E+00	3.424E+00	3.633E-01	0.147
		144.24		2.609E-02	8.156E-01	1.316E+00	1.456E-01	0.020
		154.21		4.078E-01	4.951E-01	8.205E-01	9.111E-02	0.497
		269.46		4.064E-01	2.724E-01	4.247E-01	4.689E-02	0.957
		323.87	*	2.020E-01	8.661E-01	1.269E+00	2.347E-01	0.159
	+	338.28		5.620E+00	2.223E+00	2.811E+00	3.714E-01	1.999
		445.03		-2.513E+00	2.724E+00	4.158E+00	5.015E-01	-0.604
U-231		84.21		-7.427E-01	8.958E+00	1.197E+01	1.444E+00	-0.062
	+	92.29		6.000E+00	4.115E+00	5.260E+00	6.138E-01	1.141
		95.87	*	2.396E-02	1.504E+00	2.157E+00	2.417E-01	0.011
		108.00		-1.405E+00	2.577E+00	4.111E+00	4.244E-01	-0.342
PA-233	+	75.28		1.963E+01	7.218E+00	9.310E+00	1.596E+00	2.108
	+	86.59		2.590E+00	2.315E+00	3.924E+00	1.107E+00	0.660
	+	300.12		7.743E-01	5.642E-01	8.767E-01	1.409E-01	0.883
		311.98	*	5.875E-02	7.965E-02	1.366E-01	1.445E-02	0.430
		340.50		3.023E+00	1.176E+00	1.577E+00	3.832E-01	1.916
		398.62		-5.428E-01	2.351E+00	3.803E+00	1.010E+00	-0.143
		415.76		1.491E+00	1.867E+00	3.173E+00	6.823E-01	0.470
PA-234		63.00		2.783E-01	2.667E+00	4.416E+00	7.599E-01	0.063
	+	94.67		5.360E-01	3.707E-01	3.942E-01	5.689E-02	1.360
		98.44		-3.820E-02	1.241E-01	1.823E-01	1.024E-01	-0.210
		99.86		2.388E-01	5.708E-01	9.466E-01	1.024E-01	0.252
		111.00		2.126E-01	2.288E-01	3.827E-01	5.081E-02	0.555
		131.20		1.188E-02	1.286E-01	2.092E-01	2.100E-02	0.057
		152.70		3.336E-01	4.041E-01	6.656E-01	1.197E-01	0.501
	+	186.00		7.680E+00	3.607E+00	3.101E+00	9.890E-01	2.477

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		226.40		4.430E-01	4.854E-01	8.380E-01	1.247E-01	0.529
		227.20		-1.614E-01	5.290E-01	8.787E-01	9.692E-02	-0.184
		248.90		-5.829E-02	1.068E+00	1.553E+00	3.640E-01	-0.038
		293.70		5.544E+00	1.461E+00	1.916E+00	3.524E-01	2.894
		369.80		-3.742E-01	9.769E-01	1.569E+00	3.445E-01	-0.238
		568.70		2.543E-01	1.125E+00	1.850E+00	1.585E-01	0.137
		569.50		9.711E-02	3.103E-01	5.142E-01	4.405E-02	0.189
		574.00		-2.962E-01	1.720E+00	2.663E+00	2.279E-01	-0.111
		699.00		7.974E-01	8.793E-01	1.533E+00	2.911E-01	0.520
		706.10		-5.256E-01	1.214E+00	1.930E+00	8.599E-01	-0.272
		733.00		-1.874E-01	4.831E-01	6.616E-01	1.468E-01	-0.283
		742.81		1.588E+00	1.959E+00	2.922E+00	1.965E+00	0.543
		796.30		1.967E+00	1.231E+00	1.894E+00	5.142E-01	1.038
		805.60		1.431E+00	1.180E+00	2.004E+00	6.162E-01	0.714
		819.60		4.037E-01	1.337E+00	2.261E+00	8.617E-01	0.179
		826.30		-5.271E-01	9.549E-01	1.460E+00	6.544E-01	-0.361
		831.60		9.231E-02	7.137E-01	1.195E+00	3.580E-01	0.077
		876.40		-8.658E-01	1.267E+00	1.354E+00	1.392E+00	-0.640
		880.51		3.096E-02	3.005E-01	5.012E-01	4.641E-02	0.062
		883.24		-4.966E-02	3.199E-01	5.184E-01	3.489E-01	-0.096
		899.00		1.491E-02	9.845E-01	1.627E+00	7.136E-01	0.009
		925.00		-8.489E-01	1.237E+00	1.895E+00	1.759E-01	-0.448
		926.50		-4.830E-02	1.899E-01	3.048E-01	7.775E-02	-0.158
		946.00	*	-3.481E-01	3.372E-01	4.879E-01	9.297E-02	-0.714
		949.00		2.826E-01	4.910E-01	8.488E-01	7.838E-02	0.333
		980.50		-3.861E-01	8.076E-01	1.263E+00	1.156E-01	-0.306
		1394.10		2.999E-01	1.150E+00	1.962E+00	1.280E+00	0.153
PA-234M		766.42		2.123E+01	1.865E+01	2.474E+01	1.256E+01	0.858
		1001.03	*	2.085E+00	4.938E+00	8.395E+00	8.705E-01	0.248
TH-234		63.29	*	3.536E-01	2.254E+00	3.737E+00	7.280E-01	0.095
	+	92.38		1.555E+00	1.095E+00	1.356E+00	2.673E-01	1.147
U-235		89.95		-8.517E-01	2.423E+00	2.428E+00	7.766E-01	-0.351
	+	93.35		1.870E+00	1.376E+00	1.562E+00	4.536E-01	1.197
		105.00		9.488E-01	1.352E+00	2.212E+00	6.732E-01	0.429
		143.76	*	4.088E-02	2.541E-01	4.121E-01	7.551E-02	0.099
		163.35		3.188E-02	5.774E-01	9.314E-01	1.868E-01	0.034
	+	185.71		2.844E-01	1.028E-01	1.147E-01	1.242E-02	2.479
		205.31		-1.071E-01	7.396E-01	1.019E+00	2.063E-01	-0.105
NP-236	+	94.67		4.065E-01	2.788E-01	2.993E-01	3.396E-02	1.358
		98.44		-2.889E-02	9.248E-02	1.378E-01	1.508E-02	-0.210
		111.00		1.608E-01	1.725E-01	2.895E-01	2.958E-02	0.555
		160.31	*	-4.712E-02	1.002E-01	1.581E-01	1.665E-02	-0.298
U-238		63.29	*	3.536E-01	2.254E+00	3.737E+00	7.280E-01	0.095
	+	92.38		1.555E+00	1.067E+00	1.356E+00	1.581E-01	1.147
NP-239		99.55		3.178E-02	1.912E-01	3.144E-01	3.408E-02	0.101
		117.00	*	9.837E-02	2.335E-01	3.858E-01	3.894E-02	0.255
	+	209.75		1.812E+00	1.513E+00	1.683E+00	1.848E-01	1.076
		228.18		-1.742E-01	2.776E-01	4.542E-01	5.010E-02	-0.384
	+	277.60		3.624E-01	2.385E-01	3.848E-01	4.167E-02	0.942

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		8.370E-01	2.426E+00	2.459E+00	2.446E-01	0.340
AM-241		59.54	*	-2.465E-01	2.930E-01	4.678E-01	5.491E-02	-0.527
CM-243		99.55		3.270E-02	1.967E-01	3.235E-01	3.507E-02	0.101
		103.76	*	1.124E-01	1.204E-01	2.023E-01	2.132E-02	0.556
		117.00		1.012E-01	2.403E-01	3.969E-01	4.007E-02	0.255
	+	209.75		1.786E+00	1.491E+00	1.660E+00	1.822E-01	1.076
		228.18		-1.761E-01	2.805E-01	4.589E-01	5.063E-02	-0.384
	+	277.60		3.653E-01	2.404E-01	3.879E-01	4.201E-02	0.942
AM-246		798.80		-1.993E-01	1.811E-01	2.221E-01	1.980E-02	-0.898
		1036.00		-1.386E-01	3.283E-01	5.141E-01	4.601E-02	-0.270
		1062.04		-1.471E-02	2.374E-01	3.854E-01	3.404E-02	-0.038
		1078.86	*	1.105E-01	1.707E-01	2.943E-01	2.574E-02	0.376
CM-247	+	278.00		1.503E+00	9.890E-01	1.576E+00	1.706E-01	0.954
		287.40		1.947E+00	1.545E+00	2.579E+00	2.766E-01	0.755
		402.60	*	-4.680E-03	4.169E-02	6.805E-02	5.755E-03	-0.069
CF-249		252.85		3.870E-01	1.005E+00	1.713E+00	1.883E-01	0.226
		333.44		-1.348E-02	3.324E-01	3.178E-01	3.166E-02	-0.042
		387.95	*	1.511E-02	4.782E-02	8.012E-02	6.835E-03	0.189
CF-251		176.60	*	-1.113E-01	1.579E-01	2.450E-01	2.635E-02	-0.454
		227.00		1.882E-01	4.628E-01	7.900E-01	8.714E-02	0.238
		285.00		-2.008E+00	2.257E+00	3.486E+00	3.748E-01	-0.576

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799007      *
* Acquisition date : 10-FEB-2010 16:22:05 Detector SN#     :               *
* Detector ID        : GAM15               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.32     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799007           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.4045E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.567E+01	3.071E+00	6.352E-01	0.000E+00
CD-109	1.346E+00	1.130E+00	1.986E+00	0.000E+00
SN-126	1.323E-01	1.111E-01	1.903E-01	0.000E+00
HG-203	8.290E-02	5.349E-02	8.292E-02	0.000E+00
TL-208	5.270E-01	9.390E-02	6.527E-02	0.000E+00
BI-211	3.781E+00	6.214E-01	4.128E-01	0.000E+00
PB-212	1.611E+00	2.260E-01	1.137E-01	0.000E+00
PO-212	1.611E+00	2.260E-01	1.137E-01	0.000E+00
BI-214	1.110E+00	2.097E-01	1.295E-01	0.000E+00
PB-214	1.315E+00	2.264E-01	1.390E-01	0.000E+00
PO-214	1.315E+00	2.264E-01	1.390E-01	0.000E+00
PO-216	1.611E+00	2.260E-01	1.137E-01	0.000E+00
PO-218	1.315E+00	2.264E-01	1.390E-01	0.000E+00
RA-224	5.233E+00	1.737E+00	1.293E+00	0.000E+00
RA-226	1.110E+00	2.097E-01	1.295E-01	0.000E+00
AC-228	1.340E+00	3.364E-01	2.494E-01	0.000E+00
RA-228	1.340E+00	3.364E-01	2.494E-01	0.000E+00
TH-228	1.636E+00	2.295E-01	1.154E-01	0.000E+00
TH-230	1.110E+00	2.097E-01	1.295E-01	0.000E+00
TH-232	1.340E+00	3.364E-01	2.494E-01	0.000E+00
U-234	1.110E+00	2.097E-01	1.295E-01	0.000E+00
NP-237	3.884E-01	3.355E-01	5.569E-01	0.000E+00
AM-243	3.747E-01	1.267E-01	1.281E-01	0.000E+00
ANH-511	1.656E-01	7.704E-02	4.796E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.500E-01	3.606E-01	6.536E-01	0.000E+00	NOT IDENT.
NA-22	1.297E-02	5.596E-02	9.483E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.347E+05	0.000E+00	0.000E+00	SHORT HLIF

AL-26	-1.361E-02	3.399E-02	5.262E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	8.627E-02	1.100E-01	0.000E+00	FAIL ABUN
SC-46	-6.080E-03	4.283E-02	7.232E-02	0.000E+00	FAIL ABUN
V-48	2.254E-02	7.400E-02	1.291E-01	0.000E+00	NOT IDENT.
CR-51	4.624E-02	4.263E-01	7.523E-01	0.000E+00	NOT IDENT.
MN-52	4.680E-02	2.459E-01	4.304E-01	0.000E+00	NOT IDENT.
MN-54	-2.407E-02	4.324E-02	7.111E-02	0.000E+00	NOT IDENT.
CO-56	-3.855E-03	4.045E-02	6.884E-02	0.000E+00	NOT IDENT.
CO-57	1.594E-02	2.922E-02	5.220E-02	0.000E+00	NOT IDENT.
CO-58	-4.393E-02	4.228E-02	6.599E-02	0.000E+00	NOT IDENT.
FE-59	5.370E-02	9.956E-02	1.756E-01	0.000E+00	NOT IDENT.
CO-60	-1.371E-02	4.395E-02	6.984E-02	0.000E+00	NOT IDENT.
ZN-65	1.718E-02	1.042E-01	1.534E-01	0.000E+00	NOT IDENT.
GE-68	8.710E-01	1.455E+00	2.576E+00	0.000E+00	NOT IDENT.
AS-73	-1.232E-01	1.954E+00	3.543E+00	0.000E+00	NOT IDENT.
AS-74	1.252E-02	9.634E-02	1.638E-01	0.000E+00	NOT IDENT.
SE-75	-4.235E-02	6.043E-02	8.884E-02	0.000E+00	NOT IDENT.
BR-77	3.912E+00	1.134E+01	1.975E+01	0.000E+00	FAIL ABUN
SR-82	2.286E-01	4.548E-01	7.159E-01	0.000E+00	NOT IDENT.
RB-83	1.625E-02	7.546E-02	1.269E-01	0.000E+00	NOT IDENT.
RB-84	-4.801E-03	7.356E-02	1.251E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	9.275E+00	1.614E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.759E-02	8.281E-02	0.000E+00	NOT IDENT.
RB-86	2.355E-01	9.639E-01	1.657E+00	0.000E+00	NOT IDENT.
Y-88	-3.493E-03	3.485E-02	5.709E-02	0.000E+00	NOT IDENT.
ZR-88	-1.996E-02	3.538E-02	5.920E-02	0.000E+00	NOT IDENT.
Y-91	1.537E+00	2.115E+01	3.551E+01	0.000E+00	NOT IDENT.
NB-94	-2.293E-03	3.910E-02	6.780E-02	0.000E+00	NOT IDENT.
NB-95	7.490E-02	5.444E-02	9.144E-02	0.000E+00	NOT IDENT.
NB-95M	2.662E-01	1.787E-01	2.941E-01	0.000E+00	NOT IDENT.
ZR-95	1.619E-02	7.601E-02	1.337E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.167E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.478E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	7.610E+00	1.359E+01	2.441E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.587E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.628E-02	4.001E-02	6.938E-02	0.000E+00	NOT IDENT.
RH-102	-1.250E-02	3.239E-02	5.390E-02	0.000E+00	NOT IDENT.
RU-103	-2.436E-02	4.464E-02	7.287E-02	0.000E+00	FAIL ABUN
RH-106	7.222E-02	3.482E-01	5.937E-01	0.000E+00	FAIL ABUN
RU-106	7.222E-02	3.481E-01	5.937E-01	0.000E+00	FAIL ABUN
AG-108M	-3.999E-03	3.585E-02	6.124E-02	0.000E+00	NOT IDENT.
AG-110M	-2.357E-02	3.920E-02	6.566E-02	0.000E+00	NOT IDENT.
IN-111	8.584E-01	1.357E+00	2.184E+00	0.000E+00	NOT IDENT.
IN-113M	-2.013E-02	5.229E-02	8.857E-02	0.000E+00	NOT IDENT.
SN-113	-2.013E-02	5.229E-02	8.857E-02	0.000E+00	NOT IDENT.
IN-114M	-1.158E-01	2.456E-01	3.552E-01	0.000E+00	NOT IDENT.
CD-115	1.833E+00	1.266E+01	2.172E+01	0.000E+00	NOT IDENT.
SN-117M	8.592E-03	6.778E-02	1.177E-01	0.000E+00	NOT IDENT.
SB-122	3.033E-01	2.326E+00	3.968E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.655E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.776E-02	3.484E-02	6.129E-02	0.000E+00	NOT IDENT.
I-124	3.108E-01	8.764E-01	1.316E+00	0.000E+00	FAIL ABUN
SB-124	-3.038E-02	7.892E-02	1.233E-01	0.000E+00	FAIL ABUN
SB-125	-9.635E-03	1.052E-01	1.802E-01	0.000E+00	FAIL ABUN
TE-125M	-1.093E+01	1.153E+01	1.948E+01	0.000E+00	NOT IDENT.
I-126	-4.954E-02	2.081E-01	3.578E-01	0.000E+00	NOT IDENT.
SB-126	3.796E-02	1.727E-01	2.749E-01	0.000E+00	FAIL ABUN
SB-127	-1.788E-02	1.290E+00	2.247E+00	0.000E+00	NOT IDENT.
XE-127	-4.199E-03	6.581E-02	9.735E-02	0.000E+00	NOT IDENT.
I-131	6.724E-02	1.249E-01	2.242E-01	0.000E+00	NOT IDENT.
TE-132	-5.372E-01	8.461E-01	1.469E+00	0.000E+00	NOT IDENT.
BA-133	2.128E-02	5.576E-02	8.676E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.053E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.444E-02	1.008E-01	0.000E+00	FAIL ABUN
CS-135	1.907E-01	2.182E-01	3.523E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.644E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.735E-02	1.168E-01	2.118E-01	0.000E+00	FAIL ABUN
BA-137M	-2.941E-03	4.302E-02	7.394E-02	0.000E+00	NOT IDENT.
CS-137	-3.108E-03	4.548E-02	7.816E-02	0.000E+00	NOT IDENT.
CE-139	-6.681E-03	3.510E-02	6.000E-02	0.000E+00	NOT IDENT.
BA-140	4.852E-02	3.017E-01	5.167E-01	0.000E+00	NOT IDENT.
LA-140	-6.738E-02	1.016E-01	1.561E-01	0.000E+00	FAIL ABUN
CE-141	-2.782E-02	7.414E-02	1.264E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.853E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.289E-01	2.490E-01	4.017E-01	0.000E+00	NOT IDENT.
PM-144	1.448E-02	4.057E-02	7.223E-02	0.000E+00	NOT IDENT.
PR-144	9.810E-01	2.749E+00	4.895E+00	0.000E+00	NOT IDENT.
PM-146	9.399E-03	5.196E-02	8.823E-02	0.000E+00	NOT IDENT.

ND-147	1.342E-01	6.100E-01	1.052E+00	0.000E+00	NOT IDENT.
PM-149	1.592E+00	1.128E+02	1.995E+02	0.000E+00	NOT IDENT.
EU-152	-1.455E-01	1.359E-01	1.880E-01	0.000E+00	FAIL ABUN
GD-153	1.081E-02	1.066E-01	1.662E-01	0.000E+00	NOT IDENT.
EU-154	4.319E-02	1.556E-01	2.647E-01	0.000E+00	NOT IDENT.
EU-155	1.063E-01	1.322E-01	2.390E-01	0.000E+00	FAIL ABUN
TB-160	1.503E-02	1.436E-01	2.480E-01	0.000E+00	FAIL ABUN
HO-166M	4.852E-02	6.746E-02	1.229E-01	0.000E+00	NOT IDENT.
TM-171	-1.287E+01	4.490E+01	7.922E+01	0.000E+00	NOT IDENT.
LU-176	-3.805E-03	2.897E-02	4.928E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.104E+00	2.482E+00	0.000E+00	FAIL ABUN
LU-177M	-9.890E-02	2.021E-01	3.385E-01	0.000E+00	NOT IDENT.
HF-181	-4.419E-02	4.894E-02	7.817E-02	0.000E+00	NOT IDENT.
W-181	4.165E-01	5.939E-01	1.080E+00	0.000E+00	NOT IDENT.
TA-182	6.658E-02	2.271E-01	3.876E-01	0.000E+00	FAIL ABUN
RE-183	2.537E-02	1.327E-01	2.307E-01	0.000E+00	FAIL ABUN
RE-184	1.032E-01	2.627E-01	4.753E-01	0.000E+00	NOT IDENT.
OS-185	2.264E-02	4.609E-02	8.019E-02	0.000E+00	NOT IDENT.
RE-188	3.119E-02	2.121E-01	3.689E-01	0.000E+00	NOT IDENT.
W-188	-1.022E+01	9.835E+00	1.390E+01	0.000E+00	NOT IDENT.
IR-192	-3.465E-02	4.128E-02	6.918E-02	0.000E+00	FAIL ABUN
AU-195	4.681E-03	2.789E-01	4.768E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.244E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-5.540E+00	8.439E+00	1.410E+01	0.000E+00	NOT IDENT.
TL-202	9.509E-02	7.947E-02	1.460E-01	0.000E+00	NOT IDENT.
BI-207	2.597E-02	5.278E-02	9.330E-02	0.000E+00	FAIL ABUN
TL-207	2.020E-01	8.488E-01	1.314E+00	0.000E+00	FAIL ABUN
PO-209	8.995E+00	8.583E+00	1.582E+01	0.000E+00	NOT IDENT.
BI-210	-1.317E+00	1.252E+01	2.243E+01	0.000E+00	NOT IDENT.
PB-210	-1.317E+00	1.252E+01	2.243E+01	0.000E+00	NOT IDENT.
PO-210	-1.317E+00	1.252E+01	2.243E+01	0.000E+00	NOT IDENT.
PB-211	7.875E-02	1.067E+00	1.851E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.552E-01	7.177E-01	0.000E+00	FAIL ABUN
PO-215	2.020E-01	8.488E-01	1.314E+00	0.000E+00	FAIL ABUN
RN-219	-2.576E-01	4.551E-01	7.571E-01	0.000E+00	FAIL ABUN
RN-220	-2.772E+01	2.896E+01	4.522E+01	0.000E+00	NOT IDENT.
RA-223	2.020E-01	8.488E-01	1.314E+00	0.000E+00	FAIL ABUN
AC-227	-4.705E-02	4.421E-01	7.826E-01	0.000E+00	FAIL ABUN
TH-227	-4.705E-02	4.421E-01	7.826E-01	0.000E+00	FAIL ABUN
TH-229	-2.583E-01	6.141E-01	1.029E+00	0.000E+00	FAIL ABUN
PA-231	-8.393E-01	2.068E+00	3.241E+00	0.000E+00	FAIL ABUN
TH-231	2.020E-01	8.488E-01	1.314E+00	0.000E+00	FAIL ABUN
U-231	2.396E-02	1.473E+00	2.289E+00	0.000E+00	FAIL ABUN
PA-233	5.875E-02	7.805E-02	1.417E-01	0.000E+00	FAIL ABUN
PA-234	-3.481E-01	3.304E-01	4.943E-01	0.000E+00	FAIL ABUN
PA-234M	2.085E+00	4.839E+00	8.496E+00	0.000E+00	NOT IDENT.
TH-234	3.536E-01	2.209E+00	3.997E+00	0.000E+00	FAIL ABUN
U-235	4.088E-02	2.491E-01	4.339E-01	0.000E+00	FAIL ABUN
NP-236	-4.712E-02	9.818E-02	1.661E-01	0.000E+00	FAIL ABUN
U-238	3.536E-01	2.209E+00	3.997E+00	0.000E+00	FAIL ABUN
NP-239	9.837E-02	2.289E-01	4.078E-01	0.000E+00	FAIL ABUN
AM-241	-2.465E-01	2.871E-01	5.009E-01	0.000E+00	NOT IDENT.
CM-243	1.124E-01	1.180E-01	2.144E-01	0.000E+00	FAIL ABUN
AM-246	1.105E-01	1.673E-01	2.974E-01	0.000E+00	NOT IDENT.
CM-247	-4.680E-03	4.086E-02	7.018E-02	0.000E+00	FAIL ABUN
CF-249	1.511E-02	4.686E-02	8.269E-02	0.000E+00	NOT IDENT.
CF-251	-1.113E-01	1.547E-01	2.569E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 18:22:47.26

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799007.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 16:22:05
Sample ID         : G245799007           Sample quantity  : 1.40453E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.32  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	990	10.67*	9.662E-01	2.567E+01	2.567E+01	12.21
CD-109	88.03	82	3.72*	4.465E+00	1.316E+00	1.346E+00	85.70
SN-126	64.28	------	9.60	1.941E+00	------ Line Not Found		------
	86.94	82	8.90	4.465E+00	5.499E-01	5.499E-01	94.76
	87.57	82	37.00*	4.465E+00	1.323E-01	1.323E-01	85.70
HG-203	70.83	------	4.75	2.755E+00	------ Line Not Found		------
	72.87	------	8.00	3.001E+00	------ Line Not Found		------
	82.60	------	3.55	4.041E+00	------ Line Not Found		------
	279.20	71	77.30*	3.699E+00	6.610E-02	8.290E-02	65.84
TL-208	277.35	71	6.80	3.699E+00	7.514E-01	7.514E-01	66.40
	510.84	150	21.60	2.419E+00	7.667E-01	7.667E-01	48.20
	583.14	364	84.20*	2.190E+00	5.270E-01	5.270E-01	18.18
	860.37	57	12.46	1.575E+00	7.715E-01	7.715E-01	66.43
BI-211	72.87	------	1.27	3.001E+00	------ Line Not Found		------
	351.07	575	12.94*	3.139E+00	3.781E+00	3.781E+00	16.77
PB-212	74.81	299	10.70	3.228E+00	2.311E+00	2.311E+00	35.75
	77.11	541	18.00	3.502E+00	2.295E+00	2.295E+00	20.78
	87.30	82	8.00	4.465E+00	6.118E-01	6.118E-01	86.28
	238.63	1106	44.60*	4.114E+00	1.611E+00	1.611E+00	14.32
	300.09	67	3.41	3.508E+00	1.499E+00	1.499E+00	72.09
PO-212	74.81	299	10.70	3.228E+00	2.311E+00	2.311E+00	35.75
	77.11	541	18.00	3.502E+00	2.295E+00	2.295E+00	20.78
	87.30	82	8.00	4.465E+00	6.118E-01	6.118E-01	86.28
	115.19	------	0.60	5.586E+00	------ Line Not Found		------
	238.63	1106	44.60*	4.114E+00	1.611E+00	1.611E+00	14.32
	300.09	67	3.41	3.508E+00	1.499E+00	1.499E+00	72.09
BI-214	609.31	407	46.30*	2.117E+00	1.110E+00	1.110E+00	19.28
	1120.29	98	15.10	1.227E+00	1.409E+00	1.409E+00	44.53
	1764.49	81	15.80	8.554E-01	1.604E+00	1.604E+00	29.74
PB-214	74.81	299	6.21	3.228E+00	3.983E+00	3.983E+00	35.29
	77.11	541	10.50	3.502E+00	3.935E+00	3.935E+00	22.14
	87.30	82	4.67	4.465E+00	1.048E+00	1.048E+00	86.04

Sample ID : G245799007 Acquisition date : 10-FEB-2010 16:22:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	315	7.49	4.077E+00	2.760E+00	2.760E+00	34.33
	295.21	375	19.20	3.547E+00	1.471E+00	1.471E+00	24.33
	351.92	575	37.20*	3.139E+00	1.315E+00	1.315E+00	17.56
PO-214	74.81	299	6.21	3.228E+00	3.983E+00	3.983E+00	35.29
	77.11	541	10.50	3.502E+00	3.935E+00	3.935E+00	22.14
	87.30	82	4.67	4.465E+00	1.048E+00	1.048E+00	86.04
	241.98	315	7.49	4.077E+00	2.760E+00	2.760E+00	34.33
	295.21	375	19.20	3.547E+00	1.471E+00	1.471E+00	24.33
	351.92	575	37.20*	3.139E+00	1.315E+00	1.315E+00	17.56
PO-216	74.81	299	10.70	3.228E+00	2.311E+00	2.311E+00	35.75
	77.11	541	18.00	3.502E+00	2.295E+00	2.295E+00	20.78
	87.30	82	8.00	4.465E+00	6.118E-01	6.118E-01	86.28
	238.63	1106	44.60*	4.114E+00	1.611E+00	1.611E+00	14.32
	300.09	67	3.41	3.508E+00	1.499E+00	1.499E+00	72.09
PO-218	74.81	299	6.21	3.228E+00	3.983E+00	3.983E+00	35.29
	77.11	541	10.50	3.502E+00	3.935E+00	3.935E+00	22.14
	87.30	82	4.67	4.465E+00	1.048E+00	1.048E+00	86.04
	241.98	315	7.49	4.077E+00	2.760E+00	2.760E+00	34.33
	295.21	375	19.20	3.547E+00	1.471E+00	1.471E+00	24.33
	351.92	575	37.20*	3.139E+00	1.315E+00	1.315E+00	17.56
RA-224	240.98	315	3.95*	4.077E+00	5.233E+00	5.233E+00	33.87
RA-226	609.31	407	46.30*	2.117E+00	1.110E+00	1.110E+00	19.28
	1120.29	98	15.10	1.227E+00	1.409E+00	1.409E+00	44.53
	1764.49	81	15.80	8.554E-01	1.604E+00	1.604E+00	29.74
AC-228	338.32	185	11.40	3.228E+00	1.346E+00	1.346E+00	55.81
	911.07	208	27.70*	1.494E+00	1.340E+00	1.340E+00	25.62
	969.11	121	16.60	1.409E+00	1.377E+00	1.377E+00	42.16
RA-228	338.32	185	11.40	3.228E+00	1.346E+00	1.346E+00	55.81
	911.07	208	27.70*	1.494E+00	1.340E+00	1.340E+00	25.62
	969.11	121	16.60	1.409E+00	1.377E+00	1.377E+00	42.16
TH-228	74.81	299	10.70	3.228E+00	2.311E+00	2.347E+00	34.53
	77.11	541	18.00	3.502E+00	2.295E+00	2.330E+00	20.78
	87.30	82	8.00	4.465E+00	6.118E-01	6.211E-01	85.70
	238.63	1106	44.60*	4.114E+00	1.611E+00	1.636E+00	14.32
	300.09	67	3.41	3.508E+00	1.499E+00	1.521E+00	92.75
TH-230	609.31	407	46.30*	2.117E+00	1.110E+00	1.110E+00	19.28
	1120.29	98	15.10	1.227E+00	1.409E+00	1.409E+00	44.53
	1764.49	81	15.80	8.554E-01	1.604E+00	1.604E+00	29.74
TH-232	338.32	185	11.40	3.228E+00	1.346E+00	1.346E+00	38.56
	911.07	208	27.70*	1.494E+00	1.340E+00	1.340E+00	25.62
	969.11	121	16.60	1.409E+00	1.377E+00	1.377E+00	42.16
U-234	609.31	407	46.30*	2.117E+00	1.110E+00	1.110E+00	19.28
	1120.29	98	15.10	1.227E+00	1.409E+00	1.409E+00	44.53
	1764.49	81	15.80	8.554E-01	1.604E+00	1.604E+00	29.74
NP-237	86.50	82	12.60*	4.465E+00	3.884E-01	3.884E-01	88.15
	95.87	------	2.60	5.004E+00	------ Line Not Found		------
AM-243	74.67	299	66.00*	3.228E+00	3.747E-01	3.747E-01	34.51
	86.72	82	0.34	4.465E+00	1.457E+01	1.457E+01	85.70
	117.66	------	0.55	5.611E+00	------ Line Not Found		------

Sample ID : G245799007 Acquisition date : 10-FEB-2010 16:22:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	5.525E+00	------	Line Not Found	------
ANH-511	511.00	150	100.00*	2.419E+00	1.656E-01	1.656E-01	47.47

Flag: "*" = Keyline

Sample ID : G245799007 Acquisition date : 10-FEB-2010 16:22:05

Total number of lines in spectrum 31
Number of unidentified lines 2
Number of lines tentatively identified by NID 29 93.55%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.567E+01	2.567E+01	0.313E+01	12.21	
CD-109	464.00D	1.02	1.316E+00	1.346E+00	1.153E+00	85.70	
SN-126	1.00E+05Y	1.00	1.323E-01	1.323E-01	1.134E-01	85.70	
HG-203	46.60D	1.25	6.610E-02	8.290E-02	5.458E-02	65.84	
TL-208	1.41E+10Y	1.00	5.270E-01	5.270E-01	0.958E-01	18.18	
BI-211	7.04E+08Y	1.00	3.781E+00	3.781E+00	0.634E+00	16.77	
PB-212	1.41E+10Y	1.00	1.611E+00	1.611E+00	0.231E+00	14.32	
PO-212	1.41E+10Y	1.00	1.611E+00	1.611E+00	0.231E+00	14.32	
BI-214	1600.00Y	1.00	1.110E+00	1.110E+00	0.214E+00	19.28	
PB-214	1600.00Y	1.00	1.315E+00	1.315E+00	0.231E+00	17.56	
PO-214	1600.00Y	1.00	1.315E+00	1.315E+00	0.231E+00	17.56	
PO-216	1.41E+10Y	1.00	1.611E+00	1.611E+00	0.231E+00	14.32	
PO-218	1600.00Y	1.00	1.315E+00	1.315E+00	0.231E+00	17.56	
RA-224	1.41E+10Y	1.00	5.233E+00	5.233E+00	1.772E+00	33.87	
RA-226	1600.00Y	1.00	1.110E+00	1.110E+00	0.214E+00	19.28	
AC-228	1.41E+10Y	1.00	1.340E+00	1.340E+00	0.343E+00	25.62	
RA-228	1.41E+10Y	1.00	1.340E+00	1.340E+00	0.343E+00	25.62	
TH-228	1.91Y	1.02	1.611E+00	1.636E+00	0.234E+00	14.32	
TH-230	4.47E+09Y	1.00	1.110E+00	1.110E+00	0.214E+00	19.28	
TH-232	1.41E+10Y	1.00	1.340E+00	1.340E+00	0.343E+00	25.62	
U-234	4.47E+09Y	1.00	1.110E+00	1.110E+00	0.214E+00	19.28	
NP-237	2.14E+06Y	1.00	3.884E-01	3.884E-01	3.424E-01	88.15	
AM-243	7380.00Y	1.00	3.747E-01	3.747E-01	1.293E-01	34.51	
ANH-511	1.00E+09Y	1.00	1.656E-01	1.656E-01	0.786E-01	47.47	
	Total Activity :		5.651E+01	5.658E+01			

Grand Total Activity : 5.651E+01 5.658E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799007 Acquisition date : 10-FEB-2010 16:22:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.26	153	649	1.46	185.44	180	10	2.12E-02	67.6	4.86E+00	T
0	185.97	279	426	1.63	370.85	363	14	3.88E-02	34.5	4.86E+00	T
0	209.80	99	391	1.34	418.50	411	12	1.37E-02	82.8	4.49E+00	T
0	271.45	37	268	1.64	541.81	534	10	5.19E-03	****	3.76E+00	T
0	329.15	50	189	1.15	657.20	652	11	6.94E-03	****	3.29E+00	T
0	464.41	114	143	0.84	927.72	918	18	1.59E-02	52.7	2.59E+00	T
0	727.86	72	84	1.51	1454.66	1449	15	9.95E-03	63.1	1.83E+00	T
0	769.40	61	94	3.05	1537.75	1530	17	8.40E-03	77.6	1.74E+00	
0	794.74	80	48	1.67	1588.44	1580	16	1.11E-02	44.7	1.69E+00	T
0	964.43	62	50	1.55	1927.87	1923	10	8.58E-03	49.9	1.42E+00	T
0	1510.18	25	9	3.06	3019.66	3009	16	3.53E-03	64.0	9.42E-01	T
0	1728.85	39	4	2.05	3457.16	3448	17	5.37E-03	40.4	8.64E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 18:22:52.90

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799007.CNF;1   *
* Acquisition date  : 10-FEB-2010 16:22:05  Detector SN#     :                *
* Detector ID       : GAM15                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.32          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245799007            Analyst initials: RXF2            *
* Batch Number      : 947531                Sample Quantity : 1.40453E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope       :                 *
* MSD ID           :                      MSD Isotope      :                 *
* LCS ID           : 1032-A               LCS Isotope      :                 *
*******************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.567E+01	3.134E+00	6.328E-01	6.218E-02	40.574
CD-109	1.346E+00	1.153E+00	1.869E+00	2.320E-01	0.720
SN-126	1.323E-01	1.134E-01	1.790E-01	2.215E-02	0.739
HG-203	8.290E-02	5.458E-02	7.981E-02	8.786E-03	1.039
TL-208	5.270E-01	9.582E-02	6.377E-02	5.839E-03	8.265
BI-211	3.781E+00	6.341E-01	3.991E-01	3.974E-02	9.473
PB-212	1.611E+00	2.307E-01	1.091E-01	1.299E-02	14.771
PO-212	1.611E+00	2.307E-01	1.091E-01	1.299E-02	14.771
BI-214	1.110E+00	2.140E-01	1.266E-01	1.256E-02	8.765
PB-214	1.315E+00	2.310E-01	1.344E-01	1.508E-02	9.788
PO-214	1.315E+00	2.310E-01	1.344E-01	1.508E-02	9.788
PO-216	1.611E+00	2.307E-01	1.091E-01	1.299E-02	14.771
PO-218	1.315E+00	2.310E-01	1.344E-01	1.508E-02	9.788
RA-224	5.233E+00	1.772E+00	1.241E+00	1.369E-01	4.217
RA-226	1.110E+00	2.140E-01	1.266E-01	1.256E-02	8.765
AC-228	1.340E+00	3.433E-01	2.460E-01	2.897E-02	5.448
RA-228	1.340E+00	3.433E-01	2.460E-01	2.897E-02	5.448
TH-228	1.636E+00	2.342E-01	1.107E-01	1.319E-02	14.771

Sample ID : G245799007 Acquisition date : 10-FEB-2010 16:22:05

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.110E+00	2.140E-01	1.266E-01	1.256E-02	8.765
TH-232	1.340E+00	3.433E-01	2.460E-01	2.897E-02	5.448
U-234	1.110E+00	2.140E-01	1.266E-01	1.256E-02	8.765
NP-237	3.884E-01	3.424E-01	5.238E-01	1.257E-01	0.742
AM-243	3.747E-01	1.293E-01	1.201E-01	1.382E-02	3.119
ANH-511	1.656E-01	7.861E-02	4.673E-02	4.038E-03	3.544

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.500E-01		3.679E-01	6.359E-01	5.912E-02	0.550
NA-22	1.297E-02		5.710E-02	9.418E-02	8.556E-03	0.138
NA-24	-3.651E-01		3.748E-01	Half-Life too short		
AL-26	-1.361E-02		3.469E-02	5.265E-02	4.504E-03	-0.258
TI-44	4.235E-01	+	8.803E-02	1.033E-01	1.203E-02	4.102
SC-46	-6.080E-03		4.371E-02	7.128E-02	6.624E-03	-0.085
V-48	2.254E-02		7.551E-02	1.276E-01	1.166E-02	0.177
CR-51	4.624E-02		4.350E-01	7.260E-01	7.709E-02	0.064
MN-52	4.680E-02		2.509E-01	4.286E-01	4.125E-02	0.109
MN-54	-2.407E-02		4.412E-02	6.999E-02	6.352E-03	-0.344
CO-56	-3.855E-03		4.127E-02	6.778E-02	6.185E-03	-0.057
CO-57	1.594E-02		2.982E-02	4.942E-02	4.978E-03	0.322
CO-58	-4.393E-02		4.314E-02	6.491E-02	5.836E-03	-0.677
FE-59	5.370E-02		1.016E-01	1.738E-01	1.622E-02	0.309
CO-60	-1.371E-02		4.485E-02	6.943E-02	6.675E-03	-0.197
ZN-65	1.718E-02		1.063E-01	1.519E-01	1.298E-02	0.113
GE-68	8.710E-01		1.485E+00	2.549E+00	2.231E-01	0.342
AS-73	-1.232E-01		1.994E+00	3.302E+00	4.287E-01	-0.037
AS-74	1.252E-02		9.830E-02	1.601E-01	1.360E-02	0.078
SE-75	-4.235E-02		6.167E-02	8.541E-02	9.365E-03	-0.496
BR-77	3.912E+00		1.157E+01	1.925E+01	1.663E+00	0.203
SR-82	2.286E-01		4.641E-01	7.036E-01	6.200E-02	0.325
RB-83	1.625E-02		7.700E-02	1.237E-01	1.068E-02	0.131
RB-84	-4.801E-03		7.506E-02	1.233E-01	1.142E-02	-0.039
KR-85	2.222E+01		9.464E+00	1.573E+01	1.359E+00	1.413
SR-85	1.140E-01		4.856E-02	8.069E-02	6.972E-03	1.413
RB-86	2.355E-01		9.835E-01	1.639E+00	1.436E-01	0.144
Y-88	-3.493E-03		3.556E-02	5.715E-02	4.814E-03	-0.061
ZR-88	-1.996E-02		3.611E-02	5.737E-02	4.829E-03	-0.348
Y-91	1.537E+00		2.158E+01	3.522E+01	2.970E+00	0.044
NB-94	-2.293E-03		3.990E-02	6.650E-02	5.614E-03	-0.034
NB-95	7.490E-02		5.555E-02	8.984E-02	7.871E-03	0.834
NB-95M	2.662E-01		1.824E-01	2.820E-01	3.394E-02	0.944
ZR-95	1.619E-02		7.756E-02	1.313E-01	1.258E-02	0.123
NB-97	-6.740E-02		5.954E-02	Half-Life too short		
ZR-97	5.501E+00		1.264E+00	Half-Life too short		
MO-99	7.610E+00		1.386E+01	2.396E+01	3.640E+00	0.318

Sample ID : G245799007 Acquisition date : 10-FEB-2010 16:22:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TC-99M	-2.737E+10		2.851E+10	Half-Life too short		
RH-101	1.628E-02		4.083E-02	6.632E-02	7.235E-03	0.245
RH-102	-1.250E-02		3.305E-02	5.244E-02	4.524E-03	-0.238
RU-103	-2.436E-02		4.555E-02	7.095E-02	1.006E-02	-0.343
RH-106	7.222E-02		3.553E-01	5.808E-01	7.677E-02	0.124
RU-106	7.222E-02		3.552E-01	5.808E-01	4.881E-02	0.124
AG-108M	-3.999E-03		3.658E-02	5.947E-02	5.294E-03	-0.067
AG-110M	-2.357E-02		4.000E-02	6.431E-02	5.473E-03	-0.366
IN-111	8.584E-01		1.384E+00	2.097E+00	2.311E-01	0.409
IN-113M	-2.013E-02		5.336E-02	8.583E-02	7.455E-03	-0.234
SN-113	-2.013E-02		5.336E-02	8.583E-02	7.455E-03	-0.234
IN-114M	-1.158E-01		2.506E-01	3.392E-01	3.683E-02	-0.341
CD-115	1.833E+00		1.292E+01	2.118E+01	1.828E+00	0.087
SN-117M	8.592E-03		6.916E-02	1.120E-01	1.174E-02	0.077
SB-122	3.033E-01		2.373E+00	3.874E+00	3.323E-01	0.078
I-123	3.903E+00		3.906E+00	Half-Life too short		
TE-123M	1.776E-02		3.555E-02	5.833E-02	6.147E-03	0.304
I-124	3.108E-01		8.943E-01	1.287E+00	1.090E-01	0.242
SB-124	-3.038E-02		8.053E-02	1.232E-01	1.158E-02	-0.247
SB-125	-9.635E-03		1.073E-01	1.749E-01	1.523E-02	-0.055
TE-125M	-1.093E+01		1.176E+01	1.840E+01	2.161E+00	-0.594
I-126	-4.954E-02		2.123E-01	3.505E-01	2.891E-02	-0.141
SB-126	3.796E-02		1.762E-01	2.698E-01	2.303E-02	0.141
SB-127	-1.788E-02		1.316E+00	2.203E+00	2.467E-01	-0.008
XE-127	-4.199E-03		6.715E-02	9.309E-02	1.018E-02	-0.045
I-131	6.724E-02		1.275E-01	2.169E-01	2.095E-02	0.310
TE-132	-5.372E-01		8.634E-01	1.408E+00	2.418E-01	-0.381
BA-133	2.128E-02		5.690E-02	8.391E-02	1.154E-02	0.254
I-133	-2.412E-03		3.598E-03	Half-Life too short		
CS-134	1.668E-01	+	7.596E-02	9.915E-02	8.887E-03	1.682
CS-135	1.907E-01		2.227E-01	3.388E-01	4.065E-02	0.563
I-135	-4.981E+07		3.390E+09	Half-Life too short		
CS-136	9.735E-02		1.192E-01	2.094E-01	1.938E-02	0.465
BA-137M	-2.941E-03		4.390E-02	7.243E-02	5.955E-03	-0.041
CS-137	-3.108E-03		4.641E-02	7.656E-02	6.308E-03	-0.041
CE-139	-6.681E-03		3.581E-02	5.715E-02	6.100E-03	-0.117
BA-140	4.852E-02		3.078E-01	5.039E-01	1.670E-01	0.096
LA-140	-6.738E-02		1.036E-01	1.558E-01	1.460E-02	-0.433
CE-141	-2.782E-02		7.566E-02	1.200E-01	1.241E-02	-0.232
CE-143	8.858E-04		1.455E-04	Half-Life too short		
CE-144	-3.289E-01		2.541E-01	3.810E-01	6.249E-02	-0.863
PM-144	1.448E-02		4.140E-02	7.083E-02	5.959E-03	0.204
PR-144	9.810E-01		2.805E+00	4.800E+00	4.036E-01	0.204
PM-146	9.399E-03		5.302E-02	8.576E-02	9.183E-03	0.110
ND-147	1.342E-01		6.224E-01	1.026E+00	1.534E-01	0.131
PM-149	1.592E+00		1.151E+02	1.921E+02	3.229E+01	0.008
EU-152	-1.455E-01		1.387E-01	1.817E-01	1.850E-02	-0.801
GD-153	1.081E-02		1.088E-01	1.567E-01	1.729E-02	0.069

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154	4.319E-02		1.588E-01	2.629E-01	3.066E-02	0.164
EU-155	1.063E-01		1.349E-01	2.257E-01	2.378E-02	0.471
TB-160	1.503E-02		1.465E-01	2.444E-01	2.262E-02	0.061
HO-166M	4.852E-02		6.884E-02	1.206E-01	1.024E-02	0.402
TM-171	-1.287E+01		4.581E+01	7.414E+01	8.462E+00	-0.174
LU-176	-3.805E-03		2.956E-02	4.752E-02	4.969E-03	-0.080
LU-177	2.572E+00	+	2.147E+00	2.375E+00	2.605E-01	1.083
LU-177M	-9.890E-02		2.063E-01	3.284E-01	2.790E-02	-0.301
HF-181	-4.419E-02		4.994E-02	7.607E-02	6.568E-03	-0.581
W-181	4.165E-01		6.060E-01	1.011E+00	1.154E-01	0.412
TA-182	6.658E-02		2.317E-01	3.846E-01	3.301E-02	0.173
RE-183	2.537E-02		1.355E-01	2.197E-01	2.324E-02	0.115
RE-184	1.032E-01		2.680E-01	4.565E-01	5.020E-02	0.226
OS-185	2.264E-02		4.703E-02	7.851E-02	6.515E-03	0.288
RE-188	3.119E-02		2.164E-01	3.509E-01	3.649E-02	0.089
W-188	-1.022E+01		1.004E+01	1.339E+01	1.431E+00	-0.763
IR-192	-3.465E-02		4.212E-02	6.675E-02	6.882E-03	-0.519
AU-195	4.681E-03		2.846E-01	4.496E-01	4.901E-02	0.010
TL-200	-2.262E-05		2.676E-04	Half-Life too short		
TL-201	-5.540E+00		8.612E+00	1.344E+01	1.436E+00	-0.412
TL-202	9.509E-02		8.109E-02	1.418E-01	1.215E-02	0.671
BI-207	2.597E-02		5.385E-02	9.231E-02	8.144E-03	0.281
TL-207	2.020E-01		8.661E-01	1.269E+00	2.347E-01	0.159
PO-209	8.995E+00		8.759E+00	1.560E+01	1.454E+00	0.577
BI-210	-1.317E+00		1.277E+01	2.085E+01	2.567E+00	-0.063
PB-210	-1.317E+00		1.277E+01	2.085E+01	2.567E+00	-0.063
PO-210	-1.317E+00		1.277E+01	2.085E+01	2.432E+00	-0.063
PB-211	7.875E-02		1.089E+00	1.795E+00	1.125E+00	0.044
BI-212	8.870E-01	+	5.666E-01	7.045E-01	7.020E-02	1.259
PO-215	2.020E-01		8.661E-01	1.269E+00	2.347E-01	0.159
RN-219	-2.576E-01		4.644E-01	7.341E-01	1.096E-01	-0.351
RN-220	-2.772E+01		2.955E+01	4.413E+01	3.797E+00	-0.628
RA-223	2.020E-01		8.661E-01	1.269E+00	2.347E-01	0.159
AC-227	-4.705E-02		4.511E-01	7.519E-01	1.262E-01	-0.063
TH-227	-4.705E-02		4.512E-01	7.519E-01	1.451E-01	-0.063
TH-229	-2.583E-01		6.266E-01	9.832E-01	1.070E-01	-0.263
PA-231	-8.393E-01		2.110E+00	3.120E+00	5.147E-01	-0.269
TH-231	2.020E-01		8.661E-01	1.269E+00	2.347E-01	0.159
U-231	2.396E-02		1.504E+00	2.157E+00	2.417E-01	0.011
PA-233	5.875E-02		7.965E-02	1.366E-01	1.445E-02	0.430
PA-234	-3.481E-01		3.372E-01	4.879E-01	9.297E-02	-0.714
PA-234M	2.085E+00		4.938E+00	8.395E+00	8.705E-01	0.248
TH-234	3.536E-01		2.254E+00	3.737E+00	7.280E-01	0.095
U-235	4.088E-02		2.541E-01	4.121E-01	7.551E-02	0.099
NP-236	-4.712E-02		1.002E-01	1.581E-01	1.665E-02	-0.298
U-238	3.536E-01		2.254E+00	3.737E+00	7.280E-01	0.095
NP-239	9.837E-02		2.335E-01	3.858E-01	3.894E-02	0.255
AM-241	-2.465E-01		2.930E-01	4.678E-01	5.491E-02	-0.527

Sample ID : G245799007 Acquisition date : 10-FEB-2010 16:22:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.124E-01		1.204E-01	2.023E-01	2.132E-02	0.556
AM-246	1.105E-01		1.707E-01	2.943E-01	2.574E-02	0.376
CM-247	-4.680E-03		4.169E-02	6.805E-02	5.755E-03	-0.069
CF-249	1.511E-02		4.782E-02	8.012E-02	6.835E-03	0.189
CF-251	-1.113E-01		1.579E-01	2.450E-01	2.635E-02	-0.454

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799007           *
* Acquisition date  : 10-FEB-2010 16:22:05 Detector SN#    :                *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.32      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799007           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.4045E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.567E+01	3.071E+00	3.178E-01	1.567E+00
CD-109	1.346E+00	1.130E+00	9.936E-01	5.767E-01
SN-126	1.323E-01	1.111E-01	9.521E-02	5.668E-02
HG-203	8.290E-02	5.349E-02	4.149E-02	2.729E-02
TL-208	5.270E-01	9.390E-02	3.265E-02	4.791E-02
BI-211	3.781E+00	6.214E-01	2.065E-01	3.170E-01
PB-212	1.611E+00	2.260E-01	5.688E-02	1.153E-01
PO-212	1.611E+00	2.260E-01	5.688E-02	1.153E-01
BI-214	1.110E+00	2.097E-01	6.479E-02	1.070E-01
PB-214	1.315E+00	2.264E-01	6.953E-02	1.155E-01
PO-214	1.315E+00	2.264E-01	6.953E-02	1.155E-01
PO-216	1.611E+00	2.260E-01	5.688E-02	1.153E-01
PO-218	1.315E+00	2.264E-01	6.953E-02	1.155E-01
RA-224	5.233E+00	1.737E+00	6.470E-01	8.862E-01
RA-226	1.110E+00	2.097E-01	6.479E-02	1.070E-01
AC-228	1.340E+00	3.364E-01	1.248E-01	1.716E-01
RA-228	1.340E+00	3.364E-01	1.248E-01	1.716E-01
TH-228	1.636E+00	2.295E-01	5.775E-02	1.171E-01
TH-230	1.110E+00	2.097E-01	6.479E-02	1.070E-01
TH-232	1.340E+00	3.364E-01	1.248E-01	1.716E-01
U-234	1.110E+00	2.097E-01	6.479E-02	1.070E-01
NP-237	3.884E-01	3.355E-01	2.786E-01	1.712E-01
AM-243	3.747E-01	1.267E-01	6.409E-02	6.466E-02
ANH-511	1.656E-01	7.704E-02	2.400E-02	3.931E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.500E-01	3.606E-01	3.270E-01	1.840E-01	NOT IDENT.
NA-22	1.297E-02	5.596E-02	4.744E-02	2.855E-02	NOT IDENT.
NA-24	-3.651E+05	7.347E+05	0.000E+00	3.748E+05	SHORT HLIF

AL-26	-1.361E-02	3.399E-02	2.632E-02	1.734E-02	NOT IDENT.
TI-44	4.235E-01	8.627E-02	5.503E-02	4.402E-02	FAIL ABUN
SC-46	-6.080E-03	4.283E-02	3.618E-02	2.185E-02	FAIL ABUN
V-48	2.254E-02	7.400E-02	6.461E-02	3.775E-02	NOT IDENT.
CR-51	4.624E-02	4.263E-01	3.764E-01	2.175E-01	NOT IDENT.
MN-52	4.680E-02	2.459E-01	2.153E-01	1.254E-01	NOT IDENT.
MN-54	-2.407E-02	4.324E-02	3.558E-02	2.206E-02	NOT IDENT.
CO-56	-3.855E-03	4.045E-02	3.444E-02	2.064E-02	NOT IDENT.
CO-57	1.594E-02	2.922E-02	2.611E-02	1.491E-02	NOT IDENT.
CO-58	-4.393E-02	4.228E-02	3.301E-02	2.157E-02	NOT IDENT.
FE-59	5.370E-02	9.956E-02	8.784E-02	5.079E-02	NOT IDENT.
CO-60	-1.371E-02	4.395E-02	3.494E-02	2.243E-02	NOT IDENT.
ZN-65	1.718E-02	1.042E-01	7.675E-02	5.317E-02	NOT IDENT.
GE-68	8.710E-01	1.455E+00	1.289E+00	7.425E-01	NOT IDENT.
AS-73	-1.232E-01	1.954E+00	1.772E+00	9.970E-01	NOT IDENT.
AS-74	1.252E-02	9.634E-02	8.197E-02	4.915E-02	NOT IDENT.
SE-75	-4.235E-02	6.043E-02	4.444E-02	3.083E-02	NOT IDENT.
BR-77	3.912E+00	1.134E+01	9.883E+00	5.784E+00	FAIL ABUN
SR-82	2.286E-01	4.548E-01	3.582E-01	2.320E-01	NOT IDENT.
RB-83	1.625E-02	7.546E-02	6.349E-02	3.850E-02	NOT IDENT.
RB-84	-4.801E-03	7.356E-02	6.260E-02	3.753E-02	NOT IDENT.
KR-85	2.222E+01	9.275E+00	8.075E+00	4.732E+00	NOT IDENT.
SR-85	1.140E-01	4.759E-02	4.143E-02	2.428E-02	NOT IDENT.
RB-86	2.355E-01	9.639E-01	8.288E-01	4.918E-01	NOT IDENT.
Y-88	-3.493E-03	3.485E-02	2.856E-02	1.778E-02	NOT IDENT.
ZR-88	-1.996E-02	3.538E-02	2.962E-02	1.805E-02	NOT IDENT.
Y-91	1.537E+00	2.115E+01	1.776E+01	1.079E+01	NOT IDENT.
NB-94	-2.293E-03	3.910E-02	3.392E-02	1.995E-02	NOT IDENT.
NB-95	7.490E-02	5.444E-02	4.575E-02	2.778E-02	NOT IDENT.
NB-95M	2.662E-01	1.787E-01	1.471E-01	9.119E-02	NOT IDENT.
ZR-95	1.619E-02	7.601E-02	6.689E-02	3.878E-02	NOT IDENT.
NB-97	-6.740E+04	1.167E+05	0.000E+00	5.954E+04	SHORT HLIF
ZR-97	5.501E+06	2.478E+06	0.000E+00	1.264E+06	SHORT HLIF
MO-99	7.610E+00	1.359E+01	1.221E+01	6.932E+00	NOT IDENT.
TC-99M	-2.737E+16	5.587E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.628E-02	4.001E-02	3.471E-02	2.041E-02	NOT IDENT.
RH-102	-1.250E-02	3.239E-02	2.696E-02	1.653E-02	NOT IDENT.
RU-103	-2.436E-02	4.464E-02	3.645E-02	2.277E-02	FAIL ABUN
RH-106	7.222E-02	3.482E-01	2.970E-01	1.776E-01	FAIL ABUN
RU-106	7.222E-02	3.481E-01	2.970E-01	1.776E-01	FAIL ABUN
AG-108M	-3.999E-03	3.585E-02	3.064E-02	1.829E-02	NOT IDENT.
AG-110M	-2.357E-02	3.920E-02	3.285E-02	2.000E-02	NOT IDENT.
IN-111	8.584E-01	1.357E+00	1.093E+00	6.922E-01	NOT IDENT.
IN-113M	-2.013E-02	5.229E-02	4.431E-02	2.668E-02	NOT IDENT.
SN-113	-2.013E-02	5.229E-02	4.431E-02	2.668E-02	NOT IDENT.
IN-114M	-1.158E-01	2.456E-01	1.777E-01	1.253E-01	NOT IDENT.
CD-115	1.833E+00	1.266E+01	1.087E+01	6.461E+00	NOT IDENT.
SN-117M	8.592E-03	6.778E-02	5.887E-02	3.458E-02	NOT IDENT.
SB-122	3.033E-01	2.326E+00	1.985E+00	1.187E+00	NOT IDENT.
I-123	3.903E+06	7.655E+06	0.000E+00	3.906E+06	SHORT HLIF
TE-123M	1.776E-02	3.484E-02	3.066E-02	1.778E-02	NOT IDENT.
I-124	3.108E-01	8.764E-01	6.584E-01	4.471E-01	FAIL ABUN
SB-124	-3.038E-02	7.892E-02	6.170E-02	4.026E-02	FAIL ABUN
SB-125	-9.635E-03	1.052E-01	9.015E-02	5.367E-02	FAIL ABUN
TE-125M	-1.093E+01	1.153E+01	9.745E+00	5.882E+00	NOT IDENT.
I-126	-4.954E-02	2.081E-01	1.790E-01	1.061E-01	NOT IDENT.
SB-126	3.796E-02	1.727E-01	1.375E-01	8.809E-02	FAIL ABUN
SB-127	-1.788E-02	1.290E+00	1.124E+00	6.582E-01	NOT IDENT.
XE-127	-4.199E-03	6.581E-02	4.870E-02	3.357E-02	NOT IDENT.
I-131	6.724E-02	1.249E-01	1.122E-01	6.375E-02	NOT IDENT.
TE-132	-5.372E-01	8.461E-01	7.351E-01	4.317E-01	NOT IDENT.
BA-133	2.128E-02	5.576E-02	4.340E-02	2.845E-02	NOT IDENT.
I-133	-2.412E+03	7.053E+03	0.000E+00	3.598E+03	SHORT HLIF
CS-134	1.668E-01	7.444E-02	5.044E-02	3.798E-02	FAIL ABUN
CS-135	1.907E-01	2.182E-01	1.763E-01	1.113E-01	NOT IDENT.
I-135	-4.981E+13	6.644E+15	0.000E+00	3.390E+15	SHORT HLIF
CS-136	9.735E-02	1.168E-01	1.059E-01	5.958E-02	FAIL ABUN
BA-137M	-2.941E-03	4.302E-02	3.699E-02	2.195E-02	NOT IDENT.
CS-137	-3.108E-03	4.548E-02	3.910E-02	2.320E-02	NOT IDENT.
CE-139	-6.681E-03	3.510E-02	3.002E-02	1.791E-02	NOT IDENT.
BA-140	4.852E-02	3.017E-01	2.585E-01	1.539E-01	NOT IDENT.
LA-140	-6.738E-02	1.016E-01	7.808E-02	5.182E-02	FAIL ABUN
CE-141	-2.782E-02	7.414E-02	6.321E-02	3.783E-02	NOT IDENT.
CE-143	8.858E+02	2.853E+02	0.000E+00	1.455E+02	SHORT HLIF
CE-144	-3.289E-01	2.490E-01	2.010E-01	1.270E-01	NOT IDENT.
PM-144	1.448E-02	4.057E-02	3.614E-02	2.070E-02	NOT IDENT.
PR-144	9.810E-01	2.749E+00	2.449E+00	1.403E+00	NOT IDENT.
PM-146	9.399E-03	5.196E-02	4.414E-02	2.651E-02	NOT IDENT.

ND-147	1.342E-01	6.100E-01	5.262E-01	3.112E-01	NOT IDENT.
PM-149	1.592E+00	1.128E+02	9.979E+01	5.755E+01	NOT IDENT.
EU-152	-1.455E-01	1.359E-01	9.406E-02	6.934E-02	FAIL ABUN
GD-153	1.081E-02	1.066E-01	8.314E-02	5.438E-02	NOT IDENT.
EU-154	4.319E-02	1.556E-01	1.324E-01	7.939E-02	NOT IDENT.
EU-155	1.063E-01	1.322E-01	1.196E-01	6.743E-02	FAIL ABUN
TB-160	1.503E-02	1.436E-01	1.241E-01	7.324E-02	FAIL ABUN
HO-166M	4.852E-02	6.746E-02	6.149E-02	3.442E-02	NOT IDENT.
TM-171	-1.287E+01	4.490E+01	3.963E+01	2.291E+01	NOT IDENT.
LU-176	-3.805E-03	2.897E-02	2.466E-02	1.478E-02	FAIL ABUN
LU-177	2.572E+00	2.104E+00	1.242E+00	1.074E+00	FAIL ABUN
LU-177M	-9.890E-02	2.021E-01	1.693E-01	1.031E-01	NOT IDENT.
HF-181	-4.419E-02	4.894E-02	3.911E-02	2.497E-02	NOT IDENT.
W-181	4.165E-01	5.939E-01	5.405E-01	3.030E-01	NOT IDENT.
TA-182	6.658E-02	2.271E-01	1.939E-01	1.158E-01	FAIL ABUN
RE-183	2.537E-02	1.327E-01	1.154E-01	6.773E-02	FAIL ABUN
RE-184	1.032E-01	2.627E-01	2.378E-01	1.340E-01	NOT IDENT.
OS-185	2.264E-02	4.609E-02	4.012E-02	2.352E-02	NOT IDENT.
RE-188	3.119E-02	2.121E-01	1.845E-01	1.082E-01	NOT IDENT.
W-188	-1.022E+01	9.835E+00	6.956E+00	5.018E+00	NOT IDENT.
IR-192	-3.465E-02	4.128E-02	3.461E-02	2.106E-02	FAIL ABUN
AU-195	4.681E-03	2.789E-01	2.386E-01	1.423E-01	FAIL ABUN
TL-200	-2.262E+01	5.244E+02	0.000E+00	2.676E+02	SHORT HLIF
TL-201	-5.540E+00	8.439E+00	7.056E+00	4.306E+00	NOT IDENT.
TL-202	9.509E-02	7.947E-02	7.304E-02	4.055E-02	NOT IDENT.
BI-207	2.597E-02	5.278E-02	4.668E-02	2.693E-02	FAIL ABUN
TL-207	2.020E-01	8.488E-01	6.574E-01	4.331E-01	FAIL ABUN
PO-209	8.995E+00	8.583E+00	7.916E+00	4.379E+00	NOT IDENT.
BI-210	-1.317E+00	1.252E+01	1.122E+01	6.387E+00	NOT IDENT.
PB-210	-1.317E+00	1.252E+01	1.122E+01	6.387E+00	NOT IDENT.
PO-210	-1.317E+00	1.252E+01	1.122E+01	6.387E+00	NOT IDENT.
PB-211	7.875E-02	1.067E+00	9.262E-01	5.445E-01	NOT IDENT.
BI-212	8.870E-01	5.552E-01	3.591E-01	2.833E-01	FAIL ABUN
PO-215	2.020E-01	8.488E-01	6.574E-01	4.331E-01	FAIL ABUN
RN-219	-2.576E-01	4.551E-01	3.788E-01	2.322E-01	FAIL ABUN
RN-220	-2.772E+01	2.896E+01	2.262E+01	1.478E+01	NOT IDENT.
RA-223	2.020E-01	8.488E-01	6.574E-01	4.331E-01	FAIL ABUN
AC-227	-4.705E-02	4.421E-01	3.915E-01	2.256E-01	FAIL ABUN
TH-227	-4.705E-02	4.421E-01	3.915E-01	2.256E-01	FAIL ABUN
TH-229	-2.583E-01	6.141E-01	5.149E-01	3.133E-01	FAIL ABUN
PA-231	-8.393E-01	2.068E+00	1.621E+00	1.055E+00	FAIL ABUN
TH-231	2.020E-01	8.488E-01	6.574E-01	4.331E-01	FAIL ABUN
U-231	2.396E-02	1.473E+00	1.145E+00	7.518E-01	FAIL ABUN
PA-233	5.875E-02	7.805E-02	7.087E-02	3.982E-02	FAIL ABUN
PA-234	-3.481E-01	3.304E-01	2.473E-01	1.686E-01	FAIL ABUN
PA-234M	2.085E+00	4.839E+00	4.251E+00	2.469E+00	NOT IDENT.
TH-234	3.536E-01	2.209E+00	2.000E+00	1.127E+00	FAIL ABUN
U-235	4.088E-02	2.491E-01	2.171E-01	1.271E-01	FAIL ABUN
NP-236	-4.712E-02	9.818E-02	8.311E-02	5.009E-02	FAIL ABUN
U-238	3.536E-01	2.209E+00	2.000E+00	1.127E+00	FAIL ABUN
NP-239	9.837E-02	2.289E-01	2.040E-01	1.168E-01	FAIL ABUN
AM-241	-2.465E-01	2.871E-01	2.506E-01	1.465E-01	NOT IDENT.
CM-243	1.124E-01	1.180E-01	1.072E-01	6.018E-02	FAIL ABUN
AM-246	1.105E-01	1.673E-01	1.488E-01	8.536E-02	NOT IDENT.
CM-247	-4.680E-03	4.086E-02	3.511E-02	2.085E-02	FAIL ABUN
CF-249	1.511E-02	4.686E-02	4.137E-02	2.391E-02	NOT IDENT.
CF-251	-1.113E-01	1.547E-01	1.286E-01	7.893E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	307.2285
46.50	307.2285
46.50	307.2285
48.70	337.9937
49.72	334.7506
51.35	295.3801
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52.97	318.2787
53.15	318.3715
53.44	319.4828
54.07	316.9159
56.28	321.8894
56.28	321.8913
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57.53	324.4530
57.53	324.4539
57.60	324.4878
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57.98	330.4927
59.32	361.2747
59.32	361.2747
59.40	388.5147
59.54	388.5963
59.72	388.7024
60.01	401.5101
61.10	400.2180
61.14	400.2415
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63.00	392.5524
63.29	394.6719
63.29	394.6719
63.58	413.4079
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65.12	396.6963
65.20	396.7422
65.20	396.7422
66.05	427.6278
66.72	441.7774
66.83	444.3718
66.91	444.4227
67.20	444.6040
67.20	444.6040
67.75	443.0732
67.85	410.6226
68.90	412.7987
68.90	412.7987
69.30	431.9430
69.67	432.1654
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74.81	419.8809
74.97	419.9696
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75.70	420.3714
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77.11	421.1443

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77.11	421.1443
77.11	421.1443
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83.78	463.1953
83.78	463.1953
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84.90	524.4264
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86.50	541.1057
86.54	541.1303
86.59	541.1631
86.72	541.2491
86.79	544.1714
86.94	549.6478
87.30	529.1802
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88.47	638.1695
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91.11	632.0599
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92.38	469.5313
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94.00	346.3616
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94.67	377.5480
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94.90	397.1806
94.90	397.1806
94.90	397.1806
95.87	387.8424
95.87	387.8424
96.73	360.4914
97.43	362.4072
98.44	384.0623
98.44	384.0638
98.88	366.7326
99.55	362.0389
99.55	362.0389
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100.00	353.0109
100.10	353.0504
103.18	390.1805
103.76	347.2744
105.00	364.1996
105.31	361.2337
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109.28	420.6332

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111.00	350.9839
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117.00	350.0158
117.00	350.0158
117.66	356.5022
121.11	343.0822
121.62	336.9746
121.78	324.4674
122.06	311.9938
122.32	328.8278
122.32	328.8278
122.32	328.8278
122.32	328.8278
123.07	350.0283
127.23	343.0179
129.76	333.2939
131.20	367.5437
133.02	433.7607
133.54	391.6317
135.34	341.3905
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136.25	354.4087
136.48	337.5014
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140.51	0.0000
142.18	339.2409
142.65	346.8523
143.76	333.3067
144.24	329.1722
144.24	329.1722
144.24	329.1722
144.24	329.1722
145.22	327.3172
145.44	338.0789
147.16	339.6615
152.43	326.1379
152.70	339.1311
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154.21	344.9561
154.21	344.9561
155.03	371.0850
156.02	376.7928
158.56	353.7918
159.00	0.0000
159.00	338.7665
160.31	368.3887
161.27	349.1634
162.32	337.5249
162.64	324.5858
163.35	335.6372
163.89	322.7455
165.85	324.3460
167.43	336.7476
171.28	286.4046
171.86	294.1921
172.10	282.2151
176.55	332.5945
176.60	342.4878
181.06	315.4678
184.41	301.4743
185.71	301.7701
186.00	301.8346
190.27	308.7863
192.34	282.8939
193.63	316.8894
197.04	297.6128
198.01	304.5152
198.60	307.9921
200.40	321.7983
201.83	325.9628
202.84	311.6133
205.31	317.5413

208.36	311.2552
208.81	311.3524
209.75	287.9355
209.75	287.9355
210.97	277.6732
215.65	283.4627
216.55	289.2871
218.09	263.3458
222.10	286.7434
223.80	280.7102
226.40	255.7145
227.00	272.2024
227.08	298.6213
227.20	298.6433
228.16	305.2111
228.18	305.2152
228.18	305.2152
231.56	0.0000
235.69	311.2897
236.00	311.3519
236.00	311.3519
238.63	259.5917
238.63	259.5917
238.63	259.5917
238.63	259.5917
239.00	259.6522
240.98	259.9803
241.98	260.1461
241.98	260.1461
241.98	260.1461
244.69	202.5802
245.39	207.2749
247.94	216.8328
248.90	212.3457
249.79	229.6191
252.40	201.7045
252.85	205.4625
252.85	205.4625
254.15	0.0000
256.20	227.2142
256.20	227.2142
260.50	214.7917
260.90	220.4227
262.80	250.3667
264.65	240.8063
268.24	230.4220
268.79	232.0547
269.46	230.5876
269.46	230.5876
269.46	230.5876
269.46	230.5876
271.23	240.1864
273.65	215.5380
276.40	234.6558
277.35	236.3492
277.60	236.6991
277.60	236.6991
278.00	237.6909
278.60	236.8345
279.20	213.1004
279.53	184.9296
280.46	196.0068
281.68	197.7133
283.67	232.9454
284.30	234.5453
285.00	242.1070
285.90	216.1215
286.10	212.3685
286.10	212.3685
287.40	172.3814
288.45	0.0000
290.67	222.3808
290.80	222.3980
291.72	209.8879
293.26	0.0000
293.70	186.4228
295.21	186.5789
295.21	186.5789

295.21	186.5789
295.96	218.2922
296.50	218.3596
297.23	218.4467
298.57	218.6095
299.80	204.4888
299.80	204.4888
300.09	198.1812
300.09	198.1812
300.09	198.1812
300.09	198.1812
300.12	198.1837
301.29	176.1000
302.84	181.0126
303.76	182.6940
303.91	182.7080
304.40	185.9355
304.40	185.9355
304.84	168.4954
306.84	179.2852
308.46	211.1910
311.98	180.9527
316.51	201.5457
318.01	197.8626
319.02	186.4361
319.41	166.2908
320.08	169.2324
323.87	163.7889
323.87	163.7889
323.87	163.7889
323.87	163.7889
325.23	196.0434
328.77	171.9356
333.44	169.4437
334.20	169.5099
334.20	169.5099
334.30	150.1449
338.28	176.6569
338.28	176.6569
338.28	176.6569
338.28	176.6569
338.32	176.6613
338.32	176.6613
338.32	176.6613
340.50	173.2916
340.57	173.2981
344.27	197.9621
345.85	201.3663
350.59	0.0000
351.07	170.9540
351.92	159.6248
351.92	159.6248
351.92	159.6248
355.39	0.0000
356.01	143.6248
364.48	119.9642
366.43	137.7920
367.43	142.7822
367.94	0.0000
369.80	144.9167
374.96	144.2837
383.85	136.9488
387.95	145.1641
388.63	143.2195
391.69	155.3735
391.69	155.3735
392.90	151.4749
398.62	132.8864
400.65	146.0089
401.10	142.0381
401.81	139.0814
402.60	133.1266
404.84	140.2751
410.95	129.6063
411.60	128.6391
413.65	145.8567
414.70	141.8985
415.30	125.8301

415.76	108.7396
417.63	0.0000
418.52	143.1458
423.70	105.0766
427.08	125.4683
427.89	128.5487
432.53	105.4790
433.93	115.6908
439.47	103.7581
439.56	103.7618
439.89	104.7929
443.98	123.3204
444.90	140.7004
445.03	140.7088
445.03	140.7088
445.03	140.7088
445.03	140.7088
453.90	117.6925
463.38	99.6606
468.07	66.9106
473.00	112.3143
475.06	113.5543
475.35	106.3407
476.78	88.8408
477.59	95.0693
477.96	101.2850
482.03	126.2950
484.57	104.6605
487.03	98.5393
490.36	0.0000
492.35	101.8652
497.08	107.2598
507.63	0.0000
510.53	0.0000
510.84	82.7065
511.00	82.7113
511.85	82.7378
511.85	82.7378
513.99	87.3479
513.99	87.3479
520.41	87.5610
520.65	86.1681
527.90	101.1539
528.96	0.0000
529.64	100.1675
529.87	0.0000
531.02	88.6143
537.32	102.5676
543.00	104.9023
546.56	0.0000
549.76	106.2231
552.65	85.0684
555.20	85.1465
563.23	91.7970
563.90	95.0210
568.70	93.0450
569.32	77.0203
569.50	83.4444
569.67	89.8673
573.80	95.2365
574.00	95.2431
574.64	97.9866
578.91	96.6006
579.30	0.0000
583.14	89.5772
585.48	84.2714
591.81	88.4103
592.07	85.1834
593.00	79.8174
595.88	80.9766
600.56	109.2235
602.52	0.0000
602.71	97.4004
602.71	97.4004
603.60	99.2332
604.41	84.8222
604.70	93.8564
609.31	99.7872

609.31	99.7872
609.31	99.7872
609.31	99.7872
610.33	99.8231
612.46	68.7683
614.37	92.3524
618.01	91.1068
621.84	80.6033
621.84	80.6033
631.29	85.2268
633.02	85.2744
633.10	76.5300
634.78	71.1033
635.90	87.5449
636.97	71.1541
645.85	81.2428
646.12	71.3667
656.30	99.1428
657.75	102.8626
657.90	0.0000
661.65	107.5880
661.65	107.5880
664.57	0.0000
666.33	104.0638
666.33	104.0638
675.00	70.1816
677.61	64.6950
685.20	62.0696
692.80	91.9303
695.00	98.4973
696.49	99.4722
696.49	99.4722
697.00	96.6981
697.49	95.7830
698.33	93.9478
698.50	93.9519
699.00	93.9662
702.63	103.3850
706.10	98.8337
706.58	0.0000
706.67	101.6486
709.31	92.3956
711.68	77.5187
713.82	79.4385
717.42	89.8164
720.50	78.6628
721.93	0.0000
722.20	77.0960
722.78	81.9287
722.78	81.9287
722.89	81.9323
722.95	81.9340
723.30	93.1880
724.18	88.3929
727.18	75.6029
733.00	83.7909
735.90	88.7017
739.58	78.1688
742.81	77.3004
744.21	76.3890
747.13	85.8938
751.79	80.3395
752.31	77.5156
753.82	70.9290
755.35	72.8533
756.15	71.9242
756.87	72.8846
763.93	76.4209
765.79	73.2082
766.42	79.7310
766.84	74.8575
776.49	62.0098
778.00	67.1379
778.57	63.4983
778.89	61.7256
783.80	66.7714
785.46	54.7147
792.07	75.3966

795.84	47.5822
796.30	52.5123
798.80	87.0326
801.93	75.6035
805.60	53.7441
810.29	73.9953
810.76	78.8102
815.85	58.7090
817.79	60.6660
818.51	55.8630
819.60	58.7698
826.30	75.2848
828.27	0.0000
831.60	73.4611
831.96	76.3673
834.83	91.9056
836.80	0.0000
846.75	60.1735
848.13	60.1949
856.28	0.0000
856.80	70.0664
860.37	50.6511
867.32	73.6070
867.82	70.2700
871.10	42.0027
873.19	43.0028
874.81	61.5991
875.33	0.0000
876.40	68.4719
879.36	53.8407
880.27	51.8948
880.51	55.8148
881.50	57.7876
883.24	62.7135
884.67	53.9146
889.25	62.8112
896.60	56.0468
898.02	60.0022
899.00	68.8721
903.28	73.5441
911.07	67.1104
911.07	67.1104
911.07	67.1104
919.63	46.1559
920.93	57.3840
925.00	59.4238
925.24	59.4275
926.50	58.4550
935.52	64.5451
937.48	70.5363
944.10	58.7113
946.00	68.6940
949.00	51.8085
962.29	53.1191
964.01	70.2843
966.15	84.0410
968.20	84.0837
969.11	84.1025
969.11	84.1025
969.11	84.1025
977.42	51.5939
980.50	60.2380
983.50	48.2246
989.30	53.3224
996.32	68.5285
1001.03	40.3556
1001.68	44.3984
1004.76	57.5578
1021.30	0.0000
1024.50	0.0000
1034.80	51.8612
1036.00	56.9616
1037.82	63.0898
1038.57	51.9069
1038.76	0.0000
1045.16	68.2950
1046.59	52.0023
1048.07	44.8791

1050.47	39.8014
1050.47	39.8014
1062.04	48.0920
1063.62	41.9676
1076.63	64.6765
1077.35	55.4458
1078.86	55.4634
1085.78	59.6638
1099.22	49.5254
1112.02	37.2480
1112.84	42.5776
1115.52	49.7031
1120.29	54.9366
1120.29	54.9366
1120.29	54.9366
1120.29	54.9366
1120.51	54.9388
1121.28	54.9495
1124.00	0.0000
1129.67	51.2403
1131.51	0.0000
1147.95	0.0000
1167.94	55.5016
1173.22	49.2720
1175.09	59.7786
1177.93	60.8651
1189.05	62.0585
1204.90	64.3732
1205.75	0.0000
1213.00	73.9933
1221.42	67.7682
1230.97	77.4467
1235.34	63.7109
1236.41	0.0000
1238.25	69.0625
1246.25	42.5684
1260.41	0.0000
1271.85	45.9954
1274.45	59.9307
1274.54	61.0032
1291.56	47.2477
1298.22	0.0000
1312.09	35.5768
1325.50	32.4268
1325.50	32.4268
1332.49	38.9648
1333.61	40.0547
1360.21	21.4502
1362.66	0.0000
1365.15	24.2707
1368.21	29.8884
1368.53	0.0000
1376.25	26.1914
1384.27	41.2193
1394.10	20.6473
1395.20	20.6519
1407.95	31.0503
1434.06	23.6346
1436.60	20.8084
1457.56	0.0000
1460.81	27.5486
1489.15	22.9135
1509.49	25.1505
1596.49	32.0896
1620.62	14.6448
1678.03	0.0000
1691.02	16.7877
1691.02	16.7877
1706.46	0.0000
1750.46	0.0000
1764.49	12.9864
1764.49	12.9864
1764.49	12.9864
1764.49	12.9864
1770.23	8.7485
1771.40	65.0000
1791.20	0.0000
1808.65	17.0966

1836.01 13.1279

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799007

Total Uranium Activity	1.0708E+00	ug/g
Total Uranium Counting Unc.	6.5717E+00	ug/g
Total Uranium Tpu	3.3529E-06	ug/g
Total Uranium Mda	5.9496E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799007       *
*   ANALYST       : RXF2                      DETECTOR   : GAM15            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 16:22:05.92    SAMPLE ALQT:  140.453 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.801E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.543E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.686E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.789E+00
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VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:19:48.00

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799008.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:19:14
Sample ID         : G245799008           Sample quantity  : 1.48384E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.15  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.03*	73	595	0.93	90.91	87	9	1.02E-02	61.7	
2	0	63.31*	892	919	1.01	125.50	121	10	1.24E-01	7.3	
3	2	74.89*	492	620	0.91	148.68	145	14	6.84E-02	8.7	1.14E+00
4	2	77.13	801	518	0.85	153.17	145	14	1.11E-01	5.6	
5	4	83.92*	195	648	1.18	166.75	163	28	2.71E-02	22.4	3.97E+00
6	4	87.31	345	620	1.19	173.54	163	28	4.79E-02	12.9	
7	4	90.08	278	599	1.20	179.07	163	28	3.86E-02	15.8	
8	4	92.60*	1911	546	1.12	184.12	163	28	2.65E-01	3.2	
9	4	94.23	131	515	1.18	187.39	163	28	1.83E-02	42.8	
10	0	98.86	57	519	0.69	196.65	193	7	7.97E-03	67.2	
11	0	113.05*	68	560	0.70	225.05	221	8	9.41E-03	62.5	
12	0	129.14	103	449	1.15	257.26	254	8	1.43E-02	36.8	
13	0	143.91*	88	365	0.93	286.83	284	7	1.22E-02	38.4	
14	0	185.78*	535	420	1.05	370.63	366	10	7.42E-02	8.6	
15	6	238.71*	1340	216	0.94	476.55	472	15	1.86E-01	3.3	4.38E+00
16	6	241.69	400	287	1.68	482.52	472	15	5.56E-02	11.8	
17	0	270.34*	142	248	0.99	539.86	535	11	1.97E-02	23.3	
18	0	295.22	516	224	1.28	589.66	583	13	7.17E-02	7.4	
19	0	300.16	106	224	1.26	599.55	596	10	1.47E-02	27.9	
20	0	327.76	80	194	0.71	654.77	651	9	1.11E-02	33.2	
21	0	338.46*	254	234	1.00	676.20	671	11	3.53E-02	13.4	
22	0	351.90*	651	213	1.19	703.09	696	12	9.04E-02	6.0	
23	0	463.25	91	148	0.97	925.95	921	10	1.26E-02	27.1	
24	0	511.14*	101	215	1.69	1021.78	1014	17	1.40E-02	38.6	
25	0	583.60*	430	90	1.26	1166.77	1162	12	5.97E-02	6.7	
26	0	609.61*	553	142	1.49	1218.83	1212	15	7.68E-02	6.4	
27	0	661.88	585	137	1.32	1323.43	1318	13	8.13E-02	5.9	
28	0	727.71*	105	56	0.83	1455.17	1451	9	1.45E-02	16.5	
29	0	768.01	72	138	2.58	1535.81	1529	15	9.96E-03	37.7	
30	0	795.39*	60	79	1.67	1590.58	1585	9	8.29E-03	30.1	
31	0	860.99	70	66	1.74	1721.85	1717	12	9.70E-03	26.5	
32	0	911.91*	259	99	1.63	1823.73	1817	16	3.60E-02	10.7	
33	0	934.38	40	45	1.03	1868.70	1864	11	5.60E-03	35.6	
34	1	965.53	51	78	1.73	1931.02	1925	23	7.14E-03	29.9	2.81E+00
35	1	969.65	190	47	1.74	1939.26	1925	23	2.65E-02	10.3	
36	0	1001.87*	87	77	1.56	2003.72	1996	17	1.20E-02	25.8	
37	0	1120.93	122	86	1.68	2241.95	2236	15	1.70E-02	18.6	
38	0	1239.37	34	130	1.41	2478.91	2472	15	4.77E-03	75.3	

Sample ID : G245799008 Acquisition date : 10-FEB-2010 17:19:14

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1282.07	18	39	1.40	2564.34	2559	10	2.47E-03	70.6	
40	0	1461.62*	1497	9	1.86	2923.53	2916	17	2.08E-01	2.6	
41	0	1662.03	21	3	1.30	3324.43	3318	12	2.95E-03	27.1	
42	0	1765.66*	88	13	2.04	3531.71	3525	13	1.22E-02	14.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 19:19:51

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:19:14
Sample ID : G245799008 Sample quantity : 148.38 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.15 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.898E+01	2.934E+00	4.108E-01	3.552E-02	70.531
CD-109	+	88.03	*	3.529E+00	9.717E-01	9.957E-01	9.442E-02	3.544
SN-126	+	64.28		5.483E+00	1.126E+00	5.885E-01	8.537E-02	9.317
	+	86.94		1.442E+00	7.055E-01	4.100E-01	1.702E-01	3.517
	+	87.57	*	3.468E-01	9.550E-02	9.816E-02	9.260E-03	3.533
BA-137M	+	661.65	*	6.855E-01	1.038E-01	5.474E-02	5.180E-03	12.522
CS-137	+	661.65	*	7.247E-01	1.098E-01	5.787E-02	5.485E-03	12.522
TL-208		277.35		3.923E-02	3.199E-01	5.201E-01	9.222E-02	0.075
	+	510.84		3.995E-01	3.131E-01	1.860E-01	2.521E-02	2.148
	+	583.14	*	4.857E-01	8.352E-02	4.898E-02	5.289E-03	9.918
	+	860.37		7.366E-01	3.980E-01	3.910E-01	4.073E-02	1.884
BI-210	+	46.50	*	3.190E+00	3.949E+00	3.368E+00	3.135E-01	0.947
PB-210	+	46.50	*	3.190E+00	3.949E+00	3.368E+00	3.135E-01	0.947
PO-210	+	46.50	*	3.190E+00	3.947E+00	3.368E+00	2.839E-01	0.947
BI-211		72.87		8.583E-01	2.838E+00	4.141E+00	3.289E-01	0.207
	+	351.07	*	3.246E+00	5.777E-01	2.767E-01	3.651E-02	11.729
PB-212	+	74.81		2.008E+00	4.283E-01	4.412E-01	5.458E-02	4.551
	+	77.11		1.869E+00	2.613E-01	2.529E-01	2.101E-02	7.389
	+	87.30		1.604E+00	4.699E-01	4.549E-01	6.243E-02	3.526
	+	238.63	*	1.459E+00	2.257E-01	7.439E-02	1.042E-02	19.616
	+	300.09		1.785E+00	1.038E+00	9.287E-01	1.488E-01	1.922
PO-212	+	74.81		2.008E+00	4.283E-01	4.412E-01	5.458E-02	4.551
	+	77.11		1.869E+00	2.613E-01	2.529E-01	2.101E-02	7.389
	+	87.30		1.604E+00	4.699E-01	4.549E-01	6.243E-02	3.526
		115.19		2.670E+00	3.011E+00	4.805E+00	4.071E-01	0.556
	+	238.63	*	1.459E+00	2.257E-01	7.439E-02	1.042E-02	19.616
	+	300.09		1.785E+00	1.038E+00	9.287E-01	1.488E-01	1.922
BI-214	+	609.31	*	1.176E+00	2.011E-01	9.861E-02	1.115E-02	11.930
	+	1120.29		1.338E+00	5.185E-01	4.190E-01	4.525E-02	3.193
	+	1764.49		1.309E+00	3.836E-01	2.386E-01	1.966E-02	5.487
PB-214	+	74.81		3.460E+00	7.111E-01	7.603E-01	8.347E-02	4.551
	+	77.11		3.203E+00	5.101E-01	4.335E-01	4.888E-02	7.389
	+	87.30		2.748E+00	7.857E-01	7.793E-01	9.473E-02	3.526
	+	241.98		2.618E+00	7.274E-01	4.482E-01	6.530E-02	5.841

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.522E+00	3.357E-01	1.477E-01	2.409E-02	10.301
	+	351.92	*	1.129E+00	2.094E-01	9.646E-02	1.365E-02	11.704
PO-214	+	74.81		3.460E+00	7.111E-01	7.603E-01	8.347E-02	4.551
	+	77.11		3.203E+00	5.101E-01	4.335E-01	4.888E-02	7.389
	+	87.30		2.748E+00	7.857E-01	7.793E-01	9.473E-02	3.526
	+	241.98		2.618E+00	7.274E-01	4.482E-01	6.530E-02	5.841
	+	295.21		1.522E+00	3.357E-01	1.477E-01	2.409E-02	10.301
	+	351.92	*	1.129E+00	2.094E-01	9.646E-02	1.365E-02	11.704
PO-216	+	74.81		2.008E+00	4.283E-01	4.412E-01	5.458E-02	4.551
	+	77.11		1.869E+00	2.613E-01	2.529E-01	2.101E-02	7.389
	+	87.30		1.604E+00	4.699E-01	4.549E-01	6.243E-02	3.526
	+	238.63	*	1.459E+00	2.257E-01	7.439E-02	1.042E-02	19.616
	+	300.09		1.785E+00	1.038E+00	9.287E-01	1.488E-01	1.922
PO-218	+	74.81		3.460E+00	7.111E-01	7.603E-01	8.347E-02	4.551
	+	77.11		3.203E+00	5.101E-01	4.335E-01	4.888E-02	7.389
	+	87.30		2.748E+00	7.857E-01	7.793E-01	9.473E-02	3.526
	+	241.98		2.618E+00	7.274E-01	4.482E-01	6.530E-02	5.841
	+	295.21		1.522E+00	3.357E-01	1.477E-01	2.409E-02	10.301
	+	351.92	*	1.129E+00	2.094E-01	9.646E-02	1.365E-02	11.704
RA-224	+	240.98	*	4.964E+00	1.351E+00	8.469E-01	1.134E-01	5.862
RA-226	+	609.31	*	1.176E+00	2.011E-01	9.861E-02	1.115E-02	11.930
	+	1120.29		1.338E+00	5.185E-01	4.190E-01	4.525E-02	3.193
	+	1764.49		1.309E+00	3.836E-01	2.386E-01	1.966E-02	5.487
AC-228	+	338.32		1.398E+00	7.023E-01	3.088E-01	1.314E-01	4.527
	+	911.07	*	1.293E+00	3.183E-01	1.654E-01	2.014E-02	7.815
	+	969.11		1.671E+00	5.241E-01	3.049E-01	7.227E-02	5.481
RA-228	+	338.32		1.398E+00	7.023E-01	3.088E-01	1.314E-01	4.527
	+	911.07	*	1.293E+00	3.183E-01	1.654E-01	2.014E-02	7.815
	+	969.11		1.671E+00	5.241E-01	3.049E-01	7.227E-02	5.481
TH-228	+	74.81		2.039E+00	3.915E-01	4.480E-01	3.665E-02	4.551
	+	77.11		1.897E+00	2.653E-01	2.568E-01	2.134E-02	7.389
	+	87.30		1.628E+00	4.484E-01	4.618E-01	4.341E-02	3.526
	+	238.63	*	1.482E+00	2.291E-01	7.553E-02	1.058E-02	19.616
	+	300.09		1.812E+00	1.493E+00	9.428E-01	5.706E-01	1.922
TH-230	+	609.31	*	1.176E+00	2.011E-01	9.860E-02	1.115E-02	11.930
	+	1120.29		1.338E+00	5.185E-01	4.190E-01	4.525E-02	3.193
	+	1764.49		1.309E+00	3.835E-01	2.386E-01	1.966E-02	5.487
TH-232	+	338.32		1.398E+00	4.185E-01	3.088E-01	4.164E-02	4.527
	+	911.07	*	1.293E+00	3.183E-01	1.654E-01	2.014E-02	7.815
	+	969.11		1.671E+00	5.241E-01	3.049E-01	7.227E-02	5.481
TH-234	+	63.29	*	1.385E+01	3.143E+00	1.537E+00	2.674E-01	9.013
	+	92.38		1.267E+01	2.459E+00	6.527E-01	1.197E-01	19.412
U-234	+	609.31	*	1.176E+00	2.011E-01	9.860E-02	1.115E-02	11.930
	+	1120.29		1.338E+00	5.185E-01	4.190E-01	4.525E-02	3.193
	+	1764.49		1.309E+00	3.835E-01	2.386E-01	1.966E-02	5.487
U-235	+	89.95		3.750E+00	1.660E+00	1.325E+00	4.115E-01	2.831
	+	93.35		1.523E+01	4.402E+00	7.813E-01	2.201E-01	19.498
		105.00		6.621E-01	8.389E-01	1.433E+00	4.278E-01	0.462
	+	143.76	*	3.000E-01	2.366E-01	2.784E-01	4.922E-02	1.077

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		163.35		1.978E-01	3.952E-01	6.701E-01	1.310E-01	0.295
	+	185.71		4.067E-01	8.232E-02	5.686E-02	6.029E-03	7.153
		205.31		3.346E-01	4.312E-01	7.253E-01	1.492E-01	0.461
NP-237	+	86.50	*	1.018E+00	3.504E-01	2.905E-01	6.577E-02	3.505
		95.87		-1.272E-01	1.024E+00	1.264E+00	3.129E-01	-0.101
U-238	+	63.29	*	1.385E+01	3.143E+00	1.537E+00	2.674E-01	9.013
	+	92.38		1.267E+01	1.411E+00	6.527E-01	5.977E-02	19.412
AM-243	+	74.67	*	3.255E-01	6.241E-02	7.170E-02	5.802E-03	4.540
	+	86.72		3.819E+01	1.052E+01	1.088E+01	1.015E+00	3.511
		117.66		-1.778E+00	2.853E+00	4.733E+00	4.003E-01	-0.376
		142.18		-1.097E+00	1.611E+01	2.416E+01	2.154E+00	-0.045
ANH-511	+	511.00	*	8.630E-02	6.724E-02	4.018E-02	4.296E-03	2.148

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.514E-02	2.778E-01	4.599E-01	5.205E-02	-0.076
NA-22		1274.54	*	-5.309E-03	3.591E-02	5.579E-02	4.581E-03	-0.095
NA-24		1368.53	*	-3.829E-01	3.591E-02	Half-Life too short		
AL-26		1129.67		-7.580E-01	1.626E+00	2.395E+00	2.023E-01	-0.316
		1808.65	*	-1.916E-02	2.240E-02	2.933E-02	2.394E-03	-0.653
TI-44		67.85		1.708E-02	3.900E-02	5.777E-02	4.377E-03	0.296
	+	78.38	*	3.448E-01	4.821E-02	5.585E-02	4.708E-03	6.174
SC-46		889.25	*	-1.670E-02	2.966E-02	4.695E-02	4.624E-03	-0.356
	+	1120.51		2.292E-01	8.753E-02	1.162E-01	9.906E-03	1.973
V-48		944.10		-1.171E-01	7.449E-01	1.226E+00	1.186E-01	-0.096
		983.50	*	-1.778E-03	5.608E-02	9.302E-02	8.823E-03	-0.019
		1312.09		7.522E-03	7.177E-02	1.177E-01	9.707E-03	0.064
CR-51		320.08	*	-1.450E-01	3.157E-01	4.887E-01	7.092E-02	-0.297
MN-52		744.21		2.835E-02	2.142E-01	3.490E-01	3.391E-02	0.081
		848.13		-1.527E+00	5.515E+00	9.064E+00	8.931E-01	-0.168
	+	935.52		3.992E-01	2.868E-01	3.940E-01	3.825E-02	1.013
		1246.25		2.437E+00	7.311E+00	1.074E+01	8.770E-01	0.227
		1333.61		2.116E+00	3.851E+00	6.687E+00	5.527E-01	0.316
		1434.06	*	1.450E-01	1.767E-01	3.200E-01	2.681E-02	0.453
MN-54		834.83	*	1.620E-02	3.086E-02	5.404E-02	5.321E-03	0.300
CO-56		846.75	*	-8.264E-03	3.227E-02	5.318E-02	5.240E-03	-0.155
		977.42		4.313E+00	2.584E+00	4.611E+00	4.388E-01	0.935
		1037.82		1.505E-01	2.571E-01	4.482E-01	4.301E-02	0.336
		1175.09		-1.108E+00	1.951E+00	2.963E+00	2.382E-01	-0.374
	+	1238.25		1.058E-01	1.596E-01	1.645E-01	1.384E-02	0.643
		1360.21		-2.787E-01	9.093E-01	1.413E+00	1.173E-01	-0.197
		1771.40		8.547E-02	1.978E-01	3.145E-01	2.588E-02	0.272
CO-57		122.06	*	3.760E-03	1.955E-02	3.344E-02	2.829E-03	0.112
		136.48		-3.509E-02	1.657E-01	2.775E-01	2.607E-02	-0.126
CO-58		810.76	*	-1.103E-02	3.284E-02	5.070E-02	4.992E-03	-0.217
FE-59	+	142.65		3.876E+00	3.000E+00	3.835E+00	3.425E-01	1.011
		192.34		-9.426E-02	7.363E-01	1.211E+00	1.818E-01	-0.078

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1099.22	*	1.458E-02	7.934E-02	1.329E-01	1.249E-02	0.110
		1291.56		-5.374E-02	9.842E-02	1.491E-01	1.407E-02	-0.360
CO-60		1173.22		-6.846E-03	3.686E-02	5.804E-02	4.663E-03	-0.118
		1332.49	*	1.968E-02	3.002E-02	5.272E-02	4.356E-03	0.373
ZN-65		1115.52	*	3.089E-02	8.551E-02	1.275E-01	1.094E-02	0.242
GE-68		1077.35	*	3.704E-01	1.041E+00	1.776E+00	1.577E-01	0.209
AS-73		53.44	*	-2.187E-01	5.719E-01	8.998E-01	6.757E-02	-0.243
AS-74		595.88	*	-8.206E-02	7.640E-02	1.137E-01	1.156E-02	-0.722
		634.78		-2.672E-01	3.074E-01	4.637E-01	4.536E-02	-0.576
SE-75		66.05		-3.871E+00	4.010E+00	5.557E+00	5.281E-01	-0.697
		96.73		-4.947E-01	8.434E-01	1.004E+00	1.387E-01	-0.493
		121.11		-1.164E-05	1.051E-01	1.786E-01	1.981E-02	0.000
		136.00		-2.282E-02	3.178E-02	5.213E-02	4.589E-03	-0.438
		198.60		-1.614E-01	1.500E+00	2.418E+00	2.892E-01	-0.067
		264.65	*	1.081E-03	3.672E-02	5.679E-02	8.348E-03	0.019
		279.53		9.664E-02	9.120E-02	1.538E-01	2.407E-02	0.629
		303.91		-2.134E-01	1.854E+00	2.623E+00	4.361E-01	-0.081
		400.65		3.402E-02	2.168E-01	3.696E-01	4.728E-02	0.092
BR-77	+	87.88		7.859E+02	2.164E+02	2.836E+02	2.686E+01	2.771
		200.40		-6.867E+01	1.389E+02	2.241E+02	2.534E+01	-0.306
	+	239.00		2.416E+02	3.576E+01	3.354E+01	4.457E+00	7.203
		249.79		1.077E+01	5.480E+01	9.011E+01	1.249E+01	0.119
		281.68		-8.891E+01	7.805E+01	1.155E+02	1.781E+01	-0.770
		297.23		1.815E+02	6.724E+01	9.114E+01	1.367E+01	1.991
		303.76		-2.540E+01	1.624E+02	2.290E+02	3.389E+01	-0.111
		439.47		6.557E+01	1.259E+02	2.177E+02	2.349E+01	0.301
		484.57		-1.160E+02	2.008E+02	3.211E+02	3.456E+01	-0.361
		520.65	*	1.826E-01	8.903E+00	1.479E+01	1.575E+00	0.012
		574.64		-9.023E+00	1.814E+02	2.975E+02	3.076E+01	-0.030
		578.91		5.313E+01	8.414E+01	1.289E+02	1.328E+01	0.412
		585.48		1.166E+03	2.409E+02	4.144E+02	4.250E+01	2.813
		755.35		5.167E+01	1.285E+02	2.148E+02	2.093E+01	0.241
		817.79		5.699E+01	1.136E+02	1.904E+02	1.872E+01	0.299
SR-82		698.33		-4.548E+00	2.947E+01	4.712E+01	4.519E+00	-0.097
		776.49	*	-2.904E-01	3.097E-01	4.475E-01	4.377E-02	-0.649
		1395.20		6.151E-01	8.073E+00	1.317E+01	1.099E+00	0.047
RB-83		520.41	*	-1.752E-02	5.847E-02	9.485E-02	1.011E-02	-0.185
		529.64		5.282E-03	8.714E-02	1.450E-01	1.539E-02	0.036
		552.65		-2.724E-02	1.577E-01	2.567E-01	2.693E-02	-0.106
RB-84		881.50	*	5.661E-02	5.903E-02	1.065E-01	1.049E-02	0.532
KR-85		513.99	*	6.395E+00	6.237E+00	9.925E+00	1.060E+00	0.644
SR-85		513.99	*	3.282E-02	3.202E-02	5.094E-02	5.442E-03	0.644
RB-86		1076.63	*	1.101E-01	6.502E-01	1.091E+00	9.692E-02	0.101
Y-88		898.02		5.399E-03	3.267E-02	5.558E-02	5.492E-03	0.097
		1836.01	*	-5.091E-03	2.631E-02	4.156E-02	3.374E-03	-0.123
ZR-88		392.90	*	-7.971E-03	2.584E-02	4.294E-02	4.580E-03	-0.186
Y-91		1204.90	*	2.047E+00	1.636E+01	2.703E+01	2.188E+00	0.076
NB-94		702.63	*	2.395E-02	3.009E-02	5.151E-02	4.947E-03	0.465
		871.10		-6.384E-03	2.633E-02	4.323E-02	4.261E-03	-0.148

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.79	*	3.519E-02	4.795E-02	7.194E-02	7.023E-03	0.489
NB-95M		235.69	*	-1.705E-02	1.099E-01	1.588E-01	2.218E-02	-0.107
ZR-95		724.18		-1.801E-03	8.354E-02	1.175E-01	1.215E-02	-0.015
		756.15	*	2.201E-02	5.455E-02	9.114E-02	9.591E-03	0.241
NB-97		657.90	*	7.326E-02	5.455E-02	Half-Life too short		
		1024.50		1.294E+00	5.455E-02	Half-Life too short		
ZR-97		254.15		-2.159E+00	5.455E-02	Half-Life too short		
		355.39		-1.264E+00	5.455E-02	Half-Life too short		
		507.63	*	1.613E+00	5.455E-02	Half-Life too short		
		602.52		-5.014E+00	5.455E-02	Half-Life too short		
		1021.30		5.240E+00	5.455E-02	Half-Life too short		
		1147.95		3.074E+00	5.455E-02	Half-Life too short		
		1362.66		8.156E+00	5.455E-02	Half-Life too short		
		1750.46		4.221E+00	5.455E-02	Half-Life too short		
MO-99		140.51		1.263E-01	2.481E+01	3.721E+01	1.033E+01	0.003
		181.06		-3.642E+00	1.628E+01	2.393E+01	4.592E+00	-0.152
		366.43		-2.164E+01	7.441E+01	1.152E+02	1.396E+01	-0.188
		739.58	*	-8.943E+00	1.035E+01	1.519E+01	2.404E+00	-0.589
		778.00		-8.306E+00	2.828E+01	4.404E+01	4.309E+00	-0.189
TC-99M		140.51	*	2.388E+08	2.828E+01	Half-Life too short		
RH-101		127.23		1.411E-02	2.744E-02	4.288E-02	3.662E-03	0.329
		198.01	*	9.028E-03	2.724E-02	4.474E-02	5.007E-03	0.202
		325.23		-1.901E-04	2.093E-01	2.972E-01	4.171E-02	-0.001
RH-102		418.52		9.407E-02	2.372E-01	4.088E-01	4.395E-02	0.230
		475.06	*	-1.585E-02	2.495E-02	3.981E-02	4.292E-03	-0.398
		631.29		-1.849E-02	4.780E-02	7.561E-02	7.425E-03	-0.244
		697.49		2.964E-02	6.610E-02	1.108E-01	1.062E-02	0.267
	+	766.84		2.538E-01	1.929E-01	2.050E-01	2.002E-02	1.238
		1046.59		5.391E-02	8.995E-02	1.573E-01	1.432E-02	0.343
		1112.84		4.196E-02	1.977E-01	3.233E-01	2.778E-02	0.130
RU-103		497.08	*	-6.352E-03	3.228E-02	5.293E-02	8.226E-03	-0.120
	+	610.33		1.273E+01	2.757E+00	2.677E+00	4.673E-01	4.754
RH-106	+	511.85		4.311E-01	3.359E-01	3.623E-01	3.872E-02	1.190
		621.84	*	-4.137E-01	2.813E-01	3.935E-01	5.600E-02	-1.051
		1050.47		2.840E-01	1.957E+00	3.281E+00	2.978E-01	0.087
RU-106	+	511.85		4.311E-01	3.359E-01	3.623E-01	3.872E-02	1.190
		621.84	*	-4.137E-01	2.781E-01	3.935E-01	3.904E-02	-1.051
		1050.47		2.840E-01	1.957E+00	3.281E+00	2.978E-01	0.087
AG-108M		433.93	*	1.075E-03	2.668E-02	4.497E-02	4.971E-03	0.024
		614.37		9.633E-03	3.533E-02	5.217E-02	5.368E-03	0.185
		722.95		-6.707E-03	3.816E-02	5.263E-02	5.244E-03	-0.127
AG-110M		657.75	*	2.312E-02	3.187E-02	4.911E-02	4.785E-03	0.471
		677.61		-1.314E-03	2.574E-01	4.177E-01	4.069E-02	-0.003
		706.67		2.664E-04	1.889E-01	3.057E-01	3.005E-02	0.001
		763.93		1.016E-01	1.633E-01	2.450E-01	2.443E-02	0.415
		884.67		1.318E-02	3.972E-02	6.859E-02	6.924E-03	0.192
		937.48		1.374E-02	9.261E-02	1.374E-01	1.371E-02	0.100
		1384.27		-5.899E-03	1.337E-01	2.145E-01	1.841E-02	-0.027
IN-111		171.28		-9.543E-01	8.240E-01	1.296E+00	1.289E-01	-0.737

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	4.760E-01	9.378E-01	1.411E+00	1.923E-01	0.337
IN-113M		391.69	*	1.181E-02	3.690E-02	6.356E-02	6.914E-03	0.186
SN-113		391.69	*	1.181E-02	3.690E-02	6.356E-02	6.914E-03	0.186
IN-114M		190.27	*	-8.077E-02	1.594E-01	2.289E-01	2.476E-02	-0.353
CD-115		260.90		-1.517E+01	1.169E+02	1.884E+02	2.726E+01	-0.080
		492.35		-2.768E+01	3.072E+01	4.758E+01	5.114E+00	-0.582
		527.90	*	1.172E+00	9.388E+00	1.569E+01	1.667E+00	0.075
SN-117M		156.02		-1.022E+00	1.850E+00	3.029E+00	2.836E-01	-0.337
		158.56	*	-2.609E-02	4.311E-02	7.025E-02	6.640E-03	-0.371
SB-122		563.90	*	1.953E+00	1.730E+00	3.066E+00	3.194E-01	0.637
		692.80		-2.007E+01	3.774E+01	5.831E+01	5.582E+00	-0.344
I-123		159.00	*	-5.054E+00	3.774E+01	Half-Life too short		
		528.96		1.865E+02	3.774E+01	Half-Life too short		
TE-123M		159.00	*	-2.188E-02	2.249E-02	3.598E-02	3.423E-03	-0.608
I-124		602.71	*	-4.828E-01	6.194E-01	8.677E-01	8.770E-02	-0.556
		722.78		-6.629E-01	4.059E+00	5.608E+00	5.418E-01	-0.118
		1325.50		5.074E+00	2.833E+01	4.694E+01	3.876E+00	0.108
		1376.25		2.587E+01	2.727E+01	4.867E+01	4.051E+00	0.532
		1509.49		4.931E+00	1.246E+01	2.196E+01	1.849E+00	0.225
		1691.02		1.814E+00	2.882E+00	5.319E+00	4.435E-01	0.341
SB-124		602.71		-2.761E-02	3.542E-02	4.963E-02	5.016E-03	-0.556
		645.85		-1.259E-01	4.186E-01	6.647E-01	6.727E-02	-0.189
		709.31		7.771E-01	2.338E+00	3.886E+00	3.740E-01	0.200
		713.82		-4.115E-02	1.289E+00	2.078E+00	2.657E-01	-0.020
		722.78		-5.495E-02	3.365E-01	4.649E-01	4.569E-02	-0.118
	+	968.20		1.723E+01	3.901E+00	6.353E+00	6.076E-01	2.711
		1045.16		-8.197E-01	1.929E+00	3.052E+00	2.781E-01	-0.269
		1325.50		4.492E-01	2.508E+00	4.156E+00	3.432E-01	0.108
		1368.21		-7.141E-01	1.559E+00	2.362E+00	3.137E-01	-0.302
		1436.60		6.065E-01	2.823E+00	4.697E+00	3.936E-01	0.129
		1691.02	*	3.548E-02	5.636E-02	1.040E-01	9.038E-03	0.341
SB-125		427.89	*	4.262E-03	7.854E-02	1.326E-01	1.446E-02	0.032
	+	463.38		7.043E-01	3.905E-01	5.169E-01	5.861E-02	1.362
		600.56		2.791E-02	1.481E-01	2.463E-01	2.629E-02	0.113
		635.90		1.337E-01	2.251E-01	3.845E-01	3.994E-02	0.348
TE-125M		109.28	*	2.678E+00	8.204E+00	1.281E+01	1.315E+00	0.209
I-126		388.63		-3.141E-02	1.708E-01	2.863E-01	3.106E-02	-0.110
		666.33	*	-8.708E-02	1.945E-01	2.612E-01	2.476E-02	-0.333
		753.82		4.728E-01	1.112E+00	1.864E+00	1.815E-01	0.254
SB-126		223.80		-2.298E+00	3.523E+00	5.584E+00	6.974E-01	-0.412
		278.60		3.501E+00	2.137E+00	3.637E+00	5.619E-01	0.963
	+	296.50		1.524E+01	3.224E+00	3.097E+00	4.652E-01	4.921
		414.70		-1.231E-02	6.174E-02	1.028E-01	1.104E-02	-0.120
		415.30		-2.838E-02	5.195E+00	8.758E+00	9.407E-01	-0.003
		555.20		-3.048E+00	3.320E+00	5.001E+00	5.238E-01	-0.609
		573.80		1.351E-01	8.844E-01	1.472E+00	1.523E-01	0.092
		593.00		-1.328E-01	7.605E-01	1.231E+00	1.255E-01	-0.108
		656.30		1.474E+00	3.131E+00	4.700E+00	4.479E-01	0.314
		666.33		-3.640E-02	8.129E-02	1.092E-01	1.035E-02	-0.333

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		675.00		-7.519E-01	1.617E+00	2.513E+00	2.390E-01	-0.299
		695.00		-8.348E-03	6.542E-02	1.048E-01	1.004E-02	-0.080
		697.00		5.421E-02	2.319E-01	3.826E-01	3.667E-02	0.142
		720.50	*	-1.450E-02	1.172E-01	1.871E-01	1.807E-02	-0.078
		856.80		2.088E-01	4.041E-01	6.306E-01	6.214E-02	0.331
		989.30		5.586E-03	9.277E-01	1.544E+00	1.460E-01	0.004
		1034.80		1.041E+00	7.716E+00	1.294E+01	1.188E+00	0.080
		1213.00		-5.340E-01	4.057E+00	6.549E+00	5.311E-01	-0.082
SB-127		61.10		1.449E+01	4.802E+01	7.123E+01	7.217E+00	0.203
		252.40		-7.659E-01	3.535E+00	5.654E+00	2.457E+00	-0.135
		290.80		-1.984E+01	1.938E+01	2.494E+01	4.185E+00	-0.795
		411.60		-6.614E+00	1.095E+01	1.776E+01	3.018E+00	-0.372
		444.90		-6.437E+00	8.233E+00	1.302E+01	1.840E+00	-0.495
		473.00		1.126E-01	1.439E+00	2.415E+00	3.485E-01	0.047
		543.00		-1.212E+01	1.409E+01	2.153E+01	3.369E+00	-0.563
		603.60		-1.390E+00	1.087E+01	1.540E+01	2.094E+00	-0.090
		685.20	*	5.045E-01	1.184E+00	1.986E+00	2.409E-01	0.254
		698.50		-2.058E+00	1.334E+01	2.132E+01	3.495E+00	-0.097
		722.20		2.267E+00	2.625E+01	3.952E+01	4.747E+00	0.057
		783.80		-1.823E-01	3.311E+00	5.285E+00	7.020E-01	-0.034
XE-127		57.60		1.802E+00	4.699E+00	7.591E+00	5.464E-01	0.237
	+	145.22		9.934E-01	7.688E-01	9.537E-01	8.591E-02	1.042
		172.10		-4.781E-02	9.525E-02	1.551E-01	1.549E-02	-0.308
		202.84	*	-1.623E-02	3.915E-02	6.336E-02	7.241E-03	-0.256
		374.96		2.216E-01	1.767E-01	2.994E-01	3.487E-02	0.740
I-131		80.18		6.157E-01	4.517E+00	5.742E+00	4.975E-01	0.107
		284.30		2.996E-02	1.295E+00	2.091E+00	3.265E-01	0.014
		364.48	*	-3.374E-03	9.582E-02	1.513E-01	1.900E-02	-0.022
		636.97		8.254E-01	1.338E+00	2.242E+00	2.284E-01	0.368
		722.89		-1.112E+00	6.486E+00	8.951E+00	8.694E-01	-0.124
TE-132		49.72		7.142E+00	1.379E+01	2.093E+01	2.167E+00	0.341
	+	111.76		3.217E+01	4.038E+01	4.533E+01	4.892E+00	0.710
		116.30		6.792E+00	2.351E+01	3.657E+01	3.935E+00	0.186
		228.16	*	4.169E-02	5.963E-01	9.795E-01	1.793E-01	0.043
BA-133		53.15		7.674E-02	2.421E+00	3.878E+00	2.923E-01	0.020
		79.62		4.298E-01	1.242E+00	1.597E+00	2.425E-01	0.269
		81.00		4.698E-02	9.400E-02	1.217E-01	1.937E-02	0.386
		276.40		-1.517E-01	3.156E-01	4.946E-01	9.504E-02	-0.307
		302.84		4.070E-02	1.288E-01	1.886E-01	3.385E-02	0.216
		356.01	*	1.121E-02	3.979E-02	5.748E-02	9.270E-03	0.195
		383.85		2.011E-02	2.514E-01	4.281E-01	6.182E-02	0.047
I-133	+	510.53		9.547E-01	2.514E-01	Half-Life too short		
		529.87	*	2.335E-04	2.514E-01	Half-Life too short		
		706.58		-2.113E-03	2.514E-01	Half-Life too short		
		856.28		4.060E-02	2.514E-01	Half-Life too short		
		875.33		2.665E-02	2.514E-01	Half-Life too short		
		1236.41		1.571E+00	2.514E-01	Half-Life too short		
		1298.22		-5.365E-03	2.514E-01	Half-Life too short		
CS-134		475.35		-1.403E+00	1.665E+00	2.615E+00	2.819E-01	-0.537

---- Non-Identified Nuclides ----

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		563.23		3.103E-01	2.898E-01	5.125E-01	5.376E-02	0.606
		569.32		1.005E-01	1.671E-01	2.838E-01	2.973E-02	0.354
		604.70		-2.287E-03	3.120E-02	4.447E-02	4.494E-03	-0.051
	+	795.84	*	9.667E-02	5.897E-02	8.840E-02	8.721E-03	1.094
		801.93		-7.871E-02	3.429E-01	5.358E-01	5.283E-02	-0.147
		1038.57		1.568E+00	3.228E+00	5.580E+00	5.110E-01	0.281
		1167.94		2.404E-01	2.155E+00	3.568E+00	2.886E-01	0.067
		1365.15		-5.628E-01	1.135E+00	1.717E+00	1.496E-01	-0.328
CS-135		268.24	*	6.111E-02	1.387E-01	2.064E-01	3.238E-02	0.296
I-135		288.45		-7.772E+09	1.387E-01	Half-Life too short		
		417.63		-1.346E+10	1.387E-01	Half-Life too short		
		546.56		1.300E+10	1.387E-01	Half-Life too short		
		836.80		4.578E+09	1.387E-01	Half-Life too short		
		1038.76		9.239E+09	1.387E-01	Half-Life too short		
		1124.00		6.412E+10	1.387E-01	Half-Life too short		
		1131.51		6.530E+08	1.387E-01	Half-Life too short		
		1260.41	*	-2.592E+09	1.387E-01	Half-Life too short		
		1457.56		1.177E+11	1.387E-01	Half-Life too short		
		1678.03		9.733E+09	1.387E-01	Half-Life too short		
		1706.46		2.585E+09	1.387E-01	Half-Life too short		
		1791.20		-6.255E+09	1.387E-01	Half-Life too short		
CS-136		66.91		-1.580E-01	6.531E-01	9.396E-01	1.395E-01	-0.168
	+	86.29		4.551E+00	1.326E+00	1.629E+00	2.167E-01	2.794
		153.22		5.771E-01	5.440E-01	9.432E-01	9.637E-02	0.612
		163.89		4.946E-01	8.930E-01	1.522E+00	1.610E-01	0.325
		176.55		-2.922E-01	3.070E-01	4.880E-01	5.177E-02	-0.599
		273.65		4.234E-01	3.812E-01	5.885E-01	9.124E-02	0.719
		340.57		1.453E-01	1.258E-01	1.914E-01	2.593E-02	0.759
		818.51		1.903E-02	6.370E-02	1.047E-01	1.030E-02	0.182
		1048.07	*	3.832E-02	8.636E-02	1.489E-01	1.406E-02	0.257
		1235.34		7.477E-01	5.495E-01	8.909E-01	1.025E-01	0.839
CE-139		165.85	*	1.266E-03	2.396E-02	4.010E-02	3.897E-03	0.032
BA-140		162.64		4.884E-01	6.284E-01	1.079E+00	1.084E-01	0.453
		304.84		-6.940E-01	1.185E+00	1.581E+00	4.818E-01	-0.439
		423.70		5.422E-01	1.665E+00	2.839E+00	9.383E-01	0.191
		537.32	*	7.902E-02	2.103E-01	3.549E-01	1.196E-01	0.223
LA-140	+	328.77		5.451E-01	3.705E-01	4.790E-01	6.799E-02	1.138
		432.53		4.031E-01	1.682E+00	2.870E+00	3.190E-01	0.140
		487.03		7.895E-02	1.212E-01	2.098E-01	2.348E-02	0.376
		751.79		-1.403E+00	1.377E+00	1.973E+00	2.083E-01	-0.711
		815.85		1.188E-02	2.744E-01	4.403E-01	4.717E-02	0.027
		867.82		9.455E-01	1.209E+00	2.007E+00	2.058E-01	0.471
		919.63		-1.473E+00	2.610E+00	3.747E+00	4.346E-01	-0.393
		925.24		5.201E-01	9.808E-01	1.711E+00	1.750E-01	0.304
		1596.49	*	1.253E-02	6.298E-02	1.082E-01	9.102E-03	0.116
CE-141		145.44	*	5.702E-02	5.225E-02	8.316E-02	7.622E-03	0.686
CE-143		57.37		4.707E-04	5.225E-02	Half-Life too short		
		231.56		-4.907E-04	5.225E-02	Half-Life too short		
		293.26	*	3.677E-04	5.225E-02	Half-Life too short		

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	+	350.59		2.712E-02	5.225E-02	Half-Life too short		
		490.36		-7.388E-04	5.225E-02	Half-Life too short		
		664.57		4.390E-03	5.225E-02	Half-Life too short		
		721.93		5.894E-04	5.225E-02	Half-Life too short		
CE-144		80.11		3.211E-01	2.062E+00	2.624E+00	2.257E-01	0.122
		133.54	*	-1.382E-02	1.758E-01	2.662E-01	4.153E-02	-0.052
PM-144		476.78		4.149E-04	5.815E-02	9.712E-02	1.111E-02	0.004
		618.01		2.147E-03	2.601E-02	4.285E-02	4.356E-03	0.050
		696.49	*	-1.763E-04	2.906E-02	4.706E-02	4.512E-03	-0.004
		778.57		9.172E-02	1.877E+00	3.026E+00	2.962E-01	0.030
PR-144		696.49	*	-1.195E-02	1.970E+00	3.189E+00	3.057E-01	-0.004
		1489.15		2.857E+00	8.238E+00	1.457E+01	1.225E+00	0.196
PM-146		453.90	*	2.422E-02	4.012E-02	6.933E-02	8.693E-03	0.349
		633.02		-4.410E-01	1.198E+00	1.878E+00	7.072E-01	-0.235
		735.90		2.260E-02	1.220E-01	1.998E-01	5.782E-02	0.113
		747.13		1.876E-02	7.757E-02	1.281E-01	1.889E-02	0.146
ND-147	+	91.11		9.479E-01	3.135E-01	5.291E-01	5.243E-02	1.791
		319.41		-4.278E-01	2.827E+00	4.477E+00	6.383E-01	-0.096
		439.89		2.815E+00	4.924E+00	8.542E+00	9.215E-01	0.330
		531.02	*	-1.455E-01	4.584E-01	7.397E-01	1.197E-01	-0.197
PM-149		285.90	*	4.679E+01	8.454E+01	1.395E+02	2.797E+01	0.335
EU-152		121.78		2.581E-02	5.686E-02	9.812E-02	9.598E-03	0.263
		244.69		-1.316E-01	2.902E-01	4.077E-01	5.541E-02	-0.323
		344.27	*	-6.873E-02	9.220E-02	1.310E-01	1.777E-02	-0.524
		443.98		-5.003E-01	7.920E-01	1.271E+00	1.372E-01	-0.394
		778.89		4.088E-02	2.174E-01	3.550E-01	3.474E-02	0.115
		867.32		7.824E-01	7.355E-01	1.213E+00	1.196E-01	0.645
		964.01		3.618E-01	2.975E-01	4.811E-01	4.610E-02	0.752
		1085.78		1.764E-02	3.392E-01	5.623E-01	4.957E-02	0.031
		1112.02		-3.910E-02	2.753E-01	4.473E-01	3.848E-02	-0.087
		1407.95		1.908E-01	1.571E-01	2.924E-01	2.444E-02	0.652
GD-153		69.67		-3.295E-01	1.331E+00	2.082E+00	1.604E-01	-0.158
	+	83.37		3.559E+01	1.627E+01	2.119E+01	1.895E+00	1.680
	+	97.43	*	6.681E-02	9.003E-02	1.123E-01	9.975E-03	0.595
		103.18		-9.207E-02	7.996E-02	1.307E-01	1.134E-02	-0.704
EU-154		123.07		1.065E-02	4.072E-02	6.976E-02	7.847E-03	0.153
		247.94		-3.086E-03	2.944E-01	4.791E-01	7.527E-02	-0.006
		591.81		1.913E-01	4.976E-01	8.410E-01	1.084E-01	0.227
		723.30		-3.261E-02	1.612E-01	2.216E-01	2.322E-02	-0.147
		756.87		9.545E-02	6.133E-01	1.001E+00	1.282E-01	0.095
		873.19		-6.522E-02	2.315E-01	3.785E-01	4.975E-02	-0.172
		996.32		-4.711E-02	3.085E-01	4.347E-01	7.897E-02	-0.108
		1004.76		4.955E-02	1.986E-01	2.958E-01	3.610E-02	0.168
		1274.45	*	-1.201E-02	1.006E-01	1.568E-01	1.725E-02	-0.077
EU-155		48.70		-5.941E-01	1.715E+00	2.495E+00	2.018E-01	-0.238
		60.01		4.309E-01	4.156E+00	6.120E+00	4.367E-01	0.070
	+	86.54		4.177E-01	1.151E-01	1.548E-01	1.453E-02	2.699
		105.31	*	5.056E-02	8.398E-02	1.464E-01	1.277E-02	0.345
TB-160	+	86.79		1.117E+00	3.075E-01	4.142E-01	3.868E-02	2.696

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		1.085E-01	4.590E-01	7.511E-01	8.372E-02	0.144
		215.65		1.846E-01	5.969E-01	9.946E-01	1.201E-01	0.186
		298.57		1.727E-01	1.226E-01	1.585E-01	2.372E-02	1.089
		879.36	*	-1.747E-02	1.192E-01	1.945E-01	1.916E-02	-0.090
		962.29		3.965E-02	4.832E-01	7.069E-01	6.780E-02	0.056
	+	966.15		3.566E-01	2.162E-01	3.354E-01	3.210E-02	1.063
		1177.93		1.741E-01	3.029E-01	5.214E-01	4.194E-02	0.334
		1271.85		-5.263E-02	5.500E-01	8.846E-01	7.253E-02	-0.059
HO-166M		80.57		1.407E-02	2.635E-01	3.332E-01	2.882E-02	0.042
	+	184.41		3.050E-01	6.174E-02	6.187E-02	6.523E-03	4.930
		280.46		-5.200E-02	7.263E-02	1.118E-01	1.727E-02	-0.465
		410.95		1.899E-01	2.136E-01	3.759E-01	4.033E-02	0.505
		711.68	*	-2.133E-02	5.004E-02	7.774E-02	7.487E-03	-0.274
		752.31		-2.012E-01	2.168E-01	3.143E-01	3.060E-02	-0.640
		810.29		-2.421E-02	5.055E-02	7.690E-02	7.557E-03	-0.315
TM-171		51.35		-2.450E+00	2.033E+01	3.240E+01	2.506E+00	-0.076
		52.39		-1.247E+00	1.073E+01	1.709E+01	1.302E+00	-0.073
		59.40		5.354E+00	2.248E+01	3.331E+01	2.370E+00	0.161
		66.72	*	-8.976E+00	2.350E+01	3.360E+01	2.522E+00	-0.267
LU-176	+	88.36		8.225E-01	2.265E-01	2.838E-01	2.684E-02	2.898
		201.83		5.088E-03	2.317E-02	3.860E-02	4.392E-03	0.132
		306.84	*	1.030E-02	1.993E-02	3.292E-02	4.839E-03	0.313
		401.10		-1.359E+00	5.747E+00	9.584E+00	1.025E+00	-0.142
LU-177	+	112.95		1.750E+00	2.194E+00	2.488E+00	2.113E-01	0.703
		208.36	*	1.137E+00	9.827E-01	1.676E+00	1.962E-01	0.678
LU-177M		52.97		4.946E-02	1.095E+00	1.756E+00	1.327E-01	0.028
		54.07		-1.963E-01	5.965E-01	9.403E-01	7.006E-02	-0.209
		61.30		4.912E-01	1.222E+00	1.821E+00	1.311E-01	0.270
		121.62		1.582E-01	2.928E-01	5.068E-01	4.282E-02	0.312
		147.16		-1.778E-01	5.416E-01	8.032E-01	7.284E-02	-0.221
		171.86		-2.541E-01	3.808E-01	6.149E-01	6.134E-02	-0.413
		218.09		8.017E-01	7.021E-01	1.202E+00	1.466E-01	0.667
		268.79		9.987E-01	7.477E-01	1.150E+00	1.713E-01	0.869
		319.02		3.984E-02	2.199E-01	3.555E-01	5.074E-02	0.112
		367.43		-1.298E-01	7.868E-01	1.230E+00	1.484E-01	-0.105
		413.65	*	-5.573E-03	1.470E-01	2.474E-01	2.657E-02	-0.023
HF-181		56.28		-2.125E-01	7.028E-01	1.108E+00	8.064E-02	-0.192
		57.53		1.357E-01	3.946E-01	6.367E-01	4.586E-02	0.213
		65.20		3.544E-02	7.670E-01	1.120E+00	8.302E-02	0.032
		133.02		-1.734E-02	5.750E-02	8.610E-02	7.465E-03	-0.201
		136.25		-1.492E-01	3.665E-01	6.091E-01	5.331E-02	-0.245
		345.85		7.183E-02	1.857E-01	2.707E-01	3.558E-02	0.265
		482.03	*	-1.974E-02	3.618E-02	5.801E-02	6.248E-03	-0.340
W-181		56.28		-8.203E-02	2.748E-01	4.333E-01	3.154E-02	-0.189
		57.53		5.291E-02	1.544E-01	2.491E-01	1.794E-02	0.212
		65.20	*	1.376E-02	2.977E-01	4.348E-01	3.223E-02	0.032
TA-182		67.75		3.836E-02	9.304E-02	1.377E-01	1.042E-02	0.279
	+	100.10		1.557E-01	2.098E-01	2.376E-01	2.085E-02	0.655
		152.43		1.261E-01	2.702E-01	4.612E-01	4.261E-02	0.273

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		222.10		-9.838E-02	2.971E-01	4.796E-01	5.948E-02	-0.205
	+	1001.68		6.810E+00	3.577E+00	4.102E+00	3.850E-01	1.660
	+	1121.28		6.330E-01	2.417E-01	3.229E-01	2.752E-02	1.960
		1189.05		-6.709E-02	2.853E-01	4.575E-01	3.690E-02	-0.147
		1221.42	*	1.071E-01	1.745E-01	2.990E-01	2.429E-02	0.358
		1230.97		-3.372E-01	4.228E-01	6.180E-01	5.030E-02	-0.546
RE-183		57.98		4.492E-03	1.570E-01	2.504E-01	1.798E-02	0.018
		59.32		2.443E-02	9.259E-02	1.374E-01	9.777E-03	0.178
		67.20		-2.139E-02	1.688E-01	2.442E-01	1.840E-02	-0.088
		162.32	*	1.050E-01	9.038E-02	1.569E-01	1.504E-02	0.669
		208.81		1.552E+00	8.801E-01	1.517E+00	1.779E-01	1.023
		291.72		-6.589E-01	8.391E-01	1.116E+00	1.692E-01	-0.590
RE-184		57.98		1.654E-02	5.783E-01	9.223E-01	6.620E-02	0.018
		59.32		8.990E-02	3.407E-01	5.055E-01	3.597E-02	0.178
		67.20		-7.874E-02	6.213E-01	8.988E-01	6.773E-02	-0.088
		161.27		1.496E-01	2.881E-01	4.911E-01	4.689E-02	0.304
		216.55		-1.372E-02	2.240E-01	3.670E-01	4.448E-02	-0.037
		252.85	*	-1.206E-01	1.894E-01	2.958E-01	4.150E-02	-0.408
		318.01		3.249E-01	3.652E-01	6.130E-01	8.770E-02	0.530
		792.07		5.444E-01	9.592E-01	1.432E+00	1.404E-01	0.380
		903.28		-1.112E-01	7.715E-01	1.275E+00	1.253E-01	-0.087
		920.93		1.220E-01	3.854E-01	6.467E-01	6.316E-02	0.189
OS-185		59.72		-3.892E-02	2.504E-01	3.647E-01	2.597E-02	-0.107
		61.14		3.921E-02	1.341E-01	1.989E-01	1.430E-02	0.197
		69.30		4.933E-02	2.341E-01	3.725E-01	2.859E-02	0.132
		592.07		9.635E-01	2.021E+00	3.440E+00	3.510E-01	0.280
		646.12	*	-1.551E-02	3.621E-02	5.686E-02	5.488E-03	-0.273
		717.42		-3.671E-02	7.030E-01	1.130E+00	1.090E-01	-0.032
		874.81		1.073E-01	4.383E-01	7.531E-01	7.421E-02	0.142
		880.27		2.502E-01	6.576E-01	1.122E+00	1.105E-01	0.223
RE-188		155.03	*	9.841E-03	1.412E-01	2.373E-01	2.213E-02	0.041
		477.96		1.102E+00	2.683E+00	4.590E+00	4.946E-01	0.240
		633.10		-1.012E+00	2.392E+00	3.767E+00	3.692E-01	-0.269
W-188	+	63.58		5.573E+02	9.080E+01	1.041E+02	7.617E+00	5.356
		227.08		-1.282E+00	1.090E+01	1.775E+01	2.247E+00	-0.072
		290.67	*	-3.461E+00	6.254E+00	8.505E+00	1.292E+00	-0.407
IR-192	+	295.96		1.161E+00	2.460E-01	2.513E-01	3.788E-02	4.622
		308.46		4.958E-02	7.819E-02	1.298E-01	1.905E-02	0.382
		316.51	*	-3.134E-02	3.051E-02	4.512E-02	6.486E-03	-0.694
		468.07		-1.519E-02	6.419E-02	9.243E-02	1.044E-02	-0.164
		604.41		-9.672E-02	4.257E-01	5.965E-01	8.373E-02	-0.162
		612.46		7.977E-01	6.651E-01	1.059E+00	1.180E-01	0.753
AU-195		65.12		7.932E-02	1.359E-01	2.033E-01	1.506E-02	0.390
		66.83		-2.339E-02	7.791E-02	1.118E-01	8.399E-03	-0.209
	+	75.70		1.054E+00	2.020E-01	3.297E-01	2.698E-02	3.196
	+	98.88	*	1.946E-01	2.622E-01	3.337E-01	2.944E-02	0.583
	+	129.76		4.694E+00	3.476E+00	4.221E+00	3.628E-01	1.112
TL-200		367.94	*	1.438E-04	3.476E+00	Half-Life too short		
		579.30		1.890E-03	3.476E+00	Half-Life too short		

---- Non-Identified Nuclides ----

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		828.27		-2.276E-03	3.476E+00	Half-Life too short		
		1205.75		7.381E-04	3.476E+00	Half-Life too short		
TL-201		68.90		9.073E-01	3.875E+00	6.171E+00	4.719E-01	0.147
		70.82		-1.671E+00	2.473E+00	3.484E+00	2.712E-01	-0.480
		80.30		5.140E-01	4.993E+00	6.334E+00	5.460E-01	0.081
		135.34		-8.081E+00	2.045E+01	3.402E+01	2.969E+00	-0.238
		167.43	*	-3.947E+00	5.647E+00	9.125E+00	8.927E-01	-0.433
TL-202		68.90		8.015E-02	3.423E-01	5.452E-01	4.169E-02	0.147
		70.82		-1.472E-01	2.178E-01	3.069E-01	2.389E-02	-0.480
		80.30		4.530E-02	4.400E-01	5.582E-01	4.811E-02	0.081
		439.56	*	2.847E-02	5.928E-02	1.023E-01	1.104E-02	0.278
HG-203		70.83		-6.310E-01	9.424E-01	1.325E+00	1.734E-01	-0.476
		72.87		1.710E-01	5.656E-01	8.249E-01	1.054E-01	0.207
	+	82.60		2.649E+00	1.244E+00	1.449E+00	2.014E-01	1.828
		279.20	*	6.504E-02	3.442E-02	5.885E-02	9.192E-03	1.105
BI-207		72.80		3.873E-02	1.654E-01	2.407E-01	1.911E-02	0.161
	+	74.97		5.843E-01	1.120E-01	1.784E-01	1.449E-02	3.275
	+	84.90		4.602E-01	2.104E-01	2.738E-01	2.496E-02	1.681
		569.67		1.102E-02	2.611E-02	4.382E-02	4.548E-03	0.252
		1063.62	*	1.732E-03	4.413E-02	7.319E-02	6.575E-03	0.024
		1770.23		2.795E-01	4.116E-01	6.866E-01	5.651E-02	0.407
TL-207		81.07		1.059E-01	2.071E-01	2.688E-01	2.338E-02	0.394
	+	83.78		3.034E-01	1.387E-01	1.839E-01	1.654E-02	1.650
	+	94.90		4.172E-01	3.588E-01	3.241E-01	2.920E-02	1.287
		122.32		1.230E-01	1.356E+00	2.310E+00	2.102E-01	0.053
	+	144.24		9.721E-01	7.535E-01	1.018E+00	1.014E-01	0.955
		154.21		1.184E-01	3.245E-01	5.513E-01	5.569E-02	0.215
	+	269.46		5.534E-01	2.712E-01	2.929E-01	4.406E-02	1.889
		323.87	*	5.925E-01	5.995E-01	9.057E-01	1.894E-01	0.654
	+	338.28		5.837E+00	1.821E+00	2.171E+00	3.495E-01	2.689
		445.03		-1.386E+00	1.886E+00	2.996E+00	4.111E-01	-0.463
PO-209		260.50		1.937E+00	8.328E+00	1.367E+01	1.975E+00	0.142
		262.80		-1.213E+01	2.230E+01	3.495E+01	5.093E+00	-0.347
		896.60	*	-1.855E+00	5.586E+00	9.058E+00	8.918E-01	-0.205
PB-211		404.84	*	-6.024E-01	8.618E-01	1.248E+00	7.858E-01	-0.483
		427.08		8.271E-01	1.870E+00	3.105E+00	1.940E+00	0.266
		831.96		-6.870E-02	1.039E+00	1.646E+00	1.034E+00	-0.042
BI-212	+	727.18	*	1.010E+00	3.520E-01	5.797E-01	6.336E-02	1.742
		785.46		1.401E+00	1.529E+00	2.635E+00	2.581E-01	0.532
		1620.62		6.847E-01	9.275E-01	1.721E+00	1.445E-01	0.398
PO-215		81.07		1.059E-01	2.071E-01	2.688E-01	2.338E-02	0.394
	+	83.78		3.034E-01	1.387E-01	1.839E-01	1.654E-02	1.650
	+	94.90		4.172E-01	3.588E-01	3.241E-01	2.920E-02	1.287
		122.32		1.230E-01	1.356E+00	2.310E+00	2.102E-01	0.053
	+	144.24		9.721E-01	7.535E-01	1.018E+00	1.014E-01	0.955
		154.21		1.184E-01	3.245E-01	5.513E-01	5.569E-02	0.215
	+	269.46		5.534E-01	2.712E-01	2.929E-01	4.406E-02	1.889
		323.87	*	5.925E-01	5.995E-01	9.057E-01	1.894E-01	0.654
	+	338.28		5.837E+00	1.821E+00	2.171E+00	3.495E-01	2.689

---- Non-Identified Nuclides ----

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		445.03		-1.386E+00	1.886E+00	2.996E+00	4.111E-01	-0.463
RN-219	+	271.23		7.101E-01	3.501E-01	3.778E-01	6.070E-02	1.880
		401.81	*	-7.904E-02	3.454E-01	5.758E-01	9.390E-02	-0.137
RN-220		549.76	*	-2.975E+00	2.185E+01	3.572E+01	3.753E+00	-0.083
RA-223		81.07		1.059E-01	2.071E-01	2.688E-01	2.338E-02	0.394
	+	83.78		3.034E-01	1.387E-01	1.839E-01	1.654E-02	1.650
	+	94.90		4.172E-01	3.588E-01	3.241E-01	2.920E-02	1.287
		122.32		1.230E-01	1.356E+00	2.310E+00	2.102E-01	0.053
	+	144.24		9.721E-01	7.535E-01	1.018E+00	1.014E-01	0.955
		154.21		1.184E-01	3.245E-01	5.513E-01	5.569E-02	0.215
	+	269.46		5.534E-01	2.712E-01	2.929E-01	4.406E-02	1.889
		323.87	*	5.925E-01	5.995E-01	9.057E-01	1.894E-01	0.654
	+	338.28		5.837E+00	1.821E+00	2.171E+00	3.495E-01	2.689
		445.03		-1.386E+00	1.886E+00	2.996E+00	4.111E-01	-0.463
AC-227		79.80		5.603E-01	1.578E+00	2.028E+00	4.356E-01	0.276
		236.00		-7.104E-02	2.068E-01	2.949E-01	4.643E-02	-0.241
		256.20	*	-1.038E-01	3.264E-01	5.204E-01	9.917E-02	-0.199
		286.10		6.609E-01	1.367E+00	2.253E+00	4.120E-01	0.293
	+	299.80		3.308E+00	1.978E+00	2.275E+00	4.849E-01	1.454
		304.40		-7.579E-01	1.718E+00	2.351E+00	5.173E-01	-0.322
		334.20		-4.799E-01	2.201E+00	3.058E+00	6.764E-01	-0.157
TH-227		79.80		5.603E-01	1.578E+00	2.028E+00	4.412E-01	0.276
	+	94.00		3.338E+00	2.947E+00	4.051E+00	8.894E-01	0.824
		236.00		-7.104E-02	2.068E-01	2.949E-01	4.381E-02	-0.241
		256.20	*	-1.038E-01	3.265E-01	5.204E-01	1.109E-01	-0.199
		286.10		6.609E-01	1.517E+00	2.253E+00	2.279E+00	0.293
	+	299.80		3.308E+00	1.978E+00	2.275E+00	4.849E-01	1.454
		304.40		-7.579E-01	1.718E+00	2.351E+00	5.173E-01	-0.322
		334.20		-4.799E-01	2.201E+00	3.058E+00	6.764E-01	-0.157
TH-229		85.43		3.379E-01	1.568E-01	2.585E-01	2.373E-02	1.307
	+	88.47		4.735E-01	1.304E-01	1.616E-01	1.527E-02	2.929
	+	100.00		1.614E-01	2.175E-01	2.489E-01	2.185E-02	0.649
		193.63	*	6.002E-02	3.984E-01	6.635E-01	7.286E-02	0.090
		210.97		-1.214E-01	6.534E-01	1.067E+00	1.262E-01	-0.114
PA-231		283.67	*	-9.599E-01	1.321E+00	2.019E+00	4.000E-01	-0.475
	+	301.29		1.323E+00	7.739E-01	9.062E-01	1.562E-01	1.460
TH-231		81.07		1.059E-01	2.071E-01	2.688E-01	2.338E-02	0.394
	+	83.78		3.034E-01	1.387E-01	1.839E-01	1.654E-02	1.650
	+	94.90		4.172E-01	3.588E-01	3.241E-01	2.920E-02	1.287
		122.32		1.230E-01	1.356E+00	2.310E+00	2.102E-01	0.053
	+	144.24		9.721E-01	7.535E-01	1.018E+00	1.014E-01	0.955
		154.21		1.184E-01	3.245E-01	5.513E-01	5.569E-02	0.215
	+	269.46		5.534E-01	2.712E-01	2.929E-01	4.406E-02	1.889
		323.87	*	5.925E-01	5.995E-01	9.057E-01	1.894E-01	0.654
	+	338.28		5.837E+00	1.821E+00	2.171E+00	3.495E-01	2.689
		445.03		-1.386E+00	1.886E+00	2.996E+00	4.111E-01	-0.463
U-231	+	84.21		1.329E+01	6.078E+00	8.098E+00	7.320E-01	1.641
	+	92.29		4.920E+01	5.477E+00	5.787E+00	5.302E-01	8.502
		95.87	*	-1.467E-01	1.181E+00	1.457E+00	1.305E-01	-0.101

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-4.376E-01	1.769E+00	2.866E+00	2.454E-01	-0.153
PA-233	+	75.28		1.705E+01	3.921E+00	5.240E+00	7.906E-01	3.254
	+	86.59		6.789E+00	2.543E+00	2.525E+00	6.831E-01	2.688
	+	300.12		9.223E-01	5.450E-01	6.474E-01	1.244E-01	1.425
		311.98	*	9.531E-03	5.253E-02	8.509E-02	1.249E-02	0.112
		340.50		8.652E-01	6.471E-01	9.498E-01	2.464E-01	0.911
		398.62		1.154E-01	1.826E+00	3.099E+00	8.481E-01	0.037
		415.76		-4.814E-01	1.392E+00	2.291E+00	5.152E-01	-0.210
PA-234	+	63.00		1.615E+01	3.354E+00	3.077E+00	4.555E-01	5.247
	+	94.67		2.976E-01	2.573E-01	2.443E-01	3.099E-02	1.218
	+	98.44		7.880E-02	1.147E-01	1.346E-01	7.512E-02	0.586
	+	99.86		4.085E-01	5.504E-01	6.484E-01	5.696E-02	0.630
		111.00		-7.890E-02	1.698E-01	2.555E-01	3.069E-02	-0.309
		131.20		-3.043E-03	9.266E-02	1.408E-01	1.215E-02	-0.022
		152.70		2.248E-01	2.643E-01	4.528E-01	7.867E-02	0.496
	+	186.00		1.098E+01	3.974E+00	2.789E+00	8.875E-01	3.937
		226.40		-3.965E-02	3.408E-01	5.551E-01	8.941E-02	-0.071
		227.20		4.491E-02	3.648E-01	6.008E-01	7.610E-02	0.075
		248.90		2.104E-01	6.626E-01	1.094E+00	2.721E-01	0.192
		293.70		3.654E+00	1.026E+00	1.270E+00	2.703E-01	2.877
		369.80		6.680E-01	7.408E-01	1.219E+00	2.838E-01	0.548
		568.70		5.101E-01	8.377E-01	1.423E+00	1.478E-01	0.358
		569.50		1.065E-01	2.324E-01	3.909E-01	4.057E-02	0.272
		574.00		1.812E-01	1.262E+00	2.099E+00	2.171E-01	0.086
		699.00		-5.578E-02	6.273E-01	1.009E+00	1.971E-01	-0.055
		706.10		4.418E-01	9.625E-01	1.579E+00	7.074E-01	0.280
		733.00		-1.030E-01	3.578E-01	4.814E-01	1.090E-01	-0.214
		742.81		3.115E-01	1.177E+00	1.911E+00	1.288E+00	0.163
	+	796.30		1.878E+00	1.243E+00	1.694E+00	4.652E-01	1.109
		805.60		-1.369E-01	8.778E-01	1.382E+00	4.286E-01	-0.099
		819.60		-9.189E-01	1.119E+00	1.545E+00	5.922E-01	-0.595
		826.30		-5.306E-01	7.457E-01	1.041E+00	4.684E-01	-0.510
		831.60		-1.176E-01	5.317E-01	8.280E-01	2.502E-01	-0.142
		876.40		-2.282E-01	6.970E-01	1.067E+00	1.098E+00	-0.214
		880.51		1.167E-01	2.401E-01	4.128E-01	4.067E-02	0.283
		883.24		2.196E-01	2.754E-01	4.212E-01	2.839E-01	0.521
		899.00		1.874E-01	6.713E-01	1.145E+00	5.034E-01	0.164
		925.00		4.691E-01	9.987E-01	1.735E+00	1.692E-01	0.270
		926.50		2.251E-02	1.556E-01	2.632E-01	6.759E-02	0.086
		946.00	*	9.306E-02	2.618E-01	4.491E-01	8.652E-02	0.207
		949.00		6.648E-02	4.020E-01	6.798E-01	6.562E-02	0.098
		980.50		-3.448E-01	6.150E-01	9.684E-01	9.201E-02	-0.356
		1394.10		2.308E-01	8.639E-01	1.431E+00	9.310E-01	0.161
PA-234M		766.42		1.873E+01	1.595E+01	2.042E+01	1.041E+01	0.917
	+	1001.03	*	1.545E+01	8.153E+00	9.382E+00	9.980E-01	1.647
NP-236	+	94.67		2.257E-01	1.941E-01	1.855E-01	1.674E-02	1.217
	+	98.44		5.957E-02	8.027E-02	1.017E-01	8.993E-03	0.586
		111.00		-5.968E-02	1.283E-01	1.933E-01	1.646E-02	-0.309
		160.31	*	-7.612E-02	6.409E-02	1.013E-01	9.640E-03	-0.751

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		1.362E-01	1.835E-01	2.293E-01	2.017E-02	0.594
		117.00	*	-5.007E-03	1.569E-01	2.402E-01	2.033E-02	-0.021
		209.75		2.185E+00	7.097E-01	1.228E+00	1.446E-01	1.779
		228.18		2.337E-03	1.911E-01	3.130E-01	3.981E-02	0.007
		277.60		4.919E-02	1.569E-01	2.573E-01	3.961E-02	0.191
		334.30		-3.638E-01	1.242E+00	1.715E+00	2.343E-01	-0.212
AM-241		59.54	*	-4.210E-02	1.334E-01	1.928E-01	1.515E-02	-0.218
CM-243	+	99.55		1.401E-01	1.888E-01	2.359E-01	2.075E-02	0.594
		103.76	*	4.918E-03	7.314E-02	1.255E-01	1.087E-02	0.039
		117.00		-5.151E-03	1.614E-01	2.471E-01	2.091E-02	-0.021
		209.75		2.154E+00	6.996E-01	1.211E+00	1.426E-01	1.779
		228.18		2.361E-03	1.930E-01	3.163E-01	4.022E-02	0.007
		277.60		4.959E-02	1.582E-01	2.594E-01	3.993E-02	0.191
AM-246		798.80		-8.074E-02	1.374E-01	1.763E-01	1.731E-02	-0.458
		1036.00		1.559E-01	2.600E-01	4.529E-01	4.155E-02	0.344
		1062.04		7.668E-02	1.927E-01	3.300E-01	2.968E-02	0.232
		1078.86	*	2.106E-03	1.215E-01	2.009E-01	1.782E-02	0.010
CM-247		278.00		5.385E-01	6.394E-01	1.070E+00	1.649E-01	0.503
		287.40		1.224E+00	1.069E+00	1.805E+00	2.757E-01	0.678
		402.60	*	2.227E-03	3.071E-02	5.211E-02	5.577E-03	0.043
CF-249		252.85		-4.523E-01	7.102E-01	1.109E+00	1.556E-01	-0.408
		333.44		5.356E-02	1.601E-01	2.330E-01	3.192E-02	0.230
		387.95	*	-4.563E-03	3.283E-02	5.517E-02	6.007E-03	-0.083
CF-251		176.60	*	-9.841E-02	1.053E-01	1.676E-01	1.707E-02	-0.587
		227.00		-4.454E-02	3.264E-01	5.312E-01	6.722E-02	-0.084
		285.00		1.644E+00	1.517E+00	2.559E+00	3.926E-01	0.642

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                               DETECTOR DATA                                 *
*                                                                             *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799008        *
* Acquisition date : 10-FEB-2010 17:19:14 Detector SN#     :                  *
* Detector ID        : GAM11               Sensitivity      : 5.000           *
* Geometry           : CAN                 Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:02.15      Half life ratio :  8.000           *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID          : G245799008           Analyst initials: RXF2            *
* Batch Number       : 947531               Sample Quantity : 1.4838E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000       *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
* Standard Weight  :    0.00000                                               *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope       :                  *
* MSD DPM          :    0.000             MSD Isotope      :                  *
* LCS DPM          :    0.000             LCS Isotope      :                  *
* LCSD DPM         :    0.000             LCSD Isotope     :                  *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.898E+01	2.875E+00	4.134E-01	0.000E+00
CD-109	3.529E+00	9.523E-01	1.070E+00	0.000E+00
SN-126	3.468E-01	9.359E-02	1.055E-01	0.000E+00
BA-137M	6.855E-01	1.017E-01	5.618E-02	0.000E+00
CS-137	7.247E-01	1.076E-01	5.939E-02	0.000E+00
TL-208	4.857E-01	8.185E-02	5.041E-02	0.000E+00
BI-210	3.190E+00	3.870E+00	3.671E+00	0.000E+00
PB-210	3.190E+00	3.870E+00	3.671E+00	0.000E+00
PO-210	3.190E+00	3.868E+00	3.671E+00	0.000E+00
BI-211	3.246E+00	5.662E-01	2.883E-01	0.000E+00
PB-212	1.459E+00	2.212E-01	7.820E-02	0.000E+00
PO-212	1.459E+00	2.212E-01	7.820E-02	0.000E+00
BI-214	1.176E+00	1.971E-01	1.014E-01	0.000E+00
PB-214	1.129E+00	2.052E-01	1.005E-01	0.000E+00
PO-214	1.129E+00	2.052E-01	1.005E-01	0.000E+00
PO-216	1.459E+00	2.212E-01	7.820E-02	0.000E+00
PO-218	1.129E+00	2.052E-01	1.005E-01	0.000E+00
RA-224	4.964E+00	1.324E+00	8.900E-01	0.000E+00
RA-226	1.176E+00	1.971E-01	1.014E-01	0.000E+00
AC-228	1.293E+00	3.120E-01	1.684E-01	0.000E+00
RA-228	1.293E+00	3.120E-01	1.684E-01	0.000E+00
TH-228	1.482E+00	2.245E-01	7.939E-02	0.000E+00
TH-230	1.176E+00	1.971E-01	1.014E-01	0.000E+00
TH-232	1.293E+00	3.120E-01	1.684E-01	0.000E+00
TH-234	1.385E+01	3.080E+00	1.664E+00	0.000E+00
U-234	1.176E+00	1.971E-01	1.014E-01	0.000E+00
U-235	3.000E-01	2.319E-01	2.961E-01	0.000E+00
NP-237	1.018E+00	3.434E-01	3.125E-01	0.000E+00
U-238	1.385E+01	3.080E+00	1.664E+00	0.000E+00
AM-243	3.255E-01	6.116E-02	7.736E-02	0.000E+00
ANH-511	8.630E-02	6.590E-02	4.149E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-3.514E-02	2.723E-01	4.757E-01	0.000E+00	NOT IDENT.
NA-22	-5.309E-03	3.520E-02	5.633E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.292E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.916E-02	2.195E-02	2.935E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.725E-02	6.020E-02	0.000E+00	FAIL ABUN
SC-46	-1.670E-02	2.907E-02	4.784E-02	0.000E+00	FAIL ABUN
V-48	-1.778E-03	5.496E-02	9.453E-02	0.000E+00	NOT IDENT.
CR-51	-1.450E-01	3.093E-01	5.102E-01	0.000E+00	NOT IDENT.
MN-52	1.450E-01	1.731E-01	3.222E-01	0.000E+00	FAIL ABUN
MN-54	1.620E-02	3.024E-02	5.514E-02	0.000E+00	NOT IDENT.
CO-56	-8.264E-03	3.163E-02	5.425E-02	0.000E+00	FAIL ABUN
CO-57	3.760E-03	1.916E-02	3.569E-02	0.000E+00	NOT IDENT.
CO-58	-1.103E-02	3.218E-02	5.177E-02	0.000E+00	NOT IDENT.
FE-59	1.458E-02	7.775E-02	1.347E-01	0.000E+00	FAIL ABUN
CO-60	1.968E-02	2.942E-02	5.317E-02	0.000E+00	NOT IDENT.
ZN-65	3.089E-02	8.380E-02	1.292E-01	0.000E+00	NOT IDENT.
GE-68	3.704E-01	1.021E+00	1.801E+00	0.000E+00	NOT IDENT.
AS-73	-2.187E-01	5.605E-01	9.779E-01	0.000E+00	NOT IDENT.
AS-74	-8.206E-02	7.488E-02	1.170E-01	0.000E+00	NOT IDENT.
SE-75	1.081E-03	3.599E-02	5.956E-02	0.000E+00	NOT IDENT.
BR-77	1.826E-01	8.725E+00	1.526E+01	0.000E+00	FAIL ABUN
SR-82	-2.904E-01	3.035E-01	4.575E-01	0.000E+00	NOT IDENT.
RB-83	-1.752E-02	5.730E-02	9.790E-02	0.000E+00	NOT IDENT.
RB-84	5.661E-02	5.785E-02	1.085E-01	0.000E+00	NOT IDENT.
KR-85	6.395E+00	6.113E+00	1.025E+01	0.000E+00	NOT IDENT.
SR-85	3.282E-02	3.137E-02	5.259E-02	0.000E+00	NOT IDENT.
RB-86	1.101E-01	6.372E-01	1.106E+00	0.000E+00	NOT IDENT.
Y-88	-5.091E-03	2.579E-02	4.158E-02	0.000E+00	NOT IDENT.
ZR-88	-7.971E-03	2.532E-02	4.462E-02	0.000E+00	NOT IDENT.
Y-91	2.047E+00	1.603E+01	2.733E+01	0.000E+00	NOT IDENT.
NB-94	2.395E-02	2.948E-02	5.278E-02	0.000E+00	NOT IDENT.
NB-95	3.519E-02	4.699E-02	7.357E-02	0.000E+00	NOT IDENT.
NB-95M	-1.705E-02	1.077E-01	1.670E-01	0.000E+00	NOT IDENT.
ZR-95	2.201E-02	5.345E-02	9.323E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.663E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.922E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-8.943E+00	1.014E+01	1.554E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.598E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.028E-03	2.669E-02	4.723E-02	0.000E+00	NOT IDENT.
RH-102	-1.585E-02	2.445E-02	4.118E-02	0.000E+00	FAIL ABUN
RU-103	-6.352E-03	3.164E-02	5.469E-02	0.000E+00	FAIL ABUN
RH-106	-4.137E-01	2.757E-01	4.044E-01	0.000E+00	FAIL ABUN
RU-106	-4.137E-01	2.726E-01	4.044E-01	0.000E+00	FAIL ABUN
AG-108M	1.075E-03	2.615E-02	4.661E-02	0.000E+00	NOT IDENT.
AG-110M	2.312E-02	3.123E-02	5.040E-02	0.000E+00	NOT IDENT.
IN-111	4.760E-01	9.190E-01	1.482E+00	0.000E+00	NOT IDENT.
IN-113M	1.181E-02	3.616E-02	6.605E-02	0.000E+00	NOT IDENT.
SN-113	1.181E-02	3.616E-02	6.605E-02	0.000E+00	NOT IDENT.
IN-114M	-8.077E-02	1.562E-01	2.418E-01	0.000E+00	NOT IDENT.
CD-115	1.172E+00	9.200E+00	1.619E+01	0.000E+00	NOT IDENT.
SN-117M	-2.609E-02	4.224E-02	7.454E-02	0.000E+00	NOT IDENT.
SB-122	1.953E+00	1.695E+00	3.158E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.092E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.188E-02	2.204E-02	3.817E-02	0.000E+00	NOT IDENT.
I-124	-4.828E-01	6.070E-01	8.925E-01	0.000E+00	NOT IDENT.
SB-124	3.548E-02	5.523E-02	1.043E-01	0.000E+00	FAIL ABUN
SB-125	4.262E-03	7.697E-02	1.375E-01	0.000E+00	FAIL ABUN
TE-125M	2.678E+00	8.040E+00	1.371E+01	0.000E+00	NOT IDENT.
I-126	-8.708E-02	1.906E-01	2.680E-01	0.000E+00	NOT IDENT.
SB-126	-1.450E-02	1.148E-01	1.916E-01	0.000E+00	FAIL ABUN
SB-127	5.045E-01	1.160E+00	2.036E+00	0.000E+00	NOT IDENT.
XE-127	-1.623E-02	3.837E-02	6.685E-02	0.000E+00	FAIL ABUN
I-131	-3.374E-03	9.390E-02	1.575E-01	0.000E+00	NOT IDENT.
TE-132	4.169E-02	5.844E-01	1.031E+00	0.000E+00	FAIL ABUN
BA-133	1.121E-02	3.900E-02	5.986E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.305E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.779E-02	9.031E-02	0.000E+00	FAIL ABUN
CS-135	6.111E-02	1.359E-01	2.163E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.158E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.832E-02	8.463E-02	1.511E-01	0.000E+00	FAIL ABUN
CE-139	1.266E-03	2.348E-02	4.250E-02	0.000E+00	NOT IDENT.
BA-140	7.902E-02	2.061E-01	3.660E-01	0.000E+00	NOT IDENT.
LA-140	1.253E-02	6.172E-02	1.087E-01	0.000E+00	FAIL ABUN
CE-141	5.702E-02	5.120E-02	8.841E-02	0.000E+00	NOT IDENT.

CE-143	0.000E+00	1.526E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.382E-02	1.722E-01	2.835E-01	0.000E+00	NOT IDENT.
PM-144	-1.763E-04	2.848E-02	4.823E-02	0.000E+00	NOT IDENT.
PR-144	-1.195E-02	1.930E+00	3.269E+00	0.000E+00	NOT IDENT.
PM-146	2.422E-02	3.931E-02	7.179E-02	0.000E+00	NOT IDENT.
ND-147	-1.455E-01	4.492E-01	7.631E-01	0.000E+00	FAIL ABUN
PM-149	4.679E+01	8.285E+01	1.461E+02	0.000E+00	NOT IDENT.
EU-152	-6.873E-02	9.036E-02	1.366E-01	0.000E+00	NOT IDENT.
GD-153	6.681E-02	8.823E-02	1.204E-01	0.000E+00	FAIL ABUN
EU-154	-1.201E-02	9.859E-02	1.584E-01	0.000E+00	NOT IDENT.
EU-155	5.056E-02	8.230E-02	1.568E-01	0.000E+00	FAIL ABUN
TB-160	-1.747E-02	1.168E-01	1.982E-01	0.000E+00	FAIL ABUN
HO-166M	-2.133E-02	4.904E-02	7.963E-02	0.000E+00	FAIL ABUN
TM-171	-8.976E+00	2.303E+01	3.634E+01	0.000E+00	NOT IDENT.
LU-176	1.030E-02	1.953E-02	3.440E-02	0.000E+00	FAIL ABUN
LU-177	1.137E+00	9.631E-01	1.768E+00	0.000E+00	FAIL ABUN
LU-177M	-5.573E-03	1.441E-01	2.568E-01	0.000E+00	NOT IDENT.
HF-181	-1.974E-02	3.545E-02	5.999E-02	0.000E+00	NOT IDENT.
W-181	1.376E-02	2.918E-01	4.705E-01	0.000E+00	NOT IDENT.
TA-182	1.071E-01	1.710E-01	3.022E-01	0.000E+00	FAIL ABUN
RE-183	1.050E-01	8.857E-02	1.664E-01	0.000E+00	NOT IDENT.
RE-184	-1.206E-01	1.856E-01	3.105E-01	0.000E+00	NOT IDENT.
OS-185	-1.551E-02	3.549E-02	5.838E-02	0.000E+00	NOT IDENT.
RE-188	9.841E-03	1.383E-01	2.519E-01	0.000E+00	NOT IDENT.
W-188	-3.461E+00	6.129E+00	8.900E+00	0.000E+00	FAIL ABUN
IR-192	-3.134E-02	2.990E-02	4.712E-02	0.000E+00	FAIL ABUN
AU-195	1.946E-01	2.569E-01	3.578E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.147E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.947E+00	5.534E+00	9.670E+00	0.000E+00	NOT IDENT.
TL-202	2.847E-02	5.810E-02	1.060E-01	0.000E+00	NOT IDENT.
HG-203	0.000E+00	3.373E-02	6.164E-02	0.000E+00	FAIL ABUN
BI-207	1.732E-03	4.324E-02	7.424E-02	0.000E+00	FAIL ABUN
TL-207	5.925E-01	5.876E-01	9.453E-01	0.000E+00	FAIL ABUN
PO-209	-1.855E+00	5.474E+00	9.227E+00	0.000E+00	NOT IDENT.
PB-211	-6.024E-01	8.445E-01	1.295E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.450E-01	5.936E-01	0.000E+00	FAIL ABUN
PO-215	5.925E-01	5.876E-01	9.453E-01	0.000E+00	FAIL ABUN
RN-219	-7.904E-02	3.385E-01	5.979E-01	0.000E+00	FAIL ABUN
RN-220	-2.975E+00	2.141E+01	3.681E+01	0.000E+00	NOT IDENT.
RA-223	5.925E-01	5.876E-01	9.453E-01	0.000E+00	FAIL ABUN
AC-227	-1.038E-01	3.198E-01	5.461E-01	0.000E+00	FAIL ABUN
TH-227	-1.038E-01	3.200E-01	5.461E-01	0.000E+00	FAIL ABUN
TH-229	6.002E-02	3.904E-01	7.008E-01	0.000E+00	FAIL ABUN
PA-231	-9.599E-01	1.294E+00	2.114E+00	0.000E+00	FAIL ABUN
TH-231	5.925E-01	5.876E-01	9.453E-01	0.000E+00	FAIL ABUN
U-231	-1.467E-01	1.157E+00	1.564E+00	0.000E+00	FAIL ABUN
PA-233	9.531E-03	5.148E-02	8.889E-02	0.000E+00	FAIL ABUN
PA-234	9.306E-02	2.566E-01	4.569E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	7.990E+00	9.531E+00	0.000E+00	FAIL ABUN
NP-236	-7.612E-02	6.281E-02	1.075E-01	0.000E+00	FAIL ABUN
NP-239	-5.007E-03	1.538E-01	2.566E-01	0.000E+00	FAIL ABUN
AM-241	-4.210E-02	1.307E-01	2.091E-01	0.000E+00	NOT IDENT.
CM-243	4.918E-03	7.168E-02	1.345E-01	0.000E+00	FAIL ABUN
AM-246	2.106E-03	1.191E-01	2.037E-01	0.000E+00	NOT IDENT.
CM-247	2.227E-03	3.010E-02	5.411E-02	0.000E+00	NOT IDENT.
CF-249	-4.563E-03	3.217E-02	5.734E-02	0.000E+00	NOT IDENT.
CF-251	-9.841E-02	1.032E-01	1.774E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:19:49.04

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799008.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:19:14
Sample ID         : G245799008           Sample quantity  : 1.48384E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.15  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1497	10.67*	1.225E+00	2.898E+01	2.898E+01	10.12
CD-109	88.03	345	3.72*	6.796E+00	3.449E+00	3.529E+00	27.54
SN-126	64.28	892	9.60	4.286E+00	5.483E+00	5.483E+00	20.53
	86.94	345	8.90	6.796E+00	1.442E+00	1.442E+00	48.93
	87.57	345	37.00*	6.796E+00	3.468E-01	3.468E-01	27.54
BA-137M	661.65	585	89.98*	2.403E+00	6.849E-01	6.855E-01	15.14
CS-137	661.65	585	85.12*	2.403E+00	7.240E-01	7.247E-01	15.15
TL-208	277.35	------	6.80	4.676E+00	------ Line Not Found		------
	510.84	101	21.60	2.953E+00	3.995E-01	3.995E-01	78.36
	583.14	430	84.20*	2.660E+00	4.857E-01	4.857E-01	17.19
	860.37	70	12.46	1.926E+00	7.366E-01	7.366E-01	54.03
BI-210	46.50	73	4.05*	1.439E+00	3.186E+00	3.190E+00	123.77
PB-210	46.50	73	4.05*	1.439E+00	3.186E+00	3.190E+00	123.77
PO-210	46.50	73	4.05*	1.439E+00	3.186E+00	3.190E+00	123.71
BI-211	72.87	------	1.27	5.576E+00	------ Line Not Found		------
	351.07	651	12.94*	3.922E+00	3.246E+00	3.246E+00	17.80
PB-212	74.81	492	10.70	5.798E+00	2.008E+00	2.008E+00	21.33
	77.11	801	18.00	6.024E+00	1.869E+00	1.869E+00	13.98
	87.30	345	8.00	6.796E+00	1.604E+00	1.604E+00	29.30
	238.63	1340	44.60*	5.209E+00	1.459E+00	1.459E+00	15.47
	300.09	106	3.41	4.413E+00	1.785E+00	1.785E+00	58.13
PO-212	74.81	492	10.70	5.798E+00	2.008E+00	2.008E+00	21.33
	77.11	801	18.00	6.024E+00	1.869E+00	1.869E+00	13.98
	87.30	345	8.00	6.796E+00	1.604E+00	1.604E+00	29.30
	115.19	------	0.60	7.407E+00	------ Line Not Found		------
	238.63	1340	44.60*	5.209E+00	1.459E+00	1.459E+00	15.47
	300.09	106	3.41	4.413E+00	1.785E+00	1.785E+00	58.13
BI-214	609.31	553	46.30*	2.569E+00	1.176E+00	1.176E+00	17.09
	1120.29	122	15.10	1.530E+00	1.338E+00	1.338E+00	38.76
	1764.49	88	15.80	1.070E+00	1.309E+00	1.309E+00	29.30
PB-214	74.81	492	6.21	5.798E+00	3.460E+00	3.460E+00	20.55
	77.11	801	10.50	6.024E+00	3.203E+00	3.203E+00	15.92

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	345	4.67	6.796E+00	2.748E+00	2.748E+00	28.60
	241.98	400	7.49	5.163E+00	2.618E+00	2.618E+00	27.78
	295.21	516	19.20	4.467E+00	1.522E+00	1.522E+00	22.06
	351.92	651	37.20*	3.922E+00	1.129E+00	1.129E+00	18.55
PO-214	74.81	492	6.21	5.798E+00	3.460E+00	3.460E+00	20.55
	77.11	801	10.50	6.024E+00	3.203E+00	3.203E+00	15.92
	87.30	345	4.67	6.796E+00	2.748E+00	2.748E+00	28.60
	241.98	400	7.49	5.163E+00	2.618E+00	2.618E+00	27.78
	295.21	516	19.20	4.467E+00	1.522E+00	1.522E+00	22.06
	351.92	651	37.20*	3.922E+00	1.129E+00	1.129E+00	18.55
PO-216	74.81	492	10.70	5.798E+00	2.008E+00	2.008E+00	21.33
	77.11	801	18.00	6.024E+00	1.869E+00	1.869E+00	13.98
	87.30	345	8.00	6.796E+00	1.604E+00	1.604E+00	29.30
	238.63	1340	44.60*	5.209E+00	1.459E+00	1.459E+00	15.47
	300.09	106	3.41	4.413E+00	1.785E+00	1.785E+00	58.13
PO-218	74.81	492	6.21	5.798E+00	3.460E+00	3.460E+00	20.55
	77.11	801	10.50	6.024E+00	3.203E+00	3.203E+00	15.92
	87.30	345	4.67	6.796E+00	2.748E+00	2.748E+00	28.60
	241.98	400	7.49	5.163E+00	2.618E+00	2.618E+00	27.78
	295.21	516	19.20	4.467E+00	1.522E+00	1.522E+00	22.06
	351.92	651	37.20*	3.922E+00	1.129E+00	1.129E+00	18.55
RA-224	240.98	400	3.95*	5.163E+00	4.964E+00	4.964E+00	27.21
RA-226	609.31	553	46.30*	2.569E+00	1.176E+00	1.176E+00	17.09
	1120.29	122	15.10	1.530E+00	1.338E+00	1.338E+00	38.76
	1764.49	88	15.80	1.070E+00	1.309E+00	1.309E+00	29.30
AC-228	338.32	254	11.40	4.037E+00	1.398E+00	1.398E+00	50.25
	911.07	259	27.70*	1.832E+00	1.293E+00	1.293E+00	24.62
	969.11	190	16.60	1.737E+00	1.671E+00	1.671E+00	31.36
RA-228	338.32	254	11.40	4.037E+00	1.398E+00	1.398E+00	50.25
	911.07	259	27.70*	1.832E+00	1.293E+00	1.293E+00	24.62
	969.11	190	16.60	1.737E+00	1.671E+00	1.671E+00	31.36
TH-228	74.81	492	10.70	5.798E+00	2.008E+00	2.039E+00	19.20
	77.11	801	18.00	6.024E+00	1.869E+00	1.897E+00	13.98
	87.30	345	8.00	6.796E+00	1.604E+00	1.628E+00	27.54
	238.63	1340	44.60*	5.209E+00	1.459E+00	1.482E+00	15.47
	300.09	106	3.41	4.413E+00	1.785E+00	1.812E+00	82.37
TH-230	609.31	553	46.30*	2.569E+00	1.176E+00	1.176E+00	17.09
	1120.29	122	15.10	1.530E+00	1.338E+00	1.338E+00	38.76
	1764.49	88	15.80	1.070E+00	1.309E+00	1.309E+00	29.30
TH-232	338.32	254	11.40	4.037E+00	1.398E+00	1.398E+00	29.94
	911.07	259	27.70*	1.832E+00	1.293E+00	1.293E+00	24.62
	969.11	190	16.60	1.737E+00	1.671E+00	1.671E+00	31.36
TH-234	63.29	892	3.80*	4.286E+00	1.385E+01	1.385E+01	22.69
	92.38	1911	5.41	7.052E+00	1.267E+01	1.267E+01	19.41
U-234	609.31	553	46.30*	2.569E+00	1.176E+00	1.176E+00	17.09
	1120.29	122	15.10	1.530E+00	1.338E+00	1.338E+00	38.76
	1764.49	88	15.80	1.070E+00	1.309E+00	1.309E+00	29.30
U-235	89.95	278	2.70	6.940E+00	3.750E+00	3.750E+00	44.26
	93.35	1911	4.50	7.052E+00	1.523E+01	1.523E+01	28.90

Sample ID : G245799008 Acquisition date : 10-FEB-2010 17:19:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	105.00	------	2.10	7.364E+00	------	Line Not Found	------
	143.76	88	10.50*	7.031E+00	3.000E-01	3.000E-01	78.88
	163.35	------	4.70	6.629E+00	------	Line Not Found	------
	185.71	535	54.00	6.158E+00	4.067E-01	4.067E-01	20.24
	205.31	------	4.70	5.777E+00	------	Line Not Found	------
NP-237	86.50	345	12.60*	6.796E+00	1.018E+00	1.018E+00	34.41
	95.87	------	2.60	7.169E+00	------	Line Not Found	------
U-238	63.29	892	3.80*	4.286E+00	1.385E+01	1.385E+01	22.69
	92.38	1911	5.41	7.052E+00	1.267E+01	1.267E+01	11.13
AM-243	74.67	492	66.00*	5.798E+00	3.255E-01	3.255E-01	19.17
	86.72	345	0.34	6.796E+00	3.819E+01	3.819E+01	27.54
	117.66	------	0.55	7.397E+00	------	Line Not Found	------
	142.18	------	0.13	7.065E+00	------	Line Not Found	------
ANH-511	511.00	101	100.00*	2.953E+00	8.630E-02	8.630E-02	77.92

Flag: "*" = Keyline

Sample ID : G245799008 Acquisition date : 10-FEB-2010 17:19:14

Total number of lines in spectrum 42
Number of unidentified lines 2
Number of lines tentatively identified by NID 40 95.24%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.898E+01	2.898E+01	0.293E+01	10.12	
CD-109	464.00D	1.02	3.449E+00	3.529E+00	0.972E+00	27.54	
SN-126	1.00E+05Y	1.00	3.468E-01	3.468E-01	0.955E-01	27.54	
BA-137M	30.17Y	1.00	6.849E-01	6.855E-01	1.038E-01	15.14	
CS-137	30.17Y	1.00	7.240E-01	7.247E-01	1.098E-01	15.15	
TL-208	1.41E+10Y	1.00	4.857E-01	4.857E-01	0.835E-01	17.19	
BI-210	22.26Y	1.00	3.186E+00	3.190E+00	3.949E+00	123.77	
PB-210	22.26Y	1.00	3.186E+00	3.190E+00	3.949E+00	123.77	
PO-210	22.26Y	1.00	3.186E+00	3.190E+00	3.947E+00	123.71	
BI-211	7.04E+08Y	1.00	3.246E+00	3.246E+00	0.578E+00	17.80	
PB-212	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.226E+00	15.47	
PO-212	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.226E+00	15.47	
BI-214	1600.00Y	1.00	1.176E+00	1.176E+00	0.201E+00	17.09	
PB-214	1600.00Y	1.00	1.129E+00	1.129E+00	0.209E+00	18.55	
PO-214	1600.00Y	1.00	1.129E+00	1.129E+00	0.209E+00	18.55	
PO-216	1.41E+10Y	1.00	1.459E+00	1.459E+00	0.226E+00	15.47	
PO-218	1600.00Y	1.00	1.129E+00	1.129E+00	0.209E+00	18.55	
RA-224	1.41E+10Y	1.00	4.964E+00	4.964E+00	1.351E+00	27.21	
RA-226	1600.00Y	1.00	1.176E+00	1.176E+00	0.201E+00	17.09	
AC-228	1.41E+10Y	1.00	1.293E+00	1.293E+00	0.318E+00	24.62	
RA-228	1.41E+10Y	1.00	1.293E+00	1.293E+00	0.318E+00	24.62	
TH-228	1.91Y	1.02	1.459E+00	1.482E+00	0.229E+00	15.47	
TH-230	4.47E+09Y	1.00	1.176E+00	1.176E+00	0.201E+00	17.09	
TH-232	1.41E+10Y	1.00	1.293E+00	1.293E+00	0.318E+00	24.62	
TH-234	4.47E+09Y	1.00	1.385E+01	1.385E+01	0.314E+01	22.69	
U-234	4.47E+09Y	1.00	1.176E+00	1.176E+00	0.201E+00	17.09	
U-235	7.04E+08Y	1.00	3.000E-01	3.000E-01	2.366E-01	78.88	
NP-237	2.14E+06Y	1.00	1.018E+00	1.018E+00	0.350E+00	34.41	
U-238	4.47E+09Y	1.00	1.385E+01	1.385E+01	0.314E+01	22.69	
AM-243	7380.00Y	1.00	3.255E-01	3.255E-01	0.624E-01	19.17	
ANH-511	1.00E+09Y	1.00	8.630E-02	8.630E-02	6.724E-02	77.92	
	Total Activity :		9.967E+01	9.979E+01			

Grand Total Activity : 9.967E+01 9.979E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799008 Acquisition date : 10-FEB-2010 17:19:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	83.92	195	648	1.18	166.75	163	28	2.71E-02	44.8	6.58E+00	T
4	94.23	131	515	1.18	187.39	163	28	1.83E-02	85.5	7.11E+00	T
0	98.86	57	519	0.69	196.65	193	7	7.97E-03	****	7.25E+00	T
0	113.05	68	560	0.70	225.05	221	8	9.41E-03	****	7.41E+00	T
0	129.14	103	449	1.15	257.26	254	8	1.43E-02	73.6	7.28E+00	T
0	270.34	142	248	0.99	539.86	535	11	1.97E-02	46.6	4.76E+00	T
0	327.76	80	194	0.71	654.77	651	9	1.11E-02	66.5	4.13E+00	T
0	463.25	91	148	0.97	925.95	921	10	1.26E-02	54.3	3.19E+00	T
0	727.71	105	56	0.83	1455.17	1451	9	1.45E-02	33.1	2.22E+00	T
0	768.01	72	138	2.58	1535.81	1529	15	9.96E-03	75.4	2.12E+00	T
0	795.39	60	79	1.67	1590.58	1585	9	8.29E-03	60.2	2.06E+00	T
0	934.38	40	45	1.03	1868.70	1864	11	5.60E-03	71.2	1.79E+00	T
1	965.53	51	78	1.73	1931.02	1925	23	7.14E-03	59.9	1.74E+00	T
0	1001.87	87	77	1.56	2003.72	1996	17	1.20E-02	51.7	1.69E+00	T
0	1239.37	34	130	1.41	2478.91	2472	15	4.77E-03	****	1.40E+00	T
0	1282.07	18	39	1.40	2564.34	2559	10	2.47E-03	****	1.36E+00	
0	1662.03	21	3	1.30	3324.43	3318	12	2.95E-03	54.2	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:19:54.94

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799008.CNF;1    *
* Acquisition date : 10-FEB-2010 17:19:14  Detector SN#     :                 *
* Detector ID      : GAM11                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:02.15         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245799008            Analyst initials: RXF2             *
* Batch Number     : 947531                Sample Quantity : 1.48384E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.898E+01	2.934E+00	4.108E-01	3.552E-02	70.531
CD-109	3.529E+00	9.717E-01	9.957E-01	9.442E-02	3.544
SN-126	3.468E-01	9.550E-02	9.816E-02	9.260E-03	3.533
BA-137M	6.855E-01	1.038E-01	5.474E-02	5.180E-03	12.522
CS-137	7.247E-01	1.098E-01	5.787E-02	5.485E-03	12.522
TL-208	4.857E-01	8.352E-02	4.898E-02	5.289E-03	9.918
BI-210	3.190E+00	3.949E+00	3.368E+00	3.135E-01	0.947
PB-210	3.190E+00	3.949E+00	3.368E+00	3.135E-01	0.947
PO-210	3.190E+00	3.947E+00	3.368E+00	2.839E-01	0.947
BI-211	3.246E+00	5.777E-01	2.767E-01	3.651E-02	11.729
PB-212	1.459E+00	2.257E-01	7.439E-02	1.042E-02	19.616
PO-212	1.459E+00	2.257E-01	7.439E-02	1.042E-02	19.616
BI-214	1.176E+00	2.011E-01	9.861E-02	1.115E-02	11.930
PB-214	1.129E+00	2.094E-01	9.646E-02	1.365E-02	11.704
PO-214	1.129E+00	2.094E-01	9.646E-02	1.365E-02	11.704
PO-216	1.459E+00	2.257E-01	7.439E-02	1.042E-02	19.616
PO-218	1.129E+00	2.094E-01	9.646E-02	1.365E-02	11.704
RA-224	4.964E+00	1.351E+00	8.469E-01	1.134E-01	5.862

Sample ID : G245799008 Acquisition date : 10-FEB-2010 17:19:14

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.176E+00	2.011E-01	9.861E-02	1.115E-02	11.930
AC-228	1.293E+00	3.183E-01	1.654E-01	2.014E-02	7.815
RA-228	1.293E+00	3.183E-01	1.654E-01	2.014E-02	7.815
TH-228	1.482E+00	2.291E-01	7.553E-02	1.058E-02	19.616
TH-230	1.176E+00	2.011E-01	9.860E-02	1.115E-02	11.930
TH-232	1.293E+00	3.183E-01	1.654E-01	2.014E-02	7.815
TH-234	1.385E+01	3.143E+00	1.537E+00	2.674E-01	9.013
U-234	1.176E+00	2.011E-01	9.860E-02	1.115E-02	11.930
U-235	3.000E-01	2.366E-01	2.784E-01	4.922E-02	1.077
NP-237	1.018E+00	3.504E-01	2.905E-01	6.577E-02	3.505
U-238	1.385E+01	3.143E+00	1.537E+00	2.674E-01	9.013
AM-243	3.255E-01	6.241E-02	7.170E-02	5.802E-03	4.540
ANH-511	8.630E-02	6.724E-02	4.018E-02	4.296E-03	2.148

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.514E-02		2.778E-01	4.599E-01	5.205E-02	-0.076
NA-22	-5.309E-03		3.591E-02	5.579E-02	4.581E-03	-0.095
NA-24	-3.829E-01		3.720E-01	Half-Life too short		
AL-26	-1.916E-02		2.240E-02	2.933E-02	2.394E-03	-0.653
TI-44	3.448E-01	+	4.821E-02	5.585E-02	4.708E-03	6.174
SC-46	-1.670E-02		2.966E-02	4.695E-02	4.624E-03	-0.356
V-48	-1.778E-03		5.608E-02	9.302E-02	8.823E-03	-0.019
CR-51	-1.450E-01		3.157E-01	4.887E-01	7.092E-02	-0.297
MN-52	1.450E-01		1.767E-01	3.200E-01	2.681E-02	0.453
MN-54	1.620E-02		3.086E-02	5.404E-02	5.321E-03	0.300
CO-56	-8.264E-03		3.227E-02	5.318E-02	5.240E-03	-0.155
CO-57	3.760E-03		1.955E-02	3.344E-02	2.829E-03	0.112
CO-58	-1.103E-02		3.284E-02	5.070E-02	4.992E-03	-0.217
FE-59	1.458E-02		7.934E-02	1.329E-01	1.249E-02	0.110
CO-60	1.968E-02		3.002E-02	5.272E-02	4.356E-03	0.373
ZN-65	3.089E-02		8.551E-02	1.275E-01	1.094E-02	0.242
GE-68	3.704E-01		1.041E+00	1.776E+00	1.577E-01	0.209
AS-73	-2.187E-01		5.719E-01	8.998E-01	6.757E-02	-0.243
AS-74	-8.206E-02		7.640E-02	1.137E-01	1.156E-02	-0.722
SE-75	1.081E-03		3.672E-02	5.679E-02	8.348E-03	0.019
BR-77	1.826E-01		8.903E+00	1.479E+01	1.575E+00	0.012
SR-82	-2.904E-01		3.097E-01	4.475E-01	4.377E-02	-0.649
RB-83	-1.752E-02		5.847E-02	9.485E-02	1.011E-02	-0.185
RB-84	5.661E-02		5.903E-02	1.065E-01	1.049E-02	0.532
KR-85	6.395E+00		6.237E+00	9.925E+00	1.060E+00	0.644
SR-85	3.282E-02		3.202E-02	5.094E-02	5.442E-03	0.644
RB-86	1.101E-01		6.502E-01	1.091E+00	9.692E-02	0.101
Y-88	-5.091E-03		2.631E-02	4.156E-02	3.374E-03	-0.123
ZR-88	-7.971E-03		2.584E-02	4.294E-02	4.580E-03	-0.186
Y-91	2.047E+00		1.636E+01	2.703E+01	2.188E+00	0.076

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	2.395E-02		3.009E-02	5.151E-02	4.947E-03	0.465
NB-95	3.519E-02		4.795E-02	7.194E-02	7.023E-03	0.489
NB-95M	-1.705E-02		1.099E-01	1.588E-01	2.218E-02	-0.107
ZR-95	2.201E-02		5.455E-02	9.114E-02	9.591E-03	0.241
NB-97	7.326E-02		4.930E-02	Half-Life too short		
ZR-97	1.613E+00		9.805E-01	Half-Life too short		
MO-99	-8.943E+00		1.035E+01	1.519E+01	2.404E+00	-0.589
TC-99M	2.388E+08		2.346E+10	Half-Life too short		
RH-101	9.028E-03		2.724E-02	4.474E-02	5.007E-03	0.202
RH-102	-1.585E-02		2.495E-02	3.981E-02	4.292E-03	-0.398
RU-103	-6.352E-03		3.228E-02	5.293E-02	8.226E-03	-0.120
RH-106	-4.137E-01		2.813E-01	3.935E-01	5.600E-02	-1.051
RU-106	-4.137E-01		2.781E-01	3.935E-01	3.904E-02	-1.051
AG-108M	1.075E-03		2.668E-02	4.497E-02	4.971E-03	0.024
AG-110M	2.312E-02		3.187E-02	4.911E-02	4.785E-03	0.471
IN-111	4.760E-01		9.378E-01	1.411E+00	1.923E-01	0.337
IN-113M	1.181E-02		3.690E-02	6.356E-02	6.914E-03	0.186
SN-113	1.181E-02		3.690E-02	6.356E-02	6.914E-03	0.186
IN-114M	-8.077E-02		1.594E-01	2.289E-01	2.476E-02	-0.353
CD-115	1.172E+00		9.388E+00	1.569E+01	1.667E+00	0.075
SN-117M	-2.609E-02		4.311E-02	7.025E-02	6.640E-03	-0.371
SB-122	1.953E+00		1.730E+00	3.066E+00	3.194E-01	0.637
I-123	-5.054E+00		2.598E+00	Half-Life too short		
TE-123M	-2.188E-02		2.249E-02	3.598E-02	3.423E-03	-0.608
I-124	-4.828E-01		6.194E-01	8.677E-01	8.770E-02	-0.556
SB-124	3.548E-02		5.636E-02	1.040E-01	9.038E-03	0.341
SB-125	4.262E-03		7.854E-02	1.326E-01	1.446E-02	0.032
TE-125M	2.678E+00		8.204E+00	1.281E+01	1.315E+00	0.209
I-126	-8.708E-02		1.945E-01	2.612E-01	2.476E-02	-0.333
SB-126	-1.450E-02		1.172E-01	1.871E-01	1.807E-02	-0.078
SB-127	5.045E-01		1.184E+00	1.986E+00	2.409E-01	0.254
XE-127	-1.623E-02		3.915E-02	6.336E-02	7.241E-03	-0.256
I-131	-3.374E-03		9.582E-02	1.513E-01	1.900E-02	-0.022
TE-132	4.169E-02		5.963E-01	9.795E-01	1.793E-01	0.043
BA-133	1.121E-02		3.979E-02	5.748E-02	9.270E-03	0.195
I-133	2.335E-04		2.707E-03	Half-Life too short		
CS-134	9.667E-02	+	5.897E-02	8.840E-02	8.721E-03	1.094
CS-135	6.111E-02		1.387E-01	2.064E-01	3.238E-02	0.296
I-135	-2.592E+09		3.142E+09	Half-Life too short		
CS-136	3.832E-02		8.636E-02	1.489E-01	1.406E-02	0.257
CE-139	1.266E-03		2.396E-02	4.010E-02	3.897E-03	0.032
BA-140	7.902E-02		2.103E-01	3.549E-01	1.196E-01	0.223
LA-140	1.253E-02		6.298E-02	1.082E-01	9.102E-03	0.116
CE-141	5.702E-02		5.225E-02	8.316E-02	7.622E-03	0.686
CE-143	3.677E-04		7.784E-05	Half-Life too short		
CE-144	-1.382E-02		1.758E-01	2.662E-01	4.153E-02	-0.052
PM-144	-1.763E-04		2.906E-02	4.706E-02	4.512E-03	-0.004
PR-144	-1.195E-02		1.970E+00	3.189E+00	3.057E-01	-0.004

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	2.422E-02		4.012E-02	6.933E-02	8.693E-03	0.349
ND-147	-1.455E-01		4.584E-01	7.397E-01	1.197E-01	-0.197
PM-149	4.679E+01		8.454E+01	1.395E+02	2.797E+01	0.335
EU-152	-6.873E-02		9.220E-02	1.310E-01	1.777E-02	-0.524
GD-153	6.681E-02	+	9.003E-02	1.123E-01	9.975E-03	0.595
EU-154	-1.201E-02		1.006E-01	1.568E-01	1.725E-02	-0.077
EU-155	5.056E-02		8.398E-02	1.464E-01	1.277E-02	0.345
TB-160	-1.747E-02		1.192E-01	1.945E-01	1.916E-02	-0.090
HO-166M	-2.133E-02		5.004E-02	7.774E-02	7.487E-03	-0.274
TM-171	-8.976E+00		2.350E+01	3.360E+01	2.522E+00	-0.267
LU-176	1.030E-02		1.993E-02	3.292E-02	4.839E-03	0.313
LU-177	1.137E+00		9.827E-01	1.676E+00	1.962E-01	0.678
LU-177M	-5.573E-03		1.470E-01	2.474E-01	2.657E-02	-0.023
HF-181	-1.974E-02		3.618E-02	5.801E-02	6.248E-03	-0.340
W-181	1.376E-02		2.977E-01	4.348E-01	3.223E-02	0.032
TA-182	1.071E-01		1.745E-01	2.990E-01	2.429E-02	0.358
RE-183	1.050E-01		9.038E-02	1.569E-01	1.504E-02	0.669
RE-184	-1.206E-01		1.894E-01	2.958E-01	4.150E-02	-0.408
OS-185	-1.551E-02		3.621E-02	5.686E-02	5.488E-03	-0.273
RE-188	9.841E-03		1.412E-01	2.373E-01	2.213E-02	0.041
W-188	-3.461E+00		6.254E+00	8.505E+00	1.292E+00	-0.407
IR-192	-3.134E-02		3.051E-02	4.512E-02	6.486E-03	-0.694
AU-195	1.946E-01	+	2.622E-01	3.337E-01	2.944E-02	0.583
TL-200	1.438E-04		2.116E-04	Half-Life too short		
TL-201	-3.947E+00		5.647E+00	9.125E+00	8.927E-01	-0.433
TL-202	2.847E-02		5.928E-02	1.023E-01	1.104E-02	0.278
HG-203	6.504E-02		3.442E-02	5.885E-02	9.192E-03	1.105
BI-207	1.732E-03		4.413E-02	7.319E-02	6.575E-03	0.024
TL-207	5.925E-01		5.995E-01	9.057E-01	1.894E-01	0.654
PO-209	-1.855E+00		5.586E+00	9.058E+00	8.918E-01	-0.205
PB-211	-6.024E-01		8.618E-01	1.248E+00	7.858E-01	-0.483
BI-212	1.010E+00	+	3.520E-01	5.797E-01	6.336E-02	1.742
PO-215	5.925E-01		5.995E-01	9.057E-01	1.894E-01	0.654
RN-219	-7.904E-02		3.454E-01	5.758E-01	9.390E-02	-0.137
RN-220	-2.975E+00		2.185E+01	3.572E+01	3.753E+00	-0.083
RA-223	5.925E-01		5.995E-01	9.057E-01	1.894E-01	0.654
AC-227	-1.038E-01		3.264E-01	5.204E-01	9.917E-02	-0.199
TH-227	-1.038E-01		3.265E-01	5.204E-01	1.109E-01	-0.199
TH-229	6.002E-02		3.984E-01	6.635E-01	7.286E-02	0.090
PA-231	-9.599E-01		1.321E+00	2.019E+00	4.000E-01	-0.475
TH-231	5.925E-01		5.995E-01	9.057E-01	1.894E-01	0.654
U-231	-1.467E-01		1.181E+00	1.457E+00	1.305E-01	-0.101
PA-233	9.531E-03		5.253E-02	8.509E-02	1.249E-02	0.112
PA-234	9.306E-02		2.618E-01	4.491E-01	8.652E-02	0.207
PA-234M	1.545E+01	+	8.153E+00	9.382E+00	9.980E-01	1.647
NP-236	-7.612E-02		6.409E-02	1.013E-01	9.640E-03	-0.751
NP-239	-5.007E-03		1.569E-01	2.402E-01	2.033E-02	-0.021
AM-241	-4.210E-02		1.334E-01	1.928E-01	1.515E-02	-0.218

Sample ID : G245799008 Acquisition date : 10-FEB-2010 17:19:14

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	4.918E-03		7.314E-02	1.255E-01	1.087E-02	0.039
AM-246	2.106E-03		1.215E-01	2.009E-01	1.782E-02	0.010
CM-247	2.227E-03		3.071E-02	5.211E-02	5.577E-03	0.043
CF-249	-4.563E-03		3.283E-02	5.517E-02	6.007E-03	-0.083
CF-251	-9.841E-02		1.053E-01	1.676E-01	1.707E-02	-0.587

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799008           *
* Acquisition date  : 10-FEB-2010 17:19:14 Detector SN#     :               *
* Detector ID       : GAM11                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.15      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799008           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.4838E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.898E+01	2.875E+00	2.068E-01	1.467E+00
CD-109	3.529E+00	9.523E-01	5.355E-01	4.859E-01
SN-126	3.468E-01	9.359E-02	5.280E-02	4.775E-02
BA-137M	6.855E-01	1.017E-01	2.811E-02	5.191E-02
CS-137	7.247E-01	1.076E-01	2.971E-02	5.491E-02
TL-208	4.857E-01	8.185E-02	2.522E-02	4.176E-02
BI-210	3.190E+00	3.870E+00	1.837E+00	1.974E+00
PB-210	3.190E+00	3.870E+00	1.837E+00	1.974E+00
PO-210	3.190E+00	3.868E+00	1.837E+00	1.973E+00
BI-211	3.246E+00	5.662E-01	1.442E-01	2.889E-01
PB-212	1.459E+00	2.212E-01	3.912E-02	1.128E-01
PO-212	1.459E+00	2.212E-01	3.912E-02	1.128E-01
BI-214	1.176E+00	1.971E-01	5.072E-02	1.005E-01
PB-214	1.129E+00	2.052E-01	5.027E-02	1.047E-01
PO-214	1.129E+00	2.052E-01	5.027E-02	1.047E-01
PO-216	1.459E+00	2.212E-01	3.912E-02	1.128E-01
PO-218	1.129E+00	2.052E-01	5.027E-02	1.047E-01
RA-224	4.964E+00	1.324E+00	4.453E-01	6.754E-01
RA-226	1.176E+00	1.971E-01	5.072E-02	1.005E-01
AC-228	1.293E+00	3.120E-01	8.427E-02	1.592E-01
RA-228	1.293E+00	3.120E-01	8.427E-02	1.592E-01
TH-228	1.482E+00	2.245E-01	3.972E-02	1.146E-01
TH-230	1.176E+00	1.971E-01	5.072E-02	1.005E-01
TH-232	1.293E+00	3.120E-01	8.427E-02	1.592E-01
TH-234	1.385E+01	3.080E+00	8.325E-01	1.571E+00
U-234	1.176E+00	1.971E-01	5.072E-02	1.005E-01
U-235	3.000E-01	2.319E-01	1.481E-01	1.183E-01
NP-237	1.018E+00	3.434E-01	1.563E-01	1.752E-01
U-238	1.385E+01	3.080E+00	8.325E-01	1.571E+00
AM-243	3.255E-01	6.116E-02	3.870E-02	3.120E-02
ANH-511	8.630E-02	6.590E-02	2.076E-02	3.362E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.514E-02	2.723E-01	2.380E-01	1.389E-01	NOT IDENT.
NA-22	-5.309E-03	3.520E-02	2.818E-02	1.796E-02	NOT IDENT.
NA-24	-3.829E+05	7.292E+05	0.000E+00	3.720E+05	SHORT HLIF
AL-26	-1.916E-02	2.195E-02	1.469E-02	1.120E-02	NOT IDENT.
TI-44	3.448E-01	4.725E-02	3.012E-02	2.411E-02	FAIL ABUN
SC-46	-1.670E-02	2.907E-02	2.393E-02	1.483E-02	FAIL ABUN
V-48	-1.778E-03	5.496E-02	4.729E-02	2.804E-02	NOT IDENT.
CR-51	-1.450E-01	3.093E-01	2.553E-01	1.578E-01	NOT IDENT.
MN-52	1.450E-01	1.731E-01	1.612E-01	8.834E-02	FAIL ABUN
MN-54	1.620E-02	3.024E-02	2.759E-02	1.543E-02	NOT IDENT.
CO-56	-8.264E-03	3.163E-02	2.714E-02	1.614E-02	FAIL ABUN
CO-57	3.760E-03	1.916E-02	1.785E-02	9.774E-03	NOT IDENT.
CO-58	-1.103E-02	3.218E-02	2.590E-02	1.642E-02	NOT IDENT.
FE-59	1.458E-02	7.775E-02	6.738E-02	3.967E-02	FAIL ABUN
CO-60	1.968E-02	2.942E-02	2.660E-02	1.501E-02	NOT IDENT.
ZN-65	3.089E-02	8.380E-02	6.463E-02	4.275E-02	NOT IDENT.
GE-68	3.704E-01	1.021E+00	9.008E-01	5.207E-01	NOT IDENT.
AS-73	-2.187E-01	5.605E-01	4.892E-01	2.860E-01	NOT IDENT.
AS-74	-8.206E-02	7.488E-02	5.851E-02	3.820E-02	NOT IDENT.
SE-75	1.081E-03	3.599E-02	2.980E-02	1.836E-02	NOT IDENT.
BR-77	1.826E-01	8.725E+00	7.635E+00	4.451E+00	FAIL ABUN
SR-82	-2.904E-01	3.035E-01	2.289E-01	1.549E-01	NOT IDENT.
RB-83	-1.752E-02	5.730E-02	4.898E-02	2.924E-02	NOT IDENT.
RB-84	5.661E-02	5.785E-02	5.428E-02	2.951E-02	NOT IDENT.
KR-85	6.395E+00	6.113E+00	5.126E+00	3.119E+00	NOT IDENT.
SR-85	3.282E-02	3.137E-02	2.631E-02	1.601E-02	NOT IDENT.
RB-86	1.101E-01	6.372E-01	5.533E-01	3.251E-01	NOT IDENT.
Y-88	-5.091E-03	2.579E-02	2.080E-02	1.316E-02	NOT IDENT.
ZR-88	-7.971E-03	2.532E-02	2.232E-02	1.292E-02	NOT IDENT.
Y-91	2.047E+00	1.603E+01	1.368E+01	8.180E+00	NOT IDENT.
NB-94	2.395E-02	2.948E-02	2.641E-02	1.504E-02	NOT IDENT.
NB-95	3.519E-02	4.699E-02	3.681E-02	2.397E-02	NOT IDENT.
NB-95M	-1.705E-02	1.077E-01	8.356E-02	5.497E-02	NOT IDENT.
ZR-95	2.201E-02	5.345E-02	4.664E-02	2.727E-02	NOT IDENT.
NB-97	7.326E+04	9.663E+04	0.000E+00	4.930E+04	SHORT HLIF
ZR-97	1.613E+06	1.922E+06	0.000E+00	9.805E+05	SHORT HLIF
MO-99	-8.943E+00	1.014E+01	7.777E+00	5.176E+00	NOT IDENT.
TC-99M	2.388E+14	4.598E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.028E-03	2.669E-02	2.363E-02	1.362E-02	NOT IDENT.
RH-102	-1.585E-02	2.445E-02	2.060E-02	1.247E-02	FAIL ABUN
RU-103	-6.352E-03	3.164E-02	2.736E-02	1.614E-02	FAIL ABUN
RH-106	-4.137E-01	2.757E-01	2.023E-01	1.407E-01	FAIL ABUN
RU-106	-4.137E-01	2.726E-01	2.023E-01	1.391E-01	FAIL ABUN
AG-108M	1.075E-03	2.615E-02	2.332E-02	1.334E-02	NOT IDENT.
AG-110M	2.312E-02	3.123E-02	2.521E-02	1.593E-02	NOT IDENT.
IN-111	4.760E-01	9.190E-01	7.416E-01	4.689E-01	NOT IDENT.
IN-113M	1.181E-02	3.616E-02	3.304E-02	1.845E-02	NOT IDENT.
SN-113	1.181E-02	3.616E-02	3.304E-02	1.845E-02	NOT IDENT.
IN-114M	-8.077E-02	1.562E-01	1.210E-01	7.968E-02	NOT IDENT.
CD-115	1.172E+00	9.200E+00	8.099E+00	4.694E+00	NOT IDENT.
SN-117M	-2.609E-02	4.224E-02	3.729E-02	2.155E-02	NOT IDENT.
SB-122	1.953E+00	1.695E+00	1.580E+00	8.648E-01	NOT IDENT.
I-123	-5.054E+06	5.092E+06	0.000E+00	2.598E+06	SHORT HLIF
TE-123M	-2.188E-02	2.204E-02	1.910E-02	1.125E-02	NOT IDENT.
I-124	-4.828E-01	6.070E-01	4.465E-01	3.097E-01	NOT IDENT.
SB-124	3.548E-02	5.523E-02	5.217E-02	2.818E-02	FAIL ABUN
SB-125	4.262E-03	7.697E-02	6.878E-02	3.927E-02	FAIL ABUN
TE-125M	2.678E+00	8.040E+00	6.858E+00	4.102E+00	NOT IDENT.
I-126	-8.708E-02	1.906E-01	1.341E-01	9.724E-02	NOT IDENT.
SB-126	-1.450E-02	1.148E-01	9.588E-02	5.859E-02	FAIL ABUN
SB-127	5.045E-01	1.160E+00	1.019E+00	5.919E-01	NOT IDENT.
XE-127	-1.623E-02	3.837E-02	3.344E-02	1.958E-02	FAIL ABUN
I-131	-3.374E-03	9.390E-02	7.879E-02	4.791E-02	NOT IDENT.
TE-132	4.169E-02	5.844E-01	5.156E-01	2.981E-01	FAIL ABUN
BA-133	1.121E-02	3.900E-02	2.995E-02	1.990E-02	NOT IDENT.
I-133	2.335E+02	5.305E+03	0.000E+00	2.707E+03	SHORT HLIF
CS-134	9.667E-02	5.779E-02	4.518E-02	2.948E-02	FAIL ABUN
CS-135	6.111E-02	1.359E-01	1.082E-01	6.933E-02	NOT IDENT.
I-135	-2.592E+15	6.158E+15	0.000E+00	3.142E+15	SHORT HLIF
CS-136	3.832E-02	8.463E-02	7.560E-02	4.318E-02	FAIL ABUN
CE-139	1.266E-03	2.348E-02	2.127E-02	1.198E-02	NOT IDENT.
BA-140	7.902E-02	2.061E-01	1.831E-01	1.051E-01	NOT IDENT.
LA-140	1.253E-02	6.172E-02	5.437E-02	3.149E-02	FAIL ABUN
CE-141	5.702E-02	5.120E-02	4.423E-02	2.612E-02	NOT IDENT.

CE-143	3.677E+02	1.526E+02	0.000E+00	7.784E+01	SHORT HLIF
CE-144	-1.382E-02	1.722E-01	1.418E-01	8.788E-02	NOT IDENT.
PM-144	-1.763E-04	2.848E-02	2.413E-02	1.453E-02	NOT IDENT.
PR-144	-1.195E-02	1.930E+00	1.635E+00	9.848E-01	NOT IDENT.
PM-146	2.422E-02	3.931E-02	3.592E-02	2.006E-02	NOT IDENT.
ND-147	-1.455E-01	4.492E-01	3.818E-01	2.292E-01	FAIL ABUN
PM-149	4.679E+01	8.285E+01	7.307E+01	4.227E+01	NOT IDENT.
EU-152	-6.873E-02	9.036E-02	6.833E-02	4.610E-02	NOT IDENT.
GD-153	6.681E-02	8.823E-02	6.025E-02	4.501E-02	FAIL ABUN
EU-154	-1.201E-02	9.859E-02	7.923E-02	5.030E-02	NOT IDENT.
EU-155	5.056E-02	8.230E-02	7.842E-02	4.199E-02	FAIL ABUN
TB-160	-1.747E-02	1.168E-01	9.916E-02	5.959E-02	FAIL ABUN
HO-166M	-2.133E-02	4.904E-02	3.984E-02	2.502E-02	FAIL ABUN
TM-171	-8.976E+00	2.303E+01	1.818E+01	1.175E+01	NOT IDENT.
LU-176	1.030E-02	1.953E-02	1.721E-02	9.963E-03	FAIL ABUN
LU-177	1.137E+00	9.631E-01	8.843E-01	4.914E-01	FAIL ABUN
LU-177M	-5.573E-03	1.441E-01	1.285E-01	7.352E-02	NOT IDENT.
HF-181	-1.974E-02	3.545E-02	3.001E-02	1.809E-02	NOT IDENT.
W-181	1.376E-02	2.918E-01	2.354E-01	1.489E-01	NOT IDENT.
TA-182	1.071E-01	1.710E-01	1.512E-01	8.724E-02	FAIL ABUN
RE-183	1.050E-01	8.857E-02	8.326E-02	4.519E-02	NOT IDENT.
RE-184	-1.206E-01	1.856E-01	1.553E-01	9.468E-02	NOT IDENT.
OS-185	-1.551E-02	3.549E-02	2.921E-02	1.811E-02	NOT IDENT.
RE-188	9.841E-03	1.383E-01	1.260E-01	7.058E-02	NOT IDENT.
W-188	-3.461E+00	6.129E+00	4.452E+00	3.127E+00	FAIL ABUN
IR-192	-3.134E-02	2.990E-02	2.358E-02	1.526E-02	FAIL ABUN
AU-195	1.946E-01	2.569E-01	1.790E-01	1.311E-01	FAIL ABUN
TL-200	1.438E+02	4.147E+02	0.000E+00	2.116E+02	SHORT HLIF
TL-201	-3.947E+00	5.534E+00	4.838E+00	2.824E+00	NOT IDENT.
TL-202	2.847E-02	5.810E-02	5.305E-02	2.964E-02	NOT IDENT.
HG-203	6.504E-02	3.373E-02	3.084E-02	1.721E-02	FAIL ABUN
BI-207	1.732E-03	4.324E-02	3.714E-02	2.206E-02	FAIL ABUN
TL-207	5.925E-01	5.876E-01	4.729E-01	2.998E-01	FAIL ABUN
PO-209	-1.855E+00	5.474E+00	4.616E+00	2.793E+00	NOT IDENT.
PB-211	-6.024E-01	8.445E-01	6.480E-01	4.309E-01	NOT IDENT.
BI-212	1.010E+00	3.450E-01	2.970E-01	1.760E-01	FAIL ABUN
PO-215	5.925E-01	5.876E-01	4.729E-01	2.998E-01	FAIL ABUN
RN-219	-7.904E-02	3.385E-01	2.991E-01	1.727E-01	FAIL ABUN
RN-220	-2.975E+00	2.141E+01	1.842E+01	1.093E+01	NOT IDENT.
RA-223	5.925E-01	5.876E-01	4.729E-01	2.998E-01	FAIL ABUN
AC-227	-1.038E-01	3.198E-01	2.732E-01	1.632E-01	FAIL ABUN
TH-227	-1.038E-01	3.200E-01	2.732E-01	1.632E-01	FAIL ABUN
TH-229	6.002E-02	3.904E-01	3.506E-01	1.992E-01	FAIL ABUN
PA-231	-9.599E-01	1.294E+00	1.057E+00	6.604E-01	FAIL ABUN
TH-231	5.925E-01	5.876E-01	4.729E-01	2.998E-01	FAIL ABUN
U-231	-1.467E-01	1.157E+00	7.823E-01	5.903E-01	FAIL ABUN
PA-233	9.531E-03	5.148E-02	4.447E-02	2.626E-02	FAIL ABUN
PA-234	9.306E-02	2.566E-01	2.286E-01	1.309E-01	FAIL ABUN
PA-234M	1.545E+01	7.990E+00	4.768E+00	4.076E+00	FAIL ABUN
NP-236	-7.612E-02	6.281E-02	5.378E-02	3.204E-02	FAIL ABUN
NP-239	-5.007E-03	1.538E-01	1.284E-01	7.845E-02	FAIL ABUN
AM-241	-4.210E-02	1.307E-01	1.046E-01	6.668E-02	NOT IDENT.
CM-243	4.918E-03	7.168E-02	6.728E-02	3.657E-02	FAIL ABUN
AM-246	2.106E-03	1.191E-01	1.019E-01	6.077E-02	NOT IDENT.
CM-247	2.227E-03	3.010E-02	2.707E-02	1.536E-02	NOT IDENT.
CF-249	-4.563E-03	3.217E-02	2.869E-02	1.641E-02	NOT IDENT.
CF-251	-9.841E-02	1.032E-01	8.876E-02	5.266E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	305.5826
46.50	305.5826
46.50	305.5826
48.70	343.3789
49.72	306.4564
51.35	331.7310
52.39	343.9689
52.97	332.3943
53.15	332.5894
53.44	355.1696
54.07	362.5863
56.28	408.9488
56.28	408.9529
57.37	0.0000
57.53	427.4608
57.53	427.4637
57.60	427.5533
57.98	457.4187
57.98	457.4187
59.32	456.6404
59.32	456.6404
59.40	456.7510
59.54	491.7433
59.72	476.8707
60.01	459.1042
61.10	449.9559
61.14	450.0086
61.30	450.2209
63.00	451.7013
63.29	452.0801
63.29	452.0801
63.58	452.4588
64.28	453.3689
65.12	426.0019
65.20	441.4810
65.20	441.4810
66.05	484.1728
66.72	468.0836
66.83	468.2315
66.91	468.3333
67.20	477.9938
67.20	477.9938
67.75	455.4811
67.85	455.6067
68.90	496.5504
68.90	496.5504
69.30	493.5893
69.67	526.7952
70.82	567.0878
70.82	567.0878
70.83	567.1026
72.80	588.9168
72.87	589.0236
72.87	589.0236
74.67	539.7083
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74.81	539.9031
74.81	539.9031
74.81	539.9031
74.81	539.9031
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77.11	543.0760

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79.62	438.6265
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79.80	438.8219
80.11	455.9554
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80.57	456.4685
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81.07	430.5685
81.07	430.5685
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86.79	441.3366
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88.36	442.9413
88.47	443.0518
89.95	444.5487
91.11	445.7114
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92.38	446.9763
92.38	446.9763
93.35	447.9374
94.00	448.5782
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94.67	409.5266
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94.90	409.7305
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94.90	409.7305
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96.73	411.3620
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98.44	369.3266
98.88	369.6712
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99.55	329.8135
99.86	330.0302
100.00	330.1265
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105.00	314.5278
105.31	325.7249
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109.28	342.8148

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111.00	387.6126
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112.95	343.5587
115.19	284.6512
116.30	286.5470
117.00	283.0298
117.00	283.0298
117.66	300.7129
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121.78	282.0516
122.06	287.4382
122.32	291.9442
122.32	291.9442
122.32	291.9442
122.32	291.9442
123.07	297.5934
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129.76	308.2356
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133.02	311.3126
133.54	292.8677
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136.00	332.1390
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136.48	307.3197
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143.76	305.5880
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144.24	305.8245
144.24	305.8245
144.24	305.8245
145.22	263.1339
145.44	244.1311
147.16	273.5229
152.43	286.8252
152.70	280.5079
153.22	283.4957
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154.21	300.5180
154.21	300.5180
154.21	300.5180
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158.56	282.0993
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159.00	295.2848
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161.27	273.9263
162.32	263.1558
162.64	281.0179
163.35	290.6577
163.89	285.2766
165.85	275.7775
167.43	278.2889
171.28	285.5028
171.86	268.7056
172.10	268.7981
176.55	300.0037
176.60	300.0261
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184.41	268.5869
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186.00	258.5482
190.27	254.6787
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193.63	234.8465
197.04	237.8386
198.01	241.0727
198.60	255.9634
200.40	271.2944
201.83	245.1955
202.84	274.1002
205.31	244.2864

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208.81	264.2141
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209.75	211.8126
210.97	290.8059
215.65	216.3318
216.55	248.6483
218.09	203.9045
222.10	254.3199
223.80	263.9258
226.40	239.3634
227.00	241.5590
227.08	241.5808
227.20	232.4780
228.16	231.7179
228.18	233.7552
228.18	233.7552
231.56	0.0000
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236.00	246.0840
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238.63	215.9537
238.63	215.9537
238.63	215.9537
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241.98	216.7526
241.98	216.7526
241.98	216.7526
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245.39	166.2765
247.94	184.9151
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249.79	172.7900
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252.85	190.0629
254.15	0.0000
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256.20	203.3108
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260.90	200.0930
262.80	189.9353
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268.24	162.3415
268.79	156.0619
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269.46	173.1676
269.46	173.1676
269.46	173.1676
271.23	173.4760
273.65	134.4210
276.40	203.2550
277.35	192.7368
277.60	194.9265
277.60	194.9265
278.00	174.6466
278.60	151.1636
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279.53	155.5936
280.46	195.4745
281.68	190.3312
283.67	187.4663
284.30	174.6431
285.00	153.1862
285.90	175.9930
286.10	177.1061
286.10	177.1061
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291.72	167.7459
293.26	0.0000
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295.21	116.0120

295.21	116.0120
295.96	116.0944
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299.80	141.1252
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300.12	141.1672
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302.84	143.1671
303.76	143.2893
303.91	143.3079
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304.40	156.5581
304.84	156.6219
306.84	129.9292
308.46	129.0185
311.98	137.1740
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318.01	119.0057
319.02	144.7160
319.41	149.2206
320.08	153.7648
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323.87	117.3859
323.87	117.3859
323.87	117.3859
325.23	151.1032
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334.20	157.3519
334.30	157.3661
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338.28	146.0121
338.28	146.0121
338.28	146.0121
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338.32	146.0173
338.32	146.0173
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351.92	143.0995
351.92	143.0995
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356.01	118.8822
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367.43	129.8258
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383.85	132.0831
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391.69	124.0125
392.90	137.4225
398.62	140.6826
400.65	131.0834
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404.84	142.2232
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413.65	126.9314
414.70	121.6228
415.30	120.7730

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433.93	107.7585
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439.89	104.5354
443.98	117.7012
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445.03	118.7054
445.03	118.7054
445.03	118.7054
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513.99	83.0942
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555.20	91.6292
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574.00	88.6143
574.64	90.6390
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602.71	103.8259
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609.31	99.4535
609.31	99.4535
609.31	99.4535
610.33	99.5043
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614.37	78.1453
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621.84	104.1914
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696.49	79.4861
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722.78	72.0952
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747.13	61.8271
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765.79	96.2393
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785.46	61.7644
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836.80	0.0000
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911.07	51.0334
911.07	51.0334
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969.11	55.9232
969.11	55.9232
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1077.35	50.1608
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1120.29	67.8107
1120.29	67.8107
1120.29	67.8107
1120.51	67.8141
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1291.56	44.0692
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1325.50	31.7754
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1362.66	0.0000
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1368.53	0.0000
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1395.20	21.5820
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1489.15	14.7357
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1596.49	17.0105
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1691.02	9.6549
1691.02	9.6549
1706.46	0.0000
1750.46	0.0000
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1764.49	11.7725
1764.49	11.7725
1764.49	11.7725
1770.23	10.1032
1771.40	10.1057
1791.20	0.0000
1808.65	14.8535

1836.01	12.9460

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799008

Total Uranium Activity	4.1346E+01	ug/g
Total Uranium Counting Unc.	9.1628E+00	ug/g
Total Uranium Tpu	4.6749E-06	ug/g
Total Uranium Mda	2.4778E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799008       *
*   ANALYST       : RXF2                      DETECTOR   : GAM11            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 17:19:14.22    SAMPLE ALQT:  148.384 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.112E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.687E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.965E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.929E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:20:47.57

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799009.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:19:50
Sample ID         : G245799009           Sample quantity  : 1.25908E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.71*	90	660	1.09	125.68	121	10	1.24E-02	55.9	
2	3	74.77	532	594	1.35	149.77	144	16	7.38E-02	9.3	5.22E+00
3	3	77.13	739	573	1.27	154.48	144	16	1.03E-01	6.8	
4	0	87.19*	259	438	1.17	174.59	172	6	3.60E-02	14.4	
5	5	89.88	170	297	0.92	179.96	178	12	2.36E-02	16.1	1.12E+00
6	5	92.75*	310	525	1.36	185.70	178	12	4.31E-02	15.1	
7	0	185.81*	166	459	1.35	371.64	368	9	2.31E-02	25.9	
8	0	209.34	133	395	1.21	418.65	414	9	1.85E-02	28.3	
9	3	238.68*	1699	277	1.28	477.27	469	20	2.36E-01	3.0	2.90E+00
10	3	241.65	412	330	1.72	483.21	469	20	5.72E-02	11.6	
11	0	273.36	277	725	8.01	546.58	536	25	3.85E-02	26.9	
12	0	295.22*	492	336	1.46	590.26	584	12	6.84E-02	8.8	
13	0	300.51*	122	298	1.47	600.83	596	12	1.69E-02	30.4	
14	0	328.21	89	243	0.97	656.19	652	9	1.24E-02	33.1	
15	0	338.37*	345	225	1.50	676.50	672	11	4.79E-02	10.4	
16	0	351.90*	799	270	1.52	703.52	696	12	1.11E-01	5.5	
17	0	463.01	87	148	1.59	925.59	921	10	1.21E-02	28.3	
18	0	510.71*	206	262	2.47	1020.91	1011	18	2.86E-02	22.2	
19	0	583.30*	520	187	1.84	1166.01	1160	16	7.22E-02	7.7	
20	0	609.40*	602	247	1.61	1218.19	1210	17	8.36E-02	7.4	
21	0	727.16*	129	172	1.67	1453.58	1447	16	1.80E-02	24.6	
22	0	860.50	96	98	1.68	1720.14	1714	15	1.33E-02	24.7	
23	0	911.18*	402	152	2.17	1821.47	1810	19	5.59E-02	9.1	
24	0	969.52*	199	177	1.46	1938.13	1930	14	2.77E-02	16.3	
25	0	1120.96*	193	152	2.96	2240.94	2229	25	2.69E-02	19.2	
26	0	1239.27*	112	80	1.75	2477.54	2470	16	1.56E-02	20.7	
27	0	1378.15	55	37	1.98	2755.31	2747	15	7.64E-03	27.7	
28	0	1451.55	22	44	4.99	2902.12	2890	18	3.01E-03	75.6	
29	0	1460.92*	2576	94	2.71	2920.87	2908	25	3.58E-01	2.2	
30	0	1731.23	22	24	2.35	3461.62	3454	12	3.10E-03	48.7	
31	0	1764.89*	118	14	2.44	3528.98	3519	19	1.64E-02	13.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 19:20:50

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:19:50
Sample ID : G245799009 Sample quantity : 125.91 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.21 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.771E+01	3.844E+00	4.317E-01	3.955E-02	87.342
CD-109	+	88.03	*	2.839E+00	8.584E-01	1.119E+00	1.062E-01	2.538
SN-126		64.28		-1.296E-01	4.896E-01	7.341E-01	1.066E-01	-0.177
	+	86.94		1.160E+00	5.857E-01	4.987E-01	2.071E-01	2.325
	+	87.57	*	2.790E-01	8.436E-02	1.130E-01	1.067E-02	2.468
TL-208		277.35		4.799E-01	3.816E-01	6.291E-01	1.037E-01	0.763
	+	510.84		6.605E-01	3.057E-01	1.934E-01	2.521E-02	3.415
	+	583.14	*	4.681E-01	8.781E-02	4.837E-02	5.245E-03	9.677
	+	860.37		7.832E-01	3.979E-01	4.503E-01	5.248E-02	1.739
BI-211		72.87		5.357E+00	3.024E+00	4.701E+00	3.763E-01	1.140
	+	351.07	*	3.406E+00	5.446E-01	2.938E-01	3.428E-02	11.593
PB-212	+	74.81		2.404E+00	5.356E-01	4.535E-01	5.628E-02	5.301
	+	77.11		1.894E+00	3.034E-01	2.582E-01	2.160E-02	7.334
	+	87.30		1.290E+00	4.109E-01	5.240E-01	7.195E-02	2.462
	+	238.63	*	1.693E+00	2.461E-01	8.289E-02	1.095E-02	20.423
	+	300.09		1.801E+00	1.126E+00	1.127E+00	1.643E-01	1.599
PO-212	+	74.81		2.404E+00	5.356E-01	4.535E-01	5.628E-02	5.301
	+	77.11		1.894E+00	3.034E-01	2.582E-01	2.160E-02	7.334
	+	87.30		1.290E+00	4.109E-01	5.240E-01	7.195E-02	2.462
		115.19		2.076E+00	3.401E+00	5.535E+00	4.585E-01	0.375
	+	238.63	*	1.693E+00	2.461E-01	8.289E-02	1.095E-02	20.423
	+	300.09		1.801E+00	1.126E+00	1.127E+00	1.643E-01	1.599
BI-214	+	609.31	*	1.017E+00	1.916E-01	9.721E-02	1.130E-02	10.463
	+	1120.29		1.629E+00	6.522E-01	3.983E-01	4.400E-02	4.091
	+	1764.49		1.295E+00	3.576E-01	2.689E-01	2.241E-02	4.815
PB-214	+	74.81		4.142E+00	8.921E-01	7.815E-01	8.614E-02	5.301
	+	77.11		3.247E+00	5.759E-01	4.427E-01	5.008E-02	7.334
	+	87.30		2.210E+00	6.898E-01	8.976E-01	1.092E-01	2.462
	+	241.98		2.461E+00	6.650E-01	4.984E-01	6.854E-02	4.938
	+	295.21		1.281E+00	2.962E-01	2.054E-01	3.058E-02	6.235
	+	351.92	*	1.185E+00	1.993E-01	1.011E-01	1.289E-02	11.718
PO-214	+	74.81		4.142E+00	8.921E-01	7.815E-01	8.614E-02	5.301
	+	77.11		3.247E+00	5.759E-01	4.427E-01	5.008E-02	7.334
	+	87.30		2.210E+00	6.898E-01	8.976E-01	1.092E-01	2.462

Sample ID : G245799009 Acquisition date : 10-FEB-2010 17:19:50

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.461E+00	6.650E-01	4.984E-01	6.854E-02	4.938
	+	295.21		1.281E+00	2.962E-01	2.054E-01	3.058E-02	6.235
	+	351.92	*	1.185E+00	1.993E-01	1.011E-01	1.289E-02	11.718
PO-216	+	74.81		2.404E+00	5.356E-01	4.535E-01	5.628E-02	5.301
	+	77.11		1.894E+00	3.034E-01	2.582E-01	2.160E-02	7.334
	+	87.30		1.290E+00	4.109E-01	5.240E-01	7.195E-02	2.462
	+	238.63	*	1.693E+00	2.461E-01	8.289E-02	1.095E-02	20.423
	+	300.09		1.801E+00	1.126E+00	1.127E+00	1.643E-01	1.599
PO-218	+	74.81		4.142E+00	8.921E-01	7.815E-01	8.614E-02	5.301
	+	77.11		3.247E+00	5.759E-01	4.427E-01	5.008E-02	7.334
	+	87.30		2.210E+00	6.898E-01	8.976E-01	1.092E-01	2.462
	+	241.98		2.461E+00	6.650E-01	4.984E-01	6.854E-02	4.938
	+	295.21		1.281E+00	2.962E-01	2.054E-01	3.058E-02	6.235
	+	351.92	*	1.185E+00	1.993E-01	1.011E-01	1.289E-02	11.718
RA-224	+	240.98	*	4.667E+00	1.234E+00	9.423E-01	1.180E-01	4.953
RA-226	+	609.31	*	1.017E+00	1.916E-01	9.721E-02	1.130E-02	10.463
	+	1120.29		1.629E+00	6.522E-01	3.983E-01	4.400E-02	4.091
	+	1764.49		1.295E+00	3.576E-01	2.689E-01	2.241E-02	4.815
AC-228	+	338.32		1.631E+00	7.652E-01	3.335E-01	1.403E-01	4.890
	+	911.07	*	1.553E+00	3.496E-01	2.004E-01	2.655E-02	7.752
	+	969.11		1.352E+00	5.486E-01	3.818E-01	9.221E-02	3.541
RA-228	+	338.32		1.631E+00	7.652E-01	3.335E-01	1.403E-01	4.890
	+	911.07	*	1.553E+00	3.496E-01	2.004E-01	2.655E-02	7.752
	+	969.11		1.352E+00	5.486E-01	3.818E-01	9.221E-02	3.541
TH-228	+	74.81		2.441E+00	4.943E-01	4.605E-01	3.794E-02	5.301
	+	77.11		1.923E+00	3.080E-01	2.622E-01	2.193E-02	7.334
	+	87.30		1.310E+00	3.961E-01	5.320E-01	5.006E-02	2.462
	+	238.63	*	1.719E+00	2.499E-01	8.415E-02	1.112E-02	20.423
	+	300.09		1.829E+00	1.564E+00	1.144E+00	6.881E-01	1.599
TH-230	+	609.31	*	1.017E+00	1.916E-01	9.721E-02	1.130E-02	10.463
	+	1120.29		1.629E+00	6.522E-01	3.983E-01	4.400E-02	4.091
	+	1764.49		1.295E+00	3.576E-01	2.689E-01	2.241E-02	4.815
TH-232	+	338.32		1.631E+00	3.905E-01	3.335E-01	3.966E-02	4.890
	+	911.07	*	1.553E+00	3.496E-01	2.004E-01	2.655E-02	7.752
	+	969.11		1.352E+00	5.486E-01	3.818E-01	9.221E-02	3.541
TH-234	+	63.29	*	1.662E+00	1.882E+00	1.668E+00	2.904E-01	0.996
	+	92.38		2.176E+00	7.704E-01	6.768E-01	1.240E-01	3.215
U-234	+	609.31	*	1.017E+00	1.916E-01	9.721E-02	1.130E-02	10.463
	+	1120.29		1.629E+00	6.522E-01	3.983E-01	4.400E-02	4.091
	+	1764.49		1.295E+00	3.576E-01	2.689E-01	2.241E-02	4.815
NP-237	+	86.50	*	8.192E-01	2.999E-01	3.478E-01	7.875E-02	2.355
		95.87		1.068E-01	9.374E-01	1.354E+00	3.349E-01	0.079
U-238	+	63.29	*	1.662E+00	1.882E+00	1.668E+00	2.904E-01	0.996
	+	92.38		2.176E+00	6.883E-01	6.768E-01	6.167E-02	3.215
AM-243	+	74.67	*	3.898E-01	7.882E-02	7.373E-02	6.010E-03	5.286
	+	86.72		3.072E+01	9.290E+00	1.329E+01	1.242E+00	2.311
		117.66		-1.815E+00	3.758E+00	5.858E+00	4.839E-01	-0.310
		142.18		1.183E+01	1.641E+01	2.822E+01	2.492E+00	0.419
ANH-511	+	511.00	*	1.427E-01	6.495E-02	4.179E-02	4.187E-03	3.414

Sample ID : G245799009 Acquisition date : 10-FEB-2010 17:19:50

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.143E-01	3.041E-01	5.011E-01	5.229E-02	0.228
NA-22		1274.54	*	-2.087E-02	4.366E-02	6.996E-02	6.029E-03	-0.298
NA-24		1368.53	*	4.910E-01	4.366E-02	Half-Life too short		
AL-26		1129.67		9.810E-01	1.743E+00	2.539E+00	2.211E-01	0.386
		1808.65	*	-9.054E-03	2.405E-02	3.729E-02	3.050E-03	-0.243
TI-44		67.85		-1.122E-02	4.049E-02	6.304E-02	4.812E-03	-0.178
	+	78.38	*	3.495E-01	5.598E-02	6.500E-02	5.511E-03	5.377
SC-46		889.25	*	1.475E-02	3.431E-02	5.845E-02	6.543E-03	0.252
	+	1120.51		2.792E-01	1.102E-01	1.145E-01	1.013E-02	2.437
V-48		944.10		-7.993E-01	8.605E-01	1.325E+00	1.438E-01	-0.603
		983.50	*	1.227E-02	6.745E-02	1.121E-01	1.176E-02	0.109
		1312.09		-2.329E-02	7.659E-02	1.235E-01	1.088E-02	-0.189
CR-51		320.08	*	-3.907E-02	3.448E-01	5.740E-01	7.433E-02	-0.068
MN-52		744.21		-4.786E-02	2.274E-01	3.641E-01	3.957E-02	-0.131
		848.13		-1.351E+00	6.367E+00	1.047E+01	1.166E+00	-0.129
		935.52		3.493E-01	2.514E-01	4.439E-01	4.846E-02	0.787
		1246.25		6.214E+00	7.801E+00	1.180E+01	9.972E-01	0.527
		1333.61		3.698E+00	4.307E+00	7.594E+00	6.772E-01	0.487
		1434.06	*	3.310E-02	1.872E-01	3.121E-01	2.790E-02	0.106
MN-54		834.83	*	-1.521E-02	3.458E-02	5.619E-02	6.242E-03	-0.271
CO-56		846.75	*	-1.626E-02	3.695E-02	5.989E-02	6.666E-03	-0.272
		977.42		-9.983E-01	2.918E+00	4.242E+00	4.473E-01	-0.235
		1037.82		-5.692E-02	2.993E-01	4.827E-01	4.977E-02	-0.118
		1175.09		-8.597E-01	2.263E+00	3.694E+00	2.975E-01	-0.233
	+	1238.25		2.650E-01	1.120E-01	1.537E-01	1.332E-02	1.724
		1360.21		-8.978E-01	8.306E-01	1.210E+00	1.081E-01	-0.742
		1771.40		1.930E-01	2.069E-01	3.420E-01	2.842E-02	0.564
CO-57		122.06	*	4.390E-03	2.491E-02	3.976E-02	3.279E-03	0.110
		136.48		1.658E-01	1.961E-01	3.392E-01	3.147E-02	0.489
CO-58		810.76	*	-1.453E-02	3.392E-02	5.515E-02	6.107E-03	-0.263
FE-59		142.65		2.439E+00	2.625E+00	4.422E+00	3.913E-01	0.551
		192.34		-8.482E-01	9.138E-01	1.442E+00	2.142E-01	-0.588
		1099.22	*	-7.071E-02	8.898E-02	1.363E-01	1.335E-02	-0.519
		1291.56		7.796E-02	1.211E-01	2.083E-01	2.053E-02	0.374
CO-60		1173.22		-4.147E-03	4.503E-02	7.475E-02	6.011E-03	-0.055
		1332.49	*	1.896E-02	3.421E-02	5.890E-02	5.253E-03	0.322
ZN-65		1115.52	*	2.837E-02	1.028E-01	1.453E-01	1.296E-02	0.195
GE-68		1077.35	*	6.268E-01	1.263E+00	2.118E+00	1.997E-01	0.296
AS-73		53.44	*	1.633E-01	6.976E-01	1.142E+00	8.627E-02	0.143
AS-74		595.88	*	2.481E-02	8.052E-02	1.357E-01	1.407E-02	0.183
		634.78		4.064E-01	3.351E-01	5.845E-01	6.126E-02	0.695
SE-75		66.05		-1.320E+00	4.525E+00	6.521E+00	6.221E-01	-0.202
		96.73		-3.938E-01	8.088E-01	1.132E+00	1.558E-01	-0.348
		121.11		1.609E-02	1.333E-01	2.125E-01	2.323E-02	0.076
		136.00		2.116E-02	3.668E-02	6.308E-02	5.474E-03	0.335
		198.60		9.248E-01	1.837E+00	2.991E+00	3.496E-01	0.309
		264.65	*	2.659E-02	4.645E-02	6.733E-02	9.062E-03	0.395
		279.53		4.120E-02	1.183E-01	1.683E-01	2.389E-02	0.245
		303.91		1.946E+00	2.041E+00	3.130E+00	4.770E-01	0.622

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		-3.693E-01	2.281E-01	3.714E-01	4.347E-02	-0.099
BR-77	+	87.88		6.323E+02	1.912E+02	3.116E+02	2.954E+01	2.029
		200.40		2.665E+01	1.678E+02	2.773E+02	3.049E+01	0.096
	+	239.00		2.803E+02	3.877E+01	3.550E+01	4.417E+00	7.896
		249.79		-3.810E+00	6.452E+01	1.039E+02	1.336E+01	-0.037
		281.68		2.635E+01	9.682E+01	1.373E+02	1.912E+01	0.192
		297.23		3.798E+02	1.026E+02	1.211E+02	1.629E+01	3.135
		303.76		1.797E+02	1.792E+02	2.761E+02	3.652E+01	0.651
		439.47		-5.583E+01	1.389E+02	2.213E+02	2.130E+01	-0.252
		484.57		2.282E+01	2.206E+02	3.580E+02	3.539E+01	0.064
		520.65	*	-1.506E+00	9.455E+00	1.573E+01	1.583E+00	-0.096
		574.64		-3.327E+01	1.965E+02	3.166E+02	3.258E+01	-0.105
		578.91		-1.708E+01	9.201E+01	1.297E+02	1.337E+01	-0.132
		585.48		1.934E+03	3.051E+02	4.656E+02	4.809E+01	4.153
		755.35		1.225E+01	1.588E+02	2.586E+02	2.820E+01	0.047
		817.79		-7.025E-01	1.231E+02	2.058E+02	2.279E+01	-0.003
SR-82		698.33		3.802E+01	3.039E+01	5.278E+01	5.647E+00	0.720
		776.49	*	8.013E-02	3.728E-01	6.104E-01	6.694E-02	0.131
		1395.20		-1.447E+00	1.027E+01	1.663E+01	1.487E+00	-0.087
RB-83		520.41	*	-1.546E-02	6.035E-02	9.984E-02	1.005E-02	-0.155
		529.64		3.230E-02	9.473E-02	1.614E-01	1.631E-02	0.200
		552.65		6.178E-02	1.738E-01	2.955E-01	3.015E-02	0.209
RB-84		881.50	*	1.242E-02	6.461E-02	1.085E-01	1.214E-02	0.114
KR-85		513.99	*	3.361E+01	8.747E+00	1.414E+01	1.419E+00	2.377
SR-85		513.99	*	1.725E-01	4.490E-02	7.259E-02	7.283E-03	2.377
RB-86		1076.63	*	5.409E-01	7.872E-01	1.335E+00	1.260E-01	0.405
Y-88		898.02		-3.242E-03	3.773E-02	6.217E-02	6.985E-03	-0.052
		1836.01	*	-7.037E-03	2.955E-02	4.694E-02	3.795E-03	-0.150
ZR-88		392.90	*	-2.680E-03	2.867E-02	4.693E-02	4.370E-03	-0.057
Y-91		1204.90	*	1.325E+01	1.851E+01	3.196E+01	2.628E+00	0.415
NB-94		702.63	*	-1.485E-02	3.096E-02	4.906E-02	5.257E-03	-0.303
		871.10		3.710E-03	3.065E-02	5.042E-02	5.633E-03	0.074
NB-95		765.79	*	4.278E-02	4.044E-02	6.893E-02	7.538E-03	0.621
NB-95M		235.69	*	1.998E-01	1.398E-01	2.088E-01	2.760E-02	0.957
ZR-95		724.18		1.024E-01	1.079E-01	1.605E-01	1.829E-02	0.638
		756.15	*	9.537E-03	6.630E-02	1.084E-01	1.258E-02	0.088
NB-97		657.90	*	-1.959E-02	6.630E-02	Half-Life too short		
		1024.50		5.273E+00	6.630E-02	Half-Life too short		
ZR-97		254.15		1.563E+00	6.630E-02	Half-Life too short		
		355.39		2.024E+00	6.630E-02	Half-Life too short		
		507.63	*	4.683E+00	6.630E-02	Half-Life too short		
		602.52		-2.122E+00	6.630E-02	Half-Life too short		
		1021.30		-1.406E+00	6.630E-02	Half-Life too short		
		1147.95		-1.727E+00	6.630E-02	Half-Life too short		
		1362.66		-6.597E+00	6.630E-02	Half-Life too short		
		1750.46		-1.366E+00	6.630E-02	Half-Life too short		
MO-99		140.51		-2.737E+01	2.698E+01	4.108E+01	1.139E+01	-0.666
		181.06		5.248E+00	1.891E+01	2.785E+01	5.332E+00	0.188
		366.43		1.364E+00	7.902E+01	1.308E+02	1.388E+01	0.010

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	9.630E+00	1.135E+01	1.919E+01	3.177E+00	0.502
		778.00		-1.664E+01	3.488E+01	5.466E+01	5.997E+00	-0.304
TC-99M		140.51	*	-5.181E+10	3.488E+01	Half-Life too short		
RH-101		127.23		2.945E-03	3.143E-02	4.984E-02	4.166E-03	0.059
		198.01	*	1.564E-02	3.375E-02	5.493E-02	5.992E-03	0.285
		325.23		4.386E-02	2.298E-01	3.377E-01	4.198E-02	0.130
RH-102		418.52		7.163E-02	2.733E-01	4.526E-01	4.295E-02	0.158
		475.06	*	7.816E-03	2.689E-02	4.415E-02	4.341E-03	0.177
		631.29		-2.286E-02	5.200E-02	8.355E-02	8.749E-03	-0.274
		697.49		2.991E-02	6.968E-02	1.165E-01	1.246E-02	0.257
		766.84		8.712E-02	1.040E-01	1.755E-01	1.920E-02	0.496
		1046.59		-3.501E-02	1.102E-01	1.760E-01	1.726E-02	-0.199
		1112.84		-7.386E-03	2.496E-01	3.431E-01	3.071E-02	-0.022
RU-103		497.08	*	-1.337E-02	3.856E-02	6.077E-02	9.120E-03	-0.220
	+	610.33		1.100E+01	2.538E+00	2.411E+00	4.262E-01	4.563
RH-106	+	511.85		7.127E-01	3.245E-01	4.000E-01	4.009E-02	1.782
		621.84	*	-7.073E-02	2.867E-01	4.664E-01	6.810E-02	-0.152
		1050.47		-5.986E-01	2.261E+00	3.624E+00	3.537E-01	-0.165
RU-106	+	511.85		7.127E-01	3.245E-01	4.000E-01	4.009E-02	1.782
		621.84	*	-7.073E-02	2.866E-01	4.664E-01	4.871E-02	-0.152
		1050.47		-5.986E-01	2.261E+00	3.624E+00	3.537E-01	-0.165
AG-108M		433.93	*	1.474E-02	3.081E-02	5.138E-02	5.087E-03	0.287
		614.37		-5.791E-03	4.040E-02	5.675E-02	6.075E-03	-0.102
		722.95		1.166E-02	4.449E-02	6.338E-02	7.013E-03	0.184
AG-110M		657.75	*	-6.338E-03	3.242E-02	5.266E-02	5.660E-03	-0.120
		677.61		-3.079E-02	2.874E-01	4.678E-01	5.058E-02	-0.066
		706.67		1.246E-01	1.925E-01	3.250E-01	3.550E-02	0.383
		763.93		-7.647E-02	1.596E-01	2.507E-01	2.789E-02	-0.305
		884.67		-5.521E-03	4.536E-02	7.468E-02	8.517E-03	-0.074
		937.48		7.365E-03	1.086E-01	1.799E-01	2.006E-02	0.041
		1384.27		7.109E-02	1.535E-01	2.280E-01	2.091E-02	0.312
IN-111		171.28		1.945E-01	9.915E-01	1.660E+00	1.657E-01	0.117
		245.39	*	-1.933E-03	1.123E+00	1.587E+00	2.014E-01	-0.001
IN-113M		391.69	*	-8.350E-03	4.167E-02	6.788E-02	6.482E-03	-0.123
SN-113		391.69	*	-8.350E-03	4.167E-02	6.788E-02	6.482E-03	-0.123
IN-114M		190.27	*	2.062E-01	1.919E-01	2.911E-01	3.095E-02	0.708
CD-115		260.90		-3.587E+01	1.274E+02	2.023E+02	2.688E+01	-0.177
		492.35		-2.150E+00	3.407E+01	5.469E+01	5.429E+00	-0.039
		527.90	*	2.138E+00	1.020E+01	1.727E+01	1.744E+00	0.124
SN-117M		156.02		1.696E-01	2.106E+00	3.537E+00	3.316E-01	0.048
		158.56	*	-6.219E-02	5.183E-02	8.260E-02	7.834E-03	-0.753
SB-122		563.90	*	-9.513E-02	1.936E+00	3.218E+00	3.298E-01	-0.030
		692.80		-2.040E+01	4.050E+01	6.411E+01	6.845E+00	-0.318
I-123		159.00	*	-3.621E+00	4.050E+01	Half-Life too short		
		528.96		1.166E+02	4.050E+01	Half-Life too short		
TE-123M		159.00	*	-1.567E-02	2.661E-02	4.355E-02	4.159E-03	-0.360
I-124		602.71	*	-1.295E-01	7.009E-01	9.836E-01	1.022E-01	-0.132
		722.78		1.279E+00	4.731E+00	6.745E+00	7.279E-01	0.190
		1325.50		-2.448E+01	3.594E+01	5.272E+01	4.682E+00	-0.464

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1376.25		4.493E+01	3.411E+01	5.431E+01	4.854E+00	0.827
		1509.49		8.919E+00	1.426E+01	2.458E+01	2.185E+00	0.363
		1691.02		-1.586E+00	3.428E+00	5.348E+00	4.573E-01	-0.297
SB-124		602.71		-7.404E-03	4.008E-02	5.625E-02	5.843E-03	-0.132
		645.85		5.058E-03	4.474E-01	7.368E-01	8.058E-02	0.007
		709.31		-4.074E-01	2.635E+00	4.259E+00	4.575E-01	-0.096
		713.82		-4.206E-01	1.548E+00	2.480E+00	3.386E-01	-0.170
		722.78		1.060E-01	3.922E-01	5.591E-01	6.117E-02	0.190
	+	968.20		1.394E+01	4.779E+00	6.579E+00	6.996E-01	2.118
		1045.16		-1.054E+00	2.355E+00	3.725E+00	3.659E-01	-0.283
		1325.50		-2.167E+00	3.182E+00	4.668E+00	4.146E-01	-0.464
		1368.21		3.966E-01	1.686E+00	2.570E+00	3.516E-01	0.154
		1436.60		-7.201E-01	2.930E+00	4.655E+00	4.160E-01	-0.155
		1691.02	*	-3.101E-02	6.703E-02	1.046E-01	9.301E-03	-0.297
SB-125		427.89	*	-4.049E-02	8.407E-02	1.335E-01	1.296E-02	-0.303
	+	463.38		5.524E-01	3.176E-01	4.656E-01	4.828E-02	1.187
		600.56		7.306E-02	1.685E-01	2.659E-01	2.902E-02	0.275
		635.90		3.482E-01	2.591E-01	4.456E-01	4.930E-02	0.781
TE-125M		109.28	*	1.841E+00	8.956E+00	1.442E+01	1.460E+00	0.128
I-126		388.63		3.614E-02	1.931E-01	3.206E-01	3.035E-02	0.113
		666.33	*	1.016E-03	1.752E-01	2.876E-01	3.038E-02	0.004
		753.82		3.720E-01	1.382E+00	2.277E+00	2.482E-01	0.163
SB-126		223.80		-1.314E+00	3.899E+00	6.266E+00	7.435E-01	-0.210
		278.60		4.033E+00	2.728E+00	4.062E+00	5.678E-01	0.993
	+	296.50		1.283E+01	2.856E+00	3.328E+00	4.483E-01	3.854
		414.70		-3.816E-02	7.234E-02	1.152E-01	1.090E-02	-0.331
		415.30		-2.322E+00	5.987E+00	9.604E+00	9.093E-01	-0.242
		555.20		7.157E-02	3.478E+00	5.810E+00	5.935E-01	0.012
		573.80		-7.809E-02	9.446E-01	1.564E+00	1.609E-01	-0.050
		593.00		-3.246E-02	8.232E-01	1.299E+00	1.345E-01	-0.025
		656.30		-2.293E+00	3.221E+00	5.064E+00	5.334E-01	-0.453
		666.33		4.245E-04	7.323E-02	1.202E-01	1.270E-02	0.004
		675.00		-6.231E-01	1.810E+00	2.902E+00	3.077E-01	-0.215
		695.00		-4.555E-04	6.990E-02	1.142E-01	1.220E-02	-0.004
		697.00		1.046E-02	2.481E-01	4.063E-01	4.345E-02	0.026
		720.50	*	1.860E-02	1.612E-01	2.270E-01	2.448E-02	0.082
		856.80		2.559E-01	5.216E-01	7.728E-01	8.616E-02	0.331
		989.30		4.461E-01	1.187E+00	1.996E+00	2.082E-01	0.224
		1034.80		5.996E+00	8.073E+00	1.384E+01	1.376E+00	0.433
		1213.00		-4.334E+00	4.597E+00	7.211E+00	5.962E-01	-0.601
SB-127		61.10		2.862E+01	5.013E+01	7.647E+01	7.742E+00	0.374
		252.40		3.678E-01	4.287E+00	6.939E+00	2.993E+00	0.053
		290.80		5.889E+00	2.241E+01	3.340E+01	5.145E+00	0.176
		411.60		7.259E-01	1.168E+01	1.918E+01	3.110E+00	0.038
		444.90		-1.386E+00	9.212E+00	1.486E+01	1.975E+00	-0.093
		473.00		-8.837E-02	1.605E+00	2.588E+00	3.553E-01	-0.034
		543.00		4.362E+00	1.448E+01	2.458E+01	3.784E+00	0.177
		603.60		-1.848E+00	1.218E+01	1.714E+01	2.368E+00	-0.108
		685.20	*	6.513E-01	1.310E+00	2.200E+00	2.863E-01	0.296

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		1.721E+01	1.394E+01	2.389E+01	4.076E+00	0.720
		722.20		2.261E+01	3.180E+01	4.687E+01	6.064E+00	0.482
		783.80		2.648E+00	3.549E+00	5.955E+00	8.449E-01	0.445
XE-127		57.60		2.216E+00	5.109E+00	8.265E+00	5.937E-01	0.268
		145.22		-1.304E-01	6.668E-01	1.086E+00	9.713E-02	-0.120
		172.10		7.520E-03	1.155E-01	1.926E-01	1.927E-02	0.039
		202.84	*	-1.235E-02	4.738E-02	7.438E-02	8.245E-03	-0.166
		374.96		2.689E-02	1.799E-01	2.991E-01	3.045E-02	0.090
I-131		80.18		-3.108E+00	4.391E+00	6.189E+00	5.388E-01	-0.502
		284.30		8.429E-02	1.483E+00	2.291E+00	3.239E-01	0.037
		364.48	*	4.487E-03	1.070E-01	1.775E-01	1.967E-02	0.025
		636.97		3.704E-01	1.463E+00	2.398E+00	2.611E-01	0.154
		722.89		2.004E+00	7.562E+00	1.078E+01	1.168E+00	0.186
TE-132		49.72		-3.010E+00	1.541E+01	2.568E+01	2.673E+00	-0.117
		111.76		-2.053E+01	2.969E+01	4.505E+01	4.801E+00	-0.456
		116.30		-4.601E+00	2.752E+01	4.350E+01	4.616E+00	-0.106
		228.16	*	3.576E-01	6.900E-01	1.140E+00	2.033E-01	0.314
BA-133		53.15		4.903E-02	3.000E+00	4.871E+00	3.696E-01	0.010
		79.62		-4.503E-02	1.203E+00	1.752E+00	2.665E-01	-0.026
		81.00		-1.004E-01	9.458E-02	1.293E-01	2.061E-02	-0.777
		276.40		4.544E-01	3.763E-01	6.179E-01	1.118E-01	0.735
		302.84		1.224E-01	1.431E-01	2.180E-01	3.635E-02	0.562
		356.01	*	9.299E-03	4.315E-02	6.299E-02	9.413E-03	0.148
		383.85		-1.573E-02	2.832E-01	4.655E-01	6.229E-02	-0.034
I-133	+	510.53		1.579E+00	2.832E-01	Half-Life too short		
		529.87	*	1.412E-03	2.832E-01	Half-Life too short		
		706.58		2.635E-01	2.832E-01	Half-Life too short		
		856.28		-5.158E-03	2.832E-01	Half-Life too short		
		875.33		-3.982E-02	2.832E-01	Half-Life too short		
		1236.41		4.339E-01	2.832E-01	Half-Life too short		
		1298.22		-3.250E-01	2.832E-01	Half-Life too short		
CS-134		475.35		-8.077E-04	1.799E+00	2.908E+00	2.860E-01	0.000
		563.23		2.759E-01	3.239E-01	5.612E-01	5.790E-02	0.492
		569.32		8.249E-02	1.799E-01	3.062E-01	3.175E-02	0.269
		604.70		4.506E-03	3.431E-02	4.934E-02	5.137E-03	0.091
		795.84	*	9.491E-02	4.818E-02	8.423E-02	9.323E-03	1.127
		801.93		-2.882E-01	4.105E-01	6.040E-01	6.688E-02	-0.477
		1038.57		-7.808E-01	3.705E+00	5.966E+00	5.907E-01	-0.131
		1167.94		1.176E+00	2.508E+00	4.291E+00	3.486E-01	0.274
		1365.15		-3.667E-01	1.109E+00	1.697E+00	1.580E-01	-0.216
CS-135		268.24	*	3.931E-01	1.877E-01	2.763E-01	3.997E-02	1.422
I-135		288.45		3.637E+10	1.877E-01	Half-Life too short		
		417.63		1.233E+10	1.877E-01	Half-Life too short		
		546.56		9.185E+09	1.877E-01	Half-Life too short		
		836.80		2.825E+09	1.877E-01	Half-Life too short		
		1038.76		-2.841E+09	1.877E-01	Half-Life too short		
		1124.00		1.580E+11	1.877E-01	Half-Life too short		
		1131.51		2.474E+09	1.877E-01	Half-Life too short		
		1260.41	*	1.647E+09	1.877E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		1.631E+12	1.877E-01	Half-Life too short		
		1678.03		-4.628E+08	1.877E-01	Half-Life too short		
		1706.46		-2.199E+10	1.877E-01	Half-Life too short		
		1791.20		-3.077E+09	1.877E-01	Half-Life too short		
CS-136		66.91		-5.025E-01	7.503E-01	1.058E+00	1.573E-01	-0.475
	+	86.29		3.661E+00	1.161E+00	1.761E+00	2.344E-01	2.079
		153.22		5.560E-01	6.279E-01	1.078E+00	1.101E-01	0.516
		163.89		-6.956E-01	1.019E+00	1.657E+00	1.764E-01	-0.420
		176.55		-9.322E-03	3.571E-01	5.923E-01	6.268E-02	-0.016
	+	273.65		2.341E+00	1.303E+00	6.580E-01	9.309E-02	3.557
		340.57		4.780E-01	1.530E-01	2.360E-01	2.828E-02	2.025
		818.51		1.592E-02	6.573E-02	1.115E-01	1.235E-02	0.143
		1048.07	*	-2.366E-02	1.049E-01	1.686E-01	1.705E-02	-0.140
		1235.34		2.539E-01	6.400E-01	9.326E-01	1.090E-01	0.272
BA-137M		661.65	*	1.267E-02	3.391E-02	5.676E-02	5.986E-03	0.223
CS-137		661.65	*	1.339E-02	3.585E-02	6.000E-02	6.336E-03	0.223
CE-139		165.85	*	-1.792E-02	2.777E-02	4.518E-02	4.431E-03	-0.397
BA-140		162.64		9.433E-01	7.172E-01	1.239E+00	1.253E-01	0.762
		304.84		6.789E-01	1.263E+00	1.885E+00	5.608E-01	0.360
		423.70		2.678E-01	1.789E+00	2.940E+00	9.606E-01	0.091
		537.32	*	1.241E-05	2.232E-01	3.735E-01	1.254E-01	0.000
LA-140	+	328.77		5.282E-01	3.560E-01	5.187E-01	6.553E-02	1.018
		432.53		-8.702E-01	2.002E+00	3.160E+00	3.148E-01	-0.275
		487.03		2.608E-02	1.286E-01	2.097E-01	2.174E-02	0.124
		751.79		-8.073E-01	1.589E+00	2.488E+00	2.895E-01	-0.324
		815.85		-6.694E-03	2.873E-01	4.797E-01	5.689E-02	-0.014
		867.82		5.442E-01	1.401E+00	2.066E+00	2.380E-01	0.263
		919.63		-8.723E-01	2.720E+00	3.991E+00	5.065E-01	-0.219
		925.24		-6.142E-02	9.734E-01	1.601E+00	1.830E-01	-0.038
		1596.49	*	-6.562E-02	8.214E-02	1.261E-01	1.105E-02	-0.520
CE-141		145.44	*	-1.126E-02	5.810E-02	9.718E-02	8.847E-03	-0.116
CE-143		57.37		2.191E-04	5.810E-02	Half-Life too short		
		231.56		-1.180E-03	5.810E-02	Half-Life too short		
		293.26	*	7.531E-04	5.810E-02	Half-Life too short		
	+	350.59		2.847E-02	5.810E-02	Half-Life too short		
		490.36		-1.279E-03	5.810E-02	Half-Life too short		
		664.57		8.245E-04	5.810E-02	Half-Life too short		
		721.93		1.107E-03	5.810E-02	Half-Life too short		
CE-144		80.11		-1.311E+00	2.006E+00	2.836E+00	2.451E-01	-0.462
		133.54	*	6.549E-03	1.930E-01	3.272E-01	5.079E-02	0.020
PM-144		476.78		1.004E-02	6.325E-02	1.031E-01	1.088E-02	0.097
		618.01		-1.744E-02	3.092E-02	4.534E-02	4.820E-03	-0.385
		696.49	*	7.563E-03	3.122E-02	5.171E-02	5.530E-03	0.146
		778.57		-1.785E+00	2.333E+00	3.584E+00	3.933E-01	-0.498
PR-144		696.49	*	5.126E-01	2.116E+00	3.504E+00	3.747E-01	0.146
		1489.15		-6.073E+00	1.029E+01	1.561E+01	1.391E+00	-0.389
PM-146		453.90	*	-2.249E-03	3.959E-02	6.407E-02	7.446E-03	-0.035
		633.02		9.531E-01	1.357E+00	2.243E+00	8.486E-01	0.425
		735.90		5.071E-02	1.549E-01	2.297E-01	6.740E-02	0.221

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		747.13		-1.725E-02	8.336E-02	1.334E-01	2.071E-02	-0.129
ND-147	+	91.11		6.164E-01	2.077E-01	4.729E-01	4.673E-02	1.304
		319.41		9.764E-01	3.071E+00	5.203E+00	6.586E-01	0.188
		439.89		-1.347E+00	5.537E+00	8.897E+00	8.567E-01	-0.151
		531.02	*	2.458E-01	5.059E-01	8.661E-01	1.373E-01	0.284
PM-149		285.90	*	-4.497E+01	9.206E+01	1.430E+02	2.705E+01	-0.315
EU-152		121.78		1.566E-02	7.205E-02	1.152E-01	1.106E-02	0.136
		244.69		1.683E-01	3.468E-01	5.034E-01	6.373E-02	0.334
		344.27	*	7.527E-03	1.242E-01	1.421E-01	1.709E-02	0.053
		443.98		4.803E-01	8.772E-01	1.466E+00	1.416E-01	0.328
		778.89		-1.880E-01	2.665E-01	4.110E-01	4.510E-02	-0.457
		867.32		1.644E-01	8.397E-01	1.217E+00	1.359E-01	0.135
		964.01		3.839E-01	3.388E-01	5.139E-01	5.484E-02	0.747
		1085.78		-2.343E-01	3.945E-01	6.151E-01	5.731E-02	-0.381
		1112.02		1.480E-03	3.568E-01	4.922E-01	4.410E-02	0.003
		1407.95		5.232E-02	1.841E-01	3.085E-01	2.758E-02	0.170
GD-153		69.67		6.062E-01	1.539E+00	2.292E+00	1.779E-01	0.264
		83.37		1.675E+01	1.420E+01	2.156E+01	1.935E+00	0.777
		97.43	*	-3.388E-02	7.743E-02	1.165E-01	1.024E-02	-0.291
		103.18		-4.079E-02	1.012E-01	1.598E-01	1.366E-02	-0.255
EU-154		123.07		-1.027E-02	5.158E-02	8.107E-02	8.993E-03	-0.127
		247.94		-4.515E-02	3.541E-01	5.487E-01	8.155E-02	-0.082
		591.81		-3.491E-01	6.129E-01	8.284E-01	1.077E-01	-0.421
		723.30		6.763E-02	1.881E-01	2.699E-01	3.113E-02	0.251
		756.87		4.734E-01	7.235E-01	1.215E+00	1.666E-01	0.390
		873.19		-1.844E-01	2.727E-01	4.311E-01	6.103E-02	-0.428
		996.32		-1.262E-01	3.528E-01	5.641E-01	1.053E-01	-0.224
		1004.76		3.780E-02	1.990E-01	3.301E-01	4.262E-02	0.115
		1274.45	*	-6.263E-02	1.217E-01	1.944E-01	2.198E-02	-0.322
EU-155		48.70		-4.413E-01	1.940E+00	3.234E+00	2.634E-01	-0.136
		60.01		-2.080E-01	4.322E+00	6.423E+00	4.561E-01	-0.032
	+	86.54		3.360E-01	1.017E-01	1.635E-01	1.537E-02	2.055
		105.31	*	-3.424E-02	1.055E-01	1.669E-01	1.433E-02	-0.205
TB-160	+	86.79		8.984E-01	2.717E-01	4.362E-01	4.079E-02	2.060
		197.04		3.848E-01	5.659E-01	9.262E-01	1.007E-01	0.415
		215.65		-2.700E-02	7.326E-01	1.196E+00	1.382E-01	-0.023
		298.57		1.938E-01	1.726E-01	1.890E-01	2.533E-02	1.025
		879.36	*	1.107E-01	1.279E-01	2.227E-01	2.491E-02	0.497
		962.29		5.547E-01	5.964E-01	8.968E-01	9.584E-02	0.618
		966.15		1.233E+00	3.020E-01	4.865E-01	5.182E-02	2.534
		1177.93		1.314E-01	3.482E-01	5.931E-01	4.786E-02	0.222
		1271.85		-7.812E-02	7.138E-01	1.173E+00	1.008E-01	-0.067
HO-166M		80.57		-2.328E-01	2.553E-01	3.557E-01	3.091E-02	-0.654
	+	184.41		9.038E-02	4.784E-02	6.397E-02	6.670E-03	1.413
		280.46		-4.651E-04	9.072E-02	1.264E-01	1.766E-02	-0.004
		410.95		5.410E-02	2.260E-01	3.743E-01	3.533E-02	0.145
		711.68	*	6.766E-03	5.662E-02	9.295E-02	9.993E-03	0.073
		752.31		-5.971E-02	2.507E-01	4.002E-01	4.360E-02	-0.149
		810.29		-1.332E-02	5.050E-02	8.305E-02	9.182E-03	-0.160

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-2.024E+01	2.420E+01	3.918E+01	3.056E+00	-0.517
		52.39		-4.394E+00	1.320E+01	2.115E+01	1.623E+00	-0.208
		59.40		2.319E+00	2.302E+01	3.448E+01	2.437E+00	0.067
		66.72	*	-1.743E+01	2.705E+01	3.833E+01	2.897E+00	-0.455
LU-176	+	88.36		6.616E-01	2.001E-01	3.295E-01	3.116E-02	2.008
		201.83		-1.654E-02	2.844E-02	4.568E-02	5.047E-03	-0.362
		306.84	*	6.311E-03	2.454E-02	3.644E-02	4.780E-03	0.173
		401.10		-1.934E+00	5.956E+00	9.611E+00	9.006E-01	-0.201
LU-177		112.95		-7.139E-01	1.613E+00	2.476E+00	2.058E-01	-0.288
	+	208.36	*	2.429E+00	1.400E+00	1.872E+00	2.113E-01	1.298
LU-177M		52.97		-3.795E-02	1.350E+00	2.187E+00	1.664E-01	-0.017
		54.07		3.065E-01	7.235E-01	1.192E+00	8.927E-02	0.257
	+	61.30		1.776E+00	1.991E+00	1.976E+00	1.421E-01	0.899
		121.62		1.226E-01	3.711E-01	5.958E-01	4.908E-02	0.206
		147.16		-5.466E-01	5.968E-01	9.699E-01	8.746E-02	-0.564
		171.86		3.418E-02	4.649E-01	7.753E-01	7.753E-02	0.044
		218.09		2.951E-01	8.353E-01	1.381E+00	1.609E-01	0.214
		268.79		1.955E+00	9.608E-01	1.418E+00	1.928E-01	1.378
		319.02		1.222E-02	2.371E-01	3.976E-01	5.038E-02	0.031
		367.43		-1.037E-01	8.235E-01	1.354E+00	1.429E-01	-0.077
		413.65	*	-1.211E-01	1.655E-01	2.604E-01	2.462E-02	-0.465
HF-181		56.28		-1.370E-01	7.672E-01	1.271E+00	9.260E-02	-0.108
		57.53		9.451E-02	4.340E-01	6.962E-01	5.004E-02	0.136
		65.20		-2.656E-01	8.829E-01	1.273E+00	9.488E-02	-0.209
		133.02		-1.421E-02	6.237E-02	1.049E-01	8.940E-03	-0.135
		136.25		2.886E-01	4.301E-01	7.412E-01	6.394E-02	0.389
		345.85		-7.278E-02	2.108E-01	2.795E-01	3.233E-02	-0.260
		482.03	*	-9.290E-03	4.054E-02	6.461E-02	6.378E-03	-0.144
W-181		56.28		-5.329E-02	3.000E-01	4.970E-01	3.621E-02	-0.107
		57.53		3.701E-02	1.698E-01	2.724E-01	1.958E-02	0.136
		65.20	*	-1.031E-01	3.427E-01	4.941E-01	3.683E-02	-0.209
TA-182		67.75		-2.528E-02	9.676E-02	1.507E-01	1.150E-02	-0.168
		100.10		-8.123E-02	1.669E-01	2.634E-01	2.282E-02	-0.308
		152.43		2.824E-01	3.185E-01	5.476E-01	5.052E-02	0.516
		222.10		-1.483E-01	3.373E-01	5.400E-01	6.372E-02	-0.275
		1001.68		3.002E-01	2.011E+00	3.234E+00	3.333E-01	0.093
	+	1121.28		7.708E-01	3.043E-01	3.182E-01	2.810E-02	2.422
		1189.05		2.571E-02	2.860E-01	4.791E-01	3.896E-02	0.054
		1221.42	*	-2.548E-02	1.823E-01	3.005E-01	2.499E-02	-0.085
		1230.97		1.091E-01	5.091E-01	7.327E-01	6.132E-02	0.149
RE-183		57.98		8.526E-02	1.766E-01	2.696E-01	1.930E-02	0.316
		59.32		9.000E-03	9.476E-02	1.419E-01	1.004E-02	0.063
		67.20		-1.487E-01	1.915E-01	2.695E-01	2.045E-02	-0.552
		162.32	*	1.737E-01	1.043E-01	1.813E-01	1.750E-02	0.958
	+	208.81		2.162E+00	1.247E+00	1.663E+00	1.880E-01	1.300
		291.72		2.000E-01	9.534E-01	1.417E+00	1.931E-01	0.141
RE-184		57.98		3.140E-01	6.502E-01	9.930E-01	7.106E-02	0.316
		59.32		3.312E-02	3.487E-01	5.222E-01	3.694E-02	0.063
		67.20		-5.475E-01	7.049E-01	9.920E-01	7.528E-02	-0.552

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		2.334E-01	3.356E-01	5.724E-01	5.496E-02	0.408
		216.55		1.075E-01	2.629E-01	4.355E-01	5.048E-02	0.247
		252.85	*	-1.745E-02	2.253E-01	3.623E-01	4.701E-02	-0.048
		318.01		7.104E-02	4.114E-01	6.935E-01	8.815E-02	0.102
		792.07		7.439E-01	9.909E-01	1.662E+00	1.830E-01	0.448
		903.28		8.215E-01	1.072E+00	1.617E+00	1.806E-01	0.508
		920.93		-6.670E-02	4.172E-01	6.548E-01	7.225E-02	-0.102
OS-185		59.72		-3.277E-02	2.572E-01	3.808E-01	2.696E-02	-0.086
		61.14		8.048E-02	1.399E-01	2.136E-01	1.534E-02	0.377
		69.30		-8.862E-02	2.807E-01	4.057E-01	3.138E-02	-0.218
		592.07		-8.668E-01	2.390E+00	3.447E+00	3.568E-01	-0.251
		646.12	*	-7.993E-03	3.838E-02	6.235E-02	6.552E-03	-0.128
		717.42		2.068E-01	8.568E-01	1.415E+00	1.524E-01	0.146
		874.81		-4.223E-01	5.406E-01	8.494E-01	9.493E-02	-0.497
		880.27		2.305E-01	7.167E-01	1.213E+00	1.357E-01	0.190
RE-188		155.03	*	1.542E-01	1.620E-01	2.787E-01	2.601E-02	0.553
		477.96		2.013E+00	2.829E+00	4.740E+00	4.668E-01	0.425
		633.10		2.297E+00	2.654E+00	4.563E+00	4.780E-01	0.503
W-188	+	63.58		6.688E+01	7.498E+01	7.687E+01	5.648E+00	0.870
		227.08		3.319E+00	1.235E+01	2.030E+01	2.433E+00	0.164
		290.67	*	1.889E+00	7.616E+00	1.134E+01	1.549E+00	0.167
IR-192	+	295.96		9.775E-01	2.179E-01	2.542E-01	3.439E-02	3.845
		308.46		-7.806E-02	8.753E-02	1.360E-01	1.781E-02	-0.574
		316.51	*	9.889E-03	3.161E-02	5.359E-02	6.849E-03	0.185
		468.07		1.331E-02	6.994E-02	9.914E-02	1.026E-02	0.134
		604.41		-1.604E-01	4.726E-01	6.543E-01	9.326E-02	-0.245
		612.46		5.327E+00	1.079E+00	1.679E+00	1.931E-01	3.173
AU-195		65.12		-7.741E-02	1.604E-01	2.294E-01	1.709E-02	-0.337
		66.83		-5.905E-02	8.941E-02	1.266E-01	9.573E-03	-0.467
	+	75.70		1.262E+00	2.552E-01	3.878E-01	3.195E-02	3.254
		98.88	*	1.131E-01	2.096E-01	3.436E-01	2.997E-02	0.329
		129.76		2.120E+00	2.683E+00	4.648E+00	3.918E-01	0.456
TL-200		367.94	*	-1.702E-04	2.683E+00	Half-Life too short		
		579.30		2.947E-03	2.683E+00	Half-Life too short		
		828.27		1.722E-03	2.683E+00	Half-Life too short		
		1205.75		1.321E-03	2.683E+00	Half-Life too short		
TL-201		68.90		-1.729E+00	4.336E+00	6.658E+00	5.131E-01	-0.260
		70.82		1.228E+00	2.574E+00	3.842E+00	3.014E-01	0.320
		80.30		-3.739E+00	4.849E+00	6.811E+00	5.900E-01	-0.549
		135.34		3.520E+00	2.441E+01	4.148E+01	3.566E+00	0.085
		167.43	*	-1.945E+00	6.686E+00	1.103E+01	1.087E+00	-0.176
TL-202		68.90		-1.528E-01	3.830E-01	5.881E-01	4.532E-02	-0.260
		70.82		1.082E-01	2.268E-01	3.384E-01	2.655E-02	0.320
		80.30		-3.295E-01	4.273E-01	6.002E-01	5.199E-02	-0.549
		439.56	*	-1.151E-02	6.493E-02	1.047E-01	1.008E-02	-0.110
HG-203		70.83		4.748E-01	9.799E-01	1.461E+00	1.918E-01	0.325
		72.87		1.067E+00	6.118E-01	9.365E-01	1.200E-01	1.140
		82.60		1.363E+00	1.041E+00	1.577E+00	2.194E-01	0.865
		279.20	*	3.032E-02	4.493E-02	6.497E-02	9.196E-03	0.467

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		2.717E-01	1.751E-01	2.708E-01	2.166E-02	1.004
	+	74.97		6.996E-01	1.415E-01	1.963E-01	1.605E-02	3.563
		84.90		9.441E-02	1.805E-01	2.676E-01	2.446E-02	0.353
		569.67		1.833E-02	2.769E-02	4.755E-02	4.885E-03	0.385
		1063.62	*	2.780E-02	5.265E-02	8.856E-02	8.502E-03	0.314
		1770.23		1.035E+00	5.166E-01	9.323E-01	7.750E-02	1.111
TL-207		81.07		-2.184E-01	2.067E-01	2.856E-01	2.496E-02	-0.765
		83.78		1.629E-01	1.207E-01	1.842E-01	1.661E-02	0.885
		94.90		2.912E-01	2.303E-01	3.484E-01	3.114E-02	0.836
		122.32		6.815E-01	1.736E+00	2.792E+00	2.485E-01	0.244
		144.24		5.826E-01	6.577E-01	1.105E+00	1.094E-01	0.527
		154.21		4.067E-01	3.754E-01	6.472E-01	6.537E-02	0.628
		269.46		3.826E-01	2.278E-01	3.337E-01	4.583E-02	1.147
		323.87	*	3.353E-01	6.714E-01	1.002E+00	1.991E-01	0.335
	+	338.28		6.810E+00	1.737E+00	2.166E+00	3.203E-01	3.145
		445.03		-3.308E-01	2.105E+00	3.394E+00	4.361E-01	-0.097
PO-209		260.50		-9.564E-01	9.121E+00	1.461E+01	1.939E+00	-0.065
		262.80		-4.260E+01	2.643E+01	3.839E+01	5.129E+00	-1.110
		896.60	*	-3.414E+00	6.686E+00	1.069E+01	1.197E+00	-0.319
BI-210		46.50	*	1.611E+00	2.890E+00	4.848E+00	4.504E-01	0.332
PB-210		46.50	*	1.611E+00	2.890E+00	4.848E+00	4.504E-01	0.332
PO-210		46.50	*	1.611E+00	2.889E+00	4.848E+00	4.076E-01	0.332
PB-211		404.84	*	-1.682E-01	8.477E-01	1.366E+00	8.574E-01	-0.123
		427.08		-9.071E-01	1.989E+00	3.035E+00	1.890E+00	-0.299
		831.96		4.503E-01	1.127E+00	1.864E+00	1.175E+00	0.242
BI-212	+	727.18	*	9.780E-01	4.951E-01	5.805E-01	6.934E-02	1.685
		785.46		1.263E+00	1.696E+00	2.851E+00	3.134E-01	0.443
		1620.62		6.605E-01	1.072E+00	1.895E+00	1.652E-01	0.348
PO-215		81.07		-2.184E-01	2.067E-01	2.856E-01	2.496E-02	-0.765
		83.78		1.629E-01	1.207E-01	1.842E-01	1.661E-02	0.885
		94.90		2.912E-01	2.303E-01	3.484E-01	3.114E-02	0.836
		122.32		6.815E-01	1.736E+00	2.792E+00	2.485E-01	0.244
		144.24		5.826E-01	6.577E-01	1.105E+00	1.094E-01	0.527
		154.21		4.067E-01	3.754E-01	6.472E-01	6.537E-02	0.628
		269.46		3.826E-01	2.278E-01	3.337E-01	4.583E-02	1.147
		323.87	*	3.353E-01	6.714E-01	1.002E+00	1.991E-01	0.335
	+	338.28		6.810E+00	1.737E+00	2.166E+00	3.203E-01	3.145
		445.03		-3.308E-01	2.105E+00	3.394E+00	4.361E-01	-0.097
RN-219		271.23		4.481E-01	2.577E-01	4.175E-01	6.185E-02	1.073
		401.81	*	-2.405E-01	3.711E-01	5.859E-01	9.064E-02	-0.411
RN-220		549.76	*	-1.221E+01	2.366E+01	3.836E+01	3.910E+00	-0.318
RA-223		81.07		-2.184E-01	2.067E-01	2.856E-01	2.496E-02	-0.765
		83.78		1.629E-01	1.207E-01	1.842E-01	1.661E-02	0.885
		94.90		2.912E-01	2.303E-01	3.484E-01	3.114E-02	0.836
		122.32		6.815E-01	1.736E+00	2.792E+00	2.485E-01	0.244
		144.24		5.826E-01	6.577E-01	1.105E+00	1.094E-01	0.527
		154.21		4.067E-01	3.754E-01	6.472E-01	6.537E-02	0.628
		269.46		3.826E-01	2.278E-01	3.337E-01	4.583E-02	1.147
		323.87	*	3.353E-01	6.714E-01	1.002E+00	1.991E-01	0.335

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		6.810E+00	1.737E+00	2.166E+00	3.203E-01	3.145
		445.03		-3.308E-01	2.105E+00	3.394E+00	4.361E-01	-0.097
AC-227		79.80		-1.984E-01	1.522E+00	2.207E+00	4.745E-01	-0.090
		236.00		1.080E+00	3.170E-01	4.530E-01	6.834E-02	2.384
		256.20	*	-9.643E-02	3.768E-01	6.001E-01	1.095E-01	-0.161
		286.10		-9.404E-01	1.504E+00	2.318E+00	3.950E-01	-0.406
	+	299.80		3.338E+00	2.140E+00	2.399E+00	4.857E-01	1.392
		304.40		1.283E+00	1.829E+00	2.763E+00	5.795E-01	0.464
		334.20		-1.812E+00	3.130E+00	3.344E+00	7.078E-01	-0.542
TH-227		79.80		-1.984E-01	1.522E+00	2.207E+00	4.806E-01	-0.090
	+	94.00		8.409E+00	3.147E+00	3.406E+00	7.469E-01	2.469
		236.00		1.080E+00	3.120E-01	4.530E-01	6.413E-02	2.384
		256.20	*	-9.643E-02	3.769E-01	6.001E-01	1.235E-01	-0.161
		286.10		-9.404E-01	1.772E+00	2.318E+00	2.340E+00	-0.406
	+	299.80		3.338E+00	2.140E+00	2.399E+00	4.857E-01	1.392
		304.40		1.283E+00	1.829E+00	2.763E+00	5.795E-01	0.464
		334.20		-1.812E+00	3.130E+00	3.344E+00	7.078E-01	-0.542
TH-229		85.43		1.615E-01	1.852E-01	2.774E-01	2.552E-02	0.582
	+	88.47		3.809E-01	1.152E-01	1.892E-01	1.787E-02	2.013
		100.00		-1.139E-01	1.734E-01	2.716E-01	2.355E-02	-0.419
		193.63	*	-3.880E-01	4.855E-01	7.742E-01	8.324E-02	-0.501
		210.97		7.551E-01	8.611E-01	1.281E+00	1.458E-01	0.590
PA-231		283.67	*	-1.221E-01	1.573E+00	2.307E+00	4.308E-01	-0.053
	+	301.29		1.335E+00	8.394E-01	9.513E-01	1.512E-01	1.404
TH-231		81.07		-2.184E-01	2.067E-01	2.856E-01	2.496E-02	-0.765
		83.78		1.629E-01	1.207E-01	1.842E-01	1.661E-02	0.885
		94.90		2.912E-01	2.303E-01	3.484E-01	3.114E-02	0.836
		122.32		6.815E-01	1.736E+00	2.792E+00	2.485E-01	0.244
		144.24		5.826E-01	6.577E-01	1.105E+00	1.094E-01	0.527
		154.21		4.067E-01	3.754E-01	6.472E-01	6.537E-02	0.628
		269.46		3.826E-01	2.278E-01	3.337E-01	4.583E-02	1.147
		323.87	*	3.353E-01	6.714E-01	1.002E+00	1.991E-01	0.335
	+	338.28		6.810E+00	1.737E+00	2.166E+00	3.203E-01	3.145
		445.03		-3.308E-01	2.105E+00	3.394E+00	4.361E-01	-0.097
U-231		84.21		6.313E+00	5.227E+00	7.940E+00	7.198E-01	0.795
	+	92.29		8.450E+00	2.673E+00	3.784E+00	3.450E-01	2.233
		95.87	*	1.232E-01	1.080E+00	1.562E+00	1.387E-01	0.079
		108.00		-5.605E-01	2.020E+00	3.197E+00	2.688E-01	-0.175
PA-233	+	75.28		2.042E+01	4.875E+00	5.928E+00	8.962E-01	3.444
	+	86.59		5.461E+00	2.157E+00	2.660E+00	7.197E-01	2.053
	+	300.12		9.307E-01	5.903E-01	6.687E-01	1.206E-01	1.392
		311.98	*	1.814E-02	5.636E-02	9.572E-02	1.254E-02	0.189
		340.50		2.479E+00	9.305E-01	1.158E+00	2.914E-01	2.140
		398.62		-4.064E-01	1.892E+00	3.069E+00	8.249E-01	-0.132
		415.76		1.547E-01	1.549E+00	2.546E+00	5.578E-01	0.061
PA-234	+	63.00		1.938E+00	2.187E+00	2.300E+00	3.407E-01	0.842
		94.67		3.217E-01	1.716E-01	2.603E-01	3.290E-02	1.236
		98.44		7.025E-02	9.266E-02	1.393E-01	7.776E-02	0.504
		99.86		-2.942E-01	4.388E-01	6.870E-01	5.960E-02	-0.428

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-1.375E-01	1.770E-01	2.729E-01	3.245E-02	-0.504
		131.20		8.579E-03	9.923E-02	1.686E-01	1.428E-02	0.051
		152.70		2.611E-01	3.104E-01	5.290E-01	9.187E-02	0.494
	+	186.00		3.254E+00	1.980E+00	2.376E+00	7.550E-01	1.369
		226.40		9.004E-02	3.890E-01	6.386E-01	9.958E-02	0.141
		227.20		1.138E-01	4.167E-01	6.850E-01	8.216E-02	0.166
		248.90		-1.534E-01	7.856E-01	1.257E+00	3.060E-01	-0.122
		293.70		5.092E+00	1.327E+00	1.528E+00	3.090E-01	3.332
		369.80		-1.318E-01	7.793E-01	1.277E+00	2.881E-01	-0.103
		568.70		-1.727E-01	9.086E-01	1.497E+00	1.537E-01	-0.115
		569.50		1.673E-01	2.460E-01	4.228E-01	4.342E-02	0.396
		574.00		-2.541E-01	1.356E+00	2.233E+00	2.298E-01	-0.114
		699.00		6.795E-01	6.469E-01	1.097E+00	2.206E-01	0.619
		706.10		5.650E-01	9.856E-01	1.607E+00	7.240E-01	0.352
		733.00		-3.020E-01	4.141E-01	5.290E-01	1.224E-01	-0.571
		742.81		-1.372E-01	1.298E+00	2.088E+00	1.411E+00	-0.066
		796.30		1.759E+00	1.034E+00	1.624E+00	4.531E-01	1.083
		805.60		3.484E-01	8.938E-01	1.519E+00	4.774E-01	0.229
		819.60		3.463E-01	1.114E+00	1.884E+00	7.283E-01	0.184
		826.30		-1.854E-01	7.495E-01	1.225E+00	5.547E-01	-0.151
		831.60		5.283E-02	5.849E-01	9.543E-01	2.925E-01	0.055
		876.40		1.982E-01	7.830E-01	1.276E+00	1.315E+00	0.155
		880.51		1.224E-02	2.615E-01	4.354E-01	4.869E-02	0.028
		883.24		-7.004E-02	2.675E-01	4.295E-01	2.904E-01	-0.163
		899.00		-1.788E-02	8.033E-01	1.278E+00	5.659E-01	-0.014
		925.00		-1.547E-01	1.019E+00	1.666E+00	1.833E-01	-0.093
		926.50		-1.326E-01	1.622E-01	2.468E-01	6.463E-02	-0.537
		946.00	*	5.165E-02	2.847E-01	4.745E-01	9.432E-02	0.109
		949.00		4.929E-01	4.191E-01	7.359E-01	7.951E-02	0.670
		980.50		2.043E-01	6.743E-01	1.130E+00	1.188E-01	0.181
		1394.10		-8.856E-01	1.252E+00	1.689E+00	1.100E+00	-0.524
PA-234M		766.42		1.489E+01	1.312E+01	1.864E+01	9.539E+00	0.799
		1001.03	*	1.753E+00	4.560E+00	7.437E+00	8.522E-01	0.236
U-235	+	89.95		2.439E+00	1.091E+00	1.694E+00	5.261E-01	1.440
	+	93.35		2.616E+00	1.082E+00	1.144E+00	3.222E-01	2.286
		105.00		3.706E-02	1.026E+00	1.647E+00	4.909E-01	0.023
		143.76	*	1.558E-01	2.043E-01	3.403E-01	6.004E-02	0.458
		163.35		-8.663E-02	4.466E-01	7.402E-01	1.450E-01	-0.117
	+	185.71		1.205E-01	6.379E-02	8.792E-02	9.207E-03	1.371
		205.31		-3.429E-01	5.813E-01	7.976E-01	1.624E-01	-0.430
NP-236		94.67		2.468E-01	1.284E-01	1.977E-01	1.770E-02	1.248
		98.44		5.306E-02	6.364E-02	1.053E-01	9.208E-03	0.504
		111.00		-1.040E-01	1.336E-01	2.064E-01	1.722E-02	-0.504
		160.31	*	1.205E-02	7.542E-02	1.267E-01	1.212E-02	0.095
NP-239		99.55		-8.241E-02	1.478E-01	2.326E-01	2.021E-02	-0.354
		117.00	*	-2.268E-02	1.841E-01	2.914E-01	2.409E-02	-0.078
	+	209.75		1.704E+00	9.825E-01	1.338E+00	1.517E-01	1.274
		228.18		1.136E-01	2.201E-01	3.646E-01	4.386E-02	0.312
		277.60		2.138E-01	1.819E-01	3.014E-01	4.202E-02	0.709

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-1.789E+00	1.647E+00	1.890E+00	2.279E-01	-0.947
AM-241		59.54	*	1.482E-02	1.337E-01	2.003E-01	1.566E-02	0.074
CM-243		99.55		-8.480E-02	1.521E-01	2.394E-01	2.080E-02	-0.354
		103.76	*	2.196E-02	9.107E-02	1.474E-01	1.257E-02	0.149
		117.00		-2.334E-02	1.894E-01	2.998E-01	2.478E-02	-0.078
	+	209.75		1.680E+00	9.686E-01	1.319E+00	1.496E-01	1.274
		228.18		1.148E-01	2.224E-01	3.684E-01	4.432E-02	0.312
		277.60		2.155E-01	1.834E-01	3.039E-01	4.236E-02	0.709
AM-246		798.80		-1.457E-01	1.446E-01	2.175E-01	2.399E-02	-0.670
		1036.00		9.502E-02	2.792E-01	4.666E-01	4.634E-02	0.204
		1062.04		1.243E-01	2.330E-01	3.919E-01	3.770E-02	0.317
		1078.86	*	4.716E-02	1.433E-01	2.380E-01	2.239E-02	0.198
CM-247		278.00		7.628E-01	7.480E-01	1.236E+00	1.725E-01	0.617
		287.40		-3.871E-01	1.198E+00	1.881E+00	2.589E-01	-0.206
		402.60	*	-8.449E-03	3.320E-02	5.376E-02	5.043E-03	-0.157
CF-249		252.85		-6.546E-02	8.451E-01	1.359E+00	1.763E-01	-0.048
		333.44		5.331E-02	2.602E-01	2.593E-01	3.137E-02	0.206
		387.95	*	3.547E-03	3.726E-02	6.161E-02	5.856E-03	0.058
CF-251		176.60	*	-3.852E-03	1.225E-01	2.031E-01	2.063E-02	-0.019
		227.00		9.836E-02	3.701E-01	6.082E-01	7.290E-02	0.162
		285.00		1.245E-01	1.668E+00	2.672E+00	3.697E-01	0.047

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799009      *
* Acquisition date : 10-FEB-2010 17:19:50 Detector SN#     :               *
* Detector ID        : GAM22               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:02.21     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799009           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.2591E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.771E+01	3.767E+00	4.315E-01	0.000E+00
CD-109	2.839E+00	8.413E-01	1.164E+00	0.000E+00
SN-126	2.790E-01	8.267E-02	1.176E-01	0.000E+00
TL-208	4.681E-01	8.606E-02	4.900E-02	0.000E+00
BI-211	3.406E+00	5.337E-01	2.998E-01	0.000E+00
PB-212	1.693E+00	2.412E-01	8.503E-02	0.000E+00
PO-212	1.693E+00	2.412E-01	8.503E-02	0.000E+00
BI-214	1.017E+00	1.878E-01	9.840E-02	0.000E+00
PB-214	1.185E+00	1.953E-01	1.032E-01	0.000E+00
PO-214	1.185E+00	1.953E-01	1.032E-01	0.000E+00
PO-216	1.693E+00	2.412E-01	8.503E-02	0.000E+00
PO-218	1.185E+00	1.953E-01	1.032E-01	0.000E+00
RA-224	4.667E+00	1.209E+00	9.666E-01	0.000E+00
RA-226	1.017E+00	1.878E-01	9.840E-02	0.000E+00
AC-228	1.553E+00	3.426E-01	2.017E-01	0.000E+00
RA-228	1.553E+00	3.426E-01	2.017E-01	0.000E+00
TH-228	1.719E+00	2.449E-01	8.633E-02	0.000E+00
TH-230	1.017E+00	1.878E-01	9.840E-02	0.000E+00
TH-232	1.553E+00	3.426E-01	2.017E-01	0.000E+00
TH-234	1.662E+00	1.844E+00	1.743E+00	0.000E+00
U-234	1.017E+00	1.878E-01	9.840E-02	0.000E+00
NP-237	8.192E-01	2.939E-01	3.619E-01	0.000E+00
U-238	1.662E+00	1.844E+00	1.743E+00	0.000E+00
AM-243	3.898E-01	7.724E-02	7.687E-02	0.000E+00
ANH-511	1.427E-01	6.365E-02	4.241E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	1.143E-01		2.981E-01	5.090E-01	0.000E+00	NOT IDENT.
NA-22	-2.087E-02		4.278E-02	7.005E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	7.671E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-9.054E-03	2.357E-02	3.715E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.486E-02	6.772E-02	0.000E+00	FAIL ABUN
SC-46	1.475E-02	3.362E-02	5.885E-02	0.000E+00	FAIL ABUN
V-48	1.227E-02	6.610E-02	1.127E-01	0.000E+00	NOT IDENT.
CR-51	-3.907E-02	3.379E-01	5.864E-01	0.000E+00	NOT IDENT.
MN-52	3.310E-02	1.835E-01	3.120E-01	0.000E+00	NOT IDENT.
MN-54	-1.521E-02	3.389E-02	5.662E-02	0.000E+00	NOT IDENT.
CO-56	-1.626E-02	3.622E-02	6.033E-02	0.000E+00	FAIL ABUN
CO-57	4.390E-03	2.442E-02	4.118E-02	0.000E+00	NOT IDENT.
CO-58	-1.453E-02	3.324E-02	5.560E-02	0.000E+00	NOT IDENT.
FE-59	-7.071E-02	8.720E-02	1.368E-01	0.000E+00	NOT IDENT.
CO-60	1.896E-02	3.353E-02	5.895E-02	0.000E+00	NOT IDENT.
ZN-65	2.837E-02	1.008E-01	1.458E-01	0.000E+00	NOT IDENT.
GE-68	6.268E-01	1.238E+00	2.126E+00	0.000E+00	NOT IDENT.
AS-73	1.633E-01	6.837E-01	1.196E+00	0.000E+00	NOT IDENT.
AS-74	2.481E-02	7.891E-02	1.374E-01	0.000E+00	NOT IDENT.
SE-75	2.659E-02	4.552E-02	6.897E-02	0.000E+00	NOT IDENT.
BR-77	-1.506E+00	9.266E+00	1.596E+01	0.000E+00	FAIL ABUN
SR-82	8.013E-02	3.654E-01	6.157E-01	0.000E+00	NOT IDENT.
RB-83	-1.546E-02	5.914E-02	1.013E-01	0.000E+00	NOT IDENT.
RB-84	1.242E-02	6.331E-02	1.093E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.572E+00	1.435E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.400E-02	7.366E-02	0.000E+00	NOT IDENT.
RB-86	5.409E-01	7.715E-01	1.340E+00	0.000E+00	NOT IDENT.
Y-88	-7.037E-03	2.896E-02	4.676E-02	0.000E+00	NOT IDENT.
ZR-88	-2.680E-03	2.810E-02	4.781E-02	0.000E+00	NOT IDENT.
Y-91	1.325E+01	1.814E+01	3.203E+01	0.000E+00	NOT IDENT.
NB-94	-1.485E-02	3.034E-02	4.956E-02	0.000E+00	NOT IDENT.
NB-95	4.278E-02	3.963E-02	6.955E-02	0.000E+00	NOT IDENT.
NB-95M	1.998E-01	1.370E-01	2.142E-01	0.000E+00	NOT IDENT.
ZR-95	9.537E-03	6.497E-02	1.094E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.824E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.252E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	9.630E+00	1.112E+01	1.938E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.028E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.564E-02	3.308E-02	5.650E-02	0.000E+00	NOT IDENT.
RH-102	7.816E-03	2.635E-02	4.485E-02	0.000E+00	NOT IDENT.
RU-103	-1.337E-02	3.779E-02	6.169E-02	0.000E+00	FAIL ABUN
RH-106	-7.073E-02	2.810E-01	4.720E-01	0.000E+00	FAIL ABUN
RU-106	-7.073E-02	2.809E-01	4.720E-01	0.000E+00	FAIL ABUN
AG-108M	1.474E-02	3.019E-02	5.227E-02	0.000E+00	NOT IDENT.
AG-110M	-6.338E-03	3.178E-02	5.325E-02	0.000E+00	NOT IDENT.
IN-111	-1.933E-03	1.101E+00	1.628E+00	0.000E+00	NOT IDENT.
IN-113M	-8.350E-03	4.084E-02	6.915E-02	0.000E+00	NOT IDENT.
SN-113	-8.350E-03	4.084E-02	6.915E-02	0.000E+00	NOT IDENT.
IN-114M	2.062E-01	1.880E-01	2.996E-01	0.000E+00	NOT IDENT.
CD-115	2.138E+00	9.994E+00	1.752E+01	0.000E+00	NOT IDENT.
SN-117M	-6.219E-02	5.080E-02	8.523E-02	0.000E+00	NOT IDENT.
SB-122	-9.513E-02	1.898E+00	3.261E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.027E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.567E-02	2.607E-02	4.493E-02	0.000E+00	NOT IDENT.
I-124	-1.295E-01	6.869E-01	9.958E-01	0.000E+00	NOT IDENT.
SB-124	-3.101E-02	6.569E-02	1.043E-01	0.000E+00	FAIL ABUN
SB-125	-4.049E-02	8.238E-02	1.359E-01	0.000E+00	FAIL ABUN
TE-125M	1.841E+00	8.777E+00	1.496E+01	0.000E+00	NOT IDENT.
I-126	1.016E-03	1.717E-01	2.907E-01	0.000E+00	NOT IDENT.
SB-126	1.860E-02	1.580E-01	2.293E-01	0.000E+00	FAIL ABUN
SB-127	6.513E-01	1.284E+00	2.224E+00	0.000E+00	NOT IDENT.
XE-127	-1.235E-02	4.643E-02	7.648E-02	0.000E+00	NOT IDENT.
I-131	4.487E-03	1.049E-01	1.810E-01	0.000E+00	NOT IDENT.
TE-132	3.576E-01	6.762E-01	1.170E+00	0.000E+00	NOT IDENT.
BA-133	9.299E-03	4.228E-02	6.426E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.793E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.721E-02	8.494E-02	0.000E+00	NOT IDENT.
CS-135	0.000E+00	1.839E-01	2.830E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.712E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.366E-02	1.028E-01	1.693E-01	0.000E+00	FAIL ABUN
BA-137M	1.267E-02	3.323E-02	5.739E-02	0.000E+00	NOT IDENT.
CS-137	1.339E-02	3.513E-02	6.067E-02	0.000E+00	NOT IDENT.
CE-139	-1.792E-02	2.721E-02	4.658E-02	0.000E+00	NOT IDENT.
BA-140	1.241E-05	2.188E-01	3.788E-01	0.000E+00	NOT IDENT.
LA-140	-6.562E-02	8.050E-02	1.258E-01	0.000E+00	FAIL ABUN
CE-141	-1.126E-02	5.694E-02	1.004E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.472E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.549E-03	1.892E-01	3.384E-01	0.000E+00	NOT IDENT.
PM-144	7.563E-03	3.060E-02	5.224E-02	0.000E+00	NOT IDENT.
PR-144	5.126E-01	2.073E+00	3.540E+00	0.000E+00	NOT IDENT.

PM-146	-2.249E-03	3.880E-02	6.514E-02	0.000E+00	NOT IDENT.
ND-147	2.458E-01	4.958E-01	8.785E-01	0.000E+00	FAIL ABUN
PM-149	-4.497E+01	9.022E+01	1.463E+02	0.000E+00	NOT IDENT.
EU-152	7.527E-03	1.218E-01	1.451E-01	0.000E+00	NOT IDENT.
GD-153	-3.388E-02	7.588E-02	1.210E-01	0.000E+00	NOT IDENT.
EU-154	-6.263E-02	1.193E-01	1.947E-01	0.000E+00	NOT IDENT.
EU-155	-3.424E-02	1.033E-01	1.732E-01	0.000E+00	FAIL ABUN
TB-160	1.107E-01	1.253E-01	2.243E-01	0.000E+00	FAIL ABUN
HO-166M	6.766E-03	5.548E-02	9.388E-02	0.000E+00	FAIL ABUN
TM-171	-1.743E+01	2.651E+01	4.003E+01	0.000E+00	NOT IDENT.
LU-176	6.311E-03	2.405E-02	3.725E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.372E+00	1.924E+00	0.000E+00	FAIL ABUN
LU-177M	-1.211E-01	1.622E-01	2.650E-01	0.000E+00	FAIL ABUN
HF-181	-9.290E-03	3.973E-02	6.562E-02	0.000E+00	NOT IDENT.
W-181	-1.031E-01	3.359E-01	5.161E-01	0.000E+00	NOT IDENT.
TA-182	-2.548E-02	1.787E-01	3.011E-01	0.000E+00	FAIL ABUN
RE-183	1.737E-01	1.022E-01	1.871E-01	0.000E+00	FAIL ABUN
RE-184	-1.745E-02	2.208E-01	3.714E-01	0.000E+00	NOT IDENT.
OS-185	-7.993E-03	3.761E-02	6.306E-02	0.000E+00	NOT IDENT.
RE-188	1.542E-01	1.588E-01	2.876E-01	0.000E+00	NOT IDENT.
W-188	1.889E+00	7.464E+00	1.161E+01	0.000E+00	FAIL ABUN
IR-192	9.889E-03	3.098E-02	5.476E-02	0.000E+00	FAIL ABUN
AU-195	1.131E-01	2.054E-01	3.569E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.353E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.945E+00	6.552E+00	1.137E+01	0.000E+00	NOT IDENT.
TL-202	-1.151E-02	6.363E-02	1.065E-01	0.000E+00	NOT IDENT.
HG-203	3.032E-02	4.404E-02	6.651E-02	0.000E+00	NOT IDENT.
BI-207	2.780E-02	5.160E-02	8.893E-02	0.000E+00	FAIL ABUN
TL-207	3.353E-01	6.580E-01	1.023E+00	0.000E+00	FAIL ABUN
PO-209	-3.414E+00	6.552E+00	1.076E+01	0.000E+00	NOT IDENT.
BI-210	1.611E+00	2.832E+00	5.087E+00	0.000E+00	NOT IDENT.
PB-210	1.611E+00	2.832E+00	5.087E+00	0.000E+00	NOT IDENT.
PO-210	1.611E+00	2.831E+00	5.087E+00	0.000E+00	NOT IDENT.
PB-211	-1.682E-01	8.308E-01	1.391E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.852E-01	5.861E-01	0.000E+00	FAIL ABUN
PO-215	3.353E-01	6.580E-01	1.023E+00	0.000E+00	FAIL ABUN
RN-219	-2.405E-01	3.637E-01	5.966E-01	0.000E+00	NOT IDENT.
RN-220	-1.221E+01	2.319E+01	3.889E+01	0.000E+00	NOT IDENT.
RA-223	3.353E-01	6.580E-01	1.023E+00	0.000E+00	FAIL ABUN
AC-227	-9.643E-02	3.693E-01	6.150E-01	0.000E+00	FAIL ABUN
TH-227	-9.643E-02	3.694E-01	6.150E-01	0.000E+00	FAIL ABUN
TH-229	-3.880E-01	4.757E-01	7.966E-01	0.000E+00	FAIL ABUN
PA-231	-1.221E-01	1.542E+00	2.361E+00	0.000E+00	FAIL ABUN
TH-231	3.353E-01	6.580E-01	1.023E+00	0.000E+00	FAIL ABUN
U-231	1.232E-01	1.059E+00	1.623E+00	0.000E+00	FAIL ABUN
PA-233	1.814E-02	5.523E-02	9.783E-02	0.000E+00	FAIL ABUN
PA-234	5.165E-02	2.790E-01	4.773E-01	0.000E+00	FAIL ABUN
PA-234M	1.753E+00	4.469E+00	7.474E+00	0.000E+00	NOT IDENT.
U-235	1.558E-01	2.002E-01	3.516E-01	0.000E+00	FAIL ABUN
NP-236	1.205E-02	7.391E-02	1.307E-01	0.000E+00	NOT IDENT.
NP-239	-2.268E-02	1.805E-01	3.019E-01	0.000E+00	FAIL ABUN
AM-241	1.482E-02	1.310E-01	2.094E-01	0.000E+00	NOT IDENT.
CM-243	2.196E-02	8.925E-02	1.530E-01	0.000E+00	FAIL ABUN
AM-246	4.716E-02	1.404E-01	2.389E-01	0.000E+00	NOT IDENT.
CM-247	-8.449E-03	3.253E-02	5.474E-02	0.000E+00	NOT IDENT.
CF-249	3.547E-03	3.651E-02	6.277E-02	0.000E+00	NOT IDENT.
CF-251	-3.852E-03	1.200E-01	2.092E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:20:48.60

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799009.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:19:50
Sample ID         : G245799009           Sample quantity  : 1.25908E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2576	10.67*	1.909E+00	3.771E+01	3.771E+01	10.19
CD-109	88.03	259	3.72*	7.478E+00	2.775E+00	2.839E+00	30.24
SN-126	64.28	------	9.60	4.512E+00	------ Line Not Found		------
	86.94	259	8.90	7.478E+00	1.160E+00	1.160E+00	50.50
	87.57	259	37.00*	7.478E+00	2.790E-01	2.790E-01	30.24
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	206	21.60	4.299E+00	6.605E-01	6.605E-01	46.28
	583.14	520	84.20*	3.930E+00	4.681E-01	4.681E-01	18.76
	860.37	96	12.46	2.923E+00	7.832E-01	7.832E-01	50.80
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	799	12.94*	5.402E+00	3.406E+00	3.406E+00	15.99
PB-212	74.81	532	10.70	6.160E+00	2.404E+00	2.404E+00	22.28
	77.11	739	18.00	6.463E+00	1.894E+00	1.894E+00	16.02
	87.30	259	8.00	7.478E+00	1.290E+00	1.290E+00	31.85
	238.63	1699	44.60*	6.709E+00	1.693E+00	1.693E+00	14.54
	300.09	122	3.41	5.911E+00	1.801E+00	1.801E+00	62.53
PO-212	74.81	532	10.70	6.160E+00	2.404E+00	2.404E+00	22.28
	77.11	739	18.00	6.463E+00	1.894E+00	1.894E+00	16.02
	87.30	259	8.00	7.478E+00	1.290E+00	1.290E+00	31.85
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	1699	44.60*	6.709E+00	1.693E+00	1.693E+00	14.54
	300.09	122	3.41	5.911E+00	1.801E+00	1.801E+00	62.53
BI-214	609.31	602	46.30*	3.811E+00	1.017E+00	1.017E+00	18.84
	1120.29	193	15.10	2.344E+00	1.629E+00	1.629E+00	40.03
	1764.49	118	15.80	1.716E+00	1.295E+00	1.295E+00	27.62
PB-214	74.81	532	6.21	6.160E+00	4.142E+00	4.142E+00	21.54
	77.11	739	10.50	6.463E+00	3.247E+00	3.247E+00	17.74
	87.30	259	4.67	7.478E+00	2.210E+00	2.210E+00	31.21
	241.98	412	7.49	6.665E+00	2.461E+00	2.461E+00	27.02
	295.21	492	19.20	5.970E+00	1.281E+00	1.281E+00	23.13
	351.92	799	37.20*	5.402E+00	1.185E+00	1.185E+00	16.82
PO-214	74.81	532	6.21	6.160E+00	4.142E+00	4.142E+00	21.54

Sample ID : G245799009 Acquisition date : 10-FEB-2010 17:19:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	739	10.50	6.463E+00	3.247E+00	3.247E+00	17.74
	87.30	259	4.67	7.478E+00	2.210E+00	2.210E+00	31.21
	241.98	412	7.49	6.665E+00	2.461E+00	2.461E+00	27.02
	295.21	492	19.20	5.970E+00	1.281E+00	1.281E+00	23.13
	351.92	799	37.20*	5.402E+00	1.185E+00	1.185E+00	16.82
PO-216	74.81	532	10.70	6.160E+00	2.404E+00	2.404E+00	22.28
	77.11	739	18.00	6.463E+00	1.894E+00	1.894E+00	16.02
	87.30	259	8.00	7.478E+00	1.290E+00	1.290E+00	31.85
	238.63	1699	44.60*	6.709E+00	1.693E+00	1.693E+00	14.54
	300.09	122	3.41	5.911E+00	1.801E+00	1.801E+00	62.53
PO-218	74.81	532	6.21	6.160E+00	4.142E+00	4.142E+00	21.54
	77.11	739	10.50	6.463E+00	3.247E+00	3.247E+00	17.74
	87.30	259	4.67	7.478E+00	2.210E+00	2.210E+00	31.21
	241.98	412	7.49	6.665E+00	2.461E+00	2.461E+00	27.02
	295.21	492	19.20	5.970E+00	1.281E+00	1.281E+00	23.13
	351.92	799	37.20*	5.402E+00	1.185E+00	1.185E+00	16.82
RA-224	240.98	412	3.95*	6.665E+00	4.667E+00	4.667E+00	26.43
RA-226	609.31	602	46.30*	3.811E+00	1.017E+00	1.017E+00	18.84
	1120.29	193	15.10	2.344E+00	1.629E+00	1.629E+00	40.03
	1764.49	118	15.80	1.716E+00	1.295E+00	1.295E+00	27.62
AC-228	338.32	345	11.40	5.525E+00	1.631E+00	1.631E+00	46.92
	911.07	402	27.70*	2.788E+00	1.553E+00	1.553E+00	22.51
	969.11	199	16.60	2.648E+00	1.352E+00	1.352E+00	40.57
RA-228	338.32	345	11.40	5.525E+00	1.631E+00	1.631E+00	46.92
	911.07	402	27.70*	2.788E+00	1.553E+00	1.553E+00	22.51
	969.11	199	16.60	2.648E+00	1.352E+00	1.352E+00	40.57
TH-228	74.81	532	10.70	6.160E+00	2.404E+00	2.441E+00	20.25
	77.11	739	18.00	6.463E+00	1.894E+00	1.923E+00	16.02
	87.30	259	8.00	7.478E+00	1.290E+00	1.310E+00	30.24
	238.63	1699	44.60*	6.709E+00	1.693E+00	1.719E+00	14.54
	300.09	122	3.41	5.911E+00	1.801E+00	1.829E+00	85.53
TH-230	609.31	602	46.30*	3.811E+00	1.017E+00	1.017E+00	18.84
	1120.29	193	15.10	2.344E+00	1.629E+00	1.629E+00	40.03
	1764.49	118	15.80	1.716E+00	1.295E+00	1.295E+00	27.62
TH-232	338.32	345	11.40	5.525E+00	1.631E+00	1.631E+00	23.94
	911.07	402	27.70*	2.788E+00	1.553E+00	1.553E+00	22.51
	969.11	199	16.60	2.648E+00	1.352E+00	1.352E+00	40.57
TH-234	63.29	90	3.80*	4.229E+00	1.662E+00	1.662E+00	113.22
	92.38	310	5.41	7.863E+00	2.176E+00	2.176E+00	35.40
U-234	609.31	602	46.30*	3.811E+00	1.017E+00	1.017E+00	18.84
	1120.29	193	15.10	2.344E+00	1.629E+00	1.629E+00	40.03
	1764.49	118	15.80	1.716E+00	1.295E+00	1.295E+00	27.62
NP-237	86.50	259	12.60*	7.478E+00	8.192E-01	8.192E-01	36.61
	95.87	------	2.60	8.032E+00	------ Line Not Found		------
U-238	63.29	90	3.80*	4.229E+00	1.662E+00	1.662E+00	113.22
	92.38	310	5.41	7.863E+00	2.176E+00	2.176E+00	31.63
AM-243	74.67	532	66.00*	6.160E+00	3.898E-01	3.898E-01	20.22
	86.72	259	0.34	7.478E+00	3.072E+01	3.072E+01	30.24
	117.66	------	0.55	8.550E+00	------ Line Not Found		------

Sample ID : G245799009 Acquisition date : 10-FEB-2010 17:19:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	8.387E+00	------	Line Not Found	------
ANH-511	511.00	206	100.00*	4.299E+00	1.427E-01	1.427E-01	45.52

Flag: "*" = Keyline

Sample ID : G245799009 Acquisition date : 10-FEB-2010 17:19:50

Total number of lines in spectrum 31
Number of unidentified lines 3
Number of lines tentatively identified by NID 28 90.32%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.771E+01	3.771E+01	0.384E+01	10.19	
CD-109	464.00D	1.02	2.775E+00	2.839E+00	0.858E+00	30.24	
SN-126	1.00E+05Y	1.00	2.790E-01	2.790E-01	0.844E-01	30.24	
TL-208	1.41E+10Y	1.00	4.681E-01	4.681E-01	0.878E-01	18.76	
BI-211	7.04E+08Y	1.00	3.406E+00	3.406E+00	0.545E+00	15.99	
PB-212	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.246E+00	14.54	
PO-212	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.246E+00	14.54	
BI-214	1600.00Y	1.00	1.017E+00	1.017E+00	0.192E+00	18.84	
PB-214	1600.00Y	1.00	1.185E+00	1.185E+00	0.199E+00	16.82	
PO-214	1600.00Y	1.00	1.185E+00	1.185E+00	0.199E+00	16.82	
PO-216	1.41E+10Y	1.00	1.693E+00	1.693E+00	0.246E+00	14.54	
PO-218	1600.00Y	1.00	1.185E+00	1.185E+00	0.199E+00	16.82	
RA-224	1.41E+10Y	1.00	4.667E+00	4.667E+00	1.234E+00	26.43	
RA-226	1600.00Y	1.00	1.017E+00	1.017E+00	0.192E+00	18.84	
AC-228	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.350E+00	22.51	
RA-228	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.350E+00	22.51	
TH-228	1.91Y	1.02	1.693E+00	1.719E+00	0.250E+00	14.54	
TH-230	4.47E+09Y	1.00	1.017E+00	1.017E+00	0.192E+00	18.84	
TH-232	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.350E+00	22.51	
TH-234	4.47E+09Y	1.00	1.662E+00	1.662E+00	1.882E+00	113.22	
U-234	4.47E+09Y	1.00	1.017E+00	1.017E+00	0.192E+00	18.84	
NP-237	2.14E+06Y	1.00	8.192E-01	8.192E-01	2.999E-01	36.61	
U-238	4.47E+09Y	1.00	1.662E+00	1.662E+00	1.882E+00	113.22	
AM-243	7380.00Y	1.00	3.898E-01	3.898E-01	0.788E-01	20.22	
ANH-511	1.00E+09Y	1.00	1.427E-01	1.427E-01	0.649E-01	45.52	
	Total Activity :		7.303E+01	7.312E+01			

Grand Total Activity : 7.303E+01 7.312E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799009 Acquisition date : 10-FEB-2010 17:19:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	89.88	170	297	0.92	179.96	178	12	2.36E-02	32.2	7.68E+00	T
0	185.81	166	459	1.35	371.64	368	9	2.31E-02	51.9	7.61E+00	T
0	209.34	133	395	1.21	418.65	414	9	1.85E-02	56.5	7.18E+00	T
0	273.36	277	725	8.01	546.58	536	25	3.85E-02	53.9	6.23E+00	T
0	328.21	89	243	0.97	656.19	652	9	1.24E-02	66.2	5.62E+00	T
0	463.01	87	148	1.59	925.59	921	10	1.21E-02	56.6	4.58E+00	T
0	727.16	129	172	1.67	1453.58	1447	16	1.80E-02	49.2	3.34E+00	T
0	1239.27	112	80	1.75	2477.54	2470	16	1.56E-02	41.4	2.16E+00	T
0	1378.15	55	37	1.98	2755.31	2747	15	7.64E-03	55.4	1.99E+00	
0	1451.55	22	44	4.99	2902.12	2890	18	3.01E-03	****	1.92E+00	
0	1731.23	22	24	2.35	3461.62	3454	12	3.10E-03	97.4	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:20:56.82

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799009.CNF;1   *
* Acquisition date  : 10-FEB-2010 17:19:50  Detector SN#     :                *
* Detector ID       : GAM22                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.21          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245799009            Analyst initials: RXF2            *
* Batch Number      : 947531                Sample Quantity : 1.25908E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.771E+01	3.844E+00	4.317E-01	3.955E-02	87.342
CD-109	2.839E+00	8.584E-01	1.119E+00	1.062E-01	2.538
SN-126	2.790E-01	8.436E-02	1.130E-01	1.067E-02	2.468
TL-208	4.681E-01	8.781E-02	4.837E-02	5.245E-03	9.677
BI-211	3.406E+00	5.446E-01	2.938E-01	3.428E-02	11.593
PB-212	1.693E+00	2.461E-01	8.289E-02	1.095E-02	20.423
PO-212	1.693E+00	2.461E-01	8.289E-02	1.095E-02	20.423
BI-214	1.017E+00	1.916E-01	9.721E-02	1.130E-02	10.463
PB-214	1.185E+00	1.993E-01	1.011E-01	1.289E-02	11.718
PO-214	1.185E+00	1.993E-01	1.011E-01	1.289E-02	11.718
PO-216	1.693E+00	2.461E-01	8.289E-02	1.095E-02	20.423
PO-218	1.185E+00	1.993E-01	1.011E-01	1.289E-02	11.718
RA-224	4.667E+00	1.234E+00	9.423E-01	1.180E-01	4.953
RA-226	1.017E+00	1.916E-01	9.721E-02	1.130E-02	10.463
AC-228	1.553E+00	3.496E-01	2.004E-01	2.655E-02	7.752
RA-228	1.553E+00	3.496E-01	2.004E-01	2.655E-02	7.752
TH-228	1.719E+00	2.499E-01	8.415E-02	1.112E-02	20.423
TH-230	1.017E+00	1.916E-01	9.721E-02	1.130E-02	10.463

Sample ID : G245799009 Acquisition date : 10-FEB-2010 17:19:50

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.553E+00	3.496E-01	2.004E-01	2.655E-02	7.752
TH-234	1.662E+00	1.882E+00	1.668E+00	2.904E-01	0.996
U-234	1.017E+00	1.916E-01	9.721E-02	1.130E-02	10.463
NP-237	8.192E-01	2.999E-01	3.478E-01	7.875E-02	2.355
U-238	1.662E+00	1.882E+00	1.668E+00	2.904E-01	0.996
AM-243	3.898E-01	7.882E-02	7.373E-02	6.010E-03	5.286
ANH-511	1.427E-01	6.495E-02	4.179E-02	4.187E-03	3.414

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.143E-01		3.041E-01	5.011E-01	5.229E-02	0.228
NA-22	-2.087E-02		4.366E-02	6.996E-02	6.029E-03	-0.298
NA-24	4.910E-01		3.914E-01	Half-Life too short		
AL-26	-9.054E-03		2.405E-02	3.729E-02	3.050E-03	-0.243
TI-44	3.495E-01	+	5.598E-02	6.500E-02	5.511E-03	5.377
SC-46	1.475E-02		3.431E-02	5.845E-02	6.543E-03	0.252
V-48	1.227E-02		6.745E-02	1.121E-01	1.176E-02	0.109
CR-51	-3.907E-02		3.448E-01	5.740E-01	7.433E-02	-0.068
MN-52	3.310E-02		1.872E-01	3.121E-01	2.790E-02	0.106
MN-54	-1.521E-02		3.458E-02	5.619E-02	6.242E-03	-0.271
CO-56	-1.626E-02		3.695E-02	5.989E-02	6.666E-03	-0.272
CO-57	4.390E-03		2.491E-02	3.976E-02	3.279E-03	0.110
CO-58	-1.453E-02		3.392E-02	5.515E-02	6.107E-03	-0.263
FE-59	-7.071E-02		8.898E-02	1.363E-01	1.335E-02	-0.519
CO-60	1.896E-02		3.421E-02	5.890E-02	5.253E-03	0.322
ZN-65	2.837E-02		1.028E-01	1.453E-01	1.296E-02	0.195
GE-68	6.268E-01		1.263E+00	2.118E+00	1.997E-01	0.296
AS-73	1.633E-01		6.976E-01	1.142E+00	8.627E-02	0.143
AS-74	2.481E-02		8.052E-02	1.357E-01	1.407E-02	0.183
SE-75	2.659E-02		4.645E-02	6.733E-02	9.062E-03	0.395
BR-77	-1.506E+00		9.455E+00	1.573E+01	1.583E+00	-0.096
SR-82	8.013E-02		3.728E-01	6.104E-01	6.694E-02	0.131
RB-83	-1.546E-02		6.035E-02	9.984E-02	1.005E-02	-0.155
RB-84	1.242E-02		6.461E-02	1.085E-01	1.214E-02	0.114
KR-85	3.361E+01		8.747E+00	1.414E+01	1.419E+00	2.377
SR-85	1.725E-01		4.490E-02	7.259E-02	7.283E-03	2.377
RB-86	5.409E-01		7.872E-01	1.335E+00	1.260E-01	0.405
Y-88	-7.037E-03		2.955E-02	4.694E-02	3.795E-03	-0.150
ZR-88	-2.680E-03		2.867E-02	4.693E-02	4.370E-03	-0.057
Y-91	1.325E+01		1.851E+01	3.196E+01	2.628E+00	0.415
NB-94	-1.485E-02		3.096E-02	4.906E-02	5.257E-03	-0.303
NB-95	4.278E-02		4.044E-02	6.893E-02	7.538E-03	0.621
NB-95M	1.998E-01		1.398E-01	2.088E-01	2.760E-02	0.957
ZR-95	9.537E-03		6.630E-02	1.084E-01	1.258E-02	0.088
NB-97	-1.959E-02		5.012E-02	Half-Life too short		
ZR-97	4.683E+00		1.149E+00	Half-Life too short		

Sample ID : G245799009 Acquisition date : 10-FEB-2010 17:19:50

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	9.630E+00		1.135E+01	1.919E+01	3.177E+00	0.502
TC-99M	-5.181E+10		2.565E+10	Half-Life too short		
RH-101	1.564E-02		3.375E-02	5.493E-02	5.992E-03	0.285
RH-102	7.816E-03		2.689E-02	4.415E-02	4.341E-03	0.177
RU-103	-1.337E-02		3.856E-02	6.077E-02	9.120E-03	-0.220
RH-106	-7.073E-02		2.867E-01	4.664E-01	6.810E-02	-0.152
RU-106	-7.073E-02		2.866E-01	4.664E-01	4.871E-02	-0.152
AG-108M	1.474E-02		3.081E-02	5.138E-02	5.087E-03	0.287
AG-110M	-6.338E-03		3.242E-02	5.266E-02	5.660E-03	-0.120
IN-111	-1.933E-03		1.123E+00	1.587E+00	2.014E-01	-0.001
IN-113M	-8.350E-03		4.167E-02	6.788E-02	6.482E-03	-0.123
SN-113	-8.350E-03		4.167E-02	6.788E-02	6.482E-03	-0.123
IN-114M	2.062E-01		1.919E-01	2.911E-01	3.095E-02	0.708
CD-115	2.138E+00		1.020E+01	1.727E+01	1.744E+00	0.124
SN-117M	-6.219E-02		5.183E-02	8.260E-02	7.834E-03	-0.753
SB-122	-9.513E-02		1.936E+00	3.218E+00	3.298E-01	-0.030
I-123	-3.621E+00		3.075E+00	Half-Life too short		
TE-123M	-1.567E-02		2.661E-02	4.355E-02	4.159E-03	-0.360
I-124	-1.295E-01		7.009E-01	9.836E-01	1.022E-01	-0.132
SB-124	-3.101E-02		6.703E-02	1.046E-01	9.301E-03	-0.297
SB-125	-4.049E-02		8.407E-02	1.335E-01	1.296E-02	-0.303
TE-125M	1.841E+00		8.956E+00	1.442E+01	1.460E+00	0.128
I-126	1.016E-03		1.752E-01	2.876E-01	3.038E-02	0.004
SB-126	1.860E-02		1.612E-01	2.270E-01	2.448E-02	0.082
SB-127	6.513E-01		1.310E+00	2.200E+00	2.863E-01	0.296
XE-127	-1.235E-02		4.738E-02	7.438E-02	8.245E-03	-0.166
I-131	4.487E-03		1.070E-01	1.775E-01	1.967E-02	0.025
TE-132	3.576E-01		6.900E-01	1.140E+00	2.033E-01	0.314
BA-133	9.299E-03		4.315E-02	6.299E-02	9.413E-03	0.148
I-133	1.412E-03		2.956E-03	Half-Life too short		
CS-134	9.491E-02		4.818E-02	8.423E-02	9.323E-03	1.127
CS-135	3.931E-01		1.877E-01	2.763E-01	3.997E-02	1.422
I-135	1.647E+09		3.424E+09	Half-Life too short		
CS-136	-2.366E-02		1.049E-01	1.686E-01	1.705E-02	-0.140
BA-137M	1.267E-02		3.391E-02	5.676E-02	5.986E-03	0.223
CS-137	1.339E-02		3.585E-02	6.000E-02	6.336E-03	0.223
CE-139	-1.792E-02		2.777E-02	4.518E-02	4.431E-03	-0.397
BA-140	1.241E-05		2.232E-01	3.735E-01	1.254E-01	0.000
LA-140	-6.562E-02		8.214E-02	1.261E-01	1.105E-02	-0.520
CE-141	-1.126E-02		5.810E-02	9.718E-02	8.847E-03	-0.116
CE-143	7.531E-04		1.261E-04	Half-Life too short		
CE-144	6.549E-03		1.930E-01	3.272E-01	5.079E-02	0.020
PM-144	7.563E-03		3.122E-02	5.171E-02	5.530E-03	0.146
PR-144	5.126E-01		2.116E+00	3.504E+00	3.747E-01	0.146
PM-146	-2.249E-03		3.959E-02	6.407E-02	7.446E-03	-0.035
ND-147	2.458E-01		5.059E-01	8.661E-01	1.373E-01	0.284
PM-149	-4.497E+01		9.206E+01	1.430E+02	2.705E+01	-0.315
EU-152	7.527E-03		1.242E-01	1.421E-01	1.709E-02	0.053

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-3.388E-02		7.743E-02	1.165E-01	1.024E-02	-0.291
EU-154	-6.263E-02		1.217E-01	1.944E-01	2.198E-02	-0.322
EU-155	-3.424E-02		1.055E-01	1.669E-01	1.433E-02	-0.205
TB-160	1.107E-01		1.279E-01	2.227E-01	2.491E-02	0.497
HO-166M	6.766E-03		5.662E-02	9.295E-02	9.993E-03	0.073
TM-171	-1.743E+01		2.705E+01	3.833E+01	2.897E+00	-0.455
LU-176	6.311E-03		2.454E-02	3.644E-02	4.780E-03	0.173
LU-177	2.429E+00	+	1.400E+00	1.872E+00	2.113E-01	1.298
LU-177M	-1.211E-01		1.655E-01	2.604E-01	2.462E-02	-0.465
HF-181	-9.290E-03		4.054E-02	6.461E-02	6.378E-03	-0.144
W-181	-1.031E-01		3.427E-01	4.941E-01	3.683E-02	-0.209
TA-182	-2.548E-02		1.823E-01	3.005E-01	2.499E-02	-0.085
RE-183	1.737E-01		1.043E-01	1.813E-01	1.750E-02	0.958
RE-184	-1.745E-02		2.253E-01	3.623E-01	4.701E-02	-0.048
OS-185	-7.993E-03		3.838E-02	6.235E-02	6.552E-03	-0.128
RE-188	1.542E-01		1.620E-01	2.787E-01	2.601E-02	0.553
W-188	1.889E+00		7.616E+00	1.134E+01	1.549E+00	0.167
IR-192	9.889E-03		3.161E-02	5.359E-02	6.849E-03	0.185
AU-195	1.131E-01		2.096E-01	3.436E-01	2.997E-02	0.329
TL-200	-1.702E-04		2.221E-04	Half-Life too short		
TL-201	-1.945E+00		6.686E+00	1.103E+01	1.087E+00	-0.176
TL-202	-1.151E-02		6.493E-02	1.047E-01	1.008E-02	-0.110
HG-203	3.032E-02		4.493E-02	6.497E-02	9.196E-03	0.467
BI-207	2.780E-02		5.265E-02	8.856E-02	8.502E-03	0.314
TL-207	3.353E-01		6.714E-01	1.002E+00	1.991E-01	0.335
PO-209	-3.414E+00		6.686E+00	1.069E+01	1.197E+00	-0.319
BI-210	1.611E+00		2.890E+00	4.848E+00	4.504E-01	0.332
PB-210	1.611E+00		2.890E+00	4.848E+00	4.504E-01	0.332
PO-210	1.611E+00		2.889E+00	4.848E+00	4.076E-01	0.332
PB-211	-1.682E-01		8.477E-01	1.366E+00	8.574E-01	-0.123
BI-212	9.780E-01	+	4.951E-01	5.805E-01	6.934E-02	1.685
PO-215	3.353E-01		6.714E-01	1.002E+00	1.991E-01	0.335
RN-219	-2.405E-01		3.711E-01	5.859E-01	9.064E-02	-0.411
RN-220	-1.221E+01		2.366E+01	3.836E+01	3.910E+00	-0.318
RA-223	3.353E-01		6.714E-01	1.002E+00	1.991E-01	0.335
AC-227	-9.643E-02		3.768E-01	6.001E-01	1.095E-01	-0.161
TH-227	-9.643E-02		3.769E-01	6.001E-01	1.235E-01	-0.161
TH-229	-3.880E-01		4.855E-01	7.742E-01	8.324E-02	-0.501
PA-231	-1.221E-01		1.573E+00	2.307E+00	4.308E-01	-0.053
TH-231	3.353E-01		6.714E-01	1.002E+00	1.991E-01	0.335
U-231	1.232E-01		1.080E+00	1.562E+00	1.387E-01	0.079
PA-233	1.814E-02		5.636E-02	9.572E-02	1.254E-02	0.189
PA-234	5.165E-02		2.847E-01	4.745E-01	9.432E-02	0.109
PA-234M	1.753E+00		4.560E+00	7.437E+00	8.522E-01	0.236
U-235	1.558E-01		2.043E-01	3.403E-01	6.004E-02	0.458
NP-236	1.205E-02		7.542E-02	1.267E-01	1.212E-02	0.095
NP-239	-2.268E-02		1.841E-01	2.914E-01	2.409E-02	-0.078
AM-241	1.482E-02		1.337E-01	2.003E-01	1.566E-02	0.074

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.196E-02		9.107E-02	1.474E-01	1.257E-02	0.149
AM-246	4.716E-02		1.433E-01	2.380E-01	2.239E-02	0.198
CM-247	-8.449E-03		3.320E-02	5.376E-02	5.043E-03	-0.157
CF-249	3.547E-03		3.726E-02	6.161E-02	5.856E-03	0.058
CF-251	-3.852E-03		1.225E-01	2.031E-01	2.063E-02	-0.019

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799009           *
* Acquisition date  : 10-FEB-2010 17:19:50 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.21      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799009           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.2591E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.771E+01	3.767E+00	2.159E-01	1.922E+00
CD-109	2.839E+00	8.413E-01	5.821E-01	4.292E-01
SN-126	2.790E-01	8.267E-02	5.882E-02	4.218E-02
TL-208	4.681E-01	8.606E-02	2.451E-02	4.391E-02
BI-211	3.406E+00	5.337E-01	1.500E-01	2.723E-01
PB-212	1.693E+00	2.412E-01	4.254E-02	1.231E-01
PO-212	1.693E+00	2.412E-01	4.254E-02	1.231E-01
BI-214	1.017E+00	1.878E-01	4.923E-02	9.580E-02
PB-214	1.185E+00	1.953E-01	5.162E-02	9.963E-02
PO-214	1.185E+00	1.953E-01	5.162E-02	9.963E-02
PO-216	1.693E+00	2.412E-01	4.254E-02	1.231E-01
PO-218	1.185E+00	1.953E-01	5.162E-02	9.963E-02
RA-224	4.667E+00	1.209E+00	4.836E-01	6.168E-01
RA-226	1.017E+00	1.878E-01	4.923E-02	9.580E-02
AC-228	1.553E+00	3.426E-01	1.009E-01	1.748E-01
RA-228	1.553E+00	3.426E-01	1.009E-01	1.748E-01
TH-228	1.719E+00	2.449E-01	4.319E-02	1.249E-01
TH-230	1.017E+00	1.878E-01	4.923E-02	9.580E-02
TH-232	1.553E+00	3.426E-01	1.009E-01	1.748E-01
TH-234	1.662E+00	1.844E+00	8.721E-01	9.410E-01
U-234	1.017E+00	1.878E-01	4.923E-02	9.580E-02
NP-237	8.192E-01	2.939E-01	1.811E-01	1.500E-01
U-238	1.662E+00	1.844E+00	8.721E-01	9.410E-01
AM-243	3.898E-01	7.724E-02	3.846E-02	3.941E-02
ANH-511	1.427E-01	6.365E-02	2.122E-02	3.247E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	1.143E-01	2.981E-01	2.546E-01	1.521E-01 NOT IDENT.
NA-22	-2.087E-02	4.278E-02	3.505E-02	2.183E-02 NOT IDENT.

NA-24	4.910E+05	7.671E+05	0.000E+00	3.914E+05	SHORT HLIF
AL-26	-9.054E-03	2.357E-02	1.859E-02	1.202E-02	NOT IDENT.
TI-44	3.495E-01	5.486E-02	3.388E-02	2.799E-02	FAIL ABUN
SC-46	1.475E-02	3.362E-02	2.944E-02	1.715E-02	FAIL ABUN
V-48	1.227E-02	6.610E-02	5.638E-02	3.373E-02	NOT IDENT.
CR-51	-3.907E-02	3.379E-01	2.934E-01	1.724E-01	NOT IDENT.
MN-52	3.310E-02	1.835E-01	1.561E-01	9.361E-02	NOT IDENT.
MN-54	-1.521E-02	3.389E-02	2.833E-02	1.729E-02	NOT IDENT.
CO-56	-1.626E-02	3.622E-02	3.018E-02	1.848E-02	FAIL ABUN
CO-57	4.390E-03	2.442E-02	2.060E-02	1.246E-02	NOT IDENT.
CO-58	-1.453E-02	3.324E-02	2.782E-02	1.696E-02	NOT IDENT.
FE-59	-7.071E-02	8.720E-02	6.842E-02	4.449E-02	NOT IDENT.
CO-60	1.896E-02	3.353E-02	2.949E-02	1.711E-02	NOT IDENT.
ZN-65	2.837E-02	1.008E-01	7.294E-02	5.142E-02	NOT IDENT.
GE-68	6.268E-01	1.238E+00	1.064E+00	6.315E-01	NOT IDENT.
AS-73	1.633E-01	6.837E-01	5.982E-01	3.488E-01	NOT IDENT.
AS-74	2.481E-02	7.891E-02	6.875E-02	4.026E-02	NOT IDENT.
SE-75	2.659E-02	4.552E-02	3.451E-02	2.323E-02	NOT IDENT.
BR-77	-1.506E+00	9.266E+00	7.983E+00	4.727E+00	FAIL ABUN
SR-82	8.013E-02	3.654E-01	3.080E-01	1.864E-01	NOT IDENT.
RB-83	-1.546E-02	5.914E-02	5.068E-02	3.017E-02	NOT IDENT.
RB-84	1.242E-02	6.331E-02	5.466E-02	3.230E-02	NOT IDENT.
KR-85	3.361E+01	8.572E+00	7.179E+00	4.374E+00	NOT IDENT.
SR-85	1.725E-01	4.400E-02	3.685E-02	2.245E-02	NOT IDENT.
RB-86	5.409E-01	7.715E-01	6.706E-01	3.936E-01	NOT IDENT.
Y-88	-7.037E-03	2.896E-02	2.339E-02	1.477E-02	NOT IDENT.
ZR-88	-2.680E-03	2.810E-02	2.392E-02	1.434E-02	NOT IDENT.
Y-91	1.325E+01	1.814E+01	1.602E+01	9.256E+00	NOT IDENT.
NB-94	-1.485E-02	3.034E-02	2.479E-02	1.548E-02	NOT IDENT.
NB-95	4.278E-02	3.963E-02	3.480E-02	2.022E-02	NOT IDENT.
NB-95M	1.998E-01	1.370E-01	1.072E-01	6.989E-02	NOT IDENT.
ZR-95	9.537E-03	6.497E-02	5.473E-02	3.315E-02	NOT IDENT.
NB-97	-1.959E+04	9.824E+04	0.000E+00	5.012E+04	SHORT HLIF
ZR-97	4.683E+06	2.252E+06	0.000E+00	1.149E+06	SHORT HLIF
MO-99	9.630E+00	1.112E+01	9.694E+00	5.675E+00	NOT IDENT.
TC-99M	-5.181E+16	5.028E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.564E-02	3.308E-02	2.827E-02	1.688E-02	NOT IDENT.
RH-102	7.816E-03	2.635E-02	2.244E-02	1.344E-02	NOT IDENT.
RU-103	-1.337E-02	3.779E-02	3.086E-02	1.928E-02	FAIL ABUN
RH-106	-7.073E-02	2.810E-01	2.361E-01	1.433E-01	FAIL ABUN
RU-106	-7.073E-02	2.809E-01	2.361E-01	1.433E-01	FAIL ABUN
AG-108M	1.474E-02	3.019E-02	2.615E-02	1.540E-02	NOT IDENT.
AG-110M	-6.338E-03	3.178E-02	2.664E-02	1.621E-02	NOT IDENT.
IN-111	-1.933E-03	1.101E+00	8.144E-01	5.616E-01	NOT IDENT.
IN-113M	-8.350E-03	4.084E-02	3.459E-02	2.084E-02	NOT IDENT.
SN-113	-8.350E-03	4.084E-02	3.459E-02	2.084E-02	NOT IDENT.
IN-114M	2.062E-01	1.880E-01	1.499E-01	9.594E-02	NOT IDENT.
CD-115	2.138E+00	9.994E+00	8.763E+00	5.099E+00	NOT IDENT.
SN-117M	-6.219E-02	5.080E-02	4.264E-02	2.592E-02	NOT IDENT.
SB-122	-9.513E-02	1.898E+00	1.632E+00	9.682E-01	NOT IDENT.
I-123	-3.621E+06	6.027E+06	0.000E+00	3.075E+06	SHORT HLIF
TE-123M	-1.567E-02	2.607E-02	2.248E-02	1.330E-02	NOT IDENT.
I-124	-1.295E-01	6.869E-01	4.982E-01	3.505E-01	NOT IDENT.
SB-124	-3.101E-02	6.569E-02	5.217E-02	3.352E-02	FAIL ABUN
SB-125	-4.049E-02	8.238E-02	6.798E-02	4.203E-02	FAIL ABUN
TE-125M	1.841E+00	8.777E+00	7.482E+00	4.478E+00	NOT IDENT.
I-126	1.016E-03	1.717E-01	1.454E-01	8.760E-02	NOT IDENT.
SB-126	1.860E-02	1.580E-01	1.147E-01	8.062E-02	FAIL ABUN
SB-127	6.513E-01	1.284E+00	1.112E+00	6.550E-01	NOT IDENT.
XE-127	-1.235E-02	4.643E-02	3.826E-02	2.369E-02	NOT IDENT.
I-131	4.487E-03	1.049E-01	9.057E-02	5.352E-02	NOT IDENT.
TE-132	3.576E-01	6.762E-01	5.855E-01	3.450E-01	NOT IDENT.
BA-133	9.299E-03	4.228E-02	3.215E-02	2.157E-02	NOT IDENT.
I-133	1.412E+03	5.793E+03	0.000E+00	2.956E+03	SHORT HLIF
CS-134	9.491E-02	4.721E-02	4.249E-02	2.409E-02	NOT IDENT.
CS-135	3.931E-01	1.839E-01	1.416E-01	9.383E-02	NOT IDENT.
I-135	1.647E+15	6.712E+15	0.000E+00	3.424E+15	SHORT HLIF
CS-136	-2.366E-02	1.028E-01	8.470E-02	5.244E-02	FAIL ABUN
BA-137M	1.267E-02	3.323E-02	2.871E-02	1.696E-02	NOT IDENT.
CS-137	1.339E-02	3.513E-02	3.035E-02	1.792E-02	NOT IDENT.
CE-139	-1.792E-02	2.721E-02	2.331E-02	1.388E-02	NOT IDENT.
BA-140	1.241E-05	2.188E-01	1.895E-01	1.116E-01	NOT IDENT.
LA-140	-6.562E-02	8.050E-02	6.296E-02	4.107E-02	FAIL ABUN
CE-141	-1.126E-02	5.694E-02	5.023E-02	2.905E-02	NOT IDENT.
CE-143	7.531E+02	2.472E+02	0.000E+00	1.261E+02	SHORT HLIF
CE-144	6.549E-03	1.892E-01	1.693E-01	9.652E-02	NOT IDENT.
PM-144	7.563E-03	3.060E-02	2.614E-02	1.561E-02	NOT IDENT.
PR-144	5.126E-01	2.073E+00	1.771E+00	1.058E+00	NOT IDENT.

PM-146	-2.249E-03	3.880E-02	3.259E-02	1.980E-02	NOT IDENT.
ND-147	2.458E-01	4.958E-01	4.395E-01	2.529E-01	FAIL ABUN
PM-149	-4.497E+01	9.022E+01	7.320E+01	4.603E+01	NOT IDENT.
EU-152	7.527E-03	1.218E-01	7.258E-02	6.212E-02	NOT IDENT.
GD-153	-3.388E-02	7.588E-02	6.054E-02	3.872E-02	NOT IDENT.
EU-154	-6.263E-02	1.193E-01	9.741E-02	6.087E-02	NOT IDENT.
EU-155	-3.424E-02	1.033E-01	8.666E-02	5.273E-02	FAIL ABUN
TB-160	1.107E-01	1.253E-01	1.122E-01	6.394E-02	FAIL ABUN
HO-166M	6.766E-03	5.548E-02	4.697E-02	2.831E-02	FAIL ABUN
TM-171	-1.743E+01	2.651E+01	2.003E+01	1.353E+01	NOT IDENT.
LU-176	6.311E-03	2.405E-02	1.864E-02	1.227E-02	FAIL ABUN
LU-177	2.429E+00	1.372E+00	9.627E-01	7.002E-01	FAIL ABUN
LU-177M	-1.211E-01	1.622E-01	1.326E-01	8.273E-02	FAIL ABUN
HF-181	-9.290E-03	3.973E-02	3.283E-02	2.027E-02	NOT IDENT.
W-181	-1.031E-01	3.359E-01	2.582E-01	1.714E-01	NOT IDENT.
TA-182	-2.548E-02	1.787E-01	1.507E-01	9.115E-02	FAIL ABUN
RE-183	1.737E-01	1.022E-01	9.358E-02	5.213E-02	FAIL ABUN
RE-184	-1.745E-02	2.208E-01	1.858E-01	1.127E-01	NOT IDENT.
OS-185	-7.993E-03	3.761E-02	3.155E-02	1.919E-02	NOT IDENT.
RE-188	1.542E-01	1.588E-01	1.439E-01	8.100E-02	NOT IDENT.
W-188	1.889E+00	7.464E+00	5.806E+00	3.808E+00	FAIL ABUN
IR-192	9.889E-03	3.098E-02	2.740E-02	1.580E-02	FAIL ABUN
AU-195	1.131E-01	2.054E-01	1.785E-01	1.048E-01	FAIL ABUN
TL-200	-1.702E+02	4.353E+02	0.000E+00	2.221E+02	SHORT HLIF
TL-201	-1.945E+00	6.552E+00	5.687E+00	3.343E+00	NOT IDENT.
TL-202	-1.151E-02	6.363E-02	5.328E-02	3.247E-02	NOT IDENT.
HG-203	3.032E-02	4.404E-02	3.327E-02	2.247E-02	NOT IDENT.
BI-207	2.780E-02	5.160E-02	4.449E-02	2.633E-02	FAIL ABUN
TL-207	3.353E-01	6.580E-01	5.118E-01	3.357E-01	FAIL ABUN
PO-209	-3.414E+00	6.552E+00	5.383E+00	3.343E+00	NOT IDENT.
BI-210	1.611E+00	2.832E+00	2.545E+00	1.445E+00	NOT IDENT.
PB-210	1.611E+00	2.832E+00	2.545E+00	1.445E+00	NOT IDENT.
PO-210	1.611E+00	2.831E+00	2.545E+00	1.445E+00	NOT IDENT.
PB-211	-1.682E-01	8.308E-01	6.958E-01	4.239E-01	NOT IDENT.
BI-212	9.780E-01	4.852E-01	2.932E-01	2.475E-01	FAIL ABUN
PO-215	3.353E-01	6.580E-01	5.118E-01	3.357E-01	FAIL ABUN
RN-219	-2.405E-01	3.637E-01	2.985E-01	1.855E-01	NOT IDENT.
RN-220	-1.221E+01	2.319E+01	1.946E+01	1.183E+01	NOT IDENT.
RA-223	3.353E-01	6.580E-01	5.118E-01	3.357E-01	FAIL ABUN
AC-227	-9.643E-02	3.693E-01	3.077E-01	1.884E-01	FAIL ABUN
TH-227	-9.643E-02	3.694E-01	3.077E-01	1.885E-01	FAIL ABUN
TH-229	-3.880E-01	4.757E-01	3.985E-01	2.427E-01	FAIL ABUN
PA-231	-1.221E-01	1.542E+00	1.181E+00	7.867E-01	FAIL ABUN
TH-231	3.353E-01	6.580E-01	5.118E-01	3.357E-01	FAIL ABUN
U-231	1.232E-01	1.059E+00	8.118E-01	5.402E-01	FAIL ABUN
PA-233	1.814E-02	5.523E-02	4.894E-02	2.818E-02	FAIL ABUN
PA-234	5.165E-02	2.790E-01	2.388E-01	1.423E-01	FAIL ABUN
PA-234M	1.753E+00	4.469E+00	3.739E+00	2.280E+00	NOT IDENT.
U-235	1.558E-01	2.002E-01	1.759E-01	1.021E-01	FAIL ABUN
NP-236	1.205E-02	7.391E-02	6.541E-02	3.771E-02	NOT IDENT.
NP-239	-2.268E-02	1.805E-01	1.511E-01	9.207E-02	FAIL ABUN
AM-241	1.482E-02	1.310E-01	1.048E-01	6.683E-02	NOT IDENT.
CM-243	2.196E-02	8.925E-02	7.653E-02	4.553E-02	FAIL ABUN
AM-246	4.716E-02	1.404E-01	1.195E-01	7.165E-02	NOT IDENT.
CM-247	-8.449E-03	3.253E-02	2.739E-02	1.660E-02	NOT IDENT.
CF-249	3.547E-03	3.651E-02	3.140E-02	1.863E-02	NOT IDENT.
CF-251	-3.852E-03	1.200E-01	1.047E-01	6.123E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	296.2407
46.50	296.2407
46.50	296.2407
48.70	320.2932
49.72	304.3705
51.35	329.6886
52.39	320.0657
52.97	309.7130
53.15	313.6775
53.44	311.2733
54.07	314.9176
56.28	353.6930
56.28	353.6968
57.37	0.0000
57.53	353.8109
57.53	353.8138
57.60	341.3947
57.98	337.6480
57.98	337.6480
59.32	349.4972
59.32	349.4972
59.40	349.6079
59.54	349.8025
59.72	365.8339
60.01	366.2542
61.10	354.8421
61.14	354.8970
61.30	355.1180
63.00	392.3226
63.29	392.7563
63.29	392.7563
63.58	393.1878
64.28	470.1516
65.12	452.5890
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65.20	438.0727
66.05	442.3900
66.72	469.9964
66.83	470.1862
66.91	470.3250
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67.20	478.2011
67.75	475.6035
67.85	475.7765
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68.90	482.3232
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69.67	449.6960
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70.82	455.9991
70.83	456.0154
72.80	510.3130
72.87	510.4372
72.87	510.4372
74.67	465.5864
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74.81	465.8044
74.81	465.8044
74.81	465.8044
74.81	465.8044
74.81	465.8044
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77.11	469.3685

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77.11	469.3685
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77.11	469.3685
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80.30	507.6593
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81.07	525.9142
81.07	525.9142
81.07	525.9142
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83.78	458.6169
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86.94	570.1351
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88.03	489.8242
88.36	490.3020
88.47	490.4628
89.95	603.8275
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92.29	428.7464
92.38	428.8568
92.38	428.8568
93.35	441.2731
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94.67	417.1443
94.67	417.1502
94.90	417.4189
94.90	417.4189
94.90	417.4189
94.90	417.4189
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98.44	384.0834
98.44	384.0852
98.88	401.9249
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99.55	441.8322
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108.00	438.3502
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111.00	434.9330
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112.95	425.7653
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116.30	419.0119
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117.00	404.9254
117.66	429.4845
121.11	395.0730
121.62	393.2405
121.78	393.3849
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122.32	397.3287
122.32	397.3287
122.32	397.3287
122.32	397.3287
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127.23	422.7347
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131.20	441.4290
133.02	449.3640
133.54	433.0421
135.34	424.0421
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136.25	403.4842
136.48	397.4433
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142.65	395.3402
143.76	398.0417
144.24	392.0891
144.24	392.0891
144.24	392.0891
144.24	392.0891
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145.44	428.4414
147.16	435.3793
152.43	400.3286
152.70	406.0624
153.22	403.7044
154.21	393.3915
154.21	393.3915
154.21	393.3915
154.21	393.3915
155.03	394.0091
156.02	403.0932
158.56	435.7579
159.00	0.0000
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161.27	387.4270
162.32	354.4211
162.64	368.7043
163.35	417.0935
163.89	429.7276
165.85	410.5007
167.43	399.3694
171.28	399.2539
171.86	403.4753
172.10	403.6463
176.55	408.7032
176.60	408.7389
181.06	401.5796
184.41	428.7845
185.71	435.5673
186.00	435.7783
190.27	344.7646
192.34	417.5879
193.63	410.5388
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198.01	394.4652
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200.40	419.9359
201.83	436.9015
202.84	412.9196
205.31	409.4169

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209.75	384.5840
210.97	406.4178
215.65	384.6805
216.55	376.9900
218.09	367.5678
222.10	377.9569
223.80	363.3452
226.40	351.1748
227.00	348.3517
227.08	348.3901
227.20	348.4489
228.16	345.7920
228.18	345.8021
228.18	345.8021
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236.00	362.1826
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238.63	320.1505
238.63	320.1505
238.63	320.1505
239.00	320.3101
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241.98	321.5908
241.98	321.5908
241.98	321.5908
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245.39	286.5823
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248.90	307.3943
249.79	293.8091
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252.85	306.8134
252.85	306.8134
254.15	0.0000
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256.20	323.2661
260.50	289.1516
260.90	290.3853
262.80	333.5902
264.65	253.4987
268.24	265.1532
268.79	282.9056
269.46	307.7582
269.46	307.7582
269.46	307.7582
269.46	307.7582
271.23	294.1009
273.65	294.9605
276.40	295.9342
277.35	296.2683
277.60	296.3539
277.60	296.3539
278.00	296.4965
278.60	256.0359
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279.53	277.6770
280.46	270.8539
281.68	248.0451
283.67	268.2971
284.30	264.6592
285.00	266.4753
285.90	288.0505
286.10	294.8437
286.10	294.8437
287.40	286.3030
288.45	0.0000
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290.80	272.0192
291.72	269.2975
293.26	0.0000
293.70	287.9961
295.21	288.4896
295.21	288.4896

295.21	288.4896
295.96	267.5706
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297.23	267.9523
298.57	268.3557
299.80	268.7230
299.80	268.7230
300.09	268.8130
300.09	268.8130
300.09	268.8130
300.09	268.8130
300.12	268.8202
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302.84	226.9801
303.76	210.4365
303.91	210.4702
304.40	215.1633
304.40	215.1633
304.84	219.8467
306.84	223.3902
308.46	255.4627
311.98	224.3300
316.51	240.2642
318.01	244.3665
319.02	247.4170
319.41	242.8683
320.08	256.0736
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323.87	227.4923
323.87	227.4923
323.87	227.4923
325.23	249.6582
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333.44	245.4861
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334.20	277.1735
334.30	304.7649
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338.28	229.6135
338.28	229.6135
338.28	229.6135
338.32	229.6253
338.32	229.6253
338.32	229.6253
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340.57	206.0502
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351.92	214.7866
351.92	214.7866
351.92	214.7866
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356.01	202.7659
364.48	216.0950
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367.43	213.7683
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383.85	225.9488
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388.63	220.9512
391.69	224.5496
391.69	224.5496
392.90	219.7959
398.62	207.8541
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401.10	205.2874
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402.60	207.5717
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414.70	231.1205
415.30	225.1249

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433.93	188.2896
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439.89	202.7172
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445.03	189.9847
445.03	189.9847
445.03	189.9847
445.03	189.9847
453.90	180.8100
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468.07	175.3669
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513.99	148.4011
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555.20	149.8065
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569.67	155.0311
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602.71	171.4703
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604.41	179.9824
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609.31	153.0807

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609.31	153.0807
609.31	153.0807
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621.84	153.2610
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661.65	160.8724
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666.33	172.3881
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696.49	146.5814
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831.60	126.9062
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911.07	124.6540
911.07	124.6540
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969.11	146.6539
969.11	146.6539
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1046.59	122.3660
1048.07	122.4365

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1050.47	126.6636
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1078.86	122.8069
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1112.84	121.6915
1115.52	132.8818
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1120.29	103.5269
1120.29	103.5269
1120.29	103.5269
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1147.95	0.0000
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1274.54	125.5632
1291.56	95.9005
1298.22	0.0000
1312.09	93.5591
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1325.50	89.0002
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1333.61	53.5320
1360.21	65.9537
1362.66	0.0000
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1368.21	55.3655
1368.53	0.0000
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1457.56	0.0000
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1750.46	0.0000
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1764.49	27.6742
1770.23	21.3773
1771.40	17.8193
1791.20	0.0000
1808.65	25.9626

1836.01	30.1449

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799009

Total Uranium Activity	5.0171E+00	ug/g
Total Uranium Counting Unc.	5.4876E+00	ug/g
Total Uranium Tpu	2.7998E-06	ug/g
Total Uranium Mda	2.5956E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799009       *
*   ANALYST       : RXF2                      DETECTOR   : GAM22            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 17:19:50.68    SAMPLE ALQT:  125.908 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.838E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.321E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.232E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.082E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:21:46.64

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799010.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:20:47
Sample ID         : G245799010           Sample quantity  : 1.37266E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.05  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947531                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.27*	86	545	0.92	92.10	88	9	1.20E-02	51.8	
2	0	63.30*	490	861	0.89	126.17	121	10	6.81E-02	12.3	
3	3	74.81	778	461	0.86	149.17	144	14	1.08E-01	5.5	2.34E+00
4	3	77.04*	1207	424	0.86	153.63	144	14	1.68E-01	3.9	
5	0	84.62*	143	623	1.19	168.79	163	8	1.99E-02	31.7	
6	5	87.25*	479	496	1.14	174.06	171	20	6.66E-02	8.7	3.60E+00
7	5	89.86	260	396	1.00	179.28	171	20	3.61E-02	13.7	
8	5	92.66*	730	414	1.17	184.87	171	20	1.01E-01	6.4	
9	0	129.01	132	360	0.95	257.56	254	8	1.84E-02	26.3	
10	0	144.54*	85	333	2.38	288.62	284	9	1.19E-02	40.8	
11	0	185.99*	249	330	1.09	371.52	367	8	3.46E-02	14.9	
12	0	208.85	168	240	0.96	417.23	414	8	2.34E-02	17.6	
13	7	238.56*	1480	180	0.96	476.66	472	16	2.06E-01	3.0	1.73E+00
14	7	241.47	346	263	1.86	482.46	472	16	4.80E-02	14.0	
15	0	270.23	116	200	1.45	539.98	536	9	1.62E-02	23.7	
16	0	277.78	51	243	1.28	555.08	549	10	7.07E-03	59.2	
17	0	295.17*	354	146	1.43	589.85	586	8	4.92E-02	8.0	
18	0	299.93	87	207	1.04	599.38	595	10	1.21E-02	32.7	
19	0	327.83	57	180	1.90	655.18	650	10	7.97E-03	45.7	
20	0	338.30*	287	178	1.12	676.12	671	11	3.99E-02	10.9	
21	0	351.74*	613	222	1.15	702.99	697	13	8.51E-02	6.5	
22	0	462.40	128	88	1.25	924.30	918	11	1.78E-02	16.7	
23	0	510.80*	129	153	1.56	1021.09	1013	17	1.79E-02	26.0	
24	0	583.16*	379	100	1.28	1165.80	1161	12	5.27E-02	7.5	
25	0	609.28*	477	97	1.34	1218.05	1212	14	6.62E-02	6.5	
26	0	661.15*	48	165	1.32	1321.80	1317	13	6.68E-03	59.1	
27	0	727.28	105	97	2.14	1454.04	1447	13	1.45E-02	21.8	
28	0	770.09	96	91	5.64	1539.67	1531	20	1.33E-02	26.9	
29	0	794.47	66	88	0.92	1588.43	1581	14	9.14E-03	32.6	
30	0	860.38	43	40	1.23	1720.24	1714	9	5.96E-03	30.8	
31	0	911.25*	271	80	1.73	1821.98	1815	17	3.77E-02	9.9	
32	0	964.73	61	47	1.89	1928.94	1924	10	8.52E-03	24.6	
33	0	969.03*	132	97	1.37	1937.54	1933	13	1.83E-02	17.4	
34	0	1120.43	101	62	1.24	2240.35	2235	11	1.41E-02	18.3	
35	0	1460.61*	1222	19	1.95	2920.74	2911	17	1.70E-01	3.0	
36	0	1590.45	43	21	4.18	3180.45	3172	19	5.97E-03	30.9	
37	0	1620.21	14	4	1.12	3239.96	3236	8	1.94E-03	36.4	
38	0	1631.60	17	7	0.99	3262.75	3258	9	2.42E-03	35.9	

Sample ID : G245799010 Acquisition date : 10-FEB-2010 17:20:47

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1764.39*	79	12	2.18	3528.36	3520	16	1.10E-02	15.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 19:21:49

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799010.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:20:47
Sample ID : G245799010 Sample quantity : 137.27 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.05 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.825E+01	2.939E+00	4.280E-01	3.645E-02	66.017
CD-109	+	88.03	*	3.834E+00	7.864E-01	6.821E-01	7.330E-02	5.620
SN-126	+	64.28		1.428E+00	4.193E-01	2.673E-01	4.258E-02	5.345
	+	86.94		1.566E+00	7.104E-01	2.773E-01	1.160E-01	5.648
	+	87.57	*	3.768E-01	7.728E-02	6.690E-02	7.173E-03	5.632
BA-137M	+	661.65	*	6.559E-02	7.782E-02	5.906E-02	6.542E-03	1.111
CS-137	+	661.65	*	6.934E-02	8.226E-02	6.243E-02	6.923E-03	1.111
CE-141	+	145.44	*	8.864E-02	7.294E-02	7.598E-02	8.451E-03	1.167
HG-203		70.83		-1.372E-01	5.102E-01	7.312E-01	1.063E-01	-0.188
		72.87		1.052E-01	3.129E-01	4.597E-01	6.532E-02	0.229
		82.60		-1.914E-01	6.791E-01	9.605E-01	1.439E-01	-0.199
	+	279.20	*	4.774E-02	5.675E-02	5.552E-02	6.302E-03	0.860
TL-208	+	277.35		4.324E-01	5.154E-01	5.165E-01	7.336E-02	0.837
	+	510.84		5.804E-01	3.117E-01	1.907E-01	2.526E-02	3.043
	+	583.14	*	4.933E-01	9.251E-02	5.453E-02	6.147E-03	9.047
	+	860.37		5.331E-01	3.328E-01	4.077E-01	4.262E-02	1.307
BI-210	+	46.50	*	6.367E-01	6.632E-01	5.517E-01	5.689E-02	1.154
PB-210	+	46.50	*	6.367E-01	6.632E-01	5.517E-01	5.689E-02	1.154
PO-210	+	46.50	*	6.367E-01	6.627E-01	5.517E-01	5.254E-02	1.154
BI-211		72.87		5.281E-01	1.570E+00	2.308E+00	2.329E-01	0.229
	+	351.07	*	3.332E+00	5.563E-01	2.680E-01	2.824E-02	12.434
BI-212	+	727.18	*	1.182E+00	5.342E-01	4.352E-01	5.229E-02	2.716
		785.46		6.727E-01	1.897E+00	3.116E+00	3.288E-01	0.216
	+	1620.62		1.374E+00	1.007E+00	2.081E+00	1.729E-01	0.660
PB-212	+	74.81		2.050E+00	3.609E-01	2.629E-01	3.629E-02	7.800
	+	77.11		1.900E+00	2.456E-01	1.575E-01	1.614E-02	12.059
	+	87.30		1.742E+00	3.976E-01	3.090E-01	4.528E-02	5.639
	+	238.63	*	1.700E+00	2.189E-01	7.458E-02	8.490E-03	22.791
	+	300.09		1.578E+00	1.051E+00	1.004E+00	1.250E-01	1.572
PO-212	+	74.81		2.050E+00	3.609E-01	2.629E-01	3.629E-02	7.800
	+	77.11		1.900E+00	2.456E-01	1.575E-01	1.614E-02	12.059
	+	87.30		1.742E+00	3.976E-01	3.090E-01	4.528E-02	5.639
		115.19		1.223E+00	2.435E+00	4.195E+00	5.202E-01	0.292
	+	238.63	*	1.700E+00	2.189E-01	7.458E-02	8.490E-03	22.791

Sample ID : G245799010 Acquisition date : 10-FEB-2010 17:20:47

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	300.09		1.578E+00	1.051E+00	1.004E+00	1.250E-01	1.572
BI-214	+	609.31	*	1.173E+00	2.080E-01	9.610E-02	1.160E-02	12.206
	+	1120.29		1.313E+00	5.017E-01	4.771E-01	5.178E-02	2.753
	+	1764.49		1.458E+00	4.617E-01	3.049E-01	2.512E-02	4.781
PB-214	+	74.81		3.533E+00	5.883E-01	4.529E-01	5.695E-02	7.800
	+	77.11		3.256E+00	4.887E-01	2.700E-01	3.448E-02	12.059
	+	87.30		2.985E+00	6.541E-01	5.294E-01	6.985E-02	5.639
	+	241.98		2.386E+00	7.270E-01	4.499E-01	5.366E-02	5.302
	+	295.21		1.119E+00	2.294E-01	1.745E-01	2.213E-02	6.414
	+	351.92	*	1.159E+00	2.028E-01	9.345E-02	1.097E-02	12.403
PO-214	+	74.81		3.533E+00	5.883E-01	4.529E-01	5.695E-02	7.800
	+	77.11		3.256E+00	4.887E-01	2.700E-01	3.448E-02	12.059
	+	87.30		2.985E+00	6.541E-01	5.294E-01	6.985E-02	5.639
	+	241.98		2.386E+00	7.270E-01	4.499E-01	5.366E-02	5.302
	+	295.21		1.119E+00	2.294E-01	1.745E-01	2.213E-02	6.414
	+	351.92	*	1.159E+00	2.028E-01	9.345E-02	1.097E-02	12.403
PO-216	+	74.81		2.050E+00	3.609E-01	2.629E-01	3.629E-02	7.800
	+	77.11		1.900E+00	2.456E-01	1.575E-01	1.614E-02	12.059
	+	87.30		1.742E+00	3.976E-01	3.090E-01	4.528E-02	5.639
	+	238.63	*	1.700E+00	2.189E-01	7.458E-02	8.490E-03	22.791
	+	300.09		1.578E+00	1.051E+00	1.004E+00	1.250E-01	1.572
PO-218	+	74.81		3.533E+00	5.883E-01	4.529E-01	5.695E-02	7.800
	+	77.11		3.256E+00	4.887E-01	2.700E-01	3.448E-02	12.059
	+	87.30		2.985E+00	6.541E-01	5.294E-01	6.985E-02	5.639
	+	241.98		2.386E+00	7.270E-01	4.499E-01	5.366E-02	5.302
	+	295.21		1.119E+00	2.294E-01	1.745E-01	2.213E-02	6.414
	+	351.92	*	1.159E+00	2.028E-01	9.345E-02	1.097E-02	12.403
RA-224	+	240.98	*	4.523E+00	1.355E+00	8.498E-01	8.930E-02	5.323
RA-226	+	609.31	*	1.173E+00	2.080E-01	9.610E-02	1.160E-02	12.206
	+	1120.29		1.313E+00	5.017E-01	4.771E-01	5.178E-02	2.753
	+	1764.49		1.458E+00	4.617E-01	3.049E-01	2.512E-02	4.781
AC-228	+	338.32		1.714E+00	8.065E-01	3.348E-01	1.395E-01	5.122
	+	911.07	*	1.595E+00	3.695E-01	2.227E-01	2.649E-02	7.163
	+	969.11		1.367E+00	5.759E-01	4.188E-01	9.883E-02	3.265
RA-228	+	338.32		1.714E+00	8.065E-01	3.348E-01	1.395E-01	5.122
	+	911.07	*	1.595E+00	3.695E-01	2.227E-01	2.649E-02	7.163
	+	969.11		1.367E+00	5.759E-01	4.188E-01	9.883E-02	3.265
TH-228	+	74.81		2.082E+00	3.114E-01	2.669E-01	2.728E-02	7.800
	+	77.11		1.929E+00	2.494E-01	1.599E-01	1.639E-02	12.059
	+	87.30		1.769E+00	3.629E-01	3.137E-01	3.360E-02	5.639
	+	238.63	*	1.726E+00	2.222E-01	7.572E-02	8.620E-03	22.791
	+	300.09		1.602E+00	1.419E+00	1.019E+00	6.080E-01	1.572
TH-230	+	609.31	*	1.173E+00	2.080E-01	9.610E-02	1.160E-02	12.206
	+	1120.29		1.313E+00	5.016E-01	4.770E-01	5.177E-02	2.753
	+	1764.49		1.457E+00	4.617E-01	3.048E-01	2.512E-02	4.781
TH-232	+	338.32		1.714E+00	4.145E-01	3.348E-01	3.489E-02	5.122
	+	911.07	*	1.595E+00	3.695E-01	2.227E-01	2.649E-02	7.163
	+	969.11		1.367E+00	5.759E-01	4.188E-01	9.883E-02	3.265
TH-234	+	63.29	*	3.609E+00	1.115E+00	6.742E-01	1.255E-01	5.352

Sample ID : G245799010 Acquisition date : 10-FEB-2010 17:20:47

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		3.990E+00	9.245E-01	4.567E-01	8.822E-02	8.737
U-234	+	609.31	*	1.173E+00	2.080E-01	9.610E-02	1.160E-02	12.206
	+	1120.29		1.313E+00	5.016E-01	4.770E-01	5.177E-02	2.753
	+	1764.49		1.457E+00	4.617E-01	3.048E-01	2.512E-02	4.781
U-235	+	89.95		2.821E+00	1.179E+00	9.267E-01	2.924E-01	3.045
	+	93.35		4.796E+00	1.513E+00	5.515E-01	1.592E-01	8.697
		105.00		7.497E-02	6.812E-01	1.164E+00	3.596E-01	0.064
	+	143.76	*	2.951E-01	2.469E-01	2.464E-01	4.653E-02	1.197
		163.35		1.410E-01	3.708E-01	6.162E-01	1.192E-01	0.229
	+	185.71		1.965E-01	6.122E-02	5.721E-02	5.357E-03	3.435
		205.31		-1.957E-01	4.708E-01	6.533E-01	1.283E-01	-0.300
NP-237	+	86.50	*	1.106E+00	3.219E-01	2.058E-01	4.781E-02	5.375
		95.87		1.347E-01	5.890E-01	9.187E-01	2.355E-01	0.147
U-238	+	63.29	*	3.609E+00	1.115E+00	6.742E-01	1.255E-01	5.352
	+	92.38		3.990E+00	6.726E-01	4.567E-01	5.012E-02	8.737
AM-243	+	74.67	*	3.324E-01	4.958E-02	4.259E-02	4.326E-03	7.804
	+	86.72		4.149E+01	8.510E+00	7.339E+00	7.837E-01	5.653
		117.66		-1.944E+00	2.541E+00	4.140E+00	5.205E-01	-0.469
		142.18		-1.577E+01	1.443E+01	1.983E+01	2.239E+00	-0.795
ANH-511	+	511.00	*	1.254E-01	6.652E-02	4.122E-02	4.242E-03	3.042

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.201E-02	3.071E-01	5.030E-01	5.325E-02	0.044
NA-22		1274.54	*	-2.457E-02	4.588E-02	7.134E-02	5.849E-03	-0.344
NA-24		1368.53	*	-5.249E-01	4.588E-02	Half-Life too short		
AL-26		1129.67		-5.002E-01	1.729E+00	2.803E+00	2.393E-01	-0.178
		1808.65	*	4.288E-03	2.856E-02	4.853E-02	3.977E-03	0.088
TI-44		67.85		1.446E-02	1.861E-02	3.006E-02	2.992E-03	0.481
	+	78.38	*	3.505E-01	4.533E-02	3.919E-02	4.036E-03	8.945
SC-46		889.25	*	3.489E-03	3.984E-02	6.535E-02	6.259E-03	0.053
	+	1120.51		2.250E-01	8.465E-02	1.309E-01	1.125E-02	1.719
V-48		944.10		2.013E-01	9.105E-01	1.504E+00	1.411E-01	0.134
		983.50	*	6.780E-02	7.207E-02	1.263E-01	1.170E-02	0.537
		1312.09		3.777E-02	7.567E-02	1.311E-01	1.069E-02	0.288
CR-51		320.08	*	2.327E-01	3.110E-01	5.440E-01	6.041E-02	0.428
MN-52		744.21		1.127E-01	2.379E-01	4.082E-01	4.411E-02	0.276
		848.13		-2.226E+00	6.675E+00	1.056E+01	1.058E+00	-0.211
		935.52		2.288E-01	2.509E-01	4.400E-01	4.137E-02	0.520
		1246.25		4.323E+00	7.704E+00	1.329E+01	1.091E+00	0.325
		1333.61		-6.937E-01	5.197E+00	8.242E+00	6.695E-01	-0.084
		1434.06	*	1.402E-02	2.184E-01	3.584E-01	2.953E-02	0.039
MN-54		834.83	*	1.358E-02	4.033E-02	6.770E-02	6.870E-03	0.201
CO-56		846.75	*	-3.557E-02	3.785E-02	5.580E-02	5.599E-03	-0.637
		977.42		-3.486E+00	3.362E+00	4.438E+00	4.121E-01	-0.786
		1037.82		-1.766E-01	2.957E-01	4.667E-01	4.429E-02	-0.378
		1175.09		-1.664E+00	2.290E+00	3.542E+00	2.915E-01	-0.470

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1238.25		1.094E-01	1.033E-01	1.818E-01	1.542E-02	0.602
		1360.21		-4.816E-01	8.789E-01	1.316E+00	1.073E-01	-0.366
		1771.40		-6.952E-01	3.291E-01	3.564E-01	2.934E-02	-1.951
CO-57		122.06	*	1.146E-02	1.710E-02	2.955E-02	3.811E-03	0.388
		136.48		4.120E-02	1.512E-01	2.560E-01	3.138E-02	0.161
CO-58		810.76	*	-1.375E-02	3.521E-02	5.549E-02	5.758E-03	-0.248
FE-59		142.65		-1.452E+00	2.277E+00	3.244E+00	3.649E-01	-0.448
		192.34		-3.815E-02	7.550E-01	1.230E+00	1.724E-01	-0.031
		1099.22	*	-5.951E-02	9.326E-02	1.463E-01	1.378E-02	-0.407
		1291.56		3.002E-02	1.310E-01	2.198E-01	2.065E-02	0.137
CO-60		1173.22		-2.751E-02	4.526E-02	7.081E-02	5.829E-03	-0.388
		1332.49	*	-1.123E-02	3.976E-02	6.185E-02	5.023E-03	-0.182
ZN-65		1115.52	*	-3.384E-02	1.100E-01	1.519E-01	1.312E-02	-0.223
GE-68		1077.35	*	-9.756E-03	1.252E+00	2.091E+00	1.851E-01	-0.005
AS-73		53.44	*	1.794E-01	1.687E-01	2.810E-01	2.698E-02	0.638
AS-74		595.88	*	-6.693E-02	8.924E-02	1.325E-01	1.436E-02	-0.505
		634.78		2.494E-01	3.380E-01	5.964E-01	6.559E-02	0.418
SE-75		66.05		-8.619E-01	1.987E+00	2.830E+00	3.261E-01	-0.305
		96.73		-3.026E-01	5.122E-01	7.649E-01	1.178E-01	-0.396
		121.11		2.979E-02	9.150E-02	1.564E-01	2.298E-02	0.190
		136.00		3.464E-03	2.842E-02	4.784E-02	5.676E-03	0.072
		198.60		-4.777E-02	1.412E+00	2.261E+00	2.373E-01	-0.021
		264.65	*	-1.108E-02	3.646E-02	5.691E-02	6.236E-03	-0.195
		279.53		1.671E-02	1.068E-01	1.522E-01	1.737E-02	0.110
		303.91		7.886E-01	1.809E+00	2.793E+00	3.718E-01	0.282
		400.65		1.166E-02	2.429E-01	4.030E-01	4.662E-02	0.029
BR-77	+	87.88		8.541E+02	1.752E+02	2.297E+02	2.467E+01	3.718
		200.40		-6.032E+01	1.351E+02	2.149E+02	2.082E+01	-0.281
	+	239.00		2.815E+02	3.398E+01	3.697E+01	3.871E+00	7.615
		249.79		2.835E+01	5.663E+01	9.317E+01	9.941E+00	0.304
		281.68		2.474E+01	8.860E+01	1.275E+02	1.421E+01	0.194
		297.23		1.232E+02	7.254E+01	9.315E+01	1.026E+01	1.323
		303.76		7.191E+01	1.589E+02	2.457E+02	2.690E+01	0.293
		439.47		8.801E+01	1.364E+02	2.332E+02	2.246E+01	0.377
		484.57		-1.930E+02	2.071E+02	3.092E+02	3.113E+01	-0.624
		520.65	*	7.130E+00	1.039E+01	1.764E+01	1.829E+00	0.404
		574.64		1.179E+01	2.001E+02	3.221E+02	3.455E+01	0.037
		578.91		2.843E+01	9.064E+01	1.312E+02	1.410E+01	0.217
		585.48		9.663E+02	2.603E+02	4.369E+02	4.711E+01	2.212
		755.35		-1.323E+02	1.813E+02	2.804E+02	3.012E+01	-0.472
		817.79		9.218E+01	1.322E+02	2.299E+02	2.368E+01	0.401
SR-82		698.33		1.501E+00	3.507E+01	5.855E+01	6.438E+00	0.026
		776.49	*	-2.835E-01	4.130E-01	5.340E-01	5.667E-02	-0.531
		1395.20		-1.255E+01	1.008E+01	1.299E+01	1.065E+00	-0.967
RB-83		520.41	*	3.727E-02	6.678E-02	1.124E-01	1.165E-02	0.332
		529.64		2.868E-02	9.071E-02	1.504E-01	1.569E-02	0.191
		552.65		6.540E-03	1.759E-01	2.838E-01	3.006E-02	0.023
RB-84		881.50	*	3.532E-02	6.657E-02	1.139E-01	1.101E-02	0.310
KR-85		513.99	*	9.643E+00	7.345E+00	1.165E+01	1.202E+00	0.828

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		513.99	*	4.950E-02	3.770E-02	5.979E-02	6.168E-03	0.828
RB-86		1076.63	*	-1.915E-01	8.181E-01	1.339E+00	1.186E-01	-0.143
Y-88		898.02		-2.413E-02	4.531E-02	7.002E-02	6.660E-03	-0.345
		1836.01	*	1.926E-02	3.871E-02	6.892E-02	5.632E-03	0.279
ZR-88		392.90	*	1.781E-02	2.805E-02	4.822E-02	4.389E-03	0.369
Y-91		1204.90	*	-5.476E+00	2.052E+01	3.360E+01	2.765E+00	-0.163
NB-94		702.63	*	5.009E-03	3.688E-02	6.189E-02	6.797E-03	0.081
		871.10		-6.297E-03	3.184E-02	5.083E-02	4.972E-03	-0.124
NB-95		765.79	*	6.162E-02	4.739E-02	7.664E-02	8.186E-03	0.804
NB-95M		235.69	*	-1.544E-02	1.106E-01	1.567E-01	1.796E-02	-0.099
ZR-95		724.18		3.363E-02	1.092E-01	1.622E-01	1.865E-02	0.207
		756.15	*	-3.588E-02	7.453E-02	1.179E-01	1.350E-02	-0.304
NB-97		657.90	*	8.479E-02	7.453E-02	Half-Life too short		
		1024.50		6.047E+00	7.453E-02	Half-Life too short		
ZR-97		254.15		-3.850E+00	7.453E-02	Half-Life too short		
		355.39		-1.090E-01	7.453E-02	Half-Life too short		
		507.63	*	2.066E+00	7.453E-02	Half-Life too short		
		602.52		3.719E+00	7.453E-02	Half-Life too short		
		1021.30		-8.083E+00	7.453E-02	Half-Life too short		
		1147.95		1.854E+00	7.453E-02	Half-Life too short		
		1362.66		1.137E-01	7.453E-02	Half-Life too short		
		1750.46		-3.547E+00	7.453E-02	Half-Life too short		
MO-99		140.51		7.726E+00	2.122E+01	3.233E+01	9.276E+00	0.239
		181.06		-6.195E+00	1.564E+01	2.233E+01	4.153E+00	-0.277
		366.43		-1.259E+01	7.250E+01	1.195E+02	1.171E+01	-0.105
		739.58	*	-3.639E+00	1.190E+01	1.919E+01	3.173E+00	-0.190
		778.00		-8.861E+00	3.783E+01	5.235E+01	5.551E+00	-0.169
TC-99M		140.51	*	1.465E+10	3.783E+01	Half-Life too short		
RH-101		127.23		1.745E-02	2.541E-02	3.968E-02	4.966E-03	0.440
		198.01	*	-1.060E-02	2.662E-02	4.185E-02	4.032E-03	-0.253
		325.23		-2.419E-02	2.036E-01	2.994E-01	3.189E-02	-0.081
RH-102		418.52		1.431E-01	2.626E-01	4.477E-01	4.209E-02	0.320
		475.06	*	-8.760E-03	2.772E-02	4.411E-02	4.404E-03	-0.199
		631.29		1.025E-02	5.356E-02	9.117E-02	1.002E-02	0.112
		697.49		-3.114E-02	7.769E-02	1.254E-01	1.379E-02	-0.248
		766.84		8.050E-02	1.315E-01	1.992E-01	2.127E-02	0.404
		1046.59		-4.133E-02	1.149E-01	1.862E-01	1.677E-02	-0.222
		1112.84		1.001E-01	2.434E-01	3.922E-01	3.390E-02	0.255
RU-103		497.08	*	1.065E-02	3.951E-02	6.537E-02	9.910E-03	0.163
	+	610.33		1.269E+01	2.813E+00	2.884E+00	5.183E-01	4.400
RH-106	+	511.85		6.263E-01	3.323E-01	3.833E-01	3.948E-02	1.634
		621.84	*	-1.281E-01	2.900E-01	4.698E-01	7.031E-02	-0.273
		1050.47		-9.568E-01	2.299E+00	3.703E+00	3.329E-01	-0.258
RU-106	+	511.85		6.263E-01	3.323E-01	3.833E-01	3.948E-02	1.634
		621.84	*	-1.281E-01	2.897E-01	4.698E-01	5.144E-02	-0.273
		1050.47		-9.568E-01	2.299E+00	3.703E+00	3.329E-01	-0.258
AG-108M		433.93	*	-1.076E-02	2.930E-02	4.685E-02	4.629E-03	-0.230
		614.37		-1.935E-02	3.802E-02	5.241E-02	5.864E-03	-0.369
		722.95		-2.719E-02	4.687E-02	6.286E-02	7.024E-03	-0.432

---- Non-Identified Nuclides ----

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AG-110M		657.75	*	1.391E-02	3.965E-02	5.977E-02	6.735E-03	0.233
		677.61		-8.188E-03	2.969E-01	4.944E-01	5.556E-02	-0.017
		706.67		5.008E-02	2.238E-01	3.777E-01	4.214E-02	0.133
		763.93		2.977E-02	1.882E-01	2.741E-01	2.986E-02	0.109
		884.67		-2.901E-02	4.849E-02	7.401E-02	7.311E-03	-0.392
		937.48		-1.531E-01	1.154E-01	1.599E-01	1.549E-02	-0.957
		1384.27		-2.943E-02	1.457E-01	2.305E-01	1.946E-02	-0.128
IN-111		171.28		4.641E-01	7.500E-01	1.272E+00	1.149E-01	0.365
		245.39	*	2.210E-01	9.985E-01	1.448E+00	1.533E-01	0.153
IN-113M		391.69	*	4.339E-03	3.984E-02	6.649E-02	6.210E-03	0.065
SN-113		391.69	*	4.339E-03	3.984E-02	6.649E-02	6.210E-03	0.065
IN-114M		190.27	*	-5.027E-02	1.490E-01	2.277E-01	2.155E-02	-0.221
CD-115		260.90		-9.189E-01	1.145E+02	1.824E+02	1.982E+01	-0.005
		492.35		-2.265E+01	3.700E+01	5.726E+01	5.806E+00	-0.395
		527.90	*	2.013E-02	9.730E+00	1.571E+01	1.637E+00	0.001
SN-117M		156.02		-1.879E+00	1.749E+00	2.748E+00	2.740E-01	-0.684
		158.56	*	1.232E-02	4.131E-02	6.936E-02	6.734E-03	0.178
SB-122		563.90	*	6.732E-01	2.197E+00	3.604E+00	3.843E-01	0.187
		692.80		-3.341E-01	4.429E+01	7.373E+01	8.119E+00	-0.005
I-123		159.00	*	3.036E+00	4.429E+01	Half-Life too short		
		528.96		1.946E+02	4.429E+01	Half-Life too short		
TE-123M		159.00	*	1.312E-02	2.142E-02	3.641E-02	3.535E-03	0.360
I-124		602.71	*	2.737E-01	6.598E-01	1.052E+00	1.143E-01	0.260
		722.78		-2.895E+00	4.932E+00	6.604E+00	7.202E-01	-0.438
		1325.50		2.239E+01	3.565E+01	6.242E+01	5.075E+00	0.359
		1376.25		-4.561E+00	3.234E+01	5.189E+01	4.245E+00	-0.088
		1509.49		6.381E+00	1.777E+01	3.004E+01	2.491E+00	0.212
		1691.02		-7.380E-01	3.007E+00	4.711E+00	3.906E-01	-0.157
SB-124		602.71		1.565E-02	3.773E-02	6.015E-02	6.539E-03	0.260
		645.85		-2.263E-01	4.951E-01	8.003E-01	9.158E-02	-0.283
		709.31		-1.776E-01	2.877E+00	4.760E+00	5.216E-01	-0.037
		713.82		-1.864E-01	1.636E+00	2.694E+00	3.716E-01	-0.069
		722.78		-2.399E-01	4.088E-01	5.474E-01	6.050E-02	-0.438
	+	968.20		1.409E+01	5.089E+00	7.267E+00	6.770E-01	1.939
		1045.16		9.494E-01	2.429E+00	4.209E+00	3.795E-01	0.226
		1325.50		1.982E+00	3.156E+00	5.526E+00	4.493E-01	0.359
		1368.21		-1.408E+00	1.699E+00	2.428E+00	3.203E-01	-0.580
		1436.60		-1.834E+00	3.629E+00	5.433E+00	4.479E-01	-0.338
		1691.02	*	-1.443E-02	5.880E-02	9.211E-02	7.962E-03	-0.157
SB-125		427.89	*	3.206E-02	8.526E-02	1.437E-01	1.388E-02	0.223
	+	463.38		1.113E+00	3.905E-01	5.264E-01	5.511E-02	2.114
		600.56		3.217E-02	1.711E-01	2.771E-01	3.151E-02	0.116
		635.90		-3.176E-02	2.621E-01	4.360E-01	5.038E-02	-0.073
TE-125M		109.28	*	2.666E-01	6.118E+00	1.041E+01	1.383E+00	0.026
I-126		388.63		-3.789E-02	1.828E-01	2.955E-01	2.713E-02	-0.128
		666.33	*	1.025E-01	2.020E-01	3.087E-01	3.418E-02	0.332
		753.82		3.795E-01	1.559E+00	2.616E+00	2.813E-01	0.145
SB-126		223.80		1.716E-01	3.241E+00	5.248E+00	5.341E-01	0.033
	+	278.60		2.876E+00	3.418E+00	3.824E+00	4.264E-01	0.752

---- Non-Identified Nuclides ----

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	+	296.50		1.121E+01	2.188E+00	3.042E+00	3.354E-01	3.685
		414.70		-6.639E-03	7.079E-02	1.161E-01	1.086E-02	-0.057
		415.30		1.457E+00	5.845E+00	9.792E+00	9.171E-01	0.149
		555.20		-1.957E+00	3.643E+00	5.563E+00	5.901E-01	-0.352
		573.80		-2.244E-01	1.010E+00	1.588E+00	1.702E-01	-0.141
		593.00		-7.147E-03	8.966E-01	1.431E+00	1.548E-01	-0.005
		656.30		-3.891E-01	3.855E+00	5.553E+00	6.143E-01	-0.070
		666.33		4.286E-02	8.441E-02	1.290E-01	1.428E-02	0.332
		675.00		-7.512E-01	1.863E+00	3.005E+00	3.321E-01	-0.250
		695.00		-3.527E-02	7.570E-02	1.213E-01	1.335E-02	-0.291
		697.00		-3.336E-02	2.675E-01	4.411E-01	4.852E-02	-0.076
		720.50	*	-8.305E-02	1.738E-01	2.373E-01	2.590E-02	-0.350
		856.80		5.032E-02	4.903E-01	7.022E-01	6.974E-02	0.072
		989.30		-3.381E-01	1.321E+00	2.071E+00	1.915E-01	-0.163
		1034.80		1.660E+00	8.230E+00	1.407E+01	1.275E+00	0.118
		1213.00		-4.162E-01	5.004E+00	8.212E+00	6.756E-01	-0.051
SB-127		61.10		5.974E-01	1.924E+01	2.828E+01	3.439E+00	0.021
		252.40		-3.554E+00	4.027E+00	5.619E+00	2.389E+00	-0.633
		290.80		-1.156E+01	2.093E+01	3.010E+01	3.967E+00	-0.384
		411.60		2.220E+00	1.160E+01	1.937E+01	3.127E+00	0.115
		444.90		3.775E+00	9.302E+00	1.566E+01	2.085E+00	0.241
		473.00		1.661E-01	1.522E+00	2.502E+00	3.460E-01	0.066
		543.00		-1.160E+01	1.655E+01	2.433E+01	3.805E+00	-0.477
		603.60		-2.052E+00	1.212E+01	1.750E+01	2.481E+00	-0.117
		685.20	*	6.748E-02	1.363E+00	2.282E+00	3.041E-01	0.030
		698.50		3.734E+00	1.579E+01	2.669E+01	4.604E+00	0.140
		722.20		-3.336E+01	3.509E+01	4.470E+01	5.827E+00	-0.746
		783.80		1.691E+00	3.787E+00	6.442E+00	8.930E-01	0.263
XE-127		57.60		-4.293E-01	1.540E+00	2.431E+00	2.370E-01	-0.177
	+	145.22		9.771E-01	8.039E-01	9.031E-01	9.950E-02	1.082
		172.10		3.671E-03	8.913E-02	1.471E-01	1.332E-02	0.025
		202.84	*	4.531E-04	3.774E-02	6.145E-02	5.985E-03	0.007
		374.96		4.323E-02	1.777E-01	3.000E-01	2.873E-02	0.144
I-131		80.18		1.954E+00	2.993E+00	3.914E+00	4.079E-01	0.499
		284.30		-8.589E-01	1.340E+00	2.027E+00	2.327E-01	-0.424
		364.48	*	-6.729E-02	9.862E-02	1.567E-01	1.608E-02	-0.429
		636.97		-1.019E+00	1.517E+00	2.409E+00	2.743E-01	-0.423
		722.89		-4.326E+00	7.904E+00	1.064E+01	1.165E+00	-0.406
TE-132		49.72		-7.511E-01	3.025E+00	4.438E+00	5.155E-01	-0.169
		111.76		5.244E+00	2.045E+01	3.501E+01	4.853E+00	0.150
		116.30		7.088E+00	1.884E+01	3.232E+01	4.570E+00	0.219
		228.16	*	-8.761E-02	5.644E-01	9.016E-01	1.505E-01	-0.097
BA-133		53.15		4.053E-01	7.142E-01	1.172E+00	1.124E-01	0.346
		79.62		-1.073E+00	8.995E-01	1.025E+00	1.667E-01	-1.047
		81.00		-8.535E-02	7.012E-02	7.938E-02	1.343E-02	-1.075
	+	276.40		4.274E-01	5.103E-01	5.713E-01	9.176E-02	0.748
		302.84		4.196E-02	1.247E-01	1.911E-01	2.850E-02	0.220
		356.01	*	-3.053E-03	4.067E-02	5.943E-02	8.426E-03	-0.051
		383.85		2.025E-02	2.662E-01	4.442E-01	5.817E-02	0.046

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I-133	+	510.53		1.388E+00	2.662E-01	Half-Life too short		
		529.87	*	-2.458E-04	2.662E-01	Half-Life too short		
		706.58		1.497E-01	2.662E-01	Half-Life too short		
		856.28		-1.097E-01	2.662E-01	Half-Life too short		
		875.33		6.477E-02	2.662E-01	Half-Life too short		
		1236.41		6.891E-01	2.662E-01	Half-Life too short		
		1298.22		-1.893E-02	2.662E-01	Half-Life too short		
CS-134		475.35		-6.342E-02	1.791E+00	2.911E+00	2.907E-01	-0.022
		563.23		1.070E-01	3.739E-01	6.126E-01	6.570E-02	0.175
		569.32		-4.199E-02	1.962E-01	3.090E-01	3.334E-02	-0.136
		604.70		-2.347E-02	3.505E-02	4.774E-02	5.202E-03	-0.492
	+	795.84	*	1.253E-01	8.276E-02	9.738E-02	1.025E-02	1.287
		801.93		-1.848E-01	4.551E-01	6.799E-01	7.117E-02	-0.272
		1038.57		-1.842E+00	3.716E+00	5.933E+00	5.367E-01	-0.311
		1167.94		1.988E+00	2.700E+00	4.731E+00	3.913E-01	0.420
		1365.15		4.022E-02	1.103E+00	1.811E+00	1.554E-01	0.022
CS-135		268.24	*	1.295E-01	1.447E-01	2.181E-01	2.633E-02	0.594
I-135		288.45		1.234E+10	1.447E-01	Half-Life too short		
		417.63		2.533E+10	1.447E-01	Half-Life too short		
		546.56		4.575E+09	1.447E-01	Half-Life too short		
		836.80		5.687E+09	1.447E-01	Half-Life too short		
		1038.76		-5.597E+09	1.447E-01	Half-Life too short		
		1124.00		2.305E+10	1.447E-01	Half-Life too short		
		1131.51		4.163E+09	1.447E-01	Half-Life too short		
		1260.41	*	-2.398E+09	1.447E-01	Half-Life too short		
		1457.56		9.138E+11	1.447E-01	Half-Life too short		
		1678.03		-8.752E+09	1.447E-01	Half-Life too short		
		1706.46		1.192E+10	1.447E-01	Half-Life too short		
		1791.20		-8.047E+09	1.447E-01	Half-Life too short		
CS-136		66.91		-1.603E-01	3.408E-01	4.835E-01	7.835E-02	-0.332
	+	86.29		4.944E+00	1.118E+00	1.274E+00	1.821E-01	3.881
		153.22		6.381E-01	5.086E-01	8.809E-01	9.798E-02	0.724
		163.89		3.364E-01	8.509E-01	1.417E+00	1.434E-01	0.237
		176.55		1.082E-01	2.830E-01	4.736E-01	4.558E-02	0.228
		273.65		-2.202E-01	5.933E-01	6.172E-01	7.111E-02	-0.357
		340.57		1.206E-01	1.233E-01	1.942E-01	2.057E-02	0.621
		818.51		4.715E-02	7.284E-02	1.261E-01	1.299E-02	0.374
		1048.07	*	-5.818E-02	1.070E-01	1.700E-01	1.590E-02	-0.342
		1235.34		2.621E-01	6.628E-01	1.123E+00	1.298E-01	0.233
CE-139		165.85	*	-5.156E-03	2.301E-02	3.761E-02	3.354E-03	-0.137
BA-140		162.64		2.110E-01	5.988E-01	9.963E-01	9.705E-02	0.212
		304.84		-1.235E-02	1.128E+00	1.684E+00	4.852E-01	-0.007
		423.70		-5.474E-01	1.778E+00	2.853E+00	9.315E-01	-0.192
		537.32	*	-7.514E-03	2.495E-01	3.965E-01	1.335E-01	-0.019
LA-140	+	328.77		4.242E-01	3.904E-01	4.707E-01	5.174E-02	0.901
		432.53		-1.431E+00	1.876E+00	2.906E+00	2.888E-01	-0.493
		487.03		2.917E-02	1.194E-01	1.981E-01	2.090E-02	0.147
		751.79		1.460E+00	1.700E+00	2.990E+00	3.443E-01	0.488
		815.85		7.641E-02	3.081E-01	5.170E-01	5.769E-02	0.148

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		867.82		7.399E-01	1.321E+00	2.268E+00	2.318E-01	0.326
		919.63		1.356E-01	3.265E+00	4.595E+00	5.201E-01	0.030
		925.24		4.711E-01	1.179E+00	1.981E+00	1.965E-01	0.238
		1596.49	*	3.112E-02	8.036E-02	1.260E-01	1.047E-02	0.247
CE-143		57.37		-1.226E-04	8.036E-02	Half-Life too short		
		231.56		3.531E-04	8.036E-02	Half-Life too short		
		293.26	*	3.483E-04	8.036E-02	Half-Life too short		
	+	350.59		2.786E-02	8.036E-02	Half-Life too short		
		490.36		-9.523E-04	8.036E-02	Half-Life too short		
		664.57		2.043E-03	8.036E-02	Half-Life too short		
		721.93		-1.571E-03	8.036E-02	Half-Life too short		
CE-144		80.11		7.841E-01	1.360E+00	1.772E+00	1.838E-01	0.443
		133.54	*	-5.083E-02	1.536E-01	2.417E-01	4.274E-02	-0.210
PM-144		476.78		3.411E-03	6.381E-02	1.044E-01	1.117E-02	0.033
		618.01		3.377E-02	2.884E-02	5.229E-02	5.816E-03	0.646
		696.49	*	-1.045E-02	3.428E-02	5.574E-02	6.133E-03	-0.187
		778.57		1.912E-01	2.442E+00	3.522E+00	3.734E-01	0.054
PR-144		696.49	*	-7.080E-01	2.323E+00	3.777E+00	4.155E-01	-0.187
		1489.15		-3.451E+00	9.697E+00	1.458E+01	1.208E+00	-0.237
PM-146		453.90	*	3.972E-02	4.249E-02	7.341E-02	8.572E-03	0.541
		633.02		9.179E-02	1.363E+00	2.299E+00	8.733E-01	0.040
		735.90		3.833E-02	1.442E-01	2.433E-01	7.142E-02	0.158
		747.13		-2.190E-02	9.277E-02	1.504E-01	2.326E-02	-0.146
ND-147	+	91.11		7.131E-01	2.116E-01	3.362E-01	3.858E-02	2.121
		319.41		5.959E-01	2.794E+00	4.764E+00	5.119E-01	0.125
		439.89		2.155E+00	5.480E+00	9.226E+00	8.892E-01	0.234
		531.02	*	-2.177E-01	5.168E-01	8.020E-01	1.289E-01	-0.272
PM-149		285.90	*	-7.466E+01	8.794E+01	1.302E+02	2.221E+01	-0.573
EU-152		121.78		4.111E-02	4.921E-02	8.541E-02	1.177E-02	0.481
		244.69		9.659E-02	3.022E-01	4.413E-01	4.668E-02	0.219
		344.27	*	5.949E-02	8.623E-02	1.405E-01	1.509E-02	0.423
		443.98		3.122E-01	8.708E-01	1.463E+00	1.416E-01	0.213
		778.89		3.640E-02	2.830E-01	4.107E-01	4.352E-02	0.089
		867.32		2.173E-01	7.986E-01	1.336E+00	1.312E-01	0.163
	+	964.01		7.318E-01	3.658E-01	5.955E-01	5.555E-02	1.229
		1085.78		1.748E-01	3.854E-01	6.697E-01	5.897E-02	0.261
		1112.02		9.605E-02	3.293E-01	5.510E-01	4.766E-02	0.174
		1407.95		8.613E-02	1.801E-01	3.111E-01	2.556E-02	0.277
GD-153		69.67		-5.557E-01	7.212E-01	1.103E+00	1.102E-01	-0.504
	+	83.37		1.959E+01	1.260E+01	1.463E+01	1.539E+00	1.339
		97.43	*	-3.448E-02	5.442E-02	8.059E-02	9.076E-03	-0.428
		103.18		-3.502E-02	6.465E-02	1.077E-01	1.250E-02	-0.325
EU-154		123.07		5.096E-04	3.568E-02	6.020E-02	8.914E-03	0.008
		247.94		-7.207E-02	3.135E-01	4.952E-01	6.466E-02	-0.146
		591.81		1.017E-01	5.893E-01	9.552E-01	1.278E-01	0.106
		723.30		-1.057E-01	1.965E-01	2.651E-01	3.084E-02	-0.399
		756.87		-5.395E-02	7.889E-01	1.296E+00	1.760E-01	-0.042
		873.19		-3.603E-02	2.718E-01	4.367E-01	5.709E-02	-0.083
		996.32		-2.831E-01	4.106E-01	6.120E-01	1.106E-01	-0.463

---- Non-Identified Nuclides ----

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		1004.76		-1.029E-01	2.532E-01	3.920E-01	4.730E-02	-0.263
		1274.45	*	-3.891E-02	1.249E-01	1.988E-01	2.185E-02	-0.196
EU-155		48.70		-7.285E-02	3.288E-01	4.838E-01	4.605E-02	-0.151
		60.01		9.327E-01	1.539E+00	2.325E+00	2.288E-01	0.401
	+	86.54		4.538E-01	9.325E-02	1.196E-01	1.285E-02	3.792
		105.31	*	3.284E-02	6.932E-02	1.199E-01	1.418E-02	0.274
TB-160	+	86.79		1.213E+00	2.489E-01	3.267E-01	3.490E-02	3.714
		197.04		-2.601E-01	4.465E-01	6.943E-01	6.675E-02	-0.375
		215.65		1.766E-01	5.965E-01	9.804E-01	9.814E-02	0.180
	+	298.57		2.299E-01	1.525E-01	1.772E-01	1.950E-02	1.297
		879.36	*	3.188E-02	1.311E-01	2.187E-01	2.119E-02	0.146
		962.29		8.778E-01	6.274E-01	1.009E+00	9.414E-02	0.870
	+	966.15		5.030E-01	2.514E-01	5.148E-01	4.799E-02	0.977
		1177.93		-2.471E-01	3.861E-01	6.041E-01	4.973E-02	-0.409
		1271.85		9.400E-02	7.029E-01	1.172E+00	9.598E-02	0.080
HO-166M		80.57		3.214E-02	1.761E-01	2.240E-01	2.328E-02	0.143
		184.41		7.374E-02	3.589E-02	5.851E-02	5.461E-03	1.260
		280.46		1.551E-02	8.121E-02	1.161E-01	1.295E-02	0.134
		410.95		1.820E-01	2.302E-01	3.971E-01	3.699E-02	0.458
		711.68	*	-4.325E-02	6.178E-02	9.679E-02	1.060E-02	-0.447
		752.31		1.419E-01	2.768E-01	4.753E-01	5.115E-02	0.299
		810.29		-4.973E-02	5.436E-02	8.062E-02	8.353E-03	-0.617
TM-171		51.35		-6.738E+00	5.227E+00	7.873E+00	7.518E-01	-0.856
		52.39		2.472E+00	2.935E+00	4.865E+00	4.657E-01	0.508
		59.40		1.684E-01	8.200E+00	1.207E+01	1.187E+00	0.014
		66.72	*	-6.859E+00	1.213E+01	1.715E+01	1.703E+00	-0.400
LU-176	+	88.36		8.936E-01	1.833E-01	2.280E-01	2.454E-02	3.918
		201.83		1.480E-02	2.255E-02	3.782E-02	3.675E-03	0.391
		306.84	*	-8.961E-03	1.973E-02	3.244E-02	3.540E-03	-0.276
		401.10		-3.709E-01	6.374E+00	1.051E+01	9.667E-01	-0.035
LU-177		112.95		-2.593E-01	1.125E+00	1.890E+00	2.315E-01	-0.137
	+	208.36	*	3.433E+00	1.256E+00	1.799E+00	1.774E-01	1.908
LU-177M		52.97		2.983E-01	3.142E-01	5.221E-01	5.005E-02	0.571
		54.07		2.217E-01	1.780E-01	2.981E-01	2.866E-02	0.744
		61.30		-8.676E-02	4.957E-01	7.211E-01	7.100E-02	-0.120
		121.62		1.122E-01	2.546E-01	4.369E-01	5.617E-02	0.257
		147.16		9.209E-02	5.282E-01	7.971E-01	8.640E-02	0.116
		171.86		1.966E-01	3.533E-01	5.972E-01	5.403E-02	0.329
		218.09		-2.263E-01	6.948E-01	1.104E+00	1.111E-01	-0.205
	+	268.79		2.066E+00	1.006E+00	1.230E+00	1.352E-01	1.680
		319.02		1.668E-03	2.165E-01	3.650E-01	3.924E-02	0.005
		367.43		1.778E-01	7.428E-01	1.257E+00	1.229E-01	0.141
		413.65	*	-1.228E-01	1.679E-01	2.635E-01	2.463E-02	-0.466
HF-181		56.28		-3.467E-02	2.199E-01	3.495E-01	3.388E-02	-0.099
		57.53		-5.167E-02	1.296E-01	2.035E-01	1.983E-02	-0.254
		65.20		9.723E-02	3.705E-01	5.462E-01	5.406E-02	0.178
		133.02		-4.427E-03	5.234E-02	7.848E-02	9.468E-03	-0.056
		136.25		1.282E-01	3.303E-01	5.617E-01	6.628E-02	0.228
		345.85		-1.237E-01	1.862E-01	2.586E-01	2.657E-02	-0.478

---- Non-Identified Nuclides ----

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		482.03	*	-3.864E-02	3.786E-02	5.610E-02	5.637E-03	-0.689
W-181		56.28		-1.354E-02	8.601E-02	1.367E-01	1.325E-02	-0.099
		57.53		-2.024E-02	5.070E-02	7.961E-02	7.758E-03	-0.254
		65.20	*	3.775E-02	1.438E-01	2.120E-01	2.099E-02	0.178
TA-182		67.75		1.846E-02	4.477E-02	7.149E-02	7.113E-03	0.258
		100.10		1.519E-02	1.133E-01	1.916E-01	2.188E-02	0.079
		152.43		1.035E-01	2.631E-01	4.440E-01	4.588E-02	0.233
		222.10		-8.259E-02	2.803E-01	4.454E-01	4.517E-02	-0.185
		1001.68		7.273E-01	2.369E+00	3.876E+00	3.566E-01	0.188
	+	1121.28		6.213E-01	2.337E-01	3.561E-01	3.059E-02	1.745
		1189.05		-1.315E-01	3.308E-01	5.293E-01	4.356E-02	-0.248
		1221.42	*	-1.804E-01	2.100E-01	3.211E-01	2.641E-02	-0.562
		1230.97		2.622E-02	5.188E-01	8.591E-01	7.062E-02	0.031
RE-183		57.98		-4.573E-03	5.166E-02	8.221E-02	8.028E-03	-0.056
		59.32		7.243E-03	3.318E-02	4.931E-02	4.846E-03	0.147
		67.20		2.619E-02	8.562E-02	1.262E-01	1.254E-02	0.208
		162.32	*	1.331E-02	8.657E-02	1.429E-01	1.330E-02	0.093
	+	208.81		3.056E+00	1.118E+00	1.613E+00	1.591E-01	1.895
		291.72		-1.109E+00	9.248E-01	1.258E+00	1.392E-01	-0.882
RE-184		57.98		-1.684E-02	1.902E-01	3.028E-01	2.957E-02	-0.056
		59.32		2.665E-02	1.221E-01	1.814E-01	1.783E-02	0.147
		67.20		9.643E-02	3.152E-01	4.646E-01	4.616E-02	0.208
		161.27		-2.852E-01	2.775E-01	4.359E-01	4.107E-02	-0.654
		216.55		6.700E-02	2.131E-01	3.504E-01	3.514E-02	0.191
		252.85	*	-2.104E-01	1.983E-01	2.943E-01	3.156E-02	-0.715
		318.01		-1.373E-01	3.780E-01	6.239E-01	6.715E-02	-0.220
		792.07		1.102E+00	1.154E+00	1.812E+00	1.903E-01	0.608
		903.28		3.003E-01	1.155E+00	1.813E+00	1.716E-01	0.166
		920.93		7.626E-02	4.544E-01	7.295E-01	6.882E-02	0.105
OS-185		59.72		4.939E-02	9.033E-02	1.362E-01	1.340E-02	0.363
		61.14		-7.836E-03	5.427E-02	7.908E-02	7.786E-03	-0.099
		69.30		-6.207E-02	1.266E-01	1.961E-01	1.959E-02	-0.317
		592.07		3.666E-01	2.404E+00	3.889E+00	4.207E-01	0.094
		646.12	*	-1.382E-02	4.252E-02	6.951E-02	7.670E-03	-0.199
		717.42		5.392E-01	9.059E-01	1.568E+00	1.714E-01	0.344
		874.81		2.682E-01	5.292E-01	9.062E-01	8.827E-02	0.296
		880.27		-7.600E-02	7.430E-01	1.197E+00	1.159E-01	-0.063
RE-188		155.03	*	4.786E-02	1.293E-01	2.179E-01	2.195E-02	0.220
		477.96		1.644E+00	2.895E+00	4.903E+00	4.908E-01	0.335
		633.10		1.160E-01	2.751E+00	4.633E+00	5.093E-01	0.025
W-188	+	63.58		1.452E+02	3.856E+01	4.290E+01	4.235E+00	3.384
		227.08		-7.239E-01	1.036E+01	1.665E+01	1.705E+00	-0.043
		290.67	*	-3.145E+00	7.117E+00	1.034E+01	1.145E+00	-0.304
IR-192	+	295.96		8.543E-01	1.670E-01	2.490E-01	2.758E-02	3.431
		308.46		-6.565E-03	7.830E-02	1.317E-01	1.439E-02	-0.050
		316.51	*	-9.107E-04	2.855E-02	4.807E-02	5.192E-03	-0.019
		468.07		-3.200E-02	6.048E-02	9.084E-02	9.503E-03	-0.352
		604.41		-3.083E-01	4.757E-01	6.486E-01	9.476E-02	-0.475
		612.46		4.371E-01	7.073E-01	1.101E+00	1.315E-01	0.397

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AU-195		65.12		2.085E-02	6.654E-02	9.833E-02	9.730E-03	0.212
		66.83		-2.149E-02	4.050E-02	5.739E-02	5.698E-03	-0.375
	+	75.70		1.076E+00	1.605E-01	2.500E-01	2.548E-02	4.305
		98.88	*	5.496E-02	1.440E-01	2.457E-01	2.789E-02	0.224
	+	129.76		5.894E+00	3.189E+00	3.931E+00	4.843E-01	1.499
TL-200		367.94	*	1.471E-05	3.189E+00	Half-Life too short		
		579.30		2.010E-03	3.189E+00	Half-Life too short		
		828.27		3.955E-03	3.189E+00	Half-Life too short		
		1205.75		-4.826E-04	3.189E+00	Half-Life too short		
TL-201		68.90		9.329E-02	2.055E+00	3.253E+00	3.246E-01	0.029
		70.82		-3.614E-01	1.342E+00	1.924E+00	1.930E-01	-0.188
		80.30		1.530E+00	3.347E+00	4.328E+00	4.492E-01	0.353
		135.34		2.395E+00	1.841E+01	3.101E+01	3.682E+00	0.077
		167.43	*	-9.643E-01	5.332E+00	8.725E+00	7.805E-01	-0.111
TL-202		68.90		8.239E-03	1.815E-01	2.873E-01	2.867E-02	0.029
		70.82		-3.183E-02	1.182E-01	1.694E-01	1.700E-02	-0.188
		80.30		1.348E-01	2.949E-01	3.814E-01	3.958E-02	0.353
		439.56	*	2.851E-02	6.528E-02	1.102E-01	1.062E-02	0.259
BI-207		72.80		1.028E-02	9.089E-02	1.324E-01	1.336E-02	0.078
	+	74.97		5.967E-01	8.900E-02	1.260E-01	1.281E-02	4.735
	+	84.90		2.533E-01	1.630E-01	1.874E-01	1.984E-02	1.352
		569.67		-4.245E-03	3.075E-02	4.876E-02	5.215E-03	-0.087
		1063.62	*	-1.873E-02	5.095E-02	8.229E-02	7.345E-03	-0.228
		1770.23		9.877E-02	5.035E-01	7.499E-01	6.174E-02	0.132
TL-207		81.07		-1.942E-01	1.528E-01	1.747E-01	1.819E-02	-1.112
	+	83.78		1.670E-01	1.074E-01	1.286E-01	1.355E-02	1.298
		94.90		1.593E-01	1.415E-01	2.286E-01	2.541E-02	0.697
		122.32		3.327E-01	1.190E+00	2.029E+00	2.700E-01	0.164
	+	144.24		9.562E-01	7.878E-01	8.993E-01	1.072E-01	1.063
		154.21		1.723E-01	3.065E-01	5.201E-01	5.666E-02	0.331
	+	269.46		4.836E-01	2.356E-01	3.089E-01	3.443E-02	1.566
		323.87	*	-7.715E-01	6.452E-01	8.394E-01	1.577E-01	-0.919
	+	338.28		7.159E+00	1.842E+00	2.344E+00	3.197E-01	3.054
		445.03		1.625E+00	2.094E+00	3.600E+00	4.634E-01	0.451
PO-209		260.50		3.452E+00	8.180E+00	1.336E+01	1.450E+00	0.258
		262.80		-3.367E+00	2.187E+01	3.450E+01	3.759E+00	-0.098
		896.60	*	-6.959E+00	7.871E+00	1.167E+01	1.108E+00	-0.596
PB-211		404.84	*	3.607E-01	9.065E-01	1.487E+00	9.331E-01	0.243
		427.08		9.547E-01	2.013E+00	3.267E+00	2.034E+00	0.292
		831.96		-8.612E-01	1.417E+00	2.028E+00	1.276E+00	-0.425
PO-215		81.07		-1.942E-01	1.528E-01	1.747E-01	1.819E-02	-1.112
	+	83.78		1.670E-01	1.074E-01	1.286E-01	1.355E-02	1.298
		94.90		1.593E-01	1.415E-01	2.286E-01	2.541E-02	0.697
		122.32		3.327E-01	1.190E+00	2.029E+00	2.700E-01	0.164
	+	144.24		9.562E-01	7.878E-01	8.993E-01	1.072E-01	1.063
		154.21		1.723E-01	3.065E-01	5.201E-01	5.666E-02	0.331
	+	269.46		4.836E-01	2.356E-01	3.089E-01	3.443E-02	1.566
		323.87	*	-7.715E-01	6.452E-01	8.394E-01	1.577E-01	-0.919
	+	338.28		7.159E+00	1.842E+00	2.344E+00	3.197E-01	3.054

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.625E+00	2.094E+00	3.600E+00	4.634E-01	0.451
RN-219	+	271.23		6.204E-01	3.041E-01	4.054E-01	5.027E-02	1.531
		401.81	*	-8.517E-02	3.951E-01	6.448E-01	9.911E-02	-0.132
RN-220		549.76	*	-2.380E+00	2.451E+01	3.910E+01	4.135E+00	-0.061
RA-223		81.07		-1.942E-01	1.528E-01	1.747E-01	1.819E-02	-1.112
	+	83.78		1.670E-01	1.074E-01	1.286E-01	1.355E-02	1.298
		94.90		1.593E-01	1.415E-01	2.286E-01	2.541E-02	0.697
		122.32		3.327E-01	1.190E+00	2.029E+00	2.700E-01	0.164
	+	144.24		9.562E-01	7.878E-01	8.993E-01	1.072E-01	1.063
		154.21		1.723E-01	3.065E-01	5.201E-01	5.666E-02	0.331
	+	269.46		4.836E-01	2.356E-01	3.089E-01	3.443E-02	1.566
		323.87	*	-7.715E-01	6.452E-01	8.394E-01	1.577E-01	-0.919
	+	338.28		7.159E+00	1.842E+00	2.344E+00	3.197E-01	3.054
		445.03		1.625E+00	2.094E+00	3.600E+00	4.634E-01	0.451
AC-227		79.80		2.416E-01	1.037E+00	1.323E+00	2.944E-01	0.183
		236.00		9.826E-02	2.098E-01	3.094E-01	4.197E-02	0.318
		256.20	*	1.279E-01	3.393E-01	5.521E-01	9.198E-02	0.232
		286.10		-1.048E+00	1.428E+00	2.143E+00	3.203E-01	-0.489
	+	299.80		2.925E+00	1.991E+00	2.380E+00	4.468E-01	1.229
		304.40		5.213E-01	1.621E+00	2.480E+00	4.867E-01	0.210
		334.20		1.289E-01	2.300E+00	3.420E+00	6.947E-01	0.038
TH-227		79.80		2.416E-01	1.037E+00	1.323E+00	2.979E-01	0.183
	+	94.00		1.542E+01	4.033E+00	2.627E+00	6.004E-01	5.870
		236.00		9.826E-02	2.098E-01	3.094E-01	3.874E-02	0.318
		256.20	*	1.279E-01	3.395E-01	5.521E-01	1.059E-01	0.232
		286.10		-1.048E+00	1.768E+00	2.143E+00	2.156E+00	-0.489
	+	299.80		2.925E+00	1.991E+00	2.380E+00	4.468E-01	1.229
		304.40		5.213E-01	1.621E+00	2.480E+00	4.867E-01	0.210
		334.20		1.289E-01	2.300E+00	3.420E+00	6.947E-01	0.038
TH-229	+	85.43		2.500E-01	1.608E-01	1.813E-01	1.925E-02	1.379
	+	88.47		5.144E-01	1.055E-01	1.290E-01	1.389E-02	3.987
		100.00		2.033E-02	1.177E-01	1.992E-01	2.274E-02	0.102
		193.63	*	2.655E-01	3.949E-01	6.648E-01	6.342E-02	0.399
		210.97		5.509E-01	6.720E-01	1.022E+00	1.013E-01	0.539
PA-231		283.67	*	-2.723E-01	1.340E+00	2.093E+00	3.503E-01	-0.130
	+	301.29		1.170E+00	7.830E-01	8.889E-01	1.245E-01	1.316
TH-231		81.07		-1.942E-01	1.528E-01	1.747E-01	1.819E-02	-1.112
	+	83.78		1.670E-01	1.074E-01	1.286E-01	1.355E-02	1.298
		94.90		1.593E-01	1.415E-01	2.286E-01	2.541E-02	0.697
		122.32		3.327E-01	1.190E+00	2.029E+00	2.700E-01	0.164
	+	144.24		9.562E-01	7.878E-01	8.993E-01	1.072E-01	1.063
		154.21		1.723E-01	3.065E-01	5.201E-01	5.666E-02	0.331
	+	269.46		4.836E-01	2.356E-01	3.089E-01	3.443E-02	1.566
		323.87	*	-7.715E-01	6.452E-01	8.394E-01	1.577E-01	-0.919
	+	338.28		7.159E+00	1.842E+00	2.344E+00	3.197E-01	3.054
		445.03		1.625E+00	2.094E+00	3.600E+00	4.634E-01	0.451
U-231	+	84.21		7.318E+00	4.708E+00	5.660E+00	5.975E-01	1.293
	+	92.29		1.549E+01	2.612E+00	3.326E+00	3.649E-01	4.658
		95.87	*	1.553E-01	6.782E-01	1.059E+00	1.183E-01	0.147

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-2.784E-01	1.398E+00	2.358E+00	2.810E-01	-0.118
PA-233	+	75.28		1.741E+01	3.411E+00	3.690E+00	6.006E-01	4.718
	+	86.59		7.376E+00	2.408E+00	1.954E+00	5.382E-01	3.775
	+	300.12		8.153E-01	5.501E-01	6.561E-01	1.073E-01	1.243
		311.98	*	6.927E-05	5.311E-02	8.968E-02	9.904E-03	0.001
		340.50		7.283E-01	6.249E-01	9.621E-01	2.360E-01	0.757
		398.62		-1.538E-01	1.947E+00	3.206E+00	8.598E-01	-0.048
		415.76		3.092E-01	1.535E+00	2.562E+00	5.602E-01	0.121
PA-234	+	63.00		4.206E+00	1.242E+00	1.230E+00	1.995E-01	3.420
		94.67		1.688E-01	1.068E-01	1.726E-01	2.457E-02	0.978
		98.44		3.146E-02	5.975E-02	9.803E-02	5.516E-02	0.321
		99.86		6.704E-02	2.982E-01	5.058E-01	5.769E-02	0.133
		111.00		-9.132E-03	1.236E-01	2.092E-01	3.093E-02	-0.044
		131.20		3.448E-02	8.226E-02	1.268E-01	1.548E-02	0.272
		152.70		2.477E-01	2.554E-01	4.348E-01	7.809E-02	0.570
	+	186.00		5.306E+00	2.295E+00	2.368E+00	7.442E-01	2.241
		226.40		6.065E-02	3.231E-01	5.264E-01	7.529E-02	0.115
		227.20		-5.953E-03	3.467E-01	5.585E-01	5.721E-02	-0.011
		248.90		3.413E-01	6.934E-01	1.134E+00	2.640E-01	0.301
	+	293.70		5.373E+00	1.322E+00	1.378E+00	2.568E-01	3.898
		369.80		-8.039E-02	7.237E-01	1.196E+00	2.660E-01	-0.067
		568.70		7.601E-01	9.589E-01	1.629E+00	1.742E-01	0.467
		569.50		-4.759E-02	2.722E-01	4.302E-01	4.601E-02	-0.111
		574.00		-3.637E-01	1.439E+00	2.256E+00	2.419E-01	-0.161
		699.00		1.175E-01	7.407E-01	1.246E+00	2.524E-01	0.094
		706.10		4.550E-01	1.134E+00	1.906E+00	8.598E-01	0.239
		733.00		-1.337E-01	4.398E-01	6.088E-01	1.410E-01	-0.220
		742.81		1.183E+00	1.528E+00	2.316E+00	1.564E+00	0.511
		796.30		1.683E+00	1.212E+00	1.838E+00	5.091E-01	0.916
		805.60		5.042E-02	9.872E-01	1.628E+00	5.080E-01	0.031
		819.60		-5.680E-02	1.238E+00	2.022E+00	7.772E-01	-0.028
		826.30		4.013E-02	8.432E-01	1.387E+00	6.252E-01	0.029
		831.60		-4.843E-01	6.907E-01	1.039E+00	3.151E-01	-0.466
		876.40		-5.052E-01	9.434E-01	1.197E+00	1.231E+00	-0.422
		880.51		-1.049E-02	2.648E-01	4.294E-01	4.155E-02	-0.024
		883.24		5.279E-02	2.714E-01	4.467E-01	3.009E-01	0.118
		899.00		1.013E-01	8.578E-01	1.407E+00	6.178E-01	0.072
		925.00		4.200E-01	1.200E+00	2.009E+00	1.894E-01	0.209
		926.50		1.072E-01	1.814E-01	3.069E-01	7.846E-02	0.349
		946.00	*	-1.245E-01	3.186E-01	4.943E-01	9.453E-02	-0.252
		949.00		5.578E-02	4.779E-01	7.808E-01	7.315E-02	0.071
		980.50		-9.294E-02	7.591E-01	1.208E+00	1.121E-01	-0.077
		1394.10		-2.786E-02	1.038E+00	1.683E+00	1.095E+00	-0.017
PA-234M		766.42		1.331E+01	1.478E+01	2.075E+01	1.061E+01	0.642
		1001.03	*	1.913E+00	5.242E+00	8.616E+00	9.024E-01	0.222
NP-236		94.67		1.309E-01	8.039E-02	1.312E-01	1.457E-02	0.998
		98.44		2.375E-02	4.322E-02	7.410E-02	8.389E-03	0.320
		111.00		-6.907E-03	9.349E-02	1.582E-01	1.917E-02	-0.044
		160.31	*	-1.296E-03	6.004E-02	9.933E-02	9.460E-03	-0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.078E-02	1.002E-01	1.700E-01	1.936E-02	0.122
		117.00	*	-1.283E-02	1.265E-01	2.131E-01	2.669E-02	-0.060
	+	209.75		2.408E+00	8.808E-01	1.253E+00	1.239E-01	1.921
		228.18		-2.858E-02	1.804E-01	2.882E-01	2.958E-02	-0.099
	+	277.60		2.086E-01	2.479E-01	2.799E-01	3.117E-02	0.745
		334.30		9.955E-02	1.305E+00	1.943E+00	2.040E-01	0.051
AM-241		59.54	*	4.464E-03	4.805E-02	7.097E-02	7.374E-03	0.063
CM-243		99.55		2.139E-02	1.031E-01	1.749E-01	1.992E-02	0.122
		103.76	*	-3.692E-02	6.031E-02	1.001E-01	1.166E-02	-0.369
		117.00		-1.320E-02	1.301E-01	2.192E-01	2.746E-02	-0.060
	+	209.75		2.374E+00	8.683E-01	1.236E+00	1.222E-01	1.921
		228.18		-2.888E-02	1.823E-01	2.913E-01	2.989E-02	-0.099
	+	277.60		2.103E-01	2.499E-01	2.822E-01	3.142E-02	0.745
AM-246		798.80		-1.360E-01	1.693E-01	2.166E-01	2.264E-02	-0.628
		1036.00		-1.599E-01	2.755E-01	4.349E-01	3.940E-02	-0.368
		1062.04		-2.780E-01	2.332E-01	3.449E-01	3.081E-02	-0.806
		1078.86	*	-2.743E-02	1.405E-01	2.306E-01	2.040E-02	-0.119
CM-247	+	278.00		8.649E-01	1.028E+00	1.160E+00	1.292E-01	0.746
		287.40		9.565E-01	1.139E+00	1.882E+00	2.090E-01	0.508
		402.60	*	2.743E-03	3.517E-02	5.844E-02	5.387E-03	0.047
CF-249		252.85		-7.892E-01	7.437E-01	1.104E+00	1.184E-01	-0.715
		333.44		1.572E-01	1.753E-01	2.601E-01	2.735E-02	0.604
		387.95	*	-4.304E-03	3.482E-02	5.658E-02	5.207E-03	-0.076
CF-251		176.60	*	4.035E-02	9.723E-02	1.629E-01	1.492E-02	0.248
		227.00		-2.552E-02	3.105E-01	4.984E-01	5.103E-02	-0.051
		285.00		-1.343E+00	1.609E+00	2.402E+00	2.671E-01	-0.559

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799010       *
* Acquisition date : 10-FEB-2010 17:20:47 Detector SN#    :                 *
* Detector ID       : GAM25               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.05     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799010           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.3727E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.825E+01	2.881E+00	4.292E-01	0.000E+00
CD-109	3.834E+00	7.707E-01	7.216E-01	0.000E+00
SN-126	3.768E-01	7.574E-02	7.078E-02	0.000E+00
BA-137M	6.559E-02	7.626E-02	6.016E-02	0.000E+00
CS-137	6.934E-02	8.062E-02	6.360E-02	0.000E+00
CE-141	8.864E-02	7.148E-02	7.966E-02	0.000E+00
HG-203	4.774E-02	5.561E-02	5.751E-02	0.000E+00
TL-208	4.933E-01	9.066E-02	5.569E-02	0.000E+00
BI-210	6.367E-01	6.500E-01	5.903E-01	0.000E+00
PB-210	6.367E-01	6.500E-01	5.903E-01	0.000E+00
PO-210	6.367E-01	6.495E-01	5.903E-01	0.000E+00
BI-211	3.332E+00	5.452E-01	2.763E-01	0.000E+00
BI-212	1.182E+00	5.235E-01	4.425E-01	0.000E+00
PB-212	1.700E+00	2.145E-01	7.747E-02	0.000E+00
PO-212	1.700E+00	2.145E-01	7.747E-02	0.000E+00
BI-214	1.173E+00	2.038E-01	9.806E-02	0.000E+00
PB-214	1.159E+00	1.987E-01	9.636E-02	0.000E+00
PO-214	1.159E+00	1.987E-01	9.636E-02	0.000E+00
PO-216	1.700E+00	2.145E-01	7.747E-02	0.000E+00
PO-218	1.159E+00	1.987E-01	9.636E-02	0.000E+00
RA-224	4.523E+00	1.328E+00	8.826E-01	0.000E+00
RA-226	1.173E+00	2.038E-01	9.806E-02	0.000E+00
AC-228	1.595E+00	3.621E-01	2.255E-01	0.000E+00
RA-228	1.595E+00	3.621E-01	2.255E-01	0.000E+00
TH-228	1.726E+00	2.178E-01	7.865E-02	0.000E+00
TH-230	1.173E+00	2.038E-01	9.806E-02	0.000E+00
TH-232	1.595E+00	3.621E-01	2.255E-01	0.000E+00
TH-234	3.609E+00	1.093E+00	7.175E-01	0.000E+00
U-234	1.173E+00	2.038E-01	9.806E-02	0.000E+00
U-235	2.951E-01	2.419E-01	2.584E-01	0.000E+00
NP-237	1.106E+00	3.155E-01	2.178E-01	0.000E+00
U-238	3.609E+00	1.093E+00	7.175E-01	0.000E+00
AM-243	3.324E-01	4.859E-02	4.520E-02	0.000E+00
ANH-511	1.254E-01	6.519E-02	4.220E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	2.201E-02	3.010E-01	5.156E-01	0.000E+00	NOT IDENT.
NA-22	-2.457E-02	4.496E-02	7.174E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.181E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	4.288E-03	2.799E-02	4.846E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.442E-02	4.155E-02	0.000E+00	FAIL ABUN
SC-46	3.489E-03	3.905E-02	6.619E-02	0.000E+00	FAIL ABUN
V-48	6.780E-02	7.063E-02	1.277E-01	0.000E+00	NOT IDENT.
CR-51	2.327E-01	3.048E-01	5.619E-01	0.000E+00	NOT IDENT.
MN-52	1.402E-02	2.141E-01	3.595E-01	0.000E+00	NOT IDENT.
MN-54	1.358E-02	3.952E-02	6.865E-02	0.000E+00	NOT IDENT.
CO-56	-3.557E-02	3.709E-02	5.658E-02	0.000E+00	NOT IDENT.
CO-57	1.146E-02	1.676E-02	3.108E-02	0.000E+00	NOT IDENT.
CO-58	-1.375E-02	3.451E-02	5.631E-02	0.000E+00	NOT IDENT.
FE-59	-5.951E-02	9.140E-02	1.476E-01	0.000E+00	NOT IDENT.
CO-60	-1.123E-02	3.897E-02	6.215E-02	0.000E+00	NOT IDENT.
ZN-65	-3.384E-02	1.078E-01	1.532E-01	0.000E+00	NOT IDENT.
GE-68	-9.756E-03	1.227E+00	2.110E+00	0.000E+00	NOT IDENT.
AS-73	1.794E-01	1.653E-01	3.000E-01	0.000E+00	NOT IDENT.
AS-74	-6.693E-02	8.746E-02	1.353E-01	0.000E+00	NOT IDENT.
SE-75	-1.108E-02	3.574E-02	5.900E-02	0.000E+00	NOT IDENT.
BR-77	7.130E+00	1.019E+01	1.805E+01	0.000E+00	FAIL ABUN
SR-82	-2.835E-01	4.048E-01	5.423E-01	0.000E+00	NOT IDENT.
RB-83	3.727E-02	6.544E-02	1.150E-01	0.000E+00	NOT IDENT.
RB-84	3.532E-02	6.524E-02	1.154E-01	0.000E+00	NOT IDENT.
KR-85	9.643E+00	7.198E+00	1.192E+01	0.000E+00	NOT IDENT.
SR-85	4.950E-02	3.695E-02	6.121E-02	0.000E+00	NOT IDENT.
RB-86	-1.915E-01	8.017E-01	1.351E+00	0.000E+00	NOT IDENT.
Y-88	1.926E-02	3.794E-02	6.880E-02	0.000E+00	NOT IDENT.
ZR-88	1.781E-02	2.749E-02	4.962E-02	0.000E+00	NOT IDENT.
Y-91	-5.476E+00	2.011E+01	3.383E+01	0.000E+00	NOT IDENT.
NB-94	5.009E-03	3.614E-02	6.298E-02	0.000E+00	NOT IDENT.
NB-95	6.162E-02	4.644E-02	7.785E-02	0.000E+00	NOT IDENT.
NB-95M	-1.544E-02	1.084E-01	1.628E-01	0.000E+00	NOT IDENT.
ZR-95	-3.588E-02	7.304E-02	1.198E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.177E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.004E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-3.639E+00	1.167E+01	1.951E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.946E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.060E-02	2.609E-02	4.362E-02	0.000E+00	NOT IDENT.
RH-102	-8.760E-03	2.716E-02	4.523E-02	0.000E+00	NOT IDENT.
RU-103	1.065E-02	3.872E-02	6.696E-02	0.000E+00	FAIL ABUN
RH-106	-1.281E-01	2.842E-01	4.791E-01	0.000E+00	FAIL ABUN
RU-106	-1.281E-01	2.839E-01	4.791E-01	0.000E+00	FAIL ABUN
AG-108M	-1.076E-02	2.871E-02	4.811E-02	0.000E+00	NOT IDENT.
AG-110M	1.391E-02	3.885E-02	6.089E-02	0.000E+00	NOT IDENT.
IN-111	2.210E-01	9.786E-01	1.503E+00	0.000E+00	NOT IDENT.
IN-113M	4.339E-03	3.904E-02	6.842E-02	0.000E+00	NOT IDENT.
SN-113	4.339E-03	3.904E-02	6.842E-02	0.000E+00	NOT IDENT.
IN-114M	-5.027E-02	1.460E-01	2.375E-01	0.000E+00	NOT IDENT.
CD-115	2.013E-02	9.535E+00	1.608E+01	0.000E+00	NOT IDENT.
SN-117M	1.232E-02	4.049E-02	7.259E-02	0.000E+00	NOT IDENT.
SB-122	6.732E-01	2.153E+00	3.683E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.857E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.312E-02	2.100E-02	3.810E-02	0.000E+00	NOT IDENT.
I-124	2.737E-01	6.466E-01	1.074E+00	0.000E+00	NOT IDENT.
SB-124	-1.443E-02	5.762E-02	9.211E-02	0.000E+00	FAIL ABUN
SB-125	3.206E-02	8.356E-02	1.476E-01	0.000E+00	FAIL ABUN
TE-125M	2.666E-01	5.996E+00	1.097E+01	0.000E+00	NOT IDENT.
I-126	1.025E-01	1.979E-01	3.144E-01	0.000E+00	NOT IDENT.
SB-126	-8.305E-02	1.703E-01	2.413E-01	0.000E+00	FAIL ABUN
SB-127	6.748E-02	1.336E+00	2.323E+00	0.000E+00	NOT IDENT.
XE-127	4.531E-04	3.699E-02	6.402E-02	0.000E+00	FAIL ABUN
I-131	-6.729E-02	9.665E-02	1.615E-01	0.000E+00	NOT IDENT.
TE-132	-8.761E-02	5.531E-01	9.373E-01	0.000E+00	NOT IDENT.
BA-133	-3.053E-03	3.986E-02	6.127E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.703E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.110E-02	9.884E-02	0.000E+00	FAIL ABUN
CS-135	1.295E-01	1.418E-01	2.261E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.548E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.818E-02	1.048E-01	1.716E-01	0.000E+00	FAIL ABUN
CE-139	-5.156E-03	2.255E-02	3.933E-02	0.000E+00	NOT IDENT.

BA-140	-7.514E-03	2.445E-01	4.056E-01	0.000E+00	NOT IDENT.
LA-140	3.112E-02	7.875E-02	1.261E-01	0.000E+00	FAIL ABUN
CE-143	0.000E+00	1.610E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.083E-02	1.505E-01	2.538E-01	0.000E+00	NOT IDENT.
PM-144	-1.045E-02	3.360E-02	5.673E-02	0.000E+00	NOT IDENT.
PR-144	-7.080E-01	2.277E+00	3.844E+00	0.000E+00	NOT IDENT.
PM-146	3.972E-02	4.164E-02	7.533E-02	0.000E+00	NOT IDENT.
ND-147	-2.177E-01	5.065E-01	8.205E-01	0.000E+00	FAIL ABUN
PM-149	-7.466E+01	8.618E+01	1.348E+02	0.000E+00	NOT IDENT.
EU-152	5.949E-02	8.451E-02	1.450E-01	0.000E+00	FAIL ABUN
GD-153	-3.448E-02	5.333E-02	8.510E-02	0.000E+00	FAIL ABUN
EU-154	-3.891E-02	1.224E-01	2.000E-01	0.000E+00	NOT IDENT.
EU-155	3.284E-02	6.794E-02	1.265E-01	0.000E+00	FAIL ABUN
TB-160	3.188E-02	1.285E-01	2.215E-01	0.000E+00	FAIL ABUN
HO-166M	-4.325E-02	6.055E-02	9.847E-02	0.000E+00	NOT IDENT.
TM-171	-6.859E+00	1.189E+01	1.824E+01	0.000E+00	NOT IDENT.
LU-176	-8.961E-03	1.933E-02	3.354E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.230E+00	1.874E+00	0.000E+00	FAIL ABUN
LU-177M	-1.228E-01	1.645E-01	2.709E-01	0.000E+00	FAIL ABUN
HF-181	-3.864E-02	3.710E-02	5.751E-02	0.000E+00	NOT IDENT.
W-181	3.775E-02	1.410E-01	2.255E-01	0.000E+00	NOT IDENT.
TA-182	-1.804E-01	2.058E-01	3.232E-01	0.000E+00	FAIL ABUN
RE-183	1.331E-02	8.483E-02	1.495E-01	0.000E+00	FAIL ABUN
RE-184	-2.104E-01	1.943E-01	3.053E-01	0.000E+00	NOT IDENT.
OS-185	-1.382E-02	4.167E-02	7.084E-02	0.000E+00	NOT IDENT.
RE-188	4.786E-02	1.267E-01	2.282E-01	0.000E+00	NOT IDENT.
W-188	-3.145E+00	6.975E+00	1.070E+01	0.000E+00	FAIL ABUN
IR-192	-9.107E-04	2.798E-02	4.967E-02	0.000E+00	FAIL ABUN
AU-195	5.496E-02	1.412E-01	2.594E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.954E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-9.643E-01	5.225E+00	9.123E+00	0.000E+00	NOT IDENT.
TL-202	2.851E-02	6.397E-02	1.132E-01	0.000E+00	NOT IDENT.
BI-207	-1.873E-02	4.993E-02	8.306E-02	0.000E+00	FAIL ABUN
TL-207	-7.715E-01	6.323E-01	8.669E-01	0.000E+00	FAIL ABUN
PO-209	-6.959E+00	7.713E+00	1.182E+01	0.000E+00	NOT IDENT.
PB-211	3.607E-01	8.884E-01	1.529E+00	0.000E+00	NOT IDENT.
PO-215	-7.715E-01	6.323E-01	8.669E-01	0.000E+00	FAIL ABUN
RN-219	-8.517E-02	3.872E-01	6.632E-01	0.000E+00	FAIL ABUN
RN-220	-2.380E+00	2.402E+01	3.998E+01	0.000E+00	NOT IDENT.
RA-223	-7.715E-01	6.323E-01	8.669E-01	0.000E+00	FAIL ABUN
AC-227	1.279E-01	3.325E-01	5.728E-01	0.000E+00	FAIL ABUN
TH-227	1.279E-01	3.327E-01	5.728E-01	0.000E+00	FAIL ABUN
TH-229	2.655E-01	3.870E-01	6.933E-01	0.000E+00	FAIL ABUN
PA-231	-2.723E-01	1.313E+00	2.167E+00	0.000E+00	FAIL ABUN
TH-231	-7.715E-01	6.323E-01	8.669E-01	0.000E+00	FAIL ABUN
U-231	1.553E-01	6.647E-01	1.119E+00	0.000E+00	FAIL ABUN
PA-233	6.927E-05	5.204E-02	9.269E-02	0.000E+00	FAIL ABUN
PA-234	-1.245E-01	3.122E-01	5.001E-01	0.000E+00	FAIL ABUN
PA-234M	1.913E+00	5.137E+00	8.706E+00	0.000E+00	NOT IDENT.
NP-236	-1.296E-03	5.884E-02	1.039E-01	0.000E+00	NOT IDENT.
NP-239	-1.283E-02	1.239E-01	2.242E-01	0.000E+00	FAIL ABUN
AM-241	4.464E-03	4.709E-02	7.561E-02	0.000E+00	NOT IDENT.
CM-243	-3.692E-02	5.910E-02	1.056E-01	0.000E+00	FAIL ABUN
AM-246	-2.743E-02	1.377E-01	2.327E-01	0.000E+00	NOT IDENT.
CM-247	2.743E-03	3.447E-02	6.011E-02	0.000E+00	FAIL ABUN
CF-249	-4.304E-03	3.413E-02	5.824E-02	0.000E+00	NOT IDENT.
CF-251	4.035E-02	9.529E-02	1.702E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:21:47.71

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799010.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 17:20:47
Sample ID         : G245799010           Sample quantity  : 1.37266E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.05  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947531                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1222	10.67*	1.109E+00	2.825E+01	2.825E+01	10.40
CD-109	88.03	479	3.72*	9.404E+00	3.747E+00	3.834E+00	20.51
SN-126	64.28	490	9.60	9.778E+00	1.428E+00	1.428E+00	29.36
	86.94	479	8.90	9.404E+00	1.566E+00	1.566E+00	45.35
	87.57	479	37.00*	9.404E+00	3.768E-01	3.768E-01	20.51
BA-137M	661.65	48	89.98*	2.232E+00	6.553E-02	6.559E-02	118.64
CS-137	661.65	48	85.12*	2.232E+00	6.927E-02	6.934E-02	118.64
CE-141	145.44	85	48.40*	7.544E+00	6.401E-02	8.864E-02	82.29
HG-203	70.83	------	4.75	9.750E+00	------ Line Not Found		------
	72.87	------	8.00	9.724E+00	------ Line Not Found		------
	82.60	------	3.55	9.528E+00	------ Line Not Found		------
	279.20	51	77.30*	4.732E+00	3.804E-02	4.774E-02	118.87
TL-208	277.35	51	6.80	4.732E+00	4.324E-01	4.324E-01	119.18
	510.84	129	21.60	2.808E+00	5.804E-01	5.804E-01	53.71
	583.14	379	84.20*	2.496E+00	4.933E-01	4.933E-01	18.75
	860.37	43	12.46	1.765E+00	5.331E-01	5.331E-01	62.43
BI-210	46.50	86	4.05*	9.170E+00	6.359E-01	6.367E-01	104.17
PB-210	46.50	86	4.05*	9.170E+00	6.359E-01	6.367E-01	104.17
PO-210	46.50	86	4.05*	9.170E+00	6.359E-01	6.367E-01	104.09
BI-211	72.87	------	1.27	9.724E+00	------ Line Not Found		------
	351.07	613	12.94*	3.887E+00	3.332E+00	3.332E+00	16.70
BI-212	727.18	105	11.80*	2.050E+00	1.182E+00	1.182E+00	45.20
	785.46	------	1.97	1.914E+00	------ Line Not Found		------
	1620.62	14	2.75	1.013E+00	1.374E+00	1.374E+00	73.32
PB-212	74.81	778	10.70	9.694E+00	2.050E+00	2.050E+00	17.60
	77.11	1207	18.00	9.653E+00	1.900E+00	1.900E+00	12.93
	87.30	479	8.00	9.404E+00	1.742E+00	1.742E+00	22.82
	238.63	1480	44.60*	5.340E+00	1.700E+00	1.700E+00	12.88
	300.09	87	3.41	4.444E+00	1.578E+00	1.578E+00	66.62
PO-212	74.81	778	10.70	9.694E+00	2.050E+00	2.050E+00	17.60
	77.11	1207	18.00	9.653E+00	1.900E+00	1.900E+00	12.93
	87.30	479	8.00	9.404E+00	1.742E+00	1.742E+00	22.82

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	115.19	------	0.60	8.498E+00	------ Line Not Found		------
	238.63	1480	44.60*	5.340E+00	1.700E+00	1.700E+00	12.88
	300.09	87	3.41	4.444E+00	1.578E+00	1.578E+00	66.62
BI-214	609.31	477	46.30*	2.401E+00	1.173E+00	1.173E+00	17.73
	1120.29	101	15.10	1.398E+00	1.313E+00	1.313E+00	38.20
	1764.49	79	15.80	9.413E-01	1.457E+00	1.458E+00	31.68
PB-214	74.81	778	6.21	9.694E+00	3.533E+00	3.533E+00	16.65
	77.11	1207	10.50	9.653E+00	3.256E+00	3.256E+00	15.01
	87.30	479	4.67	9.404E+00	2.985E+00	2.985E+00	21.91
	241.98	346	7.49	5.290E+00	2.386E+00	2.386E+00	30.48
	295.21	354	19.20	4.503E+00	1.119E+00	1.119E+00	20.49
	351.92	613	37.20*	3.887E+00	1.159E+00	1.159E+00	17.49
PO-214	74.81	778	6.21	9.694E+00	3.533E+00	3.533E+00	16.65
	77.11	1207	10.50	9.653E+00	3.256E+00	3.256E+00	15.01
	87.30	479	4.67	9.404E+00	2.985E+00	2.985E+00	21.91
	241.98	346	7.49	5.290E+00	2.386E+00	2.386E+00	30.48
	295.21	354	19.20	4.503E+00	1.119E+00	1.119E+00	20.49
	351.92	613	37.20*	3.887E+00	1.159E+00	1.159E+00	17.49
PO-216	74.81	778	10.70	9.694E+00	2.050E+00	2.050E+00	17.60
	77.11	1207	18.00	9.653E+00	1.900E+00	1.900E+00	12.93
	87.30	479	8.00	9.404E+00	1.742E+00	1.742E+00	22.82
	238.63	1480	44.60*	5.340E+00	1.700E+00	1.700E+00	12.88
	300.09	87	3.41	4.444E+00	1.578E+00	1.578E+00	66.62
PO-218	74.81	778	6.21	9.694E+00	3.533E+00	3.533E+00	16.65
	77.11	1207	10.50	9.653E+00	3.256E+00	3.256E+00	15.01
	87.30	479	4.67	9.404E+00	2.985E+00	2.985E+00	21.91
	241.98	346	7.49	5.290E+00	2.386E+00	2.386E+00	30.48
	295.21	354	19.20	4.503E+00	1.119E+00	1.119E+00	20.49
	351.92	613	37.20*	3.887E+00	1.159E+00	1.159E+00	17.49
RA-224	240.98	346	3.95*	5.290E+00	4.523E+00	4.523E+00	29.96
RA-226	609.31	477	46.30*	2.401E+00	1.173E+00	1.173E+00	17.73
	1120.29	101	15.10	1.398E+00	1.313E+00	1.313E+00	38.20
	1764.49	79	15.80	9.413E-01	1.457E+00	1.458E+00	31.68
AC-228	338.32	287	11.40	4.018E+00	1.714E+00	1.714E+00	47.04
	911.07	271	27.70*	1.678E+00	1.595E+00	1.595E+00	23.16
	969.11	132	16.60	1.589E+00	1.367E+00	1.367E+00	42.13
RA-228	338.32	287	11.40	4.018E+00	1.714E+00	1.714E+00	47.04
	911.07	271	27.70*	1.678E+00	1.595E+00	1.595E+00	23.16
	969.11	132	16.60	1.589E+00	1.367E+00	1.367E+00	42.13
TH-228	74.81	778	10.70	9.694E+00	2.050E+00	2.082E+00	14.96
	77.11	1207	18.00	9.653E+00	1.900E+00	1.929E+00	12.93
	87.30	479	8.00	9.404E+00	1.742E+00	1.769E+00	20.51
	238.63	1480	44.60*	5.340E+00	1.700E+00	1.726E+00	12.88
	300.09	87	3.41	4.444E+00	1.578E+00	1.602E+00	88.57
TH-230	609.31	477	46.30*	2.401E+00	1.173E+00	1.173E+00	17.73
	1120.29	101	15.10	1.398E+00	1.313E+00	1.313E+00	38.20
	1764.49	79	15.80	9.413E-01	1.457E+00	1.457E+00	31.68
TH-232	338.32	287	11.40	4.018E+00	1.714E+00	1.714E+00	24.18
	911.07	271	27.70*	1.678E+00	1.595E+00	1.595E+00	23.16

Sample ID : G245799010 Acquisition date : 10-FEB-2010 17:20:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	969.11	132	16.60	1.589E+00	1.367E+00	1.367E+00	42.13
TH-234	63.29	490	3.80*	9.778E+00	3.609E+00	3.609E+00	30.90
	92.38	730	5.41	9.244E+00	3.990E+00	3.990E+00	23.17
U-234	609.31	477	46.30*	2.401E+00	1.173E+00	1.173E+00	17.73
	1120.29	101	15.10	1.398E+00	1.313E+00	1.313E+00	38.20
	1764.49	79	15.80	9.413E-01	1.457E+00	1.457E+00	31.68
U-235	89.95	260	2.70	9.328E+00	2.821E+00	2.821E+00	41.78
	93.35	730	4.50	9.244E+00	4.796E+00	4.796E+00	31.55
	105.00	------	2.10	8.843E+00	------	Line Not Found	------
	143.76	85	10.50*	7.544E+00	2.951E-01	2.951E-01	83.67
	163.35	------	4.70	6.998E+00	------	Line Not Found	------
	185.71	249	54.00	6.415E+00	1.965E-01	1.965E-01	31.15
	205.31	------	4.70	5.979E+00	------	Line Not Found	------
NP-237	86.50	479	12.60*	9.404E+00	1.106E+00	1.106E+00	29.10
	95.87	------	2.60	9.143E+00	------	Line Not Found	------
U-238	63.29	490	3.80*	9.778E+00	3.609E+00	3.609E+00	30.90
	92.38	730	5.41	9.244E+00	3.990E+00	3.990E+00	16.86
AM-243	74.67	778	66.00*	9.694E+00	3.324E-01	3.324E-01	14.92
	86.72	479	0.34	9.404E+00	4.149E+01	4.149E+01	20.51
	117.66	------	0.55	8.415E+00	------	Line Not Found	------
	142.18	------	0.13	7.617E+00	------	Line Not Found	------
ANH-511	511.00	129	100.00*	2.808E+00	1.254E-01	1.254E-01	53.06

Flag: "*" = Keyline

Sample ID : G245799010 Acquisition date : 10-FEB-2010 17:20:47

Total number of lines in spectrum 39
Number of unidentified lines 3
Number of lines tentatively identified by NID 36 92.31%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.825E+01	2.825E+01	0.294E+01	10.40	
CD-109	464.00D	1.02	3.747E+00	3.834E+00	0.786E+00	20.51	
SN-126	1.00E+05Y	1.00	3.768E-01	3.768E-01	0.773E-01	20.51	
BA-137M	30.17Y	1.00	6.553E-02	6.559E-02	7.782E-02	118.64	
CS-137	30.17Y	1.00	6.927E-02	6.934E-02	8.226E-02	118.64	
CE-141	32.50D	1.38	6.401E-02	8.864E-02	7.294E-02	82.29	
HG-203	46.60D	1.25	3.804E-02	4.774E-02	5.675E-02	118.87	
TL-208	1.41E+10Y	1.00	4.933E-01	4.933E-01	0.925E-01	18.75	
BI-210	22.26Y	1.00	6.359E-01	6.367E-01	6.632E-01	104.17	
PB-210	22.26Y	1.00	6.359E-01	6.367E-01	6.632E-01	104.17	
PO-210	22.26Y	1.00	6.359E-01	6.367E-01	6.627E-01	104.09	
BI-211	7.04E+08Y	1.00	3.332E+00	3.332E+00	0.556E+00	16.70	
BI-212	1.41E+10Y	1.00	1.182E+00	1.182E+00	0.534E+00	45.20	
PB-212	1.41E+10Y	1.00	1.700E+00	1.700E+00	0.219E+00	12.88	
PO-212	1.41E+10Y	1.00	1.700E+00	1.700E+00	0.219E+00	12.88	
BI-214	1600.00Y	1.00	1.173E+00	1.173E+00	0.208E+00	17.73	
PB-214	1600.00Y	1.00	1.159E+00	1.159E+00	0.203E+00	17.49	
PO-214	1600.00Y	1.00	1.159E+00	1.159E+00	0.203E+00	17.49	
PO-216	1.41E+10Y	1.00	1.700E+00	1.700E+00	0.219E+00	12.88	
PO-218	1600.00Y	1.00	1.159E+00	1.159E+00	0.203E+00	17.49	
RA-224	1.41E+10Y	1.00	4.523E+00	4.523E+00	1.355E+00	29.96	
RA-226	1600.00Y	1.00	1.173E+00	1.173E+00	0.208E+00	17.73	
AC-228	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.370E+00	23.16	
RA-228	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.370E+00	23.16	
TH-228	1.91Y	1.02	1.700E+00	1.726E+00	0.222E+00	12.88	
TH-230	4.47E+09Y	1.00	1.173E+00	1.173E+00	0.208E+00	17.73	
TH-232	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.370E+00	23.16	
TH-234	4.47E+09Y	1.00	3.609E+00	3.609E+00	1.115E+00	30.90	
U-234	4.47E+09Y	1.00	1.173E+00	1.173E+00	0.208E+00	17.73	
U-235	7.04E+08Y	1.00	2.951E-01	2.951E-01	2.469E-01	83.67	
NP-237	2.14E+06Y	1.00	1.106E+00	1.106E+00	0.322E+00	29.10	
U-238	4.47E+09Y	1.00	3.609E+00	3.609E+00	1.115E+00	30.90	
AM-243	7380.00Y	1.00	3.324E-01	3.324E-01	0.496E-01	14.92	
ANH-511	1.00E+09Y	1.00	1.254E-01	1.254E-01	0.665E-01	53.06	
	Total Activity :		7.288E+01	7.303E+01			

Grand Total Activity : 7.288E+01 7.303E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799010 Acquisition date : 10-FEB-2010 17:20:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.62	143	623	1.19	168.79	163	8	1.99E-02	63.5	9.48E+00	T
0	129.01	132	360	0.95	257.56	254	8	1.84E-02	52.7	8.04E+00	T
0	208.85	168	240	0.96	417.23	414	8	2.34E-02	35.2	5.90E+00	T
0	270.23	116	200	1.45	539.98	536	9	1.62E-02	47.4	4.84E+00	T
0	327.83	57	180	1.90	655.18	650	10	7.97E-03	91.4	4.13E+00	T
0	462.40	128	88	1.25	924.30	918	11	1.78E-02	33.5	3.07E+00	T
0	770.09	96	91	5.64	1539.67	1531	20	1.33E-02	53.8	1.95E+00	
0	794.47	66	88	0.92	1588.43	1581	14	9.14E-03	65.2	1.90E+00	T
0	964.73	61	47	1.89	1928.94	1924	10	8.52E-03	49.1	1.60E+00	T
0	1590.45	43	21	4.18	3180.45	3172	19	5.97E-03	61.9	1.03E+00	
0	1631.60	17	7	0.99	3262.75	3258	9	2.42E-03	71.8	1.01E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 19:21:53.03

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799010.CNF;1    *
* Acquisition date : 10-FEB-2010 17:20:47  Detector SN#     :                 *
* Detector ID      : GAM25                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:02.05         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245799010            Analyst initials: RXF2             *
* Batch Number     : 947531                Sample Quantity : 1.37266E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.825E+01	2.939E+00	4.280E-01	3.645E-02	66.017
CD-109	3.834E+00	7.864E-01	6.821E-01	7.330E-02	5.620
SN-126	3.768E-01	7.728E-02	6.690E-02	7.173E-03	5.632
BA-137M	6.559E-02	7.782E-02	5.906E-02	6.542E-03	1.111
CS-137	6.934E-02	8.226E-02	6.243E-02	6.923E-03	1.111
CE-141	8.864E-02	7.294E-02	7.598E-02	8.451E-03	1.167
HG-203	4.774E-02	5.675E-02	5.552E-02	6.302E-03	0.860
TL-208	4.933E-01	9.251E-02	5.453E-02	6.147E-03	9.047
BI-210	6.367E-01	6.632E-01	5.517E-01	5.689E-02	1.154
PB-210	6.367E-01	6.632E-01	5.517E-01	5.689E-02	1.154
PO-210	6.367E-01	6.627E-01	5.517E-01	5.254E-02	1.154
BI-211	3.332E+00	5.563E-01	2.680E-01	2.824E-02	12.434
BI-212	1.182E+00	5.342E-01	4.352E-01	5.229E-02	2.716
PB-212	1.700E+00	2.189E-01	7.458E-02	8.490E-03	22.791
PO-212	1.700E+00	2.189E-01	7.458E-02	8.490E-03	22.791
BI-214	1.173E+00	2.080E-01	9.610E-02	1.160E-02	12.206
PB-214	1.159E+00	2.028E-01	9.345E-02	1.097E-02	12.403
PO-214	1.159E+00	2.028E-01	9.345E-02	1.097E-02	12.403

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-216	1.700E+00	2.189E-01	7.458E-02	8.490E-03	22.791
PO-218	1.159E+00	2.028E-01	9.345E-02	1.097E-02	12.403
RA-224	4.523E+00	1.355E+00	8.498E-01	8.930E-02	5.323
RA-226	1.173E+00	2.080E-01	9.610E-02	1.160E-02	12.206
AC-228	1.595E+00	3.695E-01	2.227E-01	2.649E-02	7.163
RA-228	1.595E+00	3.695E-01	2.227E-01	2.649E-02	7.163
TH-228	1.726E+00	2.222E-01	7.572E-02	8.620E-03	22.791
TH-230	1.173E+00	2.080E-01	9.610E-02	1.160E-02	12.206
TH-232	1.595E+00	3.695E-01	2.227E-01	2.649E-02	7.163
TH-234	3.609E+00	1.115E+00	6.742E-01	1.255E-01	5.352
U-234	1.173E+00	2.080E-01	9.610E-02	1.160E-02	12.206
U-235	2.951E-01	2.469E-01	2.464E-01	4.653E-02	1.197
NP-237	1.106E+00	3.219E-01	2.058E-01	4.781E-02	5.375
U-238	3.609E+00	1.115E+00	6.742E-01	1.255E-01	5.352
AM-243	3.324E-01	4.958E-02	4.259E-02	4.326E-03	7.804
ANH-511	1.254E-01	6.652E-02	4.122E-02	4.242E-03	3.042

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.201E-02		3.071E-01	5.030E-01	5.325E-02	0.044
NA-22	-2.457E-02		4.588E-02	7.134E-02	5.849E-03	-0.344
NA-24	-5.249E-01		4.174E-01	Half-Life too short		
AL-26	4.288E-03		2.856E-02	4.853E-02	3.977E-03	0.088
TI-44	3.505E-01	+	4.533E-02	3.919E-02	4.036E-03	8.945
SC-46	3.489E-03		3.984E-02	6.535E-02	6.259E-03	0.053
V-48	6.780E-02		7.207E-02	1.263E-01	1.170E-02	0.537
CR-51	2.327E-01		3.110E-01	5.440E-01	6.041E-02	0.428
MN-52	1.402E-02		2.184E-01	3.584E-01	2.953E-02	0.039
MN-54	1.358E-02		4.033E-02	6.770E-02	6.870E-03	0.201
CO-56	-3.557E-02		3.785E-02	5.580E-02	5.599E-03	-0.637
CO-57	1.146E-02		1.710E-02	2.955E-02	3.811E-03	0.388
CO-58	-1.375E-02		3.521E-02	5.549E-02	5.758E-03	-0.248
FE-59	-5.951E-02		9.326E-02	1.463E-01	1.378E-02	-0.407
CO-60	-1.123E-02		3.976E-02	6.185E-02	5.023E-03	-0.182
ZN-65	-3.384E-02		1.100E-01	1.519E-01	1.312E-02	-0.223
GE-68	-9.756E-03		1.252E+00	2.091E+00	1.851E-01	-0.005
AS-73	1.794E-01		1.687E-01	2.810E-01	2.698E-02	0.638
AS-74	-6.693E-02		8.924E-02	1.325E-01	1.436E-02	-0.505
SE-75	-1.108E-02		3.646E-02	5.691E-02	6.236E-03	-0.195
BR-77	7.130E+00		1.039E+01	1.764E+01	1.829E+00	0.404
SR-82	-2.835E-01		4.130E-01	5.340E-01	5.667E-02	-0.531
RB-83	3.727E-02		6.678E-02	1.124E-01	1.165E-02	0.332
RB-84	3.532E-02		6.657E-02	1.139E-01	1.101E-02	0.310
KR-85	9.643E+00		7.345E+00	1.165E+01	1.202E+00	0.828
SR-85	4.950E-02		3.770E-02	5.979E-02	6.168E-03	0.828
RB-86	-1.915E-01		8.181E-01	1.339E+00	1.186E-01	-0.143

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88	1.926E-02		3.871E-02	6.892E-02	5.632E-03	0.279
ZR-88	1.781E-02		2.805E-02	4.822E-02	4.389E-03	0.369
Y-91	-5.476E+00		2.052E+01	3.360E+01	2.765E+00	-0.163
NB-94	5.009E-03		3.688E-02	6.189E-02	6.797E-03	0.081
NB-95	6.162E-02		4.739E-02	7.664E-02	8.186E-03	0.804
NB-95M	-1.544E-02		1.106E-01	1.567E-01	1.796E-02	-0.099
ZR-95	-3.588E-02		7.453E-02	1.179E-01	1.350E-02	-0.304
NB-97	8.479E-02		6.006E-02	Half-Life too short		
ZR-97	2.066E+00		1.023E+00	Half-Life too short		
MO-99	-3.639E+00		1.190E+01	1.919E+01	3.173E+00	-0.190
TC-99M	1.465E+10		2.013E+10	Half-Life too short		
RH-101	-1.060E-02		2.662E-02	4.185E-02	4.032E-03	-0.253
RH-102	-8.760E-03		2.772E-02	4.411E-02	4.404E-03	-0.199
RU-103	1.065E-02		3.951E-02	6.537E-02	9.910E-03	0.163
RH-106	-1.281E-01		2.900E-01	4.698E-01	7.031E-02	-0.273
RU-106	-1.281E-01		2.897E-01	4.698E-01	5.144E-02	-0.273
AG-108M	-1.076E-02		2.930E-02	4.685E-02	4.629E-03	-0.230
AG-110M	1.391E-02		3.965E-02	5.977E-02	6.735E-03	0.233
IN-111	2.210E-01		9.985E-01	1.448E+00	1.533E-01	0.153
IN-113M	4.339E-03		3.984E-02	6.649E-02	6.210E-03	0.065
SN-113	4.339E-03		3.984E-02	6.649E-02	6.210E-03	0.065
IN-114M	-5.027E-02		1.490E-01	2.277E-01	2.155E-02	-0.221
CD-115	2.013E-02		9.730E+00	1.571E+01	1.637E+00	0.001
SN-117M	1.232E-02		4.131E-02	6.936E-02	6.734E-03	0.178
SB-122	6.732E-01		2.197E+00	3.604E+00	3.843E-01	0.187
I-123	3.036E+00		2.478E+00	Half-Life too short		
TE-123M	1.312E-02		2.142E-02	3.641E-02	3.535E-03	0.360
I-124	2.737E-01		6.598E-01	1.052E+00	1.143E-01	0.260
SB-124	-1.443E-02		5.880E-02	9.211E-02	7.962E-03	-0.157
SB-125	3.206E-02		8.526E-02	1.437E-01	1.388E-02	0.223
TE-125M	2.666E-01		6.118E+00	1.041E+01	1.383E+00	0.026
I-126	1.025E-01		2.020E-01	3.087E-01	3.418E-02	0.332
SB-126	-8.305E-02		1.738E-01	2.373E-01	2.590E-02	-0.350
SB-127	6.748E-02		1.363E+00	2.282E+00	3.041E-01	0.030
XE-127	4.531E-04		3.774E-02	6.145E-02	5.985E-03	0.007
I-131	-6.729E-02		9.862E-02	1.567E-01	1.608E-02	-0.429
TE-132	-8.761E-02		5.644E-01	9.016E-01	1.505E-01	-0.097
BA-133	-3.053E-03		4.067E-02	5.943E-02	8.426E-03	-0.051
I-133	-2.458E-04		2.910E-03	Half-Life too short		
CS-134	1.253E-01	+	8.276E-02	9.738E-02	1.025E-02	1.287
CS-135	1.295E-01		1.447E-01	2.181E-01	2.633E-02	0.594
I-135	-2.398E+09		3.851E+09	Half-Life too short		
CS-136	-5.818E-02		1.070E-01	1.700E-01	1.590E-02	-0.342
CE-139	-5.156E-03		2.301E-02	3.761E-02	3.354E-03	-0.137
BA-140	-7.514E-03		2.495E-01	3.965E-01	1.335E-01	-0.019
LA-140	3.112E-02		8.036E-02	1.260E-01	1.047E-02	0.247
CE-143	3.483E-04		8.214E-05	Half-Life too short		
CE-144	-5.083E-02		1.536E-01	2.417E-01	4.274E-02	-0.210

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144	-1.045E-02		3.428E-02	5.574E-02	6.133E-03	-0.187
PR-144	-7.080E-01		2.323E+00	3.777E+00	4.155E-01	-0.187
PM-146	3.972E-02		4.249E-02	7.341E-02	8.572E-03	0.541
ND-147	-2.177E-01		5.168E-01	8.020E-01	1.289E-01	-0.272
PM-149	-7.466E+01		8.794E+01	1.302E+02	2.221E+01	-0.573
EU-152	5.949E-02		8.623E-02	1.405E-01	1.509E-02	0.423
GD-153	-3.448E-02		5.442E-02	8.059E-02	9.076E-03	-0.428
EU-154	-3.891E-02		1.249E-01	1.988E-01	2.185E-02	-0.196
EU-155	3.284E-02		6.932E-02	1.199E-01	1.418E-02	0.274
TB-160	3.188E-02		1.311E-01	2.187E-01	2.119E-02	0.146
HO-166M	-4.325E-02		6.178E-02	9.679E-02	1.060E-02	-0.447
TM-171	-6.859E+00		1.213E+01	1.715E+01	1.703E+00	-0.400
LU-176	-8.961E-03		1.973E-02	3.244E-02	3.540E-03	-0.276
LU-177	3.433E+00	+	1.256E+00	1.799E+00	1.774E-01	1.908
LU-177M	-1.228E-01		1.679E-01	2.635E-01	2.463E-02	-0.466
HF-181	-3.864E-02		3.786E-02	5.610E-02	5.637E-03	-0.689
W-181	3.775E-02		1.438E-01	2.120E-01	2.099E-02	0.178
TA-182	-1.804E-01		2.100E-01	3.211E-01	2.641E-02	-0.562
RE-183	1.331E-02		8.657E-02	1.429E-01	1.330E-02	0.093
RE-184	-2.104E-01		1.983E-01	2.943E-01	3.156E-02	-0.715
OS-185	-1.382E-02		4.252E-02	6.951E-02	7.670E-03	-0.199
RE-188	4.786E-02		1.293E-01	2.179E-01	2.195E-02	0.220
W-188	-3.145E+00		7.117E+00	1.034E+01	1.145E+00	-0.304
IR-192	-9.107E-04		2.855E-02	4.807E-02	5.192E-03	-0.019
AU-195	5.496E-02		1.440E-01	2.457E-01	2.789E-02	0.224
TL-200	1.471E-05		2.017E-04	Half-Life too short		
TL-201	-9.643E-01		5.332E+00	8.725E+00	7.805E-01	-0.111
TL-202	2.851E-02		6.528E-02	1.102E-01	1.062E-02	0.259
BI-207	-1.873E-02		5.095E-02	8.229E-02	7.345E-03	-0.228
TL-207	-7.715E-01		6.452E-01	8.394E-01	1.577E-01	-0.919
PO-209	-6.959E+00		7.871E+00	1.167E+01	1.108E+00	-0.596
PB-211	3.607E-01		9.065E-01	1.487E+00	9.331E-01	0.243
PO-215	-7.715E-01		6.452E-01	8.394E-01	1.577E-01	-0.919
RN-219	-8.517E-02		3.951E-01	6.448E-01	9.911E-02	-0.132
RN-220	-2.380E+00		2.451E+01	3.910E+01	4.135E+00	-0.061
RA-223	-7.715E-01		6.452E-01	8.394E-01	1.577E-01	-0.919
AC-227	1.279E-01		3.393E-01	5.521E-01	9.198E-02	0.232
TH-227	1.279E-01		3.395E-01	5.521E-01	1.059E-01	0.232
TH-229	2.655E-01		3.949E-01	6.648E-01	6.342E-02	0.399
PA-231	-2.723E-01		1.340E+00	2.093E+00	3.503E-01	-0.130
TH-231	-7.715E-01		6.452E-01	8.394E-01	1.577E-01	-0.919
U-231	1.553E-01		6.782E-01	1.059E+00	1.183E-01	0.147
PA-233	6.927E-05		5.311E-02	8.968E-02	9.904E-03	0.001
PA-234	-1.245E-01		3.186E-01	4.943E-01	9.453E-02	-0.252
PA-234M	1.913E+00		5.242E+00	8.616E+00	9.024E-01	0.222
NP-236	-1.296E-03		6.004E-02	9.933E-02	9.460E-03	-0.013
NP-239	-1.283E-02		1.265E-01	2.131E-01	2.669E-02	-0.060
AM-241	4.464E-03		4.805E-02	7.097E-02	7.374E-03	0.063

Sample ID : G245799010 Acquisition date : 10-FEB-2010 17:20:47

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.692E-02		6.031E-02	1.001E-01	1.166E-02	-0.369
AM-246	-2.743E-02		1.405E-01	2.306E-01	2.040E-02	-0.119
CM-247	2.743E-03		3.517E-02	5.844E-02	5.387E-03	0.047
CF-249	-4.304E-03		3.482E-02	5.658E-02	5.207E-03	-0.076
CF-251	4.035E-02		9.723E-02	1.629E-01	1.492E-02	0.248

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799010           *
* Acquisition date  : 10-FEB-2010 17:20:47 Detector SN#     :               *
* Detector ID       : GAM25                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.05      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799010           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.3727E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.825E+01	2.881E+00	2.147E-01	1.470E+00
CD-109	3.834E+00	7.707E-01	3.610E-01	3.932E-01
SN-126	3.768E-01	7.574E-02	3.541E-02	3.864E-02
BA-137M	6.559E-02	7.626E-02	3.010E-02	3.891E-02
CS-137	6.934E-02	8.062E-02	3.182E-02	4.113E-02
CE-141	8.864E-02	7.148E-02	3.985E-02	3.647E-02
HG-203	4.774E-02	5.561E-02	2.877E-02	2.837E-02
TL-208	4.933E-01	9.066E-02	2.786E-02	4.626E-02
BI-210	6.367E-01	6.500E-01	2.953E-01	3.316E-01
PB-210	6.367E-01	6.500E-01	2.953E-01	3.316E-01
PO-210	6.367E-01	6.495E-01	2.953E-01	3.314E-01
BI-211	3.332E+00	5.452E-01	1.383E-01	2.782E-01
BI-212	1.182E+00	5.235E-01	2.214E-01	2.671E-01
PB-212	1.700E+00	2.145E-01	3.876E-02	1.094E-01
PO-212	1.700E+00	2.145E-01	3.876E-02	1.094E-01
BI-214	1.173E+00	2.038E-01	4.906E-02	1.040E-01
PB-214	1.159E+00	1.987E-01	4.821E-02	1.014E-01
PO-214	1.159E+00	1.987E-01	4.821E-02	1.014E-01
PO-216	1.700E+00	2.145E-01	3.876E-02	1.094E-01
PO-218	1.159E+00	1.987E-01	4.821E-02	1.014E-01
RA-224	4.523E+00	1.328E+00	4.415E-01	6.775E-01
RA-226	1.173E+00	2.038E-01	4.906E-02	1.040E-01
AC-228	1.595E+00	3.621E-01	1.128E-01	1.848E-01
RA-228	1.595E+00	3.621E-01	1.128E-01	1.848E-01
TH-228	1.726E+00	2.178E-01	3.935E-02	1.111E-01
TH-230	1.173E+00	2.038E-01	4.906E-02	1.040E-01
TH-232	1.595E+00	3.621E-01	1.128E-01	1.848E-01
TH-234	3.609E+00	1.093E+00	3.590E-01	5.575E-01
U-234	1.173E+00	2.038E-01	4.906E-02	1.040E-01
U-235	2.951E-01	2.419E-01	1.293E-01	1.234E-01
NP-237	1.106E+00	3.155E-01	1.090E-01	1.609E-01
U-238	3.609E+00	1.093E+00	3.590E-01	5.575E-01
AM-243	3.324E-01	4.859E-02	2.261E-02	2.479E-02
ANH-511	1.254E-01	6.519E-02	2.111E-02	3.326E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.201E-02	3.010E-01	2.580E-01	1.536E-01	NOT IDENT.
NA-22	-2.457E-02	4.496E-02	3.589E-02	2.294E-02	NOT IDENT.
NA-24	-5.249E+05	8.181E+05	0.000E+00	4.174E+05	SHORT HLIF
AL-26	4.288E-03	2.799E-02	2.425E-02	1.428E-02	NOT IDENT.
TI-44	3.505E-01	4.442E-02	2.079E-02	2.266E-02	FAIL ABUN
SC-46	3.489E-03	3.905E-02	3.312E-02	1.992E-02	FAIL ABUN
V-48	6.780E-02	7.063E-02	6.387E-02	3.603E-02	NOT IDENT.
CR-51	2.327E-01	3.048E-01	2.811E-01	1.555E-01	NOT IDENT.
MN-52	1.402E-02	2.141E-01	1.799E-01	1.092E-01	NOT IDENT.
MN-54	1.358E-02	3.952E-02	3.435E-02	2.016E-02	NOT IDENT.
CO-56	-3.557E-02	3.709E-02	2.831E-02	1.892E-02	NOT IDENT.
CO-57	1.146E-02	1.676E-02	1.555E-02	8.551E-03	NOT IDENT.
CO-58	-1.375E-02	3.451E-02	2.817E-02	1.761E-02	NOT IDENT.
FE-59	-5.951E-02	9.140E-02	7.384E-02	4.663E-02	NOT IDENT.
CO-60	-1.123E-02	3.897E-02	3.109E-02	1.988E-02	NOT IDENT.
ZN-65	-3.384E-02	1.078E-01	7.663E-02	5.500E-02	NOT IDENT.
GE-68	-9.756E-03	1.227E+00	1.055E+00	6.260E-01	NOT IDENT.
AS-73	1.794E-01	1.653E-01	1.501E-01	8.436E-02	NOT IDENT.
AS-74	-6.693E-02	8.746E-02	6.769E-02	4.462E-02	NOT IDENT.
SE-75	-1.108E-02	3.574E-02	2.952E-02	1.823E-02	NOT IDENT.
BR-77	7.130E+00	1.019E+01	9.031E+00	5.197E+00	FAIL ABUN
SR-82	-2.835E-01	4.048E-01	2.713E-01	2.065E-01	NOT IDENT.
RB-83	3.727E-02	6.544E-02	5.754E-02	3.339E-02	NOT IDENT.
RB-84	3.532E-02	6.524E-02	5.773E-02	3.328E-02	NOT IDENT.
KR-85	9.643E+00	7.198E+00	5.966E+00	3.673E+00	NOT IDENT.
SR-85	4.950E-02	3.695E-02	3.062E-02	1.885E-02	NOT IDENT.
RB-86	-1.915E-01	8.017E-01	6.759E-01	4.091E-01	NOT IDENT.
Y-88	1.926E-02	3.794E-02	3.442E-02	1.936E-02	NOT IDENT.
ZR-88	1.781E-02	2.749E-02	2.482E-02	1.403E-02	NOT IDENT.
Y-91	-5.476E+00	2.011E+01	1.693E+01	1.026E+01	NOT IDENT.
NB-94	5.009E-03	3.614E-02	3.151E-02	1.844E-02	NOT IDENT.
NB-95	6.162E-02	4.644E-02	3.895E-02	2.369E-02	NOT IDENT.
NB-95M	-1.544E-02	1.084E-01	8.146E-02	5.528E-02	NOT IDENT.
ZR-95	-3.588E-02	7.304E-02	5.991E-02	3.726E-02	NOT IDENT.
NB-97	8.479E+04	1.177E+05	0.000E+00	6.006E+04	SHORT HLIF
ZR-97	2.066E+06	2.004E+06	0.000E+00	1.023E+06	SHORT HLIF
MO-99	-3.639E+00	1.167E+01	9.758E+00	5.952E+00	NOT IDENT.
TC-99M	1.465E+16	3.946E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.060E-02	2.609E-02	2.182E-02	1.331E-02	NOT IDENT.
RH-102	-8.760E-03	2.716E-02	2.263E-02	1.386E-02	NOT IDENT.
RU-103	1.065E-02	3.872E-02	3.350E-02	1.976E-02	FAIL ABUN
RH-106	-1.281E-01	2.842E-01	2.397E-01	1.450E-01	FAIL ABUN
RU-106	-1.281E-01	2.839E-01	2.397E-01	1.448E-01	FAIL ABUN
AG-108M	-1.076E-02	2.871E-02	2.407E-02	1.465E-02	NOT IDENT.
AG-110M	1.391E-02	3.885E-02	3.047E-02	1.982E-02	NOT IDENT.
IN-111	2.210E-01	9.786E-01	7.521E-01	4.993E-01	NOT IDENT.
IN-113M	4.339E-03	3.904E-02	3.423E-02	1.992E-02	NOT IDENT.
SN-113	4.339E-03	3.904E-02	3.423E-02	1.992E-02	NOT IDENT.
IN-114M	-5.027E-02	1.460E-01	1.188E-01	7.449E-02	NOT IDENT.
CD-115	2.013E-02	9.535E+00	8.043E+00	4.865E+00	NOT IDENT.
SN-117M	1.232E-02	4.049E-02	3.632E-02	2.066E-02	NOT IDENT.
SB-122	6.732E-01	2.153E+00	1.842E+00	1.098E+00	NOT IDENT.
I-123	3.036E+06	4.857E+06	0.000E+00	2.478E+06	SHORT HLIF
TE-123M	1.312E-02	2.100E-02	1.906E-02	1.071E-02	NOT IDENT.
I-124	2.737E-01	6.466E-01	5.372E-01	3.299E-01	NOT IDENT.
SB-124	-1.443E-02	5.762E-02	4.608E-02	2.940E-02	FAIL ABUN
SB-125	3.206E-02	8.356E-02	7.385E-02	4.263E-02	FAIL ABUN
TE-125M	2.666E-01	5.996E+00	5.489E+00	3.059E+00	NOT IDENT.
I-126	1.025E-01	1.979E-01	1.573E-01	1.010E-01	NOT IDENT.
SB-126	-8.305E-02	1.703E-01	1.207E-01	8.688E-02	FAIL ABUN
SB-127	6.748E-02	1.336E+00	1.162E+00	6.817E-01	NOT IDENT.
XE-127	4.531E-04	3.699E-02	3.203E-02	1.887E-02	FAIL ABUN
I-131	-6.729E-02	9.665E-02	8.080E-02	4.931E-02	NOT IDENT.
TE-132	-8.761E-02	5.531E-01	4.689E-01	2.822E-01	NOT IDENT.
BA-133	-3.053E-03	3.986E-02	3.065E-02	2.033E-02	FAIL ABUN
I-133	-2.458E+02	5.703E+03	0.000E+00	2.910E+03	SHORT HLIF
CS-134	1.253E-01	8.110E-02	4.945E-02	4.138E-02	FAIL ABUN
CS-135	1.295E-01	1.418E-01	1.131E-01	7.237E-02	NOT IDENT.
I-135	-2.398E+15	7.548E+15	0.000E+00	3.851E+15	SHORT HLIF
CS-136	-5.818E-02	1.048E-01	8.587E-02	5.348E-02	FAIL ABUN
CE-139	-5.156E-03	2.255E-02	1.968E-02	1.150E-02	NOT IDENT.

BA-140	-7.514E-03	2.445E-01	2.029E-01	1.248E-01	NOT IDENT.
LA-140	3.112E-02	7.875E-02	6.309E-02	4.018E-02	FAIL ABUN
CE-143	3.483E+02	1.610E+02	0.000E+00	8.214E+01	SHORT HLIF
CE-144	-5.083E-02	1.505E-01	1.270E-01	7.681E-02	NOT IDENT.
PM-144	-1.045E-02	3.360E-02	2.838E-02	1.714E-02	NOT IDENT.
PR-144	-7.080E-01	2.277E+00	1.923E+00	1.162E+00	NOT IDENT.
PM-146	3.972E-02	4.164E-02	3.769E-02	2.125E-02	NOT IDENT.
ND-147	-2.177E-01	5.065E-01	4.105E-01	2.584E-01	FAIL ABUN
PM-149	-7.466E+01	8.618E+01	6.746E+01	4.397E+01	NOT IDENT.
EU-152	5.949E-02	8.451E-02	7.253E-02	4.312E-02	FAIL ABUN
GD-153	-3.448E-02	5.333E-02	4.258E-02	2.721E-02	FAIL ABUN
EU-154	-3.891E-02	1.224E-01	1.000E-01	6.247E-02	NOT IDENT.
EU-155	3.284E-02	6.794E-02	6.328E-02	3.466E-02	FAIL ABUN
TB-160	3.188E-02	1.285E-01	1.108E-01	6.555E-02	FAIL ABUN
HO-166M	-4.325E-02	6.055E-02	4.926E-02	3.089E-02	NOT IDENT.
TM-171	-6.859E+00	1.189E+01	9.125E+00	6.066E+00	NOT IDENT.
LU-176	-8.961E-03	1.933E-02	1.678E-02	9.864E-03	FAIL ABUN
LU-177	3.433E+00	1.230E+00	9.374E-01	6.278E-01	FAIL ABUN
LU-177M	-1.228E-01	1.645E-01	1.355E-01	8.395E-02	FAIL ABUN
HF-181	-3.864E-02	3.710E-02	2.877E-02	1.893E-02	NOT IDENT.
W-181	3.775E-02	1.410E-01	1.128E-01	7.192E-02	NOT IDENT.
TA-182	-1.804E-01	2.058E-01	1.617E-01	1.050E-01	FAIL ABUN
RE-183	1.331E-02	8.483E-02	7.479E-02	4.328E-02	FAIL ABUN
RE-184	-2.104E-01	1.943E-01	1.528E-01	9.914E-02	NOT IDENT.
OS-185	-1.382E-02	4.167E-02	3.544E-02	2.126E-02	NOT IDENT.
RE-188	4.786E-02	1.267E-01	1.142E-01	6.465E-02	NOT IDENT.
W-188	-3.145E+00	6.975E+00	5.352E+00	3.559E+00	FAIL ABUN
IR-192	-9.107E-04	2.798E-02	2.485E-02	1.428E-02	FAIL ABUN
AU-195	5.496E-02	1.412E-01	1.298E-01	7.202E-02	FAIL ABUN
TL-200	1.471E+01	3.954E+02	0.000E+00	2.017E+02	SHORT HLIF
TL-201	-9.643E-01	5.225E+00	4.564E+00	2.666E+00	NOT IDENT.
TL-202	2.851E-02	6.397E-02	5.661E-02	3.264E-02	NOT IDENT.
BI-207	-1.873E-02	4.993E-02	4.155E-02	2.548E-02	FAIL ABUN
TL-207	-7.715E-01	6.323E-01	4.337E-01	3.226E-01	FAIL ABUN
PO-209	-6.959E+00	7.713E+00	5.914E+00	3.935E+00	NOT IDENT.
PB-211	3.607E-01	8.884E-01	7.651E-01	4.533E-01	NOT IDENT.
PO-215	-7.715E-01	6.323E-01	4.337E-01	3.226E-01	FAIL ABUN
RN-219	-8.517E-02	3.872E-01	3.318E-01	1.976E-01	FAIL ABUN
RN-220	-2.380E+00	2.402E+01	2.000E+01	1.226E+01	NOT IDENT.
RA-223	-7.715E-01	6.323E-01	4.337E-01	3.226E-01	FAIL ABUN
AC-227	1.279E-01	3.325E-01	2.865E-01	1.696E-01	FAIL ABUN
TH-227	1.279E-01	3.327E-01	2.865E-01	1.697E-01	FAIL ABUN
TH-229	2.655E-01	3.870E-01	3.468E-01	1.975E-01	FAIL ABUN
PA-231	-2.723E-01	1.313E+00	1.084E+00	6.701E-01	FAIL ABUN
TH-231	-7.715E-01	6.323E-01	4.337E-01	3.226E-01	FAIL ABUN
U-231	1.553E-01	6.647E-01	5.598E-01	3.391E-01	FAIL ABUN
PA-233	6.927E-05	5.204E-02	4.637E-02	2.655E-02	FAIL ABUN
PA-234	-1.245E-01	3.122E-01	2.502E-01	1.593E-01	FAIL ABUN
PA-234M	1.913E+00	5.137E+00	4.356E+00	2.621E+00	NOT IDENT.
NP-236	-1.296E-03	5.884E-02	5.200E-02	3.002E-02	NOT IDENT.
NP-239	-1.283E-02	1.239E-01	1.122E-01	6.324E-02	FAIL ABUN
AM-241	4.464E-03	4.709E-02	3.783E-02	2.403E-02	NOT IDENT.
CM-243	-3.692E-02	5.910E-02	5.282E-02	3.015E-02	FAIL ABUN
AM-246	-2.743E-02	1.377E-01	1.164E-01	7.027E-02	NOT IDENT.
CM-247	2.743E-03	3.447E-02	3.007E-02	1.759E-02	FAIL ABUN
CF-249	-4.304E-03	3.413E-02	2.914E-02	1.741E-02	NOT IDENT.
CF-251	4.035E-02	9.529E-02	8.514E-02	4.862E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	259.9500
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46.50	259.9500
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49.72	292.5683
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52.39	305.0679
52.97	301.4296
53.15	323.5959
53.44	308.6129
54.07	294.0052
56.28	325.5498
56.28	325.5543
57.37	0.0000
57.53	350.6304
57.53	350.6328
57.60	345.1426
57.98	345.6589
57.98	345.6589
59.32	359.8389
59.32	359.8389
59.40	374.9492
59.54	375.1513
59.72	349.8840
60.01	350.2739
61.10	387.9601
61.14	398.5875
61.30	398.8292
63.00	387.6880
63.29	388.1037
63.29	388.1037
63.58	388.5174
64.28	389.5142
65.12	398.3637
65.20	398.4794
65.20	398.4794
66.05	431.9820
66.72	449.9587
66.83	454.7647
66.91	454.8907
67.20	415.2255
67.20	415.2255
67.75	414.0941
67.85	393.3550
68.90	446.0376
68.90	446.0376
69.30	465.3163
69.67	482.2608
70.82	468.9148
70.82	468.9148
70.83	468.9301
72.80	478.3368
72.87	478.4481
72.87	478.4481
74.67	459.5241
74.81	459.7338
74.81	459.7338
74.81	459.7338
74.81	459.7338
74.81	459.7338
74.81	459.7338
74.81	459.7338
74.97	459.9729
75.28	460.4365
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77.11	463.1558
77.11	463.1558

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77.11	463.1558
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77.11	463.1558
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79.80	381.3978
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80.30	394.0767
80.57	394.4050
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81.07	484.6771
81.07	484.6771
81.07	484.6771
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83.78	420.2604
83.78	420.2604
83.78	420.2604
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85.43	368.3098
86.29	369.2413
86.50	369.4679
86.54	369.5114
86.59	369.5663
86.72	333.5569
86.79	333.6230
86.94	333.7717
87.30	334.1207
87.30	334.1207
87.30	334.1207
87.30	334.1207
87.30	334.1207
87.30	334.1207
87.30	334.1207
87.57	334.3829
87.88	334.6824
88.03	334.8269
88.36	335.1449
88.47	335.2523
89.95	336.6730
91.11	337.7778
92.29	323.0344
92.38	323.1161
92.38	323.1161
93.35	323.9842
94.00	324.5648
94.67	293.6498
94.67	293.6534
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94.90	281.2272
94.90	281.2272
94.90	281.2272
95.87	283.2334
95.87	283.2334
96.73	324.4492
97.43	317.4362
98.44	273.3056
98.44	273.3056
98.88	289.7688
99.55	289.4310
99.55	289.4310
99.86	282.8505
100.00	282.9535
100.10	283.0311
103.18	280.9957
103.76	285.7161
105.00	284.0245
105.31	272.1515
108.00	301.8159
109.28	280.0815

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111.00	284.7618
111.76	279.1396
112.95	294.9005
115.19	261.9554
116.30	246.6662
117.00	250.6227
117.00	250.6227
117.66	263.4684
121.11	229.6693
121.62	228.1372
121.78	212.9454
122.06	221.1708
122.32	233.8939
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122.32	233.8939
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133.02	255.5042
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136.25	239.1534
136.48	243.9032
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140.51	0.0000
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144.24	237.3882
144.24	237.3882
144.24	237.3882
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145.44	246.4478
147.16	240.1705
152.43	260.3125
152.70	243.2100
153.22	227.1539
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154.21	248.7010
154.21	248.7010
154.21	248.7010
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163.89	229.6834
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167.43	221.2921
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171.86	190.2930
172.10	207.2269
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176.60	209.8163
181.06	250.6363
184.41	258.0869
185.71	243.4180
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198.01	222.3246
198.60	201.8237
200.40	229.3630
201.83	197.6190
202.84	219.7960
205.31	221.1322

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208.81	212.2969
209.75	205.2217
209.75	205.2217
210.97	197.6814
215.65	191.0614
216.55	191.3086
218.09	207.7052
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228.18	185.7997
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236.00	204.6928
236.00	204.6928
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238.63	195.0007
238.63	195.0007
238.63	195.0007
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241.98	195.8590
241.98	195.8590
241.98	195.8590
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248.90	159.8672
249.79	153.3801
252.40	182.8801
252.85	186.3325
252.85	186.3325
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256.20	175.9095
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268.79	139.9490
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269.46	155.4343
269.46	155.4343
269.46	155.4343
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277.60	171.3051
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278.60	141.5781
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286.10	183.4365
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297.23	155.1736
298.57	155.4019
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299.80	142.8795
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323.87	159.6289
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323.87	159.6289
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338.28	145.3983
338.28	145.3983
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338.32	145.4031
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391.69	117.0175
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513.99	79.9774
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569.50	94.8997
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574.00	87.4236
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602.71	77.2412
602.71	77.2412
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609.31	70.5694

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609.31	70.5694
609.31	70.5694
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618.01	59.1141
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621.84	79.3004
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696.49	89.3436
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911.07	66.2807
911.07	66.2807
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969.11	75.4209
969.11	75.4209
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1078.86	57.1056
1085.78	47.8644
1099.22	66.9554
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1120.29	62.7075
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1129.67	64.8208
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1147.95	0.0000
1167.94	61.8125
1173.22	68.6975
1175.09	71.6453
1177.93	77.5260
1189.05	76.8431
1204.90	75.2924
1205.75	0.0000
1213.00	75.4930
1221.42	86.5140
1230.97	81.8517
1235.34	88.8794
1236.41	0.0000
1238.25	85.0097
1246.25	58.4694
1260.41	0.0000
1271.85	45.9569
1274.45	53.9934
1274.54	58.9928
1291.56	48.2500
1298.22	0.0000
1312.09	31.3582
1325.50	32.5013
1325.50	32.5013
1332.49	37.6594
1333.61	36.6533
1360.21	28.7349
1362.66	0.0000
1365.15	24.6660
1368.21	34.9740
1368.53	0.0000
1376.25	40.2124
1384.27	26.8707
1394.10	22.8021
1395.20	33.1771
1407.95	26.0142
1434.06	22.0143
1436.60	28.3239
1457.56	0.0000
1460.81	15.8423
1489.15	17.0299
1509.49	28.8962
1596.49	13.1387
1620.62	20.7731
1678.03	0.0000
1691.02	10.5688
1691.02	10.5688
1706.46	0.0000
1750.46	0.0000
1764.49	12.7103
1764.49	12.7103
1764.49	12.7103
1764.49	12.7103
1770.23	11.9928
1771.40	45.0470
1791.20	0.0000
1808.65	10.8646

1836.01 13.9136

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799010

Total Uranium Activity	1.0872E+01	ug/g
Total Uranium Counting Unc.	3.2528E+00	ug/g
Total Uranium Tpu	1.6596E-06	ug/g
Total Uranium Mda	1.0696E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799010        *
*   ANALYST       : RXF2                      DETECTOR    : GAM25             *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 10-FEB-2010 17:20:47.01    SAMPLE ALQT:  137.266 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.531E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.365E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.793E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.842E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:11:55.41

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799011.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:11:14
Sample ID         : G245799011           Sample quantity  : 1.07203E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.33*	496	494	0.95	126.70	123	9	6.89E-02	9.4	
2	0	76.27	634	855	2.74	152.57	146	13	8.81E-02	10.3	
3	3	84.17	116	439	1.25	168.38	162	32	1.61E-02	29.8	1.56E+00
4	3	87.16	218	475	1.25	174.36	162	32	3.03E-02	18.3	
5	3	89.76	156	453	1.26	179.56	162	32	2.17E-02	25.7	
6	3	92.63*	1929	341	1.25	185.31	162	32	2.68E-01	2.8	
7	3	94.82	112	297	1.17	189.67	162	32	1.56E-02	38.3	
8	0	98.66	161	357	0.73	197.36	194	8	2.24E-02	21.8	
9	0	112.77	110	480	0.93	225.59	221	10	1.53E-02	38.5	
10	0	143.81	183	488	1.41	287.68	281	14	2.54E-02	26.6	
11	0	185.80*	457	352	1.00	371.65	367	11	6.34E-02	9.4	
12	0	209.92	55	302	0.64	419.91	417	10	7.61E-03	61.6	
13	8	238.67*	885	174	1.05	477.41	473	18	1.23E-01	4.1	3.37E+00
14	8	241.72*	249	228	1.99	483.51	473	18	3.46E-02	17.2	
15	0	269.91	87	173	1.55	539.89	535	10	1.21E-02	30.2	
16	0	295.04	328	219	1.12	590.16	584	12	4.56E-02	10.6	
17	0	327.72	38	146	1.42	655.52	652	9	5.26E-03	59.5	
18	0	338.36*	156	155	1.22	676.81	672	10	2.17E-02	17.1	
19	0	351.97*	463	148	1.24	704.02	700	10	6.44E-02	6.8	
20	0	463.21	61	77	2.32	926.51	922	9	8.49E-03	28.8	
21	0	510.96*	115	173	2.37	1022.02	1013	21	1.60E-02	32.4	
22	0	583.49*	296	98	1.55	1167.07	1161	14	4.11E-02	9.4	
23	0	609.43*	386	84	1.40	1218.95	1213	13	5.36E-02	7.1	
24	0	661.90*	451	89	1.59	1323.88	1315	14	6.27E-02	6.5	
25	0	677.09	25	22	1.50	1354.26	1351	6	3.45E-03	36.2	
26	0	727.43	89	58	1.27	1454.94	1449	13	1.24E-02	20.6	
27	0	767.30	60	85	1.37	1534.69	1530	13	8.26E-03	34.4	
28	0	787.17	26	60	2.30	1574.42	1566	12	3.61E-03	62.7	
29	0	795.70	56	48	1.68	1591.48	1585	13	7.71E-03	29.2	
30	0	911.60*	202	39	1.47	1823.27	1817	14	2.80E-02	10.0	
31	0	969.31*	88	37	1.70	1938.67	1934	12	1.22E-02	17.9	
32	0	1001.72*	100	62	1.65	2003.48	1996	14	1.38E-02	19.8	
33	0	1120.72*	55	40	1.70	2241.45	2237	11	7.67E-03	25.8	
34	0	1238.84	36	46	2.24	2477.66	2472	11	5.03E-03	40.1	
35	0	1378.83	20	10	0.61	2757.59	2753	9	2.74E-03	37.7	
36	0	1461.19*	710	9	1.93	2922.26	2913	20	9.85E-02	3.9	
37	0	1588.32	26	15	1.69	3176.45	3171	12	3.60E-03	35.8	
38	0	1621.00	17	3	1.07	3241.79	3236	12	2.35E-03	31.8	

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1764.86*	68	7	1.95	3529.44	3522	13	9.40E-03	15.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 20:11:58

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799011.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:11:14
Sample ID : G245799011 Sample quantity : 107.20 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.21 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.167E+01	2.302E+00	5.948E-01	4.227E-02	36.440
CD-109	+	88.03	*	4.192E+00	1.615E+00	1.618E+00	1.945E-01	2.590
SN-126	+	64.28		8.722E+00	2.227E+00	1.367E+00	2.354E-01	6.382
	+	86.94		1.713E+00	9.567E-01	6.735E-01	2.840E-01	2.543
	+	87.57	*	4.120E-01	1.587E-01	1.603E-01	1.922E-02	2.570
BA-137M	+	661.65	*	7.967E-01	1.112E-01	6.586E-02	3.212E-03	12.098
CS-137	+	661.65	*	8.422E-01	1.176E-01	6.962E-02	3.416E-03	12.098
TL-208		277.35		6.182E-01	4.217E-01	7.541E-01	8.333E-02	0.820
	+	510.84		6.855E-01	4.496E-01	2.176E-01	2.184E-02	3.150
	+	583.14	*	5.017E-01	9.955E-02	6.164E-02	3.878E-03	8.139
		860.37		4.421E-01	3.510E-01	6.356E-01	5.301E-02	0.696
BI-211		72.87		5.179E+00	4.831E+00	7.596E+00	8.708E-01	0.682
	+	351.07	*	3.459E+00	5.268E-01	3.602E-01	2.433E-02	9.603
BI-212	+	727.18	*	1.304E+00	5.453E-01	5.447E-01	4.164E-02	2.393
		785.46		2.732E+00	2.083E+00	3.822E+00	2.488E-01	0.715
	+	1620.62		2.159E+00	1.381E+00	1.884E+00	1.230E-01	1.145
PB-212	+	74.81		5.430E+00	1.377E+00	8.131E-01	1.202E-01	6.678
	+	77.11		3.228E+00	7.607E-01	4.488E-01	5.149E-02	7.192
	+	87.30		1.905E+00	7.583E-01	7.446E-01	1.161E-01	2.559
	+	238.63	*	1.439E+00	1.659E-01	9.923E-02	7.969E-03	14.507
		300.09		4.904E-01	9.679E-01	1.487E+00	1.309E-01	0.330
PO-212	+	74.81		5.430E+00	1.377E+00	8.131E-01	1.202E-01	6.678
	+	77.11		3.228E+00	7.607E-01	4.488E-01	5.149E-02	7.192
	+	87.30		1.905E+00	7.583E-01	7.446E-01	1.161E-01	2.559
		115.19		7.427E-01	4.747E+00	7.062E+00	5.314E-01	0.105
	+	238.63	*	1.439E+00	1.659E-01	9.923E-02	7.969E-03	14.507
		300.09		4.904E-01	9.679E-01	1.487E+00	1.309E-01	0.330
BI-214	+	609.31	*	1.232E+00	1.980E-01	1.270E-01	9.333E-03	9.703
	+	1120.29		9.441E-01	4.953E-01	4.975E-01	4.635E-02	1.898
	+	1764.49		1.574E+00	4.864E-01	2.206E-01	1.345E-02	7.133
PB-214	+	74.81		9.356E+00	2.311E+00	1.401E+00	1.911E-01	6.678
	+	77.11		5.533E+00	1.371E+00	7.694E-01	1.060E-01	7.192
	+	87.30		3.264E+00	1.282E+00	1.276E+00	1.816E-01	2.559
	+	241.98		2.435E+00	8.654E-01	5.978E-01	5.208E-02	4.074

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.448E+00	3.333E-01	2.494E-01	2.265E-02	5.808
	+	351.92	*	1.203E+00	1.937E-01	1.379E-01	1.176E-02	8.726
PO-214	+	74.81		9.356E+00	2.311E+00	1.401E+00	1.911E-01	6.678
	+	77.11		5.533E+00	1.371E+00	7.694E-01	1.060E-01	7.192
	+	87.30		3.264E+00	1.282E+00	1.276E+00	1.816E-01	2.559
	+	241.98		2.435E+00	8.654E-01	5.978E-01	5.208E-02	4.074
	+	295.21		1.448E+00	3.333E-01	2.494E-01	2.265E-02	5.808
	+	351.92	*	1.203E+00	1.937E-01	1.379E-01	1.176E-02	8.726
PO-216	+	74.81		5.430E+00	1.377E+00	8.131E-01	1.202E-01	6.678
	+	77.11		3.228E+00	7.607E-01	4.488E-01	5.149E-02	7.192
	+	87.30		1.905E+00	7.583E-01	7.446E-01	1.161E-01	2.559
	+	238.63	*	1.439E+00	1.659E-01	9.923E-02	7.969E-03	14.507
		300.09		4.904E-01	9.679E-01	1.487E+00	1.309E-01	0.330
PO-218	+	74.81		9.356E+00	2.311E+00	1.401E+00	1.911E-01	6.678
	+	77.11		5.533E+00	1.371E+00	7.694E-01	1.060E-01	7.192
	+	87.30		3.264E+00	1.282E+00	1.276E+00	1.816E-01	2.559
	+	241.98		2.435E+00	8.654E-01	5.978E-01	5.208E-02	4.074
	+	295.21		1.448E+00	3.333E-01	2.494E-01	2.265E-02	5.808
	+	351.92	*	1.203E+00	1.937E-01	1.379E-01	1.176E-02	8.726
RA-224	+	240.98	*	4.618E+00	1.620E+00	1.130E+00	7.530E-02	4.088
RA-226	+	609.31	*	1.232E+00	1.980E-01	1.270E-01	9.333E-03	9.703
	+	1120.29		9.441E-01	4.953E-01	4.975E-01	4.635E-02	1.898
	+	1764.49		1.574E+00	4.864E-01	2.206E-01	1.345E-02	7.133
AC-228	+	338.32		1.283E+00	6.843E-01	4.218E-01	1.723E-01	3.042
	+	911.07	*	1.546E+00	3.530E-01	2.165E-01	2.360E-02	7.140
	+	969.11		1.194E+00	5.093E-01	5.257E-01	1.212E-01	2.271
RA-228	+	338.32		1.283E+00	6.843E-01	4.218E-01	1.723E-01	3.042
	+	911.07	*	1.546E+00	3.530E-01	2.165E-01	2.360E-02	7.140
	+	969.11		1.194E+00	5.093E-01	5.257E-01	1.212E-01	2.271
TH-228	+	74.81		5.513E+00	1.301E+00	8.256E-01	9.500E-02	6.678
	+	77.11		3.277E+00	7.724E-01	4.557E-01	5.228E-02	7.192
	+	87.30		1.934E+00	7.452E-01	7.560E-01	9.051E-02	2.559
	+	238.63	*	1.462E+00	1.684E-01	1.007E-01	8.091E-03	14.507
		300.09		4.979E-01	1.025E+00	1.509E+00	8.908E-01	0.330
TH-229	+	85.43		5.223E-01	3.170E-01	3.734E-01	4.419E-02	1.399
	+	88.47		3.850E-01	2.030E-01	2.156E-01	2.563E-02	1.786
	+	100.00		7.780E-01	3.466E-01	3.603E-01	3.379E-02	2.159
		193.63	*	1.383E-01	5.670E-01	9.212E-01	5.978E-02	0.150
	+	210.97		1.115E+00	1.374E+00	1.303E+00	8.567E-02	0.855
TH-230	+	609.31	*	1.232E+00	1.980E-01	1.270E-01	9.333E-03	9.703
	+	1120.29		9.441E-01	4.953E-01	4.975E-01	4.635E-02	1.898
	+	1764.49		1.574E+00	4.864E-01	2.206E-01	1.345E-02	7.133
U-231	+	84.21		1.538E+01	9.334E+00	1.126E+01	1.324E+00	1.366
	+	92.29		8.935E+01	1.090E+01	3.995E+00	4.346E-01	22.366
	+	95.87	*	3.132E+00	2.423E+00	1.963E+00	1.984E-01	1.596
		108.00		-2.499E+00	3.022E+00	4.265E+00	3.531E-01	-0.586
TH-232	+	338.32		1.283E+00	4.474E-01	4.218E-01	2.652E-02	3.042
	+	911.07	*	1.546E+00	3.530E-01	2.165E-01	2.360E-02	7.140
	+	969.11		1.194E+00	5.093E-01	5.257E-01	1.212E-01	2.271

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234M	+	766.42		3.360E+01	2.865E+01	2.112E+01	1.064E+01	1.591
	+	1001.03	*	2.752E+01	1.118E+01	8.031E+00	7.322E-01	3.427
TH-234	+	63.29	*	2.204E+01	6.014E+00	3.675E+00	7.271E-01	5.996
	+	92.38		2.287E+01	4.584E+00	1.022E+00	1.967E-01	22.392
U-234	+	609.31	*	1.232E+00	1.980E-01	1.270E-01	9.333E-03	9.703
	+	1120.29		9.441E-01	4.953E-01	4.975E-01	4.635E-02	1.898
	+	1764.49		1.574E+00	4.864E-01	2.206E-01	1.345E-02	7.133
U-235	+	89.95		3.864E+00	2.338E+00	2.116E+00	6.722E-01	1.827
	+	93.35		2.750E+01	8.065E+00	1.214E+00	3.484E-01	22.660
		105.00		5.431E-01	1.287E+00	2.151E+00	6.420E-01	0.253
	+	143.76	*	9.539E-01	5.319E-01	3.588E-01	5.947E-02	2.659
		163.35		3.370E-01	5.374E-01	8.907E-01	1.619E-01	0.378
	+	185.71		5.195E-01	1.029E-01	7.288E-02	4.699E-03	7.128
		205.31		9.413E-01	6.436E-01	1.025E+00	1.870E-01	0.918
NP-237	+	86.50	*	1.210E+00	5.287E-01	4.794E-01	1.142E-01	2.523
	+	95.87		2.700E+00	2.180E+00	1.692E+00	4.264E-01	1.596
U-238	+	63.29	*	2.204E+01	6.014E+00	3.675E+00	7.271E-01	5.996
	+	92.38		2.287E+01	2.791E+00	1.022E+00	1.109E-01	22.392
ANH-511	+	511.00	*	1.481E-01	9.633E-02	4.702E-02	2.629E-03	3.149

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.239E-01	3.810E-01	6.365E-01	4.216E-02	0.195
NA-22		1274.54	*	1.548E-02	5.043E-02	8.713E-02	5.697E-03	0.178
NA-24		1368.53	*	-2.789E-01	5.043E-02	Half-Life too short		
AL-26		1129.67		-2.477E-01	2.079E+00	3.314E+00	2.138E-01	-0.075
		1808.65	*	2.754E-02	2.983E-02	5.895E-02	3.496E-03	0.467
TI-44		67.85		-3.018E-03	7.755E-02	1.173E-01	1.364E-02	-0.026
		78.38	*	2.192E-01	7.407E-02	1.001E-01	1.151E-02	2.191
SC-46		889.25	*	-1.910E-02	4.285E-02	6.700E-02	5.419E-03	-0.285
	+	1120.51		1.618E-01	8.420E-02	1.360E-01	8.910E-03	1.189
V-48		944.10		-3.230E-01	1.052E+00	1.667E+00	1.333E-01	-0.194
		983.50	*	9.129E-03	8.171E-02	1.351E-01	1.047E-02	0.068
		1312.09		-4.700E-02	8.129E-02	1.244E-01	8.379E-03	-0.378
CR-51		320.08	*	2.557E-02	4.286E-01	7.199E-01	5.070E-02	0.036
MN-52		744.21		2.225E-01	2.758E-01	4.917E-01	2.919E-02	0.452
		848.13		-1.758E+00	7.648E+00	1.234E+01	9.180E-01	-0.142
		935.52		1.161E-01	2.787E-01	4.776E-01	3.841E-02	0.243
		1246.25		-4.691E+00	8.671E+00	1.298E+01	8.262E-01	-0.361
		1333.61		3.048E+00	5.078E+00	9.180E+00	6.290E-01	0.332
		1434.06	*	-1.716E-02	2.475E-01	4.134E-01	2.821E-02	-0.042
MN-54		834.83	*	-3.122E-02	4.308E-02	6.630E-02	4.798E-03	-0.471
CO-56		846.75	*	-5.001E-02	4.584E-02	6.703E-02	4.973E-03	-0.746
		977.42		1.520E+00	3.390E+00	5.676E+00	4.420E-01	0.268
		1037.82		8.252E-02	3.427E-01	5.731E-01	4.511E-02	0.144
		1175.09		-3.616E-01	2.508E+00	3.967E+00	2.363E-01	-0.091
	+	1238.25		1.752E-01	1.408E-01	2.057E-01	1.369E-02	0.851

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1360.21		-8.787E-02	1.232E+00	2.033E+00	1.393E-01	-0.043
		1771.40		-1.166E+00	4.087E-01	2.823E-01	1.714E-02	-4.129
CO-57		122.06	*	1.493E-02	2.977E-02	4.997E-02	3.469E-03	0.299
		136.48		1.080E-01	2.282E-01	3.811E-01	2.835E-02	0.283
CO-58		810.76	*	4.648E-03	3.776E-02	6.349E-02	4.383E-03	0.073
FE-59	+	142.65		1.233E+01	6.615E+00	5.692E+00	3.720E-01	2.167
		192.34		4.962E-01	1.028E+00	1.691E+00	2.056E-01	0.293
		1099.22	*	2.214E-04	1.016E-01	1.651E-01	1.261E-02	0.001
		1291.56		2.121E-02	1.321E-01	2.250E-01	1.818E-02	0.094
CO-60		1173.22		-1.402E-02	4.942E-02	7.680E-02	4.567E-03	-0.183
		1332.49	*	5.338E-02	4.098E-02	7.959E-02	5.453E-03	0.671
ZN-65		1115.52	*	3.734E-03	1.107E-01	1.552E-01	1.027E-02	0.024
GE-68		1077.35	*	-7.053E-01	1.422E+00	2.168E+00	1.514E-01	-0.325
AS-73		53.44	*	1.830E+00	1.944E+00	3.376E+00	4.416E-01	0.542
AS-74		595.88	*	1.173E-02	1.012E-01	1.641E-01	8.666E-03	0.071
		634.78		-1.290E-01	3.898E-01	6.004E-01	3.037E-02	-0.215
SE-75		66.05		-5.161E+00	8.105E+00	1.185E+01	1.555E+00	-0.436
		96.73		7.970E-01	1.215E+00	1.514E+00	2.195E-01	0.527
		121.11		8.557E-02	1.593E-01	2.676E-01	2.686E-02	0.320
		136.00		1.430E-02	4.355E-02	7.226E-02	4.843E-03	0.198
		198.60		8.234E-01	2.081E+00	3.367E+00	2.599E-01	0.245
		264.65	*	-1.190E-02	5.206E-02	7.640E-02	5.139E-03	-0.156
		279.53		3.888E-02	1.229E-01	2.107E-01	1.487E-02	0.185
		303.91		-1.885E+00	2.290E+00	3.645E+00	3.650E-01	-0.517
		400.65		8.951E-02	2.847E-01	4.691E-01	4.223E-02	0.191
BR-77	+	87.88		9.435E+02	3.635E+02	4.788E+02	5.754E+01	1.971
		200.40		5.057E+01	1.918E+02	3.113E+02	2.031E+01	0.162
	+	239.00		2.409E+02	2.557E+01	4.232E+01	2.820E+00	5.691
		249.79		-6.471E-01	7.063E+01	1.199E+02	8.003E+00	-0.005
		281.68		-2.778E+01	1.038E+02	1.724E+02	1.145E+01	-0.161
		297.23		1.303E+02	8.377E+01	1.350E+02	8.882E+00	0.965
		303.76		-2.053E+02	2.040E+02	3.214E+02	2.104E+01	-0.639
		439.47		-1.786E+01	1.767E+02	2.876E+02	1.631E+01	-0.062
		484.57		1.663E+02	2.622E+02	4.490E+02	2.533E+01	0.370
		520.65	*	2.216E+00	1.229E+01	1.956E+01	1.089E+00	0.113
		574.64		1.612E+02	2.437E+02	4.149E+02	2.232E+01	0.388
		578.91		-7.775E+01	1.194E+02	1.536E+02	8.235E+00	-0.506
		585.48		1.328E+03	2.923E+02	5.499E+02	2.931E+01	2.414
		755.35		1.933E+02	1.818E+02	3.320E+02	2.021E+01	0.582
		817.79		2.508E+01	1.521E+02	2.562E+02	1.788E+01	0.098
SR-82		698.33		4.927E+00	3.922E+01	6.642E+01	3.542E+00	0.074
		776.49	*	-2.334E-01	4.221E-01	6.647E-01	4.242E-02	-0.351
		1395.20		2.518E+00	1.077E+01	1.858E+01	1.272E+00	0.136
RB-83		520.41	*	2.856E-03	7.853E-02	1.233E-01	6.865E-03	0.023
		529.64		4.549E-02	1.188E-01	1.986E-01	1.101E-02	0.229
		552.65		-1.490E-01	2.126E-01	3.190E-01	1.744E-02	-0.467
RB-84		881.50	*	-4.044E-02	7.456E-02	1.151E-01	9.165E-03	-0.351
KR-85		513.99	*	1.478E+01	7.977E+00	1.464E+01	8.179E-01	1.009
SR-85		513.99	*	7.588E-02	4.096E-02	7.519E-02	4.200E-03	1.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-86		1076.63	*	-3.233E-02	9.157E-01	1.479E+00	1.034E-01	-0.022
Y-88		898.02		-2.261E-02	4.703E-02	7.331E-02	6.066E-03	-0.308
		1836.01	*	-3.438E-02	3.048E-02	2.911E-02	1.699E-03	-1.181
ZR-88		392.90	*	-1.946E-03	3.344E-02	5.502E-02	3.096E-03	-0.035
Y-91		1204.90	*	1.762E+01	2.116E+01	3.704E+01	2.270E+00	0.476
NB-94		702.63	*	-3.893E-03	3.851E-02	6.402E-02	3.449E-03	-0.061
		871.10		4.897E-03	3.653E-02	6.113E-02	4.767E-03	0.080
NB-95		765.79	*	9.856E-02	6.263E-02	1.045E-01	6.513E-03	0.943
NB-95M		235.69	*	3.677E-02	1.596E-01	2.285E-01	1.875E-02	0.161
ZR-95		724.18		5.147E-02	1.194E-01	1.825E-01	1.231E-02	0.282
		756.15	*	6.894E-02	7.376E-02	1.334E-01	9.717E-03	0.517
NB-97		657.90	*	-4.686E-02	7.376E-02	Half-Life too short		
		1024.50		-5.547E+00	7.376E-02	Half-Life too short		
ZR-97		254.15		7.924E-01	7.376E-02	Half-Life too short		
		355.39		9.690E-02	7.376E-02	Half-Life too short		
		507.63	*	3.767E+00	7.376E-02	Half-Life too short		
		602.52		1.402E+00	7.376E-02	Half-Life too short		
		1021.30		-2.082E+00	7.376E-02	Half-Life too short		
		1147.95		-1.856E+00	7.376E-02	Half-Life too short		
		1362.66		9.470E+00	7.376E-02	Half-Life too short		
		1750.46		5.540E+00	7.376E-02	Half-Life too short		
MO-99		140.51		-3.103E+00	3.261E+01	4.703E+01	1.275E+01	-0.066
		181.06		1.828E+01	2.191E+01	3.286E+01	5.706E+00	0.556
		366.43		5.952E-01	1.007E+02	1.673E+02	9.998E+00	0.004
		739.58	*	-8.794E+00	1.414E+01	2.222E+01	3.070E+00	-0.396
		778.00		-1.409E+01	3.748E+01	5.818E+01	3.726E+00	-0.242
TC-99M		140.51	*	-6.425E+09	3.748E+01	Half-Life too short		
RH-101		127.23		1.159E-03	3.579E-02	5.880E-02	3.993E-03	0.020
		198.01	*	3.040E-02	3.767E-02	6.218E-02	4.049E-03	0.489
		325.23		-2.773E-01	2.751E-01	3.679E-01	2.355E-02	-0.754
RH-102		418.52		-1.609E-01	3.288E-01	5.215E-01	2.953E-02	-0.309
		475.06	*	-2.339E-02	3.490E-02	5.389E-02	3.047E-03	-0.434
		631.29		2.044E-02	6.113E-02	1.008E-01	5.123E-03	0.203
		697.49		1.668E-02	8.757E-02	1.491E-01	7.933E-03	0.112
	+	766.84		3.194E-01	2.206E-01	2.675E-01	1.671E-02	1.194
		1046.59		-3.101E-02	1.261E-01	1.989E-01	1.444E-02	-0.156
		1112.84		1.359E-01	2.514E-01	4.310E-01	2.858E-02	0.315
RU-103		497.08	*	2.787E-03	4.604E-02	7.522E-02	9.451E-03	0.037
	+	610.33		1.334E+01	2.784E+00	3.424E+00	5.205E-01	3.897
RH-106	+	511.85		7.398E-01	4.813E-01	5.092E-01	2.847E-02	1.453
		621.84	*	1.001E-01	4.108E-01	6.702E-01	7.657E-02	0.149
		1050.47		5.682E-01	2.349E+00	3.932E+00	2.842E-01	0.144
RU-106	+	511.85		7.398E-01	4.813E-01	5.092E-01	2.847E-02	1.453
		621.84	*	1.001E-01	4.107E-01	6.702E-01	3.443E-02	0.149
		1050.47		5.682E-01	2.349E+00	3.932E+00	2.842E-01	0.144
AG-108M		433.93	*	1.265E-02	3.709E-02	6.241E-02	3.856E-03	0.203
		614.37		-2.886E-02	5.219E-02	6.762E-02	3.872E-03	-0.427
		722.95		1.924E-02	5.217E-02	7.929E-02	4.879E-03	0.243
AG-110M		657.75	*	-1.411E-02	4.447E-02	6.275E-02	3.352E-03	-0.225

---- Non-Identified Nuclides ----

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	+	677.61		3.922E-01	2.848E-01	6.225E-01	3.408E-02	0.630
		706.67		-1.124E-02	2.251E-01	3.755E-01	2.181E-02	-0.030
		763.93		3.056E-01	2.077E-01	3.516E-01	2.300E-02	0.869
		884.67		7.895E-03	5.223E-02	8.749E-02	7.272E-03	0.090
		937.48		-2.918E-02	1.210E-01	1.930E-01	1.614E-02	-0.151
		1384.27		-1.236E-02	1.747E-01	2.455E-01	1.756E-02	-0.050
IN-111		171.28		-2.663E-01	1.177E+00	1.880E+00	1.198E-01	-0.142
		245.39	*	-1.070E+00	1.343E+00	1.747E+00	1.166E-01	-0.612
IN-113M		391.69	*	-3.761E-02	5.098E-02	7.982E-02	4.809E-03	-0.471
SN-113		391.69	*	-3.761E-02	5.098E-02	7.982E-02	4.809E-03	-0.471
IN-114M		190.27	*	-2.094E-01	2.270E-01	3.021E-01	1.955E-02	-0.693
CD-115		260.90		-5.327E+01	1.472E+02	2.445E+02	1.633E+01	-0.218
		492.35		-6.997E+00	4.093E+01	6.558E+01	3.692E+00	-0.107
		527.90	*	2.286E+00	1.242E+01	2.044E+01	1.134E+00	0.112
SN-117M		156.02		-1.730E+00	2.507E+00	3.926E+00	2.519E-01	-0.441
		158.56	*	3.431E-02	6.060E-02	1.010E-01	6.457E-03	0.340
SB-122		563.90	*	1.936E+00	2.504E+00	4.292E+00	2.328E-01	0.451
		692.80		7.465E+00	4.962E+01	8.429E+01	4.435E+00	0.089
I-123		159.00	*	3.304E+00	4.962E+01	Half-Life too short		
		528.96		-7.201E+01	4.962E+01	Half-Life too short		
TE-123M		159.00	*	1.367E-02	3.142E-02	5.201E-02	3.362E-03	0.263
I-124		602.71	*	1.204E-01	7.863E-01	1.183E+00	6.206E-02	0.102
		722.78		1.957E+00	5.570E+00	8.449E+00	4.773E-01	0.232
		1325.50		-2.615E+01	4.210E+01	6.464E+01	4.404E+00	-0.405
		1376.25		2.987E+01	4.015E+01	6.533E+01	4.476E+00	0.457
		1509.49		2.674E+01	1.798E+01	3.589E+01	2.420E+00	0.745
		1691.02		-1.925E+00	3.880E+00	5.537E+00	3.510E-01	-0.348
SB-124		602.71		6.845E-03	4.472E-02	6.730E-02	3.531E-03	0.102
		645.85		-1.291E-01	5.221E-01	8.608E-01	5.023E-02	-0.150
		709.31		-4.698E-01	3.229E+00	5.219E+00	2.856E-01	-0.090
		713.82		-1.009E+00	1.895E+00	3.024E+00	3.042E-01	-0.334
		722.78		1.614E-01	4.592E-01	6.965E-01	4.130E-02	0.232
	+	968.20		1.231E+01	4.523E+00	7.292E+00	5.723E-01	1.688
		1045.16		-7.692E-01	2.854E+00	4.494E+00	3.269E-01	-0.171
		1325.50		-2.302E+00	3.707E+00	5.691E+00	3.878E-01	-0.405
		1368.21		-7.066E-01	2.022E+00	3.193E+00	3.966E-01	-0.221
		1436.60		-1.421E+00	4.434E+00	7.106E+00	4.848E-01	-0.200
		1691.02	*	-3.743E-02	7.546E-02	1.077E-01	7.317E-03	-0.348
SB-125		427.89	*	6.031E-02	1.092E-01	1.861E-01	1.102E-02	0.324
	+	463.38		7.090E-01	4.113E-01	6.215E-01	4.132E-02	1.141
		600.56		-1.522E-02	1.977E-01	3.147E-01	1.965E-02	-0.048
		635.90		-2.441E-02	2.809E-01	4.440E-01	2.737E-02	-0.055
TE-125M		109.28	*	6.901E+00	1.272E+01	1.933E+01	1.919E+00	0.357
I-126		388.63		1.343E-01	2.342E-01	4.017E-01	2.279E-02	0.334
		666.33	*	-9.096E-02	2.423E-01	3.397E-01	1.676E-02	-0.268
		753.82		1.238E-01	1.560E+00	2.621E+00	1.590E-01	0.047
SB-126		223.80		-1.535E+00	4.639E+00	7.234E+00	4.792E-01	-0.212
		278.60		1.892E+00	2.875E+00	5.003E+00	3.326E-01	0.378
	+	296.50		1.453E+01	3.218E+00	4.284E+00	2.821E-01	3.392

---- Non-Identified Nuclides ----

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		414.70		-2.999E-03	9.048E-02	1.486E-01	8.410E-03	-0.020
		415.30		-1.231E+00	7.481E+00	1.217E+01	6.890E-01	-0.101
		555.20		1.394E+00	4.396E+00	7.296E+00	3.983E-01	0.191
		573.80		-2.169E-01	1.174E+00	1.856E+00	9.993E-02	-0.117
		593.00		1.489E-01	9.973E-01	1.624E+00	8.599E-02	0.092
		656.30		-1.273E+00	4.318E+00	6.112E+00	3.004E-01	-0.208
		666.33		-3.802E-02	1.013E-01	1.420E-01	7.006E-03	-0.268
		675.00		1.508E+00	2.339E+00	3.705E+00	1.867E-01	0.407
		695.00		-6.477E-02	8.806E-02	1.384E-01	7.323E-03	-0.468
		697.00		3.624E-02	3.092E-01	5.234E-01	2.782E-02	0.069
		720.50	*	-7.602E-03	1.890E-01	2.867E-01	1.611E-02	-0.027
		856.80		-5.480E-01	5.417E-01	7.993E-01	6.054E-02	-0.686
		989.30		-2.562E-01	1.473E+00	2.358E+00	1.818E-01	-0.109
		1034.80		-8.707E+00	9.836E+00	1.417E+01	1.043E+00	-0.614
		1213.00		-4.305E-01	5.587E+00	8.893E+00	5.492E-01	-0.048
SB-127		61.10		3.498E+01	1.188E+02	1.833E+02	2.573E+01	0.191
		252.40		-4.755E-01	4.767E+00	8.039E+00	3.352E+00	-0.059
		290.80		-3.581E+00	2.685E+01	3.944E+01	3.841E+00	-0.091
		411.60		-1.143E-01	1.595E+01	2.625E+01	3.767E+00	-0.004
		444.90		1.012E+01	1.187E+01	2.055E+01	2.212E+00	0.492
		473.00		-3.730E-01	2.080E+00	3.347E+00	3.729E-01	-0.111
		543.00		1.066E+01	1.776E+01	3.022E+01	3.872E+00	0.353
		603.60		1.698E+00	1.433E+01	2.034E+01	2.138E+00	0.083
		685.20	*	-8.386E-01	1.435E+00	2.272E+00	2.069E-01	-0.369
		698.50		8.037E+00	1.779E+01	3.084E+01	4.418E+00	0.261
		722.20		6.529E+00	3.971E+01	5.890E+01	5.366E+00	0.111
		783.80		1.929E+00	4.742E+00	7.254E+00	8.041E-01	0.266
XE-127		57.60		-2.591E+00	1.245E+01	2.093E+01	2.620E+00	-0.124
	+	145.22		3.161E+00	1.696E+00	1.453E+00	9.458E-02	2.175
		172.10		-3.530E-02	1.349E-01	2.149E-01	1.371E-02	-0.164
		202.84	*	-7.207E-02	5.604E-02	8.326E-02	5.442E-03	-0.866
		374.96		-3.248E-02	2.253E-01	3.697E-01	2.169E-02	-0.088
I-131		80.18		2.127E+00	8.547E+00	1.040E+01	1.206E+00	0.204
		284.30		-1.739E+00	1.619E+00	2.549E+00	1.837E-01	-0.682
		364.48	*	3.977E-02	1.270E-01	2.153E-01	1.434E-02	0.185
		636.97		-5.501E-01	1.639E+00	2.518E+00	1.469E-01	-0.218
		722.89		3.152E+00	8.882E+00	1.348E+01	7.731E-01	0.234
TE-132		49.72		-1.820E+01	5.179E+01	8.680E+01	1.216E+01	-0.210
	+	111.76		8.478E+01	6.592E+01	7.083E+01	7.299E+00	1.197
		116.30		2.833E+01	3.570E+01	5.495E+01	5.479E+00	0.516
		228.16	*	2.274E-01	8.057E-01	1.300E+00	1.917E-01	0.175
BA-133		53.15		7.821E+00	8.503E+00	1.476E+01	1.933E+00	0.530
		79.62		7.581E-01	2.395E+00	2.928E+00	4.990E-01	0.259
		81.00		-2.191E-02	1.814E-01	2.147E-01	3.792E-02	-0.102
		276.40		3.416E-01	4.211E-01	7.351E-01	9.827E-02	0.465
		302.84		-2.344E-01	1.608E-01	2.427E-01	2.924E-02	-0.966
		356.01	*	-1.546E-02	5.991E-02	8.566E-02	1.003E-02	-0.180
		383.85		-6.587E-02	3.394E-01	5.541E-01	6.007E-02	-0.119
I-133	+	510.53		1.686E+00	3.394E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		529.87	*	3.652E-03	3.394E-01	Half-Life too short		
		706.58		-2.904E-02	3.394E-01	Half-Life too short		
		856.28		-5.647E-01	3.394E-01	Half-Life too short		
		875.33		1.600E-02	3.394E-01	Half-Life too short		
		1236.41		6.445E-01	3.394E-01	Half-Life too short		
		1298.22		4.442E-02	3.394E-01	Half-Life too short		
CS-134		475.35		-1.551E+00	2.280E+00	3.517E+00	1.988E-01	-0.441
		563.23		1.934E-01	4.281E-01	7.154E-01	3.976E-02	0.270
		569.32		-4.283E-02	2.283E-01	3.570E-01	1.995E-02	-0.120
		604.70		-1.602E-02	4.104E-02	5.431E-02	2.862E-03	-0.295
	+	795.84	*	1.368E-01	8.038E-02	1.122E-01	7.559E-03	1.220
		801.93		-2.057E-01	5.034E-01	6.825E-01	4.647E-02	-0.301
		1038.57		1.753E+00	4.291E+00	7.305E+00	5.354E-01	0.240
		1167.94		1.477E+00	2.778E+00	4.744E+00	2.851E-01	0.311
		1365.15		2.865E-01	1.550E+00	2.638E+00	1.937E-01	0.109
CS-135		268.24	*	1.830E-01	1.857E-01	2.963E-01	2.470E-02	0.617
I-135		288.45		4.783E+10	1.857E-01	Half-Life too short		
		417.63		-2.578E+10	1.857E-01	Half-Life too short		
		546.56		-9.293E+09	1.857E-01	Half-Life too short		
		836.80		1.186E+10	1.857E-01	Half-Life too short		
		1038.76		1.336E+10	1.857E-01	Half-Life too short		
		1124.00		4.921E+09	1.857E-01	Half-Life too short		
		1131.51		5.659E+08	1.857E-01	Half-Life too short		
		1260.41	*	-2.692E+09	1.857E-01	Half-Life too short		
		1457.56		2.662E+11	1.857E-01	Half-Life too short		
		1678.03		4.374E+08	1.857E-01	Half-Life too short		
		1706.46		3.749E+10	1.857E-01	Half-Life too short		
		1791.20		5.234E+09	1.857E-01	Half-Life too short		
CS-136		66.91		-2.043E-02	1.325E+00	2.008E+00	3.480E-01	-0.010
	+	86.29		5.416E+00	2.149E+00	2.702E+00	4.118E-01	2.005
		153.22		6.330E-01	7.373E-01	1.243E+00	9.627E-02	0.509
		163.89		1.156E+00	1.217E+00	2.054E+00	1.584E-01	0.563
		176.55		5.479E-03	4.187E-01	6.755E-01	4.767E-02	0.008
		273.65		-3.808E-01	5.584E-01	7.892E-01	5.825E-02	-0.482
		340.57		1.257E-01	1.642E-01	2.549E-01	1.684E-02	0.493
		818.51		6.215E-02	7.946E-02	1.419E-01	9.934E-03	0.438
		1048.07	*	-6.158E-02	1.177E-01	1.785E-01	1.371E-02	-0.345
		1235.34		3.642E-01	7.426E-01	1.144E+00	1.176E-01	0.319
CE-139		165.85	*	-2.694E-02	3.423E-02	5.316E-02	3.377E-03	-0.507
BA-140		162.64		6.478E-01	8.620E-01	1.444E+00	1.016E-01	0.449
		304.84		6.545E-01	1.372E+00	2.348E+00	6.446E-01	0.279
		423.70		4.707E-01	2.373E+00	3.945E+00	1.253E+00	0.119
		537.32	*	1.139E-01	2.938E-01	4.874E-01	1.583E-01	0.234
LA-140	+	328.77		3.877E-01	4.622E-01	6.214E-01	4.357E-02	0.624
		432.53		-3.269E-01	2.371E+00	3.851E+00	2.422E-01	-0.085
		487.03		3.657E-02	1.535E-01	2.548E-01	1.637E-02	0.144
		751.79		-1.080E+00	1.816E+00	2.848E+00	2.078E-01	-0.379
		815.85		1.519E-02	3.465E-01	5.770E-01	4.703E-02	0.026
		867.82		-7.384E-01	1.449E+00	2.247E+00	1.854E-01	-0.329

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		919.63		1.497E+00	3.144E+00	5.167E+00	5.297E-01	0.290
		925.24		-7.828E-02	1.301E+00	2.122E+00	1.840E-01	-0.037
		1596.49	*	-2.239E-02	9.798E-02	1.460E-01	9.616E-03	-0.153
CE-141		145.44	*	1.386E-01	7.334E-02	1.282E-01	8.608E-03	1.080
CE-143		57.37		4.403E-04	7.334E-02	Half-Life too short		
		231.56		-1.870E-03	7.334E-02	Half-Life too short		
		293.26	*	5.457E-04	7.334E-02	Half-Life too short		
	+	350.59		2.944E-02	7.334E-02	Half-Life too short		
		490.36		-7.555E-04	7.334E-02	Half-Life too short		
		664.57		6.090E-03	7.334E-02	Half-Life too short		
		721.93		3.928E-04	7.334E-02	Half-Life too short		
CE-144		80.11		1.033E+00	3.893E+00	4.744E+00	5.481E-01	0.218
		133.54	*	-5.800E-02	2.403E-01	3.887E-01	5.666E-02	-0.149
PM-144		476.78		1.794E-02	7.908E-02	1.312E-01	8.947E-03	0.137
		618.01		7.337E-03	3.851E-02	6.256E-02	3.471E-03	0.117
		696.49	*	-5.305E-03	4.041E-02	6.706E-02	3.563E-03	-0.079
		778.57		-9.151E-01	2.653E+00	4.001E+00	2.567E-01	-0.229
PR-144		696.49	*	-3.595E-01	2.738E+00	4.545E+00	2.413E-01	-0.079
		1489.15		-5.350E+00	1.219E+01	1.843E+01	1.248E+00	-0.290
PM-146		453.90	*	5.800E-03	5.120E-02	8.447E-02	7.210E-03	0.069
		633.02		8.065E-01	1.532E+00	2.531E+00	9.293E-01	0.319
		735.90		1.192E-01	1.737E-01	3.016E-01	8.412E-02	0.395
		747.13		-1.733E-02	9.861E-02	1.618E-01	2.036E-02	-0.107
ND-147	+	91.11		9.789E-01	5.174E-01	1.015E+00	1.191E-01	0.964
		319.41		9.731E-01	3.864E+00	6.560E+00	4.230E-01	0.148
		439.89		1.168E+00	6.995E+00	1.161E+01	6.587E-01	0.101
		531.02	*	2.591E-01	6.370E-01	1.066E+00	1.430E-01	0.243
PM-149		285.90	*	-6.351E+01	1.030E+02	1.666E+02	2.421E+01	-0.381
EU-152		121.78		4.221E-02	8.635E-02	1.448E-01	1.234E-02	0.291
		244.69		-7.695E-02	3.850E-01	5.307E-01	3.541E-02	-0.145
		344.27	*	4.750E-02	1.141E-01	1.890E-01	1.308E-02	0.251
		443.98		3.481E-01	1.131E+00	1.895E+00	1.075E-01	0.184
		778.89		-4.721E-02	3.058E-01	4.532E-01	2.908E-02	-0.104
		867.32		-5.334E-01	8.461E-01	1.290E+00	9.986E-02	-0.413
		964.01		6.086E-01	3.591E-01	6.185E-01	4.870E-02	0.984
		1085.78		-7.199E-02	4.427E-01	7.032E-01	4.855E-02	-0.102
		1112.02		-1.163E-02	3.568E-01	5.748E-01	3.816E-02	-0.020
		1407.95		1.408E-02	2.139E-01	3.573E-01	2.444E-02	0.039
GD-153		69.67		-2.215E+00	2.488E+00	4.009E+00	4.630E-01	-0.553
	+	83.37		4.093E+01	2.485E+01	3.552E+01	4.158E+00	1.152
	+	97.43	*	3.220E-01	1.435E-01	1.804E-01	1.771E-02	1.785
		103.18		-2.156E-01	1.473E-01	1.986E-01	1.767E-02	-1.086
EU-154		123.07		2.804E-03	6.210E-02	1.022E-01	1.035E-02	0.027
		247.94		-4.281E-02	4.422E-01	6.149E-01	6.208E-02	-0.070
		591.81		-7.872E-02	6.365E-01	1.008E+00	9.566E-02	-0.078
		723.30		3.995E-02	2.258E-01	3.354E-01	2.335E-02	0.119
		756.87		2.192E-01	8.159E-01	1.394E+00	1.438E-01	0.157
		873.19		1.238E-01	3.250E-01	5.570E-01	6.519E-02	0.222
		996.32		1.724E-01	4.312E-01	6.489E-01	1.124E-01	0.266

---- Non-Identified Nuclides ----

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		1004.76		1.394E-01	3.109E-01	4.651E-01	5.071E-02	0.300
		1274.45	*	4.894E-02	1.398E-01	2.426E-01	2.380E-02	0.202
EU-155		48.70		-9.524E-01	6.734E+00	1.141E+01	1.315E+00	-0.083
		60.01		1.175E-01	1.059E+01	1.615E+01	1.962E+00	0.007
	+	86.54		4.962E-01	1.912E-01	2.498E-01	2.992E-02	1.986
		105.31	*	6.443E-02	1.302E-01	2.196E-01	1.914E-02	0.293
TB-160	+	86.79		1.327E+00	5.112E-01	6.724E-01	8.023E-02	1.974
		197.04		-8.065E-02	6.504E-01	1.026E+00	6.675E-02	-0.079
		215.65		-6.971E-02	9.670E-01	1.363E+00	8.988E-02	-0.051
		298.57		7.243E-02	1.376E-01	2.120E-01	1.393E-02	0.342
		879.36	*	1.164E-02	1.473E-01	2.449E-01	1.942E-02	0.048
		962.29		4.287E-01	5.965E-01	9.963E-01	7.856E-02	0.430
		966.15		4.162E-01	2.637E-01	4.448E-01	3.496E-02	0.936
		1177.93		1.167E-01	4.541E-01	6.901E-01	4.123E-02	0.169
		1271.85		3.939E-01	8.390E-01	1.472E+00	9.584E-02	0.268
HO-166M		80.57		9.158E-02	4.945E-01	5.990E-01	6.932E-02	0.153
	+	184.41		3.896E-01	7.719E-02	9.159E-02	5.899E-03	4.254
		280.46		7.780E-03	9.439E-02	1.599E-01	1.062E-02	0.049
		410.95		2.367E-01	3.148E-01	5.413E-01	3.061E-02	0.437
		711.68	*	-9.821E-03	6.799E-02	1.124E-01	6.189E-03	-0.087
		752.31		-7.081E-02	2.848E-01	4.633E-01	2.801E-02	-0.153
		810.29		-3.041E-02	5.905E-02	9.220E-02	6.334E-03	-0.330
TM-171		51.35		-9.309E+01	7.594E+01	1.207E+02	1.563E+01	-0.771
		52.39		-2.452E+00	3.821E+01	6.427E+01	8.407E+00	-0.038
		59.40		1.327E+00	5.675E+01	8.660E+01	1.056E+01	0.015
		66.72	*	-1.248E+00	4.739E+01	7.177E+01	8.390E+00	-0.017
LU-176	+	88.36		9.771E-01	3.764E-01	4.880E-01	5.817E-02	2.002
		201.83		-3.677E-02	3.329E-02	4.998E-02	3.265E-03	-0.736
		306.84	*	-1.116E-03	2.706E-02	4.529E-02	2.957E-03	-0.025
		401.10		1.291E+00	7.467E+00	1.219E+01	6.875E-01	0.106
LU-177	+	112.95		4.594E+00	3.559E+00	3.830E+00	2.965E-01	1.200
		208.36	*	-9.334E-01	1.561E+00	2.130E+00	1.398E-01	-0.438
LU-177M		52.97		2.711E+00	3.892E+00	6.719E+00	8.798E-01	0.403
		54.07		1.542E+00	1.977E+00	3.418E+00	4.457E-01	0.451
		61.30		1.777E+00	3.013E+00	4.705E+00	5.676E-01	0.378
		121.62		3.348E-01	4.382E-01	7.435E-01	5.178E-02	0.450
		147.16		2.075E-01	8.002E-01	1.182E+00	7.670E-02	0.176
		171.86		-1.421E-01	5.425E-01	8.642E-01	5.511E-02	-0.164
		218.09		-6.378E-02	9.615E-01	1.526E+00	1.007E-01	-0.042
	+	268.79		2.170E+00	1.319E+00	1.605E+00	1.070E-01	1.352
		319.02		-1.177E-02	3.005E-01	5.019E-01	3.236E-02	-0.023
		367.43		1.324E-01	1.047E+00	1.752E+00	1.045E-01	0.076
		413.65	*	-4.807E-02	2.177E-01	3.533E-01	1.999E-02	-0.136
HF-181		56.28		-1.561E-01	1.977E+00	3.344E+00	4.264E-01	-0.047
		57.53		-1.271E-01	1.047E+00	1.766E+00	2.214E-01	-0.072
		65.20		-5.880E-01	1.670E+00	2.488E+00	2.933E-01	-0.236
		133.02		1.085E-02	7.711E-02	1.270E-01	8.474E-03	0.085
		136.25		1.265E-01	5.112E-01	8.452E-01	5.596E-02	0.150
		345.85		-1.214E-01	2.229E-01	3.450E-01	2.143E-02	-0.352

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		482.03	*	-6.940E-02	5.083E-02	7.167E-02	4.046E-03	-0.968
W-181		56.28		-6.029E-02	7.727E-01	1.307E+00	1.666E-01	-0.046
		57.53		-4.953E-02	4.095E-01	6.910E-01	8.660E-02	-0.072
		65.20	*	-2.282E-01	6.480E-01	9.655E-01	1.138E-01	-0.236
TA-182		67.75		-8.578E-03	1.856E-01	2.806E-01	3.265E-02	-0.031
	+	100.10		7.504E-01	3.344E-01	3.919E-01	3.668E-02	1.915
		152.43		1.072E-01	3.784E-01	6.231E-01	4.014E-02	0.172
		222.10		4.755E-02	3.885E-01	6.225E-01	4.120E-02	0.076
	+	1001.68		1.213E+01	4.891E+00	6.939E+00	5.287E-01	1.749
	+	1121.28		4.467E-01	2.325E-01	3.841E-01	2.512E-02	1.163
		1189.05		7.987E-02	3.674E-01	6.045E-01	3.650E-02	0.132
		1221.42	*	-6.102E-03	2.299E-01	3.851E-01	2.397E-02	-0.016
		1230.97		-4.064E-02	5.326E-01	8.464E-01	5.314E-02	-0.048
RE-183		57.98		-9.925E-02	4.021E-01	6.749E-01	8.404E-02	-0.147
		59.32		6.884E-03	2.344E-01	3.578E-01	4.368E-02	0.019
		67.20		1.660E-01	3.298E-01	5.117E-01	5.968E-02	0.324
		162.32	*	5.573E-02	1.247E-01	2.063E-01	1.315E-02	0.270
	+	208.81		1.425E+00	1.758E+00	1.915E+00	1.257E-01	0.744
		291.72		4.575E-02	1.161E+00	1.729E+00	1.142E-01	0.026
RE-184		57.98		-3.654E-01	1.481E+00	2.485E+00	3.094E-01	-0.147
		59.32		2.533E-02	8.623E-01	1.316E+00	1.607E-01	0.019
		67.20		6.111E-01	1.214E+00	1.883E+00	2.197E-01	0.324
		161.27		-3.002E-01	4.053E-01	6.321E-01	4.032E-02	-0.475
		216.55		-1.435E-01	3.006E-01	4.657E-01	3.072E-02	-0.308
		252.85	*	5.020E-02	2.438E-01	4.182E-01	2.793E-02	0.120
		318.01		-1.733E-01	5.100E-01	8.364E-01	5.400E-02	-0.207
		792.07		-4.813E-01	1.891E+00	1.698E+00	1.122E-01	-0.283
		903.28		8.885E-01	1.100E+00	1.918E+00	1.573E-01	0.463
		920.93		-5.432E-02	5.052E-01	8.197E-01	6.656E-02	-0.066
OS-185		59.72		4.020E-02	6.269E-01	9.583E-01	1.166E-01	0.042
		61.14		1.169E-01	3.301E-01	5.107E-01	6.168E-02	0.229
		69.30		-2.933E-01	4.452E-01	7.254E-01	8.387E-02	-0.404
		592.07		-3.723E-01	2.623E+00	4.147E+00	2.198E-01	-0.090
		646.12	*	-2.451E-04	4.362E-02	7.351E-02	3.664E-03	-0.003
		717.42		2.041E-03	1.047E+00	1.753E+00	9.780E-02	0.001
		874.81		1.060E-01	6.536E-01	1.096E+00	8.610E-02	0.097
		880.27		-2.598E-01	8.261E-01	1.312E+00	1.043E-01	-0.198
RE-188		155.03	*	-2.567E-02	1.876E-01	3.026E-01	1.943E-02	-0.085
		477.96		3.716E+00	3.565E+00	6.263E+00	3.539E-01	0.593
		633.10		1.497E+00	3.031E+00	5.082E+00	2.576E-01	0.295
W-188	+	63.58		8.869E+02	1.974E+02	2.368E+02	2.818E+01	3.746
		227.08		6.424E+00	1.422E+01	2.318E+01	1.538E+00	0.277
		290.67	*	-1.340E+00	9.070E+00	1.331E+01	8.796E-01	-0.101
IR-192	+	295.96		1.106E+00	2.451E-01	3.310E-01	2.207E-02	3.341
		308.46		9.094E-04	1.033E-01	1.734E-01	1.141E-02	0.005
		316.51	*	-4.566E-03	3.832E-02	6.371E-02	4.136E-03	-0.072
		468.07		-7.370E-02	9.534E-02	1.252E-01	8.224E-03	-0.588
		604.41		-4.794E-02	5.376E-01	7.420E-01	8.216E-02	-0.065
		612.46		9.755E-01	9.601E-01	1.490E+00	1.060E-01	0.655

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AU-195		65.12		-6.628E-02	3.020E-01	4.533E-01	5.346E-02	-0.146
		66.83		1.156E-02	1.569E-01	2.388E-01	2.790E-02	0.048
	+	75.70		2.850E+00	6.718E-01	5.849E-01	6.700E-02	4.873
	+	98.88	*	9.378E-01	4.179E-01	5.540E-01	5.297E-02	1.693
		129.76		6.045E-01	3.422E+00	5.648E+00	3.804E-01	0.107
TL-200		367.94	*	2.515E-04	3.422E+00	Half-Life too short		
		579.30		-2.781E-03	3.422E+00	Half-Life too short		
		828.27		-3.008E-03	3.422E+00	Half-Life too short		
		1205.75		2.115E-03	3.422E+00	Half-Life too short		
TL-201		68.90		-1.779E+00	7.327E+00	1.223E+01	1.416E+00	-0.145
		70.82		1.743E+00	4.497E+00	6.899E+00	7.940E-01	0.253
		80.30		2.082E+00	9.479E+00	1.151E+01	1.331E+00	0.181
		135.34		3.531E+00	2.950E+01	4.850E+01	3.218E+00	0.073
		167.43	*	-1.846E+00	8.171E+00	1.306E+01	8.305E-01	-0.141
TL-202		68.90		-1.562E-01	6.433E-01	1.074E+00	1.243E-01	-0.145
		70.82		1.526E-01	3.937E-01	6.041E-01	6.952E-02	0.253
		80.30		1.823E-01	8.302E-01	1.008E+00	1.166E-01	0.181
		439.56	*	-5.157E-03	8.298E-02	1.355E-01	7.684E-03	-0.038
HG-203		70.83		6.727E-01	1.698E+00	2.604E+00	4.061E-01	0.258
		72.87		1.032E+00	9.684E-01	1.514E+00	2.303E-01	0.682
		82.60		1.473E+00	1.607E+00	2.490E+00	3.942E-01	0.591
		279.20	*	-6.190E-03	4.711E-02	7.895E-02	5.497E-03	-0.078
BI-207		72.80		2.930E-01	2.819E-01	4.429E-01	5.079E-02	0.661
	+	74.97		1.580E+00	3.724E-01	2.971E-01	3.402E-02	5.319
	+	84.90		5.292E-01	3.212E-01	4.441E-01	5.240E-02	1.192
		569.67		-1.839E-02	3.700E-02	5.629E-02	3.040E-03	-0.327
		1063.62	*	3.213E-02	5.155E-02	9.031E-02	6.423E-03	0.356
		1770.23		-2.116E-01	4.931E-01	5.599E-01	3.402E-02	-0.378
TL-207		81.07		-5.733E-02	3.997E-01	4.722E-01	5.474E-02	-0.121
	+	83.78		3.489E-01	2.118E-01	3.011E-01	3.531E-02	1.159
	+	94.90		6.269E-01	4.849E-01	5.609E-01	5.781E-02	1.118
		122.32		-4.458E-01	2.118E+00	3.449E+00	2.653E-01	-0.129
	+	144.24		3.091E+00	1.664E+00	1.520E+00	1.188E-01	2.034
		154.21		-8.509E-02	4.413E-01	7.101E-01	5.355E-02	-0.120
	+	269.46		5.077E-01	3.087E-01	3.965E-01	2.735E-02	1.280
		323.87	*	-2.626E-01	8.329E-01	1.192E+00	1.996E-01	-0.220
	+	338.28		5.358E+00	1.927E+00	2.691E+00	2.908E-01	1.991
		445.03		2.195E+00	2.686E+00	4.644E+00	4.736E-01	0.473
PO-209		260.50		-3.503E+00	1.039E+01	1.727E+01	1.154E+00	-0.203
		262.80		1.898E+00	2.804E+01	4.764E+01	3.181E+00	0.040
		896.60	*	1.966E+00	8.044E+00	1.359E+01	1.115E+00	0.145
BI-210		46.50	*	6.641E+00	1.163E+01	1.987E+01	1.732E+00	0.334
PB-210		46.50	*	6.641E+00	1.163E+01	1.987E+01	1.732E+00	0.334
PO-210		46.50	*	6.641E+00	1.162E+01	1.987E+01	1.544E+00	0.334
PB-211		404.84	*	-6.927E-01	1.163E+00	1.701E+00	1.060E+00	-0.407
		427.08		9.414E-01	2.578E+00	4.231E+00	2.615E+00	0.222
		831.96		6.189E-01	1.406E+00	2.334E+00	1.458E+00	0.265
PO-215		81.07		-5.733E-02	3.997E-01	4.722E-01	5.474E-02	-0.121
	+	83.78		3.489E-01	2.118E-01	3.011E-01	3.531E-02	1.159

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	94.90		6.269E-01	4.849E-01	5.609E-01	5.781E-02	1.118
		122.32		-4.458E-01	2.118E+00	3.449E+00	2.653E-01	-0.129
	+	144.24		3.091E+00	1.664E+00	1.520E+00	1.188E-01	2.034
		154.21		-8.509E-02	4.413E-01	7.101E-01	5.355E-02	-0.120
	+	269.46		5.077E-01	3.087E-01	3.965E-01	2.735E-02	1.280
		323.87	*	-2.626E-01	8.329E-01	1.192E+00	1.996E-01	-0.220
	+	338.28		5.358E+00	1.927E+00	2.691E+00	2.908E-01	1.991
		445.03		2.195E+00	2.686E+00	4.644E+00	4.736E-01	0.473
RN-219	+	271.23		6.513E-01	3.977E-01	4.966E-01	4.343E-02	1.312
		401.81	*	-1.908E-01	4.691E-01	7.329E-01	9.923E-02	-0.260
RN-220		549.76	*	1.268E+01	2.653E+01	4.481E+01	2.455E+00	0.283
RA-223		81.07		-5.733E-02	3.997E-01	4.722E-01	5.474E-02	-0.121
	+	83.78		3.489E-01	2.118E-01	3.011E-01	3.531E-02	1.159
	+	94.90		6.269E-01	4.849E-01	5.609E-01	5.781E-02	1.118
		122.32		-4.458E-01	2.118E+00	3.449E+00	2.653E-01	-0.129
	+	144.24		3.091E+00	1.664E+00	1.520E+00	1.188E-01	2.034
		154.21		-8.509E-02	4.413E-01	7.101E-01	5.355E-02	-0.120
	+	269.46		5.077E-01	3.087E-01	3.965E-01	2.735E-02	1.280
		323.87	*	-2.626E-01	8.329E-01	1.192E+00	1.996E-01	-0.220
	+	338.28		5.358E+00	1.927E+00	2.691E+00	2.908E-01	1.991
		445.03		2.195E+00	2.686E+00	4.644E+00	4.736E-01	0.473
AC-227		79.80		9.583E-01	3.035E+00	3.705E+00	8.459E-01	0.259
		236.00		1.207E-01	2.956E-01	4.280E-01	4.687E-02	0.282
		256.20	*	4.895E-02	4.097E-01	6.989E-01	1.003E-01	0.070
		286.10		-1.718E-01	1.625E+00	2.721E+00	3.264E-01	-0.063
		299.80		2.289E+00	1.762E+00	2.805E+00	4.650E-01	0.816
		304.40		-7.934E-02	2.005E+00	3.357E+00	5.895E-01	-0.024
		334.20		-6.819E-01	2.886E+00	4.141E+00	7.663E-01	-0.165
TH-227		79.80		9.583E-01	3.035E+00	3.705E+00	8.555E-01	0.259
	+	94.00		5.015E+00	4.007E+00	7.784E+00	1.758E+00	0.644
		236.00		1.207E-01	2.955E-01	4.280E-01	4.121E-02	0.282
		256.20	*	4.895E-02	4.098E-01	6.989E-01	1.204E-01	0.070
		286.10		-1.718E-01	1.634E+00	2.721E+00	2.727E+00	-0.063
		299.80		2.289E+00	1.762E+00	2.805E+00	4.650E-01	0.816
		304.40		-7.934E-02	2.005E+00	3.357E+00	5.895E-01	-0.024
		334.20		-6.819E-01	2.886E+00	4.141E+00	7.663E-01	-0.165
PA-231		283.67	*	-4.017E-01	1.626E+00	2.701E+00	3.822E-01	-0.149
		301.29		2.242E-01	6.404E-01	1.062E+00	1.157E-01	0.211
TH-231		81.07		-5.733E-02	3.997E-01	4.722E-01	5.474E-02	-0.121
	+	83.78		3.489E-01	2.118E-01	3.011E-01	3.531E-02	1.159
	+	94.90		6.269E-01	4.849E-01	5.609E-01	5.781E-02	1.118
		122.32		-4.458E-01	2.118E+00	3.449E+00	2.653E-01	-0.129
	+	144.24		3.091E+00	1.664E+00	1.520E+00	1.188E-01	2.034
		154.21		-8.509E-02	4.413E-01	7.101E-01	5.355E-02	-0.120
	+	269.46		5.077E-01	3.087E-01	3.965E-01	2.735E-02	1.280
		323.87	*	-2.626E-01	8.329E-01	1.192E+00	1.996E-01	-0.220
	+	338.28		5.358E+00	1.927E+00	2.691E+00	2.908E-01	1.991
		445.03		2.195E+00	2.686E+00	4.644E+00	4.736E-01	0.473
PA-233	+	75.28		4.611E+01	1.234E+01	8.796E+00	1.504E+00	5.242

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.59		8.065E+00	3.721E+00	4.067E+00	1.141E+00	1.983
		300.12		2.511E-01	5.007E-01	7.677E-01	1.058E-01	0.327
		311.98	*	5.861E-03	6.858E-02	1.156E-01	7.880E-03	0.051
		340.50		7.955E-01	8.201E-01	1.262E+00	2.913E-01	0.630
		398.62		-6.552E-01	2.292E+00	3.694E+00	9.537E-01	-0.177
		415.76		-1.351E-01	1.904E+00	3.118E+00	6.406E-01	-0.043
PA-234	+	63.00		2.569E+01	6.606E+00	7.082E+00	1.244E+00	3.627
	+	94.67		4.472E-01	3.482E-01	4.354E-01	5.949E-02	1.027
	+	98.44		3.798E-01	2.692E-01	2.225E-01	1.245E-01	1.707
	+	99.86		1.969E+00	8.772E-01	1.085E+00	1.020E-01	1.814
		111.00		1.182E-01	2.633E-01	3.977E-01	4.620E-02	0.297
		131.20		1.260E-03	1.276E-01	2.091E-01	1.402E-02	0.006
		152.70		2.970E-01	3.593E-01	6.015E-01	9.656E-02	0.494
	+	186.00		1.403E+01	5.043E+00	3.750E+00	1.151E+00	3.740
		226.40		1.677E-02	4.571E-01	7.280E-01	8.735E-02	0.023
		227.20		2.462E-01	4.813E-01	7.871E-01	5.222E-02	0.313
		248.90		-6.146E-02	9.094E-01	1.430E+00	3.109E-01	-0.043
	+	293.70		6.952E+00	1.859E+00	1.877E+00	3.076E-01	3.704
		369.80		9.871E-02	1.002E+00	1.672E+00	3.487E-01	0.059
		568.70		-2.295E-01	1.189E+00	1.861E+00	1.006E-01	-0.123
		569.50		-1.299E-01	3.241E-01	4.973E-01	2.686E-02	-0.261
		574.00		-5.105E-01	1.696E+00	2.653E+00	1.428E-01	-0.192
		699.00		1.053E+00	8.470E-01	1.518E+00	2.708E-01	0.693
		706.10		-6.838E-01	1.174E+00	1.800E+00	7.938E-01	-0.380
		733.00		-1.025E-01	5.030E-01	7.118E-01	1.513E-01	-0.144
		742.81		4.268E-01	1.608E+00	2.703E+00	1.809E+00	0.158
	+	796.30		2.659E+00	1.704E+00	2.135E+00	5.656E-01	1.245
		805.60		6.642E-01	1.092E+00	1.888E+00	5.698E-01	0.352
		819.60		3.583E-01	1.362E+00	2.305E+00	8.688E-01	0.155
		826.30		-9.053E-01	1.007E+00	1.371E+00	6.096E-01	-0.660
		831.60		4.256E-01	7.078E-01	1.220E+00	3.593E-01	0.349
		876.40		2.718E-01	9.455E-01	1.537E+00	1.579E+00	0.177
		880.51		-6.973E-02	3.011E-01	4.832E-01	3.840E-02	-0.144
		883.24		-1.535E-01	3.305E-01	4.892E-01	3.285E-01	-0.314
		899.00		-7.502E-01	1.003E+00	1.424E+00	6.213E-01	-0.527
		925.00		2.235E-01	1.312E+00	2.194E+00	1.777E-01	0.102
		926.50		8.477E-02	1.950E-01	3.331E-01	8.362E-02	0.254
		946.00	*	1.156E-01	3.555E-01	6.009E-01	1.110E-01	0.192
		949.00		3.345E-01	5.222E-01	9.101E-01	7.249E-02	0.368
		980.50		-1.419E-01	8.634E-01	1.385E+00	1.076E-01	-0.102
		1394.10		2.898E-02	1.215E+00	2.026E+00	1.314E+00	0.014
NP-236	+	94.67		3.392E-01	2.624E-01	3.308E-01	3.425E-02	1.025
	+	98.44		2.871E-01	1.279E-01	1.682E-01	1.621E-02	1.707
		111.00		8.939E-02	1.990E-01	3.008E-01	2.390E-02	0.297
		160.31	*	-4.573E-02	9.120E-02	1.442E-01	9.205E-03	-0.317
NP-239	+	99.55		6.563E-01	2.924E-01	3.787E-01	3.579E-02	1.733
		117.00	*	2.733E-02	2.429E-01	3.603E-01	2.651E-02	0.076
	+	209.75		1.123E+00	1.385E+00	1.543E+00	1.013E-01	0.728
		228.18		7.086E-02	2.555E-01	4.124E-01	2.737E-02	0.172

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		1.833E-01	2.052E-01	3.610E-01	2.401E-02	0.508
		334.30		-4.779E-01	1.629E+00	2.327E+00	1.472E-01	-0.205
AM-241		59.54	*	9.677E-02	3.250E-01	5.025E-01	6.344E-02	0.193
AM-243		74.67	*	3.149E-01	9.679E-02	1.659E-01	1.900E-02	1.898
	+	86.72		4.536E+01	1.748E+01	2.295E+01	2.737E+00	1.977
		117.66		-5.622E+00	5.026E+00	6.878E+00	5.021E-01	-0.817
		142.18		3.233E+01	1.999E+01	3.473E+01	2.272E+00	0.931
CM-243	+	99.55		6.753E-01	3.009E-01	3.897E-01	3.682E-02	1.733
		103.76	*	-1.088E-01	1.170E-01	1.855E-01	1.635E-02	-0.587
		117.00		2.812E-02	2.499E-01	3.707E-01	2.727E-02	0.076
	+	209.75		1.107E+00	1.365E+00	1.521E+00	9.989E-02	0.728
		228.18		7.160E-02	2.582E-01	4.167E-01	2.766E-02	0.172
		277.60		1.848E-01	2.069E-01	3.640E-01	2.421E-02	0.508
AM-246		798.80		-8.050E-02	1.703E-01	2.283E-01	1.530E-02	-0.353
		1036.00		-2.821E-01	3.354E-01	4.876E-01	3.584E-02	-0.579
		1062.04		3.803E-02	2.316E-01	3.838E-01	2.735E-02	0.099
		1078.86	*	-1.534E-02	1.567E-01	2.509E-01	1.749E-02	-0.061
CM-247		278.00		7.893E-01	8.494E-01	1.497E+00	9.953E-02	0.527
		287.40		6.510E-01	1.324E+00	2.291E+00	1.517E-01	0.284
		402.60	*	-1.138E-02	4.121E-02	6.663E-02	3.760E-03	-0.171
CF-249		252.85		1.883E-01	9.144E-01	1.568E+00	1.047E-01	0.120
		333.44		-4.038E-02	2.468E-01	3.012E-01	1.907E-02	-0.134
		387.95	*	1.702E-02	4.560E-02	7.726E-02	4.390E-03	0.220
CF-251		176.60	*	2.550E-03	1.433E-01	2.313E-01	1.481E-02	0.011
		227.00		6.068E-02	4.317E-01	6.916E-01	4.588E-02	0.088
		285.00		-2.721E+00	1.910E+00	2.937E+00	1.947E-01	-0.926

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                               DETECTOR DATA                                 *
*                                                                             *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799011        *
* Acquisition date : 10-FEB-2010 18:11:14 Detector SN#     :                  *
* Detector ID        : GAM04               Sensitivity      : 5.000           *
* Geometry           : CAN                 Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:01.21      Half life ratio :  8.000           *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID          : G245799011           Analyst initials: RXF2            *
* Batch Number       : 947531               Sample Quantity : 1.0720E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000       *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
* Standard Weight  :   0.00000                                                *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.167E+01	2.256E+00	5.909E-01	0.000E+00
CD-109	4.192E+00	1.583E+00	1.635E+00	0.000E+00
SN-126	4.120E-01	1.555E-01	1.619E-01	0.000E+00
BA-137M	7.967E-01	1.090E-01	6.575E-02	0.000E+00
CS-137	8.422E-01	1.153E-01	6.950E-02	0.000E+00
TL-208	5.017E-01	9.756E-02	6.158E-02	0.000E+00
BI-211	3.459E+00	5.162E-01	3.610E-01	0.000E+00
BI-212	1.304E+00	5.344E-01	5.435E-01	0.000E+00
PB-212	1.439E+00	1.626E-01	9.966E-02	0.000E+00
PO-212	1.439E+00	1.626E-01	9.966E-02	0.000E+00
BI-214	1.232E+00	1.941E-01	1.269E-01	0.000E+00
PB-214	1.203E+00	1.898E-01	1.382E-01	0.000E+00
PO-214	1.203E+00	1.898E-01	1.382E-01	0.000E+00
PO-216	1.439E+00	1.626E-01	9.966E-02	0.000E+00
PO-218	1.203E+00	1.898E-01	1.382E-01	0.000E+00
RA-224	4.618E+00	1.588E+00	1.134E+00	0.000E+00
RA-226	1.232E+00	1.941E-01	1.269E-01	0.000E+00
AC-228	1.546E+00	3.459E-01	2.157E-01	0.000E+00
RA-228	1.546E+00	3.459E-01	2.157E-01	0.000E+00
TH-228	1.462E+00	1.651E-01	1.012E-01	0.000E+00
TH-229	1.383E-01	5.557E-01	9.264E-01	0.000E+00
TH-230	1.232E+00	1.940E-01	1.269E-01	0.000E+00
U-231	3.132E+00	2.374E+00	1.982E+00	0.000E+00
TH-232	1.546E+00	3.459E-01	2.157E-01	0.000E+00
PA-234M	2.752E+01	1.096E+01	7.998E+00	0.000E+00
TH-234	2.204E+01	5.893E+00	3.720E+00	0.000E+00
U-234	1.232E+00	1.940E-01	1.269E-01	0.000E+00
U-235	9.539E-01	5.213E-01	3.614E-01	0.000E+00
NP-237	1.210E+00	5.181E-01	4.844E-01	0.000E+00
U-238	2.204E+01	5.893E+00	3.720E+00	0.000E+00
ANH-511	1.481E-01	9.441E-02	4.701E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	1.239E-01	3.734E-01	6.367E-01	0.000E+00	NOT IDENT.
NA-22	1.548E-02	4.942E-02	8.664E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.652E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.754E-02	2.924E-02	5.850E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.259E-02	1.012E-01	0.000E+00	NOT IDENT.
SC-46	-1.910E-02	4.200E-02	6.677E-02	0.000E+00	FAIL ABUN
V-48	9.129E-03	8.007E-02	1.346E-01	0.000E+00	NOT IDENT.
CR-51	2.557E-02	4.201E-01	7.218E-01	0.000E+00	NOT IDENT.
MN-52	-1.716E-02	2.426E-01	4.108E-01	0.000E+00	NOT IDENT.
MN-54	-3.122E-02	4.222E-02	6.610E-02	0.000E+00	NOT IDENT.
CO-56	-5.001E-02	4.492E-02	6.682E-02	0.000E+00	FAIL ABUN
CO-57	1.493E-02	2.917E-02	5.039E-02	0.000E+00	NOT IDENT.
CO-58	4.648E-03	3.701E-02	6.331E-02	0.000E+00	NOT IDENT.
FE-59	2.214E-04	9.957E-02	1.643E-01	0.000E+00	FAIL ABUN
CO-60	5.338E-02	4.016E-02	7.912E-02	0.000E+00	NOT IDENT.
ZN-65	3.734E-03	1.085E-01	1.545E-01	0.000E+00	NOT IDENT.
GE-68	-7.053E-01	1.394E+00	2.158E+00	0.000E+00	NOT IDENT.
AS-73	1.830E+00	1.905E+00	3.421E+00	0.000E+00	NOT IDENT.
AS-74	1.173E-02	9.918E-02	1.640E-01	0.000E+00	NOT IDENT.
SE-75	-1.190E-02	5.101E-02	7.669E-02	0.000E+00	NOT IDENT.
BR-77	2.216E+00	1.204E+01	1.955E+01	0.000E+00	FAIL ABUN
SR-82	-2.334E-01	4.137E-01	6.629E-01	0.000E+00	NOT IDENT.
RB-83	2.856E-03	7.695E-02	1.232E-01	0.000E+00	NOT IDENT.
RB-84	-4.044E-02	7.307E-02	1.147E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.817E+00	1.464E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.014E-02	7.518E-02	0.000E+00	NOT IDENT.
RB-86	-3.233E-02	8.974E-01	1.472E+00	0.000E+00	NOT IDENT.
Y-88	-3.438E-02	2.987E-02	2.888E-02	0.000E+00	NOT IDENT.
ZR-88	-1.946E-03	3.277E-02	5.510E-02	0.000E+00	NOT IDENT.
Y-91	1.762E+01	2.074E+01	3.684E+01	0.000E+00	NOT IDENT.
NB-94	-3.893E-03	3.774E-02	6.389E-02	0.000E+00	NOT IDENT.
NB-95	9.856E-02	6.138E-02	1.042E-01	0.000E+00	NOT IDENT.
NB-95M	3.677E-02	1.564E-01	2.295E-01	0.000E+00	NOT IDENT.
ZR-95	6.894E-02	7.228E-02	1.331E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.394E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.393E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-8.794E+00	1.386E+01	2.217E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.616E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.040E-02	3.691E-02	6.252E-02	0.000E+00	NOT IDENT.
RH-102	-2.339E-02	3.420E-02	5.390E-02	0.000E+00	FAIL ABUN
RU-103	2.787E-03	4.512E-02	7.523E-02	0.000E+00	FAIL ABUN
RH-106	1.001E-01	4.026E-01	6.693E-01	0.000E+00	FAIL ABUN
RU-106	1.001E-01	4.025E-01	6.693E-01	0.000E+00	FAIL ABUN
AG-108M	1.265E-02	3.635E-02	6.246E-02	0.000E+00	NOT IDENT.
AG-110M	-1.411E-02	4.358E-02	6.264E-02	0.000E+00	FAIL ABUN
IN-111	-1.070E+00	1.316E+00	1.755E+00	0.000E+00	NOT IDENT.
IN-113M	-3.761E-02	4.996E-02	7.993E-02	0.000E+00	NOT IDENT.
SN-113	-3.761E-02	4.996E-02	7.993E-02	0.000E+00	NOT IDENT.
IN-114M	-2.094E-01	2.225E-01	3.039E-01	0.000E+00	NOT IDENT.
CD-115	2.286E+00	1.217E+01	2.043E+01	0.000E+00	NOT IDENT.
SN-117M	3.431E-02	5.938E-02	1.016E-01	0.000E+00	NOT IDENT.
SB-122	1.936E+00	2.454E+00	4.289E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.444E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.367E-02	3.079E-02	5.237E-02	0.000E+00	NOT IDENT.
I-124	1.204E-01	7.705E-01	1.182E+00	0.000E+00	NOT IDENT.
SB-124	-3.743E-02	7.395E-02	1.069E-01	0.000E+00	FAIL ABUN
SB-125	6.031E-02	1.070E-01	1.863E-01	0.000E+00	FAIL ABUN
TE-125M	6.901E+00	1.246E+01	1.951E+01	0.000E+00	NOT IDENT.
I-126	-9.096E-02	2.375E-01	3.392E-01	0.000E+00	NOT IDENT.
SB-126	-7.602E-03	1.852E-01	2.860E-01	0.000E+00	FAIL ABUN
SB-127	-8.386E-01	1.406E+00	2.268E+00	0.000E+00	NOT IDENT.
XE-127	-7.207E-02	5.492E-02	8.371E-02	0.000E+00	FAIL ABUN
I-131	3.977E-02	1.245E-01	2.158E-01	0.000E+00	NOT IDENT.
TE-132	2.274E-01	7.896E-01	1.306E+00	0.000E+00	FAIL ABUN
BA-133	-1.546E-02	5.872E-02	8.584E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.413E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.877E-02	1.118E-01	0.000E+00	FAIL ABUN
CS-135	1.830E-01	1.819E-01	2.974E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.351E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.158E-02	1.153E-01	1.777E-01	0.000E+00	FAIL ABUN
CE-139	-2.694E-02	3.354E-02	5.350E-02	0.000E+00	NOT IDENT.
BA-140	1.139E-01	2.879E-01	4.872E-01	0.000E+00	NOT IDENT.
LA-140	-2.239E-02	9.602E-02	1.450E-01	0.000E+00	FAIL ABUN
CE-141	0.000E+00	7.188E-02	1.292E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	2.214E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.800E-02	2.355E-01	3.918E-01	0.000E+00	NOT IDENT.
PM-144	-5.305E-03	3.960E-02	6.693E-02	0.000E+00	NOT IDENT.
PR-144	-3.595E-01	2.683E+00	4.536E+00	0.000E+00	NOT IDENT.
PM-146	5.800E-03	5.017E-02	8.452E-02	0.000E+00	NOT IDENT.
ND-147	2.591E-01	6.243E-01	1.065E+00	0.000E+00	FAIL ABUN
PM-149	-6.351E+01	1.009E+02	1.671E+02	0.000E+00	NOT IDENT.
EU-152	4.750E-02	1.119E-01	1.894E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.406E-01	1.821E-01	0.000E+00	FAIL ABUN
EU-154	4.894E-02	1.370E-01	2.413E-01	0.000E+00	NOT IDENT.
EU-155	6.443E-02	1.276E-01	2.216E-01	0.000E+00	FAIL ABUN
TB-160	1.164E-02	1.444E-01	2.441E-01	0.000E+00	FAIL ABUN
HO-166M	-9.821E-03	6.663E-02	1.122E-01	0.000E+00	FAIL ABUN
TM-171	-1.248E+00	4.644E+01	7.262E+01	0.000E+00	NOT IDENT.
LU-176	-1.116E-03	2.652E-02	4.543E-02	0.000E+00	FAIL ABUN
LU-177	-9.334E-01	1.529E+00	2.141E+00	0.000E+00	FAIL ABUN
LU-177M	-4.807E-02	2.134E-01	3.537E-01	0.000E+00	FAIL ABUN
HF-181	-6.940E-02	4.982E-02	7.169E-02	0.000E+00	NOT IDENT.
W-181	-2.282E-01	6.350E-01	9.772E-01	0.000E+00	NOT IDENT.
TA-182	-6.102E-03	2.253E-01	3.831E-01	0.000E+00	FAIL ABUN
RE-183	5.573E-02	1.222E-01	2.077E-01	0.000E+00	FAIL ABUN
RE-184	5.020E-02	2.390E-01	4.199E-01	0.000E+00	NOT IDENT.
OS-185	-2.451E-04	4.275E-02	7.340E-02	0.000E+00	NOT IDENT.
RE-188	-2.567E-02	1.838E-01	3.047E-01	0.000E+00	NOT IDENT.
W-188	-1.340E+00	8.889E+00	1.335E+01	0.000E+00	FAIL ABUN
IR-192	-4.566E-03	3.755E-02	6.388E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.095E-01	5.593E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.749E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.846E+00	8.007E+00	1.315E+01	0.000E+00	NOT IDENT.
TL-202	-5.157E-03	8.132E-02	1.356E-01	0.000E+00	NOT IDENT.
HG-203	-6.190E-03	4.617E-02	7.923E-02	0.000E+00	NOT IDENT.
BI-207	3.213E-02	5.052E-02	8.990E-02	0.000E+00	FAIL ABUN
TL-207	-2.626E-01	8.163E-01	1.195E+00	0.000E+00	FAIL ABUN
PO-209	1.966E+00	7.884E+00	1.354E+01	0.000E+00	NOT IDENT.
BI-210	6.641E+00	1.139E+01	2.015E+01	0.000E+00	NOT IDENT.
PB-210	6.641E+00	1.139E+01	2.015E+01	0.000E+00	NOT IDENT.
PO-210	6.641E+00	1.139E+01	2.015E+01	0.000E+00	NOT IDENT.
PB-211	-6.927E-01	1.140E+00	1.703E+00	0.000E+00	NOT IDENT.
PO-215	-2.626E-01	8.163E-01	1.195E+00	0.000E+00	FAIL ABUN
RN-219	-1.908E-01	4.598E-01	7.339E-01	0.000E+00	FAIL ABUN
RN-220	1.268E+01	2.600E+01	4.479E+01	0.000E+00	NOT IDENT.
RA-223	-2.626E-01	8.163E-01	1.195E+00	0.000E+00	FAIL ABUN
AC-227	4.895E-02	4.015E-01	7.017E-01	0.000E+00	NOT IDENT.
TH-227	4.895E-02	4.016E-01	7.017E-01	0.000E+00	FAIL ABUN
PA-231	-4.017E-01	1.594E+00	2.710E+00	0.000E+00	NOT IDENT.
TH-231	-2.626E-01	8.163E-01	1.195E+00	0.000E+00	FAIL ABUN
PA-233	5.861E-03	6.721E-02	1.159E-01	0.000E+00	FAIL ABUN
PA-234	1.156E-01	3.484E-01	5.986E-01	0.000E+00	FAIL ABUN
NP-236	-4.573E-02	8.937E-02	1.451E-01	0.000E+00	FAIL ABUN
NP-239	2.733E-02	2.380E-01	3.634E-01	0.000E+00	FAIL ABUN
AM-241	9.677E-02	3.185E-01	5.088E-01	0.000E+00	NOT IDENT.
AM-243	0.000E+00	9.486E-02	1.678E-01	0.000E+00	FAIL ABUN
CM-243	-1.088E-01	1.147E-01	1.872E-01	0.000E+00	FAIL ABUN
AM-246	-1.534E-02	1.535E-01	2.498E-01	0.000E+00	NOT IDENT.
CM-247	-1.138E-02	4.039E-02	6.672E-02	0.000E+00	NOT IDENT.
CF-249	1.702E-02	4.469E-02	7.738E-02	0.000E+00	NOT IDENT.
CF-251	2.550E-03	1.405E-01	2.328E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:11:56.52

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799011.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:11:14
Sample ID         : G245799011           Sample quantity  : 1.07203E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	710	10.67*	1.074E+00	2.167E+01	2.167E+01	10.62
CD-109	88.03	218	3.72*	5.009E+00	4.097E+00	4.192E+00	38.52
SN-126	64.28	496	9.60	2.073E+00	8.722E+00	8.722E+00	25.53
	86.94	218	8.90	5.009E+00	1.713E+00	1.713E+00	55.86
	87.57	218	37.00*	5.009E+00	4.120E-01	4.120E-01	38.52
BA-137M	661.65	451	89.98*	2.207E+00	7.960E-01	7.967E-01	13.96
CS-137	661.65	451	85.12*	2.207E+00	8.414E-01	8.422E-01	13.97
TL-208	277.35	------	6.80	4.326E+00	------ Line Not Found		------
	510.84	115	21.60	2.730E+00	6.855E-01	6.855E-01	65.59
	583.14	296	84.20*	2.454E+00	5.017E-01	5.017E-01	19.84
	860.37	------	12.46	1.744E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.384E+00	------ Line Not Found		------
	351.07	463	12.94*	3.626E+00	3.459E+00	3.459E+00	15.23
BI-212	727.18	89	11.80*	2.033E+00	1.304E+00	1.304E+00	41.82
	785.46	------	1.97	1.897E+00	------ Line Not Found		------
	1620.62	17	2.75	9.984E-01	2.159E+00	2.159E+00	63.97
PB-212	74.81	634	10.70	3.823E+00	5.430E+00	5.430E+00	25.35
	77.11	634	18.00	3.823E+00	3.228E+00	3.228E+00	23.57
	87.30	218	8.00	5.009E+00	1.905E+00	1.905E+00	39.80
	238.63	885	44.60*	4.825E+00	1.439E+00	1.439E+00	11.52
	300.09	------	3.41	4.082E+00	------ Line Not Found		------
PO-212	74.81	634	10.70	3.823E+00	5.430E+00	5.430E+00	25.35
	77.11	634	18.00	3.823E+00	3.228E+00	3.228E+00	23.57
	87.30	218	8.00	5.009E+00	1.905E+00	1.905E+00	39.80
	115.19	------	0.60	6.408E+00	------ Line Not Found		------
	238.63	885	44.60*	4.825E+00	1.439E+00	1.439E+00	11.52
	300.09	------	3.41	4.082E+00	------ Line Not Found		------
BI-214	609.31	386	46.30*	2.367E+00	1.232E+00	1.232E+00	16.07
	1120.29	55	15.10	1.357E+00	9.441E-01	9.441E-01	52.46
	1764.49	68	15.80	9.528E-01	1.574E+00	1.574E+00	30.90
PB-214	74.81	634	6.21	3.823E+00	9.356E+00	9.356E+00	24.70
	77.11	634	10.50	3.823E+00	5.533E+00	5.533E+00	24.77

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	218	4.67	5.009E+00	3.264E+00	3.264E+00	39.29
	241.98	249	7.49	4.781E+00	2.435E+00	2.435E+00	35.54
	295.21	328	19.20	4.133E+00	1.448E+00	1.448E+00	23.01
	351.92	463	37.20*	3.626E+00	1.203E+00	1.203E+00	16.10
PO-214	74.81	634	6.21	3.823E+00	9.356E+00	9.356E+00	24.70
	77.11	634	10.50	3.823E+00	5.533E+00	5.533E+00	24.77
	87.30	218	4.67	5.009E+00	3.264E+00	3.264E+00	39.29
	241.98	249	7.49	4.781E+00	2.435E+00	2.435E+00	35.54
	295.21	328	19.20	4.133E+00	1.448E+00	1.448E+00	23.01
	351.92	463	37.20*	3.626E+00	1.203E+00	1.203E+00	16.10
PO-216	74.81	634	10.70	3.823E+00	5.430E+00	5.430E+00	25.35
	77.11	634	18.00	3.823E+00	3.228E+00	3.228E+00	23.57
	87.30	218	8.00	5.009E+00	1.905E+00	1.905E+00	39.80
	238.63	885	44.60*	4.825E+00	1.439E+00	1.439E+00	11.52
	300.09	------	3.41	4.082E+00	------ Line Not Found		------
PO-218	74.81	634	6.21	3.823E+00	9.356E+00	9.356E+00	24.70
	77.11	634	10.50	3.823E+00	5.533E+00	5.533E+00	24.77
	87.30	218	4.67	5.009E+00	3.264E+00	3.264E+00	39.29
	241.98	249	7.49	4.781E+00	2.435E+00	2.435E+00	35.54
	295.21	328	19.20	4.133E+00	1.448E+00	1.448E+00	23.01
	351.92	463	37.20*	3.626E+00	1.203E+00	1.203E+00	16.10
RA-224	240.98	249	3.95*	4.781E+00	4.618E+00	4.618E+00	35.09
RA-226	609.31	386	46.30*	2.367E+00	1.232E+00	1.232E+00	16.07
	1120.29	55	15.10	1.357E+00	9.441E-01	9.441E-01	52.46
	1764.49	68	15.80	9.528E-01	1.574E+00	1.574E+00	30.90
AC-228	338.32	156	11.40	3.734E+00	1.283E+00	1.283E+00	53.33
	911.07	202	27.70*	1.652E+00	1.546E+00	1.546E+00	22.84
	969.11	88	16.60	1.558E+00	1.194E+00	1.194E+00	42.67
RA-228	338.32	156	11.40	3.734E+00	1.283E+00	1.283E+00	53.33
	911.07	202	27.70*	1.652E+00	1.546E+00	1.546E+00	22.84
	969.11	88	16.60	1.558E+00	1.194E+00	1.194E+00	42.67
TH-228	74.81	634	10.70	3.823E+00	5.430E+00	5.513E+00	23.59
	77.11	634	18.00	3.823E+00	3.228E+00	3.277E+00	23.57
	87.30	218	8.00	5.009E+00	1.905E+00	1.934E+00	38.52
	238.63	885	44.60*	4.825E+00	1.439E+00	1.462E+00	11.52
	300.09	------	3.41	4.082E+00	------ Line Not Found		------
TH-229	85.43	116	16.50	4.722E+00	5.223E-01	5.223E-01	60.70
	88.47	156	27.10	5.235E+00	3.850E-01	3.850E-01	52.74
	100.00	161	12.40	5.842E+00	7.780E-01	7.780E-01	44.56
	193.63	------	4.59*	5.557E+00	------ Line Not Found		------
	210.97	55	3.26	5.274E+00	1.115E+00	1.115E+00	123.32
TH-230	609.31	386	46.30*	2.367E+00	1.232E+00	1.232E+00	16.07
	1120.29	55	15.10	1.357E+00	9.441E-01	9.441E-01	52.46
	1764.49	68	15.80	9.528E-01	1.574E+00	1.574E+00	30.90
U-231	84.21	116	7.00	4.722E+00	1.231E+00	1.538E+01	60.70
	92.29	1929	17.30	5.458E+00	7.153E+00	8.935E+01	12.20
	95.87	112	28.00*	5.610E+00	2.507E-01	3.132E+00	77.36
	108.00	------	13.10	6.237E+00	------ Line Not Found		------
TH-232	338.32	156	11.40	3.734E+00	1.283E+00	1.283E+00	34.87

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.07	202	27.70*	1.652E+00	1.546E+00	1.546E+00	22.84
	969.11	88	16.60	1.558E+00	1.194E+00	1.194E+00	42.67
PA-234M	766.42	60	0.32	1.938E+00	3.360E+01	3.360E+01	85.26
	1001.03	100	0.84*	1.510E+00	2.752E+01	2.752E+01	40.62
TH-234	63.29	496	3.80*	2.073E+00	2.204E+01	2.204E+01	27.29
	92.38	1929	5.41	5.458E+00	2.287E+01	2.287E+01	20.04
U-234	609.31	386	46.30*	2.367E+00	1.232E+00	1.232E+00	16.07
	1120.29	55	15.10	1.357E+00	9.441E-01	9.441E-01	52.46
	1764.49	68	15.80	9.528E-01	1.574E+00	1.574E+00	30.90
U-235	89.95	156	2.70	5.235E+00	3.864E+00	3.864E+00	60.49
	93.35	1929	4.50	5.458E+00	2.750E+01	2.750E+01	29.33
	105.00	------	2.10	6.134E+00	------	Line Not Found	------
	143.76	183	10.50*	6.398E+00	9.539E-01	9.539E-01	55.76
	163.35	------	4.70	6.104E+00	------	Line Not Found	------
	185.71	457	54.00	5.699E+00	5.195E-01	5.195E-01	19.81
	205.31	------	4.70	5.352E+00	------	Line Not Found	------
NP-237	86.50	218	12.60*	5.009E+00	1.210E+00	1.210E+00	43.70
	95.87	112	2.60	5.610E+00	2.700E+00	2.700E+00	80.73
U-238	63.29	496	3.80*	2.073E+00	2.204E+01	2.204E+01	27.29
	92.38	1929	5.41	5.458E+00	2.287E+01	2.287E+01	12.20
ANH-511	511.00	115	100.00*	2.730E+00	1.481E-01	1.481E-01	65.06

Flag: "*" = Keyline

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

Total number of lines in spectrum 39
Number of unidentified lines 3
Number of lines tentatively identified by NID 36 92.31%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.167E+01	2.167E+01	0.230E+01	10.62	
CD-109	464.00D	1.02	4.097E+00	4.192E+00	1.615E+00	38.52	
SN-126	1.00E+05Y	1.00	4.120E-01	4.120E-01	1.587E-01	38.52	
BA-137M	30.17Y	1.00	7.960E-01	7.967E-01	1.112E-01	13.96	
CS-137	30.17Y	1.00	8.414E-01	8.422E-01	1.176E-01	13.97	
TL-208	1.41E+10Y	1.00	5.017E-01	5.017E-01	0.996E-01	19.84	
BI-211	7.04E+08Y	1.00	3.459E+00	3.459E+00	0.527E+00	15.23	
BI-212	1.41E+10Y	1.00	1.304E+00	1.304E+00	0.545E+00	41.82	
PB-212	1.41E+10Y	1.00	1.439E+00	1.439E+00	0.166E+00	11.52	
PO-212	1.41E+10Y	1.00	1.439E+00	1.439E+00	0.166E+00	11.52	
BI-214	1600.00Y	1.00	1.232E+00	1.232E+00	0.198E+00	16.07	
PB-214	1600.00Y	1.00	1.203E+00	1.203E+00	0.194E+00	16.10	
PO-214	1600.00Y	1.00	1.203E+00	1.203E+00	0.194E+00	16.10	
PO-216	1.41E+10Y	1.00	1.439E+00	1.439E+00	0.166E+00	11.52	
PO-218	1600.00Y	1.00	1.203E+00	1.203E+00	0.194E+00	16.10	
RA-224	1.41E+10Y	1.00	4.618E+00	4.618E+00	1.620E+00	35.09	
RA-226	1600.00Y	1.00	1.232E+00	1.232E+00	0.198E+00	16.07	
AC-228	1.41E+10Y	1.00	1.546E+00	1.546E+00	0.353E+00	22.84	
RA-228	1.41E+10Y	1.00	1.546E+00	1.546E+00	0.353E+00	22.84	
TH-228	1.91Y	1.02	1.439E+00	1.462E+00	0.168E+00	11.52	
TH-229	7340.00Y	1.00	3.850E-01	3.850E-01	2.030E-01	52.74	K
TH-230	4.47E+09Y	1.00	1.232E+00	1.232E+00	0.198E+00	16.07	
U-231	4.20D	12.5	2.507E-01	3.132E+00	2.423E+00	77.36	
TH-232	1.41E+10Y	1.00	1.546E+00	1.546E+00	0.353E+00	22.84	
PA-234M	4.47E+09Y	1.00	2.752E+01	2.752E+01	1.118E+01	40.62	
TH-234	4.47E+09Y	1.00	2.204E+01	2.204E+01	0.601E+01	27.29	
U-234	4.47E+09Y	1.00	1.232E+00	1.232E+00	0.198E+00	16.07	
U-235	7.04E+08Y	1.00	9.539E-01	9.539E-01	5.319E-01	55.76	
NP-237	2.14E+06Y	1.00	1.210E+00	1.210E+00	0.529E+00	43.70	
U-238	4.47E+09Y	1.00	2.204E+01	2.204E+01	0.601E+01	27.29	
ANH-511	1.00E+09Y	1.00	1.481E-01	1.481E-01	0.963E-01	65.06	
			---	---			
	Total Activity :		1.312E+02	1.342E+02			

Grand Total Activity : 1.312E+02 1.342E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	112.77	110	480	0.93	225.59	221	10	1.53E-02	77.1	6.36E+00	T
0	269.91	87	173	1.55	539.89	535	10	1.21E-02	60.4	4.41E+00	T
0	327.72	38	146	1.42	655.52	652	9	5.26E-03	****	3.82E+00	T
0	463.21	61	77	2.32	926.51	922	9	8.49E-03	57.6	2.95E+00	T
0	677.09	25	22	1.50	1354.26	1351	6	3.45E-03	72.4	2.16E+00	T
0	787.17	26	60	2.30	1574.42	1566	12	3.61E-03	****	1.89E+00	
0	795.70	56	48	1.68	1591.48	1585	13	7.71E-03	58.4	1.87E+00	T
0	1238.84	36	46	2.24	2477.66	2472	11	5.03E-03	80.1	1.24E+00	T
0	1378.83	20	10	0.61	2757.59	2753	9	2.74E-03	75.3	1.13E+00	
0	1588.32	26	15	1.69	3176.45	3171	12	3.60E-03	71.5	1.01E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:12:03.00

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799011.CNF;1    *
* Acquisition date : 10-FEB-2010 18:11:14  Detector SN#     :                 *
* Detector ID      : GAM04                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.21         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245799011            Analyst initials: RXF2             *
* Batch Number     : 947531                Sample Quantity : 1.07203E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.167E+01	2.302E+00	5.948E-01	4.227E-02	36.440
CD-109	4.192E+00	1.615E+00	1.618E+00	1.945E-01	2.590
SN-126	4.120E-01	1.587E-01	1.603E-01	1.922E-02	2.570
BA-137M	7.967E-01	1.112E-01	6.586E-02	3.212E-03	12.098
CS-137	8.422E-01	1.176E-01	6.962E-02	3.416E-03	12.098
TL-208	5.017E-01	9.955E-02	6.164E-02	3.878E-03	8.139
BI-211	3.459E+00	5.268E-01	3.602E-01	2.433E-02	9.603
BI-212	1.304E+00	5.453E-01	5.447E-01	4.164E-02	2.393
PB-212	1.439E+00	1.659E-01	9.923E-02	7.969E-03	14.507
PO-212	1.439E+00	1.659E-01	9.923E-02	7.969E-03	14.507
BI-214	1.232E+00	1.980E-01	1.270E-01	9.333E-03	9.703
PB-214	1.203E+00	1.937E-01	1.379E-01	1.176E-02	8.726
PO-214	1.203E+00	1.937E-01	1.379E-01	1.176E-02	8.726
PO-216	1.439E+00	1.659E-01	9.923E-02	7.969E-03	14.507
PO-218	1.203E+00	1.937E-01	1.379E-01	1.176E-02	8.726
RA-224	4.618E+00	1.620E+00	1.130E+00	7.530E-02	4.088
RA-226	1.232E+00	1.980E-01	1.270E-01	9.333E-03	9.703
AC-228	1.546E+00	3.530E-01	2.165E-01	2.360E-02	7.140

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.546E+00	3.530E-01	2.165E-01	2.360E-02	7.140
TH-228	1.462E+00	1.684E-01	1.007E-01	8.091E-03	14.507
TH-229	3.850E-01	2.030E-01	9.212E-01	5.978E-02	0.418
TH-230	1.232E+00	1.980E-01	1.270E-01	9.333E-03	9.703
U-231	3.132E+00	2.423E+00	1.963E+00	1.984E-01	1.596
TH-232	1.546E+00	3.530E-01	2.165E-01	2.360E-02	7.140
PA-234M	2.752E+01	1.118E+01	8.031E+00	7.322E-01	3.427
TH-234	2.204E+01	6.014E+00	3.675E+00	7.271E-01	5.996
U-234	1.232E+00	1.980E-01	1.270E-01	9.333E-03	9.703
U-235	9.539E-01	5.319E-01	3.588E-01	5.947E-02	2.659
NP-237	1.210E+00	5.287E-01	4.794E-01	1.142E-01	2.523
U-238	2.204E+01	6.014E+00	3.675E+00	7.271E-01	5.996
ANH-511	1.481E-01	9.633E-02	4.702E-02	2.629E-03	3.149

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.239E-01		3.810E-01	6.365E-01	4.216E-02	0.195
NA-22	1.548E-02		5.043E-02	8.713E-02	5.697E-03	0.178
NA-24	-2.789E-01		4.925E-01	Half-Life too short		
AL-26	2.754E-02		2.983E-02	5.895E-02	3.496E-03	0.467
TI-44	2.192E-01		7.407E-02	1.001E-01	1.151E-02	2.191
SC-46	-1.910E-02		4.285E-02	6.700E-02	5.419E-03	-0.285
V-48	9.129E-03		8.171E-02	1.351E-01	1.047E-02	0.068
CR-51	2.557E-02		4.286E-01	7.199E-01	5.070E-02	0.036
MN-52	-1.716E-02		2.475E-01	4.134E-01	2.821E-02	-0.042
MN-54	-3.122E-02		4.308E-02	6.630E-02	4.798E-03	-0.471
CO-56	-5.001E-02		4.584E-02	6.703E-02	4.973E-03	-0.746
CO-57	1.493E-02		2.977E-02	4.997E-02	3.469E-03	0.299
CO-58	4.648E-03		3.776E-02	6.349E-02	4.383E-03	0.073
FE-59	2.214E-04		1.016E-01	1.651E-01	1.261E-02	0.001
CO-60	5.338E-02		4.098E-02	7.959E-02	5.453E-03	0.671
ZN-65	3.734E-03		1.107E-01	1.552E-01	1.027E-02	0.024
GE-68	-7.053E-01		1.422E+00	2.168E+00	1.514E-01	-0.325
AS-73	1.830E+00		1.944E+00	3.376E+00	4.416E-01	0.542
AS-74	1.173E-02		1.012E-01	1.641E-01	8.666E-03	0.071
SE-75	-1.190E-02		5.206E-02	7.640E-02	5.139E-03	-0.156
BR-77	2.216E+00		1.229E+01	1.956E+01	1.089E+00	0.113
SR-82	-2.334E-01		4.221E-01	6.647E-01	4.242E-02	-0.351
RB-83	2.856E-03		7.853E-02	1.233E-01	6.865E-03	0.023
RB-84	-4.044E-02		7.456E-02	1.151E-01	9.165E-03	-0.351
KR-85	1.478E+01		7.977E+00	1.464E+01	8.179E-01	1.009
SR-85	7.588E-02		4.096E-02	7.519E-02	4.200E-03	1.009
RB-86	-3.233E-02		9.157E-01	1.479E+00	1.034E-01	-0.022
Y-88	-3.438E-02		3.048E-02	2.911E-02	1.699E-03	-1.181
ZR-88	-1.946E-03		3.344E-02	5.502E-02	3.096E-03	-0.035
Y-91	1.762E+01		2.116E+01	3.704E+01	2.270E+00	0.476

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	-3.893E-03		3.851E-02	6.402E-02	3.449E-03	-0.061
NB-95	9.856E-02		6.263E-02	1.045E-01	6.513E-03	0.943
NB-95M	3.677E-02		1.596E-01	2.285E-01	1.875E-02	0.161
ZR-95	6.894E-02		7.376E-02	1.334E-01	9.717E-03	0.517
NB-97	-4.686E-02		7.113E-02	Half-Life too short		
ZR-97	3.767E+00		1.221E+00	Half-Life too short		
MO-99	-8.794E+00		1.414E+01	2.222E+01	3.070E+00	-0.396
TC-99M	-6.425E+09		3.375E+10	Half-Life too short		
RH-101	3.040E-02		3.767E-02	6.218E-02	4.049E-03	0.489
RH-102	-2.339E-02		3.490E-02	5.389E-02	3.047E-03	-0.434
RU-103	2.787E-03		4.604E-02	7.522E-02	9.451E-03	0.037
RH-106	1.001E-01		4.108E-01	6.702E-01	7.657E-02	0.149
RU-106	1.001E-01		4.107E-01	6.702E-01	3.443E-02	0.149
AG-108M	1.265E-02		3.709E-02	6.241E-02	3.856E-03	0.203
AG-110M	-1.411E-02		4.447E-02	6.275E-02	3.352E-03	-0.225
IN-111	-1.070E+00		1.343E+00	1.747E+00	1.166E-01	-0.612
IN-113M	-3.761E-02		5.098E-02	7.982E-02	4.809E-03	-0.471
SN-113	-3.761E-02		5.098E-02	7.982E-02	4.809E-03	-0.471
IN-114M	-2.094E-01		2.270E-01	3.021E-01	1.955E-02	-0.693
CD-115	2.286E+00		1.242E+01	2.044E+01	1.134E+00	0.112
SN-117M	3.431E-02		6.060E-02	1.010E-01	6.457E-03	0.340
SB-122	1.936E+00		2.504E+00	4.292E+00	2.328E-01	0.451
I-123	3.304E+00		3.798E+00	Half-Life too short		
TE-123M	1.367E-02		3.142E-02	5.201E-02	3.362E-03	0.263
I-124	1.204E-01		7.863E-01	1.183E+00	6.206E-02	0.102
SB-124	-3.743E-02		7.546E-02	1.077E-01	7.317E-03	-0.348
SB-125	6.031E-02		1.092E-01	1.861E-01	1.102E-02	0.324
TE-125M	6.901E+00		1.272E+01	1.933E+01	1.919E+00	0.357
I-126	-9.096E-02		2.423E-01	3.397E-01	1.676E-02	-0.268
SB-126	-7.602E-03		1.890E-01	2.867E-01	1.611E-02	-0.027
SB-127	-8.386E-01		1.435E+00	2.272E+00	2.069E-01	-0.369
XE-127	-7.207E-02		5.604E-02	8.326E-02	5.442E-03	-0.866
I-131	3.977E-02		1.270E-01	2.153E-01	1.434E-02	0.185
TE-132	2.274E-01		8.057E-01	1.300E+00	1.917E-01	0.175
BA-133	-1.546E-02		5.991E-02	8.566E-02	1.003E-02	-0.180
I-133	3.652E-03		3.782E-03	Half-Life too short		
CS-134	1.368E-01	+	8.038E-02	1.122E-01	7.559E-03	1.220
CS-135	1.830E-01		1.857E-01	2.963E-01	2.470E-02	0.617
I-135	-2.692E+09		4.261E+09	Half-Life too short		
CS-136	-6.158E-02		1.177E-01	1.785E-01	1.371E-02	-0.345
CE-139	-2.694E-02		3.423E-02	5.316E-02	3.377E-03	-0.507
BA-140	1.139E-01		2.938E-01	4.874E-01	1.583E-01	0.234
LA-140	-2.239E-02		9.798E-02	1.460E-01	9.616E-03	-0.153
CE-141	1.386E-01		7.334E-02	1.282E-01	8.608E-03	1.080
CE-143	5.457E-04		1.129E-04	Half-Life too short		
CE-144	-5.800E-02		2.403E-01	3.887E-01	5.666E-02	-0.149
PM-144	-5.305E-03		4.041E-02	6.706E-02	3.563E-03	-0.079
PR-144	-3.595E-01		2.738E+00	4.545E+00	2.413E-01	-0.079

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	5.800E-03		5.120E-02	8.447E-02	7.210E-03	0.069
ND-147	2.591E-01		6.370E-01	1.066E+00	1.430E-01	0.243
PM-149	-6.351E+01		1.030E+02	1.666E+02	2.421E+01	-0.381
EU-152	4.750E-02		1.141E-01	1.890E-01	1.308E-02	0.251
GD-153	3.220E-01	+	1.435E-01	1.804E-01	1.771E-02	1.785
EU-154	4.894E-02		1.398E-01	2.426E-01	2.380E-02	0.202
EU-155	6.443E-02		1.302E-01	2.196E-01	1.914E-02	0.293
TB-160	1.164E-02		1.473E-01	2.449E-01	1.942E-02	0.048
HO-166M	-9.821E-03		6.799E-02	1.124E-01	6.189E-03	-0.087
TM-171	-1.248E+00		4.739E+01	7.177E+01	8.390E+00	-0.017
LU-176	-1.116E-03		2.706E-02	4.529E-02	2.957E-03	-0.025
LU-177	-9.334E-01		1.561E+00	2.130E+00	1.398E-01	-0.438
LU-177M	-4.807E-02		2.177E-01	3.533E-01	1.999E-02	-0.136
HF-181	-6.940E-02		5.083E-02	7.167E-02	4.046E-03	-0.968
W-181	-2.282E-01		6.480E-01	9.655E-01	1.138E-01	-0.236
TA-182	-6.102E-03		2.299E-01	3.851E-01	2.397E-02	-0.016
RE-183	5.573E-02		1.247E-01	2.063E-01	1.315E-02	0.270
RE-184	5.020E-02		2.438E-01	4.182E-01	2.793E-02	0.120
OS-185	-2.451E-04		4.362E-02	7.351E-02	3.664E-03	-0.003
RE-188	-2.567E-02		1.876E-01	3.026E-01	1.943E-02	-0.085
W-188	-1.340E+00		9.070E+00	1.331E+01	8.796E-01	-0.101
IR-192	-4.566E-03		3.832E-02	6.371E-02	4.136E-03	-0.072
AU-195	9.378E-01	+	4.179E-01	5.540E-01	5.297E-02	1.693
TL-200	2.515E-04		2.933E-04	Half-Life too short		
TL-201	-1.846E+00		8.171E+00	1.306E+01	8.305E-01	-0.141
TL-202	-5.157E-03		8.298E-02	1.355E-01	7.684E-03	-0.038
HG-203	-6.190E-03		4.711E-02	7.895E-02	5.497E-03	-0.078
BI-207	3.213E-02		5.155E-02	9.031E-02	6.423E-03	0.356
TL-207	-2.626E-01		8.329E-01	1.192E+00	1.996E-01	-0.220
PO-209	1.966E+00		8.044E+00	1.359E+01	1.115E+00	0.145
BI-210	6.641E+00		1.163E+01	1.987E+01	1.732E+00	0.334
PB-210	6.641E+00		1.163E+01	1.987E+01	1.732E+00	0.334
PO-210	6.641E+00		1.162E+01	1.987E+01	1.544E+00	0.334
PB-211	-6.927E-01		1.163E+00	1.701E+00	1.060E+00	-0.407
PO-215	-2.626E-01		8.329E-01	1.192E+00	1.996E-01	-0.220
RN-219	-1.908E-01		4.691E-01	7.329E-01	9.923E-02	-0.260
RN-220	1.268E+01		2.653E+01	4.481E+01	2.455E+00	0.283
RA-223	-2.626E-01		8.329E-01	1.192E+00	1.996E-01	-0.220
AC-227	4.895E-02		4.097E-01	6.989E-01	1.003E-01	0.070
TH-227	4.895E-02		4.098E-01	6.989E-01	1.204E-01	0.070
PA-231	-4.017E-01		1.626E+00	2.701E+00	3.822E-01	-0.149
TH-231	-2.626E-01		8.329E-01	1.192E+00	1.996E-01	-0.220
PA-233	5.861E-03		6.858E-02	1.156E-01	7.880E-03	0.051
PA-234	1.156E-01		3.555E-01	6.009E-01	1.110E-01	0.192
NP-236	-4.573E-02		9.120E-02	1.442E-01	9.205E-03	-0.317
NP-239	2.733E-02		2.429E-01	3.603E-01	2.651E-02	0.076
AM-241	9.677E-02		3.250E-01	5.025E-01	6.344E-02	0.193
AM-243	3.149E-01		9.679E-02	1.659E-01	1.900E-02	1.898

Sample ID : G245799011 Acquisition date : 10-FEB-2010 18:11:14

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.088E-01		1.170E-01	1.855E-01	1.635E-02	-0.587
AM-246	-1.534E-02		1.567E-01	2.509E-01	1.749E-02	-0.061
CM-247	-1.138E-02		4.121E-02	6.663E-02	3.760E-03	-0.171
CF-249	1.702E-02		4.560E-02	7.726E-02	4.390E-03	0.220
CF-251	2.550E-03		1.433E-01	2.313E-01	1.481E-02	0.011

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799011            *
* Acquisition date : 10-FEB-2010 18:11:14 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.21     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245799011           Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.0720E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.167E+01	2.256E+00	2.956E-01	1.151E+00
CD-109	4.192E+00	1.583E+00	8.181E-01	8.075E-01
SN-126	4.120E-01	1.555E-01	8.101E-02	7.935E-02
BA-137M	7.967E-01	1.090E-01	3.289E-02	5.559E-02
CS-137	8.422E-01	1.153E-01	3.477E-02	5.881E-02
TL-208	5.017E-01	9.756E-02	3.081E-02	4.978E-02
BI-211	3.459E+00	5.162E-01	1.806E-01	2.634E-01
BI-212	1.304E+00	5.344E-01	2.719E-01	2.726E-01
PB-212	1.439E+00	1.626E-01	4.986E-02	8.294E-02
PO-212	1.439E+00	1.626E-01	4.986E-02	8.294E-02
BI-214	1.232E+00	1.941E-01	6.347E-02	9.901E-02
PB-214	1.203E+00	1.898E-01	6.913E-02	9.685E-02
PO-214	1.203E+00	1.898E-01	6.913E-02	9.685E-02
PO-216	1.439E+00	1.626E-01	4.986E-02	8.294E-02
PO-218	1.203E+00	1.898E-01	6.913E-02	9.685E-02
RA-224	4.618E+00	1.588E+00	5.676E-01	8.102E-01
RA-226	1.232E+00	1.941E-01	6.347E-02	9.901E-02
AC-228	1.546E+00	3.459E-01	1.079E-01	1.765E-01
RA-228	1.546E+00	3.459E-01	1.079E-01	1.765E-01
TH-228	1.462E+00	1.651E-01	5.063E-02	8.421E-02
TH-229	1.383E-01	5.557E-01	4.635E-01	2.835E-01
TH-230	1.232E+00	1.940E-01	6.346E-02	9.900E-02
U-231	3.132E+00	2.374E+00	9.916E-01	1.211E+00
TH-232	1.546E+00	3.459E-01	1.079E-01	1.765E-01
PA-234M	2.752E+01	1.096E+01	4.001E+00	5.590E+00
TH-234	2.204E+01	5.893E+00	1.861E+00	3.007E+00
U-234	1.232E+00	1.940E-01	6.346E-02	9.900E-02
U-235	9.539E-01	5.213E-01	1.808E-01	2.660E-01
NP-237	1.210E+00	5.181E-01	2.424E-01	2.643E-01
U-238	2.204E+01	5.893E+00	1.861E+00	3.007E+00
ANH-511	1.481E-01	9.441E-02	2.352E-02	4.817E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.239E-01	3.734E-01	3.185E-01	1.905E-01	NOT IDENT.
NA-22	1.548E-02	4.942E-02	4.335E-02	2.521E-02	NOT IDENT.
NA-24	-2.789E+05	9.652E+05	0.000E+00	4.925E+05	SHORT HLIF
AL-26	2.754E-02	2.924E-02	2.927E-02	1.492E-02	NOT IDENT.
TI-44	2.192E-01	7.259E-02	5.061E-02	3.703E-02	NOT IDENT.
SC-46	-1.910E-02	4.200E-02	3.341E-02	2.143E-02	FAIL ABUN
V-48	9.129E-03	8.007E-02	6.732E-02	4.085E-02	NOT IDENT.
CR-51	2.557E-02	4.201E-01	3.611E-01	2.143E-01	NOT IDENT.
MN-52	-1.716E-02	2.426E-01	2.055E-01	1.238E-01	NOT IDENT.
MN-54	-3.122E-02	4.222E-02	3.307E-02	2.154E-02	NOT IDENT.
CO-56	-5.001E-02	4.492E-02	3.343E-02	2.292E-02	FAIL ABUN
CO-57	1.493E-02	2.917E-02	2.521E-02	1.488E-02	NOT IDENT.
CO-58	4.648E-03	3.701E-02	3.167E-02	1.888E-02	NOT IDENT.
FE-59	2.214E-04	9.957E-02	8.220E-02	5.080E-02	FAIL ABUN
CO-60	5.338E-02	4.016E-02	3.958E-02	2.049E-02	NOT IDENT.
ZN-65	3.734E-03	1.085E-01	7.729E-02	5.535E-02	NOT IDENT.
GE-68	-7.053E-01	1.394E+00	1.079E+00	7.112E-01	NOT IDENT.
AS-73	1.830E+00	1.905E+00	1.711E+00	9.719E-01	NOT IDENT.
AS-74	1.173E-02	9.918E-02	8.203E-02	5.060E-02	NOT IDENT.
SE-75	-1.190E-02	5.101E-02	3.837E-02	2.603E-02	NOT IDENT.
BR-77	2.216E+00	1.204E+01	9.782E+00	6.144E+00	FAIL ABUN
SR-82	-2.334E-01	4.137E-01	3.317E-01	2.111E-01	NOT IDENT.
RB-83	2.856E-03	7.695E-02	6.165E-02	3.926E-02	NOT IDENT.
RB-84	-4.044E-02	7.307E-02	5.738E-02	3.728E-02	NOT IDENT.
KR-85	1.478E+01	7.817E+00	7.325E+00	3.988E+00	NOT IDENT.
SR-85	7.588E-02	4.014E-02	3.761E-02	2.048E-02	NOT IDENT.
RB-86	-3.233E-02	8.974E-01	7.363E-01	4.578E-01	NOT IDENT.
Y-88	-3.438E-02	2.987E-02	1.445E-02	1.524E-02	NOT IDENT.
ZR-88	-1.946E-03	3.277E-02	2.756E-02	1.672E-02	NOT IDENT.
Y-91	1.762E+01	2.074E+01	1.843E+01	1.058E+01	NOT IDENT.
NB-94	-3.893E-03	3.774E-02	3.196E-02	1.926E-02	NOT IDENT.
NB-95	9.856E-02	6.138E-02	5.215E-02	3.132E-02	NOT IDENT.
NB-95M	3.677E-02	1.564E-01	1.148E-01	7.981E-02	NOT IDENT.
ZR-95	6.894E-02	7.228E-02	6.660E-02	3.688E-02	NOT IDENT.
NB-97	-4.686E+04	1.394E+05	0.000E+00	7.113E+04	SHORT HLIF
ZR-97	3.767E+06	2.393E+06	0.000E+00	1.221E+06	SHORT HLIF
MO-99	-8.794E+00	1.386E+01	1.109E+01	7.070E+00	NOT IDENT.
TC-99M	-6.425E+15	6.616E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.040E-02	3.691E-02	3.128E-02	1.883E-02	NOT IDENT.
RH-102	-2.339E-02	3.420E-02	2.697E-02	1.745E-02	FAIL ABUN
RU-103	2.787E-03	4.512E-02	3.764E-02	2.302E-02	FAIL ABUN
RH-106	1.001E-01	4.026E-01	3.349E-01	2.054E-01	FAIL ABUN
RU-106	1.001E-01	4.025E-01	3.349E-01	2.053E-01	FAIL ABUN
AG-108M	1.265E-02	3.635E-02	3.125E-02	1.855E-02	NOT IDENT.
AG-110M	-1.411E-02	4.358E-02	3.134E-02	2.223E-02	FAIL ABUN
IN-111	-1.070E+00	1.316E+00	8.778E-01	6.714E-01	NOT IDENT.
IN-113M	-3.761E-02	4.996E-02	3.999E-02	2.549E-02	NOT IDENT.
SN-113	-3.761E-02	4.996E-02	3.999E-02	2.549E-02	NOT IDENT.
IN-114M	-2.094E-01	2.225E-01	1.520E-01	1.135E-01	NOT IDENT.
CD-115	2.286E+00	1.217E+01	1.022E+01	6.210E+00	NOT IDENT.
SN-117M	3.431E-02	5.938E-02	5.085E-02	3.030E-02	NOT IDENT.
SB-122	1.936E+00	2.454E+00	2.146E+00	1.252E+00	NOT IDENT.
I-123	3.304E+06	7.444E+06	0.000E+00	3.798E+06	SHORT HLIF
TE-123M	1.367E-02	3.079E-02	2.620E-02	1.571E-02	NOT IDENT.
I-124	1.204E-01	7.705E-01	5.914E-01	3.931E-01	NOT IDENT.
SB-124	-3.743E-02	7.395E-02	5.348E-02	3.773E-02	FAIL ABUN
SB-125	6.031E-02	1.070E-01	9.321E-02	5.459E-02	FAIL ABUN
TE-125M	6.901E+00	1.246E+01	9.761E+00	6.358E+00	NOT IDENT.
I-126	-9.096E-02	2.375E-01	1.697E-01	1.212E-01	NOT IDENT.
SB-126	-7.602E-03	1.852E-01	1.431E-01	9.451E-02	FAIL ABUN
SB-127	-8.386E-01	1.406E+00	1.135E+00	7.173E-01	NOT IDENT.
XE-127	-7.207E-02	5.492E-02	4.188E-02	2.802E-02	FAIL ABUN
I-131	3.977E-02	1.245E-01	1.079E-01	6.351E-02	NOT IDENT.
TE-132	2.274E-01	7.896E-01	6.533E-01	4.029E-01	FAIL ABUN
BA-133	-1.546E-02	5.872E-02	4.294E-02	2.996E-02	NOT IDENT.
I-133	3.652E+03	7.413E+03	0.000E+00	3.782E+03	SHORT HLIF
CS-134	1.368E-01	7.877E-02	5.595E-02	4.019E-02	FAIL ABUN
CS-135	1.830E-01	1.819E-01	1.488E-01	9.283E-02	NOT IDENT.
I-135	-2.692E+15	8.351E+15	0.000E+00	4.261E+15	SHORT HLIF
CS-136	-6.158E-02	1.153E-01	8.891E-02	5.883E-02	FAIL ABUN
CE-139	-2.694E-02	3.354E-02	2.677E-02	1.711E-02	NOT IDENT.
BA-140	1.139E-01	2.879E-01	2.437E-01	1.469E-01	NOT IDENT.
LA-140	-2.239E-02	9.602E-02	7.254E-02	4.899E-02	FAIL ABUN
CE-141	1.386E-01	7.188E-02	6.463E-02	3.667E-02	NOT IDENT.

CE-143	5.457E+02	2.214E+02	0.000E+00	1.129E+02	SHORT HLIF
CE-144	-5.800E-02	2.355E-01	1.960E-01	1.201E-01	NOT IDENT.
PM-144	-5.305E-03	3.960E-02	3.349E-02	2.020E-02	NOT IDENT.
PR-144	-3.595E-01	2.683E+00	2.269E+00	1.369E+00	NOT IDENT.
PM-146	5.800E-03	5.017E-02	4.228E-02	2.560E-02	NOT IDENT.
ND-147	2.591E-01	6.243E-01	5.330E-01	3.185E-01	FAIL ABUN
PM-149	-6.351E+01	1.009E+02	8.361E+01	5.148E+01	NOT IDENT.
EU-152	4.750E-02	1.119E-01	9.475E-02	5.707E-02	NOT IDENT.
GD-153	3.220E-01	1.406E-01	9.112E-02	7.174E-02	FAIL ABUN
EU-154	4.894E-02	1.370E-01	1.207E-01	6.992E-02	NOT IDENT.
EU-155	6.443E-02	1.276E-01	1.109E-01	6.509E-02	FAIL ABUN
TB-160	1.164E-02	1.444E-01	1.221E-01	7.365E-02	FAIL ABUN
HO-166M	-9.821E-03	6.663E-02	5.614E-02	3.400E-02	FAIL ABUN
TM-171	-1.248E+00	4.644E+01	3.633E+01	2.369E+01	NOT IDENT.
LU-176	-1.116E-03	2.652E-02	2.273E-02	1.353E-02	FAIL ABUN
LU-177	-9.334E-01	1.529E+00	1.071E+00	7.803E-01	FAIL ABUN
LU-177M	-4.807E-02	2.134E-01	1.770E-01	1.089E-01	FAIL ABUN
HF-181	-6.940E-02	4.982E-02	3.587E-02	2.542E-02	NOT IDENT.
W-181	-2.282E-01	6.350E-01	4.889E-01	3.240E-01	NOT IDENT.
TA-182	-6.102E-03	2.253E-01	1.917E-01	1.150E-01	FAIL ABUN
RE-183	5.573E-02	1.222E-01	1.039E-01	6.237E-02	FAIL ABUN
RE-184	5.020E-02	2.390E-01	2.101E-01	1.219E-01	NOT IDENT.
OS-185	-2.451E-04	4.275E-02	3.672E-02	2.181E-02	NOT IDENT.
RE-188	-2.567E-02	1.838E-01	1.524E-01	9.380E-02	NOT IDENT.
W-188	-1.340E+00	8.889E+00	6.680E+00	4.535E+00	FAIL ABUN
IR-192	-4.566E-03	3.755E-02	3.196E-02	1.916E-02	FAIL ABUN
AU-195	9.378E-01	4.095E-01	2.798E-01	2.089E-01	FAIL ABUN
TL-200	2.515E+02	5.749E+02	0.000E+00	2.933E+02	SHORT HLIF
TL-201	-1.846E+00	8.007E+00	6.578E+00	4.085E+00	NOT IDENT.
TL-202	-5.157E-03	8.132E-02	6.782E-02	4.149E-02	NOT IDENT.
HG-203	-6.190E-03	4.617E-02	3.964E-02	2.356E-02	NOT IDENT.
BI-207	3.213E-02	5.052E-02	4.498E-02	2.578E-02	FAIL ABUN
TL-207	-2.626E-01	8.163E-01	5.980E-01	4.165E-01	FAIL ABUN
PO-209	1.966E+00	7.884E+00	6.774E+00	4.022E+00	NOT IDENT.
BI-210	6.641E+00	1.139E+01	1.008E+01	5.813E+00	NOT IDENT.
PB-210	6.641E+00	1.139E+01	1.008E+01	5.813E+00	NOT IDENT.
PO-210	6.641E+00	1.139E+01	1.008E+01	5.812E+00	NOT IDENT.
PB-211	-6.927E-01	1.140E+00	8.522E-01	5.814E-01	NOT IDENT.
PO-215	-2.626E-01	8.163E-01	5.980E-01	4.165E-01	FAIL ABUN
RN-219	-1.908E-01	4.598E-01	3.672E-01	2.346E-01	FAIL ABUN
RN-220	1.268E+01	2.600E+01	2.241E+01	1.327E+01	NOT IDENT.
RA-223	-2.626E-01	8.163E-01	5.980E-01	4.165E-01	FAIL ABUN
AC-227	4.895E-02	4.015E-01	3.511E-01	2.049E-01	NOT IDENT.
TH-227	4.895E-02	4.016E-01	3.511E-01	2.049E-01	FAIL ABUN
PA-231	-4.017E-01	1.594E+00	1.356E+00	8.132E-01	NOT IDENT.
TH-231	-2.626E-01	8.163E-01	5.980E-01	4.165E-01	FAIL ABUN
PA-233	5.861E-03	6.721E-02	5.797E-02	3.429E-02	FAIL ABUN
PA-234	1.156E-01	3.484E-01	2.995E-01	1.777E-01	FAIL ABUN
NP-236	-4.573E-02	8.937E-02	7.261E-02	4.560E-02	FAIL ABUN
NP-239	2.733E-02	2.380E-01	1.818E-01	1.214E-01	FAIL ABUN
AM-241	9.677E-02	3.185E-01	2.546E-01	1.625E-01	NOT IDENT.
AM-243	3.149E-01	9.486E-02	8.394E-02	4.840E-02	FAIL ABUN
CM-243	-1.088E-01	1.147E-01	9.365E-02	5.851E-02	FAIL ABUN
AM-246	-1.534E-02	1.535E-01	1.250E-01	7.833E-02	NOT IDENT.
CM-247	-1.138E-02	4.039E-02	3.338E-02	2.060E-02	NOT IDENT.
CF-249	1.702E-02	4.469E-02	3.871E-02	2.280E-02	NOT IDENT.
CF-251	2.550E-03	1.405E-01	1.165E-01	7.167E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	214.2209
46.50	214.2209
46.50	214.2209
48.70	220.7711
49.72	220.5619
51.35	251.0153
52.39	236.1199
52.97	225.1957
53.15	217.4784
53.44	216.7808
54.07	231.1081
56.28	263.1866
56.28	263.1889
57.37	0.0000
57.53	285.1801
57.53	285.1817
57.60	288.7542
57.98	291.6836
57.98	291.6836
59.32	298.4419
59.32	298.4419
59.40	298.5028
59.54	286.6649
59.72	305.3854
60.01	317.5696
61.10	309.1189
61.14	309.1498
61.30	309.2746
63.00	314.1530
63.29	314.3773
63.29	314.3773
63.58	314.6011
64.28	315.1382
65.12	324.3020
65.20	324.3646
65.20	324.3646
66.05	310.1908
66.72	305.2807
66.83	305.3618
66.91	313.5289
67.20	290.7533
67.20	290.7533
67.75	320.9206
67.85	320.9966
68.90	334.9079
68.90	334.9079
69.30	347.9023
69.67	359.9912
70.82	325.9355
70.82	325.9355
70.83	325.9427
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72.87	338.4095
72.87	338.4095
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74.81	377.9370
74.81	377.9370
74.81	377.9370
74.81	377.9370
74.81	377.9370
74.81	377.9370
74.81	377.9370
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75.70	378.6746
77.11	379.8334
77.11	379.8334

77.11	379.8334
77.11	379.8334
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77.11	379.8334
77.11	379.8334
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79.80	350.4913
79.80	350.4913
80.11	350.7201
80.18	350.7711
80.30	350.8586
80.30	350.8586
80.57	351.0585
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81.07	370.9474
81.07	370.9474
81.07	370.9474
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83.78	335.1620
83.78	335.1620
83.78	335.1620
84.21	335.4556
84.90	335.9260
85.43	336.2834
86.29	336.8651
86.50	337.0055
86.54	337.0328
86.59	337.0656
86.72	337.1532
86.79	337.1988
86.94	337.3009
87.30	337.5434
87.30	337.5434
87.30	337.5434
87.30	337.5434
87.30	337.5434
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87.57	337.7239
87.88	337.9299
88.03	338.0302
88.36	338.2509
88.47	338.3238
89.95	339.3030
91.11	340.0652
92.29	340.8365
92.38	340.8948
92.38	340.8948
93.35	341.5239
94.00	341.9451
94.67	342.3718
94.67	342.3755
94.90	342.5232
94.90	342.5232
94.90	342.5232
94.90	342.5232
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95.87	235.4635
96.73	235.8401
97.43	236.1441
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98.44	285.6296
98.88	285.8592
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99.55	280.4261
99.86	263.2274
100.00	263.2940
100.10	263.3440
103.18	325.9033
103.76	297.1099
105.00	269.5385
105.31	267.7378
108.00	340.3907
109.28	279.3785

111.00	306.7394
111.00	306.7394
111.76	288.4263
112.95	289.0016
115.19	271.7579
116.30	224.6452
117.00	244.2633
117.00	244.2633
117.66	284.7820
121.11	240.8823
121.62	233.0746
121.78	245.1396
122.06	245.2480
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122.32	277.3945
122.32	277.3945
122.32	277.3945
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131.20	289.3285
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133.54	270.9843
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142.65	218.8385
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144.24	219.3302
144.24	219.3302
144.24	219.3302
145.22	219.6321
145.44	219.6990
147.16	229.0550
152.43	234.3724
152.70	212.4784
153.22	216.8168
154.21	240.1770
154.21	240.1770
154.21	240.1770
154.21	240.1770
155.03	228.8929
156.02	240.7594
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159.00	212.1537
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162.64	218.4622
163.35	218.6633
163.89	209.2544
165.85	251.3094
167.43	230.4734
171.28	224.0822
171.86	221.0250
172.10	221.0900
176.55	216.9055
176.60	216.9199
181.06	195.3040
184.41	228.7625
185.71	189.8364
186.00	189.9001
190.27	222.1044
192.34	182.5048
193.63	198.1879
197.04	208.9009
198.01	183.6801
198.60	197.0867
200.40	199.7021
201.83	238.9115
202.84	253.6403
205.31	183.3830

208.36	278.6736
208.81	275.4487
209.75	200.0717
209.75	200.0717
210.97	188.5488
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216.55	196.4403
218.09	185.4509
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223.80	188.8236
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227.00	173.4647
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227.20	163.2272
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228.18	171.3867
228.18	171.3867
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236.00	196.9116
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238.63	172.0221
238.63	172.0221
238.63	172.0221
239.00	172.0842
240.98	172.4162
241.98	172.5844
241.98	172.5844
241.98	172.5844
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247.94	139.7913
248.90	144.5822
249.79	140.0366
252.40	152.6642
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252.85	141.3184
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256.20	149.6845
256.20	149.6845
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260.90	155.6409
262.80	138.1948
264.65	140.5553
268.24	129.6172
268.79	133.9569
269.46	136.3543
269.46	136.3543
269.46	136.3543
269.46	136.3543
271.23	132.8202
273.65	170.3187
276.40	152.4387
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277.60	150.8042
277.60	150.8042
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278.60	159.0207
279.20	169.8912
279.53	153.7554
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284.30	149.8777
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285.90	142.8500
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286.10	131.1186
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290.67	142.3417
290.80	142.3560
291.72	143.9198
293.26	0.0000
293.70	147.4379
295.21	147.6233
295.21	147.6233

295.21	147.6233
295.96	172.1544
296.50	186.8250
297.23	194.2430
298.57	135.9739
299.80	118.5495
299.80	118.5495
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300.09	142.0022
300.09	142.0022
300.09	142.0022
300.12	142.0046
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303.91	145.9352
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304.40	127.6295
304.84	115.7352
306.84	126.0439
308.46	119.7604
311.98	115.4804
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319.02	135.6386
319.41	129.1757
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323.87	131.3061
323.87	131.3061
323.87	131.3061
323.87	131.3061
325.23	138.9142
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334.20	126.3404
334.30	126.3486
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338.28	121.6382
338.28	121.6382
338.28	121.6382
338.32	121.6422
338.32	121.6422
338.32	121.6422
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340.57	129.9721
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351.92	130.4987
351.92	130.4987
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367.43	108.8463
367.94	0.0000
369.80	112.8885
374.96	108.4556
383.85	106.2025
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388.63	96.7733
391.69	115.5855
391.69	115.5855
392.90	95.0921
398.62	98.4100
400.65	86.7177
401.10	89.7003
401.81	101.5777
402.60	102.6162
404.84	116.6028
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411.60	129.0300
413.65	121.2498
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415.30	108.4462

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427.89	92.2709
432.53	92.5405
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439.56	97.9961
439.89	94.9854
443.98	90.1584
444.90	82.1012
445.03	82.1074
445.03	82.1074
445.03	82.1074
445.03	82.1074
453.90	90.7043
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473.00	94.8301
475.06	99.0718
475.35	99.0879
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477.59	83.7142
477.96	70.2941
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484.57	66.4111
487.03	71.7006
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507.63	0.0000
510.53	0.0000
510.84	62.1316
511.00	62.1374
511.85	62.1662
511.85	62.1662
513.99	62.2392
513.99	62.2392
520.41	67.7500
520.65	65.3398
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528.96	0.0000
529.64	65.9601
529.87	0.0000
531.02	64.9428
537.32	64.0924
543.00	52.4991
546.56	0.0000
549.76	50.5342
552.65	68.9160
555.20	60.3801
563.23	72.5390
563.90	66.0653
568.70	72.7394
569.32	68.4198
569.50	74.9423
569.67	78.2073
573.80	69.6621
574.00	72.9357
574.64	59.8911
578.91	82.0618
579.30	0.0000
583.14	61.2380
585.48	56.0547
591.81	54.9118
592.07	56.0163
593.00	56.0427
595.88	61.6226
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602.52	0.0000
602.71	61.8276
602.71	61.8276
603.60	61.8550
604.41	61.8789
604.70	68.9603
609.31	73.0999

609.31	73.0999
609.31	73.0999
609.31	73.0999
610.33	73.1362
612.46	69.2174
614.37	79.9387
618.01	65.6188
621.84	76.8775
621.84	76.8775
631.29	54.8364
633.02	49.2811
633.10	49.2825
634.78	58.2889
635.90	50.4684
636.97	53.8594
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646.12	53.1850
656.30	67.9211
657.75	67.9651
657.90	0.0000
661.65	64.4529
661.65	64.4529
664.57	0.0000
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666.33	75.8077
675.00	45.6604
677.61	54.8555
685.20	57.7890
692.80	60.7406
695.00	74.6165
696.49	73.7432
696.49	73.7432
697.00	67.3058
697.49	66.3979
698.33	68.2657
698.50	63.6582
699.00	55.3667
702.63	70.2406
706.10	67.5678
706.58	0.0000
706.67	60.1774
709.31	58.3919
711.68	63.0893
713.82	70.5746
717.42	65.1021
720.50	69.1768
721.93	0.0000
722.20	63.6788
722.78	57.4813
722.78	57.4813
722.89	57.4828
722.95	57.4843
723.30	63.7088
724.18	60.6233
727.18	64.4348
733.00	65.5259
735.90	51.5464
739.58	68.5195
742.81	57.3320
744.21	48.9011
747.13	53.6671
751.79	55.6553
752.31	50.9493
753.82	49.0915
755.35	38.7308
756.15	38.7438
756.87	47.2620
763.93	44.2365
765.79	64.8232
766.42	64.8383
766.84	71.1768
776.49	59.0650
778.00	49.7794
778.57	54.8229
778.89	49.0405
783.80	49.3621
785.46	47.8003
792.07	57.5083

795.84	39.3554
796.30	39.3624
798.80	52.8542
801.93	54.5209
805.60	41.4300
810.29	44.3997
810.76	35.7191
815.85	43.5267
817.79	44.5266
818.51	35.8248
819.60	43.5883
826.30	58.2642
828.27	0.0000
831.60	44.7579
831.96	46.7098
834.83	65.2694
836.80	0.0000
846.75	62.6219
848.13	48.9490
856.28	0.0000
856.80	61.8710
860.37	38.3506
867.32	43.3770
867.82	43.3845
871.10	39.4873
873.19	38.5287
874.81	42.5045
875.33	0.0000
876.40	38.5725
879.36	38.6134
880.27	42.5874
880.51	42.5916
881.50	44.5880
883.24	46.5984
884.67	37.6948
889.25	45.7046
896.60	38.8496
898.02	49.8328
899.00	52.8408
903.28	34.3923
911.07	37.0443
911.07	37.0443
911.07	37.0443
919.63	33.8901
920.93	43.1974
925.00	40.2402
925.24	44.2675
926.50	37.2412
935.52	37.3559
937.48	43.4420
944.10	48.6023
946.00	43.5669
949.00	37.5257
962.29	40.7480
964.01	33.9762
966.15	40.7998
968.20	81.6563
969.11	69.7681
969.11	69.7681
969.11	69.7681
977.42	36.4010
980.50	46.1173
983.50	41.0332
989.30	44.1936
996.32	30.9023
1001.03	39.2023
1001.68	39.2107
1004.76	48.2013
1021.30	0.0000
1024.50	0.0000
1034.80	44.8372
1036.00	45.8971
1037.82	35.4858
1038.57	34.4502
1038.76	0.0000
1045.16	43.9359
1046.59	39.7683
1048.07	40.8338

1050.47	30.3863
1050.47	30.3863
1062.04	30.4939
1063.62	25.2492
1076.63	41.1918
1077.35	44.3707
1078.86	38.0496
1085.78	39.1878
1099.22	37.2183
1112.02	41.6279
1112.84	36.3010
1115.52	39.1786
1120.29	39.2323
1120.29	39.2323
1120.29	39.2323
1120.29	39.2323
1120.51	35.6689
1121.28	41.7422
1124.00	0.0000
1129.67	49.3534
1131.51	0.0000
1147.95	0.0000
1167.94	35.7957
1173.22	42.3668
1175.09	42.3896
1177.93	35.8972
1189.05	45.8288
1204.90	36.1663
1205.75	0.0000
1213.00	50.5259
1221.42	54.1289
1230.97	47.4638
1235.34	47.3605
1236.41	0.0000
1238.25	47.9248
1246.25	48.7674
1260.41	0.0000
1271.85	35.3359
1274.45	34.4301
1274.54	35.3606
1291.56	28.9755
1298.22	0.0000
1312.09	28.1897
1325.50	35.8291
1325.50	35.8291
1332.49	14.1684
1333.61	17.0068
1360.21	29.4851
1362.66	0.0000
1365.15	27.6170
1368.21	26.6852
1368.53	0.0000
1376.25	21.2810
1384.27	16.4028
1394.10	18.2230
1395.20	15.3503
1407.95	22.1343
1434.06	12.5890
1436.60	19.3791
1457.56	0.0000
1460.81	17.5415
1489.15	16.6763
1509.49	9.8551
1596.49	16.8807
1620.62	10.1005
1678.03	0.0000
1691.02	11.2766
1691.02	11.2766
1706.46	0.0000
1750.46	0.0000
1764.49	4.1623
1764.49	4.1623
1764.49	4.1623
1764.49	4.1623
1770.23	8.9293
1771.40	47.9316
1791.20	0.0000
1808.65	4.1986

1836.01	10.5526

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799011

Total Uranium Activity	6.5997E+01	ug/g
Total Uranium Counting Unc.	1.7534E+01	ug/g
Total Uranium Tpu	8.9462E-06	ug/g
Total Uranium Mda	5.5375E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799011       *
*   ANALYST       : RXF2                      DETECTOR   : GAM04            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 18:11:14.35    SAMPLE ALQT:  107.203 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.170E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.842E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.882E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.361E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:12:53.52

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799012.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:11:58
Sample ID         : G245799012           Sample quantity  : 1.34951E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.39  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.48*	71	481	1.01	126.62	124	7	9.90E-03	54.5	
2	4	74.92	507	489	0.97	149.49	145	13	7.04E-02	8.3	1.53E+00
3	4	77.11*	758	475	0.99	153.86	145	13	1.05E-01	5.9	
4	3	87.20	270	455	1.11	174.04	171	22	3.75E-02	13.9	1.55E+00
5	3	89.90	178	359	1.05	179.44	171	22	2.47E-02	18.2	
6	3	92.83*	331	366	1.22	185.31	171	22	4.60E-02	12.0	
7	0	129.56	93	401	0.91	258.75	254	9	1.29E-02	40.5	
8	0	185.80*	233	419	1.63	371.21	365	13	3.24E-02	19.7	
9	0	209.51*	168	311	1.36	418.62	414	11	2.34E-02	22.0	
10	7	238.76*	1275	210	1.11	477.11	472	17	1.77E-01	3.4	1.64E+00
11	7	241.71	332	247	1.71	483.00	472	17	4.62E-02	12.5	
12	0	270.30	113	182	1.08	540.17	536	9	1.57E-02	23.3	
13	0	295.35*	411	225	1.20	590.27	585	11	5.71E-02	8.7	
14	0	299.85*	72	148	0.89	599.27	596	8	9.94E-03	32.7	
15	0	327.98	49	216	0.94	655.52	650	12	6.84E-03	61.7	
16	0	338.56	289	195	1.26	676.68	670	14	4.01E-02	11.8	
17	0	352.14*	593	239	1.31	703.83	699	12	8.24E-02	6.7	
18	0	464.61	96	147	3.91	928.74	920	16	1.33E-02	30.4	
19	0	511.43*	131	122	1.72	1022.36	1015	15	1.81E-02	23.4	
20	0	583.52*	435	87	1.58	1166.52	1160	15	6.04E-02	6.9	
21	0	609.62*	433	156	1.34	1218.71	1213	14	6.02E-02	8.0	
22	0	727.48	121	68	1.88	1454.40	1447	15	1.67E-02	17.4	
23	0	795.90	59	53	1.40	1591.23	1584	11	8.25E-03	26.9	
24	0	844.38	137	176	6.11	1688.17	1668	42	1.91E-02	34.1	
25	0	861.41	59	84	1.65	1722.23	1716	14	8.15E-03	35.6	
26	0	911.59*	274	60	1.53	1822.58	1816	14	3.81E-02	8.7	
27	4	964.87	85	47	2.31	1929.12	1924	24	1.18E-02	16.2	2.36E+00
28	4	969.48*	194	38	2.63	1938.35	1924	24	2.69E-02	11.3	
29	0	1120.75	98	88	1.77	2240.86	2235	17	1.36E-02	23.9	
30	0	1238.44	36	97	0.80	2476.20	2471	14	4.95E-03	62.0	
31	0	1461.33*	1563	24	2.15	2921.95	2914	18	2.17E-01	2.7	
32	1	1588.65	32	0	2.32	3176.58	3170	22	4.50E-03	20.9	6.11E-01
33	1	1592.88	22	0	2.32	3185.03	3170	22	3.07E-03	28.6	
34	0	1765.20*	96	4	2.18	3529.65	3521	16	1.34E-02	11.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 20:12:56

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799012.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:11:58
Sample ID : G245799012 Sample quantity : 134.95 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.39 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.609E+01	3.646E+00	5.209E-01	4.473E-02	69.290
CD-109	+	88.03	*	3.019E+00	8.844E-01	1.059E+00	9.975E-02	2.851
SN-126	+	64.28		4.280E-01	4.708E-01	5.535E-01	8.027E-02	0.773
	+	86.94		1.233E+00	6.160E-01	5.022E-01	2.084E-01	2.456
	+	87.57	*	2.967E-01	8.691E-02	1.043E-01	9.771E-03	2.845
TL-208		277.35		5.159E-01	3.732E-01	6.504E-01	7.964E-02	0.793
	+	510.84		6.105E-01	2.954E-01	2.047E-01	2.493E-02	2.982
	+	583.14	*	5.807E-01	9.773E-02	5.387E-02	5.153E-03	10.780
	+	860.37		7.350E-01	5.289E-01	4.471E-01	4.372E-02	1.644
BI-211		72.87		2.634E+00	2.709E+00	4.127E+00	3.257E-01	0.638
	+	351.07	*	3.467E+00	5.618E-01	3.429E-01	3.077E-02	10.109
PB-212	+	74.81		2.168E+00	4.480E-01	4.433E-01	5.468E-02	4.890
	+	77.11		1.872E+00	2.709E-01	2.563E-01	2.115E-02	7.302
	+	87.30		1.372E+00	4.247E-01	4.830E-01	6.608E-02	2.841
	+	238.63	*	1.620E+00	1.910E-01	8.843E-02	8.459E-03	18.316
	+	300.09		1.406E+00	9.311E-01	1.197E+00	1.241E-01	1.175
PO-212	+	74.81		2.168E+00	4.480E-01	4.433E-01	5.468E-02	4.890
	+	77.11		1.872E+00	2.709E-01	2.563E-01	2.115E-02	7.302
	+	87.30		1.372E+00	4.247E-01	4.830E-01	6.608E-02	2.841
		115.19		6.504E-01	3.220E+00	5.237E+00	4.510E-01	0.124
	+	238.63	*	1.620E+00	1.910E-01	8.843E-02	8.459E-03	18.316
	+	300.09		1.406E+00	9.311E-01	1.197E+00	1.241E-01	1.175
BI-214	+	609.31	*	1.090E+00	2.070E-01	1.135E-01	1.174E-02	9.605
	+	1120.29		1.273E+00	6.249E-01	5.857E-01	6.289E-02	2.174
	+	1764.49		1.724E+00	4.320E-01	2.415E-01	1.986E-02	7.139
PB-214	+	74.81		3.735E+00	7.419E-01	7.638E-01	8.356E-02	4.890
	+	77.11		3.209E+00	5.249E-01	4.394E-01	4.936E-02	7.302
	+	87.30		2.351E+00	7.120E-01	8.273E-01	1.002E-01	2.841
	+	241.98		2.537E+00	6.864E-01	5.327E-01	5.407E-02	4.762
	+	295.21		1.418E+00	2.885E-01	2.067E-01	2.188E-02	6.859
	+	351.92	*	1.206E+00	2.053E-01	1.161E-01	1.205E-02	10.383
PO-214	+	74.81		3.735E+00	7.419E-01	7.638E-01	8.356E-02	4.890
	+	77.11		3.209E+00	5.249E-01	4.394E-01	4.936E-02	7.302
	+	87.30		2.351E+00	7.120E-01	8.273E-01	1.002E-01	2.841

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.537E+00	6.864E-01	5.327E-01	5.407E-02	4.762
	+	295.21		1.418E+00	2.885E-01	2.067E-01	2.188E-02	6.859
	+	351.92	*	1.206E+00	2.053E-01	1.161E-01	1.205E-02	10.383
PO-216	+	74.81		2.168E+00	4.480E-01	4.433E-01	5.468E-02	4.890
	+	77.11		1.872E+00	2.709E-01	2.563E-01	2.115E-02	7.302
	+	87.30		1.372E+00	4.247E-01	4.830E-01	6.608E-02	2.841
	+	238.63	*	1.620E+00	1.910E-01	8.843E-02	8.459E-03	18.316
	+	300.09		1.406E+00	9.311E-01	1.197E+00	1.241E-01	1.175
PO-218	+	74.81		3.735E+00	7.419E-01	7.638E-01	8.356E-02	4.890
	+	77.11		3.209E+00	5.249E-01	4.394E-01	4.936E-02	7.302
	+	87.30		2.351E+00	7.120E-01	8.273E-01	1.002E-01	2.841
	+	241.98		2.537E+00	6.864E-01	5.327E-01	5.407E-02	4.762
	+	295.21		1.418E+00	2.885E-01	2.067E-01	2.188E-02	6.859
	+	351.92	*	1.206E+00	2.053E-01	1.161E-01	1.205E-02	10.383
RA-224	+	240.98	*	4.810E+00	1.273E+00	1.007E+00	8.513E-02	4.778
RA-226	+	609.31	*	1.090E+00	2.070E-01	1.135E-01	1.174E-02	9.605
	+	1120.29		1.273E+00	6.249E-01	5.857E-01	6.289E-02	2.174
	+	1764.49		1.724E+00	4.320E-01	2.415E-01	1.986E-02	7.139
AC-228	+	338.32		1.860E+00	8.845E-01	3.770E-01	1.555E-01	4.933
	+	911.07	*	1.626E+00	3.397E-01	2.101E-01	2.447E-02	7.739
	+	969.11		2.022E+00	6.606E-01	3.562E-01	8.370E-02	5.677
RA-228	+	338.32		1.860E+00	8.845E-01	3.770E-01	1.555E-01	4.933
	+	911.07	*	1.626E+00	3.397E-01	2.101E-01	2.447E-02	7.739
	+	969.11		2.022E+00	6.606E-01	3.562E-01	8.370E-02	5.677
TH-228	+	74.81		2.201E+00	4.064E-01	4.501E-01	3.658E-02	4.890
	+	77.11		1.900E+00	2.751E-01	2.603E-01	2.148E-02	7.302
	+	87.30		1.393E+00	4.081E-01	4.904E-01	4.579E-02	2.841
	+	238.63	*	1.645E+00	1.939E-01	8.979E-02	8.588E-03	18.316
	+	300.09		1.428E+00	1.260E+00	1.215E+00	7.202E-01	1.175
TH-230	+	609.31	*	1.090E+00	2.070E-01	1.135E-01	1.174E-02	9.605
	+	1120.29		1.273E+00	6.249E-01	5.857E-01	6.289E-02	2.174
	+	1764.49		1.724E+00	4.319E-01	2.415E-01	1.986E-02	7.139
TH-232	+	338.32		1.860E+00	4.682E-01	3.770E-01	3.227E-02	4.933
	+	911.07	*	1.626E+00	3.397E-01	2.101E-01	2.447E-02	7.739
	+	969.11		2.022E+00	6.606E-01	3.562E-01	8.370E-02	5.677
TH-234	+	63.29	*	1.081E+00	1.194E+00	1.526E+00	2.655E-01	0.709
	+	92.38		2.423E+00	7.300E-01	7.001E-01	1.285E-01	3.461
U-234	+	609.31	*	1.090E+00	2.070E-01	1.135E-01	1.174E-02	9.605
	+	1120.29		1.273E+00	6.249E-01	5.857E-01	6.289E-02	2.174
	+	1764.49		1.724E+00	4.319E-01	2.415E-01	1.986E-02	7.139
NP-237	+	86.50	*	8.712E-01	3.122E-01	3.555E-01	8.039E-02	2.450
		95.87		-5.191E-01	8.889E-01	1.235E+00	3.058E-01	-0.420
U-238	+	63.29	*	1.081E+00	1.194E+00	1.526E+00	2.655E-01	0.709
	+	92.38		2.423E+00	6.201E-01	7.001E-01	6.413E-02	3.461
AM-243	+	74.67	*	3.514E-01	6.477E-02	7.200E-02	5.788E-03	4.881
	+	86.72		3.267E+01	9.570E+00	1.332E+01	1.234E+00	2.453
		117.66		-1.937E+00	3.620E+00	5.692E+00	4.896E-01	-0.340
		142.18		-1.092E+01	1.714E+01	2.656E+01	2.192E+00	-0.411
ANH-511	+	511.00	*	1.319E-01	6.286E-02	4.423E-02	3.930E-03	2.981

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.236E-02	3.249E-01	5.259E-01	4.964E-02	0.081
NA-22		1274.54	*	2.174E-02	4.602E-02	7.933E-02	6.512E-03	0.274
NA-24		1368.53	*	-9.389E-01	4.602E-02	Half-Life too short		
AL-26		1129.67		4.134E-01	2.240E+00	3.287E+00	2.761E-01	0.126
		1808.65	*	-2.379E-03	2.280E-02	3.707E-02	3.023E-03	-0.064
TI-44		67.85		-8.465E-03	3.810E-02	5.561E-02	4.195E-03	-0.152
	+	78.38	*	3.454E-01	4.999E-02	6.645E-02	5.563E-03	5.198
SC-46		889.25	*	-2.783E-03	4.015E-02	6.475E-02	5.934E-03	-0.043
	+	1120.51		2.182E-01	1.061E-01	1.288E-01	1.088E-02	1.695
V-48		944.10		4.483E-01	9.171E-01	1.551E+00	1.410E-01	0.289
		983.50	*	4.077E-03	6.986E-02	1.132E-01	1.019E-02	0.036
		1312.09		-3.829E-02	8.426E-02	1.320E-01	1.082E-02	-0.290
CR-51		320.08	*	-4.677E-02	3.723E-01	5.921E-01	5.351E-02	-0.079
MN-52		744.21		-5.417E-02	2.563E-01	4.145E-01	3.762E-02	-0.131
		848.13		-3.625E-01	7.213E+00	1.170E+01	1.074E+00	-0.031
		935.52		4.490E-01	2.975E-01	5.351E-01	4.873E-02	0.839
		1246.25		-2.730E+00	9.473E+00	1.301E+01	1.065E+00	-0.210
		1333.61		-2.265E-01	5.392E+00	8.836E+00	7.240E-01	-0.026
		1434.06	*	-3.234E-02	2.074E-01	3.310E-01	2.752E-02	-0.098
MN-54		834.83	*	6.937E-02	4.154E-02	6.957E-02	6.386E-03	0.997
CO-56		846.75	*	6.847E-03	4.182E-02	6.910E-02	6.344E-03	0.099
		977.42		2.170E+00	3.232E+00	4.931E+00	4.446E-01	0.440
		1037.82		-6.816E-02	3.171E-01	5.222E-01	4.844E-02	-0.131
		1175.09		4.819E-01	2.476E+00	4.180E+00	3.402E-01	0.115
	+	1238.25		1.306E-01	1.624E-01	1.874E-01	1.583E-02	0.697
		1360.21		4.153E-01	9.665E-01	1.673E+00	1.377E-01	0.248
		1771.40		-1.734E-02	2.096E-01	2.918E-01	2.397E-02	-0.059
CO-57		122.06	*	7.933E-03	2.427E-02	3.956E-02	3.403E-03	0.201
		136.48		-1.329E-01	2.124E-01	3.301E-01	2.972E-02	-0.403
CO-58		810.76	*	-4.097E-02	4.111E-02	6.085E-02	5.590E-03	-0.673
FE-59		142.65		-2.260E+00	2.708E+00	4.088E+00	3.371E-01	-0.553
		192.34		-4.779E-01	8.966E-01	1.427E+00	1.874E-01	-0.335
		1099.22	*	-1.021E-01	1.029E-01	1.572E-01	1.456E-02	-0.650
		1291.56		6.313E-02	1.342E-01	2.310E-01	2.176E-02	0.273
CO-60		1173.22		-3.207E-02	5.211E-02	8.244E-02	6.708E-03	-0.389
		1332.49	*	3.269E-02	3.952E-02	7.088E-02	5.806E-03	0.461
ZN-65		1115.52	*	6.412E-02	1.120E-01	1.714E-01	1.454E-02	0.374
GE-68		1077.35	*	1.302E-02	1.372E+00	2.299E+00	1.992E-01	0.006
AS-73		53.44	*	2.826E-01	4.927E-01	8.249E-01	6.195E-02	0.343
AS-74		595.88	*	-4.570E-03	8.773E-02	1.460E-01	1.309E-02	-0.031
		634.78		8.641E-02	3.538E-01	5.993E-01	5.343E-02	0.144
SE-75		66.05		-2.639E+00	3.808E+00	5.414E+00	5.136E-01	-0.487
		96.73		-5.235E-01	7.376E-01	1.023E+00	1.417E-01	-0.512
		121.11		8.905E-02	1.310E-01	2.161E-01	2.421E-02	0.412
		136.00		-2.004E-02	3.970E-02	6.209E-02	5.220E-03	-0.323
		198.60		1.364E+00	1.742E+00	2.976E+00	2.736E-01	0.458
		264.65	*	2.834E-03	4.460E-02	6.904E-02	5.895E-03	0.041
		279.53		5.719E-02	1.085E-01	1.842E-01	1.624E-02	0.311
		303.91		2.888E-01	2.329E+00	3.404E+00	3.891E-01	0.085

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		9.934E-02	2.547E-01	4.232E-01	4.627E-02	0.235
BR-77	+	87.88		6.796E+02	1.991E+02	2.995E+02	2.818E+01	2.269
		200.40		-2.287E+01	1.611E+02	2.702E+02	2.221E+01	-0.085
	+	239.00		2.711E+02	2.956E+01	3.947E+01	3.335E+00	6.867
		249.79		6.016E+00	6.322E+01	1.059E+02	8.985E+00	0.057
		281.68		-8.641E+01	9.585E+01	1.511E+02	1.284E+01	-0.572
		297.23		3.353E+02	9.288E+01	1.287E+02	1.100E+01	2.605
		303.76		9.244E+00	2.058E+02	2.990E+02	2.560E+01	0.031
		439.47		9.805E+01	1.538E+02	2.584E+02	2.226E+01	0.379
		484.57		1.758E+01	2.348E+02	3.783E+02	3.332E+01	0.046
		520.65	*	4.459E+00	9.792E+00	1.703E+01	1.517E+00	0.262
		574.64		-5.089E+01	1.940E+02	3.181E+02	2.853E+01	-0.160
		578.91		7.749E+01	8.743E+01	1.394E+02	1.250E+01	0.556
		585.48		1.656E+03	3.055E+02	5.352E+02	4.800E+01	3.094
		755.35		2.484E+02	1.859E+02	3.338E+02	3.037E+01	0.744
		817.79		-4.089E+01	1.444E+02	2.298E+02	2.108E+01	-0.178
SR-82		698.33		-4.189E+00	3.556E+01	5.826E+01	5.224E+00	-0.072
		776.49	*	9.171E-02	3.875E-01	6.479E-01	5.916E-02	0.142
		1395.20		1.963E+00	9.786E+00	1.652E+01	1.367E+00	0.119
RB-83		520.41	*	2.227E-02	6.168E-02	1.066E-01	9.497E-03	0.209
		529.64		-2.113E-02	9.619E-02	1.593E-01	1.422E-02	-0.133
		552.65		4.552E-02	1.913E-01	3.264E-01	2.924E-02	0.139
RB-84		881.50	*	4.977E-02	7.085E-02	1.224E-01	1.122E-02	0.407
KR-85		513.99	*	2.046E+01	7.665E+00	1.349E+01	1.200E+00	1.517
SR-85		513.99	*	1.051E-01	3.936E-02	6.929E-02	6.162E-03	1.517
RB-86		1076.63	*	-2.052E-01	8.914E-01	1.464E+00	1.269E-01	-0.140
Y-88		898.02		2.064E-02	4.617E-02	7.771E-02	7.146E-03	0.266
		1836.01	*	1.799E-02	2.635E-02	5.032E-02	4.084E-03	0.358
ZR-88		392.90	*	-1.209E-02	2.955E-02	4.660E-02	3.882E-03	-0.259
Y-91		1204.90	*	1.725E+01	2.175E+01	3.809E+01	3.110E+00	0.453
NB-94		702.63	*	-1.579E-02	3.349E-02	5.323E-02	4.779E-03	-0.297
		871.10		-1.954E-02	3.521E-02	5.412E-02	4.965E-03	-0.361
NB-95		765.79	*	-2.423E-02	4.495E-02	7.066E-02	6.442E-03	-0.343
NB-95M		235.69	*	1.350E-01	1.329E-01	2.064E-01	2.004E-02	0.654
ZR-95		724.18		-1.574E-03	1.083E-01	1.545E-01	1.506E-02	-0.010
		756.15	*	1.222E-01	7.616E-02	1.386E-01	1.376E-02	0.882
NB-97		657.90	*	-1.072E-04	7.616E-02	Half-Life too short		
		1024.50		4.557E+00	7.616E-02	Half-Life too short		
ZR-97		254.15		-1.263E+00	7.616E-02	Half-Life too short		
		355.39		8.269E-01	7.616E-02	Half-Life too short		
		507.63	*	2.018E+00	7.616E-02	Half-Life too short		
		602.52		-2.004E-01	7.616E-02	Half-Life too short		
		1021.30		1.211E-01	7.616E-02	Half-Life too short		
		1147.95		-4.213E-01	7.616E-02	Half-Life too short		
		1362.66		1.554E+00	7.616E-02	Half-Life too short		
		1750.46		4.467E+00	7.616E-02	Half-Life too short		
MO-99		140.51		5.574E+00	2.705E+01	4.299E+01	1.186E+01	0.130
		181.06		-1.677E+01	1.839E+01	2.572E+01	4.637E+00	-0.652
		366.43		-1.265E+01	8.372E+01	1.352E+02	1.145E+01	-0.094

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	-6.564E+00	1.305E+01	2.057E+01	3.176E+00	-0.319
		778.00		1.111E+01	3.546E+01	5.966E+01	5.450E+00	0.186
TC-99M		140.51	*	1.155E+10	3.546E+01	Half-Life too short		
RH-101		127.23		2.770E-02	3.446E-02	5.131E-02	4.358E-03	0.540
		198.01	*	1.252E-02	3.199E-02	5.395E-02	4.425E-03	0.232
		325.23		2.933E-02	2.426E-01	3.530E-01	3.027E-02	0.083
RH-102		418.52		1.297E-01	2.869E-01	4.779E-01	4.060E-02	0.272
		475.06	*	1.267E-02	2.885E-02	4.778E-02	4.192E-03	0.265
		631.29		-2.151E-02	5.646E-02	9.125E-02	8.141E-03	-0.236
		697.49		7.482E-02	7.879E-02	1.387E-01	1.243E-02	0.540
		766.84		1.021E-01	1.135E-01	1.978E-01	1.803E-02	0.516
		1046.59		5.006E-02	1.235E-01	2.139E-01	1.881E-02	0.234
		1112.84		7.273E-02	2.714E-01	4.312E-01	3.661E-02	0.169
RU-103		497.08	*	-1.207E-02	4.178E-02	6.522E-02	9.327E-03	-0.185
	+	610.33		1.180E+01	2.737E+00	2.982E+00	5.028E-01	3.957
RH-106	+	511.85		6.588E-01	3.141E-01	4.356E-01	3.871E-02	1.512
		621.84	*	-2.945E-02	2.960E-01	4.891E-01	6.634E-02	-0.060
		1050.47		-1.020E+00	2.443E+00	3.949E+00	3.467E-01	-0.258
RU-106	+	511.85		6.588E-01	3.141E-01	4.356E-01	3.871E-02	1.512
		621.84	*	-2.945E-02	2.960E-01	4.891E-01	4.371E-02	-0.060
		1050.47		-1.020E+00	2.443E+00	3.949E+00	3.467E-01	-0.258
AG-108M		433.93	*	-4.661E-03	3.401E-02	5.435E-02	4.852E-03	-0.086
		614.37		1.188E-02	3.993E-02	5.974E-02	5.541E-03	0.199
		722.95		-2.397E-02	4.920E-02	6.635E-02	6.206E-03	-0.361
AG-110M		657.75	*	1.198E-03	3.484E-02	5.797E-02	5.282E-03	0.021
		677.61		-1.563E-01	3.047E-01	4.831E-01	4.415E-02	-0.323
		706.67		1.494E-02	2.157E-01	3.580E-01	3.300E-02	0.042
		763.93		-5.050E-02	1.666E-01	2.668E-01	2.493E-02	-0.189
		884.67		-3.052E-02	5.219E-02	7.992E-02	7.535E-03	-0.382
		937.48		-4.357E-02	1.287E-01	2.019E-01	1.897E-02	-0.216
		1384.27		-1.086E-01	1.675E-01	2.518E-01	2.145E-02	-0.431
IN-111		171.28		3.272E-01	1.016E+00	1.631E+00	1.298E-01	0.201
		245.39	*	-3.876E-01	1.109E+00	1.588E+00	1.345E-01	-0.244
IN-113M		391.69	*	-6.147E-02	4.488E-02	6.556E-02	5.635E-03	-0.938
SN-113		391.69	*	-6.147E-02	4.488E-02	6.556E-02	5.635E-03	-0.938
IN-114M		190.27	*	8.017E-03	1.831E-01	2.741E-01	2.230E-02	0.029
CD-115		260.90		-1.026E+02	1.288E+02	2.050E+02	1.742E+01	-0.501
		492.35		3.019E+01	3.694E+01	6.275E+01	5.543E+00	0.481
		527.90	*	3.165E+00	1.035E+01	1.780E+01	1.588E+00	0.178
SN-117M		156.02		-6.244E-01	2.211E+00	3.466E+00	2.792E-01	-0.180
		158.56	*	1.335E-02	5.399E-02	8.668E-02	6.950E-03	0.154
SB-122		563.90	*	4.808E-01	2.089E+00	3.558E+00	3.190E-01	0.135
		692.80		-7.947E+00	4.523E+01	7.376E+01	6.602E+00	-0.108
I-123		159.00	*	5.330E-01	4.523E+01	Half-Life too short		
		528.96		7.191E+01	4.523E+01	Half-Life too short		
TE-123M		159.00	*	2.203E-03	2.759E-02	4.395E-02	3.546E-03	0.050
I-124		602.71	*	5.482E-02	7.579E-01	1.159E+00	1.038E-01	0.047
		722.78		-2.563E+00	5.261E+00	7.095E+00	6.407E-01	-0.361
		1325.50		2.213E+01	3.538E+01	6.227E+01	5.102E+00	0.355

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		1376.25		2.271E+01	3.173E+01	5.618E+01	4.637E+00	0.404
		1509.49		7.209E+00	1.566E+01	2.716E+01	2.271E+00	0.265
		1691.02		1.462E+00	3.548E+00	6.197E+00	5.148E-01	0.236
SB-124		602.71		3.117E-03	4.310E-02	6.589E-02	5.904E-03	0.047
		645.85		-6.331E-02	4.834E-01	7.947E-01	7.465E-02	-0.080
		709.31		5.885E-01	2.769E+00	4.646E+00	4.180E-01	0.127
		713.82		5.621E-01	1.681E+00	2.843E+00	3.502E-01	0.198
		722.78		-2.113E-01	4.337E-01	5.849E-01	5.386E-02	-0.361
	+	968.20		2.085E+01	5.094E+00	7.576E+00	6.849E-01	2.753
		1045.16		2.671E+00	2.682E+00	4.836E+00	4.256E-01	0.552
		1325.50		1.948E+00	3.115E+00	5.482E+00	4.492E-01	0.355
		1368.21		-1.978E+00	1.828E+00	2.542E+00	3.365E-01	-0.778
		1436.60		-1.141E+00	3.078E+00	4.711E+00	3.918E-01	-0.242
		1691.02	*	2.843E-02	6.900E-02	1.205E-01	1.044E-02	0.236
SB-125		427.89	*	2.507E-02	9.057E-02	1.491E-01	1.300E-02	0.168
	+	463.38		8.765E-01	5.398E-01	5.252E-01	4.934E-02	1.669
		600.56		2.929E-02	1.740E-01	2.939E-01	2.814E-02	0.100
		635.90		-1.042E-01	2.772E-01	4.477E-01	4.292E-02	-0.233
TE-125M		109.28	*	-2.040E+00	8.433E+00	1.349E+01	1.398E+00	-0.151
I-126		388.63		1.242E-01	2.052E-01	3.460E-01	2.886E-02	0.359
		666.33	*	3.568E-02	1.776E-01	2.989E-01	2.650E-02	0.119
		753.82		-2.734E-01	1.662E+00	2.698E+00	2.454E-01	-0.101
SB-126		223.80		9.325E-01	3.952E+00	6.694E+00	5.610E-01	0.139
		278.60		1.983E+00	2.494E+00	4.281E+00	3.634E-01	0.463
	+	296.50		1.422E+01	2.755E+00	3.770E+00	3.222E-01	3.773
		414.70		1.934E-02	7.339E-02	1.209E-01	1.024E-02	0.160
		415.30		4.036E+00	6.172E+00	1.042E+01	8.831E-01	0.387
		555.20		-1.034E+00	3.972E+00	6.542E+00	5.861E-01	-0.158
		573.80		-6.410E-01	9.595E-01	1.521E+00	1.364E-01	-0.421
		593.00		2.304E-01	8.943E-01	1.523E+00	1.365E-01	0.151
		656.30		9.116E-01	3.402E+00	5.757E+00	5.104E-01	0.158
		666.33		1.492E-02	7.422E-02	1.249E-01	1.108E-02	0.119
		675.00		-4.079E-01	2.022E+00	3.295E+00	2.931E-01	-0.124
		695.00		6.330E-02	8.099E-02	1.411E-01	1.264E-02	0.449
		697.00		5.195E-01	2.756E-01	5.101E-01	4.572E-02	1.018
		720.50	*	5.375E-02	1.714E-01	2.533E-01	2.286E-02	0.212
		856.80		1.488E-01	7.540E-01	7.428E-01	6.818E-02	0.200
		989.30		9.749E-01	1.340E+00	2.303E+00	2.069E-01	0.423
		1034.80		-7.271E-01	8.335E+00	1.388E+01	1.227E+00	-0.052
		1213.00		2.394E+00	5.302E+00	9.085E+00	7.425E-01	0.264
SB-127		61.10		4.304E+01	4.418E+01	6.796E+01	6.913E+00	0.633
		252.40		5.651E-01	4.048E+00	6.784E+00	2.850E+00	0.083
		290.80		-4.758E+00	2.414E+01	3.455E+01	3.846E+00	-0.138
		411.60		-2.508E+00	1.261E+01	2.014E+01	3.156E+00	-0.124
		444.90		2.410E+00	9.750E+00	1.599E+01	2.012E+00	0.151
		473.00		-6.241E-01	1.719E+00	2.677E+00	3.480E-01	-0.233
		543.00		1.233E+00	1.618E+01	2.735E+01	4.000E+00	0.045
		603.60		6.825E+00	1.341E+01	2.038E+01	2.605E+00	0.335
		685.20	*	2.692E-01	1.306E+00	2.198E+00	2.563E-01	0.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		-5.034E+00	1.632E+01	2.632E+01	4.222E+00	-0.191
		722.20		-2.392E+01	3.621E+01	4.768E+01	5.493E+00	-0.502
		783.80		-1.067E+00	3.693E+00	5.898E+00	7.561E-01	-0.181
XE-127		57.60		-2.015E+00	3.850E+00	6.252E+00	4.532E-01	-0.322
		145.22		2.501E-01	6.802E-01	1.084E+00	8.900E-02	0.231
		172.10		6.613E-02	1.169E-01	1.897E-01	1.511E-02	0.349
		202.84	*	3.314E-04	4.339E-02	7.316E-02	6.030E-03	0.005
		374.96		7.972E-02	1.888E-01	3.159E-01	2.662E-02	0.252
I-131		80.18		1.117E+00	4.019E+00	5.939E+00	5.111E-01	0.188
		284.30		-5.759E-01	1.484E+00	2.406E+00	2.157E-01	-0.239
		364.48	*	1.052E-02	1.125E-01	1.847E-01	1.654E-02	0.057
		636.97		-2.198E-02	1.574E+00	2.615E+00	2.452E-01	-0.008
		722.89		-4.087E+00	8.387E+00	1.131E+01	1.028E+00	-0.361
TE-132		49.72		-2.285E+00	1.057E+01	1.744E+01	1.807E+00	-0.131
		111.76		8.979E-01	2.706E+01	4.376E+01	4.773E+00	0.021
		116.30		6.614E-01	2.629E+01	4.242E+01	4.616E+00	0.016
		228.16	*	-9.049E-02	7.151E-01	1.192E+00	1.862E-01	-0.076
BA-133		53.15		4.311E-01	2.115E+00	3.497E+00	2.635E-01	0.123
		79.62		-1.298E-01	1.133E+00	1.645E+00	2.492E-01	-0.079
		81.00		-1.747E-01	9.587E-02	1.224E-01	1.944E-02	-1.428
		276.40		2.797E-01	3.671E-01	6.273E-01	9.014E-02	0.446
		302.84		8.603E-02	1.503E-01	2.267E-01	3.004E-02	0.379
		356.01	*	2.023E-02	4.923E-02	7.197E-02	9.451E-03	0.281
		383.85		2.488E-02	2.956E-01	4.834E-01	6.012E-02	0.051
I-133	+	510.53		1.502E+00	2.956E-01	Half-Life too short		
		529.87	*	-3.531E-03	2.956E-01	Half-Life too short		
		706.58		3.307E-02	2.956E-01	Half-Life too short		
		856.28		1.720E-01	2.956E-01	Half-Life too short		
		875.33		-4.469E-03	2.956E-01	Half-Life too short		
		1236.41		7.208E-01	2.956E-01	Half-Life too short		
		1298.22		-4.379E-02	2.956E-01	Half-Life too short		
CS-134		475.35		9.637E-01	1.896E+00	3.155E+00	2.768E-01	0.306
		563.23		1.070E-01	3.634E-01	6.211E-01	5.617E-02	0.172
		569.32		3.580E-02	1.921E-01	3.259E-01	2.960E-02	0.110
		604.70		9.454E-03	3.948E-02	5.857E-02	5.259E-03	0.161
	+	795.84	*	1.143E-01	6.242E-02	9.432E-02	8.690E-03	1.212
		801.93		8.567E-02	4.449E-01	6.986E-01	6.432E-02	0.123
		1038.57		6.006E-01	3.959E+00	6.732E+00	5.941E-01	0.089
		1167.94		2.993E+00	2.935E+00	5.226E+00	4.270E-01	0.573
		1365.15		2.609E-01	1.158E+00	1.960E+00	1.696E-01	0.133
CS-135		268.24	*	1.008E-01	1.679E-01	2.550E-01	2.515E-02	0.395
I-135		288.45		9.924E+09	1.679E-01	Half-Life too short		
		417.63		-1.245E+10	1.679E-01	Half-Life too short		
		546.56		-1.938E+09	1.679E-01	Half-Life too short		
		836.80		1.507E+10	1.679E-01	Half-Life too short		
		1038.76		7.689E+09	1.679E-01	Half-Life too short		
		1124.00		-3.513E+10	1.679E-01	Half-Life too short		
		1131.51		-1.669E+09	1.679E-01	Half-Life too short		
		1260.41	*	-2.904E+08	1.679E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		5.343E+11	1.679E-01	Half-Life too short		
		1678.03		-4.330E+09	1.679E-01	Half-Life too short		
		1706.46		-7.914E+09	1.679E-01	Half-Life too short		
		1791.20		-1.292E+10	1.679E-01	Half-Life too short		
CS-136		66.91		1.154E-01	6.213E-01	9.214E-01	1.367E-01	0.125
	+	86.29		3.901E+00	1.202E+00	1.732E+00	2.297E-01	2.252
		153.22		-6.366E-02	6.476E-01	1.025E+00	9.400E-02	-0.062
		163.89		8.228E-01	1.067E+00	1.725E+00	1.562E-01	0.477
		176.55		1.480E-01	3.440E-01	5.931E-01	5.067E-02	0.250
		273.65		-6.321E-01	5.183E-01	6.876E-01	6.237E-02	-0.919
		340.57		3.419E-01	1.519E-01	2.475E-01	2.180E-02	1.381
		818.51		-1.380E-02	7.676E-02	1.233E-01	1.132E-02	-0.112
		1048.07	*	-6.435E-02	1.196E-01	1.914E-01	1.751E-02	-0.336
		1235.34		5.804E-02	8.034E-01	1.153E+00	1.330E-01	0.050
BA-137M		661.65	*	-2.798E-02	3.617E-02	5.631E-02	4.983E-03	-0.497
CS-137		661.65	*	-2.958E-02	3.823E-02	5.952E-02	5.277E-03	-0.497
CE-139		165.85	*	-2.547E-02	2.905E-02	4.393E-02	3.475E-03	-0.580
BA-140		162.64		5.728E-01	7.575E-01	1.225E+00	1.041E-01	0.468
		304.84		-2.568E-01	1.404E+00	2.000E+00	5.603E-01	-0.128
		423.70		-1.764E+00	1.989E+00	2.872E+00	9.303E-01	-0.614
		537.32	*	4.183E-02	2.475E-01	4.206E-01	1.397E-01	0.099
LA-140	+	328.77		3.943E-01	4.876E-01	5.201E-01	4.711E-02	0.758
		432.53		1.832E-01	2.054E+00	3.336E+00	3.002E-01	0.055
		487.03		-4.639E-03	1.385E-01	2.212E-01	2.065E-02	-0.021
		751.79		-9.774E-01	1.956E+00	3.091E+00	3.082E-01	-0.316
		815.85		3.956E-02	3.303E-01	5.454E-01	5.514E-02	0.073
		867.82		8.005E-01	1.572E+00	2.360E+00	2.267E-01	0.339
		919.63		1.960E+00	2.999E+00	4.894E+00	5.416E-01	0.400
		925.24		3.552E-03	1.080E+00	1.749E+00	1.685E-01	0.002
		1596.49	*	4.869E-02	6.710E-02	1.137E-01	9.510E-03	0.428
CE-141		145.44	*	3.262E-02	6.039E-02	9.848E-02	8.244E-03	0.331
CE-143		57.37		-4.445E-05	6.039E-02	Half-Life too short		
		231.56		1.259E-03	6.039E-02	Half-Life too short		
		293.26	*	5.719E-04	6.039E-02	Half-Life too short		
		350.59		2.487E-02	6.039E-02	Half-Life too short		
		490.36		-2.184E-03	6.039E-02	Half-Life too short		
		664.57		-9.839E-05	6.039E-02	Half-Life too short		
		721.93		-6.856E-04	6.039E-02	Half-Life too short		
CE-144		80.11		4.492E-01	1.826E+00	2.695E+00	2.302E-01	0.167
		133.54	*	6.343E-02	2.203E-01	3.189E-01	4.923E-02	0.199
PM-144		476.78		5.385E-02	6.711E-02	1.137E-01	1.089E-02	0.473
		618.01		5.349E-05	3.023E-02	4.908E-02	4.502E-03	0.001
		696.49	*	4.993E-02	3.547E-02	6.405E-02	5.741E-03	0.780
		778.57		-1.161E-01	2.334E+00	3.811E+00	3.482E-01	-0.030
PR-144		696.49	*	3.384E+00	2.404E+00	4.340E+00	3.889E-01	0.780
		1489.15		2.883E+00	1.011E+01	1.668E+01	1.393E+00	0.173
PM-146		453.90	*	8.118E-03	4.345E-02	7.083E-02	7.633E-03	0.115
		633.02		9.949E-01	1.444E+00	2.441E+00	9.141E-01	0.407
		735.90		4.452E-02	1.584E-01	2.592E-01	7.449E-02	0.172

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		747.13		5.803E-02	9.605E-02	1.649E-01	2.362E-02	0.352
ND-147	+	91.11		6.703E-01	2.535E-01	4.387E-01	4.342E-02	1.528
		319.41		-1.437E+00	3.357E+00	5.241E+00	4.495E-01	-0.274
		439.89		2.314E+00	6.101E+00	1.009E+01	8.692E-01	0.229
		531.02	*	-2.324E-01	5.155E-01	8.364E-01	1.265E-01	-0.278
PM-149		285.90	*	-2.245E+01	9.438E+01	1.542E+02	2.387E+01	-0.146
EU-152		121.78		2.396E-02	7.078E-02	1.154E-01	1.143E-02	0.208
		244.69		4.514E-02	3.300E-01	4.896E-01	4.146E-02	0.092
		344.27	*	2.777E-02	1.104E-01	1.616E-01	1.465E-02	0.172
		443.98		2.056E-01	9.227E-01	1.511E+00	1.305E-01	0.136
		778.89		9.732E-04	2.705E-01	4.437E-01	4.053E-02	0.002
		867.32		1.114E-01	9.719E-01	1.386E+00	1.272E-01	0.080
	+	964.01		1.023E+00	3.436E-01	6.097E-01	5.518E-02	1.678
		1085.78		-1.712E-01	4.087E-01	6.577E-01	5.674E-02	-0.260
		1112.02		-1.129E-01	3.605E-01	5.734E-01	4.871E-02	-0.197
		1407.95		-4.581E-02	1.927E-01	3.066E-01	2.542E-02	-0.149
GD-153		69.67		8.861E-01	1.306E+00	2.098E+00	1.607E-01	0.422
		83.37		5.103E+00	1.341E+01	1.992E+01	1.770E+00	0.256
		97.43	*	-2.622E-02	7.507E-02	1.067E-01	9.537E-03	-0.246
		103.18		-1.343E-01	9.195E-02	1.382E-01	1.213E-02	-0.971
EU-154		123.07		-2.429E-02	4.919E-02	7.723E-02	8.751E-03	-0.315
		247.94		-7.119E-02	3.436E-01	5.478E-01	6.228E-02	-0.130
		591.81		-5.506E-02	6.294E-01	9.860E-01	1.176E-01	-0.056
		723.30		-7.358E-02	2.034E-01	2.785E-01	2.758E-02	-0.264
		756.87		1.337E+00	8.191E-01	1.485E+00	1.831E-01	0.900
		873.19		1.251E-01	2.946E-01	4.978E-01	6.292E-02	0.251
		996.32		-1.396E-01	4.058E-01	6.305E-01	1.131E-01	-0.221
		1004.76		-1.863E-01	2.555E-01	3.697E-01	4.392E-02	-0.504
		1274.45	*	4.587E-02	1.294E-01	2.208E-01	2.427E-02	0.208
EU-155		48.70		-6.187E-01	1.253E+00	2.047E+00	1.657E-01	-0.302
		60.01		1.764E-01	3.644E+00	5.413E+00	3.897E-01	0.033
	+	86.54		3.573E-01	1.048E-01	1.593E-01	1.486E-02	2.244
		105.31	*	1.021E-01	9.593E-02	1.614E-01	1.426E-02	0.633
TB-160	+	86.79		9.557E-01	2.800E-01	4.230E-01	3.924E-02	2.259
		197.04		2.240E-01	5.385E-01	9.089E-01	7.448E-02	0.246
		215.65		3.066E-01	7.545E-01	1.202E+00	1.002E-01	0.255
	+	298.57		2.049E-01	1.351E-01	2.025E-01	1.732E-02	1.012
		879.36	*	-3.111E-02	1.426E-01	2.268E-01	2.080E-02	-0.137
		962.29		1.816E-02	7.092E-01	9.892E-01	8.956E-02	0.018
	+	966.15		7.036E-01	2.363E-01	4.980E-01	4.505E-02	1.413
		1177.93		2.683E-03	3.836E-01	6.381E-01	5.196E-02	0.004
		1271.85		-1.717E-02	7.274E-01	1.200E+00	9.834E-02	-0.014
HO-166M		80.57		-5.743E-03	2.377E-01	3.464E-01	2.975E-02	-0.017
	+	184.41		1.549E-01	6.228E-02	6.136E-02	4.960E-03	2.524
		280.46		-1.997E-02	8.481E-02	1.389E-01	1.179E-02	-0.144
		410.95		6.261E-02	2.572E-01	4.226E-01	3.571E-02	0.148
		711.68	*	-4.154E-02	6.300E-02	9.839E-02	8.858E-03	-0.422
		752.31		-1.989E-01	3.076E-01	4.797E-01	4.362E-02	-0.415
		810.29		-7.098E-02	6.243E-02	9.102E-02	8.344E-03	-0.780

---- Non-Identified Nuclides ----

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TM-171		51.35		-6.557E+00	1.709E+01	2.801E+01	2.163E+00	-0.234
		52.39		-2.231E+00	9.118E+00	1.482E+01	1.128E+00	-0.151
		59.40		-5.847E+00	1.826E+01	2.845E+01	2.046E+00	-0.206
		66.72	*	-6.723E-01	2.227E+01	3.272E+01	2.447E+00	-0.021
LU-176	+	88.36		7.037E-01	2.061E-01	3.133E-01	2.944E-02	2.246
		201.83		-1.457E-02	2.703E-02	4.452E-02	3.666E-03	-0.327
		306.84	*	-2.504E-02	2.481E-02	3.843E-02	3.292E-03	-0.652
		401.10		8.653E-01	6.735E+00	1.101E+01	9.235E-01	0.079
LU-177		112.95		-7.563E-01	1.479E+00	2.331E+00	2.011E-01	-0.325
	+	208.36	*	3.845E+00	1.721E+00	1.959E+00	1.623E-01	1.963
LU-177M		52.97		-1.178E-01	9.570E-01	1.563E+00	1.181E-01	-0.075
		54.07		1.617E-01	5.130E-01	8.523E-01	6.355E-02	0.190
		61.30		1.281E+00	1.120E+00	1.737E+00	1.257E-01	0.738
		121.62		1.411E-01	3.638E-01	5.944E-01	5.108E-02	0.237
		147.16		-1.587E-01	6.350E-01	1.000E+00	8.184E-02	-0.159
		171.86		3.183E-01	4.725E-01	7.701E-01	6.133E-02	0.413
		218.09		-1.088E-01	7.963E-01	1.329E+00	1.110E-01	-0.082
		268.79		1.620E+00	8.650E-01	1.402E+00	1.192E-01	1.155
		319.02		-1.281E-01	2.586E-01	4.019E-01	3.446E-02	-0.319
		367.43		-2.534E-01	8.743E-01	1.398E+00	1.183E-01	-0.181
		413.65	*	-9.109E-02	1.792E-01	2.798E-01	2.369E-02	-0.326
HF-181		56.28		-2.409E-01	5.784E-01	9.438E-01	6.900E-02	-0.255
		57.53		-1.676E-01	3.236E-01	5.256E-01	3.812E-02	-0.319
		65.20		-1.581E-01	7.370E-01	1.075E+00	7.952E-02	-0.147
		133.02		9.189E-03	6.981E-02	1.003E-01	8.414E-03	0.092
		136.25		-2.225E-01	4.628E-01	7.246E-01	6.044E-02	-0.307
		345.85		-1.877E-01	2.136E-01	3.018E-01	2.578E-02	-0.622
		482.03	*	-1.191E-03	4.298E-02	6.870E-02	6.045E-03	-0.017
W-181		56.28		-9.446E-02	2.261E-01	3.688E-01	2.697E-02	-0.256
		57.53		-6.554E-02	1.266E-01	2.056E-01	1.491E-02	-0.319
		65.20	*	-6.137E-02	2.860E-01	4.170E-01	3.086E-02	-0.147
TA-182		67.75		-2.945E-02	9.150E-02	1.326E-01	9.997E-03	-0.222
		100.10		1.750E-01	1.538E-01	2.568E-01	2.274E-02	0.681
		152.43		1.606E-01	3.268E-01	5.310E-01	4.304E-02	0.303
		222.10		-8.905E-02	3.322E-01	5.508E-01	4.611E-02	-0.162
		1001.68		2.353E+00	2.198E+00	3.856E+00	3.451E-01	0.610
	+	1121.28		6.025E-01	2.930E-01	3.559E-01	3.006E-02	1.693
		1189.05		5.705E-02	3.280E-01	5.537E-01	4.514E-02	0.103
		1221.42	*	2.233E-01	2.236E-01	3.961E-01	3.240E-02	0.564
		1230.97		3.699E-01	5.707E-01	9.262E-01	7.580E-02	0.399
RE-183		57.98		-7.359E-02	1.266E-01	2.051E-01	1.484E-02	-0.359
		59.32		-3.091E-02	7.500E-02	1.164E-01	8.374E-03	-0.265
		67.20		-2.903E-02	1.622E-01	2.366E-01	1.776E-02	-0.123
		162.32	*	8.792E-02	1.070E-01	1.758E-01	1.400E-02	0.500
	+	208.81		3.411E+00	1.527E+00	1.775E+00	1.471E-01	1.922
		291.72		1.152E-01	1.008E+00	1.476E+00	1.259E-01	0.078
RE-184		57.98		-2.709E-01	4.662E-01	7.553E-01	5.464E-02	-0.359
		59.32		-1.137E-01	2.759E-01	4.283E-01	3.081E-02	-0.265
		67.20		-1.068E-01	5.968E-01	8.709E-01	6.537E-02	-0.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		-2.705E-01	3.592E-01	5.489E-01	4.379E-02	-0.493
		216.55		7.495E-02	2.478E-01	4.216E-01	3.516E-02	0.178
		252.85	*	-7.043E-02	2.109E-01	3.453E-01	2.930E-02	-0.204
		318.01		-2.443E-01	4.461E-01	7.101E-01	6.089E-02	-0.344
		792.07		-5.057E-02	1.104E+00	1.555E+00	1.423E-01	-0.033
		903.28		1.778E-02	1.142E+00	1.804E+00	1.651E-01	0.010
		920.93		3.170E-01	4.447E-01	7.688E-01	7.019E-02	0.412
OS-185		59.72		1.279E-02	2.138E-01	3.178E-01	2.286E-02	0.040
		61.14		1.238E-01	1.225E-01	1.892E-01	1.368E-02	0.654
		69.30		1.198E-02	2.255E-01	3.719E-01	2.840E-02	0.032
		592.07		3.480E-02	2.467E+00	4.022E+00	3.606E-01	0.009
		646.12	*	-3.895E-03	4.070E-02	6.709E-02	5.965E-03	-0.058
		717.42		5.903E-01	9.428E-01	1.626E+00	1.466E-01	0.363
		874.81		1.351E-01	5.793E-01	9.626E-01	8.830E-02	0.140
		880.27		1.109E-01	7.996E-01	1.316E+00	1.207E-01	0.084
RE-188		155.03	*	1.376E-02	1.665E-01	2.657E-01	2.144E-02	0.052
		477.96		-4.632E-01	3.138E+00	4.974E+00	4.369E-01	-0.093
		633.10		1.960E+00	2.824E+00	4.928E+00	4.395E-01	0.398
W-188	+	63.58		4.352E+01	4.756E+01	6.507E+01	4.766E+00	0.669
		227.08		-3.825E+00	1.306E+01	2.162E+01	1.815E+00	-0.177
		290.67	*	-1.658E+00	8.158E+00	1.167E+01	9.954E-01	-0.142
IR-192	+	295.96		1.082E+00	2.099E-01	2.925E-01	2.518E-02	3.700
		308.46		7.053E-02	9.448E-02	1.618E-01	1.393E-02	0.436
		316.51	*	1.554E-02	3.313E-02	5.595E-02	4.809E-03	0.278
		468.07		6.924E-02	7.014E-02	1.083E-01	1.013E-02	0.639
		604.41		1.348E-01	5.350E-01	7.944E-01	1.052E-01	0.170
		612.46		2.179E+00	8.926E-01	1.516E+00	1.545E-01	1.438
AU-195		65.12		-1.459E-02	1.328E-01	1.946E-01	1.439E-02	-0.075
		66.83		6.128E-03	7.397E-02	1.092E-01	8.176E-03	0.056
	+	75.70		1.138E+00	2.097E-01	3.893E-01	3.164E-02	2.923
		98.88	*	2.970E-01	2.099E-01	3.234E-01	2.876E-02	0.919
	+	129.76		4.862E+00	3.962E+00	4.719E+00	3.986E-01	1.030
TL-200		367.94	*	-1.696E-04	3.962E+00	Half-Life too short		
		579.30		3.172E-03	3.962E+00	Half-Life too short		
		828.27		1.869E-03	3.962E+00	Half-Life too short		
		1205.75		1.850E-03	3.962E+00	Half-Life too short		
TL-201		68.90		-7.166E-01	3.722E+00	6.089E+00	4.634E-01	-0.118
		70.82		1.354E+00	2.406E+00	3.621E+00	2.803E-01	0.374
		80.30		1.489E+00	4.478E+00	6.634E+00	5.679E-01	0.224
		135.34		-2.227E+00	2.566E+01	4.091E+01	3.418E+00	-0.054
		167.43	*	-5.806E+00	6.907E+00	1.045E+01	8.276E-01	-0.556
TL-202		68.90		-6.291E-02	3.267E-01	5.346E-01	4.068E-02	-0.118
		70.82		1.185E-01	2.107E-01	3.170E-01	2.454E-02	0.374
		80.30		1.304E-01	3.922E-01	5.809E-01	4.973E-02	0.224
		439.56	*	4.340E-02	7.184E-02	1.205E-01	1.038E-02	0.360
HG-203		70.83		5.112E-01	9.092E-01	1.366E+00	1.785E-01	0.374
		72.87		5.251E-01	5.426E-01	8.226E-01	1.048E-01	0.638
		82.60		-6.301E-02	9.353E-01	1.454E+00	2.015E-01	-0.043
		279.20	*	2.194E-02	4.141E-02	7.029E-02	6.140E-03	0.312

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		1.425E-01	1.578E-01	2.398E-01	1.891E-02	0.594
	+	74.97		6.308E-01	1.163E-01	1.888E-01	1.523E-02	3.340
		84.90		1.224E-01	1.754E-01	2.635E-01	2.386E-02	0.465
		569.67		3.999E-03	2.982E-02	5.044E-02	4.523E-03	0.079
		1063.62	*	2.463E-02	5.751E-02	9.959E-02	8.689E-03	0.247
		1770.23		-1.393E-01	4.635E-01	6.021E-01	4.946E-02	-0.231
TL-207		81.07		-3.950E-01	2.052E-01	2.690E-01	2.324E-02	-1.468
		83.78		1.023E-01	1.135E-01	1.720E-01	1.536E-02	0.595
		94.90		3.969E-01	2.112E-01	3.311E-01	2.994E-02	1.199
		122.32		-4.329E-01	1.705E+00	2.710E+00	2.500E-01	-0.160
		144.24		7.734E-02	6.689E-01	1.055E+00	9.804E-02	0.073
		154.21		-1.179E-01	3.890E-01	6.097E-01	5.482E-02	-0.193
	+	269.46		5.169E-01	2.454E-01	3.412E-01	2.961E-02	1.515
		323.87	*	3.580E-01	7.102E-01	1.061E+00	1.877E-01	0.337
	+	338.28		7.766E+00	2.071E+00	2.452E+00	3.008E-01	3.168
		445.03		4.467E-01	2.207E+00	3.608E+00	4.366E-01	0.124
PO-209		260.50		-9.708E-01	8.978E+00	1.486E+01	1.262E+00	-0.065
		262.80		5.277E+00	2.503E+01	4.207E+01	3.575E+00	0.125
		896.60	*	6.616E+00	7.989E+00	1.387E+01	1.270E+00	0.477
BI-210		46.50	*	-3.910E-01	1.729E+00	2.846E+00	2.670E-01	-0.137
PB-210		46.50	*	-3.910E-01	1.729E+00	2.846E+00	2.670E-01	-0.137
PO-210		46.50	*	-3.910E-01	1.729E+00	2.846E+00	2.421E-01	-0.137
PB-211		404.84	*	-2.329E-01	9.266E-01	1.458E+00	9.130E-01	-0.160
		427.08		2.995E-01	2.019E+00	3.282E+00	2.039E+00	0.091
		831.96		-5.218E-01	1.462E+00	1.915E+00	1.202E+00	-0.272
BI-212	+	727.18	*	1.379E+00	5.014E-01	6.651E-01	6.899E-02	2.073
		785.46		1.701E-01	1.700E+00	2.810E+00	2.569E-01	0.061
		1620.62		3.589E-01	1.272E+00	2.152E+00	1.798E-01	0.167
PO-215		81.07		-3.950E-01	2.052E-01	2.690E-01	2.324E-02	-1.468
		83.78		1.023E-01	1.135E-01	1.720E-01	1.536E-02	0.595
		94.90		3.969E-01	2.112E-01	3.311E-01	2.994E-02	1.199
		122.32		-4.329E-01	1.705E+00	2.710E+00	2.500E-01	-0.160
		144.24		7.734E-02	6.689E-01	1.055E+00	9.804E-02	0.073
		154.21		-1.179E-01	3.890E-01	6.097E-01	5.482E-02	-0.193
	+	269.46		5.169E-01	2.454E-01	3.412E-01	2.961E-02	1.515
		323.87	*	3.580E-01	7.102E-01	1.061E+00	1.877E-01	0.337
	+	338.28		7.766E+00	2.071E+00	2.452E+00	3.008E-01	3.168
		445.03		4.467E-01	2.207E+00	3.608E+00	4.366E-01	0.124
RN-219	+	271.23		6.632E-01	3.169E-01	4.486E-01	4.580E-02	1.478
		401.81	*	-3.282E-02	4.045E-01	6.523E-01	9.716E-02	-0.050
RN-220		549.76	*	6.084E-01	2.493E+01	4.193E+01	3.755E+00	0.015
RA-223		81.07		-3.950E-01	2.052E-01	2.690E-01	2.324E-02	-1.468
		83.78		1.023E-01	1.135E-01	1.720E-01	1.536E-02	0.595
		94.90		3.969E-01	2.112E-01	3.311E-01	2.994E-02	1.199
		122.32		-4.329E-01	1.705E+00	2.710E+00	2.500E-01	-0.160
		144.24		7.734E-02	6.689E-01	1.055E+00	9.804E-02	0.073
		154.21		-1.179E-01	3.890E-01	6.097E-01	5.482E-02	-0.193
	+	269.46		5.169E-01	2.454E-01	3.412E-01	2.961E-02	1.515
		323.87	*	3.580E-01	7.102E-01	1.061E+00	1.877E-01	0.337

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.766E+00	2.071E+00	2.452E+00	3.008E-01	3.168
		445.03		4.467E-01	2.207E+00	3.608E+00	4.366E-01	0.124
AC-227		79.80		-2.735E-01	1.436E+00	2.076E+00	4.454E-01	-0.132
		236.00		4.126E-01	2.567E-01	4.046E-01	4.903E-02	1.020
		256.20	*	-1.472E-01	3.495E-01	5.681E-01	8.679E-02	-0.259
		286.10		9.212E-02	1.495E+00	2.482E+00	3.260E-01	0.037
	+	299.80		2.606E+00	1.764E+00	2.541E+00	4.436E-01	1.026
		304.40		7.112E-01	2.003E+00	2.975E+00	5.476E-01	0.239
		334.20		5.322E-01	2.869E+00	3.546E+00	6.874E-01	0.150
TH-227		79.80		-2.735E-01	1.436E+00	2.076E+00	4.512E-01	-0.132
	+	94.00		9.364E+00	3.041E+00	3.384E+00	7.432E-01	2.768
		236.00		4.126E-01	2.558E-01	4.046E-01	4.425E-02	1.020
		256.20	*	-1.472E-01	3.498E-01	5.681E-01	1.023E-01	-0.259
		286.10		9.212E-02	1.498E+00	2.482E+00	2.491E+00	0.037
	+	299.80		2.606E+00	1.764E+00	2.541E+00	4.436E-01	1.026
		304.40		7.112E-01	2.003E+00	2.975E+00	5.476E-01	0.239
		334.20		5.322E-01	2.869E+00	3.546E+00	6.874E-01	0.150
TH-229		85.43		3.100E-01	1.752E-01	2.718E-01	2.478E-02	1.140
	+	88.47		4.051E-01	1.187E-01	1.800E-01	1.690E-02	2.251
		100.00		2.249E-01	1.589E-01	2.676E-01	2.370E-02	0.841
		193.63	*	6.645E-02	4.637E-01	7.880E-01	6.435E-02	0.084
	+	210.97		2.668E+00	1.194E+00	1.317E+00	1.093E-01	2.025
PA-231		283.67	*	9.186E-02	1.462E+00	2.430E+00	3.674E-01	0.038
	+	301.29		1.042E+00	6.935E-01	1.017E+00	1.241E-01	1.025
TH-231		81.07		-3.950E-01	2.052E-01	2.690E-01	2.324E-02	-1.468
		83.78		1.023E-01	1.135E-01	1.720E-01	1.536E-02	0.595
		94.90		3.969E-01	2.112E-01	3.311E-01	2.994E-02	1.199
		122.32		-4.329E-01	1.705E+00	2.710E+00	2.500E-01	-0.160
		144.24		7.734E-02	6.689E-01	1.055E+00	9.804E-02	0.073
		154.21		-1.179E-01	3.890E-01	6.097E-01	5.482E-02	-0.193
	+	269.46		5.169E-01	2.454E-01	3.412E-01	2.961E-02	1.515
		323.87	*	3.580E-01	7.102E-01	1.061E+00	1.877E-01	0.337
	+	338.28		7.766E+00	2.071E+00	2.452E+00	3.008E-01	3.168
		445.03		4.467E-01	2.207E+00	3.608E+00	4.366E-01	0.124
U-231		84.21		1.427E+00	5.147E+00	7.610E+00	6.832E-01	0.188
	+	92.29		9.466E+00	2.422E+00	3.634E+00	3.330E-01	2.605
		95.87	*	-6.021E-01	1.022E+00	1.432E+00	1.289E-01	-0.420
		108.00		4.438E-01	1.936E+00	3.159E+00	2.744E-01	0.140
PA-233	+	75.28		1.841E+01	4.120E+00	5.803E+00	8.738E-01	3.172
	+	86.59		5.808E+00	2.252E+00	2.585E+00	6.987E-01	2.247
	+	300.12		7.265E-01	4.872E-01	7.052E-01	1.046E-01	1.030
		311.98	*	-3.623E-02	6.322E-02	1.006E-01	8.871E-03	-0.360
		340.50		1.790E+00	8.395E-01	1.213E+00	2.888E-01	1.476
		398.62		5.592E-02	2.148E+00	3.490E+00	9.266E-01	0.016
		415.76		5.342E-01	1.664E+00	2.745E+00	5.900E-01	0.195
PA-234	+	63.00		1.260E+00	1.387E+00	1.940E+00	2.872E-01	0.650
		94.67		1.163E-01	1.521E-01	2.527E-01	3.210E-02	0.460
		98.44		4.675E-02	9.196E-02	1.306E-01	7.291E-02	0.358
		99.86		6.048E-01	4.040E-01	6.817E-01	6.041E-02	0.887

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-1.377E-02	1.604E-01	2.580E-01	3.124E-02	-0.053
		131.20		-4.132E-02	1.121E-01	1.564E-01	1.317E-02	-0.264
		152.70		2.047E-01	3.169E-01	5.157E-01	8.659E-02	0.397
	+	186.00		5.576E+00	2.797E+00	2.460E+00	7.645E-01	2.266
		226.40		1.233E-01	4.014E-01	6.810E-01	8.891E-02	0.181
		227.20		-2.056E-01	4.450E-01	7.311E-01	6.141E-02	-0.281
		248.90		5.761E-02	7.505E-01	1.256E+00	2.809E-01	0.046
		293.70		4.909E+00	1.223E+00	1.645E+00	2.840E-01	2.984
		369.80		1.157E-01	8.144E-01	1.339E+00	2.908E-01	0.086
		568.70		4.035E-01	9.606E-01	1.656E+00	1.485E-01	0.244
		569.50		4.230E-02	2.652E-01	4.492E-01	4.028E-02	0.094
		574.00		-1.155E+00	1.365E+00	2.128E+00	1.909E-01	-0.543
		699.00		-6.374E-01	7.644E-01	1.168E+00	2.248E-01	-0.546
		706.10		8.150E-01	1.109E+00	1.830E+00	8.174E-01	0.445
		733.00		-1.828E-01	4.424E-01	5.975E-01	1.337E-01	-0.306
		742.81		6.355E-01	1.503E+00	2.453E+00	1.650E+00	0.259
	+	796.30		2.221E+00	1.340E+00	1.817E+00	4.948E-01	1.222
		805.60		8.863E-01	1.083E+00	1.833E+00	5.646E-01	0.484
		819.60		8.087E-01	1.295E+00	2.171E+00	8.282E-01	0.373
		826.30		6.065E-01	8.909E-01	1.470E+00	6.595E-01	0.412
		831.60		-3.938E-01	7.653E-01	9.959E-01	2.989E-01	-0.395
		876.40		-2.053E-01	8.693E-01	1.338E+00	1.376E+00	-0.153
		880.51		5.976E-02	2.881E-01	4.771E-01	4.375E-02	0.125
		883.24		-1.955E-02	3.007E-01	4.849E-01	3.263E-01	-0.040
		899.00		-1.227E-02	9.360E-01	1.516E+00	6.646E-01	-0.008
		925.00		-4.288E-01	1.167E+00	1.816E+00	1.657E-01	-0.236
		926.50		-2.061E-02	1.708E-01	2.728E-01	6.944E-02	-0.076
		946.00	*	-3.018E-01	3.398E-01	4.951E-01	9.399E-02	-0.610
		949.00		2.117E-01	4.836E-01	8.116E-01	7.370E-02	0.261
		980.50		-3.242E-01	7.428E-01	1.141E+00	1.028E-01	-0.284
		1394.10		-6.798E-03	1.066E+00	1.747E+00	1.136E+00	-0.004
PA-234M		766.42		4.918E+00	1.212E+01	2.006E+01	1.020E+01	0.245
		1001.03	*	2.288E+00	5.035E+00	8.421E+00	8.635E-01	0.272
U-235	+	89.95		2.646E+00	1.268E+00	1.591E+00	4.939E-01	1.663
	+	93.35		2.913E+00	1.077E+00	1.105E+00	3.114E-01	2.636
		105.00		1.150E+00	9.904E-01	1.580E+00	4.722E-01	0.728
		143.76	*	-6.033E-02	2.067E-01	3.198E-01	5.539E-02	-0.189
		163.35		5.539E-01	4.723E-01	7.614E-01	1.430E-01	0.727
	+	185.71		2.065E-01	8.304E-02	9.170E-02	7.424E-03	2.252
		205.31		1.073E-01	5.398E-01	8.004E-01	1.514E-01	0.134
NP-236		94.67		9.067E-02	1.152E-01	1.919E-01	1.737E-02	0.472
		98.44		3.534E-02	6.673E-02	9.872E-02	8.793E-03	0.358
		111.00		-1.041E-02	1.213E-01	1.952E-01	1.688E-02	-0.053
		160.31	*	-6.869E-02	7.991E-02	1.214E-01	9.702E-03	-0.566
NP-239		99.55		2.454E-01	1.352E-01	2.300E-01	2.040E-02	1.067
		117.00	*	-1.419E-02	1.756E-01	2.820E-01	2.426E-02	-0.050
	+	209.75		2.687E+00	1.203E+00	1.411E+00	1.170E-01	1.905
		228.18		-2.810E-02	2.270E-01	3.784E-01	3.180E-02	-0.074
		277.60		2.125E-01	1.813E-01	3.156E-01	2.679E-02	0.673

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		3.087E-01	1.625E+00	2.010E+00	1.722E-01	0.154
AM-241		59.54	*	1.301E-04	1.121E-01	1.663E-01	1.318E-02	0.001
CM-243		99.55		2.526E-01	1.391E-01	2.366E-01	2.100E-02	1.067
		103.76	*	5.760E-05	8.432E-02	1.366E-01	1.197E-02	0.000
		117.00		-1.460E-02	1.807E-01	2.901E-01	2.496E-02	-0.050
	+	209.75		2.649E+00	1.186E+00	1.391E+00	1.153E-01	1.905
		228.18		-2.839E-02	2.294E-01	3.823E-01	3.213E-02	-0.074
		277.60		2.143E-01	1.828E-01	3.182E-01	2.701E-02	0.673
AM-246		798.80		-1.241E-01	1.666E-01	2.132E-01	1.952E-02	-0.582
		1036.00		-7.044E-02	2.826E-01	4.631E-01	4.092E-02	-0.152
		1062.04		2.736E-02	2.509E-01	4.242E-01	3.704E-02	0.065
		1078.86	*	6.400E-03	1.550E-01	2.604E-01	2.255E-02	0.025
CM-247		278.00		8.349E-01	7.484E-01	1.300E+00	1.104E-01	0.642
		287.40		6.804E-01	1.188E+00	2.022E+00	1.723E-01	0.336
		402.60	*	-2.921E-02	3.707E-02	5.677E-02	4.767E-03	-0.515
CF-249		252.85		-2.641E-01	7.910E-01	1.295E+00	1.099E-01	-0.204
		333.44		1.969E-01	2.160E-01	2.565E-01	2.197E-02	0.768
		387.95	*	1.654E-02	4.011E-02	6.685E-02	5.580E-03	0.247
CF-251		176.60	*	5.303E-02	1.179E-01	2.034E-01	1.629E-02	0.261
		227.00		-1.231E-01	3.909E-01	6.465E-01	5.429E-02	-0.190
		285.00		-2.426E-01	1.698E+00	2.790E+00	2.374E-01	-0.087

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799012       *
* Acquisition date : 10-FEB-2010 18:11:58 Detector SN#     :               *
* Detector ID      : GAM07                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.39     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245799012           Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.3495E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.609E+01	3.573E+00	5.220E-01	0.000E+00
CD-109	3.019E+00	8.667E-01	1.116E+00	0.000E+00
SN-126	2.967E-01	8.517E-02	1.100E-01	0.000E+00
TL-208	5.807E-01	9.578E-02	5.492E-02	0.000E+00
BI-211	3.467E+00	5.506E-01	3.529E-01	0.000E+00
PB-212	1.620E+00	1.872E-01	9.163E-02	0.000E+00
PO-212	1.620E+00	1.872E-01	9.163E-02	0.000E+00
BI-214	1.090E+00	2.029E-01	1.156E-01	0.000E+00
PB-214	1.206E+00	2.012E-01	1.195E-01	0.000E+00
PO-214	1.206E+00	2.012E-01	1.195E-01	0.000E+00
PO-216	1.620E+00	1.872E-01	9.163E-02	0.000E+00
PO-218	1.206E+00	2.012E-01	1.195E-01	0.000E+00
RA-224	4.810E+00	1.248E+00	1.043E+00	0.000E+00
RA-226	1.090E+00	2.029E-01	1.156E-01	0.000E+00
AC-228	1.626E+00	3.329E-01	2.124E-01	0.000E+00
RA-228	1.626E+00	3.329E-01	2.124E-01	0.000E+00
TH-228	1.645E+00	1.900E-01	9.303E-02	0.000E+00
TH-230	1.090E+00	2.029E-01	1.156E-01	0.000E+00
TH-232	1.626E+00	3.329E-01	2.124E-01	0.000E+00
TH-234	1.081E+00	1.170E+00	1.618E+00	0.000E+00
U-234	1.090E+00	2.029E-01	1.156E-01	0.000E+00
NP-237	8.712E-01	3.059E-01	3.750E-01	0.000E+00
U-238	1.081E+00	1.170E+00	1.618E+00	0.000E+00
AM-243	3.514E-01	6.348E-02	7.613E-02	0.000E+00
ANH-511	1.319E-01	6.161E-02	4.520E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	4.236E-02	3.184E-01	5.382E-01	0.000E+00	NOT IDENT.
NA-22	2.174E-02	4.510E-02	7.971E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	8.843E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.379E-03	2.234E-02	3.700E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.900E-02	7.020E-02	0.000E+00	FAIL ABUN
SC-46	-2.783E-03	3.935E-02	6.551E-02	0.000E+00	FAIL ABUN
V-48	4.077E-03	6.846E-02	1.143E-01	0.000E+00	NOT IDENT.
CR-51	-4.677E-02	3.648E-01	6.103E-01	0.000E+00	NOT IDENT.
MN-52	-3.234E-02	2.033E-01	3.318E-01	0.000E+00	NOT IDENT.
MN-54	6.937E-02	4.071E-02	7.047E-02	0.000E+00	NOT IDENT.
CO-56	6.847E-03	4.098E-02	6.997E-02	0.000E+00	FAIL ABUN
CO-57	7.933E-03	2.378E-02	4.147E-02	0.000E+00	NOT IDENT.
CO-58	-4.097E-02	4.028E-02	6.166E-02	0.000E+00	NOT IDENT.
FE-59	-1.021E-01	1.009E-01	1.584E-01	0.000E+00	NOT IDENT.
CO-60	3.269E-02	3.873E-02	7.116E-02	0.000E+00	NOT IDENT.
ZN-65	6.412E-02	1.098E-01	1.726E-01	0.000E+00	NOT IDENT.
GE-68	1.302E-02	1.345E+00	2.317E+00	0.000E+00	NOT IDENT.
AS-73	2.826E-01	4.829E-01	8.772E-01	0.000E+00	NOT IDENT.
AS-74	-4.570E-03	8.597E-02	1.488E-01	0.000E+00	NOT IDENT.
SE-75	2.834E-03	4.371E-02	7.140E-02	0.000E+00	NOT IDENT.
BR-77	4.459E+00	9.596E+00	1.740E+01	0.000E+00	FAIL ABUN
SR-82	9.171E-02	3.798E-01	6.571E-01	0.000E+00	NOT IDENT.
RB-83	2.227E-02	6.044E-02	1.089E-01	0.000E+00	NOT IDENT.
RB-84	4.977E-02	6.943E-02	1.238E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.511E+00	1.379E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.857E-02	7.081E-02	0.000E+00	NOT IDENT.
RB-86	-2.052E-01	8.736E-01	1.476E+00	0.000E+00	NOT IDENT.
Y-88	1.799E-02	2.583E-02	5.021E-02	0.000E+00	NOT IDENT.
ZR-88	-1.209E-02	2.896E-02	4.786E-02	0.000E+00	NOT IDENT.
Y-91	1.725E+01	2.131E+01	3.831E+01	0.000E+00	NOT IDENT.
NB-94	-1.579E-02	3.282E-02	5.408E-02	0.000E+00	NOT IDENT.
NB-95	-2.423E-02	4.405E-02	7.168E-02	0.000E+00	NOT IDENT.
NB-95M	1.350E-01	1.303E-01	2.139E-01	0.000E+00	NOT IDENT.
ZR-95	1.222E-01	7.463E-02	1.406E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.091E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.052E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-6.564E+00	1.279E+01	2.088E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.496E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.252E-02	3.135E-02	5.608E-02	0.000E+00	NOT IDENT.
RH-102	1.267E-02	2.828E-02	4.890E-02	0.000E+00	NOT IDENT.
RU-103	-1.207E-02	4.094E-02	6.669E-02	0.000E+00	FAIL ABUN
RH-106	-2.945E-02	2.901E-01	4.981E-01	0.000E+00	FAIL ABUN
RU-106	-2.945E-02	2.900E-01	4.981E-01	0.000E+00	FAIL ABUN
AG-108M	-4.661E-03	3.333E-02	5.571E-02	0.000E+00	NOT IDENT.
AG-110M	1.198E-03	3.415E-02	5.898E-02	0.000E+00	NOT IDENT.
IN-111	-3.876E-01	1.087E+00	1.645E+00	0.000E+00	NOT IDENT.
IN-113M	-6.147E-02	4.398E-02	6.733E-02	0.000E+00	NOT IDENT.
SN-113	-6.147E-02	4.398E-02	6.733E-02	0.000E+00	NOT IDENT.
IN-114M	8.017E-03	1.794E-01	2.851E-01	0.000E+00	NOT IDENT.
CD-115	3.165E+00	1.014E+01	1.819E+01	0.000E+00	NOT IDENT.
SN-117M	1.335E-02	5.291E-02	9.046E-02	0.000E+00	NOT IDENT.
SB-122	4.808E-01	2.047E+00	3.630E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.541E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.203E-03	2.703E-02	4.587E-02	0.000E+00	NOT IDENT.
I-124	5.482E-02	7.428E-01	1.181E+00	0.000E+00	NOT IDENT.
SB-124	2.843E-02	6.762E-02	1.204E-01	0.000E+00	FAIL ABUN
SB-125	2.507E-02	8.876E-02	1.529E-01	0.000E+00	FAIL ABUN
TE-125M	-2.040E+00	8.265E+00	1.417E+01	0.000E+00	NOT IDENT.
I-126	3.568E-02	1.740E-01	3.040E-01	0.000E+00	NOT IDENT.
SB-126	5.375E-02	1.679E-01	2.572E-01	0.000E+00	FAIL ABUN
SB-127	2.692E-01	1.280E+00	2.235E+00	0.000E+00	NOT IDENT.
XE-127	3.314E-04	4.252E-02	7.603E-02	0.000E+00	NOT IDENT.
I-131	1.052E-02	1.103E-01	1.899E-01	0.000E+00	NOT IDENT.
TE-132	-9.049E-02	7.008E-01	1.236E+00	0.000E+00	NOT IDENT.
BA-133	2.023E-02	4.824E-02	7.404E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.122E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.118E-02	9.561E-02	0.000E+00	FAIL ABUN
CS-135	1.008E-01	1.646E-01	2.637E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.993E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.435E-02	1.172E-01	1.931E-01	0.000E+00	FAIL ABUN
BA-137M	-2.798E-02	3.544E-02	5.727E-02	0.000E+00	NOT IDENT.
CS-137	-2.958E-02	3.747E-02	6.054E-02	0.000E+00	NOT IDENT.
CE-139	-2.547E-02	2.847E-02	4.581E-02	0.000E+00	NOT IDENT.
BA-140	4.183E-02	2.425E-01	4.294E-01	0.000E+00	NOT IDENT.
LA-140	4.869E-02	6.575E-02	1.137E-01	0.000E+00	FAIL ABUN
CE-141	3.262E-02	5.918E-02	1.029E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.122E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.343E-02	2.159E-01	3.338E-01	0.000E+00	NOT IDENT.
PM-144	4.993E-02	3.476E-02	6.508E-02	0.000E+00	NOT IDENT.
PR-144	3.384E+00	2.356E+00	4.411E+00	0.000E+00	NOT IDENT.

PM-146	8.118E-03	4.258E-02	7.255E-02	0.000E+00	NOT IDENT.
ND-147	-2.324E-01	5.052E-01	8.542E-01	0.000E+00	FAIL ABUN
PM-149	-2.245E+01	9.249E+01	1.592E+02	0.000E+00	NOT IDENT.
EU-152	2.777E-02	1.082E-01	1.664E-01	0.000E+00	FAIL ABUN
GD-153	-2.622E-02	7.357E-02	1.123E-01	0.000E+00	NOT IDENT.
EU-154	4.587E-02	1.268E-01	2.218E-01	0.000E+00	NOT IDENT.
EU-155	1.021E-01	9.402E-02	1.696E-01	0.000E+00	FAIL ABUN
TB-160	-3.111E-02	1.397E-01	2.295E-01	0.000E+00	FAIL ABUN
HO-166M	-4.154E-02	6.174E-02	9.995E-02	0.000E+00	FAIL ABUN
TM-171	-6.723E-01	2.182E+01	3.466E+01	0.000E+00	NOT IDENT.
LU-176	-2.504E-02	2.431E-02	3.964E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.687E+00	2.035E+00	0.000E+00	FAIL ABUN
LU-177M	-9.109E-02	1.756E-01	2.870E-01	0.000E+00	NOT IDENT.
HF-181	-1.191E-03	4.212E-02	7.029E-02	0.000E+00	NOT IDENT.
W-181	-6.137E-02	2.803E-01	4.420E-01	0.000E+00	NOT IDENT.
TA-182	2.233E-01	2.191E-01	3.983E-01	0.000E+00	FAIL ABUN
RE-183	8.792E-02	1.049E-01	1.834E-01	0.000E+00	FAIL ABUN
RE-184	-7.043E-02	2.067E-01	3.574E-01	0.000E+00	NOT IDENT.
OS-185	-3.895E-03	3.988E-02	6.827E-02	0.000E+00	NOT IDENT.
RE-188	1.376E-02	1.632E-01	2.774E-01	0.000E+00	NOT IDENT.
W-188	-1.658E+00	7.995E+00	1.205E+01	0.000E+00	FAIL ABUN
IR-192	1.554E-02	3.247E-02	5.768E-02	0.000E+00	FAIL ABUN
AU-195	2.970E-01	2.057E-01	3.402E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.703E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-5.806E+00	6.769E+00	1.089E+01	0.000E+00	NOT IDENT.
TL-202	4.340E-02	7.040E-02	1.235E-01	0.000E+00	NOT IDENT.
HG-203	2.194E-02	4.058E-02	7.263E-02	0.000E+00	NOT IDENT.
BI-207	2.463E-02	5.636E-02	1.004E-01	0.000E+00	FAIL ABUN
TL-207	3.580E-01	6.960E-01	1.094E+00	0.000E+00	FAIL ABUN
PO-209	6.616E+00	7.829E+00	1.403E+01	0.000E+00	NOT IDENT.
BI-210	-3.910E-01	1.695E+00	3.033E+00	0.000E+00	NOT IDENT.
PB-210	-3.910E-01	1.695E+00	3.033E+00	0.000E+00	NOT IDENT.
PO-210	-3.910E-01	1.695E+00	3.033E+00	0.000E+00	NOT IDENT.
PB-211	-2.329E-01	9.081E-01	1.496E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.914E-01	6.754E-01	0.000E+00	FAIL ABUN
PO-215	3.580E-01	6.960E-01	1.094E+00	0.000E+00	FAIL ABUN
RN-219	-3.282E-02	3.964E-01	6.696E-01	0.000E+00	FAIL ABUN
RN-220	6.084E-01	2.443E+01	4.280E+01	0.000E+00	NOT IDENT.
RA-223	3.580E-01	6.960E-01	1.094E+00	0.000E+00	FAIL ABUN
AC-227	-1.472E-01	3.425E-01	5.879E-01	0.000E+00	FAIL ABUN
TH-227	-1.472E-01	3.428E-01	5.879E-01	0.000E+00	FAIL ABUN
TH-229	6.645E-02	4.544E-01	8.195E-01	0.000E+00	FAIL ABUN
PA-231	9.186E-02	1.433E+00	2.510E+00	0.000E+00	FAIL ABUN
TH-231	3.580E-01	6.960E-01	1.094E+00	0.000E+00	FAIL ABUN
U-231	-6.021E-01	1.001E+00	1.508E+00	0.000E+00	FAIL ABUN
PA-233	-3.623E-02	6.196E-02	1.037E-01	0.000E+00	FAIL ABUN
PA-234	-3.018E-01	3.330E-01	5.003E-01	0.000E+00	FAIL ABUN
PA-234M	2.288E+00	4.934E+00	8.500E+00	0.000E+00	NOT IDENT.
U-235	-6.033E-02	2.025E-01	3.344E-01	0.000E+00	FAIL ABUN
NP-236	-6.869E-02	7.831E-02	1.267E-01	0.000E+00	NOT IDENT.
NP-239	-1.419E-02	1.721E-01	2.958E-01	0.000E+00	FAIL ABUN
AM-241	1.301E-04	1.099E-01	1.765E-01	0.000E+00	NOT IDENT.
CM-243	5.760E-05	8.263E-02	1.436E-01	0.000E+00	FAIL ABUN
AM-246	6.400E-03	1.519E-01	2.625E-01	0.000E+00	NOT IDENT.
CM-247	-2.921E-02	3.633E-02	5.828E-02	0.000E+00	NOT IDENT.
CF-249	1.654E-02	3.930E-02	6.867E-02	0.000E+00	NOT IDENT.
CF-251	5.303E-02	1.155E-01	2.118E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:12:54.55

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799012.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:11:58
Sample ID         : G245799012           Sample quantity  : 1.34951E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.39  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947531                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1563	10.67*	1.129E+00	3.609E+01	3.609E+01	10.10
CD-109	88.03	270	3.72*	6.835E+00	2.951E+00	3.019E+00	29.29
SN-126	64.28	71	9.60	4.823E+00	4.280E-01	4.280E-01	109.99
	86.94	270	8.90	6.835E+00	1.233E+00	1.233E+00	49.94
	87.57	270	37.00*	6.835E+00	2.967E-01	2.967E-01	29.29
TL-208	277.35	------	6.80	4.401E+00	------ Line Not Found		------
	510.84	131	21.60	2.753E+00	6.105E-01	6.105E-01	48.40
	583.14	435	84.20*	2.475E+00	5.807E-01	5.807E-01	16.83
	860.37	59	12.46	1.781E+00	7.350E-01	7.350E-01	71.95
BI-211	72.87	------	1.27	5.899E+00	------ Line Not Found		------
	351.07	593	12.94*	3.679E+00	3.467E+00	3.467E+00	16.21
PB-212	74.81	507	10.70	6.082E+00	2.168E+00	2.168E+00	20.67
	77.11	758	18.00	6.257E+00	1.872E+00	1.872E+00	14.47
	87.30	270	8.00	6.835E+00	1.372E+00	1.372E+00	30.95
	238.63	1275	44.60*	4.908E+00	1.620E+00	1.620E+00	11.79
	300.09	72	3.41	4.154E+00	1.406E+00	1.406E+00	66.22
PO-212	74.81	507	10.70	6.082E+00	2.168E+00	2.168E+00	20.67
	77.11	758	18.00	6.257E+00	1.872E+00	1.872E+00	14.47
	87.30	270	8.00	6.835E+00	1.372E+00	1.372E+00	30.95
	115.19	------	0.60	7.150E+00	------ Line Not Found		------
	238.63	1275	44.60*	4.908E+00	1.620E+00	1.620E+00	11.79
	300.09	72	3.41	4.154E+00	1.406E+00	1.406E+00	66.22
BI-214	609.31	433	46.30*	2.388E+00	1.090E+00	1.090E+00	18.99
	1120.29	98	15.10	1.413E+00	1.273E+00	1.273E+00	49.08
	1764.49	96	15.80	9.831E-01	1.724E+00	1.724E+00	25.06
PB-214	74.81	507	6.21	6.082E+00	3.735E+00	3.735E+00	19.86
	77.11	758	10.50	6.257E+00	3.209E+00	3.209E+00	16.36
	87.30	270	4.67	6.835E+00	2.351E+00	2.351E+00	30.29
	241.98	332	7.49	4.865E+00	2.536E+00	2.537E+00	27.06
	295.21	411	19.20	4.201E+00	1.418E+00	1.418E+00	20.35
	351.92	593	37.20*	3.679E+00	1.206E+00	1.206E+00	17.03
PO-214	74.81	507	6.21	6.082E+00	3.735E+00	3.735E+00	19.86

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	758	10.50	6.257E+00	3.209E+00	3.209E+00	16.36
	87.30	270	4.67	6.835E+00	2.351E+00	2.351E+00	30.29
	241.98	332	7.49	4.865E+00	2.536E+00	2.537E+00	27.06
	295.21	411	19.20	4.201E+00	1.418E+00	1.418E+00	20.35
	351.92	593	37.20*	3.679E+00	1.206E+00	1.206E+00	17.03
PO-216	74.81	507	10.70	6.082E+00	2.168E+00	2.168E+00	20.67
	77.11	758	18.00	6.257E+00	1.872E+00	1.872E+00	14.47
	87.30	270	8.00	6.835E+00	1.372E+00	1.372E+00	30.95
	238.63	1275	44.60*	4.908E+00	1.620E+00	1.620E+00	11.79
	300.09	72	3.41	4.154E+00	1.406E+00	1.406E+00	66.22
PO-218	74.81	507	6.21	6.082E+00	3.735E+00	3.735E+00	19.86
	77.11	758	10.50	6.257E+00	3.209E+00	3.209E+00	16.36
	87.30	270	4.67	6.835E+00	2.351E+00	2.351E+00	30.29
	241.98	332	7.49	4.865E+00	2.536E+00	2.537E+00	27.06
	295.21	411	19.20	4.201E+00	1.418E+00	1.418E+00	20.35
	351.92	593	37.20*	3.679E+00	1.206E+00	1.206E+00	17.03
RA-224	240.98	332	3.95*	4.865E+00	4.810E+00	4.810E+00	26.47
RA-226	609.31	433	46.30*	2.388E+00	1.090E+00	1.090E+00	18.99
	1120.29	98	15.10	1.413E+00	1.273E+00	1.273E+00	49.08
	1764.49	96	15.80	9.831E-01	1.724E+00	1.724E+00	25.06
AC-228	338.32	289	11.40	3.791E+00	1.860E+00	1.860E+00	47.56
	911.07	274	27.70*	1.695E+00	1.626E+00	1.626E+00	20.89
	969.11	194	16.60	1.606E+00	2.022E+00	2.022E+00	32.67
RA-228	338.32	289	11.40	3.791E+00	1.860E+00	1.860E+00	47.56
	911.07	274	27.70*	1.695E+00	1.626E+00	1.626E+00	20.89
	969.11	194	16.60	1.606E+00	2.022E+00	2.022E+00	32.67
TH-228	74.81	507	10.70	6.082E+00	2.168E+00	2.201E+00	18.47
	77.11	758	18.00	6.257E+00	1.872E+00	1.900E+00	14.47
	87.30	270	8.00	6.835E+00	1.372E+00	1.393E+00	29.29
	238.63	1275	44.60*	4.908E+00	1.620E+00	1.645E+00	11.79
	300.09	72	3.41	4.154E+00	1.406E+00	1.428E+00	88.26
TH-230	609.31	433	46.30*	2.388E+00	1.090E+00	1.090E+00	18.99
	1120.29	98	15.10	1.413E+00	1.273E+00	1.273E+00	49.08
	1764.49	96	15.80	9.831E-01	1.724E+00	1.724E+00	25.06
TH-232	338.32	289	11.40	3.791E+00	1.860E+00	1.860E+00	25.18
	911.07	274	27.70*	1.695E+00	1.626E+00	1.626E+00	20.89
	969.11	194	16.60	1.606E+00	2.022E+00	2.022E+00	32.67
TH-234	63.29	71	3.80*	4.823E+00	1.081E+00	1.081E+00	110.41
	92.38	331	5.41	7.020E+00	2.423E+00	2.423E+00	30.13
U-234	609.31	433	46.30*	2.388E+00	1.090E+00	1.090E+00	18.99
	1120.29	98	15.10	1.413E+00	1.273E+00	1.273E+00	49.08
	1764.49	96	15.80	9.831E-01	1.724E+00	1.724E+00	25.06
NP-237	86.50	270	12.60*	6.835E+00	8.712E-01	8.712E-01	35.83
	95.87	------	2.60	7.087E+00	------ Line Not Found		------
U-238	63.29	71	3.80*	4.823E+00	1.081E+00	1.081E+00	110.41
	92.38	331	5.41	7.020E+00	2.423E+00	2.423E+00	25.59
AM-243	74.67	507	66.00*	6.082E+00	3.514E-01	3.514E-01	18.43
	86.72	270	0.34	6.835E+00	3.267E+01	3.267E+01	29.29
	117.66	------	0.55	7.126E+00	------ Line Not Found		------

Sample ID : G245799012 Acquisition date : 10-FEB-2010 18:11:58

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	6.723E+00	------ Line Not Found		------
ANH-511	511.00	131	100.00*	2.753E+00	1.319E-01	1.319E-01	47.67

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G245799012 Acquisition date : 10-FEB-2010 18:11:58

Total number of lines in spectrum 34
Number of unidentified lines 3
Number of lines tentatively identified by NID 31 91.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.609E+01	3.609E+01	0.365E+01	10.10	
CD-109	464.00D	1.02	2.951E+00	3.019E+00	0.884E+00	29.29	
SN-126	1.00E+05Y	1.00	2.967E-01	2.967E-01	0.869E-01	29.29	
TL-208	1.41E+10Y	1.00	5.807E-01	5.807E-01	0.977E-01	16.83	
BI-211	7.04E+08Y	1.00	3.467E+00	3.467E+00	0.562E+00	16.21	
PB-212	1.41E+10Y	1.00	1.620E+00	1.620E+00	0.191E+00	11.79	
PO-212	1.41E+10Y	1.00	1.620E+00	1.620E+00	0.191E+00	11.79	
BI-214	1600.00Y	1.00	1.090E+00	1.090E+00	0.207E+00	18.99	
PB-214	1600.00Y	1.00	1.206E+00	1.206E+00	0.205E+00	17.03	
PO-214	1600.00Y	1.00	1.206E+00	1.206E+00	0.205E+00	17.03	
PO-216	1.41E+10Y	1.00	1.620E+00	1.620E+00	0.191E+00	11.79	
PO-218	1600.00Y	1.00	1.206E+00	1.206E+00	0.205E+00	17.03	
RA-224	1.41E+10Y	1.00	4.810E+00	4.810E+00	1.273E+00	26.47	
RA-226	1600.00Y	1.00	1.090E+00	1.090E+00	0.207E+00	18.99	
AC-228	1.41E+10Y	1.00	1.626E+00	1.626E+00	0.340E+00	20.89	
RA-228	1.41E+10Y	1.00	1.626E+00	1.626E+00	0.340E+00	20.89	
TH-228	1.91Y	1.02	1.620E+00	1.645E+00	0.194E+00	11.79	
TH-230	4.47E+09Y	1.00	1.090E+00	1.090E+00	0.207E+00	18.99	
TH-232	1.41E+10Y	1.00	1.626E+00	1.626E+00	0.340E+00	20.89	
TH-234	4.47E+09Y	1.00	1.081E+00	1.081E+00	1.194E+00	110.41	
U-234	4.47E+09Y	1.00	1.090E+00	1.090E+00	0.207E+00	18.99	
NP-237	2.14E+06Y	1.00	8.712E-01	8.712E-01	3.122E-01	35.83	
U-238	4.47E+09Y	1.00	1.081E+00	1.081E+00	1.194E+00	110.41	
AM-243	7380.00Y	1.00	3.514E-01	3.514E-01	0.648E-01	18.43	
ANH-511	1.00E+09Y	1.00	1.319E-01	1.319E-01	0.629E-01	47.67	
	Total Activity :		7.105E+01	7.114E+01			

Grand Total Activity : 7.105E+01 7.114E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245799012
Acquisition date : 10-FEB-2010 18:11:58

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	89.90	178	359	1.05	179.44	171	22	2.47E-02	36.5	6.93E+00	T
0	129.56	93	401	0.91	258.75	254	9	1.29E-02	81.1	6.96E+00	T
0	185.80	233	419	1.63	371.21	365	13	3.24E-02	39.4	5.82E+00	T
0	209.51	168	311	1.36	418.62	414	11	2.34E-02	44.0	5.38E+00	T
0	270.30	113	182	1.08	540.17	536	9	1.57E-02	46.7	4.49E+00	T
0	327.98	49	216	0.94	655.52	650	12	6.84E-03	****	3.88E+00	T
0	464.61	96	147	3.91	928.74	920	16	1.33E-02	60.9	2.97E+00	T
0	727.48	121	68	1.88	1454.40	1447	15	1.67E-02	34.9	2.06E+00	T
0	795.90	59	53	1.40	1591.23	1584	11	8.25E-03	53.8	1.91E+00	T
0	844.38	137	176	6.11	1688.17	1668	42	1.91E-02	68.1	1.81E+00	
4	964.87	85	47	2.31	1929.12	1924	24	1.18E-02	32.3	1.61E+00	T
0	1238.44	36	97	0.80	2476.20	2471	14	4.95E-03	****	1.30E+00	T
1	1588.65	32	0	2.32	3176.58	3170	22	4.50E-03	41.9	1.06E+00	
1	1592.88	22	0	2.32	3185.03	3170	22	3.07E-03	57.2	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:13:00.70

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                 DETECTOR DATA                             *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799012.CNF;1  *
* Acquisition date : 10-FEB-2010 18:11:58  Detector SN#     :               *
* Detector ID      : GAM07                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.39         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                 SAMPLE DATA                               *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245799012            Analyst initials: RXF2           *
* Batch Number     : 947531                Sample Quantity : 1.34951E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                   QC DATA                                 *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.609E+01	3.646E+00	5.209E-01	4.473E-02	69.290
CD-109	3.019E+00	8.844E-01	1.059E+00	9.975E-02	2.851
SN-126	2.967E-01	8.691E-02	1.043E-01	9.771E-03	2.845
TL-208	5.807E-01	9.773E-02	5.387E-02	5.153E-03	10.780
BI-211	3.467E+00	5.618E-01	3.429E-01	3.077E-02	10.109
PB-212	1.620E+00	1.910E-01	8.843E-02	8.459E-03	18.316
PO-212	1.620E+00	1.910E-01	8.843E-02	8.459E-03	18.316
BI-214	1.090E+00	2.070E-01	1.135E-01	1.174E-02	9.605
PB-214	1.206E+00	2.053E-01	1.161E-01	1.205E-02	10.383
PO-214	1.206E+00	2.053E-01	1.161E-01	1.205E-02	10.383
PO-216	1.620E+00	1.910E-01	8.843E-02	8.459E-03	18.316
PO-218	1.206E+00	2.053E-01	1.161E-01	1.205E-02	10.383
RA-224	4.810E+00	1.273E+00	1.007E+00	8.513E-02	4.778
RA-226	1.090E+00	2.070E-01	1.135E-01	1.174E-02	9.605
AC-228	1.626E+00	3.397E-01	2.101E-01	2.447E-02	7.739
RA-228	1.626E+00	3.397E-01	2.101E-01	2.447E-02	7.739
TH-228	1.645E+00	1.939E-01	8.979E-02	8.588E-03	18.316
TH-230	1.090E+00	2.070E-01	1.135E-01	1.174E-02	9.605

Sample ID : G245799012 Acquisition date : 10-FEB-2010 18:11:58

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.626E+00	3.397E-01	2.101E-01	2.447E-02	7.739
TH-234	1.081E+00	1.194E+00	1.526E+00	2.655E-01	0.709
U-234	1.090E+00	2.070E-01	1.135E-01	1.174E-02	9.605
NP-237	8.712E-01	3.122E-01	3.555E-01	8.039E-02	2.450
U-238	1.081E+00	1.194E+00	1.526E+00	2.655E-01	0.709
AM-243	3.514E-01	6.477E-02	7.200E-02	5.788E-03	4.881
ANH-511	1.319E-01	6.286E-02	4.423E-02	3.930E-03	2.981

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.236E-02		3.249E-01	5.259E-01	4.964E-02	0.081
NA-22	2.174E-02		4.602E-02	7.933E-02	6.512E-03	0.274
NA-24	-9.389E-01		4.512E-01	Half-Life too short		
AL-26	-2.379E-03		2.280E-02	3.707E-02	3.023E-03	-0.064
TI-44	3.454E-01	+	4.999E-02	6.645E-02	5.563E-03	5.198
SC-46	-2.783E-03		4.015E-02	6.475E-02	5.934E-03	-0.043
V-48	4.077E-03		6.986E-02	1.132E-01	1.019E-02	0.036
CR-51	-4.677E-02		3.723E-01	5.921E-01	5.351E-02	-0.079
MN-52	-3.234E-02		2.074E-01	3.310E-01	2.752E-02	-0.098
MN-54	6.937E-02		4.154E-02	6.957E-02	6.386E-03	0.997
CO-56	6.847E-03		4.182E-02	6.910E-02	6.344E-03	0.099
CO-57	7.933E-03		2.427E-02	3.956E-02	3.403E-03	0.201
CO-58	-4.097E-02		4.111E-02	6.085E-02	5.590E-03	-0.673
FE-59	-1.021E-01		1.029E-01	1.572E-01	1.456E-02	-0.650
CO-60	3.269E-02		3.952E-02	7.088E-02	5.806E-03	0.461
ZN-65	6.412E-02		1.120E-01	1.714E-01	1.454E-02	0.374
GE-68	1.302E-02		1.372E+00	2.299E+00	1.992E-01	0.006
AS-73	2.826E-01		4.927E-01	8.249E-01	6.195E-02	0.343
AS-74	-4.570E-03		8.773E-02	1.460E-01	1.309E-02	-0.031
SE-75	2.834E-03		4.460E-02	6.904E-02	5.895E-03	0.041
BR-77	4.459E+00		9.792E+00	1.703E+01	1.517E+00	0.262
SR-82	9.171E-02		3.875E-01	6.479E-01	5.916E-02	0.142
RB-83	2.227E-02		6.168E-02	1.066E-01	9.497E-03	0.209
RB-84	4.977E-02		7.085E-02	1.224E-01	1.122E-02	0.407
KR-85	2.046E+01		7.665E+00	1.349E+01	1.200E+00	1.517
SR-85	1.051E-01		3.936E-02	6.929E-02	6.162E-03	1.517
RB-86	-2.052E-01		8.914E-01	1.464E+00	1.269E-01	-0.140
Y-88	1.799E-02		2.635E-02	5.032E-02	4.084E-03	0.358
ZR-88	-1.209E-02		2.955E-02	4.660E-02	3.882E-03	-0.259
Y-91	1.725E+01		2.175E+01	3.809E+01	3.110E+00	0.453
NB-94	-1.579E-02		3.349E-02	5.323E-02	4.779E-03	-0.297
NB-95	-2.423E-02		4.495E-02	7.066E-02	6.442E-03	-0.343
NB-95M	1.350E-01		1.329E-01	2.064E-01	2.004E-02	0.654
ZR-95	1.222E-01		7.616E-02	1.386E-01	1.376E-02	0.882
NB-97	-1.072E-04		5.566E-02	Half-Life too short		
ZR-97	2.018E+00		1.047E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-6.564E+00		1.305E+01	2.057E+01	3.176E+00	-0.319
TC-99M	1.155E+10		2.804E+10	Half-Life too short		
RH-101	1.252E-02		3.199E-02	5.395E-02	4.425E-03	0.232
RH-102	1.267E-02		2.885E-02	4.778E-02	4.192E-03	0.265
RU-103	-1.207E-02		4.178E-02	6.522E-02	9.327E-03	-0.185
RH-106	-2.945E-02		2.960E-01	4.891E-01	6.634E-02	-0.060
RU-106	-2.945E-02		2.960E-01	4.891E-01	4.371E-02	-0.060
AG-108M	-4.661E-03		3.401E-02	5.435E-02	4.852E-03	-0.086
AG-110M	1.198E-03		3.484E-02	5.797E-02	5.282E-03	0.021
IN-111	-3.876E-01		1.109E+00	1.588E+00	1.345E-01	-0.244
IN-113M	-6.147E-02		4.488E-02	6.556E-02	5.635E-03	-0.938
SN-113	-6.147E-02		4.488E-02	6.556E-02	5.635E-03	-0.938
IN-114M	8.017E-03		1.831E-01	2.741E-01	2.230E-02	0.029
CD-115	3.165E+00		1.035E+01	1.780E+01	1.588E+00	0.178
SN-117M	1.335E-02		5.399E-02	8.668E-02	6.950E-03	0.154
SB-122	4.808E-01		2.089E+00	3.558E+00	3.190E-01	0.135
I-123	5.330E-01		3.337E+00	Half-Life too short		
TE-123M	2.203E-03		2.759E-02	4.395E-02	3.546E-03	0.050
I-124	5.482E-02		7.579E-01	1.159E+00	1.038E-01	0.047
SB-124	2.843E-02		6.900E-02	1.205E-01	1.044E-02	0.236
SB-125	2.507E-02		9.057E-02	1.491E-01	1.300E-02	0.168
TE-125M	-2.040E+00		8.433E+00	1.349E+01	1.398E+00	-0.151
I-126	3.568E-02		1.776E-01	2.989E-01	2.650E-02	0.119
SB-126	5.375E-02		1.714E-01	2.533E-01	2.286E-02	0.212
SB-127	2.692E-01		1.306E+00	2.198E+00	2.563E-01	0.122
XE-127	3.314E-04		4.339E-02	7.316E-02	6.030E-03	0.005
I-131	1.052E-02		1.125E-01	1.847E-01	1.654E-02	0.057
TE-132	-9.049E-02		7.151E-01	1.192E+00	1.862E-01	-0.076
BA-133	2.023E-02		4.923E-02	7.197E-02	9.451E-03	0.281
I-133	-3.531E-03		3.124E-03	Half-Life too short		
CS-134	1.143E-01	+	6.242E-02	9.432E-02	8.690E-03	1.212
CS-135	1.008E-01		1.679E-01	2.550E-01	2.515E-02	0.395
I-135	-2.904E+08		4.588E+09	Half-Life too short		
CS-136	-6.435E-02		1.196E-01	1.914E-01	1.751E-02	-0.336
BA-137M	-2.798E-02		3.617E-02	5.631E-02	4.983E-03	-0.497
CS-137	-2.958E-02		3.823E-02	5.952E-02	5.277E-03	-0.497
CE-139	-2.547E-02		2.905E-02	4.393E-02	3.475E-03	-0.580
BA-140	4.183E-02		2.475E-01	4.206E-01	1.397E-01	0.099
LA-140	4.869E-02		6.710E-02	1.137E-01	9.510E-03	0.428
CE-141	3.262E-02		6.039E-02	9.848E-02	8.244E-03	0.331
CE-143	5.719E-04		1.083E-04	Half-Life too short		
CE-144	6.343E-02		2.203E-01	3.189E-01	4.923E-02	0.199
PM-144	4.993E-02		3.547E-02	6.405E-02	5.741E-03	0.780
PR-144	3.384E+00		2.404E+00	4.340E+00	3.889E-01	0.780
PM-146	8.118E-03		4.345E-02	7.083E-02	7.633E-03	0.115
ND-147	-2.324E-01		5.155E-01	8.364E-01	1.265E-01	-0.278
PM-149	-2.245E+01		9.438E+01	1.542E+02	2.387E+01	-0.146
EU-152	2.777E-02		1.104E-01	1.616E-01	1.465E-02	0.172

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-2.622E-02		7.507E-02	1.067E-01	9.537E-03	-0.246
EU-154	4.587E-02		1.294E-01	2.208E-01	2.427E-02	0.208
EU-155	1.021E-01		9.593E-02	1.614E-01	1.426E-02	0.633
TB-160	-3.111E-02		1.426E-01	2.268E-01	2.080E-02	-0.137
HO-166M	-4.154E-02		6.300E-02	9.839E-02	8.858E-03	-0.422
TM-171	-6.723E-01		2.227E+01	3.272E+01	2.447E+00	-0.021
LU-176	-2.504E-02		2.481E-02	3.843E-02	3.292E-03	-0.652
LU-177	3.845E+00	+	1.721E+00	1.959E+00	1.623E-01	1.963
LU-177M	-9.109E-02		1.792E-01	2.798E-01	2.369E-02	-0.326
HF-181	-1.191E-03		4.298E-02	6.870E-02	6.045E-03	-0.017
W-181	-6.137E-02		2.860E-01	4.170E-01	3.086E-02	-0.147
TA-182	2.233E-01		2.236E-01	3.961E-01	3.240E-02	0.564
RE-183	8.792E-02		1.070E-01	1.758E-01	1.400E-02	0.500
RE-184	-7.043E-02		2.109E-01	3.453E-01	2.930E-02	-0.204
OS-185	-3.895E-03		4.070E-02	6.709E-02	5.965E-03	-0.058
RE-188	1.376E-02		1.665E-01	2.657E-01	2.144E-02	0.052
W-188	-1.658E+00		8.158E+00	1.167E+01	9.954E-01	-0.142
IR-192	1.554E-02		3.313E-02	5.595E-02	4.809E-03	0.278
AU-195	2.970E-01		2.099E-01	3.234E-01	2.876E-02	0.919
TL-200	-1.696E-04		2.400E-04	Half-Life too short		
TL-201	-5.806E+00		6.907E+00	1.045E+01	8.276E-01	-0.556
TL-202	4.340E-02		7.184E-02	1.205E-01	1.038E-02	0.360
HG-203	2.194E-02		4.141E-02	7.029E-02	6.140E-03	0.312
BI-207	2.463E-02		5.751E-02	9.959E-02	8.689E-03	0.247
TL-207	3.580E-01		7.102E-01	1.061E+00	1.877E-01	0.337
PO-209	6.616E+00		7.989E+00	1.387E+01	1.270E+00	0.477
BI-210	-3.910E-01		1.729E+00	2.846E+00	2.670E-01	-0.137
PB-210	-3.910E-01		1.729E+00	2.846E+00	2.670E-01	-0.137
PO-210	-3.910E-01		1.729E+00	2.846E+00	2.421E-01	-0.137
PB-211	-2.329E-01		9.266E-01	1.458E+00	9.130E-01	-0.160
BI-212	1.379E+00	+	5.014E-01	6.651E-01	6.899E-02	2.073
PO-215	3.580E-01		7.102E-01	1.061E+00	1.877E-01	0.337
RN-219	-3.282E-02		4.045E-01	6.523E-01	9.716E-02	-0.050
RN-220	6.084E-01		2.493E+01	4.193E+01	3.755E+00	0.015
RA-223	3.580E-01		7.102E-01	1.061E+00	1.877E-01	0.337
AC-227	-1.472E-01		3.495E-01	5.681E-01	8.679E-02	-0.259
TH-227	-1.472E-01		3.498E-01	5.681E-01	1.023E-01	-0.259
TH-229	6.645E-02		4.637E-01	7.880E-01	6.435E-02	0.084
PA-231	9.186E-02		1.462E+00	2.430E+00	3.674E-01	0.038
TH-231	3.580E-01		7.102E-01	1.061E+00	1.877E-01	0.337
U-231	-6.021E-01		1.022E+00	1.432E+00	1.289E-01	-0.420
PA-233	-3.623E-02		6.322E-02	1.006E-01	8.871E-03	-0.360
PA-234	-3.018E-01		3.398E-01	4.951E-01	9.399E-02	-0.610
PA-234M	2.288E+00		5.035E+00	8.421E+00	8.635E-01	0.272
U-235	-6.033E-02		2.067E-01	3.198E-01	5.539E-02	-0.189
NP-236	-6.869E-02		7.991E-02	1.214E-01	9.702E-03	-0.566
NP-239	-1.419E-02		1.756E-01	2.820E-01	2.426E-02	-0.050
AM-241	1.301E-04		1.121E-01	1.663E-01	1.318E-02	0.001

Sample ID : G245799012 Acquisition date : 10-FEB-2010 18:11:58

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.760E-05		8.432E-02	1.366E-01	1.197E-02	0.000
AM-246	6.400E-03		1.550E-01	2.604E-01	2.255E-02	0.025
CM-247	-2.921E-02		3.707E-02	5.677E-02	4.767E-03	-0.515
CF-249	1.654E-02		4.011E-02	6.685E-02	5.580E-03	0.247
CF-251	5.303E-02		1.179E-01	2.034E-01	1.629E-02	0.261

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799012           *
* Acquisition date  : 10-FEB-2010 18:11:58 Detector SN#     :               *
* Detector ID       : GAM07                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.39      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799012           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.3495E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.609E+01	3.573E+00	2.612E-01	1.823E+00
CD-109	3.019E+00	8.667E-01	5.586E-01	4.422E-01
SN-126	2.967E-01	8.517E-02	5.501E-02	4.345E-02
TL-208	5.807E-01	9.578E-02	2.748E-02	4.887E-02
BI-211	3.467E+00	5.506E-01	1.765E-01	2.809E-01
PB-212	1.620E+00	1.872E-01	4.584E-02	9.549E-02
PO-212	1.620E+00	1.872E-01	4.584E-02	9.549E-02
BI-214	1.090E+00	2.029E-01	5.785E-02	1.035E-01
PB-214	1.206E+00	2.012E-01	5.979E-02	1.027E-01
PO-214	1.206E+00	2.012E-01	5.979E-02	1.027E-01
PO-216	1.620E+00	1.872E-01	4.584E-02	9.549E-02
PO-218	1.206E+00	2.012E-01	5.979E-02	1.027E-01
RA-224	4.810E+00	1.248E+00	5.217E-01	6.366E-01
RA-226	1.090E+00	2.029E-01	5.785E-02	1.035E-01
AC-228	1.626E+00	3.329E-01	1.063E-01	1.698E-01
RA-228	1.626E+00	3.329E-01	1.063E-01	1.698E-01
TH-228	1.645E+00	1.900E-01	4.654E-02	9.695E-02
TH-230	1.090E+00	2.029E-01	5.785E-02	1.035E-01
TH-232	1.626E+00	3.329E-01	1.063E-01	1.698E-01
TH-234	1.081E+00	1.170E+00	8.093E-01	5.969E-01
U-234	1.090E+00	2.029E-01	5.785E-02	1.035E-01
NP-237	8.712E-01	3.059E-01	1.876E-01	1.561E-01
U-238	1.081E+00	1.170E+00	8.093E-01	5.969E-01
AM-243	3.514E-01	6.348E-02	3.809E-02	3.239E-02
ANH-511	1.319E-01	6.161E-02	2.261E-02	3.143E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	4.236E-02	3.184E-01	2.693E-01	1.624E-01 NOT IDENT.
NA-22	2.174E-02	4.510E-02	3.988E-02	2.301E-02 NOT IDENT.

NA-24	-9.389E+05	8.843E+05	0.000E+00	4.512E+05	SHORT HLIF
AL-26	-2.379E-03	2.234E-02	1.851E-02	1.140E-02	NOT IDENT.
TI-44	3.454E-01	4.900E-02	3.512E-02	2.500E-02	FAIL ABUN
SC-46	-2.783E-03	3.935E-02	3.277E-02	2.008E-02	FAIL ABUN
V-48	4.077E-03	6.846E-02	5.719E-02	3.493E-02	NOT IDENT.
CR-51	-4.677E-02	3.648E-01	3.053E-01	1.861E-01	NOT IDENT.
MN-52	-3.234E-02	2.033E-01	1.660E-01	1.037E-01	NOT IDENT.
MN-54	6.937E-02	4.071E-02	3.525E-02	2.077E-02	NOT IDENT.
CO-56	6.847E-03	4.098E-02	3.500E-02	2.091E-02	FAIL ABUN
CO-57	7.933E-03	2.378E-02	2.075E-02	1.214E-02	NOT IDENT.
CO-58	-4.097E-02	4.028E-02	3.085E-02	2.055E-02	NOT IDENT.
FE-59	-1.021E-01	1.009E-01	7.925E-02	5.146E-02	NOT IDENT.
CO-60	3.269E-02	3.873E-02	3.560E-02	1.976E-02	NOT IDENT.
ZN-65	6.412E-02	1.098E-01	8.637E-02	5.600E-02	NOT IDENT.
GE-68	1.302E-02	1.345E+00	1.159E+00	6.861E-01	NOT IDENT.
AS-73	2.826E-01	4.829E-01	4.389E-01	2.464E-01	NOT IDENT.
AS-74	-4.570E-03	8.597E-02	7.444E-02	4.386E-02	NOT IDENT.
SE-75	2.834E-03	4.371E-02	3.572E-02	2.230E-02	NOT IDENT.
BR-77	4.459E+00	9.596E+00	8.705E+00	4.896E+00	FAIL ABUN
SR-82	9.171E-02	3.798E-01	3.287E-01	1.938E-01	NOT IDENT.
RB-83	2.227E-02	6.044E-02	5.450E-02	3.084E-02	NOT IDENT.
RB-84	4.977E-02	6.943E-02	6.195E-02	3.542E-02	NOT IDENT.
KR-85	2.046E+01	7.511E+00	6.899E+00	3.832E+00	NOT IDENT.
SR-85	1.051E-01	3.857E-02	3.543E-02	1.968E-02	NOT IDENT.
RB-86	-2.052E-01	8.736E-01	7.385E-01	4.457E-01	NOT IDENT.
Y-88	1.799E-02	2.583E-02	2.512E-02	1.318E-02	NOT IDENT.
ZR-88	-1.209E-02	2.896E-02	2.394E-02	1.477E-02	NOT IDENT.
Y-91	1.725E+01	2.131E+01	1.917E+01	1.087E+01	NOT IDENT.
NB-94	-1.579E-02	3.282E-02	2.706E-02	1.675E-02	NOT IDENT.
NB-95	-2.423E-02	4.405E-02	3.586E-02	2.247E-02	NOT IDENT.
NB-95M	1.350E-01	1.303E-01	1.070E-01	6.646E-02	NOT IDENT.
ZR-95	1.222E-01	7.463E-02	7.034E-02	3.808E-02	NOT IDENT.
NB-97	-1.072E+02	1.091E+05	0.000E+00	5.566E+04	SHORT HLIF
ZR-97	2.018E+06	2.052E+06	0.000E+00	1.047E+06	SHORT HLIF
MO-99	-6.564E+00	1.279E+01	1.044E+01	6.527E+00	NOT IDENT.
TC-99M	1.155E+16	5.496E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.252E-02	3.135E-02	2.806E-02	1.599E-02	NOT IDENT.
RH-102	1.267E-02	2.828E-02	2.447E-02	1.443E-02	NOT IDENT.
RU-103	-1.207E-02	4.094E-02	3.336E-02	2.089E-02	FAIL ABUN
RH-106	-2.945E-02	2.901E-01	2.492E-01	1.480E-01	FAIL ABUN
RU-106	-2.945E-02	2.900E-01	2.492E-01	1.480E-01	FAIL ABUN
AG-108M	-4.661E-03	3.333E-02	2.787E-02	1.700E-02	NOT IDENT.
AG-110M	1.198E-03	3.415E-02	2.951E-02	1.742E-02	NOT IDENT.
IN-111	-3.876E-01	1.087E+00	8.229E-01	5.546E-01	NOT IDENT.
IN-113M	-6.147E-02	4.398E-02	3.368E-02	2.244E-02	NOT IDENT.
SN-113	-6.147E-02	4.398E-02	3.368E-02	2.244E-02	NOT IDENT.
IN-114M	8.017E-03	1.794E-01	1.427E-01	9.155E-02	NOT IDENT.
CD-115	3.165E+00	1.014E+01	9.098E+00	5.174E+00	NOT IDENT.
SN-117M	1.335E-02	5.291E-02	4.526E-02	2.700E-02	NOT IDENT.
SB-122	4.808E-01	2.047E+00	1.816E+00	1.045E+00	NOT IDENT.
I-123	5.330E+05	6.541E+06	0.000E+00	3.337E+06	SHORT HLIF
TE-123M	2.203E-03	2.703E-02	2.295E-02	1.379E-02	NOT IDENT.
I-124	5.482E-02	7.428E-01	5.906E-01	3.790E-01	NOT IDENT.
SB-124	2.843E-02	6.762E-02	6.024E-02	3.450E-02	FAIL ABUN
SB-125	2.507E-02	8.876E-02	7.648E-02	4.528E-02	FAIL ABUN
TE-125M	-2.040E+00	8.265E+00	7.088E+00	4.217E+00	NOT IDENT.
I-126	3.568E-02	1.740E-01	1.521E-01	8.878E-02	NOT IDENT.
SB-126	5.375E-02	1.679E-01	1.287E-01	8.568E-02	FAIL ABUN
SB-127	2.692E-01	1.280E+00	1.118E+00	6.532E-01	NOT IDENT.
XE-127	3.314E-04	4.252E-02	3.804E-02	2.169E-02	NOT IDENT.
I-131	1.052E-02	1.103E-01	9.503E-02	5.626E-02	NOT IDENT.
TE-132	-9.049E-02	7.008E-01	6.183E-01	3.576E-01	NOT IDENT.
BA-133	2.023E-02	4.824E-02	3.704E-02	2.461E-02	NOT IDENT.
I-133	-3.531E+03	6.122E+03	0.000E+00	3.124E+03	SHORT HLIF
CS-134	1.143E-01	6.118E-02	4.783E-02	3.121E-02	FAIL ABUN
CS-135	1.008E-01	1.646E-01	1.319E-01	8.397E-02	NOT IDENT.
I-135	-2.904E+14	8.993E+15	0.000E+00	4.588E+15	SHORT HLIF
CS-136	-6.435E-02	1.172E-01	9.659E-02	5.978E-02	FAIL ABUN
BA-137M	-2.798E-02	3.544E-02	2.865E-02	1.808E-02	NOT IDENT.
CS-137	-2.958E-02	3.747E-02	3.029E-02	1.912E-02	NOT IDENT.
CE-139	-2.547E-02	2.847E-02	2.292E-02	1.453E-02	NOT IDENT.
BA-140	4.183E-02	2.425E-01	2.148E-01	1.237E-01	NOT IDENT.
LA-140	4.869E-02	6.575E-02	5.691E-02	3.355E-02	FAIL ABUN
CE-141	3.262E-02	5.918E-02	5.150E-02	3.019E-02	NOT IDENT.
CE-143	5.719E+02	2.122E+02	0.000E+00	1.083E+02	SHORT HLIF
CE-144	6.343E-02	2.159E-01	1.670E-01	1.102E-01	NOT IDENT.
PM-144	4.993E-02	3.476E-02	3.256E-02	1.774E-02	NOT IDENT.
PR-144	3.384E+00	2.356E+00	2.207E+00	1.202E+00	NOT IDENT.

PM-146	8.118E-03	4.258E-02	3.630E-02	2.172E-02	NOT IDENT.
ND-147	-2.324E-01	5.052E-01	4.274E-01	2.578E-01	FAIL ABUN
PM-149	-2.245E+01	9.249E+01	7.967E+01	4.719E+01	NOT IDENT.
EU-152	2.777E-02	1.082E-01	8.323E-02	5.520E-02	FAIL ABUN
GD-153	-2.622E-02	7.357E-02	5.616E-02	3.754E-02	NOT IDENT.
EU-154	4.587E-02	1.268E-01	1.110E-01	6.472E-02	NOT IDENT.
EU-155	1.021E-01	9.402E-02	8.487E-02	4.797E-02	FAIL ABUN
TB-160	-3.111E-02	1.397E-01	1.148E-01	7.129E-02	FAIL ABUN
HO-166M	-4.154E-02	6.174E-02	5.000E-02	3.150E-02	FAIL ABUN
TM-171	-6.723E-01	2.182E+01	1.734E+01	1.113E+01	NOT IDENT.
LU-176	-2.504E-02	2.431E-02	1.983E-02	1.240E-02	FAIL ABUN
LU-177	3.845E+00	1.687E+00	1.018E+00	8.607E-01	FAIL ABUN
LU-177M	-9.109E-02	1.756E-01	1.436E-01	8.958E-02	NOT IDENT.
HF-181	-1.191E-03	4.212E-02	3.517E-02	2.149E-02	NOT IDENT.
W-181	-6.137E-02	2.803E-01	2.211E-01	1.430E-01	NOT IDENT.
TA-182	2.233E-01	2.191E-01	1.993E-01	1.118E-01	FAIL ABUN
RE-183	8.792E-02	1.049E-01	9.174E-02	5.351E-02	FAIL ABUN
RE-184	-7.043E-02	2.067E-01	1.788E-01	1.055E-01	NOT IDENT.
OS-185	-3.895E-03	3.988E-02	3.416E-02	2.035E-02	NOT IDENT.
RE-188	1.376E-02	1.632E-01	1.388E-01	8.326E-02	NOT IDENT.
W-188	-1.658E+00	7.995E+00	6.028E+00	4.079E+00	FAIL ABUN
IR-192	1.554E-02	3.247E-02	2.886E-02	1.657E-02	FAIL ABUN
AU-195	2.970E-01	2.057E-01	1.702E-01	1.049E-01	FAIL ABUN
TL-200	-1.696E+02	4.703E+02	0.000E+00	2.400E+02	SHORT HLIF
TL-201	-5.806E+00	6.769E+00	5.450E+00	3.453E+00	NOT IDENT.
TL-202	4.340E-02	7.040E-02	6.176E-02	3.592E-02	NOT IDENT.
HG-203	2.194E-02	4.058E-02	3.634E-02	2.070E-02	NOT IDENT.
BI-207	2.463E-02	5.636E-02	5.023E-02	2.876E-02	FAIL ABUN
TL-207	3.580E-01	6.960E-01	5.472E-01	3.551E-01	FAIL ABUN
PO-209	6.616E+00	7.829E+00	7.017E+00	3.995E+00	NOT IDENT.
BI-210	-3.910E-01	1.695E+00	1.517E+00	8.646E-01	NOT IDENT.
PB-210	-3.910E-01	1.695E+00	1.517E+00	8.646E-01	NOT IDENT.
PO-210	-3.910E-01	1.695E+00	1.517E+00	8.646E-01	NOT IDENT.
PB-211	-2.329E-01	9.081E-01	7.485E-01	4.633E-01	NOT IDENT.
BI-212	1.379E+00	4.914E-01	3.379E-01	2.507E-01	FAIL ABUN
PO-215	3.580E-01	6.960E-01	5.472E-01	3.551E-01	FAIL ABUN
RN-219	-3.282E-02	3.964E-01	3.350E-01	2.022E-01	FAIL ABUN
RN-220	6.084E-01	2.443E+01	2.141E+01	1.246E+01	NOT IDENT.
RA-223	3.580E-01	6.960E-01	5.472E-01	3.551E-01	FAIL ABUN
AC-227	-1.472E-01	3.425E-01	2.941E-01	1.748E-01	FAIL ABUN
TH-227	-1.472E-01	3.428E-01	2.941E-01	1.749E-01	FAIL ABUN
TH-229	6.645E-02	4.544E-01	4.100E-01	2.319E-01	FAIL ABUN
PA-231	9.186E-02	1.433E+00	1.256E+00	7.312E-01	FAIL ABUN
TH-231	3.580E-01	6.960E-01	5.472E-01	3.551E-01	FAIL ABUN
U-231	-6.021E-01	1.001E+00	7.542E-01	5.108E-01	FAIL ABUN
PA-233	-3.623E-02	6.196E-02	5.189E-02	3.161E-02	FAIL ABUN
PA-234	-3.018E-01	3.330E-01	2.503E-01	1.699E-01	FAIL ABUN
PA-234M	2.288E+00	4.934E+00	4.252E+00	2.517E+00	NOT IDENT.
U-235	-6.033E-02	2.025E-01	1.673E-01	1.033E-01	FAIL ABUN
NP-236	-6.869E-02	7.831E-02	6.337E-02	3.995E-02	NOT IDENT.
NP-239	-1.419E-02	1.721E-01	1.480E-01	8.781E-02	FAIL ABUN
AM-241	1.301E-04	1.099E-01	8.829E-02	5.607E-02	NOT IDENT.
CM-243	5.760E-05	8.263E-02	7.184E-02	4.216E-02	FAIL ABUN
AM-246	6.400E-03	1.519E-01	1.313E-01	7.752E-02	NOT IDENT.
CM-247	-2.921E-02	3.633E-02	2.915E-02	1.854E-02	NOT IDENT.
CF-249	1.654E-02	3.930E-02	3.435E-02	2.005E-02	NOT IDENT.
CF-251	5.303E-02	1.155E-01	1.060E-01	5.893E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	315.3924
46.50	315.3924
46.50	315.3924
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49.72	330.4777
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52.97	335.1746
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53.44	314.4785
54.07	328.4189
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56.28	355.3152
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57.53	377.6974
57.60	377.7589
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57.98	381.0106
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59.32	401.4800
59.40	400.3872
59.54	385.3391
59.72	385.5022
60.01	395.9916
61.10	391.1357
61.14	391.1713
61.30	391.3160
63.00	461.9883
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63.29	462.2913
63.58	454.7365
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65.20	431.7399
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66.83	421.4173
66.91	420.0069
67.20	449.9714
67.20	449.9714
67.75	465.3759
67.85	465.4762
68.90	484.9098
68.90	484.9098
69.30	482.3408
69.67	451.4705
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74.81	495.9363
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74.81	495.9363
74.81	495.9363
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77.11	498.2282

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77.11	498.2282
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80.18	402.6145
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80.30	402.7072
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81.07	534.6851
81.07	534.6851
81.07	534.6851
81.07	534.6851
82.60	446.1599
83.37	421.9498
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83.78	402.3169
83.78	402.3169
83.78	402.3169
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86.72	555.8313
86.79	555.9000
86.94	556.0565
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87.30	417.3164
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87.88	417.7592
88.03	417.8726
88.36	418.1239
88.47	418.2083
89.95	419.3248
91.11	420.1962
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92.38	421.1417
92.38	421.1417
93.35	421.8585
94.00	422.3385
94.67	422.8267
94.67	422.8308
94.90	297.6665
94.90	297.6665
94.90	297.6665
94.90	297.6665
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95.87	343.6746
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97.43	328.8571
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98.44	293.1694
98.88	247.6434
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99.55	245.2906
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100.00	253.9039
100.10	264.4853
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103.76	303.1913
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105.31	285.8878
108.00	326.6145
109.28	324.0674

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111.00	289.5529
111.76	298.4843
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116.30	305.9730
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117.00	301.9676
117.66	329.3519
121.11	292.9285
121.62	302.9568
121.78	303.0275
122.06	299.8805
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122.32	323.9933
122.32	323.9933
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144.24	292.3360
144.24	292.3360
144.24	292.3360
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147.16	310.3709
152.43	280.6439
152.70	278.4662
153.22	299.1202
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154.21	305.1832
154.21	305.1832
154.21	305.1832
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162.64	256.5711
163.35	233.7585
163.89	248.8909
165.85	289.8945
167.43	275.3933
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172.10	245.4841
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176.60	258.7372
181.06	284.8935
184.41	237.9999
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186.00	238.4145
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193.63	244.8507
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198.01	258.5522
198.60	246.1342
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201.83	274.0017
202.84	249.9260
205.31	237.3516

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208.81	236.9255
209.75	237.1485
209.75	237.1485
210.97	237.2573
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216.55	225.9487
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223.80	236.7552
226.40	245.6551
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227.08	270.7666
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228.18	257.1721
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236.00	232.5927
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238.63	224.1870
238.63	224.1870
238.63	224.1870
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241.98	224.8727
241.98	224.8727
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248.90	177.2469
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252.85	177.8665
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256.20	182.1841
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268.24	176.3998
268.79	158.0658
269.46	173.5113
269.46	173.5113
269.46	173.5113
269.46	173.5113
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273.65	235.7530
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277.60	181.6431
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284.30	183.6071
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286.10	172.1980
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295.21	166.1969

295.21	166.1969
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299.80	173.0889
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300.09	171.5526
300.09	171.5526
300.09	171.5526
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303.91	165.7441
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304.84	162.7053
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323.87	136.1992
323.87	136.1992
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338.28	158.8734
338.28	158.8734
338.28	158.8734
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338.32	158.8782
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351.92	151.2023
351.92	151.2023
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367.43	125.9577
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391.69	147.8934
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401.10	124.5053
401.81	121.3943
402.60	137.2958
404.84	124.7970
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413.65	132.9193
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427.89	104.0349
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439.56	104.7528
439.89	110.1742
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445.03	96.4203
445.03	96.4203
445.03	96.4203
445.03	96.4203
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475.35	90.3682
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511.00	88.7376
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511.85	88.7768
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513.99	66.0000
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520.65	74.0542
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529.87	0.0000
531.02	85.3413
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543.00	84.9397
546.56	0.0000
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552.65	83.5107
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563.23	94.0885
563.90	88.5820
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569.32	88.8141
569.50	88.8211
569.67	88.8281
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574.00	89.0109
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578.91	60.4091
579.30	0.0000
583.14	75.4293
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592.07	80.0036
593.00	77.6484
595.88	83.3723
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602.71	99.3420
602.71	99.3420
603.60	89.3107
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604.70	101.8958
609.31	94.2554

609.31	94.2554
609.31	94.2554
609.31	94.2554
610.33	94.2993
612.46	80.2312
614.37	72.4290
618.01	73.5984
621.84	73.9362
621.84	73.9362
631.29	92.3323
633.02	73.3511
633.10	73.3530
634.78	76.2676
635.90	89.6580
636.97	82.0674
645.85	75.6807
646.12	73.7722
656.30	79.8713
657.75	81.8457
657.90	0.0000
661.65	96.4502
661.65	96.4502
664.57	0.0000
666.33	77.3145
666.33	77.3145
675.00	82.4475
677.61	82.5367
685.20	65.2645
692.80	84.0348
695.00	77.2661
696.49	67.5260
696.49	67.5260
697.00	58.7300
697.49	74.4062
698.33	92.0608
698.50	95.9855
699.00	104.8213
702.63	88.2993
706.10	71.7204
706.58	0.0000
706.67	85.4941
709.31	75.7480
711.68	91.5764
713.82	75.8871
717.42	75.0092
720.50	77.4077
721.93	0.0000
722.20	92.2920
722.78	90.6641
722.78	90.6641
722.89	90.6685
722.95	90.6708
723.30	87.3866
724.18	84.1180
727.18	75.3005
733.00	81.1004
735.90	72.9090
739.58	89.6067
742.81	73.7706
744.21	81.7898
747.13	69.8992
751.79	98.0359
752.31	98.0550
753.82	92.1056
755.35	64.1109
756.15	59.1210
756.87	56.1299
763.93	83.4174
765.79	97.5565
766.42	84.5024
766.84	78.4780
776.49	68.6674
778.00	65.6744
778.57	71.7523
778.89	71.7610
783.80	74.9304
785.46	65.8585
792.07	67.7132

795.84	61.0269
796.30	67.8190
798.80	81.4570
801.93	72.6312
805.60	62.2659
810.29	83.8438
810.76	80.7898
815.85	62.4982
817.79	69.7183
818.51	66.6599
819.60	56.4274
826.30	57.5914
828.27	0.0000
831.60	77.2760
831.96	72.1345
834.83	46.4194
836.80	0.0000
846.75	67.3328
848.13	67.3645
856.28	0.0000
856.80	51.9763
860.37	58.9798
867.32	59.1209
867.82	50.4349
871.10	66.8586
873.19	51.2251
874.81	53.3458
875.33	0.0000
876.40	60.7003
879.36	61.8088
880.27	58.6852
880.51	57.6412
881.50	50.3227
883.24	62.9399
884.67	69.2678
889.25	59.9140
896.60	55.8480
898.02	65.3619
899.00	71.7121
903.28	72.7521
911.07	58.2347
911.07	58.2347
911.07	58.2347
919.63	49.1090
920.93	45.6770
925.00	57.4383
925.24	48.9334
926.50	53.2104
935.52	56.5687
937.48	80.0995
944.10	51.3738
946.00	78.1792
949.00	60.0305
962.29	91.5037
964.01	68.2163
966.15	53.8916
968.20	53.9258
969.11	53.9417
969.11	53.9417
969.11	53.9417
977.42	41.4629
980.50	58.4653
983.50	49.8498
989.30	49.9396
996.32	69.6328
1001.03	62.1058
1001.68	53.4000
1004.76	69.8125
1021.30	0.0000
1024.50	0.0000
1034.80	49.5352
1036.00	52.3057
1037.82	60.5967
1038.57	56.9368
1038.76	0.0000
1045.16	54.2874
1046.59	60.7551
1048.07	74.5961

1050.47	68.1977
1050.47	68.1977
1062.04	66.5801
1063.62	62.9089
1076.63	73.3617
1077.35	67.8048
1078.86	65.9760
1085.78	63.3156
1099.22	84.1223
1112.02	77.7745
1112.84	72.5598
1115.52	67.6084
1120.29	93.4894
1120.29	93.4894
1120.29	93.4894
1120.29	93.4894
1120.51	95.9114
1121.28	95.9321
1124.00	0.0000
1129.67	74.3393
1131.51	0.0000
1147.95	0.0000
1167.94	69.5455
1173.22	89.6779
1175.09	71.5881
1177.93	68.7773
1189.05	66.1082
1204.90	75.0452
1205.75	0.0000
1213.00	77.1322
1221.42	72.4731
1230.97	77.4967
1235.34	101.4142
1236.41	0.0000
1238.25	66.5486
1246.25	75.0241
1260.41	0.0000
1271.85	50.9019
1274.45	50.9357
1274.54	48.9766
1291.56	48.2025
1298.22	0.0000
1312.09	48.4477
1325.50	31.7435
1325.50	31.7435
1332.49	29.8108
1333.61	40.7514
1360.21	27.0088
1362.66	0.0000
1365.15	26.0391
1368.21	42.0940
1368.53	0.0000
1376.25	31.1287
1384.27	39.2365
1394.10	24.2012
1395.20	22.1898
1407.95	36.4189
1434.06	21.3726
1436.60	20.3662
1457.56	0.0000
1460.81	23.5503
1489.15	11.3348
1509.49	21.7366
1596.49	7.2307
1620.62	19.0767
1678.03	0.0000
1691.02	10.7503
1691.02	10.7503
1706.46	0.0000
1750.46	0.0000
1764.49	8.4133
1764.49	8.4133
1764.49	8.4133
1764.49	8.4133
1770.23	13.1016
1771.40	9.8287
1791.20	0.0000
1808.65	8.4843

1836.01	5.6853

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799012

Total Uranium Activity	3.1890E+00	ug/g
Total Uranium Counting Unc.	3.4820E+00	ug/g
Total Uranium Tpu	1.7766E-06	ug/g
Total Uranium Mda	2.4088E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799012       *
*   ANALYST       : RXF2                      DETECTOR   : GAM07            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 18:11:58.02    SAMPLE ALQT:  134.951 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.039E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.531E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.698E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.797E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:58:49.52

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799013.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:58:22
Sample ID         : G245799013           Sample quantity  : 1.37735E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.25  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947531                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.33*	202	583	1.12	127.40	123	9	2.81E-02	23.2	
2	3	74.83	365	553	1.44	150.38	145	16	5.07E-02	13.4	3.16E+00
3	3	77.16	626	511	1.28	155.03	145	16	8.70E-02	7.6	
4	0	87.22	179	439	1.00	175.13	173	6	2.48E-02	20.0	
5	0	92.95*	676	755	1.36	186.60	182	10	9.38E-02	8.9	
6	0	186.25*	249	443	1.27	373.09	368	11	3.46E-02	18.2	
7	0	209.93	134	270	0.90	420.42	416	9	1.86E-02	23.8	
8	4	239.02*	1134	210	1.27	478.57	473	17	1.57E-01	3.8	7.75E-01
9	4	242.10	320	226	1.71	484.74	473	17	4.44E-02	11.7	
10	0	271.38	118	210	2.33	543.26	539	10	1.65E-02	25.1	
11	0	295.67	406	231	1.33	591.80	585	13	5.64E-02	9.2	
12	0	300.27	62	152	1.06	601.01	598	8	8.63E-03	36.5	
13	0	338.93	237	215	1.43	678.28	673	13	3.29E-02	14.4	
14	0	352.32*	540	248	1.50	705.04	698	15	7.51E-02	7.9	
15	0	463.06*	68	90	1.26	926.39	921	10	9.44E-03	29.4	
16	0	511.62*	155	136	2.06	1023.44	1016	18	2.16E-02	21.6	
17	0	583.73*	396	62	1.53	1167.58	1162	14	5.51E-02	6.8	
18	0	609.76*	463	92	1.51	1219.60	1214	14	6.44E-02	6.7	
19	0	661.93	290	83	1.53	1323.88	1316	14	4.03E-02	8.9	
20	0	727.42	81	62	1.97	1454.78	1447	13	1.13E-02	22.8	
21	0	796.75	12	64	1.42	1593.35	1586	9	1.69E-03	121.1	
22	0	840.11	33	38	0.99	1680.00	1675	9	4.56E-03	38.2	
23	0	911.40*	240	90	1.76	1822.50	1813	20	3.34E-02	11.8	
24	0	969.22*	124	28	1.55	1938.06	1934	9	1.73E-02	12.0	
25	0	1001.43*	34	43	1.46	2002.42	1994	12	4.68E-03	44.1	
26	0	1120.53*	107	53	1.40	2240.46	2234	14	1.49E-02	17.7	
27	0	1378.56	41	13	1.60	2756.13	2749	14	5.63E-03	25.0	
28	0	1461.27*	995	27	2.02	2921.43	2913	19	1.38E-01	3.4	
29	0	1587.34	22	13	4.31	3173.38	3165	14	3.00E-03	42.5	
30	0	1730.30	21	0	1.56	3459.05	3454	10	2.92E-03	21.8	
31	0	1765.04*	84	5	2.04	3528.47	3519	17	1.17E-02	13.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 20:58:52

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799013.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:58:22
Sample ID : G245799013 Sample quantity : 137.74 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.25 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.689E+01	3.023E+00	4.966E-01	4.414E-02	54.160
CD-109	+	88.03	*	2.583E+00	1.060E+00	1.575E+00	1.491E-01	1.640
SN-126	+	64.28		2.064E+00	1.003E+00	9.548E-01	1.405E-01	2.161
	+	86.94		1.055E+00	6.080E-01	7.045E-01	2.925E-01	1.498
	+	87.57	*	2.539E-01	1.041E-01	1.596E-01	1.503E-02	1.591
BA-137M	+	661.65	*	4.575E-01	8.963E-02	6.227E-02	5.100E-03	7.347
CS-137	+	661.65	*	4.836E-01	9.478E-02	6.582E-02	5.403E-03	7.347
TL-208		277.35		6.379E-01	4.414E-01	7.215E-01	9.169E-02	0.884
	+	510.84		8.201E-01	3.667E-01	2.290E-01	2.721E-02	3.582
	+	583.14	*	5.990E-01	9.807E-02	6.675E-02	6.062E-03	8.974
		860.37		5.321E-01	3.620E-01	6.542E-01	6.269E-02	0.813
BI-211		72.87		6.967E+00	3.822E+00	5.883E+00	4.825E-01	1.184
	+	351.07	*	3.529E+00	6.408E-01	3.831E-01	3.485E-02	9.212
PB-212	+	74.81		2.240E+00	6.624E-01	6.028E-01	7.545E-02	3.716
	+	77.11		2.162E+00	3.768E-01	3.401E-01	2.886E-02	6.357
	+	87.30		1.174E+00	4.958E-01	7.877E-01	1.081E-01	1.491
	+	238.63	*	1.594E+00	2.019E-01	9.554E-02	9.673E-03	16.688
	+	300.09		1.358E+00	1.002E+00	1.286E+00	1.391E-01	1.056
PO-212	+	74.81		2.240E+00	6.624E-01	6.028E-01	7.545E-02	3.716
	+	77.11		2.162E+00	3.768E-01	3.401E-01	2.886E-02	6.357
	+	87.30		1.174E+00	4.958E-01	7.877E-01	1.081E-01	1.491
		115.19		-3.445E+00	4.124E+00	6.307E+00	5.480E-01	-0.546
	+	238.63	*	1.594E+00	2.019E-01	9.554E-02	9.673E-03	16.688
	+	300.09		1.358E+00	1.002E+00	1.286E+00	1.391E-01	1.056
BI-214	+	609.31	*	1.322E+00	2.189E-01	1.200E-01	1.184E-02	11.012
	+	1120.29		1.625E+00	5.997E-01	5.340E-01	5.714E-02	3.043
	+	1764.49		1.763E+00	4.833E-01	2.208E-01	1.851E-02	7.987
PB-214	+	74.81		3.860E+00	1.120E+00	1.039E+00	1.157E-01	3.716
	+	77.11		3.707E+00	7.050E-01	5.831E-01	6.650E-02	6.357
	+	87.30		2.011E+00	8.396E-01	1.349E+00	1.640E-01	1.491
	+	241.98		2.703E+00	6.939E-01	5.755E-01	6.147E-02	4.696
	+	295.21		1.559E+00	3.337E-01	2.319E-01	2.561E-02	6.724
	+	351.92	*	1.228E+00	2.319E-01	1.335E-01	1.399E-02	9.193
PO-214	+	74.81		3.860E+00	1.120E+00	1.039E+00	1.157E-01	3.716

Sample ID : G245799013 Acquisition date : 10-FEB-2010 18:58:22

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.707E+00	7.050E-01	5.831E-01	6.650E-02	6.357
	+	87.30		2.011E+00	8.396E-01	1.349E+00	1.640E-01	1.491
	+	241.98		2.703E+00	6.939E-01	5.755E-01	6.147E-02	4.696
	+	295.21		1.559E+00	3.337E-01	2.319E-01	2.561E-02	6.724
	+	351.92	*	1.228E+00	2.319E-01	1.335E-01	1.399E-02	9.193
PO-216	+	74.81		2.240E+00	6.624E-01	6.028E-01	7.545E-02	3.716
	+	77.11		2.162E+00	3.768E-01	3.401E-01	2.886E-02	6.357
	+	87.30		1.174E+00	4.958E-01	7.877E-01	1.081E-01	1.491
	+	238.63	*	1.594E+00	2.019E-01	9.554E-02	9.673E-03	16.688
	+	300.09		1.358E+00	1.002E+00	1.286E+00	1.391E-01	1.056
PO-218	+	74.81		3.860E+00	1.120E+00	1.039E+00	1.157E-01	3.716
	+	77.11		3.707E+00	7.050E-01	5.831E-01	6.650E-02	6.357
	+	87.30		2.011E+00	8.396E-01	1.349E+00	1.640E-01	1.491
	+	241.98		2.703E+00	6.939E-01	5.755E-01	6.147E-02	4.696
	+	295.21		1.559E+00	3.337E-01	2.319E-01	2.561E-02	6.724
	+	351.92	*	1.228E+00	2.319E-01	1.335E-01	1.399E-02	9.193
RA-224	+	240.98	*	5.125E+00	1.284E+00	1.087E+00	9.883E-02	4.712
RA-226	+	609.31	*	1.322E+00	2.189E-01	1.200E-01	1.184E-02	11.012
	+	1120.29		1.625E+00	5.997E-01	5.340E-01	5.714E-02	3.043
	+	1764.49		1.763E+00	4.833E-01	2.208E-01	1.851E-02	7.987
AC-228	+	338.32		1.702E+00	8.566E-01	4.056E-01	1.675E-01	4.196
	+	911.07	*	1.638E+00	4.298E-01	2.295E-01	2.657E-02	7.139
	+	969.11		1.495E+00	5.027E-01	5.430E-01	1.274E-01	2.753
RA-228	+	338.32		1.702E+00	8.566E-01	4.056E-01	1.675E-01	4.196
	+	911.07	*	1.638E+00	4.298E-01	2.295E-01	2.657E-02	7.139
	+	969.11		1.495E+00	5.027E-01	5.430E-01	1.274E-01	2.753
TH-228	+	74.81		2.274E+00	6.387E-01	6.121E-01	5.141E-02	3.716
	+	77.11		2.195E+00	3.826E-01	3.454E-01	2.931E-02	6.357
	+	87.30		1.192E+00	4.891E-01	7.998E-01	7.511E-02	1.491
	+	238.63	*	1.619E+00	2.050E-01	9.700E-02	9.821E-03	16.688
	+	300.09		1.379E+00	1.298E+00	1.306E+00	7.752E-01	1.056
TH-230	+	609.31	*	1.322E+00	2.189E-01	1.200E-01	1.184E-02	11.012
	+	1120.29		1.625E+00	5.997E-01	5.340E-01	5.714E-02	3.043
	+	1764.49		1.763E+00	4.832E-01	2.208E-01	1.851E-02	7.987
TH-232	+	338.32		1.702E+00	5.121E-01	4.056E-01	3.570E-02	4.196
	+	911.07	*	1.638E+00	4.298E-01	2.295E-01	2.657E-02	7.139
	+	969.11		1.495E+00	5.027E-01	5.430E-01	1.274E-01	2.753
TH-234	+	63.29	*	5.213E+00	2.582E+00	2.433E+00	4.276E-01	2.143
	+	92.38		6.180E+00	1.576E+00	9.799E-01	1.796E-01	6.307
U-234	+	609.31	*	1.322E+00	2.189E-01	1.200E-01	1.184E-02	11.012
	+	1120.29		1.625E+00	5.997E-01	5.340E-01	5.714E-02	3.043
	+	1764.49		1.763E+00	4.832E-01	2.208E-01	1.851E-02	7.987
NP-237	+	86.50	*	7.455E-01	3.423E-01	4.614E-01	1.044E-01	1.616
		95.87		4.980E-02	1.191E+00	1.699E+00	4.206E-01	0.029
U-238	+	63.29	*	5.213E+00	2.582E+00	2.433E+00	4.276E-01	2.143
	+	92.38		6.180E+00	1.232E+00	9.799E-01	8.948E-02	6.307
AM-243	+	74.67	*	3.631E-01	1.019E-01	9.806E-02	8.154E-03	3.703
	+	86.72		2.795E+01	1.147E+01	1.753E+01	1.636E+00	1.594
		117.66		-3.285E-01	4.251E+00	6.729E+00	5.866E-01	-0.049

Sample ID : G245799013 Acquisition date : 10-FEB-2010 18:58:22

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		-1.144E+01	1.918E+01	3.180E+01	2.720E+00	-0.360
ANH-511	+	511.00	*	1.771E-01	7.783E-02	4.947E-02	4.193E-03	3.581

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.001E-01	3.387E-01	5.797E-01	5.273E-02	0.518
NA-22		1274.54	*	1.511E-02	4.818E-02	8.292E-02	6.963E-03	0.182
NA-24		1368.53	*	-4.827E-02	4.818E-02	Half-Life too short		
AL-26		1129.67		-7.701E-01	1.933E+00	2.976E+00	2.486E-01	-0.259
		1808.65	*	-8.311E-04	2.917E-02	4.714E-02	3.906E-03	-0.018
TI-44		67.85		-2.835E-03	5.974E-02	8.597E-02	6.817E-03	-0.033
	+	78.38	*	3.990E-01	6.953E-02	8.664E-02	7.435E-03	4.606
SC-46		889.25	*	-1.247E-02	4.477E-02	7.118E-02	6.434E-03	-0.175
	+	1120.51		2.786E-01	1.011E-01	1.499E-01	1.260E-02	1.858
V-48		944.10		5.928E-02	9.501E-01	1.557E+00	1.402E-01	0.038
		983.50	*	-7.426E-02	7.720E-02	1.112E-01	9.924E-03	-0.668
		1312.09		1.382E-02	8.000E-02	1.361E-01	1.154E-02	0.102
CR-51		320.08	*	2.894E-01	4.120E-01	7.003E-01	6.587E-02	0.413
MN-52		744.21		-1.189E-01	2.554E-01	4.039E-01	3.465E-02	-0.294
		848.13		-4.983E+00	7.686E+00	1.179E+01	1.054E+00	-0.423
		935.52		2.078E-01	2.797E-01	4.878E-01	4.400E-02	0.426
		1246.25		-4.480E+00	8.386E+00	1.332E+01	1.108E+00	-0.336
		1333.61		-6.569E-01	5.601E+00	9.189E+00	7.834E-01	-0.071
		1434.06	*	1.525E-01	2.184E-01	4.015E-01	3.466E-02	0.380
MN-54		834.83	*	2.474E-02	4.780E-02	7.216E-02	6.423E-03	0.343
CO-56		846.75	*	2.379E-03	4.343E-02	6.970E-02	6.228E-03	0.034
		977.42		1.399E+00	3.265E+00	5.573E+00	4.984E-01	0.251
		1037.82		-8.422E-02	3.291E-01	5.167E-01	4.763E-02	-0.163
		1175.09		-2.024E+00	2.557E+00	3.980E+00	3.223E-01	-0.508
		1238.25		2.771E-01	1.143E-01	2.167E-01	1.853E-02	1.279
		1360.21		-8.832E-01	1.080E+00	1.590E+00	1.361E-01	-0.556
		1771.40		8.725E-02	2.091E-01	3.385E-01	2.834E-02	0.258
CO-57		122.06	*	-6.073E-04	2.776E-02	4.399E-02	3.872E-03	-0.014
		136.48		-1.868E-01	2.269E-01	3.729E-01	3.445E-02	-0.501
CO-58		810.76	*	-3.595E-02	4.314E-02	6.507E-02	5.756E-03	-0.553
FE-59		142.65		-1.487E+00	3.066E+00	5.048E+00	4.317E-01	-0.294
		192.34		6.531E-01	1.047E+00	1.738E+00	2.347E-01	0.376
		1099.22	*	-3.668E-02	1.089E-01	1.694E-01	1.561E-02	-0.217
		1291.56		-6.550E-02	1.345E-01	2.120E-01	2.039E-02	-0.309
CO-60		1173.22		2.734E-03	4.910E-02	8.284E-02	6.705E-03	0.033
		1332.49	*	-6.960E-03	4.424E-02	7.227E-02	6.161E-03	-0.096
ZN-65		1115.52	*	-5.134E-02	1.212E-01	1.576E-01	1.330E-02	-0.326
GE-68		1077.35	*	-1.536E+00	1.402E+00	1.968E+00	1.694E-01	-0.780
AS-73		53.44	*	-2.307E-01	1.060E+00	1.712E+00	1.385E-01	-0.135
AS-74		595.88	*	3.145E-02	9.072E-02	1.561E-01	1.315E-02	0.202
		634.78		-2.372E-01	3.856E-01	6.107E-01	5.073E-02	-0.388
SE-75		66.05		-2.093E+00	6.345E+00	9.009E+00	8.834E-01	-0.232

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		-5.139E-01	9.920E-01	1.370E+00	1.892E-01	-0.375
		121.11		-1.142E-01	1.550E-01	2.370E-01	2.688E-02	-0.482
		136.00		-2.798E-02	4.248E-02	7.033E-02	6.087E-03	-0.398
		198.60		7.717E-01	1.956E+00	3.271E+00	3.182E-01	0.236
		264.65	*	-4.130E-02	4.924E-02	7.774E-02	7.141E-03	-0.531
		279.53		7.671E-02	1.202E-01	2.041E-01	1.929E-02	0.376
		303.91		-1.060E+00	2.652E+00	3.698E+00	4.369E-01	-0.287
		400.65		1.331E-01	2.870E-01	4.783E-01	5.126E-02	0.278
BR-77	+	87.88		5.870E+02	2.408E+02	3.940E+02	3.724E+01	1.490
		200.40		-2.668E+01	1.824E+02	3.033E+02	2.675E+01	-0.088
	+	239.00		2.693E+02	3.190E+01	4.121E+01	3.742E+00	6.535
		249.79		-2.239E+01	7.293E+01	1.189E+02	1.085E+01	-0.188
		281.68		-1.337E+02	1.045E+02	1.592E+02	1.456E+01	-0.840
		297.23		4.878E+02	1.076E+02	1.534E+02	1.395E+01	3.180
		303.76		-1.083E+02	2.367E+02	3.286E+02	2.979E+01	-0.330
		439.47		1.321E+02	1.652E+02	2.809E+02	2.329E+01	0.470
		484.57		-5.416E+01	2.463E+02	3.871E+02	3.264E+01	-0.140
		520.65	*	-1.875E+00	1.318E+01	2.002E+01	1.699E+00	-0.094
		574.64		-8.310E+01	2.377E+02	3.888E+02	3.291E+01	-0.214
		578.91		-3.723E+01	1.077E+02	1.514E+02	1.280E+01	-0.246
		585.48		1.777E+03	3.402E+02	6.033E+02	5.096E+01	2.946
		755.35		6.017E+01	1.886E+02	3.199E+02	2.759E+01	0.188
		817.79		-4.952E+01	1.491E+02	2.369E+02	2.096E+01	-0.209
SR-82		698.33		-1.107E+01	3.561E+01	5.755E+01	4.819E+00	-0.192
		776.49	*	-1.346E-01	3.925E-01	6.258E-01	5.448E-02	-0.215
		1395.20		4.814E-01	1.006E+01	1.682E+01	1.447E+00	0.029
RB-83		520.41	*	-1.453E-02	8.277E-02	1.253E-01	1.063E-02	-0.116
		529.64		-4.640E-02	1.141E-01	1.868E-01	1.586E-02	-0.248
		552.65		5.993E-02	2.089E-01	3.585E-01	3.042E-02	0.167
RB-84		881.50	*	6.664E-02	7.430E-02	1.319E-01	1.190E-02	0.505
KR-85		513.99	*	2.394E+01	9.013E+00	1.640E+01	1.390E+00	1.460
SR-85		513.99	*	1.230E-01	4.630E-02	8.424E-02	7.142E-03	1.460
RB-86		1076.63	*	-4.845E-01	8.505E-01	1.280E+00	1.103E-01	-0.379
Y-88		898.02		-3.701E-02	4.674E-02	7.005E-02	6.374E-03	-0.528
		1836.01	*	-1.143E-02	3.737E-02	5.670E-02	4.663E-03	-0.202
ZR-88		392.90	*	3.830E-02	3.619E-02	6.225E-02	5.012E-03	0.615
Y-91		1204.90	*	-2.292E+00	2.158E+01	3.583E+01	2.936E+00	-0.064
NB-94		702.63	*	1.962E-02	3.856E-02	6.630E-02	5.566E-03	0.296
		871.10		1.590E-02	3.533E-02	6.044E-02	5.438E-03	0.263
NB-95		765.79	*	-2.801E-03	5.035E-02	8.274E-02	7.170E-03	-0.034
NB-95M		235.69	*	6.232E-02	1.482E-01	2.218E-01	2.275E-02	0.281
ZR-95		724.18		-6.242E-02	1.225E-01	1.656E-01	1.532E-02	-0.377
		756.15	*	6.786E-02	7.750E-02	1.369E-01	1.301E-02	0.496
NB-97		657.90	*	2.185E-02	7.750E-02	Half-Life too short		
		1024.50		-1.060E+01	7.750E-02	Half-Life too short		
ZR-97		254.15		-4.343E+00	7.750E-02	Half-Life too short		
		355.39		4.770E+00	7.750E-02	Half-Life too short		
		507.63	*	1.352E+00	7.750E-02	Half-Life too short		
		602.52		-6.295E+00	7.750E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		1021.30		9.825E+00	7.750E-02	Half-Life too short		
		1147.95		1.638E+00	7.750E-02	Half-Life too short		
		1362.66		2.947E+00	7.750E-02	Half-Life too short		
		1750.46		-1.192E+00	7.750E-02	Half-Life too short		
MO-99		140.51		6.007E+00	3.019E+01	5.147E+01	1.424E+01	0.117
		181.06		-1.094E+01	2.187E+01	3.137E+01	5.742E+00	-0.349
		366.43		-7.440E+01	9.678E+01	1.490E+02	1.260E+01	-0.499
		739.58	*	4.418E+00	1.293E+01	2.198E+01	3.331E+00	0.201
		778.00		5.946E+00	3.781E+01	6.321E+01	5.507E+00	0.094
TC-99M		140.51	*	1.350E+10	3.781E+01	Half-Life too short		
RH-101		127.23		-2.674E-03	3.610E-02	5.697E-02	4.956E-03	-0.047
		198.01	*	1.608E-03	3.616E-02	5.968E-02	5.252E-03	0.027
		325.23		-2.546E-01	2.497E-01	3.832E-01	3.420E-02	-0.664
RH-102		418.52		1.447E-01	3.258E-01	5.418E-01	4.440E-02	0.267
		475.06	*	-2.222E-02	3.252E-02	4.925E-02	4.141E-03	-0.451
		631.29		4.736E-02	5.923E-02	1.046E-01	8.707E-03	0.453
		697.49		-6.399E-02	8.125E-02	1.257E-01	1.052E-02	-0.509
		766.84		3.159E-01	1.278E-01	2.422E-01	2.100E-02	1.304
		1046.59		5.513E-02	1.270E-01	2.146E-01	1.874E-02	0.257
		1112.84		2.490E-01	2.733E-01	4.437E-01	3.745E-02	0.561
RU-103		497.08	*	-1.894E-02	4.667E-02	7.214E-02	1.014E-02	-0.262
	+	610.33		1.431E+01	3.042E+00	3.353E+00	5.554E-01	4.269
RH-106	+	511.85		8.851E-01	3.889E-01	4.810E-01	4.077E-02	1.840
		621.84	*	3.226E-01	3.373E-01	6.001E-01	7.913E-02	0.538
		1050.47		1.073E-01	2.566E+00	4.166E+00	3.633E-01	0.026
RU-106	+	511.85		8.851E-01	3.889E-01	4.810E-01	4.077E-02	1.840
		621.84	*	3.226E-01	3.357E-01	6.001E-01	5.013E-02	0.538
		1050.47		1.073E-01	2.566E+00	4.166E+00	3.633E-01	0.026
AG-108M		433.93	*	-1.487E-02	3.547E-02	5.535E-02	4.773E-03	-0.269
		614.37		1.059E-02	4.369E-02	6.529E-02	5.696E-03	0.162
		722.95		3.469E-03	5.003E-02	7.248E-02	6.400E-03	0.048
AG-110M		657.75	*	5.367E-03	4.023E-02	5.916E-02	5.016E-03	0.091
		677.61		-3.836E-02	3.402E-01	5.605E-01	4.778E-02	-0.068
		706.67		-1.357E-01	2.406E-01	3.812E-01	3.300E-02	-0.356
		763.93		-3.217E-01	1.951E-01	2.748E-01	2.446E-02	-1.170
		884.67		-2.052E-02	5.273E-02	8.266E-02	7.683E-03	-0.248
		937.48		4.625E-02	1.188E-01	2.010E-01	1.872E-02	0.230
		1384.27		1.835E-02	1.878E-01	2.736E-01	2.417E-02	0.067
IN-111		171.28		-5.609E-01	1.129E+00	1.862E+00	1.594E-01	-0.301
		245.39	*	5.669E-01	1.226E+00	1.845E+00	1.680E-01	0.307
IN-113M		391.69	*	2.245E-02	5.469E-02	9.078E-02	7.562E-03	0.247
SN-113		391.69	*	2.245E-02	5.469E-02	9.078E-02	7.562E-03	0.247
IN-114M		190.27	*	-1.689E-01	2.268E-01	3.205E-01	2.798E-02	-0.527
CD-115		260.90		6.696E+01	1.526E+02	2.577E+02	2.356E+01	0.260
		492.35		1.780E+01	4.277E+01	7.067E+01	5.970E+00	0.252
		527.90	*	-3.924E+00	1.263E+01	2.083E+01	1.768E+00	-0.188
SN-117M		156.02		-1.369E+00	2.337E+00	3.854E+00	3.282E-01	-0.355
		158.56	*	-1.604E-02	5.625E-02	9.389E-02	7.994E-03	-0.171
SB-122		563.90	*	1.306E+00	2.357E+00	4.105E+00	3.480E-01	0.318

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		1.877E+01	4.686E+01	8.033E+01	6.706E+00	0.234
I-123		159.00	*	-8.363E-02	4.686E+01	Half-Life too short		
		528.96		-4.530E+02	4.686E+01	Half-Life too short		
TE-123M		159.00	*	-3.319E-04	2.897E-02	4.889E-02	4.188E-03	-0.007
I-124		602.71	*	-4.074E-01	7.383E-01	1.108E+00	9.313E-02	-0.368
		722.78		5.946E-01	5.395E+00	7.854E+00	6.665E-01	0.076
		1325.50		-2.634E+01	4.005E+01	6.134E+01	5.220E+00	-0.429
		1376.25		5.917E+01	3.878E+01	6.879E+01	5.903E+00	0.860
		1509.49		2.051E+01	1.856E+01	3.484E+01	3.016E+00	0.589
		1691.02		1.625E+00	3.664E+00	6.561E+00	5.590E-01	0.248
SB-124		602.71		-2.305E-02	4.177E-02	6.267E-02	5.271E-03	-0.368
		645.85		3.397E-02	5.089E-01	8.532E-01	7.509E-02	0.040
		709.31		1.513E-01	3.092E+00	5.146E+00	4.336E-01	0.029
		713.82		-1.822E+00	1.819E+00	2.738E+00	3.262E-01	-0.666
		722.78		4.878E-02	4.425E-01	6.442E-01	5.589E-02	0.076
	+	968.20		1.542E+01	3.963E+00	7.675E+00	6.879E-01	2.009
		1045.16		-3.119E-01	2.845E+00	4.580E+00	4.003E-01	-0.068
		1325.50		-2.308E+00	3.509E+00	5.374E+00	4.573E-01	-0.429
		1368.21		-3.579E-01	1.725E+00	2.778E+00	3.735E-01	-0.129
		1436.60		-1.740E+00	3.590E+00	5.455E+00	4.710E-01	-0.319
		1691.02	*	3.145E-02	7.089E-02	1.269E-01	1.125E-02	0.248
SB-125		427.89	*	-3.922E-02	1.025E-01	1.608E-01	1.353E-02	-0.244
	+	463.38		6.973E-01	4.151E-01	5.761E-01	5.225E-02	1.210
		600.56		5.818E-02	1.743E-01	2.993E-01	2.713E-02	0.194
		635.90		-4.300E-02	2.785E-01	4.588E-01	4.140E-02	-0.094
TE-125M		109.28	*	3.094E-01	1.061E+01	1.692E+01	1.754E+00	0.018
I-126		388.63		1.883E-02	2.425E-01	3.953E-01	3.202E-02	0.048
		666.33	*	-7.410E-02	2.329E-01	3.245E-01	2.666E-02	-0.228
		753.82		-6.267E-01	1.647E+00	2.631E+00	2.267E-01	-0.238
SB-126		223.80		-1.733E+00	4.410E+00	7.214E+00	6.490E-01	-0.240
		278.60		3.353E+00	2.780E+00	4.822E+00	4.410E-01	0.695
	+	296.50		1.568E+01	3.209E+00	4.156E+00	3.782E-01	3.772
		414.70		-9.273E-03	8.952E-02	1.437E-01	1.175E-02	-0.065
		415.30		-5.172E+00	7.935E+00	1.158E+01	9.474E-01	-0.446
		555.20		-8.479E-02	4.110E+00	6.900E+00	5.854E-01	-0.012
		573.80		3.092E-01	1.117E+00	1.912E+00	1.619E-01	0.162
		593.00		-6.161E-01	9.659E-01	1.533E+00	1.293E-01	-0.402
		656.30		-2.241E+00	4.121E+00	5.569E+00	4.576E-01	-0.402
		666.33		-3.098E-02	9.734E-02	1.357E-01	1.115E-02	-0.228
		675.00		-7.210E-02	2.223E+00	3.687E+00	3.045E-01	-0.020
		695.00		-5.475E-02	8.091E-02	1.263E-01	1.056E-02	-0.433
		697.00		-1.821E-01	2.851E-01	4.472E-01	3.742E-02	-0.407
		720.50	*	2.590E-02	1.843E-01	2.692E-01	2.282E-02	0.096
		856.80		-6.611E-01	6.031E-01	8.918E-01	7.992E-02	-0.741
		989.30		7.157E-01	1.356E+00	2.322E+00	2.070E-01	0.308
		1034.80		-6.444E+00	9.869E+00	1.477E+01	1.297E+00	-0.436
		1213.00		-8.320E-01	5.219E+00	8.620E+00	7.083E-01	-0.097
SB-127		61.10		2.009E+01	7.837E+01	1.148E+02	1.201E+01	0.175
		252.40		7.017E-01	4.695E+00	7.823E+00	3.297E+00	0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		290.80		-8.990E+00	2.689E+01	3.782E+01	4.387E+00	-0.238
		411.60		2.635E+01	1.520E+01	2.626E+01	4.075E+00	1.003
		444.90		8.013E+00	1.155E+01	1.943E+01	2.404E+00	0.412
		473.00		1.758E+00	1.819E+00	3.121E+00	3.984E-01	0.563
		543.00		-4.933E+00	1.710E+01	2.812E+01	4.038E+00	-0.175
		603.60		3.165E+00	1.336E+01	1.997E+01	2.477E+00	0.159
		685.20	*	-1.116E+00	1.464E+00	2.260E+00	2.532E-01	-0.494
		698.50		-6.434E+00	1.642E+01	2.631E+01	4.136E+00	-0.245
		722.20		1.101E+01	3.811E+01	5.656E+01	6.282E+00	0.195
		783.80		2.374E+00	4.161E+00	7.163E+00	8.983E-01	0.331
XE-127		57.60		1.582E+00	7.624E+00	1.249E+01	9.589E-01	0.127
		145.22		2.432E-01	7.775E-01	1.315E+00	1.123E-01	0.185
		172.10		-1.741E-02	1.278E-01	2.140E-01	1.833E-02	-0.081
		202.84	*	-6.168E-02	5.049E-02	7.963E-02	7.040E-03	-0.775
		374.96		-1.510E-02	2.365E-01	3.829E-01	3.189E-02	-0.039
I-131		80.18		1.720E+00	5.654E+00	8.220E+00	7.219E-01	0.209
		284.30		-3.460E-01	1.619E+00	2.636E+00	2.520E-01	-0.131
		364.48	*	-3.203E-02	1.216E-01	1.942E-01	1.740E-02	-0.165
		636.97		1.241E+00	1.494E+00	2.666E+00	2.346E-01	0.466
		722.89		6.692E-01	8.558E+00	1.241E+01	1.061E+00	0.054
TE-132		49.72		-6.466E+00	2.566E+01	4.141E+01	4.469E+00	-0.156
		111.76		1.452E+01	3.616E+01	5.762E+01	6.302E+00	0.252
		116.30		-3.449E-01	3.197E+01	5.077E+01	5.567E+00	-0.007
		228.16	*	2.143E-01	7.855E-01	1.321E+00	2.110E-01	0.162
BA-133		53.15		7.407E-01	4.515E+00	7.402E+00	6.015E-01	0.100
		79.62		1.886E+00	1.589E+00	2.368E+00	3.613E-01	0.796
		81.00		-2.112E-01	1.326E-01	1.697E-01	2.710E-02	-1.245
		276.40		4.387E-01	4.585E-01	7.009E-01	1.035E-01	0.626
		302.84		-2.033E-02	1.813E-01	2.589E-01	3.517E-02	-0.079
		356.01	*	1.554E-02	5.364E-02	7.838E-02	1.034E-02	0.198
		383.85		-2.008E-01	3.580E-01	5.594E-01	6.885E-02	-0.359
I-133	+	510.53		2.071E+00	3.580E-01	Half-Life too short		
		529.87	*	-2.784E-03	3.580E-01	Half-Life too short		
		706.58		-2.927E-01	3.580E-01	Half-Life too short		
		856.28		-9.245E-01	3.580E-01	Half-Life too short		
		875.33		-9.744E-03	3.580E-01	Half-Life too short		
		1236.41		1.395E+00	3.580E-01	Half-Life too short		
		1298.22		3.132E-01	3.580E-01	Half-Life too short		
CS-134		475.35		-2.123E+00	2.131E+00	3.133E+00	2.634E-01	-0.678
		563.23		-1.903E-02	3.942E-01	6.600E-01	5.651E-02	-0.029
		569.32		-4.484E-03	2.233E-01	3.744E-01	3.217E-02	-0.012
		604.70		5.141E-03	3.829E-02	5.657E-02	4.767E-03	0.091
	+	795.84	*	2.684E-02	6.507E-02	9.479E-02	8.377E-03	0.283
		801.93		-5.825E-01	4.976E-01	7.110E-01	6.289E-02	-0.819
		1038.57		-1.991E+00	4.246E+00	6.504E+00	5.701E-01	-0.306
		1167.94		5.677E-01	2.710E+00	4.635E+00	3.767E-01	0.122
		1365.15		1.250E-01	1.213E+00	2.045E+00	1.833E-01	0.061
CS-135		268.24	*	5.559E-02	1.981E-01	2.927E-01	3.052E-02	0.190
I-135		288.45		-3.133E+09	1.981E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		417.63		9.833E+09	1.981E-01	Half-Life too short		
		546.56		1.385E+09	1.981E-01	Half-Life too short		
		836.80		5.720E+10	1.981E-01	Half-Life too short		
		1038.76		-1.171E+10	1.981E-01	Half-Life too short		
		1124.00		9.965E+10	1.981E-01	Half-Life too short		
		1131.51		-5.200E+09	1.981E-01	Half-Life too short		
		1260.41	*	4.990E+08	1.981E-01	Half-Life too short		
		1457.56		3.726E+11	1.981E-01	Half-Life too short		
		1678.03		-3.822E+09	1.981E-01	Half-Life too short		
		1706.46		4.802E+09	1.981E-01	Half-Life too short		
		1791.20		6.671E+09	1.981E-01	Half-Life too short		
CS-136		66.91		4.859E-02	1.013E+00	1.465E+00	2.203E-01	0.033
	+	86.29		3.343E+00	1.408E+00	2.247E+00	2.991E-01	1.488
		153.22		4.706E-01	6.983E-01	1.207E+00	1.152E-01	0.390
		163.89		3.220E-01	1.164E+00	1.982E+00	1.895E-01	0.162
		176.55		1.087E-01	4.031E-01	6.847E-01	6.234E-02	0.159
		273.65		-2.080E-01	5.666E-01	7.998E-01	7.747E-02	-0.260
		340.57		5.169E-01	1.873E-01	3.056E-01	2.758E-02	1.692
		818.51		3.889E-03	7.970E-02	1.316E-01	1.166E-02	0.030
		1048.07	*	2.164E-02	1.215E-01	2.001E-01	1.819E-02	0.108
		1235.34		-3.873E-01	7.340E-01	1.178E+00	1.367E-01	-0.329
CE-139		165.85	*	1.068E-02	3.225E-02	5.500E-02	4.684E-03	0.194
BA-140		162.64		3.503E-01	7.987E-01	1.369E+00	1.235E-01	0.256
		304.84		-2.876E-01	1.626E+00	2.306E+00	6.495E-01	-0.125
		423.70		5.708E-01	2.140E+00	3.507E+00	1.133E+00	0.163
		537.32	*	2.315E-02	2.938E-01	4.973E-01	1.646E-01	0.047
LA-140		328.77		3.223E-01	3.380E-01	5.788E-01	5.419E-02	0.557
		432.53		1.792E+00	2.263E+00	3.850E+00	3.349E-01	0.466
		487.03		-2.395E-02	1.510E-01	2.388E-01	2.144E-02	-0.100
		751.79		-1.217E+00	1.881E+00	2.924E+00	2.787E-01	-0.416
		815.85		-1.074E-03	3.399E-01	5.585E-01	5.481E-02	-0.002
		867.82		-8.288E-01	1.499E+00	2.312E+00	2.180E-01	-0.359
		919.63		1.806E-02	3.713E+00	5.239E+00	5.757E-01	0.003
		925.24		-6.670E-01	1.333E+00	2.063E+00	1.970E-01	-0.323
		1596.49	*	-2.232E-03	9.828E-02	1.609E-01	1.388E-02	-0.014
CE-141		145.44	*	4.711E-02	6.854E-02	1.186E-01	1.032E-02	0.397
CE-143		57.37		1.740E-04	6.854E-02	Half-Life too short		
		231.56		-1.547E-03	6.854E-02	Half-Life too short		
		293.26	*	3.252E-04	6.854E-02	Half-Life too short		
		350.59		2.275E-02	6.854E-02	Half-Life too short		
		490.36		1.018E-03	6.854E-02	Half-Life too short		
		664.57		5.698E-03	6.854E-02	Half-Life too short		
		721.93		5.432E-04	6.854E-02	Half-Life too short		
CE-144		80.11		8.283E-01	2.567E+00	3.736E+00	3.258E-01	0.222
		133.54	*	1.486E-01	2.304E-01	3.726E-01	5.800E-02	0.399
PM-144		476.78		-6.363E-02	7.578E-02	1.131E-01	1.045E-02	-0.563
		618.01		5.825E-03	3.653E-02	5.848E-02	5.036E-03	0.100
		696.49	*	-4.869E-03	3.457E-02	5.668E-02	4.743E-03	-0.086
		778.57		3.513E-01	2.395E+00	4.001E+00	3.487E-01	0.088

---- Non-Identified Nuclides ----

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PR-144		696.49	*	-3.300E-01	2.343E+00	3.841E+00	3.213E-01	-0.086
		1489.15		-2.807E+00	9.621E+00	1.489E+01	1.289E+00	-0.188
PM-146		453.90	*	3.619E-02	5.155E-02	8.669E-02	9.106E-03	0.417
		633.02		1.001E+00	1.549E+00	2.636E+00	9.834E-01	0.380
		735.90		7.217E-04	1.528E-01	2.530E-01	7.230E-02	0.003
		747.13		-2.430E-03	9.441E-02	1.557E-01	2.183E-02	-0.016
ND-147		91.11		1.655E+00	5.604E-01	7.000E-01	6.920E-02	2.364
		319.41		3.971E+00	3.651E+00	6.324E+00	5.674E-01	0.628
		439.89		7.020E+00	6.433E+00	1.114E+01	9.237E-01	0.630
		531.02	*	9.318E-02	6.140E-01	1.046E+00	1.555E-01	0.089
PM-149		285.90	*	4.760E+01	1.044E+02	1.758E+02	2.783E+01	0.271
EU-152		121.78		3.540E-03	8.073E-02	1.283E-01	1.293E-02	0.028
		244.69		3.723E-01	3.812E-01	5.902E-01	5.372E-02	0.631
		344.27	*	-6.141E-03	1.280E-01	1.823E-01	1.685E-02	-0.034
		443.98		-1.932E-01	1.114E+00	1.772E+00	1.473E-01	-0.109
		778.89		4.771E-03	2.754E-01	4.547E-01	3.962E-02	0.010
		867.32		-7.985E-01	9.173E-01	1.365E+00	1.227E-01	-0.585
		964.01		8.471E-01	3.441E-01	6.189E-01	5.552E-02	1.369
		1085.78		-2.175E-02	4.641E-01	7.447E-01	6.385E-02	-0.029
		1112.02		3.116E-01	3.702E-01	6.301E-01	5.322E-02	0.494
		1407.95		4.023E-02	2.130E-01	3.612E-01	3.111E-02	0.111
GD-153		69.67		-2.395E-01	2.099E+00	2.998E+00	2.404E-01	-0.080
		83.37		2.026E+01	1.895E+01	2.806E+01	2.527E+00	0.722
		97.43	*	-2.002E-02	1.026E-01	1.433E-01	1.273E-02	-0.140
		103.18		-1.120E-01	1.206E-01	1.844E-01	1.608E-02	-0.608
EU-154		123.07		2.947E-02	5.727E-02	9.273E-02	1.065E-02	0.318
		247.94		3.309E-02	3.842E-01	6.187E-01	7.332E-02	0.053
		591.81		-5.611E-01	6.820E-01	9.906E-01	1.143E-01	-0.566
		723.30		-5.510E-02	2.163E-01	3.013E-01	2.835E-02	-0.183
		756.87		3.629E-01	8.638E-01	1.474E+00	1.767E-01	0.246
		873.19		-1.217E-01	3.157E-01	4.953E-01	6.199E-02	-0.246
		996.32		5.805E-01	4.428E-01	7.232E-01	1.295E-01	0.803
		1004.76		1.576E-02	2.715E-01	3.832E-01	4.532E-02	0.041
		1274.45	*	3.813E-02	1.356E-01	2.325E-01	2.589E-02	0.164
EU-155		48.70		-3.245E+00	3.232E+00	5.038E+00	4.311E-01	-0.644
		60.01		2.809E-01	6.581E+00	9.553E+00	7.222E-01	0.029
	+	86.54		3.058E-01	1.255E-01	2.052E-01	1.928E-02	1.490
		105.31	*	3.807E-02	1.249E-01	2.015E-01	1.772E-02	0.189
TB-160	+	86.79		8.180E-01	3.356E-01	5.499E-01	5.135E-02	1.488
		197.04		-3.658E-01	6.061E-01	9.889E-01	8.693E-02	-0.370
		215.65		2.878E-01	8.380E-01	1.373E+00	1.227E-01	0.210
		298.57		1.930E-01	1.737E-01	2.070E-01	1.882E-02	0.932
		879.36	*	4.625E-02	1.493E-01	2.517E-01	2.269E-02	0.184
		962.29		-5.230E-01	6.529E-01	9.519E-01	8.542E-02	-0.549
		966.15		5.836E-01	2.777E-01	4.723E-01	4.235E-02	1.236
		1177.93		3.943E-01	3.958E-01	7.189E-01	5.829E-02	0.548
		1271.85		-4.392E-02	7.878E-01	1.308E+00	1.096E-01	-0.034
HO-166M		80.57		-1.304E-01	3.352E-01	4.712E-01	4.127E-02	-0.277
		184.41		1.429E-01	4.522E-02	7.404E-02	6.425E-03	1.930

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		280.46		-2.063E-02	9.282E-02	1.513E-01	1.383E-02	-0.136
		410.95		5.790E-01	2.912E-01	5.206E-01	4.246E-02	1.112
		711.68	*	3.420E-02	6.513E-02	1.125E-01	9.488E-03	0.304
		752.31		-2.969E-01	3.008E-01	4.512E-01	3.886E-02	-0.658
		810.29		-6.383E-02	6.562E-02	9.748E-02	8.602E-03	-0.655
TM-171		51.35		-1.002E+01	3.837E+01	6.185E+01	5.147E+00	-0.162
		52.39		-5.936E+00	1.994E+01	3.209E+01	2.634E+00	-0.185
		59.40		1.665E+00	3.606E+01	5.236E+01	3.947E+00	0.032
		66.72	*	-4.715E+00	3.683E+01	5.281E+01	4.159E+00	-0.089
LU-176	+	88.36		6.021E-01	2.470E-01	4.084E-01	3.852E-02	1.474
		201.83		-1.716E-02	3.045E-02	4.969E-02	4.389E-03	-0.345
		306.84	*	1.654E-02	2.786E-02	4.714E-02	4.266E-03	0.351
		401.10		3.199E+00	7.503E+00	1.248E+01	1.011E+00	0.256
LU-177		112.95		6.648E-01	1.913E+00	3.041E+00	2.637E-01	0.219
		208.36	*	1.725E+00	1.406E+00	2.188E+00	1.944E-01	0.788
LU-177M		52.97		3.362E-01	2.050E+00	3.361E+00	2.737E-01	0.100
		54.07		4.774E-01	1.088E+00	1.800E+00	1.445E-01	0.265
		61.30		9.786E-01	1.975E+00	2.925E+00	2.231E-01	0.335
		121.62		-2.268E-01	4.271E-01	6.608E-01	5.804E-02	-0.343
		147.16		-7.117E-02	7.181E-01	1.212E+00	1.034E-01	-0.059
		171.86		-7.534E-02	5.135E-01	8.593E-01	7.360E-02	-0.088
		218.09		4.526E-01	9.179E-01	1.561E+00	1.399E-01	0.290
		268.79		1.177E+00	1.023E+00	1.585E+00	1.450E-01	0.742
		319.02		2.524E-01	2.811E-01	4.827E-01	4.331E-02	0.523
		367.43		3.536E-01	9.839E-01	1.637E+00	1.382E-01	0.216
		413.65	*	-3.360E-01	2.222E-01	3.219E-01	2.630E-02	-1.044
HF-181		56.28		-1.513E-01	1.211E+00	1.960E+00	1.528E-01	-0.077
		57.53		1.127E-01	6.410E-01	1.049E+00	8.059E-02	0.107
		65.20		1.070E+00	1.288E+00	1.925E+00	1.503E-01	0.556
		133.02		3.249E-02	7.593E-02	1.221E-01	1.053E-02	0.266
		136.25		-4.241E-01	4.977E-01	8.172E-01	7.022E-02	-0.519
		345.85		-1.280E-01	3.169E-01	3.635E-01	3.170E-02	-0.352
		482.03	*	-1.808E-02	4.521E-02	6.999E-02	5.898E-03	-0.258
W-181		56.28		-5.902E-02	4.730E-01	7.656E-01	5.971E-02	-0.077
		57.53		4.384E-02	2.506E-01	4.100E-01	3.151E-02	0.107
		65.20	*	4.150E-01	4.997E-01	7.468E-01	5.830E-02	0.556
TA-182		67.75		-7.187E-03	1.429E-01	2.056E-01	1.629E-02	-0.035
		100.10		-2.681E-02	2.011E-01	3.195E-01	2.809E-02	-0.084
		152.43		1.867E-01	3.569E-01	6.143E-01	5.234E-02	0.304
		222.10		-3.076E-01	3.687E-01	5.895E-01	5.297E-02	-0.522
	+	1001.68		3.638E+00	3.224E+00	4.247E+00	3.771E-01	0.857
	+	1121.28		7.691E-01	2.792E-01	4.141E-01	3.477E-02	1.857
		1189.05		1.215E-01	3.463E-01	5.980E-01	4.870E-02	0.203
		1221.42	*	-2.139E-02	2.315E-01	3.847E-01	3.171E-02	-0.056
		1230.97		-4.303E-01	5.481E-01	8.551E-01	7.071E-02	-0.503
RE-183		57.98		1.169E-01	2.601E-01	4.100E-01	3.136E-02	0.285
		59.32		5.739E-03	1.486E-01	2.158E-01	1.628E-02	0.027
		67.20		1.458E-02	2.576E-01	3.725E-01	2.942E-02	0.039
		162.32	*	4.302E-02	1.155E-01	1.974E-01	1.681E-02	0.218

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		3.007E+00	1.457E+00	1.951E+00	1.734E-01	1.542
		291.72		-5.110E-01	1.145E+00	1.595E+00	1.454E-01	-0.320
RE-184		57.98		4.304E-01	9.574E-01	1.509E+00	1.154E-01	0.285
		59.32		2.111E-02	5.467E-01	7.937E-01	5.986E-02	0.027
		67.20		5.367E-02	9.479E-01	1.371E+00	1.083E-01	0.039
		161.27		-1.991E-01	3.765E-01	6.220E-01	5.295E-02	-0.320
		216.55		-4.787E-03	2.939E-01	4.899E-01	4.383E-02	-0.010
		252.85	*	-8.196E-03	2.430E-01	4.018E-01	3.668E-02	-0.020
		318.01		1.745E-01	4.876E-01	8.152E-01	7.321E-02	0.214
		792.07		8.859E-02	1.154E+00	1.664E+00	1.458E-01	0.053
		903.28		6.060E-01	1.223E+00	1.845E+00	1.671E-01	0.328
		920.93		2.020E-01	5.567E-01	8.892E-01	8.036E-02	0.227
OS-185		59.72		-6.230E-02	3.994E-01	5.741E-01	4.330E-02	-0.109
		61.14		6.594E-02	2.165E-01	3.180E-01	2.423E-02	0.207
		69.30		-9.675E-02	3.774E-01	5.353E-01	4.284E-02	-0.181
		592.07		-2.409E+00	2.676E+00	4.011E+00	3.383E-01	-0.601
		646.12	*	9.806E-03	4.294E-02	7.296E-02	6.028E-03	0.134
		717.42		3.719E-02	9.613E-01	1.598E+00	1.352E-01	0.023
		874.81		1.062E-01	5.969E-01	9.949E-01	8.961E-02	0.107
		880.27		-9.255E-03	8.475E-01	1.385E+00	1.249E-01	-0.007
RE-188		155.03	*	-6.008E-02	1.766E-01	2.945E-01	2.508E-02	-0.204
		477.96		3.265E+00	3.356E+00	5.765E+00	4.852E-01	0.566
		633.10		2.360E+00	3.020E+00	5.332E+00	4.433E-01	0.443
W-188	+	63.58		2.099E+02	9.854E+01	1.252E+02	9.686E+00	1.676
		227.08		2.224E+00	1.397E+01	2.342E+01	2.112E+00	0.095
		290.67	*	-2.801E+00	9.047E+00	1.275E+01	1.163E+00	-0.220
IR-192	+	295.96		1.191E+00	2.441E-01	3.184E-01	2.917E-02	3.740
		308.46		6.072E-02	1.077E-01	1.819E-01	1.653E-02	0.334
		316.51	*	-3.392E-02	3.713E-02	5.728E-02	5.161E-03	-0.592
		468.07		-4.123E-02	8.281E-02	1.095E-01	9.879E-03	-0.377
		604.41		3.212E-01	5.014E-01	7.793E-01	1.004E-01	0.412
		612.46		2.909E+00	1.045E+00	1.799E+00	1.744E-01	1.617
AU-195		65.12		2.398E-01	2.332E-01	3.509E-01	2.738E-02	0.683
		66.83		4.922E-03	1.208E-01	1.745E-01	1.376E-02	0.028
	+	75.70		1.176E+00	3.300E-01	4.812E-01	4.035E-02	2.444
		98.88	*	2.475E-01	2.573E-01	4.205E-01	3.713E-02	0.589
		129.76		3.833E+00	3.213E+00	5.311E+00	4.601E-01	0.722
TL-200		367.94	*	2.522E-04	3.213E+00	Half-Life too short		
		579.30		2.355E-04	3.213E+00	Half-Life too short		
		828.27		1.040E-03	3.213E+00	Half-Life too short		
		1205.75		-1.009E-04	3.213E+00	Half-Life too short		
TL-201		68.90		-2.429E+00	5.949E+00	8.949E+00	7.142E-01	-0.271
		70.82		-8.965E-01	3.471E+00	4.917E+00	3.974E-01	-0.182
		80.30		-1.825E+00	6.471E+00	9.149E+00	7.992E-01	-0.200
		135.34		3.491E+00	3.016E+01	4.788E+01	4.118E+00	0.073
		167.43	*	8.492E-01	7.879E+00	1.333E+01	1.137E+00	0.064
TL-202		68.90		-2.120E-01	5.194E-01	7.813E-01	6.236E-02	-0.271
		70.82		-7.805E-02	3.022E-01	4.281E-01	3.460E-02	-0.182
		80.30		-1.590E-01	5.636E-01	7.968E-01	6.961E-02	-0.200

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	6.375E-02	7.693E-02	1.310E-01	1.086E-02	0.487
HG-203		70.83		-3.338E-01	1.300E+00	1.842E+00	2.445E-01	-0.181
		72.87		1.389E+00	7.747E-01	1.173E+00	1.517E-01	1.184
		82.60		2.934E-01	1.322E+00	2.040E+00	2.844E-01	0.144
		279.20	*	5.511E-02	4.530E-02	7.866E-02	7.375E-03	0.701
BI-207		72.80		3.588E-01	2.213E-01	3.388E-01	2.778E-02	1.059
	+	74.97		6.518E-01	1.829E-01	2.417E-01	2.015E-02	2.697
		84.90		5.097E-01	2.391E-01	3.650E-01	3.340E-02	1.396
		569.67		-5.094E-03	3.466E-02	5.761E-02	4.880E-03	-0.088
		1063.62	*	2.406E-02	5.540E-02	9.368E-02	8.121E-03	0.257
		1770.23		2.031E-01	4.216E-01	6.941E-01	5.813E-02	0.293
TL-207		81.07		-4.683E-01	2.857E-01	3.740E-01	3.292E-02	-1.252
		83.78		1.109E-01	1.651E-01	2.408E-01	2.178E-02	0.461
		94.90		1.009E+00	3.108E-01	4.884E-01	4.391E-02	2.067
		122.32		6.977E-01	1.897E+00	3.058E+00	2.877E-01	0.228
		144.24		-8.562E-02	7.605E-01	1.269E+00	1.215E-01	-0.067
		154.21		1.646E-01	4.136E-01	7.087E-01	6.652E-02	0.232
		269.46		3.610E-01	2.511E-01	3.928E-01	3.660E-02	0.919
		323.87	*	-5.608E-01	7.394E-01	1.146E+00	2.047E-01	-0.489
	+	338.28		7.106E+00	2.228E+00	2.654E+00	3.302E-01	2.677
		445.03		1.708E+00	2.625E+00	4.406E+00	5.231E-01	0.388
PO-209		260.50		2.797E+00	1.085E+01	1.817E+01	1.661E+00	0.154
		262.80		-1.312E+01	2.971E+01	4.802E+01	4.392E+00	-0.273
		896.60	*	-3.797E+00	8.569E+00	1.339E+01	1.212E+00	-0.284
BI-210		46.50	*	6.596E-01	4.922E+00	7.956E+00	7.510E-01	0.083
PB-210		46.50	*	6.596E-01	4.922E+00	7.956E+00	7.510E-01	0.083
PO-210		46.50	*	6.596E-01	4.922E+00	7.956E+00	6.820E-01	0.083
PB-211		404.84	*	5.929E-01	1.095E+00	1.731E+00	1.084E+00	0.343
		427.08		-8.579E-01	2.379E+00	3.643E+00	2.262E+00	-0.236
		831.96		-8.555E-01	1.462E+00	2.104E+00	1.319E+00	-0.407
BI-212	+	727.18	*	1.060E+00	4.949E-01	6.779E-01	6.718E-02	1.563
		785.46		1.395E+00	1.906E+00	3.328E+00	2.908E-01	0.419
		1620.62		3.519E-01	1.532E+00	2.598E+00	2.236E-01	0.135
PO-215		81.07		-4.683E-01	2.857E-01	3.740E-01	3.292E-02	-1.252
		83.78		1.109E-01	1.651E-01	2.408E-01	2.178E-02	0.461
		94.90		1.009E+00	3.108E-01	4.884E-01	4.391E-02	2.067
		122.32		6.977E-01	1.897E+00	3.058E+00	2.877E-01	0.228
		144.24		-8.562E-02	7.605E-01	1.269E+00	1.215E-01	-0.067
		154.21		1.646E-01	4.136E-01	7.087E-01	6.652E-02	0.232
		269.46		3.610E-01	2.511E-01	3.928E-01	3.660E-02	0.919
		323.87	*	-5.608E-01	7.394E-01	1.146E+00	2.047E-01	-0.489
	+	338.28		7.106E+00	2.228E+00	2.654E+00	3.302E-01	2.677
		445.03		1.708E+00	2.625E+00	4.406E+00	5.231E-01	0.388
RN-219	+	271.23		7.711E-01	3.959E-01	5.154E-01	5.546E-02	1.496
		401.81	*	-1.271E-01	4.679E-01	7.435E-01	1.096E-01	-0.171
RN-220		549.76	*	-2.798E+00	2.744E+01	4.582E+01	3.889E+00	-0.061
RA-223		81.07		-4.683E-01	2.857E-01	3.740E-01	3.292E-02	-1.252
		83.78		1.109E-01	1.651E-01	2.408E-01	2.178E-02	0.461
		94.90		1.009E+00	3.108E-01	4.884E-01	4.391E-02	2.067

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		6.977E-01	1.897E+00	3.058E+00	2.877E-01	0.228
		144.24		-8.562E-02	7.605E-01	1.269E+00	1.215E-01	-0.067
		154.21		1.646E-01	4.136E-01	7.087E-01	6.652E-02	0.232
		269.46		3.610E-01	2.511E-01	3.928E-01	3.660E-02	0.919
		323.87	*	-5.608E-01	7.394E-01	1.146E+00	2.047E-01	-0.489
	+	338.28		7.106E+00	2.228E+00	2.654E+00	3.302E-01	2.677
		445.03		1.708E+00	2.625E+00	4.406E+00	5.231E-01	0.388
AC-227		79.80		1.269E+00	2.025E+00	2.963E+00	6.381E-01	0.428
		236.00		1.410E-01	2.779E-01	4.173E-01	5.242E-02	0.338
		256.20	*	-1.333E-02	4.180E-01	6.909E-01	1.081E-01	-0.019
		286.10		7.941E-01	1.659E+00	2.796E+00	3.787E-01	0.284
	+	299.80		2.517E+00	1.891E+00	2.781E+00	4.928E-01	0.905
		304.40		-4.744E-01	2.397E+00	3.399E+00	6.338E-01	-0.140
		334.20		-1.726E+00	3.009E+00	4.087E+00	7.975E-01	-0.422
TH-227		79.80		1.269E+00	2.026E+00	2.963E+00	6.463E-01	0.428
	+	94.00		2.388E+01	6.745E+00	5.373E+00	1.179E+00	4.445
		236.00		1.410E-01	2.778E-01	4.173E-01	4.768E-02	0.338
		256.20	*	-1.333E-02	4.180E-01	6.909E-01	1.265E-01	-0.019
		286.10		7.941E-01	1.837E+00	2.796E+00	2.808E+00	0.284
	+	299.80		2.517E+00	1.891E+00	2.781E+00	4.928E-01	0.905
		304.40		-4.744E-01	2.397E+00	3.399E+00	6.338E-01	-0.140
		334.20		-1.726E+00	3.009E+00	4.087E+00	7.975E-01	-0.422
TH-229		85.43		5.202E-01	2.416E-01	3.681E-01	3.387E-02	1.413
	+	88.47		3.466E-01	1.422E-01	2.357E-01	2.221E-02	1.470
		100.00		-1.148E-02	2.094E-01	3.339E-01	2.937E-02	-0.034
		193.63	*	2.767E-01	5.508E-01	9.403E-01	8.238E-02	0.294
	+	210.97		2.351E+00	1.139E+00	1.482E+00	1.320E-01	1.586
PA-231		283.67	*	-5.489E-01	1.649E+00	2.664E+00	4.125E-01	-0.206
	+	301.29		1.007E+00	7.459E-01	1.128E+00	1.418E-01	0.892
TH-231		81.07		-4.683E-01	2.857E-01	3.740E-01	3.292E-02	-1.252
		83.78		1.109E-01	1.651E-01	2.408E-01	2.178E-02	0.461
		94.90		1.009E+00	3.108E-01	4.884E-01	4.391E-02	2.067
		122.32		6.977E-01	1.897E+00	3.058E+00	2.877E-01	0.228
		144.24		-8.562E-02	7.605E-01	1.269E+00	1.215E-01	-0.067
		154.21		1.646E-01	4.136E-01	7.087E-01	6.652E-02	0.232
		269.46		3.610E-01	2.511E-01	3.928E-01	3.660E-02	0.919
		323.87	*	-5.608E-01	7.394E-01	1.146E+00	2.047E-01	-0.489
	+	338.28		7.106E+00	2.228E+00	2.654E+00	3.302E-01	2.677
		445.03		1.708E+00	2.625E+00	4.406E+00	5.231E-01	0.388
U-231		84.21		7.502E+00	7.176E+00	1.061E+01	9.639E-01	0.707
	+	92.29		2.427E+01	4.840E+00	6.072E+00	5.548E-01	3.997
		95.87	*	5.807E-02	1.389E+00	1.982E+00	1.773E-01	0.029
		108.00		-1.541E+00	2.438E+00	3.777E+00	3.275E-01	-0.408
PA-233	+	75.28		1.902E+01	5.858E+00	7.280E+00	1.107E+00	2.613
	+	86.59		4.970E+00	2.398E+00	3.337E+00	9.028E-01	1.489
	+	300.12		7.017E-01	5.233E-01	7.700E-01	1.166E-01	0.911
		311.98	*	-1.924E-02	6.807E-02	1.097E-01	1.016E-02	-0.175
		340.50		2.635E+00	1.080E+00	1.489E+00	3.557E-01	1.770
		398.62		-8.339E-02	2.400E+00	3.878E+00	1.026E+00	-0.022

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-1.461E+00	2.103E+00	3.029E+00	6.476E-01	-0.482
PA-234	+	63.00		6.077E+00	2.958E+00	3.706E+00	5.564E-01	1.640
		94.67		1.045E+00	2.585E-01	3.793E-01	4.807E-02	2.754
		98.44		1.269E-01	1.288E-01	1.706E-01	9.526E-02	0.744
		99.86		-2.998E-02	5.422E-01	8.540E-01	7.515E-02	-0.035
		111.00		-9.435E-02	2.111E-01	3.293E-01	3.991E-02	-0.287
		131.20		-1.148E-01	1.269E-01	1.925E-01	1.664E-02	-0.597
		152.70		2.705E-01	3.407E-01	5.875E-01	9.984E-02	0.460
	+	186.00		6.591E+00	3.156E+00	3.064E+00	9.569E-01	2.151
		226.40		1.565E-01	4.412E-01	7.449E-01	1.003E-01	0.210
		227.20		9.789E-02	4.723E-01	7.931E-01	7.152E-02	0.123
		248.90		-2.865E-02	8.367E-01	1.385E+00	3.131E-01	-0.021
		293.70		3.420E+00	1.098E+00	1.611E+00	2.827E-01	2.123
		369.80		1.922E-01	9.832E-01	1.617E+00	3.508E-01	0.119
		568.70		2.475E-01	1.124E+00	1.916E+00	1.623E-01	0.129
		569.50		-2.981E-02	3.087E-01	5.149E-01	4.362E-02	-0.058
		574.00		-1.024E-01	1.616E+00	2.700E+00	2.285E-01	-0.038
		699.00		-4.963E-01	7.818E-01	1.222E+00	2.317E-01	-0.406
		706.10		-5.312E-01	1.260E+00	1.988E+00	8.856E-01	-0.267
		733.00		-3.042E-01	4.528E-01	5.843E-01	1.295E-01	-0.521
		742.81		2.376E-01	1.403E+00	2.340E+00	1.573E+00	0.102
	+	796.30		5.216E-01	1.271E+00	1.853E+00	5.021E-01	0.282
		805.60		9.942E-01	1.195E+00	2.036E+00	6.250E-01	0.488
		819.60		4.154E-01	1.357E+00	2.278E+00	8.676E-01	0.182
		826.30		-7.747E-01	9.721E-01	1.368E+00	6.127E-01	-0.566
		831.60		-2.747E-01	6.902E-01	1.083E+00	3.242E-01	-0.254
		876.40		-6.098E-01	1.100E+00	1.375E+00	1.414E+00	-0.443
		880.51		9.634E-02	3.008E-01	5.076E-01	4.579E-02	0.190
		883.24		7.978E-02	3.137E-01	5.184E-01	3.488E-01	0.154
		899.00		-5.781E-01	9.545E-01	1.407E+00	6.162E-01	-0.411
		925.00		-5.335E-01	1.385E+00	2.172E+00	1.962E-01	-0.246
		926.50		8.938E-02	1.987E-01	3.360E-01	8.541E-02	0.266
		946.00	*	-9.341E-02	3.265E-01	5.148E-01	9.751E-02	-0.181
		949.00		-3.560E-01	5.200E-01	7.870E-01	7.081E-02	-0.452
		980.50		-1.686E-01	7.865E-01	1.247E+00	1.114E-01	-0.135
		1394.10		-5.059E-01	1.149E+00	1.690E+00	1.100E+00	-0.299
PA-234M		766.42		2.162E+01	1.700E+01	2.401E+01	1.218E+01	0.901
	+	1001.03	*	8.252E+00	7.325E+00	9.683E+00	9.870E-01	0.852
U-235		89.95		-1.477E+00	2.038E+00	2.118E+00	6.577E-01	-0.697
	+	93.35		7.430E+00	2.474E+00	1.835E+00	5.169E-01	4.049
		105.00		1.181E+00	1.245E+00	1.981E+00	5.917E-01	0.596
		143.76	*	-9.282E-02	2.343E-01	3.861E-01	6.746E-02	-0.240
		163.35		1.893E-01	5.060E-01	8.631E-01	1.643E-01	0.219
	+	185.71		2.441E-01	9.112E-02	1.134E-01	9.852E-03	2.153
		205.31		1.564E-01	6.138E-01	9.158E-01	1.757E-01	0.171
NP-236		94.67		7.979E-01	1.833E-01	2.882E-01	2.595E-02	2.769
		98.44		9.594E-02	8.175E-02	1.290E-01	1.141E-02	0.744
		111.00		-7.137E-02	1.596E-01	2.491E-01	2.158E-02	-0.287
		160.31	*	-4.463E-02	8.234E-02	1.359E-01	1.157E-02	-0.328

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		9.864E-02	1.799E-01	2.900E-01	2.554E-02	0.340
		117.00	*	6.730E-02	2.116E-01	3.407E-01	2.967E-02	0.198
	+	209.75		2.368E+00	1.147E+00	1.545E+00	1.374E-01	1.533
		228.18		6.641E-02	2.474E-01	4.164E-01	3.757E-02	0.160
		277.60		2.852E-01	2.050E-01	3.483E-01	3.186E-02	0.819
		334.30		-1.026E+00	1.695E+00	2.307E+00	2.040E-01	-0.445
AM-241		59.54	*	-2.807E-02	2.109E-01	3.035E-01	2.501E-02	-0.092
CM-243		99.55		1.015E-01	1.852E-01	2.984E-01	2.629E-02	0.340
		103.76	*	1.098E-01	1.088E-01	1.800E-01	1.569E-02	0.610
		117.00		6.924E-02	2.177E-01	3.505E-01	3.053E-02	0.198
	+	209.75		2.335E+00	1.131E+00	1.523E+00	1.355E-01	1.533
		228.18		6.711E-02	2.500E-01	4.207E-01	3.796E-02	0.160
		277.60		2.876E-01	2.067E-01	3.512E-01	3.212E-02	0.819
AM-246		798.80		-1.226E-01	1.838E-01	2.393E-01	2.102E-02	-0.512
		1036.00		-9.592E-02	3.270E-01	5.117E-01	4.489E-02	-0.187
		1062.04		5.573E-02	2.367E-01	3.924E-01	3.404E-02	0.142
		1078.86	*	-7.887E-02	1.603E-01	2.445E-01	2.103E-02	-0.323
CM-247		278.00		1.134E+00	8.290E-01	1.447E+00	1.323E-01	0.784
		287.40		4.490E-01	1.332E+00	2.232E+00	2.037E-01	0.201
		402.60	*	-2.208E-02	4.271E-02	6.675E-02	5.413E-03	-0.331
CF-249		252.85		-3.073E-02	9.110E-01	1.507E+00	1.375E-01	-0.020
		333.44		-3.190E-03	2.177E-01	3.114E-01	2.757E-02	-0.010
		387.95	*	1.025E-03	4.713E-02	7.656E-02	6.210E-03	0.013
CF-251		176.60	*	3.742E-02	1.378E-01	2.340E-01	2.014E-02	0.160
		227.00		-2.585E-02	4.225E-01	7.013E-01	6.323E-02	-0.037
		285.00		-5.560E-01	1.894E+00	3.071E+00	2.805E-01	-0.181

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799013       *
* Acquisition date : 10-FEB-2010 18:58:22 Detector SN#    :                 *
* Detector ID       : GAM01               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.25     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799013           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.3774E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.689E+01	2.963E+00	4.981E-01	0.000E+00
CD-109	2.583E+00	1.039E+00	1.668E+00	0.000E+00
SN-126	2.539E-01	1.021E-01	1.690E-01	0.000E+00
BA-137M	4.575E-01	8.784E-02	6.345E-02	0.000E+00
CS-137	4.836E-01	9.289E-02	6.707E-02	0.000E+00
TL-208	5.990E-01	9.611E-02	6.819E-02	0.000E+00
BI-211	3.529E+00	6.280E-01	3.952E-01	0.000E+00
PB-212	1.594E+00	1.979E-01	9.929E-02	0.000E+00
PO-212	1.594E+00	1.979E-01	9.929E-02	0.000E+00
BI-214	1.322E+00	2.145E-01	1.225E-01	0.000E+00
PB-214	1.228E+00	2.273E-01	1.378E-01	0.000E+00
PO-214	1.228E+00	2.273E-01	1.378E-01	0.000E+00
PO-216	1.594E+00	1.979E-01	9.929E-02	0.000E+00
PO-218	1.228E+00	2.273E-01	1.378E-01	0.000E+00
RA-224	5.125E+00	1.258E+00	1.130E+00	0.000E+00
RA-226	1.322E+00	2.145E-01	1.225E-01	0.000E+00
AC-228	1.638E+00	4.212E-01	2.324E-01	0.000E+00
RA-228	1.638E+00	4.212E-01	2.324E-01	0.000E+00
TH-228	1.619E+00	2.009E-01	1.008E-01	0.000E+00
TH-230	1.322E+00	2.145E-01	1.225E-01	0.000E+00
TH-232	1.638E+00	4.212E-01	2.324E-01	0.000E+00
TH-234	5.213E+00	2.531E+00	2.591E+00	0.000E+00
U-234	1.322E+00	2.145E-01	1.225E-01	0.000E+00
NP-237	7.455E-01	3.355E-01	4.886E-01	0.000E+00
U-238	5.213E+00	2.531E+00	2.591E+00	0.000E+00
AM-243	3.631E-01	9.986E-02	1.041E-01	0.000E+00
ANH-511	1.771E-01	7.627E-02	5.067E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	3.001E-01	3.319E-01	5.945E-01	0.000E+00	NOT IDENT.
NA-22	1.511E-02	4.722E-02	8.340E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.264E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-8.311E-04	2.858E-02	4.708E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.814E-02	9.192E-02	0.000E+00	FAIL ABUN
SC-46	-1.247E-02	4.387E-02	7.211E-02	0.000E+00	FAIL ABUN
V-48	-7.426E-02	7.565E-02	1.124E-01	0.000E+00	NOT IDENT.
CR-51	2.894E-01	4.037E-01	7.238E-01	0.000E+00	NOT IDENT.
MN-52	1.525E-01	2.141E-01	4.029E-01	0.000E+00	NOT IDENT.
MN-54	2.474E-02	4.684E-02	7.320E-02	0.000E+00	NOT IDENT.
CO-56	2.379E-03	4.256E-02	7.068E-02	0.000E+00	NOT IDENT.
CO-57	-6.073E-04	2.721E-02	4.629E-02	0.000E+00	NOT IDENT.
CO-58	-3.595E-02	4.227E-02	6.604E-02	0.000E+00	NOT IDENT.
FE-59	-3.668E-02	1.068E-01	1.709E-01	0.000E+00	NOT IDENT.
CO-60	-6.960E-03	4.335E-02	7.263E-02	0.000E+00	NOT IDENT.
ZN-65	-5.134E-02	1.187E-01	1.590E-01	0.000E+00	NOT IDENT.
GE-68	-1.536E+00	1.373E+00	1.986E+00	0.000E+00	NOT IDENT.
AS-73	-2.307E-01	1.039E+00	1.828E+00	0.000E+00	NOT IDENT.
AS-74	3.145E-02	8.890E-02	1.594E-01	0.000E+00	NOT IDENT.
SE-75	-4.130E-02	4.826E-02	8.063E-02	0.000E+00	NOT IDENT.
BR-77	-1.875E+00	1.292E+01	2.050E+01	0.000E+00	FAIL ABUN
SR-82	-1.346E-01	3.846E-01	6.357E-01	0.000E+00	NOT IDENT.
RB-83	-1.453E-02	8.111E-02	1.283E-01	0.000E+00	NOT IDENT.
RB-84	6.664E-02	7.281E-02	1.336E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.833E+00	1.680E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.537E-02	8.627E-02	0.000E+00	NOT IDENT.
RB-86	-4.845E-01	8.335E-01	1.292E+00	0.000E+00	NOT IDENT.
Y-88	-1.143E-02	3.663E-02	5.661E-02	0.000E+00	NOT IDENT.
ZR-88	3.830E-02	3.547E-02	6.408E-02	0.000E+00	NOT IDENT.
Y-91	-2.292E+00	2.114E+01	3.608E+01	0.000E+00	NOT IDENT.
NB-94	1.962E-02	3.779E-02	6.749E-02	0.000E+00	NOT IDENT.
NB-95	-2.801E-03	4.934E-02	8.407E-02	0.000E+00	NOT IDENT.
NB-95M	6.232E-02	1.452E-01	2.306E-01	0.000E+00	NOT IDENT.
ZR-95	6.786E-02	7.595E-02	1.391E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.307E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.477E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.418E+00	1.267E+01	2.235E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.652E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.608E-03	3.544E-02	6.224E-02	0.000E+00	NOT IDENT.
RH-102	-2.222E-02	3.187E-02	5.051E-02	0.000E+00	NOT IDENT.
RU-103	-1.894E-02	4.574E-02	7.393E-02	0.000E+00	FAIL ABUN
RH-106	3.226E-01	3.305E-01	6.123E-01	0.000E+00	FAIL ABUN
RU-106	3.226E-01	3.289E-01	6.123E-01	0.000E+00	FAIL ABUN
AG-108M	-1.487E-02	3.476E-02	5.687E-02	0.000E+00	NOT IDENT.
AG-110M	5.367E-03	3.943E-02	6.029E-02	0.000E+00	NOT IDENT.
IN-111	5.669E-01	1.201E+00	1.916E+00	0.000E+00	NOT IDENT.
IN-113M	2.245E-02	5.359E-02	9.346E-02	0.000E+00	NOT IDENT.
SN-113	2.245E-02	5.359E-02	9.346E-02	0.000E+00	NOT IDENT.
IN-114M	-1.689E-01	2.223E-01	3.345E-01	0.000E+00	NOT IDENT.
CD-115	-3.924E+00	1.237E+01	2.132E+01	0.000E+00	NOT IDENT.
SN-117M	-1.604E-02	5.513E-02	9.833E-02	0.000E+00	NOT IDENT.
SB-122	1.306E+00	2.309E+00	4.196E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.153E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.319E-04	2.839E-02	5.119E-02	0.000E+00	NOT IDENT.
I-124	-4.074E-01	7.235E-01	1.131E+00	0.000E+00	NOT IDENT.
SB-124	3.145E-02	6.948E-02	1.270E-01	0.000E+00	FAIL ABUN
SB-125	-3.922E-02	1.005E-01	1.652E-01	0.000E+00	FAIL ABUN
TE-125M	3.094E-01	1.040E+01	1.784E+01	0.000E+00	NOT IDENT.
I-126	-7.410E-02	2.282E-01	3.307E-01	0.000E+00	NOT IDENT.
SB-126	2.590E-02	1.806E-01	2.739E-01	0.000E+00	FAIL ABUN
SB-127	-1.116E+00	1.435E+00	2.302E+00	0.000E+00	NOT IDENT.
XE-127	-6.168E-02	4.948E-02	8.301E-02	0.000E+00	NOT IDENT.
I-131	-3.203E-02	1.191E-01	2.002E-01	0.000E+00	NOT IDENT.
TE-132	2.143E-01	7.697E-01	1.374E+00	0.000E+00	NOT IDENT.
BA-133	1.554E-02	5.257E-02	8.084E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.374E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.684E-02	6.377E-02	9.624E-02	0.000E+00	FAIL ABUN
CS-135	5.559E-02	1.941E-01	3.035E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.748E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.164E-02	1.191E-01	2.021E-01	0.000E+00	FAIL ABUN
CE-139	1.068E-02	3.160E-02	5.755E-02	0.000E+00	NOT IDENT.
BA-140	2.315E-02	2.879E-01	5.088E-01	0.000E+00	NOT IDENT.
LA-140	-2.232E-03	9.632E-02	1.611E-01	0.000E+00	NOT IDENT.
CE-141	4.711E-02	6.717E-02	1.244E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.919E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.486E-01	2.258E-01	3.915E-01	0.000E+00	NOT IDENT.
PM-144	-4.869E-03	3.388E-02	5.770E-02	0.000E+00	NOT IDENT.
PR-144	-3.300E-01	2.296E+00	3.910E+00	0.000E+00	NOT IDENT.

PM-146	3.619E-02	5.052E-02	8.899E-02	0.000E+00	NOT IDENT.
ND-147	9.318E-02	6.018E-01	1.070E+00	0.000E+00	NOT IDENT.
PM-149	4.760E+01	1.023E+02	1.820E+02	0.000E+00	NOT IDENT.
EU-152	-6.141E-03	1.254E-01	1.881E-01	0.000E+00	NOT IDENT.
GD-153	-2.002E-02	1.005E-01	1.515E-01	0.000E+00	NOT IDENT.
EU-154	3.813E-02	1.329E-01	2.339E-01	0.000E+00	NOT IDENT.
EU-155	3.807E-02	1.224E-01	2.126E-01	0.000E+00	FAIL ABUN
TB-160	4.625E-02	1.463E-01	2.550E-01	0.000E+00	FAIL ABUN
HO-166M	3.420E-02	6.383E-02	1.144E-01	0.000E+00	NOT IDENT.
TM-171	-4.715E+00	3.609E+01	5.619E+01	0.000E+00	NOT IDENT.
LU-176	1.654E-02	2.730E-02	4.875E-02	0.000E+00	FAIL ABUN
LU-177	1.725E+00	1.378E+00	2.280E+00	0.000E+00	NOT IDENT.
LU-177M	-3.360E-01	2.177E-01	3.310E-01	0.000E+00	NOT IDENT.
HF-181	-1.808E-02	4.430E-02	7.177E-02	0.000E+00	NOT IDENT.
W-181	4.150E-01	4.897E-01	7.949E-01	0.000E+00	NOT IDENT.
TA-182	-2.139E-02	2.269E-01	3.873E-01	0.000E+00	FAIL ABUN
RE-183	4.302E-02	1.132E-01	2.067E-01	0.000E+00	FAIL ABUN
RE-184	-8.196E-03	2.381E-01	4.172E-01	0.000E+00	NOT IDENT.
OS-185	9.806E-03	4.208E-02	7.438E-02	0.000E+00	NOT IDENT.
RE-188	-6.008E-02	1.731E-01	3.086E-01	0.000E+00	NOT IDENT.
W-188	-2.801E+00	8.866E+00	1.321E+01	0.000E+00	FAIL ABUN
IR-192	-3.392E-02	3.639E-02	5.921E-02	0.000E+00	FAIL ABUN
AU-195	2.475E-01	2.522E-01	4.443E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.502E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	8.492E-01	7.721E+00	1.395E+01	0.000E+00	NOT IDENT.
TL-202	6.375E-02	7.539E-02	1.346E-01	0.000E+00	NOT IDENT.
HG-203	5.511E-02	4.439E-02	8.150E-02	0.000E+00	NOT IDENT.
BI-207	2.406E-02	5.429E-02	9.457E-02	0.000E+00	FAIL ABUN
TL-207	-5.608E-01	7.246E-01	1.185E+00	0.000E+00	FAIL ABUN
PO-209	-3.797E+00	8.398E+00	1.356E+01	0.000E+00	NOT IDENT.
BI-210	6.596E-01	4.824E+00	8.520E+00	0.000E+00	NOT IDENT.
PB-210	6.596E-01	4.824E+00	8.520E+00	0.000E+00	NOT IDENT.
PO-210	6.596E-01	4.824E+00	8.520E+00	0.000E+00	NOT IDENT.
PB-211	5.929E-01	1.073E+00	1.781E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.850E-01	6.895E-01	0.000E+00	FAIL ABUN
PO-215	-5.608E-01	7.246E-01	1.185E+00	0.000E+00	FAIL ABUN
RN-219	-1.271E-01	4.586E-01	7.651E-01	0.000E+00	FAIL ABUN
RN-220	-2.798E+00	2.689E+01	4.687E+01	0.000E+00	NOT IDENT.
RA-223	-5.608E-01	7.246E-01	1.185E+00	0.000E+00	FAIL ABUN
AC-227	-1.333E-02	4.096E-01	7.171E-01	0.000E+00	FAIL ABUN
TH-227	-1.333E-02	4.096E-01	7.171E-01	0.000E+00	FAIL ABUN
TH-229	2.767E-01	5.398E-01	9.811E-01	0.000E+00	FAIL ABUN
PA-231	-5.489E-01	1.616E+00	2.760E+00	0.000E+00	FAIL ABUN
TH-231	-5.608E-01	7.246E-01	1.185E+00	0.000E+00	FAIL ABUN
U-231	5.807E-02	1.361E+00	2.095E+00	0.000E+00	FAIL ABUN
PA-233	-1.924E-02	6.671E-02	1.135E-01	0.000E+00	FAIL ABUN
PA-234	-9.341E-02	3.200E-01	5.209E-01	0.000E+00	FAIL ABUN
PA-234M	8.252E+00	7.178E+00	9.787E+00	0.000E+00	FAIL ABUN
U-235	-9.282E-02	2.296E-01	4.051E-01	0.000E+00	FAIL ABUN
NP-236	-4.463E-02	8.070E-02	1.423E-01	0.000E+00	NOT IDENT.
NP-239	6.730E-02	2.074E-01	3.588E-01	0.000E+00	FAIL ABUN
AM-241	-2.807E-02	2.066E-01	3.235E-01	0.000E+00	NOT IDENT.
CM-243	1.098E-01	1.066E-01	1.900E-01	0.000E+00	FAIL ABUN
AM-246	-7.887E-02	1.571E-01	2.467E-01	0.000E+00	NOT IDENT.
CM-247	-2.208E-02	4.186E-02	6.868E-02	0.000E+00	NOT IDENT.
CF-249	1.025E-03	4.618E-02	7.883E-02	0.000E+00	NOT IDENT.
CF-251	3.742E-02	1.350E-01	2.446E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:58:50.69

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799013.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 18:58:22
Sample ID         : G245799013           Sample quantity  : 1.37735E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.25  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	995	10.67*	9.454E-01	2.689E+01	2.689E+01	11.24
CD-109	88.03	179	3.72*	5.188E+00	2.525E+00	2.583E+00	41.03
SN-126	64.28	202	9.60	2.782E+00	2.064E+00	2.064E+00	48.58
	86.94	179	8.90	5.188E+00	1.055E+00	1.055E+00	57.61
	87.57	179	37.00*	5.188E+00	2.539E-01	2.539E-01	41.03
BA-137M	661.65	290	89.98*	1.923E+00	4.571E-01	4.575E-01	19.59
CS-137	661.65	290	85.12*	1.923E+00	4.832E-01	4.836E-01	19.60
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	155	21.60	2.390E+00	8.201E-01	8.201E-01	44.72
	583.14	396	84.20*	2.142E+00	5.990E-01	5.990E-01	16.37
	860.37	------	12.46	1.522E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.944E+00	------ Line Not Found		------
	351.07	540	12.94*	3.225E+00	3.529E+00	3.529E+00	18.16
PB-212	74.81	365	10.70	4.153E+00	2.240E+00	2.240E+00	29.57
	77.11	626	18.00	4.385E+00	2.162E+00	2.162E+00	17.42
	87.30	179	8.00	5.188E+00	1.174E+00	1.174E+00	42.23
	238.63	1134	44.60*	4.345E+00	1.594E+00	1.594E+00	12.67
	300.09	62	3.41	3.654E+00	1.358E+00	1.358E+00	73.81
PO-212	74.81	365	10.70	4.153E+00	2.240E+00	2.240E+00	29.57
	77.11	626	18.00	4.385E+00	2.162E+00	2.162E+00	17.42
	87.30	179	8.00	5.188E+00	1.174E+00	1.174E+00	42.23
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	1134	44.60*	4.345E+00	1.594E+00	1.594E+00	12.67
	300.09	62	3.41	3.654E+00	1.358E+00	1.358E+00	73.81
BI-214	609.31	463	46.30*	2.064E+00	1.322E+00	1.322E+00	16.56
	1120.29	107	15.10	1.193E+00	1.625E+00	1.625E+00	36.90
	1764.49	84	15.80	8.255E-01	1.763E+00	1.763E+00	27.40
PB-214	74.81	365	6.21	4.153E+00	3.859E+00	3.860E+00	29.02
	77.11	626	10.50	4.385E+00	3.707E+00	3.707E+00	19.02
	87.30	179	4.67	5.188E+00	2.011E+00	2.011E+00	41.74
	241.98	320	7.49	4.304E+00	2.703E+00	2.703E+00	25.68
	295.21	406	19.20	3.698E+00	1.559E+00	1.559E+00	21.40

Sample ID : G245799013 Acquisition date : 10-FEB-2010 18:58:22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	540	37.20*	3.225E+00	1.228E+00	1.228E+00	18.89
PO-214	74.81	365	6.21	4.153E+00	3.859E+00	3.860E+00	29.02
	77.11	626	10.50	4.385E+00	3.707E+00	3.707E+00	19.02
	87.30	179	4.67	5.188E+00	2.011E+00	2.011E+00	41.74
	241.98	320	7.49	4.304E+00	2.703E+00	2.703E+00	25.68
	295.21	406	19.20	3.698E+00	1.559E+00	1.559E+00	21.40
	351.92	540	37.20*	3.225E+00	1.228E+00	1.228E+00	18.89
PO-216	74.81	365	10.70	4.153E+00	2.240E+00	2.240E+00	29.57
	77.11	626	18.00	4.385E+00	2.162E+00	2.162E+00	17.42
	87.30	179	8.00	5.188E+00	1.174E+00	1.174E+00	42.23
	238.63	1134	44.60*	4.345E+00	1.594E+00	1.594E+00	12.67
	300.09	62	3.41	3.654E+00	1.358E+00	1.358E+00	73.81
PO-218	74.81	365	6.21	4.153E+00	3.859E+00	3.860E+00	29.02
	77.11	626	10.50	4.385E+00	3.707E+00	3.707E+00	19.02
	87.30	179	4.67	5.188E+00	2.011E+00	2.011E+00	41.74
	241.98	320	7.49	4.304E+00	2.703E+00	2.703E+00	25.68
	295.21	406	19.20	3.698E+00	1.559E+00	1.559E+00	21.40
	351.92	540	37.20*	3.225E+00	1.228E+00	1.228E+00	18.89
RA-224	240.98	320	3.95*	4.304E+00	5.125E+00	5.125E+00	25.06
RA-226	609.31	463	46.30*	2.064E+00	1.322E+00	1.322E+00	16.56
	1120.29	107	15.10	1.193E+00	1.625E+00	1.625E+00	36.90
	1764.49	84	15.80	8.255E-01	1.763E+00	1.763E+00	27.40
AC-228	338.32	237	11.40	3.325E+00	1.702E+00	1.702E+00	50.34
	911.07	240	27.70*	1.444E+00	1.638E+00	1.638E+00	26.23
	969.11	124	16.60	1.364E+00	1.495E+00	1.495E+00	33.63
RA-228	338.32	237	11.40	3.325E+00	1.702E+00	1.702E+00	50.34
	911.07	240	27.70*	1.444E+00	1.638E+00	1.638E+00	26.23
	969.11	124	16.60	1.364E+00	1.495E+00	1.495E+00	33.63
TH-228	74.81	365	10.70	4.153E+00	2.240E+00	2.274E+00	28.08
	77.11	626	18.00	4.385E+00	2.162E+00	2.195E+00	17.42
	87.30	179	8.00	5.188E+00	1.174E+00	1.192E+00	41.03
	238.63	1134	44.60*	4.345E+00	1.594E+00	1.619E+00	12.67
	300.09	62	3.41	3.654E+00	1.358E+00	1.379E+00	94.09
TH-230	609.31	463	46.30*	2.064E+00	1.322E+00	1.322E+00	16.56
	1120.29	107	15.10	1.193E+00	1.625E+00	1.625E+00	36.90
	1764.49	84	15.80	8.255E-01	1.763E+00	1.763E+00	27.40
TH-232	338.32	237	11.40	3.325E+00	1.702E+00	1.702E+00	30.09
	911.07	240	27.70*	1.444E+00	1.638E+00	1.638E+00	26.23
	969.11	124	16.60	1.364E+00	1.495E+00	1.495E+00	33.63
TH-234	63.29	202	3.80*	2.782E+00	5.213E+00	5.213E+00	49.53
	92.38	676	5.41	5.508E+00	6.180E+00	6.180E+00	25.50
U-234	609.31	463	46.30*	2.064E+00	1.322E+00	1.322E+00	16.56
	1120.29	107	15.10	1.193E+00	1.625E+00	1.625E+00	36.90
	1764.49	84	15.80	8.255E-01	1.763E+00	1.763E+00	27.40
NP-237	86.50	179	12.60*	5.188E+00	7.455E-01	7.455E-01	45.92
	95.87	------	2.60	5.636E+00	------ Line Not Found		------
U-238	63.29	202	3.80*	2.782E+00	5.213E+00	5.213E+00	49.53
	92.38	676	5.41	5.508E+00	6.180E+00	6.180E+00	19.94
AM-243	74.67	365	66.00*	4.153E+00	3.631E-01	3.631E-01	28.06

Sample ID : G245799013 Acquisition date : 10-FEB-2010 18:58:22

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	179	0.34	5.188E+00	2.795E+01	2.795E+01	41.03
	117.66	------	0.55	6.054E+00	------	Line Not Found	------
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	155	100.00*	2.390E+00	1.771E-01	1.771E-01	43.93

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G245799013 Acquisition date : 10-FEB-2010 18:58:22

Total number of lines in spectrum 31
Number of unidentified lines 4
Number of lines tentatively identified by NID 27 87.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.689E+01	2.689E+01	0.302E+01	11.24	
CD-109	464.00D	1.02	2.525E+00	2.583E+00	1.060E+00	41.03	
SN-126	1.00E+05Y	1.00	2.539E-01	2.539E-01	1.041E-01	41.03	
BA-137M	30.17Y	1.00	4.571E-01	4.575E-01	0.896E-01	19.59	
CS-137	30.17Y	1.00	4.832E-01	4.836E-01	0.948E-01	19.60	
TL-208	1.41E+10Y	1.00	5.990E-01	5.990E-01	0.981E-01	16.37	
BI-211	7.04E+08Y	1.00	3.529E+00	3.529E+00	0.641E+00	18.16	
PB-212	1.41E+10Y	1.00	1.594E+00	1.594E+00	0.202E+00	12.67	
PO-212	1.41E+10Y	1.00	1.594E+00	1.594E+00	0.202E+00	12.67	
BI-214	1600.00Y	1.00	1.322E+00	1.322E+00	0.219E+00	16.56	
PB-214	1600.00Y	1.00	1.228E+00	1.228E+00	0.232E+00	18.89	
PO-214	1600.00Y	1.00	1.228E+00	1.228E+00	0.232E+00	18.89	
PO-216	1.41E+10Y	1.00	1.594E+00	1.594E+00	0.202E+00	12.67	
PO-218	1600.00Y	1.00	1.228E+00	1.228E+00	0.232E+00	18.89	
RA-224	1.41E+10Y	1.00	5.125E+00	5.125E+00	1.284E+00	25.06	
RA-226	1600.00Y	1.00	1.322E+00	1.322E+00	0.219E+00	16.56	
AC-228	1.41E+10Y	1.00	1.638E+00	1.638E+00	0.430E+00	26.23	
RA-228	1.41E+10Y	1.00	1.638E+00	1.638E+00	0.430E+00	26.23	
TH-228	1.91Y	1.02	1.594E+00	1.619E+00	0.205E+00	12.67	
TH-230	4.47E+09Y	1.00	1.322E+00	1.322E+00	0.219E+00	16.56	
TH-232	1.41E+10Y	1.00	1.638E+00	1.638E+00	0.430E+00	26.23	
TH-234	4.47E+09Y	1.00	5.213E+00	5.213E+00	2.582E+00	49.53	
U-234	4.47E+09Y	1.00	1.322E+00	1.322E+00	0.219E+00	16.56	
NP-237	2.14E+06Y	1.00	7.455E-01	7.455E-01	3.423E-01	45.92	
U-238	4.47E+09Y	1.00	5.213E+00	5.213E+00	2.582E+00	49.53	
AM-243	7380.00Y	1.00	3.631E-01	3.631E-01	1.019E-01	28.06	
ANH-511	1.00E+09Y	1.00	1.771E-01	1.771E-01	0.778E-01	43.93	
	Total Activity :		7.184E+01	7.192E+01			

Grand Total Activity : 7.184E+01 7.192E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799013 Acquisition date : 10-FEB-2010 18:58:22

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	186.25	249	443	1.27	373.09	368	11	3.46E-02	36.3	5.16E+00	T
0	209.93	134	270	0.90	420.42	416	9	1.86E-02	47.6	4.77E+00	T
0	271.38	118	210	2.33	543.26	539	10	1.65E-02	50.2	3.95E+00	T
0	463.06	68	90	1.26	926.39	921	10	9.44E-03	58.8	2.59E+00	T
0	727.42	81	62	1.97	1454.78	1447	13	1.13E-02	45.6	1.77E+00	T
0	796.75	12	64	1.42	1593.35	1586	9	1.69E-03	****	1.63E+00	T
0	840.11	33	38	0.99	1680.00	1675	9	4.56E-03	76.4	1.56E+00	
0	1001.43	34	43	1.46	2002.42	1994	12	4.68E-03	88.2	1.32E+00	T
0	1378.56	41	13	1.60	2756.13	2749	14	5.63E-03	50.1	9.92E-01	
0	1587.34	22	13	4.31	3173.38	3165	14	3.00E-03	85.0	8.87E-01	
0	1730.30	21	0	1.56	3459.05	3454	10	2.92E-03	43.6	8.36E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 20:58:56.19

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799013.CNF;1   *
* Acquisition date  : 10-FEB-2010 18:58:22  Detector SN#     :                *
* Detector ID       : GAM01                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.25          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245799013            Analyst initials: RXF2            *
* Batch Number      : 947531                Sample Quantity : 1.37735E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.689E+01	3.023E+00	4.966E-01	4.414E-02	54.160
CD-109	2.583E+00	1.060E+00	1.575E+00	1.491E-01	1.640
SN-126	2.539E-01	1.041E-01	1.596E-01	1.503E-02	1.591
BA-137M	4.575E-01	8.963E-02	6.227E-02	5.100E-03	7.347
CS-137	4.836E-01	9.478E-02	6.582E-02	5.403E-03	7.347
TL-208	5.990E-01	9.807E-02	6.675E-02	6.062E-03	8.974
BI-211	3.529E+00	6.408E-01	3.831E-01	3.485E-02	9.212
PB-212	1.594E+00	2.019E-01	9.554E-02	9.673E-03	16.688
PO-212	1.594E+00	2.019E-01	9.554E-02	9.673E-03	16.688
BI-214	1.322E+00	2.189E-01	1.200E-01	1.184E-02	11.012
PB-214	1.228E+00	2.319E-01	1.335E-01	1.399E-02	9.193
PO-214	1.228E+00	2.319E-01	1.335E-01	1.399E-02	9.193
PO-216	1.594E+00	2.019E-01	9.554E-02	9.673E-03	16.688
PO-218	1.228E+00	2.319E-01	1.335E-01	1.399E-02	9.193
RA-224	5.125E+00	1.284E+00	1.087E+00	9.883E-02	4.712
RA-226	1.322E+00	2.189E-01	1.200E-01	1.184E-02	11.012
AC-228	1.638E+00	4.298E-01	2.295E-01	2.657E-02	7.139
RA-228	1.638E+00	4.298E-01	2.295E-01	2.657E-02	7.139

Sample ID : G245799013 Acquisition date : 10-FEB-2010 18:58:22

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.619E+00	2.050E-01	9.700E-02	9.821E-03	16.688
TH-230	1.322E+00	2.189E-01	1.200E-01	1.184E-02	11.012
TH-232	1.638E+00	4.298E-01	2.295E-01	2.657E-02	7.139
TH-234	5.213E+00	2.582E+00	2.433E+00	4.276E-01	2.143
U-234	1.322E+00	2.189E-01	1.200E-01	1.184E-02	11.012
NP-237	7.455E-01	3.423E-01	4.614E-01	1.044E-01	1.616
U-238	5.213E+00	2.582E+00	2.433E+00	4.276E-01	2.143
AM-243	3.631E-01	1.019E-01	9.806E-02	8.154E-03	3.703
ANH-511	1.771E-01	7.783E-02	4.947E-02	4.193E-03	3.581

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.001E-01		3.387E-01	5.797E-01	5.273E-02	0.518
NA-22	1.511E-02		4.818E-02	8.292E-02	6.963E-03	0.182
NA-24	-4.827E-02		4.216E-01	Half-Life too short		
AL-26	-8.311E-04		2.917E-02	4.714E-02	3.906E-03	-0.018
TI-44	3.990E-01	+	6.953E-02	8.664E-02	7.435E-03	4.606
SC-46	-1.247E-02		4.477E-02	7.118E-02	6.434E-03	-0.175
V-48	-7.426E-02		7.720E-02	1.112E-01	9.924E-03	-0.668
CR-51	2.894E-01		4.120E-01	7.003E-01	6.587E-02	0.413
MN-52	1.525E-01		2.184E-01	4.015E-01	3.466E-02	0.380
MN-54	2.474E-02		4.780E-02	7.216E-02	6.423E-03	0.343
CO-56	2.379E-03		4.343E-02	6.970E-02	6.228E-03	0.034
CO-57	-6.073E-04		2.776E-02	4.399E-02	3.872E-03	-0.014
CO-58	-3.595E-02		4.314E-02	6.507E-02	5.756E-03	-0.553
FE-59	-3.668E-02		1.089E-01	1.694E-01	1.561E-02	-0.217
CO-60	-6.960E-03		4.424E-02	7.227E-02	6.161E-03	-0.096
ZN-65	-5.134E-02		1.212E-01	1.576E-01	1.330E-02	-0.326
GE-68	-1.536E+00		1.402E+00	1.968E+00	1.694E-01	-0.780
AS-73	-2.307E-01		1.060E+00	1.712E+00	1.385E-01	-0.135
AS-74	3.145E-02		9.072E-02	1.561E-01	1.315E-02	0.202
SE-75	-4.130E-02		4.924E-02	7.774E-02	7.141E-03	-0.531
BR-77	-1.875E+00		1.318E+01	2.002E+01	1.699E+00	-0.094
SR-82	-1.346E-01		3.925E-01	6.258E-01	5.448E-02	-0.215
RB-83	-1.453E-02		8.277E-02	1.253E-01	1.063E-02	-0.116
RB-84	6.664E-02		7.430E-02	1.319E-01	1.190E-02	0.505
KR-85	2.394E+01		9.013E+00	1.640E+01	1.390E+00	1.460
SR-85	1.230E-01		4.630E-02	8.424E-02	7.142E-03	1.460
RB-86	-4.845E-01		8.505E-01	1.280E+00	1.103E-01	-0.379
Y-88	-1.143E-02		3.737E-02	5.670E-02	4.663E-03	-0.202
ZR-88	3.830E-02		3.619E-02	6.225E-02	5.012E-03	0.615
Y-91	-2.292E+00		2.158E+01	3.583E+01	2.936E+00	-0.064
NB-94	1.962E-02		3.856E-02	6.630E-02	5.566E-03	0.296
NB-95	-2.801E-03		5.035E-02	8.274E-02	7.170E-03	-0.034
NB-95M	6.232E-02		1.482E-01	2.218E-01	2.275E-02	0.281
ZR-95	6.786E-02		7.750E-02	1.369E-01	1.301E-02	0.496

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	2.185E-02		6.667E-02	Half-Life too short		
ZR-97	1.352E+00		1.264E+00	Half-Life too short		
MO-99	4.418E+00		1.293E+01	2.198E+01	3.331E+00	0.201
TC-99M	1.350E+10		3.394E+10	Half-Life too short		
RH-101	1.608E-03		3.616E-02	5.968E-02	5.252E-03	0.027
RH-102	-2.222E-02		3.252E-02	4.925E-02	4.141E-03	-0.451
RU-103	-1.894E-02		4.667E-02	7.214E-02	1.014E-02	-0.262
RH-106	3.226E-01		3.373E-01	6.001E-01	7.913E-02	0.538
RU-106	3.226E-01		3.357E-01	6.001E-01	5.013E-02	0.538
AG-108M	-1.487E-02		3.547E-02	5.535E-02	4.773E-03	-0.269
AG-110M	5.367E-03		4.023E-02	5.916E-02	5.016E-03	0.091
IN-111	5.669E-01		1.226E+00	1.845E+00	1.680E-01	0.307
IN-113M	2.245E-02		5.469E-02	9.078E-02	7.562E-03	0.247
SN-113	2.245E-02		5.469E-02	9.078E-02	7.562E-03	0.247
IN-114M	-1.689E-01		2.268E-01	3.205E-01	2.798E-02	-0.527
CD-115	-3.924E+00		1.263E+01	2.083E+01	1.768E+00	-0.188
SN-117M	-1.604E-02		5.625E-02	9.389E-02	7.994E-03	-0.171
SB-122	1.306E+00		2.357E+00	4.105E+00	3.480E-01	0.318
I-123	-8.363E-02		3.649E+00	Half-Life too short		
TE-123M	-3.319E-04		2.897E-02	4.889E-02	4.188E-03	-0.007
I-124	-4.074E-01		7.383E-01	1.108E+00	9.313E-02	-0.368
SB-124	3.145E-02		7.089E-02	1.269E-01	1.125E-02	0.248
SB-125	-3.922E-02		1.025E-01	1.608E-01	1.353E-02	-0.244
TE-125M	3.094E-01		1.061E+01	1.692E+01	1.754E+00	0.018
I-126	-7.410E-02		2.329E-01	3.245E-01	2.666E-02	-0.228
SB-126	2.590E-02		1.843E-01	2.692E-01	2.282E-02	0.096
SB-127	-1.116E+00		1.464E+00	2.260E+00	2.532E-01	-0.494
XE-127	-6.168E-02		5.049E-02	7.963E-02	7.040E-03	-0.775
I-131	-3.203E-02		1.216E-01	1.942E-01	1.740E-02	-0.165
TE-132	2.143E-01		7.855E-01	1.321E+00	2.110E-01	0.162
BA-133	1.554E-02		5.364E-02	7.838E-02	1.034E-02	0.198
I-133	-2.784E-03		3.762E-03	Half-Life too short		
CS-134	2.684E-02	+	6.507E-02	9.479E-02	8.377E-03	0.283
CS-135	5.559E-02		1.981E-01	2.927E-01	3.052E-02	0.190
I-135	4.990E+08		4.463E+09	Half-Life too short		
CS-136	2.164E-02		1.215E-01	2.001E-01	1.819E-02	0.108
CE-139	1.068E-02		3.225E-02	5.500E-02	4.684E-03	0.194
BA-140	2.315E-02		2.938E-01	4.973E-01	1.646E-01	0.047
LA-140	-2.232E-03		9.828E-02	1.609E-01	1.388E-02	-0.014
CE-141	4.711E-02		6.854E-02	1.186E-01	1.032E-02	0.397
CE-143	3.252E-04		9.793E-05	Half-Life too short		
CE-144	1.486E-01		2.304E-01	3.726E-01	5.800E-02	0.399
PM-144	-4.869E-03		3.457E-02	5.668E-02	4.743E-03	-0.086
PR-144	-3.300E-01		2.343E+00	3.841E+00	3.213E-01	-0.086
PM-146	3.619E-02		5.155E-02	8.669E-02	9.106E-03	0.417
ND-147	9.318E-02		6.140E-01	1.046E+00	1.555E-01	0.089
PM-149	4.760E+01		1.044E+02	1.758E+02	2.783E+01	0.271
EU-152	-6.141E-03		1.280E-01	1.823E-01	1.685E-02	-0.034

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-2.002E-02		1.026E-01	1.433E-01	1.273E-02	-0.140
EU-154	3.813E-02		1.356E-01	2.325E-01	2.589E-02	0.164
EU-155	3.807E-02		1.249E-01	2.015E-01	1.772E-02	0.189
TB-160	4.625E-02		1.493E-01	2.517E-01	2.269E-02	0.184
HO-166M	3.420E-02		6.513E-02	1.125E-01	9.488E-03	0.304
TM-171	-4.715E+00		3.683E+01	5.281E+01	4.159E+00	-0.089
LU-176	1.654E-02		2.786E-02	4.714E-02	4.266E-03	0.351
LU-177	1.725E+00		1.406E+00	2.188E+00	1.944E-01	0.788
LU-177M	-3.360E-01		2.222E-01	3.219E-01	2.630E-02	-1.044
HF-181	-1.808E-02		4.521E-02	6.999E-02	5.898E-03	-0.258
W-181	4.150E-01		4.997E-01	7.468E-01	5.830E-02	0.556
TA-182	-2.139E-02		2.315E-01	3.847E-01	3.171E-02	-0.056
RE-183	4.302E-02		1.155E-01	1.974E-01	1.681E-02	0.218
RE-184	-8.196E-03		2.430E-01	4.018E-01	3.668E-02	-0.020
OS-185	9.806E-03		4.294E-02	7.296E-02	6.028E-03	0.134
RE-188	-6.008E-02		1.766E-01	2.945E-01	2.508E-02	-0.204
W-188	-2.801E+00		9.047E+00	1.275E+01	1.163E+00	-0.220
IR-192	-3.392E-02		3.713E-02	5.728E-02	5.161E-03	-0.592
AU-195	2.475E-01		2.573E-01	4.205E-01	3.713E-02	0.589
TL-200	2.522E-04		2.807E-04	Half-Life too short		
TL-201	8.492E-01		7.879E+00	1.333E+01	1.137E+00	0.064
TL-202	6.375E-02		7.693E-02	1.310E-01	1.086E-02	0.487
HG-203	5.511E-02		4.530E-02	7.866E-02	7.375E-03	0.701
BI-207	2.406E-02		5.540E-02	9.368E-02	8.121E-03	0.257
TL-207	-5.608E-01		7.394E-01	1.146E+00	2.047E-01	-0.489
PO-209	-3.797E+00		8.569E+00	1.339E+01	1.212E+00	-0.284
BI-210	6.596E-01		4.922E+00	7.956E+00	7.510E-01	0.083
PB-210	6.596E-01		4.922E+00	7.956E+00	7.510E-01	0.083
PO-210	6.596E-01		4.922E+00	7.956E+00	6.820E-01	0.083
PB-211	5.929E-01		1.095E+00	1.731E+00	1.084E+00	0.343
BI-212	1.060E+00	+	4.949E-01	6.779E-01	6.718E-02	1.563
PO-215	-5.608E-01		7.394E-01	1.146E+00	2.047E-01	-0.489
RN-219	-1.271E-01		4.679E-01	7.435E-01	1.096E-01	-0.171
RN-220	-2.798E+00		2.744E+01	4.582E+01	3.889E+00	-0.061
RA-223	-5.608E-01		7.394E-01	1.146E+00	2.047E-01	-0.489
AC-227	-1.333E-02		4.180E-01	6.909E-01	1.081E-01	-0.019
TH-227	-1.333E-02		4.180E-01	6.909E-01	1.265E-01	-0.019
TH-229	2.767E-01		5.508E-01	9.403E-01	8.238E-02	0.294
PA-231	-5.489E-01		1.649E+00	2.664E+00	4.125E-01	-0.206
TH-231	-5.608E-01		7.394E-01	1.146E+00	2.047E-01	-0.489
U-231	5.807E-02		1.389E+00	1.982E+00	1.773E-01	0.029
PA-233	-1.924E-02		6.807E-02	1.097E-01	1.016E-02	-0.175
PA-234	-9.341E-02		3.265E-01	5.148E-01	9.751E-02	-0.181
PA-234M	8.252E+00	+	7.325E+00	9.683E+00	9.870E-01	0.852
U-235	-9.282E-02		2.343E-01	3.861E-01	6.746E-02	-0.240
NP-236	-4.463E-02		8.234E-02	1.359E-01	1.157E-02	-0.328
NP-239	6.730E-02		2.116E-01	3.407E-01	2.967E-02	0.198
AM-241	-2.807E-02		2.109E-01	3.035E-01	2.501E-02	-0.092

Sample ID : G245799013 Acquisition date : 10-FEB-2010 18:58:22

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.098E-01		1.088E-01	1.800E-01	1.569E-02	0.610
AM-246	-7.887E-02		1.603E-01	2.445E-01	2.103E-02	-0.323
CM-247	-2.208E-02		4.271E-02	6.675E-02	5.413E-03	-0.331
CF-249	1.025E-03		4.713E-02	7.656E-02	6.210E-03	0.013
CF-251	3.742E-02		1.378E-01	2.340E-01	2.014E-02	0.160

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799013           *
* Acquisition date  : 10-FEB-2010 18:58:22 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.25      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799013           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.3774E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.689E+01	2.963E+00	2.492E-01	1.512E+00
CD-109	2.583E+00	1.039E+00	8.344E-01	5.299E-01
SN-126	2.539E-01	1.021E-01	8.453E-02	5.207E-02
BA-137M	4.575E-01	8.784E-02	3.174E-02	4.482E-02
CS-137	4.836E-01	9.289E-02	3.356E-02	4.739E-02
TL-208	5.990E-01	9.611E-02	3.412E-02	4.903E-02
BI-211	3.529E+00	6.280E-01	1.977E-01	3.204E-01
PB-212	1.594E+00	1.979E-01	4.967E-02	1.010E-01
PO-212	1.594E+00	1.979E-01	4.967E-02	1.010E-01
BI-214	1.322E+00	2.145E-01	6.128E-02	1.094E-01
PB-214	1.228E+00	2.273E-01	6.892E-02	1.160E-01
PO-214	1.228E+00	2.273E-01	6.892E-02	1.160E-01
PO-216	1.594E+00	1.979E-01	4.967E-02	1.010E-01
PO-218	1.228E+00	2.273E-01	6.892E-02	1.160E-01
RA-224	5.125E+00	1.258E+00	5.653E-01	6.420E-01
RA-226	1.322E+00	2.145E-01	6.128E-02	1.094E-01
AC-228	1.638E+00	4.212E-01	1.163E-01	2.149E-01
RA-228	1.638E+00	4.212E-01	1.163E-01	2.149E-01
TH-228	1.619E+00	2.009E-01	5.044E-02	1.025E-01
TH-230	1.322E+00	2.145E-01	6.128E-02	1.094E-01
TH-232	1.638E+00	4.212E-01	1.163E-01	2.149E-01
TH-234	5.213E+00	2.531E+00	1.296E+00	1.291E+00
U-234	1.322E+00	2.145E-01	6.128E-02	1.094E-01
NP-237	7.455E-01	3.355E-01	2.444E-01	1.712E-01
U-238	5.213E+00	2.531E+00	1.296E+00	1.291E+00
AM-243	3.631E-01	9.986E-02	5.209E-02	5.095E-02
ANH-511	1.771E-01	7.627E-02	2.535E-02	3.891E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	3.001E-01	3.319E-01	2.974E-01	1.693E-01	NOT IDENT.
NA-22	1.511E-02	4.722E-02	4.173E-02	2.409E-02	NOT IDENT.
NA-24	-4.827E+04	8.264E+05	0.000E+00	4.216E+05	SHORT HLIF
AL-26	-8.311E-04	2.858E-02	2.355E-02	1.458E-02	NOT IDENT.
TI-44	3.990E-01	6.814E-02	4.599E-02	3.477E-02	FAIL ABUN
SC-46	-1.247E-02	4.387E-02	3.608E-02	2.238E-02	FAIL ABUN
V-48	-7.426E-02	7.565E-02	5.623E-02	3.860E-02	NOT IDENT.
CR-51	2.894E-01	4.037E-01	3.621E-01	2.060E-01	NOT IDENT.
MN-52	1.525E-01	2.141E-01	2.016E-01	1.092E-01	NOT IDENT.
MN-54	2.474E-02	4.684E-02	3.662E-02	2.390E-02	NOT IDENT.
CO-56	2.379E-03	4.256E-02	3.536E-02	2.171E-02	NOT IDENT.
CO-57	-6.073E-04	2.721E-02	2.316E-02	1.388E-02	NOT IDENT.
CO-58	-3.595E-02	4.227E-02	3.304E-02	2.157E-02	NOT IDENT.
FE-59	-3.668E-02	1.068E-01	8.550E-02	5.446E-02	NOT IDENT.
CO-60	-6.960E-03	4.335E-02	3.634E-02	2.212E-02	NOT IDENT.
ZN-65	-5.134E-02	1.187E-01	7.953E-02	6.058E-02	NOT IDENT.
GE-68	-1.536E+00	1.373E+00	9.936E-01	7.008E-01	NOT IDENT.
AS-73	-2.307E-01	1.039E+00	9.147E-01	5.302E-01	NOT IDENT.
AS-74	3.145E-02	8.890E-02	7.973E-02	4.536E-02	NOT IDENT.
SE-75	-4.130E-02	4.826E-02	4.034E-02	2.462E-02	NOT IDENT.
BR-77	-1.875E+00	1.292E+01	1.026E+01	6.591E+00	FAIL ABUN
SR-82	-1.346E-01	3.846E-01	3.181E-01	1.962E-01	NOT IDENT.
RB-83	-1.453E-02	8.111E-02	6.420E-02	4.138E-02	NOT IDENT.
RB-84	6.664E-02	7.281E-02	6.685E-02	3.715E-02	NOT IDENT.
KR-85	2.394E+01	8.833E+00	8.403E+00	4.507E+00	NOT IDENT.
SR-85	1.230E-01	4.537E-02	4.316E-02	2.315E-02	NOT IDENT.
RB-86	-4.845E-01	8.335E-01	6.463E-01	4.253E-01	NOT IDENT.
Y-88	-1.143E-02	3.663E-02	2.832E-02	1.869E-02	NOT IDENT.
ZR-88	3.830E-02	3.547E-02	3.206E-02	1.810E-02	NOT IDENT.
Y-91	-2.292E+00	2.114E+01	1.805E+01	1.079E+01	NOT IDENT.
NB-94	1.962E-02	3.779E-02	3.376E-02	1.928E-02	NOT IDENT.
NB-95	-2.801E-03	4.934E-02	4.206E-02	2.517E-02	NOT IDENT.
NB-95M	6.232E-02	1.452E-01	1.154E-01	7.411E-02	NOT IDENT.
ZR-95	6.786E-02	7.595E-02	6.961E-02	3.875E-02	NOT IDENT.
NB-97	2.185E+04	1.307E+05	0.000E+00	6.667E+04	SHORT HLIF
ZR-97	1.352E+06	2.477E+06	0.000E+00	1.264E+06	SHORT HLIF
MO-99	4.418E+00	1.267E+01	1.118E+01	6.464E+00	NOT IDENT.
TC-99M	1.350E+16	6.652E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.608E-03	3.544E-02	3.114E-02	1.808E-02	NOT IDENT.
RH-102	-2.222E-02	3.187E-02	2.527E-02	1.626E-02	NOT IDENT.
RU-103	-1.894E-02	4.574E-02	3.699E-02	2.333E-02	FAIL ABUN
RH-106	3.226E-01	3.305E-01	3.063E-01	1.686E-01	FAIL ABUN
RU-106	3.226E-01	3.289E-01	3.063E-01	1.678E-01	FAIL ABUN
AG-108M	-1.487E-02	3.476E-02	2.845E-02	1.774E-02	NOT IDENT.
AG-110M	5.367E-03	3.943E-02	3.016E-02	2.012E-02	NOT IDENT.
IN-111	5.669E-01	1.201E+00	9.587E-01	6.128E-01	NOT IDENT.
IN-113M	2.245E-02	5.359E-02	4.676E-02	2.734E-02	NOT IDENT.
SN-113	2.245E-02	5.359E-02	4.676E-02	2.734E-02	NOT IDENT.
IN-114M	-1.689E-01	2.223E-01	1.673E-01	1.134E-01	NOT IDENT.
CD-115	-3.924E+00	1.237E+01	1.067E+01	6.313E+00	NOT IDENT.
SN-117M	-1.604E-02	5.513E-02	4.920E-02	2.813E-02	NOT IDENT.
SB-122	1.306E+00	2.309E+00	2.099E+00	1.178E+00	NOT IDENT.
I-123	-8.363E+04	7.153E+06	0.000E+00	3.649E+06	SHORT HLIF
TE-123M	-3.319E-04	2.839E-02	2.561E-02	1.448E-02	NOT IDENT.
I-124	-4.074E-01	7.235E-01	5.657E-01	3.691E-01	NOT IDENT.
SB-124	3.145E-02	6.948E-02	6.351E-02	3.545E-02	FAIL ABUN
SB-125	-3.922E-02	1.005E-01	8.267E-02	5.126E-02	FAIL ABUN
TE-125M	3.094E-01	1.040E+01	8.925E+00	5.305E+00	NOT IDENT.
I-126	-7.410E-02	2.282E-01	1.654E-01	1.164E-01	NOT IDENT.
SB-126	2.590E-02	1.806E-01	1.370E-01	9.215E-02	FAIL ABUN
SB-127	-1.116E+00	1.435E+00	1.152E+00	7.319E-01	NOT IDENT.
XE-127	-6.168E-02	4.948E-02	4.153E-02	2.525E-02	NOT IDENT.
I-131	-3.203E-02	1.191E-01	1.002E-01	6.078E-02	NOT IDENT.
TE-132	2.143E-01	7.697E-01	6.876E-01	3.927E-01	NOT IDENT.
BA-133	1.554E-02	5.257E-02	4.045E-02	2.682E-02	NOT IDENT.
I-133	-2.784E+03	7.374E+03	0.000E+00	3.762E+03	SHORT HLIF
CS-134	2.684E-02	6.377E-02	4.815E-02	3.253E-02	FAIL ABUN
CS-135	5.559E-02	1.941E-01	1.518E-01	9.904E-02	NOT IDENT.
I-135	4.990E+14	8.748E+15	0.000E+00	4.463E+15	SHORT HLIF
CS-136	2.164E-02	1.191E-01	1.011E-01	6.075E-02	FAIL ABUN
CE-139	1.068E-02	3.160E-02	2.879E-02	1.612E-02	NOT IDENT.
BA-140	2.315E-02	2.879E-01	2.546E-01	1.469E-01	NOT IDENT.
LA-140	-2.232E-03	9.632E-02	8.061E-02	4.914E-02	NOT IDENT.
CE-141	4.711E-02	6.717E-02	6.225E-02	3.427E-02	NOT IDENT.
CE-143	3.252E+02	1.919E+02	0.000E+00	9.793E+01	SHORT HLIF
CE-144	1.486E-01	2.258E-01	1.958E-01	1.152E-01	NOT IDENT.
PM-144	-4.869E-03	3.388E-02	2.887E-02	1.728E-02	NOT IDENT.
PR-144	-3.300E-01	2.296E+00	1.956E+00	1.171E+00	NOT IDENT.

PM-146	3.619E-02	5.052E-02	4.452E-02	2.578E-02	NOT IDENT.
ND-147	9.318E-02	6.018E-01	5.354E-01	3.070E-01	NOT IDENT.
PM-149	4.760E+01	1.023E+02	9.107E+01	5.221E+01	NOT IDENT.
EU-152	-6.141E-03	1.254E-01	9.411E-02	6.400E-02	NOT IDENT.
GD-153	-2.002E-02	1.005E-01	7.578E-02	5.129E-02	NOT IDENT.
EU-154	3.813E-02	1.329E-01	1.170E-01	6.778E-02	NOT IDENT.
EU-155	3.807E-02	1.224E-01	1.064E-01	6.243E-02	FAIL ABUN
TB-160	4.625E-02	1.463E-01	1.276E-01	7.464E-02	FAIL ABUN
HO-166M	3.420E-02	6.383E-02	5.726E-02	3.257E-02	NOT IDENT.
TM-171	-4.715E+00	3.609E+01	2.811E+01	1.841E+01	NOT IDENT.
LU-176	1.654E-02	2.730E-02	2.439E-02	1.393E-02	FAIL ABUN
LU-177	1.725E+00	1.378E+00	1.141E+00	7.029E-01	NOT IDENT.
LU-177M	-3.360E-01	2.177E-01	1.656E-01	1.111E-01	NOT IDENT.
HF-181	-1.808E-02	4.430E-02	3.591E-02	2.260E-02	NOT IDENT.
W-181	4.150E-01	4.897E-01	3.977E-01	2.499E-01	NOT IDENT.
TA-182	-2.139E-02	2.269E-01	1.937E-01	1.158E-01	FAIL ABUN
RE-183	4.302E-02	1.132E-01	1.034E-01	5.773E-02	FAIL ABUN
RE-184	-8.196E-03	2.381E-01	2.087E-01	1.215E-01	NOT IDENT.
OS-185	9.806E-03	4.208E-02	3.721E-02	2.147E-02	NOT IDENT.
RE-188	-6.008E-02	1.731E-01	1.544E-01	8.832E-02	NOT IDENT.
W-188	-2.801E+00	8.866E+00	6.607E+00	4.524E+00	FAIL ABUN
IR-192	-3.392E-02	3.639E-02	2.962E-02	1.857E-02	FAIL ABUN
AU-195	2.475E-01	2.522E-01	2.223E-01	1.287E-01	FAIL ABUN
TL-200	2.522E+02	5.502E+02	0.000E+00	2.807E+02	SHORT HLIF
TL-201	8.492E-01	7.721E+00	6.977E+00	3.939E+00	NOT IDENT.
TL-202	6.375E-02	7.539E-02	6.734E-02	3.846E-02	NOT IDENT.
HG-203	5.511E-02	4.439E-02	4.077E-02	2.265E-02	NOT IDENT.
BI-207	2.406E-02	5.429E-02	4.731E-02	2.770E-02	FAIL ABUN
TL-207	-5.608E-01	7.246E-01	5.926E-01	3.697E-01	FAIL ABUN
PO-209	-3.797E+00	8.398E+00	6.785E+00	4.285E+00	NOT IDENT.
BI-210	6.596E-01	4.824E+00	4.262E+00	2.461E+00	NOT IDENT.
PB-210	6.596E-01	4.824E+00	4.262E+00	2.461E+00	NOT IDENT.
PO-210	6.596E-01	4.824E+00	4.262E+00	2.461E+00	NOT IDENT.
PB-211	5.929E-01	1.073E+00	8.910E-01	5.476E-01	NOT IDENT.
BI-212	1.060E+00	4.850E-01	3.450E-01	2.475E-01	FAIL ABUN
PO-215	-5.608E-01	7.246E-01	5.926E-01	3.697E-01	FAIL ABUN
RN-219	-1.271E-01	4.586E-01	3.828E-01	2.340E-01	FAIL ABUN
RN-220	-2.798E+00	2.689E+01	2.345E+01	1.372E+01	NOT IDENT.
RA-223	-5.608E-01	7.246E-01	5.926E-01	3.697E-01	FAIL ABUN
AC-227	-1.333E-02	4.096E-01	3.588E-01	2.090E-01	FAIL ABUN
TH-227	-1.333E-02	4.096E-01	3.588E-01	2.090E-01	FAIL ABUN
TH-229	2.767E-01	5.398E-01	4.908E-01	2.754E-01	FAIL ABUN
PA-231	-5.489E-01	1.616E+00	1.381E+00	8.243E-01	FAIL ABUN
TH-231	-5.608E-01	7.246E-01	5.926E-01	3.697E-01	FAIL ABUN
U-231	5.807E-02	1.361E+00	1.048E+00	6.945E-01	FAIL ABUN
PA-233	-1.924E-02	6.671E-02	5.677E-02	3.403E-02	FAIL ABUN
PA-234	-9.341E-02	3.200E-01	2.606E-01	1.633E-01	FAIL ABUN
PA-234M	8.252E+00	7.178E+00	4.896E+00	3.662E+00	FAIL ABUN
U-235	-9.282E-02	2.296E-01	2.027E-01	1.172E-01	FAIL ABUN
NP-236	-4.463E-02	8.070E-02	7.119E-02	4.117E-02	NOT IDENT.
NP-239	6.730E-02	2.074E-01	1.795E-01	1.058E-01	FAIL ABUN
AM-241	-2.807E-02	2.066E-01	1.619E-01	1.054E-01	NOT IDENT.
CM-243	1.098E-01	1.066E-01	9.507E-02	5.438E-02	FAIL ABUN
AM-246	-7.887E-02	1.571E-01	1.234E-01	8.016E-02	NOT IDENT.
CM-247	-2.208E-02	4.186E-02	3.436E-02	2.136E-02	NOT IDENT.
CF-249	1.025E-03	4.618E-02	3.944E-02	2.356E-02	NOT IDENT.
CF-251	3.742E-02	1.350E-01	1.224E-01	6.888E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	322.4429
46.50	322.4429
46.50	322.4429
48.70	343.4700
49.72	309.1515
51.35	309.1368
52.39	325.3170
52.97	318.4285
53.15	318.5402
53.44	339.4849
54.07	327.4272
56.28	372.6558
56.28	372.6576
57.37	0.0000
57.53	368.3026
57.53	368.3040
57.60	368.3505
57.98	361.9090
57.98	361.9090
59.32	381.0717
59.32	381.0717
59.40	381.1271
59.54	392.2521
59.72	392.3813
60.01	376.8218
61.10	393.3635
61.14	393.3915
61.30	393.5050
63.00	410.0204
63.29	410.2301
63.29	410.2301
63.58	410.4398
64.28	441.6579
65.12	429.5745
65.20	429.6343
65.20	429.6343
66.05	435.0438
66.72	424.3738
66.83	413.2851
66.91	413.3405
67.20	415.1407
67.20	415.1407
67.75	421.9202
67.85	441.1742
68.90	436.8292
68.90	436.8292
69.30	432.6341
69.67	429.6952
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70.83	422.4851
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72.87	412.6094
72.87	412.6094
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74.81	446.2300
74.81	446.2300
74.81	446.2300
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74.81	446.2300
74.81	446.2300
74.97	446.3416
75.28	446.5627
75.70	446.8575
77.11	447.8472
77.11	447.8472

77.11	447.8472
77.11	447.8472
77.11	447.8472
77.11	447.8472
77.11	447.8472
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79.62	399.0895
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79.80	425.2700
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80.18	425.5149
80.30	463.0969
80.30	463.0969
80.57	463.2876
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81.07	555.0603
81.07	555.0603
81.07	555.0603
81.07	555.0603
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83.37	443.9416
83.78	485.1914
83.78	485.1914
83.78	485.1914
83.78	485.1914
84.21	459.2575
84.90	398.9741
85.43	425.5759
86.29	556.0811
86.50	556.2513
86.54	556.2822
86.59	574.4286
86.72	574.5378
86.79	654.1698
86.94	654.3123
87.30	666.9570
87.30	666.9570
87.30	666.9570
87.30	666.9570
87.30	666.9570
87.30	666.9570
87.30	666.9570
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87.88	560.6581
88.03	560.7800
88.36	600.6478
88.47	600.7422
89.95	661.5509
91.11	662.6343
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92.38	525.5180
92.38	525.5180
93.35	526.2259
94.00	359.2628
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94.67	352.9349
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94.90	351.3812
94.90	351.3812
94.90	351.3812
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95.87	383.5293
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98.44	309.2276
98.44	309.2290
98.88	323.6982
99.55	338.5109
99.55	338.5109
99.86	359.8851
100.00	359.9522
100.10	358.8833
103.18	380.5388
103.76	314.5471
105.00	322.9261
105.31	357.9489
108.00	379.5073
109.28	352.9662

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111.00	363.9283
111.76	346.1128
112.95	334.1190
115.19	373.7780
116.30	325.2130
117.00	309.4967
117.00	309.4967
117.66	321.1716
121.11	338.5520
121.62	331.8646
121.78	299.7681
122.06	299.8657
122.32	283.8676
122.32	283.8676
122.32	283.8676
122.32	283.8676
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135.34	325.3865
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136.48	360.8206
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140.51	0.0000
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142.65	364.0943
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144.24	343.5090
144.24	343.5090
144.24	343.5090
145.22	328.8348
145.44	328.9086
147.16	356.0684
152.43	304.5598
152.70	287.7187
153.22	295.8901
154.21	297.9708
154.21	297.9708
154.21	297.9708
154.21	297.9708
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156.02	305.6583
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161.27	314.4291
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162.64	286.9618
163.35	297.9611
163.89	304.4197
165.85	300.4830
167.43	303.6464
171.28	305.6582
171.86	289.4880
172.10	289.5537
176.55	289.8373
176.60	289.8494
181.06	313.3590
184.41	280.5219
185.71	290.4036
186.00	290.4783
190.27	312.9769
192.34	258.8193
193.63	270.2123
197.04	297.9178
198.01	266.5838
198.60	251.8481
200.40	271.7784
201.83	281.4223
202.84	299.3824
205.31	257.1959

208.36	280.3288
208.81	280.4338
209.75	262.6389
209.75	262.6389
210.97	243.3718
215.65	247.7401
216.55	265.0325
218.09	236.0840
222.10	253.8876
223.80	251.3792
226.40	238.5814
227.00	250.1040
227.08	240.6098
227.20	240.6330
228.16	237.9551
228.18	237.9589
228.18	237.9589
231.56	0.0000
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236.00	249.7271
236.00	249.7271
238.63	213.9539
238.63	213.9539
238.63	213.9539
238.63	213.9539
239.00	214.0134
240.98	214.3299
241.98	214.4898
241.98	214.4898
241.98	214.4898
244.69	177.3333
245.39	166.6248
247.94	181.0695
248.90	179.8143
249.79	192.5065
252.40	181.2404
252.85	184.2075
252.85	184.2075
254.15	0.0000
256.20	202.1443
256.20	202.1443
260.50	202.7632
260.90	191.1191
262.80	207.9721
264.65	216.0631
268.24	203.8613
268.79	196.0968
269.46	208.7444
269.46	208.7444
269.46	208.7444
269.46	208.7444
271.23	204.2834
273.65	212.4932
276.40	176.6187
277.35	164.3728
277.60	169.0979
277.60	169.0979
278.00	171.6795
278.60	176.6866
279.20	169.8453
279.53	180.7466
280.46	190.7442
281.68	208.7044
283.67	177.2875
284.30	171.4161
285.00	177.4431
285.90	161.6793
286.10	161.7017
286.10	161.7017
287.40	164.8171
288.45	0.0000
290.67	179.8979
290.80	179.9144
291.72	183.2083
293.26	0.0000
293.70	170.6854
295.21	169.2558
295.21	169.2558

295.21	169.2558
295.96	169.3360
296.50	169.3956
297.23	135.9004
298.57	136.0187
299.80	136.1245
299.80	136.1245
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300.09	160.1782
300.09	160.1782
300.09	160.1782
300.12	160.1807
301.29	174.7273
302.84	178.1095
303.76	179.8180
303.91	179.8371
304.40	179.8918
304.40	179.8918
304.84	173.5146
306.84	156.8450
308.46	153.9852
311.98	150.2891
316.51	160.8293
318.01	142.7535
319.02	132.7111
319.41	129.7031
320.08	140.9068
323.87	173.7475
323.87	173.7475
323.87	173.7475
323.87	173.7475
325.23	185.0770
328.77	156.9373
333.44	165.1434
334.20	179.9424
334.20	179.9424
334.30	179.9531
338.28	147.5815
338.28	147.5815
338.28	147.5815
338.28	147.5815
338.32	147.5837
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338.32	147.5837
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340.57	155.9893
344.27	157.9734
345.85	178.4326
350.59	0.0000
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351.92	160.1181
351.92	160.1181
351.92	160.1181
355.39	0.0000
356.01	129.2218
364.48	116.5237
366.43	136.4410
367.43	116.7168
367.94	0.0000
369.80	134.6099
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383.85	152.4717
387.95	141.2136
388.63	139.1583
391.69	143.6077
391.69	143.6077
392.90	119.3987
398.62	130.3572
400.65	116.7038
401.10	117.7935
401.81	131.6365
402.60	140.1876
404.84	112.7059
410.95	104.5287
411.60	104.5646
413.65	176.2365
414.70	132.5163
415.30	132.5560

415.76	133.6575
417.63	0.0000
418.52	111.3585
423.70	107.3563
427.08	118.2916
427.89	115.1128
432.53	90.5779
433.93	106.8250
439.47	90.8881
439.56	90.8919
439.89	85.4949
443.98	116.0288
444.90	98.7231
445.03	100.8985
445.03	100.8985
445.03	100.8985
445.03	100.8985
453.90	104.6001
463.38	106.8230
468.07	101.7931
473.00	72.5631
475.06	105.6475
475.35	110.0632
476.78	109.0350
477.59	73.8190
477.96	78.2391
482.03	90.5296
484.57	81.7934
487.03	90.7373
490.36	0.0000
492.35	86.5193
497.08	101.1545
507.63	0.0000
510.53	0.0000
510.84	87.2352
511.00	87.2412
511.85	87.2733
511.85	87.2733
513.99	87.3549
513.99	87.3549
520.41	94.9803
520.65	94.9906
527.90	97.3477
528.96	0.0000
529.64	94.7153
529.87	0.0000
531.02	86.6461
537.32	94.1205
543.00	78.0173
546.56	0.0000
549.76	82.7865
552.65	77.4214
555.20	76.5905
563.23	91.4819
563.90	82.3557
568.70	92.6014
569.32	97.2115
569.50	98.1365
569.67	98.1417
573.80	79.9313
574.00	87.2882
574.64	90.9877
578.91	85.9277
579.30	0.0000
583.14	90.3749
585.48	83.0764
591.81	84.4419
592.07	84.3223
593.00	81.4709
595.88	64.8799
600.56	67.7852
602.52	0.0000
602.71	85.9645
602.71	85.9645
603.60	71.2742
604.41	65.0969
604.70	75.9564
609.31	81.9930

609.31	81.9930
609.31	81.9930
609.31	81.9930
610.33	82.0252
612.46	80.8480
614.37	68.4600
618.01	77.1262
621.84	60.8542
621.84	60.8542
631.29	64.8307
633.02	66.7532
633.10	63.9343
634.78	80.9084
635.90	68.7084
636.97	48.0204
645.85	63.2950
646.12	60.4672
656.30	77.4478
657.75	63.2552
657.90	0.0000
661.65	72.2148
661.65	72.2148
664.57	0.0000
666.33	84.0762
666.33	84.0762
675.00	75.4280
677.61	75.4975
685.20	73.7854
692.80	62.4530
695.00	75.9642
696.49	66.3822
696.49	66.3822
697.00	78.9030
697.49	81.8042
698.33	74.1275
698.50	76.0568
699.00	84.7365
702.63	78.0950
706.10	94.5978
706.58	0.0000
706.67	90.7550
709.31	75.3759
711.68	62.8656
713.82	84.2048
717.42	66.8657
720.50	71.1401
721.93	0.0000
722.20	69.5636
722.78	67.9595
722.78	67.9595
722.89	67.9612
722.95	67.9629
723.30	76.0633
724.18	89.0371
727.18	65.1434
733.00	68.1953
735.90	58.5103
739.58	58.5820
742.81	55.7128
744.21	65.5180
747.13	58.7300
751.79	72.5457
752.31	77.4609
753.82	72.5944
755.35	60.8526
756.15	54.9773
756.87	63.8289
763.93	104.3308
765.79	88.6377
766.42	62.0587
766.84	52.2146
776.49	60.2852
778.00	58.3374
778.57	56.3696
778.89	57.3642
783.80	62.4078
785.46	56.4948
792.07	56.2821

795.84	72.9233
796.30	67.9613
798.80	76.3092
801.93	85.2422
805.60	57.8542
810.29	70.9255
810.76	67.9386
815.85	52.0355
817.79	57.0724
818.51	53.0802
819.60	53.0970
826.30	67.2617
828.27	0.0000
831.60	65.3610
831.96	71.4021
834.83	60.3926
836.80	0.0000
846.75	53.8776
848.13	64.6797
856.28	0.0000
856.80	92.2064
860.37	58.8326
867.32	64.0367
867.82	56.9297
871.10	42.7383
873.19	52.9471
874.81	43.8042
875.33	0.0000
876.40	58.0938
879.36	46.9231
880.27	52.0372
880.51	46.9389
881.50	39.8074
883.24	47.9983
884.67	53.1261
889.25	59.3353
896.60	62.5384
898.02	63.5894
899.00	59.5038
903.28	46.2239
911.07	52.5041
911.07	52.5041
911.07	52.5041
919.63	55.0404
920.93	52.9091
925.00	62.0142
925.24	62.0186
926.50	48.5984
935.52	43.5391
937.48	45.6371
944.10	45.7220
946.00	51.9836
949.00	64.5142
962.29	84.7092
964.01	31.3455
966.15	52.2729
968.20	85.4270
969.11	94.1682
969.11	94.1682
969.11	94.1682
977.42	41.9473
980.50	48.2798
983.50	55.6720
989.30	39.9779
996.32	31.6208
1001.03	45.7317
1001.68	43.9809
1004.76	49.2985
1021.30	0.0000
1024.50	0.0000
1034.80	53.2373
1036.00	48.9940
1037.82	45.8198
1038.57	51.1594
1038.76	0.0000
1045.16	49.1108
1046.59	43.7887
1048.07	47.0100

1050.47	48.1091
1050.47	48.1091
1062.04	39.6720
1063.62	39.6883
1076.63	49.5062
1077.35	59.2029
1078.86	53.8403
1085.78	52.8544
1099.22	59.5251
1112.02	44.6341
1112.84	41.8862
1115.52	63.3862
1120.29	57.6582
1120.29	57.6582
1120.29	57.6582
1120.29	57.6582
1120.51	57.6634
1121.28	57.6737
1124.00	0.0000
1129.67	56.6998
1131.51	0.0000
1147.95	0.0000
1167.94	51.3538
1173.22	54.1722
1175.09	67.9749
1177.93	44.1211
1189.05	55.2954
1204.90	64.7477
1205.75	0.0000
1213.00	62.0900
1221.42	70.5635
1230.97	78.1621
1235.34	93.1437
1236.41	0.0000
1238.25	52.1947
1246.25	62.5590
1260.41	0.0000
1271.85	45.0742
1274.45	42.2827
1274.54	41.3431
1291.56	44.3283
1298.22	0.0000
1312.09	28.4204
1325.50	40.8531
1325.50	40.8531
1332.49	36.1569
1333.61	33.3110
1360.21	34.4561
1362.66	0.0000
1365.15	22.0361
1368.21	23.9675
1368.53	0.0000
1376.25	19.7553
1384.27	23.0859
1394.10	22.1689
1395.20	18.3173
1407.95	29.9644
1434.06	12.6329
1436.60	21.3895
1457.56	0.0000
1460.81	15.6309
1489.15	12.7715
1509.49	17.7532
1596.49	22.0582
1620.62	21.1495
1678.03	0.0000
1691.02	8.1595
1691.02	8.1595
1706.46	0.0000
1750.46	0.0000
1764.49	5.1650
1764.49	5.1650
1764.49	5.1650
1764.49	5.1650
1770.23	5.3178
1771.40	5.3188
1791.20	0.0000
1808.65	9.3669

1836.01	13.5914

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799013

Total Uranium Activity	1.5466E+01	ug/g
Total Uranium Counting Unc.	7.5291E+00	ug/g
Total Uranium Tpu	3.8414E-06	ug/g
Total Uranium Mda	3.8576E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799013       *
*   ANALYST       : RXF2                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 18:58:22.25    SAMPLE ALQT:  137.735 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.845E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.331E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.034E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.958E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:09:41.56

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799014.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:09:07
Sample ID         : G245799014           Sample quantity  : 1.27695E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.91  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.35	51	331	1.42	117.90	116	6	7.05E-03	58.4	
2	0	62.84*	279	580	0.97	124.88	121	10	3.88E-02	17.7	
3	2	74.58	358	452	1.08	148.38	144	15	4.97E-02	11.1	2.17E+00
4	2	76.86	507	348	0.95	152.93	144	15	7.04E-02	7.5	
5	5	86.87	250	476	1.49	172.97	163	29	3.47E-02	17.1	6.12E+00
6	5	89.75	171	411	1.36	178.72	163	29	2.37E-02	22.8	
7	5	92.38*	931	392	1.31	183.99	163	29	1.29E-01	5.4	
8	5	94.46	84	377	1.26	188.15	163	29	1.17E-02	53.6	
9	0	119.92	69	181	1.39	239.09	237	5	9.60E-03	31.7	
10	0	185.55*	277	378	1.19	370.43	366	11	3.84E-02	15.8	
11	0	209.13	162	404	1.24	417.60	411	13	2.26E-02	26.7	
12	5	238.39*	965	213	1.09	476.16	469	19	1.34E-01	4.2	1.16E+00
13	5	241.45	261	255	1.62	482.27	469	19	3.63E-02	15.3	
14	0	269.88	76	229	1.59	539.17	534	10	1.06E-02	38.9	
15	2	295.04	340	160	1.50	589.51	584	20	4.72E-02	8.6	2.50E+00
16	2	299.99	66	158	1.46	599.41	584	20	9.12E-03	36.3	
17	0	338.16*	209	210	1.40	675.81	670	12	2.90E-02	15.8	
18	0	351.62*	512	161	1.24	702.74	699	11	7.11E-02	6.6	
19	0	462.46	53	132	1.37	924.54	919	11	7.32E-03	44.4	
20	0	510.29*	91	173	1.54	1020.26	1013	16	1.26E-02	38.1	
21	0	562.68	50	80	1.37	1125.10	1120	13	6.96E-03	39.1	
22	0	583.02*	257	115	1.13	1165.80	1160	12	3.57E-02	10.7	
23	0	608.98*	414	99	1.52	1217.76	1210	14	5.74E-02	7.3	
24	0	661.26	439	109	1.65	1322.39	1315	16	6.10E-02	7.1	
25	0	727.15	54	47	1.47	1454.24	1449	10	7.48E-03	25.5	
26	0	794.53	70	56	1.72	1589.10	1581	15	9.69E-03	26.3	
27	0	862.53	67	84	4.37	1725.19	1715	20	9.35E-03	36.4	
28	0	910.76*	193	42	1.77	1821.70	1815	13	2.68E-02	10.3	
29	0	968.67*	101	50	1.26	1937.61	1932	10	1.40E-02	16.9	
30	0	1000.49*	86	25	1.91	2001.28	1995	16	1.20E-02	17.8	
31	0	1119.47*	98	45	1.78	2239.42	2232	15	1.36E-02	18.4	
32	0	1331.28	27	7	3.77	2663.36	2658	11	3.72E-03	28.1	
33	0	1460.22*	927	4	2.00	2921.45	2913	17	1.29E-01	3.4	
34	0	1509.10	25	8	1.40	3019.29	3011	15	3.40E-03	31.6	
35	0	1764.19*	65	18	2.21	3529.90	3524	18	9.02E-03	21.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 21:09:45

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799014.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:09:07
Sample ID : G245799014 Sample quantity : 127.69 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA2 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.91 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.484E+01	2.897E+00	5.989E-01	5.694E-02	41.482
CD-109	+	88.03	*	3.874E+00	1.380E+00	1.242E+00	1.247E-01	3.120
SB-122	+	563.90	*	4.541E+00	3.578E+00	3.551E+00	3.410E-01	1.279
		692.80		-2.676E+01	4.971E+01	7.739E+01	6.845E+00	-0.346
SN-126	+	64.28		3.397E+00	1.305E+00	9.589E-01	1.422E-01	3.543
	+	86.94		1.582E+00	8.529E-01	5.141E-01	2.141E-01	3.078
	+	87.57	*	3.806E-01	1.356E-01	1.227E-01	1.226E-02	3.103
BA-137M	+	661.65	*	6.937E-01	1.156E-01	6.091E-02	5.248E-03	11.389
CS-137	+	661.65	*	7.333E-01	1.222E-01	6.439E-02	5.558E-03	11.389
TL-208		277.35		3.117E-01	4.021E-01	6.962E-01	1.058E-01	0.448
	+	510.84		4.853E-01	3.751E-01	2.185E-01	2.830E-02	2.221
	+	583.14	*	3.914E-01	9.242E-02	6.103E-02	6.114E-03	6.413
		860.37		6.187E-01	3.457E-01	6.345E-01	6.688E-02	0.975
BI-211		72.87		3.669E+00	3.715E+00	5.866E+00	5.049E-01	0.626
	+	351.07	*	3.469E+00	6.078E-01	3.656E-01	4.218E-02	9.488
PB-212	+	74.81		2.428E+00	6.230E-01	5.874E-01	7.523E-02	4.133
	+	77.11		1.921E+00	3.343E-01	3.295E-01	2.947E-02	5.829
	+	87.30		1.760E+00	6.513E-01	5.693E-01	8.037E-02	3.092
	+	238.63	*	1.427E+00	2.152E-01	9.789E-02	1.232E-02	14.577
	+	300.09		1.502E+00	1.110E+00	1.307E+00	1.767E-01	1.149
PO-212	+	74.81		2.428E+00	6.230E-01	5.874E-01	7.523E-02	4.133
	+	77.11		1.921E+00	3.343E-01	3.295E-01	2.947E-02	5.829
	+	87.30		1.760E+00	6.513E-01	5.693E-01	8.037E-02	3.092
		115.19		-3.112E+00	3.868E+00	6.166E+00	5.184E-01	-0.505
	+	238.63	*	1.427E+00	2.152E-01	9.789E-02	1.232E-02	14.577
	+	300.09		1.502E+00	1.110E+00	1.307E+00	1.767E-01	1.149
BI-214	+	609.31	*	1.186E+00	2.131E-01	1.091E-01	1.153E-02	10.870
	+	1120.29		1.466E+00	5.635E-01	4.801E-01	5.227E-02	3.053
	+	1764.49		1.342E+00	5.780E-01	3.777E-01	3.201E-02	3.554
PB-214	+	74.81		4.184E+00	1.047E+00	1.012E+00	1.161E-01	4.133
	+	77.11		3.293E+00	6.256E-01	5.649E-01	6.636E-02	5.829
	+	87.30		3.016E+00	1.099E+00	9.753E-01	1.229E-01	3.092
	+	241.98		2.321E+00	7.732E-01	5.899E-01	7.717E-02	3.934
	+	295.21		1.366E+00	2.997E-01	2.289E-01	3.145E-02	5.967

Sample ID : G245799014 Acquisition date : 10-FEB-2010 19:09:07

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.207E+00	2.206E-01	1.200E-01	1.517E-02	10.055
PO-214	+	74.81		4.184E+00	1.047E+00	1.012E+00	1.161E-01	4.133
	+	77.11		3.293E+00	6.256E-01	5.649E-01	6.636E-02	5.829
	+	87.30		3.016E+00	1.099E+00	9.753E-01	1.229E-01	3.092
	+	241.98		2.321E+00	7.732E-01	5.899E-01	7.717E-02	3.934
	+	295.21		1.366E+00	2.997E-01	2.289E-01	3.145E-02	5.967
	+	351.92	*	1.207E+00	2.206E-01	1.200E-01	1.517E-02	10.055
PO-216	+	74.81		2.428E+00	6.230E-01	5.874E-01	7.523E-02	4.133
	+	77.11		1.921E+00	3.343E-01	3.295E-01	2.947E-02	5.829
	+	87.30		1.760E+00	6.513E-01	5.693E-01	8.037E-02	3.092
	+	238.63	*	1.427E+00	2.152E-01	9.789E-02	1.232E-02	14.577
	+	300.09		1.502E+00	1.110E+00	1.307E+00	1.767E-01	1.149
PO-218	+	74.81		4.184E+00	1.047E+00	1.012E+00	1.161E-01	4.133
	+	77.11		3.293E+00	6.256E-01	5.649E-01	6.636E-02	5.829
	+	87.30		3.016E+00	1.099E+00	9.753E-01	1.229E-01	3.092
	+	241.98		2.321E+00	7.732E-01	5.899E-01	7.717E-02	3.934
	+	295.21		1.366E+00	2.997E-01	2.289E-01	3.145E-02	5.967
	+	351.92	*	1.207E+00	2.206E-01	1.200E-01	1.517E-02	10.055
RA-224	+	240.98	*	4.401E+00	1.445E+00	1.115E+00	1.315E-01	3.948
RA-226	+	609.31	*	1.186E+00	2.131E-01	1.091E-01	1.153E-02	10.870
	+	1120.29		1.466E+00	5.635E-01	4.801E-01	5.227E-02	3.053
	+	1764.49		1.342E+00	5.780E-01	3.777E-01	3.201E-02	3.554
AC-228	+	338.32		1.561E+00	8.203E-01	4.052E-01	1.700E-01	3.852
	+	911.07	*	1.306E+00	3.139E-01	2.294E-01	2.860E-02	5.693
	+	969.11		1.207E+00	4.995E-01	3.954E-01	9.420E-02	3.054
RA-228	+	338.32		1.561E+00	8.203E-01	4.052E-01	1.700E-01	3.852
	+	911.07	*	1.306E+00	3.139E-01	2.294E-01	2.860E-02	5.693
	+	969.11		1.207E+00	4.995E-01	3.954E-01	9.420E-02	3.054
TH-228	+	74.81		2.465E+00	5.897E-01	5.965E-01	5.265E-02	4.133
	+	77.11		1.950E+00	3.395E-01	3.346E-01	2.992E-02	5.830
	+	87.30		1.787E+00	6.367E-01	5.781E-01	5.760E-02	3.092
	+	238.63	*	1.449E+00	2.185E-01	9.939E-02	1.251E-02	14.577
	+	300.09		1.525E+00	1.436E+00	1.327E+00	7.952E-01	1.149
TH-230	+	609.31	*	1.186E+00	2.131E-01	1.091E-01	1.153E-02	10.870
	+	1120.29		1.466E+00	5.634E-01	4.801E-01	5.227E-02	3.053
	+	1764.49		1.342E+00	5.780E-01	3.777E-01	3.201E-02	3.554
TH-232	+	338.32		1.561E+00	5.257E-01	4.052E-01	4.658E-02	3.852
	+	911.07	*	1.306E+00	3.139E-01	2.294E-01	2.860E-02	5.693
	+	969.11		1.207E+00	4.995E-01	3.954E-01	9.420E-02	3.054
TH-234	+	63.29	*	8.582E+00	3.399E+00	2.548E+00	4.499E-01	3.368
	+	92.38		9.071E+00	1.941E+00	7.974E-01	1.477E-01	11.376
U-234	+	609.31	*	1.186E+00	2.131E-01	1.091E-01	1.153E-02	10.870
	+	1120.29		1.466E+00	5.634E-01	4.801E-01	5.227E-02	3.053
	+	1764.49		1.342E+00	5.780E-01	3.777E-01	3.201E-02	3.554
NP-237	+	86.50	*	1.118E+00	4.601E-01	3.652E-01	8.355E-02	3.060
	+	95.87		1.676E+00	1.846E+00	1.759E+00	4.370E-01	0.953
U-238	+	63.29	*	8.582E+00	3.399E+00	2.548E+00	4.499E-01	3.368
	+	92.38		9.071E+00	1.300E+00	7.974E-01	7.592E-02	11.376
AM-241	+	59.54	*	2.049E-01	2.398E-01	3.175E-01	2.601E-02	0.645

Sample ID : G245799014 Acquisition date : 10-FEB-2010 19:09:07

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	74.67	*	3.937E-01	9.406E-02	9.560E-02	8.359E-03	4.118
	+	86.72		4.192E+01	1.493E+01	1.366E+01	1.352E+00	3.069
		117.66		-4.078E+00	4.472E+00	6.234E+00	5.223E-01	-0.654
		142.18		3.230E+00	1.925E+01	3.091E+01	2.797E+00	0.104
ANH-511	+	511.00	*	1.048E-01	8.055E-02	4.721E-02	4.680E-03	2.220

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.268E-01	3.775E-01	6.444E-01	6.833E-02	0.507
NA-22		1274.54	*	-1.245E-02	5.228E-02	8.393E-02	7.441E-03	-0.148
NA-24		1368.53	*	-3.107E-03	5.228E-02	Half-Life too short		
AL-26		1129.67		8.576E-01	1.870E+00	3.237E+00	2.766E-01	0.265
		1808.65	*	-1.075E-02	3.097E-02	4.737E-02	3.921E-03	-0.227
TI-44		67.85		-2.717E-02	5.620E-02	8.375E-02	6.909E-03	-0.324
		78.38	*	1.238E-01	4.289E-02	7.050E-02	6.382E-03	1.755
SC-46		889.25	*	-4.634E-02	4.719E-02	6.878E-02	6.992E-03	-0.674
	+	1120.51		2.513E-01	9.515E-02	1.353E-01	1.169E-02	1.857
V-48		944.10		-8.310E-01	9.915E-01	1.445E+00	1.447E-01	-0.575
		983.50	*	-7.557E-02	7.469E-02	1.046E-01	1.023E-02	-0.723
		1312.09		3.446E-02	7.758E-02	1.346E-01	1.232E-02	0.256
CR-51		320.08	*	-4.042E-01	3.914E-01	6.040E-01	7.369E-02	-0.669
MN-52		744.21		-1.616E-01	2.826E-01	4.425E-01	4.076E-02	-0.365
		848.13		3.580E-01	7.537E+00	1.233E+01	1.222E+00	0.029
		935.52		-1.466E-03	2.868E-01	4.629E-01	4.653E-02	-0.003
		1246.25		3.894E+00	7.966E+00	1.374E+01	1.186E+00	0.284
		1333.61		1.324E+00	6.448E+00	9.401E+00	8.759E-01	0.141
		1434.06	*	1.691E-01	2.008E-01	3.758E-01	3.496E-02	0.450
MN-54		834.83	*	9.230E-03	4.105E-02	6.828E-02	6.708E-03	0.135
CO-56		846.75	*	1.080E-02	4.353E-02	7.256E-02	7.184E-03	0.149
		977.42		2.791E+00	3.329E+00	5.792E+00	5.687E-01	0.482
		1037.82		2.239E-01	3.002E-01	5.399E-01	5.300E-02	0.415
		1175.09		1.300E+00	2.453E+00	4.258E+00	3.435E-01	0.305
		1238.25		2.621E-02	9.665E-02	1.630E-01	1.438E-02	0.161
		1360.21		1.712E-01	9.733E-01	1.633E+00	1.523E-01	0.105
		1771.40		1.286E-01	2.762E-01	4.417E-01	3.730E-02	0.291
CO-57		122.06	*	-5.706E-03	2.911E-02	4.237E-02	3.542E-03	-0.135
		136.48		-1.560E-01	2.137E-01	3.370E-01	3.182E-02	-0.463
CO-58		810.76	*	-2.319E-02	3.909E-02	5.976E-02	5.788E-03	-0.388
FE-59		142.65		2.691E+00	3.007E+00	4.961E+00	4.499E-01	0.543
		192.34		2.300E-01	1.017E+00	1.646E+00	2.457E-01	0.140
		1099.22	*	-1.839E-02	8.585E-02	1.396E-01	1.331E-02	-0.132
		1291.56		-3.034E-02	1.306E-01	2.085E-01	2.109E-02	-0.146
CO-60		1173.22		1.693E-02	4.902E-02	8.378E-02	6.747E-03	0.202
	+	1332.49	*	7.132E-02	4.061E-02	7.168E-02	6.679E-03	0.995
ZN-65		1115.52	*	3.141E-03	1.141E-01	1.641E-01	1.428E-02	0.019
GE-68		1077.35	*	-3.063E-01	1.214E+00	1.971E+00	1.786E-01	-0.155
AS-73		53.44	*	3.763E-01	1.123E+00	1.947E+00	1.612E-01	0.193

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-74		595.88	*	-6.185E-02	9.621E-02	1.494E-01	1.395E-02	-0.414
		634.78		-2.837E-01	3.990E-01	6.271E-01	5.606E-02	-0.452
SE-75		66.05		-2.264E+00	5.892E+00	8.834E+00	8.858E-01	-0.256
		96.73		-7.235E-01	9.067E-01	1.291E+00	1.802E-01	-0.561
	+	121.11		2.132E-01	1.371E-01	2.415E-01	2.661E-02	0.883
		136.00		-1.761E-02	4.067E-02	6.519E-02	5.769E-03	-0.270
		198.60		-1.038E+00	1.983E+00	3.078E+00	3.604E-01	-0.337
		264.65	*	-6.967E-03	5.101E-02	7.503E-02	9.170E-03	-0.093
		279.53		-1.287E-01	1.182E-01	1.853E-01	2.339E-02	-0.695
		303.91		2.119E+00	2.252E+00	3.541E+00	5.062E-01	0.598
		400.65		-1.239E-02	2.925E-01	4.773E-01	5.842E-02	-0.026
BR-77	+	87.88		8.821E+02	3.142E+02	3.743E+02	3.755E+01	2.357
		200.40		-3.077E+01	1.859E+02	2.943E+02	3.234E+01	-0.105
	+	239.00		2.416E+02	3.478E+01	4.093E+01	4.815E+00	5.902
		249.79		-4.795E-01	7.476E+01	1.264E+02	1.511E+01	-0.004
		281.68		3.109E+01	9.845E+01	1.678E+02	2.077E+01	0.185
		297.23		9.669E+01	6.228E+01	1.100E+02	1.343E+01	0.879
		303.76		1.286E+02	2.061E+02	3.177E+02	3.853E+01	0.405
		439.47		-3.192E+00	1.734E+02	2.814E+02	2.835E+01	-0.011
		484.57		-7.181E+01	2.512E+02	3.949E+02	3.952E+01	-0.182
		520.65	*	2.906E+00	1.245E+01	2.032E+01	2.005E+00	0.143
		574.64		-1.358E+02	2.353E+02	3.782E+02	3.600E+01	-0.359
		578.91		3.593E+01	1.064E+02	1.612E+02	1.529E+01	0.223
		585.48		4.652E+02	2.299E+02	3.906E+02	3.683E+01	1.191
		755.35		1.484E+02	1.812E+02	3.189E+02	2.963E+01	0.465
		817.79		1.459E+02	1.420E+02	2.545E+02	2.472E+01	0.573
SR-82		698.33		3.143E+01	3.873E+01	6.781E+01	6.025E+00	0.463
		776.49	*	-1.188E-01	3.809E-01	6.055E-01	5.714E-02	-0.196
		1395.20		-9.813E+00	1.109E+01	1.536E+01	1.432E+00	-0.639
RB-83		520.41	*	4.451E-02	7.518E-02	1.262E-01	1.245E-02	0.353
		529.64		-6.235E-02	1.188E-01	1.814E-01	1.781E-02	-0.344
		552.65		-1.878E-01	2.068E-01	3.230E-01	3.127E-02	-0.581
RB-84		881.50	*	1.816E-03	7.725E-02	1.257E-01	1.272E-02	0.014
KR-85		513.99	*	2.774E+00	8.801E+00	1.272E+01	1.259E+00	0.218
SR-85		513.99	*	1.425E-02	4.521E-02	6.535E-02	6.469E-03	0.218
RB-86		1076.63	*	-5.457E-01	7.726E-01	1.186E+00	1.075E-01	-0.460
Y-88		898.02		-3.485E-02	4.519E-02	6.696E-02	6.867E-03	-0.521
		1836.01	*	1.934E-02	3.049E-02	5.743E-02	4.684E-03	0.337
ZR-88		392.90	*	-1.177E-02	3.589E-02	5.756E-02	5.760E-03	-0.205
Y-91		1204.90	*	1.356E+01	1.794E+01	3.189E+01	2.648E+00	0.425
NB-94		702.63	*	4.211E-03	3.782E-02	6.312E-02	5.628E-03	0.067
		871.10		-1.207E-02	3.948E-02	5.560E-02	5.590E-03	-0.217
NB-95		765.79	*	5.792E-02	5.354E-02	9.246E-02	8.657E-03	0.626
NB-95M		235.69	*	1.093E-01	1.497E-01	2.328E-01	2.945E-02	0.469
ZR-95		724.18		2.287E-02	1.171E-01	1.713E-01	1.676E-02	0.134
		756.15	*	6.821E-02	7.458E-02	1.320E-01	1.335E-02	0.517
NB-97		657.90	*	1.313E-01	7.458E-02	Half-Life too short		
		1024.50		3.275E+00	7.458E-02	Half-Life too short		
ZR-97		254.15		-1.455E+00	7.458E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		355.39		-6.378E-01	7.458E-02	Half-Life too short		
		507.63	*	3.525E+00	7.458E-02	Half-Life too short		
		602.52		-5.638E+00	7.458E-02	Half-Life too short		
		1021.30		8.680E+00	7.458E-02	Half-Life too short		
		1147.95		-8.954E+00	7.458E-02	Half-Life too short		
		1362.66		-8.915E+00	7.458E-02	Half-Life too short		
		1750.46		1.783E+00	7.458E-02	Half-Life too short		
MO-99		140.51		-2.040E+01	2.893E+01	4.483E+01	1.247E+01	-0.455
		181.06		2.889E+00	2.171E+01	3.132E+01	6.040E+00	0.092
		366.43		-7.837E+01	1.045E+02	1.637E+02	1.766E+01	-0.479
		739.58	*	1.922E+01	1.424E+01	2.543E+01	3.944E+00	0.756
		778.00		-3.191E+01	3.716E+01	5.564E+01	5.256E+00	-0.574
TC-99M		140.51	*	-4.673E+10	3.716E+01	Half-Life too short		
RH-101		127.23		1.788E-02	3.494E-02	5.851E-02	4.966E-03	0.306
		198.01	*	2.955E-03	3.574E-02	5.734E-02	6.272E-03	0.052
		325.23		-2.289E-02	2.495E-01	4.124E-01	4.853E-02	-0.055
RH-102		418.52		-8.060E-02	3.219E-01	5.156E-01	5.188E-02	-0.156
		475.06	*	7.639E-03	3.371E-02	5.532E-02	5.550E-03	0.138
		631.29		-2.627E-02	6.221E-02	1.005E-01	9.019E-03	-0.262
		697.49		1.739E-02	8.521E-02	1.433E-01	1.272E-02	0.121
		766.84		2.488E-01	1.378E-01	2.465E-01	2.310E-02	1.009
		1046.59		2.350E-02	1.175E-01	2.004E-01	1.869E-02	0.117
		1112.84		5.598E-02	2.763E-01	4.073E-01	3.551E-02	0.137
RU-103		497.08	*	3.979E-02	4.584E-02	7.807E-02	1.173E-02	0.510
	+	610.33		1.285E+01	2.873E+00	3.086E+00	5.243E-01	4.165
RH-106		511.85		3.830E-01	2.534E-01	4.745E-01	4.702E-02	0.807
		621.84	*	-2.031E-01	3.384E-01	5.363E-01	7.326E-02	-0.379
		1050.47		1.172E+00	2.486E+00	4.337E+00	4.030E-01	0.270
RU-106		511.85		3.830E-01	2.534E-01	4.745E-01	4.702E-02	0.807
		621.84	*	-2.031E-01	3.378E-01	5.363E-01	4.870E-02	-0.379
		1050.47		1.172E+00	2.486E+00	4.337E+00	4.030E-01	0.270
AG-108M		433.93	*	-1.013E-02	3.731E-02	5.948E-02	6.166E-03	-0.170
		614.37		3.993E-03	4.291E-02	6.312E-02	5.982E-03	0.063
		722.95		-1.241E-02	4.807E-02	6.649E-02	6.239E-03	-0.187
AG-110M		657.75	*	2.911E-02	4.329E-02	6.711E-02	5.986E-03	0.434
		677.61		9.915E-02	2.956E-01	5.053E-01	4.534E-02	0.196
		706.67		-8.902E-02	2.136E-01	3.402E-01	3.121E-02	-0.262
		763.93		-2.951E-02	2.017E-01	3.279E-01	3.139E-02	-0.090
		884.67		4.601E-02	5.795E-02	1.006E-01	1.044E-02	0.457
		937.48		-3.582E-02	1.205E-01	1.882E-01	1.941E-02	-0.190
		1384.27		8.173E-02	1.905E-01	3.272E-01	3.124E-02	0.250
IN-111		171.28		9.079E-01	1.122E+00	1.874E+00	1.943E-01	0.485
		245.39	*	1.001E-01	1.250E+00	1.879E+00	2.232E-01	0.053
IN-113M		391.69	*	2.895E-02	5.268E-02	8.909E-02	9.117E-03	0.325
SN-113		391.69	*	2.895E-02	5.268E-02	8.909E-02	9.117E-03	0.325
IN-114M		190.27	*	1.758E-01	2.108E-01	3.164E-01	3.407E-02	0.556
CD-115		260.90		-7.966E+01	1.430E+02	2.336E+02	2.835E+01	-0.341
		492.35		-5.907E+00	4.253E+01	6.770E+01	6.759E+00	-0.087
		527.90	*	-1.094E+01	1.295E+01	1.915E+01	1.882E+00	-0.571

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-117M		156.02		-2.099E+00	2.415E+00	3.746E+00	3.640E-01	-0.560
		158.56	*	-2.143E-02	5.808E-02	9.245E-02	9.108E-03	-0.232
I-123		159.00	*	7.335E-01	5.808E-02	Half-Life too short		
		528.96		-4.379E+02	5.808E-02	Half-Life too short		
TE-123M		159.00	*	2.884E-03	3.017E-02	4.912E-02	4.873E-03	0.059
I-124		602.71	*	-7.146E-01	8.189E-01	1.072E+00	9.944E-02	-0.666
		722.78		-1.128E+00	5.190E+00	7.220E+00	6.542E-01	-0.156
		1325.50		2.344E+01	4.191E+01	6.505E+01	6.025E+00	0.360
		1376.25		4.962E+01	3.557E+01	6.740E+01	6.285E+00	0.736
	+	1509.49		3.145E+01	2.011E+01	3.363E+01	3.101E+00	0.935
		1691.02		-1.605E-01	3.747E+00	6.184E+00	5.417E-01	-0.026
SB-124		602.71		-4.039E-02	4.629E-02	6.061E-02	5.621E-03	-0.666
		645.85		3.099E-01	5.258E-01	9.164E-01	8.539E-02	0.338
		709.31		-2.492E+00	2.794E+00	4.224E+00	3.786E-01	-0.590
		713.82		1.302E+00	1.668E+00	2.931E+00	3.608E-01	0.444
		722.78		-9.245E-02	4.252E-01	5.915E-01	5.465E-02	-0.156
	+	968.20		1.245E+01	4.388E+00	7.270E+00	7.179E-01	1.713
		1045.16		-9.018E-01	2.432E+00	3.908E+00	3.648E-01	-0.231
		1325.50		2.052E+00	3.667E+00	5.692E+00	5.272E-01	0.360
		1368.21		9.309E-01	1.763E+00	3.094E+00	4.312E-01	0.301
		1436.60		2.894E+00	3.191E+00	6.015E+00	5.595E-01	0.481
		1691.02	*	-3.102E-03	7.241E-02	1.195E-01	1.087E-02	-0.026
SB-125		427.89	*	-5.041E-02	1.064E-01	1.673E-01	1.709E-02	-0.301
	+	463.38		5.528E-01	4.945E-01	6.171E-01	6.565E-02	0.896
		600.56		1.225E-03	1.928E-01	3.054E-01	3.020E-02	0.004
		635.90		1.267E-02	2.981E-01	4.989E-01	4.790E-02	0.025
TE-125M		109.28	*	4.897E-01	9.826E+00	1.631E+01	1.672E+00	0.030
I-126		388.63		7.065E-02	2.416E-01	4.031E-01	4.073E-02	0.175
		666.33	*	8.457E-02	2.147E-01	3.240E-01	2.803E-02	0.261
		753.82		-2.254E-01	1.576E+00	2.560E+00	2.376E-01	-0.088
SB-126		223.80		3.198E+00	4.460E+00	7.319E+00	8.399E-01	0.437
		278.60		2.195E+00	2.642E+00	4.595E+00	5.695E-01	0.478
	+	296.50		1.374E+01	2.889E+00	3.606E+00	4.407E-01	3.809
		414.70		-3.150E-02	8.295E-02	1.316E-01	1.324E-02	-0.239
		415.30		-2.045E+00	6.924E+00	1.106E+01	1.112E+00	-0.185
		555.20		9.859E-01	4.136E+00	6.928E+00	6.695E-01	0.142
		573.80		-4.550E-02	1.087E+00	1.823E+00	1.736E-01	-0.025
		593.00		-5.286E-01	9.345E-01	1.492E+00	1.397E-01	-0.354
		656.30		1.851E-01	4.049E+00	5.885E+00	5.110E-01	0.031
		666.33		3.535E-02	8.975E-02	1.355E-01	1.172E-02	0.261
		675.00		-1.017E+00	1.927E+00	3.038E+00	2.647E-01	-0.335
		695.00		-1.059E-01	8.771E-02	1.279E-01	1.133E-02	-0.828
		697.00		-3.443E-02	2.955E-01	4.849E-01	4.303E-02	-0.071
		720.50	*	8.647E-02	1.681E-01	2.659E-01	2.405E-02	0.325
		856.80		-1.214E-01	6.202E-01	8.488E-01	8.458E-02	-0.143
		989.30		-1.069E-01	1.313E+00	2.070E+00	2.017E-01	-0.052
		1034.80		1.732E+00	8.990E+00	1.535E+01	1.446E+00	0.113
		1213.00		4.164E+00	5.280E+00	9.299E+00	7.782E-01	0.448
SB-127		61.10		9.021E+01	9.382E+01	1.231E+02	1.294E+01	0.733

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		6.497E-02	4.868E+00	8.231E+00	3.528E+00	0.008
		290.80		-7.394E+00	2.652E+01	3.825E+01	5.443E+00	-0.193
		411.60		-2.131E+01	1.471E+01	2.092E+01	3.470E+00	-1.019
		444.90		-3.099E-01	1.179E+01	1.910E+01	2.601E+00	-0.016
		473.00		-1.253E+00	2.004E+00	3.071E+00	4.268E-01	-0.408
		543.00		-1.008E+01	1.843E+01	2.787E+01	4.217E+00	-0.362
		603.60		-1.015E+01	1.420E+01	1.895E+01	2.465E+00	-0.536
		685.20	*	-3.710E-01	1.451E+00	2.352E+00	2.720E-01	-0.158
		698.50		1.513E+01	1.781E+01	3.106E+01	4.971E+00	0.487
		722.20		1.137E+01	3.444E+01	5.137E+01	5.935E+00	0.221
		783.80		5.259E+00	4.009E+00	7.214E+00	9.435E-01	0.729
XE-127		57.60		7.117E+00	8.380E+00	1.342E+01	1.033E+00	0.530
		145.22		1.124E-01	7.392E-01	1.212E+00	1.114E-01	0.093
		172.10		1.100E-01	1.295E-01	2.164E-01	2.247E-02	0.508
		202.84	*	1.558E-03	5.302E-02	8.057E-02	8.897E-03	0.019
		374.96		-2.261E-01	2.205E-01	3.355E-01	3.535E-02	-0.674
I-131		80.18		4.977E+00	5.948E+00	7.624E+00	7.067E-01	0.653
		284.30		-8.918E-01	1.602E+00	2.598E+00	3.293E-01	-0.343
		364.48	*	-5.833E-02	1.370E-01	2.195E-01	2.463E-02	-0.266
		636.97		1.332E+00	1.719E+00	3.029E+00	2.842E-01	0.440
		722.89		-2.086E+00	8.226E+00	1.139E+01	1.038E+00	-0.183
TE-132		49.72		2.859E+00	3.118E+01	4.859E+01	5.359E+00	0.059
		111.76		2.418E+01	3.603E+01	5.862E+01	6.322E+00	0.413
		116.30		-1.122E+00	3.373E+01	4.975E+01	5.336E+00	-0.023
		228.16	*	4.425E-01	7.967E-01	1.293E+00	2.267E-01	0.342
BA-133		53.15		4.354E-01	4.780E+00	8.219E+00	6.839E-01	0.053
		79.62		1.187E+00	1.711E+00	2.162E+00	3.359E-01	0.549
		81.00		5.437E-02	1.274E-01	1.581E-01	2.570E-02	0.344
		276.40		1.657E-01	3.968E-01	6.786E-01	1.150E-01	0.244
		302.84		1.049E-01	1.567E-01	2.418E-01	3.819E-02	0.434
		356.01	*	-1.678E-02	5.172E-02	7.263E-02	1.083E-02	-0.231
		383.85		-2.687E-01	3.302E-01	5.086E-01	7.007E-02	-0.528
I-133	+	510.53		1.233E+00	3.302E-01	Half-Life too short		
		529.87	*	-1.960E-03	3.302E-01	Half-Life too short		
		706.58		-1.955E-01	3.302E-01	Half-Life too short		
		856.28		-1.884E-01	3.302E-01	Half-Life too short		
		875.33		9.442E-02	3.302E-01	Half-Life too short		
		1236.41		4.661E-01	3.302E-01	Half-Life too short		
		1298.22		-8.651E-02	3.302E-01	Half-Life too short		
CS-134		475.35		8.475E-01	2.229E+00	3.695E+00	3.706E-01	0.229
	+	563.23		7.562E-01	5.959E-01	7.305E-01	7.072E-02	1.035
		569.32		7.952E-02	2.320E-01	3.524E-01	3.406E-02	0.226
		604.70		9.975E-03	3.843E-02	5.758E-02	5.340E-03	0.173
	+	795.84	*	1.528E-01	8.169E-02	1.015E-01	9.764E-03	1.506
		801.93		3.611E-01	4.417E-01	7.391E-01	7.133E-02	0.489
		1038.57		1.348E+00	3.782E+00	6.563E+00	6.161E-01	0.205
		1167.94		-4.051E-01	2.545E+00	4.150E+00	3.368E-01	-0.098
		1365.15		6.379E-01	1.258E+00	2.201E+00	2.133E-01	0.290
CS-135		268.24	*	3.066E-01	1.963E-01	3.145E-01	4.160E-02	0.975

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-135		288.45		3.719E+10	1.963E-01	Half-Life too short		
		417.63		5.872E+09	1.963E-01	Half-Life too short		
		546.56		-1.486E+09	1.963E-01	Half-Life too short		
		836.80		1.727E+10	1.963E-01	Half-Life too short		
		1038.76		9.802E+09	1.963E-01	Half-Life too short		
		1124.00		-2.010E+10	1.963E-01	Half-Life too short		
		1131.51		-2.258E+09	1.963E-01	Half-Life too short		
		1260.41	*	-5.051E+09	1.963E-01	Half-Life too short		
		1457.56		1.232E+12	1.963E-01	Half-Life too short		
		1678.03		-6.108E+08	1.963E-01	Half-Life too short		
		1706.46		-6.494E+09	1.963E-01	Half-Life too short		
		1791.20		-1.806E+10	1.963E-01	Half-Life too short		
CS-136		66.91		5.096E-01	9.494E-01	1.482E+00	2.252E-01	0.344
	+	86.29		5.015E+00	1.849E+00	2.204E+00	3.021E-01	2.275
		153.22		6.434E-01	7.098E-01	1.194E+00	1.253E-01	0.539
		163.89		-3.125E-02	1.190E+00	1.884E+00	2.079E-01	-0.017
		176.55		2.832E-01	4.018E-01	6.667E-01	7.260E-02	0.425
		273.65		-4.233E-01	5.634E-01	7.877E-01	1.003E-01	-0.537
		340.57		2.229E-01	1.530E-01	2.444E-01	2.844E-02	0.912
		818.51		8.169E-02	7.631E-02	1.371E-01	1.333E-02	0.596
		1048.07	*	-9.543E-03	1.139E-01	1.891E-01	1.825E-02	-0.050
		1235.34		4.946E-01	6.583E-01	1.149E+00	1.355E-01	0.431
CE-139		165.85	*	-7.949E-03	3.120E-02	4.979E-02	5.108E-03	-0.160
BA-140		162.64		-9.129E-02	8.507E-01	1.343E+00	1.411E-01	-0.068
		304.84		2.533E-02	1.419E+00	2.087E+00	6.114E-01	0.012
		423.70		-3.749E-01	2.076E+00	3.332E+00	1.094E+00	-0.113
		537.32	*	8.039E-02	2.897E-01	4.719E-01	1.579E-01	0.170
LA-140		328.77		5.216E-01	3.384E-01	5.970E-01	7.199E-02	0.874
		432.53		4.215E-01	2.438E+00	4.012E+00	4.186E-01	0.105
		487.03		6.230E-02	1.456E-01	2.426E-01	2.538E-02	0.257
		751.79		-1.491E+00	1.852E+00	2.810E+00	2.846E-01	-0.531
		815.85		5.399E-02	3.329E-01	5.529E-01	5.857E-02	0.098
		867.82		-1.100E-01	1.557E+00	2.160E+00	2.253E-01	-0.051
		919.63		4.510E-01	3.112E+00	5.107E+00	6.078E-01	0.088
		925.24		3.562E-01	1.210E+00	2.016E+00	2.130E-01	0.177
		1596.49	*	4.650E-02	8.496E-02	1.541E-01	1.393E-02	0.302
CE-141		145.44	*	9.963E-04	6.673E-02	1.088E-01	1.017E-02	0.009
CE-143		57.37		5.758E-04	6.673E-02	Half-Life too short		
		231.56		-2.951E-03	6.673E-02	Half-Life too short		
		293.26	*	6.978E-04	6.673E-02	Half-Life too short		
	+	350.59		3.013E-02	6.673E-02	Half-Life too short		
		490.36		-2.702E-03	6.673E-02	Half-Life too short		
		664.57		2.659E-03	6.673E-02	Half-Life too short		
		721.93		8.574E-04	6.673E-02	Half-Life too short		
CE-144		80.11		2.326E+00	2.700E+00	3.467E+00	3.193E-01	0.671
		133.54	*	6.977E-02	2.074E-01	3.444E-01	5.376E-02	0.203
PM-144		476.78		1.873E-02	7.931E-02	1.302E-01	1.397E-02	0.144
		618.01		2.472E-02	3.246E-02	5.739E-02	5.365E-03	0.431
		696.49	*	-2.206E-02	3.836E-02	6.053E-02	5.372E-03	-0.364

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.57		-1.526E+00	2.396E+00	3.682E+00	3.480E-01	-0.414
PR-144		696.49	*	-1.495E+00	2.599E+00	4.102E+00	3.639E-01	-0.364
		1489.15		-4.604E+00	1.254E+01	1.902E+01	1.758E+00	-0.242
PM-146		453.90	*	9.125E-03	5.125E-02	8.406E-02	1.002E-02	0.109
		633.02		-8.762E-01	1.579E+00	2.463E+00	9.226E-01	-0.356
		735.90		-1.557E-01	1.628E-01	2.338E-01	6.727E-02	-0.666
		747.13		-1.102E-02	9.998E-02	1.630E-01	2.351E-02	-0.068
ND-147	+	91.11		4.616E+00	6.817E-01	7.563E-01	7.788E-02	6.103
		319.41		-6.475E-01	3.430E+00	5.638E+00	6.696E-01	-0.115
		439.89		-3.965E-01	6.986E+00	1.130E+01	1.139E+00	-0.035
		531.02	*	4.793E-01	6.215E-01	1.051E+00	1.647E-01	0.456
PM-149		285.90	*	-3.436E+01	1.010E+02	1.658E+02	2.965E+01	-0.207
EU-152		121.78		6.731E-03	8.531E-02	1.262E-01	1.224E-02	0.053
		244.69		1.919E-01	3.612E-01	5.589E-01	6.633E-02	0.343
		344.27	*	-1.131E-02	1.094E-01	1.663E-01	1.955E-02	-0.068
		443.98		3.535E-01	1.089E+00	1.807E+00	1.820E-01	0.196
		778.89		-1.251E-01	2.737E-01	4.289E-01	4.054E-02	-0.292
		867.32		-9.073E-02	9.545E-01	1.320E+00	1.324E-01	-0.069
		964.01		3.685E-01	3.692E-01	5.748E-01	5.690E-02	0.641
		1085.78		-7.053E-02	4.396E-01	7.221E-01	6.485E-02	-0.098
		1112.02		1.042E-01	3.935E-01	5.847E-01	5.102E-02	0.178
		1407.95		1.679E-01	1.833E-01	3.368E-01	3.138E-02	0.499
GD-153		69.67		-7.992E-01	1.833E+00	2.914E+00	2.441E-01	-0.274
		83.37		4.004E+01	1.624E+01	2.836E+01	2.703E+00	1.412
		97.43	*	6.154E-02	9.254E-02	1.427E-01	1.297E-02	0.431
		103.18		-7.615E-02	1.039E-01	1.668E-01	1.460E-02	-0.457
EU-154		123.07		1.722E-02	6.003E-02	8.980E-02	1.004E-02	0.192
		247.94		8.846E-02	3.736E-01	6.390E-01	9.027E-02	0.138
		591.81		-1.377E-02	6.072E-01	1.017E+00	1.244E-01	-0.014
		723.30		-1.173E-01	2.091E-01	2.776E-01	2.757E-02	-0.423
		756.87		5.807E-01	8.287E-01	1.440E+00	1.797E-01	0.403
		873.19		1.664E-01	3.028E-01	5.194E-01	6.909E-02	0.320
		996.32		4.227E-01	4.669E-01	7.226E-01	1.323E-01	0.585
		1004.76		1.427E-01	2.319E-01	3.662E-01	4.545E-02	0.390
		1274.45	*	-3.088E-02	1.464E-01	2.357E-01	2.709E-02	-0.131
EU-155		48.70		-4.920E+00	4.079E+00	5.874E+00	5.201E-01	-0.837
	+	60.01		6.665E+00	7.799E+00	1.071E+01	8.084E-01	0.622
	+	86.54		4.585E-01	1.634E-01	2.013E-01	2.004E-02	2.277
		105.31	*	1.853E-02	1.095E-01	1.830E-01	1.604E-02	0.101
TB-160	+	86.79		1.227E+00	4.370E-01	5.365E-01	5.313E-02	2.287
		197.04		4.536E-01	6.087E-01	1.005E+00	1.098E-01	0.451
		215.65		2.188E-01	8.287E-01	1.334E+00	1.509E-01	0.164
	+	298.57		2.190E-01	1.613E-01	2.118E-01	2.583E-02	1.034
		879.36	*	-1.375E-01	1.527E-01	2.231E-01	2.254E-02	-0.616
		962.29		4.043E-01	6.874E-01	1.025E+00	1.015E-01	0.395
		966.15		7.287E-01	3.170E-01	5.250E-01	5.190E-02	1.388
		1177.93		-1.653E-01	3.860E-01	6.121E-01	4.952E-02	-0.270
		1271.85		5.160E-01	7.992E-01	1.399E+00	1.236E-01	0.369
HO-166M		80.57		1.101E-01	3.511E-01	4.331E-01	4.008E-02	0.254

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	184.41		2.135E-01	7.110E-02	8.492E-02	9.039E-03	2.515
		280.46		-8.120E-02	9.314E-02	1.484E-01	1.839E-02	-0.547
		410.95		2.313E-02	2.710E-01	4.450E-01	4.472E-02	0.052
		711.68	*	4.794E-05	6.208E-02	1.026E-01	9.218E-03	0.000
		752.31		-2.483E-01	2.923E-01	4.415E-01	4.092E-02	-0.562
		810.29		-1.781E-02	5.789E-02	9.153E-02	8.845E-03	-0.195
TM-171		51.35		1.435E+01	4.173E+01	7.255E+01	6.228E+00	0.198
		52.39		1.231E+01	2.112E+01	3.700E+01	3.121E+00	0.333
	+	59.40		3.506E+01	4.102E+01	5.879E+01	4.400E+00	0.596
		66.72	*	1.673E+01	3.398E+01	5.309E+01	4.337E+00	0.315
LU-176	+	88.36		5.943E-01	2.777E-01	3.744E-01	3.743E-02	1.587
		201.83		5.423E-03	3.055E-02	4.919E-02	5.421E-03	0.110
		306.84	*	-2.183E-02	2.482E-02	3.889E-02	4.698E-03	-0.561
		401.10		3.093E+00	7.639E+00	1.281E+01	1.285E+00	0.241
LU-177		112.95		5.390E-01	1.936E+00	3.108E+00	2.625E-01	0.173
	+	208.36	*	4.328E+00	2.366E+00	2.258E+00	2.520E-01	1.917
LU-177M		52.97		-3.751E-01	2.148E+00	3.654E+00	3.050E-01	-0.103
		54.07		-7.379E-01	1.145E+00	1.907E+00	1.561E-01	-0.387
		61.30		2.686E+00	2.350E+00	3.124E+00	2.406E-01	0.860
		121.62		2.898E-01	4.298E-01	6.570E-01	5.486E-02	0.441
		147.16		-6.488E-01	6.889E-01	1.070E+00	9.922E-02	-0.606
		171.86		4.502E-01	5.186E-01	8.674E-01	9.003E-02	0.519
		218.09		7.754E-02	9.339E-01	1.489E+00	1.692E-01	0.052
	+	268.79		1.731E+00	1.363E+00	1.627E+00	1.993E-01	1.064
		319.02		1.241E-02	2.728E-01	4.419E-01	5.251E-02	0.028
		367.43		-2.045E-01	1.051E+00	1.709E+00	1.839E-01	-0.120
		413.65	*	-1.173E-01	1.877E-01	2.919E-01	2.935E-02	-0.402
HF-181		56.28		-2.553E-01	1.355E+00	2.068E+00	1.627E-01	-0.123
		57.53		5.376E-01	7.030E-01	1.122E+00	8.644E-02	0.479
		65.20		-5.824E-01	1.161E+00	1.731E+00	1.395E-01	-0.336
		133.02		-2.684E-02	6.761E-02	1.087E-01	9.439E-03	-0.247
		136.25		-2.428E-01	4.730E-01	7.550E-01	6.645E-02	-0.322
		345.85		-2.261E-02	2.062E-01	3.271E-01	3.704E-02	-0.069
		482.03	*	-2.547E-02	4.566E-02	7.010E-02	7.020E-03	-0.363
W-181		56.28		-9.986E-02	5.294E-01	8.080E-01	6.356E-02	-0.124
		57.53		2.095E-01	2.748E-01	4.387E-01	3.379E-02	0.478
		65.20	*	-2.259E-01	4.503E-01	6.716E-01	5.410E-02	-0.336
TA-182		67.75		1.109E-03	1.320E-01	2.015E-01	1.661E-02	0.006
		100.10		-3.279E-02	1.898E-01	3.138E-01	2.797E-02	-0.104
		152.43		1.966E-01	3.582E-01	5.955E-01	5.676E-02	0.330
		222.10		1.178E-01	3.795E-01	6.114E-01	6.995E-02	0.193
	+	1001.68		9.233E+00	3.408E+00	4.985E+00	4.816E-01	1.852
		1121.28		4.946E-01	2.090E-01	3.648E-01	3.149E-02	1.356
		1189.05		-1.447E-02	3.109E-01	5.122E-01	4.189E-02	-0.028
		1221.42	*	7.167E-02	2.106E-01	3.583E-01	3.022E-02	0.200
		1230.97		2.638E-01	5.427E-01	9.311E-01	7.925E-02	0.283
RE-183	+	57.98		2.503E-01	2.929E-01	4.466E-01	3.415E-02	0.561
	+	59.32		1.439E-01	1.684E-01	2.431E-01	1.821E-02	0.592
		67.20		1.514E-01	2.389E-01	3.752E-01	3.078E-02	0.403

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		162.32	*	-4.397E-02	1.247E-01	1.945E-01	1.956E-02	-0.226
	+	208.81		3.826E+00	2.091E+00	2.021E+00	2.257E-01	1.893
		291.72		5.234E-01	1.082E+00	1.651E+00	2.027E-01	0.317
RE-184	+	57.98		9.215E-01	1.078E+00	1.644E+00	1.257E-01	0.561
	+	59.32		5.293E-01	6.192E-01	8.941E-01	6.699E-02	0.592
		67.20		5.571E-01	8.790E-01	1.381E+00	1.133E-01	0.403
		161.27		1.043E-01	3.876E-01	6.351E-01	6.350E-02	0.164
		216.55		2.218E-02	2.920E-01	4.656E-01	5.275E-02	0.048
		252.85	*	8.790E-02	2.506E-01	4.301E-01	5.164E-02	0.204
		318.01		8.914E-03	4.723E-01	7.641E-01	9.092E-02	0.012
		792.07		1.426E+00	1.147E+00	1.875E+00	1.789E-01	0.761
		903.28		-6.579E-01	1.227E+00	1.668E+00	1.701E-01	-0.394
		920.93		-1.429E-02	5.035E-01	8.118E-01	8.217E-02	-0.018
OS-185	+	59.72		3.924E-01	4.591E-01	6.448E-01	4.839E-02	0.609
		61.14		2.582E-01	2.582E-01	3.403E-01	2.615E-02	0.759
		69.30		-1.752E-01	3.146E-01	5.219E-01	4.358E-02	-0.336
		592.07		-5.478E-01	2.473E+00	4.072E+00	3.817E-01	-0.135
		646.12	*	3.011E-02	4.442E-02	7.794E-02	6.865E-03	0.386
		717.42		-4.461E-01	9.976E-01	1.585E+00	1.430E-01	-0.281
		874.81		3.578E-01	6.053E-01	1.042E+00	1.050E-01	0.343
		880.27		-1.226E+00	8.805E-01	1.202E+00	1.215E-01	-1.020
RE-188		155.03	*	9.413E-02	1.803E-01	2.992E-01	2.892E-02	0.315
		477.96		3.270E+00	3.606E+00	6.173E+00	6.189E-01	0.530
		633.10		-1.855E+00	3.125E+00	4.965E+00	4.448E-01	-0.374
W-188	+	63.58		3.455E+02	1.255E+02	1.423E+02	1.128E+01	2.428
		227.08		7.078E+00	1.407E+01	2.285E+01	2.637E+00	0.310
		290.67	*	-2.595E+00	8.897E+00	1.282E+01	1.576E+00	-0.202
IR-192	+	295.96		1.043E+00	2.197E-01	2.973E-01	3.649E-02	3.508
		308.46		-2.086E-02	9.626E-02	1.583E-01	1.914E-02	-0.132
		316.51	*	-1.786E-02	3.742E-02	5.869E-02	7.008E-03	-0.304
		468.07		-1.891E-02	8.263E-02	1.138E-01	1.204E-02	-0.166
		604.41		9.639E-02	5.176E-01	7.697E-01	1.035E-01	0.125
		612.46		-1.370E-02	8.023E-01	1.166E+00	1.211E-01	-0.012
AU-195		65.12		-1.084E-01	2.086E-01	3.109E-01	2.503E-02	-0.349
		66.83		6.489E-02	1.126E-01	1.765E-01	1.444E-02	0.368
	+	75.70		1.275E+00	3.046E-01	4.870E-01	4.298E-02	2.618
		98.88	*	5.031E-01	2.563E-01	4.347E-01	3.908E-02	1.157
		129.76		2.980E+00	3.069E+00	5.213E+00	4.466E-01	0.572
TL-200		367.94	*	-2.104E-05	3.069E+00	Half-Life too short		
		579.30		7.741E-04	3.069E+00	Half-Life too short		
		828.27		-4.026E-04	3.069E+00	Half-Life too short		
		1205.75		-8.026E-04	3.069E+00	Half-Life too short		
TL-201		68.90		-2.084E+00	5.395E+00	9.014E+00	7.502E-01	-0.231
		70.82		-5.368E-01	3.361E+00	5.081E+00	4.297E-01	-0.106
		80.30		3.028E+00	6.803E+00	8.475E+00	7.821E-01	0.357
		135.34		-2.742E-02	2.681E+01	4.387E+01	3.845E+00	-0.001
		167.43	*	-9.415E-01	7.484E+00	1.201E+01	1.236E+00	-0.078
TL-202		68.90		-1.817E-01	4.704E-01	7.859E-01	6.542E-02	-0.231
		70.82		-4.668E-02	2.923E-01	4.418E-01	3.737E-02	-0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		80.30		2.634E-01	5.917E-01	7.372E-01	6.803E-02	0.357
		439.56	*	-8.120E-03	8.118E-02	1.310E-01	1.319E-02	-0.062
HG-203		70.83		-2.021E-01	1.257E+00	1.900E+00	2.565E-01	-0.106
		72.87		7.318E-01	7.446E-01	1.170E+00	1.544E-01	0.626
		82.60		1.455E+00	1.295E+00	2.020E+00	2.884E-01	0.720
		279.20	*	-9.432E-03	4.281E-02	7.101E-02	8.928E-03	-0.133
BI-207		72.80		1.455E-01	2.144E-01	3.350E-01	2.882E-02	0.434
	+	74.97		7.066E-01	1.688E-01	2.479E-01	2.173E-02	2.851
		84.90		5.318E-01	2.068E-01	3.608E-01	3.497E-02	1.474
		569.67		1.074E-02	3.563E-02	5.614E-02	5.366E-03	0.191
		1063.62	*	4.946E-02	5.589E-02	1.008E-01	9.253E-03	0.491
		1770.23		2.259E-01	5.794E-01	9.057E-01	7.654E-02	0.249
TL-207		81.07		5.657E-02	2.873E-01	3.509E-01	3.264E-02	0.161
		83.78		3.490E-01	1.381E-01	2.412E-01	2.309E-02	1.447
	+	94.90		3.890E-01	4.189E-01	4.113E-01	3.819E-02	0.946
		122.32		-5.013E-01	2.019E+00	2.930E+00	2.638E-01	-0.171
		144.24		4.144E-01	7.669E-01	1.249E+00	1.263E-01	0.332
		154.21		5.255E-01	4.191E-01	7.125E-01	7.410E-02	0.738
	+	269.46		4.049E-01	3.189E-01	3.855E-01	4.777E-02	1.050
		323.87	*	-5.050E-02	7.388E-01	1.223E+00	2.378E-01	-0.041
	+	338.28		6.517E+00	2.269E+00	2.761E+00	3.996E-01	2.360
		445.03		-2.787E-01	2.645E+00	4.261E+00	5.608E-01	-0.065
PO-209		260.50		-4.471E+00	1.006E+01	1.655E+01	2.007E+00	-0.270
		262.80		-2.098E+01	2.745E+01	4.419E+01	5.376E+00	-0.475
		896.60	*	-4.000E+00	7.902E+00	1.209E+01	1.235E+00	-0.331
BI-210		46.50	*	3.976E+00	6.463E+00	1.035E+01	9.914E-01	0.384
PB-210		46.50	*	3.976E+00	6.463E+00	1.035E+01	9.914E-01	0.384
PO-210		46.50	*	3.976E+00	6.461E+00	1.035E+01	9.032E-01	0.384
PB-211		404.84	*	-9.270E-01	1.221E+00	1.654E+00	1.040E+00	-0.560
		427.08		-4.687E-01	2.332E+00	3.713E+00	2.315E+00	-0.126
		831.96		2.857E-01	1.305E+00	2.153E+00	1.353E+00	0.133
BI-212	+	727.18	*	7.011E-01	3.650E-01	6.091E-01	6.345E-02	1.151
		785.46		-9.073E-02	2.003E+00	3.183E+00	3.023E-01	-0.029
		1620.62		2.407E+00	1.523E+00	3.030E+00	2.721E-01	0.794
PO-215		81.07		5.657E-02	2.873E-01	3.509E-01	3.264E-02	0.161
		83.78		3.490E-01	1.381E-01	2.412E-01	2.309E-02	1.447
	+	94.90		3.890E-01	4.189E-01	4.113E-01	3.819E-02	0.946
		122.32		-5.013E-01	2.019E+00	2.930E+00	2.638E-01	-0.171
		144.24		4.144E-01	7.669E-01	1.249E+00	1.263E-01	0.332
		154.21		5.255E-01	4.191E-01	7.125E-01	7.410E-02	0.738
	+	269.46		4.049E-01	3.189E-01	3.855E-01	4.777E-02	1.050
		323.87	*	-5.050E-02	7.388E-01	1.223E+00	2.378E-01	-0.041
	+	338.28		6.517E+00	2.269E+00	2.761E+00	3.996E-01	2.360
		445.03		-2.787E-01	2.645E+00	4.261E+00	5.608E-01	-0.065
RN-219	+	271.23		5.195E-01	4.101E-01	4.703E-01	6.364E-02	1.105
		401.81	*	1.618E-01	4.635E-01	7.742E-01	1.229E-01	0.209
RN-220		549.76	*	1.449E+01	2.871E+01	4.773E+01	4.630E+00	0.304
RA-223		81.07		5.657E-02	2.873E-01	3.509E-01	3.264E-02	0.161
		83.78		3.490E-01	1.381E-01	2.412E-01	2.309E-02	1.447

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	94.90		3.890E-01	4.189E-01	4.113E-01	3.819E-02	0.946
		122.32		-5.013E-01	2.019E+00	2.930E+00	2.638E-01	-0.171
		144.24		4.144E-01	7.669E-01	1.249E+00	1.263E-01	0.332
		154.21		5.255E-01	4.191E-01	7.125E-01	7.410E-02	0.738
	+	269.46		4.049E-01	3.189E-01	3.855E-01	4.777E-02	1.050
		323.87	*	-5.050E-02	7.388E-01	1.223E+00	2.378E-01	-0.041
	+	338.28		6.517E+00	2.269E+00	2.761E+00	3.996E-01	2.360
		445.03		-2.787E-01	2.645E+00	4.261E+00	5.608E-01	-0.065
AC-227		79.80		2.079E+00	2.143E+00	2.724E+00	5.920E-01	0.763
		236.00		5.998E-01	3.072E-01	4.880E-01	7.118E-02	1.229
		256.20	*	-3.072E-02	4.134E-01	6.954E-01	1.218E-01	-0.044
		286.10		-5.063E-01	1.601E+00	2.633E+00	4.182E-01	-0.192
	+	299.80		2.784E+00	2.094E+00	2.674E+00	5.211E-01	1.041
		304.40		2.643E-01	2.058E+00	3.055E+00	6.204E-01	0.086
		334.20		-3.741E-01	2.700E+00	3.886E+00	8.122E-01	-0.096
TH-227		79.80		2.079E+00	2.145E+00	2.724E+00	5.994E-01	0.763
	+	94.00		3.112E+00	3.409E+00	4.642E+00	1.025E+00	0.670
		236.00		5.998E-01	3.056E-01	4.880E-01	6.647E-02	1.229
		256.20	*	-3.072E-02	4.134E-01	6.954E-01	1.386E-01	-0.044
		286.10		-5.063E-01	1.679E+00	2.633E+00	2.653E+00	-0.192
	+	299.80		2.784E+00	2.094E+00	2.674E+00	5.211E-01	1.041
		304.40		2.643E-01	2.058E+00	3.055E+00	6.204E-01	0.086
		334.20		-3.741E-01	2.700E+00	3.886E+00	8.122E-01	-0.096
TH-229	+	85.43		8.536E-01	3.040E-01	3.513E-01	3.426E-02	2.430
	+	88.47		3.421E-01	1.599E-01	2.142E-01	2.138E-02	1.597
		100.00		1.335E-01	1.928E-01	3.289E-01	2.934E-02	0.406
		193.63	*	-4.387E-01	5.605E-01	8.583E-01	9.307E-02	-0.511
		210.97		9.340E-01	9.633E-01	1.438E+00	1.613E-01	0.649
PA-231		283.67	*	-9.057E-02	1.591E+00	2.660E+00	4.676E-01	-0.034
	+	301.29		1.114E+00	8.259E-01	1.061E+00	1.587E-01	1.049
TH-231		81.07		5.657E-02	2.873E-01	3.509E-01	3.264E-02	0.161
		83.78		3.490E-01	1.381E-01	2.412E-01	2.309E-02	1.447
	+	94.90		3.890E-01	4.189E-01	4.113E-01	3.819E-02	0.946
		122.32		-5.013E-01	2.019E+00	2.930E+00	2.638E-01	-0.171
		144.24		4.144E-01	7.669E-01	1.249E+00	1.263E-01	0.332
		154.21		5.255E-01	4.191E-01	7.125E-01	7.410E-02	0.738
	+	269.46		4.049E-01	3.189E-01	3.855E-01	4.777E-02	1.050
		323.87	*	-5.050E-02	7.388E-01	1.223E+00	2.378E-01	-0.041
	+	338.28		6.517E+00	2.269E+00	2.761E+00	3.996E-01	2.360
		445.03		-2.787E-01	2.645E+00	4.261E+00	5.608E-01	-0.065
U-231		84.21		1.623E+01	6.139E+00	1.072E+01	1.031E+00	1.514
	+	92.29		3.567E+01	5.111E+00	6.693E+00	6.378E-01	5.329
	+	95.87	*	1.957E+00	2.107E+00	1.859E+00	1.711E-01	1.052
		108.00		-7.998E-02	2.236E+00	3.700E+00	3.171E-01	-0.022
PA-233	+	75.28		2.062E+01	5.579E+00	7.382E+00	1.140E+00	2.793
	+	86.59		7.452E+00	3.260E+00	3.271E+00	8.913E-01	2.278
	+	300.12		7.761E-01	5.793E-01	7.430E-01	1.277E-01	1.045
		311.98	*	2.976E-02	6.787E-02	1.158E-01	1.410E-02	0.257
		340.50		1.048E+00	7.876E-01	1.196E+00	2.989E-01	0.876

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		398.62		-6.014E-01	2.434E+00	3.911E+00	1.061E+00	-0.154
		415.76		5.688E-01	1.780E+00	2.963E+00	6.568E-01	0.192
PA-234	+	63.00		1.000E+01	3.855E+00	4.329E+00	6.536E-01	2.311
	+	94.67		2.775E-01	2.999E-01	3.064E-01	3.950E-02	0.906
		98.44		2.382E-01	1.705E-01	1.771E-01	9.892E-02	1.345
		99.86		4.457E-01	4.933E-01	8.469E-01	7.562E-02	0.526
		111.00		-2.535E-01	2.189E-01	3.285E-01	3.941E-02	-0.772
		131.20		-1.457E-01	1.139E-01	1.753E-01	1.511E-02	-0.831
		152.70		2.124E-01	3.479E-01	5.771E-01	1.012E-01	0.368
	+	186.00		7.687E+00	3.445E+00	3.269E+00	1.041E+00	2.351
		226.40		-1.298E-01	4.395E-01	6.834E-01	1.043E-01	-0.190
		227.20		2.360E-01	4.743E-01	7.700E-01	8.888E-02	0.306
		248.90		-1.219E-01	8.696E-01	1.460E+00	3.487E-01	-0.084
	+	293.70		6.556E+00	1.694E+00	1.832E+00	3.548E-01	3.579
		369.80		2.036E-01	1.007E+00	1.676E+00	3.800E-01	0.121
		568.70		-1.307E-01	1.227E+00	1.779E+00	1.701E-01	-0.073
		569.50		1.389E-01	3.232E-01	4.948E-01	4.730E-02	0.281
		574.00		-2.166E-01	1.533E+00	2.551E+00	2.429E-01	-0.085
		699.00		7.721E-01	8.055E-01	1.407E+00	2.701E-01	0.549
		706.10		-3.029E-01	1.078E+00	1.726E+00	7.708E-01	-0.175
		733.00		1.319E-01	3.859E-01	6.011E-01	1.347E-01	0.219
		742.81		1.347E-01	1.632E+00	2.702E+00	1.819E+00	0.050
		796.30		1.277E+00	1.251E+00	1.907E+00	5.218E-01	0.670
		805.60		-1.004E+00	1.238E+00	1.766E+00	5.466E-01	-0.568
		819.60		-1.932E-01	1.283E+00	2.060E+00	7.888E-01	-0.094
		826.30		-3.600E-01	8.351E-01	1.274E+00	5.731E-01	-0.283
		831.60		-1.536E-01	6.787E-01	1.081E+00	3.265E-01	-0.142
		876.40		-7.025E-02	8.736E-01	1.402E+00	1.443E+00	-0.050
		880.51		-3.931E-01	3.159E-01	4.408E-01	4.458E-02	-0.892
		883.24		2.563E-01	3.620E-01	5.565E-01	3.752E-01	0.461
		899.00		-2.777E-01	8.825E-01	1.367E+00	6.024E-01	-0.203
		925.00		4.575E-01	1.254E+00	2.104E+00	2.126E-01	0.217
		926.50		-8.594E-02	1.932E-01	2.952E-01	7.621E-02	-0.291
		946.00	*	1.016E-01	3.169E-01	5.280E-01	1.026E-01	0.192
		949.00		3.366E-01	4.815E-01	8.306E-01	8.292E-02	0.405
		980.50		4.248E-01	7.822E-01	1.330E+00	1.304E-01	0.319
		1394.10		-5.852E-01	1.207E+00	1.709E+00	1.114E+00	-0.342
PA-234M		766.42		2.340E+01	1.844E+01	2.533E+01	1.289E+01	0.924
	+	1001.03	*	2.094E+01	7.801E+00	1.155E+01	1.257E+00	1.813
U-235	+	89.95		3.434E+00	1.900E+00	2.094E+00	6.536E-01	1.640
	+	93.35		1.090E+01	3.301E+00	1.872E+00	5.294E-01	5.826
		105.00		6.508E-01	1.066E+00	1.786E+00	5.332E-01	0.364
		143.76	*	1.742E-01	2.378E-01	3.878E-01	6.886E-02	0.449
		163.35		-1.838E-01	5.286E-01	8.225E-01	1.629E-01	-0.224
	+	185.71		2.847E-01	9.479E-02	1.212E-01	1.294E-02	2.348
		205.31		2.991E-01	6.359E-01	9.128E-01	1.855E-01	0.328
NP-236	+	94.67		2.105E-01	2.267E-01	2.326E-01	2.165E-02	0.905
		98.44		1.800E-01	8.228E-02	1.339E-01	1.207E-02	1.345
		111.00		-1.917E-01	1.648E-01	2.485E-01	2.109E-02	-0.772

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		160.31	*	5.793E-02	8.573E-02	1.428E-01	1.420E-02	0.406
NP-239		99.55		2.749E-01	1.667E-01	2.918E-01	2.611E-02	0.942
		117.00	*	-4.117E-02	2.233E-01	3.263E-01	2.736E-02	-0.126
	+	209.75		3.013E+00	1.647E+00	1.621E+00	1.813E-01	1.859
		228.18		1.416E-01	2.502E-01	4.073E-01	4.709E-02	0.348
		277.60		1.708E-01	1.950E-01	3.394E-01	4.202E-02	0.503
		334.30		-2.120E-01	1.530E+00	2.202E+00	2.551E-01	-0.096
CM-243		99.55		2.828E-01	1.716E-01	3.003E-01	2.687E-02	0.942
		103.76	*	-2.271E-02	9.641E-02	1.585E-01	1.383E-02	-0.143
		117.00		-4.236E-02	2.297E-01	3.357E-01	2.815E-02	-0.126
	+	209.75		2.970E+00	1.623E+00	1.598E+00	1.788E-01	1.859
		228.18		1.431E-01	2.528E-01	4.115E-01	4.758E-02	0.348
		277.60		1.722E-01	1.966E-01	3.422E-01	4.236E-02	0.503
AM-246		798.80		-6.368E-02	1.698E-01	2.279E-01	2.185E-02	-0.279
		1036.00		1.230E-01	2.949E-01	5.147E-01	4.842E-02	0.239
		1062.04		7.622E-03	2.523E-01	4.230E-01	3.889E-02	0.018
		1078.86	*	5.705E-02	1.378E-01	2.399E-01	2.170E-02	0.238
CM-247		278.00		9.062E-01	8.069E-01	1.416E+00	1.753E-01	0.640
		287.40		7.401E-02	1.293E+00	2.173E+00	2.679E-01	0.034
		402.60	*	2.662E-02	4.132E-02	7.025E-02	7.048E-03	0.379
CF-249		252.85		3.296E-01	9.396E-01	1.613E+00	1.936E-01	0.204
		333.44		-1.761E-01	2.122E-01	2.867E-01	3.326E-02	-0.614
		387.95	*	-1.146E-02	4.624E-02	7.464E-02	7.559E-03	-0.154
CF-251		176.60	*	9.703E-02	1.372E-01	2.278E-01	2.386E-02	0.426
		227.00		2.137E-01	4.215E-01	6.846E-01	7.899E-02	0.312
		285.00		-8.906E-01	1.840E+00	2.996E+00	3.700E-01	-0.297

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799014     *
* Acquisition date : 10-FEB-2010 19:09:07 Detector SN#     :               *
* Detector ID        : GAM02                Sensitivity      : 5.000       *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:02.91      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245799014           Analyst initials: RXF2         *
* Batch Number       : 947531               Sample Quantity : 1.2769E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.484E+01	2.839E+00	5.989E-01	0.000E+00
CD-109	3.874E+00	1.352E+00	1.295E+00	0.000E+00
SB-122	4.541E+00	3.507E+00	3.603E+00	0.000E+00
SN-126	3.806E-01	1.329E-01	1.280E-01	0.000E+00
BA-137M	6.937E-01	1.132E-01	6.166E-02	0.000E+00
CS-137	7.333E-01	1.198E-01	6.518E-02	0.000E+00
TL-208	3.914E-01	9.057E-02	6.190E-02	0.000E+00
BI-211	3.469E+00	5.956E-01	3.737E-01	0.000E+00
PB-212	1.427E+00	2.109E-01	1.006E-01	0.000E+00
PO-212	1.427E+00	2.109E-01	1.006E-01	0.000E+00
BI-214	1.186E+00	2.088E-01	1.106E-01	0.000E+00
PB-214	1.207E+00	2.162E-01	1.226E-01	0.000E+00
PO-214	1.207E+00	2.162E-01	1.226E-01	0.000E+00
PO-216	1.427E+00	2.109E-01	1.006E-01	0.000E+00
PO-218	1.207E+00	2.162E-01	1.226E-01	0.000E+00
RA-224	4.401E+00	1.416E+00	1.146E+00	0.000E+00
RA-226	1.186E+00	2.088E-01	1.106E-01	0.000E+00
AC-228	1.306E+00	3.076E-01	2.310E-01	0.000E+00
RA-228	1.306E+00	3.076E-01	2.310E-01	0.000E+00
TH-228	1.449E+00	2.141E-01	1.022E-01	0.000E+00
TH-230	1.186E+00	2.088E-01	1.106E-01	0.000E+00
TH-232	1.306E+00	3.076E-01	2.310E-01	0.000E+00
TH-234	8.582E+00	3.331E+00	2.670E+00	0.000E+00
U-234	1.186E+00	2.088E-01	1.106E-01	0.000E+00
NP-237	1.118E+00	4.509E-01	3.810E-01	0.000E+00
U-238	8.582E+00	3.331E+00	2.670E+00	0.000E+00
AM-241	2.049E-01	2.350E-01	3.330E-01	0.000E+00
AM-243	3.937E-01	9.217E-02	9.995E-02	0.000E+00
ANH-511	1.048E-01	7.894E-02	4.798E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	3.268E-01	3.699E-01	6.555E-01	0.000E+00	NOT IDENT.
NA-22	-1.245E-02	5.123E-02	8.410E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.343E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.075E-02	3.035E-02	4.721E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.203E-02	7.365E-02	0.000E+00	NOT IDENT.
SC-46	-4.634E-02	4.624E-02	6.931E-02	0.000E+00	FAIL ABUN
V-48	-7.557E-02	7.319E-02	1.052E-01	0.000E+00	NOT IDENT.
CR-51	-4.042E-01	3.836E-01	6.182E-01	0.000E+00	NOT IDENT.
MN-52	1.691E-01	1.967E-01	3.759E-01	0.000E+00	NOT IDENT.
MN-54	9.230E-03	4.022E-02	6.887E-02	0.000E+00	NOT IDENT.
CO-56	1.080E-02	4.266E-02	7.317E-02	0.000E+00	NOT IDENT.
CO-57	-5.706E-03	2.852E-02	4.398E-02	0.000E+00	NOT IDENT.
CO-58	-2.319E-02	3.830E-02	6.031E-02	0.000E+00	NOT IDENT.
FE-59	-1.839E-02	8.414E-02	1.402E-01	0.000E+00	NOT IDENT.
CO-60	7.132E-02	3.980E-02	7.178E-02	0.000E+00	FAIL ABUN
ZN-65	3.141E-03	1.118E-01	1.648E-01	0.000E+00	NOT IDENT.
GE-68	-3.063E-01	1.190E+00	1.981E+00	0.000E+00	NOT IDENT.
AS-73	3.763E-01	1.100E+00	2.046E+00	0.000E+00	NOT IDENT.
AS-74	-6.185E-02	9.429E-02	1.515E-01	0.000E+00	NOT IDENT.
SE-75	-6.967E-03	4.999E-02	7.700E-02	0.000E+00	FAIL ABUN
BR-77	2.906E+00	1.220E+01	2.064E+01	0.000E+00	FAIL ABUN
SR-82	-1.188E-01	3.732E-01	6.115E-01	0.000E+00	NOT IDENT.
RB-83	4.451E-02	7.367E-02	1.282E-01	0.000E+00	NOT IDENT.
RB-84	1.816E-03	7.571E-02	1.267E-01	0.000E+00	NOT IDENT.
KR-85	2.774E+00	8.625E+00	1.293E+01	0.000E+00	NOT IDENT.
SR-85	1.425E-02	4.431E-02	6.641E-02	0.000E+00	NOT IDENT.
RB-86	-5.457E-01	7.572E-01	1.191E+00	0.000E+00	NOT IDENT.
Y-88	1.934E-02	2.988E-02	5.722E-02	0.000E+00	NOT IDENT.
ZR-88	-1.177E-02	3.518E-02	5.873E-02	0.000E+00	NOT IDENT.
Y-91	1.356E+01	1.758E+01	3.198E+01	0.000E+00	NOT IDENT.
NB-94	4.211E-03	3.706E-02	6.384E-02	0.000E+00	NOT IDENT.
NB-95	5.792E-02	5.247E-02	9.339E-02	0.000E+00	NOT IDENT.
NB-95M	1.093E-01	1.467E-01	2.394E-01	0.000E+00	NOT IDENT.
ZR-95	6.821E-02	7.309E-02	1.333E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.439E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.794E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.922E+01	1.395E+01	2.570E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.509E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.955E-03	3.503E-02	5.911E-02	0.000E+00	NOT IDENT.
RH-102	7.639E-03	3.303E-02	5.628E-02	0.000E+00	NOT IDENT.
RU-103	3.979E-02	4.492E-02	7.937E-02	0.000E+00	FAIL ABUN
RH-106	-2.031E-01	3.316E-01	5.434E-01	0.000E+00	NOT IDENT.
RU-106	-2.031E-01	3.310E-01	5.434E-01	0.000E+00	NOT IDENT.
AG-108M	-1.013E-02	3.656E-02	6.059E-02	0.000E+00	NOT IDENT.
AG-110M	2.911E-02	4.242E-02	6.794E-02	0.000E+00	NOT IDENT.
IN-111	1.001E-01	1.225E+00	1.931E+00	0.000E+00	NOT IDENT.
IN-113M	2.895E-02	5.163E-02	9.091E-02	0.000E+00	NOT IDENT.
SN-113	2.895E-02	5.163E-02	9.091E-02	0.000E+00	NOT IDENT.
IN-114M	1.758E-01	2.066E-01	3.263E-01	0.000E+00	NOT IDENT.
CD-115	-1.094E+01	1.269E+01	1.945E+01	0.000E+00	NOT IDENT.
SN-117M	-2.143E-02	5.692E-02	9.561E-02	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.521E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.884E-03	2.957E-02	5.079E-02	0.000E+00	NOT IDENT.
I-124	-7.146E-01	8.026E-01	1.087E+00	0.000E+00	FAIL ABUN
SB-124	-3.102E-03	7.096E-02	1.192E-01	0.000E+00	FAIL ABUN
SB-125	-5.041E-02	1.043E-01	1.705E-01	0.000E+00	FAIL ABUN
TE-125M	4.897E-01	9.630E+00	1.696E+01	0.000E+00	NOT IDENT.
I-126	8.457E-02	2.104E-01	3.280E-01	0.000E+00	NOT IDENT.
SB-126	8.647E-02	1.647E-01	2.688E-01	0.000E+00	FAIL ABUN
SB-127	-3.710E-01	1.422E+00	2.380E+00	0.000E+00	NOT IDENT.
XE-127	1.558E-03	5.196E-02	8.302E-02	0.000E+00	NOT IDENT.
I-131	-5.833E-02	1.342E-01	2.243E-01	0.000E+00	NOT IDENT.
TE-132	4.425E-01	7.807E-01	1.330E+00	0.000E+00	NOT IDENT.
BA-133	-1.678E-02	5.069E-02	7.421E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.646E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.006E-02	1.024E-01	0.000E+00	FAIL ABUN
CS-135	3.066E-01	1.923E-01	3.227E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.751E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.543E-03	1.117E-01	1.900E-01	0.000E+00	FAIL ABUN
CE-139	-7.949E-03	3.057E-02	5.146E-02	0.000E+00	NOT IDENT.
BA-140	8.039E-02	2.839E-01	4.792E-01	0.000E+00	NOT IDENT.
LA-140	4.650E-02	8.326E-02	1.538E-01	0.000E+00	NOT IDENT.
CE-141	9.963E-04	6.540E-02	1.127E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.570E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.977E-02	2.033E-01	3.570E-01	0.000E+00	NOT IDENT.
PM-144	-2.206E-02	3.759E-02	6.123E-02	0.000E+00	NOT IDENT.

PR-144	-1.495E+00	2.547E+00	4.150E+00	0.000E+00	NOT IDENT.
PM-146	9.125E-03	5.022E-02	8.558E-02	0.000E+00	NOT IDENT.
ND-147	4.793E-01	6.091E-01	1.068E+00	0.000E+00	FAIL ABUN
PM-149	-3.436E+01	9.901E+01	1.700E+02	0.000E+00	NOT IDENT.
EU-152	-1.131E-02	1.072E-01	1.701E-01	0.000E+00	NOT IDENT.
GD-153	6.154E-02	9.069E-02	1.487E-01	0.000E+00	NOT IDENT.
EU-154	-3.088E-02	1.435E-01	2.362E-01	0.000E+00	NOT IDENT.
EU-155	1.853E-02	1.073E-01	1.904E-01	0.000E+00	FAIL ABUN
TB-160	-1.375E-01	1.497E-01	2.248E-01	0.000E+00	FAIL ABUN
HO-166M	4.794E-05	6.083E-02	1.038E-01	0.000E+00	FAIL ABUN
TM-171	1.673E+01	3.330E+01	5.559E+01	0.000E+00	FAIL ABUN
LU-176	-2.183E-02	2.432E-02	3.983E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.318E+00	2.326E+00	0.000E+00	FAIL ABUN
LU-177M	-1.173E-01	1.840E-01	2.976E-01	0.000E+00	FAIL ABUN
HF-181	-2.547E-02	4.474E-02	7.130E-02	0.000E+00	NOT IDENT.
W-181	-2.259E-01	4.413E-01	7.035E-01	0.000E+00	NOT IDENT.
TA-182	7.167E-02	2.063E-01	3.593E-01	0.000E+00	FAIL ABUN
RE-183	-4.397E-02	1.222E-01	2.011E-01	0.000E+00	FAIL ABUN
RE-184	8.790E-02	2.456E-01	4.417E-01	0.000E+00	FAIL ABUN
OS-185	3.011E-02	4.353E-02	7.892E-02	0.000E+00	FAIL ABUN
RE-188	9.413E-02	1.767E-01	3.095E-01	0.000E+00	NOT IDENT.
W-188	-2.595E+00	8.719E+00	1.314E+01	0.000E+00	FAIL ABUN
IR-192	-1.786E-02	3.667E-02	6.008E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.512E-01	4.527E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.812E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-9.415E-01	7.334E+00	1.241E+01	0.000E+00	NOT IDENT.
TL-202	-8.120E-03	7.956E-02	1.334E-01	0.000E+00	NOT IDENT.
HG-203	-9.432E-03	4.195E-02	7.282E-02	0.000E+00	NOT IDENT.
BI-207	4.946E-02	5.478E-02	1.013E-01	0.000E+00	FAIL ABUN
TL-207	-5.050E-02	7.240E-01	1.251E+00	0.000E+00	FAIL ABUN
PO-209	-4.000E+00	7.744E+00	1.218E+01	0.000E+00	NOT IDENT.
BI-210	3.976E+00	6.334E+00	1.089E+01	0.000E+00	NOT IDENT.
PB-210	3.976E+00	6.334E+00	1.089E+01	0.000E+00	NOT IDENT.
PO-210	3.976E+00	6.332E+00	1.089E+01	0.000E+00	NOT IDENT.
PB-211	-9.270E-01	1.197E+00	1.687E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.577E-01	6.156E-01	0.000E+00	FAIL ABUN
PO-215	-5.050E-02	7.240E-01	1.251E+00	0.000E+00	FAIL ABUN
RN-219	1.618E-01	4.542E-01	7.897E-01	0.000E+00	FAIL ABUN
RN-220	1.449E+01	2.814E+01	4.845E+01	0.000E+00	NOT IDENT.
RA-223	-5.050E-02	7.240E-01	1.251E+00	0.000E+00	FAIL ABUN
AC-227	-3.072E-02	4.052E-01	7.141E-01	0.000E+00	FAIL ABUN
TH-227	-3.072E-02	4.052E-01	7.141E-01	0.000E+00	FAIL ABUN
TH-229	-4.387E-01	5.493E-01	8.850E-01	0.000E+00	FAIL ABUN
PA-231	-9.057E-02	1.559E+00	2.727E+00	0.000E+00	FAIL ABUN
TH-231	-5.050E-02	7.240E-01	1.251E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	2.065E+00	1.937E+00	0.000E+00	FAIL ABUN
PA-233	2.976E-02	6.651E-02	1.185E-01	0.000E+00	FAIL ABUN
PA-234	1.016E-01	3.106E-01	5.315E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	7.645E+00	1.162E+01	0.000E+00	FAIL ABUN
U-235	1.742E-01	2.331E-01	4.016E-01	0.000E+00	FAIL ABUN
NP-236	5.793E-02	8.401E-02	1.477E-01	0.000E+00	FAIL ABUN
NP-239	-4.117E-02	2.188E-01	3.390E-01	0.000E+00	FAIL ABUN
CM-243	-2.271E-02	9.448E-02	1.649E-01	0.000E+00	FAIL ABUN
AM-246	5.705E-02	1.351E-01	2.410E-01	0.000E+00	NOT IDENT.
CM-247	2.662E-02	4.049E-02	7.165E-02	0.000E+00	NOT IDENT.
CF-249	-1.146E-02	4.532E-02	7.617E-02	0.000E+00	NOT IDENT.
CF-251	9.703E-02	1.345E-01	2.352E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:09:42.57

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799014.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:09:07
Sample ID         : G245799014           Sample quantity  : 1.27695E+02 GRAM
Detector name     : GAM02                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.91  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	927	10.67*	1.028E+00	2.484E+01	2.484E+01	11.66
CD-109	88.03	250	3.72*	5.220E+00	3.786E+00	3.874E+00	35.62
SB-122	563.90	50	70.60*	2.356E+00	8.850E-02	4.541E+00	78.79
	692.80	------	3.70	1.992E+00	------ Line Not Found		------
SN-126	64.28	279	9.60	2.515E+00	3.397E+00	3.397E+00	38.41
	86.94	250	8.90	5.220E+00	1.582E+00	1.582E+00	53.90
	87.57	250	37.00*	5.220E+00	3.806E-01	3.806E-01	35.62
BA-137M	661.65	439	89.98*	2.071E+00	6.930E-01	6.937E-01	16.66
CS-137	661.65	439	85.12*	2.071E+00	7.326E-01	7.333E-01	16.67
TL-208	277.35	------	6.80	3.991E+00	------ Line Not Found		------
	510.84	91	21.60	2.541E+00	4.853E-01	4.853E-01	77.29
	583.14	257	84.20*	2.292E+00	3.914E-01	3.914E-01	23.61
	860.37	------	12.46	1.652E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.848E+00	------ Line Not Found		------
	351.07	512	12.94*	3.352E+00	3.469E+00	3.469E+00	17.52
PB-212	74.81	358	10.70	4.052E+00	2.428E+00	2.428E+00	25.66
	77.11	507	18.00	4.307E+00	1.921E+00	1.921E+00	17.41
	87.30	250	8.00	5.220E+00	1.760E+00	1.760E+00	37.00
	238.63	965	44.60*	4.457E+00	1.427E+00	1.427E+00	15.08
	300.09	66	3.41	3.767E+00	1.502E+00	1.502E+00	73.89
PO-212	74.81	358	10.70	4.052E+00	2.428E+00	2.428E+00	25.66
	77.11	507	18.00	4.307E+00	1.921E+00	1.921E+00	17.41
	87.30	250	8.00	5.220E+00	1.760E+00	1.760E+00	37.00
	115.19	------	0.60	6.220E+00	------ Line Not Found		------
	238.63	965	44.60*	4.457E+00	1.427E+00	1.427E+00	15.08
	300.09	66	3.41	3.767E+00	1.502E+00	1.502E+00	73.89
BI-214	609.31	414	46.30*	2.214E+00	1.186E+00	1.186E+00	17.96
	1120.29	98	15.10	1.299E+00	1.466E+00	1.466E+00	38.44
	1764.49	65	15.80	9.004E-01	1.342E+00	1.342E+00	43.07
PB-214	74.81	358	6.21	4.052E+00	4.184E+00	4.184E+00	25.01
	77.11	507	10.50	4.307E+00	3.293E+00	3.293E+00	19.00
	87.30	250	4.67	5.220E+00	3.016E+00	3.016E+00	36.45

Sample ID : G245799014 Acquisition date : 10-FEB-2010 19:09:07

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	261	7.49	4.416E+00	2.321E+00	2.321E+00	33.31
	295.21	340	19.20	3.813E+00	1.366E+00	1.366E+00	21.94
	351.92	512	37.20*	3.352E+00	1.207E+00	1.207E+00	18.28
PO-214	74.81	358	6.21	4.052E+00	4.184E+00	4.184E+00	25.01
	77.11	507	10.50	4.307E+00	3.293E+00	3.293E+00	19.00
	87.30	250	4.67	5.220E+00	3.016E+00	3.016E+00	36.45
	241.98	261	7.49	4.416E+00	2.321E+00	2.321E+00	33.31
	295.21	340	19.20	3.813E+00	1.366E+00	1.366E+00	21.94
	351.92	512	37.20*	3.352E+00	1.207E+00	1.207E+00	18.28
PO-216	74.81	358	10.70	4.052E+00	2.428E+00	2.428E+00	25.66
	77.11	507	18.00	4.307E+00	1.921E+00	1.921E+00	17.41
	87.30	250	8.00	5.220E+00	1.760E+00	1.760E+00	37.00
	238.63	965	44.60*	4.457E+00	1.427E+00	1.427E+00	15.08
	300.09	66	3.41	3.767E+00	1.502E+00	1.502E+00	73.89
PO-218	74.81	358	6.21	4.052E+00	4.184E+00	4.184E+00	25.01
	77.11	507	10.50	4.307E+00	3.293E+00	3.293E+00	19.00
	87.30	250	4.67	5.220E+00	3.016E+00	3.016E+00	36.45
	241.98	261	7.49	4.416E+00	2.321E+00	2.321E+00	33.31
	295.21	340	19.20	3.813E+00	1.366E+00	1.366E+00	21.94
	351.92	512	37.20*	3.352E+00	1.207E+00	1.207E+00	18.28
RA-224	240.98	261	3.95*	4.416E+00	4.401E+00	4.401E+00	32.84
RA-226	609.31	414	46.30*	2.214E+00	1.186E+00	1.186E+00	17.96
	1120.29	98	15.10	1.299E+00	1.466E+00	1.466E+00	38.44
	1764.49	65	15.80	9.004E-01	1.342E+00	1.342E+00	43.07
AC-228	338.32	209	11.40	3.449E+00	1.561E+00	1.561E+00	52.56
	911.07	193	27.70*	1.569E+00	1.306E+00	1.306E+00	24.04
	969.11	101	16.60	1.484E+00	1.207E+00	1.207E+00	41.37
RA-228	338.32	209	11.40	3.449E+00	1.561E+00	1.561E+00	52.56
	911.07	193	27.70*	1.569E+00	1.306E+00	1.306E+00	24.04
	969.11	101	16.60	1.484E+00	1.207E+00	1.207E+00	41.37
TH-228	74.81	358	10.70	4.052E+00	2.428E+00	2.465E+00	23.92
	77.11	507	18.00	4.307E+00	1.921E+00	1.950E+00	17.41
	87.30	250	8.00	5.220E+00	1.760E+00	1.787E+00	35.62
	238.63	965	44.60*	4.457E+00	1.427E+00	1.449E+00	15.08
	300.09	66	3.41	3.767E+00	1.502E+00	1.525E+00	94.16
TH-230	609.31	414	46.30*	2.214E+00	1.186E+00	1.186E+00	17.96
	1120.29	98	15.10	1.299E+00	1.466E+00	1.466E+00	38.44
	1764.49	65	15.80	9.004E-01	1.342E+00	1.342E+00	43.07
TH-232	338.32	209	11.40	3.449E+00	1.561E+00	1.561E+00	33.68
	911.07	193	27.70*	1.569E+00	1.306E+00	1.306E+00	24.04
	969.11	101	16.60	1.484E+00	1.207E+00	1.207E+00	41.37
TH-234	63.29	279	3.80*	2.515E+00	8.582E+00	8.582E+00	39.60
	92.38	931	5.41	5.578E+00	9.071E+00	9.071E+00	21.40
U-234	609.31	414	46.30*	2.214E+00	1.186E+00	1.186E+00	17.96
	1120.29	98	15.10	1.299E+00	1.466E+00	1.466E+00	38.44
	1764.49	65	15.80	9.004E-01	1.342E+00	1.342E+00	43.07
NP-237	86.50	250	12.60*	5.220E+00	1.118E+00	1.118E+00	41.17
	95.87	84	2.60	5.688E+00	1.676E+00	1.676E+00	110.13
U-238	63.29	279	3.80*	2.515E+00	8.582E+00	8.582E+00	39.60

Sample ID : G245799014 Acquisition date : 10-FEB-2010 19:09:07

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	931	5.41	5.578E+00	9.071E+00	9.071E+00	14.33
AM-241	59.54	51	35.90*	2.030E+00	2.049E-01	2.049E-01	117.05
AM-243	74.67	358	66.00*	4.052E+00	3.937E-01	3.937E-01	23.89
	86.72	250	0.34	5.220E+00	4.192E+01	4.192E+01	35.62
	117.66	------	0.55	6.232E+00	------ Line Not Found		------
	142.18	------	0.13	6.053E+00	------ Line Not Found		------
ANH-511	511.00	91	100.00*	2.541E+00	1.048E-01	1.048E-01	76.84

Flag: "*" = Keyline

Sample ID : G245799014 Acquisition date : 10-FEB-2010 19:09:07

Total number of lines in spectrum	35	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	34	97.14%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.484E+01	2.484E+01	0.290E+01	11.66	
CD-109	464.00D	1.02	3.786E+00	3.874E+00	1.380E+00	35.62	
SB-122	2.70D	51.3	8.850E-02	4.541E+00	3.578E+00	78.79	
SN-126	1.00E+05Y	1.00	3.806E-01	3.806E-01	1.356E-01	35.62	
BA-137M	30.17Y	1.00	6.930E-01	6.937E-01	1.156E-01	16.66	
CS-137	30.17Y	1.00	7.326E-01	7.333E-01	1.222E-01	16.67	
TL-208	1.41E+10Y	1.00	3.914E-01	3.914E-01	0.924E-01	23.61	
BI-211	7.04E+08Y	1.00	3.469E+00	3.469E+00	0.608E+00	17.52	
PB-212	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.215E+00	15.08	
PO-212	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.215E+00	15.08	
BI-214	1600.00Y	1.00	1.186E+00	1.186E+00	0.213E+00	17.96	
PB-214	1600.00Y	1.00	1.207E+00	1.207E+00	0.221E+00	18.28	
PO-214	1600.00Y	1.00	1.207E+00	1.207E+00	0.221E+00	18.28	
PO-216	1.41E+10Y	1.00	1.427E+00	1.427E+00	0.215E+00	15.08	
PO-218	1600.00Y	1.00	1.207E+00	1.207E+00	0.221E+00	18.28	
RA-224	1.41E+10Y	1.00	4.401E+00	4.401E+00	1.445E+00	32.84	
RA-226	1600.00Y	1.00	1.186E+00	1.186E+00	0.213E+00	17.96	
AC-228	1.41E+10Y	1.00	1.306E+00	1.306E+00	0.314E+00	24.04	
RA-228	1.41E+10Y	1.00	1.306E+00	1.306E+00	0.314E+00	24.04	
TH-228	1.91Y	1.02	1.427E+00	1.449E+00	0.218E+00	15.08	
TH-230	4.47E+09Y	1.00	1.186E+00	1.186E+00	0.213E+00	17.96	
TH-232	1.41E+10Y	1.00	1.306E+00	1.306E+00	0.314E+00	24.04	
TH-234	4.47E+09Y	1.00	8.582E+00	8.582E+00	3.399E+00	39.60	
U-234	4.47E+09Y	1.00	1.186E+00	1.186E+00	0.213E+00	17.96	
NP-237	2.14E+06Y	1.00	1.118E+00	1.118E+00	0.460E+00	41.17	
U-238	4.47E+09Y	1.00	8.582E+00	8.582E+00	3.399E+00	39.60	
AM-241	432.20Y	1.00	2.049E-01	2.049E-01	2.398E-01	117.05	
AM-243	7380.00Y	1.00	3.937E-01	3.937E-01	0.941E-01	23.89	
ANH-511	1.00E+09Y	1.00	1.048E-01	1.048E-01	0.806E-01	76.84	
		Total Activity :	7.576E+01	8.033E+01			

Grand Total Activity : 7.576E+01 8.033E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799014 Acquisition date : 10-FEB-2010 19:09:07

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	89.75	171	411	1.36	178.72	163	29	2.37E-02	45.7	5.42E+00	T
0	119.92	69	181	1.39	239.09	237	5	9.60E-03	63.4	6.24E+00	T
0	185.55	277	378	1.19	370.43	366	11	3.84E-02	31.5	5.29E+00	T
0	209.13	162	404	1.24	417.60	411	13	2.26E-02	53.5	4.89E+00	T
0	269.88	76	229	1.59	539.17	534	10	1.06E-02	77.8	4.07E+00	T
0	462.46	53	132	1.37	924.54	919	11	7.32E-03	88.8	2.74E+00	T
0	727.15	54	47	1.47	1454.24	1449	10	7.48E-03	51.0	1.91E+00	T
0	794.53	70	56	1.72	1589.10	1581	15	9.69E-03	52.6	1.77E+00	T
0	862.53	67	84	4.37	1725.19	1715	20	9.35E-03	72.8	1.65E+00	
0	1000.49	86	25	1.91	2001.28	1995	16	1.20E-02	35.6	1.44E+00	T
0	1331.28	27	7	3.77	2663.36	2658	11	3.72E-03	56.2	1.11E+00	T
0	1509.10	25	8	1.40	3019.29	3011	15	3.40E-03	63.3	1.00E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:09:50.02

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799014.CNF;1    *
* Acquisition date : 10-FEB-2010 19:09:07  Detector SN#    :                  *
* Detector ID      : GAM02                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:02.91         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245799014            Analyst initials: RXF2             *
* Batch Number     : 947531                Sample Quantity : 1.27695E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07.3MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.484E+01	2.897E+00	5.989E-01	5.694E-02	41.482
CD-109	3.874E+00	1.380E+00	1.242E+00	1.247E-01	3.120
SB-122	4.541E+00	3.578E+00	3.551E+00	3.410E-01	1.279
SN-126	3.806E-01	1.356E-01	1.227E-01	1.226E-02	3.103
BA-137M	6.937E-01	1.156E-01	6.091E-02	5.248E-03	11.389
CS-137	7.333E-01	1.222E-01	6.439E-02	5.558E-03	11.389
TL-208	3.914E-01	9.242E-02	6.103E-02	6.114E-03	6.413
BI-211	3.469E+00	6.078E-01	3.656E-01	4.218E-02	9.488
PB-212	1.427E+00	2.152E-01	9.789E-02	1.232E-02	14.577
PO-212	1.427E+00	2.152E-01	9.789E-02	1.232E-02	14.577
BI-214	1.186E+00	2.131E-01	1.091E-01	1.153E-02	10.870
PB-214	1.207E+00	2.206E-01	1.200E-01	1.517E-02	10.055
PO-214	1.207E+00	2.206E-01	1.200E-01	1.517E-02	10.055
PO-216	1.427E+00	2.152E-01	9.789E-02	1.232E-02	14.577
PO-218	1.207E+00	2.206E-01	1.200E-01	1.517E-02	10.055
RA-224	4.401E+00	1.445E+00	1.115E+00	1.315E-01	3.948
RA-226	1.186E+00	2.131E-01	1.091E-01	1.153E-02	10.870
AC-228	1.306E+00	3.139E-01	2.294E-01	2.860E-02	5.693

Sample ID : G245799014 Acquisition date : 10-FEB-2010 19:09:07

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.306E+00	3.139E-01	2.294E-01	2.860E-02	5.693
TH-228	1.449E+00	2.185E-01	9.939E-02	1.251E-02	14.577
TH-230	1.186E+00	2.131E-01	1.091E-01	1.153E-02	10.870
TH-232	1.306E+00	3.139E-01	2.294E-01	2.860E-02	5.693
TH-234	8.582E+00	3.399E+00	2.548E+00	4.499E-01	3.368
U-234	1.186E+00	2.131E-01	1.091E-01	1.153E-02	10.870
NP-237	1.118E+00	4.601E-01	3.652E-01	8.355E-02	3.060
U-238	8.582E+00	3.399E+00	2.548E+00	4.499E-01	3.368
AM-241	2.049E-01	2.398E-01	3.175E-01	2.601E-02	0.645
AM-243	3.937E-01	9.406E-02	9.560E-02	8.359E-03	4.118
ANH-511	1.048E-01	8.055E-02	4.721E-02	4.680E-03	2.220

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.268E-01		3.775E-01	6.444E-01	6.833E-02	0.507
NA-22	-1.245E-02		5.228E-02	8.393E-02	7.441E-03	-0.148
NA-24	-3.107E-03		4.767E-01	Half-Life too short		
AL-26	-1.075E-02		3.097E-02	4.737E-02	3.921E-03	-0.227
TI-44	1.238E-01		4.289E-02	7.050E-02	6.382E-03	1.755
SC-46	-4.634E-02		4.719E-02	6.878E-02	6.992E-03	-0.674
V-48	-7.557E-02		7.469E-02	1.046E-01	1.023E-02	-0.723
CR-51	-4.042E-01		3.914E-01	6.040E-01	7.369E-02	-0.669
MN-52	1.691E-01		2.008E-01	3.758E-01	3.496E-02	0.450
MN-54	9.230E-03		4.105E-02	6.828E-02	6.708E-03	0.135
CO-56	1.080E-02		4.353E-02	7.256E-02	7.184E-03	0.149
CO-57	-5.706E-03		2.911E-02	4.237E-02	3.542E-03	-0.135
CO-58	-2.319E-02		3.909E-02	5.976E-02	5.788E-03	-0.388
FE-59	-1.839E-02		8.585E-02	1.396E-01	1.331E-02	-0.132
CO-60	7.132E-02	+	4.061E-02	7.168E-02	6.679E-03	0.995
ZN-65	3.141E-03		1.141E-01	1.641E-01	1.428E-02	0.019
GE-68	-3.063E-01		1.214E+00	1.971E+00	1.786E-01	-0.155
AS-73	3.763E-01		1.123E+00	1.947E+00	1.612E-01	0.193
AS-74	-6.185E-02		9.621E-02	1.494E-01	1.395E-02	-0.414
SE-75	-6.967E-03		5.101E-02	7.503E-02	9.170E-03	-0.093
BR-77	2.906E+00		1.245E+01	2.032E+01	2.005E+00	0.143
SR-82	-1.188E-01		3.809E-01	6.055E-01	5.714E-02	-0.196
RB-83	4.451E-02		7.518E-02	1.262E-01	1.245E-02	0.353
RB-84	1.816E-03		7.725E-02	1.257E-01	1.272E-02	0.014
KR-85	2.774E+00		8.801E+00	1.272E+01	1.259E+00	0.218
SR-85	1.425E-02		4.521E-02	6.535E-02	6.469E-03	0.218
RB-86	-5.457E-01		7.726E-01	1.186E+00	1.075E-01	-0.460
Y-88	1.934E-02		3.049E-02	5.743E-02	4.684E-03	0.337
ZR-88	-1.177E-02		3.589E-02	5.756E-02	5.760E-03	-0.205
Y-91	1.356E+01		1.794E+01	3.189E+01	2.648E+00	0.425
NB-94	4.211E-03		3.782E-02	6.312E-02	5.628E-03	0.067
NB-95	5.792E-02		5.354E-02	9.246E-02	8.657E-03	0.626

Sample ID : G245799014 Acquisition date : 10-FEB-2010 19:09:07

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	1.093E-01		1.497E-01	2.328E-01	2.945E-02	0.469
ZR-95	6.821E-02		7.458E-02	1.320E-01	1.335E-02	0.517
NB-97	1.313E-01		7.341E-02	Half-Life too short		
ZR-97	3.525E+00		1.426E+00	Half-Life too short		
MO-99	1.922E+01		1.424E+01	2.543E+01	3.944E+00	0.756
TC-99M	-4.673E+10		3.321E+10	Half-Life too short		
RH-101	2.955E-03		3.574E-02	5.734E-02	6.272E-03	0.052
RH-102	7.639E-03		3.371E-02	5.532E-02	5.550E-03	0.138
RU-103	3.979E-02		4.584E-02	7.807E-02	1.173E-02	0.510
RH-106	-2.031E-01		3.384E-01	5.363E-01	7.326E-02	-0.379
RU-106	-2.031E-01		3.378E-01	5.363E-01	4.870E-02	-0.379
AG-108M	-1.013E-02		3.731E-02	5.948E-02	6.166E-03	-0.170
AG-110M	2.911E-02		4.329E-02	6.711E-02	5.986E-03	0.434
IN-111	1.001E-01		1.250E+00	1.879E+00	2.232E-01	0.053
IN-113M	2.895E-02		5.268E-02	8.909E-02	9.117E-03	0.325
SN-113	2.895E-02		5.268E-02	8.909E-02	9.117E-03	0.325
IN-114M	1.758E-01		2.108E-01	3.164E-01	3.407E-02	0.556
CD-115	-1.094E+01		1.295E+01	1.915E+01	1.882E+00	-0.571
SN-117M	-2.143E-02		5.808E-02	9.245E-02	9.108E-03	-0.232
I-123	7.335E-01		3.837E+00	Half-Life too short		
TE-123M	2.884E-03		3.017E-02	4.912E-02	4.873E-03	0.059
I-124	-7.146E-01		8.189E-01	1.072E+00	9.944E-02	-0.666
SB-124	-3.102E-03		7.241E-02	1.195E-01	1.087E-02	-0.026
SB-125	-5.041E-02		1.064E-01	1.673E-01	1.709E-02	-0.301
TE-125M	4.897E-01		9.826E+00	1.631E+01	1.672E+00	0.030
I-126	8.457E-02		2.147E-01	3.240E-01	2.803E-02	0.261
SB-126	8.647E-02		1.681E-01	2.659E-01	2.405E-02	0.325
SB-127	-3.710E-01		1.451E+00	2.352E+00	2.720E-01	-0.158
XE-127	1.558E-03		5.302E-02	8.057E-02	8.897E-03	0.019
I-131	-5.833E-02		1.370E-01	2.195E-01	2.463E-02	-0.266
TE-132	4.425E-01		7.967E-01	1.293E+00	2.267E-01	0.342
BA-133	-1.678E-02		5.172E-02	7.263E-02	1.083E-02	-0.231
I-133	-1.960E-03		3.901E-03	Half-Life too short		
CS-134	1.528E-01	+	8.169E-02	1.015E-01	9.764E-03	1.506
CS-135	3.066E-01		1.963E-01	3.145E-01	4.160E-02	0.975
I-135	-5.051E+09		4.975E+09	Half-Life too short		
CS-136	-9.543E-03		1.139E-01	1.891E-01	1.825E-02	-0.050
CE-139	-7.949E-03		3.120E-02	4.979E-02	5.108E-03	-0.160
BA-140	8.039E-02		2.897E-01	4.719E-01	1.579E-01	0.170
LA-140	4.650E-02		8.496E-02	1.541E-01	1.393E-02	0.302
CE-141	9.963E-04		6.673E-02	1.088E-01	1.017E-02	0.009
CE-143	6.978E-04		1.311E-04	Half-Life too short		
CE-144	6.977E-02		2.074E-01	3.444E-01	5.376E-02	0.203
PM-144	-2.206E-02		3.836E-02	6.053E-02	5.372E-03	-0.364
PR-144	-1.495E+00		2.599E+00	4.102E+00	3.639E-01	-0.364
PM-146	9.125E-03		5.125E-02	8.406E-02	1.002E-02	0.109
ND-147	4.793E-01		6.215E-01	1.051E+00	1.647E-01	0.456
PM-149	-3.436E+01		1.010E+02	1.658E+02	2.965E+01	-0.207

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-1.131E-02		1.094E-01	1.663E-01	1.955E-02	-0.068
GD-153	6.154E-02		9.254E-02	1.427E-01	1.297E-02	0.431
EU-154	-3.088E-02		1.464E-01	2.357E-01	2.709E-02	-0.131
EU-155	1.853E-02		1.095E-01	1.830E-01	1.604E-02	0.101
TB-160	-1.375E-01		1.527E-01	2.231E-01	2.254E-02	-0.616
HO-166M	4.794E-05		6.208E-02	1.026E-01	9.218E-03	0.000
TM-171	1.673E+01		3.398E+01	5.309E+01	4.337E+00	0.315
LU-176	-2.183E-02		2.482E-02	3.889E-02	4.698E-03	-0.561
LU-177	4.328E+00	+	2.366E+00	2.258E+00	2.520E-01	1.917
LU-177M	-1.173E-01		1.877E-01	2.919E-01	2.935E-02	-0.402
HF-181	-2.547E-02		4.566E-02	7.010E-02	7.020E-03	-0.363
W-181	-2.259E-01		4.503E-01	6.716E-01	5.410E-02	-0.336
TA-182	7.167E-02		2.106E-01	3.583E-01	3.022E-02	0.200
RE-183	-4.397E-02		1.247E-01	1.945E-01	1.956E-02	-0.226
RE-184	8.790E-02		2.506E-01	4.301E-01	5.164E-02	0.204
OS-185	3.011E-02		4.442E-02	7.794E-02	6.865E-03	0.386
RE-188	9.413E-02		1.803E-01	2.992E-01	2.892E-02	0.315
W-188	-2.595E+00		8.897E+00	1.282E+01	1.576E+00	-0.202
IR-192	-1.786E-02		3.742E-02	5.869E-02	7.008E-03	-0.304
AU-195	5.031E-01		2.563E-01	4.347E-01	3.908E-02	1.157
TL-200	-2.104E-05		2.965E-04	Half-Life too short		
TL-201	-9.415E-01		7.484E+00	1.201E+01	1.236E+00	-0.078
TL-202	-8.120E-03		8.118E-02	1.310E-01	1.319E-02	-0.062
HG-203	-9.432E-03		4.281E-02	7.101E-02	8.928E-03	-0.133
BI-207	4.946E-02		5.589E-02	1.008E-01	9.253E-03	0.491
TL-207	-5.050E-02		7.388E-01	1.223E+00	2.378E-01	-0.041
PO-209	-4.000E+00		7.902E+00	1.209E+01	1.235E+00	-0.331
BI-210	3.976E+00		6.463E+00	1.035E+01	9.914E-01	0.384
PB-210	3.976E+00		6.463E+00	1.035E+01	9.914E-01	0.384
PO-210	3.976E+00		6.461E+00	1.035E+01	9.032E-01	0.384
PB-211	-9.270E-01		1.221E+00	1.654E+00	1.040E+00	-0.560
BI-212	7.011E-01	+	3.650E-01	6.091E-01	6.345E-02	1.151
PO-215	-5.050E-02		7.388E-01	1.223E+00	2.378E-01	-0.041
RN-219	1.618E-01		4.635E-01	7.742E-01	1.229E-01	0.209
RN-220	1.449E+01		2.871E+01	4.773E+01	4.630E+00	0.304
RA-223	-5.050E-02		7.388E-01	1.223E+00	2.378E-01	-0.041
AC-227	-3.072E-02		4.134E-01	6.954E-01	1.218E-01	-0.044
TH-227	-3.072E-02		4.134E-01	6.954E-01	1.386E-01	-0.044
TH-229	-4.387E-01		5.605E-01	8.583E-01	9.307E-02	-0.511
PA-231	-9.057E-02		1.591E+00	2.660E+00	4.676E-01	-0.034
TH-231	-5.050E-02		7.388E-01	1.223E+00	2.378E-01	-0.041
U-231	1.957E+00	+	2.107E+00	1.859E+00	1.711E-01	1.052
PA-233	2.976E-02		6.787E-02	1.158E-01	1.410E-02	0.257
PA-234	1.016E-01		3.169E-01	5.280E-01	1.026E-01	0.192
PA-234M	2.094E+01	+	7.801E+00	1.155E+01	1.257E+00	1.813
U-235	1.742E-01		2.378E-01	3.878E-01	6.886E-02	0.449
NP-236	5.793E-02		8.573E-02	1.428E-01	1.420E-02	0.406
NP-239	-4.117E-02		2.233E-01	3.263E-01	2.736E-02	-0.126

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.271E-02		9.641E-02	1.585E-01	1.383E-02	-0.143
AM-246	5.705E-02		1.378E-01	2.399E-01	2.170E-02	0.238
CM-247	2.662E-02		4.132E-02	7.025E-02	7.048E-03	0.379
CF-249	-1.146E-02		4.624E-02	7.464E-02	7.559E-03	-0.154
CF-251	9.703E-02		1.372E-01	2.278E-01	2.386E-02	0.426

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799014           *
* Acquisition date  : 10-FEB-2010 19:09:07 Detector SN#     :               *
* Detector ID       : GAM02                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.91      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245799014           Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.2769E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 29-OCT-2009 10:28:07 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.484E+01	2.839E+00	2.996E-01	1.449E+00
CD-109	3.874E+00	1.352E+00	6.478E-01	6.899E-01
SB-122	4.541E+00	3.507E+00	1.803E+00	1.789E+00
SN-126	3.806E-01	1.329E-01	6.402E-02	6.779E-02
BA-137M	6.937E-01	1.132E-01	3.085E-02	5.778E-02
CS-137	7.333E-01	1.198E-01	3.261E-02	6.111E-02
TL-208	3.914E-01	9.057E-02	3.097E-02	4.621E-02
BI-211	3.469E+00	5.956E-01	1.869E-01	3.039E-01
PB-212	1.427E+00	2.109E-01	5.034E-02	1.076E-01
PO-212	1.427E+00	2.109E-01	5.034E-02	1.076E-01
BI-214	1.186E+00	2.088E-01	5.534E-02	1.065E-01
PB-214	1.207E+00	2.162E-01	6.136E-02	1.103E-01
PO-214	1.207E+00	2.162E-01	6.136E-02	1.103E-01
PO-216	1.427E+00	2.109E-01	5.034E-02	1.076E-01
PO-218	1.207E+00	2.162E-01	6.136E-02	1.103E-01
RA-224	4.401E+00	1.416E+00	5.731E-01	7.226E-01
RA-226	1.186E+00	2.088E-01	5.534E-02	1.065E-01
AC-228	1.306E+00	3.076E-01	1.156E-01	1.569E-01
RA-228	1.306E+00	3.076E-01	1.156E-01	1.569E-01
TH-228	1.449E+00	2.141E-01	5.112E-02	1.092E-01
TH-230	1.186E+00	2.088E-01	5.534E-02	1.065E-01
TH-232	1.306E+00	3.076E-01	1.156E-01	1.569E-01
TH-234	8.582E+00	3.331E+00	1.336E+00	1.699E+00
U-234	1.186E+00	2.088E-01	5.534E-02	1.065E-01
NP-237	1.118E+00	4.509E-01	1.906E-01	2.301E-01
U-238	8.582E+00	3.331E+00	1.336E+00	1.699E+00
AM-241	2.049E-01	2.350E-01	1.666E-01	1.199E-01
AM-243	3.937E-01	9.217E-02	5.000E-02	4.703E-02
ANH-511	1.048E-01	7.894E-02	2.401E-02	4.028E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	3.268E-01	3.699E-01	3.280E-01	1.887E-01	NOT IDENT.
NA-22	-1.245E-02	5.123E-02	4.208E-02	2.614E-02	NOT IDENT.
NA-24	-3.107E+03	9.343E+05	0.000E+00	4.767E+05	SHORT HLIF
AL-26	-1.075E-02	3.035E-02	2.362E-02	1.549E-02	NOT IDENT.
TI-44	1.238E-01	4.203E-02	3.685E-02	2.145E-02	NOT IDENT.
SC-46	-4.634E-02	4.624E-02	3.467E-02	2.359E-02	FAIL ABUN
V-48	-7.557E-02	7.319E-02	5.264E-02	3.734E-02	NOT IDENT.
CR-51	-4.042E-01	3.836E-01	3.093E-01	1.957E-01	NOT IDENT.
MN-52	1.691E-01	1.967E-01	1.881E-01	1.004E-01	NOT IDENT.
MN-54	9.230E-03	4.022E-02	3.446E-02	2.052E-02	NOT IDENT.
CO-56	1.080E-02	4.266E-02	3.661E-02	2.176E-02	NOT IDENT.
CO-57	-5.706E-03	2.852E-02	2.200E-02	1.455E-02	NOT IDENT.
CO-58	-2.319E-02	3.830E-02	3.017E-02	1.954E-02	NOT IDENT.
FE-59	-1.839E-02	8.414E-02	7.016E-02	4.293E-02	NOT IDENT.
CO-60	7.132E-02	3.980E-02	3.591E-02	2.030E-02	FAIL ABUN
ZN-65	3.141E-03	1.118E-01	8.244E-02	5.704E-02	NOT IDENT.
GE-68	-3.063E-01	1.190E+00	9.909E-01	6.072E-01	NOT IDENT.
AS-73	3.763E-01	1.100E+00	1.023E+00	5.613E-01	NOT IDENT.
AS-74	-6.185E-02	9.429E-02	7.579E-02	4.811E-02	NOT IDENT.
SE-75	-6.967E-03	4.999E-02	3.852E-02	2.551E-02	FAIL ABUN
BR-77	2.906E+00	1.220E+01	1.033E+01	6.223E+00	FAIL ABUN
SR-82	-1.188E-01	3.732E-01	3.059E-01	1.904E-01	NOT IDENT.
RB-83	4.451E-02	7.367E-02	6.415E-02	3.759E-02	NOT IDENT.
RB-84	1.816E-03	7.571E-02	6.338E-02	3.863E-02	NOT IDENT.
KR-85	2.774E+00	8.625E+00	6.467E+00	4.400E+00	NOT IDENT.
SR-85	1.425E-02	4.431E-02	3.322E-02	2.261E-02	NOT IDENT.
RB-86	-5.457E-01	7.572E-01	5.960E-01	3.863E-01	NOT IDENT.
Y-88	1.934E-02	2.988E-02	2.863E-02	1.524E-02	NOT IDENT.
ZR-88	-1.177E-02	3.518E-02	2.938E-02	1.795E-02	NOT IDENT.
Y-91	1.356E+01	1.758E+01	1.600E+01	8.972E+00	NOT IDENT.
NB-94	4.211E-03	3.706E-02	3.194E-02	1.891E-02	NOT IDENT.
NB-95	5.792E-02	5.247E-02	4.672E-02	2.677E-02	NOT IDENT.
NB-95M	1.093E-01	1.467E-01	1.198E-01	7.483E-02	NOT IDENT.
ZR-95	6.821E-02	7.309E-02	6.671E-02	3.729E-02	NOT IDENT.
NB-97	1.313E+05	1.439E+05	0.000E+00	7.341E+04	SHORT HLIF
ZR-97	3.525E+06	2.794E+06	0.000E+00	1.426E+06	SHORT HLIF
MO-99	1.922E+01	1.395E+01	1.286E+01	7.119E+00	NOT IDENT.
TC-99M	-4.673E+16	6.509E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.955E-03	3.503E-02	2.957E-02	1.787E-02	NOT IDENT.
RH-102	7.639E-03	3.303E-02	2.816E-02	1.685E-02	NOT IDENT.
RU-103	3.979E-02	4.492E-02	3.971E-02	2.292E-02	FAIL ABUN
RH-106	-2.031E-01	3.316E-01	2.719E-01	1.692E-01	NOT IDENT.
RU-106	-2.031E-01	3.310E-01	2.719E-01	1.689E-01	NOT IDENT.
AG-108M	-1.013E-02	3.656E-02	3.032E-02	1.865E-02	NOT IDENT.
AG-110M	2.911E-02	4.242E-02	3.399E-02	2.164E-02	NOT IDENT.
IN-111	1.001E-01	1.225E+00	9.660E-01	6.250E-01	NOT IDENT.
IN-113M	2.895E-02	5.163E-02	4.548E-02	2.634E-02	NOT IDENT.
SN-113	2.895E-02	5.163E-02	4.548E-02	2.634E-02	NOT IDENT.
IN-114M	1.758E-01	2.066E-01	1.632E-01	1.054E-01	NOT IDENT.
CD-115	-1.094E+01	1.269E+01	9.730E+00	6.474E+00	NOT IDENT.
SN-117M	-2.143E-02	5.692E-02	4.783E-02	2.904E-02	NOT IDENT.
I-123	7.335E+05	7.521E+06	0.000E+00	3.837E+06	SHORT HLIF
TE-123M	2.884E-03	2.957E-02	2.541E-02	1.509E-02	NOT IDENT.
I-124	-7.146E-01	8.026E-01	5.438E-01	4.095E-01	FAIL ABUN
SB-124	-3.102E-03	7.096E-02	5.965E-02	3.621E-02	FAIL ABUN
SB-125	-5.041E-02	1.043E-01	8.530E-02	5.320E-02	FAIL ABUN
TE-125M	4.897E-01	9.630E+00	8.484E+00	4.913E+00	NOT IDENT.
I-126	8.457E-02	2.104E-01	1.641E-01	1.073E-01	NOT IDENT.
SB-126	8.647E-02	1.647E-01	1.345E-01	8.404E-02	FAIL ABUN
SB-127	-3.710E-01	1.422E+00	1.191E+00	7.257E-01	NOT IDENT.
XE-127	1.558E-03	5.196E-02	4.154E-02	2.651E-02	NOT IDENT.
I-131	-5.833E-02	1.342E-01	1.122E-01	6.848E-02	NOT IDENT.
TE-132	4.425E-01	7.807E-01	6.653E-01	3.983E-01	NOT IDENT.
BA-133	-1.678E-02	5.069E-02	3.713E-02	2.586E-02	NOT IDENT.
I-133	-1.960E+03	7.646E+03	0.000E+00	3.901E+03	SHORT HLIF
CS-134	1.528E-01	8.006E-02	5.124E-02	4.085E-02	FAIL ABUN
CS-135	3.066E-01	1.923E-01	1.614E-01	9.813E-02	NOT IDENT.
I-135	-5.051E+15	9.751E+15	0.000E+00	4.975E+15	SHORT HLIF
CS-136	-9.543E-03	1.117E-01	9.508E-02	5.697E-02	FAIL ABUN
CE-139	-7.949E-03	3.057E-02	2.574E-02	1.560E-02	NOT IDENT.
BA-140	8.039E-02	2.839E-01	2.397E-01	1.448E-01	NOT IDENT.
LA-140	4.650E-02	8.326E-02	7.697E-02	4.248E-02	NOT IDENT.
CE-141	9.963E-04	6.540E-02	5.637E-02	3.337E-02	NOT IDENT.
CE-143	6.978E+02	2.570E+02	0.000E+00	1.311E+02	SHORT HLIF
CE-144	6.977E-02	2.033E-01	1.786E-01	1.037E-01	NOT IDENT.
PM-144	-2.206E-02	3.759E-02	3.063E-02	1.918E-02	NOT IDENT.

PR-144	-1.495E+00	2.547E+00	2.076E+00	1.300E+00	NOT IDENT.
PM-146	9.125E-03	5.022E-02	4.282E-02	2.562E-02	NOT IDENT.
ND-147	4.793E-01	6.091E-01	5.342E-01	3.107E-01	FAIL ABUN
PM-149	-3.436E+01	9.901E+01	8.506E+01	5.051E+01	NOT IDENT.
EU-152	-1.131E-02	1.072E-01	8.508E-02	5.469E-02	NOT IDENT.
GD-153	6.154E-02	9.069E-02	7.438E-02	4.627E-02	NOT IDENT.
EU-154	-3.088E-02	1.435E-01	1.182E-01	7.320E-02	NOT IDENT.
EU-155	1.853E-02	1.073E-01	9.523E-02	5.475E-02	FAIL ABUN
TB-160	-1.375E-01	1.497E-01	1.125E-01	7.636E-02	FAIL ABUN
HO-166M	4.794E-05	6.083E-02	5.192E-02	3.104E-02	FAIL ABUN
TM-171	1.673E+01	3.330E+01	2.781E+01	1.699E+01	FAIL ABUN
LU-176	-2.183E-02	2.432E-02	1.993E-02	1.241E-02	FAIL ABUN
LU-177	4.328E+00	2.318E+00	1.164E+00	1.183E+00	FAIL ABUN
LU-177M	-1.173E-01	1.840E-01	1.489E-01	9.386E-02	FAIL ABUN
HF-181	-2.547E-02	4.474E-02	3.567E-02	2.283E-02	NOT IDENT.
W-181	-2.259E-01	4.413E-01	3.519E-01	2.251E-01	NOT IDENT.
TA-182	7.167E-02	2.063E-01	1.797E-01	1.053E-01	FAIL ABUN
RE-183	-4.397E-02	1.222E-01	1.006E-01	6.233E-02	FAIL ABUN
RE-184	8.790E-02	2.456E-01	2.210E-01	1.253E-01	FAIL ABUN
OS-185	3.011E-02	4.353E-02	3.948E-02	2.221E-02	FAIL ABUN
RE-188	9.413E-02	1.767E-01	1.549E-01	9.015E-02	NOT IDENT.
W-188	-2.595E+00	8.719E+00	6.575E+00	4.448E+00	FAIL ABUN
IR-192	-1.786E-02	3.667E-02	3.006E-02	1.871E-02	FAIL ABUN
AU-195	5.031E-01	2.512E-01	2.265E-01	1.282E-01	FAIL ABUN
TL-200	-2.104E+01	5.812E+02	0.000E+00	2.965E+02	SHORT HLIF
TL-201	-9.415E-01	7.334E+00	6.211E+00	3.742E+00	NOT IDENT.
TL-202	-8.120E-03	7.956E-02	6.674E-02	4.059E-02	NOT IDENT.
HG-203	-9.432E-03	4.195E-02	3.643E-02	2.140E-02	NOT IDENT.
BI-207	4.946E-02	5.478E-02	5.067E-02	2.795E-02	FAIL ABUN
TL-207	-5.050E-02	7.240E-01	6.261E-01	3.694E-01	FAIL ABUN
PO-209	-4.000E+00	7.744E+00	6.094E+00	3.951E+00	NOT IDENT.
BI-210	3.976E+00	6.334E+00	5.449E+00	3.231E+00	NOT IDENT.
PB-210	3.976E+00	6.334E+00	5.449E+00	3.231E+00	NOT IDENT.
PO-210	3.976E+00	6.332E+00	5.449E+00	3.231E+00	NOT IDENT.
PB-211	-9.270E-01	1.197E+00	8.440E-01	6.105E-01	NOT IDENT.
BI-212	7.011E-01	3.577E-01	3.080E-01	1.825E-01	FAIL ABUN
PO-215	-5.050E-02	7.240E-01	6.261E-01	3.694E-01	FAIL ABUN
RN-219	1.618E-01	4.542E-01	3.951E-01	2.318E-01	FAIL ABUN
RN-220	1.449E+01	2.814E+01	2.424E+01	1.436E+01	NOT IDENT.
RA-223	-5.050E-02	7.240E-01	6.261E-01	3.694E-01	FAIL ABUN
AC-227	-3.072E-02	4.052E-01	3.572E-01	2.067E-01	FAIL ABUN
TH-227	-3.072E-02	4.052E-01	3.572E-01	2.067E-01	FAIL ABUN
TH-229	-4.387E-01	5.493E-01	4.428E-01	2.803E-01	FAIL ABUN
PA-231	-9.057E-02	1.559E+00	1.364E+00	7.956E-01	FAIL ABUN
TH-231	-5.050E-02	7.240E-01	6.261E-01	3.694E-01	FAIL ABUN
U-231	1.957E+00	2.065E+00	9.689E-01	1.053E+00	FAIL ABUN
PA-233	2.976E-02	6.651E-02	5.930E-02	3.394E-02	FAIL ABUN
PA-234	1.016E-01	3.106E-01	2.659E-01	1.585E-01	FAIL ABUN
PA-234M	2.094E+01	7.645E+00	5.813E+00	3.900E+00	FAIL ABUN
U-235	1.742E-01	2.331E-01	2.009E-01	1.189E-01	FAIL ABUN
NP-236	5.793E-02	8.401E-02	7.387E-02	4.286E-02	FAIL ABUN
NP-239	-4.117E-02	2.188E-01	1.696E-01	1.116E-01	FAIL ABUN
CM-243	-2.271E-02	9.448E-02	8.252E-02	4.821E-02	FAIL ABUN
AM-246	5.705E-02	1.351E-01	1.206E-01	6.891E-02	NOT IDENT.
CM-247	2.662E-02	4.049E-02	3.585E-02	2.066E-02	NOT IDENT.
CF-249	-1.146E-02	4.532E-02	3.811E-02	2.312E-02	NOT IDENT.
CF-251	9.703E-02	1.345E-01	1.177E-01	6.862E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	247.9752
46.50	247.9752
46.50	247.9752
48.70	267.3369
49.72	219.6234
51.35	221.6899
52.39	221.6281
52.97	241.4030
53.15	241.5468
53.44	245.9911
54.07	273.5143
56.28	276.7465
56.28	276.7490
57.37	0.0000
57.53	253.5176
57.53	253.5191
57.60	253.5735
57.98	271.8256
57.98	271.8256
59.32	288.4073
59.32	288.4073
59.40	275.5998
59.54	293.7558
59.72	293.9176
60.01	273.5336
61.10	274.4393
61.14	274.4725
61.30	274.6043
63.00	333.2803
63.29	333.5649
63.29	333.5649
63.58	333.8491
64.28	334.5327
65.12	339.2775
65.20	339.3560
65.20	339.3560
66.05	340.1845
66.72	313.1957
66.83	313.2956
66.91	315.9998
67.20	310.9888
67.20	310.9888
67.75	328.6267
67.85	352.4827
68.90	357.4876
68.90	357.4876
69.30	349.9301
69.67	349.2292
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70.83	366.0443
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72.87	378.7677
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74.81	351.5674
74.81	351.5674
74.97	351.7150
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77.11	353.6709

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77.11	353.6709
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77.11	353.6709
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80.18	272.7768
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80.30	294.6879
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81.07	314.3882
81.07	314.3882
81.07	314.3882
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83.78	303.6389
83.78	303.6389
83.78	303.6389
83.78	303.6389
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84.90	304.4588
85.43	304.8460
86.29	305.4689
86.50	305.6221
86.54	305.6508
86.59	305.6861
86.72	305.7804
86.79	305.8292
86.94	305.9386
87.30	306.1996
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87.57	306.3932
87.88	306.6154
88.03	306.7232
88.36	306.9589
88.47	307.0380
89.95	308.0919
91.11	308.9118
92.29	309.7418
92.38	309.8041
92.38	309.8041
93.35	310.4809
94.00	310.9337
94.67	311.3933
94.67	311.3967
94.90	297.9084
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94.90	297.9084
95.87	370.7083
95.87	370.7083
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97.43	295.3080
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98.44	251.8461
98.88	266.6120
99.55	262.4322
99.55	262.4322
99.86	278.7813
100.00	278.8647
100.10	314.1502
103.18	276.9098
103.76	269.5718
105.00	249.1041
105.31	272.3613
108.00	300.9554
109.28	296.8811

111.00	346.5753
111.00	346.5753
111.76	293.4723
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115.19	324.8887
116.30	284.7616
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117.00	282.1881
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121.62	239.9413
121.78	262.3739
122.06	262.5095
122.32	265.6202
122.32	265.6202
122.32	265.6202
122.32	265.6202
123.07	258.5167
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129.76	278.2910
131.20	324.4874
133.02	271.7731
133.54	245.6286
135.34	252.5006
136.00	271.1358
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136.48	270.3375
140.51	285.5337
140.51	0.0000
142.18	258.5195
142.65	246.3496
143.76	259.1935
144.24	264.5625
144.24	264.5625
144.24	264.5625
144.24	264.5625
145.22	277.4083
145.44	277.5091
147.16	292.8206
152.43	255.4971
152.70	256.6538
153.22	248.4758
154.21	232.0585
154.21	232.0585
154.21	232.0585
154.21	232.0585
155.03	247.0746
156.02	277.9917
158.56	255.8203
159.00	0.0000
159.00	250.7035
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161.27	260.0583
162.32	266.8484
162.64	255.2759
163.35	258.7412
163.89	242.9667
165.85	245.8116
167.43	231.3853
171.28	220.8342
171.86	221.0198
172.10	223.2519
176.55	226.8419
176.60	226.8568
181.06	249.0248
184.41	260.0505
185.71	245.1199
186.00	245.2174
190.27	199.0723
192.34	222.9087
193.63	255.5025
197.04	217.5897
198.01	233.5049
198.60	252.6890
200.40	230.8615
201.83	217.8099
202.84	222.5869
205.31	211.4429

208.36	233.1917
208.81	233.3237
209.75	233.5941
209.75	233.5941
210.97	228.2678
215.65	212.4457
216.55	211.5332
218.09	207.3443
222.10	197.9792
223.80	186.8428
226.40	204.7661
227.00	191.0179
227.08	191.0364
227.20	191.0616
228.16	191.2747
228.18	191.2798
228.18	191.2798
231.56	0.0000
235.69	227.3102
236.00	234.4095
236.00	234.4095
238.63	202.3730
238.63	202.3730
238.63	202.3730
238.63	202.3730
239.00	202.4555
240.98	202.9047
241.98	203.1293
241.98	203.1293
241.98	203.1293
244.69	157.3214
245.39	170.2090
247.94	168.9056
248.90	184.2109
249.79	183.4970
252.40	185.8007
252.85	176.0603
252.85	176.0603
254.15	0.0000
256.20	186.5576
256.20	186.5576
260.50	175.6922
260.90	173.9639
262.80	172.5021
264.65	159.2610
268.24	158.3986
268.79	168.6645
269.46	177.3287
269.46	177.3287
269.46	177.3287
269.46	177.3287
271.23	179.2869
273.65	204.5688
276.40	171.2493
277.35	162.2455
277.60	162.2860
277.60	162.2860
278.00	155.0129
278.60	155.1058
279.20	168.9736
279.53	193.8331
280.46	191.2517
281.68	149.1361
283.67	151.2726
284.30	163.3663
285.00	160.7063
285.90	155.3005
286.10	155.3313
286.10	155.3313
287.40	150.8999
288.45	0.0000
290.67	164.9364
290.80	164.9580
291.72	141.3032
293.26	0.0000
293.70	165.4160
295.21	150.1710
295.21	150.1710

295.21	150.1710
295.96	150.2791
296.50	150.3553
297.23	150.4585
298.57	150.6501
299.80	150.8245
299.80	150.8245
300.09	150.8663
300.09	150.8663
300.09	150.8663
300.09	150.8663
300.12	150.8687
301.29	145.5947
302.84	114.2394
303.76	114.3377
303.91	103.8201
304.40	121.9311
304.40	121.9311
304.84	123.4865
306.84	138.6155
308.46	127.4895
311.98	128.8468
316.51	134.1346
318.01	118.1213
319.02	118.2272
319.41	127.8067
320.08	146.0149
323.87	155.1281
323.87	155.1281
323.87	155.1281
323.87	155.1281
325.23	160.1071
328.77	132.7168
333.44	160.6795
334.20	134.5017
334.20	134.5017
334.30	134.5144
338.28	135.7510
338.28	135.7510
338.28	135.7510
338.28	135.7510
338.32	135.7553
338.32	135.7553
338.32	135.7553
340.50	127.4583
340.57	119.6940
344.27	123.4486
345.85	121.5681
350.59	0.0000
351.07	134.8684
351.92	119.6619
351.92	119.6619
351.92	119.6619
355.39	0.0000
356.01	122.8214
364.48	142.6970
366.43	149.8687
367.43	136.0823
367.94	0.0000
369.80	134.3491
374.96	135.8983
383.85	127.7887
387.95	134.2501
388.63	128.2606
391.69	124.5108
391.69	124.5108
392.90	134.7575
398.62	131.2695
400.65	124.3363
401.10	117.2408
401.81	114.2439
402.60	108.1868
404.84	140.0583
410.95	116.0442
411.60	144.8684
413.65	113.1857
414.70	113.2730
415.30	112.2915

415.76	98.9326
417.63	0.0000
418.52	114.6195
423.70	103.6453
427.08	111.1683
427.89	120.5879
432.53	111.5960
433.93	111.7054
439.47	108.9940
439.56	112.1454
439.89	116.3640
443.98	99.8735
444.90	110.4554
445.03	110.4650
445.03	110.4650
445.03	110.4650
445.03	110.4650
453.90	107.9594
463.38	83.5094
468.07	95.7359
473.00	109.3392
475.06	97.6789
475.35	97.6970
476.78	101.0124
477.59	90.3138
477.96	89.2602
482.03	91.6510
484.57	83.1613
487.03	74.6380
490.36	0.0000
492.35	90.0860
497.08	77.2922
507.63	0.0000
510.53	0.0000
510.84	76.8578
511.00	76.8648
511.85	76.9054
511.85	76.9054
513.99	93.2863
513.99	93.2863
520.41	72.8884
520.65	83.9460
527.90	95.4063
528.96	0.0000
529.64	91.0638
529.87	0.0000
531.02	68.9099
537.32	76.9764
543.00	81.7106
546.56	0.0000
549.76	71.9180
552.65	89.1483
555.20	69.1385
563.23	70.6627
563.90	70.6913
568.70	86.3303
569.32	74.2397
569.50	74.2477
569.67	79.2349
573.80	78.3763
574.00	78.3847
574.64	90.2650
578.91	74.6385
579.30	0.0000
583.14	74.2032
585.48	71.8521
591.81	66.2713
592.07	68.1230
593.00	74.6046
595.88	78.4113
600.56	77.4524
602.52	0.0000
602.71	91.0448
602.71	91.0448
603.60	89.5441
604.41	74.1387
604.70	74.1504
609.31	66.8988

609.31	66.8988
609.31	66.8988
609.31	66.8988
610.33	55.7798
612.46	76.0082
614.37	66.7676
618.01	59.7398
621.84	80.4360
621.84	80.4360
631.29	87.4123
633.02	85.6080
633.10	85.6124
634.78	86.6273
635.90	75.3711
636.97	65.0446
645.85	60.6047
646.12	58.7184
656.30	68.2216
657.75	66.6829
657.90	0.0000
661.65	68.7217
661.65	68.7217
664.57	0.0000
666.33	63.7793
666.33	63.7793
675.00	61.4891
677.61	51.9473
685.20	66.6231
692.80	74.6182
695.00	87.3083
696.49	86.3991
696.49	86.3991
697.00	77.6816
697.49	76.7280
698.33	71.9007
698.50	70.9344
699.00	67.0644
702.63	79.8359
706.10	69.2389
706.58	0.0000
706.67	70.2334
709.31	71.2980
711.68	62.5766
713.82	51.8730
717.42	77.4493
720.50	60.3098
721.93	0.0000
722.20	55.6775
722.78	65.5208
722.78	65.5208
722.89	65.5241
722.95	65.5257
723.30	73.7292
724.18	73.7585
727.18	59.0889
733.00	46.5501
735.90	72.1784
739.58	55.4613
742.81	77.3640
744.21	80.3889
747.13	66.5829
751.79	71.7012
752.31	71.7170
753.82	63.7922
755.35	49.8706
756.15	49.8889
756.87	54.8953
763.93	92.1123
765.79	69.1398
766.42	61.1415
766.84	61.1519
776.49	56.3773
778.00	66.4882
778.57	64.4891
778.89	61.4751
783.80	47.4670
785.46	68.4992
792.07	43.9194

795.84	54.1419
796.30	62.6136
798.80	62.6799
801.93	48.3442
805.60	62.1810
810.29	50.0468
810.76	54.1426
815.85	48.1165
817.79	37.9096
818.51	37.9205
819.60	52.2924
826.30	51.4099
828.27	0.0000
831.60	61.8267
831.96	55.6519
834.83	61.9087
836.80	0.0000
846.75	54.9513
848.13	54.9823
856.28	0.0000
856.80	64.1960
860.37	47.9552
867.32	45.3000
867.82	41.8232
871.10	50.8518
873.19	39.8165
874.81	40.8910
875.33	0.0000
876.40	48.2596
879.36	60.9198
880.27	69.3483
880.51	67.2531
881.50	52.5610
883.24	45.2340
884.67	50.5219
889.25	72.7532
896.60	53.9273
898.02	59.2471
899.00	50.8020
903.28	60.5776
911.07	53.1641
911.07	53.1641
911.07	53.1641
919.63	50.1360
920.93	52.2946
925.00	43.8238
925.24	43.8278
926.50	54.5436
935.52	53.6548
937.48	53.6938
944.10	58.1304
946.00	43.0898
949.00	42.0593
962.29	59.6030
964.01	54.2175
966.15	61.4950
968.20	77.1068
969.11	50.6964
969.11	50.6964
969.11	50.6964
977.42	42.4944
980.50	40.3594
983.50	52.4145
989.30	39.3917
996.32	40.2214
1001.03	43.9502
1001.68	43.9600
1004.76	34.5776
1021.30	0.0000
1024.50	0.0000
1034.80	40.7612
1036.00	37.0703
1037.82	32.4565
1038.57	37.1029
1038.76	0.0000
1045.16	44.6230
1046.59	42.7843
1048.07	47.4597

1050.47	44.7031
1050.47	44.7031
1062.04	51.4215
1063.62	39.2878
1076.63	46.0332
1077.35	42.2864
1078.86	35.7255
1085.78	52.7689
1099.22	39.7493
1112.02	48.8756
1112.84	48.8881
1115.52	57.0850
1120.29	47.3698
1120.29	47.3698
1120.29	47.3698
1120.29	47.3698
1120.51	47.3738
1121.28	52.2879
1124.00	0.0000
1129.67	48.7401
1131.51	0.0000
1147.95	0.0000
1167.94	48.3582
1173.22	50.3750
1175.09	48.4639
1177.93	56.2677
1189.05	47.6980
1204.90	36.1885
1205.75	0.0000
1213.00	51.9627
1221.42	53.0771
1230.97	61.1120
1235.34	59.2163
1236.41	0.0000
1238.25	62.2284
1246.25	45.5433
1260.41	0.0000
1271.85	38.8984
1274.45	53.8989
1274.54	53.9011
1291.56	39.1174
1298.22	0.0000
1312.09	24.2109
1325.50	24.3008
1325.50	24.3008
1332.49	26.0868
1333.61	29.5745
1360.21	21.4657
1362.66	0.0000
1365.15	20.4704
1368.21	19.4631
1368.53	0.0000
1376.25	18.4783
1384.27	28.8055
1394.10	23.7234
1395.20	27.8569
1407.95	16.5632
1434.06	9.3801
1436.60	9.3864
1457.56	0.0000
1460.81	23.0868
1489.15	21.1377
1509.49	10.9256
1596.49	13.9453
1620.62	12.1544
1678.03	0.0000
1691.02	11.4003
1691.02	11.4003
1706.46	0.0000
1750.46	0.0000
1764.49	15.4464
1764.49	15.4464
1764.49	15.4464
1764.49	15.4464
1770.23	11.8407
1771.40	10.1517
1791.20	0.0000
1808.65	12.6686

1836.01	5.8805

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799014

Total Uranium Activity	2.5611E+01	ug/g
Total Uranium Counting Unc.	9.9095E+00	ug/g
Total Uranium Tpu	5.0559E-06	ug/g
Total Uranium Mda	3.9758E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799014       *
*   ANALYST       : RXF2                      DETECTOR   : GAM02            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 19:09:07.83    SAMPLE ALQT:  127.695 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.873E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.563E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.689E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.784E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:10:49.38

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799015.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:09:39
Sample ID         : G245799015           Sample quantity  : 1.27180E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.36  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.96*	720	828	1.03	125.91	120	11	1.00E-01	8.6	
2	2	74.40	363	744	1.52	148.79	143	16	5.04E-02	14.6	3.54E+00
3	2	76.88*	449	504	1.06	153.77	143	16	6.24E-02	9.2	
4	0	83.40	105	600	1.47	166.81	165	7	1.45E-02	39.8	
5	1	87.10	173	464	1.41	174.21	171	21	2.40E-02	20.6	6.55E+00
6	1	92.40*	2019	519	1.36	184.81	171	21	2.80E-01	3.0	
7	0	98.74	133	485	1.30	197.49	193	9	1.85E-02	31.2	
8	0	112.25	83	533	0.77	224.51	221	9	1.16E-02	51.0	
9	0	143.78	94	380	0.86	287.55	283	9	1.30E-02	39.1	
10	0	162.87	53	245	1.48	325.74	323	7	7.32E-03	51.3	
11	0	185.56*	516	452	1.21	371.13	364	13	7.17E-02	9.8	
12	0	209.04	59	262	1.39	418.08	413	9	8.20E-03	51.0	
13	4	238.44*	885	167	1.18	476.87	469	19	1.23E-01	4.3	1.25E+00
14	4	241.39	223	212	1.72	482.78	469	19	3.10E-02	15.8	
15	0	269.94	67	221	1.13	539.88	536	9	9.24E-03	42.1	
16	0	277.79	89	186	1.72	555.58	551	11	1.23E-02	31.9	
17	0	295.17*	255	234	1.44	590.33	584	12	3.54E-02	13.8	
18	0	338.01	193	204	1.03	676.01	670	12	2.67E-02	16.5	
19	0	351.63*	526	193	1.24	703.26	696	14	7.31E-02	7.2	
20	0	462.99	57	114	0.96	925.97	920	11	7.87E-03	39.0	
21	0	510.65*	61	158	1.36	1021.29	1014	15	8.43E-03	52.1	
22	0	583.05*	257	83	1.21	1166.10	1161	12	3.57E-02	9.7	
23	0	609.13*	358	55	1.42	1218.26	1213	12	4.97E-02	7.0	
24	0	661.50	394	94	1.65	1322.99	1317	14	5.47E-02	7.3	
25	0	727.59	82	61	2.01	1455.18	1447	14	1.14E-02	23.2	
26	0	785.91	47	20	1.34	1571.83	1568	10	6.53E-03	23.0	
27	0	861.09	19	62	1.47	1722.19	1714	13	2.61E-03	89.3	
28	0	911.16*	191	40	1.39	1822.33	1815	15	2.66E-02	10.5	
29	0	969.40*	123	43	1.01	1938.80	1932	15	1.70E-02	15.4	
30	0	1000.92	84	58	2.00	2001.85	1995	13	1.16E-02	21.8	
31	0	1120.29	63	53	1.43	2240.59	2233	14	8.81E-03	27.3	
32	0	1238.15	57	57	1.63	2476.30	2467	18	7.87E-03	34.3	
33	0	1460.72	818	14	2.05	2921.45	2912	18	1.14E-01	3.7	
34	0	1765.01*	39	3	2.69	3530.01	3524	11	5.39E-03	19.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 21:10:52

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799015.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:09:39
Sample ID : G245799015 Sample quantity : 127.18 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.36 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.352E+01	2.318E+00	5.363E-01	3.548E-02	43.856
CD-109	+	88.03	*	2.726E+00	1.154E+00	1.681E+00	1.660E-01	1.622
SN-126	+	64.28		8.176E+00	1.893E+00	1.182E+00	1.819E-01	6.918
	+	86.94		1.114E+00	6.521E-01	7.388E-01	3.075E-01	1.507
	+	87.57	*	2.678E-01	1.134E-01	1.660E-01	1.634E-02	1.613
BA-137M	+	661.65	*	6.672E-01	1.023E-01	7.171E-02	3.541E-03	9.304
CS-137	+	661.65	*	7.053E-01	1.083E-01	7.580E-02	3.765E-03	9.304
LU-177	+	112.95		3.124E+00	3.195E+00	3.376E+00	2.288E-01	0.925
	+	208.36	*	1.612E+00	1.648E+00	2.228E+00	1.267E-01	0.723
HG-203		70.83		2.243E+00	1.689E+00	2.563E+00	3.540E-01	0.875
		72.87		2.440E+00	1.086E+00	1.639E+00	2.203E-01	1.488
	+	82.60		2.236E+00	1.810E+00	2.450E+00	3.498E-01	0.913
	+	279.20	*	1.095E-01	7.022E-02	7.322E-02	4.624E-03	1.495
TL-208	+	277.35		9.904E-01	6.410E-01	7.317E-01	7.793E-02	1.354
	+	510.84		3.444E-01	3.606E-01	2.582E-01	2.591E-02	1.334
	+	583.14	*	4.173E-01	8.509E-02	6.787E-02	4.290E-03	6.149
	+	860.37		2.894E-01	5.175E-01	5.375E-01	4.110E-02	0.538
BI-211		72.87		1.223E+01	5.307E+00	8.219E+00	7.379E-01	1.488
	+	351.07	*	3.702E+00	5.816E-01	3.912E-01	2.525E-02	9.464
BI-212	+	727.18	*	1.153E+00	5.411E-01	4.650E-01	3.497E-02	2.481
	+	785.46		4.220E+00	1.959E+00	3.011E+00	1.838E-01	1.401
		1620.62		1.612E+00	1.403E+00	2.736E+00	1.678E-01	0.589
PB-212	+	74.81		2.454E+00	7.852E-01	7.874E-01	1.024E-01	3.117
	+	77.11		1.702E+00	3.506E-01	4.441E-01	4.054E-02	3.832
	+	87.30		1.239E+00	5.390E-01	7.704E-01	1.080E-01	1.608
	+	238.63	*	1.341E+00	1.509E-01	1.081E-01	7.966E-03	12.405
		300.09		1.648E+00	9.877E-01	1.600E+00	1.339E-01	1.030
PO-212	+	74.81		2.454E+00	7.852E-01	7.874E-01	1.024E-01	3.117
	+	77.11		1.702E+00	3.506E-01	4.441E-01	4.054E-02	3.832
	+	87.30		1.239E+00	5.390E-01	7.704E-01	1.080E-01	1.608
		115.19		6.037E+00	5.001E+00	7.646E+00	5.046E-01	0.790
	+	238.63	*	1.341E+00	1.509E-01	1.081E-01	7.966E-03	12.405
		300.09		1.648E+00	9.877E-01	1.600E+00	1.339E-01	1.030
BI-214	+	609.31	*	1.096E+00	1.725E-01	1.175E-01	8.667E-03	9.330

Sample ID : G245799015 Acquisition date : 10-FEB-2010 19:09:39

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1120.29		1.024E+00	5.667E-01	5.298E-01	4.839E-02	1.932
	+	1764.49		8.632E-01	3.475E-01	2.492E-01	1.459E-02	3.464
PB-214	+	74.81		4.229E+00	1.331E+00	1.357E+00	1.585E-01	3.117
	+	77.11		2.917E+00	6.409E-01	7.613E-01	9.053E-02	3.832
	+	87.30		2.122E+00	9.133E-01	1.320E+00	1.647E-01	1.608
	+	241.98		2.032E+00	6.623E-01	6.267E-01	5.085E-02	3.243
	+	295.21		1.055E+00	3.046E-01	2.824E-01	2.441E-02	3.736
	+	351.92	*	1.288E+00	2.132E-01	1.364E-01	1.131E-02	9.444
PO-214	+	74.81		4.229E+00	1.331E+00	1.357E+00	1.585E-01	3.117
	+	77.11		2.917E+00	6.409E-01	7.613E-01	9.053E-02	3.832
	+	87.30		2.122E+00	9.133E-01	1.320E+00	1.647E-01	1.608
	+	241.98		2.032E+00	6.623E-01	6.267E-01	5.085E-02	3.243
	+	295.21		1.055E+00	3.046E-01	2.824E-01	2.441E-02	3.736
	+	351.92	*	1.288E+00	2.132E-01	1.364E-01	1.131E-02	9.444
PO-216	+	74.81		2.454E+00	7.852E-01	7.874E-01	1.024E-01	3.117
	+	77.11		1.702E+00	3.506E-01	4.441E-01	4.054E-02	3.832
	+	87.30		1.239E+00	5.390E-01	7.704E-01	1.080E-01	1.608
	+	238.63	*	1.341E+00	1.509E-01	1.081E-01	7.966E-03	12.405
		300.09		1.648E+00	9.877E-01	1.600E+00	1.339E-01	1.030
PO-218	+	74.81		4.229E+00	1.331E+00	1.357E+00	1.585E-01	3.117
	+	77.11		2.917E+00	6.409E-01	7.613E-01	9.053E-02	3.832
	+	87.30		2.122E+00	9.133E-01	1.320E+00	1.647E-01	1.608
	+	241.98		2.032E+00	6.623E-01	6.267E-01	5.085E-02	3.243
	+	295.21		1.055E+00	3.046E-01	2.824E-01	2.441E-02	3.736
	+	351.92	*	1.288E+00	2.132E-01	1.364E-01	1.131E-02	9.444
RA-224	+	240.98	*	3.854E+00	1.237E+00	1.230E+00	7.209E-02	3.133
RA-226	+	609.31	*	1.096E+00	1.725E-01	1.175E-01	8.667E-03	9.330
	+	1120.29		1.024E+00	5.667E-01	5.298E-01	4.839E-02	1.932
	+	1764.49		8.632E-01	3.475E-01	2.492E-01	1.459E-02	3.464
AC-228	+	338.32		1.491E+00	7.818E-01	4.437E-01	1.809E-01	3.359
	+	911.07	*	1.394E+00	3.261E-01	2.245E-01	2.293E-02	6.212
	+	969.11		1.580E+00	6.065E-01	4.852E-01	1.107E-01	3.256
RA-228	+	338.32		1.491E+00	7.818E-01	4.437E-01	1.809E-01	3.359
	+	911.07	*	1.394E+00	3.261E-01	2.245E-01	2.293E-02	6.212
	+	969.11		1.580E+00	6.065E-01	4.852E-01	1.107E-01	3.256
TH-228	+	74.81		2.492E+00	7.630E-01	7.995E-01	7.280E-02	3.117
	+	77.11		1.728E+00	3.560E-01	4.509E-01	4.117E-02	3.832
	+	87.30		1.258E+00	5.326E-01	7.822E-01	7.680E-02	1.608
	+	238.63	*	1.361E+00	1.533E-01	1.097E-01	8.088E-03	12.405
		300.09		1.673E+00	1.400E+00	1.624E+00	9.576E-01	1.030
TH-230	+	609.31	*	1.096E+00	1.725E-01	1.175E-01	8.667E-03	9.330
	+	1120.29		1.024E+00	5.667E-01	5.298E-01	4.839E-02	1.932
	+	1764.49		8.632E-01	3.474E-01	2.492E-01	1.459E-02	3.464
TH-232	+	338.32		1.491E+00	4.995E-01	4.437E-01	2.610E-02	3.359
	+	911.07	*	1.394E+00	3.261E-01	2.245E-01	2.293E-02	6.212
	+	969.11		1.580E+00	6.065E-01	4.852E-01	1.107E-01	3.256
TH-234	+	63.29	*	2.066E+01	5.182E+00	3.180E+00	5.781E-01	6.496
	+	92.38		2.020E+01	3.896E+00	1.082E+00	1.982E-01	18.666
U-234	+	609.31	*	1.096E+00	1.725E-01	1.175E-01	8.667E-03	9.330

Sample ID : G245799015 Acquisition date : 10-FEB-2010 19:09:39

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1120.29		1.024E+00	5.667E-01	5.298E-01	4.839E-02	1.932
	+	1764.49		8.632E-01	3.474E-01	2.492E-01	1.459E-02	3.464
U-235		89.95		1.118E+01	4.177E+00	3.144E+00	9.783E-01	3.557
	+	93.35		2.429E+01	6.998E+00	1.291E+00	3.630E-01	18.816
		105.00		1.029E+00	1.423E+00	2.353E+00	6.950E-01	0.437
	+	143.76	*	4.489E-01	3.583E-01	4.304E-01	7.001E-02	1.043
	+	163.35		5.943E-01	6.184E-01	9.876E-01	1.765E-01	0.602
	+	185.71		5.444E-01	1.106E-01	8.549E-02	4.730E-03	6.368
		205.31		3.065E-01	7.177E-01	1.036E+00	1.859E-01	0.296
NP-237	+	86.50	*	7.865E-01	3.705E-01	5.247E-01	1.197E-01	1.499
		95.87		1.387E+00	1.988E+00	2.175E+00	5.353E-01	0.638
U-238	+	63.29	*	2.066E+01	5.182E+00	3.180E+00	5.781E-01	6.496
	+	92.38		2.020E+01	2.206E+00	1.082E+00	9.839E-02	18.666
AM-243	+	74.67	*	3.979E-01	1.217E-01	1.281E-01	1.157E-02	3.106
	+	86.72		2.950E+01	1.249E+01	1.962E+01	1.917E+00	1.503
		117.66		-4.377E+00	5.412E+00	7.472E+00	4.790E-01	-0.586
		142.18		1.094E+01	2.705E+01	3.953E+01	2.257E+00	0.277
ANH-511	+	511.00	*	7.438E-02	7.763E-02	5.579E-02	3.119E-03	1.333

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.520E-01	3.927E-01	6.043E-01	3.991E-02	-0.583
NA-22		1274.54	*	1.497E-02	4.515E-02	7.659E-02	4.730E-03	0.195
NA-24		1368.53	*	-6.678E-01	4.515E-02	Half-Life too short		
AL-26		1129.67		-1.977E-01	1.971E+00	3.204E+00	1.996E-01	-0.062
		1808.65	*	2.555E-02	2.931E-02	5.762E-02	3.309E-03	0.443
TI-44		67.85		-6.876E-02	8.276E-02	1.091E-01	9.732E-03	-0.631
	+	78.38	*	3.140E-01	6.470E-02	9.791E-02	9.000E-03	3.207
SC-46		889.25	*	-2.621E-02	3.985E-02	6.148E-02	4.407E-03	-0.426
	+	1120.51		1.755E-01	9.646E-02	1.345E-01	8.459E-03	1.305
V-48		944.10		1.047E+00	9.730E-01	1.782E+00	1.272E-01	0.588
		983.50	*	8.153E-03	7.089E-02	1.190E-01	8.330E-03	0.069
		1312.09		8.540E-04	9.540E-02	1.553E-01	9.696E-03	0.005
CR-51		320.08	*	-1.333E-01	4.587E-01	7.576E-01	4.992E-02	-0.176
MN-52		744.21		2.228E-02	2.856E-01	4.626E-01	2.638E-02	0.048
		848.13		-3.977E+00	6.774E+00	1.058E+01	7.128E-01	-0.376
		935.52		1.238E-01	3.229E-01	5.538E-01	3.968E-02	0.224
		1246.25		-2.685E+00	1.027E+01	1.380E+01	8.416E-01	-0.195
		1333.61		1.272E+00	5.674E+00	9.501E+00	5.969E-01	0.134
		1434.06	*	2.214E-01	2.757E-01	4.982E-01	3.136E-02	0.444
MN-54		834.83	*	-1.100E-02	4.781E-02	7.854E-02	5.184E-03	-0.140
CO-56		846.75	*	-4.907E-02	3.903E-02	5.578E-02	3.750E-03	-0.880
		977.42		2.010E+00	2.952E+00	4.861E+00	3.415E-01	0.413
		1037.82		3.049E-01	3.722E-01	6.609E-01	4.851E-02	0.461
		1175.09		-6.672E-01	2.670E+00	4.265E+00	2.526E-01	-0.156
	+	1238.25		2.581E-01	1.777E-01	2.048E-01	1.316E-02	1.260
		1360.21		1.757E-01	1.066E+00	1.772E+00	1.115E-01	0.099

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1771.40		-8.266E-01	3.428E-01	2.959E-01	1.728E-02	-2.793
CO-57		122.06	*	3.291E-02	3.125E-02	5.331E-02	3.256E-03	0.617
		136.48		-1.006E-01	2.672E-01	4.315E-01	2.900E-02	-0.233
CO-58		810.76	*	-2.728E-02	4.134E-02	6.467E-02	4.129E-03	-0.422
FE-59	+	142.65		5.807E+00	4.550E+00	6.112E+00	3.486E-01	0.950
		192.34		1.010E-01	1.196E+00	1.877E+00	2.197E-01	0.054
		1099.22	*	-6.956E-02	9.681E-02	1.458E-01	1.069E-02	-0.477
		1291.56		7.599E-02	1.560E-01	2.668E-01	2.065E-02	0.285
CO-60		1173.22		-4.796E-02	5.263E-02	7.797E-02	4.613E-03	-0.615
		1332.49	*	3.345E-02	4.391E-02	7.833E-02	4.920E-03	0.427
ZN-65		1115.52	*	5.679E-02	1.023E-01	1.570E-01	9.948E-03	0.362
GE-68		1077.35	*	-1.401E+00	1.410E+00	2.061E+00	1.351E-01	-0.680
AS-73		53.44	*	7.122E-01	1.427E+00	2.430E+00	2.222E-01	0.293
AS-74		595.88	*	-9.841E-02	1.110E-01	1.674E-01	8.899E-03	-0.588
		634.78		-2.770E-01	4.201E-01	6.409E-01	3.276E-02	-0.432
SE-75		66.05		-7.163E+00	8.051E+00	1.138E+01	1.218E+00	-0.630
		96.73		1.032E+00	1.627E+00	1.790E+00	2.421E-01	0.577
		121.11		5.624E-02	1.699E-01	2.829E-01	2.677E-02	0.199
		136.00		-3.328E-02	5.058E-02	8.082E-02	4.763E-03	-0.412
		198.60		5.290E-02	2.344E+00	3.680E+00	2.568E-01	0.014
		264.65	*	-4.961E-03	6.449E-02	8.932E-02	5.358E-03	-0.056
		279.53		1.593E-01	1.376E-01	2.179E-01	1.400E-02	0.731
		303.91		-2.830E+00	2.492E+00	3.920E+00	3.780E-01	-0.722
		400.65		1.173E-01	2.890E-01	4.920E-01	4.407E-02	0.238
BR-77	+	87.88		6.208E+02	2.628E+02	4.776E+02	4.713E+01	1.300
		200.40		-8.321E+01	2.209E+02	3.513E+02	1.979E+01	-0.237
	+	239.00		2.270E+02	2.344E+01	4.148E+01	2.427E+00	5.473
		249.79		-4.509E+00	8.683E+01	1.387E+02	8.180E+00	-0.033
		281.68		-3.908E+01	1.244E+02	1.787E+02	1.067E+01	-0.219
		297.23		2.600E+02	8.802E+01	1.477E+02	8.824E+00	1.760
		303.76		-2.412E+02	2.234E+02	3.540E+02	2.113E+01	-0.681
		439.47		1.102E+02	1.954E+02	3.338E+02	1.878E+01	0.330
		484.57		2.734E+01	2.968E+02	4.916E+02	2.765E+01	0.056
		520.65	*	1.846E+00	1.288E+01	2.136E+01	1.190E+00	0.086
		574.64		1.141E+02	2.506E+02	4.236E+02	2.291E+01	0.269
		578.91		2.356E+01	1.212E+02	1.745E+02	9.409E+00	0.135
		585.48		1.043E+03	3.044E+02	5.358E+02	2.874E+01	1.947
		755.35		3.098E+01	2.113E+02	3.440E+02	1.999E+01	0.090
		817.79		1.131E+02	1.579E+02	2.808E+02	1.805E+01	0.403
SR-82		698.33		-3.825E+01	4.028E+01	5.930E+01	3.126E+00	-0.645
		776.49	*	-3.877E-01	4.312E-01	6.655E-01	4.003E-02	-0.583
		1395.20		2.516E+00	1.151E+01	1.930E+01	1.215E+00	0.130
RB-83		520.41	*	1.452E-02	8.113E-02	1.348E-01	7.513E-03	0.108
		529.64		7.289E-02	1.241E-01	2.121E-01	1.178E-02	0.344
		552.65		1.537E-02	2.349E-01	3.860E-01	2.118E-02	0.040
RB-84		881.50	*	7.335E-02	7.610E-02	1.382E-01	9.792E-03	0.531
KR-85		513.99	*	1.106E+01	1.039E+01	1.611E+01	9.000E-01	0.687
SR-85		513.99	*	5.683E-02	5.337E-02	8.278E-02	4.623E-03	0.687
RB-86		1076.63	*	-3.036E-01	9.006E-01	1.430E+00	9.379E-02	-0.212

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88		898.02		3.165E-02	4.688E-02	8.286E-02	6.058E-03	0.382
		1836.01	*	1.831E-02	3.915E-02	7.046E-02	4.005E-03	0.260
ZR-88		392.90	*	-1.391E-02	3.571E-02	5.789E-02	3.212E-03	-0.240
Y-91		1204.90	*	-2.507E+00	2.233E+01	3.612E+01	2.167E+00	-0.069
NB-94		702.63	*	2.384E-02	3.976E-02	6.737E-02	3.578E-03	0.354
		871.10		2.654E-02	3.843E-02	6.812E-02	4.752E-03	0.390
NB-95		765.79	*	1.579E-01	5.816E-02	1.102E-01	6.515E-03	1.433
NB-95M		235.69	*	4.231E-01	1.860E-01	2.905E-01	2.195E-02	1.457
ZR-95		724.18		1.037E-01	1.340E-01	2.022E-01	1.338E-02	0.513
		756.15	*	-1.228E-02	8.602E-02	1.363E-01	9.608E-03	-0.090
NB-97		657.90	*	2.963E-01	8.602E-02	Half-Life too short		
		1024.50		2.862E-01	8.602E-02	Half-Life too short		
ZR-97		254.15		3.968E+00	8.602E-02	Half-Life too short		
		355.39		-7.783E-01	8.602E-02	Half-Life too short		
		507.63	*	3.481E+00	8.602E-02	Half-Life too short		
		602.52		3.247E+00	8.602E-02	Half-Life too short		
		1021.30		-3.077E-01	8.602E-02	Half-Life too short		
		1147.95		-3.020E+00	8.602E-02	Half-Life too short		
		1362.66		9.479E+00	8.602E-02	Half-Life too short		
		1750.46		7.606E+00	8.602E-02	Half-Life too short		
MO-99		140.51		1.594E+01	3.956E+01	5.759E+01	1.551E+01	0.277
		181.06		6.628E+00	2.571E+01	3.698E+01	6.302E+00	0.179
		366.43		3.300E+01	1.033E+02	1.755E+02	1.007E+01	0.188
		739.58	*	-6.408E+00	1.408E+01	2.158E+01	2.961E+00	-0.297
		778.00		-3.355E+01	4.050E+01	6.118E+01	3.690E+00	-0.548
TC-99M		140.51	*	3.654E+10	4.050E+01	Half-Life too short		
RH-101		127.23		3.895E-02	3.913E-02	6.650E-02	3.971E-03	0.586
		198.01	*	8.313E-05	4.278E-02	6.710E-02	3.769E-03	0.001
		325.23		-4.258E-02	2.733E-01	4.544E-01	2.693E-02	-0.094
RH-102		418.52		-7.269E-02	3.303E-01	5.394E-01	3.021E-02	-0.135
		475.06	*	2.362E-02	3.472E-02	5.982E-02	3.369E-03	0.395
		631.29		8.506E-03	6.556E-02	1.076E-01	5.520E-03	0.079
		697.49		-7.209E-02	9.030E-02	1.351E-01	7.111E-03	-0.534
		766.84		4.187E-01	1.513E-01	2.859E-01	1.693E-02	1.465
		1046.59		-1.434E-01	1.326E-01	1.927E-01	1.295E-02	-0.744
		1112.84		9.628E-03	2.675E-01	3.797E-01	2.407E-02	0.025
RU-103		497.08	*	3.717E-03	4.529E-02	7.491E-02	9.408E-03	0.050
	+	610.33		1.187E+01	2.447E+00	3.105E+00	4.726E-01	3.823
RH-106	+	511.85		3.717E-01	3.879E-01	4.948E-01	2.765E-02	0.751
		621.84	*	-6.739E-01	3.986E-01	5.388E-01	6.167E-02	-1.251
		1050.47		2.784E+00	2.410E+00	4.450E+00	2.982E-01	0.626
RU-106	+	511.85		3.717E-01	3.879E-01	4.948E-01	2.765E-02	0.751
		621.84	*	-6.739E-01	3.926E-01	5.388E-01	2.794E-02	-1.251
		1050.47		2.784E+00	2.410E+00	4.450E+00	2.982E-01	0.626
AG-108M		433.93	*	-2.192E-02	4.133E-02	6.604E-02	4.050E-03	-0.332
		614.37		-8.722E-02	5.172E-02	5.596E-02	3.227E-03	-1.559
		722.95		-2.609E-02	5.738E-02	7.489E-02	4.506E-03	-0.348
AG-110M		657.75	*	6.379E-02	4.803E-02	7.717E-02	4.166E-03	0.827
		677.61		3.687E-01	3.617E-01	6.350E-01	3.482E-02	0.581

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.67		-1.025E-01	2.605E-01	4.060E-01	2.324E-02	-0.253
		763.93		-1.070E-01	2.356E-01	3.648E-01	2.278E-02	-0.293
		884.67		2.285E-02	5.448E-02	9.442E-02	7.036E-03	0.242
		937.48		-1.263E-01	1.339E-01	2.020E-01	1.521E-02	-0.626
		1384.27		-8.257E-02	1.863E-01	2.820E-01	1.868E-02	-0.293
IN-111		171.28		3.479E-02	1.285E+00	2.091E+00	1.137E-01	0.017
		245.39	*	-7.135E-01	1.531E+00	2.066E+00	1.215E-01	-0.345
IN-113M		391.69	*	-2.533E-02	5.040E-02	8.102E-02	4.821E-03	-0.313
SN-113		391.69	*	-2.533E-02	5.040E-02	8.102E-02	4.821E-03	-0.313
IN-114M		190.27	*	-3.431E-03	2.448E-01	3.463E-01	1.927E-02	-0.010
CD-115		260.90		1.871E+00	1.738E+02	2.781E+02	1.649E+01	0.007
		492.35		3.278E+01	4.639E+01	7.997E+01	4.492E+00	0.410
		527.90	*	-4.878E+00	1.345E+01	2.140E+01	1.189E+00	-0.228
SN-117M		156.02		-7.911E-01	2.956E+00	4.608E+00	2.546E-01	-0.172
		158.56	*	3.686E-02	7.849E-02	1.149E-01	6.312E-03	0.321
SB-122		563.90	*	-3.128E+00	2.675E+00	3.961E+00	2.159E-01	-0.790
		692.80		5.172E+01	5.068E+01	8.915E+01	4.654E+00	0.580
I-123		159.00	*	4.111E+00	5.068E+01	Half-Life too short		
		528.96		2.279E+02	5.068E+01	Half-Life too short		
TE-123M		159.00	*	1.615E-02	4.039E-02	5.890E-02	3.281E-03	0.274
I-124		602.71	*	3.305E-01	9.194E-01	1.344E+00	7.104E-02	0.246
		722.78		-3.028E+00	6.161E+00	7.998E+00	4.398E-01	-0.379
		1325.50		-3.675E+00	4.144E+01	6.658E+01	4.173E+00	-0.055
		1376.25		3.199E+01	3.416E+01	6.223E+01	3.917E+00	0.514
		1509.49		3.934E+00	1.616E+01	2.717E+01	1.700E+00	0.145
		1691.02		1.564E+00	4.242E+00	7.537E+00	4.532E-01	0.207
SB-124		602.71		1.868E-02	5.196E-02	7.597E-02	4.017E-03	0.246
		645.85		2.029E-01	6.337E-01	1.054E+00	6.199E-02	0.193
		709.31		8.855E-01	3.304E+00	5.453E+00	2.930E-01	0.162
		713.82		-9.893E-01	1.890E+00	2.889E+00	2.888E-01	-0.342
		722.78		-2.481E-01	5.047E-01	6.552E-01	3.792E-02	-0.379
	+	968.20		1.630E+01	5.162E+00	7.691E+00	5.429E-01	2.119
		1045.16		-2.890E+00	2.819E+00	4.122E+00	2.773E-01	-0.701
		1325.50		-3.216E-01	3.626E+00	5.826E+00	3.652E-01	-0.055
		1368.21		-1.558E+00	1.993E+00	2.823E+00	3.422E-01	-0.552
		1436.60		1.568E+00	4.290E+00	7.383E+00	4.646E-01	0.212
		1691.02	*	3.022E-02	8.198E-02	1.456E-01	9.457E-03	0.207
SB-125		427.89	*	-5.869E-02	1.073E-01	1.709E-01	1.003E-02	-0.343
	+	463.38		6.262E-01	4.906E-01	6.396E-01	4.235E-02	0.979
		600.56		4.592E-04	2.115E-01	3.442E-01	2.161E-02	0.001
		635.90		-2.324E-01	3.211E-01	4.867E-01	3.021E-02	-0.477
TE-125M		109.28	*	2.491E+00	1.410E+01	2.044E+01	1.858E+00	0.122
I-126		388.63		9.181E-02	2.431E-01	4.133E-01	2.303E-02	0.222
		666.33	*	2.151E-01	2.344E-01	3.642E-01	1.814E-02	0.591
		753.82		2.614E+00	1.746E+00	3.171E+00	1.837E-01	0.825
SB-126		223.80		6.737E-01	5.190E+00	8.403E+00	4.854E-01	0.080
	+	278.60		6.615E+00	4.241E+00	5.288E+00	3.155E-01	1.251
	+	296.50		1.061E+01	2.991E+00	4.140E+00	2.473E-01	2.563
		414.70		-1.781E-02	8.967E-02	1.468E-01	8.213E-03	-0.121

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.30		8.488E-01	7.201E+00	1.203E+01	6.732E-01	0.071
		555.20		3.514E+00	4.987E+00	8.566E+00	4.693E-01	0.410
		573.80		-1.002E+00	1.290E+00	1.975E+00	1.069E-01	-0.507
		593.00		-5.566E-01	1.135E+00	1.774E+00	9.457E-02	-0.314
		656.30		2.486E+00	4.270E+00	6.415E+00	3.191E-01	0.387
		666.33		8.991E-02	9.800E-02	1.522E-01	7.582E-03	0.591
		675.00		-3.813E-01	2.386E+00	3.804E+00	1.924E-01	-0.100
		695.00		4.983E-02	8.979E-02	1.520E-01	7.964E-03	0.328
		697.00		-3.495E-01	3.191E-01	4.623E-01	2.431E-02	-0.756
		720.50	*	7.017E-02	1.855E-01	2.707E-01	1.483E-02	0.259
		856.80		3.325E-01	6.039E-01	9.316E-01	6.360E-02	0.357
		989.30		-5.690E-01	1.306E+00	2.053E+00	1.433E-01	-0.277
		1034.80		-3.084E+00	1.024E+01	1.637E+01	1.110E+00	-0.188
		1213.00		-7.647E-01	5.384E+00	8.678E+00	5.222E-01	-0.088
SB-127		61.10		3.860E+02	1.215E+02	1.857E+02	2.152E+01	2.079
		252.40		-1.766E+00	5.755E+00	8.995E+00	3.740E+00	-0.196
		290.80		-1.998E+01	3.019E+01	4.216E+01	3.935E+00	-0.474
		411.60		1.034E+01	1.498E+01	2.576E+01	3.692E+00	0.401
		444.90		4.896E-02	1.237E+01	2.045E+01	2.199E+00	0.002
		473.00		2.099E+00	2.049E+00	3.591E+00	4.001E-01	0.585
		543.00		4.387E+00	1.970E+01	3.278E+01	4.205E+00	0.134
		603.60		9.889E-01	1.607E+01	2.275E+01	2.399E+00	0.043
		685.20	*	5.434E-01	1.444E+00	2.421E+00	2.206E-01	0.224
		698.50		-1.294E+01	1.807E+01	2.708E+01	3.877E+00	-0.478
		722.20		-2.233E+01	4.183E+01	5.386E+01	4.867E+00	-0.415
		783.80		5.116E+00	4.732E+00	7.693E+00	8.362E-01	0.665
XE-127		57.60		1.334E+00	1.143E+01	1.698E+01	1.562E+00	0.079
	+	145.22		1.489E+00	1.166E+00	1.539E+00	8.718E-02	0.968
		172.10		-2.635E-02	1.452E-01	2.342E-01	1.274E-02	-0.113
		202.84	*	1.234E-02	6.521E-02	9.826E-02	5.551E-03	0.126
		374.96		-1.062E-02	2.464E-01	4.094E-01	2.324E-02	-0.026
I-131		80.18		1.081E+00	9.902E+00	1.058E+01	9.888E-01	0.102
		284.30		-4.315E-01	1.989E+00	3.013E+00	1.990E-01	-0.143
		364.48	*	-3.583E-02	1.399E-01	2.298E-01	1.478E-02	-0.156
		636.97		-1.700E-02	1.806E+00	2.928E+00	1.721E-01	-0.006
		722.89		-4.587E+00	9.806E+00	1.278E+01	7.140E-01	-0.359
TE-132		49.72		-4.139E+01	3.527E+01	5.677E+01	6.214E+00	-0.729
	+	111.76		5.790E+01	5.934E+01	7.510E+01	7.198E+00	0.771
		116.30		3.377E+01	3.988E+01	5.996E+01	5.593E+00	0.563
		228.16	*	3.351E-01	8.788E-01	1.437E+00	2.069E-01	0.233
BA-133		53.15		3.590E+00	6.178E+00	1.054E+01	9.621E-01	0.341
		79.62		1.406E-02	2.791E+00	2.962E+00	4.620E-01	0.005
		81.00		-2.187E-02	2.102E-01	2.212E-01	3.601E-02	-0.099
	+	276.40		9.788E-01	6.378E-01	8.004E-01	1.044E-01	1.223
		302.84		-1.438E-01	1.689E-01	2.702E-01	3.173E-02	-0.532
		356.01	*	4.077E-03	5.864E-02	8.559E-02	9.894E-03	0.048
		383.85		-3.867E-01	3.607E-01	5.563E-01	5.992E-02	-0.695
I-133	+	510.53		8.749E-01	3.607E-01	Half-Life too short		
		529.87	*	-1.674E-04	3.607E-01	Half-Life too short		

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		706.58		-2.259E-01	3.607E-01	Half-Life too short		
		856.28		1.103E-01	3.607E-01	Half-Life too short		
		875.33		-1.858E-01	3.607E-01	Half-Life too short		
		1236.41		1.666E+00	3.607E-01	Half-Life too short		
		1298.22		-1.721E-01	3.607E-01	Half-Life too short		
CS-134		475.35		2.550E-02	2.340E+00	3.857E+00	2.172E-01	0.007
		563.23		-5.773E-01	4.435E-01	6.480E-01	3.616E-02	-0.891
		569.32		1.858E-01	2.269E-01	3.934E-01	2.208E-02	0.472
		604.70		-1.075E-02	4.542E-02	6.210E-02	3.298E-03	-0.173
		795.84	*	8.218E-02	5.458E-02	1.015E-01	6.390E-03	0.809
		801.93		-1.763E-01	4.405E-01	7.162E-01	4.537E-02	-0.246
		1038.57		3.261E+00	4.619E+00	8.130E+00	5.496E-01	0.401
		1167.94		2.846E+00	2.849E+00	5.112E+00	3.045E-01	0.557
		1365.15		5.944E-01	1.362E+00	2.348E+00	1.602E-01	0.253
CS-135		268.24	*	4.652E-01	2.298E-01	3.599E-01	2.797E-02	1.292
I-135		288.45		-2.644E+10	2.298E-01	Half-Life too short		
		417.63		-5.788E+09	2.298E-01	Half-Life too short		
		546.56		1.062E+10	2.298E-01	Half-Life too short		
		836.80		1.310E+10	2.298E-01	Half-Life too short		
		1038.76		2.334E+10	2.298E-01	Half-Life too short		
		1124.00		-3.652E+10	2.298E-01	Half-Life too short		
		1131.51		3.923E+09	2.298E-01	Half-Life too short		
		1260.41	*	-1.603E+09	2.298E-01	Half-Life too short		
		1457.56		8.893E+11	2.298E-01	Half-Life too short		
		1678.03		5.967E+09	2.298E-01	Half-Life too short		
		1706.46		-1.384E+10	2.298E-01	Half-Life too short		
		1791.20		2.687E+08	2.298E-01	Half-Life too short		
CS-136		66.91		-1.591E+00	1.330E+00	1.830E+00	2.857E-01	-0.869
	+	86.29		3.529E+00	1.532E+00	2.726E+00	3.714E-01	1.294
		153.22		4.941E-01	8.362E-01	1.394E+00	9.805E-02	0.354
	+	163.89		1.359E+00	1.397E+00	2.273E+00	1.581E-01	0.598
		176.55		-1.879E-02	4.586E-01	7.437E-01	4.630E-02	-0.025
		273.65		-5.270E-01	9.457E-01	8.693E-01	5.872E-02	-0.606
		340.57		4.657E-01	1.729E-01	2.944E-01	1.835E-02	1.582
		818.51		5.485E-02	8.453E-02	1.495E-01	9.633E-03	0.367
		1048.07	*	5.348E-03	1.192E-01	1.976E-01	1.418E-02	0.027
		1235.34		4.957E-01	8.397E-01	1.258E+00	1.277E-01	0.394
CE-139		165.85	*	-1.147E-03	4.136E-02	5.882E-02	3.181E-03	-0.019
BA-140	+	162.64		9.574E-01	9.832E-01	1.591E+00	9.880E-02	0.602
		304.84		-1.596E+00	1.554E+00	2.366E+00	6.464E-01	-0.675
		423.70		8.820E-02	2.242E+00	3.722E+00	1.182E+00	0.024
		537.32	*	-1.028E-01	3.097E-01	4.907E-01	1.594E-01	-0.209
LA-140		328.77		2.581E-01	3.686E-01	6.374E-01	4.208E-02	0.405
		432.53		-1.169E+00	2.586E+00	4.153E+00	2.593E-01	-0.281
		487.03		-5.725E-02	1.716E-01	2.756E-01	1.766E-02	-0.208
		751.79		-4.876E-01	2.176E+00	3.426E+00	2.424E-01	-0.142
		815.85		-1.924E-01	3.707E-01	5.906E-01	4.542E-02	-0.326
		867.82		-4.692E-01	1.779E+00	2.671E+00	2.003E-01	-0.176
		919.63		2.084E+00	3.072E+00	5.252E+00	5.010E-01	0.397

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		925.24		-7.630E-01	1.270E+00	1.977E+00	1.549E-01	-0.386
		1596.49	*	-4.903E-02	1.038E-01	1.610E-01	9.934E-03	-0.305
CE-141		145.44	*	9.521E-02	9.013E-02	1.358E-01	8.015E-03	0.701
CE-143		57.37		3.255E-04	9.013E-02	Half-Life too short		
		231.56		-2.108E-03	9.013E-02	Half-Life too short		
		293.26	*	8.813E-04	9.013E-02	Half-Life too short		
	+	350.59		3.216E-02	9.013E-02	Half-Life too short		
		490.36		-1.815E-03	9.013E-02	Half-Life too short		
		664.57		5.492E-03	9.013E-02	Half-Life too short		
		721.93		-7.688E-04	9.013E-02	Half-Life too short		
CE-144		80.11		5.325E-01	4.492E+00	4.803E+00	4.461E-01	0.111
		133.54	*	2.078E-01	2.532E-01	4.252E-01	6.047E-02	0.489
PM-144		476.78		-7.713E-03	8.065E-02	1.319E-01	8.973E-03	-0.058
		618.01		4.630E-02	3.590E-02	6.444E-02	3.604E-03	0.719
		696.49	*	-3.368E-02	4.026E-02	5.993E-02	3.152E-03	-0.562
		778.57		-5.507E-01	2.550E+00	3.996E+00	2.414E-01	-0.138
PR-144		696.49	*	-2.282E+00	2.728E+00	4.062E+00	2.134E-01	-0.562
		1489.15		-9.131E+00	1.219E+01	1.658E+01	1.040E+00	-0.551
PM-146		453.90	*	3.209E-02	5.224E-02	8.962E-02	7.627E-03	0.358
		633.02		-1.009E+00	1.689E+00	2.531E+00	9.294E-01	-0.399
		735.90		9.990E-02	1.614E-01	2.720E-01	7.574E-02	0.367
		747.13		-1.327E-02	1.119E-01	1.779E-01	2.220E-02	-0.075
ND-147	+	91.11		1.028E+01	1.181E+00	1.179E+00	1.175E-01	8.720
		319.41		3.130E-01	4.035E+00	6.795E+00	4.039E-01	0.046
		439.89		8.369E-01	7.787E+00	1.296E+01	7.294E-01	0.065
		531.02	*	4.505E-01	6.803E-01	1.165E+00	1.563E-01	0.387
PM-149		285.90	*	7.049E+01	1.147E+02	1.982E+02	2.824E+01	0.356
EU-152		121.78		9.159E-02	9.060E-02	1.542E-01	1.211E-02	0.594
		244.69		5.901E-02	4.407E-01	6.225E-01	3.658E-02	0.095
		344.27	*	-1.717E-01	1.533E-01	1.706E-01	1.124E-02	-1.006
		443.98		9.778E-01	1.202E+00	2.085E+00	1.173E-01	0.469
		778.89		-3.700E-02	2.967E-01	4.697E-01	2.836E-02	-0.079
		867.32		-6.499E-01	1.113E+00	1.546E+00	1.072E-01	-0.420
		964.01		4.219E-01	3.861E-01	6.211E-01	4.393E-02	0.679
		1085.78		-1.949E-01	4.627E-01	7.281E-01	4.736E-02	-0.268
		1112.02		5.486E-02	3.519E-01	5.298E-01	3.362E-02	0.104
		1407.95		2.455E-01	2.042E-01	3.848E-01	2.423E-02	0.638
GD-153		69.67		1.976E+00	2.641E+00	3.984E+00	3.556E-01	0.496
	+	83.37		3.001E+01	2.409E+01	3.678E+01	3.495E+00	0.816
	+	97.43	*	2.298E-01	1.444E-01	1.890E-01	1.579E-02	1.216
		103.18		4.149E-02	1.577E-01	2.317E-01	1.780E-02	0.179
EU-154		123.07		7.367E-02	6.350E-02	1.083E-01	1.037E-02	0.680
		247.94		-9.604E-02	4.617E-01	7.049E-01	6.764E-02	-0.136
		591.81		-6.996E-02	7.241E-01	1.170E+00	1.112E-01	-0.060
		723.30		-5.083E-02	2.380E-01	3.211E-01	2.197E-02	-0.158
		756.87		1.740E-02	9.163E-01	1.474E+00	1.497E-01	0.012
		873.19		1.196E-01	3.146E-01	5.441E-01	6.073E-02	0.220
		996.32		1.168E-02	4.515E-01	6.451E-01	1.098E-01	0.018
		1004.76		2.097E-01	2.717E-01	4.283E-01	4.472E-02	0.490

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.45	*	3.901E-02	1.258E-01	2.128E-01	2.037E-02	0.183
EU-155		48.70		-5.283E+00	4.260E+00	6.866E+00	5.749E-01	-0.769
		60.01		2.879E+00	8.904E+00	1.330E+01	1.219E+00	0.216
	+	86.54		3.226E-01	1.367E-01	2.472E-01	2.430E-02	1.305
		105.31	*	4.929E-02	1.431E-01	2.390E-01	1.813E-02	0.206
TB-160	+	86.79		8.632E-01	3.655E-01	6.580E-01	6.431E-02	1.312
		197.04		5.778E-02	7.289E-01	1.147E+00	6.437E-02	0.050
		215.65		7.191E-01	9.270E-01	1.545E+00	8.852E-02	0.465
		298.57		6.504E-02	1.545E-01	2.326E-01	1.389E-02	0.280
		879.36	*	-1.003E-02	1.467E-01	2.428E-01	1.715E-02	-0.041
		962.29		6.275E-01	7.002E-01	1.107E+00	7.836E-02	0.567
		966.15		7.077E-01	3.177E-01	5.455E-01	3.855E-02	1.297
		1177.93		-7.263E-02	4.282E-01	6.897E-01	4.089E-02	-0.105
		1271.85		-5.405E-01	7.798E-01	1.159E+00	7.137E-02	-0.466
HO-166M		80.57		-8.478E-02	5.816E-01	6.104E-01	5.687E-02	-0.139
	+	184.41		4.083E-01	8.293E-02	1.071E-01	5.915E-03	3.813
		280.46		-7.086E-03	1.083E-01	1.584E-01	9.453E-03	-0.045
		410.95		1.596E-01	2.944E-01	5.038E-01	2.816E-02	0.317
		711.68	*	3.871E-02	7.006E-02	1.185E-01	6.394E-03	0.327
		752.31		5.729E-02	3.426E-01	5.587E-01	3.230E-02	0.103
		810.29		-3.052E-02	6.199E-02	9.877E-02	6.273E-03	-0.309
TM-171		51.35		-8.418E+00	5.263E+01	8.809E+01	7.900E+00	-0.096
		52.39		1.040E+01	2.727E+01	4.632E+01	4.204E+00	0.225
		59.40		1.529E+01	4.823E+01	7.208E+01	6.624E+00	0.212
		66.72	*	-6.477E+01	4.762E+01	6.580E+01	5.877E+00	-0.984
LU-176	+	88.36		6.353E-01	2.690E-01	4.929E-01	4.835E-02	1.289
		201.83		-2.262E-02	3.709E-02	5.837E-02	3.293E-03	-0.388
		306.84	*	-1.446E-02	2.908E-02	4.756E-02	2.837E-03	-0.304
		401.10		-2.233E+00	7.726E+00	1.259E+01	7.012E-01	-0.177
LU-177M		52.97		1.740E+00	2.799E+00	4.780E+00	4.358E-01	0.364
		54.07		9.373E-01	1.492E+00	2.545E+00	2.334E-01	0.368
		61.30		1.331E+01	3.175E+00	4.949E+00	4.500E-01	2.690
		121.62		2.892E-01	4.697E-01	7.897E-01	4.837E-02	0.366
		147.16		-1.658E-02	9.017E-01	1.290E+00	7.274E-02	-0.013
		171.86		-4.885E-02	5.857E-01	9.489E-01	5.162E-02	-0.051
		218.09		-8.137E-01	1.086E+00	1.688E+00	9.696E-02	-0.482
	+	268.79		1.550E+00	1.308E+00	1.843E+00	1.096E-01	0.841
		319.02		-7.653E-02	3.108E-01	5.146E-01	3.058E-02	-0.149
		367.43		1.839E-01	1.073E+00	1.807E+00	1.035E-01	0.102
		413.65	*	-1.173E-01	2.094E-01	3.348E-01	1.873E-02	-0.350
HF-181		56.28		8.374E-02	1.673E+00	2.720E+00	2.504E-01	0.031
		57.53		4.189E-01	9.515E-01	1.430E+00	1.316E-01	0.293
		65.20		2.975E+00	1.671E+00	2.581E+00	2.312E-01	1.153
		133.02		5.242E-03	8.125E-02	1.336E-01	7.825E-03	0.039
		136.25		-2.764E-01	5.864E-01	9.437E-01	5.475E-02	-0.293
		345.85		-1.496E-01	2.550E-01	3.521E-01	2.060E-02	-0.425
		482.03	*	1.778E-02	5.168E-02	8.707E-02	4.899E-03	0.204
W-181		56.28		3.345E-02	6.535E-01	1.063E+00	9.785E-02	0.031
		57.53		1.639E-01	3.720E-01	5.590E-01	5.145E-02	0.293

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		65.20	*	1.154E+00	6.481E-01	1.001E+00	8.966E-02	1.153
TA-182		67.75		-1.654E-01	1.979E-01	2.607E-01	2.326E-02	-0.634
	+	100.10		5.357E-01	3.366E-01	4.116E-01	3.303E-02	1.302
		152.43		2.760E-01	4.252E-01	7.107E-01	3.959E-02	0.388
		222.10		2.472E-01	4.384E-01	7.235E-01	4.173E-02	0.342
	+	1001.68		9.647E+00	4.262E+00	6.369E+00	4.413E-01	1.515
	+	1121.28		4.845E-01	2.663E-01	3.778E-01	2.374E-02	1.283
		1189.05		3.437E-02	3.676E-01	6.072E-01	3.617E-02	0.057
		1221.42	*	1.412E-01	2.388E-01	4.105E-01	2.479E-02	0.344
		1230.97		2.739E-02	6.329E-01	8.912E-01	5.402E-02	0.031
RE-183		57.98		-6.475E-02	3.762E-01	5.523E-01	5.083E-02	-0.117
		59.32		6.426E-02	1.989E-01	2.973E-01	2.733E-02	0.216
		67.20		-2.545E-01	3.300E-01	4.694E-01	4.190E-02	-0.542
	+	162.32	*	1.390E-01	1.426E-01	2.342E-01	1.276E-02	0.593
	+	208.81		1.425E+00	1.457E+00	1.996E+00	1.135E-01	0.714
		291.72		-7.857E-01	1.280E+00	1.795E+00	1.073E-01	-0.438
RE-184		57.98		-2.383E-01	1.385E+00	2.033E+00	1.871E-01	-0.117
		59.32		2.364E-01	7.316E-01	1.094E+00	1.005E-01	0.216
		67.20		-9.365E-01	1.214E+00	1.727E+00	1.542E-01	-0.542
		161.27		3.356E-01	5.203E-01	7.671E-01	4.188E-02	0.438
		216.55		-1.336E-02	3.340E-01	5.374E-01	3.082E-02	-0.025
		252.85	*	-5.606E-02	2.978E-01	4.722E-01	2.789E-02	-0.119
		318.01		1.654E-01	5.378E-01	9.164E-01	5.448E-02	0.180
		792.07		1.052E+00	1.289E+00	2.043E+00	1.260E-01	0.515
		903.28		-5.901E-01	1.298E+00	1.825E+00	1.323E-01	-0.323
		920.93		2.773E-01	4.785E-01	8.417E-01	6.064E-02	0.329
OS-185		59.72		1.386E-01	5.318E-01	7.930E-01	7.278E-02	0.175
		61.14		1.101E+00	3.310E-01	5.187E-01	4.720E-02	2.123
		69.30		4.150E-01	4.729E-01	7.165E-01	6.394E-02	0.579
		592.07		-1.031E+00	3.038E+00	4.811E+00	2.567E-01	-0.214
		646.12	*	2.130E-02	5.243E-02	8.782E-02	4.427E-03	0.243
		717.42		-2.805E-01	1.027E+00	1.611E+00	8.780E-02	-0.174
		874.81		3.631E-02	6.032E-01	1.012E+00	7.101E-02	0.036
		880.27		2.238E-01	8.390E-01	1.435E+00	1.015E-01	0.156
RE-188		155.03	*	-5.032E-02	2.238E-01	3.498E-01	1.937E-02	-0.144
		477.96		-3.403E+00	3.775E+00	5.811E+00	3.271E-01	-0.586
		633.10		-2.129E+00	3.332E+00	5.099E+00	2.611E-01	-0.418
W-188	+	63.58		8.317E+02	1.621E+02	1.856E+02	1.671E+01	4.480
		227.08		1.418E+00	1.598E+01	2.581E+01	1.495E+00	0.055
		290.67	*	-6.828E+00	1.012E+01	1.413E+01	8.443E-01	-0.483
IR-192	+	295.96		8.059E-01	2.273E-01	3.177E-01	1.926E-02	2.536
		308.46		7.017E-02	1.110E-01	1.924E-01	1.160E-02	0.365
		316.51	*	-8.461E-03	4.166E-02	6.915E-02	4.134E-03	-0.122
		468.07		1.909E-02	8.775E-02	1.281E-01	8.383E-03	0.149
		604.41		-1.152E-01	6.171E-01	8.487E-01	9.413E-02	-0.136
		612.46		5.355E-01	9.308E-01	1.390E+00	9.938E-02	0.385
AU-195		65.12		6.581E-01	3.052E-01	4.742E-01	4.248E-02	1.388
		66.83		-2.114E-01	1.574E-01	2.177E-01	1.944E-02	-0.971
	+	75.70		1.503E+00	3.097E-01	5.800E-01	5.261E-02	2.591

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	98.88	*	6.694E-01	4.206E-01	5.425E-01	4.435E-02	1.234
		129.76		1.882E+00	3.427E+00	5.738E+00	3.397E-01	0.328
TL-200		367.94	*	1.895E-04	3.427E+00	Half-Life too short		
		579.30		2.304E-03	3.427E+00	Half-Life too short		
		828.27		5.635E-04	3.427E+00	Half-Life too short		
		1205.75		1.262E-03	3.427E+00	Half-Life too short		
TL-201		68.90		2.595E+00	8.569E+00	1.191E+01	1.062E+00	0.218
		70.82		5.992E+00	4.473E+00	6.855E+00	6.127E-01	0.874
		80.30		1.135E+00	1.106E+01	1.182E+01	1.099E+00	0.096
		135.34		-1.211E+01	3.352E+01	5.420E+01	3.153E+00	-0.223
		167.43	*	8.898E-01	1.016E+01	1.454E+01	7.870E-01	0.061
TL-202		68.90		2.262E-01	7.471E-01	1.038E+00	9.263E-02	0.218
		70.82		5.210E-01	3.889E-01	5.960E-01	5.328E-02	0.874
		80.30		9.869E-02	9.622E-01	1.028E+00	9.558E-02	0.096
		439.56	*	4.959E-02	9.053E-02	1.545E-01	8.695E-03	0.321
BI-207		72.80		6.518E-01	3.075E-01	4.752E-01	4.266E-02	1.372
	+	74.97		7.142E-01	2.185E-01	3.054E-01	2.761E-02	2.339
	+	84.90		3.880E-01	3.114E-01	4.823E-01	4.639E-02	0.804
		569.67		2.526E-02	3.640E-02	6.248E-02	3.392E-03	0.404
		1063.62	*	2.618E-03	5.745E-02	9.516E-02	6.309E-03	0.028
		1770.23		-4.633E-03	3.803E-01	5.354E-01	3.128E-02	-0.009
TL-207		81.07		-2.934E-02	4.640E-01	4.897E-01	4.577E-02	-0.060
	+	83.78		2.558E-01	2.053E-01	3.108E-01	2.963E-02	0.823
		94.90		1.870E+00	5.148E-01	6.453E-01	5.618E-02	2.897
		122.32		2.682E+00	2.154E+00	3.694E+00	2.568E-01	0.726
	+	144.24		1.455E+00	1.141E+00	1.493E+00	1.065E-01	0.975
		154.21		-1.326E-01	5.134E-01	8.014E-01	5.454E-02	-0.166
	+	269.46		3.626E-01	3.060E-01	4.300E-01	2.669E-02	0.843
		323.87	*	-6.078E-01	8.303E-01	1.330E+00	2.203E-01	-0.457
	+	338.28		6.225E+00	2.156E+00	2.809E+00	2.971E-01	2.216
		445.03		-1.351E-01	2.780E+00	4.579E+00	4.659E-01	-0.030
PO-209		260.50		4.712E-01	1.211E+01	1.940E+01	1.150E+00	0.024
		262.80		-8.792E+00	3.386E+01	5.338E+01	3.169E+00	-0.165
		896.60	*	2.946E+00	8.214E+00	1.415E+01	1.025E+00	0.208
BI-210		46.50	*	2.313E+00	6.414E+00	1.070E+01	8.806E-01	0.216
PB-210		46.50	*	2.313E+00	6.414E+00	1.070E+01	8.806E-01	0.216
PO-210		46.50	*	2.313E+00	6.413E+00	1.070E+01	7.726E-01	0.216
PB-211		404.84	*	-9.735E-01	1.260E+00	1.732E+00	1.079E+00	-0.562
		427.08		4.625E-01	2.399E+00	3.994E+00	2.468E+00	0.116
		831.96		1.390E+00	1.683E+00	2.597E+00	1.621E+00	0.535
PO-215		81.07		-2.934E-02	4.640E-01	4.897E-01	4.577E-02	-0.060
	+	83.78		2.558E-01	2.053E-01	3.108E-01	2.963E-02	0.823
		94.90		1.870E+00	5.148E-01	6.453E-01	5.618E-02	2.897
		122.32		2.682E+00	2.154E+00	3.694E+00	2.568E-01	0.726
	+	144.24		1.455E+00	1.141E+00	1.493E+00	1.065E-01	0.975
		154.21		-1.326E-01	5.134E-01	8.014E-01	5.454E-02	-0.166
	+	269.46		3.626E-01	3.060E-01	4.300E-01	2.669E-02	0.843
		323.87	*	-6.078E-01	8.303E-01	1.330E+00	2.203E-01	-0.457
	+	338.28		6.225E+00	2.156E+00	2.809E+00	2.971E-01	2.216

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		445.03		-1.351E-01	2.780E+00	4.579E+00	4.659E-01	-0.030
RN-219	+	271.23		4.653E-01	3.934E-01	5.502E-01	4.520E-02	0.846
		401.81	*	-8.744E-02	4.815E-01	7.901E-01	1.067E-01	-0.111
RN-220		549.76	*	-4.127E+01	3.168E+01	4.621E+01	2.540E+00	-0.893
RA-223		81.07		-2.934E-02	4.640E-01	4.897E-01	4.577E-02	-0.060
	+	83.78		2.558E-01	2.053E-01	3.108E-01	2.963E-02	0.823
		94.90		1.870E+00	5.148E-01	6.453E-01	5.618E-02	2.897
		122.32		2.682E+00	2.154E+00	3.694E+00	2.568E-01	0.726
	+	144.24		1.455E+00	1.141E+00	1.493E+00	1.065E-01	0.975
		154.21		-1.326E-01	5.134E-01	8.014E-01	5.454E-02	-0.166
	+	269.46		3.626E-01	3.060E-01	4.300E-01	2.669E-02	0.843
		323.87	*	-6.078E-01	8.303E-01	1.330E+00	2.203E-01	-0.457
	+	338.28		6.225E+00	2.156E+00	2.809E+00	2.971E-01	2.216
		445.03		-1.351E-01	2.780E+00	4.579E+00	4.659E-01	-0.030
AC-227		79.80		-1.369E-01	3.535E+00	3.739E+00	8.141E-01	-0.037
		236.00		1.731E+00	4.041E-01	6.286E-01	6.584E-02	2.754
		256.20	*	-1.820E-01	4.944E-01	7.752E-01	1.086E-01	-0.235
		286.10		5.235E-01	1.845E+00	3.149E+00	3.668E-01	0.166
		299.80		1.349E+00	1.924E+00	2.934E+00	4.797E-01	0.460
		304.40		-2.880E+00	2.273E+00	3.479E+00	6.037E-01	-0.828
		334.20		-3.062E-01	3.082E+00	4.453E+00	8.178E-01	-0.069
TH-227		79.80		-1.369E-01	3.535E+00	3.739E+00	8.243E-01	-0.037
		94.00		5.749E+01	1.343E+01	7.905E+00	1.728E+00	7.273
		236.00		1.731E+00	3.939E-01	6.286E-01	5.709E-02	2.754
		256.20	*	-1.820E-01	4.947E-01	7.752E-01	1.313E-01	-0.235
		286.10		5.235E-01	1.917E+00	3.149E+00	3.155E+00	0.166
		299.80		1.349E+00	1.924E+00	2.934E+00	4.797E-01	0.460
		304.40		-2.880E+00	2.273E+00	3.479E+00	6.037E-01	-0.828
		334.20		-3.062E-01	3.082E+00	4.453E+00	8.178E-01	-0.069
TH-229		85.43		8.190E-01	4.067E-01	4.774E-01	4.612E-02	1.716
	+	88.47		3.657E-01	1.548E-01	2.823E-01	2.763E-02	1.295
	+	100.00		5.552E-01	3.489E-01	4.302E-01	3.458E-02	1.291
		193.63	*	1.264E-01	6.200E-01	1.012E+00	5.657E-02	0.125
		210.97		1.764E-01	1.088E+00	1.547E+00	8.822E-02	0.114
PA-231		283.67	*	6.002E-01	2.044E+00	3.062E+00	4.241E-01	0.196
		301.29		1.081E+00	7.142E-01	1.183E+00	1.247E-01	0.914
TH-231		81.07		-2.934E-02	4.640E-01	4.897E-01	4.577E-02	-0.060
	+	83.78		2.558E-01	2.053E-01	3.108E-01	2.963E-02	0.823
		94.90		1.870E+00	5.148E-01	6.453E-01	5.618E-02	2.897
		122.32		2.682E+00	2.154E+00	3.694E+00	2.568E-01	0.726
	+	144.24		1.455E+00	1.141E+00	1.493E+00	1.065E-01	0.975
		154.21		-1.326E-01	5.134E-01	8.014E-01	5.454E-02	-0.166
	+	269.46		3.626E-01	3.060E-01	4.300E-01	2.669E-02	0.843
		323.87	*	-6.078E-01	8.303E-01	1.330E+00	2.203E-01	-0.457
	+	338.28		6.225E+00	2.156E+00	2.809E+00	2.971E-01	2.216
		445.03		-1.351E-01	2.780E+00	4.579E+00	4.659E-01	-0.030
U-231	+	84.21		1.135E+01	9.108E+00	1.387E+01	1.327E+00	0.818
	+	92.29		7.943E+01	8.674E+00	9.296E+00	8.465E-01	8.545
		95.87	*	1.619E+00	2.291E+00	2.539E+00	2.176E-01	0.638

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-3.826E+00	3.299E+00	4.505E+00	3.246E-01	-0.849
PA-233	+	75.28		2.084E+01	6.904E+00	9.295E+00	1.450E+00	2.242
	+	86.59		5.244E+00	2.589E+00	4.010E+00	1.091E+00	1.308
		300.12		8.508E-01	5.182E-01	8.265E-01	1.117E-01	1.029
		311.98	*	-4.759E-02	7.745E-02	1.258E-01	7.934E-03	-0.378
		340.50		2.483E+00	1.008E+00	1.451E+00	3.334E-01	1.712
		398.62		2.760E-01	2.435E+00	4.071E+00	1.051E+00	0.068
		415.76		-7.260E-02	1.901E+00	3.143E+00	6.452E-01	-0.023
PA-234	+	63.00		2.408E+01	5.626E+00	5.579E+00	8.774E-01	4.316
		94.67		1.947E+00	4.349E-01	5.073E-01	6.334E-02	3.839
	+	98.44		2.710E-01	2.266E-01	2.212E-01	1.233E-01	1.225
	+	99.86		1.405E+00	8.829E-01	1.101E+00	8.868E-02	1.276
	+	111.00		3.473E-01	3.564E-01	4.465E-01	4.891E-02	0.778
		131.20		-1.660E-01	1.313E-01	2.045E-01	1.205E-02	-0.812
		152.70		3.124E-01	4.111E-01	6.855E-01	1.078E-01	0.456
	+	186.00		1.470E+01	5.325E+00	3.860E+00	1.178E+00	3.807
		226.40		-3.039E-01	5.130E-01	8.005E-01	9.251E-02	-0.380
		227.20		5.328E-02	5.390E-01	8.711E-01	5.048E-02	0.061
		248.90		-5.631E-01	1.032E+00	1.594E+00	3.430E-01	-0.353
	+	293.70		5.064E+00	1.617E+00	1.948E+00	3.146E-01	2.599
		369.80		-6.775E-01	1.025E+00	1.624E+00	3.377E-01	-0.417
		568.70		5.067E-01	1.228E+00	2.065E+00	1.121E-01	0.245
		569.50		2.034E-01	3.213E-01	5.495E-01	2.983E-02	0.370
		574.00		-3.186E-01	1.767E+00	2.841E+00	1.537E-01	-0.112
		699.00		-4.075E-01	8.192E-01	1.257E+00	2.239E-01	-0.324
		706.10		-4.757E-01	1.293E+00	1.992E+00	8.781E-01	-0.239
		733.00		-9.918E-02	4.830E-01	6.493E-01	1.377E-01	-0.153
		742.81		2.359E-01	1.613E+00	2.618E+00	1.751E+00	0.090
		796.30		1.237E+00	1.103E+00	1.926E+00	5.080E-01	0.643
		805.60		3.294E-01	1.100E+00	1.884E+00	5.667E-01	0.175
		819.60		6.061E-01	1.452E+00	2.488E+00	9.352E-01	0.244
		826.30		-8.312E-01	1.020E+00	1.463E+00	6.492E-01	-0.568
		831.60		5.718E-01	7.881E-01	1.363E+00	3.995E-01	0.420
		876.40		-1.462E+00	1.748E+00	1.224E+00	1.257E+00	-1.195
		880.51		1.932E-01	2.995E-01	5.304E-01	3.752E-02	0.364
		883.24		2.868E-01	3.669E-01	5.662E-01	3.796E-01	0.507
		899.00		6.152E-01	9.870E-01	1.677E+00	7.287E-01	0.367
		925.00		-6.711E-01	1.291E+00	2.028E+00	1.459E-01	-0.331
		926.50		-1.746E-01	2.046E-01	3.028E-01	7.518E-02	-0.576
		946.00	*	-6.365E-02	3.318E-01	5.397E-01	9.784E-02	-0.118
		949.00		7.765E-02	5.119E-01	8.620E-01	6.140E-02	0.090
		980.50		-3.023E-01	7.677E-01	1.215E+00	8.524E-02	-0.249
		1394.10		4.971E-01	1.217E+00	2.035E+00	1.319E+00	0.244
PA-234M		766.42		4.433E+01	2.724E+01	3.000E+01	1.510E+01	1.478
	+	1001.03	*	2.188E+01	9.728E+00	1.439E+01	1.230E+00	1.520
NP-236		94.67		1.496E+00	3.035E-01	3.861E-01	3.375E-02	3.875
	+	98.44		2.049E-01	1.288E-01	1.672E-01	1.376E-02	1.225
	+	111.00		2.627E-01	2.687E-01	3.378E-01	2.344E-02	0.778
		160.31	*	-9.694E-03	1.155E-01	1.640E-01	8.974E-03	-0.059

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		4.683E-01	2.943E-01	3.728E-01	3.017E-02	1.256
		117.00	*	-1.954E-01	2.748E-01	3.820E-01	2.468E-02	-0.512
	+	209.75		1.122E+00	1.147E+00	1.593E+00	9.069E-02	0.704
		228.18		1.040E-01	2.761E-01	4.520E-01	2.622E-02	0.230
	+	277.60		4.776E-01	3.063E-01	3.877E-01	2.312E-02	1.232
		334.30		-1.908E-01	1.745E+00	2.520E+00	1.486E-01	-0.076
AM-241		59.54	*	8.964E-02	2.797E-01	4.179E-01	4.086E-02	0.214
CM-243	+	99.55		4.819E-01	3.028E-01	3.836E-01	3.105E-02	1.256
		103.76	*	1.499E-01	1.355E-01	2.163E-01	1.649E-02	0.693
		117.00		-2.011E-01	2.828E-01	3.930E-01	2.539E-02	-0.512
	+	209.75		1.106E+00	1.131E+00	1.570E+00	8.941E-02	0.704
		228.18		1.051E-01	2.790E-01	4.568E-01	2.649E-02	0.230
	+	277.60		4.816E-01	3.088E-01	3.909E-01	2.331E-02	1.232
AM-246		798.80		-2.823E-01	1.647E-01	2.327E-01	1.451E-02	-1.213
		1036.00		-2.835E-02	3.464E-01	5.672E-01	3.842E-02	-0.050
		1062.04		-3.327E-01	2.580E-01	3.619E-01	2.403E-02	-0.919
		1078.86	*	-1.208E-01	1.632E-01	2.472E-01	1.618E-02	-0.489
CM-247	+	278.00		1.981E+00	1.270E+00	1.620E+00	9.665E-02	1.222
		287.40		9.929E-01	1.503E+00	2.549E+00	1.522E-01	0.390
		402.60	*	6.961E-04	4.338E-02	7.210E-02	4.017E-03	0.010
CF-249		252.85		-2.102E-01	1.116E+00	1.770E+00	1.046E-01	-0.119
		333.44		-6.765E-02	2.346E-01	3.343E-01	1.973E-02	-0.202
		387.95	*	3.581E-02	4.644E-02	8.073E-02	4.503E-03	0.444
CF-251		176.60	*	-7.044E-03	1.566E-01	2.539E-01	1.389E-02	-0.028
		227.00		5.353E-02	4.760E-01	7.698E-01	4.460E-02	0.070
		285.00		3.110E-01	2.236E+00	3.590E+00	2.144E-01	0.087

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799015     *
* Acquisition date : 10-FEB-2010 19:09:39 Detector SN#     :               *
* Detector ID        : GAM06               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.36      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245799015           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.2718E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope      :               *
* LCS DPM          :    0.000             LCS Isotope      :               *
* LCSD DPM         :    0.000             LCSD Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.352E+01	2.271E+00	5.362E-01	0.000E+00
CD-109	2.726E+00	1.131E+00	1.752E+00	0.000E+00
SN-126	2.678E-01	1.111E-01	1.731E-01	0.000E+00
BA-137M	6.672E-01	1.003E-01	7.256E-02	0.000E+00
CS-137	7.053E-01	1.061E-01	7.671E-02	0.000E+00
LU-177	1.612E+00	1.615E+00	2.294E+00	0.000E+00
HG-203	1.095E-01	6.881E-02	7.505E-02	0.000E+00
TL-208	4.173E-01	8.339E-02	6.882E-02	0.000E+00
BI-211	3.702E+00	5.699E-01	3.996E-01	0.000E+00
BI-212	1.153E+00	5.303E-01	4.698E-01	0.000E+00
PB-212	1.341E+00	1.479E-01	1.110E-01	0.000E+00
PO-212	1.341E+00	1.479E-01	1.110E-01	0.000E+00
BI-214	1.096E+00	1.691E-01	1.190E-01	0.000E+00
PB-214	1.288E+00	2.089E-01	1.393E-01	0.000E+00
PO-214	1.288E+00	2.089E-01	1.393E-01	0.000E+00
PO-216	1.341E+00	1.479E-01	1.110E-01	0.000E+00
PO-218	1.288E+00	2.089E-01	1.393E-01	0.000E+00
RA-224	3.854E+00	1.212E+00	1.263E+00	0.000E+00
RA-226	1.096E+00	1.691E-01	1.190E-01	0.000E+00
AC-228	1.394E+00	3.195E-01	2.260E-01	0.000E+00
RA-228	1.394E+00	3.195E-01	2.260E-01	0.000E+00
TH-228	1.361E+00	1.502E-01	1.127E-01	0.000E+00
TH-230	1.096E+00	1.691E-01	1.190E-01	0.000E+00
TH-232	1.394E+00	3.195E-01	2.260E-01	0.000E+00
TH-234	2.066E+01	5.078E+00	3.329E+00	0.000E+00
U-234	1.096E+00	1.691E-01	1.190E-01	0.000E+00
U-235	4.489E-01	3.511E-01	4.455E-01	0.000E+00
NP-237	7.865E-01	3.631E-01	5.470E-01	0.000E+00
U-238	2.066E+01	5.078E+00	3.329E+00	0.000E+00
AM-243	3.979E-01	1.193E-01	1.338E-01	0.000E+00
ANH-511	7.438E-02	7.608E-02	5.668E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-3.520E-01	3.848E-01	6.145E-01	0.000E+00	NOT IDENT.
NA-22	1.497E-02	4.424E-02	7.674E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.792E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.555E-02	2.873E-02	5.741E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.341E-02	1.022E-01	0.000E+00	FAIL ABUN
SC-46	-2.621E-02	3.905E-02	6.194E-02	0.000E+00	FAIL ABUN
V-48	8.153E-03	6.948E-02	1.197E-01	0.000E+00	NOT IDENT.
CR-51	-1.333E-01	4.495E-01	7.750E-01	0.000E+00	NOT IDENT.
MN-52	2.214E-01	2.702E-01	4.983E-01	0.000E+00	NOT IDENT.
MN-54	-1.100E-02	4.686E-02	7.920E-02	0.000E+00	NOT IDENT.
CO-56	-4.907E-02	3.825E-02	5.624E-02	0.000E+00	FAIL ABUN
CO-57	3.291E-02	3.063E-02	5.530E-02	0.000E+00	NOT IDENT.
CO-58	-2.728E-02	4.051E-02	6.524E-02	0.000E+00	NOT IDENT.
FE-59	-6.956E-02	9.487E-02	1.464E-01	0.000E+00	FAIL ABUN
CO-60	3.345E-02	4.303E-02	7.842E-02	0.000E+00	NOT IDENT.
ZN-65	5.679E-02	1.002E-01	1.577E-01	0.000E+00	NOT IDENT.
GE-68	-1.401E+00	1.381E+00	2.070E+00	0.000E+00	NOT IDENT.
AS-73	7.122E-01	1.399E+00	2.550E+00	0.000E+00	NOT IDENT.
AS-74	-9.841E-02	1.088E-01	1.696E-01	0.000E+00	NOT IDENT.
SE-75	-4.961E-03	6.320E-02	9.162E-02	0.000E+00	NOT IDENT.
BR-77	1.846E+00	1.263E+01	2.169E+01	0.000E+00	FAIL ABUN
SR-82	-3.877E-01	4.225E-01	6.718E-01	0.000E+00	NOT IDENT.
RB-83	1.452E-02	7.951E-02	1.369E-01	0.000E+00	NOT IDENT.
RB-84	7.335E-02	7.458E-02	1.393E-01	0.000E+00	NOT IDENT.
KR-85	1.106E+01	1.018E+01	1.637E+01	0.000E+00	NOT IDENT.
SR-85	5.683E-02	5.231E-02	8.408E-02	0.000E+00	NOT IDENT.
RB-86	-3.036E-01	8.826E-01	1.437E+00	0.000E+00	NOT IDENT.
Y-88	1.831E-02	3.836E-02	7.020E-02	0.000E+00	NOT IDENT.
ZR-88	-1.391E-02	3.500E-02	5.904E-02	0.000E+00	NOT IDENT.
Y-91	-2.507E+00	2.188E+01	3.622E+01	0.000E+00	NOT IDENT.
NB-94	2.384E-02	3.896E-02	6.811E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	5.700E-02	1.113E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.823E-01	2.985E-01	0.000E+00	NOT IDENT.
ZR-95	-1.228E-02	8.430E-02	1.377E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.627E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.796E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-6.408E+00	1.380E+01	2.180E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.895E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	8.313E-05	4.192E-02	6.912E-02	0.000E+00	NOT IDENT.
RH-102	2.362E-02	3.403E-02	6.084E-02	0.000E+00	NOT IDENT.
RU-103	3.717E-03	4.438E-02	7.613E-02	0.000E+00	FAIL ABUN
RH-106	-6.739E-01	3.906E-01	5.457E-01	0.000E+00	FAIL ABUN
RU-106	-6.739E-01	3.847E-01	5.457E-01	0.000E+00	FAIL ABUN
AG-108M	-2.192E-02	4.050E-02	6.725E-02	0.000E+00	NOT IDENT.
AG-110M	6.379E-02	4.707E-02	7.810E-02	0.000E+00	NOT IDENT.
IN-111	-7.135E-01	1.500E+00	2.122E+00	0.000E+00	NOT IDENT.
IN-113M	-2.533E-02	4.939E-02	8.263E-02	0.000E+00	NOT IDENT.
SN-113	-2.533E-02	4.939E-02	8.263E-02	0.000E+00	NOT IDENT.
IN-114M	-3.431E-03	2.399E-01	3.569E-01	0.000E+00	NOT IDENT.
CD-115	-4.878E+00	1.318E+01	2.173E+01	0.000E+00	NOT IDENT.
SN-117M	3.686E-02	7.692E-02	1.187E-01	0.000E+00	NOT IDENT.
SB-122	-3.128E+00	2.622E+00	4.018E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.007E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.615E-02	3.958E-02	6.087E-02	0.000E+00	NOT IDENT.
I-124	3.305E-01	9.010E-01	1.362E+00	0.000E+00	NOT IDENT.
SB-124	3.022E-02	8.034E-02	1.453E-01	0.000E+00	FAIL ABUN
SB-125	-5.869E-02	1.051E-01	1.741E-01	0.000E+00	FAIL ABUN
TE-125M	2.491E+00	1.382E+01	2.124E+01	0.000E+00	NOT IDENT.
I-126	2.151E-01	2.297E-01	3.685E-01	0.000E+00	NOT IDENT.
SB-126	7.017E-02	1.818E-01	2.736E-01	0.000E+00	FAIL ABUN
SB-127	5.434E-01	1.415E+00	2.448E+00	0.000E+00	NOT IDENT.
XE-127	1.234E-02	6.390E-02	1.012E-01	0.000E+00	FAIL ABUN
I-131	-3.583E-02	1.371E-01	2.346E-01	0.000E+00	NOT IDENT.
TE-132	3.351E-01	8.612E-01	1.477E+00	0.000E+00	FAIL ABUN
BA-133	4.077E-03	5.747E-02	8.742E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	8.366E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.218E-02	5.349E-02	1.025E-01	0.000E+00	NOT IDENT.
CS-135	0.000E+00	2.252E-01	3.692E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.819E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.348E-03	1.168E-01	1.986E-01	0.000E+00	FAIL ABUN
CE-139	-1.147E-03	4.053E-02	6.075E-02	0.000E+00	NOT IDENT.
BA-140	-1.028E-01	3.035E-01	4.981E-01	0.000E+00	FAIL ABUN
LA-140	-4.903E-02	1.018E-01	1.608E-01	0.000E+00	NOT IDENT.
CE-141	9.521E-02	8.832E-02	1.406E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	2.936E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.078E-01	2.482E-01	4.405E-01	0.000E+00	NOT IDENT.
PM-144	-3.368E-02	3.945E-02	6.060E-02	0.000E+00	NOT IDENT.
PR-144	-2.282E+00	2.674E+00	4.107E+00	0.000E+00	NOT IDENT.
PM-146	3.209E-02	5.119E-02	9.120E-02	0.000E+00	NOT IDENT.
ND-147	4.505E-01	6.667E-01	1.183E+00	0.000E+00	FAIL ABUN
PM-149	7.049E+01	1.124E+02	2.031E+02	0.000E+00	NOT IDENT.
EU-152	-1.717E-01	1.502E-01	1.743E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.415E-01	1.967E-01	0.000E+00	FAIL ABUN
EU-154	3.901E-02	1.233E-01	2.132E-01	0.000E+00	NOT IDENT.
EU-155	4.929E-02	1.402E-01	2.485E-01	0.000E+00	FAIL ABUN
TB-160	-1.003E-02	1.438E-01	2.447E-01	0.000E+00	FAIL ABUN
HO-166M	3.871E-02	6.866E-02	1.198E-01	0.000E+00	FAIL ABUN
TM-171	-6.477E+01	4.667E+01	6.884E+01	0.000E+00	NOT IDENT.
LU-176	-1.446E-02	2.850E-02	4.869E-02	0.000E+00	FAIL ABUN
LU-177M	-1.173E-01	2.053E-01	3.412E-01	0.000E+00	FAIL ABUN
HF-181	1.778E-02	5.064E-02	8.853E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	6.351E-01	1.048E+00	0.000E+00	NOT IDENT.
TA-182	1.412E-01	2.340E-01	4.116E-01	0.000E+00	FAIL ABUN
RE-183	1.390E-01	1.398E-01	2.420E-01	0.000E+00	FAIL ABUN
RE-184	-5.606E-02	2.918E-01	4.847E-01	0.000E+00	NOT IDENT.
OS-185	2.130E-02	5.138E-02	8.890E-02	0.000E+00	NOT IDENT.
RE-188	-5.032E-02	2.193E-01	3.617E-01	0.000E+00	NOT IDENT.
W-188	-6.828E+00	9.919E+00	1.448E+01	0.000E+00	FAIL ABUN
IR-192	-8.461E-03	4.082E-02	7.075E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.122E-01	5.645E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.978E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	8.898E-01	9.958E+00	1.502E+01	0.000E+00	NOT IDENT.
TL-202	4.959E-02	8.872E-02	1.574E-01	0.000E+00	NOT IDENT.
BI-207	2.618E-03	5.630E-02	9.560E-02	0.000E+00	FAIL ABUN
TL-207	-6.078E-01	8.137E-01	1.361E+00	0.000E+00	FAIL ABUN
PO-209	2.946E+00	8.049E+00	1.425E+01	0.000E+00	NOT IDENT.
BI-210	2.313E+00	6.286E+00	1.125E+01	0.000E+00	NOT IDENT.
PB-210	2.313E+00	6.286E+00	1.125E+01	0.000E+00	NOT IDENT.
PO-210	2.313E+00	6.285E+00	1.125E+01	0.000E+00	NOT IDENT.
PB-211	-9.735E-01	1.235E+00	1.765E+00	0.000E+00	NOT IDENT.
PO-215	-6.078E-01	8.137E-01	1.361E+00	0.000E+00	FAIL ABUN
RN-219	-8.744E-02	4.718E-01	8.055E-01	0.000E+00	FAIL ABUN
RN-220	-4.127E+01	3.105E+01	4.690E+01	0.000E+00	NOT IDENT.
RA-223	-6.078E-01	8.137E-01	1.361E+00	0.000E+00	FAIL ABUN
AC-227	-1.820E-01	4.845E-01	7.956E-01	0.000E+00	NOT IDENT.
TH-227	-1.820E-01	4.848E-01	7.956E-01	0.000E+00	NOT IDENT.
TH-229	1.264E-01	6.076E-01	1.043E+00	0.000E+00	FAIL ABUN
PA-231	6.002E-01	2.003E+00	3.138E+00	0.000E+00	NOT IDENT.
TH-231	-6.078E-01	8.137E-01	1.361E+00	0.000E+00	FAIL ABUN
U-231	1.619E+00	2.245E+00	2.643E+00	0.000E+00	FAIL ABUN
PA-233	-4.759E-02	7.590E-02	1.287E-01	0.000E+00	FAIL ABUN
PA-234	-6.365E-02	3.251E-01	5.432E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	9.533E+00	1.447E+01	0.000E+00	FAIL ABUN
NP-236	-9.694E-03	1.132E-01	1.695E-01	0.000E+00	FAIL ABUN
NP-239	-1.954E-01	2.693E-01	3.965E-01	0.000E+00	FAIL ABUN
AM-241	8.964E-02	2.741E-01	4.380E-01	0.000E+00	NOT IDENT.
CM-243	1.499E-01	1.328E-01	2.249E-01	0.000E+00	FAIL ABUN
AM-246	-1.208E-01	1.600E-01	2.483E-01	0.000E+00	NOT IDENT.
CM-247	6.961E-04	4.252E-02	7.350E-02	0.000E+00	FAIL ABUN
CF-249	3.581E-02	4.551E-02	8.235E-02	0.000E+00	NOT IDENT.
CF-251	-7.044E-03	1.535E-01	2.620E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:10:50.45

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799015.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:09:39
Sample ID         : G245799015           Sample quantity  : 1.27180E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.36  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	818	10.67*	9.624E-01	2.352E+01	2.352E+01	9.85
CD-109	88.03	173	3.72*	5.151E+00	2.664E+00	2.726E+00	42.34
SN-126	64.28	720	9.60	2.709E+00	8.176E+00	8.176E+00	23.16
	86.94	173	8.90	5.151E+00	1.114E+00	1.114E+00	58.56
	87.57	173	37.00*	5.151E+00	2.678E-01	2.678E-01	42.34
BA-137M	661.65	394	89.98*	1.939E+00	6.665E-01	6.672E-01	15.34
CS-137	661.65	394	85.12*	1.939E+00	7.046E-01	7.053E-01	15.35
LU-177	112.95	83	6.40	6.006E+00	6.404E-01	3.124E+00	102.27
	208.36	59	11.00*	4.794E+00	3.304E-01	1.612E+00	102.25
HG-203	70.83	------	4.75	3.684E+00	------ Line Not Found		------
	72.87	------	8.00	3.913E+00	------ Line Not Found		------
	82.60	105	3.55	4.891E+00	1.780E+00	2.236E+00	80.96
	279.20	89	77.30*	3.894E+00	8.713E-02	1.095E-01	64.15
TL-208	277.35	89	6.80	3.894E+00	9.904E-01	9.904E-01	64.72
	510.84	61	21.60	2.407E+00	3.444E-01	3.444E-01	104.70
	583.14	257	84.20*	2.158E+00	4.173E-01	4.173E-01	20.39
	860.37	19	12.46	1.538E+00	2.894E-01	2.894E-01	178.81
BI-211	72.87	------	1.27	3.913E+00	------ Line Not Found		------
	351.07	526	12.94*	3.243E+00	3.702E+00	3.702E+00	15.71
BI-212	727.18	82	11.80*	1.786E+00	1.153E+00	1.153E+00	46.91
	785.46	47	1.97	1.669E+00	4.220E+00	4.220E+00	46.43
	1620.62	------	2.75	8.893E-01	------ Line Not Found		------
PB-212	74.81	363	10.70	4.076E+00	2.454E+00	2.454E+00	31.99
	77.11	449	18.00	4.327E+00	1.702E+00	1.702E+00	20.60
	87.30	173	8.00	5.151E+00	1.239E+00	1.239E+00	43.51
	238.63	885	44.60*	4.367E+00	1.341E+00	1.341E+00	11.26
	300.09	------	3.41	3.669E+00	------ Line Not Found		------
PO-212	74.81	363	10.70	4.076E+00	2.454E+00	2.454E+00	31.99
	77.11	449	18.00	4.327E+00	1.702E+00	1.702E+00	20.60
	87.30	173	8.00	5.151E+00	1.239E+00	1.239E+00	43.51
	115.19	------	0.60	6.030E+00	------ Line Not Found		------
	238.63	885	44.60*	4.367E+00	1.341E+00	1.341E+00	11.26

Sample ID : G245799015 Acquisition date : 10-FEB-2010 19:09:39

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	300.09	------	3.41	3.669E+00	------ Line Not Found		------
BI-214	609.31	358	46.30*	2.080E+00	1.096E+00	1.096E+00	15.74
	1120.29	63	15.10	1.211E+00	1.024E+00	1.024E+00	55.36
	1764.49	39	15.80	8.402E-01	8.632E-01	8.632E-01	40.25
PB-214	74.81	363	6.21	4.076E+00	4.229E+00	4.229E+00	31.48
	77.11	449	10.50	4.327E+00	2.917E+00	2.917E+00	21.97
	87.30	173	4.67	5.151E+00	2.122E+00	2.122E+00	43.04
	241.98	223	7.49	4.327E+00	2.032E+00	2.032E+00	32.59
	295.21	255	19.20	3.717E+00	1.055E+00	1.055E+00	28.87
	351.92	526	37.20*	3.243E+00	1.288E+00	1.288E+00	16.55
PO-214	74.81	363	6.21	4.076E+00	4.229E+00	4.229E+00	31.48
	77.11	449	10.50	4.327E+00	2.917E+00	2.917E+00	21.97
	87.30	173	4.67	5.151E+00	2.122E+00	2.122E+00	43.04
	241.98	223	7.49	4.327E+00	2.032E+00	2.032E+00	32.59
	295.21	255	19.20	3.717E+00	1.055E+00	1.055E+00	28.87
	351.92	526	37.20*	3.243E+00	1.288E+00	1.288E+00	16.55
PO-216	74.81	363	10.70	4.076E+00	2.454E+00	2.454E+00	31.99
	77.11	449	18.00	4.327E+00	1.702E+00	1.702E+00	20.60
	87.30	173	8.00	5.151E+00	1.239E+00	1.239E+00	43.51
	238.63	885	44.60*	4.367E+00	1.341E+00	1.341E+00	11.26
	300.09	------	3.41	3.669E+00	------ Line Not Found		------
PO-218	74.81	363	6.21	4.076E+00	4.229E+00	4.229E+00	31.48
	77.11	449	10.50	4.327E+00	2.917E+00	2.917E+00	21.97
	87.30	173	4.67	5.151E+00	2.122E+00	2.122E+00	43.04
	241.98	223	7.49	4.327E+00	2.032E+00	2.032E+00	32.59
	295.21	255	19.20	3.717E+00	1.055E+00	1.055E+00	28.87
	351.92	526	37.20*	3.243E+00	1.288E+00	1.288E+00	16.55
RA-224	240.98	223	3.95*	4.327E+00	3.854E+00	3.854E+00	32.10
RA-226	609.31	358	46.30*	2.080E+00	1.096E+00	1.096E+00	15.74
	1120.29	63	15.10	1.211E+00	1.024E+00	1.024E+00	55.36
	1764.49	39	15.80	8.402E-01	8.632E-01	8.632E-01	40.25
AC-228	338.32	193	11.40	3.345E+00	1.491E+00	1.491E+00	52.45
	911.07	191	27.70*	1.461E+00	1.394E+00	1.394E+00	23.39
	969.11	123	16.60	1.381E+00	1.580E+00	1.580E+00	38.38
RA-228	338.32	193	11.40	3.345E+00	1.491E+00	1.491E+00	52.45
	911.07	191	27.70*	1.461E+00	1.394E+00	1.394E+00	23.39
	969.11	123	16.60	1.381E+00	1.580E+00	1.580E+00	38.38
TH-228	74.81	363	10.70	4.076E+00	2.454E+00	2.492E+00	30.62
	77.11	449	18.00	4.327E+00	1.702E+00	1.728E+00	20.60
	87.30	173	8.00	5.151E+00	1.239E+00	1.258E+00	42.34
	238.63	885	44.60*	4.367E+00	1.341E+00	1.361E+00	11.26
	300.09	------	3.41	3.669E+00	------ Line Not Found		------
TH-230	609.31	358	46.30*	2.080E+00	1.096E+00	1.096E+00	15.74
	1120.29	63	15.10	1.211E+00	1.024E+00	1.024E+00	55.36
	1764.49	39	15.80	8.402E-01	8.632E-01	8.632E-01	40.25
TH-232	338.32	193	11.40	3.345E+00	1.491E+00	1.491E+00	33.51
	911.07	191	27.70*	1.461E+00	1.394E+00	1.394E+00	23.39
	969.11	123	16.60	1.381E+00	1.580E+00	1.580E+00	38.38
TH-234	63.29	720	3.80*	2.709E+00	2.066E+01	2.066E+01	25.09

Sample ID : G245799015 Acquisition date : 10-FEB-2010 19:09:39

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	2019	5.41	5.454E+00	2.020E+01	2.020E+01	19.29
U-234	609.31	358	46.30*	2.080E+00	1.096E+00	1.096E+00	15.74
	1120.29	63	15.10	1.211E+00	1.024E+00	1.024E+00	55.36
	1764.49	39	15.80	8.402E-01	8.632E-01	8.632E-01	40.25
U-235	89.95	------	2.70	5.324E+00	------ Line Not Found		------
	93.35	2019	4.50	5.454E+00	2.429E+01	2.429E+01	28.82
	105.00	------	2.10	5.892E+00	------ Line Not Found		------
	143.76	94	10.50*	5.866E+00	4.489E-01	4.489E-01	79.82
	163.35	53	4.70	5.570E+00	5.943E-01	5.943E-01	104.05
	185.71	516	54.00	5.180E+00	5.444E-01	5.444E-01	20.31
	205.31	------	4.70	4.853E+00	------ Line Not Found		------
NP-237	86.50	173	12.60*	5.151E+00	7.865E-01	7.865E-01	47.10
	95.87	------	2.60	5.611E+00	------ Line Not Found		------
U-238	63.29	720	3.80*	2.709E+00	2.066E+01	2.066E+01	25.09
	92.38	2019	5.41	5.454E+00	2.020E+01	2.020E+01	10.92
AM-243	74.67	363	66.00*	4.076E+00	3.979E-01	3.979E-01	30.60
	86.72	173	0.34	5.151E+00	2.949E+01	2.950E+01	42.34
	117.66	------	0.55	6.042E+00	------ Line Not Found		------
	142.18	------	0.13	5.887E+00	------ Line Not Found		------
ANH-511	511.00	61	100.00*	2.407E+00	7.438E-02	7.438E-02	104.37

Flag: "*" = Keyline

Sample ID : G245799015 Acquisition date : 10-FEB-2010 19:09:39

Total number of lines in spectrum 34
Number of unidentified lines 0
Number of lines tentatively identified by NID 34 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.352E+01	2.352E+01	0.232E+01	9.85	
CD-109	464.00D	1.02	2.664E+00	2.726E+00	1.154E+00	42.34	
SN-126	1.00E+05Y	1.00	2.678E-01	2.678E-01	1.134E-01	42.34	
BA-137M	30.17Y	1.00	6.665E-01	6.672E-01	1.023E-01	15.34	
CS-137	30.17Y	1.00	7.046E-01	7.053E-01	1.083E-01	15.35	
LU-177	6.71D	4.88	3.304E-01	1.612E+00	1.648E+00	102.25	
HG-203	46.60D	1.26	8.713E-02	1.095E-01	0.702E-01	64.15	
TL-208	1.41E+10Y	1.00	4.173E-01	4.173E-01	0.851E-01	20.39	
BI-211	7.04E+08Y	1.00	3.702E+00	3.702E+00	0.582E+00	15.71	
BI-212	1.41E+10Y	1.00	1.153E+00	1.153E+00	0.541E+00	46.91	
PB-212	1.41E+10Y	1.00	1.341E+00	1.341E+00	0.151E+00	11.26	
PO-212	1.41E+10Y	1.00	1.341E+00	1.341E+00	0.151E+00	11.26	
BI-214	1600.00Y	1.00	1.096E+00	1.096E+00	0.173E+00	15.74	
PB-214	1600.00Y	1.00	1.288E+00	1.288E+00	0.213E+00	16.55	
PO-214	1600.00Y	1.00	1.288E+00	1.288E+00	0.213E+00	16.55	
PO-216	1.41E+10Y	1.00	1.341E+00	1.341E+00	0.151E+00	11.26	
PO-218	1600.00Y	1.00	1.288E+00	1.288E+00	0.213E+00	16.55	
RA-224	1.41E+10Y	1.00	3.854E+00	3.854E+00	1.237E+00	32.10	
RA-226	1600.00Y	1.00	1.096E+00	1.096E+00	0.173E+00	15.74	
AC-228	1.41E+10Y	1.00	1.394E+00	1.394E+00	0.326E+00	23.39	
RA-228	1.41E+10Y	1.00	1.394E+00	1.394E+00	0.326E+00	23.39	
TH-228	1.91Y	1.02	1.341E+00	1.361E+00	0.153E+00	11.26	
TH-230	4.47E+09Y	1.00	1.096E+00	1.096E+00	0.173E+00	15.74	
TH-232	1.41E+10Y	1.00	1.394E+00	1.394E+00	0.326E+00	23.39	
TH-234	4.47E+09Y	1.00	2.066E+01	2.066E+01	0.518E+01	25.09	
U-234	4.47E+09Y	1.00	1.096E+00	1.096E+00	0.173E+00	15.74	
U-235	7.04E+08Y	1.00	4.489E-01	4.489E-01	3.583E-01	79.82	
NP-237	2.14E+06Y	1.00	7.865E-01	7.865E-01	3.705E-01	47.10	
U-238	4.47E+09Y	1.00	2.066E+01	2.066E+01	0.518E+01	25.09	
AM-243	7380.00Y	1.00	3.979E-01	3.979E-01	1.217E-01	30.60	
ANH-511	1.00E+09Y	1.00	7.438E-02	7.438E-02	7.763E-02	104.37	
	Total Activity :		9.818E+01	9.957E+01			

Grand Total Activity : 9.818E+01 9.957E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799015 Acquisition date : 10-FEB-2010 19:09:39

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.74	133	485	1.30	197.49	193	9	1.85E-02	62.3	5.72E+00	T
0	269.94	67	221	1.13	539.88	536	9	9.24E-03	84.2	3.98E+00	T
0	462.99	57	114	0.96	925.97	920	11	7.87E-03	78.1	2.61E+00	T
0	1000.92	84	58	2.00	2001.85	1995	13	1.16E-02	43.6	1.34E+00	T
0	1238.15	57	57	1.63	2476.30	2467	18	7.87E-03	68.5	1.11E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:10:55.80

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799015.CNF;1   *
* Acquisition date  : 10-FEB-2010 19:09:39  Detector SN#     :                *
* Detector ID       : GAM06                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.36          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245799015            Analyst initials: RXF2            *
* Batch Number      : 947531                Sample Quantity : 1.27180E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 4-FEB-2009 13:05:54.47MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.352E+01	2.318E+00	5.363E-01	3.548E-02	43.856
CD-109	2.726E+00	1.154E+00	1.681E+00	1.660E-01	1.622
SN-126	2.678E-01	1.134E-01	1.660E-01	1.634E-02	1.613
BA-137M	6.672E-01	1.023E-01	7.171E-02	3.541E-03	9.304
CS-137	7.053E-01	1.083E-01	7.580E-02	3.765E-03	9.304
LU-177	1.612E+00	1.648E+00	2.228E+00	1.267E-01	0.723
HG-203	1.095E-01	7.022E-02	7.322E-02	4.624E-03	1.495
TL-208	4.173E-01	8.509E-02	6.787E-02	4.290E-03	6.149
BI-211	3.702E+00	5.816E-01	3.912E-01	2.525E-02	9.464
BI-212	1.153E+00	5.411E-01	4.650E-01	3.497E-02	2.481
PB-212	1.341E+00	1.509E-01	1.081E-01	7.966E-03	12.405
PO-212	1.341E+00	1.509E-01	1.081E-01	7.966E-03	12.405
BI-214	1.096E+00	1.725E-01	1.175E-01	8.667E-03	9.330
PB-214	1.288E+00	2.132E-01	1.364E-01	1.131E-02	9.444
PO-214	1.288E+00	2.132E-01	1.364E-01	1.131E-02	9.444
PO-216	1.341E+00	1.509E-01	1.081E-01	7.966E-03	12.405
PO-218	1.288E+00	2.132E-01	1.364E-01	1.131E-02	9.444
RA-224	3.854E+00	1.237E+00	1.230E+00	7.209E-02	3.133

Sample ID : G245799015 Acquisition date : 10-FEB-2010 19:09:39

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.096E+00	1.725E-01	1.175E-01	8.667E-03	9.330
AC-228	1.394E+00	3.261E-01	2.245E-01	2.293E-02	6.212
RA-228	1.394E+00	3.261E-01	2.245E-01	2.293E-02	6.212
TH-228	1.361E+00	1.533E-01	1.097E-01	8.088E-03	12.405
TH-230	1.096E+00	1.725E-01	1.175E-01	8.667E-03	9.330
TH-232	1.394E+00	3.261E-01	2.245E-01	2.293E-02	6.212
TH-234	2.066E+01	5.182E+00	3.180E+00	5.781E-01	6.496
U-234	1.096E+00	1.725E-01	1.175E-01	8.667E-03	9.330
U-235	4.489E-01	3.583E-01	4.304E-01	7.001E-02	1.043
NP-237	7.865E-01	3.705E-01	5.247E-01	1.197E-01	1.499
U-238	2.066E+01	5.182E+00	3.180E+00	5.781E-01	6.496
AM-243	3.979E-01	1.217E-01	1.281E-01	1.157E-02	3.106
ANH-511	7.438E-02	7.763E-02	5.579E-02	3.119E-03	1.333

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.520E-01		3.927E-01	6.043E-01	3.991E-02	-0.583
NA-22	1.497E-02		4.515E-02	7.659E-02	4.730E-03	0.195
NA-24	-6.678E-01		4.996E-01	Half-Life too short		
AL-26	2.555E-02		2.931E-02	5.762E-02	3.309E-03	0.443
TI-44	3.140E-01	+	6.470E-02	9.791E-02	9.000E-03	3.207
SC-46	-2.621E-02		3.985E-02	6.148E-02	4.407E-03	-0.426
V-48	8.153E-03		7.089E-02	1.190E-01	8.330E-03	0.069
CR-51	-1.333E-01		4.587E-01	7.576E-01	4.992E-02	-0.176
MN-52	2.214E-01		2.757E-01	4.982E-01	3.136E-02	0.444
MN-54	-1.100E-02		4.781E-02	7.854E-02	5.184E-03	-0.140
CO-56	-4.907E-02		3.903E-02	5.578E-02	3.750E-03	-0.880
CO-57	3.291E-02		3.125E-02	5.331E-02	3.256E-03	0.617
CO-58	-2.728E-02		4.134E-02	6.467E-02	4.129E-03	-0.422
FE-59	-6.956E-02		9.681E-02	1.458E-01	1.069E-02	-0.477
CO-60	3.345E-02		4.391E-02	7.833E-02	4.920E-03	0.427
ZN-65	5.679E-02		1.023E-01	1.570E-01	9.948E-03	0.362
GE-68	-1.401E+00		1.410E+00	2.061E+00	1.351E-01	-0.680
AS-73	7.122E-01		1.427E+00	2.430E+00	2.222E-01	0.293
AS-74	-9.841E-02		1.110E-01	1.674E-01	8.899E-03	-0.588
SE-75	-4.961E-03		6.449E-02	8.932E-02	5.358E-03	-0.056
BR-77	1.846E+00		1.288E+01	2.136E+01	1.190E+00	0.086
SR-82	-3.877E-01		4.312E-01	6.655E-01	4.003E-02	-0.583
RB-83	1.452E-02		8.113E-02	1.348E-01	7.513E-03	0.108
RB-84	7.335E-02		7.610E-02	1.382E-01	9.792E-03	0.531
KR-85	1.106E+01		1.039E+01	1.611E+01	9.000E-01	0.687
SR-85	5.683E-02		5.337E-02	8.278E-02	4.623E-03	0.687
RB-86	-3.036E-01		9.006E-01	1.430E+00	9.379E-02	-0.212
Y-88	1.831E-02		3.915E-02	7.046E-02	4.005E-03	0.260
ZR-88	-1.391E-02		3.571E-02	5.789E-02	3.212E-03	-0.240
Y-91	-2.507E+00		2.233E+01	3.612E+01	2.167E+00	-0.069

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	2.384E-02		3.976E-02	6.737E-02	3.578E-03	0.354
NB-95	1.579E-01		5.816E-02	1.102E-01	6.515E-03	1.433
NB-95M	4.231E-01		1.860E-01	2.905E-01	2.195E-02	1.457
ZR-95	-1.228E-02		8.602E-02	1.363E-01	9.608E-03	-0.090
NB-97	2.963E-01		8.302E-02	Half-Life too short		
ZR-97	3.481E+00		1.427E+00	Half-Life too short		
MO-99	-6.408E+00		1.408E+01	2.158E+01	2.961E+00	-0.297
TC-99M	3.654E+10		4.538E+10	Half-Life too short		
RH-101	8.313E-05		4.278E-02	6.710E-02	3.769E-03	0.001
RH-102	2.362E-02		3.472E-02	5.982E-02	3.369E-03	0.395
RU-103	3.717E-03		4.529E-02	7.491E-02	9.408E-03	0.050
RH-106	-6.739E-01		3.986E-01	5.388E-01	6.167E-02	-1.251
RU-106	-6.739E-01		3.926E-01	5.388E-01	2.794E-02	-1.251
AG-108M	-2.192E-02		4.133E-02	6.604E-02	4.050E-03	-0.332
AG-110M	6.379E-02		4.803E-02	7.717E-02	4.166E-03	0.827
IN-111	-7.135E-01		1.531E+00	2.066E+00	1.215E-01	-0.345
IN-113M	-2.533E-02		5.040E-02	8.102E-02	4.821E-03	-0.313
SN-113	-2.533E-02		5.040E-02	8.102E-02	4.821E-03	-0.313
IN-114M	-3.431E-03		2.448E-01	3.463E-01	1.927E-02	-0.010
CD-115	-4.878E+00		1.345E+01	2.140E+01	1.189E+00	-0.228
SN-117M	3.686E-02		7.849E-02	1.149E-01	6.312E-03	0.321
SB-122	-3.128E+00		2.675E+00	3.961E+00	2.159E-01	-0.790
I-123	4.111E+00		5.139E+00	Half-Life too short		
TE-123M	1.615E-02		4.039E-02	5.890E-02	3.281E-03	0.274
I-124	3.305E-01		9.194E-01	1.344E+00	7.104E-02	0.246
SB-124	3.022E-02		8.198E-02	1.456E-01	9.457E-03	0.207
SB-125	-5.869E-02		1.073E-01	1.709E-01	1.003E-02	-0.343
TE-125M	2.491E+00		1.410E+01	2.044E+01	1.858E+00	0.122
I-126	2.151E-01		2.344E-01	3.642E-01	1.814E-02	0.591
SB-126	7.017E-02		1.855E-01	2.707E-01	1.483E-02	0.259
SB-127	5.434E-01		1.444E+00	2.421E+00	2.206E-01	0.224
XE-127	1.234E-02		6.521E-02	9.826E-02	5.551E-03	0.126
I-131	-3.583E-02		1.399E-01	2.298E-01	1.478E-02	-0.156
TE-132	3.351E-01		8.788E-01	1.437E+00	2.069E-01	0.233
BA-133	4.077E-03		5.864E-02	8.559E-02	9.894E-03	0.048
I-133	-1.674E-04		4.268E-03	Half-Life too short		
CS-134	8.218E-02		5.458E-02	1.015E-01	6.390E-03	0.809
CS-135	4.652E-01		2.298E-01	3.599E-01	2.797E-02	1.292
I-135	-1.603E+09		4.500E+09	Half-Life too short		
CS-136	5.348E-03		1.192E-01	1.976E-01	1.418E-02	0.027
CE-139	-1.147E-03		4.136E-02	5.882E-02	3.181E-03	-0.019
BA-140	-1.028E-01		3.097E-01	4.907E-01	1.594E-01	-0.209
LA-140	-4.903E-02		1.038E-01	1.610E-01	9.934E-03	-0.305
CE-141	9.521E-02		9.013E-02	1.358E-01	8.015E-03	0.701
CE-143	8.813E-04		1.498E-04	Half-Life too short		
CE-144	2.078E-01		2.532E-01	4.252E-01	6.047E-02	0.489
PM-144	-3.368E-02		4.026E-02	5.993E-02	3.152E-03	-0.562
PR-144	-2.282E+00		2.728E+00	4.062E+00	2.134E-01	-0.562

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	3.209E-02		5.224E-02	8.962E-02	7.627E-03	0.358
ND-147	4.505E-01		6.803E-01	1.165E+00	1.563E-01	0.387
PM-149	7.049E+01		1.147E+02	1.982E+02	2.824E+01	0.356
EU-152	-1.717E-01		1.533E-01	1.706E-01	1.124E-02	-1.006
GD-153	2.298E-01	+	1.444E-01	1.890E-01	1.579E-02	1.216
EU-154	3.901E-02		1.258E-01	2.128E-01	2.037E-02	0.183
EU-155	4.929E-02		1.431E-01	2.390E-01	1.813E-02	0.206
TB-160	-1.003E-02		1.467E-01	2.428E-01	1.715E-02	-0.041
HO-166M	3.871E-02		7.006E-02	1.185E-01	6.394E-03	0.327
TM-171	-6.477E+01		4.762E+01	6.580E+01	5.877E+00	-0.984
LU-176	-1.446E-02		2.908E-02	4.756E-02	2.837E-03	-0.304
LU-177M	-1.173E-01		2.094E-01	3.348E-01	1.873E-02	-0.350
HF-181	1.778E-02		5.168E-02	8.707E-02	4.899E-03	0.204
W-181	1.154E+00		6.481E-01	1.001E+00	8.966E-02	1.153
TA-182	1.412E-01		2.388E-01	4.105E-01	2.479E-02	0.344
RE-183	1.390E-01	+	1.426E-01	2.342E-01	1.276E-02	0.593
RE-184	-5.606E-02		2.978E-01	4.722E-01	2.789E-02	-0.119
OS-185	2.130E-02		5.243E-02	8.782E-02	4.427E-03	0.243
RE-188	-5.032E-02		2.238E-01	3.498E-01	1.937E-02	-0.144
W-188	-6.828E+00		1.012E+01	1.413E+01	8.443E-01	-0.483
IR-192	-8.461E-03		4.166E-02	6.915E-02	4.134E-03	-0.122
AU-195	6.694E-01	+	4.206E-01	5.425E-01	4.435E-02	1.234
TL-200	1.895E-04		3.050E-04	Half-Life too short		
TL-201	8.898E-01		1.016E+01	1.454E+01	7.870E-01	0.061
TL-202	4.959E-02		9.053E-02	1.545E-01	8.695E-03	0.321
BI-207	2.618E-03		5.745E-02	9.516E-02	6.309E-03	0.028
TL-207	-6.078E-01		8.303E-01	1.330E+00	2.203E-01	-0.457
PO-209	2.946E+00		8.214E+00	1.415E+01	1.025E+00	0.208
BI-210	2.313E+00		6.414E+00	1.070E+01	8.806E-01	0.216
PB-210	2.313E+00		6.414E+00	1.070E+01	8.806E-01	0.216
PO-210	2.313E+00		6.413E+00	1.070E+01	7.726E-01	0.216
PB-211	-9.735E-01		1.260E+00	1.732E+00	1.079E+00	-0.562
PO-215	-6.078E-01		8.303E-01	1.330E+00	2.203E-01	-0.457
RN-219	-8.744E-02		4.815E-01	7.901E-01	1.067E-01	-0.111
RN-220	-4.127E+01		3.168E+01	4.621E+01	2.540E+00	-0.893
RA-223	-6.078E-01		8.303E-01	1.330E+00	2.203E-01	-0.457
AC-227	-1.820E-01		4.944E-01	7.752E-01	1.086E-01	-0.235
TH-227	-1.820E-01		4.947E-01	7.752E-01	1.313E-01	-0.235
TH-229	1.264E-01		6.200E-01	1.012E+00	5.657E-02	0.125
PA-231	6.002E-01		2.044E+00	3.062E+00	4.241E-01	0.196
TH-231	-6.078E-01		8.303E-01	1.330E+00	2.203E-01	-0.457
U-231	1.619E+00		2.291E+00	2.539E+00	2.176E-01	0.638
PA-233	-4.759E-02		7.745E-02	1.258E-01	7.934E-03	-0.378
PA-234	-6.365E-02		3.318E-01	5.397E-01	9.784E-02	-0.118
PA-234M	2.188E+01	+	9.728E+00	1.439E+01	1.230E+00	1.520
NP-236	-9.694E-03		1.155E-01	1.640E-01	8.974E-03	-0.059
NP-239	-1.954E-01		2.748E-01	3.820E-01	2.468E-02	-0.512
AM-241	8.964E-02		2.797E-01	4.179E-01	4.086E-02	0.214

Sample ID : G245799015 Acquisition date : 10-FEB-2010 19:09:39

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.499E-01		1.355E-01	2.163E-01	1.649E-02	0.693
AM-246	-1.208E-01		1.632E-01	2.472E-01	1.618E-02	-0.489
CM-247	6.961E-04		4.338E-02	7.210E-02	4.017E-03	0.010
CF-249	3.581E-02		4.644E-02	8.073E-02	4.503E-03	0.444
CF-251	-7.044E-03		1.566E-01	2.539E-01	1.389E-02	-0.028

VAX/VMS Nuclide Identification Report Generated

```
*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                              DETECTOR DATA                                  *
*                                                                             *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799015             *
* Acquisition date  : 10-FEB-2010 19:09:39 Detector SN#     :                 *
* Detector ID       : GAM06                Sensitivity      : 5.000           *
* Geometry          : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000           *
* Elapsed real time:     0 02:00:01.36     Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                              SAMPLE DATA                                    *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID         : G245799015           Analyst initials: RXF2             *
* Batch Number      : 947531               Sample Quantity : 1.2718E+02 GRAM  *
* Recovery          :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                QC DATA                                      *
*                                                                             *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.352E+01	2.271E+00	2.683E-01	1.159E+00
CD-109	2.726E+00	1.131E+00	8.765E-01	5.771E-01
SN-126	2.678E-01	1.111E-01	8.659E-02	5.671E-02
BA-137M	6.672E-01	1.003E-01	3.630E-02	5.117E-02
CS-137	7.053E-01	1.061E-01	3.838E-02	5.413E-02
LU-177	1.612E+00	1.615E+00	1.148E+00	8.240E-01
HG-203	1.095E-01	6.881E-02	3.755E-02	3.511E-02
TL-208	4.173E-01	8.339E-02	3.443E-02	4.255E-02
BI-211	3.702E+00	5.699E-01	1.999E-01	2.908E-01
BI-212	1.153E+00	5.303E-01	2.351E-01	2.705E-01
PB-212	1.341E+00	1.479E-01	5.555E-02	7.547E-02
PO-212	1.341E+00	1.479E-01	5.555E-02	7.547E-02
BI-214	1.096E+00	1.691E-01	5.954E-02	8.626E-02
PB-214	1.288E+00	2.089E-01	6.969E-02	1.066E-01
PO-214	1.288E+00	2.089E-01	6.969E-02	1.066E-01
PO-216	1.341E+00	1.479E-01	5.555E-02	7.547E-02
PO-218	1.288E+00	2.089E-01	6.969E-02	1.066E-01
RA-224	3.854E+00	1.212E+00	6.321E-01	6.185E-01
RA-226	1.096E+00	1.691E-01	5.954E-02	8.626E-02
AC-228	1.394E+00	3.195E-01	1.131E-01	1.630E-01
RA-228	1.394E+00	3.195E-01	1.131E-01	1.630E-01
TH-228	1.361E+00	1.502E-01	5.640E-02	7.663E-02
TH-230	1.096E+00	1.691E-01	5.954E-02	8.626E-02
TH-232	1.394E+00	3.195E-01	1.131E-01	1.630E-01
TH-234	2.066E+01	5.078E+00	1.666E+00	2.591E+00
U-234	1.096E+00	1.691E-01	5.954E-02	8.626E-02
U-235	4.489E-01	3.511E-01	2.229E-01	1.791E-01
NP-237	7.865E-01	3.631E-01	2.737E-01	1.852E-01
U-238	2.066E+01	5.078E+00	1.666E+00	2.591E+00
AM-243	3.979E-01	1.193E-01	6.695E-02	6.087E-02
ANH-511	7.438E-02	7.608E-02	2.836E-02	3.882E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.520E-01	3.848E-01	3.074E-01	1.963E-01	NOT IDENT.
NA-22	1.497E-02	4.424E-02	3.839E-02	2.257E-02	NOT IDENT.
NA-24	-6.678E+05	9.792E+05	0.000E+00	4.996E+05	SHORT HLIF
AL-26	2.555E-02	2.873E-02	2.872E-02	1.466E-02	NOT IDENT.
TI-44	3.140E-01	6.341E-02	5.114E-02	3.235E-02	FAIL ABUN
SC-46	-2.621E-02	3.905E-02	3.099E-02	1.993E-02	FAIL ABUN
V-48	8.153E-03	6.948E-02	5.987E-02	3.545E-02	NOT IDENT.
CR-51	-1.333E-01	4.495E-01	3.877E-01	2.293E-01	NOT IDENT.
MN-52	2.214E-01	2.702E-01	2.493E-01	1.379E-01	NOT IDENT.
MN-54	-1.100E-02	4.686E-02	3.962E-02	2.391E-02	NOT IDENT.
CO-56	-4.907E-02	3.825E-02	2.814E-02	1.952E-02	FAIL ABUN
CO-57	3.291E-02	3.063E-02	2.767E-02	1.563E-02	NOT IDENT.
CO-58	-2.728E-02	4.051E-02	3.264E-02	2.067E-02	NOT IDENT.
FE-59	-6.956E-02	9.487E-02	7.324E-02	4.841E-02	FAIL ABUN
CO-60	3.345E-02	4.303E-02	3.923E-02	2.195E-02	NOT IDENT.
ZN-65	5.679E-02	1.002E-01	7.888E-02	5.113E-02	NOT IDENT.
GE-68	-1.401E+00	1.381E+00	1.036E+00	7.048E-01	NOT IDENT.
AS-73	7.122E-01	1.399E+00	1.276E+00	7.137E-01	NOT IDENT.
AS-74	-9.841E-02	1.088E-01	8.486E-02	5.551E-02	NOT IDENT.
SE-75	-4.961E-03	6.320E-02	4.584E-02	3.224E-02	NOT IDENT.
BR-77	1.846E+00	1.263E+01	1.085E+01	6.442E+00	FAIL ABUN
SR-82	-3.877E-01	4.225E-01	3.361E-01	2.156E-01	NOT IDENT.
RB-83	1.452E-02	7.951E-02	6.850E-02	4.056E-02	NOT IDENT.
RB-84	7.335E-02	7.458E-02	6.967E-02	3.805E-02	NOT IDENT.
KR-85	1.106E+01	1.018E+01	8.189E+00	5.195E+00	NOT IDENT.
SR-85	5.683E-02	5.231E-02	4.207E-02	2.669E-02	NOT IDENT.
RB-86	-3.036E-01	8.826E-01	7.187E-01	4.503E-01	NOT IDENT.
Y-88	1.831E-02	3.836E-02	3.512E-02	1.957E-02	NOT IDENT.
ZR-88	-1.391E-02	3.500E-02	2.954E-02	1.786E-02	NOT IDENT.
Y-91	-2.507E+00	2.188E+01	1.812E+01	1.116E+01	NOT IDENT.
NB-94	2.384E-02	3.896E-02	3.407E-02	1.988E-02	NOT IDENT.
NB-95	1.579E-01	5.700E-02	5.567E-02	2.908E-02	NOT IDENT.
NB-95M	4.231E-01	1.823E-01	1.493E-01	9.302E-02	NOT IDENT.
ZR-95	-1.228E-02	8.430E-02	6.888E-02	4.301E-02	NOT IDENT.
NB-97	2.963E+05	1.627E+05	0.000E+00	8.302E+04	SHORT HLIF
ZR-97	3.481E+06	2.796E+06	0.000E+00	1.427E+06	SHORT HLIF
MO-99	-6.408E+00	1.380E+01	1.091E+01	7.039E+00	NOT IDENT.
TC-99M	3.654E+16	8.895E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	8.313E-05	4.192E-02	3.458E-02	2.139E-02	NOT IDENT.
RH-102	2.362E-02	3.403E-02	3.044E-02	1.736E-02	NOT IDENT.
RU-103	3.717E-03	4.438E-02	3.809E-02	2.265E-02	FAIL ABUN
RH-106	-6.739E-01	3.906E-01	2.730E-01	1.993E-01	FAIL ABUN
RU-106	-6.739E-01	3.847E-01	2.730E-01	1.963E-01	FAIL ABUN
AG-108M	-2.192E-02	4.050E-02	3.365E-02	2.066E-02	NOT IDENT.
AG-110M	6.379E-02	4.707E-02	3.907E-02	2.402E-02	NOT IDENT.
IN-111	-7.135E-01	1.500E+00	1.062E+00	7.654E-01	NOT IDENT.
IN-113M	-2.533E-02	4.939E-02	4.134E-02	2.520E-02	NOT IDENT.
SN-113	-2.533E-02	4.939E-02	4.134E-02	2.520E-02	NOT IDENT.
IN-114M	-3.431E-03	2.399E-01	1.786E-01	1.224E-01	NOT IDENT.
CD-115	-4.878E+00	1.318E+01	1.087E+01	6.723E+00	NOT IDENT.
SN-117M	3.686E-02	7.692E-02	5.941E-02	3.925E-02	NOT IDENT.
SB-122	-3.128E+00	2.622E+00	2.010E+00	1.338E+00	NOT IDENT.
I-123	4.111E+06	1.007E+07	0.000E+00	5.139E+06	SHORT HLIF
TE-123M	1.615E-02	3.958E-02	3.045E-02	2.020E-02	NOT IDENT.
I-124	3.305E-01	9.010E-01	6.815E-01	4.597E-01	NOT IDENT.
SB-124	3.022E-02	8.034E-02	7.268E-02	4.099E-02	FAIL ABUN
SB-125	-5.869E-02	1.051E-01	8.708E-02	5.363E-02	FAIL ABUN
TE-125M	2.491E+00	1.382E+01	1.062E+01	7.051E+00	NOT IDENT.
I-126	2.151E-01	2.297E-01	1.844E-01	1.172E-01	NOT IDENT.
SB-126	7.017E-02	1.818E-01	1.369E-01	9.274E-02	FAIL ABUN
SB-127	5.434E-01	1.415E+00	1.225E+00	7.221E-01	NOT IDENT.
XE-127	1.234E-02	6.390E-02	5.062E-02	3.260E-02	FAIL ABUN
I-131	-3.583E-02	1.371E-01	1.174E-01	6.996E-02	NOT IDENT.
TE-132	3.351E-01	8.612E-01	7.391E-01	4.394E-01	FAIL ABUN
BA-133	4.077E-03	5.747E-02	4.373E-02	2.932E-02	FAIL ABUN
I-133	-1.674E+02	8.366E+03	0.000E+00	4.268E+03	SHORT HLIF
CS-134	8.218E-02	5.349E-02	5.126E-02	2.729E-02	NOT IDENT.
CS-135	4.652E-01	2.252E-01	1.847E-01	1.149E-01	NOT IDENT.
I-135	-1.603E+15	8.819E+15	0.000E+00	4.500E+15	SHORT HLIF
CS-136	5.348E-03	1.168E-01	9.936E-02	5.960E-02	FAIL ABUN
CE-139	-1.147E-03	4.053E-02	3.039E-02	2.068E-02	NOT IDENT.
BA-140	-1.028E-01	3.035E-01	2.492E-01	1.548E-01	FAIL ABUN
LA-140	-4.903E-02	1.018E-01	8.043E-02	5.192E-02	NOT IDENT.
CE-141	9.521E-02	8.832E-02	7.032E-02	4.506E-02	NOT IDENT.

CE-143	8.813E+02	2.936E+02	0.000E+00	1.498E+02	SHORT HLIF
CE-144	2.078E-01	2.482E-01	2.204E-01	1.266E-01	NOT IDENT.
PM-144	-3.368E-02	3.945E-02	3.032E-02	2.013E-02	NOT IDENT.
PR-144	-2.282E+00	2.674E+00	2.055E+00	1.364E+00	NOT IDENT.
PM-146	3.209E-02	5.119E-02	4.563E-02	2.612E-02	NOT IDENT.
ND-147	4.505E-01	6.667E-01	5.916E-01	3.401E-01	FAIL ABUN
PM-149	7.049E+01	1.124E+02	1.016E+02	5.736E+01	NOT IDENT.
EU-152	-1.717E-01	1.502E-01	8.720E-02	7.666E-02	NOT IDENT.
GD-153	2.298E-01	1.415E-01	9.839E-02	7.222E-02	FAIL ABUN
EU-154	3.901E-02	1.233E-01	1.067E-01	6.289E-02	NOT IDENT.
EU-155	4.929E-02	1.402E-01	1.243E-01	7.155E-02	FAIL ABUN
TB-160	-1.003E-02	1.438E-01	1.224E-01	7.334E-02	FAIL ABUN
HO-166M	3.871E-02	6.866E-02	5.993E-02	3.503E-02	FAIL ABUN
TM-171	-6.477E+01	4.667E+01	3.444E+01	2.381E+01	NOT IDENT.
LU-176	-1.446E-02	2.850E-02	2.436E-02	1.454E-02	FAIL ABUN
LU-177M	-1.173E-01	2.053E-01	1.707E-01	1.047E-01	FAIL ABUN
HF-181	1.778E-02	5.064E-02	4.429E-02	2.584E-02	NOT IDENT.
W-181	1.154E+00	6.351E-01	5.241E-01	3.240E-01	NOT IDENT.
TA-182	1.412E-01	2.340E-01	2.059E-01	1.194E-01	FAIL ABUN
RE-183	1.390E-01	1.398E-01	1.211E-01	7.132E-02	FAIL ABUN
RE-184	-5.606E-02	2.918E-01	2.425E-01	1.489E-01	NOT IDENT.
OS-185	2.130E-02	5.138E-02	4.448E-02	2.621E-02	NOT IDENT.
RE-188	-5.032E-02	2.193E-01	1.809E-01	1.119E-01	NOT IDENT.
W-188	-6.828E+00	9.919E+00	7.244E+00	5.061E+00	FAIL ABUN
IR-192	-8.461E-03	4.082E-02	3.540E-02	2.083E-02	FAIL ABUN
AU-195	6.694E-01	4.122E-01	2.824E-01	2.103E-01	FAIL ABUN
TL-200	1.895E+02	5.978E+02	0.000E+00	3.050E+02	SHORT HLIF
TL-201	8.898E-01	9.958E+00	7.513E+00	5.080E+00	NOT IDENT.
TL-202	4.959E-02	8.872E-02	7.872E-02	4.527E-02	NOT IDENT.
BI-207	2.618E-03	5.630E-02	4.783E-02	2.872E-02	FAIL ABUN
TL-207	-6.078E-01	8.137E-01	6.807E-01	4.152E-01	FAIL ABUN
PO-209	2.946E+00	8.049E+00	7.129E+00	4.107E+00	NOT IDENT.
BI-210	2.313E+00	6.286E+00	5.627E+00	3.207E+00	NOT IDENT.
PB-210	2.313E+00	6.286E+00	5.627E+00	3.207E+00	NOT IDENT.
PO-210	2.313E+00	6.285E+00	5.627E+00	3.207E+00	NOT IDENT.
PB-211	-9.735E-01	1.235E+00	8.833E-01	6.301E-01	NOT IDENT.
PO-215	-6.078E-01	8.137E-01	6.807E-01	4.152E-01	FAIL ABUN
RN-219	-8.744E-02	4.718E-01	4.030E-01	2.407E-01	FAIL ABUN
RN-220	-4.127E+01	3.105E+01	2.346E+01	1.584E+01	NOT IDENT.
RA-223	-6.078E-01	8.137E-01	6.807E-01	4.152E-01	FAIL ABUN
AC-227	-1.820E-01	4.845E-01	3.980E-01	2.472E-01	NOT IDENT.
TH-227	-1.820E-01	4.848E-01	3.980E-01	2.473E-01	NOT IDENT.
TH-229	1.264E-01	6.076E-01	5.220E-01	3.100E-01	FAIL ABUN
PA-231	6.002E-01	2.003E+00	1.570E+00	1.022E+00	NOT IDENT.
TH-231	-6.078E-01	8.137E-01	6.807E-01	4.152E-01	FAIL ABUN
U-231	1.619E+00	2.245E+00	1.322E+00	1.145E+00	FAIL ABUN
PA-233	-4.759E-02	7.590E-02	6.440E-02	3.872E-02	FAIL ABUN
PA-234	-6.365E-02	3.251E-01	2.718E-01	1.659E-01	FAIL ABUN
PA-234M	2.188E+01	9.533E+00	7.240E+00	4.864E+00	FAIL ABUN
NP-236	-9.694E-03	1.132E-01	8.478E-02	5.774E-02	FAIL ABUN
NP-239	-1.954E-01	2.693E-01	1.984E-01	1.374E-01	FAIL ABUN
AM-241	8.964E-02	2.741E-01	2.191E-01	1.398E-01	NOT IDENT.
CM-243	1.499E-01	1.328E-01	1.125E-01	6.777E-02	FAIL ABUN
AM-246	-1.208E-01	1.600E-01	1.242E-01	8.161E-02	NOT IDENT.
CM-247	6.961E-04	4.252E-02	3.677E-02	2.169E-02	FAIL ABUN
CF-249	3.581E-02	4.551E-02	4.120E-02	2.322E-02	NOT IDENT.
CF-251	-7.044E-03	1.535E-01	1.311E-01	7.832E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	473.3968
46.50	473.3968
46.50	473.3968
48.70	532.4188
49.72	539.7401
51.35	513.9349
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52.97	514.4443
53.15	518.2572
53.44	522.1682
54.07	545.6066
56.28	586.9761
56.28	586.9785
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57.53	555.3422
57.53	555.3433
57.60	578.9758
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57.98	602.9155
59.32	584.9991
59.32	584.9991
59.40	585.0728
59.54	585.2021
59.72	591.2817
60.01	591.5515
61.10	605.8925
61.14	620.7448
61.30	620.8995
63.00	586.8682
63.29	587.1267
63.29	587.1267
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64.28	567.1677
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65.20	605.2185
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66.83	664.9632
66.91	656.0751
67.20	633.9271
67.20	633.9271
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67.85	662.2159
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68.90	599.5288
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77.11	641.5106

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81.07	632.5179
81.07	632.5179
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83.78	610.2747
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83.78	610.2747
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84.90	605.0246
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86.50	606.2542
86.54	606.2831
86.59	606.3217
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86.79	606.4735
86.94	606.5892
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88.47	538.5138
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94.90	465.2106
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95.87	465.7471
96.73	466.2213
97.43	466.6040
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98.44	404.8678
98.88	394.1682
99.55	394.4755
99.55	394.4755
99.86	383.6978
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100.10	383.8059
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103.76	382.5372
105.00	406.9309
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108.00	494.2740
109.28	412.9986

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111.00	386.9247
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112.95	376.6585
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116.30	331.9406
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117.00	392.5814
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121.11	345.1738
121.62	336.3714
121.78	317.4578
122.06	317.5487
122.32	309.6417
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122.32	309.6417
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131.20	402.0807
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136.48	384.8851
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142.65	425.4217
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144.24	324.8398
144.24	324.8398
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145.44	341.5385
147.16	340.4375
152.43	342.2554
152.70	338.2245
153.22	342.4942
154.21	358.2325
154.21	358.2325
154.21	358.2325
154.21	358.2325
155.03	359.5228
156.02	351.5860
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161.27	336.4071
162.32	341.0609
162.64	337.0060
163.35	353.8104
163.89	327.1915
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167.43	308.1768
171.28	301.8501
171.86	298.8607
172.10	298.9197
176.55	307.3469
176.60	307.3581
181.06	323.4070
184.41	302.9406
185.71	303.2493
186.00	303.3194
190.27	273.1497
192.34	284.0204
193.63	281.7182
197.04	287.7752
198.01	290.1185
198.60	291.3122
200.40	322.6929
201.83	333.7304
202.84	306.8623
205.31	272.8174

208.36	309.5376
208.81	293.5117
209.75	297.7978
209.75	297.7978
210.97	298.0596
215.65	249.5756
216.55	274.5995
218.09	294.3789
222.10	255.0501
223.80	266.2173
226.40	279.7565
227.00	250.4693
227.08	253.7505
227.20	253.7718
228.16	235.4095
228.18	235.4128
228.18	235.4128
231.56	0.0000
235.69	255.8903
236.00	240.1664
236.00	240.1664
238.63	234.8805
238.63	234.8805
238.63	234.8805
238.63	234.8805
239.00	234.9376
240.98	235.2462
241.98	218.2412
241.98	218.2412
241.98	218.2412
244.69	204.5236
245.39	222.2565
247.94	214.5470
248.90	226.5194
249.79	212.2764
252.40	224.8144
252.85	224.8794
252.85	224.8794
254.15	0.0000
256.20	233.1290
256.20	233.1290
260.50	207.0448
260.90	207.0987
262.80	212.9165
264.65	210.7061
268.24	180.7496
268.79	195.1329
269.46	209.5403
269.46	209.5403
269.46	209.5403
269.46	209.5403
271.23	219.6297
273.65	237.9080
276.40	211.3250
277.35	199.7485
277.60	181.1053
277.60	181.1053
278.00	185.4252
278.60	174.0850
279.20	162.1384
279.53	153.1598
280.46	174.2785
281.68	184.9304
283.67	174.6113
284.30	192.3172
285.00	189.8126
285.90	170.9236
286.10	184.5089
286.10	184.5089
287.40	172.9845
288.45	0.0000
290.67	205.5605
290.80	205.5744
291.72	205.6851
293.26	0.0000
293.70	193.8099
295.21	215.4958
295.21	215.4958

295.21	215.4958
295.96	242.5781
296.50	221.4209
297.23	201.7892
298.57	194.3516
299.80	177.7756
299.80	177.7756
300.09	142.8512
300.09	142.8512
300.09	142.8512
300.09	142.8512
300.12	142.8531
301.29	148.5972
302.84	193.6079
303.76	199.1911
303.91	199.2071
304.40	202.0051
304.40	202.0051
304.84	188.3396
306.84	173.9084
308.46	145.6659
311.98	180.8326
316.51	169.3218
318.01	157.4903
319.02	168.6339
319.41	163.1395
320.08	177.0305
323.87	196.7988
323.87	196.7988
323.87	196.7988
323.87	196.7988
325.23	183.9973
328.77	174.1593
333.44	174.9026
334.20	162.5864
334.20	162.5864
334.30	162.5949
338.28	151.7639
338.28	151.7639
338.28	151.7639
338.28	151.7639
338.32	151.7659
338.32	151.7659
338.32	151.7659
340.50	124.2871
340.57	124.2904
344.27	168.1172
345.85	149.5586
350.59	0.0000
351.07	143.4020
351.92	143.4637
351.92	143.4637
351.92	143.4637
355.39	0.0000
356.01	140.9436
364.48	138.7151
366.43	122.7938
367.43	128.5243
367.94	0.0000
369.80	143.8137
374.96	144.1792
383.85	147.6625
387.95	111.6813
388.63	121.2655
391.69	123.3547
391.69	123.3547
392.90	127.2527
398.62	118.9625
400.65	107.5525
401.10	123.9042
401.81	124.9060
402.60	123.0297
404.84	140.4769
410.95	121.5765
411.60	113.8919
413.65	131.3881
414.70	121.7856
415.30	108.2840

415.76	112.1753
417.63	0.0000
418.52	113.2838
423.70	110.6379
427.08	104.9744
427.89	116.6807
432.53	127.6403
433.93	132.5934
439.47	120.2133
439.56	120.2178
439.89	132.9436
443.98	106.7407
444.90	113.6409
445.03	113.6480
445.03	113.6480
445.03	113.6480
445.03	113.6480
453.90	98.3484
463.38	102.0391
468.07	93.9957
473.00	83.2843
475.06	90.3013
475.35	106.1915
476.78	102.2821
477.59	117.2178
477.96	118.2286
482.03	96.5335
484.57	102.6115
487.03	108.6993
490.36	0.0000
492.35	87.9474
497.08	81.1068
507.63	0.0000
510.53	0.0000
510.84	95.6488
511.00	95.6546
511.85	105.7601
511.85	105.7601
513.99	109.2088
513.99	109.2088
520.41	84.8921
520.65	84.9003
527.90	90.2081
528.96	0.0000
529.64	78.0978
529.87	0.0000
531.02	79.1540
537.32	89.5168
543.00	77.4770
546.56	0.0000
549.76	105.2707
552.65	82.8747
555.20	81.9297
563.23	110.9347
563.90	109.9362
568.70	87.4861
569.32	71.0350
569.50	77.2174
569.67	77.2211
573.80	101.0553
574.00	86.6250
574.64	72.2046
578.91	80.9247
579.30	0.0000
583.14	80.7041
585.48	89.7474
591.81	78.8797
592.07	86.1530
593.00	89.2964
595.88	95.6229
600.56	86.4124
602.52	0.0000
602.71	79.8786
602.71	79.8786
603.60	85.1160
604.41	90.3525
604.70	90.3610
609.31	67.8802

609.31	67.8802
609.31	67.8802
609.31	67.8802
610.33	41.7871
612.46	76.6670
614.37	97.6423
618.01	54.4692
621.84	102.7876
621.84	102.7876
631.29	73.6589
633.02	81.0718
633.10	81.0737
634.78	79.0137
635.90	81.1508
636.97	68.5293
645.85	77.1936
646.12	71.9130
656.30	56.5938
657.75	60.1599
657.90	0.0000
661.65	82.9150
661.65	82.9150
664.57	0.0000
666.33	56.7813
666.33	56.7813
675.00	72.6003
677.61	56.6334
685.20	48.2025
692.80	52.6152
695.00	62.3231
696.49	81.7037
696.49	81.7037
697.00	86.0176
697.49	82.8051
698.33	84.9771
698.50	78.5285
699.00	75.3132
702.63	66.7817
706.10	81.9505
706.58	0.0000
706.67	85.2008
709.31	68.0019
711.68	59.4110
713.82	70.2590
717.42	66.0099
720.50	55.9630
721.93	0.0000
722.20	75.8610
722.78	77.6803
722.78	77.6803
722.89	77.6838
722.95	77.6855
723.30	74.0806
724.18	72.2933
727.18	51.0138
733.00	59.8031
735.90	45.7088
739.58	65.3701
742.81	61.0723
744.21	61.0982
747.13	68.7971
751.79	74.3601
752.31	68.9032
753.82	45.9570
755.35	64.5874
756.15	67.8882
756.87	63.5225
763.93	107.5560
765.79	57.1022
766.42	60.4073
766.84	61.5139
776.49	71.6031
778.00	68.1283
778.57	56.2146
778.89	56.2195
783.80	48.8884
785.46	52.0678
792.07	55.3296

795.84	50.7736
796.30	54.4734
798.80	86.8513
801.93	55.4871
805.60	51.8415
810.29	53.7649
810.76	55.6262
815.85	61.2775
817.79	46.4478
818.51	47.3860
819.60	52.9771
826.30	67.0444
828.27	0.0000
831.60	60.6161
831.96	54.0942
834.83	82.1401
836.80	0.0000
846.75	53.3795
848.13	45.9056
856.28	0.0000
856.80	48.2948
860.37	56.3989
867.32	64.9809
867.82	59.0241
871.10	43.3646
873.19	40.5592
874.81	41.5212
875.33	0.0000
876.40	61.3633
879.36	44.4058
880.27	43.4722
880.51	38.7495
881.50	36.8688
883.24	37.8312
884.67	43.5227
889.25	46.4180
896.60	44.6104
898.02	43.6772
899.00	44.6381
903.28	59.9020
911.07	43.8269
911.07	43.8269
911.07	43.8269
919.63	35.5213
920.93	37.2528
925.00	50.6784
925.24	52.5942
926.50	58.3516
935.52	57.5281
937.48	67.1488
944.10	33.6314
946.00	48.0682
949.00	49.0670
962.29	52.9542
964.01	52.9766
966.15	62.9441
968.20	97.7784
969.11	65.7533
969.11	65.7533
969.11	65.7533
977.42	24.7083
980.50	43.6359
983.50	34.9351
989.30	41.7875
996.32	41.7201
1001.03	46.7803
1001.68	41.7742
1004.76	38.4611
1021.30	0.0000
1024.50	0.0000
1034.80	49.1272
1036.00	48.1566
1037.82	42.2791
1038.57	43.2695
1038.76	0.0000
1045.16	56.1418
1046.59	58.1309
1048.07	42.3806

1050.47	28.5988
1050.47	28.5988
1062.04	57.3534
1063.62	42.5363
1076.63	48.6172
1077.35	54.5793
1078.86	53.6045
1085.78	51.7017
1099.22	46.8738
1112.02	36.0073
1112.84	39.4446
1115.52	34.3192
1120.29	49.8175
1120.29	49.8175
1120.29	49.8175
1120.29	49.8175
1120.51	49.8195
1121.28	46.3912
1124.00	0.0000
1129.67	51.2117
1131.51	0.0000
1147.95	0.0000
1167.94	39.4919
1173.22	61.8414
1175.09	56.7952
1177.93	55.8146
1189.05	54.9316
1204.90	58.1782
1205.75	0.0000
1213.00	55.2107
1221.42	55.3096
1230.97	56.2991
1235.34	63.3943
1236.41	0.0000
1238.25	51.3916
1246.25	54.7127
1260.41	0.0000
1271.85	42.4331
1274.45	30.0290
1274.54	30.0302
1291.56	40.5234
1298.22	0.0000
1312.09	35.4734
1325.50	32.4292
1325.50	32.4292
1332.49	23.0465
1333.61	26.1943
1360.21	22.1177
1362.66	0.0000
1365.15	21.0840
1368.21	30.5907
1368.53	0.0000
1376.25	20.0731
1384.27	29.6270
1394.10	15.9009
1395.20	19.0854
1407.95	15.9424
1434.06	17.0885
1436.60	17.0964
1457.56	0.0000
1460.81	16.0999
1489.15	19.4194
1509.49	15.1587
1596.49	25.4415
1620.62	10.4076
1678.03	0.0000
1691.02	10.5300
1691.02	10.5300
1706.46	0.0000
1750.46	0.0000
1764.49	5.8119
1764.49	5.8119
1764.49	5.8119
1764.49	5.8119
1770.23	5.0900
1771.40	37.8180
1791.20	0.0000
1808.65	4.8769

1836.01	9.7949

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799015

Total Uranium Activity	6.1657E+01	ug/g
Total Uranium Counting Unc.	1.5108E+01	ug/g
Total Uranium Tpu	7.7083E-06	ug/g
Total Uranium Mda	4.9564E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G245799015       *
*   ANALYST       : RXF2                      DETECTOR   : GAM06            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 19:09:39.37    SAMPLE ALQT:  127.180 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.048E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.662E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.831E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.359E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:12:11.89

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799016.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:10:12
Sample ID         : G245799016           Sample quantity  : 1.22265E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.44  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.86*	51	611	1.64	127.27	121	10	7.09E-03	93.3	
2	2	74.87*	558	553	1.36	149.26	142	18	7.76E-02	8.7	7.01E-01
3	2	77.17	768	510	1.29	153.86	142	18	1.07E-01	6.6	
4	1	87.11*	330	458	1.55	173.72	161	33	4.59E-02	13.2	4.85E+00
5	1	89.89	230	414	1.46	179.28	161	33	3.20E-02	18.3	
6	1	92.89*	307	371	1.56	185.28	161	33	4.26E-02	14.1	
7	0	129.03	75	310	1.22	257.48	254	8	1.04E-02	42.1	
8	0	186.43*	228	434	1.49	372.18	367	13	3.17E-02	20.6	
9	0	209.39	75	366	1.38	418.06	412	11	1.04E-02	50.7	
10	3	238.55*	1291	191	1.41	476.32	468	21	1.79E-01	3.4	1.73E+00
11	3	241.57	278	242	1.81	482.37	468	21	3.86E-02	15.2	
12	0	269.54	181	186	2.35	538.26	532	12	2.52E-02	16.8	
13	1	295.09	481	173	1.68	589.32	584	21	6.68E-02	6.8	1.86E+00
14	1	300.10	104	163	1.75	599.32	584	21	1.44E-02	25.1	
15	0	337.99	221	264	1.07	675.05	669	12	3.06E-02	16.2	
16	0	351.84*	597	147	1.38	702.73	698	10	8.30E-02	5.7	
17	0	409.97	55	175	1.24	818.91	812	14	7.71E-03	52.3	
18	0	462.19	99	103	1.58	923.30	918	12	1.37E-02	22.8	
19	0	510.86*	126	179	1.96	1020.59	1012	18	1.75E-02	28.9	
20	0	569.03	143	128	1.85	1136.86	1128	16	1.99E-02	19.6	
21	0	583.25*	373	120	1.36	1165.29	1157	15	5.19E-02	8.3	
22	0	609.36*	494	82	1.65	1217.49	1212	14	6.86E-02	6.0	
23	0	727.50	111	75	2.07	1453.71	1448	12	1.54E-02	18.3	
24	0	795.11	40	75	1.90	1588.88	1583	13	5.51E-03	47.7	
25	0	911.67*	278	52	1.17	1821.99	1815	14	3.87E-02	8.3	
26	0	969.56	146	77	2.19	1937.78	1933	15	2.03E-02	15.4	
27	0	1121.01	77	107	1.25	2240.71	2235	13	1.07E-02	30.3	
28	0	1461.46*	1507	13	2.19	2921.90	2913	17	2.09E-01	2.6	
29	0	1764.92*	87	3	2.51	3529.32	3523	12	1.21E-02	12.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 21:12:15

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799016.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:10:12
Sample ID : G245799016 Sample quantity : 122.26 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA14 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.44 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.582E+01	3.218E+00	3.872E-01	2.811E-02	92.502
CD-109	+	88.03	*	3.959E+00	1.100E+00	1.111E+00	9.719E-02	3.562
SN-126	+	64.28		3.465E-01	6.484E-01	7.395E-01	1.054E-01	0.469
	+	86.94		1.617E+00	7.936E-01	4.577E-01	1.893E-01	3.533
	+	87.57	*	3.890E-01	1.081E-01	1.096E-01	9.534E-03	3.550
CS-135	+	268.24	*	6.805E-01	2.344E-01	2.295E-01	1.761E-02	2.965
TL-208		277.35		3.458E-01	3.842E-01	6.631E-01	7.012E-02	0.521
	+	510.84		5.788E-01	3.396E-01	2.185E-01	2.227E-02	2.650
	+	583.14	*	4.938E-01	8.907E-02	5.820E-02	3.980E-03	8.485
		860.37		3.854E-01	3.232E-01	5.833E-01	5.487E-02	0.661
BI-211		72.87		1.334E+01	3.815E+00	5.910E+00	4.355E-01	2.257
	+	351.07	*	3.393E+00	4.430E-01	3.452E-01	2.187E-02	9.827
PB-212	+	74.81		2.632E+00	5.546E-01	5.453E-01	6.540E-02	4.827
	+	77.11		2.076E+00	3.183E-01	3.130E-01	2.410E-02	6.634
	+	87.30		1.799E+00	5.313E-01	5.078E-01	6.721E-02	3.543
	+	238.63	*	1.596E+00	1.592E-01	8.978E-02	6.539E-03	17.779
	+	300.09		1.984E+00	1.011E+00	1.181E+00	9.765E-02	1.681
PO-212	+	74.81		2.632E+00	5.546E-01	5.453E-01	6.540E-02	4.827
	+	77.11		2.076E+00	3.183E-01	3.130E-01	2.410E-02	6.634
	+	87.30		1.799E+00	5.313E-01	5.078E-01	6.721E-02	3.543
		115.19		-1.306E+00	3.687E+00	5.858E+00	4.263E-01	-0.223
	+	238.63	*	1.596E+00	1.592E-01	8.978E-02	6.539E-03	17.779
	+	300.09		1.984E+00	1.011E+00	1.181E+00	9.765E-02	1.681
BI-214	+	609.31	*	1.233E+00	1.778E-01	1.219E-01	9.650E-03	10.116
	+	1120.29		1.027E+00	6.296E-01	4.870E-01	4.512E-02	2.109
	+	1764.49		1.602E+00	3.959E-01	2.786E-01	1.671E-02	5.750
PB-214	+	74.81		4.536E+00	9.201E-01	9.396E-01	9.915E-02	4.827
	+	77.11		3.559E+00	6.093E-01	5.365E-01	5.812E-02	6.634
	+	87.30		3.082E+00	8.887E-01	8.699E-01	1.009E-01	3.543
	+	241.98		2.062E+00	6.479E-01	5.402E-01	4.339E-02	3.817
	+	295.21		1.609E+00	2.576E-01	2.070E-01	1.769E-02	7.775
	+	351.92	*	1.180E+00	1.659E-01	1.145E-01	9.397E-03	10.305
PO-214	+	74.81		4.536E+00	9.201E-01	9.396E-01	9.915E-02	4.827
	+	77.11		3.559E+00	6.093E-01	5.365E-01	5.812E-02	6.634

Sample ID : G245799016 Acquisition date : 10-FEB-2010 19:10:12

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		3.082E+00	8.887E-01	8.699E-01	1.009E-01	3.543
	+	241.98		2.062E+00	6.479E-01	5.402E-01	4.339E-02	3.817
	+	295.21		1.609E+00	2.576E-01	2.070E-01	1.769E-02	7.775
	+	351.92	*	1.180E+00	1.659E-01	1.145E-01	9.397E-03	10.305
PO-216	+	74.81		2.632E+00	5.546E-01	5.453E-01	6.540E-02	4.827
	+	77.11		2.076E+00	3.183E-01	3.130E-01	2.410E-02	6.634
	+	87.30		1.799E+00	5.313E-01	5.078E-01	6.721E-02	3.543
	+	238.63	*	1.596E+00	1.592E-01	8.978E-02	6.539E-03	17.779
	+	300.09		1.984E+00	1.011E+00	1.181E+00	9.765E-02	1.681
PO-218	+	74.81		4.536E+00	9.201E-01	9.396E-01	9.915E-02	4.827
	+	77.11		3.559E+00	6.093E-01	5.365E-01	5.812E-02	6.634
	+	87.30		3.082E+00	8.887E-01	8.699E-01	1.009E-01	3.543
	+	241.98		2.062E+00	6.479E-01	5.402E-01	4.339E-02	3.817
	+	295.21		1.609E+00	2.576E-01	2.070E-01	1.769E-02	7.775
	+	351.92	*	1.180E+00	1.659E-01	1.145E-01	9.397E-03	10.305
RA-224	+	240.98	*	3.910E+00	1.209E+00	1.021E+00	5.870E-02	3.829
RA-226	+	609.31	*	1.233E+00	1.778E-01	1.219E-01	9.650E-03	10.116
	+	1120.29		1.027E+00	6.296E-01	4.870E-01	4.512E-02	2.109
	+	1764.49		1.602E+00	3.959E-01	2.786E-01	1.671E-02	5.750
AC-228	+	338.32		1.379E+00	7.178E-01	4.025E-01	1.641E-01	3.425
	+	911.07	*	1.674E+00	3.398E-01	2.162E-01	2.539E-02	7.742
	+	969.11		1.550E+00	5.989E-01	5.445E-01	1.272E-01	2.847
RA-228	+	338.32		1.379E+00	7.178E-01	4.025E-01	1.641E-01	3.425
	+	911.07	*	1.674E+00	3.398E-01	2.162E-01	2.539E-02	7.742
	+	969.11		1.550E+00	5.989E-01	5.445E-01	1.272E-01	2.847
TH-228	+	74.81		2.673E+00	5.056E-01	5.537E-01	4.207E-02	4.827
	+	77.11		2.108E+00	3.232E-01	3.178E-01	2.447E-02	6.634
	+	87.30		1.827E+00	5.076E-01	5.156E-01	4.471E-02	3.543
	+	238.63	*	1.621E+00	1.616E-01	9.116E-02	6.640E-03	17.779
	+	300.09		2.015E+00	1.561E+00	1.199E+00	7.066E-01	1.681
TH-230	+	609.31	*	1.233E+00	1.778E-01	1.219E-01	9.650E-03	10.116
	+	1120.29		1.027E+00	6.295E-01	4.870E-01	4.512E-02	2.109
	+	1764.49		1.602E+00	3.959E-01	2.786E-01	1.671E-02	5.750
TH-232	+	338.32		1.379E+00	4.536E-01	4.025E-01	2.313E-02	3.425
	+	911.07	*	1.674E+00	3.398E-01	2.162E-01	2.539E-02	7.742
	+	969.11		1.550E+00	5.989E-01	5.445E-01	1.272E-01	2.847
TH-234	+	63.29	*	8.754E-01	1.640E+00	1.849E+00	3.178E-01	0.473
	+	92.38		2.379E+00	7.941E-01	7.273E-01	1.306E-01	3.271
U-234	+	609.31	*	1.233E+00	1.778E-01	1.219E-01	9.650E-03	10.116
	+	1120.29		1.027E+00	6.295E-01	4.870E-01	4.512E-02	2.109
	+	1764.49		1.602E+00	3.959E-01	2.786E-01	1.671E-02	5.750
NP-237	+	86.50	*	1.142E+00	3.953E-01	3.244E-01	7.250E-02	3.521
		95.87		6.065E-01	1.090E+00	1.570E+00	3.840E-01	0.386
U-238	+	63.29	*	8.754E-01	1.640E+00	1.849E+00	3.178E-01	0.473
	+	92.38		2.379E+00	6.982E-01	7.273E-01	6.084E-02	3.271
AM-243	+	74.67	*	4.268E-01	8.059E-02	8.861E-02	6.650E-03	4.816
	+	86.72		4.284E+01	1.190E+01	1.214E+01	1.046E+00	3.527
		117.66		-2.428E+00	3.897E+00	6.113E+00	4.407E-01	-0.397
		142.18		2.697E+00	1.917E+01	3.091E+01	1.944E+00	0.087

Sample ID : G245799016 Acquisition date : 10-FEB-2010 19:10:12

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	1.250E-01	7.260E-02	4.720E-02	2.773E-03	2.649

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.625E-01	3.276E-01	5.182E-01	3.493E-02	-0.314
NA-22		1274.54	*	-1.521E-02	4.683E-02	7.457E-02	4.871E-03	-0.204
NA-24		1368.53	*	-1.030E-01	4.683E-02	Half-Life too short		
AL-26		1129.67		-2.110E+00	2.018E+00	2.849E+00	1.799E-01	-0.741
		1808.65	*	-1.475E-02	2.745E-02	3.844E-02	2.228E-03	-0.384
TI-44		67.85		-1.792E-02	6.007E-02	7.062E-02	4.970E-03	-0.254
	+	78.38	*	3.831E-01	5.874E-02	8.073E-02	6.303E-03	4.746
SC-46		889.25	*	-2.622E-02	4.274E-02	6.776E-02	6.262E-03	-0.387
	+	1120.51		1.761E-01	1.073E-01	1.389E-01	8.993E-03	1.268
V-48		944.10		-1.578E-01	8.808E-01	1.445E+00	1.291E-01	-0.109
		983.50	*	-6.720E-02	8.072E-02	1.246E-01	1.058E-02	-0.539
		1312.09		-5.564E-02	8.604E-02	1.310E-01	9.055E-03	-0.425
CR-51		320.08	*	-9.091E-02	3.640E-01	5.964E-01	3.854E-02	-0.152
MN-52		744.21		2.250E-02	2.623E-01	4.255E-01	3.003E-02	0.053
		848.13		-2.604E+00	6.828E+00	1.106E+01	9.506E-01	-0.235
		935.52		3.625E-01	2.779E-01	5.081E-01	4.586E-02	0.713
		1246.25		-2.058E+00	8.298E+00	1.338E+01	8.338E-01	-0.154
		1333.61		1.533E-01	5.008E+00	8.254E+00	5.882E-01	0.019
		1434.06	*	-1.722E-02	2.695E-01	4.373E-01	3.065E-02	-0.039
MN-54		834.83	*	1.391E-02	3.710E-02	6.402E-02	5.370E-03	0.217
CO-56		846.75	*	-1.234E-02	3.976E-02	6.490E-02	5.563E-03	-0.190
		977.42		1.894E+00	3.794E+00	5.764E+00	4.937E-01	0.329
		1037.82		-3.678E-01	3.296E-01	4.877E-01	4.041E-02	-0.754
		1175.09		9.595E-01	2.594E+00	4.410E+00	2.437E-01	0.218
		1238.25		1.283E-01	1.030E-01	1.839E-01	1.195E-02	0.698
		1360.21		6.167E-01	9.408E-01	1.674E+00	1.189E-01	0.368
		1771.40		-9.051E-01	3.634E-01	3.481E-01	2.078E-02	-2.600
CO-57		122.06	*	6.134E-03	2.660E-02	4.320E-02	3.073E-03	0.142
		136.48		-2.015E-01	2.276E-01	3.520E-01	2.584E-02	-0.573
CO-58		810.76	*	-1.478E-02	4.057E-02	6.279E-02	5.052E-03	-0.235
FE-59		142.65		2.327E-01	2.941E+00	4.732E+00	2.967E-01	0.049
		192.34		-7.705E-01	1.107E+00	1.558E+00	1.818E-01	-0.495
		1099.22	*	-8.927E-02	9.571E-02	1.443E-01	1.111E-02	-0.619
		1291.56		-7.492E-02	1.420E-01	2.222E-01	1.809E-02	-0.337
CO-60		1173.22		-3.791E-02	5.293E-02	8.234E-02	4.535E-03	-0.460
		1332.49	*	-1.282E-02	3.871E-02	6.092E-02	4.341E-03	-0.210
ZN-65		1115.52	*	-1.444E-02	1.156E-01	1.623E-01	1.067E-02	-0.089
GE-68		1077.35	*	3.593E-01	1.341E+00	2.276E+00	1.636E-01	0.158
AS-73		53.44	*	-4.049E-01	6.640E-01	1.061E+00	6.915E-02	-0.382
AS-74		595.88	*	1.397E-02	9.174E-02	1.509E-01	9.025E-03	0.093
		634.78		1.302E-01	3.397E-01	5.690E-01	3.399E-02	0.229
SE-75		66.05		-3.254E+00	5.245E+00	7.245E+00	6.589E-01	-0.449
		96.73		-2.401E-01	8.722E-01	1.214E+00	1.613E-01	-0.198

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.11		1.831E-02	1.413E-01	2.286E-01	2.313E-02	0.080
		136.00		-3.208E-02	4.270E-02	6.645E-02	4.389E-03	-0.483
		198.60		-1.374E+00	1.773E+00	2.891E+00	2.002E-01	-0.475
		264.65	*	-1.209E-02	4.720E-02	6.726E-02	3.949E-03	-0.180
		279.53		1.354E-01	1.119E-01	1.960E-01	1.234E-02	0.691
		303.91		7.309E-01	2.254E+00	3.335E+00	3.188E-01	0.219
		400.65		1.750E-01	2.606E-01	4.457E-01	3.970E-02	0.393
BR-77	+	87.88		9.017E+02	2.505E+02	3.757E+02	3.282E+01	2.400
		200.40		-3.686E+01	1.710E+02	2.853E+02	1.587E+01	-0.129
	+	239.00		2.703E+02	2.407E+01	3.921E+01	2.251E+00	6.892
		249.79		-1.147E+01	6.866E+01	1.140E+02	6.583E+00	-0.101
		281.68		-4.729E+01	9.931E+01	1.619E+02	9.442E+00	-0.292
		297.23		4.222E+02	7.394E+01	1.398E+02	8.151E+00	3.021
		303.76		-2.806E+01	2.082E+02	2.978E+02	1.736E+01	-0.094
		439.47		-1.480E+01	1.600E+02	2.615E+02	1.479E+01	-0.057
		484.57		7.764E+01	2.473E+02	4.136E+02	2.402E+01	0.188
		520.65	*	-9.558E+00	1.148E+01	1.760E+01	1.038E+00	-0.543
		574.64		1.481E+02	2.931E+02	3.842E+02	2.294E+01	0.385
		578.91		8.752E+00	1.083E+02	1.536E+02	9.174E+00	0.057
		585.48		1.570E+03	3.077E+02	5.514E+02	3.296E+01	2.848
		755.35		3.613E+01	1.775E+02	2.909E+02	2.098E+01	0.124
		817.79		7.549E+01	1.368E+02	2.400E+02	1.951E+01	0.315
SR-82		698.33		-5.586E+00	3.640E+01	5.808E+01	3.733E+00	-0.096
		776.49	*	-1.941E-01	3.994E-01	6.132E-01	4.610E-02	-0.317
		1395.20		-1.018E+01	1.074E+01	1.507E+01	1.065E+00	-0.676
RB-83		520.41	*	-5.524E-02	7.241E-02	1.117E-01	6.583E-03	-0.495
		529.64		-9.600E-02	1.031E-01	1.557E-01	9.208E-03	-0.616
		552.65		-3.224E-02	2.027E-01	3.265E-01	1.942E-02	-0.099
RB-84		881.50	*	1.571E-03	6.909E-02	1.159E-01	1.056E-02	0.014
KR-85		513.99	*	1.395E+01	8.965E+00	1.425E+01	8.384E-01	0.979
SR-85		513.99	*	7.167E-02	4.606E-02	7.323E-02	4.307E-03	0.979
RB-86		1076.63	*	3.144E-01	8.566E-01	1.466E+00	1.055E-01	0.214
Y-88		898.02		-2.872E-02	4.491E-02	7.098E-02	6.686E-03	-0.405
		1836.01	*	-9.557E-03	3.371E-02	5.106E-02	2.900E-03	-0.187
ZR-88		392.90	*	-3.965E-03	3.138E-02	5.140E-02	2.799E-03	-0.077
Y-91		1204.90	*	6.653E+00	2.138E+01	3.614E+01	2.102E+00	0.184
NB-94		702.63	*	-4.258E-03	3.470E-02	5.547E-02	3.597E-03	-0.077
		871.10		1.797E-02	3.508E-02	6.117E-02	5.476E-03	0.294
NB-95		765.79	*	8.438E-03	4.673E-02	7.622E-02	5.613E-03	0.111
NB-95M		235.69	*	6.556E-01	1.674E-01	2.769E-01	2.069E-02	2.368
ZR-95		724.18		8.422E-02	1.118E-01	1.683E-01	1.296E-02	0.501
		756.15	*	-1.370E-02	7.325E-02	1.159E-01	9.562E-03	-0.118
NB-97		657.90	*	-2.810E-02	7.325E-02	Half-Life too short		
		1024.50		-2.645E+00	7.325E-02	Half-Life too short		
ZR-97		254.15		-1.658E+00	7.325E-02	Half-Life too short		
		355.39		1.476E+00	7.325E-02	Half-Life too short		
		507.63	*	5.436E+00	7.325E-02	Half-Life too short		
		602.52		6.794E+00	7.325E-02	Half-Life too short		
		1021.30		2.451E+00	7.325E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1147.95		2.188E+00	7.325E-02	Half-Life too short		
		1362.66		-9.543E+00	7.325E-02	Half-Life too short		
		1750.46		-7.660E+00	7.325E-02	Half-Life too short		
MO-99		140.51		7.400E+00	3.021E+01	4.881E+01	1.321E+01	0.152
		181.06		3.416E+00	2.071E+01	3.070E+01	5.227E+00	0.111
		366.43		-2.560E+01	8.899E+01	1.447E+02	8.121E+00	-0.177
		739.58	*	-7.122E+00	1.308E+01	2.001E+01	2.867E+00	-0.356
		778.00		-4.379E+01	3.718E+01	5.282E+01	3.983E+00	-0.829
TC-99M		140.51	*	1.698E+10	3.718E+01	Half-Life too short		
RH-101		127.23		2.360E-02	3.869E-02	5.602E-02	3.854E-03	0.421
		198.01	*	1.494E-04	3.234E-02	5.443E-02	3.019E-03	0.003
		325.23		-1.882E-01	2.242E-01	3.555E-01	2.057E-02	-0.529
RH-102		418.52		-4.689E-02	2.704E-01	4.401E-01	2.450E-02	-0.107
		475.06	*	1.462E-02	3.136E-02	4.999E-02	2.889E-03	0.292
		631.29		-3.875E-02	5.662E-02	8.656E-02	5.172E-03	-0.448
		697.49		-6.951E-03	8.223E-02	1.319E-01	8.465E-03	-0.053
		766.84		9.120E-02	1.200E-01	2.036E-01	1.502E-02	0.448
		1046.59		-1.277E-02	1.279E-01	2.106E-01	1.612E-02	-0.061
		1112.84		5.334E-02	2.552E-01	4.113E-01	2.718E-02	0.130
RU-103		497.08	*	-1.832E-03	4.326E-02	7.060E-02	8.941E-03	-0.026
	+	610.33		1.336E+01	2.621E+00	2.987E+00	4.626E-01	4.473
RH-106	+	511.85		6.247E-01	3.628E-01	4.241E-01	2.492E-02	1.473
		621.84	*	-1.694E-01	3.230E-01	5.005E-01	5.919E-02	-0.338
		1050.47		1.514E+00	2.386E+00	4.181E+00	3.176E-01	0.362
RU-106	+	511.85		6.247E-01	3.628E-01	4.241E-01	2.492E-02	1.473
		621.84	*	-1.694E-01	3.226E-01	5.005E-01	2.993E-02	-0.338
		1050.47		1.514E+00	2.386E+00	4.181E+00	3.176E-01	0.362
AG-108M		433.93	*	-2.217E-02	3.321E-02	5.218E-02	3.205E-03	-0.425
		614.37		5.083E-02	4.171E-02	6.626E-02	4.280E-03	0.767
		722.95		4.718E-03	4.745E-02	6.676E-02	4.799E-03	0.071
AG-110M		657.75	*	-7.200E-03	3.611E-02	5.752E-02	3.633E-03	-0.125
		677.61		7.757E-02	3.211E-01	5.294E-01	3.435E-02	0.147
		706.67		-3.558E-02	2.232E-01	3.557E-01	2.437E-02	-0.100
		763.93		-7.167E-02	1.868E-01	2.914E-01	2.221E-02	-0.246
		884.67		-1.451E-02	5.130E-02	8.374E-02	7.896E-03	-0.173
		937.48		9.014E-02	1.152E-01	2.042E-01	1.900E-02	0.441
		1384.27		-3.086E-01	1.978E-01	2.620E-01	1.932E-02	-1.178
IN-111		171.28		7.395E-01	1.063E+00	1.748E+00	9.429E-02	0.423
		245.39	*	3.300E-01	1.189E+00	1.763E+00	1.016E-01	0.187
IN-113M		391.69	*	-1.805E-02	4.522E-02	7.283E-02	4.262E-03	-0.248
SN-113		391.69	*	-1.805E-02	4.522E-02	7.283E-02	4.262E-03	-0.248
IN-114M		190.27	*	2.392E-01	1.960E-01	3.065E-01	1.687E-02	0.780
CD-115		260.90		7.220E+01	1.329E+02	2.276E+02	1.321E+01	0.317
		492.35		-2.312E+01	3.950E+01	6.196E+01	3.612E+00	-0.373
		527.90	*	-8.977E+00	1.117E+01	1.707E+01	1.009E+00	-0.526
SN-117M		156.02		3.820E-01	2.589E+00	4.167E+00	2.399E-01	0.092
		158.56	*	1.117E-02	6.379E-02	1.018E-01	5.758E-03	0.110
SB-122		563.90	*	2.181E+00	2.366E+00	3.661E+00	2.182E-01	0.596
		692.80		1.283E+01	4.675E+01	7.720E+01	4.905E+00	0.166

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-123		159.00	*	1.088E+00	4.675E+01	Half-Life too short		
		528.96		-6.272E+02	4.675E+01	Half-Life too short		
TE-123M		159.00	*	4.275E-03	3.254E-02	5.183E-02	2.964E-03	0.082
I-124		602.71	*	6.109E-01	7.568E-01	1.197E+00	7.161E-02	0.510
		722.78		5.679E-01	5.112E+00	7.203E+00	4.869E-01	0.079
		1325.50		3.218E+01	3.799E+01	6.798E+01	4.794E+00	0.473
		1376.25		4.065E+01	3.742E+01	6.767E+01	4.796E+00	0.601
		1509.49		4.684E-01	1.585E+01	2.598E+01	1.782E+00	0.018
		1691.02		-1.762E+00	3.589E+00	5.184E+00	3.266E-01	-0.340
SB-124		602.71		3.453E-02	4.277E-02	6.765E-02	4.048E-03	0.510
		645.85		-1.905E-01	5.037E-01	7.894E-01	5.281E-02	-0.241
		709.31		-1.596E+00	3.075E+00	4.755E+00	3.127E-01	-0.336
		713.82		1.600E+00	1.801E+00	3.092E+00	3.311E-01	0.517
		722.78		4.652E-02	4.188E-01	5.901E-01	4.128E-02	0.079
	+	968.20		1.599E+01	5.114E+00	7.392E+00	6.410E-01	2.163
		1045.16		1.767E+00	2.637E+00	4.627E+00	3.550E-01	0.382
		1325.50		2.816E+00	3.324E+00	5.947E+00	4.194E-01	0.473
		1368.21		4.441E-01	1.868E+00	3.151E+00	3.957E-01	0.141
		1436.60		5.743E+00	3.828E+00	7.429E+00	5.204E-01	0.773
		1691.02	*	-3.405E-02	6.935E-02	1.002E-01	6.771E-03	-0.340
SB-125		427.89	*	1.277E-01	9.007E-02	1.609E-01	9.430E-03	0.793
	+	463.38		8.828E-01	4.068E-01	5.602E-01	3.760E-02	1.576
		600.56		-6.729E-03	1.826E-01	2.959E-01	2.032E-02	-0.023
		635.90		-6.321E-02	2.592E-01	4.111E-01	2.853E-02	-0.154
TE-125M		109.28	*	-1.304E+00	1.004E+01	1.612E+01	1.513E+00	-0.081
I-126		388.63		8.516E-03	2.124E-01	3.515E-01	1.920E-02	0.024
		666.33	*	-6.638E-02	1.922E-01	3.025E-01	1.817E-02	-0.219
		753.82		-8.446E-01	1.562E+00	2.392E+00	1.720E-01	-0.353
SB-126		223.80		1.795E-01	4.063E+00	6.828E+00	3.878E-01	0.026
		278.60		3.247E+00	2.573E+00	4.514E+00	2.631E-01	0.719
	+	296.50		1.618E+01	2.385E+00	3.830E+00	2.234E-01	4.225
		414.70		4.543E-02	8.447E-02	1.264E-01	7.013E-03	0.359
		415.30		2.994E+00	6.901E+00	1.024E+01	5.687E-01	0.292
		555.20		-1.458E+00	4.013E+00	6.355E+00	3.782E-01	-0.229
		573.80		2.703E-01	1.327E+00	1.801E+00	1.075E-01	0.150
		593.00		-5.897E-01	9.918E-01	1.538E+00	9.198E-02	-0.383
		656.30		-2.141E-01	3.457E+00	5.569E+00	3.315E-01	-0.038
		666.33		-2.775E-02	8.036E-02	1.264E-01	7.594E-03	-0.219
		675.00		-6.195E-01	2.122E+00	3.350E+00	2.050E-01	-0.185
		695.00		1.581E-02	8.214E-02	1.347E-01	8.598E-03	0.117
		697.00		-4.087E-02	2.898E-01	4.628E-01	2.967E-02	-0.088
		720.50	*	-6.651E-02	1.712E-01	2.391E-01	1.609E-02	-0.278
		856.80		-4.110E-01	5.435E-01	8.579E-01	7.487E-02	-0.479
		989.30		1.002E+00	1.334E+00	2.360E+00	1.988E-01	0.425
		1034.80		1.250E+00	9.166E+00	1.542E+01	1.206E+00	0.081
		1213.00		-8.705E-01	5.475E+00	8.921E+00	5.261E-01	-0.098
SB-127		61.10		3.513E+01	5.787E+01	8.489E+01	8.329E+00	0.414
		252.40		1.346E+00	4.498E+00	7.565E+00	3.144E+00	0.178
		290.80		-2.969E+01	2.645E+01	3.511E+01	3.247E+00	-0.845

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		411.60		1.367E+01	1.504E+01	2.290E+01	3.277E+00	0.597
		444.90		-3.588E+00	1.029E+01	1.651E+01	1.779E+00	-0.217
		473.00		-4.235E-01	1.753E+00	2.825E+00	3.168E-01	-0.150
		543.00		-1.702E+01	1.660E+01	2.456E+01	3.196E+00	-0.693
		603.60		9.214E+00	1.359E+01	2.039E+01	2.226E+00	0.452
		685.20	*	9.885E-01	1.562E+00	2.641E+00	2.582E-01	0.374
		698.50		-4.422E+00	1.654E+01	2.613E+01	3.862E+00	-0.169
		722.20		1.228E+00	3.544E+01	4.948E+01	4.875E+00	0.025
		783.80		5.821E+00	3.962E+00	7.041E+00	8.307E-01	0.827
XE-127		57.60		9.215E-03	5.805E+00	8.298E+00	5.465E-01	0.001
		145.22		-2.760E-01	7.669E-01	1.196E+00	7.379E-02	-0.231
		172.10		4.672E-02	1.215E-01	1.973E-01	1.065E-02	0.237
		202.84	*	2.951E-02	5.226E-02	7.894E-02	4.401E-03	0.374
		374.96		2.491E-01	2.009E-01	3.543E-01	1.970E-02	0.703
I-131		80.18		2.786E+00	6.975E+00	7.330E+00	5.885E-01	0.380
		284.30		-1.985E+00	1.584E+00	2.473E+00	1.603E-01	-0.803
		364.48	*	-1.126E-01	1.202E-01	1.876E-01	1.186E-02	-0.600
		636.97		-1.609E-01	1.475E+00	2.368E+00	1.575E-01	-0.068
		722.89		8.409E-01	8.120E+00	1.143E+01	7.810E-01	0.074
TE-132		49.72		-1.231E+01	1.533E+01	2.430E+01	2.255E+00	-0.507
		111.76		-1.519E+01	3.280E+01	5.193E+01	5.169E+00	-0.292
		116.30		-5.465E+00	2.945E+01	4.710E+01	4.641E+00	-0.116
		228.16	*	-1.861E-01	7.178E-01	1.190E+00	1.709E-01	-0.156
BA-133		53.15		-1.657E+00	2.833E+00	4.530E+00	2.951E-01	-0.366
		79.62		3.822E+00	2.064E+00	2.308E+00	3.424E-01	1.656
		81.00		-4.879E-04	1.454E-01	1.481E-01	2.306E-02	-0.003
		276.40		2.454E-01	4.002E-01	6.484E-01	8.414E-02	0.378
		302.84		-3.856E-02	1.637E-01	2.324E-01	2.712E-02	-0.166
		356.01	*	-1.348E-02	5.122E-02	7.200E-02	8.276E-03	-0.187
		383.85		4.910E-02	3.014E-01	5.024E-01	5.383E-02	0.098
I-133	+	510.53		1.471E+00	3.014E-01	Half-Life too short		
		529.87	*	-2.058E-03	3.014E-01	Half-Life too short		
		706.58		-5.112E-02	3.014E-01	Half-Life too short		
		856.28		-4.456E-01	3.014E-01	Half-Life too short		
		875.33		-1.673E-02	3.014E-01	Half-Life too short		
		1236.41		1.203E+00	3.014E-01	Half-Life too short		
		1298.22		5.691E-02	3.014E-01	Half-Life too short		
CS-134		475.35		1.495E+00	2.026E+00	3.285E+00	1.899E-01	0.455
		563.23		2.208E-01	4.196E-01	6.229E-01	3.787E-02	0.354
	+	569.32		1.024E+00	4.058E-01	4.985E-01	3.058E-02	2.055
		604.70		1.717E-02	3.773E-02	5.550E-02	3.338E-03	0.309
	+	795.84	*	7.684E-02	7.356E-02	9.276E-02	7.301E-03	0.828
		801.93		-1.780E-01	5.312E-01	7.083E-01	5.627E-02	-0.251
		1038.57		-4.847E+00	4.175E+00	6.161E+00	4.786E-01	-0.787
		1167.94		-1.101E+00	2.809E+00	4.489E+00	2.518E-01	-0.245
		1365.15		2.730E-01	1.242E+00	2.094E+00	1.586E-01	0.130
I-135		288.45		2.217E+10	1.242E+00	Half-Life too short		
		417.63		-8.055E+09	1.242E+00	Half-Life too short		
		546.56		-9.157E+09	1.242E+00	Half-Life too short		

---- Non-Identified Nuclides ----

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		836.80		1.614E+09	1.242E+00	Half-Life too short		
		1038.76		-3.691E+10	1.242E+00	Half-Life too short		
		1124.00		8.603E+10	1.242E+00	Half-Life too short		
		1131.51		1.562E+09	1.242E+00	Half-Life too short		
		1260.41	*	5.662E+09	1.242E+00	Half-Life too short		
		1457.56		4.674E+11	1.242E+00	Half-Life too short		
		1678.03		6.942E+09	1.242E+00	Half-Life too short		
		1706.46		-6.582E+09	1.242E+00	Half-Life too short		
		1791.20		1.331E+10	1.242E+00	Half-Life too short		
CS-136		66.91		-8.469E-01	9.322E-01	1.168E+00	1.703E-01	-0.725
	+	86.29		5.125E+00	1.505E+00	2.155E+00	2.762E-01	2.378
		153.22		3.210E-01	7.339E-01	1.194E+00	8.690E-02	0.269
		163.89		6.064E-01	1.139E+00	1.861E+00	1.297E-01	0.326
		176.55		-2.001E-01	3.900E-01	6.080E-01	3.760E-02	-0.329
		273.65		-8.648E-01	5.383E-01	6.926E-01	4.596E-02	-1.249
		340.57		3.505E-01	1.696E-01	2.722E-01	1.663E-02	1.288
		818.51		5.369E-02	7.382E-02	1.311E-01	1.068E-02	0.409
		1048.07	*	-1.002E-01	1.202E-01	1.844E-01	1.483E-02	-0.544
		1235.34		4.321E-02	6.850E-01	1.134E+00	1.154E-01	0.038
BA-137M		661.65	*	9.491E-05	3.666E-02	5.935E-02	3.529E-03	0.002
CS-137		661.65	*	1.003E-04	3.875E-02	6.274E-02	3.745E-03	0.002
CE-139		165.85	*	-2.511E-02	3.181E-02	4.909E-02	2.636E-03	-0.511
BA-140		162.64		2.195E-01	8.148E-01	1.317E+00	8.237E-02	0.167
		304.84		6.116E-01	1.416E+00	2.098E+00	5.727E-01	0.291
		423.70		-7.462E-01	1.869E+00	2.970E+00	9.429E-01	-0.251
		537.32	*	-1.328E-02	2.560E-01	4.161E-01	1.354E-01	-0.032
LA-140		328.77		4.975E-01	3.044E-01	5.419E-01	3.509E-02	0.918
		432.53		-2.228E+00	2.093E+00	3.189E+00	1.993E-01	-0.699
		487.03		8.760E-02	1.413E-01	2.410E-01	1.585E-02	0.364
		751.79		-8.382E-01	1.820E+00	2.809E+00	2.317E-01	-0.298
		815.85		-1.188E-01	3.153E-01	5.118E-01	4.682E-02	-0.232
		867.82		-5.897E-01	1.462E+00	2.365E+00	2.210E-01	-0.249
		919.63		2.964E+00	2.957E+00	5.053E+00	5.612E-01	0.587
		925.24		-1.262E+00	1.170E+00	1.749E+00	1.686E-01	-0.722
		1596.49	*	1.279E-02	8.709E-02	1.449E-01	9.603E-03	0.088
CE-141		145.44	*	-3.408E-02	7.000E-02	1.086E-01	6.929E-03	-0.314
CE-143		57.37		-3.098E-04	7.000E-02	Half-Life too short		
		231.56		6.946E-04	7.000E-02	Half-Life too short		
		293.26	*	1.270E-03	7.000E-02	Half-Life too short		
	+	350.59		2.947E-02	7.000E-02	Half-Life too short		
		490.36		-3.355E-03	7.000E-02	Half-Life too short		
		664.57		2.653E-04	7.000E-02	Half-Life too short		
		721.93		-4.675E-04	7.000E-02	Half-Life too short		
CE-144		80.11		1.496E+00	3.167E+00	3.346E+00	2.664E-01	0.447
		133.54	*	-9.730E-02	2.500E-01	3.423E-01	4.983E-02	-0.284
PM-144		476.78		-3.749E-02	7.249E-02	1.075E-01	7.452E-03	-0.349
		618.01		-2.168E-02	3.402E-02	5.043E-02	3.187E-03	-0.430
		696.49	*	-1.624E-03	3.625E-02	5.834E-02	3.738E-03	-0.028
		778.57		-3.371E+00	2.425E+00	3.360E+00	2.538E-01	-1.003

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PR-144		696.49	*	-1.101E-01	2.457E+00	3.954E+00	2.532E-01	-0.028
		1489.15		7.407E-01	1.041E+01	1.721E+01	1.189E+00	0.043
PM-146		453.90	*	-1.466E-02	4.603E-02	7.403E-02	6.337E-03	-0.198
		633.02		-2.659E-01	1.377E+00	2.190E+00	8.071E-01	-0.121
		735.90		1.613E-01	1.606E-01	2.702E-01	7.603E-02	0.597
		747.13		1.071E-01	1.004E-01	1.740E-01	2.290E-02	0.615
ND-147	+	91.11		9.258E-01	3.487E-01	5.385E-01	4.950E-02	1.719
		319.41		5.724E-01	3.328E+00	5.577E+00	3.237E-01	0.103
		439.89		2.596E-01	6.185E+00	1.019E+01	5.768E-01	0.025
		531.02	*	2.232E-01	5.246E-01	8.842E-01	1.200E-01	0.252
PM-149		285.90	*	1.703E+01	9.889E+01	1.661E+02	2.357E+01	0.103
EU-152		121.78		-3.351E-03	7.717E-02	1.240E-01	1.073E-02	-0.027
		244.69		1.556E-01	3.635E-01	5.434E-01	3.131E-02	0.286
		344.27	*	1.121E-02	1.137E-01	1.723E-01	1.115E-02	0.065
		443.98		1.925E-01	9.790E-01	1.629E+00	9.240E-02	0.118
		778.89		-3.781E-01	2.806E-01	3.912E-01	2.955E-02	-0.966
		867.32		-4.188E-01	8.632E-01	1.385E+00	1.232E-01	-0.302
		964.01		4.857E-01	3.595E-01	5.850E-01	5.101E-02	0.830
		1085.78		2.730E-01	4.307E-01	7.524E-01	5.308E-02	0.363
		1112.02		-9.732E-02	3.617E-01	5.721E-01	3.788E-02	-0.170
		1407.95		-3.486E-02	1.916E-01	3.064E-01	2.160E-02	-0.114
GD-153		69.67		1.088E+00	1.788E+00	2.608E+00	1.865E-01	0.417
		83.37		5.259E+01	1.618E+01	2.533E+01	2.095E+00	2.076
		97.43	*	-1.788E-02	9.044E-02	1.265E-01	1.014E-02	-0.141
		103.18		-1.789E-02	1.131E-01	1.817E-01	1.402E-02	-0.098
EU-154		123.07		1.106E-02	5.619E-02	8.799E-02	9.003E-03	0.126
		247.94		2.301E-02	4.050E-01	5.916E-01	5.634E-02	0.039
		591.81		4.636E-01	6.411E-01	1.096E+00	1.083E-01	0.423
		723.30		9.010E-03	2.000E-01	2.796E-01	2.206E-02	0.032
		756.87		3.017E-01	8.090E-01	1.343E+00	1.480E-01	0.225
		873.19		3.284E-02	3.066E-01	5.179E-01	6.475E-02	0.063
		996.32		8.352E-02	3.946E-01	6.682E-01	1.178E-01	0.125
		1004.76		-1.816E-01	2.261E-01	3.465E-01	3.933E-02	-0.524
		1274.45	*	-4.017E-02	1.310E-01	2.090E-01	2.050E-02	-0.192
EU-155		48.70		4.822E-01	1.780E+00	2.939E+00	1.884E-01	0.164
		60.01		3.912E-01	4.768E+00	6.849E+00	4.554E-01	0.057
	+	86.54		4.685E-01	1.303E-01	1.939E-01	1.683E-02	2.416
		105.31	*	-2.259E-03	1.171E-01	1.890E-01	1.463E-02	-0.012
TB-160	+	86.79		1.254E+00	3.483E-01	5.147E-01	4.436E-02	2.436
		197.04		1.340E-01	5.543E-01	9.414E-01	5.217E-02	0.142
		215.65		-5.392E-02	8.084E-01	1.279E+00	7.215E-02	-0.042
		298.57		2.384E-01	1.159E-01	2.090E-01	1.219E-02	1.141
		879.36	*	-2.654E-02	1.411E-01	2.323E-01	2.110E-02	-0.114
		962.29		-3.333E-02	6.154E-01	9.471E-01	8.276E-02	-0.035
		966.15		7.845E-01	2.660E-01	4.739E-01	4.121E-02	1.655
		1177.93		-3.886E-02	4.225E-01	6.928E-01	3.848E-02	-0.056
		1271.85		6.821E-02	7.289E-01	1.211E+00	7.863E-02	0.056
HO-166M		80.57		-4.478E-03	4.016E-01	4.088E-01	3.272E-02	-0.011
		184.41		7.212E-02	4.381E-02	6.939E-02	3.795E-03	1.039

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		3.438E-02	8.831E-02	1.498E-01	8.734E-03	0.230
	+	410.95		4.109E-01	4.305E-01	4.592E-01	2.540E-02	0.895
		711.68	*	-1.548E-02	6.808E-02	1.079E-01	7.130E-03	-0.143
		752.31		-2.451E-01	2.923E-01	4.345E-01	3.116E-02	-0.564
		810.29		7.062E-03	6.032E-02	9.787E-02	7.846E-03	0.072
TM-171		51.35		-6.204E-01	2.330E+01	3.807E+01	2.468E+00	-0.016
		52.39		-5.200E+00	1.223E+01	1.968E+01	1.280E+00	-0.264
		59.40		-6.755E+00	2.593E+01	3.666E+01	2.429E+00	-0.184
		66.72	*	-3.246E+01	3.104E+01	4.201E+01	2.929E+00	-0.773
LU-176	+	88.36		9.226E-01	2.563E-01	3.910E-01	3.407E-02	2.360
		201.83		1.138E-02	3.000E-02	4.850E-02	2.701E-03	0.235
		306.84	*	-8.422E-03	2.675E-02	4.121E-02	2.400E-03	-0.204
		401.10		4.868E+00	6.861E+00	1.177E+01	6.455E-01	0.414
LU-177		112.95		5.108E-01	1.712E+00	2.792E+00	2.050E-01	0.183
	+	208.36	*	1.683E+00	1.708E+00	2.017E+00	1.130E-01	0.835
LU-177M		52.97		-9.004E-01	1.280E+00	2.037E+00	1.327E-01	-0.442
		54.07		3.975E-02	6.813E-01	1.115E+00	7.282E-02	0.036
		61.30		1.232E+00	1.459E+00	2.162E+00	1.449E-01	0.570
		121.62		9.056E-02	3.904E-01	6.342E-01	4.511E-02	0.143
		147.16		-3.008E-02	6.997E-01	1.120E+00	6.826E-02	-0.027
		171.86		1.831E-01	4.881E-01	7.924E-01	4.276E-02	0.231
		218.09		1.861E-01	8.677E-01	1.469E+00	8.303E-02	0.127
	+	268.79		3.422E+00	1.167E+00	1.561E+00	9.081E-02	2.193
		319.02		4.116E-02	2.609E-01	4.369E-01	2.535E-02	0.094
		367.43		6.845E-02	9.038E-01	1.501E+00	8.416E-02	0.046
		413.65	*	1.224E-01	1.977E-01	2.976E-01	1.650E-02	0.411
HF-181		56.28		-4.292E-01	7.928E-01	1.270E+00	8.332E-02	-0.338
		57.53		-1.659E-02	4.875E-01	6.956E-01	4.580E-02	-0.024
	+	65.20		6.785E-01	1.267E+00	1.462E+00	1.007E-01	0.464
		133.02		8.379E-03	7.869E-02	1.110E-01	7.373E-03	0.076
		136.25		-5.403E-01	5.039E-01	7.730E-01	5.037E-02	-0.699
		345.85		-2.313E-02	2.387E-01	3.408E-01	1.948E-02	-0.068
		482.03	*	-1.376E-02	4.412E-02	7.074E-02	4.103E-03	-0.195
W-181		56.28		-1.674E-01	3.098E-01	4.961E-01	3.256E-02	-0.337
		57.53		-6.685E-03	1.906E-01	2.720E-01	1.791E-02	-0.025
	+	65.20	*	2.632E-01	4.914E-01	5.669E-01	3.906E-02	0.464
TA-182		67.75		-4.678E-02	1.434E-01	1.683E-01	1.183E-02	-0.278
		100.10		1.577E-01	2.089E-01	3.059E-01	2.407E-02	0.516
		152.43		1.333E-01	3.714E-01	6.029E-01	3.554E-02	0.221
		222.10		-1.061E-01	3.462E-01	5.737E-01	3.254E-02	-0.185
		1001.68		-1.126E+00	2.178E+00	3.427E+00	2.832E-01	-0.328
	+	1121.28		4.862E-01	2.962E-01	3.832E-01	2.477E-02	1.269
		1189.05		-6.640E-02	3.428E-01	5.569E-01	3.153E-02	-0.119
		1221.42	*	3.124E-02	2.289E-01	3.813E-01	2.281E-02	0.082
		1230.97		-5.071E-02	5.242E-01	8.576E-01	5.211E-02	-0.059
RE-183		57.98		1.138E-01	1.876E-01	2.757E-01	1.818E-02	0.413
		59.32		-2.877E-02	1.067E-01	1.508E-01	9.990E-03	-0.191
		67.20		-1.989E-01	2.359E-01	2.988E-01	2.091E-02	-0.666
		162.32	*	2.718E-02	1.195E-01	1.928E-01	1.062E-02	0.141

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		1.488E+00	1.509E+00	1.797E+00	1.007E-01	0.828
		291.72		-6.716E-01	1.135E+00	1.577E+00	9.200E-02	-0.426
RE-184		57.98		4.189E-01	6.905E-01	1.015E+00	6.690E-02	0.413
		59.32		-1.058E-01	3.926E-01	5.548E-01	3.674E-02	-0.191
		67.20		-7.319E-01	8.682E-01	1.099E+00	7.696E-02	-0.666
		161.27		-6.771E-02	3.931E-01	6.243E-01	3.465E-02	-0.108
		216.55		5.924E-03	2.687E-01	4.516E-01	2.550E-02	0.013
		252.85	*	3.357E-02	2.282E-01	3.842E-01	2.222E-02	0.087
		318.01		9.895E-02	4.554E-01	7.649E-01	4.440E-02	0.129
		792.07		6.801E-01	1.191E+00	1.761E+00	1.364E-01	0.386
		903.28		1.082E+00	1.108E+00	1.879E+00	1.754E-01	0.576
		920.93		3.585E-01	4.558E-01	8.109E-01	7.436E-02	0.442
OS-185		59.72		1.708E-02	2.837E-01	4.071E-01	2.702E-02	0.042
		61.14		1.046E-01	1.596E-01	2.348E-01	1.572E-02	0.445
		69.30		1.674E-01	3.428E-01	4.646E-01	3.311E-02	0.360
		592.07		1.086E+00	2.600E+00	4.360E+00	2.607E-01	0.249
		646.12	*	-1.926E-02	4.317E-02	6.727E-02	4.012E-03	-0.286
		717.42		-5.824E-02	9.842E-01	1.580E+00	1.056E-01	-0.037
		874.81		-4.961E-02	6.016E-01	1.000E+00	9.012E-02	-0.050
		880.27		5.867E-04	7.881E-01	1.319E+00	1.200E-01	0.000
RE-188		155.03	*	8.135E-02	1.931E-01	3.139E-01	1.819E-02	0.259
		477.96		-1.618E+00	3.162E+00	4.998E+00	2.893E-01	-0.324
		633.10		-5.737E-01	2.778E+00	4.425E+00	2.643E-01	-0.130
W-188	+	63.58		3.525E+01	6.581E+01	8.101E+01	5.515E+00	0.435
		227.08		-2.163E+00	1.278E+01	2.128E+01	1.212E+00	-0.102
		290.67	*	-1.040E+01	8.836E+00	1.171E+01	6.835E-01	-0.888
IR-192	+	295.96		1.229E+00	1.816E-01	2.953E-01	1.750E-02	4.162
		308.46		5.049E-02	9.570E-02	1.633E-01	9.616E-03	0.309
		316.51	*	4.396E-02	3.553E-02	6.250E-02	3.648E-03	0.703
		468.07		1.522E-02	7.508E-02	1.087E-01	7.229E-03	0.140
		604.41		1.901E-01	5.182E-01	7.549E-01	8.639E-02	0.252
		612.46		2.865E+00	9.715E-01	1.658E+00	1.279E-01	1.728
AU-195	+	65.12		1.216E-01	2.270E-01	2.634E-01	1.814E-02	0.461
		66.83		-1.074E-01	1.027E-01	1.390E-01	9.701E-03	-0.773
	+	75.70		1.382E+00	2.610E-01	4.785E-01	3.629E-02	2.888
		98.88	*	8.729E-02	2.576E-01	3.702E-01	2.938E-02	0.236
	+	129.76		3.979E+00	3.358E+00	5.030E+00	3.408E-01	0.791
TL-200		367.94	*	2.731E-05	3.358E+00	Half-Life too short		
		579.30		-1.088E-04	3.358E+00	Half-Life too short		
		828.27		-6.767E-04	3.358E+00	Half-Life too short		
		1205.75		1.163E-03	3.358E+00	Half-Life too short		
TL-201		68.90		3.534E+00	6.307E+00	7.791E+00	5.533E-01	0.454
		70.82		2.319E+00	3.118E+00	4.566E+00	3.299E-01	0.508
		80.30		2.130E+00	7.779E+00	8.099E+00	6.461E-01	0.263
		135.34		-1.590E+01	2.838E+01	4.454E+01	2.918E+00	-0.357
		167.43	*	-2.390E+00	7.632E+00	1.203E+01	6.461E-01	-0.199
TL-202		68.90		3.081E-01	5.499E-01	6.793E-01	4.824E-02	0.454
		70.82		2.017E-01	2.711E-01	3.970E-01	2.868E-02	0.508
		80.30		1.853E-01	6.766E-01	7.044E-01	5.620E-02	0.263

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	-6.863E-03	7.422E-02	1.213E-01	6.860E-03	-0.057
HG-203		70.83		8.725E-01	1.170E+00	1.708E+00	2.180E-01	0.511
		72.87		2.660E+00	8.061E-01	1.179E+00	1.464E-01	2.257
		82.60		1.779E+00	1.703E+00	1.857E+00	2.503E-01	0.958
		279.20	*	5.805E-02	4.236E-02	7.460E-02	4.616E-03	0.778
BI-207		72.80		7.161E-01	2.202E-01	3.403E-01	2.506E-02	2.104
	+	74.97		7.660E-01	1.447E-01	2.444E-01	1.840E-02	3.135
		84.90		9.791E-01	2.258E-01	3.506E-01	2.953E-02	2.793
	+	569.67		1.596E-01	6.319E-02	7.724E-02	4.608E-03	2.066
		1063.62	*	3.746E-02	5.769E-02	1.008E-01	7.462E-03	0.371
		1770.23		2.770E-01	3.994E-01	6.848E-01	4.090E-02	0.405
TL-207		81.07		6.747E-03	3.211E-01	3.276E-01	2.637E-02	0.021
		83.78		4.652E-01	1.384E-01	2.168E-01	1.801E-02	2.146
		94.90		9.566E-01	2.794E-01	4.383E-01	3.587E-02	2.182
		122.32		8.875E-01	1.840E+00	3.015E+00	2.366E-01	0.294
		144.24		-1.920E-01	7.560E-01	1.184E+00	8.960E-02	-0.162
		154.21		1.089E-01	4.376E-01	7.072E-01	4.976E-02	0.154
	+	269.46		8.006E-01	2.733E-01	3.702E-01	2.251E-02	2.163
		323.87	*	-8.455E-01	6.669E-01	1.007E+00	1.662E-01	-0.840
	+	338.28		5.757E+00	1.961E+00	2.523E+00	2.650E-01	2.281
		445.03		-7.891E-01	2.320E+00	3.725E+00	3.800E-01	-0.212
PO-209		260.50		5.355E+00	9.434E+00	1.617E+01	9.381E-01	0.331
		262.80		-1.538E+01	2.906E+01	4.272E+01	2.481E+00	-0.360
		896.60	*	-6.004E+00	8.107E+00	1.269E+01	1.188E+00	-0.473
BI-210		46.50	*	-2.208E+00	2.507E+00	3.999E+00	2.965E-01	-0.552
PB-210		46.50	*	-2.208E+00	2.507E+00	3.999E+00	2.965E-01	-0.552
PO-210		46.50	*	-2.208E+00	2.505E+00	3.999E+00	2.509E-01	-0.552
PB-211		404.84	*	-5.716E-01	1.162E+00	1.509E+00	9.406E-01	-0.379
		427.08		2.371E+00	2.503E+00	3.583E+00	2.214E+00	0.662
		831.96		-5.463E-01	1.224E+00	1.895E+00	1.187E+00	-0.288
BI-212	+	727.18	*	1.271E+00	4.777E-01	7.090E-01	6.032E-02	1.793
		785.46		6.820E-01	1.946E+00	3.215E+00	2.459E-01	0.212
		1620.62		2.348E+00	1.407E+00	2.785E+00	1.825E-01	0.843
PO-215		81.07		6.747E-03	3.211E-01	3.276E-01	2.637E-02	0.021
		83.78		4.652E-01	1.384E-01	2.168E-01	1.801E-02	2.146
		94.90		9.566E-01	2.794E-01	4.383E-01	3.587E-02	2.182
		122.32		8.875E-01	1.840E+00	3.015E+00	2.366E-01	0.294
		144.24		-1.920E-01	7.560E-01	1.184E+00	8.960E-02	-0.162
		154.21		1.089E-01	4.376E-01	7.072E-01	4.976E-02	0.154
	+	269.46		8.006E-01	2.733E-01	3.702E-01	2.251E-02	2.163
		323.87	*	-8.455E-01	6.669E-01	1.007E+00	1.662E-01	-0.840
	+	338.28		5.757E+00	1.961E+00	2.523E+00	2.650E-01	2.281
		445.03		-7.891E-01	2.320E+00	3.725E+00	3.800E-01	-0.212
RN-219		271.23		5.911E-01	2.866E-01	4.610E-01	3.744E-02	1.282
		401.81	*	3.686E-01	4.533E-01	7.391E-01	9.960E-02	0.499
RN-220		549.76	*	2.484E+01	2.609E+01	4.545E+01	2.702E+00	0.546
RA-223		81.07		6.747E-03	3.211E-01	3.276E-01	2.637E-02	0.021
		83.78		4.652E-01	1.384E-01	2.168E-01	1.801E-02	2.146
		94.90		9.566E-01	2.794E-01	4.383E-01	3.587E-02	2.182

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		8.875E-01	1.840E+00	3.015E+00	2.366E-01	0.294
		144.24		-1.920E-01	7.560E-01	1.184E+00	8.960E-02	-0.162
		154.21		1.089E-01	4.376E-01	7.072E-01	4.976E-02	0.154
	+	269.46		8.006E-01	2.733E-01	3.702E-01	2.251E-02	2.163
		323.87	*	-8.455E-01	6.669E-01	1.007E+00	1.662E-01	-0.840
	+	338.28		5.757E+00	1.961E+00	2.523E+00	2.650E-01	2.281
		445.03		-7.891E-01	2.320E+00	3.725E+00	3.800E-01	-0.212
AC-227		79.80		3.449E+00	2.597E+00	2.804E+00	5.954E-01	1.230
		236.00		2.168E+00	3.979E-01	6.030E-01	6.280E-02	3.595
		256.20	*	-4.562E-02	3.722E-01	6.186E-01	8.634E-02	-0.074
		286.10		8.691E-01	1.544E+00	2.636E+00	3.052E-01	0.330
	+	299.80		3.678E+00	1.943E+00	2.592E+00	4.224E-01	1.419
		304.40		1.032E+00	2.025E+00	3.027E+00	5.239E-01	0.341
		334.20		3.958E-01	2.727E+00	3.966E+00	7.266E-01	0.100
TH-227		79.80		3.449E+00	2.599E+00	2.804E+00	6.033E-01	1.230
	+	94.00		9.193E+00	3.265E+00	3.888E+00	8.411E-01	2.365
		236.00		2.168E+00	3.815E-01	6.030E-01	5.435E-02	3.595
		256.20	*	-4.562E-02	3.722E-01	6.186E-01	1.045E-01	-0.074
		286.10		8.691E-01	1.769E+00	2.636E+00	2.641E+00	0.330
	+	299.80		3.678E+00	1.943E+00	2.592E+00	4.224E-01	1.419
		304.40		1.032E+00	2.025E+00	3.027E+00	5.239E-01	0.341
		334.20		3.958E-01	2.727E+00	3.966E+00	7.266E-01	0.100
TH-229		85.43		1.166E+00	2.337E-01	3.612E-01	3.062E-02	3.228
	+	88.47		5.311E-01	1.476E-01	2.249E-01	1.957E-02	2.361
		100.00		1.595E-01	2.164E-01	3.167E-01	2.494E-02	0.504
		193.63	*	3.277E-01	5.412E-01	8.550E-01	4.722E-02	0.383
		210.97		9.644E-01	9.137E-01	1.406E+00	7.899E-02	0.686
PA-231		283.67	*	-1.700E+00	1.598E+00	2.500E+00	3.448E-01	-0.680
	+	301.29		1.471E+00	7.553E-01	1.024E+00	1.072E-01	1.437
TH-231		81.07		6.747E-03	3.211E-01	3.276E-01	2.637E-02	0.021
		83.78		4.652E-01	1.384E-01	2.168E-01	1.801E-02	2.146
		94.90		9.566E-01	2.794E-01	4.383E-01	3.587E-02	2.182
		122.32		8.875E-01	1.840E+00	3.015E+00	2.366E-01	0.294
		144.24		-1.920E-01	7.560E-01	1.184E+00	8.960E-02	-0.162
		154.21		1.089E-01	4.376E-01	7.072E-01	4.976E-02	0.154
	+	269.46		8.006E-01	2.733E-01	3.702E-01	2.251E-02	2.163
		323.87	*	-8.455E-01	6.669E-01	1.007E+00	1.662E-01	-0.840
	+	338.28		5.757E+00	1.961E+00	2.523E+00	2.650E-01	2.281
		445.03		-7.891E-01	2.320E+00	3.725E+00	3.800E-01	-0.212
U-231		84.21		2.163E+01	6.263E+00	9.698E+00	8.100E-01	2.230
	+	92.29		9.355E+00	2.746E+00	4.160E+00	3.484E-01	2.249
		95.87	*	7.082E-01	1.263E+00	1.833E+00	1.488E-01	0.386
		108.00		-4.076E-01	2.299E+00	3.687E+00	2.770E-01	-0.111
PA-233	+	75.28		2.235E+01	5.087E+00	7.471E+00	1.104E+00	2.992
	+	86.59		7.615E+00	2.867E+00	3.141E+00	8.423E-01	2.424
	+	300.12		1.025E+00	5.335E-01	7.198E-01	9.682E-02	1.424
		311.98	*	4.323E-02	6.591E-02	1.130E-01	6.979E-03	0.382
		340.50		1.906E+00	9.268E-01	1.337E+00	3.068E-01	1.426
		398.62		-5.229E-01	2.193E+00	3.561E+00	9.181E-01	-0.147

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.291E+00	1.778E+00	2.683E+00	5.505E-01	0.481
PA-234	+	63.00		1.020E+00	1.910E+00	2.362E+00	3.439E-01	0.432
		94.67		7.816E-01	2.190E-01	3.259E-01	3.948E-02	2.398
		98.44		9.770E-03	1.053E-01	1.494E-01	8.318E-02	0.065
		99.86		4.169E-01	5.461E-01	8.000E-01	6.305E-02	0.521
		111.00		-3.309E-02	1.983E-01	3.179E-01	3.578E-02	-0.104
		131.20		7.661E-02	1.267E-01	1.834E-01	1.232E-02	0.418
		152.70		1.789E-01	3.600E-01	5.858E-01	9.278E-02	0.305
	+	186.00		5.376E+00	2.758E+00	2.631E+00	8.024E-01	2.043
		226.40		-3.113E-02	3.999E-01	6.685E-01	7.692E-02	-0.047
		227.20		-8.642E-02	4.303E-01	7.156E-01	4.075E-02	-0.121
		248.90		-2.684E-01	8.691E-01	1.348E+00	2.896E-01	-0.199
	+	293.70		7.723E+00	1.624E+00	1.832E+00	2.949E-01	4.215
		369.80		9.392E-02	8.671E-01	1.442E+00	2.995E-01	0.065
	+	568.70		5.194E+00	2.056E+00	2.499E+00	1.491E-01	2.079
	+	569.50		1.417E+00	5.608E-01	6.880E-01	4.105E-02	2.059
		574.00		4.497E-01	1.890E+00	2.575E+00	1.537E-01	0.175
		699.00		-4.050E-01	7.606E-01	1.170E+00	2.129E-01	-0.346
		706.10		5.633E-02	1.098E+00	1.779E+00	7.868E-01	0.032
		733.00		-9.291E-02	4.612E-01	6.242E-01	1.347E-01	-0.149
		742.81		-1.651E-01	1.477E+00	2.351E+00	1.576E+00	-0.070
	+	796.30		1.493E+00	1.480E+00	1.818E+00	4.873E-01	0.821
		805.60		3.427E-01	1.110E+00	1.822E+00	5.550E-01	0.188
		819.60		1.281E+00	1.333E+00	2.255E+00	8.553E-01	0.568
		826.30		8.676E-02	8.096E-01	1.369E+00	6.117E-01	0.063
		831.60		-4.814E-01	6.453E-01	9.891E-01	2.944E-01	-0.487
		876.40		-4.798E-02	8.489E-01	1.412E+00	1.452E+00	-0.034
		880.51		-1.875E-02	2.828E-01	4.707E-01	4.284E-02	-0.040
		883.24		3.390E-02	2.908E-01	4.900E-01	3.297E-01	0.069
		899.00		-7.586E-01	9.823E-01	1.442E+00	6.325E-01	-0.526
		925.00		-1.379E+00	1.206E+00	1.790E+00	1.634E-01	-0.771
		926.50		-8.431E-02	1.679E-01	2.646E-01	6.734E-02	-0.319
		946.00	*	-4.160E-02	3.020E-01	4.976E-01	9.405E-02	-0.084
		949.00		1.256E-01	4.631E-01	7.903E-01	7.021E-02	0.159
		980.50		6.453E-01	8.225E-01	1.453E+00	1.239E-01	0.444
		1394.10		-4.661E-01	1.189E+00	1.774E+00	1.151E+00	-0.263
PA-234M		766.42		1.055E+01	1.347E+01	2.119E+01	1.071E+01	0.498
		1001.03	*	-6.165E-01	4.995E+00	8.154E+00	7.882E-01	-0.076
U-235	+	89.95		3.645E+00	1.742E+00	1.969E+00	6.073E-01	1.851
	+	93.35		2.860E+00	1.134E+00	1.227E+00	3.427E-01	2.331
		105.00		4.114E-02	1.146E+00	1.853E+00	5.480E-01	0.022
		143.76	*	3.199E-02	2.326E-01	3.700E-01	6.091E-02	0.086
		163.35		1.389E-01	5.011E-01	8.094E-01	1.447E-01	0.172
	+	185.71		1.991E-01	8.286E-02	9.730E-02	5.329E-03	2.046
		205.31		-3.075E-01	5.924E-01	8.297E-01	1.486E-01	-0.371
NP-236		94.67		5.952E-01	1.576E-01	2.474E-01	2.028E-02	2.406
		98.44		7.391E-03	7.953E-02	1.129E-01	8.988E-03	0.065
		111.00		-2.503E-02	1.500E-01	2.404E-01	1.781E-02	-0.104
		160.31	*	-5.866E-02	8.926E-02	1.389E-01	7.764E-03	-0.422

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.132E-01	1.817E-01	2.645E-01	2.089E-02	0.428
		117.00	*	-4.402E-02	1.965E-01	3.137E-01	2.267E-02	-0.140
	+	209.75		1.172E+00	1.189E+00	1.431E+00	8.027E-02	0.819
		228.18		-5.615E-02	2.258E-01	3.748E-01	2.136E-02	-0.150
		277.60		1.669E-01	1.852E-01	3.206E-01	1.869E-02	0.520
		334.30		2.730E-01	1.547E+00	2.256E+00	1.299E-01	0.121
AM-241		59.54	*	6.682E-03	1.491E-01	2.139E-01	1.588E-02	0.031
CM-243		99.55		1.165E-01	1.869E-01	2.722E-01	2.150E-02	0.428
		103.76	*	1.069E-02	1.042E-01	1.690E-01	1.299E-02	0.063
		117.00		-4.529E-02	2.021E-01	3.227E-01	2.332E-02	-0.140
	+	209.75		1.155E+00	1.172E+00	1.410E+00	7.913E-02	0.819
		228.18		-5.674E-02	2.282E-01	3.787E-01	2.158E-02	-0.150
		277.60		1.682E-01	1.867E-01	3.232E-01	1.884E-02	0.520
AM-246		798.80		9.494E-02	1.692E-01	2.500E-01	1.961E-02	0.380
		1036.00		-4.002E-03	3.021E-01	5.014E-01	3.913E-02	-0.008
		1062.04		-9.519E-02	2.570E-01	4.131E-01	3.067E-02	-0.230
		1078.86	*	3.979E-02	1.542E-01	2.615E-01	1.874E-02	0.152
CM-247		278.00		7.402E-01	7.729E-01	1.341E+00	7.815E-02	0.552
		287.40		5.143E-01	1.275E+00	2.112E+00	1.232E-01	0.243
		402.60	*	3.288E-02	4.171E-02	6.604E-02	3.627E-03	0.498
CF-249		252.85		1.259E-01	8.557E-01	1.441E+00	8.333E-02	0.087
		333.44		-1.438E-01	2.112E-01	2.892E-01	1.667E-02	-0.497
		387.95	*	-6.843E-03	4.156E-02	6.796E-02	3.716E-03	-0.101
CF-251		176.60	*	-6.551E-02	1.333E-01	2.080E-01	1.128E-02	-0.315
		227.00		-5.647E-02	3.831E-01	6.386E-01	3.636E-02	-0.088
		285.00		-1.025E+00	1.787E+00	2.895E+00	1.689E-01	-0.354

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799016      *
* Acquisition date : 10-FEB-2010 19:10:12 Detector SN#     :               *
* Detector ID        : GAM14               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.44     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799016           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.2226E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.582E+01	3.154E+00	3.865E-01	0.000E+00
CD-109	3.959E+00	1.078E+00	1.150E+00	0.000E+00
SN-126	3.890E-01	1.059E-01	1.134E-01	0.000E+00
CS-135	6.805E-01	2.298E-01	2.342E-01	0.000E+00
TL-208	4.938E-01	8.729E-02	5.879E-02	0.000E+00
BI-211	3.393E+00	4.341E-01	3.510E-01	0.000E+00
PB-212	1.596E+00	1.560E-01	9.173E-02	0.000E+00
PO-212	1.596E+00	1.560E-01	9.173E-02	0.000E+00
BI-214	1.233E+00	1.742E-01	1.231E-01	0.000E+00
PB-214	1.180E+00	1.626E-01	1.164E-01	0.000E+00
PO-214	1.180E+00	1.626E-01	1.164E-01	0.000E+00
PO-216	1.596E+00	1.560E-01	9.173E-02	0.000E+00
PO-218	1.180E+00	1.626E-01	1.164E-01	0.000E+00
RA-224	3.910E+00	1.185E+00	1.043E+00	0.000E+00
RA-226	1.233E+00	1.742E-01	1.231E-01	0.000E+00
AC-228	1.674E+00	3.330E-01	2.172E-01	0.000E+00
RA-228	1.674E+00	3.330E-01	2.172E-01	0.000E+00
TH-228	1.621E+00	1.584E-01	9.314E-02	0.000E+00
TH-230	1.233E+00	1.742E-01	1.231E-01	0.000E+00
TH-232	1.674E+00	3.330E-01	2.172E-01	0.000E+00
TH-234	8.754E-01	1.607E+00	1.920E+00	0.000E+00
U-234	1.233E+00	1.742E-01	1.231E-01	0.000E+00
NP-237	1.142E+00	3.874E-01	3.356E-01	0.000E+00
U-238	8.754E-01	1.607E+00	1.920E+00	0.000E+00
AM-243	4.268E-01	7.898E-02	9.185E-02	0.000E+00
ANH-511	1.250E-01	7.115E-02	4.776E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.625E-01		3.210E-01	5.249E-01	0.000E+00	NOT IDENT.

NA-22	-1.521E-02	4.589E-02	7.458E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.734E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.475E-02	2.690E-02	3.827E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.756E-02	8.363E-02	0.000E+00	FAIL ABUN
SC-46	-2.622E-02	4.189E-02	6.809E-02	0.000E+00	FAIL ABUN
V-48	-6.720E-02	7.910E-02	1.250E-01	0.000E+00	NOT IDENT.
CR-51	-9.091E-02	3.568E-01	6.071E-01	0.000E+00	NOT IDENT.
MN-52	-1.722E-02	2.641E-01	4.367E-01	0.000E+00	NOT IDENT.
MN-54	1.391E-02	3.636E-02	6.438E-02	0.000E+00	NOT IDENT.
CO-56	-1.234E-02	3.896E-02	6.525E-02	0.000E+00	NOT IDENT.
CO-57	6.134E-03	2.606E-02	4.451E-02	0.000E+00	NOT IDENT.
CO-58	-1.478E-02	3.976E-02	6.316E-02	0.000E+00	NOT IDENT.
FE-59	-8.927E-02	9.379E-02	1.445E-01	0.000E+00	NOT IDENT.
CO-60	-1.282E-02	3.794E-02	6.088E-02	0.000E+00	NOT IDENT.
ZN-65	-1.444E-02	1.133E-01	1.626E-01	0.000E+00	NOT IDENT.
GE-68	3.593E-01	1.314E+00	2.281E+00	0.000E+00	NOT IDENT.
AS-73	-4.049E-01	6.507E-01	1.104E+00	0.000E+00	NOT IDENT.
AS-74	1.397E-02	8.990E-02	1.524E-01	0.000E+00	NOT IDENT.
SE-75	-1.209E-02	4.626E-02	6.864E-02	0.000E+00	NOT IDENT.
BR-77	-9.558E+00	1.125E+01	1.781E+01	0.000E+00	FAIL ABUN
SR-82	-1.941E-01	3.914E-01	6.172E-01	0.000E+00	NOT IDENT.
RB-83	-5.524E-02	7.096E-02	1.130E-01	0.000E+00	NOT IDENT.
RB-84	1.571E-03	6.771E-02	1.164E-01	0.000E+00	NOT IDENT.
KR-85	1.395E+01	8.786E+00	1.442E+01	0.000E+00	NOT IDENT.
SR-85	7.167E-02	4.513E-02	7.410E-02	0.000E+00	NOT IDENT.
RB-86	3.144E-01	8.394E-01	1.469E+00	0.000E+00	NOT IDENT.
Y-88	-9.557E-03	3.304E-02	5.082E-02	0.000E+00	NOT IDENT.
ZR-88	-3.965E-03	3.076E-02	5.219E-02	0.000E+00	NOT IDENT.
Y-91	6.653E+00	2.095E+01	3.616E+01	0.000E+00	NOT IDENT.
NB-94	-4.258E-03	3.401E-02	5.590E-02	0.000E+00	NOT IDENT.
NB-95	8.438E-03	4.580E-02	7.673E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.640E-01	2.829E-01	0.000E+00	NOT IDENT.
ZR-95	-1.370E-02	7.179E-02	1.167E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.177E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.514E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-7.122E+00	1.282E+01	2.016E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.795E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.494E-04	3.169E-02	5.574E-02	0.000E+00	NOT IDENT.
RH-102	1.462E-02	3.073E-02	5.064E-02	0.000E+00	NOT IDENT.
RU-103	-1.832E-03	4.239E-02	7.147E-02	0.000E+00	FAIL ABUN
RH-106	-1.694E-01	3.166E-01	5.052E-01	0.000E+00	FAIL ABUN
RU-106	-1.694E-01	3.161E-01	5.052E-01	0.000E+00	FAIL ABUN
AG-108M	-2.217E-02	3.254E-02	5.291E-02	0.000E+00	NOT IDENT.
AG-110M	-7.200E-03	3.539E-02	5.802E-02	0.000E+00	NOT IDENT.
IN-111	3.300E-01	1.165E+00	1.801E+00	0.000E+00	NOT IDENT.
IN-113M	-1.805E-02	4.431E-02	7.395E-02	0.000E+00	NOT IDENT.
SN-113	-1.805E-02	4.431E-02	7.395E-02	0.000E+00	NOT IDENT.
IN-114M	2.392E-01	1.921E-01	3.141E-01	0.000E+00	NOT IDENT.
CD-115	-8.977E+00	1.095E+01	1.726E+01	0.000E+00	NOT IDENT.
SN-117M	1.117E-02	6.251E-02	1.045E-01	0.000E+00	NOT IDENT.
SB-122	2.181E+00	2.318E+00	3.700E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.119E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.275E-03	3.189E-02	5.322E-02	0.000E+00	NOT IDENT.
I-124	6.109E-01	7.417E-01	1.209E+00	0.000E+00	NOT IDENT.
SB-124	-3.405E-02	6.796E-02	9.980E-02	0.000E+00	FAIL ABUN
SB-125	1.277E-01	8.827E-02	1.632E-01	0.000E+00	FAIL ABUN
TE-125M	-1.304E+00	9.837E+00	1.663E+01	0.000E+00	NOT IDENT.
I-126	-6.638E-02	1.884E-01	3.050E-01	0.000E+00	NOT IDENT.
SB-126	-6.651E-02	1.677E-01	2.409E-01	0.000E+00	FAIL ABUN
SB-127	9.885E-01	1.531E+00	2.663E+00	0.000E+00	NOT IDENT.
XE-127	2.951E-02	5.122E-02	8.082E-02	0.000E+00	NOT IDENT.
I-131	-1.126E-01	1.178E-01	1.907E-01	0.000E+00	NOT IDENT.
TE-132	-1.861E-01	7.034E-01	1.217E+00	0.000E+00	NOT IDENT.
BA-133	-1.348E-02	5.020E-02	7.320E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.489E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.684E-02	7.209E-02	9.334E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	9.818E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.002E-01	1.178E-01	1.849E-01	0.000E+00	FAIL ABUN
BA-137M	9.491E-05	3.592E-02	5.986E-02	0.000E+00	NOT IDENT.
CS-137	1.003E-04	3.797E-02	6.328E-02	0.000E+00	NOT IDENT.
CE-139	-2.511E-02	3.117E-02	5.038E-02	0.000E+00	NOT IDENT.
BA-140	-1.328E-02	2.509E-01	4.208E-01	0.000E+00	NOT IDENT.
LA-140	1.279E-02	8.535E-02	1.445E-01	0.000E+00	NOT IDENT.
CE-141	-3.408E-02	6.860E-02	1.116E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.377E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.730E-02	2.450E-01	3.523E-01	0.000E+00	NOT IDENT.
PM-144	-1.624E-03	3.552E-02	5.881E-02	0.000E+00	NOT IDENT.
PR-144	-1.101E-01	2.408E+00	3.985E+00	0.000E+00	NOT IDENT.

PM-146	-1.466E-02	4.511E-02	7.502E-02	0.000E+00	NOT IDENT.
ND-147	2.232E-01	5.141E-01	8.944E-01	0.000E+00	FAIL ABUN
PM-149	1.703E+01	9.691E+01	1.693E+02	0.000E+00	NOT IDENT.
EU-152	1.121E-02	1.114E-01	1.753E-01	0.000E+00	NOT IDENT.
GD-153	-1.788E-02	8.863E-02	1.307E-01	0.000E+00	NOT IDENT.
EU-154	-4.017E-02	1.284E-01	2.090E-01	0.000E+00	NOT IDENT.
EU-155	-2.259E-03	1.148E-01	1.951E-01	0.000E+00	FAIL ABUN
TB-160	-2.654E-02	1.383E-01	2.335E-01	0.000E+00	FAIL ABUN
HO-166M	-1.548E-02	6.672E-02	1.087E-01	0.000E+00	FAIL ABUN
TM-171	-3.246E+01	3.042E+01	4.360E+01	0.000E+00	NOT IDENT.
LU-176	-8.422E-03	2.622E-02	4.197E-02	0.000E+00	FAIL ABUN
LU-177	1.683E+00	1.674E+00	2.064E+00	0.000E+00	FAIL ABUN
LU-177M	1.224E-01	1.938E-01	3.020E-01	0.000E+00	FAIL ABUN
HF-181	-1.376E-02	4.323E-02	7.164E-02	0.000E+00	FAIL ABUN
W-181	2.632E-01	4.816E-01	5.886E-01	0.000E+00	FAIL ABUN
TA-182	3.124E-02	2.243E-01	3.816E-01	0.000E+00	FAIL ABUN
RE-183	2.718E-02	1.171E-01	1.979E-01	0.000E+00	FAIL ABUN
RE-184	3.357E-02	2.237E-01	3.923E-01	0.000E+00	NOT IDENT.
OS-185	-1.926E-02	4.231E-02	6.787E-02	0.000E+00	NOT IDENT.
RE-188	8.135E-02	1.892E-01	3.225E-01	0.000E+00	NOT IDENT.
W-188	-1.040E+01	8.660E+00	1.194E+01	0.000E+00	FAIL ABUN
IR-192	4.396E-02	3.482E-02	6.363E-02	0.000E+00	FAIL ABUN
AU-195	8.729E-02	2.524E-01	3.824E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.021E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.390E+00	7.479E+00	1.234E+01	0.000E+00	NOT IDENT.
TL-202	-6.863E-03	7.273E-02	1.230E-01	0.000E+00	NOT IDENT.
HG-203	5.805E-02	4.151E-02	7.607E-02	0.000E+00	NOT IDENT.
BI-207	3.746E-02	5.654E-02	1.011E-01	0.000E+00	FAIL ABUN
TL-207	-8.455E-01	6.535E-01	1.025E+00	0.000E+00	FAIL ABUN
PO-209	-6.004E+00	7.945E+00	1.275E+01	0.000E+00	NOT IDENT.
BI-210	-2.208E+00	2.457E+00	4.169E+00	0.000E+00	NOT IDENT.
PB-210	-2.208E+00	2.457E+00	4.169E+00	0.000E+00	NOT IDENT.
PO-210	-2.208E+00	2.455E+00	4.169E+00	0.000E+00	NOT IDENT.
PB-211	-5.716E-01	1.139E+00	1.532E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.682E-01	7.142E-01	0.000E+00	FAIL ABUN
PO-215	-8.455E-01	6.535E-01	1.025E+00	0.000E+00	FAIL ABUN
RN-219	3.686E-01	4.442E-01	7.502E-01	0.000E+00	NOT IDENT.
RN-220	2.484E+01	2.556E+01	4.595E+01	0.000E+00	NOT IDENT.
RA-223	-8.455E-01	6.535E-01	1.025E+00	0.000E+00	FAIL ABUN
AC-227	-4.562E-02	3.648E-01	6.315E-01	0.000E+00	FAIL ABUN
TH-227	-4.562E-02	3.648E-01	6.315E-01	0.000E+00	FAIL ABUN
TH-229	3.277E-01	5.304E-01	8.759E-01	0.000E+00	FAIL ABUN
PA-231	-1.700E+00	1.566E+00	2.549E+00	0.000E+00	FAIL ABUN
TH-231	-8.455E-01	6.535E-01	1.025E+00	0.000E+00	FAIL ABUN
U-231	7.082E-01	1.238E+00	1.894E+00	0.000E+00	FAIL ABUN
PA-233	4.323E-02	6.459E-02	1.151E-01	0.000E+00	FAIL ABUN
PA-234	-4.160E-02	2.960E-01	4.995E-01	0.000E+00	FAIL ABUN
PA-234M	-6.165E-01	4.896E+00	8.180E+00	0.000E+00	NOT IDENT.
U-235	3.199E-02	2.280E-01	3.805E-01	0.000E+00	FAIL ABUN
NP-236	-5.866E-02	8.748E-02	1.427E-01	0.000E+00	NOT IDENT.
NP-239	-4.402E-02	1.925E-01	3.233E-01	0.000E+00	FAIL ABUN
AM-241	6.682E-03	1.461E-01	2.223E-01	0.000E+00	NOT IDENT.
CM-243	1.069E-02	1.022E-01	1.745E-01	0.000E+00	FAIL ABUN
AM-246	3.979E-02	1.512E-01	2.621E-01	0.000E+00	NOT IDENT.
CM-247	3.288E-02	4.088E-02	6.703E-02	0.000E+00	NOT IDENT.
CF-249	-6.843E-03	4.073E-02	6.901E-02	0.000E+00	NOT IDENT.
CF-251	-6.551E-02	1.306E-01	2.134E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:12:13.10

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799016.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:10:12
Sample ID         : G245799016           Sample quantity  : 1.22265E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.44  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1507	10.67*	1.211E+00	3.582E+01	3.582E+01	8.99
CD-109	88.03	330	3.72*	7.043E+00	3.869E+00	3.959E+00	27.78
SN-126	64.28	51	9.60	4.712E+00	3.465E-01	3.465E-01	187.14
	86.94	330	8.90	7.043E+00	1.617E+00	1.617E+00	49.07
	87.57	330	37.00*	7.043E+00	3.890E-01	3.890E-01	27.78
CS-135	268.24	181	16.00*	5.107E+00	6.805E-01	6.805E-01	34.45
TL-208	277.35	------	6.80	5.002E+00	------ Line Not Found		------
	510.84	126	21.60	3.089E+00	5.788E-01	5.788E-01	58.66
	583.14	373	84.20*	2.758E+00	4.938E-01	4.938E-01	18.04
	860.37	------	12.46	1.944E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	5.875E+00	------ Line Not Found		------
	351.07	597	12.94*	4.178E+00	3.393E+00	3.393E+00	13.06
PB-212	74.81	558	10.70	6.087E+00	2.632E+00	2.632E+00	21.07
	77.11	768	18.00	6.310E+00	2.076E+00	2.076E+00	15.33
	87.30	330	8.00	7.043E+00	1.799E+00	1.799E+00	29.53
	238.63	1291	44.60*	5.569E+00	1.596E+00	1.596E+00	9.97
	300.09	104	3.41	4.718E+00	1.984E+00	1.984E+00	50.94
PO-212	74.81	558	10.70	6.087E+00	2.632E+00	2.632E+00	21.07
	77.11	768	18.00	6.310E+00	2.076E+00	2.076E+00	15.33
	87.30	330	8.00	7.043E+00	1.799E+00	1.799E+00	29.53
	115.19	------	0.60	7.689E+00	------ Line Not Found		------
	238.63	1291	44.60*	5.569E+00	1.596E+00	1.596E+00	9.97
	300.09	104	3.41	4.718E+00	1.984E+00	1.984E+00	50.94
BI-214	609.31	494	46.30*	2.655E+00	1.233E+00	1.233E+00	14.42
	1120.29	77	15.10	1.523E+00	1.027E+00	1.027E+00	61.28
	1764.49	87	15.80	1.059E+00	1.602E+00	1.602E+00	24.72
PB-214	74.81	558	6.21	6.087E+00	4.536E+00	4.536E+00	20.29
	77.11	768	10.50	6.310E+00	3.559E+00	3.559E+00	17.12
	87.30	330	4.67	7.043E+00	3.082E+00	3.082E+00	28.83
	241.98	278	7.49	5.520E+00	2.062E+00	2.062E+00	31.42
	295.21	481	19.20	4.778E+00	1.609E+00	1.609E+00	16.01
	351.92	597	37.20*	4.178E+00	1.180E+00	1.180E+00	14.06

Sample ID : G245799016 Acquisition date : 10-FEB-2010 19:10:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	74.81	558	6.21	6.087E+00	4.536E+00	4.536E+00	20.29
	77.11	768	10.50	6.310E+00	3.559E+00	3.559E+00	17.12
	87.30	330	4.67	7.043E+00	3.082E+00	3.082E+00	28.83
	241.98	278	7.49	5.520E+00	2.062E+00	2.062E+00	31.42
	295.21	481	19.20	4.778E+00	1.609E+00	1.609E+00	16.01
	351.92	597	37.20*	4.178E+00	1.180E+00	1.180E+00	14.06
PO-216	74.81	558	10.70	6.087E+00	2.632E+00	2.632E+00	21.07
	77.11	768	18.00	6.310E+00	2.076E+00	2.076E+00	15.33
	87.30	330	8.00	7.043E+00	1.799E+00	1.799E+00	29.53
	238.63	1291	44.60*	5.569E+00	1.596E+00	1.596E+00	9.97
	300.09	104	3.41	4.718E+00	1.984E+00	1.984E+00	50.94
PO-218	74.81	558	6.21	6.087E+00	4.536E+00	4.536E+00	20.29
	77.11	768	10.50	6.310E+00	3.559E+00	3.559E+00	17.12
	87.30	330	4.67	7.043E+00	3.082E+00	3.082E+00	28.83
	241.98	278	7.49	5.520E+00	2.062E+00	2.062E+00	31.42
	295.21	481	19.20	4.778E+00	1.609E+00	1.609E+00	16.01
	351.92	597	37.20*	4.178E+00	1.180E+00	1.180E+00	14.06
RA-224	240.98	278	3.95*	5.520E+00	3.910E+00	3.910E+00	30.91
RA-226	609.31	494	46.30*	2.655E+00	1.233E+00	1.233E+00	14.42
	1120.29	77	15.10	1.523E+00	1.027E+00	1.027E+00	61.28
	1764.49	87	15.80	1.059E+00	1.602E+00	1.602E+00	24.72
AC-228	338.32	221	11.40	4.310E+00	1.379E+00	1.379E+00	52.06
	911.07	278	27.70*	1.843E+00	1.674E+00	1.674E+00	20.30
	969.11	146	16.60	1.741E+00	1.550E+00	1.550E+00	38.64
RA-228	338.32	221	11.40	4.310E+00	1.379E+00	1.379E+00	52.06
	911.07	278	27.70*	1.843E+00	1.674E+00	1.674E+00	20.30
	969.11	146	16.60	1.741E+00	1.550E+00	1.550E+00	38.64
TH-228	74.81	558	10.70	6.087E+00	2.632E+00	2.673E+00	18.92
	77.11	768	18.00	6.310E+00	2.076E+00	2.108E+00	15.33
	87.30	330	8.00	7.043E+00	1.799E+00	1.827E+00	27.78
	238.63	1291	44.60*	5.569E+00	1.596E+00	1.621E+00	9.97
	300.09	104	3.41	4.718E+00	1.984E+00	2.015E+00	77.46
TH-230	609.31	494	46.30*	2.655E+00	1.233E+00	1.233E+00	14.42
	1120.29	77	15.10	1.523E+00	1.027E+00	1.027E+00	61.28
	1764.49	87	15.80	1.059E+00	1.602E+00	1.602E+00	24.72
TH-232	338.32	221	11.40	4.310E+00	1.379E+00	1.379E+00	32.90
	911.07	278	27.70*	1.843E+00	1.674E+00	1.674E+00	20.30
	969.11	146	16.60	1.741E+00	1.550E+00	1.550E+00	38.64
TH-234	63.29	51	3.80*	4.712E+00	8.754E-01	8.754E-01	187.39
	92.38	307	5.41	7.319E+00	2.379E+00	2.379E+00	33.38
U-234	609.31	494	46.30*	2.655E+00	1.233E+00	1.233E+00	14.42
	1120.29	77	15.10	1.523E+00	1.027E+00	1.027E+00	61.28
	1764.49	87	15.80	1.059E+00	1.602E+00	1.602E+00	24.72
NP-237	86.50	330	12.60*	7.043E+00	1.142E+00	1.142E+00	34.61
	95.87	------	2.60	7.425E+00	------	Line Not Found	------
U-238	63.29	51	3.80*	4.712E+00	8.754E-01	8.754E-01	187.39
	92.38	307	5.41	7.319E+00	2.379E+00	2.379E+00	29.35
AM-243	74.67	558	66.00*	6.087E+00	4.268E-01	4.268E-01	18.88
	86.72	330	0.34	7.043E+00	4.284E+01	4.284E+01	27.78

Sample ID : G245799016 Acquisition date : 10-FEB-2010 19:10:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	117.66	------	0.55	7.685E+00	------	Line Not Found	------
	142.18	------	0.13	7.399E+00	------	Line Not Found	------
ANH-511	511.00	126	100.00*	3.089E+00	1.250E-01	1.250E-01	58.07

Flag: "*" = Keyline

Sample ID : G245799016 Acquisition date : 10-FEB-2010 19:10:12

Total number of lines in spectrum 29
Number of unidentified lines 0
Number of lines tentatively identified by NID 29 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.582E+01	3.582E+01	0.322E+01	8.99	
CD-109	464.00D	1.02	3.869E+00	3.959E+00	1.100E+00	27.78	
SN-126	1.00E+05Y	1.00	3.890E-01	3.890E-01	1.081E-01	27.78	
CS-135	2.30E+06Y	1.00	6.805E-01	6.805E-01	2.344E-01	34.45	
TL-208	1.41E+10Y	1.00	4.938E-01	4.938E-01	0.891E-01	18.04	
BI-211	7.04E+08Y	1.00	3.393E+00	3.393E+00	0.443E+00	13.06	
PB-212	1.41E+10Y	1.00	1.596E+00	1.596E+00	0.159E+00	9.97	
PO-212	1.41E+10Y	1.00	1.596E+00	1.596E+00	0.159E+00	9.97	
BI-214	1600.00Y	1.00	1.233E+00	1.233E+00	0.178E+00	14.42	
PB-214	1600.00Y	1.00	1.180E+00	1.180E+00	0.166E+00	14.06	
PO-214	1600.00Y	1.00	1.180E+00	1.180E+00	0.166E+00	14.06	
PO-216	1.41E+10Y	1.00	1.596E+00	1.596E+00	0.159E+00	9.97	
PO-218	1600.00Y	1.00	1.180E+00	1.180E+00	0.166E+00	14.06	
RA-224	1.41E+10Y	1.00	3.910E+00	3.910E+00	1.209E+00	30.91	
RA-226	1600.00Y	1.00	1.233E+00	1.233E+00	0.178E+00	14.42	
AC-228	1.41E+10Y	1.00	1.674E+00	1.674E+00	0.340E+00	20.30	
RA-228	1.41E+10Y	1.00	1.674E+00	1.674E+00	0.340E+00	20.30	
TH-228	1.91Y	1.02	1.596E+00	1.621E+00	0.162E+00	9.97	
TH-230	4.47E+09Y	1.00	1.233E+00	1.233E+00	0.178E+00	14.42	
TH-232	1.41E+10Y	1.00	1.674E+00	1.674E+00	0.340E+00	20.30	
TH-234	4.47E+09Y	1.00	8.754E-01	8.754E-01	16.40E-01	187.39	
U-234	4.47E+09Y	1.00	1.233E+00	1.233E+00	0.178E+00	14.42	
NP-237	2.14E+06Y	1.00	1.142E+00	1.142E+00	0.395E+00	34.61	
U-238	4.47E+09Y	1.00	8.754E-01	8.754E-01	16.40E-01	187.39	
AM-243	7380.00Y	1.00	4.268E-01	4.268E-01	0.806E-01	18.88	
ANH-511	1.00E+09Y	1.00	1.250E-01	1.250E-01	0.726E-01	58.07	
	Total Activity :		7.188E+01	7.199E+01			

Grand Total Activity : 7.188E+01 7.199E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799016 Acquisition date : 10-FEB-2010 19:10:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	89.89	230	414	1.46	179.28	161	33	3.20E-02	36.5	7.19E+00	T
0	129.03	75	310	1.22	257.48	254	8	1.04E-02	84.1	7.60E+00	T
0	186.43	228	434	1.49	372.18	367	13	3.17E-02	41.3	6.52E+00	T
0	209.39	75	366	1.38	418.06	412	11	1.04E-02	****	6.07E+00	T
0	409.97	55	175	1.24	818.91	812	14	7.71E-03	****	3.70E+00	T
0	462.19	99	103	1.58	923.30	918	12	1.37E-02	45.6	3.36E+00	T
0	569.03	143	128	1.85	1136.86	1128	16	1.99E-02	39.1	2.82E+00	T
0	727.50	111	75	2.07	1453.71	1448	12	1.54E-02	36.6	2.27E+00	T
0	795.11	40	75	1.90	1588.88	1583	13	5.51E-03	95.4	2.09E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:12:18.58

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799016.CNF;1 *
* Acquisition date  : 10-FEB-2010 19:10:12  Detector SN#     :             *
* Detector ID       : GAM14                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.44          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245799016            Analyst initials: RXF2         *
* Batch Number      : 947531                Sample Quantity : 1.22265E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 6-MAR-2009 11:43:06.61MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.582E+01	3.218E+00	3.872E-01	2.811E-02	92.502
CD-109	3.959E+00	1.100E+00	1.111E+00	9.719E-02	3.562
SN-126	3.890E-01	1.081E-01	1.096E-01	9.534E-03	3.550
CS-135	6.805E-01	2.344E-01	2.295E-01	1.761E-02	2.965
TL-208	4.938E-01	8.907E-02	5.820E-02	3.980E-03	8.485
BI-211	3.393E+00	4.430E-01	3.452E-01	2.187E-02	9.827
PB-212	1.596E+00	1.592E-01	8.978E-02	6.539E-03	17.779
PO-212	1.596E+00	1.592E-01	8.978E-02	6.539E-03	17.779
BI-214	1.233E+00	1.778E-01	1.219E-01	9.650E-03	10.116
PB-214	1.180E+00	1.659E-01	1.145E-01	9.397E-03	10.305
PO-214	1.180E+00	1.659E-01	1.145E-01	9.397E-03	10.305
PO-216	1.596E+00	1.592E-01	8.978E-02	6.539E-03	17.779
PO-218	1.180E+00	1.659E-01	1.145E-01	9.397E-03	10.305
RA-224	3.910E+00	1.209E+00	1.021E+00	5.870E-02	3.829
RA-226	1.233E+00	1.778E-01	1.219E-01	9.650E-03	10.116
AC-228	1.674E+00	3.398E-01	2.162E-01	2.539E-02	7.742
RA-228	1.674E+00	3.398E-01	2.162E-01	2.539E-02	7.742
TH-228	1.621E+00	1.616E-01	9.116E-02	6.640E-03	17.779

Sample ID : G245799016 Acquisition date : 10-FEB-2010 19:10:12

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.233E+00	1.778E-01	1.219E-01	9.650E-03	10.116
TH-232	1.674E+00	3.398E-01	2.162E-01	2.539E-02	7.742
TH-234	8.754E-01	1.640E+00	1.849E+00	3.178E-01	0.473
U-234	1.233E+00	1.778E-01	1.219E-01	9.650E-03	10.116
NP-237	1.142E+00	3.953E-01	3.244E-01	7.250E-02	3.521
U-238	8.754E-01	1.640E+00	1.849E+00	3.178E-01	0.473
AM-243	4.268E-01	8.059E-02	8.861E-02	6.650E-03	4.816
ANH-511	1.250E-01	7.260E-02	4.720E-02	2.773E-03	2.649

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.625E-01		3.276E-01	5.182E-01	3.493E-02	-0.314
NA-22	-1.521E-02		4.683E-02	7.457E-02	4.871E-03	-0.204
NA-24	-1.030E-01		4.967E-01	Half-Life too short		
AL-26	-1.475E-02		2.745E-02	3.844E-02	2.228E-03	-0.384
TI-44	3.831E-01	+	5.874E-02	8.073E-02	6.303E-03	4.746
SC-46	-2.622E-02		4.274E-02	6.776E-02	6.262E-03	-0.387
V-48	-6.720E-02		8.072E-02	1.246E-01	1.058E-02	-0.539
CR-51	-9.091E-02		3.640E-01	5.964E-01	3.854E-02	-0.152
MN-52	-1.722E-02		2.695E-01	4.373E-01	3.065E-02	-0.039
MN-54	1.391E-02		3.710E-02	6.402E-02	5.370E-03	0.217
CO-56	-1.234E-02		3.976E-02	6.490E-02	5.563E-03	-0.190
CO-57	6.134E-03		2.660E-02	4.320E-02	3.073E-03	0.142
CO-58	-1.478E-02		4.057E-02	6.279E-02	5.052E-03	-0.235
FE-59	-8.927E-02		9.571E-02	1.443E-01	1.111E-02	-0.619
CO-60	-1.282E-02		3.871E-02	6.092E-02	4.341E-03	-0.210
ZN-65	-1.444E-02		1.156E-01	1.623E-01	1.067E-02	-0.089
GE-68	3.593E-01		1.341E+00	2.276E+00	1.636E-01	0.158
AS-73	-4.049E-01		6.640E-01	1.061E+00	6.915E-02	-0.382
AS-74	1.397E-02		9.174E-02	1.509E-01	9.025E-03	0.093
SE-75	-1.209E-02		4.720E-02	6.726E-02	3.949E-03	-0.180
BR-77	-9.558E+00		1.148E+01	1.760E+01	1.038E+00	-0.543
SR-82	-1.941E-01		3.994E-01	6.132E-01	4.610E-02	-0.317
RB-83	-5.524E-02		7.241E-02	1.117E-01	6.583E-03	-0.495
RB-84	1.571E-03		6.909E-02	1.159E-01	1.056E-02	0.014
KR-85	1.395E+01		8.965E+00	1.425E+01	8.384E-01	0.979
SR-85	7.167E-02		4.606E-02	7.323E-02	4.307E-03	0.979
RB-86	3.144E-01		8.566E-01	1.466E+00	1.055E-01	0.214
Y-88	-9.557E-03		3.371E-02	5.106E-02	2.900E-03	-0.187
ZR-88	-3.965E-03		3.138E-02	5.140E-02	2.799E-03	-0.077
Y-91	6.653E+00		2.138E+01	3.614E+01	2.102E+00	0.184
NB-94	-4.258E-03		3.470E-02	5.547E-02	3.597E-03	-0.077
NB-95	8.438E-03		4.673E-02	7.622E-02	5.613E-03	0.111
NB-95M	6.556E-01		1.674E-01	2.769E-01	2.069E-02	2.368
ZR-95	-1.370E-02		7.325E-02	1.159E-01	9.562E-03	-0.118
NB-97	-2.810E-02		6.003E-02	Half-Life too short		

Sample ID : G245799016 Acquisition date : 10-FEB-2010 19:10:12

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	5.436E+00		1.282E+00	Half-Life too short		
MO-99	-7.122E+00		1.308E+01	2.001E+01	2.867E+00	-0.356
TC-99M	1.698E+10		3.467E+10	Half-Life too short		
RH-101	1.494E-04		3.234E-02	5.443E-02	3.019E-03	0.003
RH-102	1.462E-02		3.136E-02	4.999E-02	2.889E-03	0.292
RU-103	-1.832E-03		4.326E-02	7.060E-02	8.941E-03	-0.026
RH-106	-1.694E-01		3.230E-01	5.005E-01	5.919E-02	-0.338
RU-106	-1.694E-01		3.226E-01	5.005E-01	2.993E-02	-0.338
AG-108M	-2.217E-02		3.321E-02	5.218E-02	3.205E-03	-0.425
AG-110M	-7.200E-03		3.611E-02	5.752E-02	3.633E-03	-0.125
IN-111	3.300E-01		1.189E+00	1.763E+00	1.016E-01	0.187
IN-113M	-1.805E-02		4.522E-02	7.283E-02	4.262E-03	-0.248
SN-113	-1.805E-02		4.522E-02	7.283E-02	4.262E-03	-0.248
IN-114M	2.392E-01		1.960E-01	3.065E-01	1.687E-02	0.780
CD-115	-8.977E+00		1.117E+01	1.707E+01	1.009E+00	-0.526
SN-117M	1.117E-02		6.379E-02	1.018E-01	5.758E-03	0.110
SB-122	2.181E+00		2.366E+00	3.661E+00	2.182E-01	0.596
I-123	1.088E+00		4.142E+00	Half-Life too short		
TE-123M	4.275E-03		3.254E-02	5.183E-02	2.964E-03	0.082
I-124	6.109E-01		7.568E-01	1.197E+00	7.161E-02	0.510
SB-124	-3.405E-02		6.935E-02	1.002E-01	6.771E-03	-0.340
SB-125	1.277E-01		9.007E-02	1.609E-01	9.430E-03	0.793
TE-125M	-1.304E+00		1.004E+01	1.612E+01	1.513E+00	-0.081
I-126	-6.638E-02		1.922E-01	3.025E-01	1.817E-02	-0.219
SB-126	-6.651E-02		1.712E-01	2.391E-01	1.609E-02	-0.278
SB-127	9.885E-01		1.562E+00	2.641E+00	2.582E-01	0.374
XE-127	2.951E-02		5.226E-02	7.894E-02	4.401E-03	0.374
I-131	-1.126E-01		1.202E-01	1.876E-01	1.186E-02	-0.600
TE-132	-1.861E-01		7.178E-01	1.190E+00	1.709E-01	-0.156
BA-133	-1.348E-02		5.122E-02	7.200E-02	8.276E-03	-0.187
I-133	-2.058E-03		3.311E-03	Half-Life too short		
CS-134	7.684E-02	+	7.356E-02	9.276E-02	7.301E-03	0.828
I-135	5.662E+09		5.009E+09	Half-Life too short		
CS-136	-1.002E-01		1.202E-01	1.844E-01	1.483E-02	-0.544
BA-137M	9.491E-05		3.666E-02	5.935E-02	3.529E-03	0.002
CS-137	1.003E-04		3.875E-02	6.274E-02	3.745E-03	0.002
CE-139	-2.511E-02		3.181E-02	4.909E-02	2.636E-03	-0.511
BA-140	-1.328E-02		2.560E-01	4.161E-01	1.354E-01	-0.032
LA-140	1.279E-02		8.709E-02	1.449E-01	9.603E-03	0.088
CE-141	-3.408E-02		7.000E-02	1.086E-01	6.929E-03	-0.314
CE-143	1.270E-03		1.723E-04	Half-Life too short		
CE-144	-9.730E-02		2.500E-01	3.423E-01	4.983E-02	-0.284
PM-144	-1.624E-03		3.625E-02	5.834E-02	3.738E-03	-0.028
PR-144	-1.101E-01		2.457E+00	3.954E+00	2.532E-01	-0.028
PM-146	-1.466E-02		4.603E-02	7.403E-02	6.337E-03	-0.198
ND-147	2.232E-01		5.246E-01	8.842E-01	1.200E-01	0.252
PM-149	1.703E+01		9.889E+01	1.661E+02	2.357E+01	0.103
EU-152	1.121E-02		1.137E-01	1.723E-01	1.115E-02	0.065

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-1.788E-02		9.044E-02	1.265E-01	1.014E-02	-0.141
EU-154	-4.017E-02		1.310E-01	2.090E-01	2.050E-02	-0.192
EU-155	-2.259E-03		1.171E-01	1.890E-01	1.463E-02	-0.012
TB-160	-2.654E-02		1.411E-01	2.323E-01	2.110E-02	-0.114
HO-166M	-1.548E-02		6.808E-02	1.079E-01	7.130E-03	-0.143
TM-171	-3.246E+01		3.104E+01	4.201E+01	2.929E+00	-0.773
LU-176	-8.422E-03		2.675E-02	4.121E-02	2.400E-03	-0.204
LU-177	1.683E+00	+	1.708E+00	2.017E+00	1.130E-01	0.835
LU-177M	1.224E-01		1.977E-01	2.976E-01	1.650E-02	0.411
HF-181	-1.376E-02		4.412E-02	7.074E-02	4.103E-03	-0.195
W-181	2.632E-01	+	4.914E-01	5.669E-01	3.906E-02	0.464
TA-182	3.124E-02		2.289E-01	3.813E-01	2.281E-02	0.082
RE-183	2.718E-02		1.195E-01	1.928E-01	1.062E-02	0.141
RE-184	3.357E-02		2.282E-01	3.842E-01	2.222E-02	0.087
OS-185	-1.926E-02		4.317E-02	6.727E-02	4.012E-03	-0.286
RE-188	8.135E-02		1.931E-01	3.139E-01	1.819E-02	0.259
W-188	-1.040E+01		8.836E+00	1.171E+01	6.835E-01	-0.888
IR-192	4.396E-02		3.553E-02	6.250E-02	3.648E-03	0.703
AU-195	8.729E-02		2.576E-01	3.702E-01	2.938E-02	0.236
TL-200	2.731E-05		2.562E-04	Half-Life too short		
TL-201	-2.390E+00		7.632E+00	1.203E+01	6.461E-01	-0.199
TL-202	-6.863E-03		7.422E-02	1.213E-01	6.860E-03	-0.057
HG-203	5.805E-02		4.236E-02	7.460E-02	4.616E-03	0.778
BI-207	3.746E-02		5.769E-02	1.008E-01	7.462E-03	0.371
TL-207	-8.455E-01		6.669E-01	1.007E+00	1.662E-01	-0.840
PO-209	-6.004E+00		8.107E+00	1.269E+01	1.188E+00	-0.473
BI-210	-2.208E+00		2.507E+00	3.999E+00	2.965E-01	-0.552
PB-210	-2.208E+00		2.507E+00	3.999E+00	2.965E-01	-0.552
PO-210	-2.208E+00		2.505E+00	3.999E+00	2.509E-01	-0.552
PB-211	-5.716E-01		1.162E+00	1.509E+00	9.406E-01	-0.379
BI-212	1.271E+00	+	4.777E-01	7.090E-01	6.032E-02	1.793
PO-215	-8.455E-01		6.669E-01	1.007E+00	1.662E-01	-0.840
RN-219	3.686E-01		4.533E-01	7.391E-01	9.960E-02	0.499
RN-220	2.484E+01		2.609E+01	4.545E+01	2.702E+00	0.546
RA-223	-8.455E-01		6.669E-01	1.007E+00	1.662E-01	-0.840
AC-227	-4.562E-02		3.722E-01	6.186E-01	8.634E-02	-0.074
TH-227	-4.562E-02		3.722E-01	6.186E-01	1.045E-01	-0.074
TH-229	3.277E-01		5.412E-01	8.550E-01	4.722E-02	0.383
PA-231	-1.700E+00		1.598E+00	2.500E+00	3.448E-01	-0.680
TH-231	-8.455E-01		6.669E-01	1.007E+00	1.662E-01	-0.840
U-231	7.082E-01		1.263E+00	1.833E+00	1.488E-01	0.386
PA-233	4.323E-02		6.591E-02	1.130E-01	6.979E-03	0.382
PA-234	-4.160E-02		3.020E-01	4.976E-01	9.405E-02	-0.084
PA-234M	-6.165E-01		4.995E+00	8.154E+00	7.882E-01	-0.076
U-235	3.199E-02		2.326E-01	3.700E-01	6.091E-02	0.086
NP-236	-5.866E-02		8.926E-02	1.389E-01	7.764E-03	-0.422
NP-239	-4.402E-02		1.965E-01	3.137E-01	2.267E-02	-0.140
AM-241	6.682E-03		1.491E-01	2.139E-01	1.588E-02	0.031

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.069E-02		1.042E-01	1.690E-01	1.299E-02	0.063
AM-246	3.979E-02		1.542E-01	2.615E-01	1.874E-02	0.152
CM-247	3.288E-02		4.171E-02	6.604E-02	3.627E-03	0.498
CF-249	-6.843E-03		4.156E-02	6.796E-02	3.716E-03	-0.101
CF-251	-6.551E-02		1.333E-01	2.080E-01	1.128E-02	-0.315

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799016            *
* Acquisition date : 10-FEB-2010 19:10:12 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.44     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245799016           Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.2226E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.582E+01	3.154E+00	1.934E-01	1.609E+00
CD-109	3.959E+00	1.078E+00	5.752E-01	5.500E-01
SN-126	3.890E-01	1.059E-01	5.671E-02	5.404E-02
CS-135	6.805E-01	2.298E-01	1.172E-01	1.172E-01
TL-208	4.938E-01	8.729E-02	2.941E-02	4.453E-02
BI-211	3.393E+00	4.341E-01	1.756E-01	2.215E-01
PB-212	1.596E+00	1.560E-01	4.589E-02	7.958E-02
PO-212	1.596E+00	1.560E-01	4.589E-02	7.958E-02
BI-214	1.233E+00	1.742E-01	6.158E-02	8.889E-02
PB-214	1.180E+00	1.626E-01	5.825E-02	8.297E-02
PO-214	1.180E+00	1.626E-01	5.825E-02	8.297E-02
PO-216	1.596E+00	1.560E-01	4.589E-02	7.958E-02
PO-218	1.180E+00	1.626E-01	5.825E-02	8.297E-02
RA-224	3.910E+00	1.185E+00	5.219E-01	6.044E-01
RA-226	1.233E+00	1.742E-01	6.158E-02	8.889E-02
AC-228	1.674E+00	3.330E-01	1.086E-01	1.699E-01
RA-228	1.674E+00	3.330E-01	1.086E-01	1.699E-01
TH-228	1.621E+00	1.584E-01	4.660E-02	8.081E-02
TH-230	1.233E+00	1.742E-01	6.158E-02	8.889E-02
TH-232	1.674E+00	3.330E-01	1.086E-01	1.699E-01
TH-234	8.754E-01	1.607E+00	9.606E-01	8.201E-01
U-234	1.233E+00	1.742E-01	6.158E-02	8.889E-02
NP-237	1.142E+00	3.874E-01	1.679E-01	1.977E-01
U-238	8.754E-01	1.607E+00	9.606E-01	8.201E-01
AM-243	4.268E-01	7.898E-02	4.595E-02	4.030E-02
ANH-511	1.250E-01	7.115E-02	2.390E-02	3.630E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-1.625E-01	3.210E-01	2.626E-01	1.638E-01 NOT IDENT.

NA-22	-1.521E-02	4.589E-02	3.731E-02	2.341E-02	NOT IDENT.
NA-24	-1.030E+05	9.734E+05	0.000E+00	4.967E+05	SHORT HLIF
AL-26	-1.475E-02	2.690E-02	1.914E-02	1.372E-02	NOT IDENT.
TI-44	3.831E-01	5.756E-02	4.184E-02	2.937E-02	FAIL ABUN
SC-46	-2.622E-02	4.189E-02	3.406E-02	2.137E-02	FAIL ABUN
V-48	-6.720E-02	7.910E-02	6.256E-02	4.036E-02	NOT IDENT.
CR-51	-9.091E-02	3.568E-01	3.038E-01	1.820E-01	NOT IDENT.
MN-52	-1.722E-02	2.641E-01	2.185E-01	1.348E-01	NOT IDENT.
MN-54	1.391E-02	3.636E-02	3.221E-02	1.855E-02	NOT IDENT.
CO-56	-1.234E-02	3.896E-02	3.264E-02	1.988E-02	NOT IDENT.
CO-57	6.134E-03	2.606E-02	2.227E-02	1.330E-02	NOT IDENT.
CO-58	-1.478E-02	3.976E-02	3.160E-02	2.029E-02	NOT IDENT.
FE-59	-8.927E-02	9.379E-02	7.231E-02	4.785E-02	NOT IDENT.
CO-60	-1.282E-02	3.794E-02	3.046E-02	1.936E-02	NOT IDENT.
ZN-65	-1.444E-02	1.133E-01	8.133E-02	5.782E-02	NOT IDENT.
GE-68	3.593E-01	1.314E+00	1.141E+00	6.704E-01	NOT IDENT.
AS-73	-4.049E-01	6.507E-01	5.524E-01	3.320E-01	NOT IDENT.
AS-74	1.397E-02	8.990E-02	7.624E-02	4.587E-02	NOT IDENT.
SE-75	-1.209E-02	4.626E-02	3.434E-02	2.360E-02	NOT IDENT.
BR-77	-9.558E+00	1.125E+01	8.910E+00	5.741E+00	FAIL ABUN
SR-82	-1.941E-01	3.914E-01	3.088E-01	1.997E-01	NOT IDENT.
RB-83	-5.524E-02	7.096E-02	5.652E-02	3.620E-02	NOT IDENT.
RB-84	1.571E-03	6.771E-02	5.825E-02	3.454E-02	NOT IDENT.
KR-85	1.395E+01	8.786E+00	7.216E+00	4.483E+00	NOT IDENT.
SR-85	7.167E-02	4.513E-02	3.707E-02	2.303E-02	NOT IDENT.
RB-86	3.144E-01	8.394E-01	7.350E-01	4.283E-01	NOT IDENT.
Y-88	-9.557E-03	3.304E-02	2.542E-02	1.686E-02	NOT IDENT.
ZR-88	-3.965E-03	3.076E-02	2.611E-02	1.569E-02	NOT IDENT.
Y-91	6.653E+00	2.095E+01	1.809E+01	1.069E+01	NOT IDENT.
NB-94	-4.258E-03	3.401E-02	2.797E-02	1.735E-02	NOT IDENT.
NB-95	8.438E-03	4.580E-02	3.839E-02	2.337E-02	NOT IDENT.
NB-95M	6.556E-01	1.640E-01	1.415E-01	8.368E-02	NOT IDENT.
ZR-95	-1.370E-02	7.179E-02	5.839E-02	3.663E-02	NOT IDENT.
NB-97	-2.810E+04	1.177E+05	0.000E+00	6.003E+04	SHORT HLIF
ZR-97	5.436E+06	2.514E+06	0.000E+00	1.282E+06	SHORT HLIF
MO-99	-7.122E+00	1.282E+01	1.008E+01	6.541E+00	NOT IDENT.
TC-99M	1.698E+16	6.795E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.494E-04	3.169E-02	2.789E-02	1.617E-02	NOT IDENT.
RH-102	1.462E-02	3.073E-02	2.533E-02	1.568E-02	NOT IDENT.
RU-103	-1.832E-03	4.239E-02	3.576E-02	2.163E-02	FAIL ABUN
RH-106	-1.694E-01	3.166E-01	2.528E-01	1.615E-01	FAIL ABUN
RU-106	-1.694E-01	3.161E-01	2.528E-01	1.613E-01	FAIL ABUN
AG-108M	-2.217E-02	3.254E-02	2.647E-02	1.660E-02	NOT IDENT.
AG-110M	-7.200E-03	3.539E-02	2.903E-02	1.806E-02	NOT IDENT.
IN-111	3.300E-01	1.165E+00	9.010E-01	5.946E-01	NOT IDENT.
IN-113M	-1.805E-02	4.431E-02	3.700E-02	2.261E-02	NOT IDENT.
SN-113	-1.805E-02	4.431E-02	3.700E-02	2.261E-02	NOT IDENT.
IN-114M	2.392E-01	1.921E-01	1.571E-01	9.800E-02	NOT IDENT.
CD-115	-8.977E+00	1.095E+01	8.637E+00	5.586E+00	NOT IDENT.
SN-117M	1.117E-02	6.251E-02	5.230E-02	3.190E-02	NOT IDENT.
SB-122	2.181E+00	2.318E+00	1.851E+00	1.183E+00	NOT IDENT.
I-123	1.088E+06	8.119E+06	0.000E+00	4.142E+06	SHORT HLIF
TE-123M	4.275E-03	3.189E-02	2.663E-02	1.627E-02	NOT IDENT.
I-124	6.109E-01	7.417E-01	6.048E-01	3.784E-01	NOT IDENT.
SB-124	-3.405E-02	6.796E-02	4.993E-02	3.467E-02	FAIL ABUN
SB-125	1.277E-01	8.827E-02	8.165E-02	4.503E-02	FAIL ABUN
TE-125M	-1.304E+00	9.837E+00	8.320E+00	5.019E+00	NOT IDENT.
I-126	-6.638E-02	1.884E-01	1.526E-01	9.611E-02	NOT IDENT.
SB-126	-6.651E-02	1.677E-01	1.205E-01	8.559E-02	FAIL ABUN
SB-127	9.885E-01	1.531E+00	1.332E+00	7.809E-01	NOT IDENT.
XE-127	2.951E-02	5.122E-02	4.044E-02	2.613E-02	NOT IDENT.
I-131	-1.126E-01	1.178E-01	9.540E-02	6.010E-02	NOT IDENT.
TE-132	-1.861E-01	7.034E-01	6.086E-01	3.589E-01	NOT IDENT.
BA-133	-1.348E-02	5.020E-02	3.662E-02	2.561E-02	NOT IDENT.
I-133	-2.058E+03	6.489E+03	0.000E+00	3.311E+03	SHORT HLIF
CS-134	7.684E-02	7.209E-02	4.670E-02	3.678E-02	FAIL ABUN
I-135	5.662E+15	9.818E+15	0.000E+00	5.009E+15	SHORT HLIF
CS-136	-1.002E-01	1.178E-01	9.249E-02	6.009E-02	FAIL ABUN
BA-137M	9.491E-05	3.592E-02	2.995E-02	1.833E-02	NOT IDENT.
CS-137	1.003E-04	3.797E-02	3.166E-02	1.937E-02	NOT IDENT.
CE-139	-2.511E-02	3.117E-02	2.521E-02	1.591E-02	NOT IDENT.
BA-140	-1.328E-02	2.509E-01	2.105E-01	1.280E-01	NOT IDENT.
LA-140	1.279E-02	8.535E-02	7.227E-02	4.354E-02	NOT IDENT.
CE-141	-3.408E-02	6.860E-02	5.585E-02	3.500E-02	NOT IDENT.
CE-143	1.270E+03	3.377E+02	0.000E+00	1.723E+02	SHORT HLIF
CE-144	-9.730E-02	2.450E-01	1.762E-01	1.250E-01	NOT IDENT.
PM-144	-1.624E-03	3.552E-02	2.942E-02	1.812E-02	NOT IDENT.
PR-144	-1.101E-01	2.408E+00	1.994E+00	1.228E+00	NOT IDENT.

PM-146	-1.466E-02	4.511E-02	3.753E-02	2.301E-02	NOT IDENT.
ND-147	2.232E-01	5.141E-01	4.474E-01	2.623E-01	FAIL ABUN
PM-149	1.703E+01	9.691E+01	8.471E+01	4.944E+01	NOT IDENT.
EU-152	1.121E-02	1.114E-01	8.768E-02	5.684E-02	NOT IDENT.
GD-153	-1.788E-02	8.863E-02	6.537E-02	4.522E-02	NOT IDENT.
EU-154	-4.017E-02	1.284E-01	1.046E-01	6.552E-02	NOT IDENT.
EU-155	-2.259E-03	1.148E-01	9.760E-02	5.856E-02	FAIL ABUN
TB-160	-2.654E-02	1.383E-01	1.168E-01	7.056E-02	FAIL ABUN
HO-166M	-1.548E-02	6.672E-02	5.440E-02	3.404E-02	FAIL ABUN
TM-171	-3.246E+01	3.042E+01	2.182E+01	1.552E+01	NOT IDENT.
LU-176	-8.422E-03	2.622E-02	2.100E-02	1.338E-02	FAIL ABUN
LU-177	1.683E+00	1.674E+00	1.033E+00	8.539E-01	FAIL ABUN
LU-177M	1.224E-01	1.938E-01	1.511E-01	9.887E-02	FAIL ABUN
HF-181	-1.376E-02	4.323E-02	3.584E-02	2.206E-02	FAIL ABUN
W-181	2.632E-01	4.816E-01	2.945E-01	2.457E-01	FAIL ABUN
TA-182	3.124E-02	2.243E-01	1.909E-01	1.144E-01	FAIL ABUN
RE-183	2.718E-02	1.171E-01	9.902E-02	5.973E-02	FAIL ABUN
RE-184	3.357E-02	2.237E-01	1.962E-01	1.141E-01	NOT IDENT.
OS-185	-1.926E-02	4.231E-02	3.396E-02	2.159E-02	NOT IDENT.
RE-188	8.135E-02	1.892E-01	1.613E-01	9.654E-02	NOT IDENT.
W-188	-1.040E+01	8.660E+00	5.973E+00	4.418E+00	FAIL ABUN
IR-192	4.396E-02	3.482E-02	3.184E-02	1.777E-02	FAIL ABUN
AU-195	8.729E-02	2.524E-01	1.913E-01	1.288E-01	FAIL ABUN
TL-200	2.731E+01	5.021E+02	0.000E+00	2.562E+02	SHORT HLIF
TL-201	-2.390E+00	7.479E+00	6.176E+00	3.816E+00	NOT IDENT.
TL-202	-6.863E-03	7.273E-02	6.154E-02	3.711E-02	NOT IDENT.
HG-203	5.805E-02	4.151E-02	3.806E-02	2.118E-02	NOT IDENT.
BI-207	3.746E-02	5.654E-02	5.057E-02	2.884E-02	FAIL ABUN
TL-207	-8.455E-01	6.535E-01	5.126E-01	3.334E-01	FAIL ABUN
PO-209	-6.004E+00	7.945E+00	6.379E+00	4.053E+00	NOT IDENT.
BI-210	-2.208E+00	2.457E+00	2.086E+00	1.253E+00	NOT IDENT.
PB-210	-2.208E+00	2.457E+00	2.086E+00	1.253E+00	NOT IDENT.
PO-210	-2.208E+00	2.455E+00	2.086E+00	1.253E+00	NOT IDENT.
PB-211	-5.716E-01	1.139E+00	7.665E-01	5.809E-01	NOT IDENT.
BI-212	1.271E+00	4.682E-01	3.573E-01	2.389E-01	FAIL ABUN
PO-215	-8.455E-01	6.535E-01	5.126E-01	3.334E-01	FAIL ABUN
RN-219	3.686E-01	4.442E-01	3.753E-01	2.266E-01	NOT IDENT.
RN-220	2.484E+01	2.556E+01	2.299E+01	1.304E+01	NOT IDENT.
RA-223	-8.455E-01	6.535E-01	5.126E-01	3.334E-01	FAIL ABUN
AC-227	-4.562E-02	3.648E-01	3.159E-01	1.861E-01	FAIL ABUN
TH-227	-4.562E-02	3.648E-01	3.159E-01	1.861E-01	FAIL ABUN
TH-229	3.277E-01	5.304E-01	4.382E-01	2.706E-01	FAIL ABUN
PA-231	-1.700E+00	1.566E+00	1.275E+00	7.992E-01	FAIL ABUN
TH-231	-8.455E-01	6.535E-01	5.126E-01	3.334E-01	FAIL ABUN
U-231	7.082E-01	1.238E+00	9.477E-01	6.314E-01	FAIL ABUN
PA-233	4.323E-02	6.459E-02	5.759E-02	3.296E-02	FAIL ABUN
PA-234	-4.160E-02	2.960E-01	2.499E-01	1.510E-01	FAIL ABUN
PA-234M	-6.165E-01	4.896E+00	4.092E+00	2.498E+00	NOT IDENT.
U-235	3.199E-02	2.280E-01	1.904E-01	1.163E-01	FAIL ABUN
NP-236	-5.866E-02	8.748E-02	7.138E-02	4.463E-02	NOT IDENT.
NP-239	-4.402E-02	1.925E-01	1.618E-01	9.823E-02	FAIL ABUN
AM-241	6.682E-03	1.461E-01	1.112E-01	7.455E-02	NOT IDENT.
CM-243	1.069E-02	1.022E-01	8.728E-02	5.212E-02	FAIL ABUN
AM-246	3.979E-02	1.512E-01	1.311E-01	7.712E-02	NOT IDENT.
CM-247	3.288E-02	4.088E-02	3.353E-02	2.085E-02	NOT IDENT.
CF-249	-6.843E-03	4.073E-02	3.453E-02	2.078E-02	NOT IDENT.
CF-251	-6.551E-02	1.306E-01	1.067E-01	6.666E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	436.9115
46.50	436.9115
46.50	436.9115
48.70	411.5593
49.72	455.9018
51.35	408.7242
52.39	423.5239
52.97	439.1529
53.15	436.1688
53.44	443.4780
54.07	418.1633
56.28	466.4253
56.28	466.4266
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57.53	447.7085
57.53	447.7093
57.60	447.7417
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57.98	419.9267
59.32	471.6390
59.32	471.6390
59.40	471.6783
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60.01	453.8239
61.10	464.2469
61.14	464.2657
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63.00	518.3204
63.29	518.4719
63.29	518.4719
63.58	546.5721
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65.20	575.6570
66.05	602.7037
66.72	619.7118
66.83	619.7801
66.91	614.8427
67.20	615.0166
67.20	615.0166
67.75	601.4850
67.85	601.5424
68.90	552.2036
68.90	552.2036
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69.67	563.1628
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70.82	590.4631
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74.81	617.7665
74.97	617.8566
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75.70	618.2665
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77.11	619.0547

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77.11	619.0547
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80.30	513.1368
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81.07	513.4831
81.07	513.4831
81.07	513.4831
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83.78	401.6250
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86.50	402.5532
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86.72	402.6288
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86.94	402.7029
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92.38	404.5128
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94.67	405.2580
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94.90	388.3014
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98.44	391.0960
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99.55	379.4691
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100.10	381.3417
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103.76	422.2818
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108.00	435.4510
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111.00	417.0159
111.76	418.3243
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116.30	364.5237
117.00	363.6227
117.00	363.6227
117.66	365.9574
121.11	345.1328
121.62	340.9125
121.78	358.3229
122.06	350.7899
122.32	344.3353
122.32	344.3353
122.32	344.3353
122.32	344.3353
123.07	351.4996
127.23	366.1952
129.76	384.2830
131.20	354.9279
133.02	355.3541
133.54	378.2373
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136.25	415.5230
136.48	404.6213
140.51	394.6721
140.51	0.0000
142.18	392.8874
142.65	390.8028
143.76	375.6536
144.24	387.8870
144.24	387.8870
144.24	387.8870
144.24	387.8870
145.22	381.5076
145.44	389.2798
147.16	375.3432
152.43	375.4471
152.70	375.5091
153.22	375.6255
154.21	379.1766
154.21	379.1766
154.21	379.1766
154.21	379.1766
155.03	386.0200
156.02	396.2375
158.56	374.6024
159.00	0.0000
159.00	369.1408
160.31	396.1299
161.27	372.9748
162.32	349.8075
162.64	340.9582
163.35	332.1830
163.89	321.1348
165.85	357.2217
167.43	329.6131
171.28	275.4644
171.86	282.2753
172.10	282.3138
176.55	325.6947
176.60	325.7035
181.06	333.2574
184.41	362.4390
185.71	356.6741
186.00	327.8299
190.27	250.4303
192.34	332.2581
193.63	275.9186
197.04	297.9527
198.01	300.8284
198.60	321.8302
200.40	306.6589
201.83	290.2641
202.84	273.3307
205.31	308.6445

208.36	281.7099
208.81	295.1771
209.75	309.3342
209.75	309.3342
210.97	315.6211
215.65	295.7221
216.55	286.2196
218.09	281.8445
222.10	278.7160
223.80	266.9756
226.40	266.3866
227.00	270.1505
227.08	270.1612
227.20	270.1755
228.16	271.2215
228.18	271.2250
228.18	271.2250
231.56	0.0000
235.69	277.7380
236.00	287.0376
236.00	287.0376
238.63	243.8159
238.63	243.8159
238.63	243.8159
238.63	243.8159
239.00	243.8577
240.98	244.0808
241.98	244.1932
241.98	244.1932
241.98	244.1932
244.69	221.5639
245.39	206.1362
247.94	215.6844
248.90	232.8537
249.79	220.8336
252.40	213.6280
252.85	210.8722
252.85	210.8722
254.15	0.0000
256.20	213.9893
256.20	213.9893
260.50	196.6058
260.90	189.1506
262.80	219.5628
264.65	189.1462
268.24	173.7830
268.79	177.5843
269.46	177.6351
269.46	177.6351
269.46	177.6351
269.46	177.6351
271.23	199.0886
273.65	271.4810
276.40	217.9881
277.35	211.2359
277.60	212.2037
277.60	212.2037
278.00	213.1827
278.60	203.7999
279.20	198.1901
279.53	197.2718
280.46	217.1776
281.68	234.2952
283.67	233.5435
284.30	239.2783
285.00	216.6443
285.90	200.6366
286.10	186.4550
286.10	186.4550
287.40	191.5014
288.45	0.0000
290.67	240.2245
290.80	240.2368
291.72	238.7454
293.26	0.0000
293.70	175.6439
295.21	176.7023
295.21	176.7023

295.21	176.7023
295.96	176.7545
296.50	176.7931
297.23	176.8453
298.57	176.9429
299.80	177.0292
299.80	177.0292
300.09	177.0497
300.09	177.0497
300.09	177.0497
300.09	177.0497
300.12	177.0519
301.29	174.5964
302.84	193.7624
303.76	177.9463
303.91	160.4776
304.40	157.3321
304.40	157.3321
304.84	162.1267
306.84	192.0817
308.46	165.2243
311.98	171.1928
316.51	156.1652
318.01	171.5948
319.02	170.7014
319.41	164.9726
320.08	166.9334
323.87	196.0014
323.87	196.0014
323.87	196.0014
323.87	196.0014
325.23	198.9874
328.77	158.8266
333.44	218.5706
334.20	186.4822
334.20	186.4822
334.30	186.4893
338.28	186.4434
338.28	186.4434
338.28	186.4434
338.28	186.4434
338.32	191.6004
338.32	191.6004
338.32	191.6004
340.50	206.2578
340.57	206.2630
344.27	179.8042
345.85	187.2893
350.59	0.0000
351.07	171.4715
351.92	155.3438
351.92	155.3438
351.92	155.3438
355.39	0.0000
356.01	166.9161
364.48	165.7977
366.43	148.3466
367.43	139.6118
367.94	0.0000
369.80	144.6144
374.96	122.3618
383.85	136.4854
387.95	153.3930
388.63	146.5446
391.69	147.6819
391.69	147.6819
392.90	143.8025
398.62	151.9754
400.65	128.3782
401.10	130.3726
401.81	130.8971
402.60	129.8740
404.84	151.6319
410.95	132.1208
411.60	128.8463
413.65	115.7082
414.70	112.4410
415.30	109.1554

415.76	99.2480
417.63	0.0000
418.52	114.2377
423.70	121.3954
427.08	100.6079
427.89	93.6603
432.53	135.7095
433.93	131.7760
439.47	133.0081
439.56	133.0130
439.89	128.0250
443.98	117.1742
444.90	124.2195
445.03	124.2255
445.03	124.2255
445.03	124.2255
445.03	124.2255
453.90	131.5997
463.38	97.3924
468.07	104.2579
473.00	113.1703
475.06	97.0641
475.35	89.9941
476.78	112.2872
477.59	117.3735
477.96	119.4116
482.03	116.5161
484.57	104.4371
487.03	97.4098
490.36	0.0000
492.35	115.8564
497.08	113.9811
507.63	0.0000
510.53	0.0000
510.84	104.2182
511.00	104.2232
511.85	104.2481
511.85	104.2481
513.99	115.9017
513.99	115.9017
520.41	115.7726
520.65	115.7809
527.90	99.5908
528.96	0.0000
529.64	101.6925
529.87	0.0000
531.02	73.9863
537.32	89.5573
543.00	97.9456
546.56	0.0000
549.76	77.4701
552.65	96.1378
555.20	94.1370
563.23	88.1211
563.90	72.5823
568.70	100.7085
569.32	100.7251
569.50	100.7299
569.67	100.7346
573.80	93.5684
574.00	93.5728
574.64	85.7891
578.91	98.9011
579.30	0.0000
583.14	89.6302
585.48	109.4989
591.81	81.4772
592.07	84.6169
593.00	103.4448
595.88	84.7000
600.56	97.3662
602.52	0.0000
602.71	83.8027
602.71	83.8027
603.60	83.8223
604.41	89.0798
604.70	85.5925
609.31	110.1782

609.31	110.1782
609.31	110.1782
609.31	110.1782
610.33	110.2064
612.46	87.5122
614.37	64.7906
618.01	91.1418
621.84	89.4762
621.84	89.4762
631.29	92.8533
633.02	79.1693
633.10	79.1711
634.78	65.4754
635.90	73.9443
636.97	69.7383
645.85	81.5399
646.12	83.6636
656.30	82.8103
657.75	87.0870
657.90	0.0000
661.65	85.0449
661.65	85.0449
664.57	0.0000
666.33	93.6547
666.33	93.6547
675.00	87.4493
677.61	77.9011
685.20	82.3182
692.80	78.1809
695.00	83.5796
696.49	87.8958
696.49	87.8958
697.00	92.1939
697.49	92.2044
698.33	92.2232
698.50	92.2274
699.00	96.5281
702.63	85.8750
706.10	84.8691
706.58	0.0000
706.67	90.2528
709.31	98.9090
711.68	95.7358
713.82	75.3354
717.42	87.2451
720.50	87.7683
721.93	0.0000
722.20	75.4807
722.78	73.6919
722.78	73.6919
722.89	73.6952
722.95	73.6952
723.30	75.4995
724.18	75.5149
727.18	66.9300
733.00	81.0699
735.90	60.5719
739.58	84.4384
742.81	80.1661
744.21	76.9404
747.13	66.1469
751.79	80.3269
752.31	86.8496
753.82	81.4490
755.35	67.3539
756.15	73.8853
756.87	69.5500
763.93	100.1354
765.79	90.3760
766.42	81.6760
766.84	86.0398
776.49	77.4898
778.00	84.0665
778.57	88.4435
778.89	88.4514
783.80	56.8433
785.46	78.7342
792.07	67.5307

795.84	84.0245
796.30	89.5143
798.80	65.8008
801.93	80.4769
805.60	72.4856
810.29	61.5645
810.76	68.1667
815.85	64.2037
817.79	54.1373
818.51	53.2280
819.60	52.3219
826.30	60.6678
828.27	0.0000
831.60	78.2193
831.96	69.9434
834.83	66.3003
836.80	0.0000
846.75	68.3106
848.13	65.5600
856.28	0.0000
856.80	96.2009
860.37	67.5746
867.32	71.3776
867.82	70.4583
871.10	56.5893
873.19	61.2533
874.81	63.1302
875.33	0.0000
876.40	61.2936
879.36	62.2591
880.27	60.4112
880.51	60.4138
881.50	56.7072
883.24	58.5870
884.67	66.0454
889.25	76.3478
896.60	78.3245
898.02	76.4796
899.00	82.0918
903.28	53.5295
911.07	59.8451
911.07	59.8451
911.07	59.8451
919.63	43.7101
920.93	48.7172
925.00	71.2593
925.24	70.3247
926.50	56.2732
935.52	51.6733
937.48	53.5732
944.10	55.5226
946.00	58.3672
949.00	58.4000
962.29	83.0998
964.01	66.3933
966.15	53.4593
968.20	89.1333
969.11	121.5663
969.11	121.5663
969.11	121.5663
977.42	61.6890
980.50	58.7469
983.50	78.6889
989.30	50.3010
996.32	61.7706
1001.03	61.8235
1001.68	64.6845
1004.76	67.5765
1021.30	0.0000
1024.50	0.0000
1034.80	53.5892
1036.00	53.6006
1037.82	70.8534
1038.57	73.7353
1038.76	0.0000
1045.16	52.7307
1046.59	67.1289
1048.07	73.8606

1050.47	49.9010
1050.47	49.9010
1062.04	71.1575
1063.62	56.7505
1076.63	56.8802
1077.35	57.8516
1078.86	58.8307
1085.78	54.0745
1099.22	68.7177
1112.02	73.0123
1112.84	64.0261
1115.52	74.8703
1120.29	61.6090
1120.29	61.6090
1120.29	61.6090
1120.29	61.6090
1120.51	66.6071
1121.28	64.1174
1124.00	0.0000
1129.67	82.8876
1131.51	0.0000
1147.95	0.0000
1167.94	76.3687
1173.22	88.1946
1175.09	71.5594
1177.93	79.4377
1189.05	74.6702
1204.90	73.8770
1205.75	0.0000
1213.00	84.8207
1221.42	82.9609
1230.97	80.1200
1235.34	93.0438
1236.41	0.0000
1238.25	76.2512
1246.25	72.3822
1260.41	0.0000
1271.85	46.7896
1274.45	55.7721
1274.54	55.7721
1291.56	58.9136
1298.22	0.0000
1312.09	49.0817
1325.50	32.1185
1325.50	32.1185
1332.49	36.1714
1333.61	32.1589
1360.21	22.1969
1362.66	0.0000
1365.15	28.2712
1368.21	31.3141
1368.53	0.0000
1376.25	37.4200
1384.27	58.7269
1394.10	29.4059
1395.20	33.4673
1407.95	33.5291
1434.06	32.6354
1436.60	15.3033
1457.56	0.0000
1460.81	12.2847
1489.15	16.4447
1509.49	23.7056
1596.49	20.8569
1620.62	12.5542
1678.03	0.0000
1691.02	14.7799
1691.02	14.7799
1706.46	0.0000
1750.46	0.0000
1764.49	10.6547
1764.49	10.6547
1764.49	10.6547
1764.49	10.6547
1770.23	5.4833
1771.40	54.3846
1791.20	0.0000
1808.65	12.8550

1836.01 13.9717

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799016

Total Uranium Activity	2.6190E+00	ug/g
Total Uranium Counting Unc.	4.7834E+00	ug/g
Total Uranium Tpu	2.4405E-06	ug/g
Total Uranium Mda	2.8592E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799016      *
*   ANALYST       : RXF2                      DETECTOR    : GAM14           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 19:10:12.64    SAMPLE ALQT:  122.265 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.747E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.469E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.855E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.390E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:13:12.95

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799017.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:12:36
Sample ID         : G245799017           Sample quantity  : 1.38251E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.59  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947531                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.30*	70	574	1.06	126.08	122	9	9.67E-03	64.3	
2	4	74.74*	403	456	0.98	148.97	144	13	5.60E-02	9.8	8.77E-01
3	4	77.00	644	409	0.92	153.49	144	13	8.94E-02	6.4	
4	3	84.18*	119	330	1.25	167.86	165	26	1.65E-02	26.3	1.41E+00
5	3	87.03*	301	377	1.20	173.57	165	26	4.18E-02	12.3	
6	3	89.84	204	317	1.05	179.19	165	26	2.83E-02	15.6	
7	3	92.68*	254	412	1.28	184.86	165	26	3.53E-02	16.5	
8	0	129.06	81	255	0.91	257.67	255	6	1.13E-02	33.0	
9	0	142.96*	75	337	1.10	285.48	282	9	1.04E-02	46.2	
10	0	185.66*	201	251	1.38	370.92	367	8	2.79E-02	16.5	
11	0	209.33	70	269	0.92	418.29	414	8	9.78E-03	42.1	
12	6	238.46*	1290	199	1.14	476.57	471	18	1.79E-01	3.4	8.33E-01
13	6	241.45	329	256	1.88	482.56	471	18	4.57E-02	13.9	
14	0	270.10	137	178	1.49	539.88	536	9	1.91E-02	19.4	
15	0	276.79	34	261	3.29	553.27	548	12	4.69E-03	97.3	
16	0	295.01*	351	166	1.23	589.71	585	9	4.87E-02	8.6	
17	0	300.13	43	176	0.94	599.97	595	8	6.01E-03	55.3	
18	0	327.70	79	146	1.23	655.13	650	9	1.09E-02	29.9	
19	0	338.34*	249	198	1.48	676.41	669	11	3.46E-02	12.7	
20	0	351.73*	598	199	1.32	703.20	698	12	8.31E-02	6.3	
21	0	462.77	60	65	0.66	925.38	923	7	8.27E-03	27.1	
22	0	510.33*	149	145	1.97	1020.52	1013	16	2.07E-02	22.2	
23	0	582.81*	427	143	1.36	1165.52	1158	15	5.93E-02	7.8	
24	0	609.02*	485	126	1.59	1217.96	1209	18	6.74E-02	7.2	
25	0	727.52	129	62	1.71	1455.01	1449	15	1.80E-02	16.0	
26	0	795.42	72	43	1.53	1590.84	1584	13	9.96E-03	22.6	
27	0	860.50	61	66	1.52	1721.02	1713	16	8.53E-03	32.5	
28	0	911.00*	301	69	1.60	1822.04	1816	15	4.19E-02	8.6	
29	1	964.34	60	66	2.00	1928.72	1923	21	8.31E-03	28.3	1.07E+00
30	1	968.66*	155	37	1.85	1937.36	1923	21	2.15E-02	12.0	
31	0	1120.22	85	92	1.40	2240.51	2234	14	1.18E-02	26.1	
32	0	1460.28*	1518	13	2.30	2920.57	2912	15	2.11E-01	2.6	
33	0	1587.68	28	11	1.57	3175.33	3168	14	3.95E-03	30.6	
34	0	1763.97	101	24	1.92	3527.82	3520	16	1.40E-02	14.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 21:13:16

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799017.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:12:36
Sample ID : G245799017 Sample quantity : 138.25 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.59 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.397E+01	3.009E+00	3.421E-01	2.439E-02	99.281
CD-109	+	88.03	*	3.989E+00	1.026E+00	1.103E+00	8.442E-02	3.616
SN-126	+	64.28		6.141E-01	7.942E-01	7.611E-01	1.069E-01	0.807
	+	86.94		1.630E+00	7.810E-01	4.558E-01	1.876E-01	3.575
	+	87.57	*	3.920E-01	1.008E-01	1.089E-01	8.301E-03	3.599
TL-208	+	277.35		2.987E-01	5.820E-01	5.540E-01	5.802E-02	0.539
	+	510.84		6.686E-01	3.052E-01	2.066E-01	2.133E-02	3.236
	+	583.14	*	5.490E-01	9.470E-02	5.868E-02	4.198E-03	9.356
	+	860.37		7.461E-01	4.895E-01	4.551E-01	3.977E-02	1.639
BI-211		72.87		4.960E+00	3.200E+00	5.109E+00	3.428E-01	0.971
	+	351.07	*	3.335E+00	4.717E-01	2.952E-01	1.856E-02	11.298
PB-212	+	74.81		2.229E+00	5.078E-01	5.213E-01	6.026E-02	4.276
	+	77.11		2.016E+00	2.945E-01	2.958E-01	2.048E-02	6.816
	+	87.30		1.813E+00	5.001E-01	5.052E-01	6.345E-02	3.589
	+	238.63	*	1.566E+00	1.530E-01	8.406E-02	5.969E-03	18.625
	+	300.09		8.104E-01	8.982E-01	1.101E+00	8.988E-02	0.736
PO-212	+	74.81		2.229E+00	5.078E-01	5.213E-01	6.026E-02	4.276
	+	77.11		2.016E+00	2.945E-01	2.958E-01	2.048E-02	6.816
	+	87.30		1.813E+00	5.001E-01	5.052E-01	6.345E-02	3.589
		115.19		1.244E+00	3.153E+00	5.267E+00	3.341E-01	0.236
	+	238.63	*	1.566E+00	1.530E-01	8.406E-02	5.969E-03	18.625
	+	300.09		8.104E-01	8.982E-01	1.101E+00	8.988E-02	0.736
BI-214	+	609.31	*	1.179E+00	1.957E-01	9.959E-02	8.199E-03	11.834
	+	1120.29		1.078E+00	5.711E-01	4.597E-01	4.176E-02	2.344
	+	1764.49		1.753E+00	5.263E-01	3.148E-01	1.865E-02	5.568
PB-214	+	74.81		3.841E+00	8.472E-01	8.982E-01	9.033E-02	4.276
	+	77.11		3.457E+00	5.695E-01	5.072E-01	5.221E-02	6.816
	+	87.30		3.106E+00	8.336E-01	8.654E-01	9.368E-02	3.589
	+	241.98		2.398E+00	6.939E-01	5.063E-01	3.984E-02	4.737
	+	295.21		1.153E+00	2.218E-01	1.995E-01	1.684E-02	5.781
	+	351.92	*	1.160E+00	1.749E-01	1.029E-01	8.408E-03	11.273
PO-214	+	74.81		3.841E+00	8.472E-01	8.982E-01	9.033E-02	4.276
	+	77.11		3.457E+00	5.695E-01	5.072E-01	5.221E-02	6.816
	+	87.30		3.106E+00	8.336E-01	8.654E-01	9.368E-02	3.589

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.398E+00	6.939E-01	5.063E-01	3.984E-02	4.737
	+	295.21		1.153E+00	2.218E-01	1.995E-01	1.684E-02	5.781
	+	351.92	*	1.160E+00	1.749E-01	1.029E-01	8.408E-03	11.273
PO-216	+	74.81		2.229E+00	5.078E-01	5.213E-01	6.026E-02	4.276
	+	77.11		2.016E+00	2.945E-01	2.958E-01	2.048E-02	6.816
	+	87.30		1.813E+00	5.001E-01	5.052E-01	6.345E-02	3.589
	+	238.63	*	1.566E+00	1.530E-01	8.406E-02	5.969E-03	18.625
	+	300.09		8.104E-01	8.982E-01	1.101E+00	8.988E-02	0.736
PO-218	+	74.81		3.841E+00	8.472E-01	8.982E-01	9.033E-02	4.276
	+	77.11		3.457E+00	5.695E-01	5.072E-01	5.221E-02	6.816
	+	87.30		3.106E+00	8.336E-01	8.654E-01	9.368E-02	3.589
	+	241.98		2.398E+00	6.939E-01	5.063E-01	3.984E-02	4.737
	+	295.21		1.153E+00	2.218E-01	1.995E-01	1.684E-02	5.781
	+	351.92	*	1.160E+00	1.749E-01	1.029E-01	8.408E-03	11.273
RA-224	+	240.98	*	4.547E+00	1.291E+00	9.567E-01	5.277E-02	4.753
RA-226	+	609.31	*	1.179E+00	1.957E-01	9.959E-02	8.199E-03	11.834
	+	1120.29		1.078E+00	5.711E-01	4.597E-01	4.176E-02	2.344
	+	1764.49		1.753E+00	5.263E-01	3.148E-01	1.865E-02	5.568
AC-228	+	338.32		1.530E+00	7.343E-01	3.526E-01	1.437E-01	4.338
	+	911.07	*	1.731E+00	3.525E-01	1.768E-01	1.941E-02	9.794
	+	969.11		1.563E+00	5.199E-01	3.963E-01	9.138E-02	3.944
RA-228	+	338.32		1.530E+00	7.343E-01	3.526E-01	1.437E-01	4.338
	+	911.07	*	1.731E+00	3.525E-01	1.768E-01	1.941E-02	9.794
	+	969.11		1.563E+00	5.199E-01	3.963E-01	9.138E-02	3.944
TH-228	+	74.81		2.264E+00	4.709E-01	5.293E-01	3.649E-02	4.276
	+	77.11		2.047E+00	2.991E-01	3.004E-01	2.079E-02	6.816
	+	87.30		1.841E+00	4.732E-01	5.129E-01	3.898E-02	3.589
	+	238.63	*	1.590E+00	1.554E-01	8.535E-02	6.060E-03	18.625
	+	300.09		8.229E-01	1.031E+00	1.118E+00	6.587E-01	0.736
TH-230	+	609.31	*	1.179E+00	1.957E-01	9.958E-02	8.198E-03	11.834
	+	1120.29		1.077E+00	5.711E-01	4.597E-01	4.176E-02	2.344
	+	1764.49		1.753E+00	5.263E-01	3.147E-01	1.865E-02	5.568
TH-232	+	338.32		1.530E+00	3.978E-01	3.526E-01	1.997E-02	4.338
	+	911.07	*	1.731E+00	3.525E-01	1.768E-01	1.941E-02	9.794
	+	969.11		1.563E+00	5.199E-01	3.963E-01	9.138E-02	3.944
TH-234	+	63.29	*	1.551E+00	2.012E+00	1.903E+00	3.240E-01	0.815
	+	92.38		2.136E+00	7.980E-01	7.134E-01	1.247E-01	2.994
U-234	+	609.31	*	1.179E+00	1.957E-01	9.958E-02	8.198E-03	11.834
	+	1120.29		1.077E+00	5.711E-01	4.597E-01	4.176E-02	2.344
	+	1764.49		1.753E+00	5.263E-01	3.147E-01	1.865E-02	5.568
U-235	+	89.95		3.521E+00	1.537E+00	1.459E+00	4.457E-01	2.414
	+	93.35		2.568E+00	1.106E+00	8.515E-01	2.352E-01	3.016
		105.00		3.619E-01	9.803E-01	1.633E+00	4.789E-01	0.222
	+	143.76	*	2.973E-01	2.789E-01	3.030E-01	4.922E-02	0.981
		163.35		-1.816E-01	4.498E-01	6.904E-01	1.228E-01	-0.263
	+	185.71		1.722E-01	5.738E-02	6.371E-02	3.326E-03	2.703
		205.31		5.705E-02	5.216E-01	7.407E-01	1.321E-01	0.077
NP-237	+	86.50	*	1.151E+00	3.795E-01	3.235E-01	7.108E-02	3.558
		95.87		-6.615E-01	9.681E-01	1.367E+00	3.298E-01	-0.484

Sample ID : G245799017 Acquisition date : 10-FEB-2010 19:12:36

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-238	+	63.29	*	1.551E+00	2.012E+00	1.903E+00	3.240E-01	0.815
	+	92.38		2.136E+00	7.222E-01	7.134E-01	5.194E-02	2.994
AM-243	+	74.67	*	3.614E-01	7.508E-02	8.477E-02	5.760E-03	4.264
	+	86.72		4.316E+01	1.110E+01	1.210E+01	9.145E-01	3.566
		117.66		-2.883E-01	3.440E+00	5.624E+00	3.543E-01	-0.051
	+	142.18		2.497E+01	2.312E+01	2.611E+01	1.478E+00	0.956
ANH-511	+	511.00	*	1.444E-01	6.481E-02	4.464E-02	2.721E-03	3.235

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.488E-02	3.076E-01	4.921E-01	3.386E-02	-0.051
NA-22		1274.54	*	2.431E-02	4.680E-02	8.049E-02	5.183E-03	0.302
NA-24		1368.53	*	1.747E-01	4.680E-02	Half-Life too short		
AL-26		1129.67		1.110E+00	1.723E+00	3.013E+00	1.836E-01	0.368
		1808.65	*	1.055E-02	2.896E-02	5.109E-02	2.931E-03	0.207
TI-44		67.85		-3.347E-02	4.605E-02	6.694E-02	4.358E-03	-0.500
	+	78.38	*	3.721E-01	5.435E-02	6.932E-02	4.848E-03	5.368
SC-46		889.25	*	2.756E-02	4.158E-02	7.118E-02	5.900E-03	0.387
	+	1120.51		1.847E-01	9.715E-02	1.266E-01	7.865E-03	1.459
V-48		944.10		-9.278E-01	9.756E-01	1.424E+00	1.144E-01	-0.652
		983.50	*	4.137E-02	8.794E-02	1.352E-01	1.042E-02	0.306
		1312.09		1.401E-02	8.765E-02	1.460E-01	9.907E-03	0.096
CR-51		320.08	*	2.450E-01	3.273E-01	5.655E-01	3.595E-02	0.433
MN-52		744.21		-1.178E-02	2.337E-01	3.826E-01	2.733E-02	-0.031
		848.13		2.237E+00	6.675E+00	1.119E+01	8.916E-01	0.200
		935.52		9.535E-02	2.603E-01	4.341E-01	3.515E-02	0.220
		1246.25		3.039E-01	7.522E+00	1.243E+01	7.661E-01	0.024
		1333.61		-2.431E+00	5.171E+00	7.989E+00	5.580E-01	-0.304
		1434.06	*	-6.229E-02	2.216E-01	3.449E-01	2.369E-02	-0.181
MN-54		834.83	*	4.323E-02	3.814E-02	6.749E-02	5.306E-03	0.640
CO-56		846.75	*	1.180E-03	3.840E-02	6.264E-02	4.983E-03	0.019
		977.42		-5.809E+00	3.081E+00	3.875E+00	3.006E-01	-1.499
		1037.82		-1.383E-01	3.166E-01	5.093E-01	3.934E-02	-0.272
		1175.09		-7.050E-01	2.464E+00	3.985E+00	2.197E-01	-0.177
		1238.25		1.306E-01	1.030E-01	1.833E-01	1.180E-02	0.713
		1360.21		-1.271E-01	9.320E-01	1.495E+00	1.041E-01	-0.085
		1771.40		-6.461E-01	2.999E-01	3.223E-01	1.901E-02	-2.005
CO-57		122.06	*	8.969E-03	2.298E-02	3.827E-02	2.393E-03	0.234
		136.48		2.404E-02	1.965E-01	3.214E-01	2.161E-02	0.075
CO-58		810.76	*	-4.045E-03	3.686E-02	5.957E-02	4.584E-03	-0.068
FE-59	+	142.65		3.846E+00	3.561E+00	4.305E+00	2.432E-01	0.893
		192.34		1.466E-01	8.433E-01	1.356E+00	1.566E-01	0.108
		1099.22	*	-1.315E-01	9.453E-02	1.367E-01	1.009E-02	-0.962
		1291.56		-7.259E-03	1.340E-01	2.189E-01	1.763E-02	-0.033
CO-60		1173.22		9.180E-03	4.897E-02	8.228E-02	4.523E-03	0.112
		1332.49	*	1.110E-02	4.006E-02	6.760E-02	4.721E-03	0.164
ZN-65		1115.52	*	6.804E-03	1.007E-01	1.455E-01	9.151E-03	0.047

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GE-68		1077.35	*	4.123E-01	1.354E+00	2.313E+00	1.559E-01	0.178
AS-73		53.44	*	-1.235E-01	7.416E-01	1.233E+00	7.963E-02	-0.100
AS-74		595.88	*	-1.035E-02	8.198E-02	1.359E-01	8.649E-03	-0.076
		634.78		1.629E-01	3.206E-01	5.553E-01	3.579E-02	0.293
SE-75		66.05		1.683E+00	4.748E+00	7.288E+00	6.362E-01	0.231
		96.73		-7.018E-01	8.005E-01	1.126E+00	1.426E-01	-0.623
		121.11		-5.822E-02	1.247E-01	1.999E-01	1.904E-02	-0.291
		136.00		3.778E-03	3.676E-02	6.009E-02	3.548E-03	0.063
		198.60		-1.347E+00	1.705E+00	2.564E+00	1.723E-01	-0.525
		264.65	*	2.792E-02	4.034E-02	6.560E-02	3.718E-03	0.426
		279.53		8.173E-02	1.056E-01	1.641E-01	1.006E-02	0.498
		303.91		1.780E+00	2.025E+00	3.156E+00	2.989E-01	0.564
		400.65		-1.313E-01	2.429E-01	3.817E-01	3.411E-02	-0.344
BR-77	+	87.88		9.090E+02	2.337E+02	3.435E+02	2.626E+01	2.646
		200.40		-7.887E+01	1.584E+02	2.453E+02	1.301E+01	-0.322
	+	239.00		2.652E+02	2.303E+01	3.794E+01	2.089E+00	6.991
		249.79		1.101E+01	6.275E+01	1.066E+02	5.919E+00	0.103
		281.68		3.368E+01	9.015E+01	1.365E+02	7.713E+00	0.247
		297.23		1.311E+02	7.375E+01	9.528E+01	5.408E+00	1.376
		303.76		2.182E+02	1.778E+02	2.847E+02	1.617E+01	0.767
		439.47		6.279E+01	1.400E+02	2.342E+02	1.349E+01	0.268
		484.57		8.048E+01	2.396E+02	3.947E+02	2.362E+01	0.204
		520.65	*	-4.793E+00	1.119E+01	1.728E+01	1.060E+00	-0.277
		574.64		-4.779E+01	2.274E+02	3.531E+02	2.229E+01	-0.135
		578.91		3.419E+01	9.584E+01	1.449E+02	9.162E+00	0.236
		585.48		9.030E+02	2.425E+02	4.361E+02	2.764E+01	2.071
		755.35		-4.209E+01	1.761E+02	2.800E+02	2.025E+01	-0.150
		817.79		3.494E+01	1.365E+02	2.279E+02	1.761E+01	0.153
SR-82		698.33		-1.576E+01	3.445E+01	5.242E+01	3.552E+00	-0.301
		776.49	*	-1.361E-01	3.659E-01	5.798E-01	4.290E-02	-0.235
		1395.20		-1.109E+00	1.006E+01	1.614E+01	1.117E+00	-0.069
RB-83		520.41	*	-3.044E-03	6.807E-02	1.085E-01	6.650E-03	-0.028
		529.64		-1.889E-02	9.905E-02	1.556E-01	9.592E-03	-0.121
		552.65		1.008E-01	1.876E-01	3.271E-01	2.043E-02	0.308
RB-84		881.50	*	-5.485E-03	6.782E-02	1.091E-01	8.974E-03	-0.050
KR-85		513.99	*	6.412E+00	8.014E+00	1.203E+01	7.347E-01	0.533
SR-85		513.99	*	3.294E-02	4.117E-02	6.181E-02	3.774E-03	0.533
RB-86		1076.63	*	6.706E-02	8.525E-01	1.431E+00	9.660E-02	0.047
Y-88		898.02		-3.186E-02	4.268E-02	6.205E-02	5.212E-03	-0.514
		1836.01	*	2.237E-02	2.851E-02	5.443E-02	3.064E-03	0.411
ZR-88		392.90	*	-9.199E-03	2.841E-02	4.540E-02	2.490E-03	-0.203
Y-91		1204.90	*	-7.191E+00	2.070E+01	3.327E+01	1.923E+00	-0.216
NB-94		702.63	*	2.119E-02	3.497E-02	6.016E-02	4.098E-03	0.352
		871.10		-2.125E-03	3.094E-02	4.985E-02	4.061E-03	-0.043
NB-95		765.79	*	2.034E-02	4.586E-02	7.753E-02	5.671E-03	0.262
NB-95M		235.69	*	1.569E-01	1.213E-01	1.938E-01	1.413E-02	0.810
ZR-95		724.18		1.137E-01	1.028E-01	1.636E-01	1.290E-02	0.695
		756.15	*	-2.451E-02	7.292E-02	1.151E-01	9.503E-03	-0.213
NB-97		657.90	*	-9.051E-02	7.292E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1024.50		1.436E+01	7.292E-02	Half-Life too short		
ZR-97		254.15		-4.762E+00	7.292E-02	Half-Life too short		
		355.39		2.932E-01	7.292E-02	Half-Life too short		
		507.63	*	5.387E+00	7.292E-02	Half-Life too short		
		602.52		7.128E+00	7.292E-02	Half-Life too short		
		1021.30		1.949E+00	7.292E-02	Half-Life too short		
		1147.95		-3.150E+00	7.292E-02	Half-Life too short		
		1362.66		-6.783E+00	7.292E-02	Half-Life too short		
		1750.46		6.445E+00	7.292E-02	Half-Life too short		
MO-99		140.51		-7.274E+00	2.853E+01	4.009E+01	1.079E+01	-0.181
		181.06		-3.943E+00	1.835E+01	2.574E+01	4.361E+00	-0.153
		366.43		-4.611E-02	8.138E+01	1.336E+02	7.472E+00	0.000
		739.58	*	2.982E+00	1.177E+01	1.976E+01	2.842E+00	0.151
		778.00		-2.574E+01	3.479E+01	5.319E+01	3.942E+00	-0.484
TC-99M		140.51	*	-1.676E+10	3.479E+01	Half-Life too short		
RH-101		127.23		1.028E-02	3.245E-02	4.821E-02	2.926E-03	0.213
		198.01	*	1.259E-03	3.039E-02	4.776E-02	2.526E-03	0.026
		325.23		7.741E-02	2.126E-01	3.186E-01	1.810E-02	0.243
RH-102		418.52		3.353E-02	2.758E-01	4.522E-01	2.551E-02	0.074
		475.06	*	-5.599E-03	2.785E-02	4.416E-02	2.623E-03	-0.127
		631.29		-3.256E-02	4.873E-02	7.657E-02	4.930E-03	-0.425
		697.49		-1.364E-02	7.406E-02	1.207E-01	8.170E-03	-0.113
		766.84		7.025E-02	1.179E-01	2.010E-01	1.472E-02	0.349
		1046.59		-8.440E-02	1.170E-01	1.829E-01	1.296E-02	-0.462
		1112.84		-1.663E-01	2.477E-01	3.389E-01	2.139E-02	-0.491
RU-103		497.08	*	-4.114E-03	3.889E-02	6.159E-02	7.856E-03	-0.067
	+	610.33		1.277E+01	2.717E+00	2.813E+00	4.404E-01	4.538
RH-106		511.85		3.508E-01	2.189E-01	4.116E-01	2.510E-02	0.852
		621.84	*	-1.868E-01	2.927E-01	4.619E-01	5.569E-02	-0.404
		1050.47		6.944E-01	2.338E+00	4.006E+00	2.821E-01	0.173
RU-106		511.85		3.508E-01	2.189E-01	4.116E-01	2.510E-02	0.852
		621.84	*	-1.868E-01	2.920E-01	4.619E-01	2.966E-02	-0.404
		1050.47		6.944E-01	2.338E+00	4.006E+00	2.821E-01	0.173
AG-108M		433.93	*	8.641E-03	3.169E-02	5.140E-02	3.203E-03	0.168
		614.37		9.174E-03	3.902E-02	5.809E-02	3.982E-03	0.158
		722.95		-1.221E-02	4.407E-02	6.084E-02	4.494E-03	-0.201
AG-110M		657.75	*	-2.326E-02	3.311E-02	5.186E-02	3.535E-03	-0.449
		677.61		-1.507E-01	2.961E-01	4.703E-01	3.256E-02	-0.320
		706.67		5.109E-02	2.116E-01	3.555E-01	2.539E-02	0.144
		763.93		-1.419E-01	1.820E-01	2.812E-01	2.133E-02	-0.505
		884.67		-4.774E-02	5.116E-02	7.517E-02	6.421E-03	-0.635
		937.48		-7.112E-02	1.143E-01	1.730E-01	1.455E-02	-0.411
		1384.27		2.615E-02	1.402E-01	2.348E-01	1.699E-02	0.111
IN-111		171.28		-6.349E-01	9.701E-01	1.507E+00	7.752E-02	-0.421
		245.39	*	-3.950E-01	1.074E+00	1.558E+00	8.626E-02	-0.253
IN-113M		391.69	*	-2.721E-02	4.207E-02	6.576E-02	3.872E-03	-0.414
SN-113		391.69	*	-2.721E-02	4.207E-02	6.576E-02	3.872E-03	-0.414
IN-114M		190.27	*	6.286E-03	1.723E-01	2.618E-01	1.374E-02	0.024
CD-115		260.90		-5.140E+01	1.220E+02	2.005E+02	1.122E+01	-0.256

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		492.35		-1.393E+00	3.573E+01	5.721E+01	3.442E+00	-0.024
		527.90	*	-6.708E+00	1.099E+01	1.663E+01	1.024E+00	-0.403
SN-117M		156.02		-5.425E-02	2.145E+00	3.459E+00	1.847E-01	-0.016
		158.56	*	3.079E-02	5.208E-02	8.618E-02	4.552E-03	0.357
SB-122		563.90	*	2.145E+00	2.160E+00	3.851E+00	2.418E-01	0.557
		692.80		-3.883E+01	4.260E+01	6.500E+01	4.376E+00	-0.597
I-123		159.00	*	5.590E+00	4.260E+01	Half-Life too short		
		528.96		7.623E+01	4.260E+01	Half-Life too short		
TE-123M		159.00	*	2.191E-02	2.627E-02	4.392E-02	2.353E-03	0.499
I-124		602.71	*	4.982E-01	6.734E-01	1.056E+00	6.738E-02	0.472
		722.78		-1.318E+00	4.745E+00	6.550E+00	4.567E-01	-0.201
		1325.50		-2.011E+01	3.589E+01	5.487E+01	3.795E+00	-0.367
		1376.25		3.995E+01	3.056E+01	5.702E+01	3.960E+00	0.701
		1509.49		1.321E+01	1.546E+01	2.796E+01	1.882E+00	0.472
		1691.02		-3.655E+00	3.194E+00	3.898E+00	2.420E-01	-0.938
SB-124		602.71		2.815E-02	3.805E-02	5.966E-02	3.808E-03	0.472
		645.85		-2.639E-01	5.025E-01	8.021E-01	5.725E-02	-0.329
		709.31		-8.002E-02	2.762E+00	4.550E+00	3.123E-01	-0.018
		713.82		-3.250E-01	1.608E+00	2.610E+00	2.838E-01	-0.125
		722.78		-1.080E-01	3.886E-01	5.364E-01	3.863E-02	-0.201
	+	968.20		1.613E+01	4.067E+00	7.042E+00	5.519E-01	2.290
		1045.16		-5.252E-01	2.504E+00	4.111E+00	2.919E-01	-0.128
		1325.50		-1.759E+00	3.139E+00	4.800E+00	3.320E-01	-0.367
		1368.21		2.010E-01	1.610E+00	2.674E+00	3.337E-01	0.075
		1436.60		2.274E+00	3.484E+00	6.183E+00	4.245E-01	0.368
		1691.02	*	-7.060E-02	6.172E-02	7.530E-02	5.025E-03	-0.938
SB-125		427.89	*	-1.313E-02	8.890E-02	1.429E-01	8.493E-03	-0.092
	+	463.38		5.215E-01	2.845E-01	4.781E-01	3.267E-02	1.091
		600.56		2.777E-02	1.775E-01	2.729E-01	1.969E-02	0.102
		635.90		1.245E-01	2.445E-01	4.233E-01	3.112E-02	0.294
TE-125M		109.28	*	1.272E+00	8.336E+00	1.382E+01	1.191E+00	0.092
I-126		388.63		4.829E-02	1.928E-01	3.204E-01	1.760E-02	0.151
		666.33	*	-5.339E-02	1.792E-01	2.906E-01	1.895E-02	-0.184
		753.82		-3.049E-01	1.487E+00	2.371E+00	1.712E-01	-0.129
SB-126		223.80		9.275E-02	3.537E+00	6.005E+00	3.263E-01	0.015
		278.60		2.576E+00	2.476E+00	3.904E+00	2.204E-01	0.660
	+	296.50		1.160E+01	2.110E+00	3.112E+00	1.766E-01	3.727
		414.70		-1.879E-02	7.180E-02	1.147E-01	6.447E-03	-0.164
		415.30		1.050E+00	5.864E+00	9.658E+00	5.430E-01	0.109
		555.20		-2.726E+00	3.872E+00	6.188E+00	3.869E-01	-0.441
		573.80		-6.642E-01	1.020E+00	1.634E+00	1.030E-01	-0.407
		593.00		-1.192E-01	8.328E-01	1.379E+00	8.767E-02	-0.086
		656.30		-1.220E+00	3.040E+00	4.880E+00	3.160E-01	-0.250
		666.33		-2.232E-02	7.490E-02	1.215E-01	7.920E-03	-0.184
		675.00		8.135E-01	1.886E+00	3.232E+00	2.130E-01	0.252
		695.00		5.101E-02	7.165E-02	1.250E-01	8.438E-03	0.408
		697.00		3.558E-02	2.609E-01	4.357E-01	2.948E-02	0.082
		720.50	*	-2.574E-02	1.536E-01	2.259E-01	1.571E-02	-0.114
		856.80		2.314E-02	5.463E-01	7.710E-01	6.194E-02	0.030

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		989.30		-1.189E-01	1.313E+00	2.088E+00	1.598E-01	-0.057
		1034.80		-2.704E+00	8.814E+00	1.434E+01	1.034E+00	-0.189
		1213.00		4.836E+00	5.180E+00	9.131E+00	5.346E-01	0.530
SB-127		61.10		1.034E+01	5.663E+01	8.742E+01	8.354E+00	0.118
		252.40		2.399E+00	4.029E+00	6.769E+00	2.811E+00	0.354
		290.80		1.644E+01	2.138E+01	3.311E+01	3.028E+00	0.497
		411.60		-6.303E+00	1.221E+01	1.915E+01	2.746E+00	-0.329
		444.90		7.471E+00	9.876E+00	1.676E+01	1.817E+00	0.446
		473.00		1.530E-01	1.640E+00	2.660E+00	3.005E-01	0.058
		543.00		-1.175E+01	1.556E+01	2.465E+01	3.239E+00	-0.477
		603.60		-1.712E+00	1.196E+01	1.711E+01	1.906E+00	-0.100
		685.20	*	-9.474E-01	1.368E+00	2.133E+00	2.144E-01	-0.444
		698.50		-4.811E+00	1.596E+01	2.464E+01	3.680E+00	-0.195
		722.20		-1.636E+01	3.329E+01	4.470E+01	4.470E+00	-0.366
		783.80		7.669E+00	3.852E+00	7.085E+00	8.283E-01	1.082
XE-127		57.60		-1.070E+00	5.409E+00	9.109E+00	5.757E-01	-0.117
		145.22		3.275E-01	6.944E-01	1.032E+00	5.767E-02	0.317
		172.10		-4.039E-02	1.107E-01	1.746E-01	8.986E-03	-0.231
		202.84	*	6.379E-02	4.152E-02	7.087E-02	3.769E-03	0.900
		374.96		-9.188E-02	1.757E-01	2.776E-01	1.543E-02	-0.331
I-131		80.18		3.330E+00	5.508E+00	6.867E+00	4.925E-01	0.485
		284.30		-6.717E-01	1.274E+00	2.064E+00	1.305E-01	-0.325
		364.48	*	-8.932E-03	1.081E-01	1.767E-01	1.112E-02	-0.051
		636.97		1.407E-01	1.472E+00	2.469E+00	1.748E-01	0.057
		722.89		-2.089E+00	7.540E+00	1.041E+01	7.331E-01	-0.201
TE-132		49.72		-1.888E+01	1.735E+01	2.816E+01	2.633E+00	-0.670
		111.76		-5.496E+00	2.827E+01	4.565E+01	4.227E+00	-0.120
		116.30		1.474E+01	2.528E+01	4.250E+01	3.909E+00	0.347
		228.16	*	2.305E-01	6.180E-01	1.063E+00	1.516E-01	0.217
BA-133		53.15		9.110E-01	3.180E+00	5.382E+00	3.480E-01	0.169
		79.62		-1.901E-01	1.389E+00	1.894E+00	2.727E-01	-0.100
		81.00		-3.085E-03	1.034E-01	1.417E-01	2.143E-02	-0.022
	+	276.40		2.952E-01	5.756E-01	5.559E-01	7.167E-02	0.531
		302.84		5.924E-02	1.425E-01	2.150E-01	2.493E-02	0.276
		356.01	*	1.567E-02	4.120E-02	6.151E-02	7.058E-03	0.255
		383.85		-2.180E-01	2.784E-01	4.301E-01	4.612E-02	-0.507
I-133	+	510.53		1.701E+00	2.784E-01	Half-Life too short		
		529.87	*	-1.706E-03	2.784E-01	Half-Life too short		
		706.58		1.398E-01	2.784E-01	Half-Life too short		
		856.28		2.032E-01	2.784E-01	Half-Life too short		
		875.33		-3.220E-05	2.784E-01	Half-Life too short		
		1236.41		1.287E+00	2.784E-01	Half-Life too short		
		1298.22		-2.768E-01	2.784E-01	Half-Life too short		
CS-134		475.35		-6.683E-01	1.830E+00	2.864E+00	1.701E-01	-0.233
		563.23		4.855E-01	3.594E-01	6.527E-01	4.170E-02	0.744
		569.32		2.712E-02	1.934E-01	3.247E-01	2.096E-02	0.083
		604.70		-1.919E-02	3.557E-02	4.877E-02	3.129E-03	-0.394
	+	795.84	*	1.337E-01	6.130E-02	8.662E-02	6.604E-03	1.543
		801.93		3.974E-03	4.483E-01	6.648E-01	5.090E-02	0.006

---- Non-Identified Nuclides ----

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		1038.57		1.472E-01	3.808E+00	6.392E+00	4.584E-01	0.023
		1167.94		3.244E-01	2.715E+00	4.540E+00	2.529E-01	0.071
		1365.15		2.761E-01	1.125E+00	1.898E+00	1.412E-01	0.145
CS-135		268.24	*	1.943E-01	1.568E-01	2.498E-01	1.879E-02	0.778
I-135		288.45		-5.289E+09	1.568E-01	Half-Life too short		
		417.63		2.639E+09	1.568E-01	Half-Life too short		
		546.56		-4.505E+09	1.568E-01	Half-Life too short		
		836.80		2.086E+10	1.568E-01	Half-Life too short		
		1038.76		5.109E+09	1.568E-01	Half-Life too short		
		1124.00		3.318E+10	1.568E-01	Half-Life too short		
		1131.51		-4.183E+09	1.568E-01	Half-Life too short		
		1260.41	*	-4.640E+09	1.568E-01	Half-Life too short		
		1457.56		1.652E+12	1.568E-01	Half-Life too short		
		1678.03		-1.078E+10	1.568E-01	Half-Life too short		
		1706.46		2.420E+10	1.568E-01	Half-Life too short		
		1791.20		-1.437E+10	1.568E-01	Half-Life too short		
CS-136		66.91		4.353E-01	7.648E-01	1.181E+00	1.695E-01	0.368
	+	86.29		5.165E+00	1.416E+00	1.962E+00	2.382E-01	2.633
		153.22		1.198E-01	6.118E-01	9.974E-01	6.890E-02	0.120
		163.89		-1.192E-01	1.029E+00	1.605E+00	1.084E-01	-0.074
		176.55		-3.201E-01	3.501E-01	5.353E-01	3.193E-02	-0.598
		273.65		1.886E-02	5.999E-01	6.456E-01	4.176E-02	0.029
		340.57		2.152E-01	1.306E-01	2.115E-01	1.277E-02	1.017
		818.51		1.668E-02	7.272E-02	1.211E-01	9.375E-03	0.138
		1048.07	*	-1.600E-03	1.081E-01	1.805E-01	1.356E-02	-0.009
		1235.34		1.071E+00	6.953E-01	1.247E+00	1.264E-01	0.859
BA-137M		661.65	*	1.482E-02	3.666E-02	6.163E-02	3.995E-03	0.240
CS-137		661.65	*	1.567E-02	3.875E-02	6.515E-02	4.237E-03	0.240
CE-139		165.85	*	5.443E-03	2.736E-02	4.442E-02	2.276E-03	0.123
BA-140		162.64		-4.220E-01	7.174E-01	1.093E+00	6.546E-02	-0.386
		304.84		1.805E-02	1.180E+00	1.900E+00	5.179E-01	0.010
		423.70		-5.694E-01	1.856E+00	2.938E+00	9.331E-01	-0.194
		537.32	*	7.004E-02	2.438E-01	4.175E-01	1.361E-01	0.168
LA-140	+	328.77		6.033E-01	3.624E-01	5.138E-01	3.281E-02	1.174
		432.53		1.602E+00	2.017E+00	3.385E+00	2.145E-01	0.473
		487.03		1.026E-02	1.338E-01	2.163E-01	1.457E-02	0.047
		751.79		3.941E-01	1.638E+00	2.746E+00	2.275E-01	0.144
		815.85		-1.246E-02	3.072E-01	4.922E-01	4.335E-02	-0.025
		867.82		-2.354E-01	1.526E+00	2.091E+00	1.799E-01	-0.113
		919.63		1.194E+00	2.867E+00	4.565E+00	4.711E-01	0.261
		925.24		-2.313E-01	1.198E+00	1.899E+00	1.660E-01	-0.122
		1596.49	*	-4.877E-02	7.391E-02	9.988E-02	6.505E-03	-0.488
CE-141		145.44	*	-8.330E-03	6.345E-02	9.104E-02	5.300E-03	-0.092
CE-143		57.37		-2.153E-04	6.345E-02	Half-Life too short		
		231.56		-2.024E-03	6.345E-02	Half-Life too short		
		293.26	*	6.789E-04	6.345E-02	Half-Life too short		
	+	350.59		2.900E-02	6.345E-02	Half-Life too short		
		490.36		-8.240E-05	6.345E-02	Half-Life too short		
		664.57		1.404E-04	6.345E-02	Half-Life too short		

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		721.93		-6.838E-04	6.345E-02	Half-Life too short		
CE-144		80.11		1.514E+00	2.497E+00	3.114E+00	2.211E-01	0.486
		133.54	*	-1.571E-01	1.873E-01	2.916E-01	4.151E-02	-0.539
PM-144		476.78		-1.161E-02	6.456E-02	1.025E-01	7.243E-03	-0.113
		618.01		2.256E-02	2.910E-02	5.028E-02	3.384E-03	0.449
		696.49	*	-1.469E-03	3.331E-02	5.488E-02	3.713E-03	-0.027
		778.57		-2.853E+00	2.290E+00	3.320E+00	2.463E-01	-0.859
PR-144		696.49	*	-9.953E-02	2.257E+00	3.719E+00	2.515E-01	-0.027
		1489.15		-2.832E+00	9.415E+00	1.436E+01	9.726E-01	-0.197
PM-146		453.90	*	-4.794E-03	4.116E-02	6.594E-02	5.701E-03	-0.073
		633.02		-3.378E-01	1.243E+00	2.014E+00	7.438E-01	-0.168
		735.90		-6.665E-02	1.574E-01	2.323E-01	6.546E-02	-0.287
		747.13		-7.549E-02	8.990E-02	1.361E-01	1.796E-02	-0.555
ND-147	+	91.11		8.942E-01	2.886E-01	4.937E-01	4.048E-02	1.811
		319.41		7.342E-01	2.972E+00	4.998E+00	2.842E-01	0.147
		439.89		1.941E+00	5.520E+00	9.166E+00	5.283E-01	0.212
		531.02	*	-1.552E-01	5.421E-01	8.437E-01	1.155E-01	-0.184
PM-149		285.90	*	9.016E+00	8.151E+01	1.370E+02	1.934E+01	0.066
EU-152		121.78		-9.253E-03	6.742E-02	1.097E-01	8.729E-03	-0.084
		244.69		-2.257E-02	3.188E-01	4.723E-01	2.613E-02	-0.048
		344.27	*	-2.821E-02	8.724E-02	1.410E-01	9.037E-03	-0.200
		443.98		4.188E-02	9.456E-01	1.536E+00	8.881E-02	0.027
		778.89		-1.893E-01	2.547E-01	3.887E-01	2.883E-02	-0.487
		867.32		3.917E-01	8.715E-01	1.299E+00	1.055E-01	0.301
	+	964.01		6.963E-01	3.982E-01	6.107E-01	4.807E-02	1.140
		1085.78		2.021E-01	4.253E-01	7.359E-01	4.889E-02	0.275
		1112.02		-1.221E-01	3.402E-01	5.041E-01	3.187E-02	-0.242
		1407.95		-8.332E-03	1.783E-01	2.788E-01	1.926E-02	-0.030
GD-153		69.67		-1.825E+00	1.668E+00	2.377E+00	1.563E-01	-0.768
	+	83.37		2.819E+01	1.497E+01	2.345E+01	1.715E+00	1.202
		97.43	*	-4.237E-02	8.311E-02	1.191E-01	8.285E-03	-0.356
		103.18		-4.696E-02	9.469E-02	1.531E-01	1.023E-02	-0.307
EU-154		123.07		-1.716E-02	4.750E-02	7.647E-02	7.389E-03	-0.224
		247.94		6.091E-02	3.316E-01	5.460E-01	5.126E-02	0.112
		591.81		-3.705E-01	5.666E-01	8.990E-01	9.092E-02	-0.412
		723.30		-4.954E-03	1.792E-01	2.551E-01	2.059E-02	-0.019
		756.87		1.188E-01	7.384E-01	1.229E+00	1.355E-01	0.097
		873.19		-4.012E-02	2.798E-01	4.474E-01	5.336E-02	-0.090
		996.32		-2.303E-01	3.560E-01	5.593E-01	9.669E-02	-0.412
		1004.76		-6.952E-02	2.209E-01	3.609E-01	3.913E-02	-0.193
		1274.45	*	6.573E-02	1.306E-01	2.242E-01	2.184E-02	0.293
EU-155		48.70		-1.842E-01	2.129E+00	3.572E+00	2.334E-01	-0.052
		60.01		5.053E-01	4.836E+00	7.445E+00	4.678E-01	0.068
	+	86.54		4.721E-01	1.215E-01	1.802E-01	1.377E-02	2.619
		105.31	*	5.533E-02	9.971E-02	1.681E-01	1.133E-02	0.329
TB-160	+	86.79		1.263E+00	3.248E-01	4.826E-01	3.649E-02	2.617
		197.04		1.542E-01	5.201E-01	8.282E-01	4.377E-02	0.186
		215.65		-1.298E-01	7.114E-01	1.114E+00	6.006E-02	-0.117
		298.57		1.876E-01	1.468E-01	1.814E-01	1.030E-02	1.034

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	6.055E-02	1.326E-01	2.244E-01	1.843E-02	0.270
		962.29		1.290E+00	6.586E-01	1.103E+00	8.694E-02	1.170
		966.15		1.064E+00	2.876E-01	5.405E-01	4.245E-02	1.969
		1177.93		-3.589E-02	3.947E-01	6.485E-01	3.592E-02	-0.055
		1271.85		-1.238E-01	7.737E-01	1.253E+00	8.023E-02	-0.099
HO-166M		80.57		-1.328E-03	3.328E-01	3.969E-01	2.829E-02	-0.003
	+	184.41		1.292E-01	4.304E-02	6.096E-02	3.178E-03	2.119
		280.46		5.874E-02	8.095E-02	1.256E-01	7.092E-03	0.468
		410.95		1.514E-02	2.378E-01	3.888E-01	2.176E-02	0.039
		711.68	*	8.687E-03	5.888E-02	9.831E-02	6.767E-03	0.088
		752.31		2.266E-01	2.626E-01	4.612E-01	3.324E-02	0.491
		810.29		-2.210E-02	5.727E-02	9.015E-02	6.912E-03	-0.245
TM-171		51.35		6.900E+00	2.624E+01	4.518E+01	2.944E+00	0.153
		52.39		7.394E+00	1.416E+01	2.418E+01	1.569E+00	0.306
		59.40		3.913E+00	2.598E+01	3.992E+01	2.504E+00	0.098
		66.72	*	1.311E+01	2.780E+01	4.288E+01	2.775E+00	0.306
LU-176	+	88.36		9.297E-01	2.390E-01	3.379E-01	2.575E-02	2.751
		201.83		-9.468E-04	2.608E-02	4.135E-02	2.197E-03	-0.023
		306.84	*	-1.757E-02	2.233E-02	3.542E-02	2.013E-03	-0.496
		401.10		-3.266E+00	6.401E+00	1.009E+01	5.586E-01	-0.324
LU-177		112.95		-1.185E+00	1.493E+00	2.342E+00	1.496E-01	-0.506
	+	208.36	*	1.551E+00	1.309E+00	1.774E+00	9.490E-02	0.874
LU-177M		52.97		4.923E-01	1.444E+00	2.449E+00	1.585E-01	0.201
		54.07		-4.821E-01	7.648E-01	1.247E+00	8.025E-02	-0.387
		61.30		5.975E-01	1.428E+00	2.228E+00	1.408E-01	0.268
		121.62		-8.300E-02	3.445E-01	5.582E-01	3.486E-02	-0.149
		147.16		4.973E-01	6.225E-01	9.432E-01	5.227E-02	0.527
		171.86		-1.856E-01	4.440E-01	6.981E-01	3.593E-02	-0.266
		218.09		1.171E-01	8.250E-01	1.313E+00	7.095E-02	0.089
	+	268.79		2.553E+00	1.001E+00	1.335E+00	7.501E-02	1.912
		319.02		6.023E-02	2.286E-01	3.848E-01	2.187E-02	0.156
		367.43		-2.800E-02	8.593E-01	1.408E+00	7.866E-02	-0.020
		413.65	*	-1.334E-01	1.665E-01	2.559E-01	1.436E-02	-0.521
HF-181		56.28		1.067E-01	8.350E-01	1.425E+00	9.063E-02	0.075
		57.53		-9.133E-02	4.549E-01	7.661E-01	4.843E-02	-0.119
		65.20		1.588E-01	9.642E-01	1.469E+00	9.437E-02	0.108
		133.02		-3.222E-02	6.696E-02	9.461E-02	5.580E-03	-0.341
		136.25		5.231E-02	4.307E-01	7.046E-01	4.094E-02	0.074
		345.85		-7.495E-02	1.901E-01	2.816E-01	1.591E-02	-0.266
		482.03	*	7.383E-03	4.302E-02	7.006E-02	4.183E-03	0.105
W-181		56.28		4.216E-02	3.262E-01	5.568E-01	3.541E-02	0.076
		57.53		-3.572E-02	1.779E-01	2.995E-01	1.894E-02	-0.119
		65.20	*	6.158E-02	3.740E-01	5.697E-01	3.660E-02	0.108
TA-182		67.75		-7.473E-02	1.102E-01	1.607E-01	1.045E-02	-0.465
		100.10		-1.098E-02	1.652E-01	2.726E-01	1.858E-02	-0.040
		152.43		1.198E-01	3.057E-01	5.029E-01	2.726E-02	0.238
		222.10		-1.582E-02	3.195E-01	5.315E-01	2.883E-02	-0.030
		1001.68		1.261E+00	2.134E+00	3.682E+00	2.775E-01	0.342
	+	1121.28		5.100E-01	2.682E-01	3.485E-01	2.162E-02	1.463

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		-4.863E-02	3.386E-01	5.536E-01	3.121E-02	-0.088
		1221.42	*	1.182E-01	2.190E-01	3.755E-01	2.228E-02	0.315
		1230.97		-2.996E-01	5.495E-01	8.696E-01	5.235E-02	-0.345
RE-183		57.98		-1.387E-02	1.775E-01	3.003E-01	1.895E-02	-0.046
		59.32		2.604E-02	1.065E-01	1.644E-01	1.032E-02	0.158
		67.20		5.607E-03	1.955E-01	2.955E-01	1.917E-02	0.019
		162.32	*	-3.170E-02	1.035E-01	1.600E-01	8.320E-03	-0.198
	+	208.81		1.371E+00	1.157E+00	1.574E+00	8.426E-02	0.871
		291.72		3.414E-01	9.114E-01	1.375E+00	7.797E-02	0.248
RE-184		57.98		-5.106E-02	6.535E-01	1.105E+00	6.974E-02	-0.046
		59.32		9.578E-02	3.918E-01	6.048E-01	3.795E-02	0.158
		67.20		2.063E-02	7.194E-01	1.087E+00	7.054E-02	0.019
		161.27		3.160E-02	3.276E-01	5.302E-01	2.769E-02	0.060
		216.55		-9.762E-02	2.551E-01	3.953E-01	2.133E-02	-0.247
		252.85	*	6.668E-02	2.019E-01	3.454E-01	1.922E-02	0.193
		318.01		-7.724E-02	4.021E-01	6.593E-01	3.748E-02	-0.117
		792.07		5.439E-01	1.064E+00	1.599E+00	1.203E-01	0.340
		903.28		4.078E-01	1.041E+00	1.653E+00	1.376E-01	0.247
		920.93		1.807E-01	4.388E-01	7.371E-01	6.046E-02	0.245
OS-185		59.72		9.762E-02	2.847E-01	4.414E-01	2.770E-02	0.221
		61.14		3.009E-02	1.561E-01	2.411E-01	1.522E-02	0.125
		69.30		-3.955E-01	2.798E-01	4.197E-01	2.754E-02	-0.942
		592.07		-1.380E+00	2.310E+00	3.688E+00	2.344E-01	-0.374
		646.12	*	-2.192E-02	4.300E-02	6.875E-02	4.443E-03	-0.319
		717.42		3.557E-01	8.728E-01	1.485E+00	1.029E-01	0.239
		874.81		1.328E-01	5.381E-01	8.947E-01	7.314E-02	0.148
		880.27		9.478E-03	7.504E-01	1.218E+00	1.001E-01	0.008
RE-188		155.03	*	6.559E-04	1.632E-01	2.637E-01	1.414E-02	0.002
		477.96		-1.110E-01	2.906E+00	4.664E+00	2.776E-01	-0.024
		633.10		-7.012E-01	2.503E+00	4.073E+00	2.624E-01	-0.172
W-188	+	63.58		6.247E+01	8.041E+01	8.912E+01	5.685E+00	0.701
		227.08		-9.222E+00	1.118E+01	1.823E+01	9.936E-01	-0.506
		290.67	*	5.936E+00	7.116E+00	1.109E+01	6.286E-01	0.535
IR-192	+	295.96		8.809E-01	1.605E-01	2.573E-01	1.484E-02	3.423
		308.46		-1.373E-02	8.653E-02	1.425E-01	8.197E-03	-0.096
		316.51	*	-2.077E-02	3.170E-02	5.058E-02	2.890E-03	-0.411
		468.07		-4.117E-03	6.433E-02	9.518E-02	6.451E-03	-0.043
		604.41		-1.765E-01	4.708E-01	6.567E-01	7.657E-02	-0.269
		612.46		3.715E-01	7.692E-01	1.169E+00	9.399E-02	0.318
AU-195		65.12		2.118E-02	1.742E-01	2.649E-01	1.701E-02	0.080
		66.83		3.909E-02	9.177E-02	1.413E-01	9.147E-03	0.277
	+	75.70		1.170E+00	2.431E-01	4.404E-01	3.015E-02	2.658
		98.88	*	3.343E-01	2.123E-01	3.665E-01	2.520E-02	0.912
	+	129.76		4.337E+00	2.878E+00	4.684E+00	2.806E-01	0.926
TL-200		367.94	*	1.511E-05	2.878E+00	Half-Life too short		
		579.30		5.310E-04	2.878E+00	Half-Life too short		
		828.27		3.771E-04	2.878E+00	Half-Life too short		
		1205.75		-1.699E-03	2.878E+00	Half-Life too short		
TL-201		68.90		-6.401E+00	4.464E+00	7.040E+00	4.609E-01	-0.909

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		70.82		1.694E+00	2.791E+00	4.329E+00	2.866E-01	0.391
		80.30		3.703E+00	6.158E+00	7.675E+00	5.457E-01	0.483
		135.34		-2.767E-01	2.401E+01	3.908E+01	2.280E+00	-0.007
		167.43	*	6.869E-01	6.748E+00	1.090E+01	5.587E-01	0.063
TL-202		68.90		-5.579E-01	3.891E-01	6.136E-01	4.017E-02	-0.909
		70.82		1.472E-01	2.425E-01	3.763E-01	2.491E-02	0.391
		80.30		3.220E-01	5.354E-01	6.673E-01	4.745E-02	0.483
		439.56	*	2.870E-02	6.491E-02	1.085E-01	6.248E-03	0.265
HG-203		70.83		6.392E-01	1.045E+00	1.619E+00	2.013E-01	0.395
		72.87		9.892E-01	6.459E-01	1.019E+00	1.227E-01	0.971
		82.60		6.798E-01	1.085E+00	1.668E+00	2.157E-01	0.408
		279.20	*	3.362E-02	3.969E-02	6.196E-02	3.726E-03	0.543
BI-207		72.80		2.541E-01	1.856E-01	2.947E-01	1.976E-02	0.862
	+	74.97		6.488E-01	1.348E-01	2.201E-01	1.498E-02	2.948
	+	84.90		3.645E-01	1.935E-01	3.044E-01	2.259E-02	1.197
		569.67		1.103E-02	2.996E-02	5.105E-02	3.214E-03	0.216
		1063.62	*	-2.590E-02	5.550E-02	8.898E-02	6.138E-03	-0.291
		1770.23		-2.686E-01	5.302E-01	6.459E-01	3.812E-02	-0.416
TL-207		81.07		-7.799E-03	2.280E-01	3.124E-01	2.237E-02	-0.025
	+	83.78		2.403E-01	1.276E-01	2.008E-01	1.474E-02	1.197
		94.90		2.964E-01	2.249E-01	3.548E-01	2.521E-02	0.835
		122.32		5.667E-01	1.586E+00	2.637E+00	1.867E-01	0.215
	+	144.24		9.634E-01	8.929E-01	1.057E+00	7.485E-02	0.911
		154.21		1.292E-01	3.682E-01	6.040E-01	4.029E-02	0.214
	+	269.46		5.971E-01	2.343E-01	3.303E-01	1.946E-02	1.808
		323.87	*	-2.615E-01	6.465E-01	9.063E-01	1.493E-01	-0.289
	+	338.28		6.388E+00	1.753E+00	2.376E+00	2.485E-01	2.688
		445.03		2.116E+00	2.215E+00	3.803E+00	3.903E-01	0.556
PO-209		260.50		-3.445E+00	8.440E+00	1.389E+01	7.767E-01	-0.248
		262.80		2.179E+00	2.353E+01	3.971E+01	2.224E+00	0.055
		896.60	*	-2.942E+00	7.830E+00	1.190E+01	9.935E-01	-0.247
BI-210		46.50	*	-7.718E-02	3.051E+00	5.186E+00	3.906E-01	-0.015
PB-210		46.50	*	-7.718E-02	3.051E+00	5.186E+00	3.906E-01	-0.015
PO-210		46.50	*	-7.718E-02	3.051E+00	5.186E+00	3.326E-01	-0.015
PB-211		404.84	*	-2.954E-01	9.575E-01	1.502E+00	9.361E-01	-0.197
		427.08		2.103E-01	1.963E+00	3.205E+00	1.980E+00	0.066
		831.96		-1.038E+00	1.417E+00	1.907E+00	1.193E+00	-0.544
BI-212	+	727.18	*	1.432E+00	4.761E-01	6.330E-01	5.480E-02	2.263
		785.46		7.165E-01	1.805E+00	3.047E+00	2.276E-01	0.235
		1620.62		9.593E-01	1.239E+00	2.282E+00	1.469E-01	0.420
PO-215		81.07		-7.799E-03	2.280E-01	3.124E-01	2.237E-02	-0.025
	+	83.78		2.403E-01	1.276E-01	2.008E-01	1.474E-02	1.197
		94.90		2.964E-01	2.249E-01	3.548E-01	2.521E-02	0.835
		122.32		5.667E-01	1.586E+00	2.637E+00	1.867E-01	0.215
	+	144.24		9.634E-01	8.929E-01	1.057E+00	7.485E-02	0.911
		154.21		1.292E-01	3.682E-01	6.040E-01	4.029E-02	0.214
	+	269.46		5.971E-01	2.343E-01	3.303E-01	1.946E-02	1.808
		323.87	*	-2.615E-01	6.465E-01	9.063E-01	1.493E-01	-0.289
	+	338.28		6.388E+00	1.753E+00	2.376E+00	2.485E-01	2.688

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		2.116E+00	2.215E+00	3.803E+00	3.903E-01	0.556
RN-219	+	271.23		7.661E-01	3.034E-01	4.376E-01	3.493E-02	1.751
		401.81	*	2.946E-02	3.976E-01	6.516E-01	8.794E-02	0.045
RN-220		549.76	*	-1.990E+00	2.428E+01	4.065E+01	2.534E+00	-0.049
RA-223		81.07		-7.799E-03	2.280E-01	3.124E-01	2.237E-02	-0.025
	+	83.78		2.403E-01	1.276E-01	2.008E-01	1.474E-02	1.197
		94.90		2.964E-01	2.249E-01	3.548E-01	2.521E-02	0.835
		122.32		5.667E-01	1.586E+00	2.637E+00	1.867E-01	0.215
	+	144.24		9.634E-01	8.929E-01	1.057E+00	7.485E-02	0.911
		154.21		1.292E-01	3.682E-01	6.040E-01	4.029E-02	0.214
	+	269.46		5.971E-01	2.343E-01	3.303E-01	1.946E-02	1.808
		323.87	*	-2.615E-01	6.465E-01	9.063E-01	1.493E-01	-0.289
	+	338.28		6.388E+00	1.753E+00	2.376E+00	2.485E-01	2.688
		445.03		2.116E+00	2.215E+00	3.803E+00	3.903E-01	0.556
AC-227		79.80		-1.450E-01	1.764E+00	2.412E+00	5.050E-01	-0.060
		236.00		6.398E-01	2.476E-01	4.062E-01	4.178E-02	1.575
		256.20	*	-1.320E-01	3.278E-01	5.392E-01	7.478E-02	-0.245
		286.10		-1.442E-01	1.314E+00	2.182E+00	2.507E-01	-0.066
	+	299.80		1.502E+00	1.678E+00	2.322E+00	3.772E-01	0.647
		304.40		3.535E-01	1.765E+00	2.758E+00	4.760E-01	0.128
		334.20		-2.079E+00	2.453E+00	3.273E+00	5.988E-01	-0.635
TH-227		79.80		-1.450E-01	1.764E+00	2.412E+00	5.118E-01	-0.060
	+	94.00		8.254E+00	3.242E+00	3.577E+00	7.599E-01	2.307
		236.00		6.398E-01	2.454E-01	4.062E-01	3.600E-02	1.575
		256.20	*	-1.320E-01	3.280E-01	5.392E-01	9.072E-02	-0.245
		286.10		-1.442E-01	1.322E+00	2.182E+00	2.185E+00	-0.066
	+	299.80		1.502E+00	1.678E+00	2.322E+00	3.772E-01	0.647
		304.40		3.535E-01	1.765E+00	2.758E+00	4.760E-01	0.128
		334.20		-2.079E+00	2.453E+00	3.273E+00	5.988E-01	-0.635
TH-229	+	85.43		3.597E-01	1.910E-01	3.122E-01	2.329E-02	1.152
	+	88.47		3.508E-01	1.125E-01	1.935E-01	1.472E-02	1.813
		100.00		3.217E-02	1.703E-01	2.839E-01	1.937E-02	0.113
		193.63	*	-1.491E-01	4.591E-01	7.190E-01	3.786E-02	-0.207
		210.97		4.576E-01	7.831E-01	1.144E+00	6.134E-02	0.400
PA-231		283.67	*	-1.600E+00	1.381E+00	2.042E+00	2.801E-01	-0.784
	+	301.29		6.008E-01	6.670E-01	9.515E-01	9.883E-02	0.631
TH-231		81.07		-7.799E-03	2.280E-01	3.124E-01	2.237E-02	-0.025
	+	83.78		2.403E-01	1.276E-01	2.008E-01	1.474E-02	1.197
		94.90		2.964E-01	2.249E-01	3.548E-01	2.521E-02	0.835
		122.32		5.667E-01	1.586E+00	2.637E+00	1.867E-01	0.215
	+	144.24		9.634E-01	8.929E-01	1.057E+00	7.485E-02	0.911
		154.21		1.292E-01	3.682E-01	6.040E-01	4.029E-02	0.214
	+	269.46		5.971E-01	2.343E-01	3.303E-01	1.946E-02	1.808
		323.87	*	-2.615E-01	6.465E-01	9.063E-01	1.493E-01	-0.289
	+	338.28		6.388E+00	1.753E+00	2.376E+00	2.485E-01	2.688
		445.03		2.116E+00	2.215E+00	3.803E+00	3.903E-01	0.556
U-231	+	84.21		1.067E+01	5.664E+00	8.935E+00	6.586E-01	1.194
	+	92.29		8.401E+00	2.841E+00	4.095E+00	2.984E-01	2.052
		95.87	*	-7.726E-01	1.117E+00	1.597E+00	1.125E-01	-0.484

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-3.536E-01	1.955E+00	3.198E+00	2.084E-01	-0.111
PA-233	+	75.28		1.893E+01	4.609E+00	6.673E+00	9.620E-01	2.837
	+	86.59		7.674E+00	2.773E+00	2.934E+00	7.772E-01	2.616
	+	300.12		4.187E-01	4.662E-01	6.648E-01	8.899E-02	0.630
		311.98	*	-9.000E-03	6.049E-02	9.964E-02	6.029E-03	-0.090
		340.50		1.191E+00	6.886E-01	1.042E+00	2.389E-01	1.143
		398.62		-2.332E+00	2.059E+00	2.954E+00	7.621E-01	-0.789
		415.76		2.498E-01	1.543E+00	2.537E+00	5.212E-01	0.098
PA-234	+	63.00		1.808E+00	2.340E+00	2.585E+00	3.714E-01	0.700
		94.67		3.348E-01	1.686E-01	2.680E-01	3.059E-02	1.249
		98.44		1.065E-01	1.072E-01	1.472E-01	8.178E-02	0.723
		99.86		2.560E-01	4.339E-01	7.254E-01	4.953E-02	0.353
		111.00		6.738E-02	1.621E-01	2.713E-01	2.886E-02	0.248
		131.20		-8.075E-03	1.059E-01	1.535E-01	9.132E-03	-0.053
		152.70		1.038E-01	2.963E-01	4.858E-01	7.613E-02	0.214
	+	186.00		4.650E+00	2.085E+00	2.350E+00	7.156E-01	1.979
		226.40		-3.088E-01	3.513E-01	5.689E-01	6.478E-02	-0.543
		227.20		-1.544E-01	3.714E-01	6.174E-01	3.365E-02	-0.250
		248.90		-5.919E-02	7.451E-01	1.251E+00	2.679E-01	-0.047
	+	293.70		5.535E+00	1.305E+00	1.553E+00	2.490E-01	3.565
		369.80		4.239E-01	8.075E-01	1.360E+00	2.824E-01	0.312
		568.70		-1.995E-01	9.911E-01	1.627E+00	1.024E-01	-0.123
		569.50		4.098E-02	2.678E-01	4.501E-01	2.834E-02	0.091
		574.00		-9.657E-01	1.449E+00	2.317E+00	1.462E-01	-0.417
		699.00		-6.248E-02	7.537E-01	1.189E+00	2.179E-01	-0.053
		706.10		1.850E-01	1.094E+00	1.823E+00	8.074E-01	0.101
		733.00		2.069E-01	3.951E-01	5.961E-01	1.290E-01	0.347
		742.81		-2.376E-01	1.338E+00	2.152E+00	1.443E+00	-0.110
	+	796.30		2.597E+00	1.364E+00	1.646E+00	4.399E-01	1.578
		805.60		2.179E-01	1.033E+00	1.714E+00	5.207E-01	0.127
		819.60		2.876E-01	1.184E+00	1.967E+00	7.444E-01	0.146
		826.30		3.809E-01	8.442E-01	1.402E+00	6.253E-01	0.272
		831.60		-6.953E-01	6.845E-01	9.647E-01	2.858E-01	-0.721
		876.40		-2.526E-01	8.581E-01	1.287E+00	1.322E+00	-0.196
		880.51		2.001E-02	2.674E-01	4.368E-01	3.590E-02	0.046
		883.24		-1.653E-01	3.106E-01	4.443E-01	2.985E-01	-0.372
		899.00		1.201E-01	8.690E-01	1.386E+00	6.054E-01	0.087
		925.00		-2.637E-01	1.230E+00	1.946E+00	1.590E-01	-0.136
		926.50		-3.138E-02	1.808E-01	2.866E-01	7.202E-02	-0.109
		946.00	*	5.260E-02	3.336E-01	5.449E-01	1.008E-01	0.097
		949.00		6.737E-01	4.803E-01	8.626E-01	6.895E-02	0.781
		980.50		2.714E-01	7.596E-01	1.262E+00	9.752E-02	0.215
		1394.10		-5.220E-01	1.099E+00	1.575E+00	1.022E+00	-0.331
PA-234M		766.42		1.269E+01	1.363E+01	2.116E+01	1.069E+01	0.600
		1001.03	*	3.416E+00	4.919E+00	8.541E+00	7.730E-01	0.400
NP-236		94.67		2.559E-01	1.260E-01	2.035E-01	1.449E-02	1.258
		98.44		8.040E-02	6.779E-02	1.113E-01	7.678E-03	0.722
		111.00		5.097E-02	1.225E-01	2.052E-01	1.320E-02	0.248
		160.31	*	-8.434E-02	7.550E-02	1.152E-01	6.042E-03	-0.732

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.311E-01	1.468E-01	2.481E-01	1.698E-02	0.528
		117.00	*	-1.674E-02	1.686E-01	2.756E-01	1.739E-02	-0.061
	+	209.75		1.079E+00	9.111E-01	1.253E+00	6.714E-02	0.861
		228.18		1.239E-01	1.919E-01	3.342E-01	1.823E-02	0.371
	+	277.60		1.441E-01	2.804E-01	2.793E-01	1.576E-02	0.516
		334.30		-1.233E+00	1.372E+00	1.844E+00	1.046E-01	-0.669
AM-241		59.54	*	2.505E-02	1.509E-01	2.320E-01	1.649E-02	0.108
CM-243		99.55		1.349E-01	1.511E-01	2.553E-01	1.747E-02	0.528
		103.76	*	1.977E-02	8.639E-02	1.440E-01	9.593E-03	0.137
		117.00		-1.723E-02	1.735E-01	2.835E-01	1.789E-02	-0.061
	+	209.75		1.064E+00	8.982E-01	1.236E+00	6.619E-02	0.861
		228.18		1.252E-01	1.939E-01	3.377E-01	1.842E-02	0.371
	+	277.60		1.452E-01	2.827E-01	2.816E-01	1.589E-02	0.516
AM-246		798.80		-3.737E-02	1.485E-01	2.028E-01	1.537E-02	-0.184
		1036.00		-1.735E-01	2.894E-01	4.569E-01	3.288E-02	-0.380
		1062.04		-3.270E-02	2.392E-01	3.948E-01	2.731E-02	-0.083
		1078.86	*	9.127E-02	1.564E-01	2.726E-01	1.833E-02	0.335
CM-247	+	278.00		5.974E-01	1.163E+00	1.165E+00	6.575E-02	0.513
		287.40		-1.807E-01	1.106E+00	1.791E+00	1.014E-01	-0.101
		402.60	*	3.771E-02	3.502E-02	6.090E-02	3.377E-03	0.619
CF-249		252.85		2.500E-01	7.570E-01	1.295E+00	7.207E-02	0.193
		333.44		-1.478E-02	1.756E-01	2.532E-01	1.436E-02	-0.058
		387.95	*	3.277E-02	3.804E-02	6.545E-02	3.598E-03	0.501
CF-251		176.60	*	-1.047E-01	1.197E-01	1.835E-01	9.490E-03	-0.571
		227.00		-2.830E-01	3.346E-01	5.449E-01	2.970E-02	-0.519
		285.00		1.537E-02	1.479E+00	2.472E+00	1.399E-01	0.006

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799017      *
* Acquisition date : 10-FEB-2010 19:12:36 Detector SN#     :               *
* Detector ID        : GAM12               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.59     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799017           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.3825E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM            :    0.000             MSD Isotope     :               *
* LCS DPM            :    0.000             LCS Isotope     :               *
* LCSD DPM           :    0.000             LCSD Isotope    :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.397E+01	2.949E+00	3.432E-01	0.000E+00
CD-109	3.989E+00	1.005E+00	1.169E+00	0.000E+00
SN-126	3.920E-01	9.876E-02	1.154E-01	0.000E+00
TL-208	5.490E-01	9.280E-02	5.997E-02	0.000E+00
BI-211	3.335E+00	4.623E-01	3.047E-01	0.000E+00
PB-212	1.566E+00	1.499E-01	8.741E-02	0.000E+00
PO-212	1.566E+00	1.499E-01	8.741E-02	0.000E+00
BI-214	1.179E+00	1.918E-01	1.017E-01	0.000E+00
PB-214	1.160E+00	1.714E-01	1.062E-01	0.000E+00
PO-214	1.160E+00	1.714E-01	1.062E-01	0.000E+00
PO-216	1.566E+00	1.499E-01	8.741E-02	0.000E+00
PO-218	1.160E+00	1.714E-01	1.062E-01	0.000E+00
RA-224	4.547E+00	1.265E+00	9.947E-01	0.000E+00
RA-226	1.179E+00	1.918E-01	1.017E-01	0.000E+00
AC-228	1.731E+00	3.455E-01	1.790E-01	0.000E+00
RA-228	1.731E+00	3.455E-01	1.790E-01	0.000E+00
TH-228	1.590E+00	1.522E-01	8.875E-02	0.000E+00
TH-230	1.179E+00	1.918E-01	1.017E-01	0.000E+00
TH-232	1.731E+00	3.455E-01	1.790E-01	0.000E+00
TH-234	1.551E+00	1.972E+00	2.029E+00	0.000E+00
U-234	1.179E+00	1.918E-01	1.017E-01	0.000E+00
U-235	2.973E-01	2.734E-01	3.181E-01	0.000E+00
NP-237	1.151E+00	3.719E-01	3.429E-01	0.000E+00
U-238	1.551E+00	1.972E+00	2.029E+00	0.000E+00
AM-243	3.614E-01	7.358E-02	9.008E-02	0.000E+00
ANH-511	1.444E-01	6.352E-02	4.574E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.488E-02	3.014E-01	5.049E-01	0.000E+00	NOT IDENT.

NA-22	2.431E-02	4.586E-02	8.098E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.232E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.055E-02	2.838E-02	5.103E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.327E-02	7.360E-02	0.000E+00	FAIL ABUN
SC-46	2.756E-02	4.075E-02	7.213E-02	0.000E+00	FAIL ABUN
V-48	4.137E-02	8.618E-02	1.367E-01	0.000E+00	NOT IDENT.
CR-51	2.450E-01	3.207E-01	5.847E-01	0.000E+00	NOT IDENT.
MN-52	-6.229E-02	2.172E-01	3.462E-01	0.000E+00	NOT IDENT.
MN-54	4.323E-02	3.738E-02	6.848E-02	0.000E+00	NOT IDENT.
CO-56	1.180E-03	3.763E-02	6.354E-02	0.000E+00	NOT IDENT.
CO-57	8.969E-03	2.252E-02	4.030E-02	0.000E+00	NOT IDENT.
CO-58	-4.045E-03	3.613E-02	6.048E-02	0.000E+00	NOT IDENT.
FE-59	-1.315E-01	9.264E-02	1.379E-01	0.000E+00	FAIL ABUN
CO-60	1.110E-02	3.926E-02	6.794E-02	0.000E+00	NOT IDENT.
ZN-65	6.804E-03	9.873E-02	1.468E-01	0.000E+00	NOT IDENT.
GE-68	4.123E-01	1.327E+00	2.334E+00	0.000E+00	NOT IDENT.
AS-73	-1.235E-01	7.268E-01	1.319E+00	0.000E+00	NOT IDENT.
AS-74	-1.035E-02	8.034E-02	1.388E-01	0.000E+00	NOT IDENT.
SE-75	2.792E-02	3.954E-02	6.808E-02	0.000E+00	NOT IDENT.
BR-77	-4.793E+00	1.097E+01	1.770E+01	0.000E+00	FAIL ABUN
SR-82	-1.361E-01	3.586E-01	5.891E-01	0.000E+00	NOT IDENT.
RB-83	-3.044E-03	6.671E-02	1.111E-01	0.000E+00	NOT IDENT.
RB-84	-5.485E-03	6.646E-02	1.106E-01	0.000E+00	NOT IDENT.
KR-85	6.412E+00	7.853E+00	1.233E+01	0.000E+00	NOT IDENT.
SR-85	3.294E-02	4.034E-02	6.332E-02	0.000E+00	NOT IDENT.
RB-86	6.706E-02	8.354E-01	1.445E+00	0.000E+00	NOT IDENT.
Y-88	2.237E-02	2.794E-02	5.435E-02	0.000E+00	NOT IDENT.
ZR-88	-9.199E-03	2.784E-02	4.676E-02	0.000E+00	NOT IDENT.
Y-91	-7.191E+00	2.029E+01	3.351E+01	0.000E+00	NOT IDENT.
NB-94	2.119E-02	3.427E-02	6.126E-02	0.000E+00	NOT IDENT.
NB-95	2.034E-02	4.494E-02	7.881E-02	0.000E+00	NOT IDENT.
NB-95M	1.569E-01	1.188E-01	2.015E-01	0.000E+00	NOT IDENT.
ZR-95	-2.451E-02	7.146E-02	1.170E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.086E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.199E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.982E+00	1.154E+01	2.010E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.445E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.259E-03	2.978E-02	4.984E-02	0.000E+00	NOT IDENT.
RH-102	-5.599E-03	2.729E-02	4.531E-02	0.000E+00	NOT IDENT.
RU-103	-4.114E-03	3.811E-02	6.314E-02	0.000E+00	FAIL ABUN
RH-106	-1.868E-01	2.868E-01	4.715E-01	0.000E+00	NOT IDENT.
RU-106	-1.868E-01	2.862E-01	4.715E-01	0.000E+00	NOT IDENT.
AG-108M	8.641E-03	3.105E-02	5.284E-02	0.000E+00	NOT IDENT.
AG-110M	-2.326E-02	3.244E-02	5.288E-02	0.000E+00	NOT IDENT.
IN-111	-3.950E-01	1.053E+00	1.620E+00	0.000E+00	NOT IDENT.
IN-113M	-2.721E-02	4.123E-02	6.773E-02	0.000E+00	NOT IDENT.
SN-113	-2.721E-02	4.123E-02	6.773E-02	0.000E+00	NOT IDENT.
IN-114M	6.286E-03	1.689E-01	2.735E-01	0.000E+00	NOT IDENT.
CD-115	-6.708E+00	1.077E+01	1.703E+01	0.000E+00	NOT IDENT.
SN-117M	3.079E-02	5.104E-02	9.031E-02	0.000E+00	NOT IDENT.
SB-122	2.145E+00	2.117E+00	3.938E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.568E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.191E-02	2.575E-02	4.602E-02	0.000E+00	NOT IDENT.
I-124	4.982E-01	6.600E-01	1.078E+00	0.000E+00	NOT IDENT.
SB-124	-7.060E-02	6.049E-02	7.532E-02	0.000E+00	FAIL ABUN
SB-125	-1.313E-02	8.713E-02	1.469E-01	0.000E+00	FAIL ABUN
TE-125M	1.272E+00	8.169E+00	1.458E+01	0.000E+00	NOT IDENT.
I-126	-5.339E-02	1.756E-01	2.962E-01	0.000E+00	NOT IDENT.
SB-126	-2.574E-02	1.506E-01	2.299E-01	0.000E+00	FAIL ABUN
SB-127	-9.474E-01	1.341E+00	2.173E+00	0.000E+00	NOT IDENT.
XE-127	6.379E-02	4.069E-02	7.393E-02	0.000E+00	NOT IDENT.
I-131	-8.932E-03	1.060E-01	1.822E-01	0.000E+00	NOT IDENT.
TE-132	2.305E-01	6.056E-01	1.106E+00	0.000E+00	NOT IDENT.
BA-133	1.567E-02	4.038E-02	6.348E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.397E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.007E-02	8.797E-02	0.000E+00	FAIL ABUN
CS-135	1.943E-01	1.536E-01	2.592E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.954E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.600E-03	1.059E-01	1.823E-01	0.000E+00	FAIL ABUN
BA-137M	1.482E-02	3.592E-02	6.282E-02	0.000E+00	NOT IDENT.
CS-137	1.567E-02	3.798E-02	6.641E-02	0.000E+00	NOT IDENT.
CE-139	5.443E-03	2.681E-02	4.651E-02	0.000E+00	NOT IDENT.
BA-140	7.004E-02	2.389E-01	4.273E-01	0.000E+00	NOT IDENT.
LA-140	-4.877E-02	7.243E-02	1.000E-01	0.000E+00	FAIL ABUN
CE-141	-8.330E-03	6.218E-02	9.555E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.202E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.571E-01	1.836E-01	3.066E-01	0.000E+00	NOT IDENT.
PM-144	-1.469E-03	3.264E-02	5.589E-02	0.000E+00	NOT IDENT.

PR-144	-9.953E-02	2.212E+00	3.788E+00	0.000E+00	NOT IDENT.
PM-146	-4.794E-03	4.033E-02	6.772E-02	0.000E+00	NOT IDENT.
ND-147	-1.552E-01	5.313E-01	8.638E-01	0.000E+00	FAIL ABUN
PM-149	9.016E+00	7.988E+01	1.419E+02	0.000E+00	NOT IDENT.
EU-152	-2.821E-02	8.549E-02	1.456E-01	0.000E+00	FAIL ABUN
GD-153	-4.237E-02	8.145E-02	1.260E-01	0.000E+00	FAIL ABUN
EU-154	6.573E-02	1.280E-01	2.255E-01	0.000E+00	NOT IDENT.
EU-155	5.533E-02	9.772E-02	1.775E-01	0.000E+00	FAIL ABUN
TB-160	6.055E-02	1.299E-01	2.275E-01	0.000E+00	FAIL ABUN
HO-166M	8.687E-03	5.770E-02	1.001E-01	0.000E+00	FAIL ABUN
TM-171	1.311E+01	2.725E+01	4.566E+01	0.000E+00	NOT IDENT.
LU-176	-1.757E-02	2.188E-02	3.665E-02	0.000E+00	FAIL ABUN
LU-177	1.551E+00	1.283E+00	1.850E+00	0.000E+00	FAIL ABUN
LU-177M	-1.334E-01	1.632E-01	2.633E-01	0.000E+00	FAIL ABUN
HF-181	7.383E-03	4.216E-02	7.186E-02	0.000E+00	NOT IDENT.
W-181	6.158E-02	3.665E-01	6.069E-01	0.000E+00	NOT IDENT.
TA-182	1.182E-01	2.146E-01	3.781E-01	0.000E+00	FAIL ABUN
RE-183	-3.170E-02	1.015E-01	1.676E-01	0.000E+00	FAIL ABUN
RE-184	6.668E-02	1.979E-01	3.587E-01	0.000E+00	NOT IDENT.
OS-185	-2.192E-02	4.214E-02	7.012E-02	0.000E+00	NOT IDENT.
RE-188	6.559E-04	1.600E-01	2.765E-01	0.000E+00	NOT IDENT.
W-188	5.936E+00	6.973E+00	1.149E+01	0.000E+00	FAIL ABUN
IR-192	-2.077E-02	3.107E-02	5.231E-02	0.000E+00	FAIL ABUN
AU-195	3.343E-01	2.081E-01	3.874E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.769E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	6.869E-01	6.613E+00	1.141E+01	0.000E+00	NOT IDENT.
TL-202	2.870E-02	6.361E-02	1.115E-01	0.000E+00	NOT IDENT.
HG-203	3.362E-02	3.890E-02	6.423E-02	0.000E+00	NOT IDENT.
BI-207	-2.590E-02	5.439E-02	8.985E-02	0.000E+00	FAIL ABUN
TL-207	-2.615E-01	6.336E-01	9.369E-01	0.000E+00	FAIL ABUN
PO-209	-2.942E+00	7.673E+00	1.206E+01	0.000E+00	NOT IDENT.
BI-210	-7.718E-02	2.990E+00	5.558E+00	0.000E+00	NOT IDENT.
PB-210	-7.718E-02	2.990E+00	5.558E+00	0.000E+00	NOT IDENT.
PO-210	-7.718E-02	2.990E+00	5.558E+00	0.000E+00	NOT IDENT.
PB-211	-2.954E-01	9.383E-01	1.546E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.665E-01	6.440E-01	0.000E+00	FAIL ABUN
PO-215	-2.615E-01	6.336E-01	9.369E-01	0.000E+00	FAIL ABUN
RN-219	2.946E-02	3.896E-01	6.708E-01	0.000E+00	FAIL ABUN
RN-220	-1.990E+00	2.380E+01	4.159E+01	0.000E+00	NOT IDENT.
RA-223	-2.615E-01	6.336E-01	9.369E-01	0.000E+00	FAIL ABUN
AC-227	-1.320E-01	3.212E-01	5.599E-01	0.000E+00	FAIL ABUN
TH-227	-1.320E-01	3.214E-01	5.599E-01	0.000E+00	FAIL ABUN
TH-229	-1.491E-01	4.499E-01	7.507E-01	0.000E+00	FAIL ABUN
PA-231	-1.600E+00	1.353E+00	2.116E+00	0.000E+00	FAIL ABUN
TH-231	-2.615E-01	6.336E-01	9.369E-01	0.000E+00	FAIL ABUN
U-231	-7.726E-01	1.094E+00	1.689E+00	0.000E+00	FAIL ABUN
PA-233	-9.000E-03	5.928E-02	1.031E-01	0.000E+00	FAIL ABUN
PA-234	5.260E-02	3.270E-01	5.515E-01	0.000E+00	FAIL ABUN
PA-234M	3.416E+00	4.821E+00	8.635E+00	0.000E+00	NOT IDENT.
NP-236	-8.434E-02	7.399E-02	1.207E-01	0.000E+00	NOT IDENT.
NP-239	-1.674E-02	1.653E-01	2.904E-01	0.000E+00	FAIL ABUN
AM-241	2.505E-02	1.479E-01	2.476E-01	0.000E+00	NOT IDENT.
CM-243	1.977E-02	8.466E-02	1.521E-01	0.000E+00	FAIL ABUN
AM-246	9.127E-02	1.533E-01	2.752E-01	0.000E+00	NOT IDENT.
CM-247	3.771E-02	3.432E-02	6.269E-02	0.000E+00	FAIL ABUN
CF-249	3.277E-02	3.728E-02	6.742E-02	0.000E+00	NOT IDENT.
CF-251	-1.047E-01	1.173E-01	1.919E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:13:13.98

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799017.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:12:36
Sample ID         : G245799017           Sample quantity  : 1.38251E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.59  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1518	10.67*	1.137E+00	3.397E+01	3.397E+01	8.86
CD-109	88.03	301	3.72*	5.639E+00	3.899E+00	3.989E+00	25.71
SN-126	64.28	70	9.60	3.208E+00	6.141E-01	6.141E-01	129.34
	86.94	301	8.90	5.639E+00	1.630E+00	1.630E+00	47.93
	87.57	301	37.00*	5.639E+00	3.920E-01	3.920E-01	25.71
TL-208	277.35	34	6.80	4.511E+00	2.987E-01	2.987E-01	194.86
	510.84	149	21.60	2.796E+00	6.686E-01	6.686E-01	45.65
	583.14	427	84.20*	2.506E+00	5.490E-01	5.490E-01	17.25
	860.37	61	12.46	1.794E+00	7.461E-01	7.461E-01	65.61
BI-211	72.87	------	1.27	4.387E+00	------	Line Not Found	------
	351.07	598	12.94*	3.763E+00	3.335E+00	3.335E+00	14.14
PB-212	74.81	403	10.70	4.587E+00	2.229E+00	2.229E+00	22.78
	77.11	644	18.00	4.816E+00	2.016E+00	2.016E+00	14.61
	87.30	301	8.00	5.639E+00	1.813E+00	1.813E+00	27.59
	238.63	1290	44.60*	5.016E+00	1.566E+00	1.566E+00	9.77
	300.09	43	3.41	4.248E+00	8.104E-01	8.104E-01	110.83
PO-212	74.81	403	10.70	4.587E+00	2.229E+00	2.229E+00	22.78
	77.11	644	18.00	4.816E+00	2.016E+00	2.016E+00	14.61
	87.30	301	8.00	5.639E+00	1.813E+00	1.813E+00	27.59
	115.19	------	0.60	6.604E+00	------	Line Not Found	------
	238.63	1290	44.60*	5.016E+00	1.566E+00	1.566E+00	9.77
	300.09	43	3.41	4.248E+00	8.104E-01	8.104E-01	110.83
BI-214	609.31	485	46.30*	2.415E+00	1.179E+00	1.179E+00	16.61
	1120.29	85	15.10	1.423E+00	1.077E+00	1.078E+00	53.00
	1764.49	101	15.80	9.903E-01	1.753E+00	1.753E+00	30.03
PB-214	74.81	403	6.21	4.587E+00	3.841E+00	3.841E+00	22.05
	77.11	644	10.50	4.816E+00	3.457E+00	3.457E+00	16.47
	87.30	301	4.67	5.639E+00	3.106E+00	3.106E+00	26.84
	241.98	329	7.49	4.973E+00	2.398E+00	2.398E+00	28.94
	295.21	351	19.20	4.303E+00	1.153E+00	1.153E+00	19.24
	351.92	598	37.20*	3.763E+00	1.160E+00	1.160E+00	15.08
PO-214	74.81	403	6.21	4.587E+00	3.841E+00	3.841E+00	22.05

Sample ID : G245799017 Acquisition date : 10-FEB-2010 19:12:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	644	10.50	4.816E+00	3.457E+00	3.457E+00	16.47
	87.30	301	4.67	5.639E+00	3.106E+00	3.106E+00	26.84
	241.98	329	7.49	4.973E+00	2.398E+00	2.398E+00	28.94
	295.21	351	19.20	4.303E+00	1.153E+00	1.153E+00	19.24
	351.92	598	37.20*	3.763E+00	1.160E+00	1.160E+00	15.08
PO-216	74.81	403	10.70	4.587E+00	2.229E+00	2.229E+00	22.78
	77.11	644	18.00	4.816E+00	2.016E+00	2.016E+00	14.61
	87.30	301	8.00	5.639E+00	1.813E+00	1.813E+00	27.59
	238.63	1290	44.60*	5.016E+00	1.566E+00	1.566E+00	9.77
	300.09	43	3.41	4.248E+00	8.104E-01	8.104E-01	110.83
PO-218	74.81	403	6.21	4.587E+00	3.841E+00	3.841E+00	22.05
	77.11	644	10.50	4.816E+00	3.457E+00	3.457E+00	16.47
	87.30	301	4.67	5.639E+00	3.106E+00	3.106E+00	26.84
	241.98	329	7.49	4.973E+00	2.398E+00	2.398E+00	28.94
	295.21	351	19.20	4.303E+00	1.153E+00	1.153E+00	19.24
	351.92	598	37.20*	3.763E+00	1.160E+00	1.160E+00	15.08
RA-224	240.98	329	3.95*	4.973E+00	4.547E+00	4.547E+00	28.39
RA-226	609.31	485	46.30*	2.415E+00	1.179E+00	1.179E+00	16.61
	1120.29	85	15.10	1.423E+00	1.077E+00	1.078E+00	53.00
	1764.49	101	15.80	9.903E-01	1.753E+00	1.753E+00	30.03
AC-228	338.32	249	11.40	3.877E+00	1.530E+00	1.530E+00	48.00
	911.07	301	27.70*	1.707E+00	1.731E+00	1.731E+00	20.36
	969.11	155	16.60	1.617E+00	1.563E+00	1.563E+00	33.26
RA-228	338.32	249	11.40	3.877E+00	1.530E+00	1.530E+00	48.00
	911.07	301	27.70*	1.707E+00	1.731E+00	1.731E+00	20.36
	969.11	155	16.60	1.617E+00	1.563E+00	1.563E+00	33.26
TH-228	74.81	403	10.70	4.587E+00	2.229E+00	2.264E+00	20.80
	77.11	644	18.00	4.816E+00	2.016E+00	2.047E+00	14.61
	87.30	301	8.00	5.639E+00	1.813E+00	1.841E+00	25.71
	238.63	1290	44.60*	5.016E+00	1.566E+00	1.590E+00	9.77
	300.09	43	3.41	4.248E+00	8.104E-01	8.229E-01	125.26
TH-230	609.31	485	46.30*	2.415E+00	1.179E+00	1.179E+00	16.61
	1120.29	85	15.10	1.423E+00	1.077E+00	1.077E+00	53.00
	1764.49	101	15.80	9.903E-01	1.753E+00	1.753E+00	30.03
TH-232	338.32	249	11.40	3.877E+00	1.530E+00	1.530E+00	26.01
	911.07	301	27.70*	1.707E+00	1.731E+00	1.731E+00	20.36
	969.11	155	16.60	1.617E+00	1.563E+00	1.563E+00	33.26
TH-234	63.29	70	3.80*	3.208E+00	1.551E+00	1.551E+00	129.70
	92.38	254	5.41	5.972E+00	2.136E+00	2.136E+00	37.36
U-234	609.31	485	46.30*	2.415E+00	1.179E+00	1.179E+00	16.61
	1120.29	85	15.10	1.423E+00	1.077E+00	1.077E+00	53.00
	1764.49	101	15.80	9.903E-01	1.753E+00	1.753E+00	30.03
U-235	89.95	204	2.70	5.816E+00	3.521E+00	3.521E+00	43.66
	93.35	254	4.50	5.972E+00	2.568E+00	2.568E+00	43.06
	105.00	------	2.10	6.433E+00	------ Line Not Found		------
	143.76	75	10.50*	6.525E+00	2.973E-01	2.973E-01	93.83
	163.35	------	4.70	6.238E+00	------ Line Not Found		------
	185.71	201	54.00	5.863E+00	1.722E-01	1.722E-01	33.32
	205.31	------	4.70	5.531E+00	------ Line Not Found		------

Sample ID : G245799017 Acquisition date : 10-FEB-2010 19:12:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
NP-237	86.50	301	12.60*	5.639E+00	1.151E+00	1.151E+00	32.97
	95.87	------	2.60	6.124E+00	------ Line Not Found		------
U-238	63.29	70	3.80*	3.208E+00	1.551E+00	1.551E+00	129.70
	92.38	254	5.41	5.972E+00	2.136E+00	2.136E+00	33.81
AM-243	74.67	403	66.00*	4.587E+00	3.614E-01	3.614E-01	20.77
	86.72	301	0.34	5.639E+00	4.316E+01	4.316E+01	25.71
	117.66	------	0.55	6.624E+00	------ Line Not Found		------
	142.18	75	0.13	6.525E+00	2.497E+01	2.497E+01	92.59
ANH-511	511.00	149	100.00*	2.796E+00	1.444E-01	1.444E-01	44.88

Flag: "*" = Keyline

Sample ID : G245799017 Acquisition date : 10-FEB-2010 19:12:36

Total number of lines in spectrum 34
Number of unidentified lines 1
Number of lines tentatively identified by NID 33 97.06%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.397E+01	3.397E+01	0.301E+01	8.86	
CD-109	464.00D	1.02	3.899E+00	3.989E+00	1.026E+00	25.71	
SN-126	1.00E+05Y	1.00	3.920E-01	3.920E-01	1.008E-01	25.71	
TL-208	1.41E+10Y	1.00	5.490E-01	5.490E-01	0.947E-01	17.25	
BI-211	7.04E+08Y	1.00	3.335E+00	3.335E+00	0.472E+00	14.14	
PB-212	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.153E+00	9.77	
PO-212	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.153E+00	9.77	
BI-214	1600.00Y	1.00	1.179E+00	1.179E+00	0.196E+00	16.61	
PB-214	1600.00Y	1.00	1.160E+00	1.160E+00	0.175E+00	15.08	
PO-214	1600.00Y	1.00	1.160E+00	1.160E+00	0.175E+00	15.08	
PO-216	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.153E+00	9.77	
PO-218	1600.00Y	1.00	1.160E+00	1.160E+00	0.175E+00	15.08	
RA-224	1.41E+10Y	1.00	4.547E+00	4.547E+00	1.291E+00	28.39	
RA-226	1600.00Y	1.00	1.179E+00	1.179E+00	0.196E+00	16.61	
AC-228	1.41E+10Y	1.00	1.731E+00	1.731E+00	0.353E+00	20.36	
RA-228	1.41E+10Y	1.00	1.731E+00	1.731E+00	0.353E+00	20.36	
TH-228	1.91Y	1.02	1.566E+00	1.590E+00	0.155E+00	9.77	
TH-230	4.47E+09Y	1.00	1.179E+00	1.179E+00	0.196E+00	16.61	
TH-232	1.41E+10Y	1.00	1.731E+00	1.731E+00	0.353E+00	20.36	
TH-234	4.47E+09Y	1.00	1.551E+00	1.551E+00	2.012E+00	129.70	
U-234	4.47E+09Y	1.00	1.179E+00	1.179E+00	0.196E+00	16.61	
U-235	7.04E+08Y	1.00	2.973E-01	2.973E-01	2.789E-01	93.83	
NP-237	2.14E+06Y	1.00	1.151E+00	1.151E+00	0.379E+00	32.97	
U-238	4.47E+09Y	1.00	1.551E+00	1.551E+00	2.012E+00	129.70	
AM-243	7380.00Y	1.00	3.614E-01	3.614E-01	0.751E-01	20.77	
ANH-511	1.00E+09Y	1.00	1.444E-01	1.444E-01	0.648E-01	44.88	
	Total Activity :		7.140E+01	7.151E+01			

Grand Total Activity : 7.140E+01 7.151E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799017 Acquisition date : 10-FEB-2010 19:12:36

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	84.18	119	330	1.25	167.86	165	26	1.65E-02	52.6	5.44E+00	T
0	129.06	81	255	0.91	257.67	255	6	1.13E-02	66.1	6.64E+00	T
0	209.33	70	269	0.92	418.29	414	8	9.78E-03	84.2	5.46E+00	T
0	270.10	137	178	1.49	539.88	536	9	1.91E-02	38.8	4.59E+00	T
0	327.70	79	146	1.23	655.13	650	9	1.09E-02	59.7	3.97E+00	T
0	462.77	60	65	0.66	925.38	923	7	8.27E-03	54.1	3.03E+00	T
0	727.52	129	62	1.71	1455.01	1449	15	1.80E-02	32.1	2.08E+00	T
0	795.42	72	43	1.53	1590.84	1584	13	9.96E-03	45.2	1.92E+00	T
1	964.34	60	66	2.00	1928.72	1923	21	8.31E-03	56.6	1.62E+00	T
0	1587.68	28	11	1.57	3175.33	3168	14	3.95E-03	61.2	1.07E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:13:19.44

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799017.CNF;1  *
* Acquisition date  : 10-FEB-2010 19:12:36  Detector SN#     :               *
* Detector ID       : GAM12                 Sensitivity      : 5.00000      *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.59          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID         *
* Sample ID         : G245799017            Analyst initials: RXF2          *
* Batch Number      : 947531                Sample Quantity : 1.38251E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24.5MS Isotope      :                 *
* MSD ID           :                      MSD Isotope     :                 *
* LCS ID           : 1032-A               LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.397E+01	3.009E+00	3.421E-01	2.439E-02	99.281
CD-109	3.989E+00	1.026E+00	1.103E+00	8.442E-02	3.616
SN-126	3.920E-01	1.008E-01	1.089E-01	8.301E-03	3.599
TL-208	5.490E-01	9.470E-02	5.868E-02	4.198E-03	9.356
BI-211	3.335E+00	4.717E-01	2.952E-01	1.856E-02	11.298
PB-212	1.566E+00	1.530E-01	8.406E-02	5.969E-03	18.625
PO-212	1.566E+00	1.530E-01	8.406E-02	5.969E-03	18.625
BI-214	1.179E+00	1.957E-01	9.959E-02	8.199E-03	11.834
PB-214	1.160E+00	1.749E-01	1.029E-01	8.408E-03	11.273
PO-214	1.160E+00	1.749E-01	1.029E-01	8.408E-03	11.273
PO-216	1.566E+00	1.530E-01	8.406E-02	5.969E-03	18.625
PO-218	1.160E+00	1.749E-01	1.029E-01	8.408E-03	11.273
RA-224	4.547E+00	1.291E+00	9.567E-01	5.277E-02	4.753
RA-226	1.179E+00	1.957E-01	9.959E-02	8.199E-03	11.834
AC-228	1.731E+00	3.525E-01	1.768E-01	1.941E-02	9.794
RA-228	1.731E+00	3.525E-01	1.768E-01	1.941E-02	9.794
TH-228	1.590E+00	1.554E-01	8.535E-02	6.060E-03	18.625
TH-230	1.179E+00	1.957E-01	9.958E-02	8.198E-03	11.834

Sample ID : G245799017 Acquisition date : 10-FEB-2010 19:12:36

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.731E+00	3.525E-01	1.768E-01	1.941E-02	9.794
TH-234	1.551E+00	2.012E+00	1.903E+00	3.240E-01	0.815
U-234	1.179E+00	1.957E-01	9.958E-02	8.198E-03	11.834
U-235	2.973E-01	2.789E-01	3.030E-01	4.922E-02	0.981
NP-237	1.151E+00	3.795E-01	3.235E-01	7.108E-02	3.558
U-238	1.551E+00	2.012E+00	1.903E+00	3.240E-01	0.815
AM-243	3.614E-01	7.508E-02	8.477E-02	5.760E-03	4.264
ANH-511	1.444E-01	6.481E-02	4.464E-02	2.721E-03	3.235

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.488E-02		3.076E-01	4.921E-01	3.386E-02	-0.051
NA-22	2.431E-02		4.680E-02	8.049E-02	5.183E-03	0.302
NA-24	1.747E-01		4.200E-01	Half-Life too short		
AL-26	1.055E-02		2.896E-02	5.109E-02	2.931E-03	0.207
TI-44	3.721E-01	+	5.435E-02	6.932E-02	4.848E-03	5.368
SC-46	2.756E-02		4.158E-02	7.118E-02	5.900E-03	0.387
V-48	4.137E-02		8.794E-02	1.352E-01	1.042E-02	0.306
CR-51	2.450E-01		3.273E-01	5.655E-01	3.595E-02	0.433
MN-52	-6.229E-02		2.216E-01	3.449E-01	2.369E-02	-0.181
MN-54	4.323E-02		3.814E-02	6.749E-02	5.306E-03	0.640
CO-56	1.180E-03		3.840E-02	6.264E-02	4.983E-03	0.019
CO-57	8.969E-03		2.298E-02	3.827E-02	2.393E-03	0.234
CO-58	-4.045E-03		3.686E-02	5.957E-02	4.584E-03	-0.068
FE-59	-1.315E-01		9.453E-02	1.367E-01	1.009E-02	-0.962
CO-60	1.110E-02		4.006E-02	6.760E-02	4.721E-03	0.164
ZN-65	6.804E-03		1.007E-01	1.455E-01	9.151E-03	0.047
GE-68	4.123E-01		1.354E+00	2.313E+00	1.559E-01	0.178
AS-73	-1.235E-01		7.416E-01	1.233E+00	7.963E-02	-0.100
AS-74	-1.035E-02		8.198E-02	1.359E-01	8.649E-03	-0.076
SE-75	2.792E-02		4.034E-02	6.560E-02	3.718E-03	0.426
BR-77	-4.793E+00		1.119E+01	1.728E+01	1.060E+00	-0.277
SR-82	-1.361E-01		3.659E-01	5.798E-01	4.290E-02	-0.235
RB-83	-3.044E-03		6.807E-02	1.085E-01	6.650E-03	-0.028
RB-84	-5.485E-03		6.782E-02	1.091E-01	8.974E-03	-0.050
KR-85	6.412E+00		8.014E+00	1.203E+01	7.347E-01	0.533
SR-85	3.294E-02		4.117E-02	6.181E-02	3.774E-03	0.533
RB-86	6.706E-02		8.525E-01	1.431E+00	9.660E-02	0.047
Y-88	2.237E-02		2.851E-02	5.443E-02	3.064E-03	0.411
ZR-88	-9.199E-03		2.841E-02	4.540E-02	2.490E-03	-0.203
Y-91	-7.191E+00		2.070E+01	3.327E+01	1.923E+00	-0.216
NB-94	2.119E-02		3.497E-02	6.016E-02	4.098E-03	0.352
NB-95	2.034E-02		4.586E-02	7.753E-02	5.671E-03	0.262
NB-95M	1.569E-01		1.213E-01	1.938E-01	1.413E-02	0.810
ZR-95	-2.451E-02		7.292E-02	1.151E-01	9.503E-03	-0.213
NB-97	-9.051E-02		5.543E-02	Half-Life too short		

Sample ID : G245799017 Acquisition date : 10-FEB-2010 19:12:36

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	5.387E+00		1.122E+00	Half-Life too short		
MO-99	2.982E+00		1.177E+01	1.976E+01	2.842E+00	0.151
TC-99M	-1.676E+10		3.288E+10	Half-Life too short		
RH-101	1.259E-03		3.039E-02	4.776E-02	2.526E-03	0.026
RH-102	-5.599E-03		2.785E-02	4.416E-02	2.623E-03	-0.127
RU-103	-4.114E-03		3.889E-02	6.159E-02	7.856E-03	-0.067
RH-106	-1.868E-01		2.927E-01	4.619E-01	5.569E-02	-0.404
RU-106	-1.868E-01		2.920E-01	4.619E-01	2.966E-02	-0.404
AG-108M	8.641E-03		3.169E-02	5.140E-02	3.203E-03	0.168
AG-110M	-2.326E-02		3.311E-02	5.186E-02	3.535E-03	-0.449
IN-111	-3.950E-01		1.074E+00	1.558E+00	8.626E-02	-0.253
IN-113M	-2.721E-02		4.207E-02	6.576E-02	3.872E-03	-0.414
SN-113	-2.721E-02		4.207E-02	6.576E-02	3.872E-03	-0.414
IN-114M	6.286E-03		1.723E-01	2.618E-01	1.374E-02	0.024
CD-115	-6.708E+00		1.099E+01	1.663E+01	1.024E+00	-0.403
SN-117M	3.079E-02		5.208E-02	8.618E-02	4.552E-03	0.357
SB-122	2.145E+00		2.160E+00	3.851E+00	2.418E-01	0.557
I-123	5.590E+00		3.351E+00	Half-Life too short		
TE-123M	2.191E-02		2.627E-02	4.392E-02	2.353E-03	0.499
I-124	4.982E-01		6.734E-01	1.056E+00	6.738E-02	0.472
SB-124	-7.060E-02		6.172E-02	7.530E-02	5.025E-03	-0.938
SB-125	-1.313E-02		8.890E-02	1.429E-01	8.493E-03	-0.092
TE-125M	1.272E+00		8.336E+00	1.382E+01	1.191E+00	0.092
I-126	-5.339E-02		1.792E-01	2.906E-01	1.895E-02	-0.184
SB-126	-2.574E-02		1.536E-01	2.259E-01	1.571E-02	-0.114
SB-127	-9.474E-01		1.368E+00	2.133E+00	2.144E-01	-0.444
XE-127	6.379E-02		4.152E-02	7.087E-02	3.769E-03	0.900
I-131	-8.932E-03		1.081E-01	1.767E-01	1.112E-02	-0.051
TE-132	2.305E-01		6.180E-01	1.063E+00	1.516E-01	0.217
BA-133	1.567E-02		4.120E-02	6.151E-02	7.058E-03	0.255
I-133	-1.706E-03		3.264E-03	Half-Life too short		
CS-134	1.337E-01	+	6.130E-02	8.662E-02	6.604E-03	1.543
CS-135	1.943E-01		1.568E-01	2.498E-01	1.879E-02	0.778
I-135	-4.640E+09		4.568E+09	Half-Life too short		
CS-136	-1.600E-03		1.081E-01	1.805E-01	1.356E-02	-0.009
BA-137M	1.482E-02		3.666E-02	6.163E-02	3.995E-03	0.240
CS-137	1.567E-02		3.875E-02	6.515E-02	4.237E-03	0.240
CE-139	5.443E-03		2.736E-02	4.442E-02	2.276E-03	0.123
BA-140	7.004E-02		2.438E-01	4.175E-01	1.361E-01	0.168
LA-140	-4.877E-02		7.391E-02	9.988E-02	6.505E-03	-0.488
CE-141	-8.330E-03		6.345E-02	9.104E-02	5.300E-03	-0.092
CE-143	6.789E-04		1.123E-04	Half-Life too short		
CE-144	-1.571E-01		1.873E-01	2.916E-01	4.151E-02	-0.539
PM-144	-1.469E-03		3.331E-02	5.488E-02	3.713E-03	-0.027
PR-144	-9.953E-02		2.257E+00	3.719E+00	2.515E-01	-0.027
PM-146	-4.794E-03		4.116E-02	6.594E-02	5.701E-03	-0.073
ND-147	-1.552E-01		5.421E-01	8.437E-01	1.155E-01	-0.184
PM-149	9.016E+00		8.151E+01	1.370E+02	1.934E+01	0.066

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-2.821E-02		8.724E-02	1.410E-01	9.037E-03	-0.200
GD-153	-4.237E-02		8.311E-02	1.191E-01	8.285E-03	-0.356
EU-154	6.573E-02		1.306E-01	2.242E-01	2.184E-02	0.293
EU-155	5.533E-02		9.971E-02	1.681E-01	1.133E-02	0.329
TB-160	6.055E-02		1.326E-01	2.244E-01	1.843E-02	0.270
HO-166M	8.687E-03		5.888E-02	9.831E-02	6.767E-03	0.088
TM-171	1.311E+01		2.780E+01	4.288E+01	2.775E+00	0.306
LU-176	-1.757E-02		2.233E-02	3.542E-02	2.013E-03	-0.496
LU-177	1.551E+00	+	1.309E+00	1.774E+00	9.490E-02	0.874
LU-177M	-1.334E-01		1.665E-01	2.559E-01	1.436E-02	-0.521
HF-181	7.383E-03		4.302E-02	7.006E-02	4.183E-03	0.105
W-181	6.158E-02		3.740E-01	5.697E-01	3.660E-02	0.108
TA-182	1.182E-01		2.190E-01	3.755E-01	2.228E-02	0.315
RE-183	-3.170E-02		1.035E-01	1.600E-01	8.320E-03	-0.198
RE-184	6.668E-02		2.019E-01	3.454E-01	1.922E-02	0.193
OS-185	-2.192E-02		4.300E-02	6.875E-02	4.443E-03	-0.319
RE-188	6.559E-04		1.632E-01	2.637E-01	1.414E-02	0.002
W-188	5.936E+00		7.116E+00	1.109E+01	6.286E-01	0.535
IR-192	-2.077E-02		3.170E-02	5.058E-02	2.890E-03	-0.411
AU-195	3.343E-01		2.123E-01	3.665E-01	2.520E-02	0.912
TL-200	1.511E-05		2.433E-04	Half-Life too short		
TL-201	6.869E-01		6.748E+00	1.090E+01	5.587E-01	0.063
TL-202	2.870E-02		6.491E-02	1.085E-01	6.248E-03	0.265
HG-203	3.362E-02		3.969E-02	6.196E-02	3.726E-03	0.543
BI-207	-2.590E-02		5.550E-02	8.898E-02	6.138E-03	-0.291
TL-207	-2.615E-01		6.465E-01	9.063E-01	1.493E-01	-0.289
PO-209	-2.942E+00		7.830E+00	1.190E+01	9.935E-01	-0.247
BI-210	-7.718E-02		3.051E+00	5.186E+00	3.906E-01	-0.015
PB-210	-7.718E-02		3.051E+00	5.186E+00	3.906E-01	-0.015
PO-210	-7.718E-02		3.051E+00	5.186E+00	3.326E-01	-0.015
PB-211	-2.954E-01		9.575E-01	1.502E+00	9.361E-01	-0.197
BI-212	1.432E+00	+	4.761E-01	6.330E-01	5.480E-02	2.263
PO-215	-2.615E-01		6.465E-01	9.063E-01	1.493E-01	-0.289
RN-219	2.946E-02		3.976E-01	6.516E-01	8.794E-02	0.045
RN-220	-1.990E+00		2.428E+01	4.065E+01	2.534E+00	-0.049
RA-223	-2.615E-01		6.465E-01	9.063E-01	1.493E-01	-0.289
AC-227	-1.320E-01		3.278E-01	5.392E-01	7.478E-02	-0.245
TH-227	-1.320E-01		3.280E-01	5.392E-01	9.072E-02	-0.245
TH-229	-1.491E-01		4.591E-01	7.190E-01	3.786E-02	-0.207
PA-231	-1.600E+00		1.381E+00	2.042E+00	2.801E-01	-0.784
TH-231	-2.615E-01		6.465E-01	9.063E-01	1.493E-01	-0.289
U-231	-7.726E-01		1.117E+00	1.597E+00	1.125E-01	-0.484
PA-233	-9.000E-03		6.049E-02	9.964E-02	6.029E-03	-0.090
PA-234	5.260E-02		3.336E-01	5.449E-01	1.008E-01	0.097
PA-234M	3.416E+00		4.919E+00	8.541E+00	7.730E-01	0.400
NP-236	-8.434E-02		7.550E-02	1.152E-01	6.042E-03	-0.732
NP-239	-1.674E-02		1.686E-01	2.756E-01	1.739E-02	-0.061
AM-241	2.505E-02		1.509E-01	2.320E-01	1.649E-02	0.108

Sample ID : G245799017 Acquisition date : 10-FEB-2010 19:12:36

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.977E-02		8.639E-02	1.440E-01	9.593E-03	0.137
AM-246	9.127E-02		1.564E-01	2.726E-01	1.833E-02	0.335
CM-247	3.771E-02		3.502E-02	6.090E-02	3.377E-03	0.619
CF-249	3.277E-02		3.804E-02	6.545E-02	3.598E-03	0.501
CF-251	-1.047E-01		1.197E-01	1.835E-01	9.490E-03	-0.571

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799017            *
* Acquisition date : 10-FEB-2010 19:12:36 Detector SN#    :                 *
* Detector ID      : GAM12                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.59     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245799017           Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.3825E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.397E+01	2.949E+00	1.717E-01	1.505E+00
CD-109	3.989E+00	1.005E+00	5.848E-01	5.128E-01
SN-126	3.920E-01	9.876E-02	5.774E-02	5.039E-02
TL-208	5.490E-01	9.280E-02	3.000E-02	4.735E-02
BI-211	3.335E+00	4.623E-01	1.525E-01	2.359E-01
PB-212	1.566E+00	1.499E-01	4.373E-02	7.650E-02
PO-212	1.566E+00	1.499E-01	4.373E-02	7.650E-02
BI-214	1.179E+00	1.918E-01	5.087E-02	9.787E-02
PB-214	1.160E+00	1.714E-01	5.315E-02	8.745E-02
PO-214	1.160E+00	1.714E-01	5.315E-02	8.745E-02
PO-216	1.566E+00	1.499E-01	4.373E-02	7.650E-02
PO-218	1.160E+00	1.714E-01	5.315E-02	8.745E-02
RA-224	4.547E+00	1.265E+00	4.976E-01	6.454E-01
RA-226	1.179E+00	1.918E-01	5.087E-02	9.787E-02
AC-228	1.731E+00	3.455E-01	8.958E-02	1.763E-01
RA-228	1.731E+00	3.455E-01	8.958E-02	1.763E-01
TH-228	1.590E+00	1.522E-01	4.440E-02	7.768E-02
TH-230	1.179E+00	1.918E-01	5.087E-02	9.786E-02
TH-232	1.731E+00	3.455E-01	8.958E-02	1.763E-01
TH-234	1.551E+00	1.972E+00	1.015E+00	1.006E+00
U-234	1.179E+00	1.918E-01	5.087E-02	9.786E-02
U-235	2.973E-01	2.734E-01	1.592E-01	1.395E-01
NP-237	1.151E+00	3.719E-01	1.715E-01	1.897E-01
U-238	1.551E+00	1.972E+00	1.015E+00	1.006E+00
AM-243	3.614E-01	7.358E-02	4.507E-02	3.754E-02
ANH-511	1.444E-01	6.352E-02	2.288E-02	3.241E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-2.488E-02	3.014E-01	2.526E-01	1.538E-01 NOT IDENT.

NA-22	2.431E-02	4.586E-02	4.051E-02	2.340E-02	NOT IDENT.
NA-24	1.747E+05	8.232E+05	0.000E+00	4.200E+05	SHORT HLIF
AL-26	1.055E-02	2.838E-02	2.553E-02	1.448E-02	NOT IDENT.
TI-44	3.721E-01	5.327E-02	3.682E-02	2.718E-02	FAIL ABUN
SC-46	2.756E-02	4.075E-02	3.609E-02	2.079E-02	FAIL ABUN
V-48	4.137E-02	8.618E-02	6.841E-02	4.397E-02	NOT IDENT.
CR-51	2.450E-01	3.207E-01	2.925E-01	1.636E-01	NOT IDENT.
MN-52	-6.229E-02	2.172E-01	1.732E-01	1.108E-01	NOT IDENT.
MN-54	4.323E-02	3.738E-02	3.426E-02	1.907E-02	NOT IDENT.
CO-56	1.180E-03	3.763E-02	3.179E-02	1.920E-02	NOT IDENT.
CO-57	8.969E-03	2.252E-02	2.016E-02	1.149E-02	NOT IDENT.
CO-58	-4.045E-03	3.613E-02	3.026E-02	1.843E-02	NOT IDENT.
FE-59	-1.315E-01	9.264E-02	6.899E-02	4.726E-02	FAIL ABUN
CO-60	1.110E-02	3.926E-02	3.399E-02	2.003E-02	NOT IDENT.
ZN-65	6.804E-03	9.873E-02	7.342E-02	5.037E-02	NOT IDENT.
GE-68	4.123E-01	1.327E+00	1.168E+00	6.769E-01	NOT IDENT.
AS-73	-1.235E-01	7.268E-01	6.597E-01	3.708E-01	NOT IDENT.
AS-74	-1.035E-02	8.034E-02	6.944E-02	4.099E-02	NOT IDENT.
SE-75	2.792E-02	3.954E-02	3.406E-02	2.017E-02	NOT IDENT.
BR-77	-4.793E+00	1.097E+01	8.856E+00	5.595E+00	FAIL ABUN
SR-82	-1.361E-01	3.586E-01	2.947E-01	1.830E-01	NOT IDENT.
RB-83	-3.044E-03	6.671E-02	5.557E-02	3.404E-02	NOT IDENT.
RB-84	-5.485E-03	6.646E-02	5.531E-02	3.391E-02	NOT IDENT.
KR-85	6.412E+00	7.853E+00	6.167E+00	4.007E+00	NOT IDENT.
SR-85	3.294E-02	4.034E-02	3.168E-02	2.058E-02	NOT IDENT.
RB-86	6.706E-02	8.354E-01	7.228E-01	4.262E-01	NOT IDENT.
Y-88	2.237E-02	2.794E-02	2.719E-02	1.425E-02	NOT IDENT.
ZR-88	-9.199E-03	2.784E-02	2.339E-02	1.420E-02	NOT IDENT.
Y-91	-7.191E+00	2.029E+01	1.676E+01	1.035E+01	NOT IDENT.
NB-94	2.119E-02	3.427E-02	3.065E-02	1.748E-02	NOT IDENT.
NB-95	2.034E-02	4.494E-02	3.943E-02	2.293E-02	NOT IDENT.
NB-95M	1.569E-01	1.188E-01	1.008E-01	6.063E-02	NOT IDENT.
ZR-95	-2.451E-02	7.146E-02	5.853E-02	3.646E-02	NOT IDENT.
NB-97	-9.051E+04	1.086E+05	0.000E+00	5.543E+04	SHORT HLIF
ZR-97	5.387E+06	2.199E+06	0.000E+00	1.122E+06	SHORT HLIF
MO-99	2.982E+00	1.154E+01	1.006E+01	5.886E+00	NOT IDENT.
TC-99M	-1.676E+16	6.445E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.259E-03	2.978E-02	2.493E-02	1.519E-02	NOT IDENT.
RH-102	-5.599E-03	2.729E-02	2.267E-02	1.392E-02	NOT IDENT.
RU-103	-4.114E-03	3.811E-02	3.159E-02	1.945E-02	FAIL ABUN
RH-106	-1.868E-01	2.868E-01	2.359E-01	1.463E-01	NOT IDENT.
RU-106	-1.868E-01	2.862E-01	2.359E-01	1.460E-01	NOT IDENT.
AG-108M	8.641E-03	3.105E-02	2.643E-02	1.584E-02	NOT IDENT.
AG-110M	-2.326E-02	3.244E-02	2.645E-02	1.655E-02	NOT IDENT.
IN-111	-3.950E-01	1.053E+00	8.103E-01	5.371E-01	NOT IDENT.
IN-113M	-2.721E-02	4.123E-02	3.389E-02	2.103E-02	NOT IDENT.
SN-113	-2.721E-02	4.123E-02	3.389E-02	2.103E-02	NOT IDENT.
IN-114M	6.286E-03	1.689E-01	1.368E-01	8.616E-02	NOT IDENT.
CD-115	-6.708E+00	1.077E+01	8.520E+00	5.496E+00	NOT IDENT.
SN-117M	3.079E-02	5.104E-02	4.518E-02	2.604E-02	NOT IDENT.
SB-122	2.145E+00	2.117E+00	1.970E+00	1.080E+00	NOT IDENT.
I-123	5.590E+06	6.568E+06	0.000E+00	3.351E+06	SHORT HLIF
TE-123M	2.191E-02	2.575E-02	2.303E-02	1.314E-02	NOT IDENT.
I-124	4.982E-01	6.600E-01	5.395E-01	3.367E-01	NOT IDENT.
SB-124	-7.060E-02	6.049E-02	3.768E-02	3.086E-02	FAIL ABUN
SB-125	-1.313E-02	8.713E-02	7.349E-02	4.445E-02	FAIL ABUN
TE-125M	1.272E+00	8.169E+00	7.295E+00	4.168E+00	NOT IDENT.
I-126	-5.339E-02	1.756E-01	1.482E-01	8.958E-02	NOT IDENT.
SB-126	-2.574E-02	1.506E-01	1.150E-01	7.682E-02	FAIL ABUN
SB-127	-9.474E-01	1.341E+00	1.087E+00	6.842E-01	NOT IDENT.
XE-127	6.379E-02	4.069E-02	3.699E-02	2.076E-02	NOT IDENT.
I-131	-8.932E-03	1.060E-01	9.117E-02	5.406E-02	NOT IDENT.
TE-132	2.305E-01	6.056E-01	5.534E-01	3.090E-01	NOT IDENT.
BA-133	1.567E-02	4.038E-02	3.176E-02	2.060E-02	FAIL ABUN
I-133	-1.706E+03	6.397E+03	0.000E+00	3.264E+03	SHORT HLIF
CS-134	1.337E-01	6.007E-02	4.401E-02	3.065E-02	FAIL ABUN
CS-135	1.943E-01	1.536E-01	1.297E-01	7.838E-02	NOT IDENT.
I-135	-4.640E+15	8.954E+15	0.000E+00	4.568E+15	SHORT HLIF
CS-136	-1.600E-03	1.059E-01	9.121E-02	5.406E-02	FAIL ABUN
BA-137M	1.482E-02	3.592E-02	3.143E-02	1.833E-02	NOT IDENT.
CS-137	1.567E-02	3.798E-02	3.322E-02	1.938E-02	NOT IDENT.
CE-139	5.443E-03	2.681E-02	2.327E-02	1.368E-02	NOT IDENT.
BA-140	7.004E-02	2.389E-01	2.138E-01	1.219E-01	NOT IDENT.
LA-140	-4.877E-02	7.243E-02	5.004E-02	3.695E-02	FAIL ABUN
CE-141	-8.330E-03	6.218E-02	4.781E-02	3.172E-02	NOT IDENT.
CE-143	6.789E+02	2.202E+02	0.000E+00	1.123E+02	SHORT HLIF
CE-144	-1.571E-01	1.836E-01	1.534E-01	9.367E-02	NOT IDENT.
PM-144	-1.469E-03	3.264E-02	2.796E-02	1.665E-02	NOT IDENT.

PR-144	-9.953E-02	2.212E+00	1.895E+00	1.129E+00	NOT IDENT.
PM-146	-4.794E-03	4.033E-02	3.388E-02	2.058E-02	NOT IDENT.
ND-147	-1.552E-01	5.313E-01	4.322E-01	2.710E-01	FAIL ABUN
PM-149	9.016E+00	7.988E+01	7.101E+01	4.076E+01	NOT IDENT.
EU-152	-2.821E-02	8.549E-02	7.284E-02	4.362E-02	FAIL ABUN
GD-153	-4.237E-02	8.145E-02	6.304E-02	4.155E-02	FAIL ABUN
EU-154	6.573E-02	1.280E-01	1.128E-01	6.529E-02	NOT IDENT.
EU-155	5.533E-02	9.772E-02	8.882E-02	4.986E-02	FAIL ABUN
TB-160	6.055E-02	1.299E-01	1.138E-01	6.629E-02	FAIL ABUN
HO-166M	8.687E-03	5.770E-02	5.006E-02	2.944E-02	FAIL ABUN
TM-171	1.311E+01	2.725E+01	2.285E+01	1.390E+01	NOT IDENT.
LU-176	-1.757E-02	2.188E-02	1.834E-02	1.116E-02	FAIL ABUN
LU-177	1.551E+00	1.283E+00	9.253E-01	6.546E-01	FAIL ABUN
LU-177M	-1.334E-01	1.632E-01	1.317E-01	8.327E-02	FAIL ABUN
HF-181	7.383E-03	4.216E-02	3.595E-02	2.151E-02	NOT IDENT.
W-181	6.158E-02	3.665E-01	3.036E-01	1.870E-01	NOT IDENT.
TA-182	1.182E-01	2.146E-01	1.892E-01	1.095E-01	FAIL ABUN
RE-183	-3.170E-02	1.015E-01	8.387E-02	5.177E-02	FAIL ABUN
RE-184	6.668E-02	1.979E-01	1.795E-01	1.010E-01	NOT IDENT.
OS-185	-2.192E-02	4.214E-02	3.508E-02	2.150E-02	NOT IDENT.
RE-188	6.559E-04	1.600E-01	1.383E-01	8.162E-02	NOT IDENT.
W-188	5.936E+00	6.973E+00	5.748E+00	3.558E+00	FAIL ABUN
IR-192	-2.077E-02	3.107E-02	2.617E-02	1.585E-02	FAIL ABUN
AU-195	3.343E-01	2.081E-01	1.938E-01	1.062E-01	FAIL ABUN
TL-200	1.511E+01	4.769E+02	0.000E+00	2.433E+02	SHORT HLIF
TL-201	6.869E-01	6.613E+00	5.709E+00	3.374E+00	NOT IDENT.
TL-202	2.870E-02	6.361E-02	5.577E-02	3.245E-02	NOT IDENT.
HG-203	3.362E-02	3.890E-02	3.214E-02	1.985E-02	NOT IDENT.
BI-207	-2.590E-02	5.439E-02	4.495E-02	2.775E-02	FAIL ABUN
TL-207	-2.615E-01	6.336E-01	4.687E-01	3.233E-01	FAIL ABUN
PO-209	-2.942E+00	7.673E+00	6.034E+00	3.915E+00	NOT IDENT.
BI-210	-7.718E-02	2.990E+00	2.781E+00	1.525E+00	NOT IDENT.
PB-210	-7.718E-02	2.990E+00	2.781E+00	1.525E+00	NOT IDENT.
PO-210	-7.718E-02	2.990E+00	2.781E+00	1.525E+00	NOT IDENT.
PB-211	-2.954E-01	9.383E-01	7.735E-01	4.787E-01	NOT IDENT.
BI-212	1.432E+00	4.665E-01	3.222E-01	2.380E-01	FAIL ABUN
PO-215	-2.615E-01	6.336E-01	4.687E-01	3.233E-01	FAIL ABUN
RN-219	2.946E-02	3.896E-01	3.356E-01	1.988E-01	FAIL ABUN
RN-220	-1.990E+00	2.380E+01	2.081E+01	1.214E+01	NOT IDENT.
RA-223	-2.615E-01	6.336E-01	4.687E-01	3.233E-01	FAIL ABUN
AC-227	-1.320E-01	3.212E-01	2.801E-01	1.639E-01	FAIL ABUN
TH-227	-1.320E-01	3.214E-01	2.801E-01	1.640E-01	FAIL ABUN
TH-229	-1.491E-01	4.499E-01	3.755E-01	2.295E-01	FAIL ABUN
PA-231	-1.600E+00	1.353E+00	1.059E+00	6.903E-01	FAIL ABUN
TH-231	-2.615E-01	6.336E-01	4.687E-01	3.233E-01	FAIL ABUN
U-231	-7.726E-01	1.094E+00	8.450E-01	5.583E-01	FAIL ABUN
PA-233	-9.000E-03	5.928E-02	5.157E-02	3.025E-02	FAIL ABUN
PA-234	5.260E-02	3.270E-01	2.759E-01	1.668E-01	FAIL ABUN
PA-234M	3.416E+00	4.821E+00	4.320E+00	2.460E+00	NOT IDENT.
NP-236	-8.434E-02	7.399E-02	6.040E-02	3.775E-02	NOT IDENT.
NP-239	-1.674E-02	1.653E-01	1.453E-01	8.432E-02	FAIL ABUN
AM-241	2.505E-02	1.479E-01	1.239E-01	7.545E-02	NOT IDENT.
CM-243	1.977E-02	8.466E-02	7.612E-02	4.320E-02	FAIL ABUN
AM-246	9.127E-02	1.533E-01	1.377E-01	7.821E-02	NOT IDENT.
CM-247	3.771E-02	3.432E-02	3.136E-02	1.751E-02	FAIL ABUN
CF-249	3.277E-02	3.728E-02	3.373E-02	1.902E-02	NOT IDENT.
CF-251	-1.047E-01	1.173E-01	9.602E-02	5.985E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	261.6358
46.50	261.6358
46.50	261.6358
48.70	261.0458
49.72	285.0472
51.35	250.4289
52.39	252.1323
52.97	252.5987
53.15	252.7428
53.44	267.7024
54.07	282.1227
56.28	281.4306
56.28	281.4331
57.37	0.0000
57.53	302.6778
57.53	302.6796
57.60	302.7419
57.98	303.9652
57.98	303.9652
59.32	301.6470
59.32	301.6470
59.40	307.0108
59.54	307.1373
59.72	299.3519
60.01	306.2347
61.10	305.8745
61.14	305.9101
61.30	306.0504
63.00	336.9547
63.29	337.2297
63.29	337.2297
63.58	337.5051
64.28	373.0572
65.12	375.2724
65.20	369.9739
65.20	369.9739
66.05	339.8228
66.72	336.3890
66.83	336.4916
66.91	325.7523
67.20	346.2988
67.20	346.2988
67.75	376.6146
67.85	376.7185
68.90	401.3313
68.90	401.3313
69.30	405.9289
69.67	404.4210
70.82	368.7637
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70.83	368.7740
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72.87	406.4219
72.87	406.4219
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74.81	412.1045
74.81	412.1045
74.81	412.1045
74.81	412.1045
74.81	412.1045
74.81	412.1045
74.81	412.1045
74.97	412.2697
75.28	412.5898
75.70	413.0228
77.11	414.4674
77.11	414.4674

77.11	414.4674
77.11	414.4674
77.11	414.4674
77.11	414.4674
77.11	414.4674
78.38	370.2837
79.62	381.6348
79.80	381.7996
79.80	381.7996
80.11	332.6938
80.18	332.7482
80.30	332.8445
80.30	332.8445
80.57	375.0409
81.00	367.9542
81.07	368.0163
81.07	368.0163
81.07	368.0163
81.07	368.0163
82.60	355.7542
83.37	360.6191
83.78	380.7072
83.78	380.7072
83.78	380.7072
83.78	380.7072
84.21	325.5699
84.90	326.0891
85.43	326.4868
86.29	327.1274
86.50	327.2840
86.54	327.3140
86.59	327.3509
86.72	327.4477
86.79	327.4987
86.94	327.6114
87.30	327.8771
87.30	327.8771
87.30	327.8771
87.30	327.8771
87.30	327.8771
87.30	327.8771
87.30	327.8771
87.57	328.0777
87.88	328.3065
88.03	328.4174
88.36	328.6602
88.47	328.7412
89.95	329.8235
91.11	330.6682
92.29	331.5200
92.38	331.5851
92.38	331.5851
93.35	332.2802
94.00	332.7448
94.67	291.8067
94.67	291.8098
94.90	291.9531
94.90	291.9531
94.90	291.9531
94.90	291.9531
95.87	336.0028
95.87	336.0028
96.73	343.8699
97.43	326.9360
98.44	270.2523
98.44	270.2537
98.88	260.3952
99.55	275.3495
99.55	275.3495
99.86	275.5251
100.00	298.0032
100.10	307.8078
103.18	294.0521
103.76	270.8424
105.00	287.2519
105.31	284.4756
108.00	302.8016
109.28	275.7772

111.00	256.7822
111.00	256.7822
111.76	285.0617
112.95	287.7012
115.19	256.8073
116.30	246.2785
117.00	261.6927
117.00	261.6927
117.66	271.0797
121.11	279.8745
121.62	274.0402
121.78	274.1185
122.06	255.9721
122.32	256.0900
122.32	256.0900
122.32	256.0900
122.32	256.0900
123.07	280.8530
127.23	275.2170
129.76	260.9732
131.20	273.9967
133.02	284.1532
133.54	292.1694
135.34	271.2219
136.00	284.0001
136.25	285.1602
136.48	286.3073
140.51	273.5185
140.51	0.0000
142.18	285.2844
142.65	269.1979
143.76	269.6745
144.24	267.2421
144.24	267.2421
144.24	267.2421
144.24	267.2421
145.22	258.1522
145.44	274.0847
147.16	225.5780
152.43	259.4408
152.70	263.8195
153.22	272.5769
154.21	272.9842
154.21	272.9842
154.21	272.9842
154.21	272.9842
155.03	292.6147
156.02	283.3870
158.56	261.8286
159.00	0.0000
159.00	245.8241
160.31	304.6308
161.27	261.7875
162.32	260.0195
162.64	268.8105
163.35	268.0004
163.89	261.6938
165.85	253.7179
167.43	257.5632
171.28	265.5417
171.86	258.0688
172.10	258.1548
176.55	280.7374
176.60	280.7567
181.06	258.5423
184.41	232.8869
185.71	255.1014
186.00	256.8778
190.27	235.0083
192.34	221.1879
193.63	238.5062
197.04	220.2373
198.01	223.9135
198.60	254.7890
200.40	248.5210
201.83	234.1138
202.84	186.3812
205.31	227.0845

208.36	214.1108
208.81	222.2885
209.75	231.7642
209.75	231.7642
210.97	228.6374
215.65	238.0343
216.55	245.2587
218.09	235.2187
222.10	229.0003
223.80	214.4997
226.40	232.7684
227.00	232.9255
227.08	232.9477
227.20	217.9755
228.16	199.6587
228.18	189.0623
228.18	189.0623
231.56	0.0000
235.69	208.1035
236.00	212.4523
236.00	212.4523
238.63	221.6432
238.63	221.6432
238.63	221.6432
238.63	221.6432
239.00	221.7302
240.98	222.2070
241.98	222.4454
241.98	222.4454
241.98	222.4454
244.69	192.8654
245.39	193.0094
247.94	185.6909
248.90	198.7875
249.79	187.2163
252.40	165.0541
252.85	169.6685
252.85	169.6685
254.15	0.0000
256.20	179.3609
256.20	179.3609
260.50	182.8949
260.90	184.7978
262.80	172.3228
264.65	149.3800
268.24	160.7298
268.79	162.2930
269.46	160.9240
269.46	160.9240
269.46	160.9240
269.46	160.9240
271.23	170.0798
273.65	170.4841
276.40	180.4946
277.35	180.6635
277.60	180.7050
277.60	180.7050
278.00	180.7762
278.60	156.4080
279.20	149.0479
279.53	149.0942
280.46	141.7671
281.68	143.4258
283.67	173.2070
284.30	153.5198
285.00	146.1286
285.90	142.5023
286.10	151.9071
286.10	151.9071
287.40	155.8479
288.45	0.0000
290.67	138.6222
290.80	141.6541
291.72	150.8252
293.26	0.0000
293.70	164.7002
295.21	170.2277
295.21	170.2277

295.21	170.2277
295.96	136.2766
296.50	136.3425
297.23	136.4348
298.57	136.6018
299.80	164.1067
299.80	164.1067
300.09	159.5918
300.09	159.5918
300.09	159.5918
300.09	159.5918
300.12	159.5944
301.29	176.5035
302.84	146.2758
303.76	117.4231
303.91	128.1143
304.40	146.2277
304.40	146.2277
304.84	152.6465
306.84	164.3889
308.46	151.2278
311.98	163.2219
316.51	160.0172
318.01	144.7838
319.02	133.3190
319.41	134.3296
320.08	122.8045
323.87	139.6978
323.87	139.6978
323.87	139.6978
323.87	139.6978
325.23	125.8763
328.77	146.5193
333.44	151.7922
334.20	170.6797
334.20	170.6797
334.30	170.6930
338.28	152.4056
338.28	152.4056
338.28	152.4056
338.28	152.4056
338.32	152.4127
338.32	152.4127
338.32	152.4127
340.50	129.0759
340.57	129.0819
344.27	138.1607
345.85	143.6080
350.59	0.0000
351.07	129.9946
351.92	130.0845
351.92	130.0845
351.92	130.0845
355.39	0.0000
356.01	105.2052
364.48	125.3700
366.43	122.5473
367.43	130.6844
367.94	0.0000
369.80	119.8462
374.96	120.3237
383.85	132.3347
387.95	114.3635
388.63	119.5297
391.69	134.1363
391.69	134.1363
392.90	122.9828
398.62	139.9657
400.65	131.9277
401.10	134.0327
401.81	126.8813
402.60	106.3099
404.84	145.7677
410.95	129.7932
411.60	136.0872
413.65	131.0834
414.70	120.7684
415.30	109.3627

415.76	110.4415
417.63	0.0000
418.52	115.8745
423.70	120.4854
427.08	110.2663
427.89	116.6333
432.53	93.8156
433.93	101.2896
439.47	95.3174
439.56	95.3229
439.89	98.5230
443.98	112.6040
444.90	98.8551
445.03	94.6114
445.03	94.6114
445.03	94.6114
445.03	94.6114
453.90	103.7241
463.38	94.6843
468.07	90.6535
473.00	95.2698
475.06	100.8148
475.35	104.0859
476.78	100.9255
477.59	98.8050
477.96	95.5706
482.03	104.5254
484.57	98.1491
487.03	95.0228
490.36	0.0000
492.35	88.7618
497.08	89.0202
507.63	0.0000
510.53	0.0000
510.84	97.5216
511.00	97.5310
511.85	97.5807
511.85	97.5807
513.99	103.0343
513.99	103.0343
520.41	93.6182
520.65	104.7804
527.90	94.0309
528.96	0.0000
529.64	85.1614
529.87	0.0000
531.02	88.5953
537.32	85.5417
543.00	93.9504
546.56	0.0000
549.76	88.8699
552.65	82.6554
555.20	102.7842
563.23	83.1441
563.90	88.6593
568.70	98.0581
569.32	90.7581
569.50	90.7677
569.67	86.1904
573.80	104.7653
574.00	104.7765
574.64	91.9409
578.91	84.4739
579.30	0.0000
583.14	96.0603
585.48	89.3978
591.81	88.1533
592.07	87.2392
593.00	77.0668
595.88	79.0442
600.56	77.2416
602.52	0.0000
602.71	68.4403
602.71	68.4403
603.60	82.4782
604.41	91.8538
604.70	98.0966
609.31	77.7294

609.31	77.7294
609.31	77.7294
609.31	77.7294
610.33	77.7700
612.46	90.6769
614.37	75.1172
618.01	63.7601
621.84	83.8873
621.84	83.8873
631.29	77.6618
633.02	72.9883
633.10	72.9921
634.78	63.5666
635.90	64.5519
636.97	75.0326
645.85	92.5384
646.12	93.5043
656.30	75.7540
657.75	88.2827
657.90	0.0000
661.65	82.6805
661.65	82.6805
664.57	0.0000
666.33	90.5760
666.33	90.5760
675.00	68.6998
677.61	83.3167
685.20	86.5338
692.80	86.8424
695.00	64.4660
696.49	83.0825
696.49	83.0825
697.00	80.1682
697.49	85.0756
698.33	86.0879
698.50	86.0943
699.00	90.0302
702.63	87.2400
706.10	92.2880
706.58	0.0000
706.67	85.4388
709.31	83.5743
711.68	75.7912
713.82	80.7908
717.42	71.0561
720.50	77.6488
721.93	0.0000
722.20	80.7695
722.78	75.8450
722.78	75.8450
722.89	75.8487
722.95	75.8506
723.30	69.2651
724.18	67.6427
727.18	67.4040
733.00	59.6294
735.90	79.6074
739.58	67.7775
742.81	73.8627
744.21	69.9128
747.13	82.0040
751.79	65.1349
752.31	59.1368
753.82	74.2204
755.35	75.2728
756.15	79.3144
756.87	67.2879
763.93	111.8184
765.79	93.7606
766.42	83.7011
766.84	95.8210
776.49	71.9083
778.00	78.0358
778.57	87.1779
778.89	76.0382
783.80	51.8131
785.46	75.2321
792.07	61.1689

795.84	52.7552
796.30	59.5738
798.80	64.7481
801.93	74.5807
805.60	71.7654
810.29	67.7950
810.76	60.6162
815.85	52.5066
817.79	58.7298
818.51	58.7465
819.60	56.7107
826.30	61.0008
828.27	0.0000
831.60	89.1053
831.96	86.0092
834.83	62.2471
836.80	0.0000
846.75	61.5006
848.13	56.3190
856.28	0.0000
856.80	66.2789
860.37	64.9744
867.32	47.2863
867.82	56.0534
871.10	50.5125
873.19	54.7663
874.81	48.4774
875.33	0.0000
876.40	61.1605
879.36	49.6174
880.27	55.9709
880.51	53.8638
881.50	57.0546
883.24	67.6641
884.67	74.0486
889.25	59.3428
896.60	63.7573
898.02	64.8557
899.00	56.3707
903.28	55.9286
911.07	43.8047
911.07	43.8047
911.07	43.8047
919.63	49.5708
920.93	50.3988
925.00	65.5095
925.24	65.5154
926.50	63.3962
935.52	57.1367
937.48	70.1241
944.10	77.8623
946.00	69.2578
949.00	50.9163
962.29	58.0521
964.01	77.3286
966.15	77.3876
968.20	77.4430
969.11	70.9224
969.11	70.9224
969.11	70.9224
977.42	79.8847
980.50	55.8697
983.50	60.3147
989.30	59.3380
996.32	65.1729
1001.03	57.0036
1001.68	56.0966
1004.76	70.8857
1021.30	0.0000
1024.50	0.0000
1034.80	60.4508
1036.00	61.4050
1037.82	66.0974
1038.57	56.8003
1038.76	0.0000
1045.16	63.4595
1046.59	70.0226
1048.07	58.8497

1050.47	57.9610
1050.47	57.9610
1062.04	66.6261
1063.62	72.2940
1076.63	66.9438
1077.35	66.0152
1078.86	64.1595
1085.78	61.4665
1099.22	79.7754
1112.02	66.1144
1112.84	68.6748
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1120.29	61.1849
1120.29	61.1849
1120.29	61.1849
1120.51	61.1901
1121.28	65.5776
1124.00	0.0000
1129.67	56.5705
1131.51	0.0000
1147.95	0.0000
1167.94	73.7271
1173.22	73.8446
1175.09	80.6933
1177.93	77.8418
1189.05	81.0277
1204.90	86.3135
1205.75	0.0000
1213.00	70.7871
1221.42	79.8300
1230.97	104.7578
1235.34	83.1216
1236.41	0.0000
1238.25	86.1610
1246.25	63.5286
1260.41	0.0000
1271.85	61.9899
1274.45	53.0302
1274.54	53.0323
1291.56	56.2985
1298.22	0.0000
1312.09	48.5293
1325.50	44.6481
1325.50	44.6481
1332.49	37.6158
1333.61	42.7109
1360.21	30.7251
1362.66	0.0000
1365.15	25.6378
1368.21	26.6855
1368.53	0.0000
1376.25	24.6846
1384.27	23.7056
1394.10	27.8998
1395.20	26.8739
1407.95	26.9627
1434.06	26.0986
1436.60	19.8473
1457.56	0.0000
1460.81	10.8097
1489.15	16.9336
1509.49	19.1448
1596.49	20.1339
1620.62	14.0358
1678.03	0.0000
1691.02	17.1098
1691.02	17.1098
1706.46	0.0000
1750.46	0.0000
1764.49	15.2095
1764.49	15.2095
1764.49	15.2095
1764.49	15.2095
1770.23	18.6115
1771.40	43.5184
1791.20	0.0000
1808.65	11.6953

1836.01	6.8608

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799017

Total Uranium Activity	4.7527E+00	ug/g
Total Uranium Counting Unc.	5.8675E+00	ug/g
Total Uranium Tpu	2.9936E-06	ug/g
Total Uranium Mda	3.0201E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799017      *
*   ANALYST       : RXF2                      DETECTOR    : GAM12           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 19:12:36.11    SAMPLE ALQT:  138.251 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.700E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.531E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 2.861E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.385E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:14:16.56

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799018.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:13:04
Sample ID         : G245799018           Sample quantity  : 1.20374E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.01  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.46*	412	484	0.94	92.55	89	8	5.73E-02	10.8	
2	0	63.36*	1200	740	0.88	126.35	122	9	1.67E-01	5.1	
3	2	74.82*	463	579	0.99	149.28	145	16	6.43E-02	9.4	4.80E-01
4	2	77.10*	691	434	0.87	153.84	145	16	9.60E-02	6.1	
5	0	85.92	376	914	1.29	171.49	165	12	5.22E-02	16.9	
6	3	92.64*	1714	483	1.02	184.93	181	12	2.38E-01	3.2	3.28E+00
7	3	94.47	129	405	1.24	188.59	181	12	1.79E-02	40.7	
8	0	112.85	119	350	1.35	225.37	221	8	1.65E-02	28.9	
9	0	129.48	44	283	0.93	258.66	253	8	6.18E-03	67.1	
10	0	143.55*	126	402	0.96	286.79	281	12	1.74E-02	33.6	
11	0	185.72*	426	277	0.86	371.16	366	10	5.92E-02	9.0	
12	0	209.84	139	251	1.26	419.42	415	11	1.94E-02	23.6	
13	5	238.58*	825	138	1.04	476.94	472	16	1.15E-01	4.3	8.33E-01
14	5	241.50	196	196	1.76	482.77	472	16	2.73E-02	15.0	
15	0	270.38	86	152	1.46	540.56	535	10	1.20E-02	28.8	
16	0	277.51	79	128	1.15	554.82	551	9	1.10E-02	28.2	
17	1	295.14*	253	144	1.26	590.09	585	31	3.52E-02	10.2	1.78E+00
18	1	299.97	54	116	1.31	599.76	585	31	7.55E-03	38.2	
19	0	338.43*	152	187	0.91	676.72	671	12	2.11E-02	20.1	
20	0	351.70*	392	192	1.15	703.28	698	12	5.45E-02	8.8	
21	0	462.59	40	111	1.08	925.16	921	9	5.52E-03	50.3	
22	0	510.29*	82	127	1.51	1020.61	1015	12	1.14E-02	33.5	
23	0	582.97*	224	93	1.20	1166.04	1159	14	3.11E-02	11.6	
24	0	609.06*	289	69	1.40	1218.24	1213	11	4.01E-02	8.4	
25	0	661.26*	740	61	1.38	1322.72	1317	11	1.03E-01	4.2	
26	0	727.11	72	46	1.65	1454.48	1449	13	9.93E-03	22.8	
27	0	887.00	17	29	4.23	1774.47	1766	13	2.35E-03	70.2	
28	0	910.65*	145	33	1.36	1821.80	1816	11	2.02E-02	11.6	
29	0	968.64*	90	18	1.77	1937.86	1933	11	1.25E-02	14.6	
30	0	1000.20	70	32	1.36	2001.04	1993	14	9.77E-03	20.7	
31	0	1119.84	98	34	1.65	2240.48	2231	17	1.36E-02	17.0	
32	0	1459.89*	693	28	1.93	2921.14	2912	20	9.63E-02	4.3	
33	0	1508.10	20	2	0.87	3017.65	3012	10	2.75E-03	26.8	
34	0	1763.21*	49	14	1.91	3528.35	3521	14	6.79E-03	22.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 21:14:19

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799018.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:13:04
Sample ID : G245799018 Sample quantity : 120.37 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:10.01 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.604E+01	3.213E+00	6.831E-01	6.065E-02	38.115
BA-137M	+	661.65	*	1.599E+00	1.909E-01	7.821E-02	6.589E-03	20.448
CS-137	+	661.65	*	1.691E+00	2.020E-01	8.268E-02	6.979E-03	20.448
LU-177	+	112.95		4.535E+00	2.669E+00	3.005E+00	3.340E-01	1.509
	+	208.36	*	4.357E+00	2.096E+00	2.184E+00	1.921E-01	1.995
TL-208	+	277.35		1.020E+00	5.899E-01	6.811E-01	8.671E-02	1.498
	+	510.84		5.739E-01	3.903E-01	3.247E-01	3.966E-02	1.768
	+	583.14	*	4.584E-01	1.146E-01	6.956E-02	6.580E-03	6.590
		860.37		2.638E-01	4.282E-01	7.479E-01	7.036E-02	0.353
BI-210	+	46.50	*	5.040E+00	1.221E+00	1.054E+00	1.144E-01	4.780
PB-210	+	46.50	*	5.040E+00	1.221E+00	1.054E+00	1.144E-01	4.780
PO-210	+	46.50	*	5.040E+00	1.205E+00	1.054E+00	1.065E-01	4.780
BI-211		72.87		2.570E+00	2.541E+00	3.992E+00	3.904E-01	0.644
	+	351.07	*	3.249E+00	6.480E-01	4.099E-01	3.825E-02	7.927
PB-212	+	74.81		1.985E+00	4.583E-01	4.445E-01	6.007E-02	4.466
	+	77.11		1.766E+00	2.744E-01	2.654E-01	2.587E-02	6.653
	+	87.30		2.189E+00	8.006E-01	6.464E-01	9.031E-02	3.387
	+	238.63	*	1.435E+00	1.898E-01	1.020E-01	1.028E-02	14.067
	+	300.09		1.487E+00	1.148E+00	1.404E+00	1.529E-01	1.059
PO-212	+	74.81		1.985E+00	4.583E-01	4.445E-01	6.007E-02	4.466
	+	77.11		1.766E+00	2.744E-01	2.654E-01	2.587E-02	6.653
	+	87.30		2.189E+00	8.006E-01	6.464E-01	9.031E-02	3.387
		115.19		2.545E+00	4.090E+00	6.281E+00	7.072E-01	0.405
	+	238.63	*	1.435E+00	1.898E-01	1.020E-01	1.028E-02	14.067
	+	300.09		1.487E+00	1.148E+00	1.404E+00	1.529E-01	1.059
BI-214	+	609.31	*	1.120E+00	2.195E-01	1.328E-01	1.351E-02	8.435
	+	1120.29		2.069E+00	7.368E-01	5.033E-01	5.380E-02	4.111
	+	1764.49		1.437E+00	6.475E-01	4.428E-01	3.744E-02	3.244
PB-214	+	74.81		3.420E+00	7.653E-01	7.659E-01	9.385E-02	4.466
	+	77.11		3.027E+00	5.240E-01	4.550E-01	5.630E-02	6.653
	+	87.30		3.750E+00	1.351E+00	1.107E+00	1.377E-01	3.387
	+	241.98		2.051E+00	6.544E-01	6.148E-01	6.545E-02	3.336
	+	295.21		1.215E+00	2.815E-01	2.455E-01	2.726E-02	4.950
	+	351.92	*	1.130E+00	2.330E-01	1.429E-01	1.527E-02	7.907

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		3.420E+00	7.653E-01	7.659E-01	9.385E-02	4.466
	+	77.11		3.027E+00	5.240E-01	4.550E-01	5.630E-02	6.653
	+	87.30		3.750E+00	1.351E+00	1.107E+00	1.377E-01	3.387
	+	241.98		2.051E+00	6.544E-01	6.148E-01	6.545E-02	3.336
	+	295.21		1.215E+00	2.815E-01	2.455E-01	2.726E-02	4.950
	+	351.92	*	1.130E+00	2.330E-01	1.429E-01	1.527E-02	7.907
PO-216	+	74.81		1.985E+00	4.583E-01	4.445E-01	6.007E-02	4.466
	+	77.11		1.766E+00	2.744E-01	2.654E-01	2.587E-02	6.653
	+	87.30		2.189E+00	8.006E-01	6.464E-01	9.031E-02	3.387
	+	238.63	*	1.435E+00	1.898E-01	1.020E-01	1.028E-02	14.067
	+	300.09		1.487E+00	1.148E+00	1.404E+00	1.529E-01	1.059
PO-218	+	74.81		3.420E+00	7.653E-01	7.659E-01	9.385E-02	4.466
	+	77.11		3.027E+00	5.240E-01	4.550E-01	5.630E-02	6.653
	+	87.30		3.750E+00	1.351E+00	1.107E+00	1.377E-01	3.387
	+	241.98		2.051E+00	6.544E-01	6.148E-01	6.545E-02	3.336
	+	295.21		1.215E+00	2.815E-01	2.455E-01	2.726E-02	4.950
	+	351.92	*	1.130E+00	2.330E-01	1.429E-01	1.527E-02	7.907
RA-224	+	240.98	*	3.889E+00	1.222E+00	1.161E+00	1.050E-01	3.348
RA-226	+	609.31	*	1.120E+00	2.195E-01	1.328E-01	1.351E-02	8.435
	+	1120.29		2.069E+00	7.368E-01	5.033E-01	5.380E-02	4.111
	+	1764.49		1.437E+00	6.475E-01	4.428E-01	3.744E-02	3.244
AC-228	+	338.32		1.380E+00	7.961E-01	4.518E-01	1.868E-01	3.055
	+	911.07	*	1.385E+00	3.576E-01	3.155E-01	3.578E-02	4.392
	+	969.11		1.518E+00	5.668E-01	3.917E-01	9.159E-02	3.876
RA-228	+	338.32		1.380E+00	7.961E-01	4.518E-01	1.868E-01	3.055
	+	911.07	*	1.385E+00	3.576E-01	3.155E-01	3.578E-02	4.392
	+	969.11		1.518E+00	5.668E-01	3.917E-01	9.159E-02	3.876
TH-228	+	74.81		2.015E+00	4.261E-01	4.513E-01	4.435E-02	4.466
	+	77.11		1.793E+00	2.787E-01	2.695E-01	2.627E-02	6.653
	+	87.30		2.223E+00	7.819E-01	6.563E-01	6.403E-02	3.387
	+	238.63	*	1.457E+00	1.927E-01	1.035E-01	1.044E-02	14.067
	+	300.09		1.510E+00	1.461E+00	1.426E+00	8.464E-01	1.059
TH-230	+	609.31	*	1.120E+00	2.195E-01	1.328E-01	1.351E-02	8.435
	+	1120.29		2.069E+00	7.368E-01	5.033E-01	5.380E-02	4.111
	+	1764.49		1.437E+00	6.475E-01	4.428E-01	3.744E-02	3.244
TH-232	+	338.32		1.380E+00	5.688E-01	4.518E-01	4.071E-02	3.055
	+	911.07	*	1.385E+00	3.576E-01	3.155E-01	3.578E-02	4.392
	+	969.11		1.518E+00	5.668E-01	3.917E-01	9.159E-02	3.876
TH-234	+	63.29	*	1.453E+01	3.090E+00	1.228E+00	2.292E-01	11.828
	+	92.38		1.498E+01	2.972E+00	8.661E-01	1.625E-01	17.296
U-234	+	609.31	*	1.120E+00	2.195E-01	1.328E-01	1.351E-02	8.435
	+	1120.29		2.069E+00	7.368E-01	5.033E-01	5.380E-02	4.111
	+	1764.49		1.437E+00	6.475E-01	4.428E-01	3.744E-02	3.244
U-235		89.95		3.020E-01	1.577E+00	1.906E+00	5.952E-01	0.158
	+	93.35		1.801E+01	5.257E+00	1.045E+00	2.976E-01	17.239
		105.00		1.574E+00	1.187E+00	1.912E+00	5.828E-01	0.823
	+	143.76	*	6.662E-01	4.642E-01	3.587E-01	6.577E-02	1.857
		163.35		2.963E-01	5.381E-01	8.952E-01	1.706E-01	0.331
	+	185.71		5.116E-01	1.024E-01	7.404E-02	6.340E-03	6.909

Sample ID : G245799018 Acquisition date : 10-FEB-2010 19:13:04

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		2.805E-01	6.947E-01	1.018E+00	1.949E-01	0.275
NP-237	+	86.50	*	1.390E+00	5.669E-01	3.867E-01	8.826E-02	3.594
	+	95.87		2.356E+00	2.008E+00	1.679E+00	4.233E-01	1.403
U-238	+	63.29	*	1.453E+01	3.090E+00	1.228E+00	2.292E-01	11.828
	+	92.38		1.498E+01	1.778E+00	8.661E-01	8.632E-02	17.296
AM-243	+	74.67	*	3.218E-01	6.794E-02	7.204E-02	7.033E-03	4.467
	+	86.72		5.212E+01	1.834E+01	1.451E+01	1.415E+00	3.592
		117.66		-6.108E-01	4.023E+00	6.617E+00	7.555E-01	-0.092
	+	142.18		5.596E+01	3.805E+01	2.993E+01	3.087E+00	1.870
ANH-511	+	511.00	*	1.240E-01	8.367E-02	7.015E-02	6.265E-03	1.767

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.935E-01	4.719E-01	7.370E-01	7.013E-02	-0.398
NA-22		1274.54	*	-9.375E-02	6.352E-02	8.170E-02	6.883E-03	-1.147
NA-24		1368.53	*	6.607E-01	6.352E-02	Half-Life too short		
AL-26		1129.67		-9.171E-01	2.352E+00	3.640E+00	3.042E-01	-0.252
		1808.65	*	-6.105E-03	4.198E-02	6.615E-02	5.544E-03	-0.092
TI-44		67.85		1.120E-02	3.033E-02	4.976E-02	4.901E-03	0.225
	+	78.38	*	3.259E-01	5.064E-02	6.449E-02	6.283E-03	5.054
SC-46		889.25	*	1.806E-02	5.728E-02	8.641E-02	7.565E-03	0.209
	+	1120.51		3.547E-01	1.241E-01	1.813E-01	1.521E-02	1.957
V-48		944.10		7.322E-01	1.270E+00	2.214E+00	1.937E-01	0.331
		983.50	*	1.289E-02	9.549E-02	1.592E-01	1.389E-02	0.081
		1312.09		-3.096E-03	1.062E-01	1.775E-01	1.506E-02	-0.017
CR-51		320.08	*	7.983E-02	4.167E-01	7.096E-01	6.777E-02	0.112
MN-52		744.21		-2.857E-02	2.957E-01	4.912E-01	4.270E-02	-0.058
		848.13		-1.711E+00	9.475E+00	1.545E+01	1.358E+00	-0.111
		935.52		3.457E-02	3.687E-01	6.136E-01	5.369E-02	0.056
		1246.25		4.416E+00	1.057E+01	1.779E+01	1.486E+00	0.248
		1333.61		-7.962E-02	6.415E+00	1.073E+01	9.145E-01	-0.007
		1434.06	*	1.160E-01	3.169E-01	5.573E-01	4.805E-02	0.208
MN-54		834.83	*	6.800E-03	4.832E-02	8.147E-02	7.163E-03	0.083
CO-56		846.75	*	-5.895E-03	5.349E-02	8.787E-02	7.725E-03	-0.067
		977.42		1.379E+00	3.867E+00	6.612E+00	5.771E-01	0.209
		1037.82		1.727E-02	4.096E-01	6.730E-01	6.120E-02	0.026
		1175.09		-1.400E+00	3.336E+00	5.147E+00	4.207E-01	-0.272
		1238.25		1.317E-01	1.306E-01	2.296E-01	1.973E-02	0.573
		1360.21		6.709E-02	1.363E+00	2.296E+00	1.964E-01	0.029
		1771.40		1.831E-02	2.266E-01	3.796E-01	3.206E-02	0.048
CO-57		122.06	*	1.124E-04	2.633E-02	4.354E-02	5.101E-03	0.003
		136.48		1.604E-01	2.243E-01	3.799E-01	4.276E-02	0.422
CO-58		810.76	*	4.813E-03	4.619E-02	7.789E-02	6.859E-03	0.062
FE-59	+	142.65		8.619E+00	5.860E+00	5.563E+00	5.718E-01	1.549
		192.34		1.320E-01	1.064E+00	1.729E+00	2.323E-01	0.076
		1099.22	*	-3.465E-02	1.229E-01	1.930E-01	1.771E-02	-0.180
		1291.56		-8.341E-03	1.635E-01	2.605E-01	2.510E-02	-0.032

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.22		-3.156E-02	6.636E-02	1.017E-01	8.304E-03	-0.310
		1332.49	*	5.547E-04	5.093E-02	8.546E-02	7.284E-03	0.006
ZN-65		1115.52	*	-1.625E-02	1.163E-01	1.587E-01	1.336E-02	-0.102
GE-68		1077.35	*	3.905E-01	1.848E+00	3.080E+00	2.629E-01	0.127
AS-73		53.44	*	2.895E-01	3.069E-01	5.307E-01	5.310E-02	0.545
AS-74		595.88	*	-5.632E-03	1.136E-01	1.823E-01	1.606E-02	-0.031
		634.78		1.074E-02	4.793E-01	7.713E-01	6.643E-02	0.014
SE-75		66.05		-7.499E-02	3.106E+00	4.740E+00	5.452E-01	-0.016
		96.73		-9.108E-01	8.928E-01	1.256E+00	1.842E-01	-0.725
		121.11		4.307E-02	1.438E-01	2.408E-01	3.296E-02	0.179
		136.00		1.023E-02	4.283E-02	7.120E-02	7.699E-03	0.144
		198.60		2.078E+00	2.087E+00	3.476E+00	3.349E-01	0.598
		264.65	*	-6.596E-03	5.882E-02	8.184E-02	7.519E-03	-0.081
		279.53		-2.919E-02	1.315E-01	1.935E-01	1.835E-02	-0.151
		303.91		5.278E-01	2.413E+00	4.123E+00	4.904E-01	0.128
		400.65		-1.255E-03	3.214E-01	5.330E-01	5.868E-02	-0.002
BR-77		87.88		9.244E+01	2.441E+02	3.421E+02	3.339E+01	0.270
		200.40		-9.408E+01	1.990E+02	3.120E+02	2.720E+01	-0.302
	+	239.00		2.431E+02	3.025E+01	4.444E+01	4.013E+00	5.470
		249.79		-2.164E+01	8.245E+01	1.287E+02	1.170E+01	-0.168
		281.68		4.012E+01	1.157E+02	1.780E+02	1.635E+01	0.225
		297.23		9.704E+01	6.739E+01	1.207E+02	1.108E+01	0.804
		303.76		4.320E+01	2.164E+02	3.693E+02	3.386E+01	0.117
		439.47		4.747E+01	2.198E+02	3.675E+02	3.202E+01	0.129
		484.57		7.938E+01	3.158E+02	5.276E+02	4.687E+01	0.150
		520.65	*	2.761E+00	1.462E+01	2.419E+01	2.163E+00	0.114
		574.64		9.725E+00	2.910E+02	4.722E+02	4.193E+01	0.021
		578.91		6.826E+00	1.350E+02	1.919E+02	1.702E+01	0.036
		585.48		3.424E+02	2.801E+02	4.467E+02	3.952E+01	0.767
		755.35		-1.557E+02	2.312E+02	3.616E+02	3.152E+01	-0.431
		817.79		2.296E+00	1.774E+02	2.959E+02	2.601E+01	0.008
SR-82		698.33		1.428E+01	4.282E+01	7.422E+01	6.356E+00	0.192
		776.49	*	-2.635E-01	4.806E-01	7.575E-01	6.629E-02	-0.348
		1395.20		2.020E+00	1.289E+01	2.207E+01	1.896E+00	0.092
RB-83		520.41	*	1.368E-02	9.140E-02	1.508E-01	1.348E-02	0.091
		529.64		6.999E-02	1.364E-01	2.318E-01	2.072E-02	0.302
		552.65		-2.319E-03	2.632E-01	4.267E-01	3.808E-02	-0.005
RB-84		881.50	*	-3.916E-02	1.122E-01	1.525E-01	1.336E-02	-0.257
KR-85		513.99	*	4.077E+00	1.081E+01	1.604E+01	1.433E+00	0.254
SR-85		513.99	*	2.094E-02	5.553E-02	8.239E-02	7.361E-03	0.254
RB-86		1076.63	*	-2.373E-01	1.183E+00	1.886E+00	1.610E-01	-0.126
Y-88		898.02		3.142E-02	5.583E-02	9.722E-02	8.540E-03	0.323
		1836.01	*	-1.971E-02	4.154E-02	5.852E-02	4.880E-03	-0.337
ZR-88		392.90	*	4.026E-04	3.980E-02	6.616E-02	5.574E-03	0.006
Y-91		1204.90	*	1.930E+01	2.618E+01	4.554E+01	3.759E+00	0.424
NB-94		702.63	*	1.669E-03	4.138E-02	6.996E-02	6.001E-03	0.024
		871.10		1.949E-02	4.688E-02	8.098E-02	7.106E-03	0.241
NB-95		765.79	*	6.845E-02	6.227E-02	1.125E-01	9.826E-03	0.609
NB-95M		235.69	*	-3.904E-02	1.527E-01	2.120E-01	2.165E-02	-0.184

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95		724.18		1.232E-01	1.307E-01	2.134E-01	2.003E-02	0.577
		756.15	*	-1.068E-01	9.346E-02	1.378E-01	1.320E-02	-0.775
NB-97		657.90	*	6.849E-02	9.346E-02	Half-Life too short		
		1024.50		1.411E+00	9.346E-02	Half-Life too short		
ZR-97		254.15		-5.589E+00	9.346E-02	Half-Life too short		
		355.39		3.655E+00	9.346E-02	Half-Life too short		
		507.63	*	5.811E+00	9.346E-02	Half-Life too short		
		602.52		1.945E+00	9.346E-02	Half-Life too short		
		1021.30		-7.529E+00	9.346E-02	Half-Life too short		
		1147.95		-3.942E+00	9.346E-02	Half-Life too short		
		1362.66		1.039E+00	9.346E-02	Half-Life too short		
		1750.46		-4.208E+00	9.346E-02	Half-Life too short		
MO-99		140.51		-3.576E+00	3.295E+01	4.762E+01	1.348E+01	-0.075
		181.06		-1.875E+01	2.270E+01	3.048E+01	5.558E+00	-0.615
		366.43		6.085E+00	1.118E+02	1.873E+02	1.639E+01	0.032
		739.58	*	-1.205E+01	1.551E+01	2.382E+01	3.625E+00	-0.506
		778.00		-2.918E+01	4.557E+01	7.108E+01	6.223E+00	-0.410
TC-99M		140.51	*	-8.247E+09	4.557E+01	Half-Life too short		
RH-101		127.23		-6.104E-03	3.632E-02	5.306E-02	6.034E-03	-0.115
		198.01	*	3.077E-02	3.846E-02	6.356E-02	5.526E-03	0.484
		325.23		-2.749E-01	2.635E-01	4.125E-01	3.750E-02	-0.667
RH-102		418.52		2.018E-01	3.930E-01	6.715E-01	5.774E-02	0.301
		475.06	*	2.208E-03	4.345E-02	7.151E-02	6.334E-03	0.031
		631.29		1.953E-03	7.620E-02	1.227E-01	1.059E-02	0.016
		697.49		3.217E-02	9.622E-02	1.668E-01	1.428E-02	0.193
		766.84		2.006E-01	1.632E-01	2.962E-01	2.587E-02	0.677
		1046.59		-1.133E-01	1.454E-01	2.125E-01	1.830E-02	-0.533
		1112.84		-1.301E-01	3.166E-01	4.088E-01	3.442E-02	-0.318
RU-103		497.08	*	-4.169E-02	5.583E-02	8.511E-02	1.221E-02	-0.490
	+	610.33		1.214E+01	2.875E+00	3.546E+00	5.939E-01	3.423
RH-106		511.85		3.921E-01	3.211E-01	5.613E-01	5.014E-02	0.698
		621.84	*	-1.228E-01	4.321E-01	6.748E-01	9.043E-02	-0.182
		1050.47		5.874E-01	2.905E+00	4.864E+00	4.186E-01	0.121
RU-106		511.85		3.921E-01	3.211E-01	5.613E-01	5.014E-02	0.698
		621.84	*	-1.228E-01	4.319E-01	6.748E-01	5.862E-02	-0.182
		1050.47		5.874E-01	2.905E+00	4.864E+00	4.186E-01	0.121
AG-108M		433.93	*	-3.025E-02	4.472E-02	7.007E-02	6.324E-03	-0.432
		614.37		3.020E-05	5.192E-02	7.295E-02	6.610E-03	0.000
		722.95		1.698E-02	5.785E-02	8.799E-02	7.898E-03	0.193
CD-109		88.03	*	2.281E-01	1.067E+00	1.485E+00	1.450E-01	0.154
AG-110M		657.75	*	1.167E-02	5.780E-02	8.277E-02	7.214E-03	0.141
		677.61		-1.435E-01	3.969E-01	6.080E-01	5.311E-02	-0.236
		706.67		3.865E-02	2.590E-01	4.420E-01	3.902E-02	0.087
		763.93		2.560E-02	2.446E-01	4.129E-01	3.705E-02	0.062
		884.67		-2.408E-02	7.675E-02	1.047E-01	9.456E-03	-0.230
		937.48		-7.438E-02	1.584E-01	2.478E-01	2.244E-02	-0.300
		1384.27		1.759E-01	1.988E-01	3.741E-01	3.302E-02	0.470
IN-111		171.28		2.417E-02	1.210E+00	1.968E+00	1.653E-01	0.012
		245.39	*	2.209E-01	1.458E+00	2.087E+00	1.892E-01	0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-113M		391.69	*	-7.492E-03	5.687E-02	9.363E-02	8.135E-03	-0.080
SN-113		391.69	*	-7.492E-03	5.687E-02	9.363E-02	8.135E-03	-0.080
IN-114M		190.27	*	-3.147E-04	2.313E-01	3.331E-01	2.869E-02	-0.001
CD-115		260.90		-3.797E+01	1.703E+02	2.659E+02	2.430E+01	-0.143
		492.35		8.141E+01	4.930E+01	9.042E+01	8.049E+00	0.900
		527.90	*	3.764E+00	1.505E+01	2.503E+01	2.237E+00	0.150
SN-117M		156.02		-2.554E+00	2.473E+00	3.805E+00	3.503E-01	-0.671
		158.56	*	6.674E-03	6.045E-02	9.918E-02	8.915E-03	0.067
SB-122		563.90	*	-4.412E-01	2.737E+00	4.366E+00	3.888E-01	-0.101
		692.80		-6.424E+01	5.491E+01	8.143E+01	6.958E+00	-0.789
I-123		159.00	*	1.646E+00	5.491E+01	Half-Life too short		
		528.96		4.214E+02	5.491E+01	Half-Life too short		
TE-123M		159.00	*	6.447E-03	3.103E-02	5.115E-02	4.604E-03	0.126
I-124		602.71	*	6.548E-02	9.379E-01	1.407E+00	1.236E-01	0.047
		722.78		4.385E-01	6.387E+00	9.437E+00	8.152E-01	0.046
		1325.50		-1.877E+00	4.968E+01	8.288E+01	7.054E+00	-0.023
		1376.25		6.088E+01	4.088E+01	8.061E+01	6.912E+00	0.755
	+	1509.49		3.563E+01	1.938E+01	4.422E+01	3.824E+00	0.806
		1691.02		-7.724E-01	5.419E+00	8.626E+00	7.379E-01	-0.090
SB-124		602.71		3.699E-03	5.298E-02	7.949E-02	6.982E-03	0.047
		645.85		3.450E-01	6.582E-01	1.110E+00	1.006E-01	0.311
		709.31		1.353E-01	3.406E+00	5.540E+00	4.764E-01	0.024
		713.82		1.557E-02	2.070E+00	3.486E+00	4.195E-01	0.004
		722.78		3.591E-02	5.231E-01	7.729E-01	6.820E-02	0.046
	+	968.20		1.566E+01	4.759E+00	8.601E+00	7.515E-01	1.821
		1045.16		-9.108E-01	3.122E+00	4.907E+00	4.229E-01	-0.186
		1325.50		-1.642E-01	4.345E+00	7.249E+00	6.170E-01	-0.023
		1368.21		1.305E+00	2.178E+00	3.953E+00	5.314E-01	0.330
		1436.60		-6.105E+00	5.194E+00	6.885E+00	5.937E-01	-0.887
		1691.02	*	-1.492E-02	1.047E-01	1.666E-01	1.483E-02	-0.090
SB-125		427.89	*	5.433E-02	1.198E-01	2.041E-01	1.800E-02	0.266
	+	463.38		5.351E-01	5.406E-01	7.614E-01	7.218E-02	0.703
		600.56		1.025E-01	2.207E-01	3.715E-01	3.497E-02	0.276
		635.90		1.146E-01	3.515E-01	5.828E-01	5.422E-02	0.197
TE-125M		109.28	*	1.078E+01	1.091E+01	1.701E+01	2.090E+00	0.634
I-126		388.63		8.642E-02	2.598E-01	4.413E-01	3.735E-02	0.196
		666.33	*	1.822E-01	2.631E-01	4.026E-01	3.399E-02	0.453
		753.82		1.657E+00	1.907E+00	3.443E+00	2.999E-01	0.481
SB-126		223.80		1.740E+00	4.828E+00	7.879E+00	7.033E-01	0.221
	+	278.60		6.816E+00	3.894E+00	5.045E+00	4.631E-01	1.351
	+	296.50		1.222E+01	2.727E+00	3.947E+00	3.623E-01	3.097
		414.70		-9.396E-02	1.038E-01	1.606E-01	1.377E-02	-0.585
		415.30		-5.720E+00	8.597E+00	1.356E+01	1.163E+00	-0.422
		555.20		-1.235E+00	5.546E+00	8.816E+00	7.864E-01	-0.140
		573.80		-6.147E-01	1.420E+00	2.205E+00	1.959E-01	-0.279
		593.00		-3.970E-01	1.183E+00	1.843E+00	1.626E-01	-0.215
		656.30		-2.543E+00	5.572E+00	7.288E+00	6.169E-01	-0.349
		666.33		7.618E-02	1.100E-01	1.683E-01	1.421E-02	0.453
		675.00		1.485E-01	2.593E+00	4.169E+00	3.534E-01	0.036

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		7.656E-02	8.988E-02	1.632E-01	1.395E-02	0.469
		697.00		1.006E-01	3.363E-01	5.816E-01	4.978E-02	0.173
		720.50	*	-8.923E-03	2.069E-01	3.154E-01	2.723E-02	-0.028
		856.80		9.590E-02	6.894E-01	1.159E+00	1.018E-01	0.083
		989.30		1.019E+00	1.714E+00	2.997E+00	2.612E-01	0.340
		1034.80		-6.066E+00	1.118E+01	1.695E+01	1.465E+00	-0.358
		1213.00		4.926E+00	7.121E+00	1.226E+01	1.014E+00	0.402
SN-126	+	64.28		5.750E+00	1.090E+00	8.515E-01	1.359E-01	6.753
	+	86.94		1.968E+00	1.055E+00	6.156E-01	2.561E-01	3.196
		87.57	*	4.551E-02	1.053E-01	1.479E-01	1.443E-02	0.308
SB-127		61.10		-9.763E+00	3.486E+01	5.283E+01	6.512E+00	-0.185
		252.40		2.448E+00	5.292E+00	8.500E+00	3.583E+00	0.288
		290.80		-1.406E+01	2.935E+01	4.216E+01	4.913E+00	-0.333
		411.60		-1.599E+00	1.676E+01	2.758E+01	4.339E+00	-0.058
		444.90		-2.483E+01	1.467E+01	2.059E+01	2.607E+00	-1.206
		473.00		2.358E+00	2.622E+00	4.532E+00	5.922E-01	0.520
		543.00		-7.739E+00	2.104E+01	3.290E+01	4.812E+00	-0.235
		603.60		-1.360E+00	1.695E+01	2.359E+01	2.987E+00	-0.058
		685.20	*	-2.358E-01	1.965E+00	3.098E+00	3.519E-01	-0.076
		698.50		5.285E+00	1.966E+01	3.388E+01	5.361E+00	0.156
		722.20		-3.320E+00	4.344E+01	6.295E+01	7.068E+00	-0.053
		783.80		3.677E+00	4.954E+00	8.799E+00	1.105E+00	0.418
XE-127		57.60		-1.826E+00	2.740E+00	4.568E+00	4.588E-01	-0.400
		145.22		7.906E-01	9.162E-01	1.391E+00	1.402E-01	0.568
		172.10		-1.483E-02	1.416E-01	2.287E-01	1.923E-02	-0.065
		202.84	*	-3.507E-02	5.681E-02	8.832E-02	7.721E-03	-0.397
		374.96		-1.532E-01	2.695E-01	4.324E-01	3.740E-02	-0.354
I-131		80.18		1.980E+00	5.302E+00	6.549E+00	6.412E-01	0.302
		284.30		-1.067E-01	1.770E+00	2.989E+00	2.872E-01	-0.036
		364.48	*	3.946E-02	1.484E-01	2.519E-01	2.326E-02	0.157
		636.97		1.276E+00	1.993E+00	3.406E+00	3.094E-01	0.375
		722.89		8.457E-01	1.016E+01	1.504E+01	1.308E+00	0.056
TE-132		49.72		5.680E-01	5.719E+00	8.881E+00	1.070E+00	0.064
	+	111.76		8.409E+01	4.980E+01	6.092E+01	7.862E+00	1.380
		116.30		1.182E+01	3.354E+01	5.077E+01	6.677E+00	0.233
		228.16	*	-4.179E-01	8.470E-01	1.309E+00	2.087E-01	-0.319
BA-133		53.15		1.125E+00	1.309E+00	2.261E+00	2.262E-01	0.497
		79.62		1.430E-01	1.266E+00	1.766E+00	2.805E-01	0.081
		81.00		8.041E-03	1.146E-01	1.388E-01	2.292E-02	0.058
	+	276.40		1.008E+00	5.879E-01	7.847E-01	1.160E-01	1.285
		302.84		-2.105E-02	1.599E-01	2.677E-01	3.655E-02	-0.079
		356.01	*	-1.338E-04	6.257E-02	9.209E-02	1.230E-02	-0.001
		383.85		3.187E-01	3.774E-01	6.594E-01	8.271E-02	0.483
I-133	+	510.53		1.461E+00	3.774E-01	Half-Life too short		
		529.87	*	1.982E-03	3.774E-01	Half-Life too short		
		706.58		8.315E-02	3.774E-01	Half-Life too short		
		856.28		-3.529E-01	3.774E-01	Half-Life too short		
		875.33		-7.657E-02	3.774E-01	Half-Life too short		
		1236.41		6.387E-01	3.774E-01	Half-Life too short		

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1298.22		-2.015E-01	3.774E-01	Half-Life too short		
CS-134		475.35		8.795E-01	2.796E+00	4.684E+00	4.149E-01	0.188
		563.23		-2.828E-02	4.740E-01	7.637E-01	6.862E-02	-0.037
		569.32		1.560E-01	2.550E-01	4.348E-01	3.916E-02	0.359
		604.70		-1.803E-02	4.900E-02	6.549E-02	5.759E-03	-0.275
		795.84	*	5.364E-02	6.670E-02	1.186E-01	1.048E-02	0.452
		801.93		-4.002E-01	5.375E-01	8.243E-01	7.277E-02	-0.486
		1038.57		4.182E+00	4.985E+00	8.938E+00	7.716E-01	0.468
		1167.94		2.023E+00	3.177E+00	5.531E+00	4.531E-01	0.366
		1365.15		-2.276E-01	1.630E+00	2.669E+00	2.391E-01	-0.085
CS-135		268.24	*	7.728E-02	2.013E-01	2.923E-01	3.050E-02	0.264
I-135		288.45		1.945E+10	2.013E-01	Half-Life too short		
		417.63		-7.577E+09	2.013E-01	Half-Life too short		
		546.56		2.098E+10	2.013E-01	Half-Life too short		
		836.80		3.856E+10	2.013E-01	Half-Life too short		
		1038.76		3.401E+10	2.013E-01	Half-Life too short		
		1124.00		7.256E+09	2.013E-01	Half-Life too short		
		1131.51		1.036E+10	2.013E-01	Half-Life too short		
		1260.41	*	7.987E+09	2.013E-01	Half-Life too short		
		1457.56		1.434E+12	2.013E-01	Half-Life too short		
		1678.03		-1.714E+09	2.013E-01	Half-Life too short		
		1706.46		-2.086E+10	2.013E-01	Half-Life too short		
		1791.20		-3.465E+09	2.013E-01	Half-Life too short		
CS-136		66.91		1.891E-01	5.241E-01	8.108E-01	1.311E-01	0.233
	+	86.29		6.237E+00	2.273E+00	1.910E+00	2.605E-01	3.265
		153.22		5.758E-01	7.192E-01	1.217E+00	1.263E-01	0.473
		163.89		7.507E-01	1.224E+00	2.049E+00	1.960E-01	0.366
		176.55		-2.378E-01	4.386E-01	6.910E-01	6.196E-02	-0.344
		273.65		1.689E-01	7.264E-01	8.230E-01	7.989E-02	0.205
		340.57		1.135E-01	1.616E-01	2.526E-01	2.332E-02	0.449
		818.51		8.899E-02	9.145E-02	1.675E-01	1.474E-02	0.531
		1048.07	*	-1.326E-01	1.397E-01	1.985E-01	1.782E-02	-0.668
		1235.34		1.108E-02	9.480E-01	1.460E+00	1.699E-01	0.008
CE-139		165.85	*	-3.050E-02	3.358E-02	5.194E-02	4.331E-03	-0.587
BA-140		162.64		5.895E-01	8.603E-01	1.446E+00	1.320E-01	0.408
		304.84		6.709E-01	1.526E+00	2.619E+00	7.385E-01	0.256
		423.70		-2.884E+00	2.752E+00	3.877E+00	1.257E+00	-0.744
		537.32	*	2.709E-02	3.365E-01	5.507E-01	1.830E-01	0.049
LA-140		328.77		2.554E-01	3.652E-01	6.361E-01	6.063E-02	0.401
		432.53		-1.468E+00	2.783E+00	4.410E+00	4.012E-01	-0.333
		487.03		-2.003E-01	1.795E-01	2.635E-01	2.479E-02	-0.760
		751.79		1.943E+00	2.289E+00	4.115E+00	3.959E-01	0.472
		815.85		-1.174E-01	4.106E-01	6.626E-01	6.469E-02	-0.177
		867.82		-8.403E-01	1.810E+00	2.842E+00	2.622E-01	-0.296
		919.63		1.096E+00	3.784E+00	6.441E+00	6.926E-01	0.170
		925.24		-4.992E-01	1.612E+00	2.570E+00	2.386E-01	-0.194
		1596.49	*	-2.273E-02	1.354E-01	2.177E-01	1.879E-02	-0.104
CE-141		145.44	*	8.231E-02	7.958E-02	1.232E-01	1.256E-02	0.668
CE-143		57.37		-4.247E-04	7.958E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		231.56		3.220E-03	7.958E-02	Half-Life too short		
		293.26	*	5.885E-04	7.958E-02	Half-Life too short		
	+	350.59		2.826E-02	7.958E-02	Half-Life too short		
		490.36		-2.664E-03	7.958E-02	Half-Life too short		
		664.57		2.670E-03	7.958E-02	Half-Life too short		
		721.93		-2.152E-04	7.958E-02	Half-Life too short		
CE-144		80.11		9.005E-01	2.401E+00	2.966E+00	2.889E-01	0.304
		133.54	*	-3.664E-02	2.225E-01	3.634E-01	6.164E-02	-0.101
PM-144		476.78		-6.001E-02	1.002E-01	1.569E-01	1.514E-02	-0.382
		618.01		1.441E-02	4.112E-02	6.841E-02	6.119E-03	0.211
		696.49	*	2.496E-02	4.186E-02	7.421E-02	6.353E-03	0.336
		778.57		-1.872E+00	2.872E+00	4.466E+00	3.911E-01	-0.419
PR-144		696.49	*	1.692E+00	2.837E+00	5.029E+00	4.304E-01	0.336
		1489.15		2.139E+00	1.330E+01	2.279E+01	1.970E+00	0.094
PM-146		453.90	*	3.114E-02	5.803E-02	9.906E-02	1.075E-02	0.314
		633.02		-1.101E+00	1.948E+00	2.879E+00	1.076E+00	-0.382
		735.90		1.296E-01	2.049E-01	3.573E-01	1.022E-01	0.363
		747.13		-4.452E-02	1.169E-01	1.885E-01	2.655E-02	-0.236
ND-147		91.11		3.036E+00	5.222E-01	7.155E-01	7.535E-02	4.244
		319.41		-1.563E+00	3.809E+00	6.238E+00	5.689E-01	-0.251
		439.89		5.523E+00	8.577E+00	1.471E+01	1.283E+00	0.375
		531.02	*	-2.543E-01	7.578E-01	1.195E+00	1.808E-01	-0.213
PM-149		285.90	*	-1.104E+02	1.131E+02	1.785E+02	2.831E+01	-0.619
EU-152		121.78		7.584E-03	7.647E-02	1.270E-01	1.611E-02	0.060
		244.69		-6.746E-02	4.321E-01	6.030E-01	5.466E-02	-0.112
		344.27	*	4.255E-02	1.218E-01	1.947E-01	1.841E-02	0.219
		443.98		-1.207E+00	1.348E+00	2.071E+00	1.809E-01	-0.583
		778.89		-2.211E-01	3.309E-01	5.135E-01	4.496E-02	-0.431
		867.32		-9.129E-01	1.101E+00	1.651E+00	1.450E-01	-0.553
		964.01		4.637E-01	4.289E-01	7.008E-01	6.125E-02	0.662
		1085.78		-1.156E-01	4.722E-01	7.428E-01	6.321E-02	-0.156
		1112.02		-1.703E-01	4.618E-01	6.032E-01	5.081E-02	-0.282
		1407.95		7.815E-02	2.120E-01	3.746E-01	3.223E-02	0.209
GD-153		69.67		-6.685E-01	1.165E+00	1.847E+00	1.813E-01	-0.362
		83.37		1.503E+01	1.547E+01	2.399E+01	2.337E+00	0.627
		97.43	*	5.715E-02	9.057E-02	1.397E-01	1.428E-02	0.409
		103.18		-7.435E-02	1.051E-01	1.695E-01	1.786E-02	-0.439
EU-154		123.07		-2.925E-02	5.392E-02	8.658E-02	1.195E-02	-0.338
		247.94		1.234E-01	4.209E-01	6.815E-01	8.060E-02	0.181
		591.81		9.782E-02	7.367E-01	1.206E+00	1.425E-01	0.081
		723.30		7.856E-02	2.426E-01	3.703E-01	3.536E-02	0.212
		756.87		-1.496E+00	1.010E+00	1.405E+00	1.693E-01	-1.064
		873.19		2.499E-01	4.105E-01	7.206E-01	8.901E-02	0.347
		996.32		-2.034E-02	5.548E-01	7.827E-01	1.394E-01	-0.026
		1004.76		4.905E-02	3.060E-01	4.463E-01	5.220E-02	0.110
		1274.45	*	-2.711E-01	1.776E-01	2.237E-01	2.495E-02	-1.212
EU-155		48.70		-6.495E-01	6.238E-01	9.159E-01	9.201E-02	-0.709
		60.01		1.619E+00	2.801E+00	4.370E+00	4.397E-01	0.370
	+	86.54		5.701E-01	2.007E-01	1.789E-01	1.759E-02	3.186

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	1.416E-01	1.112E-01	1.928E-01	2.071E-02	0.735
TB-160	+	86.79		1.525E+00	5.366E-01	4.774E-01	4.657E-02	3.195
		197.04		-7.085E-02	6.596E-01	1.043E+00	9.054E-02	-0.068
		215.65		4.785E-01	8.807E-01	1.390E+00	1.232E-01	0.344
	+	298.57		2.168E-01	1.668E-01	2.306E-01	2.116E-02	0.940
		879.36	*	6.008E-02	2.064E-01	3.103E-01	2.721E-02	0.194
		962.29		4.903E-01	8.000E-01	1.287E+00	1.125E-01	0.381
		966.15		6.629E-01	3.569E-01	6.091E-01	5.322E-02	1.088
		1177.93		7.211E-02	5.179E-01	8.505E-01	6.958E-02	0.085
		1271.85		-4.344E-01	9.259E-01	1.386E+00	1.165E-01	-0.313
HO-166M		80.57		4.380E-02	3.153E-01	3.836E-01	3.736E-02	0.114
	+	184.41		3.837E-01	7.682E-02	9.521E-02	8.139E-03	4.030
		280.46		-4.744E-02	1.058E-01	1.526E-01	1.401E-02	-0.311
		410.95		6.737E-02	3.260E-01	5.472E-01	4.679E-02	0.123
		711.68	*	-7.321E-02	7.425E-02	1.122E-01	9.659E-03	-0.652
		752.31		3.692E-01	3.657E-01	6.653E-01	5.795E-02	0.555
		810.29		-3.146E-02	7.028E-02	1.111E-01	9.757E-03	-0.283
TM-171		51.35		-2.374E+00	9.483E+00	1.611E+01	1.612E+00	-0.147
		52.39		2.772E+00	5.439E+00	9.326E+00	9.331E-01	0.297
		59.40		1.422E+01	1.448E+01	2.288E+01	2.306E+00	0.621
		66.72	*	1.310E+00	1.881E+01	2.881E+01	2.843E+00	0.045
LU-176		88.36		2.148E-01	2.758E-01	3.448E-01	3.371E-02	0.623
		201.83		-4.093E-02	3.417E-02	5.113E-02	4.465E-03	-0.800
		306.84	*	3.522E-03	3.006E-02	4.522E-02	4.143E-03	0.078
		401.10		1.480E-01	8.446E+00	1.403E+01	1.190E+00	0.011
LU-177M		52.97		4.889E-01	5.853E-01	1.010E+00	1.011E-01	0.484
		54.07		2.384E-01	3.291E-01	5.665E-01	5.668E-02	0.421
		61.30		5.664E-01	8.940E-01	1.400E+00	1.402E-01	0.405
		121.62		6.285E-02	3.934E-01	6.552E-01	7.653E-02	0.096
		147.16		4.297E-01	7.575E-01	1.149E+00	1.141E-01	0.374
		171.86		2.597E-02	5.604E-01	9.126E-01	7.669E-02	0.028
		218.09		5.050E-01	9.766E-01	1.610E+00	1.430E-01	0.314
		268.79		1.040E+00	1.058E+00	1.604E+00	1.469E-01	0.648
		319.02		-1.683E-01	2.930E-01	4.742E-01	4.325E-02	-0.355
		367.43		-5.460E-01	1.176E+00	1.901E+00	1.661E-01	-0.287
		413.65	*	-1.661E-02	2.330E-01	3.839E-01	3.289E-02	-0.043
HF-181		56.28		-5.012E-01	4.011E-01	6.529E-01	6.545E-02	-0.768
		57.53		-1.633E-01	2.293E-01	3.817E-01	3.833E-02	-0.428
		65.20		4.730E-01	6.096E-01	9.580E-01	9.487E-02	0.494
		133.02		-3.155E-02	7.662E-02	1.176E-01	1.291E-02	-0.268
		136.25		1.254E-01	5.012E-01	8.334E-01	8.958E-02	0.150
		345.85		4.308E-02	2.420E-01	3.815E-01	3.415E-02	0.113
		482.03	*	3.482E-02	5.617E-02	9.637E-02	8.555E-03	0.361
W-181		56.28		-1.962E-01	1.567E-01	2.551E-01	2.557E-02	-0.769
		57.53		-6.397E-02	8.966E-02	1.492E-01	1.498E-02	-0.429
		65.20	*	1.835E-01	2.364E-01	3.716E-01	3.680E-02	0.494
TA-182		67.75		2.059E-02	7.732E-02	1.192E-01	1.174E-02	0.173
		100.10		9.916E-03	1.816E-01	3.036E-01	3.147E-02	0.033
		152.43		5.258E-01	3.578E-01	6.214E-01	5.907E-02	0.846

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		222.10		-1.025E-01	4.066E-01	6.411E-01	5.714E-02	-0.160
	+	1001.68		1.063E+01	4.500E+00	6.512E+00	5.665E-01	1.632
	+	1121.28		9.793E-01	3.427E-01	4.790E-01	4.018E-02	2.045
		1189.05		-9.832E-02	4.524E-01	7.138E-01	5.862E-02	-0.138
		1221.42	*	-2.232E-01	2.742E-01	3.996E-01	3.315E-02	-0.559
		1230.97		-8.492E-02	6.728E-01	1.069E+00	8.895E-02	-0.079
RE-183		57.98		-3.059E-02	9.250E-02	1.549E-01	1.557E-02	-0.197
		59.32		5.763E-02	5.939E-02	9.386E-02	9.457E-03	0.614
		67.20		9.879E-02	1.337E-01	2.097E-01	2.068E-02	0.471
		162.32	*	1.198E-01	1.241E-01	2.110E-01	1.827E-02	0.568
	+	208.81		3.851E+00	1.852E+00	2.039E+00	1.794E-01	1.888
		291.72		-6.117E-01	1.260E+00	1.810E+00	1.662E-01	-0.338
RE-184		57.98		-1.126E-01	3.405E-01	5.703E-01	5.732E-02	-0.197
		59.32		2.119E-01	2.184E-01	3.452E-01	3.478E-02	0.614
		67.20		3.635E-01	4.919E-01	7.717E-01	7.609E-02	0.471
		161.27		-4.116E-01	4.089E-01	6.304E-01	5.517E-02	-0.653
		216.55		7.950E-02	3.048E-01	4.958E-01	4.396E-02	0.160
		252.85	*	5.388E-02	2.717E-01	4.371E-01	3.979E-02	0.123
		318.01		-4.198E-01	5.063E-01	8.036E-01	7.332E-02	-0.522
		792.07		6.563E-01	1.428E+00	2.474E+00	2.170E-01	0.265
		903.28		-1.112E+00	1.331E+00	1.821E+00	1.593E-01	-0.610
		920.93		-2.222E-02	6.172E-01	1.015E+00	8.880E-02	-0.022
OS-185		59.72		1.274E-01	1.632E-01	2.564E-01	2.582E-02	0.497
		61.14		-2.303E-02	9.630E-02	1.462E-01	1.465E-02	-0.157
		69.30		-1.462E-01	1.975E-01	3.263E-01	3.205E-02	-0.448
		592.07		-1.116E+00	3.185E+00	4.954E+00	4.371E-01	-0.225
		646.12	*	1.886E-02	5.726E-02	9.480E-02	8.094E-03	0.199
		717.42		4.694E-01	1.197E+00	2.080E+00	1.794E-01	0.226
		874.81		-2.213E-01	8.357E-01	1.347E+00	1.182E-01	-0.164
		880.27		7.199E-02	1.173E+00	1.702E+00	1.492E-01	0.042
RE-188		155.03	*	-1.002E-01	1.853E-01	2.940E-01	2.731E-02	-0.341
		477.96		-1.673E+00	4.434E+00	7.062E+00	6.262E-01	-0.237
		633.10		-2.256E+00	3.858E+00	5.821E+00	5.019E-01	-0.388
W-188	+	63.58		5.849E+02	8.335E+01	9.343E+01	9.292E+00	6.261
		227.08		-2.170E+00	1.517E+01	2.404E+01	2.152E+00	-0.090
		290.67	*	-4.648E+00	9.848E+00	1.416E+01	1.301E+00	-0.328
IR-192	+	295.96		9.282E-01	2.073E-01	3.224E-01	2.979E-02	2.879
		308.46		-3.900E-02	1.184E-01	1.708E-01	1.571E-02	-0.228
		316.51	*	-3.693E-03	3.962E-02	6.632E-02	6.068E-03	-0.056
		468.07		3.663E-03	1.009E-01	1.539E-01	1.453E-02	0.024
		604.41		-1.884E-01	6.678E-01	9.037E-01	1.186E-01	-0.208
		612.46		6.990E-01	8.669E-01	1.360E+00	1.360E-01	0.514
AU-195		65.12		1.803E-01	1.132E-01	1.814E-01	1.797E-02	0.994
		66.83		1.996E-02	6.211E-02	9.605E-02	9.478E-03	0.208
	+	75.70		1.042E+00	2.200E-01	3.651E-01	3.562E-02	2.854
		98.88	*	6.432E-01	2.499E-01	4.266E-01	4.394E-02	1.508
	+	129.76		3.086E+00	4.154E+00	5.407E+00	6.057E-01	0.571
TL-200		367.94	*	-4.419E-04	4.154E+00	Half-Life too short		
		579.30		6.378E-04	4.154E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		828.27		9.029E-03	4.154E+00	Half-Life too short		
		1205.75		8.871E-04	4.154E+00	Half-Life too short		
TL-201		68.90		-1.775E+00	3.251E+00	5.410E+00	5.318E-01	-0.328
		70.82		4.940E-01	2.154E+00	3.310E+00	3.244E-01	0.149
		80.30		2.218E+00	5.941E+00	7.338E+00	7.148E-01	0.302
		135.34		-1.584E+01	2.944E+01	4.714E+01	5.098E+00	-0.336
		167.43	*	-4.281E-01	7.909E+00	1.283E+01	1.071E+00	-0.033
TL-202		68.90		-1.547E-01	2.834E-01	4.715E-01	4.634E-02	-0.328
		70.82		4.294E-02	1.872E-01	2.877E-01	2.820E-02	0.149
		80.30		1.928E-01	5.165E-01	6.380E-01	6.214E-02	0.302
		439.56	*	2.942E-02	1.024E-01	1.720E-01	1.499E-02	0.171
HG-203		70.83		1.869E-01	8.056E-01	1.238E+00	1.780E-01	0.151
		72.87		5.125E-01	5.094E-01	7.962E-01	1.114E-01	0.644
		82.60		1.116E+00	1.344E+00	1.694E+00	2.452E-01	0.659
		279.20	*	9.666E-03	5.041E-02	7.669E-02	7.217E-03	0.126
BI-207		72.80		1.277E-01	1.473E-01	2.306E-01	2.255E-02	0.554
	+	74.97		5.777E-01	1.220E-01	1.830E-01	1.786E-02	3.157
	+	84.90		1.075E+00	3.783E-01	3.107E-01	3.028E-02	3.461
		569.67		3.136E-02	3.808E-02	6.619E-02	5.886E-03	0.474
		1063.62	*	9.669E-03	7.080E-02	1.174E-01	1.006E-02	0.082
		1770.23		-1.190E+00	7.273E-01	7.083E-01	5.983E-02	-1.680
TL-207		81.07		8.084E-02	2.487E-01	3.062E-01	2.982E-02	0.264
		83.78		1.702E-01	1.337E-01	2.088E-01	2.034E-02	0.815
	+	94.90		5.470E-01	4.487E-01	4.265E-01	4.304E-02	1.283
		122.32		-8.259E-02	1.817E+00	2.997E+00	3.648E-01	-0.028
	+	144.24		2.159E+00	1.471E+00	1.433E+00	1.582E-01	1.506
		154.21		-5.646E-02	4.294E-01	6.971E-01	7.079E-02	-0.081
	+	269.46		5.438E-01	3.173E-01	3.956E-01	3.692E-02	1.374
		323.87	*	-1.027E+00	7.926E-01	1.187E+00	2.129E-01	-0.866
	+	338.28		5.764E+00	2.429E+00	2.884E+00	3.630E-01	1.999
		445.03		-5.715E+00	3.296E+00	4.608E+00	5.611E-01	-1.240
PO-209		260.50		7.927E-02	1.175E+01	1.864E+01	1.703E+00	0.004
		262.80		-3.797E+00	3.205E+01	5.035E+01	4.604E+00	-0.075
		896.60	*	6.877E-01	9.799E+00	1.633E+01	1.428E+00	0.042
PB-211		404.84	*	2.711E-01	1.256E+00	2.092E+00	1.311E+00	0.130
		427.08		-5.080E-01	2.685E+00	4.343E+00	2.699E+00	-0.117
		831.96		-1.553E+00	1.883E+00	2.414E+00	1.513E+00	-0.643
BI-212	+	727.18	*	1.291E+00	6.017E-01	8.312E-01	8.341E-02	1.553
		785.46		2.174E+00	2.318E+00	4.189E+00	3.671E-01	0.519
		1620.62		-1.553E-03	1.474E+00	2.429E+00	2.093E-01	-0.001
PO-215		81.07		8.084E-02	2.487E-01	3.062E-01	2.982E-02	0.264
		83.78		1.702E-01	1.337E-01	2.088E-01	2.034E-02	0.815
	+	94.90		5.470E-01	4.487E-01	4.265E-01	4.304E-02	1.283
		122.32		-8.259E-02	1.817E+00	2.997E+00	3.648E-01	-0.028
	+	144.24		2.159E+00	1.471E+00	1.433E+00	1.582E-01	1.506
		154.21		-5.646E-02	4.294E-01	6.971E-01	7.079E-02	-0.081
	+	269.46		5.438E-01	3.173E-01	3.956E-01	3.692E-02	1.374
		323.87	*	-1.027E+00	7.926E-01	1.187E+00	2.129E-01	-0.866
	+	338.28		5.764E+00	2.429E+00	2.884E+00	3.630E-01	1.999

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-5.715E+00	3.296E+00	4.608E+00	5.611E-01	-1.240
RN-219	+	271.23		6.977E-01	4.089E-01	5.112E-01	5.508E-02	1.365
		401.81	*	1.558E-01	5.192E-01	8.780E-01	1.313E-01	0.177
RN-220		549.76	*	1.696E+01	3.407E+01	5.770E+01	5.151E+00	0.294
RA-223		81.07		8.084E-02	2.487E-01	3.062E-01	2.982E-02	0.264
		83.78		1.702E-01	1.337E-01	2.088E-01	2.034E-02	0.815
	+	94.90		5.470E-01	4.487E-01	4.265E-01	4.304E-02	1.283
		122.32		-8.259E-02	1.817E+00	2.997E+00	3.648E-01	-0.028
	+	144.24		2.159E+00	1.471E+00	1.433E+00	1.582E-01	1.506
		154.21		-5.646E-02	4.294E-01	6.971E-01	7.079E-02	-0.081
	+	269.46		5.438E-01	3.173E-01	3.956E-01	3.692E-02	1.374
		323.87	*	-1.027E+00	7.926E-01	1.187E+00	2.129E-01	-0.866
	+	338.28		5.764E+00	2.429E+00	2.884E+00	3.630E-01	1.999
		445.03		-5.715E+00	3.296E+00	4.608E+00	5.611E-01	-1.240
AC-227		79.80		2.816E-01	1.614E+00	2.257E+00	4.960E-01	0.125
		236.00		4.849E-02	2.872E-01	4.125E-01	5.166E-02	0.118
		256.20	*	-4.889E-02	4.466E-01	7.032E-01	1.099E-01	-0.070
		286.10		-1.176E+00	1.734E+00	2.808E+00	3.812E-01	-0.419
	+	299.80		2.756E+00	2.162E+00	3.017E+00	5.362E-01	0.914
		304.40		7.103E-01	2.181E+00	3.743E+00	6.999E-01	0.190
		334.20		1.784E+00	3.143E+00	4.836E+00	9.477E-01	0.369
TH-227		79.80		2.816E-01	1.614E+00	2.257E+00	5.021E-01	0.125
	+	94.00		4.376E+00	3.695E+00	5.917E+00	1.324E+00	0.740
		236.00		4.849E-02	2.872E-01	4.125E-01	4.697E-02	0.118
		256.20	*	-4.889E-02	4.466E-01	7.032E-01	1.287E-01	-0.070
		286.10		-1.176E+00	2.092E+00	2.808E+00	2.820E+00	-0.419
	+	299.80		2.756E+00	2.162E+00	3.017E+00	5.362E-01	0.914
		304.40		7.103E-01	2.181E+00	3.743E+00	6.999E-01	0.190
		334.20		1.784E+00	3.143E+00	4.836E+00	9.477E-01	0.369
TH-229	+	85.43		1.061E+00	3.734E-01	3.081E-01	3.004E-02	3.444
		88.47		1.105E-01	1.584E-01	1.973E-01	1.930E-02	0.560
		100.00		5.773E-02	1.893E-01	3.194E-01	3.309E-02	0.181
		193.63	*	-6.598E-02	5.643E-01	9.046E-01	7.824E-02	-0.073
	+	210.97		3.010E+00	1.448E+00	1.511E+00	1.333E-01	1.991
PA-231		283.67	*	1.236E+00	1.752E+00	3.067E+00	4.757E-01	0.403
	+	301.29		1.103E+00	8.538E-01	1.124E+00	1.421E-01	0.981
TH-231		81.07		8.084E-02	2.487E-01	3.062E-01	2.982E-02	0.264
		83.78		1.702E-01	1.337E-01	2.088E-01	2.034E-02	0.815
	+	94.90		5.470E-01	4.487E-01	4.265E-01	4.304E-02	1.283
		122.32		-8.259E-02	1.817E+00	2.997E+00	3.648E-01	-0.028
	+	144.24		2.159E+00	1.471E+00	1.433E+00	1.582E-01	1.506
		154.21		-5.646E-02	4.294E-01	6.971E-01	7.079E-02	-0.081
	+	269.46		5.438E-01	3.173E-01	3.956E-01	3.692E-02	1.374
		323.87	*	-1.027E+00	7.926E-01	1.187E+00	2.129E-01	-0.866
	+	338.28		5.764E+00	2.429E+00	2.884E+00	3.630E-01	1.999
		445.03		-5.715E+00	3.296E+00	4.608E+00	5.611E-01	-1.240
U-231		84.21		4.646E+00	5.469E+00	9.280E+00	9.043E-01	0.501
	+	92.29		5.892E+01	6.994E+00	7.514E+00	7.486E-01	7.842
	+	95.87	*	2.753E+00	2.258E+00	1.888E+00	1.915E-01	1.458

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-2.382E+00	2.586E+00	3.643E+00	3.941E-01	-0.654
PA-233	+	75.28		1.686E+01	4.153E+00	5.527E+00	8.851E-01	3.050
	+	86.59		9.266E+00	4.020E+00	2.908E+00	7.912E-01	3.186
	+	300.12		7.685E-01	5.986E-01	8.374E-01	1.273E-01	0.918
		311.98	*	2.162E-02	7.422E-02	1.272E-01	1.193E-02	0.170
		340.50		7.202E-01	8.037E-01	1.249E+00	2.993E-01	0.577
		398.62		-2.506E+00	2.658E+00	3.965E+00	1.054E+00	-0.632
		415.76		1.049E+00	2.212E+00	3.759E+00	8.095E-01	0.279
PA-234	+	63.00		1.693E+01	3.253E+00	2.693E+00	4.386E-01	6.287
	+	94.67		3.902E-01	3.220E-01	3.447E-01	4.640E-02	1.132
		98.44		2.605E-01	1.785E-01	1.728E-01	9.691E-02	1.507
		99.86		2.781E-01	4.848E-01	8.251E-01	8.542E-02	0.337
		111.00		-6.253E-02	2.315E-01	3.394E-01	4.713E-02	-0.184
		131.20		4.143E-02	1.262E-01	1.896E-01	2.105E-02	0.219
		152.70		4.460E-01	3.536E-01	5.993E-01	1.049E-01	0.744
	+	186.00		1.381E+01	4.982E+00	3.810E+00	1.189E+00	3.625
		226.40		4.467E-02	4.741E-01	7.621E-01	1.022E-01	0.059
		227.20		-1.222E-01	5.123E-01	8.073E-01	7.227E-02	-0.151
		248.90		-4.853E-01	9.816E-01	1.500E+00	3.389E-01	-0.324
	+	293.70		5.833E+00	1.568E+00	1.930E+00	3.395E-01	3.022
		369.80		-2.532E-01	1.121E+00	1.841E+00	4.016E-01	-0.138
		568.70		6.690E-01	1.259E+00	2.135E+00	1.899E-01	0.313
		569.50		2.717E-01	3.433E-01	5.946E-01	5.287E-02	0.457
		574.00		-9.982E-01	2.025E+00	3.125E+00	2.775E-01	-0.319
		699.00		1.748E-01	8.895E-01	1.524E+00	2.904E-01	0.115
		706.10		4.850E-02	1.301E+00	2.197E+00	9.796E-01	0.022
		733.00		1.212E-01	5.701E-01	8.557E-01	1.901E-01	0.142
		742.81		1.212E-01	1.614E+00	2.725E+00	1.832E+00	0.044
		796.30		1.148E+00	1.311E+00	2.288E+00	6.199E-01	0.502
		805.60		1.038E-02	1.257E+00	2.098E+00	6.439E-01	0.005
		819.60		5.195E-01	1.538E+00	2.633E+00	1.002E+00	0.197
		826.30		1.955E-01	1.062E+00	1.796E+00	8.042E-01	0.109
		831.60		-8.538E-01	8.757E-01	1.246E+00	3.725E-01	-0.685
		876.40		-2.134E-01	1.161E+00	1.851E+00	1.903E+00	-0.115
		880.51		4.418E-02	4.166E-01	6.089E-01	5.338E-02	0.073
		883.24		-3.458E-01	4.912E-01	5.363E-01	3.606E-01	-0.645
		899.00		3.288E-01	1.112E+00	1.874E+00	8.196E-01	0.175
		925.00		-3.644E-01	1.636E+00	2.634E+00	2.305E-01	-0.138
		926.50		6.488E-02	2.399E-01	4.064E-01	1.029E-01	0.160
		946.00	*	-2.341E-01	4.265E-01	6.563E-01	1.235E-01	-0.357
		949.00		-6.035E-03	6.197E-01	1.019E+00	8.917E-02	-0.006
		980.50		-4.418E-01	1.004E+00	1.563E+00	1.364E-01	-0.283
		1394.10		8.396E-01	1.359E+00	2.325E+00	1.513E+00	0.361
PA-234M		766.42		1.894E+01	1.916E+01	3.012E+01	1.529E+01	0.629
	+	1001.03	*	2.410E+01	1.028E+01	1.480E+01	1.485E+00	1.629
NP-236	+	94.67		2.960E-01	2.428E-01	2.623E-01	2.645E-02	1.128
		98.44		1.969E-01	8.019E-02	1.307E-01	1.343E-02	1.507
		111.00		-4.729E-02	1.751E-01	2.567E-01	2.824E-02	-0.184
		160.31	*	-1.868E-02	8.963E-02	1.446E-01	1.278E-02	-0.129

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		3.260E-01	1.644E-01	2.886E-01	2.983E-02	1.130
		117.00	*	-7.840E-02	2.112E-01	3.272E-01	3.722E-02	-0.240
	+	209.75		3.032E+00	1.458E+00	1.665E+00	1.466E-01	1.821
		228.18		-1.315E-01	2.659E-01	4.119E-01	3.690E-02	-0.319
	+	277.60		4.921E-01	2.812E-01	3.852E-01	3.535E-02	1.278
		334.30		9.602E-01	1.769E+00	2.730E+00	2.467E-01	0.352
AM-241		59.54	*	8.492E-02	8.472E-02	1.339E-01	1.422E-02	0.634
CM-243		99.55		3.355E-01	1.691E-01	2.969E-01	3.069E-02	1.130
		103.76	*	3.444E-02	9.645E-02	1.629E-01	1.722E-02	0.211
		117.00		-8.066E-02	2.173E-01	3.366E-01	3.829E-02	-0.240
	+	209.75		2.989E+00	1.438E+00	1.641E+00	1.445E-01	1.821
		228.18		-1.328E-01	2.687E-01	4.162E-01	3.729E-02	-0.319
	+	277.60		4.961E-01	2.835E-01	3.883E-01	3.564E-02	1.278
AM-246		798.80		-2.046E-01	1.961E-01	2.934E-01	2.575E-02	-0.697
		1036.00		-3.797E-01	4.005E-01	5.734E-01	4.953E-02	-0.662
		1062.04		1.425E-01	3.039E-01	5.228E-01	4.484E-02	0.273
		1078.86	*	1.428E-01	1.940E-01	3.421E-01	2.918E-02	0.417
CM-247	+	278.00		2.041E+00	1.166E+00	1.571E+00	1.442E-01	1.299
		287.40		-1.382E-01	1.425E+00	2.400E+00	2.204E-01	-0.058
		402.60	*	2.486E-02	4.824E-02	8.265E-02	7.021E-03	0.301
CF-249		252.85		2.020E-01	1.019E+00	1.639E+00	1.492E-01	0.123
		333.44		4.678E-02	2.345E-01	3.525E-01	3.188E-02	0.133
		387.95	*	2.038E-03	5.035E-02	8.394E-02	7.112E-03	0.024
CF-251		176.60	*	-8.407E-02	1.496E-01	2.356E-01	1.993E-02	-0.357
		227.00		-4.209E-02	4.540E-01	7.218E-01	6.461E-02	-0.058
		285.00		-2.553E-01	2.022E+00	3.400E+00	3.123E-01	-0.075

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799018     *
* Acquisition date : 10-FEB-2010 19:13:04 Detector SN#     :               *
* Detector ID        : GAM17               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:10.01      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245799018           Analyst initials: RXF2         *
* Batch Number       : 947531               Sample Quantity : 1.2037E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.604E+01	3.148E+00	6.815E-01	0.000E+00
BA-137M	1.599E+00	1.871E-01	7.879E-02	0.000E+00
CS-137	1.691E+00	1.980E-01	8.329E-02	0.000E+00
LU-177	4.357E+00	2.054E+00	2.231E+00	0.000E+00
TL-208	4.584E-01	1.123E-01	7.018E-02	0.000E+00
BI-210	5.040E+00	1.197E+00	1.095E+00	0.000E+00
PB-210	5.040E+00	1.197E+00	1.095E+00	0.000E+00
PO-210	5.040E+00	1.181E+00	1.095E+00	0.000E+00
BI-211	3.249E+00	6.351E-01	4.161E-01	0.000E+00
PB-212	1.435E+00	1.860E-01	1.040E-01	0.000E+00
PO-212	1.435E+00	1.860E-01	1.040E-01	0.000E+00
BI-214	1.120E+00	2.151E-01	1.339E-01	0.000E+00
PB-214	1.130E+00	2.284E-01	1.451E-01	0.000E+00
PO-214	1.130E+00	2.284E-01	1.451E-01	0.000E+00
PO-216	1.435E+00	1.860E-01	1.040E-01	0.000E+00
PO-218	1.130E+00	2.284E-01	1.451E-01	0.000E+00
RA-224	3.889E+00	1.197E+00	1.184E+00	0.000E+00
RA-226	1.120E+00	2.151E-01	1.339E-01	0.000E+00
AC-228	1.385E+00	3.504E-01	3.165E-01	0.000E+00
RA-228	1.385E+00	3.504E-01	3.165E-01	0.000E+00
TH-228	1.457E+00	1.888E-01	1.056E-01	0.000E+00
TH-230	1.120E+00	2.151E-01	1.339E-01	0.000E+00
TH-232	1.385E+00	3.504E-01	3.165E-01	0.000E+00
TH-234	1.453E+01	3.028E+00	1.272E+00	0.000E+00
U-234	1.120E+00	2.151E-01	1.339E-01	0.000E+00
U-235	6.662E-01	4.549E-01	3.679E-01	0.000E+00
NP-237	1.390E+00	5.555E-01	3.989E-01	0.000E+00
U-238	1.453E+01	3.028E+00	1.272E+00	0.000E+00
AM-243	3.218E-01	6.658E-02	7.445E-02	0.000E+00
ANH-511	1.240E-01	8.200E-02	7.089E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-2.935E-01	4.625E-01	7.453E-01	0.000E+00	NOT IDENT.
NA-22	-9.375E-02	6.225E-02	8.165E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.071E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-6.105E-03	4.114E-02	6.582E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.963E-02	6.660E-02	0.000E+00	FAIL ABUN
SC-46	1.806E-02	5.614E-02	8.674E-02	0.000E+00	FAIL ABUN
V-48	1.289E-02	9.358E-02	1.596E-01	0.000E+00	NOT IDENT.
CR-51	7.983E-02	4.084E-01	7.210E-01	0.000E+00	NOT IDENT.
MN-52	1.160E-01	3.106E-01	5.562E-01	0.000E+00	NOT IDENT.
MN-54	6.800E-03	4.735E-02	8.184E-02	0.000E+00	NOT IDENT.
CO-56	-5.895E-03	5.242E-02	8.825E-02	0.000E+00	NOT IDENT.
CO-57	1.124E-04	2.580E-02	4.474E-02	0.000E+00	NOT IDENT.
CO-58	4.813E-03	4.526E-02	7.826E-02	0.000E+00	NOT IDENT.
FE-59	-3.465E-02	1.204E-01	1.932E-01	0.000E+00	FAIL ABUN
CO-60	5.547E-04	4.992E-02	8.536E-02	0.000E+00	NOT IDENT.
ZN-65	-1.625E-02	1.140E-01	1.588E-01	0.000E+00	NOT IDENT.
GE-68	3.905E-01	1.811E+00	3.085E+00	0.000E+00	NOT IDENT.
AS-73	2.895E-01	3.007E-01	5.505E-01	0.000E+00	NOT IDENT.
AS-74	-5.632E-03	1.113E-01	1.838E-01	0.000E+00	NOT IDENT.
SE-75	-6.596E-03	5.764E-02	8.334E-02	0.000E+00	NOT IDENT.
BR-77	2.761E+00	1.432E+01	2.444E+01	0.000E+00	FAIL ABUN
SR-82	-2.635E-01	4.710E-01	7.616E-01	0.000E+00	NOT IDENT.
RB-83	1.368E-02	8.957E-02	1.524E-01	0.000E+00	NOT IDENT.
RB-84	-3.916E-02	1.100E-01	1.531E-01	0.000E+00	NOT IDENT.
KR-85	4.077E+00	1.059E+01	1.621E+01	0.000E+00	NOT IDENT.
SR-85	2.094E-02	5.442E-02	8.325E-02	0.000E+00	NOT IDENT.
RB-86	-2.373E-01	1.159E+00	1.888E+00	0.000E+00	NOT IDENT.
Y-88	-1.971E-02	4.071E-02	5.822E-02	0.000E+00	NOT IDENT.
ZR-88	4.026E-04	3.901E-02	6.706E-02	0.000E+00	NOT IDENT.
Y-91	1.930E+01	2.566E+01	4.554E+01	0.000E+00	NOT IDENT.
NB-94	1.669E-03	4.056E-02	7.043E-02	0.000E+00	NOT IDENT.
NB-95	6.845E-02	6.103E-02	1.131E-01	0.000E+00	NOT IDENT.
NB-95M	-3.904E-02	1.497E-01	2.162E-01	0.000E+00	NOT IDENT.
ZR-95	-1.068E-01	9.159E-02	1.386E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.888E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.107E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.205E+01	1.520E+01	2.396E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.449E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.077E-02	3.769E-02	6.495E-02	0.000E+00	NOT IDENT.
RH-102	2.208E-03	4.258E-02	7.232E-02	0.000E+00	NOT IDENT.
RU-103	-4.169E-02	5.472E-02	8.603E-02	0.000E+00	FAIL ABUN
RH-106	-1.228E-01	4.234E-01	6.802E-01	0.000E+00	NOT IDENT.
RU-106	-1.228E-01	4.232E-01	6.802E-01	0.000E+00	NOT IDENT.
AG-108M	-3.025E-02	4.383E-02	7.093E-02	0.000E+00	NOT IDENT.
CD-109	2.281E-01	1.045E+00	1.532E+00	0.000E+00	NOT IDENT.
AG-110M	1.167E-02	5.664E-02	8.338E-02	0.000E+00	NOT IDENT.
IN-111	2.209E-01	1.428E+00	2.127E+00	0.000E+00	NOT IDENT.
IN-113M	-7.492E-03	5.573E-02	9.491E-02	0.000E+00	NOT IDENT.
SN-113	-7.492E-03	5.573E-02	9.491E-02	0.000E+00	NOT IDENT.
IN-114M	-3.147E-04	2.267E-01	3.405E-01	0.000E+00	NOT IDENT.
CD-115	3.764E+00	1.475E+01	2.528E+01	0.000E+00	NOT IDENT.
SN-117M	6.674E-03	5.924E-02	1.016E-01	0.000E+00	NOT IDENT.
SB-122	-4.412E-01	2.683E+00	4.407E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.762E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	6.447E-03	3.041E-02	5.240E-02	0.000E+00	NOT IDENT.
I-124	6.548E-02	9.191E-01	1.419E+00	0.000E+00	FAIL ABUN
SB-124	-1.492E-02	1.026E-01	1.659E-01	0.000E+00	FAIL ABUN
SB-125	5.433E-02	1.174E-01	2.066E-01	0.000E+00	FAIL ABUN
TE-125M	1.078E+01	1.069E+01	1.750E+01	0.000E+00	NOT IDENT.
I-126	1.822E-01	2.578E-01	4.055E-01	0.000E+00	NOT IDENT.
SB-126	-8.923E-03	2.028E-01	3.174E-01	0.000E+00	FAIL ABUN
SN-126	4.551E-02	1.032E-01	1.525E-01	0.000E+00	FAIL ABUN
SB-127	-2.358E-01	1.926E+00	3.119E+00	0.000E+00	NOT IDENT.
XE-127	-3.507E-02	5.568E-02	9.023E-02	0.000E+00	NOT IDENT.
I-131	3.946E-02	1.454E-01	2.555E-01	0.000E+00	NOT IDENT.
TE-132	-4.179E-01	8.301E-01	1.336E+00	0.000E+00	FAIL ABUN
BA-133	-1.338E-04	6.132E-02	9.345E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	8.974E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.364E-02	6.537E-02	1.192E-01	0.000E+00	NOT IDENT.
CS-135	7.728E-02	1.973E-01	2.976E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.199E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.326E-01	1.369E-01	1.988E-01	0.000E+00	FAIL ABUN
CE-139	-3.050E-02	3.291E-02	5.318E-02	0.000E+00	NOT IDENT.
BA-140	2.709E-02	3.297E-01	5.562E-01	0.000E+00	NOT IDENT.
LA-140	-2.273E-02	1.327E-01	2.170E-01	0.000E+00	NOT IDENT.

CE-141	8.231E-02	7.798E-02	1.263E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.442E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.664E-02	2.181E-01	3.730E-01	0.000E+00	NOT IDENT.
PM-144	2.496E-02	4.102E-02	7.471E-02	0.000E+00	NOT IDENT.
PR-144	1.692E+00	2.780E+00	5.063E+00	0.000E+00	NOT IDENT.
PM-146	3.114E-02	5.687E-02	1.002E-01	0.000E+00	NOT IDENT.
ND-147	-2.543E-01	7.426E-01	1.207E+00	0.000E+00	NOT IDENT.
PM-149	-1.104E+02	1.108E+02	1.816E+02	0.000E+00	NOT IDENT.
EU-152	4.255E-02	1.194E-01	1.976E-01	0.000E+00	NOT IDENT.
GD-153	5.715E-02	8.876E-02	1.439E-01	0.000E+00	NOT IDENT.
EU-154	-2.711E-01	1.740E-01	2.235E-01	0.000E+00	NOT IDENT.
EU-155	1.416E-01	1.089E-01	1.984E-01	0.000E+00	FAIL ABUN
TB-160	6.008E-02	2.023E-01	3.115E-01	0.000E+00	FAIL ABUN
HO-166M	-7.321E-02	7.276E-02	1.130E-01	0.000E+00	FAIL ABUN
TM-171	1.310E+00	1.843E+01	2.981E+01	0.000E+00	NOT IDENT.
LU-176	3.522E-03	2.946E-02	4.597E-02	0.000E+00	NOT IDENT.
LU-177M	-1.661E-02	2.284E-01	3.889E-01	0.000E+00	NOT IDENT.
HF-181	3.482E-02	5.504E-02	9.744E-02	0.000E+00	NOT IDENT.
W-181	1.835E-01	2.317E-01	3.846E-01	0.000E+00	NOT IDENT.
TA-182	-2.232E-01	2.687E-01	3.995E-01	0.000E+00	FAIL ABUN
RE-183	1.198E-01	1.216E-01	2.161E-01	0.000E+00	FAIL ABUN
RE-184	5.388E-02	2.663E-01	4.453E-01	0.000E+00	NOT IDENT.
OS-185	1.886E-02	5.611E-02	9.552E-02	0.000E+00	NOT IDENT.
RE-188	-1.002E-01	1.816E-01	3.013E-01	0.000E+00	NOT IDENT.
W-188	-4.648E+00	9.651E+00	1.441E+01	0.000E+00	FAIL ABUN
IR-192	-3.693E-03	3.883E-02	6.740E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.449E-01	4.395E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	6.524E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.281E-01	7.751E+00	1.314E+01	0.000E+00	NOT IDENT.
TL-202	2.942E-02	1.004E-01	1.741E-01	0.000E+00	NOT IDENT.
HG-203	9.666E-03	4.940E-02	7.805E-02	0.000E+00	NOT IDENT.
BI-207	9.669E-03	6.939E-02	1.175E-01	0.000E+00	FAIL ABUN
TL-207	-1.027E+00	7.768E-01	1.205E+00	0.000E+00	FAIL ABUN
PO-209	6.877E-01	9.603E+00	1.639E+01	0.000E+00	NOT IDENT.
PB-211	2.711E-01	1.231E+00	2.120E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.896E-01	8.364E-01	0.000E+00	FAIL ABUN
PO-215	-1.027E+00	7.768E-01	1.205E+00	0.000E+00	FAIL ABUN
RN-219	1.558E-01	5.088E-01	8.897E-01	0.000E+00	FAIL ABUN
RN-220	1.696E+01	3.339E+01	5.825E+01	0.000E+00	NOT IDENT.
RA-223	-1.027E+00	7.768E-01	1.205E+00	0.000E+00	FAIL ABUN
AC-227	-4.889E-02	4.377E-01	7.164E-01	0.000E+00	FAIL ABUN
TH-227	-4.889E-02	4.377E-01	7.164E-01	0.000E+00	FAIL ABUN
TH-229	-6.598E-02	5.530E-01	9.246E-01	0.000E+00	FAIL ABUN
PA-231	1.236E+00	1.717E+00	3.120E+00	0.000E+00	FAIL ABUN
TH-231	-1.027E+00	7.768E-01	1.205E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	2.213E+00	1.945E+00	0.000E+00	FAIL ABUN
PA-233	2.162E-02	7.274E-02	1.293E-01	0.000E+00	FAIL ABUN
PA-234	-2.341E-01	4.179E-01	6.582E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	1.007E+01	1.483E+01	0.000E+00	FAIL ABUN
NP-236	-1.868E-02	8.783E-02	1.481E-01	0.000E+00	FAIL ABUN
NP-239	-7.840E-02	2.069E-01	3.364E-01	0.000E+00	FAIL ABUN
AM-241	8.492E-02	8.302E-02	1.387E-01	0.000E+00	NOT IDENT.
CM-243	3.444E-02	9.452E-02	1.677E-01	0.000E+00	FAIL ABUN
AM-246	1.428E-01	1.902E-01	3.426E-01	0.000E+00	NOT IDENT.
CM-247	2.486E-02	4.728E-02	8.375E-02	0.000E+00	FAIL ABUN
CF-249	2.038E-03	4.934E-02	8.509E-02	0.000E+00	NOT IDENT.
CF-251	-8.407E-02	1.467E-01	2.410E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:14:17.57

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799018.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:13:04
Sample ID         : G245799018           Sample quantity  : 1.20374E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.01  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	693	10.67*	7.782E-01	2.604E+01	2.604E+01	12.34
BA-137M	661.65	740	89.98*	1.604E+00	1.598E+00	1.599E+00	11.94
CS-137	661.65	740	85.12*	1.604E+00	1.689E+00	1.691E+00	11.95
LU-177	112.95	119	6.40	6.224E+00	9.296E-01	4.535E+00	58.84
	208.36	139	11.00*	4.424E+00	8.931E-01	4.357E+00	48.10
TL-208	277.35	79	6.80	3.566E+00	1.020E+00	1.020E+00	57.81
	510.84	82	21.60	2.059E+00	5.739E-01	5.739E-01	68.01
	583.14	224	84.20*	1.812E+00	4.584E-01	4.584E-01	24.99
	860.37	------	12.46	1.247E+00	------ Line Not Found		------
BI-210	46.50	412	4.05*	6.310E+00	5.033E+00	5.040E+00	24.24
PB-210	46.50	412	4.05*	6.310E+00	5.033E+00	5.040E+00	24.24
PO-210	46.50	412	4.05*	6.310E+00	5.033E+00	5.040E+00	23.91
BI-211	72.87	------	1.27	6.803E+00	------ Line Not Found		------
	351.07	392	12.94*	2.909E+00	3.249E+00	3.249E+00	19.94
PB-212	74.81	463	10.70	6.795E+00	1.985E+00	1.985E+00	23.09
	77.11	691	18.00	6.782E+00	1.766E+00	1.766E+00	15.54
	87.30	376	8.00	6.693E+00	2.189E+00	2.189E+00	36.57
	238.63	825	44.60*	4.022E+00	1.435E+00	1.435E+00	13.23
	300.09	54	3.41	3.342E+00	1.487E+00	1.487E+00	77.17
PO-212	74.81	463	10.70	6.795E+00	1.985E+00	1.985E+00	23.09
	77.11	691	18.00	6.782E+00	1.766E+00	1.766E+00	15.54
	87.30	376	8.00	6.693E+00	2.189E+00	2.189E+00	36.57
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	825	44.60*	4.022E+00	1.435E+00	1.435E+00	13.23
	300.09	54	3.41	3.342E+00	1.487E+00	1.487E+00	77.17
BI-214	609.31	289	46.30*	1.737E+00	1.120E+00	1.120E+00	19.59
	1120.29	98	15.10	9.772E-01	2.069E+00	2.069E+00	35.61
	1764.49	49	15.80	6.718E-01	1.437E+00	1.437E+00	45.08
PB-214	74.81	463	6.21	6.795E+00	3.420E+00	3.420E+00	22.37
	77.11	691	10.50	6.782E+00	3.027E+00	3.027E+00	17.31
	87.30	376	4.67	6.693E+00	3.750E+00	3.750E+00	36.01
	241.98	196	7.49	3.985E+00	2.051E+00	2.051E+00	31.91

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	253	19.20	3.388E+00	1.215E+00	1.215E+00	23.17
	351.92	392	37.20*	2.909E+00	1.130E+00	1.130E+00	20.62
PO-214	74.81	463	6.21	6.795E+00	3.420E+00	3.420E+00	22.37
	77.11	691	10.50	6.782E+00	3.027E+00	3.027E+00	17.31
	87.30	376	4.67	6.693E+00	3.750E+00	3.750E+00	36.01
	241.98	196	7.49	3.985E+00	2.051E+00	2.051E+00	31.91
	295.21	253	19.20	3.388E+00	1.215E+00	1.215E+00	23.17
	351.92	392	37.20*	2.909E+00	1.130E+00	1.130E+00	20.62
PO-216	74.81	463	10.70	6.795E+00	1.985E+00	1.985E+00	23.09
	77.11	691	18.00	6.782E+00	1.766E+00	1.766E+00	15.54
	87.30	376	8.00	6.693E+00	2.189E+00	2.189E+00	36.57
	238.63	825	44.60*	4.022E+00	1.435E+00	1.435E+00	13.23
	300.09	54	3.41	3.342E+00	1.487E+00	1.487E+00	77.17
PO-218	74.81	463	6.21	6.795E+00	3.420E+00	3.420E+00	22.37
	77.11	691	10.50	6.782E+00	3.027E+00	3.027E+00	17.31
	87.30	376	4.67	6.693E+00	3.750E+00	3.750E+00	36.01
	241.98	196	7.49	3.985E+00	2.051E+00	2.051E+00	31.91
	295.21	253	19.20	3.388E+00	1.215E+00	1.215E+00	23.17
	351.92	392	37.20*	2.909E+00	1.130E+00	1.130E+00	20.62
RA-224	240.98	196	3.95*	3.985E+00	3.889E+00	3.889E+00	31.41
RA-226	609.31	289	46.30*	1.737E+00	1.120E+00	1.120E+00	19.59
	1120.29	98	15.10	9.772E-01	2.069E+00	2.069E+00	35.61
	1764.49	49	15.80	6.718E-01	1.437E+00	1.437E+00	45.08
AC-228	338.32	152	11.40	3.010E+00	1.380E+00	1.380E+00	57.68
	911.07	145	27.70*	1.182E+00	1.385E+00	1.385E+00	25.81
	969.11	90	16.60	1.116E+00	1.518E+00	1.518E+00	37.33
RA-228	338.32	152	11.40	3.010E+00	1.380E+00	1.380E+00	57.68
	911.07	145	27.70*	1.182E+00	1.385E+00	1.385E+00	25.81
	969.11	90	16.60	1.116E+00	1.518E+00	1.518E+00	37.33
TH-228	74.81	463	10.70	6.795E+00	1.985E+00	2.015E+00	21.14
	77.11	691	18.00	6.782E+00	1.766E+00	1.793E+00	15.54
	87.30	376	8.00	6.693E+00	2.189E+00	2.223E+00	35.18
	238.63	825	44.60*	4.022E+00	1.435E+00	1.457E+00	13.23
	300.09	54	3.41	3.342E+00	1.487E+00	1.510E+00	96.75
TH-230	609.31	289	46.30*	1.737E+00	1.120E+00	1.120E+00	19.59
	1120.29	98	15.10	9.772E-01	2.069E+00	2.069E+00	35.61
	1764.49	49	15.80	6.718E-01	1.437E+00	1.437E+00	45.08
TH-232	338.32	152	11.40	3.010E+00	1.380E+00	1.380E+00	41.21
	911.07	145	27.70*	1.182E+00	1.385E+00	1.385E+00	25.81
	969.11	90	16.60	1.116E+00	1.518E+00	1.518E+00	37.33
TH-234	63.29	1200	3.80*	6.777E+00	1.453E+01	1.453E+01	21.27
	92.38	1714	5.41	6.596E+00	1.498E+01	1.498E+01	19.84
U-234	609.31	289	46.30*	1.737E+00	1.120E+00	1.120E+00	19.59
	1120.29	98	15.10	9.772E-01	2.069E+00	2.069E+00	35.61
	1764.49	49	15.80	6.718E-01	1.437E+00	1.437E+00	45.08
U-235	89.95	------	2.70	6.637E+00	------ Line Not Found		------
	93.35	1714	4.50	6.596E+00	1.801E+01	1.801E+01	29.19
	105.00	------	2.10	6.378E+00	------ Line Not Found		------
	143.76	126	10.50*	5.597E+00	6.662E-01	6.662E-01	69.67

Sample ID : G245799018 Acquisition date : 10-FEB-2010 19:13:04

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	163.35	------	4.70	5.210E+00	------ Line Not Found		------
	185.71	426	54.00	4.810E+00	5.116E-01	5.116E-01	20.02
	205.31	------	4.70	4.493E+00	------ Line Not Found		------
NP-237	86.50	376	12.60*	6.693E+00	1.390E+00	1.390E+00	40.78
	95.87	129	2.60	6.566E+00	2.356E+00	2.356E+00	85.22
U-238	63.29	1200	3.80*	6.777E+00	1.453E+01	1.453E+01	21.27
	92.38	1714	5.41	6.596E+00	1.498E+01	1.498E+01	11.87
AM-243	74.67	463	66.00*	6.795E+00	3.218E-01	3.218E-01	21.11
	86.72	376	0.34	6.693E+00	5.212E+01	5.212E+01	35.18
	117.66	------	0.55	6.127E+00	------ Line Not Found		------
	142.18	126	0.13	5.597E+00	5.596E+01	5.596E+01	67.99
ANH-511	511.00	82	100.00*	2.059E+00	1.240E-01	1.240E-01	67.50

Flag: "*" = Keyline

Sample ID : G245799018 Acquisition date : 10-FEB-2010 19:13:04

Total number of lines in spectrum 34
Number of unidentified lines 1
Number of lines tentatively identified by NID 33 97.06%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.604E+01	2.604E+01	0.321E+01	12.34	
BA-137M	30.17Y	1.00	1.598E+00	1.599E+00	0.191E+00	11.94	
CS-137	30.17Y	1.00	1.689E+00	1.691E+00	0.202E+00	11.95	
LU-177	6.71D	4.88	8.931E-01	4.357E+00	2.096E+00	48.10	
TL-208	1.41E+10Y	1.00	4.584E-01	4.584E-01	1.146E-01	24.99	
BI-210	22.26Y	1.00	5.033E+00	5.040E+00	1.221E+00	24.24	
PB-210	22.26Y	1.00	5.033E+00	5.040E+00	1.221E+00	24.24	
PO-210	22.26Y	1.00	5.033E+00	5.040E+00	1.205E+00	23.91	
BI-211	7.04E+08Y	1.00	3.249E+00	3.249E+00	0.648E+00	19.94	
PB-212	1.41E+10Y	1.00	1.435E+00	1.435E+00	0.190E+00	13.23	
PO-212	1.41E+10Y	1.00	1.435E+00	1.435E+00	0.190E+00	13.23	
BI-214	1600.00Y	1.00	1.120E+00	1.120E+00	0.219E+00	19.59	
PB-214	1600.00Y	1.00	1.130E+00	1.130E+00	0.233E+00	20.62	
PO-214	1600.00Y	1.00	1.130E+00	1.130E+00	0.233E+00	20.62	
PO-216	1.41E+10Y	1.00	1.435E+00	1.435E+00	0.190E+00	13.23	
PO-218	1600.00Y	1.00	1.130E+00	1.130E+00	0.233E+00	20.62	
RA-224	1.41E+10Y	1.00	3.889E+00	3.889E+00	1.222E+00	31.41	
RA-226	1600.00Y	1.00	1.120E+00	1.120E+00	0.219E+00	19.59	
AC-228	1.41E+10Y	1.00	1.385E+00	1.385E+00	0.358E+00	25.81	
RA-228	1.41E+10Y	1.00	1.385E+00	1.385E+00	0.358E+00	25.81	
TH-228	1.91Y	1.02	1.435E+00	1.457E+00	0.193E+00	13.23	
TH-230	4.47E+09Y	1.00	1.120E+00	1.120E+00	0.219E+00	19.59	
TH-232	1.41E+10Y	1.00	1.385E+00	1.385E+00	0.358E+00	25.81	
TH-234	4.47E+09Y	1.00	1.453E+01	1.453E+01	0.309E+01	21.27	
U-234	4.47E+09Y	1.00	1.120E+00	1.120E+00	0.219E+00	19.59	
U-235	7.04E+08Y	1.00	6.662E-01	6.662E-01	4.642E-01	69.67	
NP-237	2.14E+06Y	1.00	1.390E+00	1.390E+00	0.567E+00	40.78	
U-238	4.47E+09Y	1.00	1.453E+01	1.453E+01	0.309E+01	21.27	
AM-243	7380.00Y	1.00	3.218E-01	3.218E-01	0.679E-01	21.11	
ANH-511	1.00E+09Y	1.00	1.240E-01	1.240E-01	0.837E-01	67.50	
			---	---			
	Total Activity :		1.022E+02	1.057E+02			

Grand Total Activity : 1.022E+02 1.057E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799018 Acquisition date : 10-FEB-2010 19:13:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.48	44	283	0.93	258.66	253	8	6.18E-03	****	5.88E+00	T
0	270.38	86	152	1.46	540.56	535	10	1.20E-02	57.6	3.64E+00	T
0	462.59	40	111	1.08	925.16	921	9	5.52E-03	****	2.26E+00	T
0	727.11	72	46	1.65	1454.48	1449	13	9.93E-03	45.5	1.46E+00	T
0	887.00	17	29	4.23	1774.47	1766	13	2.35E-03	****	1.21E+00	
0	1000.20	70	32	1.36	2001.04	1993	14	9.77E-03	41.4	1.08E+00	T
0	1508.10	20	2	0.87	3017.65	3012	10	2.75E-03	53.7	7.58E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:14:22.75

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799018.CNF;1   *
* Acquisition date  : 10-FEB-2010 19:13:04  Detector SN#     :                *
* Detector ID       : GAM17                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:10.01          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245799018            Analyst initials: RXF2            *
* Batch Number      : 947531                Sample Quantity : 1.20374E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope       :                 *
* MSD ID           :                       MSD Isotope      :                 *
* LCS ID           : 1032-A                LCS Isotope      :                 *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.604E+01	3.213E+00	6.831E-01	6.065E-02	38.115
BA-137M	1.599E+00	1.909E-01	7.821E-02	6.589E-03	20.448
CS-137	1.691E+00	2.020E-01	8.268E-02	6.979E-03	20.448
LU-177	4.357E+00	2.096E+00	2.184E+00	1.921E-01	1.995
TL-208	4.584E-01	1.146E-01	6.956E-02	6.580E-03	6.590
BI-210	5.040E+00	1.221E+00	1.054E+00	1.144E-01	4.780
PB-210	5.040E+00	1.221E+00	1.054E+00	1.144E-01	4.780
PO-210	5.040E+00	1.205E+00	1.054E+00	1.065E-01	4.780
BI-211	3.249E+00	6.480E-01	4.099E-01	3.825E-02	7.927
PB-212	1.435E+00	1.898E-01	1.020E-01	1.028E-02	14.067
PO-212	1.435E+00	1.898E-01	1.020E-01	1.028E-02	14.067
BI-214	1.120E+00	2.195E-01	1.328E-01	1.351E-02	8.435
PB-214	1.130E+00	2.330E-01	1.429E-01	1.527E-02	7.907
PO-214	1.130E+00	2.330E-01	1.429E-01	1.527E-02	7.907
PO-216	1.435E+00	1.898E-01	1.020E-01	1.028E-02	14.067
PO-218	1.130E+00	2.330E-01	1.429E-01	1.527E-02	7.907
RA-224	3.889E+00	1.222E+00	1.161E+00	1.050E-01	3.348
RA-226	1.120E+00	2.195E-01	1.328E-01	1.351E-02	8.435

Sample ID : G245799018 Acquisition date : 10-FEB-2010 19:13:04

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.385E+00	3.576E-01	3.155E-01	3.578E-02	4.392
RA-228	1.385E+00	3.576E-01	3.155E-01	3.578E-02	4.392
TH-228	1.457E+00	1.927E-01	1.035E-01	1.044E-02	14.067
TH-230	1.120E+00	2.195E-01	1.328E-01	1.351E-02	8.435
TH-232	1.385E+00	3.576E-01	3.155E-01	3.578E-02	4.392
TH-234	1.453E+01	3.090E+00	1.228E+00	2.292E-01	11.828
U-234	1.120E+00	2.195E-01	1.328E-01	1.351E-02	8.435
U-235	6.662E-01	4.642E-01	3.587E-01	6.577E-02	1.857
NP-237	1.390E+00	5.669E-01	3.867E-01	8.826E-02	3.594
U-238	1.453E+01	3.090E+00	1.228E+00	2.292E-01	11.828
AM-243	3.218E-01	6.794E-02	7.204E-02	7.033E-03	4.467
ANH-511	1.240E-01	8.367E-02	7.015E-02	6.265E-03	1.767

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.935E-01		4.719E-01	7.370E-01	7.013E-02	-0.398
NA-22	-9.375E-02		6.352E-02	8.170E-02	6.883E-03	-1.147
NA-24	6.607E-01		5.462E-01	Half-Life too short		
AL-26	-6.105E-03		4.198E-02	6.615E-02	5.544E-03	-0.092
TI-44	3.259E-01	+	5.064E-02	6.449E-02	6.283E-03	5.054
SC-46	1.806E-02		5.728E-02	8.641E-02	7.565E-03	0.209
V-48	1.289E-02		9.549E-02	1.592E-01	1.389E-02	0.081
CR-51	7.983E-02		4.167E-01	7.096E-01	6.777E-02	0.112
MN-52	1.160E-01		3.169E-01	5.573E-01	4.805E-02	0.208
MN-54	6.800E-03		4.832E-02	8.147E-02	7.163E-03	0.083
CO-56	-5.895E-03		5.349E-02	8.787E-02	7.725E-03	-0.067
CO-57	1.124E-04		2.633E-02	4.354E-02	5.101E-03	0.003
CO-58	4.813E-03		4.619E-02	7.789E-02	6.859E-03	0.062
FE-59	-3.465E-02		1.229E-01	1.930E-01	1.771E-02	-0.180
CO-60	5.547E-04		5.093E-02	8.546E-02	7.284E-03	0.006
ZN-65	-1.625E-02		1.163E-01	1.587E-01	1.336E-02	-0.102
GE-68	3.905E-01		1.848E+00	3.080E+00	2.629E-01	0.127
AS-73	2.895E-01		3.069E-01	5.307E-01	5.310E-02	0.545
AS-74	-5.632E-03		1.136E-01	1.823E-01	1.606E-02	-0.031
SE-75	-6.596E-03		5.882E-02	8.184E-02	7.519E-03	-0.081
BR-77	2.761E+00		1.462E+01	2.419E+01	2.163E+00	0.114
SR-82	-2.635E-01		4.806E-01	7.575E-01	6.629E-02	-0.348
RB-83	1.368E-02		9.140E-02	1.508E-01	1.348E-02	0.091
RB-84	-3.916E-02		1.122E-01	1.525E-01	1.336E-02	-0.257
KR-85	4.077E+00		1.081E+01	1.604E+01	1.433E+00	0.254
SR-85	2.094E-02		5.553E-02	8.239E-02	7.361E-03	0.254
RB-86	-2.373E-01		1.183E+00	1.886E+00	1.610E-01	-0.126
Y-88	-1.971E-02		4.154E-02	5.852E-02	4.880E-03	-0.337
ZR-88	4.026E-04		3.980E-02	6.616E-02	5.574E-03	0.006
Y-91	1.930E+01		2.618E+01	4.554E+01	3.759E+00	0.424
NB-94	1.669E-03		4.138E-02	6.996E-02	6.001E-03	0.024

Sample ID : G245799018 Acquisition date : 10-FEB-2010 19:13:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	6.845E-02		6.227E-02	1.125E-01	9.826E-03	0.609
NB-95M	-3.904E-02		1.527E-01	2.120E-01	2.165E-02	-0.184
ZR-95	-1.068E-01		9.346E-02	1.378E-01	1.320E-02	-0.775
NB-97	6.849E-02		9.634E-02	Half-Life too short		
ZR-97	5.811E+00		1.585E+00	Half-Life too short		
MO-99	-1.205E+01		1.551E+01	2.382E+01	3.625E+00	-0.506
TC-99M	-8.247E+09		3.801E+10	Half-Life too short		
RH-101	3.077E-02		3.846E-02	6.356E-02	5.526E-03	0.484
RH-102	2.208E-03		4.345E-02	7.151E-02	6.334E-03	0.031
RU-103	-4.169E-02		5.583E-02	8.511E-02	1.221E-02	-0.490
RH-106	-1.228E-01		4.321E-01	6.748E-01	9.043E-02	-0.182
RU-106	-1.228E-01		4.319E-01	6.748E-01	5.862E-02	-0.182
AG-108M	-3.025E-02		4.472E-02	7.007E-02	6.324E-03	-0.432
CD-109	2.281E-01		1.067E+00	1.485E+00	1.450E-01	0.154
AG-110M	1.167E-02		5.780E-02	8.277E-02	7.214E-03	0.141
IN-111	2.209E-01		1.458E+00	2.087E+00	1.892E-01	0.106
IN-113M	-7.492E-03		5.687E-02	9.363E-02	8.135E-03	-0.080
SN-113	-7.492E-03		5.687E-02	9.363E-02	8.135E-03	-0.080
IN-114M	-3.147E-04		2.313E-01	3.331E-01	2.869E-02	-0.001
CD-115	3.764E+00		1.505E+01	2.503E+01	2.237E+00	0.150
SN-117M	6.674E-03		6.045E-02	9.918E-02	8.915E-03	0.067
SB-122	-4.412E-01		2.737E+00	4.366E+00	3.888E-01	-0.101
I-123	1.646E+00		3.960E+00	Half-Life too short		
TE-123M	6.447E-03		3.103E-02	5.115E-02	4.604E-03	0.126
I-124	6.548E-02		9.379E-01	1.407E+00	1.236E-01	0.047
SB-124	-1.492E-02		1.047E-01	1.666E-01	1.483E-02	-0.090
SB-125	5.433E-02		1.198E-01	2.041E-01	1.800E-02	0.266
TE-125M	1.078E+01		1.091E+01	1.701E+01	2.090E+00	0.634
I-126	1.822E-01		2.631E-01	4.026E-01	3.399E-02	0.453
SB-126	-8.923E-03		2.069E-01	3.154E-01	2.723E-02	-0.028
SN-126	4.551E-02		1.053E-01	1.479E-01	1.443E-02	0.308
SB-127	-2.358E-01		1.965E+00	3.098E+00	3.519E-01	-0.076
XE-127	-3.507E-02		5.681E-02	8.832E-02	7.721E-03	-0.397
I-131	3.946E-02		1.484E-01	2.519E-01	2.326E-02	0.157
TE-132	-4.179E-01		8.470E-01	1.309E+00	2.087E-01	-0.319
BA-133	-1.338E-04		6.257E-02	9.209E-02	1.230E-02	-0.001
I-133	1.982E-03		4.579E-03	Half-Life too short		
CS-134	5.364E-02		6.670E-02	1.186E-01	1.048E-02	0.452
CS-135	7.728E-02		2.013E-01	2.923E-01	3.050E-02	0.264
I-135	7.987E+09		6.118E+09	Half-Life too short		
CS-136	-1.326E-01		1.397E-01	1.985E-01	1.782E-02	-0.668
CE-139	-3.050E-02		3.358E-02	5.194E-02	4.331E-03	-0.587
BA-140	2.709E-02		3.365E-01	5.507E-01	1.830E-01	0.049
LA-140	-2.273E-02		1.354E-01	2.177E-01	1.879E-02	-0.104
CE-141	8.231E-02		7.958E-02	1.232E-01	1.256E-02	0.668
CE-143	5.885E-04		1.246E-04	Half-Life too short		
CE-144	-3.664E-02		2.225E-01	3.634E-01	6.164E-02	-0.101
PM-144	2.496E-02		4.186E-02	7.421E-02	6.353E-03	0.336

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	1.692E+00		2.837E+00	5.029E+00	4.304E-01	0.336
PM-146	3.114E-02		5.803E-02	9.906E-02	1.075E-02	0.314
ND-147	-2.543E-01		7.578E-01	1.195E+00	1.808E-01	-0.213
PM-149	-1.104E+02		1.131E+02	1.785E+02	2.831E+01	-0.619
EU-152	4.255E-02		1.218E-01	1.947E-01	1.841E-02	0.219
GD-153	5.715E-02		9.057E-02	1.397E-01	1.428E-02	0.409
EU-154	-2.711E-01		1.776E-01	2.237E-01	2.495E-02	-1.212
EU-155	1.416E-01		1.112E-01	1.928E-01	2.071E-02	0.735
TB-160	6.008E-02		2.064E-01	3.103E-01	2.721E-02	0.194
HO-166M	-7.321E-02		7.425E-02	1.122E-01	9.659E-03	-0.652
TM-171	1.310E+00		1.881E+01	2.881E+01	2.843E+00	0.045
LU-176	3.522E-03		3.006E-02	4.522E-02	4.143E-03	0.078
LU-177M	-1.661E-02		2.330E-01	3.839E-01	3.289E-02	-0.043
HF-181	3.482E-02		5.617E-02	9.637E-02	8.555E-03	0.361
W-181	1.835E-01		2.364E-01	3.716E-01	3.680E-02	0.494
TA-182	-2.232E-01		2.742E-01	3.996E-01	3.315E-02	-0.559
RE-183	1.198E-01		1.241E-01	2.110E-01	1.827E-02	0.568
RE-184	5.388E-02		2.717E-01	4.371E-01	3.979E-02	0.123
OS-185	1.886E-02		5.726E-02	9.480E-02	8.094E-03	0.199
RE-188	-1.002E-01		1.853E-01	2.940E-01	2.731E-02	-0.341
W-188	-4.648E+00		9.848E+00	1.416E+01	1.301E+00	-0.328
IR-192	-3.693E-03		3.962E-02	6.632E-02	6.068E-03	-0.056
AU-195	6.432E-01		2.499E-01	4.266E-01	4.394E-02	1.508
TL-200	-4.419E-04		3.329E-04	Half-Life too short		
TL-201	-4.281E-01		7.909E+00	1.283E+01	1.071E+00	-0.033
TL-202	2.942E-02		1.024E-01	1.720E-01	1.499E-02	0.171
HG-203	9.666E-03		5.041E-02	7.669E-02	7.217E-03	0.126
BI-207	9.669E-03		7.080E-02	1.174E-01	1.006E-02	0.082
TL-207	-1.027E+00		7.926E-01	1.187E+00	2.129E-01	-0.866
PO-209	6.877E-01		9.799E+00	1.633E+01	1.428E+00	0.042
PB-211	2.711E-01		1.256E+00	2.092E+00	1.311E+00	0.130
BI-212	1.291E+00	+	6.017E-01	8.312E-01	8.341E-02	1.553
PO-215	-1.027E+00		7.926E-01	1.187E+00	2.129E-01	-0.866
RN-219	1.558E-01		5.192E-01	8.780E-01	1.313E-01	0.177
RN-220	1.696E+01		3.407E+01	5.770E+01	5.151E+00	0.294
RA-223	-1.027E+00		7.926E-01	1.187E+00	2.129E-01	-0.866
AC-227	-4.889E-02		4.466E-01	7.032E-01	1.099E-01	-0.070
TH-227	-4.889E-02		4.466E-01	7.032E-01	1.287E-01	-0.070
TH-229	-6.598E-02		5.643E-01	9.046E-01	7.824E-02	-0.073
PA-231	1.236E+00		1.752E+00	3.067E+00	4.757E-01	0.403
TH-231	-1.027E+00		7.926E-01	1.187E+00	2.129E-01	-0.866
U-231	2.753E+00	+	2.258E+00	1.888E+00	1.915E-01	1.458
PA-233	2.162E-02		7.422E-02	1.272E-01	1.193E-02	0.170
PA-234	-2.341E-01		4.265E-01	6.563E-01	1.235E-01	-0.357
PA-234M	2.410E+01	+	1.028E+01	1.480E+01	1.485E+00	1.629
NP-236	-1.868E-02		8.963E-02	1.446E-01	1.278E-02	-0.129
NP-239	-7.840E-02		2.112E-01	3.272E-01	3.722E-02	-0.240
AM-241	8.492E-02		8.472E-02	1.339E-01	1.422E-02	0.634

Sample ID : G245799018 Acquisition date : 10-FEB-2010 19:13:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.444E-02		9.645E-02	1.629E-01	1.722E-02	0.211
AM-246	1.428E-01		1.940E-01	3.421E-01	2.918E-02	0.417
CM-247	2.486E-02		4.824E-02	8.265E-02	7.021E-03	0.301
CF-249	2.038E-03		5.035E-02	8.394E-02	7.112E-03	0.024
CF-251	-8.407E-02		1.496E-01	2.356E-01	1.993E-02	-0.357

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799018            *
* Acquisition date : 10-FEB-2010 19:13:04 Detector SN#     :                *
* Detector ID      : GAM17                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:10.01     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 26-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245799018           Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.2037E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.604E+01	3.148E+00	3.410E-01	1.606E+00
BA-137M	1.599E+00	1.871E-01	3.942E-02	9.547E-02
CS-137	1.691E+00	1.980E-01	4.167E-02	1.010E-01
LU-177	4.357E+00	2.054E+00	1.116E+00	1.048E+00
TL-208	4.584E-01	1.123E-01	3.511E-02	5.728E-02
BI-210	5.040E+00	1.197E+00	5.480E-01	6.107E-01
PB-210	5.040E+00	1.197E+00	5.480E-01	6.107E-01
PO-210	5.040E+00	1.181E+00	5.480E-01	6.025E-01
BI-211	3.249E+00	6.351E-01	2.082E-01	3.240E-01
PB-212	1.435E+00	1.860E-01	5.202E-02	9.488E-02
PO-212	1.435E+00	1.860E-01	5.202E-02	9.488E-02
BI-214	1.120E+00	2.151E-01	6.701E-02	1.097E-01
PB-214	1.130E+00	2.284E-01	7.258E-02	1.165E-01
PO-214	1.130E+00	2.284E-01	7.258E-02	1.165E-01
PO-216	1.435E+00	1.860E-01	5.202E-02	9.488E-02
PO-218	1.130E+00	2.284E-01	7.258E-02	1.165E-01
RA-224	3.889E+00	1.197E+00	5.924E-01	6.108E-01
RA-226	1.120E+00	2.151E-01	6.701E-02	1.097E-01
AC-228	1.385E+00	3.504E-01	1.584E-01	1.788E-01
RA-228	1.385E+00	3.504E-01	1.584E-01	1.788E-01
TH-228	1.457E+00	1.888E-01	5.282E-02	9.634E-02
TH-230	1.120E+00	2.151E-01	6.700E-02	1.097E-01
TH-232	1.385E+00	3.504E-01	1.584E-01	1.788E-01
TH-234	1.453E+01	3.028E+00	6.362E-01	1.545E+00
U-234	1.120E+00	2.151E-01	6.700E-02	1.097E-01
U-235	6.662E-01	4.549E-01	1.841E-01	2.321E-01
NP-237	1.390E+00	5.555E-01	1.996E-01	2.834E-01
U-238	1.453E+01	3.028E+00	6.362E-01	1.545E+00
AM-243	3.218E-01	6.658E-02	3.725E-02	3.397E-02
ANH-511	1.240E-01	8.200E-02	3.546E-02	4.184E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.935E-01	4.625E-01	3.729E-01	2.359E-01	NOT IDENT.
NA-22	-9.375E-02	6.225E-02	4.085E-02	3.176E-02	NOT IDENT.
NA-24	6.607E+05	1.071E+06	0.000E+00	5.462E+05	SHORT HLIF
AL-26	-6.105E-03	4.114E-02	3.293E-02	2.099E-02	NOT IDENT.
TI-44	3.259E-01	4.963E-02	3.332E-02	2.532E-02	FAIL ABUN
SC-46	1.806E-02	5.614E-02	4.339E-02	2.864E-02	FAIL ABUN
V-48	1.289E-02	9.358E-02	7.986E-02	4.775E-02	NOT IDENT.
CR-51	7.983E-02	4.084E-01	3.607E-01	2.083E-01	NOT IDENT.
MN-52	1.160E-01	3.106E-01	2.782E-01	1.585E-01	NOT IDENT.
MN-54	6.800E-03	4.735E-02	4.094E-02	2.416E-02	NOT IDENT.
CO-56	-5.895E-03	5.242E-02	4.415E-02	2.675E-02	NOT IDENT.
CO-57	1.124E-04	2.580E-02	2.238E-02	1.316E-02	NOT IDENT.
CO-58	4.813E-03	4.526E-02	3.916E-02	2.309E-02	NOT IDENT.
FE-59	-3.465E-02	1.204E-01	9.667E-02	6.144E-02	FAIL ABUN
CO-60	5.547E-04	4.992E-02	4.271E-02	2.547E-02	NOT IDENT.
ZN-65	-1.625E-02	1.140E-01	7.946E-02	5.815E-02	NOT IDENT.
GE-68	3.905E-01	1.811E+00	1.543E+00	9.242E-01	NOT IDENT.
AS-73	2.895E-01	3.007E-01	2.754E-01	1.534E-01	NOT IDENT.
AS-74	-5.632E-03	1.113E-01	9.196E-02	5.678E-02	NOT IDENT.
SE-75	-6.596E-03	5.764E-02	4.169E-02	2.941E-02	NOT IDENT.
BR-77	2.761E+00	1.432E+01	1.223E+01	7.308E+00	FAIL ABUN
SR-82	-2.635E-01	4.710E-01	3.810E-01	2.403E-01	NOT IDENT.
RB-83	1.368E-02	8.957E-02	7.623E-02	4.570E-02	NOT IDENT.
RB-84	-3.916E-02	1.100E-01	7.657E-02	5.611E-02	NOT IDENT.
KR-85	4.077E+00	1.059E+01	8.107E+00	5.405E+00	NOT IDENT.
SR-85	2.094E-02	5.442E-02	4.165E-02	2.776E-02	NOT IDENT.
RB-86	-2.373E-01	1.159E+00	9.446E-01	5.915E-01	NOT IDENT.
Y-88	-1.971E-02	4.071E-02	2.913E-02	2.077E-02	NOT IDENT.
ZR-88	4.026E-04	3.901E-02	3.355E-02	1.990E-02	NOT IDENT.
Y-91	1.930E+01	2.566E+01	2.279E+01	1.309E+01	NOT IDENT.
NB-94	1.669E-03	4.056E-02	3.523E-02	2.069E-02	NOT IDENT.
NB-95	6.845E-02	6.103E-02	5.659E-02	3.114E-02	NOT IDENT.
NB-95M	-3.904E-02	1.497E-01	1.082E-01	7.637E-02	NOT IDENT.
ZR-95	-1.068E-01	9.159E-02	6.933E-02	4.673E-02	NOT IDENT.
NB-97	6.849E+04	1.888E+05	0.000E+00	9.634E+04	SHORT HLIF
ZR-97	5.811E+06	3.107E+06	0.000E+00	1.585E+06	SHORT HLIF
MO-99	-1.205E+01	1.520E+01	1.199E+01	7.755E+00	NOT IDENT.
TC-99M	-8.247E+15	7.449E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.077E-02	3.769E-02	3.249E-02	1.923E-02	NOT IDENT.
RH-102	2.208E-03	4.258E-02	3.618E-02	2.172E-02	NOT IDENT.
RU-103	-4.169E-02	5.472E-02	4.304E-02	2.792E-02	FAIL ABUN
RH-106	-1.228E-01	4.234E-01	3.403E-01	2.160E-01	NOT IDENT.
RU-106	-1.228E-01	4.232E-01	3.403E-01	2.159E-01	NOT IDENT.
AG-108M	-3.025E-02	4.383E-02	3.549E-02	2.236E-02	NOT IDENT.
CD-109	2.281E-01	1.045E+00	7.664E-01	5.334E-01	NOT IDENT.
AG-110M	1.167E-02	5.664E-02	4.172E-02	2.890E-02	NOT IDENT.
IN-111	2.209E-01	1.428E+00	1.064E+00	7.288E-01	NOT IDENT.
IN-113M	-7.492E-03	5.573E-02	4.748E-02	2.843E-02	NOT IDENT.
SN-113	-7.492E-03	5.573E-02	4.748E-02	2.843E-02	NOT IDENT.
IN-114M	-3.147E-04	2.267E-01	1.703E-01	1.157E-01	NOT IDENT.
CD-115	3.764E+00	1.475E+01	1.265E+01	7.525E+00	NOT IDENT.
SN-117M	6.674E-03	5.924E-02	5.083E-02	3.022E-02	NOT IDENT.
SB-122	-4.412E-01	2.683E+00	2.205E+00	1.369E+00	NOT IDENT.
I-123	1.646E+06	7.762E+06	0.000E+00	3.960E+06	SHORT HLIF
TE-123M	6.447E-03	3.041E-02	2.621E-02	1.552E-02	NOT IDENT.
I-124	6.548E-02	9.191E-01	7.099E-01	4.689E-01	FAIL ABUN
SB-124	-1.492E-02	1.026E-01	8.302E-02	5.234E-02	FAIL ABUN
SB-125	5.433E-02	1.174E-01	1.034E-01	5.988E-02	FAIL ABUN
TE-125M	1.078E+01	1.069E+01	8.753E+00	5.455E+00	NOT IDENT.
I-126	1.822E-01	2.578E-01	2.029E-01	1.316E-01	NOT IDENT.
SB-126	-8.923E-03	2.028E-01	1.588E-01	1.035E-01	FAIL ABUN
SN-126	4.551E-02	1.032E-01	7.632E-02	5.264E-02	FAIL ABUN
SB-127	-2.358E-01	1.926E+00	1.560E+00	9.827E-01	NOT IDENT.
XE-127	-3.507E-02	5.568E-02	4.514E-02	2.841E-02	NOT IDENT.
I-131	3.946E-02	1.454E-01	1.278E-01	7.421E-02	NOT IDENT.
TE-132	-4.179E-01	8.301E-01	6.683E-01	4.235E-01	FAIL ABUN
BA-133	-1.338E-04	6.132E-02	4.675E-02	3.129E-02	FAIL ABUN
I-133	1.982E+03	8.974E+03	0.000E+00	4.579E+03	SHORT HLIF
CS-134	5.364E-02	6.537E-02	5.962E-02	3.335E-02	NOT IDENT.
CS-135	7.728E-02	1.973E-01	1.489E-01	1.007E-01	NOT IDENT.
I-135	7.987E+15	1.199E+16	0.000E+00	6.118E+15	SHORT HLIF
CS-136	-1.326E-01	1.369E-01	9.946E-02	6.984E-02	FAIL ABUN
CE-139	-3.050E-02	3.291E-02	2.661E-02	1.679E-02	NOT IDENT.
BA-140	2.709E-02	3.297E-01	2.782E-01	1.682E-01	NOT IDENT.
LA-140	-2.273E-02	1.327E-01	1.086E-01	6.772E-02	NOT IDENT.

CE-141	8.231E-02	7.798E-02	6.318E-02	3.979E-02	NOT IDENT.
CE-143	5.885E+02	2.442E+02	0.000E+00	1.246E+02	SHORT HLIF
CE-144	-3.664E-02	2.181E-01	1.866E-01	1.113E-01	NOT IDENT.
PM-144	2.496E-02	4.102E-02	3.738E-02	2.093E-02	NOT IDENT.
PR-144	1.692E+00	2.780E+00	2.533E+00	1.418E+00	NOT IDENT.
PM-146	3.114E-02	5.687E-02	5.015E-02	2.901E-02	NOT IDENT.
ND-147	-2.543E-01	7.426E-01	6.037E-01	3.789E-01	NOT IDENT.
PM-149	-1.104E+02	1.108E+02	9.083E+01	5.654E+01	NOT IDENT.
EU-152	4.255E-02	1.194E-01	9.886E-02	6.092E-02	NOT IDENT.
GD-153	5.715E-02	8.876E-02	7.199E-02	4.528E-02	NOT IDENT.
EU-154	-2.711E-01	1.740E-01	1.118E-01	8.878E-02	NOT IDENT.
EU-155	1.416E-01	1.089E-01	9.926E-02	5.558E-02	FAIL ABUN
TB-160	6.008E-02	2.023E-01	1.559E-01	1.032E-01	FAIL ABUN
HO-166M	-7.321E-02	7.276E-02	5.651E-02	3.712E-02	FAIL ABUN
TM-171	1.310E+00	1.843E+01	1.491E+01	9.405E+00	NOT IDENT.
LU-176	3.522E-03	2.946E-02	2.300E-02	1.503E-02	NOT IDENT.
LU-177M	-1.661E-02	2.284E-01	1.945E-01	1.165E-01	NOT IDENT.
HF-181	3.482E-02	5.504E-02	4.875E-02	2.808E-02	NOT IDENT.
W-181	1.835E-01	2.317E-01	1.924E-01	1.182E-01	NOT IDENT.
TA-182	-2.232E-01	2.687E-01	1.999E-01	1.371E-01	FAIL ABUN
RE-183	1.198E-01	1.216E-01	1.081E-01	6.205E-02	FAIL ABUN
RE-184	5.388E-02	2.663E-01	2.228E-01	1.359E-01	NOT IDENT.
OS-185	1.886E-02	5.611E-02	4.779E-02	2.863E-02	NOT IDENT.
RE-188	-1.002E-01	1.816E-01	1.507E-01	9.264E-02	NOT IDENT.
W-188	-4.648E+00	9.651E+00	7.207E+00	4.924E+00	FAIL ABUN
IR-192	-3.693E-03	3.883E-02	3.372E-02	1.981E-02	FAIL ABUN
AU-195	6.432E-01	2.449E-01	2.199E-01	1.250E-01	FAIL ABUN
TL-200	-4.419E+02	6.524E+02	0.000E+00	3.329E+02	SHORT HLIF
TL-201	-4.281E-01	7.751E+00	6.572E+00	3.955E+00	NOT IDENT.
TL-202	2.942E-02	1.004E-01	8.709E-02	5.120E-02	NOT IDENT.
HG-203	9.666E-03	4.940E-02	3.905E-02	2.521E-02	NOT IDENT.
BI-207	9.669E-03	6.939E-02	5.881E-02	3.540E-02	FAIL ABUN
TL-207	-1.027E+00	7.768E-01	6.031E-01	3.963E-01	FAIL ABUN
PO-209	6.877E-01	9.603E+00	8.201E+00	4.899E+00	NOT IDENT.
PB-211	2.711E-01	1.231E+00	1.061E+00	6.280E-01	NOT IDENT.
BI-212	1.291E+00	5.896E-01	4.184E-01	3.008E-01	FAIL ABUN
PO-215	-1.027E+00	7.768E-01	6.031E-01	3.963E-01	FAIL ABUN
RN-219	1.558E-01	5.088E-01	4.451E-01	2.596E-01	FAIL ABUN
RN-220	1.696E+01	3.339E+01	2.914E+01	1.704E+01	NOT IDENT.
RA-223	-1.027E+00	7.768E-01	6.031E-01	3.963E-01	FAIL ABUN
AC-227	-4.889E-02	4.377E-01	3.584E-01	2.233E-01	FAIL ABUN
TH-227	-4.889E-02	4.377E-01	3.584E-01	2.233E-01	FAIL ABUN
TH-229	-6.598E-02	5.530E-01	4.626E-01	2.821E-01	FAIL ABUN
PA-231	1.236E+00	1.717E+00	1.561E+00	8.759E-01	FAIL ABUN
TH-231	-1.027E+00	7.768E-01	6.031E-01	3.963E-01	FAIL ABUN
U-231	2.753E+00	2.213E+00	9.733E-01	1.129E+00	FAIL ABUN
PA-233	2.162E-02	7.274E-02	6.470E-02	3.711E-02	FAIL ABUN
PA-234	-2.341E-01	4.179E-01	3.293E-01	2.132E-01	FAIL ABUN
PA-234M	2.410E+01	1.007E+01	7.420E+00	5.138E+00	FAIL ABUN
NP-236	-1.868E-02	8.783E-02	7.411E-02	4.481E-02	FAIL ABUN
NP-239	-7.840E-02	2.069E-01	1.683E-01	1.056E-01	FAIL ABUN
AM-241	8.492E-02	8.302E-02	6.941E-02	4.236E-02	NOT IDENT.
CM-243	3.444E-02	9.452E-02	8.392E-02	4.822E-02	FAIL ABUN
AM-246	1.428E-01	1.902E-01	1.714E-01	9.702E-02	NOT IDENT.
CM-247	2.486E-02	4.728E-02	4.190E-02	2.412E-02	FAIL ABUN
CF-249	2.038E-03	4.934E-02	4.257E-02	2.518E-02	NOT IDENT.
CF-251	-8.407E-02	1.467E-01	1.206E-01	7.482E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	344.5515
46.50	344.5515
46.50	344.5515
48.70	404.6213
49.72	386.9214
51.35	442.3382
52.39	424.1649
52.97	416.3728
53.15	416.5801
53.44	405.8774
54.07	417.6402
56.28	474.9094
56.28	474.9122
57.37	0.0000
57.53	463.6134
57.53	463.6162
57.60	463.6986
57.98	452.1289
57.98	452.1289
59.32	421.7939
59.32	421.7939
59.40	421.8809
59.54	422.0338
59.72	436.4761
60.01	453.6512
61.10	505.6047
61.14	505.6552
61.30	494.1563
63.00	475.3721
63.29	475.7137
63.29	475.7137
63.58	476.0553
64.28	442.8127
65.12	433.2200
65.20	433.3038
65.20	433.3038
66.05	431.5635
66.72	437.5281
66.83	425.7808
66.91	425.8621
67.20	410.3253
67.20	410.3253
67.75	447.8498
67.85	437.6514
68.90	479.5329
68.90	479.5329
69.30	493.2423
69.67	490.4859
70.82	467.0395
70.82	467.0395
70.83	467.0502
72.80	494.5481
72.87	494.6243
72.87	494.6243
74.67	496.6229
74.81	496.7754
74.81	496.7754
74.81	496.7754
74.81	496.7754
74.81	496.7754
74.81	496.7754
74.81	496.7754
74.97	496.9532
75.28	497.2920
75.70	497.7549
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77.11	499.2906

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77.11	499.2906
77.11	499.2906
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78.38	500.6625
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79.80	430.7020
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80.30	423.9131
80.57	445.9050
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81.07	424.6011
81.07	424.6011
81.07	424.6011
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83.78	466.6896
83.78	466.6896
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86.72	504.8241
86.79	504.8912
86.94	505.0450
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87.30	566.5204
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87.30	566.5204
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87.88	597.9955
88.03	598.1741
88.36	538.7078
88.47	538.8268
89.95	537.6295
91.11	520.3290
92.29	454.7045
92.38	454.7842
92.38	454.7842
93.35	455.6316
94.00	456.1949
94.67	456.7706
94.67	456.7755
94.90	456.9749
94.90	456.9749
94.90	456.9749
94.90	456.9749
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95.87	388.2041
96.73	370.5833
97.43	317.6539
98.44	249.2466
98.44	249.2466
98.88	248.0398
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99.55	259.6330
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103.76	256.8716
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111.00	313.8756
111.76	309.9548
112.95	286.0193
115.19	229.0911
116.30	238.2262
117.00	253.6246
117.00	253.6246
117.66	246.5224
121.11	223.4989
121.62	220.7514
121.78	220.8077
122.06	221.8829
122.32	221.9741
122.32	221.9741
122.32	221.9741
122.32	221.9741
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127.23	221.7167
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131.20	227.5273
133.02	252.9042
133.54	235.7897
135.34	251.3848
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136.25	223.7539
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142.65	210.7157
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144.24	211.1920
144.24	211.1920
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145.44	220.1528
147.16	191.7666
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152.70	178.9218
153.22	194.3951
154.21	214.1217
154.21	214.1217
154.21	214.1217
154.21	214.1217
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156.02	225.9395
158.56	200.9430
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161.27	243.0251
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162.64	202.0201
163.35	205.3174
163.89	202.3474
165.85	226.7862
167.43	192.8438
171.28	208.4496
171.86	210.6959
172.10	220.1962
176.55	227.7378
176.60	227.7532
181.06	216.2665
184.41	169.2383
185.71	175.8949
186.00	175.9554
190.27	194.5202
192.34	183.7071
193.63	183.9802
197.04	190.0956
198.01	168.6794
198.60	161.2166
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201.83	228.0426
202.84	222.8633
205.31	191.3131

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209.75	154.4511
210.97	154.6548
215.65	156.0907
216.55	167.7158
218.09	160.2517
222.10	178.6831
223.80	168.9899
226.40	170.5577
227.00	175.1237
227.08	176.2536
227.20	178.5075
228.16	178.6816
228.18	178.6849
228.18	178.6849
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236.00	168.8400
236.00	168.8400
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238.63	159.1227
238.63	159.1227
238.63	159.1227
239.00	159.1801
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241.98	159.6448
241.98	159.6448
241.98	159.6448
244.69	156.6608
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247.94	135.5141
248.90	153.8759
249.79	146.0208
252.40	126.9413
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252.85	133.8602
254.15	0.0000
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256.20	138.8723
260.50	145.1902
260.90	151.0077
262.80	139.7241
264.65	135.3336
268.24	125.3320
268.79	127.1351
269.46	130.1152
269.46	130.1152
269.46	130.1152
269.46	130.1152
271.23	141.3767
273.65	122.4423
276.40	138.8731
277.35	129.8636
277.60	129.8929
277.60	129.8929
278.00	129.9381
278.60	116.6539
279.20	126.5603
279.53	126.5955
280.46	135.1453
281.68	115.5607
283.67	118.2294
284.30	136.8336
285.00	135.1497
285.90	148.5150
286.10	137.0464
286.10	137.0464
287.40	134.5447
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291.72	153.5203
293.26	0.0000
293.70	132.4206
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295.21	121.1831

295.21	121.1831
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297.23	121.3885
298.57	121.5255
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299.80	121.6479
300.09	121.6791
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300.09	121.6791
300.09	121.6791
300.12	121.6812
301.29	121.7994
302.84	121.9551
303.76	122.0485
303.91	122.0630
304.40	122.1128
304.40	122.1128
304.84	122.1564
306.84	100.7651
308.46	108.1036
311.98	111.1234
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319.02	116.2949
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323.87	138.6290
323.87	138.6290
323.87	138.6290
325.23	139.6905
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334.30	116.2164
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338.28	114.3560
338.28	114.3560
338.28	114.3560
338.32	114.3598
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338.32	114.3598
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340.57	103.4688
344.27	100.0519
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351.07	113.5950
351.92	113.6657
351.92	113.6657
351.92	113.6657
355.39	0.0000
356.01	119.6133
364.48	104.3657
366.43	106.3944
367.43	119.6613
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369.80	118.9190
374.96	130.7206
383.85	88.6406
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388.63	97.5378
391.69	105.4077
391.69	105.4077
392.90	105.4950
398.62	107.8267
400.65	98.3331
401.10	99.3270
401.81	94.5502
402.60	98.4608
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410.95	107.7396
411.60	110.6984
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414.70	122.5989
415.30	117.7800

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427.89	86.3524
432.53	102.3528
433.93	108.3534
439.47	107.7410
439.56	107.7459
439.89	100.8483
443.98	113.9893
444.90	127.9390
445.03	127.9489
445.03	127.9489
445.03	127.9489
445.03	127.9489
453.90	81.7735
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475.06	103.0070
475.35	95.9553
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477.59	108.2164
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511.85	85.7968
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513.99	84.2452
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549.76	58.9343
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555.20	73.8773
563.23	67.8242
563.90	63.6072
568.70	55.2611
569.32	57.4047
569.50	52.0939
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591.81	48.3783
592.07	59.1357
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595.88	54.9377
600.56	52.9044
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602.71	60.5254
603.60	60.5510
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604.70	67.5073
609.31	54.2130

609.31	54.2130
609.31	54.2130
609.31	54.2130
610.33	59.0119
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614.37	50.4314
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621.84	63.2640
631.29	61.3542
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661.65	60.4380
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666.33	44.5337
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685.20	58.3794
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696.49	45.1282
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702.63	52.4875
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722.78	51.7222
722.89	51.7249
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752.31	41.5778
753.82	39.7540
755.35	58.2796
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756.87	63.8705
763.93	69.6222
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766.84	61.3384
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778.89	50.4272
783.80	43.9753
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792.07	56.3203

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836.80	0.0000
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896.60	39.0303
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911.07	50.6702
911.07	50.6702
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920.93	41.3304
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937.48	50.4733
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949.00	42.7218
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968.20	73.3262
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969.11	25.0055
969.11	25.0055
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1038.76	0.0000
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1046.59	38.9630
1048.07	41.0332

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1050.47	30.7983
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1077.35	42.4394
1078.86	31.0664
1085.78	30.0946
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1112.02	36.6064
1112.84	34.8714
1115.52	29.6642
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1120.29	26.2109
1120.29	26.2109
1120.29	26.2109
1120.51	26.2122
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1147.95	0.0000
1167.94	29.7623
1173.22	52.1630
1175.09	52.1893
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1205.75	0.0000
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1274.54	45.9642
1291.56	28.5810
1298.22	0.0000
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1325.50	28.6475
1332.49	24.0693
1333.61	22.2246
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1362.66	0.0000
1365.15	22.4014
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1368.53	0.0000
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1394.10	9.4006
1395.20	15.0456
1407.95	14.1486
1434.06	16.1367
1436.60	27.5439
1457.56	0.0000
1460.81	15.2839
1489.15	10.5775
1509.49	14.9050
1596.49	22.6556
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1691.02	12.0605
1691.02	12.0605
1706.46	0.0000
1750.46	0.0000
1764.49	10.4937
1764.49	10.4937
1764.49	10.4937
1764.49	10.4937
1770.23	22.4709
1771.40	5.1082
1791.20	0.0000
1808.65	10.2917

1836.01 9.3124

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799018

Total Uranium Activity	4.3526E+01	ug/g
Total Uranium Counting Unc.	9.0101E+00	ug/g
Total Uranium Tpu	4.5970E-06	ug/g
Total Uranium Mda	1.8946E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799018      *
*   ANALYST       : RXF2                      DETECTOR    : GAM17           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 19:13:04.74    SAMPLE ALQT:  120.374 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.161E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.584E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 5.091E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.478E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:15:11.00

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799019.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:13:31
Sample ID         : G245799019           Sample quantity  : 1.20550E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.62  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.25*	56	459	1.55	92.39	89	12	7.78E-03	78.7	
2	0	63.65*	107	681	1.42	127.17	122	12	1.49E-02	50.4	
3	2	74.86	475	637	1.62	149.56	144	15	6.59E-02	11.8	3.48E+00
4	2	77.21	655	437	1.23	154.26	144	15	9.09E-02	6.7	
5	2	87.30	179	574	1.25	174.42	170	21	2.49E-02	23.6	1.32E+00
6	2	90.00	124	457	1.20	179.83	170	21	1.73E-02	29.8	
7	2	92.86*	115	401	1.15	185.54	170	21	1.59E-02	33.8	
8	0	185.99*	163	458	1.30	371.65	367	13	2.27E-02	29.1	
9	0	209.09	152	362	1.22	417.82	412	13	2.12E-02	26.9	
10	3	238.53*	1253	227	1.30	476.66	471	18	1.74E-01	3.6	4.78E-01
11	3	241.40	272	281	1.83	482.40	471	18	3.78E-02	16.9	
12	0	270.06	167	298	1.65	539.68	532	16	2.32E-02	24.4	
13	0	295.13	364	224	1.16	589.78	583	13	5.05E-02	10.0	
14	0	300.04	83	195	1.27	599.61	596	10	1.15E-02	33.3	
15	0	327.39	73	203	1.34	654.26	651	11	1.01E-02	39.4	
16	0	338.12	220	211	1.37	675.72	671	10	3.05E-02	14.1	
17	0	351.86*	582	223	1.55	703.18	698	11	8.09E-02	6.5	
18	0	463.82	104	111	1.42	926.98	920	15	1.45E-02	24.2	
19	0	510.52*	113	141	1.97	1020.34	1012	17	1.57E-02	29.2	
20	0	568.35*	109	155	2.22	1135.96	1129	15	1.52E-02	27.2	
21	0	583.05*	419	107	1.59	1165.35	1157	16	5.82E-02	7.5	
22	0	609.40*	455	113	1.67	1218.03	1212	15	6.32E-02	7.1	
23	0	727.58	93	84	1.75	1454.33	1450	11	1.30E-02	21.5	
24	0	786.60	33	68	1.63	1572.35	1564	13	4.60E-03	54.3	
25	0	795.59	49	84	1.73	1590.33	1583	14	6.86E-03	41.8	
26	0	861.15	68	55	2.33	1721.43	1715	13	9.38E-03	25.8	
27	0	911.62	295	63	2.12	1822.36	1816	15	4.09E-02	8.3	
28	0	969.40*	131	104	1.73	1937.92	1934	15	1.82E-02	19.8	
29	0	1120.70	111	60	1.43	2240.55	2235	11	1.55E-02	16.5	
30	0	1239.49	35	118	1.58	2478.17	2471	16	4.93E-03	70.0	
31	0	1461.33*	1541	40	2.04	2922.01	2912	17	2.14E-01	2.7	
32	0	1730.05	37	3	3.87	3459.77	3453	13	5.10E-03	19.3	
33	0	1765.12*	93	4	2.29	3529.96	3522	17	1.29E-02	12.2	
34	0	1847.38	22	3	1.17	3694.61	3688	12	3.09E-03	26.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 21:15:14

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799019.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:13:31
Sample ID : G245799019 Sample quantity : 120.55 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.62 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.848E+01	3.550E+00	6.323E-01	4.709E-02	60.866
CD-109	+	88.03	*	2.519E+00	1.211E+00	1.433E+00	1.284E-01	1.757
SN-126	+	64.28		9.442E-01	9.607E-01	8.480E-01	1.238E-01	1.113
	+	86.94		1.029E+00	6.466E-01	5.916E-01	2.450E-01	1.739
	+	87.57	*	2.475E-01	1.190E-01	1.414E-01	1.262E-02	1.750
TL-208		277.35		3.957E-01	4.416E-01	7.103E-01	7.495E-02	0.557
	+	510.84		5.747E-01	3.407E-01	2.496E-01	2.549E-02	2.302
	+	583.14	*	6.065E-01	9.966E-02	6.465E-02	4.396E-03	9.382
	+	860.37		9.197E-01	4.809E-01	5.154E-01	4.615E-02	1.784
BI-210	+	46.50	*	3.780E+00	5.957E+00	5.739E+00	4.374E-01	0.659
PB-210	+	46.50	*	3.780E+00	5.957E+00	5.739E+00	4.374E-01	0.659
PO-210	+	46.50	*	3.780E+00	5.955E+00	5.739E+00	3.740E-01	0.659
BI-211		72.87		1.356E+01	4.231E+00	6.632E+00	5.196E-01	2.045
	+	351.07	*	3.700E+00	5.385E-01	3.603E-01	2.300E-02	10.269
BI-212	+	727.18	*	1.162E+00	5.087E-01	4.984E-01	4.150E-02	2.331
	+	785.46		2.633E+00	2.867E+00	2.938E+00	2.149E-01	0.896
		1620.62		5.747E-01	1.418E+00	2.461E+00	1.643E-01	0.234
PB-212	+	74.81		2.723E+00	7.221E-01	6.005E-01	7.364E-02	4.534
	+	77.11		2.133E+00	3.354E-01	3.417E-01	2.761E-02	6.243
	+	87.30		1.145E+00	5.624E-01	6.559E-01	8.777E-02	1.745
	+	238.63	*	1.744E+00	1.772E-01	1.015E-01	7.324E-03	17.190
	+	300.09		1.773E+00	1.190E+00	1.347E+00	1.113E-01	1.316
PO-212	+	74.81		2.723E+00	7.221E-01	6.005E-01	7.364E-02	4.534
	+	77.11		2.133E+00	3.354E-01	3.417E-01	2.761E-02	6.243
	+	87.30		1.145E+00	5.624E-01	6.559E-01	8.777E-02	1.745
		115.19		8.020E-01	4.098E+00	6.728E+00	4.283E-01	0.119
	+	238.63	*	1.744E+00	1.772E-01	1.015E-01	7.324E-03	17.190
	+	300.09		1.773E+00	1.190E+00	1.347E+00	1.113E-01	1.316
BI-214	+	609.31	*	1.241E+00	2.013E-01	1.236E-01	9.720E-03	10.040
	+	1120.29		1.577E+00	5.402E-01	5.373E-01	4.915E-02	2.936
	+	1764.49		1.773E+00	4.459E-01	2.709E-01	1.642E-02	6.546
PB-214	+	74.81		4.692E+00	1.215E+00	1.035E+00	1.124E-01	4.534
	+	77.11		3.657E+00	6.389E-01	5.859E-01	6.506E-02	6.243
	+	87.30		1.961E+00	9.552E-01	1.124E+00	1.322E-01	1.745

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.271E+00	7.906E-01	6.105E-01	4.869E-02	3.720
	+	295.21		1.368E+00	2.968E-01	2.189E-01	1.868E-02	6.250
	+	351.92	*	1.287E+00	1.990E-01	1.336E-01	1.101E-02	9.636
PO-214	+	74.81		4.692E+00	1.215E+00	1.035E+00	1.124E-01	4.534
	+	77.11		3.657E+00	6.389E-01	5.859E-01	6.506E-02	6.243
	+	87.30		1.961E+00	9.552E-01	1.124E+00	1.322E-01	1.745
	+	241.98		2.271E+00	7.906E-01	6.105E-01	4.869E-02	3.720
	+	295.21		1.368E+00	2.968E-01	2.189E-01	1.868E-02	6.250
	+	351.92	*	1.287E+00	1.990E-01	1.336E-01	1.101E-02	9.636
PO-216	+	74.81		2.723E+00	7.221E-01	6.005E-01	7.364E-02	4.534
	+	77.11		2.133E+00	3.354E-01	3.417E-01	2.761E-02	6.243
	+	87.30		1.145E+00	5.624E-01	6.559E-01	8.777E-02	1.745
	+	238.63	*	1.744E+00	1.772E-01	1.015E-01	7.324E-03	17.190
	+	300.09		1.773E+00	1.190E+00	1.347E+00	1.113E-01	1.316
PO-218	+	74.81		4.692E+00	1.215E+00	1.035E+00	1.124E-01	4.534
	+	77.11		3.657E+00	6.389E-01	5.859E-01	6.506E-02	6.243
	+	87.30		1.961E+00	9.552E-01	1.124E+00	1.322E-01	1.745
	+	241.98		2.271E+00	7.906E-01	6.105E-01	4.869E-02	3.720
	+	295.21		1.368E+00	2.968E-01	2.189E-01	1.868E-02	6.250
	+	351.92	*	1.287E+00	1.990E-01	1.336E-01	1.101E-02	9.636
RA-224	+	240.98	*	4.307E+00	1.480E+00	1.154E+00	6.540E-02	3.732
RA-226	+	609.31	*	1.241E+00	2.013E-01	1.236E-01	9.720E-03	10.040
	+	1120.29		1.577E+00	5.402E-01	5.373E-01	4.915E-02	2.936
	+	1764.49		1.773E+00	4.459E-01	2.709E-01	1.642E-02	6.546
AC-228	+	338.32		1.539E+00	7.623E-01	4.256E-01	1.735E-01	3.617
	+	911.07	*	1.899E+00	3.810E-01	2.088E-01	2.362E-02	9.093
	+	969.11		1.484E+00	6.803E-01	6.167E-01	1.430E-01	2.407
RA-228	+	338.32		1.539E+00	7.623E-01	4.256E-01	1.735E-01	3.617
	+	911.07	*	1.899E+00	3.810E-01	2.088E-01	2.362E-02	9.093
	+	969.11		1.484E+00	6.803E-01	6.167E-01	1.430E-01	2.407
TH-228	+	74.81		2.765E+00	6.868E-01	6.098E-01	4.889E-02	4.534
	+	77.11		2.166E+00	3.405E-01	3.470E-01	2.803E-02	6.243
	+	87.30		1.162E+00	5.590E-01	6.659E-01	5.923E-02	1.745
	+	238.63	*	1.771E+00	1.799E-01	1.030E-01	7.436E-03	17.190
	+	300.09		1.800E+00	1.601E+00	1.368E+00	8.063E-01	1.316
TH-230	+	609.31	*	1.241E+00	2.013E-01	1.236E-01	9.720E-03	10.040
	+	1120.29		1.577E+00	5.402E-01	5.372E-01	4.915E-02	2.936
	+	1764.49		1.773E+00	4.459E-01	2.709E-01	1.642E-02	6.546
TH-232	+	338.32		1.539E+00	4.420E-01	4.256E-01	2.460E-02	3.617
	+	911.07	*	1.899E+00	3.810E-01	2.088E-01	2.362E-02	9.093
	+	969.11		1.484E+00	6.803E-01	6.167E-01	1.430E-01	2.407
TH-234	+	63.29	*	2.385E+00	2.438E+00	2.224E+00	3.892E-01	1.072
	+	92.38		1.032E+00	7.214E-01	9.304E-01	1.671E-01	1.110
U-234	+	609.31	*	1.241E+00	2.013E-01	1.236E-01	9.720E-03	10.040
	+	1120.29		1.577E+00	5.402E-01	5.372E-01	4.915E-02	2.936
	+	1764.49		1.773E+00	4.459E-01	2.709E-01	1.642E-02	6.546
NP-237	+	86.50	*	7.267E-01	3.804E-01	4.505E-01	1.011E-01	1.613
		95.87		4.144E-02	1.187E+00	1.704E+00	4.158E-01	0.024
U-238	+	63.29	*	2.385E+00	2.438E+00	2.224E+00	3.892E-01	1.072

Sample ID : G245799019 Acquisition date : 10-FEB-2010 19:13:31

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		1.032E+00	7.025E-01	9.304E-01	7.771E-02	1.110
AM-243	+	74.67	*	4.415E-01	1.095E-01	9.764E-02	7.744E-03	4.521
	+	86.72		2.725E+01	1.311E+01	1.686E+01	1.490E+00	1.617
		117.66		-1.233E+00	4.462E+00	7.190E+00	4.467E-01	-0.171
		142.18		2.195E+00	1.972E+01	3.213E+01	1.789E+00	0.068
ANH-511	+	511.00	*	1.241E-01	7.286E-02	5.394E-02	3.183E-03	2.302

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.335E-02	3.561E-01	5.858E-01	3.976E-02	-0.057
NA-22		1274.54	*	-2.461E-02	5.169E-02	8.202E-02	5.471E-03	-0.300
NA-24		1368.53	*	-7.986E-01	5.169E-02	Half-Life too short		
AL-26		1129.67		2.365E-01	1.924E+00	3.246E+00	2.003E-01	0.073
		1808.65	*	-3.997E-02	3.075E-02	3.386E-02	1.977E-03	-1.180
TI-44		67.85		-2.366E-02	6.193E-02	8.159E-02	6.229E-03	-0.290
	+	78.38	*	3.937E-01	6.189E-02	9.139E-02	7.460E-03	4.308
SC-46		889.25	*	1.041E-03	4.713E-02	7.619E-02	6.620E-03	0.014
	+	1120.51		2.704E-01	9.087E-02	1.483E-01	9.356E-03	1.823
V-48		944.10		-3.247E-01	1.003E+00	1.560E+00	1.314E-01	-0.208
		983.50	*	-3.459E-02	8.427E-02	1.298E-01	1.043E-02	-0.267
		1312.09		-2.909E-02	9.796E-02	1.577E-01	1.122E-02	-0.184
CR-51		320.08	*	3.672E-02	3.980E-01	6.709E-01	4.341E-02	0.055
MN-52		744.21		-8.974E-02	2.705E-01	4.271E-01	2.904E-02	-0.210
		848.13		-2.434E+00	8.080E+00	1.270E+01	1.033E+00	-0.192
		935.52		2.595E-01	3.023E-01	5.227E-01	4.444E-02	0.496
		1246.25		5.964E+00	1.015E+01	1.551E+01	9.805E-01	0.384
		1333.61		-2.592E+00	5.722E+00	8.985E+00	6.620E-01	-0.289
		1434.06	*	3.922E-03	2.655E-01	4.390E-01	3.167E-02	0.009
MN-54		834.83	*	-2.405E-02	4.410E-02	6.800E-02	5.409E-03	-0.354
CO-56		846.75	*	-3.791E-02	4.666E-02	6.970E-02	5.655E-03	-0.544
		977.42		5.219E-01	3.970E+00	5.592E+00	4.531E-01	0.093
		1037.82		-7.087E-02	3.440E-01	5.661E-01	4.504E-02	-0.125
		1175.09		9.051E-01	2.671E+00	4.570E+00	2.514E-01	0.198
	+	1238.25		1.414E-01	1.983E-01	2.047E-01	1.345E-02	0.691
		1360.21		3.644E-02	1.009E+00	1.677E+00	1.230E-01	0.022
		1771.40		5.183E-02	2.313E-01	3.472E-01	2.093E-02	0.149
CO-57		122.06	*	-8.953E-03	2.997E-02	4.822E-02	2.878E-03	-0.186
		136.48		1.103E-02	2.341E-01	3.807E-01	2.513E-02	0.029
CO-58		810.76	*	1.396E-02	4.285E-02	7.148E-02	5.478E-03	0.195
FE-59		142.65		1.710E-01	3.073E+00	4.995E+00	2.777E-01	0.034
		192.34		-8.046E-01	1.265E+00	1.703E+00	1.978E-01	-0.472
		1099.22	*	3.739E-02	1.027E-01	1.770E-01	1.328E-02	0.211
		1291.56		7.386E-02	1.532E-01	2.647E-01	2.192E-02	0.279
CO-60		1173.22		1.522E-02	5.283E-02	9.007E-02	4.936E-03	0.169
		1332.49	*	-3.339E-02	4.362E-02	6.573E-02	4.844E-03	-0.508
ZN-65		1115.52	*	9.065E-02	1.149E-01	1.806E-01	1.155E-02	0.502
GE-68		1077.35	*	6.600E-01	1.448E+00	2.513E+00	1.739E-01	0.263

Sample ID : G245799019 Acquisition date : 10-FEB-2010 19:13:31

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	-7.810E-01	9.455E-01	1.391E+00	1.028E-01	-0.562
AS-74		595.88	*	-1.937E-02	1.018E-01	1.648E-01	9.761E-03	-0.118
		634.78		7.146E-02	4.058E-01	6.734E-01	3.958E-02	0.106
SE-75		66.05		-5.719E-01	6.004E+00	8.638E+00	8.292E-01	-0.066
		96.73		-3.489E-01	9.735E-01	1.358E+00	1.786E-01	-0.257
		121.11		-1.109E-01	1.628E-01	2.576E-01	2.412E-02	-0.431
		136.00		-2.104E-02	4.474E-02	7.123E-02	4.102E-03	-0.295
		198.60		1.401E-01	2.032E+00	3.204E+00	2.187E-01	0.044
		264.65	*	1.148E-02	5.419E-02	8.081E-02	4.699E-03	0.142
		279.53		3.588E-02	1.176E-01	2.008E-01	1.257E-02	0.179
		303.91		7.362E-01	2.585E+00	3.857E+00	3.684E-01	0.191
		400.65		6.358E-02	2.728E-01	4.605E-01	4.135E-02	0.138
BR-77	+	87.88		5.740E+02	2.761E+02	4.107E+02	3.676E+01	1.398
		200.40		-5.952E+01	1.920E+02	3.043E+02	1.655E+01	-0.196
	+	239.00		2.956E+02	2.693E+01	4.437E+01	2.510E+00	6.661
		249.79		-5.067E+00	8.044E+01	1.281E+02	7.306E+00	-0.040
		281.68		-8.620E+01	1.046E+02	1.653E+02	9.581E+00	-0.521
		297.23		3.779E+02	1.044E+02	1.427E+02	8.299E+00	2.647
		303.76		7.234E+01	2.323E+02	3.474E+02	2.021E+01	0.208
		439.47		7.440E+01	1.691E+02	2.882E+02	1.655E+01	0.258
		484.57		-1.513E+02	2.704E+02	4.301E+02	2.519E+01	-0.352
		520.65	*	2.873E+00	1.222E+01	2.049E+01	1.211E+00	0.140
		574.64		2.156E+02	3.358E+02	4.150E+02	2.463E+01	0.520
		578.91		1.177E+01	1.101E+02	1.585E+02	9.407E+00	0.074
		585.48		1.733E+03	3.236E+02	5.923E+02	3.513E+01	2.927
		755.35		5.527E+01	1.924E+02	3.203E+02	2.222E+01	0.173
		817.79		-6.968E+01	1.546E+02	2.395E+02	1.851E+01	-0.291
SR-82		698.33		-8.265E+00	3.607E+01	5.769E+01	3.604E+00	-0.143
		776.49	*	-1.723E-01	4.113E-01	6.418E-01	4.621E-02	-0.269
		1395.20		5.521E-01	1.164E+01	1.935E+01	1.410E+00	0.029
RB-83		520.41	*	7.845E-03	7.744E-02	1.287E-01	7.607E-03	0.061
		529.64		6.311E-02	1.105E-01	1.898E-01	1.124E-02	0.332
		552.65		-1.752E-01	2.189E-01	3.382E-01	2.007E-02	-0.518
RB-84		881.50	*	-3.650E-02	7.932E-02	1.222E-01	1.048E-02	-0.299
KR-85		513.99	*	8.605E+00	9.228E+00	1.426E+01	8.419E-01	0.604
SR-85		513.99	*	4.421E-02	4.741E-02	7.325E-02	4.325E-03	0.604
RB-86		1076.63	*	4.938E-01	9.034E-01	1.580E+00	1.095E-01	0.313
Y-88		898.02		-1.480E-03	4.569E-02	7.345E-02	6.502E-03	-0.020
		1836.01	*	2.627E-04	3.166E-02	5.165E-02	2.948E-03	0.005
ZR-88		392.90	*	-8.977E-04	3.122E-02	5.193E-02	2.891E-03	-0.017
Y-91		1204.90	*	-1.142E+01	2.290E+01	3.665E+01	2.140E+00	-0.312
NB-94		702.63	*	1.865E-04	3.599E-02	5.870E-02	3.697E-03	0.003
		871.10		-1.451E-02	4.284E-02	6.711E-02	5.665E-03	-0.216
NB-95		765.79	*	2.200E-02	4.976E-02	8.348E-02	5.899E-03	0.264
NB-95M		235.69	*	5.141E-01	1.811E-01	2.858E-01	2.117E-02	1.799
ZR-95		724.18		-8.916E-02	1.311E-01	1.706E-01	1.281E-02	-0.523
		756.15	*	-1.524E-03	8.022E-02	1.302E-01	1.042E-02	-0.012
NB-97		657.90	*	5.048E-03	8.022E-02	Half-Life too short		
		1024.50		-1.228E+01	8.022E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97		254.15		9.169E-01	8.022E-02	Half-Life too short		
		355.39		4.599E+00	8.022E-02	Half-Life too short		
		507.63	*	5.487E+00	8.022E-02	Half-Life too short		
		602.52		8.992E+00	8.022E-02	Half-Life too short		
		1021.30		-8.585E+00	8.022E-02	Half-Life too short		
		1147.95		-4.977E+00	8.022E-02	Half-Life too short		
		1362.66		1.272E+01	8.022E-02	Half-Life too short		
		1750.46		7.306E-01	8.022E-02	Half-Life too short		
MO-99		140.51		-2.721E+01	3.179E+01	4.839E+01	1.302E+01	-0.562
		181.06		-7.111E+00	2.395E+01	3.309E+01	5.619E+00	-0.215
		366.43		9.699E+00	9.878E+01	1.659E+02	9.443E+00	0.058
		739.58	*	5.803E+00	1.385E+01	2.326E+01	3.304E+00	0.249
		778.00		-1.753E+01	3.964E+01	5.755E+01	4.156E+00	-0.305
TC-99M		140.51	*	-6.280E+10	3.964E+01	Half-Life too short		
RH-101		127.23		9.981E-03	3.784E-02	6.213E-02	3.626E-03	0.161
		198.01	*	1.822E-02	3.748E-02	6.023E-02	3.267E-03	0.303
		325.23		2.088E-01	2.689E-01	4.145E-01	2.406E-02	0.504
RH-102		418.52		-8.584E-02	2.984E-01	4.869E-01	2.761E-02	-0.176
		475.06	*	-2.653E-02	3.234E-02	5.049E-02	2.947E-03	-0.525
		631.29		3.177E-02	6.179E-02	1.051E-01	6.182E-03	0.302
		697.49		-3.065E-02	8.121E-02	1.282E-01	7.997E-03	-0.239
		766.84		2.077E-01	1.270E-01	2.291E-01	1.622E-02	0.907
		1046.59		9.698E-02	1.339E-01	2.372E-01	1.736E-02	0.409
		1112.84		1.093E-03	2.815E-01	4.494E-01	2.886E-02	0.002
RU-103		497.08	*	4.248E-02	4.532E-02	7.905E-02	1.002E-02	0.537
	+	610.33		1.345E+01	2.821E+00	3.201E+00	4.949E-01	4.201
RH-106	+	511.85		6.203E-01	3.640E-01	4.669E-01	2.756E-02	1.328
		621.84	*	-7.562E-02	3.411E-01	5.487E-01	6.466E-02	-0.138
		1050.47		-1.258E+00	2.613E+00	4.192E+00	3.047E-01	-0.300
RU-106	+	511.85		6.203E-01	3.640E-01	4.669E-01	2.756E-02	1.328
		621.84	*	-7.562E-02	3.410E-01	5.487E-01	3.235E-02	-0.138
		1050.47		-1.258E+00	2.613E+00	4.192E+00	3.047E-01	-0.300
AG-108M		433.93	*	2.937E-03	3.588E-02	5.990E-02	3.731E-03	0.049
		614.37		-9.173E-03	4.793E-02	6.656E-02	4.254E-03	-0.138
		722.95		-7.248E-02	5.924E-02	7.164E-02	5.000E-03	-1.012
AG-110M		657.75	*	2.404E-03	3.822E-02	6.281E-02	3.897E-03	0.038
		677.61		-1.446E-01	3.369E-01	5.301E-01	3.366E-02	-0.273
		706.67		1.248E-02	2.228E-01	3.649E-01	2.432E-02	0.034
		763.93		-2.873E-01	2.005E-01	2.867E-01	2.104E-02	-1.002
		884.67		3.953E-02	5.600E-02	9.613E-02	8.559E-03	0.411
		937.48		-7.472E-02	1.260E-01	1.906E-01	1.678E-02	-0.392
		1384.27		-2.079E-01	1.659E-01	2.239E-01	1.699E-02	-0.929
IN-111		171.28		-9.324E-01	1.222E+00	1.907E+00	1.001E-01	-0.489
		245.39	*	7.729E-01	1.371E+00	1.988E+00	1.130E-01	0.389
IN-113M		391.69	*	1.241E-02	4.489E-02	7.610E-02	4.541E-03	0.163
SN-113		391.69	*	1.241E-02	4.489E-02	7.610E-02	4.541E-03	0.163
IN-114M		190.27	*	6.568E-02	2.273E-01	3.252E-01	1.748E-02	0.202
CD-115		260.90		-1.920E+01	1.534E+02	2.430E+02	1.396E+01	-0.079
		492.35		-2.500E+01	4.443E+01	6.998E+01	4.109E+00	-0.357

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		527.90	*	3.601E+00	1.203E+01	2.028E+01	1.201E+00	0.178
SN-117M		156.02		1.465E+00	2.694E+00	4.452E+00	2.386E-01	0.329
		158.56	*	-2.187E-02	6.538E-02	1.043E-01	5.552E-03	-0.210
SB-122		563.90	*	5.296E-01	2.890E+00	4.193E+00	2.489E-01	0.126
		692.80		7.336E+00	4.853E+01	8.016E+01	4.956E+00	0.092
I-123		159.00	*	-2.278E+00	4.853E+01	Half-Life too short		
		528.96		4.356E+02	4.853E+01	Half-Life too short		
TE-123M		159.00	*	-8.921E-03	3.340E-02	5.343E-02	2.886E-03	-0.167
I-124		602.71	*	1.299E+00	8.038E-01	1.329E+00	7.868E-02	0.977
		722.78		-7.610E+00	6.388E+00	7.767E+00	5.079E-01	-0.980
		1325.50		-1.454E+01	4.187E+01	6.681E+01	4.865E+00	-0.218
		1376.25		3.374E+01	3.764E+01	6.768E+01	4.950E+00	0.499
		1509.49		1.052E+01	1.889E+01	3.318E+01	2.334E+00	0.317
		1691.02		1.173E+00	4.206E+00	7.218E+00	4.617E-01	0.162
SB-124		602.71		7.340E-02	4.541E-02	7.510E-02	4.447E-03	0.977
		645.85		4.740E-01	5.826E-01	1.009E+00	6.656E-02	0.470
		709.31		1.492E-01	3.022E+00	4.946E+00	3.154E-01	0.030
		713.82		-1.330E+00	1.899E+00	2.910E+00	3.079E-01	-0.457
		722.78		-6.232E-01	5.232E-01	6.361E-01	4.314E-02	-0.980
	+	968.20		1.531E+01	6.182E+00	8.290E+00	6.794E-01	1.847
		1045.16		3.817E+00	2.867E+00	5.290E+00	3.881E-01	0.722
		1325.50		-1.272E+00	3.662E+00	5.843E+00	4.255E-01	-0.218
		1368.21		-1.702E+00	1.892E+00	2.735E+00	3.470E-01	-0.622
		1436.60		-1.880E+00	4.040E+00	6.233E+00	4.493E-01	-0.302
		1691.02	*	2.265E-02	8.124E-02	1.394E-01	9.549E-03	0.162
SB-125		427.89	*	-1.715E-02	9.787E-02	1.608E-01	9.573E-03	-0.107
	+	463.38		1.033E+00	5.053E-01	5.707E-01	3.865E-02	1.811
		600.56		-1.384E-01	2.002E-01	3.114E-01	2.122E-02	-0.444
		635.90		1.516E-01	3.038E-01	5.161E-01	3.539E-02	0.294
TE-125M		109.28	*	-5.141E+00	1.060E+01	1.696E+01	1.500E+00	-0.303
I-126		388.63		-5.370E-02	2.100E-01	3.444E-01	1.922E-02	-0.156
		666.33	*	4.358E-02	1.969E-01	3.275E-01	1.924E-02	0.133
		753.82		-1.193E-01	1.629E+00	2.632E+00	1.820E-01	-0.045
SB-126		223.80		-1.525E+00	4.865E+00	7.684E+00	4.288E-01	-0.198
		278.60		2.860E+00	2.717E+00	4.683E+00	2.711E-01	0.611
	+	296.50		1.376E+01	2.859E+00	3.922E+00	2.280E-01	3.509
		414.70		-1.209E-02	8.125E-02	1.339E-01	7.575E-03	-0.090
		415.30		9.944E-01	6.640E+00	1.115E+01	6.309E-01	0.089
		555.20		3.125E+00	4.387E+00	7.587E+00	4.503E-01	0.412
		573.80		7.198E-01	1.405E+00	1.998E+00	1.186E-01	0.360
		593.00		2.082E-01	1.068E+00	1.777E+00	1.053E-01	0.117
		656.30		-4.248E-01	3.802E+00	6.162E+00	3.596E-01	-0.069
		666.33		1.822E-02	8.233E-02	1.369E-01	8.044E-03	0.133
		675.00		4.213E-01	2.151E+00	3.569E+00	2.133E-01	0.118
		695.00		4.940E-02	8.095E-02	1.386E-01	8.607E-03	0.356
		697.00		1.736E-01	2.751E-01	4.721E-01	2.942E-02	0.368
		720.50	*	1.135E-01	1.799E-01	2.992E-01	1.948E-02	0.379
		856.80		-4.154E-01	6.327E-01	8.033E-01	6.625E-02	-0.517
		989.30		2.988E-01	1.469E+00	2.404E+00	1.918E-01	0.124

---- Non-Identified Nuclides ----

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		1034.80		-6.506E+00	1.036E+01	1.641E+01	1.225E+00	-0.396
		1213.00		-3.128E+00	6.209E+00	9.963E+00	5.910E-01	-0.314
SB-127		61.10		3.433E+01	7.111E+01	1.051E+02	1.092E+01	0.327
		252.40		1.120E+00	5.096E+00	8.200E+00	3.407E+00	0.137
		290.80		1.936E+00	2.523E+01	3.718E+01	3.432E+00	0.052
		411.60		6.101E+00	1.386E+01	2.360E+01	3.388E+00	0.259
		444.90		-1.372E+00	1.086E+01	1.787E+01	1.934E+00	-0.077
		473.00		9.960E-01	1.847E+00	3.164E+00	3.558E-01	0.315
		543.00		1.054E+00	1.797E+01	2.973E+01	3.868E+00	0.035
		603.60		1.546E+01	1.431E+01	2.247E+01	2.445E+00	0.688
		685.20	*	5.088E-01	1.578E+00	2.640E+00	2.555E-01	0.193
		698.50		-3.561E+00	1.654E+01	2.648E+01	3.894E+00	-0.134
		722.20		-2.419E+01	4.223E+01	5.552E+01	5.387E+00	-0.436
		783.80		4.539E+00	4.385E+00	6.908E+00	8.005E-01	0.657
XE-127		57.60		7.116E+00	7.054E+00	1.121E+01	8.398E-01	0.635
		145.22		3.446E-01	8.240E-01	1.328E+00	7.329E-02	0.260
		172.10		-6.378E-02	1.383E-01	2.188E-01	1.150E-02	-0.291
		202.84	*	-1.649E-02	5.965E-02	8.215E-02	4.482E-03	-0.201
		374.96		-8.893E-02	2.195E-01	3.577E-01	2.022E-02	-0.249
I-131		80.18		-3.922E+00	5.906E+00	8.236E+00	6.877E-01	-0.476
		284.30		-5.998E-01	1.587E+00	2.619E+00	1.689E-01	-0.229
		364.48	*	8.747E-02	1.269E-01	2.201E-01	1.406E-02	0.397
		636.97		1.187E-02	1.759E+00	2.881E+00	1.890E-01	0.004
		722.89		-1.229E+01	1.014E+01	1.229E+01	8.127E-01	-1.000
TE-132		49.72		-4.364E+00	2.286E+01	3.287E+01	3.215E+00	-0.133
		111.76		-1.890E+01	3.509E+01	5.597E+01	5.252E+00	-0.338
		116.30		2.956E+01	3.351E+01	5.621E+01	5.159E+00	0.526
		228.16	*	4.337E-01	8.388E-01	1.373E+00	1.966E-01	0.316
BA-133		53.15		-5.575E+00	4.438E+00	6.000E+00	4.431E-01	-0.929
		79.62		3.711E+00	1.740E+00	2.593E+00	3.895E-01	1.431
		81.00		-2.610E-01	1.438E-01	1.665E-01	2.620E-02	-1.567
		276.40		4.045E-01	4.497E-01	6.947E-01	9.001E-02	0.582
		302.84		6.507E-02	1.843E-01	2.758E-01	3.218E-02	0.236
		356.01	*	4.400E-02	5.499E-02	8.451E-02	9.740E-03	0.521
		383.85		3.286E-02	3.275E-01	5.493E-01	5.916E-02	0.060
I-133	+	510.53		1.463E+00	3.275E-01	Half-Life too short		
		529.87	*	4.052E-03	3.275E-01	Half-Life too short		
		706.58		3.224E-02	3.275E-01	Half-Life too short		
		856.28		-7.616E-01	3.275E-01	Half-Life too short		
		875.33		7.229E-02	3.275E-01	Half-Life too short		
		1236.41		6.156E-01	3.275E-01	Half-Life too short		
		1298.22		-3.877E-01	3.275E-01	Half-Life too short		
CS-134		475.35		-1.775E+00	2.139E+00	3.340E+00	1.950E-01	-0.531
		563.23		-3.017E-02	4.694E-01	6.645E-01	4.023E-02	-0.045
	+	569.32		8.585E-01	4.697E-01	5.517E-01	3.368E-02	1.556
		604.70		4.048E-02	4.073E-02	6.364E-02	3.786E-03	0.636
	+	795.84	*	1.032E-01	8.671E-02	1.027E-01	7.725E-03	1.005
		801.93		2.237E-01	4.854E-01	7.239E-01	5.488E-02	0.309
		1038.57		-3.077E+00	4.483E+00	7.060E+00	5.237E-01	-0.436

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		1167.94		-4.291E-01	2.975E+00	4.903E+00	2.729E-01	-0.088
		1365.15		4.043E-01	1.292E+00	2.221E+00	1.730E-01	0.182
CS-135		268.24	*	3.652E-01	1.842E-01	3.317E-01	2.531E-02	1.101
I-135		288.45		-1.314E+10	1.842E-01	Half-Life too short		
		417.63		-1.576E+10	1.842E-01	Half-Life too short		
		546.56		1.191E+10	1.842E-01	Half-Life too short		
		836.80		9.536E+09	1.842E-01	Half-Life too short		
		1038.76		-2.312E+10	1.842E-01	Half-Life too short		
		1124.00		3.300E+10	1.842E-01	Half-Life too short		
		1131.51		8.788E+09	1.842E-01	Half-Life too short		
		1260.41	*	-1.290E+09	1.842E-01	Half-Life too short		
		1457.56		4.838E+11	1.842E-01	Half-Life too short		
		1678.03		-5.897E+09	1.842E-01	Half-Life too short		
		1706.46		-8.516E+09	1.842E-01	Half-Life too short		
		1791.20		-5.962E+09	1.842E-01	Half-Life too short		
CS-136		66.91		-6.778E-01	9.919E-01	1.382E+00	2.058E-01	-0.490
	+	86.29		3.261E+00	1.599E+00	2.378E+00	3.085E-01	1.371
		153.22		7.410E-01	7.839E-01	1.313E+00	9.066E-02	0.565
		163.89		-3.395E-01	1.203E+00	1.920E+00	1.309E-01	-0.177
		176.55		1.375E-02	4.354E-01	7.034E-01	4.264E-02	0.020
		273.65		-5.927E-01	5.605E-01	7.622E-01	5.028E-02	-0.778
		340.57		5.597E-01	1.798E-01	3.055E-01	1.877E-02	1.832
		818.51		-1.834E-02	8.347E-02	1.324E-01	1.026E-02	-0.139
		1048.07	*	-6.854E-02	1.309E-01	2.097E-01	1.621E-02	-0.327
		1235.34		-3.512E-01	8.317E-01	1.136E+00	1.161E-01	-0.309
BA-137M		661.65	*	-2.488E-02	3.877E-02	6.001E-02	3.494E-03	-0.415
CS-137		661.65	*	-2.630E-02	4.098E-02	6.343E-02	3.709E-03	-0.415
CE-139		165.85	*	-1.602E-02	3.379E-02	5.347E-02	2.791E-03	-0.300
BA-140		162.64		2.513E-01	8.558E-01	1.400E+00	8.474E-02	0.179
		304.84		1.470E-01	1.617E+00	2.380E+00	6.496E-01	0.062
		423.70		5.095E-01	2.169E+00	3.592E+00	1.141E+00	0.142
		537.32	*	5.375E-04	2.761E-01	4.550E-01	1.481E-01	0.001
LA-140	+	328.77		6.343E-01	5.018E-01	6.408E-01	4.163E-02	0.990
		432.53		-8.312E-01	2.230E+00	3.613E+00	2.289E-01	-0.230
		487.03		7.099E-02	1.565E-01	2.665E-01	1.764E-02	0.266
		751.79		-5.491E-01	1.895E+00	3.001E+00	2.406E-01	-0.183
		815.85		2.399E-01	3.535E-01	6.073E-01	5.346E-02	0.395
		867.82		-1.378E+00	2.020E+00	2.560E+00	2.269E-01	-0.538
		919.63		6.029E-01	3.649E+00	5.420E+00	5.779E-01	0.111
		925.24		-5.751E-01	1.361E+00	2.102E+00	1.920E-01	-0.274
		1596.49	*	-8.082E-02	9.563E-02	1.362E-01	9.217E-03	-0.593
CE-141		145.44	*	4.700E-02	7.403E-02	1.202E-01	6.923E-03	0.391
CE-143		57.37		1.375E-03	7.403E-02	Half-Life too short		
		231.56		-4.357E-04	7.403E-02	Half-Life too short		
		293.26	*	1.044E-03	7.403E-02	Half-Life too short		
	+	350.59		3.218E-02	7.403E-02	Half-Life too short		
		490.36		1.388E-04	7.403E-02	Half-Life too short		
		664.57		5.500E-04	7.403E-02	Half-Life too short		
		721.93		-1.105E-03	7.403E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-144		80.11		-1.393E+00	2.686E+00	3.774E+00	3.127E-01	-0.369
		133.54	*	-2.769E-02	2.375E-01	3.840E-01	5.440E-02	-0.072
PM-144		476.78		3.539E-03	7.416E-02	1.232E-01	8.593E-03	0.029
		618.01		8.753E-03	3.667E-02	5.795E-02	3.619E-03	0.151
		696.49	*	2.623E-02	3.561E-02	6.154E-02	3.834E-03	0.426
		778.57		-1.126E+00	2.864E+00	3.801E+00	2.748E-01	-0.296
PR-144		696.49	*	1.777E+00	2.413E+00	4.170E+00	2.596E-01	0.426
		1489.15		-9.693E+00	1.171E+01	1.653E+01	1.172E+00	-0.586
PM-146		453.90	*	2.833E-02	4.785E-02	8.223E-02	7.081E-03	0.344
		633.02		-5.935E-01	1.643E+00	2.593E+00	9.550E-01	-0.229
		735.90		-6.812E-02	1.722E-01	2.692E-01	7.561E-02	-0.253
		747.13		1.627E-02	9.753E-02	1.609E-01	2.095E-02	0.101
ND-147	+	91.11		5.821E-01	3.511E-01	5.842E-01	5.396E-02	0.996
		319.41		4.373E-01	3.634E+00	6.133E+00	3.566E-01	0.071
		439.89		3.578E+00	6.595E+00	1.131E+01	6.498E-01	0.316
		531.02	*	4.209E-02	5.975E-01	9.903E-01	1.344E-01	0.043
PM-149		285.90	*	5.445E+00	9.967E+01	1.682E+02	2.385E+01	0.032
EU-152		121.78		-3.376E-02	8.755E-02	1.403E-01	1.086E-02	-0.241
		244.69		2.564E-01	4.200E-01	6.100E-01	3.466E-02	0.420
		344.27	*	-1.436E-01	1.245E-01	1.640E-01	1.067E-02	-0.876
		443.98		-5.232E-01	1.037E+00	1.663E+00	9.575E-02	-0.315
		778.89		-5.096E-02	3.139E-01	4.300E-01	3.109E-02	-0.119
		867.32		-4.936E-01	1.155E+00	1.518E+00	1.274E-01	-0.325
		964.01		2.715E-01	4.105E-01	6.094E-01	5.019E-02	0.446
		1085.78		2.741E-02	4.604E-01	7.741E-01	5.268E-02	0.035
		1112.02		-8.547E-02	3.914E-01	6.284E-01	4.042E-02	-0.136
		1407.95		6.636E-02	1.906E-01	3.286E-01	2.387E-02	0.202
GD-153		69.67		6.320E-01	2.820E+00	2.988E+00	2.299E-01	0.212
		83.37		5.795E+00	1.894E+01	2.744E+01	2.344E+00	0.211
		97.43	*	5.988E-02	9.653E-02	1.416E-01	1.102E-02	0.423
		103.18		-1.009E-01	1.184E-01	1.867E-01	1.352E-02	-0.541
EU-154		123.07		1.868E-02	6.047E-02	9.954E-02	9.443E-03	0.188
		247.94		1.647E-01	4.380E-01	6.608E-01	6.264E-02	0.249
		591.81		1.367E-01	7.042E-01	1.172E+00	1.155E-01	0.117
		723.30		-3.555E-01	2.515E-01	2.958E-01	2.278E-02	-1.202
		756.87		-1.430E-01	8.675E-01	1.390E+00	1.506E-01	-0.103
		873.19		2.143E-01	3.625E-01	6.139E-01	7.452E-02	0.349
		996.32		-4.166E-01	4.387E-01	6.272E-01	1.093E-01	-0.664
		1004.76		-2.689E-01	2.277E-01	3.366E-01	3.721E-02	-0.799
		1274.45	*	-7.219E-02	1.441E-01	2.280E-01	2.256E-02	-0.317
EU-155		48.70		1.117E+00	2.680E+00	3.980E+00	2.791E-01	0.281
		60.01		2.178E+00	6.011E+00	8.847E+00	6.656E-01	0.246
	+	86.54		2.981E-01	1.434E-01	2.162E-01	1.926E-02	1.378
		105.31	*	1.211E-01	1.207E-01	2.040E-01	1.468E-02	0.593
TB-160	+	86.79		7.976E-01	3.837E-01	5.759E-01	5.094E-02	1.385
		197.04		6.085E-01	6.232E-01	1.045E+00	5.659E-02	0.583
		215.65		-3.776E-01	9.553E-01	1.383E+00	7.651E-02	-0.273
	+	298.57		2.584E-01	1.728E-01	2.294E-01	1.334E-02	1.126
		879.36	*	-1.533E-01	1.646E-01	2.411E-01	2.062E-02	-0.636

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		4.376E-01	6.413E-01	1.061E+00	8.758E-02	0.412
		966.15		8.489E-01	3.058E-01	5.258E-01	4.319E-02	1.615
		1177.93		-1.271E-01	4.285E-01	6.971E-01	3.857E-02	-0.182
		1271.85		6.364E-01	8.157E-01	1.448E+00	9.593E-02	0.440
HO-166M		80.57		-5.649E-01	3.502E-01	4.630E-01	3.853E-02	-1.220
		184.41		1.530E-01	4.812E-02	7.738E-02	4.128E-03	1.977
		280.46		-3.147E-02	9.251E-02	1.533E-01	8.877E-03	-0.205
		410.95		2.430E-01	2.714E-01	4.738E-01	2.674E-02	0.513
		711.68	*	1.700E-02	6.646E-02	1.106E-01	7.082E-03	0.154
		752.31		-1.207E-01	3.019E-01	4.733E-01	3.265E-02	-0.255
		810.29		2.167E-02	6.498E-02	1.084E-01	8.278E-03	0.200
TM-171		51.35		-1.377E+01	3.537E+01	5.028E+01	3.667E+00	-0.274
		52.39		-1.631E+01	1.884E+01	2.606E+01	1.916E+00	-0.626
		59.40		1.842E+00	3.265E+01	4.741E+01	3.566E+00	0.039
		66.72	*	-1.572E+01	3.530E+01	4.996E+01	3.798E+00	-0.315
LU-176	+	88.36		5.870E-01	2.823E-01	4.282E-01	3.813E-02	1.371
		201.83		-6.574E-03	3.267E-02	5.014E-02	2.732E-03	-0.131
		306.84	*	-1.568E-02	2.915E-02	4.476E-02	2.604E-03	-0.350
		401.10		-3.298E-01	7.153E+00	1.188E+01	6.656E-01	-0.028
LU-177		112.95		5.278E-01	1.855E+00	3.057E+00	1.991E-01	0.173
	+	208.36	*	3.846E+00	2.082E+00	2.304E+00	1.265E-01	1.669
LU-177M		52.97		-2.581E+00	2.008E+00	2.711E+00	2.000E-01	-0.952
		54.07		-9.557E-01	9.440E-01	1.442E+00	1.069E-01	-0.663
		61.30		1.009E+00	1.788E+00	2.652E+00	1.995E-01	0.380
		121.62		-1.759E-01	4.492E-01	7.199E-01	4.304E-02	-0.244
		147.16		2.556E-02	7.652E-01	1.242E+00	6.817E-02	0.021
		171.86		-4.558E-01	5.581E-01	8.683E-01	4.561E-02	-0.525
		218.09		4.448E-01	9.899E-01	1.620E+00	8.988E-02	0.275
	+	268.79		3.558E+00	1.749E+00	1.763E+00	1.016E-01	2.018
		319.02		1.056E-01	2.772E-01	4.741E-01	2.755E-02	0.223
		367.43		-6.457E-01	1.027E+00	1.654E+00	9.403E-02	-0.391
		413.65	*	-1.719E-01	1.956E-01	3.077E-01	1.739E-02	-0.559
HF-181		56.28		2.903E-01	1.026E+00	1.711E+00	1.278E-01	0.170
		57.53		5.999E-01	5.934E-01	9.430E-01	7.064E-02	0.636
		65.20		1.525E+00	1.181E+00	1.793E+00	1.357E-01	0.850
		133.02		-4.706E-02	7.706E-02	1.221E-01	6.988E-03	-0.385
		136.25		-2.560E-01	5.225E-01	8.312E-01	4.709E-02	-0.308
		345.85		-3.075E-01	2.433E-01	3.167E-01	1.825E-02	-0.971
		482.03	*	-1.729E-02	4.758E-02	7.679E-02	4.494E-03	-0.225
W-181		56.28		1.279E-01	4.005E-01	6.684E-01	4.992E-02	0.191
		57.53		2.346E-01	2.320E-01	3.687E-01	2.762E-02	0.636
		65.20	*	5.914E-01	4.580E-01	6.955E-01	5.264E-02	0.850
TA-182		67.75		-7.969E-02	1.384E-01	1.946E-01	1.485E-02	-0.409
		100.10		-4.730E-02	1.916E-01	3.100E-01	2.330E-02	-0.153
		152.43		1.717E-01	3.955E-01	6.511E-01	3.523E-02	0.264
		222.10		1.400E-01	4.097E-01	6.670E-01	3.716E-02	0.210
		1001.68		6.104E-01	2.338E+00	3.862E+00	3.030E-01	0.158
	+	1121.28		7.466E-01	2.509E-01	4.097E-01	2.580E-02	1.822
		1189.05		-3.712E-01	3.707E-01	5.666E-01	3.206E-02	-0.655

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1221.42	*	-1.139E-01	2.488E-01	3.999E-01	2.412E-02	-0.285
		1230.97		7.040E-02	6.391E-01	9.953E-01	6.112E-02	0.071
RE-183		57.98		3.070E-01	2.402E-01	3.676E-01	2.757E-02	0.835
		59.32		3.705E-03	1.344E-01	1.949E-01	1.466E-02	0.019
		67.20		-1.901E-01	2.506E-01	3.491E-01	2.659E-02	-0.544
		162.32	*	5.319E-02	1.245E-01	2.048E-01	1.079E-02	0.260
	+	208.81		3.398E+00	1.840E+00	2.050E+00	1.126E-01	1.658
		291.72		-5.698E-02	1.095E+00	1.598E+00	9.283E-02	-0.036
RE-184		57.98		1.130E+00	8.842E-01	1.353E+00	1.015E-01	0.835
		59.32		1.363E-02	4.944E-01	7.169E-01	5.392E-02	0.019
		67.20		-6.995E-01	9.221E-01	1.285E+00	9.783E-02	-0.544
		161.27		5.489E-03	4.041E-01	6.538E-01	3.454E-02	0.008
		216.55		-6.510E-02	3.243E-01	4.967E-01	2.751E-02	-0.131
		252.85	*	-1.138E-02	2.647E-01	4.218E-01	2.411E-02	-0.027
		318.01		9.544E-02	4.773E-01	8.091E-01	4.702E-02	0.118
		792.07		6.781E-01	1.810E+00	1.836E+00	1.358E-01	0.369
		903.28		1.507E-01	1.089E+00	1.733E+00	1.519E-01	0.087
		920.93		9.388E-02	5.367E-01	8.784E-01	7.578E-02	0.107
OS-185		59.72		6.483E-02	3.613E-01	5.274E-01	3.968E-02	0.123
		61.14		9.968E-02	1.960E-01	2.901E-01	2.182E-02	0.344
		69.30		2.215E-02	5.064E-01	5.292E-01	4.065E-02	0.042
		592.07		6.130E-01	2.882E+00	4.805E+00	2.848E-01	0.128
		646.12	*	3.541E-02	4.943E-02	8.511E-02	4.985E-03	0.416
		717.42		9.512E-01	1.082E+00	1.875E+00	1.214E-01	0.507
		874.81		-4.244E-02	7.109E-01	1.142E+00	9.695E-02	-0.037
		880.27		-9.746E-01	9.231E-01	1.332E+00	1.141E-01	-0.732
RE-188		155.03	*	3.338E-02	2.047E-01	3.334E-01	1.791E-02	0.100
		477.96		1.361E+00	3.373E+00	5.732E+00	3.349E-01	0.238
		633.10		-1.317E+00	3.289E+00	5.221E+00	3.070E-01	-0.252
W-188	+	63.58		9.604E+01	9.699E+01	9.993E+01	7.536E+00	0.961
		227.08		-7.124E+00	1.533E+01	2.403E+01	1.345E+00	-0.296
		290.67	*	1.008E+00	8.445E+00	1.248E+01	7.251E-01	0.081
IR-192	+	295.96		1.045E+00	2.174E-01	3.033E-01	1.791E-02	3.445
		308.46		6.396E-03	1.064E-01	1.792E-01	1.054E-02	0.036
		316.51	*	2.246E-03	3.748E-02	6.308E-02	3.685E-03	0.036
		468.07		-5.547E-03	8.171E-02	1.167E-01	7.822E-03	-0.048
		604.41		6.433E-01	5.463E-01	8.632E-01	9.849E-02	0.745
		612.46		2.438E+00	1.025E+00	1.719E+00	1.316E-01	1.419
AU-195	+	65.12		3.313E-01	3.345E-01	3.231E-01	2.445E-02	1.025
		66.83		-5.517E-02	1.167E-01	1.649E-01	1.254E-02	-0.335
	+	75.70		1.430E+00	3.548E-01	5.309E-01	4.242E-02	2.693
		98.88	*	3.861E-02	2.665E-01	4.020E-01	3.068E-02	0.096
		129.76		3.497E+00	3.342E+00	5.631E+00	3.257E-01	0.621
TL-200		367.94	*	-2.023E-04	3.342E+00	Half-Life too short		
		579.30		1.211E-03	3.342E+00	Half-Life too short		
		828.27		9.134E-03	3.342E+00	Half-Life too short		
		1205.75		-1.203E-03	3.342E+00	Half-Life too short		
TL-201		68.90		-3.790E-01	8.491E+00	8.812E+00	6.757E-01	-0.043
		70.82		2.793E+00	3.736E+00	5.199E+00	4.024E-01	0.537

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		80.30		-6.014E+00	6.569E+00	9.037E+00	7.501E-01	-0.665
		135.34		5.248E+00	2.993E+01	4.893E+01	2.780E+00	0.107
		167.43	*	5.630E+00	8.157E+00	1.356E+01	7.084E-01	0.415
TL-202		68.90		-3.303E-02	7.400E-01	7.679E-01	5.888E-02	-0.043
		70.82		2.427E-01	3.247E-01	4.518E-01	3.498E-02	0.537
		80.30		-5.228E-01	5.711E-01	7.856E-01	6.521E-02	-0.665
		439.56	*	3.540E-02	7.844E-02	1.338E-01	7.683E-03	0.265
HG-203		70.83		1.351E+00	1.301E+00	1.944E+00	2.540E-01	0.695
		72.87		2.705E+00	8.861E-01	1.323E+00	1.680E-01	2.045
		82.60		-9.023E-01	1.710E+00	1.998E+00	2.728E-01	-0.452
		279.20	*	3.119E-02	4.379E-02	7.608E-02	4.678E-03	0.410
BI-207		72.80		7.643E-01	2.438E-01	3.823E-01	2.994E-02	1.999
	+	74.97		7.924E-01	1.966E-01	2.695E-01	2.142E-02	2.940
		84.90		5.050E-01	2.490E-01	3.801E-01	3.297E-02	1.329
	+	569.67		1.338E-01	7.316E-02	8.504E-02	5.048E-03	1.573
		1063.62	*	-3.686E-02	5.978E-02	9.563E-02	6.790E-03	-0.385
		1770.23		4.075E-01	4.336E-01	7.847E-01	4.733E-02	0.519
TL-207		81.07		-5.753E-01	3.078E-01	3.675E-01	3.071E-02	-1.566
		83.78		5.626E-02	1.609E-01	2.334E-01	2.002E-02	0.241
		94.90		5.918E-01	2.934E-01	4.542E-01	3.657E-02	1.303
		122.32		-2.202E-01	2.050E+00	3.323E+00	2.269E-01	-0.066
		144.24		1.379E-01	8.071E-01	1.289E+00	9.049E-02	0.107
		154.21		1.056E-01	4.670E-01	7.626E-01	5.090E-02	0.138
	+	269.46		8.323E-01	4.094E-01	4.169E-01	2.515E-02	1.996
		323.87	*	1.380E-01	7.748E-01	1.146E+00	1.893E-01	0.120
	+	338.28		6.428E+00	1.930E+00	2.802E+00	2.948E-01	2.294
		445.03		-3.146E-01	2.458E+00	4.044E+00	4.144E-01	-0.078
PO-209		260.50		-5.398E+00	1.081E+01	1.676E+01	9.622E-01	-0.322
		262.80		-2.280E+01	3.568E+01	4.714E+01	2.710E+00	-0.484
		896.60	*	-4.968E-01	8.413E+00	1.349E+01	1.186E+00	-0.037
PB-211		404.84	*	-7.836E-01	1.148E+00	1.653E+00	1.030E+00	-0.474
		427.08		1.956E+00	2.518E+00	3.872E+00	2.393E+00	0.505
		831.96		-1.106E+00	1.654E+00	2.234E+00	1.398E+00	-0.495
PO-215		81.07		-5.753E-01	3.078E-01	3.675E-01	3.071E-02	-1.566
		83.78		5.626E-02	1.609E-01	2.334E-01	2.002E-02	0.241
		94.90		5.918E-01	2.934E-01	4.542E-01	3.657E-02	1.303
		122.32		-2.202E-01	2.050E+00	3.323E+00	2.269E-01	-0.066
		144.24		1.379E-01	8.071E-01	1.289E+00	9.049E-02	0.107
		154.21		1.056E-01	4.670E-01	7.626E-01	5.090E-02	0.138
	+	269.46		8.323E-01	4.094E-01	4.169E-01	2.515E-02	1.996
		323.87	*	1.380E-01	7.748E-01	1.146E+00	1.893E-01	0.120
	+	338.28		6.428E+00	1.930E+00	2.802E+00	2.948E-01	2.294
		445.03		-3.146E-01	2.458E+00	4.044E+00	4.144E-01	-0.078
RN-219	+	271.23		1.068E+00	5.284E-01	5.225E-01	4.224E-02	2.044
		401.81	*	-4.990E-02	4.456E-01	7.369E-01	9.966E-02	-0.068
RN-220		549.76	*	-8.446E+00	2.789E+01	4.486E+01	2.662E+00	-0.188
RA-223		81.07		-5.753E-01	3.078E-01	3.675E-01	3.071E-02	-1.566
		83.78		5.626E-02	1.609E-01	2.334E-01	2.002E-02	0.241
		94.90		5.918E-01	2.934E-01	4.542E-01	3.657E-02	1.303

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-2.202E-01	2.050E+00	3.323E+00	2.269E-01	-0.066
		144.24		1.379E-01	8.071E-01	1.289E+00	9.049E-02	0.107
		154.21		1.056E-01	4.670E-01	7.626E-01	5.090E-02	0.138
	+	269.46		8.323E-01	4.094E-01	4.169E-01	2.515E-02	1.996
		323.87	*	1.380E-01	7.748E-01	1.146E+00	1.893E-01	0.120
	+	338.28		6.428E+00	1.930E+00	2.802E+00	2.948E-01	2.294
		445.03		-3.146E-01	2.458E+00	4.044E+00	4.144E-01	-0.078
AC-227		79.80		2.629E+00	2.110E+00	3.091E+00	6.603E-01	0.851
		236.00		2.077E+00	4.207E-01	6.390E-01	6.624E-02	3.251
		256.20	*	-1.042E-02	4.338E-01	6.917E-01	9.635E-02	-0.015
		286.10		1.214E-01	1.579E+00	2.667E+00	3.084E-01	0.046
	+	299.80		3.285E+00	2.253E+00	2.953E+00	4.810E-01	1.113
		304.40		1.367E+00	2.270E+00	3.448E+00	5.966E-01	0.397
		334.20		-2.043E+00	4.509E+00	4.108E+00	7.530E-01	-0.497
TH-227		79.80		2.629E+00	2.112E+00	3.091E+00	6.688E-01	0.851
	+	94.00		3.990E+00	2.830E+00	4.091E+00	8.835E-01	0.975
		236.00		2.077E+00	4.065E-01	6.390E-01	5.724E-02	3.251
		256.20	*	-1.042E-02	4.338E-01	6.917E-01	1.167E-01	-0.015
		286.10		1.214E-01	1.583E+00	2.667E+00	2.672E+00	0.046
	+	299.80		3.285E+00	2.253E+00	2.953E+00	4.810E-01	1.113
		304.40		1.367E+00	2.270E+00	3.448E+00	5.966E-01	0.397
		334.20		-2.043E+00	4.509E+00	4.108E+00	7.530E-01	-0.497
TH-229		85.43		7.389E-01	2.548E-01	3.942E-01	3.438E-02	1.874
	+	88.47		3.379E-01	1.625E-01	2.454E-01	2.181E-02	1.377
		100.00		-3.725E-02	1.991E-01	3.230E-01	2.430E-02	-0.115
		193.63	*	-4.302E-01	6.035E-01	9.032E-01	4.873E-02	-0.476
		210.97		1.612E+00	1.006E+00	1.536E+00	8.456E-02	1.049
PA-231		283.67	*	-1.757E-01	1.644E+00	2.691E+00	3.708E-01	-0.065
	+	301.29		1.314E+00	8.862E-01	1.198E+00	1.253E-01	1.097
TH-231		81.07		-5.753E-01	3.078E-01	3.675E-01	3.071E-02	-1.566
		83.78		5.626E-02	1.609E-01	2.334E-01	2.002E-02	0.241
		94.90		5.918E-01	2.934E-01	4.542E-01	3.657E-02	1.303
		122.32		-2.202E-01	2.050E+00	3.323E+00	2.269E-01	-0.066
		144.24		1.379E-01	8.071E-01	1.289E+00	9.049E-02	0.107
		154.21		1.056E-01	4.670E-01	7.626E-01	5.090E-02	0.138
	+	269.46		8.323E-01	4.094E-01	4.169E-01	2.515E-02	1.996
		323.87	*	1.380E-01	7.748E-01	1.146E+00	1.893E-01	0.120
	+	338.28		6.428E+00	1.930E+00	2.802E+00	2.948E-01	2.294
		445.03		-3.146E-01	2.458E+00	4.044E+00	4.144E-01	-0.078
U-231		84.21		5.137E+00	7.165E+00	1.054E+01	9.078E-01	0.487
	+	92.29		4.062E+00	2.764E+00	4.428E+00	3.703E-01	0.917
		95.87	*	4.840E-02	1.386E+00	1.990E+00	1.581E-01	0.024
		108.00		6.885E-01	2.391E+00	3.944E+00	2.705E-01	0.175
PA-233	+	75.28		2.312E+01	6.446E+00	8.192E+00	1.228E+00	2.823
	+	86.59		4.845E+00	2.635E+00	3.511E+00	9.441E-01	1.380
	+	300.12		9.158E-01	6.225E-01	8.269E-01	1.112E-01	1.108
		311.98	*	3.733E-02	6.862E-02	1.184E-01	7.307E-03	0.315
		340.50		2.920E+00	1.088E+00	1.498E+00	3.439E-01	1.950
		398.62		1.261E+00	2.226E+00	3.794E+00	9.792E-01	0.332

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-1.725E-01	1.747E+00	2.888E+00	5.934E-01	-0.060
PA-234	+	63.00		2.780E+00	2.830E+00	2.929E+00	4.372E-01	0.949
		94.67		5.687E-01	2.201E-01	3.366E-01	4.049E-02	1.690
		98.44		5.470E-02	1.118E-01	1.651E-01	9.185E-02	0.331
		99.86		-2.023E-01	5.113E-01	8.226E-01	6.201E-02	-0.246
		111.00		-1.187E-01	2.104E-01	3.351E-01	3.608E-02	-0.354
		131.20		1.888E-03	1.246E-01	2.026E-01	1.166E-02	0.009
		152.70		2.822E-01	3.826E-01	6.331E-01	9.920E-02	0.446
	+	186.00		4.327E+00	2.841E+00	2.857E+00	8.707E-01	1.514
		226.40		-1.216E-01	4.778E-01	7.562E-01	8.665E-02	-0.161
		227.20		-1.041E-04	5.060E-01	8.106E-01	4.538E-02	0.000
		248.90		2.083E-01	9.382E-01	1.515E+00	3.251E-01	0.138
	+	293.70		6.566E+00	1.683E+00	1.852E+00	2.980E-01	3.545
		369.80		9.759E-02	9.557E-01	1.604E+00	3.336E-01	0.061
	+	568.70		4.354E+00	2.381E+00	2.838E+00	1.684E-01	1.534
	+	569.50		1.187E+00	6.493E-01	7.590E-01	4.505E-02	1.564
		574.00		1.023E+00	1.997E+00	2.840E+00	1.685E-01	0.360
		699.00		-5.440E-01	7.649E-01	1.162E+00	2.107E-01	-0.468
		706.10		2.723E-01	1.098E+00	1.816E+00	8.027E-01	0.150
		733.00		-2.611E-01	5.219E-01	6.748E-01	1.452E-01	-0.387
		742.81		-5.931E-01	1.565E+00	2.378E+00	1.594E+00	-0.249
	+	796.30		2.005E+00	1.761E+00	1.994E+00	5.324E-01	1.006
		805.60		-7.291E-02	1.105E+00	1.781E+00	5.408E-01	-0.041
		819.60		4.517E-01	1.348E+00	2.234E+00	8.455E-01	0.202
		826.30		3.142E-01	1.017E+00	1.672E+00	7.459E-01	0.188
		831.60		-4.829E-01	7.702E-01	1.158E+00	3.434E-01	-0.417
		876.40		8.634E-01	1.305E+00	1.672E+00	1.718E+00	0.517
		880.51		-3.208E-01	3.304E-01	4.813E-01	4.124E-02	-0.667
		883.24		1.337E-01	3.359E-01	5.427E-01	3.648E-01	0.246
		899.00		2.208E-01	9.143E-01	1.501E+00	6.568E-01	0.147
		925.00		-6.494E-01	1.395E+00	2.144E+00	1.843E-01	-0.303
		926.50		-1.204E-01	2.127E-01	3.206E-01	8.100E-02	-0.375
		946.00	*	-7.176E-02	3.499E-01	5.513E-01	1.029E-01	-0.130
		949.00		3.709E-01	5.178E-01	8.866E-01	7.429E-02	0.418
		980.50		-1.018E-01	8.542E-01	1.356E+00	1.094E-01	-0.075
		1394.10		7.422E-01	1.403E+00	2.324E+00	1.509E+00	0.319
PA-234M		766.42		2.064E+01	1.668E+01	2.361E+01	1.192E+01	0.874
		1001.03	*	3.398E+00	5.271E+00	8.964E+00	8.344E-01	0.379
U-235	+	89.95		2.292E+00	1.538E+00	2.168E+00	6.695E-01	1.057
	+	93.35		1.241E+00	9.071E-01	1.297E+00	3.620E-01	0.957
		105.00		1.313E+00	1.244E+00	2.010E+00	5.917E-01	0.653
		143.76	*	-6.857E-02	2.495E-01	3.911E-01	6.341E-02	-0.175
		163.35		-1.925E-02	5.281E-01	8.524E-01	1.518E-01	-0.023
	+	185.71		1.603E-01	9.360E-02	1.062E-01	5.677E-03	1.508
		205.31		-3.959E-02	6.455E-01	9.013E-01	1.611E-01	-0.044
NP-236		94.67		4.334E-01	1.625E-01	2.555E-01	2.064E-02	1.696
		98.44		4.138E-02	8.139E-02	1.248E-01	9.577E-03	0.332
		111.00		-8.979E-02	1.590E-01	2.535E-01	1.684E-02	-0.354
		160.31	*	7.148E-03	9.190E-02	1.491E-01	7.898E-03	0.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		-5.616E-02	1.708E-01	2.755E-01	2.085E-02	-0.204
		117.00	*	6.856E-02	2.230E-01	3.674E-01	2.298E-02	0.187
	+	209.75		2.676E+00	1.449E+00	1.606E+00	8.832E-02	1.666
		228.18		1.357E-01	2.632E-01	4.316E-01	2.419E-02	0.314
		277.60		1.860E-01	2.122E-01	3.421E-01	1.979E-02	0.544
		334.30		-1.064E+00	2.550E+00	2.345E+00	1.357E-01	-0.454
AM-241		59.54	*	2.096E-02	1.899E-01	2.763E-01	2.275E-02	0.076
CM-243		99.55		-5.779E-02	1.757E-01	2.835E-01	2.146E-02	-0.204
		103.76	*	1.804E-03	1.078E-01	1.762E-01	1.267E-02	0.010
		117.00		7.054E-02	2.294E-01	3.780E-01	2.364E-02	0.187
	+	209.75		2.638E+00	1.428E+00	1.583E+00	8.706E-02	1.666
		228.18		1.371E-01	2.659E-01	4.361E-01	2.444E-02	0.314
		277.60		1.876E-01	2.140E-01	3.449E-01	1.996E-02	0.544
AM-246		798.80		-2.950E-03	1.807E-01	2.523E-01	1.889E-02	-0.012
		1036.00		5.058E-02	3.373E-01	5.728E-01	4.266E-02	0.088
		1062.04		-9.846E-02	2.542E-01	4.109E-01	2.927E-02	-0.240
		1078.86	*	7.655E-02	1.667E-01	2.892E-01	1.995E-02	0.265
CM-247		278.00		8.799E-01	8.419E-01	1.413E+00	8.177E-02	0.623
		287.40		3.781E-01	1.317E+00	2.131E+00	1.237E-01	0.177
		402.60	*	-7.928E-03	4.018E-02	6.611E-02	3.708E-03	-0.120
CF-249		252.85		-4.267E-02	9.927E-01	1.582E+00	9.040E-02	-0.027
		333.44		2.185E-02	3.173E-01	3.141E-01	1.819E-02	0.070
		387.95	*	1.080E-02	4.072E-02	6.899E-02	3.853E-03	0.156
CF-251		176.60	*	-4.070E-02	1.505E-01	2.400E-01	1.268E-02	-0.170
		227.00		-2.134E-01	4.593E-01	7.197E-01	4.029E-02	-0.296
		285.00		-1.433E+00	1.839E+00	2.970E+00	1.722E-01	-0.483

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799019      *
* Acquisition date : 10-FEB-2010 19:13:31 Detector SN#     :               *
* Detector ID        : GAM19               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.62      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245799019           Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.2055E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.848E+01	3.479E+00	6.308E-01	0.000E+00
CD-109	2.519E+00	1.187E+00	1.479E+00	0.000E+00
SN-126	2.475E-01	1.167E-01	1.459E-01	0.000E+00
TL-208	6.065E-01	9.767E-02	6.523E-02	0.000E+00
BI-210	3.780E+00	5.838E+00	5.965E+00	0.000E+00
PB-210	3.780E+00	5.838E+00	5.965E+00	0.000E+00
PO-210	3.780E+00	5.836E+00	5.965E+00	0.000E+00
BI-211	3.700E+00	5.277E-01	3.657E-01	0.000E+00
BI-212	1.162E+00	4.985E-01	5.016E-01	0.000E+00
PB-212	1.744E+00	1.736E-01	1.035E-01	0.000E+00
PO-212	1.744E+00	1.736E-01	1.035E-01	0.000E+00
BI-214	1.241E+00	1.973E-01	1.247E-01	0.000E+00
PB-214	1.287E+00	1.950E-01	1.356E-01	0.000E+00
PO-214	1.287E+00	1.950E-01	1.356E-01	0.000E+00
PO-216	1.744E+00	1.736E-01	1.035E-01	0.000E+00
PO-218	1.287E+00	1.950E-01	1.356E-01	0.000E+00
RA-224	4.307E+00	1.450E+00	1.177E+00	0.000E+00
RA-226	1.241E+00	1.973E-01	1.247E-01	0.000E+00
AC-228	1.899E+00	3.734E-01	2.095E-01	0.000E+00
RA-228	1.899E+00	3.734E-01	2.095E-01	0.000E+00
TH-228	1.771E+00	1.763E-01	1.051E-01	0.000E+00
TH-230	1.241E+00	1.973E-01	1.247E-01	0.000E+00
TH-232	1.899E+00	3.734E-01	2.095E-01	0.000E+00
TH-234	2.385E+00	2.389E+00	2.304E+00	0.000E+00
U-234	1.241E+00	1.973E-01	1.247E-01	0.000E+00
NP-237	7.267E-01	3.728E-01	4.649E-01	0.000E+00
U-238	2.385E+00	2.389E+00	2.304E+00	0.000E+00
AM-243	4.415E-01	1.074E-01	1.009E-01	0.000E+00
ANH-511	1.241E-01	7.140E-02	5.451E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	-3.335E-02	3.490E-01	5.924E-01	0.000E+00	NOT IDENT.
NA-22	-2.461E-02	5.065E-02	8.197E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.646E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-3.997E-02	3.013E-02	3.370E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.065E-02	9.441E-02	0.000E+00	FAIL ABUN
SC-46	1.041E-03	4.618E-02	7.648E-02	0.000E+00	FAIL ABUN
V-48	-3.459E-02	8.258E-02	1.301E-01	0.000E+00	NOT IDENT.
CR-51	3.672E-02	3.901E-01	6.818E-01	0.000E+00	NOT IDENT.
MN-52	3.922E-03	2.602E-01	4.381E-01	0.000E+00	NOT IDENT.
MN-54	-2.405E-02	4.321E-02	6.831E-02	0.000E+00	NOT IDENT.
CO-56	-3.791E-02	4.572E-02	7.001E-02	0.000E+00	FAIL ABUN
CO-57	-8.953E-03	2.938E-02	4.956E-02	0.000E+00	NOT IDENT.
CO-58	1.396E-02	4.199E-02	7.184E-02	0.000E+00	NOT IDENT.
FE-59	3.739E-02	1.006E-01	1.772E-01	0.000E+00	NOT IDENT.
CO-60	-3.339E-02	4.275E-02	6.565E-02	0.000E+00	NOT IDENT.
ZN-65	9.065E-02	1.126E-01	1.808E-01	0.000E+00	NOT IDENT.
GE-68	6.600E-01	1.419E+00	2.516E+00	0.000E+00	NOT IDENT.
AS-73	-7.810E-01	9.266E-01	1.443E+00	0.000E+00	NOT IDENT.
AS-74	-1.937E-02	9.979E-02	1.662E-01	0.000E+00	NOT IDENT.
SE-75	1.148E-02	5.311E-02	8.231E-02	0.000E+00	NOT IDENT.
BR-77	2.873E+00	1.197E+01	2.070E+01	0.000E+00	FAIL ABUN
SR-82	-1.723E-01	4.031E-01	6.453E-01	0.000E+00	NOT IDENT.
RB-83	7.845E-03	7.589E-02	1.300E-01	0.000E+00	NOT IDENT.
RB-84	-3.650E-02	7.774E-02	1.226E-01	0.000E+00	NOT IDENT.
KR-85	8.605E+00	9.044E+00	1.441E+01	0.000E+00	NOT IDENT.
SR-85	4.421E-02	4.646E-02	7.402E-02	0.000E+00	NOT IDENT.
RB-86	4.938E-01	8.853E-01	1.583E+00	0.000E+00	NOT IDENT.
Y-88	2.627E-04	3.102E-02	5.139E-02	0.000E+00	NOT IDENT.
ZR-88	-8.977E-04	3.059E-02	5.264E-02	0.000E+00	NOT IDENT.
Y-91	-1.142E+01	2.244E+01	3.665E+01	0.000E+00	NOT IDENT.
NB-94	1.865E-04	3.527E-02	5.910E-02	0.000E+00	NOT IDENT.
NB-95	2.200E-02	4.877E-02	8.395E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.774E-01	2.915E-01	0.000E+00	NOT IDENT.
ZR-95	-1.524E-03	7.862E-02	1.309E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.249E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.576E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	5.803E+00	1.357E+01	2.340E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.216E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.822E-02	3.673E-02	6.156E-02	0.000E+00	NOT IDENT.
RH-102	-2.653E-02	3.169E-02	5.107E-02	0.000E+00	NOT IDENT.
RU-103	4.248E-02	4.441E-02	7.991E-02	0.000E+00	FAIL ABUN
RH-106	-7.562E-02	3.342E-01	5.532E-01	0.000E+00	FAIL ABUN
RU-106	-7.562E-02	3.342E-01	5.532E-01	0.000E+00	FAIL ABUN
AG-108M	2.937E-03	3.516E-02	6.065E-02	0.000E+00	NOT IDENT.
AG-110M	2.404E-03	3.746E-02	6.328E-02	0.000E+00	NOT IDENT.
IN-111	7.729E-01	1.343E+00	2.027E+00	0.000E+00	NOT IDENT.
IN-113M	1.241E-02	4.399E-02	7.715E-02	0.000E+00	NOT IDENT.
SN-113	1.241E-02	4.399E-02	7.715E-02	0.000E+00	NOT IDENT.
IN-114M	6.568E-02	2.227E-01	3.325E-01	0.000E+00	NOT IDENT.
CD-115	3.601E+00	1.179E+01	2.049E+01	0.000E+00	NOT IDENT.
SN-117M	-2.187E-02	6.407E-02	1.069E-01	0.000E+00	NOT IDENT.
SB-122	5.296E-01	2.833E+00	4.232E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.357E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-8.921E-03	3.273E-02	5.475E-02	0.000E+00	NOT IDENT.
I-124	1.299E+00	7.877E-01	1.341E+00	0.000E+00	NOT IDENT.
SB-124	2.265E-02	7.962E-02	1.388E-01	0.000E+00	FAIL ABUN
SB-125	-1.715E-02	9.592E-02	1.628E-01	0.000E+00	FAIL ABUN
TE-125M	-5.141E+00	1.039E+01	1.746E+01	0.000E+00	NOT IDENT.
I-126	4.358E-02	1.930E-01	3.299E-01	0.000E+00	NOT IDENT.
SB-126	1.135E-01	1.763E-01	3.011E-01	0.000E+00	FAIL ABUN
SB-127	5.088E-01	1.546E+00	2.659E+00	0.000E+00	NOT IDENT.
XE-127	-1.649E-02	5.846E-02	8.394E-02	0.000E+00	NOT IDENT.
I-131	8.747E-02	1.244E-01	2.233E-01	0.000E+00	NOT IDENT.
TE-132	4.337E-01	8.220E-01	1.400E+00	0.000E+00	NOT IDENT.
BA-133	4.400E-02	5.389E-02	8.577E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.181E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.032E-01	8.497E-02	1.033E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.805E-01	3.378E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.049E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.854E-02	1.282E-01	2.101E-01	0.000E+00	FAIL ABUN
BA-137M	-2.488E-02	3.799E-02	6.045E-02	0.000E+00	NOT IDENT.
CS-137	-2.630E-02	4.016E-02	6.390E-02	0.000E+00	NOT IDENT.
CE-139	-1.602E-02	3.311E-02	5.476E-02	0.000E+00	NOT IDENT.
BA-140	5.375E-04	2.705E-01	4.596E-01	0.000E+00	NOT IDENT.
LA-140	-8.082E-02	9.371E-02	1.358E-01	0.000E+00	FAIL ABUN
CE-141	4.700E-02	7.255E-02	1.233E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	3.045E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.769E-02	2.328E-01	3.943E-01	0.000E+00	NOT IDENT.
PM-144	2.623E-02	3.489E-02	6.196E-02	0.000E+00	NOT IDENT.
PR-144	1.777E+00	2.365E+00	4.199E+00	0.000E+00	NOT IDENT.
PM-146	2.833E-02	4.689E-02	8.321E-02	0.000E+00	NOT IDENT.
ND-147	4.209E-02	5.855E-01	1.000E+00	0.000E+00	FAIL ABUN
PM-149	5.445E+00	9.768E+01	1.712E+02	0.000E+00	NOT IDENT.
EU-152	-1.436E-01	1.220E-01	1.665E-01	0.000E+00	NOT IDENT.
GD-153	5.988E-02	9.460E-02	1.460E-01	0.000E+00	NOT IDENT.
EU-154	-7.219E-02	1.412E-01	2.278E-01	0.000E+00	NOT IDENT.
EU-155	1.211E-01	1.183E-01	2.100E-01	0.000E+00	FAIL ABUN
TB-160	-1.533E-01	1.613E-01	2.420E-01	0.000E+00	FAIL ABUN
HO-166M	1.700E-02	6.513E-02	1.113E-01	0.000E+00	NOT IDENT.
TM-171	-1.572E+01	3.460E+01	5.171E+01	0.000E+00	NOT IDENT.
LU-176	-1.568E-02	2.856E-02	4.551E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.040E+00	2.354E+00	0.000E+00	FAIL ABUN
LU-177M	-1.719E-01	1.917E-01	3.117E-01	0.000E+00	FAIL ABUN
HF-181	-1.729E-02	4.663E-02	7.765E-02	0.000E+00	NOT IDENT.
W-181	5.914E-01	4.489E-01	7.201E-01	0.000E+00	NOT IDENT.
TA-182	-1.139E-01	2.438E-01	3.999E-01	0.000E+00	FAIL ABUN
RE-183	5.319E-02	1.220E-01	2.098E-01	0.000E+00	FAIL ABUN
RE-184	-1.138E-02	2.595E-01	4.299E-01	0.000E+00	NOT IDENT.
OS-185	3.541E-02	4.844E-02	8.577E-02	0.000E+00	NOT IDENT.
RE-188	3.338E-02	2.006E-01	3.417E-01	0.000E+00	NOT IDENT.
W-188	1.008E+00	8.276E+00	1.270E+01	0.000E+00	FAIL ABUN
IR-192	2.246E-03	3.673E-02	6.411E-02	0.000E+00	FAIL ABUN
AU-195	3.861E-02	2.612E-01	4.142E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.689E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.630E+00	7.994E+00	1.388E+01	0.000E+00	NOT IDENT.
TL-202	3.540E-02	7.687E-02	1.354E-01	0.000E+00	NOT IDENT.
HG-203	3.119E-02	4.291E-02	7.744E-02	0.000E+00	NOT IDENT.
BI-207	-3.686E-02	5.858E-02	9.578E-02	0.000E+00	FAIL ABUN
TL-207	1.380E-01	7.593E-01	1.164E+00	0.000E+00	FAIL ABUN
PO-209	-4.968E-01	8.245E+00	1.354E+01	0.000E+00	NOT IDENT.
PB-211	-7.836E-01	1.125E+00	1.676E+00	0.000E+00	NOT IDENT.
PO-215	1.380E-01	7.593E-01	1.164E+00	0.000E+00	FAIL ABUN
RN-219	-4.990E-02	4.366E-01	7.468E-01	0.000E+00	FAIL ABUN
RN-220	-8.446E+00	2.733E+01	4.530E+01	0.000E+00	NOT IDENT.
RA-223	1.380E-01	7.593E-01	1.164E+00	0.000E+00	FAIL ABUN
AC-227	-1.042E-02	4.252E-01	7.048E-01	0.000E+00	FAIL ABUN
TH-227	-1.042E-02	4.252E-01	7.048E-01	0.000E+00	FAIL ABUN
TH-229	-4.302E-01	5.914E-01	9.233E-01	0.000E+00	FAIL ABUN
PA-231	-1.757E-01	1.611E+00	2.739E+00	0.000E+00	FAIL ABUN
TH-231	1.380E-01	7.593E-01	1.164E+00	0.000E+00	FAIL ABUN
U-231	4.840E-02	1.359E+00	2.051E+00	0.000E+00	FAIL ABUN
PA-233	3.733E-02	6.725E-02	1.203E-01	0.000E+00	FAIL ABUN
PA-234	-7.176E-02	3.429E-01	5.530E-01	0.000E+00	FAIL ABUN
PA-234M	3.398E+00	5.166E+00	8.985E+00	0.000E+00	NOT IDENT.
U-235	-6.857E-02	2.445E-01	4.012E-01	0.000E+00	FAIL ABUN
NP-236	7.148E-03	9.006E-02	1.528E-01	0.000E+00	NOT IDENT.
NP-239	6.856E-02	2.185E-01	3.778E-01	0.000E+00	FAIL ABUN
AM-241	2.096E-02	1.861E-01	2.864E-01	0.000E+00	NOT IDENT.
CM-243	1.804E-03	1.057E-01	1.815E-01	0.000E+00	FAIL ABUN
AM-246	7.655E-02	1.633E-01	2.897E-01	0.000E+00	NOT IDENT.
CM-247	-7.928E-03	3.937E-02	6.700E-02	0.000E+00	NOT IDENT.
CF-249	1.080E-02	3.991E-02	6.995E-02	0.000E+00	NOT IDENT.
CF-251	-4.070E-02	1.475E-01	2.456E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:15:12.53

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799019.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:13:31
Sample ID         : G245799019           Sample quantity  : 1.20550E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.62  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1541	10.67*	1.168E+00	3.848E+01	3.848E+01	9.23
CD-109	88.03	179	3.72*	6.097E+00	2.462E+00	2.519E+00	48.10
SN-126	64.28	107	9.60	3.676E+00	9.442E-01	9.442E-01	101.76
	86.94	179	8.90	6.097E+00	1.029E+00	1.029E+00	62.85
	87.57	179	37.00*	6.097E+00	2.475E-01	2.475E-01	48.10
TL-208	277.35	------	6.80	4.511E+00	------ Line Not Found		------
	510.84	113	21.60	2.843E+00	5.747E-01	5.747E-01	59.28
	583.14	419	84.20*	2.555E+00	6.065E-01	6.065E-01	16.43
	860.37	68	12.46	1.835E+00	9.197E-01	9.197E-01	52.29
BI-210	46.50	56	4.05*	1.140E+00	3.775E+00	3.780E+00	157.60
PB-210	46.50	56	4.05*	1.140E+00	3.775E+00	3.780E+00	157.60
PO-210	46.50	56	4.05*	1.140E+00	3.775E+00	3.780E+00	157.55
BI-211	72.87	------	1.27	4.857E+00	------ Line Not Found		------
	351.07	582	12.94*	3.787E+00	3.700E+00	3.700E+00	14.56
BI-212	727.18	93	11.80*	2.124E+00	1.162E+00	1.162E+00	43.79
	785.46	33	1.97	1.986E+00	2.633E+00	2.633E+00	108.86
	1620.62	------	2.75	1.085E+00	------ Line Not Found		------
PB-212	74.81	475	10.70	5.073E+00	2.723E+00	2.723E+00	26.52
	77.11	655	18.00	5.309E+00	2.133E+00	2.133E+00	15.72
	87.30	179	8.00	6.097E+00	1.145E+00	1.145E+00	49.13
	238.63	1253	44.60*	5.017E+00	1.744E+00	1.744E+00	10.16
	300.09	83	3.41	4.261E+00	1.773E+00	1.773E+00	67.13
PO-212	74.81	475	10.70	5.073E+00	2.723E+00	2.723E+00	26.52
	77.11	655	18.00	5.309E+00	2.133E+00	2.133E+00	15.72
	87.30	179	8.00	6.097E+00	1.145E+00	1.145E+00	49.13
	115.19	------	0.60	6.866E+00	------ Line Not Found		------
	238.63	1253	44.60*	5.017E+00	1.744E+00	1.744E+00	10.16
	300.09	83	3.41	4.261E+00	1.773E+00	1.773E+00	67.13
BI-214	609.31	455	46.30*	2.464E+00	1.241E+00	1.241E+00	16.22
	1120.29	111	15.10	1.455E+00	1.577E+00	1.577E+00	34.25
	1764.49	93	15.80	1.029E+00	1.773E+00	1.773E+00	25.15
PB-214	74.81	475	6.21	5.073E+00	4.692E+00	4.692E+00	25.90

Sample ID : G245799019 Acquisition date : 10-FEB-2010 19:13:31

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	655	10.50	5.309E+00	3.657E+00	3.657E+00	17.47
	87.30	179	4.67	6.097E+00	1.961E+00	1.961E+00	48.72
	241.98	272	7.49	4.976E+00	2.271E+00	2.271E+00	34.81
	295.21	364	19.20	4.313E+00	1.368E+00	1.368E+00	21.70
	351.92	582	37.20*	3.787E+00	1.287E+00	1.287E+00	15.46
PO-214	74.81	475	6.21	5.073E+00	4.692E+00	4.692E+00	25.90
	77.11	655	10.50	5.309E+00	3.657E+00	3.657E+00	17.47
	87.30	179	4.67	6.097E+00	1.961E+00	1.961E+00	48.72
	241.98	272	7.49	4.976E+00	2.271E+00	2.271E+00	34.81
	295.21	364	19.20	4.313E+00	1.368E+00	1.368E+00	21.70
	351.92	582	37.20*	3.787E+00	1.287E+00	1.287E+00	15.46
PO-216	74.81	475	10.70	5.073E+00	2.723E+00	2.723E+00	26.52
	77.11	655	18.00	5.309E+00	2.133E+00	2.133E+00	15.72
	87.30	179	8.00	6.097E+00	1.145E+00	1.145E+00	49.13
	238.63	1253	44.60*	5.017E+00	1.744E+00	1.744E+00	10.16
	300.09	83	3.41	4.261E+00	1.773E+00	1.773E+00	67.13
PO-218	74.81	475	6.21	5.073E+00	4.692E+00	4.692E+00	25.90
	77.11	655	10.50	5.309E+00	3.657E+00	3.657E+00	17.47
	87.30	179	4.67	6.097E+00	1.961E+00	1.961E+00	48.72
	241.98	272	7.49	4.976E+00	2.271E+00	2.271E+00	34.81
	295.21	364	19.20	4.313E+00	1.368E+00	1.368E+00	21.70
	351.92	582	37.20*	3.787E+00	1.287E+00	1.287E+00	15.46
RA-224	240.98	272	3.95*	4.976E+00	4.307E+00	4.307E+00	34.35
RA-226	609.31	455	46.30*	2.464E+00	1.241E+00	1.241E+00	16.22
	1120.29	111	15.10	1.455E+00	1.577E+00	1.577E+00	34.25
	1764.49	93	15.80	1.029E+00	1.773E+00	1.773E+00	25.15
AC-228	338.32	220	11.40	3.901E+00	1.539E+00	1.539E+00	49.52
	911.07	295	27.70*	1.745E+00	1.899E+00	1.899E+00	20.07
	969.11	131	16.60	1.653E+00	1.484E+00	1.484E+00	45.83
RA-228	338.32	220	11.40	3.901E+00	1.539E+00	1.539E+00	49.52
	911.07	295	27.70*	1.745E+00	1.899E+00	1.899E+00	20.07
	969.11	131	16.60	1.653E+00	1.484E+00	1.484E+00	45.83
TH-228	74.81	475	10.70	5.073E+00	2.723E+00	2.765E+00	24.84
	77.11	655	18.00	5.309E+00	2.133E+00	2.166E+00	15.72
	87.30	179	8.00	6.097E+00	1.145E+00	1.162E+00	48.10
	238.63	1253	44.60*	5.017E+00	1.744E+00	1.771E+00	10.16
	300.09	83	3.41	4.261E+00	1.773E+00	1.800E+00	88.95
TH-230	609.31	455	46.30*	2.464E+00	1.241E+00	1.241E+00	16.22
	1120.29	111	15.10	1.455E+00	1.577E+00	1.577E+00	34.25
	1764.49	93	15.80	1.029E+00	1.773E+00	1.773E+00	25.15
TH-232	338.32	220	11.40	3.901E+00	1.539E+00	1.539E+00	28.71
	911.07	295	27.70*	1.745E+00	1.899E+00	1.899E+00	20.07
	969.11	131	16.60	1.653E+00	1.484E+00	1.484E+00	45.83
TH-234	63.29	107	3.80*	3.676E+00	2.385E+00	2.385E+00	102.21
	92.38	115	5.41	6.391E+00	1.032E+00	1.032E+00	69.87
U-234	609.31	455	46.30*	2.464E+00	1.241E+00	1.241E+00	16.22
	1120.29	111	15.10	1.455E+00	1.577E+00	1.577E+00	34.25
	1764.49	93	15.80	1.029E+00	1.773E+00	1.773E+00	25.15
NP-237	86.50	179	12.60*	6.097E+00	7.267E-01	7.267E-01	52.34

Sample ID : G245799019 Acquisition date : 10-FEB-2010 19:13:31

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	95.87	------	2.60	6.515E+00	------ Line Not Found		------
U-238	63.29	107	3.80*	3.676E+00	2.385E+00	2.385E+00	102.21
	92.38	115	5.41	6.391E+00	1.032E+00	1.032E+00	68.04
AM-243	74.67	475	66.00*	5.073E+00	4.415E-01	4.415E-01	24.82
	86.72	179	0.34	6.097E+00	2.725E+01	2.725E+01	48.10
	117.66	------	0.55	6.871E+00	------ Line Not Found		------
	142.18	------	0.13	6.659E+00	------ Line Not Found		------
ANH-511	511.00	113	100.00*	2.843E+00	1.241E-01	1.241E-01	58.69

Flag: "*" = Keyline

Sample ID : G245799019 Acquisition date : 10-FEB-2010 19:13:31

Total number of lines in spectrum 34
Number of unidentified lines 2
Number of lines tentatively identified by NID 32 94.12%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.848E+01	3.848E+01	0.355E+01	9.23	
CD-109	464.00D	1.02	2.462E+00	2.519E+00	1.211E+00	48.10	
SN-126	1.00E+05Y	1.00	2.475E-01	2.475E-01	1.190E-01	48.10	
TL-208	1.41E+10Y	1.00	6.065E-01	6.065E-01	0.997E-01	16.43	
BI-210	22.26Y	1.00	3.775E+00	3.780E+00	5.957E+00	157.60	
PB-210	22.26Y	1.00	3.775E+00	3.780E+00	5.957E+00	157.60	
PO-210	22.26Y	1.00	3.775E+00	3.780E+00	5.955E+00	157.55	
BI-211	7.04E+08Y	1.00	3.700E+00	3.700E+00	0.538E+00	14.56	
BI-212	1.41E+10Y	1.00	1.162E+00	1.162E+00	0.509E+00	43.79	
PB-212	1.41E+10Y	1.00	1.744E+00	1.744E+00	0.177E+00	10.16	
PO-212	1.41E+10Y	1.00	1.744E+00	1.744E+00	0.177E+00	10.16	
BI-214	1600.00Y	1.00	1.241E+00	1.241E+00	0.201E+00	16.22	
PB-214	1600.00Y	1.00	1.287E+00	1.287E+00	0.199E+00	15.46	
PO-214	1600.00Y	1.00	1.287E+00	1.287E+00	0.199E+00	15.46	
PO-216	1.41E+10Y	1.00	1.744E+00	1.744E+00	0.177E+00	10.16	
PO-218	1600.00Y	1.00	1.287E+00	1.287E+00	0.199E+00	15.46	
RA-224	1.41E+10Y	1.00	4.307E+00	4.307E+00	1.480E+00	34.35	
RA-226	1600.00Y	1.00	1.241E+00	1.241E+00	0.201E+00	16.22	
AC-228	1.41E+10Y	1.00	1.899E+00	1.899E+00	0.381E+00	20.07	
RA-228	1.41E+10Y	1.00	1.899E+00	1.899E+00	0.381E+00	20.07	
TH-228	1.91Y	1.02	1.744E+00	1.771E+00	0.180E+00	10.16	
TH-230	4.47E+09Y	1.00	1.241E+00	1.241E+00	0.201E+00	16.22	
TH-232	1.41E+10Y	1.00	1.899E+00	1.899E+00	0.381E+00	20.07	
TH-234	4.47E+09Y	1.00	2.385E+00	2.385E+00	2.438E+00	102.21	
U-234	4.47E+09Y	1.00	1.241E+00	1.241E+00	0.201E+00	16.22	
NP-237	2.14E+06Y	1.00	7.267E-01	7.267E-01	3.804E-01	52.34	
U-238	4.47E+09Y	1.00	2.385E+00	2.385E+00	2.438E+00	102.21	
AM-243	7380.00Y	1.00	4.415E-01	4.415E-01	1.095E-01	24.82	
ANH-511	1.00E+09Y	1.00	1.241E-01	1.241E-01	0.729E-01	58.69	
	Total Activity :		8.985E+01	8.995E+01			

Grand Total Activity : 8.985E+01 8.995E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245799019 Acquisition date : 10-FEB-2010 19:13:31

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	90.00	124	457	1.20	179.83	170	21	1.73E-02	59.6	6.25E+00	T
0	185.99	163	458	1.30	371.65	367	13	2.27E-02	58.2	5.88E+00	T
0	209.09	152	362	1.22	417.82	412	13	2.12E-02	53.9	5.48E+00	T
0	270.06	167	298	1.65	539.68	532	16	2.32E-02	48.8	4.60E+00	T
0	327.39	73	203	1.34	654.26	651	11	1.01E-02	78.9	4.00E+00	T
0	463.82	104	111	1.42	926.98	920	15	1.45E-02	48.4	3.07E+00	T
0	568.35	109	155	2.22	1135.96	1129	15	1.52E-02	54.4	2.61E+00	T
0	795.59	49	84	1.73	1590.33	1583	14	6.86E-03	83.7	1.97E+00	T
0	1239.49	35	118	1.58	2478.17	2471	16	4.93E-03	****	1.33E+00	T
0	1730.05	37	3	3.87	3459.77	3453	13	5.10E-03	38.7	1.04E+00	
0	1847.38	22	3	1.17	3694.61	3688	12	3.09E-03	52.3	1.00E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:15:17.84

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245799019.CNF;1    *
* Acquisition date : 10-FEB-2010 19:13:31  Detector SN#    :                  *
* Detector ID      : GAM19                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.62         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 26-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245799019            Analyst initials: RXF2             *
* Batch Number     : 947531                Sample Quantity : 1.20550E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.848E+01	3.550E+00	6.323E-01	4.709E-02	60.866
CD-109	2.519E+00	1.211E+00	1.433E+00	1.284E-01	1.757
SN-126	2.475E-01	1.190E-01	1.414E-01	1.262E-02	1.750
TL-208	6.065E-01	9.966E-02	6.465E-02	4.396E-03	9.382
BI-210	3.780E+00	5.957E+00	5.739E+00	4.374E-01	0.659
PB-210	3.780E+00	5.957E+00	5.739E+00	4.374E-01	0.659
PO-210	3.780E+00	5.955E+00	5.739E+00	3.740E-01	0.659
BI-211	3.700E+00	5.385E-01	3.603E-01	2.300E-02	10.269
BI-212	1.162E+00	5.087E-01	4.984E-01	4.150E-02	2.331
PB-212	1.744E+00	1.772E-01	1.015E-01	7.324E-03	17.190
PO-212	1.744E+00	1.772E-01	1.015E-01	7.324E-03	17.190
BI-214	1.241E+00	2.013E-01	1.236E-01	9.720E-03	10.040
PB-214	1.287E+00	1.990E-01	1.336E-01	1.101E-02	9.636
PO-214	1.287E+00	1.990E-01	1.336E-01	1.101E-02	9.636
PO-216	1.744E+00	1.772E-01	1.015E-01	7.324E-03	17.190
PO-218	1.287E+00	1.990E-01	1.336E-01	1.101E-02	9.636
RA-224	4.307E+00	1.480E+00	1.154E+00	6.540E-02	3.732
RA-226	1.241E+00	2.013E-01	1.236E-01	9.720E-03	10.040

Sample ID : G245799019 Acquisition date : 10-FEB-2010 19:13:31

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.899E+00	3.810E-01	2.088E-01	2.362E-02	9.093
RA-228	1.899E+00	3.810E-01	2.088E-01	2.362E-02	9.093
TH-228	1.771E+00	1.799E-01	1.030E-01	7.436E-03	17.190
TH-230	1.241E+00	2.013E-01	1.236E-01	9.720E-03	10.040
TH-232	1.899E+00	3.810E-01	2.088E-01	2.362E-02	9.093
TH-234	2.385E+00	2.438E+00	2.224E+00	3.892E-01	1.072
U-234	1.241E+00	2.013E-01	1.236E-01	9.720E-03	10.040
NP-237	7.267E-01	3.804E-01	4.505E-01	1.011E-01	1.613
U-238	2.385E+00	2.438E+00	2.224E+00	3.892E-01	1.072
AM-243	4.415E-01	1.095E-01	9.764E-02	7.744E-03	4.521
ANH-511	1.241E-01	7.286E-02	5.394E-02	3.183E-03	2.302

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.335E-02		3.561E-01	5.858E-01	3.976E-02	-0.057
NA-22	-2.461E-02		5.169E-02	8.202E-02	5.471E-03	-0.300
NA-24	-7.986E-01		4.922E-01	Half-Life too short		
AL-26	-3.997E-02		3.075E-02	3.386E-02	1.977E-03	-1.180
TI-44	3.937E-01	+	6.189E-02	9.139E-02	7.460E-03	4.308
SC-46	1.041E-03		4.713E-02	7.619E-02	6.620E-03	0.014
V-48	-3.459E-02		8.427E-02	1.298E-01	1.043E-02	-0.267
CR-51	3.672E-02		3.980E-01	6.709E-01	4.341E-02	0.055
MN-52	3.922E-03		2.655E-01	4.390E-01	3.167E-02	0.009
MN-54	-2.405E-02		4.410E-02	6.800E-02	5.409E-03	-0.354
CO-56	-3.791E-02		4.666E-02	6.970E-02	5.655E-03	-0.544
CO-57	-8.953E-03		2.997E-02	4.822E-02	2.878E-03	-0.186
CO-58	1.396E-02		4.285E-02	7.148E-02	5.478E-03	0.195
FE-59	3.739E-02		1.027E-01	1.770E-01	1.328E-02	0.211
CO-60	-3.339E-02		4.362E-02	6.573E-02	4.844E-03	-0.508
ZN-65	9.065E-02		1.149E-01	1.806E-01	1.155E-02	0.502
GE-68	6.600E-01		1.448E+00	2.513E+00	1.739E-01	0.263
AS-73	-7.810E-01		9.455E-01	1.391E+00	1.028E-01	-0.562
AS-74	-1.937E-02		1.018E-01	1.648E-01	9.761E-03	-0.118
SE-75	1.148E-02		5.419E-02	8.081E-02	4.699E-03	0.142
BR-77	2.873E+00		1.222E+01	2.049E+01	1.211E+00	0.140
SR-82	-1.723E-01		4.113E-01	6.418E-01	4.621E-02	-0.269
RB-83	7.845E-03		7.744E-02	1.287E-01	7.607E-03	0.061
RB-84	-3.650E-02		7.932E-02	1.222E-01	1.048E-02	-0.299
KR-85	8.605E+00		9.228E+00	1.426E+01	8.419E-01	0.604
SR-85	4.421E-02		4.741E-02	7.325E-02	4.325E-03	0.604
RB-86	4.938E-01		9.034E-01	1.580E+00	1.095E-01	0.313
Y-88	2.627E-04		3.166E-02	5.165E-02	2.948E-03	0.005
ZR-88	-8.977E-04		3.122E-02	5.193E-02	2.891E-03	-0.017
Y-91	-1.142E+01		2.290E+01	3.665E+01	2.140E+00	-0.312
NB-94	1.865E-04		3.599E-02	5.870E-02	3.697E-03	0.003
NB-95	2.200E-02		4.976E-02	8.348E-02	5.899E-03	0.264

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	5.141E-01		1.811E-01	2.858E-01	2.117E-02	1.799
ZR-95	-1.524E-03		8.022E-02	1.302E-01	1.042E-02	-0.012
NB-97	5.048E-03		6.373E-02	Half-Life too short		
ZR-97	5.487E+00		1.314E+00	Half-Life too short		
MO-99	5.803E+00		1.385E+01	2.326E+01	3.304E+00	0.249
TC-99M	-6.280E+10		3.682E+10	Half-Life too short		
RH-101	1.822E-02		3.748E-02	6.023E-02	3.267E-03	0.303
RH-102	-2.653E-02		3.234E-02	5.049E-02	2.947E-03	-0.525
RU-103	4.248E-02		4.532E-02	7.905E-02	1.002E-02	0.537
RH-106	-7.562E-02		3.411E-01	5.487E-01	6.466E-02	-0.138
RU-106	-7.562E-02		3.410E-01	5.487E-01	3.235E-02	-0.138
AG-108M	2.937E-03		3.588E-02	5.990E-02	3.731E-03	0.049
AG-110M	2.404E-03		3.822E-02	6.281E-02	3.897E-03	0.038
IN-111	7.729E-01		1.371E+00	1.988E+00	1.130E-01	0.389
IN-113M	1.241E-02		4.489E-02	7.610E-02	4.541E-03	0.163
SN-113	1.241E-02		4.489E-02	7.610E-02	4.541E-03	0.163
IN-114M	6.568E-02		2.273E-01	3.252E-01	1.748E-02	0.202
CD-115	3.601E+00		1.203E+01	2.028E+01	1.201E+00	0.178
SN-117M	-2.187E-02		6.538E-02	1.043E-01	5.552E-03	-0.210
SB-122	5.296E-01		2.890E+00	4.193E+00	2.489E-01	0.126
I-123	-2.278E+00		4.264E+00	Half-Life too short		
TE-123M	-8.921E-03		3.340E-02	5.343E-02	2.886E-03	-0.167
I-124	1.299E+00		8.038E-01	1.329E+00	7.868E-02	0.977
SB-124	2.265E-02		8.124E-02	1.394E-01	9.549E-03	0.162
SB-125	-1.715E-02		9.787E-02	1.608E-01	9.573E-03	-0.107
TE-125M	-5.141E+00		1.060E+01	1.696E+01	1.500E+00	-0.303
I-126	4.358E-02		1.969E-01	3.275E-01	1.924E-02	0.133
SB-126	1.135E-01		1.799E-01	2.992E-01	1.948E-02	0.379
SB-127	5.088E-01		1.578E+00	2.640E+00	2.555E-01	0.193
XE-127	-1.649E-02		5.965E-02	8.215E-02	4.482E-03	-0.201
I-131	8.747E-02		1.269E-01	2.201E-01	1.406E-02	0.397
TE-132	4.337E-01		8.388E-01	1.373E+00	1.966E-01	0.316
BA-133	4.400E-02		5.499E-02	8.451E-02	9.740E-03	0.521
I-133	4.052E-03		3.664E-03	Half-Life too short		
CS-134	1.032E-01	+	8.671E-02	1.027E-01	7.725E-03	1.005
CS-135	3.652E-01		1.842E-01	3.317E-01	2.531E-02	1.101
I-135	-1.290E+09		5.352E+09	Half-Life too short		
CS-136	-6.854E-02		1.309E-01	2.097E-01	1.621E-02	-0.327
BA-137M	-2.488E-02		3.877E-02	6.001E-02	3.494E-03	-0.415
CS-137	-2.630E-02		4.098E-02	6.343E-02	3.709E-03	-0.415
CE-139	-1.602E-02		3.379E-02	5.347E-02	2.791E-03	-0.300
BA-140	5.375E-04		2.761E-01	4.550E-01	1.481E-01	0.001
LA-140	-8.082E-02		9.563E-02	1.362E-01	9.217E-03	-0.593
CE-141	4.700E-02		7.403E-02	1.202E-01	6.923E-03	0.391
CE-143	1.044E-03		1.553E-04	Half-Life too short		
CE-144	-2.769E-02		2.375E-01	3.840E-01	5.440E-02	-0.072
PM-144	2.623E-02		3.561E-02	6.154E-02	3.834E-03	0.426
PR-144	1.777E+00		2.413E+00	4.170E+00	2.596E-01	0.426

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	2.833E-02		4.785E-02	8.223E-02	7.081E-03	0.344
ND-147	4.209E-02		5.975E-01	9.903E-01	1.344E-01	0.043
PM-149	5.445E+00		9.967E+01	1.682E+02	2.385E+01	0.032
EU-152	-1.436E-01		1.245E-01	1.640E-01	1.067E-02	-0.876
GD-153	5.988E-02		9.653E-02	1.416E-01	1.102E-02	0.423
EU-154	-7.219E-02		1.441E-01	2.280E-01	2.256E-02	-0.317
EU-155	1.211E-01		1.207E-01	2.040E-01	1.468E-02	0.593
TB-160	-1.533E-01		1.646E-01	2.411E-01	2.062E-02	-0.636
HO-166M	1.700E-02		6.646E-02	1.106E-01	7.082E-03	0.154
TM-171	-1.572E+01		3.530E+01	4.996E+01	3.798E+00	-0.315
LU-176	-1.568E-02		2.915E-02	4.476E-02	2.604E-03	-0.350
LU-177	3.846E+00	+	2.082E+00	2.304E+00	1.265E-01	1.669
LU-177M	-1.719E-01		1.956E-01	3.077E-01	1.739E-02	-0.559
HF-181	-1.729E-02		4.758E-02	7.679E-02	4.494E-03	-0.225
W-181	5.914E-01		4.580E-01	6.955E-01	5.264E-02	0.850
TA-182	-1.139E-01		2.488E-01	3.999E-01	2.412E-02	-0.285
RE-183	5.319E-02		1.245E-01	2.048E-01	1.079E-02	0.260
RE-184	-1.138E-02		2.647E-01	4.218E-01	2.411E-02	-0.027
OS-185	3.541E-02		4.943E-02	8.511E-02	4.985E-03	0.416
RE-188	3.338E-02		2.047E-01	3.334E-01	1.791E-02	0.100
W-188	1.008E+00		8.445E+00	1.248E+01	7.251E-01	0.081
IR-192	2.246E-03		3.748E-02	6.308E-02	3.685E-03	0.036
AU-195	3.861E-02		2.665E-01	4.020E-01	3.068E-02	0.096
TL-200	-2.023E-04		2.902E-04	Half-Life too short		
TL-201	5.630E+00		8.157E+00	1.356E+01	7.084E-01	0.415
TL-202	3.540E-02		7.844E-02	1.338E-01	7.683E-03	0.265
HG-203	3.119E-02		4.379E-02	7.608E-02	4.678E-03	0.410
BI-207	-3.686E-02		5.978E-02	9.563E-02	6.790E-03	-0.385
TL-207	1.380E-01		7.748E-01	1.146E+00	1.893E-01	0.120
PO-209	-4.968E-01		8.413E+00	1.349E+01	1.186E+00	-0.037
PB-211	-7.836E-01		1.148E+00	1.653E+00	1.030E+00	-0.474
PO-215	1.380E-01		7.748E-01	1.146E+00	1.893E-01	0.120
RN-219	-4.990E-02		4.456E-01	7.369E-01	9.966E-02	-0.068
RN-220	-8.446E+00		2.789E+01	4.486E+01	2.662E+00	-0.188
RA-223	1.380E-01		7.748E-01	1.146E+00	1.893E-01	0.120
AC-227	-1.042E-02		4.338E-01	6.917E-01	9.635E-02	-0.015
TH-227	-1.042E-02		4.338E-01	6.917E-01	1.167E-01	-0.015
TH-229	-4.302E-01		6.035E-01	9.032E-01	4.873E-02	-0.476
PA-231	-1.757E-01		1.644E+00	2.691E+00	3.708E-01	-0.065
TH-231	1.380E-01		7.748E-01	1.146E+00	1.893E-01	0.120
U-231	4.840E-02		1.386E+00	1.990E+00	1.581E-01	0.024
PA-233	3.733E-02		6.862E-02	1.184E-01	7.307E-03	0.315
PA-234	-7.176E-02		3.499E-01	5.513E-01	1.029E-01	-0.130
PA-234M	3.398E+00		5.271E+00	8.964E+00	8.344E-01	0.379
U-235	-6.857E-02		2.495E-01	3.911E-01	6.341E-02	-0.175
NP-236	7.148E-03		9.190E-02	1.491E-01	7.898E-03	0.048
NP-239	6.856E-02		2.230E-01	3.674E-01	2.298E-02	0.187
AM-241	2.096E-02		1.899E-01	2.763E-01	2.275E-02	0.076

Sample ID : G245799019 Acquisition date : 10-FEB-2010 19:13:31

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.804E-03		1.078E-01	1.762E-01	1.267E-02	0.010
AM-246	7.655E-02		1.667E-01	2.892E-01	1.995E-02	0.265
CM-247	-7.928E-03		4.018E-02	6.611E-02	3.708E-03	-0.120
CF-249	1.080E-02		4.072E-02	6.899E-02	3.853E-03	0.156
CF-251	-4.070E-02		1.505E-01	2.400E-01	1.268E-02	-0.170

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                              DETECTOR DATA                                  *
*                                                                             *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245799019             *
* Acquisition date  : 10-FEB-2010 19:13:31 Detector SN#     :                 *
* Detector ID       : GAM19                Sensitivity      : 5.000           *
* Geometry          : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:01.62      Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                              SAMPLE DATA                                    *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID         : G245799019           Analyst initials: RXF2             *
* Batch Number      : 947531               Sample Quantity : 1.2055E+02 GRAM  *
* Recovery          :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                QC DATA                                      *
*                                                                             *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.848E+01	3.479E+00	3.156E-01	1.775E+00
CD-109	2.519E+00	1.187E+00	7.398E-01	6.057E-01
SN-126	2.475E-01	1.167E-01	7.301E-02	5.952E-02
TL-208	6.065E-01	9.767E-02	3.263E-02	4.983E-02
BI-210	3.780E+00	5.838E+00	2.984E+00	2.979E+00
PB-210	3.780E+00	5.838E+00	2.984E+00	2.979E+00
PO-210	3.780E+00	5.836E+00	2.984E+00	2.978E+00
BI-211	3.700E+00	5.277E-01	1.830E-01	2.692E-01
BI-212	1.162E+00	4.985E-01	2.509E-01	2.544E-01
PB-212	1.744E+00	1.736E-01	5.177E-02	8.858E-02
PO-212	1.744E+00	1.736E-01	5.177E-02	8.858E-02
BI-214	1.241E+00	1.973E-01	6.237E-02	1.006E-01
PB-214	1.287E+00	1.950E-01	6.783E-02	9.950E-02
PO-214	1.287E+00	1.950E-01	6.783E-02	9.950E-02
PO-216	1.744E+00	1.736E-01	5.177E-02	8.858E-02
PO-218	1.287E+00	1.950E-01	6.783E-02	9.950E-02
RA-224	4.307E+00	1.450E+00	5.888E-01	7.398E-01
RA-226	1.241E+00	1.973E-01	6.237E-02	1.006E-01
AC-228	1.899E+00	3.734E-01	1.048E-01	1.905E-01
RA-228	1.899E+00	3.734E-01	1.048E-01	1.905E-01
TH-228	1.771E+00	1.763E-01	5.257E-02	8.994E-02
TH-230	1.241E+00	1.973E-01	6.237E-02	1.006E-01
TH-232	1.899E+00	3.734E-01	1.048E-01	1.905E-01
TH-234	2.385E+00	2.389E+00	1.153E+00	1.219E+00
U-234	1.241E+00	1.973E-01	6.237E-02	1.006E-01
NP-237	7.267E-01	3.728E-01	2.326E-01	1.902E-01
U-238	2.385E+00	2.389E+00	1.153E+00	1.219E+00
AM-243	4.415E-01	1.074E-01	5.049E-02	5.477E-02
ANH-511	1.241E-01	7.140E-02	2.727E-02	3.643E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	-3.335E-02	3.490E-01	2.964E-01	1.781E-01	NOT IDENT.
NA-22	-2.461E-02	5.065E-02	4.101E-02	2.584E-02	NOT IDENT.
NA-24	-7.986E+05	9.646E+05	0.000E+00	4.922E+05	SHORT HLIF
AL-26	-3.997E-02	3.013E-02	1.686E-02	1.537E-02	NOT IDENT.
TI-44	3.937E-01	6.065E-02	4.723E-02	3.094E-02	FAIL ABUN
SC-46	1.041E-03	4.618E-02	3.826E-02	2.356E-02	FAIL ABUN
V-48	-3.459E-02	8.258E-02	6.508E-02	4.213E-02	NOT IDENT.
CR-51	3.672E-02	3.901E-01	3.411E-01	1.990E-01	NOT IDENT.
MN-52	3.922E-03	2.602E-01	2.192E-01	1.327E-01	NOT IDENT.
MN-54	-2.405E-02	4.321E-02	3.418E-02	2.205E-02	NOT IDENT.
CO-56	-3.791E-02	4.572E-02	3.502E-02	2.333E-02	FAIL ABUN
CO-57	-8.953E-03	2.938E-02	2.479E-02	1.499E-02	NOT IDENT.
CO-58	1.396E-02	4.199E-02	3.594E-02	2.142E-02	NOT IDENT.
FE-59	3.739E-02	1.006E-01	8.864E-02	5.135E-02	NOT IDENT.
CO-60	-3.339E-02	4.275E-02	3.285E-02	2.181E-02	NOT IDENT.
ZN-65	9.065E-02	1.126E-01	9.046E-02	5.745E-02	NOT IDENT.
GE-68	6.600E-01	1.419E+00	1.259E+00	7.239E-01	NOT IDENT.
AS-73	-7.810E-01	9.266E-01	7.219E-01	4.728E-01	NOT IDENT.
AS-74	-1.937E-02	9.979E-02	8.315E-02	5.092E-02	NOT IDENT.
SE-75	1.148E-02	5.311E-02	4.118E-02	2.710E-02	NOT IDENT.
BR-77	2.873E+00	1.197E+01	1.036E+01	6.108E+00	FAIL ABUN
SR-82	-1.723E-01	4.031E-01	3.228E-01	2.057E-01	NOT IDENT.
RB-83	7.845E-03	7.589E-02	6.504E-02	3.872E-02	NOT IDENT.
RB-84	-3.650E-02	7.774E-02	6.136E-02	3.966E-02	NOT IDENT.
KR-85	8.605E+00	9.044E+00	7.208E+00	4.614E+00	NOT IDENT.
SR-85	4.421E-02	4.646E-02	3.703E-02	2.370E-02	NOT IDENT.
RB-86	4.938E-01	8.853E-01	7.918E-01	4.517E-01	NOT IDENT.
Y-88	2.627E-04	3.102E-02	2.571E-02	1.583E-02	NOT IDENT.
ZR-88	-8.977E-04	3.059E-02	2.634E-02	1.561E-02	NOT IDENT.
Y-91	-1.142E+01	2.244E+01	1.834E+01	1.145E+01	NOT IDENT.
NB-94	1.865E-04	3.527E-02	2.957E-02	1.799E-02	NOT IDENT.
NB-95	2.200E-02	4.877E-02	4.200E-02	2.488E-02	NOT IDENT.
NB-95M	5.141E-01	1.774E-01	1.458E-01	9.053E-02	NOT IDENT.
ZR-95	-1.524E-03	7.862E-02	6.551E-02	4.011E-02	NOT IDENT.
NB-97	5.048E+03	1.249E+05	0.000E+00	6.373E+04	SHORT HLIF
ZR-97	5.487E+06	2.576E+06	0.000E+00	1.314E+06	SHORT HLIF
MO-99	5.803E+00	1.357E+01	1.171E+01	6.923E+00	NOT IDENT.
TC-99M	-6.280E+16	7.216E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.822E-02	3.673E-02	3.080E-02	1.874E-02	NOT IDENT.
RH-102	-2.653E-02	3.169E-02	2.555E-02	1.617E-02	NOT IDENT.
RU-103	4.248E-02	4.441E-02	3.998E-02	2.266E-02	FAIL ABUN
RH-106	-7.562E-02	3.342E-01	2.767E-01	1.705E-01	FAIL ABUN
RU-106	-7.562E-02	3.342E-01	2.767E-01	1.705E-01	FAIL ABUN
AG-108M	2.937E-03	3.516E-02	3.034E-02	1.794E-02	NOT IDENT.
AG-110M	2.404E-03	3.746E-02	3.166E-02	1.911E-02	NOT IDENT.
IN-111	7.729E-01	1.343E+00	1.014E+00	6.854E-01	NOT IDENT.
IN-113M	1.241E-02	4.399E-02	3.860E-02	2.244E-02	NOT IDENT.
SN-113	1.241E-02	4.399E-02	3.860E-02	2.244E-02	NOT IDENT.
IN-114M	6.568E-02	2.227E-01	1.664E-01	1.136E-01	NOT IDENT.
CD-115	3.601E+00	1.179E+01	1.025E+01	6.017E+00	NOT IDENT.
SN-117M	-2.187E-02	6.407E-02	5.347E-02	3.269E-02	NOT IDENT.
SB-122	5.296E-01	2.833E+00	2.117E+00	1.445E+00	NOT IDENT.
I-123	-2.278E+06	8.357E+06	0.000E+00	4.264E+06	SHORT HLIF
TE-123M	-8.921E-03	3.273E-02	2.739E-02	1.670E-02	NOT IDENT.
I-124	1.299E+00	7.877E-01	6.708E-01	4.019E-01	NOT IDENT.
SB-124	2.265E-02	7.962E-02	6.947E-02	4.062E-02	FAIL ABUN
SB-125	-1.715E-02	9.592E-02	8.146E-02	4.894E-02	FAIL ABUN
TE-125M	-5.141E+00	1.039E+01	8.735E+00	5.302E+00	NOT IDENT.
I-126	4.358E-02	1.930E-01	1.650E-01	9.847E-02	NOT IDENT.
SB-126	1.135E-01	1.763E-01	1.507E-01	8.997E-02	FAIL ABUN
SB-127	5.088E-01	1.546E+00	1.330E+00	7.889E-01	NOT IDENT.
XE-127	-1.649E-02	5.846E-02	4.199E-02	2.982E-02	NOT IDENT.
I-131	8.747E-02	1.244E-01	1.117E-01	6.345E-02	NOT IDENT.
TE-132	4.337E-01	8.220E-01	7.006E-01	4.194E-01	NOT IDENT.
BA-133	4.400E-02	5.389E-02	4.291E-02	2.750E-02	NOT IDENT.
I-133	4.052E+03	7.181E+03	0.000E+00	3.664E+03	SHORT HLIF
CS-134	1.032E-01	8.497E-02	5.167E-02	4.335E-02	FAIL ABUN
CS-135	3.652E-01	1.805E-01	1.690E-01	9.212E-02	NOT IDENT.
I-135	-1.290E+15	1.049E+16	0.000E+00	5.352E+15	SHORT HLIF
CS-136	-6.854E-02	1.282E-01	1.051E-01	6.543E-02	FAIL ABUN
BA-137M	-2.488E-02	3.799E-02	3.024E-02	1.938E-02	NOT IDENT.
CS-137	-2.630E-02	4.016E-02	3.197E-02	2.049E-02	NOT IDENT.
CE-139	-1.602E-02	3.311E-02	2.740E-02	1.689E-02	NOT IDENT.
BA-140	5.375E-04	2.705E-01	2.299E-01	1.380E-01	NOT IDENT.
LA-140	-8.082E-02	9.371E-02	6.793E-02	4.781E-02	FAIL ABUN
CE-141	4.700E-02	7.255E-02	6.169E-02	3.701E-02	NOT IDENT.

CE-143	1.044E+03	3.045E+02	0.000E+00	1.553E+02	SHORT HLIF
CE-144	-2.769E-02	2.328E-01	1.973E-01	1.188E-01	NOT IDENT.
PM-144	2.623E-02	3.489E-02	3.100E-02	1.780E-02	NOT IDENT.
PR-144	1.777E+00	2.365E+00	2.101E+00	1.207E+00	NOT IDENT.
PM-146	2.833E-02	4.689E-02	4.163E-02	2.392E-02	NOT IDENT.
ND-147	4.209E-02	5.855E-01	5.005E-01	2.987E-01	FAIL ABUN
PM-149	5.445E+00	9.768E+01	8.563E+01	4.984E+01	NOT IDENT.
EU-152	-1.436E-01	1.220E-01	8.329E-02	6.224E-02	NOT IDENT.
GD-153	5.988E-02	9.460E-02	7.303E-02	4.827E-02	NOT IDENT.
EU-154	-7.219E-02	1.412E-01	1.140E-01	7.207E-02	NOT IDENT.
EU-155	1.211E-01	1.183E-01	1.051E-01	6.036E-02	FAIL ABUN
TB-160	-1.533E-01	1.613E-01	1.211E-01	8.231E-02	FAIL ABUN
HO-166M	1.700E-02	6.513E-02	5.568E-02	3.323E-02	NOT IDENT.
TM-171	-1.572E+01	3.460E+01	2.587E+01	1.765E+01	NOT IDENT.
LU-176	-1.568E-02	2.856E-02	2.277E-02	1.457E-02	FAIL ABUN
LU-177	3.846E+00	2.040E+00	1.177E+00	1.041E+00	FAIL ABUN
LU-177M	-1.719E-01	1.917E-01	1.560E-01	9.782E-02	FAIL ABUN
HF-181	-1.729E-02	4.663E-02	3.885E-02	2.379E-02	NOT IDENT.
W-181	5.914E-01	4.489E-01	3.603E-01	2.290E-01	NOT IDENT.
TA-182	-1.139E-01	2.438E-01	2.001E-01	1.244E-01	FAIL ABUN
RE-183	5.319E-02	1.220E-01	1.050E-01	6.226E-02	FAIL ABUN
RE-184	-1.138E-02	2.595E-01	2.151E-01	1.324E-01	NOT IDENT.
OS-185	3.541E-02	4.844E-02	4.291E-02	2.471E-02	NOT IDENT.
RE-188	3.338E-02	2.006E-01	1.709E-01	1.023E-01	NOT IDENT.
W-188	1.008E+00	8.276E+00	6.355E+00	4.222E+00	FAIL ABUN
IR-192	2.246E-03	3.673E-02	3.207E-02	1.874E-02	FAIL ABUN
AU-195	3.861E-02	2.612E-01	2.072E-01	1.332E-01	FAIL ABUN
TL-200	-2.023E+02	5.689E+02	0.000E+00	2.902E+02	SHORT HLIF
TL-201	5.630E+00	7.994E+00	6.946E+00	4.079E+00	NOT IDENT.
TL-202	3.540E-02	7.687E-02	6.776E-02	3.922E-02	NOT IDENT.
HG-203	3.119E-02	4.291E-02	3.874E-02	2.189E-02	NOT IDENT.
BI-207	-3.686E-02	5.858E-02	4.792E-02	2.989E-02	FAIL ABUN
TL-207	1.380E-01	7.593E-01	5.826E-01	3.874E-01	FAIL ABUN
PO-209	-4.968E-01	8.245E+00	6.775E+00	4.206E+00	NOT IDENT.
PB-211	-7.836E-01	1.125E+00	8.383E-01	5.742E-01	NOT IDENT.
PO-215	1.380E-01	7.593E-01	5.826E-01	3.874E-01	FAIL ABUN
RN-219	-4.990E-02	4.366E-01	3.736E-01	2.228E-01	FAIL ABUN
RN-220	-8.446E+00	2.733E+01	2.266E+01	1.395E+01	NOT IDENT.
RA-223	1.380E-01	7.593E-01	5.826E-01	3.874E-01	FAIL ABUN
AC-227	-1.042E-02	4.252E-01	3.526E-01	2.169E-01	FAIL ABUN
TH-227	-1.042E-02	4.252E-01	3.526E-01	2.169E-01	FAIL ABUN
TH-229	-4.302E-01	5.914E-01	4.619E-01	3.017E-01	FAIL ABUN
PA-231	-1.757E-01	1.611E+00	1.370E+00	8.218E-01	FAIL ABUN
TH-231	1.380E-01	7.593E-01	5.826E-01	3.874E-01	FAIL ABUN
U-231	4.840E-02	1.359E+00	1.026E+00	6.932E-01	FAIL ABUN
PA-233	3.733E-02	6.725E-02	6.019E-02	3.431E-02	FAIL ABUN
PA-234	-7.176E-02	3.429E-01	2.766E-01	1.749E-01	FAIL ABUN
PA-234M	3.398E+00	5.166E+00	4.495E+00	2.636E+00	NOT IDENT.
U-235	-6.857E-02	2.445E-01	2.007E-01	1.247E-01	FAIL ABUN
NP-236	7.148E-03	9.006E-02	7.642E-02	4.595E-02	NOT IDENT.
NP-239	6.856E-02	2.185E-01	1.890E-01	1.115E-01	FAIL ABUN
AM-241	2.096E-02	1.861E-01	1.433E-01	9.493E-02	NOT IDENT.
CM-243	1.804E-03	1.057E-01	9.078E-02	5.391E-02	FAIL ABUN
AM-246	7.655E-02	1.633E-01	1.449E-01	8.333E-02	NOT IDENT.
CM-247	-7.928E-03	3.937E-02	3.352E-02	2.009E-02	NOT IDENT.
CF-249	1.080E-02	3.991E-02	3.500E-02	2.036E-02	NOT IDENT.
CF-251	-4.070E-02	1.475E-01	1.229E-01	7.525E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.50	352.7703
46.50	352.7703
46.50	352.7703
48.70	313.3700
49.72	343.4083
51.35	355.0117
52.39	389.8855
52.97	426.1812
53.15	426.2692
53.44	394.5333
54.07	411.2494
56.28	399.0631
56.28	397.0988
57.37	0.0000
57.53	380.5818
57.53	380.5829
57.60	380.6110
57.98	365.5374
57.98	365.5374
59.32	435.4909
59.32	435.4909
59.40	435.5280
59.54	435.5937
59.72	435.6771
60.01	424.7586
61.10	429.9913
61.14	430.0087
61.30	433.2433
63.00	447.4760
63.29	447.6101
63.29	447.6101
63.58	447.7437
64.28	448.0653
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65.20	465.1540
65.20	465.1540
66.05	505.2772
66.72	516.7468
66.83	516.8044
66.91	531.1587
67.20	531.3116
67.20	531.3116
67.75	523.6429
67.85	513.3506
68.90	497.9477
68.90	497.9477
69.30	498.1442
69.67	494.3387
70.82	490.8983
70.82	490.8983
70.83	474.1414
72.80	518.2240
72.87	529.4565
72.87	529.4565
74.67	505.7224
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74.81	505.7898
74.81	505.7898
74.81	505.7898
74.81	505.7898
74.81	505.7898
74.81	505.7898
74.97	505.8650
75.28	506.0114
75.70	506.2098
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77.11	506.8725

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77.11	506.8725
77.11	506.8725
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79.80	466.8657
79.80	466.8657
80.11	539.4617
80.18	539.4944
80.30	539.5536
80.30	539.5536
80.57	583.1815
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81.07	612.4531
81.07	612.4531
81.07	612.4531
81.07	612.4531
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83.78	508.9142
83.78	508.9142
84.21	505.8740
84.90	478.6875
85.43	477.2900
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86.54	561.9625
86.59	561.9880
86.72	562.0515
86.79	562.0833
86.94	488.0401
87.30	488.1909
87.30	488.1909
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87.30	488.1909
87.30	488.1909
87.30	488.1909
87.57	488.3048
87.88	488.4336
88.03	488.4961
88.36	488.6340
88.47	488.6799
89.95	489.2941
91.11	489.7703
92.29	490.2538
92.38	490.2906
92.38	490.2906
93.35	369.7437
94.00	376.4606
94.67	371.7747
94.67	371.7761
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94.90	380.0016
94.90	380.0016
95.87	394.9915
95.87	394.9915
96.73	382.2010
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98.44	328.4797
98.44	328.4809
98.88	340.8674
99.55	362.1942
99.55	362.1942
99.86	363.3068
100.00	347.9947
100.10	348.0232
103.18	385.8051
103.76	354.1572
105.00	328.8086
105.31	330.9435
108.00	357.3725
109.28	381.4284

111.00	379.8566
111.00	379.8566
111.76	380.0728
112.95	345.2618
115.19	358.2565
116.30	343.0016
117.00	357.6909
117.00	357.6909
117.66	372.3839
121.11	385.7837
121.62	376.5604
121.78	376.6032
122.06	369.3940
122.32	356.9728
122.32	356.9728
122.32	356.9728
122.32	356.9728
123.07	345.7084
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129.76	351.4981
131.20	375.9267
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140.51	0.0000
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143.76	361.1024
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144.24	347.4842
144.24	347.4842
144.24	347.4842
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145.44	323.4394
147.16	359.7688
152.43	340.7882
152.70	332.3500
153.22	330.3331
154.21	348.6026
154.21	348.6026
154.21	348.6026
154.21	348.6026
155.03	356.2212
156.02	335.1585
158.56	348.4654
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163.35	305.6512
163.89	307.8875
165.85	318.9463
167.43	279.6064
171.28	329.6235
171.86	326.5115
172.10	315.8136
176.55	314.4650
176.60	329.5514
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184.41	308.0669
185.71	316.0801
186.00	316.1313
190.27	263.9145
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193.63	306.8849
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201.83	270.7864
202.84	274.4261
205.31	266.0278

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208.81	261.9059
209.75	262.0317
209.75	262.0317
210.97	263.2928
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216.55	284.1533
218.09	258.7363
222.10	265.8719
223.80	283.7604
226.40	277.4880
227.00	286.4172
227.08	286.4290
227.20	264.3256
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228.18	247.8540
228.18	247.8540
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236.00	270.1136
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238.63	245.7637
238.63	245.7637
238.63	245.7637
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241.98	246.1515
241.98	246.1515
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252.85	208.2127
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256.20	207.4094
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264.65	193.5656
268.24	200.1848
268.79	200.2336
269.46	200.2932
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269.46	200.2932
269.46	200.2932
271.23	200.4477
273.65	231.9932
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277.60	187.5513
277.60	187.5513
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281.68	205.8906
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284.30	180.6960
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285.90	166.2794
286.10	166.2950
286.10	166.2950
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293.26	0.0000
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295.21	156.5913

295.21	156.5913
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300.09	182.8052
300.09	182.8052
300.12	182.8076
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303.76	172.3990
303.91	172.4105
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304.84	180.1065
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323.87	146.1066
323.87	146.1066
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334.30	194.5679
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338.28	170.7391
338.28	170.7391
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338.32	170.7413
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340.57	162.5287
344.27	179.8057
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351.92	168.8192
351.92	168.8192
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367.43	159.4622
367.94	0.0000
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391.69	109.7497
392.90	115.4741
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433.93	116.1154
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439.89	112.4940
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445.03	112.6796
445.03	112.6796
445.03	112.6796
453.90	104.3060
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475.35	124.4500
476.78	106.9962
477.59	109.9405
477.96	100.2226
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511.85	112.0552
513.99	111.4705
513.99	111.4705
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529.87	0.0000
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546.56	0.0000
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563.90	103.0785
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569.32	106.8955
569.50	106.9007
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592.07	91.4688
593.00	91.4910
595.88	93.5744
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602.71	63.8390
602.71	63.8390
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609.31	94.9157
609.31	94.9157
609.31	94.9157
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614.37	90.9954
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621.84	82.0540
631.29	79.2073
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661.65	90.0453
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666.33	77.8555
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696.49	63.9799
697.00	62.9554
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722.78	115.9469
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766.84	71.3203
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792.07	63.2827

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883.24	55.9102
884.67	52.7001
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896.60	61.4517
898.02	58.2346
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903.28	53.9783
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911.07	48.6552
911.07	48.6552
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920.93	62.8343
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925.24	69.3938
926.50	72.6646
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946.00	64.2331
949.00	54.4666
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964.01	80.1152
966.15	63.7537
968.20	125.7363
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969.11	136.6943
969.11	136.6943
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983.50	65.7920
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1038.76	0.0000
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1048.07	74.9059

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1085.78	62.3790
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1115.52	57.7567
1120.29	66.5018
1120.29	66.5018
1120.29	66.5018
1120.29	66.5018
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1129.67	62.8561
1131.51	0.0000
1147.95	0.0000
1167.94	74.5961
1173.22	68.0479
1175.09	69.0138
1177.93	76.6132
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1205.75	0.0000
1213.00	103.6955
1221.42	97.1689
1230.97	90.3255
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1236.41	0.0000
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1260.41	0.0000
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1274.45	63.4111
1274.54	63.4138
1291.56	53.9492
1298.22	0.0000
1312.09	54.1224
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1325.50	47.4548
1332.49	45.5657
1333.61	42.6644
1360.21	28.2342
1362.66	0.0000
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1368.21	38.0161
1368.53	0.0000
1376.25	36.1102
1384.27	38.1066
1394.10	27.3996
1395.20	28.3817
1407.95	26.4749
1434.06	28.5445
1436.60	30.5245
1457.56	0.0000
1460.81	29.6436
1489.15	24.8027
1509.49	26.8638
1596.49	30.2075
1620.62	20.2034
1678.03	0.0000
1691.02	14.2734
1691.02	14.2734
1706.46	0.0000
1750.46	0.0000
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1764.49	9.2622
1764.49	9.2622
1764.49	9.2622
1770.23	5.2965
1771.40	8.8285
1791.20	0.0000
1808.65	18.6262

1836.01	10.3825

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245799019

Total Uranium Activity	7.0644E+00	ug/g
Total Uranium Counting Unc.	7.1089E+00	ug/g
Total Uranium Tpu	3.6270E-06	ug/g
Total Uranium Mda	3.4300E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID   : G245799019      *
*   ANALYST       : RXF2                      DETECTOR    : GAM19           *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 19:13:31.29    SAMPLE ALQT:  120.550 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.088E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.909E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 4.352E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.116E+00
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VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 22:22:48.16

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029810.CNF;1
Sample date       : 2-FEB-2010 00:00:00. Acquisition date : 10-FEB-2010 20:22:23
Sample ID         : G1202029810          Sample quantity  : 1.48384E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.95  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947531                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.09*	17	161	0.92	126.43	122	9	2.31E-03	154.5	
2	0	92.34*	16	228	1.12	184.87	179	12	2.28E-03	212.2	
3	1	185.57*	31	142	1.40	371.15	366	34	4.28E-03	83.2	2.84E+00
4	1	188.55	59	158	1.44	377.11	366	34	8.18E-03	39.7	
5	0	238.95*	47	170	1.41	477.81	474	11	6.54E-03	59.4	
6	0	511.01*	83	75	2.47	1021.52	1013	18	1.15E-02	36.8	
7	0	583.02*	6	36	1.67	1165.44	1161	10	7.99E-04	266.9	
8	0	609.46*	19	72	1.51	1218.30	1212	12	2.65E-03	105.1	
9	0	914.83	79	40	7.19	1828.77	1812	35	1.09E-02	28.5	
10	0	1333.33	14	9	1.67	2665.66	2660	10	1.90E-03	50.7	
11	0	1460.80*	1	14	3.36	2920.63	2910	18	1.31E-04	*****	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 22:22:51

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029810.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 2-FEB-2010 00:00:00 Acquisition date : 10-FEB-2010 20:22:23
Sample ID : G1202029810 Sample quantity : 148.38 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.95 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.169E-02	2.890E-01	2.343E-01	2.146E-02	0.050
TL-208		277.35		6.801E-02	1.915E-01	3.136E-01	5.171E-02	0.217
	+	510.84		2.256E-01	1.685E-01	1.036E-01	1.350E-02	2.177
	+	583.14	*	4.397E-03	2.348E-02	2.763E-02	2.996E-03	0.159
		860.37		1.776E-03	1.258E-01	2.097E-01	2.444E-02	0.008
TH-234	+	63.29	*	2.579E-01	7.983E-01	7.989E-01	1.391E-01	0.323
	+	92.38		9.775E-02	4.152E-01	3.190E-01	5.844E-02	0.306
U-238	+	63.29	*	2.579E-01	7.983E-01	7.989E-01	1.391E-01	0.323
	+	92.38		9.775E-02	4.149E-01	3.190E-01	2.906E-02	0.306
ANH-511	+	511.00	*	4.874E-02	3.616E-02	2.239E-02	2.243E-03	2.177

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.895E-02	1.512E-01	2.343E-01	2.445E-02	-0.294
NA-22		1274.54	*	1.314E-02	1.763E-02	3.188E-02	2.748E-03	0.412
NA-24		1368.53	*	1.035E-04	1.763E-02	Half-Life too short		
AL-26		1129.67		7.273E-02	6.886E-01	1.131E+00	9.850E-02	0.064
		1808.65	*	1.947E-02	1.669E-02	3.257E-02	2.663E-03	0.598
TI-44		67.85		-6.647E-03	1.739E-02	2.657E-02	2.028E-03	-0.250
		78.38	*	1.940E-04	1.257E-02	2.056E-02	1.744E-03	0.009
SC-46		889.25	*	7.720E-03	1.695E-02	2.944E-02	3.296E-03	0.262
		1120.51		-4.173E-03	2.554E-02	3.848E-02	3.402E-03	-0.108
V-48		944.10		9.168E-02	3.126E-01	5.320E-01	5.770E-02	0.172
		983.50	*	4.408E-03	2.631E-02	4.399E-02	4.614E-03	0.100
		1312.09		7.834E-03	2.489E-02	4.291E-02	3.780E-03	0.183
CR-51		320.08	*	-3.443E-02	1.647E-01	2.717E-01	3.518E-02	-0.127
MN-52		744.21		2.057E-02	5.178E-02	8.740E-02	9.498E-03	0.235
		848.13		5.998E-01	1.581E+00	2.723E+00	3.031E-01	0.220
		935.52		-3.118E-02	4.726E-02	7.118E-02	7.771E-03	-0.438
		1246.25		-3.606E-01	1.264E+00	2.017E+00	1.705E-01	-0.179
	+	1333.61		1.006E+00	1.025E+00	1.790E+00	1.596E-01	0.562
		1434.06	*	6.045E-02	6.164E-02	1.126E-01	1.007E-02	0.537

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MN-54		834.83	*	-3.463E-03	1.960E-02	3.222E-02	3.579E-03	-0.107
CO-56		846.75	*	-4.932E-03	1.978E-02	3.221E-02	3.585E-03	-0.153
		977.42		-5.879E-01	1.228E+00	1.897E+00	2.001E-01	-0.310
		1037.82		-5.953E-02	1.392E-01	2.158E-01	2.225E-02	-0.276
		1175.09		6.182E-01	8.929E-01	1.599E+00	1.288E-01	0.387
		1238.25		-4.011E-03	3.328E-02	5.515E-02	4.779E-03	-0.073
		1360.21		1.221E-01	4.481E-01	7.645E-01	6.828E-02	0.160
		1771.40		-2.139E-01	1.578E-01	2.076E-01	1.725E-02	-1.030
CO-57		122.06	*	-2.665E-03	1.214E-02	1.896E-02	1.563E-03	-0.141
		136.48		-2.604E-02	1.004E-01	1.675E-01	1.554E-02	-0.155
CO-58		810.76	*	-2.208E-02	1.791E-02	2.593E-02	2.871E-03	-0.852
FE-59		142.65		1.333E-01	1.298E+00	2.062E+00	1.825E-01	0.065
		192.34		1.115E-01	4.417E-01	7.381E-01	1.096E-01	0.151
		1099.22	*	2.450E-02	3.545E-02	6.233E-02	6.109E-03	0.393
		1291.56		2.203E-02	4.787E-02	8.370E-02	8.249E-03	0.263
CO-60		1173.22		-4.587E-03	1.868E-02	3.029E-02	2.436E-03	-0.151
	+	1332.49	*	1.699E-02	1.731E-02	3.078E-02	2.745E-03	0.552
ZN-65		1115.52	*	-3.537E-02	3.601E-02	5.033E-02	4.490E-03	-0.703
GE-68		1077.35	*	-2.192E-01	5.161E-01	7.913E-01	7.460E-02	-0.277
AS-73		53.44	*	-3.163E-01	3.356E-01	4.759E-01	3.596E-02	-0.665
AS-74		595.88	*	-4.746E-03	3.979E-02	6.536E-02	6.775E-03	-0.073
		634.78		-2.139E-02	1.369E-01	2.223E-01	2.330E-02	-0.096
SE-75		66.05		2.340E-01	2.022E+00	2.890E+00	2.757E-01	0.081
		96.73		-1.368E-01	3.672E-01	5.097E-01	7.016E-02	-0.268
		121.11		2.523E-02	6.297E-02	1.025E-01	1.120E-02	0.246
		136.00		-4.691E-03	1.854E-02	3.094E-02	2.685E-03	-0.152
		198.60		9.438E-02	1.140E+00	1.606E+00	1.877E-01	0.059
		264.65	*	1.119E-02	2.118E-02	3.523E-02	4.742E-03	0.318
		279.53		-8.310E-03	5.420E-02	8.574E-02	1.217E-02	-0.097
		303.91		3.268E-01	1.020E+00	1.745E+00	2.659E-01	0.187
		400.65		-1.182E-01	1.248E-01	1.883E-01	2.204E-02	-0.628
BR-77		87.88		4.819E+00	1.281E+01	1.872E+01	1.774E+00	0.257
		200.40		-7.120E+00	1.627E+01	2.265E+01	2.491E+00	-0.314
	+	239.00		1.029E+00	1.229E+00	1.531E+00	1.905E-01	0.672
		249.79		3.509E+00	5.392E+00	9.062E+00	1.165E+00	0.387
		281.68		-2.378E+00	7.513E+00	1.172E+01	1.633E+00	-0.203
		297.23		1.557E+00	4.211E+00	7.232E+00	9.725E-01	0.215
		303.76		4.056E+00	1.443E+01	2.465E+01	3.261E+00	0.165
		439.47		-5.839E+00	1.202E+01	1.878E+01	1.808E+00	-0.311
		484.57		3.838E+00	1.998E+01	3.274E+01	3.236E+00	0.117
		520.65	*	2.513E-01	8.476E-01	1.395E+00	1.404E-01	0.180
		574.64		-1.190E+01	1.617E+01	2.509E+01	2.582E+00	-0.474
		578.91		4.640E-01	6.297E+00	9.110E+00	9.388E-01	0.051
		585.48		2.087E+01	1.480E+01	2.433E+01	2.513E+00	0.857
		755.35		-1.207E+01	1.256E+01	1.807E+01	1.970E+00	-0.668
		817.79		6.632E+00	1.026E+01	1.815E+01	2.010E+00	0.365
SR-82		698.33		-2.812E-01	1.324E+01	2.158E+01	2.308E+00	-0.013
		776.49	*	9.325E-03	1.447E-01	2.356E-01	2.584E-02	0.040
		1395.20		-1.076E+00	5.053E+00	8.055E+00	7.202E-01	-0.134

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-83		520.41	*	9.157E-03	3.309E-02	5.436E-02	5.471E-03	0.168
		529.64		8.302E-03	4.644E-02	7.896E-02	7.980E-03	0.105
		552.65		2.245E-02	8.146E-02	1.394E-01	1.422E-02	0.161
RB-84		881.50	*	-1.198E-02	2.834E-02	4.482E-02	5.013E-03	-0.267
KR-85		513.99	*	1.877E+01	5.074E+00	8.841E+00	8.871E-01	2.123
SR-85		513.99	*	9.008E-02	2.436E-02	4.244E-02	4.258E-03	2.123
RB-86		1076.63	*	-1.203E-01	2.665E-01	4.074E-01	3.844E-02	-0.295
Y-88		898.02		5.301E-04	1.804E-02	2.999E-02	3.369E-03	0.018
		1836.01	*	1.193E-02	1.679E-02	3.105E-02	2.511E-03	0.384
ZR-88		392.90	*	-6.562E-03	1.459E-02	2.314E-02	2.155E-03	-0.284
Y-91		1204.90	*	-1.990E+00	5.950E+00	9.438E+00	7.760E-01	-0.211
NB-94		702.63	*	7.368E-03	1.505E-02	2.571E-02	2.756E-03	0.287
		871.10		-9.754E-03	1.645E-02	2.557E-02	2.856E-03	-0.381
NB-95		765.79	*	5.708E-03	1.747E-02	2.922E-02	3.195E-03	0.195
NB-95M		235.69	*	-7.632E-02	6.535E-02	8.178E-02	1.081E-02	-0.933
ZR-95		724.18		-2.801E-02	3.892E-02	5.831E-02	6.648E-03	-0.480
		756.15	*	-2.620E-02	3.197E-02	4.701E-02	5.457E-03	-0.557
NB-97		657.90	*	-2.915E-05	3.197E-02	Half-Life too short		
		1024.50		-2.106E-03	3.197E-02	Half-Life too short		
ZR-97		254.15		-5.137E-03	3.197E-02	Half-Life too short		
		355.39		-4.912E-03	3.197E-02	Half-Life too short		
		507.63	*	8.449E-03	3.197E-02	Half-Life too short		
		602.52		3.265E-03	3.197E-02	Half-Life too short		
		1021.30		1.967E-03	3.197E-02	Half-Life too short		
		1147.95		1.646E-04	3.197E-02	Half-Life too short		
		1362.66		-4.450E-03	3.197E-02	Half-Life too short		
		1750.46		2.868E-03	3.197E-02	Half-Life too short		
MO-99		140.51		-1.213E+00	2.862E+00	4.385E+00	1.216E+00	-0.277
		181.06		-1.268E+00	2.001E+00	2.744E+00	5.254E-01	-0.462
		366.43		5.413E+00	8.847E+00	1.524E+01	1.617E+00	0.355
		739.58	*	1.959E-01	1.103E+00	1.824E+00	3.019E-01	0.107
		778.00		3.010E+00	3.079E+00	5.485E+00	6.018E-01	0.549
TC-99M		140.51	*	-2.570E+02	3.079E+00	Half-Life too short		
RH-101		127.23		6.784E-03	1.581E-02	2.565E-02	2.144E-03	0.264
		198.01	*	1.514E-03	2.181E-02	3.073E-02	3.352E-03	0.049
		325.23		1.355E-02	1.101E-01	1.854E-01	2.304E-02	0.073
RH-102		418.52		6.971E-02	1.499E-01	2.534E-01	2.405E-02	0.275
		475.06	*	3.230E-03	1.505E-02	2.476E-02	2.435E-03	0.130
		631.29		1.220E-02	2.682E-02	4.595E-02	4.812E-03	0.265
		697.49		5.971E-03	3.475E-02	5.771E-02	6.172E-03	0.103
		766.84		8.573E-03	4.723E-02	7.788E-02	8.519E-03	0.110
		1046.59		-7.368E-03	5.563E-02	8.946E-02	8.773E-03	-0.082
		1112.84		-6.276E-02	8.184E-02	1.166E-01	1.043E-02	-0.538
RU-103		497.08	*	6.853E-03	1.875E-02	3.109E-02	4.666E-03	0.220
	+	610.33		2.641E-01	5.572E-01	7.330E-01	1.296E-01	0.360
RH-106	+	511.85		2.406E-01	1.785E-01	2.592E-01	2.598E-02	0.928
		621.84	*	6.478E-02	1.573E-01	2.684E-01	3.919E-02	0.241
		1050.47		2.546E-02	1.074E+00	1.757E+00	1.715E-01	0.014
RU-106	+	511.85		2.406E-01	1.785E-01	2.592E-01	2.598E-02	0.928

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		621.84	*	6.478E-02	1.571E-01	2.684E-01	2.804E-02	0.241
		1050.47		2.546E-02	1.074E+00	1.757E+00	1.715E-01	0.014
AG-108M		433.93	*	1.408E-02	1.729E-02	2.983E-02	2.953E-03	0.472
		614.37		7.059E-03	2.182E-02	3.222E-02	3.449E-03	0.219
		722.95		-6.460E-03	1.923E-02	3.023E-02	3.344E-03	-0.214
CD-109		88.03	*	1.236E-01	3.644E-01	5.307E-01	5.036E-02	0.233
AG-110M		657.75	*	-4.001E-03	1.665E-02	2.673E-02	2.873E-03	-0.150
		677.61		-5.628E-02	1.421E-01	2.232E-01	2.414E-02	-0.252
		706.67		-8.054E-03	9.865E-02	1.597E-01	1.744E-02	-0.050
		763.93		-6.963E-03	7.579E-02	1.216E-01	1.352E-02	-0.057
		884.67		-1.068E-02	2.269E-02	3.567E-02	4.068E-03	-0.299
		937.48		2.077E-02	4.257E-02	7.444E-02	8.301E-03	0.279
		1384.27		-5.632E-03	7.263E-02	1.178E-01	1.081E-02	-0.048
IN-111		171.28		-1.071E-02	1.032E-01	1.707E-01	1.704E-02	-0.063
		245.39	*	-7.900E-02	1.360E-01	1.814E-01	2.301E-02	-0.436
IN-113M		391.69	*	-2.758E-03	2.140E-02	3.484E-02	3.328E-03	-0.079
SN-113		391.69	*	-2.758E-03	2.140E-02	3.484E-02	3.328E-03	-0.079
IN-114M		190.27	*	3.761E-02	8.553E-02	1.444E-01	1.535E-02	0.260
CD-115		260.90		-4.515E+00	9.781E+00	1.521E+01	2.021E+00	-0.297
		492.35		-2.147E+00	2.711E+00	4.047E+00	4.017E-01	-0.530
		527.90	*	1.467E-01	7.101E-01	1.211E+00	1.222E-01	0.121
SN-117M		156.02		4.930E-02	8.032E-01	1.350E+00	1.265E-01	0.037
		158.56	*	6.613E-03	1.999E-02	3.402E-02	3.226E-03	0.194
SB-122		563.90	*	1.103E-01	2.041E-01	3.541E-01	3.630E-02	0.311
		692.80		7.142E-01	4.000E+00	6.652E+00	7.103E-01	0.107
I-123		159.00	*	3.350E-04	4.000E+00	Half-Life too short		
		528.96		2.177E-02	4.000E+00	Half-Life too short		
TE-123M		159.00	*	4.487E-03	1.360E-02	2.314E-02	2.210E-03	0.194
I-124		602.71	*	5.190E-02	1.624E-01	2.384E-01	2.476E-02	0.218
		722.78		-2.041E-01	7.138E-01	1.128E+00	1.217E-01	-0.181
		1325.50		3.917E-01	8.039E+00	1.048E+01	9.307E-01	0.037
		1376.25		1.375E-02	5.143E+00	8.449E+00	7.552E-01	0.002
		1509.49		1.538E+00	3.061E+00	5.310E+00	4.719E-01	0.290
		1691.02		1.648E-01	8.001E-01	1.366E+00	1.168E-01	0.121
SB-124		602.71		7.935E-03	2.482E-02	3.645E-02	3.786E-03	0.218
		645.85		3.009E-02	1.964E-01	3.284E-01	3.592E-02	0.092
		709.31		6.351E-02	1.273E+00	2.085E+00	2.240E-01	0.030
		713.82		1.390E-01	7.931E-01	1.313E+00	1.792E-01	0.106
		722.78		-4.523E-02	1.582E-01	2.500E-01	2.736E-02	-0.181
		968.20		8.889E-02	1.194E+00	1.983E+00	2.108E-01	0.045
		1045.16		4.397E-01	1.155E+00	1.960E+00	1.925E-01	0.224
		1325.50		9.273E-02	1.903E+00	2.481E+00	2.203E-01	0.037
		1368.21		1.694E-01	8.444E-01	1.423E+00	1.947E-01	0.119
		1436.60		9.773E-01	1.997E+00	3.464E+00	3.095E-01	0.282
		1691.02	*	8.618E-03	4.183E-02	7.139E-02	6.350E-03	0.121
SB-125		427.89	*	-6.025E-03	4.620E-02	7.459E-02	7.238E-03	-0.081
		463.38		-6.024E-02	1.328E-01	2.064E-01	2.140E-02	-0.292
		600.56		2.183E-02	1.078E-01	1.772E-01	1.934E-02	0.123
		635.90		-6.753E-02	1.372E-01	2.045E-01	2.263E-02	-0.330

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M		109.28	*	9.025E-01	4.383E+00	7.089E+00	7.169E-01	0.127
I-126		388.63		1.213E-02	7.150E-02	1.192E-01	1.128E-02	0.102
		666.33	*	-4.058E-02	6.056E-02	9.258E-02	9.782E-03	-0.438
		753.82		-2.707E-01	4.971E-01	7.573E-01	8.253E-02	-0.357
SB-126		223.80		6.518E-01	1.467E+00	2.452E+00	2.909E-01	0.266
		278.60		-2.101E-02	8.890E-01	1.420E+00	1.985E-01	-0.015
		296.50		-1.883E-01	5.230E-01	8.066E-01	1.087E-01	-0.233
		414.70		-5.834E-04	2.688E-02	4.391E-02	4.156E-03	-0.013
		415.30		-4.548E-01	2.238E+00	3.603E+00	3.412E-01	-0.126
		555.20		1.806E-01	1.210E+00	2.047E+00	2.091E-01	0.088
		573.80		-7.588E-02	3.602E-01	5.885E-01	6.054E-02	-0.129
		593.00		-8.504E-02	3.403E-01	5.526E-01	5.722E-02	-0.154
		656.30		6.001E-03	1.125E+00	1.850E+00	1.949E-01	0.003
		666.33		-1.671E-02	2.494E-02	3.814E-02	4.029E-03	-0.438
		675.00		-1.589E-01	6.826E-01	1.093E+00	1.159E-01	-0.145
		695.00		-1.108E-02	2.546E-02	3.976E-02	4.249E-03	-0.279
		697.00		-5.737E-03	8.741E-02	1.419E-01	1.517E-02	-0.040
		720.50	*	-1.385E-02	4.918E-02	7.783E-02	8.393E-03	-0.178
		856.80		-3.625E-02	1.514E-01	2.457E-01	2.740E-02	-0.148
		989.30		2.563E-01	4.197E-01	7.336E-01	7.652E-02	0.349
		1034.80		-2.016E-01	2.842E+00	4.605E+00	4.579E-01	-0.044
		1213.00		3.823E-01	1.196E+00	2.068E+00	1.710E-01	0.185
SN-126	+	64.28		1.021E-01	3.158E-01	3.615E-01	5.250E-02	0.282
		86.94		2.036E-02	1.587E-01	2.275E-01	9.446E-02	0.089
		87.57	*	1.263E-03	3.773E-02	5.375E-02	5.075E-03	0.024
SB-127		61.10		6.455E+00	7.131E+00	1.142E+01	9.475E-01	0.565
		252.40		-1.169E-01	7.105E-01	1.131E+00	4.833E-01	-0.103
		290.80		1.978E+00	3.455E+00	6.003E+00	8.568E-01	0.329
		411.60		-9.502E-01	1.879E+00	2.940E+00	4.450E-01	-0.323
		444.90		-4.893E-01	1.578E+00	2.496E+00	2.986E-01	-0.196
		473.00		1.737E-01	2.729E-01	4.638E-01	5.769E-02	0.375
		543.00		2.580E+00	2.694E+00	4.796E+00	6.838E-01	0.538
		603.60		4.032E-01	2.514E+00	3.638E+00	4.560E-01	0.111
		685.20	*	-1.568E-02	2.042E-01	3.315E-01	3.861E-02	-0.047
		698.50		-8.467E-02	2.266E+00	3.687E+00	5.916E-01	-0.023
		722.20		-1.371E+00	4.434E+00	6.988E+00	8.080E-01	-0.196
		783.80		-2.878E-01	5.129E-01	7.716E-01	9.990E-02	-0.373
XE-127		57.60		-1.006E+00	1.865E+00	2.983E+00	2.143E-01	-0.337
		145.22		-1.687E-01	3.276E-01	5.021E-01	4.490E-02	-0.336
		172.10		1.161E-02	5.194E-02	8.746E-02	8.753E-03	0.133
		202.84	*	1.721E-02	2.355E-02	3.745E-02	4.152E-03	0.460
		374.96		-2.499E-02	8.627E-02	1.392E-01	1.418E-02	-0.180
I-131		80.18		-1.934E-01	9.763E-01	1.573E+00	1.364E-01	-0.123
		284.30		1.185E-01	4.712E-01	7.654E-01	1.080E-01	0.155
		364.48	*	-1.181E-02	3.464E-02	5.588E-02	6.177E-03	-0.211
		636.97		-1.833E-01	4.620E-01	6.966E-01	7.563E-02	-0.263
		722.89		-6.014E-01	1.890E+00	2.977E+00	3.217E-01	-0.202
TE-132		49.72		-5.723E-01	1.822E+00	2.989E+00	2.659E-01	-0.191
		111.76		-5.829E-01	4.431E+00	6.713E+00	6.167E-01	-0.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		116.30		4.388E-01	3.699E+00	5.927E+00	5.413E-01	0.074
		228.16	*	-4.622E-03	9.911E-02	1.608E-01	2.733E-02	-0.029
BA-133		53.15		-1.083E+00	1.529E+00	2.213E+00	1.679E-01	-0.489
		79.62		-6.154E-02	4.744E-01	7.682E-01	1.168E-01	-0.080
		81.00		8.089E-03	3.563E-02	5.894E-02	9.393E-03	0.137
		276.40		1.800E-01	1.886E-01	3.171E-01	5.739E-02	0.568
		302.84		-5.212E-03	7.289E-02	1.220E-01	2.034E-02	-0.043
		356.01	*	-2.358E-02	2.273E-02	3.449E-02	5.154E-03	-0.684
		383.85		-3.409E-02	1.496E-01	2.420E-01	3.239E-02	-0.141
I-133	+	510.53		3.297E-03	1.496E-01	Half-Life too short		
		529.87	*	1.110E-05	1.496E-01	Half-Life too short		
		706.58		-1.295E-04	1.496E-01	Half-Life too short		
		856.28		-2.311E-04	1.496E-01	Half-Life too short		
		875.33		3.642E-04	1.496E-01	Half-Life too short		
		1236.41		-4.325E-04	1.496E-01	Half-Life too short		
		1298.22		-3.609E-04	1.496E-01	Half-Life too short		
CS-134		475.35		-1.897E-02	9.842E-01	1.588E+00	1.562E-01	-0.012
		563.23		1.181E-01	1.691E-01	2.972E-01	3.066E-02	0.397
		569.32		9.938E-02	1.000E-01	1.782E-01	1.848E-02	0.558
		604.70		1.304E-03	2.217E-02	3.175E-02	3.306E-03	0.041
		795.84	*	2.858E-03	2.192E-02	3.583E-02	3.966E-03	0.080
		801.93		7.807E-03	2.325E-01	3.421E-01	3.788E-02	0.023
		1038.57		-4.686E-01	1.832E+00	2.904E+00	2.875E-01	-0.161
		1167.94		2.725E-01	9.157E-01	1.585E+00	1.288E-01	0.172
		1365.15		-4.844E-01	7.235E-01	1.008E+00	9.392E-02	-0.480
CS-135		268.24	*	-1.660E-02	8.512E-02	1.252E-01	1.812E-02	-0.133
I-135		288.45		-1.158E+03	8.512E-02	Half-Life too short		
		417.63		6.964E+02	8.512E-02	Half-Life too short		
		546.56		-8.905E+02	8.512E-02	Half-Life too short		
		836.80		-1.116E+02	8.512E-02	Half-Life too short		
		1038.76		-2.556E+02	8.512E-02	Half-Life too short		
		1124.00		1.489E+03	8.512E-02	Half-Life too short		
		1131.51		-4.740E+01	8.512E-02	Half-Life too short		
		1260.41	*	-1.399E+02	8.512E-02	Half-Life too short		
		1457.56		1.657E+03	8.512E-02	Half-Life too short		
		1678.03		9.829E-01	8.512E-02	Half-Life too short		
		1706.46		-1.064E+03	8.512E-02	Half-Life too short		
		1791.20		1.020E+03	8.512E-02	Half-Life too short		
CS-136		66.91		-2.767E-01	2.593E-01	3.302E-01	4.911E-02	-0.838
		86.29		6.732E-02	3.340E-01	5.105E-01	6.794E-02	0.132
		153.22		3.690E-02	2.297E-01	3.885E-01	3.965E-02	0.095
		163.89		-1.267E-01	3.859E-01	6.323E-01	6.730E-02	-0.200
		176.55		7.399E-02	1.309E-01	2.237E-01	2.366E-02	0.331
		273.65		-1.720E-01	1.683E-01	2.475E-01	3.500E-02	-0.695
		340.57		1.268E-02	5.236E-02	8.031E-02	9.618E-03	0.158
		818.51		2.008E-03	2.577E-02	4.340E-02	4.807E-03	0.046
		1048.07	*	-4.114E-02	3.917E-02	5.585E-02	5.646E-03	-0.737
		1235.34		-1.831E-02	1.560E-01	2.555E-01	2.984E-02	-0.072
BA-137M		661.65	*	2.153E-03	1.641E-02	2.728E-02	2.876E-03	0.079

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CS-137		661.65	*	2.276E-03	1.735E-02	2.883E-02	3.045E-03	0.079
CE-139		165.85	*	7.029E-03	1.425E-02	2.436E-02	2.389E-03	0.288
BA-140		162.64		3.742E-02	2.702E-01	4.544E-01	4.595E-02	0.082
		304.84		1.516E-01	4.667E-01	7.957E-01	2.367E-01	0.191
		423.70		-2.321E-01	7.023E-01	1.111E+00	3.629E-01	-0.209
		537.32	*	-5.589E-02	9.527E-02	1.488E-01	4.993E-02	-0.376
LA-140		328.77		8.098E-02	9.917E-02	1.736E-01	2.193E-02	0.467
		432.53		-3.693E-01	7.917E-01	1.216E+00	1.211E-01	-0.304
		487.03		1.444E-02	5.057E-02	8.352E-02	8.657E-03	0.173
		751.79		1.608E-01	5.686E-01	9.490E-01	1.104E-01	0.169
		815.85		1.309E-01	1.124E-01	2.061E-01	2.444E-02	0.635
		867.82		1.649E-01	4.524E-01	7.800E-01	8.988E-02	0.211
		919.63		4.875E-02	8.750E-01	1.456E+00	1.848E-01	0.033
		925.24		-2.766E-01	4.078E-01	4.999E-01	5.714E-02	-0.553
		1596.49	*	4.974E-03	2.900E-02	4.957E-02	4.345E-03	0.100
CE-141		145.44	*	1.873E-03	2.664E-02	4.500E-02	4.096E-03	0.042
CE-143		57.37		-6.111E+00	1.558E+01	2.520E+01	2.273E+00	-0.242
		231.56		4.069E+01	5.884E+01	9.702E+01	3.184E+01	0.419
		293.26	*	-3.454E-01	2.698E+00	4.508E+00	1.083E+00	-0.077
		350.59		4.359E+01	3.795E+01	6.321E+01	2.022E+01	0.690
		490.36		9.782E+00	6.258E+01	1.021E+02	3.274E+01	0.096
		664.57		-9.818E+00	2.694E+01	4.041E+01	1.333E+01	-0.243
		721.93		-1.215E+01	2.752E+01	4.240E+01	1.272E+01	-0.286
CE-144		80.11		-1.639E-01	7.590E-01	1.222E+00	1.056E-01	-0.134
		133.54	*	-2.017E-02	9.579E-02	1.603E-01	2.488E-02	-0.126
PM-144		476.78		-4.214E-04	3.317E-02	5.355E-02	5.652E-03	-0.008
		618.01		-6.080E-03	1.619E-02	2.588E-02	2.751E-03	-0.235
		696.49	*	-6.416E-03	1.585E-02	2.483E-02	2.655E-03	-0.258
		778.57		8.561E-01	1.019E+00	1.789E+00	1.964E-01	0.478
PR-144		696.49	*	-4.334E-01	1.070E+00	1.677E+00	1.793E-01	-0.258
		1489.15		-4.250E+00	5.896E+00	8.396E+00	7.478E-01	-0.506
PM-146		453.90	*	-1.309E-02	2.226E-02	3.425E-02	3.980E-03	-0.382
		633.02		1.799E-01	6.901E-01	1.158E+00	4.383E-01	0.155
		735.90		-2.322E-02	6.864E-02	1.069E-01	3.137E-02	-0.217
		747.13		-9.621E-03	4.373E-02	6.929E-02	1.076E-02	-0.139
ND-147	+	91.11		3.311E-02	1.405E-01	1.475E-01	1.458E-02	0.224
		319.41		-1.857E-01	1.141E+00	1.889E+00	2.391E-01	-0.098
		439.89		-3.908E-01	2.006E+00	3.213E+00	3.094E-01	-0.122
		531.02	*	-1.597E-02	1.766E-01	2.935E-01	4.655E-02	-0.054
PM-149		285.90	*	1.536E+00	6.984E+00	1.131E+01	2.138E+00	0.136
EU-152		121.78		7.294E-03	3.498E-02	5.623E-02	5.398E-03	0.130
		244.69		3.871E-02	1.844E-01	2.657E-01	3.365E-02	0.146
		344.27	*	-1.864E-02	5.063E-02	8.204E-02	9.861E-03	-0.227
		443.98		-4.625E-01	4.794E-01	7.105E-01	6.859E-02	-0.651
		778.89		1.199E-01	1.183E-01	2.110E-01	2.315E-02	0.568
		867.32		1.741E-01	3.868E-01	6.717E-01	7.500E-02	0.259
		964.01		-1.713E-02	1.404E-01	2.283E-01	2.437E-02	-0.075
		1085.78		4.530E-02	1.739E-01	2.919E-01	2.720E-02	0.155
		1112.02		-6.122E-02	1.102E-01	1.625E-01	1.456E-02	-0.377

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		1407.95		0.000E+00	1.009E-01	1.654E-01	1.479E-02	0.000
GD-153		69.67		-6.844E-02	6.093E-01	9.614E-01	7.463E-02	-0.071
		83.37		2.201E+00	5.552E+00	9.253E+00	8.305E-01	0.238
		97.43	*	-4.143E-03	3.753E-02	5.334E-02	4.691E-03	-0.078
		103.18		-1.378E-02	4.768E-02	7.505E-02	6.413E-03	-0.184
EU-154		123.07		-3.213E-02	2.595E-02	3.724E-02	4.131E-03	-0.863
		247.94		4.522E-02	1.821E-01	2.990E-01	4.444E-02	0.151
		591.81		-4.555E-02	3.090E-01	5.061E-01	6.580E-02	-0.090
		723.30		-5.182E-02	8.122E-02	1.233E-01	1.422E-02	-0.420
		756.87		-3.843E-02	3.656E-01	5.859E-01	8.036E-02	-0.066
		873.19		-9.982E-02	1.425E-01	2.178E-01	3.084E-02	-0.458
		996.32		-1.496E-01	1.608E-01	2.282E-01	4.261E-02	-0.656
		1004.76		1.630E-02	8.961E-02	1.501E-01	1.938E-02	0.109
		1274.45	*	3.562E-02	4.929E-02	8.885E-02	1.004E-02	0.401
EU-155		48.70		-8.419E-01	8.810E-01	1.375E+00	1.120E-01	-0.612
		60.01		2.871E-01	1.855E+00	2.803E+00	1.991E-01	0.102
		86.54		1.083E-02	4.280E-02	6.563E-02	6.172E-03	0.165
		105.31	*	1.472E-02	4.999E-02	8.160E-02	7.005E-03	0.180
TB-160		86.79		1.067E-02	1.154E-01	1.653E-01	1.546E-02	0.065
		197.04		1.273E-01	3.121E-01	4.953E-01	5.385E-02	0.257
		215.65		-3.807E-02	3.420E-01	5.551E-01	6.416E-02	-0.069
		298.57		4.523E-02	5.170E-02	9.088E-02	1.218E-02	0.498
		879.36	*	3.416E-02	6.167E-02	1.080E-01	1.208E-02	0.316
		962.29		-1.261E-01	2.393E-01	3.729E-01	3.985E-02	-0.338
		966.15		6.630E-02	8.896E-02	1.561E-01	1.663E-02	0.425
		1177.93		3.728E-03	1.405E-01	2.350E-01	1.896E-02	0.016
		1271.85		-9.352E-02	2.746E-01	4.336E-01	3.726E-02	-0.216
HO-166M		80.57		-7.525E-03	9.951E-02	1.616E-01	1.404E-02	-0.047
	+	184.41		1.422E-02	2.371E-02	3.557E-02	3.709E-03	0.400
		280.46		-5.316E-02	4.633E-02	6.707E-02	9.366E-03	-0.793
		410.95		-1.121E-01	1.206E-01	1.821E-01	1.719E-02	-0.616
		711.68	*	1.808E-02	3.103E-02	5.313E-02	5.711E-03	0.340
		752.31		3.218E-03	1.272E-01	2.069E-01	2.254E-02	0.016
		810.29		-4.350E-02	2.875E-02	3.992E-02	4.413E-03	-1.090
TM-171		51.35		5.982E+00	1.121E+01	1.946E+01	1.518E+00	0.307
		52.39		-1.244E+00	6.585E+00	9.890E+00	7.590E-01	-0.126
		59.40		-7.780E-01	1.008E+01	1.492E+01	1.055E+00	-0.052
		66.72	*	-1.315E+01	1.295E+01	1.676E+01	1.267E+00	-0.785
LU-176		88.36		2.376E-02	8.525E-02	1.235E-01	1.168E-02	0.192
		201.83		4.146E-03	1.709E-02	2.508E-02	2.770E-03	0.165
		306.84	*	-5.835E-03	1.289E-02	2.099E-02	2.753E-03	-0.278
		401.10		-2.696E+00	3.408E+00	5.238E+00	4.908E-01	-0.515
LU-177		112.95		-4.072E-02	4.746E-01	7.192E-01	5.978E-02	-0.057
		208.36	*	-6.972E-02	2.805E-01	4.529E-01	5.112E-02	-0.154
LU-177M		52.97		-3.208E-01	6.695E-01	9.853E-01	7.497E-02	-0.326
		54.07		-2.585E-01	3.515E-01	5.066E-01	3.794E-02	-0.510
		61.30		5.752E-01	5.585E-01	9.023E-01	6.491E-02	0.638
		121.62		3.475E-02	1.746E-01	2.806E-01	2.311E-02	0.124
		147.16		5.739E-02	3.117E-01	5.291E-01	4.771E-02	0.108

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		171.86		3.510E-02	2.285E-01	3.834E-01	3.834E-02	0.092
		218.09		2.005E-02	4.157E-01	6.809E-01	7.932E-02	0.029
		268.79		9.380E-02	4.206E-01	6.391E-01	8.688E-02	0.147
		319.02		-9.376E-03	1.277E-01	2.127E-01	2.695E-02	-0.044
		367.43		1.728E-01	4.373E-01	7.436E-01	7.850E-02	0.232
		413.65	*	9.996E-05	8.421E-02	1.379E-01	1.304E-02	0.001
HF-181		56.28		-2.607E-02	3.015E-01	4.997E-01	3.640E-02	-0.052
		57.53		-6.812E-02	1.585E-01	2.556E-01	1.837E-02	-0.267
		65.20		2.880E-01	3.628E-01	5.465E-01	4.074E-02	0.527
		133.02		-1.971E-03	2.809E-02	4.740E-02	4.040E-03	-0.042
		136.25		-5.410E-02	2.023E-01	3.372E-01	2.909E-02	-0.160
		345.85		-4.396E-02	8.812E-02	1.412E-01	1.633E-02	-0.311
		482.03	*	1.684E-02	1.978E-02	3.408E-02	3.364E-03	0.494
W-181		56.28		-1.088E-02	1.261E-01	2.091E-01	1.523E-02	-0.052
		57.53		-2.849E-02	6.636E-02	1.070E-01	7.693E-03	-0.266
		65.20	*	1.196E-01	1.507E-01	2.270E-01	1.692E-02	0.527
TA-182		67.75		-1.430E-02	4.003E-02	6.130E-02	4.675E-03	-0.233
		100.10		2.344E-03	7.633E-02	1.230E-01	1.066E-02	0.019
		152.43		1.111E-02	1.557E-01	2.622E-01	2.419E-02	0.042
		222.10		9.383E-02	1.712E-01	2.878E-01	3.396E-02	0.326
		1001.68		2.398E-01	9.779E-01	1.514E+00	1.561E-01	0.158
		1121.28		-1.937E-02	7.217E-02	1.076E-01	9.499E-03	-0.180
		1189.05		2.205E-02	1.047E-01	1.792E-01	1.457E-02	0.123
		1221.42	*	4.119E-03	6.812E-02	1.141E-01	9.487E-03	0.036
		1230.97		-7.736E-02	1.638E-01	2.552E-01	2.136E-02	-0.303
RE-183		57.98		-3.893E-02	6.812E-02	1.030E-01	7.374E-03	-0.378
		59.32		-2.604E-03	3.926E-02	5.816E-02	4.113E-03	-0.045
		67.20		-7.514E-02	8.351E-02	1.087E-01	8.252E-03	-0.691
		162.32	*	1.272E-04	5.231E-02	8.738E-02	8.430E-03	0.001
		208.81		-4.839E-02	4.495E-01	7.320E-01	8.275E-02	-0.066
		291.72		1.834E-01	4.445E-01	7.660E-01	1.044E-01	0.239
RE-184		57.98		-1.488E-01	2.603E-01	3.938E-01	2.818E-02	-0.378
		59.32		-9.943E-03	1.499E-01	2.221E-01	1.571E-02	-0.045
		67.20		-2.871E-01	3.190E-01	4.154E-01	3.152E-02	-0.691
		161.27		-5.489E-02	1.749E-01	2.873E-01	2.759E-02	-0.191
		216.55		-2.212E-02	1.268E-01	2.048E-01	2.375E-02	-0.108
		252.85	*	-6.625E-02	1.153E-01	1.780E-01	2.310E-02	-0.372
		318.01		2.187E-02	2.265E-01	3.815E-01	4.848E-02	0.057
		792.07		3.235E-01	4.355E-01	7.557E-01	8.320E-02	0.428
		903.28		-1.872E-01	5.062E-01	6.709E-01	7.491E-02	-0.279
		920.93		8.638E-03	2.100E-01	2.988E-01	3.297E-02	0.029
OS-185		59.72		4.218E-03	1.050E-01	1.571E-01	1.112E-02	0.027
		61.14		5.448E-02	5.982E-02	9.590E-02	6.888E-03	0.568
		69.30		-7.889E-02	1.086E-01	1.644E-01	1.272E-02	-0.480
		592.07		-2.178E-01	1.237E+00	2.021E+00	2.092E-01	-0.108
		646.12	*	-4.570E-03	1.775E-02	2.841E-02	2.985E-03	-0.161
		717.42		2.143E-01	4.277E-01	7.282E-01	7.844E-02	0.294
		874.81		5.126E-02	2.661E-01	4.506E-01	5.036E-02	0.114
		880.27		2.009E-01	3.456E-01	6.070E-01	6.788E-02	0.331

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-188		155.03	*	6.540E-03	7.968E-02	1.341E-01	1.252E-02	0.049
		477.96		-4.664E-01	1.492E+00	2.344E+00	2.309E-01	-0.199
		633.10		2.881E-01	1.312E+00	2.205E+00	2.310E-01	0.131
W-188	+	63.58		9.738E+00	3.010E+01	3.653E+01	2.684E+00	0.267
		227.08		-2.964E+00	6.439E+00	1.018E+01	1.220E+00	-0.291
		290.67	*	1.777E+00	3.457E+00	5.992E+00	8.184E-01	0.297
IR-192		295.96		-4.861E-02	5.426E-02	8.035E-02	1.087E-02	-0.605
		308.46		-2.589E-02	4.845E-02	7.843E-02	1.027E-02	-0.330
		316.51	*	-1.497E-03	1.691E-02	2.815E-02	3.598E-03	-0.053
		468.07		6.163E-03	3.120E-02	5.135E-02	5.312E-03	0.120
		604.41		-1.566E-02	2.871E-01	4.065E-01	5.794E-02	-0.039
		612.46		3.400E-01	3.895E-01	6.050E-01	6.957E-02	0.562
AU-195		65.12		2.389E-02	7.337E-02	1.068E-01	7.958E-03	0.224
		66.83		-4.415E-02	4.198E-02	5.413E-02	4.094E-03	-0.816
		75.70		7.330E-02	6.443E-02	1.122E-01	9.242E-03	0.653
		98.88	*	1.091E-03	9.618E-02	1.549E-01	1.351E-02	0.007
		129.76		5.594E-01	1.281E+00	2.220E+00	1.871E-01	0.252
TL-200		367.94	*	7.759E-07	1.281E+00	Half-Life too short		
		579.30		7.739E-08	1.281E+00	Half-Life too short		
		828.27		2.724E-05	1.281E+00	Half-Life too short		
		1205.75		-1.925E-06	1.281E+00	Half-Life too short		
TL-201		68.90		-5.003E-01	4.429E-01	6.504E-01	5.013E-02	-0.769
		70.82		1.200E-01	2.388E-01	3.911E-01	3.069E-02	0.307
		80.30		-7.041E-02	4.392E-01	7.095E-01	6.146E-02	-0.099
		135.34		9.737E-01	2.916E+00	5.015E+00	4.311E-01	0.194
		167.43	*	2.403E-01	8.333E-01	1.410E+00	1.390E-01	0.170
TL-202		68.90		-1.314E-01	1.164E-01	1.709E-01	1.317E-02	-0.769
		70.82		3.143E-02	6.257E-02	1.025E-01	8.040E-03	0.307
		80.30		-1.845E-02	1.151E-01	1.859E-01	1.611E-02	-0.099
		439.56	*	-7.854E-03	2.508E-02	3.977E-02	3.828E-03	-0.197
HG-203		70.83		1.770E-01	3.529E-01	5.771E-01	7.577E-02	0.307
		72.87		-1.571E-01	2.058E-01	3.206E-01	4.107E-02	-0.490
		82.60		-3.500E-02	3.715E-01	6.017E-01	8.374E-02	-0.058
		279.20	*	-3.733E-03	1.909E-02	3.010E-02	4.261E-03	-0.124
BI-207		72.80		-5.200E-02	6.604E-02	1.030E-01	8.239E-03	-0.505
		74.97		2.194E-02	3.778E-02	6.398E-02	5.231E-03	0.343
		84.90		-2.408E-02	7.594E-02	1.211E-01	1.107E-02	-0.199
		569.67		1.896E-02	1.560E-02	2.816E-02	2.893E-03	0.673
		1063.62	*	9.167E-03	2.507E-02	4.250E-02	4.080E-03	0.216
		1770.23		-2.082E-01	3.383E-01	5.117E-01	4.254E-02	-0.407
TL-207		81.07		1.890E-02	7.875E-02	1.304E-01	1.140E-02	0.145
		83.78		-1.654E-02	4.961E-02	7.910E-02	7.134E-03	-0.209
		94.90		-2.575E-02	1.082E-01	1.525E-01	1.363E-02	-0.169
		122.32		-2.899E-01	8.474E-01	1.311E+00	1.167E-01	-0.221
		144.24		-2.177E-01	3.612E-01	5.505E-01	5.449E-02	-0.395
		154.21		-3.210E-02	1.933E-01	3.211E-01	3.243E-02	-0.100
		269.46		4.143E-02	1.006E-01	1.545E-01	2.122E-02	0.268
		323.87	*	-1.402E-01	3.349E-01	5.426E-01	1.078E-01	-0.258
		338.28		1.561E-03	5.890E-01	8.931E-01	1.321E-01	0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-3.403E-01	1.137E+00	1.801E+00	2.314E-01	-0.189
PO-209		260.50		-1.648E+00	5.034E+00	7.910E+00	1.050E+00	-0.208
		262.80		-5.775E+00	1.389E+01	2.165E+01	2.892E+00	-0.267
		896.60	*	5.631E-01	3.349E+00	5.651E+00	6.330E-01	0.100
BI-210		46.50	*	-2.770E-01	1.398E+00	2.151E+00	1.999E-01	-0.129
PB-210		46.50	*	-2.770E-01	1.398E+00	2.151E+00	1.999E-01	-0.129
PO-210		46.50	*	-2.770E-01	1.398E+00	2.151E+00	1.809E-01	-0.129
BI-211		72.87		-8.672E-01	1.133E+00	1.769E+00	1.416E-01	-0.490
		351.07	*	6.235E-02	1.159E-01	1.881E-01	2.195E-02	0.331
PB-211		404.84	*	4.141E-01	5.375E-01	8.212E-01	5.155E-01	0.504
		427.08		9.838E-03	1.026E+00	1.675E+00	1.043E+00	0.006
		831.96		-9.950E-01	8.845E-01	8.835E-01	5.571E-01	-1.126
BI-212		727.18	*	3.758E-02	1.421E-01	2.229E-01	2.663E-02	0.169
		785.46		-1.014E+00	7.858E-01	1.056E+00	1.160E-01	-0.960
		1620.62		-1.176E-01	6.245E-01	1.007E+00	8.782E-02	-0.117
PB-212		74.81		7.573E-02	1.305E-01	2.206E-01	2.738E-02	0.343
		77.11		-4.967E-02	7.281E-02	1.139E-01	9.525E-03	-0.436
		87.30		2.413E-02	1.758E-01	2.525E-01	3.468E-02	0.096
	+	238.63	*	3.985E-02	4.764E-02	5.875E-02	7.762E-03	0.678
		300.09		-1.766E-01	4.074E-01	6.447E-01	9.401E-02	-0.274
PO-212		74.81		7.573E-02	1.305E-01	2.206E-01	2.738E-02	0.343
		77.11		-4.967E-02	7.281E-02	1.139E-01	9.525E-03	-0.436
		87.30		2.413E-02	1.758E-01	2.525E-01	3.468E-02	0.096
		115.19		7.566E-01	1.833E+00	2.990E+00	2.476E-01	0.253
	+	238.63	*	3.985E-02	4.764E-02	5.875E-02	7.762E-03	0.678
		300.09		-1.766E-01	4.074E-01	6.447E-01	9.401E-02	-0.274
BI-214	+	609.31	*	2.731E-02	5.751E-02	7.441E-02	8.651E-03	0.367
		1120.29		-2.358E-02	1.573E-01	2.374E-01	2.623E-02	-0.099
		1764.49		2.166E-03	1.611E-01	2.785E-01	2.320E-02	0.008
PB-214		74.81		1.305E-01	2.247E-01	3.802E-01	4.191E-02	0.343
		77.11		-8.515E-02	1.250E-01	1.953E-01	2.209E-02	-0.436
		87.30		4.134E-02	3.012E-01	4.326E-01	5.263E-02	0.096
		241.98		2.642E-01	1.956E-01	3.037E-01	4.177E-02	0.870
		295.21		-4.586E-02	7.477E-02	1.132E-01	1.685E-02	-0.405
		351.92	*	1.604E-02	4.014E-02	6.461E-02	8.236E-03	0.248
PO-214		74.81		1.305E-01	2.247E-01	3.802E-01	4.191E-02	0.343
		77.11		-8.515E-02	1.250E-01	1.953E-01	2.209E-02	-0.436
		87.30		4.134E-02	3.012E-01	4.326E-01	5.263E-02	0.096
		241.98		2.642E-01	1.956E-01	3.037E-01	4.177E-02	0.870
		295.21		-4.586E-02	7.477E-02	1.132E-01	1.685E-02	-0.405
		351.92	*	1.604E-02	4.014E-02	6.461E-02	8.236E-03	0.248
PO-215		81.07		1.890E-02	7.875E-02	1.304E-01	1.140E-02	0.145
		83.78		-1.654E-02	4.961E-02	7.910E-02	7.134E-03	-0.209
		94.90		-2.575E-02	1.082E-01	1.525E-01	1.363E-02	-0.169
		122.32		-2.899E-01	8.474E-01	1.311E+00	1.167E-01	-0.221
		144.24		-2.177E-01	3.612E-01	5.505E-01	5.449E-02	-0.395
		154.21		-3.210E-02	1.933E-01	3.211E-01	3.243E-02	-0.100
		269.46		4.143E-02	1.006E-01	1.545E-01	2.122E-02	0.268
		323.87	*	-1.402E-01	3.349E-01	5.426E-01	1.078E-01	-0.258

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		338.28		1.561E-03	5.890E-01	8.931E-01	1.321E-01	0.002
		445.03		-3.403E-01	1.137E+00	1.801E+00	2.314E-01	-0.189
PO-216		74.81		7.573E-02	1.305E-01	2.206E-01	2.738E-02	0.343
		77.11		-4.967E-02	7.281E-02	1.139E-01	9.525E-03	-0.436
		87.30		2.413E-02	1.758E-01	2.525E-01	3.468E-02	0.096
	+	238.63	*	3.985E-02	4.764E-02	5.875E-02	7.762E-03	0.678
		300.09		-1.766E-01	4.074E-01	6.447E-01	9.401E-02	-0.274
PO-218		74.81		1.305E-01	2.247E-01	3.802E-01	4.191E-02	0.343
		77.11		-8.515E-02	1.250E-01	1.953E-01	2.209E-02	-0.436
		87.30		4.134E-02	3.012E-01	4.326E-01	5.263E-02	0.096
		241.98		2.642E-01	1.956E-01	3.037E-01	4.177E-02	0.870
		295.21		-4.586E-02	7.477E-02	1.132E-01	1.685E-02	-0.405
		351.92	*	1.604E-02	4.014E-02	6.461E-02	8.236E-03	0.248
RN-219		271.23		4.530E-03	1.307E-01	1.960E-01	2.903E-02	0.023
		401.81	*	-5.287E-02	2.075E-01	3.337E-01	5.163E-02	-0.158
RN-220		549.76	*	-3.967E+00	1.126E+01	1.816E+01	1.851E+00	-0.218
RA-223		81.07		1.890E-02	7.875E-02	1.304E-01	1.140E-02	0.145
		83.78		-1.654E-02	4.961E-02	7.910E-02	7.134E-03	-0.209
		94.90		-2.575E-02	1.082E-01	1.525E-01	1.363E-02	-0.169
		122.32		-2.899E-01	8.474E-01	1.311E+00	1.167E-01	-0.221
		144.24		-2.177E-01	3.612E-01	5.505E-01	5.449E-02	-0.395
		154.21		-3.210E-02	1.933E-01	3.211E-01	3.243E-02	-0.100
		269.46		4.143E-02	1.006E-01	1.545E-01	2.122E-02	0.268
		323.87	*	-1.402E-01	3.349E-01	5.426E-01	1.078E-01	-0.258
		338.28		1.561E-03	5.890E-01	8.931E-01	1.321E-01	0.002
		445.03		-3.403E-01	1.137E+00	1.801E+00	2.314E-01	-0.189
RA-224		240.98	*	6.039E-01	4.065E-01	6.315E-01	7.905E-02	0.956
RA-226	+	609.31	*	2.731E-02	5.751E-02	7.441E-02	8.651E-03	0.367
		1120.29		-2.358E-02	1.573E-01	2.374E-01	2.623E-02	-0.099
		1764.49		2.166E-03	1.611E-01	2.785E-01	2.320E-02	0.008
AC-227		79.80		-1.626E-01	6.052E-01	9.697E-01	2.085E-01	-0.168
		236.00		-6.016E-02	1.250E-01	1.692E-01	2.553E-02	-0.355
		256.20	*	-4.411E-02	1.930E-01	3.058E-01	5.580E-02	-0.144
		286.10		3.352E-01	8.298E-01	1.359E+00	2.316E-01	0.247
		299.80		-2.642E-01	7.537E-01	1.198E+00	2.426E-01	-0.220
		304.40		3.709E-01	9.474E-01	1.624E+00	3.407E-01	0.228
		334.20		-7.129E-01	1.140E+00	1.804E+00	3.818E-01	-0.395
TH-227		79.80		-1.626E-01	6.052E-01	9.697E-01	2.112E-01	-0.168
		94.00		-1.487E+00	1.109E+00	1.593E+00	3.495E-01	-0.933
		236.00		-6.016E-02	1.250E-01	1.692E-01	2.396E-02	-0.355
		256.20	*	-4.411E-02	1.930E-01	3.058E-01	6.294E-02	-0.144
		286.10		3.352E-01	8.943E-01	1.359E+00	1.372E+00	0.247
		299.80		-2.642E-01	7.537E-01	1.198E+00	2.426E-01	-0.220
		304.40		3.709E-01	9.474E-01	1.624E+00	3.407E-01	0.228
		334.20		-7.129E-01	1.140E+00	1.804E+00	3.818E-01	-0.395
AC-228		338.32		1.978E-03	1.412E-01	2.142E-01	9.011E-02	0.009
		911.07	*	-5.943E-02	7.132E-02	1.155E-01	1.530E-02	-0.515
		969.11		3.065E-02	1.238E-01	2.084E-01	5.034E-02	0.147
RA-228		338.32		1.978E-03	1.412E-01	2.142E-01	9.011E-02	0.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		911.07	*	-5.943E-02	7.132E-02	1.155E-01	1.530E-02	-0.515
		969.11		3.065E-02	1.238E-01	2.084E-01	5.034E-02	0.147
TH-228		74.81		7.640E-02	1.314E-01	2.226E-01	1.834E-02	0.343
		77.11		-5.011E-02	7.346E-02	1.149E-01	9.610E-03	-0.436
		87.30		2.434E-02	1.774E-01	2.548E-01	2.398E-02	0.096
	+	238.63	*	4.021E-02	4.806E-02	5.927E-02	7.831E-03	0.678
		300.09		-1.781E-01	4.240E-01	6.504E-01	3.912E-01	-0.274
TH-229		85.43		2.804E-02	7.400E-02	1.229E-01	1.131E-02	0.228
		88.47		1.151E-02	4.892E-02	7.065E-02	6.674E-03	0.163
		100.00		-2.740E-03	8.196E-02	1.315E-01	1.140E-02	-0.021
		193.63	*	-1.311E-03	2.579E-01	4.250E-01	4.569E-02	-0.003
		210.97		2.059E-01	3.627E-01	6.129E-01	6.977E-02	0.336
TH-230	+	609.31	*	2.731E-02	5.751E-02	7.441E-02	8.651E-03	0.367
		1120.29		-2.358E-02	1.573E-01	2.374E-01	2.623E-02	-0.099
		1764.49		2.166E-03	1.611E-01	2.785E-01	2.320E-02	0.008
PA-231		283.67	*	3.715E-01	8.198E-01	1.347E+00	2.514E-01	0.276
		301.29		-3.635E-01	3.056E-01	4.511E-01	7.172E-02	-0.806
TH-231		81.07		1.890E-02	7.875E-02	1.304E-01	1.140E-02	0.145
		83.78		-1.654E-02	4.961E-02	7.910E-02	7.134E-03	-0.209
		94.90		-2.575E-02	1.082E-01	1.525E-01	1.363E-02	-0.169
		122.32		-2.899E-01	8.474E-01	1.311E+00	1.167E-01	-0.221
		144.24		-2.177E-01	3.612E-01	5.505E-01	5.449E-02	-0.395
		154.21		-3.210E-02	1.933E-01	3.211E-01	3.243E-02	-0.100
		269.46		4.143E-02	1.006E-01	1.545E-01	2.122E-02	0.268
		323.87	*	-1.402E-01	3.349E-01	5.426E-01	1.078E-01	-0.258
		338.28		1.561E-03	5.890E-01	8.931E-01	1.321E-01	0.002
		445.03		-3.403E-01	1.137E+00	1.801E+00	2.314E-01	-0.189
U-231		84.21		-3.181E-01	7.549E-01	1.196E+00	1.084E-01	-0.266
	+	92.29		1.326E-01	5.627E-01	6.433E-01	5.866E-02	0.206
		95.87	*	-2.050E-02	1.795E-01	2.553E-01	2.267E-02	-0.080
		108.00		-1.971E-01	3.713E-01	5.743E-01	4.827E-02	-0.343
TH-232		338.32		1.978E-03	1.412E-01	2.142E-01	2.547E-02	0.009
		911.07	*	-5.943E-02	7.132E-02	1.155E-01	1.530E-02	-0.515
		969.11		3.065E-02	1.238E-01	2.084E-01	5.034E-02	0.147
PA-233		75.28		8.626E-01	1.093E+00	1.862E+00	2.815E-01	0.463
		86.59		1.517E-01	7.415E-01	1.069E+00	2.894E-01	0.142
		300.12		-9.396E-02	2.106E-01	3.325E-01	5.996E-02	-0.283
		311.98	*	1.299E-02	3.357E-02	5.756E-02	7.540E-03	0.226
		340.50		8.983E-02	3.541E-01	5.427E-01	1.365E-01	0.166
		398.62		-4.049E-01	1.049E+00	1.663E+00	4.469E-01	-0.244
		415.76		-2.145E-01	8.588E-01	1.376E+00	3.015E-01	-0.156
PA-234	+	63.00		3.007E-01	9.301E-01	1.179E+00	1.747E-01	0.255
		94.67		4.965E-03	7.847E-02	1.135E-01	1.434E-02	0.044
		98.44		8.205E-03	4.019E-02	6.516E-02	3.636E-02	0.126
		99.86		-3.153E-02	2.060E-01	3.280E-01	2.845E-02	-0.096
		111.00		6.973E-02	9.688E-02	1.605E-01	1.909E-02	0.434
		131.20		-3.249E-02	4.991E-02	8.158E-02	6.909E-03	-0.398
		152.70		3.681E-02	1.550E-01	2.631E-01	4.570E-02	0.140
	+	186.00		5.120E-01	8.674E-01	1.293E+00	4.108E-01	0.396

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		226.40		-1.178E-01	2.149E-01	3.371E-01	5.256E-02	-0.349
		227.20		-1.079E-01	2.331E-01	3.683E-01	4.417E-02	-0.293
		248.90		3.164E-01	4.126E-01	6.899E-01	1.679E-01	0.459
		293.70		-1.721E-01	3.294E-01	5.347E-01	1.081E-01	-0.322
		369.80		3.570E-04	4.312E-01	7.128E-01	1.608E-01	0.001
		568.70		4.074E-01	5.198E-01	9.134E-01	9.379E-02	0.446
		569.50		1.644E-01	1.381E-01	2.490E-01	2.558E-02	0.660
		574.00		-3.348E-01	7.348E-01	1.174E+00	1.208E-01	-0.285
		699.00		-9.581E-02	3.319E-01	5.257E-01	1.057E-01	-0.182
		706.10		-3.626E-01	5.201E-01	7.465E-01	3.363E-01	-0.486
		733.00		-1.016E-01	1.760E-01	2.658E-01	6.153E-02	-0.382
		742.81		1.664E-02	6.468E-01	1.053E+00	7.112E-01	0.016
		796.30		6.914E-02	4.394E-01	7.193E-01	2.007E-01	0.096
		805.60		3.507E-01	4.877E-01	8.489E-01	2.667E-01	0.413
		819.60		-3.485E-01	6.332E-01	9.784E-01	3.782E-01	-0.356
		826.30		1.126E-01	3.966E-01	6.750E-01	3.057E-01	0.167
		831.60		-5.409E-01	3.822E-01	4.564E-01	1.399E-01	-1.185
		876.40		2.403E-01	4.690E-01	7.016E-01	7.230E-01	0.342
		880.51		3.868E-02	1.326E-01	2.266E-01	2.534E-02	0.171
		883.24		-1.404E-01	1.680E-01	2.050E-01	1.386E-01	-0.685
		899.00		-9.811E-02	3.738E-01	5.968E-01	2.644E-01	-0.164
		925.00		-3.818E-01	5.970E-01	7.394E-01	8.135E-02	-0.516
		926.50		6.812E-02	7.364E-02	1.200E-01	3.142E-02	0.568
		946.00	*	4.370E-02	1.400E-01	2.383E-01	4.736E-02	0.183
		949.00		-6.986E-02	2.188E-01	3.483E-01	3.763E-02	-0.201
		980.50		1.849E-01	3.320E-01	5.790E-01	6.089E-02	0.319
		1394.10		-1.760E-01	6.327E-01	9.811E-01	6.390E-01	-0.179
PA-234M		766.42		2.078E+00	5.054E+00	8.347E+00	4.272E+00	0.249
		1001.03	*	9.185E-01	2.269E+00	3.568E+00	4.089E-01	0.257
U-234	+	609.31	*	2.731E-02	5.751E-02	7.441E-02	8.651E-03	0.367
		1120.29		-2.358E-02	1.573E-01	2.374E-01	2.623E-02	-0.099
		1764.49		2.166E-03	1.611E-01	2.785E-01	2.320E-02	0.008
U-235		89.95		-3.127E-01	5.060E-01	6.814E-01	2.116E-01	-0.459
	+	93.35		1.175E-01	4.998E-01	5.490E-01	1.546E-01	0.214
		105.00		2.901E-01	4.916E-01	8.056E-01	2.401E-01	0.360
		143.76	*	-6.725E-02	1.125E-01	1.710E-01	3.017E-02	-0.393
		163.35		-4.181E-02	2.351E-01	3.884E-01	7.609E-02	-0.108
	+	185.71		1.896E-02	3.162E-02	4.778E-02	5.003E-03	0.397
		205.31		-1.258E-01	2.940E-01	4.510E-01	9.183E-02	-0.279
NP-236		94.67		4.558E-03	5.956E-02	8.624E-02	7.722E-03	0.053
		98.44		6.195E-03	3.019E-02	4.926E-02	4.306E-03	0.126
		111.00		5.274E-02	7.314E-02	1.214E-01	1.013E-02	0.434
		160.31	*	8.400E-03	4.056E-02	6.852E-02	6.550E-03	0.123
NP-237		86.50	*	2.560E-02	1.047E-01	1.603E-01	3.630E-02	0.160
		95.87		-5.090E-02	4.457E-01	6.340E-01	1.568E-01	-0.080
NP-239		99.55		-2.007E-03	6.777E-02	1.088E-01	9.456E-03	-0.018
		117.00	*	-5.284E-02	9.808E-02	1.505E-01	1.244E-02	-0.351
		209.75		2.743E-01	3.826E-01	6.502E-01	7.373E-02	0.422
		228.18		-5.049E-03	1.230E-01	1.997E-01	2.403E-02	-0.025

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		1.495E-02	9.247E-02	1.496E-01	2.086E-02	0.100
		334.30		-3.260E-01	6.442E-01	1.035E+00	1.249E-01	-0.315
AM-241		59.54	*	-5.655E-03	5.883E-02	8.688E-02	6.791E-03	-0.065
AM-243		74.67	*	1.232E-02	2.118E-02	3.587E-02	2.924E-03	0.343
		86.72		7.992E-01	4.158E+00	5.999E+00	5.605E-01	0.133
		117.66		-1.208E+00	1.931E+00	2.941E+00	2.429E-01	-0.411
		142.18		1.829E+00	8.420E+00	1.435E+01	1.267E+00	0.127
CM-243		99.55		-2.065E-03	6.971E-02	1.119E-01	9.727E-03	-0.018
		103.76	*	6.131E-03	4.379E-02	7.090E-02	6.045E-03	0.086
		117.00		-5.434E-02	1.009E-01	1.548E-01	1.279E-02	-0.351
		209.75		2.703E-01	3.770E-01	6.407E-01	7.265E-02	0.422
		228.18		-5.100E-03	1.243E-01	2.017E-01	2.427E-02	-0.025
		277.60		1.507E-02	9.318E-02	1.508E-01	2.102E-02	0.100
AM-246		798.80		-4.717E-02	7.094E-02	1.062E-01	1.171E-02	-0.444
		1036.00		-8.410E-02	1.413E-01	2.140E-01	2.125E-02	-0.393
		1062.04		7.821E-02	1.098E-01	1.925E-01	1.852E-02	0.406
		1078.86	*	2.065E-04	5.801E-02	9.446E-02	8.886E-03	0.002
CM-247		278.00		2.339E-01	3.782E-01	6.291E-01	8.779E-02	0.372
		287.40		-6.970E-01	7.035E-01	1.035E+00	1.424E-01	-0.674
		402.60	*	2.987E-03	1.854E-02	3.080E-02	2.889E-03	0.097
CF-249		252.85		-2.551E-01	4.440E-01	6.853E-01	8.892E-02	-0.372
		333.44		-5.876E-02	8.282E-02	1.309E-01	1.583E-02	-0.449
		387.95	*	1.111E-02	1.960E-02	3.358E-02	3.192E-03	0.331
CF-251		176.60	*	3.825E-02	6.295E-02	1.078E-01	1.095E-02	0.355
		227.00		-1.023E-01	2.053E-01	3.236E-01	3.879E-02	-0.316
		285.00		7.234E-01	9.390E-01	1.571E+00	2.173E-01	0.460

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029810    *
* Acquisition date : 10-FEB-2010 20:22:23 Detector SN#     :               *
* Detector ID        : GAM22               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:00.95      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date        :  2-FEB-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202029810         Analyst initials: RXF2           *
* Batch Number       : 947531              Sample Quantity : 1.4838E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope       :                *
* MSD DPM          :    0.000             MSD Isotope      :               *
* LCS DPM          :    0.000             LCS Isotope      :               *
* LCSD DPM         :    0.000             LCSD Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.169E-02	2.832E-01	2.358E-01	0.000E+00
TL-208	4.397E-03	2.301E-02	2.844E-02	0.000E+00
TH-234	2.579E-01	7.823E-01	8.650E-01	0.000E+00
U-238	2.579E-01	7.823E-01	8.650E-01	0.000E+00
ANH-511	4.874E-02	3.544E-02	2.312E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.895E-02	1.482E-01	2.423E-01	0.000E+00	NOT IDENT.
NA-22	1.314E-02	1.727E-02	3.220E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.690E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.947E-02	1.636E-02	3.260E-02	0.000E+00	NOT IDENT.
TI-44	1.940E-04	1.231E-02	2.216E-02	0.000E+00	NOT IDENT.
SC-46	7.720E-03	1.661E-02	3.000E-02	0.000E+00	NOT IDENT.
V-48	4.408E-03	2.579E-02	4.471E-02	0.000E+00	NOT IDENT.
CR-51	-3.443E-02	1.614E-01	2.837E-01	0.000E+00	NOT IDENT.
MN-52	6.045E-02	6.041E-02	1.134E-01	0.000E+00	FAIL ABUN
MN-54	-3.463E-03	1.921E-02	3.288E-02	0.000E+00	NOT IDENT.
CO-56	-4.932E-03	1.938E-02	3.285E-02	0.000E+00	NOT IDENT.
CO-57	-2.665E-03	1.190E-02	2.023E-02	0.000E+00	NOT IDENT.
CO-58	-2.208E-02	1.755E-02	2.648E-02	0.000E+00	NOT IDENT.
FE-59	2.450E-02	3.474E-02	6.318E-02	0.000E+00	NOT IDENT.
CO-60	1.699E-02	1.696E-02	3.105E-02	0.000E+00	FAIL ABUN
ZN-65	-3.537E-02	3.529E-02	5.099E-02	0.000E+00	NOT IDENT.
GE-68	-2.192E-01	5.058E-01	8.024E-01	0.000E+00	NOT IDENT.
AS-73	-3.163E-01	3.289E-01	5.172E-01	0.000E+00	NOT IDENT.
AS-74	-4.746E-03	3.899E-02	6.724E-02	0.000E+00	NOT IDENT.
SE-75	1.119E-02	2.075E-02	3.694E-02	0.000E+00	NOT IDENT.
BR-77	2.513E-01	8.306E-01	1.439E+00	0.000E+00	FAIL ABUN
SR-82	9.325E-03	1.418E-01	2.408E-01	0.000E+00	NOT IDENT.

RB-83	9.157E-03	3.243E-02	5.611E-02	0.000E+00	NOT IDENT.
RB-84	-1.198E-02	2.777E-02	4.567E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	4.973E+00	9.128E+00	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.387E-02	4.382E-02	0.000E+00	NOT IDENT.
RB-86	-1.203E-01	2.612E-01	4.131E-01	0.000E+00	NOT IDENT.
Y-88	1.193E-02	1.646E-02	3.107E-02	0.000E+00	NOT IDENT.
ZR-88	-6.562E-03	1.430E-02	2.404E-02	0.000E+00	NOT IDENT.
Y-91	-1.990E+00	5.831E+00	9.544E+00	0.000E+00	NOT IDENT.
NB-94	7.368E-03	1.475E-02	2.635E-02	0.000E+00	NOT IDENT.
NB-95	5.708E-03	1.712E-02	2.988E-02	0.000E+00	NOT IDENT.
NB-95M	-7.632E-02	6.404E-02	8.599E-02	0.000E+00	NOT IDENT.
ZR-95	-2.620E-02	3.134E-02	4.808E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.635E+01	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.399E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.959E-01	1.080E+00	1.867E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.918E+08	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.514E-03	2.137E-02	3.244E-02	0.000E+00	NOT IDENT.
RH-102	3.230E-03	1.475E-02	2.561E-02	0.000E+00	NOT IDENT.
RU-103	6.853E-03	1.837E-02	3.212E-02	0.000E+00	FAIL ABUN
RH-106	6.478E-02	1.541E-01	2.758E-01	0.000E+00	FAIL ABUN
RU-106	6.478E-02	1.540E-01	2.758E-01	0.000E+00	FAIL ABUN
AG-108M	1.408E-02	1.694E-02	3.092E-02	0.000E+00	NOT IDENT.
CD-109	1.236E-01	3.571E-01	5.705E-01	0.000E+00	NOT IDENT.
AG-110M	-4.001E-03	1.632E-02	2.744E-02	0.000E+00	NOT IDENT.
IN-111	-7.900E-02	1.333E-01	1.905E-01	0.000E+00	NOT IDENT.
IN-113M	-2.758E-03	2.097E-02	3.621E-02	0.000E+00	NOT IDENT.
SN-113	-2.758E-03	2.097E-02	3.621E-02	0.000E+00	NOT IDENT.
IN-114M	3.761E-02	8.382E-02	1.526E-01	0.000E+00	NOT IDENT.
CD-115	1.467E-01	6.959E-01	1.249E+00	0.000E+00	NOT IDENT.
SN-117M	6.613E-03	1.960E-02	3.609E-02	0.000E+00	NOT IDENT.
SB-122	1.103E-01	2.000E-01	3.648E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	9.953E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.487E-03	1.333E-02	2.455E-02	0.000E+00	NOT IDENT.
I-124	5.190E-02	1.591E-01	2.452E-01	0.000E+00	NOT IDENT.
SB-124	8.618E-03	4.099E-02	7.158E-02	0.000E+00	NOT IDENT.
SB-125	-6.025E-03	4.527E-02	7.735E-02	0.000E+00	NOT IDENT.
TE-125M	9.025E-01	4.295E+00	7.584E+00	0.000E+00	NOT IDENT.
I-126	-4.058E-02	5.934E-02	9.499E-02	0.000E+00	NOT IDENT.
SB-126	-1.385E-02	4.819E-02	7.971E-02	0.000E+00	NOT IDENT.
SN-126	1.263E-03	3.698E-02	5.779E-02	0.000E+00	FAIL ABUN
SB-127	-1.568E-02	2.001E-01	3.399E-01	0.000E+00	NOT IDENT.
XE-127	1.721E-02	2.308E-02	3.952E-02	0.000E+00	NOT IDENT.
I-131	-1.181E-02	3.395E-02	5.816E-02	0.000E+00	NOT IDENT.
TE-132	-4.622E-03	9.713E-02	1.692E-01	0.000E+00	NOT IDENT.
BA-133	-2.358E-02	2.228E-02	3.592E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.787E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.858E-03	2.148E-02	3.661E-02	0.000E+00	NOT IDENT.
CS-135	-1.660E-02	8.341E-02	1.313E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.188E+08	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.114E-02	3.839E-02	5.667E-02	0.000E+00	NOT IDENT.
BA-137M	2.153E-03	1.608E-02	2.799E-02	0.000E+00	NOT IDENT.
CS-137	2.276E-03	1.700E-02	2.959E-02	0.000E+00	NOT IDENT.
CE-139	7.029E-03	1.396E-02	2.582E-02	0.000E+00	NOT IDENT.
BA-140	-5.589E-02	9.336E-02	1.534E-01	0.000E+00	NOT IDENT.
LA-140	4.974E-03	2.842E-02	4.977E-02	0.000E+00	NOT IDENT.
CE-141	1.873E-03	2.610E-02	4.784E-02	0.000E+00	NOT IDENT.
CE-143	-3.454E-01	2.644E+00	4.716E+00	0.000E+00	NOT IDENT.
CE-144	-2.017E-02	9.387E-02	1.707E-01	0.000E+00	NOT IDENT.
PM-144	-6.416E-03	1.553E-02	2.545E-02	0.000E+00	NOT IDENT.
PR-144	-4.334E-01	1.049E+00	1.719E+00	0.000E+00	NOT IDENT.
PM-146	-1.309E-02	2.182E-02	3.547E-02	0.000E+00	NOT IDENT.
ND-147	-1.597E-02	1.731E-01	3.028E-01	0.000E+00	FAIL ABUN
PM-149	1.536E+00	6.844E+00	1.184E+01	0.000E+00	NOT IDENT.
EU-152	-1.864E-02	4.961E-02	8.551E-02	0.000E+00	NOT IDENT.
GD-153	-4.143E-03	3.678E-02	5.722E-02	0.000E+00	NOT IDENT.
EU-154	3.562E-02	4.830E-02	8.972E-02	0.000E+00	NOT IDENT.
EU-155	1.472E-02	4.899E-02	8.738E-02	0.000E+00	NOT IDENT.
TB-160	3.416E-02	6.044E-02	1.101E-01	0.000E+00	NOT IDENT.
HO-166M	1.808E-02	3.041E-02	5.442E-02	0.000E+00	FAIL ABUN
TM-171	-1.315E+01	1.269E+01	1.813E+01	0.000E+00	NOT IDENT.
LU-176	-5.835E-03	1.263E-02	2.193E-02	0.000E+00	NOT IDENT.
LU-177	-6.972E-02	2.749E-01	4.776E-01	0.000E+00	NOT IDENT.
LU-177M	9.996E-05	8.253E-02	1.431E-01	0.000E+00	NOT IDENT.
HF-181	1.684E-02	1.938E-02	3.524E-02	0.000E+00	NOT IDENT.
W-181	1.196E-01	1.477E-01	2.456E-01	0.000E+00	NOT IDENT.
TA-182	4.119E-03	6.676E-02	1.153E-01	0.000E+00	NOT IDENT.
RE-183	1.272E-04	5.126E-02	9.266E-02	0.000E+00	NOT IDENT.
RE-184	-6.625E-02	1.130E-01	1.869E-01	0.000E+00	NOT IDENT.

OS-185	-4.570E-03	1.739E-02	2.917E-02	0.000E+00	NOT IDENT.
RE-188	6.540E-03	7.809E-02	1.423E-01	0.000E+00	NOT IDENT.
W-188	1.777E+00	3.388E+00	6.270E+00	0.000E+00	FAIL ABUN
IR-192	-1.497E-03	1.657E-02	2.940E-02	0.000E+00	NOT IDENT.
AU-195	1.091E-03	9.426E-02	1.661E-01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	4.169E+00	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.403E-01	8.166E-01	1.494E+00	0.000E+00	NOT IDENT.
TL-202	-7.854E-03	2.458E-02	4.121E-02	0.000E+00	NOT IDENT.
HG-203	-3.733E-03	1.871E-02	3.153E-02	0.000E+00	NOT IDENT.
BI-207	9.167E-03	2.457E-02	4.311E-02	0.000E+00	NOT IDENT.
TL-207	-1.402E-01	3.282E-01	5.663E-01	0.000E+00	NOT IDENT.
PO-209	5.631E-01	3.282E+00	5.757E+00	0.000E+00	NOT IDENT.
BI-210	-2.770E-01	1.370E+00	2.345E+00	0.000E+00	NOT IDENT.
PB-210	-2.770E-01	1.370E+00	2.345E+00	0.000E+00	NOT IDENT.
PO-210	-2.770E-01	1.370E+00	2.345E+00	0.000E+00	NOT IDENT.
BI-211	6.235E-02	1.135E-01	1.960E-01	0.000E+00	NOT IDENT.
PB-211	4.141E-01	5.268E-01	8.526E-01	0.000E+00	NOT IDENT.
BI-212	3.758E-02	1.392E-01	2.283E-01	0.000E+00	NOT IDENT.
PB-212	3.985E-02	4.669E-02	6.175E-02	0.000E+00	FAIL ABUN
PO-212	3.985E-02	4.669E-02	6.175E-02	0.000E+00	FAIL ABUN
BI-214	2.731E-02	5.636E-02	7.651E-02	0.000E+00	FAIL ABUN
PB-214	1.604E-02	3.934E-02	6.730E-02	0.000E+00	NOT IDENT.
PO-214	1.604E-02	3.934E-02	6.730E-02	0.000E+00	NOT IDENT.
PO-215	-1.402E-01	3.282E-01	5.663E-01	0.000E+00	NOT IDENT.
PO-216	3.985E-02	4.669E-02	6.175E-02	0.000E+00	FAIL ABUN
PO-218	1.604E-02	3.934E-02	6.730E-02	0.000E+00	NOT IDENT.
RN-219	-5.287E-02	2.034E-01	3.465E-01	0.000E+00	NOT IDENT.
RN-220	-3.967E+00	1.104E+01	1.872E+01	0.000E+00	NOT IDENT.
RA-223	-1.402E-01	3.282E-01	5.663E-01	0.000E+00	NOT IDENT.
RA-224	6.039E-01	3.984E-01	6.636E-01	0.000E+00	NOT IDENT.
RA-226	2.731E-02	5.636E-02	7.651E-02	0.000E+00	FAIL ABUN
AC-227	-4.411E-02	1.891E-01	3.209E-01	0.000E+00	NOT IDENT.
TH-227	-4.411E-02	1.892E-01	3.209E-01	0.000E+00	NOT IDENT.
AC-228	-5.943E-02	6.989E-02	1.176E-01	0.000E+00	NOT IDENT.
RA-228	-5.943E-02	6.989E-02	1.176E-01	0.000E+00	NOT IDENT.
TH-228	4.021E-02	4.710E-02	6.230E-02	0.000E+00	FAIL ABUN
TH-229	-1.311E-03	2.527E-01	4.489E-01	0.000E+00	NOT IDENT.
TH-230	2.731E-02	5.636E-02	7.651E-02	0.000E+00	FAIL ABUN
PA-231	3.715E-01	8.034E-01	1.410E+00	0.000E+00	NOT IDENT.
TH-231	-1.402E-01	3.282E-01	5.663E-01	0.000E+00	NOT IDENT.
U-231	-2.050E-02	1.759E-01	2.740E-01	0.000E+00	FAIL ABUN
TH-232	-5.943E-02	6.989E-02	1.176E-01	0.000E+00	NOT IDENT.
PA-233	1.299E-02	3.290E-02	6.013E-02	0.000E+00	NOT IDENT.
PA-234	4.370E-02	1.372E-01	2.424E-01	0.000E+00	FAIL ABUN
PA-234M	9.185E-01	2.224E+00	3.625E+00	0.000E+00	NOT IDENT.
U-234	2.731E-02	5.636E-02	7.651E-02	0.000E+00	FAIL ABUN
U-235	-6.725E-02	1.102E-01	1.819E-01	0.000E+00	FAIL ABUN
NP-236	8.400E-03	3.975E-02	7.269E-02	0.000E+00	NOT IDENT.
NP-237	2.560E-02	1.026E-01	1.724E-01	0.000E+00	NOT IDENT.
NP-239	-5.284E-02	9.612E-02	1.608E-01	0.000E+00	NOT IDENT.
AM-241	-5.655E-03	5.766E-02	9.420E-02	0.000E+00	NOT IDENT.
AM-243	1.232E-02	2.075E-02	3.871E-02	0.000E+00	NOT IDENT.
CM-243	6.131E-03	4.292E-02	7.594E-02	0.000E+00	NOT IDENT.
AM-246	2.065E-04	5.685E-02	9.578E-02	0.000E+00	NOT IDENT.
CM-247	2.987E-03	1.817E-02	3.198E-02	0.000E+00	NOT IDENT.
CF-249	1.111E-02	1.921E-02	3.490E-02	0.000E+00	NOT IDENT.
CF-251	3.825E-02	6.169E-02	1.141E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 22:22:49.21

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029810.CNF;1
Sample date       : 2-FEB-2010 00:00:00. Acquisition date : 10-FEB-2010 20:22:23
Sample ID         : G1202029810          Sample quantity  : 1.48384E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.95  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947531                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1	10.67*	1.909E+00	1.169E-02	1.169E-02	2471.40
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	83	21.60	4.298E+00	2.256E-01	2.256E-01	74.66
	583.14	6	84.20*	3.931E+00	4.397E-03	4.397E-03	533.94
	860.37	------	12.46	2.924E+00	------ Line Not Found		------
TH-234	63.29	17	3.80*	4.298E+00	2.579E-01	2.579E-01	309.48
	92.38	16	5.41	7.838E+00	9.775E-02	9.775E-02	424.73
U-238	63.29	17	3.80*	4.298E+00	2.579E-01	2.579E-01	309.48
	92.38	16	5.41	7.838E+00	9.775E-02	9.775E-02	424.43
ANH-511	511.00	83	100.00*	4.298E+00	4.874E-02	4.874E-02	74.20

Flag: "*" = Keyline

Sample ID : G1202029810 Acquisition date : 10-FEB-2010 20:22:23

Total number of lines in spectrum 11
Number of unidentified lines 2
Number of lines tentatively identified by NID 9 81.82%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.169E-02	1.169E-02	28.90E-02	2471.40	
TL-208	1.41E+10Y	1.00	4.397E-03	4.397E-03	23.48E-03	533.94	
TH-234	4.47E+09Y	1.00	2.579E-01	2.579E-01	7.983E-01	309.48	
U-238	4.47E+09Y	1.00	2.579E-01	2.579E-01	7.983E-01	309.48	
ANH-511	1.00E+09Y	1.00	4.874E-02	4.874E-02	3.616E-02	74.20	
		Total Activity :	5.807E-01	5.807E-01			
		Grand Total Activity :	5.807E-01	5.807E-01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202029810 Acquisition date : 10-FEB-2010 20:22:23

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	185.57	31	142	1.40	371.15	366	34	4.28E-03	****	7.61E+00	T
1	188.55	59	158	1.44	377.11	366	34	8.18E-03	79.4	7.56E+00	
0	238.95	47	170	1.41	477.81	474	11	6.54E-03	****	6.71E+00	T
0	609.46	19	72	1.51	1218.30	1212	12	2.65E-03	****	3.81E+00	T
0	914.83	79	40	7.19	1828.77	1812	35	1.09E-02	56.9	2.78E+00	
0	1333.33	14	9	1.67	2665.66	2660	10	1.90E-03	****	2.04E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 22:22:54.71

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029810.CNF;1  *
* Acquisition date  : 10-FEB-2010 20:22:23  Detector SN#     :               *
* Detector ID       : GAM22                 Sensitivity      : 5.00000      *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:00.95          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                            *
*                                 SAMPLE DATA                                *
*                                                                            *
* Sample date       : 2-FEB-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID         : G1202029810           Analyst initials: RXF2           *
* Batch Number      : 947531                Sample Quantity : 1.48384E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                   QC DATA                                  *
*                                                                            *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                 *
* MSD ID           :                      MSD Isotope     :                 *
* LCS ID           : 1032-A               LCS Isotope     :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.169E-02	2.890E-01	2.343E-01	2.146E-02	0.050
TL-208	4.397E-03	2.348E-02	2.763E-02	2.996E-03	0.159
TH-234	2.579E-01	7.983E-01	7.989E-01	1.391E-01	0.323
U-238	2.579E-01	7.983E-01	7.989E-01	1.391E-01	0.323
ANH-511	4.874E-02	3.616E-02	2.239E-02	2.243E-03	2.177

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.895E-02		1.512E-01	2.343E-01	2.445E-02	-0.294
NA-22	1.314E-02		1.763E-02	3.188E-02	2.748E-03	0.412
NA-24	1.035E-04		1.883E-04	Half-Life too short		
AL-26	1.947E-02		1.669E-02	3.257E-02	2.663E-03	0.598
TI-44	1.940E-04		1.257E-02	2.056E-02	1.744E-03	0.009
SC-46	7.720E-03		1.695E-02	2.944E-02	3.296E-03	0.262
V-48	4.408E-03		2.631E-02	4.399E-02	4.614E-03	0.100

Sample ID : G1202029810 Acquisition date : 10-FEB-2010 20:22:23

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CR-51	-3.443E-02		1.647E-01	2.717E-01	3.518E-02	-0.127
MN-52	6.045E-02		6.164E-02	1.126E-01	1.007E-02	0.537
MN-54	-3.463E-03		1.960E-02	3.222E-02	3.579E-03	-0.107
CO-56	-4.932E-03		1.978E-02	3.221E-02	3.585E-03	-0.153
CO-57	-2.665E-03		1.214E-02	1.896E-02	1.563E-03	-0.141
CO-58	-2.208E-02		1.791E-02	2.593E-02	2.871E-03	-0.852
FE-59	2.450E-02		3.545E-02	6.233E-02	6.109E-03	0.393
CO-60	1.699E-02	+	1.731E-02	3.078E-02	2.745E-03	0.552
ZN-65	-3.537E-02		3.601E-02	5.033E-02	4.490E-03	-0.703
GE-68	-2.192E-01		5.161E-01	7.913E-01	7.460E-02	-0.277
AS-73	-3.163E-01		3.356E-01	4.759E-01	3.596E-02	-0.665
AS-74	-4.746E-03		3.979E-02	6.536E-02	6.775E-03	-0.073
SE-75	1.119E-02		2.118E-02	3.523E-02	4.742E-03	0.318
BR-77	2.513E-01		8.476E-01	1.395E+00	1.404E-01	0.180
SR-82	9.325E-03		1.447E-01	2.356E-01	2.584E-02	0.040
RB-83	9.157E-03		3.309E-02	5.436E-02	5.471E-03	0.168
RB-84	-1.198E-02		2.834E-02	4.482E-02	5.013E-03	-0.267
KR-85	1.877E+01		5.074E+00	8.841E+00	8.871E-01	2.123
SR-85	9.008E-02		2.436E-02	4.244E-02	4.258E-03	2.123
RB-86	-1.203E-01		2.665E-01	4.074E-01	3.844E-02	-0.295
Y-88	1.193E-02		1.679E-02	3.105E-02	2.511E-03	0.384
ZR-88	-6.562E-03		1.459E-02	2.314E-02	2.155E-03	-0.284
Y-91	-1.990E+00		5.950E+00	9.438E+00	7.760E-01	-0.211
NB-94	7.368E-03		1.505E-02	2.571E-02	2.756E-03	0.287
NB-95	5.708E-03		1.747E-02	2.922E-02	3.195E-03	0.195
NB-95M	-7.632E-02		6.535E-02	8.178E-02	1.081E-02	-0.933
ZR-95	-2.620E-02		3.197E-02	4.701E-02	5.457E-03	-0.557
NB-97	-2.915E-05		4.916E-05	Half-Life too short		
ZR-97	8.449E-03		1.224E-03	Half-Life too short		
MO-99	1.959E-01		1.103E+00	1.824E+00	3.019E-01	0.107
TC-99M	-2.570E+02		3.019E+02	Half-Life too short		
RH-101	1.514E-03		2.181E-02	3.073E-02	3.352E-03	0.049
RH-102	3.230E-03		1.505E-02	2.476E-02	2.435E-03	0.130
RU-103	6.853E-03		1.875E-02	3.109E-02	4.666E-03	0.220
RH-106	6.478E-02		1.573E-01	2.684E-01	3.919E-02	0.241
RU-106	6.478E-02		1.571E-01	2.684E-01	2.804E-02	0.241
AG-108M	1.408E-02		1.729E-02	2.983E-02	2.953E-03	0.472
CD-109	1.236E-01		3.644E-01	5.307E-01	5.036E-02	0.233
AG-110M	-4.001E-03		1.665E-02	2.673E-02	2.873E-03	-0.150
IN-111	-7.900E-02		1.360E-01	1.814E-01	2.301E-02	-0.436
IN-113M	-2.758E-03		2.140E-02	3.484E-02	3.328E-03	-0.079
SN-113	-2.758E-03		2.140E-02	3.484E-02	3.328E-03	-0.079
IN-114M	3.761E-02		8.553E-02	1.444E-01	1.535E-02	0.260
CD-115	1.467E-01		7.101E-01	1.211E+00	1.222E-01	0.121
SN-117M	6.613E-03		1.999E-02	3.402E-02	3.226E-03	0.194
SB-122	1.103E-01		2.041E-01	3.541E-01	3.630E-02	0.311
I-123	3.350E-04		5.078E-04	Half-Life too short		
TE-123M	4.487E-03		1.360E-02	2.314E-02	2.210E-03	0.194

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-124	5.190E-02		1.624E-01	2.384E-01	2.476E-02	0.218
SB-124	8.618E-03		4.183E-02	7.139E-02	6.350E-03	0.121
SB-125	-6.025E-03		4.620E-02	7.459E-02	7.238E-03	-0.081
TE-125M	9.025E-01		4.383E+00	7.089E+00	7.169E-01	0.127
I-126	-4.058E-02		6.056E-02	9.258E-02	9.782E-03	-0.438
SB-126	-1.385E-02		4.918E-02	7.783E-02	8.393E-03	-0.178
SN-126	1.263E-03		3.773E-02	5.375E-02	5.075E-03	0.024
SB-127	-1.568E-02		2.042E-01	3.315E-01	3.861E-02	-0.047
XE-127	1.721E-02		2.355E-02	3.745E-02	4.152E-03	0.460
I-131	-1.181E-02		3.464E-02	5.588E-02	6.177E-03	-0.211
TE-132	-4.622E-03		9.911E-02	1.608E-01	2.733E-02	-0.029
BA-133	-2.358E-02		2.273E-02	3.449E-02	5.154E-03	-0.684
I-133	1.110E-05		9.115E-06	Half-Life too short		
CS-134	2.858E-03		2.192E-02	3.583E-02	3.966E-03	0.080
CS-135	-1.660E-02		8.512E-02	1.252E-01	1.812E-02	-0.133
I-135	-1.399E+02		1.626E+02	Half-Life too short		
CS-136	-4.114E-02		3.917E-02	5.585E-02	5.646E-03	-0.737
BA-137M	2.153E-03		1.641E-02	2.728E-02	2.876E-03	0.079
CS-137	2.276E-03		1.735E-02	2.883E-02	3.045E-03	0.079
CE-139	7.029E-03		1.425E-02	2.436E-02	2.389E-03	0.288
BA-140	-5.589E-02		9.527E-02	1.488E-01	4.993E-02	-0.376
LA-140	4.974E-03		2.900E-02	4.957E-02	4.345E-03	0.100
CE-141	1.873E-03		2.664E-02	4.500E-02	4.096E-03	0.042
CE-143	-3.454E-01		2.698E+00	4.508E+00	1.083E+00	-0.077
CE-144	-2.017E-02		9.579E-02	1.603E-01	2.488E-02	-0.126
PM-144	-6.416E-03		1.585E-02	2.483E-02	2.655E-03	-0.258
PR-144	-4.334E-01		1.070E+00	1.677E+00	1.793E-01	-0.258
PM-146	-1.309E-02		2.226E-02	3.425E-02	3.980E-03	-0.382
ND-147	-1.597E-02		1.766E-01	2.935E-01	4.655E-02	-0.054
PM-149	1.536E+00		6.984E+00	1.131E+01	2.138E+00	0.136
EU-152	-1.864E-02		5.063E-02	8.204E-02	9.861E-03	-0.227
GD-153	-4.143E-03		3.753E-02	5.334E-02	4.691E-03	-0.078
EU-154	3.562E-02		4.929E-02	8.885E-02	1.004E-02	0.401
EU-155	1.472E-02		4.999E-02	8.160E-02	7.005E-03	0.180
TB-160	3.416E-02		6.167E-02	1.080E-01	1.208E-02	0.316
HO-166M	1.808E-02		3.103E-02	5.313E-02	5.711E-03	0.340
TM-171	-1.315E+01		1.295E+01	1.676E+01	1.267E+00	-0.785
LU-176	-5.835E-03		1.289E-02	2.099E-02	2.753E-03	-0.278
LU-177	-6.972E-02		2.805E-01	4.529E-01	5.112E-02	-0.154
LU-177M	9.996E-05		8.421E-02	1.379E-01	1.304E-02	0.001
HF-181	1.684E-02		1.978E-02	3.408E-02	3.364E-03	0.494
W-181	1.196E-01		1.507E-01	2.270E-01	1.692E-02	0.527
TA-182	4.119E-03		6.812E-02	1.141E-01	9.487E-03	0.036
RE-183	1.272E-04		5.231E-02	8.738E-02	8.430E-03	0.001
RE-184	-6.625E-02		1.153E-01	1.780E-01	2.310E-02	-0.372
OS-185	-4.570E-03		1.775E-02	2.841E-02	2.985E-03	-0.161
RE-188	6.540E-03		7.968E-02	1.341E-01	1.252E-02	0.049
W-188	1.777E+00		3.457E+00	5.992E+00	8.184E-01	0.297

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IR-192	-1.497E-03		1.691E-02	2.815E-02	3.598E-03	-0.053
AU-195	1.091E-03		9.618E-02	1.549E-01	1.351E-02	0.007
TL-200	7.759E-07		2.127E-06	Half-Life too short		
TL-201	2.403E-01		8.333E-01	1.410E+00	1.390E-01	0.170
TL-202	-7.854E-03		2.508E-02	3.977E-02	3.828E-03	-0.197
HG-203	-3.733E-03		1.909E-02	3.010E-02	4.261E-03	-0.124
BI-207	9.167E-03		2.507E-02	4.250E-02	4.080E-03	0.216
TL-207	-1.402E-01		3.349E-01	5.426E-01	1.078E-01	-0.258
PO-209	5.631E-01		3.349E+00	5.651E+00	6.330E-01	0.100
BI-210	-2.770E-01		1.398E+00	2.151E+00	1.999E-01	-0.129
PB-210	-2.770E-01		1.398E+00	2.151E+00	1.999E-01	-0.129
PO-210	-2.770E-01		1.398E+00	2.151E+00	1.809E-01	-0.129
BI-211	6.235E-02		1.159E-01	1.881E-01	2.195E-02	0.331
PB-211	4.141E-01		5.375E-01	8.212E-01	5.155E-01	0.504
BI-212	3.758E-02		1.421E-01	2.229E-01	2.663E-02	0.169
PB-212	3.985E-02	+	4.764E-02	5.875E-02	7.762E-03	0.678
PO-212	3.985E-02	+	4.764E-02	5.875E-02	7.762E-03	0.678
BI-214	2.731E-02	+	5.751E-02	7.441E-02	8.651E-03	0.367
PB-214	1.604E-02		4.014E-02	6.461E-02	8.236E-03	0.248
PO-214	1.604E-02		4.014E-02	6.461E-02	8.236E-03	0.248
PO-215	-1.402E-01		3.349E-01	5.426E-01	1.078E-01	-0.258
PO-216	3.985E-02	+	4.764E-02	5.875E-02	7.762E-03	0.678
PO-218	1.604E-02		4.014E-02	6.461E-02	8.236E-03	0.248
RN-219	-5.287E-02		2.075E-01	3.337E-01	5.163E-02	-0.158
RN-220	-3.967E+00		1.126E+01	1.816E+01	1.851E+00	-0.218
RA-223	-1.402E-01		3.349E-01	5.426E-01	1.078E-01	-0.258
RA-224	6.039E-01		4.065E-01	6.315E-01	7.905E-02	0.956
RA-226	2.731E-02	+	5.751E-02	7.441E-02	8.651E-03	0.367
AC-227	-4.411E-02		1.930E-01	3.058E-01	5.580E-02	-0.144
TH-227	-4.411E-02		1.930E-01	3.058E-01	6.294E-02	-0.144
AC-228	-5.943E-02		7.132E-02	1.155E-01	1.530E-02	-0.515
RA-228	-5.943E-02		7.132E-02	1.155E-01	1.530E-02	-0.515
TH-228	4.021E-02	+	4.806E-02	5.927E-02	7.831E-03	0.678
TH-229	-1.311E-03		2.579E-01	4.250E-01	4.569E-02	-0.003
TH-230	2.731E-02	+	5.751E-02	7.441E-02	8.651E-03	0.367
PA-231	3.715E-01		8.198E-01	1.347E+00	2.514E-01	0.276
TH-231	-1.402E-01		3.349E-01	5.426E-01	1.078E-01	-0.258
U-231	-2.050E-02		1.795E-01	2.553E-01	2.267E-02	-0.080
TH-232	-5.943E-02		7.132E-02	1.155E-01	1.530E-02	-0.515
PA-233	1.299E-02		3.357E-02	5.756E-02	7.540E-03	0.226
PA-234	4.370E-02		1.400E-01	2.383E-01	4.736E-02	0.183
PA-234M	9.185E-01		2.269E+00	3.568E+00	4.089E-01	0.257
U-234	2.731E-02	+	5.751E-02	7.441E-02	8.651E-03	0.367
U-235	-6.725E-02		1.125E-01	1.710E-01	3.017E-02	-0.393
NP-236	8.400E-03		4.056E-02	6.852E-02	6.550E-03	0.123
NP-237	2.560E-02		1.047E-01	1.603E-01	3.630E-02	0.160
NP-239	-5.284E-02		9.808E-02	1.505E-01	1.244E-02	-0.351
AM-241	-5.655E-03		5.883E-02	8.688E-02	6.791E-03	-0.065

Sample ID : G1202029810 Acquisition date : 10-FEB-2010 20:22:23

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	1.232E-02		2.118E-02	3.587E-02	2.924E-03	0.343
CM-243	6.131E-03		4.379E-02	7.090E-02	6.045E-03	0.086
AM-246	2.065E-04		5.801E-02	9.446E-02	8.886E-03	0.002
CM-247	2.987E-03		1.854E-02	3.080E-02	2.889E-03	0.097
CF-249	1.111E-02		1.960E-02	3.358E-02	3.192E-03	0.331
CF-251	3.825E-02		6.295E-02	1.078E-01	1.095E-02	0.355

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202029810          *
* Acquisition date  : 10-FEB-2010 20:22:23 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.95      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  2-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202029810          Analyst initials: RXF2           *
* Batch Number      : 947531               Sample Quantity : 1.4838E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.169E-02	2.832E-01	1.180E-01	1.445E-01
TL-208	4.397E-03	2.301E-02	1.423E-02	1.174E-02
TH-234	2.579E-01	7.823E-01	4.328E-01	3.991E-01
U-238	2.579E-01	7.823E-01	4.328E-01	3.991E-01
ANH-511	4.874E-02	3.544E-02	1.157E-02	1.808E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.895E-02	1.482E-01	1.212E-01	7.561E-02	NOT IDENT.
NA-22	1.314E-02	1.727E-02	1.611E-02	8.813E-03	NOT IDENT.
NA-24	1.035E+02	3.690E+02	0.000E+00	1.883E+02	SHORT HLIF
AL-26	1.947E-02	1.636E-02	1.631E-02	8.346E-03	NOT IDENT.
TI-44	1.940E-04	1.231E-02	1.109E-02	6.283E-03	NOT IDENT.
SC-46	7.720E-03	1.661E-02	1.501E-02	8.475E-03	NOT IDENT.
V-48	4.408E-03	2.579E-02	2.237E-02	1.316E-02	NOT IDENT.
CR-51	-3.443E-02	1.614E-01	1.419E-01	8.234E-02	NOT IDENT.
MN-52	6.045E-02	6.041E-02	5.673E-02	3.082E-02	FAIL ABUN
MN-54	-3.463E-03	1.921E-02	1.645E-02	9.801E-03	NOT IDENT.
CO-56	-4.932E-03	1.938E-02	1.644E-02	9.888E-03	NOT IDENT.
CO-57	-2.665E-03	1.190E-02	1.012E-02	6.070E-03	NOT IDENT.
CO-58	-2.208E-02	1.755E-02	1.325E-02	8.953E-03	NOT IDENT.
FE-59	2.450E-02	3.474E-02	3.161E-02	1.772E-02	NOT IDENT.
CO-60	1.699E-02	1.696E-02	1.553E-02	8.654E-03	FAIL ABUN
ZN-65	-3.537E-02	3.529E-02	2.551E-02	1.801E-02	NOT IDENT.
GE-68	-2.192E-01	5.058E-01	4.015E-01	2.580E-01	NOT IDENT.
AS-73	-3.163E-01	3.289E-01	2.587E-01	1.678E-01	NOT IDENT.
AS-74	-4.746E-03	3.899E-02	3.364E-02	1.989E-02	NOT IDENT.
SE-75	1.119E-02	2.075E-02	1.848E-02	1.059E-02	NOT IDENT.
BR-77	2.513E-01	8.306E-01	7.202E-01	4.238E-01	FAIL ABUN
SR-82	9.325E-03	1.418E-01	1.205E-01	7.235E-02	NOT IDENT.

RB-83	9.157E-03	3.243E-02	2.807E-02	1.654E-02	NOT IDENT.
RB-84	-1.198E-02	2.777E-02	2.285E-02	1.417E-02	NOT IDENT.
KR-85	1.877E+01	4.973E+00	4.567E+00	2.537E+00	NOT IDENT.
SR-85	9.008E-02	2.387E-02	2.192E-02	1.218E-02	NOT IDENT.
RB-86	-1.203E-01	2.612E-01	2.067E-01	1.333E-01	NOT IDENT.
Y-88	1.193E-02	1.646E-02	1.554E-02	8.397E-03	NOT IDENT.
ZR-88	-6.562E-03	1.430E-02	1.203E-02	7.296E-03	NOT IDENT.
Y-91	-1.990E+00	5.831E+00	4.775E+00	2.975E+00	NOT IDENT.
NB-94	7.368E-03	1.475E-02	1.318E-02	7.523E-03	NOT IDENT.
NB-95	5.708E-03	1.712E-02	1.495E-02	8.733E-03	NOT IDENT.
NB-95M	-7.632E-02	6.404E-02	4.302E-02	3.267E-02	NOT IDENT.
ZR-95	-2.620E-02	3.134E-02	2.405E-02	1.599E-02	NOT IDENT.
NB-97	-2.915E+01	9.635E+01	0.000E+00	4.916E+01	SHORT HLIF
ZR-97	8.449E+03	2.399E+03	0.000E+00	1.224E+03	SHORT HLIF
MO-99	1.959E-01	1.080E+00	9.339E-01	5.513E-01	NOT IDENT.
TC-99M	-2.570E+08	5.918E+08	0.000E+00	3.019E+08	SHORT HLIF
RH-101	1.514E-03	2.137E-02	1.623E-02	1.090E-02	NOT IDENT.
RH-102	3.230E-03	1.475E-02	1.281E-02	7.526E-03	NOT IDENT.
RU-103	6.853E-03	1.837E-02	1.607E-02	9.373E-03	FAIL ABUN
RH-106	6.478E-02	1.541E-01	1.380E-01	7.863E-02	FAIL ABUN
RU-106	6.478E-02	1.540E-01	1.380E-01	7.856E-02	FAIL ABUN
AG-108M	1.408E-02	1.694E-02	1.547E-02	8.645E-03	NOT IDENT.
CD-109	1.236E-01	3.571E-01	2.854E-01	1.822E-01	NOT IDENT.
AG-110M	-4.001E-03	1.632E-02	1.373E-02	8.325E-03	NOT IDENT.
IN-111	-7.900E-02	1.333E-01	9.533E-02	6.802E-02	NOT IDENT.
IN-113M	-2.758E-03	2.097E-02	1.811E-02	1.070E-02	NOT IDENT.
SN-113	-2.758E-03	2.097E-02	1.811E-02	1.070E-02	NOT IDENT.
IN-114M	3.761E-02	8.382E-02	7.634E-02	4.277E-02	NOT IDENT.
CD-115	1.467E-01	6.959E-01	6.249E-01	3.550E-01	NOT IDENT.
SN-117M	6.613E-03	1.960E-02	1.806E-02	9.997E-03	NOT IDENT.
SB-122	1.103E-01	2.000E-01	1.825E-01	1.021E-01	NOT IDENT.
I-123	3.350E+02	9.953E+02	0.000E+00	5.078E+02	SHORT HLIF
TE-123M	4.487E-03	1.333E-02	1.228E-02	6.802E-03	NOT IDENT.
I-124	5.190E-02	1.591E-01	1.227E-01	8.118E-02	NOT IDENT.
SB-124	8.618E-03	4.099E-02	3.581E-02	2.091E-02	NOT IDENT.
SB-125	-6.025E-03	4.527E-02	3.870E-02	2.310E-02	NOT IDENT.
TE-125M	9.025E-01	4.295E+00	3.794E+00	2.191E+00	NOT IDENT.
I-126	-4.058E-02	5.934E-02	4.752E-02	3.028E-02	NOT IDENT.
SB-126	-1.385E-02	4.819E-02	3.988E-02	2.459E-02	NOT IDENT.
SN-126	1.263E-03	3.698E-02	2.891E-02	1.887E-02	FAIL ABUN
SB-127	-1.568E-02	2.001E-01	1.700E-01	1.021E-01	NOT IDENT.
XE-127	1.721E-02	2.308E-02	1.977E-02	1.178E-02	NOT IDENT.
I-131	-1.181E-02	3.395E-02	2.910E-02	1.732E-02	NOT IDENT.
TE-132	-4.622E-03	9.713E-02	8.467E-02	4.956E-02	NOT IDENT.
BA-133	-2.358E-02	2.228E-02	1.797E-02	1.137E-02	NOT IDENT.
I-133	1.110E+01	1.787E+01	0.000E+00	9.115E+00	SHORT HLIF
CS-134	2.858E-03	2.148E-02	1.831E-02	1.096E-02	NOT IDENT.
CS-135	-1.660E-02	8.341E-02	6.568E-02	4.256E-02	NOT IDENT.
I-135	-1.399E+08	3.188E+08	0.000E+00	1.626E+08	SHORT HLIF
CS-136	-4.114E-02	3.839E-02	2.835E-02	1.959E-02	NOT IDENT.
BA-137M	2.153E-03	1.608E-02	1.400E-02	8.205E-03	NOT IDENT.
CS-137	2.276E-03	1.700E-02	1.480E-02	8.673E-03	NOT IDENT.
CE-139	7.029E-03	1.396E-02	1.292E-02	7.123E-03	NOT IDENT.
BA-140	-5.589E-02	9.336E-02	7.675E-02	4.763E-02	NOT IDENT.
LA-140	4.974E-03	2.842E-02	2.490E-02	1.450E-02	NOT IDENT.
CE-141	1.873E-03	2.610E-02	2.393E-02	1.332E-02	NOT IDENT.
CE-143	-3.454E-01	2.644E+00	2.359E+00	1.349E+00	NOT IDENT.
CE-144	-2.017E-02	9.387E-02	8.542E-02	4.789E-02	NOT IDENT.
PM-144	-6.416E-03	1.553E-02	1.273E-02	7.924E-03	NOT IDENT.
PR-144	-4.334E-01	1.049E+00	8.600E-01	5.352E-01	NOT IDENT.
PM-146	-1.309E-02	2.182E-02	1.774E-02	1.113E-02	NOT IDENT.
ND-147	-1.597E-02	1.731E-01	1.515E-01	8.832E-02	FAIL ABUN
PM-149	1.536E+00	6.844E+00	5.923E+00	3.492E+00	NOT IDENT.
EU-152	-1.864E-02	4.961E-02	4.278E-02	2.531E-02	NOT IDENT.
GD-153	-4.143E-03	3.678E-02	2.863E-02	1.876E-02	NOT IDENT.
EU-154	3.562E-02	4.830E-02	4.489E-02	2.464E-02	NOT IDENT.
EU-155	1.472E-02	4.899E-02	4.371E-02	2.500E-02	NOT IDENT.
TB-160	3.416E-02	6.044E-02	5.507E-02	3.084E-02	NOT IDENT.
HO-166M	1.808E-02	3.041E-02	2.723E-02	1.551E-02	FAIL ABUN
TM-171	-1.315E+01	1.269E+01	9.071E+00	6.473E+00	NOT IDENT.
LU-176	-5.835E-03	1.263E-02	1.097E-02	6.445E-03	NOT IDENT.
LU-177	-6.972E-02	2.749E-01	2.389E-01	1.402E-01	NOT IDENT.
LU-177M	9.996E-05	8.253E-02	7.158E-02	4.211E-02	NOT IDENT.
HF-181	1.684E-02	1.938E-02	1.763E-02	9.889E-03	NOT IDENT.
W-181	1.196E-01	1.477E-01	1.229E-01	7.536E-02	NOT IDENT.
TA-182	4.119E-03	6.676E-02	5.770E-02	3.406E-02	NOT IDENT.
RE-183	1.272E-04	5.126E-02	4.636E-02	2.615E-02	NOT IDENT.
RE-184	-6.625E-02	1.130E-01	9.348E-02	5.766E-02	NOT IDENT.

OS-185	-4.570E-03	1.739E-02	1.459E-02	8.875E-03	NOT IDENT.
RE-188	6.540E-03	7.809E-02	7.122E-02	3.984E-02	NOT IDENT.
W-188	1.777E+00	3.388E+00	3.137E+00	1.729E+00	FAIL ABUN
IR-192	-1.497E-03	1.657E-02	1.471E-02	8.453E-03	NOT IDENT.
AU-195	1.091E-03	9.426E-02	8.312E-02	4.809E-02	NOT IDENT.
TL-200	7.759E-01	4.169E+00	0.000E+00	2.127E+00	SHORT HLIF
TL-201	2.403E-01	8.166E-01	7.474E-01	4.166E-01	NOT IDENT.
TL-202	-7.854E-03	2.458E-02	2.062E-02	1.254E-02	NOT IDENT.
HG-203	-3.733E-03	1.871E-02	1.577E-02	9.545E-03	NOT IDENT.
BI-207	9.167E-03	2.457E-02	2.157E-02	1.253E-02	NOT IDENT.
TL-207	-1.402E-01	3.282E-01	2.833E-01	1.675E-01	NOT IDENT.
PO-209	5.631E-01	3.282E+00	2.880E+00	1.674E+00	NOT IDENT.
BI-210	-2.770E-01	1.370E+00	1.173E+00	6.990E-01	NOT IDENT.
PB-210	-2.770E-01	1.370E+00	1.173E+00	6.990E-01	NOT IDENT.
PO-210	-2.770E-01	1.370E+00	1.173E+00	6.990E-01	NOT IDENT.
BI-211	6.235E-02	1.135E-01	9.804E-02	5.793E-02	NOT IDENT.
PB-211	4.141E-01	5.268E-01	4.266E-01	2.688E-01	NOT IDENT.
BI-212	3.758E-02	1.392E-01	1.142E-01	7.104E-02	NOT IDENT.
PB-212	3.985E-02	4.669E-02	3.090E-02	2.382E-02	FAIL ABUN
PO-212	3.985E-02	4.669E-02	3.090E-02	2.382E-02	FAIL ABUN
BI-214	2.731E-02	5.636E-02	3.828E-02	2.876E-02	FAIL ABUN
PB-214	1.604E-02	3.934E-02	3.367E-02	2.007E-02	NOT IDENT.
PO-214	1.604E-02	3.934E-02	3.367E-02	2.007E-02	NOT IDENT.
PO-215	-1.402E-01	3.282E-01	2.833E-01	1.675E-01	NOT IDENT.
PO-216	3.985E-02	4.669E-02	3.090E-02	2.382E-02	FAIL ABUN
PO-218	1.604E-02	3.934E-02	3.367E-02	2.007E-02	NOT IDENT.
RN-219	-5.287E-02	2.034E-01	1.734E-01	1.038E-01	NOT IDENT.
RN-220	-3.967E+00	1.104E+01	9.366E+00	5.631E+00	NOT IDENT.
RA-223	-1.402E-01	3.282E-01	2.833E-01	1.675E-01	NOT IDENT.
RA-224	6.039E-01	3.984E-01	3.320E-01	2.033E-01	NOT IDENT.
RA-226	2.731E-02	5.636E-02	3.828E-02	2.876E-02	FAIL ABUN
AC-227	-4.411E-02	1.891E-01	1.605E-01	9.650E-02	NOT IDENT.
TH-227	-4.411E-02	1.892E-01	1.605E-01	9.652E-02	NOT IDENT.
AC-228	-5.943E-02	6.989E-02	5.881E-02	3.566E-02	NOT IDENT.
RA-228	-5.943E-02	6.989E-02	5.881E-02	3.566E-02	NOT IDENT.
TH-228	4.021E-02	4.710E-02	3.117E-02	2.403E-02	FAIL ABUN
TH-229	-1.311E-03	2.527E-01	2.246E-01	1.289E-01	NOT IDENT.
TH-230	2.731E-02	5.636E-02	3.828E-02	2.875E-02	FAIL ABUN
PA-231	3.715E-01	8.034E-01	7.053E-01	4.099E-01	NOT IDENT.
TH-231	-1.402E-01	3.282E-01	2.833E-01	1.675E-01	NOT IDENT.
U-231	-2.050E-02	1.759E-01	1.371E-01	8.973E-02	FAIL ABUN
TH-232	-5.943E-02	6.989E-02	5.881E-02	3.566E-02	NOT IDENT.
PA-233	1.299E-02	3.290E-02	3.008E-02	1.679E-02	NOT IDENT.
PA-234	4.370E-02	1.372E-01	1.213E-01	7.002E-02	FAIL ABUN
PA-234M	9.185E-01	2.224E+00	1.814E+00	1.135E+00	NOT IDENT.
U-234	2.731E-02	5.636E-02	3.828E-02	2.875E-02	FAIL ABUN
U-235	-6.725E-02	1.102E-01	9.099E-02	5.624E-02	FAIL ABUN
NP-236	8.400E-03	3.975E-02	3.636E-02	2.028E-02	NOT IDENT.
NP-237	2.560E-02	1.026E-01	8.625E-02	5.236E-02	NOT IDENT.
NP-239	-5.284E-02	9.612E-02	8.045E-02	4.904E-02	NOT IDENT.
AM-241	-5.655E-03	5.766E-02	4.713E-02	2.942E-02	NOT IDENT.
AM-243	1.232E-02	2.075E-02	1.936E-02	1.059E-02	NOT IDENT.
CM-243	6.131E-03	4.292E-02	3.799E-02	2.190E-02	NOT IDENT.
AM-246	2.065E-04	5.685E-02	4.792E-02	2.900E-02	NOT IDENT.
CM-247	2.987E-03	1.817E-02	1.600E-02	9.272E-03	NOT IDENT.
CF-249	1.111E-02	1.921E-02	1.746E-02	9.798E-03	NOT IDENT.
CF-251	3.825E-02	6.169E-02	5.708E-02	3.147E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	84.8982
46.50	84.8982
46.50	84.8982
48.70	103.1143
49.72	91.6779
51.35	85.8853
52.39	86.2786
52.97	93.9370
53.15	99.5949
53.44	103.4471
54.07	99.0542
56.28	93.3750
56.28	93.3760
57.37	95.6903
57.53	95.7527
57.53	95.7535
57.60	98.6251
57.98	100.2971
57.98	100.2971
59.32	95.9685
59.32	95.9685
59.40	95.9989
59.54	96.0523
59.72	91.8171
60.01	91.9226
61.10	90.8742
61.14	90.8883
61.30	90.9449
63.00	124.9620
63.29	125.1001
63.29	125.1001
63.58	125.2376
64.28	122.6483
65.12	102.5283
65.20	84.9773
65.20	84.9773
66.05	101.4117
66.72	135.5475
66.83	135.6023
66.91	135.6423
67.20	123.9781
67.20	123.9781
67.75	125.4079
67.85	125.4535
68.90	141.5686
68.90	141.5686
69.30	133.8389
69.67	118.1320
70.82	105.6523
70.82	105.6523
70.83	105.6560
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72.87	152.5791
72.87	152.5791
74.67	133.3132
74.81	133.3757
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74.81	133.3757
74.97	133.4475
75.28	127.5137
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77.11	149.6685

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79.80	133.5170
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80.18	129.5658
80.30	129.6151
80.30	129.6151
80.57	129.7260
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81.07	122.7133
81.07	122.7133
81.07	122.7133
81.07	122.7133
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83.78	153.9122
83.78	153.9122
84.21	155.1576
84.90	160.7026
85.43	146.3289
86.29	144.6133
86.50	144.7046
86.54	144.7221
86.59	146.3172
86.72	146.3747
86.79	151.1272
86.94	151.1960
87.30	151.3586
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87.30	151.3586
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87.30	151.3586
87.57	151.4802
87.88	134.2470
88.03	134.3066
88.36	134.4376
88.47	134.4817
89.95	170.0251
91.11	131.8023
92.29	132.2501
92.38	132.2842
92.38	132.2842
93.35	132.6494
94.00	125.3914
94.67	143.3430
94.67	143.3451
94.90	143.4374
94.90	143.4374
94.90	143.4374
94.90	143.4374
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95.87	130.8976
96.73	142.5495
97.43	129.8395
98.44	124.7728
98.44	124.7734
98.88	128.1814
99.55	125.1495
99.55	125.1495
99.86	130.6995
100.00	130.7489
100.10	130.7855
103.18	141.7473
103.76	128.7572
105.00	124.7570
105.31	133.6965
108.00	174.6726
109.28	160.7271

111.00	159.1765
111.00	159.1765
111.76	183.0608
112.95	174.5863
115.19	155.1535
116.30	154.4326
117.00	167.2023
117.00	167.2023
117.66	162.9079
121.11	126.3315
121.62	127.6307
121.78	127.6776
122.06	140.4209
122.32	140.5047
122.32	140.5047
122.32	140.5047
122.32	140.5047
123.07	163.8206
127.23	143.2407
129.76	144.0455
131.20	167.4082
133.02	154.8006
133.54	156.7453
135.34	148.4592
136.00	165.5810
136.25	165.6690
136.48	164.8588
140.51	168.9464
140.51	0.0000
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142.65	148.9295
143.76	165.5492
144.24	162.9932
144.24	162.9932
144.24	162.9932
144.24	162.9932
145.22	161.5013
145.44	160.6655
147.16	161.2178
152.43	152.7691
152.70	148.2450
153.22	154.8455
154.21	161.6045
154.21	161.6045
154.21	161.6045
154.21	161.6045
155.03	160.9333
156.02	155.6774
158.56	154.5637
159.00	0.0000
159.00	150.9629
160.31	161.6081
161.27	168.4465
162.32	164.0839
162.64	160.4286
163.35	161.5768
163.89	166.4371
165.85	144.3830
167.43	148.5806
171.28	140.0724
171.86	141.1686
172.10	141.2285
176.55	138.4783
176.60	138.4904
181.06	165.9035
184.41	151.2440
185.71	151.3743
186.00	151.4476
190.27	152.5072
192.34	153.0169
193.63	153.3338
197.04	154.1651
198.01	167.3489
198.60	162.7169
200.40	182.3722
201.83	158.7275
202.84	149.8745
205.31	173.2768

208.36	156.8732
208.81	151.9157
209.75	139.9594
209.75	139.9594
210.97	129.0377
215.65	133.0013
216.55	135.2247
218.09	136.5545
222.10	132.1816
223.80	134.5723
226.40	160.0027
227.00	160.1378
227.08	160.1554
227.20	162.2628
228.16	157.2729
228.18	157.2775
228.18	157.2775
231.56	137.0877
235.69	159.9658
236.00	143.1885
236.00	143.1885
238.63	126.7923
238.63	126.7923
238.63	126.7923
238.63	126.7923
239.00	140.5981
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241.98	113.7773
241.98	113.7773
244.69	117.5948
245.39	139.8795
247.94	113.3909
248.90	100.6797
249.79	106.1573
252.40	117.2753
252.85	124.8784
252.85	124.8784
254.15	0.0000
256.20	118.9273
256.20	118.9273
260.50	126.0962
260.90	129.4227
262.80	124.2787
264.65	100.5253
268.24	116.3338
268.79	112.0201
269.46	106.6162
269.46	106.6162
269.46	106.6162
269.46	106.6162
271.23	115.6577
273.65	141.4043
276.40	101.9698
277.35	114.2908
277.60	117.6536
277.60	117.6536
278.00	106.6055
278.60	118.9056
279.20	120.1025
279.53	120.1487
280.46	143.6684
281.68	119.3382
283.67	110.6726
284.30	116.3478
285.00	105.2466
285.90	117.6860
286.10	113.2289
286.10	113.2289
287.40	147.0812
288.45	0.0000
290.67	109.9936
290.80	110.0100
291.72	116.4449
293.26	122.9777
293.70	134.8002
295.21	127.7813
295.21	127.7813

295.21	127.7813
295.96	134.2388
296.50	122.5217
297.23	118.0807
298.57	103.7035
299.80	125.7077
299.80	125.7077
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300.09	127.5723
300.09	127.5723
300.12	127.5757
301.29	138.6907
302.84	119.7358
303.76	109.7930
303.91	109.8105
304.40	108.0394
304.40	108.0394
304.84	111.7554
306.84	122.0996
308.46	128.7532
311.98	108.0108
316.51	112.2470
318.01	108.7106
319.02	106.9660
319.41	109.8025
320.08	113.6036
323.87	114.9927
323.87	114.9927
323.87	114.9927
323.87	114.9927
325.23	105.7927
328.77	87.3884
333.44	112.3571
334.20	114.3341
334.20	114.3341
334.30	113.4009
338.28	114.8067
338.28	114.8067
338.28	114.8067
338.28	114.8067
338.32	114.8126
338.32	114.8126
338.32	114.8126
340.50	105.5543
340.57	105.5611
344.27	112.6330
345.85	108.9861
350.59	89.3252
351.07	92.2500
351.92	93.2879
351.92	93.2879
351.92	93.2879
355.39	0.0000
356.01	118.7629
364.48	99.2869
366.43	82.8916
367.43	81.9933
367.94	0.0000
369.80	90.9792
374.96	89.4515
383.85	90.1813
387.95	77.5839
388.63	82.6079
391.69	88.8218
391.69	88.8218
392.90	92.9137
398.62	91.3755
400.65	100.5908
401.10	100.6311
401.81	91.6310
402.60	85.6485
404.84	77.7379
410.95	97.4309
411.60	85.2992
413.65	82.3961
414.70	86.5429
415.30	88.6238

415.76	92.7351
417.63	0.0000
418.52	83.7577
423.70	90.2773
427.08	79.2145
427.89	82.3555
432.53	86.8034
433.93	75.5227
439.47	90.4122
439.56	86.2614
439.89	83.1660
443.98	87.6114
444.90	79.3259
445.03	79.3343
445.03	79.3343
445.03	79.3343
445.03	79.3343
453.90	86.2001
463.38	79.4257
468.07	72.2724
473.00	65.0761
475.06	74.7937
475.35	78.0170
476.78	71.6815
477.59	80.2890
477.96	80.3119
482.03	64.4451
484.57	80.7092
487.03	71.1530
490.36	71.3279
492.35	85.5026
497.08	68.4210
507.63	0.0000
510.53	0.0000
510.84	66.9064
511.00	66.9138
511.85	66.9537
511.85	66.9537
513.99	56.7955
513.99	56.7955
520.41	64.0450
520.65	64.0563
527.90	58.2742
528.96	0.0000
529.64	59.2695
529.87	0.0000
531.02	63.0347
537.32	80.0634
543.00	57.9421
546.56	0.0000
549.76	55.3881
552.65	48.9108
555.20	49.9355
563.23	55.8815
563.90	63.4872
568.70	67.4870
569.32	61.8077
569.50	58.0116
569.67	58.0178
573.80	70.5689
574.00	73.4392
574.64	73.4705
578.91	44.2846
579.30	0.0000
583.14	60.4378
585.48	52.7042
591.81	68.4851
592.07	72.3541
593.00	75.2927
595.88	86.0648
600.56	99.4515
602.52	0.0000
602.71	99.8856
602.71	99.8856
603.60	98.2743
604.41	101.6567
604.70	98.3402
609.31	83.8531

609.31	83.8531
609.31	83.8531
609.31	83.8531
610.33	66.9015
612.46	66.9880
614.37	63.7115
618.01	73.5138
621.84	58.9465
621.84	58.9465
631.29	55.3255
633.02	58.3494
633.10	59.3408
634.78	61.3794
635.90	60.4291
636.97	60.4676
645.85	41.8488
646.12	48.8315
656.30	57.1368
657.75	62.2006
657.90	0.0000
661.65	53.2890
661.65	53.2890
664.57	55.3916
666.33	63.5114
666.33	63.5114
675.00	59.7682
677.61	56.8112
685.20	51.9567
692.80	51.1495
695.00	59.4042
696.49	59.4526
696.49	59.4526
697.00	55.3678
697.49	51.2797
698.33	55.4073
698.50	55.4128
699.00	58.5064
702.63	46.2799
706.10	63.8820
706.58	0.0000
706.67	58.7488
709.31	58.8311
711.68	55.8051
713.82	62.0764
717.42	52.8656
720.50	59.1813
721.93	58.1864
722.20	56.1160
722.78	57.1731
722.78	57.1731
722.89	57.1764
722.95	57.1775
723.30	61.3479
724.18	58.2547
727.18	45.8432
733.00	55.3873
735.90	50.2383
739.58	45.0900
742.81	49.3666
744.21	45.1967
747.13	52.6326
751.79	45.3717
752.31	47.4948
753.82	54.9242
755.35	58.1376
756.15	59.2186
756.87	50.7773
763.93	54.1429
765.79	45.6919
766.42	44.6429
766.84	47.8418
776.49	43.7981
778.00	32.0709
778.57	35.2881
778.89	33.1545
783.80	48.2437
785.46	55.7938
792.07	38.7502

795.84	49.6040
796.30	51.7725
798.80	62.6339
801.93	47.5870
805.60	42.7175
810.29	65.1501
810.76	62.3720
815.85	37.3263
817.79	41.0965
818.51	47.6506
819.60	57.9574
826.30	45.0117
828.27	0.0000
831.60	74.2636
831.96	77.0966
834.83	68.7265
836.80	0.0000
846.75	61.5303
848.13	49.2551
856.28	0.0000
856.80	47.5473
860.37	41.9083
867.32	39.1732
867.82	38.2261
871.10	50.7236
873.19	50.7707
874.81	42.1792
875.33	0.0000
876.40	38.3719
879.36	37.4616
880.27	36.5156
880.51	40.3638
881.50	45.1887
883.24	54.8450
884.67	46.2146
889.25	35.6953
896.60	37.7452
898.02	39.7052
899.00	40.6904
903.28	42.4644
911.07	36.0328
911.07	36.0328
911.07	36.0328
919.63	36.1644
920.93	30.8057
925.00	39.4302
925.24	39.4344
926.50	17.1545
935.52	37.3910
937.48	25.6042
944.10	36.5367
946.00	37.5540
949.00	48.4847
962.29	59.6934
964.01	57.7431
966.15	45.8364
968.20	42.8823
969.11	39.9058
969.11	39.9058
969.11	39.9058
977.42	39.0381
980.50	32.0709
983.50	41.1401
989.30	34.1951
996.32	42.3589
1001.03	21.2186
1001.68	24.2561
1004.76	31.3687
1021.30	0.0000
1024.50	0.0000
1034.80	36.8538
1036.00	44.0393
1037.82	43.0444
1038.57	42.0324
1038.76	0.0000
1045.16	41.1091
1046.59	43.1880
1048.07	54.5306

1050.47	39.1318
1050.47	39.1318
1062.04	34.1302
1063.62	37.2556
1076.63	35.3554
1077.35	34.3247
1078.86	29.1406
1085.78	31.3006
1099.22	27.2605
1112.02	26.3323
1112.84	30.5546
1115.52	41.1301
1120.29	29.5791
1120.29	29.5791
1120.29	29.5791
1120.29	29.5791
1120.51	29.5820
1121.28	31.7034
1124.00	0.0000
1129.67	29.6777
1131.51	0.0000
1147.95	0.0000
1167.94	25.3759
1173.22	37.6611
1175.09	30.1484
1177.93	34.8930
1189.05	24.6115
1204.90	27.5973
1205.75	0.0000
1213.00	26.7174
1221.42	28.7054
1230.97	33.5944
1235.34	35.5648
1236.41	0.0000
1238.25	25.9774
1246.25	30.8672
1260.41	0.0000
1271.85	30.1486
1274.45	21.4132
1274.54	21.4139
1291.56	24.4644
1298.22	0.0000
1312.09	20.6815
1325.50	28.1285
1325.50	28.1285
1332.49	30.7209
1333.61	31.7227
1360.21	22.9839
1362.66	0.0000
1365.15	33.0252
1368.21	27.0453
1368.53	0.0000
1376.25	28.1136
1384.27	23.1481
1394.10	30.2802
1395.20	32.3086
1407.95	32.4287
1434.06	22.4619
1436.60	26.5657
1457.56	0.0000
1460.81	16.4600
1489.15	24.8840
1509.49	23.9799
1596.49	18.0181
1620.62	20.0384
1678.03	0.0000
1691.02	19.4222
1691.02	19.4222
1706.46	0.0000
1750.46	0.0000
1764.49	16.8022
1764.49	16.8022
1764.49	16.8022
1764.49	16.8022
1770.23	35.6289
1771.40	39.5985
1791.20	0.0000
1808.65	8.9871

1836.01 10.0483

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202029810

Total Uranium Activity	7.3626E-01	ug/g
Total Uranium Counting Unc.	2.3279E+00	ug/g
Total Uranium Tpu	1.1877E-06	ug/g
Total Uranium Mda	1.2882E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G1202029810      *
*   ANALYST       : RXF2                      DETECTOR   : GAM22            *
*   SAMPLE DATE   :  2-FEB-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 20:22:23.44    SAMPLE ALQT:  148.384 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.177E-01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.226E-01
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.511E-01
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.657E-01
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:16:32.80

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029811.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:16:05
Sample ID         : G1202029811          Sample quantity  : 1.22906E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.81  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947531                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.97*	616	571	1.05	125.94	120	11	8.56E-02	8.6	
2	3	74.64*	354	561	1.41	149.28	142	17	4.91E-02	12.9	2.38E+00
3	3	76.98	449	431	1.01	153.95	142	17	6.24E-02	8.7	
4	3	87.04*	160	380	1.19	174.07	171	21	2.22E-02	20.4	4.06E+00
5	3	92.50*	1528	474	1.25	185.00	171	21	2.12E-01	3.6	
6	0	112.32	147	359	1.07	224.65	221	8	2.04E-02	23.8	
7	0	185.63*	412	350	1.33	371.25	367	10	5.72E-02	10.2	
8	0	209.22	92	266	1.36	418.43	414	9	1.27E-02	33.9	
9	4	238.37*	922	220	1.14	476.74	472	15	1.28E-01	4.3	2.41E+00
10	4	241.35	245	207	1.66	482.70	472	15	3.40E-02	12.5	
11	0	270.12	90	191	1.26	540.24	536	9	1.25E-02	29.6	
12	0	294.87*	262	209	1.15	589.73	584	11	3.64E-02	12.5	
13	0	299.95	109	177	1.74	599.91	595	12	1.51E-02	26.7	
14	0	338.08	184	186	1.36	676.16	671	11	2.56E-02	16.2	
15	0	351.58*	482	223	1.33	703.15	697	14	6.70E-02	8.1	
16	0	466.25	123	239	9.82	932.49	920	25	1.71E-02	35.2	
17	0	510.73*	93	162	2.21	1021.46	1014	17	1.29E-02	36.3	
18	0	582.43*	263	94	1.28	1164.86	1158	13	3.66E-02	9.9	
19	0	608.73*	352	90	1.60	1217.46	1211	13	4.89E-02	7.9	
20	0	661.02	516	84	1.39	1322.04	1316	14	7.17E-02	5.8	
21	0	726.71	86	55	1.83	1453.41	1447	13	1.19E-02	20.9	
22	0	794.50	61	35	1.74	1589.00	1583	14	8.47E-03	24.2	
23	0	859.64	43	33	1.15	1719.29	1715	10	5.94E-03	29.3	
24	0	910.44*	160	77	1.86	1820.87	1813	17	2.22E-02	15.1	
25	0	969.05	68	91	1.80	1938.09	1929	13	9.46E-03	31.3	
26	0	999.88	80	20	1.46	1999.76	1995	10	1.11E-02	15.4	
27	0	1119.02	120	36	1.94	2238.05	2229	18	1.67E-02	14.9	
28	0	1376.68	27	8	0.99	2753.36	2748	11	3.69E-03	28.6	
29	0	1459.66*	907	34	2.23	2919.33	2910	21	1.26E-01	3.7	
30	0	1763.25*	57	0	1.21	3526.49	3519	16	7.96E-03	13.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 21:16:35

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029811.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:16:05
Sample ID : G1202029811 Sample quantity : 122.91 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.81 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.603E+01	2.753E+00	7.189E-01	5.378E-02	36.209
CD-109	+	88.03	*	2.576E+00	1.081E+00	1.775E+00	1.733E-01	1.452
SN-126	+	64.28		7.700E+00	1.770E+00	1.200E+00	1.827E-01	6.415
	+	86.94		1.052E+00	6.132E-01	8.210E-01	3.415E-01	1.282
	+	87.57	*	2.532E-01	1.062E-01	1.755E-01	1.707E-02	1.443
BA-137M	+	661.65	*	8.586E-01	1.088E-01	6.727E-02	3.437E-03	12.762
CS-137	+	661.65	*	9.076E-01	1.151E-01	7.111E-02	3.653E-03	12.762
LU-177	+	112.95		5.469E+00	2.631E+00	3.275E+00	2.148E-01	1.670
	+	208.36	*	2.443E+00	1.661E+00	2.262E+00	1.224E-01	1.080
TL-208		277.35		3.927E-01	4.559E-01	7.570E-01	7.999E-02	0.519
	+	510.84		5.160E-01	3.782E-01	2.632E-01	2.673E-02	1.961
	+	583.14	*	4.190E-01	8.746E-02	6.672E-02	4.331E-03	6.281
	+	860.37		6.507E-01	3.862E-01	4.904E-01	4.433E-02	1.327
BI-211		72.87		1.144E+01	4.670E+00	8.021E+00	7.076E-01	1.426
	+	351.07	*	3.307E+00	5.755E-01	3.815E-01	2.486E-02	8.667
PB-212	+	74.81		2.500E+00	7.218E-01	7.811E-01	1.008E-01	3.201
	+	77.11		1.776E+00	3.491E-01	4.376E-01	3.938E-02	4.057
	+	87.30		1.171E+00	5.048E-01	8.144E-01	1.135E-01	1.438
	+	238.63	*	1.362E+00	1.519E-01	1.104E-01	7.935E-03	12.341
	+	300.09		2.498E+00	1.351E+00	1.363E+00	1.132E-01	1.832
PO-212	+	74.81		2.500E+00	7.218E-01	7.811E-01	1.008E-01	3.201
	+	77.11		1.776E+00	3.491E-01	4.376E-01	3.938E-02	4.057
	+	87.30		1.171E+00	5.048E-01	8.144E-01	1.135E-01	1.438
		115.19		2.767E+00	4.971E+00	7.385E+00	4.711E-01	0.375
	+	238.63	*	1.362E+00	1.519E-01	1.104E-01	7.935E-03	12.341
	+	300.09		2.498E+00	1.351E+00	1.363E+00	1.132E-01	1.832
BI-214	+	609.31	*	1.058E+00	1.845E-01	1.225E-01	9.207E-03	8.638
	+	1120.29		1.929E+00	6.004E-01	5.186E-01	4.819E-02	3.719
	+	1764.49		1.267E+00	3.581E-01	3.543E-01	2.203E-02	3.577
PB-214	+	74.81		4.307E+00	1.219E+00	1.346E+00	1.558E-01	3.201
	+	77.11		3.044E+00	6.418E-01	7.502E-01	8.845E-02	4.057
	+	87.30		2.006E+00	8.553E-01	1.395E+00	1.729E-01	1.438
	+	241.98		2.171E+00	5.705E-01	6.033E-01	4.798E-02	3.599
	+	295.21		1.056E+00	2.784E-01	2.496E-01	2.140E-02	4.229

Sample ID : G1202029811 Acquisition date : 10-FEB-2010 19:16:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.150E+00	2.090E-01	1.330E-01	1.110E-02	8.648
PO-214	+	74.81		4.307E+00	1.219E+00	1.346E+00	1.558E-01	3.201
	+	77.11		3.044E+00	6.418E-01	7.502E-01	8.845E-02	4.057
	+	87.30		2.006E+00	8.553E-01	1.395E+00	1.729E-01	1.438
	+	241.98		2.171E+00	5.705E-01	6.033E-01	4.798E-02	3.599
	+	295.21		1.056E+00	2.784E-01	2.496E-01	2.140E-02	4.229
	+	351.92	*	1.150E+00	2.090E-01	1.330E-01	1.110E-02	8.648
PO-216	+	74.81		2.500E+00	7.218E-01	7.811E-01	1.008E-01	3.201
	+	77.11		1.776E+00	3.491E-01	4.376E-01	3.938E-02	4.057
	+	87.30		1.171E+00	5.048E-01	8.144E-01	1.135E-01	1.438
	+	238.63	*	1.362E+00	1.519E-01	1.104E-01	7.935E-03	12.341
	+	300.09		2.498E+00	1.351E+00	1.363E+00	1.132E-01	1.832
PO-218	+	74.81		4.307E+00	1.219E+00	1.346E+00	1.558E-01	3.201
	+	77.11		3.044E+00	6.418E-01	7.502E-01	8.845E-02	4.057
	+	87.30		2.006E+00	8.553E-01	1.395E+00	1.729E-01	1.438
	+	241.98		2.171E+00	5.705E-01	6.033E-01	4.798E-02	3.599
	+	295.21		1.056E+00	2.784E-01	2.496E-01	2.140E-02	4.229
	+	351.92	*	1.150E+00	2.090E-01	1.330E-01	1.110E-02	8.648
RA-224	+	240.98	*	4.117E+00	1.057E+00	1.256E+00	7.077E-02	3.277
RA-226	+	609.31	*	1.058E+00	1.845E-01	1.225E-01	9.207E-03	8.638
	+	1120.29		1.929E+00	6.004E-01	5.186E-01	4.819E-02	3.719
	+	1764.49		1.267E+00	3.581E-01	3.543E-01	2.203E-02	3.577
AC-228	+	338.32		1.389E+00	7.228E-01	4.597E-01	1.875E-01	3.021
	+	911.07	*	1.154E+00	3.736E-01	2.388E-01	2.755E-02	4.833
	+	969.11		8.699E-01	5.813E-01	4.119E-01	9.590E-02	2.112
RA-228	+	338.32		1.389E+00	7.228E-01	4.597E-01	1.875E-01	3.021
	+	911.07	*	1.154E+00	3.736E-01	2.388E-01	2.755E-02	4.833
	+	969.11		8.699E-01	5.813E-01	4.119E-01	9.590E-02	2.112
TH-228	+	74.81		2.538E+00	6.941E-01	7.931E-01	7.108E-02	3.201
	+	77.11		1.803E+00	3.544E-01	4.444E-01	3.998E-02	4.057
	+	87.30		1.189E+00	4.986E-01	8.269E-01	8.027E-02	1.438
	+	238.63	*	1.383E+00	1.542E-01	1.121E-01	8.057E-03	12.341
	+	300.09		2.536E+00	2.018E+00	1.384E+00	8.159E-01	1.832
TH-230	+	609.31	*	1.058E+00	1.845E-01	1.225E-01	9.206E-03	8.638
	+	1120.29		1.929E+00	6.004E-01	5.186E-01	4.819E-02	3.719
	+	1764.49		1.267E+00	3.581E-01	3.543E-01	2.203E-02	3.577
TH-232	+	338.32		1.389E+00	4.564E-01	4.597E-01	2.715E-02	3.021
	+	911.07	*	1.154E+00	3.736E-01	2.388E-01	2.755E-02	4.833
	+	969.11		8.699E-01	5.813E-01	4.119E-01	9.590E-02	2.112
TH-234	+	63.29	*	1.945E+01	4.850E+00	3.086E+00	5.561E-01	6.304
	+	92.38		1.547E+01	3.028E+00	1.135E+00	2.070E-01	13.633
U-234	+	609.31	*	1.058E+00	1.845E-01	1.225E-01	9.206E-03	8.638
	+	1120.29		1.929E+00	6.004E-01	5.186E-01	4.819E-02	3.719
	+	1764.49		1.267E+00	3.581E-01	3.543E-01	2.203E-02	3.577
NP-237	+	86.50	*	7.434E-01	3.475E-01	5.696E-01	1.297E-01	1.305
		95.87		2.101E-01	1.398E+00	2.046E+00	5.024E-01	0.103
U-238	+	63.29	*	1.945E+01	4.850E+00	3.086E+00	5.561E-01	6.304
	+	92.38		1.547E+01	1.765E+00	1.135E+00	1.014E-01	13.633
AM-243	+	74.67	*	4.053E-01	1.107E-01	1.271E-01	1.130E-02	3.188

Sample ID : G1202029811 Acquisition date : 10-FEB-2010 19:16:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.72		2.788E+01	1.169E+01	2.181E+01	2.106E+00	1.278
		117.66		-1.853E+00	5.040E+00	7.551E+00	4.676E-01	-0.245
		142.18		1.684E+01	2.186E+01	3.614E+01	1.968E+00	0.466
ANH-511	+	511.00	*	1.114E-01	8.116E-02	5.686E-02	3.303E-03	1.960

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.402E-02	4.043E-01	6.621E-01	4.500E-02	-0.051
NA-22		1274.54	*	-3.409E-02	5.513E-02	8.379E-02	5.627E-03	-0.407
NA-24		1368.53	*	3.266E-01	5.513E-02	Half-Life too short		
AL-26		1129.67		1.596E-02	1.985E+00	3.262E+00	2.078E-01	0.005
		1808.65	*	-6.217E-03	2.804E-02	4.377E-02	2.631E-03	-0.142
TI-44		67.85		1.216E-02	8.878E-02	1.113E-01	9.692E-03	0.109
	+	78.38	*	3.277E-01	6.442E-02	9.996E-02	9.061E-03	3.278
SC-46		889.25	*	-6.906E-03	4.916E-02	8.091E-02	7.229E-03	-0.085
	+	1120.51		3.307E-01	1.006E-01	1.437E-01	9.361E-03	2.302
V-48		944.10		-1.962E-01	1.122E+00	1.834E+00	1.598E-01	-0.107
		983.50	*	-8.198E-02	8.355E-02	1.240E-01	1.031E-02	-0.661
		1312.09		1.614E-02	9.431E-02	1.566E-01	1.114E-02	0.103
CR-51		320.08	*	-4.065E-02	4.375E-01	7.302E-01	4.788E-02	-0.056
MN-52		744.21		4.793E-02	2.961E-01	4.830E-01	3.075E-02	0.099
		848.13		-8.328E+00	8.601E+00	1.312E+01	1.071E+00	-0.635
		935.52		3.405E-01	2.959E-01	5.399E-01	4.747E-02	0.631
		1246.25		1.174E+01	1.015E+01	1.809E+01	1.158E+00	0.649
		1333.61		-4.082E-02	5.603E+00	9.095E+00	6.676E-01	-0.004
		1434.06	*	1.219E-01	2.673E-01	4.626E-01	3.347E-02	0.263
MN-54		834.83	*	5.859E-02	4.289E-02	7.906E-02	6.260E-03	0.741
CO-56		846.75	*	-6.868E-03	4.799E-02	7.922E-02	6.444E-03	-0.087
		977.42		3.102E+00	3.617E+00	6.436E+00	5.396E-01	0.482
		1037.82		-3.170E-01	3.549E-01	5.280E-01	4.328E-02	-0.600
		1175.09		9.406E-01	2.764E+00	4.670E+00	2.643E-01	0.201
		1238.25		1.577E-01	1.274E-01	2.255E-01	1.500E-02	0.699
		1360.21		-6.392E-01	1.115E+00	1.650E+00	1.208E-01	-0.387
		1771.40		-2.561E-02	2.987E-01	4.876E-01	3.017E-02	-0.053
CO-57		122.06	*	-8.795E-03	3.017E-02	4.905E-02	2.892E-03	-0.179
		136.48		-2.566E-03	2.530E-01	4.145E-01	2.695E-02	-0.006
CO-58		810.76	*	-2.517E-02	4.329E-02	6.853E-02	5.148E-03	-0.367
FE-59		142.65		3.347E+00	3.350E+00	5.581E+00	3.035E-01	0.600
		192.34		-5.846E-01	1.186E+00	1.807E+00	2.090E-01	-0.324
		1099.22	*	-4.960E-02	1.233E-01	1.955E-01	1.506E-02	-0.254
		1291.56		1.461E-01	1.471E-01	2.646E-01	2.197E-02	0.552
CO-60		1173.22		-5.681E-03	5.729E-02	9.301E-02	5.247E-03	-0.061
		1332.49	*	2.740E-03	4.134E-02	6.781E-02	4.978E-03	0.040
ZN-65		1115.52	*	9.109E-02	1.216E-01	1.885E-01	1.245E-02	0.483
GE-68		1077.35	*	-2.182E-01	1.505E+00	2.444E+00	1.749E-01	-0.089
AS-73		53.44	*	-1.895E-01	1.436E+00	2.403E+00	2.121E-01	-0.079
AS-74		595.88	*	-2.282E-02	1.117E-01	1.790E-01	9.873E-03	-0.127

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		634.78		-1.469E-01	4.496E-01	6.660E-01	3.525E-02	-0.221
SE-75		66.05		-5.903E+00	8.074E+00	1.149E+01	1.206E+00	-0.514
		96.73		1.148E+00	1.130E+00	1.705E+00	2.287E-01	0.673
		121.11		-1.100E-01	1.633E-01	2.611E-01	2.435E-02	-0.422
		136.00		-9.987E-04	4.760E-02	7.796E-02	4.402E-03	-0.013
		198.60		-2.837E-01	2.146E+00	3.451E+00	2.330E-01	-0.082
		264.65	*	6.830E-03	6.088E-02	8.554E-02	4.979E-03	0.080
		279.53		1.137E-02	1.241E-01	2.102E-01	1.322E-02	0.054
		303.91		7.257E-01	2.517E+00	3.767E+00	3.614E-01	0.193
		400.65		-1.621E-01	3.248E-01	5.236E-01	4.764E-02	-0.310
BR-77	+	87.88		5.875E+02	2.464E+02	4.801E+02	4.685E+01	1.224
		200.40		2.525E+01	2.045E+02	3.324E+02	1.778E+01	0.076
	+	239.00		2.309E+02	2.358E+01	4.190E+01	2.356E+00	5.510
		249.79		2.645E+01	8.509E+01	1.385E+02	7.875E+00	0.191
		281.68		-9.853E+01	1.083E+02	1.742E+02	1.015E+01	-0.566
		297.23		2.416E+02	1.115E+02	1.376E+02	8.082E+00	1.756
		303.76		6.167E+01	2.259E+02	3.377E+02	1.988E+01	0.183
		439.47		6.111E+01	1.776E+02	3.001E+02	1.756E+01	0.204
		484.57		-1.649E+02	2.970E+02	4.697E+02	2.746E+01	-0.351
		520.65	*	-1.002E+01	1.292E+01	1.990E+01	1.152E+00	-0.504
		574.64		3.990E+01	2.738E+02	4.263E+02	2.393E+01	0.094
		578.91		8.754E+01	1.302E+02	1.959E+02	1.096E+01	0.447
		585.48		3.626E+02	2.706E+02	4.264E+02	2.373E+01	0.850
		755.35		4.448E+01	2.011E+02	3.299E+02	2.160E+01	0.135
		817.79		6.025E+01	1.681E+02	2.897E+02	2.206E+01	0.208
SR-82		698.33		-1.308E+00	4.080E+01	6.566E+01	3.709E+00	-0.020
		776.49	*	-2.363E-01	4.596E-01	7.395E-01	5.101E-02	-0.319
		1395.20		-1.078E+01	1.446E+01	2.100E+01	1.530E+00	-0.513
RB-83		520.41	*	-6.140E-02	8.114E-02	1.252E-01	7.245E-03	-0.491
		529.64		1.647E-03	1.219E-01	1.999E-01	1.152E-02	0.008
		552.65		1.917E-01	2.396E-01	4.143E-01	2.360E-02	0.463
RB-84		881.50	*	3.674E-02	8.193E-02	1.420E-01	1.247E-02	0.259
KR-85		513.99	*	1.105E+01	9.692E+00	1.518E+01	8.808E-01	0.728
SR-85		513.99	*	5.678E-02	4.979E-02	7.798E-02	4.525E-03	0.728
RB-86		1076.63	*	-1.622E-01	9.489E-01	1.536E+00	1.101E-01	-0.106
Y-88		898.02		-2.533E-02	5.254E-02	8.375E-02	7.658E-03	-0.302
		1836.01	*	-1.316E-02	4.030E-02	6.225E-02	3.665E-03	-0.211
ZR-88		392.90	*	-6.611E-04	3.852E-02	6.397E-02	3.693E-03	-0.010
Y-91		1204.90	*	-9.753E+00	2.240E+01	3.509E+01	2.093E+00	-0.278
NB-94		702.63	*	-8.728E-03	3.938E-02	6.230E-02	3.560E-03	-0.140
		871.10		-1.480E-03	3.269E-02	5.426E-02	4.660E-03	-0.027
NB-95		765.79	*	1.156E-01	5.734E-02	1.041E-01	6.993E-03	1.111
NB-95M		235.69	*	4.338E-01	1.944E-01	3.010E-01	2.220E-02	1.441
ZR-95		724.18		1.263E-01	1.380E-01	2.103E-01	1.487E-02	0.601
		756.15	*	6.061E-02	8.053E-02	1.384E-01	1.062E-02	0.438
NB-97		657.90	*	6.893E-01	8.053E-02	Half-Life too short		
		1024.50		1.984E-01	8.053E-02	Half-Life too short		
ZR-97		254.15		-4.068E+00	8.053E-02	Half-Life too short		
		355.39		3.606E+00	8.053E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		507.63	*	7.528E+00	8.053E-02	Half-Life too short		
		602.52		6.304E+00	8.053E-02	Half-Life too short		
		1021.30		1.451E+01	8.053E-02	Half-Life too short		
		1147.95		-4.784E+00	8.053E-02	Half-Life too short		
		1362.66		2.325E-01	8.053E-02	Half-Life too short		
		1750.46		-1.139E+00	8.053E-02	Half-Life too short		
MO-99		140.51		-2.968E+01	3.566E+01	5.435E+01	1.461E+01	-0.546
		181.06		-1.229E+00	2.491E+01	3.524E+01	5.973E+00	-0.035
		366.43		7.722E+01	9.824E+01	1.714E+02	1.004E+01	0.451
		739.58	*	1.360E+00	1.579E+01	2.559E+01	3.581E+00	0.053
		778.00		-6.729E+00	4.193E+01	6.947E+01	4.811E+00	-0.097
TC-99M		140.51	*	-6.881E+10	4.193E+01	Half-Life too short		
RH-101		127.23		2.809E-02	3.958E-02	6.662E-02	3.826E-03	0.422
		198.01	*	-1.383E-04	3.911E-02	6.325E-02	3.372E-03	-0.002
		325.23		-2.953E-01	2.730E-01	4.320E-01	2.553E-02	-0.684
RH-102		418.52		7.813E-02	3.513E-01	5.899E-01	3.437E-02	0.132
		475.06	*	3.205E-02	4.160E-02	6.354E-02	3.719E-03	0.504
		631.29		7.093E-02	6.323E-02	1.119E-01	5.951E-03	0.634
		697.49		-3.546E-03	9.100E-02	1.464E-01	8.250E-03	-0.024
		766.84		2.609E-01	1.458E-01	2.626E-01	1.769E-02	0.993
		1046.59		4.738E-02	1.347E-01	2.299E-01	1.741E-02	0.206
		1112.84		1.398E-01	2.949E-01	4.444E-01	2.948E-02	0.315
RU-103		497.08	*	-4.964E-02	4.726E-02	7.069E-02	8.949E-03	-0.702
		610.33		9.510E+00	2.129E+00	3.021E+00	4.618E-01	3.148
RH-106	+	511.85		5.569E-01	4.055E-01	4.731E-01	2.747E-02	1.177
		621.84	*	-3.106E-02	3.549E-01	5.719E-01	6.596E-02	-0.054
		1050.47		1.675E+00	2.809E+00	4.887E+00	3.676E-01	0.343
RU-106	+	511.85		5.569E-01	4.055E-01	4.731E-01	2.747E-02	1.177
		621.84	*	-3.106E-02	3.548E-01	5.719E-01	3.073E-02	-0.054
		1050.47		1.675E+00	2.809E+00	4.887E+00	3.676E-01	0.343
AG-108M		433.93	*	-1.035E-02	3.798E-02	6.169E-02	3.911E-03	-0.168
		614.37		5.180E-03	5.114E-02	7.263E-02	4.315E-03	0.071
		722.95		9.037E-03	5.614E-02	7.949E-02	5.169E-03	0.114
AG-110M		657.75	*	1.595E-01	5.932E-02	1.017E-01	5.651E-03	1.568
		677.61		-5.752E-02	3.272E-01	5.197E-01	2.974E-02	-0.111
		706.67		-9.438E-02	2.465E-01	3.840E-01	2.352E-02	-0.246
		763.93		-1.678E-02	2.310E-01	3.662E-01	2.563E-02	-0.046
		884.67		-2.860E-03	5.956E-02	9.883E-02	9.011E-03	-0.029
		937.48		-9.239E-02	1.359E-01	2.112E-01	1.918E-02	-0.437
		1384.27		3.619E-02	2.124E-01	3.270E-01	2.480E-02	0.111
IN-111		171.28		1.232E-01	1.238E+00	2.022E+00	1.037E-01	0.061
		245.39	*	-2.514E-01	1.523E+00	2.105E+00	1.191E-01	-0.119
IN-113M		391.69	*	-2.797E-02	5.531E-02	8.923E-02	5.497E-03	-0.313
SN-113		391.69	*	-2.797E-02	5.531E-02	8.923E-02	5.497E-03	-0.313
IN-114M		190.27	*	8.224E-02	2.449E-01	3.537E-01	1.864E-02	0.232
CD-115		260.90		-6.093E+01	1.675E+02	2.626E+02	1.508E+01	-0.232
		492.35		-8.397E+00	4.412E+01	7.151E+01	4.175E+00	-0.117
		527.90	*	-2.985E+00	1.324E+01	2.131E+01	1.230E+00	-0.140
SN-117M		156.02		8.788E-01	2.827E+00	4.666E+00	2.442E-01	0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-1.649E-02	6.809E-02	1.100E-01	5.714E-03	-0.150
SB-122		563.90	*	6.217E-01	2.701E+00	4.482E+00	2.535E-01	0.139
		692.80		-8.579E-02	5.557E+01	8.971E+01	4.993E+00	-0.001
I-123		159.00	*	-1.755E+00	5.557E+01	Half-Life too short		
		528.96		-1.143E+02	5.557E+01	Half-Life too short		
TE-123M		159.00	*	-6.858E-03	3.504E-02	5.668E-02	2.991E-03	-0.121
I-124		602.71	*	6.977E-01	9.459E-01	1.432E+00	7.846E-02	0.487
		722.78		8.283E-01	6.038E+00	8.524E+00	5.136E-01	0.097
		1325.50		2.584E+01	3.589E+01	6.424E+01	4.666E+00	0.402
	+	1376.25		6.101E+01	3.514E+01	6.402E+01	4.679E+00	0.953
		1509.49		-9.111E-01	1.835E+01	2.932E+01	2.079E+00	-0.031
		1691.02		1.509E+00	4.381E+00	7.736E+00	5.050E-01	0.195
SB-124		602.71		3.941E-02	5.342E-02	8.086E-02	4.433E-03	0.487
		645.85		-3.177E-01	5.903E-01	9.108E-01	5.498E-02	-0.349
		709.31		-1.987E+00	3.243E+00	4.932E+00	2.869E-01	-0.403
		713.82		3.695E-01	1.957E+00	3.206E+00	3.290E-01	0.115
		722.78		6.781E-02	4.943E-01	6.979E-01	4.389E-02	0.097
	+	968.20		8.975E+00	5.672E+00	7.359E+00	6.239E-01	1.220
		1045.16		8.993E-02	2.982E+00	4.935E+00	3.746E-01	0.018
		1325.50		2.260E+00	3.138E+00	5.617E+00	4.080E-01	0.402
		1368.21		4.549E-01	1.993E+00	3.197E+00	4.055E-01	0.142
		1436.60		1.066E+00	4.051E+00	6.829E+00	4.938E-01	0.156
		1691.02	*	2.914E-02	8.461E-02	1.494E-01	1.041E-02	0.195
SB-125		427.89	*	3.921E-02	1.062E-01	1.799E-01	1.094E-02	0.218
		463.38		3.277E-01	3.843E-01	6.513E-01	4.438E-02	0.503
		600.56		6.528E-02	2.307E-01	3.732E-01	2.405E-02	0.175
		635.90		1.182E-02	2.977E-01	4.847E-01	3.082E-02	0.024
TE-125M		109.28	*	-4.416E+00	1.373E+01	1.958E+01	1.746E+00	-0.226
I-126		388.63		4.958E-02	2.470E-01	4.155E-01	2.403E-02	0.119
		666.33	*	-8.832E-02	2.391E-01	3.177E-01	1.644E-02	-0.278
		753.82		6.664E-01	1.714E+00	2.854E+00	1.862E-01	0.233
SB-126		223.80		-7.350E+00	4.962E+00	7.384E+00	4.078E-01	-0.995
		278.60		2.437E+00	2.893E+00	5.056E+00	2.941E-01	0.482
		296.50		1.015E+01	2.946E+00	3.933E+00	2.309E-01	2.582
		414.70		3.478E-02	9.758E-02	1.650E-01	9.602E-03	0.211
		415.30		4.709E+00	8.061E+00	1.380E+01	8.031E-01	0.341
		555.20		2.546E+00	4.849E+00	8.230E+00	4.681E-01	0.309
		573.80		-7.644E-01	1.310E+00	1.976E+00	1.110E-01	-0.387
		593.00		-7.620E-01	1.146E+00	1.766E+00	9.765E-02	-0.432
		656.30		4.606E+00	4.534E+00	7.086E+00	3.648E-01	0.650
		666.33		-3.692E-02	9.996E-02	1.328E-01	6.874E-03	-0.278
		675.00		-8.215E-01	2.238E+00	3.493E+00	1.852E-01	-0.235
		695.00		-1.248E-02	9.474E-02	1.512E-01	8.467E-03	-0.083
		697.00		-1.030E-01	3.240E-01	5.085E-01	2.862E-02	-0.202
		720.50	*	6.901E-02	2.038E-01	2.946E-01	1.764E-02	0.234
		856.80		-2.290E-01	6.391E-01	8.763E-01	7.292E-02	-0.261
		989.30		1.394E-01	1.376E+00	2.303E+00	1.902E-01	0.061
		1034.80		6.054E-01	1.002E+01	1.665E+01	1.286E+00	0.036
		1213.00		-3.640E-02	5.832E+00	9.529E+00	5.765E-01	-0.004

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127		61.10		3.159E+02	1.089E+02	1.707E+02	1.923E+01	1.851
		252.40		-1.488E+00	5.598E+00	8.787E+00	3.651E+00	-0.169
		290.80		-2.722E+01	2.869E+01	3.901E+01	3.613E+00	-0.698
		411.60		5.631E+00	1.593E+01	2.691E+01	3.881E+00	0.209
		444.90		-3.005E+00	1.247E+01	2.028E+01	2.205E+00	-0.148
		473.00		1.443E+00	2.587E+00	3.870E+00	4.356E-01	0.373
		543.00		-3.518E+00	1.955E+01	3.152E+01	4.073E+00	-0.112
		603.60		4.590E+00	1.680E+01	2.428E+01	2.585E+00	0.189
		685.20	*	7.243E-01	1.592E+00	2.676E+00	2.485E-01	0.271
		698.50		2.580E+00	1.830E+01	2.988E+01	4.320E+00	0.086
		722.20		7.762E+00	4.174E+01	5.927E+01	5.550E+00	0.131
		783.80		2.292E-01	4.483E+00	7.551E+00	8.623E-01	0.030
XE-127		57.60		6.545E+00	1.067E+01	1.605E+01	1.406E+00	0.408
		145.22		4.082E-01	8.439E-01	1.405E+00	7.579E-02	0.291
		172.10		-2.890E-02	1.444E-01	2.328E-01	1.196E-02	-0.124
		202.84	*	-1.898E-02	5.887E-02	9.035E-02	4.850E-03	-0.210
		374.96		3.062E-01	2.369E-01	4.219E-01	2.462E-02	0.726
I-131		80.18		-1.056E+01	7.629E+00	1.047E+01	9.659E-01	-1.009
		284.30		-5.449E-01	1.702E+00	2.821E+00	1.829E-01	-0.193
		364.48	*	-9.268E-02	1.355E-01	2.164E-01	1.414E-02	-0.428
		636.97		-1.180E+00	1.842E+00	2.816E+00	1.700E-01	-0.419
		722.89		1.465E+00	9.603E+00	1.358E+01	8.295E-01	0.108
TE-132		49.72		-2.375E+01	3.800E+01	6.247E+01	6.701E+00	-0.380
	+	111.76		1.014E+02	4.927E+01	7.208E+01	6.797E+00	1.407
		116.30		3.112E+01	3.918E+01	5.882E+01	5.398E+00	0.529
		228.16	*	-6.306E-01	8.661E-01	1.336E+00	1.911E-01	-0.472
BA-133		53.15		-4.442E-01	6.235E+00	1.045E+01	9.220E-01	-0.042
		79.62		-7.388E-01	2.044E+00	2.945E+00	4.572E-01	-0.251
		81.00		-2.713E-01	1.667E-01	2.200E-01	3.566E-02	-1.233
		276.40		1.611E-01	4.742E-01	7.429E-01	9.634E-02	0.217
		302.84		1.378E-01	1.716E-01	2.656E-01	3.108E-02	0.519
		356.01	*	2.238E-02	5.727E-02	8.566E-02	9.939E-03	0.261
		383.85		-1.001E-01	3.606E-01	5.900E-01	6.415E-02	-0.170
I-133	+	510.53		1.316E+00	3.606E-01	Half-Life too short		
		529.87	*	-2.301E-03	3.606E-01	Half-Life too short		
		706.58		-1.876E-01	3.606E-01	Half-Life too short		
		856.28		-4.215E-01	3.606E-01	Half-Life too short		
		875.33		2.043E-03	3.606E-01	Half-Life too short		
		1236.41		2.652E+00	3.606E-01	Half-Life too short		
		1298.22		-4.158E-01	3.606E-01	Half-Life too short		
CS-134		475.35		2.791E+00	2.702E+00	4.216E+00	2.468E-01	0.662
		563.23		-1.420E-01	4.567E-01	7.290E-01	4.216E-02	-0.195
		569.32		-2.293E-02	2.430E-01	3.851E-01	2.238E-02	-0.060
		604.70		2.123E-02	4.866E-02	7.136E-02	3.928E-03	0.297
	+	795.84	*	1.420E-01	6.958E-02	9.697E-02	7.082E-03	1.464
		801.93		-1.332E-01	5.605E-01	7.888E-01	5.830E-02	-0.169
		1038.57		-3.155E+00	4.446E+00	6.778E+00	5.203E-01	-0.465
		1167.94		-1.776E+00	3.195E+00	4.964E+00	2.845E-01	-0.358
		1365.15		-2.668E-01	1.397E+00	2.164E+00	1.683E-01	-0.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135		268.24	*	1.835E-01	2.322E-01	3.400E-01	2.597E-02	0.540
I-135		288.45		1.786E+10	2.322E-01	Half-Life too short		
		417.63		1.440E+10	2.322E-01	Half-Life too short		
		546.56		-9.707E+08	2.322E-01	Half-Life too short		
		836.80		2.003E+10	2.322E-01	Half-Life too short		
		1038.76		-1.655E+10	2.322E-01	Half-Life too short		
		1124.00		9.379E+09	2.322E-01	Half-Life too short		
		1131.51		3.791E+09	2.322E-01	Half-Life too short		
		1260.41	*	1.874E+09	2.322E-01	Half-Life too short		
		1457.56		1.652E+12	2.322E-01	Half-Life too short		
		1678.03		4.510E+09	2.322E-01	Half-Life too short		
		1706.46		1.402E+10	2.322E-01	Half-Life too short		
		1791.20		1.649E+10	2.322E-01	Half-Life too short		
CS-136		66.91		-6.145E-01	1.393E+00	1.867E+00	2.890E-01	-0.329
	+	86.29		3.336E+00	1.435E+00	2.727E+00	3.692E-01	1.224
		153.22		4.637E-01	8.408E-01	1.379E+00	9.387E-02	0.336
		163.89		1.130E+00	1.304E+00	2.193E+00	1.475E-01	0.515
		176.55		5.295E-03	4.550E-01	7.393E-01	4.407E-02	0.007
		273.65		-3.073E-01	6.442E-01	8.640E-01	5.715E-02	-0.356
		340.57		2.654E-01	1.724E-01	2.763E-01	1.731E-02	0.961
		818.51		4.779E-02	8.577E-02	1.504E-01	1.148E-02	0.318
		1048.07	*	-2.675E-02	1.381E-01	2.238E-01	1.783E-02	-0.120
		1235.34		1.595E+00	8.365E-01	1.524E+00	1.566E-01	1.046
CE-139		165.85	*	-3.870E-02	3.654E-02	5.619E-02	2.865E-03	-0.689
BA-140		162.64		6.393E-01	9.325E-01	1.558E+00	9.263E-02	0.410
		304.84		-3.245E-01	1.614E+00	2.322E+00	6.342E-01	-0.140
		423.70		-2.210E+00	2.351E+00	3.475E+00	1.105E+00	-0.636
		537.32	*	1.227E-01	3.121E-01	5.217E-01	1.696E-01	0.235
LA-140		328.77		4.439E-01	3.676E-01	6.483E-01	4.275E-02	0.685
		432.53		-1.004E+00	2.463E+00	3.965E+00	2.556E-01	-0.253
		487.03		1.019E-01	1.627E-01	2.792E-01	1.844E-02	0.365
		751.79		-3.626E-01	1.969E+00	3.106E+00	2.383E-01	-0.117
		815.85		2.452E-01	3.660E-01	6.476E-01	5.629E-02	0.379
		867.82		-3.263E-01	1.425E+00	2.266E+00	2.037E-01	-0.144
		919.63		-2.467E-01	3.440E+00	5.417E+00	5.905E-01	-0.046
		925.24		3.431E-01	1.320E+00	2.229E+00	2.097E-01	0.154
		1596.49	*	-6.110E-02	8.206E-02	1.168E-01	8.012E-03	-0.523
CE-141		145.44	*	2.268E-02	7.640E-02	1.263E-01	7.124E-03	0.180
CE-143		57.37		8.521E-04	7.640E-02	Half-Life too short		
		231.56		2.168E-03	7.640E-02	Half-Life too short		
		293.26	*	1.103E-03	7.640E-02	Half-Life too short		
	+	350.59		2.879E-02	7.640E-02	Half-Life too short		
		490.36		1.560E-03	7.640E-02	Half-Life too short		
		664.57		3.730E-03	7.640E-02	Half-Life too short		
		721.93		8.629E-04	7.640E-02	Half-Life too short		
CE-144		80.11		-4.733E+00	3.460E+00	4.754E+00	4.358E-01	-0.996
		133.54	*	-2.200E-01	2.511E-01	3.948E-01	5.576E-02	-0.557
PM-144		476.78		3.054E-03	8.904E-02	1.431E-01	9.996E-03	0.021
		618.01		1.251E-02	3.761E-02	6.275E-02	3.620E-03	0.199

---- Non-Identified Nuclides ----

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		696.49	*	-2.496E-03	4.118E-02	6.613E-02	3.720E-03	-0.038
		778.57		7.525E-01	2.709E+00	4.646E+00	3.223E-01	0.162
PR-144		696.49	*	-1.691E-01	2.791E+00	4.481E+00	2.519E-01	-0.038
		1489.15		1.631E+00	1.235E+01	2.041E+01	1.456E+00	0.080
PM-146		453.90	*	3.829E-02	5.766E-02	9.874E-02	8.552E-03	0.388
		633.02		-8.842E-01	1.772E+00	2.538E+00	9.327E-01	-0.348
		735.90		7.965E-02	1.878E-01	3.111E-01	8.702E-02	0.256
		747.13		-3.644E-02	1.076E-01	1.671E-01	2.140E-02	-0.218
ND-147	+	91.11		7.876E+00	9.417E-01	1.078E+00	1.060E-01	7.303
		319.41		9.873E-01	3.874E+00	6.583E+00	3.890E-01	0.150
		439.89		-3.003E+00	7.084E+00	1.138E+01	6.664E-01	-0.264
		531.02	*	-3.338E-01	6.797E-01	1.069E+00	1.444E-01	-0.312
PM-149		285.90	*	9.626E+01	1.088E+02	1.899E+02	2.695E+01	0.507
EU-152		121.78		-2.552E-02	8.754E-02	1.423E-01	1.094E-02	-0.179
		244.69		1.208E-01	4.394E-01	6.266E-01	3.544E-02	0.193
		344.27	*	-2.746E-02	1.405E-01	1.895E-01	1.256E-02	-0.145
		443.98		-4.027E-01	1.147E+00	1.852E+00	1.084E-01	-0.217
		778.89		1.130E-01	3.149E-01	5.433E-01	3.770E-02	0.208
		867.32		-9.036E-02	8.834E-01	1.390E+00	1.184E-01	-0.065
		964.01		-1.425E-02	4.391E-01	6.219E-01	5.299E-02	-0.023
		1085.78		-2.395E-01	4.844E-01	7.578E-01	5.333E-02	-0.316
		1112.02		1.585E-01	4.214E-01	6.267E-01	4.166E-02	0.253
		1407.95		3.019E-01	2.367E-01	4.405E-01	3.203E-02	0.685
GD-153		69.67		8.528E-01	2.641E+00	3.933E+00	3.437E-01	0.217
		83.37		2.079E+01	2.341E+01	3.527E+01	3.311E+00	0.589
		97.43	*	1.434E-01	1.153E-01	1.765E-01	1.442E-02	0.813
		103.18		-4.808E-02	1.357E-01	2.195E-01	1.640E-02	-0.219
EU-154		123.07		-2.968E-02	6.137E-02	9.888E-02	9.333E-03	-0.300
		247.94		-1.235E-01	4.421E-01	6.981E-01	6.608E-02	-0.177
		591.81		5.931E-02	7.435E-01	1.218E+00	1.172E-01	0.049
		723.30		6.084E-02	2.422E-01	3.463E-01	2.518E-02	0.176
		756.87		1.729E-01	9.097E-01	1.487E+00	1.576E-01	0.116
		873.19		2.643E-02	2.834E-01	4.775E-01	5.850E-02	0.055
		996.32		3.939E-01	4.630E-01	7.331E-01	1.287E-01	0.537
		1004.76		-1.378E-02	2.689E-01	3.794E-01	4.268E-02	-0.036
		1274.45	*	-9.242E-02	1.544E-01	2.350E-01	2.333E-02	-0.393
EU-155		48.70		-4.021E+00	4.731E+00	7.721E+00	6.228E-01	-0.521
		60.01		5.861E+00	8.394E+00	1.265E+01	1.099E+00	0.463
	+	86.54		3.049E-01	1.279E-01	2.467E-01	2.398E-02	1.236
		105.31	*	1.056E-01	1.397E-01	2.362E-01	1.742E-02	0.447
TB-160	+	86.79		8.159E-01	3.422E-01	6.547E-01	6.326E-02	1.246
		197.04		4.232E-01	6.610E-01	1.098E+00	5.847E-02	0.385
		215.65		-3.116E-01	8.854E-01	1.403E+00	7.668E-02	-0.222
	+	298.57		3.641E-01	1.958E-01	2.412E-01	1.417E-02	1.510
		879.36	*	1.147E-01	1.541E-01	2.743E-01	2.399E-02	0.418
		962.29		5.763E-01	7.543E-01	1.168E+00	9.973E-02	0.493
		966.15		7.402E-01	3.499E-01	5.837E-01	4.961E-02	1.268
		1177.93		2.054E-01	4.415E-01	7.540E-01	4.289E-02	0.272
		1271.85		5.686E-01	8.531E-01	1.472E+00	9.827E-02	0.386

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HO-166M		80.57		-7.905E-01	4.507E-01	6.062E-01	5.574E-02	-1.304
	+	184.41		3.183E-01	6.681E-02	9.716E-02	5.078E-03	3.276
		280.46		-5.190E-03	9.749E-02	1.640E-01	9.550E-03	-0.032
		410.95		2.776E-01	3.084E-01	5.362E-01	3.117E-02	0.518
		711.68	*	1.393E-02	6.974E-02	1.144E-01	6.699E-03	0.122
		752.31		8.071E-02	3.101E-01	5.107E-01	3.319E-02	0.158
		810.29		-6.399E-02	6.588E-02	1.001E-01	7.484E-03	-0.640
TM-171		51.35		3.199E+01	5.490E+01	9.400E+01	8.170E+00	0.340
		52.39		-2.460E+00	2.767E+01	4.637E+01	4.073E+00	-0.053
		59.40		1.094E+01	4.498E+01	6.654E+01	5.780E+00	0.164
		66.72	*	-2.730E+01	4.657E+01	6.679E+01	5.809E+00	-0.409
LU-176	+	88.36		6.004E-01	2.518E-01	4.919E-01	4.768E-02	1.221
		201.83		-3.659E-02	3.488E-02	5.367E-02	2.877E-03	-0.682
		306.84	*	-3.032E-02	3.230E-02	4.626E-02	2.725E-03	-0.655
		401.10		-1.713E+00	8.430E+00	1.384E+01	8.015E-01	-0.124
LU-177M		52.97		-3.944E-01	2.848E+00	4.764E+00	4.199E-01	-0.083
		54.07		3.506E-01	1.438E+00	2.435E+00	2.152E-01	0.144
		61.30		1.153E+01	2.857E+00	4.595E+00	3.991E-01	2.510
		121.62		-3.228E-01	4.557E-01	7.282E-01	4.304E-02	-0.443
		147.16		-4.865E-01	7.834E-01	1.249E+00	6.700E-02	-0.390
		171.86		-1.998E-01	5.771E-01	9.244E-01	4.746E-02	-0.216
		218.09		4.676E-01	1.021E+00	1.679E+00	9.205E-02	0.278
	+	268.79		2.052E+00	1.222E+00	1.771E+00	1.024E-01	1.159
		319.02		8.906E-03	2.939E-01	4.938E-01	2.916E-02	0.018
		367.43		4.743E-02	1.050E+00	1.755E+00	1.028E-01	0.027
		413.65	*	-1.082E-01	2.335E-01	3.771E-01	2.194E-02	-0.287
HF-181		56.28		-8.253E-01	1.580E+00	2.513E+00	2.213E-01	-0.328
		57.53		4.909E-01	9.016E-01	1.352E+00	1.185E-01	0.363
		65.20		3.457E+00	1.687E+00	2.638E+00	2.292E-01	1.310
		133.02		-1.280E-01	8.205E-02	1.261E-01	7.077E-03	-1.016
		136.25		-1.112E-01	5.607E-01	9.119E-01	5.061E-02	-0.122
		345.85		-1.098E-01	2.625E-01	3.689E-01	2.176E-02	-0.298
		482.03	*	4.132E-03	5.230E-02	8.654E-02	5.062E-03	0.048
W-181		56.28		-3.234E-01	6.172E-01	9.817E-01	8.644E-02	-0.329
		57.53		1.919E-01	3.525E-01	5.286E-01	4.632E-02	0.363
		65.20	*	1.341E+00	6.543E-01	1.023E+00	8.889E-02	1.310
TA-182		67.75		2.805E-02	2.124E-01	2.662E-01	2.317E-02	0.105
		100.10		9.705E-02	2.259E-01	3.790E-01	2.966E-02	0.256
		152.43		5.966E-02	4.205E-01	6.795E-01	3.591E-02	0.088
		222.10		1.133E-01	4.200E-01	6.845E-01	3.772E-02	0.165
		1001.68		5.146E+00	3.173E+00	5.324E+00	4.323E-01	0.967
		1121.28		5.714E-01	2.142E-01	3.847E-01	2.502E-02	1.485
		1189.05		-1.423E-01	3.767E-01	5.944E-01	3.449E-02	-0.239
		1221.42	*	-3.597E-02	2.341E-01	3.770E-01	2.314E-02	-0.095
		1230.97		-7.961E-01	6.607E-01	9.684E-01	6.041E-02	-0.822
RE-183		57.98		1.082E-01	3.455E-01	5.129E-01	4.485E-02	0.211
		59.32		3.672E-02	1.853E-01	2.736E-01	2.377E-02	0.134
		67.20		-6.520E-04	3.478E-01	4.774E-01	4.154E-02	-0.001
		162.32	*	1.306E-01	1.350E-01	2.279E-01	1.172E-02	0.573

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		2.159E+00	1.468E+00	2.043E+00	1.106E-01	1.057
		291.72		-2.193E-01	1.193E+00	1.726E+00	1.011E-01	-0.127
RE-184		57.98		3.983E-01	1.272E+00	1.888E+00	1.651E-01	0.211
		59.32		1.350E-01	6.816E-01	1.006E+00	8.744E-02	0.134
		67.20		-2.399E-03	1.280E+00	1.757E+00	1.528E-01	-0.001
		161.27		2.239E-01	4.357E-01	7.240E-01	3.735E-02	0.309
		216.55		7.192E-03	3.193E-01	5.152E-01	2.818E-02	0.014
		252.85	*	-1.503E-01	2.873E-01	4.472E-01	2.550E-02	-0.336
		318.01		-2.080E-01	5.062E-01	8.298E-01	4.900E-02	-0.251
		792.07		1.022E+00	1.319E+00	2.075E+00	1.486E-01	0.492
		903.28		1.594E-01	1.369E+00	1.993E+00	1.806E-01	0.080
		920.93		3.458E-01	5.130E-01	9.053E-01	8.075E-02	0.382
OS-185		59.72		2.333E-01	4.990E-01	7.451E-01	6.471E-02	0.313
		61.14		9.406E-01	2.976E-01	4.776E-01	4.149E-02	1.969
		69.30		2.277E-01	4.708E-01	7.055E-01	6.159E-02	0.323
		592.07		1.024E-01	2.991E+00	4.885E+00	2.703E-01	0.021
		646.12	*	-4.004E-02	5.132E-02	7.744E-02	4.041E-03	-0.517
		717.42		-3.712E-01	1.143E+00	1.790E+00	1.064E-01	-0.207
		874.81		7.421E-02	5.743E-01	9.710E-01	8.408E-02	0.076
		880.27		1.148E-01	8.778E-01	1.481E+00	1.298E-01	0.077
RE-188		155.03	*	1.928E-01	2.111E-01	3.559E-01	1.868E-02	0.542
		477.96		-1.617E+00	3.954E+00	6.336E+00	3.708E-01	-0.255
		633.10		-1.897E+00	3.520E+00	5.109E+00	2.710E-01	-0.371
W-188	+	63.58		7.833E+02	1.511E+02	1.798E+02	1.562E+01	4.356
		227.08		-1.061E+01	1.492E+01	2.313E+01	1.282E+00	-0.459
		290.67	*	-9.368E+00	9.592E+00	1.304E+01	7.639E-01	-0.718
IR-192	+	295.96		8.064E-01	2.067E-01	3.023E-01	1.802E-02	2.667
		308.46		4.833E-02	1.092E-01	1.876E-01	1.118E-02	0.258
		316.51	*	-1.535E-02	3.918E-02	6.433E-02	3.816E-03	-0.239
		468.07		-1.803E-02	8.663E-02	1.410E-01	9.495E-03	-0.128
		604.41		1.887E-01	6.533E-01	9.446E-01	1.057E-01	0.200
		612.46		5.285E-01	9.330E-01	1.390E+00	1.014E-01	0.380
AU-195		65.12		7.466E-01	3.087E-01	4.855E-01	4.217E-02	1.538
		66.83		-7.923E-02	1.541E-01	2.217E-01	1.929E-02	-0.357
	+	75.70		1.312E+00	3.586E-01	5.904E-01	5.273E-02	2.223
		98.88	*	3.620E-01	3.123E-01	4.997E-01	3.987E-02	0.724
		129.76		5.213E+00	3.501E+00	6.030E+00	3.427E-01	0.865
TL-200		367.94	*	-1.601E-04	3.501E+00	Half-Life too short		
		579.30		7.555E-03	3.501E+00	Half-Life too short		
		828.27		3.761E-03	3.501E+00	Half-Life too short		
		1205.75		-1.844E-03	3.501E+00	Half-Life too short		
TL-201		68.90		1.545E+00	8.566E+00	1.185E+01	1.034E+00	0.130
		70.82		4.882E+00	4.432E+00	6.772E+00	5.934E-01	0.721
		80.30		-1.178E+01	8.528E+00	1.171E+01	1.075E+00	-1.006
		135.34		-1.026E+01	3.223E+01	5.218E+01	2.905E+00	-0.197
		167.43	*	-4.827E+00	8.756E+00	1.376E+01	7.023E-01	-0.351
TL-202		68.90		1.346E-01	7.463E-01	1.032E+00	9.005E-02	0.130
		70.82		4.242E-01	3.851E-01	5.884E-01	5.155E-02	0.721
		80.30		-1.024E+00	7.412E-01	1.017E+00	9.339E-02	-1.006

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	2.433E-02	8.201E-02	1.382E-01	8.086E-03	0.176
HG-203		70.83		1.832E+00	1.667E+00	2.530E+00	3.466E-01	0.724
		72.87		2.282E+00	9.590E-01	1.600E+00	2.133E-01	1.426
		82.60		5.152E-01	2.100E+00	2.626E+00	3.729E-01	0.196
		279.20	*	1.617E-02	4.678E-02	8.012E-02	4.949E-03	0.202
BI-207		72.80		6.064E-01	2.701E-01	4.634E-01	4.087E-02	1.308
	+	74.97		7.275E-01	1.988E-01	3.038E-01	2.703E-02	2.395
		84.90		5.545E-01	3.092E-01	4.668E-01	4.437E-02	1.188
		569.67		-7.369E-03	3.761E-02	5.911E-02	3.330E-03	-0.125
		1063.62	*	2.294E-02	6.422E-02	1.094E-01	8.035E-03	0.210
		1770.23		4.330E-01	5.306E-01	9.299E-01	5.758E-02	0.466
TL-207		81.07		-5.887E-01	3.591E-01	4.861E-01	4.486E-02	-1.211
		83.78		1.520E-01	1.982E-01	2.974E-01	2.801E-02	0.511
		94.90		1.298E+00	3.975E-01	6.248E-01	5.331E-02	2.077
		122.32		-3.402E-01	2.073E+00	3.387E+00	2.292E-01	-0.100
		144.24		4.533E-01	8.313E-01	1.363E+00	9.436E-02	0.333
		154.21		6.328E-01	4.839E-01	8.258E-01	5.428E-02	0.766
	+	269.46		4.801E-01	2.861E-01	4.227E-01	2.555E-02	1.136
		323.87	*	-7.420E-01	8.090E-01	1.277E+00	2.114E-01	-0.581
	+	338.28		5.800E+00	1.973E+00	2.706E+00	2.866E-01	2.143
		445.03		-5.105E-01	2.819E+00	4.604E+00	4.743E-01	-0.111
PO-209		260.50		-3.628E+00	1.186E+01	1.865E+01	1.071E+00	-0.195
		262.80		8.655E+00	3.240E+01	5.254E+01	3.022E+00	0.165
		896.60	*	-5.146E+00	9.173E+00	1.449E+01	1.315E+00	-0.355
BI-210		46.50	*	3.679E+00	7.197E+00	1.225E+01	9.535E-01	0.300
PB-210		46.50	*	3.679E+00	7.197E+00	1.225E+01	9.535E-01	0.300
PO-210		46.50	*	3.679E+00	7.196E+00	1.225E+01	8.216E-01	0.300
PB-211		404.84	*	-5.812E-01	1.226E+00	1.890E+00	1.178E+00	-0.308
		427.08		-1.809E-01	2.410E+00	3.966E+00	2.452E+00	-0.046
		831.96		2.260E-01	1.452E+00	2.448E+00	1.532E+00	0.092
BI-212	+	727.18	*	1.180E+00	5.025E-01	7.285E-01	5.783E-02	1.619
		785.46		3.920E-01	2.101E+00	3.575E+00	2.521E-01	0.110
		1620.62		5.530E-01	1.201E+00	2.169E+00	1.471E-01	0.255
PO-215		81.07		-5.887E-01	3.591E-01	4.861E-01	4.486E-02	-1.211
		83.78		1.520E-01	1.982E-01	2.974E-01	2.801E-02	0.511
		94.90		1.298E+00	3.975E-01	6.248E-01	5.331E-02	2.077
		122.32		-3.402E-01	2.073E+00	3.387E+00	2.292E-01	-0.100
		144.24		4.533E-01	8.313E-01	1.363E+00	9.436E-02	0.333
		154.21		6.328E-01	4.839E-01	8.258E-01	5.428E-02	0.766
	+	269.46		4.801E-01	2.861E-01	4.227E-01	2.555E-02	1.136
		323.87	*	-7.420E-01	8.090E-01	1.277E+00	2.114E-01	-0.581
	+	338.28		5.800E+00	1.973E+00	2.706E+00	2.866E-01	2.143
		445.03		-5.105E-01	2.819E+00	4.604E+00	4.743E-01	-0.111
RN-219	+	271.23		6.160E-01	3.685E-01	5.355E-01	4.336E-02	1.150
		401.81	*	1.085E-01	5.088E-01	8.547E-01	1.163E-01	0.127
RN-220		549.76	*	-1.803E+01	3.175E+01	4.964E+01	2.833E+00	-0.363
RA-223		81.07		-5.887E-01	3.591E-01	4.861E-01	4.486E-02	-1.211
		83.78		1.520E-01	1.982E-01	2.974E-01	2.801E-02	0.511
		94.90		1.298E+00	3.975E-01	6.248E-01	5.331E-02	2.077

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-3.402E-01	2.073E+00	3.387E+00	2.292E-01	-0.100
		144.24		4.533E-01	8.313E-01	1.363E+00	9.436E-02	0.333
		154.21		6.328E-01	4.839E-01	8.258E-01	5.428E-02	0.766
	+	269.46		4.801E-01	2.861E-01	4.227E-01	2.555E-02	1.136
		323.87	*	-7.420E-01	8.090E-01	1.277E+00	2.114E-01	-0.581
	+	338.28		5.800E+00	1.973E+00	2.706E+00	2.866E-01	2.143
		445.03		-5.105E-01	2.819E+00	4.604E+00	4.743E-01	-0.111
AC-227		79.80		-1.104E+00	2.592E+00	3.715E+00	8.068E-01	-0.297
		236.00		1.792E+00	4.293E-01	6.593E-01	6.820E-02	2.718
		256.20	*	2.133E-01	4.641E-01	7.591E-01	1.057E-01	0.281
		286.10		1.215E+00	1.736E+00	3.015E+00	3.492E-01	0.403
	+	299.80		4.629E+00	2.588E+00	3.058E+00	4.988E-01	1.514
		304.40		8.756E-01	2.272E+00	3.417E+00	5.921E-01	0.256
		334.20		-1.241E+00	3.192E+00	4.505E+00	8.274E-01	-0.275
TH-227		79.80		-1.104E+00	2.592E+00	3.715E+00	8.170E-01	-0.297
		94.00		4.633E+01	1.081E+01	7.452E+00	1.624E+00	6.217
		236.00		1.792E+00	4.190E-01	6.593E-01	5.889E-02	2.718
		256.20	*	2.133E-01	4.646E-01	7.591E-01	1.281E-01	0.281
		286.10		1.215E+00	2.116E+00	3.015E+00	3.020E+00	0.403
	+	299.80		4.629E+00	2.588E+00	3.058E+00	4.988E-01	1.514
		304.40		8.756E-01	2.272E+00	3.417E+00	5.921E-01	0.256
		334.20		-1.241E+00	3.192E+00	4.505E+00	8.274E-01	-0.275
TH-229		85.43		6.186E-01	3.106E-01	4.700E-01	4.488E-02	1.316
	+	88.47		3.456E-01	1.450E-01	2.818E-01	2.725E-02	1.227
		100.00		1.403E-01	2.358E-01	3.975E-01	3.116E-02	0.353
		193.63	*	-4.367E-02	6.146E-01	9.918E-01	5.254E-02	-0.044
		210.97		1.091E+00	1.005E+00	1.508E+00	8.187E-02	0.724
PA-231		283.67	*	-1.188E+00	1.744E+00	2.827E+00	3.900E-01	-0.420
	+	301.29		1.852E+00	1.009E+00	1.149E+00	1.206E-01	1.612
TH-231		81.07		-5.887E-01	3.591E-01	4.861E-01	4.486E-02	-1.211
		83.78		1.520E-01	1.982E-01	2.974E-01	2.801E-02	0.511
		94.90		1.298E+00	3.975E-01	6.248E-01	5.331E-02	2.077
		122.32		-3.402E-01	2.073E+00	3.387E+00	2.292E-01	-0.100
		144.24		4.533E-01	8.313E-01	1.363E+00	9.436E-02	0.333
		154.21		6.328E-01	4.839E-01	8.258E-01	5.428E-02	0.766
	+	269.46		4.801E-01	2.861E-01	4.227E-01	2.555E-02	1.136
		323.87	*	-7.420E-01	8.090E-01	1.277E+00	2.114E-01	-0.581
	+	338.28		5.800E+00	1.973E+00	2.706E+00	2.866E-01	2.143
		445.03		-5.105E-01	2.819E+00	4.604E+00	4.743E-01	-0.111
U-231		84.21		1.033E+01	8.743E+00	1.327E+01	1.254E+00	0.778
	+	92.29		6.089E+01	6.947E+00	8.556E+00	7.658E-01	7.117
		95.87	*	2.455E-01	1.632E+00	2.391E+00	2.006E-01	0.103
		108.00		-2.902E+00	3.188E+00	4.408E+00	3.080E-01	-0.658
PA-233	+	75.28		2.123E+01	6.396E+00	9.338E+00	1.449E+00	2.273
	+	86.59		4.956E+00	2.430E+00	4.002E+00	1.087E+00	1.238
	+	300.12		1.290E+00	7.115E-01	8.502E-01	1.145E-01	1.518
		311.98	*	3.460E-02	7.340E-02	1.262E-01	7.888E-03	0.274
		340.50		1.441E+00	8.955E-01	1.353E+00	3.110E-01	1.066
		398.62		-1.622E+00	2.685E+00	4.252E+00	1.099E+00	-0.381

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.061E+00	2.105E+00	3.571E+00	7.355E-01	0.297
PA-234	+	63.00		2.268E+01	5.261E+00	5.429E+00	8.436E-01	4.177
		94.67		1.600E+00	3.488E-01	4.967E-01	6.142E-02	3.220
		98.44		1.487E-01	1.563E-01	2.028E-01	1.130E-01	0.733
		99.86		4.905E-01	6.024E-01	1.022E+00	8.028E-02	0.480
	+	111.00		6.079E-01	2.970E-01	4.309E-01	4.660E-02	1.411
		131.20		2.378E-02	1.289E-01	2.129E-01	1.204E-02	0.112
		152.70		1.365E-01	4.079E-01	6.632E-01	1.036E-01	0.206
	+	186.00		1.146E+01	4.195E+00	3.539E+00	1.078E+00	3.238
		226.40		-1.948E-01	4.581E-01	7.202E-01	8.234E-02	-0.270
		227.20		-3.470E-01	5.035E-01	7.814E-01	4.333E-02	-0.444
		248.90		6.334E-01	1.012E+00	1.658E+00	3.558E-01	0.382
	+	293.70		5.067E+00	1.504E+00	1.867E+00	3.007E-01	2.714
		369.80		-4.622E-01	9.825E-01	1.583E+00	3.299E-01	-0.292
		568.70		5.063E-01	1.243E+00	2.045E+00	1.153E-01	0.248
		569.50		-4.912E-02	3.349E-01	5.285E-01	2.978E-02	-0.093
		574.00		-2.751E-01	1.814E+00	2.842E+00	1.596E-01	-0.097
		699.00		1.896E-01	8.400E-01	1.380E+00	2.476E-01	0.137
		706.10		4.261E-01	1.200E+00	1.973E+00	8.705E-01	0.216
		733.00		-1.631E-01	5.481E-01	7.300E-01	1.560E-01	-0.223
		742.81		6.513E-01	1.703E+00	2.741E+00	1.835E+00	0.238
		796.30		7.557E-01	1.192E+00	1.828E+00	4.870E-01	0.413
		805.60		1.621E+00	1.252E+00	2.146E+00	6.508E-01	0.756
		819.60		1.191E+00	1.475E+00	2.522E+00	9.539E-01	0.472
		826.30		1.187E-01	9.240E-01	1.561E+00	6.960E-01	0.076
		831.60		-2.620E-01	7.553E-01	1.220E+00	3.616E-01	-0.215
		876.40		-7.914E-01	1.207E+00	1.349E+00	1.387E+00	-0.587
		880.51		4.446E-02	3.173E-01	5.358E-01	4.698E-02	0.083
		883.24		1.686E-01	3.634E-01	5.999E-01	4.034E-01	0.281
		899.00		-4.588E-01	1.042E+00	1.635E+00	7.163E-01	-0.281
		925.00		3.044E-01	1.353E+00	2.278E+00	2.023E-01	0.134
		926.50		-6.915E-02	2.055E-01	3.266E-01	8.284E-02	-0.212
		946.00	*	2.618E-01	3.648E-01	6.388E-01	1.201E-01	0.410
		949.00		1.643E-01	5.354E-01	9.131E-01	7.914E-02	0.180
		980.50		4.042E-01	8.792E-01	1.517E+00	1.267E-01	0.266
		1394.10		-9.935E-01	1.675E+00	2.284E+00	1.483E+00	-0.435
PA-234M		766.42		2.927E+01	2.118E+01	2.761E+01	1.393E+01	1.060
	+	1001.03	*	2.070E+01	6.668E+00	1.223E+01	1.167E+00	1.693
U-235		89.95		6.336E+00	2.527E+00	2.883E+00	8.958E-01	2.198
	+	93.35		1.860E+01	5.396E+00	2.543E+00	7.140E-01	7.314
		105.00		1.294E+00	1.426E+00	2.323E+00	6.848E-01	0.557
		143.76	*	7.296E-02	2.616E-01	4.247E-01	6.868E-02	0.172
		163.35		3.743E-01	5.782E-01	9.594E-01	1.706E-01	0.390
	+	185.71		4.244E-01	8.907E-02	1.314E-01	6.880E-03	3.230
		205.31		1.351E-01	7.133E-01	1.017E+00	1.816E-01	0.133
NP-236		94.67		1.229E+00	2.424E-01	3.780E-01	3.238E-02	3.253
		98.44		1.124E-01	1.006E-01	1.533E-01	1.232E-02	0.733
	+	111.00		4.598E-01	2.212E-01	3.259E-01	2.190E-02	1.411
		160.31	*	-7.117E-02	9.904E-02	1.567E-01	8.106E-03	-0.454

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.868E-01	2.072E-01	3.463E-01	2.734E-02	0.828
		117.00	*	1.888E-01	2.606E-01	3.904E-01	2.437E-02	0.484
	+	209.75		1.700E+00	1.156E+00	1.594E+00	8.643E-02	1.066
		228.18		-1.973E-01	2.711E-01	4.201E-01	2.333E-02	-0.470
		277.60		1.559E-01	2.207E-01	3.647E-01	2.120E-02	0.427
		334.30		-6.526E-01	1.807E+00	2.561E+00	1.513E-01	-0.255
AM-241		59.54	*	9.298E-02	2.616E-01	3.888E-01	3.617E-02	0.239
CM-243		99.55		2.951E-01	2.132E-01	3.563E-01	2.813E-02	0.828
		103.76	*	1.017E-01	1.239E-01	2.083E-01	1.544E-02	0.488
		117.00		1.943E-01	2.681E-01	4.017E-01	2.507E-02	0.484
	+	209.75		1.676E+00	1.139E+00	1.572E+00	8.520E-02	1.066
		228.18		-1.994E-01	2.739E-01	4.245E-01	2.357E-02	-0.470
		277.60		1.572E-01	2.225E-01	3.677E-01	2.138E-02	0.427
AM-246		798.80		-2.211E-01	1.846E-01	2.232E-01	1.625E-02	-0.990
		1036.00		9.656E-02	3.209E-01	5.468E-01	4.215E-02	0.177
		1062.04		4.768E-02	2.648E-01	4.443E-01	3.274E-02	0.107
		1078.86	*	1.510E-02	1.709E-01	2.839E-01	2.026E-02	0.053
CM-247		278.00		7.848E-01	8.675E-01	1.520E+00	8.838E-02	0.516
		287.40		1.197E+00	1.404E+00	2.407E+00	1.407E-01	0.497
		402.60	*	2.097E-02	4.507E-02	7.680E-02	4.452E-03	0.273
CF-249		252.85		-5.636E-01	1.077E+00	1.677E+00	9.561E-02	-0.336
		333.44		-5.569E-02	2.374E-01	3.399E-01	2.009E-02	-0.164
		387.95	*	4.192E-03	4.875E-02	8.147E-02	4.714E-03	0.051
CF-251		176.60	*	-9.441E-04	1.553E-01	2.521E-01	1.303E-02	-0.004
		227.00		-2.891E-01	4.439E-01	6.902E-01	3.827E-02	-0.419
		285.00		2.163E-01	1.958E+00	3.317E+00	1.937E-01	0.065

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029811    *
* Acquisition date : 10-FEB-2010 19:16:05 Detector SN#     :               *
* Detector ID        : GAM23               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.81     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 26-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202029811          Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.2291E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.603E+01	2.698E+00	7.178E-01	0.000E+00
CD-109	2.576E+00	1.059E+00	1.838E+00	0.000E+00
SN-126	2.532E-01	1.041E-01	1.817E-01	0.000E+00
BA-137M	8.586E-01	1.066E-01	6.788E-02	0.000E+00
CS-137	9.076E-01	1.128E-01	7.176E-02	0.000E+00
LU-177	2.443E+00	1.628E+00	2.317E+00	0.000E+00
TL-208	4.190E-01	8.571E-02	6.743E-02	0.000E+00
BI-211	3.307E+00	5.640E-01	3.882E-01	0.000E+00
PB-212	1.362E+00	1.489E-01	1.128E-01	0.000E+00
PO-212	1.362E+00	1.489E-01	1.128E-01	0.000E+00
BI-214	1.058E+00	1.808E-01	1.237E-01	0.000E+00
PB-214	1.150E+00	2.048E-01	1.353E-01	0.000E+00
PO-214	1.150E+00	2.048E-01	1.353E-01	0.000E+00
PO-216	1.362E+00	1.489E-01	1.128E-01	0.000E+00
PO-218	1.150E+00	2.048E-01	1.353E-01	0.000E+00
RA-224	4.117E+00	1.036E+00	1.284E+00	0.000E+00
RA-226	1.058E+00	1.808E-01	1.237E-01	0.000E+00
AC-228	1.154E+00	3.661E-01	2.399E-01	0.000E+00
RA-228	1.154E+00	3.661E-01	2.399E-01	0.000E+00
TH-228	1.383E+00	1.511E-01	1.146E-01	0.000E+00
TH-230	1.058E+00	1.808E-01	1.237E-01	0.000E+00
TH-232	1.154E+00	3.661E-01	2.399E-01	0.000E+00
TH-234	1.945E+01	4.753E+00	3.209E+00	0.000E+00
U-234	1.058E+00	1.808E-01	1.237E-01	0.000E+00
NP-237	7.434E-01	3.405E-01	5.899E-01	0.000E+00
U-238	1.945E+01	4.753E+00	3.209E+00	0.000E+00
AM-243	4.053E-01	1.085E-01	1.319E-01	0.000E+00
ANH-511	1.114E-01	7.954E-02	5.757E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-3.402E-02	3.962E-01	6.710E-01	0.000E+00	NOT IDENT.
NA-22	-3.409E-02	5.403E-02	8.382E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.022E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-6.217E-03	2.748E-02	4.358E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.313E-02	1.037E-01	0.000E+00	FAIL ABUN
SC-46	-6.906E-03	4.818E-02	8.133E-02	0.000E+00	FAIL ABUN
V-48	-8.198E-02	8.188E-02	1.244E-01	0.000E+00	NOT IDENT.
CR-51	-4.065E-02	4.288E-01	7.438E-01	0.000E+00	NOT IDENT.
MN-52	1.219E-01	2.619E-01	4.620E-01	0.000E+00	NOT IDENT.
MN-54	5.859E-02	4.203E-02	7.953E-02	0.000E+00	NOT IDENT.
CO-56	-6.868E-03	4.703E-02	7.967E-02	0.000E+00	NOT IDENT.
CO-57	-8.795E-03	2.957E-02	5.059E-02	0.000E+00	NOT IDENT.
CO-58	-2.517E-02	4.242E-02	6.896E-02	0.000E+00	NOT IDENT.
FE-59	-4.960E-02	1.208E-01	1.960E-01	0.000E+00	NOT IDENT.
CO-60	2.740E-03	4.051E-02	6.779E-02	0.000E+00	NOT IDENT.
ZN-65	9.109E-02	1.192E-01	1.889E-01	0.000E+00	NOT IDENT.
GE-68	-2.182E-01	1.475E+00	2.450E+00	0.000E+00	NOT IDENT.
AS-73	-1.895E-01	1.408E+00	2.504E+00	0.000E+00	NOT IDENT.
AS-74	-2.282E-02	1.095E-01	1.809E-01	0.000E+00	NOT IDENT.
SE-75	6.830E-03	5.967E-02	8.734E-02	0.000E+00	NOT IDENT.
BR-77	-1.002E+01	1.266E+01	2.014E+01	0.000E+00	FAIL ABUN
SR-82	-2.363E-01	4.504E-01	7.446E-01	0.000E+00	NOT IDENT.
RB-83	-6.140E-02	7.951E-02	1.267E-01	0.000E+00	NOT IDENT.
RB-84	3.674E-02	8.029E-02	1.427E-01	0.000E+00	NOT IDENT.
KR-85	1.105E+01	9.498E+00	1.537E+01	0.000E+00	NOT IDENT.
SR-85	5.678E-02	4.879E-02	7.894E-02	0.000E+00	NOT IDENT.
RB-86	-1.622E-01	9.299E-01	1.540E+00	0.000E+00	NOT IDENT.
Y-88	-1.316E-02	3.950E-02	6.196E-02	0.000E+00	NOT IDENT.
ZR-88	-6.611E-04	3.775E-02	6.499E-02	0.000E+00	NOT IDENT.
Y-91	-9.753E+00	2.196E+01	3.513E+01	0.000E+00	NOT IDENT.
NB-94	-8.728E-03	3.860E-02	6.281E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	5.619E-02	1.048E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.905E-01	3.078E-01	0.000E+00	NOT IDENT.
ZR-95	6.061E-02	7.892E-02	1.394E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.037E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.999E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.360E+00	1.548E+01	2.578E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.131E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.383E-04	3.833E-02	6.482E-02	0.000E+00	NOT IDENT.
RH-102	3.205E-02	4.077E-02	6.439E-02	0.000E+00	NOT IDENT.
RU-103	-4.964E-02	4.631E-02	7.160E-02	0.000E+00	NOT IDENT.
RH-106	-3.106E-02	3.478E-01	5.776E-01	0.000E+00	FAIL ABUN
RU-106	-3.106E-02	3.478E-01	5.776E-01	0.000E+00	FAIL ABUN
AG-108M	-1.035E-02	3.722E-02	6.259E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	5.814E-02	1.026E-01	0.000E+00	NOT IDENT.
IN-111	-2.514E-01	1.493E+00	2.151E+00	0.000E+00	NOT IDENT.
IN-113M	-2.797E-02	5.420E-02	9.065E-02	0.000E+00	NOT IDENT.
SN-113	-2.797E-02	5.420E-02	9.065E-02	0.000E+00	NOT IDENT.
IN-114M	8.224E-02	2.400E-01	3.627E-01	0.000E+00	NOT IDENT.
CD-115	-2.985E+00	1.298E+01	2.157E+01	0.000E+00	NOT IDENT.
SN-117M	-1.649E-02	6.673E-02	1.130E-01	0.000E+00	NOT IDENT.
SB-122	6.217E-01	2.647E+00	4.532E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.787E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-6.858E-03	3.433E-02	5.825E-02	0.000E+00	NOT IDENT.
I-124	6.977E-01	9.270E-01	1.446E+00	0.000E+00	FAIL ABUN
SB-124	2.914E-02	8.292E-02	1.489E-01	0.000E+00	FAIL ABUN
SB-125	3.921E-02	1.040E-01	1.826E-01	0.000E+00	NOT IDENT.
TE-125M	-4.416E+00	1.346E+01	2.022E+01	0.000E+00	NOT IDENT.
I-126	-8.832E-02	2.343E-01	3.206E-01	0.000E+00	NOT IDENT.
SB-126	6.901E-02	1.997E-01	2.969E-01	0.000E+00	NOT IDENT.
SB-127	7.243E-01	1.560E+00	2.699E+00	0.000E+00	NOT IDENT.
XE-127	-1.898E-02	5.770E-02	9.258E-02	0.000E+00	NOT IDENT.
I-131	-9.268E-02	1.328E-01	2.201E-01	0.000E+00	NOT IDENT.
TE-132	-6.306E-01	8.488E-01	1.367E+00	0.000E+00	FAIL ABUN
BA-133	2.238E-02	5.613E-02	8.714E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.073E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.819E-02	9.761E-02	0.000E+00	FAIL ABUN
CS-135	1.835E-01	2.276E-01	3.471E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.449E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.675E-02	1.354E-01	2.244E-01	0.000E+00	FAIL ABUN
CE-139	-3.870E-02	3.581E-02	5.773E-02	0.000E+00	NOT IDENT.
BA-140	1.227E-01	3.059E-01	5.279E-01	0.000E+00	NOT IDENT.
LA-140	-6.110E-02	8.042E-02	1.165E-01	0.000E+00	NOT IDENT.
CE-141	2.268E-02	7.487E-02	1.300E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.158E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.200E-01	2.461E-01	4.067E-01	0.000E+00	NOT IDENT.
PM-144	-2.496E-03	4.036E-02	6.668E-02	0.000E+00	NOT IDENT.

PR-144	-1.691E-01	2.735E+00	4.519E+00	0.000E+00	NOT IDENT.
PM-146	3.829E-02	5.651E-02	1.001E-01	0.000E+00	NOT IDENT.
ND-147	-3.338E-01	6.661E-01	1.082E+00	0.000E+00	FAIL ABUN
PM-149	9.626E+01	1.067E+02	1.937E+02	0.000E+00	NOT IDENT.
EU-152	-2.746E-02	1.376E-01	1.928E-01	0.000E+00	NOT IDENT.
GD-153	1.434E-01	1.130E-01	1.825E-01	0.000E+00	NOT IDENT.
EU-154	-9.242E-02	1.513E-01	2.351E-01	0.000E+00	NOT IDENT.
EU-155	1.056E-01	1.369E-01	2.441E-01	0.000E+00	FAIL ABUN
TB-160	1.147E-01	1.511E-01	2.758E-01	0.000E+00	FAIL ABUN
HO-166M	1.393E-02	6.834E-02	1.154E-01	0.000E+00	FAIL ABUN
TM-171	-2.730E+01	4.564E+01	6.940E+01	0.000E+00	NOT IDENT.
LU-176	-3.032E-02	3.165E-02	4.714E-02	0.000E+00	FAIL ABUN
LU-177M	-1.082E-01	2.288E-01	3.828E-01	0.000E+00	FAIL ABUN
HF-181	4.132E-03	5.125E-02	8.769E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	6.412E-01	1.063E+00	0.000E+00	NOT IDENT.
TA-182	-3.597E-02	2.294E-01	3.774E-01	0.000E+00	NOT IDENT.
RE-183	1.306E-01	1.323E-01	2.342E-01	0.000E+00	FAIL ABUN
RE-184	-1.503E-01	2.815E-01	4.569E-01	0.000E+00	NOT IDENT.
OS-185	-4.004E-02	5.029E-02	7.816E-02	0.000E+00	NOT IDENT.
RE-188	1.928E-01	2.069E-01	3.659E-01	0.000E+00	NOT IDENT.
W-188	-9.368E+00	9.400E+00	1.330E+01	0.000E+00	FAIL ABUN
IR-192	-1.535E-02	3.840E-02	6.554E-02	0.000E+00	FAIL ABUN
AU-195	3.620E-01	3.061E-01	5.167E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.847E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.827E+00	8.581E+00	1.413E+01	0.000E+00	NOT IDENT.
TL-202	2.433E-02	8.037E-02	1.402E-01	0.000E+00	NOT IDENT.
HG-203	1.617E-02	4.584E-02	8.176E-02	0.000E+00	NOT IDENT.
BI-207	2.294E-02	6.293E-02	1.097E-01	0.000E+00	FAIL ABUN
TL-207	-7.420E-01	7.928E-01	1.301E+00	0.000E+00	FAIL ABUN
PO-209	-5.146E+00	8.990E+00	1.456E+01	0.000E+00	NOT IDENT.
BI-210	3.679E+00	7.053E+00	1.278E+01	0.000E+00	NOT IDENT.
PB-210	3.679E+00	7.053E+00	1.278E+01	0.000E+00	NOT IDENT.
PO-210	3.679E+00	7.052E+00	1.278E+01	0.000E+00	NOT IDENT.
PB-211	-5.812E-01	1.202E+00	1.919E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.925E-01	7.342E-01	0.000E+00	FAIL ABUN
PO-215	-7.420E-01	7.928E-01	1.301E+00	0.000E+00	FAIL ABUN
RN-219	1.085E-01	4.986E-01	8.680E-01	0.000E+00	FAIL ABUN
RN-220	-1.803E+01	3.112E+01	5.021E+01	0.000E+00	NOT IDENT.
RA-223	-7.420E-01	7.928E-01	1.301E+00	0.000E+00	FAIL ABUN
AC-227	2.133E-01	4.548E-01	7.755E-01	0.000E+00	FAIL ABUN
TH-227	2.133E-01	4.553E-01	7.755E-01	0.000E+00	FAIL ABUN
TH-229	-4.367E-02	6.023E-01	1.017E+00	0.000E+00	FAIL ABUN
PA-231	-1.188E+00	1.709E+00	2.885E+00	0.000E+00	FAIL ABUN
TH-231	-7.420E-01	7.928E-01	1.301E+00	0.000E+00	FAIL ABUN
U-231	2.455E-01	1.599E+00	2.473E+00	0.000E+00	FAIL ABUN
PA-233	3.460E-02	7.193E-02	1.286E-01	0.000E+00	FAIL ABUN
PA-234	2.618E-01	3.575E-01	6.416E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	6.535E+00	1.227E+01	0.000E+00	FAIL ABUN
U-235	7.296E-02	2.563E-01	4.370E-01	0.000E+00	FAIL ABUN
NP-236	-7.117E-02	9.706E-02	1.611E-01	0.000E+00	FAIL ABUN
NP-239	1.888E-01	2.554E-01	4.029E-01	0.000E+00	FAIL ABUN
AM-241	9.298E-02	2.563E-01	4.045E-01	0.000E+00	NOT IDENT.
CM-243	1.017E-01	1.214E-01	2.153E-01	0.000E+00	FAIL ABUN
AM-246	1.510E-02	1.675E-01	2.847E-01	0.000E+00	NOT IDENT.
CM-247	2.097E-02	4.417E-02	7.800E-02	0.000E+00	NOT IDENT.
CF-249	4.192E-03	4.778E-02	8.278E-02	0.000E+00	NOT IDENT.
CF-251	-9.441E-04	1.522E-01	2.588E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:16:33.83

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029811.CNF;1
Sample date       : 26-JAN-2010 12:00:00 Acquisition date : 10-FEB-2010 19:16:05
Sample ID         : G1202029811          Sample quantity  : 1.22906E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.81  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	907	10.67*	9.973E-01	2.603E+01	2.603E+01	10.58
CD-109	88.03	160	3.72*	5.212E+00	2.518E+00	2.576E+00	41.94
SN-126	64.28	616	9.60	2.546E+00	7.700E+00	7.700E+00	22.99
	86.94	160	8.90	5.212E+00	1.052E+00	1.052E+00	58.27
	87.57	160	37.00*	5.212E+00	2.532E-01	2.532E-01	41.94
BA-137M	661.65	516	89.98*	2.042E+00	8.577E-01	8.586E-01	12.67
CS-137	661.65	516	85.12*	2.042E+00	9.067E-01	9.076E-01	12.68
LU-177	112.95	147	6.40	6.257E+00	1.121E+00	5.469E+00	48.11
	208.36	92	11.00*	5.085E+00	5.007E-01	2.443E+00	67.97
TL-208	277.35	------	6.80	4.140E+00	------ Line Not Found		------
	510.84	93	21.60	2.545E+00	5.160E-01	5.160E-01	73.30
	583.14	263	84.20*	2.278E+00	4.190E-01	4.190E-01	20.87
	860.37	43	12.46	1.610E+00	6.507E-01	6.507E-01	59.36
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	482	12.94*	3.441E+00	3.307E+00	3.307E+00	17.40
PB-212	74.81	354	10.70	4.036E+00	2.500E+00	2.500E+00	28.87
	77.11	449	18.00	4.295E+00	1.776E+00	1.776E+00	19.66
	87.30	160	8.00	5.212E+00	1.171E+00	1.171E+00	43.12
	238.63	922	44.60*	4.638E+00	1.362E+00	1.362E+00	11.15
	300.09	109	3.41	3.897E+00	2.498E+00	2.498E+00	54.11
PO-212	74.81	354	10.70	4.036E+00	2.500E+00	2.500E+00	28.87
	77.11	449	18.00	4.295E+00	1.776E+00	1.776E+00	19.66
	87.30	160	8.00	5.212E+00	1.171E+00	1.171E+00	43.12
	115.19	------	0.60	6.293E+00	------ Line Not Found		------
	238.63	922	44.60*	4.638E+00	1.362E+00	1.362E+00	11.15
	300.09	109	3.41	3.897E+00	2.498E+00	2.498E+00	54.11
BI-214	609.31	352	46.30*	2.194E+00	1.058E+00	1.058E+00	17.44
	1120.29	120	15.10	1.259E+00	1.929E+00	1.929E+00	31.13
	1764.49	57	15.80	8.743E-01	1.267E+00	1.267E+00	28.25
PB-214	74.81	354	6.21	4.036E+00	4.307E+00	4.307E+00	28.31
	77.11	449	10.50	4.295E+00	3.044E+00	3.044E+00	21.08
	87.30	160	4.67	5.212E+00	2.006E+00	2.006E+00	42.64

Sample ID : G1202029811 Acquisition date : 10-FEB-2010 19:16:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	245	7.49	4.596E+00	2.171E+00	2.171E+00	26.28
	295.21	262	19.20	3.949E+00	1.056E+00	1.056E+00	26.37
	351.92	482	37.20*	3.441E+00	1.150E+00	1.150E+00	18.17
PO-214	74.81	354	6.21	4.036E+00	4.307E+00	4.307E+00	28.31
	77.11	449	10.50	4.295E+00	3.044E+00	3.044E+00	21.08
	87.30	160	4.67	5.212E+00	2.006E+00	2.006E+00	42.64
	241.98	245	7.49	4.596E+00	2.171E+00	2.171E+00	26.28
	295.21	262	19.20	3.949E+00	1.056E+00	1.056E+00	26.37
	351.92	482	37.20*	3.441E+00	1.150E+00	1.150E+00	18.17
PO-216	74.81	354	10.70	4.036E+00	2.500E+00	2.500E+00	28.87
	77.11	449	18.00	4.295E+00	1.776E+00	1.776E+00	19.66
	87.30	160	8.00	5.212E+00	1.171E+00	1.171E+00	43.12
	238.63	922	44.60*	4.638E+00	1.362E+00	1.362E+00	11.15
	300.09	109	3.41	3.897E+00	2.498E+00	2.498E+00	54.11
PO-218	74.81	354	6.21	4.036E+00	4.307E+00	4.307E+00	28.31
	77.11	449	10.50	4.295E+00	3.044E+00	3.044E+00	21.08
	87.30	160	4.67	5.212E+00	2.006E+00	2.006E+00	42.64
	241.98	245	7.49	4.596E+00	2.171E+00	2.171E+00	26.28
	295.21	262	19.20	3.949E+00	1.056E+00	1.056E+00	26.37
	351.92	482	37.20*	3.441E+00	1.150E+00	1.150E+00	18.17
RA-224	240.98	245	3.95*	4.596E+00	4.117E+00	4.117E+00	25.68
RA-226	609.31	352	46.30*	2.194E+00	1.058E+00	1.058E+00	17.44
	1120.29	120	15.10	1.259E+00	1.929E+00	1.929E+00	31.13
	1764.49	57	15.80	8.743E-01	1.267E+00	1.267E+00	28.25
AC-228	338.32	184	11.40	3.549E+00	1.389E+00	1.389E+00	52.04
	911.07	160	27.70*	1.527E+00	1.154E+00	1.154E+00	32.37
	969.11	68	16.60	1.440E+00	8.699E-01	8.699E-01	66.82
RA-228	338.32	184	11.40	3.549E+00	1.389E+00	1.389E+00	52.04
	911.07	160	27.70*	1.527E+00	1.154E+00	1.154E+00	32.37
	969.11	68	16.60	1.440E+00	8.699E-01	8.699E-01	66.82
TH-228	74.81	354	10.70	4.036E+00	2.500E+00	2.538E+00	27.34
	77.11	449	18.00	4.295E+00	1.776E+00	1.803E+00	19.66
	87.30	160	8.00	5.212E+00	1.171E+00	1.189E+00	41.94
	238.63	922	44.60*	4.638E+00	1.362E+00	1.383E+00	11.15
	300.09	109	3.41	3.897E+00	2.498E+00	2.536E+00	79.58
TH-230	609.31	352	46.30*	2.194E+00	1.058E+00	1.058E+00	17.44
	1120.29	120	15.10	1.259E+00	1.929E+00	1.929E+00	31.13
	1764.49	57	15.80	8.743E-01	1.267E+00	1.267E+00	28.25
TH-232	338.32	184	11.40	3.549E+00	1.389E+00	1.389E+00	32.86
	911.07	160	27.70*	1.527E+00	1.154E+00	1.154E+00	32.37
	969.11	68	16.60	1.440E+00	8.699E-01	8.699E-01	66.82
TH-234	63.29	616	3.80*	2.546E+00	1.945E+01	1.945E+01	24.93
	92.38	1528	5.41	5.576E+00	1.547E+01	1.547E+01	19.57
U-234	609.31	352	46.30*	2.194E+00	1.058E+00	1.058E+00	17.44
	1120.29	120	15.10	1.259E+00	1.929E+00	1.929E+00	31.13
	1764.49	57	15.80	8.743E-01	1.267E+00	1.267E+00	28.25
NP-237	86.50	160	12.60*	5.212E+00	7.434E-01	7.434E-01	46.74
	95.87	------	2.60	5.757E+00	------ Line Not Found		------
U-238	63.29	616	3.80*	2.546E+00	1.945E+01	1.945E+01	24.93

Sample ID : G1202029811 Acquisition date : 10-FEB-2010 19:16:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	1528	5.41	5.576E+00	1.547E+01	1.547E+01	11.41
AM-243	74.67	354	66.00*	4.036E+00	4.053E-01	4.053E-01	27.32
	86.72	160	0.34	5.212E+00	2.788E+01	2.788E+01	41.94
	117.66	------	0.55	6.314E+00	------ Line Not Found		------
	142.18	------	0.13	6.209E+00	------ Line Not Found		------
ANH-511	511.00	93	100.00*	2.545E+00	1.114E-01	1.114E-01	72.82

Flag: "*" = Keyline

Sample ID : G1202029811 Acquisition date : 10-FEB-2010 19:16:05

Total number of lines in spectrum 30
Number of unidentified lines 1
Number of lines tentatively identified by NID 29 96.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.603E+01	2.603E+01	0.275E+01	10.58	
CD-109	464.00D	1.02	2.518E+00	2.576E+00	1.081E+00	41.94	
SN-126	1.00E+05Y	1.00	2.532E-01	2.532E-01	1.062E-01	41.94	
BA-137M	30.17Y	1.00	8.577E-01	8.586E-01	1.088E-01	12.67	
CS-137	30.17Y	1.00	9.067E-01	9.076E-01	1.151E-01	12.68	
LU-177	6.71D	4.88	5.007E-01	2.443E+00	1.661E+00	67.97	
TL-208	1.41E+10Y	1.00	4.190E-01	4.190E-01	0.875E-01	20.87	
BI-211	7.04E+08Y	1.00	3.307E+00	3.307E+00	0.575E+00	17.40	
PB-212	1.41E+10Y	1.00	1.362E+00	1.362E+00	0.152E+00	11.15	
PO-212	1.41E+10Y	1.00	1.362E+00	1.362E+00	0.152E+00	11.15	
BI-214	1600.00Y	1.00	1.058E+00	1.058E+00	0.184E+00	17.44	
PB-214	1600.00Y	1.00	1.150E+00	1.150E+00	0.209E+00	18.17	
PO-214	1600.00Y	1.00	1.150E+00	1.150E+00	0.209E+00	18.17	
PO-216	1.41E+10Y	1.00	1.362E+00	1.362E+00	0.152E+00	11.15	
PO-218	1600.00Y	1.00	1.150E+00	1.150E+00	0.209E+00	18.17	
RA-224	1.41E+10Y	1.00	4.117E+00	4.117E+00	1.057E+00	25.68	
RA-226	1600.00Y	1.00	1.058E+00	1.058E+00	0.184E+00	17.44	
AC-228	1.41E+10Y	1.00	1.154E+00	1.154E+00	0.374E+00	32.37	
RA-228	1.41E+10Y	1.00	1.154E+00	1.154E+00	0.374E+00	32.37	
TH-228	1.91Y	1.02	1.362E+00	1.383E+00	0.154E+00	11.15	
TH-230	4.47E+09Y	1.00	1.058E+00	1.058E+00	0.184E+00	17.44	
TH-232	1.41E+10Y	1.00	1.154E+00	1.154E+00	0.374E+00	32.37	
TH-234	4.47E+09Y	1.00	1.945E+01	1.945E+01	0.485E+01	24.93	
U-234	4.47E+09Y	1.00	1.058E+00	1.058E+00	0.184E+00	17.44	
NP-237	2.14E+06Y	1.00	7.434E-01	7.434E-01	3.475E-01	46.74	
U-238	4.47E+09Y	1.00	1.945E+01	1.945E+01	0.485E+01	24.93	
AM-243	7380.00Y	1.00	4.053E-01	4.053E-01	1.107E-01	27.32	
ANH-511	1.00E+09Y	1.00	1.114E-01	1.114E-01	0.812E-01	72.82	
		Total Activity :	9.567E+01	9.769E+01			

Grand Total Activity : 9.567E+01 9.769E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202029811 Acquisition date : 10-FEB-2010 19:16:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.63	412	350	1.33	371.25	367	10	5.72E-02	20.3	5.49E+00	T
0	270.12	90	191	1.26	540.24	536	9	1.25E-02	59.3	4.22E+00	T
0	466.25	123	239	9.82	932.49	920	25	1.71E-02	70.4	2.74E+00	
0	726.71	86	55	1.83	1453.41	1447	13	1.19E-02	41.9	1.88E+00	T
0	794.50	61	35	1.74	1589.00	1583	14	8.47E-03	48.5	1.73E+00	T
0	999.88	80	20	1.46	1999.76	1995	10	1.11E-02	30.8	1.40E+00	T
0	1376.68	27	8	0.99	2753.36	2748	11	3.69E-03	57.1	1.05E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:16:39.17

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029811.CNF;1  *
* Acquisition date  : 10-FEB-2010 19:16:05  Detector SN#     :              *
* Detector ID       : GAM23                 Sensitivity      : 5.00000      *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.81          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date       : 26-JAN-2010 12:00:00  Nuclide Library : SOLID         *
* Sample ID         : G1202029811           Analyst initials: RXF2          *
* Batch Number      : 947531                Sample Quantity : 1.22906E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                 *
* MSD ID           :                      MSD Isotope     :                 *
* LCS ID           : 1032-A               LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.603E+01	2.753E+00	7.189E-01	5.378E-02	36.209
CD-109	2.576E+00	1.081E+00	1.775E+00	1.733E-01	1.452
SN-126	2.532E-01	1.062E-01	1.755E-01	1.707E-02	1.443
BA-137M	8.586E-01	1.088E-01	6.727E-02	3.437E-03	12.762
CS-137	9.076E-01	1.151E-01	7.111E-02	3.653E-03	12.762
LU-177	2.443E+00	1.661E+00	2.262E+00	1.224E-01	1.080
TL-208	4.190E-01	8.746E-02	6.672E-02	4.331E-03	6.281
BI-211	3.307E+00	5.755E-01	3.815E-01	2.486E-02	8.667
PB-212	1.362E+00	1.519E-01	1.104E-01	7.935E-03	12.341
PO-212	1.362E+00	1.519E-01	1.104E-01	7.935E-03	12.341
BI-214	1.058E+00	1.845E-01	1.225E-01	9.207E-03	8.638
PB-214	1.150E+00	2.090E-01	1.330E-01	1.110E-02	8.648
PO-214	1.150E+00	2.090E-01	1.330E-01	1.110E-02	8.648
PO-216	1.362E+00	1.519E-01	1.104E-01	7.935E-03	12.341
PO-218	1.150E+00	2.090E-01	1.330E-01	1.110E-02	8.648
RA-224	4.117E+00	1.057E+00	1.256E+00	7.077E-02	3.277
RA-226	1.058E+00	1.845E-01	1.225E-01	9.207E-03	8.638
AC-228	1.154E+00	3.736E-01	2.388E-01	2.755E-02	4.833

Sample ID : G1202029811 Acquisition date : 10-FEB-2010 19:16:05

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.154E+00	3.736E-01	2.388E-01	2.755E-02	4.833
TH-228	1.383E+00	1.542E-01	1.121E-01	8.057E-03	12.341
TH-230	1.058E+00	1.845E-01	1.225E-01	9.206E-03	8.638
TH-232	1.154E+00	3.736E-01	2.388E-01	2.755E-02	4.833
TH-234	1.945E+01	4.850E+00	3.086E+00	5.561E-01	6.304
U-234	1.058E+00	1.845E-01	1.225E-01	9.206E-03	8.638
NP-237	7.434E-01	3.475E-01	5.696E-01	1.297E-01	1.305
U-238	1.945E+01	4.850E+00	3.086E+00	5.561E-01	6.304
AM-243	4.053E-01	1.107E-01	1.271E-01	1.130E-02	3.188
ANH-511	1.114E-01	8.116E-02	5.686E-02	3.303E-03	1.960

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.402E-02		4.043E-01	6.621E-01	4.500E-02	-0.051
NA-22	-3.409E-02		5.513E-02	8.379E-02	5.627E-03	-0.407
NA-24	3.266E-01		5.216E-01	Half-Life too short		
AL-26	-6.217E-03		2.804E-02	4.377E-02	2.631E-03	-0.142
TI-44	3.277E-01	+	6.442E-02	9.996E-02	9.061E-03	3.278
SC-46	-6.906E-03		4.916E-02	8.091E-02	7.229E-03	-0.085
V-48	-8.198E-02		8.355E-02	1.240E-01	1.031E-02	-0.661
CR-51	-4.065E-02		4.375E-01	7.302E-01	4.788E-02	-0.056
MN-52	1.219E-01		2.673E-01	4.626E-01	3.347E-02	0.263
MN-54	5.859E-02		4.289E-02	7.906E-02	6.260E-03	0.741
CO-56	-6.868E-03		4.799E-02	7.922E-02	6.444E-03	-0.087
CO-57	-8.795E-03		3.017E-02	4.905E-02	2.892E-03	-0.179
CO-58	-2.517E-02		4.329E-02	6.853E-02	5.148E-03	-0.367
FE-59	-4.960E-02		1.233E-01	1.955E-01	1.506E-02	-0.254
CO-60	2.740E-03		4.134E-02	6.781E-02	4.978E-03	0.040
ZN-65	9.109E-02		1.216E-01	1.885E-01	1.245E-02	0.483
GE-68	-2.182E-01		1.505E+00	2.444E+00	1.749E-01	-0.089
AS-73	-1.895E-01		1.436E+00	2.403E+00	2.121E-01	-0.079
AS-74	-2.282E-02		1.117E-01	1.790E-01	9.873E-03	-0.127
SE-75	6.830E-03		6.088E-02	8.554E-02	4.979E-03	0.080
BR-77	-1.002E+01		1.292E+01	1.990E+01	1.152E+00	-0.504
SR-82	-2.363E-01		4.596E-01	7.395E-01	5.101E-02	-0.319
RB-83	-6.140E-02		8.114E-02	1.252E-01	7.245E-03	-0.491
RB-84	3.674E-02		8.193E-02	1.420E-01	1.247E-02	0.259
KR-85	1.105E+01		9.692E+00	1.518E+01	8.808E-01	0.728
SR-85	5.678E-02		4.979E-02	7.798E-02	4.525E-03	0.728
RB-86	-1.622E-01		9.489E-01	1.536E+00	1.101E-01	-0.106
Y-88	-1.316E-02		4.030E-02	6.225E-02	3.665E-03	-0.211
ZR-88	-6.611E-04		3.852E-02	6.397E-02	3.693E-03	-0.010
Y-91	-9.753E+00		2.240E+01	3.509E+01	2.093E+00	-0.278
NB-94	-8.728E-03		3.938E-02	6.230E-02	3.560E-03	-0.140
NB-95	1.156E-01		5.734E-02	1.041E-01	6.993E-03	1.111
NB-95M	4.338E-01		1.944E-01	3.010E-01	2.220E-02	1.441

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	6.061E-02		8.053E-02	1.384E-01	1.062E-02	0.438
NB-97	6.893E-01		1.039E-01	Half-Life too short		
ZR-97	7.528E+00		1.530E+00	Half-Life too short		
MO-99	1.360E+00		1.579E+01	2.559E+01	3.581E+00	0.053
TC-99M	-6.881E+10		4.148E+10	Half-Life too short		
RH-101	-1.383E-04		3.911E-02	6.325E-02	3.372E-03	-0.002
RH-102	3.205E-02		4.160E-02	6.354E-02	3.719E-03	0.504
RU-103	-4.964E-02		4.726E-02	7.069E-02	8.949E-03	-0.702
RH-106	-3.106E-02		3.549E-01	5.719E-01	6.596E-02	-0.054
RU-106	-3.106E-02		3.548E-01	5.719E-01	3.073E-02	-0.054
AG-108M	-1.035E-02		3.798E-02	6.169E-02	3.911E-03	-0.168
AG-110M	1.595E-01		5.932E-02	1.017E-01	5.651E-03	1.568
IN-111	-2.514E-01		1.523E+00	2.105E+00	1.191E-01	-0.119
IN-113M	-2.797E-02		5.531E-02	8.923E-02	5.497E-03	-0.313
SN-113	-2.797E-02		5.531E-02	8.923E-02	5.497E-03	-0.313
IN-114M	8.224E-02		2.449E-01	3.537E-01	1.864E-02	0.232
CD-115	-2.985E+00		1.324E+01	2.131E+01	1.230E+00	-0.140
SN-117M	-1.649E-02		6.809E-02	1.100E-01	5.714E-03	-0.150
SB-122	6.217E-01		2.701E+00	4.482E+00	2.535E-01	0.139
I-123	-1.755E+00		4.483E+00	Half-Life too short		
TE-123M	-6.858E-03		3.504E-02	5.668E-02	2.991E-03	-0.121
I-124	6.977E-01		9.459E-01	1.432E+00	7.846E-02	0.487
SB-124	2.914E-02		8.461E-02	1.494E-01	1.041E-02	0.195
SB-125	3.921E-02		1.062E-01	1.799E-01	1.094E-02	0.218
TE-125M	-4.416E+00		1.373E+01	1.958E+01	1.746E+00	-0.226
I-126	-8.832E-02		2.391E-01	3.177E-01	1.644E-02	-0.278
SB-126	6.901E-02		2.038E-01	2.946E-01	1.764E-02	0.234
SB-127	7.243E-01		1.592E+00	2.676E+00	2.485E-01	0.271
XE-127	-1.898E-02		5.887E-02	9.035E-02	4.850E-03	-0.210
I-131	-9.268E-02		1.355E-01	2.164E-01	1.414E-02	-0.428
TE-132	-6.306E-01		8.661E-01	1.336E+00	1.911E-01	-0.472
BA-133	2.238E-02		5.727E-02	8.566E-02	9.939E-03	0.261
I-133	-2.301E-03		4.119E-03	Half-Life too short		
CS-134	1.420E-01	+	6.958E-02	9.697E-02	7.082E-03	1.464
CS-135	1.835E-01		2.322E-01	3.400E-01	2.597E-02	0.540
I-135	1.874E+09		4.821E+09	Half-Life too short		
CS-136	-2.675E-02		1.381E-01	2.238E-01	1.783E-02	-0.120
CE-139	-3.870E-02		3.654E-02	5.619E-02	2.865E-03	-0.689
BA-140	1.227E-01		3.121E-01	5.217E-01	1.696E-01	0.235
LA-140	-6.110E-02		8.206E-02	1.168E-01	8.012E-03	-0.523
CE-141	2.268E-02		7.640E-02	1.263E-01	7.124E-03	0.180
CE-143	1.103E-03		1.611E-04	Half-Life too short		
CE-144	-2.200E-01		2.511E-01	3.948E-01	5.576E-02	-0.557
PM-144	-2.496E-03		4.118E-02	6.613E-02	3.720E-03	-0.038
PR-144	-1.691E-01		2.791E+00	4.481E+00	2.519E-01	-0.038
PM-146	3.829E-02		5.766E-02	9.874E-02	8.552E-03	0.388
ND-147	-3.338E-01		6.797E-01	1.069E+00	1.444E-01	-0.312
PM-149	9.626E+01		1.088E+02	1.899E+02	2.695E+01	0.507

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-2.746E-02		1.405E-01	1.895E-01	1.256E-02	-0.145
GD-153	1.434E-01		1.153E-01	1.765E-01	1.442E-02	0.813
EU-154	-9.242E-02		1.544E-01	2.350E-01	2.333E-02	-0.393
EU-155	1.056E-01		1.397E-01	2.362E-01	1.742E-02	0.447
TB-160	1.147E-01		1.541E-01	2.743E-01	2.399E-02	0.418
HO-166M	1.393E-02		6.974E-02	1.144E-01	6.699E-03	0.122
TM-171	-2.730E+01		4.657E+01	6.679E+01	5.809E+00	-0.409
LU-176	-3.032E-02		3.230E-02	4.626E-02	2.725E-03	-0.655
LU-177M	-1.082E-01		2.335E-01	3.771E-01	2.194E-02	-0.287
HF-181	4.132E-03		5.230E-02	8.654E-02	5.062E-03	0.048
W-181	1.341E+00		6.543E-01	1.023E+00	8.889E-02	1.310
TA-182	-3.597E-02		2.341E-01	3.770E-01	2.314E-02	-0.095
RE-183	1.306E-01		1.350E-01	2.279E-01	1.172E-02	0.573
RE-184	-1.503E-01		2.873E-01	4.472E-01	2.550E-02	-0.336
OS-185	-4.004E-02		5.132E-02	7.744E-02	4.041E-03	-0.517
RE-188	1.928E-01		2.111E-01	3.559E-01	1.868E-02	0.542
W-188	-9.368E+00		9.592E+00	1.304E+01	7.639E-01	-0.718
IR-192	-1.535E-02		3.918E-02	6.433E-02	3.816E-03	-0.239
AU-195	3.620E-01		3.123E-01	4.997E-01	3.987E-02	0.724
TL-200	-1.601E-04		2.983E-04	Half-Life too short		
TL-201	-4.827E+00		8.756E+00	1.376E+01	7.023E-01	-0.351
TL-202	2.433E-02		8.201E-02	1.382E-01	8.086E-03	0.176
HG-203	1.617E-02		4.678E-02	8.012E-02	4.949E-03	0.202
BI-207	2.294E-02		6.422E-02	1.094E-01	8.035E-03	0.210
TL-207	-7.420E-01		8.090E-01	1.277E+00	2.114E-01	-0.581
PO-209	-5.146E+00		9.173E+00	1.449E+01	1.315E+00	-0.355
BI-210	3.679E+00		7.197E+00	1.225E+01	9.535E-01	0.300
PB-210	3.679E+00		7.197E+00	1.225E+01	9.535E-01	0.300
PO-210	3.679E+00		7.196E+00	1.225E+01	8.216E-01	0.300
PB-211	-5.812E-01		1.226E+00	1.890E+00	1.178E+00	-0.308
BI-212	1.180E+00	+	5.025E-01	7.285E-01	5.783E-02	1.619
PO-215	-7.420E-01		8.090E-01	1.277E+00	2.114E-01	-0.581
RN-219	1.085E-01		5.088E-01	8.547E-01	1.163E-01	0.127
RN-220	-1.803E+01		3.175E+01	4.964E+01	2.833E+00	-0.363
RA-223	-7.420E-01		8.090E-01	1.277E+00	2.114E-01	-0.581
AC-227	2.133E-01		4.641E-01	7.591E-01	1.057E-01	0.281
TH-227	2.133E-01		4.646E-01	7.591E-01	1.281E-01	0.281
TH-229	-4.367E-02		6.146E-01	9.918E-01	5.254E-02	-0.044
PA-231	-1.188E+00		1.744E+00	2.827E+00	3.900E-01	-0.420
TH-231	-7.420E-01		8.090E-01	1.277E+00	2.114E-01	-0.581
U-231	2.455E-01		1.632E+00	2.391E+00	2.006E-01	0.103
PA-233	3.460E-02		7.340E-02	1.262E-01	7.888E-03	0.274
PA-234	2.618E-01		3.648E-01	6.388E-01	1.201E-01	0.410
PA-234M	2.070E+01	+	6.668E+00	1.223E+01	1.167E+00	1.693
U-235	7.296E-02		2.616E-01	4.247E-01	6.868E-02	0.172
NP-236	-7.117E-02		9.904E-02	1.567E-01	8.106E-03	-0.454
NP-239	1.888E-01		2.606E-01	3.904E-01	2.437E-02	0.484
AM-241	9.298E-02		2.616E-01	3.888E-01	3.617E-02	0.239

Sample ID : G1202029811 Acquisition date : 10-FEB-2010 19:16:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.017E-01		1.239E-01	2.083E-01	1.544E-02	0.488
AM-246	1.510E-02		1.709E-01	2.839E-01	2.026E-02	0.053
CM-247	2.097E-02		4.507E-02	7.680E-02	4.452E-03	0.273
CF-249	4.192E-03		4.875E-02	8.147E-02	4.714E-03	0.051
CF-251	-9.441E-04		1.553E-01	2.521E-01	1.303E-02	-0.004

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                              DETECTOR DATA                                  *
*                                                                             *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202029811            *
* Acquisition date  : 10-FEB-2010 19:16:05 Detector SN#     :                 *
* Detector ID       : GAM23                Sensitivity      : 5.000           *
* Geometry          : CAN                  Energy tolerance: 1.500            *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000           *
* Elapsed real time:    0 02:00:01.81      Half life ratio : 8.000            *
*******************************************************************************
*                                                                             *
*                               SAMPLE DATA                                   *
*                                                                             *
* Sample date       : 26-JAN-2010 12:00:00 Nuclide Library : SOLID            *
* Sample ID         : G1202029811          Analyst initials: RXF2             *
* Batch Number      : 947531               Sample Quantity : 1.2291E+02 GRAM  *
* Recovery          :    1.00000           Carrier Weight :    0.00000        *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
*                                                                             *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.603E+01	2.698E+00	3.591E-01	1.376E+00
CD-109	2.576E+00	1.059E+00	9.194E-01	5.403E-01
SN-126	2.532E-01	1.041E-01	9.090E-02	5.309E-02
BA-137M	8.586E-01	1.066E-01	3.396E-02	5.438E-02
CS-137	9.076E-01	1.128E-01	3.590E-02	5.753E-02
LU-177	2.443E+00	1.628E+00	1.159E+00	8.305E-01
TL-208	4.190E-01	8.571E-02	3.374E-02	4.373E-02
BI-211	3.307E+00	5.640E-01	1.942E-01	2.877E-01
PB-212	1.362E+00	1.489E-01	5.646E-02	7.595E-02
PO-212	1.362E+00	1.489E-01	5.646E-02	7.595E-02
BI-214	1.058E+00	1.808E-01	6.189E-02	9.224E-02
PB-214	1.150E+00	2.048E-01	6.770E-02	1.045E-01
PO-214	1.150E+00	2.048E-01	6.770E-02	1.045E-01
PO-216	1.362E+00	1.489E-01	5.646E-02	7.595E-02
PO-218	1.150E+00	2.048E-01	6.770E-02	1.045E-01
RA-224	4.117E+00	1.036E+00	6.425E-01	5.285E-01
RA-226	1.058E+00	1.808E-01	6.189E-02	9.224E-02
AC-228	1.154E+00	3.661E-01	1.200E-01	1.868E-01
RA-228	1.154E+00	3.661E-01	1.200E-01	1.868E-01
TH-228	1.383E+00	1.511E-01	5.732E-02	7.711E-02
TH-230	1.058E+00	1.808E-01	6.189E-02	9.224E-02
TH-232	1.154E+00	3.661E-01	1.200E-01	1.868E-01
TH-234	1.945E+01	4.753E+00	1.605E+00	2.425E+00
U-234	1.058E+00	1.808E-01	6.189E-02	9.224E-02
NP-237	7.434E-01	3.405E-01	2.951E-01	1.737E-01
U-238	1.945E+01	4.753E+00	1.605E+00	2.425E+00
AM-243	4.053E-01	1.085E-01	6.599E-02	5.536E-02
ANH-511	1.114E-01	7.954E-02	2.880E-02	4.058E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-3.402E-02	3.962E-01	3.357E-01	2.022E-01	NOT IDENT.
NA-22	-3.409E-02	5.403E-02	4.193E-02	2.756E-02	NOT IDENT.
NA-24	3.266E+05	1.022E+06	0.000E+00	5.216E+05	SHORT HLIF
AL-26	-6.217E-03	2.748E-02	2.180E-02	1.402E-02	NOT IDENT.
TI-44	3.277E-01	6.313E-02	5.186E-02	3.221E-02	FAIL ABUN
SC-46	-6.906E-03	4.818E-02	4.069E-02	2.458E-02	FAIL ABUN
V-48	-8.198E-02	8.188E-02	6.226E-02	4.178E-02	NOT IDENT.
CR-51	-4.065E-02	4.288E-01	3.721E-01	2.188E-01	NOT IDENT.
MN-52	1.219E-01	2.619E-01	2.312E-01	1.336E-01	NOT IDENT.
MN-54	5.859E-02	4.203E-02	3.979E-02	2.144E-02	NOT IDENT.
CO-56	-6.868E-03	4.703E-02	3.986E-02	2.400E-02	NOT IDENT.
CO-57	-8.795E-03	2.957E-02	2.531E-02	1.509E-02	NOT IDENT.
CO-58	-2.517E-02	4.242E-02	3.450E-02	2.164E-02	NOT IDENT.
FE-59	-4.960E-02	1.208E-01	9.804E-02	6.164E-02	NOT IDENT.
CO-60	2.740E-03	4.051E-02	3.391E-02	2.067E-02	NOT IDENT.
ZN-65	9.109E-02	1.192E-01	9.452E-02	6.079E-02	NOT IDENT.
GE-68	-2.182E-01	1.475E+00	1.226E+00	7.525E-01	NOT IDENT.
AS-73	-1.895E-01	1.408E+00	1.252E+00	7.182E-01	NOT IDENT.
AS-74	-2.282E-02	1.095E-01	9.049E-02	5.587E-02	NOT IDENT.
SE-75	6.830E-03	5.967E-02	4.370E-02	3.044E-02	NOT IDENT.
BR-77	-1.002E+01	1.266E+01	1.008E+01	6.461E+00	FAIL ABUN
SR-82	-2.363E-01	4.504E-01	3.725E-01	2.298E-01	NOT IDENT.
RB-83	-6.140E-02	7.951E-02	6.338E-02	4.057E-02	NOT IDENT.
RB-84	3.674E-02	8.029E-02	7.139E-02	4.096E-02	NOT IDENT.
KR-85	1.105E+01	9.498E+00	7.688E+00	4.846E+00	NOT IDENT.
SR-85	5.678E-02	4.879E-02	3.949E-02	2.489E-02	NOT IDENT.
RB-86	-1.622E-01	9.299E-01	7.706E-01	4.744E-01	NOT IDENT.
Y-88	-1.316E-02	3.950E-02	3.100E-02	2.015E-02	NOT IDENT.
ZR-88	-6.611E-04	3.775E-02	3.251E-02	1.926E-02	NOT IDENT.
Y-91	-9.753E+00	2.196E+01	1.757E+01	1.120E+01	NOT IDENT.
NB-94	-8.728E-03	3.860E-02	3.143E-02	1.969E-02	NOT IDENT.
NB-95	1.156E-01	5.619E-02	5.243E-02	2.867E-02	NOT IDENT.
NB-95M	4.338E-01	1.905E-01	1.540E-01	9.719E-02	NOT IDENT.
ZR-95	6.061E-02	7.892E-02	6.972E-02	4.026E-02	NOT IDENT.
NB-97	6.893E+05	2.037E+05	0.000E+00	1.039E+05	SHORT HLIF
ZR-97	7.528E+06	2.999E+06	0.000E+00	1.530E+06	SHORT HLIF
MO-99	1.360E+00	1.548E+01	1.290E+01	7.897E+00	NOT IDENT.
TC-99M	-6.881E+16	8.131E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.383E-04	3.833E-02	3.243E-02	1.956E-02	NOT IDENT.
RH-102	3.205E-02	4.077E-02	3.222E-02	2.080E-02	NOT IDENT.
RU-103	-4.964E-02	4.631E-02	3.582E-02	2.363E-02	NOT IDENT.
RH-106	-3.106E-02	3.478E-01	2.890E-01	1.774E-01	FAIL ABUN
RU-106	-3.106E-02	3.478E-01	2.890E-01	1.774E-01	FAIL ABUN
AG-108M	-1.035E-02	3.722E-02	3.131E-02	1.899E-02	NOT IDENT.
AG-110M	1.595E-01	5.814E-02	5.134E-02	2.966E-02	NOT IDENT.
IN-111	-2.514E-01	1.493E+00	1.076E+00	7.616E-01	NOT IDENT.
IN-113M	-2.797E-02	5.420E-02	4.535E-02	2.765E-02	NOT IDENT.
SN-113	-2.797E-02	5.420E-02	4.535E-02	2.765E-02	NOT IDENT.
IN-114M	8.224E-02	2.400E-01	1.815E-01	1.225E-01	NOT IDENT.
CD-115	-2.985E+00	1.298E+01	1.079E+01	6.621E+00	NOT IDENT.
SN-117M	-1.649E-02	6.673E-02	5.654E-02	3.405E-02	NOT IDENT.
SB-122	6.217E-01	2.647E+00	2.267E+00	1.350E+00	NOT IDENT.
I-123	-1.755E+06	8.787E+06	0.000E+00	4.483E+06	SHORT HLIF
TE-123M	-6.858E-03	3.433E-02	2.914E-02	1.752E-02	NOT IDENT.
I-124	6.977E-01	9.270E-01	7.237E-01	4.730E-01	FAIL ABUN
SB-124	2.914E-02	8.292E-02	7.447E-02	4.230E-02	FAIL ABUN
SB-125	3.921E-02	1.040E-01	9.134E-02	5.308E-02	NOT IDENT.
TE-125M	-4.416E+00	1.346E+01	1.011E+01	6.867E+00	NOT IDENT.
I-126	-8.832E-02	2.343E-01	1.604E-01	1.196E-01	NOT IDENT.
SB-126	6.901E-02	1.997E-01	1.485E-01	1.019E-01	NOT IDENT.
SB-127	7.243E-01	1.560E+00	1.350E+00	7.961E-01	NOT IDENT.
XE-127	-1.898E-02	5.770E-02	4.632E-02	2.944E-02	NOT IDENT.
I-131	-9.268E-02	1.328E-01	1.101E-01	6.774E-02	NOT IDENT.
TE-132	-6.306E-01	8.488E-01	6.837E-01	4.331E-01	FAIL ABUN
BA-133	2.238E-02	5.613E-02	4.359E-02	2.864E-02	NOT IDENT.
I-133	-2.301E+03	8.073E+03	0.000E+00	4.119E+03	SHORT HLIF
CS-134	1.420E-01	6.819E-02	4.884E-02	3.479E-02	FAIL ABUN
CS-135	1.835E-01	2.276E-01	1.736E-01	1.161E-01	NOT IDENT.
I-135	1.874E+15	9.449E+15	0.000E+00	4.821E+15	SHORT HLIF
CS-136	-2.675E-02	1.354E-01	1.123E-01	6.906E-02	FAIL ABUN
CE-139	-3.870E-02	3.581E-02	2.888E-02	1.827E-02	NOT IDENT.
BA-140	1.227E-01	3.059E-01	2.641E-01	1.561E-01	NOT IDENT.
LA-140	-6.110E-02	8.042E-02	5.827E-02	4.103E-02	NOT IDENT.
CE-141	2.268E-02	7.487E-02	6.503E-02	3.820E-02	NOT IDENT.
CE-143	1.103E+03	3.158E+02	0.000E+00	1.611E+02	SHORT HLIF
CE-144	-2.200E-01	2.461E-01	2.035E-01	1.256E-01	NOT IDENT.
PM-144	-2.496E-03	4.036E-02	3.336E-02	2.059E-02	NOT IDENT.

PR-144	-1.691E-01	2.735E+00	2.261E+00	1.395E+00	NOT IDENT.
PM-146	3.829E-02	5.651E-02	5.009E-02	2.883E-02	NOT IDENT.
ND-147	-3.338E-01	6.661E-01	5.413E-01	3.398E-01	FAIL ABUN
PM-149	9.626E+01	1.067E+02	9.690E+01	5.442E+01	NOT IDENT.
EU-152	-2.746E-02	1.376E-01	9.647E-02	7.023E-02	NOT IDENT.
GD-153	1.434E-01	1.130E-01	9.129E-02	5.765E-02	NOT IDENT.
EU-154	-9.242E-02	1.513E-01	1.176E-01	7.719E-02	NOT IDENT.
EU-155	1.056E-01	1.369E-01	1.221E-01	6.983E-02	FAIL ABUN
TB-160	1.147E-01	1.511E-01	1.380E-01	7.707E-02	FAIL ABUN
HO-166M	1.393E-02	6.834E-02	5.772E-02	3.487E-02	FAIL ABUN
TM-171	-2.730E+01	4.564E+01	3.472E+01	2.329E+01	NOT IDENT.
LU-176	-3.032E-02	3.165E-02	2.359E-02	1.615E-02	FAIL ABUN
LU-177M	-1.082E-01	2.288E-01	1.915E-01	1.167E-01	FAIL ABUN
HF-181	4.132E-03	5.125E-02	4.387E-02	2.615E-02	NOT IDENT.
W-181	1.341E+00	6.412E-01	5.321E-01	3.272E-01	NOT IDENT.
TA-182	-3.597E-02	2.294E-01	1.888E-01	1.171E-01	NOT IDENT.
RE-183	1.306E-01	1.323E-01	1.172E-01	6.750E-02	FAIL ABUN
RE-184	-1.503E-01	2.815E-01	2.286E-01	1.436E-01	NOT IDENT.
OS-185	-4.004E-02	5.029E-02	3.910E-02	2.566E-02	NOT IDENT.
RE-188	1.928E-01	2.069E-01	1.831E-01	1.055E-01	NOT IDENT.
W-188	-9.368E+00	9.400E+00	6.656E+00	4.796E+00	FAIL ABUN
IR-192	-1.535E-02	3.840E-02	3.279E-02	1.959E-02	FAIL ABUN
AU-195	3.620E-01	3.061E-01	2.585E-01	1.562E-01	FAIL ABUN
TL-200	-1.601E+02	5.847E+02	0.000E+00	2.983E+02	SHORT HLIF
TL-201	-4.827E+00	8.581E+00	7.071E+00	4.378E+00	NOT IDENT.
TL-202	2.433E-02	8.037E-02	7.014E-02	4.100E-02	NOT IDENT.
HG-203	1.617E-02	4.584E-02	4.090E-02	2.339E-02	NOT IDENT.
BI-207	2.294E-02	6.293E-02	5.487E-02	3.211E-02	FAIL ABUN
TL-207	-7.420E-01	7.928E-01	6.508E-01	4.045E-01	FAIL ABUN
PO-209	-5.146E+00	8.990E+00	7.286E+00	4.587E+00	NOT IDENT.
BI-210	3.679E+00	7.053E+00	6.394E+00	3.599E+00	NOT IDENT.
PB-210	3.679E+00	7.053E+00	6.394E+00	3.599E+00	NOT IDENT.
PO-210	3.679E+00	7.052E+00	6.394E+00	3.598E+00	NOT IDENT.
PB-211	-5.812E-01	1.202E+00	9.601E-01	6.132E-01	NOT IDENT.
BI-212	1.180E+00	4.925E-01	3.673E-01	2.513E-01	FAIL ABUN
PO-215	-7.420E-01	7.928E-01	6.508E-01	4.045E-01	FAIL ABUN
RN-219	1.085E-01	4.986E-01	4.343E-01	2.544E-01	FAIL ABUN
RN-220	-1.803E+01	3.112E+01	2.512E+01	1.588E+01	NOT IDENT.
RA-223	-7.420E-01	7.928E-01	6.508E-01	4.045E-01	FAIL ABUN
AC-227	2.133E-01	4.548E-01	3.880E-01	2.321E-01	FAIL ABUN
TH-227	2.133E-01	4.553E-01	3.880E-01	2.323E-01	FAIL ABUN
TH-229	-4.367E-02	6.023E-01	5.087E-01	3.073E-01	FAIL ABUN
PA-231	-1.188E+00	1.709E+00	1.443E+00	8.722E-01	FAIL ABUN
TH-231	-7.420E-01	7.928E-01	6.508E-01	4.045E-01	FAIL ABUN
U-231	2.455E-01	1.599E+00	1.237E+00	8.160E-01	FAIL ABUN
PA-233	3.460E-02	7.193E-02	6.432E-02	3.670E-02	FAIL ABUN
PA-234	2.618E-01	3.575E-01	3.210E-01	1.824E-01	FAIL ABUN
PA-234M	2.070E+01	6.535E+00	6.139E+00	3.334E+00	FAIL ABUN
U-235	7.296E-02	2.563E-01	2.186E-01	1.308E-01	FAIL ABUN
NP-236	-7.117E-02	9.706E-02	8.058E-02	4.952E-02	FAIL ABUN
NP-239	1.888E-01	2.554E-01	2.015E-01	1.303E-01	FAIL ABUN
AM-241	9.298E-02	2.563E-01	2.024E-01	1.308E-01	NOT IDENT.
CM-243	1.017E-01	1.214E-01	1.077E-01	6.196E-02	FAIL ABUN
AM-246	1.510E-02	1.675E-01	1.424E-01	8.546E-02	NOT IDENT.
CM-247	2.097E-02	4.417E-02	3.902E-02	2.254E-02	NOT IDENT.
CF-249	4.192E-03	4.778E-02	4.142E-02	2.438E-02	NOT IDENT.
CF-251	-9.441E-04	1.522E-01	1.295E-01	7.763E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	379.4402
46.50	379.4402
46.50	379.4402
48.70	427.2049
49.72	414.3459
51.35	368.1377
52.39	390.7028
52.97	402.9661
53.15	397.6047
53.44	399.6278
54.07	379.9106
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56.28	411.6200
57.37	0.0000
57.53	368.2640
57.53	368.2648
57.60	363.8856
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57.98	371.4785
59.32	391.4767
59.32	391.4767
59.40	391.5260
59.54	391.6125
59.72	394.6806
60.01	394.8607
61.10	397.0151
61.14	400.0026
61.30	400.1023
63.00	456.8657
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63.29	457.0670
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65.12	514.2256
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65.20	514.2867
66.05	553.7465
66.72	540.8458
66.83	540.9363
66.91	541.7477
67.20	517.6822
67.20	517.6822
67.75	518.7220
67.85	518.7982
68.90	522.7142
68.90	522.7142
69.30	506.8948
69.67	523.6725
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74.81	569.6002
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77.11	571.3898

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77.11	571.3898
77.11	571.3898
77.11	571.3898
77.11	571.3898
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80.30	677.5549
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81.07	711.7731
81.07	711.7731
81.07	711.7731
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83.78	594.9796
83.78	594.9796
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84.90	569.7953
85.43	591.6373
86.29	682.8132
86.50	682.9952
86.54	683.0278
86.59	683.0712
86.72	716.9608
86.79	717.0206
86.94	717.1574
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87.57	576.3314
87.88	576.5557
88.03	576.6632
88.36	576.8990
88.47	576.9791
89.95	578.0365
91.11	578.8605
92.29	579.6913
92.38	579.7554
92.38	579.7554
93.35	580.4352
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94.67	510.0404
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94.90	519.4852
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96.73	404.0585
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98.44	381.5100
98.88	383.0027
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99.55	368.6375
99.86	390.9117
100.00	390.9744
100.10	391.0218
103.18	410.9910
103.76	368.1758
105.00	381.4365
105.31	394.3202
108.00	459.6434
109.28	427.1856

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111.00	371.1319
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112.95	359.2500
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116.30	327.1759
117.00	327.4160
117.00	327.4160
117.66	367.1397
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121.62	358.3303
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122.06	338.5190
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122.32	331.6163
122.32	331.6163
123.07	341.8656
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131.20	362.7795
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133.54	378.7537
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140.51	0.0000
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144.24	334.6340
144.24	334.6340
144.24	334.6340
145.22	347.1880
145.44	350.3221
147.16	364.1699
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152.70	341.3086
153.22	340.4372
154.21	313.9681
154.21	313.9681
154.21	313.9681
154.21	313.9681
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162.32	312.0344
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163.35	315.4204
163.89	303.1089
165.85	343.1223
167.43	313.3824
171.28	291.4055
171.86	310.3554
172.10	310.4166
176.55	315.7386
176.60	315.7501
181.06	325.0914
184.41	309.0627
185.71	331.7780
186.00	331.8546
190.27	279.9360
192.34	305.8682
193.63	297.6645
197.04	268.5902
198.01	289.0519
198.60	294.5134
200.40	278.8836
201.83	320.8946
202.84	298.5026
205.31	289.9757

208.36	335.3324
208.81	291.3614
209.75	228.9428
209.75	228.9428
210.97	248.0959
215.65	264.7014
216.55	262.7074
218.09	247.8411
222.10	252.8795
223.80	290.1225
226.40	232.9490
227.00	245.0243
227.08	249.3943
227.20	249.4152
228.16	262.6560
228.18	262.6597
228.18	262.6597
231.56	0.0000
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236.00	306.7819
236.00	306.7819
238.63	257.9295
238.63	257.9295
238.63	257.9295
238.63	257.9295
239.00	257.9922
240.98	258.3311
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241.98	212.9612
241.98	212.9612
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245.39	225.7844
247.94	224.1701
248.90	204.4200
249.79	206.7483
252.40	223.7069
252.85	227.0950
252.85	227.0950
254.15	0.0000
256.20	199.8248
256.20	199.8248
260.50	215.9499
260.90	209.3256
262.80	195.0806
264.65	194.6353
268.24	223.7000
268.79	202.2937
269.46	184.4671
269.46	184.4671
269.46	184.4671
269.46	184.4671
271.23	222.3190
273.65	229.8281
276.40	208.1134
277.35	188.9513
277.60	194.6039
277.60	194.6039
278.00	189.9258
278.60	189.9927
279.20	190.9630
279.53	193.7021
280.46	195.6126
281.68	205.6787
283.67	193.2766
284.30	180.7007
285.00	171.7352
285.90	154.6452
286.10	162.8020
286.10	162.8020
287.40	154.8815
288.45	0.0000
290.67	199.5146
290.80	199.5281
291.72	181.4868
293.26	0.0000
293.70	157.4706
295.21	177.3067
295.21	177.3067

295.21	177.3067
295.96	177.3853
296.50	177.4400
297.23	177.5138
298.57	177.6495
299.80	162.5811
299.80	162.5811
300.09	162.6073
300.09	162.6073
300.09	162.6073
300.09	162.6073
300.12	162.6094
301.29	159.6768
302.84	133.9426
303.76	141.6267
303.91	141.6381
304.40	141.6778
304.40	141.6778
304.84	159.9973
306.84	193.5222
308.46	152.0789
311.98	151.4588
316.51	161.0397
318.01	159.3323
319.02	153.8899
319.41	154.8442
320.08	165.9661
323.87	198.6467
323.87	198.6467
323.87	198.6467
323.87	198.6467
325.23	210.8109
328.77	171.3802
333.44	187.2851
334.20	187.3614
334.20	187.3614
334.30	187.3713
338.28	171.3163
338.28	171.3163
338.28	171.3163
338.28	171.3163
338.32	171.3186
338.32	171.3186
338.32	171.3186
340.50	153.8053
340.57	153.8093
344.27	160.6453
345.85	163.5797
350.59	0.0000
351.07	143.4020
351.92	143.4637
351.92	143.4637
351.92	143.4637
355.39	0.0000
356.01	136.2455
364.48	143.4333
366.43	108.6253
367.43	131.3594
367.94	0.0000
369.80	137.1907
374.96	116.6713
383.85	142.8992
387.95	142.2266
388.63	134.6333
391.69	154.9105
391.69	154.9105
392.90	148.3020
398.62	161.1750
400.65	159.4082
401.10	152.7192
401.81	139.3182
402.60	131.6802
404.84	157.7959
410.95	134.1201
411.60	142.8475
413.65	168.0995
414.70	141.1167
415.30	134.3882

415.76	133.4500
417.63	0.0000
418.52	126.8391
423.70	131.9891
427.08	116.6382
427.89	105.9849
432.53	120.8198
433.93	114.0693
439.47	106.5305
439.56	106.5345
439.89	123.1684
443.98	119.4712
444.90	124.4172
445.03	124.4250
445.03	124.4250
445.03	124.4250
445.03	124.4250
453.90	125.8859
463.38	134.2967
468.07	134.5623
473.00	115.6726
475.06	102.5399
475.35	97.5903
476.78	121.3703
477.59	117.2178
477.96	127.1703
482.03	107.4806
484.57	116.5587
487.03	88.7545
490.36	0.0000
492.35	94.9432
497.08	106.1397
507.63	0.0000
510.53	0.0000
510.84	103.7035
511.00	103.7098
511.85	103.7456
511.85	103.7456
513.99	97.4478
513.99	97.4478
520.41	101.0620
520.65	101.0718
527.90	89.1945
528.96	0.0000
529.64	86.2119
529.87	0.0000
531.02	98.4351
537.32	84.4306
543.00	84.6130
546.56	0.0000
549.76	100.1605
552.65	79.8053
555.20	82.9538
563.23	107.8531
563.90	96.5795
568.70	86.4568
569.32	91.6248
569.50	91.6313
569.67	91.6357
573.80	99.6804
574.00	89.3750
574.64	83.8089
578.91	91.2555
579.30	0.0000
583.14	81.0490
585.48	100.1029
591.81	84.0691
592.07	82.0011
593.00	96.5647
595.88	91.4654
600.56	97.1706
602.52	0.0000
602.71	83.3516
602.71	83.3516
603.60	93.8013
604.41	99.0403
604.70	99.0496
609.31	76.5828

609.31	76.5828
609.31	76.5828
609.31	76.5828
610.33	90.5387
612.46	80.1519
614.37	80.2061
618.01	75.4189
621.84	70.2731
621.84	70.2731
631.29	58.9271
633.02	78.9661
633.10	78.9679
634.78	75.8531
635.90	64.2883
636.97	81.1809
645.85	79.3085
646.12	85.6611
656.30	61.8994
657.75	79.6234
657.90	0.0000
661.65	75.4739
661.65	75.4739
664.57	0.0000
666.33	74.5254
666.33	74.5254
675.00	68.3297
677.61	59.8391
685.20	59.9854
692.80	79.4597
695.00	80.5902
696.49	78.4786
696.49	78.4786
697.00	81.7167
697.49	77.4281
698.33	78.5231
698.50	73.1498
699.00	73.1614
702.63	77.5529
706.10	64.6978
706.58	0.0000
706.67	78.7299
709.31	77.7164
711.68	64.8120
713.82	69.1781
717.42	84.4061
720.50	70.4050
721.93	0.0000
722.20	70.4423
722.78	70.4542
722.78	70.4542
722.89	70.4574
722.95	70.4590
723.30	74.0806
724.18	77.7153
727.18	66.9330
733.00	79.7375
735.90	68.5633
739.58	77.3546
742.81	63.2534
744.21	66.5534
747.13	67.7050
751.79	62.3312
752.31	56.8725
753.82	57.9933
755.35	59.1139
756.15	51.4636
756.87	62.4272
763.93	96.5809
765.79	62.5928
766.42	65.8989
766.84	72.4985
776.49	78.0291
778.00	69.7981
778.57	65.2162
778.89	65.2220
783.80	73.5954
785.46	70.8700
792.07	60.0721

795.84	47.4766
796.30	58.5623
798.80	76.0279
801.93	69.7552
805.60	46.2870
810.29	66.7427
810.76	61.1888
815.85	48.2792
817.79	58.5242
818.51	51.1026
819.60	47.4006
826.30	54.0080
828.27	0.0000
831.60	71.8068
831.96	65.2861
834.83	48.5374
836.80	0.0000
846.75	66.4903
848.13	77.7585
856.28	0.0000
856.80	64.3931
860.37	47.9391
867.32	44.0740
867.82	43.1550
871.10	37.7083
873.19	35.8430
874.81	37.7466
875.33	0.0000
876.40	54.7550
879.36	41.5714
880.27	50.0875
880.51	50.0908
881.50	50.1037
883.24	52.9637
884.67	58.6611
889.25	64.4168
896.60	67.3902
898.02	70.2633
899.00	65.5326
903.28	57.0496
911.07	50.4962
911.07	50.4962
911.07	50.4962
919.63	53.8549
920.93	42.9840
925.00	45.8975
925.24	45.9004
926.50	53.5687
935.52	40.2697
937.48	67.1488
944.10	61.4974
946.00	48.0682
949.00	52.9153
962.29	64.5380
964.01	82.7759
966.15	79.5084
968.20	46.4033
969.11	48.0717
969.11	48.0717
969.11	48.0717
977.42	46.5098
980.50	48.4843
983.50	60.1659
989.30	41.7875
996.32	36.7137
1001.03	50.1217
1001.68	50.1290
1004.76	45.1500
1021.30	0.0000
1024.50	0.0000
1034.80	44.2145
1036.00	38.3287
1037.82	55.0612
1038.57	54.0869
1038.76	0.0000
1045.16	52.2021
1046.59	46.3077
1048.07	60.1213

1050.47	47.3359
1050.47	47.3359
1062.04	46.4760
1063.62	50.4501
1076.63	52.5859
1077.35	53.5869
1078.86	50.6265
1085.78	57.6672
1099.22	70.8093
1112.02	46.2951
1112.84	44.5896
1115.52	48.0469
1120.29	48.0996
1120.29	48.0996
1120.29	48.0996
1120.29	48.0996
1120.51	48.1016
1121.28	42.9548
1124.00	0.0000
1129.67	51.2117
1131.51	0.0000
1147.95	0.0000
1167.94	68.8577
1173.22	63.8690
1175.09	54.7668
1177.93	52.7702
1189.05	63.0697
1204.90	62.2609
1205.75	0.0000
1213.00	63.3901
1221.42	61.4551
1230.97	99.5497
1235.34	64.7150
1236.41	0.0000
1238.25	79.1431
1246.25	52.5066
1260.41	0.0000
1271.85	35.1884
1274.45	54.8805
1274.54	54.8827
1291.56	31.1719
1298.22	0.0000
1312.09	33.3867
1325.50	18.8298
1325.50	18.8298
1332.49	25.1416
1333.61	27.2420
1360.21	29.4902
1362.66	0.0000
1365.15	25.3008
1368.21	21.5189
1368.53	0.0000
1376.25	28.5249
1384.27	28.2161
1394.10	37.1021
1395.20	38.1709
1407.95	22.3193
1434.06	18.1566
1436.60	18.1649
1457.56	0.0000
1460.81	28.9797
1489.15	15.1040
1509.49	21.6553
1596.49	17.9033
1620.62	10.4076
1678.03	0.0000
1691.02	11.4873
1691.02	11.4873
1706.46	0.0000
1750.46	0.0000
1764.49	11.8659
1764.49	11.8659
1764.49	11.8659
1764.49	11.8659
1770.23	6.7866
1771.40	17.4545
1791.20	0.0000
1808.65	8.7784

1836.01	14.6924

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202029811

Total Uranium Activity	5.7906E+01	ug/g
Total Uranium Counting Unc.	1.4140E+01	ug/g
Total Uranium Tpu	7.2143E-06	ug/g
Total Uranium Mda	4.7767E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID  : G1202029811      *
*   ANALYST       : RXF2                      DETECTOR   : GAM23            *
*   SAMPLE DATE   : 26-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 19:16:05.37    SAMPLE ALQT:  122.906 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.050E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.324E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.832E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.862E+00
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:23:28.36

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029812.CNF;1
Sample date       : 2-FEB-2010 00:00:00. Acquisition date : 10-FEB-2010 20:23:01
Sample ID         : G1202029812          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.92  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	49.48	286	1427	1.95	98.51	95	9	7.94E-02	24.4	
2	0	59.47	9916	1374	0.98	118.50	113	11	2.75E+00	1.2	
3	4	74.80	310	379	1.00	149.15	144	21	8.62E-02	11.5	1.27E+00
4	4	77.03*	468	377	0.95	153.62	144	21	1.30E-01	8.1	
5	4	87.95*	2360	344	0.93	175.46	170	12	6.56E-01	2.4	5.80E+00
6	4	89.84	101	232	0.92	179.24	170	12	2.80E-02	42.7	
7	0	92.78*	85	304	1.47	185.12	182	7	2.36E-02	37.5	
8	0	121.96	257	330	0.92	243.47	239	9	7.14E-02	14.2	
9	0	185.84*	74	281	0.79	371.21	367	9	2.06E-02	43.4	
10	0	209.20	76	269	1.19	417.92	414	9	2.10E-02	40.9	
11	0	238.47*	484	350	1.08	476.47	472	10	1.34E-01	8.6	
12	0	295.04*	125	185	1.04	589.61	585	9	3.47E-02	21.7	
13	0	327.30	54	139	1.32	654.11	651	8	1.51E-02	40.0	
14	0	338.14*	149	162	1.72	675.80	671	10	4.13E-02	18.1	
15	0	351.81*	258	258	1.14	703.14	697	13	7.16E-02	14.4	
16	0	510.84*	85	209	1.65	1021.18	1014	16	2.37E-02	40.7	
17	0	582.95*	136	119	1.42	1165.40	1158	11	3.78E-02	17.9	
18	0	609.35*	143	117	1.17	1218.19	1214	11	3.98E-02	17.3	
19	0	661.47*	2312	119	1.48	1322.44	1317	12	6.42E-01	2.3	
20	0	726.95	28	137	1.55	1453.38	1448	12	7.88E-03	84.8	
21	0	911.10*	148	115	1.86	1821.68	1814	14	4.10E-02	17.6	
22	0	1172.97	1814	54	1.93	2345.44	2335	20	5.04E-01	2.6	
23	0	1332.22	1598	23	1.89	2663.95	2656	15	4.44E-01	2.6	
24	0	1764.39*	33	7	1.19	3528.36	3521	13	9.14E-03	24.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 21:23:31

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029812.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : RXF2
Sample date : 2-FEB-2010 00:00:00 Acquisition date : 10-FEB-2010 20:23:01
Sample ID : G1202029812 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.92 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	1.796E-01	5.590E-02	4.754E-02	6.131E-03	3.778
		136.48		3.496E-01	2.413E-01	4.242E-01	5.201E-02	0.824
CO-60	+	1173.22		6.547E+00	6.342E-01	1.120E-01	9.217E-03	58.467
	+	1332.49	*	6.447E+00	6.207E-01	7.837E-02	6.365E-03	82.261
CD-109	+	88.03	*	3.309E+01	3.898E+00	1.187E+00	1.276E-01	27.868
SN-126		64.28		1.160E-01	2.719E-01	4.513E-01	7.191E-02	0.257
	+	86.94		1.365E+01	5.750E+00	4.874E-01	2.039E-01	28.004
	+	87.57	*	3.283E+00	3.868E-01	1.176E-01	1.261E-02	27.926
BA-137M	+	661.65	*	5.564E+00	6.671E-01	1.076E-01	1.192E-02	51.724
CS-137	+	661.65	*	5.882E+00	7.059E-01	1.137E-01	1.261E-02	51.724
TL-208		277.35		-9.341E-02	5.704E-01	8.954E-01	1.272E-01	-0.104
	+	510.84		6.793E-01	5.603E-01	3.909E-01	5.176E-02	1.738
	+	583.14	*	3.129E-01	1.172E-01	1.201E-01	1.354E-02	2.604
		860.37		4.439E-01	6.871E-01	1.166E+00	1.219E-01	0.381
BI-211		72.87		3.790E-01	2.343E+00	3.423E+00	3.456E-01	0.111
	+	351.07	*	2.476E+00	7.569E-01	5.391E-01	5.681E-02	4.593
PB-212	+	74.81		1.445E+00	3.883E-01	3.977E-01	5.490E-02	3.632
	+	77.11		1.300E+00	2.494E-01	2.383E-01	2.442E-02	5.453
	+	87.30		1.518E+01	2.346E+00	5.431E-01	7.957E-02	27.959
	+	238.63	*	9.808E-01	2.018E-01	1.487E-01	1.693E-02	6.594
		300.09		1.015E+00	1.222E+00	2.011E+00	2.505E-01	0.505
PO-212	+	74.81		1.445E+00	3.883E-01	3.977E-01	5.490E-02	3.632
	+	77.11		1.300E+00	2.494E-01	2.383E-01	2.442E-02	5.453
	+	87.30		1.518E+01	2.346E+00	5.431E-01	7.957E-02	27.959
		115.19		4.089E+00	3.741E+00	6.581E+00	8.161E-01	0.621
	+	238.63	*	9.808E-01	2.018E-01	1.487E-01	1.693E-02	6.594
		300.09		1.015E+00	1.222E+00	2.011E+00	2.505E-01	0.505
BI-214	+	609.31	*	6.234E-01	2.284E-01	1.988E-01	2.399E-02	3.136
		1120.29		1.101E-01	5.995E-01	1.011E+00	1.097E-01	0.109
	+	1764.49		1.069E+00	5.265E-01	3.951E-01	3.255E-02	2.706
PB-214	+	74.81		2.489E+00	6.538E-01	6.853E-01	8.617E-02	3.632
	+	77.11		2.228E+00	4.600E-01	4.086E-01	5.217E-02	5.453
	+	87.30		2.601E+01	3.662E+00	9.303E-01	1.228E-01	27.959
		241.98		7.504E-01	6.046E-01	9.233E-01	1.101E-01	0.813

Sample ID : G1202029812 Acquisition date : 10-FEB-2010 20:23:01

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		6.968E-01	3.147E-01	3.233E-01	4.100E-02	2.156
	+	351.92	*	8.613E-01	2.671E-01	1.880E-01	2.208E-02	4.581
PO-214	+	74.81		2.489E+00	6.538E-01	6.853E-01	8.617E-02	3.632
	+	77.11		2.228E+00	4.600E-01	4.086E-01	5.217E-02	5.453
	+	87.30		2.601E+01	3.662E+00	9.303E-01	1.228E-01	27.959
		241.98		7.504E-01	6.046E-01	9.233E-01	1.101E-01	0.813
	+	295.21		6.968E-01	3.147E-01	3.233E-01	4.100E-02	2.156
	+	351.92	*	8.613E-01	2.671E-01	1.880E-01	2.208E-02	4.581
PO-216	+	74.81		1.445E+00	3.883E-01	3.977E-01	5.490E-02	3.632
	+	77.11		1.300E+00	2.494E-01	2.383E-01	2.442E-02	5.453
	+	87.30		1.518E+01	2.346E+00	5.431E-01	7.957E-02	27.959
	+	238.63	*	9.808E-01	2.018E-01	1.487E-01	1.693E-02	6.594
		300.09		1.015E+00	1.222E+00	2.011E+00	2.505E-01	0.505
PO-218	+	74.81		2.489E+00	6.538E-01	6.853E-01	8.617E-02	3.632
	+	77.11		2.228E+00	4.600E-01	4.086E-01	5.217E-02	5.453
	+	87.30		2.601E+01	3.662E+00	9.303E-01	1.228E-01	27.959
		241.98		7.504E-01	6.046E-01	9.233E-01	1.101E-01	0.813
	+	295.21		6.968E-01	3.147E-01	3.233E-01	4.100E-02	2.156
	+	351.92	*	8.613E-01	2.671E-01	1.880E-01	2.208E-02	4.581
RA-226	+	609.31	*	6.234E-01	2.284E-01	1.988E-01	2.399E-02	3.136
		1120.29		1.101E-01	5.995E-01	1.011E+00	1.097E-01	0.109
	+	1764.49		1.069E+00	5.265E-01	3.951E-01	3.255E-02	2.706
TH-228	+	74.81		1.457E+00	3.677E-01	4.012E-01	4.102E-02	3.632
	+	77.11		1.311E+00	2.516E-01	2.404E-01	2.464E-02	5.453
	+	87.30		1.532E+01	1.805E+00	5.479E-01	5.867E-02	27.959
	+	238.63	*	9.895E-01	2.035E-01	1.501E-01	1.708E-02	6.594
		300.09		1.024E+00	1.370E+00	2.029E+00	1.211E+00	0.505
TH-230	+	609.31	*	6.234E-01	2.284E-01	1.988E-01	2.399E-02	3.136
		1120.29		1.101E-01	5.995E-01	1.011E+00	1.097E-01	0.109
	+	1764.49		1.069E+00	5.265E-01	3.951E-01	3.255E-02	2.706
U-234	+	609.31	*	6.234E-01	2.284E-01	1.988E-01	2.399E-02	3.136
		1120.29		1.101E-01	5.995E-01	1.011E+00	1.097E-01	0.109
	+	1764.49		1.069E+00	5.265E-01	3.951E-01	3.255E-02	2.706
NP-237	+	86.50	*	9.641E+00	2.291E+00	3.436E-01	7.982E-02	28.059
		95.87		3.322E-01	8.945E-01	1.405E+00	3.603E-01	0.236
AM-241	+	59.54	*	1.370E+01	1.463E+00	1.539E-01	1.599E-02	89.023
AM-243	+	74.67	*	2.342E-01	5.902E-02	6.445E-02	6.545E-03	3.634
	+	86.72		3.615E+02	4.259E+01	1.290E+01	1.377E+00	28.031
		117.66		-2.850E+00	4.586E+00	6.689E+00	8.411E-01	-0.426
		142.18		-1.025E+01	1.972E+01	3.196E+01	3.609E+00	-0.321
ANH-511	+	511.00	*	1.467E-01	1.204E-01	8.446E-02	8.693E-03	1.737

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.436E-01	6.571E-01	1.083E+00	1.147E-01	0.133
NA-22		1274.54	*	-3.863E-02	5.065E-02	7.266E-02	5.958E-03	-0.532
NA-24		1368.53	*	-3.246E-04	5.065E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AL-26		1129.67		7.442E-01	3.244E+00	5.496E+00	4.692E-01	0.135
		1808.65	*	5.772E-03	4.308E-02	7.330E-02	6.007E-03	0.079
K-40		1460.81	*	7.812E-01	5.344E-01	1.080E+00	9.200E-02	0.723
TI-44		67.85		-2.072E-04	2.939E-02	4.649E-02	4.627E-03	-0.004
	+	78.38	*	2.398E-01	4.601E-02	5.375E-02	5.536E-03	4.460
SC-46		889.25	*	6.630E-02	9.355E-02	1.590E-01	1.522E-02	0.417
		1120.51		1.008E-02	9.789E-02	1.642E-01	1.411E-02	0.061
V-48		944.10		-5.384E-01	1.766E+00	2.795E+00	2.622E-01	-0.193
		983.50	*	-6.465E-04	1.261E-01	2.030E-01	1.881E-02	-0.003
		1312.09		-2.290E-02	7.063E-02	1.091E-01	8.892E-03	-0.210
CR-51		320.08	*	-4.886E-03	4.724E-01	7.956E-01	8.835E-02	-0.006
MN-52		744.21		-1.873E-01	2.143E-01	3.295E-01	3.560E-02	-0.568
		848.13		-9.134E-01	6.863E+00	1.111E+01	1.113E+00	-0.082
		935.52		3.426E-01	3.162E-01	5.432E-01	5.108E-02	0.631
		1246.25		3.540E-01	3.619E+00	6.049E+00	4.968E-01	0.059
	+	1333.61		3.807E+02	3.665E+01	4.367E+01	3.547E+00	8.718
		1434.06	*	1.061E-01	1.407E-01	2.591E-01	2.135E-02	0.410
MN-54		834.83	*	-8.566E-02	7.859E-02	1.175E-01	1.192E-02	-0.729
CO-56		846.75	*	-5.789E-02	8.262E-02	1.277E-01	1.281E-02	-0.453
		977.42		-1.802E-01	6.588E+00	1.060E+01	9.839E-01	-0.017
		1037.82		-2.569E-01	6.228E-01	1.011E+00	9.597E-02	-0.254
		1175.09		2.580E+02	2.530E+01	3.129E+01	2.576E+00	8.244
		1238.25		6.792E-02	9.624E-02	1.719E-01	1.457E-02	0.395
		1360.21		-2.281E-01	1.295E+00	2.054E+00	1.676E-01	-0.111
		1771.40		-3.994E-01	3.654E-01	4.564E-01	3.757E-02	-0.875
CO-58		810.76	*	-3.151E-03	7.947E-02	1.301E-01	1.350E-02	-0.024
FE-59		142.65		-1.224E+00	2.803E+00	4.565E+00	5.135E-01	-0.268
		192.34		2.571E-01	1.152E+00	1.902E+00	2.666E-01	0.135
		1099.22	*	-1.367E-01	1.769E-01	2.770E-01	2.609E-02	-0.494
		1291.56		-1.168E-01	1.371E-01	1.928E-01	1.811E-02	-0.606
ZN-65		1115.52	*	-7.849E-02	1.966E-01	3.183E-01	2.749E-02	-0.247
GE-68		1077.35	*	5.328E-01	2.615E+00	4.435E+00	3.926E-01	0.120
AS-73		53.44	*	2.358E-01	4.994E-01	7.496E-01	7.195E-02	0.315
AS-74		595.88	*	3.751E-02	1.343E-01	2.189E-01	2.372E-02	0.171
		634.78		2.541E-02	4.735E-01	7.980E-01	8.777E-02	0.032
SE-75		66.05		-2.314E+00	2.775E+00	4.218E+00	4.862E-01	-0.549
		96.73		-6.464E-01	7.512E-01	1.093E+00	1.683E-01	-0.592
	+	121.11		9.465E-01	3.023E-01	3.529E-01	5.186E-02	2.682
		136.00		3.408E-02	4.419E-02	7.631E-02	9.054E-03	0.447
		198.60		8.274E-01	2.332E+00	3.860E+00	4.052E-01	0.214
		264.65	*	2.030E-02	6.308E-02	1.024E-01	1.122E-02	0.198
		279.53		6.301E-03	1.629E-01	2.587E-01	2.952E-02	0.024
		303.91		-1.406E+00	3.037E+00	5.005E+00	6.663E-01	-0.281
		400.65		-3.785E-01	4.245E-01	6.606E-01	7.641E-02	-0.573
BR-77	+	87.88		1.153E+03	1.358E+02	1.164E+02	1.250E+01	9.907
		200.40		-2.442E+01	3.501E+01	5.479E+01	5.307E+00	-0.446
	+	239.00		2.517E+01	5.052E+00	6.618E+00	6.930E-01	3.802
		249.79		-4.594E+00	1.633E+01	2.569E+01	2.741E+00	-0.179
		281.68		-4.969E+00	2.211E+01	3.450E+01	3.845E+00	-0.144

---- Non-Identified Nuclides ----

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		297.23		4.656E+00	1.427E+01	2.183E+01	2.405E+00	0.213
		303.76		-2.272E+01	4.305E+01	7.073E+01	7.743E+00	-0.321
		439.47		7.173E+00	4.449E+01	7.369E+01	7.098E+00	0.097
		484.57		-5.691E+01	7.515E+01	1.162E+02	1.170E+01	-0.490
		520.65	*	-3.445E-01	3.078E+00	4.935E+00	5.117E-01	-0.070
		574.64		2.072E+01	6.425E+01	1.053E+02	1.129E+01	0.197
		578.91		-1.248E+01	2.973E+01	3.961E+01	4.257E+00	-0.315
		585.48		1.167E+02	6.182E+01	9.885E+01	1.066E+01	1.181
		755.35		-2.503E+01	4.949E+01	7.872E+01	8.457E+00	-0.318
		817.79		1.779E+01	4.575E+01	7.710E+01	7.940E+00	0.231
SR-82		698.33		-2.144E+00	5.101E+01	8.464E+01	9.307E+00	-0.025
		776.49	*	-2.632E-01	6.212E-01	9.896E-01	1.050E-01	-0.266
		1395.20		-6.531E+00	1.185E+01	1.722E+01	1.412E+00	-0.379
RB-83		520.41	*	-5.791E-02	1.225E-01	1.910E-01	1.979E-02	-0.303
		529.64		-1.193E-01	1.793E-01	2.738E-01	2.857E-02	-0.436
		552.65		1.983E-01	3.395E-01	5.690E-01	6.027E-02	0.348
RB-84		881.50	*	5.609E-02	1.415E-01	2.369E-01	2.290E-02	0.237
KR-85		513.99	*	1.560E+01	1.446E+01	2.232E+01	2.302E+00	0.699
SR-85		513.99	*	7.487E-02	6.940E-02	1.071E-01	1.105E-02	0.699
RB-86		1076.63	*	5.769E-01	1.335E+00	2.299E+00	2.036E-01	0.251
Y-88		898.02		1.688E-02	9.360E-02	1.541E-01	1.465E-02	0.110
		1836.01	*	-3.273E-02	4.538E-02	5.974E-02	4.882E-03	-0.548
ZR-88		392.90	*	5.886E-03	5.111E-02	8.526E-02	7.761E-03	0.069
Y-91		1204.90	*	-1.728E+01	2.327E+01	3.569E+01	2.937E+00	-0.484
NB-94		702.63	*	-3.492E-02	6.210E-02	9.893E-02	1.086E-02	-0.353
		871.10		-3.080E-02	7.896E-02	1.249E-01	1.222E-02	-0.246
NB-95		765.79	*	3.202E-02	7.461E-02	1.267E-01	1.354E-02	0.253
NB-95M		235.69	*	-8.375E-02	1.784E-01	2.462E-01	2.822E-02	-0.340
ZR-95		724.18		1.946E-01	1.839E-01	2.905E-01	3.340E-02	0.670
		756.15	*	-6.572E-02	1.252E-01	1.989E-01	2.277E-02	-0.331
NB-97		657.90	*	9.284E-04	1.252E-01	Half-Life too short		
		1024.50		3.045E-02	1.252E-01	Half-Life too short		
ZR-97		254.15		-4.633E-04	1.252E-01	Half-Life too short		
		355.39		9.866E-03	1.252E-01	Half-Life too short		
		507.63	*	6.671E-03	1.252E-01	Half-Life too short		
		602.52		4.442E-03	1.252E-01	Half-Life too short		
		1021.30		-3.082E-02	1.252E-01	Half-Life too short		
		1147.95		1.746E-02	1.252E-01	Half-Life too short		
		1362.66		-1.135E-02	1.252E-01	Half-Life too short		
		1750.46		5.365E-04	1.252E-01	Half-Life too short		
MO-99		140.51		2.350E+00	5.938E+00	1.005E+01	2.884E+00	0.234
		181.06		1.709E+00	4.995E+00	7.483E+00	1.392E+00	0.228
		366.43		2.615E+00	3.008E+01	5.038E+01	4.938E+00	0.052
		739.58	*	6.807E+00	4.829E+00	8.551E+00	1.414E+00	0.796
		778.00		1.335E+01	1.369E+01	2.404E+01	2.549E+00	0.555
TC-99M		140.51	*	4.736E+02	1.369E+01	Half-Life too short		
RH-101		127.23		-1.073E-02	3.543E-02	5.874E-02	7.351E-03	-0.183
		198.01	*	1.349E-02	4.596E-02	7.585E-02	7.308E-03	0.178
		325.23		2.866E-01	3.698E-01	5.794E-01	6.172E-02	0.495

---- Non-Identified Nuclides ----

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RH-102		418.52		1.619E-01	5.438E-01	9.110E-01	8.566E-02	0.178
		475.06	*	2.193E-02	6.253E-02	1.039E-01	1.037E-02	0.211
		631.29		7.738E-02	9.250E-02	1.640E-01	1.802E-02	0.472
		697.49		-3.811E-02	1.356E-01	2.210E-01	2.431E-02	-0.172
		766.84		2.078E-01	1.999E-01	3.518E-01	3.756E-02	0.591
		1046.59		1.367E-02	2.475E-01	4.164E-01	3.751E-02	0.033
		1112.84		4.091E-01	4.858E-01	8.544E-01	7.386E-02	0.479
RU-103		497.08	*	-6.615E-02	7.255E-02	1.095E-01	1.660E-02	-0.604
	+	610.33		6.026E+00	2.349E+00	3.034E+00	5.452E-01	1.986
RH-106	+	511.85		7.242E-01	5.943E-01	6.093E-01	6.275E-02	1.189
		621.84	*	-2.218E-01	5.677E-01	9.273E-01	1.388E-01	-0.239
		1050.47		-2.329E+00	4.901E+00	7.913E+00	7.115E-01	-0.294
RU-106	+	511.85		7.242E-01	5.943E-01	6.093E-01	6.275E-02	1.189
		621.84	*	-2.218E-01	5.673E-01	9.273E-01	1.015E-01	-0.239
		1050.47		-2.329E+00	4.901E+00	7.913E+00	7.115E-01	-0.294
AG-108M		433.93	*	2.042E-02	6.459E-02	1.080E-01	1.067E-02	0.189
		614.37		-8.621E-03	7.534E-02	1.092E-01	1.222E-02	-0.079
		722.95		7.711E-02	8.505E-02	1.334E-01	1.490E-02	0.578
AG-110M		657.75	*	9.874E-02	7.029E-02	1.151E-01	1.297E-02	0.858
		677.61		3.262E-01	5.093E-01	8.895E-01	9.997E-02	0.367
		706.67		-5.257E-02	3.780E-01	6.221E-01	6.940E-02	-0.084
		763.93		-3.252E-01	3.124E-01	4.723E-01	5.144E-02	-0.688
		884.67		2.653E-02	1.172E-01	1.937E-01	1.914E-02	0.137
		937.48		2.845E-01	2.881E-01	4.934E-01	4.778E-02	0.577
		1384.27		8.743E-03	1.988E-01	3.267E-01	2.759E-02	0.027
IN-111		171.28		2.233E-01	2.720E-01	4.653E-01	4.203E-02	0.480
		245.39	*	-2.263E-01	3.451E-01	5.312E-01	5.625E-02	-0.426
IN-113M		391.69	*	-2.608E-02	7.557E-02	1.227E-01	1.146E-02	-0.213
SN-113		391.69	*	-2.608E-02	7.557E-02	1.227E-01	1.146E-02	-0.213
IN-114M		190.27	*	-8.699E-02	2.400E-01	3.414E-01	3.232E-02	-0.255
CD-115		260.90		-2.104E+01	2.806E+01	4.253E+01	4.620E+00	-0.495
		492.35		7.233E+00	9.995E+00	1.694E+01	1.718E+00	0.427
		527.90	*	-2.604E+00	2.779E+00	4.139E+00	4.314E-01	-0.629
SN-117M		156.02		-4.304E+00	2.025E+00	2.915E+00	2.907E-01	-1.476
		158.56	*	4.071E-02	4.708E-02	8.112E-02	7.875E-03	0.502
SB-122		563.90	*	1.391E-01	7.237E-01	1.178E+00	1.256E-01	0.118
		692.80		9.393E+00	1.575E+01	2.727E+01	3.003E+00	0.344
I-123		159.00	*	2.085E-03	1.575E+01	Half-Life too short		
		528.96		-2.018E-01	1.575E+01	Half-Life too short		
TE-123M		159.00	*	2.865E-02	3.208E-02	5.535E-02	5.375E-03	0.518
I-124		602.71	*	7.357E-02	4.296E-01	7.141E-01	7.761E-02	0.103
		722.78		2.349E+00	3.123E+00	4.835E+00	5.273E-01	0.486
		1325.50		1.685E+01	1.876E+01	3.129E+01	2.544E+00	0.539
		1376.25		4.046E+00	1.236E+01	2.134E+01	1.746E+00	0.190
		1509.49		8.567E+00	7.705E+00	1.476E+01	1.224E+00	0.580
		1691.02		-1.837E+00	1.803E+00	2.179E+00	1.807E-01	-0.843
SB-124		602.71		1.128E-02	6.588E-02	1.095E-01	1.191E-02	0.103
		645.85		3.743E-01	8.612E-01	1.485E+00	1.699E-01	0.252
		709.31		7.809E-01	4.802E+00	8.072E+00	8.845E-01	0.097

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		713.82		1.934E+00	2.715E+00	4.727E+00	6.522E-01	0.409
		722.78		5.222E-01	6.943E-01	1.075E+00	1.188E-01	0.486
		968.20		6.231E+00	6.289E+00	1.070E+01	9.971E-01	0.582
		1045.16		-3.236E+00	5.083E+00	8.113E+00	7.315E-01	-0.399
		1325.50		4.002E+00	4.456E+00	7.429E+00	6.041E-01	0.539
		1368.21		-1.139E+00	1.969E+00	2.828E+00	3.731E-01	-0.403
		1436.60		-3.912E-01	4.669E+00	7.463E+00	6.152E-01	-0.052
		1691.02	*	-9.636E-02	9.459E-02	1.143E-01	9.879E-03	-0.843
SB-125		427.89	*	2.001E-02	1.745E-01	2.890E-01	2.791E-02	0.069
		463.38		6.037E-01	6.062E-01	1.035E+00	1.084E-01	0.583
		600.56		8.147E-02	3.349E-01	5.437E-01	6.182E-02	0.150
		635.90		-2.437E-01	4.703E-01	7.576E-01	8.754E-02	-0.322
TE-125M		109.28	*	3.559E+00	8.452E+00	1.461E+01	1.939E+00	0.244
I-126		388.63		-1.128E-01	2.554E-01	4.128E-01	3.790E-02	-0.273
		666.33	*	7.602E-02	2.635E-01	3.940E-01	4.362E-02	0.193
		753.82		1.063E-01	1.947E+00	3.243E+00	3.487E-01	0.033
SB-126		223.80		2.037E-01	4.038E+00	6.538E+00	6.652E-01	0.031
		278.60		2.042E+00	2.623E+00	4.338E+00	4.837E-01	0.471
	+	296.50		4.881E+00	2.183E+00	2.882E+00	3.177E-01	1.694
		414.70		-5.148E-02	9.775E-02	1.561E-01	1.461E-02	-0.330
		415.30		-4.466E+00	8.147E+00	1.299E+01	1.217E+00	-0.344
		555.20		3.300E+00	5.002E+00	8.426E+00	8.939E-01	0.392
		573.80		9.129E-01	1.433E+00	2.394E+00	2.566E-01	0.381
		593.00		-7.185E-01	1.245E+00	1.893E+00	2.049E-01	-0.380
		656.30		-1.076E+00	4.809E+00	6.835E+00	7.562E-01	-0.157
		666.33		3.131E-02	1.085E-01	1.623E-01	1.797E-02	0.193
		675.00		-3.562E-01	2.317E+00	3.821E+00	4.224E-01	-0.093
		695.00		-8.347E-02	9.930E-02	1.544E-01	1.699E-02	-0.541
		697.00		-1.760E-01	3.389E-01	5.417E-01	5.958E-02	-0.325
		720.50	*	-1.389E-01	1.995E-01	2.803E-01	3.060E-02	-0.496
		856.80		-4.823E-01	7.917E-01	1.237E+00	1.229E-01	-0.390
		989.30		7.154E-01	2.004E+00	3.317E+00	3.067E-01	0.216
		1034.80		-8.624E+00	1.328E+01	2.115E+01	1.917E+00	-0.408
		1213.00		-2.011E+00	3.948E+00	6.082E+00	5.004E-01	-0.331
SB-127		61.10		7.775E+01	1.513E+01	2.277E+01	2.432E+00	3.415
		252.40		1.389E+00	2.170E+00	3.470E+00	1.462E+00	0.400
		290.80		-7.463E+00	1.111E+01	1.578E+01	1.866E+00	-0.473
		411.60		1.396E+00	6.929E+00	1.157E+01	1.742E+00	0.121
		444.90		6.204E-01	6.456E+00	1.064E+01	1.275E+00	0.058
		473.00		-7.290E-01	1.167E+00	1.829E+00	2.296E-01	-0.398
		543.00		-4.345E-01	9.710E+00	1.554E+01	2.256E+00	-0.028
		603.60		-2.944E+00	7.420E+00	1.102E+01	1.425E+00	-0.267
		685.20	*	-2.661E-01	7.513E-01	1.216E+00	1.459E-01	-0.219
		698.50		-3.437E-01	8.767E+00	1.455E+01	2.363E+00	-0.024
		722.20		7.554E+00	1.931E+01	2.912E+01	3.398E+00	0.259
		783.80		2.740E-01	2.254E+00	3.745E+00	4.714E-01	0.073
XE-127		57.60		3.091E+01	4.940E+00	7.415E+00	7.229E-01	4.168
		145.22		3.273E-01	6.945E-01	1.183E+00	1.303E-01	0.277
		172.10		4.686E-02	1.347E-01	2.257E-01	2.044E-02	0.208

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		202.84	*	3.744E-03	5.542E-02	9.049E-02	8.814E-03	0.041
		374.96		-2.126E-01	3.042E-01	4.847E-01	4.641E-02	-0.439
I-131		80.18		-1.762E+00	2.217E+00	3.330E+00	3.460E-01	-0.529
		284.30		3.785E-01	1.393E+00	2.240E+00	2.565E-01	0.169
		364.48	*	-8.957E-02	1.170E-01	1.862E-01	1.905E-02	-0.481
		636.97		-1.217E+00	1.575E+00	2.480E+00	2.817E-01	-0.491
		722.89		6.801E+00	8.349E+00	1.299E+01	1.419E+00	0.524
TE-132	+	49.72		7.412E+00	3.701E+00	3.627E+00	3.728E-01	2.043
		111.76		-2.763E+00	7.619E+00	1.269E+01	1.620E+00	-0.218
		116.30		5.434E+00	7.600E+00	1.322E+01	1.727E+00	0.411
		228.16	*	-1.866E-01	2.720E-01	4.198E-01	6.629E-02	-0.444
BA-133		53.15		2.181E+00	2.210E+00	3.359E+00	3.221E-01	0.649
		79.62		-5.402E-01	1.071E+00	1.632E+00	2.654E-01	-0.331
		81.00		-9.520E-02	8.259E-02	1.196E-01	2.024E-02	-0.796
		276.40		-1.672E-01	5.709E-01	8.887E-01	1.428E-01	-0.188
		302.84		-1.320E-01	2.180E-01	3.560E-01	5.308E-02	-0.371
		356.01	*	-2.191E-04	7.942E-02	1.168E-01	1.656E-02	-0.002
		383.85		-2.043E-02	5.221E-01	8.651E-01	1.133E-01	-0.024
I-133	+	510.53		9.768E-03	5.221E-01	Half-Life too short		
		529.87	*	-3.382E-05	5.221E-01	Half-Life too short		
		706.58		1.015E-04	5.221E-01	Half-Life too short		
		856.28		-5.261E-03	5.221E-01	Half-Life too short		
		875.33		3.092E-04	5.221E-01	Half-Life too short		
		1236.41		6.050E-03	5.221E-01	Half-Life too short		
		1298.22		2.050E-03	5.221E-01	Half-Life too short		
CS-134		475.35		2.328E+00	4.134E+00	6.937E+00	6.928E-01	0.336
		563.23		1.483E-01	6.317E-01	1.032E+00	1.107E-01	0.144
		569.32		-2.459E-01	3.693E-01	5.605E-01	6.047E-02	-0.439
		604.70		-1.742E-02	7.066E-02	1.015E-01	1.106E-02	-0.172
		795.84	*	5.142E-02	9.226E-02	1.575E-01	1.658E-02	0.327
		801.93		-3.168E-02	8.474E-01	1.397E+00	1.462E-01	-0.023
		1038.57		-1.462E+00	8.391E+00	1.389E+01	1.257E+00	-0.105
		1167.94		6.126E+00	4.634E+00	7.731E+00	6.394E-01	0.792
		1365.15		9.195E-02	1.436E+00	2.373E+00	2.036E-01	0.039
CS-135		268.24	*	-1.820E-01	2.432E-01	3.679E-01	4.441E-02	-0.495
I-135		288.45		9.112E+02	2.432E-01	Half-Life too short		
		417.63		1.252E+03	2.432E-01	Half-Life too short		
		546.56		-3.977E+02	2.432E-01	Half-Life too short		
		836.80		3.617E+03	2.432E-01	Half-Life too short		
		1038.76		-2.361E+02	2.432E-01	Half-Life too short		
		1124.00		-1.395E+04	2.432E-01	Half-Life too short		
		1131.51		2.957E+02	2.432E-01	Half-Life too short		
		1260.41	*	4.402E+02	2.432E-01	Half-Life too short		
		1457.56		1.797E+03	2.432E-01	Half-Life too short		
		1678.03		-2.039E+03	2.432E-01	Half-Life too short		
		1706.46		-3.521E+03	2.432E-01	Half-Life too short		
		1791.20		-1.612E+03	2.432E-01	Half-Life too short		
CS-136		66.91		2.133E-01	3.312E-01	5.364E-01	8.690E-02	0.398
		86.29		4.330E+00	1.096E+00	1.558E+00	2.228E-01	2.778

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		153.22		6.942E-01	5.631E-01	9.813E-01	1.091E-01	0.707
		163.89		5.107E-01	9.171E-01	1.557E+00	1.575E-01	0.328
		176.55		-7.676E-02	3.353E-01	5.447E-01	5.241E-02	-0.141
		273.65		-3.665E-01	5.008E-01	7.510E-01	8.650E-02	-0.488
		340.57		1.212E-01	1.551E-01	2.416E-01	2.557E-02	0.502
		818.51		8.571E-02	1.104E-01	1.910E-01	1.967E-02	0.449
		1048.07	*	8.679E-02	1.660E-01	2.883E-01	2.695E-02	0.301
		1235.34		4.095E-01	4.613E-01	8.407E-01	9.715E-02	0.487
CE-139		165.85	*	-6.865E-03	3.532E-02	5.777E-02	5.152E-03	-0.119
BA-140		162.64		-1.458E-01	6.251E-01	1.022E+00	9.953E-02	-0.143
		304.84		-8.852E-01	1.399E+00	2.249E+00	6.481E-01	-0.394
		423.70		-5.990E-01	2.616E+00	4.239E+00	1.384E+00	-0.141
		537.32	*	-1.678E-01	3.363E-01	5.133E-01	1.729E-01	-0.327
LA-140	+	328.77		5.011E-01	4.049E-01	5.706E-01	6.272E-02	0.878
		432.53		-7.960E-01	2.919E+00	4.722E+00	4.692E-01	-0.169
		487.03		-9.033E-02	1.967E-01	3.103E-01	3.274E-02	-0.291
		751.79		-1.385E+00	2.332E+00	3.671E+00	4.227E-01	-0.377
		815.85		-1.792E-01	4.963E-01	7.917E-01	8.834E-02	-0.226
		867.82		-1.230E+00	2.188E+00	3.408E+00	3.483E-01	-0.361
		919.63		-1.953E-02	4.896E+00	7.937E+00	8.983E-01	-0.002
		925.24		-7.393E-01	2.162E+00	3.422E+00	3.395E-01	-0.216
		1596.49	*	-1.924E-02	8.514E-02	1.364E-01	1.134E-02	-0.141
CE-141		145.44	*	1.541E-04	6.285E-02	1.048E-01	1.166E-02	0.001
CE-143		57.37		5.408E+01	3.679E+01	5.586E+01	6.225E+00	0.968
		231.56		-1.263E+01	1.572E+02	2.520E+02	8.111E+01	-0.050
		293.26	*	1.109E+01	9.104E+00	1.426E+01	3.233E+00	0.778
	+	350.59		8.245E+02	3.518E+02	2.849E+02	8.999E+01	2.894
		490.36		-1.537E+02	2.490E+02	3.808E+02	1.223E+02	-0.404
		664.57		1.038E+03	3.822E+02	3.296E+02	1.092E+02	3.149
		721.93		3.858E+01	1.173E+02	1.752E+02	5.261E+01	0.220
CE-144		80.11		-1.318E+00	1.728E+00	2.600E+00	2.697E-01	-0.507
		133.54	*	-3.929E-01	2.481E-01	3.688E-01	6.520E-02	-1.065
PM-144		476.78		6.829E-02	1.460E-01	2.438E-01	2.609E-02	0.280
		618.01		3.727E-02	5.696E-02	9.972E-02	1.109E-02	0.374
		696.49	*	-2.031E-02	6.065E-02	9.841E-02	1.083E-02	-0.206
		778.57		1.824E+00	4.409E+00	7.482E+00	7.931E-01	0.244
PR-144		696.49	*	-1.372E+00	4.096E+00	6.647E+00	7.312E-01	-0.206
		1489.15		-5.244E+00	1.640E+01	2.480E+01	2.054E+00	-0.211
PM-146		453.90	*	-5.170E-02	8.484E-02	1.334E-01	1.557E-02	-0.388
		633.02		2.706E+00	2.603E+00	4.333E+00	1.646E+00	0.625
		735.90		8.854E-03	2.947E-01	4.892E-01	1.436E-01	0.018
		747.13		8.108E-02	1.724E-01	2.944E-01	4.553E-02	0.275
ND-147	+	91.11		3.264E-01	2.810E-01	2.633E-01	3.022E-02	1.240
		319.41		8.936E-02	3.311E+00	5.589E+00	6.005E-01	0.016
		439.89		2.866E+00	7.699E+00	1.290E+01	1.243E+00	0.222
		531.02	*	3.293E-01	6.774E-01	1.129E+00	1.815E-01	0.292
PM-149		285.90	*	4.595E+00	2.062E+01	3.303E+01	5.628E+00	0.139
EU-152	+	121.78		5.294E-01	1.668E-01	2.029E-01	2.796E-02	2.609
		244.69		-7.796E-01	5.258E-01	7.640E-01	8.081E-02	-1.020

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		344.27	*	6.353E-02	1.636E-01	2.709E-01	2.910E-02	0.235
		443.98		-4.830E-01	1.962E+00	3.173E+00	3.071E-01	-0.152
		778.89		2.256E-01	5.157E-01	8.765E-01	9.288E-02	0.257
		867.32		-1.257E+00	1.857E+00	2.865E+00	2.815E-01	-0.439
		964.01		-8.394E-02	7.730E-01	1.240E+00	1.156E-01	-0.068
		1085.78		2.802E-01	8.691E-01	1.484E+00	1.307E-01	0.189
		1112.02		4.609E-01	6.949E-01	1.209E+00	1.046E-01	0.381
		1407.95		1.944E-01	2.346E-01	4.346E-01	3.571E-02	0.447
GD-153		69.67		2.305E-01	1.077E+00	1.716E+00	1.716E-01	0.134
		83.37		3.171E+00	1.626E+01	2.072E+01	2.179E+00	0.153
		97.43	*	-4.446E-02	6.945E-02	1.151E-01	1.296E-02	-0.386
		103.18		-9.100E-02	9.632E-02	1.561E-01	1.812E-02	-0.583
EU-154	+	123.07		3.715E-01	1.188E-01	1.348E-01	1.996E-02	2.756
		247.94		9.903E-02	5.458E-01	8.827E-01	1.153E-01	0.112
		591.81		-1.493E-01	1.137E+00	1.797E+00	2.403E-01	-0.083
		723.30		3.729E-01	3.594E-01	5.686E-01	6.615E-02	0.656
		756.87		-1.779E-02	1.424E+00	2.350E+00	3.191E-01	-0.008
		873.19		7.278E-01	6.980E-01	1.210E+00	1.581E-01	0.602
		996.32		1.365E-01	7.761E-01	1.266E+00	2.288E-01	0.108
		1004.76		-3.425E-01	5.262E-01	8.018E-01	9.676E-02	-0.427
		1274.45	*	-7.643E-02	1.366E-01	2.031E-01	2.231E-02	-0.376
EU-155	+	48.70		3.209E+00	1.598E+00	1.450E+00	1.381E-01	2.213
	+	60.01		4.445E+02	4.510E+01	2.055E+01	2.022E+00	21.632
	+	86.54		3.945E+00	4.672E-01	2.632E-01	2.827E-02	14.987
		105.31	*	4.436E-02	1.038E-01	1.798E-01	2.126E-02	0.247
TB-160	+	86.79		9.944E+00	1.171E+00	7.916E-01	8.457E-02	12.562
		197.04		-8.167E-03	7.446E-01	1.212E+00	1.165E-01	-0.007
		215.65		5.240E-01	1.039E+00	1.723E+00	1.725E-01	0.304
		298.57		7.555E-02	1.762E-01	2.712E-01	2.985E-02	0.279
		879.36	*	-3.315E-01	3.256E-01	4.895E-01	4.743E-02	-0.677
		962.29		1.255E+00	1.266E+00	2.157E+00	2.013E-01	0.582
		966.15		2.713E-01	5.065E-01	8.413E-01	7.843E-02	0.322
		1177.93		1.778E-01	6.019E-01	8.950E-01	7.367E-02	0.199
		1271.85		-5.057E-01	7.751E-01	1.136E+00	9.310E-02	-0.445
HO-166M		80.57		-2.296E-01	2.250E-01	3.331E-01	3.461E-02	-0.689
	+	184.41		7.746E-02	6.768E-02	7.758E-02	7.241E-03	0.999
		280.46		-3.539E-02	1.316E-01	2.050E-01	2.286E-02	-0.173
		410.95		-6.793E-02	4.343E-01	7.105E-01	6.619E-02	-0.096
		711.68	*	2.742E-02	1.143E-01	1.931E-01	2.115E-02	0.142
		752.31		-7.913E-02	5.116E-01	8.355E-01	8.990E-02	-0.095
		810.29		2.707E-02	1.249E-01	2.082E-01	2.157E-02	0.130
TM-171		51.35		-9.673E+00	1.691E+01	2.463E+01	2.352E+00	-0.393
		52.39		3.177E+00	9.253E+00	1.386E+01	1.327E+00	0.229
	+	59.40		2.329E+03	2.363E+02	1.107E+02	1.088E+01	21.039
		66.72	*	2.649E+00	1.673E+01	2.668E+01	2.649E+00	0.099
LU-176	+	88.36		7.787E+00	9.173E-01	7.747E-01	8.339E-02	10.051
		201.83		-2.505E-02	3.830E-02	6.006E-02	5.837E-03	-0.417
		306.84	*	2.185E-02	3.829E-02	6.650E-02	7.256E-03	0.329
		401.10		-4.039E+00	1.138E+01	1.842E+01	1.695E+00	-0.219

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LU-177		112.95		-1.040E+00	8.689E-01	1.376E+00	1.685E-01	-0.756
	+	208.36	*	1.406E+00	1.157E+00	1.387E+00	1.368E-01	1.013
LU-177M		52.97		4.389E-01	9.715E-01	1.458E+00	1.398E-01	0.301
		54.07		-3.036E-02	5.481E-01	8.097E-01	7.787E-02	-0.037
		61.30		2.889E+00	9.462E-01	1.504E+00	1.481E-01	1.921
	+	121.62		2.645E+00	8.230E-01	1.011E+00	1.300E-01	2.616
		147.16		1.150E-01	7.218E-01	1.212E+00	1.313E-01	0.095
		171.86		2.154E-01	5.988E-01	1.004E+00	9.082E-02	0.215
		218.09		2.362E-01	1.236E+00	2.018E+00	2.030E-01	0.117
		268.79		7.847E-01	1.143E+00	1.886E+00	2.074E-01	0.416
		319.02		2.005E-02	3.766E-01	6.367E-01	6.843E-02	0.031
		367.43		7.784E-01	1.509E+00	2.583E+00	2.525E-01	0.301
		413.65	*	-1.396E-01	3.085E-01	4.951E-01	4.628E-02	-0.282
HF-181		56.28		4.277E-01	6.342E-01	9.536E-01	9.244E-02	0.448
		57.53		1.097E+00	4.025E-01	6.176E-01	6.019E-02	1.777
		65.20		-1.080E+00	5.166E-01	7.278E-01	7.203E-02	-1.483
		133.02		-2.496E-02	6.788E-02	1.118E-01	1.349E-02	-0.223
		136.25		5.931E-01	4.818E-01	8.436E-01	9.954E-02	0.703
		345.85		1.596E-01	3.137E-01	4.801E-01	4.933E-02	0.332
		482.03	*	3.207E-02	7.886E-02	1.314E-01	1.320E-02	0.244
W-181		56.28		1.790E-01	2.654E-01	3.991E-01	3.869E-02	0.449
		57.53		4.568E-01	1.684E-01	2.585E-01	2.519E-02	1.767
		65.20	*	-4.485E-01	2.146E-01	3.024E-01	2.993E-02	-1.483
TA-182		67.75		2.072E-02	6.667E-02	1.068E-01	1.063E-02	0.194
		100.10		4.839E-02	1.590E-01	2.745E-01	3.135E-02	0.176
		152.43		3.007E-01	3.819E-01	6.566E-01	6.785E-02	0.458
		222.10		-5.185E-01	4.837E-01	7.311E-01	7.414E-02	-0.709
		1001.68		-1.510E+00	4.482E+00	7.013E+00	6.453E-01	-0.215
		1121.28		-1.225E-02	2.713E-01	4.502E-01	3.868E-02	-0.027
		1189.05		-1.224E-01	4.395E-01	7.058E-01	5.810E-02	-0.173
		1221.42	*	-1.100E-01	2.226E-01	3.430E-01	2.821E-02	-0.321
		1230.97		-7.722E-02	4.901E-01	7.906E-01	6.499E-02	-0.098
RE-183	+	57.98		1.570E+01	1.593E+00	3.691E-01	3.605E-02	42.526
	+	59.32		9.023E+00	9.154E-01	4.290E-01	4.217E-02	21.032
		67.20		6.361E-02	1.129E-01	1.829E-01	1.817E-02	0.348
		162.32	*	-1.727E-02	1.212E-01	1.991E-01	1.853E-02	-0.087
	+	208.81		2.274E+00	1.872E+00	2.276E+00	2.246E-01	0.999
		291.72		-4.159E-01	1.419E+00	2.083E+00	2.305E-01	-0.200
RE-184	+	57.98		6.000E+01	6.087E+00	1.411E+00	1.378E-01	42.526
	+	59.32		3.446E+01	3.496E+00	1.638E+00	1.610E-01	21.032
		67.20		2.430E-01	4.315E-01	6.987E-01	6.943E-02	0.348
		161.27		-4.271E-01	4.055E-01	6.302E-01	5.937E-02	-0.678
		216.55		1.089E-01	3.807E-01	6.250E-01	6.267E-02	0.174
		252.85	*	-4.411E-03	3.487E-01	5.570E-01	5.974E-02	-0.008
		318.01		4.016E-02	6.605E-01	1.117E+00	1.203E-01	0.036
		792.07		-1.128E+00	1.844E+00	2.883E+00	3.028E-01	-0.391
		903.28		8.909E-01	2.635E+00	3.989E+00	3.775E-01	0.223
		920.93		1.696E-01	1.129E+00	1.848E+00	1.743E-01	0.092
OS-185	+	59.72		2.501E+01	2.537E+00	1.176E+00	1.157E-01	21.271

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		61.14		5.617E-01	1.179E-01	1.842E-01	1.814E-02	3.050
		69.30		-1.174E-02	1.869E-01	2.944E-01	2.941E-02	-0.040
		592.07		7.777E-02	4.484E+00	7.171E+00	7.758E-01	0.011
		646.12	*	3.574E-02	7.544E-02	1.303E-01	1.438E-02	0.274
		717.42		-6.616E-01	1.471E+00	2.351E+00	2.569E-01	-0.281
		874.81		4.455E-01	1.341E+00	2.235E+00	2.177E-01	0.199
		880.27		-7.690E-01	1.788E+00	2.821E+00	2.731E-01	-0.273
RE-188		155.03	*	-6.282E-03	1.905E-01	3.158E-01	3.181E-02	-0.020
		477.96		2.423E-01	6.217E+00	1.015E+01	1.016E+00	0.024
		633.10		4.889E+00	4.559E+00	8.181E+00	8.992E-01	0.598
W-188		63.58		3.018E+01	2.813E+01	4.468E+01	4.411E+00	0.675
		227.08		4.298E+00	1.745E+01	2.850E+01	2.919E+00	0.151
		290.67	*	-1.410E+01	1.173E+01	1.590E+01	1.762E+00	-0.887
IR-192	+	295.96		5.009E-01	2.241E-01	3.053E-01	3.383E-02	1.641
		308.46		-1.617E-02	1.423E-01	2.390E-01	2.612E-02	-0.068
		316.51	*	1.306E-03	4.970E-02	8.395E-02	9.067E-03	0.016
		468.07		-7.738E-02	1.336E-01	2.106E-01	2.203E-02	-0.367
		604.41		-2.848E-01	9.030E-01	1.288E+00	1.882E-01	-0.221
		612.46		-7.414E-01	1.267E+00	1.744E+00	2.084E-01	-0.425
AU-195		65.12		-2.098E-01	1.004E-01	1.414E-01	1.399E-02	-1.483
		66.83		3.312E-02	5.372E-02	8.722E-02	8.660E-03	0.380
	+	75.70		7.400E-01	1.865E-01	2.971E-01	3.029E-02	2.490
		98.88	*	1.475E-02	2.042E-01	3.496E-01	3.967E-02	0.042
		129.76		8.546E-01	3.113E+00	5.292E+00	6.520E-01	0.161
TL-200		367.94	*	1.125E-05	3.113E+00	Half-Life too short		
		579.30		6.922E-05	3.113E+00	Half-Life too short		
		828.27		7.549E-05	3.113E+00	Half-Life too short		
		1205.75		-6.477E-05	3.113E+00	Half-Life too short		
TL-201		68.90		-1.052E-01	7.517E-01	1.181E+00	1.178E-01	-0.089
		70.82		3.336E-01	4.629E-01	6.963E-01	6.984E-02	0.479
		80.30		-8.491E-01	9.930E-01	1.486E+00	1.542E-01	-0.571
		135.34		6.124E+00	7.038E+00	1.220E+01	1.448E+00	0.502
		167.43	*	-1.542E+00	2.056E+00	3.255E+00	2.912E-01	-0.474
TL-202		68.90		-2.773E-02	1.982E-01	3.113E-01	3.106E-02	-0.089
		70.82		8.770E-02	1.217E-01	1.831E-01	1.836E-02	0.479
		80.30		-2.233E-01	2.611E-01	3.908E-01	4.056E-02	-0.571
		439.56	*	1.930E-02	9.430E-02	1.566E-01	1.508E-02	0.123
HG-203		70.83		4.906E-01	6.879E-01	1.032E+00	1.500E-01	0.476
		72.87		6.865E-02	4.244E-01	6.201E-01	8.811E-02	0.111
		82.60		-8.636E-01	1.007E+00	1.366E+00	2.047E-01	-0.632
		279.20	*	4.426E-02	5.512E-02	9.135E-02	1.037E-02	0.484
BI-207		72.80		4.829E-03	1.359E-01	1.973E-01	1.992E-02	0.024
	+	74.97		4.202E-01	1.059E-01	1.561E-01	1.587E-02	2.692
		84.90		-8.741E-02	1.980E-01	2.772E-01	2.935E-02	-0.315
		569.67		-3.992E-02	5.782E-02	8.755E-02	9.365E-03	-0.456
		1063.62	*	5.448E-02	1.134E-01	1.961E-01	1.750E-02	0.278
		1770.23		6.475E-02	5.793E-01	8.573E-01	7.059E-02	0.076
TL-207		81.07		-2.144E-01	1.804E-01	2.641E-01	2.750E-02	-0.812
		83.78		6.349E-02	1.441E-01	1.864E-01	1.964E-02	0.341

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		94.90		4.801E-02	2.074E-01	3.248E-01	3.611E-02	0.148
	+	122.32		1.262E+01	3.949E+00	4.867E+00	6.476E-01	2.593
		144.24		2.527E-01	7.726E-01	1.305E+00	1.556E-01	0.194
		154.21		2.533E-01	4.652E-01	7.916E-01	8.624E-02	0.320
		269.46		2.894E-01	2.801E-01	4.691E-01	5.229E-02	0.617
		323.87	*	2.225E-01	1.088E+00	1.640E+00	3.082E-01	0.136
	+	338.28		6.537E+00	2.533E+00	3.320E+00	4.527E-01	1.969
		445.03		2.929E+00	4.585E+00	7.762E+00	9.992E-01	0.377
PO-209		260.50		2.310E+00	1.418E+01	2.283E+01	2.478E+00	0.101
		262.80		1.965E+00	3.920E+01	6.265E+01	6.827E+00	0.031
		896.60	*	-7.686E+00	1.759E+01	2.766E+01	2.625E+00	-0.278
BI-210		46.50	*	1.015E+00	8.627E-01	1.379E+00	1.422E-01	0.736
PB-210		46.50	*	1.015E+00	8.627E-01	1.379E+00	1.422E-01	0.736
PO-210		46.50	*	1.015E+00	8.618E-01	1.379E+00	1.314E-01	0.736
PB-211		404.84	*	1.561E+00	1.948E+00	2.925E+00	1.836E+00	0.534
		427.08		5.848E-02	3.882E+00	6.393E+00	3.981E+00	0.009
		831.96		5.493E-02	2.518E+00	4.130E+00	2.598E+00	0.013
BI-212	+	727.18	*	5.661E-01	9.627E-01	1.113E+00	1.337E-01	0.509
		785.46		-1.749E-01	3.284E+00	5.357E+00	5.653E-01	-0.033
		1620.62		1.676E-02	1.761E+00	2.942E+00	2.445E-01	0.006
PO-215		81.07		-2.144E-01	1.804E-01	2.641E-01	2.750E-02	-0.812
		83.78		6.349E-02	1.441E-01	1.864E-01	1.964E-02	0.341
		94.90		4.801E-02	2.074E-01	3.248E-01	3.611E-02	0.148
	+	122.32		1.262E+01	3.949E+00	4.867E+00	6.476E-01	2.593
		144.24		2.527E-01	7.726E-01	1.305E+00	1.556E-01	0.194
		154.21		2.533E-01	4.652E-01	7.916E-01	8.624E-02	0.320
		269.46		2.894E-01	2.801E-01	4.691E-01	5.229E-02	0.617
		323.87	*	2.225E-01	1.088E+00	1.640E+00	3.082E-01	0.136
	+	338.28		6.537E+00	2.533E+00	3.320E+00	4.527E-01	1.969
		445.03		2.929E+00	4.585E+00	7.762E+00	9.992E-01	0.377
RN-219		271.23		2.182E-01	3.690E-01	6.001E-01	7.442E-02	0.364
		401.81	*	-7.533E-02	7.147E-01	1.175E+00	1.806E-01	-0.064
RN-220		549.76	*	-2.816E+01	4.803E+01	7.358E+01	7.780E+00	-0.383
RA-223		81.07		-2.144E-01	1.804E-01	2.641E-01	2.750E-02	-0.812
		83.78		6.349E-02	1.441E-01	1.864E-01	1.964E-02	0.341
		94.90		4.801E-02	2.074E-01	3.248E-01	3.611E-02	0.148
	+	122.32		1.262E+01	3.949E+00	4.867E+00	6.476E-01	2.593
		144.24		2.527E-01	7.726E-01	1.305E+00	1.556E-01	0.194
		154.21		2.533E-01	4.652E-01	7.916E-01	8.624E-02	0.320
		269.46		2.894E-01	2.801E-01	4.691E-01	5.229E-02	0.617
		323.87	*	2.225E-01	1.088E+00	1.640E+00	3.082E-01	0.136
	+	338.28		6.537E+00	2.533E+00	3.320E+00	4.527E-01	1.969
		445.03		2.929E+00	4.585E+00	7.762E+00	9.992E-01	0.377
RA-224		240.98	*	1.905E+00	1.209E+00	1.869E+00	1.964E-01	1.019
AC-227		79.80		-8.438E-01	1.366E+00	2.058E+00	4.581E-01	-0.410
		236.00		-5.848E-02	3.571E-01	5.051E-01	6.852E-02	-0.116
		256.20	*	-7.128E-01	5.970E-01	8.654E-01	1.442E-01	-0.824
		286.10		7.882E-01	2.494E+00	4.015E+00	6.002E-01	0.196
		299.80		1.673E+00	2.261E+00	3.688E+00	6.922E-01	0.454

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		304.40		-1.259E+00	2.826E+00	4.652E+00	9.131E-01	-0.271
		334.20		-2.309E+00	3.998E+00	5.611E+00	1.140E+00	-0.412
TH-227		79.80		-8.438E-01	1.367E+00	2.058E+00	4.636E-01	-0.410
	+	94.00		3.172E+00	2.484E+00	3.033E+00	6.931E-01	1.046
		236.00		-5.848E-02	3.571E-01	5.051E-01	6.325E-02	-0.116
		256.20	*	-7.128E-01	6.008E-01	8.654E-01	1.661E-01	-0.824
		286.10		7.882E-01	2.614E+00	4.015E+00	4.039E+00	0.196
		299.80		1.673E+00	2.261E+00	3.688E+00	6.922E-01	0.454
		304.40		-1.259E+00	2.826E+00	4.652E+00	9.131E-01	-0.271
		334.20		-2.309E+00	3.998E+00	5.611E+00	1.140E+00	-0.412
AC-228	+	338.32		1.566E+00	8.649E-01	7.942E-01	3.310E-01	1.971
	+	911.07	*	1.533E+00	5.687E-01	7.359E-01	8.753E-02	2.083
		969.11		5.738E-01	6.711E-01	1.116E+00	2.633E-01	0.514
RA-228	+	338.32		1.566E+00	8.649E-01	7.942E-01	3.310E-01	1.971
	+	911.07	*	1.533E+00	5.687E-01	7.359E-01	8.753E-02	2.083
		969.11		5.738E-01	6.711E-01	1.116E+00	2.633E-01	0.514
TH-229		85.43		-7.532E-02	1.997E-01	2.806E-01	2.978E-02	-0.268
	+	88.47		4.482E+00	5.280E-01	4.430E-01	4.771E-02	10.118
		100.00		6.378E-02	1.719E-01	2.976E-01	3.397E-02	0.214
		193.63	*	1.296E-01	7.069E-01	1.164E+00	1.111E-01	0.111
		210.97		7.400E-01	1.202E+00	1.805E+00	1.790E-01	0.410
PA-231		283.67	*	-1.341E-01	2.429E+00	3.831E+00	6.411E-01	-0.035
		301.29		2.478E-01	8.505E-01	1.459E+00	2.044E-01	0.170
TH-231		81.07		-2.144E-01	1.804E-01	2.641E-01	2.750E-02	-0.812
		83.78		6.349E-02	1.441E-01	1.864E-01	1.964E-02	0.341
		94.90		4.801E-02	2.074E-01	3.248E-01	3.611E-02	0.148
	+	122.32		1.262E+01	3.949E+00	4.867E+00	6.476E-01	2.593
		144.24		2.527E-01	7.726E-01	1.305E+00	1.556E-01	0.194
		154.21		2.533E-01	4.652E-01	7.916E-01	8.624E-02	0.320
		269.46		2.894E-01	2.801E-01	4.691E-01	5.229E-02	0.617
		323.87	*	2.225E-01	1.088E+00	1.640E+00	3.082E-01	0.136
	+	338.28		6.537E+00	2.533E+00	3.320E+00	4.527E-01	1.969
		445.03		2.929E+00	4.585E+00	7.762E+00	9.992E-01	0.377
U-231		84.21		-8.903E-01	2.306E+00	2.819E+00	2.976E-01	-0.316
	+	92.29		1.110E+00	8.403E-01	1.167E+00	1.280E-01	0.951
		95.87	*	1.333E-01	3.577E-01	5.640E-01	6.301E-02	0.236
		108.00		-1.401E-01	7.284E-01	1.228E+00	1.463E-01	-0.114
TH-232	+	338.32		1.566E+00	5.907E-01	7.942E-01	8.278E-02	1.971
	+	911.07	*	1.533E+00	5.687E-01	7.359E-01	8.753E-02	2.083
		969.11		5.738E-01	6.711E-01	1.116E+00	2.633E-01	0.514
PA-233	+	75.28		1.227E+01	3.462E+00	4.557E+00	7.415E-01	2.692
	+	86.59		6.427E+01	1.799E+01	4.467E+00	1.230E+00	14.389
		300.12		5.301E-01	6.344E-01	1.040E+00	1.702E-01	0.510
		311.98	*	4.206E-02	1.011E-01	1.742E-01	1.924E-02	0.241
		340.50		9.423E-01	1.075E+00	1.653E+00	4.055E-01	0.570
		398.62		-4.613E+00	3.851E+00	5.575E+00	1.495E+00	-0.828
		415.76		-8.991E-01	3.054E+00	4.941E+00	1.080E+00	-0.182
PA-234		63.00		9.715E-01	8.438E-01	1.337E+00	2.169E-01	0.727
		94.67		6.000E-02	1.504E-01	2.374E-01	3.381E-02	0.253

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		98.44		-2.584E-02	8.484E-02	1.408E-01	7.924E-02	-0.183
		99.86		2.009E-01	4.368E-01	7.588E-01	8.654E-02	0.265
		111.00		3.461E-02	1.804E-01	3.088E-01	4.566E-02	0.112
		131.20		3.507E-02	1.219E-01	2.071E-01	2.529E-02	0.169
		152.70		5.506E-01	3.869E-01	6.657E-01	1.195E-01	0.827
	+	186.00		2.789E+00	2.576E+00	3.001E+00	9.433E-01	0.929
		226.40		4.724E-01	5.878E-01	9.818E-01	1.404E-01	0.481
		227.20		-5.726E-02	6.378E-01	1.024E+00	1.049E-01	-0.056
		248.90		2.543E-01	1.232E+00	1.992E+00	4.637E-01	0.128
	+	293.70		3.345E+00	1.578E+00	1.919E+00	3.576E-01	1.743
		369.80		-5.963E-01	1.495E+00	2.425E+00	5.391E-01	-0.246
		568.70		-7.290E-01	1.854E+00	2.881E+00	3.080E-01	-0.253
		569.50		-3.485E-01	5.136E-01	7.786E-01	8.327E-02	-0.448
		574.00		1.787E+00	2.919E+00	4.870E+00	5.221E-01	0.367
		699.00		3.432E-01	1.272E+00	2.155E+00	4.367E-01	0.159
		706.10		-3.994E-02	1.897E+00	3.150E+00	1.421E+00	-0.013
		733.00		-9.260E-01	8.973E-01	1.112E+00	2.575E-01	-0.833
		742.81		-1.459E+00	2.869E+00	4.281E+00	2.891E+00	-0.341
		796.30		9.163E-01	1.832E+00	3.089E+00	8.557E-01	0.297
		805.60		-1.570E-01	2.120E+00	3.463E+00	1.080E+00	-0.045
		819.60		1.040E+00	2.687E+00	4.481E+00	1.723E+00	0.232
		826.30		5.073E-01	1.870E+00	3.099E+00	1.397E+00	0.164
		831.60		-7.390E-02	1.296E+00	2.113E+00	6.409E-01	-0.035
		876.40		1.218E+00	2.348E+00	3.373E+00	3.471E+00	0.361
		880.51		-7.923E-02	6.684E-01	1.079E+00	1.044E-01	-0.073
		883.24		7.858E-02	6.970E-01	1.140E+00	7.682E-01	0.069
		899.00		5.323E-01	1.983E+00	3.262E+00	1.432E+00	0.163
		925.00		-6.812E-01	3.129E+00	4.997E+00	4.709E-01	-0.136
		926.50		1.603E-01	4.775E-01	7.874E-01	2.013E-01	0.204
		946.00	*	4.640E-01	7.690E-01	1.286E+00	2.460E-01	0.361
		949.00		3.268E-02	1.168E+00	1.892E+00	1.773E-01	0.017
		980.50		2.802E-01	1.731E+00	2.823E+00	2.619E-01	0.099
		1394.10		-6.889E-02	1.455E+00	2.348E+00	1.527E+00	-0.029
PA-234M		766.42		1.942E+01	2.314E+01	3.675E+01	1.879E+01	0.528
		1001.03	*	-3.830E+00	1.042E+01	1.626E+01	1.703E+00	-0.236
TH-234		63.29	*	8.331E-01	7.441E-01	1.169E+00	2.176E-01	0.713
	+	92.38		8.208E-01	6.351E-01	8.664E-01	1.674E-01	0.947
U-235	+	89.95		1.933E+00	1.759E+00	1.774E+00	5.598E-01	1.090
	+	93.35		9.868E-01	7.923E-01	1.031E+00	2.975E-01	0.957
		105.00		2.300E-01	1.017E+00	1.745E+00	5.390E-01	0.132
		143.76	*	-3.664E-02	2.381E-01	3.933E-01	7.426E-02	-0.093
		163.35		-3.875E-01	5.740E-01	9.087E-01	1.758E-01	-0.426
	+	185.71		1.033E-01	9.024E-02	1.105E-01	1.035E-02	0.935
		205.31		-2.097E-03	7.942E-01	1.151E+00	2.261E-01	-0.002
NP-236		94.67		4.677E-02	1.141E-01	1.803E-01	2.001E-02	0.259
		98.44		-1.960E-02	6.322E-02	1.064E-01	1.205E-02	-0.184
		111.00		2.618E-02	1.365E-01	2.336E-01	2.830E-02	0.112
		160.31	*	-9.058E-02	9.386E-02	1.469E-01	1.399E-02	-0.617
U-238		63.29	*	8.331E-01	7.441E-01	1.169E+00	2.176E-01	0.713

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		8.208E-01	6.216E-01	8.664E-01	9.509E-02	0.947
NP-239		99.55		2.213E-02	1.472E-01	2.528E-01	2.879E-02	0.088
		117.00	*	-1.414E-01	2.149E-01	3.344E-01	4.189E-02	-0.423
	+	209.75		1.909E+00	1.572E+00	1.903E+00	1.882E-01	1.003
		228.18		-2.335E-01	3.378E-01	5.231E-01	5.368E-02	-0.446
		277.60		-5.312E-03	2.774E-01	4.394E-01	4.892E-02	-0.012
		334.30		-1.297E+00	2.255E+00	3.182E+00	3.340E-01	-0.407
CM-243		99.55		2.276E-02	1.514E-01	2.600E-01	2.961E-02	0.088
		103.76	*	-4.351E-02	9.062E-02	1.508E-01	1.757E-02	-0.288
		117.00		-1.454E-01	2.210E-01	3.439E-01	4.308E-02	-0.423
	+	209.75		1.881E+00	1.549E+00	1.876E+00	1.854E-01	1.003
		228.18		-2.359E-01	3.412E-01	5.283E-01	5.422E-02	-0.446
		277.60		-5.353E-03	2.795E-01	4.428E-01	4.930E-02	-0.012
AM-246		798.80		-4.535E-02	2.978E-01	4.842E-01	5.061E-02	-0.094
		1036.00		-1.971E-01	6.541E-01	1.073E+00	9.718E-02	-0.184
		1062.04		1.271E-02	4.830E-01	8.098E-01	7.234E-02	0.016
		1078.86	*	-1.277E-03	3.001E-01	5.013E-01	4.434E-02	-0.003
CM-247		278.00		5.392E-01	1.136E+00	1.850E+00	2.062E-01	0.291
		287.40		1.060E+00	1.951E+00	3.183E+00	3.534E-01	0.333
		402.60	*	1.602E-02	6.549E-02	1.098E-01	1.012E-02	0.146
CF-249		252.85		-1.698E-02	1.343E+00	2.145E+00	2.300E-01	-0.008
		333.44		-3.139E-01	3.053E-01	4.137E-01	4.349E-02	-0.759
		387.95	*	-4.692E-02	7.192E-02	1.148E-01	1.056E-02	-0.409
CF-251		176.60	*	-3.401E-02	1.612E-01	2.621E-01	2.400E-02	-0.130
		227.00		1.531E-01	5.584E-01	9.133E-01	9.351E-02	0.168
		285.00		-1.122E+00	2.820E+00	4.347E+00	4.835E-01	-0.258

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029812    *
* Acquisition date : 10-FEB-2010 20:23:01 Detector SN#     :               *
* Detector ID        : GAM25               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 01:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 01:00:01.92     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  2-FEB-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202029812          Analyst initials: RXF2          *
* Batch Number       : 947531               Sample Quantity : 1.5544E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	1.796E-01	5.478E-02	5.120E-02	0.000E+00
CO-60	6.447E+00	6.082E-01	7.925E-02	0.000E+00
CD-109	3.309E+01	3.820E+00	1.289E+00	0.000E+00
SN-126	3.283E+00	3.790E-01	1.277E-01	0.000E+00
BA-137M	5.564E+00	6.537E-01	1.109E-01	0.000E+00
CS-137	5.882E+00	6.917E-01	1.172E-01	0.000E+00
TL-208	3.129E-01	1.149E-01	1.243E-01	0.000E+00
BI-211	2.476E+00	7.418E-01	5.652E-01	0.000E+00
PB-212	9.808E-01	1.977E-01	1.575E-01	0.000E+00
PO-212	9.808E-01	1.977E-01	1.575E-01	0.000E+00
BI-214	6.234E-01	2.239E-01	2.054E-01	0.000E+00
PB-214	8.613E-01	2.618E-01	1.971E-01	0.000E+00
PO-214	8.613E-01	2.618E-01	1.971E-01	0.000E+00
PO-216	9.808E-01	1.977E-01	1.575E-01	0.000E+00
PO-218	8.613E-01	2.618E-01	1.971E-01	0.000E+00
RA-226	6.234E-01	2.239E-01	2.054E-01	0.000E+00
TH-228	9.895E-01	1.995E-01	1.589E-01	0.000E+00
TH-230	6.234E-01	2.239E-01	2.054E-01	0.000E+00
U-234	6.234E-01	2.239E-01	2.054E-01	0.000E+00
NP-237	9.641E+00	2.245E+00	3.732E-01	0.000E+00
AM-241	1.370E+01	1.434E+00	1.686E-01	0.000E+00
AM-243	2.342E-01	5.784E-02	7.025E-02	0.000E+00
ANH-511	1.467E-01	1.180E-01	8.767E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.436E-01	6.439E-01	1.126E+00	0.000E+00	NOT IDENT.
NA-22	-3.863E-02	4.963E-02	7.356E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.165E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	5.772E-03	4.222E-02	7.348E-02	0.000E+00	NOT IDENT.

K-40	7.812E-01	5.237E-01	1.090E+00	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.509E-02	5.853E-02	0.000E+00	FAIL ABUN
SC-46	6.630E-02	9.167E-02	1.626E-01	0.000E+00	NOT IDENT.
V-48	-6.465E-04	1.236E-01	2.070E-01	0.000E+00	NOT IDENT.
CR-51	-4.886E-03	4.629E-01	8.362E-01	0.000E+00	NOT IDENT.
MN-52	1.061E-01	1.379E-01	2.615E-01	0.000E+00	FAIL ABUN
MN-54	-8.566E-02	7.702E-02	1.204E-01	0.000E+00	NOT IDENT.
CO-56	-5.789E-02	8.097E-02	1.307E-01	0.000E+00	NOT IDENT.
CO-58	-3.151E-03	7.788E-02	1.334E-01	0.000E+00	NOT IDENT.
FE-59	-1.367E-01	1.734E-01	2.816E-01	0.000E+00	NOT IDENT.
ZN-65	-7.849E-02	1.926E-01	3.234E-01	0.000E+00	NOT IDENT.
GE-68	5.328E-01	2.563E+00	4.511E+00	0.000E+00	NOT IDENT.
AS-73	2.358E-01	4.894E-01	8.237E-01	0.000E+00	NOT IDENT.
AS-74	3.751E-02	1.316E-01	2.263E-01	0.000E+00	NOT IDENT.
SE-75	2.030E-02	6.182E-02	1.081E-01	0.000E+00	FAIL ABUN
BR-77	-3.445E-01	3.016E+00	5.121E+00	0.000E+00	FAIL ABUN
SR-82	-2.632E-01	6.088E-01	1.016E+00	0.000E+00	NOT IDENT.
RB-83	-5.791E-02	1.200E-01	1.981E-01	0.000E+00	NOT IDENT.
RB-84	5.609E-02	1.387E-01	2.423E-01	0.000E+00	NOT IDENT.
KR-85	1.560E+01	1.417E+01	2.316E+01	0.000E+00	NOT IDENT.
SR-85	7.487E-02	6.801E-02	1.112E-01	0.000E+00	NOT IDENT.
RB-86	5.769E-01	1.308E+00	2.339E+00	0.000E+00	NOT IDENT.
Y-88	-3.273E-02	4.448E-02	5.985E-02	0.000E+00	NOT IDENT.
ZR-88	5.886E-03	5.009E-02	8.913E-02	0.000E+00	NOT IDENT.
Y-91	-1.728E+01	2.280E+01	3.619E+01	0.000E+00	NOT IDENT.
NB-94	-3.492E-02	6.086E-02	1.018E-01	0.000E+00	NOT IDENT.
NB-95	3.202E-02	7.312E-02	1.301E-01	0.000E+00	NOT IDENT.
NB-95M	-8.375E-02	1.748E-01	2.608E-01	0.000E+00	NOT IDENT.
ZR-95	-6.572E-02	1.227E-01	2.043E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	4.401E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.798E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	6.807E+00	4.733E+00	8.788E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.169E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.349E-02	4.504E-02	8.070E-02	0.000E+00	NOT IDENT.
RH-102	2.193E-02	6.128E-02	1.080E-01	0.000E+00	NOT IDENT.
RU-103	-6.615E-02	7.109E-02	1.137E-01	0.000E+00	FAIL ABUN
RH-106	-2.218E-01	5.564E-01	9.575E-01	0.000E+00	FAIL ABUN
RU-106	-2.218E-01	5.559E-01	9.575E-01	0.000E+00	FAIL ABUN
AG-108M	2.042E-02	6.330E-02	1.126E-01	0.000E+00	NOT IDENT.
AG-110M	9.874E-02	6.889E-02	1.187E-01	0.000E+00	NOT IDENT.
IN-111	-2.263E-01	3.382E-01	5.621E-01	0.000E+00	NOT IDENT.
IN-113M	-2.608E-02	7.406E-02	1.283E-01	0.000E+00	NOT IDENT.
SN-113	-2.608E-02	7.406E-02	1.283E-01	0.000E+00	NOT IDENT.
IN-114M	-8.699E-02	2.352E-01	3.637E-01	0.000E+00	NOT IDENT.
CD-115	-2.604E+00	2.723E+00	4.293E+00	0.000E+00	NOT IDENT.
SN-117M	4.071E-02	4.614E-02	8.680E-02	0.000E+00	NOT IDENT.
SB-122	1.391E-01	7.092E-01	1.220E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.288E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.865E-02	3.144E-02	5.923E-02	0.000E+00	NOT IDENT.
I-124	7.357E-02	4.210E-01	7.380E-01	0.000E+00	NOT IDENT.
SB-124	-9.636E-02	9.270E-02	1.148E-01	0.000E+00	NOT IDENT.
SB-125	2.001E-02	1.710E-01	3.014E-01	0.000E+00	NOT IDENT.
TE-125M	3.559E+00	8.283E+00	1.578E+01	0.000E+00	NOT IDENT.
I-126	7.602E-02	2.582E-01	4.061E-01	0.000E+00	NOT IDENT.
SB-126	-1.389E-01	1.955E-01	2.883E-01	0.000E+00	FAIL ABUN
SB-127	-2.661E-01	7.363E-01	1.253E+00	0.000E+00	NOT IDENT.
XE-127	3.744E-03	5.431E-02	9.622E-02	0.000E+00	NOT IDENT.
I-131	-8.957E-02	1.147E-01	1.950E-01	0.000E+00	NOT IDENT.
TE-132	-1.866E-01	2.665E-01	4.451E-01	0.000E+00	FAIL ABUN
BA-133	-2.191E-04	7.783E-02	1.224E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.860E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.142E-02	9.041E-02	1.615E-01	0.000E+00	NOT IDENT.
CS-135	-1.820E-01	2.383E-01	3.885E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.056E+08	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.679E-02	1.627E-01	2.935E-01	0.000E+00	NOT IDENT.
CE-139	-6.865E-03	3.462E-02	6.175E-02	0.000E+00	NOT IDENT.
BA-140	-1.678E-01	3.296E-01	5.322E-01	0.000E+00	NOT IDENT.
LA-140	-1.924E-02	8.344E-02	1.372E-01	0.000E+00	FAIL ABUN
CE-141	1.541E-04	6.159E-02	1.124E-01	0.000E+00	NOT IDENT.
CE-143	1.109E+01	8.922E+00	1.502E+01	0.000E+00	FAIL ABUN
CE-144	-3.929E-01	2.432E-01	3.963E-01	0.000E+00	NOT IDENT.
PM-144	-2.031E-02	5.944E-02	1.013E-01	0.000E+00	NOT IDENT.
PR-144	-1.372E+00	4.014E+00	6.842E+00	0.000E+00	NOT IDENT.
PM-146	-5.170E-02	8.315E-02	1.389E-01	0.000E+00	NOT IDENT.
ND-147	3.293E-01	6.639E-01	1.171E+00	0.000E+00	FAIL ABUN
PM-149	4.595E+00	2.021E+01	3.481E+01	0.000E+00	NOT IDENT.
EU-152	6.353E-02	1.603E-01	2.842E-01	0.000E+00	FAIL ABUN
GD-153	-4.446E-02	6.806E-02	1.246E-01	0.000E+00	NOT IDENT.

EU-154	-7.643E-02	1.339E-01	2.056E-01	0.000E+00	FAIL ABUN
EU-155	4.436E-02	1.017E-01	1.944E-01	0.000E+00	FAIL ABUN
TB-160	-3.315E-01	3.191E-01	5.007E-01	0.000E+00	FAIL ABUN
HO-166M	2.742E-02	1.120E-01	1.987E-01	0.000E+00	FAIL ABUN
TM-171	2.649E+00	1.640E+01	2.916E+01	0.000E+00	FAIL ABUN
LU-176	2.185E-02	3.753E-02	6.996E-02	0.000E+00	FAIL ABUN
LU-177	1.406E+00	1.134E+00	1.474E+00	0.000E+00	FAIL ABUN
LU-177M	-1.396E-01	3.023E-01	5.168E-01	0.000E+00	FAIL ABUN
HF-181	3.207E-02	7.728E-02	1.366E-01	0.000E+00	NOT IDENT.
W-181	-4.485E-01	2.103E-01	3.307E-01	0.000E+00	NOT IDENT.
TA-182	-1.100E-01	2.181E-01	3.477E-01	0.000E+00	NOT IDENT.
RE-183	-1.727E-02	1.188E-01	2.129E-01	0.000E+00	FAIL ABUN
RE-184	-4.411E-03	3.418E-01	5.890E-01	0.000E+00	FAIL ABUN
OS-185	3.574E-02	7.393E-02	1.345E-01	0.000E+00	FAIL ABUN
RE-188	-6.282E-03	1.867E-01	3.381E-01	0.000E+00	NOT IDENT.
W-188	-1.410E+01	1.150E+01	1.675E+01	0.000E+00	NOT IDENT.
IR-192	1.306E-03	4.871E-02	8.825E-02	0.000E+00	FAIL ABUN
AU-195	1.475E-02	2.001E-01	3.785E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.391E+01	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.542E+00	2.015E+00	3.478E+00	0.000E+00	NOT IDENT.
TL-202	1.930E-02	9.242E-02	1.632E-01	0.000E+00	NOT IDENT.
HG-203	4.426E-02	5.402E-02	9.634E-02	0.000E+00	NOT IDENT.
BI-207	5.448E-02	1.112E-01	1.995E-01	0.000E+00	FAIL ABUN
TL-207	2.225E-01	1.066E+00	1.723E+00	0.000E+00	FAIL ABUN
PO-209	-7.686E+00	1.724E+01	2.828E+01	0.000E+00	NOT IDENT.
BI-210	1.015E+00	8.454E-01	1.521E+00	0.000E+00	NOT IDENT.
PB-210	1.015E+00	8.454E-01	1.521E+00	0.000E+00	NOT IDENT.
PO-210	1.015E+00	8.445E-01	1.521E+00	0.000E+00	NOT IDENT.
PB-211	1.561E+00	1.909E+00	3.055E+00	0.000E+00	NOT IDENT.
BI-212	5.661E-01	9.435E-01	1.144E+00	0.000E+00	FAIL ABUN
PO-215	2.225E-01	1.066E+00	1.723E+00	0.000E+00	FAIL ABUN
RN-219	-7.533E-02	7.004E-01	1.227E+00	0.000E+00	NOT IDENT.
RN-220	-2.816E+01	4.707E+01	7.623E+01	0.000E+00	NOT IDENT.
RA-223	2.225E-01	1.066E+00	1.723E+00	0.000E+00	FAIL ABUN
RA-224	1.905E+00	1.185E+00	1.979E+00	0.000E+00	NOT IDENT.
AC-227	-7.128E-01	5.850E-01	9.147E-01	0.000E+00	NOT IDENT.
TH-227	-7.128E-01	5.888E-01	9.147E-01	0.000E+00	FAIL ABUN
AC-228	0.000E+00	5.574E-01	7.521E-01	0.000E+00	FAIL ABUN
RA-228	0.000E+00	5.574E-01	7.521E-01	0.000E+00	FAIL ABUN
TH-229	1.296E-01	6.927E-01	1.240E+00	0.000E+00	FAIL ABUN
PA-231	-1.341E-01	2.380E+00	4.038E+00	0.000E+00	NOT IDENT.
TH-231	2.225E-01	1.066E+00	1.723E+00	0.000E+00	FAIL ABUN
U-231	1.333E-01	3.506E-01	6.111E-01	0.000E+00	FAIL ABUN
TH-232	0.000E+00	5.574E-01	7.521E-01	0.000E+00	FAIL ABUN
PA-233	4.206E-02	9.910E-02	1.832E-01	0.000E+00	FAIL ABUN
PA-234	4.640E-01	7.536E-01	1.313E+00	0.000E+00	FAIL ABUN
PA-234M	-3.830E+00	1.021E+01	1.657E+01	0.000E+00	NOT IDENT.
TH-234	8.331E-01	7.292E-01	1.279E+00	0.000E+00	FAIL ABUN
U-235	-3.664E-02	2.333E-01	4.219E-01	0.000E+00	FAIL ABUN
NP-236	-9.058E-02	9.198E-02	1.571E-01	0.000E+00	NOT IDENT.
U-238	8.331E-01	7.292E-01	1.279E+00	0.000E+00	FAIL ABUN
NP-239	-1.414E-01	2.106E-01	3.605E-01	0.000E+00	FAIL ABUN
CM-243	-4.351E-02	8.881E-02	1.631E-01	0.000E+00	FAIL ABUN
AM-246	-1.277E-03	2.941E-01	5.099E-01	0.000E+00	NOT IDENT.
CM-247	1.602E-02	6.418E-02	1.147E-01	0.000E+00	NOT IDENT.
CF-249	-4.692E-02	7.048E-02	1.200E-01	0.000E+00	NOT IDENT.
CF-251	-3.401E-02	1.579E-01	2.797E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:23:29.40

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029812.CNF;1
Sample date       : 2-FEB-2010 00:00:00. Acquisition date : 10-FEB-2010 20:23:01
Sample ID         : G1202029812          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.92  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : RXF2
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947531               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	257	85.51*	8.270E+00	1.756E-01	1.796E-01	31.12
	136.48	------	10.60	7.796E+00	------ Line Not Found		------
CO-60	1173.22	1814	100.00	1.343E+00	6.526E+00	6.547E+00	9.69
	1332.49	1598	100.00*	1.201E+00	6.427E+00	6.447E+00	9.63
CD-109	88.03	2360	3.72*	9.384E+00	3.265E+01	3.309E+01	11.78
SN-126	64.28	------	9.60	9.782E+00	------ Line Not Found		------
	86.94	2360	8.90	9.384E+00	1.365E+01	1.365E+01	42.13
	87.57	2360	37.00*	9.384E+00	3.283E+00	3.283E+00	11.78
BA-137M	661.65	2312	89.98*	2.231E+00	5.561E+00	5.564E+00	11.99
CS-137	661.65	2312	85.12*	2.231E+00	5.878E+00	5.882E+00	12.00
TL-208	277.35	------	6.80	4.738E+00	------ Line Not Found		------
	510.84	85	21.60	2.808E+00	6.793E-01	6.793E-01	82.48
	583.14	136	84.20*	2.497E+00	3.129E-01	3.129E-01	37.46
	860.37	------	12.46	1.765E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	9.724E+00	------ Line Not Found		------
	351.07	258	12.94*	3.887E+00	2.476E+00	2.476E+00	30.57
PB-212	74.81	310	10.70	9.694E+00	1.445E+00	1.445E+00	26.88
	77.11	468	18.00	9.653E+00	1.300E+00	1.300E+00	19.19
	87.30	2360	8.00	9.384E+00	1.518E+01	1.518E+01	15.45
	238.63	484	44.60*	5.341E+00	9.808E-01	9.808E-01	20.57
	300.09	------	3.41	4.442E+00	------ Line Not Found		------
PO-212	74.81	310	10.70	9.694E+00	1.445E+00	1.445E+00	26.88
	77.11	468	18.00	9.653E+00	1.300E+00	1.300E+00	19.19
	87.30	2360	8.00	9.384E+00	1.518E+01	1.518E+01	15.45
	115.19	------	0.60	8.498E+00	------ Line Not Found		------
	238.63	484	44.60*	5.341E+00	9.808E-01	9.808E-01	20.57
	300.09	------	3.41	4.442E+00	------ Line Not Found		------
BI-214	609.31	143	46.30*	2.401E+00	6.234E-01	6.234E-01	36.64
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	33	15.80	9.413E-01	1.069E+00	1.069E+00	49.24
PB-214	74.81	310	6.21	9.694E+00	2.489E+00	2.489E+00	26.27
	77.11	468	10.50	9.653E+00	2.228E+00	2.228E+00	20.65

Sample ID : G1202029812 Acquisition date : 10-FEB-2010 20:23:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	2360	4.67	9.384E+00	2.601E+01	2.601E+01	14.08
	241.98	------	7.49	5.281E+00	------ Line Not Found		------
	295.21	125	19.20	4.505E+00	6.968E-01	6.968E-01	45.16
	351.92	258	37.20*	3.887E+00	8.613E-01	8.613E-01	31.01
PO-214	74.81	310	6.21	9.694E+00	2.489E+00	2.489E+00	26.27
	77.11	468	10.50	9.653E+00	2.228E+00	2.228E+00	20.65
	87.30	2360	4.67	9.384E+00	2.601E+01	2.601E+01	14.08
	241.98	------	7.49	5.281E+00	------ Line Not Found		------
	295.21	125	19.20	4.505E+00	6.968E-01	6.968E-01	45.16
	351.92	258	37.20*	3.887E+00	8.613E-01	8.613E-01	31.01
PO-216	74.81	310	10.70	9.694E+00	1.445E+00	1.445E+00	26.88
	77.11	468	18.00	9.653E+00	1.300E+00	1.300E+00	19.19
	87.30	2360	8.00	9.384E+00	1.518E+01	1.518E+01	15.45
	238.63	484	44.60*	5.341E+00	9.808E-01	9.808E-01	20.57
	300.09	------	3.41	4.442E+00	------ Line Not Found		------
PO-218	74.81	310	6.21	9.694E+00	2.489E+00	2.489E+00	26.27
	77.11	468	10.50	9.653E+00	2.228E+00	2.228E+00	20.65
	87.30	2360	4.67	9.384E+00	2.601E+01	2.601E+01	14.08
	241.98	------	7.49	5.281E+00	------ Line Not Found		------
	295.21	125	19.20	4.505E+00	6.968E-01	6.968E-01	45.16
	351.92	258	37.20*	3.887E+00	8.613E-01	8.613E-01	31.01
RA-226	609.31	143	46.30*	2.401E+00	6.234E-01	6.234E-01	36.64
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	33	15.80	9.413E-01	1.069E+00	1.069E+00	49.24
TH-228	74.81	310	10.70	9.694E+00	1.445E+00	1.457E+00	25.23
	77.11	468	18.00	9.653E+00	1.300E+00	1.311E+00	19.19
	87.30	2360	8.00	9.384E+00	1.518E+01	1.532E+01	11.78
	238.63	484	44.60*	5.341E+00	9.808E-01	9.895E-01	20.57
	300.09	------	3.41	4.442E+00	------ Line Not Found		------
TH-230	609.31	143	46.30*	2.401E+00	6.234E-01	6.234E-01	36.64
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	33	15.80	9.413E-01	1.069E+00	1.069E+00	49.24
U-234	609.31	143	46.30*	2.401E+00	6.234E-01	6.234E-01	36.64
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	33	15.80	9.413E-01	1.069E+00	1.069E+00	49.24
NP-237	86.50	2360	12.60*	9.384E+00	9.641E+00	9.641E+00	23.76
	95.87	------	2.60	9.143E+00	------ Line Not Found		------
AM-241	59.54	9916	35.90*	9.740E+00	1.370E+01	1.370E+01	10.68
AM-243	74.67	310	66.00*	9.694E+00	2.342E-01	2.342E-01	25.20
	86.72	2360	0.34	9.384E+00	3.615E+02	3.615E+02	11.78
	117.66	------	0.55	8.415E+00	------ Line Not Found		------
	142.18	------	0.13	7.617E+00	------ Line Not Found		------
ANH-511	511.00	85	100.00*	2.808E+00	1.467E-01	1.467E-01	82.06

Flag: "*" = Keyline

Sample ID : G1202029812 Acquisition date : 10-FEB-2010 20:23:01

Total number of lines in spectrum 24
Number of unidentified lines 0
Number of lines tentatively identified by NID 24 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	1.756E-01	1.796E-01	0.559E-01	31.12	
CO-60	5.27Y	1.00	6.427E+00	6.447E+00	0.621E+00	9.63	
CD-109	464.00D	1.01	3.265E+01	3.309E+01	0.390E+01	11.78	
SN-126	1.00E+05Y	1.00	3.283E+00	3.283E+00	0.387E+00	11.78	
BA-137M	30.17Y	1.00	5.561E+00	5.564E+00	0.667E+00	11.99	
CS-137	30.17Y	1.00	5.878E+00	5.882E+00	0.706E+00	12.00	
TL-208	1.41E+10Y	1.00	3.129E-01	3.129E-01	1.172E-01	37.46	
BI-211	7.04E+08Y	1.00	2.476E+00	2.476E+00	0.757E+00	30.57	
PB-212	1.41E+10Y	1.00	9.808E-01	9.808E-01	2.018E-01	20.57	
PO-212	1.41E+10Y	1.00	9.808E-01	9.808E-01	2.018E-01	20.57	
BI-214	1600.00Y	1.00	6.234E-01	6.234E-01	2.284E-01	36.64	
PB-214	1600.00Y	1.00	8.613E-01	8.613E-01	2.671E-01	31.01	
PO-214	1600.00Y	1.00	8.613E-01	8.613E-01	2.671E-01	31.01	
PO-216	1.41E+10Y	1.00	9.808E-01	9.808E-01	2.018E-01	20.57	
PO-218	1600.00Y	1.00	8.613E-01	8.613E-01	2.671E-01	31.01	
RA-226	1600.00Y	1.00	6.234E-01	6.234E-01	2.284E-01	36.64	
TH-228	1.91Y	1.01	9.808E-01	9.895E-01	2.035E-01	20.57	
TH-230	4.47E+09Y	1.00	6.234E-01	6.234E-01	2.284E-01	36.64	
U-234	4.47E+09Y	1.00	6.234E-01	6.234E-01	2.284E-01	36.64	
NP-237	2.14E+06Y	1.00	9.641E+00	9.641E+00	2.291E+00	23.76	
AM-241	432.20Y	1.00	1.370E+01	1.370E+01	0.146E+01	10.68	
AM-243	7380.00Y	1.00	2.342E-01	2.342E-01	0.590E-01	25.20	
ANH-511	1.00E+09Y	1.00	1.467E-01	1.467E-01	1.204E-01	82.06	
			---	---			
	Total Activity :		8.949E+01	8.996E+01			
	Grand Total Activity :		8.949E+01	8.996E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202029812 Acquisition date : 10-FEB-2010 20:23:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	49.48	286	1427	1.95	98.51	95	9	7.94E-02	48.9	9.39E+00	T
4	89.84	101	232	0.92	179.24	170	12	2.80E-02	85.3	9.33E+00	T
0	92.78	85	304	1.47	185.12	182	7	2.36E-02	74.9	9.24E+00	T
0	185.84	74	281	0.79	371.21	367	9	2.06E-02	86.9	6.42E+00	T
0	209.20	76	269	1.19	417.92	414	9	2.10E-02	81.7	5.90E+00	T
0	327.30	54	139	1.32	654.11	651	8	1.51E-02	80.1	4.13E+00	T
0	338.14	149	162	1.72	675.80	671	10	4.13E-02	36.3	4.02E+00	T
0	726.95	28	137	1.55	1453.38	1448	12	7.88E-03	****	2.05E+00	T
0	911.10	148	115	1.86	1821.68	1814	14	4.10E-02	35.1	1.68E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 21:23:34.89

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202029812.CNF;1   *
* Acquisition date : 10-FEB-2010 20:23:01  Detector SN#     :                 *
* Detector ID      : GAM25                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 01:00:01.92         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 2-FEB-2010 00:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G1202029812           Analyst initials: RXF2             *
* Batch Number     : 947531                Sample Quantity : 1.55440E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	1.796E-01	5.590E-02	4.754E-02	6.131E-03	3.778
CO-60	6.447E+00	6.207E-01	7.837E-02	6.365E-03	82.261
CD-109	3.309E+01	3.898E+00	1.187E+00	1.276E-01	27.868
SN-126	3.283E+00	3.868E-01	1.176E-01	1.261E-02	27.926
BA-137M	5.564E+00	6.671E-01	1.076E-01	1.192E-02	51.724
CS-137	5.882E+00	7.059E-01	1.137E-01	1.261E-02	51.724
TL-208	3.129E-01	1.172E-01	1.201E-01	1.354E-02	2.604
BI-211	2.476E+00	7.569E-01	5.391E-01	5.681E-02	4.593
PB-212	9.808E-01	2.018E-01	1.487E-01	1.693E-02	6.594
PO-212	9.808E-01	2.018E-01	1.487E-01	1.693E-02	6.594
BI-214	6.234E-01	2.284E-01	1.988E-01	2.399E-02	3.136
PB-214	8.613E-01	2.671E-01	1.880E-01	2.208E-02	4.581
PO-214	8.613E-01	2.671E-01	1.880E-01	2.208E-02	4.581
PO-216	9.808E-01	2.018E-01	1.487E-01	1.693E-02	6.594
PO-218	8.613E-01	2.671E-01	1.880E-01	2.208E-02	4.581
RA-226	6.234E-01	2.284E-01	1.988E-01	2.399E-02	3.136
TH-228	9.895E-01	2.035E-01	1.501E-01	1.708E-02	6.594
TH-230	6.234E-01	2.284E-01	1.988E-01	2.399E-02	3.136

Sample ID : G1202029812 Acquisition date : 10-FEB-2010 20:23:01

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-234	6.234E-01	2.284E-01	1.988E-01	2.399E-02	3.136
NP-237	9.641E+00	2.291E+00	3.436E-01	7.982E-02	28.059
AM-241	1.370E+01	1.463E+00	1.539E-01	1.599E-02	89.023
AM-243	2.342E-01	5.902E-02	6.445E-02	6.545E-03	3.634
ANH-511	1.467E-01	1.204E-01	8.446E-02	8.693E-03	1.737

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.436E-01		6.571E-01	1.083E+00	1.147E-01	0.133
NA-22	-3.863E-02		5.065E-02	7.266E-02	5.958E-03	-0.532
NA-24	-3.246E-04		4.166E-04	Half-Life too short		
AL-26	5.772E-03		4.308E-02	7.330E-02	6.007E-03	0.079
K-40	7.812E-01		5.344E-01	1.080E+00	9.200E-02	0.723
TI-44	2.398E-01	+	4.601E-02	5.375E-02	5.536E-03	4.460
SC-46	6.630E-02		9.355E-02	1.590E-01	1.522E-02	0.417
V-48	-6.465E-04		1.261E-01	2.030E-01	1.881E-02	-0.003
CR-51	-4.886E-03		4.724E-01	7.956E-01	8.835E-02	-0.006
MN-52	1.061E-01		1.407E-01	2.591E-01	2.135E-02	0.410
MN-54	-8.566E-02		7.859E-02	1.175E-01	1.192E-02	-0.729
CO-56	-5.789E-02		8.262E-02	1.277E-01	1.281E-02	-0.453
CO-58	-3.151E-03		7.947E-02	1.301E-01	1.350E-02	-0.024
FE-59	-1.367E-01		1.769E-01	2.770E-01	2.609E-02	-0.494
ZN-65	-7.849E-02		1.966E-01	3.183E-01	2.749E-02	-0.247
GE-68	5.328E-01		2.615E+00	4.435E+00	3.926E-01	0.120
AS-73	2.358E-01		4.994E-01	7.496E-01	7.195E-02	0.315
AS-74	3.751E-02		1.343E-01	2.189E-01	2.372E-02	0.171
SE-75	2.030E-02		6.308E-02	1.024E-01	1.122E-02	0.198
BR-77	-3.445E-01		3.078E+00	4.935E+00	5.117E-01	-0.070
SR-82	-2.632E-01		6.212E-01	9.896E-01	1.050E-01	-0.266
RB-83	-5.791E-02		1.225E-01	1.910E-01	1.979E-02	-0.303
RB-84	5.609E-02		1.415E-01	2.369E-01	2.290E-02	0.237
KR-85	1.560E+01		1.446E+01	2.232E+01	2.302E+00	0.699
SR-85	7.487E-02		6.940E-02	1.071E-01	1.105E-02	0.699
RB-86	5.769E-01		1.335E+00	2.299E+00	2.036E-01	0.251
Y-88	-3.273E-02		4.538E-02	5.974E-02	4.882E-03	-0.548
ZR-88	5.886E-03		5.111E-02	8.526E-02	7.761E-03	0.069
Y-91	-1.728E+01		2.327E+01	3.569E+01	2.937E+00	-0.484
NB-94	-3.492E-02		6.210E-02	9.893E-02	1.086E-02	-0.353
NB-95	3.202E-02		7.461E-02	1.267E-01	1.354E-02	0.253
NB-95M	-8.375E-02		1.784E-01	2.462E-01	2.822E-02	-0.340
ZR-95	-6.572E-02		1.252E-01	1.989E-01	2.277E-02	-0.331
NB-97	9.284E-04		2.245E-04	Half-Life too short		
ZR-97	6.671E-03		3.468E-03	Half-Life too short		
MO-99	6.807E+00		4.829E+00	8.551E+00	1.414E+00	0.796
TC-99M	4.736E+02		5.964E+02	Half-Life too short		
RH-101	1.349E-02		4.596E-02	7.585E-02	7.308E-03	0.178

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-102	2.193E-02		6.253E-02	1.039E-01	1.037E-02	0.211
RU-103	-6.615E-02		7.255E-02	1.095E-01	1.660E-02	-0.604
RH-106	-2.218E-01		5.677E-01	9.273E-01	1.388E-01	-0.239
RU-106	-2.218E-01		5.673E-01	9.273E-01	1.015E-01	-0.239
AG-108M	2.042E-02		6.459E-02	1.080E-01	1.067E-02	0.189
AG-110M	9.874E-02		7.029E-02	1.151E-01	1.297E-02	0.858
IN-111	-2.263E-01		3.451E-01	5.312E-01	5.625E-02	-0.426
IN-113M	-2.608E-02		7.557E-02	1.227E-01	1.146E-02	-0.213
SN-113	-2.608E-02		7.557E-02	1.227E-01	1.146E-02	-0.213
IN-114M	-8.699E-02		2.400E-01	3.414E-01	3.232E-02	-0.255
CD-115	-2.604E+00		2.779E+00	4.139E+00	4.314E-01	-0.629
SN-117M	4.071E-02		4.708E-02	8.112E-02	7.875E-03	0.502
SB-122	1.391E-01		7.237E-01	1.178E+00	1.256E-01	0.118
I-123	2.085E-03		1.168E-03	Half-Life too short		
TE-123M	2.865E-02		3.208E-02	5.535E-02	5.375E-03	0.518
I-124	7.357E-02		4.296E-01	7.141E-01	7.761E-02	0.103
SB-124	-9.636E-02		9.459E-02	1.143E-01	9.879E-03	-0.843
SB-125	2.001E-02		1.745E-01	2.890E-01	2.791E-02	0.069
TE-125M	3.559E+00		8.452E+00	1.461E+01	1.939E+00	0.244
I-126	7.602E-02		2.635E-01	3.940E-01	4.362E-02	0.193
SB-126	-1.389E-01		1.995E-01	2.803E-01	3.060E-02	-0.496
SB-127	-2.661E-01		7.513E-01	1.216E+00	1.459E-01	-0.219
XE-127	3.744E-03		5.542E-02	9.049E-02	8.814E-03	0.041
I-131	-8.957E-02		1.170E-01	1.862E-01	1.905E-02	-0.481
TE-132	-1.866E-01		2.720E-01	4.198E-01	6.629E-02	-0.444
BA-133	-2.191E-04		7.942E-02	1.168E-01	1.656E-02	-0.002
I-133	-3.382E-05		3.500E-05	Half-Life too short		
CS-134	5.142E-02		9.226E-02	1.575E-01	1.658E-02	0.327
CS-135	-1.820E-01		2.432E-01	3.679E-01	4.441E-02	-0.495
I-135	4.402E+02		4.620E+02	Half-Life too short		
CS-136	8.679E-02		1.660E-01	2.883E-01	2.695E-02	0.301
CE-139	-6.865E-03		3.532E-02	5.777E-02	5.152E-03	-0.119
BA-140	-1.678E-01		3.363E-01	5.133E-01	1.729E-01	-0.327
LA-140	-1.924E-02		8.514E-02	1.364E-01	1.134E-02	-0.141
CE-141	1.541E-04		6.285E-02	1.048E-01	1.166E-02	0.001
CE-143	1.109E+01		9.104E+00	1.426E+01	3.233E+00	0.778
CE-144	-3.929E-01		2.481E-01	3.688E-01	6.520E-02	-1.065
PM-144	-2.031E-02		6.065E-02	9.841E-02	1.083E-02	-0.206
PR-144	-1.372E+00		4.096E+00	6.647E+00	7.312E-01	-0.206
PM-146	-5.170E-02		8.484E-02	1.334E-01	1.557E-02	-0.388
ND-147	3.293E-01		6.774E-01	1.129E+00	1.815E-01	0.292
PM-149	4.595E+00		2.062E+01	3.303E+01	5.628E+00	0.139
EU-152	6.353E-02		1.636E-01	2.709E-01	2.910E-02	0.235
GD-153	-4.446E-02		6.945E-02	1.151E-01	1.296E-02	-0.386
EU-154	-7.643E-02		1.366E-01	2.031E-01	2.231E-02	-0.376
EU-155	4.436E-02		1.038E-01	1.798E-01	2.126E-02	0.247
TB-160	-3.315E-01		3.256E-01	4.895E-01	4.743E-02	-0.677
HO-166M	2.742E-02		1.143E-01	1.931E-01	2.115E-02	0.142

Sample ID : G1202029812 Acquisition date : 10-FEB-2010 20:23:01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171	2.649E+00		1.673E+01	2.668E+01	2.649E+00	0.099
LU-176	2.185E-02		3.829E-02	6.650E-02	7.256E-03	0.329
LU-177	1.406E+00	+	1.157E+00	1.387E+00	1.368E-01	1.013
LU-177M	-1.396E-01		3.085E-01	4.951E-01	4.628E-02	-0.282
HF-181	3.207E-02		7.886E-02	1.314E-01	1.320E-02	0.244
W-181	-4.485E-01		2.146E-01	3.024E-01	2.993E-02	-1.483
TA-182	-1.100E-01		2.226E-01	3.430E-01	2.821E-02	-0.321
RE-183	-1.727E-02		1.212E-01	1.991E-01	1.853E-02	-0.087
RE-184	-4.411E-03		3.487E-01	5.570E-01	5.974E-02	-0.008
OS-185	3.574E-02		7.544E-02	1.303E-01	1.438E-02	0.274
RE-188	-6.282E-03		1.905E-01	3.158E-01	3.181E-02	-0.020
W-188	-1.410E+01		1.173E+01	1.590E+01	1.762E+00	-0.887
IR-192	1.306E-03		4.970E-02	8.395E-02	9.067E-03	0.016
AU-195	1.475E-02		2.042E-01	3.496E-01	3.967E-02	0.042
TL-200	1.125E-05		7.095E-06	Half-Life too short		
TL-201	-1.542E+00		2.056E+00	3.255E+00	2.912E-01	-0.474
TL-202	1.930E-02		9.430E-02	1.566E-01	1.508E-02	0.123
HG-203	4.426E-02		5.512E-02	9.135E-02	1.037E-02	0.484
BI-207	5.448E-02		1.134E-01	1.961E-01	1.750E-02	0.278
TL-207	2.225E-01		1.088E+00	1.640E+00	3.082E-01	0.136
PO-209	-7.686E+00		1.759E+01	2.766E+01	2.625E+00	-0.278
BI-210	1.015E+00		8.627E-01	1.379E+00	1.422E-01	0.736
PB-210	1.015E+00		8.627E-01	1.379E+00	1.422E-01	0.736
PO-210	1.015E+00		8.618E-01	1.379E+00	1.314E-01	0.736
PB-211	1.561E+00		1.948E+00	2.925E+00	1.836E+00	0.534
BI-212	5.661E-01	+	9.627E-01	1.113E+00	1.337E-01	0.509
PO-215	2.225E-01		1.088E+00	1.640E+00	3.082E-01	0.136
RN-219	-7.533E-02		7.147E-01	1.175E+00	1.806E-01	-0.064
RN-220	-2.816E+01		4.803E+01	7.358E+01	7.780E+00	-0.383
RA-223	2.225E-01		1.088E+00	1.640E+00	3.082E-01	0.136
RA-224	1.905E+00		1.209E+00	1.869E+00	1.964E-01	1.019
AC-227	-7.128E-01		5.970E-01	8.654E-01	1.442E-01	-0.824
TH-227	-7.128E-01		6.008E-01	8.654E-01	1.661E-01	-0.824
AC-228	1.533E+00	+	5.687E-01	7.359E-01	8.753E-02	2.083
RA-228	1.533E+00	+	5.687E-01	7.359E-01	8.753E-02	2.083
TH-229	1.296E-01		7.069E-01	1.164E+00	1.111E-01	0.111
PA-231	-1.341E-01		2.429E+00	3.831E+00	6.411E-01	-0.035
TH-231	2.225E-01		1.088E+00	1.640E+00	3.082E-01	0.136
U-231	1.333E-01		3.577E-01	5.640E-01	6.301E-02	0.236
TH-232	1.533E+00	+	5.687E-01	7.359E-01	8.753E-02	2.083
PA-233	4.206E-02		1.011E-01	1.742E-01	1.924E-02	0.241
PA-234	4.640E-01		7.690E-01	1.286E+00	2.460E-01	0.361
PA-234M	-3.830E+00		1.042E+01	1.626E+01	1.703E+00	-0.236
TH-234	8.331E-01		7.441E-01	1.169E+00	2.176E-01	0.713
U-235	-3.664E-02		2.381E-01	3.933E-01	7.426E-02	-0.093
NP-236	-9.058E-02		9.386E-02	1.469E-01	1.399E-02	-0.617
U-238	8.331E-01		7.441E-01	1.169E+00	2.176E-01	0.713
NP-239	-1.414E-01		2.149E-01	3.344E-01	4.189E-02	-0.423

Sample ID : G1202029812 Acquisition date : 10-FEB-2010 20:23:01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.351E-02		9.062E-02	1.508E-01	1.757E-02	-0.288
AM-246	-1.277E-03		3.001E-01	5.013E-01	4.434E-02	-0.003
CM-247	1.602E-02		6.549E-02	1.098E-01	1.012E-02	0.146
CF-249	-4.692E-02		7.192E-02	1.148E-01	1.056E-02	-0.409
CF-251	-3.401E-02		1.612E-01	2.621E-01	2.400E-02	-0.130

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202029812           *
* Acquisition date : 10-FEB-2010 20:23:01 Detector SN#    :                 *
* Detector ID      : GAM25                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:01.92     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  2-FEB-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202029812          Analyst initials: RXF2            *
* Batch Number     : 947531               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	1.796E-01	5.478E-02	2.562E-02	2.795E-02
CO-60	6.447E+00	6.082E-01	3.965E-02	3.103E-01
CD-109	3.309E+01	3.820E+00	6.450E-01	1.949E+00
SN-126	3.283E+00	3.790E-01	6.387E-02	1.934E-01
BA-137M	5.564E+00	6.537E-01	5.548E-02	3.335E-01
CS-137	5.882E+00	6.917E-01	5.865E-02	3.529E-01
TL-208	3.129E-01	1.149E-01	6.217E-02	5.861E-02
BI-211	2.476E+00	7.418E-01	2.828E-01	3.784E-01
PB-212	9.808E-01	1.977E-01	7.880E-02	1.009E-01
PO-212	9.808E-01	1.977E-01	7.880E-02	1.009E-01
BI-214	6.234E-01	2.239E-01	1.028E-01	1.142E-01
PB-214	8.613E-01	2.618E-01	9.861E-02	1.335E-01
PO-214	8.613E-01	2.618E-01	9.861E-02	1.335E-01
PO-216	9.808E-01	1.977E-01	7.880E-02	1.009E-01
PO-218	8.613E-01	2.618E-01	9.861E-02	1.335E-01
RA-226	6.234E-01	2.239E-01	1.028E-01	1.142E-01
TH-228	9.895E-01	1.995E-01	7.950E-02	1.018E-01
TH-230	6.234E-01	2.239E-01	1.028E-01	1.142E-01
U-234	6.234E-01	2.239E-01	1.028E-01	1.142E-01
NP-237	9.641E+00	2.245E+00	1.867E-01	1.145E+00
AM-241	1.370E+01	1.434E+00	8.437E-02	7.316E-01
AM-243	2.342E-01	5.784E-02	3.515E-02	2.951E-02
ANH-511	1.467E-01	1.180E-01	4.386E-02	6.020E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.436E-01	6.439E-01	5.635E-01	3.285E-01	NOT IDENT.
NA-22	-3.863E-02	4.963E-02	3.680E-02	2.532E-02	NOT IDENT.
NA-24	-3.246E+02	8.165E+02	0.000E+00	4.166E+02	SHORT HLIF
AL-26	5.772E-03	4.222E-02	3.676E-02	2.154E-02	NOT IDENT.

K-40	7.812E-01	5.237E-01	5.451E-01	2.672E-01	NOT IDENT.
TI-44	2.398E-01	4.509E-02	2.928E-02	2.301E-02	FAIL ABUN
SC-46	6.630E-02	9.167E-02	8.133E-02	4.677E-02	NOT IDENT.
V-48	-6.465E-04	1.236E-01	1.036E-01	6.305E-02	NOT IDENT.
CR-51	-4.886E-03	4.629E-01	4.183E-01	2.362E-01	NOT IDENT.
MN-52	1.061E-01	1.379E-01	1.308E-01	7.033E-02	FAIL ABUN
MN-54	-8.566E-02	7.702E-02	6.022E-02	3.930E-02	NOT IDENT.
CO-56	-5.789E-02	8.097E-02	6.541E-02	4.131E-02	NOT IDENT.
CO-58	-3.151E-03	7.788E-02	6.671E-02	3.974E-02	NOT IDENT.
FE-59	-1.367E-01	1.734E-01	1.409E-01	8.847E-02	NOT IDENT.
ZN-65	-7.849E-02	1.926E-01	1.618E-01	9.828E-02	NOT IDENT.
GE-68	5.328E-01	2.563E+00	2.257E+00	1.308E+00	NOT IDENT.
AS-73	2.358E-01	4.894E-01	4.121E-01	2.497E-01	NOT IDENT.
AS-74	3.751E-02	1.316E-01	1.132E-01	6.715E-02	NOT IDENT.
SE-75	2.030E-02	6.182E-02	5.409E-02	3.154E-02	FAIL ABUN
BR-77	-3.445E-01	3.016E+00	2.562E+00	1.539E+00	FAIL ABUN
SR-82	-2.632E-01	6.088E-01	5.082E-01	3.106E-01	NOT IDENT.
RB-83	-5.791E-02	1.200E-01	9.912E-02	6.123E-02	NOT IDENT.
RB-84	5.609E-02	1.387E-01	1.212E-01	7.077E-02	NOT IDENT.
KR-85	1.560E+01	1.417E+01	1.159E+01	7.230E+00	NOT IDENT.
SR-85	7.487E-02	6.801E-02	5.561E-02	3.470E-02	NOT IDENT.
RB-86	5.769E-01	1.308E+00	1.170E+00	6.674E-01	NOT IDENT.
Y-88	-3.273E-02	4.448E-02	2.995E-02	2.269E-02	NOT IDENT.
ZR-88	5.886E-03	5.009E-02	4.459E-02	2.556E-02	NOT IDENT.
Y-91	-1.728E+01	2.280E+01	1.811E+01	1.163E+01	NOT IDENT.
NB-94	-3.492E-02	6.086E-02	5.094E-02	3.105E-02	NOT IDENT.
NB-95	3.202E-02	7.312E-02	6.511E-02	3.731E-02	NOT IDENT.
NB-95M	-8.375E-02	1.748E-01	1.305E-01	8.920E-02	NOT IDENT.
ZR-95	-6.572E-02	1.227E-01	1.022E-01	6.261E-02	NOT IDENT.
NB-97	9.284E+02	4.401E+02	0.000E+00	2.245E+02	SHORT HLIF
ZR-97	6.671E+03	6.798E+03	0.000E+00	3.468E+03	SHORT HLIF
MO-99	6.807E+00	4.733E+00	4.397E+00	2.415E+00	NOT IDENT.
TC-99M	4.736E+08	1.169E+09	0.000E+00	5.964E+08	SHORT HLIF
RH-101	1.349E-02	4.504E-02	4.038E-02	2.298E-02	NOT IDENT.
RH-102	2.193E-02	6.128E-02	5.405E-02	3.127E-02	NOT IDENT.
RU-103	-6.615E-02	7.109E-02	5.691E-02	3.627E-02	FAIL ABUN
RH-106	-2.218E-01	5.564E-01	4.790E-01	2.839E-01	FAIL ABUN
RU-106	-2.218E-01	5.559E-01	4.790E-01	2.836E-01	FAIL ABUN
AG-108M	2.042E-02	6.330E-02	5.632E-02	3.229E-02	NOT IDENT.
AG-110M	9.874E-02	6.889E-02	5.936E-02	3.515E-02	NOT IDENT.
IN-111	-2.263E-01	3.382E-01	2.812E-01	1.726E-01	NOT IDENT.
IN-113M	-2.608E-02	7.406E-02	6.419E-02	3.778E-02	NOT IDENT.
SN-113	-2.608E-02	7.406E-02	6.419E-02	3.778E-02	NOT IDENT.
IN-114M	-8.699E-02	2.352E-01	1.819E-01	1.200E-01	NOT IDENT.
CD-115	-2.604E+00	2.723E+00	2.148E+00	1.389E+00	NOT IDENT.
SN-117M	4.071E-02	4.614E-02	4.342E-02	2.354E-02	NOT IDENT.
SB-122	1.391E-01	7.092E-01	6.104E-01	3.618E-01	NOT IDENT.
I-123	2.085E+03	2.288E+03	0.000E+00	1.168E+03	SHORT HLIF
TE-123M	2.865E-02	3.144E-02	2.963E-02	1.604E-02	NOT IDENT.
I-124	7.357E-02	4.210E-01	3.692E-01	2.148E-01	NOT IDENT.
SB-124	-9.636E-02	9.270E-02	5.743E-02	4.730E-02	NOT IDENT.
SB-125	2.001E-02	1.710E-01	1.508E-01	8.724E-02	NOT IDENT.
TE-125M	3.559E+00	8.283E+00	7.893E+00	4.226E+00	NOT IDENT.
I-126	7.602E-02	2.582E-01	2.032E-01	1.317E-01	NOT IDENT.
SB-126	-1.389E-01	1.955E-01	1.442E-01	9.977E-02	FAIL ABUN
SB-127	-2.661E-01	7.363E-01	6.268E-01	3.756E-01	NOT IDENT.
XE-127	3.744E-03	5.431E-02	4.814E-02	2.771E-02	NOT IDENT.
I-131	-8.957E-02	1.147E-01	9.758E-02	5.852E-02	NOT IDENT.
TE-132	-1.866E-01	2.665E-01	2.227E-01	1.360E-01	FAIL ABUN
BA-133	-2.191E-04	7.783E-02	6.124E-02	3.971E-02	NOT IDENT.
I-133	-3.382E+01	6.860E+01	0.000E+00	3.500E+01	SHORT HLIF
CS-134	5.142E-02	9.041E-02	8.080E-02	4.613E-02	NOT IDENT.
CS-135	-1.820E-01	2.383E-01	1.943E-01	1.216E-01	NOT IDENT.
I-135	4.402E+08	9.056E+08	0.000E+00	4.620E+08	SHORT HLIF
CS-136	8.679E-02	1.627E-01	1.468E-01	8.302E-02	NOT IDENT.
CE-139	-6.865E-03	3.462E-02	3.089E-02	1.766E-02	NOT IDENT.
BA-140	-1.678E-01	3.296E-01	2.662E-01	1.682E-01	NOT IDENT.
LA-140	-1.924E-02	8.344E-02	6.864E-02	4.257E-02	FAIL ABUN
CE-141	1.541E-04	6.159E-02	5.623E-02	3.142E-02	NOT IDENT.
CE-143	1.109E+01	8.922E+00	7.513E+00	4.552E+00	FAIL ABUN
CE-144	-3.929E-01	2.432E-01	1.983E-01	1.241E-01	NOT IDENT.
PM-144	-2.031E-02	5.944E-02	5.068E-02	3.032E-02	NOT IDENT.
PR-144	-1.372E+00	4.014E+00	3.423E+00	2.048E+00	NOT IDENT.
PM-146	-5.170E-02	8.315E-02	6.949E-02	4.242E-02	NOT IDENT.
ND-147	3.293E-01	6.639E-01	5.859E-01	3.387E-01	FAIL ABUN
PM-149	4.595E+00	2.021E+01	1.742E+01	1.031E+01	NOT IDENT.
EU-152	6.353E-02	1.603E-01	1.422E-01	8.178E-02	FAIL ABUN
GD-153	-4.446E-02	6.806E-02	6.234E-02	3.472E-02	NOT IDENT.

EU-154	-7.643E-02	1.339E-01	1.029E-01	6.831E-02	FAIL ABUN
EU-155	4.436E-02	1.017E-01	9.725E-02	5.189E-02	FAIL ABUN
TB-160	-3.315E-01	3.191E-01	2.505E-01	1.628E-01	FAIL ABUN
HO-166M	2.742E-02	1.120E-01	9.941E-02	5.716E-02	FAIL ABUN
TM-171	2.649E+00	1.640E+01	1.459E+01	8.366E+00	FAIL ABUN
LU-176	2.185E-02	3.753E-02	3.500E-02	1.915E-02	FAIL ABUN
LU-177	1.406E+00	1.134E+00	7.376E-01	5.786E-01	FAIL ABUN
LU-177M	-1.396E-01	3.023E-01	2.586E-01	1.543E-01	FAIL ABUN
HF-181	3.207E-02	7.728E-02	6.834E-02	3.943E-02	NOT IDENT.
W-181	-4.485E-01	2.103E-01	1.654E-01	1.073E-01	NOT IDENT.
TA-182	-1.100E-01	2.181E-01	1.740E-01	1.113E-01	NOT IDENT.
RE-183	-1.727E-02	1.188E-01	1.065E-01	6.059E-02	FAIL ABUN
RE-184	-4.411E-03	3.418E-01	2.947E-01	1.744E-01	FAIL ABUN
OS-185	3.574E-02	7.393E-02	6.727E-02	3.772E-02	FAIL ABUN
RE-188	-6.282E-03	1.867E-01	1.691E-01	9.527E-02	NOT IDENT.
W-188	-1.410E+01	1.150E+01	8.382E+00	5.866E+00	NOT IDENT.
IR-192	1.306E-03	4.871E-02	4.415E-02	2.485E-02	FAIL ABUN
AU-195	1.475E-02	2.001E-01	1.894E-01	1.021E-01	FAIL ABUN
TL-200	1.125E+01	1.391E+01	0.000E+00	7.095E+00	SHORT HLIF
TL-201	-1.542E+00	2.015E+00	1.740E+00	1.028E+00	NOT IDENT.
TL-202	1.930E-02	9.242E-02	8.165E-02	4.715E-02	NOT IDENT.
HG-203	4.426E-02	5.402E-02	4.820E-02	2.756E-02	NOT IDENT.
BI-207	5.448E-02	1.112E-01	9.983E-02	5.671E-02	FAIL ABUN
TL-207	2.225E-01	1.066E+00	8.621E-01	5.438E-01	FAIL ABUN
PO-209	-7.686E+00	1.724E+01	1.415E+01	8.797E+00	NOT IDENT.
BI-210	1.015E+00	8.454E-01	7.607E-01	4.313E-01	NOT IDENT.
PB-210	1.015E+00	8.454E-01	7.607E-01	4.313E-01	NOT IDENT.
PO-210	1.015E+00	8.445E-01	7.607E-01	4.309E-01	NOT IDENT.
PB-211	1.561E+00	1.909E+00	1.529E+00	9.741E-01	NOT IDENT.
BI-212	5.661E-01	9.435E-01	5.723E-01	4.814E-01	FAIL ABUN
PO-215	2.225E-01	1.066E+00	8.621E-01	5.438E-01	FAIL ABUN
RN-219	-7.533E-02	7.004E-01	6.140E-01	3.573E-01	NOT IDENT.
RN-220	-2.816E+01	4.707E+01	3.814E+01	2.401E+01	NOT IDENT.
RA-223	2.225E-01	1.066E+00	8.621E-01	5.438E-01	FAIL ABUN
RA-224	1.905E+00	1.185E+00	9.901E-01	6.046E-01	NOT IDENT.
AC-227	-7.128E-01	5.850E-01	4.576E-01	2.985E-01	NOT IDENT.
TH-227	-7.128E-01	5.888E-01	4.576E-01	3.004E-01	FAIL ABUN
AC-228	1.533E+00	5.574E-01	3.763E-01	2.844E-01	FAIL ABUN
RA-228	1.533E+00	5.574E-01	3.763E-01	2.844E-01	FAIL ABUN
TH-229	1.296E-01	6.927E-01	6.202E-01	3.534E-01	FAIL ABUN
PA-231	-1.341E-01	2.380E+00	2.020E+00	1.214E+00	NOT IDENT.
TH-231	2.225E-01	1.066E+00	8.621E-01	5.438E-01	FAIL ABUN
U-231	1.333E-01	3.506E-01	3.057E-01	1.789E-01	FAIL ABUN
TH-232	1.533E+00	5.574E-01	3.763E-01	2.844E-01	FAIL ABUN
PA-233	4.206E-02	9.910E-02	9.166E-02	5.056E-02	FAIL ABUN
PA-234	4.640E-01	7.536E-01	6.569E-01	3.845E-01	FAIL ABUN
PA-234M	-3.830E+00	1.021E+01	8.292E+00	5.212E+00	NOT IDENT.
TH-234	8.331E-01	7.292E-01	6.398E-01	3.721E-01	FAIL ABUN
U-235	-3.664E-02	2.333E-01	2.111E-01	1.191E-01	FAIL ABUN
NP-236	-9.058E-02	9.198E-02	7.860E-02	4.693E-02	NOT IDENT.
U-238	8.331E-01	7.292E-01	6.398E-01	3.721E-01	FAIL ABUN
NP-239	-1.414E-01	2.106E-01	1.804E-01	1.074E-01	FAIL ABUN
CM-243	-4.351E-02	8.881E-02	8.161E-02	4.531E-02	FAIL ABUN
AM-246	-1.277E-03	2.941E-01	2.551E-01	1.501E-01	NOT IDENT.
CM-247	1.602E-02	6.418E-02	5.738E-02	3.274E-02	NOT IDENT.
CF-249	-4.692E-02	7.048E-02	6.006E-02	3.596E-02	NOT IDENT.
CF-251	-3.401E-02	1.579E-01	1.399E-01	8.059E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	390.6352
46.50	390.6352
46.50	390.6352
48.70	731.7139
49.72	735.0238
51.35	949.2560
52.39	887.8679
52.97	885.6548
53.15	842.4463
53.44	885.9351
54.07	904.4053
56.28	869.6144
56.28	869.6263
57.37	912.1013
57.53	912.6812
57.53	912.6874
57.60	569.6528
57.98	570.5049
57.98	570.5049
59.32	573.4932
59.32	573.4932
59.40	573.6722
59.54	573.9815
59.72	574.3804
60.01	575.0204
61.10	357.7686
61.14	357.8229
61.30	358.0399
63.00	246.2959
63.29	260.2578
63.29	260.2578
63.58	272.7240
64.28	284.1162
65.12	412.5363
65.20	412.6561
65.20	412.6561
66.05	357.4229
66.72	317.8219
66.83	295.9824
66.91	296.0645
67.20	305.6307
67.20	305.6307
67.75	325.9396
67.85	341.1398
68.90	356.3642
68.90	356.3642
69.30	348.6957
69.67	337.4658
70.82	306.3577
70.82	306.3577
70.83	306.3676
72.80	344.5913
72.87	344.6715
72.87	344.6715
74.67	337.2218
74.81	337.3757
74.81	337.3757
74.81	337.3757
74.81	337.3757
74.81	337.3757
74.81	337.3757
74.81	337.3757
74.97	337.5512
75.28	337.8914
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77.11	339.8869
77.11	339.8869

77.11	339.8869
77.11	339.8869
77.11	339.8869
77.11	339.8869
77.11	339.8869
78.38	341.2563
79.62	342.5824
79.80	342.7752
79.80	342.7752
80.11	343.1046
80.18	343.1782
80.30	343.3061
80.30	343.3061
80.57	343.5921
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81.07	344.1208
81.07	344.1208
81.07	344.1208
81.07	344.1208
82.60	378.1936
83.37	334.3284
83.78	342.0724
83.78	342.0724
83.78	342.0724
83.78	342.0724
84.21	393.8894
84.90	384.0767
85.43	397.7746
86.29	329.8556
86.50	330.0580
86.54	330.0969
86.59	330.1459
86.72	330.2707
86.79	330.3361
86.94	330.4833
87.30	330.8289
87.30	330.8289
87.30	330.8289
87.30	330.8289
87.30	330.8289
87.30	330.8289
87.30	330.8289
87.57	331.0885
87.88	331.3850
88.03	331.5281
88.36	331.8430
88.47	331.9493
89.95	218.9204
91.11	219.6388
92.29	220.3646
92.38	220.4203
92.38	220.4203
93.35	212.2222
94.00	231.4726
94.67	214.2509
94.67	214.2535
94.90	210.6051
94.90	210.6051
94.90	210.6051
94.90	210.6051
95.87	204.8384
95.87	204.8384
96.73	245.8717
97.43	220.0891
98.44	213.0426
98.44	213.0426
98.88	209.8912
99.55	209.4118
99.55	209.4118
99.86	196.8026
100.00	196.8743
100.10	196.9283
103.18	215.6878
103.76	206.5417
105.00	199.4215
105.31	196.1219
108.00	217.4467
109.28	191.0836

111.00	189.2571
111.00	189.2571
111.76	200.1378
112.95	227.9977
115.19	181.4218
116.30	186.3306
117.00	221.8277
117.00	221.8277
117.66	220.2988
121.11	213.5207
121.62	213.7664
121.78	213.8439
122.06	213.9782
122.32	214.1029
122.32	214.1029
122.32	214.1029
122.32	214.1029
123.07	223.0229
127.23	217.3480
129.76	207.5661
131.20	212.7917
133.02	216.3729
133.54	255.3228
135.34	188.7432
136.00	191.7799
136.25	178.9016
136.48	174.3490
140.51	179.5273
140.51	0.0000
142.18	197.0160
142.65	202.8362
143.76	192.9299
144.24	182.7512
144.24	182.7512
144.24	182.7512
144.24	182.7512
145.22	183.1045
145.44	197.3471
147.16	188.5362
152.43	179.9219
152.70	159.9058
153.22	172.5220
154.21	182.4448
154.21	182.4448
154.21	182.4448
154.21	182.4448
155.03	196.1890
156.02	243.7606
158.56	167.4653
159.00	0.0000
159.00	162.7551
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161.27	198.4489
162.32	178.3572
162.64	178.4596
163.35	198.2153
163.89	169.0861
165.85	195.1760
167.43	204.5723
171.28	176.2418
171.86	189.3019
172.10	187.3965
176.55	196.8116
176.60	196.8277
181.06	193.2617
184.41	207.9876
185.71	196.7628
186.00	196.8536
190.27	197.6927
192.34	197.8258
193.63	212.6054
197.04	219.9271
198.01	209.9158
198.60	191.4738
200.40	210.6819
201.83	208.0200
202.84	192.7121
205.31	203.8808

208.36	203.2278
208.81	215.4498
209.75	215.7459
209.75	215.7459
210.97	207.1701
215.65	205.9217
216.55	207.2510
218.09	211.9659
222.10	218.5233
223.80	188.9766
226.40	179.9585
227.00	190.8929
227.08	190.9146
227.20	203.8906
228.16	218.2005
228.18	218.2066
228.18	218.2066
231.56	199.6796
235.69	201.3352
236.00	201.4178
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238.63	248.6807
238.63	248.6807
239.00	248.8008
240.98	220.8784
241.98	203.0112
241.98	203.0112
241.98	203.0112
244.69	240.7172
245.39	201.1472
247.94	172.9784
248.90	168.7487
249.79	185.6122
252.40	155.0020
252.85	177.4064
252.85	177.4064
254.15	0.0000
256.20	197.1979
256.20	197.1979
260.50	154.3201
260.90	179.1888
262.80	152.4957
264.65	150.5748
268.24	192.1605
268.79	152.4648
269.46	150.3101
269.46	150.3101
269.46	150.3101
269.46	150.3101
271.23	162.0381
273.65	188.8242
276.40	179.1023
277.35	171.2536
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277.60	171.3051
278.00	157.5812
278.60	148.4844
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280.46	168.4145
281.68	161.7212
283.67	163.2464
284.30	159.8882
285.00	172.7723
285.90	162.5016
286.10	162.5387
286.10	162.5387
287.40	149.9908
288.45	0.0000
290.67	187.6556
290.80	165.2720
291.72	161.2358
293.26	140.4468
293.70	140.5151
295.21	154.8271
295.21	154.8271

295.21	154.8271
295.96	178.9038
296.50	187.4664
297.23	172.1016
298.57	162.4656
299.80	152.0747
299.80	152.0747
300.09	152.1219
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300.09	152.1219
300.09	152.1219
300.12	152.1272
301.29	164.7197
302.84	175.6428
303.76	169.6023
303.91	166.9642
304.40	166.1645
304.40	166.1645
304.84	171.5785
306.84	147.0010
308.46	163.3223
311.98	151.3924
316.51	145.8138
318.01	141.5362
319.02	138.9774
319.41	137.2281
320.08	138.2267
323.87	132.0566
323.87	132.0566
323.87	132.0566
323.87	132.0566
325.23	129.3346
328.77	157.5097
333.44	175.8369
334.20	158.3745
334.20	158.3745
334.30	158.3903
338.28	142.6376
338.28	142.6376
338.28	142.6376
338.28	142.6376
338.32	142.6423
338.32	142.6423
338.32	142.6423
340.50	140.1830
340.57	140.1923
344.27	145.9921
345.85	137.9515
350.59	146.2221
351.07	146.2891
351.92	146.4089
351.92	146.4089
351.92	146.4089
355.39	0.0000
356.01	143.7961
364.48	166.0823
366.43	149.3666
367.43	137.2031
367.94	0.0000
369.80	159.3124
374.96	160.0660
383.85	146.9441
387.95	164.8291
388.63	152.3899
391.69	153.7668
391.69	153.7668
392.90	143.2802
398.62	163.4498
400.65	152.0391
401.10	141.3737
401.81	142.4355
402.60	142.5313
404.84	136.9366
410.95	150.4273
411.60	140.6718
413.65	153.7220
414.70	159.7753
415.30	159.8544

415.76	153.9933
417.63	0.0000
418.52	150.3881
423.70	160.9667
427.08	147.4625
427.89	147.5596
432.53	164.1276
433.93	150.2838
439.47	146.9245
439.56	145.9293
439.89	145.9669
443.98	167.6490
444.90	160.6959
445.03	144.5405
445.03	144.5405
445.03	144.5405
445.03	144.5405
453.90	154.7020
463.38	171.2046
468.07	180.0442
473.00	176.5786
475.06	158.2342
475.35	158.2692
476.78	161.5439
477.59	169.9283
477.96	162.7208
482.03	139.2998
484.57	157.2625
487.03	145.0257
490.36	148.5132
492.35	115.2116
497.08	143.9779
507.63	0.0000
510.53	0.0000
510.84	111.4255
511.00	111.4383
511.85	111.5040
511.85	111.5040
513.99	105.5022
513.99	105.5022
520.41	115.3729
520.65	107.9105
527.90	112.7417
528.96	0.0000
529.64	106.4262
529.87	0.0000
531.02	90.3831
537.32	102.6538
543.00	96.5344
546.56	0.0000
549.76	106.7718
552.65	86.2327
555.20	83.0972
563.23	90.1229
563.90	90.1630
568.70	108.0847
569.32	114.7466
569.50	114.7625
569.67	114.7751
573.80	101.7958
574.00	101.8098
574.64	102.9590
578.91	111.8927
579.30	0.0000
583.14	126.4341
585.48	96.3009
591.81	93.9950
592.07	94.0078
593.00	106.3792
595.88	94.2283
600.56	101.2473
602.52	0.0000
602.71	104.1326
602.71	104.1326
603.60	117.2126
604.41	120.2767
604.70	120.2995
609.31	96.8068

609.31	96.8068
609.31	96.8068
609.31	96.8068
610.33	76.9503
612.46	101.2197
614.37	93.7745
618.01	86.3976
621.84	98.4419
621.84	98.4419
631.29	68.7433
633.02	67.8936
633.10	67.8972
634.78	78.9852
635.90	90.0638
636.97	93.7972
645.85	85.9592
646.12	85.9728
656.30	89.8769
657.75	69.7888
657.90	0.0000
661.65	92.3243
661.65	92.3243
664.57	91.8514
666.33	85.7070
666.33	85.7070
675.00	74.2187
677.61	65.8574
685.20	80.3018
692.80	81.5803
695.00	101.6187
696.49	92.1950
696.49	92.1950
697.00	96.0240
697.49	91.2938
698.33	89.4331
698.50	90.3915
699.00	84.7064
702.63	102.0340
706.10	89.8003
706.58	0.0000
706.67	93.6503
709.31	88.9971
711.68	88.1479
713.82	70.9811
717.42	79.7639
720.50	88.0045
721.93	75.4570
722.20	75.4666
722.78	75.4895
722.78	75.4895
722.89	75.4934
722.95	73.8890
723.30	73.9021
724.18	78.7577
727.18	97.5553
733.00	113.0237
735.90	93.1383
739.58	71.9296
742.81	99.3081
744.21	101.3264
747.13	77.0829
751.79	93.8883
752.31	84.1292
753.82	78.3203
755.35	86.2168
756.15	88.2114
756.87	80.4004
763.93	109.2141
765.79	88.6333
766.42	79.7937
766.84	78.8262
776.49	92.0668
778.00	73.3117
778.57	80.2683
778.89	80.2822
783.80	87.4264
785.46	80.5353
792.07	94.7565

795.84	86.9320
796.30	88.9500
798.80	106.0647
801.93	98.2058
805.60	98.3756
810.29	90.5449
810.76	97.6086
815.85	99.8580
817.79	87.8326
818.51	75.7434
819.60	87.9070
826.30	99.3279
828.27	0.0000
831.60	93.4734
831.96	93.4892
834.83	118.0306
836.80	0.0000
846.75	108.4404
848.13	99.2947
856.28	0.0000
856.80	128.4546
860.37	110.1321
867.32	105.3070
867.82	101.2013
871.10	105.4838
873.19	85.9119
874.81	102.5457
875.33	0.0000
876.40	96.3989
879.36	128.6984
880.27	114.2136
880.51	106.9555
881.50	93.4958
883.24	107.0813
884.67	104.0283
889.25	105.2757
896.60	109.7911
898.02	100.4414
899.00	99.4369
903.28	110.8529
911.07	112.5720
911.07	112.5720
911.07	112.5720
919.63	109.8106
920.93	115.1525
925.00	129.1067
925.24	133.3521
926.50	126.0104
935.52	119.0410
937.48	111.6907
944.10	123.7258
946.00	105.6757
949.00	122.9063
962.29	126.7924
964.01	164.5124
966.15	156.0449
968.20	135.7084
969.11	138.9899
969.11	138.9899
969.11	138.9899
977.42	96.2095
980.50	93.0799
983.50	93.1912
989.30	81.4563
996.32	76.2344
1001.03	97.1047
1001.68	99.3113
1004.76	115.8211
1021.30	0.0000
1024.50	0.0000
1034.80	90.2600
1036.00	90.3039
1037.82	86.6754
1038.57	88.5430
1038.76	0.0000
1045.16	98.0077
1046.59	85.1120
1048.07	76.8263

1050.47	90.7904
1050.47	90.7904
1062.04	80.9465
1063.62	79.1307
1076.63	76.7048
1077.35	79.5319
1078.86	80.5095
1085.78	81.6510
1099.22	94.3034
1112.02	83.3665
1112.84	79.6011
1115.52	108.1321
1120.29	85.5103
1120.29	85.5103
1120.29	85.5103
1120.29	85.5103
1120.51	87.4180
1121.28	87.4404
1124.00	0.0000
1129.67	66.7273
1131.51	0.0000
1147.95	0.0000
1167.94	38.0809
1173.22	44.5082
1175.09	41.4934
1177.93	43.1931
1189.05	46.6895
1204.90	41.0686
1205.75	0.0000
1213.00	34.3150
1221.42	33.4259
1230.97	26.6265
1235.34	21.7261
1236.41	0.0000
1238.25	25.7006
1246.25	21.8022
1260.41	0.0000
1271.85	24.9766
1274.45	22.9972
1274.54	25.9968
1291.56	27.1406
1298.22	0.0000
1312.09	19.2196
1325.50	15.6703
1325.50	15.6703
1332.49	17.4484
1333.61	20.9448
1360.21	20.5249
1362.66	0.0000
1365.15	13.3608
1368.21	17.4870
1368.53	0.0000
1376.25	13.4041
1384.27	15.5023
1394.10	14.5104
1395.20	18.6621
1407.95	11.4462
1434.06	10.4830
1436.60	15.7355
1457.56	0.0000
1460.81	7.3931
1489.15	15.9656
1509.49	9.6321
1596.49	15.9541
1620.62	13.2192
1678.03	0.0000
1691.02	13.4512
1691.02	13.4512
1706.46	0.0000
1750.46	0.0000
1764.49	6.8440
1764.49	6.8440
1764.49	6.8440
1764.49	6.8440
1770.23	5.1398
1771.40	18.6064
1791.20	0.0000
1808.65	7.9015

1836.01 10.9321

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202029812

Total Uranium Activity	2.4614E+00	ug/g
Total Uranium Counting Unc.	2.1721E+00	ug/g
Total Uranium Tpu	1.1082E-06	ug/g
Total Uranium Mda	1.9060E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947531                    SAMPLE ID   : G1202029812     *
*   ANALYST       : RXF2                      DETECTOR    : GAM25           *
*   SAMPLE DATE   :  2-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 10-FEB-2010 20:23:01.50    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.748E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.460E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 4.510E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 2.206E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 948403 Product: H3 Date: 2-22-10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature] 2/23/10 LANL 2-26-10

Tritium Que Sheet

15

03-FEB-10

Batch #: 948403 **Analyst:** KXK2 **First Client Due Date** 26-FEB-10 **Internal Due Date:** 15-FEB-10

Spike Isotope: Hydrogen-3 **Spike Code:** — **Expiration Date:** — **Vol:** 0

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 2/8/2010 **Initials:** KKK **Pipet ID:** 2970968 **Witness:** Me 2/10/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Dist Vol (mL)	Total Moisture
245799001-1	RE15-10-7888	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	6.5	33-2	1		485.25	440.12	45.13	
245799002-1	RE15-10-7890	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	33-3	2		481.70	434.49	47.21	
245799003-1	RE15-10-7886	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	8	33-4	3		422.48	395.02	27.46	
245799004-1	RE15-10-7889	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	33-5	4		269.34	169.41	99.93	
245799005-1	RE15-10-7885	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	33-6	5		177.61	119.00	58.61	
245799006-1	RE15-10-7882	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	33-7	6		473.94	415.17	58.77	
245799007-1	RE15-10-7887	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	33-8	7		336.61	225.53	111.08	
245799008-1	RE15-10-7881	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	60-9	8		241.04	151.86	89.18	
245799009-1	RE15-10-7951	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	60-10	9		402.20	324.98	77.22	
245799010-1	RE15-10-7950	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	60-11	10		464.38	372.43	91.95	
245799011-1	RE15-10-7947	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	60-12	11		296.86	189.40	107.46	
245799012-1	RE15-10-7944	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	47-1	12		477.96	443.55	31.72	34.41
245799013-1	RE15-10-7948	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	47-2	13		406.66	374.94	74.89	31.72
245799014-1	RE15-10-7941	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	47-3	14		315.23	240.84	95.32	74.39
245799015-1	RE15-10-7949	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	47-4	15		234.21	138.89	38.70	95.32
245799016-1	RE15-10-7946	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	47-5	16		416.07	382.37	33.20	33.70
245799017-1	RE15-10-7942	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	47-6	17		552.31	492.11	85.42	60.20
245799018-1	RE15-10-7945	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	10	47-7	18		205.68	125.26	66.37	80.42
245799019-1	RE15-10-7943	SAMPLE		.25 pCi/mL	SOIL	LANL010	26-JAN-10	7.5	47-8	19		484.98	448.61	36.37	
1202031685-1	MB for batch 948403	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	47-9	20		20.00	0	20.00	
1202031686-1	~~RE15-10-7888(245799001DUP)~~ RE15-10-7881(245799008DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	26-JAN-10	10	47-10	8		241.04	151.86	89.18	
1202031687-1	LCS for batch 948403	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	47-11	21		20.00	0	20.00	

KKK 2/10/10

2/10/10

Bkg Rack #: 33-1

Comments:

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 2-22-10

GEL Laboratories LLC, Radiochemistry Division

DATE		2/8/2010		INITIALS	KXK2			BATCH NUMBER	948403

Sample #	Flask Wt. (g)	Sample Wet (g)	Flask & Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	Flask & Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
245799001	200	485.25	685.25	0.093	45.13	440.12	640.12	10	
245799002	200	481.70	681.70	0.098	47.21	434.49	634.49	10	
245799003	200	422.48	622.48	0.065	27.46	395.02	595.02	10	
245799004	200	269.34	469.34	0.371	99.93	169.41	369.41	10	
245799005	200	177.61	377.61	0.330	58.61	119.00	319.00	10	
245799006	200	473.94	673.94	0.124	58.77	415.17	615.17	10	
245799007	200	336.61	536.61	0.330	111.08	225.53	425.53	10	
245799008	200	241.04	441.04	0.370	89.18	151.86	351.86	10	
245799009	200	402.20	602.20	0.192	77.22	324.98	524.98	10	
245799010	200	464.38	664.38	0.198	91.95	372.43	572.43	10	
245799011	200	296.86	496.86	0.362	107.46	189.40	389.40	10	
245799012	200	477.96	677.96	0.072	34.41	443.55	643.55	10	
245799013	200	406.66	606.66	0.078	31.72	374.94	574.94	10	
245799014	200	315.23	515.23	0.236	74.39	240.84	440.84	10	
245799015	200	234.21	434.21	0.407	95.32	138.89	338.89	10	
245799016	200	416.07	616.07	0.081	33.70	382.37	582.37	10	
245799017	200	552.31	752.31	0.109	60.20	492.11	692.11	10	
245799018	200	205.68	405.68	0.391	80.42	125.26	325.26	10	
245799019	200	484.98	684.98	0.075	36.37	448.61	648.61	10	
MB	200	20.00	220.00	1.000	20.00	0.00	200.00	10	
DUP	200	241.04	441.04	0.370	89.18	151.86	351.86	10	
LCS	200	20.00	220.00	1.000	20.00	0.00	200.00	10	

Tritium Solid

Filename :	H3VAC.XLS	Spike S/N :	N/A	LCS S/N :	0134-K
File type :	Excel	Spike Exp Date :	N/A	LCS Exp Date :	3/27/2010
Version # :	1.2.6	Spike Activity (dpm/ml):	N/A	LCS Activity (dpm/ml):	2469.34
		Spike Volume Added:	N/A	LCS Volume Added:	0.10
Batch :	948403				
Analyst :	KXK2				
Prep Date :	2/8/2010				

					Procedure Code :	LSC_VH3S	
H-3 Abundance :	1	Pipet, 0.1 ml Stdev : +/-	0.000701	ml	Parmname :	Tritium	
Method Uncertainty :	0.0691	Pipet, 0.5 ml Stdev : +/-	0.002564	ml	Required MDC :	250	pCi/L
Geometry:	10mL DW/13mL	Pipet, 1.0 ml Stdev : +/-	0.005480	ml	Halflife of Tritium :	12.32	years
	Ecoscint Ultra	Pipet, 5.0 ml Stdev : +/-	0.025729	ml			

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	245799001.1	485.25	0.0451	0.0065	2.5729E-05	440.12	9.30%	1	1/26/2010 12:00
2	245799002.1	481.70	0.0472	0.0100	2.5729E-05	434.49	9.80%	2	1/26/2010 12:00
3	245799003.1	422.48	0.0275	0.0080	2.5729E-05	395.02	6.50%	3	1/26/2010 12:00
4	245799004.1	269.34	0.0999	0.0100	2.5729E-05	169.41	37.10%	4	1/26/2010 12:00
5	245799005.1	177.61	0.0586	0.0100	2.5729E-05	119.00	33.00%	5	1/26/2010 12:00
6	245799006.1	473.94	0.0588	0.0100	2.5729E-05	415.17	12.40%	6	1/26/2010 12:00
7	245799007.1	336.61	0.1111	0.0100	2.5729E-05	225.53	33.00%	7	1/26/2010 12:00
8	245799008.1	241.04	0.0892	0.0100	2.5729E-05	151.86	37.00%	8	1/26/2010 12:00
9	245799009.1	402.20	0.0772	0.0100	2.5729E-05	324.98	19.20%	9	1/26/2010 12:00
10	245799010.1	464.38	0.0920	0.0100	2.5729E-05	372.43	19.80%	10	1/26/2010 12:00
11	245799011.1	296.86	0.1075	0.0100	2.5729E-05	189.40	36.20%	11	1/26/2010 12:00
12	245799012.1	477.96	0.0344	0.0100	2.5729E-05	443.55	7.20%	12	1/26/2010 12:00
13	245799013.1	406.66	0.0317	0.0100	2.5729E-05	374.94	7.80%	13	1/26/2010 12:00
14	245799014.1	315.23	0.0744	0.0100	2.5729E-05	240.84	23.60%	14	1/26/2010 12:00
15	245799015.1	234.21	0.0953	0.0100	2.5729E-05	138.89	40.70%	15	1/26/2010 12:00
16	245799016.1	416.07	0.0337	0.0100	2.5729E-05	382.37	8.10%	16	1/26/2010 12:00
17	245799017.1	552.31	0.0602	0.0100	2.5729E-05	492.11	10.90%	17	1/26/2010 12:00
18	245799018.1	205.68	0.0804	0.0100	2.5729E-05	125.26	39.10%	18	1/26/2010 12:00
19	245799019.1	484.98	0.0364	0.0075	2.5729E-05	448.61	7.50%	19	1/26/2010 12:00
20	1202031685.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	20	2/8/2010 0:00
21	1202031686.1	241.04	0.0892	0.0100	2.5729E-05	151.86	37.00%	8	1/26/2010 12:00
22	1202031687.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	21	2/8/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	33-2	95	108	5.14	3.05	95	2/17/2010 16:54	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2375	0.00792	33-1	2/17/2010 15:16
2	33-3	95	108.7	55.11	3.05	95	2/17/2010 18:32	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2372	0.00792	33-1	2/17/2010 15:16
3	33-4	95	108.5	4.75	3.05	95	2/17/2010 20:10	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2373	0.00792	33-1	2/17/2010 15:16
4	33-5	95	109.4	37.34	3.05	95	2/17/2010 21:48	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	33-1	2/17/2010 15:16
5	33-6	95	109.3	12.54	3.05	95	2/17/2010 23:26	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	33-1	2/17/2010 15:16
6	33-7	95	107.9	4.14	3.05	95	2/18/2010 1:04	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2376	0.00792	33-1	2/17/2010 15:16
7	33-8	95	109.4	3.76	3.05	95	2/18/2010 2:42	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	33-1	2/17/2010 15:16
8	60-9	95	110.8	3.85	3.05	95	2/18/2010 5:35	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2361	0.00792	33-1	2/17/2010 15:16
9	60-10	95	110.3	5.77	3.05	95	2/18/2010 7:13	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2364	0.00792	33-1	2/17/2010 15:16
10	60-11	95	109.9	4.49	3.05	95	2/18/2010 8:51	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	33-1	2/17/2010 15:16
11	60-12	95	109.7	10.58	3.05	95	2/18/2010 10:29	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2367	0.00792	33-1	2/17/2010 15:16
12	47-1	95	104.3	5.76	3.05	95	2/18/2010 12:07	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2388	0.00792	33-1	2/17/2010 15:16
13	47-2	95	110.7	30.04	3.05	95	2/18/2010 13:45	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2362	0.00792	33-1	2/17/2010 15:16
14	47-3	95	110	11.61	3.05	95	2/18/2010 15:23	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2366	0.00792	33-1	2/17/2010 15:16
15	47-4	95	109.6	20.98	3.05	95	2/18/2010 17:01	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	33-1	2/17/2010 15:16
16	47-5	95	110.2	4.75	3.05	95	2/18/2010 18:39	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2365	0.00792	33-1	2/17/2010 15:16
17	47-6	95	108.3	4.97	3.05	95	2/18/2010 20:16	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2374	0.00792	33-1	2/17/2010 15:16
18	47-7	95	110.1	10.85	3.05	95	2/18/2010 21:54	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2365	0.00792	33-1	2/17/2010 15:16
19	47-8	95	109.5	3.26	3.05	95	2/18/2010 23:32	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	33-1	2/17/2010 15:16
20	47-9	95	109.3	3.34	3.05	95	2/19/2010 1:10	0.998	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	33-1	2/17/2010 15:16
21	47-10	95	109.3	3.94	3.05	95	2/19/2010 2:48	0.996	LSCBROWN	9/9/2009	9/30/2010	0.2369	0.00792	33-1	2/17/2010 15:16
22	47-11	95	109.5	33.44	3.05	95	2/19/2010 4:26	0.998	LSCBROWN	9/9/2009	9/30/2010	0.2368	0.00792	33-1	2/17/2010 15:16

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	172.8421	122.0280	250	253.3006	**611.8384**	0.141	2.090	0.294	85.9549	95.9734		SAMPLE				
2	112.4981	79.4247	250	164.8664	**9919.5165**	0.017	52.060	0.782	149.0860	706.7726		SAMPLE				
3	140.5692	99.2431	250	206.0046	**404.7437**	0.169	1.700	0.287	68.2208	73.8237		SAMPLE				
4	112.6619	79.5403	250	165.1064	**6543.1303**	0.021	34.290	0.652	124.4209	472.3925		SAMPLE				
5	112.6393	79.5243	250	165.0733	**1810.4944**	0.044	9.490	0.405	77.2845	147.8959		SAMPLE				
6	112.3328	79.3079	250	164.6241	**207.3835**	0.253	1.090	0.275	52.3420	54.2983		SAMPLE				
7	112.6655	79.5428	250	165.1116	**135.4846**	0.377	0.710	0.268	51.0909	51.9550		SAMPLE				
8	113.0252	79.7968	250	165.6388	**153.1462**	0.337	0.800	0.270	51.5916	52.6827		SAMPLE				
9	112.8934	79.7037	250	165.4456	**520.0897**	0.112	2.720	0.305	58.2615	68.6040		SAMPLE				
10	112.7923	79.6324	250	165.2975	**275.0952**	0.196	1.440	0.282	53.8201	57.1268		SAMPLE				
11	112.7438	79.5981	250	165.2264	**1437.9002**	0.051	7.530	0.379	72.3302	123.5351		SAMPLE				
12	111.7714	78.9116	250	163.8014	**513.0281**	0.113	2.710	0.305	57.6498	67.8249		SAMPLE				
13	113.0041	79.7818	250	165.6078	**5165.8041**	0.024	26.990	0.590	112.9592	377.1012		SAMPLE				
14	112.8223	79.6535	250	165.3414	**1635.7222**	0.047	8.560	0.393	75.0656	136.4314		SAMPLE				
15	112.7241	79.5842	250	165.1975	**3423.2445**	0.029	17.930	0.503	96.0224	257.0304		SAMPLE				
16	112.8757	79.6912	250	165.4197	**325.0053**	0.169	1.700	0.287	54.7806	59.2731		SAMPLE				
17	112.4298	79.3764	250	164.7662	**365.6146**	0.152	1.920	0.291	55.3263	60.9069		SAMPLE				
18	112.8524	79.6748	250	165.3856	**1490.8931**	0.050	7.800	0.383	73.1135	126.9949		SAMPLE				
19	150.2727	106.0938	250	220.2251	**53.4491**	1.227	0.210	0.258	65.5955	65.7013		SAMPLE				
20	112.4412	79.3845	250	164.7829	**55.2257**	0.894	0.290	0.259	49.3918	49.5414		MB				
21	112.6591	79.5383	250	165.1023	**169.8233**	0.305	0.890	0.271	51.7588	53.0930	245799008.1	DUP	10.3%	0.0788		
22	112.4913	79.4198	250	164.8563	**5790.1591**	0.022	30.390	0.620	118.0823	420.2027		LCS			5561.5817	104.1%

Filename: 3:36 PMab

Instrument Type	LS 6000
Data Capture Date	17 Feb 2010 15:14:03
User Filename	C:\LSCCAPTURE\BROWN\USER13\UN021701.BSF

User Number	13
User Id	TRITIUM
User Comments	BROWN

Scintillator Choice: LIQUID

Sam	Rack	Time	H#	Raw CPM1	CPM Iso1	%Err1	LumEx	ElTime
1	33-1	95.00	103.7	3.21	3.05	12.04	0.39	97.51
2	33-2	95.00	108.0	5.29	5.14	9.19	0.39	195.52
3	33-3	95.00	108.7	55.33	55.11	2.77	0.21	293.56
4	33-4	95.00	108.5	4.89	4.75	9.56	0.35	391.58
5	33-5	95.00	109.4	37.56	37.34	3.37	0.27	489.64
6	33-6	95.00	109.3	12.76	12.54	5.85	0.43	587.69
7	33-7	95.00	107.9	4.28	4.14	10.27	0.37	685.69
8	33-8	95.00	109.4	3.87	3.76	10.75	0.29	783.65

Sample Count Start Time:	17 Feb 2010 15:16:34		
Data Capture Date	17 Feb 2010 16:51:48		
User Filename	S13021733-1A.XLS		
	U13021733-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	33-1	95.00
H#, Total Counts:	103.7	3438	
Win1: Tritium - Start, End, Counts:	0	240	290
Win2: - Start, End, Counts:	0	990	3438

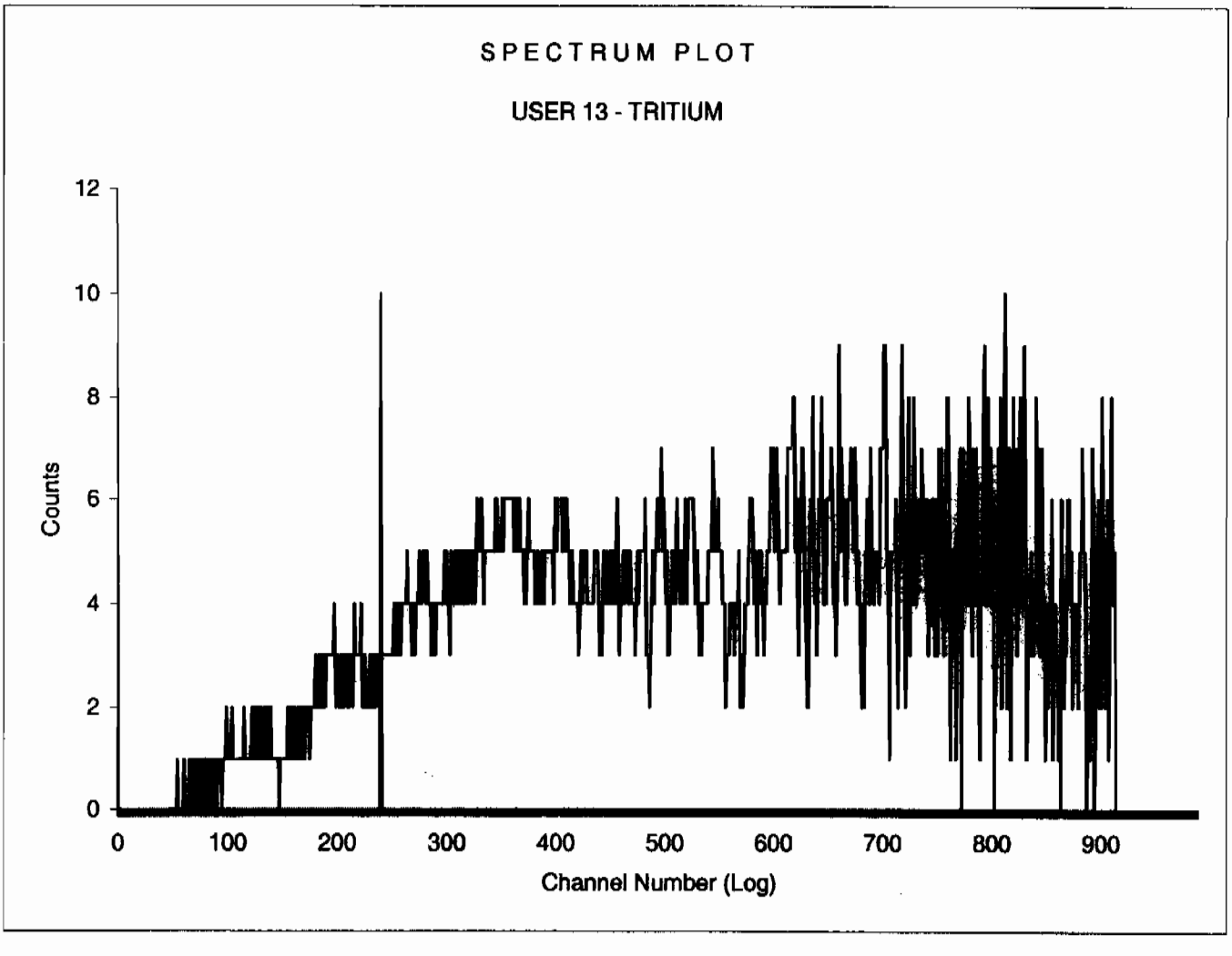

Sample Count Start Time:	17 Feb 2010 16:54:34		
Data Capture Date	17 Feb 2010 18:29:48		
User Filename	S13021733-2A.XLS		
	U13021733-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	33-2	95.00
H#, Total Counts:	108.0	3629	
Win1: Tritium - Start, End, Counts:	0	240	488
Win2: - Start, End, Counts:	0	990	3629

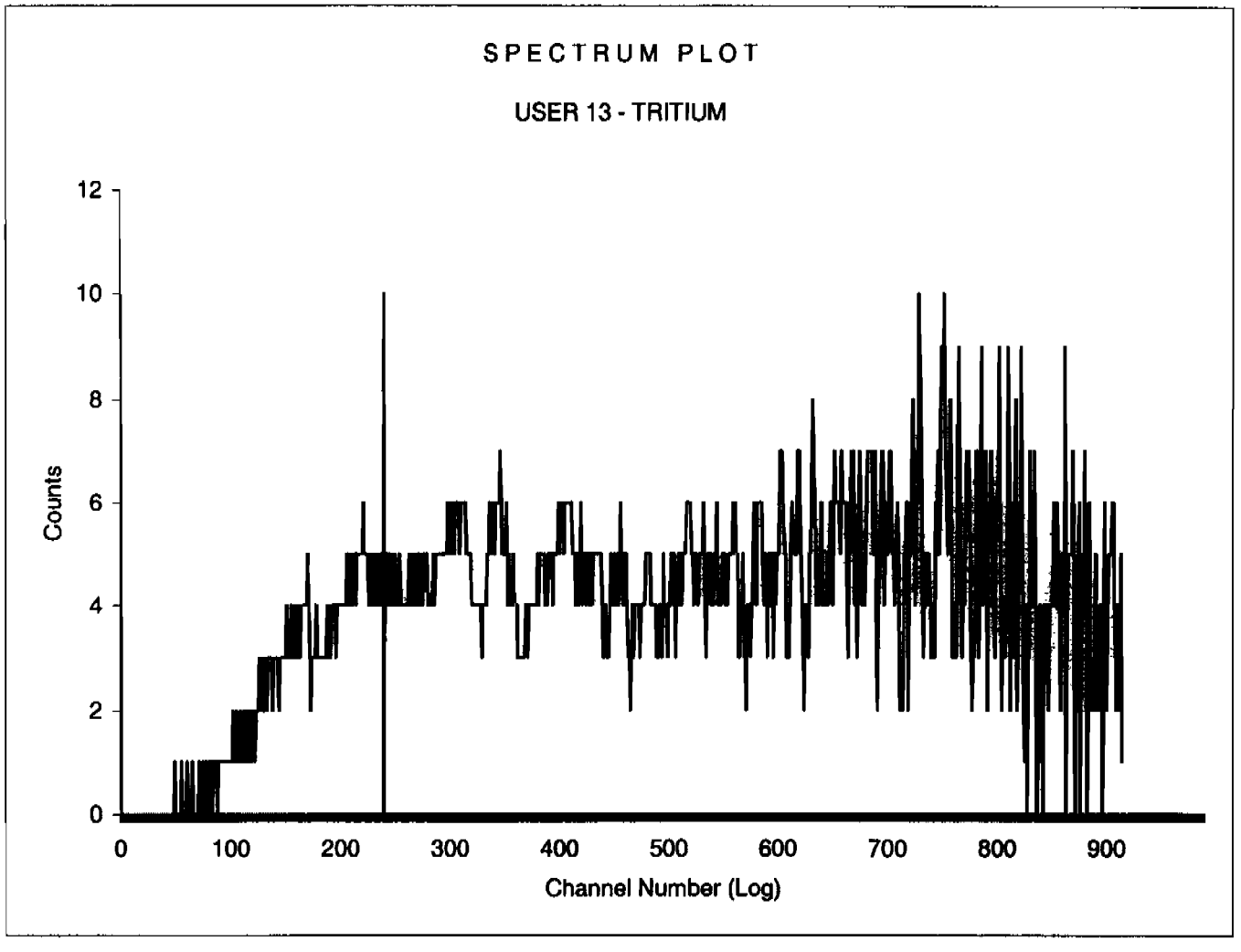

Sample Count Start Time:	17 Feb 2010 18:32:37		
Data Capture Date	17 Feb 2010 20:07:52		
User Filename	S13021733-3A.XLS		
	U13021733-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	33-3	95.00
H#, Total Counts:	108.7	9811	
Win1: Tritium - Start, End, Counts:	0	240	5203
Win2: - Start, End, Counts:	0	990	9811

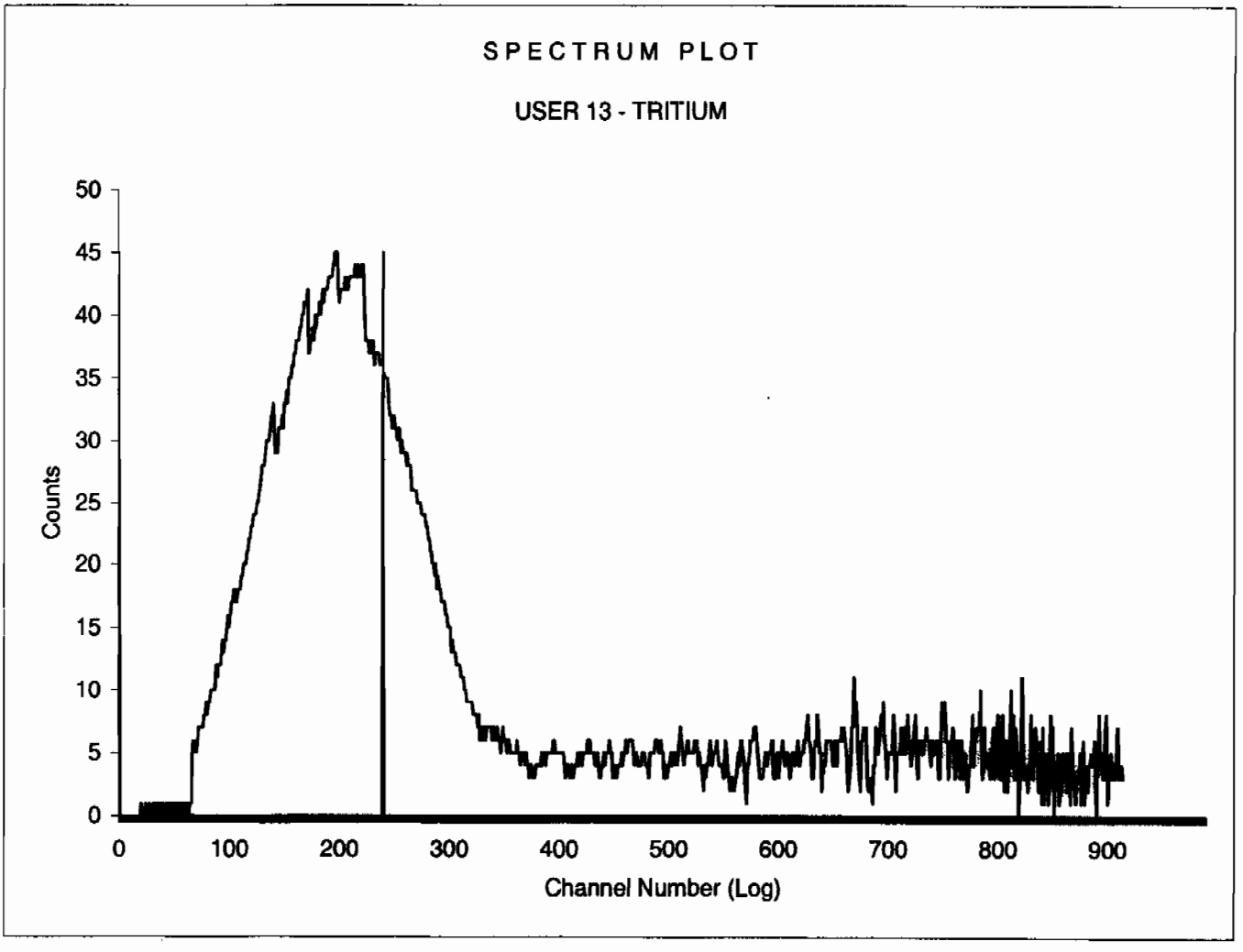

Sample Count Start Time:	17 Feb 2010 20:10:38		
Data Capture Date	17 Feb 2010 21:45:52		
User Filename	S13021733-4A.XLS		
	U13021733-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	33-4	95.00
H#, Total Counts:	108.5	3787	
Win1: Tritium - Start, End, Counts:	0	240	451
Win2: - Start, End, Counts:	0	990	3787

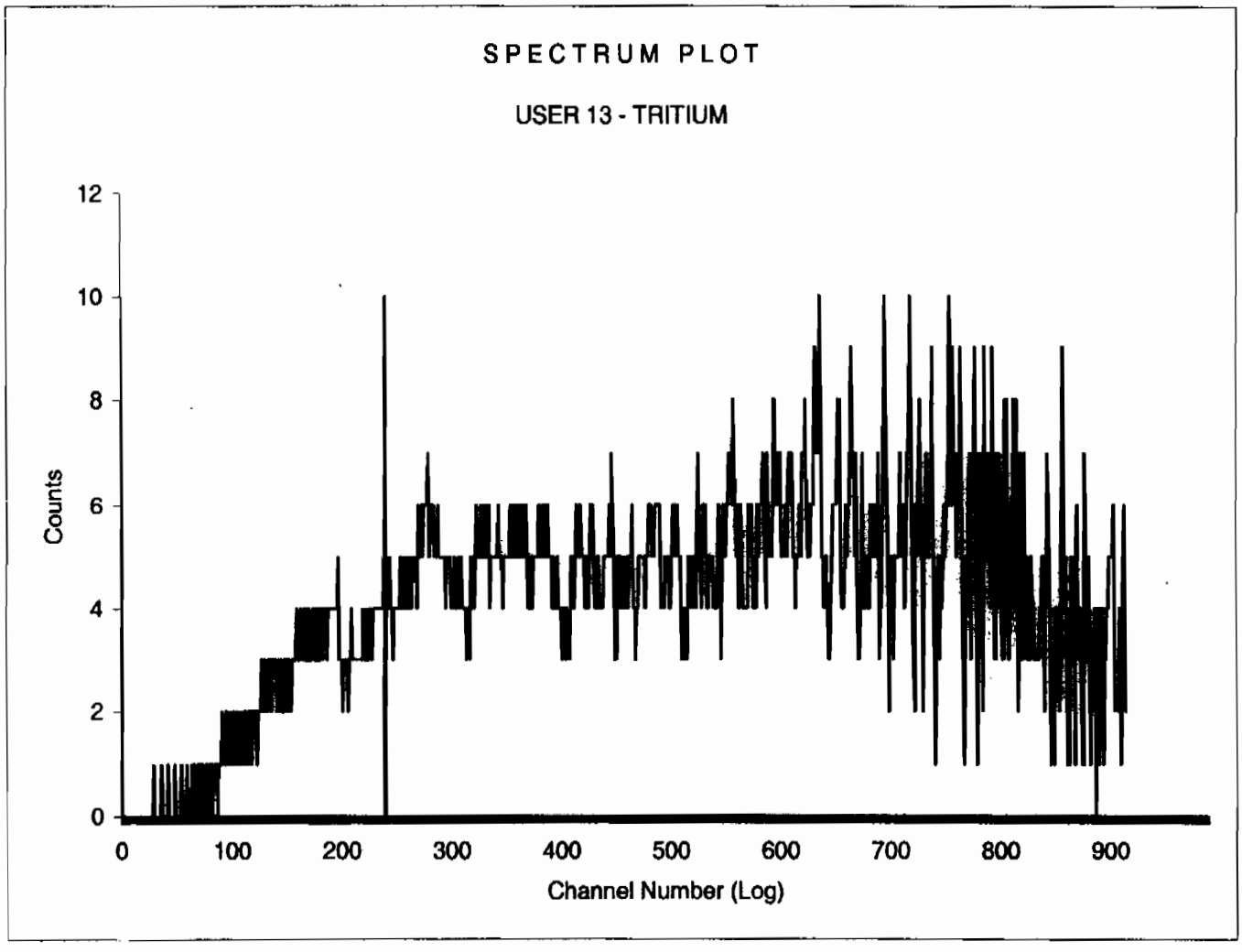

Sample Count Start Time:	17 Feb 2010 21:48:41		
Data Capture Date	17 Feb 2010 23:23:56		
User Filename	S13021733-5A.XLS		
	U13021733-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	33-5	95.00
H#, Total Counts:	109.4	7582	
Win1: Tritium - Start, End, Counts:	0	240	3515
Win2: - Start, End, Counts:	0	990	7582

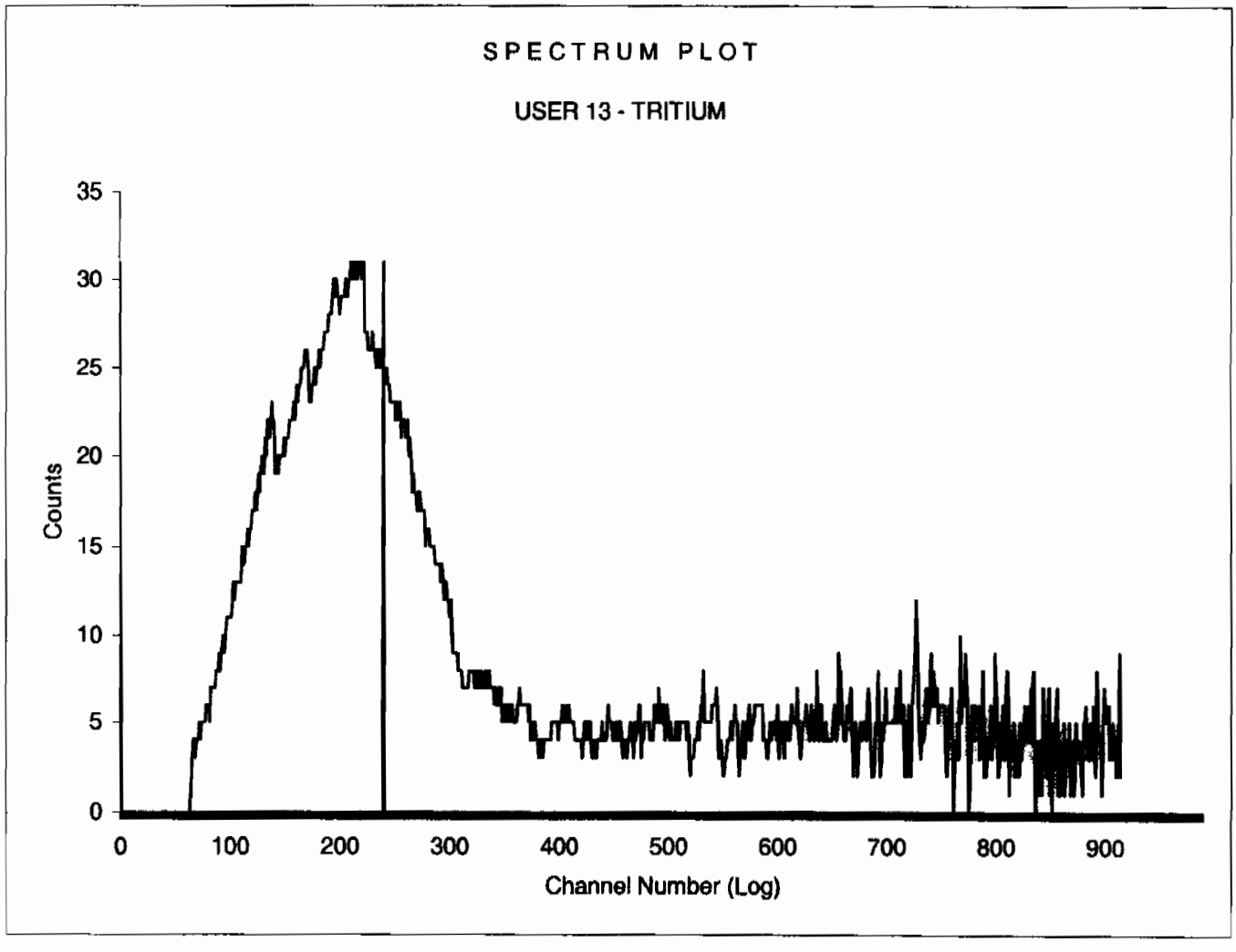

Sample Count Start Time:	17 Feb 2010 23:26:44		
Data Capture Date	18 Feb 2010 01:02:00		
User Filename	S13021833-6A.XLS		
	U13021733-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	33-6	95.00
H#, Total Counts:	109.3	4649	
Win1: Tritium - Start, End, Counts:	0	240	1191
Win2: - Start, End, Counts:	0	990	4649

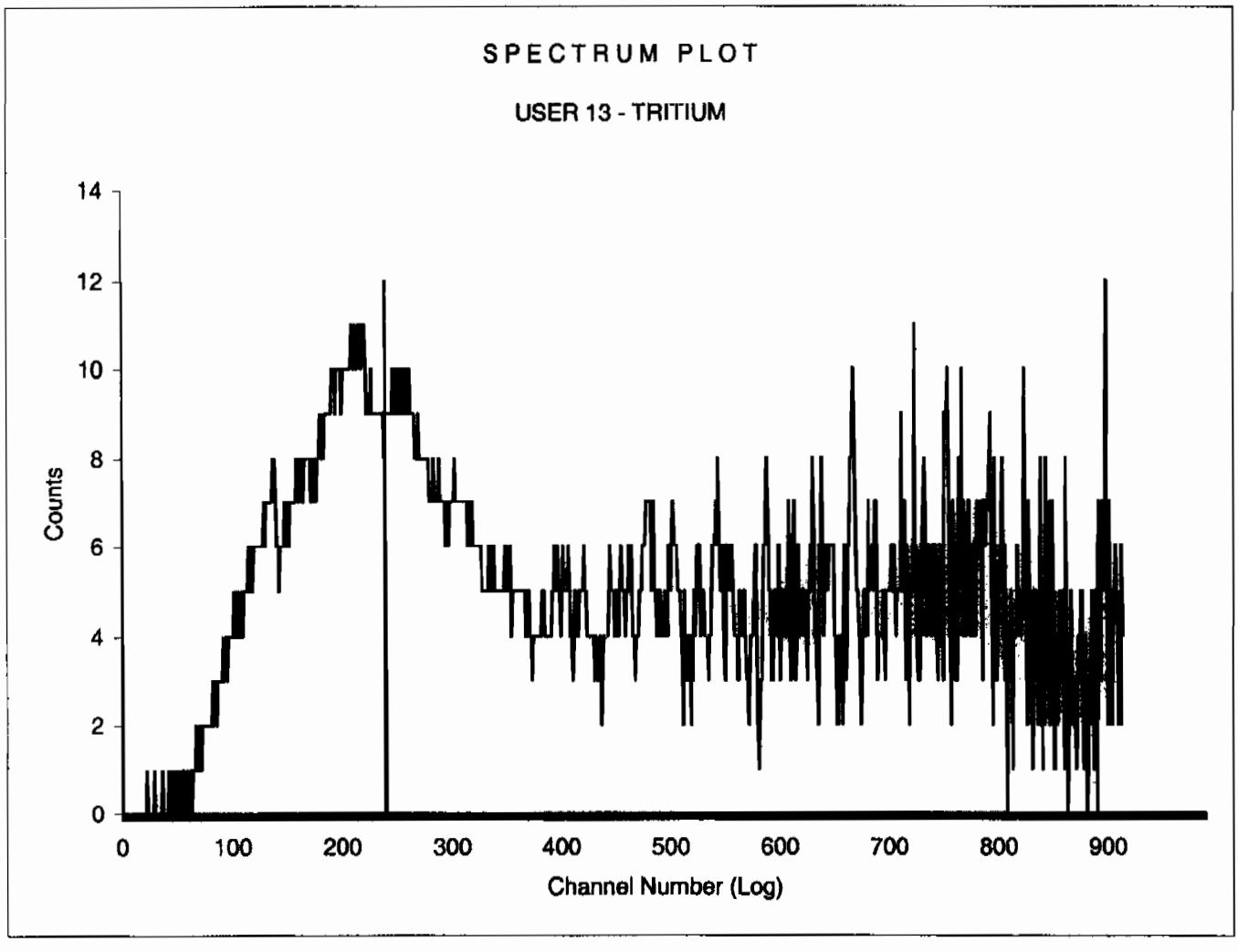

Sample Count Start Time:	18 Feb 2010 01:04:44		
Data Capture Date	18 Feb 2010 02:40:00		
User Filename	S13021833-7A.XLS		
	U13021733-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	33-7	95.00
H#, Total Counts:	107.9	3509	
Win1: Tritium - Start, End, Counts:	0	240	393
Win2: - Start, End, Counts:	0	990	3509

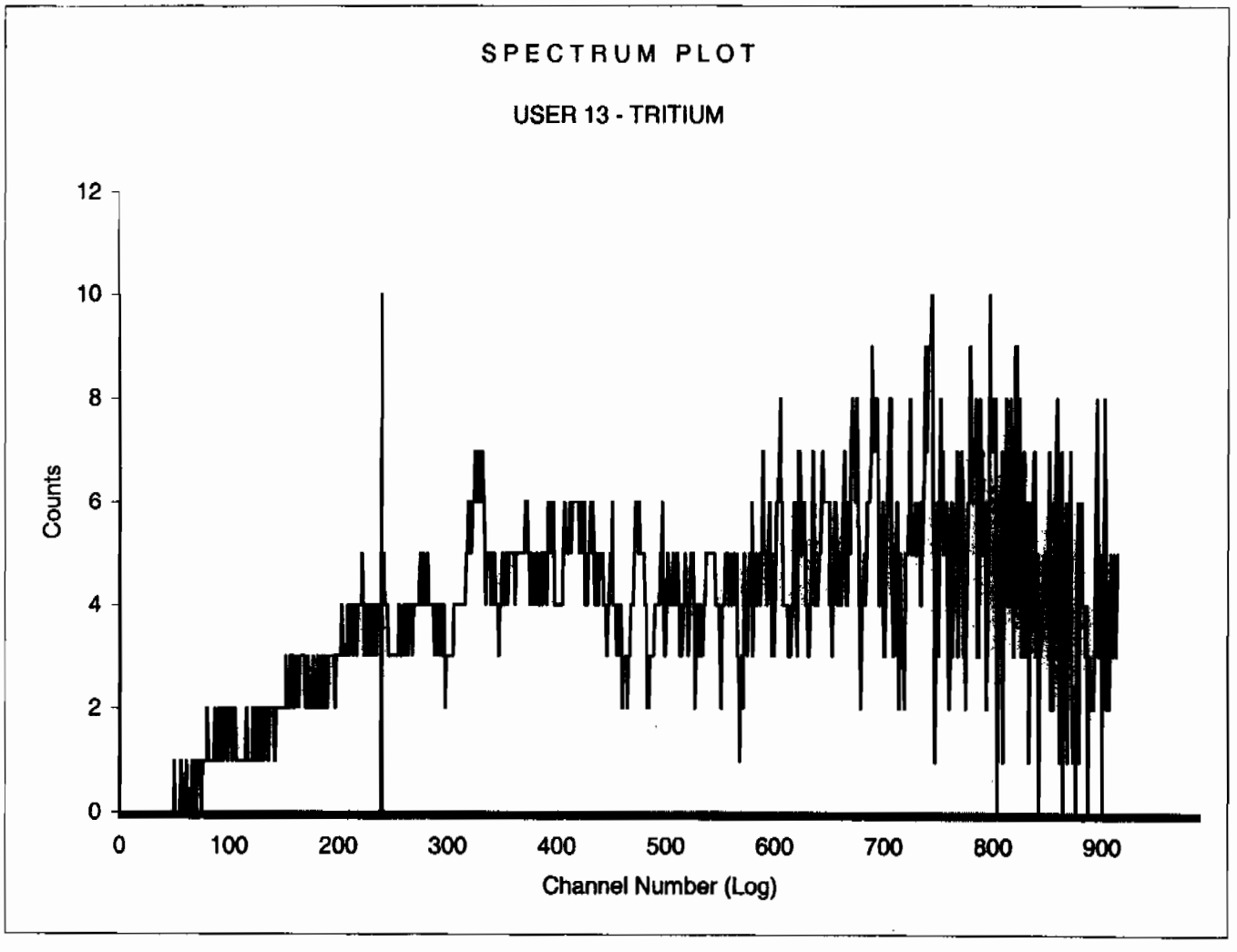

Sample Count Start Time:	18 Feb 2010 02:42:42		
Data Capture Date	18 Feb 2010 04:18:05		
User Filename	S13021833-8A.XLS		
	U13021733-1A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	33-8	95.00
H#, Total Counts:	109.4	3513	
Win1: Tritium - Start, End, Counts:	0	240	357
Win2: - Start, End, Counts:	0	990	3513

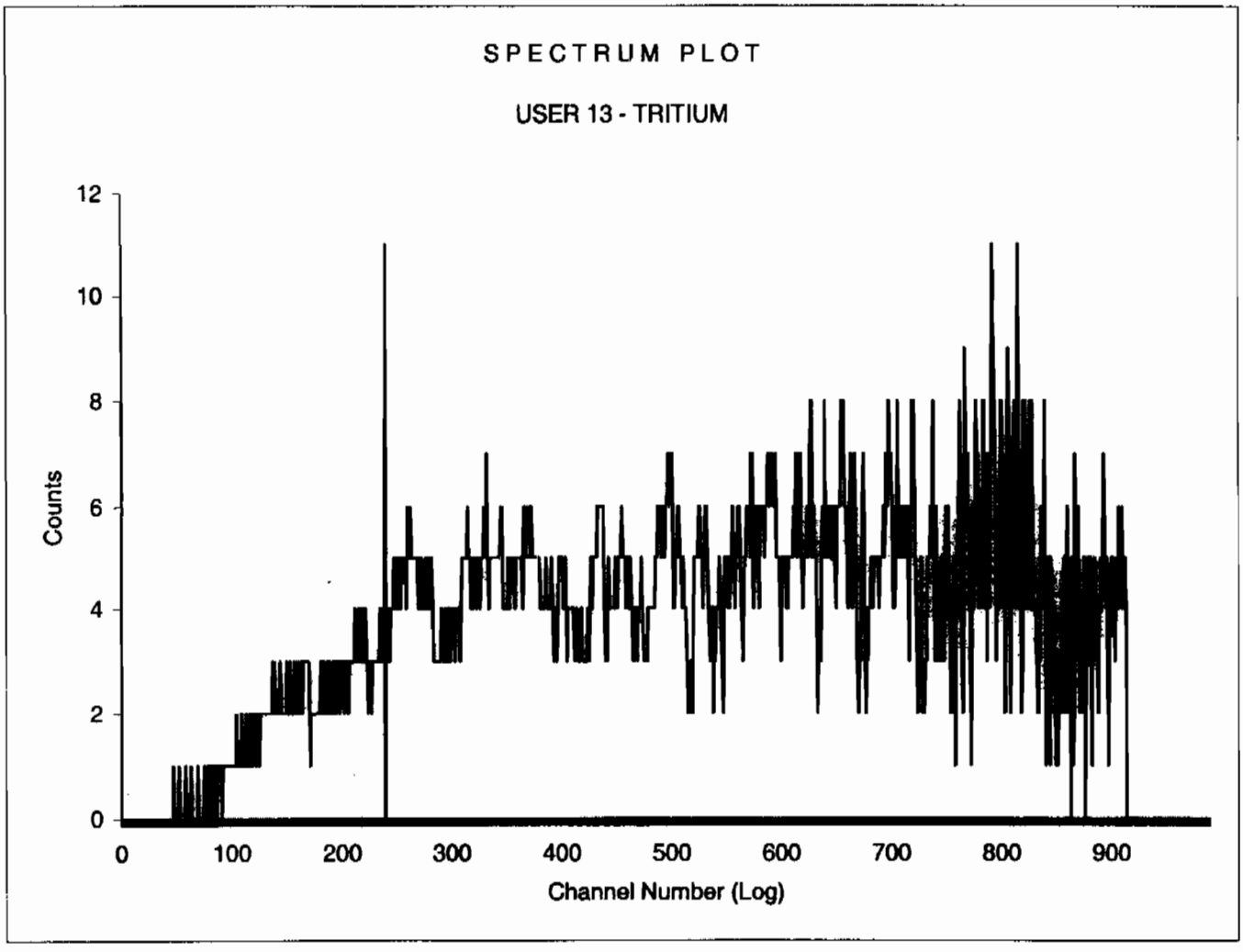

Filename: 3:37 PMab

Instrument Type	LS 6000
Data Capture Date	18 Feb 2010 05:32:37
User Filename	C:\LSCCAPTURE\BROWN\USER13\UN021801.BSF

User Number	13
User Id	TRITIUM
User Comments	BROWN

Scintillator Choice: LIQUID

Sam	Rack	Time	H#	Raw CPM1	CPM Iso1	%Err1	LumEx	ElTime
9	60-9	95.00	110.8	3.96	3.85	10.60	0.27	97.56
10	60-10	95.00	110.3	5.87	5.77	8.62	0.25	195.49
11	60-11	95.00	109.9	4.59	4.49	9.78	0.25	293.44
12	60-12	95.00	109.7	10.72	10.58	6.35	0.29	391.42
13	47-1	95.00	104.3	5.87	5.76	8.64	0.27	489.48
14	47-2	95.00	110.7	30.19	30.04	3.75	0.21	587.49
15	47-3	95.00	110.0	11.75	11.61	6.06	0.29	685.47
16	47-4	95.00	109.6	21.12	20.98	4.49	0.23	783.45
17	47-5	95.00	110.2	4.85	4.75	9.52	0.28	881.40
18	47-6	95.00	108.3	5.07	4.97	9.30	0.25	979.35
19	47-7	95.00	110.1	11.00	10.85	6.27	0.30	1077.34
20	47-8	95.00	109.5	3.38	3.26	11.56	0.31	1175.29
21	47-9	95.00	109.3	3.44	3.34	11.41	0.28	1273.24
22	47-10	95.00	109.3	4.04	3.94	10.48	0.27	1371.19
23	47-11	95.00	109.5	33.56	33.44	3.55	0.17	1469.17

Sample Count Start Time:	18 Feb 2010 05:35:11		
Data Capture Date	18 Feb 2010 07:10:31		
User Filename	S13021860-9A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	60-9	95.00
H#, Total Counts:	110.8	3511	
Win1: Tritium - Start, End, Counts:	0	240	366
Win2: - Start, End, Counts:	0	990	3511

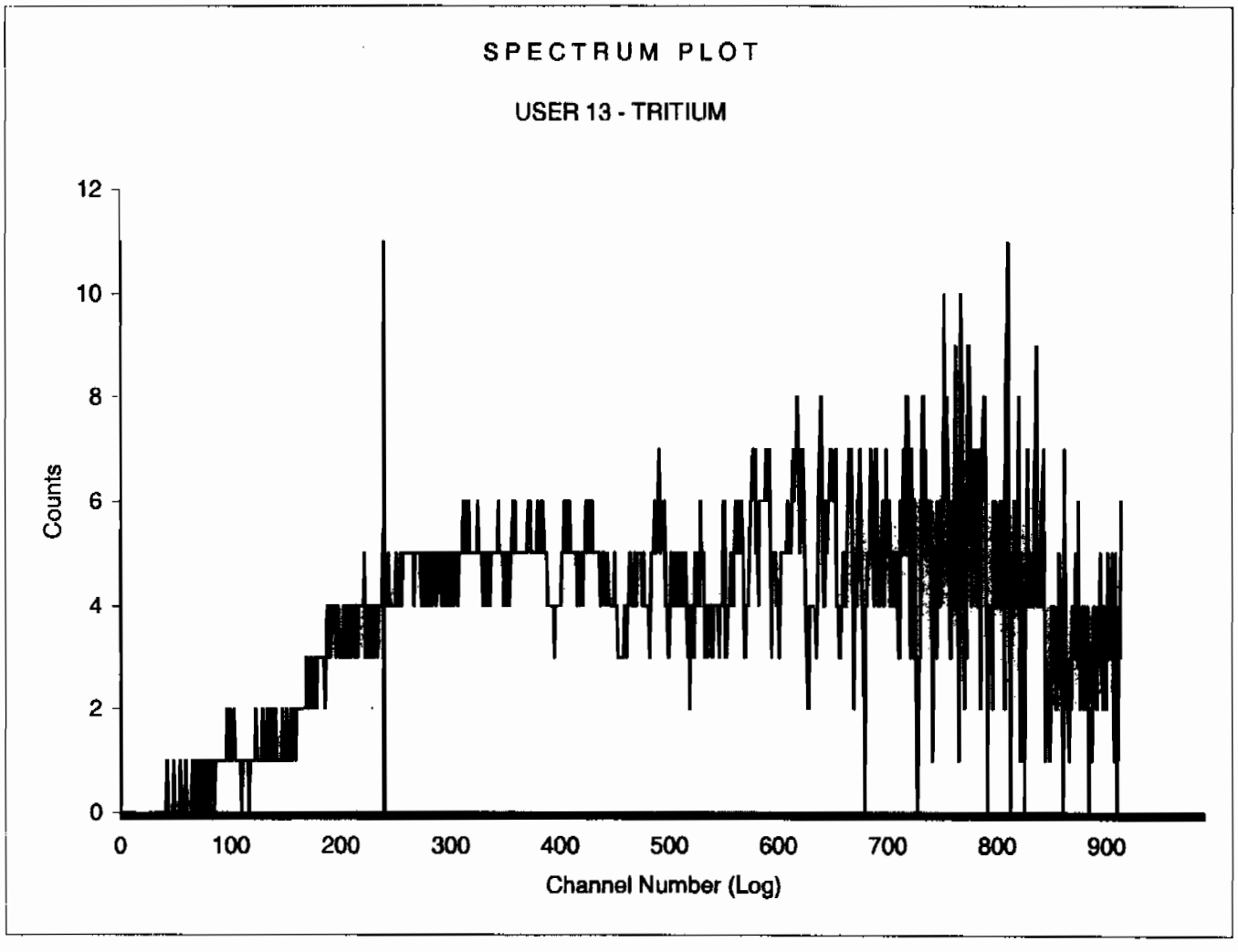

Sample Count Start Time:	18 Feb 2010 07:13:06		
Data Capture Date	18 Feb 2010 08:47:26		
User Filename	S13021860-10A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	60-10	95.00
H#, Total Counts:	110.3	3666	
Win1: Tritium - Start, End, Counts:	0	240	548
Win2: - Start, End, Counts:	0	990	3666

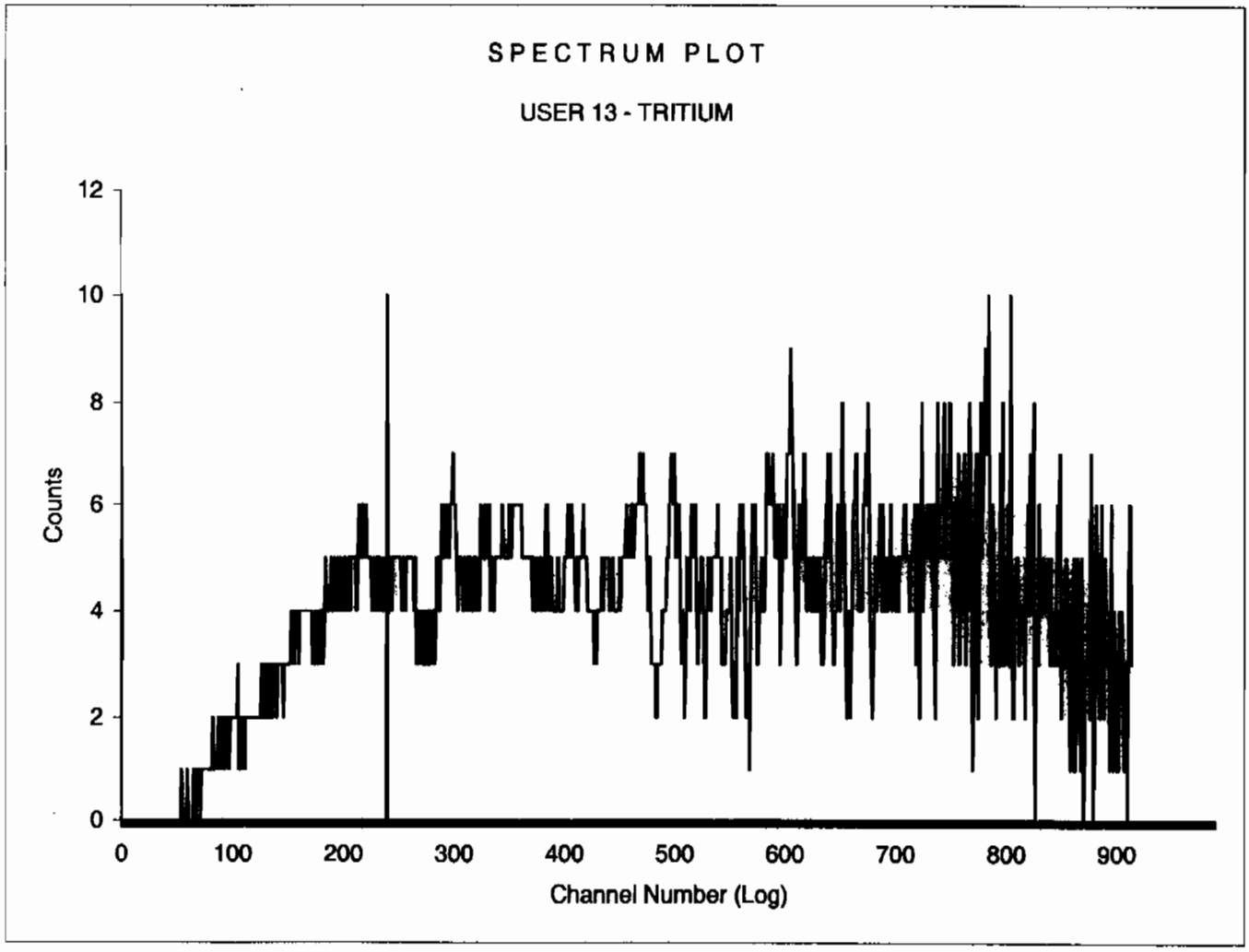

Sample Count Start Time:	18 Feb 2010 08:51:03		
Data Capture Date	18 Feb 2010 10:25:23		
User Filename	S13021860-11A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	60-11	95.00
H#, Total Counts:	109.9	3531	
Win1: Tritium - Start, End, Counts:	0	240	427
Win2: - Start, End, Counts:	0	990	3531

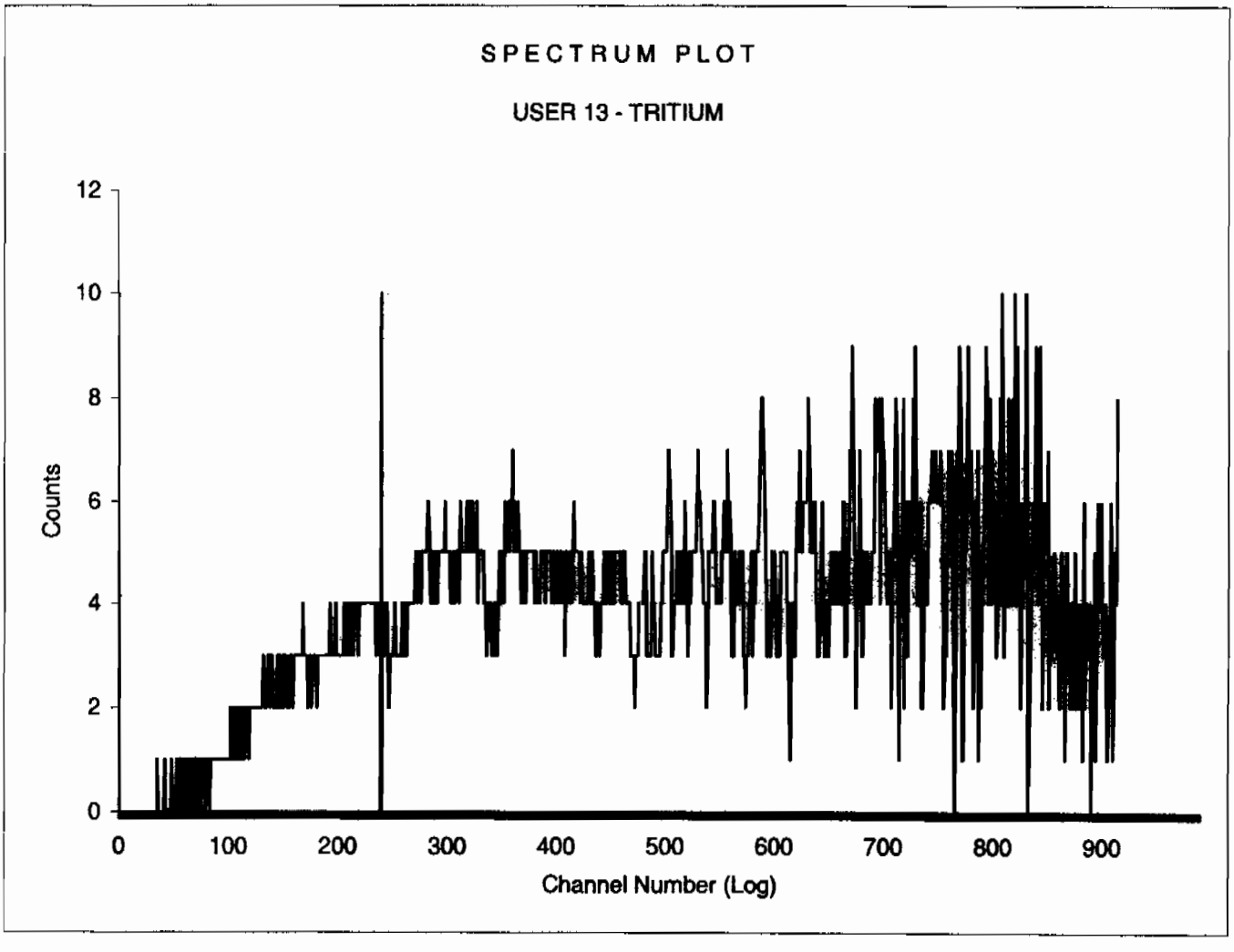

Sample Count Start Time:	18 Feb 2010 10:29:02		
Data Capture Date	18 Feb 2010 12:03:23		
User Filename	S13021860-12A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	60-12	95.00
H#, Total Counts:	109.7	4281	
Win1: Tritium - Start, End, Counts:	0	240	1005
Win2: - Start, End, Counts:	0	990	4281

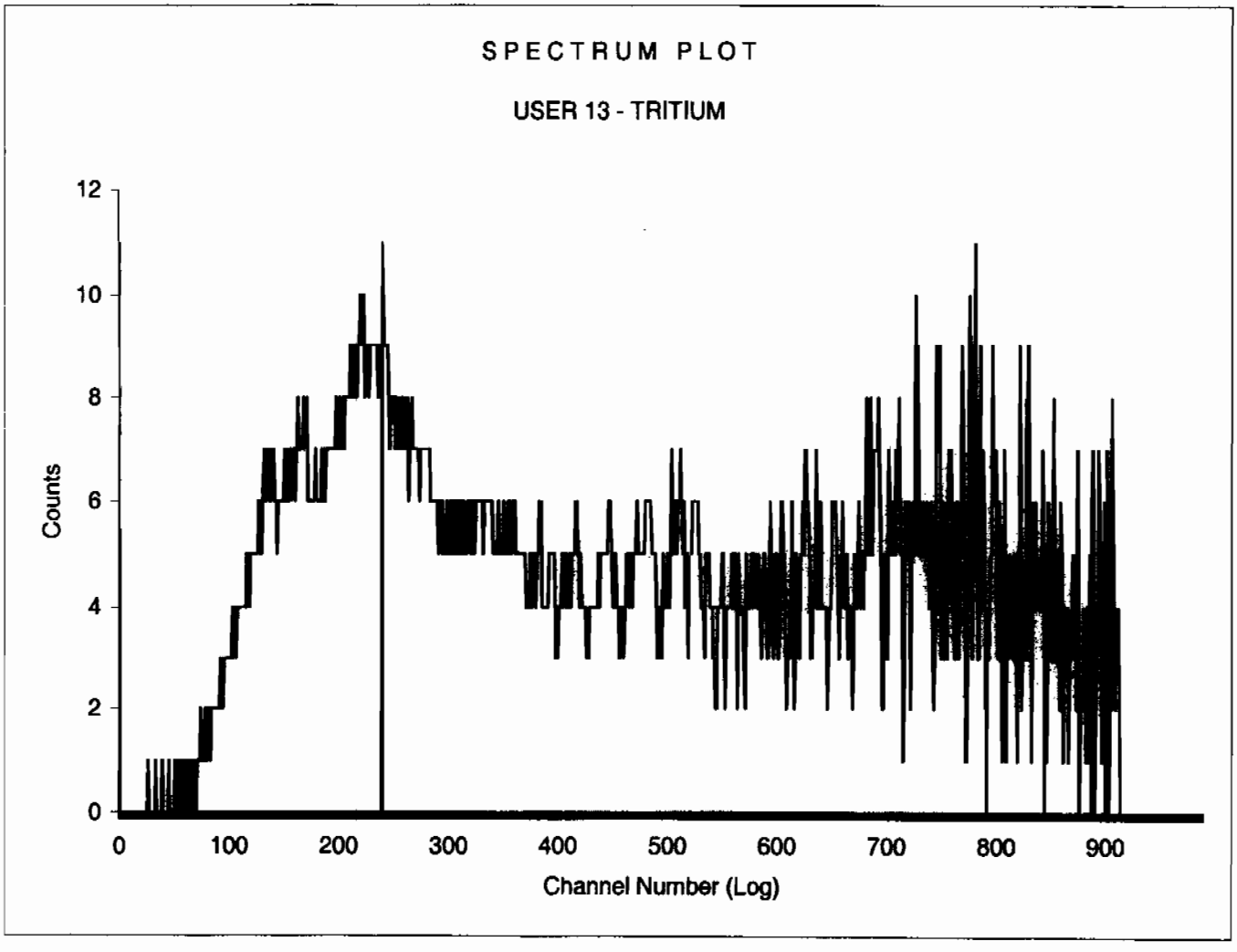

Sample Count Start Time:	18 Feb 2010 12:07:06		
Data Capture Date	18 Feb 2010 13:41:27		
User Filename	S13021847-1A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	13	47-1	95.00
H#, Total Counts:	104.3	3736	
Win1: Tritium - Start, End, Counts:	0	240	547
Win2: - Start, End, Counts:	0	990	3736

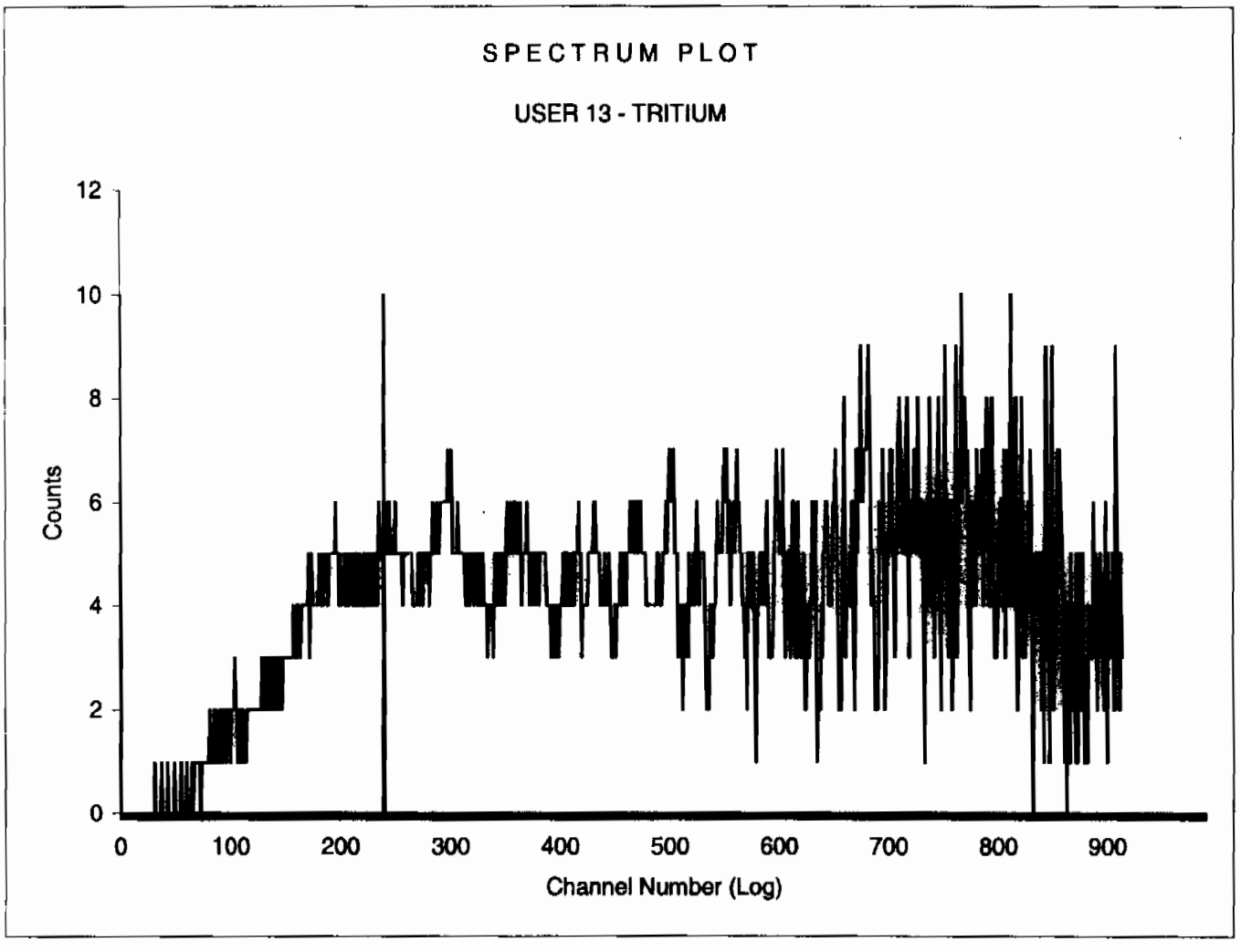

Sample Count Start Time:	18 Feb 2010 13:45:06		
Data Capture Date	18 Feb 2010 15:19:27		
User Filename	S13021847-2A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	14	47-2	95.00
H#, Total Counts:	110.7	6694	
Win1: Tritium - Start, End, Counts:	0	240	2822
Win2: - Start, End, Counts:	0	990	6694

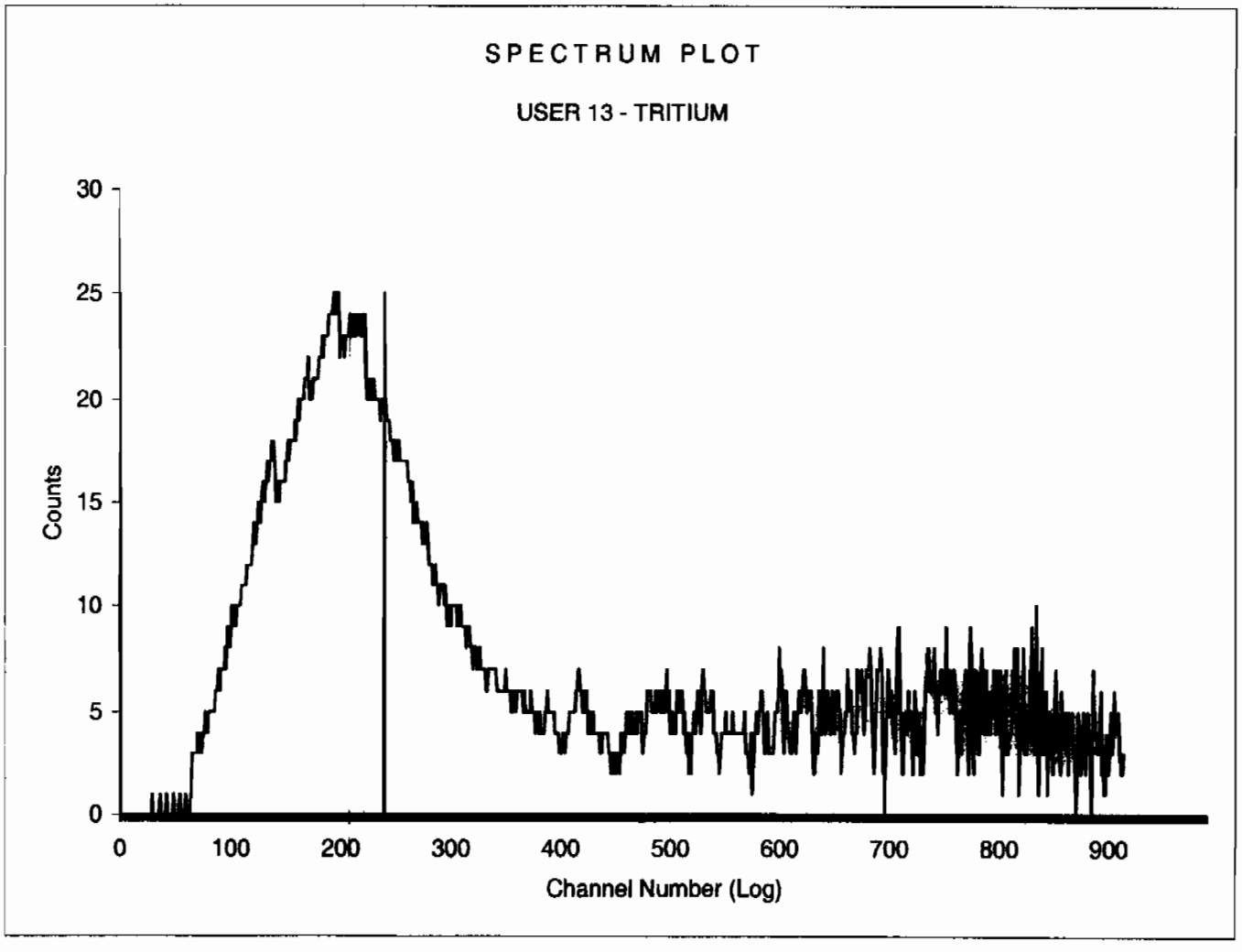

Sample Count Start Time:	18 Feb 2010 15:23:05		
Data Capture Date	18 Feb 2010 16:57:26		
User Filename	S13021847-3A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	15	47-3	95.00
H#, Total Counts:	110.0	4486	
Win1: Tritium - Start, End, Counts:	0	240	1103
Win2: - Start, End, Counts:	0	990	4486

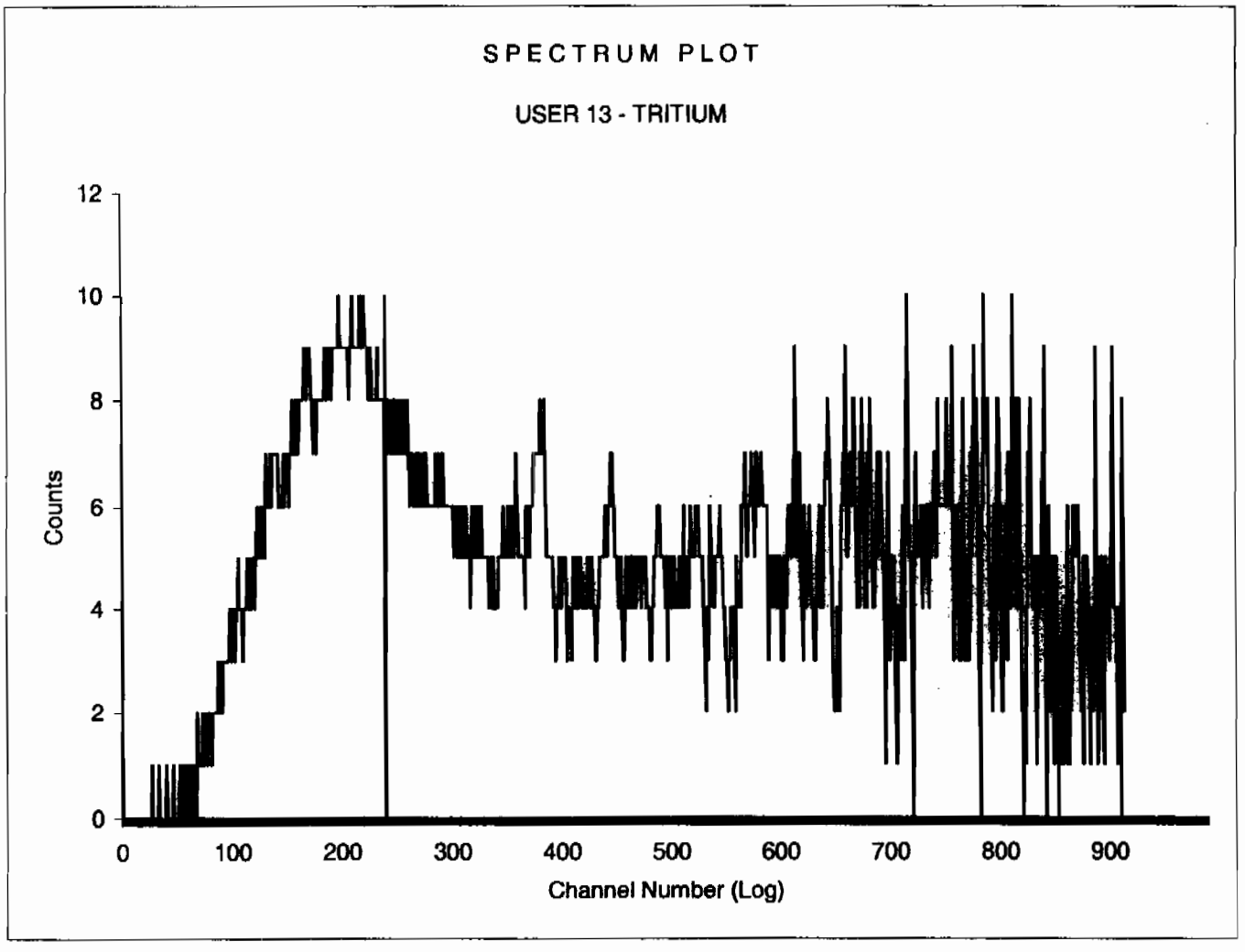

Sample Count Start Time:	18 Feb 2010 17:01:04		
Data Capture Date	18 Feb 2010 18:35:25		
User Filename	S13021847-4A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	16	47-4	95.00
H#, Total Counts:	109.6	5566	
Win1: Tritium - Start, End, Counts:	0	240	1993
Win2: - Start, End, Counts:	0	990	5566

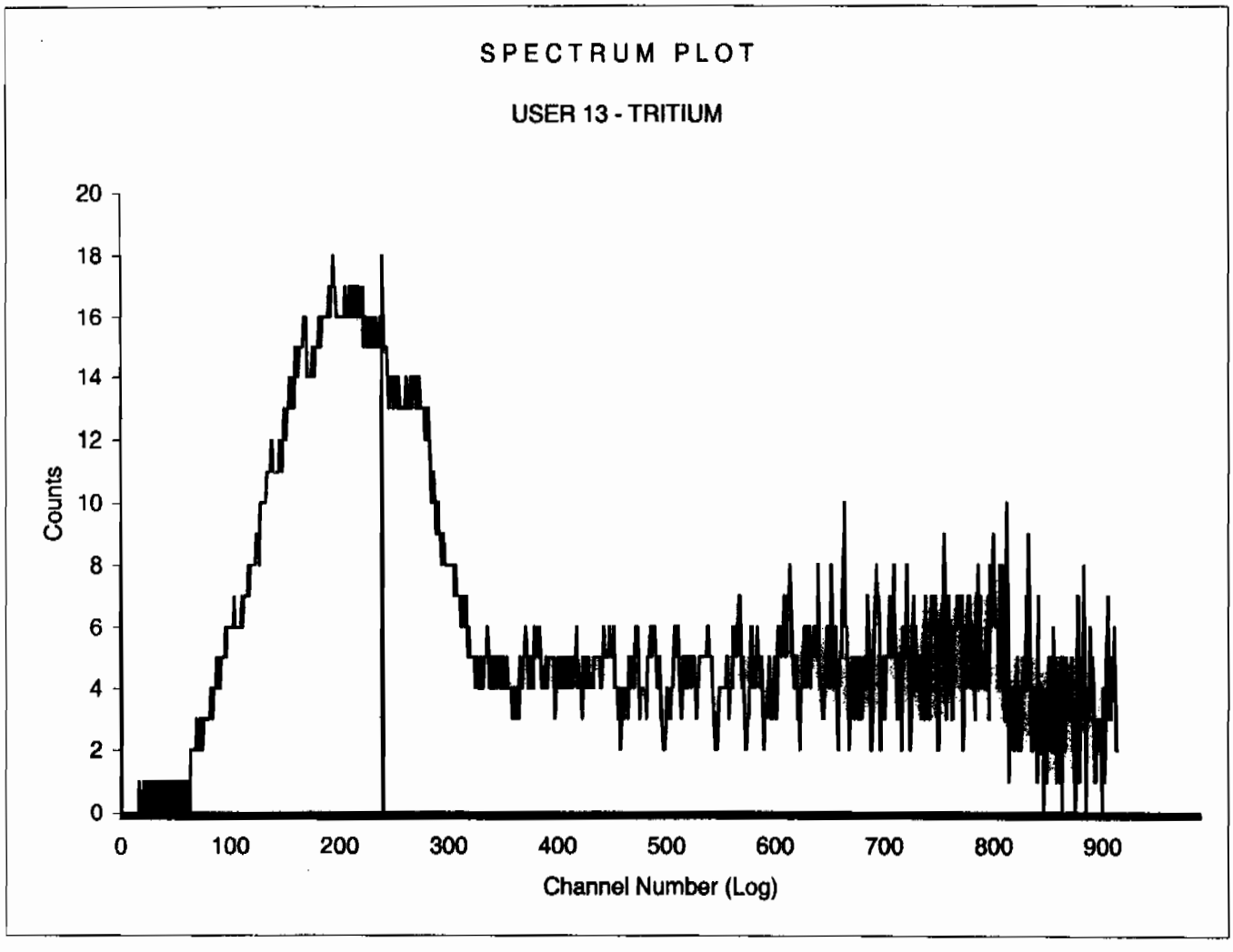

Sample Count Start Time:	18 Feb 2010 18:39:01		
Data Capture Date	18 Feb 2010 20:13:22		
User Filename	S13021847-5A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	17	47-5	95.00
H#, Total Counts:	110.2	3553	
Win1: Tritium - Start, End, Counts:	0	240	451
Win2: - Start, End, Counts:	0	990	3553

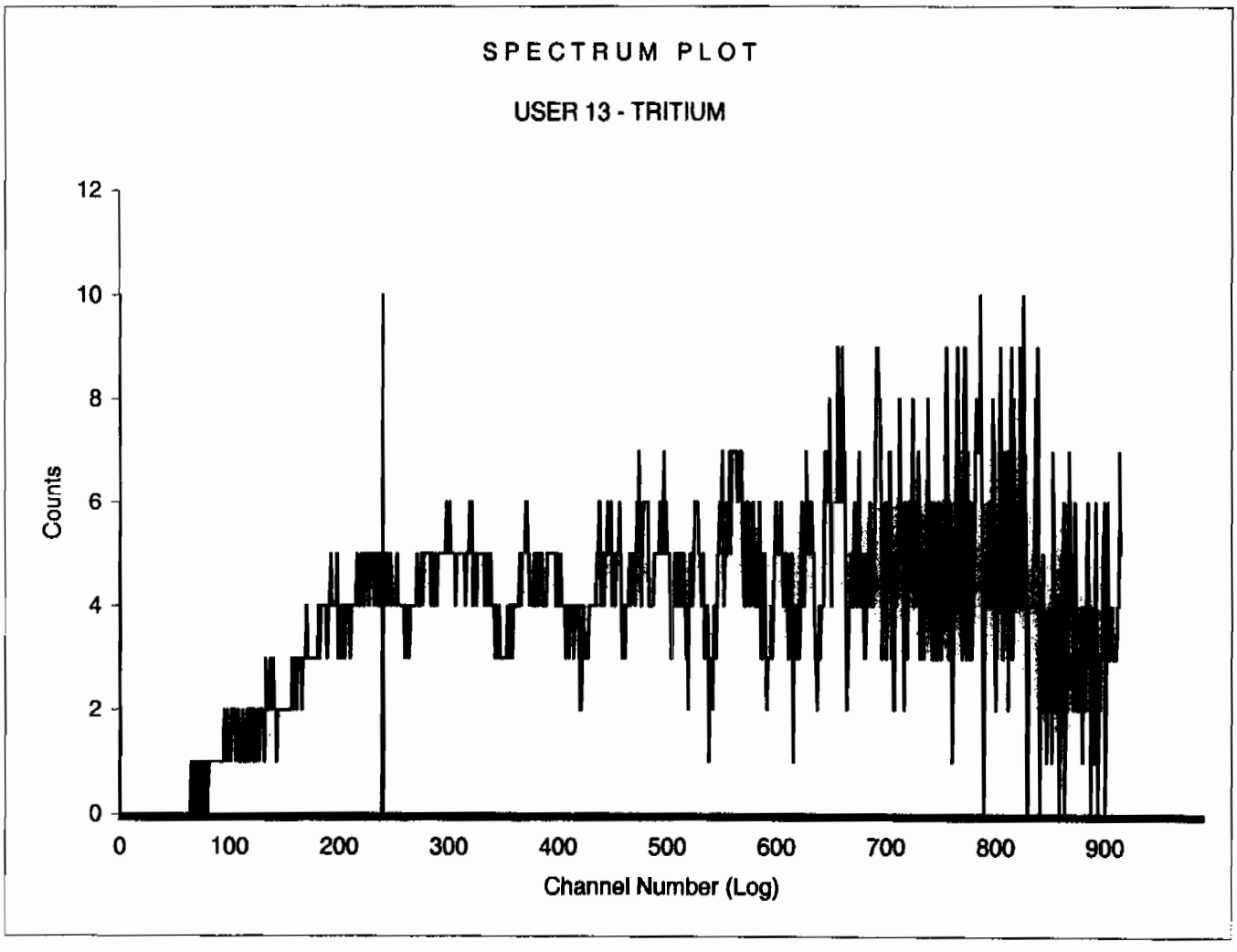

Sample Count Start Time:	18 Feb 2010 20:16:58		
Data Capture Date	18 Feb 2010 21:51:19		
User Filename	S13021847-6A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	18	47-6	95.00
H#, Total Counts:	108.3	3616	
Win1: Tritium - Start, End, Counts:	0	240	472
Win2: - Start, End, Counts:	0	990	3616

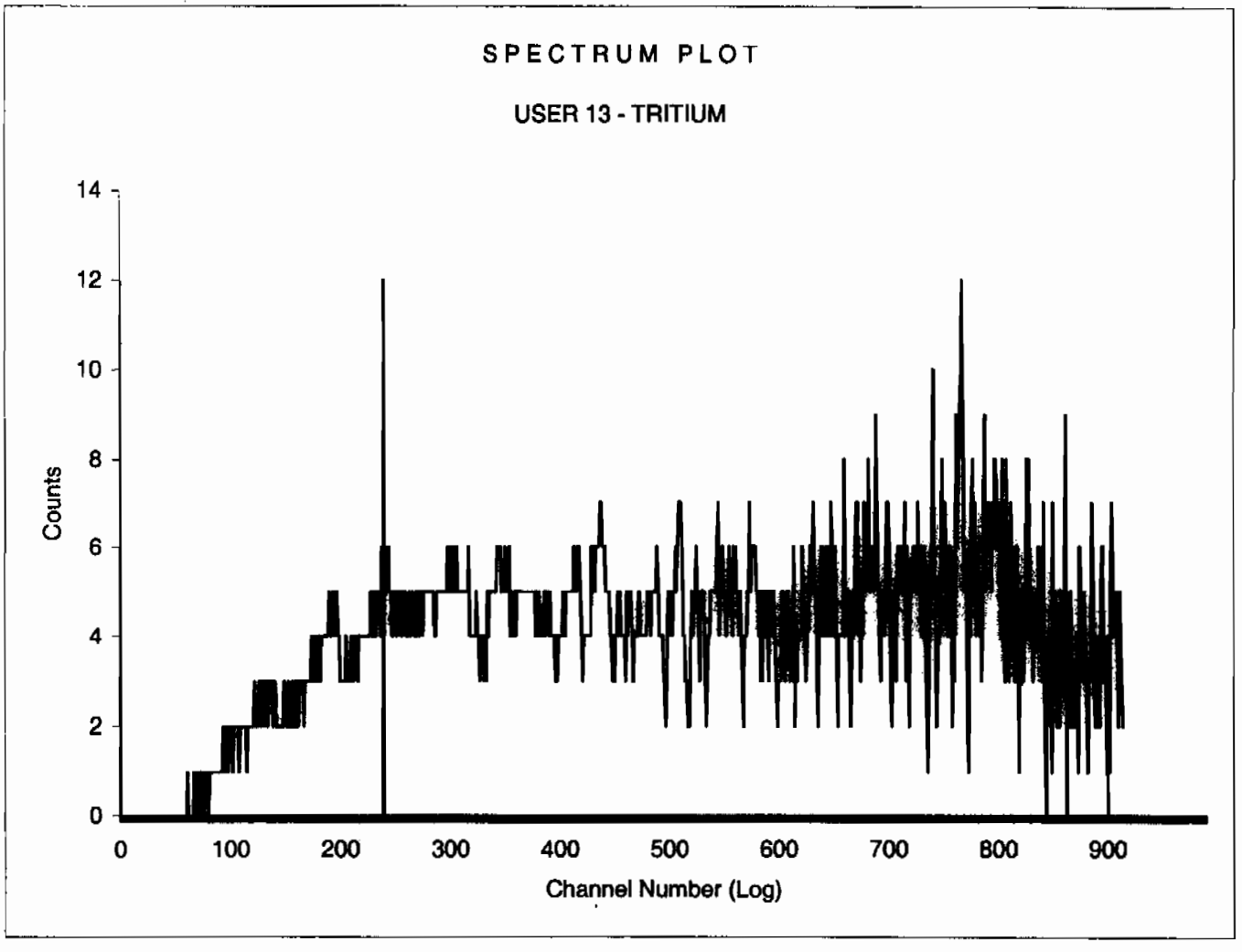

Sample Count Start Time:	18 Feb 2010 21:54:57		
Data Capture Date	18 Feb 2010 23:29:18		
User Filename	S13021847-7A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	19	47-7	95.00
H#, Total Counts:	110.1	4315	
Win1: Tritium - Start, End, Counts:	0	240	1031
Win2: - Start, End, Counts:	0	990	4315

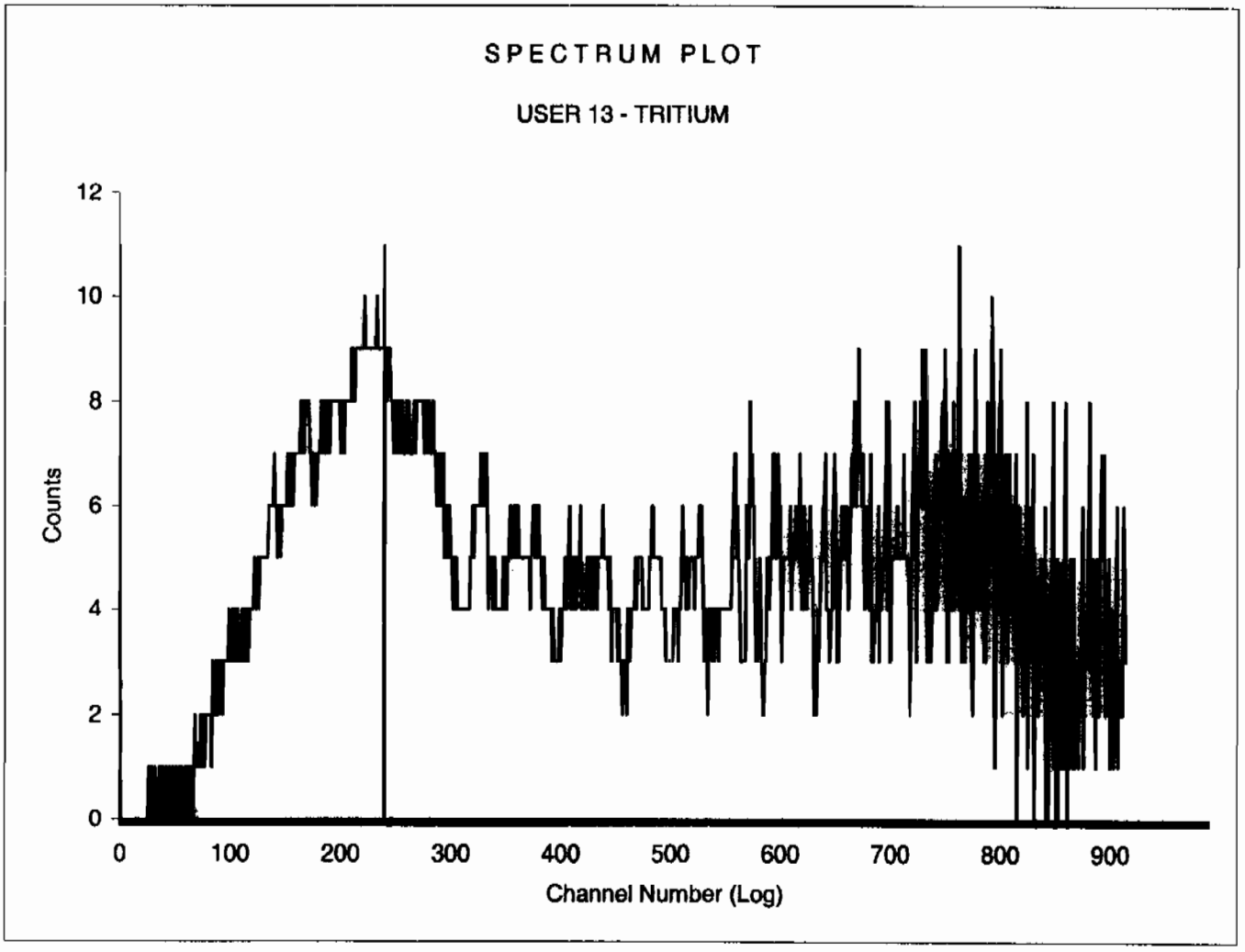

Sample Count Start Time:	18 Feb 2010 23:32:54		
Data Capture Date	19 Feb 2010 01:07:16		
User Filename	S13021947-8A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	20	47-8	95.00
H#, Total Counts:	109.5	3477	
Win1: Tritium - Start, End, Counts:	0	240	310
Win2: - Start, End, Counts:	0	990	3477

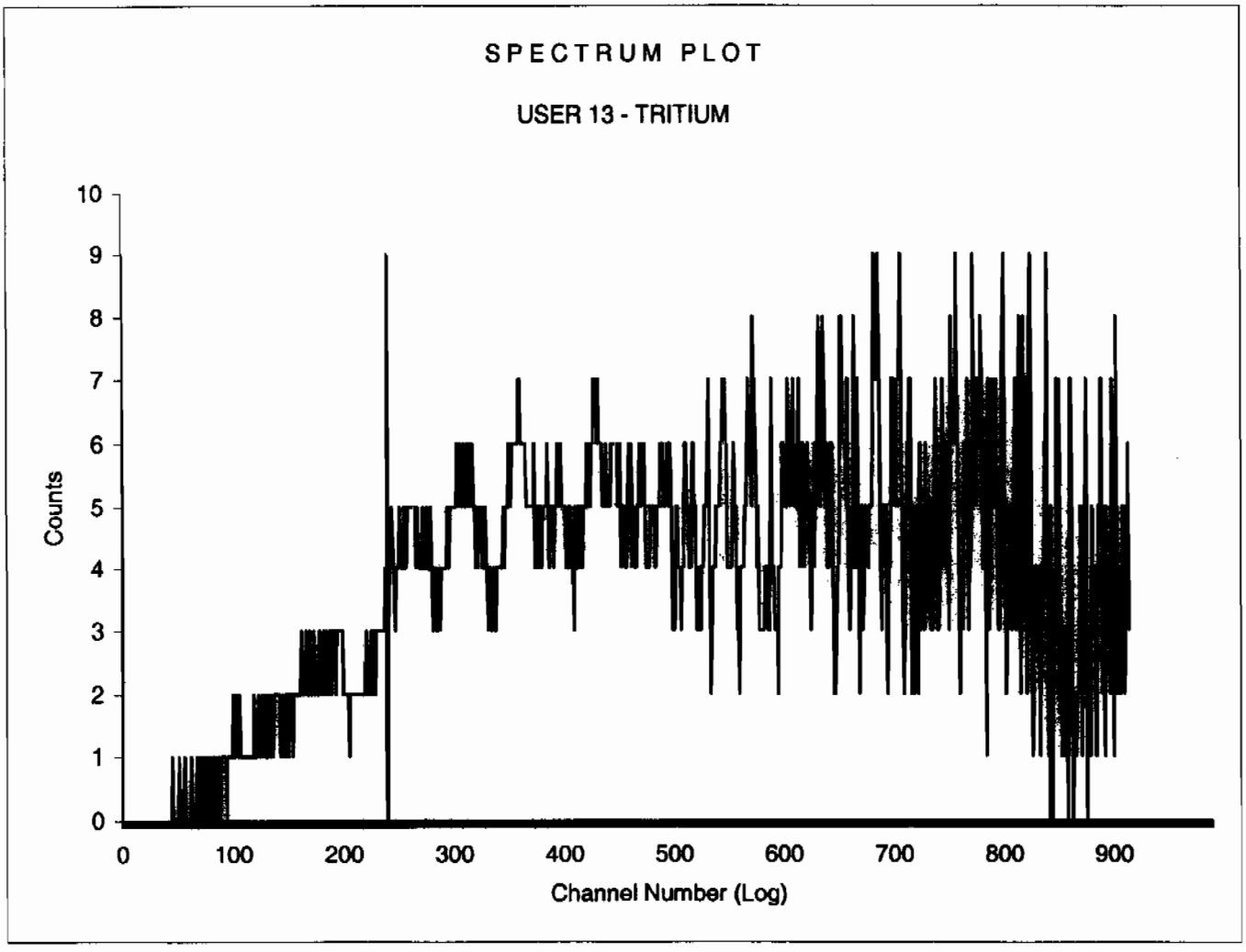

Sample Count Start Time:	19 Feb 2010 01:10:51		
Data Capture Date	19 Feb 2010 02:45:13		
User Filename	S13021947-9A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	21	47-9	95.00
H#, Total Counts:	109.3	3363	
Win1: Tritium - Start, End, Counts:	0	240	317
Win2: - Start, End, Counts:	0	990	3363

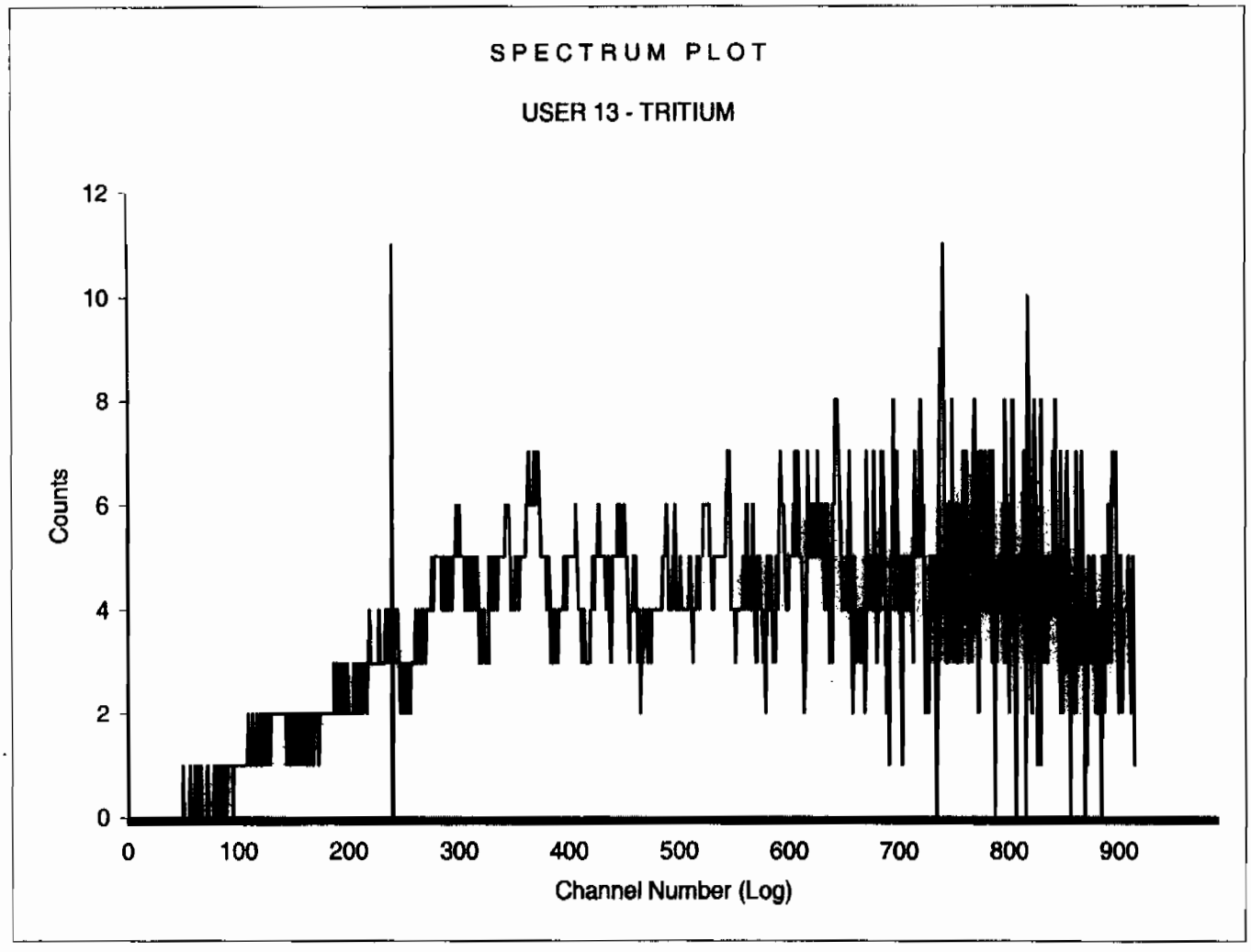

Sample Count Start Time:	19 Feb 2010 02:48:48		
Data Capture Date	19 Feb 2010 04:23:10		
User Filename	S13021947-10A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	22	47-10	95.00
H#, Total Counts:	109.3	3508	
Win1: Tritium - Start, End, Counts:	0	240	374
Win2: - Start, End, Counts:	0	990	3508

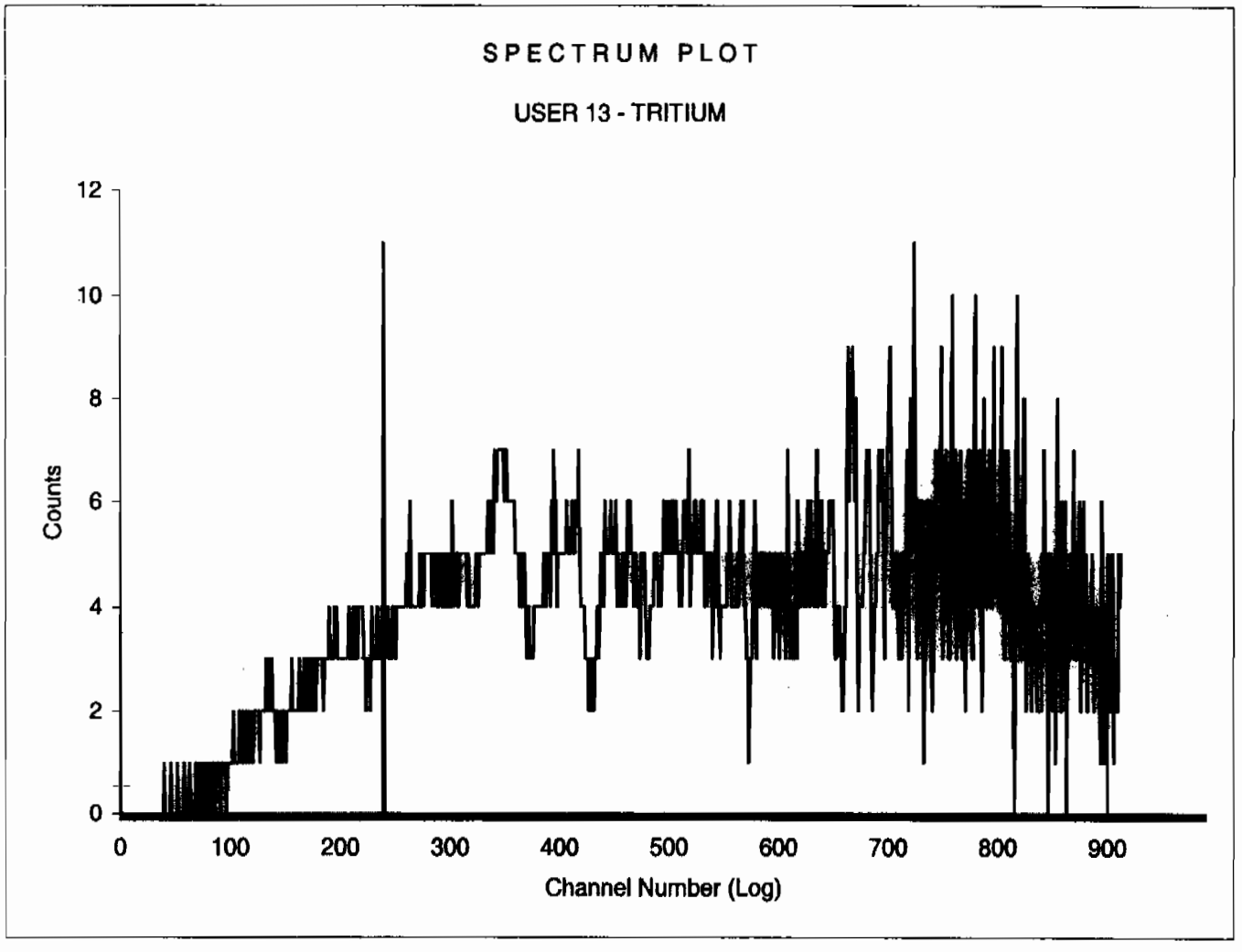

Sample Count Start Time:	19 Feb 2010 04:26:47		
Data Capture Date	19 Feb 2010 06:01:09		
User Filename	S13021947-11A.XLS		
	U13021860-9A.XLS		
Spectrum Type	Log Counts		
User Number	13		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	23	47-11	95.00
H#, Total Counts:	109.5	7109	
Win1: Tritium - Start, End, Counts:	0	240	3145
Win2: - Start, End, Counts:	0	990	7109

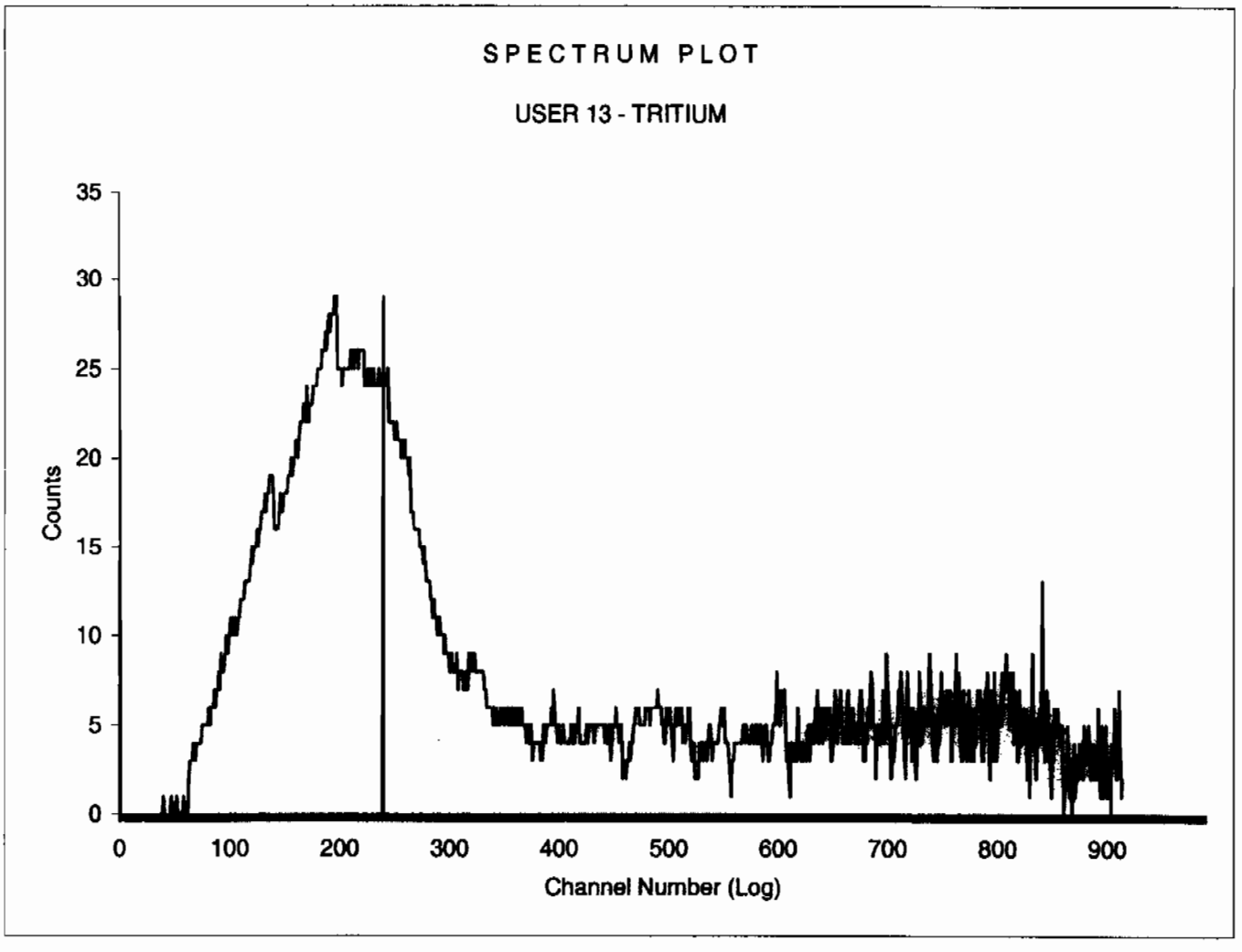

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313195 through 0.333195

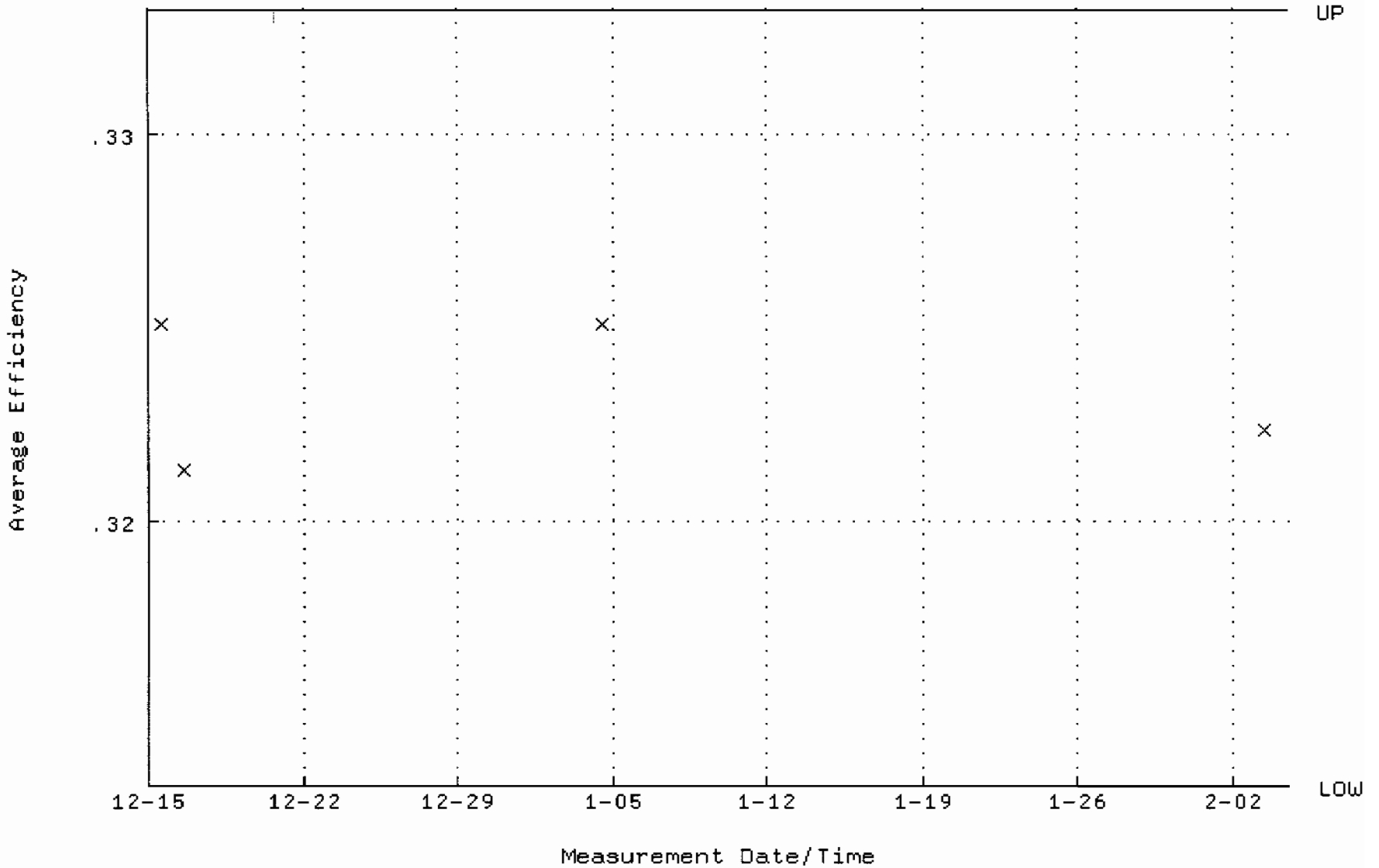

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1884 through 96.3662

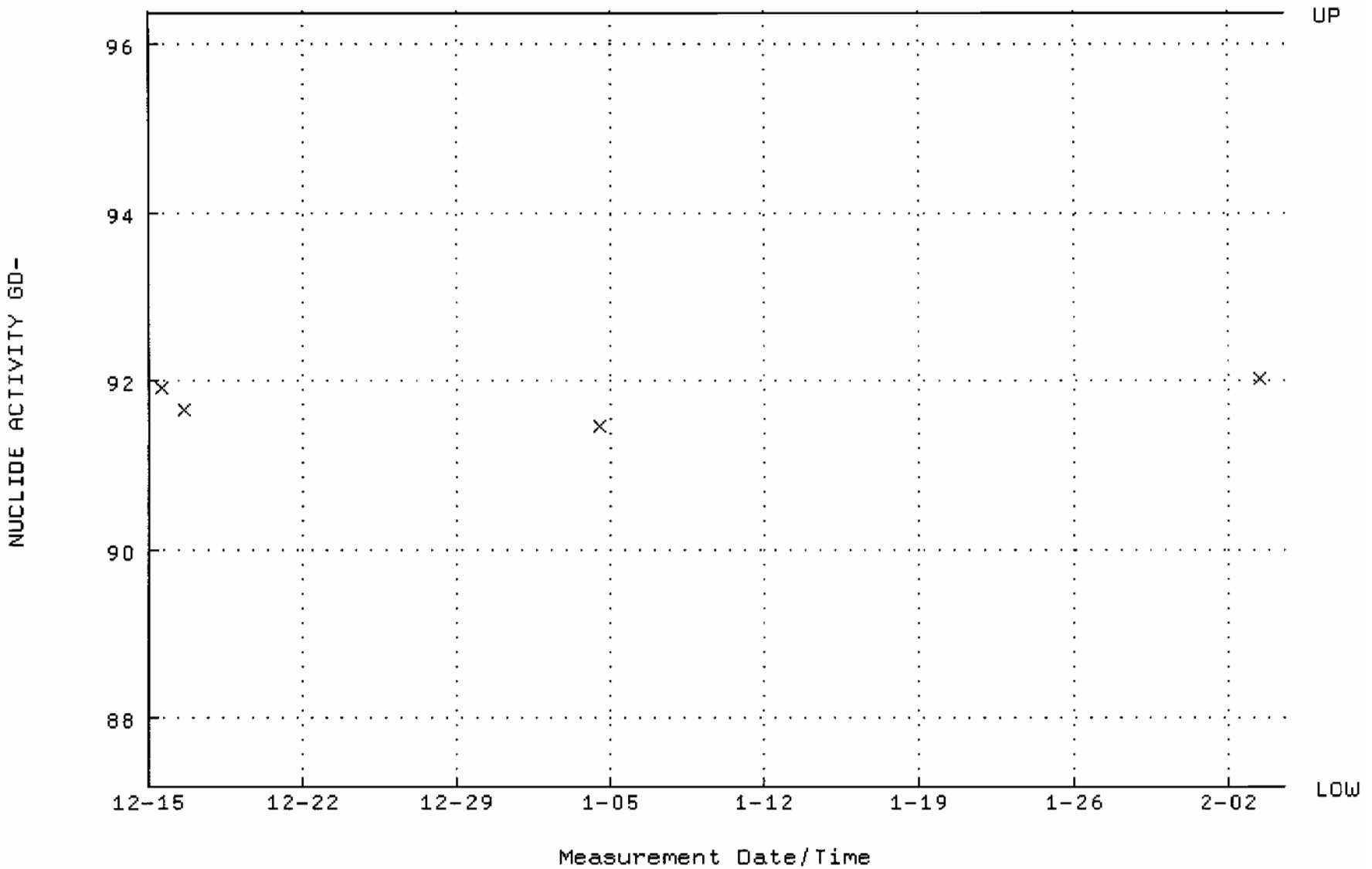

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

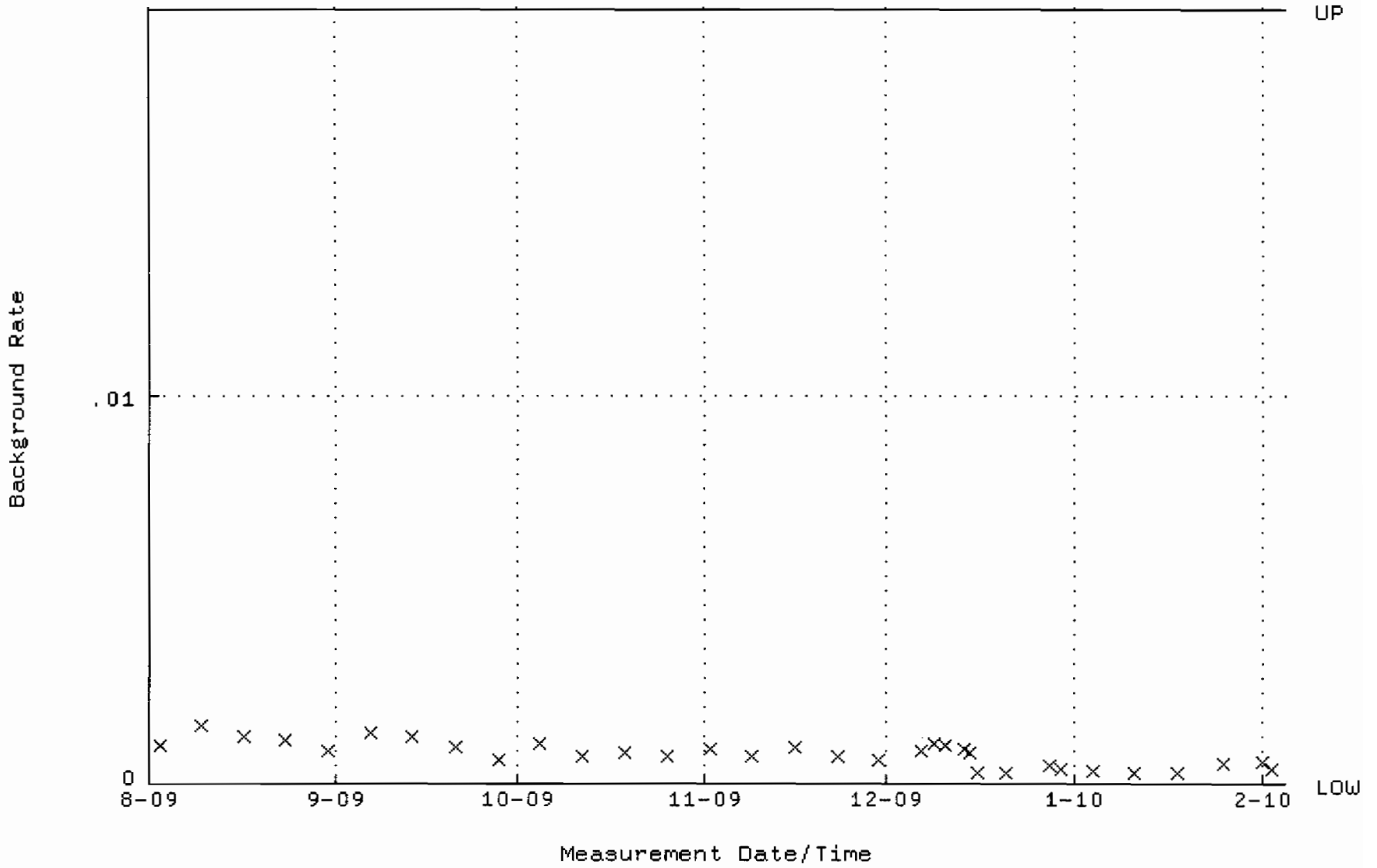

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.283765 through 0.303765

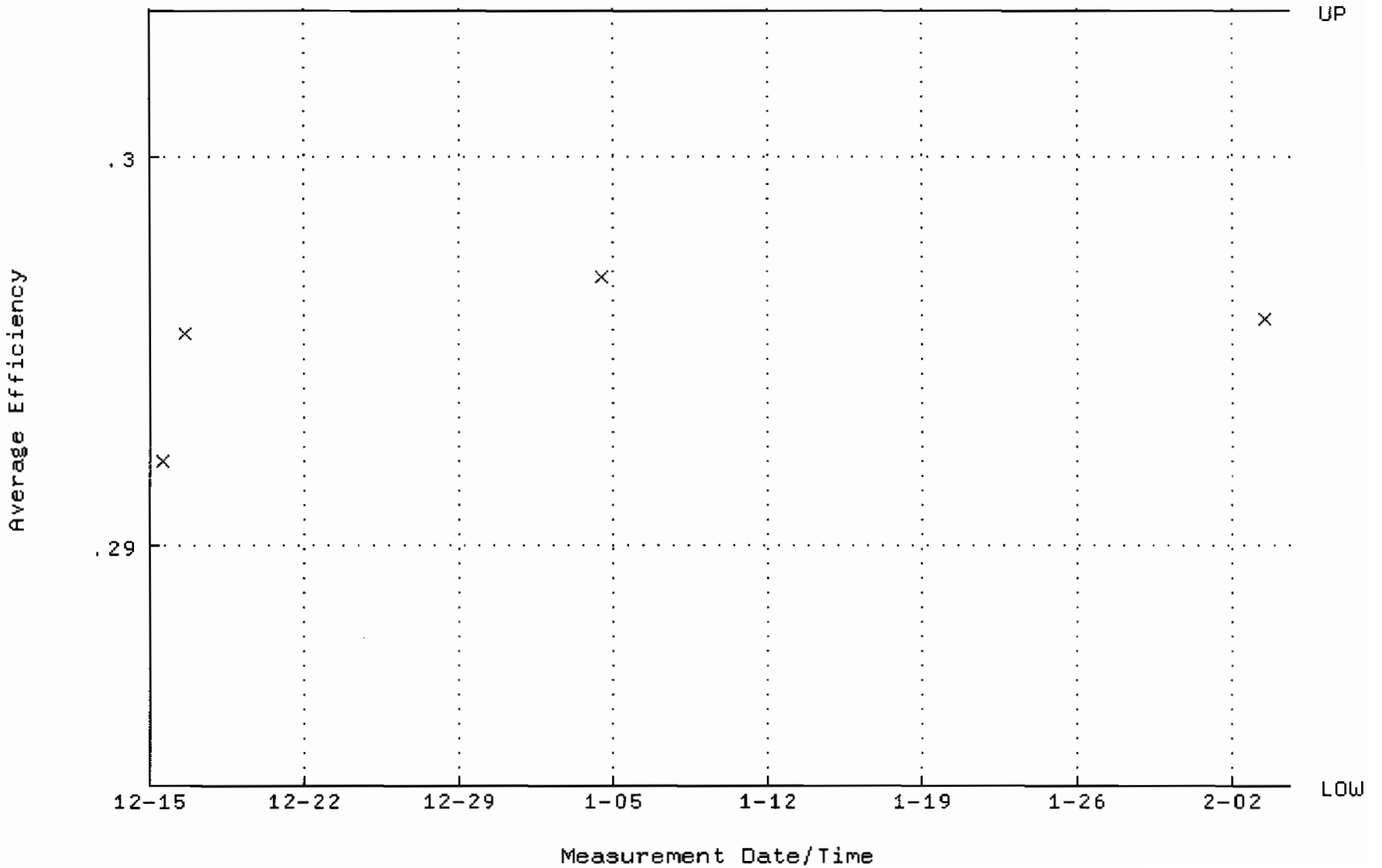

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8037 through 93.7305

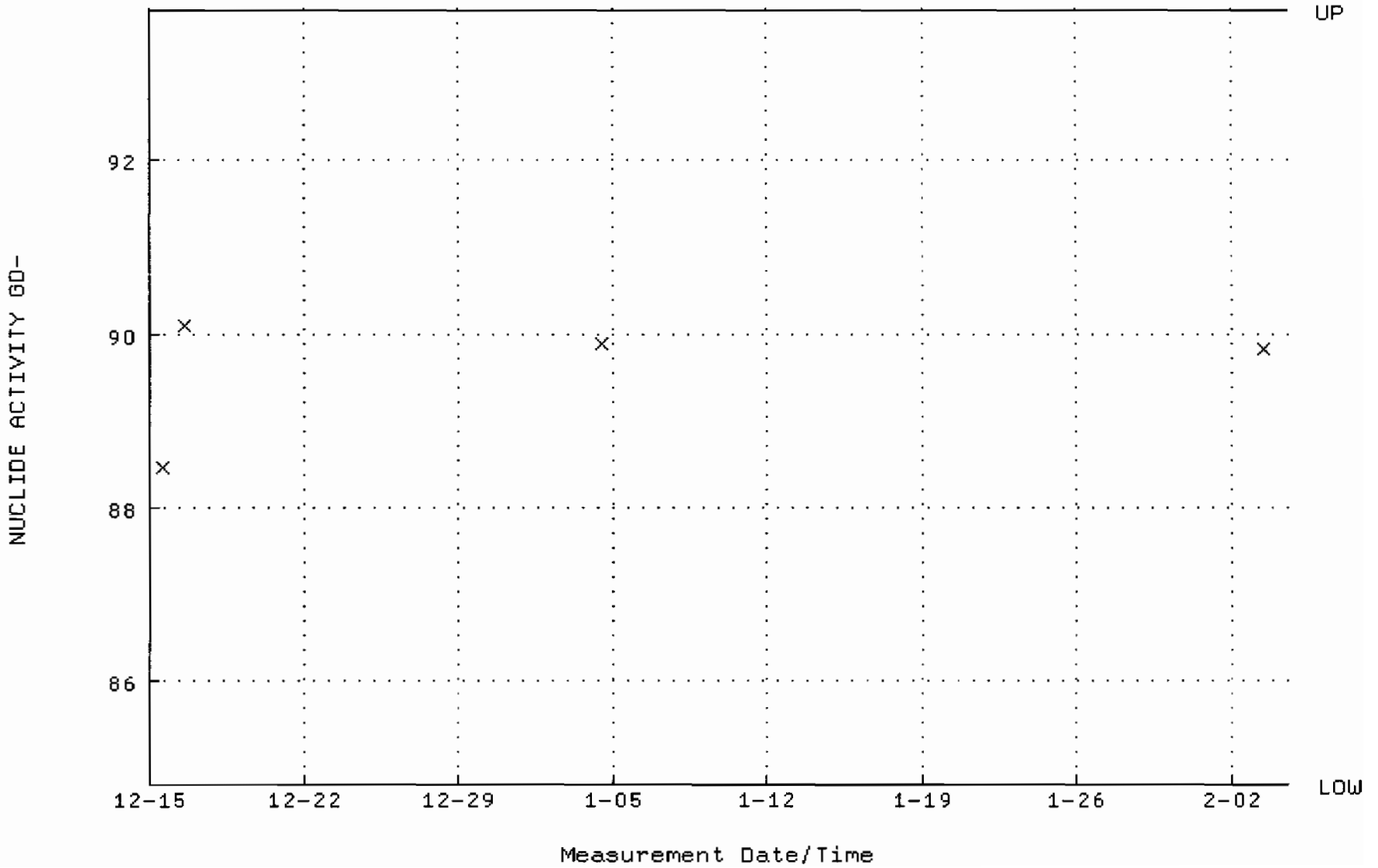

QA filename : DKA100:[ENV_ALPHA.QA.B]B002.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

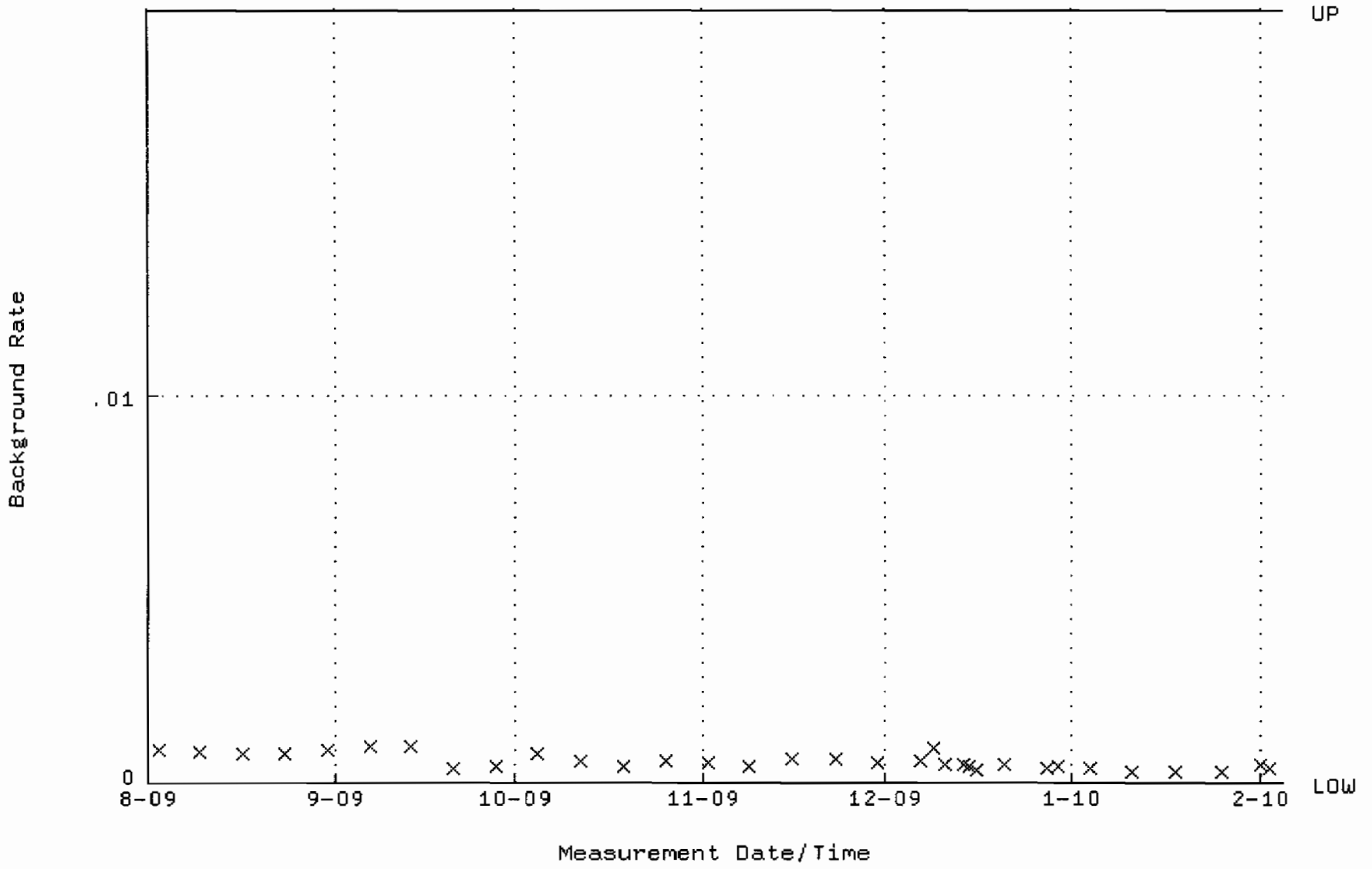

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.299193 through 0.319193

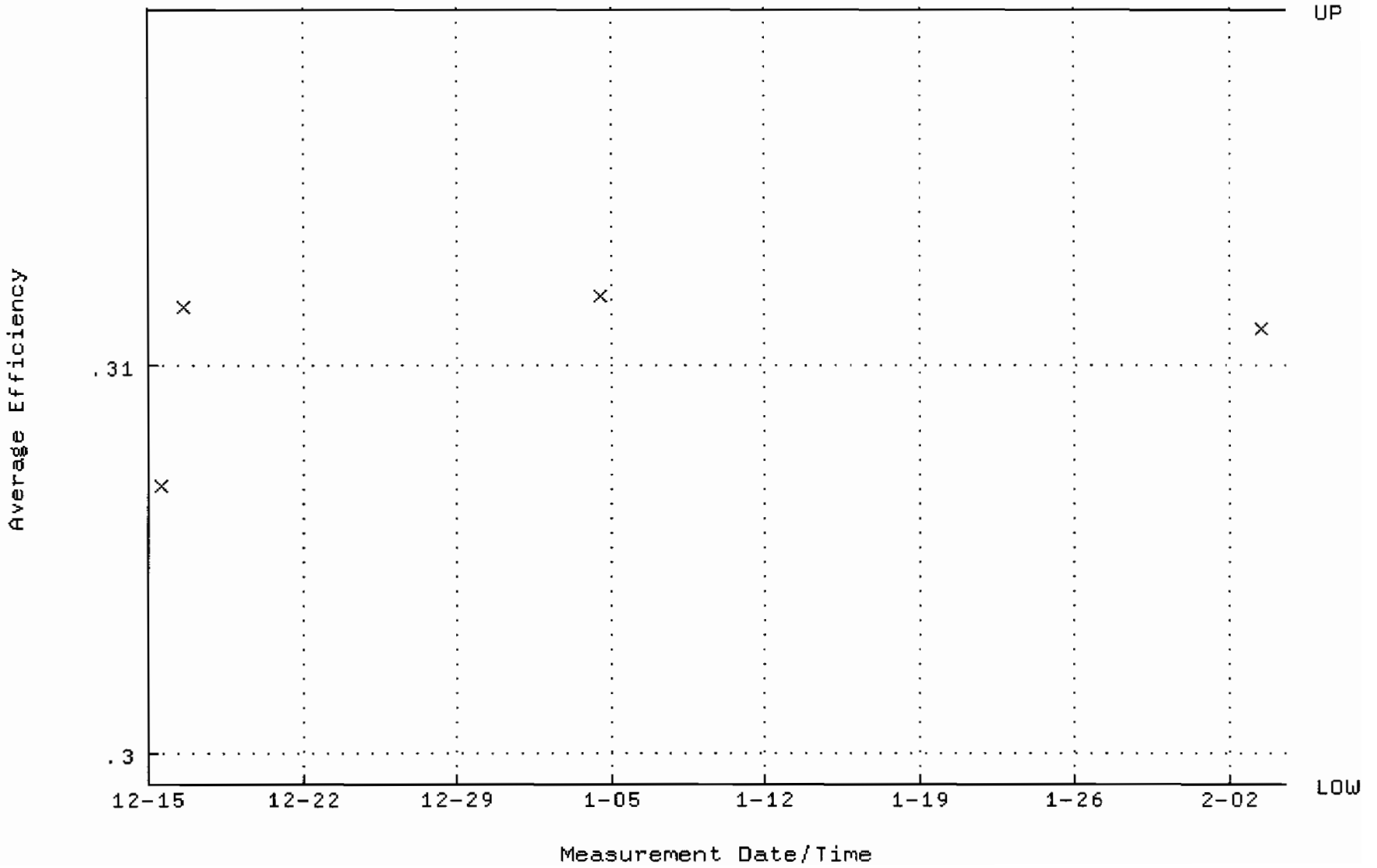

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8745 through 94.9139

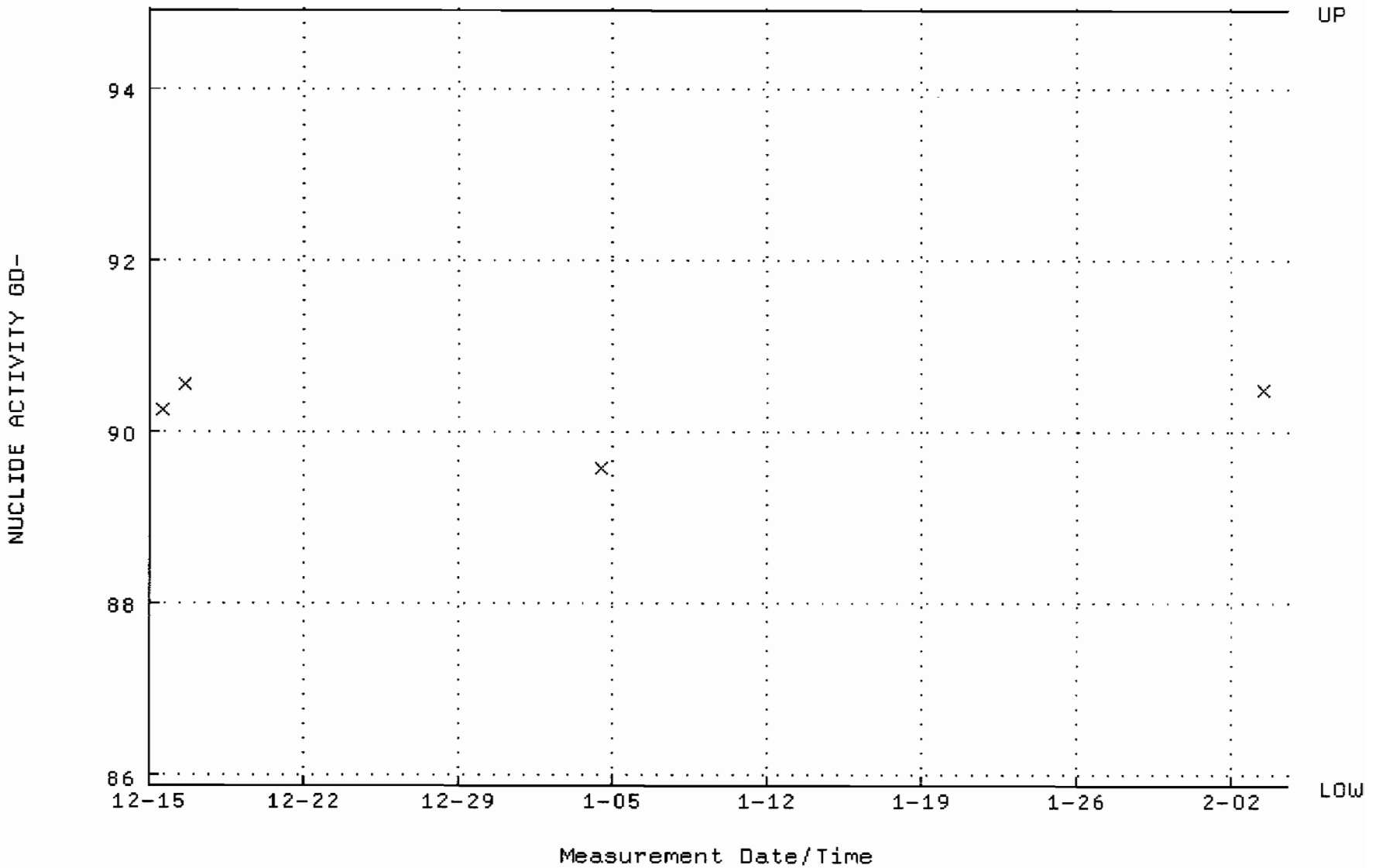

QA filename : DKA100:[ENV_ALPHA.QA.B]B003.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

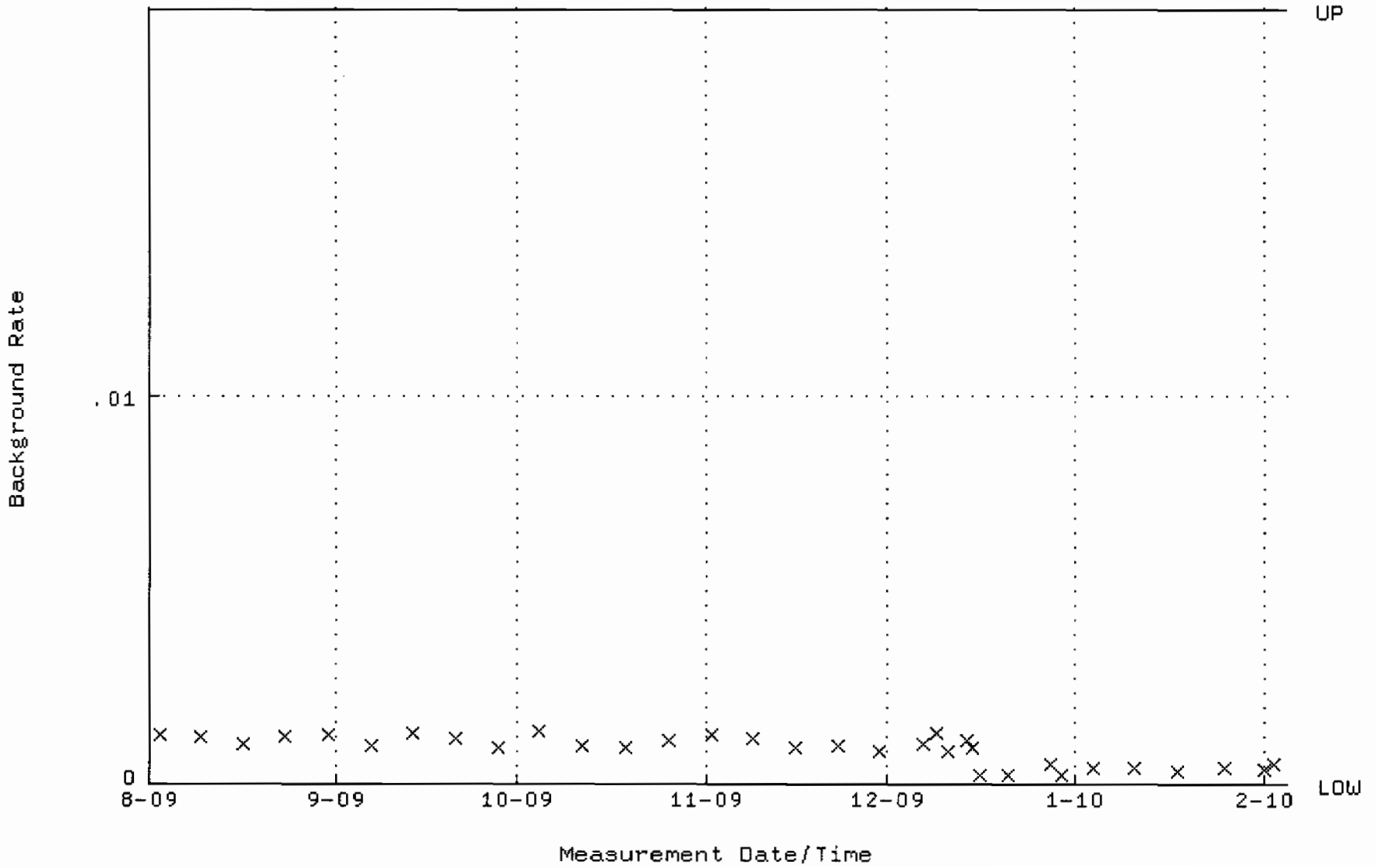

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

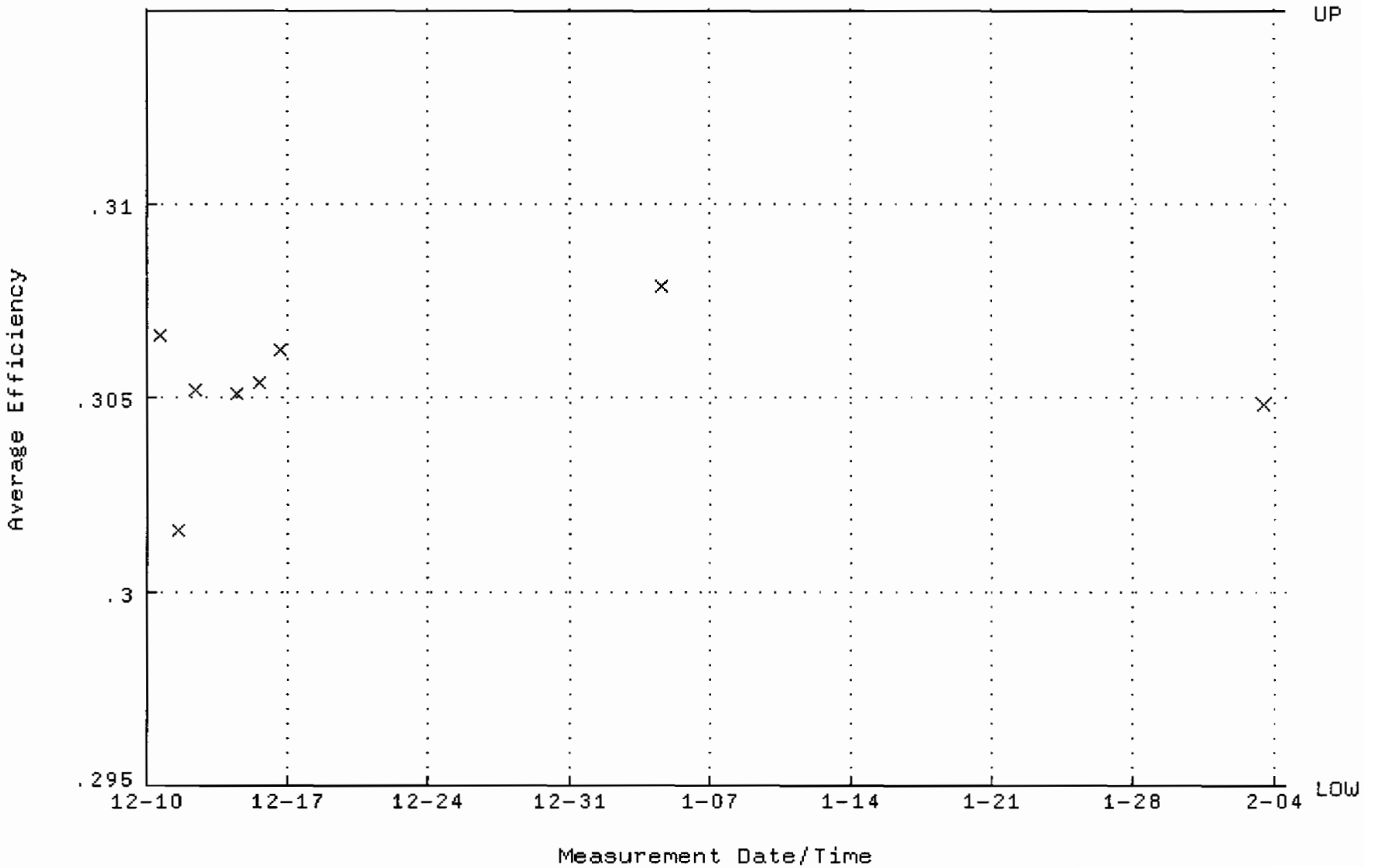

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

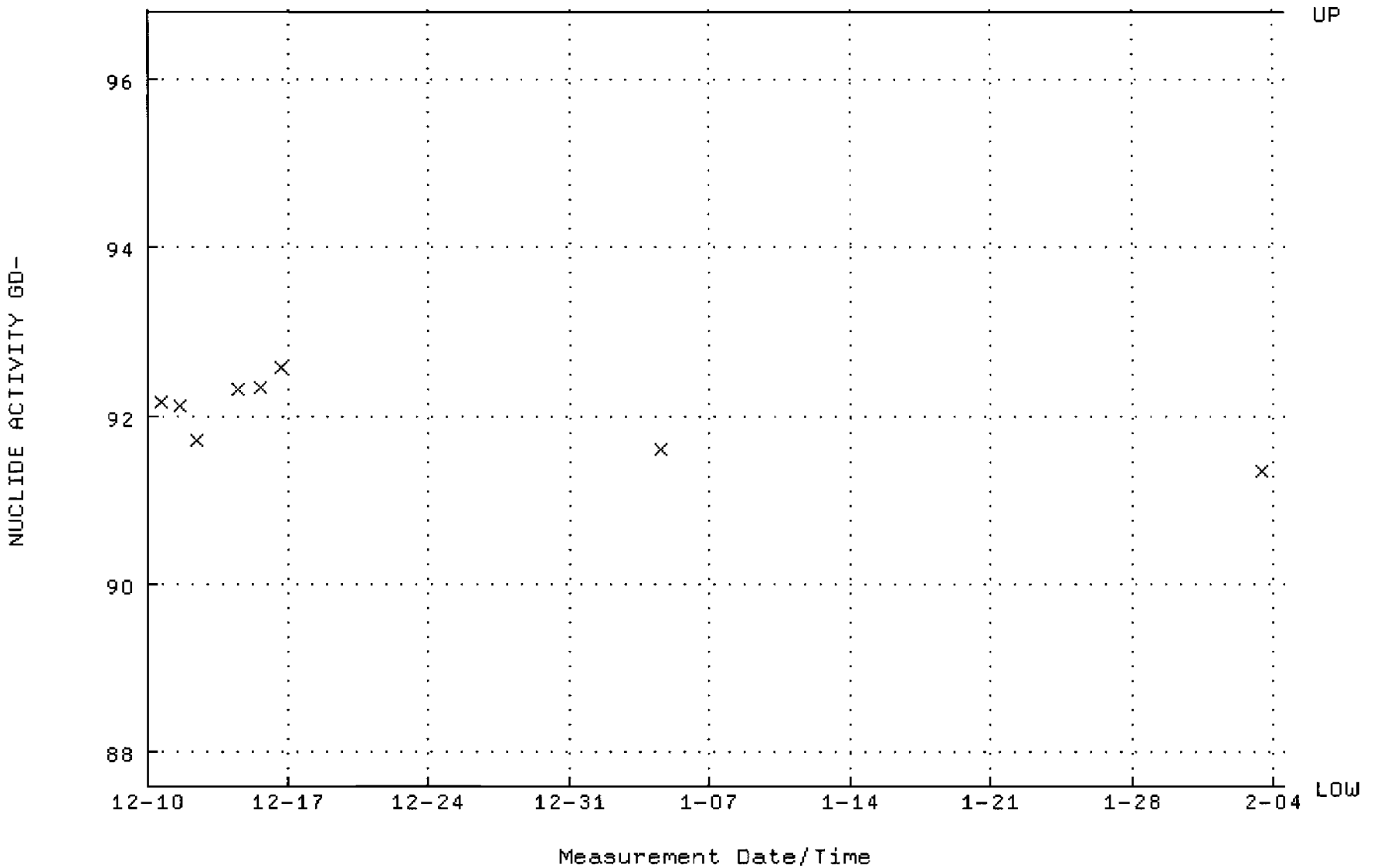

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

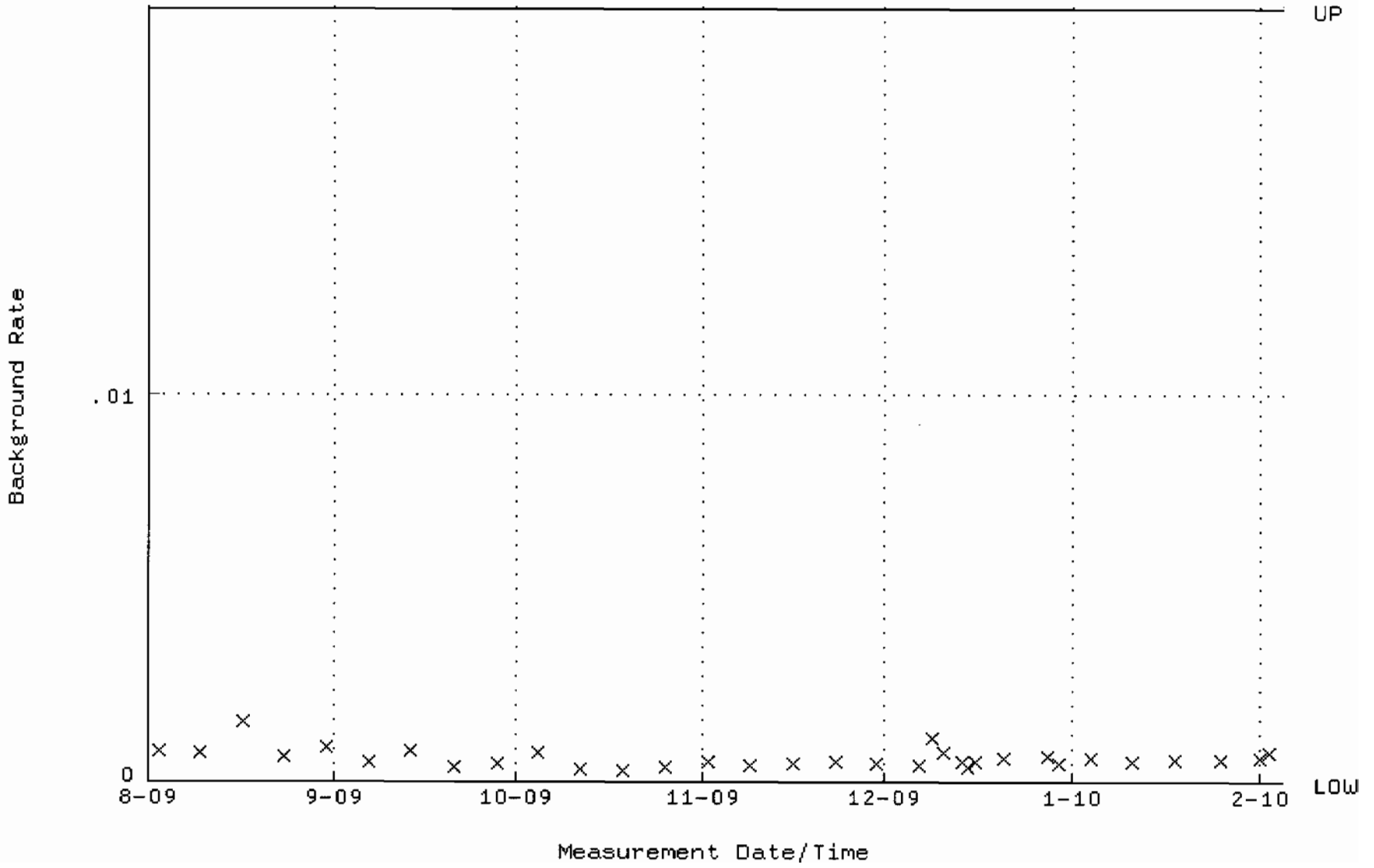

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310305 through 0.330305

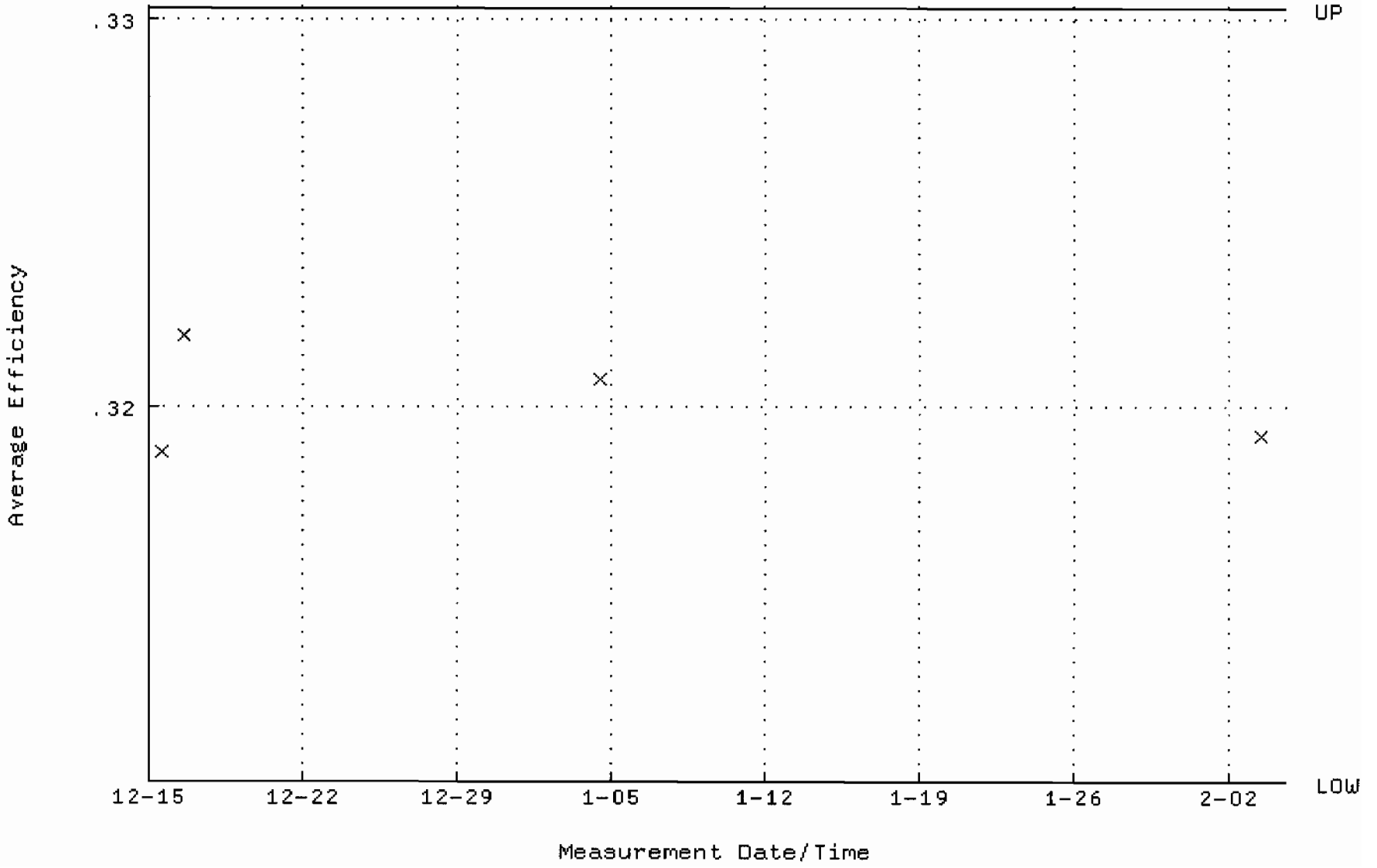

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 89.0042 through 98.3730

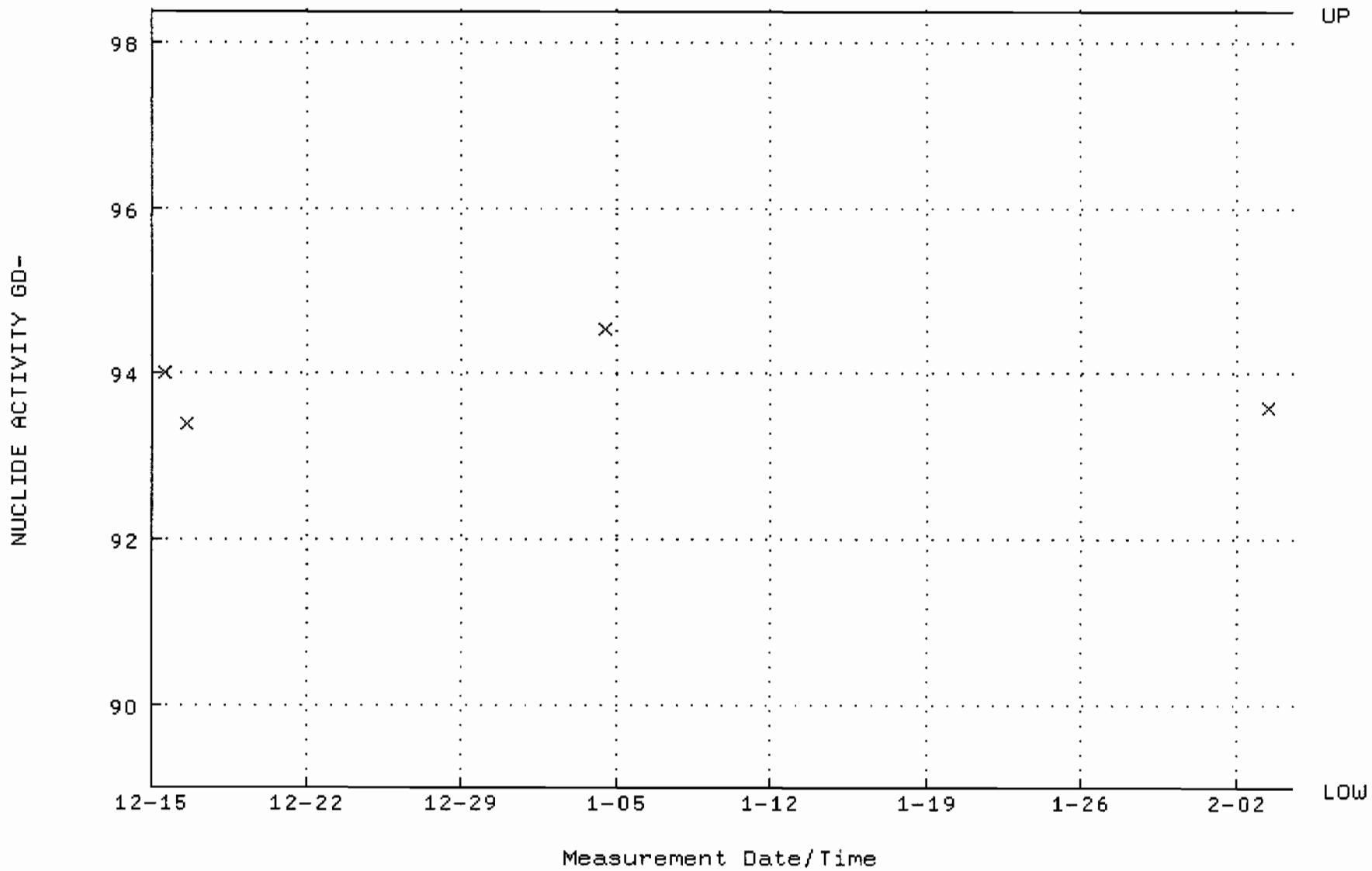

QA filename : DKA100:[ENV_ALPHA.QA.B]B005.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

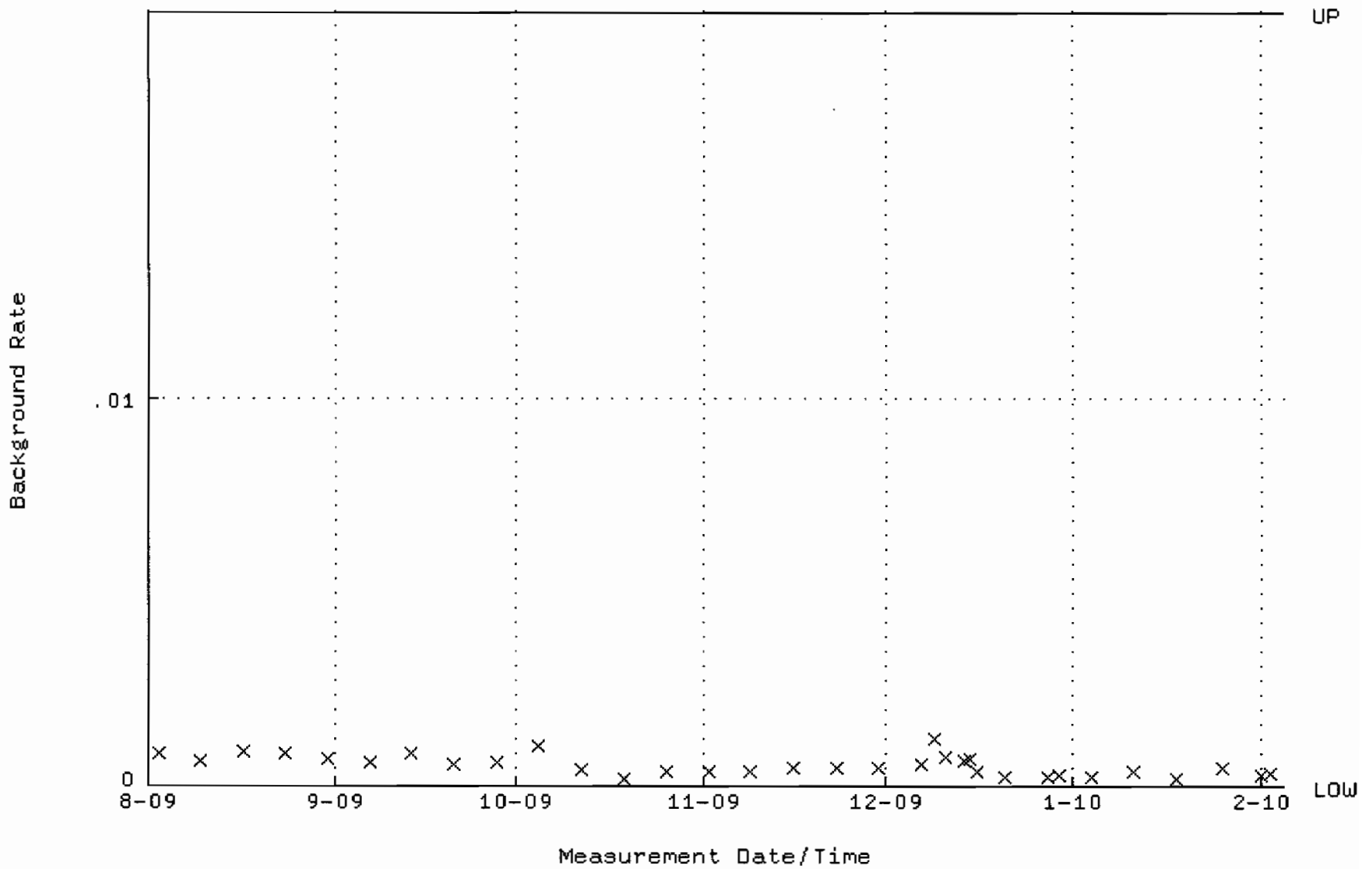

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295821 through 0.315821

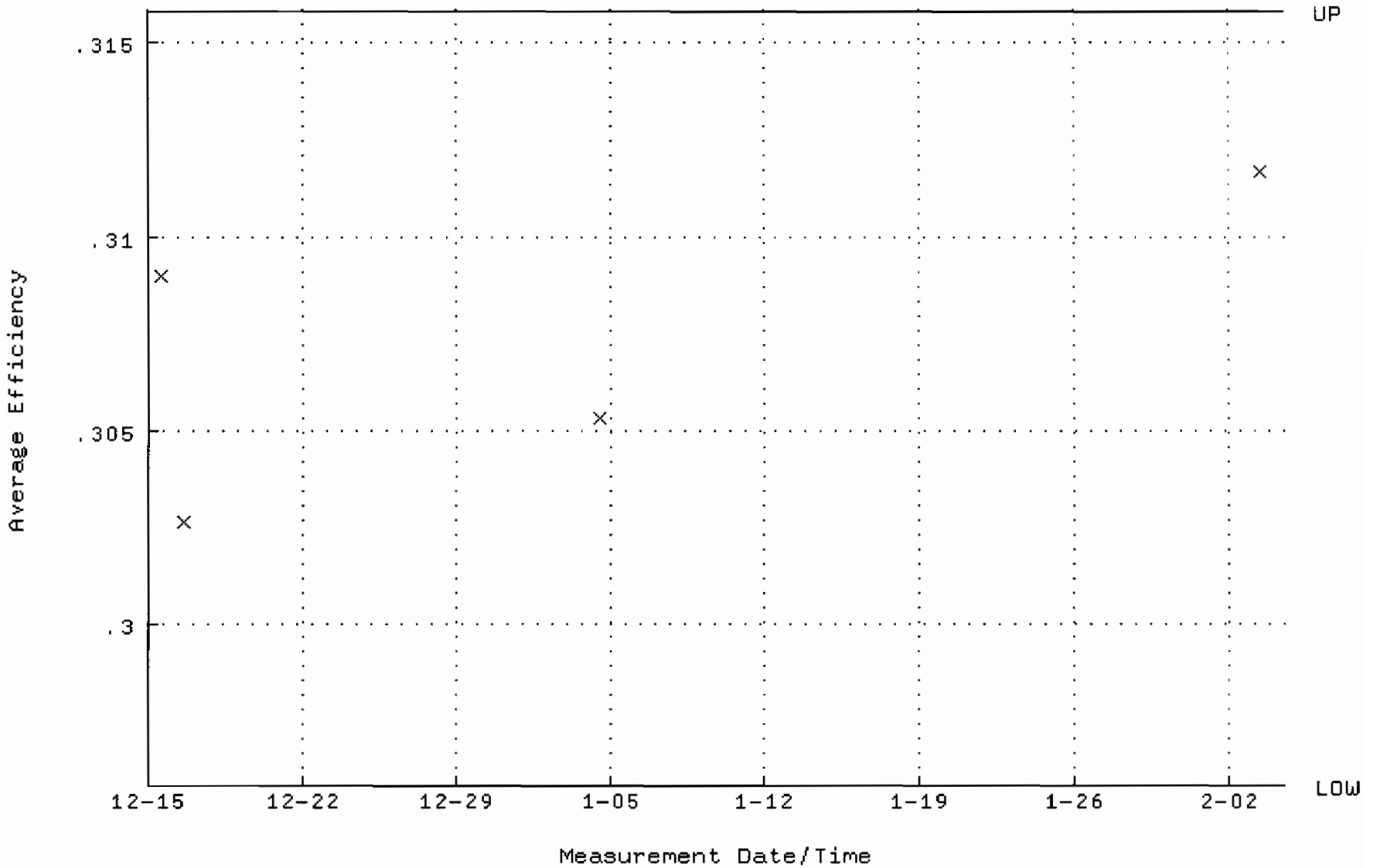

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.3237 through 95.4105

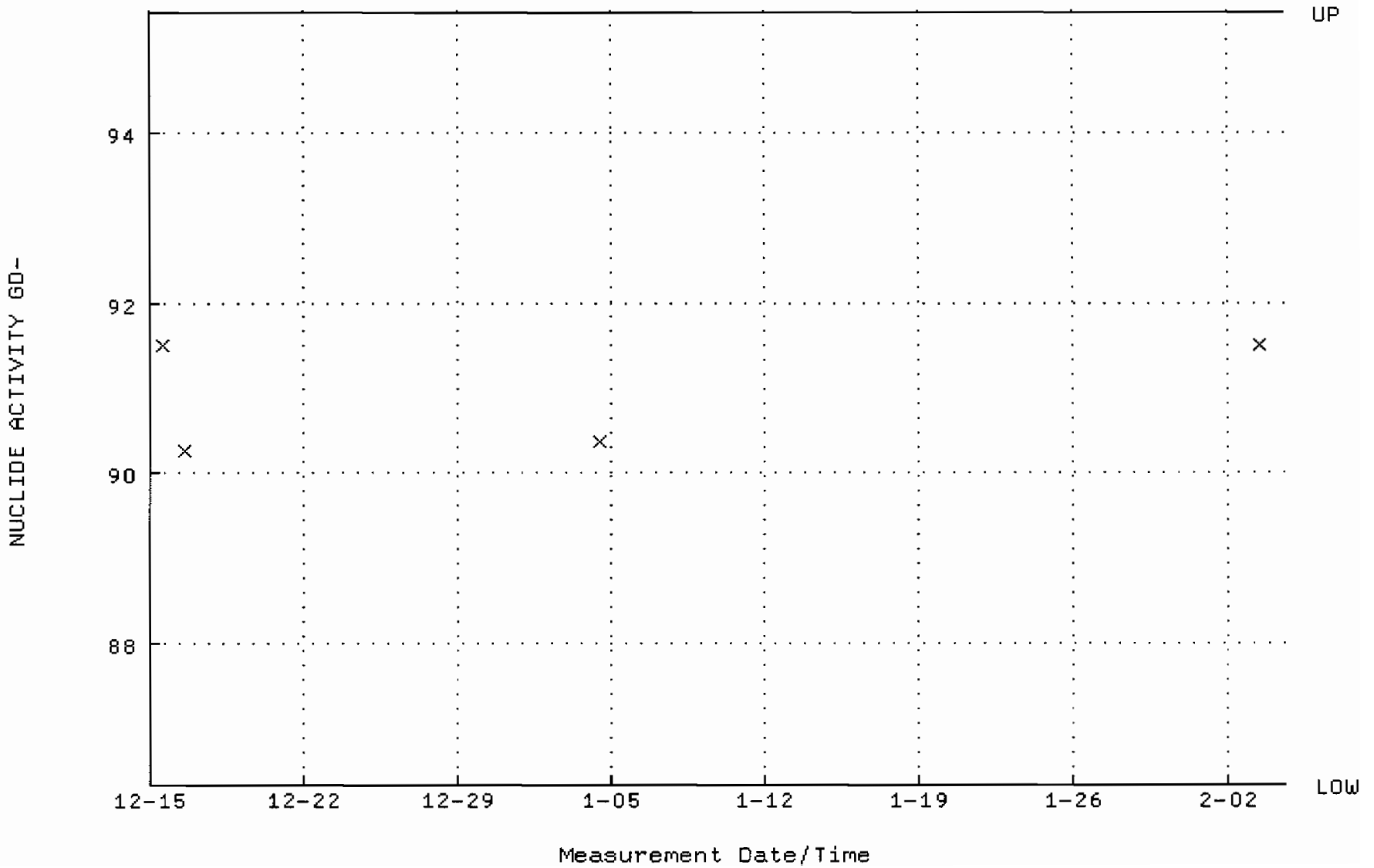

QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

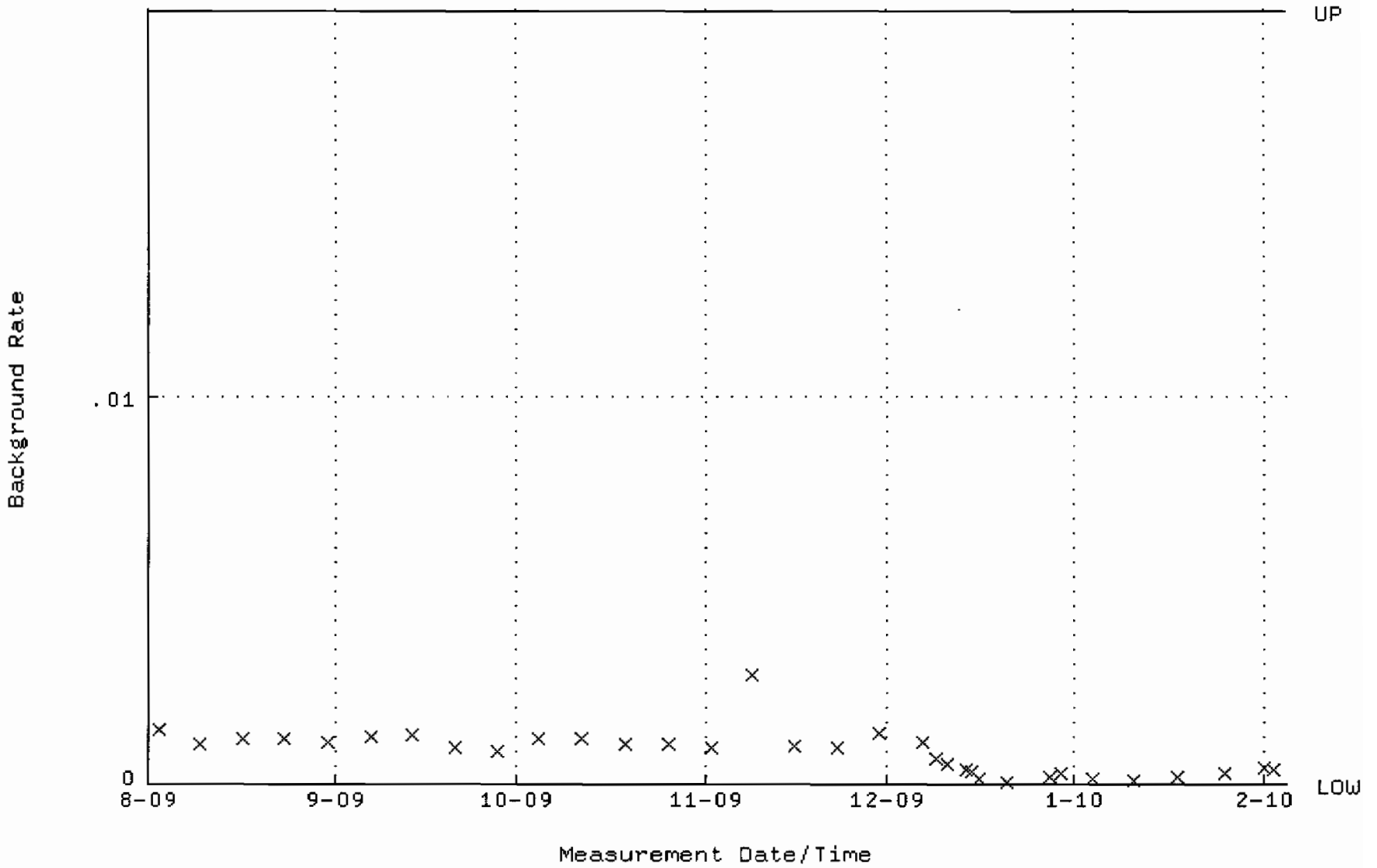

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.290108 through 0.310108

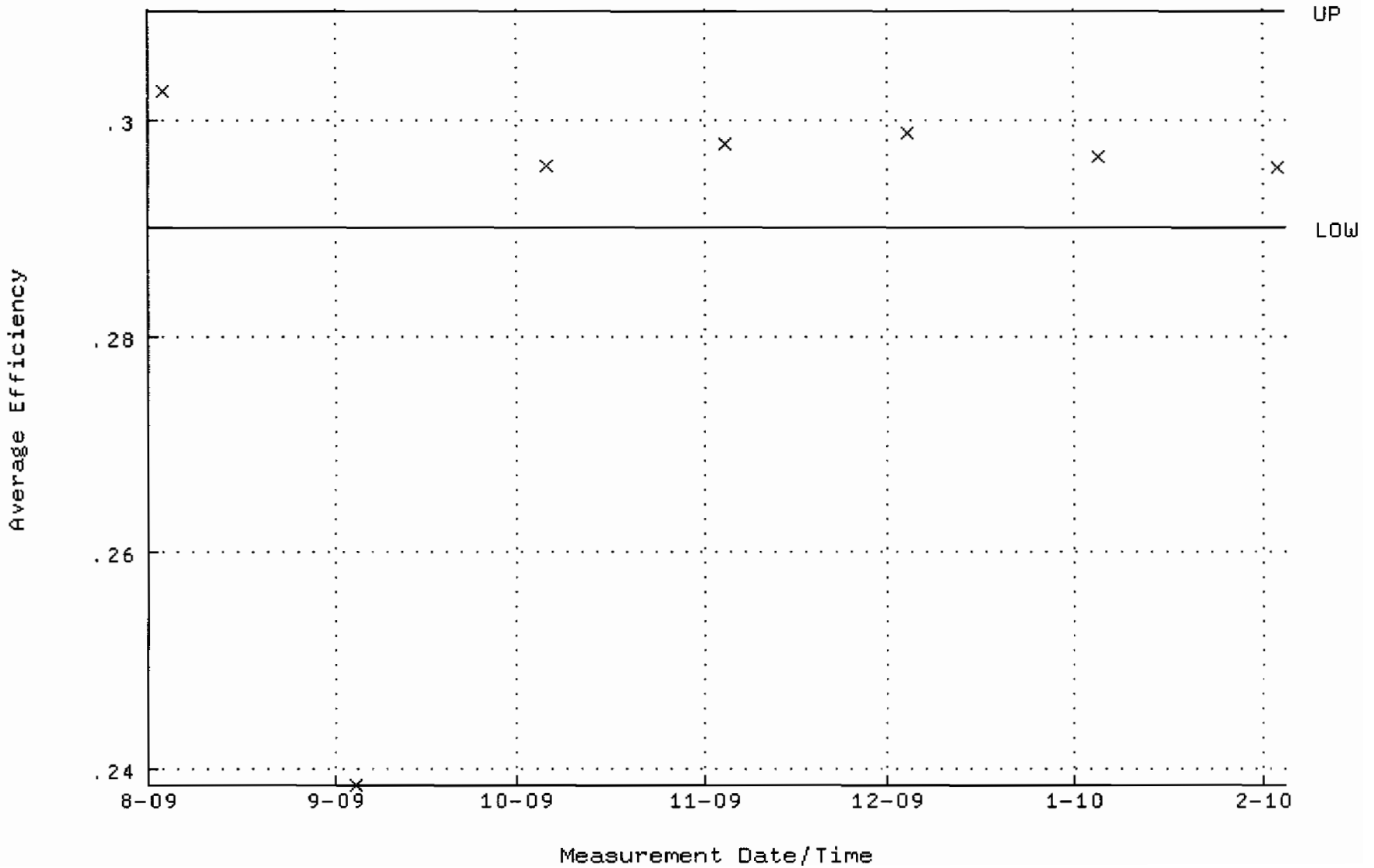

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.0687 through 96.2339

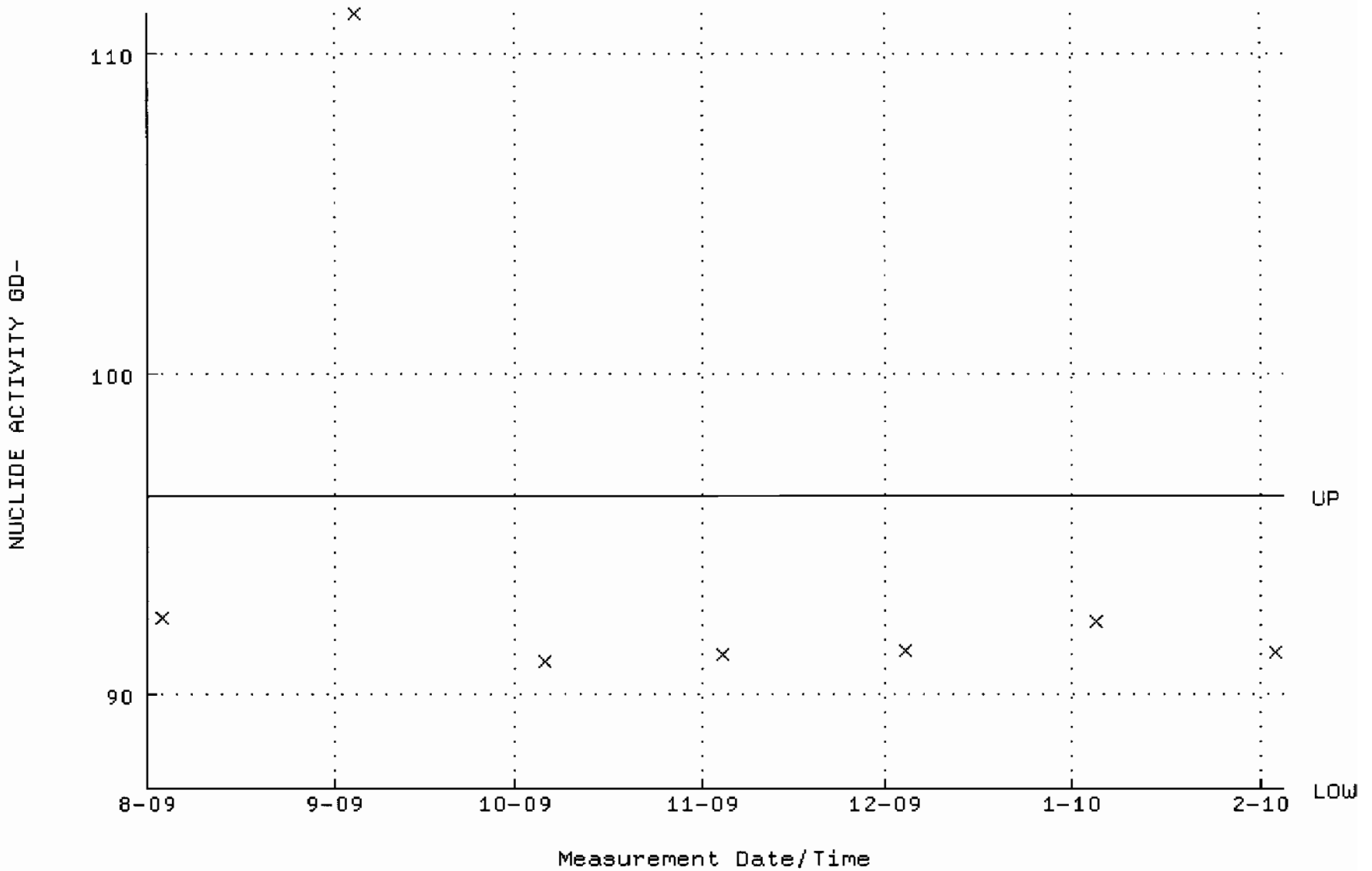

QA filename : DKA100:[ENV_ALPHA.QA.B]B007.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

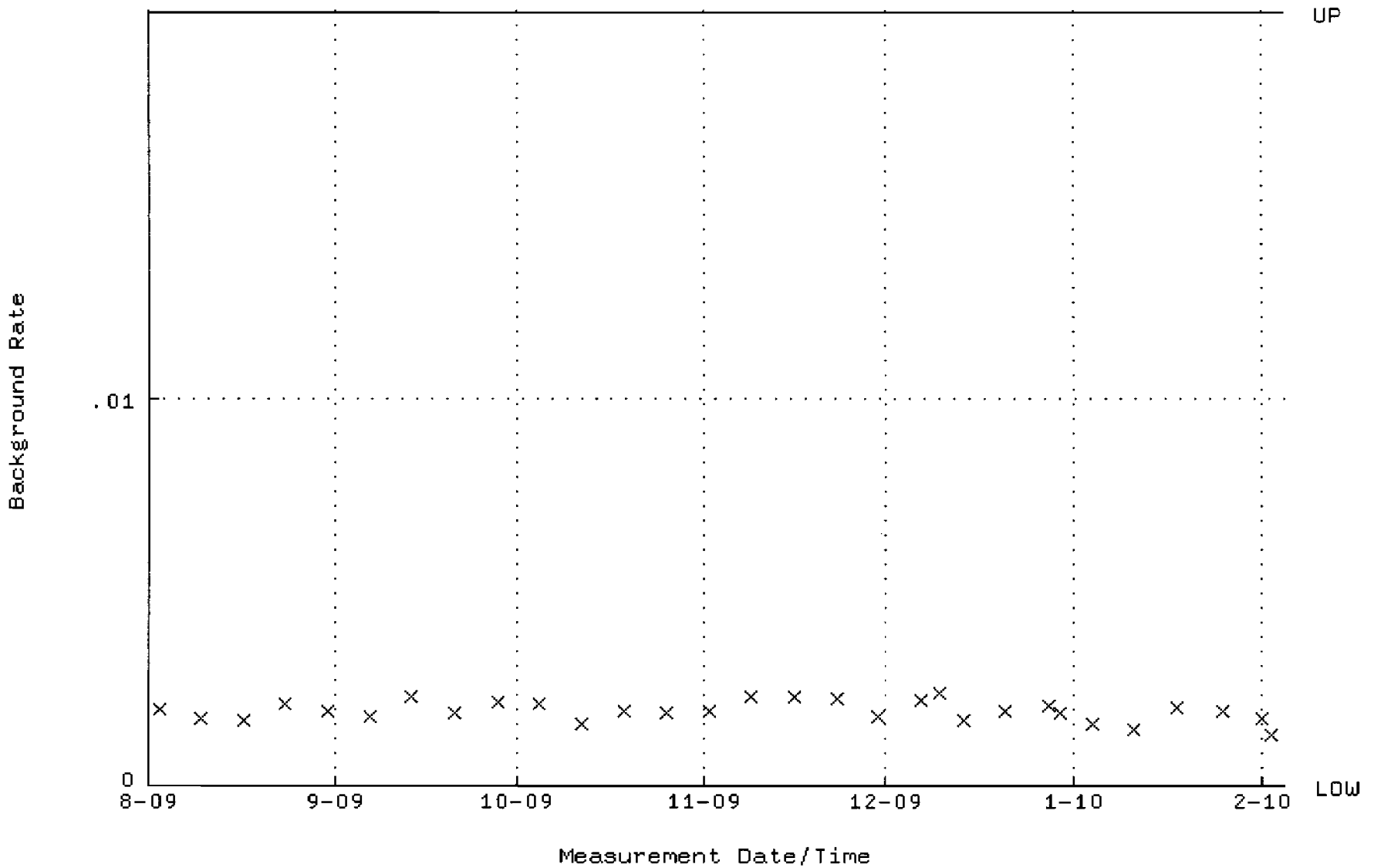

QA filename : DKA100:[ENV_ALPHA.QA.W]W008.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.309318 through 0.329318

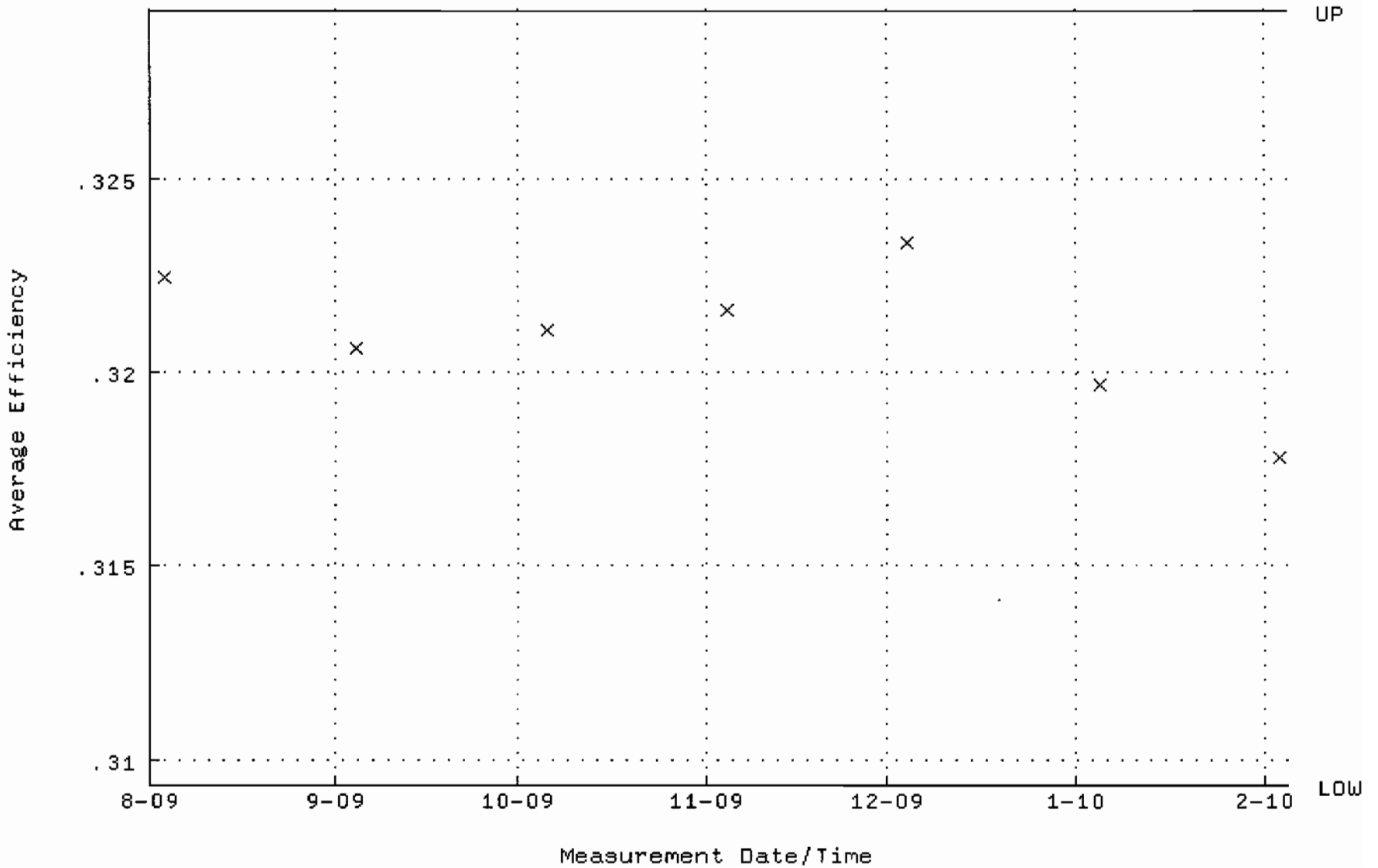

QA filename : DKA100:[ENV_ALPHA.QA.W]W008.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.8346 through 97.0804

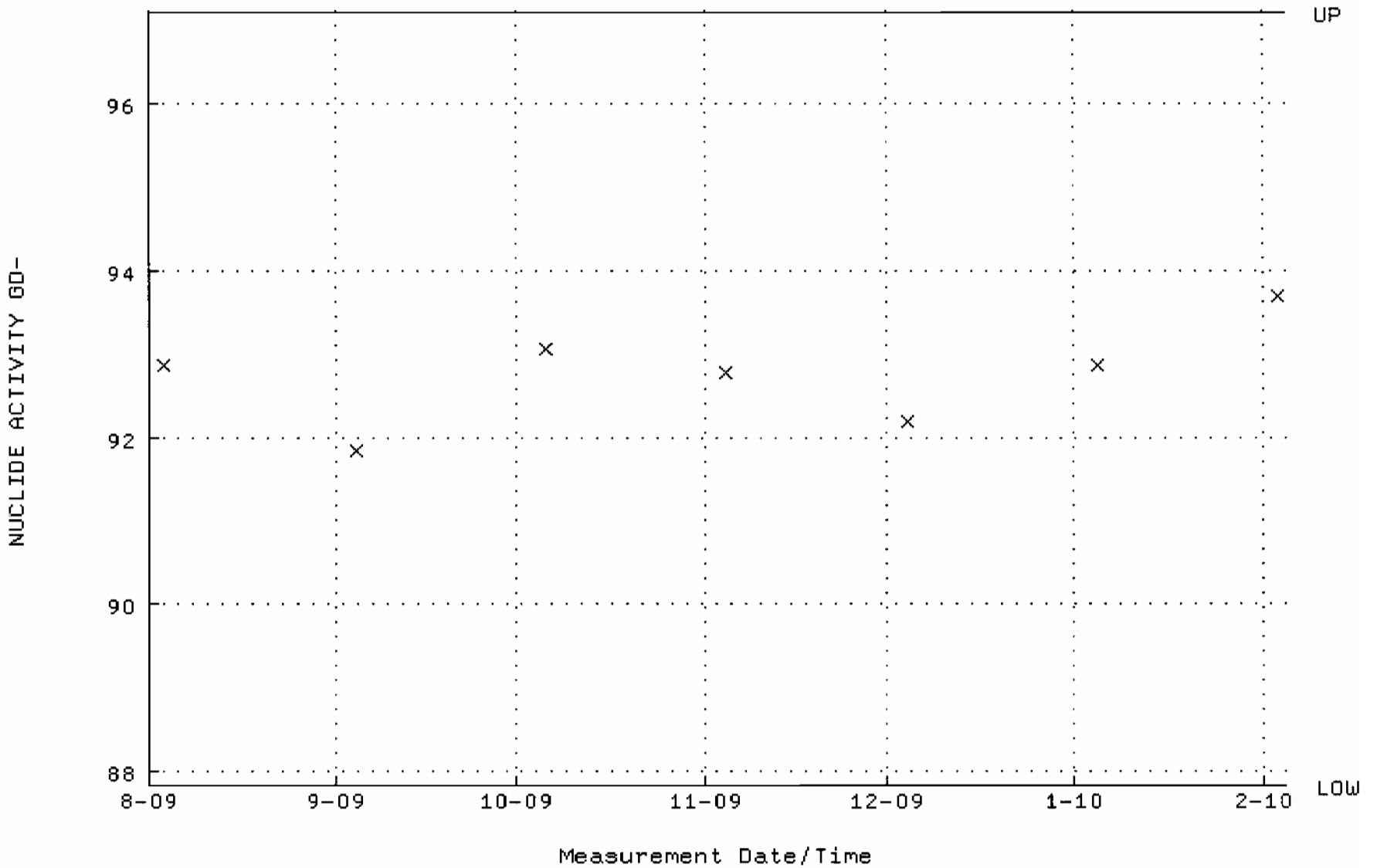

QA filename : DKA100:[ENV_ALPHA.QA.B]B008.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

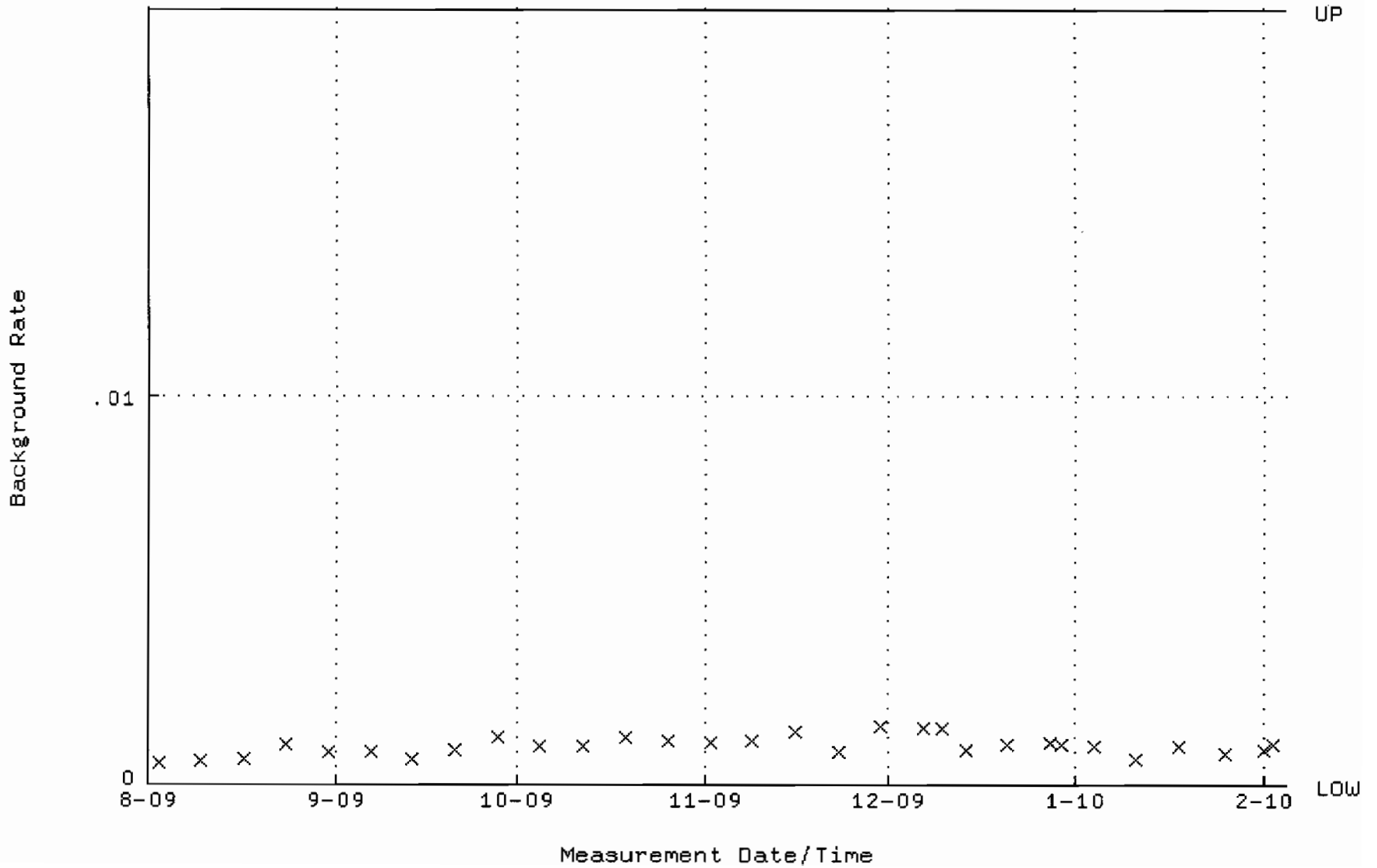

QA filename : DKA100:[ENV_ALPHA.QA.W]W009.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.328261 through 0.348261

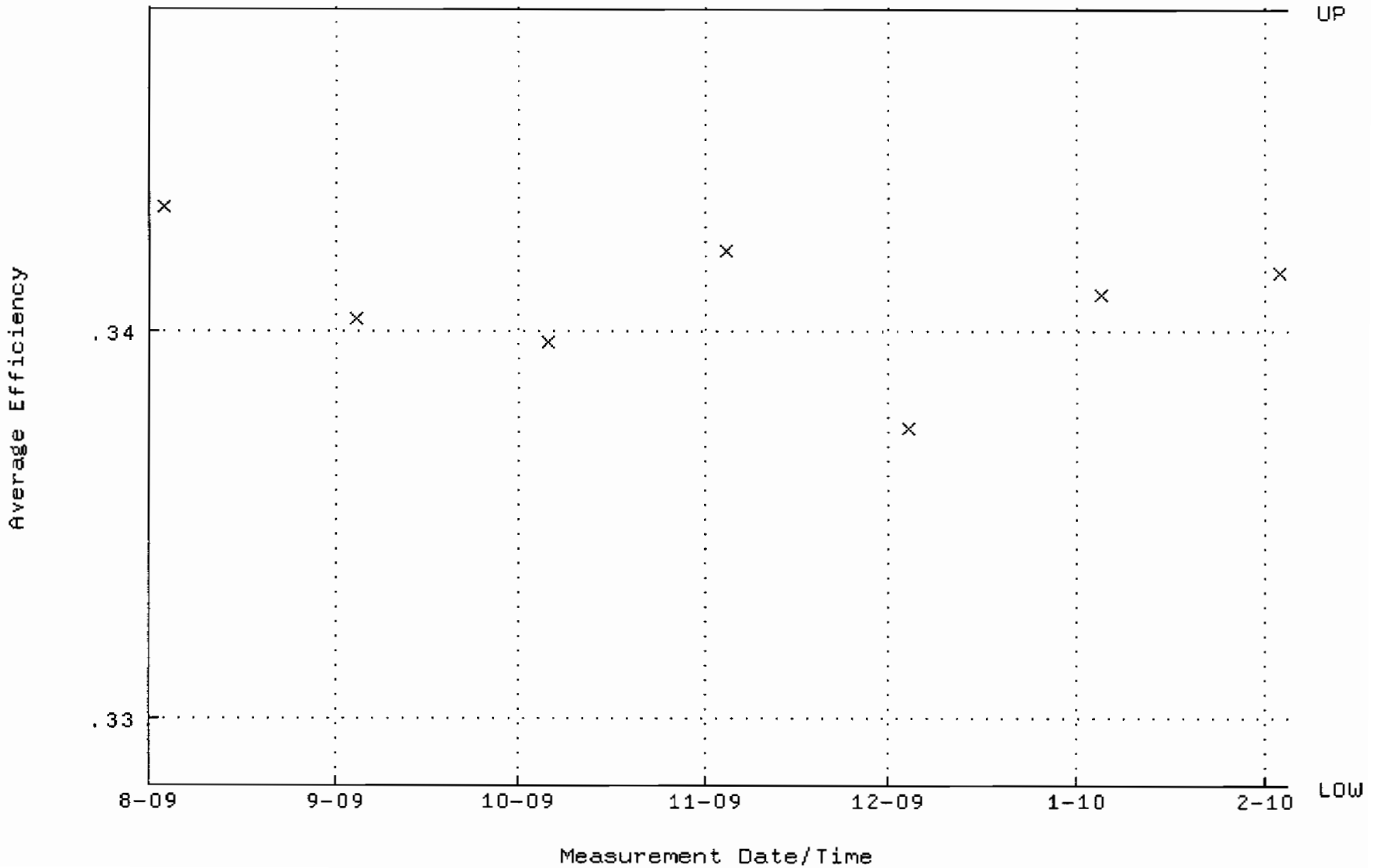

QA filename : DKA100:[ENV_ALPHA.QA.W]W009.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.4475 through 95.5473

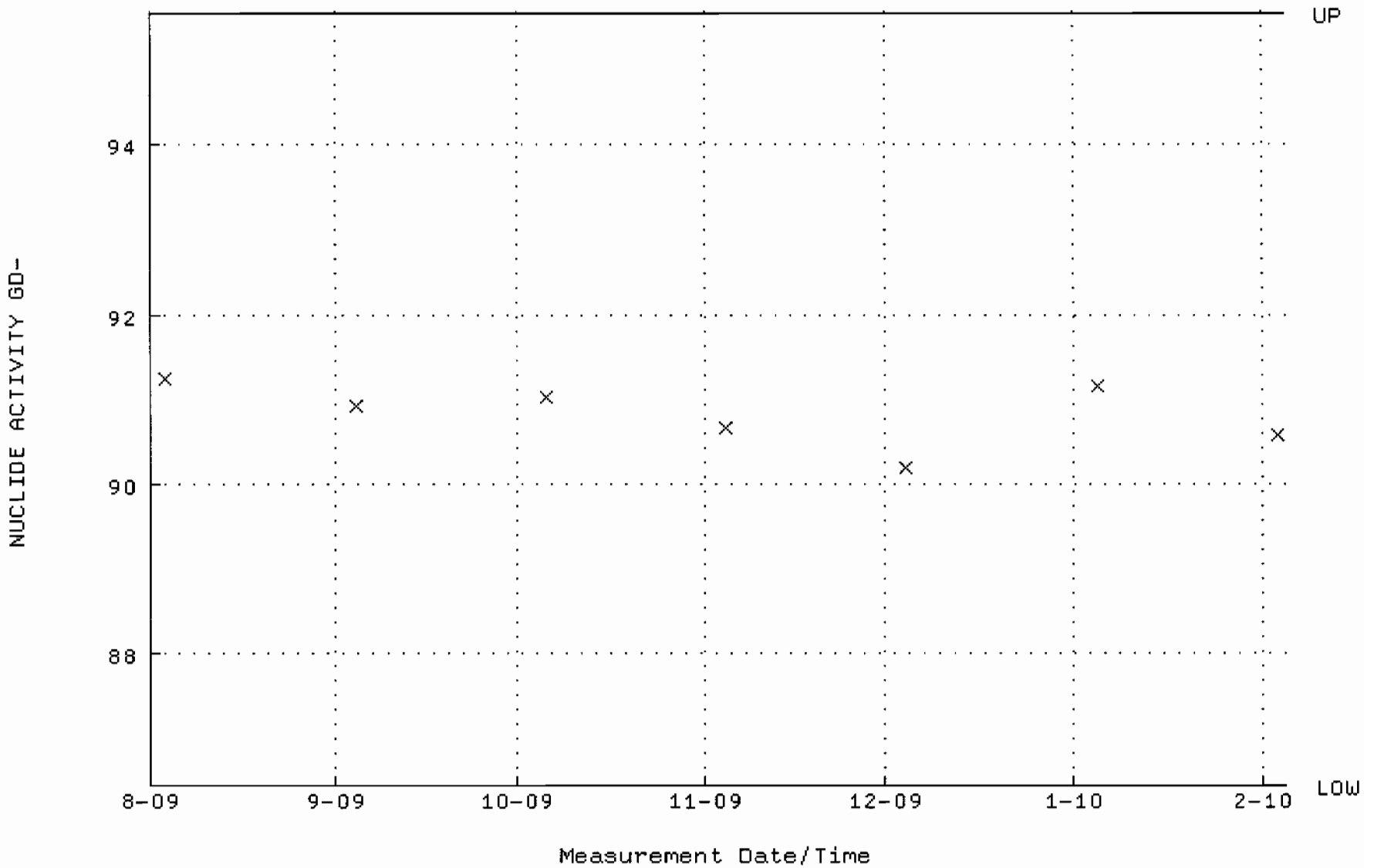

QA filename : DKA100:[ENV_ALPHA.QA.B]B009.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

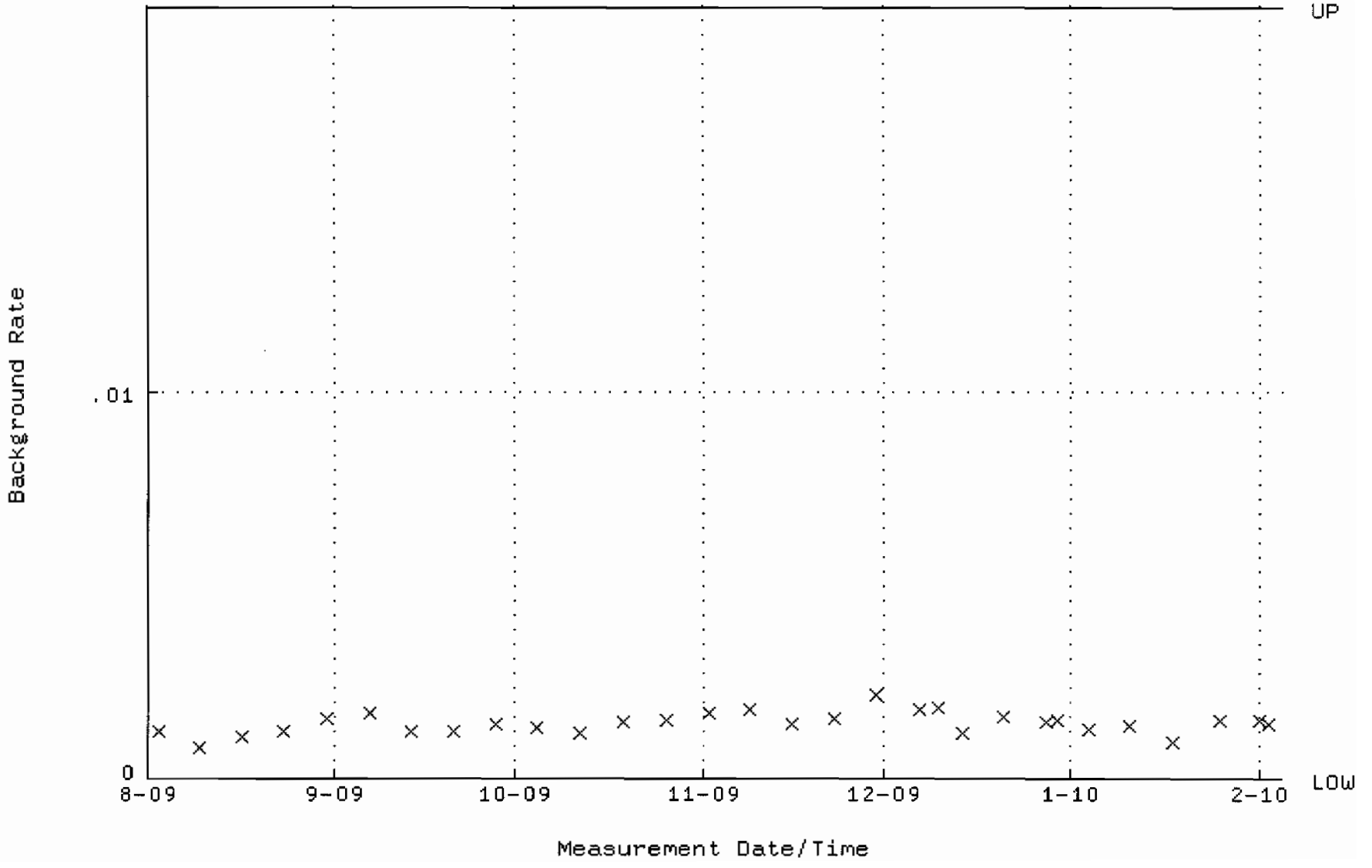

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.303169 through 0.323169

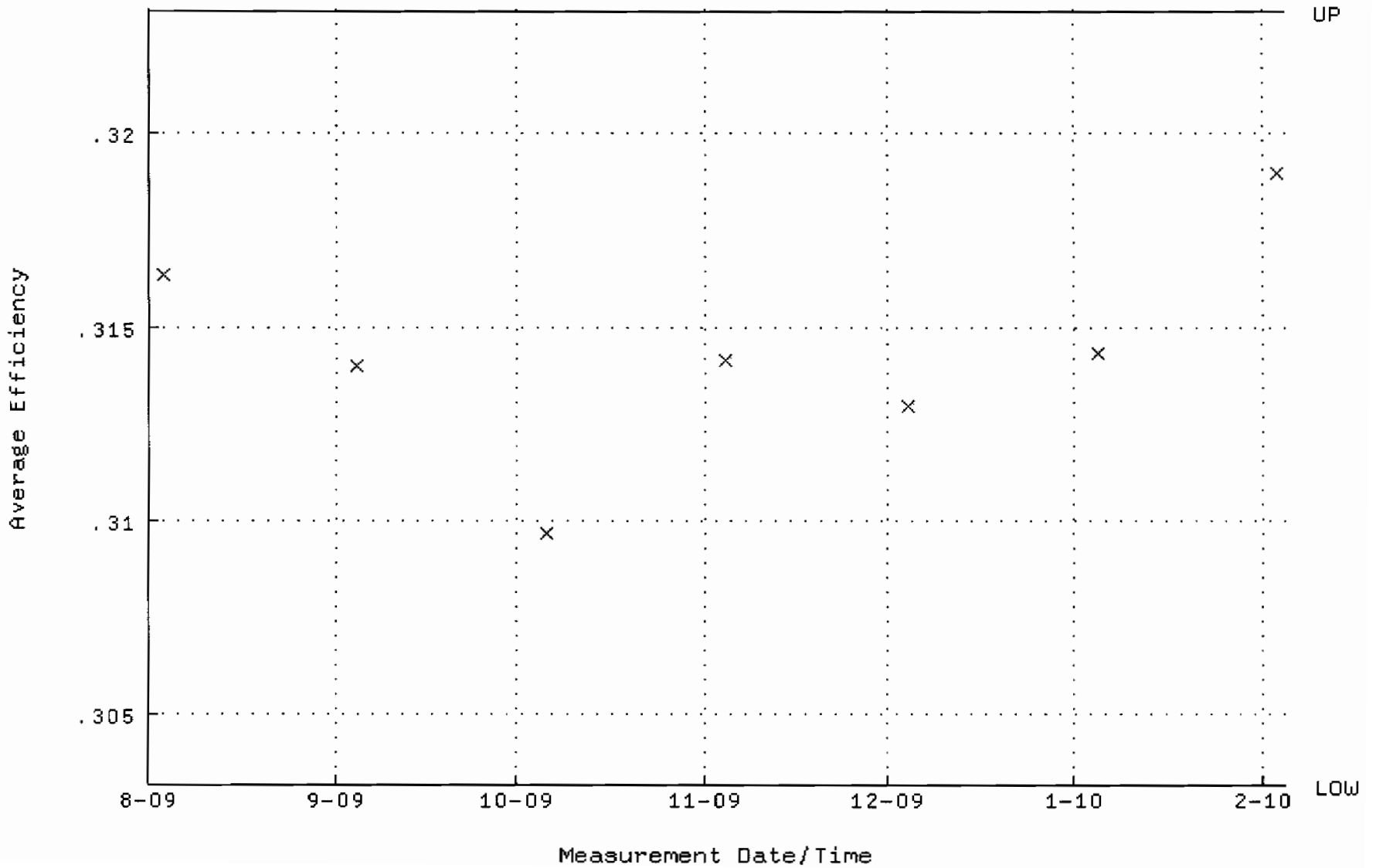

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.3273 through 94.3091

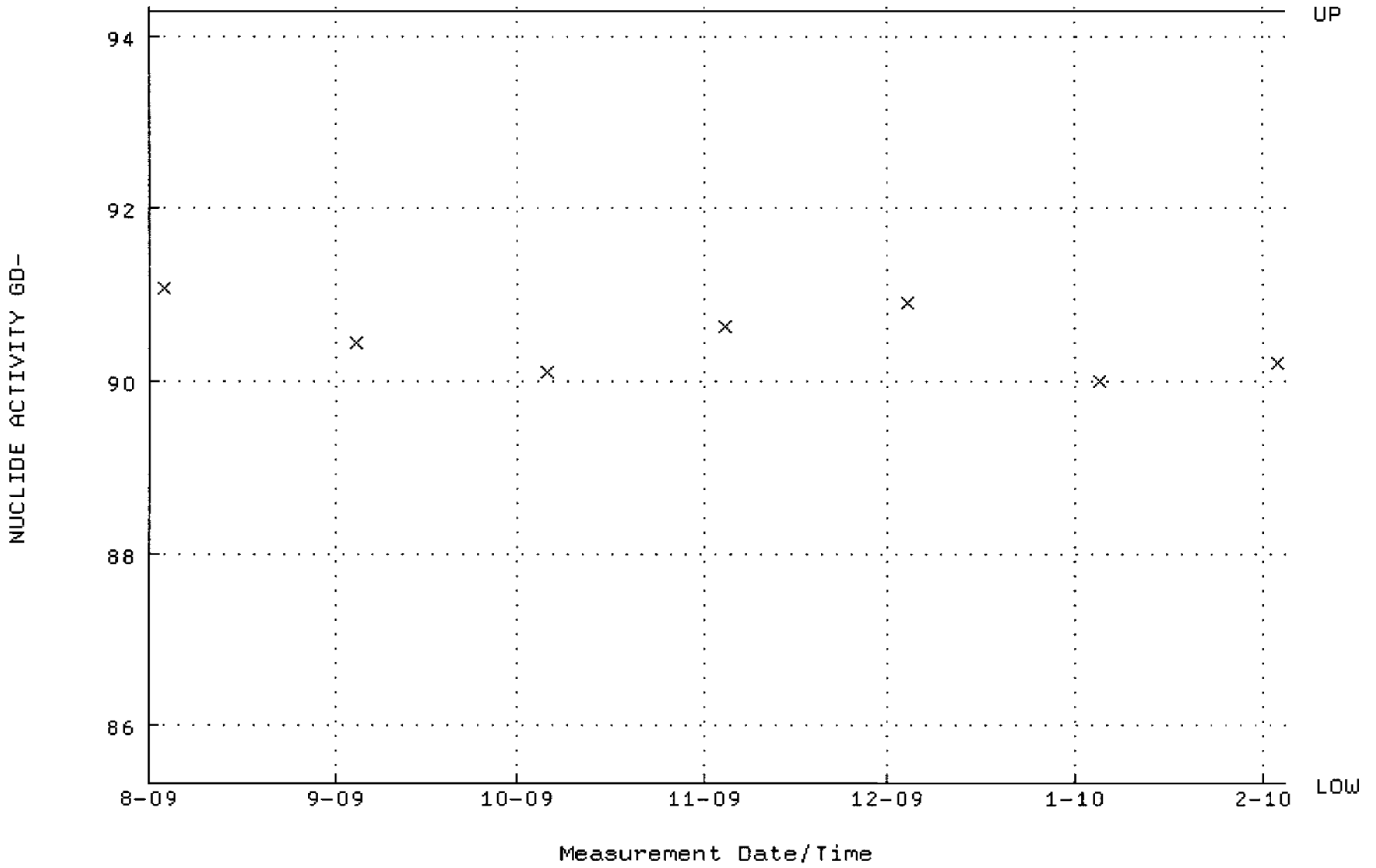

QA filename : DKA100:[ENV_ALPHA.QA.B]B010.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

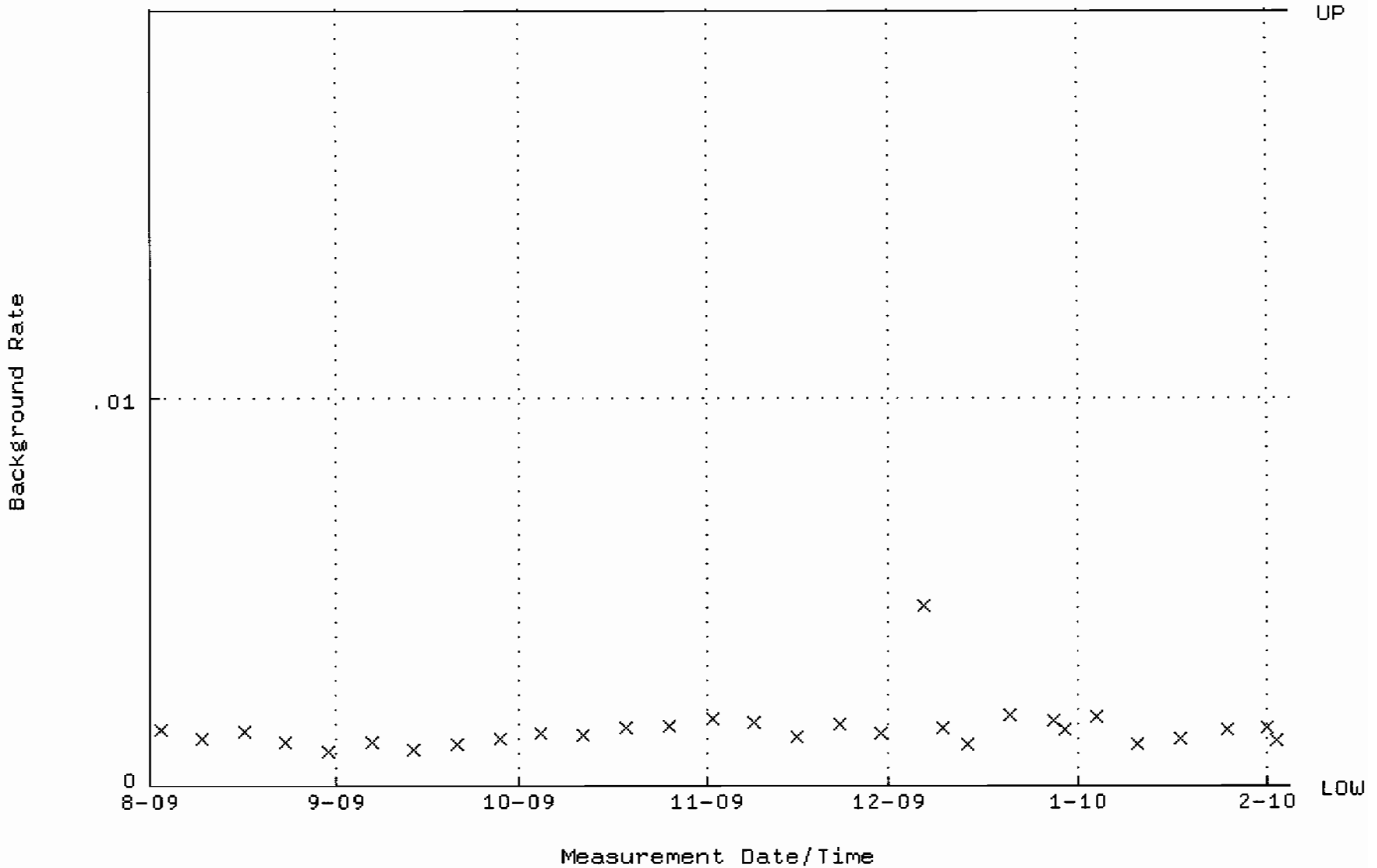

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.287129 through 0.307129

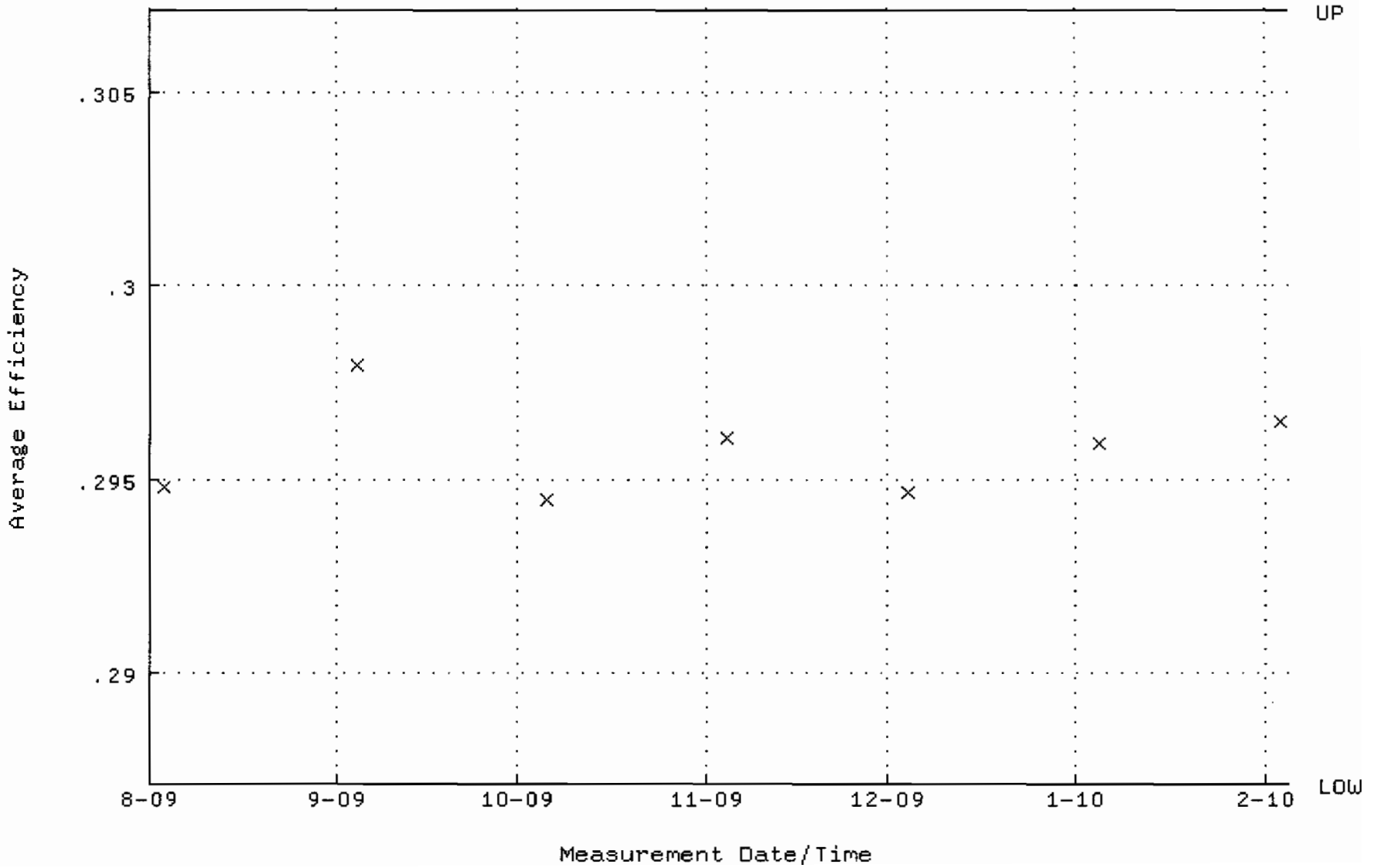

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 90.7092 through 100.258

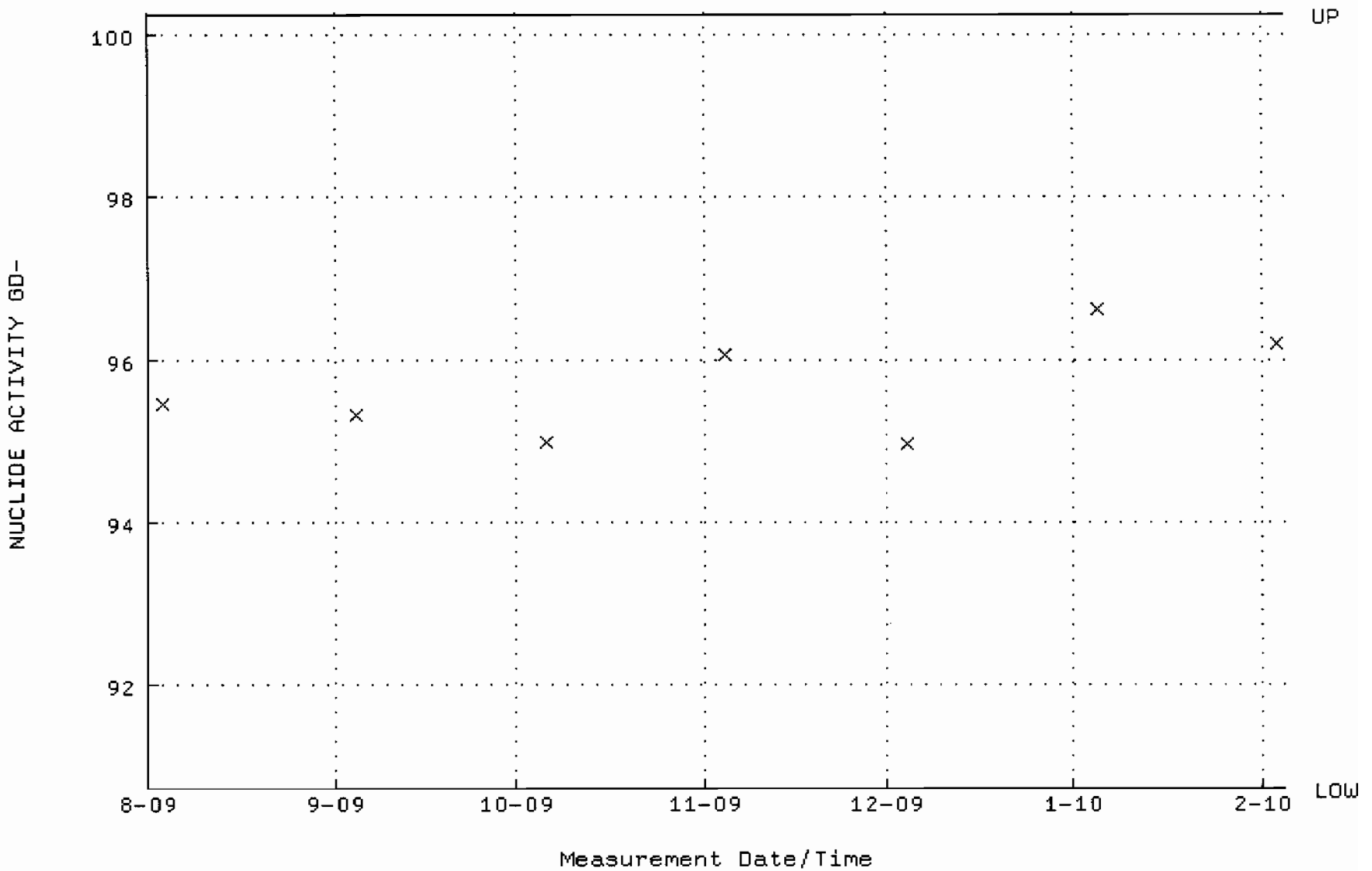

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

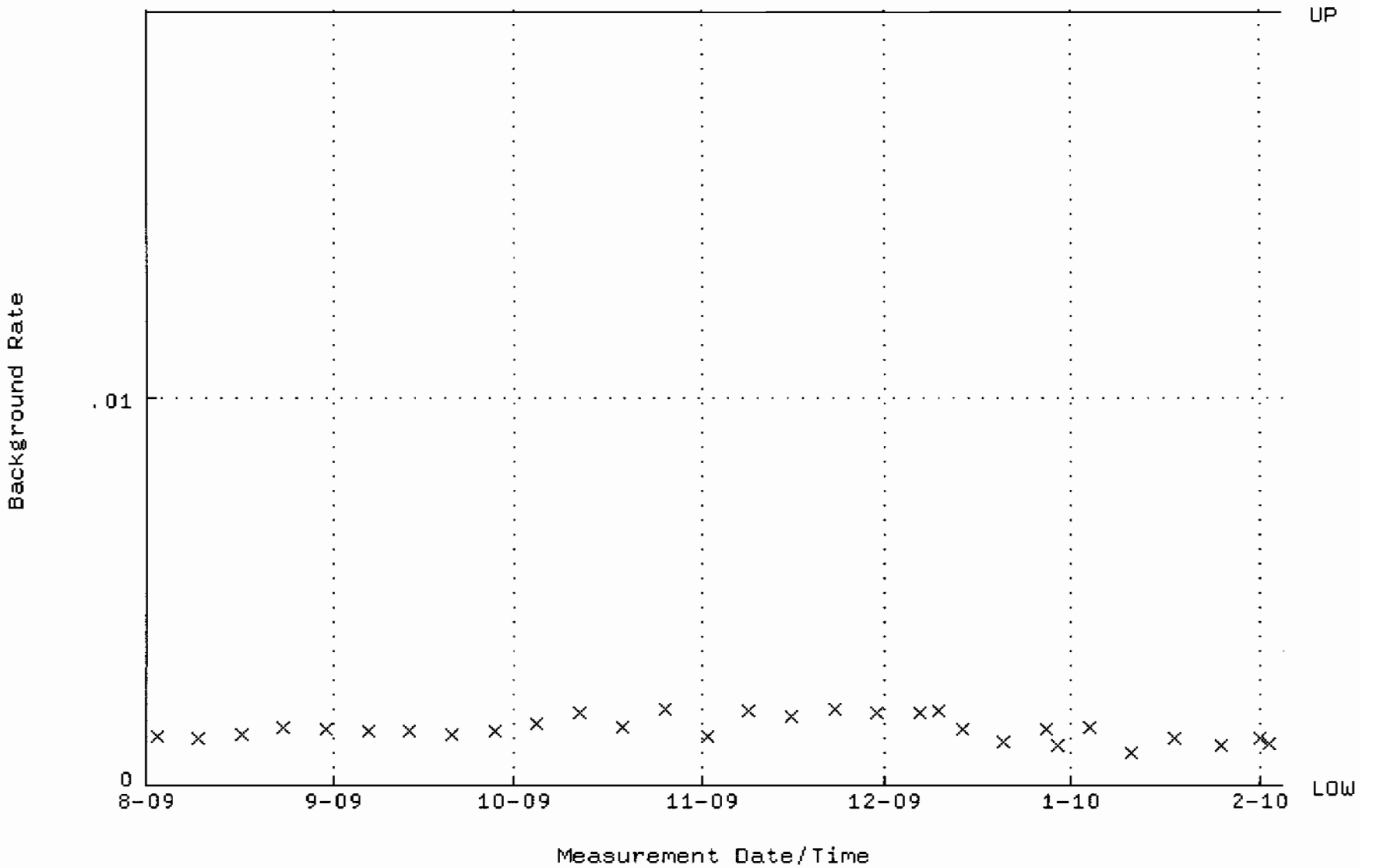

QA filename : DKA100:[ENV_ALPHA.QA.W]W037.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

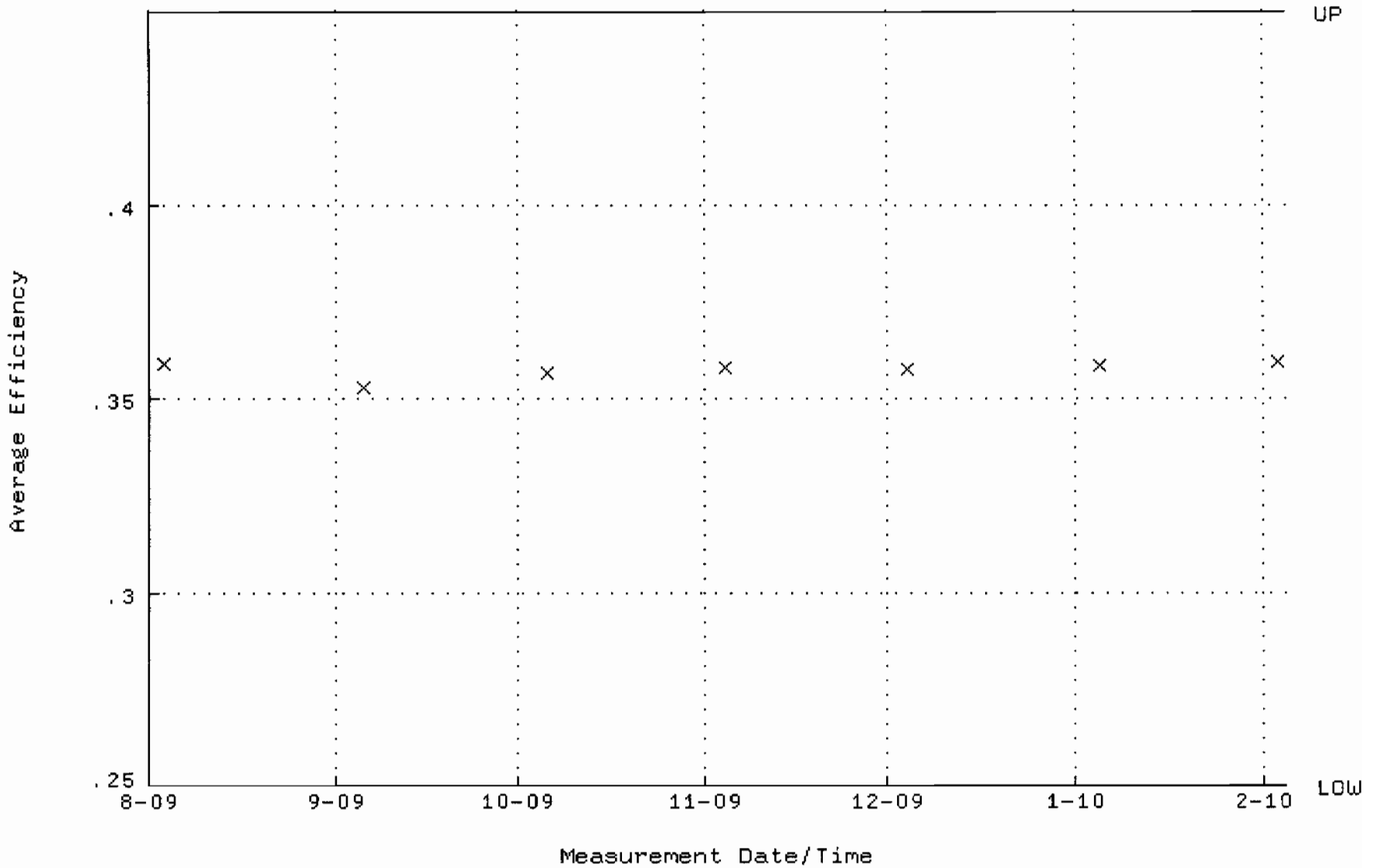

QA filename : DKA100:[ENV_ALPHA.QA.W]W037.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

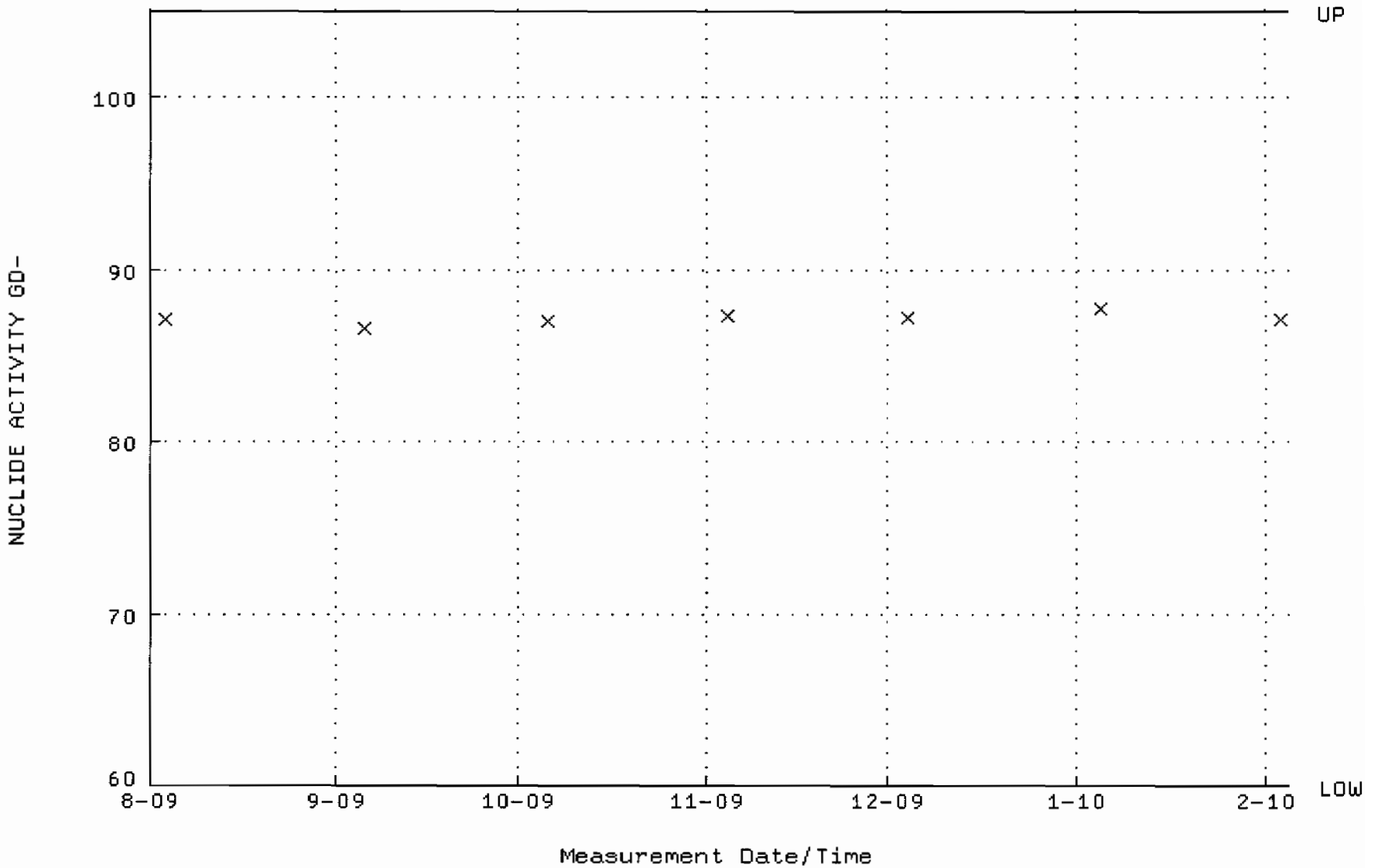

QA filename : DKA100:[ENV_ALPHA.QA.B]B037.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

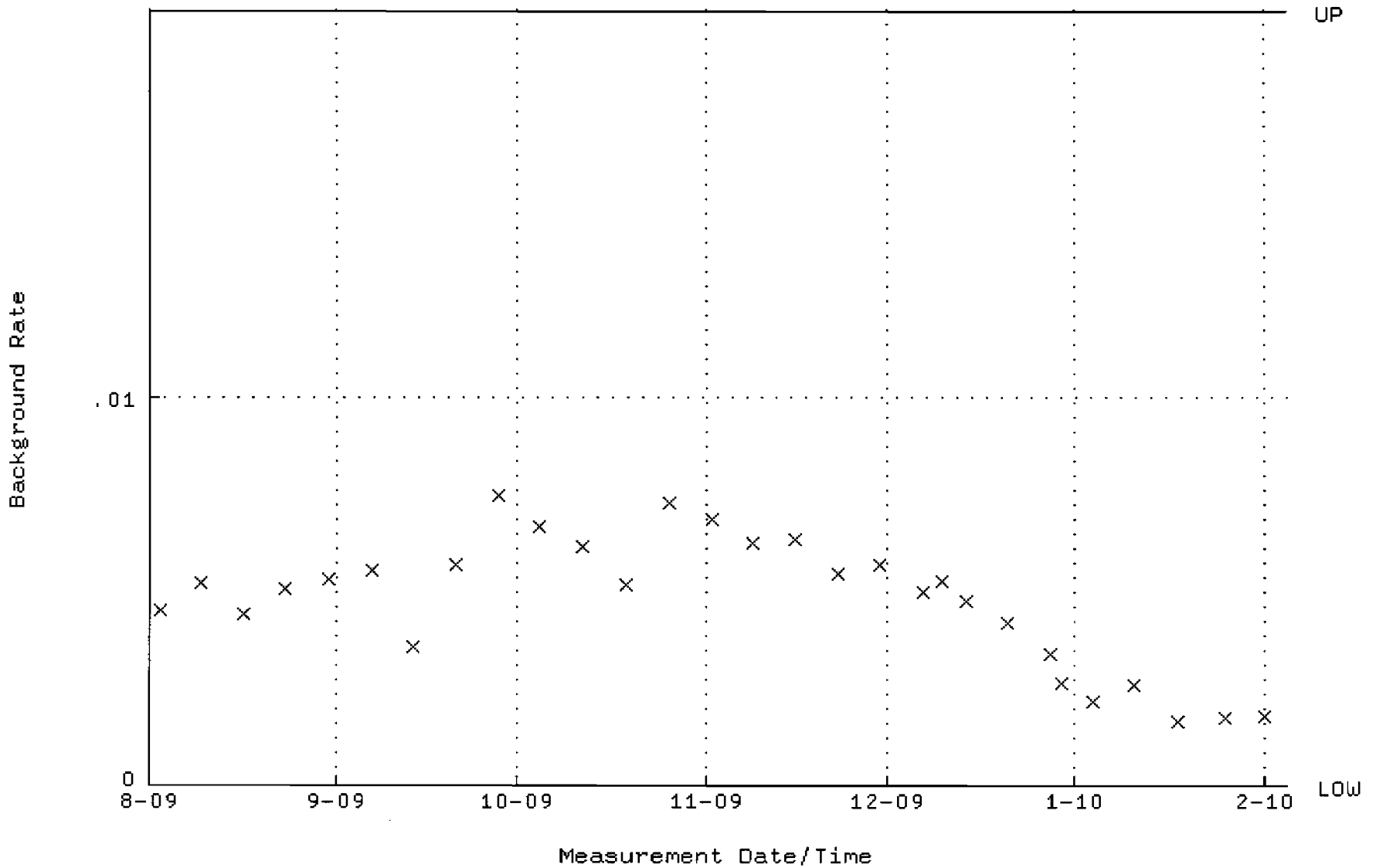

QA filename : DKA100:[ENV_ALPHA.QA.W]W038.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.327380 through 0.362086

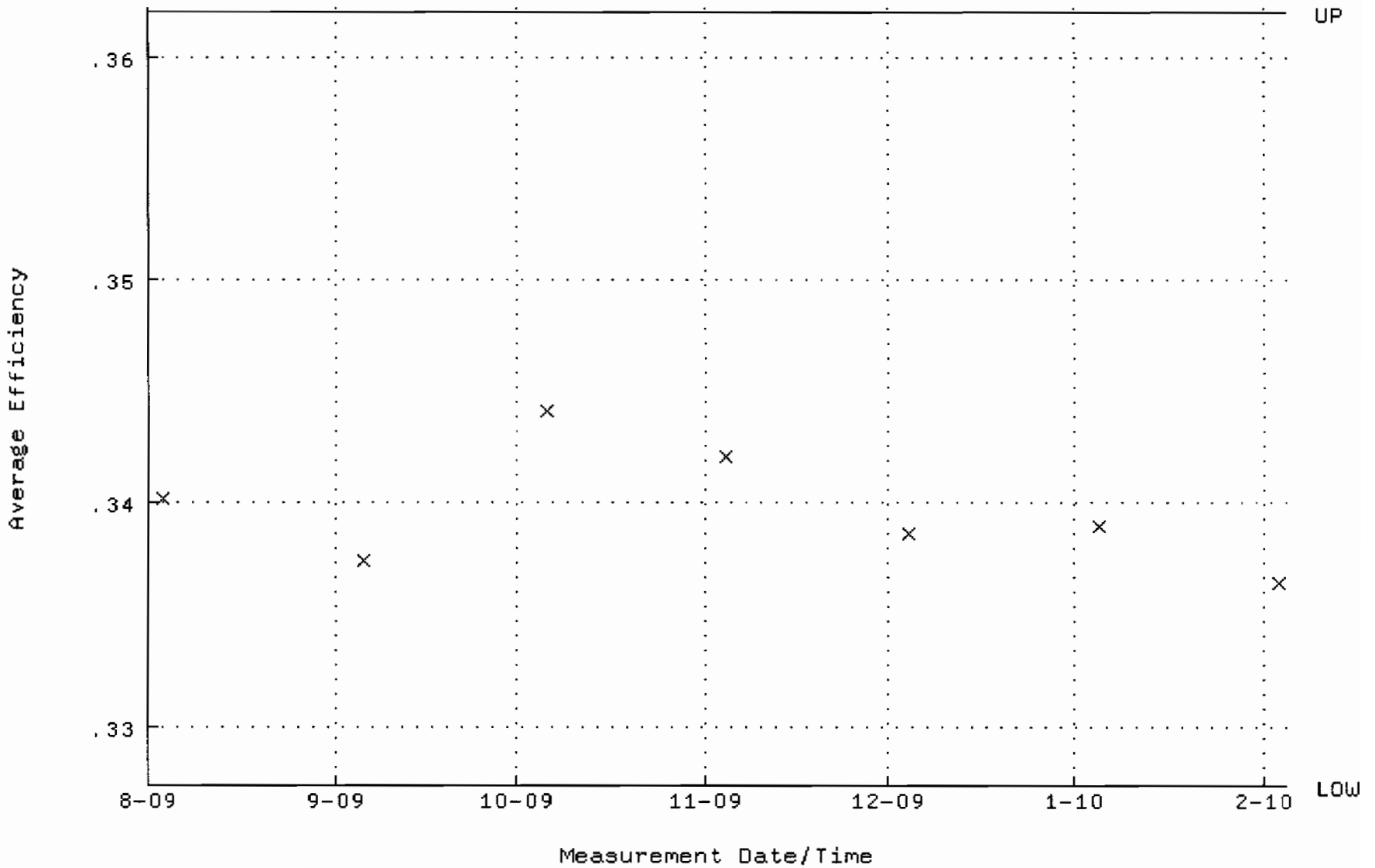

QA filename : DKA100:[ENV_ALPHA.QA.W]W038.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5715 through 92.1899

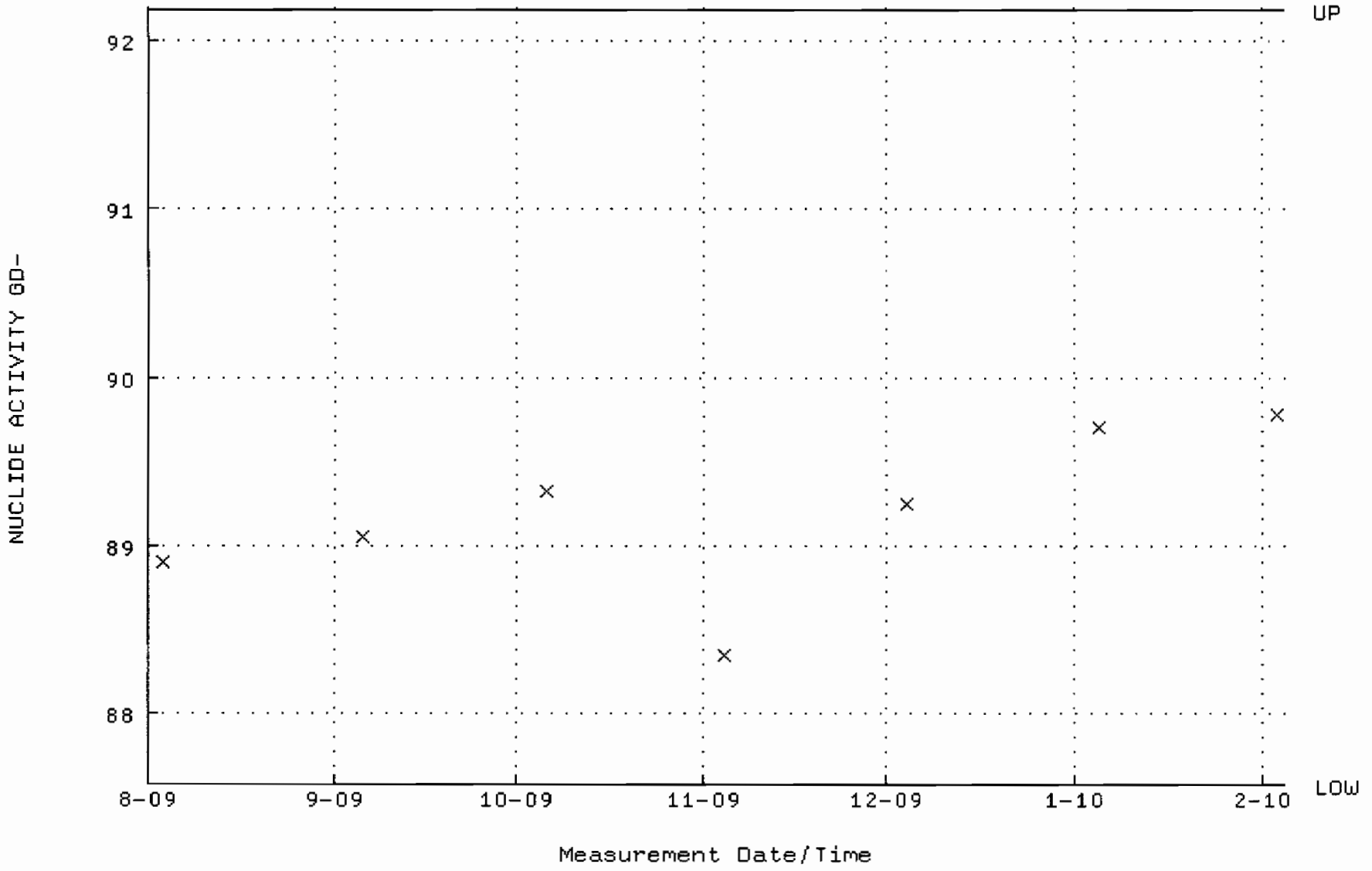

QA filename : DKA100:[ENV_ALPHA.QA.B]B038.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

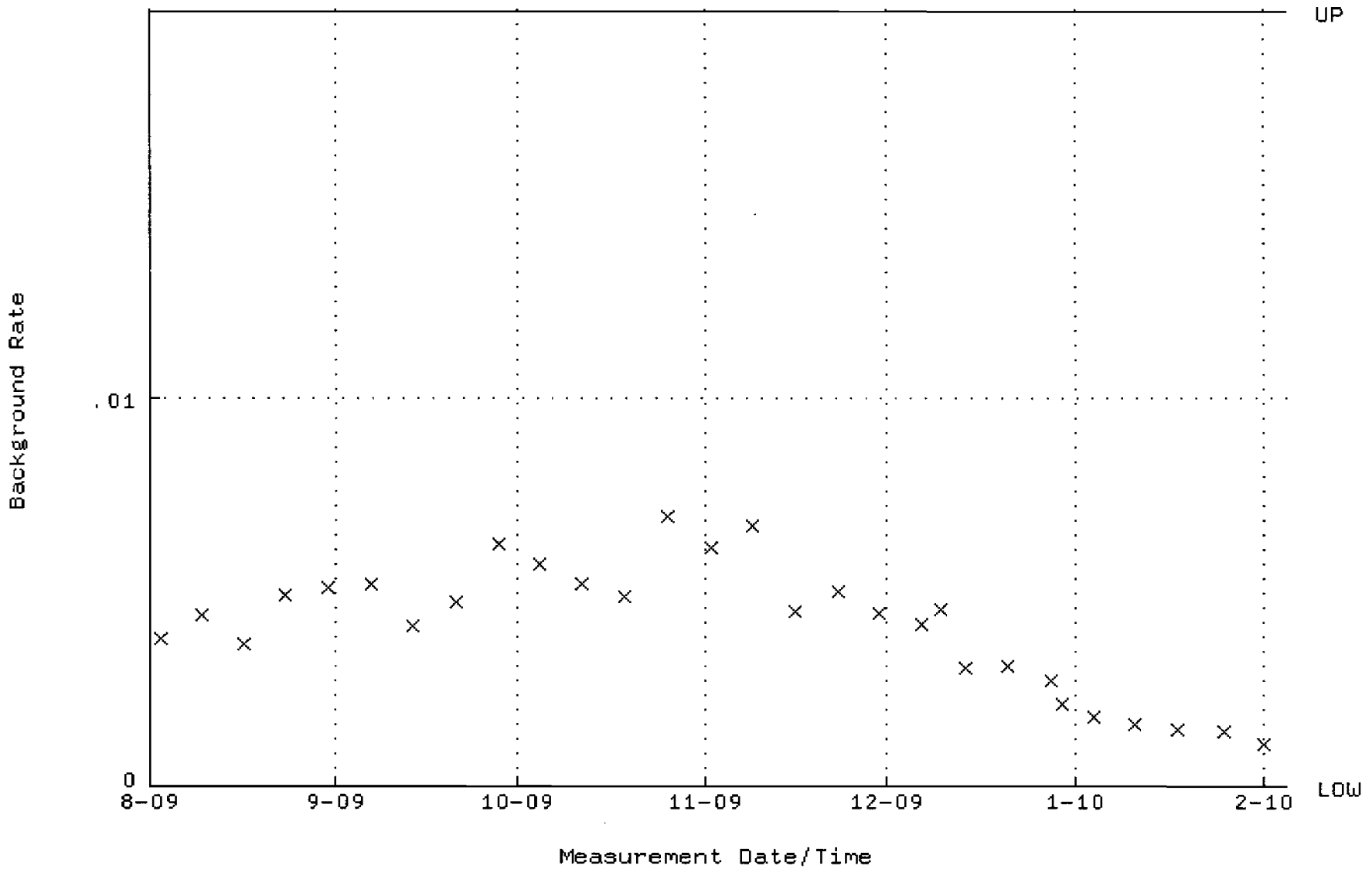

QA filename : DKA100:[ENV_ALPHA.QA.W]W039.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

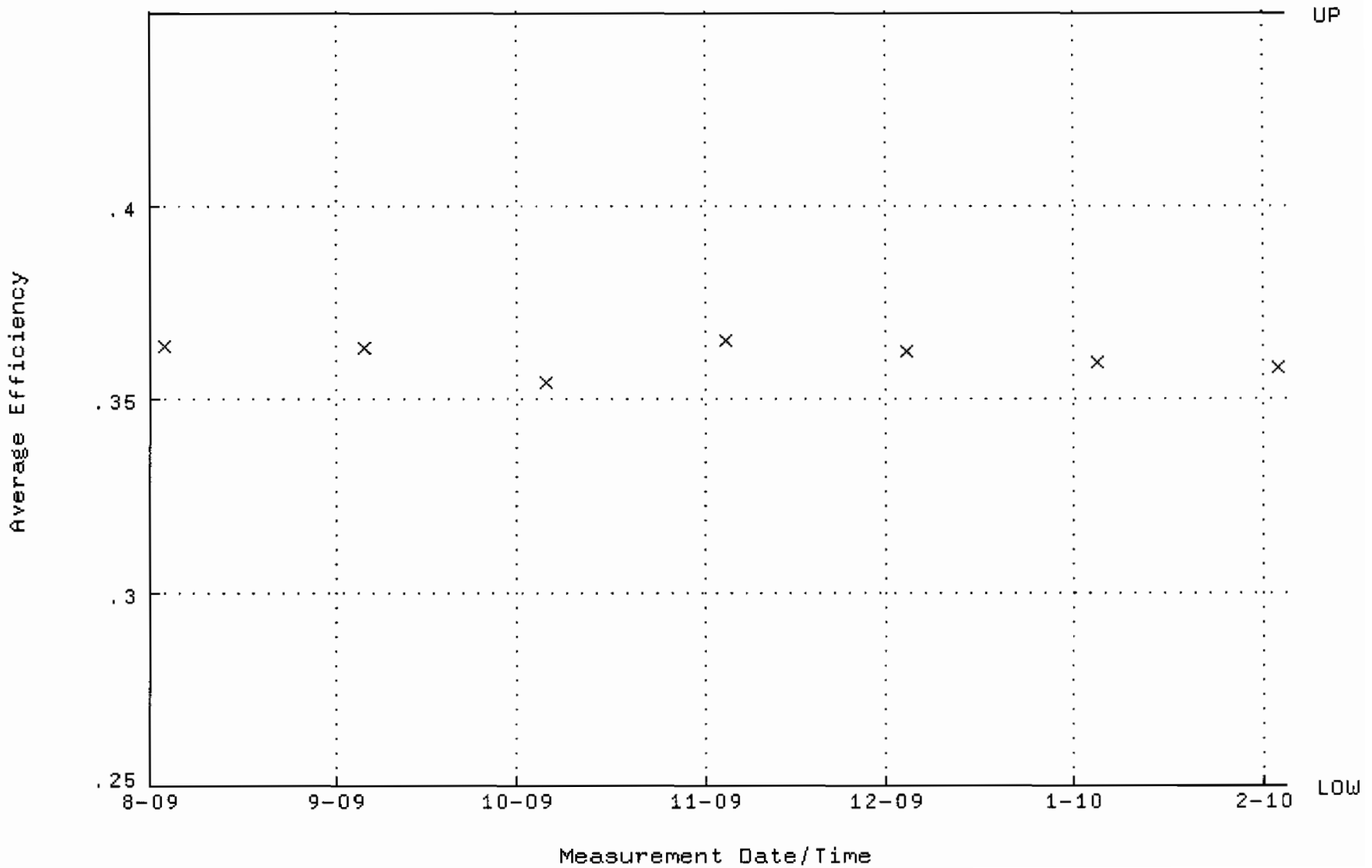

QA filename : DKA100:[ENV_ALPHA.QA.W]W039.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

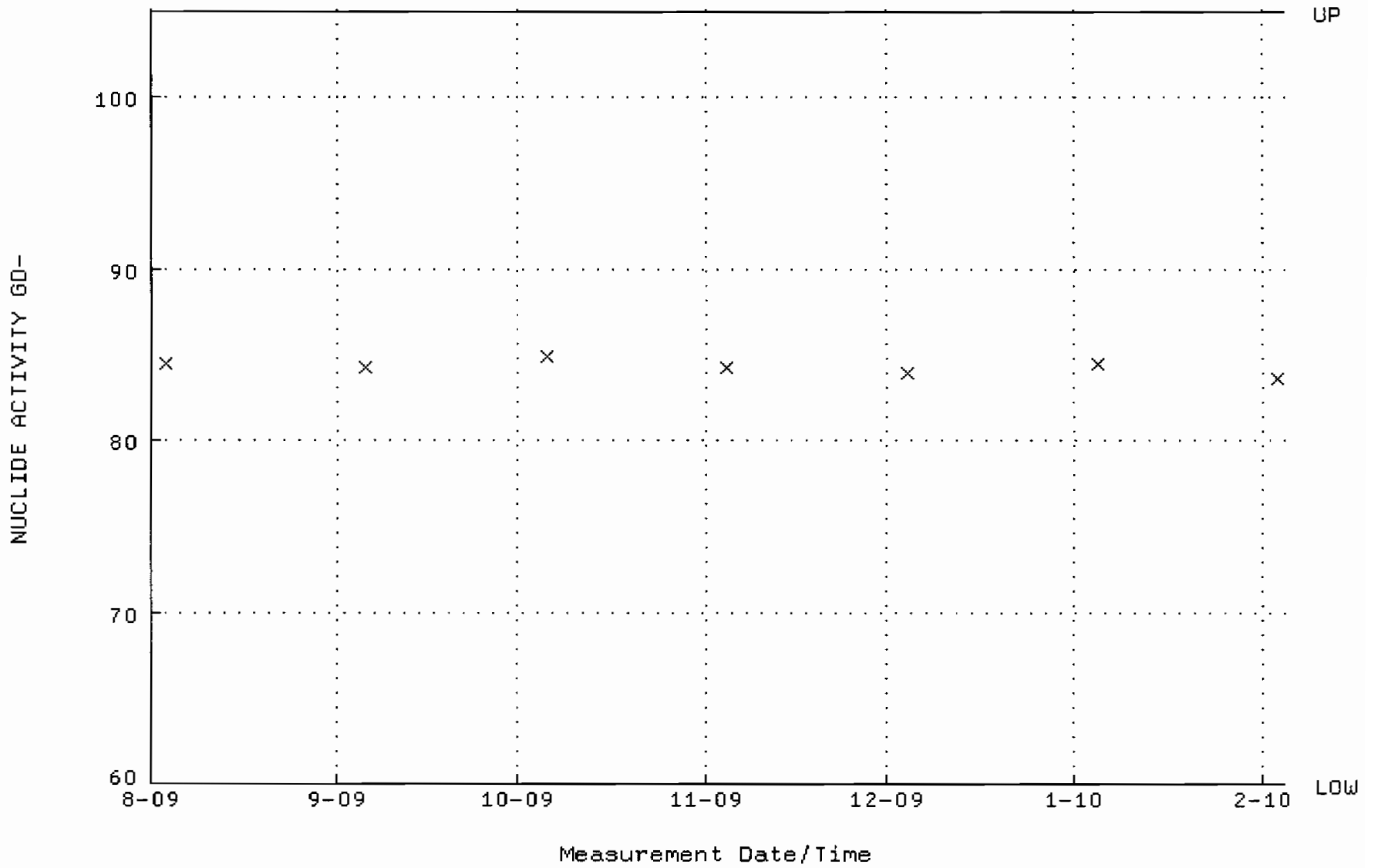

QA filename : DKA100:[ENV_ALPHA.QA.B]B039.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

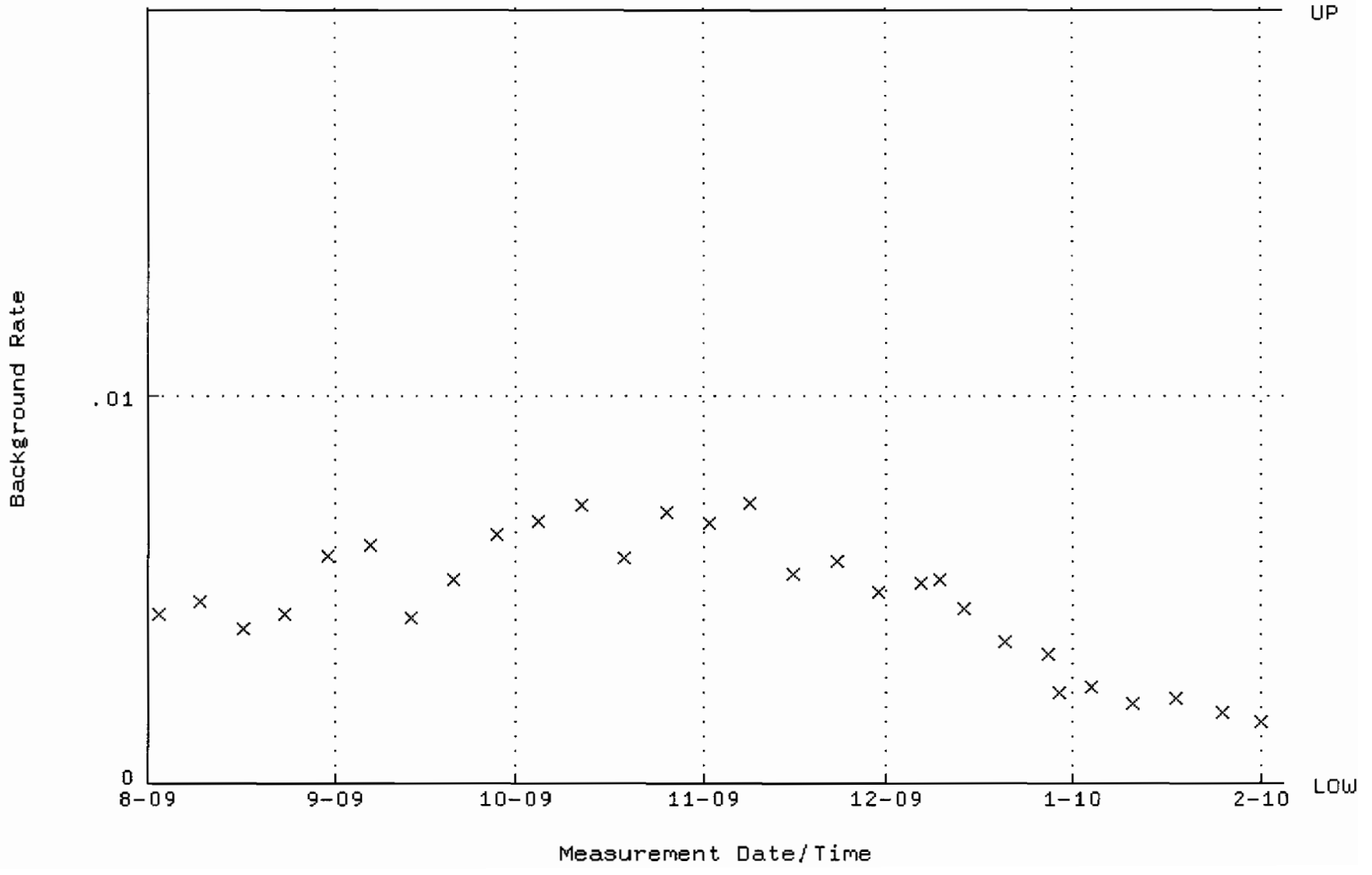

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313016 through 0.333016

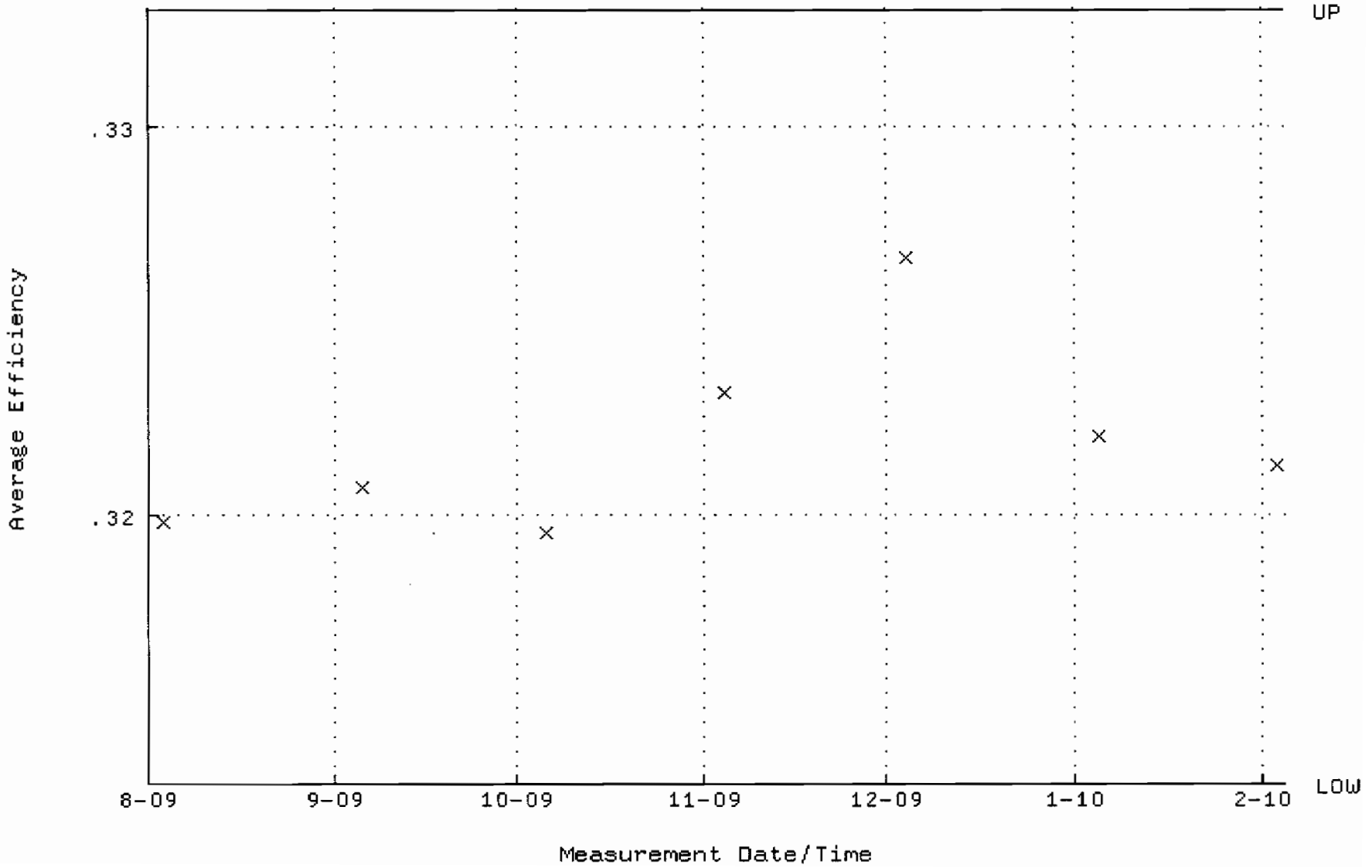

QA filename : DKA100:[ENV_ALPHA.QA.W]W040.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 82.8065 through 91.5229

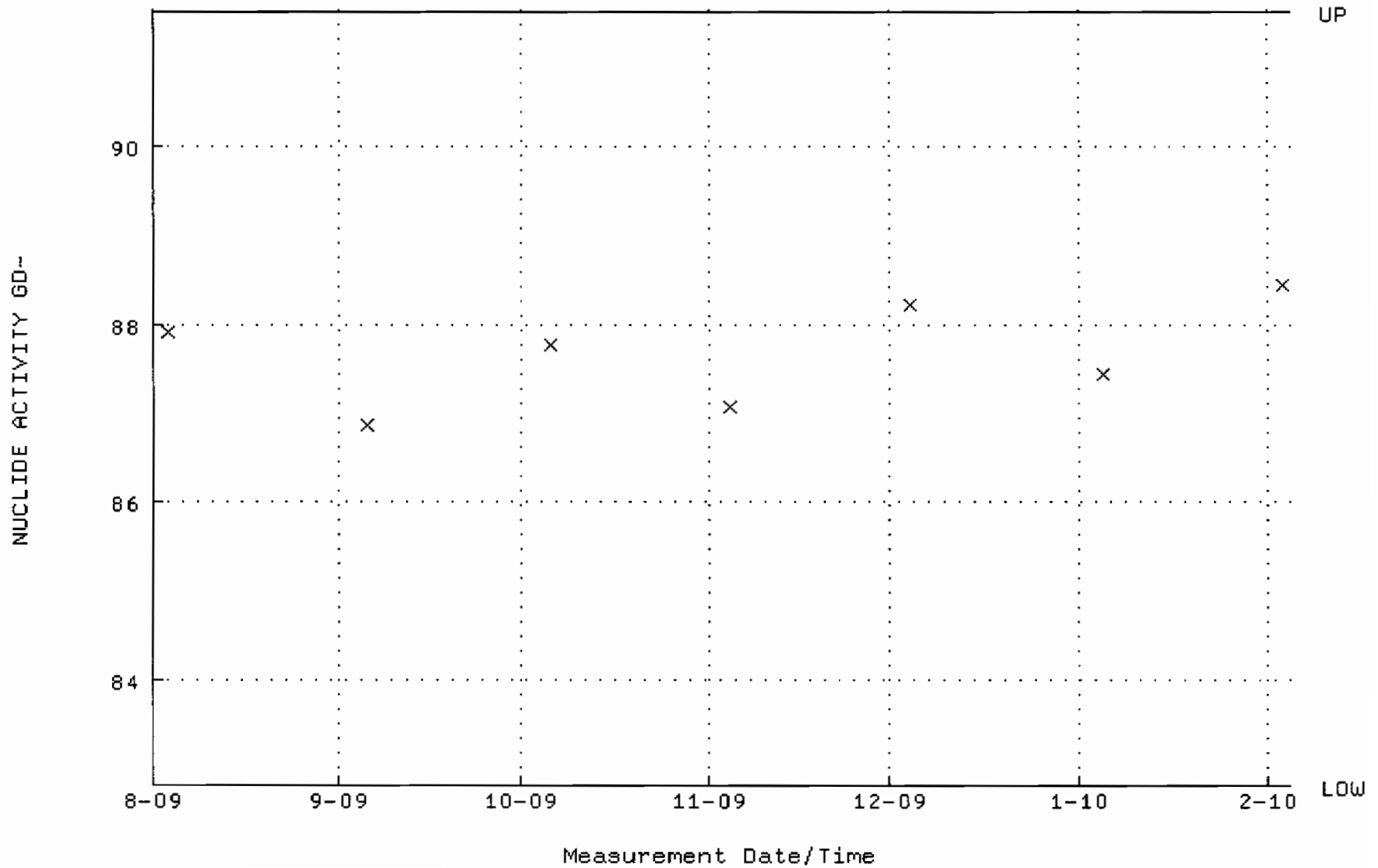

QA filename : DKA100:[ENV_ALPHA.QA.B]B040.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

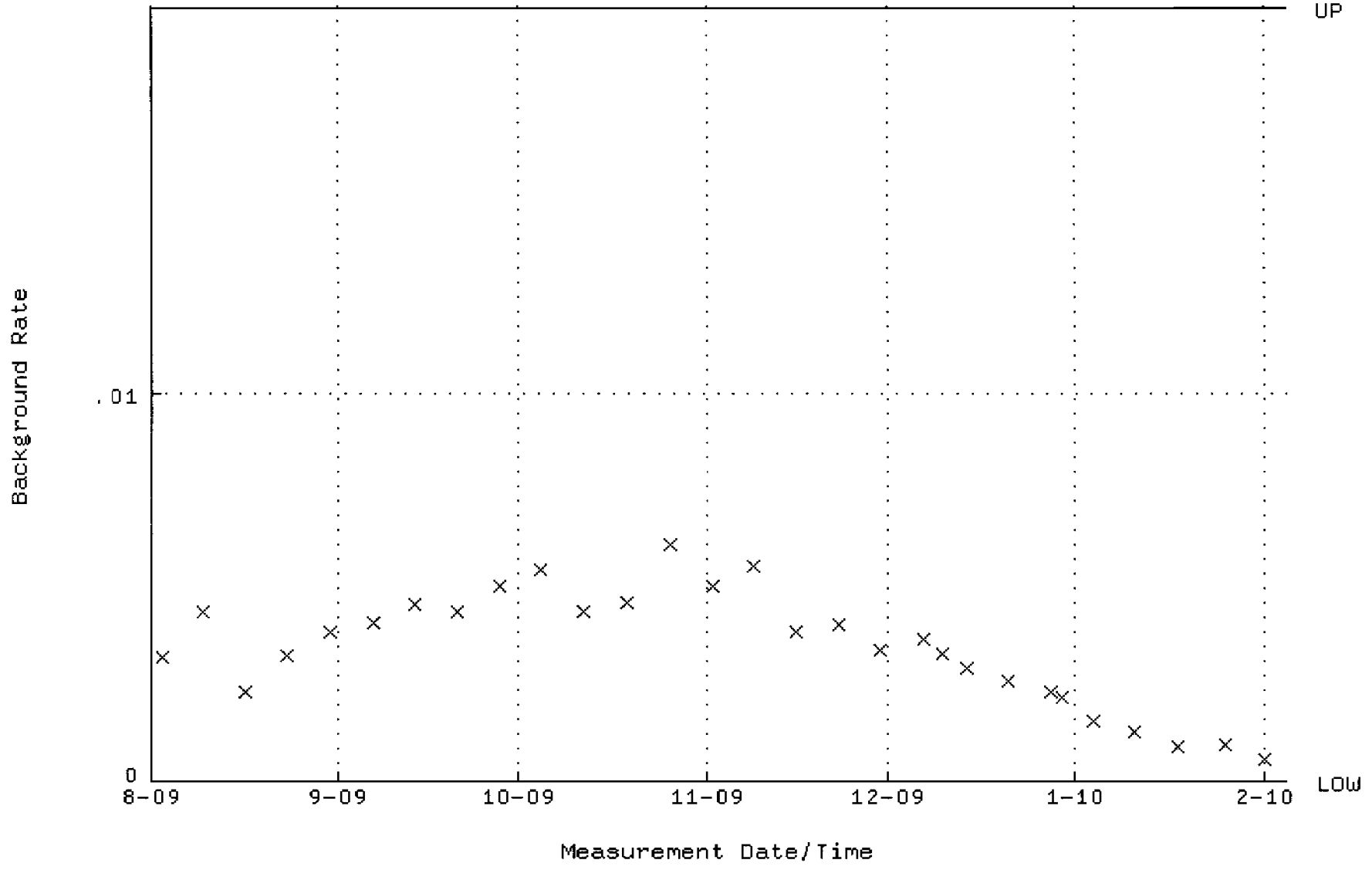

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.320943 through 0.340943

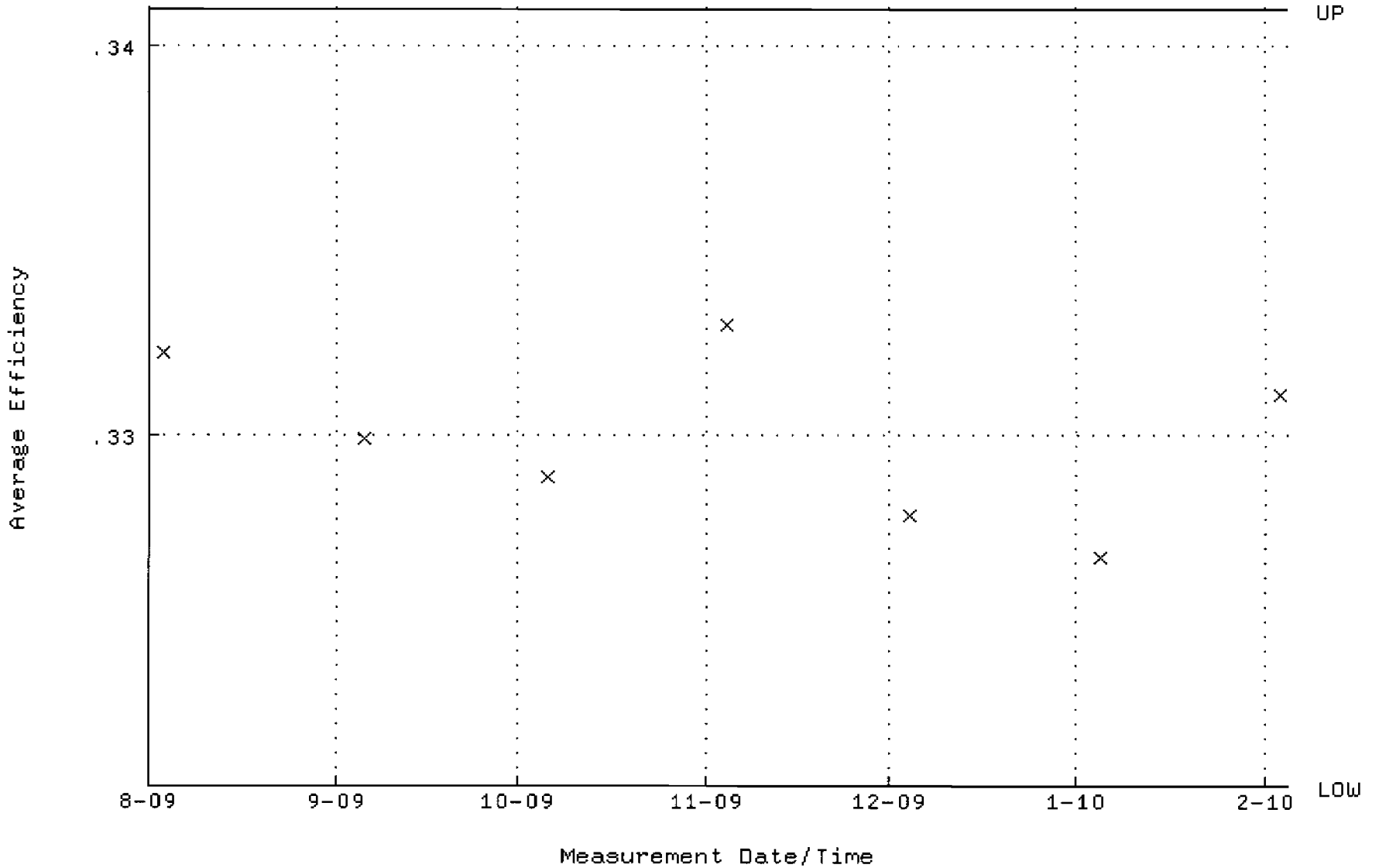

QA filename : DKA100:[ENV_ALPHA.QA.W]W041.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.6435 through 95.7639

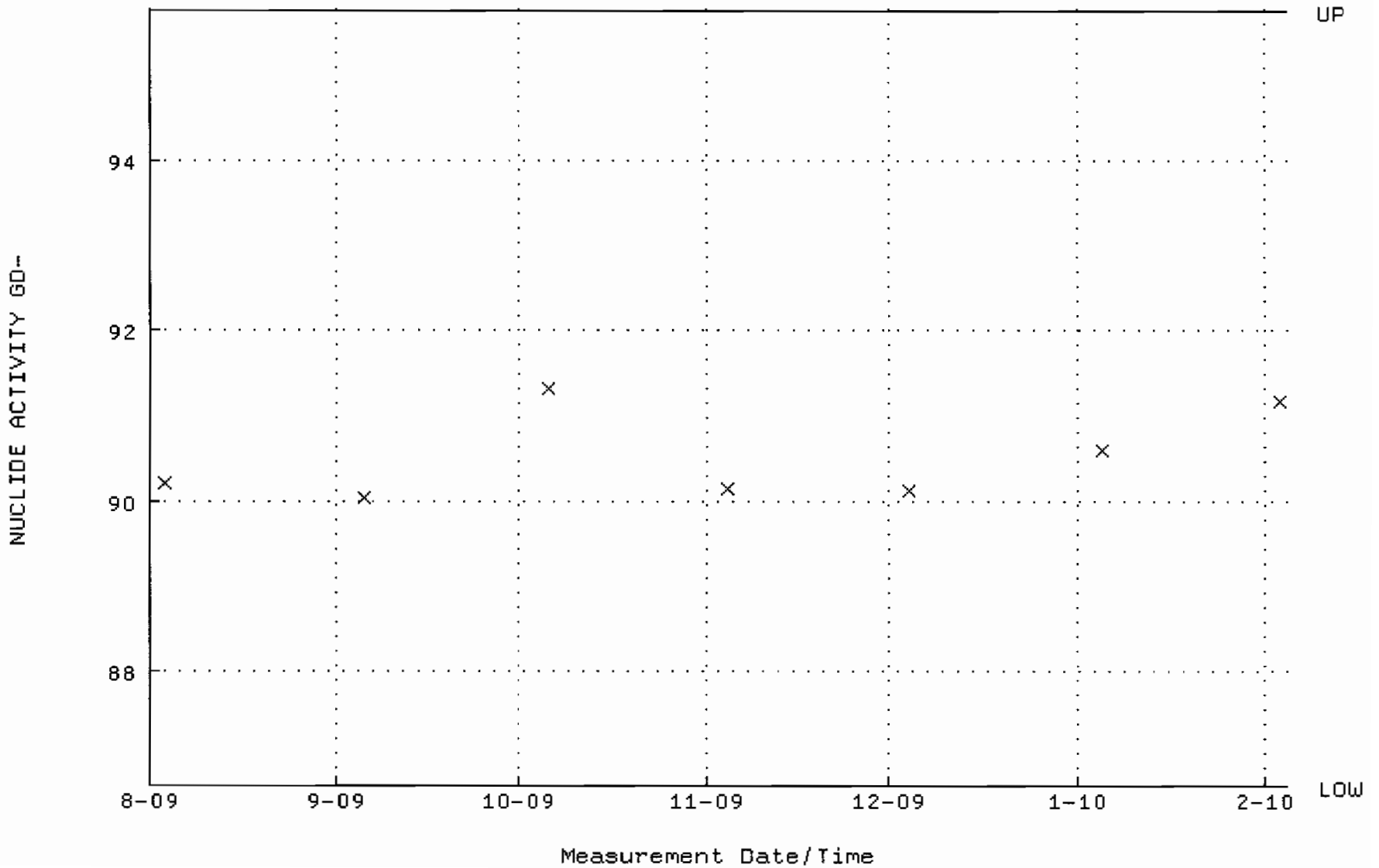

QA filename : DKA100:[ENV_ALPHA.QA.B]B041.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

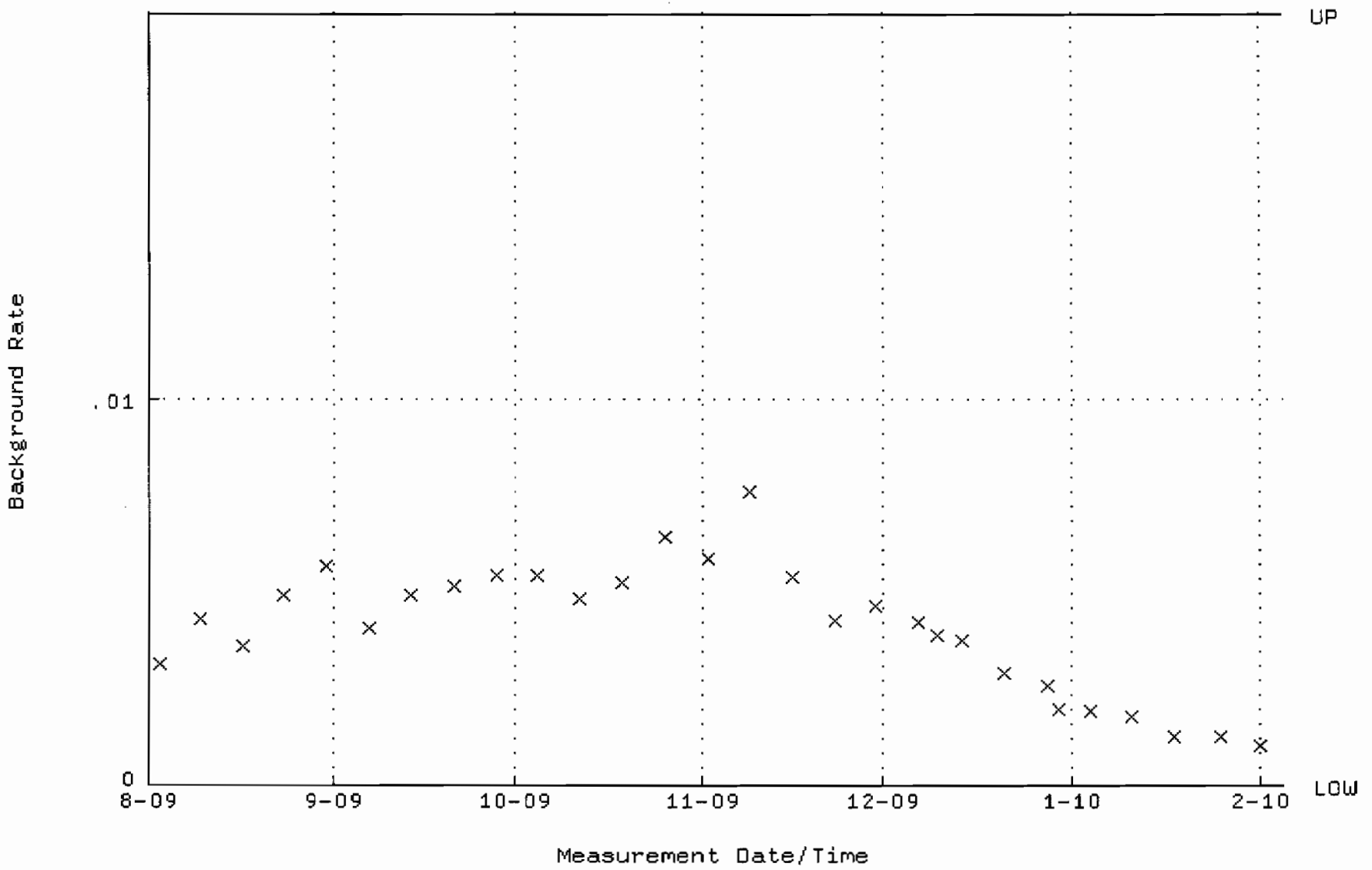

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.322243 through 0.342243

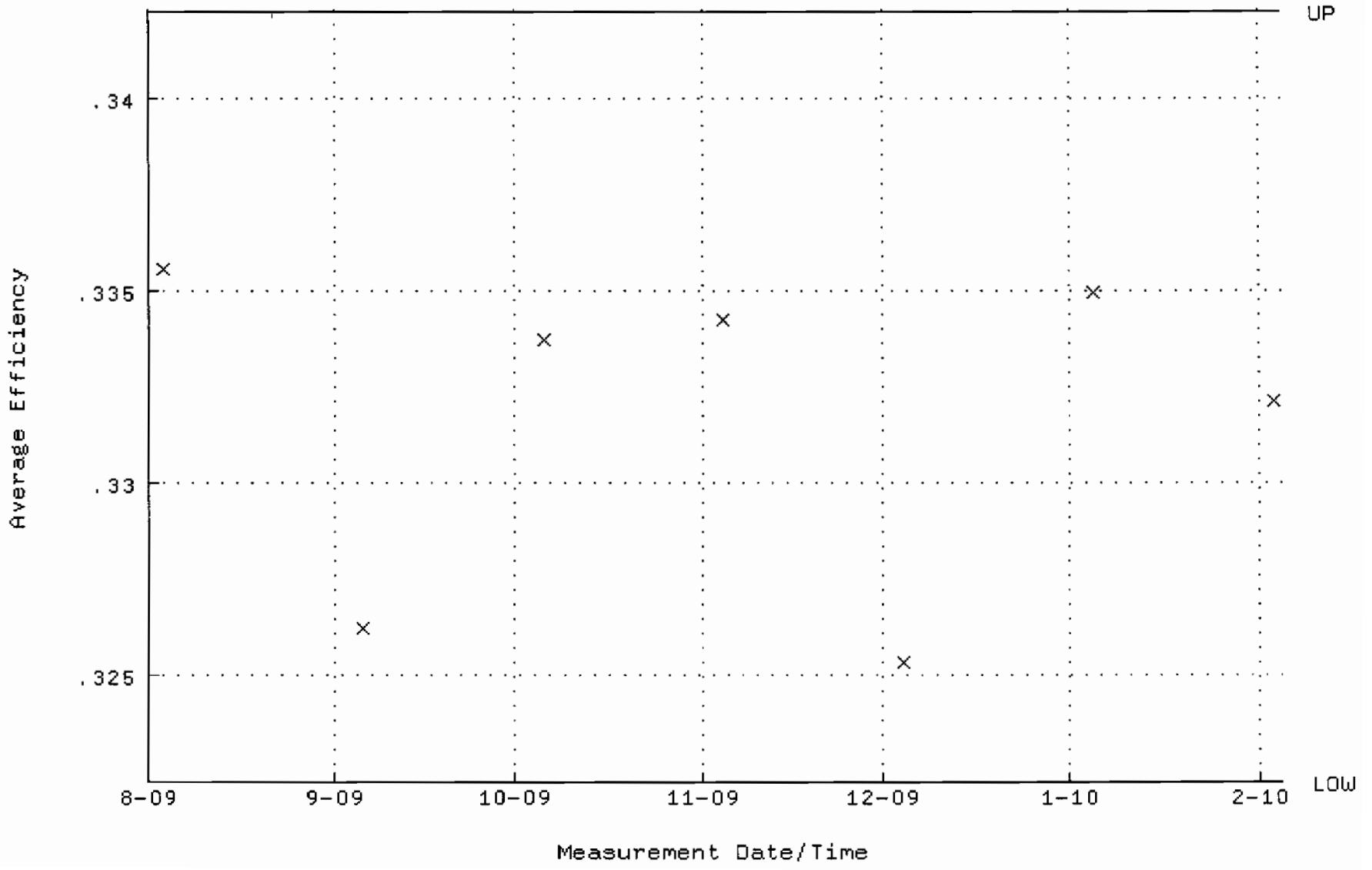

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:43 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 80.6389 through 89.1273

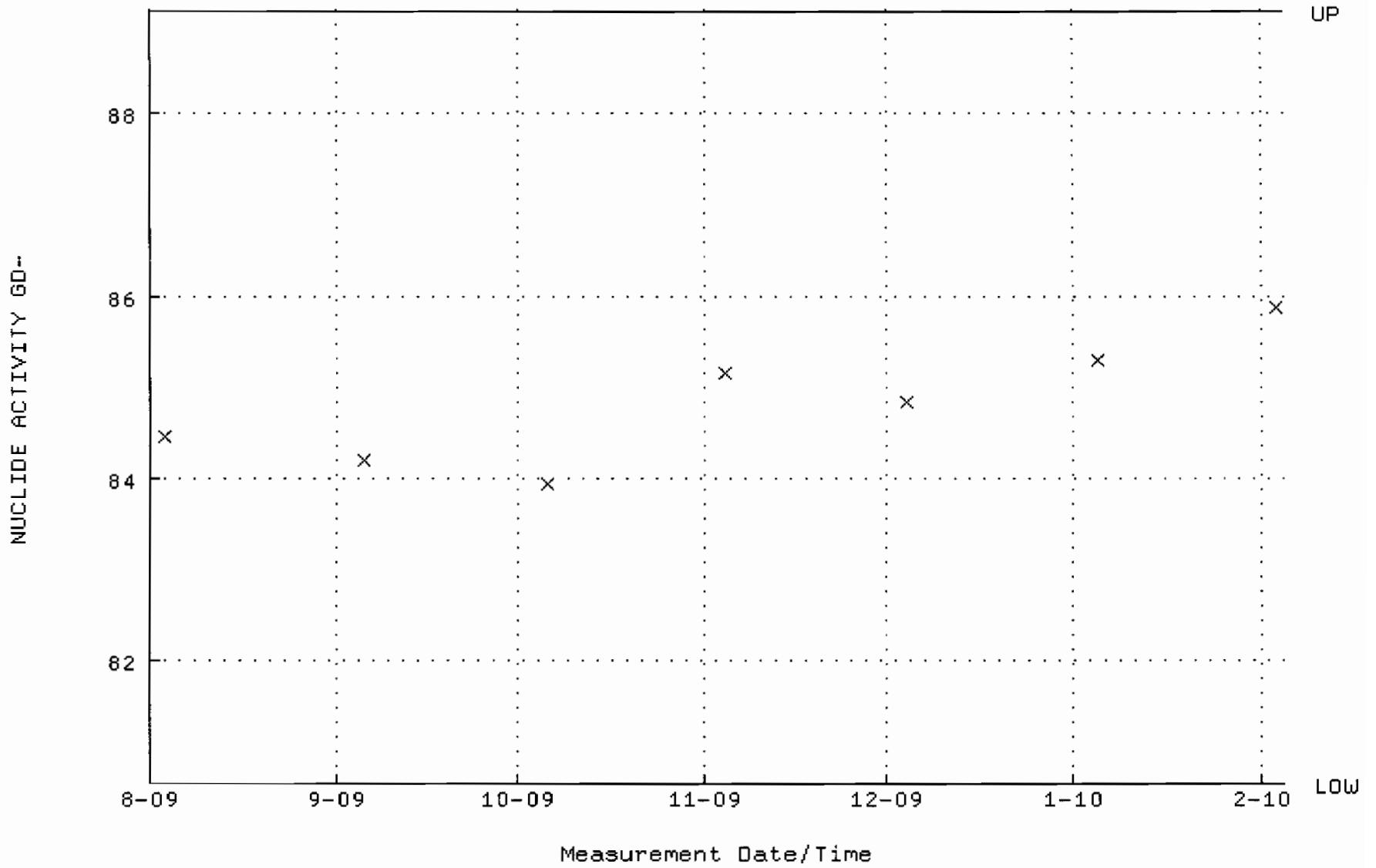

QA filename : DKA100:[ENV_ALPHA.QA.B]B042.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:36 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

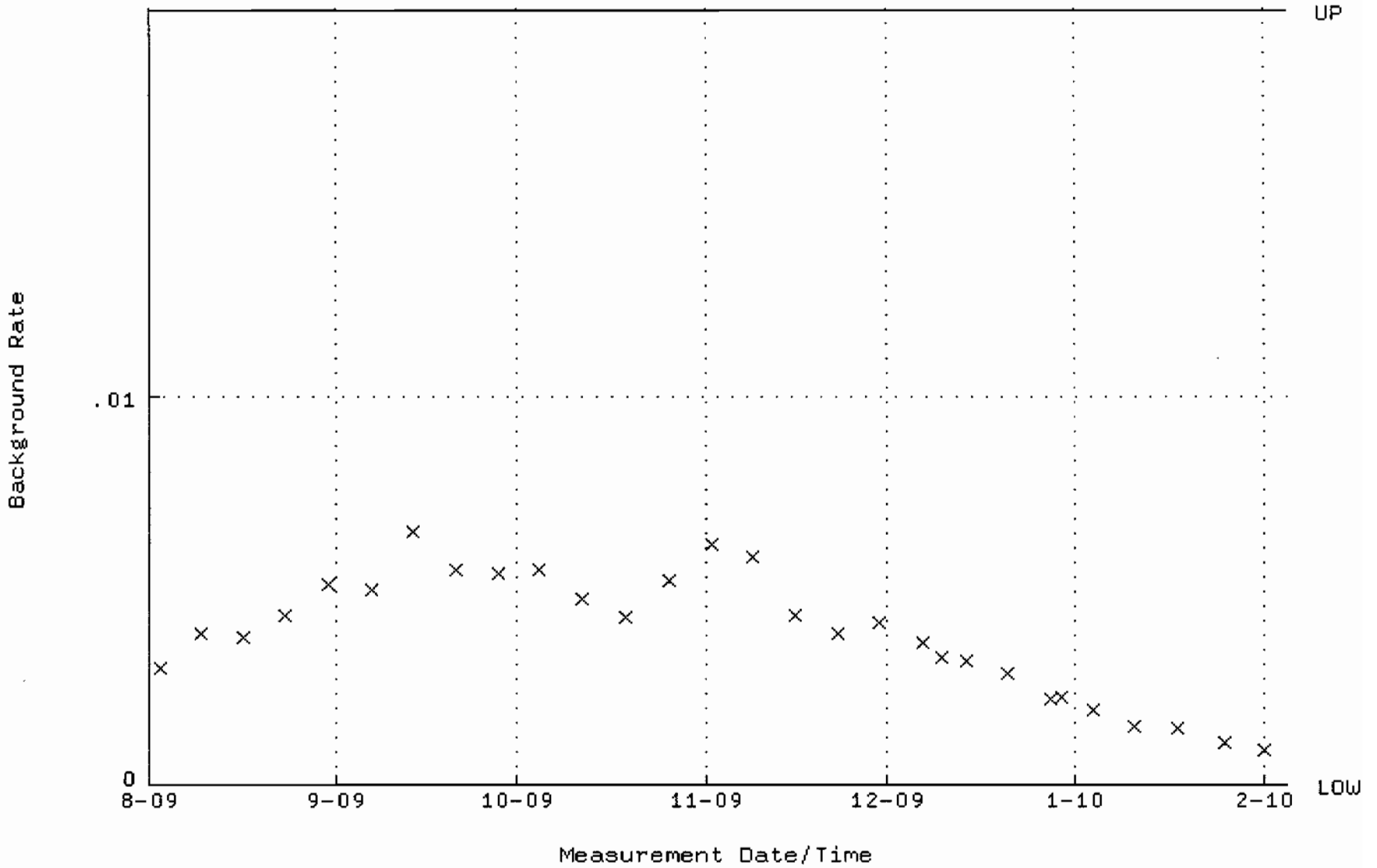

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.333927 through 0.353927

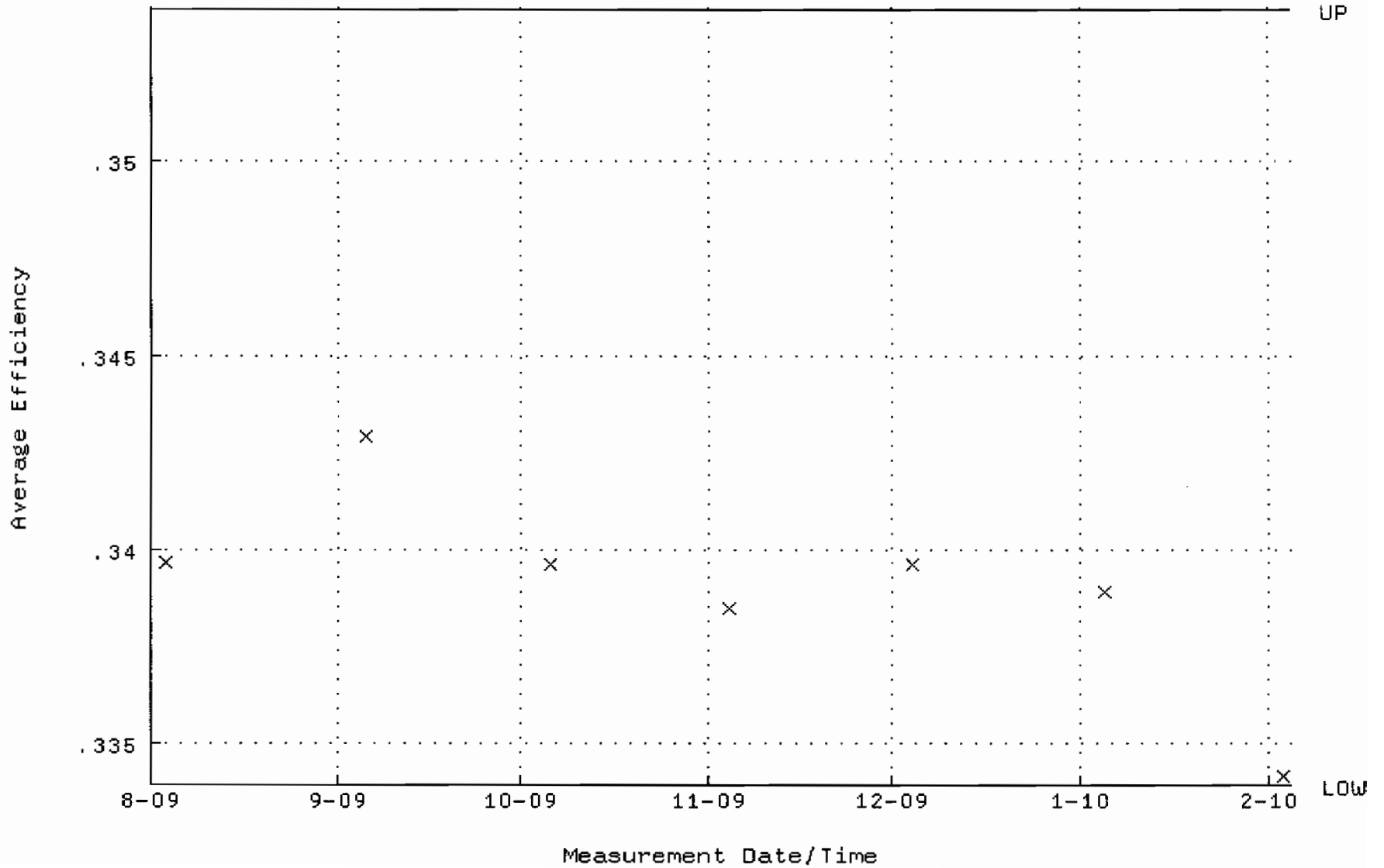

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.7568 through 90.3628

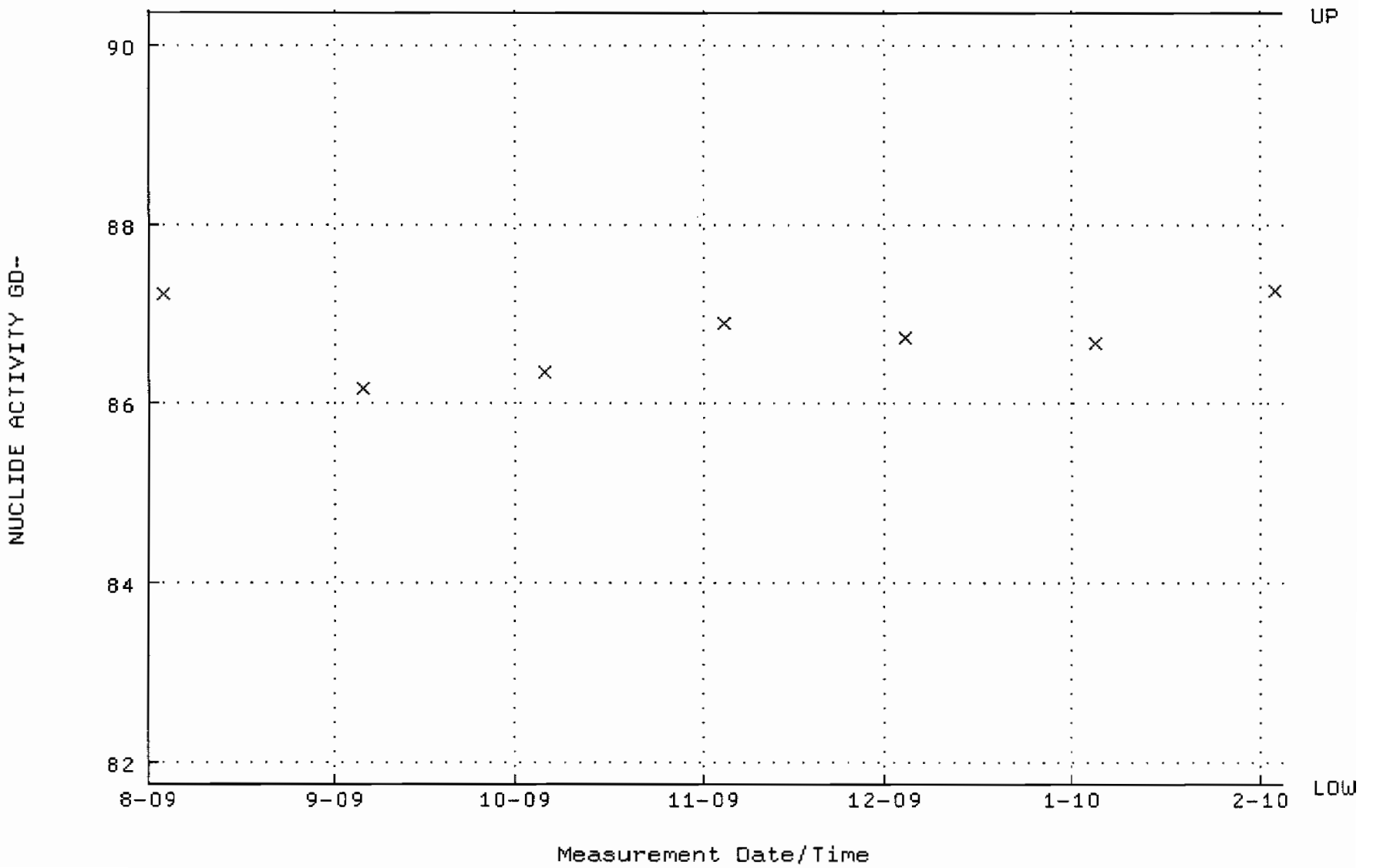

QA filename : DKA100:[ENV_ALPHA.QA.B]B046.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

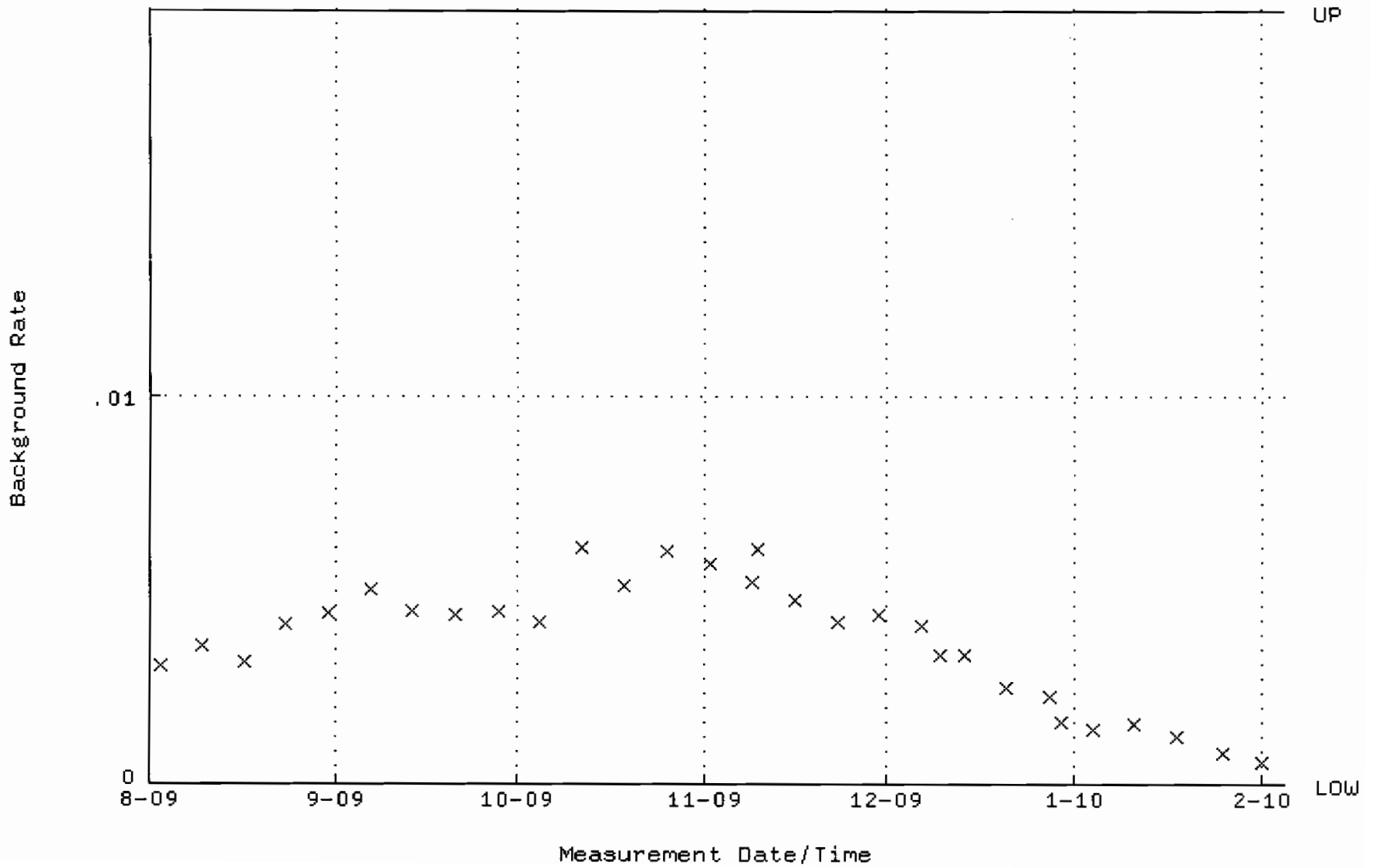

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.336276 through 0.364038

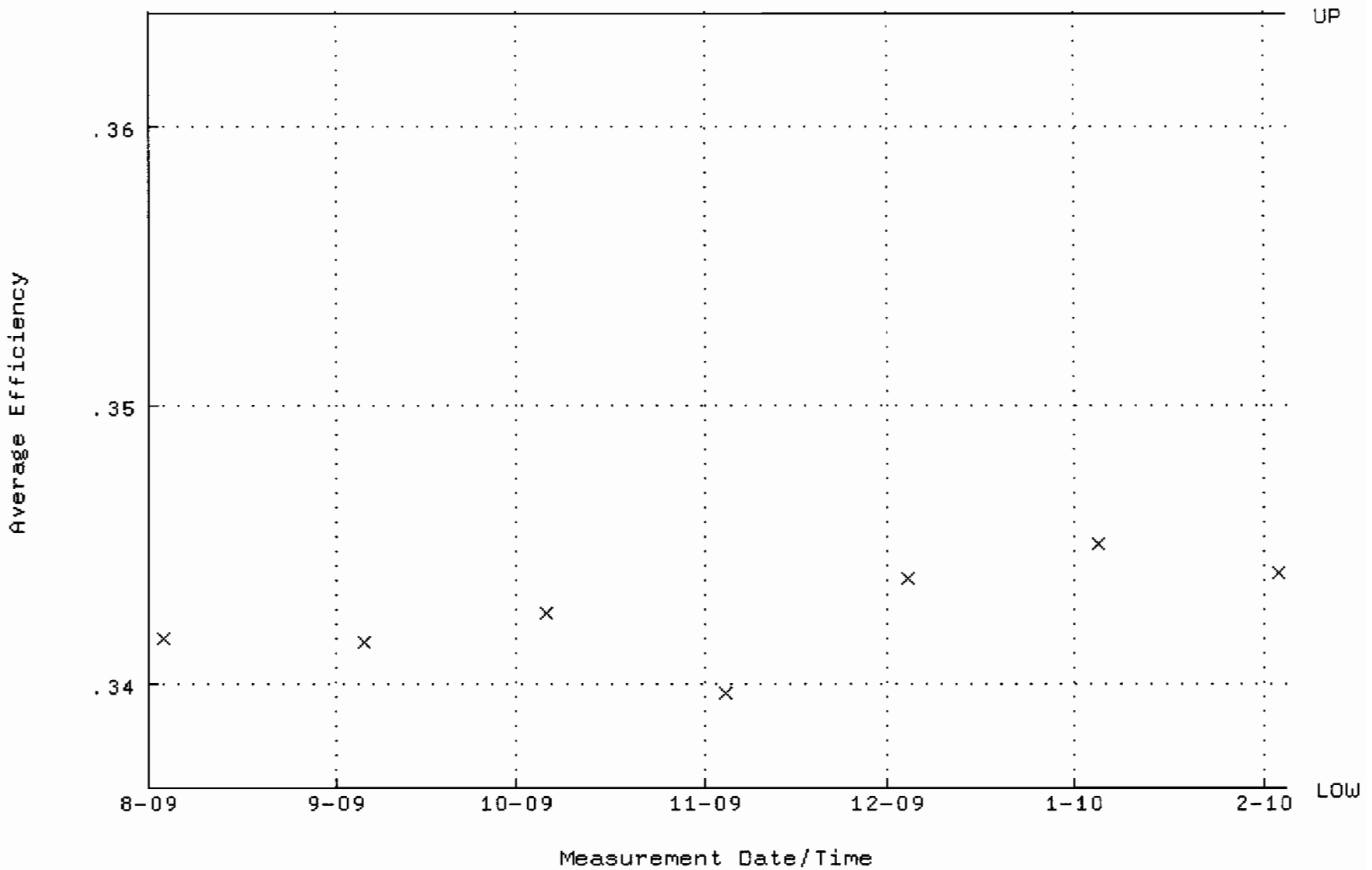

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1403 through 89.8631

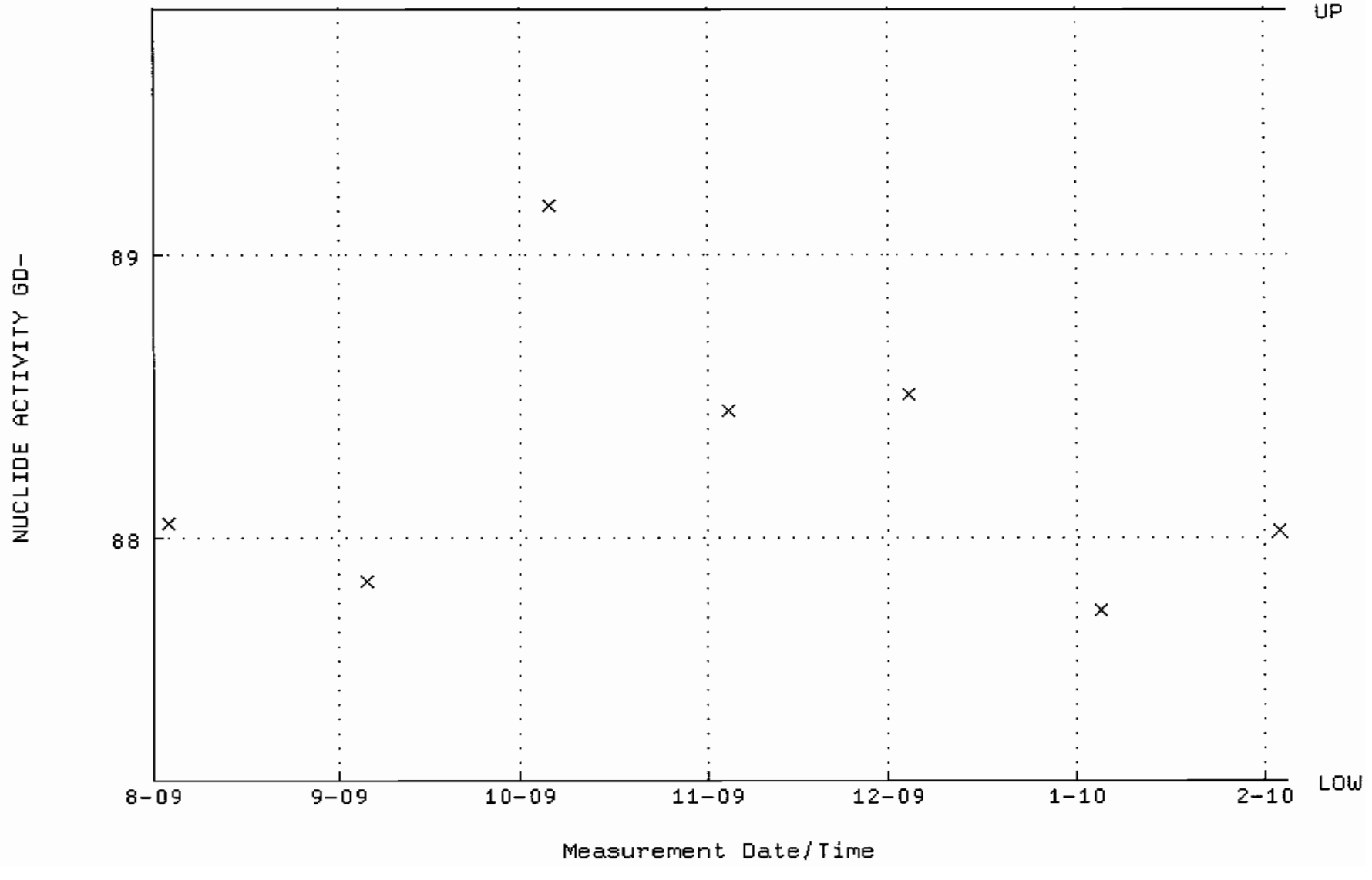

QA filename : DKA100:[ENV_ALPHA.QA.B]B047.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

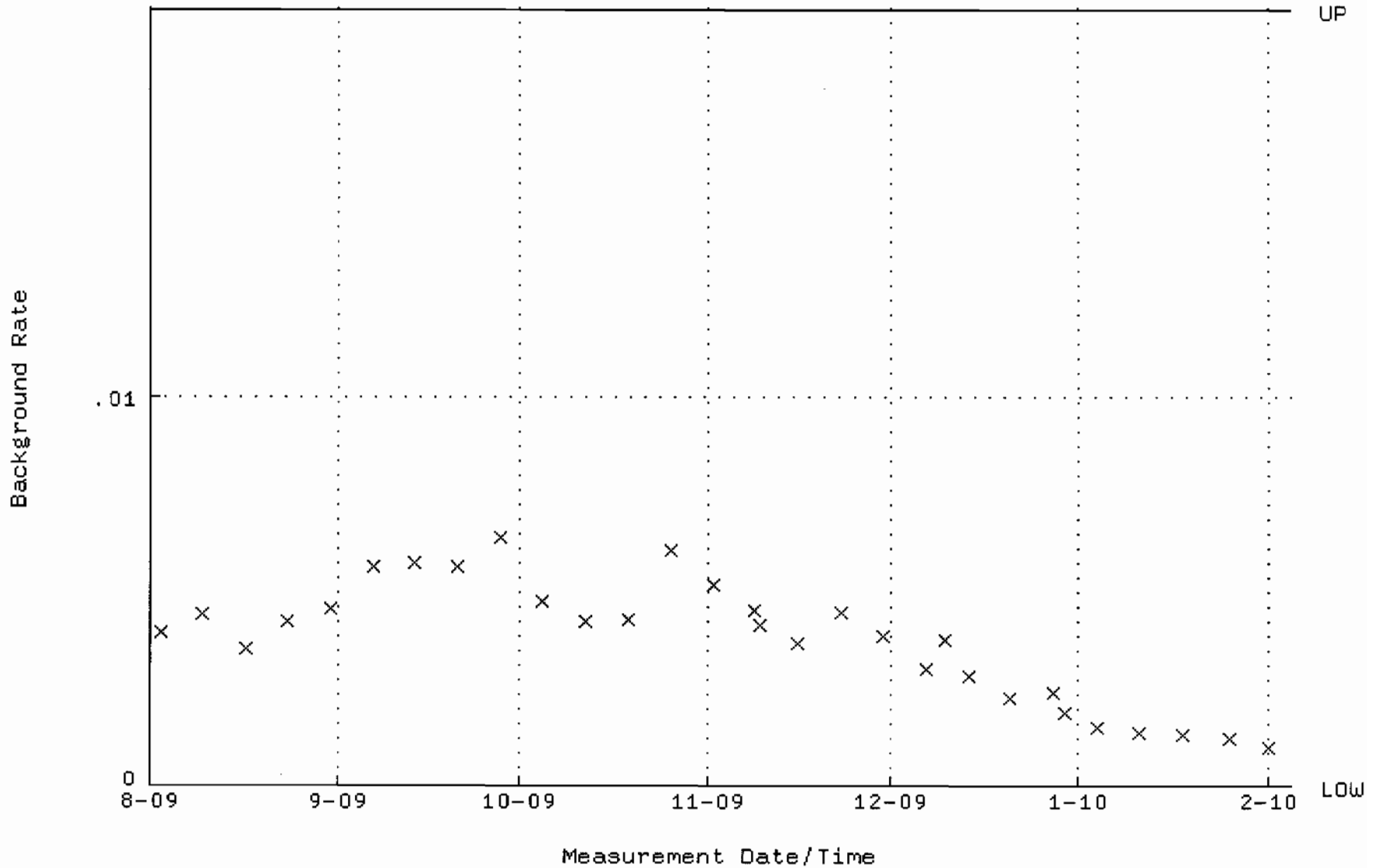

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

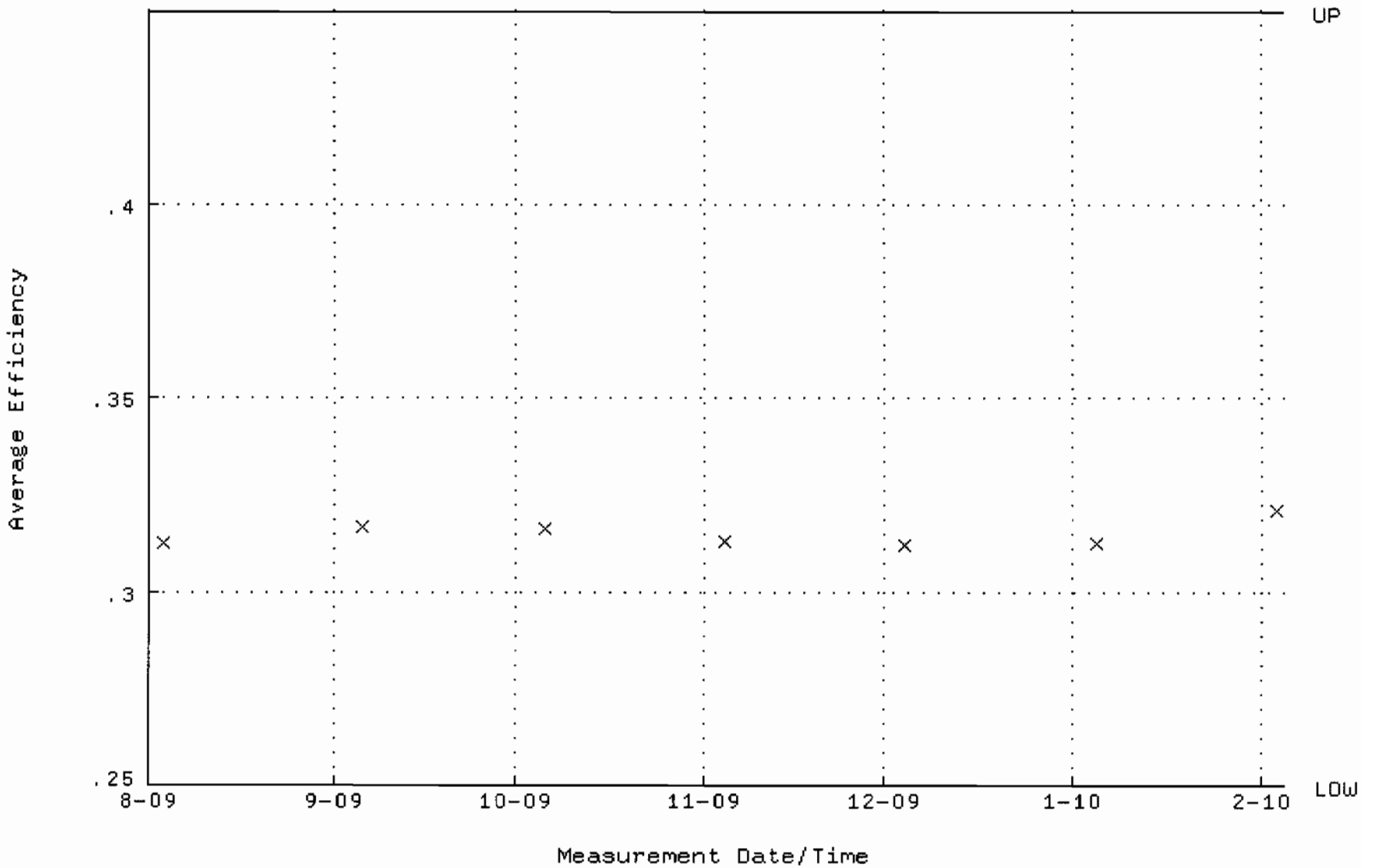

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

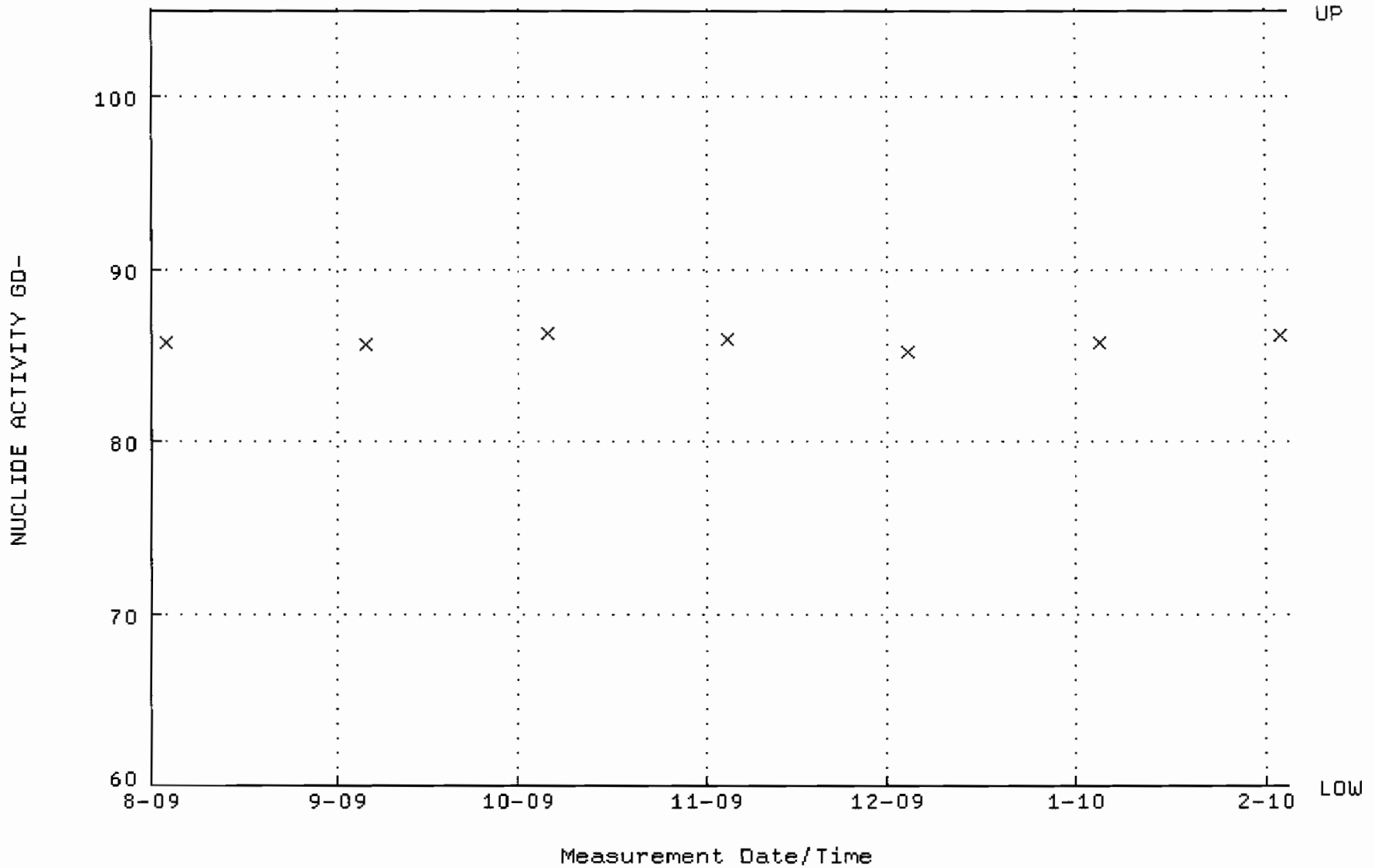

QA filename : DKA100:[ENV_ALPHA.QA.B]B048.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

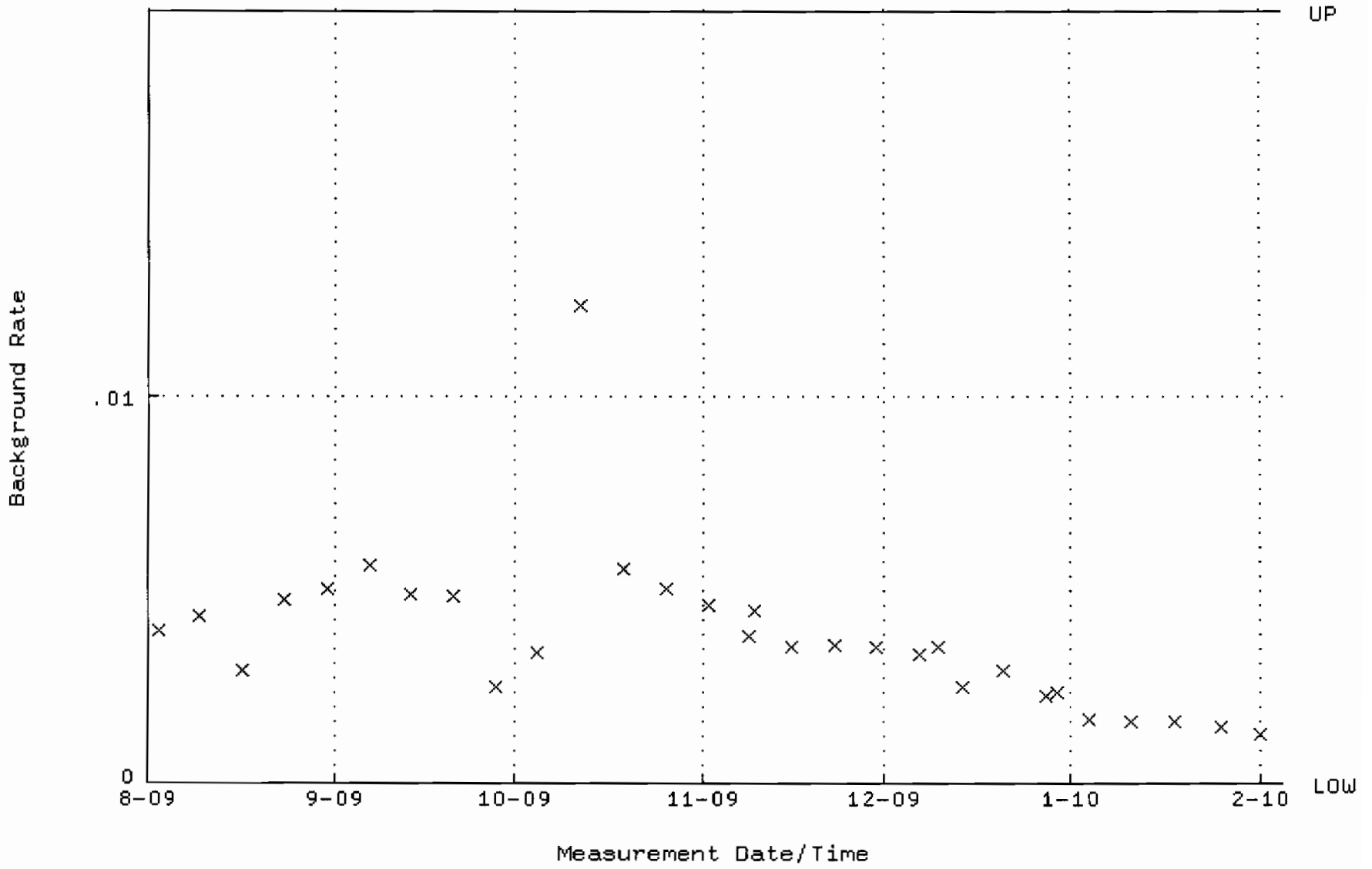

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.302750 through 0.322750

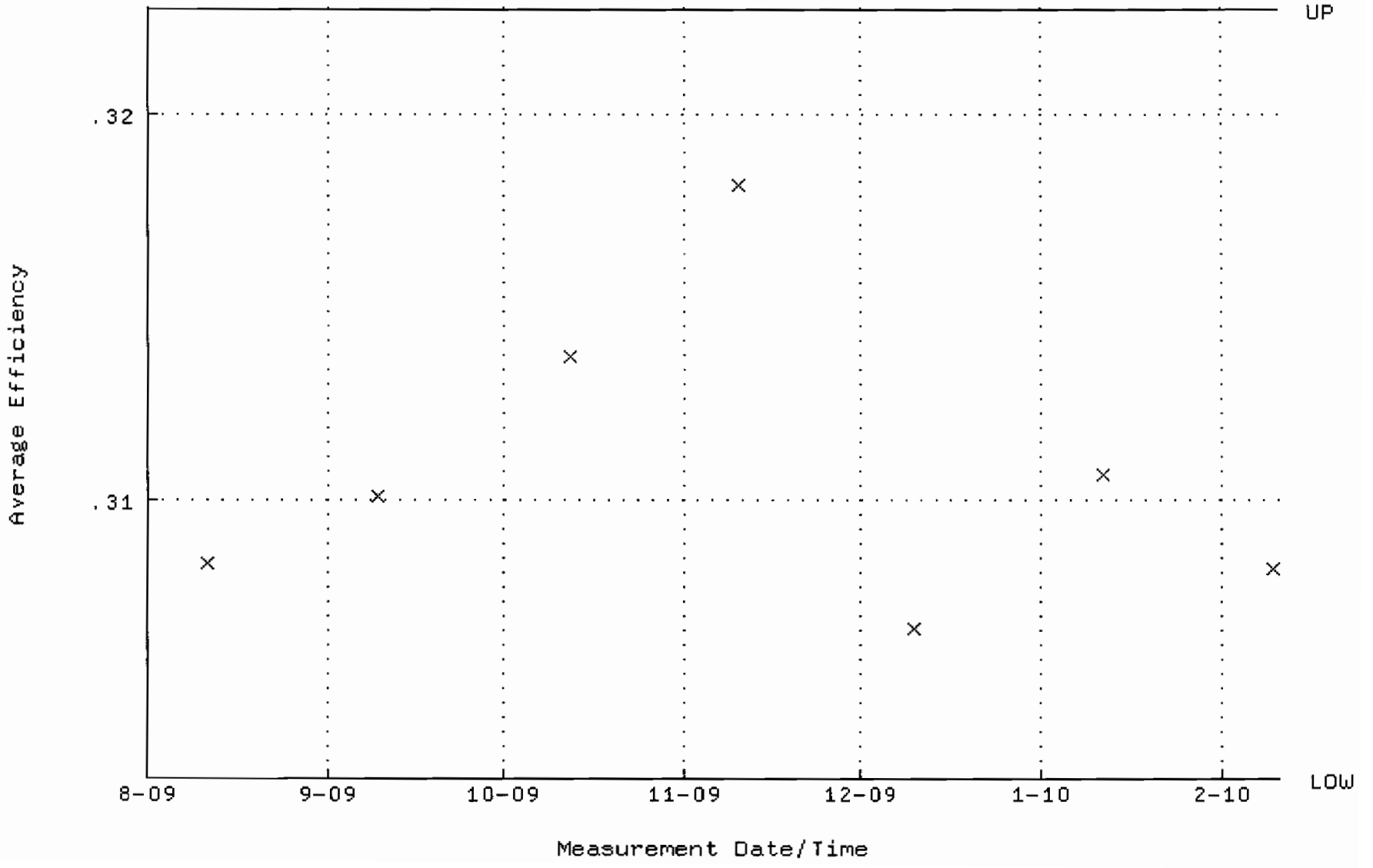

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8638 through 96.0074

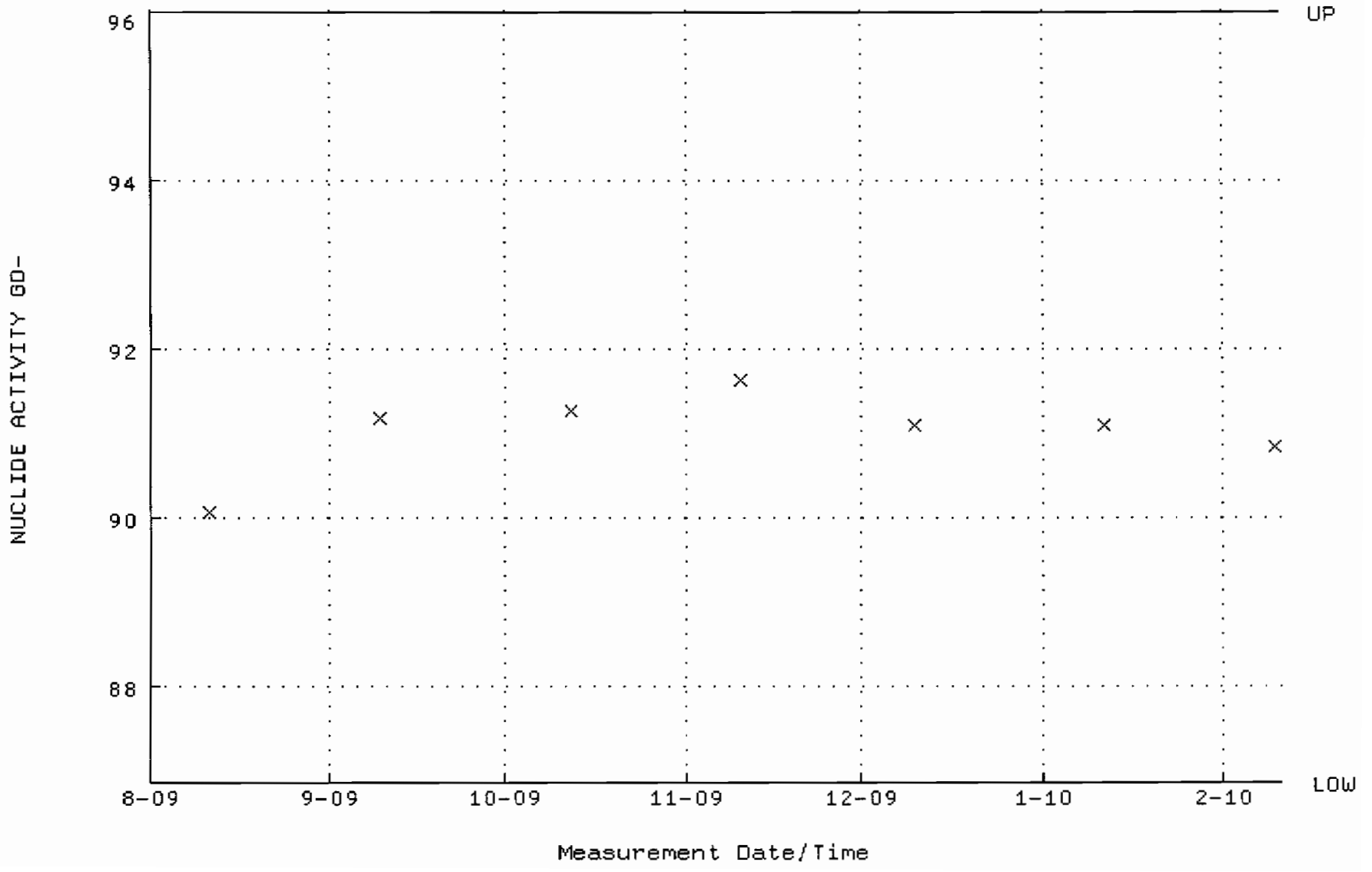

QA filename : DKA100:[ENV_ALPHA.QA.B]B065.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

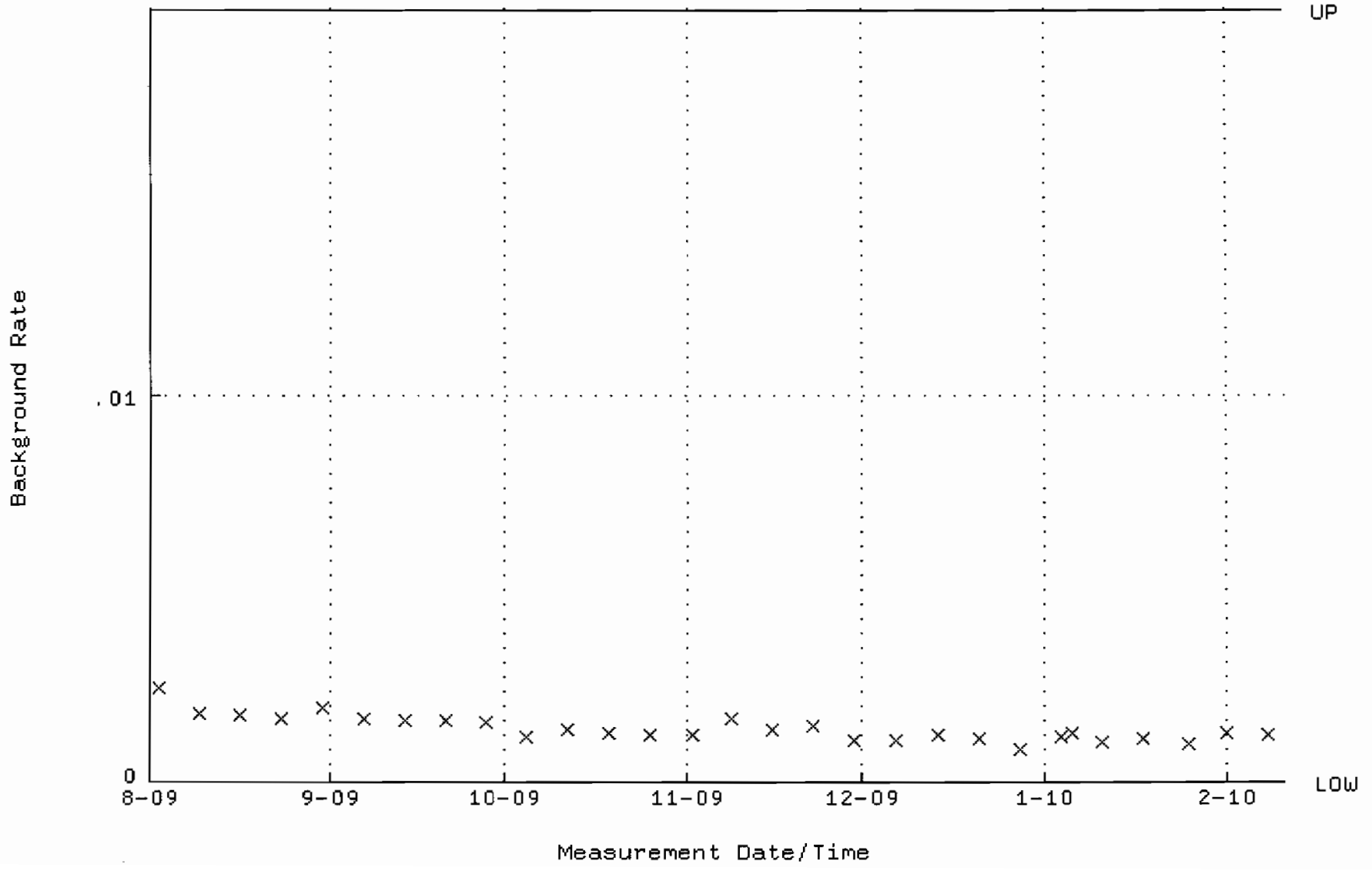

QA filename : DKA100:[ENV_ALPHA.QA.W]W066.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.300416 through 0.320416

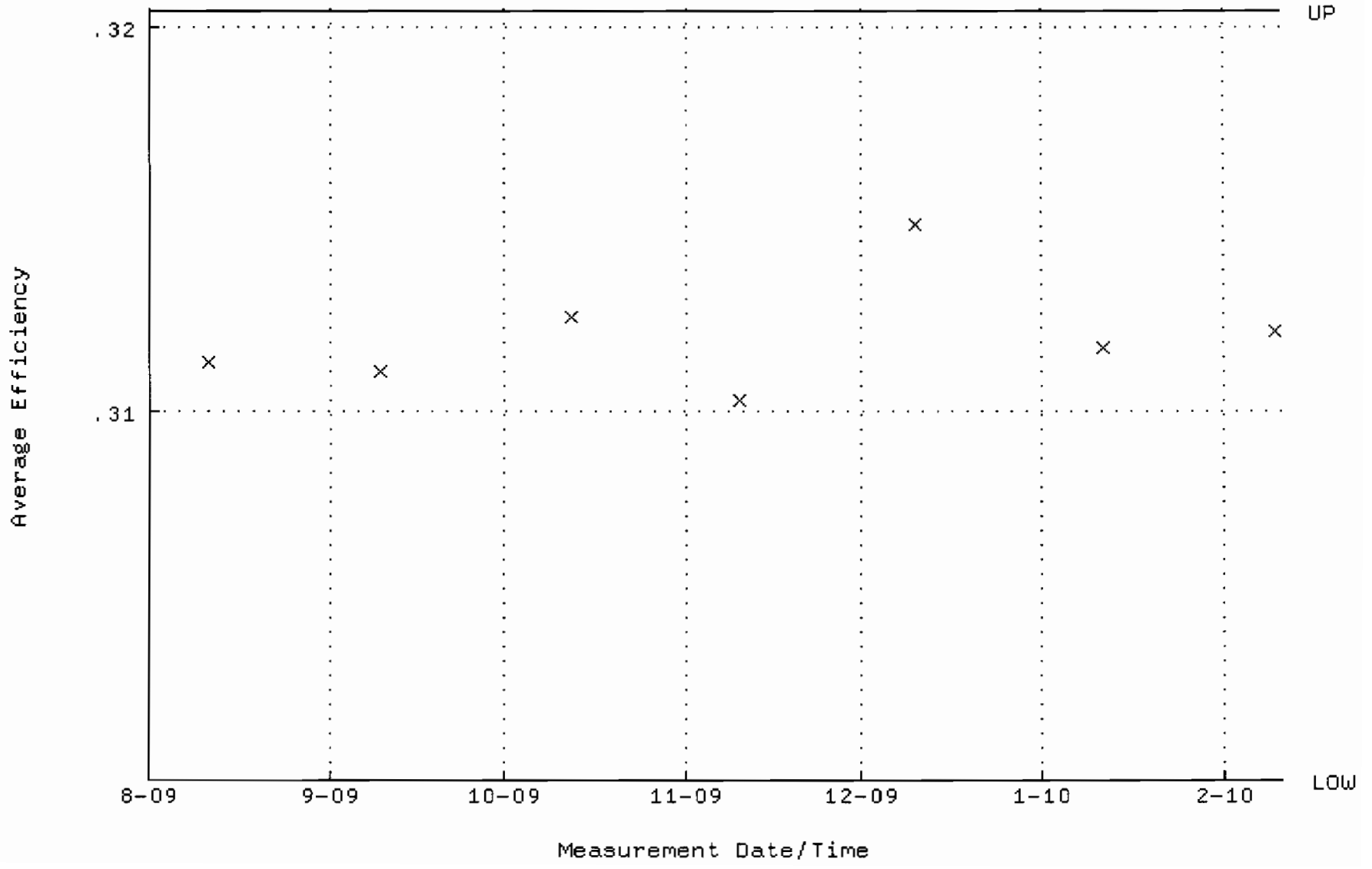

QA filename : DKA100:[ENV_ALPHA.QA.W]W066.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.0864 through 94.0428

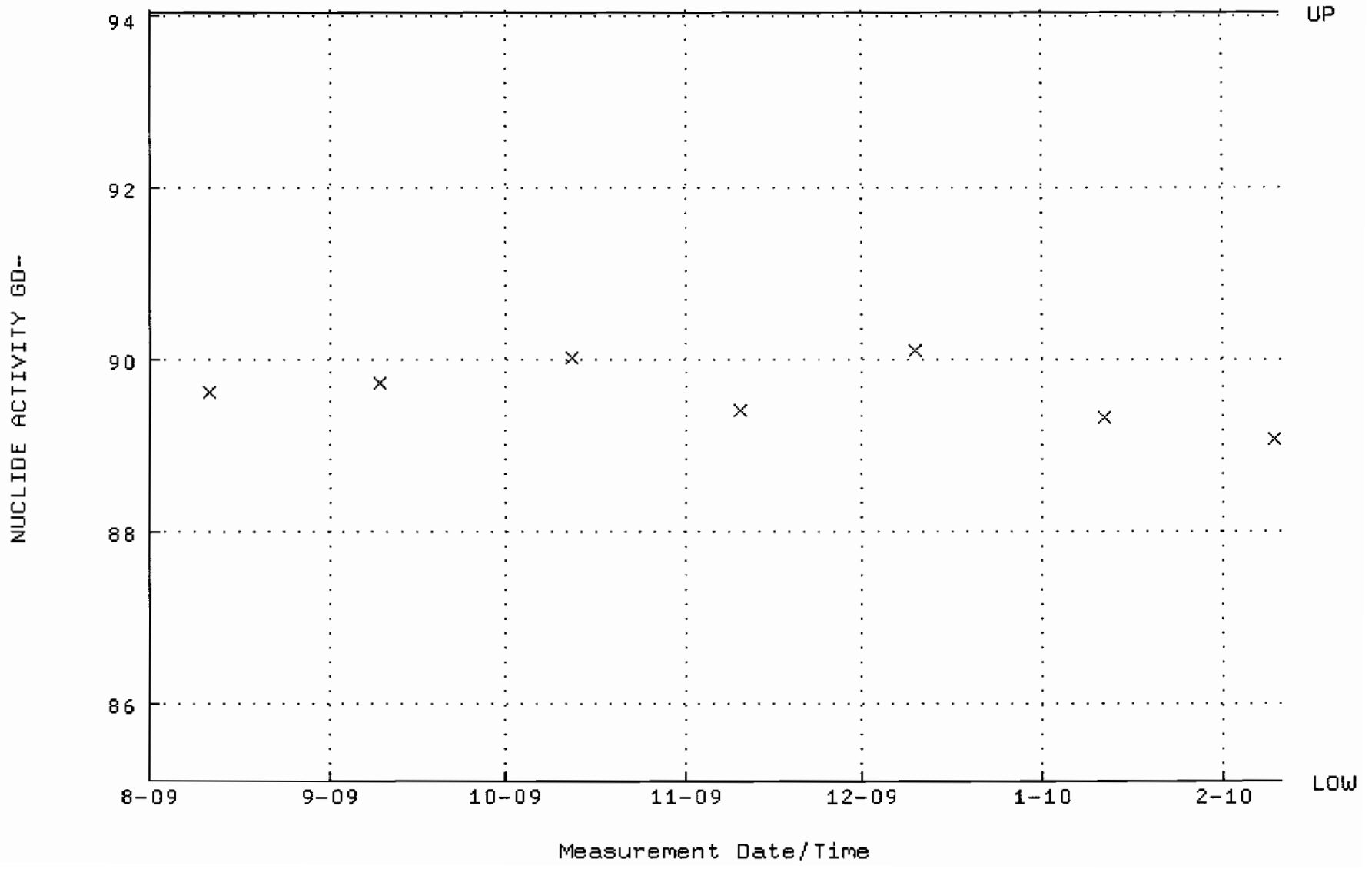

QA filename : DKA100:[ENV_ALPHA.QA.B]B066.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

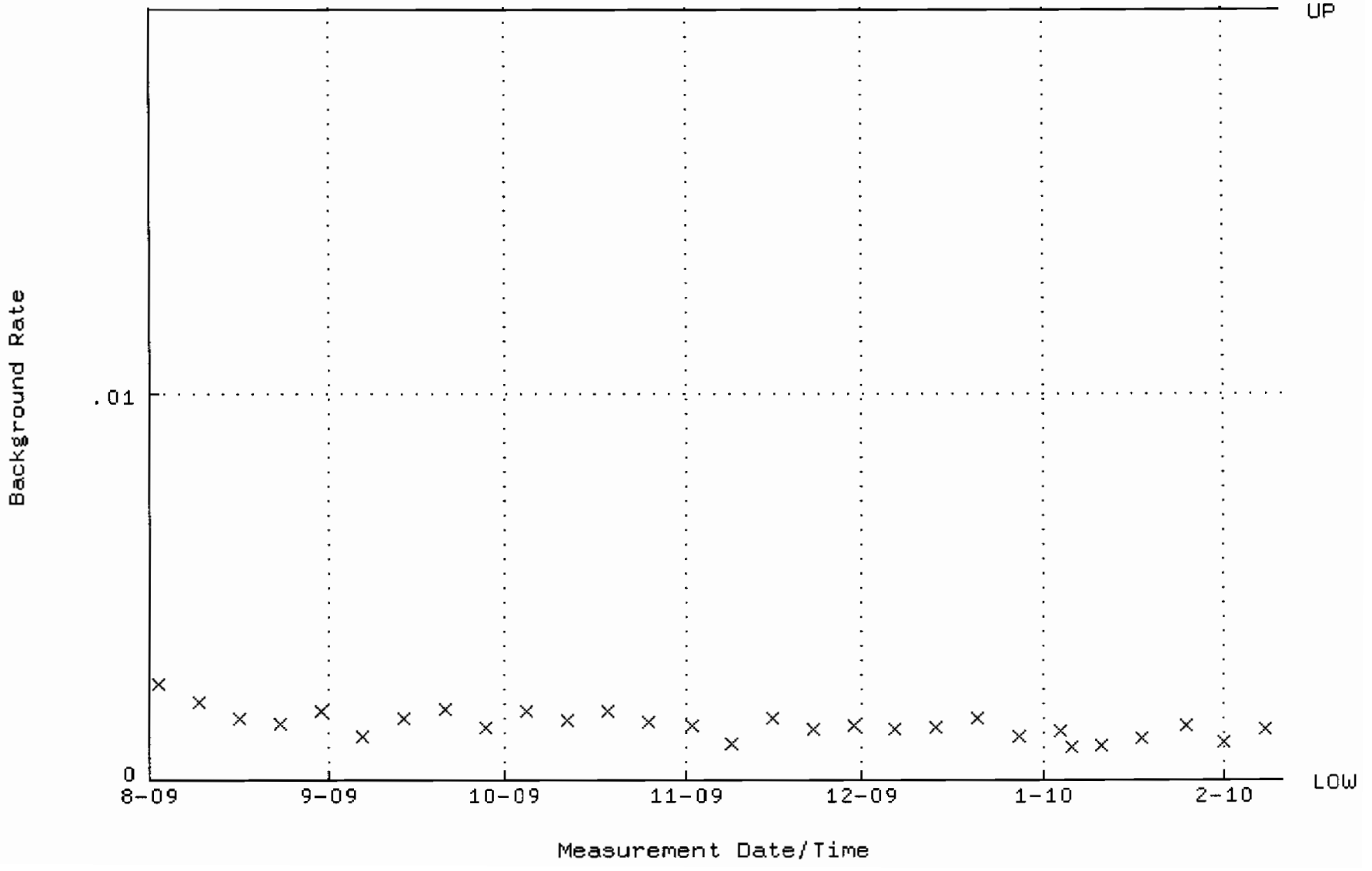

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316597 through 0.336597

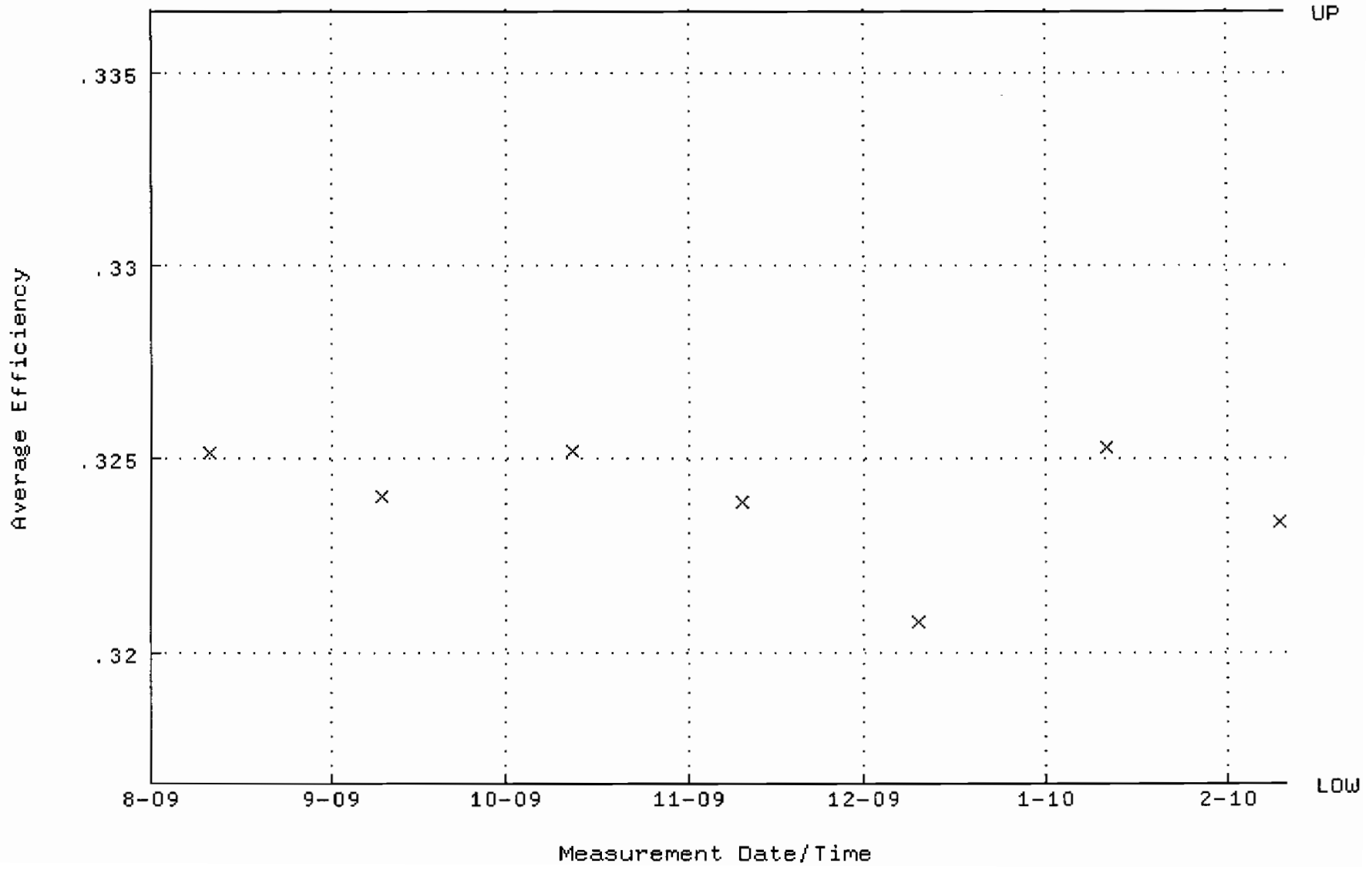

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.2683 through 95.3491

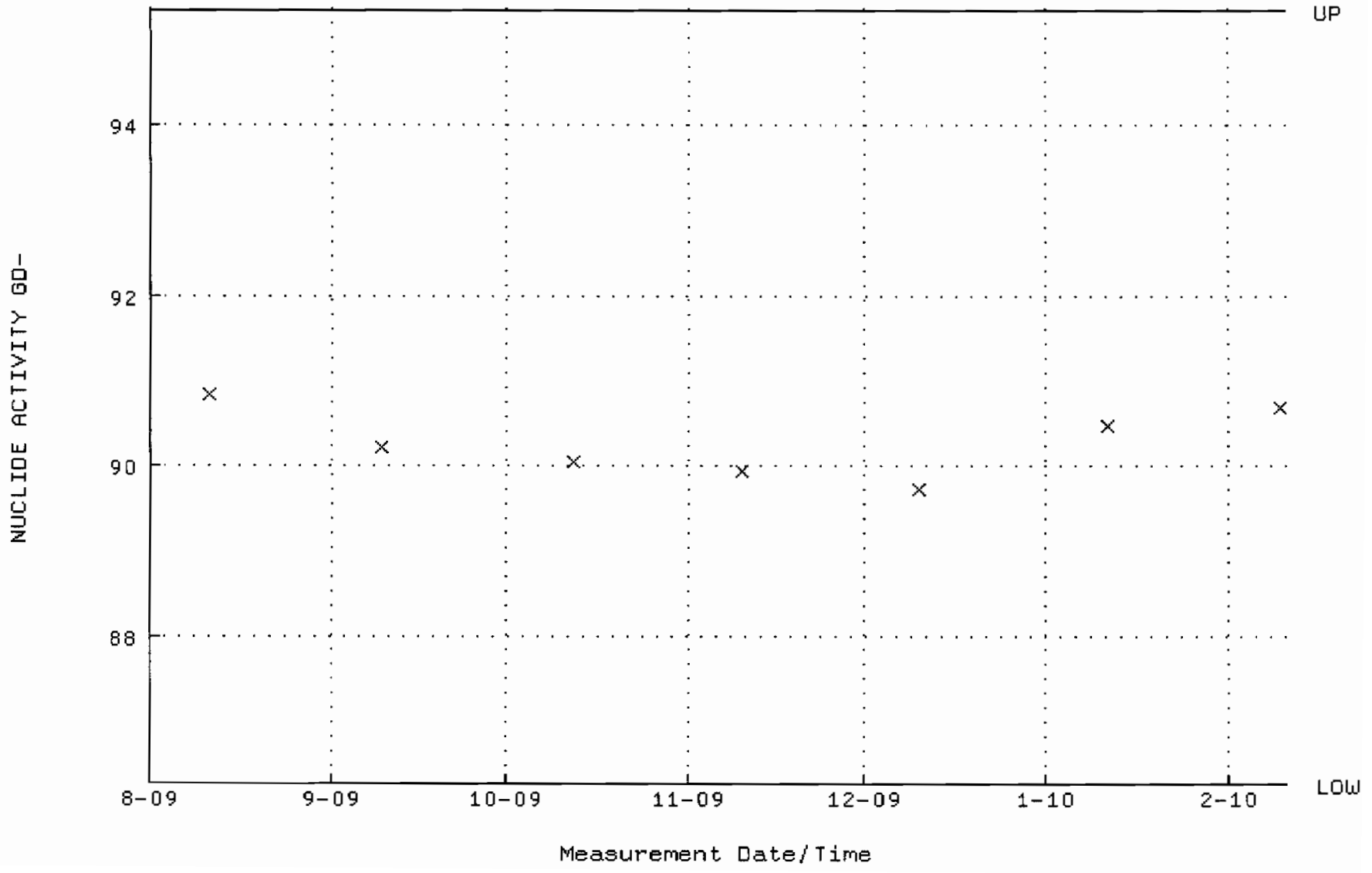

QA filename : DKA100:[ENV_ALPHA.QA.B]B067.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

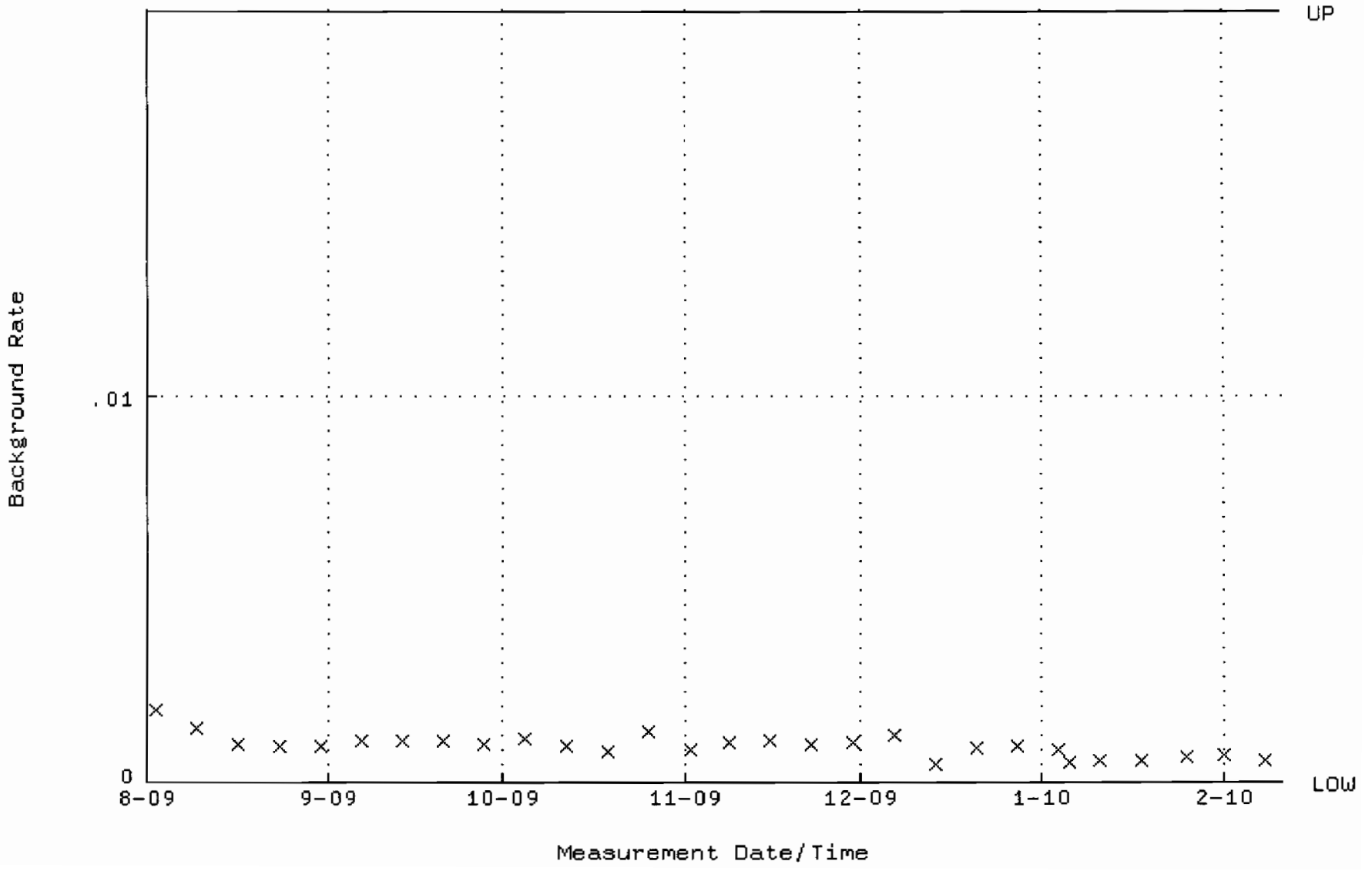

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.289178 through 0.309178

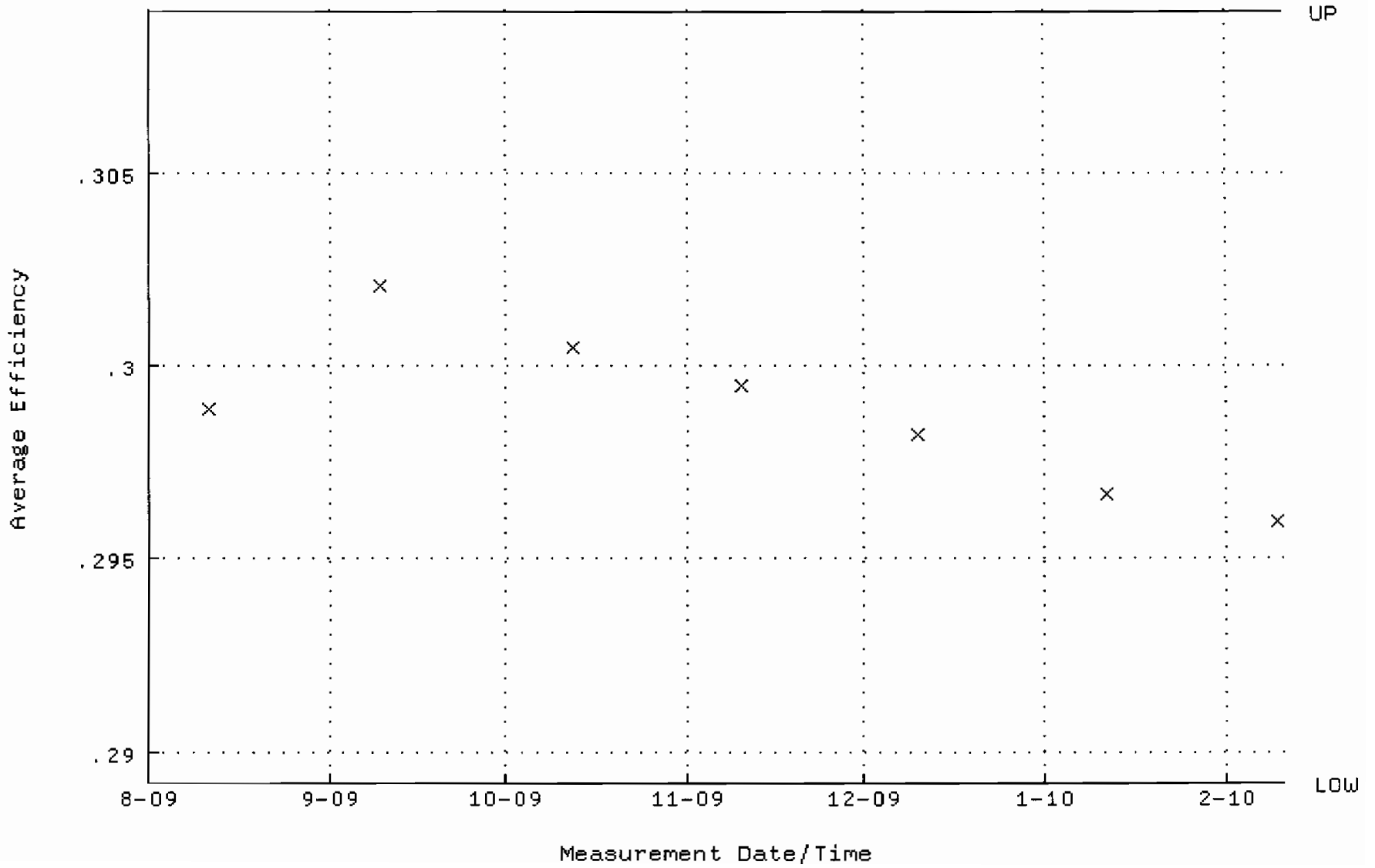

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.4419 through 96.6463

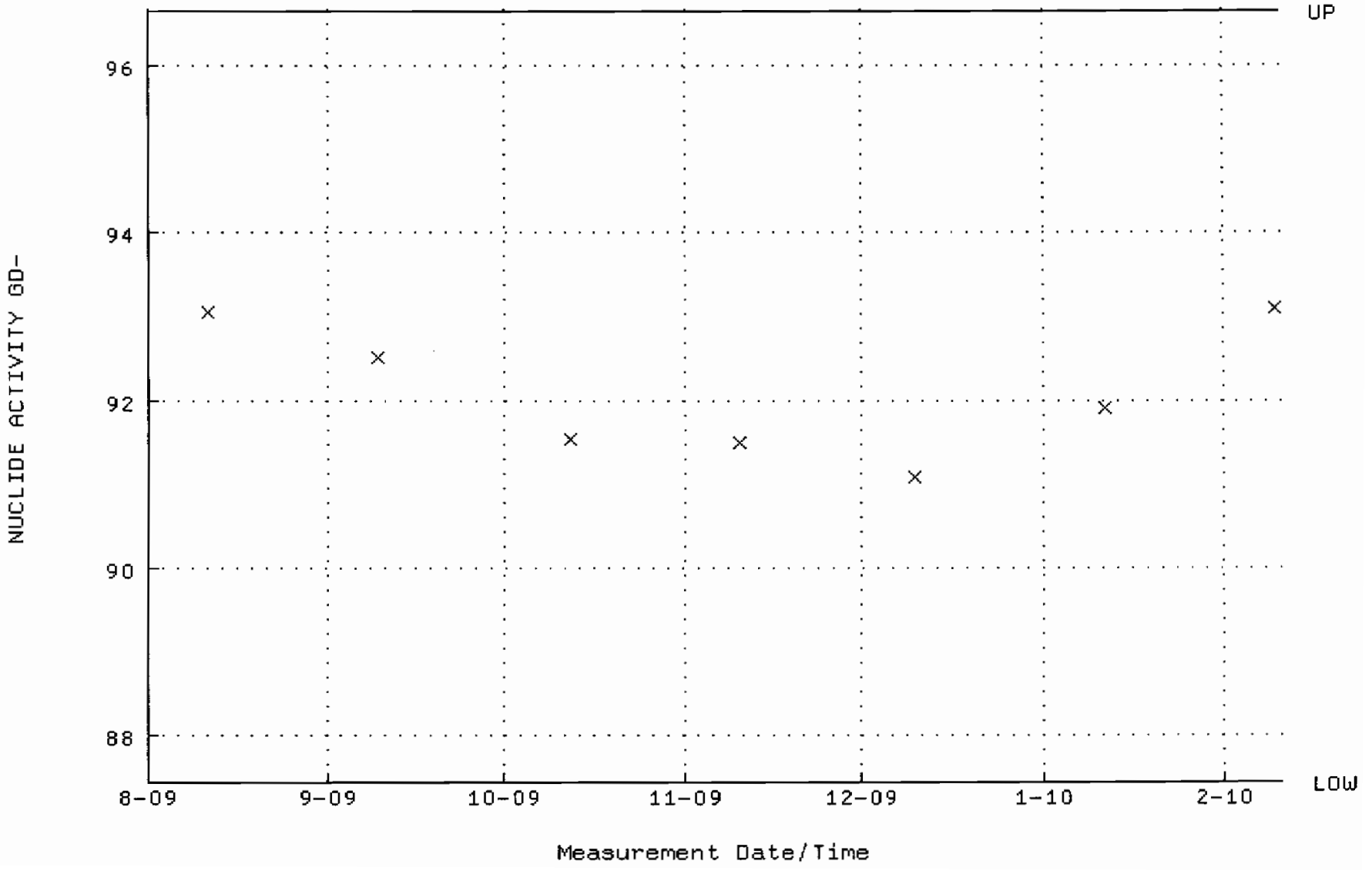

QA filename : DKA100:[ENV_ALPHA.QA.B]B068.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

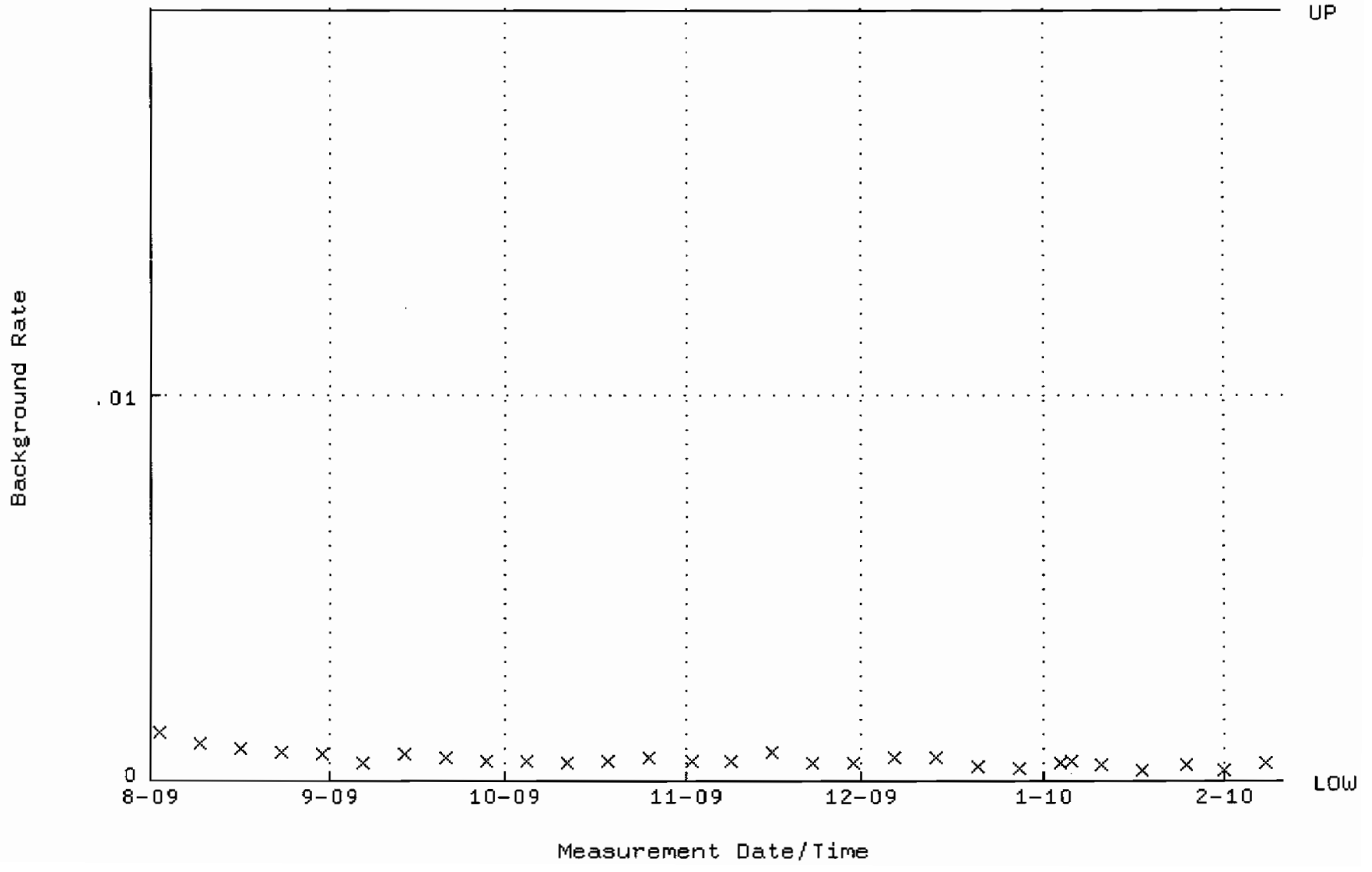

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.306636 through 0.326636

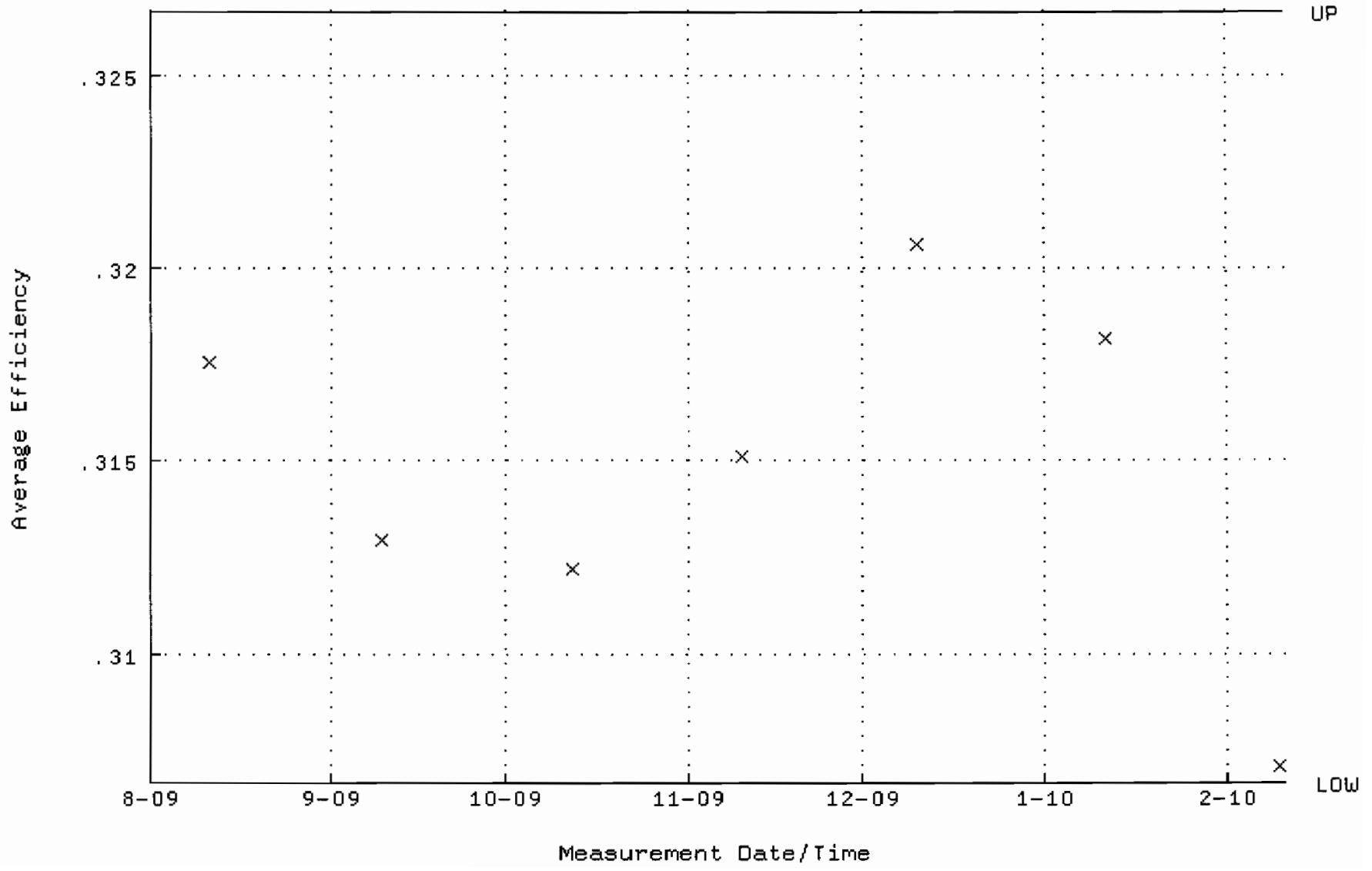

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 89.6479 through 99.0845

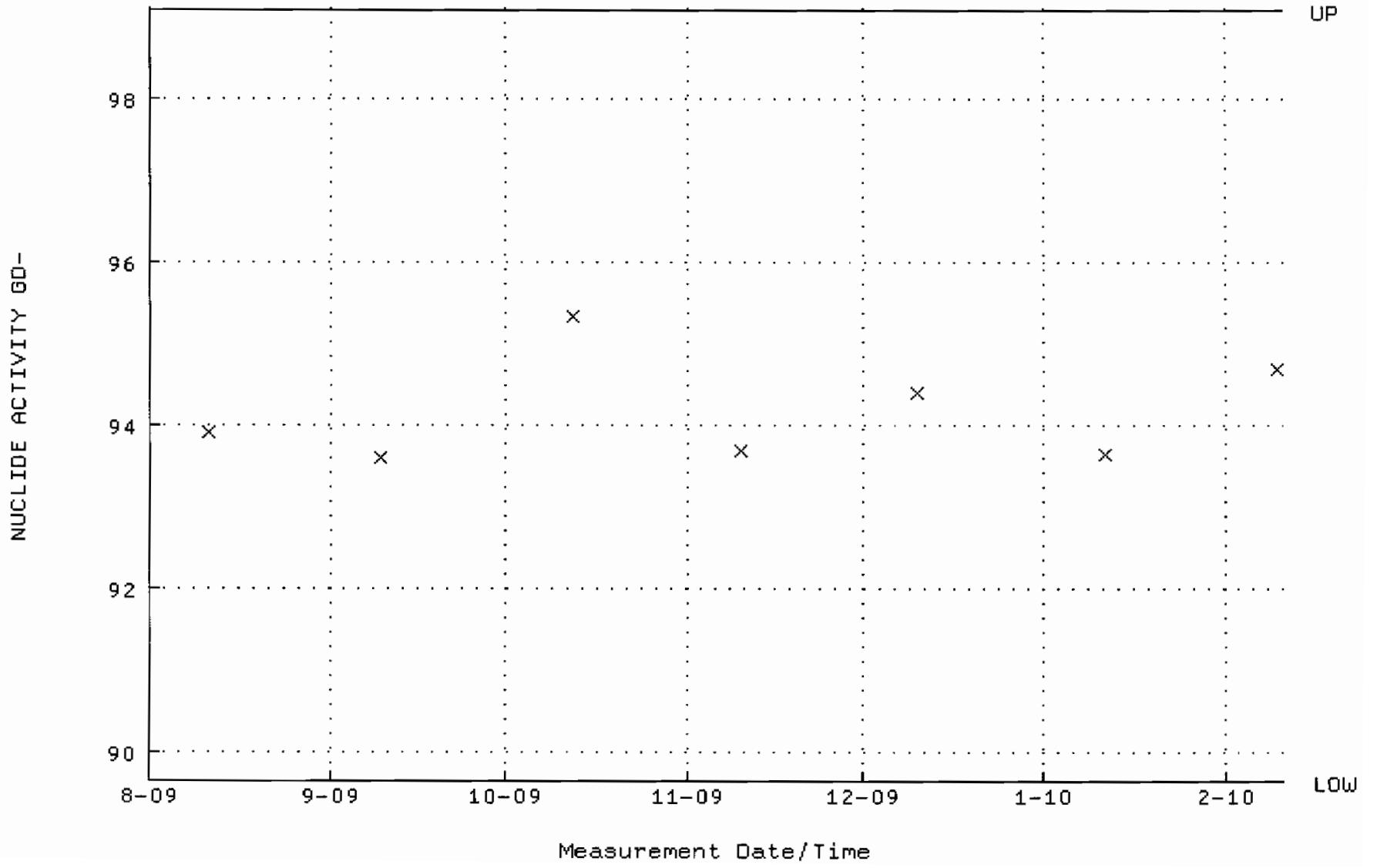

QA filename : DKA100:[ENV_ALPHA.QA.B]B069.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

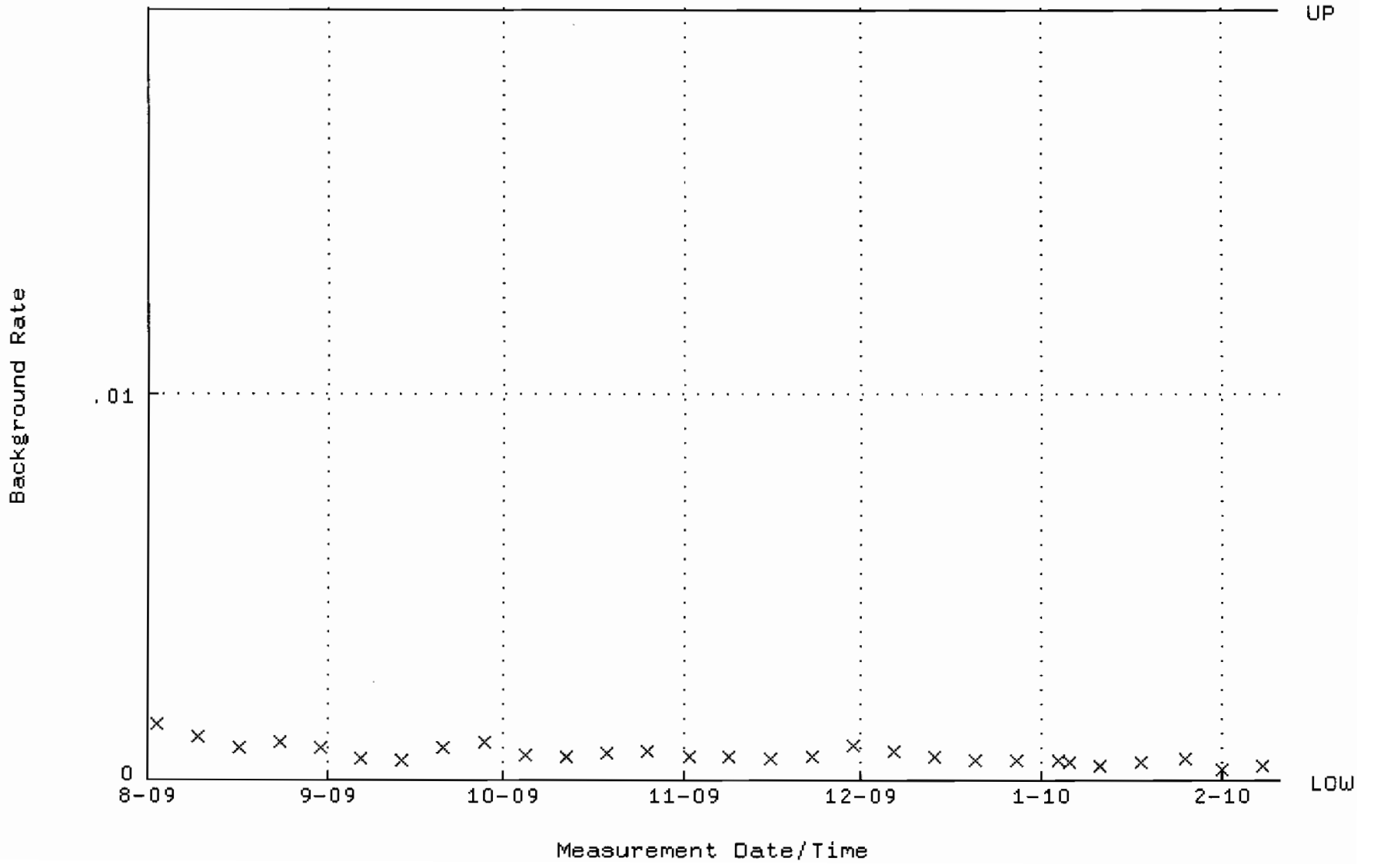

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.342785 through 0.362785

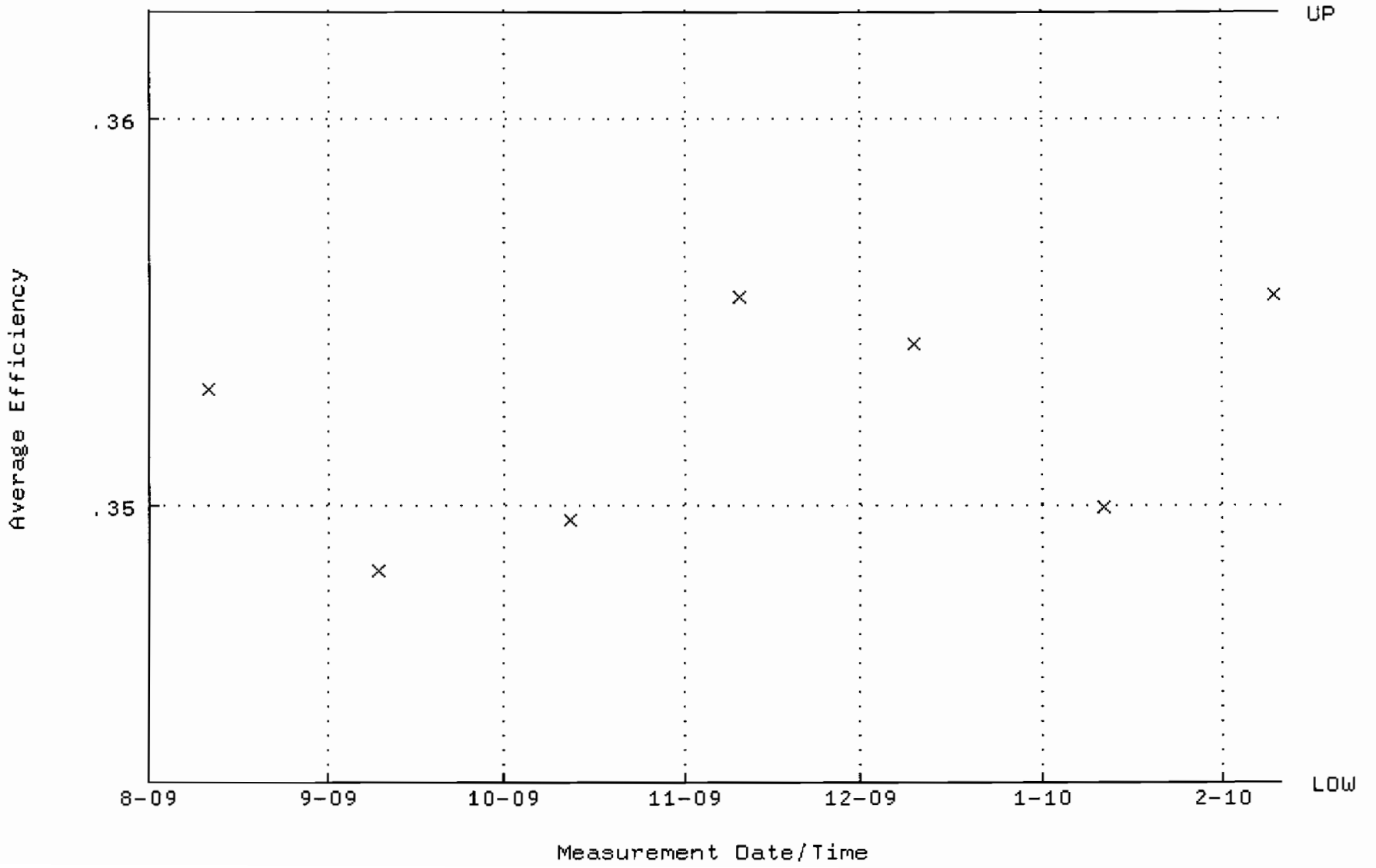

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5293 through 94.5323

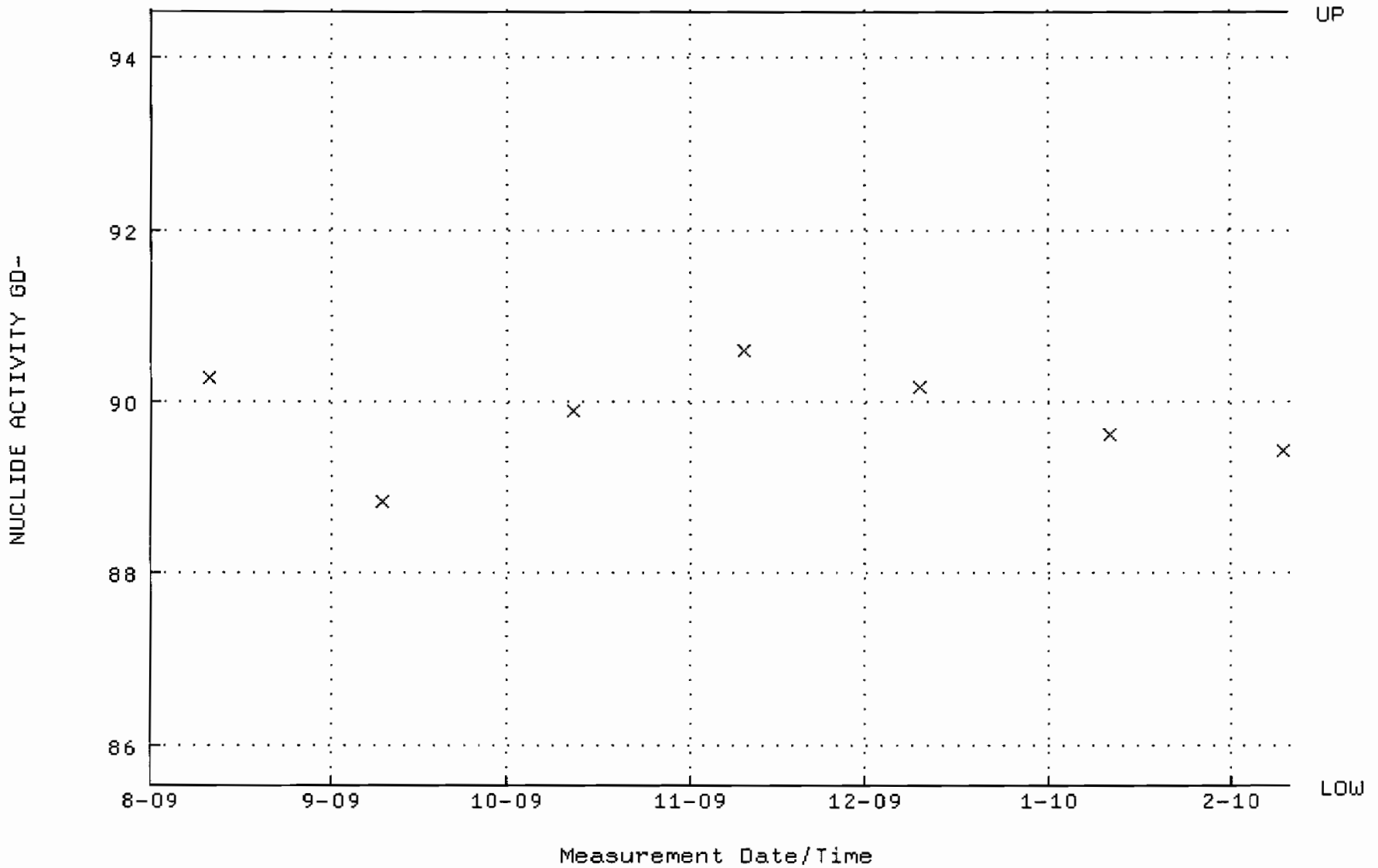

QA filename : DKA100:[ENV_ALPHA.QA.B]B070.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

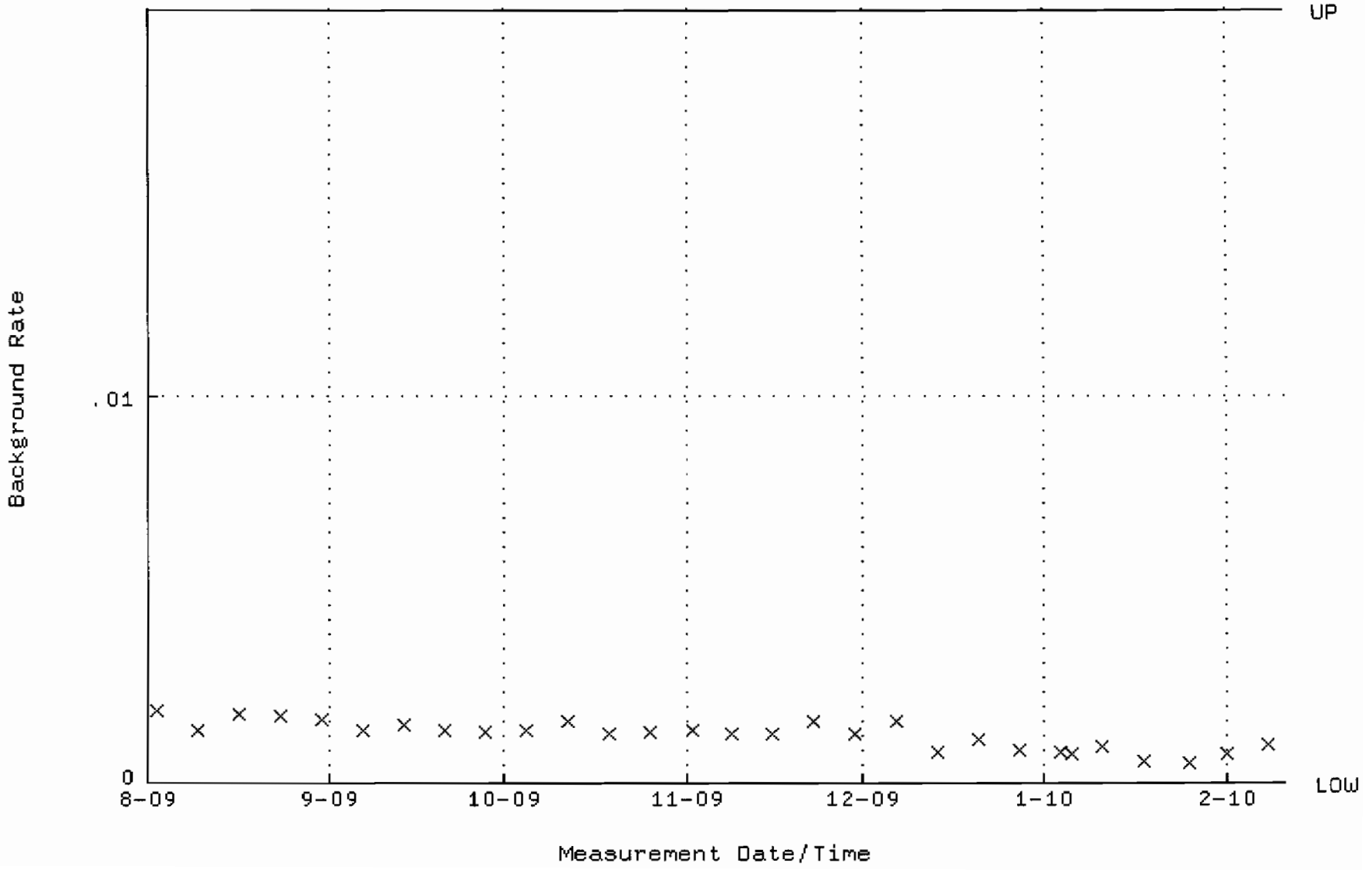

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.309161 through 0.329161

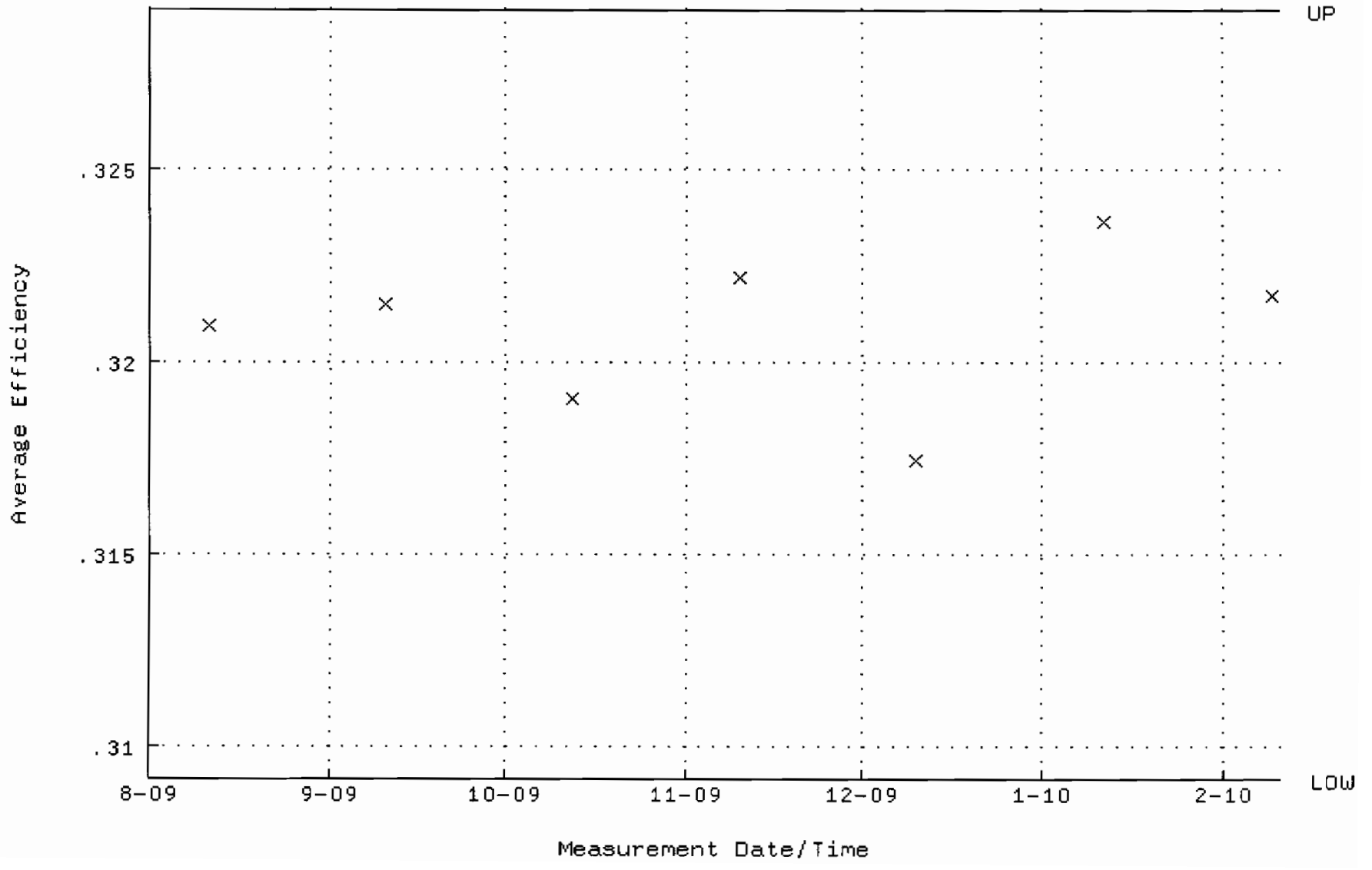

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7769 through 95.9113

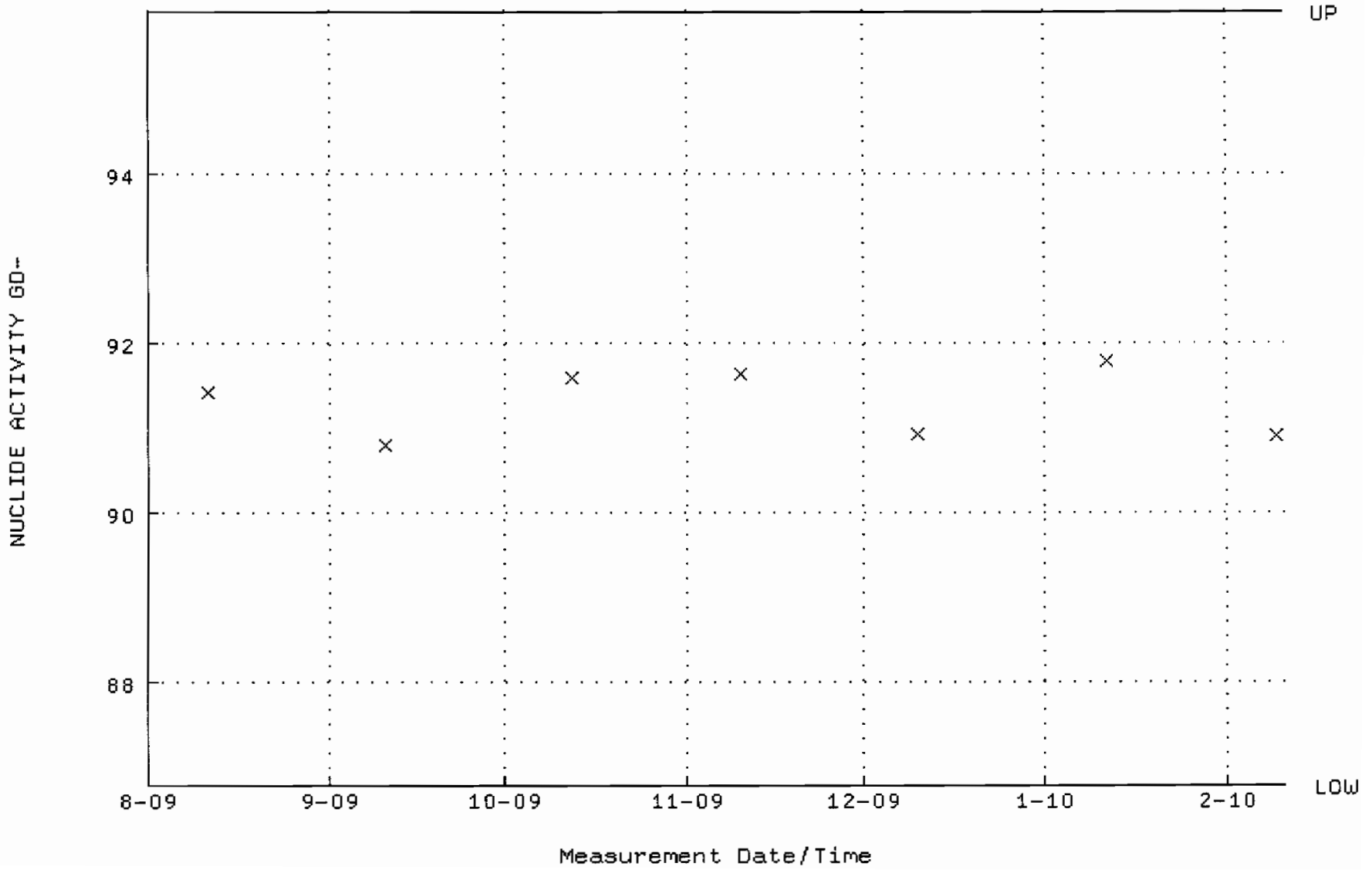

QA filename : DKA100:[ENV_ALPHA.QA.B]B071.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

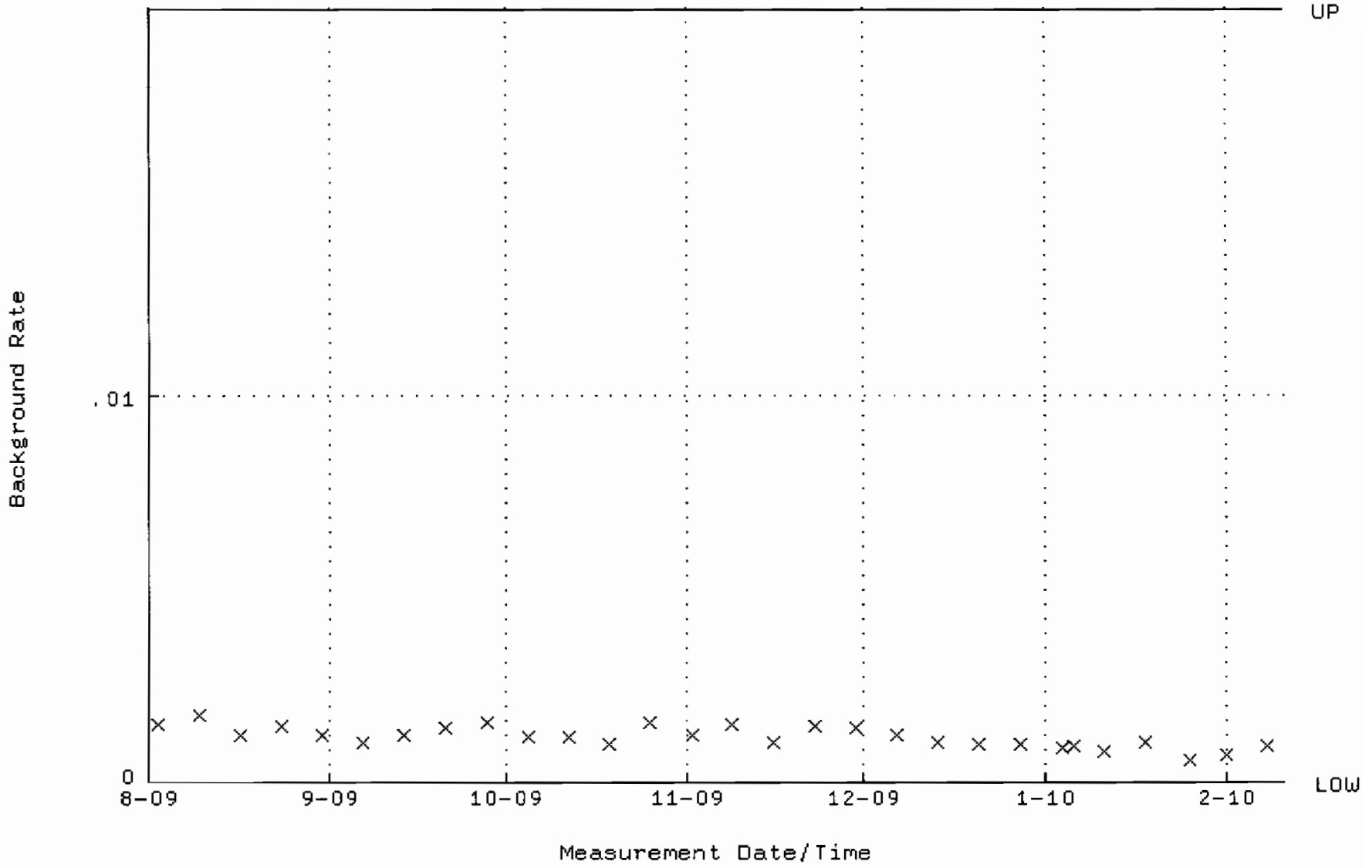

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313761 through 0.333761

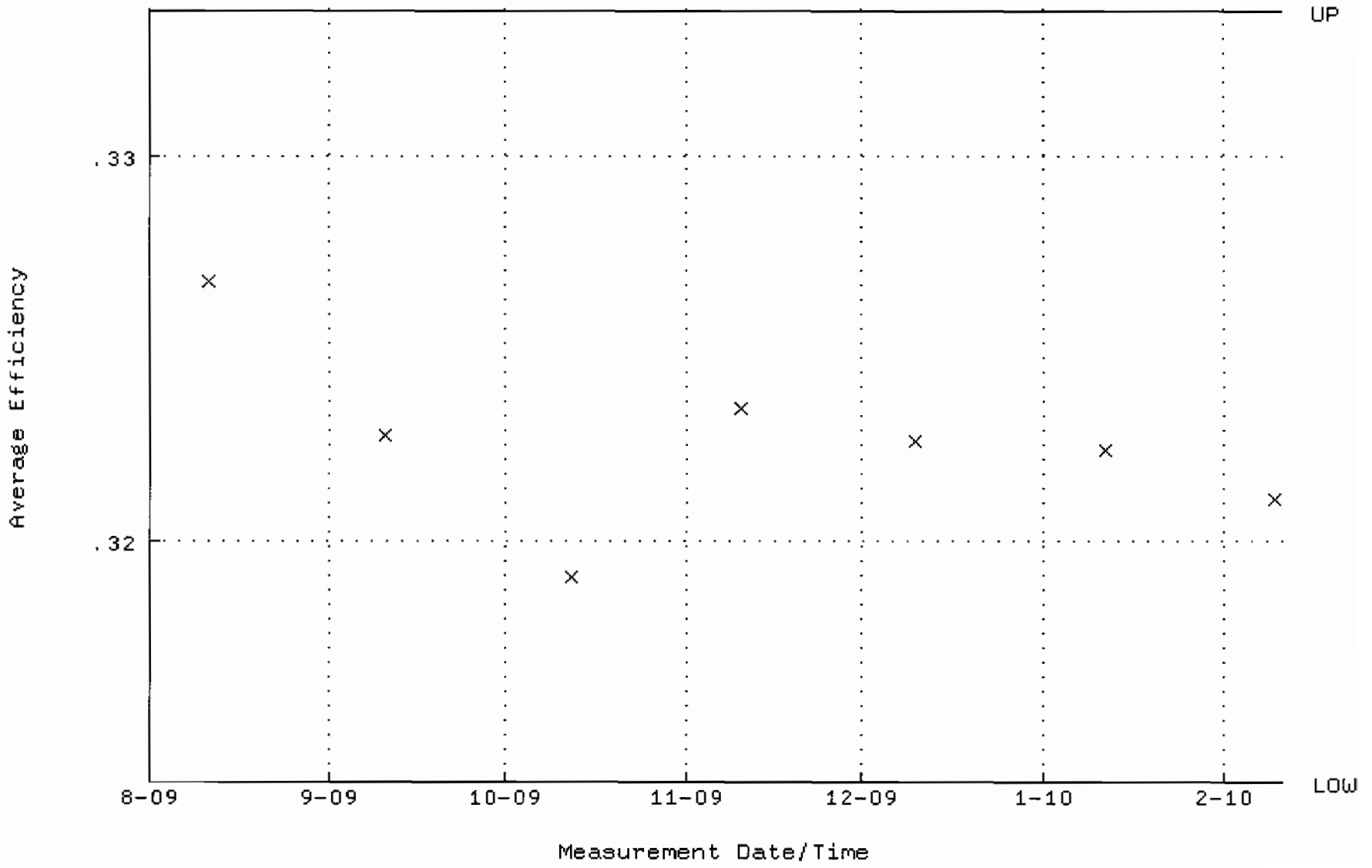

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.3348 through 96.5280

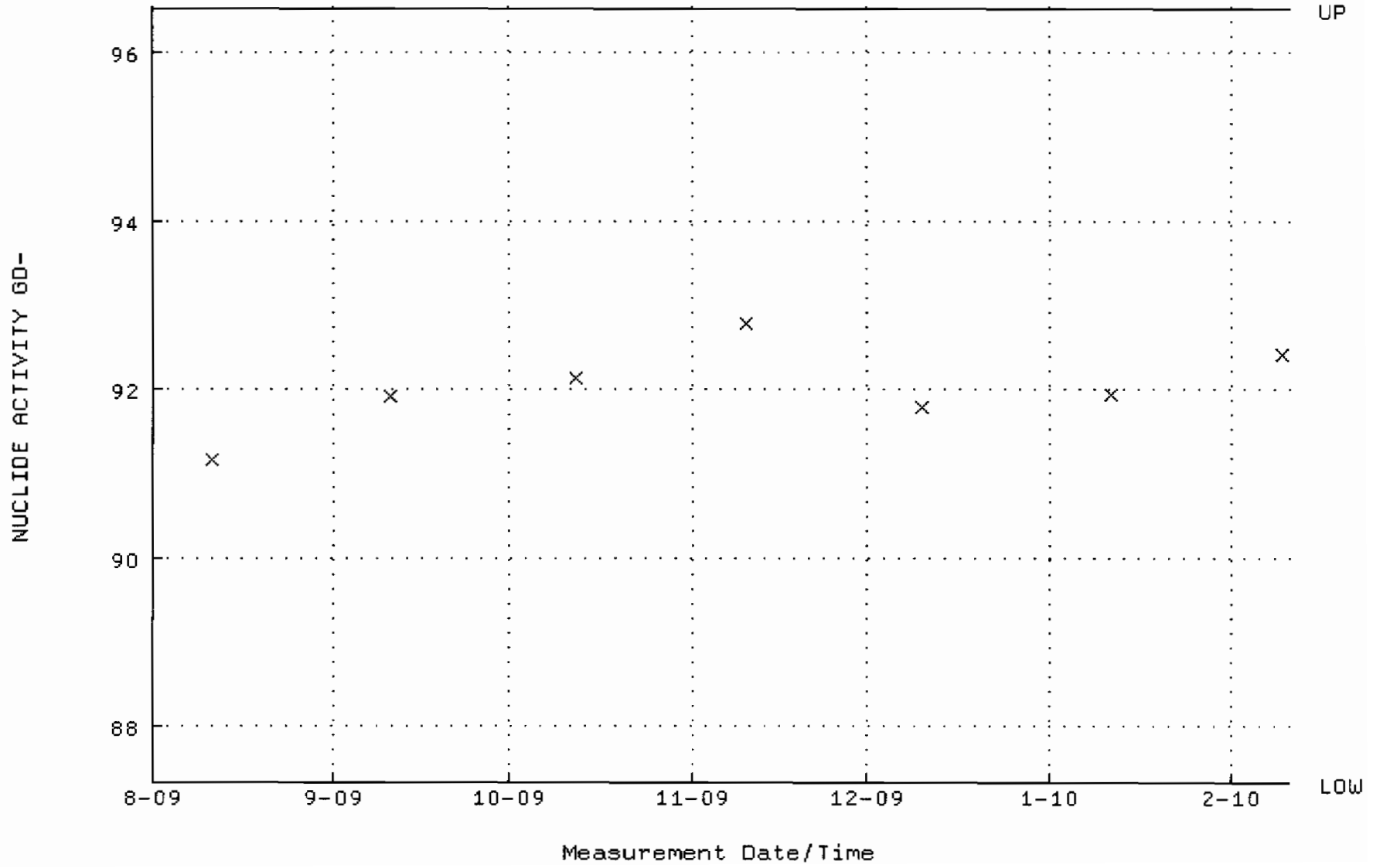

QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

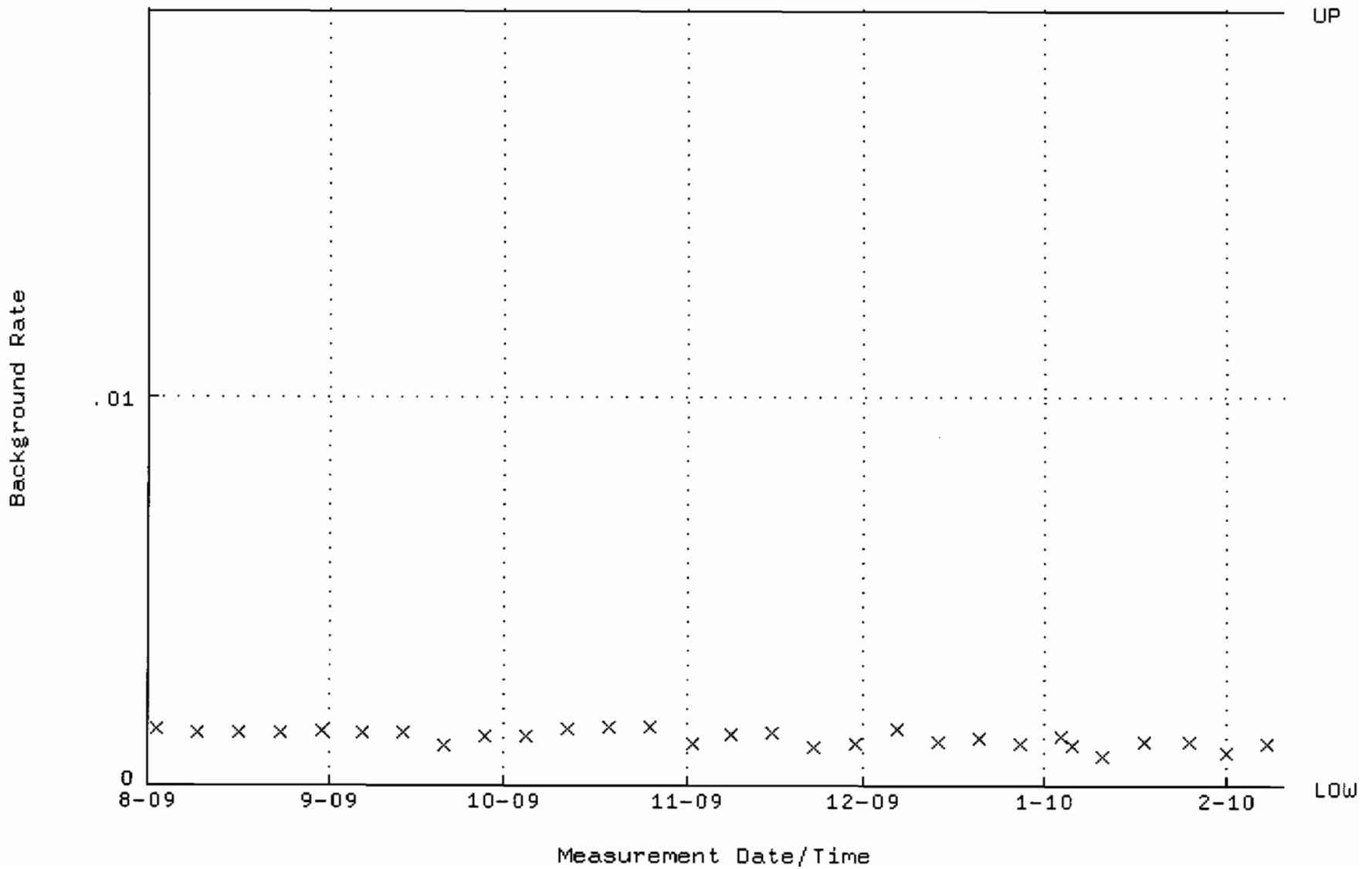

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.323184 through 0.343184

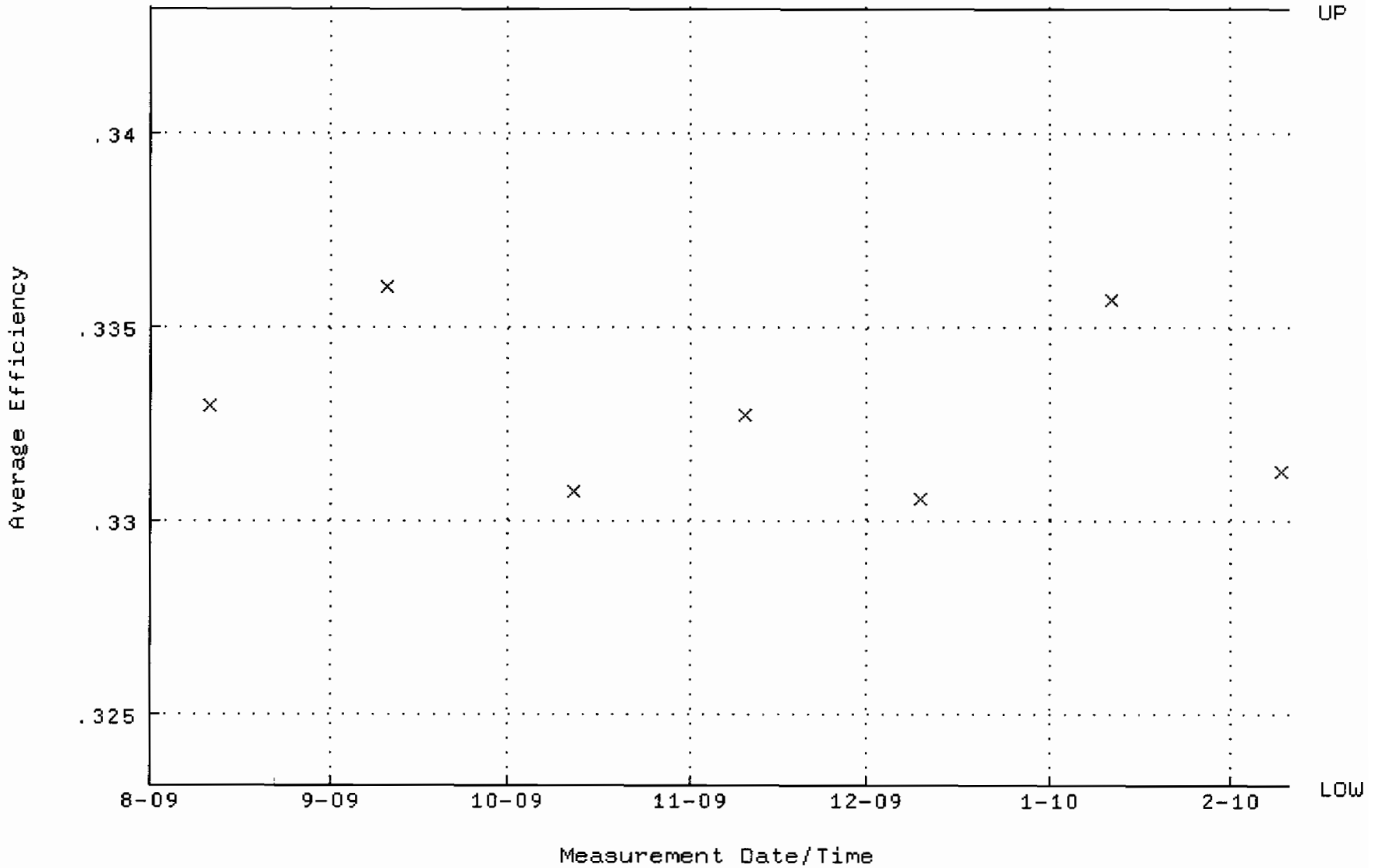

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.6734 through 95.7970

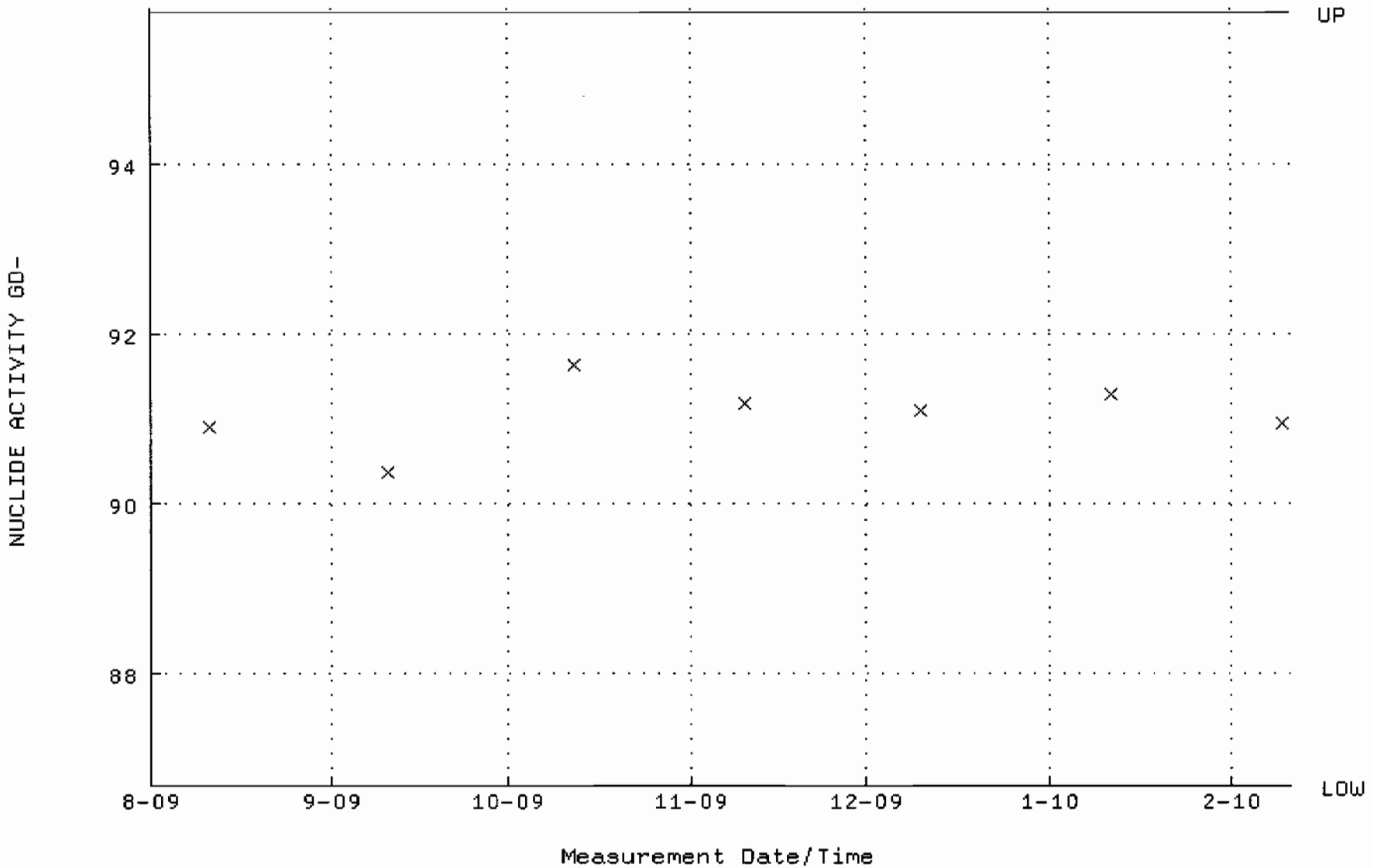

QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

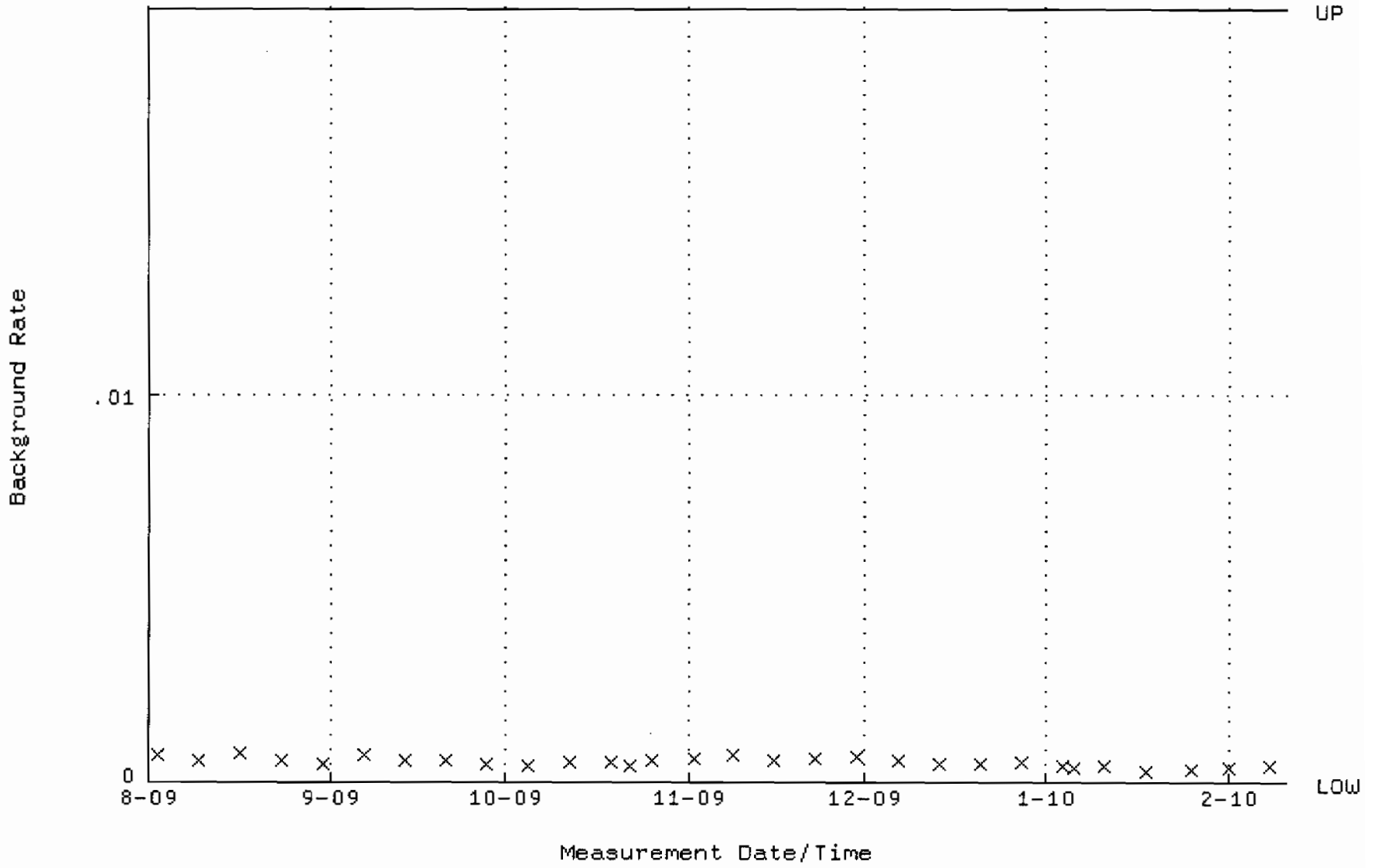

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.305830 through 0.325830

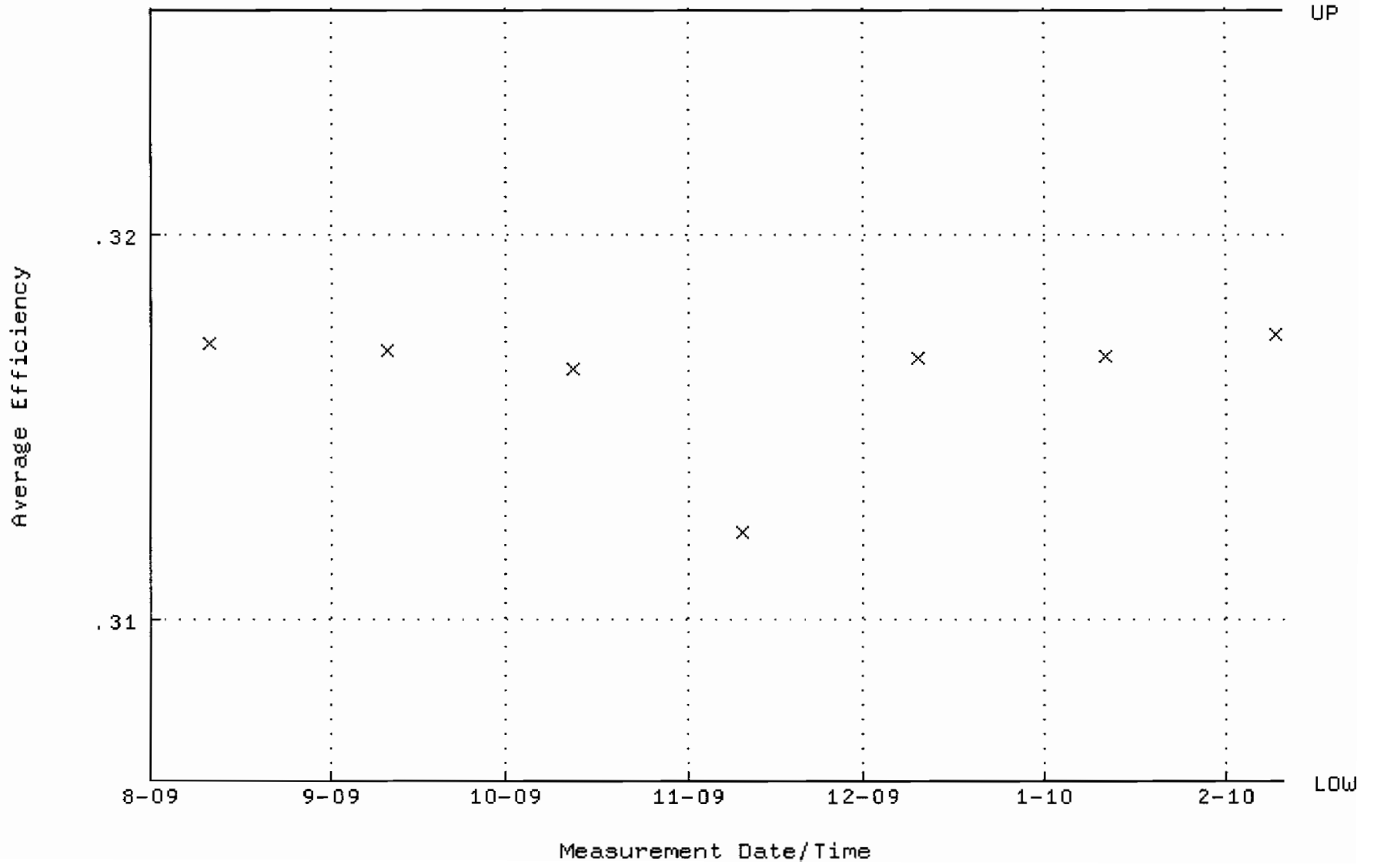

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0289 through 95.0845

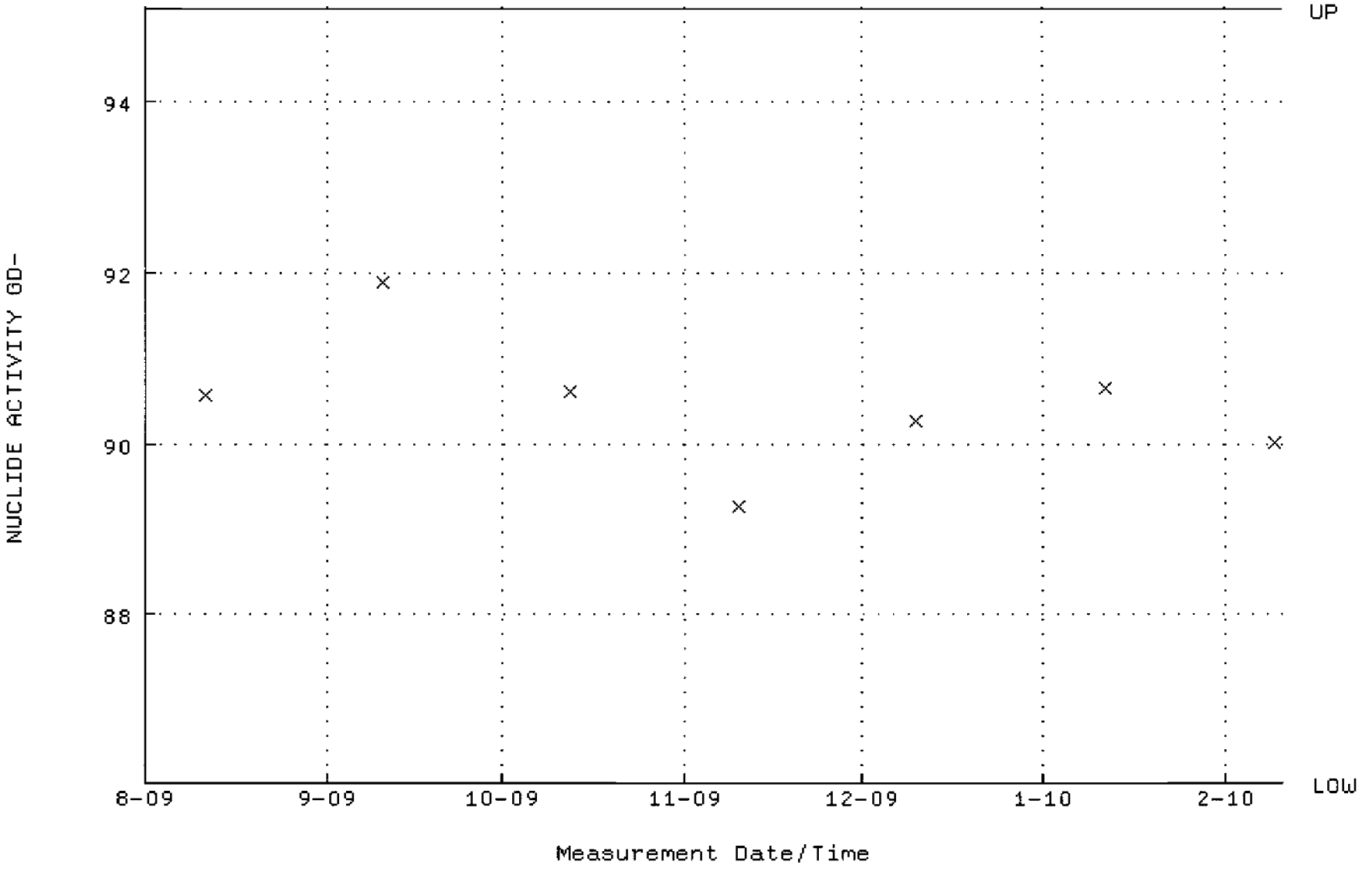

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

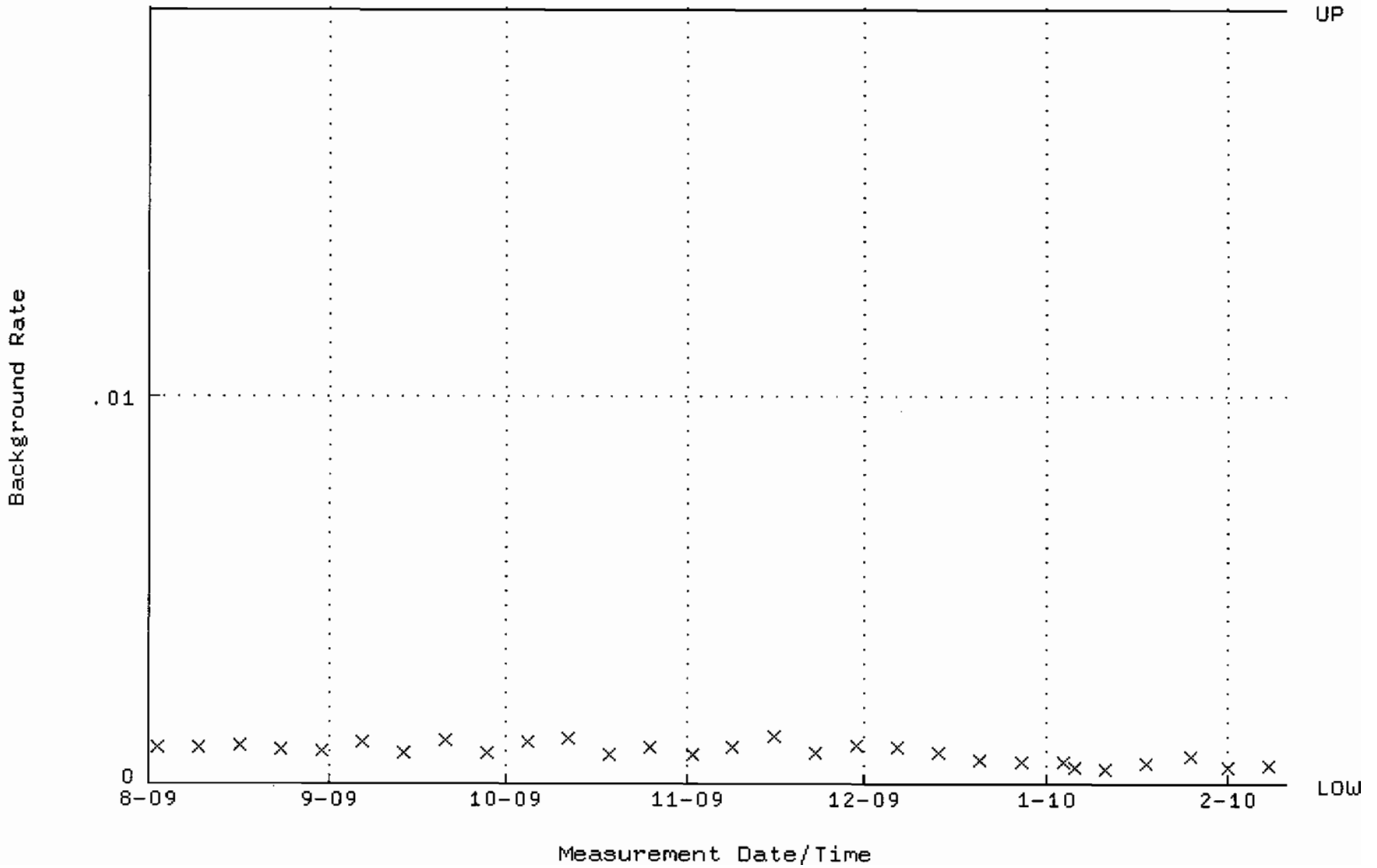

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.292134 through 0.312134

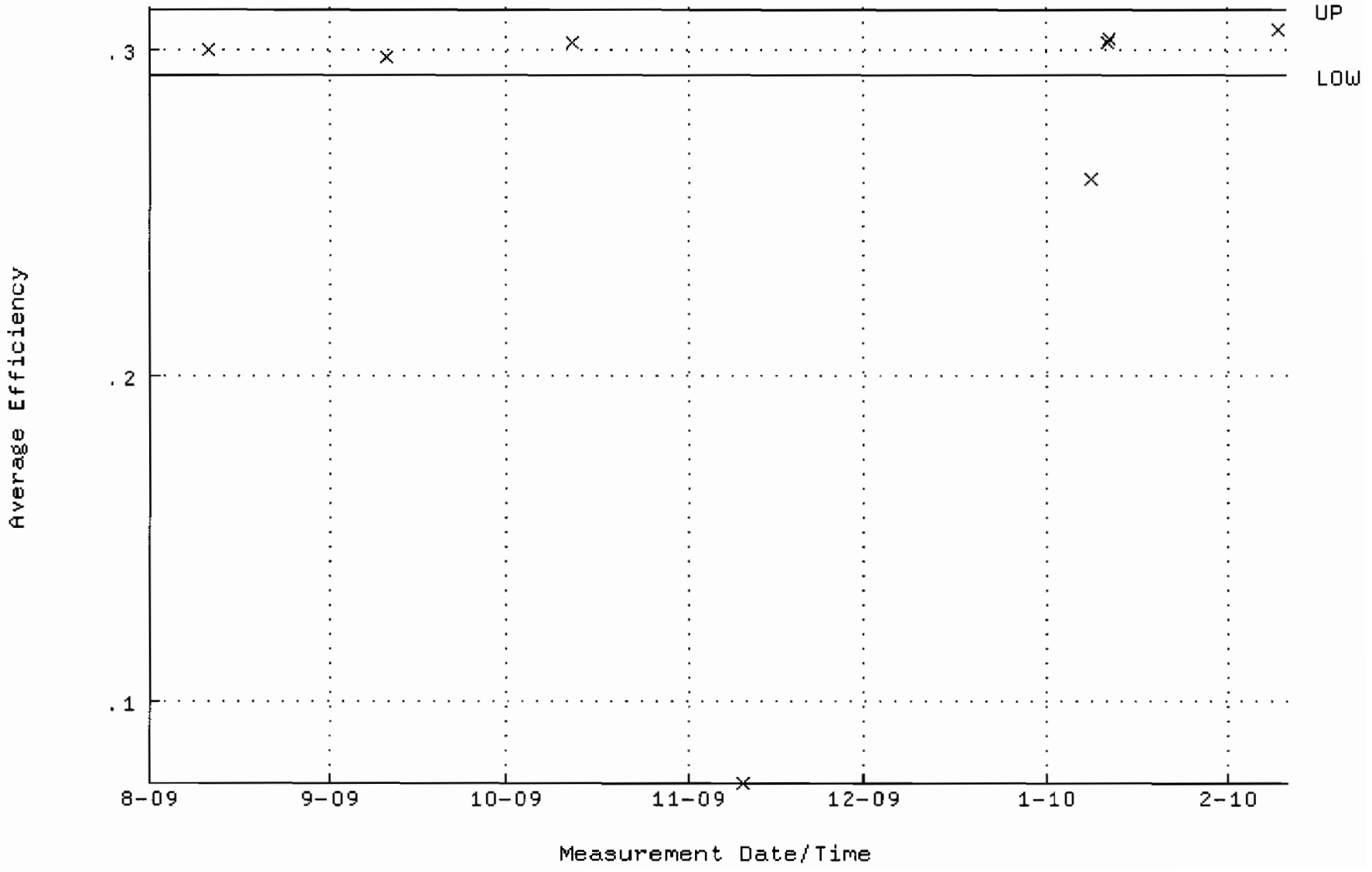

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 91.1212 through 100.713

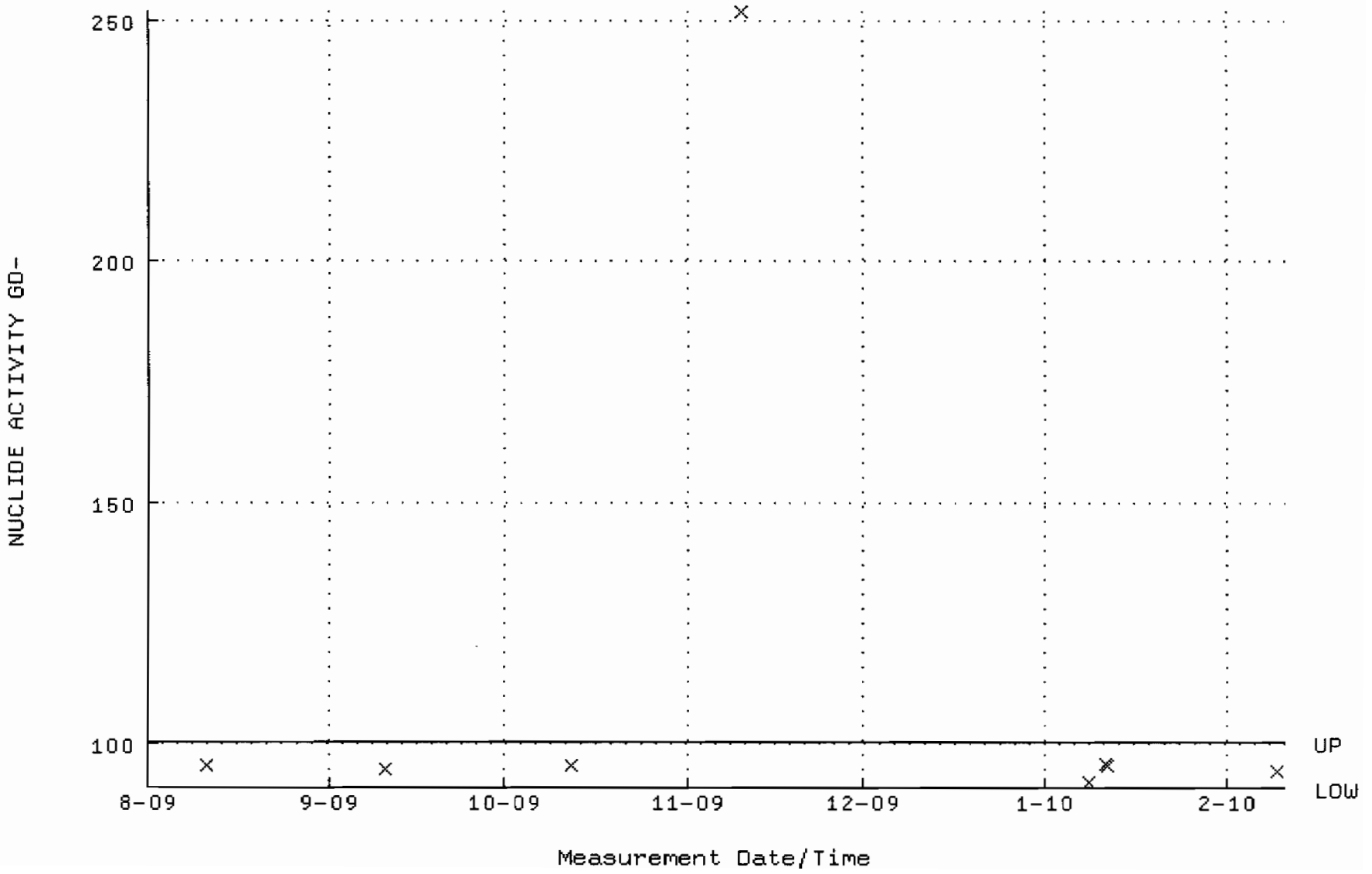

QA filename : DKA100:[ENV_ALPHA.QA.B]B075.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

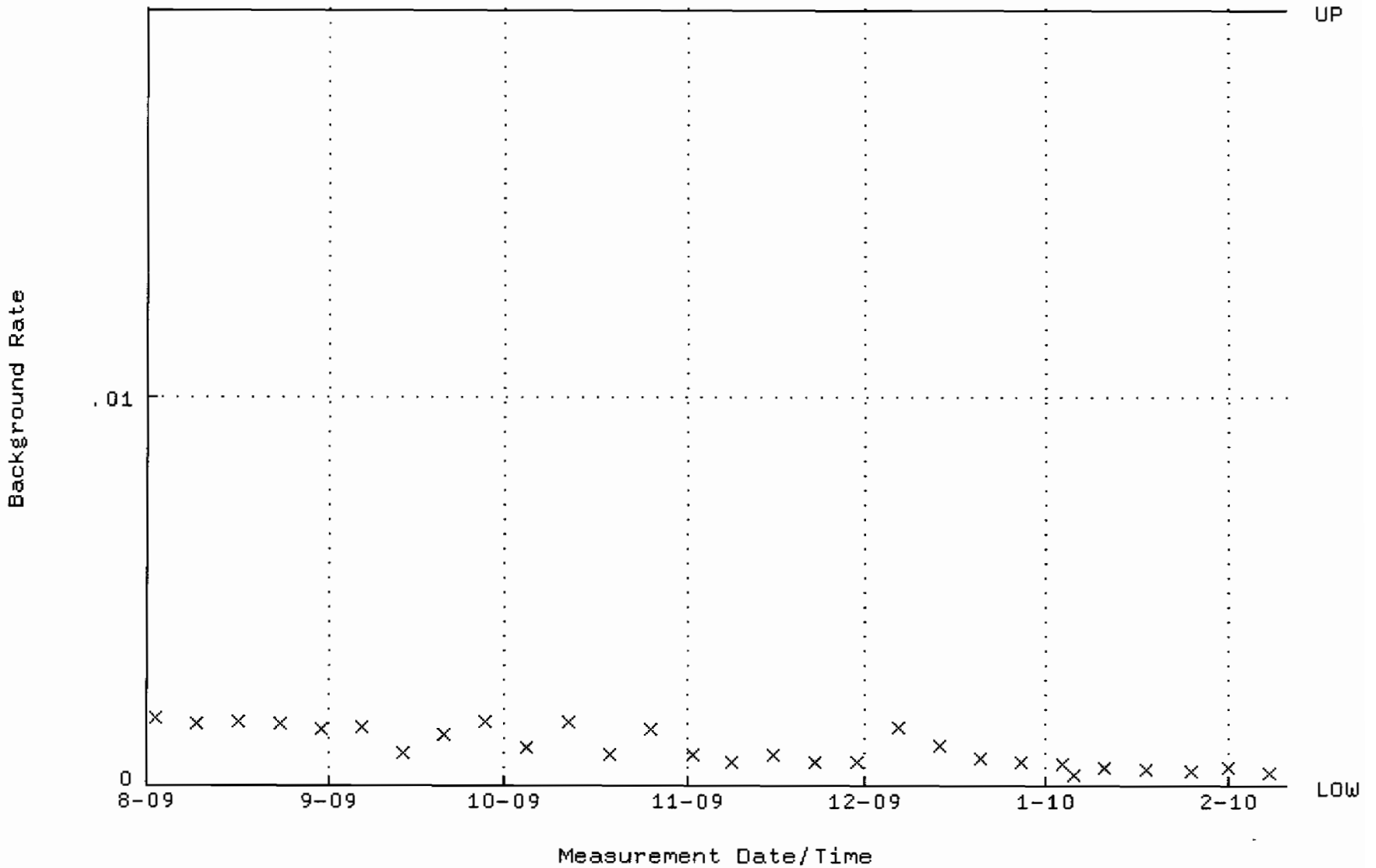

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295613 through 0.315613

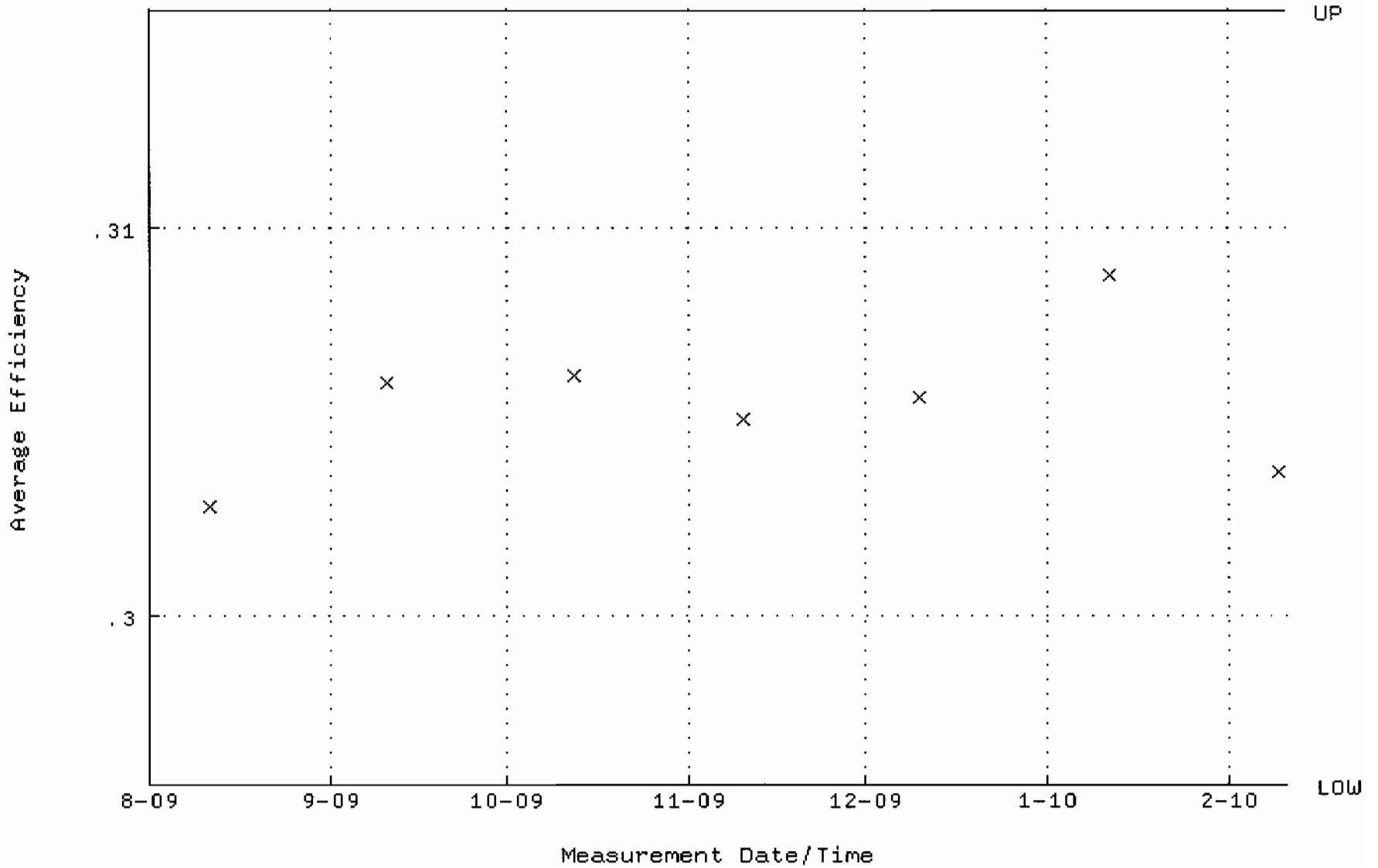

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9031 through 97.1561

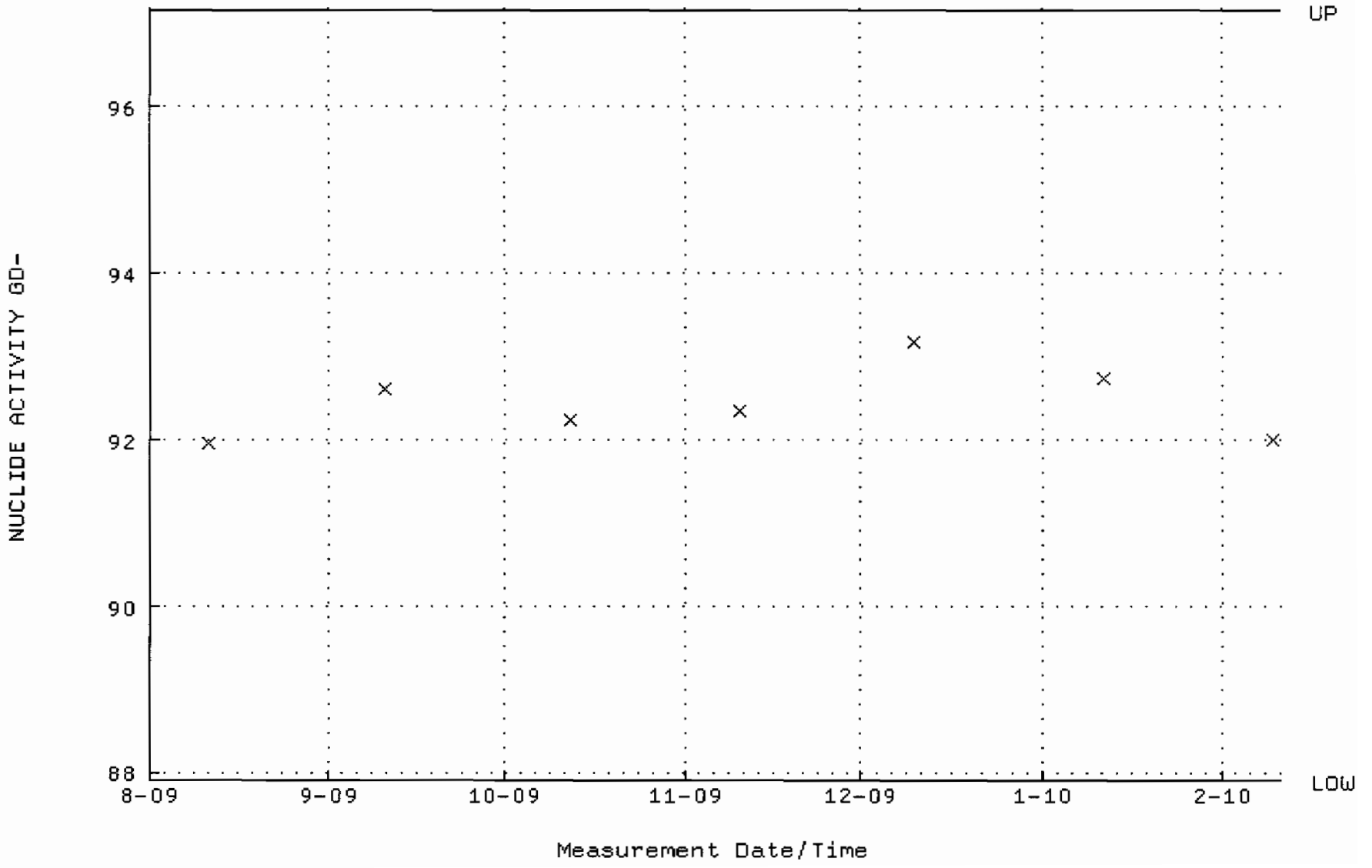

QA filename : DKA100:[ENV_ALPHA.QA.B]B076.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

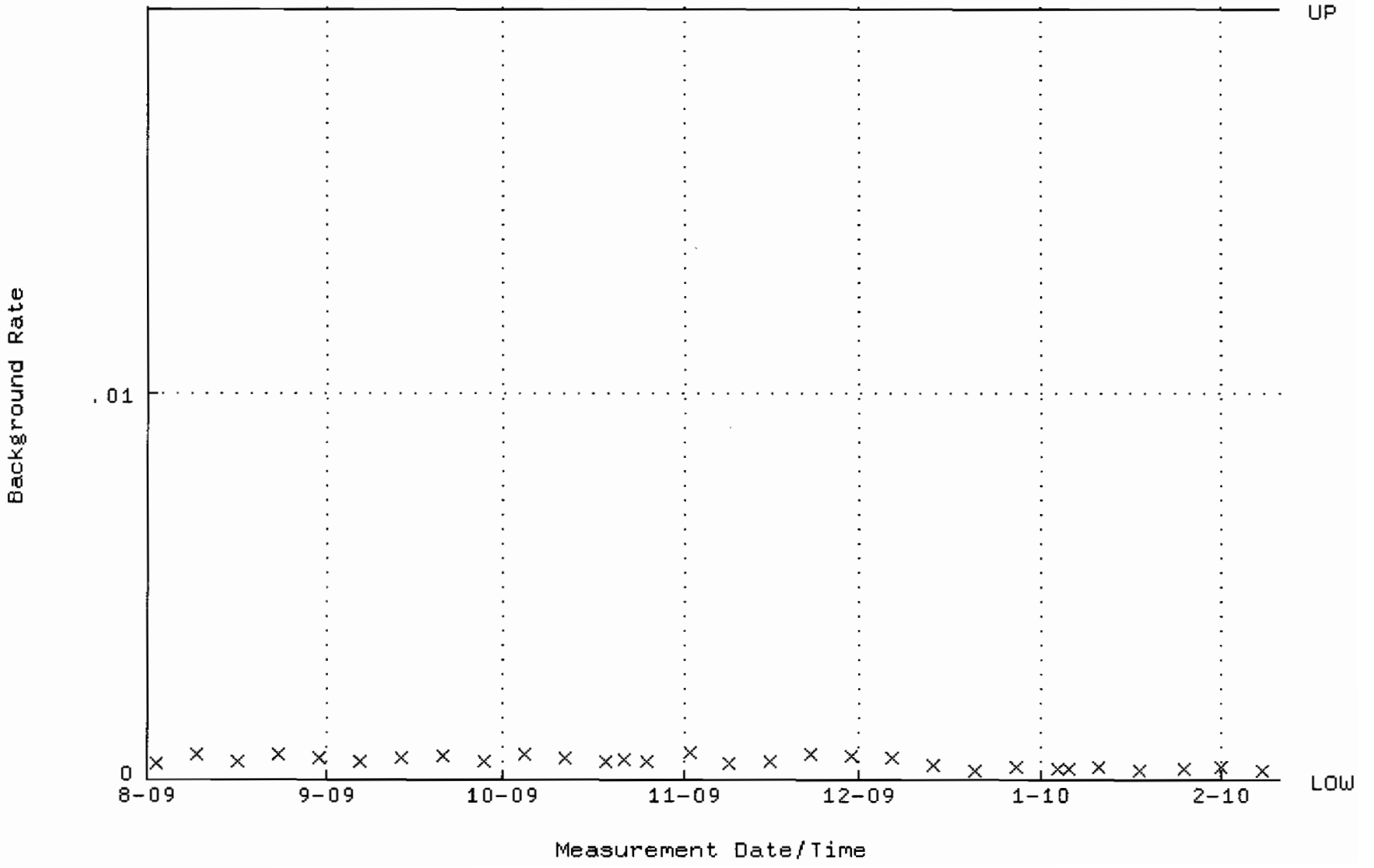

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

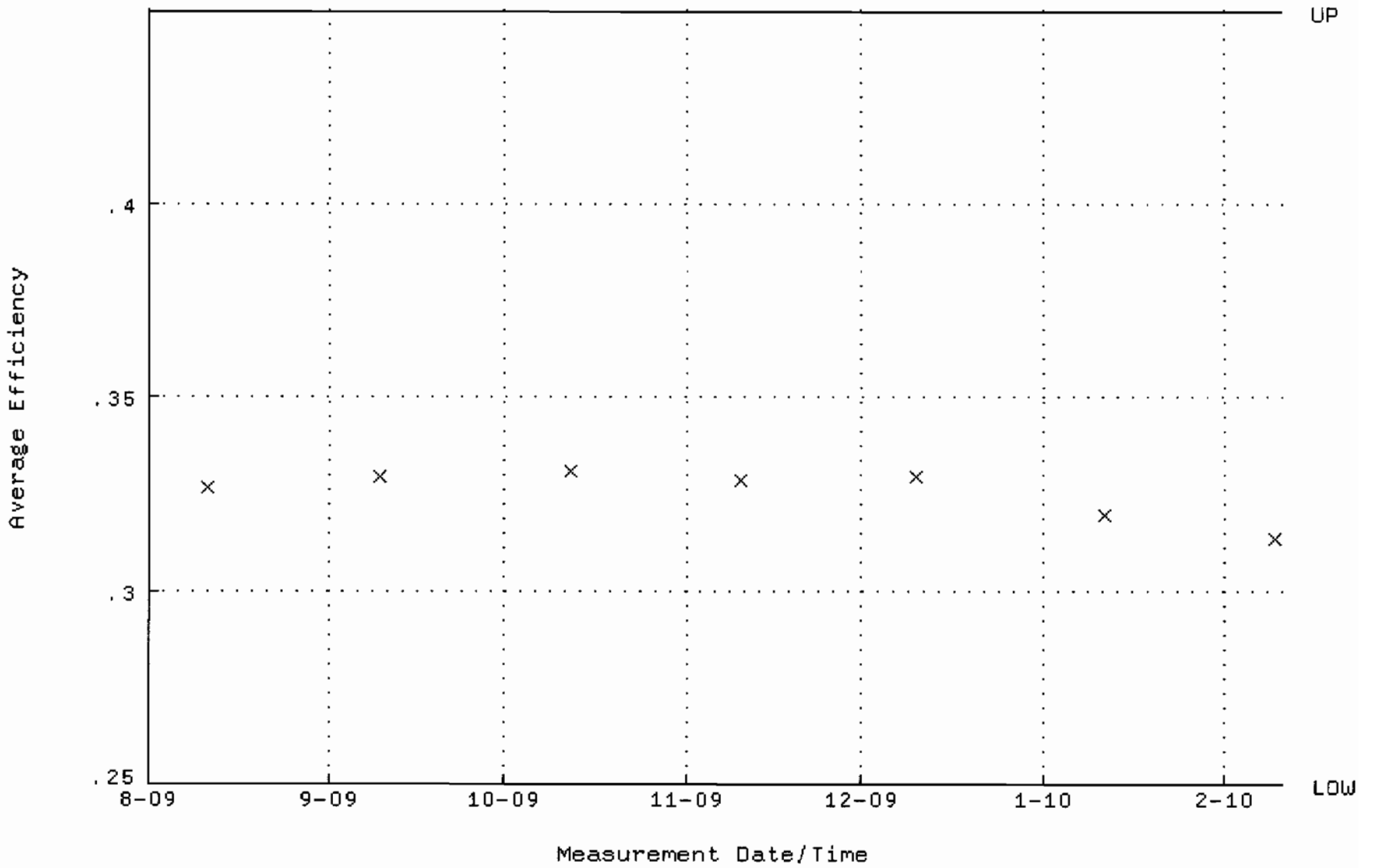

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

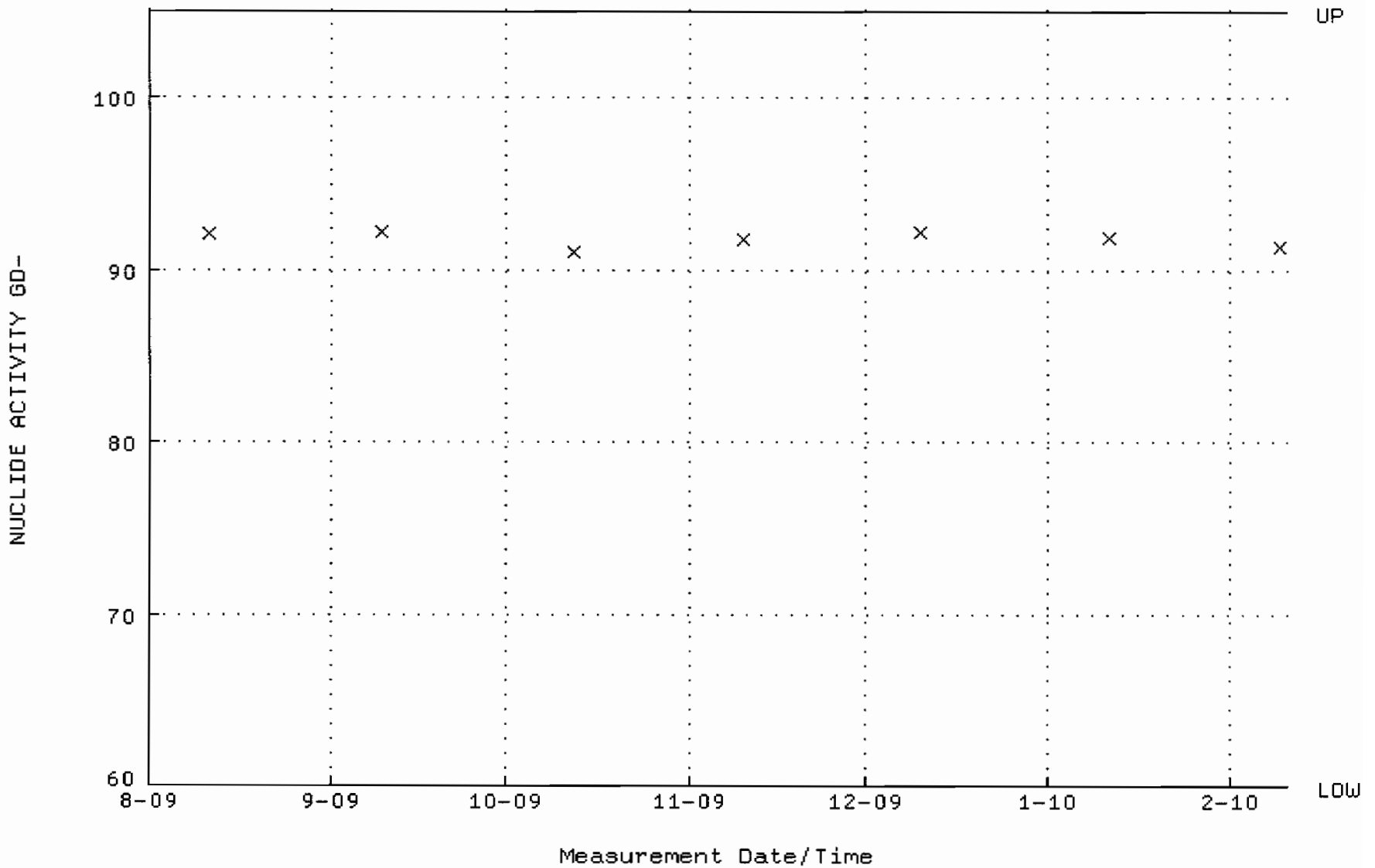

QA filename : DKA100:[ENV_ALPHA.QA.B]B077.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

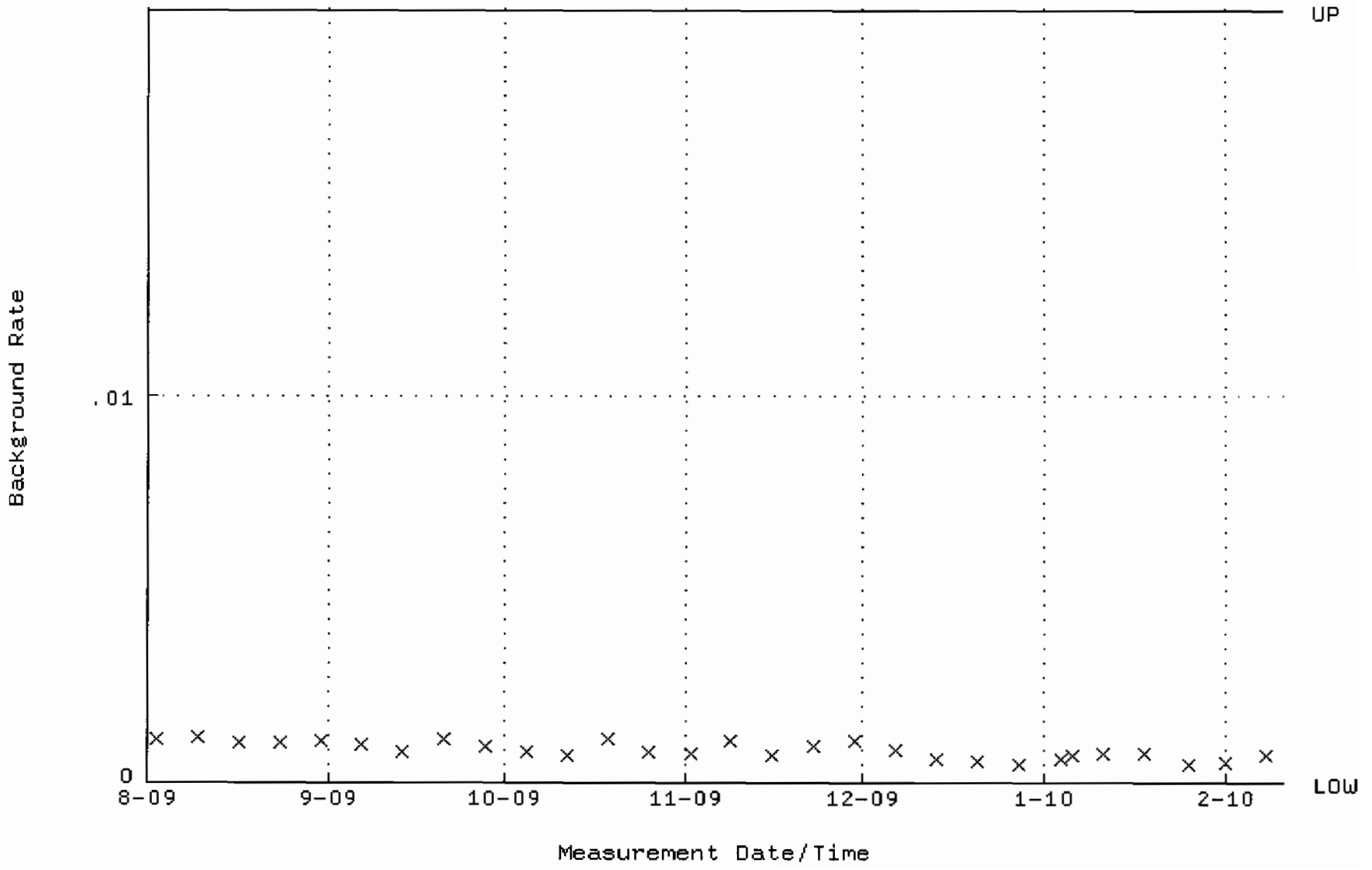

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316654 through 0.336654

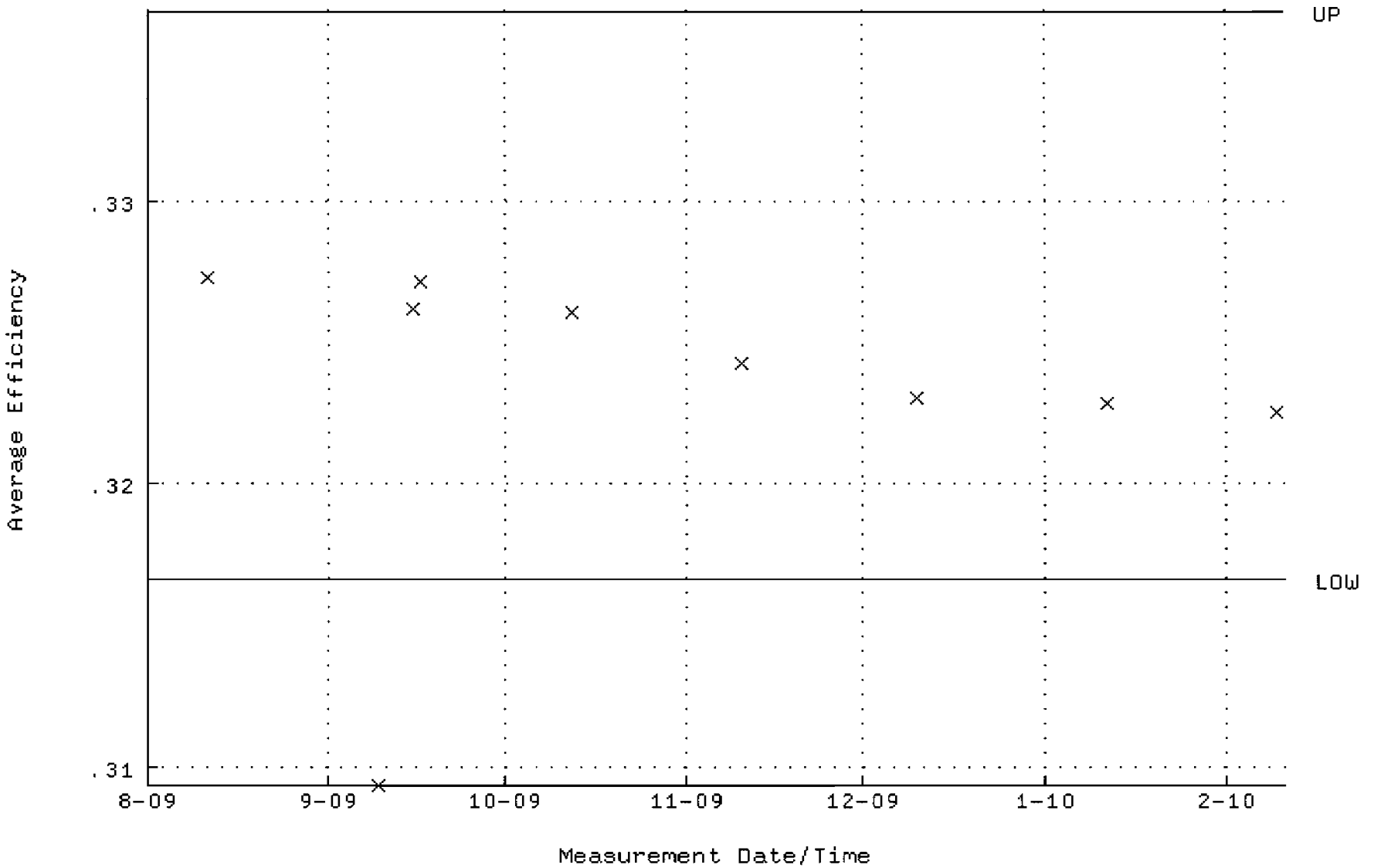

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8913 through 94.9325

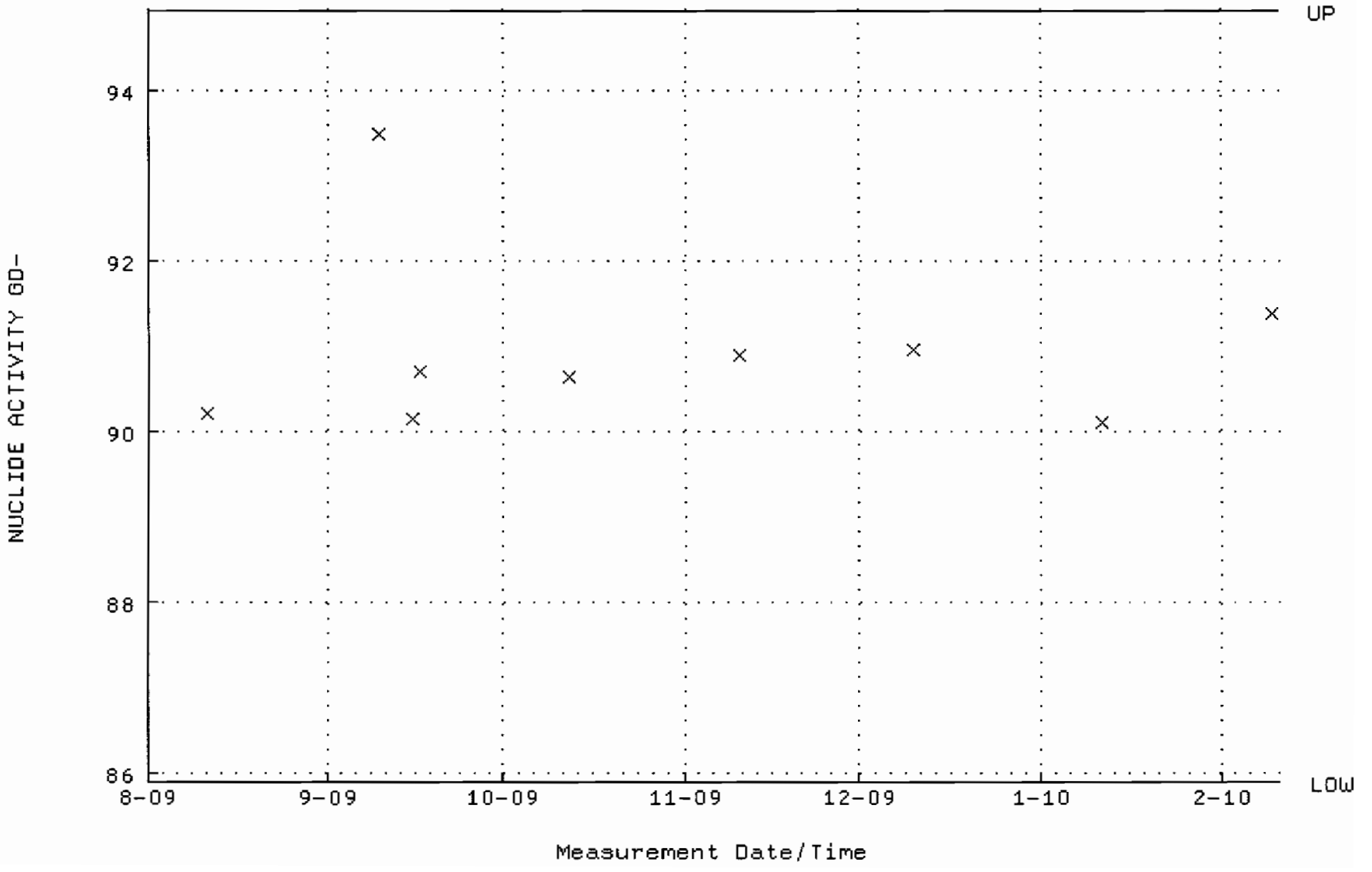

QA filename : DKA100:[ENV_ALPHA.QA.B]B079.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

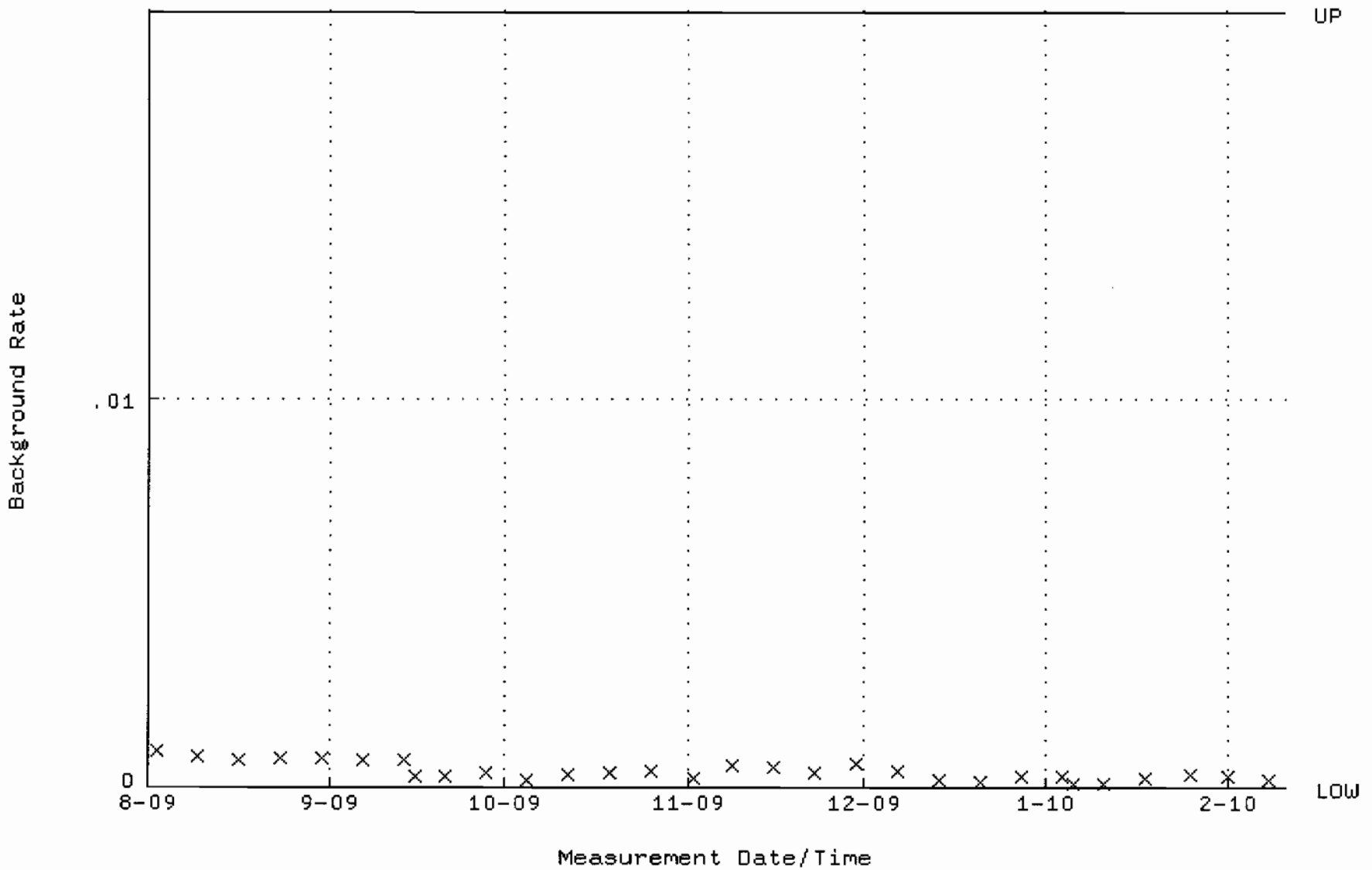

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310202 through 0.330202

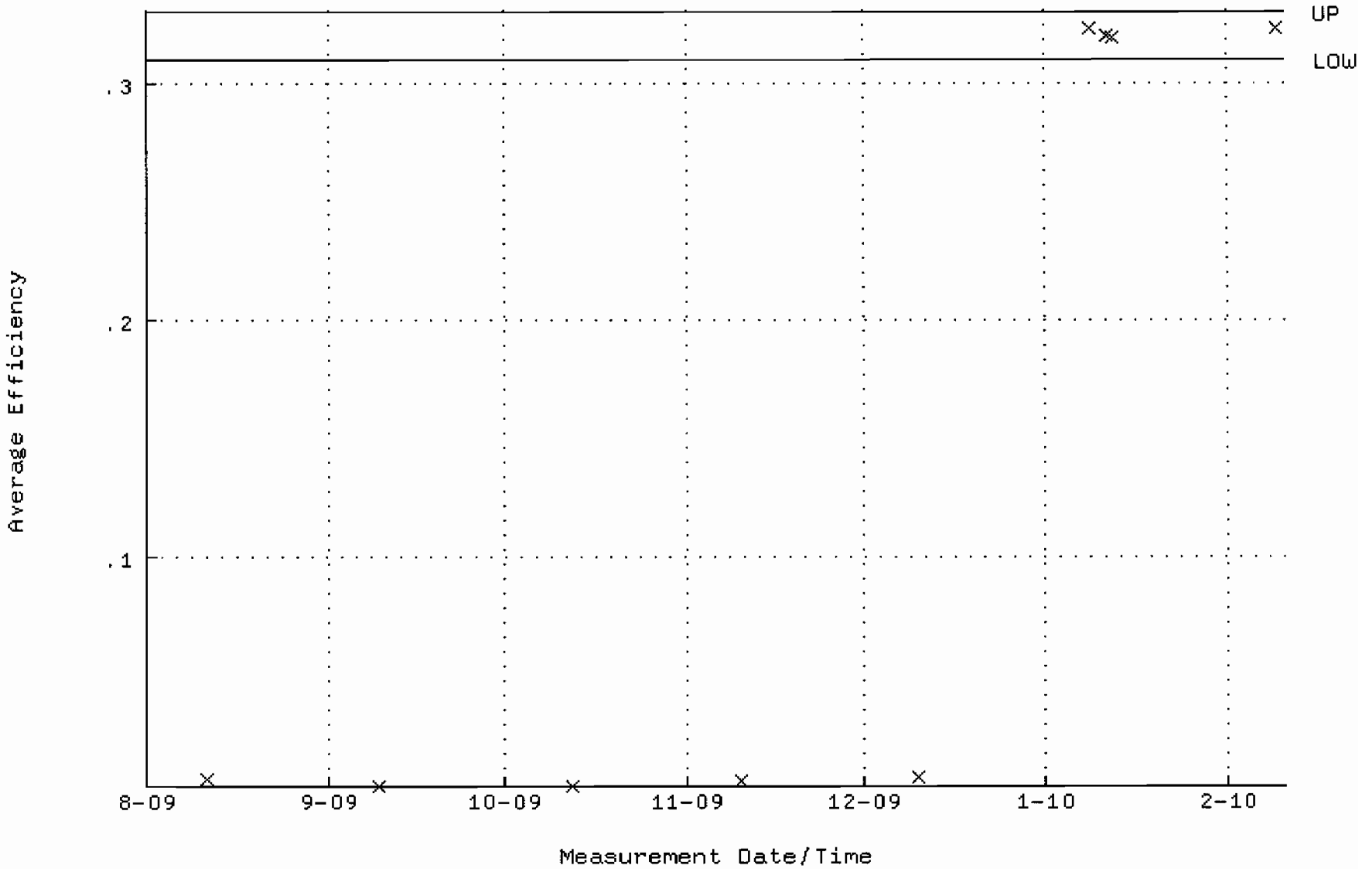

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 89.2016 through 98.5912

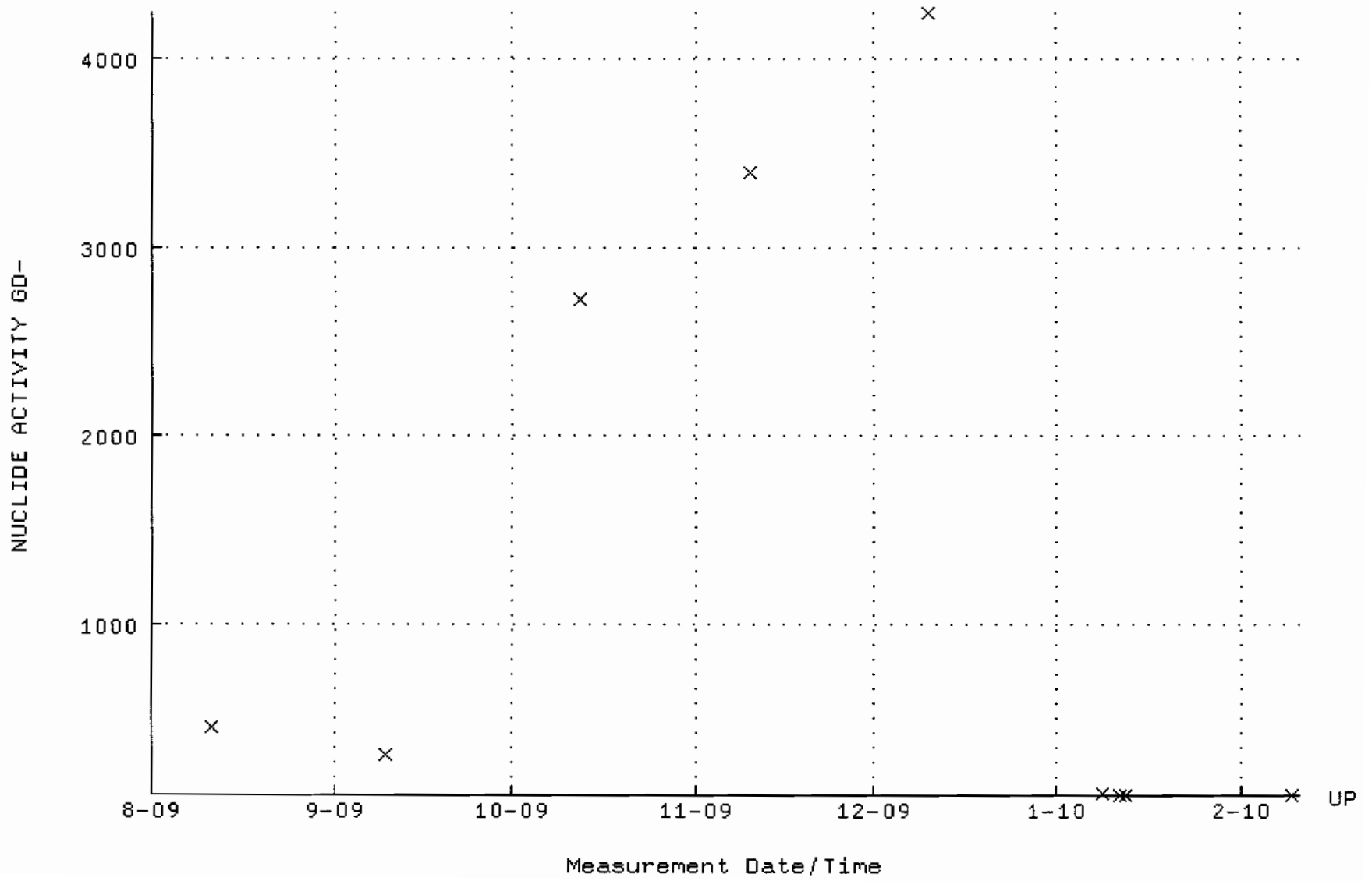

QA filename : DKA100:[ENV_ALPHA.QA.B]B081.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

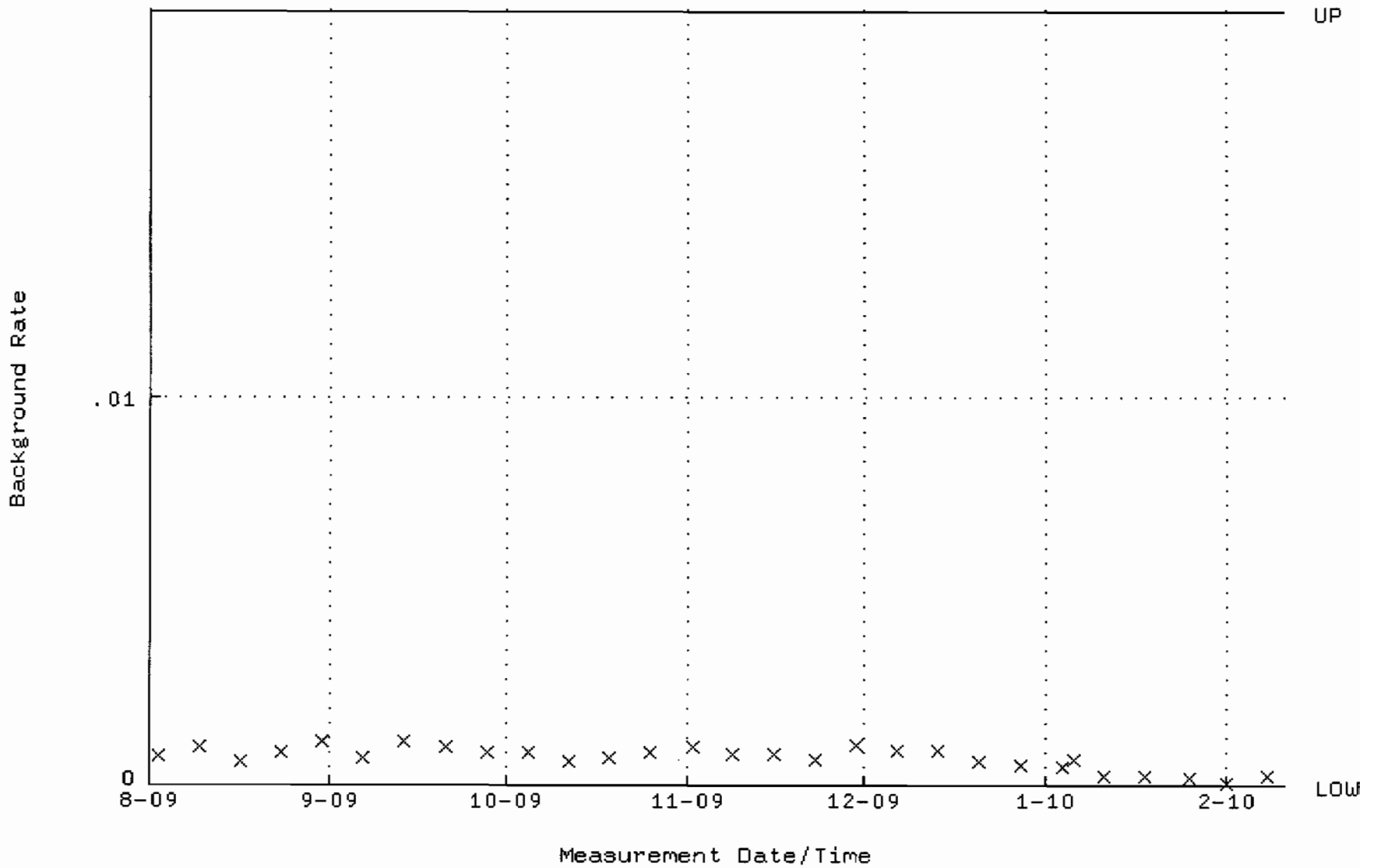

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.311357 through 0.331357

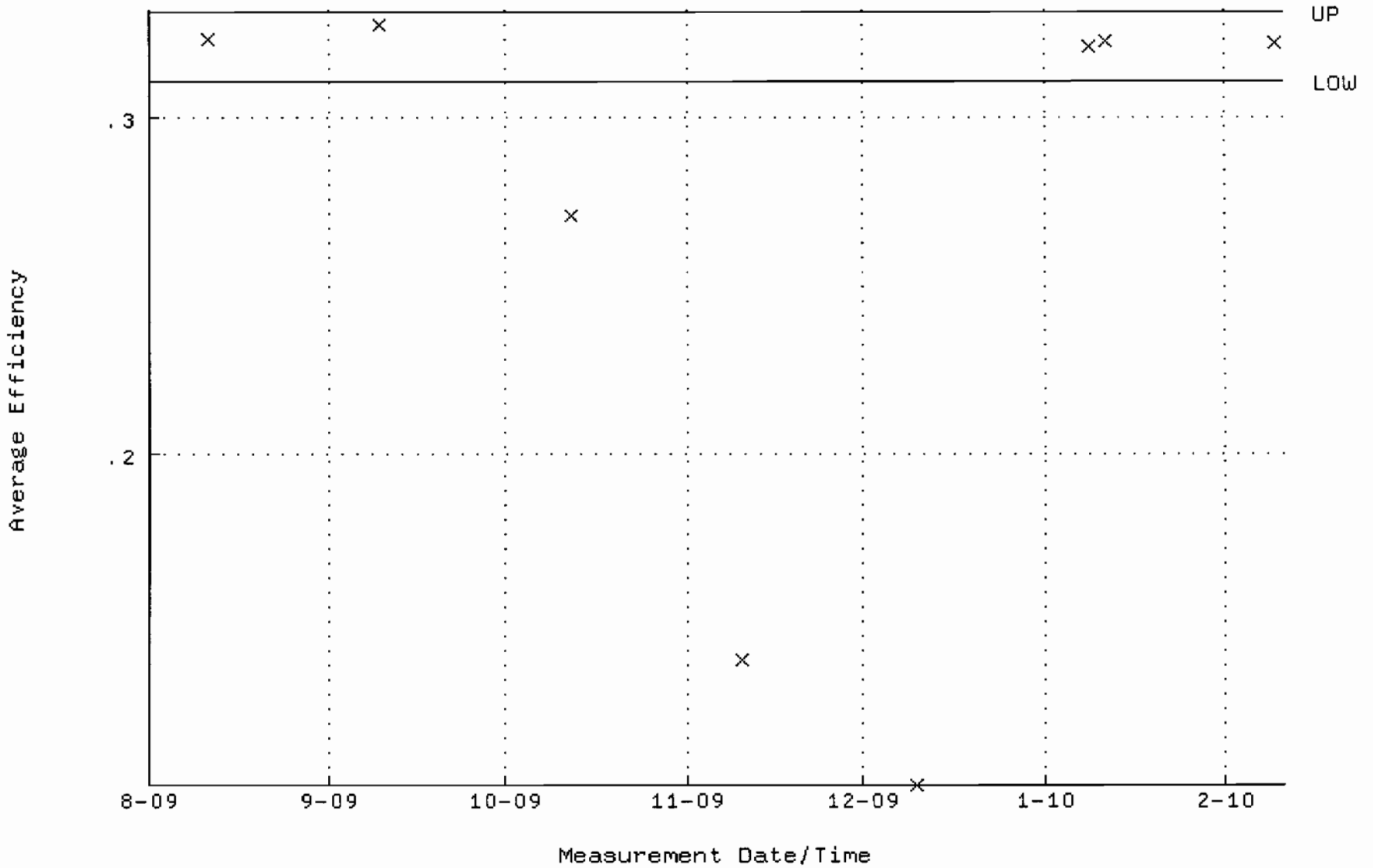

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.9094 through 96.0578

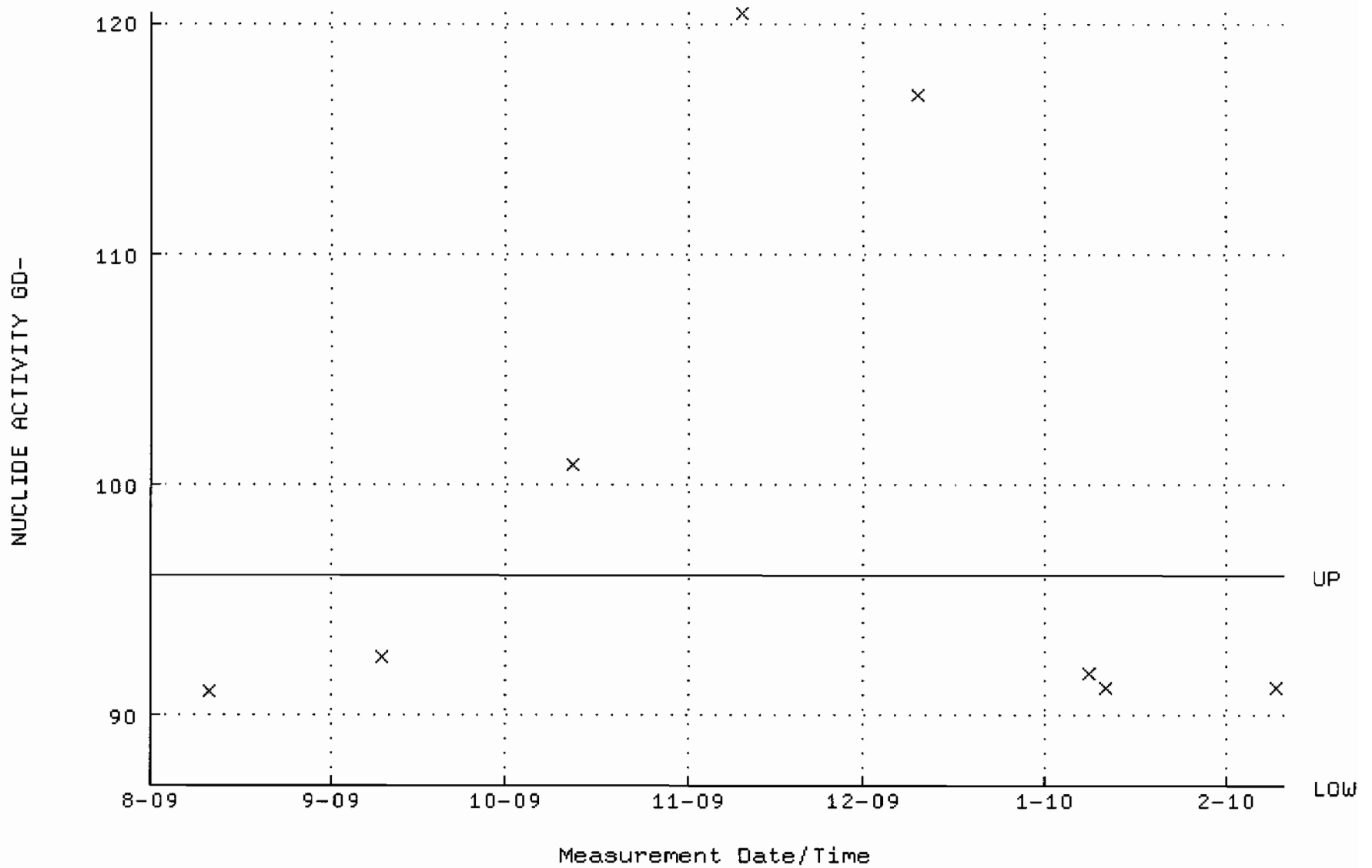

QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

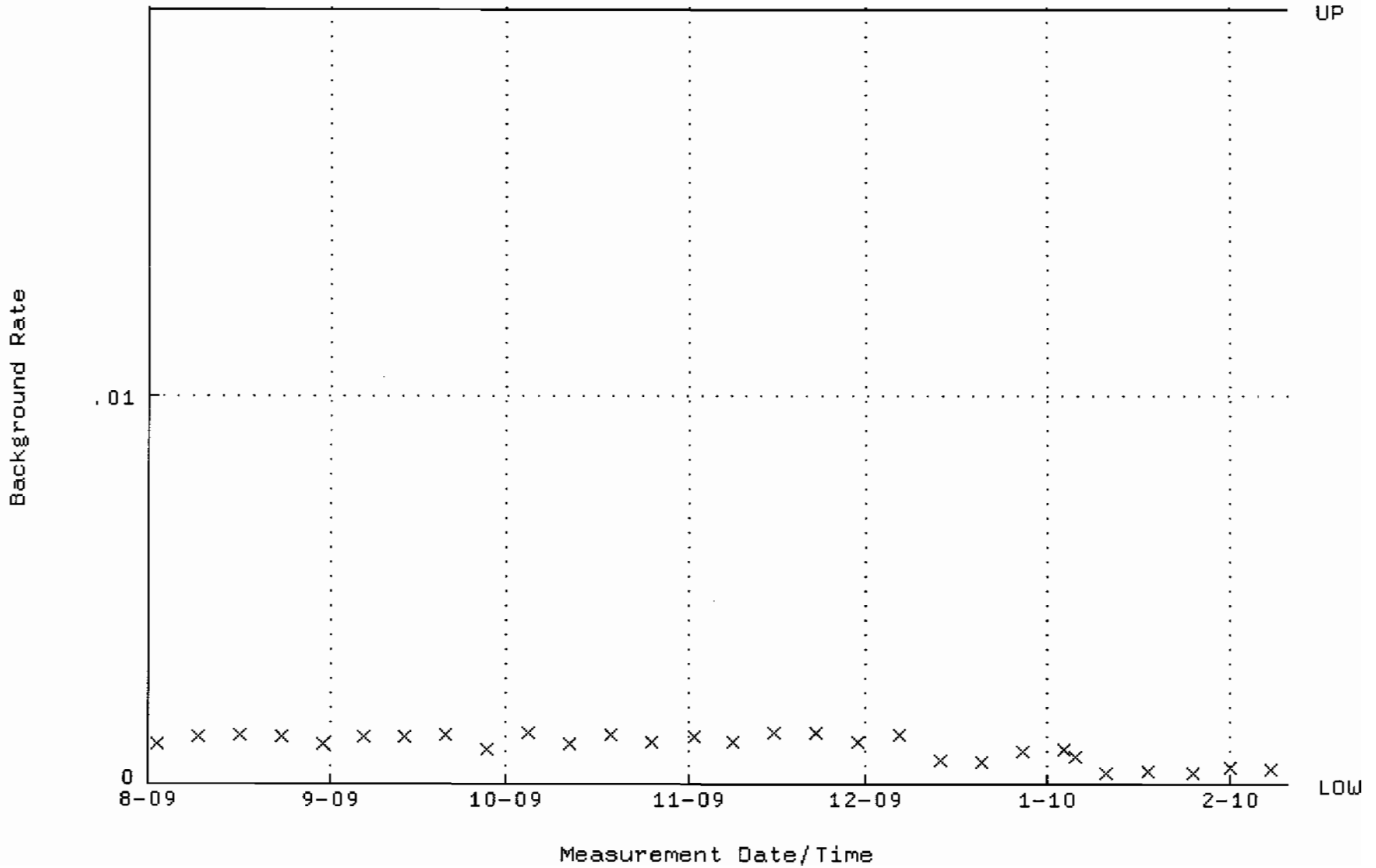

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

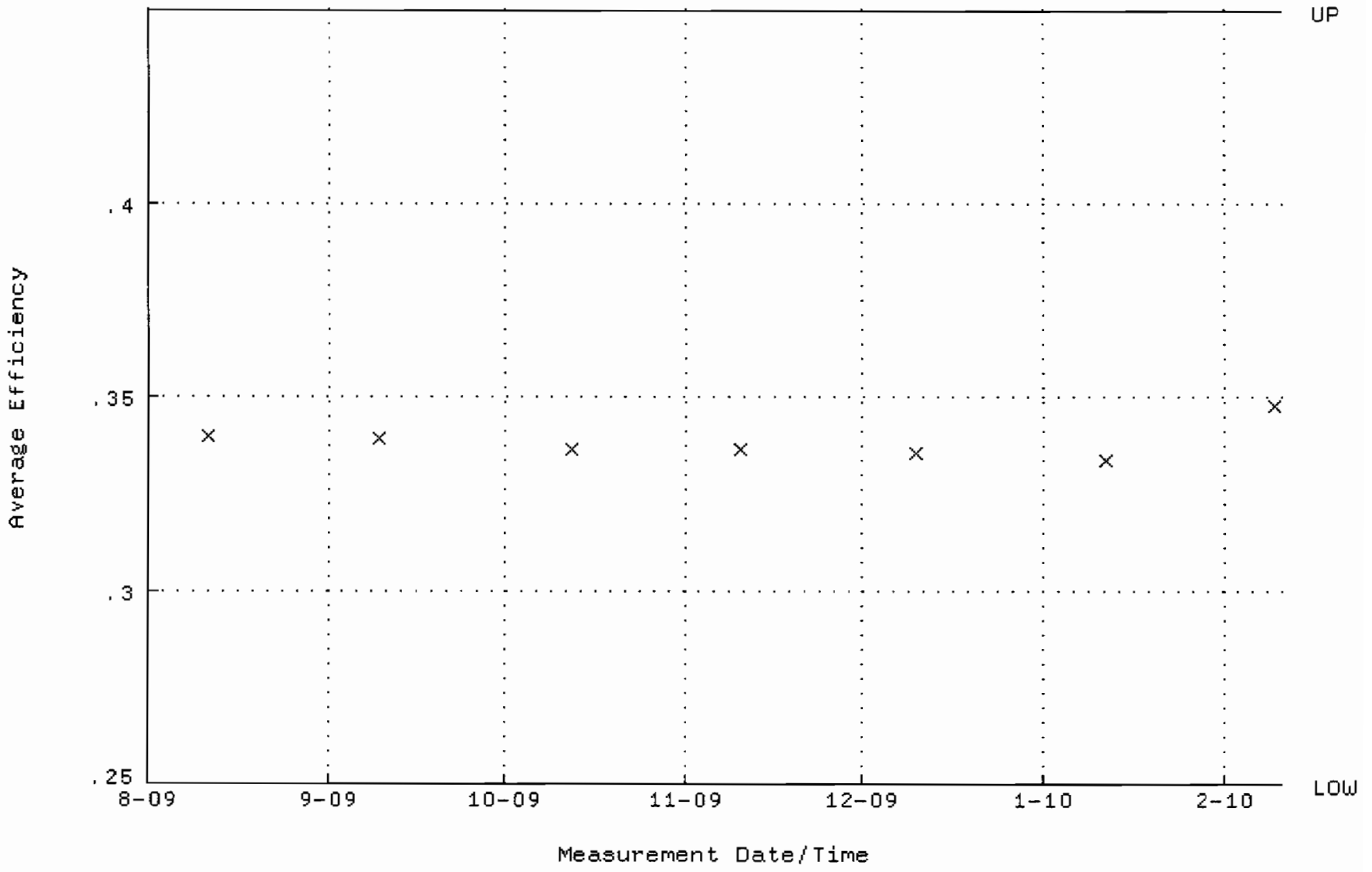

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

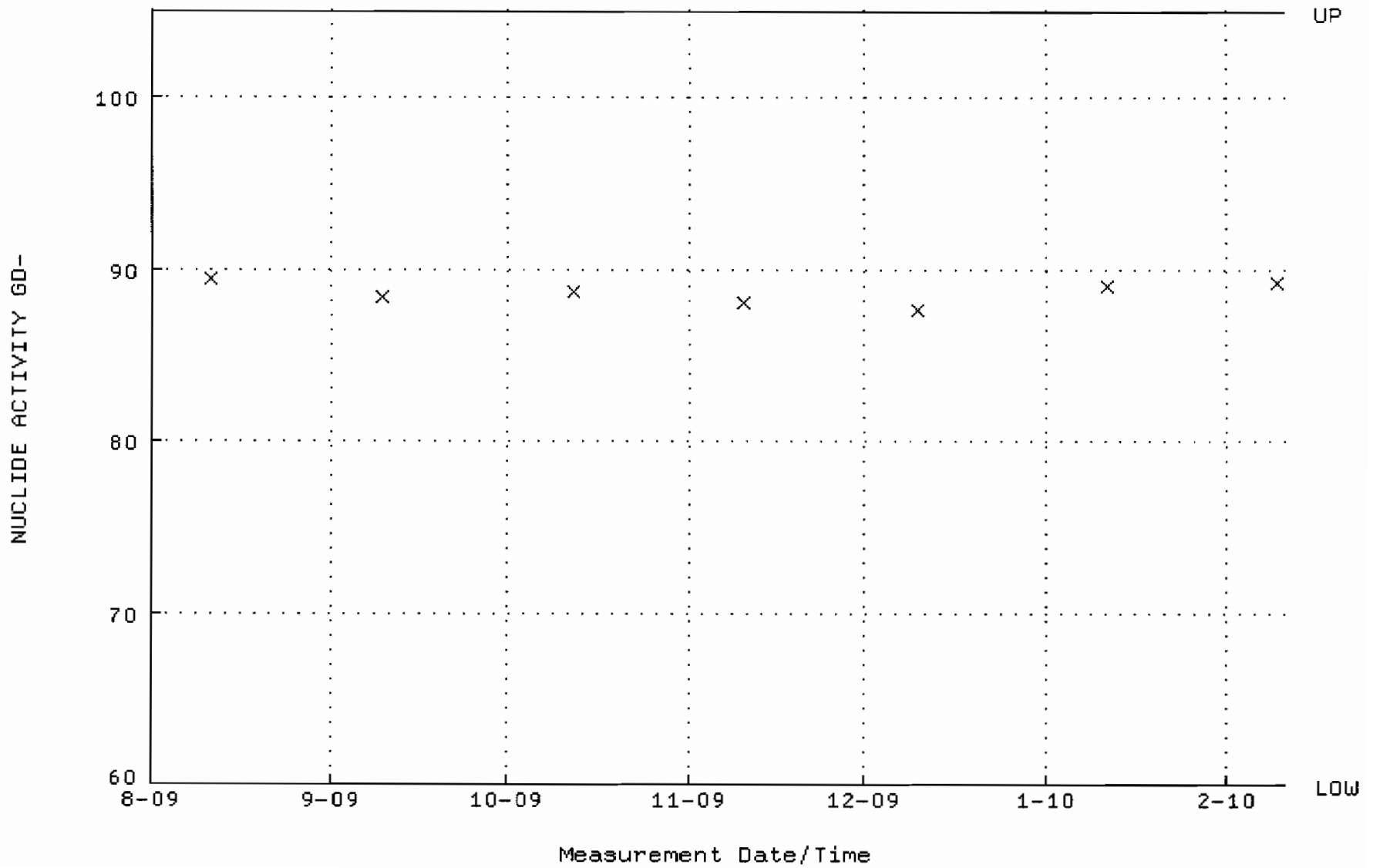

QA filename : DKA100:[ENV_ALPHA.QA.B]B083.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

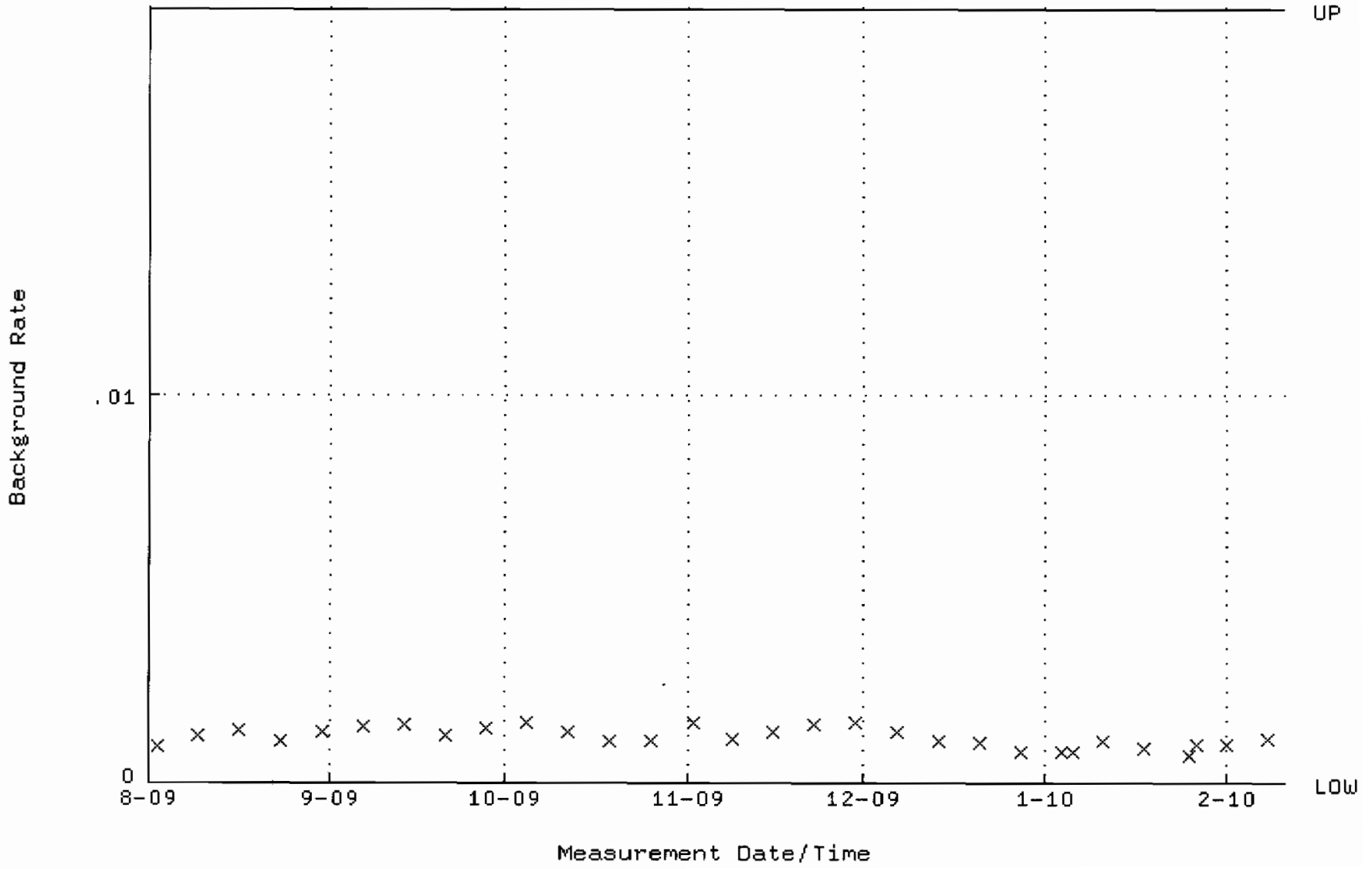

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.330740 through 0.350740

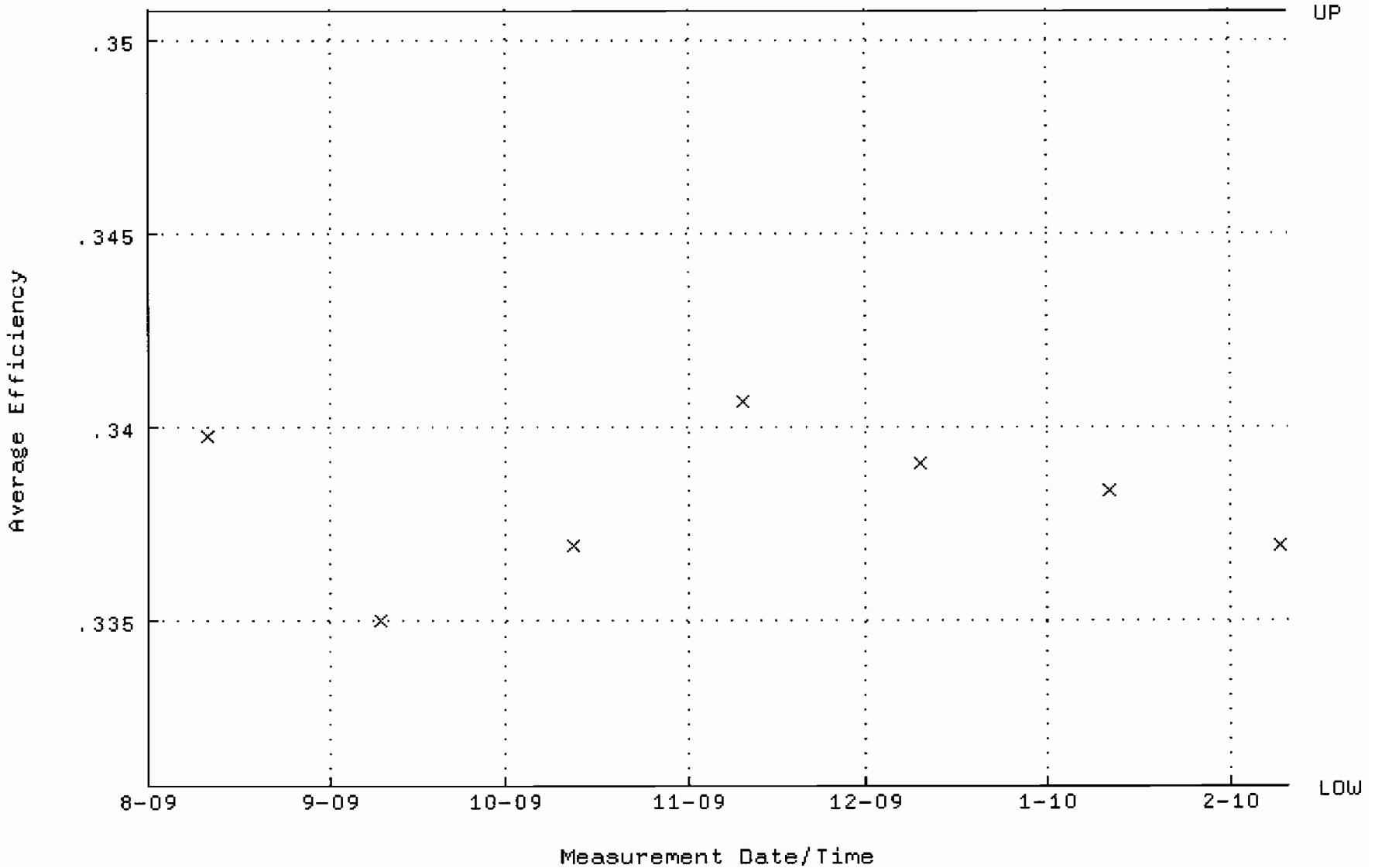

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0569 through 95.1155

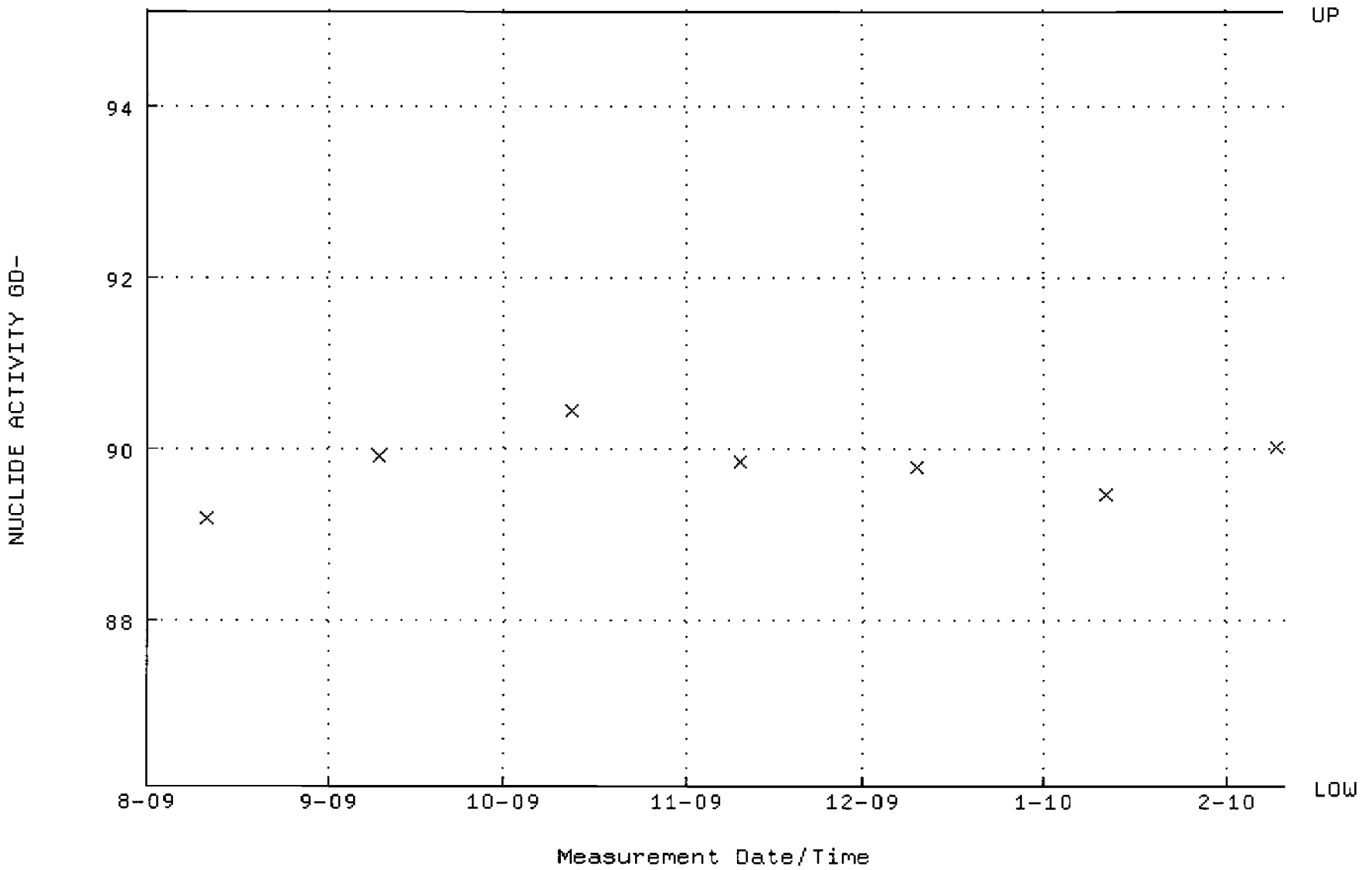

QA filename : DKA100:[ENV_ALPHA.QA.B]B084.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

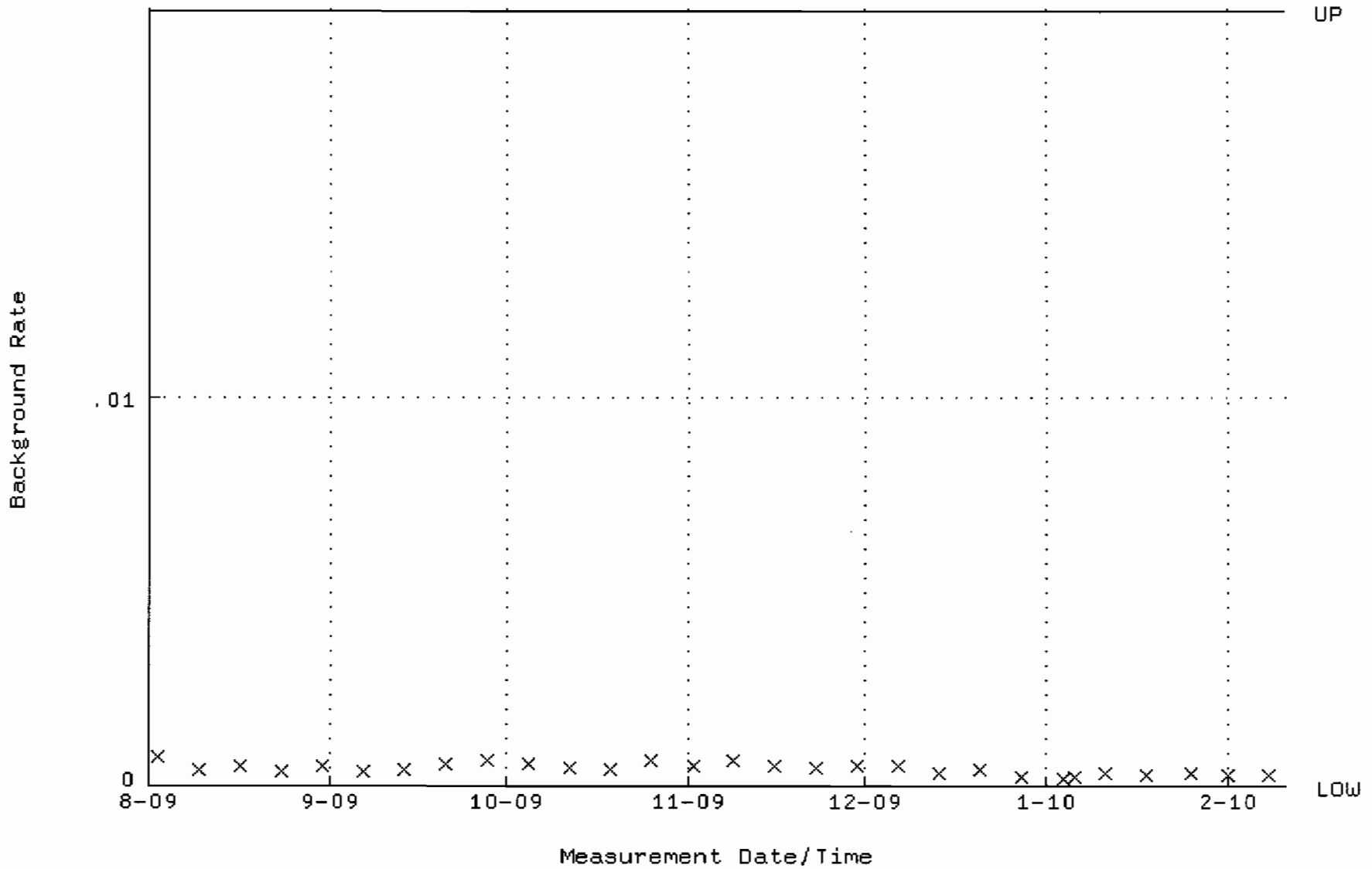

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313884 through 0.337714

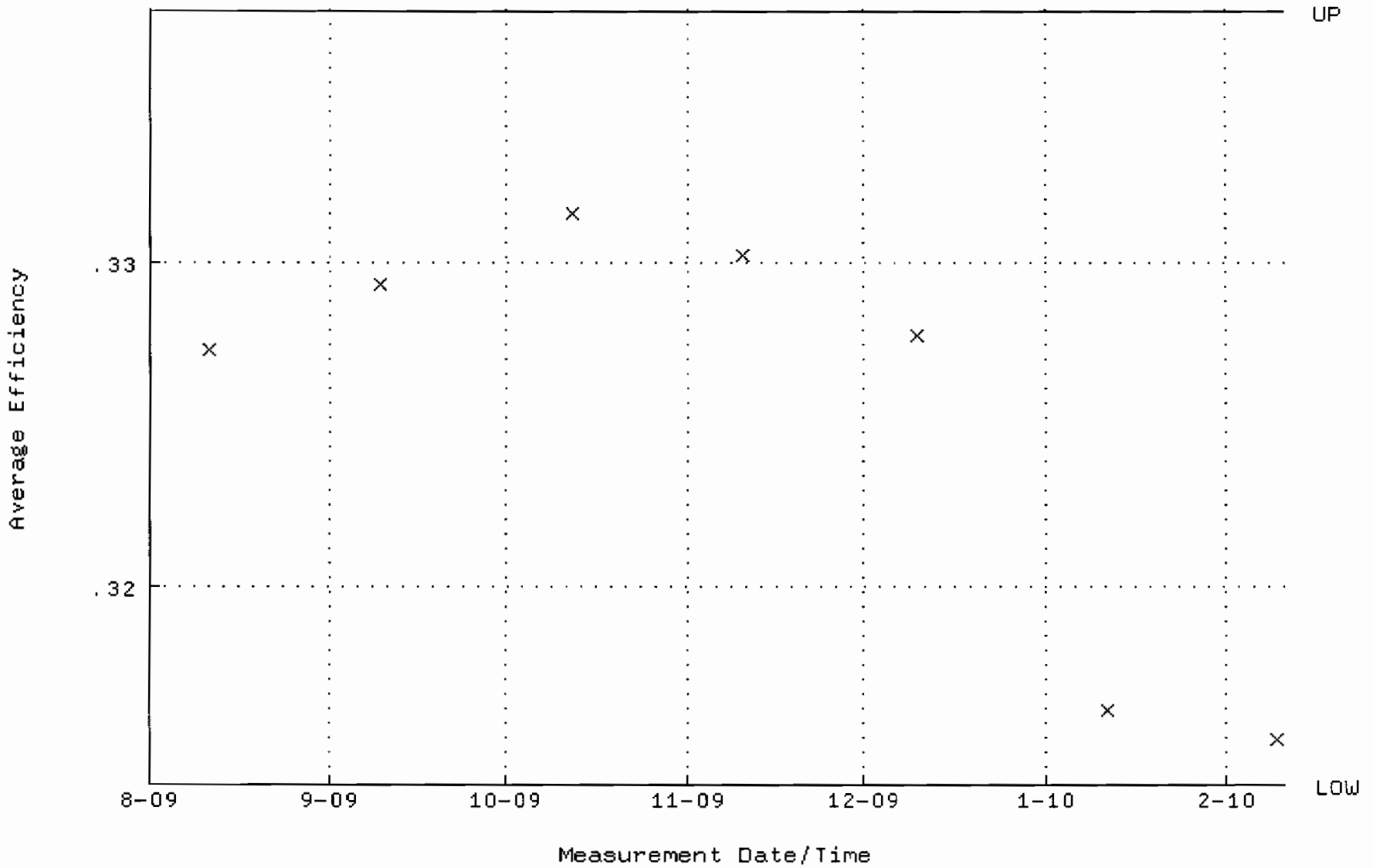

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4059 through 93.3969

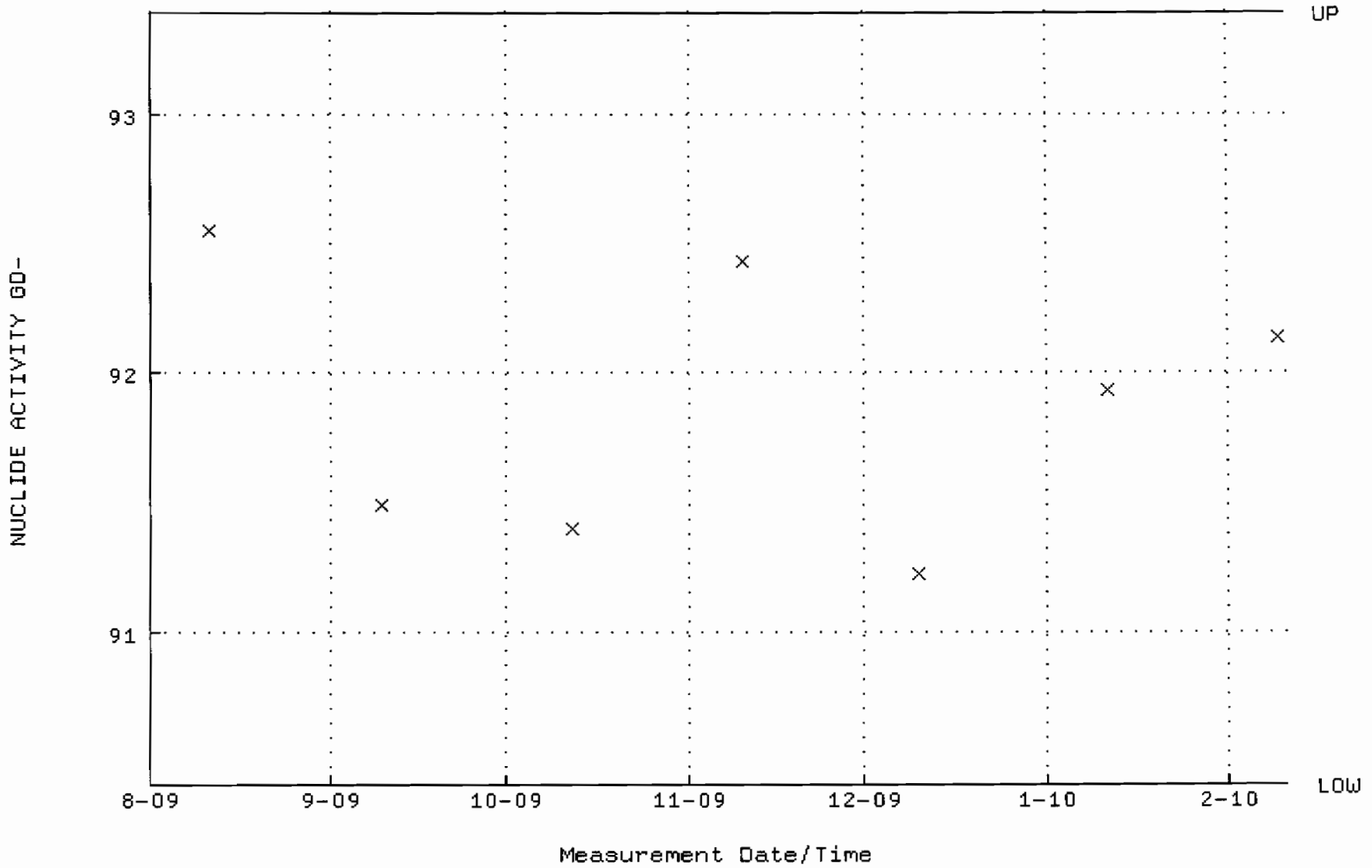

QA filename : DKA100:[ENV_ALPHA.QA.B]B085.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

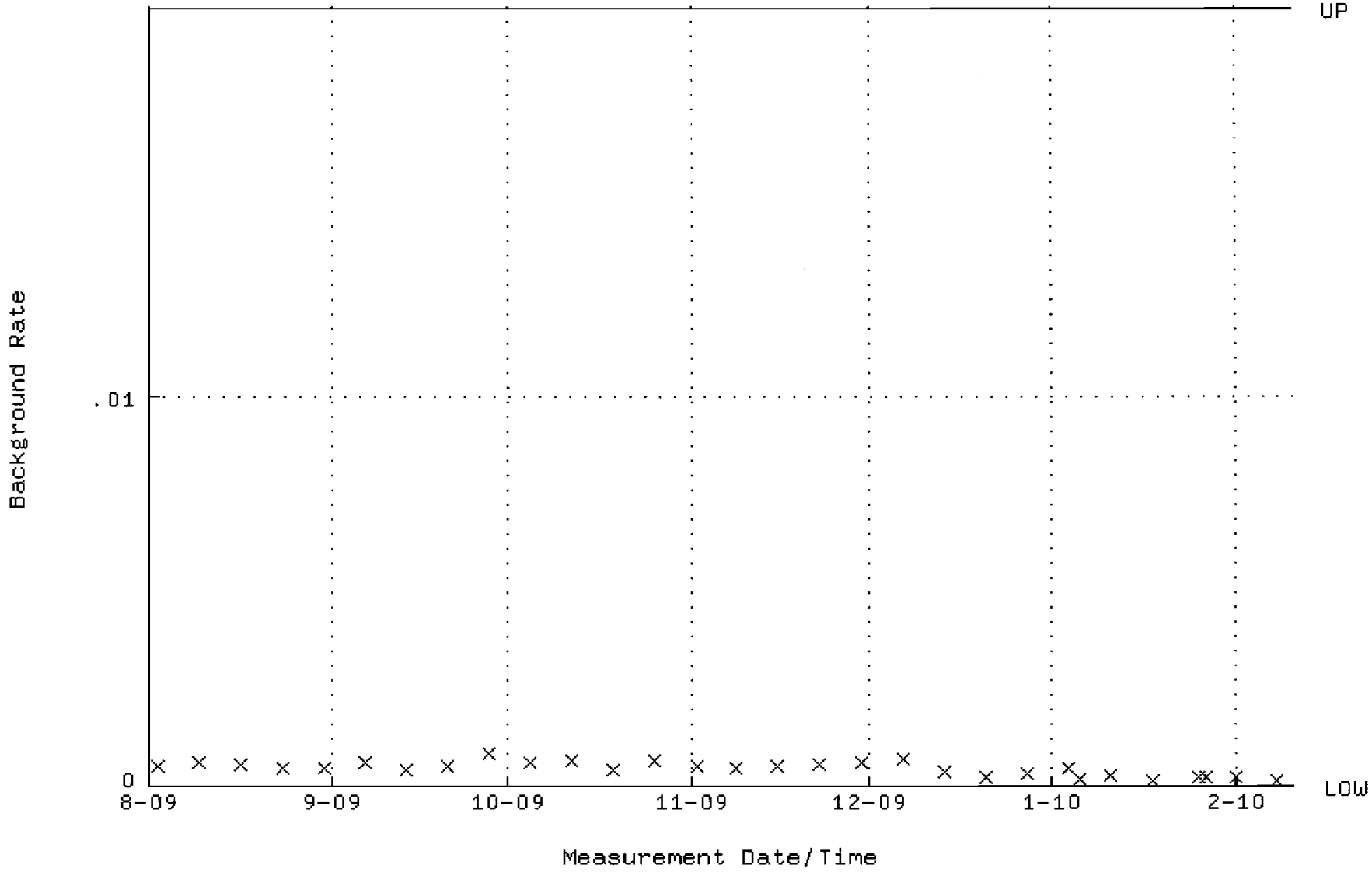

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:40:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242598 through 0.262598

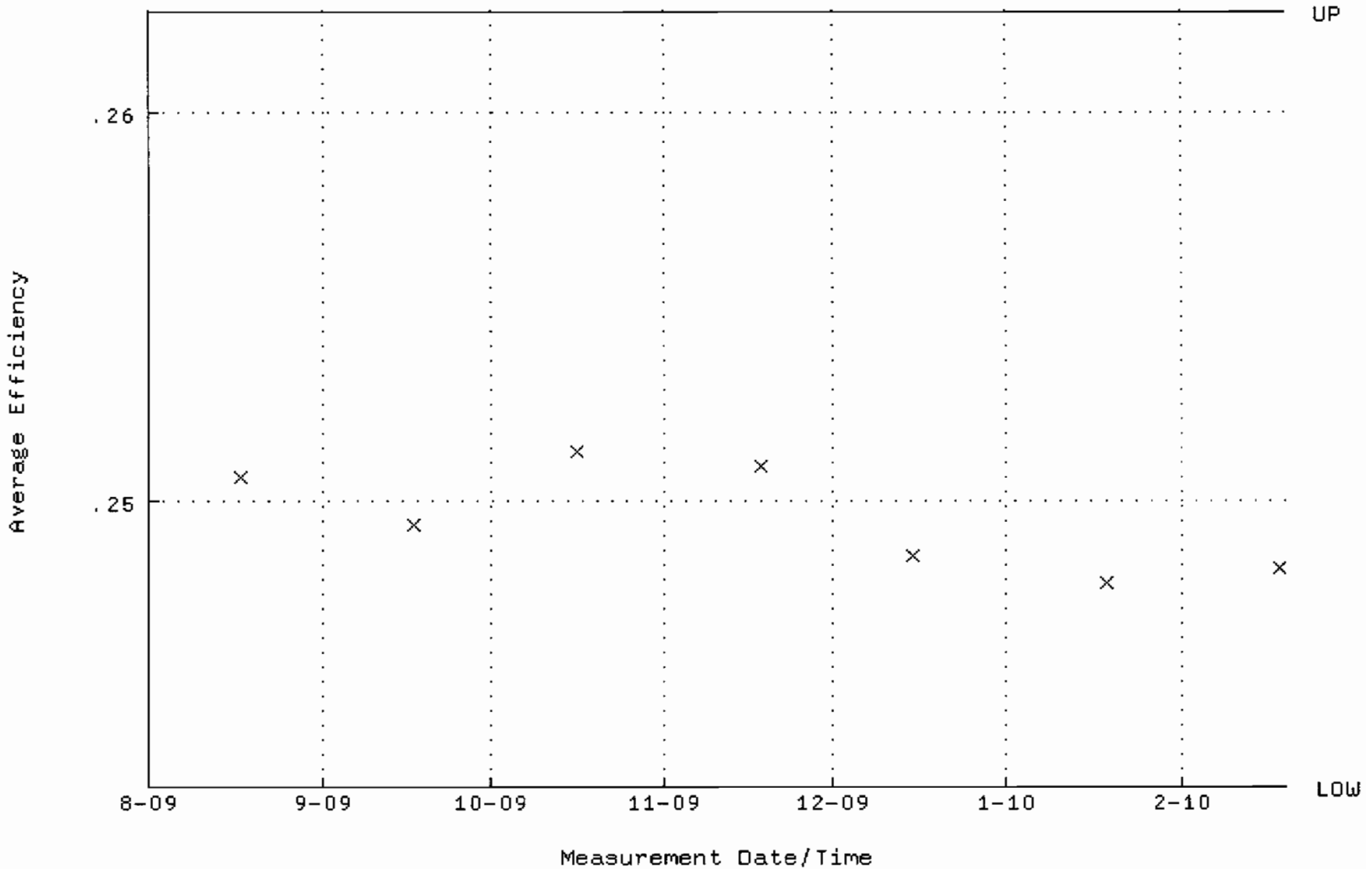

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:40:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5172 through 96.7296

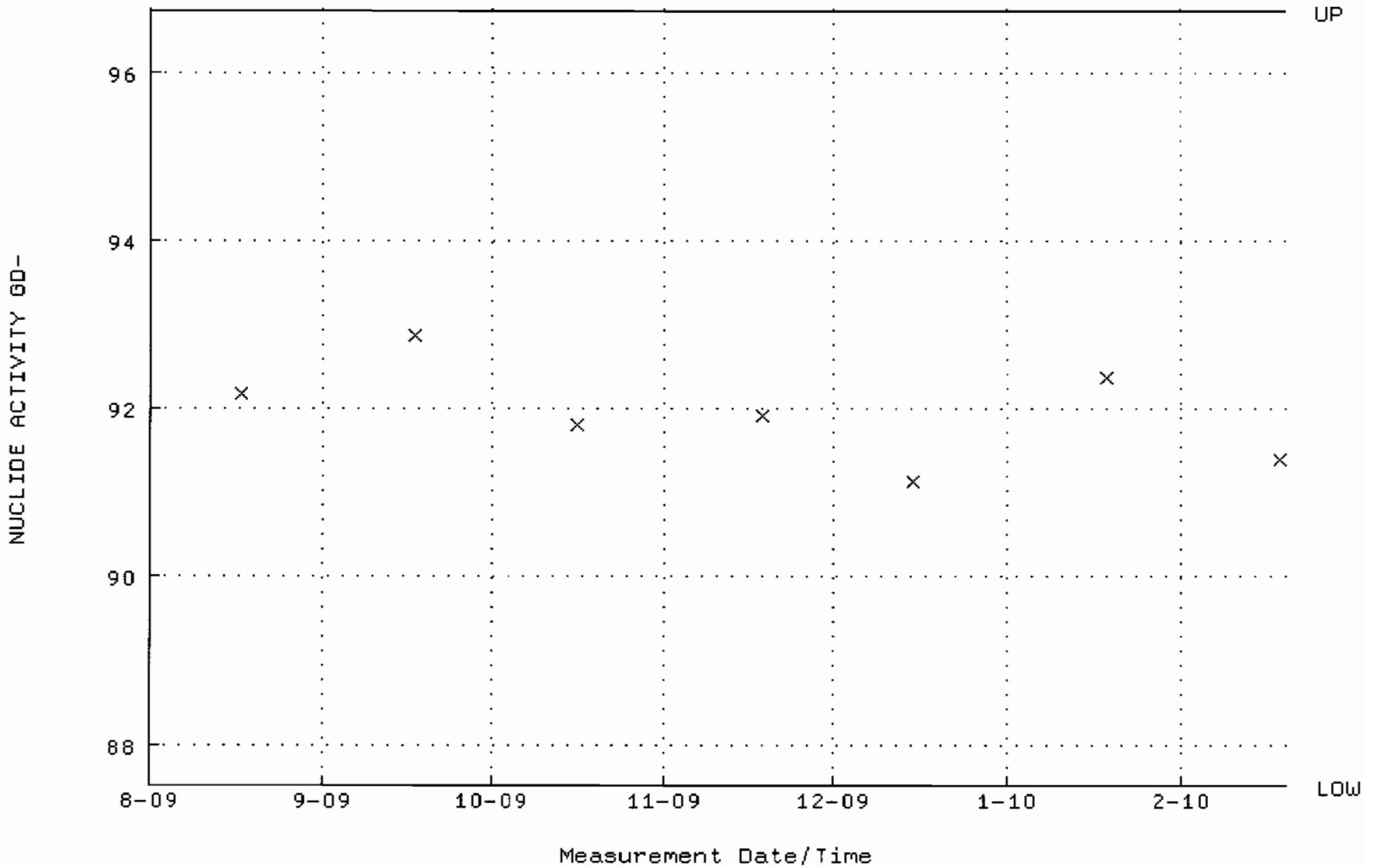

QA filename : DKA100:[ENV_ALPHA.QA.B]B113.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:11:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

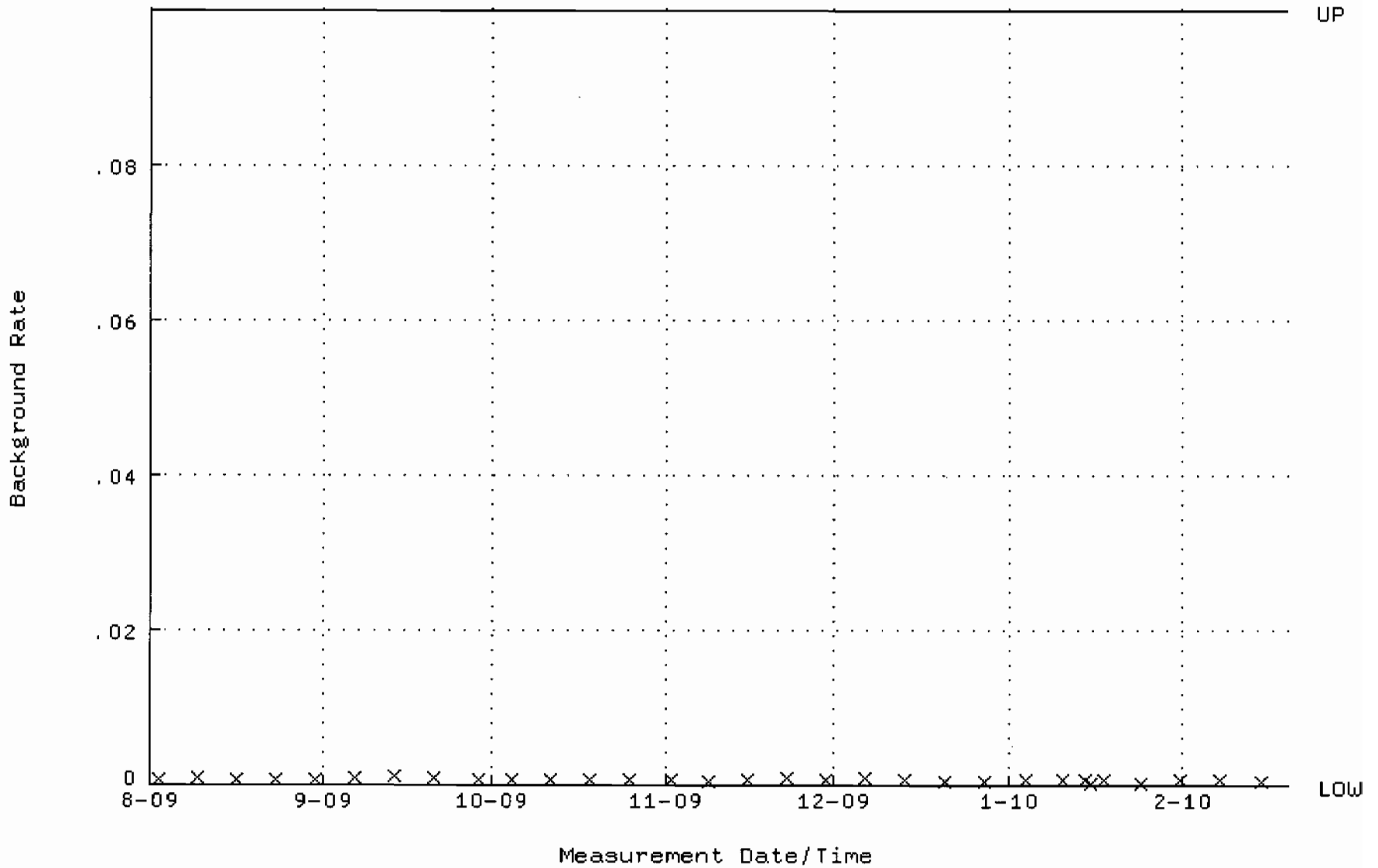

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:40:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.245499 through 0.265499

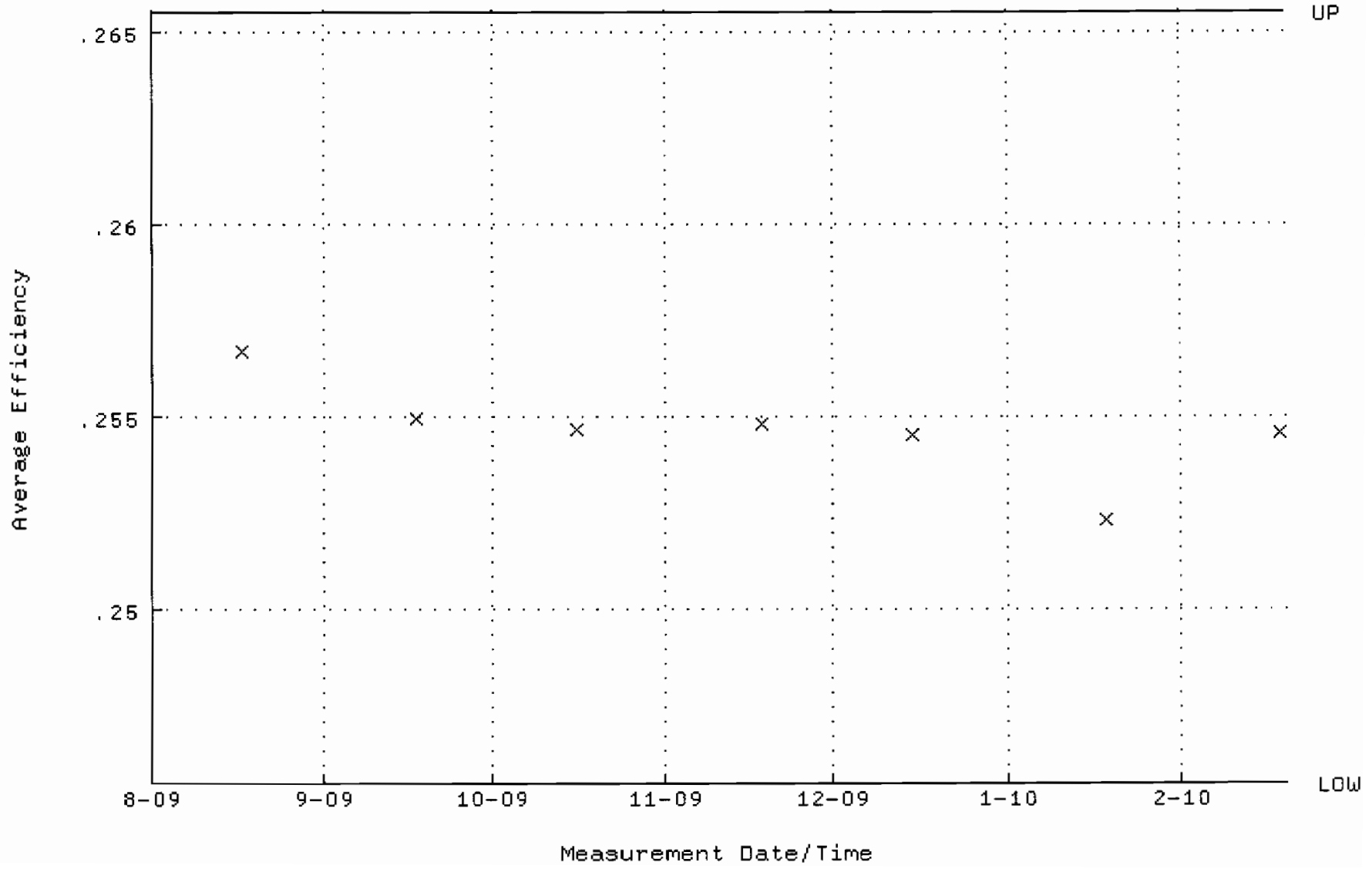

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:40:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.8108 through 97.0540

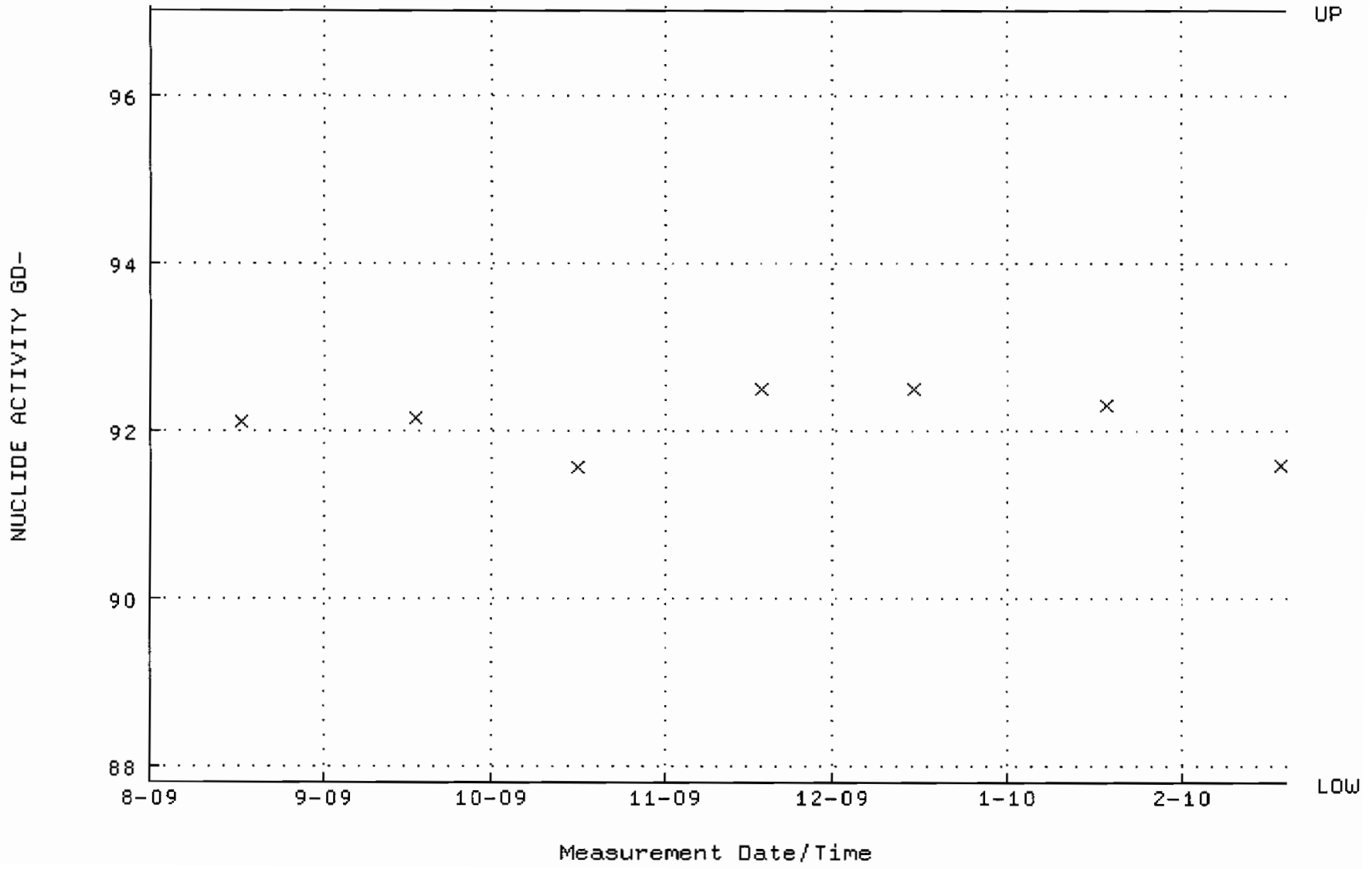

QA filename : DKA100:[ENV_ALPHA.QA.B]B114.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

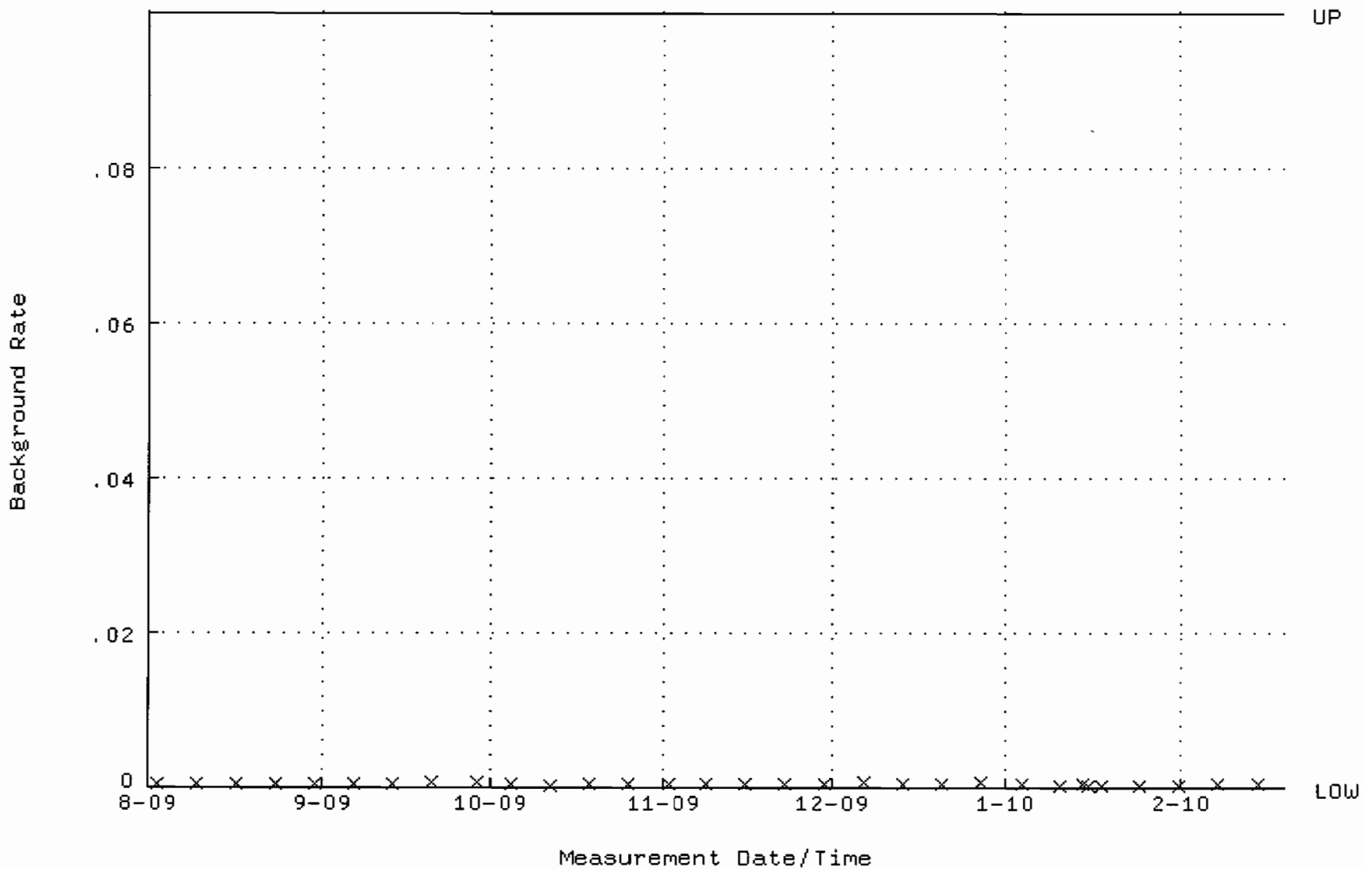

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.248404 through 0.268404

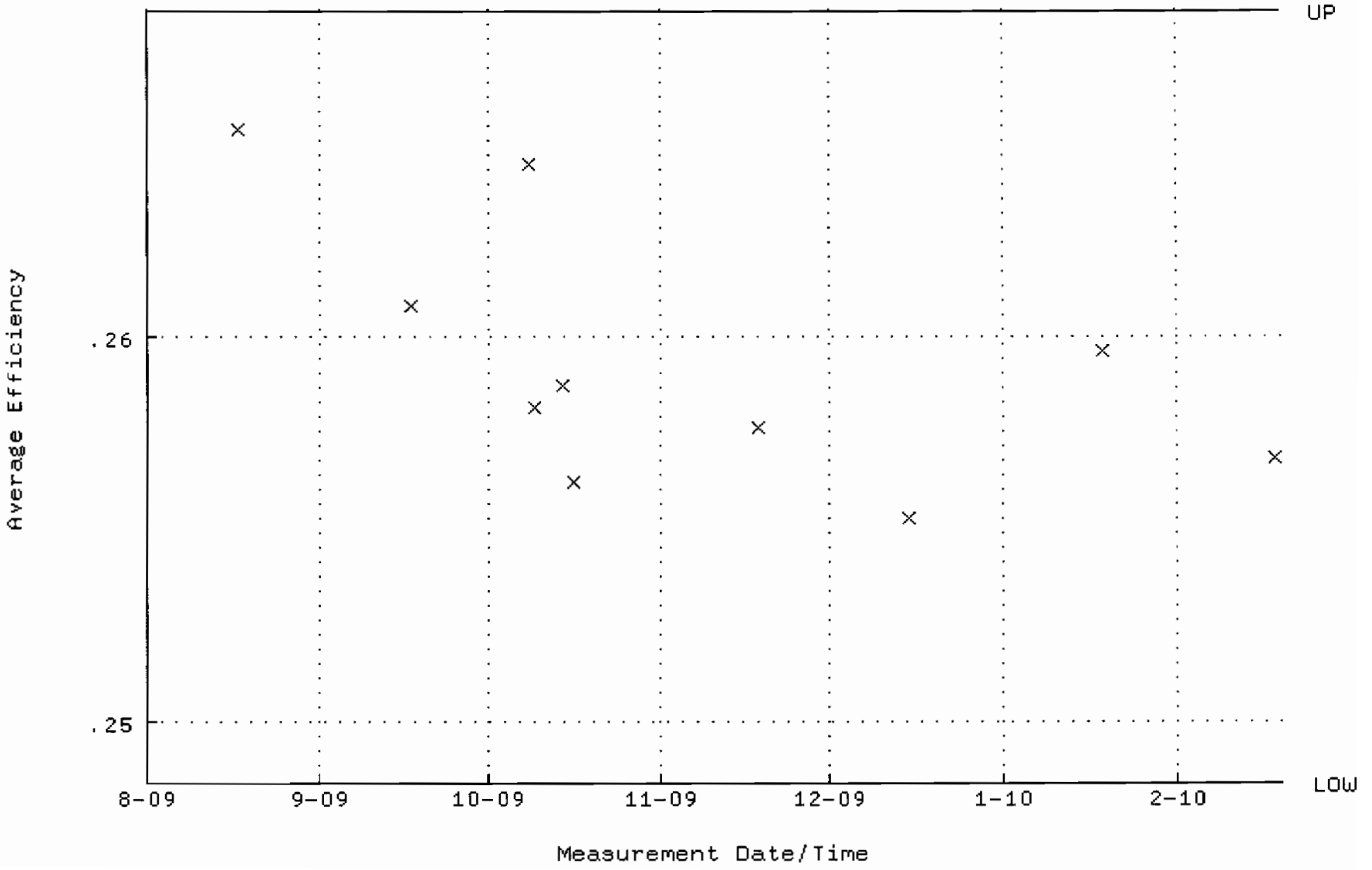

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5661 through 94.5731

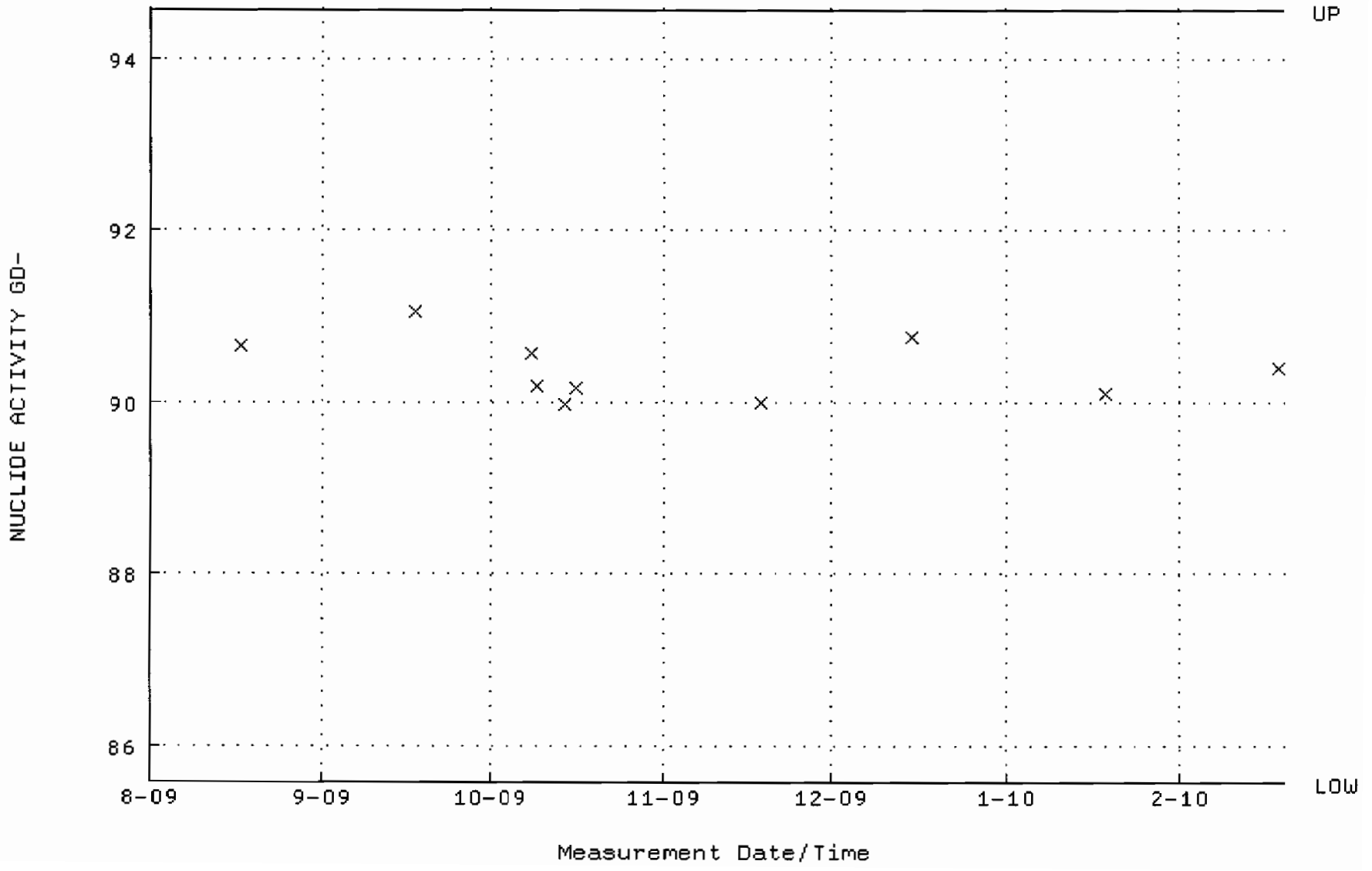

QA filename : DKA100:[ENV_ALPHA.QA.B]B115.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:05 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

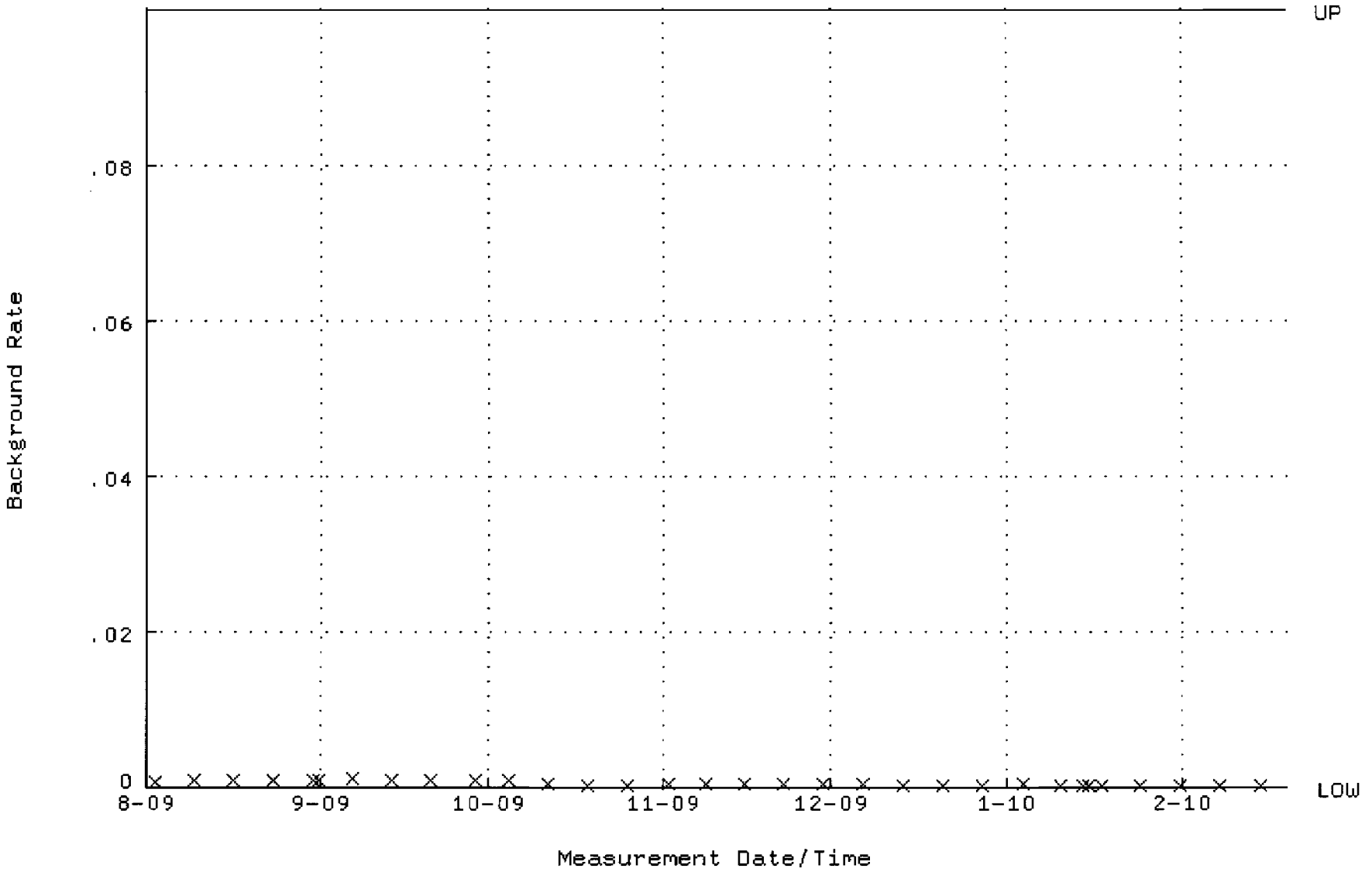

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:13 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242940 through 0.262940

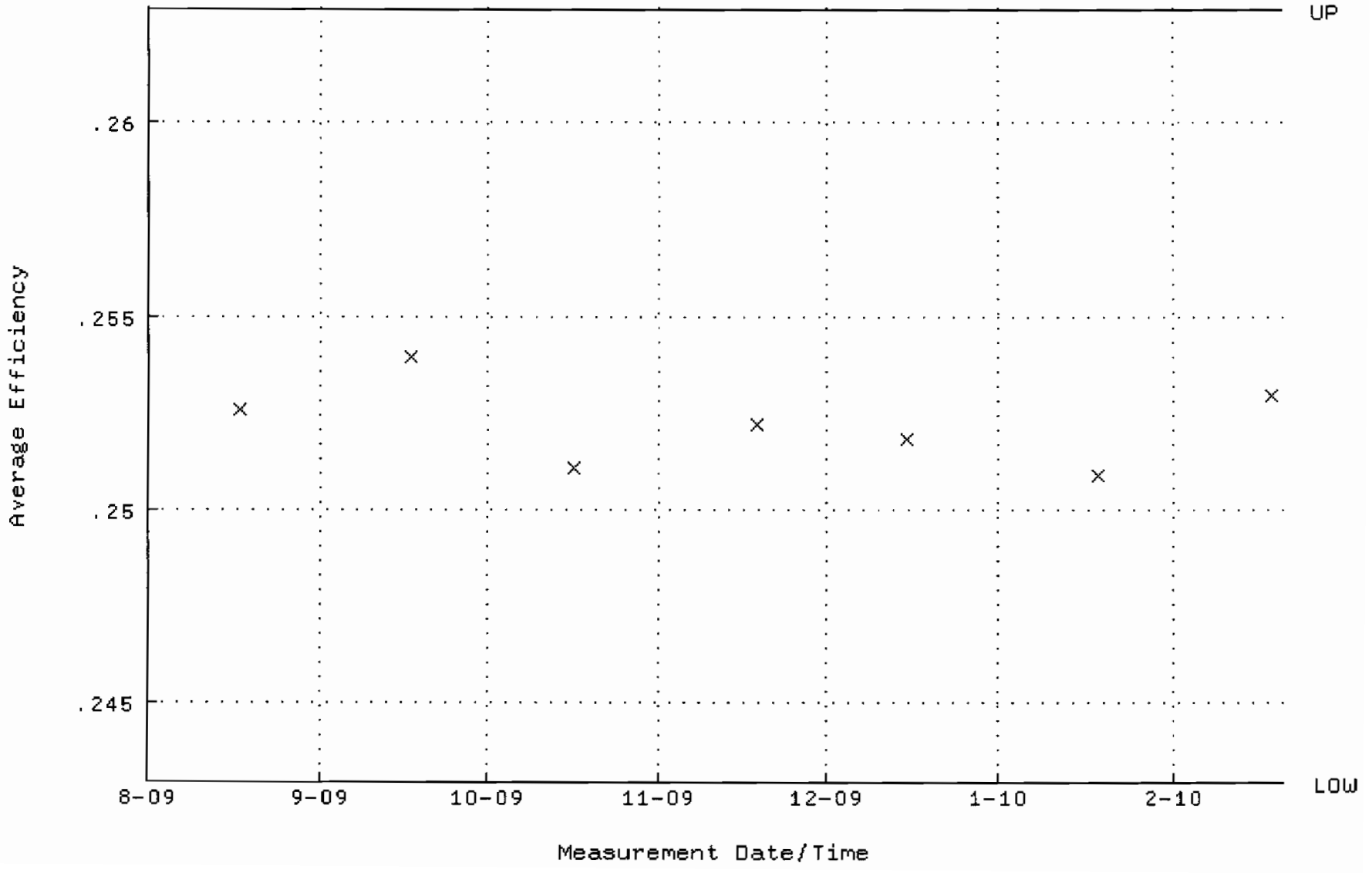

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:13 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8693 through 94.9081

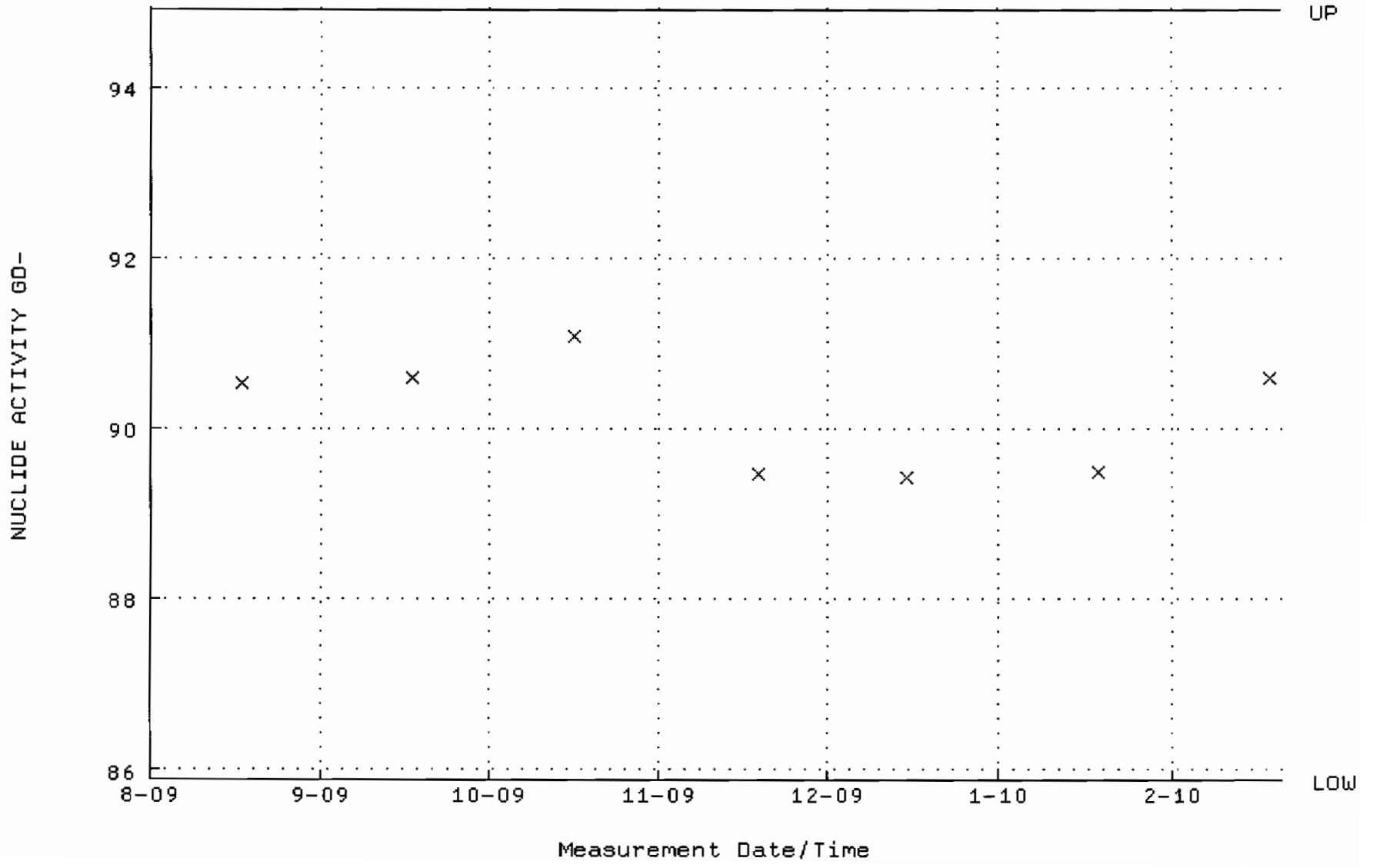

QA filename : DKA100:[ENV_ALPHA.QA.B]B117.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:15 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

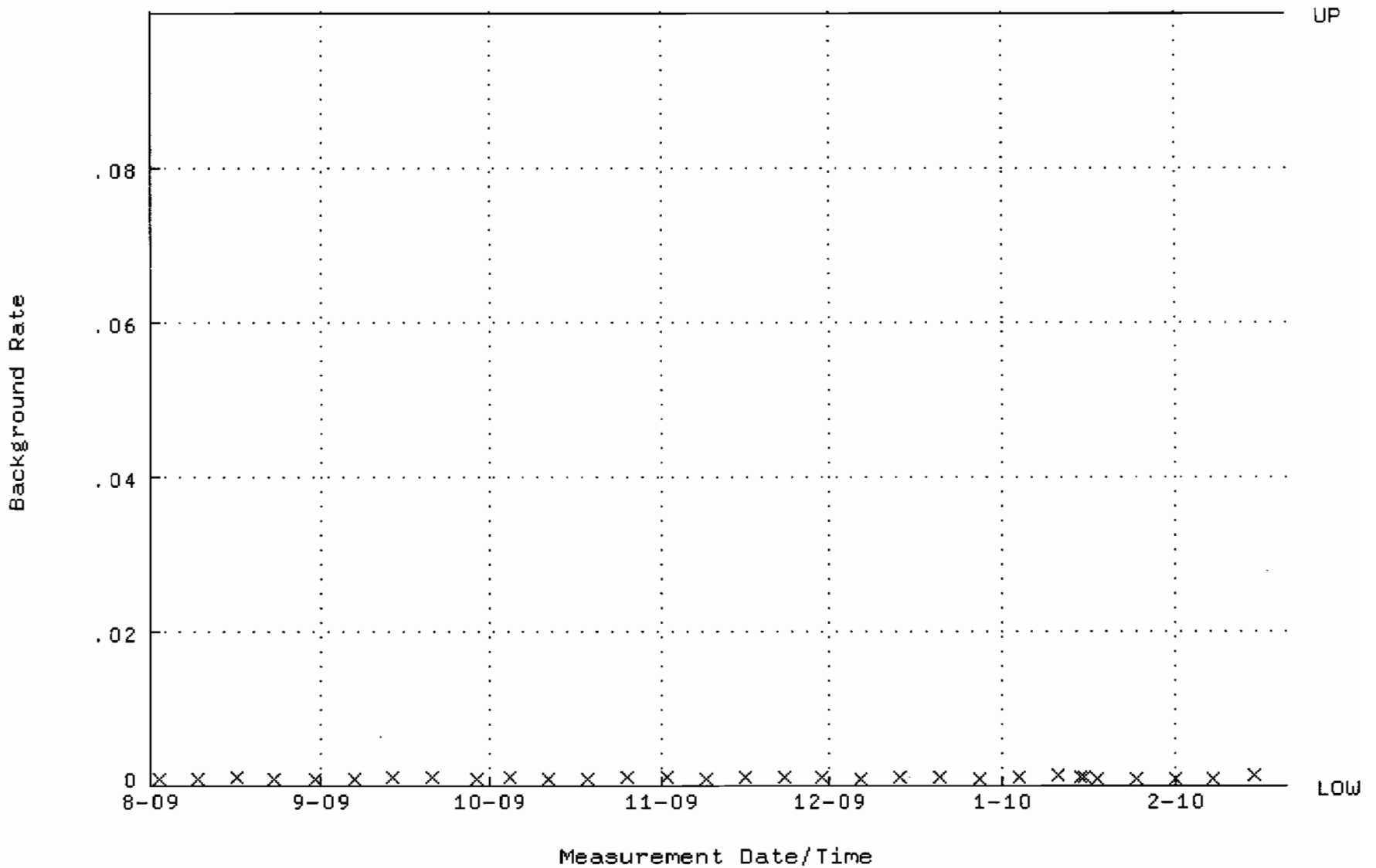

QA filename : DKA100:[ENV_ALPHA.QA.W]W118.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:17 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250490 through 0.270490

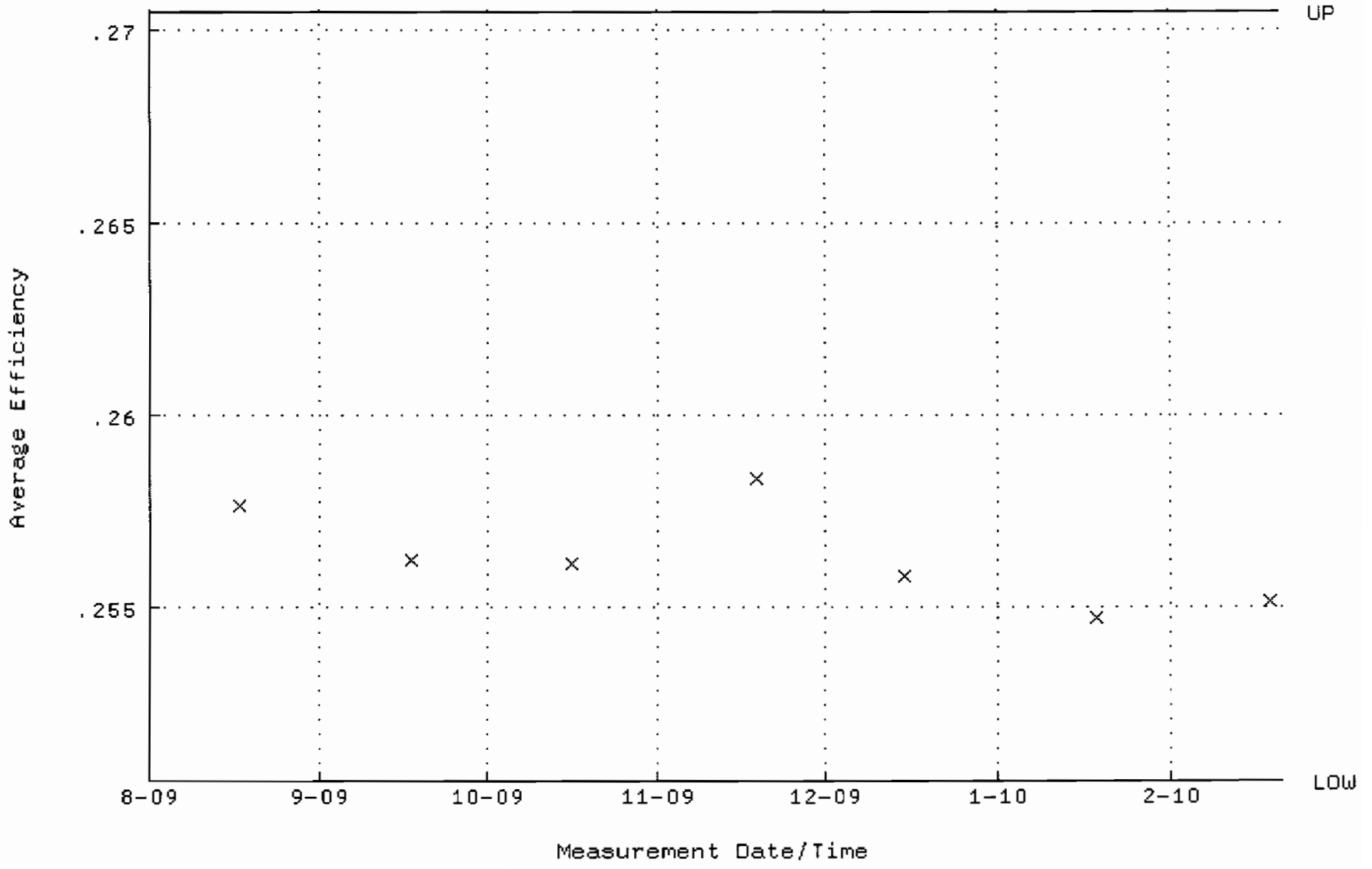

QA filename : DKA100:[ENV_ALPHA.QA.W]W118.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:17 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 87.2440 through 96.4276

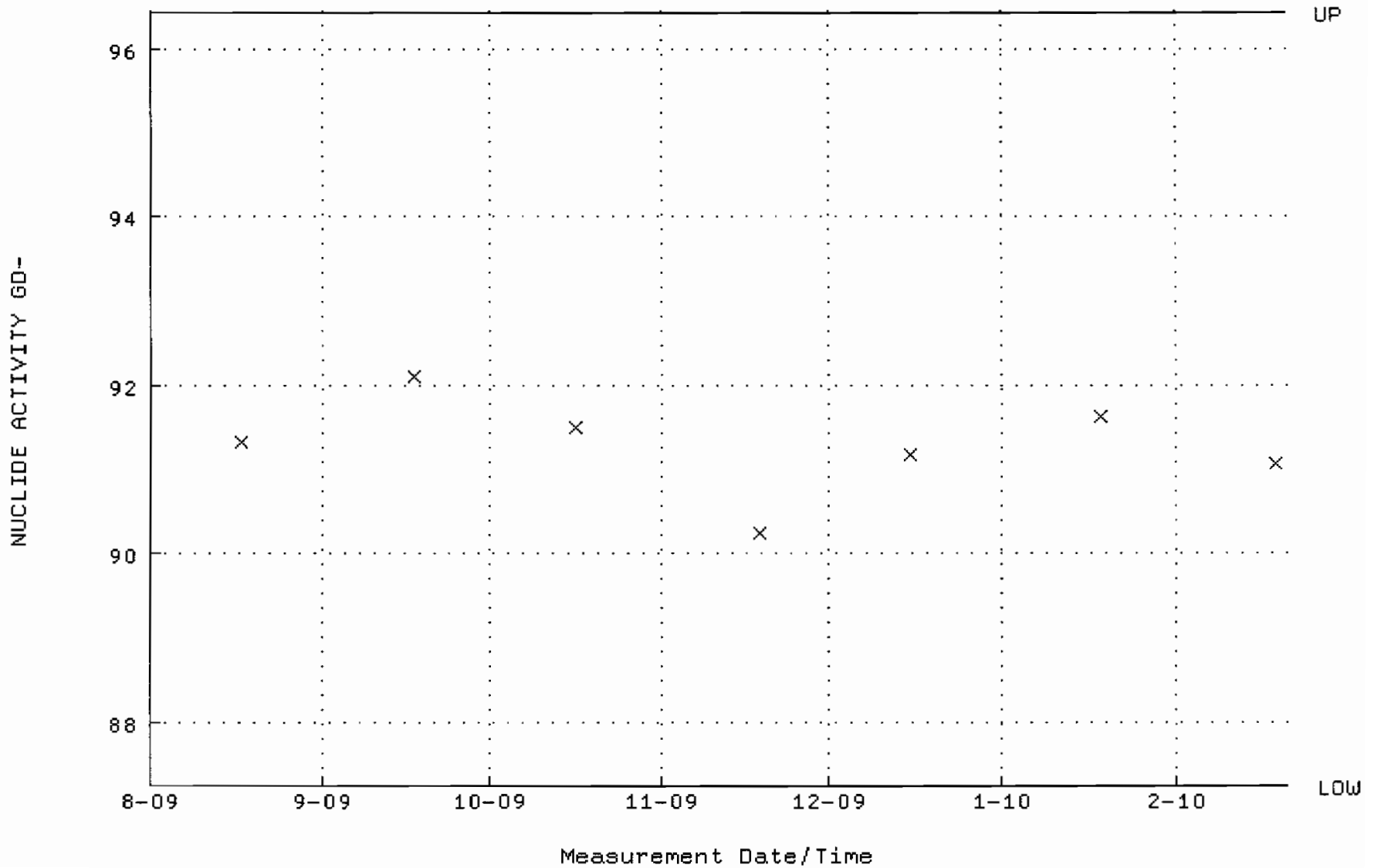

QA filename : DKA100:[ENV_ALPHA.QA.B]B118.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:20 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

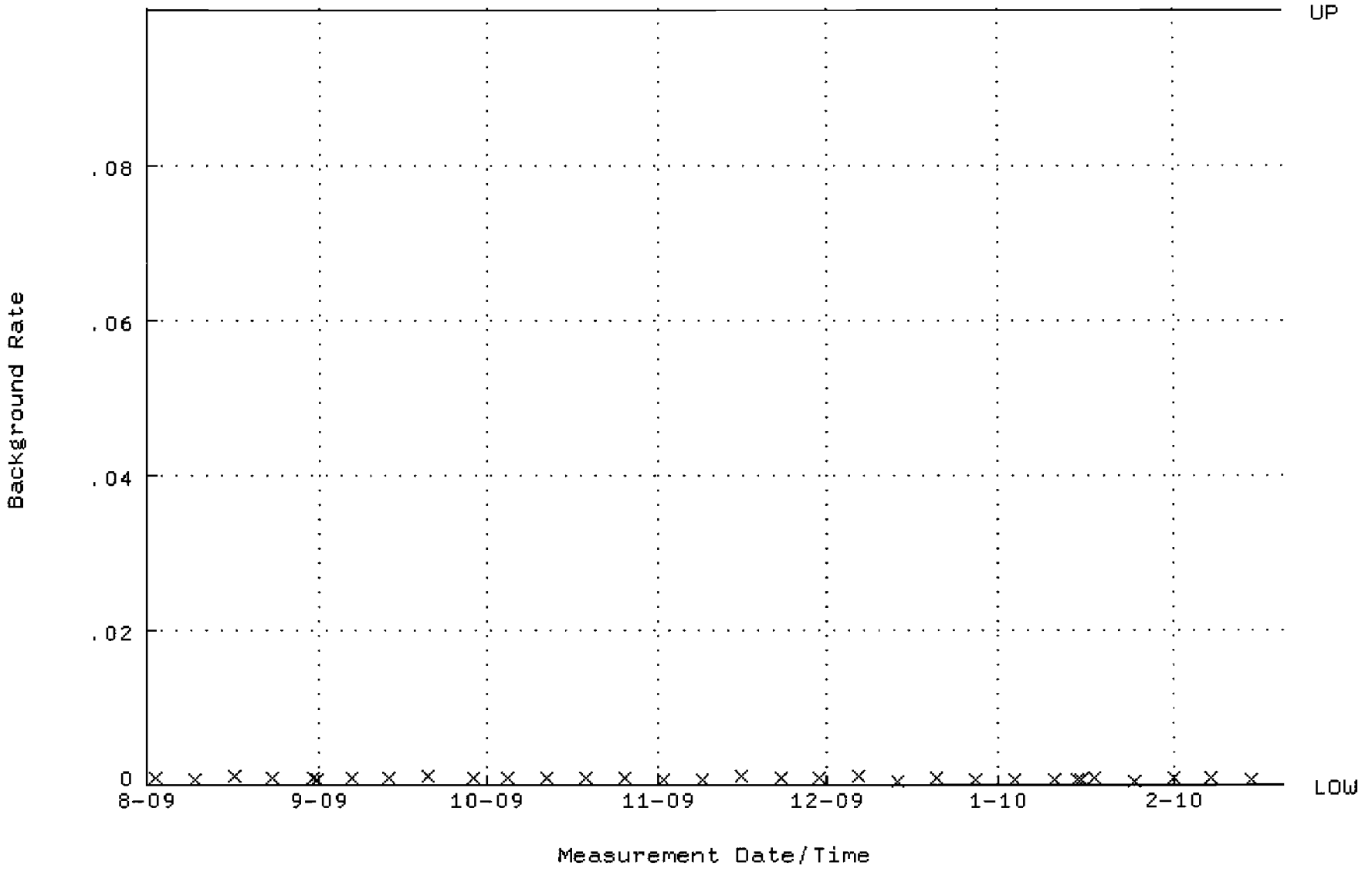

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 06:21:52 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.252093 through 0.260243

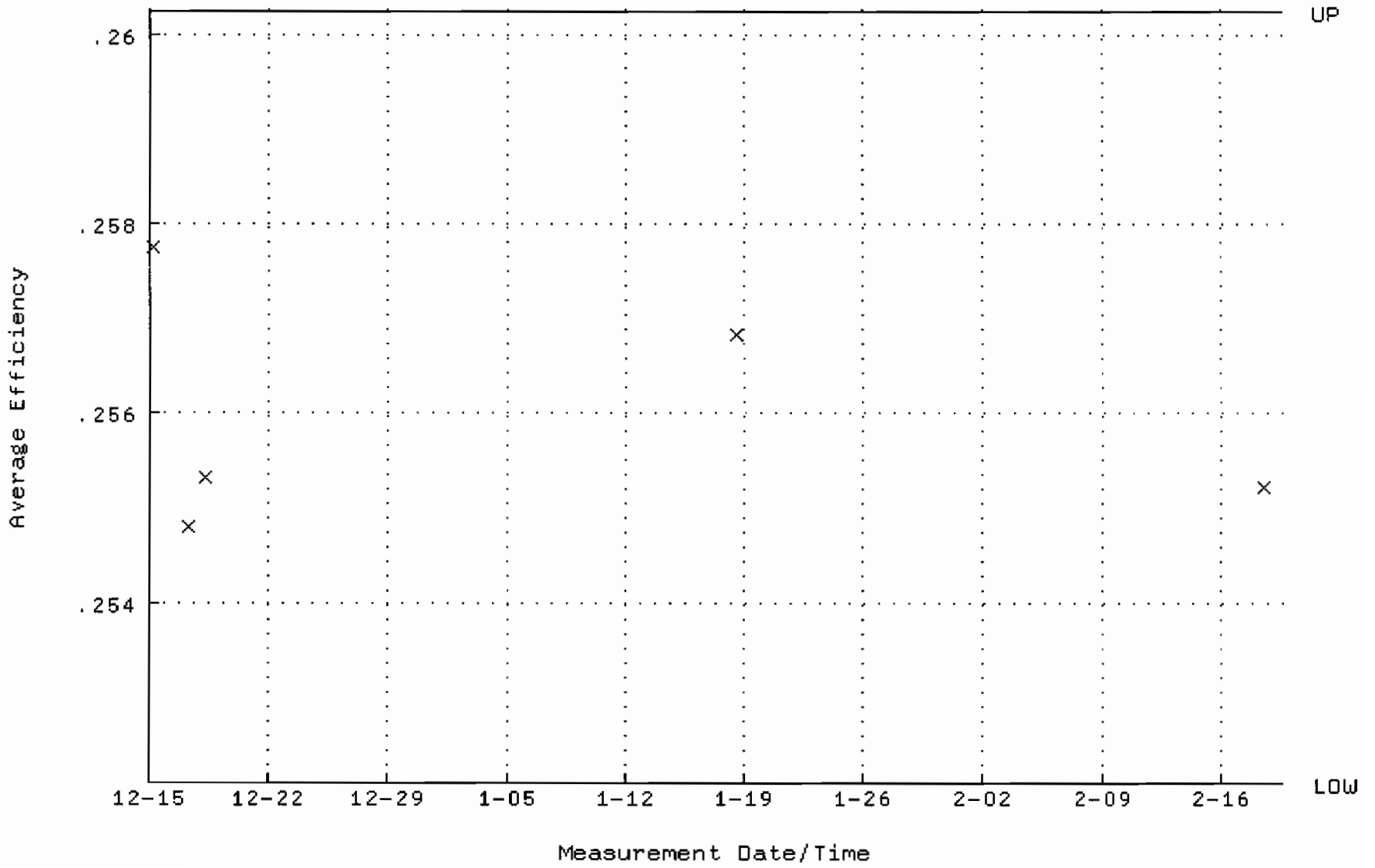

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 06:21:52 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4107 through 94.2781

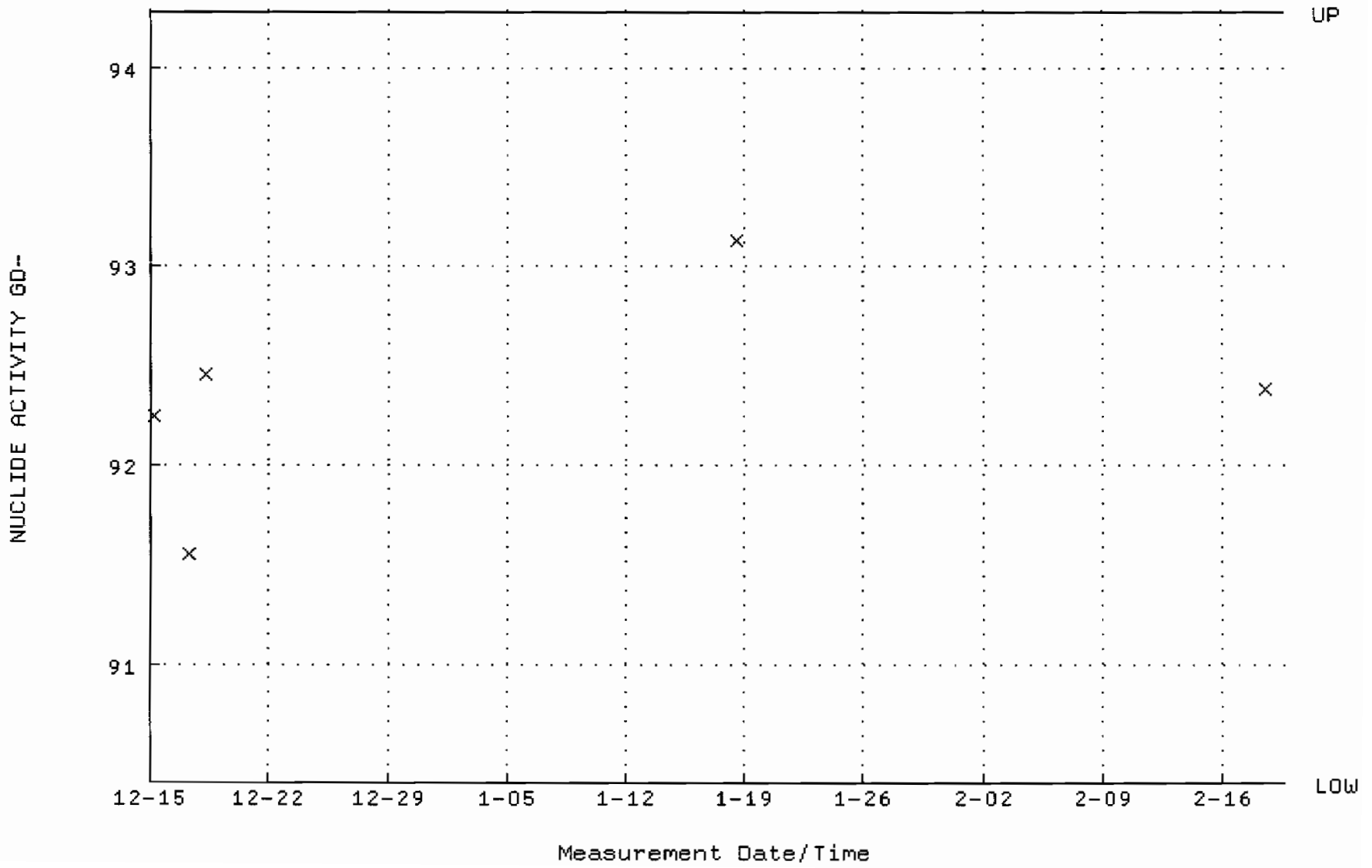

QA filename : DKA100:[ENV_ALPHA.QA.B]B119.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 3-AUG-2009 15:38:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

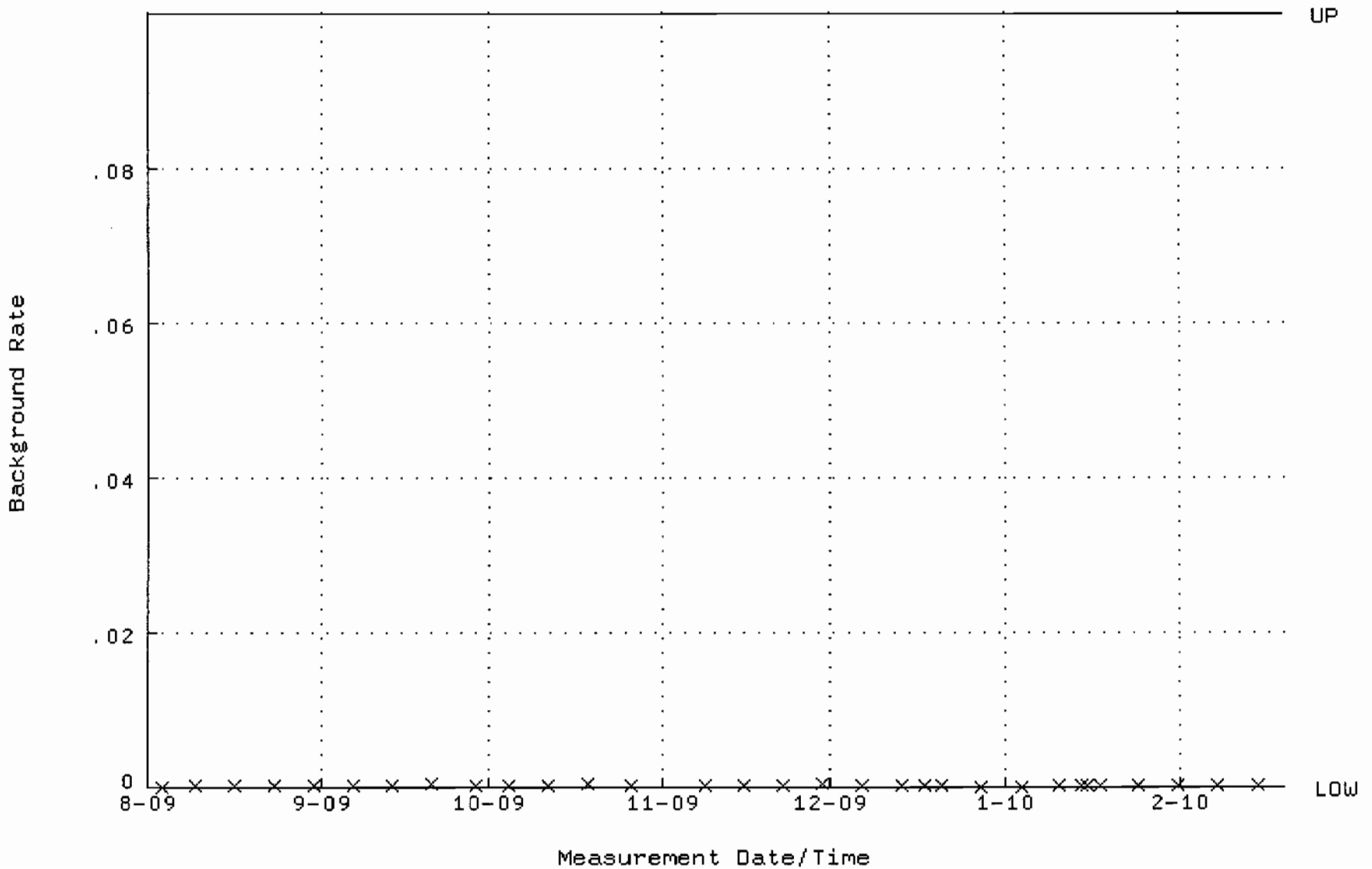

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.232847 through 0.282381

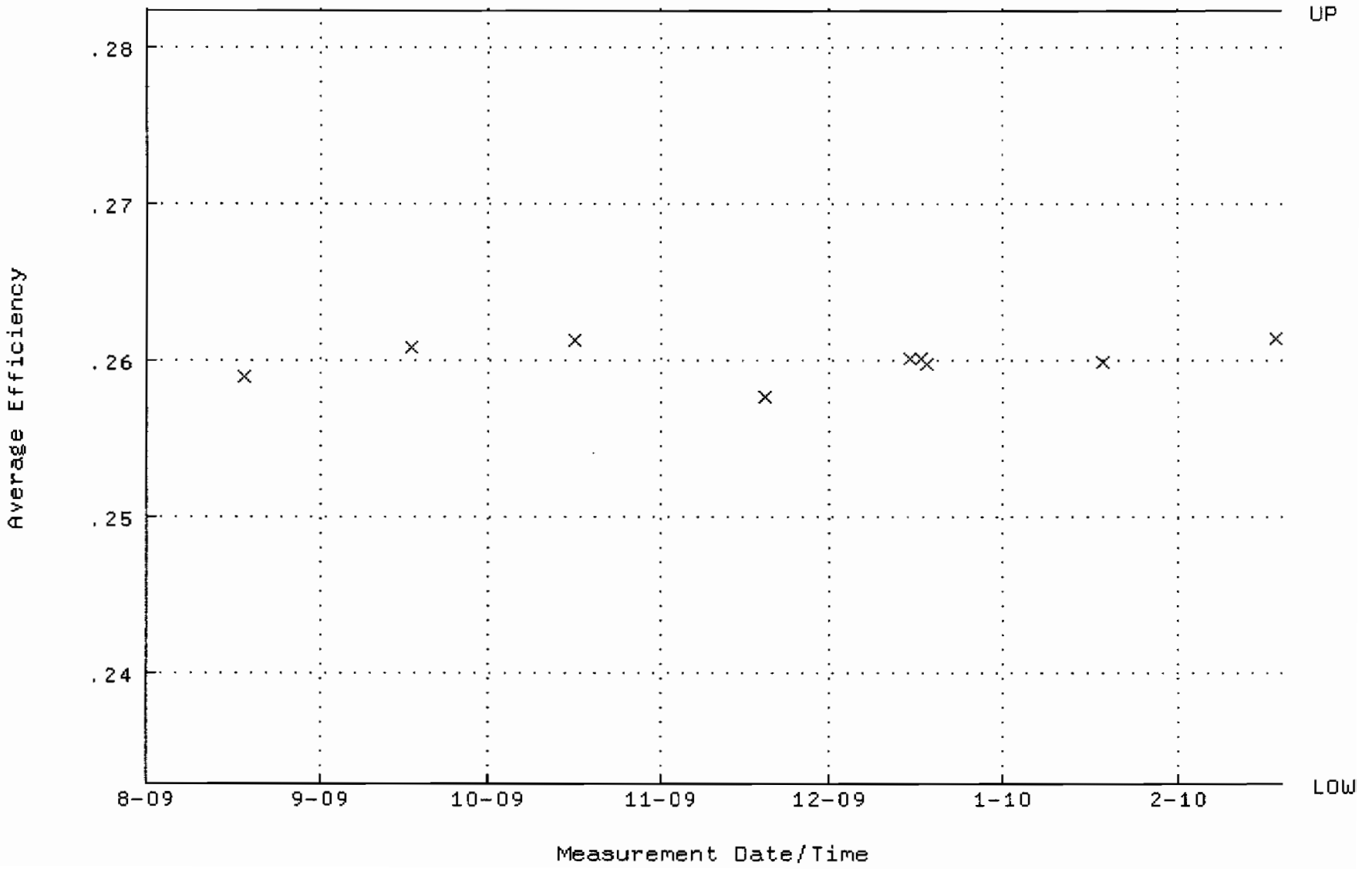

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.3881 through 91.8481

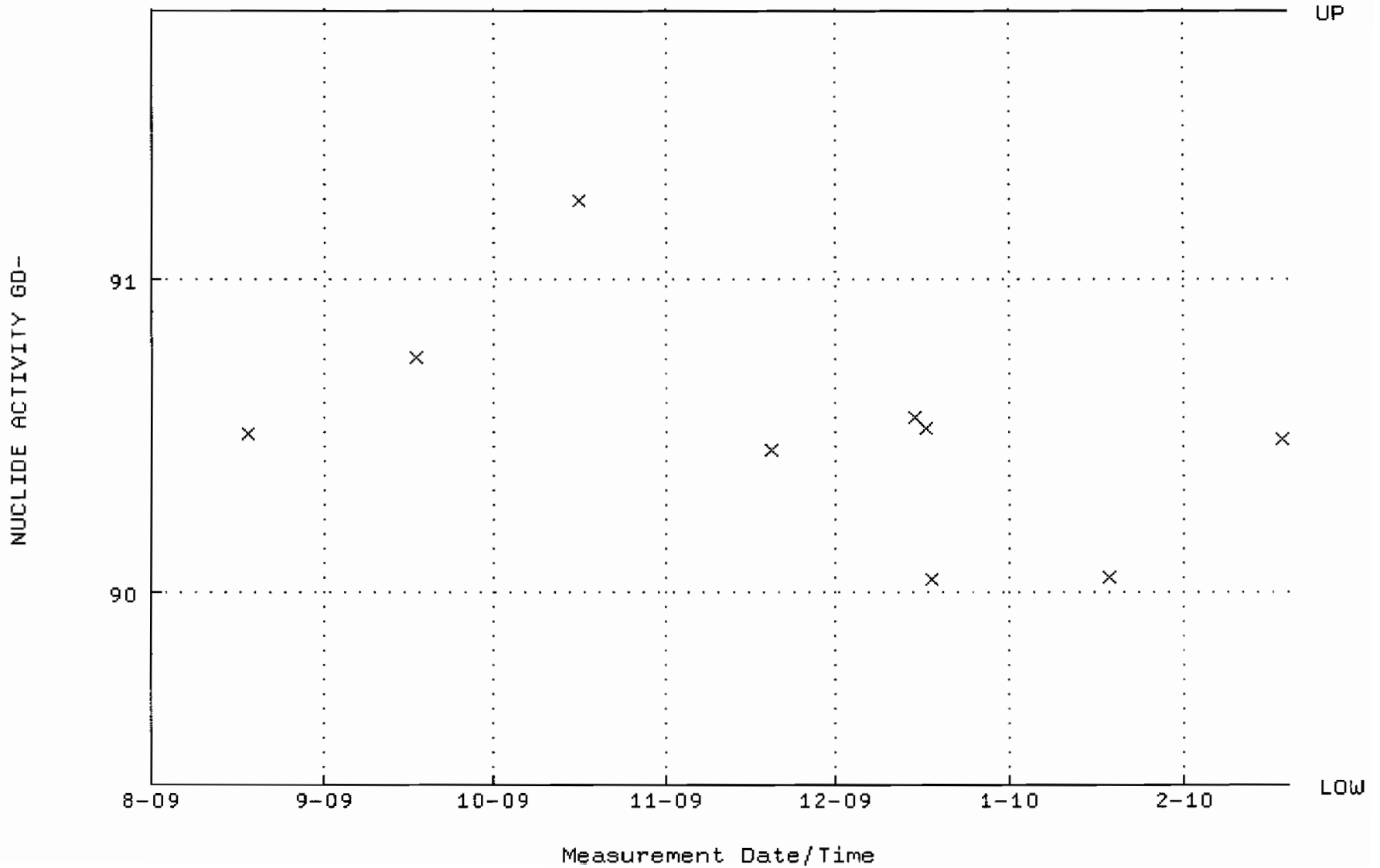

QA filename : DKA100:[ENV_ALPHA.QA.B]B120.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 3-AUG-2009 15:38:20 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

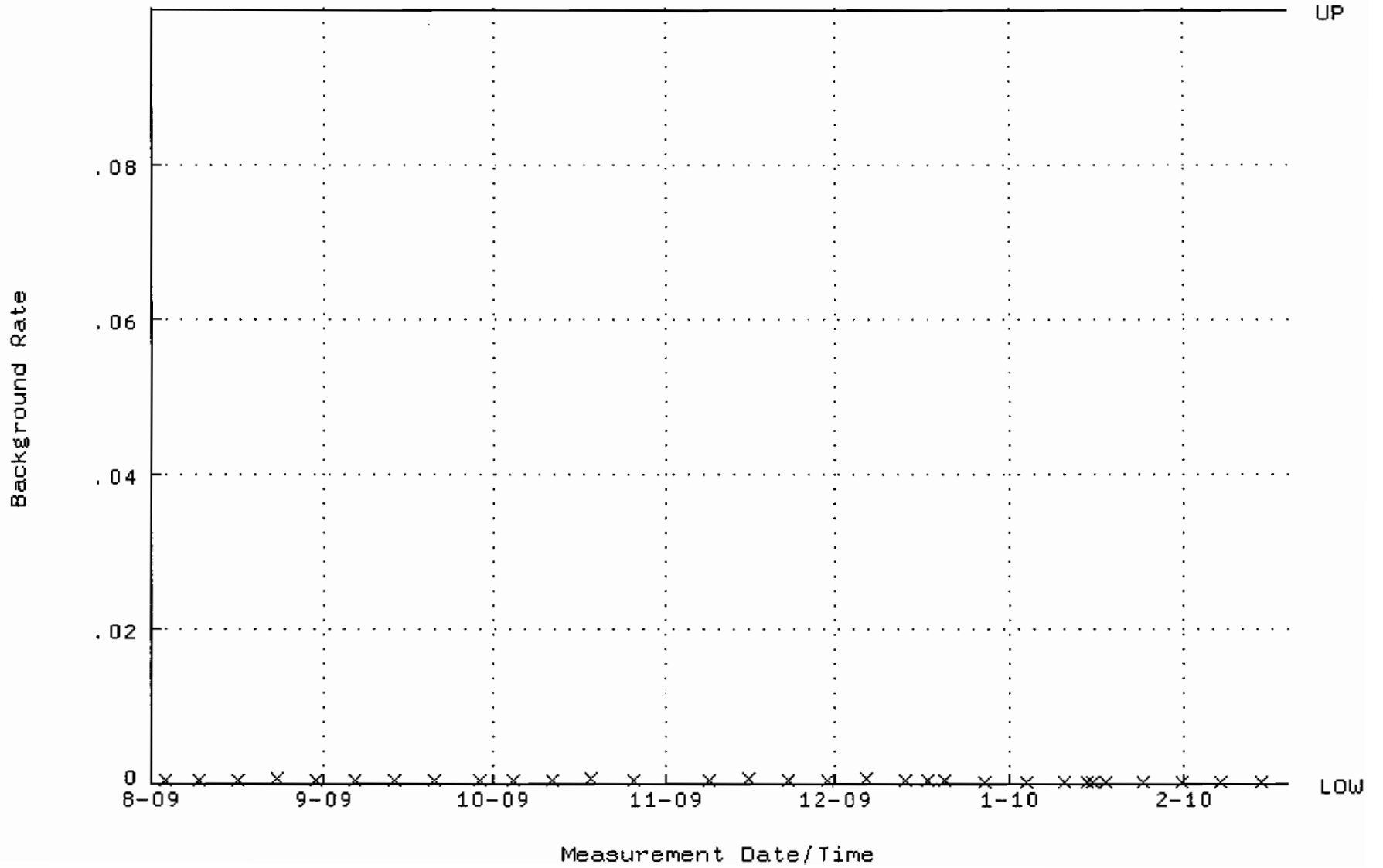

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686

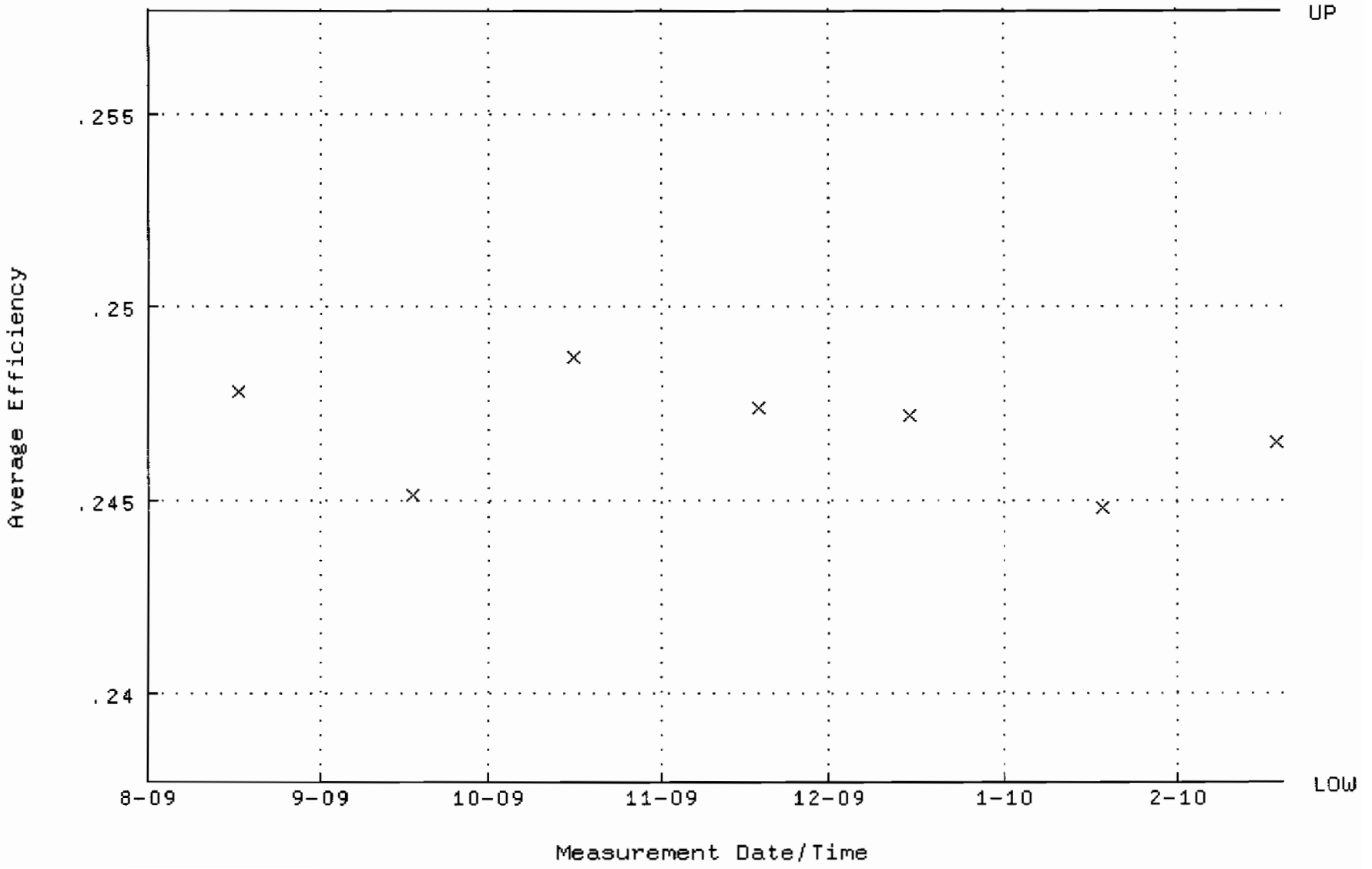

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395

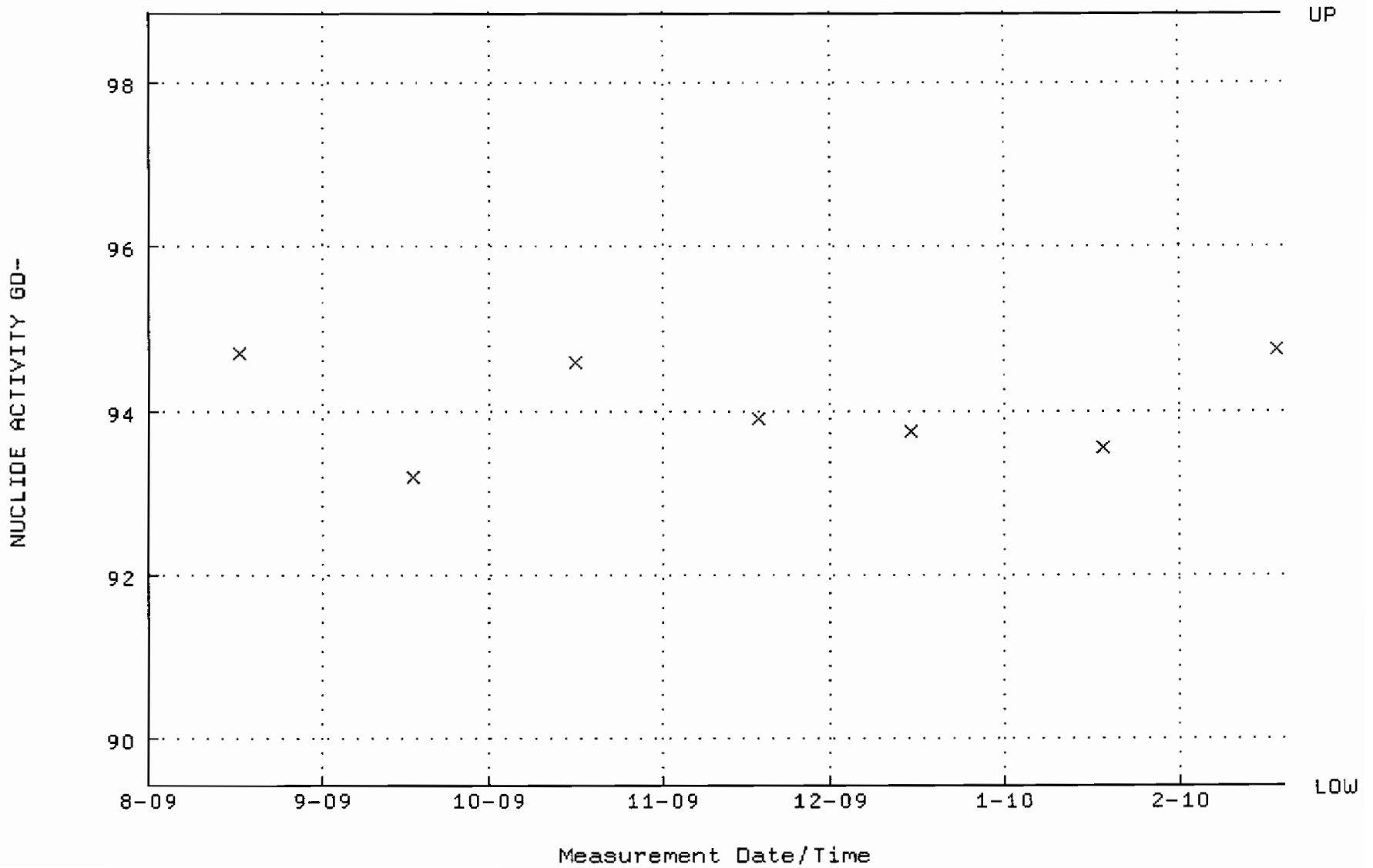

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:33 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

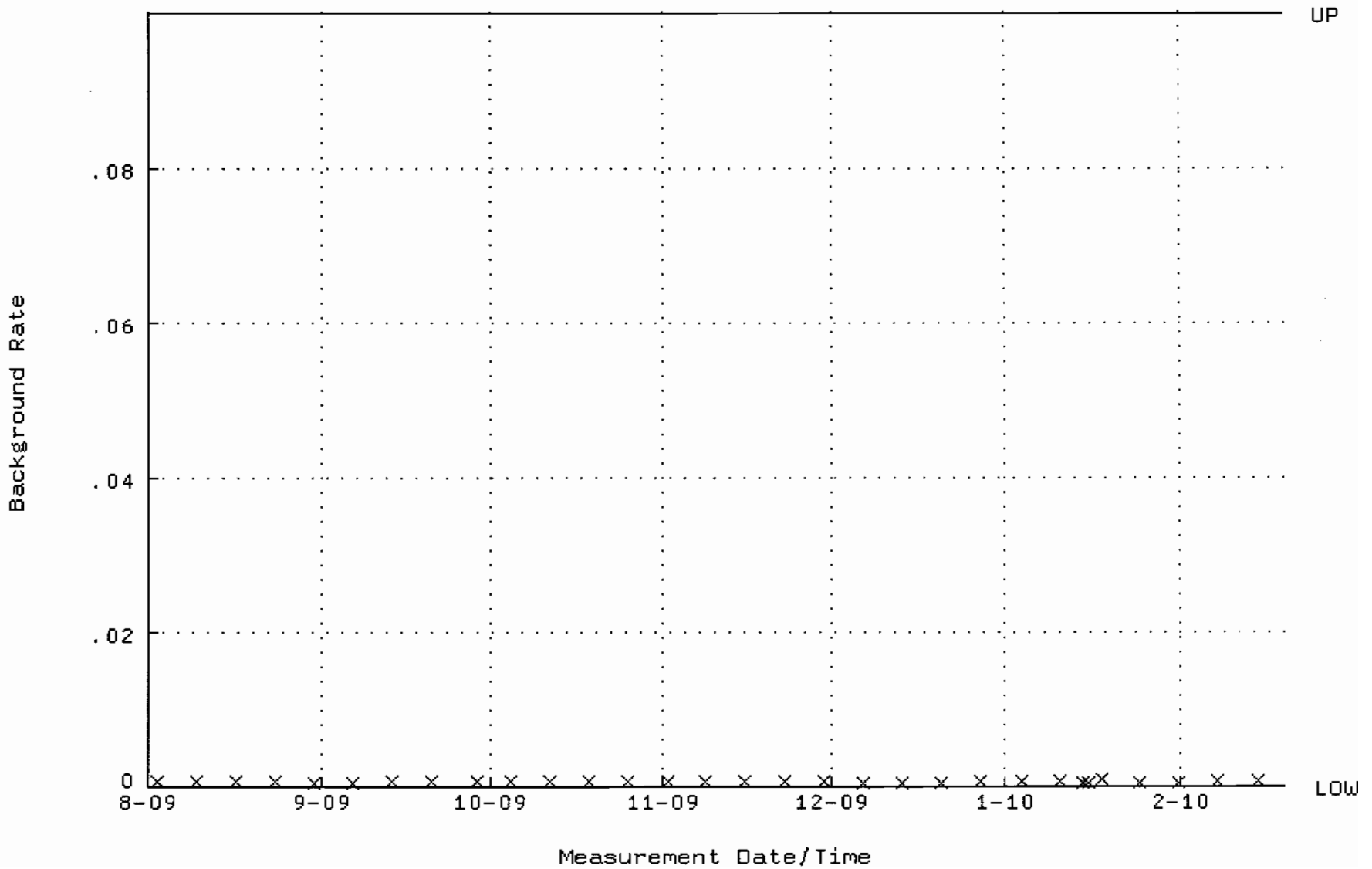

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242659 through 0.262659

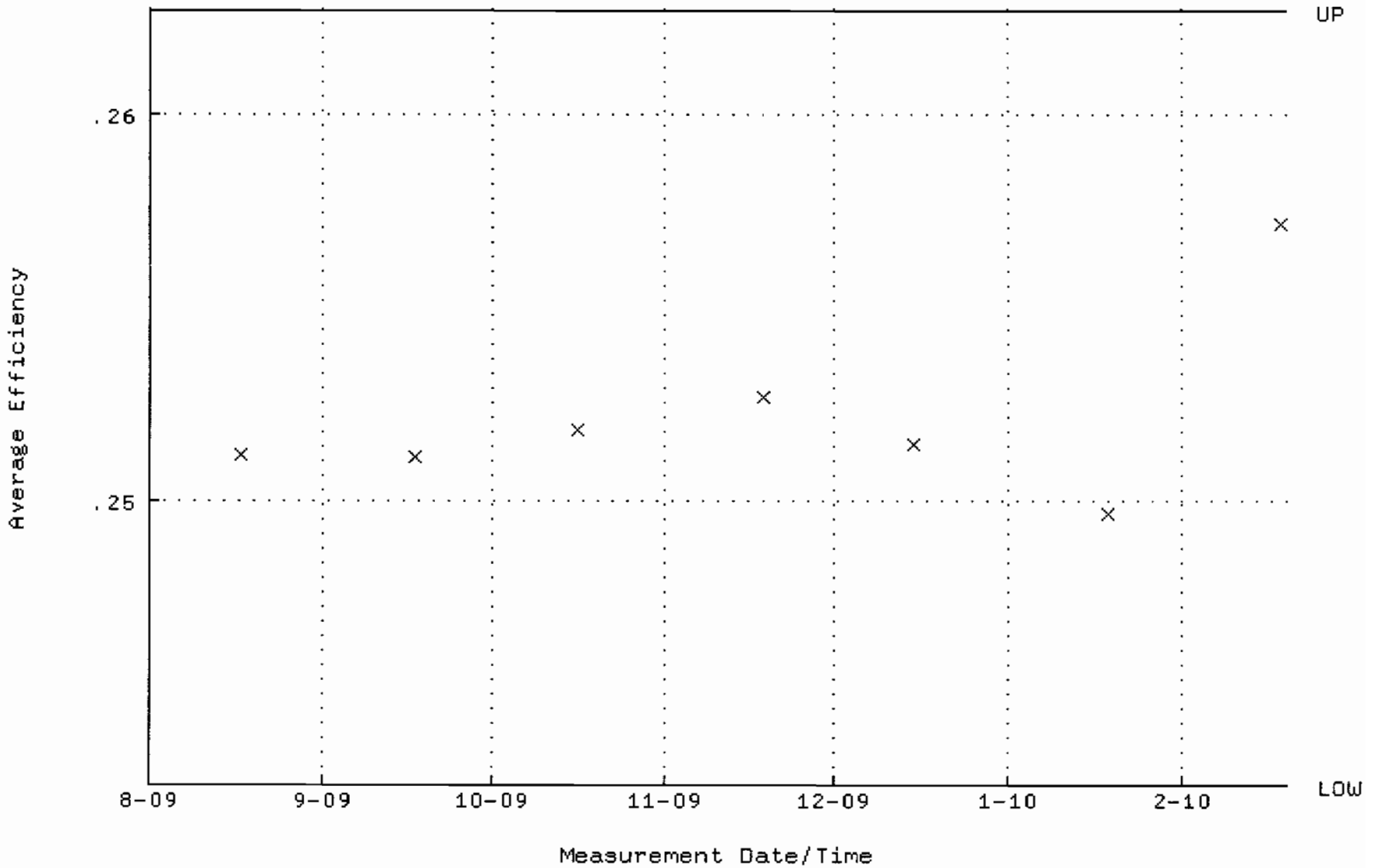

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.5949 through 100.131

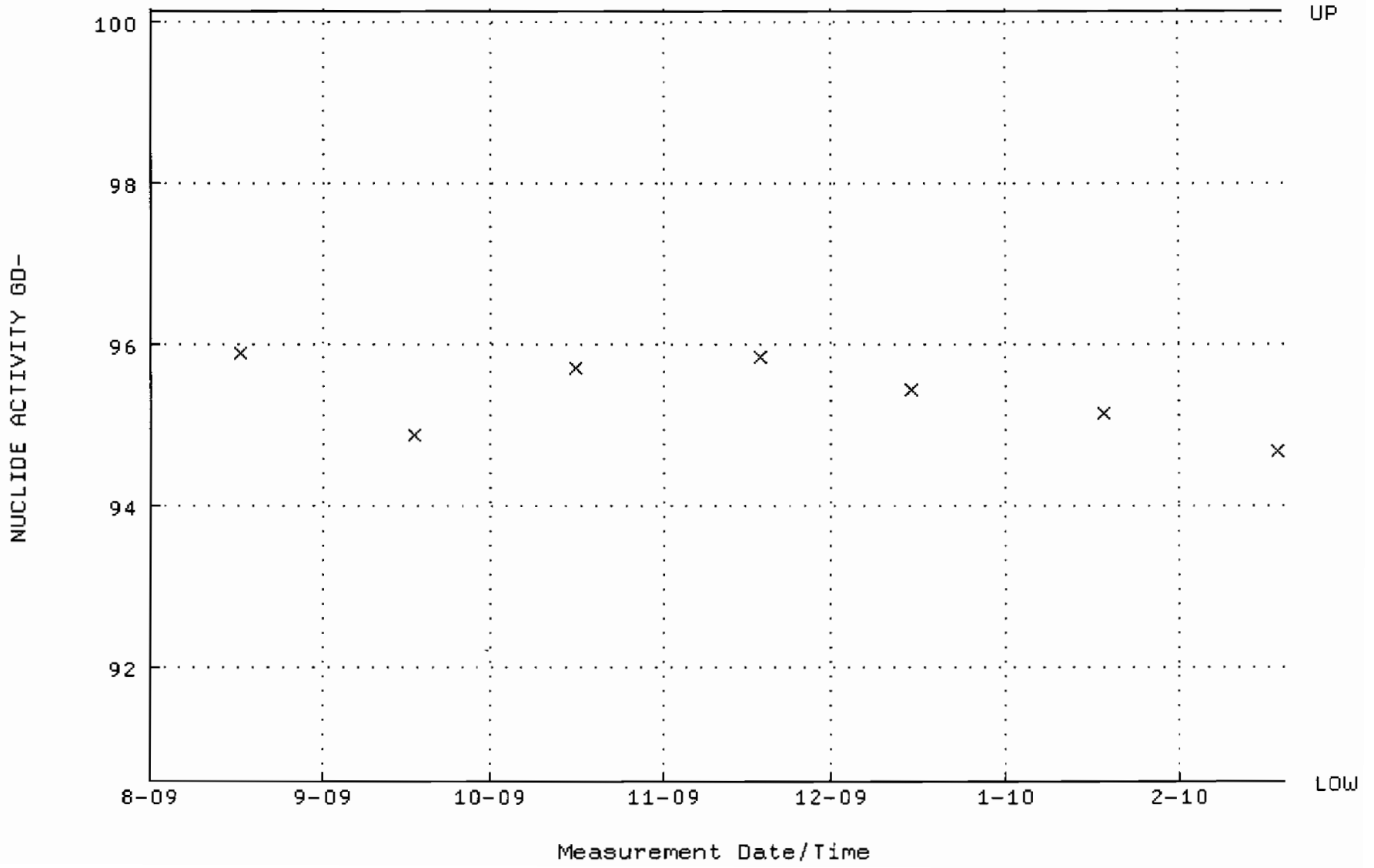

QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:37 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

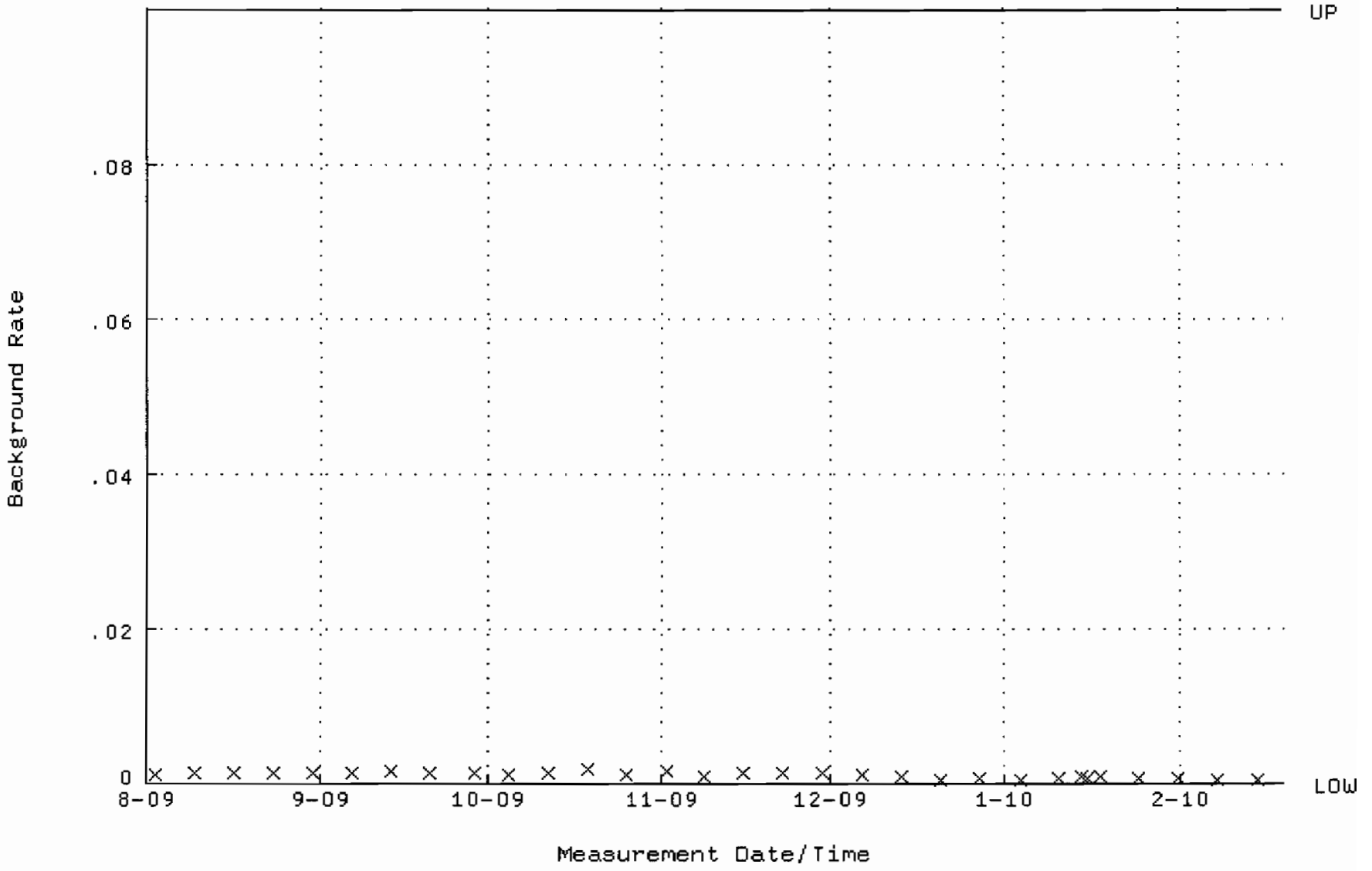

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.249752 through 0.269752

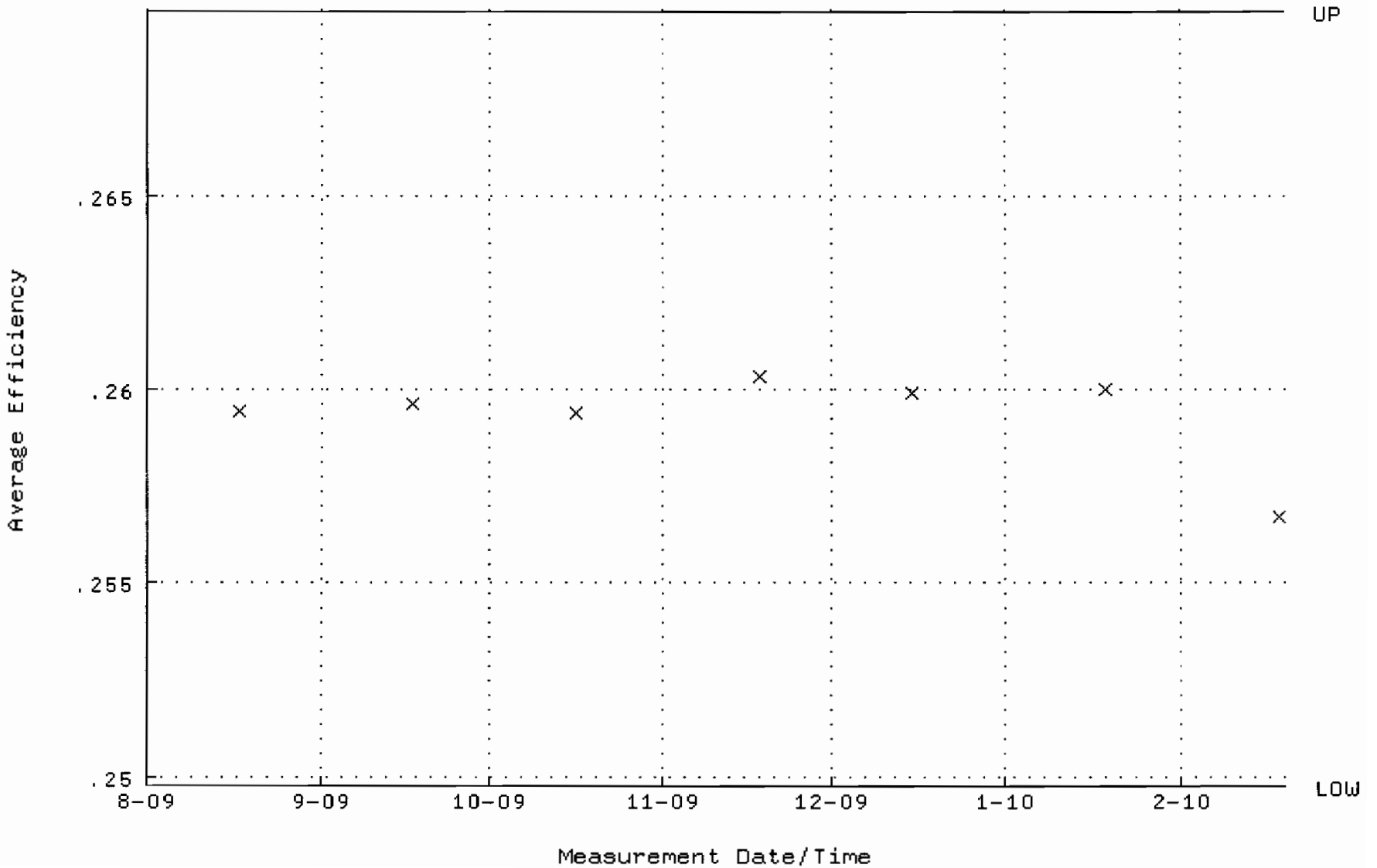

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0496 through 95.1074

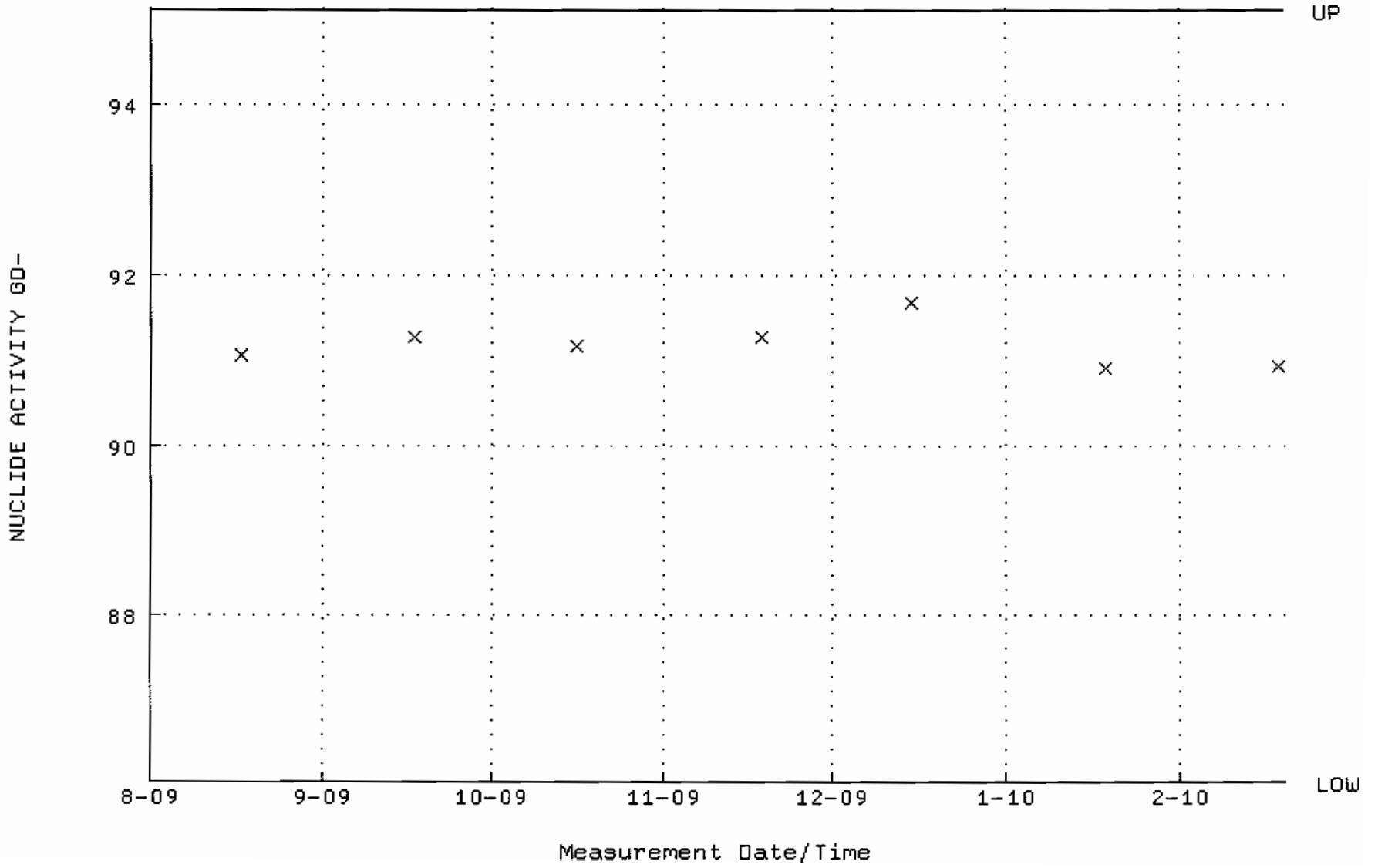

QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:42 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

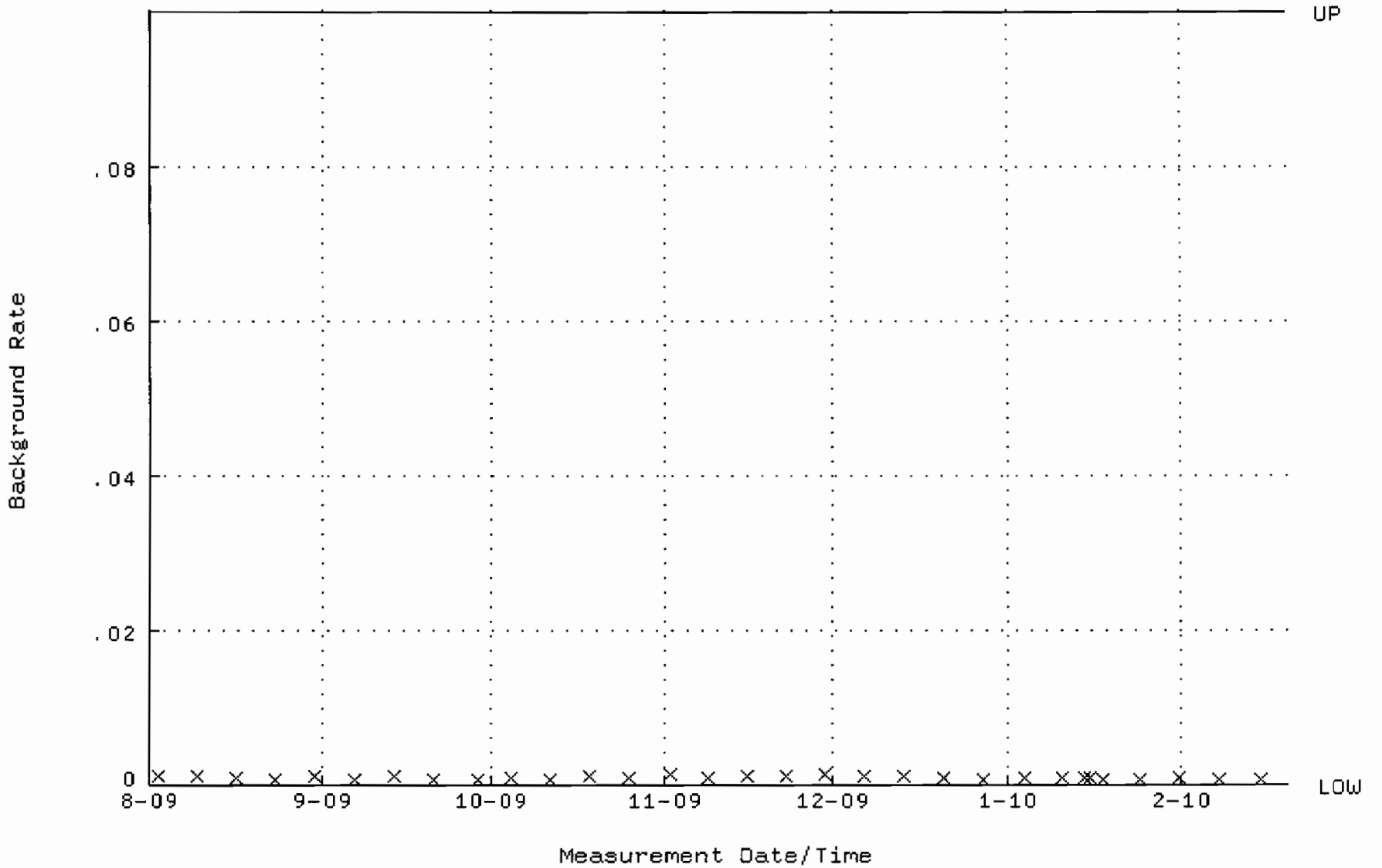

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:01:06 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.233879 through 0.253879

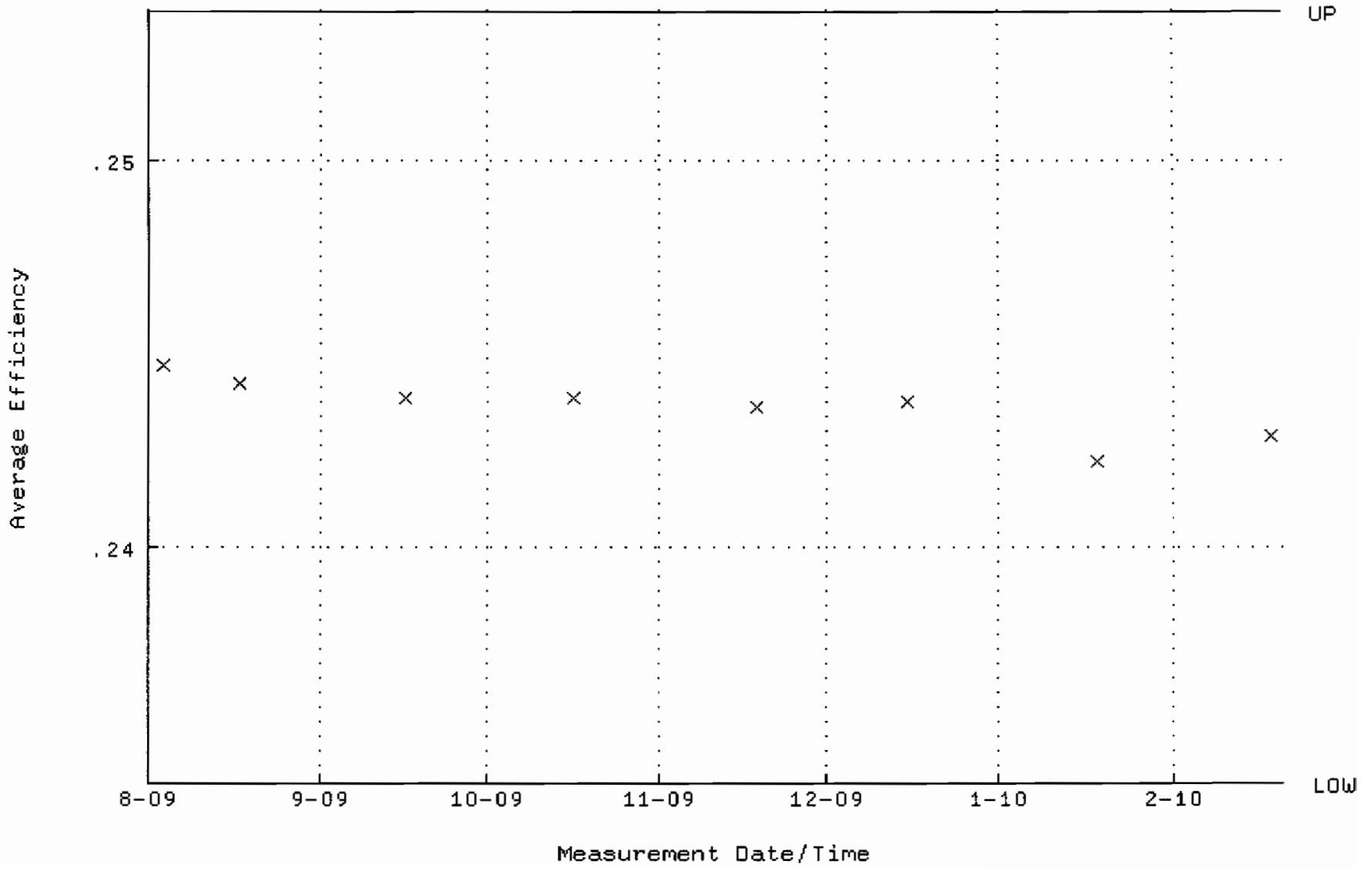

QA filename : DKA100:[ENV_ALPHA.QA.W]W143.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:01:06 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9200 through 93.8590

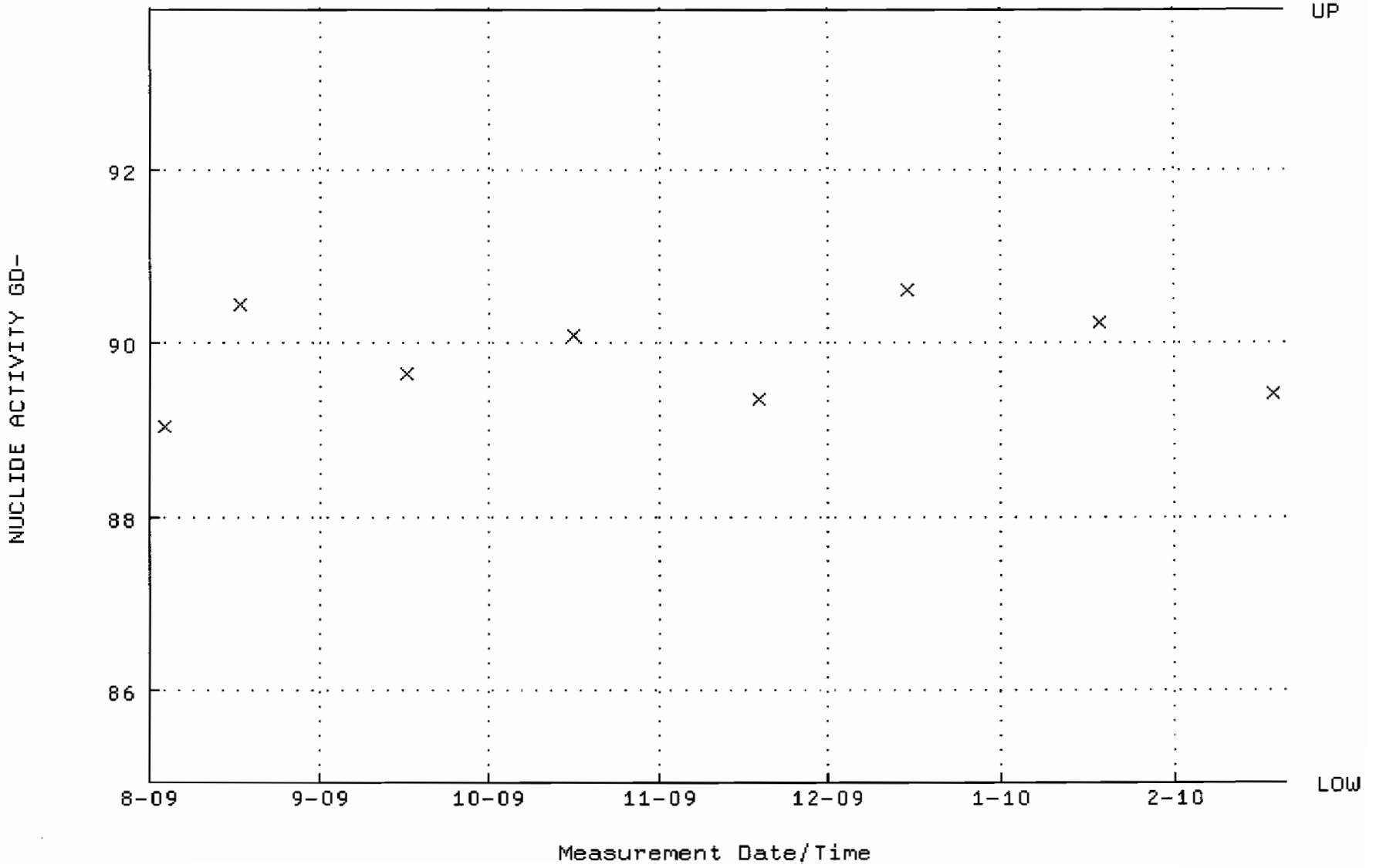

QA filename : DKA100:[ENV_ALPHA.QA.B]B143.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:08 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

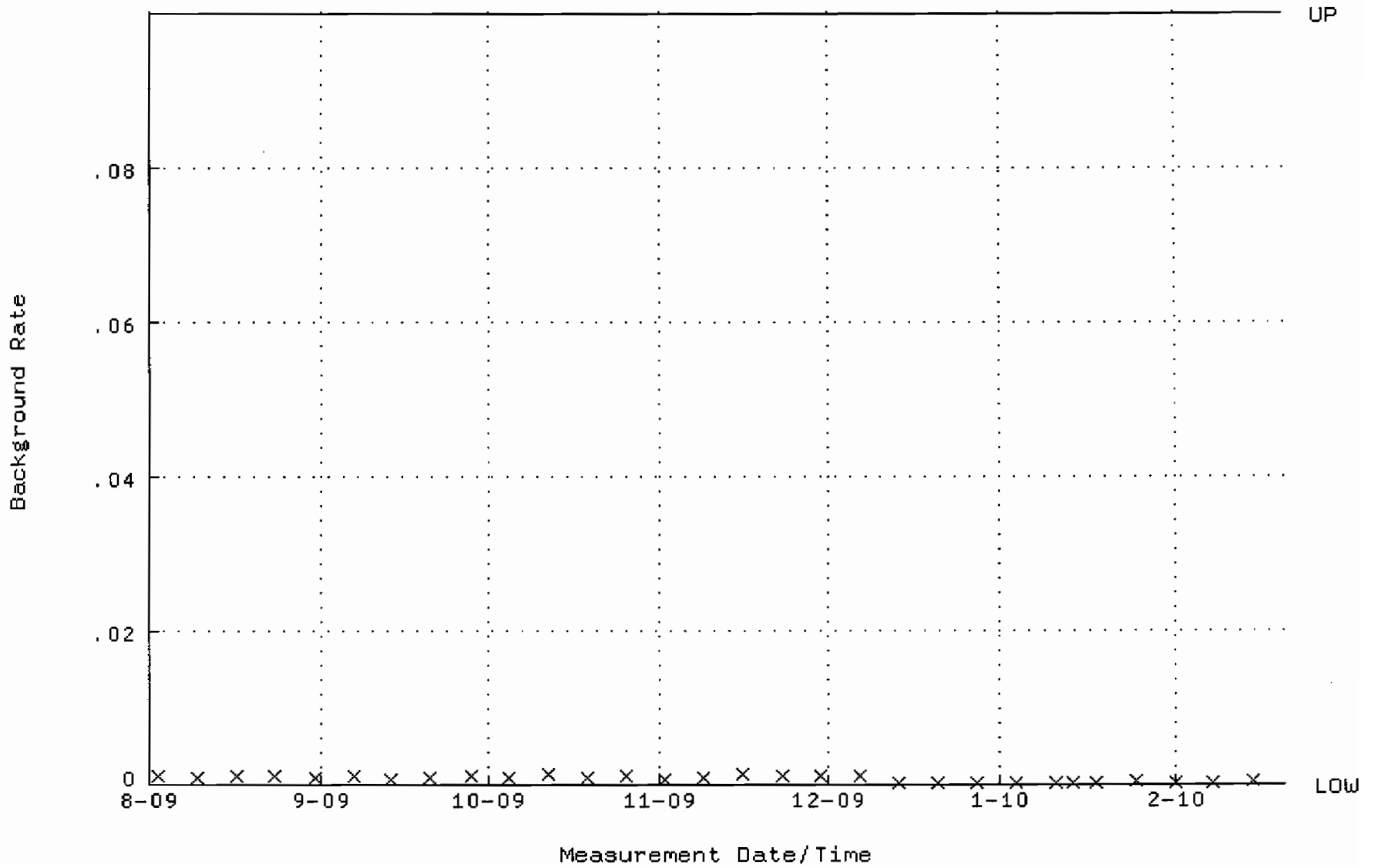

QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:13 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.357528 through 0.377840

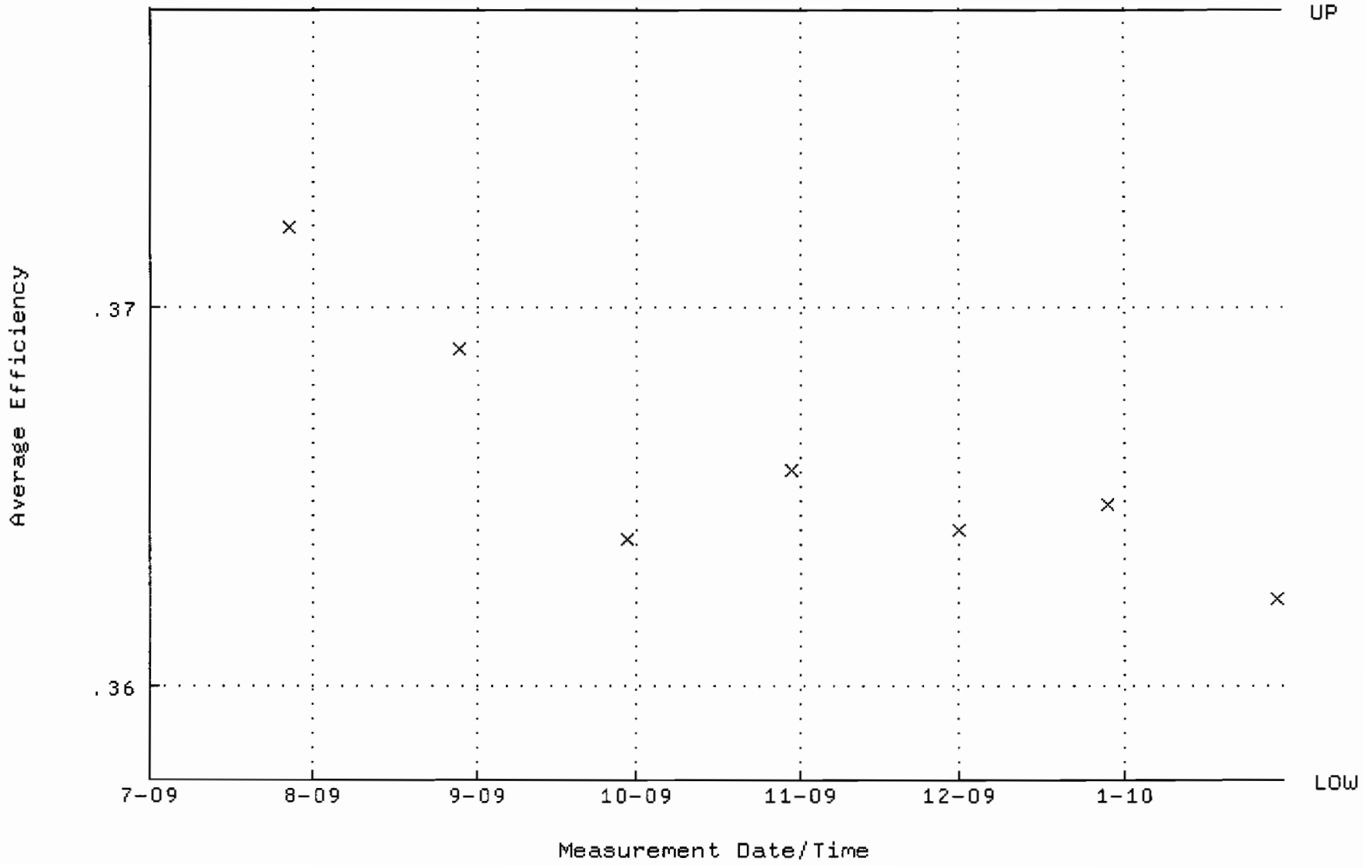

QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:13 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.3423 through 92.0753

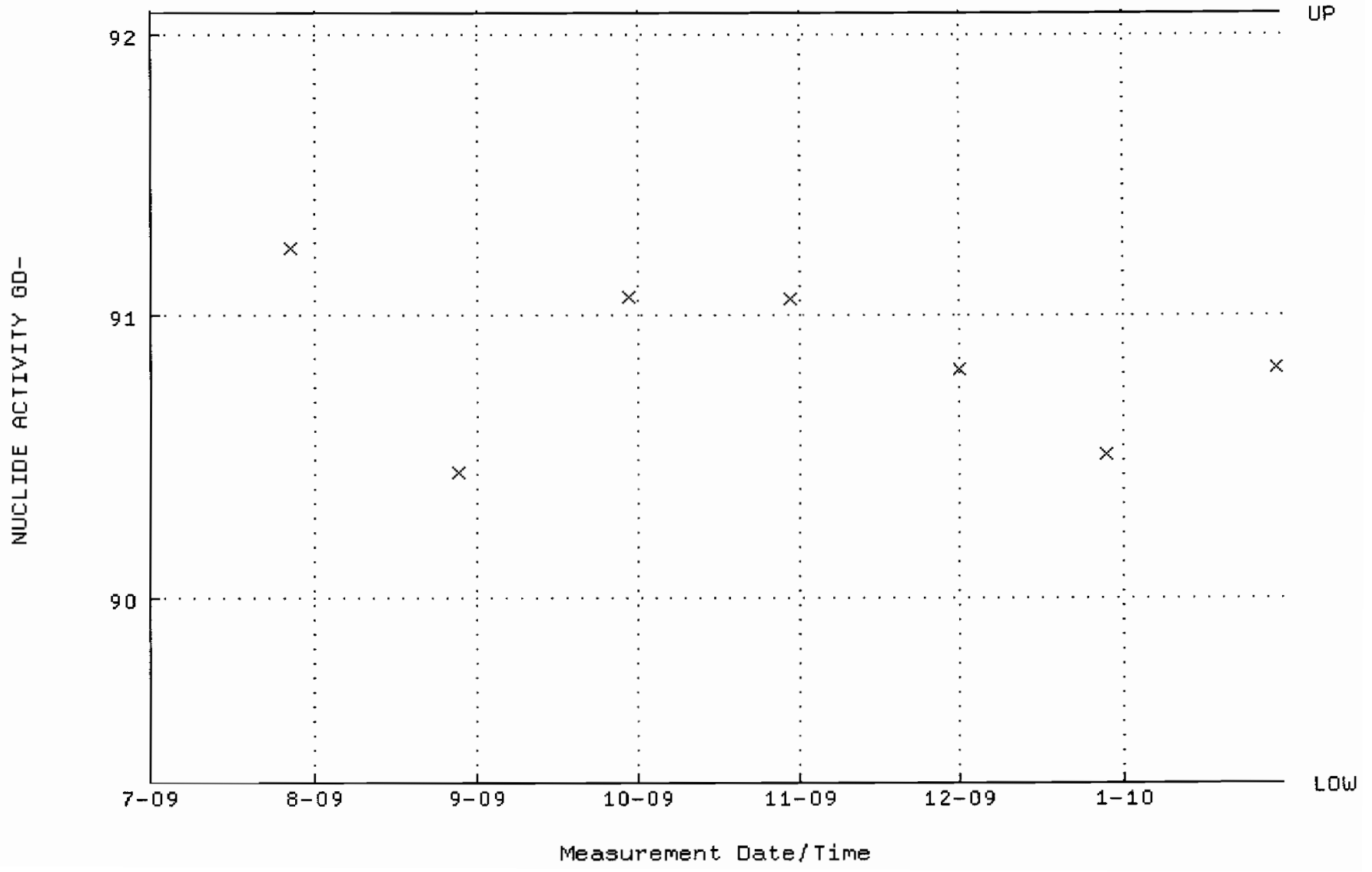

QA filename : DKA100:[ENV_ALPHA.QA.B]B209.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:19 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

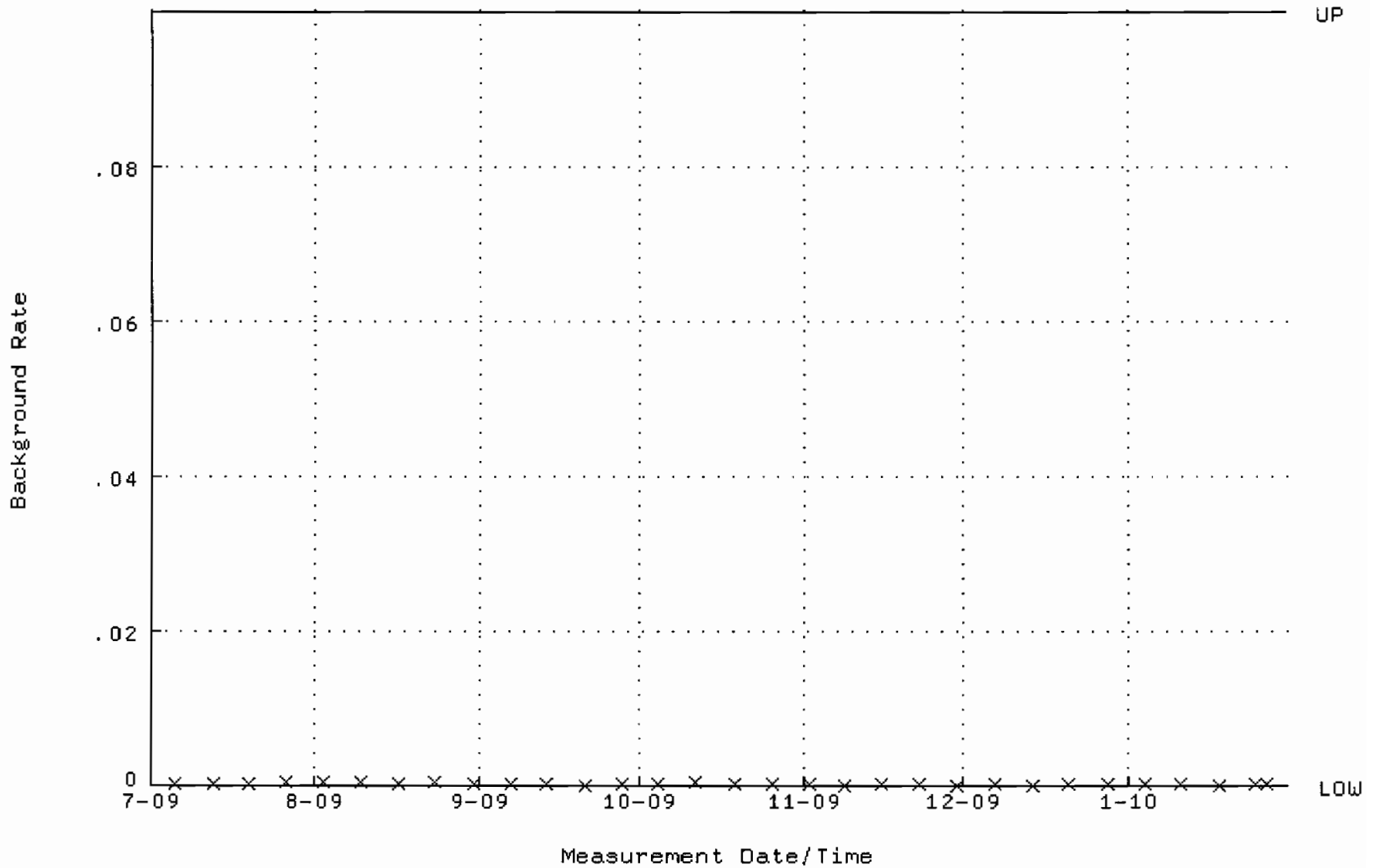

QA filename : DKA100:[ENV_ALPHA.QA.W]W211.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:25 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.373189 through 0.393189

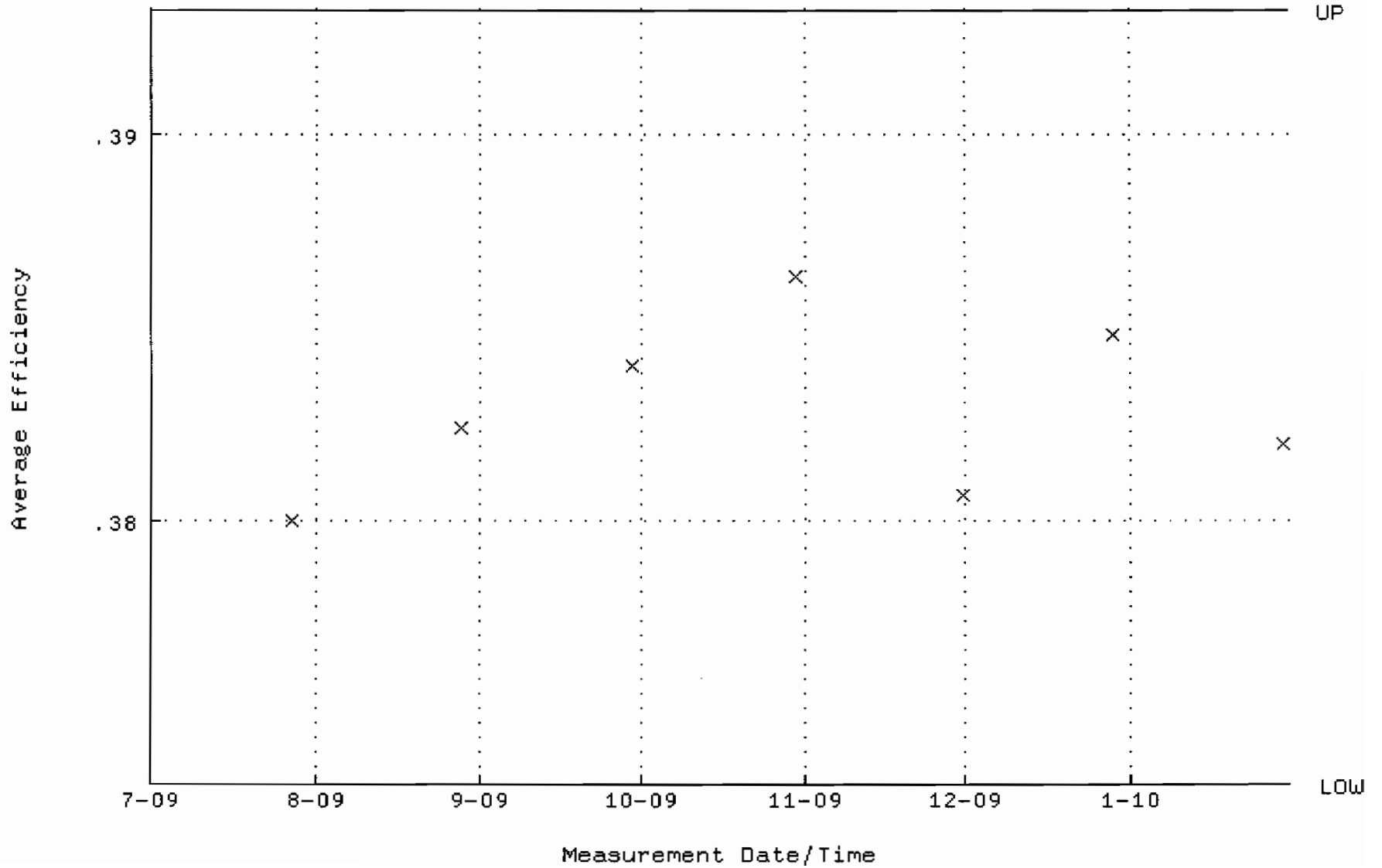

QA filename : DKA100:[ENV_ALPHA.QA.W]W211.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:25 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.1583 through 93.0171

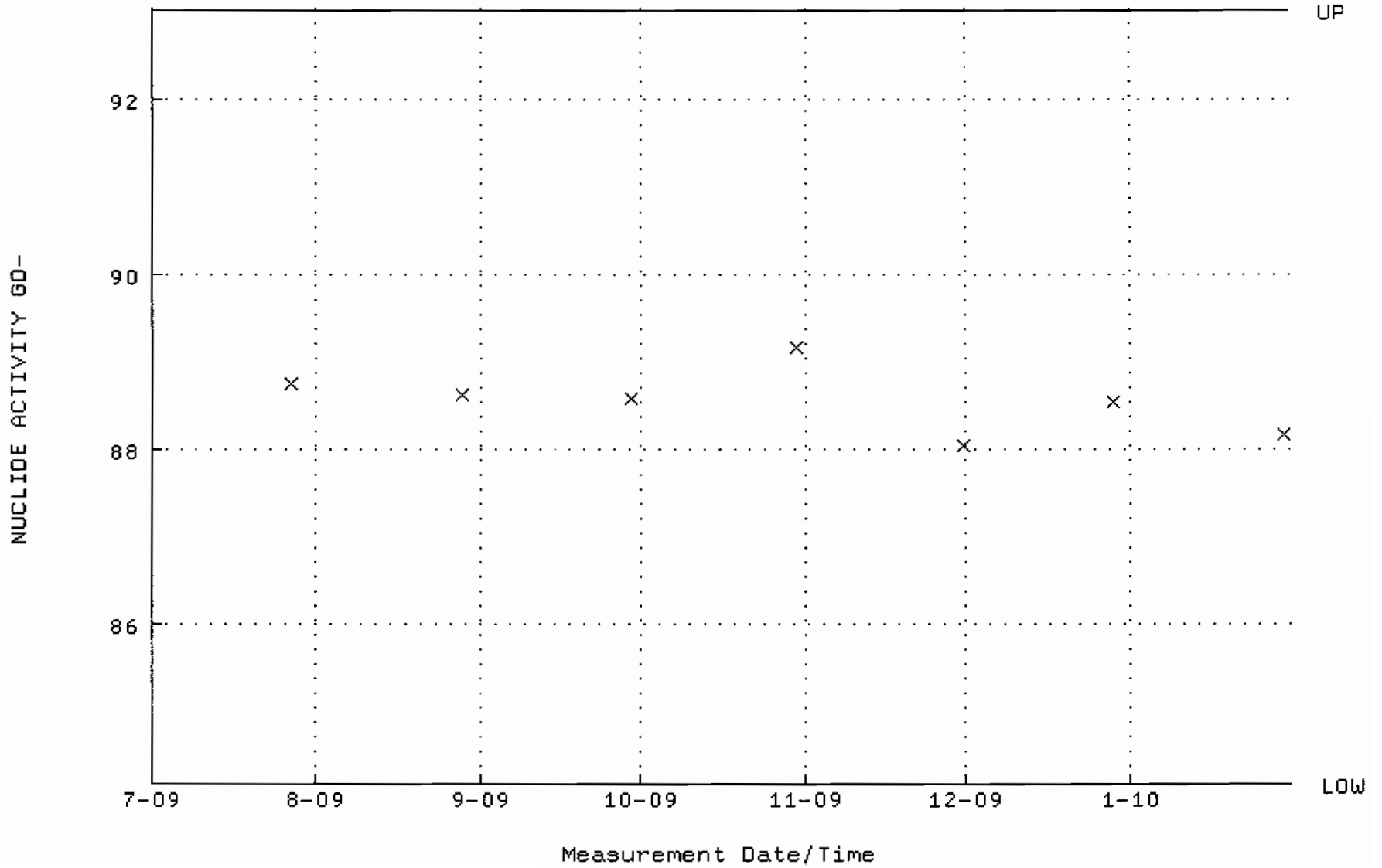

QA filename : DKA100:[ENV_ALPHA.QA.B]B211.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:28 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

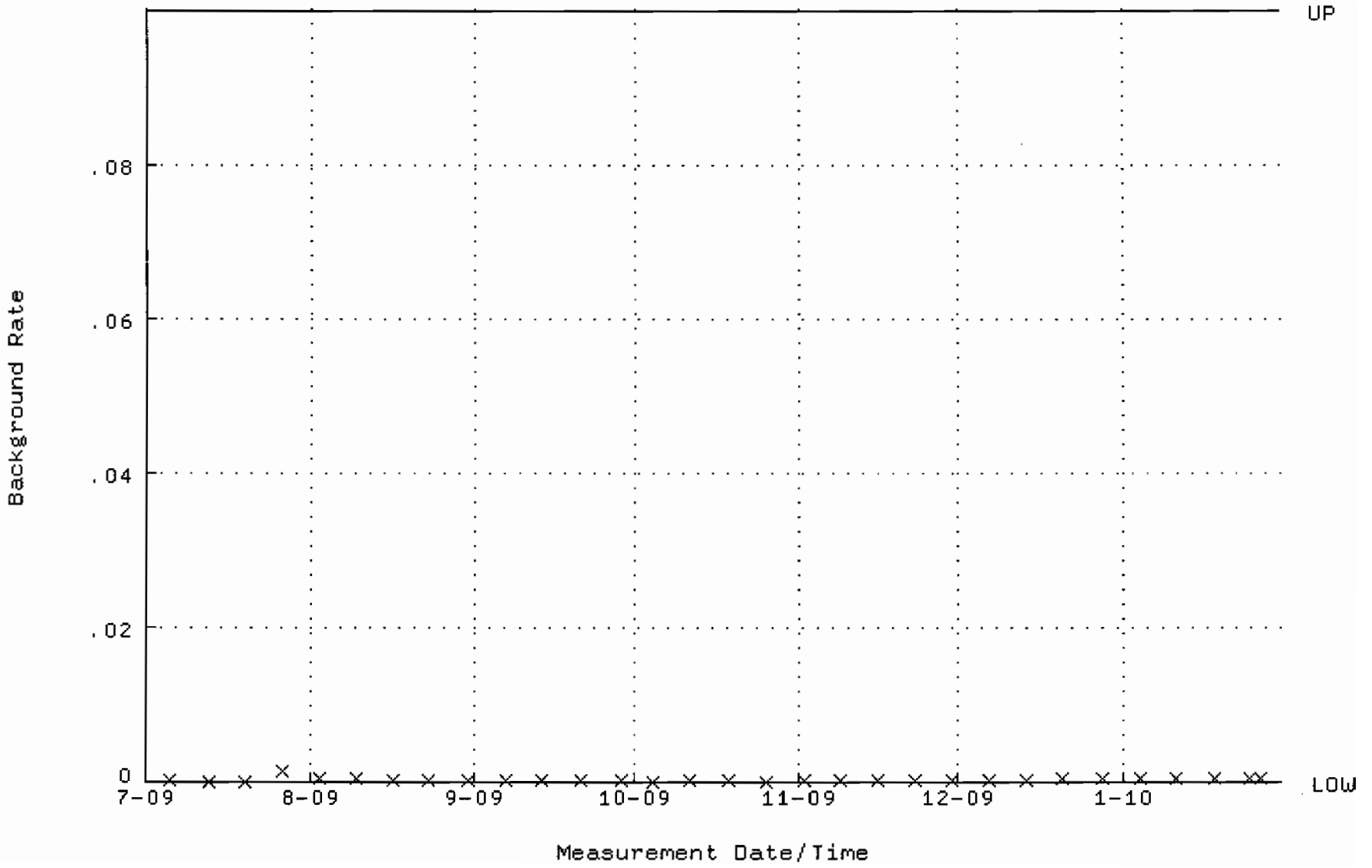

QA filename : DKA100:[ENV_ALPHA.QA.W]W212.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:32 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.368761 through 0.388761

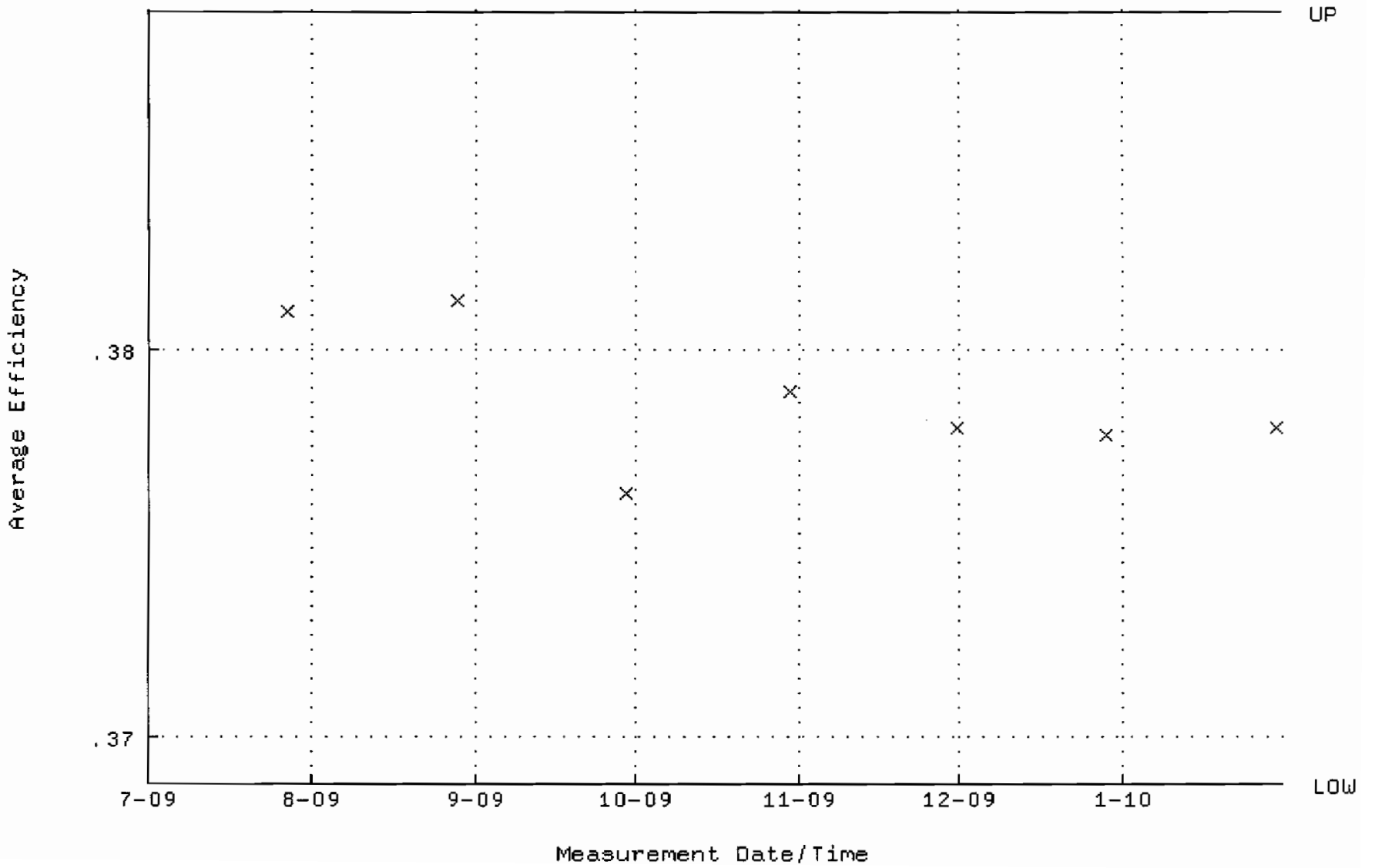

QA filename : DKA100:[ENV_ALPHA.QA.W]W212.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:32 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 86.3850 through 95.4782

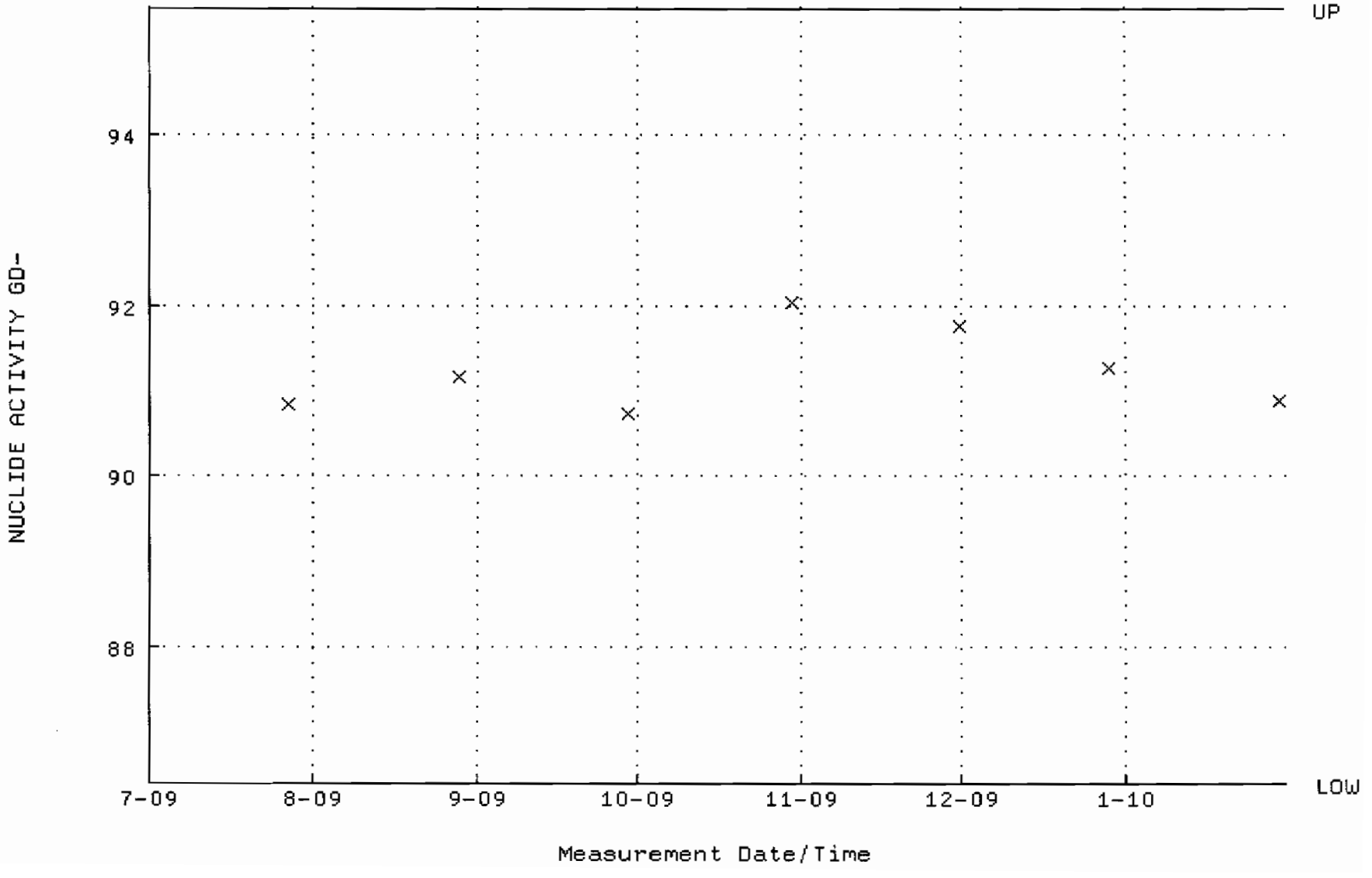

QA filename : DKA100:[ENV_ALPHA.QA.B]B212.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:33 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

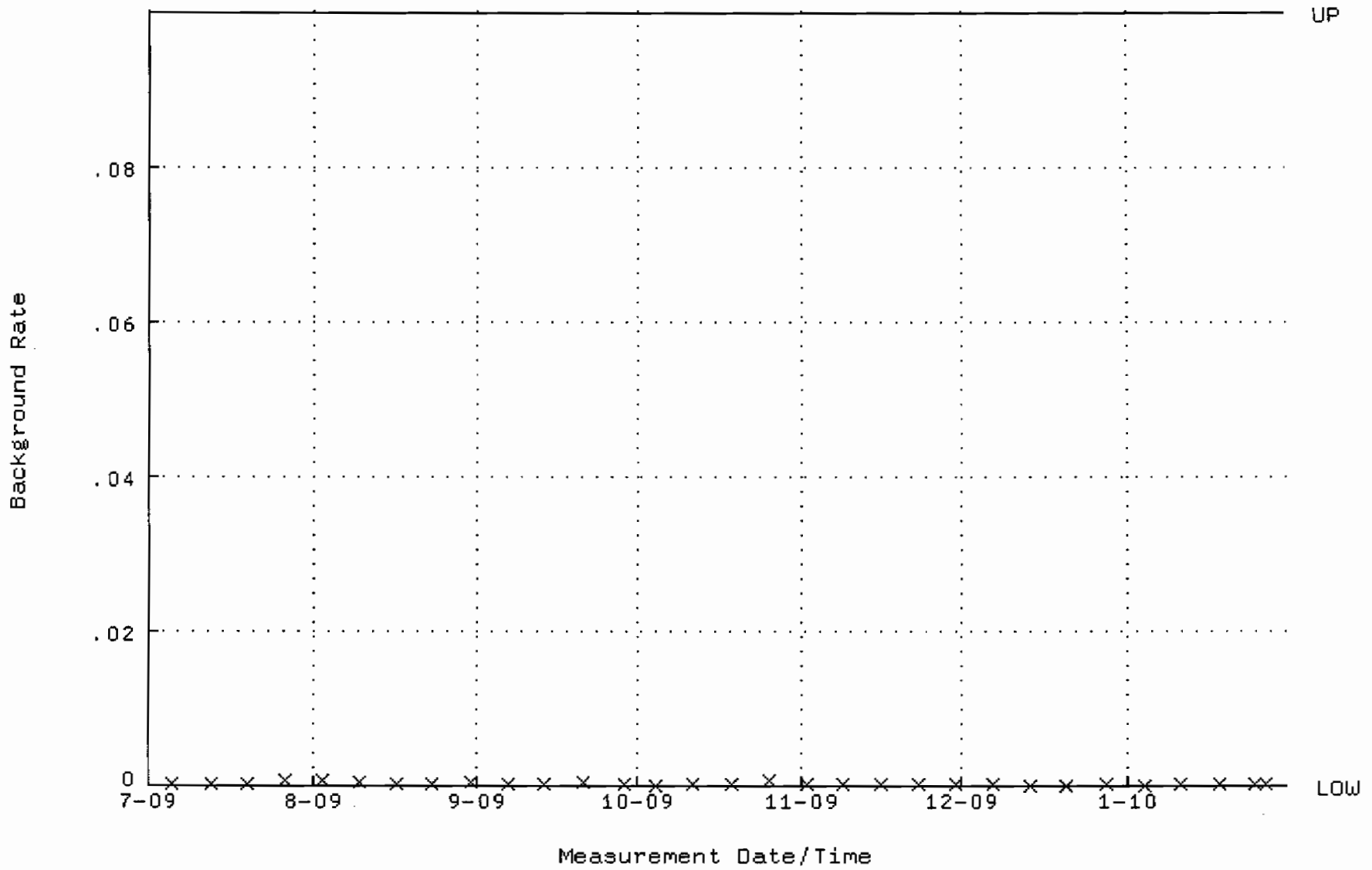

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:38 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.369174 through 0.389174

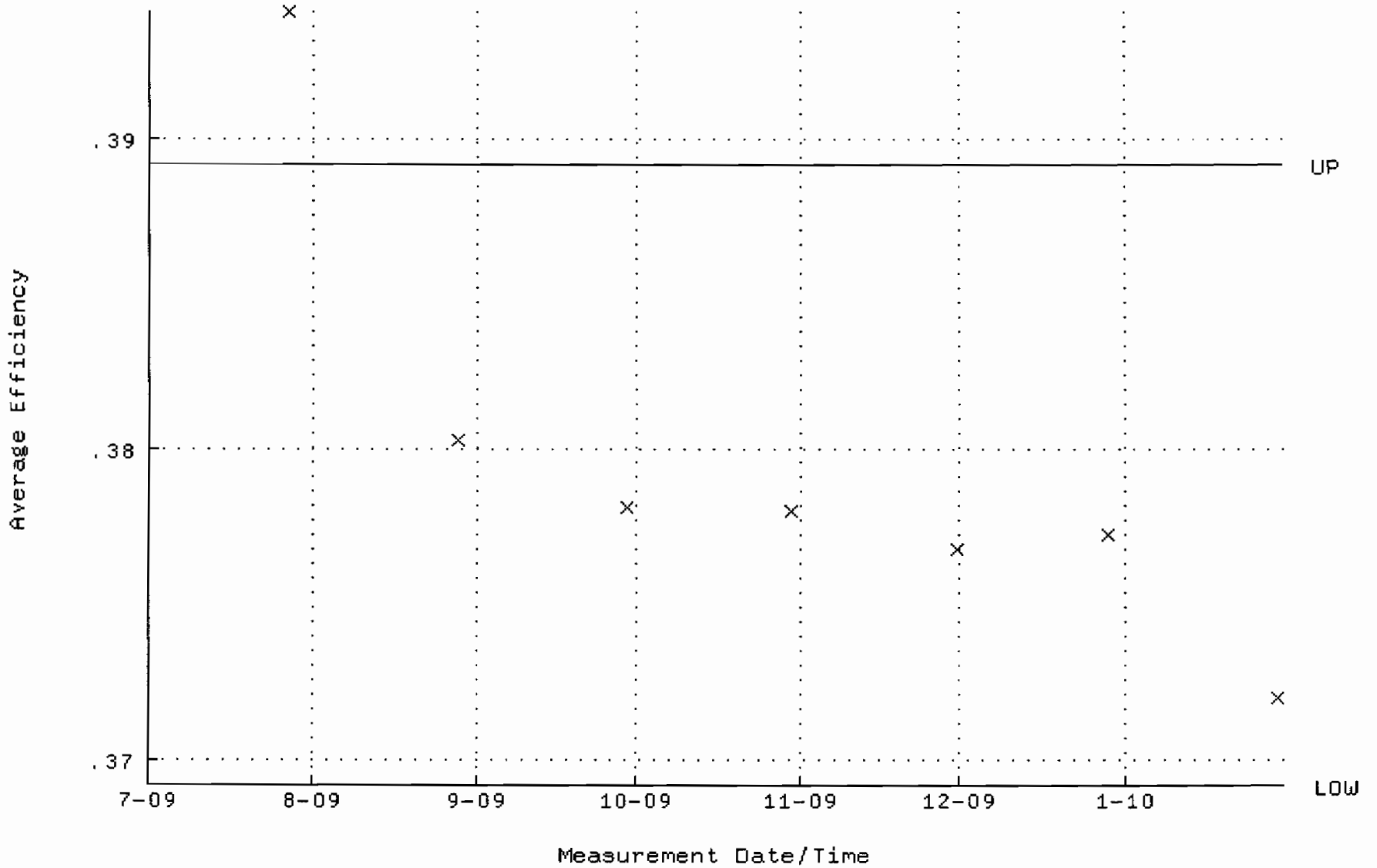

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:38 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7197 through 92.5323

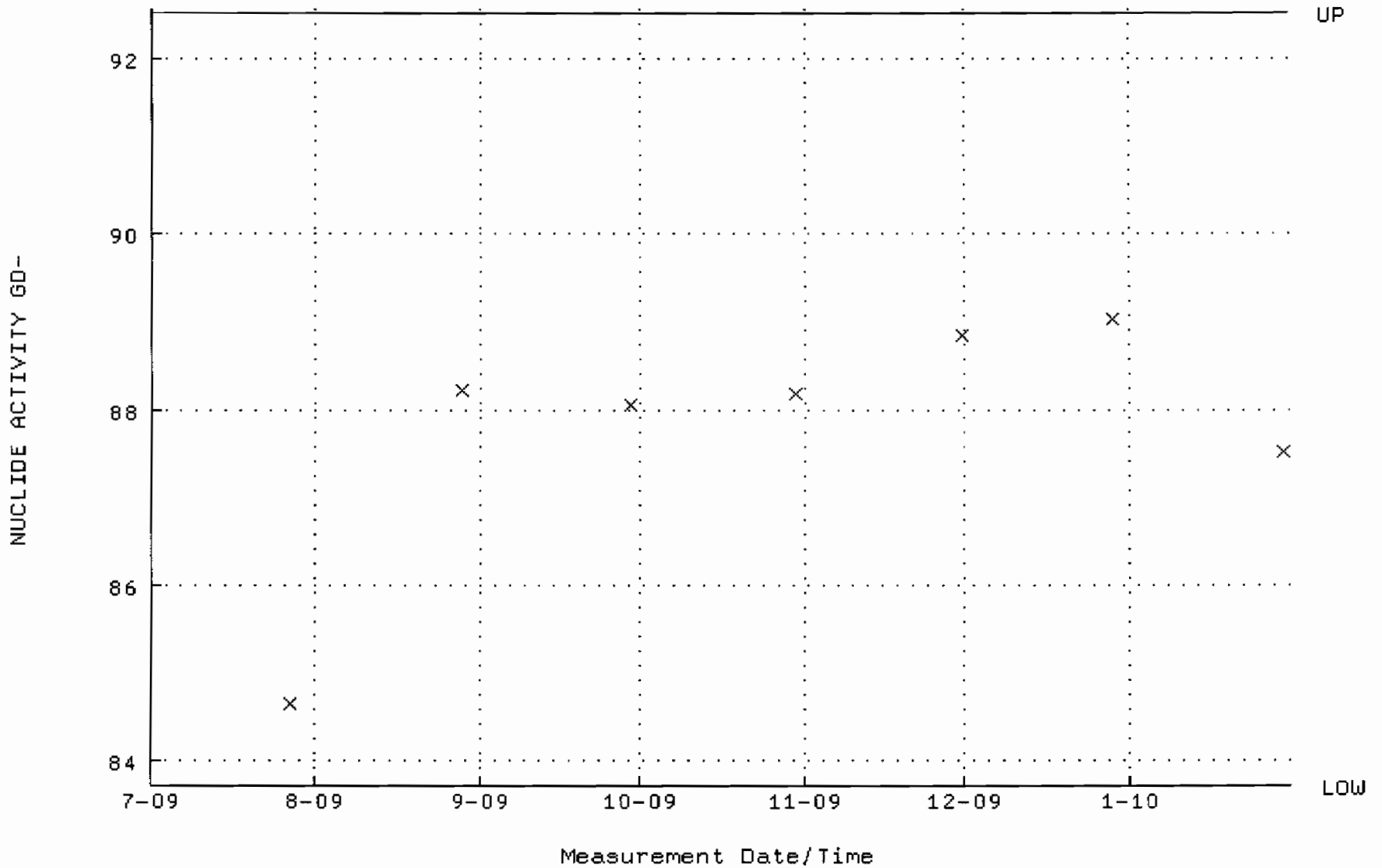

QA filename : DKA100:[ENV_ALPHA.QA.B]B241.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

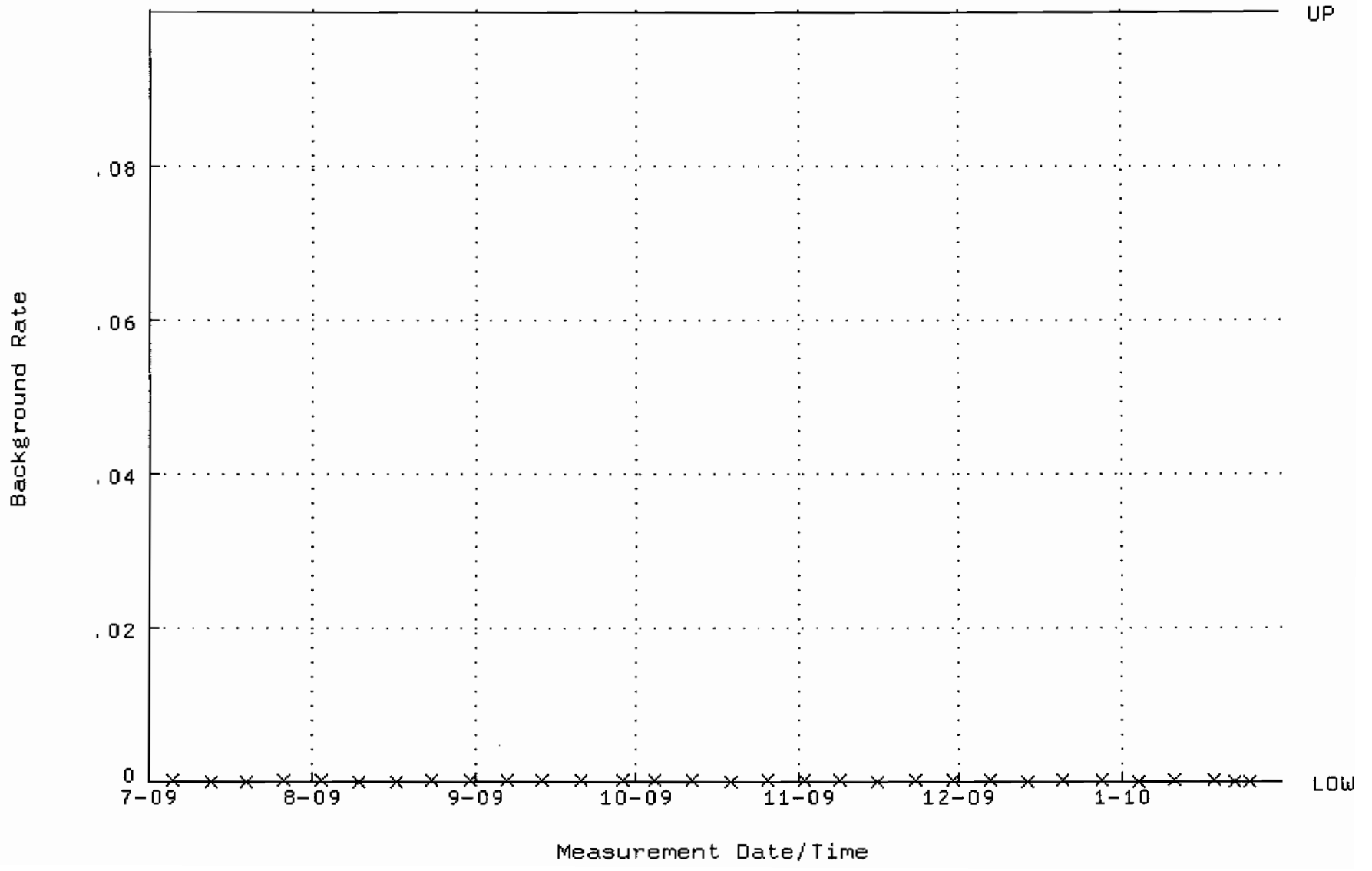

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:45 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.374815 through 0.394815

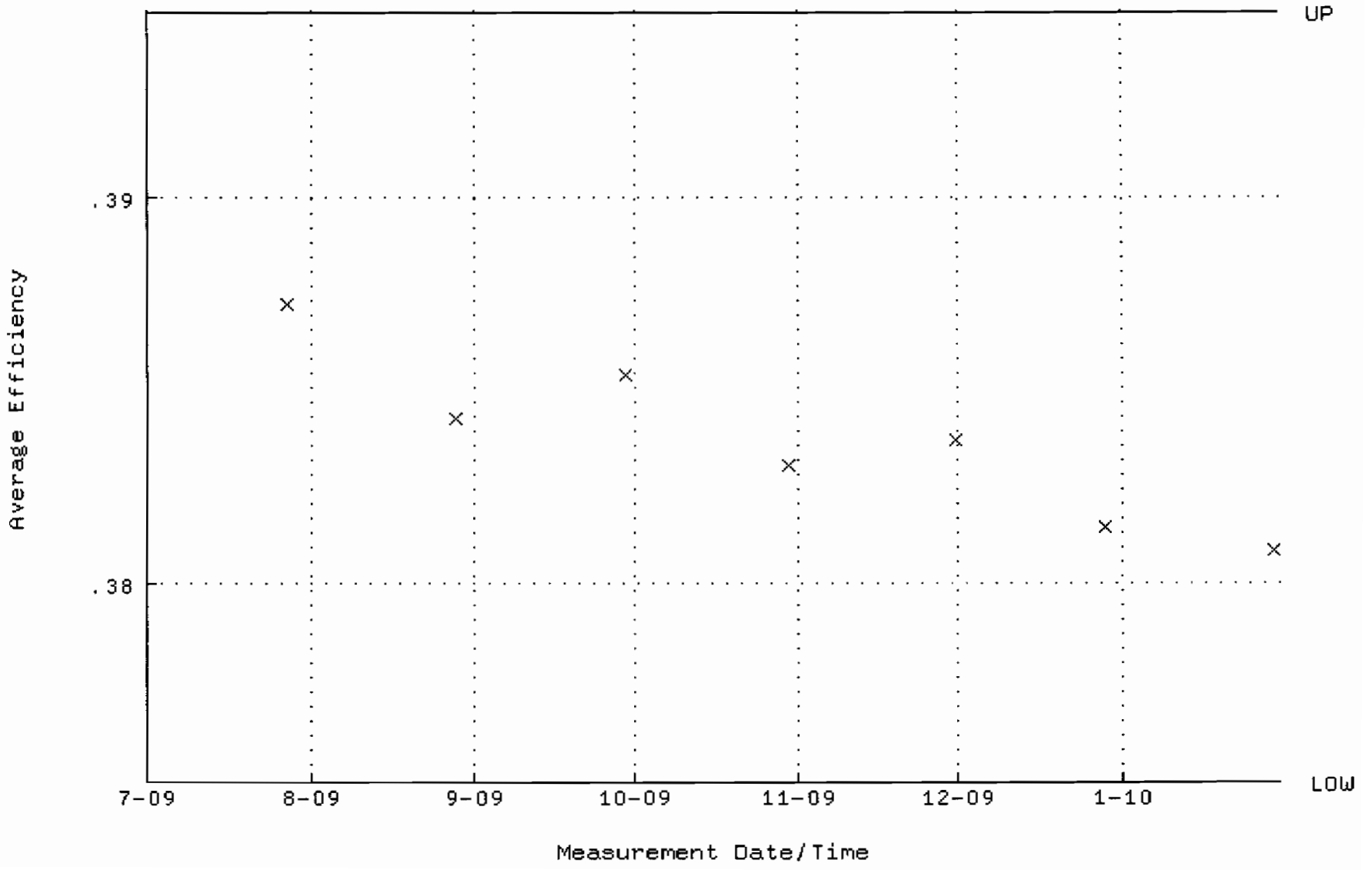

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:45 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.9949 through 92.8365

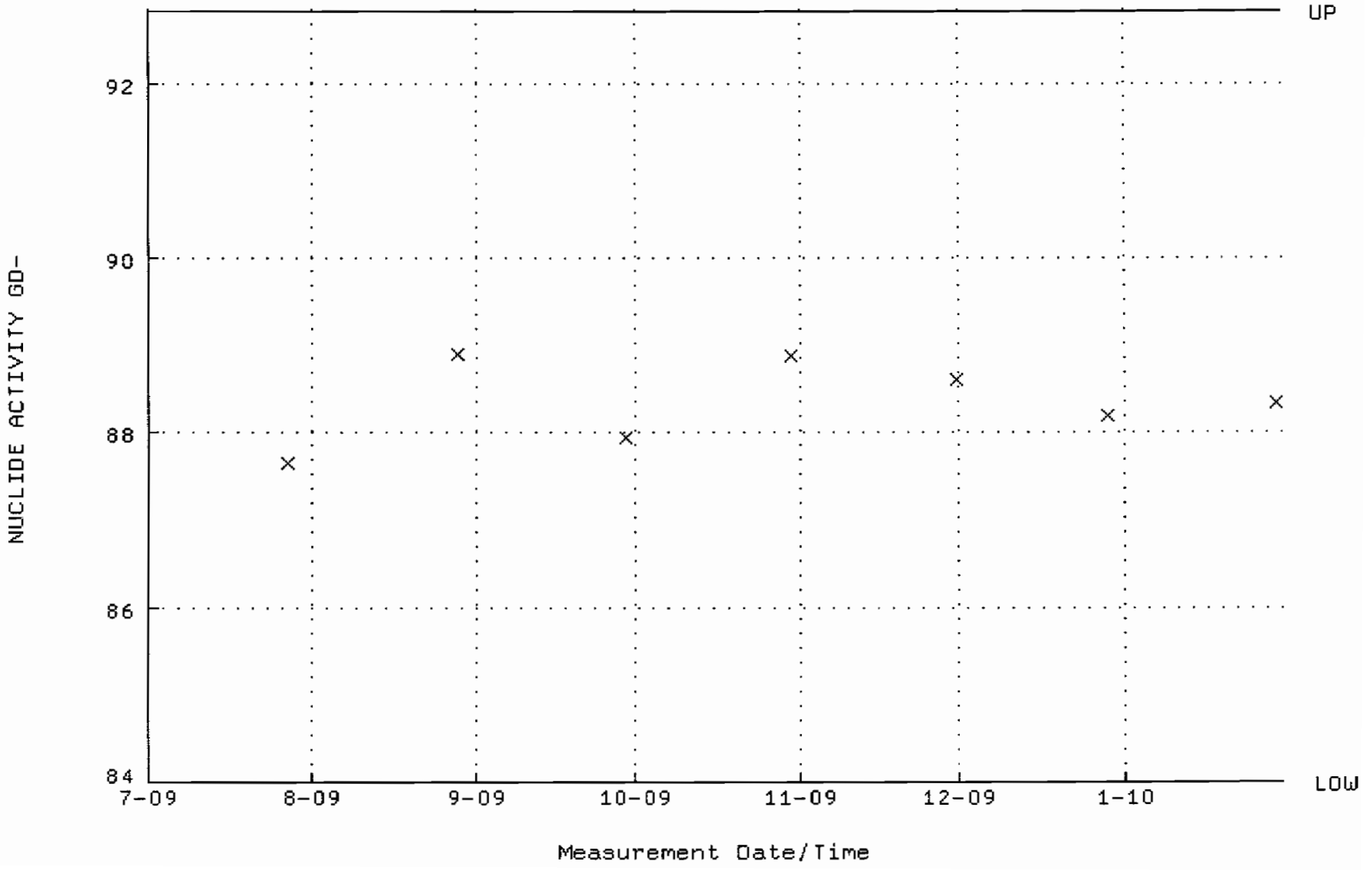

QA filename : DKA100:[ENV_ALPHA.QA.B]B242.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:53 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

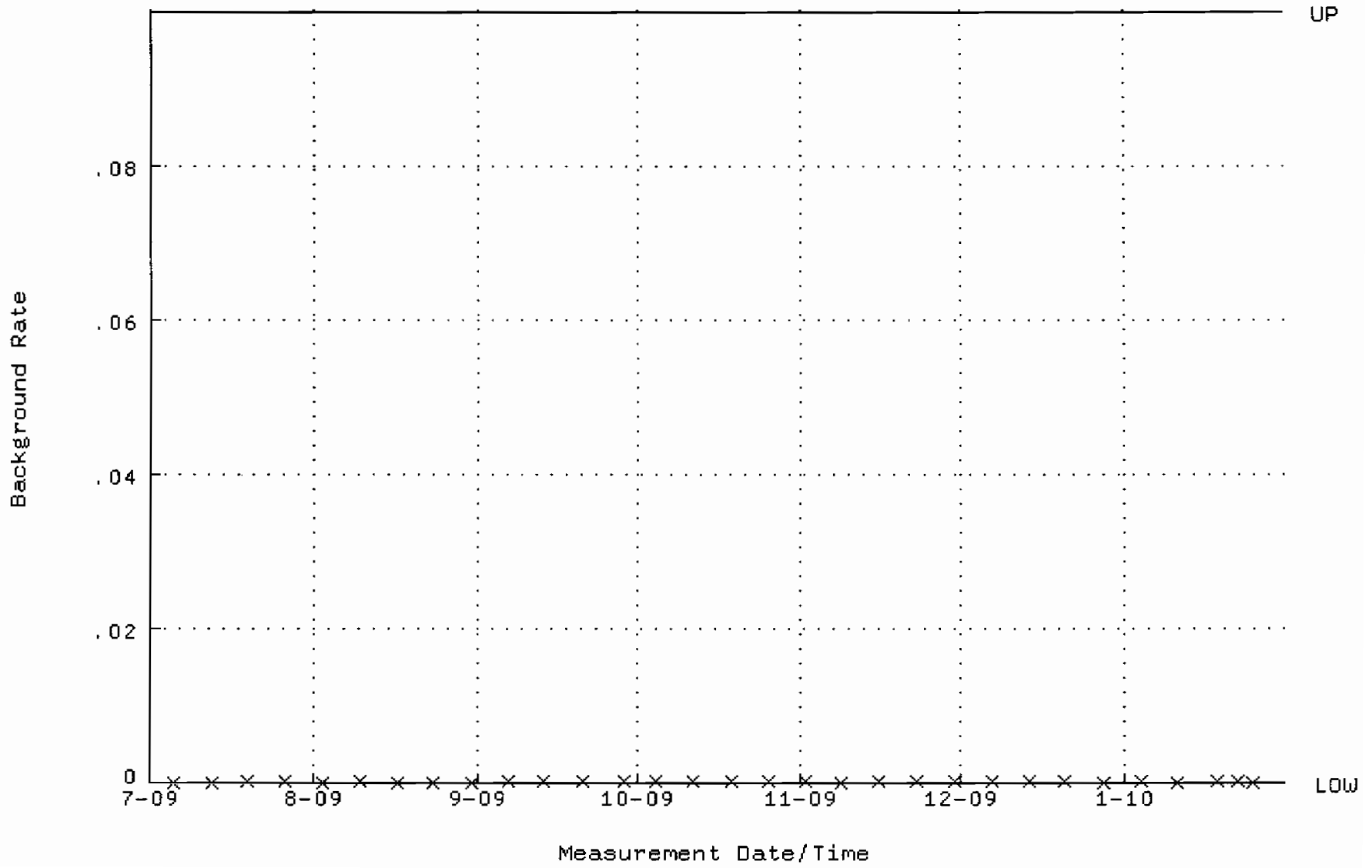

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362914 through 0.382914

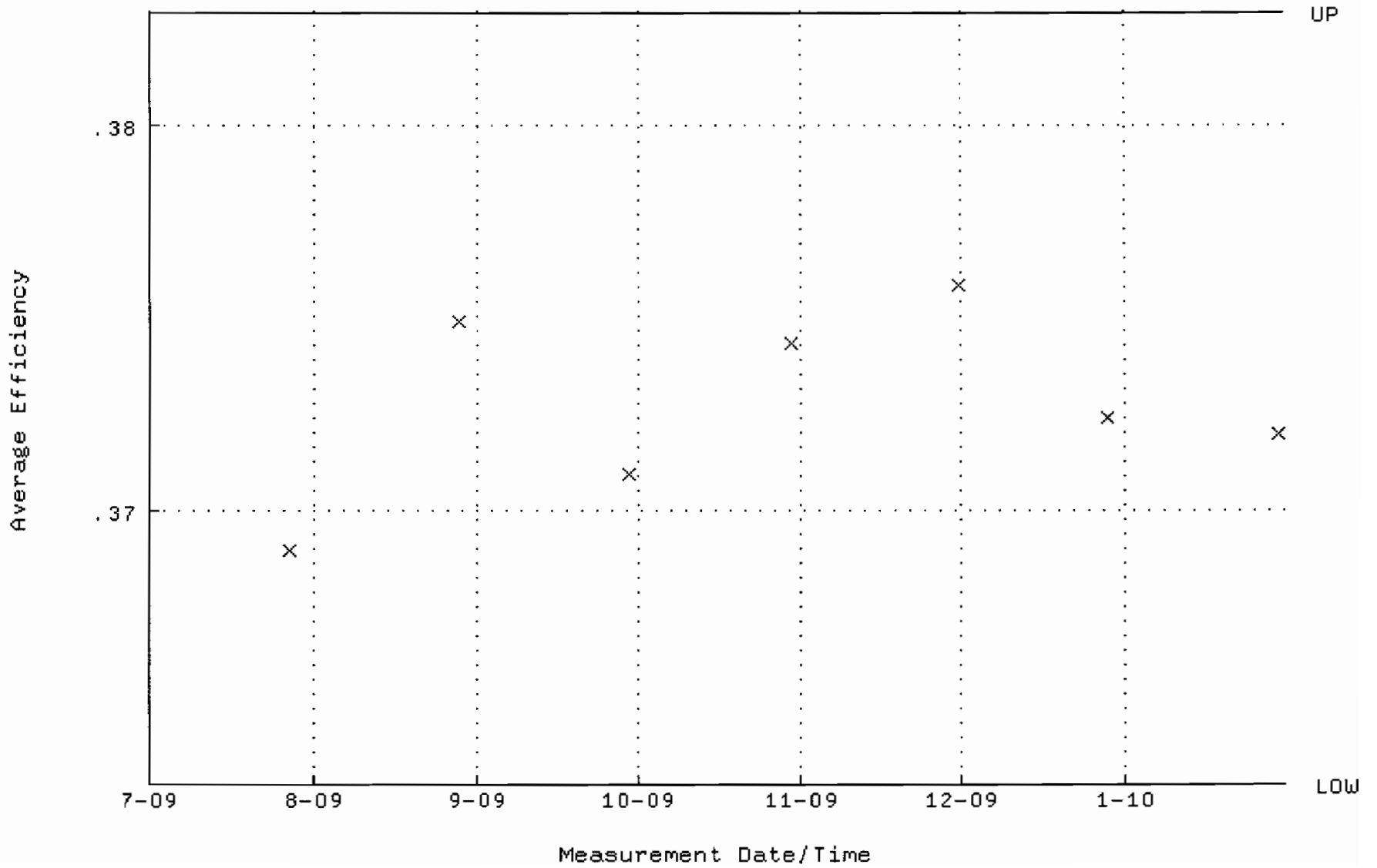

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.6788 through 91.3818

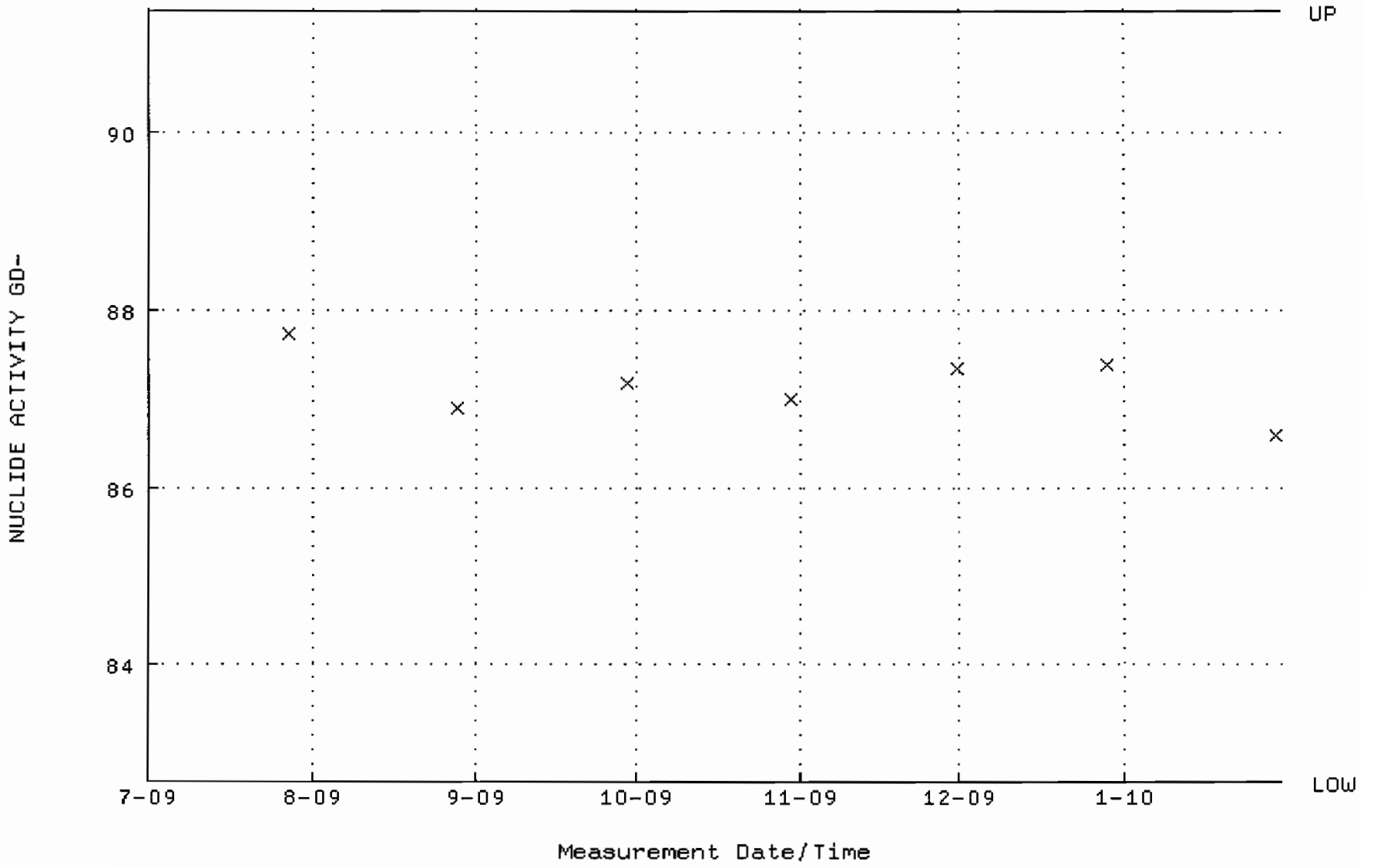

QA filename : DKA100:[ENV_ALPHA.QA.B]B243.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

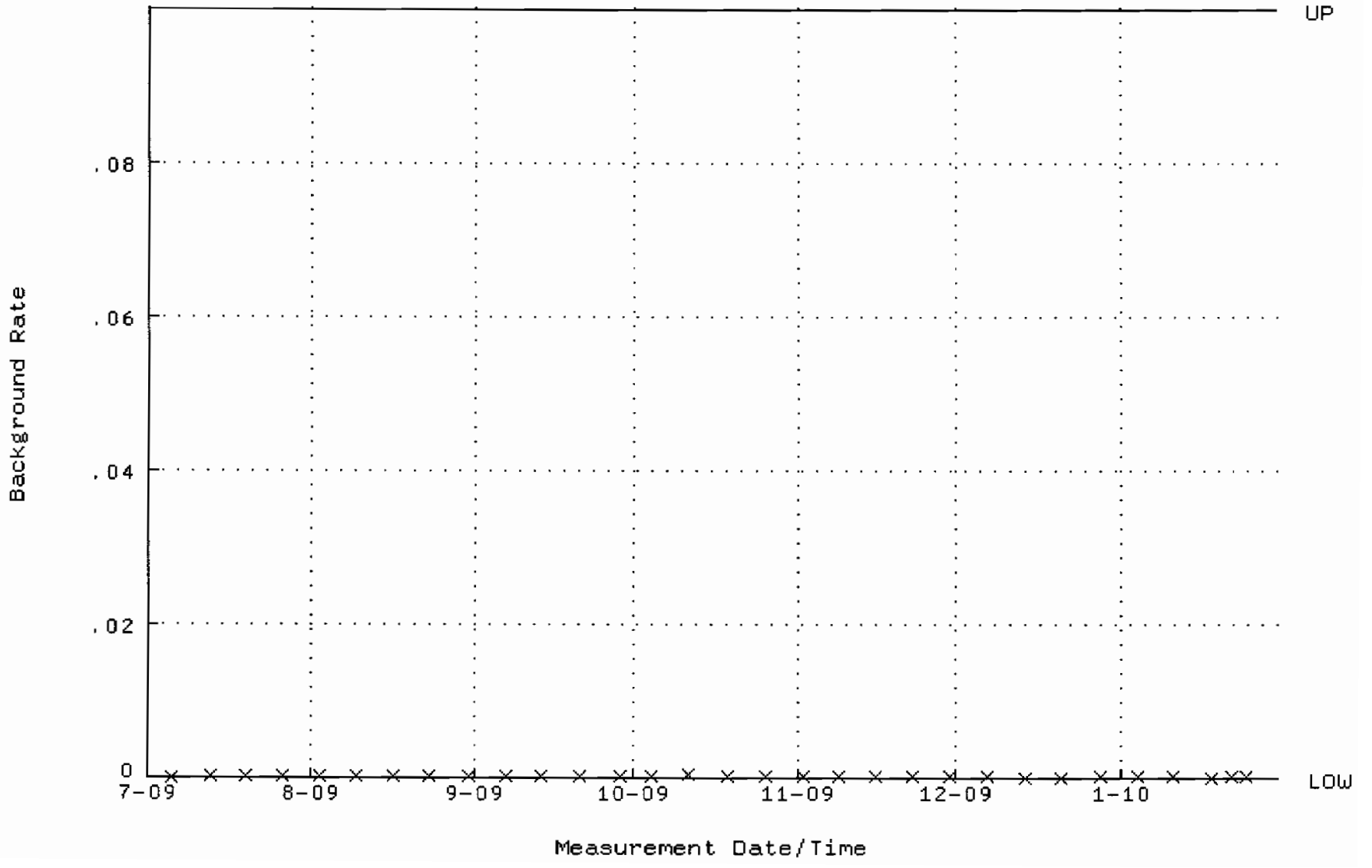

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.361192 through 0.381192

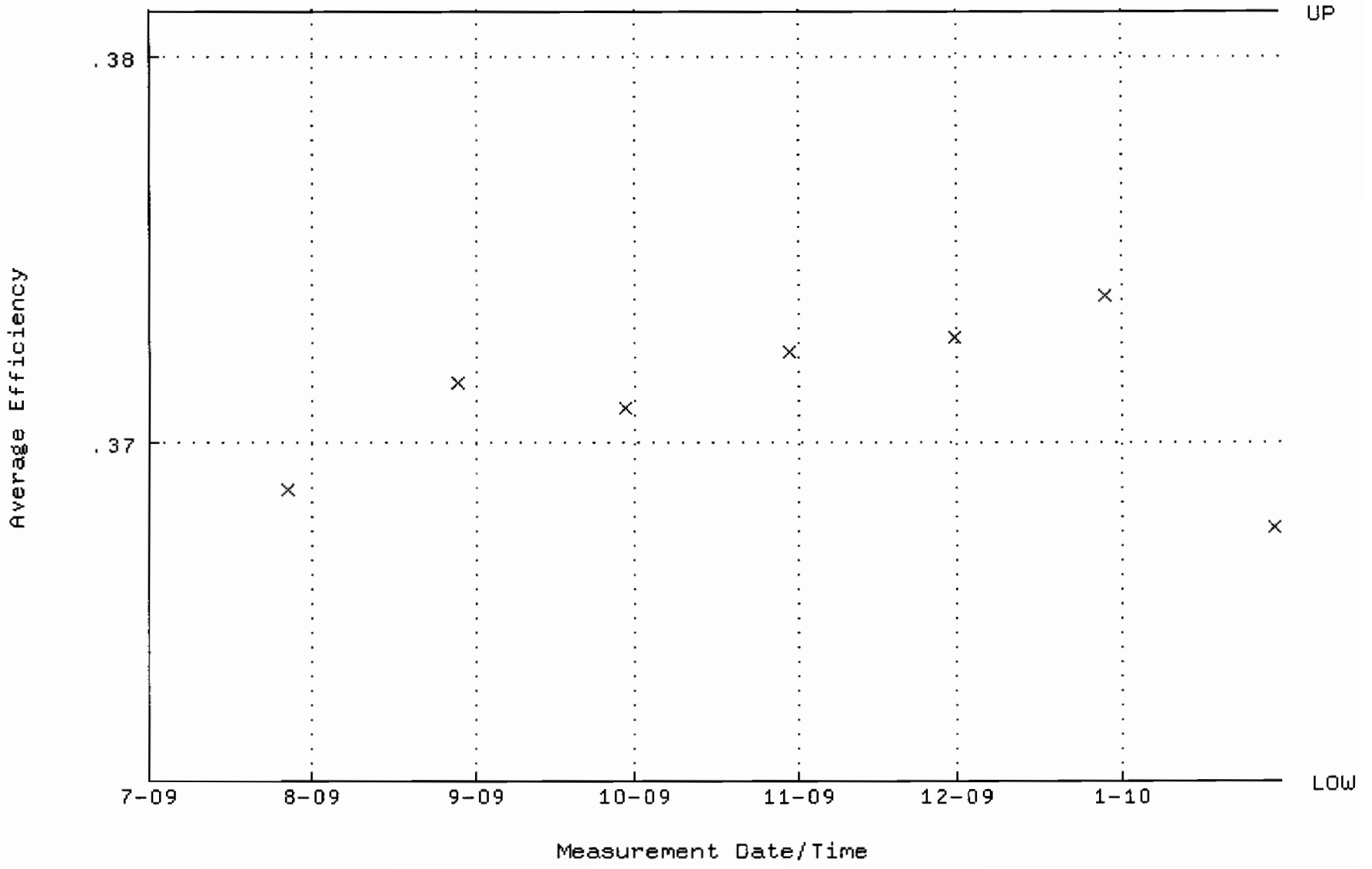

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7473 through 92.5629

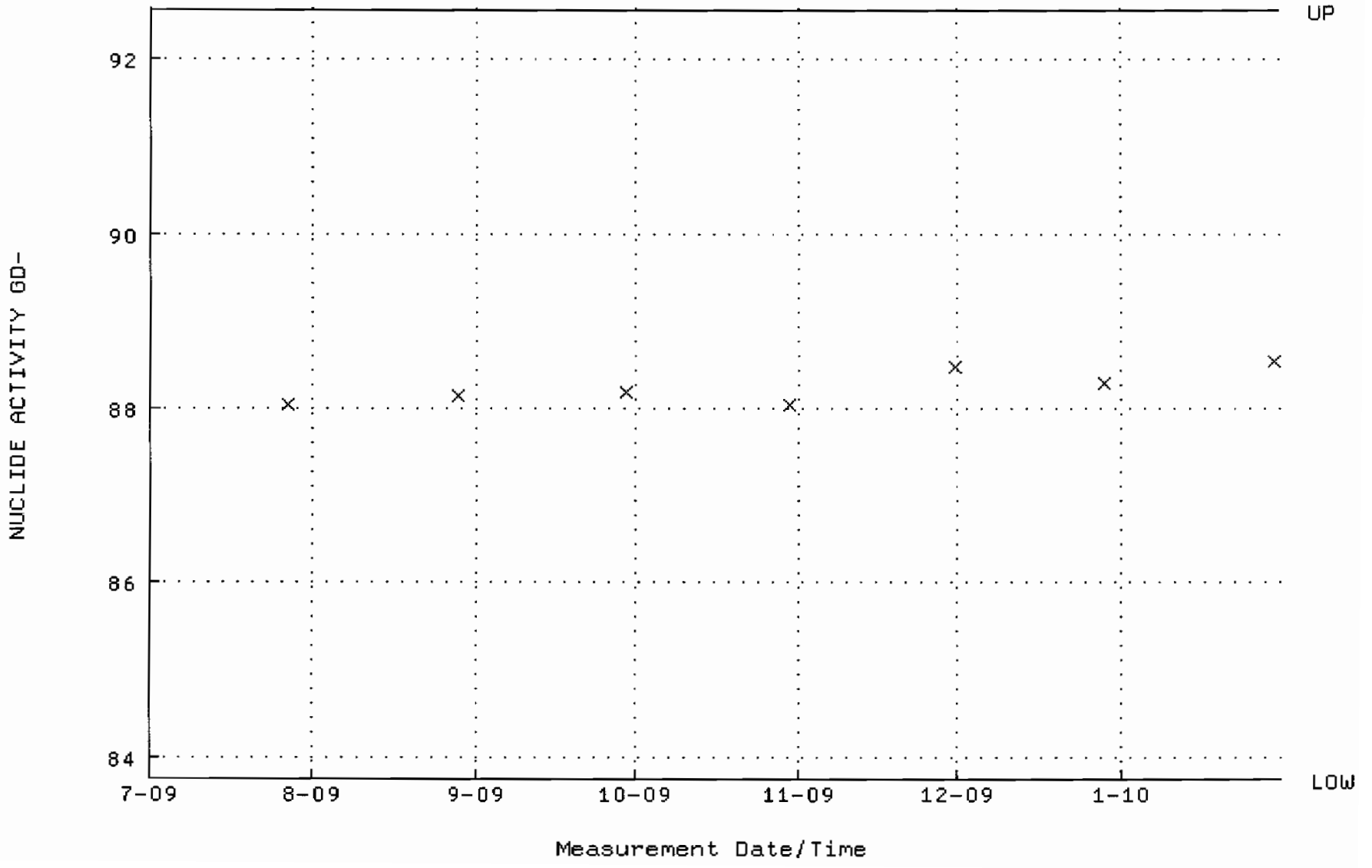

QA filename : DKA100:[ENV_ALPHA.QA.B]B244.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:02 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

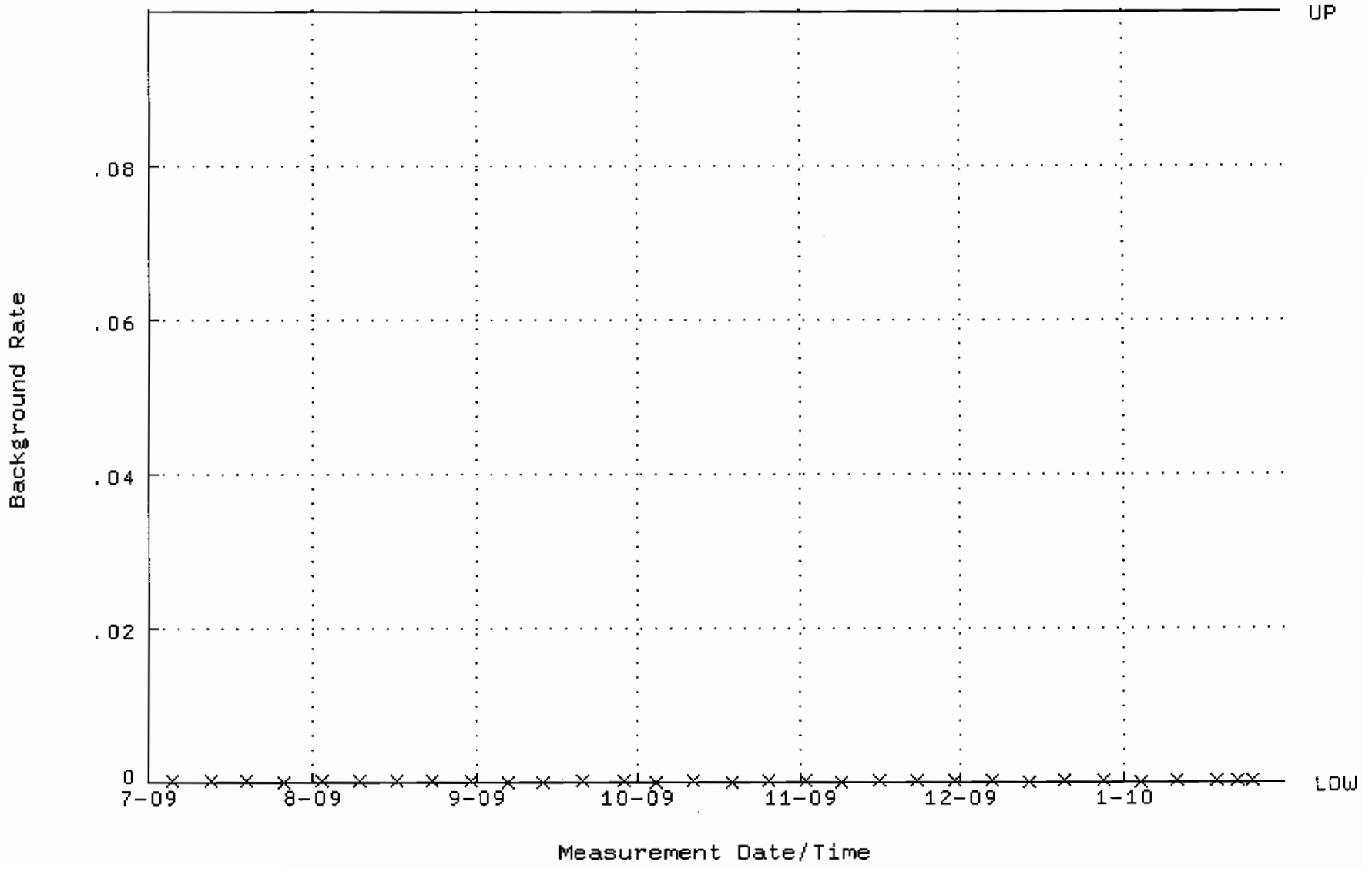

QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:30 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.382119 through 0.416507

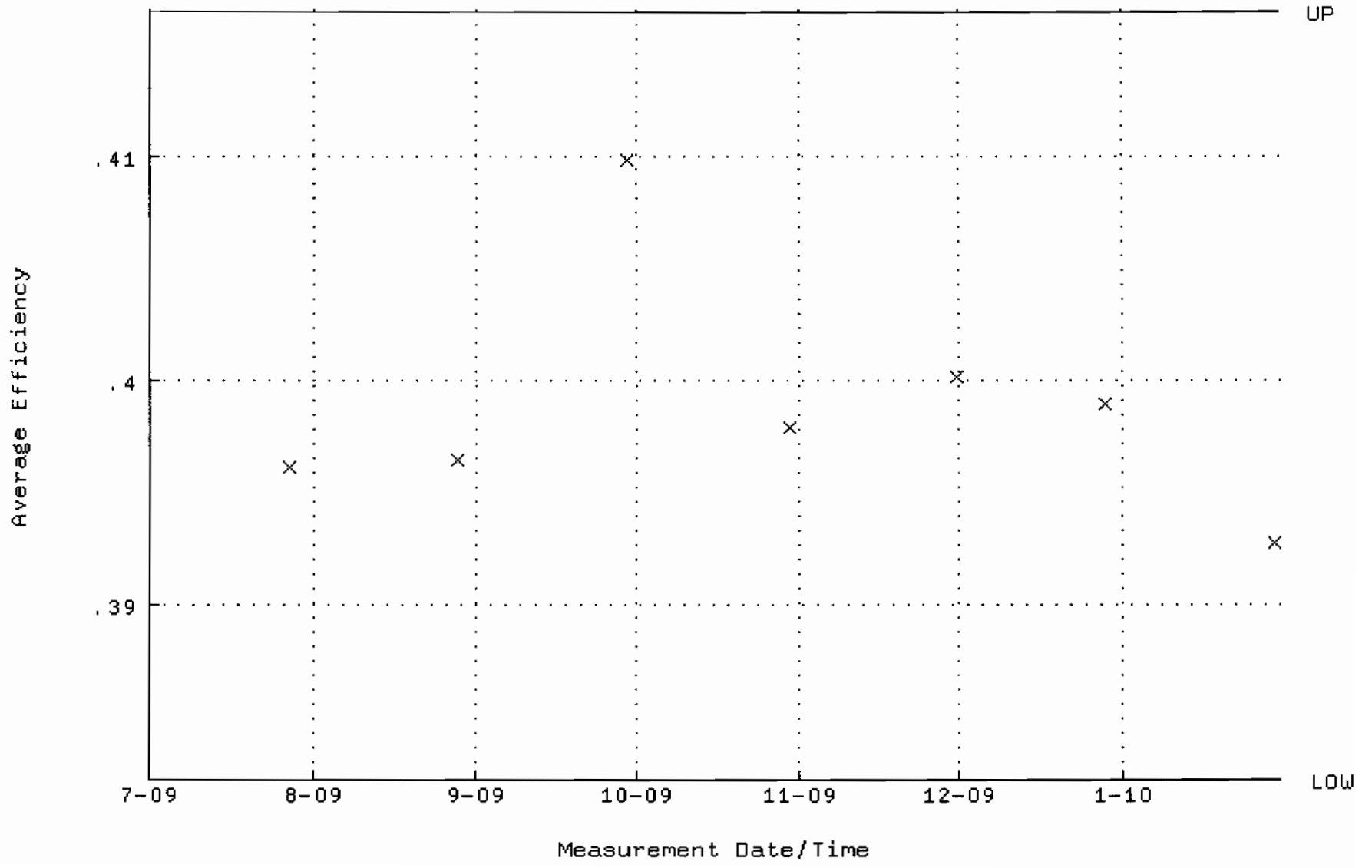

QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:30 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.9626 through 85.7308

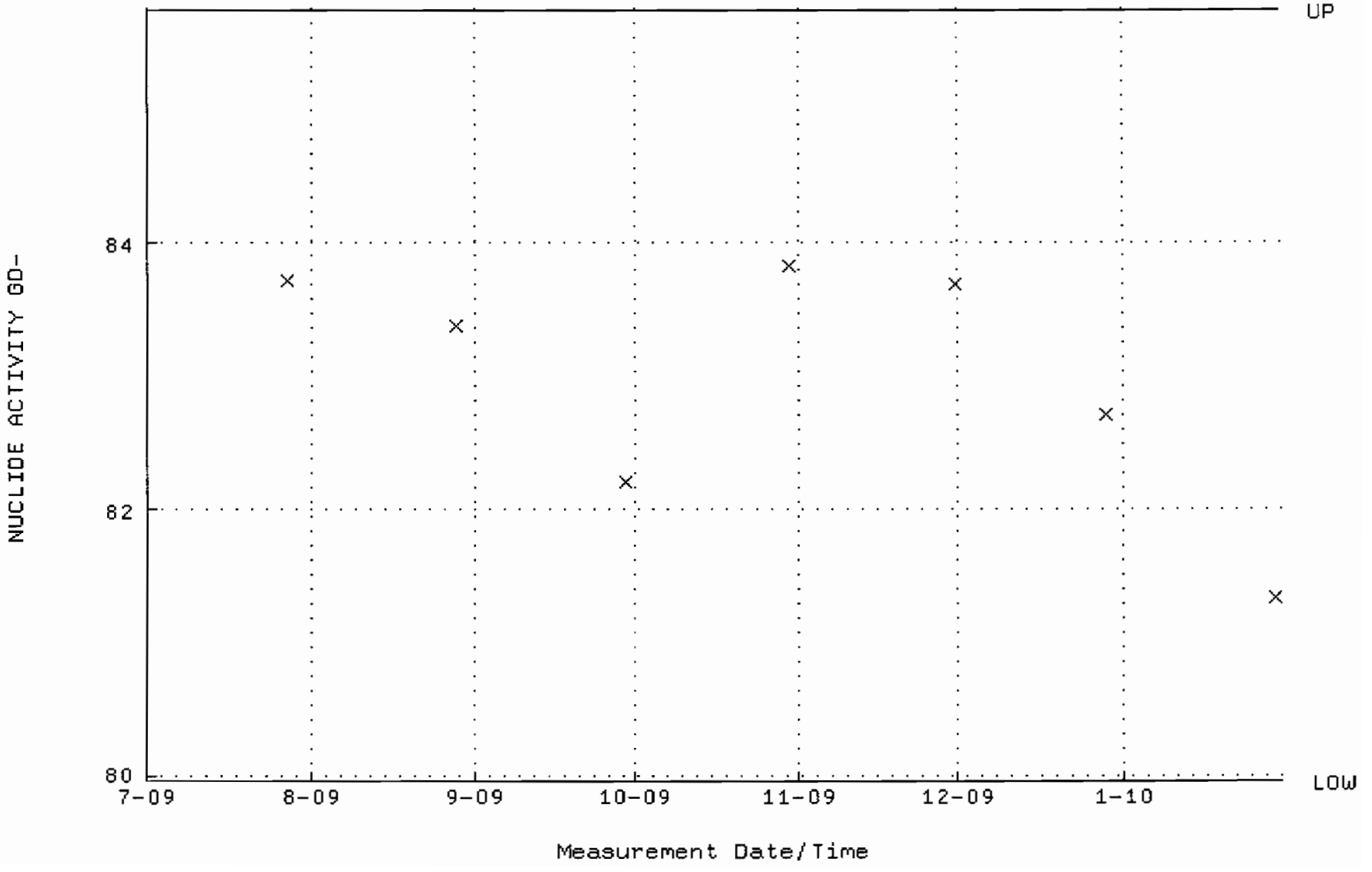

QA filename : DKA100:[ENV_ALPHA.QA.B]B250.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:31 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

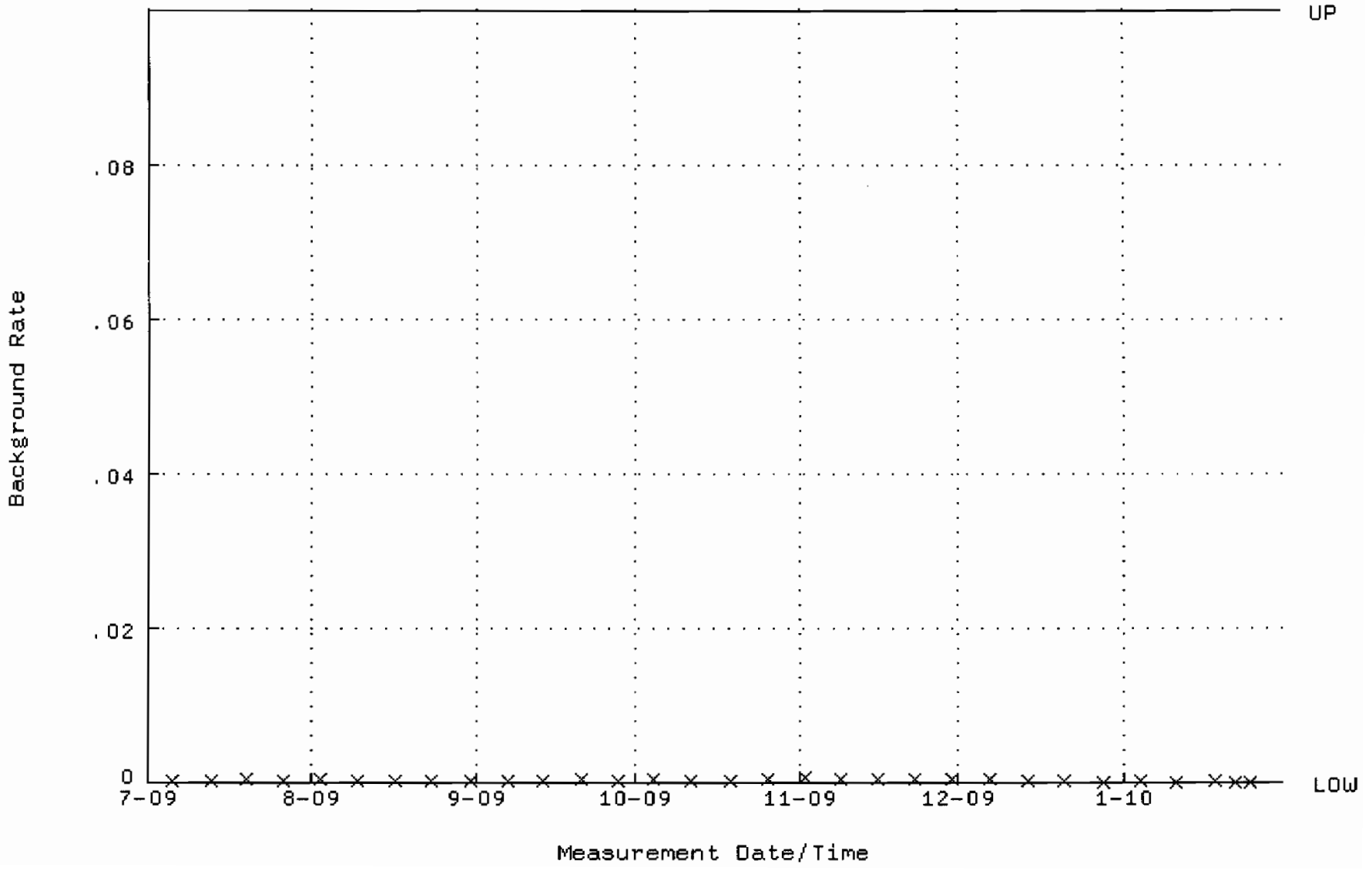

QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.379733 through 0.399733

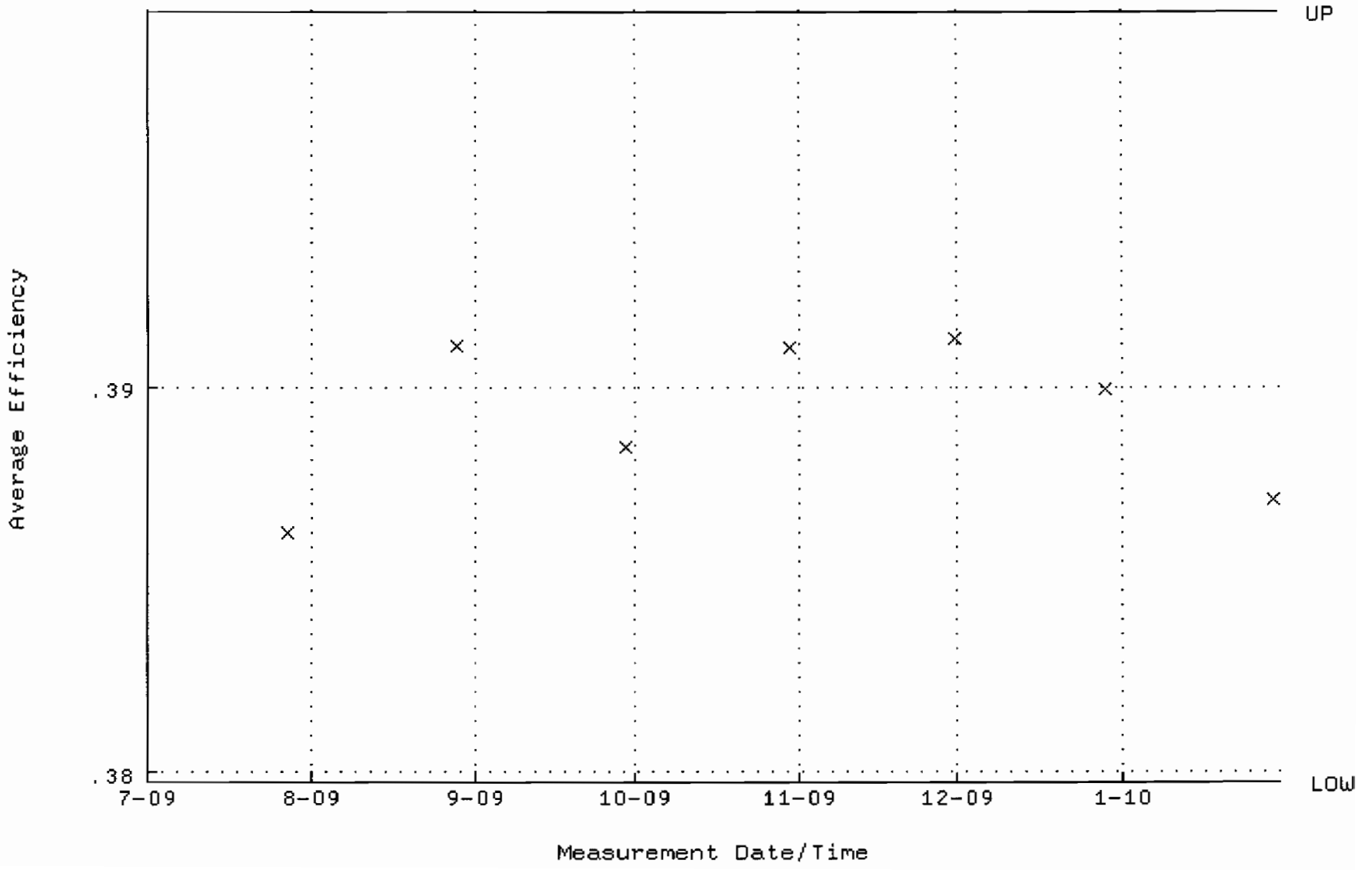

QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.1799 through 90.8305

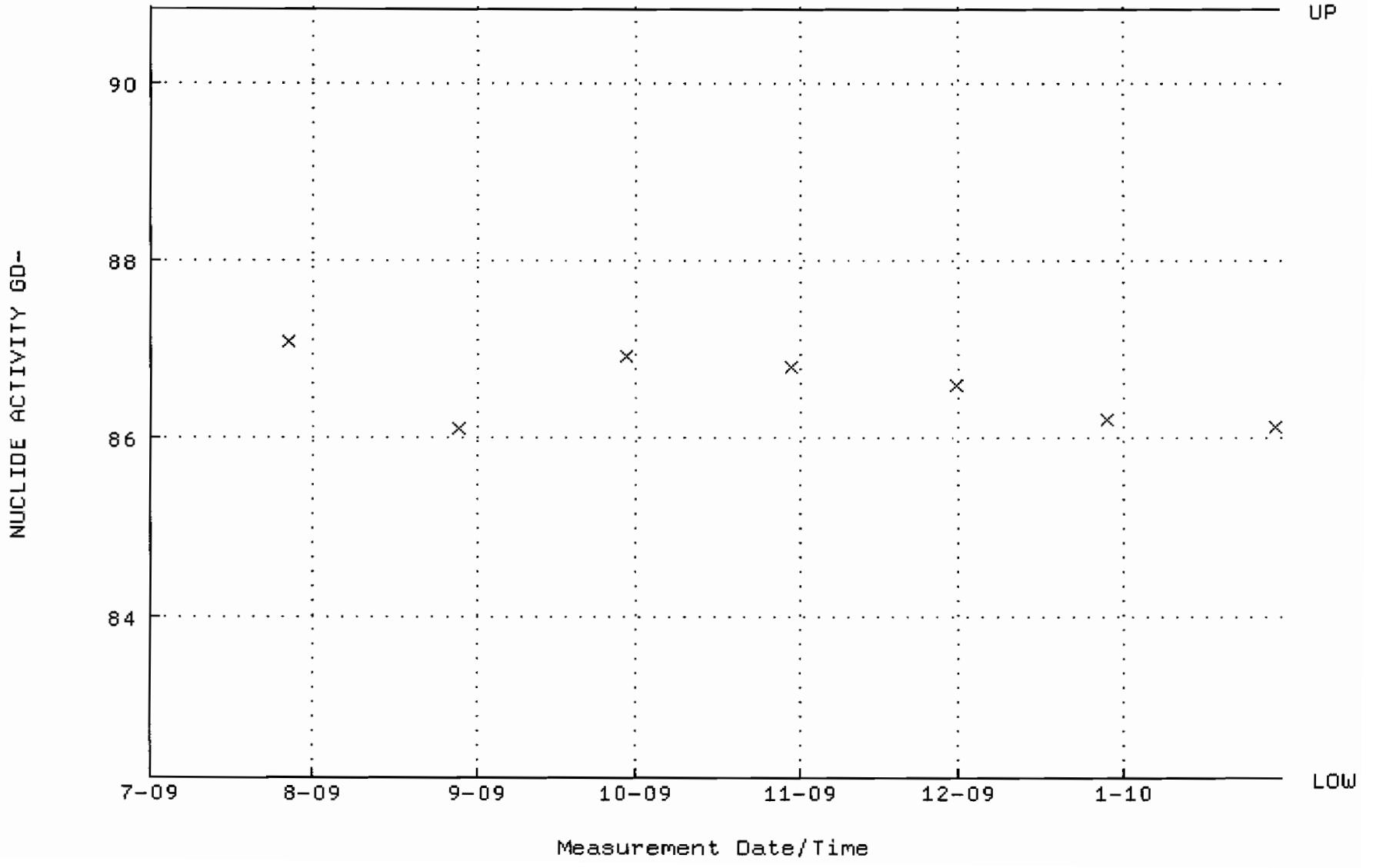

QA filename : DKA100:[ENV_ALPHA.QA.B]B251.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

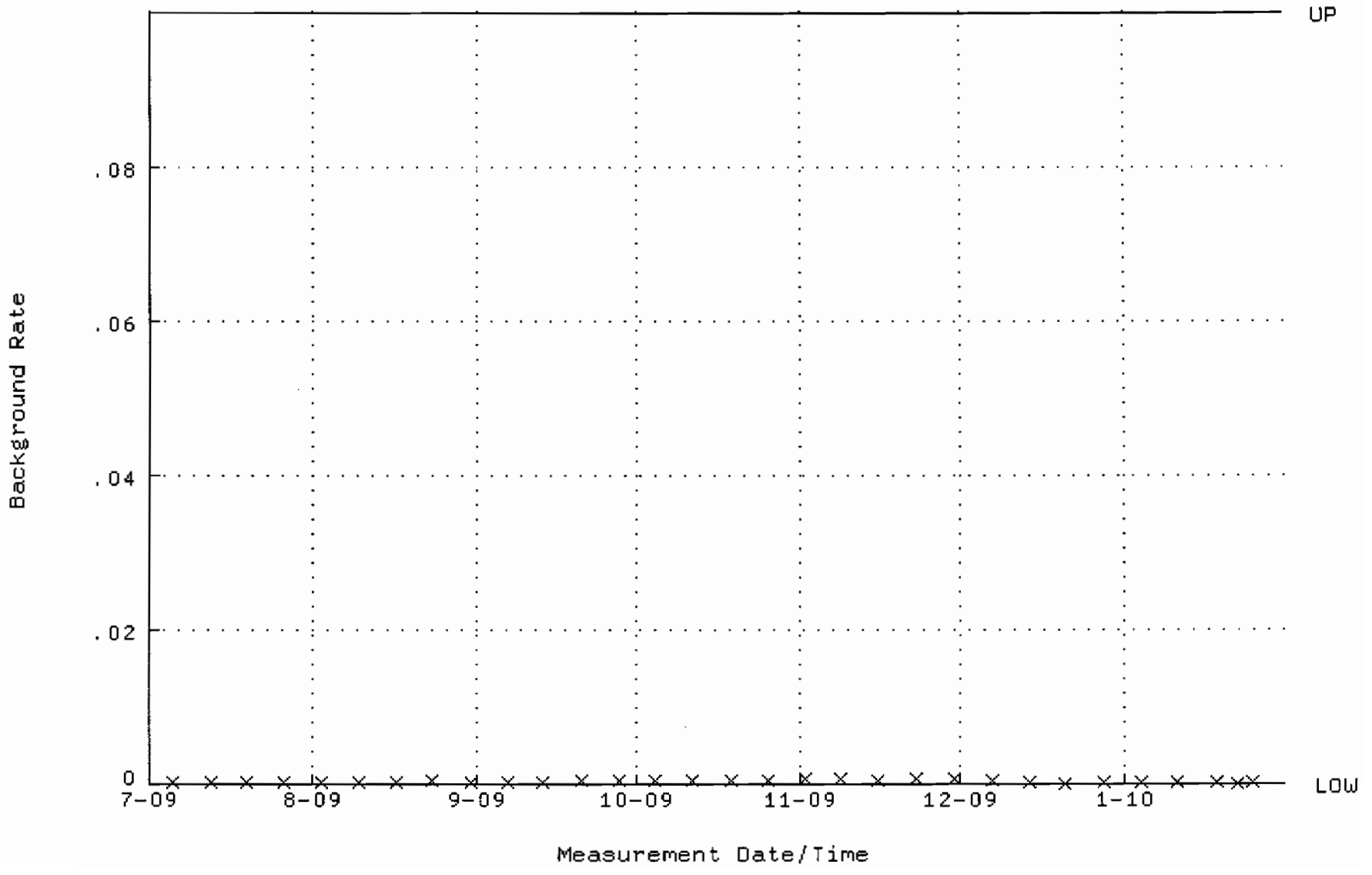

QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.367415 through 0.387415

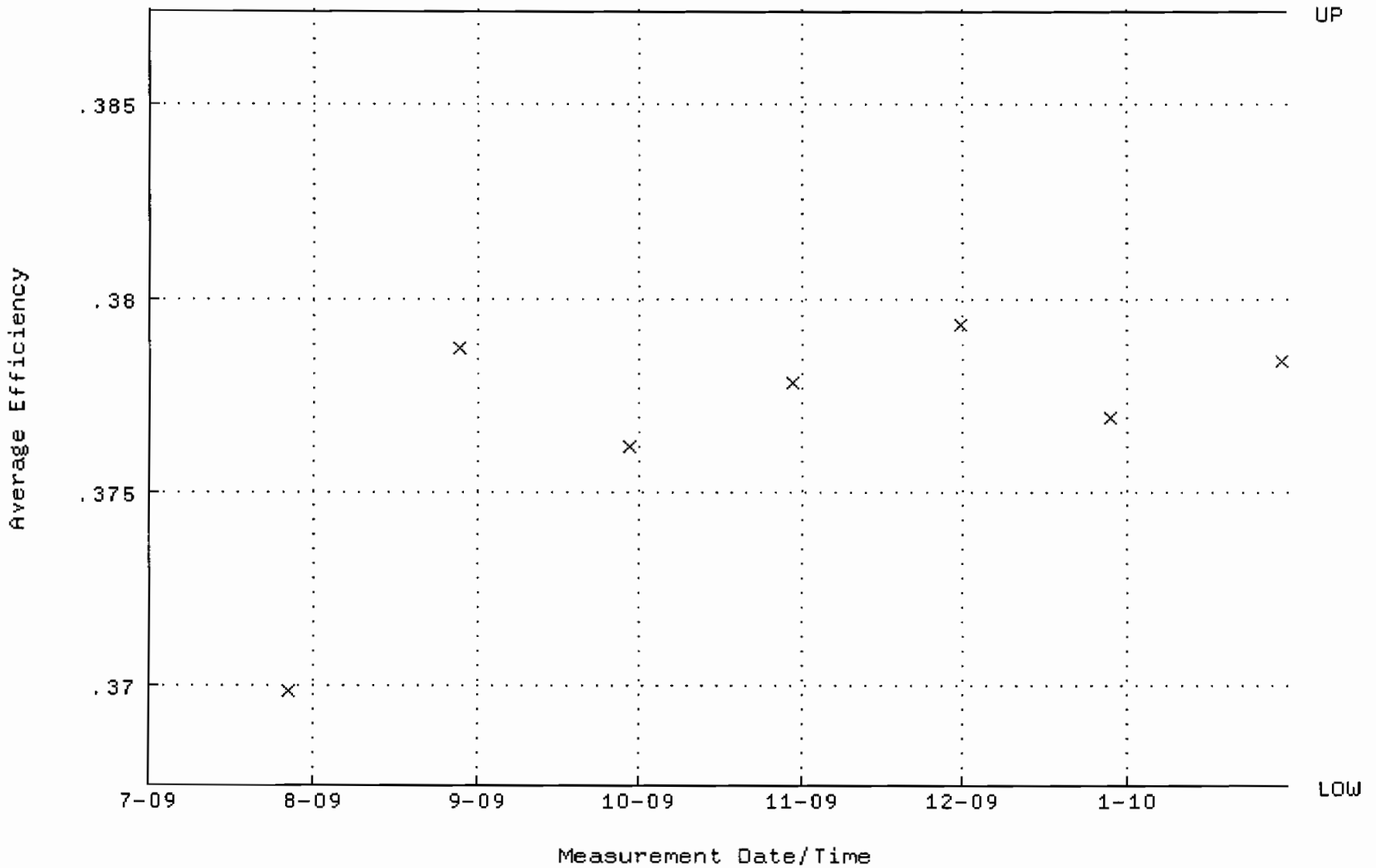

QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 81.4437 through 90.0167

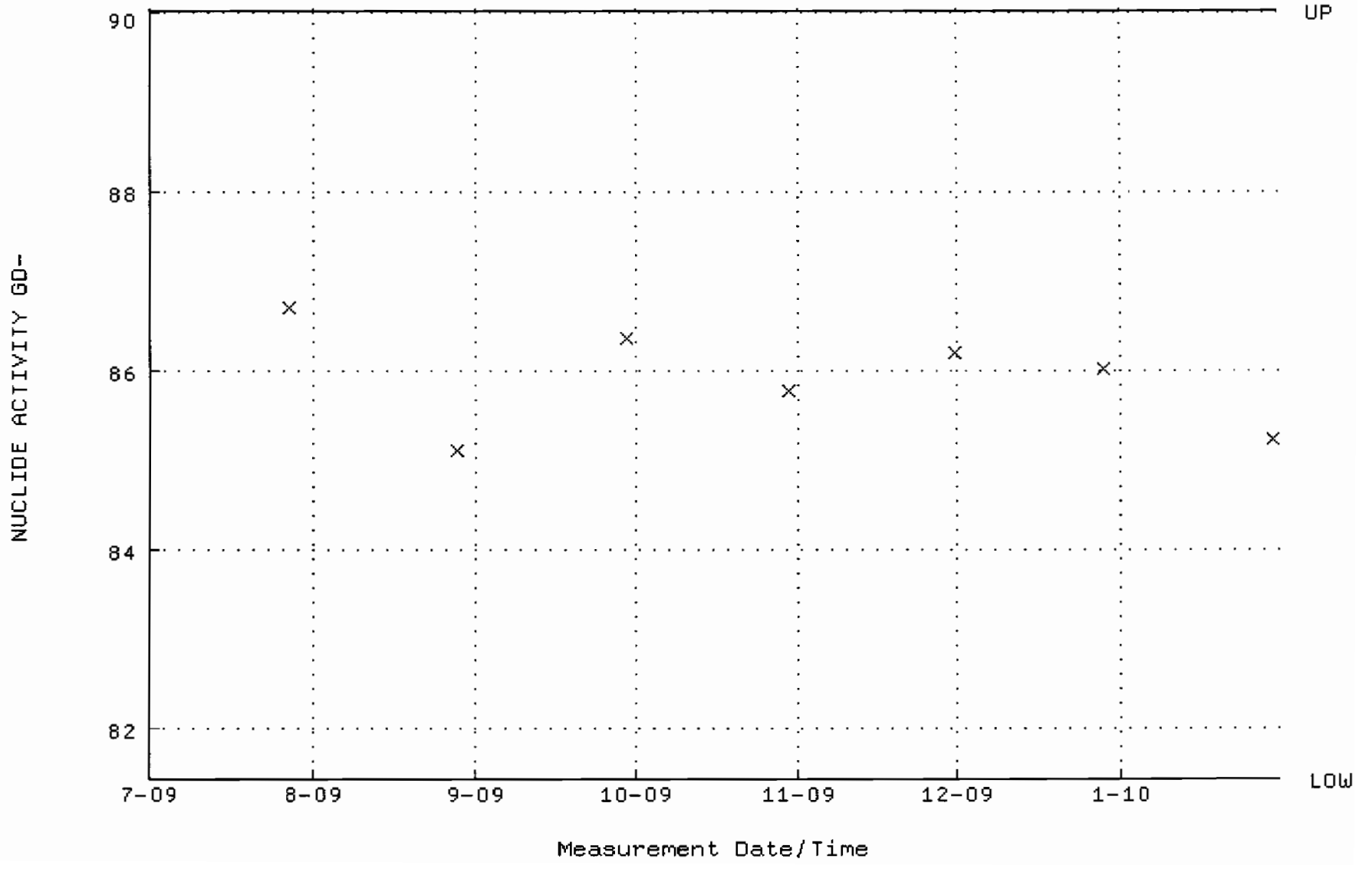

QA filename : DKA100:[ENV_ALPHA.QA.B]B252.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:41 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

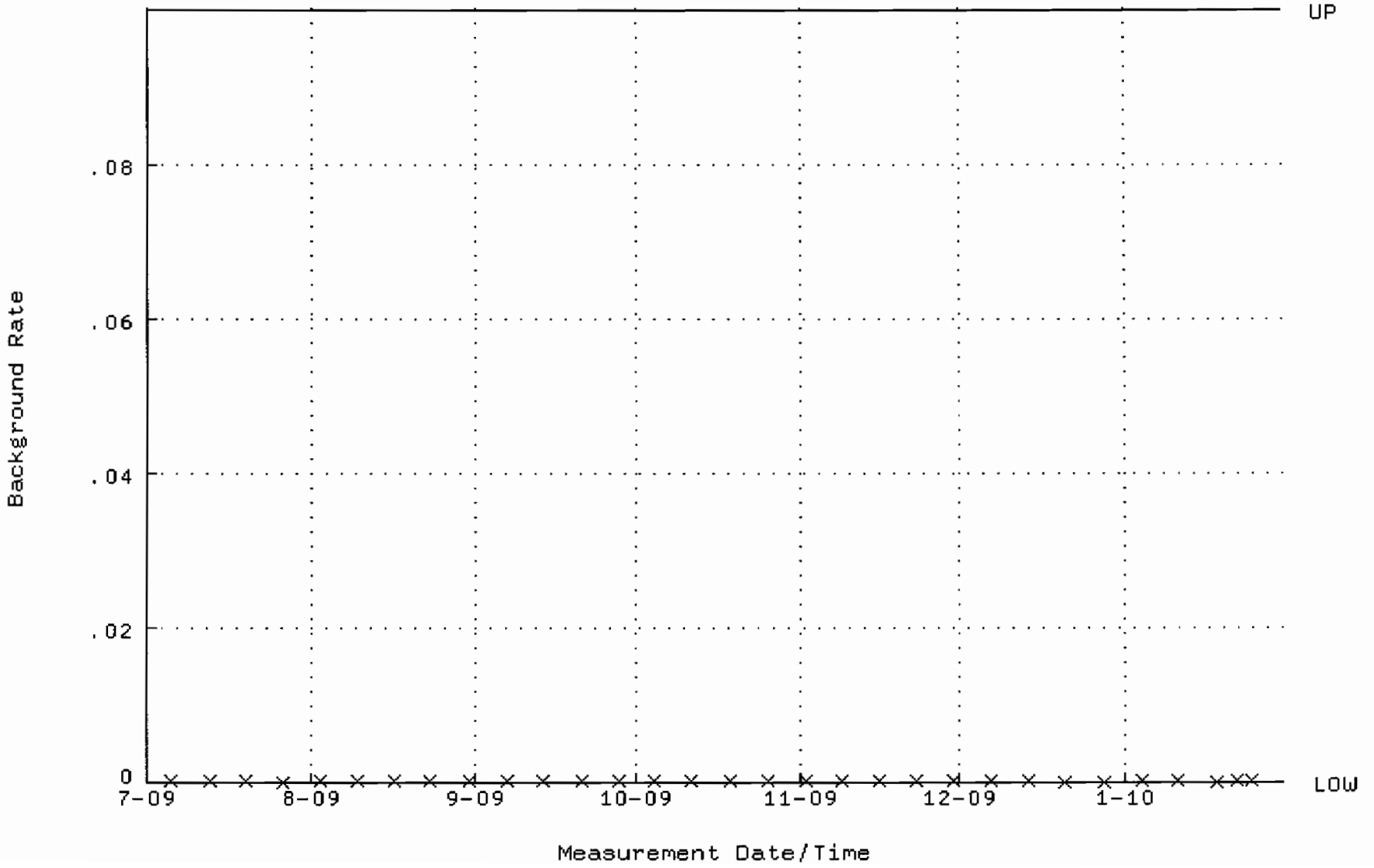

QA filename : DKA100:[ENV_ALPHA.QA.W]W254.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.382510 through 0.402510

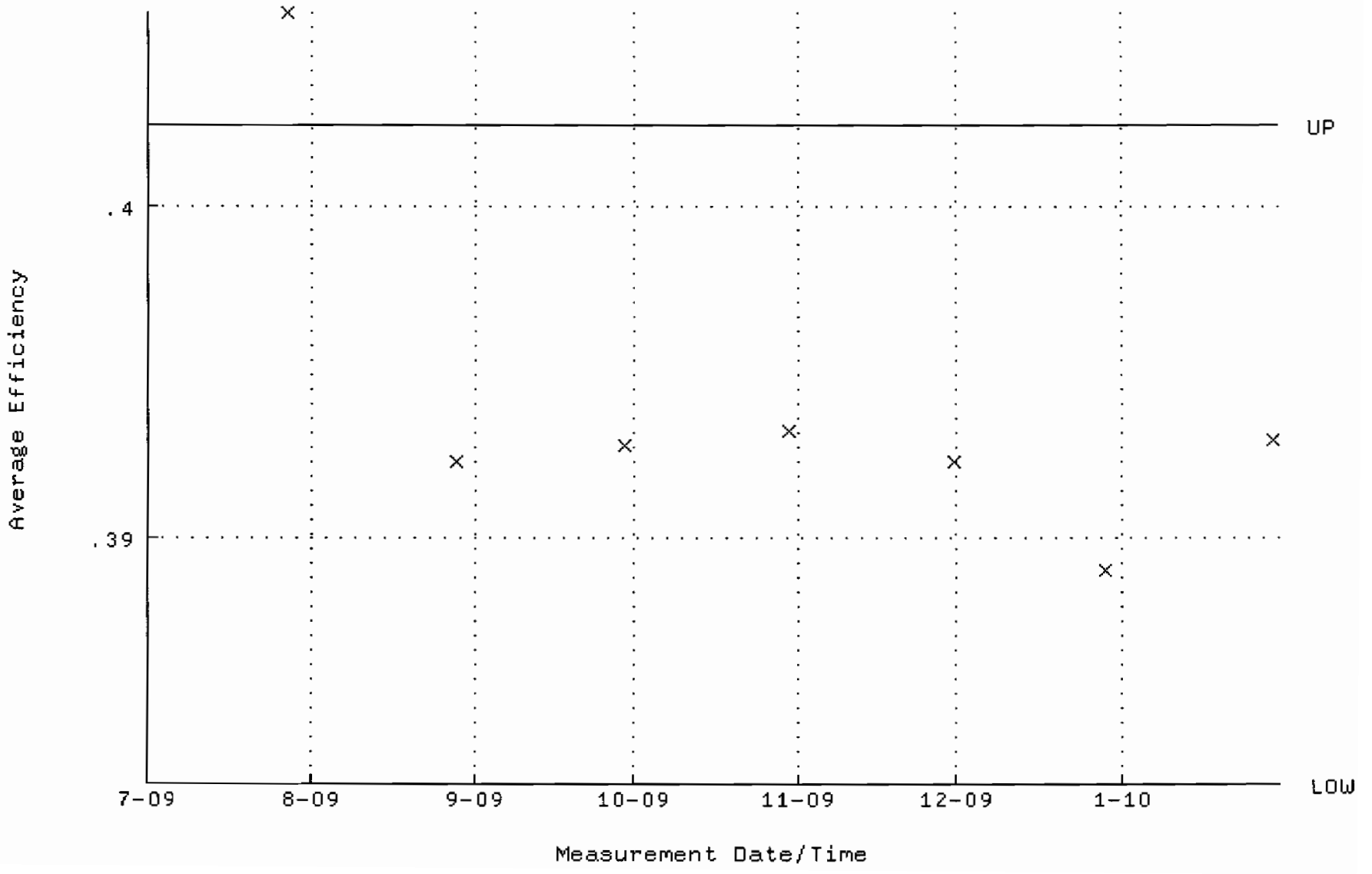

QA filename : DKA100:[ENV_ALPHA.QA.W]W254.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.4795 through 91.1615

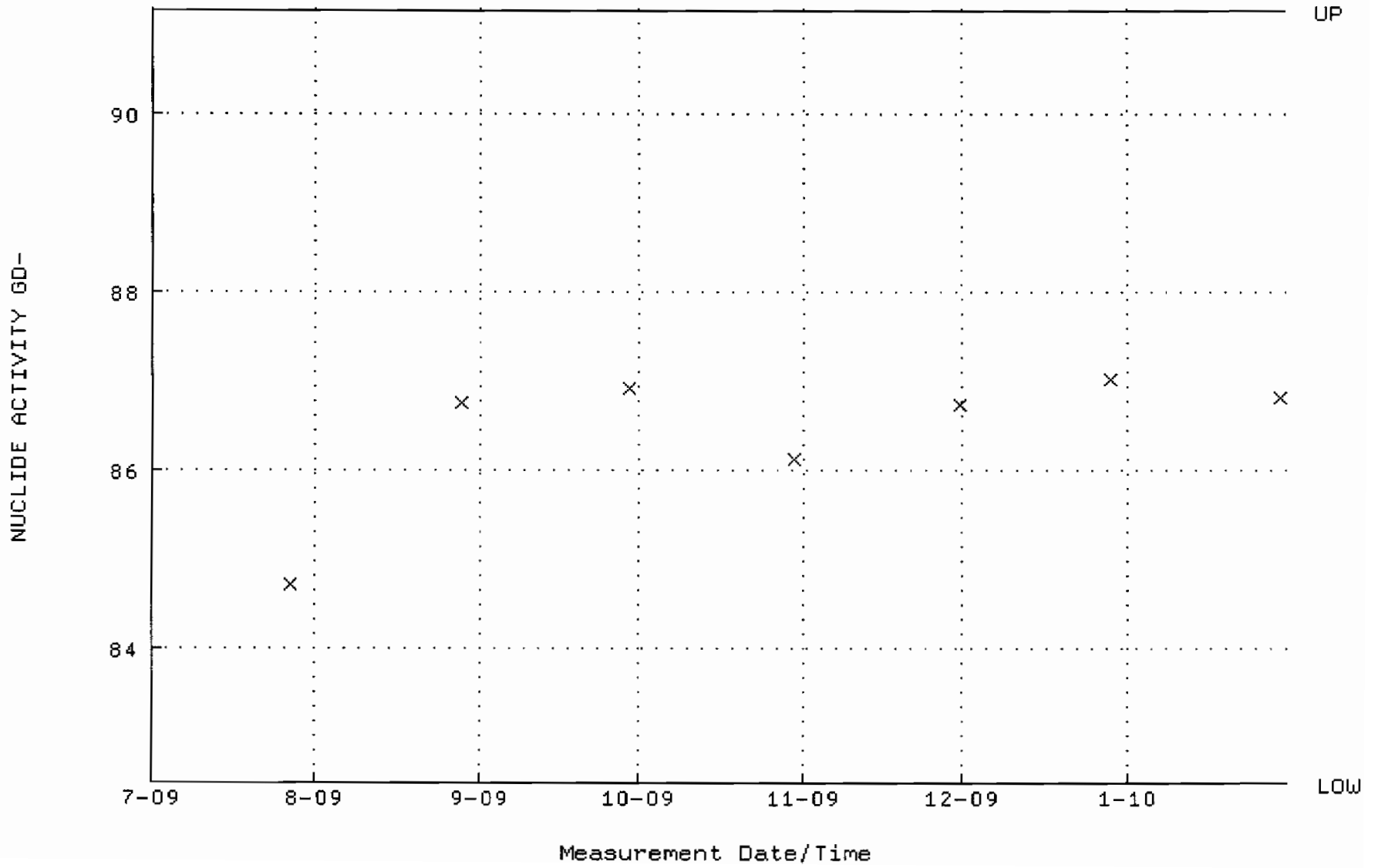

QA filename : DKA100:[ENV_ALPHA.QA.B]B254.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

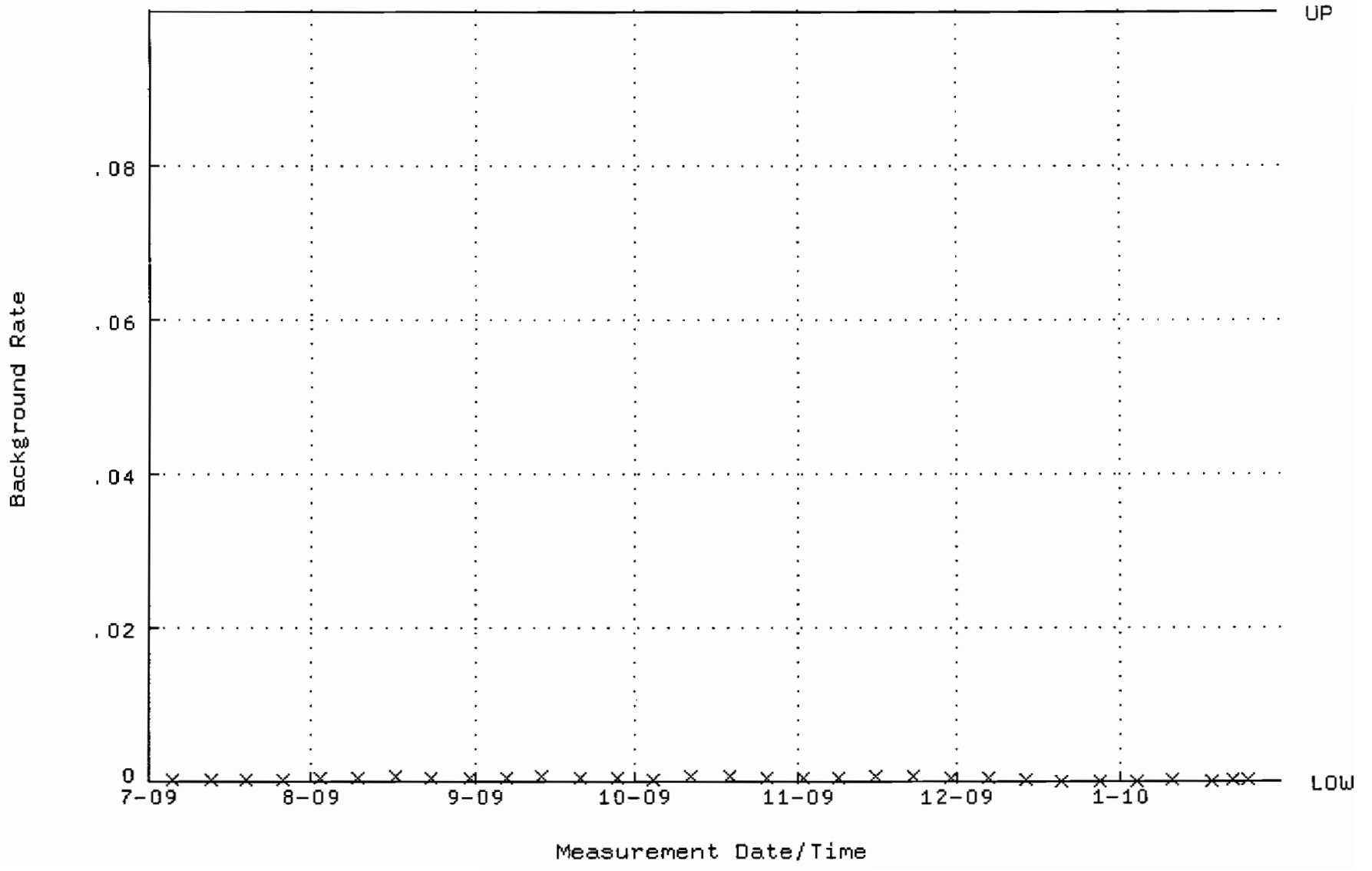

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:52:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.374371 through 0.388647

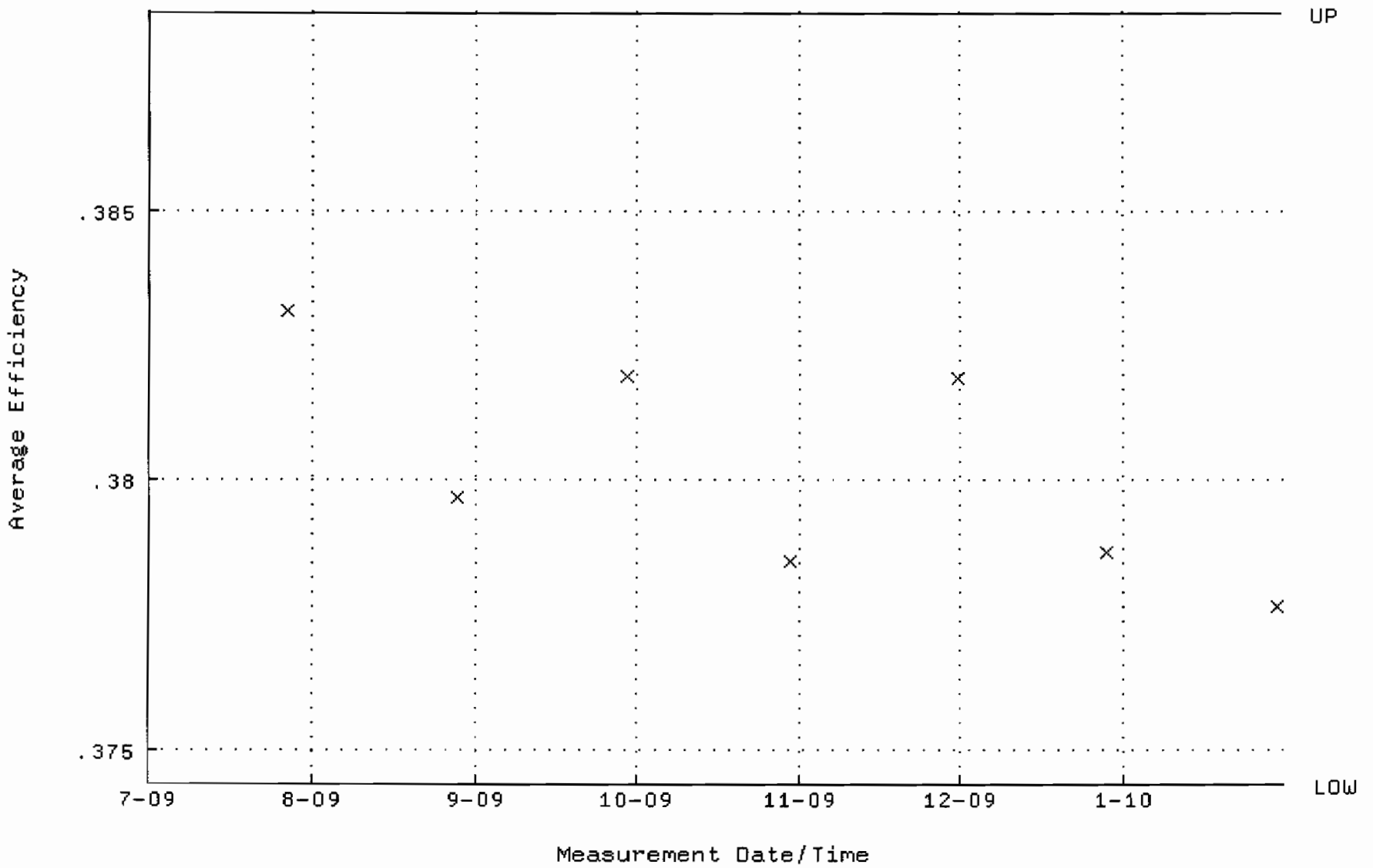

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:52:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7553 through 85.8901

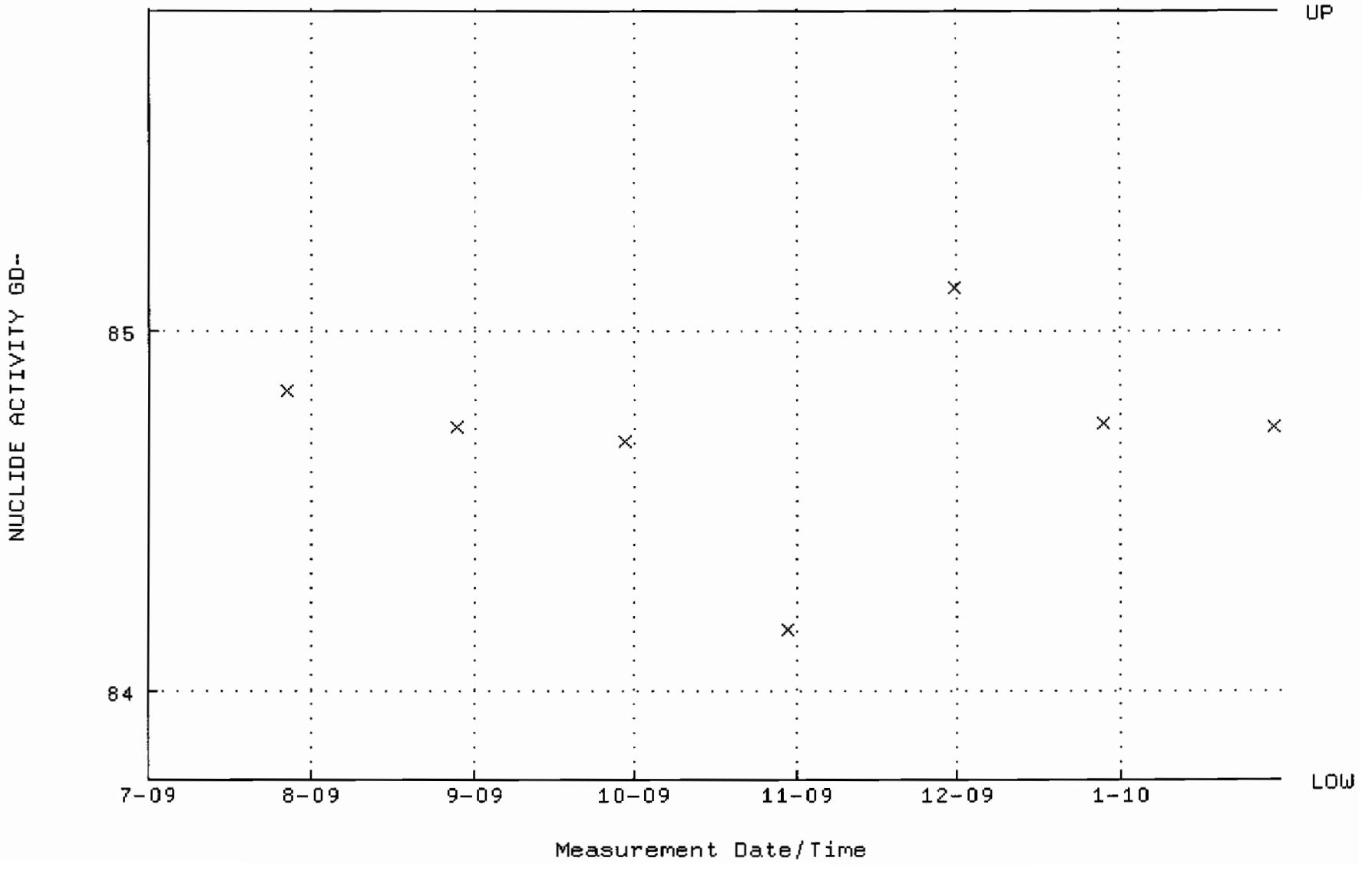

QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:59 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

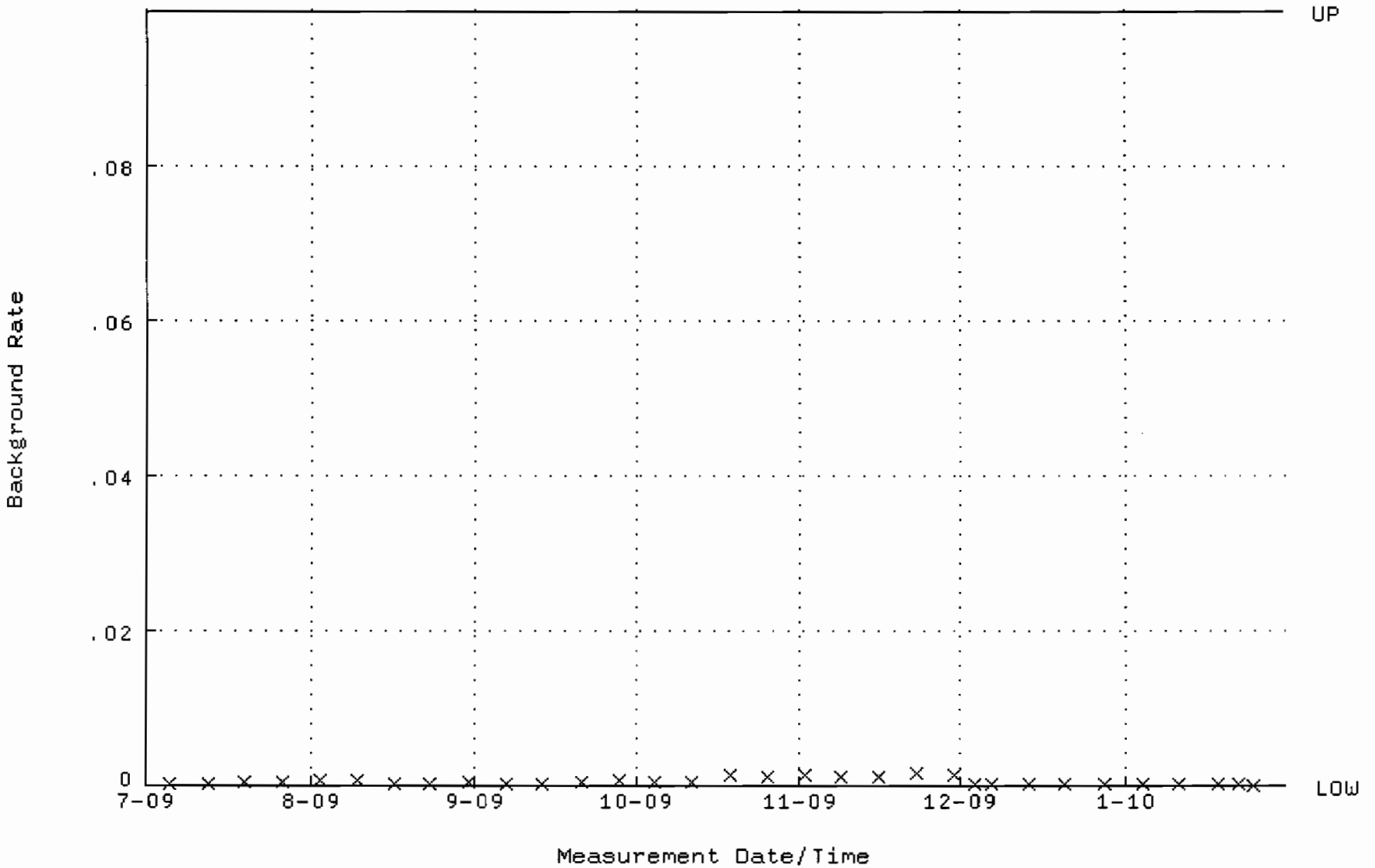

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:08:48 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

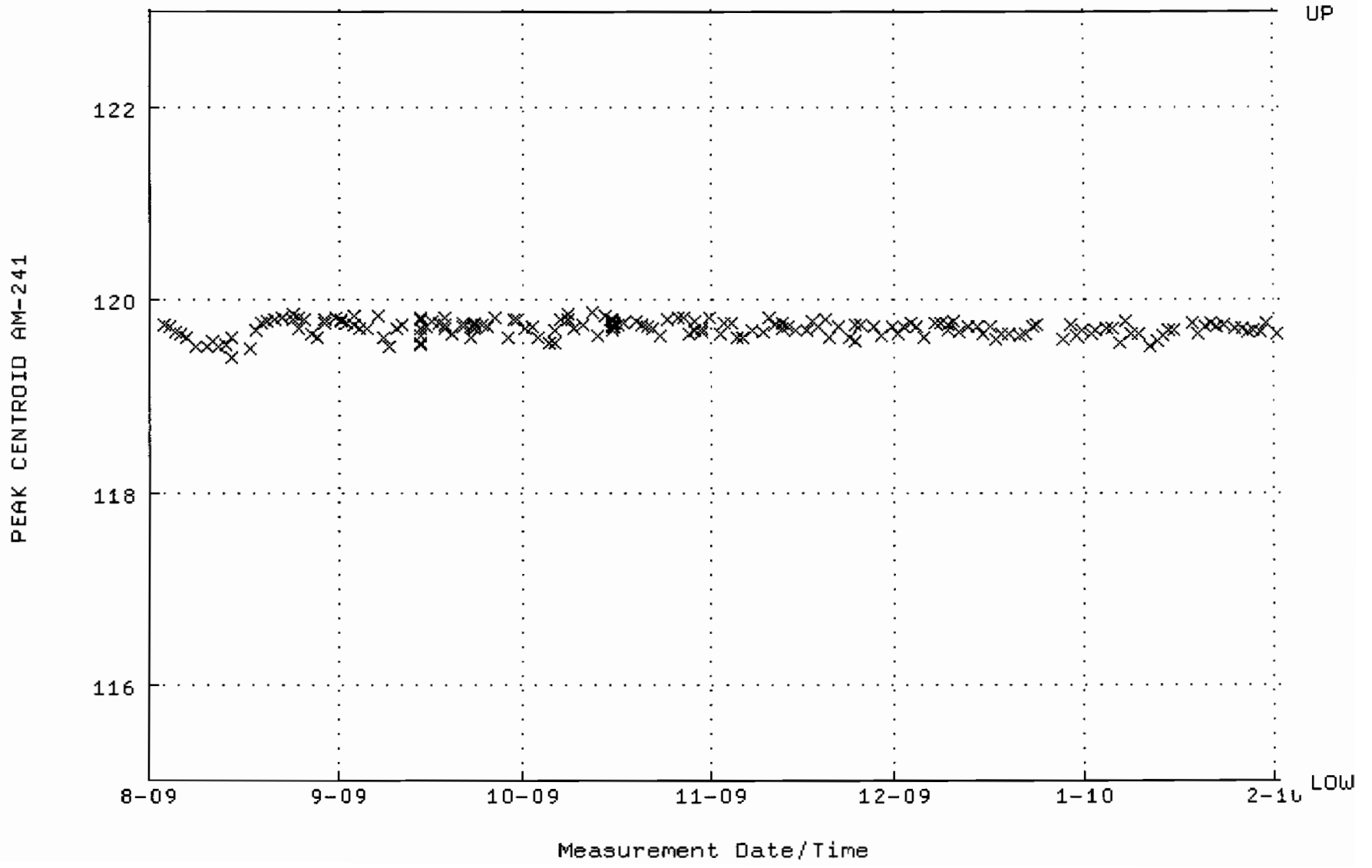

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:21:01 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

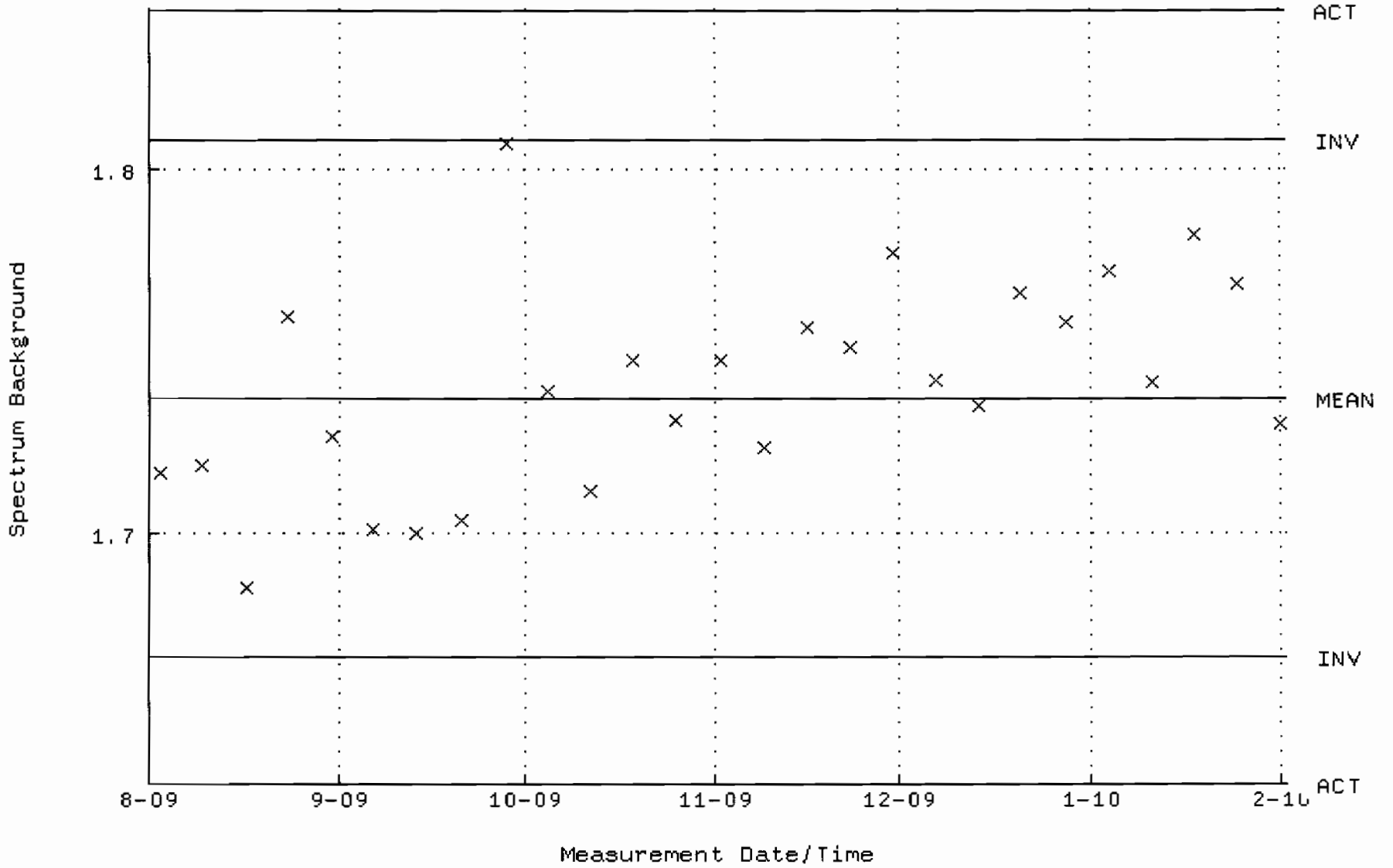

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:19:33 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

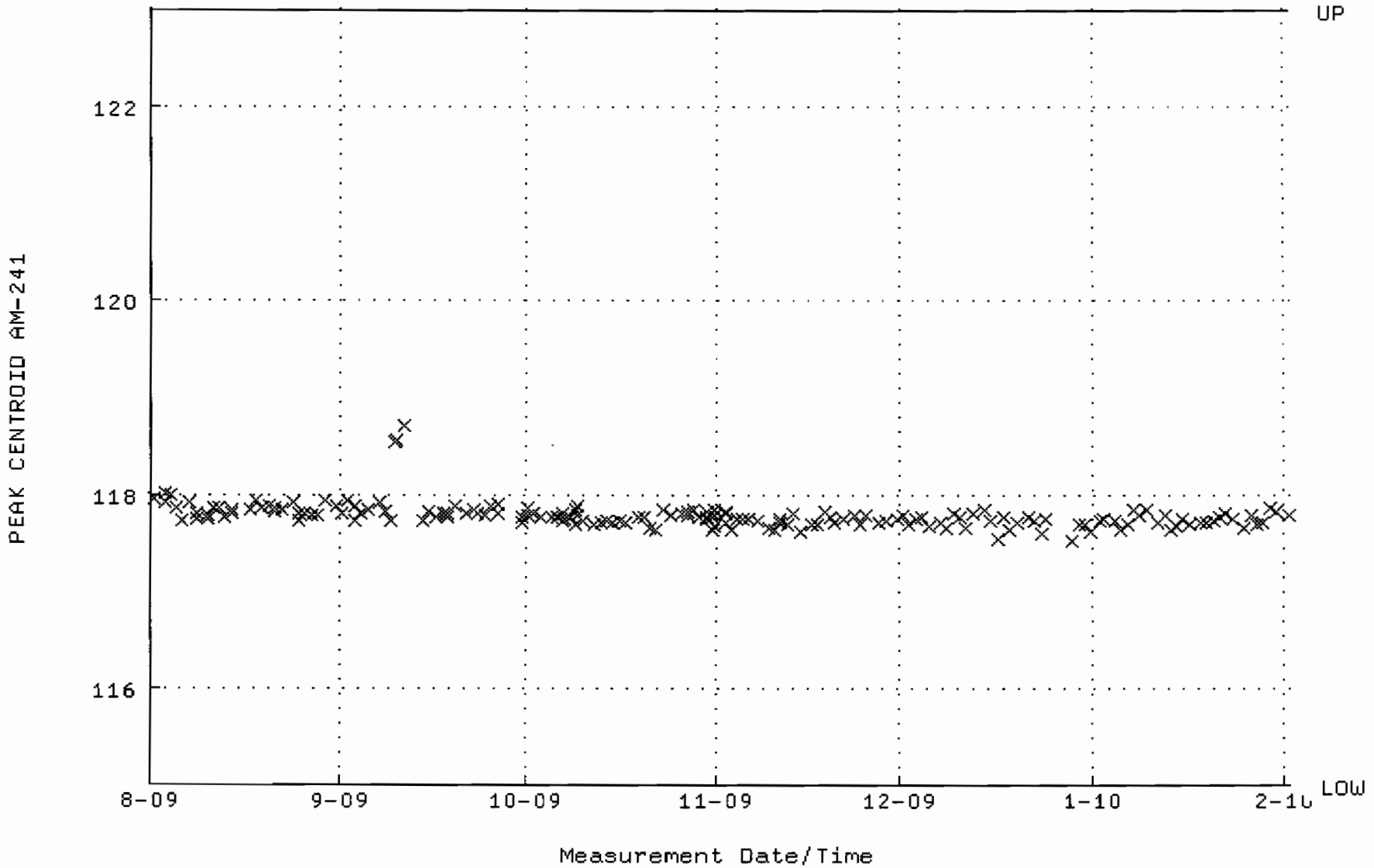

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:27 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)

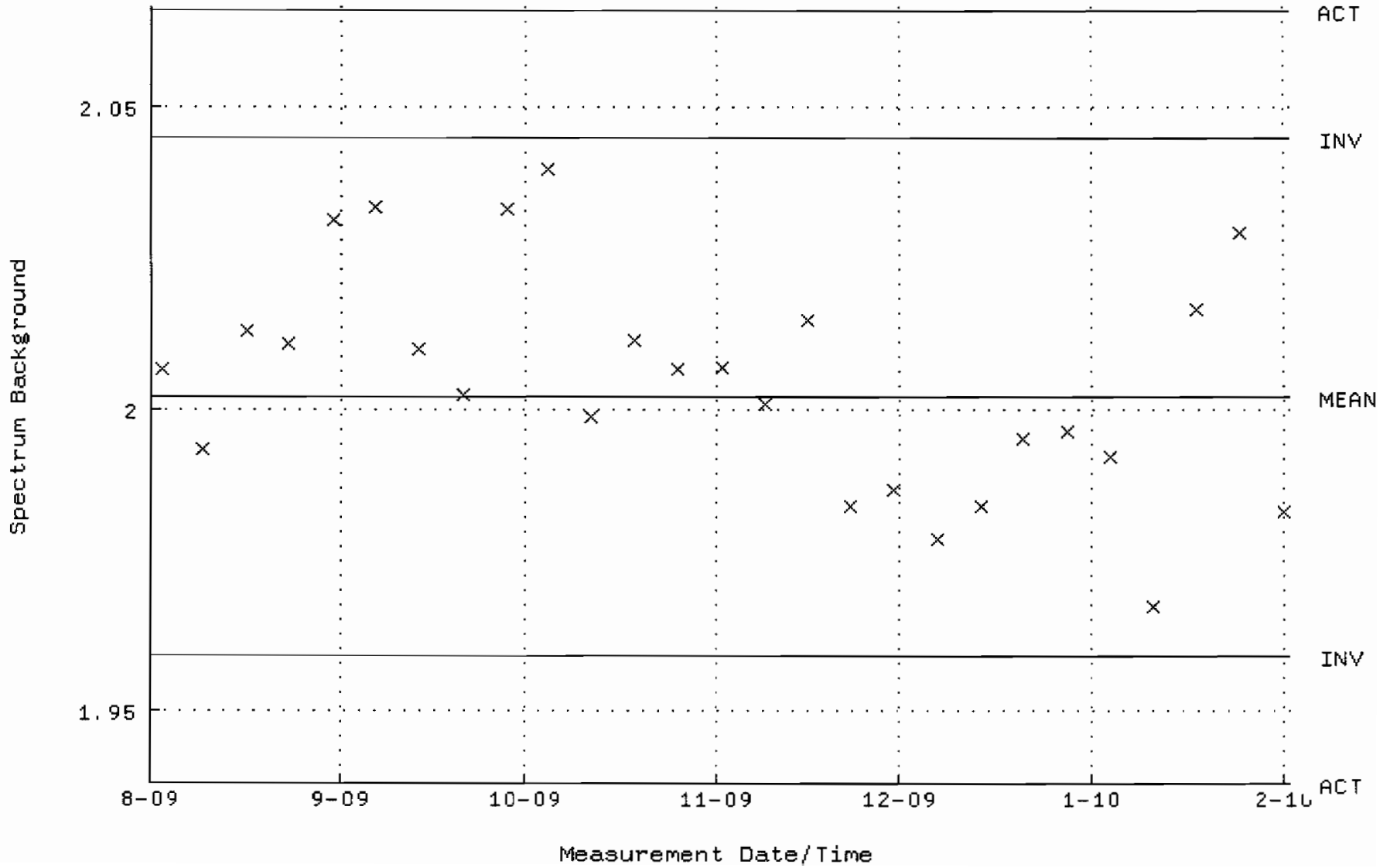

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:11:46 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

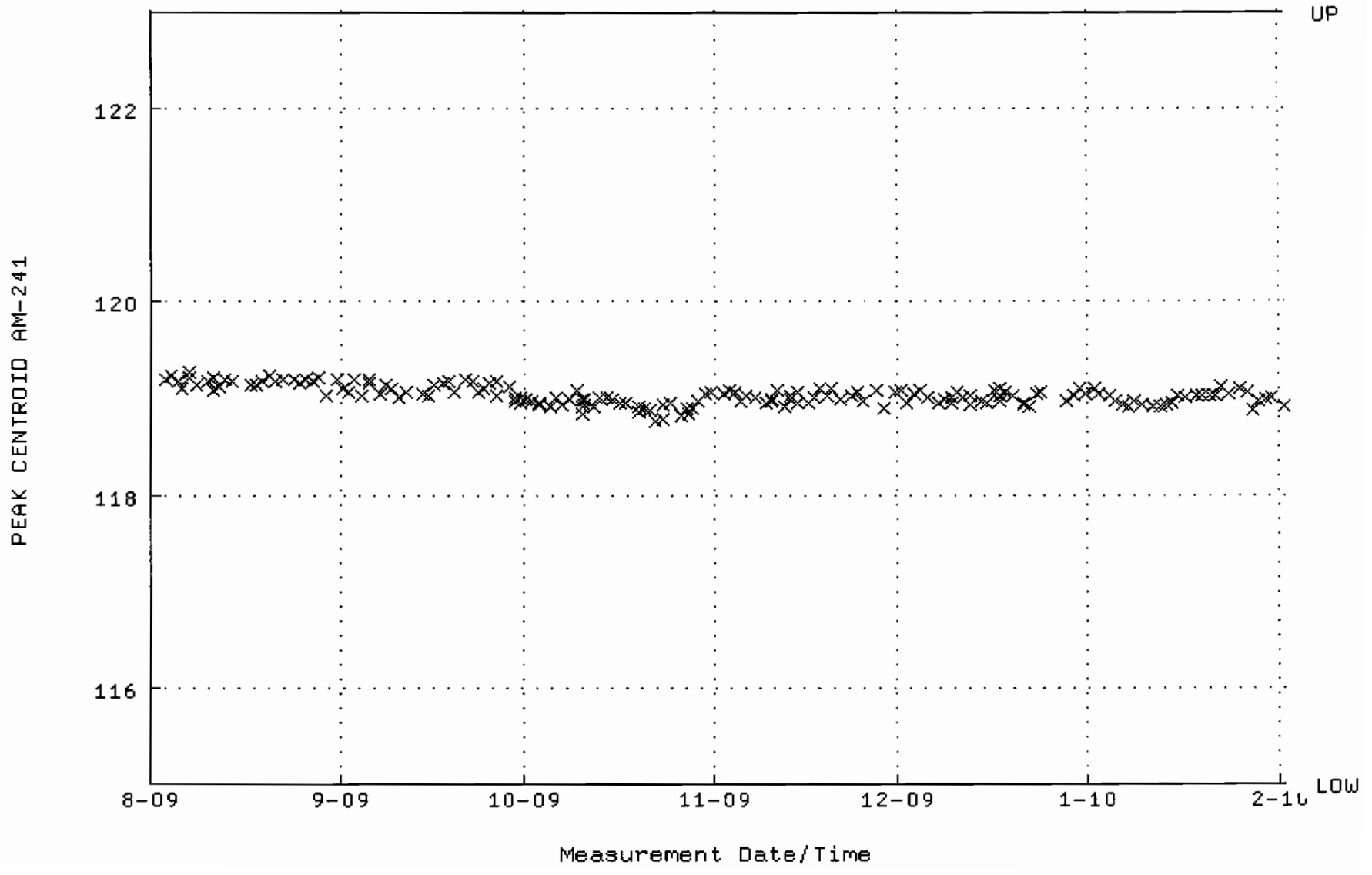

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:48 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

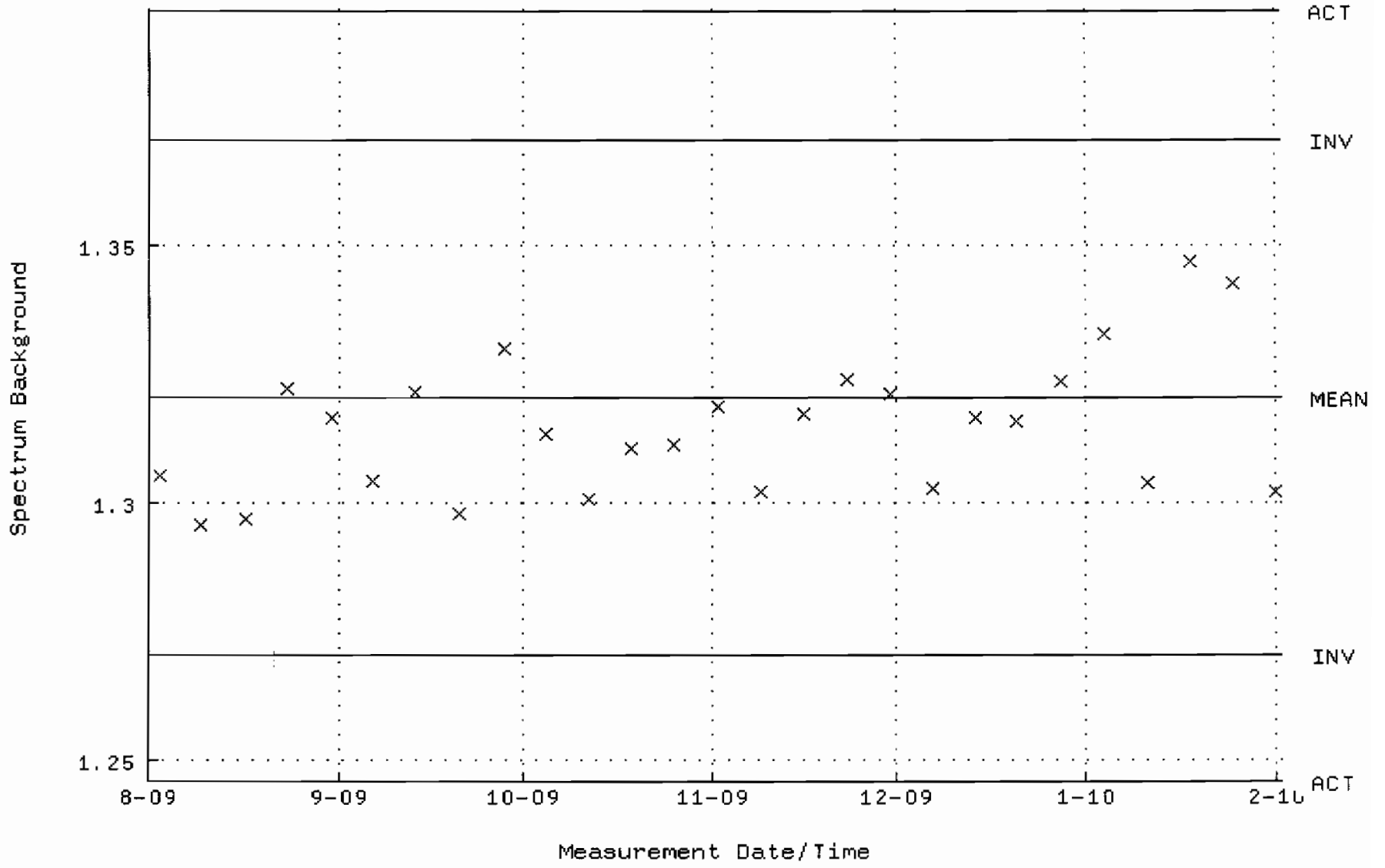

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

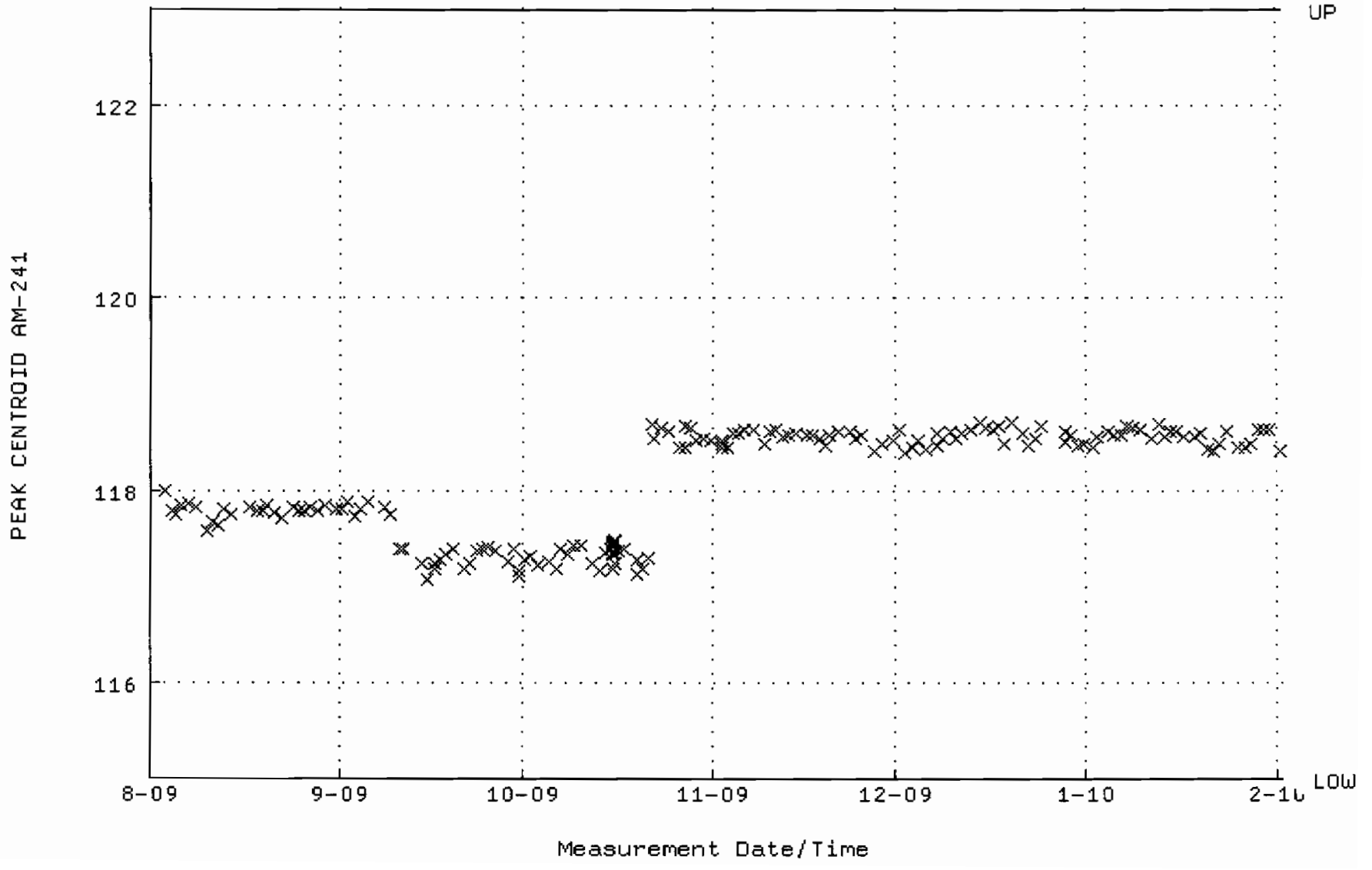

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:13 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

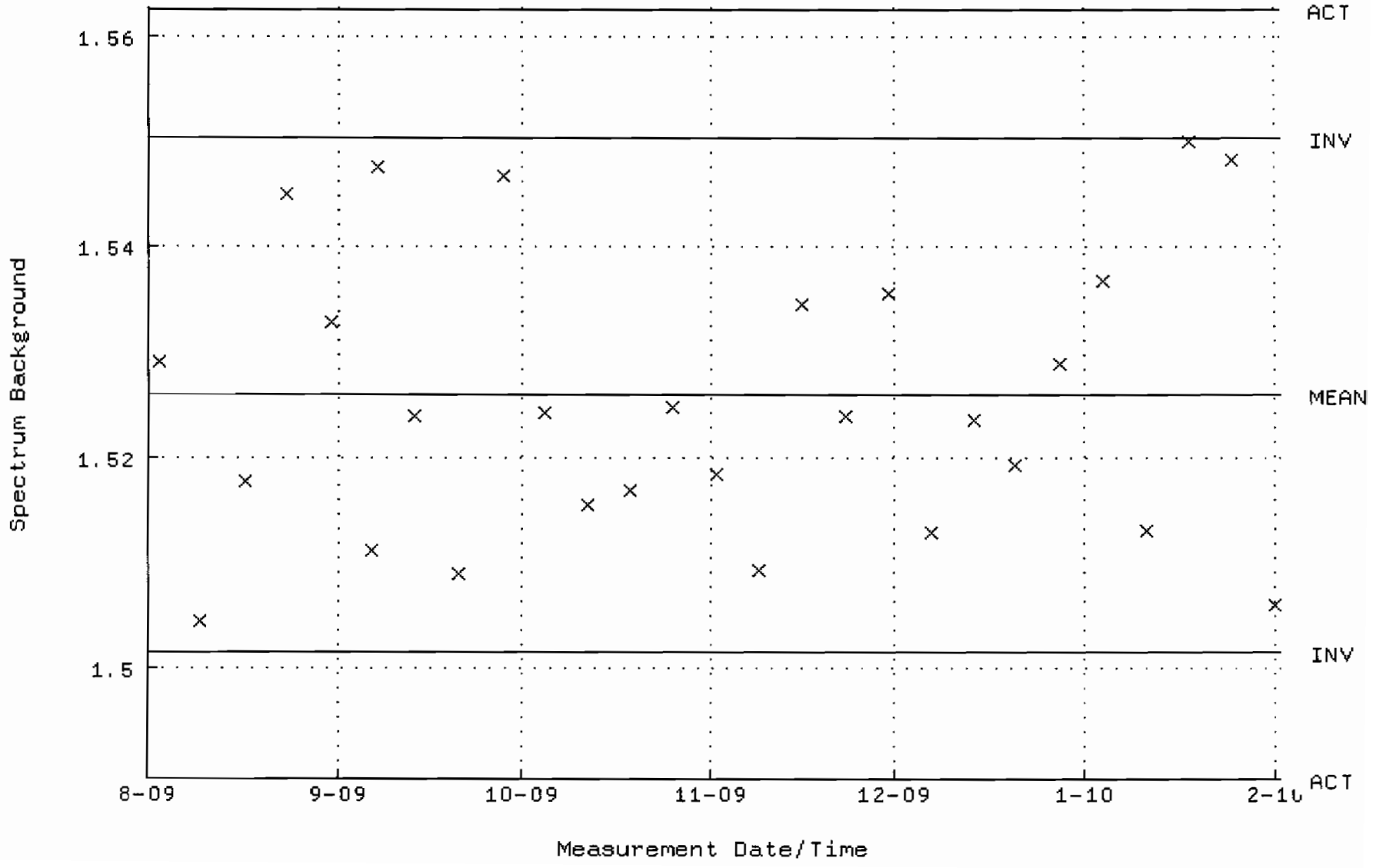

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:52 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

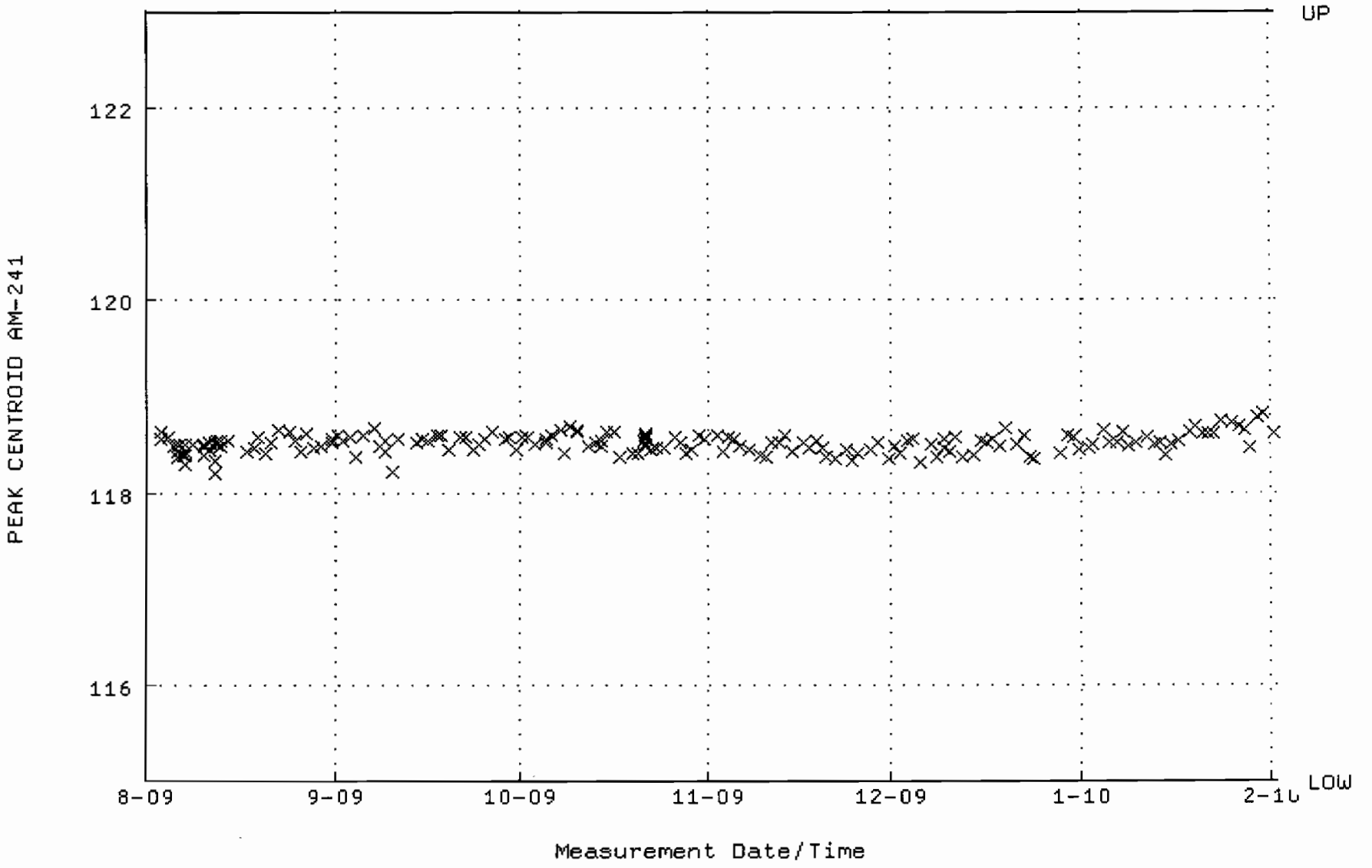

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:26 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

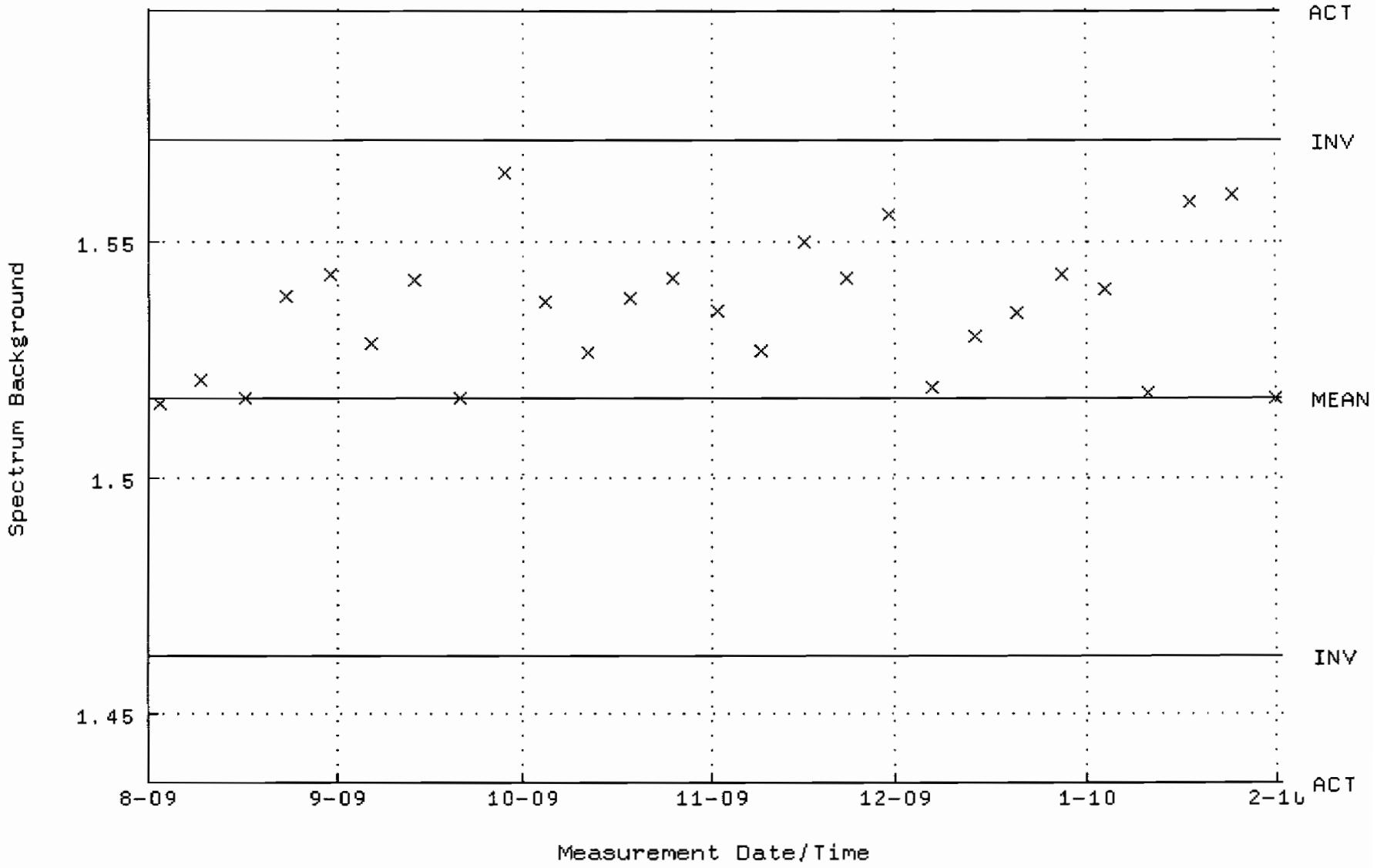

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

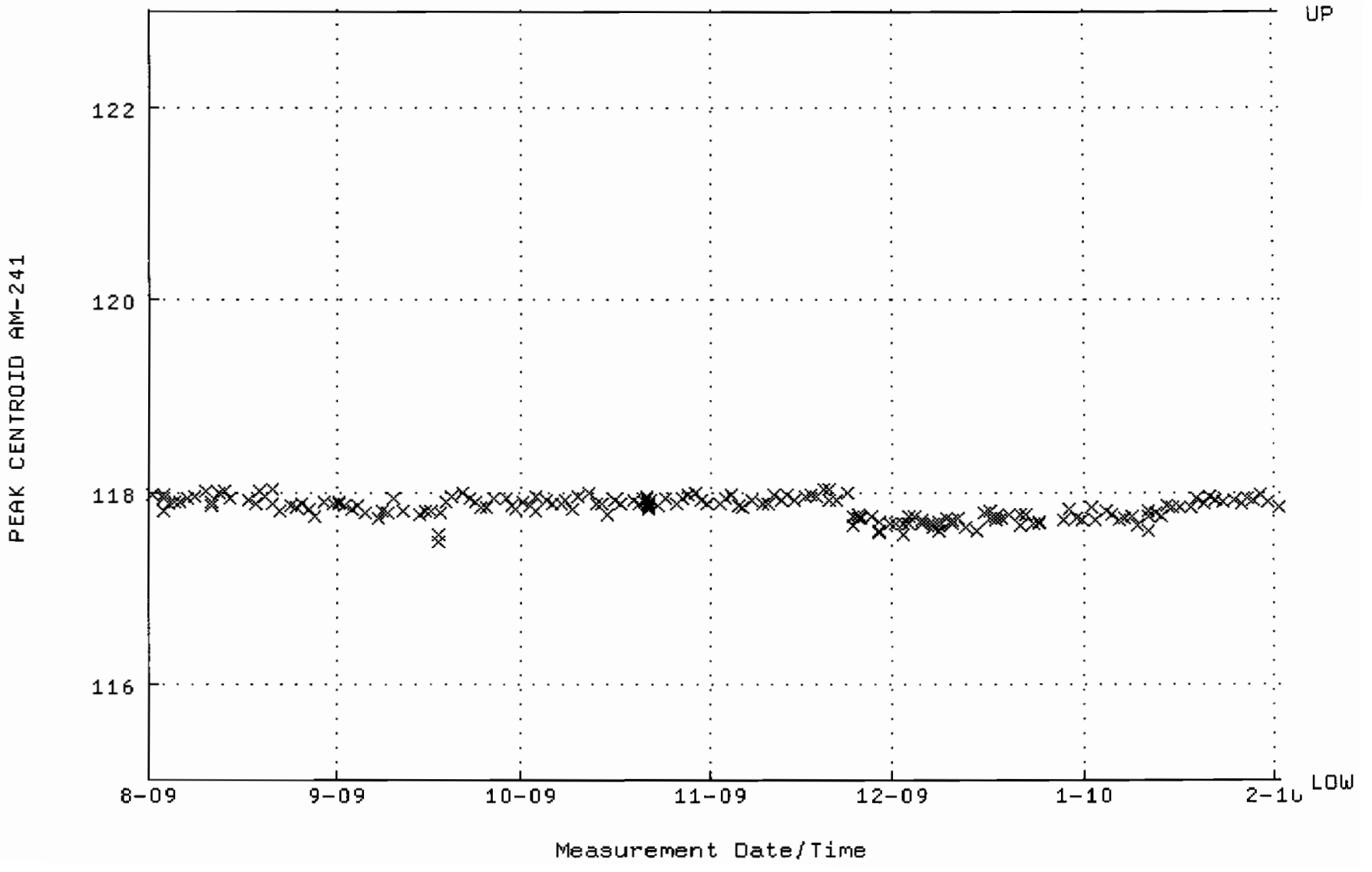

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)

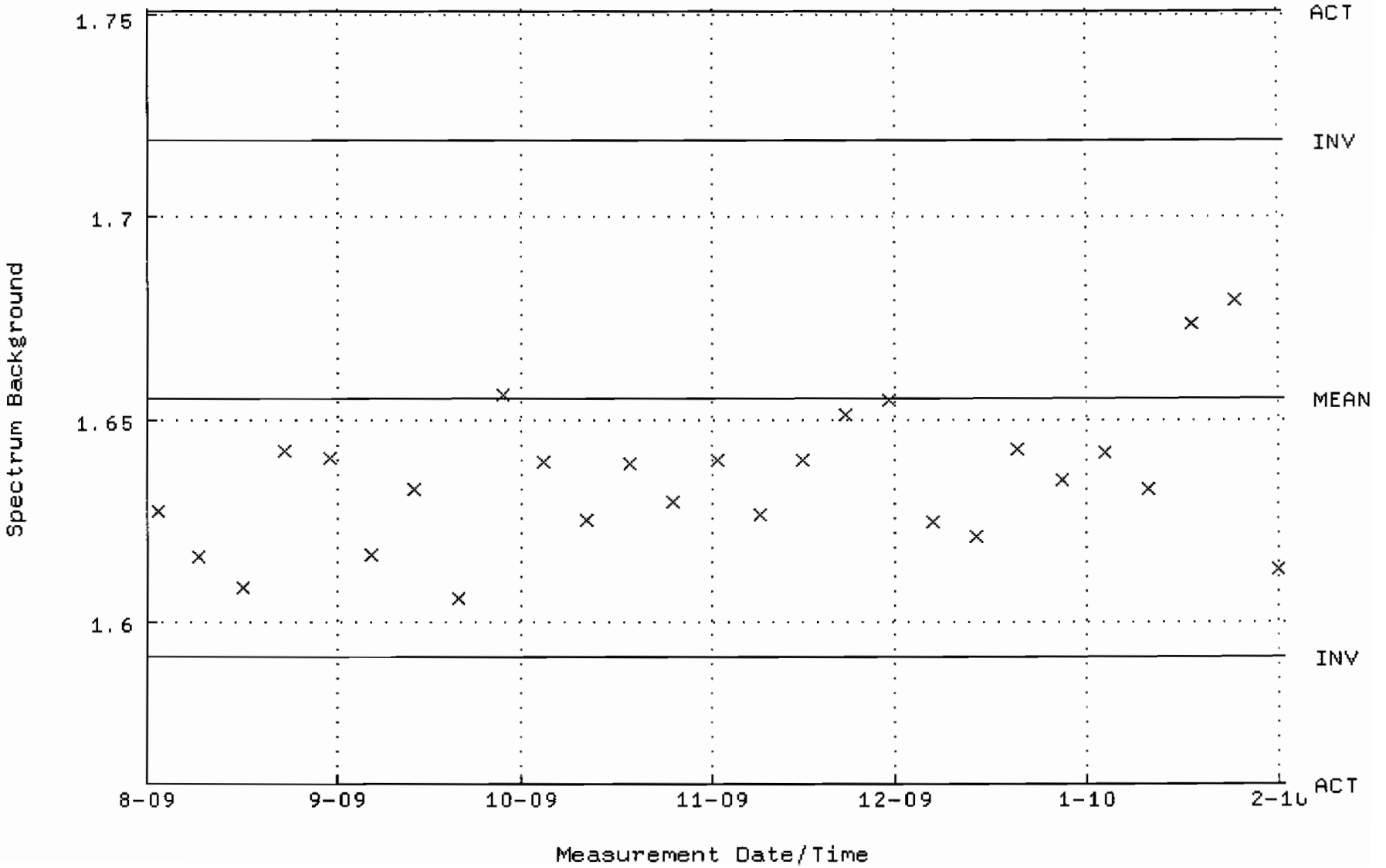

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

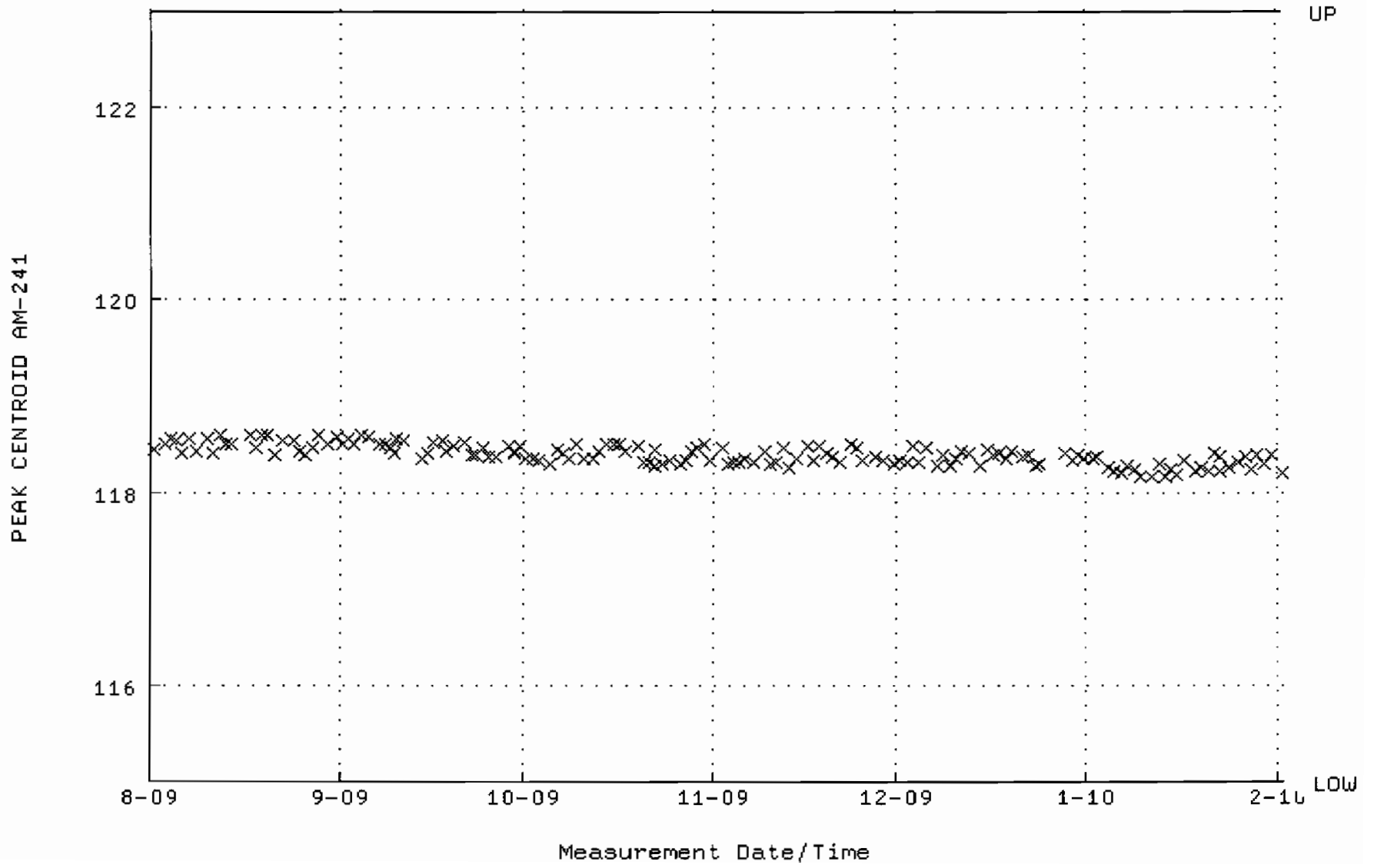

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

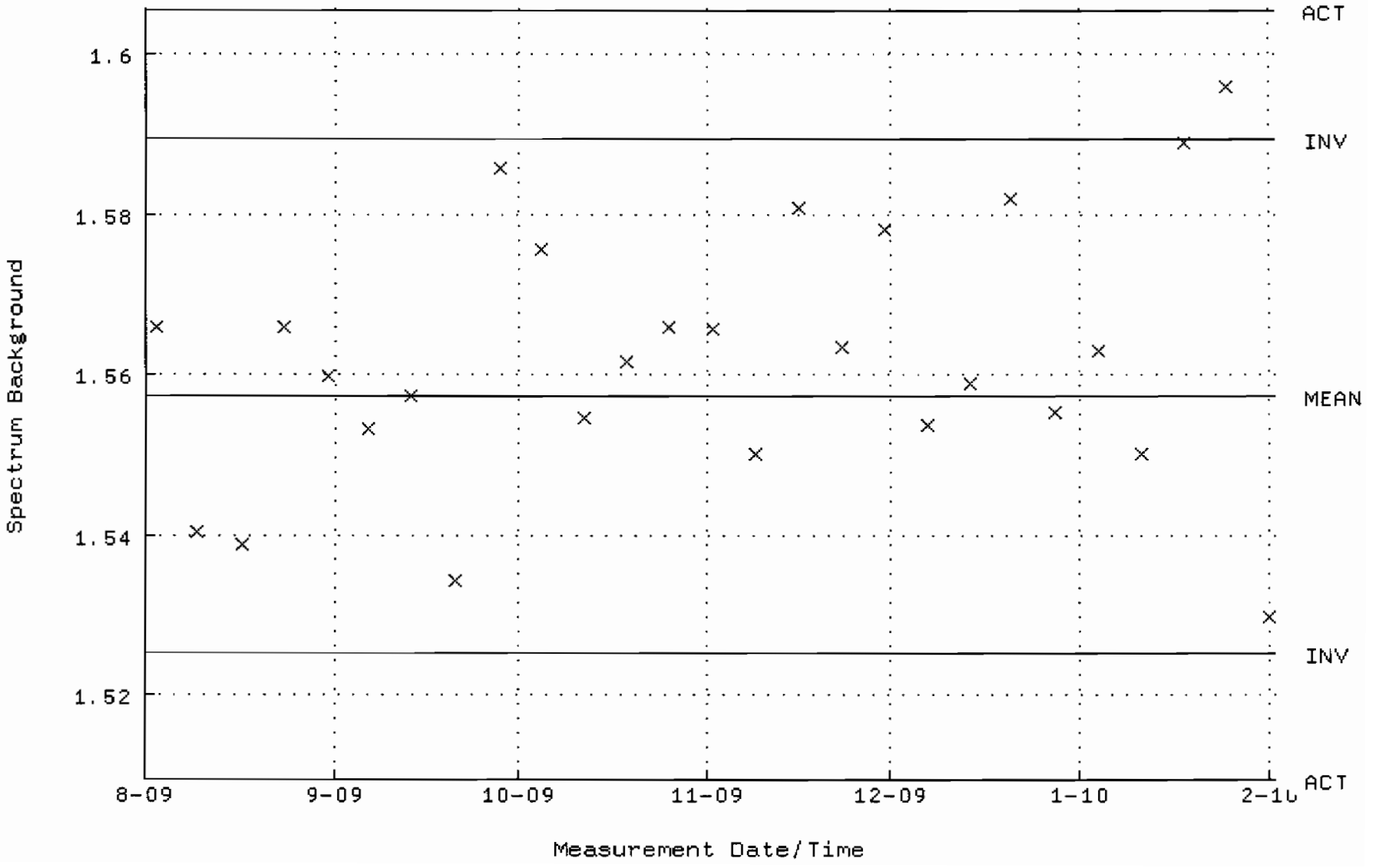

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:15:54 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

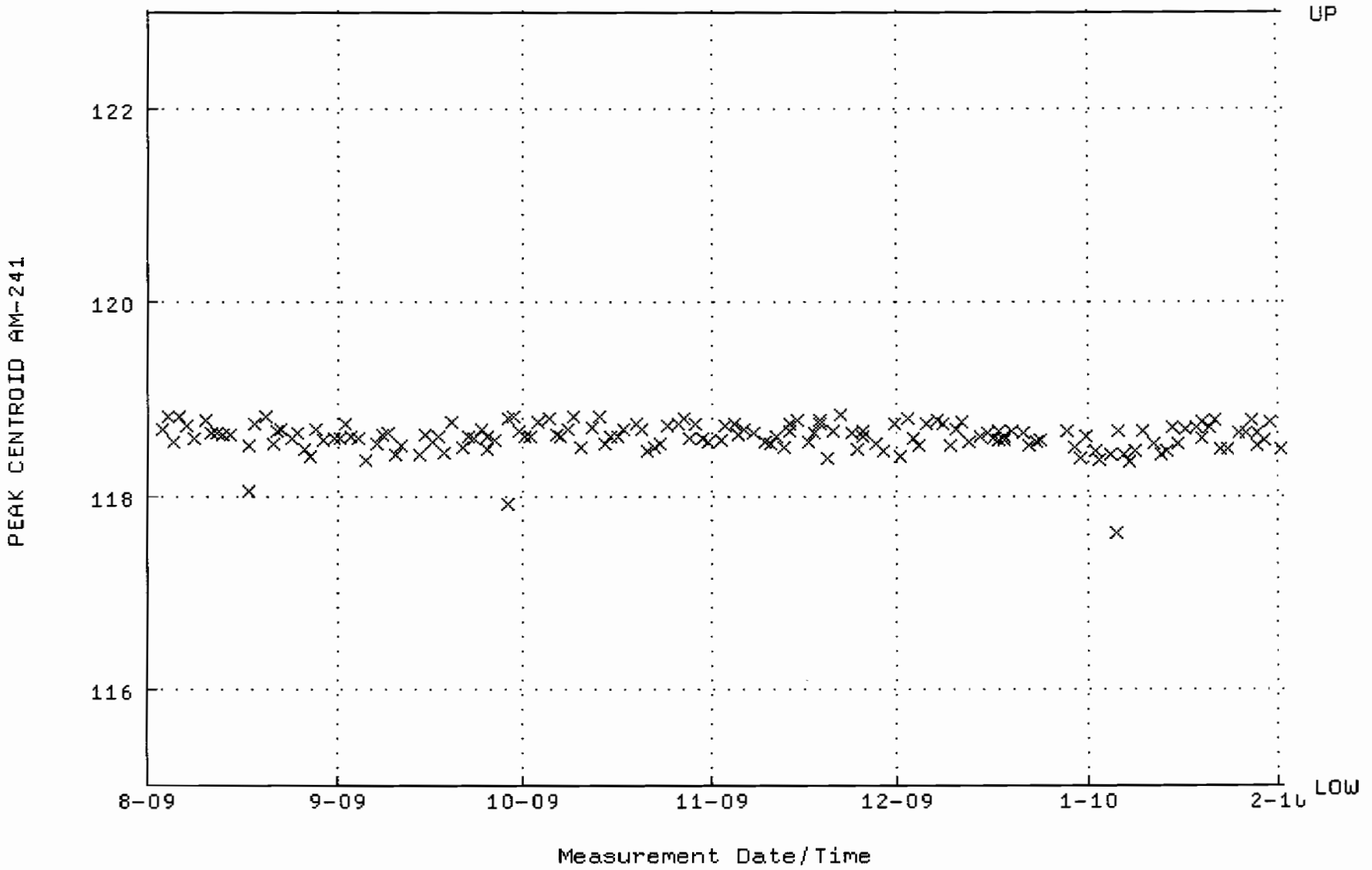

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:33 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

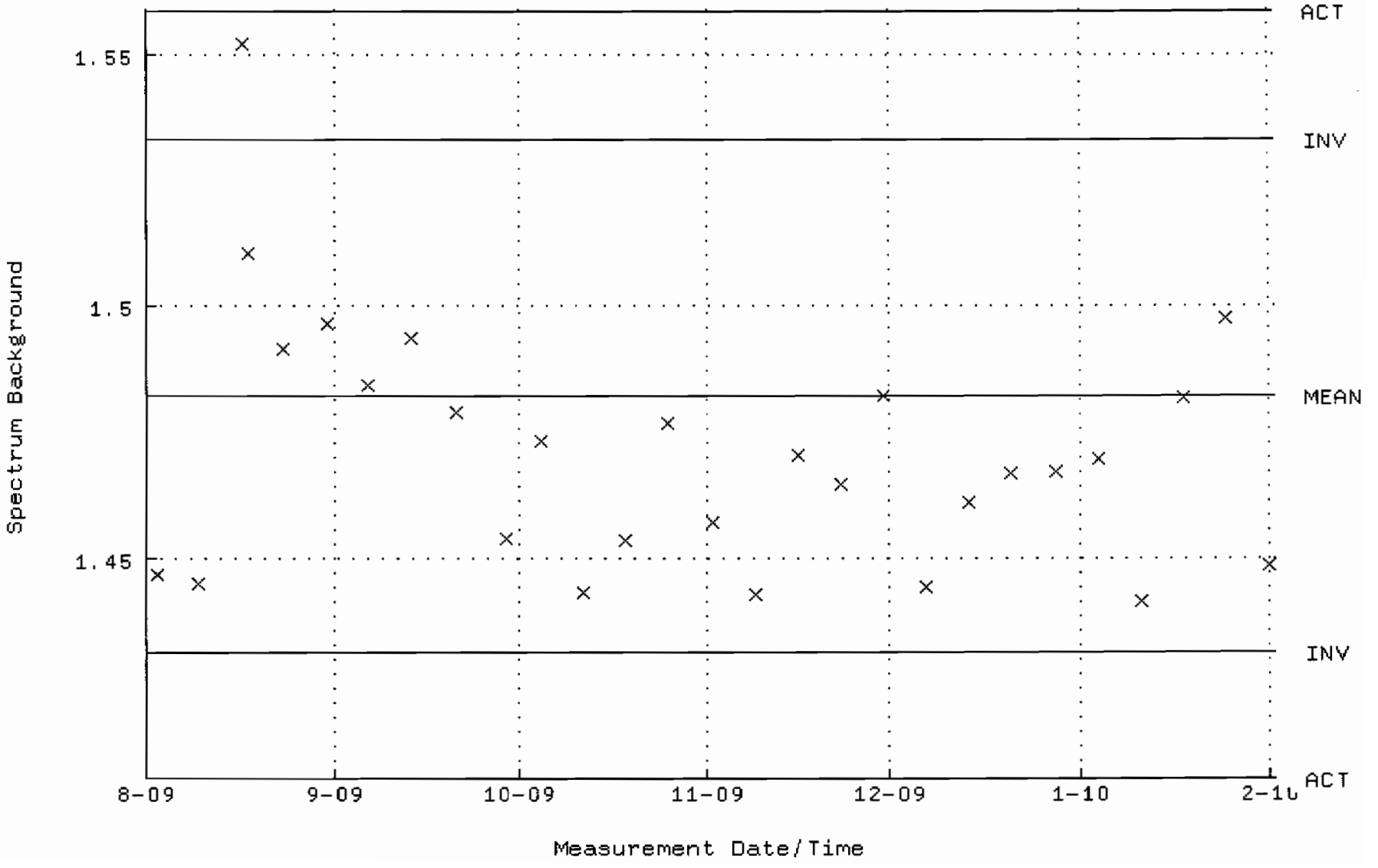

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:53:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

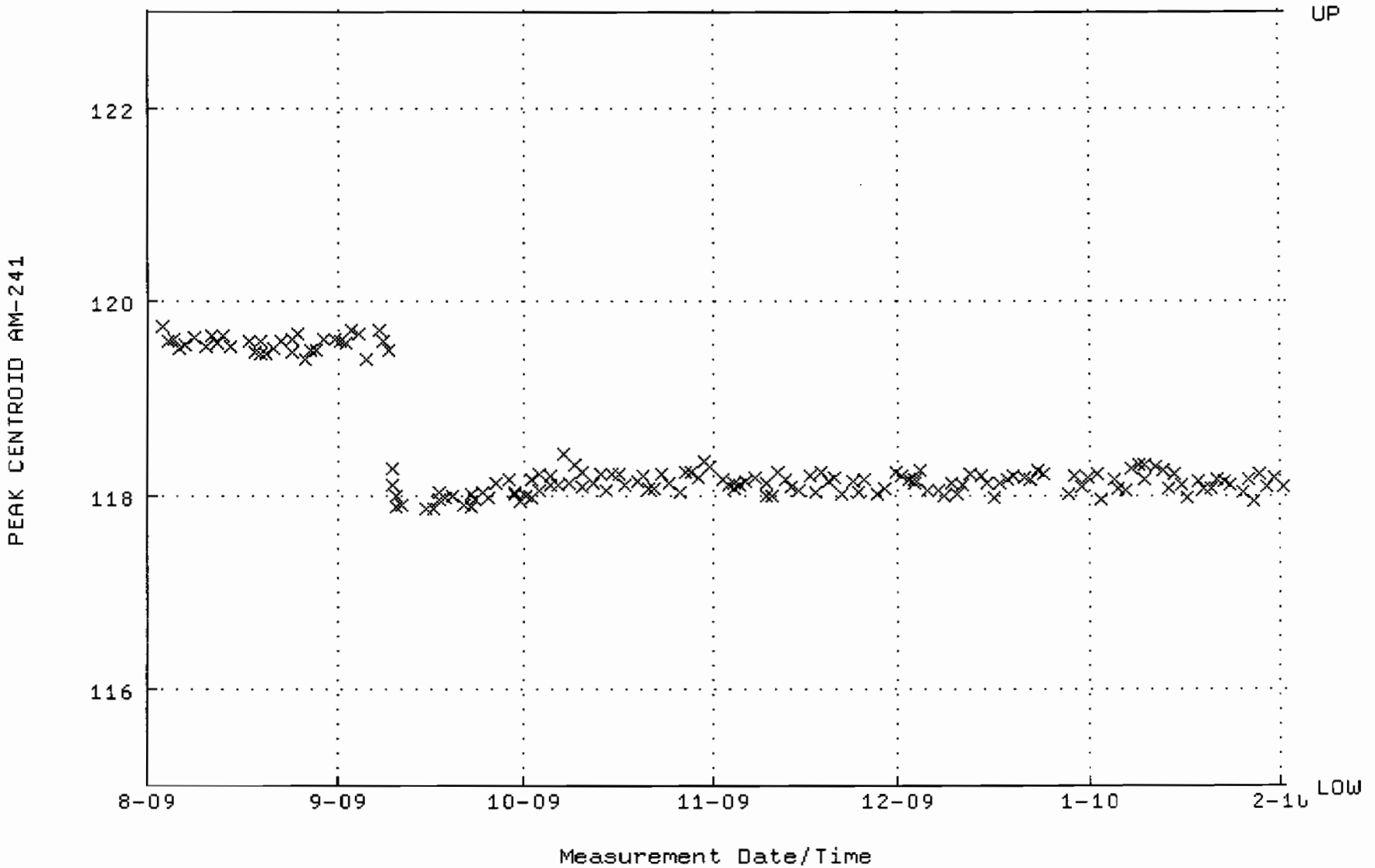

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:46 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

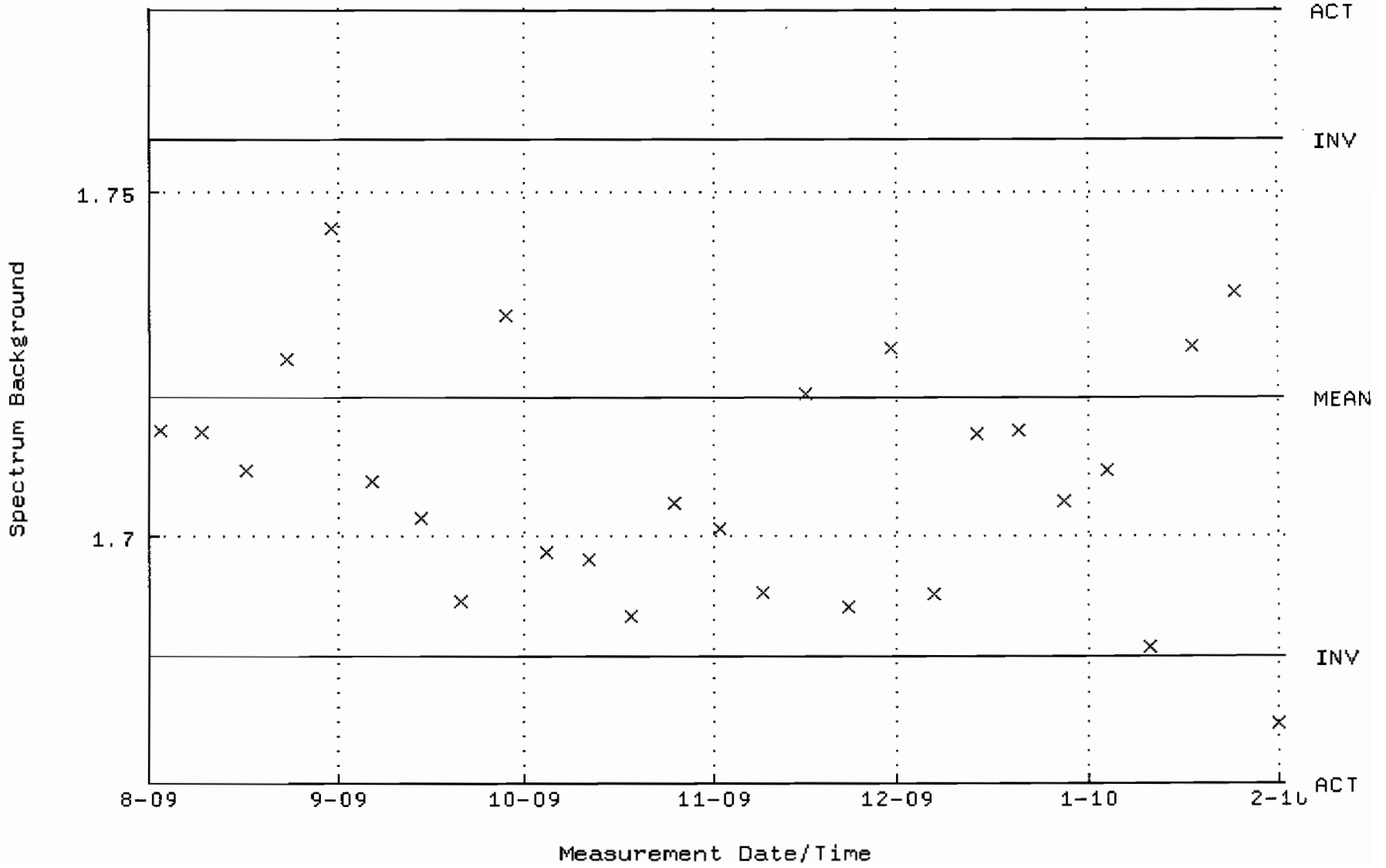

QA filename : OKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:55:06 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

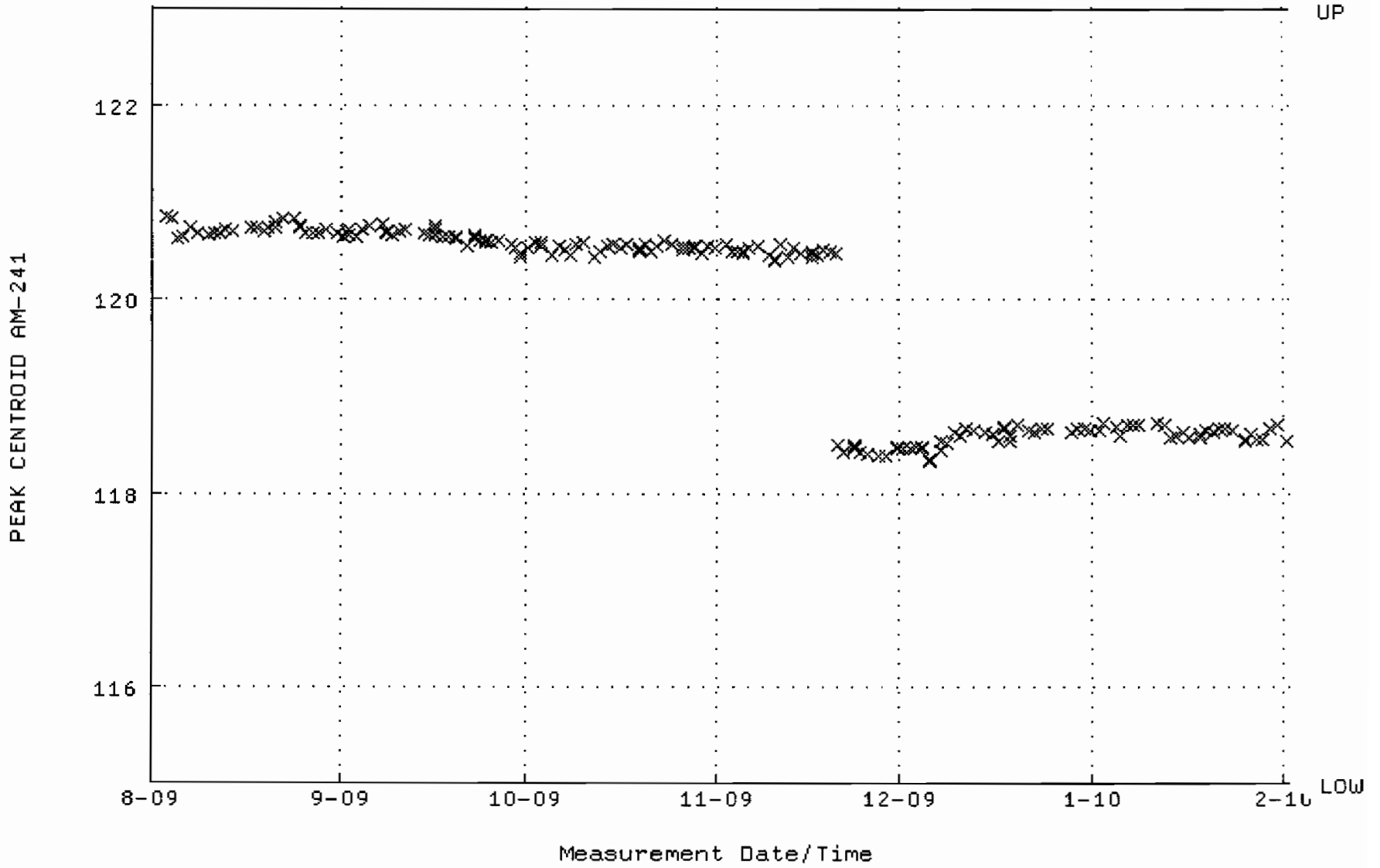

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:10 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

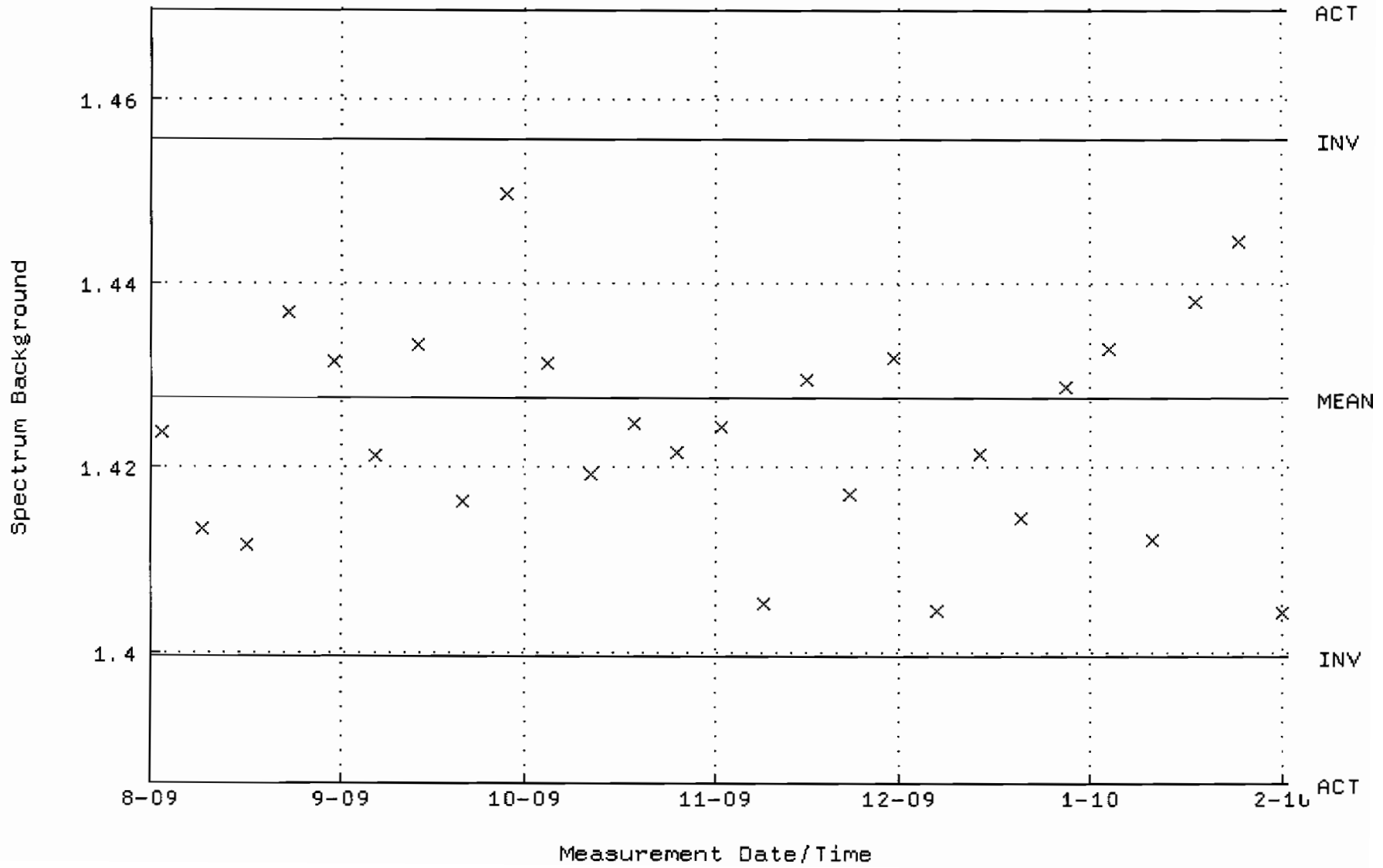

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

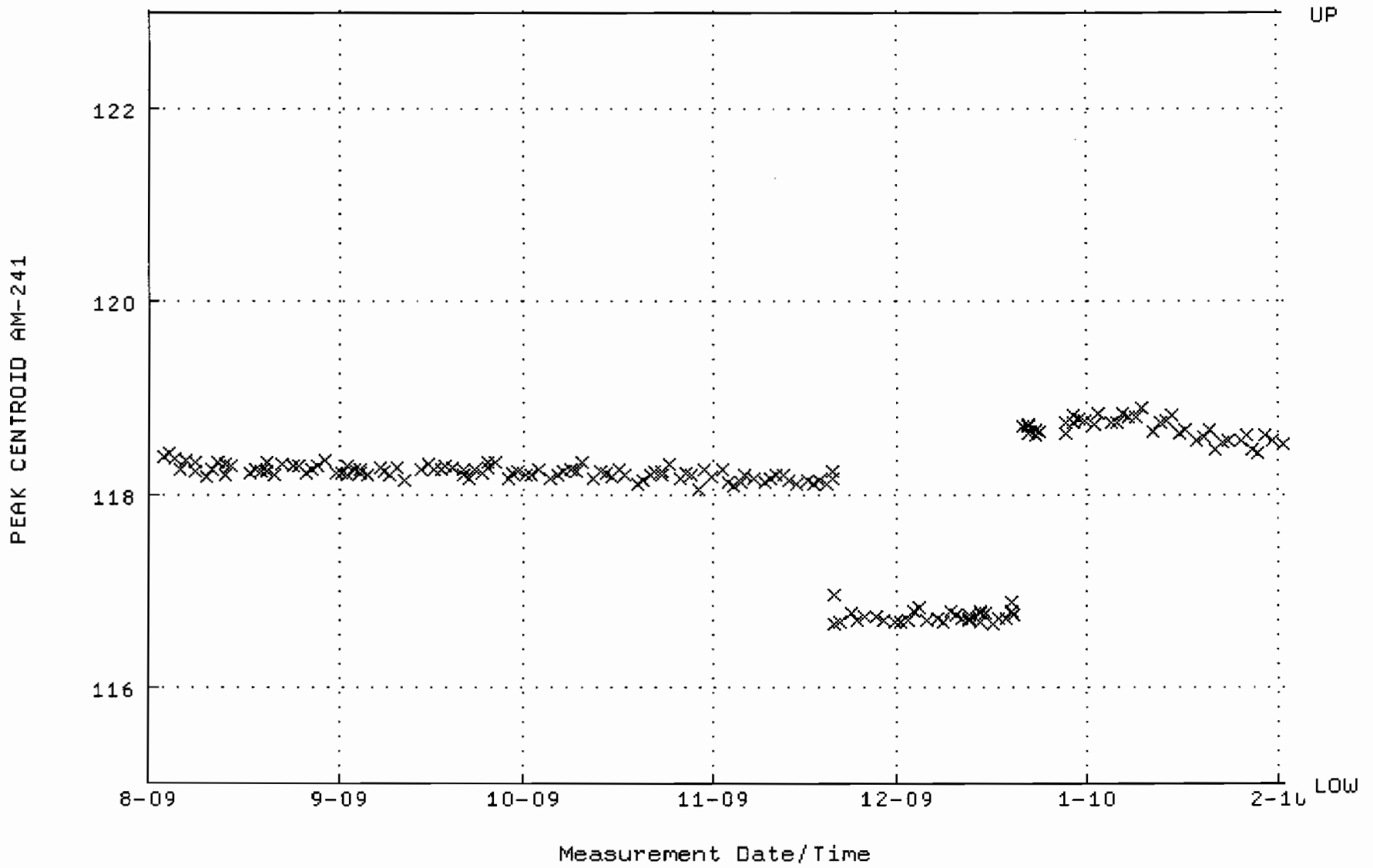

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

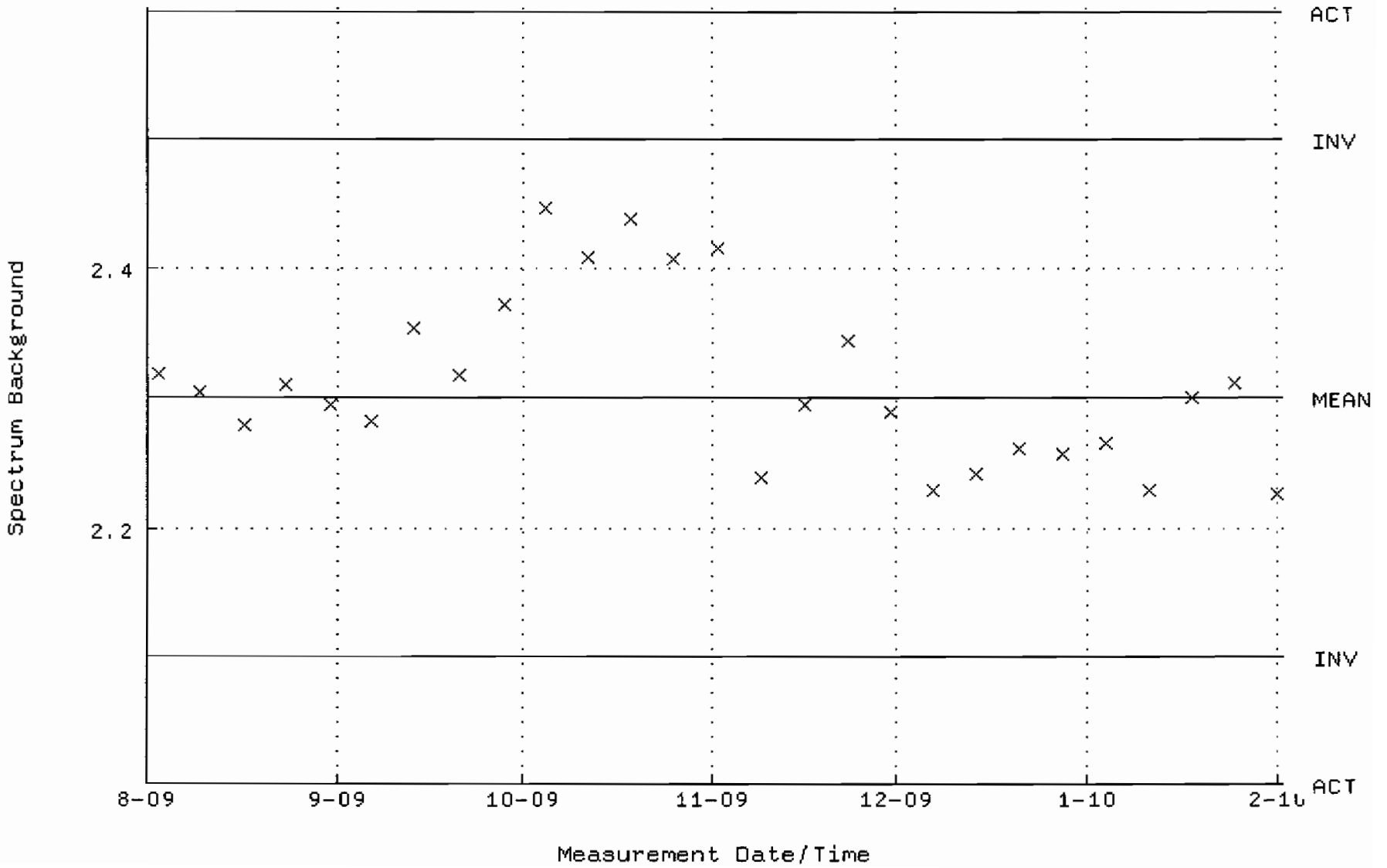

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:08:04 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

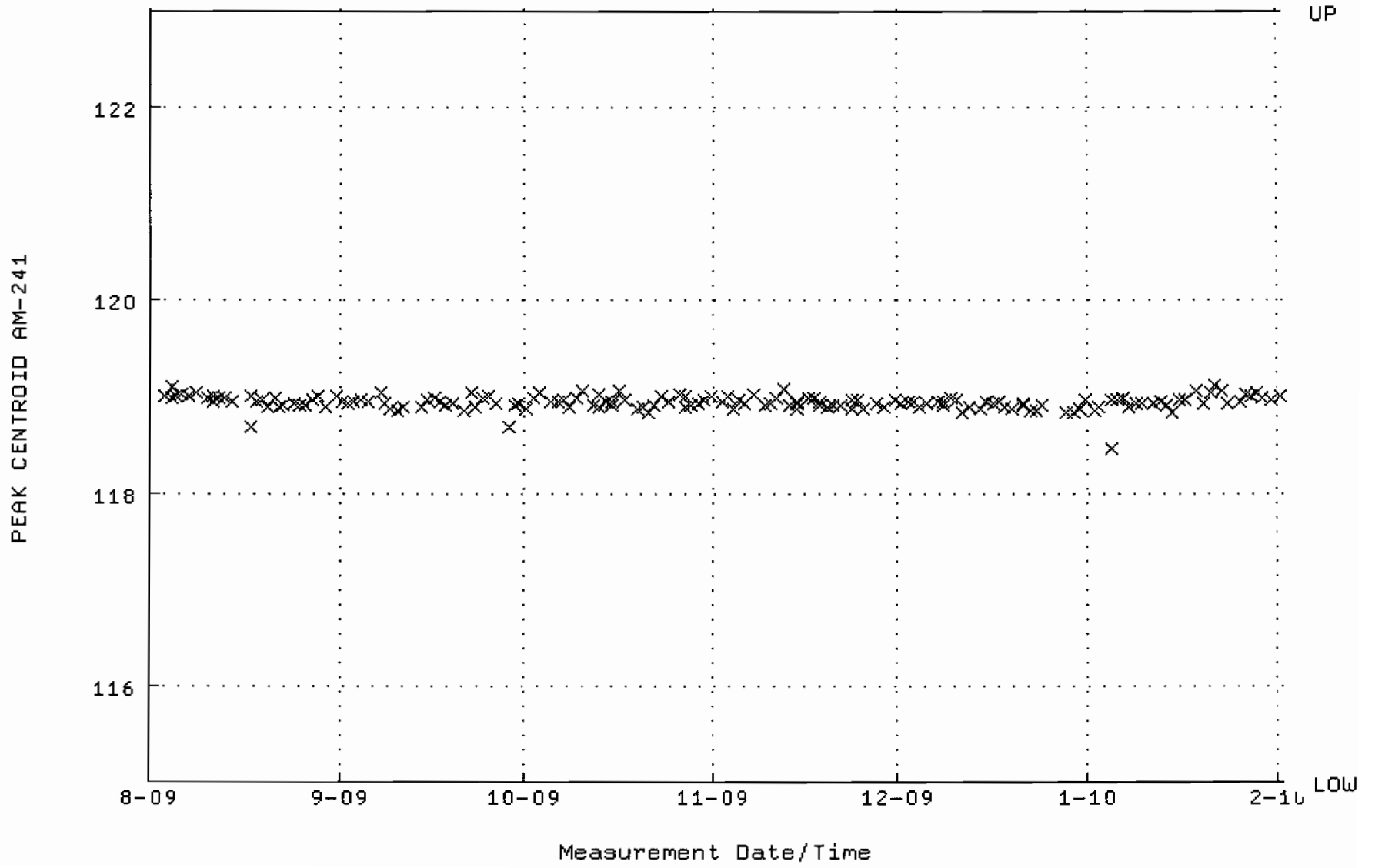

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

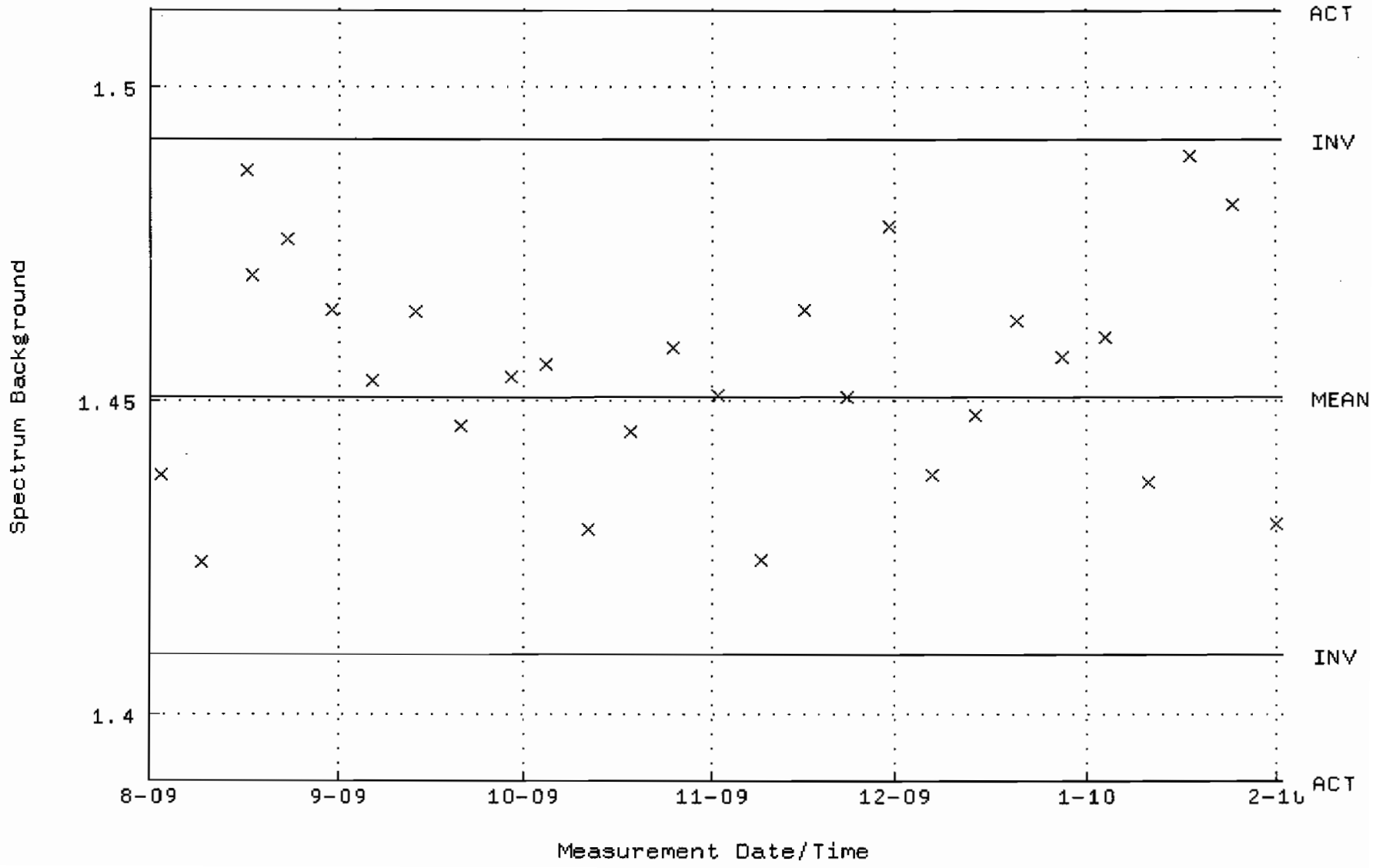

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

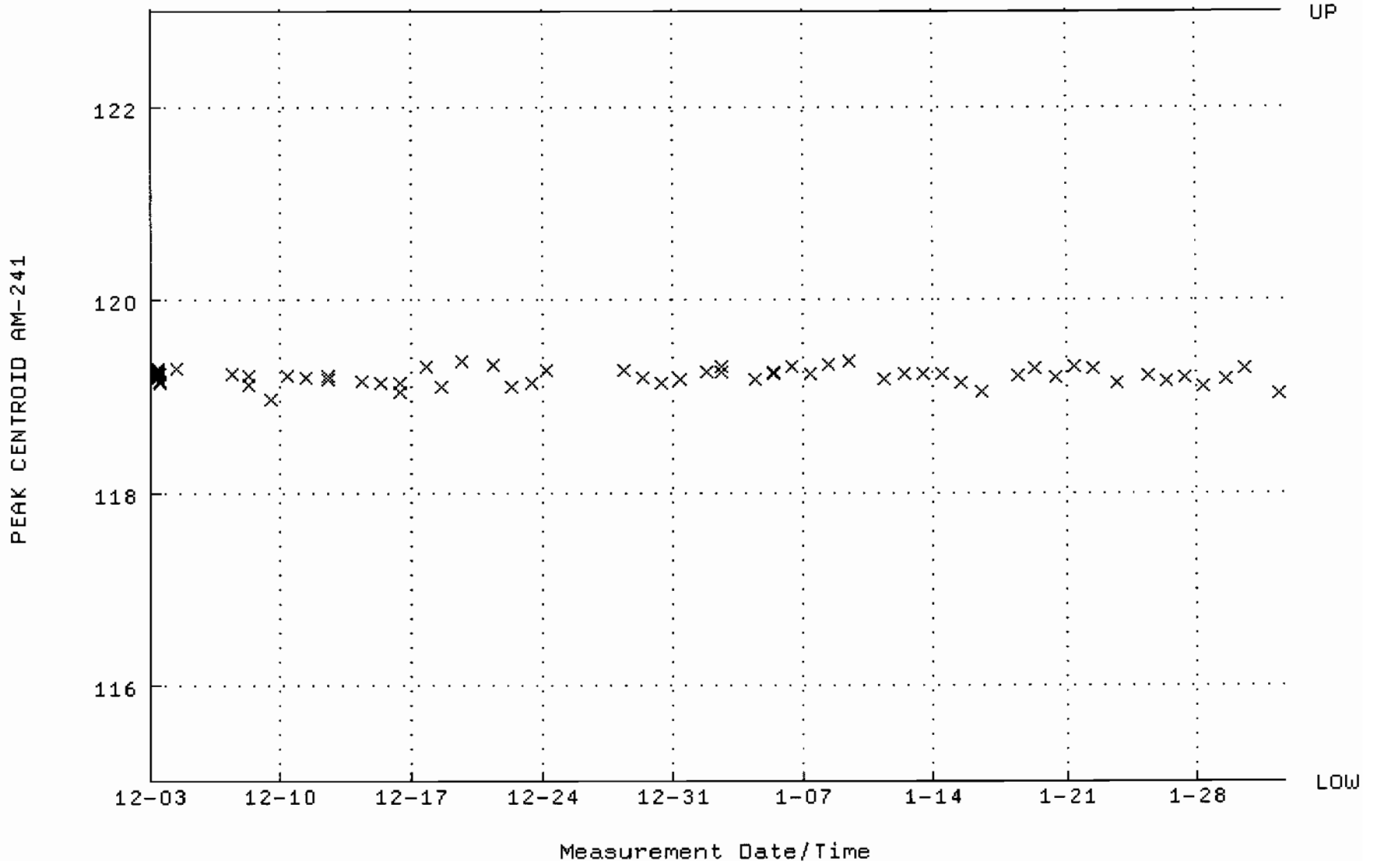

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

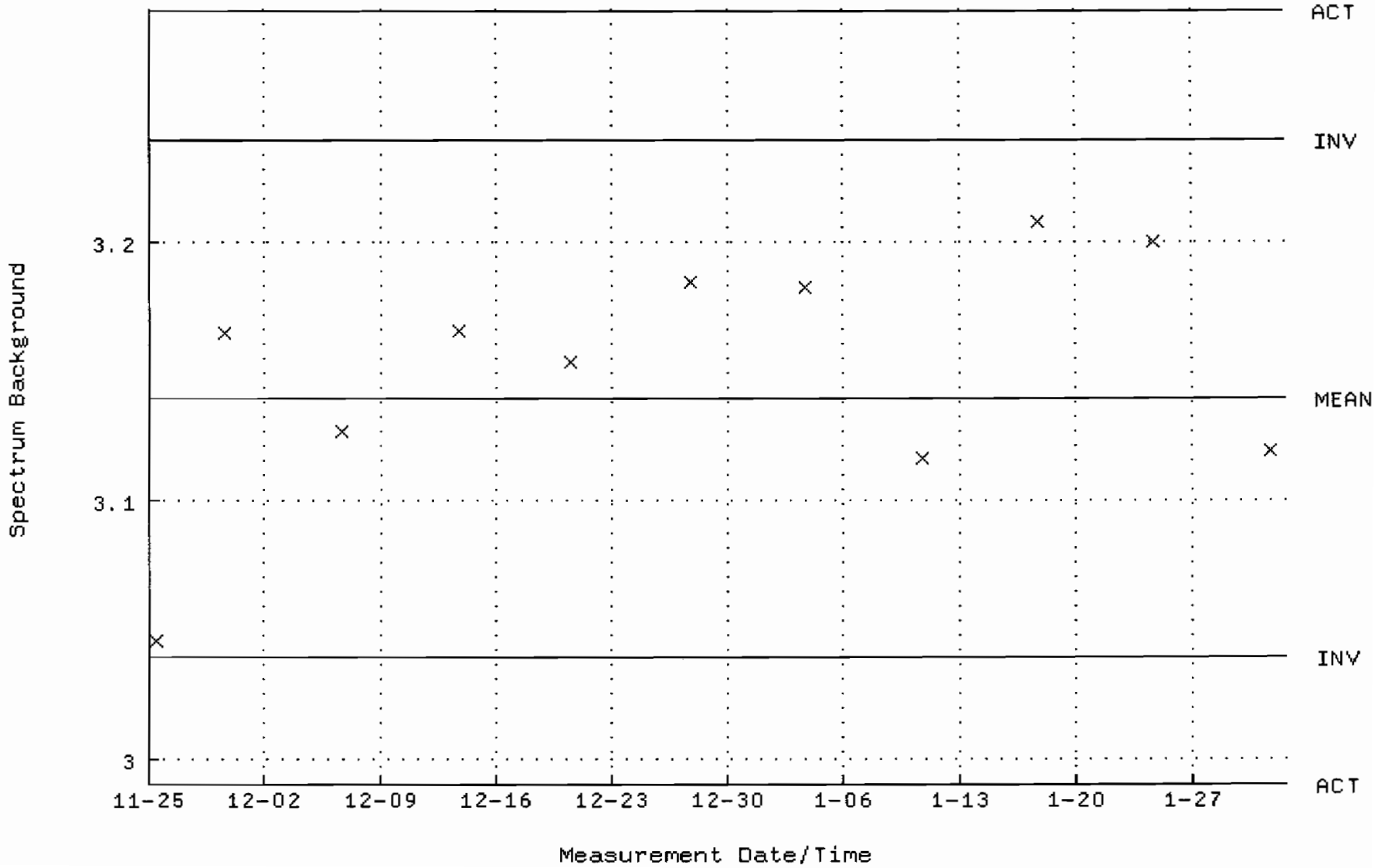

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

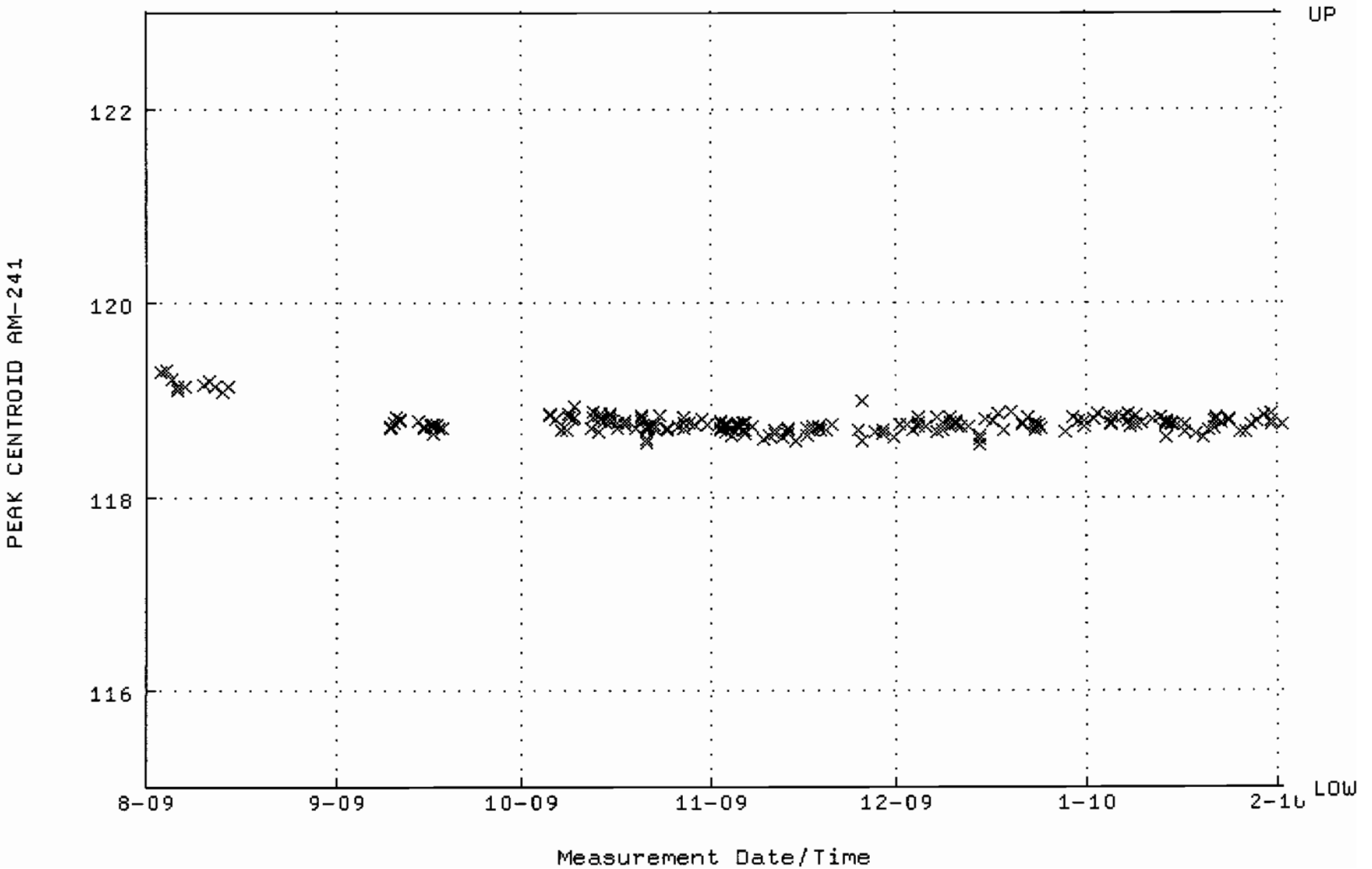

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

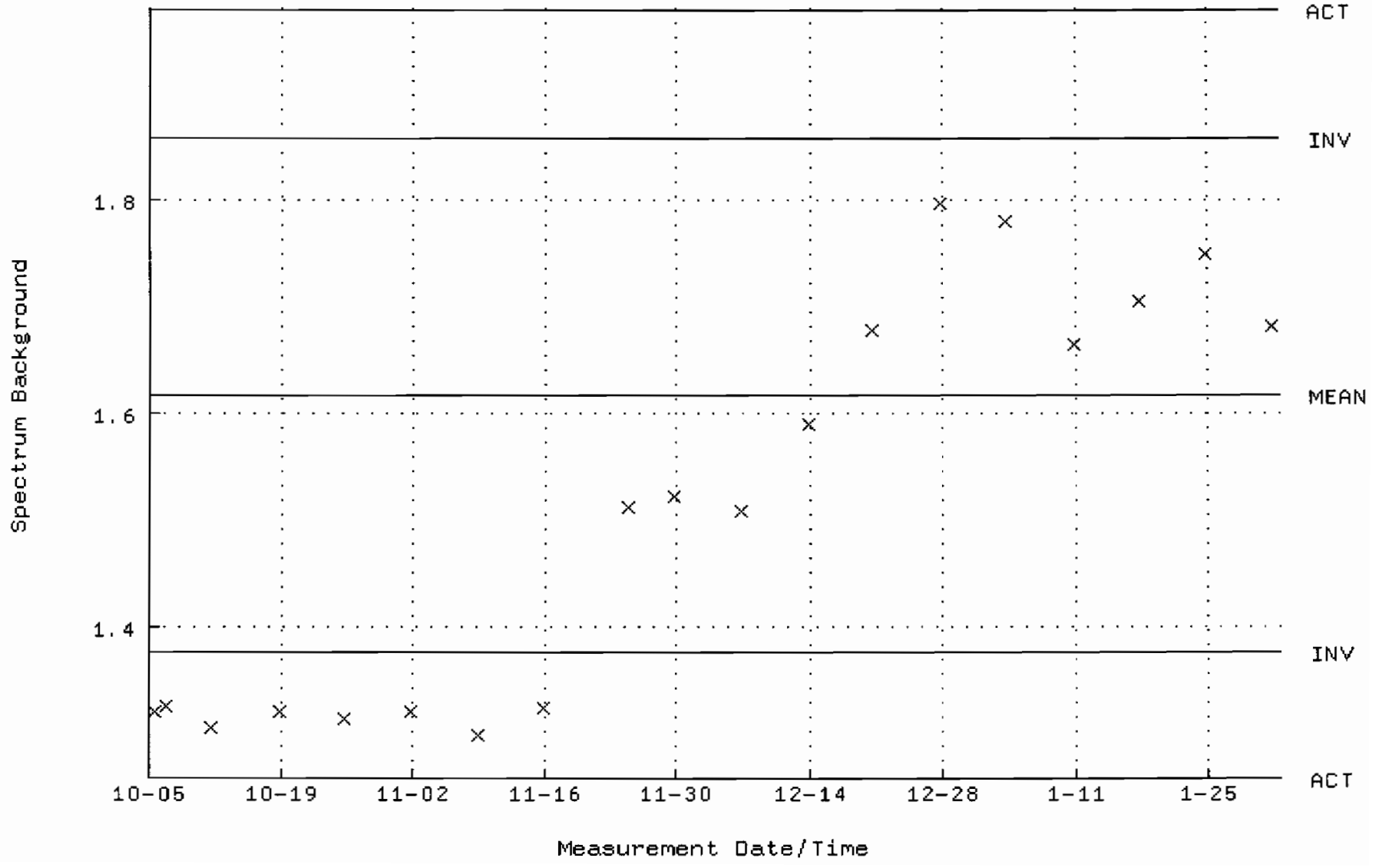

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:11:17 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

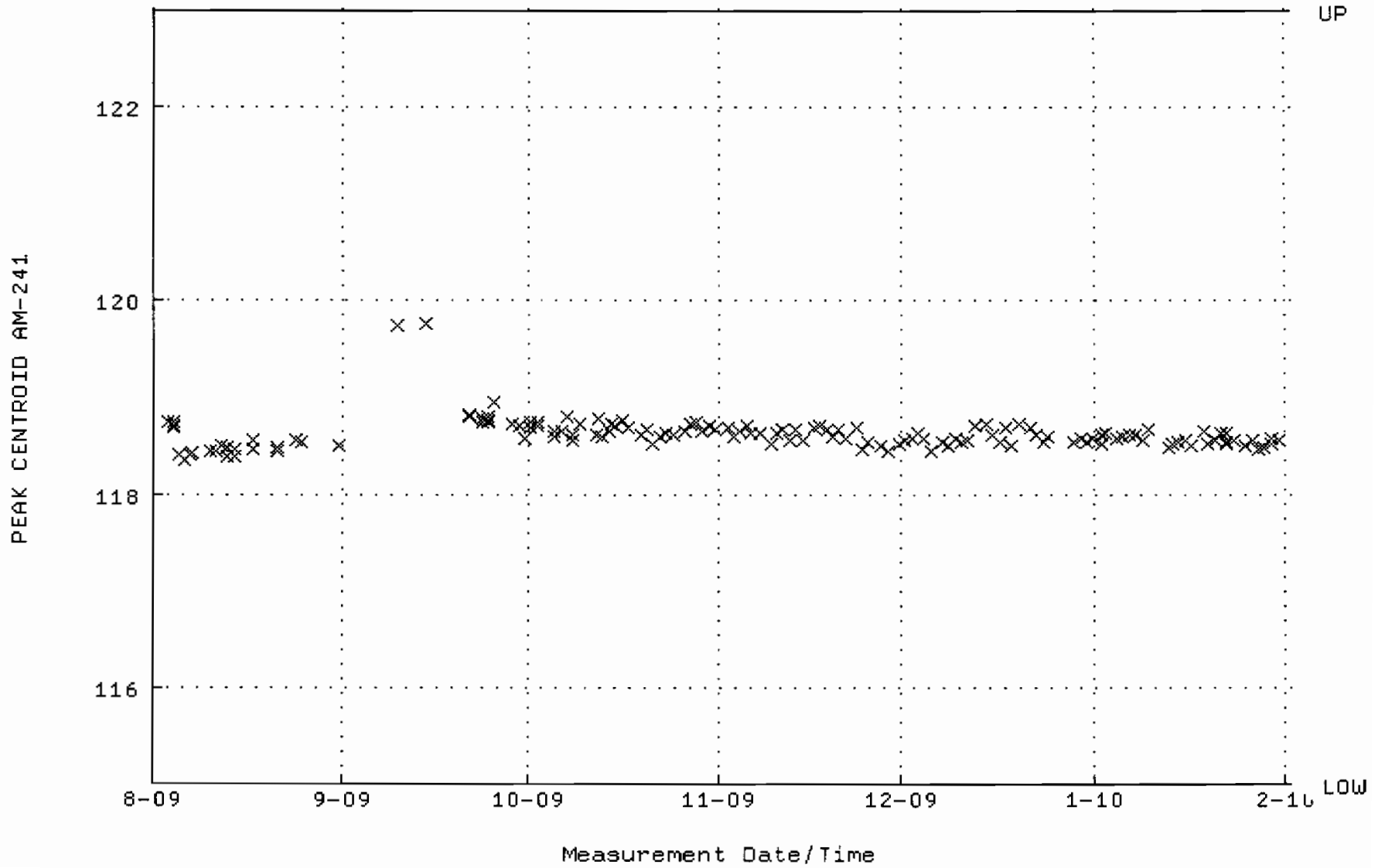

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:26:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)

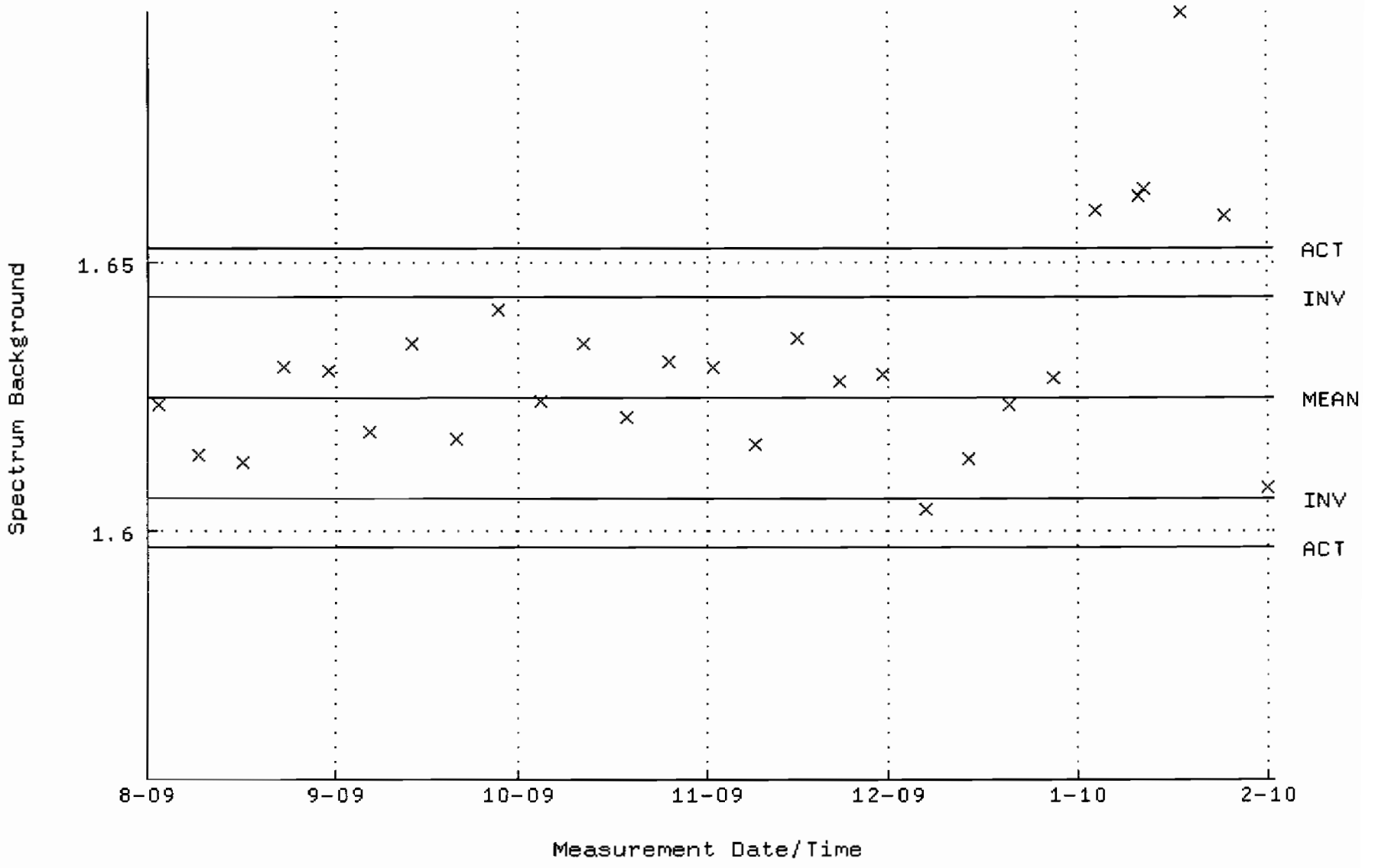

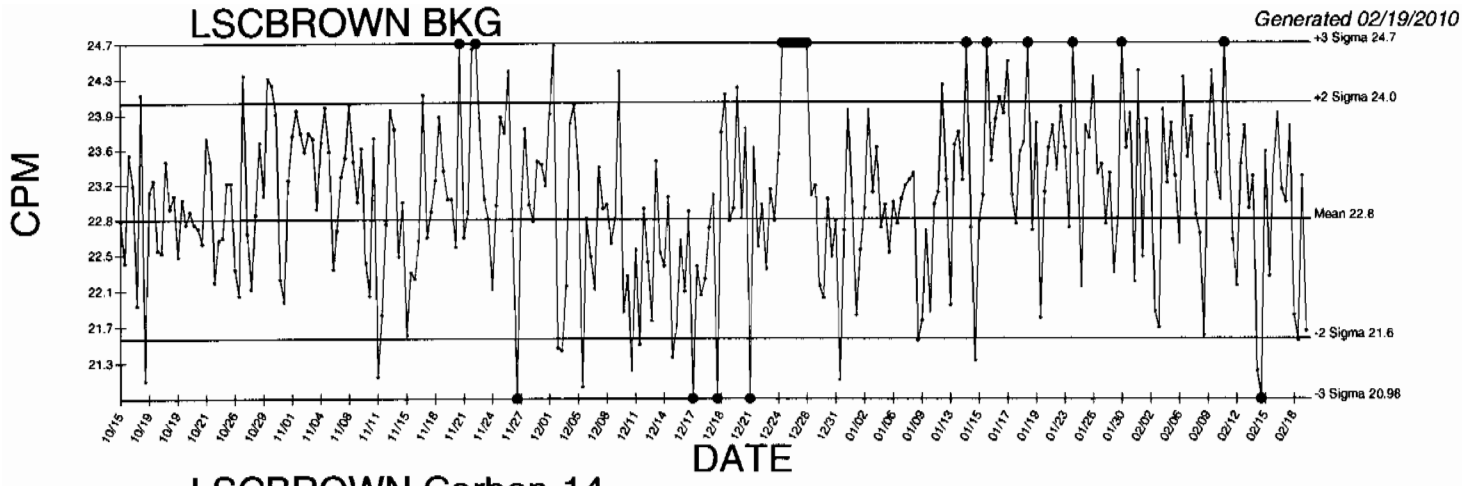

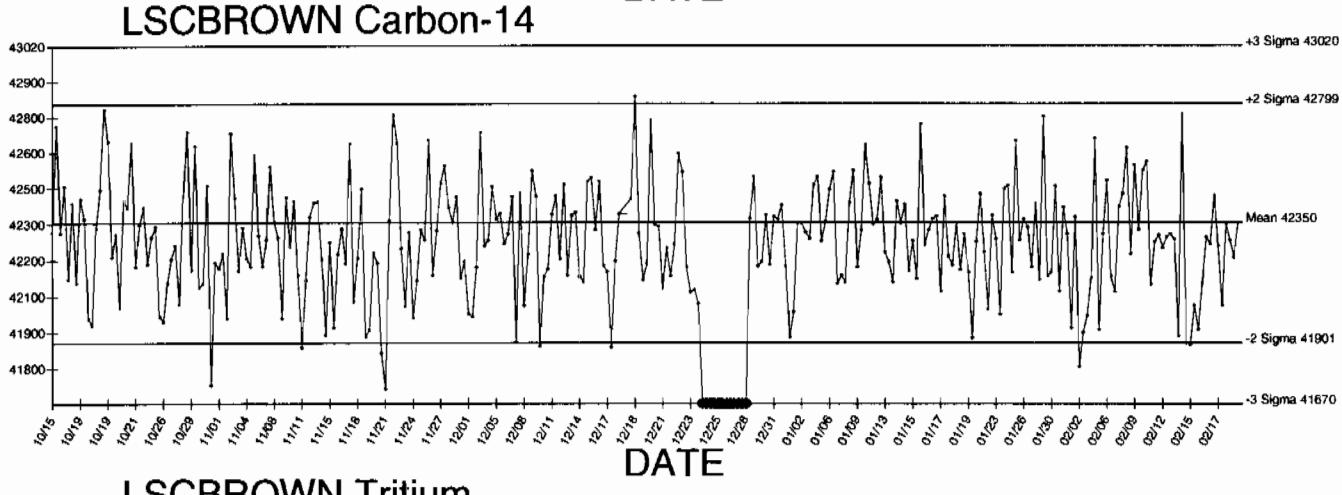

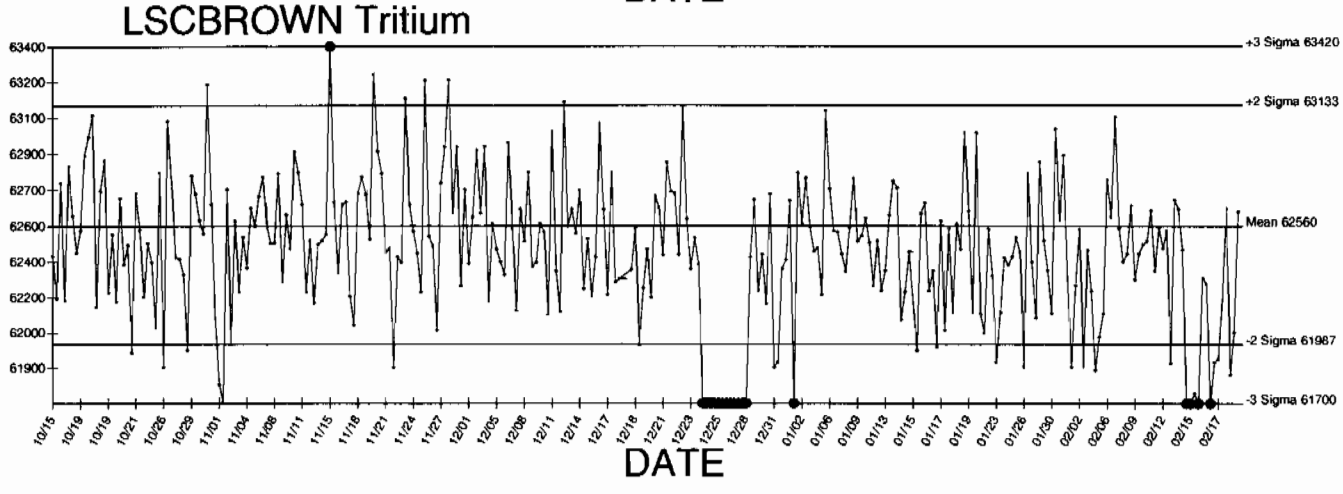

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION
No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case
W.F. Case

RC-5-023-Ae1a

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Adams 4/9/09
Amanda L. Fehr 4/9/09

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Laboratory
24937 Avenue Tibbitts, Valencia, California 91355
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404·352·8677
Fax 404·352·2837

www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result	
	Mixed Gamma N1	2534	pCi/L - Var. JAR-1
	Mixed Gamma N2	2510	pCi/L - Var. JAR-3
	Mixed Gamma N3	2413	pCi/L - Var. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**
Certificate Value =	2485.68018	pCi/L	
Lower Limit =	2357.536524	pCi/L	
Upper Limit =	2613.796809	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	128.1301422		
10 % of Mean =	248.56666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VSR- JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VSR-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VSR-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Scott C Reid 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-15-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1-3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐ Yes ☒ No Ref. No.
Sample Disposal ☐ Return to Client ☒ Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐ Yes ☒ No
Raw data package ☐ Yes ☒ No
These "samples" are well decontamination rad materials being sent to GEL per behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒ Normal ☐ Rush Required Report Date

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0887

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. [illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (SMO USE)
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Allen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridrich 5/15/09
Robert Bin 05/15/09

1375

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7 2 01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

RC-S-08-094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72%** [d] [e]
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C** [f]

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 947531**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status		Geometry	Calibration Date
245799001	SAMPLE	RXF2	GAM15	10-FEB-10 14:13	DONE	CAN		03-FEB-10 00:00
245799002	SAMPLE	RXF2	GAM18	10-FEB-10 14:26	DONE	CAN		23-APR-09 00:00
245799003	SAMPLE	RXF2	GAM23	10-FEB-10 14:47	DONE	CAN		02-JUN-09 00:00
245799004	SAMPLE	RXF2	GAM22	10-FEB-10 15:05	DONE	CAN		02-DEC-09 00:00
245799005	SAMPLE	RXF2	GAM11	10-FEB-10 15:09	DONE	CAN		18-NOV-09 00:00
245799006	SAMPLE	RXF2	GAM25	10-FEB-10 15:09	DONE	CAN		07-OCT-09 00:00
245799007	SAMPLE	RXF2	GAM15	10-FEB-10 16:22	DONE	CAN		03-FEB-10 00:00
245799008	SAMPLE	RXF2	GAM11	10-FEB-10 17:19	DONE	CAN		18-NOV-09 00:00
245799009	SAMPLE	RXF2	GAM22	10-FEB-10 17:19	DONE	CAN		02-DEC-09 00:00
245799010	SAMPLE	RXF2	GAM25	10-FEB-10 17:20	DONE	CAN		07-OCT-09 00:00
245799011	SAMPLE	RXF2	GAM04	10-FEB-10 18:11	DONE	CAN		05-MAY-09 00:00
245799012	SAMPLE	RXF2	GAM07	10-FEB-10 18:11	DONE	CAN		20-JUL-09 00:00
245799013	SAMPLE	RXF2	GAM01	10-FEB-10 18:58	DONE	CAN		12-JAN-10 00:00
245799014	SAMPLE	RXF2	GAM02	10-FEB-10 19:09	DONE	CAN		29-OCT-09 00:00
245799015	SAMPLE	RXF2	GAM06	10-FEB-10 19:09	DONE	CAN		04-FEB-09 00:00
245799016	SAMPLE	RXF2	GAM14	10-FEB-10 19:10	DONE	CAN		06-MAR-09 00:00
245799017	SAMPLE	RXF2	GAM12	10-FEB-10 19:12	DONE	CAN		10-FEB-09 00:00
245799018	SAMPLE	RXF2	GAM17	10-FEB-10 19:13	DONE	CAN		06-JAN-10 00:00
245799019	SAMPLE	RXF2	GAM19	10-FEB-10 19:13	DONE	CAN		12-MAR-09 00:00
1202029811	DUP	RXF2	GAM23	10-FEB-10 19:16	DONE	CAN		02-JUN-09 00:00
1202029810	MB	RXF2	GAM22	10-FEB-10 20:22	DONE	CAN		02-DEC-09 00:00
1202029812	LCS	RXF2	GAM25	10-FEB-10 20:23	DONE	CAN		07-OCT-09 00:00

Instrument Run Log

Instrument Type: LSC **Batch ID: 948403**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245799001	SAMPLE	KXK2	LSCBROWN	17-FEB-10 16:54	DONE		
245799002	SAMPLE	KXK2	LSCBROWN	17-FEB-10 18:32	DONE		
245799003	SAMPLE	KXK2	LSCBROWN	17-FEB-10 20:10	DONE		
245799004	SAMPLE	KXK2	LSCBROWN	17-FEB-10 21:48	DONE		
245799005	SAMPLE	KXK2	LSCBROWN	17-FEB-10 23:26	DONE		
245799006	SAMPLE	KXK2	LSCBROWN	18-FEB-10 01:04	DONE		
245799007	SAMPLE	KXK2	LSCBROWN	18-FEB-10 02:42	DONE		
245799008	SAMPLE	KXK2	LSCBROWN	18-FEB-10 05:35	DONE		
245799009	SAMPLE	KXK2	LSCBROWN	18-FEB-10 07:13	DONE		
245799010	SAMPLE	KXK2	LSCBROWN	18-FEB-10 08:51	DONE		
245799011	SAMPLE	KXK2	LSCBROWN	18-FEB-10 10:29	DONE		
245799012	SAMPLE	KXK2	LSCBROWN	18-FEB-10 12:07	DONE		
245799013	SAMPLE	KXK2	LSCBROWN	18-FEB-10 13:45	DONE		
245799014	SAMPLE	KXK2	LSCBROWN	18-FEB-10 15:23	DONE		
245799015	SAMPLE	KXK2	LSCBROWN	18-FEB-10 17:01	DONE		
245799016	SAMPLE	KXK2	LSCBROWN	18-FEB-10 18:39	DONE		
245799017	SAMPLE	KXK2	LSCBROWN	18-FEB-10 20:16	DONE		
245799018	SAMPLE	KXK2	LSCBROWN	18-FEB-10 21:54	DONE		
245799019	SAMPLE	KXK2	LSCBROWN	18-FEB-10 23:32	DONE		
1202031685	MB	KXK2	LSCBROWN	19-FEB-10 01:10	DONE		
1202031686	DUP	KXK2	LSCBROWN	19-FEB-10 02:48	DONE		
1202031687	LCS	KXK2	LSCBROWN	19-FEB-10 04:26	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 950404**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245799001	SAMPLE	MXA1	1065	16-FEB-10 14:33	DUSE		
245799002	SAMPLE	MXA1	1066	16-FEB-10 14:33	DUSE		
245799003	SAMPLE	MXA1	1067	16-FEB-10 14:33	DUSE		
245799004	SAMPLE	MXA1	1068	16-FEB-10 14:33	DUSE		
245799005	SAMPLE	MXA1	1069	16-FEB-10 14:33	DUSE		
245799006	SAMPLE	MXA1	1070	16-FEB-10 14:33	DUSE		
245799007	SAMPLE	MXA1	1071	16-FEB-10 14:33	DUSE		
245799008	SAMPLE	MXA1	1072	16-FEB-10 14:33	DUSE		
245799009	SAMPLE	MXA1	1073	16-FEB-10 14:33	DUSE		
245799010	SAMPLE	MXA1	1074	16-FEB-10 14:33	DUSE		
245799011	SAMPLE	MXA1	1075	16-FEB-10 14:33	DUSE		
245799012	SAMPLE	MXA1	1076	16-FEB-10 14:33	DUSE		
245799013	SAMPLE	MXA1	1077	16-FEB-10 14:33	DUSE		
245799014	SAMPLE	MXA1	1079	16-FEB-10 14:33	DUSE		
245799015	SAMPLE	MXA1	1080	16-FEB-10 14:33	DUSE		
245799016	SAMPLE	MXA1	1081	16-FEB-10 14:33	DUSE		
245799017	SAMPLE	MXA1	1082	16-FEB-10 14:33	DUSE		
245799018	SAMPLE	MXA1	1101	16-FEB-10 14:33	DUSE		
245799019	SAMPLE	MXA1	1102	16-FEB-10 14:33	DUSE		
1202036734	MB	MXA1	1103	16-FEB-10 14:33	DUSE		
1202036735	DUP	MXA1	1105	16-FEB-10 14:33	DUSE		
1202036736	LCS	MXA1	1106	16-FEB-10 14:33	DUSE		
245799001	SAMPLE	MXA1	1046	18-FEB-10 17:13	DONE		
245799002	SAMPLE	MXA1	1047	18-FEB-10 17:13	DONE		
245799003	SAMPLE	MXA1	1048	18-FEB-10 17:13	DONE		
245799004	SAMPLE	MXA1	1065	18-FEB-10 17:13	DONE		
245799005	SAMPLE	MXA1	1066	18-FEB-10 17:13	DONE		
245799006	SAMPLE	MXA1	1067	18-FEB-10 17:13	DONE		
245799007	SAMPLE	MXA1	1068	18-FEB-10 17:13	DONE		
245799008	SAMPLE	MXA1	1069	18-FEB-10 17:13	DONE		
245799009	SAMPLE	MXA1	1070	18-FEB-10 17:13	DONE		
245799010	SAMPLE	MXA1	1071	18-FEB-10 17:13	DONE		
245799011	SAMPLE	MXA1	1072	18-FEB-10 17:13	DONE		
245799012	SAMPLE	MXA1	1073	18-FEB-10 17:13	DONE		
245799013	SAMPLE	MXA1	1074	18-FEB-10 17:13	DONE		
245799014	SAMPLE	MXA1	1075	18-FEB-10 17:13	DONE		
245799015	SAMPLE	MXA1	1076	18-FEB-10 17:13	DONE		
245799016	SAMPLE	MXA1	1077	18-FEB-10 17:13	DONE		
245799017	SAMPLE	MXA1	1079	18-FEB-10 17:13	DONE		
245799018	SAMPLE	MXA1	1081	18-FEB-10 17:13	DONE		
245799019	SAMPLE	MXA1	1082	18-FEB-10 17:13	DONE		
1202036734	MB	MXA1	1083	18-FEB-10 17:13	DONE		
1202036735	DUP	MXA1	1084	18-FEB-10 17:13	DONE		
1202036736	LCS	MXA1	1085	18-FEB-10 17:13	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 950405**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245799017	SAMPLE	MXA1	1037	15-FEB-10 08:07	DONE		
245799018	SAMPLE	MXA1	1038	15-FEB-10 08:07	DONE		
245799019	SAMPLE	MXA1	1039	15-FEB-10 08:07	DONE		
1202036737	MB	MXA1	1040	15-FEB-10 08:07	DONE		
1202036738	DUP	MXA1	1041	15-FEB-10 08:07	DONE		
1202036739	LCS	MXA1	1042	15-FEB-10 08:07	DONE		
245799001	SAMPLE	MXA1	1241	15-FEB-10 20:17	DONE		
245799002	SAMPLE	MXA1	1242	15-FEB-10 20:17	DONE		
245799003	SAMPLE	MXA1	1243	15-FEB-10 20:17	DONE		
245799004	SAMPLE	MXA1	1244	15-FEB-10 20:17	DONE		
245799005	SAMPLE	MXA1	1250	15-FEB-10 20:18	DONE		
245799006	SAMPLE	MXA1	1251	15-FEB-10 20:18	DONE		
245799007	SAMPLE	MXA1	1252	15-FEB-10 20:18	DONE		
245799008	SAMPLE	MXA1	1254	15-FEB-10 20:18	DONE		
245799009	SAMPLE	MXA1	1255	15-FEB-10 20:18	DUSE		
245799010	SAMPLE	MXA1	1256	15-FEB-10 20:18	DONE		
245799011	SAMPLE	MXA1	1037	15-FEB-10 20:23	DUSE		
245799012	SAMPLE	MXA1	1038	15-FEB-10 20:23	DONE		
245799013	SAMPLE	MXA1	1039	15-FEB-10 20:23	DONE		
245799014	SAMPLE	MXA1	1040	15-FEB-10 20:23	DONE		
245799015	SAMPLE	MXA1	1041	15-FEB-10 20:23	DUSE		
245799016	SAMPLE	MXA1	1042	15-FEB-10 20:23	DONE		
245799009	SAMPLE	MXA1	1209	18-FEB-10 18:43	DONE		
245799011	SAMPLE	MXA1	1211	18-FEB-10 18:43	DONE		
245799015	SAMPLE	MXA1	1212	18-FEB-10 18:43	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 950406**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245799001	SAMPLE	MXA1	1113	16-FEB-10 21:15	DONE		
245799002	SAMPLE	MXA1	1114	16-FEB-10 21:15	DONE		
245799003	SAMPLE	MXA1	1115	16-FEB-10 21:15	DONE		
245799004	SAMPLE	MXA1	1117	16-FEB-10 21:15	DONE		
245799005	SAMPLE	MXA1	1118	16-FEB-10 21:15	DONE		
245799006	SAMPLE	MXA1	1119	16-FEB-10 21:15	DONE		
245799007	SAMPLE	MXA1	1120	16-FEB-10 21:15	DONE		
245799008	SAMPLE	MXA1	1121	16-FEB-10 21:15	DONE		
245799009	SAMPLE	MXA1	1122	16-FEB-10 21:15	DONE		
245799010	SAMPLE	MXA1	1123	16-FEB-10 21:15	DONE		
245799011	SAMPLE	MXA1	1001	16-FEB-10 21:18	DONE		
245799012	SAMPLE	MXA1	1002	16-FEB-10 21:18	DONE		
245799013	SAMPLE	MXA1	1003	16-FEB-10 21:18	DONE		
245799014	SAMPLE	MXA1	1004	16-FEB-10 21:18	DONE		
245799015	SAMPLE	MXA1	1005	16-FEB-10 21:18	DONE		
245799016	SAMPLE	MXA1	1006	16-FEB-10 21:18	DONE		
245799017	SAMPLE	MXA1	1007	16-FEB-10 21:18	DONE		
245799018	SAMPLE	MXA1	1008	16-FEB-10 21:18	DONE		
245799019	SAMPLE	MXA1	1009	16-FEB-10 21:18	DONE		
1202036740	MB	MXA1	1010	16-FEB-10 21:18	DONE		
1202036741	DUP	MXA1	1011	16-FEB-10 21:18	DONE		
1202036742	LCS	MXA1	1012	16-FEB-10 21:18	DUSE		
1202036742	LCS	MXA1	1143	17-FEB-10 20:14	DONE		

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1471

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	SW-846:6850	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7951	R	1/26/2010	
	SW-846:7471A	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	SW-846:9012A	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1471

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1471

REQUEST NUMBER: 10-1471

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7888	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7890	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7886	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7889	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7885	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7882	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7887	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7881	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7951	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7950	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7947	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7944	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7948	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7941	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7949	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7946	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7942	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7945	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7943	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	1/28/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7881 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		0908	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610710	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown silty sand - frozen - few rocks + pine needles

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-40 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG.

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1990 dpm

PID Ambient 0.0 / Reading 0.9 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:18 Am	(Signature) Sherri Sherwood	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7882 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0955	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610710	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray ~~tuff~~ brown tuff 12M 1/26/10

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-40 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 38 dpm
Beta/Gamma ≤ 2010 dpm

PID Ambient Reading ~~0.0~~ 0.4 RS 01-26-10 / 3.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	~~1/27/10~~ 1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:17AM	(Signature) Sherri Sherwood	0917
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7885 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		1128	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610712	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown frozen silty sand, pine cone, wire

SAMPLE COMMENTS: TJM 1/26/10
~~NA~~ Pine cone and wire not placed in sample

LOCATION DESC: 8b-39 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 2260 dpm

PID Ambient 0.0 / Reading 2.6 ppm

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 09:17AM	(Printed Name) (Signature)	1/27/10 935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7886 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1145	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610712	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-39 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm
Beta/Gamma ≤ 2130 dpm

PID Ambient 0.2 / Reading 3.5 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luian	1/27/10 9:18 Am	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7887 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALL H ~~ALLN~~ RS 01-26-10
TIME COLLECTED (HH:MM)		1315	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610713	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: redish brown silty clay

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-63 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 1534 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:22 Am	(Signature) Sherri Sherwood	0922
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7888 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610713	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff, some clay

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-63, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 33 **dpm**
Beta/Gamma ≤ 1928 **dpm**

PID Ambient Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:21 Am	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7889 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		1548	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610714	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, pergen

SAMPLE COMMENTS: wire in bowl, not put in sample jar

LOCATION DESC: 8b-36, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 33 dpm
Beta/Gamma ≤ 3080 dpm

PID Ambient 0.0 / Reading 0.3 ppm

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	0855 AM	(Signature)	9:35
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7890 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1603	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	↓	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610714	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-36, mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 60 dpm
Beta/Gamma ≤ 2640 dpm

PID Ambient 0.0 / Reading 0.7 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 08:55 AM	(Printed Name) (Signature)	1/27/10 938
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7941 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	All h
TIME COLLECTED (HH:MM)		0833	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610740	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Frozen brown silty clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-64, mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1845 dpm

PID Ambient .5 / Reading .8 ppm

COLLECTED BY (PRINT) TLMcFarlang

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:18Am	(Signature)	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7942 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		0845	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610740	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	12m 1/26/10 ~~4.0~~ 4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ 1L POLY RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-64 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm
Beta/Gamma = 2130 dpm

PID Ambient Reading 0.1 / 1.7 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luian	1/27/10	(Printed Name) Sherry Sherwood	1/27/10
(Signature) E. Luian	09:18 Am	(Signature) Sherry Sherwood	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7943 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0909	SUB-MEDIA:	TUFF 1	1
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610741	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	12" ~~0.~~ 1.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray Tuff
hit tuff at surface

SAMPLE COMMENTS: NA

LOCATION DESC: 8b- 42 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha = 16 **dpm**
Beta/Gamma = 2270 **dpm**

PID Ambient 0.1 / Reading 0.1 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]	9:18 AM	(Signature) Sherri Sherwood	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7944 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610741	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Grey tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-42, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 2060 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) T.L. McFarlane

REVIEWED BY (PRINT) R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	9:19 Am	(Signature)	935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7945 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Alth
TIME COLLECTED (HH:MM)		1014	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610742	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01.11.10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark brown frozen silty sand, numerous rocks, few pine needles

SAMPLE COMMENTS: NA FR RE15-10-8081

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE POSITIVE

Alpha = 16 **dpm**
Beta/Gamma = 1783 **dpm**

PID Ambient Reading 0.0 / 0.1 **ppm**

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luna	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]	09:21 Am	(Signature) Sherri Sherwood	0921
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7946 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1047	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610742	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FD:RE15-10-~~8059~~ 8059 TJM 1/26/10

SAMPLE COMMENTS: Tuff at 2 ft

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 2070 dpm

PID Ambient 0.1 / Reading 8.3 ppm

COLLECTED BY (PRINT) TLM cFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:20 Am	(Signature)	935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7947 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610743	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown sandy silt, rocks, some roots, pine needles

FD: RE15-10-8058

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-43 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 2300 **dpm**

PID Ambient Reading 0.1 / 1.5 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteven Lujan	1/27/10 09:20 am	(Printed Name)	1/27/10 938
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7948 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1050	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610743	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.9	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brownish gray tuff, some roots

SAMPLE COMMENTS: Tuff at 3'4"

LOCATION DESC: 8b-43 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 **dpm**
Beta/Gamma ≤ 2050 **dpm**

PID Ambient 0.1 / Reading 0.4 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]	09:20 Am	(Signature) Sherri Sherwood	0920
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7949 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		~~1343~~ 1143	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610744	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: dark brown frozen silty sand

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-38 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1700 dpm

PID Ambient Reading 0.1 / 0.6 ppm

COLLECTED BY (PRINT) R. Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:17AM	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7950 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	All h
TIME COLLECTED (HH:MM)		1211	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610744	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1.5	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01·11·10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown clay, few tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-38 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 **dpm**
Beta/Gamma ≤ 1741 **dpm**

PID Ambient 0.2 / Reading 0.3 **ppm**

COLLECTED BY (PRINT) R. Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:21 Am	(Signature) Sherri Sherwood	0921
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7951 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1338	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610745	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ 1L POLY RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray moist Tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-65 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 dpm
Beta/Gamma ≤ 2050 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:17 Am	(Printed Name)	1/27/10 938
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7890	RE15-10-7886	RE15-10 7948
" " 7889	" "7885	" " 7947
" " 7956	" "7882	" " 8058
" " 7953	" "7881	" "7950
" " 8060	" "7941	
" " 7954	" "7942	
" " 7955	" "7943	
" " 7952	" "7944	
" " 7951	" "8059	
" "7949	" "7946	
	" "7945	

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8082

RE15-10-8081

Reason: Field Rinsate.

Print Last Name Lujan Signature [signature] Date 1/27/10

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7881
Sample Collection Date: 01/26/10 09:08
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-001
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	10.80	19.79	36.09	19.83		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	41.40	15.01	17.69	15.85		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	16.84	6.63	1.47	6.65		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.61	0.10	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.15	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.09	0.32	0.06	0.32		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.71	0.40	0.11	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.31	0.49	0.17	0.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.25	0.64	0.26	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.18	1.04	0.37	1.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	6.81	3.33	1.23	3.67		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.53	0.41	0.14	0.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 4.28

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7882	ARS Sample ID:	ARS2-10-00025-002
Sample Collection Date:	01/26/10 09:55	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:23

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	20.74	22.37	31.78	22.51		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	24.54	13.50	18.25	13.83		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	29.87	11.33	2.43	11.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	15.90	0.16	15.90		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.34	0.23	0.12	0.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.29	0.27	0.10	0.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.38	0.22	0.38		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	2.17	0.81	0.21	0.82		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.77	0.94	0.42	0.95		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.60	0.88	0.28	0.88		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	3.42	4.41	1.96	4.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.49	0.46	0.18	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.35

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00026
Client Sample ID: RE15-10-7885
Sample Collection Date: 01/26/10 11:28
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00026-001
Date Received: 01/27/10 00:00
Report Date: 01/28/10 17:07

Analysis Description	Analysis Results	Analysis Error +/- 2σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	50.37	33.86	36.09	34.41		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	59.79	17.49	17.69	18.96		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	14.79	5.82	1.29	5.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	8.44	0.09	8.44		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.01	0.02	0.06	0.02		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.90	0.34	0.05	0.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	44.62	0.10	44.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.92	0.44	0.18	0.44		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.05	0.60	0.23	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.05	75.28	0.17	75.28		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	14.39	5.25	1.02	6.19		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.30	0.36	0.15	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.64

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7886	ARS Sample ID:	ARS2-10-00026-002
Sample Collection Date:	01/26/10 11:45	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 13:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	43.80	30.16	31.78	30.63		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	35.55	15.20	18.25	15.81		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	32.04	11.03	2.17	11.07		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.20	0.14	14.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.01	0.04	0.09	0.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.41	0.47	0.17	0.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.63	0.67	0.24	0.68		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	-0.15	221.15	0.50	221.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	79.84	0.22	79.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.90	3.23	1.58	3.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.11	0.27	0.13	0.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.72

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7887	ARS Sample ID:	ARS2-10-00025-003
Sample Collection Date:	01/26/10 13:15	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error w/+ 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.69	31.52	30.56	32.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	44.45	17.21	19.68	18.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	17.74	6.61	1.40	6.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.14	0.09	0.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.33	0.17	0.07	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.06	0.10	0.06	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.27	0.34	0.23	0.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.15	0.43	0.13	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.08	0.61	0.29	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.86	0.63	0.17	0.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.44	2.42	1.13	2.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.02	0.09	0.06	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.57

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7888
Sample Collection Date: 01/26/10 14:26
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-004
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	YDL	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	10.53	20.55	38.20	20.59		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	48.05	16.12	18.71	17.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	25.36	8.60	1.67	8.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	10.94	0.11	10.94		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.24	0.21	0.08	0.22		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.07	0.12	0.07	0.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.69	0.46	0.13	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.83	0.61	0.20	0.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.57	0.99	0.29	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.31	1.28	0.30	1.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	5.61	4.38	1.59	4.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.40	0.31	0.11	0.31		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.76

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00026
Client Sample ID: RE15-10-7889
Sample Collection Date: 01/26/10 15:48
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00026-003
Date Received: 01/27/10 00:00
Report Date: 01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	42.86	30.06	30.56	30.52		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	107.24	22.75	19.68	26.26		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	19.09	6.59	1.26	6.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.05	0.10	0.08	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.18	0.16	0.05	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.35	0.15	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.82	0.33	0.09	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.52	0.65	0.22	0.65		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.03	0.62	0.13	0.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	18.73	4.39	1.19	6.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.18	0.20	0.08	0.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 5.10

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9834

ARS Sample Delivery Group: ARS2-10-00026
Client Sample ID: RE15-10-7890
Sample Collection Date: 01/26/10 16:03
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00026-004
Date Received: 01/27/10 00:00
Report Date: 01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.28	32.73	38.10	33.23		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	44.01	16.44	18.71	17.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.08	0.15	0.12	0.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	23.26	8.99	1.96	9.01		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.02	0.05	0.13	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.05	0.09	0.09	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.09	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	13.32	0.15	13.32		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.04	0.55	0.22	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.11	0.90	0.34	0.91		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.01	0.72	0.20	0.73		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	8.91	3.98	1.42	4.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.33	0.41	0.16	0.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.99

Quality Assurance Review

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133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7941	ARS Sample ID:	ARS2-10-00025-005
Sample Collection Date:	01/26/10 08:33	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	25.64	25.97	36.09	26.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	48.83	16.04	17.69	17.12		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	15.57	6.25	1.41	6.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.09	0.09	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.11	0.13	0.07	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.73	0.32	0.06	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.28	0.11	0.28		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.93	0.35	0.08	0.35		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.05	0.51	0.27	0.51		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.92	1.09	0.31	1.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	7.27	3.27	1.20	3.67		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.34	0.29	0.11	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.46

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7942	ARS Sample ID:	ARS2-10-00025-006
Sample Collection Date:	01/26/10 08:45	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	YDU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	39.18	28.78	31.78	29.17		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	49.69	16.59	18.25	17.67		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.85	8.14	1.72	8.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	11.26	0.11	11.26		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	36.94	0.08	36.94		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.01	0.05	0.07	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.04	0.58	0.13	0.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.25	0.47	0.13	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.84	0.87	0.30	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.73	0.87	0.17	0.88		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	2.67	3.65	1.68	3.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.13	0.21	0.10	0.21		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.80

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7943	ARS Sample ID:	ARS2-10-00025-007
Sample Collection Date:	01/26/10 09:09	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analyses Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.20	26.91	30.56	27.22		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	34.69	15.86	19.68	16.42		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	0.13	10.71	5.46	10.71		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.83	0.13	12.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.10	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	16.79	0.08	16.79		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.24	0.30	0.15	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	2.25	0.63	0.11	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.61	1.10	0.34	1.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.01	1.04	0.36	1.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.46	3.12	1.49	3.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.01	0.11	0.10	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES; % Moisture: 0.81

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9524

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7944
Sample Collection Date: 01/26/10 09:34
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-008
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	15.13	22.44	38.20	22.51		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	39.91	15.35	18.71	16.11		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	26.25	9.46	1.94	9.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.70	0.13	12.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.17	0.16	0.09	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.04	0.10	0.08	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.19	0.25	0.15	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.51	0.55	0.14	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.80	1.15	0.34	1.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.46	0.69	0.29	0.69		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	3.95	3.14	1.42	3.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.01	0.04	0.05	0.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.91

Matthew L. Eden
Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
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ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7945
Sample Collection Date: 01/26/10 10:14
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-009
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	70.11	39.05	36.09	39.98		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	88.25	20.23	17.69	22.94		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.08	0.16	0.13	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	14.40	7.46	2.08	7.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	13.59	0.14	13.59		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.67	0.38	0.09	0.38		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	14.13	0.16	14.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.10	0.59	0.24	0.60		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.94	1.17	0.36	1.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.62	1.25	0.53	1.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	8.04	5.09	1.87	5.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.02	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.84

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87556

AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7946	ARS Sample ID:	ARS2-10-00025-010
Sample Collection Date:	01/26/10 10:47	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.39	31.50	31.78	32.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	68.71	18.52	18.25	20.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.77	9.78	2.42	9.80		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	15.84	0.16	15.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.16	0.20	0.12	0.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	20.73	0.10	20.73		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.63	0.57	0.18	0.57		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.04	0.50	0.13	0.50		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.34	1.15	0.42	1.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.84	1.08	0.25	1.08		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	4.03	4.80	1.98	4.89		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.62	0.53	0.19	0.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.70

Matthew A. Eden

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7947
Sample Collection Date: 01/26/10 10:29
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-011
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	91.15	42.42	30.56	43.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	80.25	21.31	19.68	23.47		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	17.04	8.29	2.20	8.31		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.37	0.15	14.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.02	0.06	0.11	0.06		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.81	0.43	0.09	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.46	0.43	0.17	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.90	0.55	0.23	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.64	0.85	0.38	0.86		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.52	0.63	0.29	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	16.48	5.34	1.70	6.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.57	0.66	0.23	0.66		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.56

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
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ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7948
Sample Collection Date: 01/26/10 10:50
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-012
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	93.20	43.38	38.20	44.86		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	68.94	19.35	18.71	21.09		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	20.40	9.39	2.38	9.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	18.86	0.16	15.56		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.52	0.36	0.10	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.47	0.55	0.18	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.38	0.57	0.15	0.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	2.67	1.55	0.41	1.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.10	1.14	0.24	1.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	6.40	4.53	1.88	4.76		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.34	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.70

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7949	ARS Sample ID:	ARS2-10-00026-005
Sample Collection Date:	01/26/10 11:43	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	55.31	35.23	36.09	35.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	64.55	18.00	17.69	19.66		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	15.70	6.88	1.67	6.89		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	10.92	0.11	10.92		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.30	0.23	0.08	0.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.33	0.24	0.07	0.24		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.48	0.42	0.13	0.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.77	0.40	0.14	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	0.98	0.59	0.29	0.59		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.07	97.41	0.22	97.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	10.94	5.76	1.99	6.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.00	0.05	0.10	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 7.62

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7950
Sample Collection Date: 01/26/10 12:11
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-013
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	99.82	45.72	36.09	47.32		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	91.98	20.89	17.59	23.73		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.70	8.09	1.71	8.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.06	0.09	0.11	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.35	0.17	0.08	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.03	0.09	0.07	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	11.63	0.13	11.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.95	0.51	0.13	0.52		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.47	0.87	0.30	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.44	0.99	0.35	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	3.29	3.57	1.53	3.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.23	0.30	0.12	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.96

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE1B-10-7951	ARS Sample ID:	ARS2-10-00026-006
Sample Collection Date:	01/26/10 13:38	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	94.55	42.54	31.78	44.09		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	52.04	17.89	16.25	18.80		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.09	0.13	0.07	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	27.84	7.46	1.17	7.50		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	7.64	0.08	7.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.02	0.05	0.06	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	10.00	0.05	10.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.98	0.47	0.09	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.93	0.36	0.11	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.64	0.68	0.20	0.69		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.18	0.86	0.29	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.41	1.89	0.90	1.92		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.25	0.29	0.11	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 2.14

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client

LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1471 VALIDATION DATE: 03/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Mary Donivan Level: I Date: 03/10/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/09/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7888

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797001

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 90.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.21	1.23	ug/kg	J	1	16-FEB-10 21:34	per0216044a
	Perchlorate Isotope Ratio			3.36			1	16-FEB-10 21:34	per0216044a
14797-73-0	Perchlorate-101	.551	2.21	1.17	ug/kg	J	1	16-FEB-10 21:34	per0216044a
	Perchlorate-O(18)			5.94	ug/kg		1	16-FEB-10 21:34	per0216044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

SEB
3/9/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7890

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797002

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.554	ug/kg	U	1	16-FEB-10 22:04	per0216047a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:04	per0216047a
14797-73-0	Perchlorate-101	.554	2.22	0.554	ug/kg	U	1	16-FEB-10 22:04	per0216047a
	Perchlorate-O(18)			5.52	ug/kg		1	16-FEB-10 22:04	per0216047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

SEB
3/9/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7886

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797003

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 93.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.535	2.14	0.535	ug/kg	U	1	16-FEB-10 22:44	per0216051a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:44	per0216051a
14797-73-0	Perchlorate-101	.535	2.14	0.535	ug/kg	U	1	16-FEB-10 22:44	per0216051a
	Perchlorate-O(18)			5.04	ug/kg		1	16-FEB-10 22:44	per0216051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

SEB
3/9/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7889

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797004

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 63

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 22:55	per0216052a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:55	per0216052a
14797-73-0	Perchlorate-101	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 22:55	per0216052a
	Perchlorate-O(18)			7.91	ug/kg		1	16-FEB-10 22:55	per0216052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

SEB
3/9/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7885

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797005

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:05	per0216053a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:05	per0216053a
14797-73-0	Perchlorate-101	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:05	per0216053a
	Perchlorate-O(18)			7.68	ug/kg		1	16-FEB-10 23:05	per0216053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7882

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797006

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.29	0.571	ug/kg	U	1	16-FEB-10 23:15	per0216054a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:15	per0216054a
14797-73-0	Perchlorate-101	.571	2.29	0.587	ug/kg	J	1	16-FEB-10 23:15	per0216054a
	Perchlorate-O(18)			5.68	ug/kg		1	16-FEB-10 23:15	per0216054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7887

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797007

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:25	per0216055a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:25	per0216055a
14797-73-0	Perchlorate-101	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:25	per0216055a
	Perchlorate-O(18)			7.42	ug/kg		1	16-FEB-10 23:25	per0216055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7881

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797008

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 63

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 23:35	per0216056a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:35	per0216056a
14797-73-0	Perchlorate-101	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 23:35	per0216056a
	Perchlorate-O(18)			7.58	ug/kg		1	16-FEB-10 23:35	per0216056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7951

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797009

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.62	2.48	0.620	ug/kg	U	1	16-FEB-10 23:45	per0216057a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:45	per0216057a
14797-73-0	Perchlorate-101	.62	2.48	0.620	ug/kg	U	1	16-FEB-10 23:45	per0216057a
	Perchlorate-O(18)			5.95	ug/kg		1	16-FEB-10 23:45	per0216057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7950

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797010

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.624	2.49	0.624	ug/kg	U	1	16-FEB-10 23:55	per0216058a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:55	per0216058a
14797-73-0	Perchlorate-101	.624	2.49	0.624	ug/kg	U	1	16-FEB-10 23:55	per0216058a
	Perchlorate-O(18)			6.78	ug/kg		1	16-FEB-10 23:55	per0216058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7947

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797011

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	17-FEB-10 00:05	per0216059a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:05	per0216059a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	17-FEB-10 00:05	per0216059a
	Perchlorate-O(18)			7.93	ug/kg		1	17-FEB-10 00:05	per0216059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7944

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797012

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	17-FEB-10 00:45	per0216063a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:45	per0216063a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	17-FEB-10 00:45	per0216063a
	Perchlorate-O(18)			5.54	ug/kg		1	17-FEB-10 00:45	per0216063a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7948

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797013

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	17-FEB-10 00:56	per0216064a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:56	per0216064a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	17-FEB-10 00:56	per0216064a
	Perchlorate-O(18)			5.50	ug/kg		1	17-FEB-10 00:56	per0216064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7941

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797014

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	17-FEB-10 01:06	per0216065a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:06	per0216065a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	17-FEB-10 01:06	per0216065a
	Perchlorate-O(18)			6.57	ug/kg		1	17-FEB-10 01:06	per0216065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7949

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797015

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 59

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.844	3.38	0.844	ug/kg	U	1	17-FEB-10 01:16	per0216066a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:16	per0216066a
14797-73-0	Perchlorate-101	.844	3.38	0.844	ug/kg	U	1	17-FEB-10 01:16	per0216066a
	Perchlorate-O(18)			8.52	ug/kg		1	17-FEB-10 01:16	per0216066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7946

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797016

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 91.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	17-FEB-10 01:26	per0216067a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:26	per0216067a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	17-FEB-10 01:26	per0216067a
	Perchlorate-O(18)			5.45	ug/kg		1	17-FEB-10 01:26	per0216067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7942

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797017

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.25	0.561	ug/kg	U	1	17-FEB-10 01:36	per0216068a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:36	per0216068a
14797-73-0	Perchlorate-101	.561	2.25	0.561	ug/kg	U	1	17-FEB-10 01:36	per0216068a
	Perchlorate-O(18)			5.61	ug/kg		1	17-FEB-10 01:36	per0216068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7945

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797018

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 61

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.822	3.29	0.822	ug/kg	U	1	17-FEB-10 01:46	per0216069a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:46	per0216069a
14797-73-0	Perchlorate-101	.822	3.29	0.822	ug/kg	U	1	17-FEB-10 01:46	per0216069a
	Perchlorate-O(18)			7.89	ug/kg		1	17-FEB-10 01:46	per0216069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7943

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797019

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	17-FEB-10 01:56	per0216070a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:56	per0216070a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	17-FEB-10 01:56	per0216070a
	Perchlorate-O(18)			5.16	ug/kg		1	17-FEB-10 01:56	per0216070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1471 VALIDATION DATE: 03/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, Pb, Sb, and Tl were detected. The Sb and Tl results for sample RE15-10-7888 and the Sb results for samples -7881, -7882, -7886, -7887, -7941 through -7946, -7950, and -7951 were detects ≤5X the MB concentrations and , thus, were qualified U,l4. The Sb result for sample -7889 and the Pb results for samples -7881, -7882, -7886, -7888, -7942, -7943, -7944, -7946, -7950, and -7951 were >5X but ≤50X the MB concentrations and, thus, were qualified J,l4a. The remaining Pb results were >50X the MB concentration and, thus, were not qualified based on professional judgment. The remaining associated Sb and Tl sample results were NDs or qualified NDs by detects in the ICB and/or CCB and, thus, were not qualified.

2. In the ICBs and/or CCBs, Sb, Tl, and U were detected. The Sb result for sample -7889 and all the U sample results were detects >5X the greatest blank concentration and, thus, were not qualified. The Tl result for sample -7888 and all remaining Sb sample results were detects ≤5X the greatest blank concentration and, thus, were qualified U,l4b. The remaining Tl sample results were NDs and, thus, were not qualified.

3. In the FR blanks, (reported in RN 10-1474), samples -8081 and -8082, associated with all the soil samples, K, Na, Pb, and U were detected. The Na results for samples -7881, -7885, -7887, -7889, -7941,-7945, and -7947 through -7950, were ≤5X the greatest FR blank concentration and, thus, were qualified U,l4d. The remaining associated sample results were >5X the greatest FR blank concentration and, thus, were not qualified.

4. The MS %Rs for Ba and Ni were < the laboratory LAL but ≥10%. The associated sample results were detects and, thus, were qualified J-,l6a. The MS %Rs for Mg and K were > the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,l6b. The MS %Rs for Al, Ca, and Fe were also > the laboratory UAL. However, the parent sample concentrations were >4X the spike concentrations and, thus, the associated Al, Ca, and

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Fe sample results were not qualified, based on professional judgment.

Reviewed by: Mary Donivan Level: I Date: 03/10/10

VALIDATOR'S SIGNATURE: DATE: 03/09/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797001 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7888 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 90.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7810000	ug/Kg		7180	21100	21100	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-36-0	Antimony U,I4	878	ug/Kg	J	349	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-38-2	Arsenic	2.52	mg/kg		0.218	1.09	1.09	2	MS	SKJ	02/12/10 23:33	100212-2	948067
7440-39-3	Barium J-,I6a	118000	ug/Kg	N	106	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-41-7	Beryllium	0.670	mg/kg		0.0218	0.109	0.109	2	MS	SKJ	02/17/10 15:31	100217-6	948067
7440-43-9	Cadmium	528	ug/Kg	U	106	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-70-2	Calcium	4570000	ug/Kg		8450	26400	26400	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-47-3	Chromium	7420	ug/Kg		158	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-48-4	Cobalt	8400	ug/Kg		158	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-50-8	Copper	7270	ug/Kg		317	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-89-6	Iron	12500000	ug/Kg		8450	26400	26400	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-92-1	Lead J,I4a	9040	ug/Kg		264	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-95-4	Magnesium J+,I6b	1710000	ug/Kg	N	8980	31700	31700	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-96-5	Manganese	207000	ug/Kg	N	211	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-97-6	Mercury	36.2	ug/kg		3.97	11.7	11.7	1	AV	JXL1	02/16/10 12:24	021610S2-7	947668
7440-02-0	Nickel J-,I6a	7.47	mg/kg	N	0.109	0.436	0.436	2	MS	SKJ	02/17/10 15:31	100217-6	948067
7440-09-7	Potassium J+,I6b	1100000	ug/Kg	N	6760	26400	26400	1	P	HSC	02/17/10 11:48	021710-1	948065
7782-49-2	Selenium	0.670	mg/kg	JN	0.545	1.09	1.09	2	MS	SKJ	02/12/10 23:33	100212-2	948067
7440-22-4	Silver	528	ug/Kg	U	106	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-23-5	Sodium	392000	ug/Kg		7390	26400	26400	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-28-0	Thallium U,I4	0.163	mg/kg	J	0.0654	0.218	0.218	2	MS	SKJ	02/12/10 23:33	100212-2	948067
7440-61-1	Uranium	0.534	mg/kg		0.0144	0.0436	0.0436	2	MS	SKJ	02/14/10 02:24	100213-3	948067
7440-62-2	Vanadium	15500	ug/Kg		106	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-66-6	Zinc	35000	ug/Kg		349	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.567	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.522	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.506	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797002 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7890 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 90.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7060000	ug/Kg		6970	20500	20500	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-36-0	Antimony U,I4b	1840	ug/Kg		338	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-38-2	Arsenic	1.66	mg/kg		0.206	1.03	1.03	2	MS	SKJ	02/13/10 00:16	100212-2	948067
7440-39-3	Barium J-,I6a	80100	ug/Kg	N	102	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-41-7	Beryllium	1.29	mg/kg		0.0206	0.103	0.103	2	MS	SKJ	02/17/10 14:42	100217-6	948067
7440-43-9	Cadmium	512	ug/Kg	U	102	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-70-2	Calcium	1680000	ug/Kg		8200	25600	25600	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-47-3	Chromium	14800	ug/Kg		154	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-48-4	Cobalt	6970	ug/Kg		154	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-50-8	Copper	54600	ug/Kg		307	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-89-6	Iron	13000000	ug/Kg		8200	25600	25600	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-92-1	Lead	24500	ug/Kg		256	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-95-4	Magnesium J+,I6b	1260000	ug/Kg	N	8710	30700	30700	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-96-5	Manganese	217000	ug/Kg	N	205	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-97-6	Mercury	37.5	ug/kg		4.28	12.6	12.6	1	AV	JXL1	02/16/10 12:34	021610S2-7	947668
7440-02-0	Nickel J-,I6a	6.99	mg/kg	N	0.103	0.413	0.413	2	MS	SKJ	02/17/10 14:42	100217-6	948067
7440-09-7	Potassium J+,I6b	794000	ug/Kg	N	6560	25600	25600	1	P	HSC	02/17/10 13:59	021710-1	948065
7782-49-2	Selenium	0.573	mg/kg	JN	0.516	1.03	1.03	2	MS	SKJ	02/13/10 00:16	100212-2	948067
7440-22-4	Silver	512	ug/Kg	U	102	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-23-5	Sodium	176000	ug/Kg		7170	25600	25600	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-28-0	Thallium	0.206	mg/kg	U	0.0619	0.206	0.206	2	MS	SKJ	02/13/10 00:16	100212-2	948067
7440-61-1	Uranium	17.1	mg/kg		0.0136	0.0413	0.0413	2	MS	SKJ	02/14/10 03:08	100213-3	948067
7440-62-2	Vanadium	12100	ug/Kg		102	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-66-6	Zinc	51900	ug/Kg		338	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.528	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.541	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.537	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797003 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7886 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 93.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1960000	ug/Kg		7250	21300	21300	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-36-0	Antimony U,I4	694	ug/Kg	J	352	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-38-2	Arsenic	0.774	mg/kg	J	0.205	1.03	1.03	2	MS	SKJ	02/13/10 00:23	100212-2	948067
7440-39-3	Barium J-,I6a	25200	ug/Kg	N	107	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-41-7	Beryllium	0.380	mg/kg		0.0205	0.103	0.103	2	MS	SKJ	02/17/10 14:44	100217-6	948067
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-70-2	Calcium	364000	ug/Kg		8520	26600	26600	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-47-3	Chromium	10100	ug/Kg		160	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-48-4	Cobalt	14800	ug/Kg		160	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-50-8	Copper	5920	ug/Kg		320	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-89-6	Iron	9470000	ug/Kg		8520	26600	26600	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-92-1	Lead J,I4a	5130	ug/Kg		266	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-95-4	Magnesium J+,I6b	219000	ug/Kg	N	9060	32000	32000	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-96-5	Manganese	262000	ug/Kg	N	213	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-97-6	Mercury	4.23	ug/kg	J	3.98	11.7	11.7	1	AV	JXL1	02/16/10 12:40	021610S2-7	947668
7440-02-0	Nickel J-,I6a	3.98	mg/kg	N	0.103	0.411	0.411	2	MS	SKJ	02/17/10 14:44	100217-6	948067
7440-09-7	Potassium J+,I6b	394000	ug/Kg	N	6820	26600	26600	1	P	HSC	02/17/10 14:03	021710-1	948065
7782-49-2	Selenium	1.03	mg/kg	UN	0.513	1.03	1.03	2	MS	SKJ	02/13/10 00:23	100212-2	948067
7440-22-4	Silver	533	ug/Kg	U	107	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-23-5	Sodium	199000	ug/Kg		7460	26600	26600	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-28-0	Thallium	0.205	mg/kg	U	0.0616	0.205	0.205	2	MS	SKJ	02/13/10 00:23	100212-2	948067
7440-61-1	Uranium	1.4	mg/kg		0.0136	0.0411	0.0411	2	MS	SKJ	02/14/10 03:14	100213-3	948067
7440-62-2	Vanadium	5390	ug/Kg		107	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-66-6	Zinc	37100	ug/Kg		352	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.549	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.502	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.521	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797004 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7889 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 63

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4760000	ug/Kg		10400	30700	30700	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-36-0	Antimony J,I4a	5160	ug/Kg		507	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-38-2	Arsenic	1.51	mg/kg	J	0.318	1.59	1.59	2	MS	SKJ	02/13/10 00:29	100212-2	948067
7440-39-3	Barium J-,I6a	58200	ug/Kg	N	154	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-41-7	Beryllium	4.94	mg/kg		0.0318	0.159	0.159	2	MS	SKJ	02/17/10 14:46	100217-6	948067
7440-43-9	Cadmium	768	ug/Kg	U	154	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-70-2	Calcium	1180000	ug/Kg		12300	38400	38400	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-47-3	Chromium	8140	ug/Kg		230	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-48-4	Cobalt	6400	ug/Kg		230	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-50-8	Copper	813000	ug/Kg		461	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-89-6	Iron	11500000	ug/Kg		12300	38400	38400	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-92-1	Lead	128000	ug/Kg		384	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-95-4	Magnesium J+,I6b	885000	ug/Kg	N	13100	46100	46100	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-96-5	Manganese	226000	ug/Kg	N	307	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-97-6	Mercury	17.6	ug/kg	U	5.98	17.6	17.6	1	AV	JXL1	02/16/10 12:42	021610S2-7	947668
7440-02-0	Nickel J-,I6a	5.46	mg/kg	N	0.159	0.635	0.635	2	MS	SKJ	02/17/10 14:46	100217-6	948067
7440-09-7	Potassium J+,I6b	812000	ug/Kg	N	9830	38400	38400	1	P	HSC	02/17/10 14:06	021710-1	948065
7782-49-2	Selenium	1.59	mg/kg	UN	0.794	1.59	1.59	2	MS	SKJ	02/13/10 00:29	100212-2	948067
7440-22-4	Silver	768	ug/Kg	U	154	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-23-5	Sodium U,I4d	77000	ug/Kg		10700	38400	38400	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-28-0	Thallium	0.318	mg/kg	U	0.0953	0.318	0.318	2	MS	SKJ	02/13/10 00:29	100212-2	948067
7440-61-1	Uranium	104	mg/kg		0.021	0.0635	0.0635	2	MS	SKJ	02/14/10 03:20	100213-3	948067
7440-62-2	Vanadium	16100	ug/Kg		154	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-66-6	Zinc	57500	ug/Kg		507	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.543	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.518	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.501	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797005 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7885 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4690000	ug/Kg		9190	27000	27000	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-36-0	Antimony U,I4b	1760	ug/Kg		446	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-38-2	Arsenic	2.03	mg/kg		0.286	1.43	1.43	2	MS	SKJ	02/13/10 00:35	100212-2	948067
7440-39-3	Barium J-,I6a	61900	ug/Kg	N	135	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-41-7	Beryllium	1.37	mg/kg		0.0286	0.143	0.143	2	MS	SKJ	02/17/10 14:48	100217-6	948067
7440-43-9	Cadmium	7980	ug/Kg		135	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-70-2	Calcium	1370000	ug/Kg		10800	33800	33800	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-47-3	Chromium	6510	ug/Kg		203	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-48-4	Cobalt	10100	ug/Kg		203	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-50-8	Copper	118000	ug/Kg		405	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-89-6	Iron	10700000	ug/Kg		10800	33800	33800	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-92-1	Lead	43800	ug/Kg		338	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-95-4	Magnesium J+,I6b	830000	ug/Kg	N	11500	40500	40500	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-96-5	Manganese	292000	ug/Kg	N	270	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-97-6	Mercury	12.3	ug/kg	J	5.57	16.4	16.4	1	AV	JXL1	02/16/10 12:44	021610S2-7	947668
7440-02-0	Nickel J-,I6a	5.31	mg/kg	N	0.143	0.572	0.572	2	MS	SKJ	02/17/10 14:48	100217-6	948067
7440-09-7	Potassium J+,I6b	824000	ug/Kg	N	8650	33800	33800	1	P	HSC	02/17/10 14:10	021710-1	948065
7782-49-2	Selenium	1.43	mg/kg	UN	0.716	1.43	1.43	2	MS	SKJ	02/13/10 00:35	100212-2	948067
7440-22-4	Silver	675	ug/Kg	U	135	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-23-5	Sodium U,I4d	106000	ug/Kg		9460	33800	33800	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-28-0	Thallium	0.286	mg/kg	U	0.0859	0.286	0.286	2	MS	SKJ	02/13/10 00:35	100212-2	948067
7440-61-1	Uranium	39.8	mg/kg		0.0189	0.0572	0.0572	2	MS	SKJ	02/14/10 03:26	100213-3	948067
7440-62-2	Vanadium	16300	ug/Kg		135	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-66-6	Zinc	72400	ug/Kg		446	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.547	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.553	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.522	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797006 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7882 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2020000	ug/Kg		7620	22400	22400	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-36-0	Antimony U,I4	968	ug/Kg	J	370	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-38-2	Arsenic	1.07	mg/kg	J	0.221	1.11	1.11	2	MS	SKJ	02/13/10 00:41	100212-2	948067
7440-39-3	Barium J-,I6a	21000	ug/Kg	N	112	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-41-7	Beryllium	0.248	mg/kg		0.0221	0.111	0.111	2	MS	SKJ	02/17/10 14:54	100217-6	948067
7440-43-9	Cadmium	560	ug/Kg	U	112	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-70-2	Calcium	529000	ug/Kg		8960	28000	28000	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-47-3	Chromium	25700	ug/Kg		168	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-48-4	Cobalt	6650	ug/Kg		168	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-50-8	Copper	4870	ug/Kg		336	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-89-6	Iron	8730000	ug/Kg		8960	28000	28000	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-92-1	Lead J,I4a	3420	ug/Kg		280	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-95-4	Magnesium J+,I6b	373000	ug/Kg	N	9520	33600	33600	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-96-5	Manganese	192000	ug/Kg	N	224	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-97-6	Mercury	17.1	ug/kg		4.12	12.1	12.1	1	AV	JXL1	02/16/10 12:46	021610S2-7	947668
7440-02-0	Nickel J-,I6a	3.85	mg/kg	N	0.111	0.443	0.443	2	MS	SKJ	02/17/10 14:54	100217-6	948067
7440-09-7	Potassium J+,I6b	365000	ug/Kg	N	7170	28000	28000	1	P	HSC	02/17/10 14:13	021710-1	948065
7782-49-2	Selenium	1.11	mg/kg	UN	0.554	1.11	1.11	2	MS	SKJ	02/13/10 00:41	100212-2	948067
7440-22-4	Silver	560	ug/Kg	U	112	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-23-5	Sodium	156000	ug/Kg		7840	28000	28000	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-28-0	Thallium	0.221	mg/kg	U	0.0664	0.221	0.221	2	MS	SKJ	02/13/10 00:41	100212-2	948067
7440-61-1	Uranium	0.767	mg/kg		0.0146	0.0443	0.0443	2	MS	SKJ	02/14/10 03:32	100213-3	948067
7440-62-2	Vanadium	7350	ug/Kg		112	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-66-6	Zinc	33200	ug/Kg		370	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.566	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.51	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.516	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797007 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7887 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6770000	ug/Kg		9860	29000	29000	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-36-0	Antimony U,I4	1090	ug/Kg	J	478	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-38-2	Arsenic	2.13	mg/kg		0.271	1.36	1.36	2	MS	SKJ	02/13/10 00:47	100212-2	948067
7440-39-3	Barium J-,I6a	61200	ug/Kg	N	145	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-41-7	Beryllium	0.753	mg/kg		0.0271	0.136	0.136	2	MS	SKJ	02/17/10 14:56	100217-6	948067
7440-43-9	Cadmium	725	ug/Kg	U	145	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-70-2	Calcium	1420000	ug/Kg		11600	36200	36200	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-47-3	Chromium	15000	ug/Kg		217	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-48-4	Cobalt	8080	ug/Kg		217	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-50-8	Copper	11900	ug/Kg		435	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-89-6	Iron	13200000	ug/Kg		11600	36200	36200	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-92-1	Lead	17600	ug/Kg		362	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-95-4	Magnesium J+,I6b	1420000	ug/Kg	N	12300	43500	43500	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-96-5	Manganese	230000	ug/Kg	N	290	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-97-6	Mercury	14.2	ug/kg	J	5.69	16.7	16.7	1	AV	JXL1	02/16/10 12:48	021610S2-7	947668
7440-02-0	Nickel J-,I6a	6.73	mg/kg	N	0.136	0.542	0.542	2	MS	SKJ	02/17/10 14:56	100217-6	948067
7440-09-7	Potassium J+,I6b	1220000	ug/Kg	N	9280	36200	36200	1	P	HSC	02/17/10 14:17	021710-1	948065
7782-49-2	Selenium	1.36	mg/kg	UN	0.678	1.36	1.36	2	MS	SKJ	02/13/10 00:47	100212-2	948067
7440-22-4	Silver	725	ug/Kg	U	145	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-23-5	Sodium U,I4d	88400	ug/Kg		10100	36200	36200	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-28-0	Thallium	0.271	mg/kg	U	0.0813	0.271	0.271	2	MS	SKJ	02/13/10 00:47	100212-2	948067
7440-61-1	Uranium	2.54	mg/kg		0.0179	0.0542	0.0542	2	MS	SKJ	02/14/10 03:51	100213-3	948067
7440-62-2	Vanadium	25100	ug/Kg		145	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-66-6	Zinc	31100	ug/Kg		478	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.535	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.515	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.551	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797008 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7881 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 63

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3450000	ug/Kg		9940	29200	29200	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-36-0	Antimony U,I4	1250	ug/Kg	J	482	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-38-2	Arsenic	1.49	mg/kg	J	0.305	1.53	1.53	2	MS	SKJ	02/13/10 01:06	100212-2	948067
7440-39-3	Barium J-,I6a	44600	ug/Kg	N	146	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-41-7	Beryllium	2.82	mg/kg		0.0305	0.153	0.153	2	MS	SKJ	02/17/10 14:57	100217-6	948067
7440-43-9	Cadmium	731	ug/Kg	U	146	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-70-2	Calcium	1400000	ug/Kg		11700	36500	36500	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-47-3	Chromium	13000	ug/Kg		219	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-48-4	Cobalt	2130	ug/Kg		219	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-50-8	Copper	16700	ug/Kg		438	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-89-6	Iron	9600000	ug/Kg		11700	36500	36500	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-92-1	Lead J,I4a	15800	ug/Kg		365	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-95-4	Magnesium J+,I6b	701000	ug/Kg	N	12400	43800	43800	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-96-5	Manganese	259000	ug/Kg	N	292	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-97-6	Mercury	20.9	ug/kg		6.25	18.4	18.4	1	AV	JXL1	02/16/10 12:50	021610S2-7	947668
7440-02-0	Nickel J-,I6a	3.8	mg/kg	N	0.153	0.61	0.61	2	MS	SKJ	02/17/10 14:57	100217-6	948067
7440-09-7	Potassium J+,I6b	706000	ug/Kg	N	9350	36500	36500	1	P	HSC	02/17/10 14:20	021710-1	948065
7782-49-2	Selenium	1.53	mg/kg	UN	0.763	1.53	1.53	2	MS	SKJ	02/13/10 01:06	100212-2	948067
7440-22-4	Silver	731	ug/Kg	U	146	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-23-5	Sodium U,I4d	70900	ug/Kg		10200	36500	36500	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-28-0	Thallium	0.305	mg/kg	U	0.0915	0.305	0.305	2	MS	SKJ	02/13/10 01:06	100212-2	948067
7440-61-1	Uranium	29.5	mg/kg		0.0201	0.061	0.061	2	MS	SKJ	02/14/10 03:57	100213-3	948067
7440-62-2	Vanadium	12000	ug/Kg		146	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-66-6	Zinc	51600	ug/Kg		482	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.519	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.544	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.521	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797009 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7951 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		1940000	ug/Kg		7960	23400	23400	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-36-0	Antimony	U,I4	902	ug/Kg	J	386	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-38-2	Arsenic		1.7	mg/kg		0.233	1.17	1.17	2	MS	SKJ	02/13/10 01:12	100212-2	948067
7440-39-3	Barium	J-,I6a	36900	ug/Kg	N	117	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-41-7	Beryllium		0.368	mg/kg		0.0233	0.117	0.117	2	MS	SKJ	02/17/10 14:59	100217-6	948067
7440-43-9	Cadmium		586	ug/Kg	U	117	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-70-2	Calcium		532000	ug/Kg		9370	29300	29300	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-47-3	Chromium		4590	ug/Kg		176	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-48-4	Cobalt		11900	ug/Kg		176	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-50-8	Copper		5030	ug/Kg		351	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-89-6	Iron		8270000	ug/Kg		9370	29300	29300	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-92-1	Lead	J,I4a	6440	ug/Kg		293	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-95-4	Magnesium	J+,I6b	291000	ug/Kg	N	9950	35100	35100	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-96-5	Manganese		295000	ug/Kg	N	234	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-97-6	Mercury		14.1	ug/kg	U	4.81	14.1	14.1	1	AV	JXL1	02/16/10 12:51	021610S2-7	947668
7440-02-0	Nickel	J-,I6a	4.3	mg/kg	N	0.117	0.467	0.467	2	MS	SKJ	02/17/10 14:59	100217-6	948067
7440-09-7	Potassium	J+,I6b	629000	ug/Kg	N	7500	29300	29300	1	P	HSC	02/17/10 14:24	021710-1	948065
7782-49-2	Selenium		1.17	mg/kg	UN	0.583	1.17	1.17	2	MS	SKJ	02/13/10 01:12	100212-2	948067
7440-22-4	Silver		586	ug/Kg	U	117	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-23-5	Sodium		281000	ug/Kg		8200	29300	29300	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-28-0	Thallium		0.233	mg/kg	U	0.07	0.233	0.233	2	MS	SKJ	02/13/10 01:12	100212-2	948067
7440-61-1	Uranium		1.89	mg/kg		0.0154	0.0467	0.0467	2	MS	SKJ	02/14/10 04:03	100213-3	948067
7440-62-2	Vanadium		4120	ug/Kg		117	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-66-6	Zinc		31700	ug/Kg		386	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.526	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.529	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.531	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797010 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7950 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8490000	ug/Kg		8410	24700	24700	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-36-0	Antimony U,I4	759	ug/Kg	J	408	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-38-2	Arsenic	2.67	mg/kg		0.246	1.23	1.23	2	MS	SKJ	02/13/10 01:18	100212-2	948067
7440-39-3	Barium J-,I6a	90200	ug/Kg	N	124	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-41-7	Beryllium	1.22	mg/kg		0.0246	0.123	0.123	2	MS	SKJ	02/17/10 15:01	100217-6	948067
7440-43-9	Cadmium	619	ug/Kg	U	124	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-70-2	Calcium	2710000	ug/Kg		9900	30900	30900	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-47-3	Chromium	12700	ug/Kg		186	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-48-4	Cobalt	5470	ug/Kg		186	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-50-8	Copper	13000	ug/Kg		371	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-89-6	Iron	12800000	ug/Kg		9900	30900	30900	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-92-1	Lead J,I4a	11600	ug/Kg		309	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-95-4	Magnesium J+,I6b	1780000	ug/Kg	N	10500	37100	37100	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-96-5	Manganese	179000	ug/Kg	N	247	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-97-6	Mercury	49.5	ug/kg		4.97	14.6	14.6	1	AV	JXL1	02/16/10 12:53	021610S2-7	947668
7440-02-0	Nickel J-,I6a	8.79	mg/kg	N	0.123	0.493	0.493	2	MS	SKJ	02/17/10 15:01	100217-6	948067
7440-09-7	Potassium J+,I6b	1200000	ug/Kg	N	7920	30900	30900	1	P	HSC	02/17/10 14:27	021710-1	948065
7782-49-2	Selenium	1.23	mg/kg	UN	0.616	1.23	1.23	2	MS	SKJ	02/13/10 01:18	100212-2	948067
7440-22-4	Silver	619	ug/Kg	U	124	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-23-5	Sodium U,I4d	74300	ug/Kg		8660	30900	30900	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-28-0	Thallium	0.246	mg/kg	U	0.0739	0.246	0.246	2	MS	SKJ	02/13/10 01:18	100212-2	948067
7440-61-1	Uranium	5.41	mg/kg		0.0163	0.0493	0.0493	2	MS	SKJ	02/14/10 04:09	100213-3	948067
7440-62-2	Vanadium	20100	ug/Kg		124	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-66-6	Zinc	32800	ug/Kg		408	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.512	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.504	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.506	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797011 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7947 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7080000	ug/Kg		10500	30900	30900	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-36-0	Antimony U,I4b	3820	ug/Kg		509	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-38-2	Arsenic	2.83	mg/kg		0.31	1.55	1.55	2	MS	SKJ	02/13/10 01:24	100212-2	948067
7440-39-3	Barium J-,I6a	112000	ug/Kg	N	154	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-41-7	Beryllium	3.22	mg/kg		0.031	0.155	0.155	2	MS	SKJ	02/17/10 15:07	100217-6	948067
7440-43-9	Cadmium	614	ug/Kg	J	154	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-70-2	Calcium	3340000	ug/Kg		12300	38600	38600	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-47-3	Chromium	8800	ug/Kg		231	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-48-4	Cobalt	5660	ug/Kg		231	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-50-8	Copper	143000	ug/Kg		463	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-89-6	Iron	11000000	ug/Kg		12300	38600	38600	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-92-1	Lead	121000	ug/Kg		386	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-95-4	Magnesium J+,I6b	1500000	ug/Kg	N	13100	46300	46300	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-96-5	Manganese	393000	ug/Kg	N	309	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-97-6	Mercury	19.3	ug/kg		5.64	16.6	16.6	1	AV	JXL1	02/16/10 12:55	021610S2-7	947668
7440-02-0	Nickel J-,I6a	8.85	mg/kg	N	0.155	0.62	0.62	2	MS	SKJ	02/17/10 15:07	100217-6	948067
7440-09-7	Potassium J+,I6b	1500000	ug/Kg	N	9880	38600	38600	1	P	HSC	02/17/10 14:38	021710-1	948065
7782-49-2	Selenium	1.55	mg/kg	UN	0.775	1.55	1.55	2	MS	SKJ	02/13/10 01:24	100212-2	948067
7440-22-4	Silver	771	ug/Kg	U	154	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-23-5	Sodium U,I4d	54000	ug/Kg		10800	38600	38600	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-28-0	Thallium	0.310	mg/kg	U	0.0929	0.31	0.31	2	MS	SKJ	02/13/10 01:24	100212-2	948067
7440-61-1	Uranium	71.5	mg/kg		0.0204	0.062	0.062	2	MS	SKJ	02/14/10 04:15	100213-3	948067
7440-62-2	Vanadium	21400	ug/Kg		154	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-66-6	Zinc	68700	ug/Kg		509	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.567	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.508	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.506	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797012 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7944 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 92.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3540000	ug/Kg		7260	21300	21300	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-36-0	Antimony U,I4	825	ug/Kg	J	352	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-38-2	Arsenic	1.35	mg/kg		0.211	1.05	1.05	2	MS	SKJ	02/13/10 01:30	100212-2	948067
7440-39-3	Barium J-,I6a	59100	ug/Kg	N	107	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-41-7	Beryllium	0.440	mg/kg		0.0211	0.105	0.105	2	MS	SKJ	02/17/10 15:09	100217-6	948067
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-70-2	Calcium	1190000	ug/Kg		8540	26700	26700	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-47-3	Chromium	25800	ug/Kg		160	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-48-4	Cobalt	9430	ug/Kg		160	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-50-8	Copper	6020	ug/Kg		320	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-89-6	Iron	9360000	ug/Kg		8540	26700	26700	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-92-1	Lead J,I4a	4330	ug/Kg		267	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-95-4	Magnesium J+,I6b	864000	ug/Kg	N	9070	32000	32000	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-96-5	Manganese	198000	ug/Kg	N	213	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-97-6	Mercury	29.9	ug/kg		4.38	12.9	12.9	1	AV	JXL1	02/16/10 12:57	021610S2-7	947668
7440-02-0	Nickel J-,I6a	7.46	mg/kg	N	0.105	0.422	0.422	2	MS	SKJ	02/17/10 15:09	100217-6	948067
7440-09-7	Potassium J+,I6b	602000	ug/Kg	N	6830	26700	26700	1	P	HSC	02/17/10 14:42	021710-1	948065
7782-49-2	Selenium	1.05	mg/kg	UN	0.527	1.05	1.05	2	MS	SKJ	02/13/10 01:30	100212-2	948067
7440-22-4	Silver	533	ug/Kg	U	107	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-23-5	Sodium	182000	ug/Kg		7470	26700	26700	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-28-0	Thallium	0.211	mg/kg	U	0.0633	0.211	0.211	2	MS	SKJ	02/13/10 01:30	100212-2	948067
7440-61-1	Uranium	0.533	mg/kg		0.0139	0.0422	0.0422	2	MS	SKJ	02/14/10 04:34	100213-3	948067
7440-62-2	Vanadium	8640	ug/Kg		107	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-66-6	Zinc	42200	ug/Kg		352	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.502	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.505	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.511	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797013 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7948 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4800000	ug/Kg		7170	21100	21100	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-36-0	Antimony U,I4b	1970	ug/Kg		348	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-38-2	Arsenic	1.65	mg/kg		0.201	1	1	2	MS	SKJ	02/13/10 01:37	100212-2	948067
7440-39-3	Barium J-,I6a	67500	ug/Kg	N	105	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-41-7	Beryllium	0.935	mg/kg		0.0201	0.1	0.1	2	MS	SKJ	02/17/10 15:11	100217-6	948067
7440-43-9	Cadmium	527	ug/Kg	U	105	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-70-2	Calcium	1650000	ug/Kg		8430	26300	26300	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-47-3	Chromium	15300	ug/Kg		158	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-48-4	Cobalt	3610	ug/Kg		158	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-50-8	Copper	29400	ug/Kg		316	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-89-6	Iron	9520000	ug/Kg		8430	26300	26300	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-92-1	Lead	22600	ug/Kg		263	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-95-4	Magnesium J+,I6b	974000	ug/Kg	N	8960	31600	31600	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-96-5	Manganese	267000	ug/Kg	N	211	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-97-6	Mercury	12.4	ug/kg		4.09	12	12	1	AV	JXL1	02/16/10 13:03	021610S2-7	947668
7440-02-0	Nickel J-,I6a	5.45	mg/kg	N	0.1	0.401	0.401	2	MS	SKJ	02/17/10 15:11	100217-6	948067
7440-09-7	Potassium J+,I6b	812000	ug/Kg	N	6740	26300	26300	1	P	HSC	02/17/10 14:45	021710-1	948065
7782-49-2	Selenium	1	mg/kg	UN	0.502	1	1	2	MS	SKJ	02/13/10 01:37	100212-2	948067
7440-22-4	Silver	527	ug/Kg	U	105	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-23-5	Sodium U,I4d	58800	ug/Kg		7380	26300	26300	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-28-0	Thallium	0.201	mg/kg	U	0.0602	0.201	0.201	2	MS	SKJ	02/13/10 01:37	100212-2	948067
7440-61-1	Uranium	11.8	mg/kg		0.0132	0.0401	0.0401	2	MS	SKJ	02/14/10 04:40	100213-3	948067
7440-62-2	Vanadium	16200	ug/Kg		105	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-66-6	Zinc	40100	ug/Kg		348	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.542	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.515	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.541	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797014 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7941 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4960000	ug/Kg		8720	25600	25600	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-36-0	Antimony U,I4	893	ug/Kg	J	423	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-38-2	Arsenic	1.72	mg/kg		0.245	1.22	1.22	2	MS	SKJ	02/13/10 01:55	100212-2	948067
7440-39-3	Barium J-,I6a	88400	ug/Kg	N	128	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-41-7	Beryllium	1.04	mg/kg		0.0245	0.122	0.122	2	MS	SKJ	02/17/10 15:12	100217-6	948067
7440-43-9	Cadmium	134	ug/Kg	J	128	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-70-2	Calcium	2010000	ug/Kg		10300	32000	32000	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-47-3	Chromium	6540	ug/Kg		192	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-48-4	Cobalt	3600	ug/Kg		192	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-50-8	Copper	16600	ug/Kg		385	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-89-6	Iron	8990000	ug/Kg		10300	32000	32000	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-92-1	Lead	24300	ug/Kg		320	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-95-4	Magnesium J+,I6b	1160000	ug/Kg	N	10900	38500	38500	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-96-5	Manganese	260000	ug/Kg	N	256	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-97-6	Mercury	15.6	ug/kg	U	5.31	15.6	15.6	1	AV	JXL1	02/16/10 13:05	021610S2-7	947668
7440-02-0	Nickel J-,I6a	4.8	mg/kg	N	0.122	0.49	0.49	2	MS	SKJ	02/17/10 15:12	100217-6	948067
7440-09-7	Potassium J+,I6b	1230000	ug/Kg	N	8200	32000	32000	1	P	HSC	02/17/10 14:49	021710-1	948065
7782-49-2	Selenium	1.22	mg/kg	UN	0.612	1.22	1.22	2	MS	SKJ	02/13/10 01:55	100212-2	948067
7440-22-4	Silver	641	ug/Kg	U	128	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-23-5	Sodium U,I4d	38400	ug/Kg		8970	32000	32000	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-28-0	Thallium	0.245	mg/kg	U	0.0735	0.245	0.245	2	MS	SKJ	02/13/10 01:55	100212-2	948067
7440-61-1	Uranium	26.5	mg/kg		0.0162	0.049	0.049	2	MS	SKJ	02/14/10 04:46	100213-3	948067
7440-62-2	Vanadium	17000	ug/Kg		128	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-66-6	Zinc	32900	ug/Kg		423	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.503	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.511	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.535	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797015 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7949 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 59

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7470000	ug/Kg		11300	33100	33100	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-36-0	Antimony U,I4b	2250	ug/Kg		546	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-38-2	Arsenic	2.46	mg/kg		0.307	1.54	1.54	2	MS	SKJ	02/13/10 02:01	100212-2	948067
7440-39-3	Barium J-,I6a	108000	ug/Kg	N	165	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-41-7	Beryllium	1.81	mg/kg		0.0307	0.154	0.154	2	MS	SKJ	02/17/10 15:18	100217-6	948067
7440-43-9	Cadmium	419	ug/Kg	J	165	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-70-2	Calcium	2680000	ug/Kg		13200	41400	41400	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-47-3	Chromium	14500	ug/Kg		248	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-48-4	Cobalt	4650	ug/Kg		248	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-50-8	Copper	88600	ug/Kg		496	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-89-6	Iron	12100000	ug/Kg		13200	41400	41400	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-92-1	Lead	55200	ug/Kg		414	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-95-4	Magnesium J+,I6b	1570000	ug/Kg	N	14100	49600	49600	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-96-5	Manganese	340000	ug/Kg	N	331	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-97-6	Mercury	14.5	ug/kg	J	6.87	20.2	20.2	1	AV	JXL1	02/16/10 13:07	021610S2-7	947668
7440-02-0	Nickel J-,I6a	7.59	mg/kg	N	0.154	0.615	0.615	2	MS	SKJ	02/17/10 15:18	100217-6	948067
7440-09-7	Potassium J+,I6b	1540000	ug/Kg	N	10600	41400	41400	1	P	HSC	02/17/10 14:52	021710-1	948065
7782-49-2	Selenium	1.54	mg/kg	UN	0.769	1.54	1.54	2	MS	SKJ	02/13/10 02:01	100212-2	948067
7440-22-4	Silver	827	ug/Kg	U	165	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-23-5	Sodium U,I4d	59000	ug/Kg		11600	41400	41400	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-28-0	Thallium	0.307	mg/kg	U	0.0922	0.307	0.307	2	MS	SKJ	02/13/10 02:01	100212-2	948067
7440-61-1	Uranium	48.8	mg/kg		0.0203	0.0615	0.0615	2	MS	SKJ	02/14/10 04:52	100213-3	948067
7440-62-2	Vanadium	22800	ug/Kg		165	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-66-6	Zinc	63600	ug/Kg		546	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.501	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.51	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.549	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797016 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7946 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2010000	ug/Kg		6940	20400	20400	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-36-0	Antimony U,I4	420	ug/Kg	J	337	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-38-2	Arsenic	0.969	mg/kg	J	0.21	1.05	1.05	2	MS	SKJ	02/13/10 02:07	100212-2	948067
7440-39-3	Barium J-,I6a	28800	ug/Kg	N	102	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-41-7	Beryllium	0.322	mg/kg		0.021	0.105	0.105	2	MS	SKJ	02/17/10 15:20	100217-6	948067
7440-43-9	Cadmium	510	ug/Kg	U	102	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-70-2	Calcium	756000	ug/Kg		8160	25500	25500	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-47-3	Chromium	15800	ug/Kg		153	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-48-4	Cobalt	17100	ug/Kg		153	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-50-8	Copper	5870	ug/Kg		306	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-89-6	Iron	9610000	ug/Kg		8160	25500	25500	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-92-1	Lead J,I4a	3600	ug/Kg		255	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-95-4	Magnesium J+,I6b	352000	ug/Kg	N	8670	30600	30600	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-96-5	Manganese	218000	ug/Kg	N	204	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-97-6	Mercury	10.8	ug/kg	J	4.29	12.6	12.6	1	AV	JXL1	02/16/10 13:09	021610S2-7	947668
7440-02-0	Nickel J-,I6a	4.71	mg/kg	N	0.105	0.421	0.421	2	MS	SKJ	02/17/10 15:20	100217-6	948067
7440-09-7	Potassium J+,I6b	412000	ug/Kg	N	6530	25500	25500	1	P	HSC	02/17/10 14:56	021710-1	948065
7782-49-2	Selenium	1.05	mg/kg	UN	0.526	1.05	1.05	2	MS	SKJ	02/13/10 02:07	100212-2	948067
7440-22-4	Silver	510	ug/Kg	U	102	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-23-5	Sodium	164000	ug/Kg		7140	25500	25500	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-28-0	Thallium	0.210	mg/kg	U	0.0631	0.21	0.21	2	MS	SKJ	02/13/10 02:07	100212-2	948067
7440-61-1	Uranium	0.879	mg/kg		0.0139	0.0421	0.0421	2	MS	SKJ	02/15/10 14:26	100215-4	948067
7440-62-2	Vanadium	6570	ug/Kg		102	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-66-6	Zinc	37600	ug/Kg		337	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.518	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.534	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.518	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797017 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7942 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		4850000	ug/Kg		7350	21600	21600	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-36-0	Antimony	U,I4	578	ug/Kg	J	357	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-38-2	Arsenic		1.63	mg/kg		0.223	1.11	1.11	2	MS	SKJ	02/13/10 02:14	100212-2	948067
7440-39-3	Barium	J-,I6a	63400	ug/Kg	N	108	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-41-7	Beryllium		0.591	mg/kg		0.0223	0.111	0.111	2	MS	SKJ	02/17/10 15:22	100217-6	948067
7440-43-9	Cadmium		541	ug/Kg	U	108	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-70-2	Calcium		1350000	ug/Kg		8650	27000	27000	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-47-3	Chromium		8830	ug/Kg		162	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-48-4	Cobalt		4280	ug/Kg		162	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-50-8	Copper		4070	ug/Kg		324	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-89-6	Iron		7590000	ug/Kg		8650	27000	27000	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-92-1	Lead	J,I4a	5720	ug/Kg		270	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-95-4	Magnesium	J+,I6b	1030000	ug/Kg	N	9190	32400	32400	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-96-5	Manganese		188000	ug/Kg	N	216	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-97-6	Mercury		13.7	ug/kg		4.54	13.3	13.3	1	AV	JXL1	02/16/10 13:11	021610S2-7	947668
7440-02-0	Nickel	J-,I6a	5.18	mg/kg	N	0.111	0.446	0.446	2	MS	SKJ	02/17/10 15:22	100217-6	948067
7440-09-7	Potassium	J+,I6b	771000	ug/Kg	N	6920	27000	27000	1	P	HSC	02/17/10 14:59	021710-1	948065
7782-49-2	Selenium		1.11	mg/kg	UN	0.557	1.11	1.11	2	MS	SKJ	02/13/10 02:14	100212-2	948067
7440-22-4	Silver		541	ug/Kg	U	108	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-23-5	Sodium		101000	ug/Kg		7570	27000	27000	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-28-0	Thallium		0.223	mg/kg	U	0.0668	0.223	0.223	2	MS	SKJ	02/13/10 02:14	100212-2	948067
7440-61-1	Uranium		0.956	mg/kg		0.0147	0.0446	0.0446	2	MS	SKJ	02/15/10 14:28	100215-4	948067
7440-62-2	Vanadium		9960	ug/Kg		108	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-66-6	Zinc		17200	ug/Kg		357	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.505	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.519	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.504	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797018 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7945 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 61

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5240000	ug/Kg		10500	31000	31000	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-36-0	Antimony U,I4	1500	ug/Kg	J	512	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-38-2	Arsenic	2.16	mg/kg		0.325	1.63	1.63	2	MS	SKJ	02/13/10 02:20	100212-2	948067
7440-39-3	Barium J-,I6a	99400	ug/Kg	N	155	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-41-7	Beryllium	1.67	mg/kg		0.0325	0.163	0.163	2	MS	SKJ	02/17/10 15:24	100217-6	948067
7440-43-9	Cadmium	258	ug/Kg	J	155	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-70-2	Calcium	3360000	ug/Kg		12400	38800	38800	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-47-3	Chromium	9840	ug/Kg		233	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-48-4	Cobalt	5370	ug/Kg		233	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-50-8	Copper	37000	ug/Kg		465	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-89-6	Iron	7940000	ug/Kg		12400	38800	38800	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-92-1	Lead	26300	ug/Kg		388	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-95-4	Magnesium J+,I6b	1090000	ug/Kg	N	13200	46500	46500	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-96-5	Manganese	365000	ug/Kg	N	310	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-97-6	Mercury	22	ug/kg		6.66	19.6	19.6	1	AV	JXL1	02/16/10 13:13	021610S2-7	947668
7440-02-0	Nickel J-,I6a	6.13	mg/kg	N	0.163	0.651	0.651	2	MS	SKJ	02/17/10 15:24	100217-6	948067
7440-09-7	Potassium J+,I6b	973000	ug/Kg	N	9920	38800	38800	1	P	HSC	02/17/10 15:03	021710-1	948065
7782-49-2	Selenium	1.63	mg/kg	UN	0.813	1.63	1.63	2	MS	SKJ	02/13/10 02:20	100212-2	948067
7440-22-4	Silver	278	ug/Kg	J	155	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-23-5	Sodium U,I4d	76400	ug/Kg		10900	38800	38800	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-28-0	Thallium	0.325	mg/kg	U	0.0976	0.325	0.325	2	MS	SKJ	02/13/10 02:20	100212-2	948067
7440-61-1	Uranium	46.3	mg/kg		0.107	0.325	0.325	10	MS	SKJ	02/16/10 10:38	100216-5	948067
7440-62-2	Vanadium	11600	ug/Kg		155	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-66-6	Zinc	47200	ug/Kg		512	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.503	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.53	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.505	g	50	mL	02/08/10	FGA

SEB
3/9/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797019 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7943 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 92.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1320000	ug/Kg		7100	20900	20900	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-36-0	Antimony U,I4	797	ug/Kg	J	345	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-38-2	Arsenic	0.839	mg/kg	J	0.21	1.05	1.05	2	MS	SKJ	02/13/10 02:26	100212-2	948067
7440-39-3	Barium J-,I6a	17200	ug/Kg	N	104	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-41-7	Beryllium	0.325	mg/kg		0.021	0.105	0.105	2	MS	SKJ	02/17/10 15:26	100217-6	948067
7440-43-9	Cadmium	522	ug/Kg	U	104	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-70-2	Calcium	292000	ug/Kg		8350	26100	26100	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-47-3	Chromium	20000	ug/Kg		157	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-48-4	Cobalt	4120	ug/Kg		157	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-50-8	Copper	1730	ug/Kg		313	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-89-6	Iron	6350000	ug/Kg		8350	26100	26100	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-92-1	Lead J,I4a	2480	ug/Kg		261	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-95-4	Magnesium J+,I6b	197000	ug/Kg	N	8870	31300	31300	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-96-5	Manganese	201000	ug/Kg	N	209	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-97-6	Mercury	16.5	ug/kg		4.17	12.3	12.3	1	AV	JXL1	02/16/10 13:15	021610S2-7	947668
7440-02-0	Nickel J-,I6a	5.71	mg/kg	N	0.105	0.42	0.42	2	MS	SKJ	02/17/10 15:26	100217-6	948067
7440-09-7	Potassium J+,I6b	355000	ug/Kg	N	6680	26100	26100	1	P	HSC	02/17/10 15:06	021710-1	948065
7782-49-2	Selenium	1.05	mg/kg	UN	0.525	1.05	1.05	2	MS	SKJ	02/13/10 02:26	100212-2	948067
7440-22-4	Silver	522	ug/Kg	U	104	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-23-5	Sodium	196000	ug/Kg		7310	26100	26100	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-28-0	Thallium	0.210	mg/kg	U	0.063	0.21	0.21	2	MS	SKJ	02/13/10 02:26	100212-2	948067
7440-61-1	Uranium	0.638	mg/kg		0.0139	0.042	0.042	2	MS	SKJ	02/15/10 14:33	100215-4	948067
7440-62-2	Vanadium	2590	ug/Kg		104	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-66-6	Zinc	24300	ug/Kg		345	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.529	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.518	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.515	g	50	mL	02/08/10	FGA

SEB
3/9/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1471 VALIDATION DATE: 03/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the parent QC samples for one total cyanide batch were from other LANL RNs. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/10/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/09/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7888	Project:	LANL01004
Sample ID:	245797001	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	9.32%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.4	255	ug/kg	1	AXC2 02/08/10	1355	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/9/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7890	Project:	LANL01004
Sample ID:	245797002	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	9.81%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.9	272	ug/kg	1	AXC2 02/08/10	1356	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7886	Project:	LANL01004
Sample ID:	245797003	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	6.53%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.6	252	ug/kg	1	AXC2 02/08/10	1357	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/9/10

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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7889	Project:	LANL01004
Sample ID:	245797004	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	37.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	108	398	ug/kg	1	AXC2 02/08/10	1358	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/9/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7885	Project:	LANL01004
Sample ID:	245797005	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	33.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	154	94.1	346	ug/kg	1	AXC2 02/08/10	1359	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/9/10

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Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7882	Project:	LANL01004
Sample ID:	245797006	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	12.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.7	286	ug/kg	1	AXC2 02/08/10	1359	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/9/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7887	Project:	LANL01004
Sample ID:	245797007	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	33%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	87.5	322	ug/kg	1	AXC2 02/08/10	1520	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/9/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7881	Project:	LANL01004
Sample ID:	245797008	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	37.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	298	106	390	ug/kg	1	AXC2 02/08/10	1524	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7951	Project:	LANL01004
Sample ID:	245797009	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	19.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.0	287	ug/kg	1	AXC2 02/08/10	1527	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7950	Project:	LANL01004
Sample ID:	245797010	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	19.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.5	289	ug/kg	1	AXC2 02/08/10	1528	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7947	Project:	LANL01004
Sample ID:	245797011	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	36.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	122	105	384	ug/kg	1	AXC2 02/08/10	1533	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7944	Project:	LANL01004
Sample ID:	245797012	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	7.21%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.3	269	ug/kg	1	AXC2 02/08/10	1534	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7948	Project:	LANL01004
Sample ID:	245797013	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	7.88%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.0	261	ug/kg	1	AXC2 02/08/10	1534	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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3/9/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7941	Project:	LANL01004
Sample ID:	245797014	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	23.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total		324	82.5	303	ug/kg	1	AXC2 02/08/10	1535	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7949	Project:	LANL01004
Sample ID:	245797015	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	40.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	115	422	ug/kg	1	AXC2 02/08/10	1536	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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3/9/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7946	Project:	LANL01004
Sample ID:	245797016	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	8.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.2	262	ug/kg	1	AXC2 02/08/10	1537	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7942	Project:	LANL01004
Sample ID:	245797017	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	10.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.7	260	ug/kg	1	AXC2 02/08/10	1538	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7945	Project:	LANL01004
Sample ID:	245797018	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	39.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	234	103	380	ug/kg	1	AXC2 02/08/10	1539	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/9/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7943	Project:	LANL01004
Sample ID:	245797019	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	7.55%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.7	241	ug/kg	1	AXC2 02/08/10	1540	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/9/10

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1471

REQUEST NUMBER: 10-1471

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

LAB REQUEST COMMENTS: 245797 1.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7888	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7890	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7886	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7889	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7885	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7882	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7887	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7881	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7951	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7950	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7947	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7944	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7948	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7941	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7949	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7946	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7942	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7945	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7943	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	1/28/10	1400	Patricia Dover	[illegible]	1-29-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1471

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	SW-846:6850	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7951	R	1/26/2010	
	SW-846:7471A	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	SW-846:9012A	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	[illegible]	R	[illegible]	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1471

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
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February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245797
SDG: 10-1471

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 29, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1471
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245797
SDG: 10-1471

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 20

LC/MS/MS Perchlorate Analysis..... 22
- Sample Data Summary.....28
- Quality Control Summary.....48
- Sample Data..... 77
- Standards Data..... 116
- Quality Control..... 138
- Miscellaneous Data.....147

Metals Analysis..... 154
- Case Narrative..... 155
- Sample Data Summary.....162
- Quality Control Summary.....182
- Standards.....245
- Raw Data..... 257
- Miscellaneous..... 813

General Chemistry Analysis..... 875
- Case Narrative..... 876
- Sample Data Summary.....882
- Quality Control Summary.....903
- Instrument QC Data Summary.....906
- Cyanide, Total.....908
- Miscellaneous..... 924

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245797
SDG # : 10-1471

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 29, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245797001	RE15-10-7888
245797002	RE15-10-7890
245797003	RE15-10-7886
245797004	RE15-10-7889
245797005	RE15-10-7885
245797006	RE15-10-7882
245797007	RE15-10-7887
245797008	RE15-10-7881
245797009	RE15-10-7951
245797010	RE15-10-7950
245797011	RE15-10-7947
245797012	RE15-10-7944
245797013	RE15-10-7948
245797014	RE15-10-7941
245797015	RE15-10-7949
245797016	RE15-10-7946
245797017	RE15-10-7942
245797018	RE15-10-7945
245797019	RE15-10-7943

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1471

REQUEST NUMBER: 10-1471

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245797 1.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7888	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7890	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7886	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7889	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7885	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7882	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7887	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7881	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7951	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7950	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7947	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7944	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7948	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7941	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7949	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7946	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7942	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7945	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7943	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	1/28/10	1400	Patricia Dover-Dent	P. Dover-Dent	1-29-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1471

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	SW-846:6850	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7951	R	1/26/2010	
	SW-846:7471A	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	
	SW-846:9012A	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1471

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1471

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1471**
Received By: Patricia Dover-Dent	**Date Received: January 29, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-6** **10-12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7419 11C	**7209 7849 7522 6C**
7209 7849 7500 5C	**7209 7849 7533 1C**
7209 7849 7452 2C	**7209 7849 7544 1C**
7209 7849 7474 1C	**7209 7849 7420 10C**
7209 7849 7441 4C	**7209 7849 7496 2C**
7209 7849 7463 3C	**7209 7849 7485 3C**
7209 7849 7430 10C	**7209 7849 7408 12C**
7209 7849 7511 6C	

PM (or PMA) review: Initials _____ Date 2/1/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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3 of 3
MPS# 0263 7209 7849 7419
Mstr# 7209 7849 7393 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9058
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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TRK# 0201 7209 7849 7500
MASTER

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
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TRK# 0201 7209 7849 7452

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SC-US
CHS

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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VALERIE DAVIS
GENERAL ENGINEERING LAB
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2 of 2

MPS# 0263 7209 7849 7474

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PRIORITY OVERNIGHT

MstrN 7209 7849 7463 0201

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SC-US
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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR3A05529E00

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MPS# 0263 7209 7849 7441
Mstr# 7209 7849 7430 0201

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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°VALERIE DAVIS
GENERAL ENGINEERING LAB
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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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TRK# 0201 7209 7849 7463
MASTER

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 68010AMR3A05528E00

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1 of 2

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29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015QGWK0

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2 of 2

MPS# 0263 7209 7849 7511

Matr# 7209 7849 7500 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG J237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 54.0 LB MAN
CAD: 0814175/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR1A015AGNKO

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PRIORITY OVERNIGHT

TRK# 9201 7209 7849 7522

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

238

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AARDW01503500

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TRK# 0201 7209 7849 7533

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PRIORITY OVERNIGHT

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29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

238 1 B 7544 01.29

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AX49A08650000

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PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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PRIORITY OVERNIGHT

TRK# 0201 7209 7849 7420

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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Part # 156148-434 NRIT V3 04-0

[redacted]

ORIGIN ID: SAFA (505) 665-9966
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

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VALERIE DAVIS
GENERAL ENGINEERING LAB
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CHS

Form # 156148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-9966
JOYLENE VALDEZ
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2 of 3
MPS# 0203 7209 7849 7498
Master 7209 7849 7485 0201

FRI - 29JAN A1
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Form # 156148-434 NRITV3 04-09

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1471

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	947246
Prep Batch Number:	947245

Sample Analysis

Sample ID	Client ID
245797001	RE15-10-7888
245797002	RE15-10-7890
245797003	RE15-10-7886
245797004	RE15-10-7889
245797005	RE15-10-7885
245797006	RE15-10-7882
245797007	RE15-10-7887
245797008	RE15-10-7881
245797009	RE15-10-7951
245797010	RE15-10-7950
245797011	RE15-10-7947
245797012	RE15-10-7944
245797013	RE15-10-7948
245797014	RE15-10-7941

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245797015	RE15-10-7949
245797016	RE15-10-7946
245797017	RE15-10-7942
245797018	RE15-10-7945
245797019	RE15-10-7943
1202029081	Interference Check Sample (ICS)
1202029077	Method Blank (MB)
1202029078	Laboratory Control Sample (LCS)
1202029079	245797001(RE15-10-7888) Matrix Spike (MS)
1202029080	245797001(RE15-10-7888) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

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Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 245797001 (RE15-10-7888) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

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Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

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Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Maier **Date:** 02/20/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7888

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797001

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 90.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.21	1.23	ug/kg	J	1	16-FEB-10 21:34	per0216044a
	Perchlorate Isotope Ratio			3.36			1	16-FEB-10 21:34	per0216044a
14797-73-0	Perchlorate-101	.551	2.21	1.17	ug/kg	J	1	16-FEB-10 21:34	per0216044a
	Perchlorate-O(18)			5.94	ug/kg		1	16-FEB-10 21:34	per0216044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7890

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797002

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.554	ug/kg	U	1	16-FEB-10 22:04	per0216047a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:04	per0216047a
14797-73-0	Perchlorate-101	.554	2.22	0.554	ug/kg	U	1	16-FEB-10 22:04	per0216047a
	Perchlorate-O(18)			5.52	ug/kg		1	16-FEB-10 22:04	per0216047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7886

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797003

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 93.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.535	2.14	0.535	ug/kg	U	1	16-FEB-10 22:44	per0216051a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:44	per0216051a
14797-73-0	Perchlorate-101	.535	2.14	0.535	ug/kg	U	1	16-FEB-10 22:44	per0216051a
	Perchlorate-O(18)			5.04	ug/kg		1	16-FEB-10 22:44	per0216051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7889

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797004

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 63

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 22:55	per0216052a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:55	per0216052a
14797-73-0	Perchlorate-101	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 22:55	per0216052a
	Perchlorate-O(18)			7.91	ug/kg		1	16-FEB-10 22:55	per0216052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7885

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797005

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:05	per0216053a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:05	per0216053a
14797-73-0	Perchlorate-101	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:05	per0216053a
	Perchlorate-O(18)			7.68	ug/kg		1	16-FEB-10 23:05	per0216053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7882

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797006

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.29	0.571	ug/kg	U	1	16-FEB-10 23:15	per0216054a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:15	per0216054a
14797-73-0	Perchlorate-101	.571	2.29	0.587	ug/kg	J	1	16-FEB-10 23:15	per0216054a
	Perchlorate-O(18)			5.68	ug/kg		1	16-FEB-10 23:15	per0216054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7887

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797007

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:25	per0216055a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:25	per0216055a
14797-73-0	Perchlorate-101	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:25	per0216055a
	Perchlorate-O(18)			7.42	ug/kg		1	16-FEB-10 23:25	per0216055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7881

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797008

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 63

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 23:35	per0216056a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:35	per0216056a
14797-73-0	Perchlorate-101	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 23:35	per0216056a
	Perchlorate-O(18)			7.58	ug/kg		1	16-FEB-10 23:35	per0216056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7951

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797009

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.62	2.48	0.620	ug/kg	U	1	16-FEB-10 23:45	per0216057a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:45	per0216057a
14797-73-0	Perchlorate-101	.62	2.48	0.620	ug/kg	U	1	16-FEB-10 23:45	per0216057a
	Perchlorate-O(18)			5.95	ug/kg		1	16-FEB-10 23:45	per0216057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7950

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797010

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.624	2.49	0.624	ug/kg	U	1	16-FEB-10 23:55	per0216058a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:55	per0216058a
14797-73-0	Perchlorate-101	.624	2.49	0.624	ug/kg	U	1	16-FEB-10 23:55	per0216058a
	Perchlorate-O(18)			6.78	ug/kg		1	16-FEB-10 23:55	per0216058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7947

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797011

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	17-FEB-10 00:05	per0216059a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:05	per0216059a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	17-FEB-10 00:05	per0216059a
	Perchlorate-O(18)			7.93	ug/kg		1	17-FEB-10 00:05	per0216059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7944

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797012

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	17-FEB-10 00:45	per0216063a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:45	per0216063a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	17-FEB-10 00:45	per0216063a
	Perchlorate-O(18)			5.54	ug/kg		1	17-FEB-10 00:45	per0216063a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7948

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797013

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	17-FEB-10 00:56	per0216064a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:56	per0216064a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	17-FEB-10 00:56	per0216064a
	Perchlorate-O(18)			5.50	ug/kg		1	17-FEB-10 00:56	per0216064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7941

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797014

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	17-FEB-10 01:06	per0216065a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:06	per0216065a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	17-FEB-10 01:06	per0216065a
	Perchlorate-O(18)			6.57	ug/kg		1	17-FEB-10 01:06	per0216065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7949

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797015

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 59

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.844	3.38	0.844	ug/kg	U	1	17-FEB-10 01:16	per0216066a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:16	per0216066a
14797-73-0	Perchlorate-101	.844	3.38	0.844	ug/kg	U	1	17-FEB-10 01:16	per0216066a
	Perchlorate-O(18)			8.52	ug/kg		1	17-FEB-10 01:16	per0216066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7946

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797016

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 91.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	17-FEB-10 01:26	per0216067a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:26	per0216067a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	17-FEB-10 01:26	per0216067a
	Perchlorate-O(18)			5.45	ug/kg		1	17-FEB-10 01:26	per0216067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7942

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797017

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.25	0.561	ug/kg	U	1	17-FEB-10 01:36	per0216068a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:36	per0216068a
14797-73-0	Perchlorate-101	.561	2.25	0.561	ug/kg	U	1	17-FEB-10 01:36	per0216068a
	Perchlorate-O(18)			5.61	ug/kg		1	17-FEB-10 01:36	per0216068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7945

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797018

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 61

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.822	3.29	0.822	ug/kg	U	1	17-FEB-10 01:46	per0216069a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:46	per0216069a
14797-73-0	Perchlorate-101	.822	3.29	0.822	ug/kg	U	1	17-FEB-10 01:46	per0216069a
	Perchlorate-O(18)			7.89	ug/kg		1	17-FEB-10 01:46	per0216069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7943

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797019

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	17-FEB-10 01:56	per0216070a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:56	per0216070a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	17-FEB-10 01:56	per0216070a
	Perchlorate-O(18)			5.16	ug/kg		1	17-FEB-10 01:56	per0216070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1471

Extract Batch Code: 947245

Date Filtered: 11–FEB–10

Matrix: SOIL

Sample ID: 1202029078

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.97	ug/kg	98.3		70 – 130
Perchlorate Isotope Ratio		3.36				–
Perchlorate–101	2.00	1.88	ug/kg	94.0		70 – 130
Perchlorate–O(18)		4.81	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1471

Extract Batch Code: 947245

Date Filtered: 11–FEB–10

Matrix: SOIL

Sample ID: 1202029081

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.07	ug/kg	103		70 – 130
Perchlorate Isotope Ratio		3.39				
Perchlorate–101	2.00	1.96	ug/kg	98		70 – 130
Perchlorate–O(18)		4.92	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216042a
Date: 16-Feb-2010
Time: 21:13:43
ID: 1202029081
Vial: 2:1,C

|LANL|947246|50020|IGS|11

CWJ 02-17-10

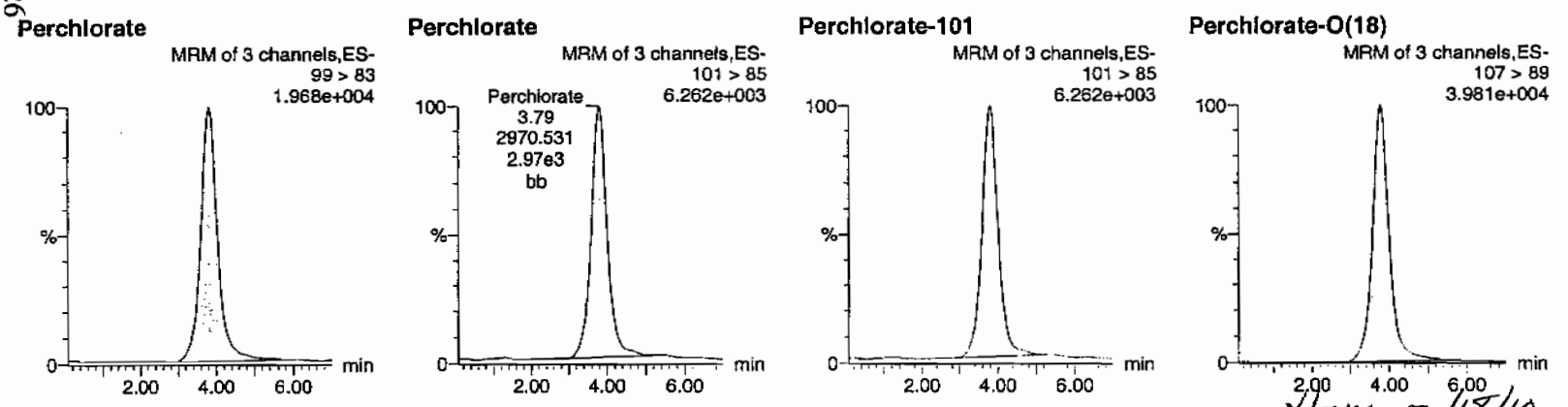

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029081	Perchlorate	99 > 83	3.81	10058.170	10058.170	bb			0.2066	103.28	3.28	582.804	3.39
1202029081	Perchlorate-101	101 > 85	3.79	2970.531	2970.531	bb			0.1960	98.00	-2.00	515.988	
1202029081	Perchlorate-O(18)	107 > 89	3.79	19841.975	19841.975	bb			0.4919	98.38	-1.62	2249.3...	

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1471

Extract Batch Code: 947245

Date Extracted: 11–FEB–10

GEL MS/PS ID: 1202029079

Client ID: RE15–10–7888

GEL MSD/PSD ID: 1202029080

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.21	1.23	ug/kg	3.51	104	3.46	101	1.4	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.2		3.37		0		–
Perchlorate–101	2.21	1.17	ug/kg	3.53	107	3.3	96.5	6.64	30	75 – 125
Perchlorate–O(18)	0	5.94	ug/kg	5.83		5.86		.467		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1471

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	16–FEB–10	per0216001a	IPB001
Perchlorate–101	0.00	0	NA	16–FEB–10	per0216001a	IPB001
Perchlorate	0.00	0	NA	16–FEB–10	per0216002a	IPB001
Perchlorate–101	0.00	0	NA	16–FEB–10	per0216002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021610a.mdb 17 Feb 2010 09:42:10
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021610a.cdb 17 Feb 2010 11:03:29

Name: per0216001a
Date: 16-Feb-2010
Time: 14:21:05
ID: IPB001
Vial: 1:1,A

CWW 02-17-10

Perchlorate

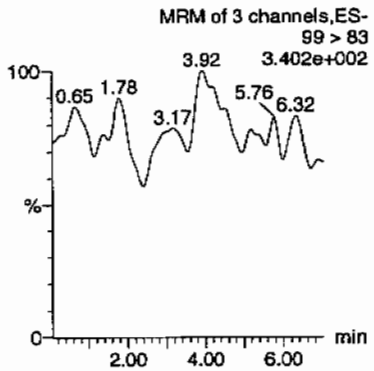

Perchlorate

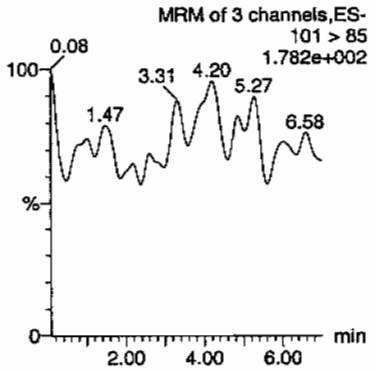

Perchlorate-101

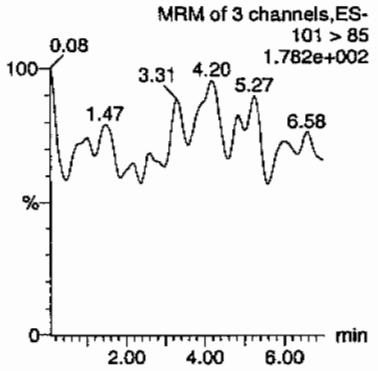

Perchlorate-O(18)

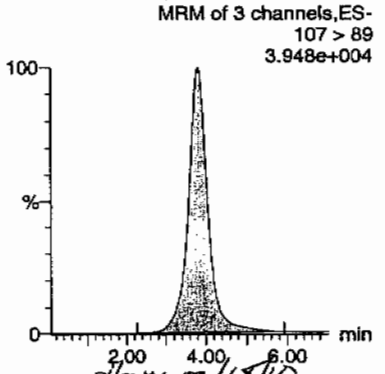

HM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.82	22244.045	22244.045	bb			0.5515	110.29 ✓	10.29	534.867	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216002a
Date: 16-Feb-2010
Time: 14:31:15
ID: IPB001
Vial: 1:1,A

CWJ 02-17-10

Perchlorate

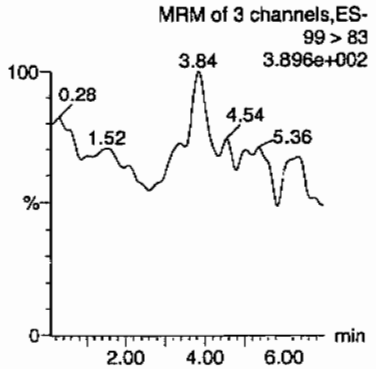

Perchlorate

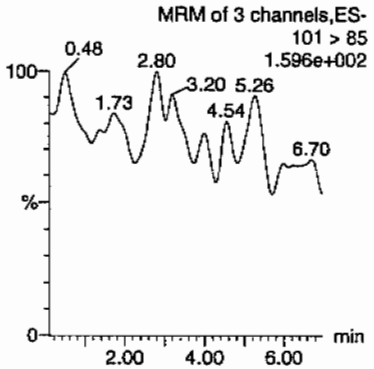

Perchlorate-101

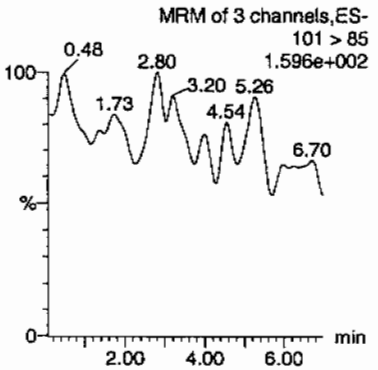

Perchlorate-O(18)

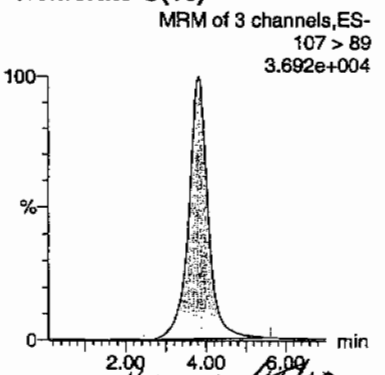

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.81	20630.770	20630.770	bb			0.5115	102.29	2.29	947.702	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1471

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	16–FEB–10	per0216008a	IPB002
Perchlorate–101	0.00	0	NA	16–FEB–10	per0216008a	IPB002
Perchlorate	0.00	0	NA	16–FEB–10	per0216010a	IPB003
Perchlorate–101	0.00	0	NA	16–FEB–10	per0216010a	IPB003
Perchlorate	0.00	0	NA	16–FEB–10	per0216023a	IPB004
Perchlorate–101	0.00	0	NA	16–FEB–10	per0216023a	IPB004
Perchlorate	0.00	0	NA	16–FEB–10	per0216036a	IPB005
Perchlorate–101	0.00	0	NA	16–FEB–10	per0216036a	IPB005
Perchlorate	0.00	0	NA	16–FEB–10	per0216039a	IPB006
Perchlorate–101	0.00	0	NA	16–FEB–10	per0216039a	IPB006
Perchlorate	0.00	0	NA	16–FEB–10	per0216049a	IPB007
Perchlorate–101	0.00	0	NA	16–FEB–10	per0216049a	IPB007
Perchlorate	0.00	0	NA	17–FEB–10	per0216061a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1471

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	17–FEB–10	per0216061a	IPB008
Perchlorate	0.00	0	NA	17–FEB–10	per0216072a	IPB009
Perchlorate–101	0.00	0	NA	17–FEB–10	per0216072a	IPB009

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Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 8 of 96

Name: per0216008a
Date: 16-Feb-2010
Time: 15:31:21
ID: IPB002
Vial: 1:1,A

CW 02-17-10

Perchlorate

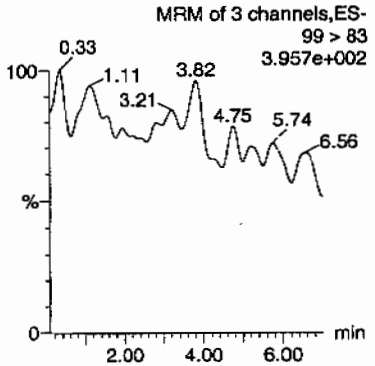

Perchlorate

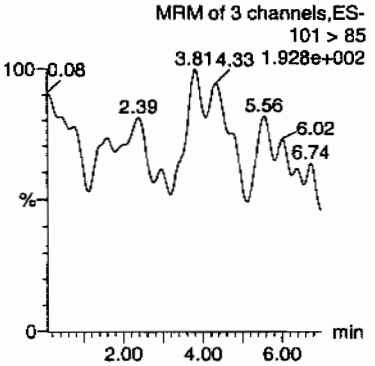

Perchlorate-101

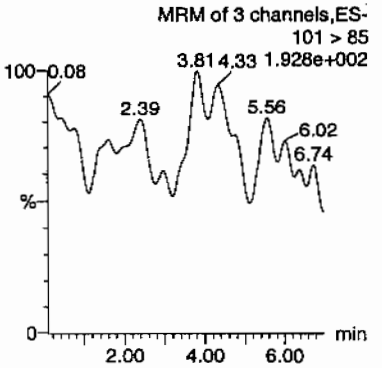

Perchlorate-O(18)

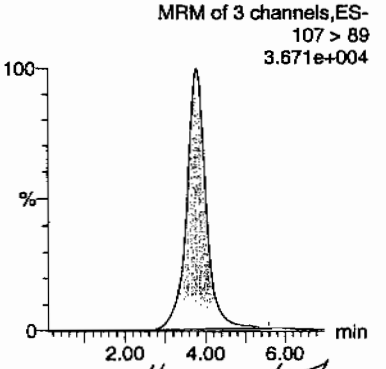

HMW 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.78	20323.039	20323.039	bb			0.5038	100.77	0.77	1746.4...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216010a
Date: 16-Feb-2010
Time: 15:51:26
ID: IPB003
Vial: 1:1,A

CWJ 02-17-10

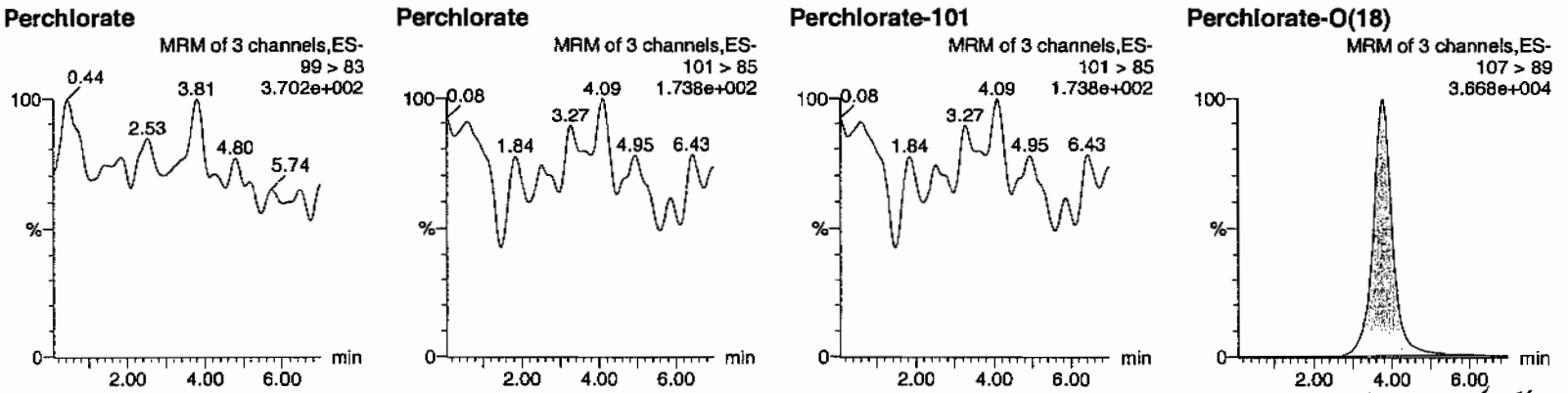

HMC 2/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.77	20745.725	20745.725	bb			0.5143	102.86 ✓	2.86	1900.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 0096

Name: per0216023a
Date: 16-Feb-2010
Time: 18:01:56
ID: IPB004
Vial: 1:1,A

CWW
02-17-10

Perchlorate

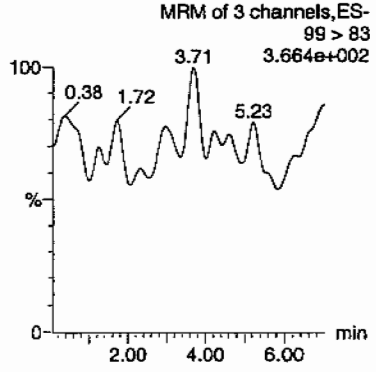

Perchlorate

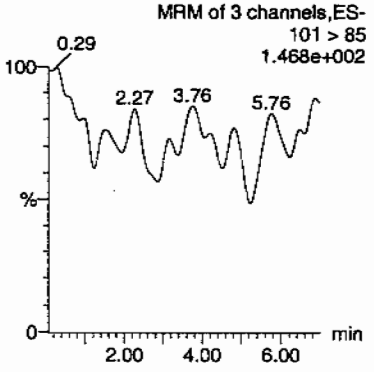

Perchlorate-101

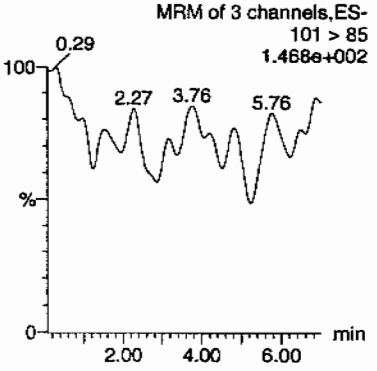

Perchlorate-O(18)

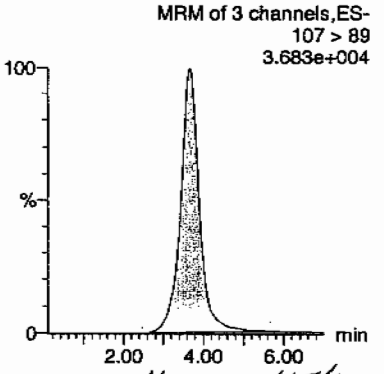

Hum 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.67	19909.254	19909.254	bb			0.4936	98.72 ✓	-1.28	1302.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 1 of 96

Name: per0216036a
Date: 16-Feb-2010
Time: 20:12:53
ID: IPB005
Vial: 1:1,A

CWW
02-17-10

Perchlorate

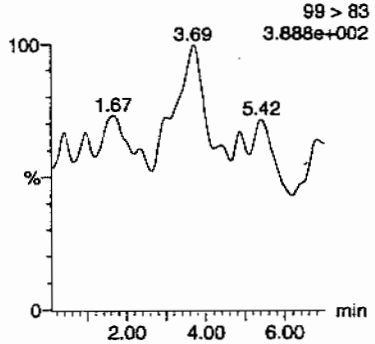

Perchlorate

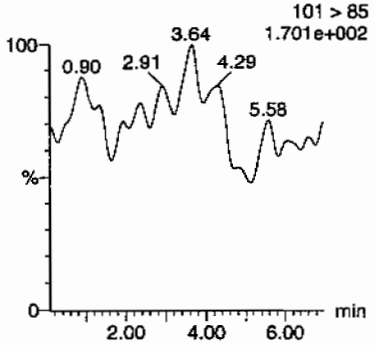

Perchlorate-101

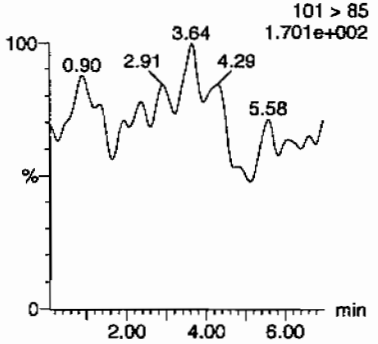

Perchlorate-O(18)

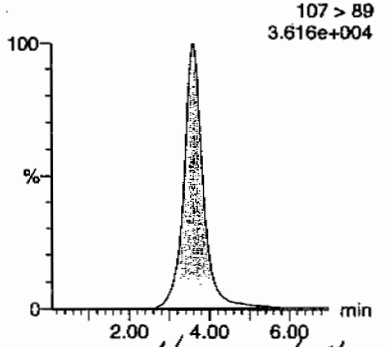

Hmm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.61	19878.104	19878.104	bb			0.4928	98.56	-1.44	3239.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216039a
Date: 16-Feb-2010
Time: 20:43:11
ID: IPB006
Vial: 1:1,A

CWW 02-17-10

Perchlorate

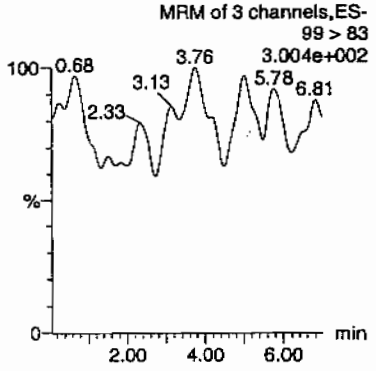

Perchlorate

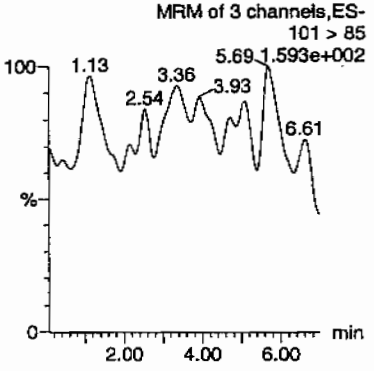

Perchlorate-101

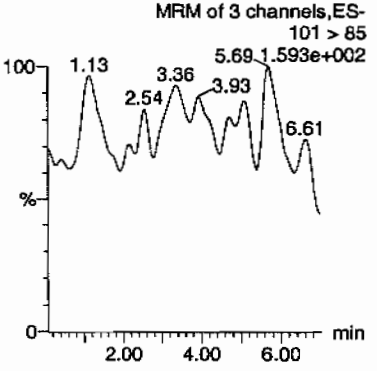

Perchlorate-O(18)

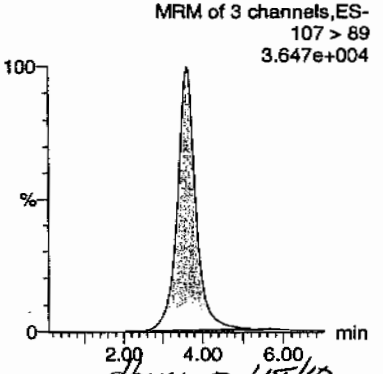

AMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	3.62	19785.953	19785.953	bb			0.4905	98.11	-1.89	3518.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 110 of 196

Name: per0216049a
Date: 16-Feb-2010
Time: 22:24:49
ID: IPB007
Vial: 1:1,A

CWO
02-17-10

Perchlorate

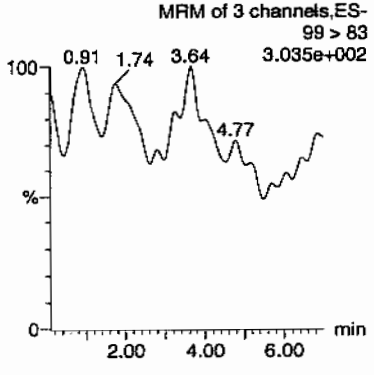

Perchlorate

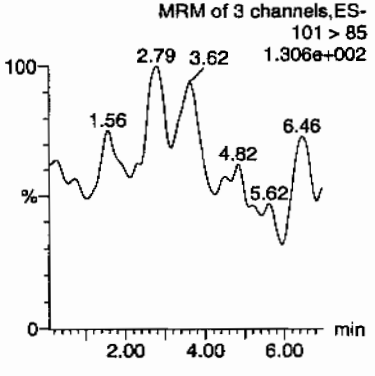

Perchlorate-101

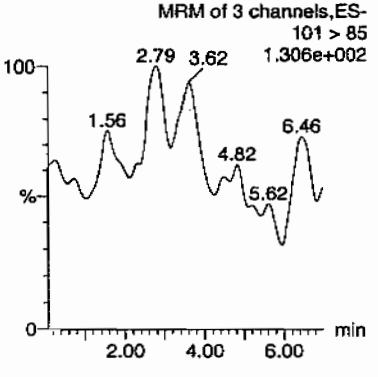

Perchlorate-O(18)

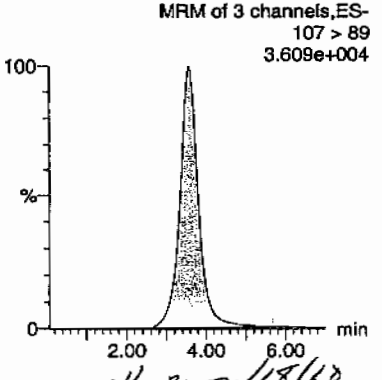

HMA 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	3.58	19511.553	19511.553	bb			0.4837	96.74	-3.26	2577.0...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216061a
Date: 17-Feb-2010
Time: 00:25:47
ID: IPB008
Vial: 1:1,A

GWO
02-17-10

Perchlorate

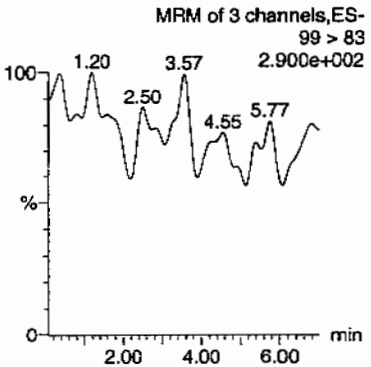

Perchlorate

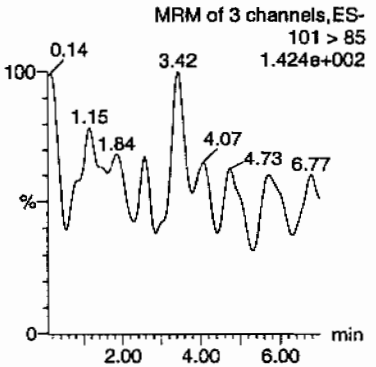

Perchlorate-101

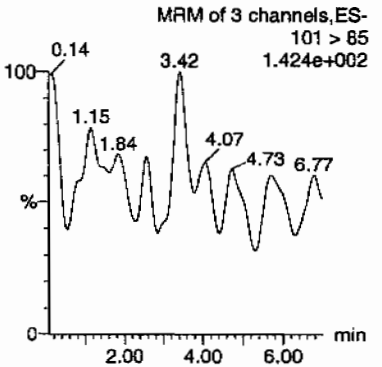

Perchlorate-O(18)

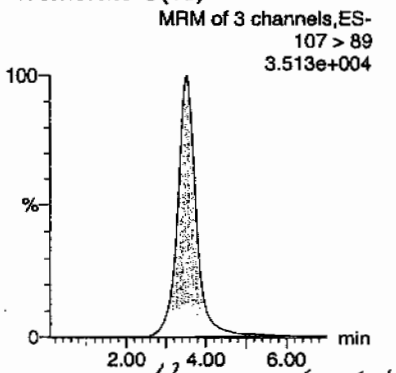

HM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	3.53	19011.539	19011.539	bb			0.4713	94.27	-5.73	450.995	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 36 of 96

Name: per0216072a
Date: 17-Feb-2010
Time: 02:16:48
ID: IPB009
Vial: 1:1,A

CWW 02-17-10

Perchlorate

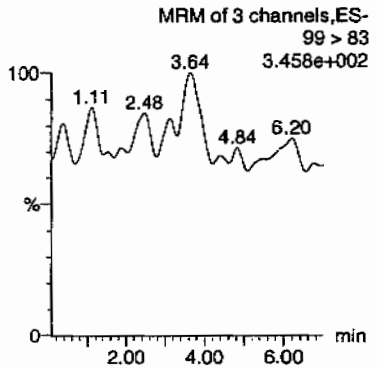

Perchlorate

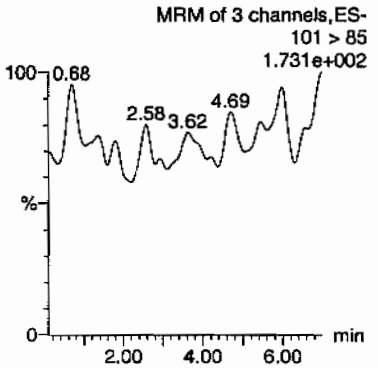

Perchlorate-101

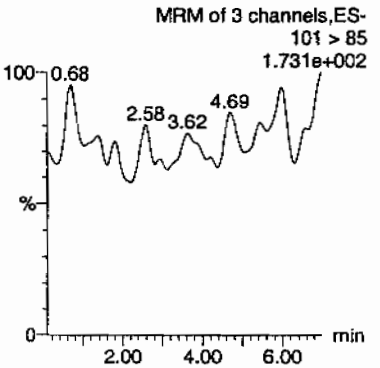

Perchlorate-O(18)

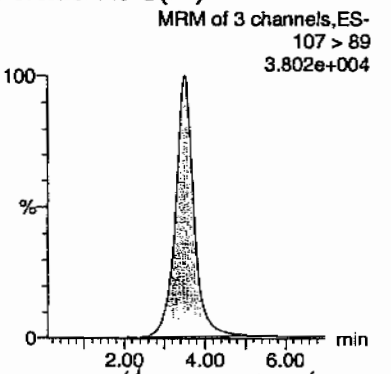

Hmm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	3.51	20058.123	20058.123	bb			0.4973	99.46	-0.54	966.944	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

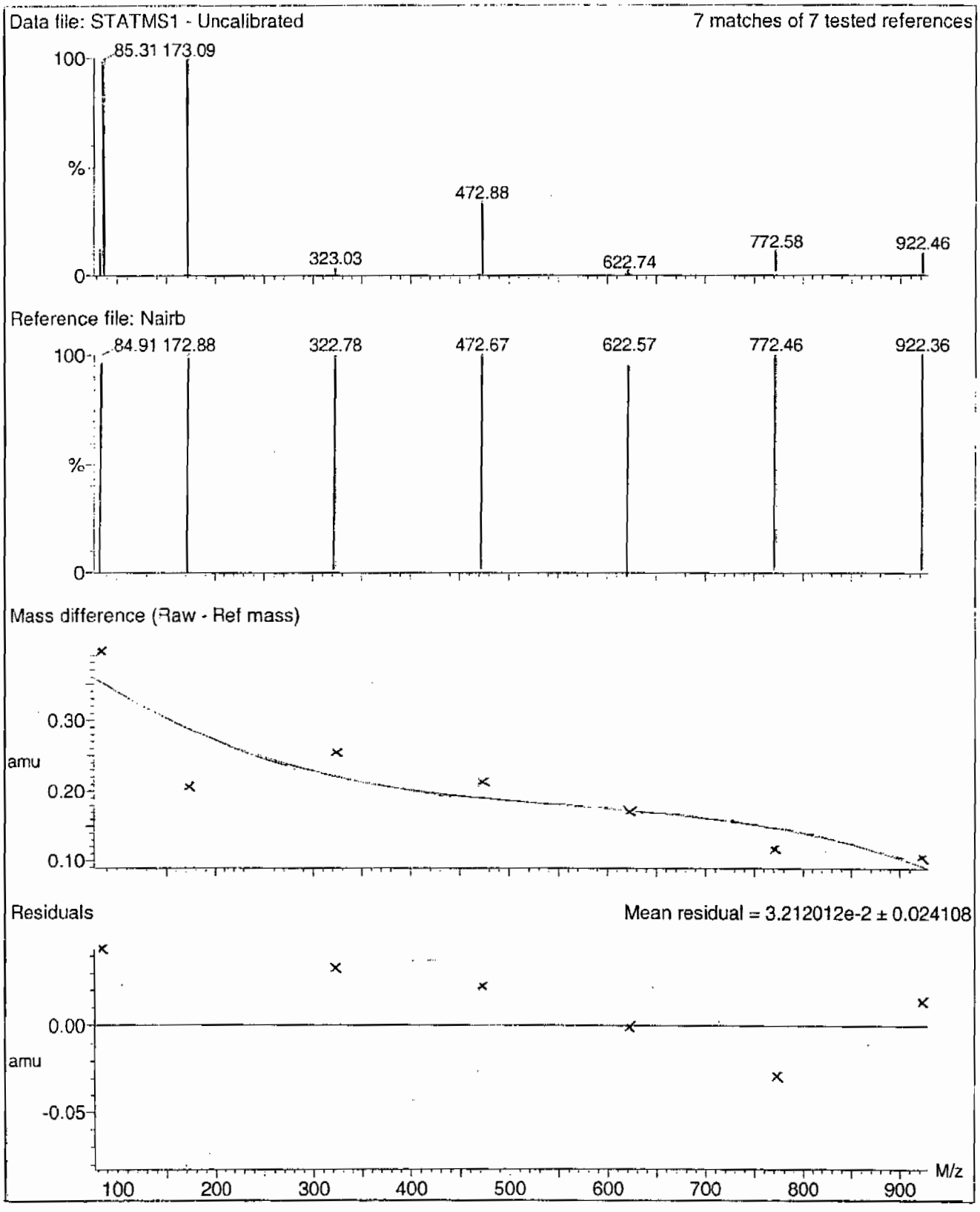

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

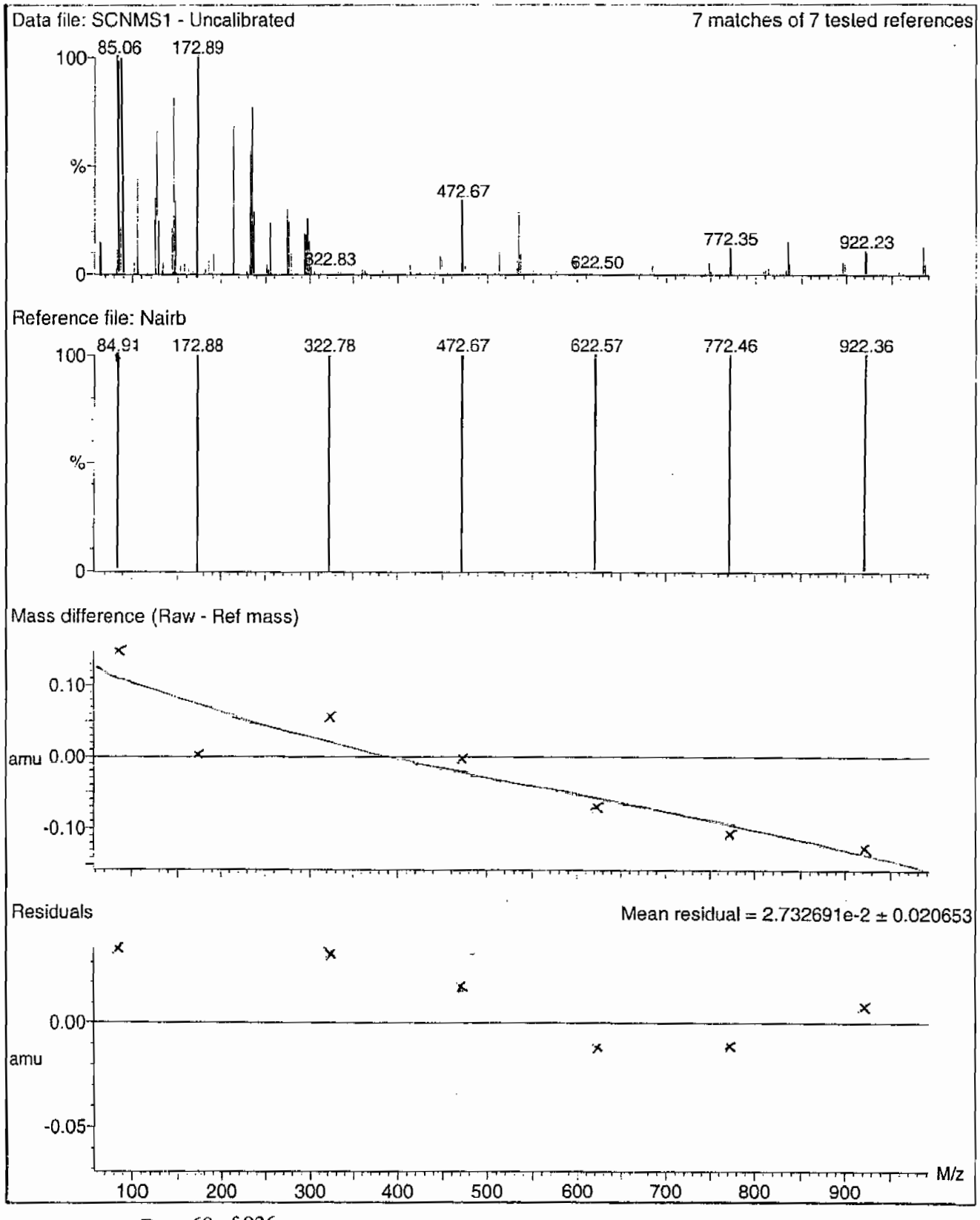

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

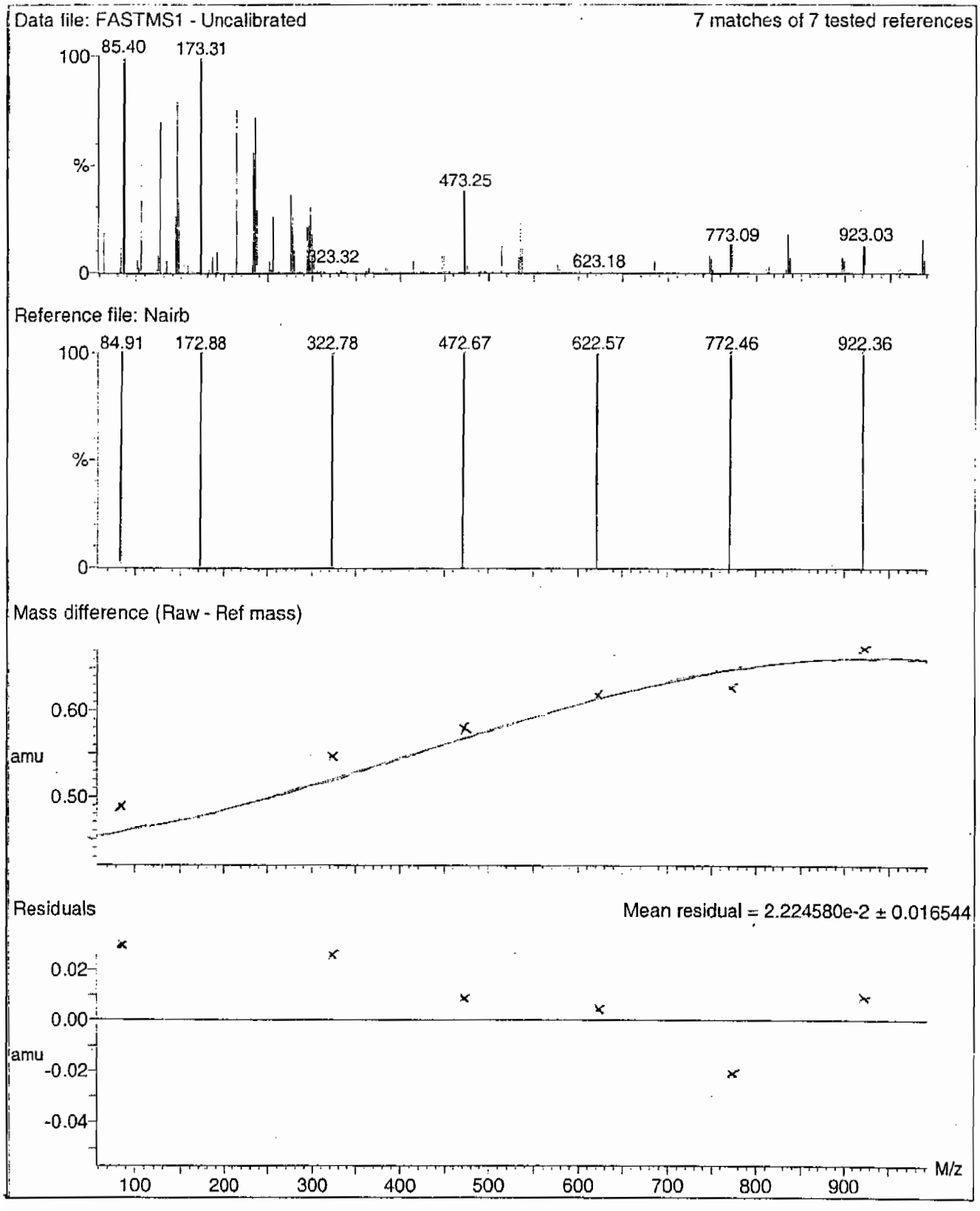

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

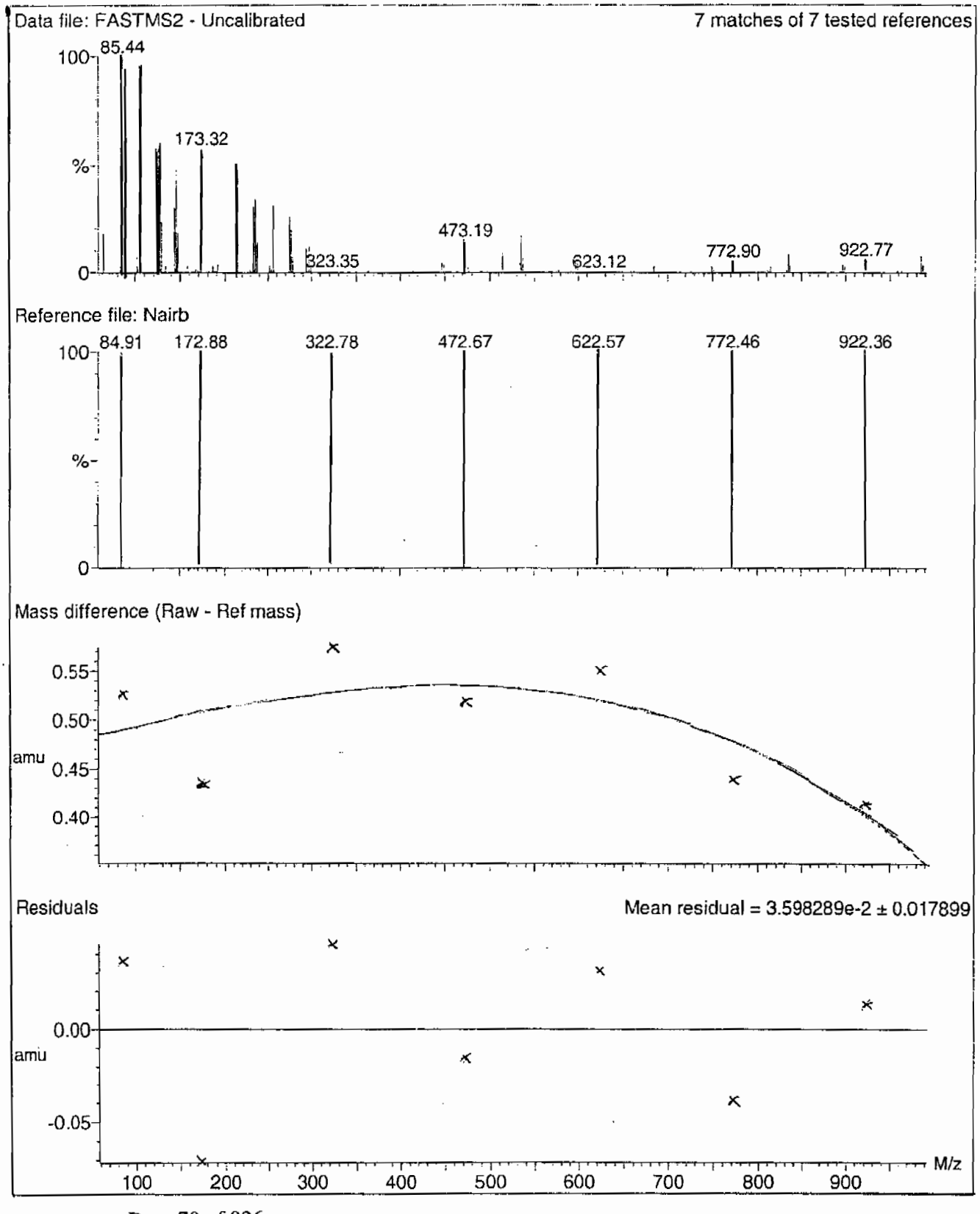

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

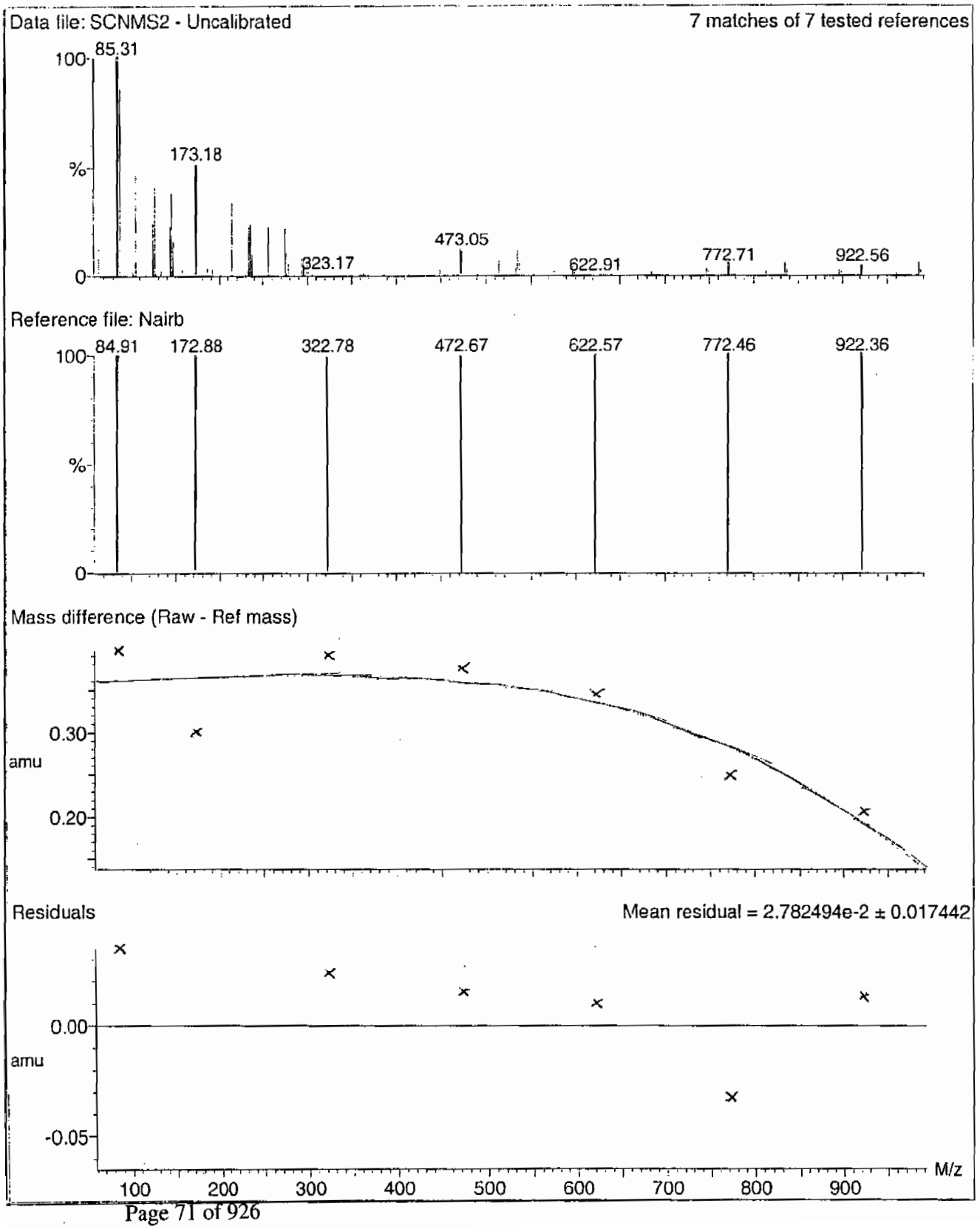

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

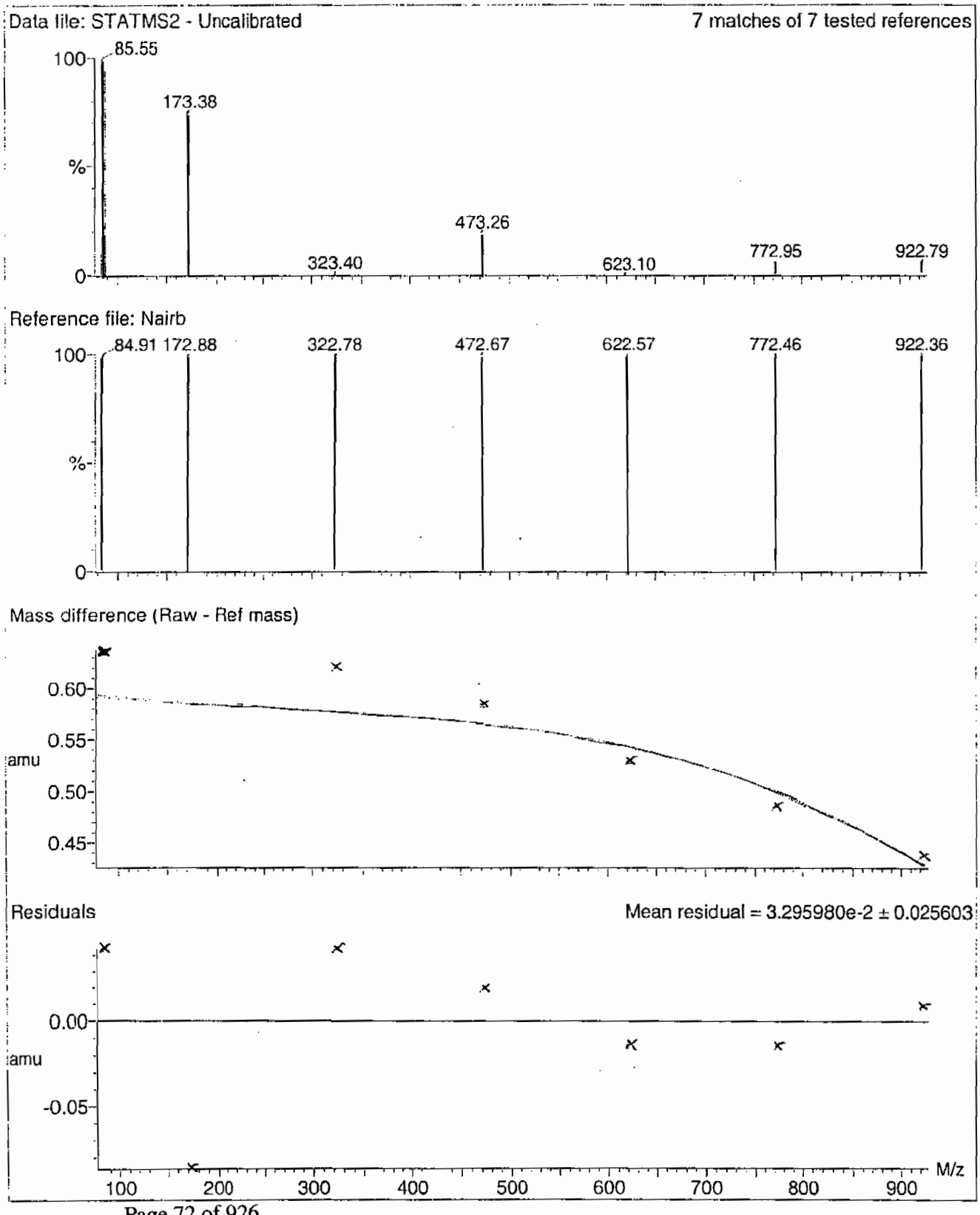

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, February 16, 2010 10:54:24 Eastern Standard Time

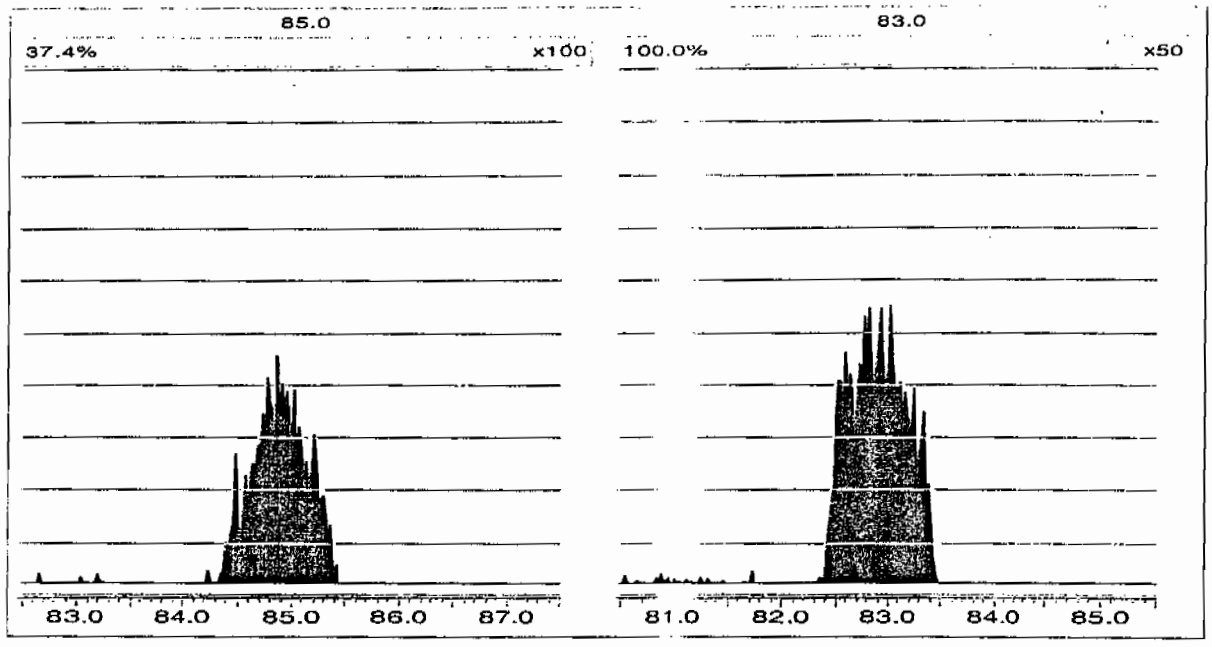

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1471

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0216006a**	**16–FEB–10**	**19812.8**				
Lower Area Limit			**9906.4**				
Upper Area Limit			**39625.6**				
1202029077	per0216040a	16–FEB–10 20:53	17725.3	3.62	3.64427	1.007	
1202029078	per0216041a	16–FEB–10 21:03	19414	3.62	3.64428	1.007	
1202029081	per0216042a	16–FEB–10 21:13	19842	3.79	3.80585	1.004	
245797001	per0216044a	16–FEB–10 21:34	21735.6	3.57	3.58223	1.003	
1202029079	per0216045a	16–FEB–10 21:44	21328.1	3.56	3.56975	1.003	
1202029080	per0216046a	16–FEB–10 21:54	21427.9	3.56	3.56977	1.003	
245797002	per0216047a	16–FEB–10 22:04	20079.4	3.58	3.5822	1.001	
245797003	per0216051a	16–FEB–10 22:44	19000.8	3.57	3.58222	1.003	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1471

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0216006a**	**16–FEB–10**	**19812.8**				
Lower Area Limit			**9906.4**				
Upper Area Limit			**39625.6**				
245797004	per0216052a	16–FEB–10 22:55	20061.7	3.57	3.60702	1.01	
245797005	per0216053a	16–FEB–10 23:05	20724.2	3.56	3.59453	1.01	
245797006	per0216054a	16–FEB–10 23:15	20034.2	3.54	3.55728	1.005	
245797007	per0216055a	16–FEB–10 23:25	20046.3	3.63	3.64428	1.004	
245797008	per0216056a	16–FEB–10 23:35	19222.7	3.54	3.55727	1.005	
245797009	per0216057a	16–FEB–10 23:45	19355.3	3.53	3.54498	1.004	
245797010	per0216058a	16–FEB–10 23:55	21919.3	3.53	3.55727	1.008	
245797011	per0216059a	17–FEB–10 00:05	20394.9	3.53	3.54495	1.004	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1471

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0216006a**	**16-FEB-10**	**19812.8**				
Lower Area Limit			**9906.4**				
Upper Area Limit			**39625.6**				
245797012	per0216063a	17-FEB-10 00:45	20736.2	3.51	3.53247	1.006	
245797013	per0216064a	17-FEB-10 00:56	20454.3	3.53	3.54495	1.004	
245797014	per0216065a	17-FEB-10 01:06	20218.6	3.52	3.5325	1.004	
245797015	per0216066a	17-FEB-10 01:16	20365.6	3.52	3.53247	1.004	
245797016	per0216067a	17-FEB-10 01:26	20181.6	3.52	3.54493	1.007	
245797017	per0216068a	17-FEB-10 01:36	20163.2	3.51	3.49525	.996	
245797018	per0216069a	17-FEB-10 01:46	19356.6	3.51	3.48275	.992	
245797019	per0216070a	17-FEB-10 01:56	19231.4	3.52	3.53248	1.004	

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SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7888

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797001

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 90.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.21	1.23	ug/kg	J	1	16-FEB-10 21:34	per0216044a
	Perchlorate Isotope Ratio			3.36			1	16-FEB-10 21:34	per0216044a
14797-73-0	Perchlorate-101	.551	2.21	1.17	ug/kg	J	1	16-FEB-10 21:34	per0216044a
	Perchlorate-O(18)			5.94	ug/kg		1	16-FEB-10 21:34	per0216044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216044a
Date: 16-Feb-2010
Time: 21:34:01
ID: 245797001 | LANL | 947246 | 5020 | 1 |
Vial: 2:1,E

02-17-10

Perchlorate

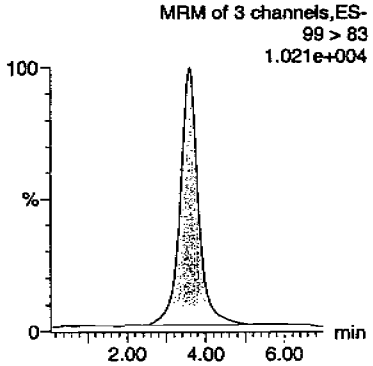

Perchlorate

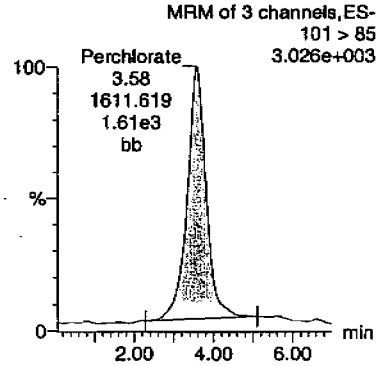

Perchlorate-101

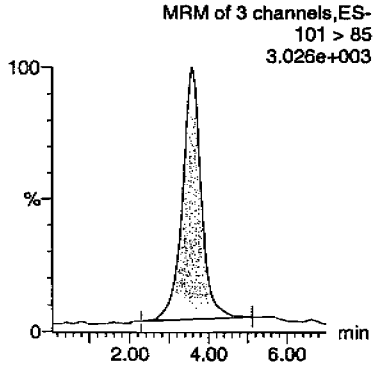

Perchlorate-O(18)

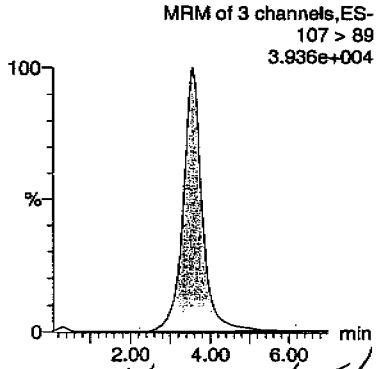

Hrm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797001	Perchlorate	99 > 83	3.58	5412.156	5412.156	bb			0.1111			413.708	3.36
245797001	Perchlorate-101	101 > 85	3.58	1611.619	1611.619	bb			0.1063			390.153	
245797001	Perchlorate-O(18)	107 > 89	3.57	21735.551	21735.551	bb			0.5389	107.77	7.77	1673.7...	

$$\frac{5412.156 \mid 10 \mid 100}{48694.1 \mid \mid 90.68} = 1.23$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7890

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797002

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.554	ug/kg	U	1	16-FEB-10 22:04	per0216047a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:04	per0216047a
14797-73-0	Perchlorate-101	.554	2.22	0.554	ug/kg	U	1	16-FEB-10 22:04	per0216047a
	Perchlorate-O(18)			5.52	ug/kg		1	16-FEB-10 22:04	per0216047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216047a
Date: 16-Feb-2010
Time: 22:04:22
ID: 245797002
Vial: 2:2,B

LANL | 947246 | 30120 | 1 |

GWO
02-17-10

Perchlorate

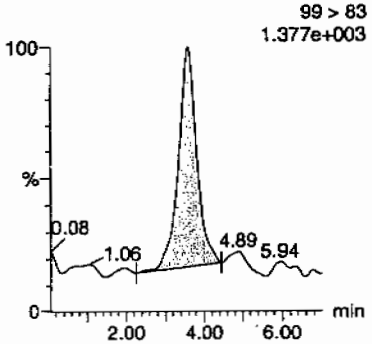

Perchlorate

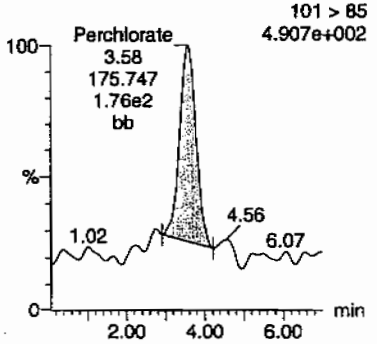

Perchlorate-101

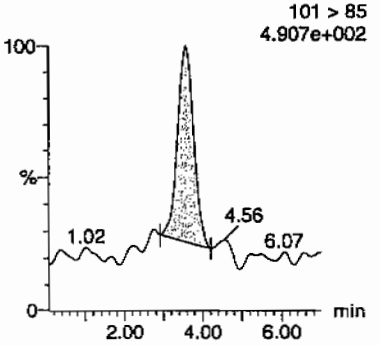

Perchlorate-O(18)

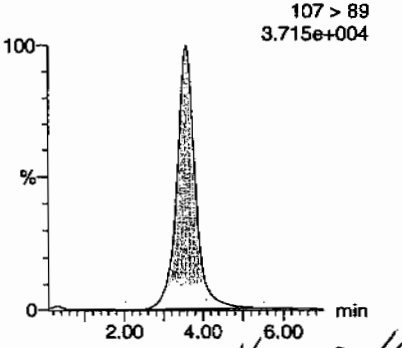

HMW 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797002	Perchlorate	99 > 83	3.58	638.003	638.003	bb			0.0131			48.249	3.63
245797002	Perchlorate-101	101 > 85	3.58	175.747	175.747	bb			0.0116			24.733	
245797002	Perchlorate-O(18)	107 > 89	3.58	20079.361	20079.361	bb			0.4978	99.56	-0.44	3104.6...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7886

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797003

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 93.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.535	2.14	0.535	ug/kg	U	1	16-FEB-10 22:44	per0216051a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:44	per0216051a
14797-73-0	Perchlorate-101	.535	2.14	0.535	ug/kg	U	1	16-FEB-10 22:44	per0216051a
	Perchlorate-O(18)			5.04	ug/kg		1	16-FEB-10 22:44	per0216051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216051a
Date: 16-Feb-2010
Time: 22:44:54
ID: 245797003
Vial: 2:2,C

|LANY|947246|20120|11|

GW 02-17-10

Perchlorate

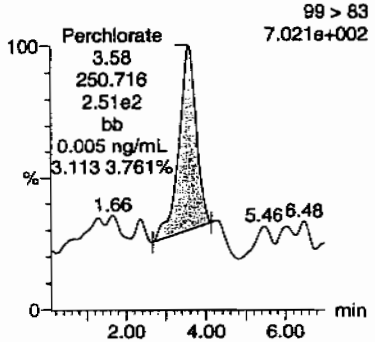

Perchlorate

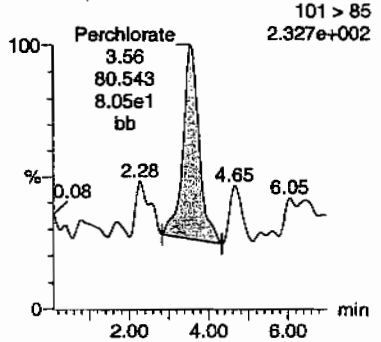

Perchlorate-101

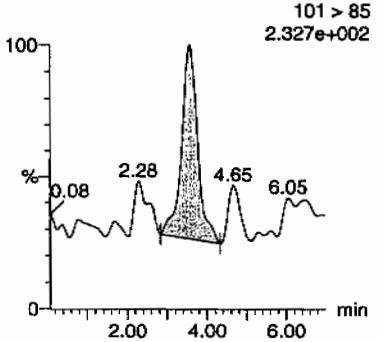

Perchlorate-O(18)

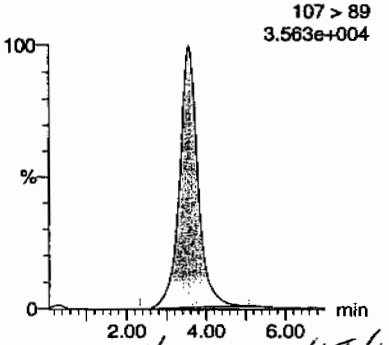

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797003	Perchlorate	99 > 83	3.58	250.716	250.716	bb			0.0051			30.179	3.11
245797003	Perchlorate-101	101 > 85	3.56	80.543	80.543	bb			0.0053			45.671	
245797003	Perchlorate-O(18)	107 > 89	3.57	19000.840	19000.840	bb			0.4711	94.21	-5.79	1374.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7889

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797004

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 63

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 22:55	per0216052a
	Perchlorate Isotope Ratio						1	16-FEB-10 22:55	per0216052a
14797-73-0	Perchlorate-101	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 22:55	per0216052a
	Perchlorate-O(18)			7.91	ug/kg		1	16-FEB-10 22:55	per0216052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216052a
Date: 16-Feb-2010
Time: 22:55:07
ID: 245797004
Vol: 2:2,D

|LANC|947246|50120|1|

GWO 02-17-10

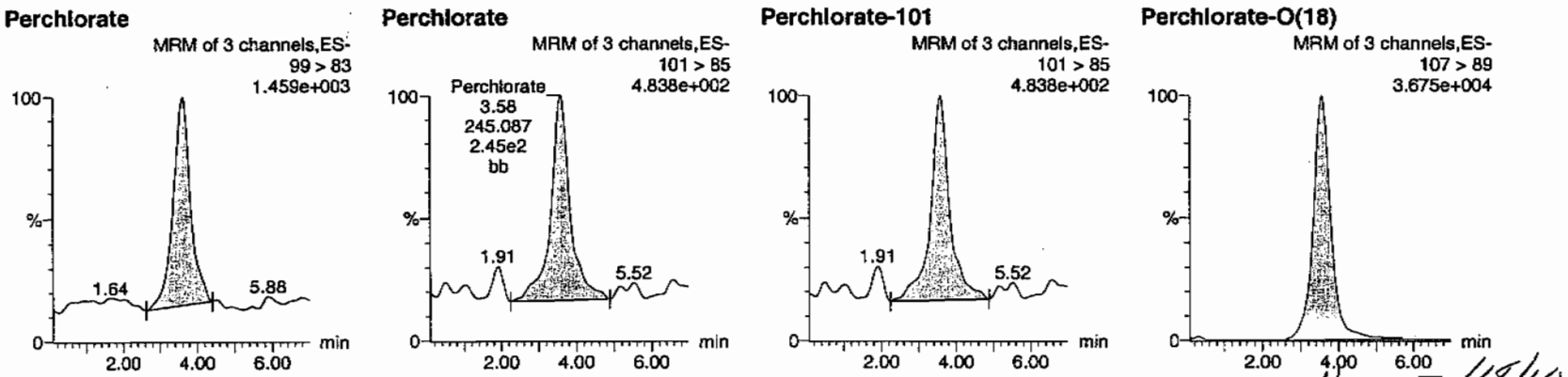

HMW 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797004	Perchlorate	99 > 83	3.61	690.268	690.268	bb			0.0142			28.360	2.82
245797004	Perchlorate-101	101 > 85	3.58	245.087	245.087	bb			0.0162			6.227	
245797004	Perchlorate-O(18)	107 > 89	3.57	20061.699	20061.699	bb			0.4974	99.4%	-0.53	2082.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7885

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797005

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:05	per0216053a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:05	per0216053a
14797-73-0	Perchlorate-101	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:05	per0216053a
	Perchlorate-O(18)			7.68	ug/kg		1	16-FEB-10 23:05	per0216053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216053a
Date: 16-Feb-2010
Time: 23:05:08
ID: 245797005
Vial: 2:2,E

|LANL|947246|50120|1|

GWD 02-17-10

Perchlorate

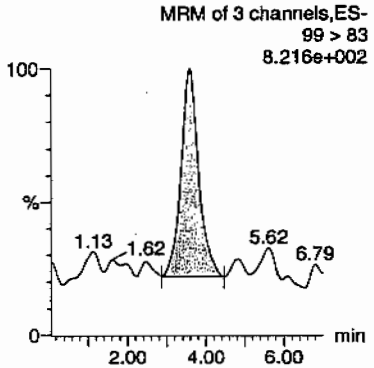

Perchlorate

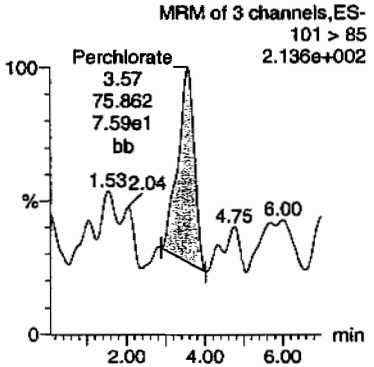

Perchlorate-101

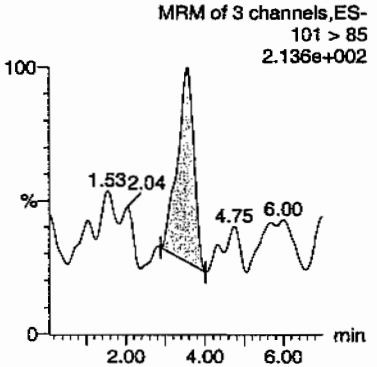

Perchlorate-O(18)

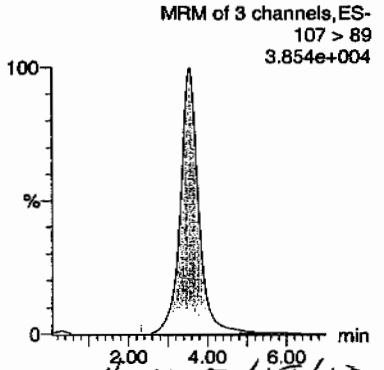

AMW 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797005	Perchlorate	99 > 83	3.59	340.413	340.413	bb			0.0070			34.019	4.49
245797005	Perchlorate-101	101 > 85	3.57	75.862	75.862	bb			0.0050			18.656	
245797005	Perchlorate-O(18)	107 > 89	3.56	20724.242	20724.242	bb			0.5138	102.76	2.76	1702.4...	

OK 24
LO.0500

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7882

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797006

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.571	2.29	0.571	ug/kg	U	1	16-FEB-10 23:15	per0216054a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:15	per0216054a
14797-73-0	Perchlorate-101	.571	2.29	0.587	ug/kg	J	1	16-FEB-10 23:15	per0216054a
	Perchlorate-O(18)			5.68	ug/kg		1	16-FEB-10 23:15	per0216054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216054a
Date: 16-Feb-2010
Time: 23:15:10
ID: 245797006
Vial: 2:2,F

|LANL|947246|5020|1|

CWO
02-17-10

Perchlorate

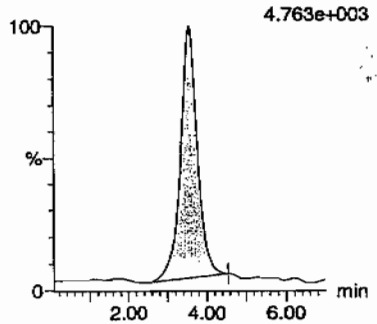

Perchlorate

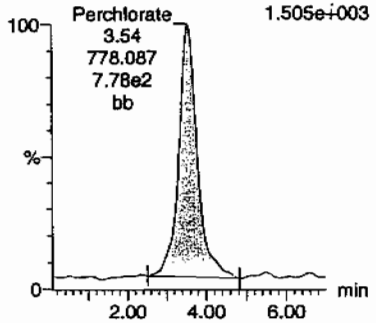

Perchlorate-101

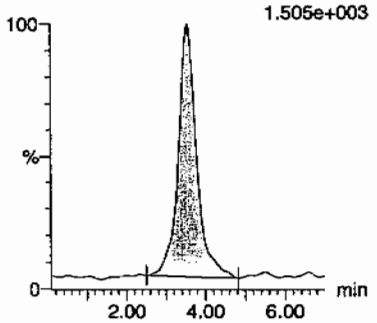

Perchlorate-O(18)

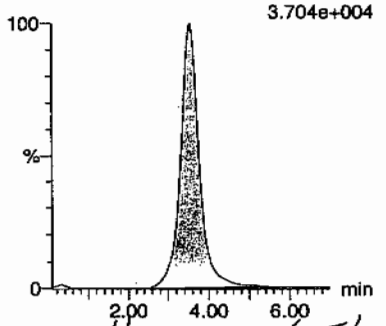

Hmm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797006	Perchlorate	99 > 83	3.56	2290.907	2290.907	bb			0.0470			352.534	2.94
245797006	Perchlorate-101	101 > 85	3.54	778.087	778.087	bb			0.0513			63.764	
245797006	Perchlorate-O(18)	107 > 89	3.54	20034.197	20034.197	bb			0.4967	99.34	-0.66	2032.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7887

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797007

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:25	per0216055a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:25	per0216055a
14797-73-0	Perchlorate-101	.747	2.99	0.747	ug/kg	U	1	16-FEB-10 23:25	per0216055a
	Perchlorate-O(18)			7.42	ug/kg		1	16-FEB-10 23:25	per0216055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 9 of 926

Name: per0216055a
Date: 16-Feb-2010
Time: 23:25:10
ID: 245797007
Vial: 2:3,A

|LANL|947246|50120|1|

GWO
02-17-10

Perchlorate

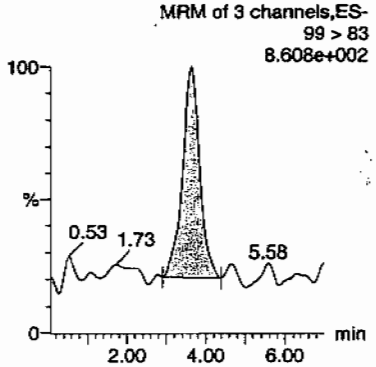

Perchlorate

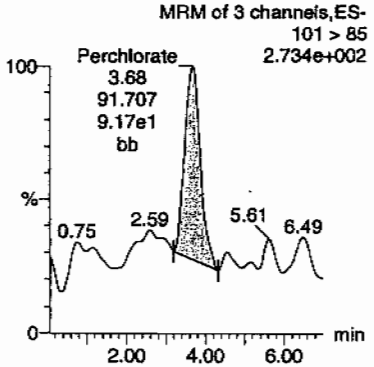

Perchlorate-101

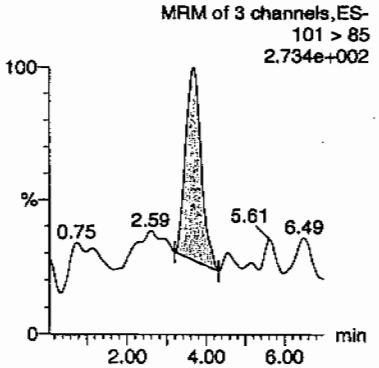

Perchlorate-O(18)

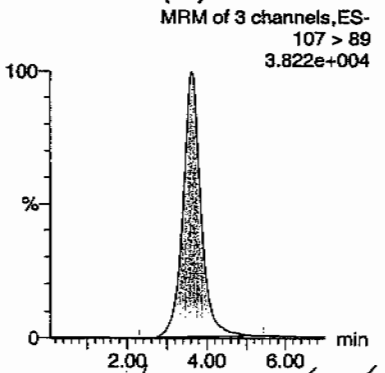

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797007	Perchlorate	99 > 83	3.64	348.561	348.561	bb			0.0072			37.824	3.80
245797007	Perchlorate-101	101 > 85	3.68	91.707	91.707	bb			0.0061			35.291	
245797007	Perchlorate-O(18)	107 > 89	3.63	20046.281	20046.281	bb			0.4970	99.40	-0.60	1659.7...	

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7881

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797008

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 63

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 23:35	per0216056a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:35	per0216056a
14797-73-0	Perchlorate-101	.795	3.18	0.795	ug/kg	U	1	16-FEB-10 23:35	per0216056a
	Perchlorate-O(18)			7.58	ug/kg		1	16-FEB-10 23:35	per0216056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216056a
Date: 16-Feb-2010
Time: 23:35:13
ID: 245797008
Vial: 2:3,B

|LANL|947246|50120|1|

GWO
02-17-10

Perchlorate
MRM of 3 channels,ES-
99 > 83
2.080e+003

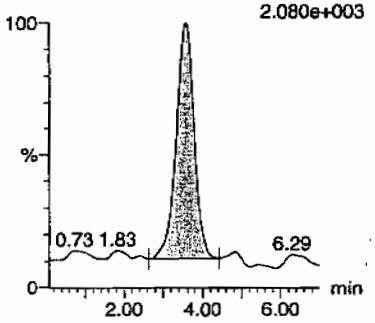

Perchlorate
MRM of 3 channels,ES-
101 > 85
6.428e+002

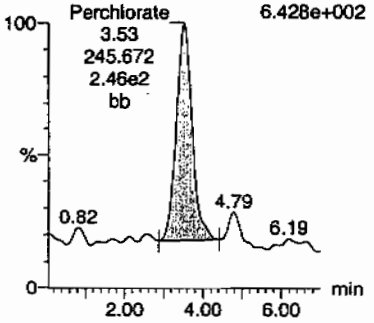

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
6.428e+002

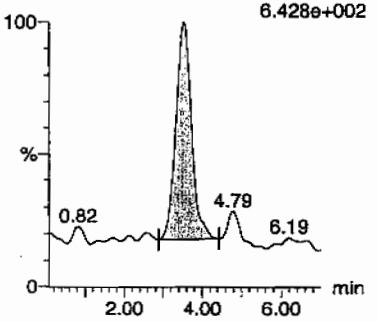

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
3.581e+004

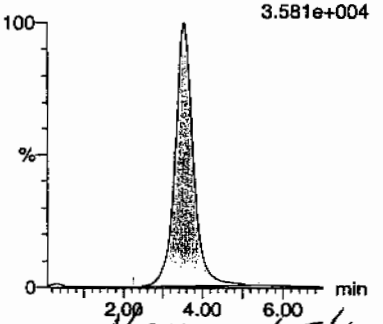

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797008	Perchlorate	99 > 83	3.56	968.040	968.040	bb			0.0199			95.150	3.94
245797008	Perchlorate-101	101 > 85	3.53	245.672	245.672	bb			0.0162			45.877	
245797008	Perchlorate-O(18)	107 > 89	3.54	19222.746	19222.746	bb			0.4766	95.31	-4.69	3501.4...	

OKAY
<0.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7951

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797009

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.62	2.48	0.620	ug/kg	U	1	16-FEB-10 23:45	per0216057a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:45	per0216057a
14797-73-0	Perchlorate-101	.62	2.48	0.620	ug/kg	U	1	16-FEB-10 23:45	per0216057a
	Perchlorate-O(18)			5.95	ug/kg		1	16-FEB-10 23:45	per0216057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216057a
Date: 16-Feb-2010
Time: 23:45:16
ID: 245797009
Vial: 2:3,C

|LZNC|947246|50120|1|

CWO
02-17-10

Perchlorate
MRM of 3 channels,ES-
99 > 83
8.297e+002

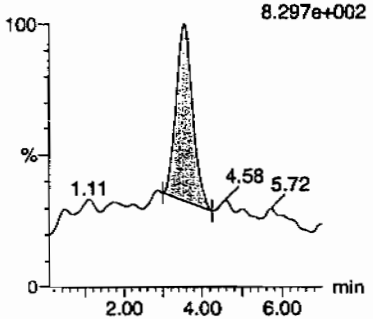

Perchlorate
MRM of 3 channels,ES-
101 > 85
3.056e+002

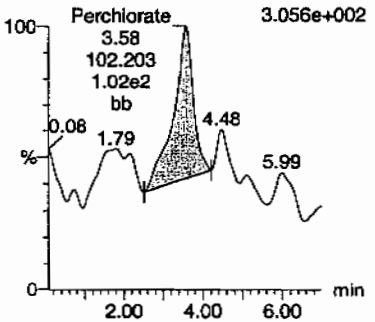

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
3.056e+002

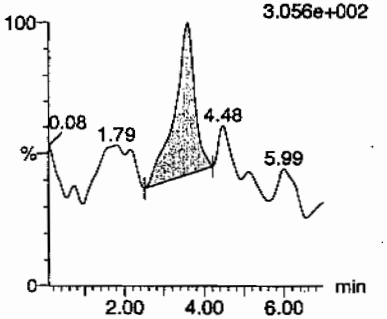

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
3.664e+004

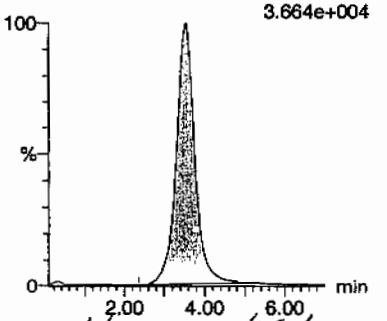

Hmm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797009	Perchlorate	99 > 83	3.54	276.595	276.595	bb			0.0057			42.796	2.71
245797009	Perchlorate-101	101 > 85	3.58	102.203	102.203	bb			0.0067			7.915	
245797009	Perchlorate-O(18)	107 > 89	3.53	19355.287	19355.287	bb			0.4799	95.97	-4.03	924.207	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7950

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797010

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.624	2.49	0.624	ug/kg	U	1	16-FEB-10 23:55	per0216058a
	Perchlorate Isotope Ratio						1	16-FEB-10 23:55	per0216058a
14797-73-0	Perchlorate-101	.624	2.49	0.624	ug/kg	U	1	16-FEB-10 23:55	per0216058a
	Perchlorate-O(18)			6.78	ug/kg		1	16-FEB-10 23:55	per0216058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216058a
Date: 16-Feb-2010
Time: 23:55:19
ID: 245797010
Vial: 2:3,D

|LANL|947246| SO120 |1|

GWO
02-17-10

Perchlorate

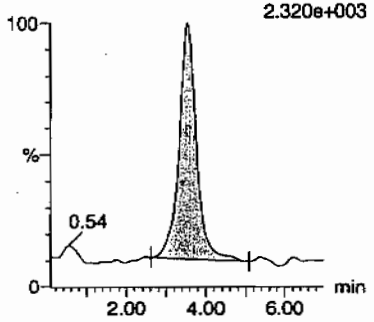

Perchlorate

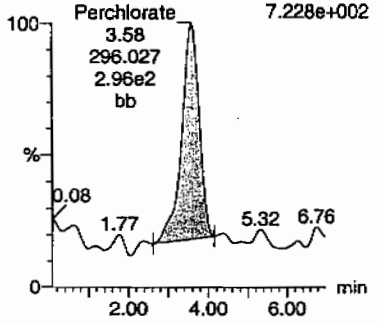

Perchlorate-101

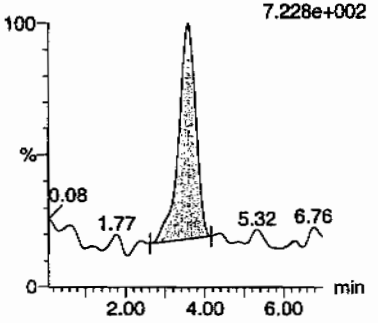

Perchlorate-O(18)

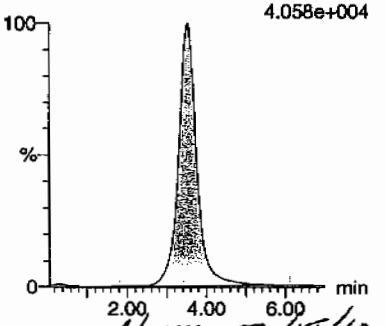

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797010	Perchlorate	99 > 83	3.56	1067.280	1067.280	bb			0.0219			69.747	3.61
245797010	Perchlorate-101	101 > 85	3.58	296.027	296.027	bb			0.0195			62.290	
245797010	Perchlorate-O(18)	107 > 89	3.53	21919.289	21919.289	bb			0.5434	108.68	8.68	3587.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7947

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797011

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	17-FEB-10 00:05	per0216059a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:05	per0216059a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	17-FEB-10 00:05	per0216059a
	Perchlorate-O(18)			7.93	ug/kg		1	17-FEB-10 00:05	per0216059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216059a
Date: 17-Feb-2010
Time: 00:05:21
ID: 245797011
Vial: 2:3,E

|LANL|947246|50120|11|

GWO 02-17-10

Perchlorate

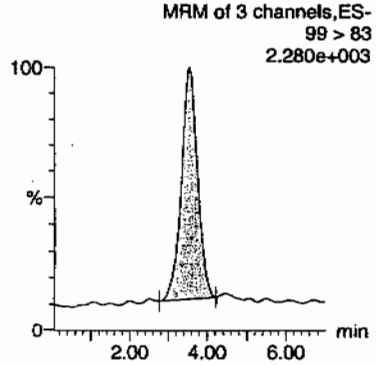

Perchlorate

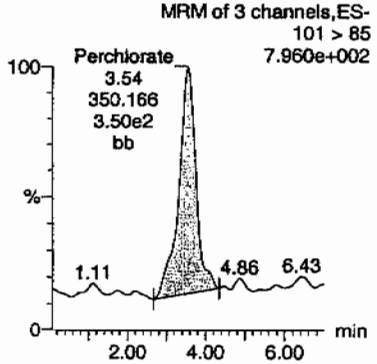

Perchlorate-101

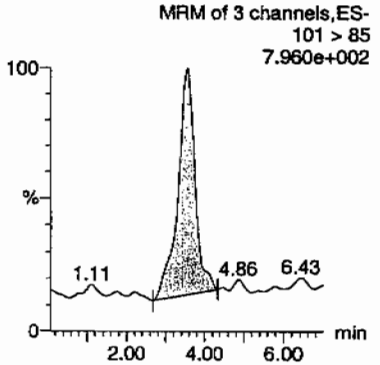

Perchlorate-O(18)

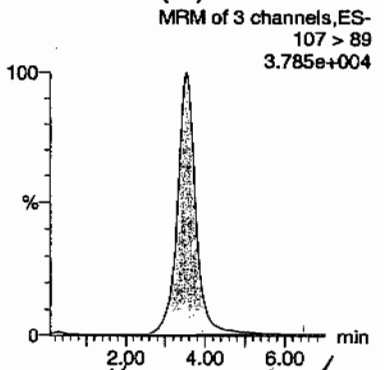

Hnm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797011	Perchlorate	99 > 83	3.54	982.526	982.526	bb			0.0202			178.541	2.81
245797011	Perchlorate-101	101 > 85	3.54	350.166	350.166	bb			0.0231			83.266	
245797011	Perchlorate-O(18)	107 > 89	3.53	20394.861	20394.861	bb			0.5056	101.12	1.12	2636.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7944

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797012

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.539	ug/kg	U	1	17-FEB-10 00:45	per0216063a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:45	per0216063a
14797-73-0	Perchlorate-101	.539	2.16	0.539	ug/kg	U	1	17-FEB-10 00:45	per0216063a
	Perchlorate-O(18)			5.54	ug/kg		1	17-FEB-10 00:45	per0216063a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216063a
Date: 17-Feb-2010
Time: 00:45:52
ID: 245797012
Vial: 2:3,F

|LAN|947246|50120|11|

GWW 02-17-10

Perchlorate

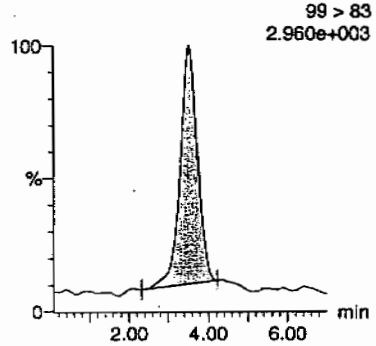

Perchlorate

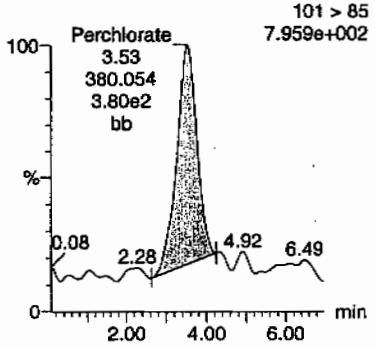

Perchlorate-101

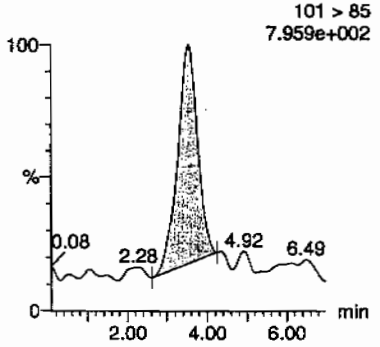

Perchlorate-O(18)

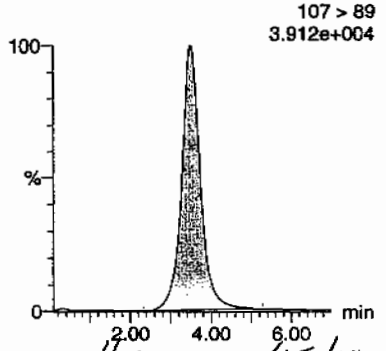

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797012	Perchlorate	99 > 83	3.53	1318.116	1318.116	bb			0.0271			207.168	3.47
245797012	Perchlorate-101	101 > 85	3.53	380.054	380.054	bb			0.0251			72.727	
245797012	Perchlorate-O(18)	107 > 89	3.51	20736.189	20736.189	bb			0.5141	102.82	2.82	1730.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7948

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797013

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.543	2.17	0.543	ug/kg	U	1	17-FEB-10 00:56	per0216064a
	Perchlorate Isotope Ratio						1	17-FEB-10 00:56	per0216064a
14797-73-0	Perchlorate-101	.543	2.17	0.543	ug/kg	U	1	17-FEB-10 00:56	per0216064a
	Perchlorate-O(18)			5.50	ug/kg		1	17-FEB-10 00:56	per0216064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216064a
Date: 17-Feb-2010
Time: 00:56:05
ID: 245797013 |LANL|947246|50120|1|
Vial: 2:4,A

GWD 02-17-10

Perchlorate

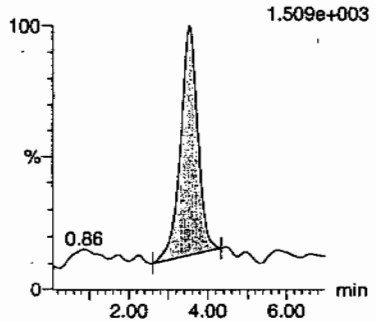

Perchlorate

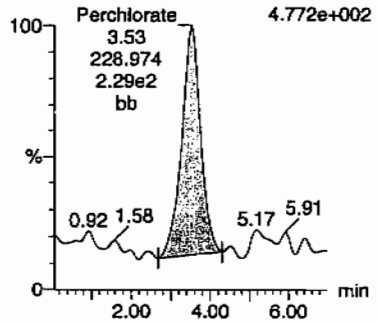

Perchlorate-101

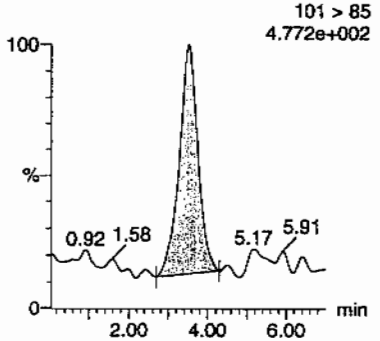

Perchlorate-O(18)

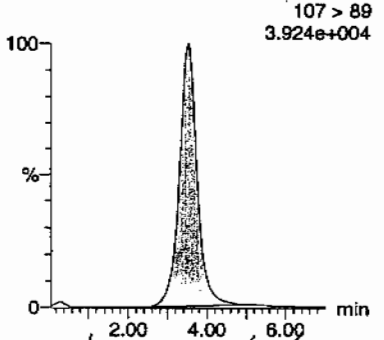

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797013	Perchlorate	99 > 83	3.54	669.955	669.955	bb			0.0138			76.141	2.93
245797013	Perchlorate-101	101 > 85	3.53	228.974	228.974	bb			0.0151			64.441	
245797013	Perchlorate-O(18)	107 > 89	3.53	20454.295	20454.295	bb			0.5071	101.42	1.42	2421.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7941

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797014

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	17-FEB-10 01:06	per0216065a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:06	per0216065a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	17-FEB-10 01:06	per0216065a
	Perchlorate-O(18)			6.57	ug/kg		1	17-FEB-10 01:06	per0216065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216065a
Date: 17-Feb-2010
Time: 01:06:08
ID: 245797014
Vial: 2:4,B

|LANL|947246|SO2D|1|

GW 02-17-10

Perchlorate

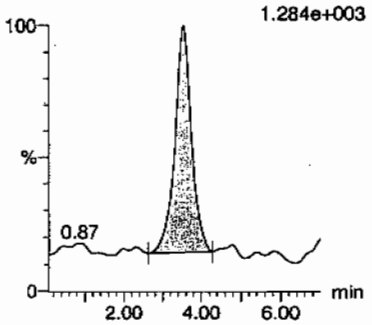

Perchlorate

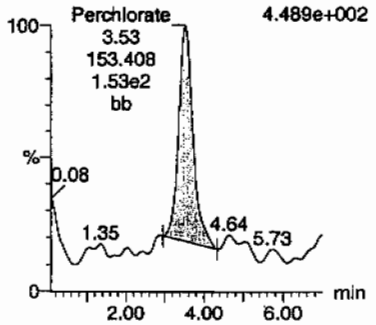

Perchlorate-101

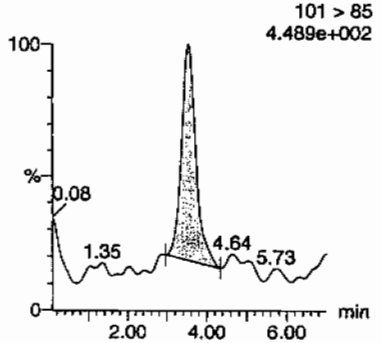

Perchlorate-O(18)

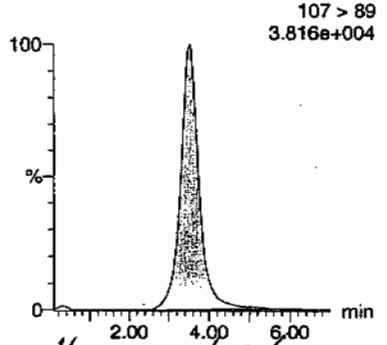

HNM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797014	Perchlorate	99 > 83	3.53	550.878	550.878	bb			0.0113			41.078	3.59
245797014	Perchlorate-101	101 > 85	3.53	153.408	153.408	bb			0.0101			21.658	
245797014	Perchlorate-O(18)	107 > 89	3.52	20218.555	20218.555	bb			0.5013	100.25	0.25	2757.6...	

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7949

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797015

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 59

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.844	3.38	0.844	ug/kg	U	1	17-FEB-10 01:16	per0216066a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:16	per0216066a
14797-73-0	Perchlorate-101	.844	3.38	0.844	ug/kg	U	1	17-FEB-10 01:16	per0216066a
	Perchlorate-O(18)			8.52	ug/kg		1	17-FEB-10 01:16	per0216066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216066a
Date: 17-Feb-2010
Time: 01:16:11
ID: 245797015
Vial: 2:4,C

|LANL|947246|5020|1|

GWD 02-17-10

Perchlorate

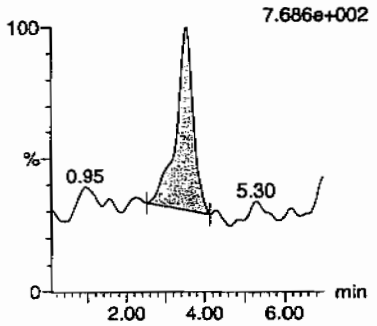

Perchlorate

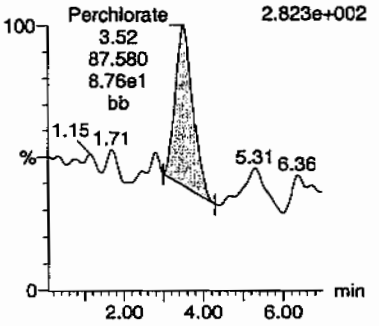

Perchlorate-101

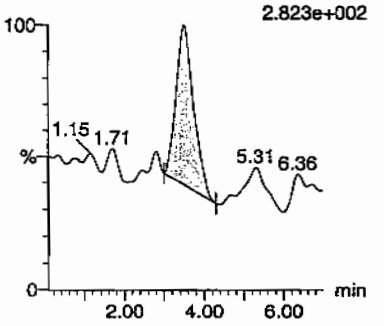

Perchlorate-O(18)

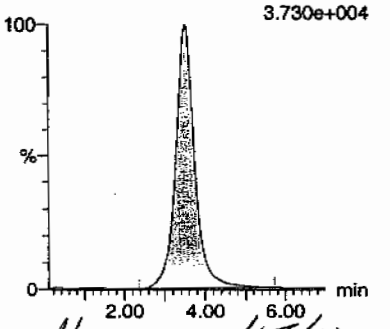

Hmm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797015	Perchlorate	99 > 83	3.53	275.935	275.935	bb			0.0057			29.365	3.15
245797015	Perchlorate-101	101 > 85	3.52	87.580	87.580	bb			0.0058			27.483	
245797015	Perchlorate-O(18)	107 > 89	3.52	20365.555	20365.555	bb			0.5049	100.98	0.98	2692.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7946

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797016

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 91.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	17-FEB-10 01:26	per0216067a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:26	per0216067a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	17-FEB-10 01:26	per0216067a
	Perchlorate-O(18)			5.45	ug/kg		1	17-FEB-10 01:26	per0216067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216067a
Date: 17-Feb-2010
Time: 01:26:13
ID: 245797016
Vial: 2:4,D

|LANL|947246|50625|1|

GWS 02.17.10

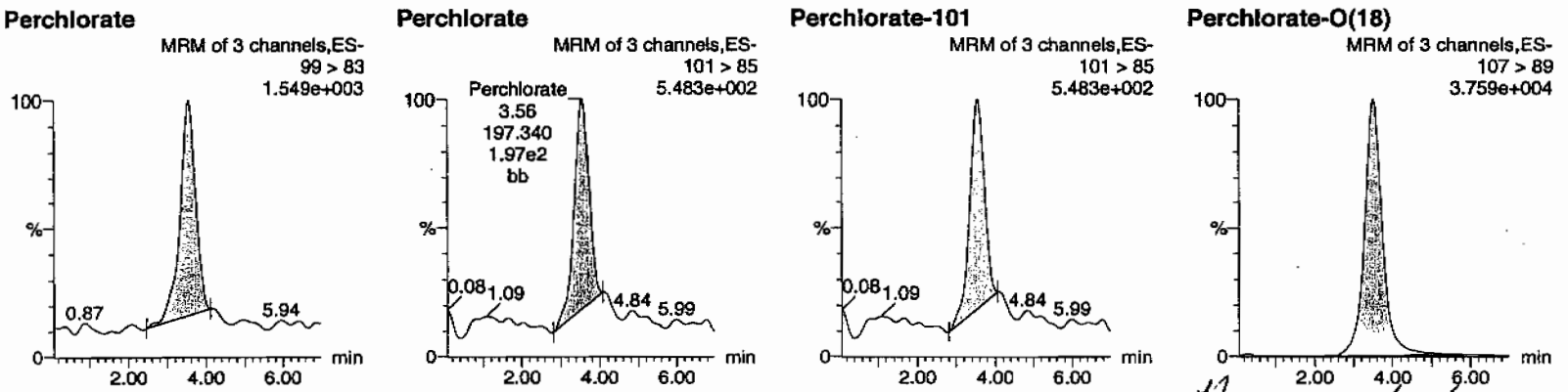

Anm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797016	Perchlorate	99 > 83	3.54	619.970	619.970	bb			0.0127			48.202	3.14
245797016	Perchlorate-101	101 > 85	3.56	197.340	197.340	bb			0.0130			61.745	
245797016	Perchlorate-O(18)	107 > 89	3.52	20181.604	20181.604	bb			0.5003	100.07	0.07	1453.1...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7942

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797017

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.25	0.561	ug/kg	U	1	17-FEB-10 01:36	per0216068a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:36	per0216068a
14797-73-0	Perchlorate-101	.561	2.25	0.561	ug/kg	U	1	17-FEB-10 01:36	per0216068a
	Perchlorate-O(18)			5.61	ug/kg		1	17-FEB-10 01:36	per0216068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216068a
Date: 17-Feb-2010
Time: 01:36:16
ID: 245797017
Vial: 2:4,E

|LZNL|947246|50120|1|

GWO 02-17-10

Perchlorate

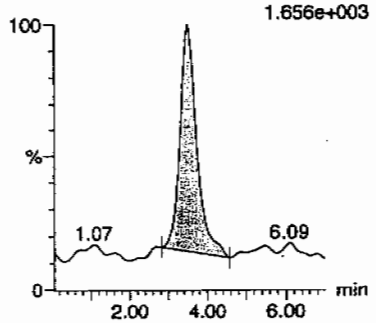

Perchlorate

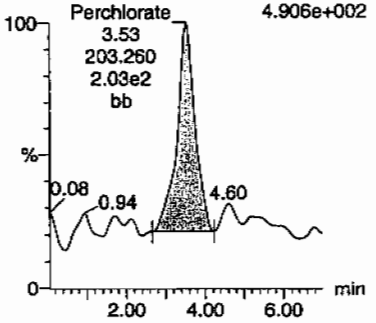

Perchlorate-101

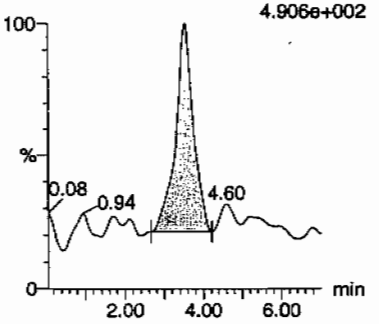

Perchlorate-O(18)

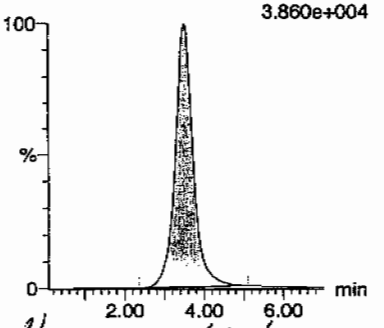

Hnm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797017	Perchlorate	99 > 83	3.50	709.860	709.860	bb			0.0146			58.382	3.49
245797017	Perchlorate-101	101 > 85	3.53	203.260	203.260	bb			0.0134			13.878	
245797017	Perchlorate-O(18)	107 > 89	3.51	20163.160	20163.160	bb			0.4999	99.98	-0.02	1595.2...	

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7945

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797018

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 61

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.822	3.29	0.822	ug/kg	U	1	17-FEB-10 01:46	per0216069a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:46	per0216069a
14797-73-0	Perchlorate-101	.822	3.29	0.822	ug/kg	U	1	17-FEB-10 01:46	per0216069a
	Perchlorate-O(18)			7.89	ug/kg		1	17-FEB-10 01:46	per0216069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216069a
Date: 17-Feb-2010
Time: 01:46:17
ID: 245797018
Vial: 2:4,F

|LANL|947246|50120|1|

WO 02-17-10

Perchlorate

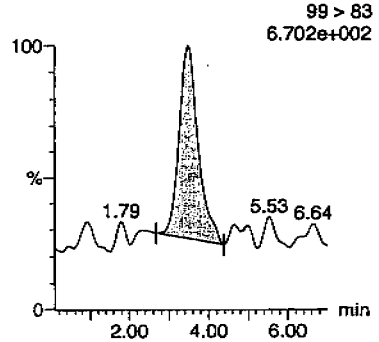

Perchlorate

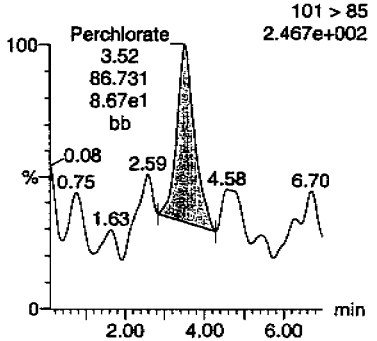

Perchlorate-101

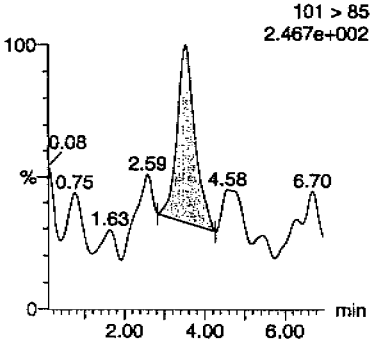

Perchlorate-O(18)

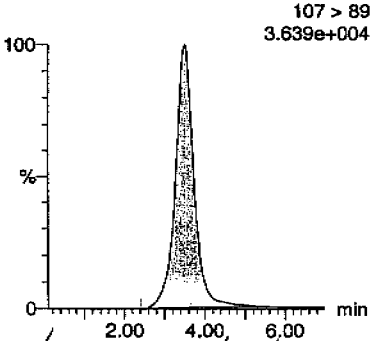

HNM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797018	Perchlorate	99 > 83	3.48	282.298	282.298	bb			0.0058			42.407	3.25
245797018	Perchlorate-101	101 > 85	3.52	86.731	86.731	bb			0.0057			21.713	
245797018	Perchlorate-O(18)	107 > 89	3.51	19356.590	19356.590	bb			0.4799	95.98	-4.02	4329.9...	

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7943

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 245797019

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 92.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	17-FEB-10 01:56	per0216070a
	Perchlorate Isotope Ratio						1	17-FEB-10 01:56	per0216070a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	17-FEB-10 01:56	per0216070a
	Perchlorate-O(18)			5.16	ug/kg		1	17-FEB-10 01:56	per0216070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216070a
Date: 17-Feb-2010
Time: 01:56:19
ID: 245797019
Vial: 2:5,A

1LANC 1947246 50120 11

GWJ 02-17-10

Perchlorate

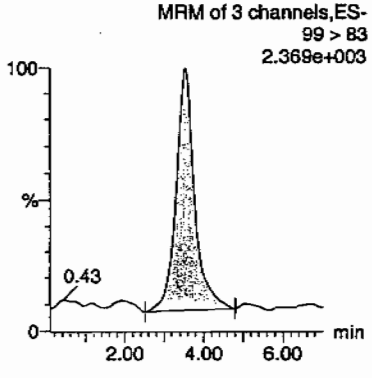

Perchlorate

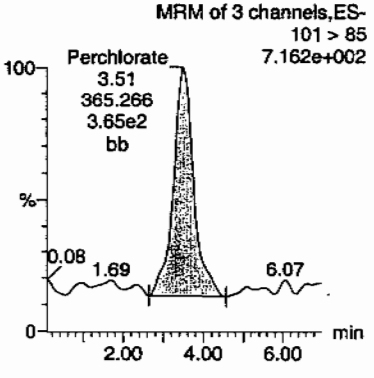

Perchlorate-101

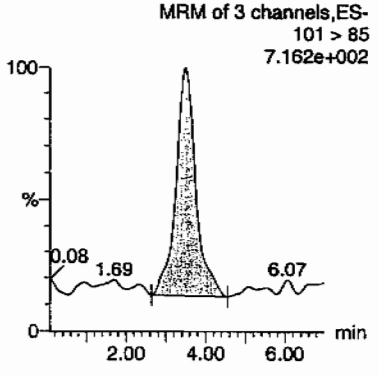

Perchlorate-O(18)

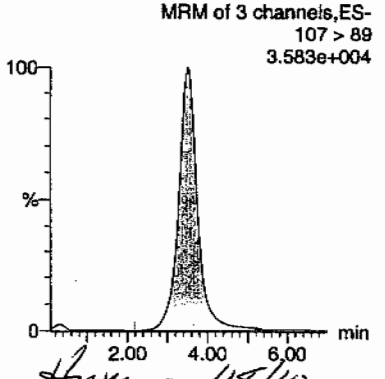

Hmw 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245797019	Perchlorate	99 > 83	3.53	1201.622	1201.622	bb			0.0247			146.802	3.29
245797019	Perchlorate-101	101 > 85	3.51	365.266	365.266	bb			0.0241			65.199	
245797019	Perchlorate-O(18)	107 > 89	3.52	19231.395	19231.395	bb			0.4768	95.36	-4.64	1134.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1471

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 16–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 48694.12

Response Type: External Standard

Curve Type: RF

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1471

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 16–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 15156.32

Response Type: External Standard

Curve Type: RF

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021610a.mdb 17 Feb 2010 09:42:10
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021610a.cdb 17 Feb 2010 11:03:29

Compound name: Perchlorate
Response Factor: 48694.1
RRF SD: 5598.16, % Relative SD: 11.4966
Response type: External Std, Area
Curve type: RF

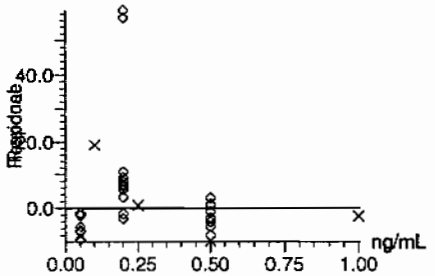

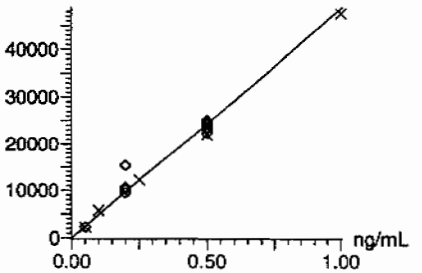

CWW
02-17-10

Compound name: Perchlorate-101
Response Factor: 15156.3
RRF SD: 1083.64, % Relative SD: 7.14976
Response type: External Std, Area
Curve type: RF

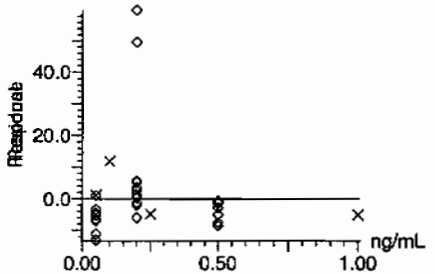

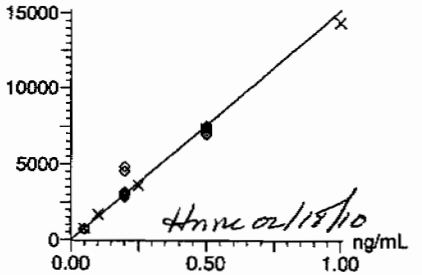

Hmc 02/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 000926

Compound name: Perchlorate-O(18)
Response Factor: 40336
RRF SD: 1845.58, % Relative SD: 4.57552
Response type: External Std, Area
Curve type: RF

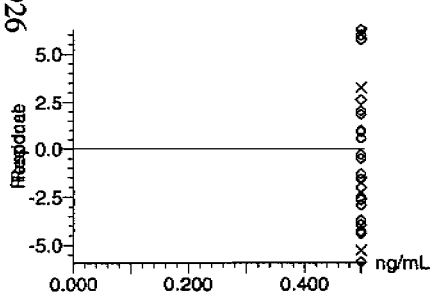

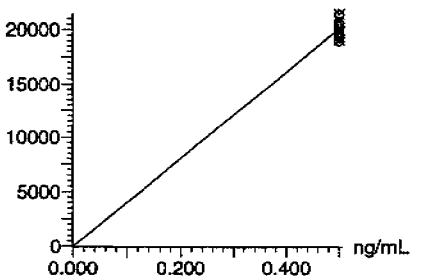

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1471

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103	16–FEB–10 15:41	per0216009a
Perchlorate Isotope Ratio		3.32		16–FEB–10 15:41	per0216009a
Perchlorate–101	.5	.5	99.57	16–FEB–10 15:41	per0216009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 26

Name: per0216009a
Date: 16-Feb-2010
Time: 15:41:24
ID: WCL100211-06ICV
Vial: 1:2,A

Pers
02-17-10

Perchlorate

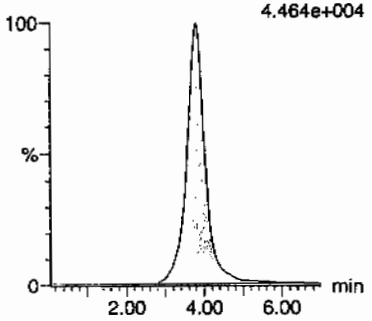

Perchlorate

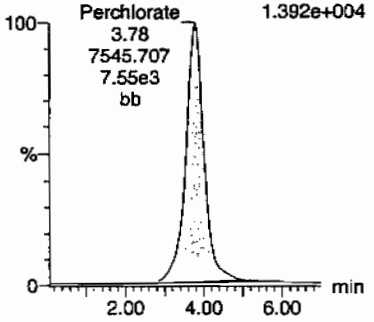

Perchlorate-101

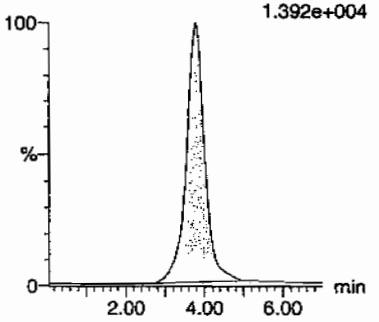

Perchlorate-O(18)

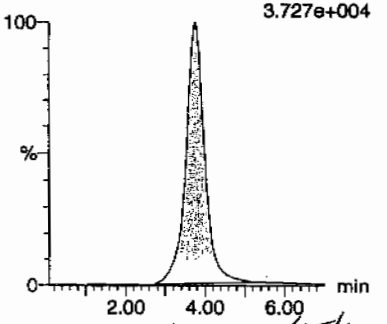

HMC 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06ICV	Perchlorate	99 > 83	3.78	25078.299	25078.299	bb			0.5150	103.00	3.00	2940.9...	3.32
WCL100211-06ICV	Perchlorate-101	101 > 85	3.78	7545.707	7545.707	bb			0.4979	99.57	-0.43	1165.8...	
WCL100211-06ICV	Perchlorate-O(18)	107 > 89	3.77	20536.309	20536.309	bb			0.5091	101.83	1.83	2332.3...	

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1471

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.95	16-FEB-10 17:51	per0216022a
Perchlorate Isotope Ratio		3.26		16-FEB-10 17:51	per0216022a
Perchlorate-101	.5	.49	97.38	16-FEB-10 17:51	per0216022a
Perchlorate	.5	.49	97.01	16-FEB-10 20:02	per0216035a
Perchlorate Isotope Ratio		3.21		16-FEB-10 20:02	per0216035a
Perchlorate-101	.5	.49	97.09	16-FEB-10 20:02	per0216035a
Perchlorate	.5	.47	94.55	16-FEB-10 22:14	per0216048a
Perchlorate Isotope Ratio		3.2		16-FEB-10 22:14	per0216048a
Perchlorate-101	.5	.47	94.94	16-FEB-10 22:14	per0216048a
Perchlorate	.5	.46	92.07	17-FEB-10 00:15	per0216060a
Perchlorate Isotope Ratio		3.23		17-FEB-10 00:15	per0216060a
Perchlorate-101	.5	.46	91.51	17-FEB-10 00:15	per0216060a
Perchlorate	.5	.51	101.24	17-FEB-10 02:06	per0216071a

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1471

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.28		17–FEB–10 02:06	per0216071a
Perchlorate–101	.5	.5	99.06	17–FEB–10 02:06	per0216071a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 22 of 26

Name: per0216022a
Date: 16-Feb-2010
Time: 17:51:54
ID: WCL100211-06CCV
Vial: 1:2,A

Pwo
aw
02-17-10

Perchlorate

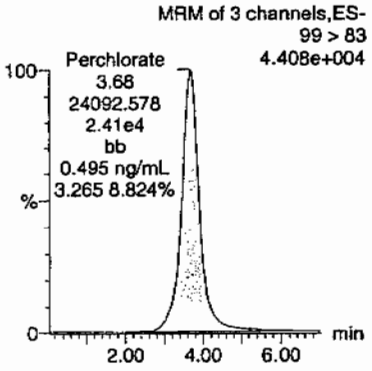

Perchlorate

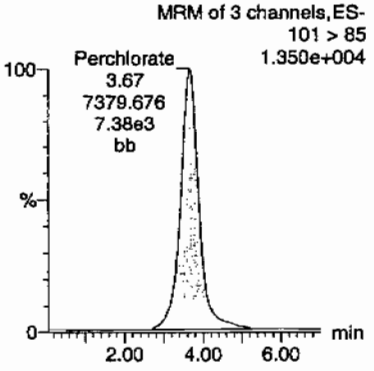

Perchlorate-101

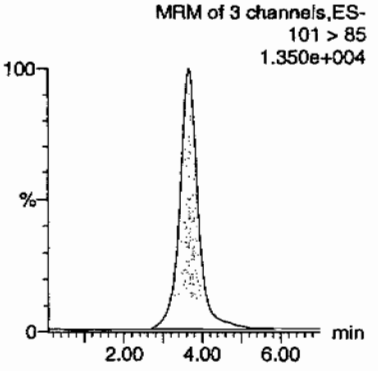

Perchlorate-O(18)

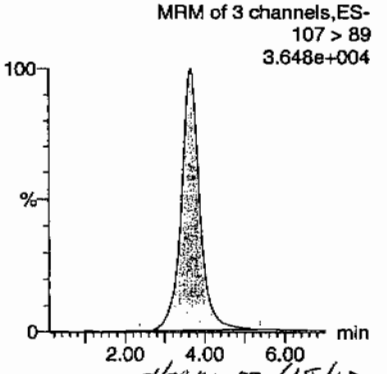

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.68	24092.578	24092.578	bb			0.4948	98.95	-1.05	3788.8...	3.26
WCL100211-06CCV	Perchlorate-101	101 > 85	3.67	7379.676	7379.676	bb			0.4869	97.38	-2.62	718.968	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.66	19578.602	19578.602	bb			0.4854	97.08	-2.92	1969.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216035a
Date: 16-Feb-2010
Time: 20:02:43
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
aw
02-17-10

Perchlorate

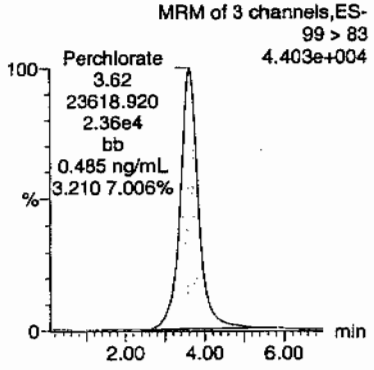

Perchlorate

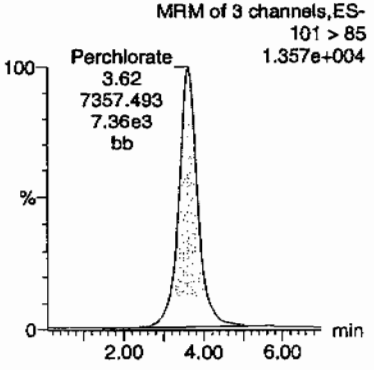

Perchlorate-101

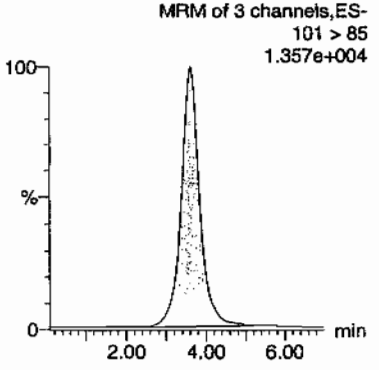

Perchlorate-O(18)

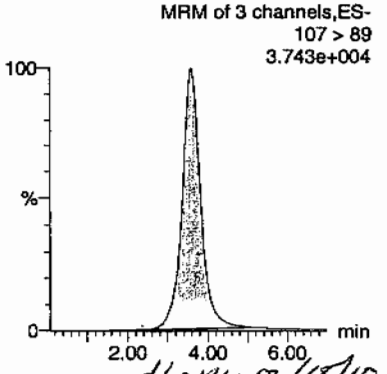

Hrm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.62	23618.920	23618.920	bb			0.4850	97.01	-2.99	958.546	3.21
WCL100211-06CCV	Perchlorate-101	101 > 85	3.62	7357.493	7357.493	bb			0.4854	97.09	-2.91	253.594	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.59	20062.182	20062.182	bb			0.4974	99.48	-0.52	3370.6...	

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Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 1926

Name: per0216048a
Date: 16-Feb-2010
Time: 22:14:33
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
aw
02-17-10

Perchlorate

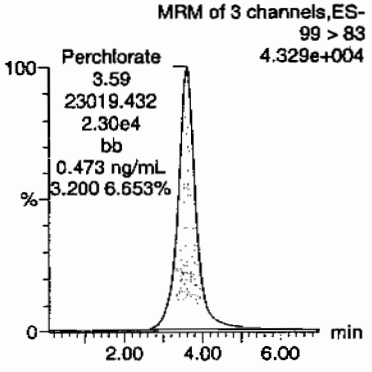

Perchlorate

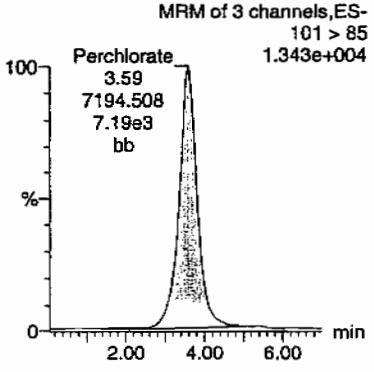

Perchlorate-101

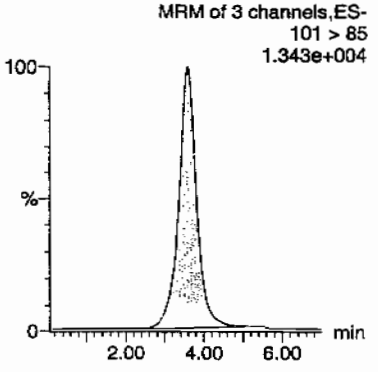

Perchlorate-O(18)

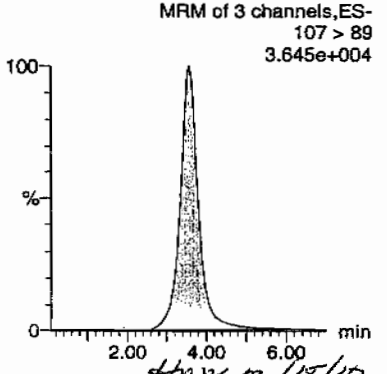

HMK 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.59	23019.432	23019.432	bb			0.4727	94.55	-5.45	1319.1...	3.20
WCL100211-06CCV	Perchlorate-101	101 > 85	3.59	7194.508	7194.508	bb			0.4747	94.94	-5.06	264.715	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.58	19580.137	19580.137	bb			0.4854	97.09	-2.91	2127.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 26 of 26

Name: per0216060a
Date: 17-Feb-2010
Time: 00:15:22
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
GWO
02-17-10

Perchlorate

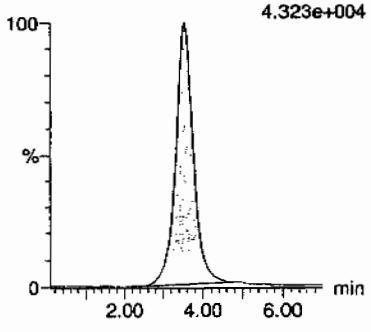

Perchlorate

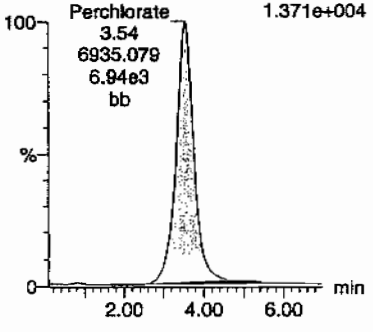

Perchlorate-101

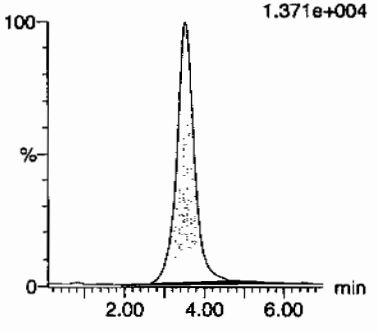

Perchlorate-O(18)

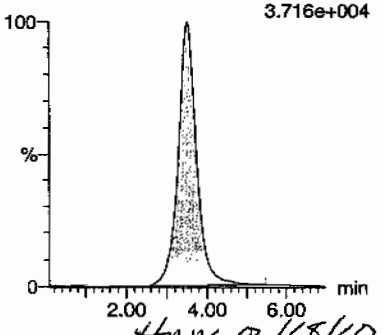

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.53	22417.438	22417.438	bb			0.4604	92.07	-7.93	1571.5...	3.23
WCL100211-06CCV	Perchlorate-101	101 > 85	3.54	6935.079	6935.079	bb			0.4576	91.51	-8.49	311.468	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.52	19667.754	19667.754	bb			0.4876	97.52	-2.48	2349.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qid

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216071a
Date: 17-Feb-2010
Time: 02:06:24
ID: WCL100211-06CCV
Vial: 1:2,A

Pass
ows
02-17-10

Perchlorate

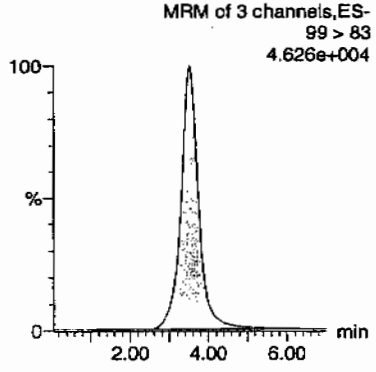

Perchlorate

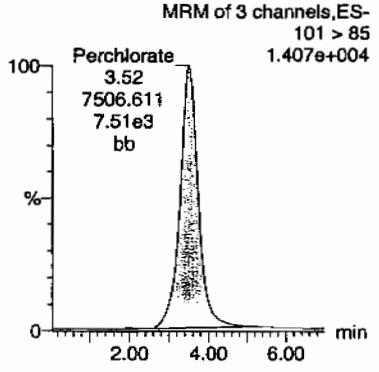

Perchlorate-101

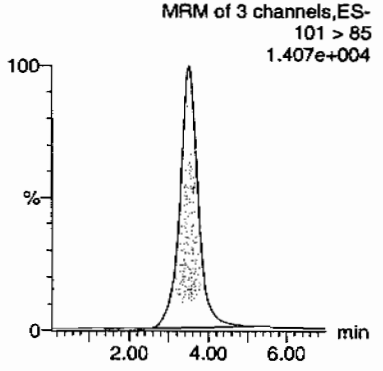

Perchlorate-O(18)

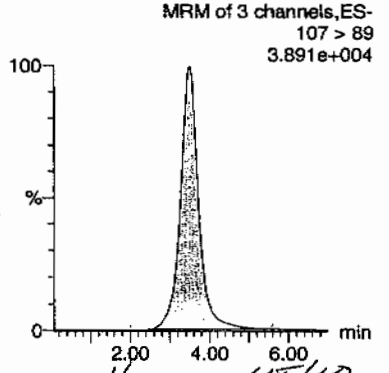

HMW 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-06CCV	Perchlorate	99 > 83	3.52	24649.779	24649.779	bb			0.5062	101.24	1.24	2662.3...	3.28
WCL100211-06CCV	Perchlorate-101	101 > 85	3.52	7506.611	7506.611	bb			0.4953	99.06	-0.94	475.783	
WCL100211-06CCV	Perchlorate-O(18)	107 > 89	3.50	20576.664	20576.664	bb			0.5101	102.03	2.03	2075.3...	

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1471

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.89	16–FEB–10 16:01	per0216011a
Perchlorate Isotope Ratio		3.38		16–FEB–10 16:01	per0216011a
Perchlorate–101	.05	.05	93.02	16–FEB–10 16:01	per0216011a
Perchlorate	.05	.05	93.36	16–FEB–10 18:11	per0216024a
Perchlorate Isotope Ratio		3.38		16–FEB–10 18:11	per0216024a
Perchlorate–101	.05	.04	88.83	16–FEB–10 18:11	per0216024a
Perchlorate	.05	.05	92.94	16–FEB–10 20:23	per0216037a
Perchlorate Isotope Ratio		3.09		16–FEB–10 20:23	per0216037a
Perchlorate–101	.05	.05	96.65	16–FEB–10 20:23	per0216037a
Perchlorate	.05	.05	98.66	16–FEB–10 22:34	per0216050a
Perchlorate Isotope Ratio		3.65		16–FEB–10 22:34	per0216050a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1471

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.04	86.88	16–FEB–10 22:34	per0216050a
Perchlorate	.05	.05	93.1	17–FEB–10 00:35	per0216062a
Perchlorate Isotope Ratio		3.16		17–FEB–10 00:35	per0216062a
Perchlorate–101	.05	.05	94.68	17–FEB–10 00:35	per0216062a
Perchlorate	.05	.05	93.57	17–FEB–10 02:26	per0216073a
Perchlorate Isotope Ratio		3.17		17–FEB–10 02:26	per0216073a
Perchlorate–101	.05	.05	94.79	17–FEB–10 02:26	per0216073a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 8 of 96

Name: per0216011a
Date: 16-Feb-2010
Time: 16:01:28
ID: WCL100211-07CRI
Vial: 1:2,B

Rev
ano
02/17-10

Perchlorate

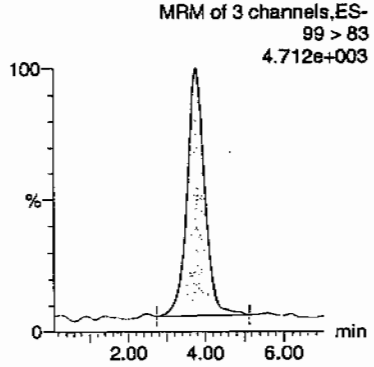

Perchlorate

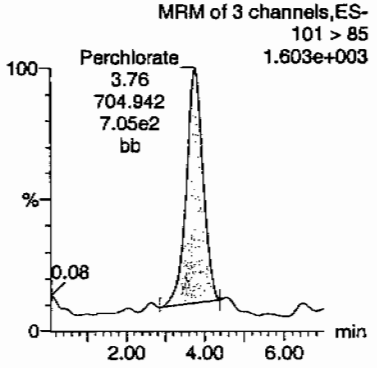

Perchlorate-101

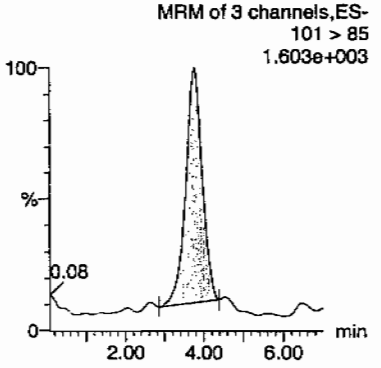

Perchlorate-O(18)

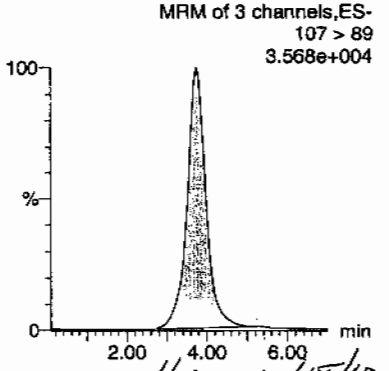

HMM 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.77	2383.393	2383.393	bb			0.0489	97.89	-2.11	187.352	3.38
WCL100211-07CRI	Perchlorate-101	101 > 85	3.76	704.942	704.942	bb			0.0465	93.02	-6.98	30.019	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.76	19370.289	19370.289	bb			0.4802	96.04	-3.96	849.260	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216024a
Date: 16-Feb-2010
Time: 18:11:59
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
02-17-10

Perchlorate

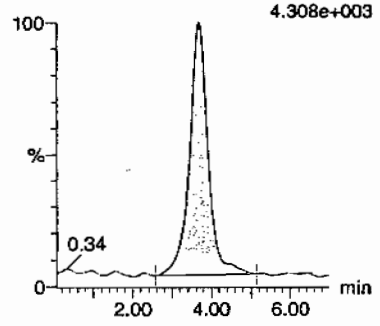

Perchlorate

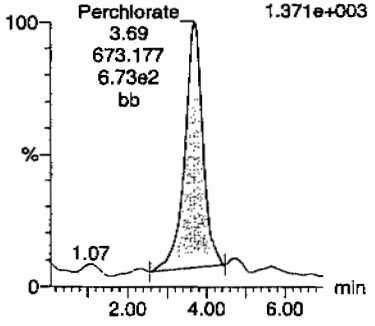

Perchlorate-101

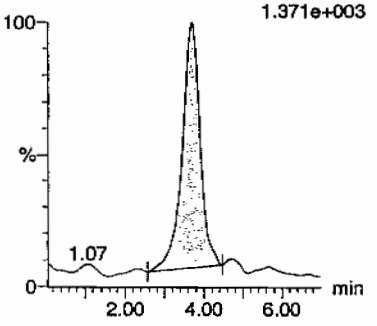

Perchlorate-O(18)

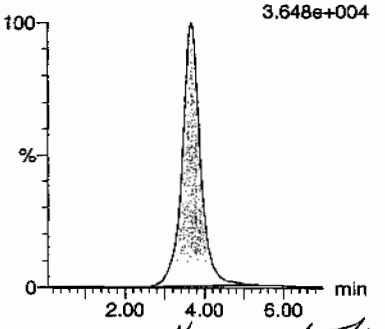

Hmw 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.68	2272.925	2272.925	bb			0.0467	93.36	-6.64	241.554	3.38
WCL100211-07CRI	Perchlorate-101	101 > 85	3.69	673.177	673.177	bb			0.0444	88.83	-11.17	256.925	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.67	19278.473	19278.473	bb			0.4779	95.59	-4.41	2546.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216037a
Date: 16-Feb-2010
Time: 20:23:04
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
CWW
02-17-10

Perchlorate

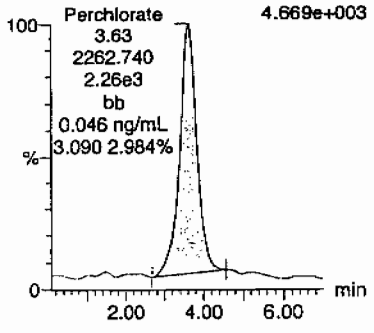

Perchlorate

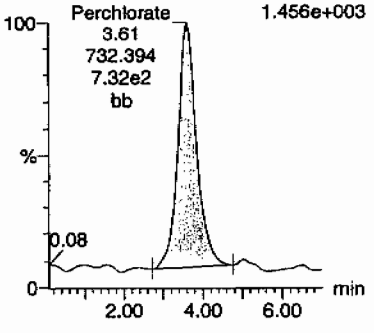

Perchlorate-101

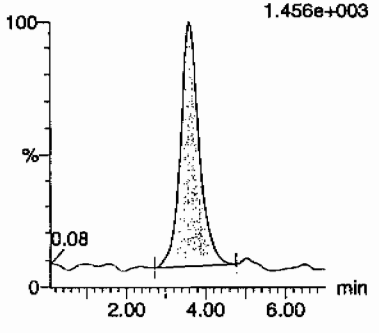

Perchlorate-O(18)

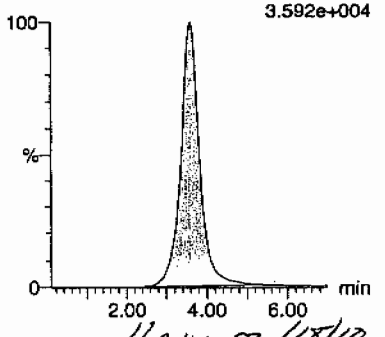

Hrm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.63	2262.740	2262.740	bb			0.0465	92.94	-7.06	178.571	3.09
WCL100211-07CRI	Perchlorate-101	101 > 85	3.61	732.394	732.394	bb			0.0483	96.65	-3.35	252.373	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.61	19380.582	19380.582	bb			0.4805	96.10	-3.90	1524.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

MANUAL

Name: per0216050a
Date: 16-Feb-2010
Time: 22:34:52
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
GW
02-17-10

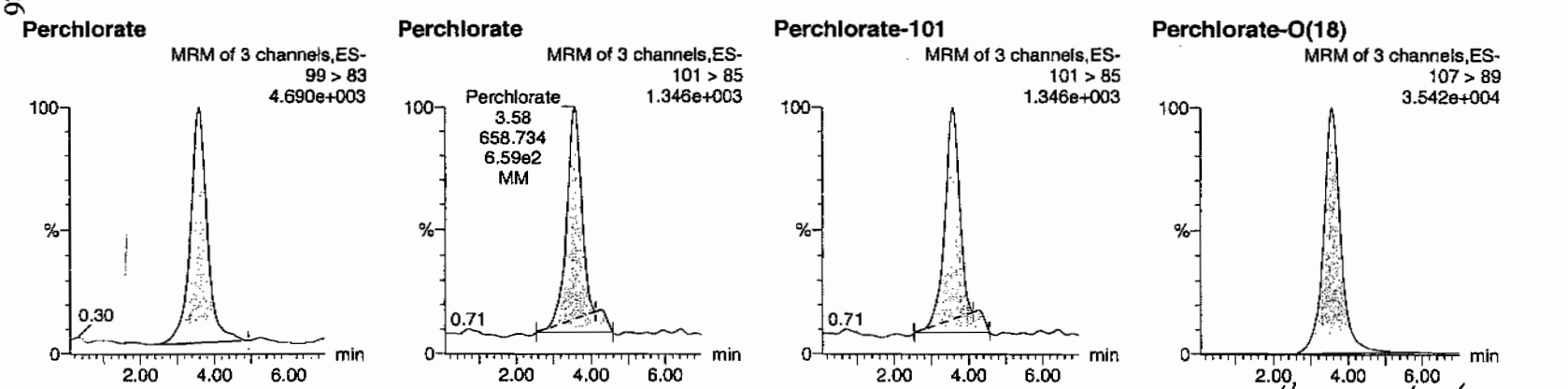

HMK 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.59	2402.146	2402.146	bb	17-Feb-10	11:08:35	0.0493	98.66	-1.34	198.764	3.65
WCL100211-07CRI	Perchlorate-101	101 > 85	3.58	658.410	658.410	MM	17-Feb-10	11:09:37	0.0434	86.88	-13.12	11.199	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.58	18982.666	18982.666	bb			0.4706	94.12	-5.88	2154.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Page 1 of 26

Name: per0216062a
Date: 17-Feb-2010
Time: 00:35:50
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
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02-17-10

Perchlorate

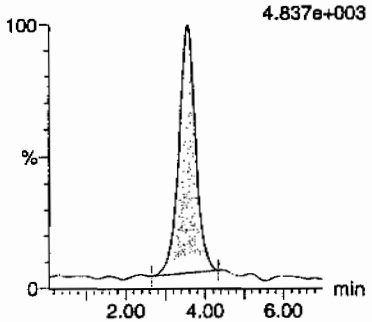

Perchlorate

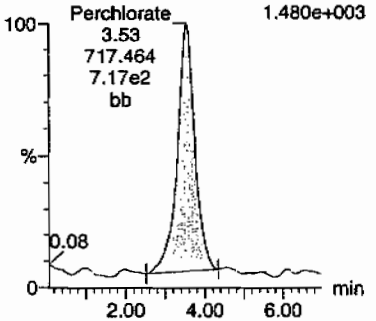

Perchlorate-101

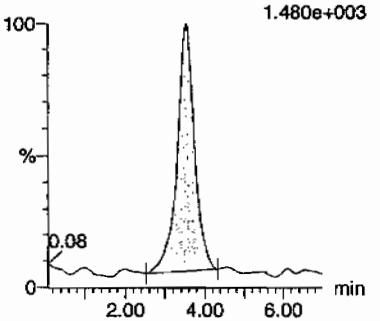

Perchlorate-O(18)

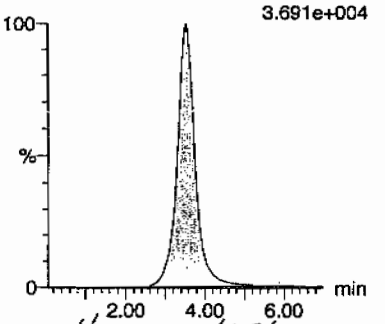

Hmm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.56	2266.666	2266.666	bb			0.0465	93.10	-6.90	332.053	3.16
WCL100211-07CRI	Perchlorate-101	101 > 85	3.53	717.464	717.464	bb			0.0473	94.68	-5.32	154.139	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.54	19631.152	19631.152	bb			0.4867	97.34	-2.66	3049.6...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216073a
Date: 17-Feb-2010
Time: 02:26:59
ID: WCL100211-07CRI
Vial: 1:2,B

Pass
OW
02-17-10

Perchlorate

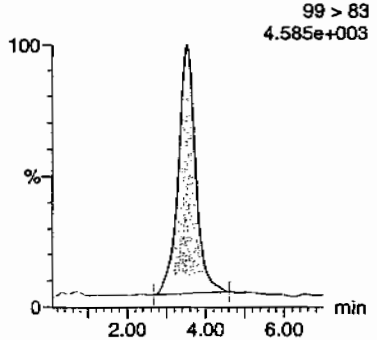

Perchlorate

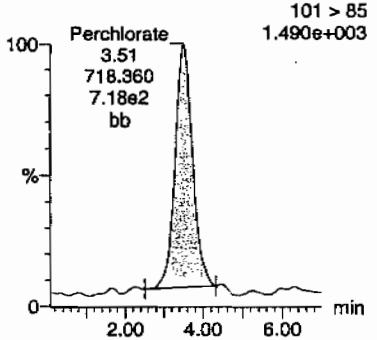

Perchlorate-101

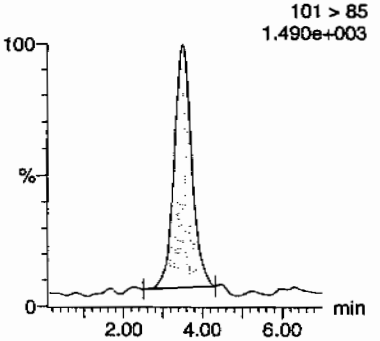

Perchlorate-O(18)

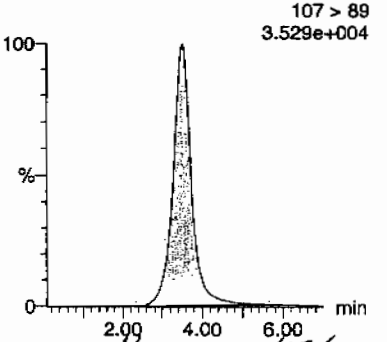

Hmc 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100211-07CRI	Perchlorate	99 > 83	3.53	2278.118	2278.118	bb			0.0468	93.57	-6.43	217.447	3.17
WCL100211-07CRI	Perchlorate-101	101 > 85	3.51	718.360	718.360	bb			0.0474	94.79	-5.21	17.933	
WCL100211-07CRI	Perchlorate-O(18)	107 > 89	3.51	18979.275	18979.275	bb			0.4705	94.11	-5.89	1263.3...	

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 1202029077

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	16-FEB-10 20:53	per0216040a
	Perchlorate Isotope Ratio						1	16-FEB-10 20:53	per0216040a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	16-FEB-10 20:53	per0216040a
	Perchlorate-O(18)			4.39	ug/kg		1	16-FEB-10 20:53	per0216040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216040a
Date: 16-Feb-2010
Time: 20:53:21
ID: 1202029077 |LANL|947246|30120|MB|1|
Vial: 2:1,A

CWO 02-17-10

Perchlorate

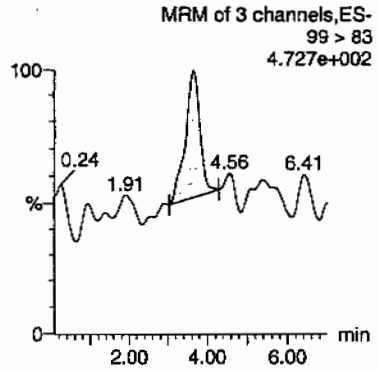

Perchlorate

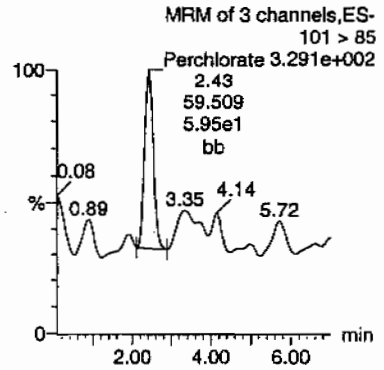

Perchlorate-101

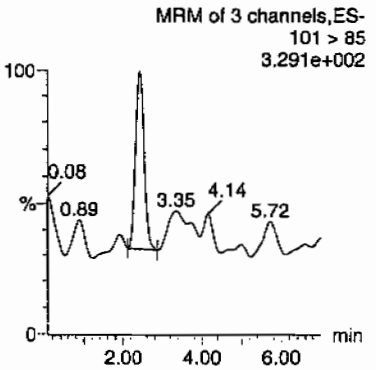

Perchlorate-O(18)

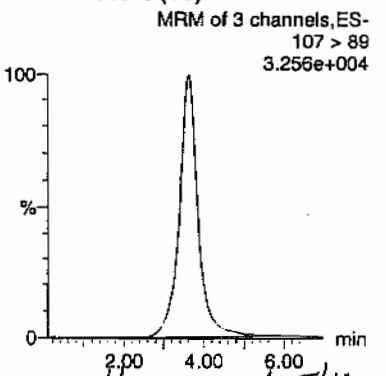

tnm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029077	Perchlorate	99 > 83	3.64	96.871	96.871	bb			0.0020			16.212	1.63
1202029077	Perchlorate-101	101 > 85	2.43	59.509	59.509	bb			0.0039			30.255	
1202029077	Perchlorate-O(18)	107 > 89	3.62	17725.297	17725.297	bb			0.4394	87.89	-12.11	911.629	

CWO 2-17-10

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 11-FEB-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 1202029078

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.97	ug/kg	J	1	16-FEB-10 21:03	per0216041a
	Perchlorate Isotope Ratio			3.36			1	16-FEB-10 21:03	per0216041a
14797-73-0	Perchlorate-101	.5	2	1.88	ug/kg	J	1	16-FEB-10 21:03	per0216041a
	Perchlorate-O(18)			4.81	ug/kg		1	16-FEB-10 21:03	per0216041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216041a
Date: 16-Feb-2010
Time: 21:03:34
ID: 1202029078
Vial: 2:1,B

|LANL|947246|5020|LLS|1|

LLS 02-17-10

Perchlorate

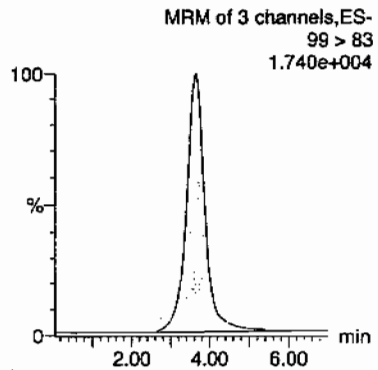

Perchlorate

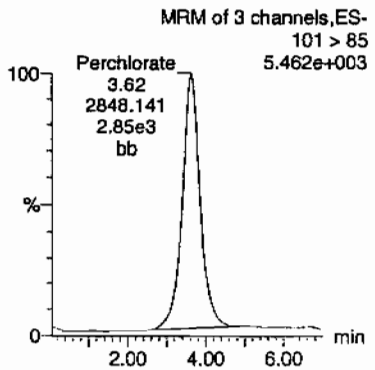

Perchlorate-101

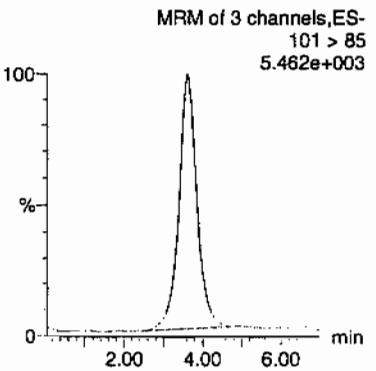

Perchlorate-O(18)

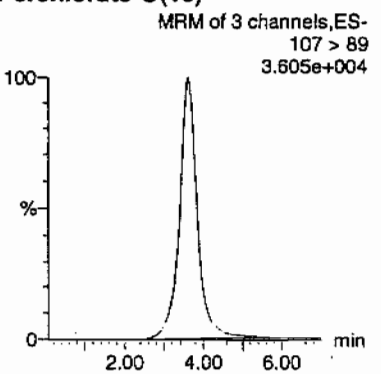

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029078	Perchlorate	99 > 83	3.64	9578.012	9578.012	bb			0.1967	98.35	-1.65	1447.4...	3.36
1202029078	Perchlorate-101	101 > 85	3.62	2848.141	2848.141	bb			0.1879	93.96	-6.04	551.365	
1202029078	Perchlorate-O(18)	107 > 89	3.62	19413.965	19413.965	bb			0.4813	96.26	-3.74	2410.8...	

$\frac{9578.012}{48694.1} = 0.1967$

HMW 02/18/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7888MS

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 1202029079

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 90.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.21	3.51	ug/kg		1	16-FEB-10 21:44	per0216045a
	Perchlorate Isotope Ratio			3.2			1	16-FEB-10 21:44	per0216045a
14797-73-0	Perchlorate-101	.551	2.21	3.53	ug/kg		1	16-FEB-10 21:44	per0216045a
	Perchlorate-O(18)			5.83	ug/kg		1	16-FEB-10 21:44	per0216045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216045a
Date: 16-Feb-2010
Time: 21:44:02
ID: 1202029079 |LANL|947246|50120|MS|11|
Vial: 2:1,F

GWO 02-17-10

Perchlorate

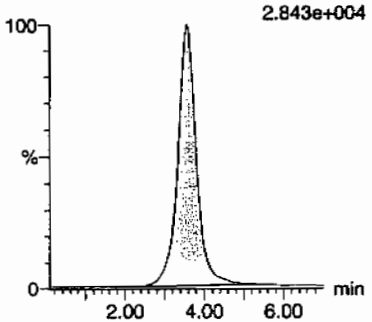

Perchlorate

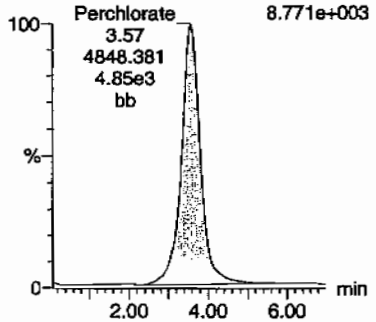

Perchlorate-101

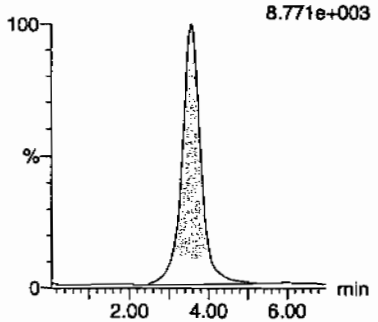

Perchlorate-O(18)

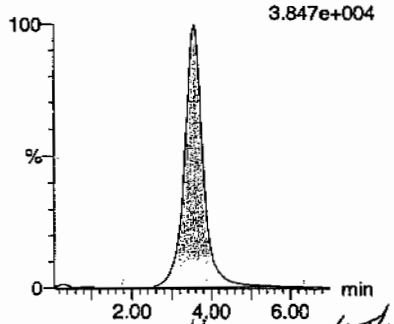

HMW 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029079	Perchlorate	99 > 83	3.57	15492.290	15492.290	bb			0.3182	159.08	59.08	469.711	3.20
1202029079	Perchlorate-101	101 > 85	3.57	4848.381	4848.381	bb			0.3199	159.95	59.95	276.401	
1202029079	Perchlorate-O(18)	107 > 89	3.56	21328.137	21328.137	bb			0.5288	105.75	5.75	1743.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947245

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7888MSD

Date Received: 29-JAN-10

GEL Job No (SDG): 10-1471

GEL Sample ID: 1202029080

Date Filtered: 11-FEB-10

Injection Volume (uL): 20

%Solids: 90.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.21	3.46	ug/kg		1	16-FEB-10 21:54	per0216046a
	Perchlorate Isotope Ratio			3.37			1	16-FEB-10 21:54	per0216046a
14797-73-0	Perchlorate-101	.551	2.21	3.30	ug/kg		1	16-FEB-10 21:54	per0216046a
	Perchlorate-O(18)			5.86	ug/kg		1	16-FEB-10 21:54	per0216046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021610a.qld

Last Altered: Wednesday, February 17, 2010 11:09:37 AM Eastern Standard Time
Printed: Wednesday, February 17, 2010 11:11:37 AM Eastern Standard Time

Name: per0216046a
Date: 16-Feb-2010
Time: 21:54:11
ID: 1202029080
Vial: 2:2,A

|LANL|947246|30620|MSO|1|

GWO 02-17-10

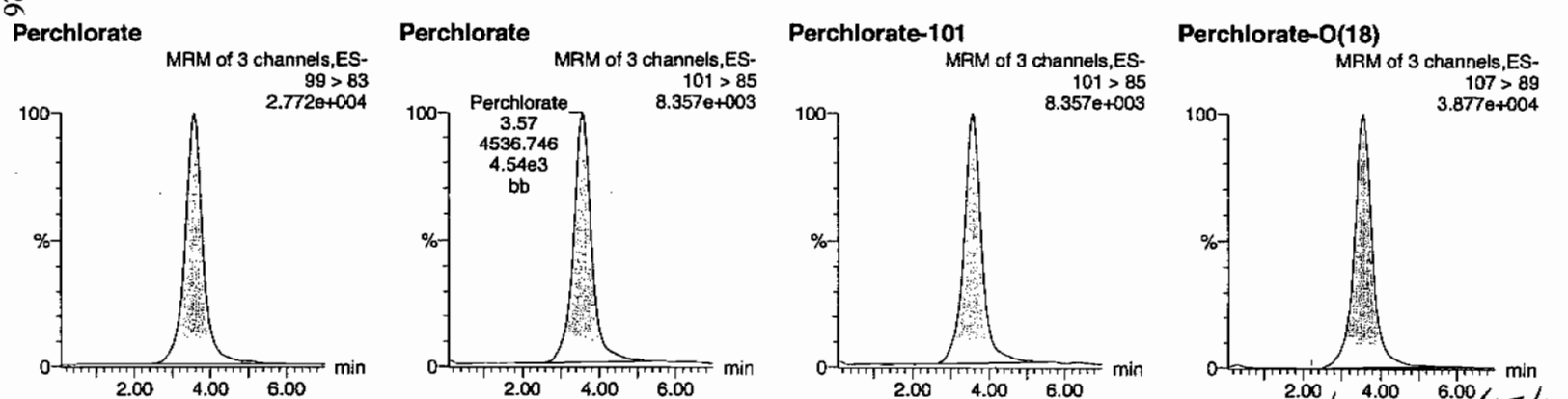

Anm 02/18/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202029080	Perchlorate	99 > 83	3.57	15276.593	15276.593	bb			0.3137	156.86	56.86	780.115	3.37
1202029080	Perchlorate-101	101 > 85	3.57	4536.746	4536.746	bb			0.2993	149.66	49.66	2501.6...	
1202029080	Perchlorate-O(18)	107 > 89	3.56	21427.912	21427.912	bb			0.5312	106.25	6.25	897.071	

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 947245 **Verified by:** _____

Analyst: Charles Wilson

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202029077 MB	11-FEB-2010 18:13:00	2	20	10
1202029078 LCS	11-FEB-2010 18:13:00	2	20	10
245786001	11-FEB-2010 18:13:00	2	20	10
245797001	11-FEB-2010 18:13:00	2	20	10
1202029079 MS (245797001)	11-FEB-2010 18:13:00	2	20	10
1202029080 MSD (245797001)	11-FEB-2010 18:13:00	2	20	10
245797002	11-FEB-2010 18:13:00	2	20	10
245797003	11-FEB-2010 18:13:00	2	20	10
245797004	11-FEB-2010 18:13:00	2	20	10
245797005	11-FEB-2010 18:13:00	2	20	10
245797006	11-FEB-2010 18:13:00	2	20	10
245797007	11-FEB-2010 18:13:00	2	20	10
245797008	11-FEB-2010 18:13:00	2	20	10
245797009	11-FEB-2010 18:13:00	2	20	10
245797010	11-FEB-2010 18:13:00	2	20	10
245797011	11-FEB-2010 18:13:00	2	20	10
245797012	11-FEB-2010 18:13:00	2	20	10
245797013	11-FEB-2010 18:13:00	2	20	10
245797014	11-FEB-2010 18:13:00	2	20	10
245797015	11-FEB-2010 18:13:00	2	20	10
245797016	11-FEB-2010 18:13:00	2	20	10
245797017	11-FEB-2010 18:13:00	2	20	10
245797018	11-FEB-2010 18:14:00	2	20	10
245797019	11-FEB-2010 18:14:00	2	20	10
1202029081 ICS	11-FEB-2010 18:14:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202029081	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
LCS	1202029078	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MS	1202029079	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MSD	1202029080	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL

Comments:

Desalting cartridges used: BJ01/02J1609 (IC-Ba10) & BJ0003J1609 (IC-H10)

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/16/10
Extr. Injection Volume: 20uL
Sequence Number: per021610a
Initial Calibration Date: 02/16/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: [illegible]
Date: 02/18/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100211-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0216001a	IPB001	CWW	2/16/2010 14:21			1		USE	B
per0216002a	IPB001	CWW	2/16/2010 14:31			1		USE	B
per0216003a	WCLICAL-01	CWW	2/16/2010 14:41			1		USE	I
per0216004a	WCLICAL-02	CWW	2/16/2010 14:51			1		USE	I
per0216005a	WCLICAL-03	CWW	2/16/2010 15:01			1		USE	I
per0216006a	WCLICAL-04	CWW	2/16/2010 15:11			1		USE	I
per0216007a	WCLICAL-05	CWW	2/16/2010 15:21			1		USE	I
per0216008a	IPB002	CWW	2/16/2010 15:31			1		USE	B
per0216009a	WCLICV	CWW	2/16/2010 15:41			1		USE	C
per0216010a	IPB003	CWW	2/16/2010 15:51			1		USE	B
per0216011a	WCLCRI	CWW	2/16/2010 16:01			1		USE	C
per0216012a	1202029072	CWW	2/16/2010 16:11	947243	10-1460	1	LANL	USE	S
per0216013a	1202029073	CWW	2/16/2010 16:21	947243	10-1460	1	LANL	USE	S
per0216014a	1202029076	CWW	2/16/2010 16:31	947243	10-1460	1	LANL	USE	S
per0216015a	245783001	CWW	2/16/2010 16:41	947243	10-1460	1	LANL	USE	S
per0216016a	1202029074	CWW	2/16/2010 16:51	947243	10-1460	1	LANL	USE	S
per0216017a	1202029075	CWW	2/16/2010 17:01	947243	10-1460	1	LANL	USE	S
per0216018a	245783002	CWW	2/16/2010 17:11	947243	10-1460	1	LANL	USE	S
per0216019a	245783003	CWW	2/16/2010 17:21	947243	10-1460	1	LANL	USE	S
per0216020a	245783004	CWW	2/16/2010 17:31	947243	10-1460	1	LANL	USE	S
per0216021a	245783005	CWW	2/16/2010 17:41	947243	10-1460	1	LANL	USE	S
per0216022a	WCLCCV	CWW	2/16/2010 17:51			1		USE	C
per0216023a	IPB004	CWW	2/16/2010 18:01			1		USE	B
per0216024a	WCLCRI	CWW	2/16/2010 18:11			1		USE	C
per0216025a	245783006	CWW	2/16/2010 18:22	947243	10-1460	1	LANL	USE	S
per0216026a	245783007	CWW	2/16/2010 18:32	947243	10-1460	1	LANL	USE	S
per0216027a	245783008	CWW	2/16/2010 18:42	947243	10-1460	1	LANL	USE	S
per0216028a	245783009	CWW	2/16/2010 18:52	947243	10-1460	1	LANL	USE	S
per0216029a	245783010	CWW	2/16/2010 19:02	947243	10-1460	1	LANL	USE	S

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per0216030a	245783011	CWW	2/16/2010 19:12	947243	10-1460	1	LANL	USE	S
per0216031a	245783012	CWW	2/16/2010 19:22	947243	10-1460	1	LANL	USE	S
per0216032a	245783013	CWW	2/16/2010 19:32	947243	10-1460	1	LANL	USE	S
per0216033a	245783014	CWW	2/16/2010 19:42	947243	10-1460	1	LANL	USE	S
per0216034a	245783015	CWW	2/16/2010 19:52	947243	10-1460	1	LANL	USE	S
per0216035a	WCLCCV	CWW	2/16/2010 20:02			1		USE	C
per0216036a	IPB005	CWW	2/16/2010 20:12			1		USE	B
per0216037a	WCLCRI	CWW	2/16/2010 20:23			1		USE	C
per0216038a	245783016	CWW	2/16/2010 20:33	947243	10-1460	1	LANL	USE	S
per0216039a	IPB006	CWW	2/16/2010 20:43			1		USE	B
per0216040a	1202029077	CWW	2/16/2010 20:53	947246	VARIOUS	1	LANL	USE	S
per0216041a	1202029078	CWW	2/16/2010 21:03	947246	VARIOUS	1	LANL	USE	S
per0216042a	1202029081	CWW	2/16/2010 21:13	947246	VARIOUS	1	LANL	USE	S
per0216043a	245786001	CWW	2/16/2010 21:23	947246	10-1462	1	LANL	USE	S
per0216044a	245797001	CWW	2/16/2010 21:34	947246	10-1471	1	LANL	USE	S
per0216045a	1202029079	CWW	2/16/2010 21:44	947246	10-1471	1	LANL	USE	S
per0216046a	1202029080	CWW	2/16/2010 21:54	947246	10-1471	1	LANL	USE	S
per0216047a	245797002	CWW	2/16/2010 22:04	947246	10-1471	1	LANL	USE	S
per0216048a	WCLCCV	CWW	2/16/2010 22:14			1		USE	C
per0216049a	IPB007	CWW	2/16/2010 22:24			1		USE	B
per0216050a	WCLCRI	CWW	2/16/2010 22:34			1		USE	C
per0216051a	245797003	CWW	2/16/2010 22:44	947246	10-1471	1	LANL	USE	S
per0216052a	245797004	CWW	2/16/2010 22:55	947246	10-1471	1	LANL	USE	S
per0216053a	245797005	CWW	2/16/2010 23:05	947246	10-1471	1	LANL	USE	S
per0216054a	245797006	CWW	2/16/2010 23:15	947246	10-1471	1	LANL	USE	S
per0216055a	245797007	CWW	2/16/2010 23:25	947246	10-1471	1	LANL	USE	S
per0216056a	245797008	CWW	2/16/2010 23:35	947246	10-1471	1	LANL	USE	S
per0216057a	245797009	CWW	2/16/2010 23:45	947246	10-1471	1	LANL	USE	S
per0216058a	245797010	CWW	2/16/2010 23:55	947246	10-1471	1	LANL	USE	S
per0216059a	245797011	CWW	2/17/2010 0:05	947246	10-1471	1	LANL	USE	S
per0216060a	WCLCCV	CWW	2/17/2010 0:15			1		USE	C
per0216061a	IPB008	CWW	2/17/2010 0:25			1		USE	B
per0216062a	WCLCRI	CWW	2/17/2010 0:35			1		USE	C
per0216063a	245797012	CWW	2/17/2010 0:45	947246	10-1471	1	LANL	USE	S
per0216064a	245797013	CWW	2/17/2010 0:56	947246	10-1471	1	LANL	USE	S
per0216065a	245797014	CWW	2/17/2010 1:06	947246	10-1471	1	LANL	USE	S
per0216066a	245797015	CWW	2/17/2010 1:16	947246	10-1471	1	LANL	USE	S

per0216067a	245797016	CWW	2/17/2010 1:26	947246	10-1471	1	LANL	USE	S
per0216068a	245797017	CWW	2/17/2010 1:36	947246	10-1471	1	LANL	USE	S
per0216069a	245797018	CWW	2/17/2010 1:46	947246	10-1471	1	LANL	USE	S
per0216070a	245797019	CWW	2/17/2010 1:56	947246	10-1471	1	LANL	USE	S
per0216071a	WCLCCV	CWW	2/17/2010 2:06			1		USE	C
per0216072a	IPB009	CWW	2/17/2010 2:16			1		USE	B
per0216073a	WCLCRI	CWW	2/17/2010 2:26			1		USE	C
per0216074a	1202035609	CWW	2/17/2010 2:37	950042	VARIOUS	1	LANL	USE	S
per0216075a	1202035610	CWW	2/17/2010 2:47	950042	VARIOUS	1	LANL	USE	S
per0216076a	1202035613	CWW	2/17/2010 2:57	950042	VARIOUS	1	LANL	USE	S
per0216077a	246264001	CWW	2/17/2010 3:07	950042	10-1573-1	1	LANL	USE	S
per0216078a	246269001	CWW	2/17/2010 3:17	950042	10-1548-1	1	LANL	USE	S
per0216079a	246278001	CWW	2/17/2010 3:27	950042	10-1551	1	LANL	USE	S
per0216080a	246282001	CWW	2/17/2010 3:37	950042	10-1576	1	LANL	USE	S
per0216081a	WCLCCV	CWW	2/17/2010 3:47			1		USE	C
per0216082a	IPB010	CWW	2/17/2010 3:58			1		USE	B
per0216083a	WCLCRI	CWW	2/17/2010 4:08			1		USE	C
per0216084a	246292001	CWW	2/17/2010 4:18	950042	10-1554-1	1	LANL	USE	S
per0216085a	1202035611	CWW	2/17/2010 4:28	950042	10-1554-1	1	LANL	USE	S
per0216086a	1202035612	CWW	2/17/2010 4:38	950042	10-1554-1	1	LANL	USE	S
per0216087a	246292002	CWW	2/17/2010 4:49	950042	10-1554-1	1	LANL	USE	S
per0216088a	246293002	CWW	2/17/2010 4:59	950042	10-1591	1	LANL	USE	S
per0216089a	246293004	CWW	2/17/2010 5:09	950042	10-1591	1	LANL	USE	S
per0216090a	246299001	CWW	2/17/2010 5:19	950042	10-1557	1	LANL	USE	S
per0216091a	246306001	CWW	2/17/2010 5:29	950042	10-1559-1	1	LANL	USE	S
per0216092a	WCLCCV	CWW	2/17/2010 5:39			1		USE	C
per0216093a	IPB011	CWW	2/17/2010 5:49			1		USE	B
per0216094a	WCLCRI	CWW	2/17/2010 5:59			1		USE	C
per0216095a	246313001	CWW	2/17/2010 6:09	950042	10-1561-1	1	LANL	USE	S
per0216096a	246323001	CWW	2/17/2010 6:20	950042	10-1565-1	1	LANL	USE	S
per0216097a	246334001	CWW	2/17/2010 6:30	950042	10-1568	1	LANL	USE	S
per0216098a	246436001	CWW	2/17/2010 6:40	950042	10-1621	1	LANL	USE	S
per0216099a	246448001	CWW	2/17/2010 6:50	950042	10-1627-1	1	LANL	USE	S
per0216100a	246451001	CWW	2/17/2010 7:00	950042	10-1629	1	LANL	USE	S
per0216101a	246455001	CWW	2/17/2010 7:10	950042	10-1631	1	LANL	USE	S
per0216102a	246459001	CWW	2/17/2010 7:20	950042	10-1633	1	LANL	USE	S
per0216103a	WCLCCV	CWW	2/17/2010 7:30			1		USE	C

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per0216104a	IPB012	CWW	2/17/2010 7:40		1		USE	B
per0216105a	WCLCRI	CWW	2/17/2010 7:50		1		USE	C
per0216106a	1267890 Supp	CWW	2/17/2010 8:00	SCREEN	1	GEL		S
per0216107a	1261217 H2O	CWW	2/17/2010 8:11	SCREEN	1	GEL		S
per0216108a	UCL100210-01	CWW	2/17/2010 8:21	SCREEN	1	GEL		S
per0216109a	UCL100210-02.1	CWW	2/17/2010 8:31	SCREEN	1	GEL		S

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1471

Sample Analysis

Sample ID	Client ID
245797001	RE15-10-7888
245797002	RE15-10-7890
245797003	RE15-10-7886
245797004	RE15-10-7889
245797005	RE15-10-7885
245797006	RE15-10-7882
245797007	RE15-10-7887
245797008	RE15-10-7881
245797009	RE15-10-7951
245797010	RE15-10-7950
245797011	RE15-10-7947
245797012	RE15-10-7944
245797013	RE15-10-7948
245797014	RE15-10-7941
245797015	RE15-10-7949
245797016	RE15-10-7946
245797017	RE15-10-7942
245797018	RE15-10-7945
245797019	RE15-10-7943
1202030953	Method Blank (MB) **ICP**

1202030958	Laboratory Control Sample (LCS)
1202030955	245797001(RE15-10-7888L) Serial Dilution (SD)
1202030954	245797001(RE15-10-7888D) Sample Duplicate (DUP)
1202030956	245797001(RE15-10-7888S) Matrix Spike (MS)
1202030957	245797001(RE15-10-7888SD) Matrix Spike Duplicate (MSD)
1202030959	Method Blank (MB) **ICP-MS**
1202030964	Laboratory Control Sample (LCS)
1202030961	245797001(RE15-10-7888L) Serial Dilution (SD)
1202030960	245797001(RE15-10-7888D) Sample Duplicate (DUP)
1202030962	245797001(RE15-10-7888S) Matrix Spike (MS)
1202030963	245797001(RE15-10-7888SD) Matrix Spike Duplicate (MSD)
1202030035	Method Blank (MB) **CVAA**
1202030036	Laboratory Control Sample (LCS)
1202030039	245797001(RE15-10-7888L) Serial Dilution (SD)
1202030037	245797001(RE15-10-7888D) Sample Duplicate (DUP)
1202030038	245797001(RE15-10-7888S) Matrix Spike (MS)
1202030040	245797001(RE15-10-7888SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	948065, 948067 and 947668
Prep Batch :	948064, 948066 and 947667
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exceptions of mercury and antimony, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 245797001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of barium, magnesium, potassium, nickel and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of magnesium, manganese, potassium, nickel and selenium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The sample 245797018 required a dilution for uranium in order to bring over range concentrations within the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 792395 and 792646. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 2/25/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797001 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7888 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 90.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7810000	ug/Kg		7180	21100	21100	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-36-0	Antimony	878	ug/Kg	J	349	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-38-2	Arsenic	2.52	mg/kg		0.218	1.09	1.09	2	MS	SKJ	02/12/10 23:33	100212-2	948067
7440-39-3	Barium	118000	ug/Kg	N	106	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-41-7	Beryllium	0.670	mg/kg		0.0218	0.109	0.109	2	MS	SKJ	02/17/10 15:31	100217-6	948067
7440-43-9	Cadmium	528	ug/Kg	U	106	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-70-2	Calcium	4570000	ug/Kg		8450	26400	26400	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-47-3	Chromium	7420	ug/Kg		158	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-48-4	Cobalt	8400	ug/Kg		158	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-50-8	Copper	7270	ug/Kg		317	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-89-6	Iron	12500000	ug/Kg		8450	26400	26400	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-92-1	Lead	9040	ug/Kg		264	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-95-4	Magnesium	1710000	ug/Kg	N	8980	31700	31700	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-96-5	Manganese	207000	ug/Kg	N	211	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065
7439-97-6	Mercury	36.2	ug/kg		3.97	11.7	11.7	1	AV	JXL1	02/16/10 12:24	021610S2-7	947668
7440-02-0	Nickel	7.47	mg/kg	N	0.109	0.436	0.436	2	MS	SKJ	02/17/10 15:31	100217-6	948067
7440-09-7	Potassium	1100000	ug/Kg	N	6760	26400	26400	1	P	HSC	02/17/10 11:48	021710-1	948065
7782-49-2	Selenium	0.670	mg/kg	JN	0.545	1.09	1.09	2	MS	SKJ	02/12/10 23:33	100212-2	948067
7440-22-4	Silver	528	ug/Kg	U	106	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-23-5	Sodium	392000	ug/Kg		7390	26400	26400	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-28-0	Thallium	0.163	mg/kg	J	0.0654	0.218	0.218	2	MS	SKJ	02/12/10 23:33	100212-2	948067
7440-61-1	Uranium	0.534	mg/kg		0.0144	0.0436	0.0436	2	MS	SKJ	02/14/10 02:24	100213-3	948067
7440-62-2	Vanadium	15500	ug/Kg		106	528	528	1	P	HSC	02/17/10 11:48	021710-1	948065
7440-66-6	Zinc	35000	ug/Kg		349	1060	1060	1	P	HSC	02/17/10 11:48	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.567	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.522	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.506	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797002 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7890 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 90.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7060000	ug/Kg		6970	20500	20500	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-36-0	Antimony	1840	ug/Kg		338	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-38-2	Arsenic	1.66	mg/kg		0.206	1.03	1.03	2	MS	SKJ	02/13/10 00:16	100212-2	948067
7440-39-3	Barium	80100	ug/Kg	N	102	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-41-7	Beryllium	1.29	mg/kg		0.0206	0.103	0.103	2	MS	SKJ	02/17/10 14:42	100217-6	948067
7440-43-9	Cadmium	512	ug/Kg	U	102	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-70-2	Calcium	1680000	ug/Kg		8200	25600	25600	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-47-3	Chromium	14800	ug/Kg		154	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-48-4	Cobalt	6970	ug/Kg		154	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-50-8	Copper	54600	ug/Kg		307	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-89-6	Iron	13000000	ug/Kg		8200	25600	25600	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-92-1	Lead	24500	ug/Kg		256	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-95-4	Magnesium	1260000	ug/Kg	N	8710	30700	30700	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-96-5	Manganese	217000	ug/Kg	N	205	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065
7439-97-6	Mercury	37.5	ug/kg		4.28	12.6	12.6	1	AV	JXL1	02/16/10 12:34	021610S2-7	947668
7440-02-0	Nickel	6.99	mg/kg	N	0.103	0.413	0.413	2	MS	SKJ	02/17/10 14:42	100217-6	948067
7440-09-7	Potassium	794000	ug/Kg	N	6560	25600	25600	1	P	HSC	02/17/10 13:59	021710-1	948065
7782-49-2	Selenium	0.573	mg/kg	JN	0.516	1.03	1.03	2	MS	SKJ	02/13/10 00:16	100212-2	948067
7440-22-4	Silver	512	ug/Kg	U	102	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-23-5	Sodium	176000	ug/Kg		7170	25600	25600	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-28-0	Thallium	0.206	mg/kg	U	0.0619	0.206	0.206	2	MS	SKJ	02/13/10 00:16	100212-2	948067
7440-61-1	Uranium	17.1	mg/kg		0.0136	0.0413	0.0413	2	MS	SKJ	02/14/10 03:08	100213-3	948067
7440-62-2	Vanadium	12100	ug/Kg		102	512	512	1	P	HSC	02/17/10 13:59	021710-1	948065
7440-66-6	Zinc	51900	ug/Kg		338	1020	1020	1	P	HSC	02/17/10 13:59	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.528	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.541	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.537	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797003 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7886 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 93.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1960000	ug/Kg		7250	21300	21300	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-36-0	Antimony	694	ug/Kg	J	352	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-38-2	Arsenic	0.774	mg/kg	J	0.205	1.03	1.03	2	MS	SKJ	02/13/10 00:23	100212-2	948067
7440-39-3	Barium	25200	ug/Kg	N	107	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-41-7	Beryllium	0.380	mg/kg		0.0205	0.103	0.103	2	MS	SKJ	02/17/10 14:44	100217-6	948067
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-70-2	Calcium	364000	ug/Kg		8520	26600	26600	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-47-3	Chromium	10100	ug/Kg		160	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-48-4	Cobalt	14800	ug/Kg		160	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-50-8	Copper	5920	ug/Kg		320	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-89-6	Iron	9470000	ug/Kg		8520	26600	26600	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-92-1	Lead	5130	ug/Kg		266	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-95-4	Magnesium	219000	ug/Kg	N	9060	32000	32000	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-96-5	Manganese	262000	ug/Kg	N	213	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065
7439-97-6	Mercury	4.23	ug/kg	J	3.98	11.7	11.7	1	AV	JXL1	02/16/10 12:40	021610S2-7	947668
7440-02-0	Nickel	3.98	mg/kg	N	0.103	0.411	0.411	2	MS	SKJ	02/17/10 14:44	100217-6	948067
7440-09-7	Potassium	394000	ug/Kg	N	6820	26600	26600	1	P	HSC	02/17/10 14:03	021710-1	948065
7782-49-2	Selenium	1.03	mg/kg	UN	0.513	1.03	1.03	2	MS	SKJ	02/13/10 00:23	100212-2	948067
7440-22-4	Silver	533	ug/Kg	U	107	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-23-5	Sodium	199000	ug/Kg		7460	26600	26600	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-28-0	Thallium	0.205	mg/kg	U	0.0616	0.205	0.205	2	MS	SKJ	02/13/10 00:23	100212-2	948067
7440-61-1	Uranium	1.4	mg/kg		0.0136	0.0411	0.0411	2	MS	SKJ	02/14/10 03:14	100213-3	948067
7440-62-2	Vanadium	5390	ug/Kg		107	533	533	1	P	HSC	02/17/10 14:03	021710-1	948065
7440-66-6	Zinc	37100	ug/Kg		352	1070	1070	1	P	HSC	02/17/10 14:03	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.549	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.502	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.521	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797004 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7889 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 63

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4760000	ug/Kg		10400	30700	30700	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-36-0	Antimony	5160	ug/Kg		507	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-38-2	Arsenic	1.51	mg/kg	J	0.318	1.59	1.59	2	MS	SKJ	02/13/10 00:29	100212-2	948067
7440-39-3	Barium	58200	ug/Kg	N	154	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-41-7	Beryllium	4.94	mg/kg		0.0318	0.159	0.159	2	MS	SKJ	02/17/10 14:46	100217-6	948067
7440-43-9	Cadmium	768	ug/Kg	U	154	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-70-2	Calcium	1180000	ug/Kg		12300	38400	38400	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-47-3	Chromium	8140	ug/Kg		230	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-48-4	Cobalt	6400	ug/Kg		230	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-50-8	Copper	813000	ug/Kg		461	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-89-6	Iron	11500000	ug/Kg		12300	38400	38400	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-92-1	Lead	128000	ug/Kg		384	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-95-4	Magnesium	885000	ug/Kg	N	13100	46100	46100	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-96-5	Manganese	226000	ug/Kg	N	307	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065
7439-97-6	Mercury	17.6	ug/kg	U	5.98	17.6	17.6	1	AV	JXL1	02/16/10 12:42	021610S2-7	947668
7440-02-0	Nickel	5.46	mg/kg	N	0.159	0.635	0.635	2	MS	SKJ	02/17/10 14:46	100217-6	948067
7440-09-7	Potassium	812000	ug/Kg	N	9830	38400	38400	1	P	HSC	02/17/10 14:06	021710-1	948065
7782-49-2	Selenium	1.59	mg/kg	UN	0.794	1.59	1.59	2	MS	SKJ	02/13/10 00:29	100212-2	948067
7440-22-4	Silver	768	ug/Kg	U	154	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-23-5	Sodium	77000	ug/Kg		10700	38400	38400	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-28-0	Thallium	0.318	mg/kg	U	0.0953	0.318	0.318	2	MS	SKJ	02/13/10 00:29	100212-2	948067
7440-61-1	Uranium	104	mg/kg		0.021	0.0635	0.0635	2	MS	SKJ	02/14/10 03:20	100213-3	948067
7440-62-2	Vanadium	16100	ug/Kg		154	768	768	1	P	HSC	02/17/10 14:06	021710-1	948065
7440-66-6	Zinc	57500	ug/Kg		507	1540	1540	1	P	HSC	02/17/10 14:06	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.543	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.518	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.501	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797005 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7885 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4690000	ug/Kg		9190	27000	27000	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-36-0	Antimony	1760	ug/Kg		446	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-38-2	Arsenic	2.03	mg/kg		0.286	1.43	1.43	2	MS	SKJ	02/13/10 00:35	100212-2	948067
7440-39-3	Barium	61900	ug/Kg	N	135	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-41-7	Beryllium	1.37	mg/kg		0.0286	0.143	0.143	2	MS	SKJ	02/17/10 14:48	100217-6	948067
7440-43-9	Cadmium	7980	ug/Kg		135	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-70-2	Calcium	1370000	ug/Kg		10800	33800	33800	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-47-3	Chromium	6510	ug/Kg		203	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-48-4	Cobalt	10100	ug/Kg		203	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-50-8	Copper	118000	ug/Kg		405	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-89-6	Iron	10700000	ug/Kg		10800	33800	33800	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-92-1	Lead	43800	ug/Kg		338	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-95-4	Magnesium	830000	ug/Kg	N	11500	40500	40500	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-96-5	Manganese	292000	ug/Kg	N	270	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065
7439-97-6	Mercury	12.3	ug/kg	J	5.57	16.4	16.4	1	AV	JXL1	02/16/10 12:44	021610S2-7	947668
7440-02-0	Nickel	5.31	mg/kg	N	0.143	0.572	0.572	2	MS	SKJ	02/17/10 14:48	100217-6	948067
7440-09-7	Potassium	824000	ug/Kg	N	8650	33800	33800	1	P	HSC	02/17/10 14:10	021710-1	948065
7782-49-2	Selenium	1.43	mg/kg	UN	0.716	1.43	1.43	2	MS	SKJ	02/13/10 00:35	100212-2	948067
7440-22-4	Silver	675	ug/Kg	U	135	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-23-5	Sodium	106000	ug/Kg		9460	33800	33800	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-28-0	Thallium	0.286	mg/kg	U	0.0859	0.286	0.286	2	MS	SKJ	02/13/10 00:35	100212-2	948067
7440-61-1	Uranium	39.8	mg/kg		0.0189	0.0572	0.0572	2	MS	SKJ	02/14/10 03:26	100213-3	948067
7440-62-2	Vanadium	16300	ug/Kg		135	675	675	1	P	HSC	02/17/10 14:10	021710-1	948065
7440-66-6	Zinc	72400	ug/Kg		446	1350	1350	1	P	HSC	02/17/10 14:10	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.547	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.553	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.522	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797006 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7882 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2020000	ug/Kg		7620	22400	22400	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-36-0	Antimony	968	ug/Kg	J	370	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-38-2	Arsenic	1.07	mg/kg	J	0.221	1.11	1.11	2	MS	SKJ	02/13/10 00:41	100212-2	948067
7440-39-3	Barium	21000	ug/Kg	N	112	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-41-7	Beryllium	0.248	mg/kg		0.0221	0.111	0.111	2	MS	SKJ	02/17/10 14:54	100217-6	948067
7440-43-9	Cadmium	560	ug/Kg	U	112	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-70-2	Calcium	529000	ug/Kg		8960	28000	28000	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-47-3	Chromium	25700	ug/Kg		168	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-48-4	Cobalt	6650	ug/Kg		168	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-50-8	Copper	4870	ug/Kg		336	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-89-6	Iron	8730000	ug/Kg		8960	28000	28000	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-92-1	Lead	3420	ug/Kg		280	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-95-4	Magnesium	373000	ug/Kg	N	9520	33600	33600	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-96-5	Manganese	192000	ug/Kg	N	224	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065
7439-97-6	Mercury	17.1	ug/kg		4.12	12.1	12.1	1	AV	JXL1	02/16/10 12:46	021610S2-7	947668
7440-02-0	Nickel	3.85	mg/kg	N	0.111	0.443	0.443	2	MS	SKJ	02/17/10 14:54	100217-6	948067
7440-09-7	Potassium	365000	ug/Kg	N	7170	28000	28000	1	P	HSC	02/17/10 14:13	021710-1	948065
7782-49-2	Selenium	1.11	mg/kg	UN	0.554	1.11	1.11	2	MS	SKJ	02/13/10 00:41	100212-2	948067
7440-22-4	Silver	560	ug/Kg	U	112	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-23-5	Sodium	156000	ug/Kg		7840	28000	28000	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-28-0	Thallium	0.221	mg/kg	U	0.0664	0.221	0.221	2	MS	SKJ	02/13/10 00:41	100212-2	948067
7440-61-1	Uranium	0.767	mg/kg		0.0146	0.0443	0.0443	2	MS	SKJ	02/14/10 03:32	100213-3	948067
7440-62-2	Vanadium	7350	ug/Kg		112	560	560	1	P	HSC	02/17/10 14:13	021710-1	948065
7440-66-6	Zinc	33200	ug/Kg		370	1120	1120	1	P	HSC	02/17/10 14:13	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.566	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.51	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.516	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797007 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7887 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6770000	ug/Kg		9860	29000	29000	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-36-0	Antimony	1090	ug/Kg	J	478	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-38-2	Arsenic	2.13	mg/kg		0.271	1.36	1.36	2	MS	SKJ	02/13/10 00:47	100212-2	948067
7440-39-3	Barium	61200	ug/Kg	N	145	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-41-7	Beryllium	0.753	mg/kg		0.0271	0.136	0.136	2	MS	SKJ	02/17/10 14:56	100217-6	948067
7440-43-9	Cadmium	725	ug/Kg	U	145	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-70-2	Calcium	1420000	ug/Kg		11600	36200	36200	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-47-3	Chromium	15000	ug/Kg		217	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-48-4	Cobalt	8080	ug/Kg		217	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-50-8	Copper	11900	ug/Kg		435	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-89-6	Iron	13200000	ug/Kg		11600	36200	36200	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-92-1	Lead	17600	ug/Kg		362	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-95-4	Magnesium	1420000	ug/Kg	N	12300	43500	43500	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-96-5	Manganese	230000	ug/Kg	N	290	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065
7439-97-6	Mercury	14.2	ug/kg	J	5.69	16.7	16.7	1	AV	JXL1	02/16/10 12:48	021610S2-7	947668
7440-02-0	Nickel	6.73	mg/kg	N	0.136	0.542	0.542	2	MS	SKJ	02/17/10 14:56	100217-6	948067
7440-09-7	Potassium	1220000	ug/Kg	N	9280	36200	36200	1	P	HSC	02/17/10 14:17	021710-1	948065
7782-49-2	Selenium	1.36	mg/kg	UN	0.678	1.36	1.36	2	MS	SKJ	02/13/10 00:47	100212-2	948067
7440-22-4	Silver	725	ug/Kg	U	145	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-23-5	Sodium	88400	ug/Kg		10100	36200	36200	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-28-0	Thallium	0.271	mg/kg	U	0.0813	0.271	0.271	2	MS	SKJ	02/13/10 00:47	100212-2	948067
7440-61-1	Uranium	2.54	mg/kg		0.0179	0.0542	0.0542	2	MS	SKJ	02/14/10 03:51	100213-3	948067
7440-62-2	Vanadium	25100	ug/Kg		145	725	725	1	P	HSC	02/17/10 14:17	021710-1	948065
7440-66-6	Zinc	31100	ug/Kg		478	1450	1450	1	P	HSC	02/17/10 14:17	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.535	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.515	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.551	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797008 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7881 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 63

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3450000	ug/Kg		9940	29200	29200	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-36-0	Antimony	1250	ug/Kg	J	482	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-38-2	Arsenic	1.49	mg/kg	J	0.305	1.53	1.53	2	MS	SKJ	02/13/10 01:06	100212-2	948067
7440-39-3	Barium	44600	ug/Kg	N	146	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-41-7	Beryllium	2.82	mg/kg		0.0305	0.153	0.153	2	MS	SKJ	02/17/10 14:57	100217-6	948067
7440-43-9	Cadmium	731	ug/Kg	U	146	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-70-2	Calcium	1400000	ug/Kg		11700	36500	36500	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-47-3	Chromium	13000	ug/Kg		219	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-48-4	Cobalt	2130	ug/Kg		219	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-50-8	Copper	16700	ug/Kg		438	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-89-6	Iron	9600000	ug/Kg		11700	36500	36500	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-92-1	Lead	15800	ug/Kg		365	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-95-4	Magnesium	701000	ug/Kg	N	12400	43800	43800	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-96-5	Manganese	259000	ug/Kg	N	292	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065
7439-97-6	Mercury	20.9	ug/kg		6.25	18.4	18.4	1	AV	JXL1	02/16/10 12:50	021610S2-7	947668
7440-02-0	Nickel	3.8	mg/kg	N	0.153	0.61	0.61	2	MS	SKJ	02/17/10 14:57	100217-6	948067
7440-09-7	Potassium	706000	ug/Kg	N	9350	36500	36500	1	P	HSC	02/17/10 14:20	021710-1	948065
7782-49-2	Selenium	1.53	mg/kg	UN	0.763	1.53	1.53	2	MS	SKJ	02/13/10 01:06	100212-2	948067
7440-22-4	Silver	731	ug/Kg	U	146	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-23-5	Sodium	70900	ug/Kg		10200	36500	36500	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-28-0	Thallium	0.305	mg/kg	U	0.0915	0.305	0.305	2	MS	SKJ	02/13/10 01:06	100212-2	948067
7440-61-1	Uranium	29.5	mg/kg		0.0201	0.061	0.061	2	MS	SKJ	02/14/10 03:57	100213-3	948067
7440-62-2	Vanadium	12000	ug/Kg		146	731	731	1	P	HSC	02/17/10 14:20	021710-1	948065
7440-66-6	Zinc	51600	ug/Kg		482	1460	1460	1	P	HSC	02/17/10 14:20	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.519	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.544	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.521	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797009 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7951 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1940000	ug/Kg		7960	23400	23400	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-36-0	Antimony	902	ug/Kg	J	386	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-38-2	Arsenic	1.7	mg/kg		0.233	1.17	1.17	2	MS	SKJ	02/13/10 01:12	100212-2	948067
7440-39-3	Barium	36900	ug/Kg	N	117	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-41-7	Beryllium	0.368	mg/kg		0.0233	0.117	0.117	2	MS	SKJ	02/17/10 14:59	100217-6	948067
7440-43-9	Cadmium	586	ug/Kg	U	117	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-70-2	Calcium	532000	ug/Kg		9370	29300	29300	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-47-3	Chromium	4590	ug/Kg		176	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-48-4	Cobalt	11900	ug/Kg		176	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-50-8	Copper	5030	ug/Kg		351	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-89-6	Iron	8270000	ug/Kg		9370	29300	29300	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-92-1	Lead	6440	ug/Kg		293	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-95-4	Magnesium	291000	ug/Kg	N	9950	35100	35100	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-96-5	Manganese	295000	ug/Kg	N	234	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065
7439-97-6	Mercury	14.1	ug/kg	U	4.81	14.1	14.1	1	AV	JXL1	02/16/10 12:51	021610S2-7	947668
7440-02-0	Nickel	4.3	mg/kg	N	0.117	0.467	0.467	2	MS	SKJ	02/17/10 14:59	100217-6	948067
7440-09-7	Potassium	629000	ug/Kg	N	7500	29300	29300	1	P	HSC	02/17/10 14:24	021710-1	948065
7782-49-2	Selenium	1.17	mg/kg	UN	0.583	1.17	1.17	2	MS	SKJ	02/13/10 01:12	100212-2	948067
7440-22-4	Silver	586	ug/Kg	U	117	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-23-5	Sodium	281000	ug/Kg		8200	29300	29300	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-28-0	Thallium	0.233	mg/kg	U	0.07	0.233	0.233	2	MS	SKJ	02/13/10 01:12	100212-2	948067
7440-61-1	Uranium	1.89	mg/kg		0.0154	0.0467	0.0467	2	MS	SKJ	02/14/10 04:03	100213-3	948067
7440-62-2	Vanadium	4120	ug/Kg		117	586	586	1	P	HSC	02/17/10 14:24	021710-1	948065
7440-66-6	Zinc	31700	ug/Kg		386	1170	1170	1	P	HSC	02/17/10 14:24	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.526	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.529	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.531	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797010 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7950 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8490000	ug/Kg		8410	24700	24700	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-36-0	Antimony	759	ug/Kg	J	408	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-38-2	Arsenic	2.67	mg/kg		0.246	1.23	1.23	2	MS	SKJ	02/13/10 01:18	100212-2	948067
7440-39-3	Barium	90200	ug/Kg	N	124	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-41-7	Beryllium	1.22	mg/kg		0.0246	0.123	0.123	2	MS	SKJ	02/17/10 15:01	100217-6	948067
7440-43-9	Cadmium	619	ug/Kg	U	124	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-70-2	Calcium	2710000	ug/Kg		9900	30900	30900	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-47-3	Chromium	12700	ug/Kg		186	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-48-4	Cobalt	5470	ug/Kg		186	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-50-8	Copper	13000	ug/Kg		371	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-89-6	Iron	12800000	ug/Kg		9900	30900	30900	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-92-1	Lead	11600	ug/Kg		309	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-95-4	Magnesium	1780000	ug/Kg	N	10500	37100	37100	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-96-5	Manganese	179000	ug/Kg	N	247	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065
7439-97-6	Mercury	49.5	ug/kg		4.97	14.6	14.6	1	AV	JXL1	02/16/10 12:53	021610S2-7	947668
7440-02-0	Nickel	8.79	mg/kg	N	0.123	0.493	0.493	2	MS	SKJ	02/17/10 15:01	100217-6	948067
7440-09-7	Potassium	1200000	ug/Kg	N	7920	30900	30900	1	P	HSC	02/17/10 14:27	021710-1	948065
7782-49-2	Selenium	1.23	mg/kg	UN	0.616	1.23	1.23	2	MS	SKJ	02/13/10 01:18	100212-2	948067
7440-22-4	Silver	619	ug/Kg	U	124	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-23-5	Sodium	74300	ug/Kg		8660	30900	30900	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-28-0	Thallium	0.246	mg/kg	U	0.0739	0.246	0.246	2	MS	SKJ	02/13/10 01:18	100212-2	948067
7440-61-1	Uranium	5.41	mg/kg		0.0163	0.0493	0.0493	2	MS	SKJ	02/14/10 04:09	100213-3	948067
7440-62-2	Vanadium	20100	ug/Kg		124	619	619	1	P	HSC	02/17/10 14:27	021710-1	948065
7440-66-6	Zinc	32800	ug/Kg		408	1240	1240	1	P	HSC	02/17/10 14:27	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.512	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.504	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.506	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797011 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7947 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7080000	ug/Kg		10500	30900	30900	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-36-0	Antimony	3820	ug/Kg		509	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-38-2	Arsenic	2.83	mg/kg		0.31	1.55	1.55	2	MS	SKJ	02/13/10 01:24	100212-2	948067
7440-39-3	Barium	112000	ug/Kg	N	154	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-41-7	Beryllium	3.22	mg/kg		0.031	0.155	0.155	2	MS	SKJ	02/17/10 15:07	100217-6	948067
7440-43-9	Cadmium	614	ug/Kg	J	154	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-70-2	Calcium	3340000	ug/Kg		12300	38600	38600	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-47-3	Chromium	8800	ug/Kg		231	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-48-4	Cobalt	5660	ug/Kg		231	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-50-8	Copper	143000	ug/Kg		463	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-89-6	Iron	11000000	ug/Kg		12300	38600	38600	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-92-1	Lead	121000	ug/Kg		386	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-95-4	Magnesium	1500000	ug/Kg	N	13100	46300	46300	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-96-5	Manganese	393000	ug/Kg	N	309	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065
7439-97-6	Mercury	19.3	ug/kg		5.64	16.6	16.6	1	AV	JXL1	02/16/10 12:55	021610S2-7	947668
7440-02-0	Nickel	8.85	mg/kg	N	0.155	0.62	0.62	2	MS	SKJ	02/17/10 15:07	100217-6	948067
7440-09-7	Potassium	1500000	ug/Kg	N	9880	38600	38600	1	P	HSC	02/17/10 14:38	021710-1	948065
7782-49-2	Selenium	1.55	mg/kg	UN	0.775	1.55	1.55	2	MS	SKJ	02/13/10 01:24	100212-2	948067
7440-22-4	Silver	771	ug/Kg	U	154	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-23-5	Sodium	54000	ug/Kg		10800	38600	38600	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-28-0	Thallium	0.310	mg/kg	U	0.0929	0.31	0.31	2	MS	SKJ	02/13/10 01:24	100212-2	948067
7440-61-1	Uranium	71.5	mg/kg		0.0204	0.062	0.062	2	MS	SKJ	02/14/10 04:15	100213-3	948067
7440-62-2	Vanadium	21400	ug/Kg		154	771	771	1	P	HSC	02/17/10 14:38	021710-1	948065
7440-66-6	Zinc	68700	ug/Kg		509	1540	1540	1	P	HSC	02/17/10 14:38	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.567	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.508	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.506	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797012 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7944 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 92.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3540000	ug/Kg		7260	21300	21300	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-36-0	Antimony	825	ug/Kg	J	352	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-38-2	Arsenic	1.35	mg/kg		0.211	1.05	1.05	2	MS	SKJ	02/13/10 01:30	100212-2	948067
7440-39-3	Barium	59100	ug/Kg	N	107	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-41-7	Beryllium	0.440	mg/kg		0.0211	0.105	0.105	2	MS	SKJ	02/17/10 15:09	100217-6	948067
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-70-2	Calcium	1190000	ug/Kg		8540	26700	26700	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-47-3	Chromium	25800	ug/Kg		160	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-48-4	Cobalt	9430	ug/Kg		160	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-50-8	Copper	6020	ug/Kg		320	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-89-6	Iron	9360000	ug/Kg		8540	26700	26700	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-92-1	Lead	4330	ug/Kg		267	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-95-4	Magnesium	864000	ug/Kg	N	9070	32000	32000	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-96-5	Manganese	198000	ug/Kg	N	213	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065
7439-97-6	Mercury	29.9	ug/kg		4.38	12.9	12.9	1	AV	JXL1	02/16/10 12:57	021610S2-7	947668
7440-02-0	Nickel	7.46	mg/kg	N	0.105	0.422	0.422	2	MS	SKJ	02/17/10 15:09	100217-6	948067
7440-09-7	Potassium	602000	ug/Kg	N	6830	26700	26700	1	P	HSC	02/17/10 14:42	021710-1	948065
7782-49-2	Selenium	1.05	mg/kg	UN	0.527	1.05	1.05	2	MS	SKJ	02/13/10 01:30	100212-2	948067
7440-22-4	Silver	533	ug/Kg	U	107	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-23-5	Sodium	182000	ug/Kg		7470	26700	26700	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-28-0	Thallium	0.211	mg/kg	U	0.0633	0.211	0.211	2	MS	SKJ	02/13/10 01:30	100212-2	948067
7440-61-1	Uranium	0.533	mg/kg		0.0139	0.0422	0.0422	2	MS	SKJ	02/14/10 04:34	100213-3	948067
7440-62-2	Vanadium	8640	ug/Kg		107	533	533	1	P	HSC	02/17/10 14:42	021710-1	948065
7440-66-6	Zinc	42200	ug/Kg		352	1070	1070	1	P	HSC	02/17/10 14:42	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.502	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.505	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.511	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797013 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7948 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 92.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4800000	ug/Kg		7170	21100	21100	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-36-0	Antimony	1970	ug/Kg		348	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-38-2	Arsenic	1.65	mg/kg		0.201	1	1	2	MS	SKJ	02/13/10 01:37	100212-2	948067
7440-39-3	Barium	67500	ug/Kg	N	105	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-41-7	Beryllium	0.935	mg/kg		0.0201	0.1	0.1	2	MS	SKJ	02/17/10 15:11	100217-6	948067
7440-43-9	Cadmium	527	ug/Kg	U	105	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-70-2	Calcium	1650000	ug/Kg		8430	26300	26300	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-47-3	Chromium	15300	ug/Kg		158	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-48-4	Cobalt	3610	ug/Kg		158	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-50-8	Copper	29400	ug/Kg		316	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-89-6	Iron	9520000	ug/Kg		8430	26300	26300	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-92-1	Lead	22600	ug/Kg		263	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-95-4	Magnesium	974000	ug/Kg	N	8960	31600	31600	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-96-5	Manganese	267000	ug/Kg	N	211	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065
7439-97-6	Mercury	12.4	ug/kg		4.09	12	12	1	AV	JXL1	02/16/10 13:03	021610S2-7	947668
7440-02-0	Nickel	5.45	mg/kg	N	0.1	0.401	0.401	2	MS	SKJ	02/17/10 15:11	100217-6	948067
7440-09-7	Potassium	812000	ug/Kg	N	6740	26300	26300	1	P	HSC	02/17/10 14:45	021710-1	948065
7782-49-2	Selenium	1	mg/kg	UN	0.502	1	1	2	MS	SKJ	02/13/10 01:37	100212-2	948067
7440-22-4	Silver	527	ug/Kg	U	105	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-23-5	Sodium	58800	ug/Kg		7380	26300	26300	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-28-0	Thallium	0.201	mg/kg	U	0.0602	0.201	0.201	2	MS	SKJ	02/13/10 01:37	100212-2	948067
7440-61-1	Uranium	11.8	mg/kg		0.0132	0.0401	0.0401	2	MS	SKJ	02/14/10 04:40	100213-3	948067
7440-62-2	Vanadium	16200	ug/Kg		105	527	527	1	P	HSC	02/17/10 14:45	021710-1	948065
7440-66-6	Zinc	40100	ug/Kg		348	1050	1050	1	P	HSC	02/17/10 14:45	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.542	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.515	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.541	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797014 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7941 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Rnn Date	Analytical Rnn	Analytical Batch
7429-90-5	Aluminum	4960000	ug/Kg		8720	25600	25600	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-36-0	Antimony	893	ug/Kg	J	423	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-38-2	Arsenic	1.72	mg/kg		0.245	1.22	1.22	2	MS	SKJ	02/13/10 01:55	100212-2	948067
7440-39-3	Barium	88400	ug/Kg	N	128	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-41-7	Beryllium	1.04	mg/kg		0.0245	0.122	0.122	2	MS	SKJ	02/17/10 15:12	100217-6	948067
7440-43-9	Cadmium	134	ug/Kg	J	128	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-70-2	Calcium	2010000	ug/Kg		10300	32000	32000	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-47-3	Chromium	6540	ug/Kg		192	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-48-4	Cobalt	3600	ug/Kg		192	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-50-8	Copper	16600	ug/Kg		385	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-89-6	Iron	8990000	ug/Kg		10300	32000	32000	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-92-1	Lead	24300	ug/Kg		320	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-95-4	Magnesium	1160000	ug/Kg	N	10900	38500	38500	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-96-5	Manganese	260000	ug/Kg	N	256	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065
7439-97-6	Mercury	15.6	ug/kg	U	5.31	15.6	15.6	1	AV	JXL1	02/16/10 13:05	021610S2-7	947668
7440-02-0	Nickel	4.8	mg/kg	N	0.122	0.49	0.49	2	MS	SKJ	02/17/10 15:12	100217-6	948067
7440-09-7	Potassium	1230000	ug/Kg	N	8200	32000	32000	1	P	HSC	02/17/10 14:49	021710-1	948065
7782-49-2	Selenium	1.22	mg/kg	UN	0.612	1.22	1.22	2	MS	SKJ	02/13/10 01:55	100212-2	948067
7440-22-4	Silver	641	ug/Kg	U	128	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-23-5	Sodium	38400	ug/Kg		8970	32000	32000	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-28-0	Thallium	0.245	mg/kg	U	0.0735	0.245	0.245	2	MS	SKJ	02/13/10 01:55	100212-2	948067
7440-61-1	Uranium	26.5	mg/kg		0.0162	0.049	0.049	2	MS	SKJ	02/14/10 04:46	100213-3	948067
7440-62-2	Vanadium	17000	ug/Kg		128	641	641	1	P	HSC	02/17/10 14:49	021710-1	948065
7440-66-6	Zinc	32900	ug/Kg		423	1280	1280	1	P	HSC	02/17/10 14:49	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.503	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.511	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.535	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797015 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7949 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 59

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7470000	ug/Kg		11300	33100	33100	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-36-0	Antimony	2250	ug/Kg		546	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-38-2	Arsenic	2.46	mg/kg		0.307	1.54	1.54	2	MS	SKJ	02/13/10 02:01	100212-2	948067
7440-39-3	Barium	108000	ug/Kg	N	165	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-41-7	Beryllium	1.81	mg/kg		0.0307	0.154	0.154	2	MS	SKJ	02/17/10 15:18	100217-6	948067
7440-43-9	Cadmium	419	ug/Kg	J	165	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-70-2	Calcium	2680000	ug/Kg		13200	41400	41400	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-47-3	Chromium	14500	ug/Kg		248	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-48-4	Cobalt	4650	ug/Kg		248	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-50-8	Copper	88600	ug/Kg		496	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-89-6	Iron	12100000	ug/Kg		13200	41400	41400	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-92-1	Lead	55200	ug/Kg		414	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-95-4	Magnesium	1570000	ug/Kg	N	14100	49600	49600	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-96-5	Manganese	340000	ug/Kg	N	331	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065
7439-97-6	Mercury	14.5	ug/kg	J	6.87	20.2	20.2	1	AV	JXL1	02/16/10 13:07	021610S2-7	947668
7440-02-0	Nickel	7.59	mg/kg	N	0.154	0.615	0.615	2	MS	SKJ	02/17/10 15:18	100217-6	948067
7440-09-7	Potassium	1540000	ug/Kg	N	10600	41400	41400	1	P	HSC	02/17/10 14:52	021710-1	948065
7782-49-2	Selenium	1.54	mg/kg	UN	0.769	1.54	1.54	2	MS	SKJ	02/13/10 02:01	100212-2	948067
7440-22-4	Silver	827	ug/Kg	U	165	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-23-5	Sodium	59000	ug/Kg		11600	41400	41400	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-28-0	Thallium	0.307	mg/kg	U	0.0922	0.307	0.307	2	MS	SKJ	02/13/10 02:01	100212-2	948067
7440-61-1	Uranium	48.8	mg/kg		0.0203	0.0615	0.0615	2	MS	SKJ	02/14/10 04:52	100213-3	948067
7440-62-2	Vanadium	22800	ug/Kg		165	827	827	1	P	HSC	02/17/10 14:52	021710-1	948065
7440-66-6	Zinc	63600	ug/Kg		546	1650	1650	1	P	HSC	02/17/10 14:52	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.501	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.51	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.549	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797016 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7946 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2010000	ug/Kg		6940	20400	20400	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-36-0	Antimony	420	ug/Kg	J	337	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-38-2	Arsenic	0.969	mg/kg	J	0.21	1.05	1.05	2	MS	SKJ	02/13/10 02:07	100212-2	948067
7440-39-3	Barium	28800	ug/Kg	N	102	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-41-7	Beryllium	0.322	mg/kg		0.021	0.105	0.105	2	MS	SKJ	02/17/10 15:20	100217-6	948067
7440-43-9	Cadmium	510	ug/Kg	U	102	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-70-2	Calcium	756000	ug/Kg		8160	25500	25500	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-47-3	Chromium	15800	ug/Kg		153	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-48-4	Cobalt	17100	ug/Kg		153	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-50-8	Copper	5870	ug/Kg		306	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-89-6	Iron	9610000	ug/Kg		8160	25500	25500	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-92-1	Lead	3600	ug/Kg		255	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-95-4	Magnesium	352000	ug/Kg	N	8670	30600	30600	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-96-5	Manganese	218000	ug/Kg	N	204	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065
7439-97-6	Mercury	10.8	ug/kg	J	4.29	12.6	12.6	1	AV	JXL1	02/16/10 13:09	021610S2-7	947668
7440-02-0	Nickel	4.71	mg/kg	N	0.105	0.421	0.421	2	MS	SKJ	02/17/10 15:20	100217-6	948067
7440-09-7	Potassium	412000	ug/Kg	N	6530	25500	25500	1	P	HSC	02/17/10 14:56	021710-1	948065
7782-49-2	Selenium	1.05	mg/kg	UN	0.526	1.05	1.05	2	MS	SKJ	02/13/10 02:07	100212-2	948067
7440-22-4	Silver	510	ug/Kg	U	102	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-23-5	Sodium	164000	ug/Kg		7140	25500	25500	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-28-0	Thallium	0.210	mg/kg	U	0.0631	0.21	0.21	2	MS	SKJ	02/13/10 02:07	100212-2	948067
7440-61-1	Uranium	0.879	mg/kg		0.0139	0.0421	0.0421	2	MS	SKJ	02/15/10 14:26	100215-4	948067
7440-62-2	Vanadium	6570	ug/Kg		102	510	510	1	P	HSC	02/17/10 14:56	021710-1	948065
7440-66-6	Zinc	37600	ug/Kg		337	1020	1020	1	P	HSC	02/17/10 14:56	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.518	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.534	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.518	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797017 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7942 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4850000	ug/Kg		7350	21600	21600	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-36-0	Antimony	578	ug/Kg	J	357	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-38-2	Arsenic	1.63	mg/kg		0.223	1.11	1.11	2	MS	SKJ	02/13/10 02:14	100212-2	948067
7440-39-3	Barium	63400	ug/Kg	N	108	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-41-7	Beryllium	0.591	mg/kg		0.0223	0.111	0.111	2	MS	SKJ	02/17/10 15:22	100217-6	948067
7440-43-9	Cadmium	541	ug/Kg	U	108	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-70-2	Calcium	1350000	ug/Kg		8650	27000	27000	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-47-3	Chromium	8830	ug/Kg		162	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-48-4	Cobalt	4280	ug/Kg		162	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-50-8	Copper	4070	ug/Kg		324	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-89-6	Iron	7590000	ug/Kg		8650	27000	27000	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-92-1	Lead	5720	ug/Kg		270	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-95-4	Magnesium	1030000	ug/Kg	N	9190	32400	32400	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-96-5	Manganese	188000	ug/Kg	N	216	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065
7439-97-6	Mercury	13.7	ug/kg		4.54	13.3	13.3	1	AV	JXL1	02/16/10 13:11	021610S2-7	947668
7440-02-0	Nickel	5.18	mg/kg	N	0.111	0.446	0.446	2	MS	SKJ	02/17/10 15:22	100217-6	948067
7440-09-7	Potassium	771000	ug/Kg	N	6920	27000	27000	1	P	HSC	02/17/10 14:59	021710-1	948065
7782-49-2	Selenium	1.11	mg/kg	UN	0.557	1.11	1.11	2	MS	SKJ	02/13/10 02:14	100212-2	948067
7440-22-4	Silver	541	ug/Kg	U	108	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-23-5	Sodium	101000	ug/Kg		7570	27000	27000	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-28-0	Thallium	0.223	mg/kg	U	0.0668	0.223	0.223	2	MS	SKJ	02/13/10 02:14	100212-2	948067
7440-61-1	Uranium	0.956	mg/kg		0.0147	0.0446	0.0446	2	MS	SKJ	02/15/10 14:28	100215-4	948067
7440-62-2	Vanadium	9960	ug/Kg		108	541	541	1	P	HSC	02/17/10 14:59	021710-1	948065
7440-66-6	Zinc	17200	ug/Kg		357	1080	1080	1	P	HSC	02/17/10 14:59	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.505	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.519	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.504	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797018 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7945 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 61

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5240000	ug/Kg		10500	31000	31000	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-36-0	Antimony	1500	ug/Kg	J	512	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-38-2	Arsenic	2.16	mg/kg		0.325	1.63	1.63	2	MS	SKJ	02/13/10 02:20	100212-2	948067
7440-39-3	Barium	99400	ug/Kg	N	155	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-41-7	Beryllium	1.67	mg/kg		0.0325	0.163	0.163	2	MS	SKJ	02/17/10 15:24	100217-6	948067
7440-43-9	Cadmium	258	ug/Kg	J	155	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-70-2	Calcium	3360000	ug/Kg		12400	38800	38800	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-47-3	Chromium	9840	ug/Kg		233	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-48-4	Cobalt	5370	ug/Kg		233	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-50-8	Copper	37000	ug/Kg		465	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-89-6	Iron	7940000	ug/Kg		12400	38800	38800	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-92-1	Lead	26300	ug/Kg		388	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-95-4	Magnesium	1090000	ug/Kg	N	13200	46500	46500	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-96-5	Manganese	365000	ug/Kg	N	310	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065
7439-97-6	Mercury	22	ug/kg		6.66	19.6	19.6	1	AV	JXL1	02/16/10 13:13	021610S2-7	947668
7440-02-0	Nickel	6.13	mg/kg	N	0.163	0.651	0.651	2	MS	SKJ	02/17/10 15:24	100217-6	948067
7440-09-7	Potassium	973000	ug/Kg	N	9920	38800	38800	1	P	HSC	02/17/10 15:03	021710-1	948065
7782-49-2	Selenium	1.63	mg/kg	UN	0.813	1.63	1.63	2	MS	SKJ	02/13/10 02:20	100212-2	948067
7440-22-4	Silver	278	ug/Kg	J	155	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-23-5	Sodium	76400	ug/Kg		10900	38800	38800	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-28-0	Thallium	0.325	mg/kg	U	0.0976	0.325	0.325	2	MS	SKJ	02/13/10 02:20	100212-2	948067
7440-61-1	Uranium	46.3	mg/kg		0.107	0.325	0.325	10	MS	SKJ	02/16/10 10:38	100216-5	948067
7440-62-2	Vanadium	11600	ug/Kg		155	775	775	1	P	HSC	02/17/10 15:03	021710-1	948065
7440-66-6	Zinc	47200	ug/Kg		512	1550	1550	1	P	HSC	02/17/10 15:03	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.503	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.53	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.505	g	50	mL	02/08/10	FGA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1471 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245797019 **BASIS:** Dry Weight **DATE COLLECTED** 26-JAN-10

CLIENT ID: RE15-10-7943 **LEVEL:** Low **DATE RECEIVED** 29-JAN-10

MATRIX: SOIL **%SOLIDS:** 92.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Rnn	Analytical Batch
7429-90-5	Aluminum	1320000	ug/Kg		7100	20900	20900	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-36-0	Antimony	797	ug/Kg	J	345	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-38-2	Arsenic	0.839	mg/kg	J	0.21	1.05	1.05	2	MS	SKJ	02/13/10 02:26	100212-2	948067
7440-39-3	Barium	17200	ug/Kg	N	104	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-41-7	Beryllium	0.325	mg/kg		0.021	0.105	0.105	2	MS	SKJ	02/17/10 15:26	100217-6	948067
7440-43-9	Cadmium	522	ug/Kg	U	104	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-70-2	Calcium	292000	ug/Kg		8350	26100	26100	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-47-3	Chromium	20000	ug/Kg		157	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-48-4	Cobalt	4120	ug/Kg		157	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-50-8	Copper	1730	ug/Kg		313	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-89-6	Iron	6350000	ug/Kg		8350	26100	26100	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-92-1	Lead	2480	ug/Kg		261	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-95-4	Magnesium	197000	ug/Kg	N	8870	31300	31300	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-96-5	Manganese	201000	ug/Kg	N	209	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065
7439-97-6	Mercury	16.5	ug/kg		4.17	12.3	12.3	1	AV	JXL1	02/16/10 13:15	021610S2-7	947668
7440-02-0	Nickel	5.71	mg/kg	N	0.105	0.42	0.42	2	MS	SKJ	02/17/10 15:26	100217-6	948067
7440-09-7	Potassium	355000	ug/Kg	N	6680	26100	26100	1	P	HSC	02/17/10 15:06	021710-1	948065
7782-49-2	Selenium	1.05	mg/kg	UN	0.525	1.05	1.05	2	MS	SKJ	02/13/10 02:26	100212-2	948067
7440-22-4	Silver	522	ug/Kg	U	104	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-23-5	Sodium	196000	ug/Kg		7310	26100	26100	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-28-0	Thallium	0.210	mg/kg	U	0.063	0.21	0.21	2	MS	SKJ	02/13/10 02:26	100212-2	948067
7440-61-1	Uranium	0.638	mg/kg		0.0139	0.042	0.042	2	MS	SKJ	02/15/10 14:33	100215-4	948067
7440-62-2	Vanadium	2590	ug/Kg		104	522	522	1	P	HSC	02/17/10 15:06	021710-1	948065
7440-66-6	Zinc	24300	ug/Kg		345	1040	1040	1	P	HSC	02/17/10 15:06	021710-1	948065

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947668	947667	SW846 7471A Prep	0.529	g	30	mL	02/15/10	TXB3
948065	948064	SW846 3050B	0.518	g	50	mL	02/08/10	FGA
948067	948066	SW846 3050B	0.515	g	50	mL	02/08/10	FGA

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Arsenic	47.8	ug/L	50	ug/L	95.6	90.0 – 110.0	MS	12–FEB–10 22:20	100212–2
	Selenium	47.3	ug/L	50	ug/L	94.5	90.0 – 110.0	MS	12–FEB–10 22:20	100212–2
	Thallium	47.8	ug/L	50	ug/L	95.5	90.0 – 110.0	MS	12–FEB–10 22:20	100212–2
	Uranium	53.7	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	14–FEB–10 00:58	100213–3
	Uranium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	15–FEB–10 14:06	100215–4
	Uranium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	16–FEB–10 10:23	100216–5
	Mercury	5.1	ug/L	5	ug/L	102.1	90.0 – 110.0	AV	16–FEB–10 10:31	021610S2–7
	Aluminum	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Antimony	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Barium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Copper	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Iron	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Lead	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Manganese	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Potassium	2520	ug/L	2500	ug/L	100.8	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Silver	263	ug/L	250	ug/L	105.2	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Sodium	2520	ug/L	2500	ug/L	100.7	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Vanadium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Zinc	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	17–FEB–10 10:30	021710–1
	Beryllium	47.9	ug/L	50	ug/L	95.7	90.0 – 110.0	MS	17–FEB–10 14:13	100217–6
	Nickel	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	17–FEB–10 14:13	100217–6
CCV01										
	Arsenic	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	12–FEB–10 22:50	100212–2
	Selenium	48	ug/L	50	ug/L	95.9	90.0 – 110.0	MS	12–FEB–10 22:50	100212–2
	Thallium	47.9	ug/L	50	ug/L	95.7	90.0 – 110.0	MS	12–FEB–10 22:50	100212–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Uranium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	14–FEB–10 01:29	100213–3
	Uranium	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	15–FEB–10 14:17	100215–4
	Uranium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	16–FEB–10 10:32	100216–5
	Mercury	4.8	ug/L	5	ug/L	96.1	80.0 – 120.0	AV	16–FEB–10 10:37	021610S2–7
	Aluminum	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Antimony	526	ug/L	500	ug/L	105.1	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Barium	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Cadmium	524	ug/L	500	ug/L	104.7	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Calcium	5340	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Chromium	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Cobalt	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Copper	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Iron	5440	ug/L	5000	ug/L	108.8	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Lead	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Magnesium	5510	ug/L	5000	ug/L	110.1	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Manganese	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Potassium	5480	ug/L	5000	ug/L	109.7	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Silver	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Sodium	10800	ug/L	10000	ug/L	108	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Vanadium	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Zinc	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	17–FEB–10 10:52	021710–1
	Beryllium	46.4	ug/L	50	ug/L	92.8	90.0 – 110.0	MS	17–FEB–10 14:22	100217–6
	Nickel	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	17–FEB–10 14:22	100217–6
CCV02										
	Arsenic	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	12–FEB–10 23:09	100212–2
	Selenium	47.4	ug/L	50	ug/L	94.8	90.0 – 110.0	MS	12–FEB–10 23:09	100212–2
	Thallium	49.3	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	12–FEB–10 23:09	100212–2
	Uranium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	14–FEB–10 01:47	100213–3
	Uranium	53.3	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	15–FEB–10 14:35	100215–4
	Uranium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	16–FEB–10 10:40	100216–5

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1471

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Mercury	4.78	ug/L	5	ug/L	95.5	80.0 – 120.0	AV	16-FEB-10 11:01	021610S2-7
	Aluminum	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Antimony	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Cadmium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Chromium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Cobalt	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Copper	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Iron	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Lead	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Magnesium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Manganese	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Potassium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Silver	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Sodium	10400	ug/L	10000	ug/L	103.8	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Vanadium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	17-FEB-10 11:07	021710-1
	Beryllium	47	ug/L	50	ug/L	93.9	90.0 – 110.0	MS	17-FEB-10 14:39	100217-6
	Nickel	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	17-FEB-10 14:39	100217-6
CCV03										
	Arsenic	48.9	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	13-FEB-10 00:04	100212-2
	Selenium	46.3	ug/L	50	ug/L	92.6	90.0 – 110.0	MS	13-FEB-10 00:04	100212-2
	Thallium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	13-FEB-10 00:04	100212-2
	Uranium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	14-FEB-10 02:12	100213-3
	Mercury	4.9	ug/L	5	ug/L	98.1	80.0 – 120.0	AV	16-FEB-10 11:25	021610S2-7
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Antimony	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Barium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Cadmium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	17-FEB-10 11:34	021710-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1471

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Iron	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Lead	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Potassium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Silver	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Sodium	10200	ug/L	10000	ug/L	101.5	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	17-FEB-10 11:34	021710-1
	Beryllium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	17-FEB-10 14:50	100217-6
	Nickel	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	17-FEB-10 14:50	100217-6
CCV04										
	Arsenic	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	13-FEB-10 00:53	100212-2
	Selenium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	13-FEB-10 00:53	100212-2
	Thallium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	13-FEB-10 00:53	100212-2
	Uranium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	14-FEB-10 02:55	100213-3
	Mercury	4.95	ug/L	5	ug/L	99	80.0 – 120.0	AV	16-FEB-10 11:48	021610S2-7
	Aluminum	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	17-FEB-10 12:06	021710-1
	Antimony	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	17-FEB-10 12:06	021710-1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	17-FEB-10 12:06	021710-1
	Cadmium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	17-FEB-10 12:06	021710-1
	Calcium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	17-FEB-10 12:06	021710-1
	Chromium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	17-FEB-10 12:06	021710-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	17-FEB-10 12:06	021710-1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	17-FEB-10 12:06	021710-1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	17-FEB-10 12:06	021710-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	17–FEB–10 12:06	021710–1
	Magnesium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	17–FEB–10 12:06	021710–1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	17–FEB–10 12:06	021710–1
	Potassium	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	17–FEB–10 12:06	021710–1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	17–FEB–10 12:06	021710–1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	17–FEB–10 12:06	021710–1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	17–FEB–10 12:06	021710–1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	17–FEB–10 12:06	021710–1
	Beryllium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	17–FEB–10 15:03	100217–6
	Nickel	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	17–FEB–10 15:03	100217–6
CCV05										
	Arsenic	48.2	ug/L	50	ug/L	96.4	90.0 – 110.0	MS	13–FEB–10 01:43	100212–2
	Selenium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	13–FEB–10 01:43	100212–2
	Thallium	48.8	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	13–FEB–10 01:43	100212–2
	Uranium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	14–FEB–10 03:38	100213–3
	Mercury	4.92	ug/L	5	ug/L	98.3	80.0 – 120.0	AV	16–FEB–10 12:12	021610S2–7
	Aluminum	5500	ug/L	5000	ug/L	110	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Antimony	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Barium	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Cadmium	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Calcium	5380	ug/L	5000	ug/L	107.6	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Chromium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Cobalt	525	ug/L	500	ug/L	105	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Copper	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Iron	5520	ug/L	5000	ug/L	110.4	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Lead	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Magnesium	5540	ug/L	5000	ug/L	110.8	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Manganese	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Potassium	5460	ug/L	5000	ug/L	109.2	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Silver	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	17–FEB–10 12:45	021710–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10900	ug/L	10000	ug/L	109.4	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Vanadium	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Zinc	520	ug/L	500	ug/L	104	90.0 – 110.0	P	17–FEB–10 12:45	021710–1
	Beryllium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	17–FEB–10 15:14	100217–6
	Nickel	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	17–FEB–10 15:14	100217–6
CCV06										
	Arsenic	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	13–FEB–10 02:32	100212–2
	Selenium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	13–FEB–10 02:32	100212–2
	Thallium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	13–FEB–10 02:32	100212–2
	Uranium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	14–FEB–10 04:21	100213–3
	Mercury	4.83	ug/L	5	ug/L	96.5	80.0 – 120.0	AV	16–FEB–10 12:36	021610S2–7
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Antimony	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Cadmium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Chromium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Cobalt	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Lead	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Magnesium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	17–FEB–10 13:27	021710–1
	Beryllium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	17–FEB–10 15:28	100217–6
	Nickel	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	17–FEB–10 15:28	100217–6

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV07										
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	14–FEB–10 04:59	100213–3
	Mercury	4.82	ug/L	5	ug/L	96.5	80.0 – 120.0	AV	16–FEB–10 12:59	021610S2–7
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Antimony	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Barium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Copper	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Iron	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Lead	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Magnesium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Silver	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	17–FEB–10 13:52	021710–1
	Beryllium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	17–FEB–10 15:41	100217–6
	Nickel	47.4	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	17–FEB–10 15:41	100217–6
CCV08										
	Mercury	4.85	ug/L	5	ug/L	97	80.0 – 120.0	AV	16–FEB–10 13:17	021610S2–7
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	17–FEB–10 14:31	021710–1
	Antimony	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17–FEB–10 14:31	021710–1
	Barium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	17–FEB–10 14:31	021710–1
	Cadmium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17–FEB–10 14:31	021710–1
	Calcium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	17–FEB–10 14:31	021710–1
	Chromium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	17–FEB–10 14:31	021710–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	17–FEB–10 14:31	021710–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1471

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Iron	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Lead	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Magnesium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Potassium	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Silver	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Vanadium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	17-FEB-10 14:31	021710-1
CCV09										
	Aluminum	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Antimony	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Calcium	4820	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Chromium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Cobalt	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Lead	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Magnesium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Manganese	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Potassium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Silver	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Sodium	9800	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Vanadium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	17-FEB-10 15:10	021710-1
	Zinc	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	17-FEB-10 15:10	021710-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1471

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Thallium	1.15	ug/L	1	ug/L	115	70.0 - 130.0	MS	12-FEB-10 22:32	100212-2
	Arsenic	5.42	ug/L	5	ug/L	108.3	70.0 - 130.0	MS	12-FEB-10 22:32	100212-2
	Selenium	5.98	ug/L	5	ug/L	119.6	70.0 - 130.0	MS	12-FEB-10 22:32	100212-2
	Uranium	.231	ug/L	.2	ug/L	115.5	70.0 - 130.0	MS	14-FEB-10 01:11	100213-3
	Uranium	.225	ug/L	.2	ug/L	112.5	70.0 - 130.0	MS	15-FEB-10 14:11	100215-4
	Uranium	.221	ug/L	.2	ug/L	110.5	70.0 - 130.0	MS	16-FEB-10 10:26	100216-5
	Mercury	.267	ug/L	.2	ug/L	133.5	70.0 - 130.0	AV	16-FEB-10 10:35	021610S2-7
	Nickel	2.1	ug/L	2	ug/L	105.1	70.0 - 130.0	MS	17-FEB-10 14:16	100217-6
	Beryllium	.504	ug/L	.5	ug/L	100.8	70.0 - 130.0	MS	17-FEB-10 14:16	100217-6
PQL01										
	Cobalt	4.55	ug/L	5	ug/L	91	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Copper	10.1	ug/L	10	ug/L	100.7	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Vanadium	5	ug/L	5	ug/L	100	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Iron	97.5	ug/L	100	ug/L	97.5	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Magnesium	272	ug/L	300	ug/L	90.6	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Potassium	116	ug/L	150	ug/L	77.5	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Sodium	293	ug/L	300	ug/L	97.8	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Barium	4.87	ug/L	5	ug/L	97.4	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Chromium	4.64	ug/L	5	ug/L	92.8	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Cadmium	4.93	ug/L	5	ug/L	98.6	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Antimony	14.2	ug/L	10	ug/L	142.2	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Silver	5.04	ug/L	5	ug/L	100.7	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Manganese	10.2	ug/L	10	ug/L	102.4	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Lead	9.49	ug/L	10	ug/L	94.9	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Aluminum	212	ug/L	200	ug/L	105.8	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Zinc	9.08	ug/L	10	ug/L	90.8	70.0 - 130.0	P	17-FEB-10 10:37	021710-1
	Calcium	194	ug/L	200	ug/L	96.9	70.0 - 130.0	P	17-FEB-10 10:37	021710-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1471

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-FEB-10 22:26	100212-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-FEB-10 22:26	100212-2
	Thallium	0.531	+/-1	J	0.3	1.0	SOL	MS	12-FEB-10 22:26	100212-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	14-FEB-10 01:04	100213-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	15-FEB-10 14:09	100215-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	16-FEB-10 10:25	100216-5
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	16-FEB-10 10:33	021610S2-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-FEB-10 10:34	021710-1
	Antimony	4.52	+/-10	J	3.3	10.0	SOL	P	17-FEB-10 10:34	021710-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 10:34	021710-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 10:34	021710-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 10:34	021710-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 10:34	021710-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 10:34	021710-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-FEB-10 10:34	021710-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 10:34	021710-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-FEB-10 10:34	021710-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-FEB-10 10:34	021710-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-FEB-10 10:34	021710-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-FEB-10 10:34	021710-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 10:34	021710-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-FEB-10 10:34	021710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 10:34	021710-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-FEB-10 10:34	021710-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	17-FEB-10 14:14	100217-6
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-FEB-10 14:14	100217-6
CCB01										
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	12-FEB-10 22:56	100212-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	12-FEB-10 22:56	100212-2
	Thallium	0.428	+/-1	J	0.3	1.0	SOL	MS	12-FEB-10 22:56	100212-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	14-FEB-10 01:35	100213-3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1471

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	15–FEB–10 14:20	100215–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	16–FEB–10 10:33	100216–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 10:39	021610S2–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	17–FEB–10 10:56	021710–1
	Antimony	6.71	+/–10	J	3.3	10.0	SOL	P	17–FEB–10 10:56	021710–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 10:56	021710–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 10:56	021710–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 10:56	021710–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 10:56	021710–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 10:56	021710–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	17–FEB–10 10:56	021710–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 10:56	021710–1
	Lead	5.68	+/–10	J	2.5	10.0	SOL	P	17–FEB–10 10:56	021710–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	17–FEB–10 10:56	021710–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 10:56	021710–1
	Potassium	94.28	+/–250	J	64.0	250	SOL	P	17–FEB–10 10:56	021710–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 10:56	021710–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	17–FEB–10 10:56	021710–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 10:56	021710–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 10:56	021710–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–FEB–10 14:24	100217–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–FEB–10 14:24	100217–6
CCB02										
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	12–FEB–10 23:15	100212–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	12–FEB–10 23:15	100212–2
	Thallium	0.761	+/–1	J	0.3	1.0	SOL	MS	12–FEB–10 23:15	100212–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–FEB–10 01:54	100213–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	15–FEB–10 14:37	100215–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	16–FEB–10 10:42	100216–5
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 11:03	021610S2–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	17–FEB–10 11:11	021710–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1471

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	4.21	+/–10	J	3.3	10.0	SOL	P	17–FEB–10 11:11	021710–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 11:11	021710–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 11:11	021710–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 11:11	021710–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 11:11	021710–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 11:11	021710–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	17–FEB–10 11:11	021710–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 11:11	021710–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	17–FEB–10 11:11	021710–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	17–FEB–10 11:11	021710–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 11:11	021710–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	17–FEB–10 11:11	021710–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 11:11	021710–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	17–FEB–10 11:11	021710–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 11:11	021710–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 11:11	021710–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–FEB–10 14:41	100217–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–FEB–10 14:41	100217–6
CCB03										
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–FEB–10 00:10	100212–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–FEB–10 00:10	100212–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–FEB–10 00:10	100212–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–FEB–10 02:18	100213–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 11:27	021610S2–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	17–FEB–10 11:38	021710–1
	Antimony	6.99	+/–10	J	3.3	10.0	SOL	P	17–FEB–10 11:38	021710–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 11:38	021710–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 11:38	021710–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 11:38	021710–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 11:38	021710–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 11:38	021710–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1471

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-FEB-10 11:38	021710-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 11:38	021710-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-FEB-10 11:38	021710-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-FEB-10 11:38	021710-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-FEB-10 11:38	021710-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-FEB-10 11:38	021710-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 11:38	021710-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-FEB-10 11:38	021710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 11:38	021710-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-FEB-10 11:38	021710-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	17-FEB-10 14:52	100217-6
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-FEB-10 14:52	100217-6
CCB04										
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	13-FEB-10 01:00	100212-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-FEB-10 01:00	100212-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	13-FEB-10 01:00	100212-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	14-FEB-10 03:01	100213-3
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	16-FEB-10 11:50	021610S2-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-FEB-10 12:09	021710-1
	Antimony	4.24	+/-10	J	3.3	10.0	SOL	P	17-FEB-10 12:09	021710-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 12:09	021710-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 12:09	021710-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 12:09	021710-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 12:09	021710-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 12:09	021710-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-FEB-10 12:09	021710-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 12:09	021710-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-FEB-10 12:09	021710-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-FEB-10 12:09	021710-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-FEB-10 12:09	021710-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-FEB-10 12:09	021710-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1471

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 12:09	021710–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	17–FEB–10 12:09	021710–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 12:09	021710–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 12:09	021710–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–FEB–10 15:05	100217–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–FEB–10 15:05	100217–6
CCB05										
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	13–FEB–10 01:49	100212–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	13–FEB–10 01:49	100212–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	13–FEB–10 01:49	100212–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–FEB–10 03:44	100213–3
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 12:14	021610S2–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	17–FEB–10 12:48	021710–1
	Antimony	4.07	+/–10	J	3.3	10.0	SOL	P	17–FEB–10 12:48	021710–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 12:48	021710–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 12:48	021710–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 12:48	021710–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 12:48	021710–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 12:48	021710–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	17–FEB–10 12:48	021710–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 12:48	021710–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	17–FEB–10 12:48	021710–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	17–FEB–10 12:48	021710–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 12:48	021710–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	17–FEB–10 12:48	021710–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 12:48	021710–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	17–FEB–10 12:48	021710–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 12:48	021710–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 12:48	021710–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–FEB–10 15:16	100217–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–FEB–10 15:16	100217–6

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1471

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB06										
	Arsenic	-1.17	+/-5	J	1.0	5.0	SOL	MS	13-FEB-10 02:38	100212-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	13-FEB-10 02:38	100212-2
	Thallium	-0.343	+/-1	J	0.3	1.0	SOL	MS	13-FEB-10 02:38	100212-2
	Uranium	0.171	+/-.2	J	0.066	0.2	SOL	MS	14-FEB-10 04:28	100213-3
	Mercury	-0.071	+/-.2	J	0.068	0.2	SOL	AV	16-FEB-10 12:38	021610S2-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-FEB-10 13:31	021710-1
	Antimony	7.01	+/-10	J	3.3	10.0	SOL	P	17-FEB-10 13:31	021710-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 13:31	021710-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 13:31	021710-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 13:31	021710-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 13:31	021710-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	17-FEB-10 13:31	021710-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	17-FEB-10 13:31	021710-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	17-FEB-10 13:31	021710-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	17-FEB-10 13:31	021710-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	17-FEB-10 13:31	021710-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	17-FEB-10 13:31	021710-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	17-FEB-10 13:31	021710-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 13:31	021710-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	17-FEB-10 13:31	021710-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 13:31	021710-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	17-FEB-10 13:31	021710-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	17-FEB-10 15:29	100217-6
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	17-FEB-10 15:29	100217-6
CCB07										
	Uranium	0.195	+/-.2	J	0.066	0.2	SOL	MS	14-FEB-10 05:05	100213-3
	Mercury	-0.107	+/-.2	J	0.068	0.2	SOL	AV	16-FEB-10 13:01	021610S2-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	17-FEB-10 13:56	021710-1
	Antimony	5.22	+/-10	J	3.3	10.0	SOL	P	17-FEB-10 13:56	021710-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 13:56	021710-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	17-FEB-10 13:56	021710-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1471

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 13:56	021710–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 13:56	021710–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 13:56	021710–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	17–FEB–10 13:56	021710–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 13:56	021710–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	17–FEB–10 13:56	021710–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	17–FEB–10 13:56	021710–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 13:56	021710–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	17–FEB–10 13:56	021710–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 13:56	021710–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	17–FEB–10 13:56	021710–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 13:56	021710–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 13:56	021710–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	17–FEB–10 15:43	100217–6
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	17–FEB–10 15:43	100217–6
CCB08										
	Mercury	–0.115	+/–.2	J	0.068	0.2	SOL	AV	16–FEB–10 13:19	021610S2–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	17–FEB–10 14:35	021710–1
	Antimony	5.61	+/–10	J	3.3	10.0	SOL	P	17–FEB–10 14:35	021710–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 14:35	021710–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 14:35	021710–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 14:35	021710–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 14:35	021710–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 14:35	021710–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	17–FEB–10 14:35	021710–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 14:35	021710–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	17–FEB–10 14:35	021710–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	17–FEB–10 14:35	021710–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 14:35	021710–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	17–FEB–10 14:35	021710–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 14:35	021710–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1471

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	17–FEB–10 14:35	021710–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 14:35	021710–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 14:35	021710–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	17–FEB–10 15:13	021710–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 15:13	021710–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 15:13	021710–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 15:13	021710–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 15:13	021710–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 15:13	021710–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	17–FEB–10 15:13	021710–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	17–FEB–10 15:13	021710–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	17–FEB–10 15:13	021710–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	17–FEB–10 15:13	021710–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	17–FEB–10 15:13	021710–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	17–FEB–10 15:13	021710–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	17–FEB–10 15:13	021710–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 15:13	021710–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	17–FEB–10 15:13	021710–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	17–FEB–10 15:13	021710–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	17–FEB–10 15:13	021710–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1471
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202030035								
	Mercury	–5.8	ug/kg	+/–11.7	J	AV	3.98	11.7
1202030953								
	Barium	91.6	ug/Kg	+/–458	U	P	91.6	458
	Cadmium	91.6	ug/Kg	+/–458	U	P	91.6	458
	Calcium	7330	ug/Kg	+/–22900	U	P	7330	22900
	Chromium	137	ug/Kg	+/–458	U	P	137	458
	Cobalt	137	ug/Kg	+/–458	U	P	137	458
	Copper	275	ug/Kg	+/–916	U	P	275	916
	Iron	7330	ug/Kg	+/–22900	U	P	7330	22900
	Lead	330	ug/Kg	+/–916	J	P	229	916
	Magnesium	7780	ug/Kg	+/–27500	U	P	7780	27500
	Antimony	328	ug/Kg	+/–916	J	P	302	916
	Aluminum	6230	ug/Kg	+/–18300	U	P	6230	18300
	Manganese	183	ug/Kg	+/–916	U	P	183	916
	Potassium	5860	ug/Kg	+/–22900	U	P	5860	22900
	Silver	91.6	ug/Kg	+/–458	U	P	91.6	458
	Sodium	6410	ug/Kg	+/–22900	U	P	6410	22900
	Vanadium	91.6	ug/Kg	+/–458	U	P	91.6	458
	Zinc	302	ug/Kg	+/–916	U	P	302	916
1202030959								
	Arsenic	0.193	mg/kg	+/–0.965	U	MS	0.193	0.965
	Beryllium	0.0193	mg/kg	+/–0.0965	U	MS	0.0193	0.0965
	Nickel	0.0965	mg/kg	+/–0.386	U	MS	0.0965	0.386
	Selenium	0.483	mg/kg	+/–0.965	U	MS	0.483	0.965
	Thallium	0.104	mg/kg	+/–0.193	J	MS	0.0579	0.193
	Uranium	0.0127	mg/kg	+/–0.0386	U	MS	0.0127	0.0386

METALS
-4-
Interference Check Sample

SDG No: 10-1471

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	504000	ug/L	500000	ug/L	101	80.0 – 120.0	17-FEB-10 10:40	021710-1
	Antimony	-5.45	ug/L					17-FEB-10 10:40	021710-1
	Barium	8.07	ug/L					17-FEB-10 10:40	021710-1
	Cadmium	-6.66	ug/L					17-FEB-10 10:40	021710-1
	Calcium	479000	ug/L	500000	ug/L	95.9	80.0 – 120.0	17-FEB-10 10:40	021710-1
	Chromium	-0.683	ug/L					17-FEB-10 10:40	021710-1
	Cobalt	2.76	ug/L					17-FEB-10 10:40	021710-1
	Copper	-1.56	ug/L					17-FEB-10 10:40	021710-1
	Iron	188000	ug/L	200000	ug/L	94.2	80.0 – 120.0	17-FEB-10 10:40	021710-1
	Lead	9.31	ug/L					17-FEB-10 10:40	021710-1
	Magnesium	484000	ug/L	500000	ug/L	96.9	80.0 – 120.0	17-FEB-10 10:40	021710-1
	Manganese	7.5	ug/L					17-FEB-10 10:40	021710-1
	Potassium	-24.7	ug/L					17-FEB-10 10:40	021710-1
	Silver	-7.68	ug/L					17-FEB-10 10:40	021710-1
	Sodium	21.1	ug/L					17-FEB-10 10:40	021710-1
	Vanadium	-0.761	ug/L					17-FEB-10 10:40	021710-1
	Zinc	-9.36	ug/L					17-FEB-10 10:40	021710-1
ICSAB01									
	Aluminum	507000	ug/L	500000	ug/L	101	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Antimony	496	ug/L	500	ug/L	99.1	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Barium	496	ug/L	500	ug/L	99.2	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Cadmium	452	ug/L	500	ug/L	90.5	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Calcium	482000	ug/L	500000	ug/L	96.4	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Chromium	478	ug/L	500	ug/L	95.6	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Cobalt	430	ug/L	500	ug/L	86.1	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Copper	528	ug/L	500	ug/L	106	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Iron	188000	ug/L	200000	ug/L	94.2	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Lead	477	ug/L	500	ug/L	95.5	80.0 – 120.0	17-FEB-10 10:43	021710-1
	Magnesium	487000	ug/L	500000	ug/L	97.5	80.0 – 120.0	17-FEB-10 10:43	021710-1

METALS
–4–
Interference Check Sample

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	476	ug/L	500	ug/L	95.3	80.0 – 120.0	17–FEB–10 10:43	021710–1
	Potassium	5080	ug/L	5000	ug/L	102	80.0 – 120.0	17–FEB–10 10:43	021710–1
	Silver	250	ug/L	250	ug/L	99.8	80.0 – 120.0	17–FEB–10 10:43	021710–1
	Sodium	5120	ug/L	5000	ug/L	102	80.0 – 120.0	17–FEB–10 10:43	021710–1
	Vanadium	507	ug/L	500	ug/L	101	80.0 – 120.0	17–FEB–10 10:43	021710–1
	Zinc	459	ug/L	500	ug/L	91.8	80.0 – 120.0	17–FEB–10 10:43	021710–1

METALS
-4-
Interference Check Sample

SDG No: 10-1471

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.415	ug/L					12-FEB-10 22:38	100212-2
	Selenium	0.719	ug/L					12-FEB-10 22:38	100212-2
	Thallium	0.046	ug/L					12-FEB-10 22:38	100212-2
ICSAB01									
	Arsenic	20.1	ug/L	20	ug/L	100	80.0 - 120.0	12-FEB-10 22:44	100212-2
	Selenium	19.3	ug/L	20	ug/L	96.7	80.0 - 120.0	12-FEB-10 22:44	100212-2
	Thallium	17.1	ug/L	20	ug/L	85.3	80.0 - 120.0	12-FEB-10 22:44	100212-2

METALS
–4–
Interference Check Sample

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.016	ug/L					14–FEB–10 01:17	100213–3
ICSAB01									
	Uranium	18.4	ug/L	20	ug/L	91.8	80.0 – 120.0	14–FEB–10 01:23	100213–3

METALS
–4–
Interference Check Sample

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.004	ug/L					15–FEB–10 14:13	100215–4
ICSAB01									
	Uranium	20.3	ug/L	20	ug/L	102	80.0 – 120.0	15–FEB–10 14:15	100215–4

METALS
–4–
Interference Check Sample

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.014	ug/L					16–FEB–10 10:28	100216–5
ICSAB01									
	Uranium	20.9	ug/L	20	ug/L	104	80.0 – 120.0	16–FEB–10 10:30	100216–5

METALS
–4–
Interference Check Sample

SDG No: 10–1471

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.029	ug/L					17–FEB–10 14:18	100217–6
	Nickel	4.48	ug/L					17–FEB–10 14:18	100217–6
ICSAB01									
	Beryllium	16.4	ug/L	20	ug/L	82.1	80.0 – 120.0	17–FEB–10 14:20	100217–6
	Nickel	22.2	ug/L	23.31	ug/L	95.4	80.0 – 120.0	17–FEB–10 14:20	100217–6

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1471 **Client ID** RE15–10–7888S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.7

Sample ID: 245797001 **Spike ID:** 1202030038

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	175		36.2		128	109		AV

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1471 **Client ID** RE15-10-7888SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.7

Sample ID: 245797001 **Spike ID:** 1202030040

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	157		36.2		116	105		AV

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1471 **Client ID** RE15-10-7888S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.7

Sample ID: 245797001 **Spike ID:** 1202030956

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		12300000		7810000		516000	871	N/A	P
Antimony	ug/Kg	75-125	43700		878	J	51600	83		P
Barium	ug/Kg	75-125	145000		118000		51600	52.1	N	P
Cadmium	ug/Kg	75-125	49400		106	U	51600	95.7		P
Calcium	ug/Kg		5770000		4570000		516000	232	N/A	P
Chromium	ug/Kg	75-125	60900		7420		51600	104		P
Cobalt	ug/Kg	75-125	55500		8400		51600	91.1		P
Copper	ug/Kg	75-125	65600		7270		51600	113		P
Iron	ug/Kg		14900000		12500000		516000	460	N/A	P
Lead	ug/Kg	75-125	58700		9040		51600	96.2		P
Magnesium	ug/Kg	75-125	2600000		1710000		516000	173	N	P
Manganese	ug/Kg		254000		207000		51600	91.2	N/A	P
Potassium	ug/Kg	75-125	1860000		1100000		516000	146	N	P
Silver	ug/Kg	75-125	51400		106	U	51600	99.5		P
Sodium	ug/Kg	75-125	888000		392000		516000	96.1		P
Vanadium	ug/Kg	75-125	67600		15500		51600	101		P
Zinc	ug/Kg	75-125	90800		35000		51600	108		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1471 **Client ID** RE15–10–7888SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.7

Sample ID: 245797001 **Spike ID:** 1202030957

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		13900000		7810000		522000	1160	N/A	P
Antimony	ug/Kg	75–125	43600		878	J	52200	81.8		P
Barium	ug/Kg	75–125	159000		118000		52200	77.9		P
Cadmium	ug/Kg	75–125	51500		106	U	52200	98.7		P
Calcium	ug/Kg		6090000		4570000		522000	291	N/A	P
Chromium	ug/Kg	75–125	62800		7420		52200	106		P
Cobalt	ug/Kg	75–125	59700		8400		52200	98.3		P
Copper	ug/Kg	75–125	64500		7270		52200	110		P
Iron	ug/Kg		15600000		12500000		522000	594	N/A	P
Lead	ug/Kg	75–125	62300		9040		52200	102		P
Magnesium	ug/Kg	75–125	2910000		1710000		522000	229	N	P
Manganese	ug/Kg	75–125	307000		207000		52200	193	N	P
Potassium	ug/Kg	75–125	2030000		1100000		522000	178	N	P
Silver	ug/Kg	75–125	53600		106	U	52200	103		P
Sodium	ug/Kg	75–125	969000		392000		522000	111		P
Vanadium	ug/Kg	75–125	71400		15500		52200	107		P
Zinc	ug/Kg	75–125	92200		35000		52200	109		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1471 **Client ID** RE15-10-7888S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.7

Sample ID: 245797001 **Spike ID:** 1202030962

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.29		2.52		8.63	78.5		MS
Beryllium	mg/kg	75-125	4.93		0.67		5.4	78.9		MS
Nickel	mg/kg	75-125	11.3		7.47		5.4	70.4	N	MS
Selenium	mg/kg	75-125	2.28		0.67	J	2.16	74.7	N	MS
Thallium	mg/kg	75-125	9.09		0.163	J	10.8	82.7		MS
Uranium	mg/kg	75-125	5.26		0.534		5.4	87.6		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1471 **Client ID** RE15–10–7888SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.7

Sample ID: 245797001 **Spike ID:** 1202030963

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	8.99		2.52		8.4	77		MS
Beryllium	mg/kg	75–125	4.91		0.67		5.25	80.8		MS
Nickel	mg/kg	75–125	10.7		7.47		5.25	61.8	N	MS
Selenium	mg/kg	75–125	2.19		0.67	J	2.1	72.6	N	MS
Thallium	mg/kg	75–125	9.19		0.163	J	10.5	85.9		MS
Uranium	mg/kg	75–125	5.24		0.534		5.25	89.7		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7888D

Sample ID: 245797001 **Duplicate ID:** 1202030037 **Percent Solids for Dup:** 90.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–13.2	36.2		41.2		13		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7888SD

Sample ID: 1202030038 **Duplicate ID:** 1202030040 **Percent Solids for Dup:** 90.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	175		157		10.9		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7888D

Sample ID: 245797001 **Duplicate ID:** 1202030954 **Percent Solids for Dup:** 90.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	7810000		7770000		.506		P
Antimony	ug/Kg	+/–1070	878	J	1090		21.6		P
Barium	ug/Kg	+/–20%	118000		101000		15.2		P
Cadmium	ug/Kg		106	U	107	U			P
Calcium	ug/Kg	+/–20%	4570000		5470000		17.9		P
Chromium	ug/Kg	+/–20%	7420		8010		7.69		P
Cobalt	ug/Kg	+/–20%	8400		9820		15.6		P
Copper	ug/Kg	+/–20%	7270		7360		1.19		P
Iron	ug/Kg	+/–20%	12500000		13500000		7.9		P
Lead	ug/Kg	+/–20%	9040		8520		6.01		P
Magnesium	ug/Kg	+/–20%	1710000		1770000		3.42		P
Manganese	ug/Kg	+/–20%	207000		227000		9.33		P
Potassium	ug/Kg	+/–20%	1100000		1100000		.0674		P
Silver	ug/Kg		106	U	107	U			P
Sodium	ug/Kg	+/–20%	392000		398000		1.66		P
Vanadium	ug/Kg	+/–20%	15500		15100		2.74		P
Zinc	ug/Kg	+/–20%	35000		38200		8.83		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7888SD

Sample ID: 1202030956 **Duplicate ID:** 1202030957 **Percent Solids for Dup:** 90.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	12300000		13900000		11.9		P
Antimony	ug/Kg	+/–20	43700		43600		.335		P
Barium	ug/Kg	+/–20	145000		159000		9.06		P
Cadmium	ug/Kg	+/–20	49400		51500		4.22		P
Calcium	ug/Kg	+/–20	5770000		6090000		5.45		P
Chromium	ug/Kg	+/–20	60900		62800		2.94		P
Cobalt	ug/Kg	+/–20	55500		59700		7.4		P
Copper	ug/Kg	+/–20	65600		64500		1.61		P
Iron	ug/Kg	+/–20	14900000		15600000		4.77		P
Lead	ug/Kg	+/–20	58700		62300		5.93		P
Magnesium	ug/Kg	+/–20	2600000		2910000		11		P
Manganese	ug/Kg	+/–20	254000		307000		19.2		P
Potassium	ug/Kg	+/–20	1860000		2030000		9.14		P
Silver	ug/Kg	+/–20	51400		53600		4.23		P
Sodium	ug/Kg	+/–20	888000		969000		8.79		P
Vanadium	ug/Kg	+/–20	67600		71400		5.46		P
Zinc	ug/Kg	+/–20	90800		92200		1.53		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1471

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7888D

Sample ID: 245797001 **Duplicate ID:** 1202030960 **Percent Solids for Dup:** 90.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.08	2.52		2.32		8.09		MS
Beryllium	mg/kg	+/–20%	0.67		0.716		6.69		MS
Nickel	mg/kg	+/–20%	7.47		7.34		1.85		MS
Selenium	mg/kg	+/–1.08	0.67	J	0.705	J	5.07		MS
Thallium	mg/kg		0.163	J	0.0647	U	200		MS
Uranium	mg/kg	+/–20%	0.534		0.511		4.26		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1471

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7888SD

Sample ID: 1202030962 **Duplicate ID:** 1202030963 **Percent Solids for Dup:** 90.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	9.29		8.99		3.29		MS
Beryllium	mg/kg	+/-20	4.93		4.91		.293		MS
Nickel	mg/kg	+/-20	11.3		10.7		5.02		MS
Selenium	mg/kg	+/-20	2.28		2.19		3.9		MS
Thallium	mg/kg	+/-20	9.09		9.19		1.11		MS
Uranium	mg/kg	+/-20	5.26		5.24		.306		MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1471

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030036								
	Mercury	ug/kg	5150	5430		105	71.6-128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1471

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030958								
	Aluminum	ug/Kg	10500000	7990000		76.1	56–144	P
	Antimony	ug/Kg	173000	131000		75.5	71–130	P
	Barium	ug/Kg	198000	186000		94.2	80–120	P
	Cadmium	ug/Kg	60700	55400		91.2	81–120	P
	Calcium	ug/Kg	9870000	8990000		91.1	83–117	P
	Chromium	ug/Kg	236000	228000		96.7	80–120	P
	Cobalt	ug/Kg	91200	87700		96.1	81–120	P
	Copper	ug/Kg	174000	170000		97.7	81–118	P
	Iron	ug/Kg	18000000	17200000		95.5	51–149	P
	Lead	ug/Kg	86000	77500		90.1	79–121	P
	Magnesium	ug/Kg	4000000	3620000		90.6	79–122	P
	Manganese	ug/Kg	558000	516000		92.4	81–119	P
	Potassium	ug/Kg	4300000	3770000		87.7	74–127	P
	Silver	ug/Kg	30100	28900		96.1	66–134	P
	Sodium	ug/Kg	1020000	942000		92.4	74–127	P
	Vanadium	ug/Kg	115000	116000		101	79–121	P
	Zinc	ug/Kg	594000	548000		92.2	80–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1471

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030964								
	Arsenic	mg/kg	104	102		98.3	78–123	MS
	Beryllium	mg/kg	77.6	67.4		86.9	84–116	MS
	Nickel	mg/kg	134	129		96.3	78–123	MS
	Selenium	mg/kg	286	269		93.9	77–123	MS
	Thallium	mg/kg	121	118		97.8	78–122	MS
	Uranium	mg/kg	2.13	1.68		79	73–127	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1471 **Client ID** RE15-10-7888L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245797001 **Serial Dilution ID:** 1202030039

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.62		.34	U	100			AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1471 **Client ID** RE15-10-7888L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245797001 **Serial Dilution ID:** 1202030955

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	73900		78500		6.22		10	P
Antimony	8.31	J	16.5	U	100			P
Barium	1120		1150		2.68		10	P
Cadmium	1	U	5	U				P
Calcium	43300		45700		5.43		10	P
Chromium	70.2		73		3.99			P
Cobalt	79.5		78		1.89		10	P
Copper	68.8		69		.291			P
Iron	118000		128000		8.05		10	P
Lead	85.6		90		5.14			P
Magnesium	16200		17300		6.48		10	P
Manganese	1960		2000		2.04		10	P
Potassium	10400		11100		6.25		10	P
Silver	1	U	5	U				P
Sodium	3710		3940		6.2		10	P
Vanadium	146		151		3.42		10	P
Zinc	332		338		1.66		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1471 **Client ID** RE15–10–7888L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245797001 **Serial Dilution ID:** 1202030961

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	11.6		7.35	J	36.6			MS
Beryllium	3.07		3.27		6.35			MS
Nickel	34.3		38.4		11.8			MS
Selenium	3.07	J	12.5	U	100			MS
Thallium	.747	J	1.5	U	100			MS
Uranium	2.45		2.65		7.96			MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1471 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948064							
1202030953	MB for batch 948064	MB	S	08-FEB-10	.546g	50mL	
1202030958	LCS for batch 948064	LCS	S	08-FEB-10	.521g	50mL	
1202030956	RE15-10-7888S	MS	S	08-FEB-10	.534g	50mL	
1202030957	RE15-10-7888SD	MSD	S	08-FEB-10	.528g	50mL	
1202030954	RE15-10-7888D	DUP	S	08-FEB-10	.515g	50mL	
245797001	RE15-10-7888	SAMPLE	S	08-FEB-10	.522g	50mL	
245797002	RE15-10-7890	SAMPLE	S	08-FEB-10	.541g	50mL	
245797003	RE15-10-7886	SAMPLE	S	08-FEB-10	.502g	50mL	
245797004	RE15-10-7889	SAMPLE	S	08-FEB-10	.518g	50mL	
245797005	RE15-10-7885	SAMPLE	S	08-FEB-10	.553g	50mL	
245797006	RE15-10-7882	SAMPLE	S	08-FEB-10	.51g	50mL	
245797007	RE15-10-7887	SAMPLE	S	08-FEB-10	.515g	50mL	
245797008	RE15-10-7881	SAMPLE	S	08-FEB-10	.544g	50mL	
245797009	RE15-10-7951	SAMPLE	S	08-FEB-10	.529g	50mL	
245797010	RE15-10-7950	SAMPLE	S	08-FEB-10	.504g	50mL	
245797011	RE15-10-7947	SAMPLE	S	08-FEB-10	.508g	50mL	
245797012	RE15-10-7944	SAMPLE	S	08-FEB-10	.505g	50mL	
245797013	RE15-10-7948	SAMPLE	S	08-FEB-10	.515g	50mL	
245797014	RE15-10-7941	SAMPLE	S	08-FEB-10	.511g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1471 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245797015	RE15–10–7949	SAMPLE	S	08–FEB–10	.51g	50mL	
245797016	RE15–10–7946	SAMPLE	S	08–FEB–10	.534g	50mL	
245797017	RE15–10–7942	SAMPLE	S	08–FEB–10	.519g	50mL	
245797018	RE15–10–7945	SAMPLE	S	08–FEB–10	.53g	50mL	
245797019	RE15–10–7943	SAMPLE	S	08–FEB–10	.518g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1471 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948066						
1202030959	MB for batch 948066	MB	S	08–FEB–10	.518g	50mL	
1202030964	LCS for batch 948066	LCS	S	08–FEB–10	.512g	50mL	
1202030962	RE15–10–7888S	MS	S	08–FEB–10	.511g	50mL	
1202030963	RE15–10–7888SD	MSD	S	08–FEB–10	.525g	50mL	
1202030960	RE15–10–7888D	DUP	S	08–FEB–10	.511g	50mL	
245797001	RE15–10–7888	SAMPLE	S	08–FEB–10	.506g	50mL	
245797002	RE15–10–7890	SAMPLE	S	08–FEB–10	.537g	50mL	
245797003	RE15–10–7886	SAMPLE	S	08–FEB–10	.521g	50mL	
245797004	RE15–10–7889	SAMPLE	S	08–FEB–10	.501g	50mL	
245797005	RE15–10–7885	SAMPLE	S	08–FEB–10	.522g	50mL	
245797006	RE15–10–7882	SAMPLE	S	08–FEB–10	.516g	50mL	
245797007	RE15–10–7887	SAMPLE	S	08–FEB–10	.551g	50mL	
245797008	RE15–10–7881	SAMPLE	S	08–FEB–10	.521g	50mL	
245797009	RE15–10–7951	SAMPLE	S	08–FEB–10	.531g	50mL	
245797010	RE15–10–7950	SAMPLE	S	08–FEB–10	.506g	50mL	
245797011	RE15–10–7947	SAMPLE	S	08–FEB–10	.506g	50mL	
245797012	RE15–10–7944	SAMPLE	S	08–FEB–10	.511g	50mL	
245797013	RE15–10–7948	SAMPLE	S	08–FEB–10	.541g	50mL	
245797014	RE15–10–7941	SAMPLE	S	08–FEB–10	.535g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1471 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245797015	RE15–10–7949	SAMPLE	S	08–FEB–10	.549g	50mL	
245797016	RE15–10–7946	SAMPLE	S	08–FEB–10	.518g	50mL	
245797017	RE15–10–7942	SAMPLE	S	08–FEB–10	.504g	50mL	
245797018	RE15–10–7945	SAMPLE	S	08–FEB–10	.505g	50mL	
245797019	RE15–10–7943	SAMPLE	S	08–FEB–10	.515g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1471 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 947667							
1202030035	MB for batch 947667	MB	S	15–FEB–10	.513g	30mL	
1202030036	LCS for batch 947667	LCS	S	15–FEB–10	.2g	30mL	
1202030038	RE15–10–7888S	MS	S	15–FEB–10	.516g	30mL	
1202030040	RE15–10–7888SD	MSD	S	15–FEB–10	.572g	30mL	
1202030037	RE15–10–7888D	DUP	S	15–FEB–10	.5g	30mL	
245797001	RE15–10–7888	SAMPLE	S	15–FEB–10	.567g	30mL	
245797002	RE15–10–7890	SAMPLE	S	15–FEB–10	.528g	30mL	
245797003	RE15–10–7886	SAMPLE	S	15–FEB–10	.549g	30mL	
245797004	RE15–10–7889	SAMPLE	S	15–FEB–10	.543g	30mL	
245797005	RE15–10–7885	SAMPLE	S	15–FEB–10	.547g	30mL	
245797006	RE15–10–7882	SAMPLE	S	15–FEB–10	.566g	30mL	
245797007	RE15–10–7887	SAMPLE	S	15–FEB–10	.535g	30mL	
245797008	RE15–10–7881	SAMPLE	S	15–FEB–10	.519g	30mL	
245797009	RE15–10–7951	SAMPLE	S	15–FEB–10	.526g	30mL	
245797010	RE15–10–7950	SAMPLE	S	15–FEB–10	.512g	30mL	
245797011	RE15–10–7947	SAMPLE	S	15–FEB–10	.567g	30mL	
245797012	RE15–10–7944	SAMPLE	S	15–FEB–10	.502g	30mL	
245797013	RE15–10–7948	SAMPLE	S	15–FEB–10	.542g	30mL	
245797014	RE15–10–7941	SAMPLE	S	15–FEB–10	.503g	30mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1471 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245797015	RE15-10-7949	SAMPLE	S	15-FEB-10	.501g	30mL	
245797016	RE15-10-7946	SAMPLE	S	15-FEB-10	.518g	30mL	
245797017	RE15-10-7942	SAMPLE	S	15-FEB-10	.505g	30mL	
245797018	RE15-10-7945	SAMPLE	S	15-FEB-10	.503g	30mL	
245797019	RE15-10-7943	SAMPLE	S	15-FEB-10	.529g	30mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 16-FEB-10 **End Date:** 16-FEB-10

Client Sdg: 10-1471
Method AV
Data File: 021610S2-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:19															X									
S0.2	1	10:21															X									
S0.5	1	10:23															X									
S2.0	1	10:25															X									
S5.0	1	10:27															X									
S10	1	10:29															X									
ICV01	1	10:31															X									
ICB01	1	10:33															X									
CRDL01	1	10:35															X									
CCV01	1	10:37															X									
CCB01	1	10:39															X									
ZZZZZZ	1	10:41																								
ZZZZZZ	10	10:43																								
ZZZZZZ	1	10:45																								
ZZZZZZ	1	10:47																								
ZZZZZZ	1	10:49																								
ZZZZZZ	1	10:51																								
ZZZZZZ	5	10:53																								
ZZZZZZ	1	10:55																								
ZZZZZZ	1	10:57																								
ZZZZZZ	1	10:59																								
CCV02	1	11:01															X									
CCB02	1	11:03															X									
ZZZZZZ	1	11:05																								
ZZZZZZ	1	11:07																								
ZZZZZZ	1	11:09																								
ZZZZZZ	1	11:11																								
ZZZZZZ	1	11:13																								
ZZZZZZ	1	11:15																								
ZZZZZZ	1	11:17																								
ZZZZZZ	1	11:19																								
ZZZZZZ	1	11:21																								
ZZZZZZ	1	11:23																								
CCV03	1	11:25															X									
CCB03	1	11:27															X									
ZZZZZZ	1	11:29																								
ZZZZZZ	10	11:31																								
ZZZZZZ	1	11:33																								
ZZZZZZ	1	11:35																								
ZZZZZZ	1	11:37																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	11:39																								
ZZZZZZ	5	11:41																								
ZZZZZZ	1	11:42																								
ZZZZZZ	1	11:44																								
ZZZZZZ	1	11:46																								
CCV04	1	11:48														X										
CCB04	1	11:50														X										
ZZZZZZ	1	11:52																								
ZZZZZZ	1	11:54																								
ZZZZZZ	1	11:56																								
ZZZZZZ	1	11:58																								
ZZZZZZ	1	12:00																								
ZZZZZZ	1	12:02																								
ZZZZZZ	1	12:04																								
ZZZZZZ	1	12:06																								
ZZZZZZ	1	12:08																								
ZZZZZZ	1	12:10																								
CCV05	1	12:12														X										
CCB05	1	12:14														X										
ZZZZZZ	1	12:16																								
ZZZZZZ	1	12:18																								
1202030035	1	12:20														X										
1202030036	10	12:22														X										
245797001	1	12:24														X										
1202030037	1	12:26														X										
1202030038	1	12:28														X										
1202030040	1	12:30														X										
1202030039	5	12:32														X										
245797002	1	12:34														X										
CCV06	1	12:36														X										
CCB06	1	12:38														X										
245797003	1	12:40														X										
245797004	1	12:42														X										
245797005	1	12:44														X										
245797006	1	12:46														X										
245797007	1	12:48														X										
245797008	1	12:50														X										
245797009	1	12:51														X										
245797010	1	12:53														X										
245797011	1	12:55														X										

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
245797012	1	12:57															X									
CCV07	1	12:59															X									
CCB07	1	13:01															X									
245797013	1	13:03															X									
245797014	1	13:05															X									
245797015	1	13:07															X									
245797016	1	13:09															X									
245797017	1	13:11															X									
245797018	1	13:13															X									
245797019	1	13:15															X									
CCV08	1	13:17															X									
CCB08	1	13:19															X									

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 12–FEB–10 **End Date:** 13–FEB–10

Client Sdg: 10–1471
Method MS
Data File: 100212–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	22:01			X															X			X			
S10	1	22:07			X															X			X			
S100	1	22:13			X															X			X			
ICV01	1	22:20			X															X			X			
ICB01	1	22:26			X															X			X			
CRDL01	1	22:32			X															X			X			
ICSA01	1	22:38			X															X			X			
ICSAB01	1	22:44			X															X			X			
CCV01	1	22:50			X															X			X			
CCB01	1	22:56			X															X			X			
LR01	1	23:03			X															X			X			
CCV02	1	23:09			X															X			X			
CCB02	1	23:15			X															X			X			
1202030959	2	23:21			X															X			X			
1202030964	40	23:27			X															X			X			
245797001	2	23:33			X															X			X			
1202030960	2	23:39			X															X			X			
1202030962	2	23:46			X															X			X			
1202030963	2	23:52			X															X			X			
1202030961	10	23:58			X															X			X			
CCV03	1	00:04			X															X			X			
CCB03	1	00:10			X															X			X			
245797002	2	00:16			X															X			X			
245797003	2	00:23			X															X			X			
245797004	2	00:29			X															X			X			
245797005	2	00:35			X															X			X			
245797006	2	00:41			X															X			X			
245797007	2	00:47			X															X			X			
CCV04	1	00:53			X															X			X			
CCB04	1	01:00			X															X			X			
245797008	2	01:06			X															X			X			
245797009	2	01:12			X															X			X			
245797010	2	01:18			X															X			X			
245797011	2	01:24			X															X			X			
245797012	2	01:30			X															X			X			
245797013	2	01:37			X															X			X			
CCV05	1	01:43			X															X			X			
CCB05	1	01:49			X															X			X			
245797014	2	01:55			X															X			X			
245797015	2	02:01			X															X			X			

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
245797016	2	02:07			X														X			X			
245797017	2	02:14			X														X			X			
245797018	2	02:20			X														X			X			
245797019	2	02:26			X														X			X			
CCV06	1	02:32			X														X			X			
CCB06	1	02:38			X														X			X			

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 14–FEB–10 **End Date:** 14–FEB–10

Client Sdg: 10–1471
Method MS
Data File: 100213–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:40																						X		
S10	1	00:46																						X		
S100	1	00:52																						X		
ICV01	1	00:58																						X		
ICB01	1	01:04																						X		
CRDL01	1	01:11																						X		
ICSA01	1	01:17																						X		
ICSAB01	1	01:23																						X		
CCV01	1	01:29																						X		
CCB01	1	01:35																						X		
LR01	1	01:41																						X		
CCV02	1	01:47																						X		
CCB02	1	01:54																						X		
1202030959	2	02:00																						X		
1202030964	40	02:06																						X		
CCV03	1	02:12																						X		
CCB03	1	02:18																						X		
245797001	2	02:24																						X		
1202030960	2	02:31																						X		
1202030962	2	02:37																						X		
1202030963	2	02:43																						X		
1202030961	10	02:49																						X		
CCV04	1	02:55																						X		
CCB04	1	03:01																						X		
245797002	2	03:08																						X		
245797003	2	03:14																						X		
245797004	2	03:20																						X		
245797005	2	03:26																						X		
245797006	2	03:32																						X		
CCV05	1	03:38																						X		
CCB05	1	03:44																						X		
245797007	2	03:51																						X		
245797008	2	03:57																						X		
245797009	2	04:03																						X		
245797010	2	04:09																						X		
245797011	2	04:15																						X		
CCV06	1	04:21																						X		
CCB06	1	04:28																						X		
245797012	2	04:34																						X		
245797013	2	04:40																						X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
245797014	2	04:46																					X		
245797015	2	04:52																					X		
CCV07	1	04:59																					X		
CCB07	1	05:05																					X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 15–FEB–10 **End Date:** 15–FEB–10

Client Sdg: 10–1471
Method MS
Data File: 100215–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:00																						X		
S10	1	14:02																						X		
S100	1	14:04																						X		
ICV01	1	14:06																						X		
ICB01	1	14:09																						X		
CRDL01	1	14:11																						X		
ICSA01	1	14:13																						X		
ICSAB01	1	14:15																						X		
CCV01	1	14:17																						X		
CCB01	1	14:20																						X		
ZZZZZZ	2	14:22																								
ZZZZZZ	40	14:24																								
245797016	2	14:26																						X		
245797017	2	14:28																						X		
ZZZZZZ	2	14:31																								
245797019	2	14:33																						X		
CCV02	1	14:35																						X		
CCB02	1	14:37																						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 16–FEB–10 **End Date:** 16–FEB–10

Client Sdg: 10–1471
Method MS
Data File: 100216–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:18																						X		
S10	1	10:20																						X		
S100	1	10:21																						X		
ICV01	1	10:23																						X		
ICB01	1	10:25																						X		
CRDL01	1	10:26																						X		
ICSA01	1	10:28																						X		
ICSAB01	1	10:30																						X		
CCV01	1	10:32																						X		
CCB01	1	10:33																						X		
ZZZZZZ	2	10:35																								
ZZZZZZ	40	10:37																								
245797018	10	10:38																						X		
CCV02	1	10:40																						X		
CCB02	1	10:42																						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 17–FEB–10 **End Date:** 17–FEB–10

Client Sdg: 10–1471
Method MS
Data File: 100217–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:07					X											X								
S10	1	14:09					X											X								
S100	1	14:11					X											X								
ICV01	1	14:13					X											X								
ICB01	1	14:14					X											X								
CRDL01	1	14:16					X											X								
ICSA01	1	14:18					X											X								
ICSAB01	1	14:20					X											X								
CCV01	1	14:22					X											X								
CCB01	1	14:24					X											X								
1202030959	2	14:26					X											X								
1202030964	40	14:27					X											X								
ZZZZZZ	2	14:29																								
ZZZZZZ	2	14:31																								
ZZZZZZ	2	14:33																								
ZZZZZZ	2	14:35																								
ZZZZZZ	10	14:37																								
CCV02	1	14:39					X											X								
CCB02	1	14:41					X											X								
245797002	2	14:42					X											X								
245797003	2	14:44					X											X								
245797004	2	14:46					X											X								
245797005	2	14:48					X											X								
CCV03	1	14:50					X											X								
CCB03	1	14:52					X											X								
245797006	2	14:54					X											X								
245797007	2	14:56					X											X								
245797008	2	14:57					X											X								
245797009	2	14:59					X											X								
245797010	2	15:01					X											X								
CCV04	1	15:03					X											X								
CCB04	1	15:05					X											X								
245797011	2	15:07					X											X								
245797012	2	15:09					X											X								
245797013	2	15:11					X											X								
245797014	2	15:12					X											X								
CCV05	1	15:14					X											X								
CCB05	1	15:16					X											X								
245797015	2	15:18					X											X								
245797016	2	15:20					X											X								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
245797017	2	15:22					X											X								
245797018	2	15:24					X											X								
245797019	2	15:26					X											X								
CCV06	1	15:28					X											X								
CCB06	1	15:29					X											X								
245797001	2	15:31					X											X								
1202030960	2	15:33					X											X								
1202030962	2	15:35					X											X								
1202030963	2	15:37					X											X								
1202030961	10	15:39					X											X								
CCV07	1	15:41					X											X								
CCB07	1	15:43					X											X								

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 17-FEB-10 **End Date:** 17-FEB-10

Client Sdg: 10-1471
Method P
Data File: 021710-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	10:18		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	10:21	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	10:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	10:28	X						X				X		X							X				
ICV01	1	10:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	10:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	10:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	10:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	10:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	10:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	10:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	10:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	10:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	11:00																								
ZZZZZZ	1	11:04																								
CCV02	1	11:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	11:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV03	1	11:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	11:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202030953	1	11:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202030958	1	11:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797001	1	11:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202030954	1	11:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202030956	1	11:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202030957	1	11:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202030955	5	12:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV04	1	12:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	12:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:16																								
ZZZZZZ	1	12:20																								
ZZZZZZ	1	12:23																								
ZZZZZZ	1	12:27																								
ZZZZZZ	1	12:30																								
ZZZZZZ	1	12:34																								
ZZZZZZ	1	12:37																								
ZZZZZZ	1	12:41																								
CCV05	1	12:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	12:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	12:52																						
ZZZZZZ	1	12:55																						
ZZZZZZ	1	12:59																						
ZZZZZZ	1	13:02																						
ZZZZZZ	1	13:06																						
ZZZZZZ	1	13:09																						
ZZZZZZ	1	13:13																						
ZZZZZZ	1	13:16																						
ZZZZZZ	1	13:20																						
ZZZZZZ	1	13:24																						
CCV06	1	13:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	13:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	13:34																								
CCV07	1	13:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	13:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797002	1	13:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797003	1	14:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797004	1	14:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797005	1	14:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797006	1	14:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797007	1	14:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797008	1	14:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797009	1	14:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797010	1	14:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV08	1	14:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	14:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797011	1	14:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797012	1	14:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797013	1	14:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797014	1	14:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797015	1	14:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797016	1	14:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797017	1	14:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797018	1	15:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245797019	1	15:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV09	1	15:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	15:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1471

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1471

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1471

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1471
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1471
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1471
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL | GEL Job No: 10-1471

Contract: LANL01004

Instrument: OPTIMA1 | Effective Dates: 01-FEB-10

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1471
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1471
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1471

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
–12–
Linear Ranges

SDG NO. 10–1471

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Aluminum	20	500000	ug/L	01–FEB–10

Raw Data

Analysis Begun

Start Time: 2/17/2010 10:15:17 **Plasma On Time:** 2/8/2010 03:37:33
Logged In Analyst: optima **Technique:** ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021710B.SIF
Batch ID:
Results Data Set: 021710
Results Library: c:\pe\optima1\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved:** 2/17/2010 07:57:13
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location:** 8
Sample ID: S0 **Date Collected:** 2/17/2010 10:15:19
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	58002.7	58002.7	99.9	%	10:15:52
1	Al 396.153Radial†	-25.9	-26.0	[0.00]	µg/L	10:15:52
1	Ca 317.933Radial†	199.4	199.5	[0.00]	µg/L	10:16:12
1	Fe 238.204 Radial†	17.4	17.4	[0.00]	µg/L	10:16:12

1	K 766.490 Radial†	211.1	211.2	[0.00]	µg/L	10:15:52
1	Mg 279.077 IEC†	13.3	13.3	[0.00]	µg/L	10:16:12
1	Na 589.592 Radial†	596.3	596.7	[0.00]	µg/L	10:15:52
1	Sr 421.552†	61.9	62.0	[0.00]	µg/L	10:15:52
1	Sc 361.383	2054122.2	2054122.2	100.48	%	10:17:10
1	Y 371.029	1411313.0	1411313.0	100.45	%	10:17:10
1	Ag 328.068†	-520.0	-517.6	[0.00]	µg/L	10:17:15
1	As 188.979†	-1.0	-1.0	[0.00]	µg/L	10:17:36
1	B 249.677†	304.8	303.3	[0.00]	µg/L	10:17:36
1	Ba 233.527†	-18.1	-18.0	[0.00]	µg/L	10:17:36
1	Be 313.107†	-3001.9	-2987.7	[0.00]	µg/L	10:17:15
1	Cd 226.502†	-142.2	-141.5	[0.00]	µg/L	10:17:36
1	Co 228.616†	-3.3	-3.3	[0.00]	µg/L	10:17:36
1	Cr 267.716†	-48.2	-47.9	[0.00]	µg/L	10:17:15
1	Cu 324.752†	2526.5	2514.5	[0.00]	µg/L	10:17:15
1	Mn 257.610†	-225.5	-224.4	[0.00]	µg/L	10:17:36
1	Mo 202.031†	-4.6	-4.6	[0.00]	µg/L	10:17:36
1	Ni 231.604†	311.3	309.8	[0.00]	µg/L	10:17:36
1	P 214.914†	24.9	24.8	[0.00]	µg/L	10:17:36
1	Pb 220.353†	97.7	97.2	[0.00]	µg/L	10:17:36
1	S 181.975 Axial†	13.5	13.5	[0.00]	µg/L	10:17:36
1	Sb 206.836†	19.1	19.0	[0.00]	µg/L	10:17:36
1	Se 196.026†	20.7	20.6	[0.00]	µg/L	10:17:36
1	SiO2†	1333.2	1326.8	[0.00]	µg/L	10:17:15
1	Si 251.611†	308.7	307.3	[0.00]	µg/L	10:17:36
1	Sn 189.927†	4.2	4.2	[0.00]	µg/L	10:17:36
1	Ti 334.940†	138.1	137.5	[0.00]	µg/L	10:17:15
1	Tl 190.801†	-22.4	-22.3	[0.00]	µg/L	10:17:36
1	U 409.014†	-29.4	-29.3	[0.00]	µg/L	10:17:15
1	V 292.402†	-4.3	-4.3	[0.00]	µg/L	10:17:15
1	Zn 213.857†	515.3	512.8	[0.00]	µg/L	10:17:36
2	Sc RADIAL	58114.3	58114.3	100	%	10:16:17
2	Al 396.153Radial†	-20.7	-20.6	[0.00]	µg/L	10:16:17
2	Ca 317.933Radial†	193.9	193.7	[0.00]	µg/L	10:16:37
2	Fe 238.204 Radial†	16.8	16.8	[0.00]	µg/L	10:16:37
2	K 766.490 Radial†	179.7	179.5	[0.00]	µg/L	10:16:17
2	Mg 279.077 IEC†	13.5	13.5	[0.00]	µg/L	10:16:37
2	Na 589.592 Radial†	548.6	547.9	[0.00]	µg/L	10:16:17
2	Sr 421.552†	31.2	31.1	[0.00]	µg/L	10:16:17
2	Sc 361.383	2038625.4	2038625.4	99.718	%	10:17:41
2	Y 371.029	1401348.0	1401348.0	99.742	%	10:17:41
2	Ag 328.068†	-537.7	-539.2	[0.00]	µg/L	10:17:47
2	As 188.979†	5.1	5.1	[0.00]	µg/L	10:18:07
2	B 249.677†	286.3	287.1	[0.00]	µg/L	10:18:07
2	Ba 233.527†	-19.0	-19.1	[0.00]	µg/L	10:18:07
2	Be 313.107†	-3019.7	-3028.3	[0.00]	µg/L	10:17:47
2	Cd 226.502†	-136.6	-137.0	[0.00]	µg/L	10:18:07
2	Co 228.616†	-7.9	-7.9	[0.00]	µg/L	10:18:07
2	Cr 267.716†	-29.7	-29.8	[0.00]	µg/L	10:17:47
2	Cu 324.752†	2573.9	2581.2	[0.00]	µg/L	10:17:47
2	Mn 257.610†	-247.4	-248.1	[0.00]	µg/L	10:18:07
2	Mo 202.031†	-8.5	-8.6	[0.00]	µg/L	10:18:07
2	Ni 231.604†	297.5	298.4	[0.00]	µg/L	10:18:07
2	P 214.914†	21.9	22.0	[0.00]	µg/L	10:18:07
2	Pb 220.353†	98.0	98.2	[0.00]	µg/L	10:18:07
2	S 181.975 Axial†	13.6	13.7	[0.00]	µg/L	10:18:07
2	Sb 206.836†	20.3	20.4	[0.00]	µg/L	10:18:07
2	Se 196.026†	15.6	15.6	[0.00]	µg/L	10:18:07
2	SiO2†	1341.3	1345.1	[0.00]	µg/L	10:17:47
2	Si 251.611†	309.4	310.3	[0.00]	µg/L	10:18:07
2	Sn 189.927†	3.5	3.6	[0.00]	µg/L	10:18:07
2	Ti 334.940†	121.8	122.1	[0.00]	µg/L	10:17:47
2	Tl 190.801†	-21.6	-21.6	[0.00]	µg/L	10:18:07
2	U 409.014†	-35.7	-35.8	[0.00]	µg/L	10:17:47
2	V 292.402†	-69.7	-69.9	[0.00]	µg/L	10:17:47
2	Zn 213.857†	519.8	521.3	[0.00]	µg/L	10:18:07
3	Sc RADIAL	57997.3	57997.3	99.9	%	10:16:42
3	Al 396.153Radial†	-22.1	-22.1	[0.00]	µg/L	10:16:42
3	Ca 317.933Radial†	193.0	193.1	[0.00]	µg/L	10:17:02
3	Fe 238.204 Radial†	17.5	17.5	[0.00]	µg/L	10:17:02
3	K 766.490 Radial†	139.9	140.0	[0.00]	µg/L	10:16:42

3	Mg 279.077 IEC†	13.5	13.5	[0.00] µg/L	10:17:02
3	Na 589.592 Radial†	553.5	553.9	[0.00] µg/L	10:16:42
3	Sr 421.552†	6.9	6.9	[0.00] µg/L	10:16:42
3	Sc 361.383	2040450.1	2040450.1	99.807 %	10:18:13
3	Y 371.029	1402277.9	1402277.9	99.808 %	10:18:13
3	Ag 328.068†	-513.2	-514.2	[0.00] µg/L	10:18:18
3	As 188.979†	0.3	0.3	[0.00] µg/L	10:18:38
3	B 249.677†	299.3	299.8	[0.00] µg/L	10:18:38
3	Ba 233.527†	-16.8	-16.8	[0.00] µg/L	10:18:38
3	Be 313.107†	-2881.1	-2886.7	[0.00] µg/L	10:18:18
3	Cd 226.502†	-135.2	-135.4	[0.00] µg/L	10:18:38
3	Co 228.616†	-3.8	-3.8	[0.00] µg/L	10:18:38
3	Cr 267.716†	-18.8	-18.8	[0.00] µg/L	10:18:18
3	Cu 324.752†	2512.1	2517.0	[0.00] µg/L	10:18:18
3	Mn 257.610†	-236.8	-237.2	[0.00] µg/L	10:18:38
3	Mo 202.031†	-7.5	-7.5	[0.00] µg/L	10:18:38
3	Ni 231.604†	311.5	312.1	[0.00] µg/L	10:18:38
3	P 214.914†	17.9	18.0	[0.00] µg/L	10:18:38
3	Pb 220.353†	85.0	85.1	[0.00] µg/L	10:18:38
3	S 181.975 Axial†	14.2	14.3	[0.00] µg/L	10:18:38
3	Sb 206.836†	21.1	21.1	[0.00] µg/L	10:18:38
3	Se 196.026†	11.3	11.3	[0.00] µg/L	10:18:38
3	SiO2†	1358.9	1361.5	[0.00] µg/L	10:18:18
3	Si 251.611†	325.2	325.9	[0.00] µg/L	10:18:38
3	Sn 189.927†	1.5	1.5	[0.00] µg/L	10:18:38
3	Ti 334.940†	131.9	132.2	[0.00] µg/L	10:18:18
3	Tl 190.801†	-24.8	-24.9	[0.00] µg/L	10:18:38
3	U 409.014†	-65.9	-66.0	[0.00] µg/L	10:18:18
3	V 292.402†	-21.9	-22.0	[0.00] µg/L	10:18:18
3	Zn 213.857†	521.4	522.4	[0.00] µg/L	10:18:38

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2044399.2	8469.64	0.41%	100.00	%
Sc RADIAL	58038.1	66.04	0.11%	100	%
Y 371.029	1404979.6	5504.53	0.39%	100.00	%
Ag 328.068†	-523.7	13.55	2.59%	[0.00]	µg/L
Al 396.153Radial†	-22.9	2.75	12.03%	[0.00]	µg/L
As 188.979†	1.5	3.21	216.11%	[0.00]	µg/L
B 249.677†	296.7	8.55	2.88%	[0.00]	µg/L
Ba 233.527†	-18.0	1.15	6.40%	[0.00]	µg/L
Be 313.107†	-2967.6	72.90	2.46%	[0.00]	µg/L
Ca 317.933Radial†	195.4	3.54	1.81%	[0.00]	µg/L
Cd 226.502†	-138.0	3.16	2.29%	[0.00]	µg/L
Co 228.616†	-5.0	2.55	50.91%	[0.00]	µg/L
Cr 267.716†	-32.2	14.69	45.61%	[0.00]	µg/L
Cu 324.752†	2537.6	37.82	1.49%	[0.00]	µg/L
Fe 238.204 Radial†	17.3	0.39	2.27%	[0.00]	µg/L
K 766.490 Radial†	176.9	35.69	20.18%	[0.00]	µg/L
Mg 279.077 IEC†	13.4	0.12	0.93%	[0.00]	µg/L
Mn 257.610†	-236.6	11.86	5.01%	[0.00]	µg/L
Mo 202.031†	-6.9	2.07	30.16%	[0.00]	µg/L
Na 589.592 Radial†	566.1	26.59	4.70%	[0.00]	µg/L
Ni 231.604†	306.8	7.38	2.40%	[0.00]	µg/L
P 214.914†	21.6	3.41	15.83%	[0.00]	µg/L
Pb 220.353†	93.5	7.29	7.79%	[0.00]	µg/L
S 181.975 Axial†	13.8	0.41	2.98%	[0.00]	µg/L
Sb 206.836†	20.2	1.09	5.42%	[0.00]	µg/L
Se 196.026†	15.9	4.63	29.18%	[0.00]	µg/L
SiO2†	1344.5	17.36	1.29%	[0.00]	µg/L
Si 251.611†	314.5	9.99	3.18%	[0.00]	µg/L
Sn 189.927†	3.1	1.38	44.70%	[0.00]	µg/L
Sr 421.552†	33.3	27.60	82.84%	[0.00]	µg/L
Ti 334.940†	130.6	7.79	5.97%	[0.00]	µg/L
Tl 190.801†	-22.9	1.70	7.42%	[0.00]	µg/L
U 409.014†	-43.7	19.58	44.80%	[0.00]	µg/L
V 292.402†	-32.1	33.95	105.90%	[0.00]	µg/L
Zn 213.857†	518.9	5.23	1.01%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/17/2010 10:18:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59509.8	59509.8	103	%	10:19:20
1	K 766.490 Radial†	1621.7	1404.7	[1000]	µg/L	10:19:20
1	Sr 421.552†	9948.3	9668.9	[100]	µg/L	10:19:20
1	Sc 361.383	2040697.3	2040697.3	99.819	%	10:19:39
1	Y 371.029	1402155.3	1402155.3	99.799	%	10:19:39
1	Ag 328.068†	12495.4	13041.7	[100]	µg/L	10:19:44
1	As 188.979†	49.0	47.6	[100]	µg/L	10:20:04
1	B 249.677†	2590.6	2298.5	[100]	µg/L	10:19:44
1	Ba 233.527†	3972.7	3997.9	[100]	µg/L	10:19:44
1	Be 313.107†	154633.0	157881.1	[100]	µg/L	10:19:39
1	Cd 226.502†	3723.1	3867.8	[100]	µg/L	10:19:44
1	Co 228.616†	2086.8	2095.6	[100]	µg/L	10:20:04
1	Cr 267.716†	4842.6	4883.5	[100]	µg/L	10:19:44
1	Cu 324.752†	17648.9	15143.3	[100]	µg/L	10:19:44
1	Mn 257.610†	30527.0	30818.9	[100]	µg/L	10:19:44
1	Mo 202.031†	996.4	1005.0	[100]	µg/L	10:20:04
1	Ni 231.604†	2277.9	1975.2	[100]	µg/L	10:19:44
1	P 214.914†	268.2	247.1	[500]	µg/L	10:20:04
1	Pb 220.353†	486.0	393.4	[100]	µg/L	10:20:04
1	S 181.975 Axial†	66.2	52.5	[200]	µg/L	10:20:04
1	Sb 206.836†	145.3	125.4	[100]	µg/L	10:20:04
1	Se 196.026†	89.0	73.3	[100]	µg/L	10:20:04
1	SiO2†	6474.4	5141.6	[1069.5]	µg/L	10:19:44
1	Si 251.611†	6512.7	6210.0	[500]	µg/L	10:19:44
1	Sn 189.927†	232.7	230.0	[100]	µg/L	10:20:04
1	Ti 334.940†	42646.0	42592.7	[100]	µg/L	10:19:44
1	Tl 190.801†	46.3	69.3	[100]	µg/L	10:20:04
1	U 409.014†	1207.0	1252.9	[100]	µg/L	10:19:44
1	V 292.402†	9876.7	9926.6	[100]	µg/L	10:19:44
1	Zn 213.857†	4679.9	4169.5	[100]	µg/L	10:19:44
2	Sc RADIAL	58704.1	58704.1	101	%	10:19:25
2	K 766.490 Radial†	1632.6	1437.2	[1000]	µg/L	10:19:25
2	Sr 421.552†	10033.5	9886.4	[100]	µg/L	10:19:25
2	Sc 361.383	2076953.1	2076953.1	101.59	%	10:20:10
2	Y 371.029	1427221.9	1427221.9	101.58	%	10:20:10
2	Ag 328.068†	12242.7	12574.4	[100]	µg/L	10:20:16
2	As 188.979†	55.8	53.5	[100]	µg/L	10:20:36
2	B 249.677†	2560.5	2223.6	[100]	µg/L	10:20:16
2	Ba 233.527†	3894.6	3851.5	[100]	µg/L	10:20:16
2	Be 313.107†	154540.1	155085.4	[100]	µg/L	10:20:10
2	Cd 226.502†	3655.9	3736.5	[100]	µg/L	10:20:16
2	Co 228.616†	2071.8	2044.3	[100]	µg/L	10:20:36
2	Cr 267.716†	4737.1	4695.0	[100]	µg/L	10:20:16
2	Cu 324.752†	17397.7	14587.4	[100]	µg/L	10:20:16
2	Mn 257.610†	29995.1	29761.5	[100]	µg/L	10:20:16
2	Mo 202.031†	990.4	981.7	[100]	µg/L	10:20:36
2	Ni 231.604†	2237.7	1895.9	[100]	µg/L	10:20:16
2	P 214.914†	266.0	240.2	[500]	µg/L	10:20:36
2	Pb 220.353†	491.5	390.3	[100]	µg/L	10:20:36
2	S 181.975 Axial†	62.8	48.0	[200]	µg/L	10:20:36
2	Sb 206.836†	128.4	106.2	[100]	µg/L	10:20:36
2	Se 196.026†	82.1	65.0	[100]	µg/L	10:20:36
2	SiO2†	6352.3	4908.3	[1069.5]	µg/L	10:20:16
2	Si 251.611†	6394.9	5980.2	[500]	µg/L	10:20:16
2	Sn 189.927†	234.3	227.6	[100]	µg/L	10:20:36
2	Ti 334.940†	41947.5	41159.4	[100]	µg/L	10:20:16
2	Tl 190.801†	51.3	73.4	[100]	µg/L	10:20:36
2	U 409.014†	1145.9	1171.7	[100]	µg/L	10:20:16
2	V 292.402†	9713.5	9593.3	[100]	µg/L	10:20:16

2	Zn 213.857†	4604.5	4013.5	[100]	µg/L	10:20:16
3	Sc RADIAL	58755.0	58755.0	101	%	10:19:31
3	K 766.490 Radial†	1607.6	1411.2	[1000]	µg/L	10:19:31
3	Sr 421.552†	10017.8	9862.3	[100]	µg/L	10:19:31
3	Sc 361.383	2056767.7	2056767.7	100.60	%	10:20:42
3	Y 371.029	1413366.4	1413366.4	100.60	%	10:20:42
3	Ag 328.068†	12242.8	12692.8	[100]	µg/L	10:20:47
3	As 188.979†	56.6	54.8	[100]	µg/L	10:21:07
3	B 249.677†	2570.0	2257.8	[100]	µg/L	10:20:47
3	Ba 233.527†	3857.0	3851.8	[100]	µg/L	10:20:47
3	Be 313.107†	154103.8	156144.6	[100]	µg/L	10:20:42
3	Cd 226.502†	3634.2	3750.3	[100]	µg/L	10:20:47
3	Co 228.616†	2065.4	2058.0	[100]	µg/L	10:21:07
3	Cr 267.716†	4720.0	4723.8	[100]	µg/L	10:20:47
3	Cu 324.752†	17388.3	14746.2	[100]	µg/L	10:20:47
3	Mn 257.610†	29906.0	29962.8	[100]	µg/L	10:20:47
3	Mo 202.031†	985.7	986.6	[100]	µg/L	10:21:07
3	Ni 231.604†	2233.4	1913.2	[100]	µg/L	10:20:47
3	P 214.914†	261.1	238.0	[500]	µg/L	10:21:07
3	Pb 220.353†	497.9	401.4	[100]	µg/L	10:21:07
3	S 181.975 Axial†	63.8	49.6	[200]	µg/L	10:21:07
3	Sb 206.836†	125.6	104.7	[100]	µg/L	10:21:07
3	Se 196.026†	87.3	70.9	[100]	µg/L	10:21:07
3	SiO2†	6325.6	4943.1	[1069.5]	µg/L	10:20:47
3	Si 251.611†	6394.5	6041.6	[500]	µg/L	10:20:47
3	Sn 189.927†	231.7	227.2	[100]	µg/L	10:21:07
3	Ti 334.940†	41849.4	41467.1	[100]	µg/L	10:20:47
3	Tl 190.801†	52.9	75.5	[100]	µg/L	10:21:07
3	U 409.014†	1069.6	1106.9	[100]	µg/L	10:20:47
3	V 292.402†	9681.9	9655.7	[100]	µg/L	10:20:47
3	Zn 213.857†	4589.7	4043.3	[100]	µg/L	10:20:47

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2058139.4	18166.76	0.88%	100.67	%
Sc RADIAL	58989.6	451.24	0.76%	102	%
Y 371.029	1414247.8	12556.53	0.89%	100.66	%
Ag 328.068†	12769.6	242.95	1.90%	[100]	µg/L
As 188.979†	52.0	3.80	7.32%	[100]	µg/L
B 249.677†	2260.0	37.51	1.66%	[100]	µg/L
Ba 233.527†	3900.4	84.46	2.17%	[100]	µg/L
Be 313.107†	156370.4	1411.46	0.90%	[100]	µg/L
Cd 226.502†	3784.9	72.15	1.91%	[100]	µg/L
Co 228.616†	2065.9	26.55	1.29%	[100]	µg/L
Cr 267.716†	4767.5	101.55	2.13%	[100]	µg/L
Cu 324.752†	14825.6	286.33	1.93%	[100]	µg/L
K 766.490 Radial†	1417.7	17.21	1.21%	[1000]	µg/L
Mn 257.610†	30181.1	561.49	1.86%	[100]	µg/L
Mo 202.031†	991.1	12.29	1.24%	[100]	µg/L
Ni 231.604†	1928.1	41.73	2.16%	[100]	µg/L
P 214.914†	241.8	4.75	1.96%	[500]	µg/L
Pb 220.353†	395.0	5.74	1.45%	[100]	µg/L
S 181.975 Axial†	50.1	2.28	4.55%	[200]	µg/L
Sb 206.836†	112.1	11.55	10.30%	[100]	µg/L
Se 196.026†	69.7	4.26	6.10%	[100]	µg/L
SiO2†	4997.7	125.89	2.52%	[1069.5]	µg/L
Si 251.611†	6077.3	119.02	1.96%	[500]	µg/L
Sn 189.927†	228.3	1.55	0.68%	[100]	µg/L
Sr 421.552†	9805.9	119.17	1.22%	[100]	µg/L
Ti 334.940†	41739.8	754.56	1.81%	[100]	µg/L
Tl 190.801†	72.8	3.15	4.33%	[100]	µg/L
U 409.014†	1177.1	73.13	6.21%	[100]	µg/L
V 292.402†	9725.2	177.22	1.82%	[100]	µg/L
Zn 213.857†	4075.5	82.84	2.03%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/17/2010 10:21:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	58283.1	58283.1	100	%	10:21:47
1	Al 396.153Radial†	6880.9	6874.8	[5000]	µg/L	10:21:47
1	Ca 317.933Radial†	5613.9	5394.9	[5000]	µg/L	10:22:07
1	K 766.490 Radial†	7417.4	7209.3	[5000]	µg/L	10:21:47
1	Mg 279.077 IEC†	559.2	543.5	[5000]	µg/L	10:22:07
1	Sr 421.552†	50205.9	49961.5	[500]	µg/L	10:21:47
1	Sc 361.383	2048460.9	2048460.9	100.20	%	10:23:07
1	Y 371.029	1404287.1	1404287.1	99.951	%	10:23:07
1	Ag 328.068†	63451.4	63849.2	[500]	µg/L	10:23:12
1	As 188.979†	262.9	260.9	[500]	µg/L	10:23:32
1	B 249.677†	11845.7	11525.4	[500]	µg/L	10:23:12
1	Ba 233.527†	19663.8	19642.8	[500]	µg/L	10:23:12
1	Be 313.107†	792457.9	793854.1	[500]	µg/L	10:23:07
1	Cd 226.502†	18728.2	18829.1	[500]	µg/L	10:23:12
1	Co 228.616†	10525.4	10509.6	[500]	µg/L	10:23:12
1	Cr 267.716†	23916.8	23901.5	[500]	µg/L	10:23:12
1	Cu 324.752†	76071.3	73382.9	[500]	µg/L	10:23:12
1	Mn 257.610†	151712.5	151648.3	[500]	µg/L	10:23:07
1	Mo 202.031†	5015.2	5012.1	[500]	µg/L	10:23:32
1	Ni 231.604†	9865.5	9539.2	[500]	µg/L	10:23:12
1	P 214.914†	1239.0	1215.0	[2500]	µg/L	10:23:32
1	Pb 220.353†	2081.4	1983.7	[500]	µg/L	10:23:32
1	S 181.975 Axial†	251.9	237.6	[1000]	µg/L	10:23:32
1	Sb 206.836†	557.5	536.2	[500]	µg/L	10:23:32
1	Se 196.026†	349.1	332.6	[500]	µg/L	10:23:32
1	SiO2†	27018.4	25620.4	[5347.5]	µg/L	10:23:12
1	Si 251.611†	31555.1	31178.0	[2500]	µg/L	10:23:12
1	Sn 189.927†	1169.3	1163.9	[500]	µg/L	10:23:32
1	Ti 334.940†	215086.1	214529.0	[500]	µg/L	10:23:07
1	Tl 190.801†	343.4	365.7	[500]	µg/L	10:23:32
1	U 409.014†	5855.1	5887.2	[500]	µg/L	10:23:12
1	V 292.402†	49030.0	48964.9	[500]	µg/L	10:23:12
1	Zn 213.857†	20879.6	20319.3	[500]	µg/L	10:23:12
2	Sc RADIAL	58417.1	58417.1	101	%	10:22:12
2	Al 396.153Radial†	6862.1	6840.5	[5000]	µg/L	10:22:12
2	Ca 317.933Radial†	5563.3	5331.8	[5000]	µg/L	10:22:32
2	K 766.490 Radial†	7411.5	7186.6	[5000]	µg/L	10:22:12
2	Mg 279.077 IEC†	556.1	539.1	[5000]	µg/L	10:22:32
2	Sr 421.552†	50024.4	49666.5	[500]	µg/L	10:22:12
2	Sc 361.383	2076877.6	2076877.6	101.59	%	10:23:39
2	Y 371.029	1422828.8	1422828.8	101.27	%	10:23:39
2	Ag 328.068†	63276.5	62810.6	[500]	µg/L	10:23:44
2	As 188.979†	268.9	263.2	[500]	µg/L	10:24:05
2	B 249.677†	11797.1	11315.8	[500]	µg/L	10:23:44
2	Ba 233.527†	19599.1	19310.6	[500]	µg/L	10:23:44
2	Be 313.107†	779491.7	770269.5	[500]	µg/L	10:23:39
2	Cd 226.502†	18673.6	18519.5	[500]	µg/L	10:23:44
2	Co 228.616†	10501.9	10342.7	[500]	µg/L	10:23:44
2	Cr 267.716†	23750.0	23410.8	[500]	µg/L	10:23:44
2	Cu 324.752†	75684.8	71963.6	[500]	µg/L	10:23:44
2	Mn 257.610†	149242.9	147145.6	[500]	µg/L	10:23:39
2	Mo 202.031†	4928.5	4858.3	[500]	µg/L	10:24:05
2	Ni 231.604†	9825.2	9364.8	[500]	µg/L	10:23:44
2	P 214.914†	1215.3	1174.7	[2500]	µg/L	10:24:05
2	Pb 220.353†	2039.7	1914.2	[500]	µg/L	10:24:05
2	S 181.975 Axial†	248.1	230.4	[1000]	µg/L	10:24:05
2	Sb 206.836†	538.4	509.8	[500]	µg/L	10:24:05
2	Se 196.026†	347.2	325.9	[500]	µg/L	10:24:05
2	SiO2†	27011.5	25244.6	[5347.5]	µg/L	10:23:44

2	Si 251.611†	31580.8	30772.4	[2500]	µg/L	10:23:44
2	Sn 189.927†	1139.6	1118.7	[500]	µg/L	10:24:05
2	Ti 334.940†	211578.3	208139.0	[500]	µg/L	10:23:39
2	Tl 190.801†	340.7	358.3	[500]	µg/L	10:24:05
2	U 409.014†	5692.7	5647.3	[500]	µg/L	10:23:44
2	V 292.402†	48820.5	48089.2	[500]	µg/L	10:23:44
2	Zn 213.857†	20869.1	20023.9	[500]	µg/L	10:23:44
3	Sc RADIAL	58628.3	58628.3	101	%	10:22:38
3	Al 396.153Radial†	6815.8	6770.1	[5000]	µg/L	10:22:38
3	Ca 317.933Radial†	5537.0	5285.8	[5000]	µg/L	10:22:58
3	K 766.490 Radial†	7396.3	7144.9	[5000]	µg/L	10:22:38
3	Mg 279.077 IEC†	554.7	535.7	[5000]	µg/L	10:22:58
3	Sr 421.552†	49827.6	49292.7	[500]	µg/L	10:22:38
3	Sc 361.383	2073851.6	2073851.6	101.44	%	10:24:11
3	Y 371.029	1422228.6	1422228.6	101.23	%	10:24:11
3	Ag 328.068†	60212.6	59881.1	[500]	µg/L	10:24:17
3	As 188.979†	230.3	225.5	[500]	µg/L	10:24:37
3	B 249.677†	11162.2	10706.9	[500]	µg/L	10:24:17
3	Ba 233.527†	18192.9	17952.5	[500]	µg/L	10:24:17
3	Be 313.107†	745436.6	737817.6	[500]	µg/L	10:24:11
3	Cd 226.502†	17245.8	17138.9	[500]	µg/L	10:24:17
3	Co 228.616†	9634.5	9502.7	[500]	µg/L	10:24:17
3	Cr 267.716†	21379.8	21108.4	[500]	µg/L	10:24:17
3	Cu 324.752†	70200.1	66665.5	[500]	µg/L	10:24:17
3	Mn 257.610†	142907.1	141114.2	[500]	µg/L	10:24:11
3	Mo 202.031†	4222.3	4169.2	[500]	µg/L	10:24:37
3	Ni 231.604†	9035.7	8600.6	[500]	µg/L	10:24:17
3	P 214.914†	1066.7	1030.0	[2500]	µg/L	10:24:37
3	Pb 220.353†	1808.3	1689.1	[500]	µg/L	10:24:37
3	S 181.975 Axial†	225.6	208.6	[1000]	µg/L	10:24:37
3	Sb 206.836†	483.0	456.0	[500]	µg/L	10:24:37
3	Se 196.026†	320.9	300.5	[500]	µg/L	10:24:37
3	SiO2†	25406.4	23701.1	[5347.5]	µg/L	10:24:17
3	Si 251.611†	29563.4	28829.1	[2500]	µg/L	10:24:17
3	Sn 189.927†	959.1	942.4	[500]	µg/L	10:24:37
3	Ti 334.940†	201413.6	198422.6	[500]	µg/L	10:24:11
3	Tl 190.801†	304.4	323.0	[500]	µg/L	10:24:37
3	U 409.014†	5311.8	5280.1	[500]	µg/L	10:24:17
3	V 292.402†	44651.9	44049.8	[500]	µg/L	10:24:17
3	Zn 213.857†	19216.4	18424.6	[500]	µg/L	10:24:17

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2066396.7	15606.40	0.76%	101.08	%
Sc RADIAL	58442.8	174.04	0.30%	101	%
Y 371.029	1416448.1	10536.06	0.74%	100.82	%
Ag 328.068†	62180.3	2057.79	3.31%	[500]	µg/L
Al 396.153Radial†	6828.5	53.39	0.78%	[5000]	µg/L
As 188.979†	249.9	21.13	8.46%	[500]	µg/L
B 249.677†	11182.7	425.18	3.80%	[500]	µg/L
Ba 233.527†	18968.6	895.54	4.72%	[500]	µg/L
Be 313.107†	767313.7	28134.97	3.67%	[500]	µg/L
Ca 317.933Radial†	5337.5	54.78	1.03%	[5000]	µg/L
Cd 226.502†	18162.5	899.88	4.95%	[500]	µg/L
Co 228.616†	10118.3	539.65	5.33%	[500]	µg/L
Cr 267.716†	22806.9	1491.27	6.54%	[500]	µg/L
Cu 324.752†	70670.7	3540.41	5.01%	[500]	µg/L
K 766.490 Radial†	7180.3	32.64	0.45%	[5000]	µg/L
Mg 279.077 IEC†	539.4	3.88	0.72%	[5000]	µg/L
Mn 257.610†	146636.0	5285.52	3.60%	[500]	µg/L
Mo 202.031†	4679.9	448.91	9.59%	[500]	µg/L
Ni 231.604†	9168.2	499.25	5.45%	[500]	µg/L
P 214.914†	1139.9	97.28	8.53%	[2500]	µg/L
Pb 220.353†	1862.3	154.02	8.27%	[500]	µg/L
S 181.975 Axial†	225.5	15.12	6.70%	[1000]	µg/L
Sb 206.836†	500.7	40.90	8.17%	[500]	µg/L
Se 196.026†	319.6	16.95	5.30%	[500]	µg/L
SiO2†	24855.4	1017.09	4.09%	[5347.5]	µg/L
Si 251.611†	30259.9	1255.58	4.15%	[2500]	µg/L

Sn 189.927†	1075.0	117.05	10.89%	[500] µg/L
Sr 421.552†	49640.2	335.18	0.68%	[500] µg/L
Ti 334.940†	207030.2	8110.27	3.92%	[500] µg/L
Tl 190.801†	349.0	22.80	6.53%	[500] µg/L
U 409.014†	5604.9	305.78	5.46%	[500] µg/L
V 292.402†	47034.6	2621.74	5.57%	[500] µg/L
Zn 213.857†	19589.3	1019.38	5.20%	[500] µg/L

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Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/17/2010 10:24:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59267.8	59267.8	102	%	10:25:17
1	Al 396.153Radial†	13910.6	13644.9	[10000]	µg/L	10:25:17
1	Ca 317.933Radial†	11079.8	10654.4	[10000]	µg/L	10:25:37
1	Fe 238.204 Radial†	1212.8	1170.3	[10000]	µg/L	10:25:37
1	K 766.490 Radial†	14645.0	14164.2	[10000]	µg/L	10:25:17
1	Mg 279.077 IEC†	1117.0	1080.4	[10000]	µg/L	10:25:37
1	Na 589.592 Radial†	32062.8	30831.4	[10000]	µg/L	10:25:17
1	Sr 421.552†	100905.5	98778.5	[1000]	µg/L	10:25:17
1	Sc 361.383	2062511.0	2062511.0	100.89	%	10:26:37
1	Y 371.029	1412970.4	1412970.4	100.57	%	10:26:37
1	Ag 328.068†	129747.7	129132.0	[1000]	µg/L	10:26:42
1	As 188.979†	539.3	533.1	[1000]	µg/L	10:27:02
1	B 249.677†	23869.2	23362.9	[1000]	µg/L	10:26:42
1	Ba 233.527†	39859.0	39527.0	[1000]	µg/L	10:26:42
1	Be 313.107†	1585799.3	1574841.2	[1000]	µg/L	10:26:37
1	Cd 226.502†	37757.6	37564.0	[1000]	µg/L	10:26:42
1	Co 228.616†	21178.0	20997.1	[1000]	µg/L	10:26:42
1	Cr 267.716†	48482.9	48089.4	[1000]	µg/L	10:26:42
1	Cu 324.752†	152437.8	148561.7	[1000]	µg/L	10:26:42
1	Mn 257.610†	302386.1	299967.3	[1000]	µg/L	10:26:42
1	Mo 202.031†	10194.9	10112.2	[1000]	µg/L	10:27:02
1	Ni 231.604†	19533.9	19055.5	[1000]	µg/L	10:26:42
1	P 214.914†	2502.9	2459.4	[5000]	µg/L	10:27:02
1	Pb 220.353†	4111.8	3982.2	[1000]	µg/L	10:27:02
1	S 181.975 Axial†	496.8	478.6	[2000]	µg/L	10:27:02
1	Sb 206.836†	1108.2	1078.3	[1000]	µg/L	10:27:02
1	Se 196.026†	695.4	673.4	[1000]	µg/L	10:27:02
1	SiO2†	53030.1	51219.9	[10695]	µg/L	10:26:42
1	Si 251.611†	63226.3	62356.6	[5000]	µg/L	10:26:42
1	Sn 189.927†	2374.1	2350.1	[1000]	µg/L	10:27:02
1	Ti 334.940†	431442.7	427523.4	[1000]	µg/L	10:26:37
1	Tl 190.801†	723.6	740.2	[1000]	µg/L	10:27:02
1	U 409.014†	11741.2	11681.8	[1000]	µg/L	10:26:42
1	V 292.402†	99889.1	99044.0	[1000]	µg/L	10:26:42
1	Zn 213.857†	41351.2	40469.3	[1000]	µg/L	10:26:42
2	Sc RADIAL	59471.6	59471.6	102	%	10:25:43
2	Al 396.153Radial†	13928.2	13615.3	[10000]	µg/L	10:25:43
2	Ca 317.933Radial†	11093.4	10630.6	[10000]	µg/L	10:26:03
2	Fe 238.204 Radial†	1214.3	1167.8	[10000]	µg/L	10:26:03
2	K 766.490 Radial†	14733.8	14201.8	[10000]	µg/L	10:25:43
2	Mg 279.077 IEC†	1119.5	1079.1	[10000]	µg/L	10:26:03
2	Na 589.592 Radial†	32171.9	30830.3	[10000]	µg/L	10:25:43
2	Sr 421.552†	101130.2	98659.2	[1000]	µg/L	10:25:43
2	Sc 361.383	2050806.2	2050806.2	100.31	%	10:27:09
2	Y 371.029	1403943.4	1403943.4	99.926	%	10:27:09
2	Ag 328.068†	129836.3	129954.3	[1000]	µg/L	10:27:15
2	As 188.979†	544.7	541.5	[1000]	µg/L	10:27:35
2	B 249.677†	23878.4	23507.0	[1000]	µg/L	10:27:15
2	Ba 233.527†	39815.1	39708.7	[1000]	µg/L	10:27:15
2	Be 313.107†	1582580.6	1580604.0	[1000]	µg/L	10:27:09
2	Cd 226.502†	37705.4	37725.5	[1000]	µg/L	10:27:15
2	Co 228.616†	21160.6	21099.6	[1000]	µg/L	10:27:15
2	Cr 267.716†	48433.8	48314.7	[1000]	µg/L	10:27:15
2	Cu 324.752†	152463.8	149449.9	[1000]	µg/L	10:27:15
2	Mn 257.610†	301652.0	300946.2	[1000]	µg/L	10:27:15
2	Mo 202.031†	10135.2	10110.4	[1000]	µg/L	10:27:35
2	Ni 231.604†	19470.9	19103.3	[1000]	µg/L	10:27:15
2	P 214.914†	2484.8	2455.5	[5000]	µg/L	10:27:35
2	Pb 220.353†	4084.4	3978.1	[1000]	µg/L	10:27:35

2	S 181.975 Axial†	490.9	475.6	[2000]	µg/L	10:27:35
2	Sb 206.836†	1105.6	1082.0	[1000]	µg/L	10:27:35
2	Se 196.026†	691.5	673.4	[1000]	µg/L	10:27:35
2	SiO2†	53141.7	51631.2	[10695]	µg/L	10:27:15
2	Si 251.611†	63378.9	62866.4	[5000]	µg/L	10:27:15
2	Sn 189.927†	2349.6	2339.1	[1000]	µg/L	10:27:35
2	Ti 334.940†	430889.4	429412.7	[1000]	µg/L	10:27:09
2	Tl 190.801†	723.4	744.1	[1000]	µg/L	10:27:35
2	U 409.014†	11776.7	11783.6	[1000]	µg/L	10:27:15
2	V 292.402†	99938.3	99658.2	[1000]	µg/L	10:27:15
2	Zn 213.857†	41410.7	40762.4	[1000]	µg/L	10:27:15
3	Sc RADIAL	59188.2	59188.2	102	%	10:26:08
3	Al 396.153Radial†	13888.5	13641.5	[10000]	µg/L	10:26:08
3	Ca 317.933Radial†	11051.6	10641.5	[10000]	µg/L	10:26:28
3	Fe 238.204 Radial†	1210.8	1170.0	[10000]	µg/L	10:26:28
3	K 766.490 Radial†	14635.0	14173.7	[10000]	µg/L	10:26:08
3	Mg 279.077 IEC†	1111.3	1076.3	[10000]	µg/L	10:26:28
3	Na 589.592 Radial†	32106.7	30916.7	[10000]	µg/L	10:26:08
3	Sr 421.552†	100981.4	98985.9	[1000]	µg/L	10:26:08
3	Sc 361.383	2058933.1	2058933.1	100.71	%	10:27:41
3	Y 371.029	1408920.5	1408920.5	100.28	%	10:27:41
3	Ag 328.068†	127186.8	126812.7	[1000]	µg/L	10:27:47
3	As 188.979†	504.5	499.4	[1000]	µg/L	10:28:07
3	B 249.677†	23214.7	22754.1	[1000]	µg/L	10:27:47
3	Ba 233.527†	38444.3	38190.9	[1000]	µg/L	10:27:47
3	Be 313.107†	1561347.4	1553293.5	[1000]	µg/L	10:27:41
3	Cd 226.502†	36396.8	36277.8	[1000]	µg/L	10:27:47
3	Co 228.616†	20300.1	20161.8	[1000]	µg/L	10:27:47
3	Cr 267.716†	46035.6	45742.8	[1000]	µg/L	10:27:47
3	Cu 324.752†	146728.2	143154.9	[1000]	µg/L	10:27:47
3	Mn 257.610†	289808.4	287999.3	[1000]	µg/L	10:27:47
3	Mo 202.031†	9251.1	9192.6	[1000]	µg/L	10:28:07
3	Ni 231.604†	18737.0	18298.0	[1000]	µg/L	10:27:47
3	P 214.914†	2301.2	2263.4	[5000]	µg/L	10:28:07
3	Pb 220.353†	3821.4	3700.9	[1000]	µg/L	10:28:07
3	S 181.975 Axial†	463.3	446.2	[2000]	µg/L	10:28:07
3	Sb 206.836†	1033.1	1005.6	[1000]	µg/L	10:28:07
3	Se 196.026†	654.2	633.7	[1000]	µg/L	10:28:07
3	SiO2†	51800.4	50090.2	[10695]	µg/L	10:27:47
3	Si 251.611†	61767.5	61017.0	[5000]	µg/L	10:27:47
3	Sn 189.927†	2132.7	2114.5	[1000]	µg/L	10:28:07
3	Ti 334.940†	424496.5	421369.4	[1000]	µg/L	10:27:41
3	Tl 190.801†	678.4	696.6	[1000]	µg/L	10:28:07
3	U 409.014†	11262.8	11227.0	[1000]	µg/L	10:27:47
3	V 292.402†	95746.5	95102.7	[1000]	µg/L	10:27:47
3	Zn 213.857†	39802.2	39002.3	[1000]	µg/L	10:27:47

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2057416.8	5997.94	0.29%	100.64	%
Sc RADIAL	59309.2	146.19	0.25%	102	%
Y 371.029	1408611.4	4521.47	0.32%	100.26	%
Ag 328.068†	128633.0	1629.18	1.27%	[1000]	µg/L
Al 396.153Radial†	13633.9	16.17	0.12%	[10000]	µg/L
As 188.979†	524.7	22.26	4.24%	[1000]	µg/L
B 249.677†	23208.0	399.64	1.72%	[1000]	µg/L
Ba 233.527†	39142.2	828.85	2.12%	[1000]	µg/L
Be 313.107†	1569579.6	14395.43	0.92%	[1000]	µg/L
Ca 317.933Radial†	10642.2	11.93	0.11%	[10000]	µg/L
Cd 226.502†	37189.1	793.35	2.13%	[1000]	µg/L
Co 228.616†	20752.8	514.40	2.48%	[1000]	µg/L
Cr 267.716†	47382.3	1424.30	3.01%	[1000]	µg/L
Cu 324.752†	147055.5	3407.06	2.32%	[1000]	µg/L
Fe 238.204 Radial†	1169.4	1.42	0.12%	[10000]	µg/L
K 766.490 Radial†	14179.9	19.53	0.14%	[10000]	µg/L
Mg 279.077 IEC†	1078.6	2.10	0.19%	[10000]	µg/L
Mn 257.610†	296304.3	7208.96	2.43%	[1000]	µg/L
Mo 202.031†	9805.1	530.41	5.41%	[1000]	µg/L
Na 589.592 Radial†	30859.5	49.54	0.16%	[10000]	µg/L

Ni 231.604†	18818.9	451.80	2.40%	[1000]	µg/L
P 214.914†	2392.7	112.04	4.68%	[5000]	µg/L
Pb 220.353†	3887.1	161.25	4.15%	[1000]	µg/L
S 181.975 Axial†	466.8	17.92	3.84%	[2000]	µg/L
Sb 206.836†	1055.3	43.06	4.08%	[1000]	µg/L
Se 196.026†	660.2	22.91	3.47%	[1000]	µg/L
SiO2†	50980.4	797.91	1.57%	[10695]	µg/L
Si 251.611†	62080.0	955.21	1.54%	[5000]	µg/L
Sn 189.927†	2267.9	132.97	5.86%	[1000]	µg/L
Sr 421.552†	98807.9	165.34	0.17%	[1000]	µg/L
Ti 334.940†	426101.8	4205.88	0.99%	[1000]	µg/L
Tl 190.801†	726.9	26.38	3.63%	[1000]	µg/L
U 409.014†	11564.1	296.35	2.56%	[1000]	µg/L
V 292.402†	97934.9	2471.93	2.52%	[1000]	µg/L
Zn 213.857†	40078.0	943.02	2.35%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/17/2010 10:28:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59363.3	59363.3	102	%	10:28:47
1	Al 396.153Radial†	69428.6	67901.6	[50000]	µg/L	10:28:47
1	Ca 317.933Radial†	55395.7	53963.7	[50000]	µg/L	10:28:47
1	Fe 238.204 Radial†	2397.5	2326.7	[20000]	µg/L	10:29:07
1	Mg 279.077 IEC†	5430.4	5295.8	[50000]	µg/L	10:29:07
1	Na 589.592 Radial†	63437.4	61455.1	[20000]	µg/L	10:28:47
1	Sc 361.383	2066101.6	2066101.6	101.06	%	10:30:07
1	Y 371.029	1405745.1	1405745.1	100.05	%	10:30:07
2	Sc RADIAL	59307.2	59307.2	102	%	10:29:12
2	Al 396.153Radial†	69526.3	68061.5	[50000]	µg/L	10:29:12
2	Ca 317.933Radial†	55469.5	54087.1	[50000]	µg/L	10:29:12
2	Fe 238.204 Radial†	2394.3	2325.8	[20000]	µg/L	10:29:32
2	Mg 279.077 IEC†	5440.4	5310.6	[50000]	µg/L	10:29:32
2	Na 589.592 Radial†	63590.7	61663.8	[20000]	µg/L	10:29:12
2	Sc 361.383	2058820.7	2058820.7	100.71	%	10:30:14
2	Y 371.029	1401600.3	1401600.3	99.759	%	10:30:14
3	Sc RADIAL	59174.3	59174.3	102	%	10:29:37
3	Al 396.153Radial†	69359.8	68050.9	[50000]	µg/L	10:29:37
3	Ca 317.933Radial†	55267.8	54011.2	[50000]	µg/L	10:29:37
3	Fe 238.204 Radial†	2386.2	2323.2	[20000]	µg/L	10:29:58
3	Mg 279.077 IEC†	5436.1	5318.3	[50000]	µg/L	10:29:58
3	Na 589.592 Radial†	63404.0	61620.5	[20000]	µg/L	10:29:37
3	Sc 361.383	2059295.6	2059295.6	100.73	%	10:30:22
3	Y 371.029	1401510.0	1401510.0	99.753	%	10:30:22

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2061406.0	4073.48	0.20%	100.83	%
Sc RADIAL	59281.6	97.09	0.16%	102	%
Y 371.029	1402951.8	2419.49	0.17%	99.856	%
Al 396.153Radial†	68004.7	89.43	0.13%	[50000]	µg/L
Ca 317.933Radial†	54020.6	62.25	0.12%	[50000]	µg/L
Fe 238.204 Radial†	2325.2	1.85	0.08%	[20000]	µg/L
Mg 279.077 IEC†	5308.2	11.47	0.22%	[50000]	µg/L
Na 589.592 Radial†	61579.8	110.15	0.18%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	127.8	0.00000	0.999911	
Al 396.153Radial	3	Lin Thru 0	0.0	1.360	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	0.5197	0.00000	0.999818	
B 249.677	3	Lin Thru 0	0.0	23.04	0.00000	0.999892	
Ba 233.527	3	Lin Thru 0	0.0	38.90	0.00000	0.999924	
Be 313.107	3	Lin Thru 0	0.0	1563	0.00000	0.999960	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.080	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	37.02	0.00000	0.999955	
Co 228.616	3	Lin Thru 0	0.0	20.65	0.00000	0.999950	
Cr 267.716	3	Lin Thru 0	0.0	47.03	0.00000	0.999887	
Cu 324.752	3	Lin Thru 0	0.0	145.9	0.00000	0.999877	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1164	0.00000	0.999997	
K 766.490 Radial	3	Lin Thru 0	0.0	1.422	0.00000	0.999987	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1062	0.00000	0.999994	
Mn 257.610	3	Lin Thru 0	0.0	295.7	0.00000	0.999990	
Mo 202.031	3	Lin Thru 0	0.0	9.718	0.00000	0.999832	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.080	0.00000	1.000000	

Ni 231.604	3	Lin Thru 0	0.0	18.73	0.00000	0.999944
P 214.914	3	Lin Thru 0	0.0	0.4741	0.00000	0.999818
Pb 220.353	3	Lin Thru 0	0.0	3.855	0.00000	0.999857
S 181.975 Axial	3	Lin Thru 0	0.0	0.2320	0.00000	0.999884
Sb 206.836	3	Lin Thru 0	0.0	1.045	0.00000	0.999767
Se 196.026	3	Lin Thru 0	0.0	0.6563	0.00000	0.999904
SiO2	3	Lin Thru 0	0.0	4.742	0.00000	0.999949
Si 251.611	3	Lin Thru 0	0.0	12.35	0.00000	0.999948
Sn 189.927	3	Lin Thru 0	0.0	2.245	0.00000	0.999780
Sr 421.552	3	Lin Thru 0	0.0	98.90	0.00000	0.999998
Ti 334.940	3	Lin Thru 0	0.0	423.6	0.00000	0.999935
Tl 190.801	3	Lin Thru 0	0.0	0.7212	0.00000	0.999872
U 409.014	3	Lin Thru 0	0.0	11.50	0.00000	0.999922
V 292.402	3	Lin Thru 0	0.0	97.16	0.00000	0.999874
Zn 213.857	3	Lin Thru 0	0.0	39.90	0.00000	0.999958

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/17/2010 10:30:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58310.2	58310.2	100	%			10:31:03
1	Al 396.153Radial†	7015.5	7005.7	5138.7	µg/L	5138.7	ppb	10:31:03
1	Ca 317.933Radial†	5639.2	5417.5	5017.7	µg/L	5017.7	ppb	10:31:23
1	Fe 238.204 Radial†	625.0	604.8	5206.9	µg/L	5206.9	ppb	10:31:23
1	K 766.490 Radial†	3766.2	3571.8	2512.6	µg/L	2512.6	ppb	10:31:03
1	Mg 279.077 IEC†	579.7	563.5	5307.9	µg/L	5307.9	ppb	10:31:23
1	Na 589.592 Radial†	8388.4	7783.1	2526.7	µg/L	2526.7	ppb	10:31:03
1	Sr 421.552†	52946.7	52666.3	532.54	µg/L	532.54	ppb	10:31:03
1	Sc 361.383	2068953.4	2068953.4	101.20	%			10:32:22
1	Y 371.029	1416550.5	1416550.5	100.82	%			10:32:22
1	Ag 328.068†	33383.4	33510.8	266.01	µg/L	266.01	ppb	10:32:28
1	As 188.979†	272.9	268.2	514.99	µg/L	514.99	ppb	10:32:48
1	B 249.677†	12554.9	12109.2	523.75	µg/L	523.75	ppb	10:32:28
1	Ba 233.527†	20389.6	20165.6	519.30	µg/L	519.30	ppb	10:32:28
1	Be 313.107†	422034.1	419993.0	268.58	µg/L	268.58	ppb	10:32:22
1	Cd 226.502†	19011.9	18924.2	511.08	µg/L	511.08	ppb	10:32:28
1	Co 228.616†	10906.2	10781.8	521.57	µg/L	521.57	ppb	10:32:28
1	Cr 267.716†	23828.5	23578.0	501.63	µg/L	501.63	ppb	10:32:28
1	Cu 324.752†	78807.4	75334.5	516.96	µg/L	516.96	ppb	10:32:28
1	Mn 257.610†	158452.9	156809.0	530.69	µg/L	530.69	ppb	10:32:22
1	Mo 202.031†	5508.7	5450.2	561.06	µg/L	561.06	ppb	10:32:48
1	Ni 231.604†	10079.8	9653.4	514.93	µg/L	514.93	ppb	10:32:28
1	P 214.914†	1283.6	1246.7	2580.8	µg/L	2580.8	ppb	10:32:48
1	Pb 220.353†	2108.3	1989.7	516.40	µg/L	516.40	ppb	10:32:48
1	S 181.975 Axial†	626.0	604.7	2606.8	µg/L	2606.8	ppb	10:32:48
1	Sb 206.836†	572.0	545.0	524.57	µg/L	524.57	ppb	10:32:48
1	Se 196.026†	1743.6	1707.1	2609.0	µg/L	2609.0	ppb	10:32:48
1	SiO2†	51406.7	49452.1	10428	µg/L	10428	ppb	10:32:28
1	Si 251.611†	61063.3	60024.1	4859.5	µg/L	4859.5	ppb	10:32:28
1	Sn 189.927†	1291.8	1273.3	567.33	µg/L	567.33	ppb	10:32:48
1	Ti 334.940†	218666.8	215941.1	509.38	µg/L	509.38	ppb	10:32:22
1	Tl 190.801†	375.9	394.4	552.98	µg/L	552.98	ppb	10:32:48
1	U 409.014†	5803.7	5778.5	501.65	µg/L	501.65	ppb	10:32:28
1	V 292.402†	50936.2	50363.7	524.96	µg/L	524.96	ppb	10:32:28
1	Zn 213.857†	21737.8	20961.0	521.62	µg/L	521.62	ppb	10:32:28
2	Sc RADIAL	58590.0	58590.0	101	%			10:31:28
2	Al 396.153Radial†	7019.9	6976.6	5117.3	µg/L	5117.3	ppb	10:31:28
2	Ca 317.933Radial†	5644.1	5395.5	4997.3	µg/L	4997.3	ppb	10:31:48
2	Fe 238.204 Radial†	622.5	599.4	5160.8	µg/L	5160.8	ppb	10:31:48
2	K 766.490 Radial†	3794.0	3581.4	2519.3	µg/L	2519.3	ppb	10:31:28
2	Mg 279.077 IEC†	587.0	568.1	5350.6	µg/L	5350.6	ppb	10:31:48
2	Na 589.592 Radial†	8396.4	7751.2	2516.3	µg/L	2516.3	ppb	10:31:28
2	Sr 421.552†	53106.5	52572.9	531.60	µg/L	531.60	ppb	10:31:28
2	Sc 361.383	2061531.9	2061531.9	100.84	%			10:32:55
2	Y 371.029	1411686.2	1411686.2	100.48	%			10:32:55
2	Ag 328.068†	33290.5	33537.5	266.23	µg/L	266.23	ppb	10:33:00
2	As 188.979†	263.7	260.0	499.22	µg/L	499.22	ppb	10:33:20
2	B 249.677†	12555.7	12154.6	525.75	µg/L	525.75	ppb	10:33:00
2	Ba 233.527†	20369.2	20217.9	520.66	µg/L	520.66	ppb	10:33:00
2	Be 313.107†	421665.4	421128.7	269.31	µg/L	269.31	ppb	10:32:55
2	Cd 226.502†	19058.0	19037.6	514.15	µg/L	514.15	ppb	10:33:00
2	Co 228.616†	10912.2	10826.6	523.74	µg/L	523.74	ppb	10:33:00
2	Cr 267.716†	23873.4	23707.2	504.37	µg/L	504.37	ppb	10:33:00
2	Cu 324.752†	78864.6	75671.6	519.26	µg/L	519.26	ppb	10:33:00
2	Mn 257.610†	158126.5	157048.9	531.50	µg/L	531.50	ppb	10:32:55
2	Mo 202.031†	5503.3	5464.4	562.52	µg/L	562.52	ppb	10:33:20
2	Ni 231.604†	10093.4	9702.7	517.56	µg/L	517.56	ppb	10:33:00
2	P 214.914†	1282.4	1250.1	2587.7	µg/L	2587.7	ppb	10:33:20
2	Pb 220.353†	2104.3	1993.3	517.32	µg/L	517.32	ppb	10:33:20

2	S 181.975 Axial†	616.8	597.9	2577.3 µg/L	2577.3 ppb	10:33:20
2	Sb 206.836†	569.4	544.5	524.03 µg/L	524.03 ppb	10:33:20
2	Se 196.026†	1756.6	1726.1	2637.8 µg/L	2637.8 ppb	10:33:20
2	SiO2†	51397.6	49625.9	10464 µg/L	10464 ppb	10:33:00
2	Si 251.611†	61008.9	60187.4	4872.7 µg/L	4872.7 ppb	10:33:00
2	Sn 189.927†	1279.6	1265.9	564.00 µg/L	564.00 ppb	10:33:20
2	Ti 334.940†	218538.9	216592.1	510.92 µg/L	510.92 ppb	10:32:55
2	Tl 190.801†	373.8	393.6	551.91 µg/L	551.91 ppb	10:33:20
2	U 409.014†	5829.8	5825.1	505.71 µg/L	505.71 ppb	10:33:00
2	V 292.402†	51087.0	50694.4	528.38 µg/L	528.38 ppb	10:33:00
2	Zn 213.857†	21764.1	21064.4	524.19 µg/L	524.19 ppb	10:33:00
3	Sc RADIAL	58896.1	58896.1	101 %		10:31:53
3	Al 396.153Radial†	7066.0	6985.9	5125.7 µg/L	5125.7 ppb	10:31:53
3	Ca 317.933Radial†	5655.4	5377.6	4980.8 µg/L	4980.8 ppb	10:32:13
3	Fe 238.204 Radial†	621.9	595.6	5126.9 µg/L	5126.9 ppb	10:32:13
3	K 766.490 Radial†	3829.7	3597.0	2530.3 µg/L	2530.3 ppb	10:31:53
3	Mg 279.077 IEC†	578.0	556.1	5237.2 µg/L	5237.2 ppb	10:32:13
3	Na 589.592 Radial†	8417.3	7728.5	2508.9 µg/L	2508.9 ppb	10:31:53
3	Sr 421.552†	53398.1	52586.8	531.74 µg/L	531.74 ppb	10:31:53
3	Sc 361.383	2058202.6	2058202.6	100.68 %		10:33:27
3	Y 371.029	1409322.2	1409322.2	100.31 %		10:33:27
3	Ag 328.068†	32087.7	32396.1	257.06 µg/L	257.06 ppb	10:33:32
3	As 188.979†	237.2	234.2	449.65 µg/L	449.65 ppb	10:33:53
3	B 249.677†	12033.6	11656.1	504.07 µg/L	504.07 ppb	10:33:32
3	Ba 233.527†	19208.4	19097.5	491.79 µg/L	491.79 ppb	10:33:32
3	Be 313.107†	402656.1	402923.2	257.67 µg/L	257.67 ppb	10:33:27
3	Cd 226.502†	17911.9	17929.7	484.19 µg/L	484.19 ppb	10:33:32
3	Co 228.616†	10144.8	10081.7	487.65 µg/L	487.65 ppb	10:33:32
3	Cr 267.716†	21890.1	21775.5	463.28 µg/L	463.28 ppb	10:33:32
3	Cu 324.752†	73988.9	70955.1	486.93 µg/L	486.93 ppb	10:33:32
3	Mn 257.610†	151502.5	150723.0	510.11 µg/L	510.11 ppb	10:33:27
3	Mo 202.031†	4738.2	4713.3	485.22 µg/L	485.22 ppb	10:33:53
3	Ni 231.604†	9423.0	9053.1	482.91 µg/L	482.91 ppb	10:33:32
3	P 214.914†	1125.9	1096.8	2266.5 µg/L	2266.5 ppb	10:33:53
3	Pb 220.353†	1888.2	1782.0	462.40 µg/L	462.40 ppb	10:33:53
3	S 181.975 Axial†	556.1	538.6	2321.6 µg/L	2321.6 ppb	10:33:53
3	Sb 206.836†	507.0	483.5	464.83 µg/L	464.83 ppb	10:33:53
3	Se 196.026†	1590.9	1564.4	2391.4 µg/L	2391.4 ppb	10:33:53
3	SiO2†	49027.8	47354.5	9985.2 µg/L	9985.2 ppb	10:33:32
3	Si 251.611†	58143.9	57439.5	4650.2 µg/L	4650.2 ppb	10:33:32
3	Sn 189.927†	1095.7	1085.3	483.54 µg/L	483.54 ppb	10:33:53
3	Ti 334.940†	208403.8	206875.5	487.99 µg/L	487.99 ppb	10:33:27
3	Tl 190.801†	347.8	368.4	516.78 µg/L	516.78 ppb	10:33:53
3	U 409.014†	5387.3	5394.8	468.29 µg/L	468.29 ppb	10:33:32
3	V 292.402†	47412.6	47126.7	490.93 µg/L	490.93 ppb	10:33:32
3	Zn 213.857†	20390.3	19734.7	491.09 µg/L	491.09 ppb	10:33:32

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2062896.0	100.90	%	0.269				0.27%
Sc RADIAL	58598.8	101	%	0.5				0.50%
Y 371.029	1412519.7	100.54	%	0.262				0.26%
Ag 328.068†	33148.2	263.10	µg/L	5.234	263.10	ppb	5.234	1.99%
QC value within limits for Ag 328.068 Recovery = 105.24%								
Al 396.153Radial†	6989.4	5127.2	µg/L	10.78	5127.2	ppb	10.78	0.21%
QC value within limits for Al 396.153Radial Recovery = 102.54%								
As 188.979†	254.1	487.96	µg/L	34.098	487.96	ppb	34.098	6.99%
QC value within limits for As 188.979 Recovery = 97.59%								
B 249.677†	11973.3	517.86	µg/L	11.984	517.86	ppb	11.984	2.31%
QC value within limits for B 249.677 Recovery = 103.57%								
Ba 233.527†	19827.0	510.58	µg/L	16.290	510.58	ppb	16.290	3.19%
QC value within limits for Ba 233.527 Recovery = 102.12%								
Be 313.107†	414681.6	265.19	µg/L	6.522	265.19	ppb	6.522	2.46%
QC value within limits for Be 313.107 Recovery = 106.08%								
Ca 317.933Radial†	5396.9	4998.6	µg/L	18.48	4998.6	ppb	18.48	0.37%
QC value within limits for Ca 317.933Radial Recovery = 99.97%								
Cd 226.502†	18630.5	503.14	µg/L	16.480	503.14	ppb	16.480	3.28%
QC value within limits for Cd 226.502 Recovery = 100.63%								
Co 228.616†	10563.4	510.99	µg/L	20.241	510.99	ppb	20.241	3.96%

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   QC value within limits for Co 228.616  Recovery = 102.20%
Cr 267.716†            23020.2      489.76 µg/L        22.972      489.76 ppb        22.972   4.69%
   QC value within limits for Cr 267.716  Recovery = 97.95%
Cu 324.752†            73987.1      507.72 µg/L        18.034      507.72 ppb        18.034   3.55%
   QC value within limits for Cu 324.752  Recovery = 101.54%
Fe 238.204 Radial†       599.9      5164.9 µg/L         40.14      5164.9 ppb         40.14   0.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.30%
K 766.490 Radial†       3583.4      2520.7 µg/L          8.96      2520.7 ppb          8.96   0.36%
   QC value within limits for K 766.490 Radial  Recovery = 100.83%
Mg 279.077 IEC†          562.6      5298.6 µg/L         57.31      5298.6 ppb         57.31   1.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.97%
Mn 257.610†           154860.3      524.10 µg/L        12.124      524.10 ppb        12.124   2.31%
   QC value within limits for Mn 257.610  Recovery = 104.82%
Mo 202.031†             5209.3      536.27 µg/L        44.211      536.27 ppb        44.211   8.24%
   QC value within limits for Mo 202.031  Recovery = 107.25%
Na 589.592 Radial†      7754.3      2517.3 µg/L          8.91      2517.3 ppb          8.91   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 100.69%
Ni 231.604†             9469.8      505.14 µg/L        19.291      505.14 ppb        19.291   3.82%
   QC value within limits for Ni 231.604  Recovery = 101.03%
P 214.914†              1197.9      2478.3 µg/L        183.53      2478.3 ppb        183.53   7.41%
   QC value within limits for P 214.914  Recovery = 99.13%
Pb 220.353†             1921.7      498.70 µg/L        31.448      498.70 ppb        31.448   6.31%
   QC value within limits for Pb 220.353  Recovery = 99.74%
S 181.975 Axial†         580.4      2501.9 µg/L        156.84      2501.9 ppb        156.84   6.27%
   QC value within limits for S 181.975 Axial  Recovery = 100.08%
Sb 206.836†              524.3      504.47 µg/L        34.336      504.47 ppb        34.336   6.81%
   QC value within limits for Sb 206.836  Recovery = 100.89%
Se 196.026†             1665.9      2546.1 µg/L        134.73      2546.1 ppb        134.73   5.29%
   QC value within limits for Se 196.026  Recovery = 101.84%
SiO2†                  48810.9       10292 µg/L         266.6       10292 ppb         266.6   2.59%
   QC value within limits for SiO2  Recovery = 96.23%
Si 251.611†            59217.0      4794.1 µg/L        124.80      4794.1 ppb        124.80   2.60%
   QC value within limits for Si 251.611  Recovery = 95.88%
Sn 189.927†             1208.2      538.29 µg/L        47.442      538.29 ppb        47.442   8.81%
   QC value within limits for Sn 189.927  Recovery = 107.66%
Sr 421.552†            52608.7      531.96 µg/L         0.510      531.96 ppb         0.510   0.10%
   QC value within limits for Sr 421.552  Recovery = 106.39%
Ti 334.940†           213136.2      502.76 µg/L        12.817      502.76 ppb        12.817   2.55%
   QC value within limits for Ti 334.940  Recovery = 100.55%
Tl 190.801†              385.5      540.56 µg/L        20.598      540.56 ppb        20.598   3.81%
   QC value within limits for Tl 190.801  Recovery = 108.11%
U 409.014†              5666.1      491.88 µg/L        20.534      491.88 ppb        20.534   4.17%
   QC value within limits for U 409.014  Recovery = 98.38%
V 292.402†             49395.0      514.76 µg/L        20.707      514.76 ppb        20.707   4.02%
   QC value within limits for V 292.402  Recovery = 102.95%
Zn 213.857†            20586.7      512.30 µg/L        18.417      512.30 ppb        18.417   3.59%
   QC value within limits for Zn 213.857  Recovery = 102.46%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/17/2010 10:34:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58305.5	58305.5	100	%			10:34:33
1	Al 396.153Radial†	-1.2	21.7	15.913	µg/L	15.913	ppb	10:34:33
1	Ca 317.933Radial†	190.4	-5.9	-5.4509	µg/L	-5.4509	ppb	10:34:53
1	Fe 238.204 Radial†	17.2	-0.2	-1.5191	µg/L	-1.5191	ppb	10:34:53
1	K 766.490 Radial†	158.8	-18.8	-13.231	µg/L	-13.231	ppb	10:34:33
1	Mg 279.077 IEC†	9.3	-4.2	-39.326	µg/L	-39.326	ppb	10:34:53
1	Na 589.592 Radial†	517.5	-51.1	-16.579	µg/L	-16.579	ppb	10:34:33
1	Sr 421.552†	49.6	16.1	0.1626	µg/L	0.1626	ppb	10:34:33
1	Sc 361.383	2068187.3	2068187.3	101.16	%			10:35:52
1	Y 371.029	1422164.5	1422164.5	101.22	%			10:35:52
1	Ag 328.068†	-513.1	16.5	0.1321	µg/L	0.1321	ppb	10:35:57
1	As 188.979†	-2.0	-3.5	-6.7329	µg/L	-6.7329	ppb	10:36:17
1	B 249.677†	340.3	39.6	1.7227	µg/L	1.7227	ppb	10:36:17
1	Ba 233.527†	-20.0	-1.8	-0.0447	µg/L	-0.0447	ppb	10:36:17
1	Be 313.107†	-2816.4	183.6	0.1174	µg/L	0.1174	ppb	10:35:57
1	Cd 226.502†	-139.3	0.3	0.0082	µg/L	0.0082	ppb	10:36:17
1	Co 228.616†	-1.6	3.5	0.1674	µg/L	0.1674	ppb	10:36:17
1	Cr 267.716†	62.0	93.5	1.9877	µg/L	1.9877	ppb	10:36:17
1	Cu 324.752†	2548.6	-18.3	-0.1255	µg/L	-0.1255	ppb	10:35:57
1	Mn 257.610†	-165.5	73.0	0.2481	µg/L	0.2481	ppb	10:36:17
1	Mo 202.031†	-4.0	2.9	0.3033	µg/L	0.3033	ppb	10:36:17
1	Ni 231.604†	318.6	8.2	0.4377	µg/L	0.4377	ppb	10:36:17
1	P 214.914†	28.1	6.2	13.143	µg/L	13.143	ppb	10:36:17
1	Pb 220.353†	96.4	1.8	0.4717	µg/L	0.4717	ppb	10:36:17
1	S 181.975 Axial†	16.9	2.9	12.325	µg/L	12.325	ppb	10:36:17
1	Sb 206.836†	24.8	4.4	4.1914	µg/L	4.1914	ppb	10:36:17
1	Se 196.026†	15.7	-0.3	-0.4447	µg/L	-0.4447	ppb	10:36:17
1	SiO2†	1360.0	-0.2	-0.0365	µg/L	-0.0365	ppb	10:35:57
1	Si 251.611†	542.3	221.6	17.939	µg/L	17.939	ppb	10:36:17
1	Sn 189.927†	8.5	5.3	2.3711	µg/L	2.3711	ppb	10:36:17
1	Ti 334.940†	224.5	91.3	0.2186	µg/L	0.2186	ppb	10:35:57
1	Tl 190.801†	-18.1	5.0	6.9714	µg/L	6.9714	ppb	10:36:17
1	U 409.014†	-70.6	-26.0	-2.2654	µg/L	-2.2654	ppb	10:35:57
1	V 292.402†	16.6	48.5	0.5031	µg/L	0.5031	ppb	10:35:57
1	Zn 213.857†	517.8	-7.0	-0.1743	µg/L	-0.1743	ppb	10:36:17
2	Sc RADIAL	57988.4	57988.4	99.9	%			10:34:58
2	Al 396.153Radial†	-1.1	21.8	16.018	µg/L	16.018	ppb	10:34:58
2	Ca 317.933Radial†	197.2	1.9	1.7597	µg/L	1.7597	ppb	10:35:19
2	Fe 238.204 Radial†	17.4	0.2	1.2901	µg/L	1.2901	ppb	10:35:19
2	K 766.490 Radial†	218.6	41.9	29.478	µg/L	29.478	ppb	10:34:58
2	Mg 279.077 IEC†	11.8	-1.6	-15.197	µg/L	-15.197	ppb	10:35:19
2	Na 589.592 Radial†	577.3	11.6	3.7726	µg/L	3.7726	ppb	10:34:58
2	Sr 421.552†	19.2	-14.1	-0.1429	µg/L	-0.1429	ppb	10:34:58
2	Sc 361.383	2022417.1	2022417.1	98.925	%			10:36:23
2	Y 371.029	1389416.6	1389416.6	98.892	%			10:36:23
2	Ag 328.068†	-508.1	10.0	0.0793	µg/L	0.0793	ppb	10:36:28
2	As 188.979†	1.1	-0.3	-0.6551	µg/L	-0.6551	ppb	10:36:48
2	B 249.677†	334.1	41.0	1.7787	µg/L	1.7787	ppb	10:36:48
2	Ba 233.527†	-19.4	-1.6	-0.0413	µg/L	-0.0413	ppb	10:36:48
2	Be 313.107†	-2786.8	150.4	0.0963	µg/L	0.0963	ppb	10:36:28
2	Cd 226.502†	-136.1	0.4	0.0102	µg/L	0.0102	ppb	10:36:48
2	Co 228.616†	-12.3	-7.4	-0.3595	µg/L	-0.3595	ppb	10:36:48
2	Cr 267.716†	-29.4	2.5	0.0522	µg/L	0.0522	ppb	10:36:48
2	Cu 324.752†	2564.5	54.8	0.3755	µg/L	0.3755	ppb	10:36:28
2	Mn 257.610†	-224.1	10.1	0.0348	µg/L	0.0348	ppb	10:36:48
2	Mo 202.031†	0.1	6.9	0.7152	µg/L	0.7152	ppb	10:36:48
2	Ni 231.604†	304.3	0.8	0.0425	µg/L	0.0425	ppb	10:36:48
2	P 214.914†	27.1	5.8	12.271	µg/L	12.271	ppb	10:36:48
2	Pb 220.353†	98.7	6.3	1.6312	µg/L	1.6312	ppb	10:36:48

2	S 181.975 Axial†	16.4	2.7	11.818 µg/L	11.818 ppb	10:36:48
2	Sb 206.836†	22.7	2.8	2.6477 µg/L	2.6477 ppb	10:36:48
2	Se 196.026†	18.9	3.3	4.9998 µg/L	4.9998 ppb	10:36:48
2	SiO2†	1332.3	2.3	0.4919 µg/L	0.4919 ppb	10:36:28
2	Si 251.611†	311.4	0.3	0.0211 µg/L	0.0211 ppb	10:36:48
2	Sn 189.927†	-0.9	-3.9	-1.7610 µg/L	-1.7610 ppb	10:36:48
2	Ti 334.940†	102.4	-27.1	-0.0628 µg/L	-0.0628 ppb	10:36:28
2	Tl 190.801†	-27.6	-4.9	-6.7947 µg/L	-6.7947 ppb	10:36:48
2	U 409.014†	0.7	44.4	3.8630 µg/L	3.8630 ppb	10:36:28
2	V 292.402†	-19.3	12.6	0.1392 µg/L	0.1392 ppb	10:36:28
2	Zn 213.857†	504.5	-8.9	-0.2227 µg/L	-0.2227 ppb	10:36:48
3	Sc RADIAL	58145.4	58145.4	100 %		10:35:24
3	Al 396.153Radial†	-22.6	0.4	0.2553 µg/L	0.2553 ppb	10:35:24
3	Ca 317.933Radial†	194.6	-1.2	-1.0866 µg/L	-1.0866 ppb	10:35:44
3	Fe 238.204 Radial†	15.1	-2.2	-19.009 µg/L	-19.009 ppb	10:35:44
3	K 766.490 Radial†	162.7	-14.5	-10.183 µg/L	-10.183 ppb	10:35:24
3	Mg 279.077 IEC†	9.0	-4.4	-41.728 µg/L	-41.728 ppb	10:35:44
3	Na 589.592 Radial†	556.9	-10.3	-3.3479 µg/L	-3.3479 ppb	10:35:24
3	Sr 421.552†	47.6	14.2	0.1431 µg/L	0.1431 ppb	10:35:24
3	Sc 361.383	2056357.9	2056357.9	100.58 %		10:36:54
3	Y 371.029	1413912.7	1413912.7	100.64 %		10:36:54
3	Ag 328.068†	-545.4	-18.5	-0.1456 µg/L	-0.1456 ppb	10:36:59
3	As 188.979†	-1.6	-3.1	-5.9917 µg/L	-5.9917 ppb	10:37:19
3	B 249.677†	332.8	34.1	1.4916 µg/L	1.4916 ppb	10:37:19
3	Ba 233.527†	-24.9	-6.8	-0.1738 µg/L	-0.1738 ppb	10:37:19
3	Be 313.107†	-2941.4	43.3	0.0277 µg/L	0.0277 ppb	10:36:59
3	Cd 226.502†	-142.8	-4.0	-0.1071 µg/L	-0.1071 ppb	10:37:19
3	Co 228.616†	-5.7	-0.7	-0.0319 µg/L	-0.0319 ppb	10:37:19
3	Cr 267.716†	-29.5	2.9	0.0609 µg/L	0.0609 ppb	10:37:19
3	Cu 324.752†	2540.3	-12.0	-0.0849 µg/L	-0.0849 ppb	10:36:59
3	Mn 257.610†	-230.9	7.1	0.0231 µg/L	0.0231 ppb	10:37:19
3	Mo 202.031†	3.8	10.7	1.0993 µg/L	1.0993 ppb	10:37:19
3	Ni 231.604†	298.5	-10.0	-0.5333 µg/L	-0.5333 ppb	10:37:19
3	P 214.914†	22.6	0.9	1.8581 µg/L	1.8581 ppb	10:37:19
3	Pb 220.353†	88.9	-5.1	-1.3099 µg/L	-1.3099 ppb	10:37:19
3	S 181.975 Axial†	19.4	5.5	23.815 µg/L	23.815 ppb	10:37:19
3	Sb 206.836†	27.3	7.0	6.7181 µg/L	6.7181 ppb	10:37:19
3	Se 196.026†	13.2	-2.8	-4.2501 µg/L	-4.2501 ppb	10:37:19
3	SiO2†	1362.0	9.5	2.0121 µg/L	2.0121 ppb	10:36:59
3	Si 251.611†	331.9	15.5	1.2532 µg/L	1.2532 ppb	10:37:19
3	Sn 189.927†	-1.6	-4.7	-2.0970 µg/L	-2.0970 ppb	10:37:19
3	Ti 334.940†	162.2	30.7	0.0756 µg/L	0.0756 ppb	10:36:59
3	Tl 190.801†	-27.6	-4.5	-6.2316 µg/L	-6.2316 ppb	10:37:19
3	U 409.014†	-127.9	-83.5	-7.2581 µg/L	-7.2581 ppb	10:36:59
3	V 292.402†	-22.7	9.5	0.0963 µg/L	0.0963 ppb	10:36:59
3	Zn 213.857†	513.4	-8.4	-0.2045 µg/L	-0.2045 ppb	10:37:19

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2048987.4	100.22	%	1.162				1.16%
Sc RADIAL	58146.4	100	%	0.3				0.27%
Y 371.029	1408497.9	100.25	%	1.212				1.21%
Ag 328.068†	2.6	0.0219	µg/L	0.14747	0.0219	ppb	0.14747	673.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.6	10.729	µg/L	9.0703	10.729	ppb	9.0703	84.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4599	µg/L	3.31586	-4.4599	ppb	3.31586	74.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	38.2	1.6643	µg/L	0.15215	1.6643	ppb	0.15215	9.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.4	-0.0866	µg/L	0.07553	-0.0866	ppb	0.07553	87.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	125.7	0.0804	µg/L	0.04691	0.0804	ppb	0.04691	58.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-1.5926	µg/L	3.63183	-1.5926	ppb	3.63183	228.05%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.1	-0.0296	µg/L	0.06714	-0.0296	ppb	0.06714	227.09%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.6	-0.0747	µg/L	0.26603	-0.0747	ppb	0.26603	356.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 32.9      0.7003 µg/L       1.11498      0.7003 ppb        1.11498 159.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                  8.2      0.0550 µg/L       0.27829      0.0550 ppb        0.27829 505.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          -0.7     -6.4127 µg/L      10.99877     -6.4127 ppb       10.99877 171.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†            2.9      2.0213 µg/L      23.82679      2.0213 ppb       23.82679 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             -3.4     -32.084 µg/L       14.6736     -32.084 ppb        14.6736  45.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 30.0      0.1020 µg/L       0.12667      0.1020 ppb        0.12667 124.19%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                  6.9      0.7059 µg/L       0.39804      0.7059 ppb        0.39804  56.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -16.6     -5.3846 µg/L      10.32738     -5.3846 ppb       10.32738 191.79%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 -0.3     -0.0177 µg/L       0.48828     -0.0177 ppb        0.48828 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                   4.3      9.0906 µg/L       6.27865      9.0906 ppb        6.27865  69.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                  1.0      0.2643 µg/L       1.48146      0.2643 ppb        1.48146 560.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             3.7      15.986 µg/L        6.7851      15.986 ppb         6.7851  42.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                  4.7      4.5190 µg/L       2.05492      4.5190 ppb        2.05492  45.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                  0.1      0.1017 µg/L       4.64912      0.1017 ppb        4.64912 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                        3.9      0.8225 µg/L       1.06355      0.8225 ppb        1.06355 129.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 79.1      6.4044 µg/L      10.00812      6.4044 ppb       10.00812 156.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 -1.1     -0.4957 µg/L       2.48831     -0.4957 ppb        2.48831 502.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                  5.4      0.0543 µg/L       0.17105      0.0543 ppb        0.17105 315.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 31.6      0.0771 µg/L       0.14069      0.0771 ppb        0.14069 182.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 -1.5     -2.0183 µg/L       7.79039     -2.0183 ppb        7.79039 385.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -21.7     -1.8868 µg/L       5.57023     -1.8868 ppb        5.57023 295.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  23.5      0.2462 µg/L       0.22354      0.2462 ppb        0.22354  90.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 -8.1     -0.2005 µg/L       0.02444     -0.2005 ppb        0.02444  12.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/17/2010 10:37:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58902.6	58902.6	101	%			10:37:59
1	Al 396.153Radial†	258.4	277.5	203.80	µg/L	203.80	ppb	10:37:59
1	Ca 317.933Radial†	407.7	206.3	191.06	µg/L	191.06	ppb	10:38:19
1	Fe 238.204 Radial†	28.9	11.2	96.460	µg/L	96.460	ppb	10:38:19
1	K 766.490 Radial†	327.6	145.9	102.63	µg/L	102.63	ppb	10:37:59
1	Mg 279.077 IEC†	43.6	29.5	277.60	µg/L	277.60	ppb	10:38:19
1	Na 589.592 Radial†	1497.0	908.9	295.07	µg/L	295.07	ppb	10:37:59
1	Sr 421.552†	530.0	488.9	4.9439	µg/L	4.9439	ppb	10:37:59
1	Sc 361.383	2057465.3	2057465.3	100.64	%			10:39:17
1	Y 371.029	1415363.1	1415363.1	100.74	%			10:39:17
1	Ag 328.068†	117.9	640.8	5.0523	µg/L	5.0523	ppb	10:39:23
1	As 188.979†	14.4	12.8	24.612	µg/L	24.612	ppb	10:39:43
1	B 249.677†	1453.6	1147.6	49.778	µg/L	49.778	ppb	10:39:23
1	Ba 233.527†	177.7	194.6	5.0107	µg/L	5.0107	ppb	10:39:43
1	Be 313.107†	4888.3	7824.8	5.0057	µg/L	5.0057	ppb	10:39:23
1	Cd 226.502†	55.7	193.3	5.2155	µg/L	5.2155	ppb	10:39:43
1	Co 228.616†	91.7	96.1	4.6540	µg/L	4.6540	ppb	10:39:43
1	Cr 267.716†	212.5	243.3	5.1763	µg/L	5.1763	ppb	10:39:23
1	Cu 324.752†	4068.8	1505.4	10.329	µg/L	10.329	ppb	10:39:23
1	Mn 257.610†	2864.4	3082.8	10.425	µg/L	10.425	ppb	10:39:23
1	Mo 202.031†	95.1	101.3	10.432	µg/L	10.432	ppb	10:39:43
1	Ni 231.604†	392.4	83.2	4.4374	µg/L	4.4374	ppb	10:39:43
1	P 214.914†	95.2	73.0	152.96	µg/L	152.96	ppb	10:39:43
1	Pb 220.353†	126.5	32.2	8.3064	µg/L	8.3064	ppb	10:39:43
1	S 181.975 Axial†	43.0	28.9	124.67	µg/L	124.67	ppb	10:39:43
1	Sb 206.836†	41.7	21.2	20.423	µg/L	20.423	ppb	10:39:43
1	Se 196.026†	37.7	21.6	32.890	µg/L	32.890	ppb	10:39:43
1	SiO2†	2396.9	1037.2	218.70	µg/L	218.70	ppb	10:39:23
1	Si 251.611†	1537.7	1213.5	98.243	µg/L	98.243	ppb	10:39:43
1	Sn 189.927†	24.2	21.0	9.3785	µg/L	9.3785	ppb	10:39:43
1	Ti 334.940†	2259.9	2115.0	4.9735	µg/L	4.9735	ppb	10:39:23
1	Tl 190.801†	-9.4	13.6	19.024	µg/L	19.024	ppb	10:39:43
1	U 409.014†	580.8	620.8	53.976	µg/L	53.976	ppb	10:39:23
1	V 292.402†	428.6	457.9	4.8725	µg/L	4.8725	ppb	10:39:23
1	Zn 213.857†	908.6	384.0	9.5651	µg/L	9.5651	ppb	10:39:43
2	Sc RADIAL	58368.9	58368.9	101	%			10:38:24
2	Al 396.153Radial†	276.1	297.4	218.42	µg/L	218.42	ppb	10:38:24
2	Ca 317.933Radial†	410.4	212.7	196.98	µg/L	196.98	ppb	10:38:44
2	Fe 238.204 Radial†	29.3	11.8	101.80	µg/L	101.80	ppb	10:38:44
2	K 766.490 Radial†	384.2	205.2	144.32	µg/L	144.32	ppb	10:38:24
2	Mg 279.077 IEC†	42.0	28.4	266.91	µg/L	266.91	ppb	10:38:44
2	Na 589.592 Radial†	1483.2	908.7	294.98	µg/L	294.98	ppb	10:38:24
2	Sr 421.552†	510.6	474.4	4.7969	µg/L	4.7969	ppb	10:38:24
2	Sc 361.383	2057257.9	2057257.9	100.63	%			10:39:49
2	Y 371.029	1414157.8	1414157.8	100.65	%			10:39:49
2	Ag 328.068†	114.1	637.1	5.0272	µg/L	5.0272	ppb	10:39:54
2	As 188.979†	14.0	12.5	23.949	µg/L	23.949	ppb	10:40:14
2	B 249.677†	1447.1	1141.3	49.499	µg/L	49.499	ppb	10:39:54
2	Ba 233.527†	181.9	198.8	5.1195	µg/L	5.1195	ppb	10:40:14
2	Be 313.107†	4772.6	7710.4	4.9324	µg/L	4.9324	ppb	10:39:54
2	Cd 226.502†	46.2	183.8	4.9586	µg/L	4.9586	ppb	10:40:14
2	Co 228.616†	87.9	92.3	4.4695	µg/L	4.4695	ppb	10:40:14
2	Cr 267.716†	172.6	203.7	4.3341	µg/L	4.3341	ppb	10:39:54
2	Cu 324.752†	4016.2	1453.5	9.9743	µg/L	9.9743	ppb	10:39:54
2	Mn 257.610†	2842.3	3061.1	10.353	µg/L	10.353	ppb	10:39:54
2	Mo 202.031†	89.9	96.2	9.9085	µg/L	9.9085	ppb	10:40:14
2	Ni 231.604†	392.9	83.7	4.4655	µg/L	4.4655	ppb	10:40:14
2	P 214.914†	101.3	79.1	165.87	µg/L	165.87	ppb	10:40:14
2	Pb 220.353†	136.6	42.3	10.928	µg/L	10.928	ppb	10:40:14

2	S 181.975 Axial†	38.0	23.9	103.18 µg/L	103.18 ppb	10:40:14
2	Sb 206.836†	33.6	13.2	12.756 µg/L	12.756 ppb	10:40:14
2	Se 196.026†	32.4	16.3	24.857 µg/L	24.857 ppb	10:40:14
2	SiO2†	2408.0	1048.4	221.07 µg/L	221.07 ppb	10:39:54
2	Si 251.611†	1528.6	1204.6	97.522 µg/L	97.522 ppb	10:40:14
2	Sn 189.927†	21.5	18.3	8.1656 µg/L	8.1656 ppb	10:40:14
2	Ti 334.940†	2299.5	2154.5	5.0678 µg/L	5.0678 ppb	10:39:54
2	Tl 190.801†	-10.3	12.7	17.829 µg/L	17.829 ppb	10:40:14
2	U 409.014†	585.8	625.9	54.419 µg/L	54.419 ppb	10:39:54
2	V 292.402†	489.3	518.3	5.4897 µg/L	5.4897 ppb	10:39:54
2	Zn 213.857†	899.9	375.4	9.3521 µg/L	9.3521 ppb	10:40:14
3	Sc RADIAL	58446.5	58446.5	101 %		10:38:49
3	Al 396.153Radial†	268.2	289.3	212.47 µg/L	212.47 ppb	10:38:49
3	Ca 317.933Radial†	407.1	208.8	193.43 µg/L	193.43 ppb	10:39:10
3	Fe 238.204 Radial†	28.4	10.9	94.108 µg/L	94.108 ppb	10:39:10
3	K 766.490 Radial†	324.0	144.9	101.94 µg/L	101.94 ppb	10:38:49
3	Mg 279.077 IEC†	42.5	28.8	270.64 µg/L	270.64 ppb	10:39:10
3	Na 589.592 Radial†	1470.2	893.7	290.14 µg/L	290.14 ppb	10:38:49
3	Sr 421.552†	548.8	511.7	5.1738 µg/L	5.1738 ppb	10:38:49
3	Sc 361.383	2057650.6	2057650.6	100.65 %		10:40:20
3	Y 371.029	1414230.1	1414230.1	100.66 %		10:40:20
3	Ag 328.068†	115.2	638.1	5.0293 µg/L	5.0293 ppb	10:40:25
3	As 188.979†	16.7	15.1	29.038 µg/L	29.038 ppb	10:40:45
3	B 249.677†	1411.2	1105.3	47.941 µg/L	47.941 ppb	10:40:25
3	Ba 233.527†	157.0	173.9	4.4790 µg/L	4.4790 ppb	10:40:45
3	Be 313.107†	4457.0	7395.9	4.7313 µg/L	4.7313 ppb	10:40:25
3	Cd 226.502†	33.4	171.1	4.6151 µg/L	4.6151 ppb	10:40:45
3	Co 228.616†	89.2	93.6	4.5309 µg/L	4.5309 ppb	10:40:45
3	Cr 267.716†	176.0	207.1	4.4053 µg/L	4.4053 ppb	10:40:25
3	Cu 324.752†	4005.2	1441.9	9.8935 µg/L	9.8935 ppb	10:40:25
3	Mn 257.610†	2715.8	2934.9	9.9252 µg/L	9.9252 ppb	10:40:25
3	Mo 202.031†	75.1	81.4	8.3844 µg/L	8.3844 ppb	10:40:45
3	Ni 231.604†	387.7	78.5	4.1863 µg/L	4.1863 ppb	10:40:45
3	P 214.914†	99.5	77.3	162.06 µg/L	162.06 ppb	10:40:45
3	Pb 220.353†	130.1	35.7	9.2405 µg/L	9.2405 ppb	10:40:45
3	S 181.975 Axial†	36.0	21.9	94.530 µg/L	94.530 ppb	10:40:45
3	Sb 206.836†	30.2	9.8	9.4679 µg/L	9.4679 ppb	10:40:45
3	Se 196.026†	27.4	11.4	17.289 µg/L	17.289 ppb	10:40:45
3	SiO2†	2338.7	979.2	206.47 µg/L	206.47 ppb	10:40:25
3	Si 251.611†	1457.2	1133.3	91.752 µg/L	91.752 ppb	10:40:45
3	Sn 189.927†	23.9	20.7	9.2334 µg/L	9.2334 ppb	10:40:45
3	Ti 334.940†	2164.5	2020.0	4.7499 µg/L	4.7499 ppb	10:40:25
3	Tl 190.801†	-10.7	12.3	17.194 µg/L	17.194 ppb	10:40:45
3	U 409.014†	459.8	500.5	43.516 µg/L	43.516 ppb	10:40:25
3	V 292.402†	407.8	437.3	4.6316 µg/L	4.6316 ppb	10:40:25
3	Zn 213.857†	859.1	334.7	8.3327 µg/L	8.3327 ppb	10:40:45

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2057458.0	100.64	%	0.010				0.01%
Sc RADIAL	58572.6	101	%	0.5				0.49%
Y 371.029	1414583.7	100.68	%	0.048				0.05%
Ag 328.068†	638.7	5.0363	µg/L	0.01390	5.0363	ppb	0.01390	0.28%
QC value within limits for Ag 328.068 Recovery = 100.73%								
Al 396.153Radial†	288.1	211.57	µg/L	7.351	211.57	ppb	7.351	3.47%
QC value within limits for Al 396.153Radial Recovery = 105.78%								
As 188.979†	13.5	25.866	µg/L	2.7669	25.866	ppb	2.7669	10.70%
QC value within limits for As 188.979 Recovery = 86.22%								
B 249.677†	1131.4	49.072	µg/L	0.9897	49.072	ppb	0.9897	2.02%
QC value within limits for B 249.677 Recovery = 98.14%								
Ba 233.527†	189.1	4.8697	µg/L	0.34271	4.8697	ppb	0.34271	7.04%
QC value within limits for Ba 233.527 Recovery = 97.39%								
Be 313.107†	7643.7	4.8898	µg/L	0.14209	4.8898	ppb	0.14209	2.91%
QC value within limits for Be 313.107 Recovery = 97.80%								
Ca 317.933Radial†	209.3	193.82	µg/L	2.980	193.82	ppb	2.980	1.54%
QC value within limits for Ca 317.933Radial Recovery = 96.91%								
Cd 226.502†	182.8	4.9297	µg/L	0.30122	4.9297	ppb	0.30122	6.11%
QC value within limits for Cd 226.502 Recovery = 98.59%								
Co 228.616†	94.0	4.5515	µg/L	0.09395	4.5515	ppb	0.09395	2.06%

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   QC value within limits for Co 228.616  Recovery = 91.03%
Cr 267.716†              218.0      4.6385 µg/L       0.46707      4.6385 ppb        0.46707  10.07%
   QC value within limits for Cr 267.716  Recovery = 92.77%
Cu 324.752†             1466.9      10.066 µg/L        0.2317      10.066 ppb         0.2317   2.30%
   QC value within limits for Cu 324.752  Recovery = 100.66%
Fe 238.204 Radial†        11.3      97.457 µg/L        3.9432      97.457 ppb         3.9432   4.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.46%
K 766.490 Radial†        165.3      116.30 µg/L        24.273      116.30 ppb         24.273  20.87%
   QC value within limits for K 766.490 Radial  Recovery = 77.53%
Mg 279.077 IEC†           28.9      271.72 µg/L         5.426      271.72 ppb          5.426   2.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 90.57%
Mn 257.610†             3026.2      10.235 µg/L        0.2704      10.235 ppb         0.2704   2.64%
   QC value within limits for Mn 257.610  Recovery = 102.35%
Mo 202.031†               93.0      9.5748 µg/L       1.06355      9.5748 ppb        1.06355  11.11%
   QC value within limits for Mo 202.031  Recovery = 95.75%
Na 589.592 Radial†       903.8      293.40 µg/L         2.823      293.40 ppb          2.823   0.96%
   QC value within limits for Na 589.592 Radial  Recovery = 97.80%
Ni 231.604†               81.8      4.3630 µg/L       0.15369      4.3630 ppb        0.15369   3.52%
   QC value within limits for Ni 231.604  Recovery = 87.26%
P 214.914†                76.4      160.30 µg/L         6.635      160.30 ppb          6.635   4.14%
   QC value within limits for P 214.914  Recovery = 106.87%
Pb 220.353†               36.7      9.4915 µg/L       1.32849      9.4915 ppb        1.32849  14.00%
   QC value within limits for Pb 220.353  Recovery = 94.92%
S 181.975 Axial†          24.9      107.46 µg/L        15.521      107.46 ppb         15.521  14.44%
   QC value within limits for S 181.975 Axial  Recovery = 107.46%
Sb 206.836†               14.8      14.216 µg/L        5.6214      14.216 ppb         5.6214  39.54%
   QC value greater than the upper limit for Sb 206.836  Recovery = 142.16%
Se 196.026†               16.4      25.012 µg/L        7.8015      25.012 ppb         7.8015  31.19%
   QC value within limits for Se 196.026  Recovery = 83.37%
SiO2†                   1021.6      215.41 µg/L         7.834      215.41 ppb          7.834   3.64%
   QC value within limits for SiO2  Recovery = 101.13%
Si 251.611†             1183.8      95.839 µg/L        3.5580      95.839 ppb         3.5580   3.71%
   QC value within limits for Si 251.611  Recovery = 95.84%
Sn 189.927†               20.0      8.9258 µg/L       0.66236      8.9258 ppb        0.66236   7.42%
   QC value within limits for Sn 189.927  Recovery = 89.26%
Sr 421.552†              491.7      4.9715 µg/L       0.18996      4.9715 ppb        0.18996   3.82%
   QC value within limits for Sr 421.552  Recovery = 99.43%
Ti 334.940†             2096.5      4.9304 µg/L       0.16329      4.9304 ppb        0.16329   3.31%
   QC value within limits for Ti 334.940  Recovery = 98.61%
Tl 190.801†               12.9      18.016 µg/L        0.9291      18.016 ppb         0.9291   5.16%
   QC value within limits for Tl 190.801  Recovery = 90.08%
U 409.014†               582.4      50.637 µg/L        6.1711      50.637 ppb         6.1711  12.19%
   QC value within limits for U 409.014  Recovery = 101.27%
V 292.402†               471.2      4.9979 µg/L       0.44258      4.9979 ppb        0.44258   8.86%
   QC value within limits for V 292.402  Recovery = 99.96%
Zn 213.857†              364.7      9.0833 µg/L       0.65871      9.0833 ppb        0.65871   7.25%
   QC value within limits for Zn 213.857  Recovery = 90.83%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/17/2010 10:40:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57425.0	57425.0	98.9	%			10:41:32
1	Al 396.153Radial†	676352.0	683596.3	502540	µg/L	502540	ppb	10:41:27
1	Ca 317.933Radial†	511036.9	516297.8	478200	µg/L	478200	ppb	10:41:27
1	Fe 238.204 Radial†	21651.7	21865.6	187850	µg/L	187850	ppb	10:41:32
1	K 766.490 Radial†	98.8	-77.1	-54.209	µg/L	-54.209	ppb	10:41:32
1	Mg 279.077 IEC†	50809.8	51338.9	483010	µg/L	483010	ppb	10:41:32
1	Na 589.592 Radial†	608.9	49.2	15.980	µg/L	15.980	ppb	10:41:32
1	Sr 421.552†	358.1	328.6	3.3230	µg/L	3.3230	ppb	10:41:32
1	Sc 361.383	1931476.9	1931476.9	94.477	%			10:42:01
1	Y 371.029	1316286.0	1316286.0	93.687	%			10:42:01
1	Ag 328.068†	-2803.2	-2443.5	-7.4439	µg/L	-7.4439	ppb	10:42:07
1	As 188.979†	-11.6	-13.8	-40.513	µg/L	-40.513	ppb	10:42:27
1	B 249.677†	794.3	544.0	-74.407	µg/L	-74.407	ppb	10:42:07
1	Ba 233.527†	292.4	327.5	8.3763	µg/L	8.3763	ppb	10:42:27
1	Be 313.107†	-3535.5	-774.6	-0.5062	µg/L	-0.5062	ppb	10:42:07
1	Cd 226.502†	382.0	542.3	-6.5862	µg/L	-6.5862	ppb	10:42:27
1	Co 228.616†	42.7	50.2	2.3657	µg/L	2.3657	ppb	10:42:27
1	Cr 267.716†	-37.5	-7.4	-0.1732	µg/L	-0.1732	ppb	10:42:27
1	Cu 324.752†	-1387.6	-4006.3	-1.3420	µg/L	-1.3420	ppb	10:42:07
1	Mn 257.610†	399.3	659.3	7.8851	µg/L	7.8851	ppb	10:42:07
1	Mo 202.031†	-94.0	-92.6	-2.3948	µg/L	-2.3948	ppb	10:42:27
1	Ni 231.604†	155.7	-142.0	-5.1437	µg/L	-5.1437	ppb	10:42:27
1	P 214.914†	87.5	71.1	144.55	µg/L	144.55	ppb	10:42:27
1	Pb 220.353†	43.4	-47.6	8.1887	µg/L	8.1887	ppb	10:42:27
1	S 181.975 Axial†	28.9	16.7	72.133	µg/L	72.133	ppb	10:42:27
1	Sb 206.836†	54.5	37.5	-5.8422	µg/L	-5.8422	ppb	10:42:27
1	Se 196.026†	17.4	2.5	-45.952	µg/L	-45.952	ppb	10:42:27
1	SiO2†	1168.0	-108.2	-22.821	µg/L	-22.821	ppb	10:42:27
1	Si 251.611†	436.4	147.5	11.939	µg/L	11.939	ppb	10:42:27
1	Sn 189.927†	-66.9	-73.9	1.6683	µg/L	1.6683	ppb	10:42:27
1	Ti 334.940†	11116.6	11635.9	-3.0561	µg/L	-3.0561	ppb	10:42:07
1	Tl 190.801†	-31.3	-10.1	6.3314	µg/L	6.3314	ppb	10:42:27
1	U 409.014†	-116.2	-79.3	-62.184	µg/L	-62.184	ppb	10:42:07
1	V 292.402†	-2199.7	-2296.3	-1.6040	µg/L	-1.6040	ppb	10:42:07
1	Zn 213.857†	1510.8	1080.3	-9.1725	µg/L	-9.1725	ppb	10:42:27
2	Sc RADIAL	57407.1	57407.1	98.9	%			10:41:43
2	Al 396.153Radial†	677388.5	684856.7	503470	µg/L	503470	ppb	10:41:38
2	Ca 317.933Radial†	512424.4	517861.2	479650	µg/L	479650	ppb	10:41:38
2	Fe 238.204 Radial†	21661.9	21882.7	188000	µg/L	188000	ppb	10:41:43
2	K 766.490 Radial†	145.7	-29.6	-20.818	µg/L	-20.818	ppb	10:41:43
2	Mg 279.077 IEC†	50834.9	51380.2	483400	µg/L	483400	ppb	10:41:43
2	Na 589.592 Radial†	623.0	63.7	20.673	µg/L	20.673	ppb	10:41:43
2	Sr 421.552†	402.2	373.3	3.7748	µg/L	3.7748	ppb	10:41:43
2	Sc 361.383	1917452.5	1917452.5	93.791	%			10:42:33
2	Y 371.029	1307994.1	1307994.1	93.097	%			10:42:33
2	Ag 328.068†	-2813.8	-2476.4	-7.6879	µg/L	-7.6879	ppb	10:42:38
2	As 188.979†	-15.8	-18.4	-49.334	µg/L	-49.334	ppb	10:42:59
2	B 249.677†	786.6	541.9	-74.574	µg/L	-74.574	ppb	10:42:38
2	Ba 233.527†	271.3	307.2	7.8552	µg/L	7.8552	ppb	10:42:59
2	Be 313.107†	-3411.7	-670.0	-0.4392	µg/L	-0.4392	ppb	10:42:38
2	Cd 226.502†	389.4	553.1	-6.3110	µg/L	-6.3110	ppb	10:42:59
2	Co 228.616†	49.1	57.3	2.7106	µg/L	2.7106	ppb	10:42:59
2	Cr 267.716†	-75.6	-48.4	-1.0443	µg/L	-1.0443	ppb	10:42:59
2	Cu 324.752†	-1417.4	-4048.8	-1.6123	µg/L	-1.6123	ppb	10:42:38
2	Mn 257.610†	280.9	536.1	7.4728	µg/L	7.4728	ppb	10:42:38
2	Mo 202.031†	-100.3	-100.1	-3.1582	µg/L	-3.1582	ppb	10:42:59
2	Ni 231.604†	162.5	-133.5	-4.6872	µg/L	-4.6872	ppb	10:42:59
2	P 214.914†	79.7	63.4	128.58	µg/L	128.58	ppb	10:42:59
2	Pb 220.353†	45.4	-45.1	8.8680	µg/L	8.8680	ppb	10:42:59

2	S 181.975 Axial†	28.8	16.9	72.770 µg/L	72.770 ppb	10:42:59
2	Sb 206.836†	50.5	33.7	-9.6573 µg/L	-9.6573 ppb	10:42:59
2	Se 196.026†	30.3	16.4	-25.123 µg/L	-25.123 ppb	10:42:59
2	SiO2†	1149.0	-119.4	-25.180 µg/L	-25.180 ppb	10:42:59
2	Si 251.611†	430.9	144.9	11.732 µg/L	11.732 ppb	10:42:59
2	Sn 189.927†	-53.9	-60.5	7.6511 µg/L	7.6511 ppb	10:42:59
2	Ti 334.940†	10966.2	11561.6	-3.2391 µg/L	-3.2391 ppb	10:42:38
2	Tl 190.801†	-28.0	-7.0	10.690 µg/L	10.690 ppb	10:42:59
2	U 409.014†	-23.4	18.8	-53.756 µg/L	-53.756 ppb	10:42:38
2	V 292.402†	-2120.3	-2228.6	-0.8894 µg/L	-0.8894 ppb	10:42:38
2	Zn 213.857†	1505.1	1085.9	-9.0629 µg/L	-9.0629 ppb	10:42:59
3	Sc RADIAL	57243.5	57243.5	98.6 %		10:41:54
3	Al 396.153Radial†	677572.9	687000.9	505050 µg/L	505050 ppb	10:41:48
3	Ca 317.933Radial†	511925.9	518836.4	480550 µg/L	480550 ppb	10:41:48
3	Fe 238.204 Radial†	21770.4	22055.3	189480 µg/L	189480 ppb	10:41:54
3	K 766.490 Radial†	175.7	1.2	0.8638 µg/L	0.8638 ppb	10:41:54
3	Mg 279.077 IEC†	51000.3	51694.8	486360 µg/L	486360 ppb	10:41:54
3	Na 589.592 Radial†	639.6	82.3	26.719 µg/L	26.719 ppb	10:41:54
3	Sr 421.552†	396.4	368.6	3.7272 µg/L	3.7272 ppb	10:41:54
3	Sc 361.383	1939712.2	1939712.2	94.879 %		10:43:04
3	Y 371.029	1324036.6	1324036.6	94.239 %		10:43:04
3	Ag 328.068†	-2885.7	-2517.8	-7.9121 µg/L	-7.9121 ppb	10:43:10
3	As 188.979†	-10.0	-12.1	-37.186 µg/L	-37.186 ppb	10:43:30
3	B 249.677†	830.8	578.8	-73.746 µg/L	-73.746 ppb	10:43:10
3	Ba 233.527†	279.2	312.3	7.9875 µg/L	7.9875 ppb	10:43:30
3	Be 313.107†	-3649.4	-878.8	-0.5727 µg/L	-0.5727 ppb	10:43:10
3	Cd 226.502†	373.2	531.3	-7.0682 µg/L	-7.0682 ppb	10:43:30
3	Co 228.616†	59.1	67.3	3.1905 µg/L	3.1905 ppb	10:43:30
3	Cr 267.716†	-67.0	-38.4	-0.8299 µg/L	-0.8299 ppb	10:43:30
3	Cu 324.752†	-1480.0	-4097.4	-1.7397 µg/L	-1.7397 ppb	10:43:10
3	Mn 257.610†	168.1	413.8	7.1378 µg/L	7.1378 ppb	10:43:10
3	Mo 202.031†	-106.5	-105.4	-3.6434 µg/L	-3.6434 ppb	10:43:30
3	Ni 231.604†	142.3	-156.8	-5.9114 µg/L	-5.9114 ppb	10:43:30
3	P 214.914†	110.7	95.1	194.67 µg/L	194.67 ppb	10:43:30
3	Pb 220.353†	53.1	-37.5	10.867 µg/L	10.867 ppb	10:43:30
3	S 181.975 Axial†	27.2	14.8	63.951 µg/L	63.951 ppb	10:43:30
3	Sb 206.836†	59.9	43.0	-0.8414 µg/L	-0.8414 ppb	10:43:30
3	Se 196.026†	33.9	19.9	-18.648 µg/L	-18.648 ppb	10:43:30
3	SiO2†	1137.3	-145.8	-30.747 µg/L	-30.747 ppb	10:43:30
3	Si 251.611†	439.5	148.7	12.038 µg/L	12.038 ppb	10:43:30
3	Sn 189.927†	-68.9	-75.7	1.0804 µg/L	1.0804 ppb	10:43:30
3	Ti 334.940†	11060.2	11526.5	-3.5414 µg/L	-3.5414 ppb	10:43:10
3	Tl 190.801†	-34.1	-13.0	2.5280 µg/L	2.5280 ppb	10:43:30
3	U 409.014†	-74.3	-34.6	-58.663 µg/L	-58.663 ppb	10:43:10
3	V 292.402†	-2058.8	-2137.8	0.2110 µg/L	0.2110 ppb	10:43:10
3	Zn 213.857†	1502.2	1064.4	-9.8321 µg/L	-9.8321 ppb	10:43:30

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1929547.2	94.382	%	0.5505				0.58%
Sc RADIAL	57358.5	98.8	%	0.17				0.17%
Y 371.029	1316105.6	93.674	%	0.5710				0.61%
Ag 328.068†	-2479.2	-7.6813	µg/L	0.23420	-7.6813	ppb	0.23420	3.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	685151.3	503690	µg/L	1265.4	503690	ppb	1265.4	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.74%								
As 188.979†	-14.7	-42.344	µg/L	6.2777	-42.344	ppb	6.2777	14.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	554.9	-74.242	µg/L	0.4382	-74.242	ppb	0.4382	0.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	315.7	8.0730	µg/L	0.27085	8.0730	ppb	0.27085	3.36%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-774.5	-0.5060	µg/L	0.06679	-0.5060	ppb	0.06679	13.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	517665.1	479460	µg/L	1186.1	479460	ppb	1186.1	0.25%
QC value within limits for Ca 317.933Radial Recovery = 95.89%								
Cd 226.502†	542.3	-6.6551	µg/L	0.38325	-6.6551	ppb	0.38325	5.76%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	58.3	2.7556	µg/L	0.41428	2.7556	ppb	0.41428	15.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -31.4     -0.6825 µg/L       0.45390     -0.6825 ppb        0.45390  66.51%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -4050.8     -1.5647 µg/L       0.20306     -1.5647 ppb        0.20306  12.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21934.5      188450 µg/L         901.4      188450 ppb          901.4   0.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.22%
K 766.490 Radial†        -35.1     -24.721 µg/L       27.7434     -24.721 ppb        27.7434 112.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        51471.3      484250 µg/L        1831.2      484250 ppb         1831.2   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.85%
Mn 257.610†              536.4      7.4986 µg/L       0.37432      7.4986 ppb        0.37432   4.99%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -99.4     -3.0655 µg/L       0.62943     -3.0655 ppb        0.62943  20.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        65.1      21.124 µg/L        5.3839      21.124 ppb         5.3839  25.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -144.1     -5.2474 µg/L       0.61869     -5.2474 ppb        0.61869  11.79%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                76.5      155.93 µg/L        34.485      155.93 ppb         34.485  22.12%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -43.4      9.3078 µg/L       1.39202      9.3078 ppb        1.39202  14.96%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          16.1      69.618 µg/L        4.9179      69.618 ppb         4.9179   7.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               38.1     -5.4470 µg/L       4.42121     -5.4470 ppb        4.42121  81.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               13.0     -29.908 µg/L       14.2669     -29.908 ppb        14.2669  47.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -124.5     -26.249 µg/L        4.0699     -26.249 ppb         4.0699  15.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              147.0      11.903 µg/L        0.1561      11.903 ppb         0.1561   1.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -70.0      3.4666 µg/L       3.63582      3.4666 ppb        3.63582 104.88%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              356.8      3.6083 µg/L       0.24825      3.6083 ppb        0.24825   6.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            11574.7     -3.2789 µg/L       0.24509     -3.2789 ppb        0.24509   7.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -10.0      6.5163 µg/L       4.08393      6.5163 ppb        4.08393  62.67%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -31.7     -58.201 µg/L        4.2328     -58.201 ppb         4.2328   7.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2220.9     -0.7608 µg/L       0.91432     -0.7608 ppb        0.91432 120.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1076.8     -9.3558 µg/L       0.41612     -9.3558 ppb        0.41612   4.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/17/2010 10:43:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56926.8	56926.8	98.1	%			10:44:16
1	Al 396.153Radial†	675073.7	688274.8	505970	µg/L	505970	ppb	10:44:10
1	Ca 317.933Radial†	508615.7	518349.0	480100	µg/L	480100	ppb	10:44:10
1	Fe 238.204 Radial†	21608.2	22012.7	189130	µg/L	189130	ppb	10:44:16
1	K 766.490 Radial†	7273.8	7239.0	5092.2	µg/L	5092.2	ppb	10:44:16
1	Mg 279.077 IEC†	50852.2	51831.5	487650	µg/L	487650	ppb	10:44:16
1	Na 589.592 Radial†	16038.2	15785.1	5124.4	µg/L	5124.4	ppb	10:44:16
1	Sr 421.552†	49298.0	50227.0	507.88	µg/L	507.88	ppb	10:44:16
1	Sc 361.383	1900991.5	1900991.5	92.985	%			10:44:45
1	Y 371.029	1298738.5	1298738.5	92.438	%			10:44:45
1	Ag 328.068†	27654.4	30264.3	251.97	µg/L	251.97	ppb	10:44:51
1	As 188.979†	237.6	254.1	473.95	µg/L	473.95	ppb	10:45:11
1	B 249.677†	11864.7	12463.0	443.12	µg/L	443.12	ppb	10:44:51
1	Ba 233.527†	18100.9	19484.4	501.73	µg/L	501.73	ppb	10:44:51
1	Be 313.107†	349754.7	379107.2	242.41	µg/L	242.41	ppb	10:44:45
1	Cd 226.502†	16421.3	17798.0	459.79	µg/L	459.79	ppb	10:44:51
1	Co 228.616†	8321.6	8954.4	432.98	µg/L	432.98	ppb	10:45:11
1	Cr 267.716†	21095.2	22718.8	483.34	µg/L	483.34	ppb	10:44:51
1	Cu 324.752†	71159.2	73989.8	533.31	µg/L	533.31	ppb	10:44:51
1	Mn 257.610†	130763.7	140864.9	481.94	µg/L	481.94	ppb	10:44:51
1	Mo 202.031†	4398.3	4736.9	494.65	µg/L	494.65	ppb	10:45:11
1	Ni 231.604†	7695.6	7969.4	427.50	µg/L	427.50	ppb	10:45:11
1	P 214.914†	1221.5	1292.0	2670.8	µg/L	2670.8	ppb	10:45:11
1	Pb 220.353†	1720.7	1757.0	476.42	µg/L	476.42	ppb	10:45:11
1	S 181.975 Axial†	597.9	629.1	2712.1	µg/L	2712.1	ppb	10:45:11
1	Sb 206.836†	544.4	565.3	501.60	µg/L	501.60	ppb	10:45:11
1	Se 196.026†	1483.3	1579.3	2355.2	µg/L	2355.2	ppb	10:45:11
1	SiO2†	49051.2	51407.1	10840	µg/L	10840	ppb	10:44:51
1	Si 251.611†	58854.2	62979.6	5098.7	µg/L	5098.7	ppb	10:44:51
1	Sn 189.927†	988.4	1059.9	507.17	µg/L	507.17	ppb	10:45:11
1	Ti 334.940†	206985.0	222469.0	494.27	µg/L	494.27	ppb	10:44:51
1	Tl 190.801†	268.0	311.1	457.48	µg/L	457.48	ppb	10:45:11
1	U 409.014†	5152.5	5584.9	430.26	µg/L	430.26	ppb	10:44:51
1	V 292.402†	43788.2	47123.6	512.63	µg/L	512.63	ppb	10:44:51
1	Zn 213.857†	19213.9	20144.5	465.47	µg/L	465.47	ppb	10:44:51
2	Sc RADIAL	56512.1	56512.1	97.4	%			10:44:26
2	Al 396.153Radial†	676438.6	694727.1	510720	µg/L	510720	ppb	10:44:21
2	Ca 317.933Radial†	511119.0	524725.0	486000	µg/L	486000	ppb	10:44:21
2	Fe 238.204 Radial†	21440.1	22001.8	189030	µg/L	189030	ppb	10:44:26
2	K 766.490 Radial†	7250.2	7269.1	5113.4	µg/L	5113.4	ppb	10:44:26
2	Mg 279.077 IEC†	50625.5	51979.1	489040	µg/L	489040	ppb	10:44:26
2	Na 589.592 Radial†	15903.7	15767.0	5118.5	µg/L	5118.5	ppb	10:44:26
2	Sr 421.552†	48964.0	50252.8	508.14	µg/L	508.14	ppb	10:44:26
2	Sc 361.383	1914770.3	1914770.3	93.659	%			10:45:17
2	Y 371.029	1307757.2	1307757.2	93.080	%			10:45:17
2	Ag 328.068†	27554.5	29943.6	249.41	µg/L	249.41	ppb	10:45:23
2	As 188.979†	238.1	252.7	471.05	µg/L	471.05	ppb	10:45:43
2	B 249.677†	11840.4	12345.3	438.04	µg/L	438.04	ppb	10:45:23
2	Ba 233.527†	17967.6	19202.0	494.46	µg/L	494.46	ppb	10:45:23
2	Be 313.107†	346254.8	372663.6	238.29	µg/L	238.29	ppb	10:45:17
2	Cd 226.502†	16227.1	17463.6	450.76	µg/L	450.76	ppb	10:45:23
2	Co 228.616†	8347.8	8917.9	431.23	µg/L	431.23	ppb	10:45:43
2	Cr 267.716†	20971.6	22423.6	477.06	µg/L	477.06	ppb	10:45:23
2	Cu 324.752†	70923.2	73187.1	527.79	µg/L	527.79	ppb	10:45:23
2	Mn 257.610†	130309.3	139367.8	476.81	µg/L	476.81	ppb	10:45:23
2	Mo 202.031†	4414.3	4720.0	492.90	µg/L	492.90	ppb	10:45:43
2	Ni 231.604†	7715.0	7930.5	425.43	µg/L	425.43	ppb	10:45:43
2	P 214.914†	1235.4	1297.5	2684.2	µg/L	2684.2	ppb	10:45:43
2	Pb 220.353†	1742.6	1767.1	479.31	µg/L	479.31	ppb	10:45:43

2	S 181.975 Axial†	598.6	625.3	2695.7 µg/L	2695.7 ppb	10:45:43
2	Sb 206.836†	535.9	552.0	488.45 µg/L	488.45 ppb	10:45:43
2	Se 196.026†	1498.4	1584.0	2359.1 µg/L	2359.1 ppb	10:45:43
2	SiO2†	48737.2	50692.2	10689 µg/L	10689 ppb	10:45:23
2	Si 251.611†	58505.3	62151.6	5031.7 µg/L	5031.7 ppb	10:45:23
2	Sn 189.927†	991.6	1055.6	505.42 µg/L	505.42 ppb	10:45:43
2	Ti 334.940†	205876.2	219683.3	487.68 µg/L	487.68 ppb	10:45:23
2	Tl 190.801†	265.7	306.6	450.95 µg/L	450.95 ppb	10:45:43
2	U 409.014†	5142.6	5534.4	425.53 µg/L	425.53 ppb	10:45:23
2	V 292.402†	43572.8	46554.8	506.74 µg/L	506.74 ppb	10:45:23
2	Zn 213.857†	19075.6	19848.2	457.99 µg/L	457.99 ppb	10:45:23
3	Sc RADIAL	57144.8	57144.8	98.5 %		10:44:37
3	Al 396.153Radial†	675789.7	686377.0	504580 µg/L	504580 ppb	10:44:32
3	Ca 317.933Radial†	509817.2	517591.6	479400 µg/L	479400 ppb	10:44:32
3	Fe 238.204 Radial†	21478.5	21797.0	187270 µg/L	187270 ppb	10:44:37
3	K 766.490 Radial†	7209.1	7144.9	5026.1 µg/L	5026.1 ppb	10:44:37
3	Mg 279.077 IEC†	50805.4	51586.2	485350 µg/L	485350 ppb	10:44:37
3	Na 589.592 Radial†	16096.9	15782.4	5123.5 µg/L	5123.5 ppb	10:44:37
3	Sr 421.552†	49199.0	49934.8	504.92 µg/L	504.92 ppb	10:44:37
3	Sc 361.383	1930435.2	1930435.2	94.426 %		10:45:49
3	Y 371.029	1317669.2	1317669.2	93.786 %		10:45:49
3	Ag 328.068†	27542.5	29692.1	247.30 µg/L	247.30 ppb	10:45:54
3	As 188.979†	230.5	242.6	451.81 µg/L	451.81 ppb	10:46:15
3	B 249.677†	11822.2	12223.3	433.66 µg/L	433.66 ppb	10:45:54
3	Ba 233.527†	18001.4	19082.1	491.37 µg/L	491.37 ppb	10:45:54
3	Be 313.107†	347345.9	370819.2	237.11 µg/L	237.11 ppb	10:45:49
3	Cd 226.502†	16201.5	17295.9	446.42 µg/L	446.42 ppb	10:45:54
3	Co 228.616†	8333.7	8830.7	427.00 µg/L	427.00 ppb	10:46:15
3	Cr 267.716†	20960.4	22230.0	472.94 µg/L	472.94 ppb	10:45:54
3	Cu 324.752†	70662.9	72296.9	521.45 µg/L	521.45 ppb	10:45:54
3	Mn 257.610†	129688.7	137581.5	470.69 µg/L	470.69 ppb	10:45:54
3	Mo 202.031†	4381.4	4647.0	485.32 µg/L	485.32 ppb	10:46:15
3	Ni 231.604†	7686.9	7833.9	420.25 µg/L	420.25 ppb	10:46:15
3	P 214.914†	1223.7	1274.4	2635.7 µg/L	2635.7 ppb	10:46:15
3	Pb 220.353†	1747.9	1757.5	476.56 µg/L	476.56 ppb	10:46:15
3	S 181.975 Axial†	595.0	616.3	2656.8 µg/L	2656.8 ppb	10:46:15
3	Sb 206.836†	548.0	560.2	496.73 µg/L	496.73 ppb	10:46:15
3	Se 196.026†	1486.5	1558.4	2320.5 µg/L	2320.5 ppb	10:46:15
3	SiO2†	48673.9	50202.9	10586 µg/L	10586 ppb	10:45:54
3	Si 251.611†	58304.0	61431.5	4973.4 µg/L	4973.4 ppb	10:45:54
3	Sn 189.927†	968.6	1022.6	490.51 µg/L	490.51 ppb	10:46:15
3	Ti 334.940†	206008.6	218039.8	483.99 µg/L	483.99 ppb	10:45:54
3	Tl 190.801†	277.6	317.0	465.14 µg/L	465.14 ppb	10:46:15
3	U 409.014†	5029.7	5370.3	411.89 µg/L	411.89 ppb	10:45:54
3	V 292.402†	43435.4	46031.7	501.06 µg/L	501.06 ppb	10:45:54
3	Zn 213.857†	19073.6	19680.8	454.12 µg/L	454.12 ppb	10:45:54

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1915399.0	93.690	%	0.7206				0.77%
Sc RADIAL	56861.2	98.0	%	0.55				0.57%
Y 371.029	1308055.0	93.101	%	0.6739				0.72%
Ag 328.068†	29966.7	249.56	µg/L	2.338	249.56	ppb	2.338	0.94%
QC value within limits for Ag 328.068 Recovery = 99.82%								
Al 396.153Radial†	689793.0	507090	µg/L	3217.8	507090	ppb	3217.8	0.63%
QC value within limits for Al 396.153Radial Recovery = 101.42%								
As 188.979†	249.8	465.60	µg/L	12.036	465.60	ppb	12.036	2.58%
QC value within limits for As 188.979 Recovery = 93.12%								
B 249.677†	12343.9	438.27	µg/L	4.732	438.27	ppb	4.732	1.08%
QC value within limits for B 249.677 Recovery = 87.65%								
Ba 233.527†	19256.2	495.86	µg/L	5.320	495.86	ppb	5.320	1.07%
QC value within limits for Ba 233.527 Recovery = 99.17%								
Be 313.107†	374196.7	239.27	µg/L	2.783	239.27	ppb	2.783	1.16%
QC value within limits for Be 313.107 Recovery = 95.71%								
Ca 317.933Radial†	520221.9	481830	µg/L	3629.1	481830	ppb	3629.1	0.75%
QC value within limits for Ca 317.933Radial Recovery = 96.37%								
Cd 226.502†	17519.2	452.32	µg/L	6.816	452.32	ppb	6.816	1.51%
QC value within limits for Cd 226.502 Recovery = 90.46%								
Co 228.616†	8901.0	430.40	µg/L	3.071	430.40	ppb	3.071	0.71%

```
   QC value within limits for Co 228.616  Recovery = 86.08%
Cr 267.716†            22457.5      477.78 µg/L        5.238      477.78 ppb         5.238   1.10%
   QC value within limits for Cr 267.716  Recovery = 95.56%
Cu 324.752†            73157.9      527.51 µg/L        5.934      527.51 ppb         5.934   1.12%
   QC value within limits for Cu 324.752  Recovery = 105.50%
Fe 238.204 Radial†     21937.2      188480 µg/L       1043.9      188480 ppb        1043.9   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.24%
K 766.490 Radial†       7217.7      5077.2 µg/L        45.57      5077.2 ppb         45.57   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 101.54%
Mg 279.077 IEC†        51798.9      487350 µg/L       1866.9      487350 ppb        1866.9   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.47%
Mn 257.610†           139271.4      476.48 µg/L        5.635      476.48 ppb         5.635   1.18%
   QC value within limits for Mn 257.610  Recovery = 95.30%
Mo 202.031†             4701.3      490.95 µg/L        4.959      490.95 ppb         4.959   1.01%
   QC value within limits for Mo 202.031  Recovery = 98.19%
Na 589.592 Radial†     15778.2      5122.2 µg/L         3.17      5122.2 ppb          3.17   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 102.44%
Ni 231.604†             7911.3      424.39 µg/L        3.734      424.39 ppb         3.734   0.88%
   QC value within limits for Ni 231.604  Recovery = 84.88%
P 214.914†              1288.0      2663.6 µg/L        25.05      2663.6 ppb         25.05   0.94%
   QC value within limits for P 214.914  Recovery = 106.54%
Pb 220.353†             1760.5      477.43 µg/L        1.628      477.43 ppb         1.628   0.34%
   QC value within limits for Pb 220.353  Recovery = 95.49%
S 181.975 Axial†         623.6      2688.2 µg/L        28.42      2688.2 ppb         28.42   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 107.53%
Sb 206.836†              559.2      495.59 µg/L        6.650      495.59 ppb         6.650   1.34%
   QC value within limits for Sb 206.836  Recovery = 99.12%
Se 196.026†             1573.9      2345.0 µg/L        21.25      2345.0 ppb         21.25   0.91%
   QC value within limits for Se 196.026  Recovery = 93.80%
SiO2†                  50767.4       10705 µg/L        127.7       10705 ppb         127.7   1.19%
   QC value within limits for SiO2  Recovery = 100.09%
Si 251.611†            62187.6      5034.6 µg/L        62.71      5034.6 ppb         62.71   1.25%
   QC value within limits for Si 251.611  Recovery = 100.69%
Sn 189.927†             1046.1      501.03 µg/L        9.156      501.03 ppb         9.156   1.83%
   QC value within limits for Sn 189.927  Recovery = 100.21%
Sr 421.552†            50138.2      506.98 µg/L        1.786      506.98 ppb         1.786   0.35%
   QC value within limits for Sr 421.552  Recovery = 101.40%
Ti 334.940†           220064.0      488.65 µg/L        5.210      488.65 ppb         5.210   1.07%
   QC value within limits for Ti 334.940  Recovery = 97.73%
Tl 190.801†              311.6      457.86 µg/L        7.105      457.86 ppb         7.105   1.55%
   QC value within limits for Tl 190.801  Recovery = 91.57%
U 409.014†              5496.5      422.56 µg/L        9.535      422.56 ppb         9.535   2.26%
   QC value within limits for U 409.014  Recovery = 84.51%
V 292.402†             46570.0      506.81 µg/L        5.786      506.81 ppb         5.786   1.14%
   QC value within limits for V 292.402  Recovery = 101.36%
Zn 213.857†            19891.2      459.20 µg/L        5.771      459.20 ppb         5.771   1.26%
   QC value within limits for Zn 213.857  Recovery = 91.84%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/17/2010 10:46:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56720.2	56720.2	97.7	%			10:47:02
1	Al 396.153Radial†	663273.2	678707.3	498950	µg/L	498950	ppb	10:46:57
1	Ca 317.933Radial†	503969.9	515484.3	477440	µg/L	477440	ppb	10:46:57
1	Fe 238.204 Radial†	51643.8	52826.4	453850	µg/L	453850	ppb	10:47:02
1	K 766.490 Radial†	69.6	-105.7	-74.350	µg/L	-74.350	ppb	10:47:02
1	Mg 279.077 IEC†	49571.7	50710.0	476800	µg/L	476800	ppb	10:47:02
1	Na 589.592 Radial†	1467493.1	1501024.3	487290	µg/L	487290	ppb	10:46:57
1	Sr 421.552†	520.2	498.9	5.0449	µg/L	5.0449	ppb	10:47:02
1	Sc 361.383	1904851.8	1904851.8	93.174	%			10:47:32
1	Y 371.029	1290874.2	1290874.2	91.878	%			10:47:32
1	Ag 328.068†	-4971.9	-4812.5	-9.5175	µg/L	-9.5175	ppb	10:47:38
1	As 188.979†	-25.0	-28.3	-52.913	µg/L	-52.913	ppb	10:47:58
1	B 249.677†	1434.4	1242.8	-182.86	µg/L	-182.86	ppb	10:47:38
1	Ba 233.527†	583.7	644.5	16.444	µg/L	16.444	ppb	10:47:58
1	Be 313.107†	-10943.0	-8777.1	-5.6321	µg/L	-5.6321	ppb	10:47:38
1	Cd 226.502†	1086.5	1304.1	-16.074	µg/L	-16.074	ppb	10:47:38
1	Co 228.616†	184.0	202.5	9.7011	µg/L	9.7011	ppb	10:47:58
1	Cr 267.716†	109.4	149.6	3.1378	µg/L	3.1378	ppb	10:47:58
1	Cu 324.752†	-8700.8	-11875.7	-18.294	µg/L	-18.294	ppb	10:47:38
1	Mn 257.610†	-6687.7	-6941.0	17.800	µg/L	17.800	ppb	10:47:32
1	Mo 202.031†	-210.3	-218.9	-5.2786	µg/L	-5.2786	ppb	10:47:58
1	Ni 231.604†	58.0	-244.5	-7.1673	µg/L	-7.1673	ppb	10:47:58
1	P 214.914†	297.1	297.3	410.54	µg/L	410.54	ppb	10:47:58
1	Pb 220.353†	156.1	74.0	15.640	µg/L	15.640	ppb	10:47:58
1	S 181.975 Axial†	32.3	20.8	89.879	µg/L	89.879	ppb	10:47:58
1	Sb 206.836†	61.6	46.0	2.0447	µg/L	2.0447	ppb	10:47:58
1	Se 196.026†	-130.3	-155.7	445.57	µg/L	445.57	ppb	10:47:58
1	SiO2†	1092.2	-172.3	-36.337	µg/L	-36.337	ppb	10:47:58
1	Si 251.611†	-283.0	-618.2	-50.049	µg/L	-50.049	ppb	10:47:58
1	Sn 189.927†	-43.9	-50.2	-16.858	µg/L	-16.858	ppb	10:47:58
1	Ti 334.940†	15767.8	16792.4	9.5711	µg/L	9.5711	ppb	10:47:38
1	Tl 190.801†	-55.9	-37.0	22.672	µg/L	22.672	ppb	10:47:58
1	U 409.014†	142409.7	152886.2	13207	µg/L	13207	ppb	10:47:38
1	V 292.402†	-6161.5	-6580.8	-0.6601	µg/L	-0.6601	ppb	10:47:38
1	Zn 213.857†	2798.3	2484.5	13.828	µg/L	13.828	ppb	10:47:58
2	Sc RADIAL	56896.7	56896.7	98.0	%			10:47:13
2	Al 396.153Radial†	662951.2	676272.9	497160	µg/L	497160	ppb	10:47:08
2	Ca 317.933Radial†	502442.7	512326.2	474520	µg/L	474520	ppb	10:47:08
2	Fe 238.204 Radial†	51625.7	52644.1	452280	µg/L	452280	ppb	10:47:13
2	K 766.490 Radial†	123.1	-51.3	-36.080	µg/L	-36.080	ppb	10:47:13
2	Mg 279.077 IEC†	49597.9	50579.4	475580	µg/L	475580	ppb	10:47:13
2	Na 589.592 Radial†	1467785.5	1496663.1	485870	µg/L	485870	ppb	10:47:08
2	Sr 421.552†	539.4	516.9	5.2264	µg/L	5.2264	ppb	10:47:13
2	Sc 361.383	1912061.2	1912061.2	93.527	%			10:48:04
2	Y 371.029	1295662.5	1295662.5	92.219	%			10:48:04
2	Ag 328.068†	-5057.9	-4884.3	-10.165	µg/L	-10.165	ppb	10:48:10
2	As 188.979†	-30.1	-33.6	-63.087	µg/L	-63.087	ppb	10:48:30
2	B 249.677†	1421.1	1222.7	-182.92	µg/L	-182.92	ppb	10:48:10
2	Ba 233.527†	581.7	639.9	16.330	µg/L	16.330	ppb	10:48:30
2	Be 313.107†	-10813.4	-8594.3	-5.5147	µg/L	-5.5147	ppb	10:48:10
2	Cd 226.502†	1083.2	1296.1	-16.111	µg/L	-16.111	ppb	10:48:10
2	Co 228.616†	171.8	188.7	9.0381	µg/L	9.0381	ppb	10:48:30
2	Cr 267.716†	95.7	134.5	2.8186	µg/L	2.8186	ppb	10:48:30
2	Cu 324.752†	-8706.4	-11846.6	-18.313	µg/L	-18.313	ppb	10:48:10
2	Mn 257.610†	-6787.3	-7020.5	17.373	µg/L	17.373	ppb	10:48:04
2	Mo 202.031†	-200.8	-207.8	-4.1990	µg/L	-4.1990	ppb	10:48:30
2	Ni 231.604†	80.6	-220.6	-5.9124	µg/L	-5.9124	ppb	10:48:30
2	P 214.914†	294.2	293.0	402.26	µg/L	402.26	ppb	10:48:30
2	Pb 220.353†	171.3	89.7	19.778	µg/L	19.778	ppb	10:48:30

2	S 181.975 Axial†	25.6	13.5	58.313 µg/L	58.313 ppb	10:48:30
2	Sb 206.836†	40.7	23.3	-19.323 µg/L	-19.323 ppb	10:48:30
2	Se 196.026†	-126.3	-150.9	450.44 µg/L	450.44 ppb	10:48:30
2	SiO2†	1080.3	-189.4	-39.938 µg/L	-39.938 ppb	10:48:30
2	Si 251.611†	-301.1	-636.4	-51.522 µg/L	-51.522 ppb	10:48:30
2	Sn 189.927†	-41.2	-47.1	-15.441 µg/L	-15.441 ppb	10:48:30
2	Ti 334.940†	15378.7	16312.5	8.4887 µg/L	8.4887 ppb	10:48:10
2	Tl 190.801†	-51.7	-32.3	28.937 µg/L	28.937 ppb	10:48:30
2	U 409.014†	141697.0	151547.9	13091 µg/L	13091 ppb	10:48:10
2	V 292.402†	-6006.0	-6389.6	1.0099 µg/L	1.0099 ppb	10:48:10
2	Zn 213.857†	2776.5	2449.8	13.098 µg/L	13.098 ppb	10:48:30
3	Sc RADIAL	56787.9	56787.9	97.8 %		10:47:24
3	Al 396.153Radial†	657912.3	672419.4	494330 µg/L	494330 ppb	10:47:19
3	Ca 317.933Radial†	498163.4	508935.2	471380 µg/L	471380 ppb	10:47:19
3	Fe 238.204 Radial†	51475.9	52591.9	451830 µg/L	451830 ppb	10:47:24
3	K 766.490 Radial†	152.8	-20.7	-14.587 µg/L	-14.587 ppb	10:47:24
3	Mg 279.077 IEC†	49551.7	50629.2	476050 µg/L	476050 ppb	10:47:24
3	Na 589.592 Radial†	1456884.9	1488392.7	483180 µg/L	483180 ppb	10:47:19
3	Sr 421.552†	531.6	509.9	5.1564 µg/L	5.1564 ppb	10:47:24
3	Sc 361.383	1904969.6	1904969.6	93.180 %		10:48:36
3	Y 371.029	1291515.8	1291515.8	91.924 %		10:48:36
3	Ag 328.068†	-5101.2	-4950.9	-10.730 µg/L	-10.730 ppb	10:48:42
3	As 188.979†	-19.7	-22.6	-41.826 µg/L	-41.826 ppb	10:49:02
3	B 249.677†	1454.2	1263.9	-180.90 µg/L	-180.90 ppb	10:48:42
3	Ba 233.527†	568.5	628.1	16.023 µg/L	16.023 ppb	10:49:02
3	Be 313.107†	-10832.7	-8658.0	-5.5553 µg/L	-5.5553 ppb	10:48:42
3	Cd 226.502†	1100.7	1319.2	-15.436 µg/L	-15.436 ppb	10:48:42
3	Co 228.616†	200.8	220.5	10.577 µg/L	10.577 ppb	10:49:02
3	Cr 267.716†	81.8	120.0	2.5078 µg/L	2.5078 ppb	10:49:02
3	Cu 324.752†	-8724.7	-11900.8	-18.746 µg/L	-18.746 ppb	10:48:42
3	Mn 257.610†	-6637.6	-6886.9	17.746 µg/L	17.746 ppb	10:48:36
3	Mo 202.031†	-202.8	-210.7	-4.5175 µg/L	-4.5175 ppb	10:49:02
3	Ni 231.604†	70.6	-231.0	-6.4756 µg/L	-6.4756 ppb	10:49:02
3	P 214.914†	292.4	292.2	400.09 µg/L	400.09 ppb	10:49:02
3	Pb 220.353†	172.3	91.3	19.978 µg/L	19.978 ppb	10:49:02
3	S 181.975 Axial†	38.6	27.6	119.06 µg/L	119.06 ppb	10:49:02
3	Sb 206.836†	57.4	41.4	-1.7742 µg/L	-1.7742 ppb	10:49:02
3	Se 196.026†	-124.2	-149.2	452.33 µg/L	452.33 ppb	10:49:02
3	SiO2†	1091.1	-173.5	-36.594 µg/L	-36.594 ppb	10:49:02
3	Si 251.611†	-276.7	-611.5	-49.504 µg/L	-49.504 ppb	10:49:02
3	Sn 189.927†	-44.6	-51.0	-17.045 µg/L	-17.045 ppb	10:49:02
3	Ti 334.940†	15201.6	16183.7	8.0973 µg/L	8.0973 ppb	10:48:42
3	Tl 190.801†	-50.0	-30.7	31.353 µg/L	31.353 ppb	10:49:02
3	U 409.014†	142183.8	152634.3	13186 µg/L	13186 ppb	10:48:42
3	V 292.402†	-6188.5	-6609.4	-1.2092 µg/L	-1.2092 ppb	10:48:42
3	Zn 213.857†	2788.0	2473.2	13.683 µg/L	13.683 ppb	10:49:02

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1907294.2	93.294	%	0.2020				0.22%
Sc RADIAL	56801.6	97.9	%	0.15				0.16%
Y 371.029	1292684.2	92.007	%	0.1850				0.20%
Ag 328.068†	-4882.6	-10.137	µg/L	0.6066	-10.137	ppb	0.6066	5.98%
Al 396.153Radial†	675799.8	496810	µg/L	2330.8	496810	ppb	2330.8	0.47%
QC value within limits for Al 396.153Radial Recovery = 99.36%								
As 188.979†	-28.2	-52.609	µg/L	10.6341	-52.609	ppb	10.6341	20.21%
B 249.677†	1243.1	-182.23	µg/L	1.152	-182.23	ppb	1.152	0.63%
Ba 233.527†	637.5	16.266	µg/L	0.2175	16.266	ppb	0.2175	1.34%
Be 313.107†	-8676.5	-5.5674	µg/L	0.05964	-5.5674	ppb	0.05964	1.07%
Ca 317.933Radial†	512248.6	474450	µg/L	3033.6	474450	ppb	3033.6	0.64%
QC value within limits for Ca 317.933Radial Recovery = 94.89%								
Cd 226.502†	1306.5	-15.874	µg/L	0.3795	-15.874	ppb	0.3795	2.39%
Co 228.616†	203.9	9.7722	µg/L	0.77214	9.7722	ppb	0.77214	7.90%
Cr 267.716†	134.7	2.8214	µg/L	0.31502	2.8214	ppb	0.31502	11.17%
Cu 324.752†	-11874.4	-18.451	µg/L	0.2558	-18.451	ppb	0.2558	1.39%
Fe 238.204 Radial†	52687.5	452650	µg/L	1058.0	452650	ppb	1058.0	0.23%
QC value within limits for Fe 238.204 Radial Recovery = 90.53%								
K 766.490 Radial†	-59.2	-41.672	µg/L	30.2716	-41.672	ppb	30.2716	72.64%
Mg 279.077 IEC†	50639.5	476140	µg/L	619.6	476140	ppb	619.6	0.13%

QC value within limits for Mg 279.077 IEC Recovery = 95.23%

Mn 257.610†	-6949.4	17.640 µg/L	0.2329	17.640 ppb	0.2329	1.32%
Mo 202.031†	-212.5	-4.6651 µg/L	0.55472	-4.6651 ppb	0.55472	11.89%
Na 589.592 Radial†	1495360.0	485450 µg/L	2082.8	485450 ppb	2082.8	0.43%

QC value within limits for Na 589.592 Radial Recovery = 97.09%

Ni 231.604†	-232.0	-6.5185 µg/L	0.62855	-6.5185 ppb	0.62855	9.64%
P 214.914†	294.2	404.29 µg/L	5.516	404.29 ppb	5.516	1.36%
Pb 220.353†	85.0	18.465 µg/L	2.4483	18.465 ppb	2.4483	13.26%
S 181.975 Axial†	20.7	89.083 µg/L	30.3800	89.083 ppb	30.3800	34.10%
Sb 206.836†	36.9	-6.3509 µg/L	11.39545	-6.3509 ppb	11.39545	179.43%
Se 196.026†	-151.9	449.45 µg/L	3.486	449.45 ppb	3.486	0.78%
SiO2†	-178.4	-37.623 µg/L	2.0090	-37.623 ppb	2.0090	5.34%
Si 251.611†	-622.0	-50.358 µg/L	1.0438	-50.358 ppb	1.0438	2.07%
Sn 189.927†	-49.4	-16.448 µg/L	0.8775	-16.448 ppb	0.8775	5.33%
Sr 421.552†	508.6	5.1426 µg/L	0.09154	5.1426 ppb	0.09154	1.78%
Ti 334.940†	16429.5	8.7190 µg/L	0.76341	8.7190 ppb	0.76341	8.76%
Tl 190.801†	-33.3	27.654 µg/L	4.4804	27.654 ppb	4.4804	16.20%
U 409.014†	152356.1	13162 µg/L	61.8	13162 ppb	61.8	0.47%

QC value less than the lower limit for U 409.014 Recovery = 87.74%

V 292.402†	-6526.6	-0.2865 µg/L	1.15579	-0.2865 ppb	1.15579	403.47%
Zn 213.857†	2469.2	13.536 µg/L	0.3862	13.536 ppb	0.3862	2.85%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/17/2010 10:49:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58318.7	58318.7	100	%			10:49:51
1	Al 396.153Radial†	450.2	470.9	140.97	µg/L	140.97	ppb	10:49:51
1	Ca 317.933Radial†	336.6	139.5	129.23	µg/L	129.23	ppb	10:50:11
1	Fe 238.204 Radial†	9.3	-8.0	133.58	µg/L	133.58	ppb	10:50:11
1	K 766.490 Radial†	429422.7	427179.4	300500	µg/L	300500	ppb	10:49:46
1	Mg 279.077 IEC†	5.1	-8.3	89.680	µg/L	89.680	ppb	10:50:11
1	Na 589.592 Radial†	1408.0	835.0	271.08	µg/L	271.08	ppb	10:49:51
1	Sr 421.552†	985505.7	980730.2	9916.8	µg/L	9916.8	ppb	10:49:46
1	Sc 361.383	2016964.9	2016964.9	98.658	%			10:51:35
1	Y 371.029	1372586.8	1372586.8	97.694	%			10:51:35
1	Ag 328.068†	-7267.4	-6842.5	13.028	µg/L	13.028	ppb	10:51:40
1	As 188.979†	5036.9	5103.9	9801.3	µg/L	9801.3	ppb	10:51:40
1	B 249.677†	112807.8	114045.4	4989.6	µg/L	4989.6	ppb	10:51:35
1	Ba 233.527†	563648.2	571332.8	14705	µg/L	14705	ppb	10:51:35
1	Be 313.107†	4482941.4	4546884.9	2906.0	µg/L	2906.0	ppb	10:51:25
1	Cd 226.502†	351641.5	356562.4	9640.5	µg/L	9640.5	ppb	10:51:35
1	Co 228.616†	194029.8	196674.0	9512.5	µg/L	9512.5	ppb	10:51:35
1	Cr 267.716†	1125436.3	1140776.4	24261	µg/L	24261	ppb	10:51:35
1	Cu 324.752†	2926204.8	2963468.8	20307	µg/L	20307	ppb	10:51:35
1	Mn 257.610†	2801230.1	2839568.4	9601.4	µg/L	9601.4	ppb	10:51:35
1	Mo 202.031†	95772.8	97082.3	9990.4	µg/L	9990.4	ppb	10:51:35
1	Ni 231.604†	179126.0	181255.7	9667.6	µg/L	9667.6	ppb	10:51:35
1	P 214.914†	7225.1	7301.8	13412	µg/L	13412	ppb	10:51:40
1	Pb 220.353†	95091.9	96291.8	24971	µg/L	24971	ppb	10:51:35
1	S 181.975 Axial†	12114.2	12265.2	52873	µg/L	52873	ppb	10:51:40
1	Sb 206.836†	10850.7	10978.1	10393	µg/L	10393	ppb	10:51:40
1	Se 196.026†	6350.4	6420.9	9782.6	µg/L	9782.6	ppb	10:51:40
1	SiO2†	468974.3	474008.7	99950	µg/L	99950	ppb	10:51:35
1	Si 251.611†	568746.3	576167.8	46646	µg/L	46646	ppb	10:51:35
1	Sn 189.927†	23140.0	23451.7	10448	µg/L	10448	ppb	10:51:40
1	Ti 334.940†	4180288.6	4237017.4	10001	µg/L	10001	ppb	10:51:25
1	Tl 190.801†	6812.2	6927.8	9700.4	µg/L	9700.4	ppb	10:51:40
1	U 409.014†	732.4	786.0	68.378	µg/L	68.378	ppb	10:51:35
1	V 292.402†	967311.5	980500.7	10224	µg/L	10224	ppb	10:51:35
1	Zn 213.857†	576866.2	584193.7	14564	µg/L	14564	ppb	10:51:35
2	Sc RADIAL	57811.6	57811.6	99.6	%			10:50:22
2	Al 396.153Radial†	361.1	385.4	79.038	µg/L	79.038	ppb	10:50:22
2	Ca 317.933Radial†	315.7	121.5	112.57	µg/L	112.57	ppb	10:50:42
2	Fe 238.204 Radial†	4.8	-12.4	94.771	µg/L	94.771	ppb	10:50:42
2	K 766.490 Radial†	433886.2	435409.6	306290	µg/L	306290	ppb	10:50:17
2	Mg 279.077 IEC†	-3.6	-17.1	6.6576	µg/L	6.6576	ppb	10:50:42
2	Na 589.592 Radial†	1239.4	678.1	220.12	µg/L	220.12	ppb	10:50:22
2	Sr 421.552†	996029.1	999898.8	10111	µg/L	10111	ppb	10:50:17
2	Sc 361.383	2058752.6	2058752.6	100.70	%			10:51:58
2	Y 371.029	1402482.7	1402482.7	99.822	%			10:51:58
2	Ag 328.068†	-7185.9	-6612.1	14.455	µg/L	14.455	ppb	10:52:04
2	As 188.979†	5076.1	5039.3	9677.0	µg/L	9677.0	ppb	10:52:04
2	B 249.677†	114795.2	113698.1	4974.3	µg/L	4974.3	ppb	10:51:58
2	Ba 233.527†	572742.9	568767.8	14639	µg/L	14639	ppb	10:51:58
2	Be 313.107†	4516389.6	4487869.4	2868.3	µg/L	2868.3	ppb	10:51:48
2	Cd 226.502†	358515.5	356153.9	9629.5	µg/L	9629.5	ppb	10:51:58
2	Co 228.616†	197160.9	195791.4	9470.0	µg/L	9470.0	ppb	10:51:58
2	Cr 267.716†	1143440.5	1135500.7	24149	µg/L	24149	ppb	10:51:58
2	Cu 324.752†	2964638.1	2941431.5	20156	µg/L	20156	ppb	10:51:58
2	Mn 257.610†	2849989.7	2830356.5	9570.2	µg/L	9570.2	ppb	10:51:58
2	Mo 202.031†	97318.3	96646.6	9945.5	µg/L	9945.5	ppb	10:51:58
2	Ni 231.604†	182264.8	180687.3	9637.3	µg/L	9637.3	ppb	10:51:58
2	P 214.914†	7236.5	7164.5	13135	µg/L	13135	ppb	10:52:04
2	Pb 220.353†	96893.9	96124.8	24928	µg/L	24928	ppb	10:51:58

2	S 181.975 Axial†	12126.0	12027.7	51849 µg/L	51849 ppb	10:52:04
2	Sb 206.836†	10835.5	10739.8	10165 µg/L	10165 ppb	10:52:04
2	Se 196.026†	6439.4	6378.7	9718.3 µg/L	9718.3 ppb	10:52:04
2	SiO2†	478041.1	473363.8	99814 µg/L	99814 ppb	10:51:58
2	Si 251.611†	579555.7	575200.6	46567 µg/L	46567 ppb	10:51:58
2	Sn 189.927†	23111.1	22946.9	10223 µg/L	10223 ppb	10:52:04
2	Ti 334.940†	4211452.8	4181960.4	9871.4 µg/L	9871.4 ppb	10:51:48
2	Tl 190.801†	6878.8	6853.8	9596.7 µg/L	9596.7 ppb	10:52:04
2	U 409.014†	847.6	885.4	77.026 µg/L	77.026 ppb	10:51:58
2	V 292.402†	981806.8	974993.9	10167 µg/L	10167 ppb	10:51:58
2	Zn 213.857†	585434.5	580834.1	14480 µg/L	14480 ppb	10:51:58
3	Sc RADIAL	58198.6	58198.6	100 %		10:50:53
3	Al 396.153Radial†	366.4	388.3	99.222 µg/L	99.222 ppb	10:50:53
3	Ca 317.933Radial†	306.7	110.4	102.24 µg/L	102.24 ppb	10:51:13
3	Fe 238.204 Radial†	5.6	-11.6	82.983 µg/L	82.983 ppb	10:51:13
3	K 766.490 Radial†	432517.7	431147.7	303290 µg/L	303290 ppb	10:50:48
3	Mg 279.077 IEC†	-0.3	-13.8	23.035 µg/L	23.035 ppb	10:51:13
3	Na 589.592 Radial†	1158.7	589.3	191.31 µg/L	191.31 ppb	10:50:53
3	Sr 421.552†	993118.7	990345.7	10014 µg/L	10014 ppb	10:50:48
3	Sc 361.383	2062465.3	2062465.3	100.88 %		10:52:22
3	Y 371.029	1404225.3	1404225.3	99.946 %		10:52:22
3	Ag 328.068†	-6458.5	-5878.2	14.097 µg/L	14.097 ppb	10:52:28
3	As 188.979†	4625.7	4583.7	8802.1 µg/L	8802.1 ppb	10:52:28
3	B 249.677†	108491.8	107244.8	4690.0 µg/L	4690.0 ppb	10:52:22
3	Ba 233.527†	528223.5	523614.6	13476 µg/L	13476 ppb	10:52:22
3	Be 313.107†	4347081.6	4311971.1	2755.9 µg/L	2755.9 ppb	10:52:12
3	Cd 226.502†	329432.1	326684.4	8832.6 µg/L	8832.6 ppb	10:52:22
3	Co 228.616†	179552.1	177984.3	8607.7 µg/L	8607.7 ppb	10:52:22
3	Cr 267.716†	1019992.8	1011090.4	21503 µg/L	21503 ppb	10:52:22
3	Cu 324.752†	2706467.4	2680222.7	18366 µg/L	18366 ppb	10:52:22
3	Mn 257.610†	2598817.8	2576290.2	8711.1 µg/L	8711.1 ppb	10:52:22
3	Mo 202.031†	88868.2	88096.6	9065.7 µg/L	9065.7 ppb	10:52:22
3	Ni 231.604†	166043.7	164282.5	8762.3 µg/L	8762.3 ppb	10:52:22
3	P 214.914†	6448.7	6370.6	11631 µg/L	11631 ppb	10:52:28
3	Pb 220.353†	90364.8	89479.8	23204 µg/L	23204 ppb	10:52:22
3	S 181.975 Axial†	11142.9	11031.5	47555 µg/L	47555 ppb	10:52:28
3	Sb 206.836†	9839.6	9733.3	9217.7 µg/L	9217.7 ppb	10:52:28
3	Se 196.026†	5877.8	5810.5	8852.6 µg/L	8852.6 ppb	10:52:28
3	SiO2†	447321.7	442058.9	93213 µg/L	93213 ppb	10:52:22
3	Si 251.611†	542179.1	537115.4	43484 µg/L	43484 ppb	10:52:22
3	Sn 189.927†	20282.1	20101.3	8955.2 µg/L	8955.2 ppb	10:52:28
3	Ti 334.940†	4051779.3	4016157.4	9480.1 µg/L	9480.1 ppb	10:52:12
3	Tl 190.801†	6526.2	6492.0	9091.0 µg/L	9091.0 ppb	10:52:28
3	U 409.014†	802.9	839.5	73.039 µg/L	73.039 ppb	10:52:22
3	V 292.402†	892923.0	885133.6	9229.4 µg/L	9229.4 ppb	10:52:22
3	Zn 213.857†	535903.0	530689.9	13231 µg/L	13231 ppb	10:52:22

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2046060.9	100.08	%	1.236				1.23%
Sc RADIAL	58109.6	100	%	0.5				0.46%
Y 371.029	1393098.3	99.154	%	1.2658				1.28%
Ag 328.068†	-6444.3	13.860	µg/L	0.7423	13.860	ppb	0.7423	5.36%
Al 396.153Radial†	414.9	106.41	µg/L	31.587	106.41	ppb	31.587	29.68%
As 188.979†	4908.9	9426.8	µg/L	544.57	9426.8	ppb	544.57	5.78%
QC value within limits for As 188.979 Recovery = 94.27%								
B 249.677†	111662.7	4884.6	µg/L	168.75	4884.6	ppb	168.75	3.45%
QC value within limits for B 249.677 Recovery = 97.69%								
Ba 233.527†	554571.7	14273	µg/L	690.9	14273	ppb	690.9	4.84%
QC value within limits for Ba 233.527 Recovery = 95.15%								
Be 313.107†	4448908.5	2843.4	µg/L	78.10	2843.4	ppb	78.10	2.75%
QC value within limits for Be 313.107 Recovery = 94.78%								
Ca 317.933Radial†	123.8	114.68	µg/L	13.615	114.68	ppb	13.615	11.87%
Cd 226.502†	346466.9	9367.5	µg/L	463.29	9367.5	ppb	463.29	4.95%
QC value within limits for Cd 226.502 Recovery = 93.68%								
Co 228.616†	190149.9	9196.7	µg/L	510.58	9196.7	ppb	510.58	5.55%
QC value within limits for Co 228.616 Recovery = 91.97%								
Cr 267.716†	1095789.2	23304	µg/L	1560.9	23304	ppb	1560.9	6.70%
QC value within limits for Cr 267.716 Recovery = 93.22%								

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Cu 324.752†          2861707.6       19610 µg/L        1079.7       19610 ppb        1079.7   5.51%
   QC value within limits for Cu 324.752  Recovery = 98.05%
Fe 238.204 Radial†       -10.7      103.78 µg/L        26.473      103.78 ppb        26.473  25.51%
K 766.490 Radial†     431245.6      303360 µg/L        2895.4      303360 ppb        2895.4   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 101.12%
Mg 279.077 IEC†          -13.0      39.791 µg/L       43.9742      39.791 ppb       43.9742 110.51%
Mn 257.610†          2748738.3      9294.2 µg/L        505.22      9294.2 ppb        505.22   5.44%
   QC value within limits for Mn 257.610  Recovery = 92.94%
Mo 202.031†            93941.9      9667.2 µg/L        521.41      9667.2 ppb        521.41   5.39%
   QC value within limits for Mo 202.031  Recovery = 96.67%
Na 589.592 Radial†       700.8      227.51 µg/L        40.393      227.51 ppb        40.393  17.75%
Ni 231.604†           175408.5      9355.7 µg/L        514.14      9355.7 ppb        514.14   5.50%
   QC value within limits for Ni 231.604  Recovery = 93.56%
P 214.914†              6945.6       12726 µg/L         958.5       12726 ppb         958.5   7.53%
   QC value less than the lower limit for P 214.914  Recovery = 84.84%
Pb 220.353†            93965.5       24368 µg/L        1007.5       24368 ppb        1007.5   4.13%
   QC value within limits for Pb 220.353  Recovery = 97.47%
S 181.975 Axial†       11774.8       50759 µg/L        2821.7       50759 ppb        2821.7   5.56%
   QC value within limits for S 181.975 Axial  Recovery = 101.52%
Sb 206.836†            10483.7      9925.2 µg/L        623.18      9925.2 ppb        623.18   6.28%
   QC value within limits for Sb 206.836  Recovery = 99.25%
Se 196.026†             6203.4      9451.2 µg/L        519.38      9451.2 ppb        519.38   5.50%
   QC value within limits for Se 196.026  Recovery = 94.51%
SiO2†                 463143.8       97659 µg/L        3850.9       97659 ppb        3850.9   3.94%
   QC value within limits for SiO2  Recovery = 91.27%
Si 251.611†           562828.0       45566 µg/L        1803.2       45566 ppb        1803.2   3.96%
   QC value within limits for Si 251.611  Recovery = 91.13%
Sn 189.927†            22166.6      9875.3 µg/L        804.72      9875.3 ppb        804.72   8.15%
   QC value within limits for Sn 189.927  Recovery = 98.75%
Sr 421.552†           990324.9       10014 µg/L          96.9       10014 ppb          96.9   0.97%
   QC value within limits for Sr 421.552  Recovery = 100.14%
Ti 334.940†          4145045.1      9784.3 µg/L        271.37      9784.3 ppb        271.37   2.77%
   QC value within limits for Ti 334.940  Recovery = 97.84%
Tl 190.801†             6757.9      9462.7 µg/L        326.05      9462.7 ppb        326.05   3.45%
   QC value within limits for Tl 190.801  Recovery = 94.63%
U 409.014†               837.0      72.814 µg/L        4.3282      72.814 ppb        4.3282   5.94%
V 292.402†            946876.1      9873.6 µg/L        558.67      9873.6 ppb        558.67   5.66%
   QC value within limits for V 292.402  Recovery = 98.74%
Zn 213.857†           565239.3       14092 µg/L         747.0       14092 ppb         747.0   5.30%
   QC value within limits for Zn 213.857  Recovery = 93.94%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 10:52:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58055.1	58055.1	100	%			10:53:13
1	Al 396.153Radial†	7282.6	7303.4	5357.8	µg/L	5357.8	ppb	10:53:13
1	Ca 317.933Radial†	5889.6	5692.4	5272.4	µg/L	5272.4	ppb	10:53:33
1	Fe 238.204 Radial†	644.5	627.0	5398.3	µg/L	5398.3	ppb	10:53:33
1	K 766.490 Radial†	7953.2	7774.0	5468.6	µg/L	5468.6	ppb	10:53:13
1	Mg 279.077 IEC†	591.3	577.7	5440.9	µg/L	5440.9	ppb	10:53:33
1	Na 589.592 Radial†	33755.3	33179.3	10771	µg/L	10771	ppb	10:53:13
1	Sr 421.552†	52759.3	52710.6	532.99	µg/L	532.99	ppb	10:53:13
1	Sc 361.383	2029901.6	2029901.6	99.291	%			10:54:33
1	Y 371.029	1389919.2	1389919.2	98.928	%			10:54:33
1	Ag 328.068†	66283.4	67280.5	530.40	µg/L	530.40	ppb	10:54:38
1	As 188.979†	283.4	283.9	545.24	µg/L	545.24	ppb	10:54:58
1	B 249.677†	12605.0	12398.3	536.26	µg/L	536.26	ppb	10:54:38
1	Ba 233.527†	20679.7	20845.4	536.81	µg/L	536.81	ppb	10:54:38
1	Be 313.107†	824790.8	833649.0	533.30	µg/L	533.30	ppb	10:54:33
1	Cd 226.502†	19655.6	19933.9	538.35	µg/L	538.35	ppb	10:54:38
1	Co 228.616†	11063.4	11147.4	539.22	µg/L	539.22	ppb	10:54:38
1	Cr 267.716†	25135.6	25347.3	539.25	µg/L	539.25	ppb	10:54:38
1	Cu 324.752†	80326.2	78362.3	537.73	µg/L	537.73	ppb	10:54:38
1	Mn 257.610†	158361.0	159728.7	540.59	µg/L	540.59	ppb	10:54:33
1	Mo 202.031†	5262.1	5306.6	546.28	µg/L	546.28	ppb	10:54:58
1	Ni 231.604†	10320.1	10087.1	538.07	µg/L	538.07	ppb	10:54:38
1	P 214.914†	1301.5	1289.2	2667.9	µg/L	2667.9	ppb	10:54:58
1	Pb 220.353†	2212.5	2134.8	553.92	µg/L	553.92	ppb	10:54:58
1	S 181.975 Axial†	263.5	251.5	1084.3	µg/L	1084.3	ppb	10:54:58
1	Sb 206.836†	595.7	579.8	557.10	µg/L	557.10	ppb	10:54:58
1	Se 196.026†	373.2	360.0	556.96	µg/L	556.96	ppb	10:54:58
1	SiO2†	28503.9	27363.0	5769.8	µg/L	5769.8	ppb	10:54:38
1	Si 251.611†	33363.9	33287.7	2694.9	µg/L	2694.9	ppb	10:54:38
1	Sn 189.927†	1221.7	1227.3	546.81	µg/L	546.81	ppb	10:54:58
1	Ti 334.940†	225056.4	226533.1	534.38	µg/L	534.38	ppb	10:54:33
1	Tl 190.801†	357.0	382.5	536.81	µg/L	536.81	ppb	10:54:58
1	U 409.014†	6092.1	6179.3	536.47	µg/L	536.47	ppb	10:54:38
1	V 292.402†	51468.6	51868.2	540.48	µg/L	540.48	ppb	10:54:38
1	Zn 213.857†	22043.6	21682.2	539.54	µg/L	539.54	ppb	10:54:38
2	Sc RADIAL	57436.8	57436.8	99.0	%			10:53:38
2	Al 396.153Radial†	7276.9	7376.0	5411.3	µg/L	5411.3	ppb	10:53:38
2	Ca 317.933Radial†	5885.0	5751.2	5326.8	µg/L	5326.8	ppb	10:53:58
2	Fe 238.204 Radial†	644.0	633.4	5453.4	µg/L	5453.4	ppb	10:53:58
2	K 766.490 Radial†	7969.4	7876.0	5540.3	µg/L	5540.3	ppb	10:53:38
2	Mg 279.077 IEC†	589.6	582.3	5484.4	µg/L	5484.4	ppb	10:53:58
2	Na 589.592 Radial†	33633.4	33419.4	10849	µg/L	10849	ppb	10:53:38
2	Sr 421.552†	52572.0	53089.0	536.82	µg/L	536.82	ppb	10:53:38
2	Sc 361.383	2041867.3	2041867.3	99.876	%			10:55:05
2	Y 371.029	1397784.3	1397784.3	99.488	%			10:55:05
2	Ag 328.068†	66272.6	66878.4	527.23	µg/L	527.23	ppb	10:55:10
2	As 188.979†	278.9	277.7	533.39	µg/L	533.39	ppb	10:55:30
2	B 249.677†	12616.6	12335.5	533.50	µg/L	533.50	ppb	10:55:10
2	Ba 233.527†	20636.1	20679.7	532.54	µg/L	532.54	ppb	10:55:10
2	Be 313.107†	818044.5	822026.4	525.86	µg/L	525.86	ppb	10:55:05
2	Cd 226.502†	19612.6	19774.8	534.05	µg/L	534.05	ppb	10:55:10
2	Co 228.616†	11046.5	11065.2	535.24	µg/L	535.24	ppb	10:55:10
2	Cr 267.716†	25126.3	25189.7	535.90	µg/L	535.90	ppb	10:55:10
2	Cu 324.752†	79998.6	77560.2	532.24	µg/L	532.24	ppb	10:55:10
2	Mn 257.610†	157194.8	157626.4	533.48	µg/L	533.48	ppb	10:55:05
2	Mo 202.031†	5225.8	5239.1	539.35	µg/L	539.35	ppb	10:55:30
2	Ni 231.604†	10356.5	10062.6	536.77	µg/L	536.77	ppb	10:55:10
2	P 214.914†	1275.2	1255.2	2596.5	µg/L	2596.5	ppb	10:55:30
2	Pb 220.353†	2174.9	2084.0	540.75	µg/L	540.75	ppb	10:55:30

2	S 181.975 Axial†	263.8	250.3	1079.1 µg/L	1079.1 ppb	10:55:30
2	Sb 206.836†	587.0	567.6	545.33 µg/L	545.33 ppb	10:55:30
2	Se 196.026†	368.4	353.0	546.37 µg/L	546.37 ppb	10:55:30
2	SiO2†	28481.5	27172.3	5729.6 µg/L	5729.6 ppb	10:55:10
2	Si 251.611†	33304.7	33031.5	2674.2 µg/L	2674.2 ppb	10:55:10
2	Sn 189.927†	1206.9	1205.3	537.03 µg/L	537.03 ppb	10:55:30
2	Ti 334.940†	223282.8	223429.0	527.05 µg/L	527.05 ppb	10:55:05
2	Tl 190.801†	361.4	384.8	539.85 µg/L	539.85 ppb	10:55:30
2	U 409.014†	6088.5	6139.8	533.02 µg/L	533.02 ppb	10:55:10
2	V 292.402†	51364.8	51460.5	536.22 µg/L	536.22 ppb	10:55:10
2	Zn 213.857†	21940.4	21448.7	533.70 µg/L	533.70 ppb	10:55:10
3	Sc RADIAL	57458.0	57458.0	99.0 %		10:54:04
3	Al 396.153Radial†	7183.0	7278.4	5341.2 µg/L	5341.2 ppb	10:54:04
3	Ca 317.933Radial†	5972.4	5837.3	5406.5 µg/L	5406.5 ppb	10:54:24
3	Fe 238.204 Radial†	645.8	635.0	5466.2 µg/L	5466.2 ppb	10:54:24
3	K 766.490 Radial†	7838.5	7740.8	5445.2 µg/L	5445.2 ppb	10:54:04
3	Mg 279.077 IEC†	601.2	593.8	5591.1 µg/L	5591.1 ppb	10:54:24
3	Na 589.592 Radial†	33402.7	33173.8	10769 µg/L	10769 ppb	10:54:04
3	Sr 421.552†	52151.0	52644.2	532.32 µg/L	532.32 ppb	10:54:04
3	Sc 361.383	2044165.8	2044165.8	99.989 %		10:55:37
3	Y 371.029	1399486.6	1399486.6	99.609 %		10:55:37
3	Ag 328.068†	63561.1	64092.0	505.15 µg/L	505.15 ppb	10:55:43
3	As 188.979†	242.8	241.3	463.51 µg/L	463.51 ppb	10:56:03
3	B 249.677†	11979.7	11684.3	505.15 µg/L	505.15 ppb	10:55:43
3	Ba 233.527†	19331.6	19351.8	498.33 µg/L	498.33 ppb	10:55:43
3	Be 313.107†	782642.5	785699.4	502.62 µg/L	502.62 ppb	10:55:37
3	Cd 226.502†	18328.1	18468.1	498.71 µg/L	498.71 ppb	10:55:43
3	Co 228.616†	10248.8	10254.9	495.99 µg/L	495.99 ppb	10:55:43
3	Cr 267.716†	22797.0	22831.8	485.74 µg/L	485.74 ppb	10:55:43
3	Cu 324.752†	74359.4	71830.3	492.98 µg/L	492.98 ppb	10:55:43
3	Mn 257.610†	150225.4	150479.2	509.31 µg/L	509.31 ppb	10:55:37
3	Mo 202.031†	4474.4	4481.7	461.41 µg/L	461.41 ppb	10:56:03
3	Ni 231.604†	9607.8	9302.1	496.21 µg/L	496.21 ppb	10:55:43
3	P 214.914†	1113.7	1092.2	2255.6 µg/L	2255.6 ppb	10:56:03
3	Pb 220.353†	1947.9	1854.6	481.12 µg/L	481.12 ppb	10:56:03
3	S 181.975 Axial†	237.1	223.3	962.57 µg/L	962.57 ppb	10:56:03
3	Sb 206.836†	514.1	494.0	474.23 µg/L	474.23 ppb	10:56:03
3	Se 196.026†	324.1	308.3	478.15 µg/L	478.15 ppb	10:56:03
3	SiO2†	26995.5	25654.1	5409.5 µg/L	5409.5 ppb	10:55:43
3	Si 251.611†	31562.9	31252.0	2530.1 µg/L	2530.1 ppb	10:55:43
3	Sn 189.927†	1021.2	1018.2	453.67 µg/L	453.67 ppb	10:56:03
3	Ti 334.940†	212654.5	212548.2	501.36 µg/L	501.36 ppb	10:55:37
3	Tl 190.801†	325.5	348.5	489.23 µg/L	489.23 ppb	10:56:03
3	U 409.014†	5645.2	5689.5	493.85 µg/L	493.85 ppb	10:55:43
3	V 292.402†	47368.6	47406.1	493.74 µg/L	493.74 ppb	10:55:43
3	Zn 213.857†	20419.2	19902.7	495.19 µg/L	495.19 ppb	10:55:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2038644.9	99.719	%	0.3746				0.38%
Sc RADIAL	57649.9	99.3	%	0.60				0.61%
Y 371.029	1395730.0	99.342	%	0.3633				0.37%
Ag 328.068†	66083.6	520.93	µg/L	13.756	520.93	ppb	13.756	2.64%
QC value within limits for Ag 328.068 Recovery = 104.19%								
Al 396.153Radial†	7319.2	5370.1	µg/L	36.65	5370.1	ppb	36.65	0.68%
QC value within limits for Al 396.153Radial Recovery = 107.40%								
As 188.979†	267.7	514.05	µg/L	44.166	514.05	ppb	44.166	8.59%
QC value within limits for As 188.979 Recovery = 102.81%								
B 249.677†	12139.4	524.97	µg/L	17.222	524.97	ppb	17.222	3.28%
QC value within limits for B 249.677 Recovery = 104.99%								
Ba 233.527†	20292.3	522.56	µg/L	21.090	522.56	ppb	21.090	4.04%
QC value within limits for Ba 233.527 Recovery = 104.51%								
Be 313.107†	813791.6	520.60	µg/L	16.001	520.60	ppb	16.001	3.07%
QC value within limits for Be 313.107 Recovery = 104.12%								
Ca 317.933Radial†	5760.3	5335.2	µg/L	67.48	5335.2	ppb	67.48	1.26%
QC value within limits for Ca 317.933Radial Recovery = 106.70%								
Cd 226.502†	19392.3	523.70	µg/L	21.751	523.70	ppb	21.751	4.15%
QC value within limits for Cd 226.502 Recovery = 104.74%								
Co 228.616†	10822.5	523.48	µg/L	23.894	523.48	ppb	23.894	4.56%

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   QC value within limits for Co 228.616  Recovery = 104.70%
Cr 267.716†            24456.3      520.30 µg/L        29.974      520.30 ppb        29.974   5.76%
   QC value within limits for Cr 267.716  Recovery = 104.06%
Cu 324.752†            75917.6      520.98 µg/L        24.408      520.98 ppb        24.408   4.68%
   QC value within limits for Cu 324.752  Recovery = 104.20%
Fe 238.204 Radial†       631.8      5439.3 µg/L         36.10      5439.3 ppb         36.10   0.66%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.79%
K 766.490 Radial†       7796.9      5484.7 µg/L         49.55      5484.7 ppb         49.55   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 109.69%
Mg 279.077 IEC†          584.6      5505.5 µg/L         77.28      5505.5 ppb         77.28   1.40%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.11%
Mn 257.610†           155944.7      527.79 µg/L        16.394      527.79 ppb        16.394   3.11%
   QC value within limits for Mn 257.610  Recovery = 105.56%
Mo 202.031†            5009.1      515.68 µg/L        47.130      515.68 ppb        47.130   9.14%
   QC value within limits for Mo 202.031  Recovery = 103.14%
Na 589.592 Radial†    33257.5       10797 µg/L          45.5       10797 ppb          45.5   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 107.97%
Ni 231.604†            9817.3      523.68 µg/L        23.802      523.68 ppb        23.802   4.55%
   QC value within limits for Ni 231.604  Recovery = 104.74%
P 214.914†             1212.2      2506.6 µg/L        220.34      2506.6 ppb        220.34   8.79%
   QC value within limits for P 214.914  Recovery = 100.27%
Pb 220.353†            2024.5      525.26 µg/L        38.794      525.26 ppb        38.794   7.39%
   QC value within limits for Pb 220.353  Recovery = 105.05%
S 181.975 Axial†        241.7      1042.0 µg/L         68.85      1042.0 ppb         68.85   6.61%
   QC value within limits for S 181.975 Axial  Recovery = 104.20%
Sb 206.836†             547.1      525.55 µg/L        44.836      525.55 ppb        44.836   8.53%
   QC value within limits for Sb 206.836  Recovery = 105.11%
Se 196.026†             340.5      527.16 µg/L        42.774      527.16 ppb        42.774   8.11%
   QC value within limits for Se 196.026  Recovery = 105.43%
SiO2†                  26729.8      5636.3 µg/L        197.46      5636.3 ppb        197.46   3.50%
   QC value within limits for SiO2  Recovery = 105.40%
Si 251.611†            32523.7      2633.1 µg/L         89.76      2633.1 ppb         89.76   3.41%
   QC value within limits for Si 251.611  Recovery = 105.32%
Sn 189.927†            1150.3      512.50 µg/L        51.185      512.50 ppb        51.185   9.99%
   QC value within limits for Sn 189.927  Recovery = 102.50%
Sr 421.552†            52814.6      534.04 µg/L         2.426      534.04 ppb         2.426   0.45%
   QC value within limits for Sr 421.552  Recovery = 106.81%
Ti 334.940†           220836.8      520.93 µg/L        17.340      520.93 ppb        17.340   3.33%
   QC value within limits for Ti 334.940  Recovery = 104.19%
Tl 190.801†             371.9      521.96 µg/L        28.390      521.96 ppb        28.390   5.44%
   QC value within limits for Tl 190.801  Recovery = 104.39%
U 409.014†             6002.8      521.11 µg/L        23.676      521.11 ppb        23.676   4.54%
   QC value within limits for U 409.014  Recovery = 104.22%
V 292.402†            50245.0      523.48 µg/L        25.844      523.48 ppb        25.844   4.94%
   QC value within limits for V 292.402  Recovery = 104.70%
Zn 213.857†           21011.2      522.81 µg/L        24.097      522.81 ppb        24.097   4.61%
   QC value within limits for Zn 213.857  Recovery = 104.56%
QC Failed.  Continue with analysis.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 10:56:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58480.1	58480.1	101	%			10:56:43
1	Al 396.153Radial†	55.7	78.2	57.449	µg/L	57.449	ppb	10:56:43
1	Ca 317.933Radial†	240.7	43.4	40.232	µg/L	40.232	ppb	10:57:03
1	Fe 238.204 Radial†	19.7	2.3	19.568	µg/L	19.568	ppb	10:57:03
1	K 766.490 Radial†	287.2	108.1	76.059	µg/L	76.059	ppb	10:56:43
1	Mg 279.077 IEC†	15.9	2.3	22.102	µg/L	22.102	ppb	10:57:03
1	Na 589.592 Radial†	805.0	232.8	75.560	µg/L	75.560	ppb	10:56:43
1	Sr 421.552†	89.4	55.4	0.5606	µg/L	0.5606	ppb	10:56:43
1	Sc 361.383	2086376.8	2086376.8	102.05	%			10:58:02
1	Y 371.029	1433302.1	1433302.1	102.02	%			10:58:02
1	Ag 328.068†	-509.5	24.4	0.1938	µg/L	0.1938	ppb	10:58:07
1	As 188.979†	-3.5	-4.9	-9.3889	µg/L	-9.3889	ppb	10:58:27
1	B 249.677†	446.5	140.8	6.1024	µg/L	6.1024	ppb	10:58:27
1	Ba 233.527†	20.5	38.0	0.9783	µg/L	0.9783	ppb	10:58:27
1	Be 313.107†	-2549.9	469.0	0.2998	µg/L	0.2998	ppb	10:58:07
1	Cd 226.502†	-115.3	25.0	0.6729	µg/L	0.6729	ppb	10:58:27
1	Co 228.616†	3.6	8.5	0.4115	µg/L	0.4115	ppb	10:58:27
1	Cr 267.716†	39.4	70.8	1.5053	µg/L	1.5053	ppb	10:58:27
1	Cu 324.752†	2892.3	296.5	2.0347	µg/L	2.0347	ppb	10:58:07
1	Mn 257.610†	-40.2	197.2	0.6684	µg/L	0.6684	ppb	10:58:27
1	Mo 202.031†	9.0	15.7	1.6128	µg/L	1.6128	ppb	10:58:27
1	Ni 231.604†	310.1	-2.9	-0.1577	µg/L	-0.1577	ppb	10:58:27
1	P 214.914†	24.6	2.6	5.1656	µg/L	5.1656	ppb	10:58:27
1	Pb 220.353†	124.2	28.2	7.3071	µg/L	7.3071	ppb	10:58:27
1	S 181.975 Axial†	20.7	6.5	28.061	µg/L	28.061	ppb	10:58:27
1	Sb 206.836†	33.3	12.5	11.961	µg/L	11.961	ppb	10:58:27
1	Se 196.026†	19.0	2.7	4.1812	µg/L	4.1812	ppb	10:58:27
1	SiO2†	1401.3	28.6	6.0403	µg/L	6.0403	ppb	10:58:07
1	Si 251.611†	398.2	75.7	6.1309	µg/L	6.1309	ppb	10:58:27
1	Sn 189.927†	2.9	-0.3	-0.1181	µg/L	-0.1181	ppb	10:58:27
1	Ti 334.940†	466.1	326.1	0.7687	µg/L	0.7687	ppb	10:58:07
1	Tl 190.801†	-24.9	-1.4	-1.9489	µg/L	-1.9489	ppb	10:58:27
1	U 409.014†	27.0	70.1	6.0972	µg/L	6.0972	ppb	10:58:07
1	V 292.402†	-13.9	18.5	0.2146	µg/L	0.2146	ppb	10:58:07
1	Zn 213.857†	596.1	65.2	1.6303	µg/L	1.6303	ppb	10:58:27
2	Sc RADIAL	58318.8	58318.8	100	%			10:57:08
2	Al 396.153Radial†	29.8	52.5	38.573	µg/L	38.573	ppb	10:57:08
2	Ca 317.933Radial†	234.1	37.6	34.787	µg/L	34.787	ppb	10:57:29
2	Fe 238.204 Radial†	18.8	1.4	12.263	µg/L	12.263	ppb	10:57:29
2	K 766.490 Radial†	323.7	145.2	102.17	µg/L	102.17	ppb	10:57:08
2	Mg 279.077 IEC†	16.3	2.8	26.740	µg/L	26.740	ppb	10:57:29
2	Na 589.592 Radial†	775.2	205.3	66.649	µg/L	66.649	ppb	10:57:08
2	Sr 421.552†	118.5	84.6	0.8553	µg/L	0.8553	ppb	10:57:08
2	Sc 361.383	2075597.0	2075597.0	101.53	%			10:58:33
2	Y 371.029	1425275.8	1425275.8	101.44	%			10:58:33
2	Ag 328.068†	-466.8	63.9	0.5059	µg/L	0.5059	ppb	10:58:38
2	As 188.979†	-0.5	-1.9	-3.7379	µg/L	-3.7379	ppb	10:58:58
2	B 249.677†	427.2	124.0	5.3805	µg/L	5.3805	ppb	10:58:58
2	Ba 233.527†	13.8	31.6	0.8133	µg/L	0.8133	ppb	10:58:58
2	Be 313.107†	-2608.7	398.0	0.2545	µg/L	0.2545	ppb	10:58:38
2	Cd 226.502†	-108.7	30.9	0.8340	µg/L	0.8340	ppb	10:58:58
2	Co 228.616†	13.6	18.4	0.8936	µg/L	0.8936	ppb	10:58:58
2	Cr 267.716†	24.4	56.2	1.1953	µg/L	1.1953	ppb	10:58:58
2	Cu 324.752†	2859.8	279.2	1.9151	µg/L	1.9151	ppb	10:58:38
2	Mn 257.610†	-82.0	155.8	0.5273	µg/L	0.5273	ppb	10:58:58
2	Mo 202.031†	7.9	14.7	1.5129	µg/L	1.5129	ppb	10:58:58
2	Ni 231.604†	304.2	-7.1	-0.3811	µg/L	-0.3811	ppb	10:58:58
2	P 214.914†	18.1	-3.8	-8.1627	µg/L	-8.1627	ppb	10:58:58
2	Pb 220.353†	115.7	20.5	5.3058	µg/L	5.3058	ppb	10:58:58

2	S 181.975 Axial†	20.8	6.7	28.761 µg/L	28.761 ppb	10:58:58
2	Sb 206.836†	27.6	7.0	6.7426 µg/L	6.7426 ppb	10:58:58
2	Se 196.026†	15.2	-0.9	-1.3947 µg/L	-1.3947 ppb	10:58:58
2	SiO2†	1423.0	57.1	12.033 µg/L	12.033 ppb	10:58:38
2	Si 251.611†	386.3	66.0	5.3471 µg/L	5.3471 ppb	10:58:58
2	Sn 189.927†	3.1	-0.1	-0.0324 µg/L	-0.0324 ppb	10:58:58
2	Ti 334.940†	367.8	231.6	0.5452 µg/L	0.5452 ppb	10:58:38
2	Tl 190.801†	-20.7	2.5	3.5377 µg/L	3.5377 ppb	10:58:58
2	U 409.014†	-11.9	32.0	2.7811 µg/L	2.7811 ppb	10:58:38
2	V 292.402†	46.9	78.3	0.8243 µg/L	0.8243 ppb	10:58:38
2	Zn 213.857†	580.4	52.9	1.3211 µg/L	1.3211 ppb	10:58:58
3	Sc RADIAL	58058.3	58058.3	100 %		10:57:34
3	Al 396.153Radial†	43.8	66.7	49.006 µg/L	49.006 ppb	10:57:34
3	Ca 317.933Radial†	228.8	33.3	30.801 µg/L	30.801 ppb	10:57:54
3	Fe 238.204 Radial†	18.6	1.3	11.537 µg/L	11.537 ppb	10:57:54
3	K 766.490 Radial†	325.7	148.7	104.62 µg/L	104.62 ppb	10:57:34
3	Mg 279.077 IEC†	13.7	0.3	2.5778 µg/L	2.5778 ppb	10:57:54
3	Na 589.592 Radial†	756.8	190.4	61.816 µg/L	61.816 ppb	10:57:34
3	Sr 421.552†	93.4	60.1	0.6072 µg/L	0.6072 ppb	10:57:34
3	Sc 361.383	2072433.0	2072433.0	101.37 %		10:59:04
3	Y 371.029	1423631.5	1423631.5	101.33 %		10:59:04
3	Ag 328.068†	-464.0	65.9	0.5236 µg/L	0.5236 ppb	10:59:09
3	As 188.979†	-0.7	-2.2	-4.1907 µg/L	-4.1907 ppb	10:59:29
3	B 249.677†	426.2	123.7	5.3656 µg/L	5.3656 ppb	10:59:29
3	Ba 233.527†	9.4	27.3	0.7029 µg/L	0.7029 ppb	10:59:29
3	Be 313.107†	-2587.9	414.7	0.2651 µg/L	0.2651 ppb	10:59:09
3	Cd 226.502†	-122.3	17.3	0.4654 µg/L	0.4654 ppb	10:59:29
3	Co 228.616†	3.5	8.4	0.4087 µg/L	0.4087 ppb	10:59:29
3	Cr 267.716†	13.6	45.6	0.9709 µg/L	0.9709 ppb	10:59:29
3	Cu 324.752†	2837.5	261.5	1.7938 µg/L	1.7938 ppb	10:59:09
3	Mn 257.610†	-89.4	148.4	0.5034 µg/L	0.5034 ppb	10:59:29
3	Mo 202.031†	9.1	15.8	1.6264 µg/L	1.6264 ppb	10:59:29
3	Ni 231.604†	301.6	-9.2	-0.4931 µg/L	-0.4931 ppb	10:59:29
3	P 214.914†	25.8	3.8	7.8970 µg/L	7.8970 ppb	10:59:29
3	Pb 220.353†	112.1	17.0	4.4220 µg/L	4.4220 ppb	10:59:29
3	S 181.975 Axial†	18.8	4.7	20.219 µg/L	20.219 ppb	10:59:29
3	Sb 206.836†	21.9	1.5	1.4330 µg/L	1.4330 ppb	10:59:29
3	Se 196.026†	18.0	1.9	2.8461 µg/L	2.8461 ppb	10:59:29
3	SiO2†	1431.2	67.3	14.192 µg/L	14.192 ppb	10:59:09
3	Si 251.611†	389.0	69.2	5.6036 µg/L	5.6036 ppb	10:59:29
3	Sn 189.927†	-0.3	-3.4	-1.4973 µg/L	-1.4973 ppb	10:59:29
3	Ti 334.940†	431.6	295.2	0.6970 µg/L	0.6970 ppb	10:59:09
3	Tl 190.801†	-22.8	0.5	0.6481 µg/L	0.6481 ppb	10:59:29
3	U 409.014†	-19.6	24.3	2.1121 µg/L	2.1121 ppb	10:59:09
3	V 292.402†	73.0	104.1	1.0898 µg/L	1.0898 ppb	10:59:09
3	Zn 213.857†	572.9	46.3	1.1587 µg/L	1.1587 ppb	10:59:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2078135.6	101.65	%	0.358				0.35%
Sc RADIAL	58285.7	100	%	0.4				0.37%
Y 371.029	1427403.1	101.60	%	0.368				0.36%
Ag 328.068†	51.4	0.4078	µg/L	0.18550	0.4078	ppb	0.18550	45.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	65.8	48.342	µg/L	9.4556	48.342	ppb	9.4556	19.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.0	-5.7725	µg/L	3.14006	-5.7725	ppb	3.14006	54.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	129.5	5.6162	µg/L	0.42118	5.6162	ppb	0.42118	7.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	32.3	0.8315	µg/L	0.13861	0.8315	ppb	0.13861	16.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	427.2	0.2732	µg/L	0.02371	0.2732	ppb	0.02371	8.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	38.1	35.273	µg/L	4.7345	35.273	ppb	4.7345	13.42%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	24.4	0.6574	µg/L	0.18479	0.6574	ppb	0.18479	28.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.8	0.5713	µg/L	0.27914	0.5713	ppb	0.27914	48.86%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              57.5      1.2238 µg/L       0.26833      1.2238 ppb        0.26833  21.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             279.1      1.9145 µg/L       0.12047      1.9145 ppb        0.12047   6.29%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.7      14.456 µg/L        4.4419      14.456 ppb         4.4419  30.73%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       134.0      94.284 µg/L       15.8308      94.284 ppb        15.8308  16.79%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.8      17.140 µg/L       12.8227      17.140 ppb        12.8227  74.81%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             167.1      0.5664 µg/L       0.08920      0.5664 ppb        0.08920  15.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              15.4      1.5840 µg/L       0.06195      1.5840 ppb        0.06195   3.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      209.5      68.009 µg/L        6.9719      68.009 ppb         6.9719  10.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -6.4     -0.3440 µg/L       0.17079     -0.3440 ppb        0.17079  49.65%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.9      1.6333 µg/L       8.59280      1.6333 ppb        8.59280 526.11%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.9      5.6783 µg/L       1.47816      5.6783 ppb        1.47816  26.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          6.0      25.680 µg/L        4.7430      25.680 ppb         4.7430  18.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.0      6.7121 µg/L       5.26401      6.7121 ppb        5.26401  78.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.2      1.8775 µg/L       2.91141      1.8775 ppb        2.91141 155.07%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    51.0      10.755 µg/L        4.2235      10.755 ppb         4.2235  39.27%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              70.3      5.6939 µg/L       0.39958      5.6939 ppb        0.39958   7.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.2     -0.5493 µg/L       0.82216     -0.5493 ppb        0.82216 149.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              66.7      0.6744 µg/L       0.15838      0.6744 ppb        0.15838  23.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             284.3      0.6703 µg/L       0.11410      0.6703 ppb        0.11410  17.02%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.5      0.7456 µg/L       2.74459      0.7456 ppb        2.74459 368.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               42.2      3.6635 µg/L       2.13407      3.6635 ppb        2.13407  58.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               66.9      0.7096 µg/L       0.44876      0.7096 ppb        0.44876  63.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              54.8      1.3700 µg/L       0.23957      1.3700 ppb        0.23957  17.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 11:07:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57982.4	57982.4	99.9	%			11:08:14
1	Al 396.153Radial†	7044.5	7074.2	5189.7	µg/L	5189.7	ppb	11:08:14
1	Ca 317.933Radial†	5682.1	5492.1	5086.8	µg/L	5086.8	ppb	11:08:34
1	Fe 238.204 Radial†	623.0	606.3	5220.3	µg/L	5220.3	ppb	11:08:34
1	K 766.490 Radial†	7653.1	7483.6	5264.3	µg/L	5264.3	ppb	11:08:14
1	Mg 279.077 IEC†	570.8	557.9	5254.1	µg/L	5254.1	ppb	11:08:34
1	Na 589.592 Radial†	32784.2	32249.6	10469	µg/L	10469	ppb	11:08:14
1	Sr 421.552†	51285.8	51301.7	518.75	µg/L	518.75	ppb	11:08:14
1	Sc 361.383	2031275.1	2031275.1	99.358	%			11:09:34
1	Y 371.029	1391858.7	1391858.7	99.066	%			11:09:34
1	Ag 328.068†	64687.8	65629.4	517.36	µg/L	517.36	ppb	11:09:39
1	As 188.979†	269.1	269.4	517.32	µg/L	517.32	ppb	11:09:59
1	B 249.677†	12023.0	11803.9	510.52	µg/L	510.52	ppb	11:09:39
1	Ba 233.527†	19955.1	20102.0	517.67	µg/L	517.67	ppb	11:09:39
1	Be 313.107†	803846.1	812007.3	519.45	µg/L	519.45	ppb	11:09:34
1	Cd 226.502†	18929.5	19189.7	518.26	µg/L	518.26	ppb	11:09:39
1	Co 228.616†	10675.2	10749.2	519.95	µg/L	519.95	ppb	11:09:39
1	Cr 267.716†	24215.8	24404.4	519.20	µg/L	519.20	ppb	11:09:39
1	Cu 324.752†	77575.5	75539.1	518.36	µg/L	518.36	ppb	11:09:39
1	Mn 257.610†	153576.7	154805.5	523.92	µg/L	523.92	ppb	11:09:34
1	Mo 202.031†	5111.6	5151.5	530.31	µg/L	530.31	ppb	11:09:59
1	Ni 231.604†	10041.5	9799.6	522.74	µg/L	522.74	ppb	11:09:39
1	P 214.914†	1267.4	1254.0	2595.5	µg/L	2595.5	ppb	11:09:59
1	Pb 220.353†	2105.0	2025.1	525.45	µg/L	525.45	ppb	11:09:59
1	S 181.975 Axial†	258.7	246.5	1062.8	µg/L	1062.8	ppb	11:09:59
1	Sb 206.836†	565.1	548.6	527.27	µg/L	527.27	ppb	11:09:59
1	Se 196.026†	362.2	348.7	539.38	µg/L	539.38	ppb	11:09:59
1	SiO2†	27430.8	26263.5	5538.0	µg/L	5538.0	ppb	11:09:39
1	Si 251.611†	32066.2	31959.0	2587.3	µg/L	2587.3	ppb	11:09:39
1	Sn 189.927†	1186.4	1191.0	530.62	µg/L	530.62	ppb	11:09:59
1	Ti 334.940†	218571.8	219853.4	518.62	µg/L	518.62	ppb	11:09:34
1	Tl 190.801†	350.0	375.2	526.42	µg/L	526.42	ppb	11:09:59
1	U 409.014†	5986.1	6068.5	526.87	µg/L	526.87	ppb	11:09:39
1	V 292.402†	49885.1	50239.4	523.51	µg/L	523.51	ppb	11:09:39
1	Zn 213.857†	21171.7	20789.7	517.29	µg/L	517.29	ppb	11:09:39
2	Sc RADIAL	58387.5	58387.5	101	%			11:08:40
2	Al 396.153Radial†	6978.7	6959.8	5105.6	µg/L	5105.6	ppb	11:08:40
2	Ca 317.933Radial†	5714.2	5484.6	5079.9	µg/L	5079.9	ppb	11:09:00
2	Fe 238.204 Radial†	626.5	605.5	5213.1	µg/L	5213.1	ppb	11:09:00
2	K 766.490 Radial†	7643.3	7420.7	5220.1	µg/L	5220.1	ppb	11:08:40
2	Mg 279.077 IEC†	577.0	560.2	5275.6	µg/L	5275.6	ppb	11:09:00
2	Na 589.592 Radial†	32633.2	31871.7	10347	µg/L	10347	ppb	11:08:40
2	Sr 421.552†	51052.7	50713.8	512.80	µg/L	512.80	ppb	11:08:40
2	Sc 361.383	2043445.5	2043445.5	99.953	%			11:10:06
2	Y 371.029	1398534.9	1398534.9	99.541	%			11:10:06
2	Ag 328.068†	65186.4	65740.5	518.24	µg/L	518.24	ppb	11:10:12
2	As 188.979†	270.1	268.8	516.15	µg/L	516.15	ppb	11:10:32
2	B 249.677†	12185.0	11893.9	514.44	µg/L	514.44	ppb	11:10:12
2	Ba 233.527†	20170.8	20198.2	520.14	µg/L	520.14	ppb	11:10:12
2	Be 313.107†	800497.5	803838.7	514.23	µg/L	514.23	ppb	11:10:06
2	Cd 226.502†	19151.0	19297.9	521.18	µg/L	521.18	ppb	11:10:12
2	Co 228.616†	10821.8	10831.9	523.96	µg/L	523.96	ppb	11:10:12
2	Cr 267.716†	24480.0	24523.6	521.73	µg/L	521.73	ppb	11:10:12
2	Cu 324.752†	78267.2	75766.2	519.91	µg/L	519.91	ppb	11:10:12
2	Mn 257.610†	152984.3	153292.2	518.80	µg/L	518.80	ppb	11:10:06
2	Mo 202.031†	5112.0	5121.2	527.20	µg/L	527.20	ppb	11:10:32
2	Ni 231.604†	10134.8	9832.8	524.51	µg/L	524.51	ppb	11:10:12
2	P 214.914†	1271.4	1250.4	2587.6	µg/L	2587.6	ppb	11:10:32
2	Pb 220.353†	2108.6	2016.1	523.13	µg/L	523.13	ppb	11:10:32

2	S 181.975 Axial†	255.6	241.9	1042.8	µg/L	1042.8 ppb	11:10:32
2	Sb 206.836†	569.3	549.4	527.96	µg/L	527.96 ppb	11:10:32
2	Se 196.026†	359.5	343.8	531.91	µg/L	531.91 ppb	11:10:32
2	SiO2†	27769.8	26438.2	5574.8	µg/L	5574.8 ppb	11:10:12
2	Si 251.611†	32458.7	32159.3	2603.6	µg/L	2603.6 ppb	11:10:12
2	Sn 189.927†	1189.3	1186.7	528.73	µg/L	528.73 ppb	11:10:32
2	Ti 334.940†	217892.4	217863.5	513.93	µg/L	513.93 ppb	11:10:06
2	Tl 190.801†	352.4	375.5	526.77	µg/L	526.77 ppb	11:10:32
2	U 409.014†	5843.4	5889.8	511.33	µg/L	511.33 ppb	11:10:12
2	V 292.402†	50378.5	50434.1	525.48	µg/L	525.48 ppb	11:10:12
2	Zn 213.857†	21418.7	20909.8	520.29	µg/L	520.29 ppb	11:10:12
3	Sc RADIAL	58583.5	58583.5	101	%		11:09:05
3	Al 396.153Radial†	7025.5	6983.0	5124.3	µg/L	5124.3 ppb	11:09:05
3	Ca 317.933Radial†	5694.8	5446.4	5044.5	µg/L	5044.5 ppb	11:09:25
3	Fe 238.204 Radial†	623.9	600.8	5172.0	µg/L	5172.0 ppb	11:09:25
3	K 766.490 Radial†	7655.9	7407.7	5210.9	µg/L	5210.9 ppb	11:09:05
3	Mg 279.077 IEC†	567.8	549.1	5170.2	µg/L	5170.2 ppb	11:09:25
3	Na 589.592 Radial†	32663.3	31793.0	10321	µg/L	10321 ppb	11:09:05
3	Sr 421.552†	51223.4	50713.1	512.79	µg/L	512.79 ppb	11:09:05
3	Sc 361.383	2060255.2	2060255.2	100.78	%		11:10:39
3	Y 371.029	1409680.7	1409680.7	100.33	%		11:10:39
3	Ag 328.068†	62285.2	62329.5	491.24	µg/L	491.24 ppb	11:10:44
3	As 188.979†	233.5	230.2	442.17	µg/L	442.17 ppb	11:11:04
3	B 249.677†	11587.5	11201.5	484.32	µg/L	484.32 ppb	11:10:44
3	Ba 233.527†	18860.6	18733.5	482.41	µg/L	482.41 ppb	11:10:44
3	Be 313.107†	764585.6	761668.8	487.25	µg/L	487.25 ppb	11:10:39
3	Cd 226.502†	17876.2	17876.5	482.75	µg/L	482.75 ppb	11:10:44
3	Co 228.616†	9977.2	9905.4	479.08	µg/L	479.08 ppb	11:10:44
3	Cr 267.716†	22224.8	22085.9	469.87	µg/L	469.87 ppb	11:10:44
3	Cu 324.752†	72782.9	69685.2	478.24	µg/L	478.24 ppb	11:10:44
3	Mn 257.610†	146617.0	145725.3	493.22	µg/L	493.22 ppb	11:10:39
3	Mo 202.031†	4392.3	4365.4	449.42	µg/L	449.42 ppb	11:11:04
3	Ni 231.604†	9404.1	9024.9	481.42	µg/L	481.42 ppb	11:10:44
3	P 214.914†	1108.6	1078.5	2228.3	µg/L	2228.3 ppb	11:11:04
3	Pb 220.353†	1900.3	1792.2	464.94	µg/L	464.94 ppb	11:11:04
3	S 181.975 Axial†	235.9	220.2	949.45	µg/L	949.45 ppb	11:11:04
3	Sb 206.836†	504.6	480.6	461.40	µg/L	461.40 ppb	11:11:04
3	Se 196.026†	322.7	304.4	471.87	µg/L	471.87 ppb	11:11:04
3	SiO2†	26218.3	24672.0	5202.4	µg/L	5202.4 ppb	11:10:44
3	Si 251.611†	30648.5	30098.1	2436.7	µg/L	2436.7 ppb	11:10:44
3	Sn 189.927†	1004.8	993.9	442.83	µg/L	442.83 ppb	11:11:04
3	Ti 334.940†	207381.9	205655.3	485.12	µg/L	485.12 ppb	11:10:39
3	Tl 190.801†	318.3	338.8	475.63	µg/L	475.63 ppb	11:11:04
3	U 409.014†	5487.9	5489.4	476.50	µg/L	476.50 ppb	11:10:44
3	V 292.402†	46317.7	45993.3	479.02	µg/L	479.02 ppb	11:10:44
3	Zn 213.857†	19872.5	19200.7	477.73	µg/L	477.73 ppb	11:10:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2044991.9	100.03	%	0.712				0.71%
Sc RADIAL	58317.8	100	%	0.5				0.53%
Y 371.029	1400024.8	99.647	%	0.6409				0.64%
Ag 328.068†	64566.5	508.95	µg/L	15.339	508.95	ppb	15.339	3.01%
QC value within limits for Ag 328.068 Recovery = 101.79%								
Al 396.153Radial†	7005.7	5139.9	µg/L	44.14	5139.9	ppb	44.14	0.86%
QC value within limits for Al 396.153Radial Recovery = 102.80%								
As 188.979†	256.1	491.88	µg/L	43.052	491.88	ppb	43.052	8.75%
QC value within limits for As 188.979 Recovery = 98.38%								
B 249.677†	11633.1	503.09	µg/L	16.376	503.09	ppb	16.376	3.26%
QC value within limits for B 249.677 Recovery = 100.62%								
Ba 233.527†	19677.9	506.74	µg/L	21.108	506.74	ppb	21.108	4.17%
QC value within limits for Ba 233.527 Recovery = 101.35%								
Be 313.107†	792504.9	506.98	µg/L	17.282	506.98	ppb	17.282	3.41%
QC value within limits for Be 313.107 Recovery = 101.40%								
Ca 317.933Radial†	5474.4	5070.4	µg/L	22.72	5070.4	ppb	22.72	0.45%
QC value within limits for Ca 317.933Radial Recovery = 101.41%								
Cd 226.502†	18788.1	507.39	µg/L	21.394	507.39	ppb	21.394	4.22%
QC value within limits for Cd 226.502 Recovery = 101.48%								
Co 228.616†	10495.5	507.66	µg/L	24.832	507.66	ppb	24.832	4.89%

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   QC value within limits for Co 228.616  Recovery = 101.53%
Cr 267.716†            23671.3      503.60 µg/L        29.235      503.60 ppb        29.235   5.81%
   QC value within limits for Cr 267.716  Recovery = 100.72%
Cu 324.752†            73663.5      505.50 µg/L        23.626      505.50 ppb        23.626   4.67%
   QC value within limits for Cu 324.752  Recovery = 101.10%
Fe 238.204 Radial†       604.2      5201.8 µg/L         26.11      5201.8 ppb         26.11   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.04%
K 766.490 Radial†       7437.3      5231.8 µg/L         28.53      5231.8 ppb         28.53   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 104.64%
Mg 279.077 IEC†          555.7      5233.3 µg/L         55.70      5233.3 ppb         55.70   1.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.67%
Mn 257.610†           151274.3      511.98 µg/L        16.451      511.98 ppb        16.451   3.21%
   QC value within limits for Mn 257.610  Recovery = 102.40%
Mo 202.031†             4879.4      502.31 µg/L        45.832      502.31 ppb        45.832   9.12%
   QC value within limits for Mo 202.031  Recovery = 100.46%
Na 589.592 Radial†     31971.4       10379 µg/L          79.2       10379 ppb          79.2   0.76%
   QC value within limits for Na 589.592 Radial  Recovery = 103.79%
Ni 231.604†             9552.4      509.56 µg/L        24.382      509.56 ppb        24.382   4.78%
   QC value within limits for Ni 231.604  Recovery = 101.91%
P 214.914†              1194.3      2470.4 µg/L        209.76      2470.4 ppb        209.76   8.49%
   QC value within limits for P 214.914  Recovery = 98.82%
Pb 220.353†             1944.5      504.51 µg/L        34.287      504.51 ppb        34.287   6.80%
   QC value within limits for Pb 220.353  Recovery = 100.90%
S 181.975 Axial†         236.2      1018.4 µg/L         60.51      1018.4 ppb         60.51   5.94%
   QC value within limits for S 181.975 Axial  Recovery = 101.84%
Sb 206.836†              526.2      505.54 µg/L        38.226      505.54 ppb        38.226   7.56%
   QC value within limits for Sb 206.836  Recovery = 101.11%
Se 196.026†              332.3      514.39 µg/L        37.011      514.39 ppb        37.011   7.20%
   QC value within limits for Se 196.026  Recovery = 102.88%
SiO2†                   25791.3      5438.4 µg/L        205.21      5438.4 ppb        205.21   3.77%
   QC value within limits for SiO2  Recovery = 101.70%
Si 251.611†            31405.5      2542.5 µg/L         92.02      2542.5 ppb         92.02   3.62%
   QC value within limits for Si 251.611  Recovery = 101.70%
Sn 189.927†             1123.9      500.73 µg/L        50.147      500.73 ppb        50.147  10.01%
   QC value within limits for Sn 189.927  Recovery = 100.15%
Sr 421.552†            50909.6      514.78 µg/L         3.434      514.78 ppb         3.434   0.67%
   QC value within limits for Sr 421.552  Recovery = 102.96%
Ti 334.940†           214457.4      505.89 µg/L        18.142      505.89 ppb        18.142   3.59%
   QC value within limits for Ti 334.940  Recovery = 101.18%
Tl 190.801†              363.2      509.61 µg/L        29.428      509.61 ppb        29.428   5.77%
   QC value within limits for Tl 190.801  Recovery = 101.92%
U 409.014†              5815.9      504.90 µg/L        25.792      504.90 ppb        25.792   5.11%
   QC value within limits for U 409.014  Recovery = 100.98%
V 292.402†             48888.9      509.34 µg/L        26.277      509.34 ppb        26.277   5.16%
   QC value within limits for V 292.402  Recovery = 101.87%
Zn 213.857†            20300.1      505.10 µg/L        23.755      505.10 ppb        23.755   4.70%
   QC value within limits for Zn 213.857  Recovery = 101.02%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 11:11:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56317.9	56317.9	97.0	%			11:11:44
1	Al 396.153Radial†	18.7	42.2	31.017	µg/L	31.017	ppb	11:11:44
1	Ca 317.933Radial†	205.0	15.8	14.662	µg/L	14.662	ppb	11:12:04
1	Fe 238.204 Radial†	14.6	-2.2	-19.063	µg/L	-19.063	ppb	11:12:04
1	K 766.490 Radial†	158.7	-13.3	-9.3890	µg/L	-9.3890	ppb	11:11:44
1	Mg 279.077 IEC†	9.3	-3.8	-35.854	µg/L	-35.854	ppb	11:12:04
1	Na 589.592 Radial†	602.9	55.2	17.923	µg/L	17.923	ppb	11:11:44
1	Sr 421.552†	50.4	18.6	0.1884	µg/L	0.1884	ppb	11:11:44
1	Sc 361.383	2017181.6	2017181.6	98.669	%			11:13:02
1	Y 371.029	1383680.5	1383680.5	98.484	%			11:13:02
1	Ag 328.068†	-552.9	-36.7	-0.2893	µg/L	-0.2893	ppb	11:13:08
1	As 188.979†	0.4	-1.1	-2.1609	µg/L	-2.1609	ppb	11:13:28
1	B 249.677†	352.8	60.8	2.6495	µg/L	2.6495	ppb	11:13:28
1	Ba 233.527†	-17.2	0.6	0.0144	µg/L	0.0144	ppb	11:13:28
1	Be 313.107†	-2913.4	14.8	0.0095	µg/L	0.0095	ppb	11:13:08
1	Cd 226.502†	-134.3	1.8	0.0509	µg/L	0.0509	ppb	11:13:28
1	Co 228.616†	-15.5	-10.7	-0.5163	µg/L	-0.5163	ppb	11:13:28
1	Cr 267.716†	-14.9	17.1	0.3626	µg/L	0.3626	ppb	11:13:28
1	Cu 324.752†	2610.5	108.2	0.7388	µg/L	0.7388	ppb	11:13:08
1	Mn 257.610†	-207.4	26.4	0.0882	µg/L	0.0882	ppb	11:13:28
1	Mo 202.031†	-5.1	1.7	0.1700	µg/L	0.1700	ppb	11:13:28
1	Ni 231.604†	298.7	-4.0	-0.2143	µg/L	-0.2143	ppb	11:13:28
1	P 214.914†	19.8	-1.5	-3.2323	µg/L	-3.2323	ppb	11:13:28
1	Pb 220.353†	100.3	8.1	2.0988	µg/L	2.0988	ppb	11:13:28
1	S 181.975 Axial†	14.8	1.2	5.0583	µg/L	5.0583	ppb	11:13:28
1	Sb 206.836†	26.1	6.2	5.9772	µg/L	5.9772	ppb	11:13:28
1	Se 196.026†	13.8	-1.9	-2.9502	µg/L	-2.9502	ppb	11:13:28
1	SiO2†	1350.9	24.7	5.2019	µg/L	5.2019	ppb	11:13:08
1	Si 251.611†	318.5	8.4	0.6776	µg/L	0.6776	ppb	11:13:28
1	Sn 189.927†	-0.5	-3.6	-1.6020	µg/L	-1.6020	ppb	11:13:28
1	Ti 334.940†	124.6	-4.3	-0.0071	µg/L	-0.0071	ppb	11:13:08
1	Tl 190.801†	-24.8	-2.2	-3.0618	µg/L	-3.0618	ppb	11:13:28
1	U 409.014†	60.0	104.5	9.0920	µg/L	9.0920	ppb	11:13:08
1	V 292.402†	-43.8	-12.4	-0.1179	µg/L	-0.1179	ppb	11:13:08
1	Zn 213.857†	527.0	15.3	0.3855	µg/L	0.3855	ppb	11:13:28
2	Sc RADIAL	55900.6	55900.6	96.3	%			11:12:09
2	Al 396.153Radial†	-18.8	3.4	2.4611	µg/L	2.4611	ppb	11:12:09
2	Ca 317.933Radial†	195.5	7.5	6.9848	µg/L	6.9848	ppb	11:12:29
2	Fe 238.204 Radial†	16.0	-0.6	-5.1987	µg/L	-5.1987	ppb	11:12:29
2	K 766.490 Radial†	237.6	69.8	49.093	µg/L	49.093	ppb	11:12:09
2	Mg 279.077 IEC†	6.9	-6.2	-58.662	µg/L	-58.662	ppb	11:12:29
2	Na 589.592 Radial†	591.6	48.1	15.622	µg/L	15.622	ppb	11:12:09
2	Sr 421.552†	11.2	-21.7	-0.2191	µg/L	-0.2191	ppb	11:12:09
2	Sc 361.383	1991105.8	1991105.8	97.393	%			11:13:34
2	Y 371.029	1367255.9	1367255.9	97.315	%			11:13:34
2	Ag 328.068†	-479.7	31.1	0.2426	µg/L	0.2426	ppb	11:13:39
2	As 188.979†	-4.3	-5.9	-11.396	µg/L	-11.396	ppb	11:13:59
2	B 249.677†	347.6	60.1	2.6134	µg/L	2.6134	ppb	11:13:59
2	Ba 233.527†	-22.0	-4.7	-0.1197	µg/L	-0.1197	ppb	11:13:59
2	Be 313.107†	-2861.0	30.0	0.0191	µg/L	0.0191	ppb	11:13:39
2	Cd 226.502†	-135.7	-1.4	-0.0355	µg/L	-0.0355	ppb	11:13:59
2	Co 228.616†	-9.6	-4.9	-0.2345	µg/L	-0.2345	ppb	11:13:59
2	Cr 267.716†	-18.9	12.8	0.2725	µg/L	0.2725	ppb	11:13:59
2	Cu 324.752†	2602.8	134.9	0.9237	µg/L	0.9237	ppb	11:13:39
2	Mn 257.610†	-212.6	18.3	0.0635	µg/L	0.0635	ppb	11:13:59
2	Mo 202.031†	3.8	10.8	1.1123	µg/L	1.1123	ppb	11:13:59
2	Ni 231.604†	307.0	8.5	0.4521	µg/L	0.4521	ppb	11:13:59
2	P 214.914†	16.3	-4.9	-10.376	µg/L	-10.376	ppb	11:13:59
2	Pb 220.353†	90.9	-0.2	-0.0329	µg/L	-0.0329	ppb	11:13:59

2	S 181.975 Axial†	18.6	5.2	22.627 µg/L	22.627 ppb	11:13:59
2	Sb 206.836†	25.7	6.2	5.9893 µg/L	5.9893 ppb	11:13:59
2	Se 196.026†	16.5	1.1	1.6638 µg/L	1.6638 ppb	11:13:59
2	SiO2†	1343.9	35.4	7.4633 µg/L	7.4633 ppb	11:13:39
2	Si 251.611†	321.3	15.4	1.2465 µg/L	1.2465 ppb	11:13:59
2	Sn 189.927†	2.0	-1.1	-0.4747 µg/L	-0.4747 ppb	11:13:59
2	Ti 334.940†	177.2	51.4	0.1260 µg/L	0.1260 ppb	11:13:39
2	Tl 190.801†	-25.6	-3.4	-4.6751 µg/L	-4.6751 ppb	11:13:59
2	U 409.014†	-87.7	-46.4	-4.0361 µg/L	-4.0361 ppb	11:13:39
2	V 292.402†	-37.8	-6.8	-0.0652 µg/L	-0.0652 ppb	11:13:39
2	Zn 213.857†	530.9	26.3	0.6592 µg/L	0.6592 ppb	11:13:59
3	Sc RADIAL	56416.0	56416.0	97.2 %		11:12:34
3	Al 396.153Radial†	-5.2	17.5	12.861 µg/L	12.861 ppb	11:12:34
3	Ca 317.933Radial†	190.2	0.3	0.2347 µg/L	0.2347 ppb	11:12:55
3	Fe 238.204 Radial†	17.6	0.9	7.3314 µg/L	7.3314 ppb	11:12:55
3	K 766.490 Radial†	179.3	7.6	5.3370 µg/L	5.3370 ppb	11:12:34
3	Mg 279.077 IEC†	10.9	-2.2	-21.027 µg/L	-21.027 ppb	11:12:55
3	Na 589.592 Radial†	614.6	66.2	21.477 µg/L	21.477 ppb	11:12:34
3	Sr 421.552†	51.0	19.1	0.1936 µg/L	0.1936 ppb	11:12:34
3	Sc 361.383	2016619.7	2016619.7	98.641 %		11:14:05
3	Y 371.029	1385023.2	1385023.2	98.580 %		11:14:05
3	Ag 328.068†	-525.8	-9.4	-0.0723 µg/L	-0.0723 ppb	11:14:10
3	As 188.979†	-2.6	-4.1	-7.9217 µg/L	-7.9217 ppb	11:14:30
3	B 249.677†	354.2	62.3	2.7017 µg/L	2.7017 ppb	11:14:30
3	Ba 233.527†	-13.3	4.5	0.1171 µg/L	0.1171 ppb	11:14:30
3	Be 313.107†	-2806.0	122.9	0.0786 µg/L	0.0786 ppb	11:14:10
3	Cd 226.502†	-135.5	0.6	0.0158 µg/L	0.0158 ppb	11:14:30
3	Co 228.616†	-5.5	-0.6	-0.0277 µg/L	-0.0277 ppb	11:14:30
3	Cr 267.716†	-19.4	12.5	0.2661 µg/L	0.2661 ppb	11:14:30
3	Cu 324.752†	2608.1	106.5	0.7306 µg/L	0.7306 ppb	11:14:10
3	Mn 257.610†	-209.7	24.0	0.0828 µg/L	0.0828 ppb	11:14:30
3	Mo 202.031†	-3.5	3.3	0.3448 µg/L	0.3448 ppb	11:14:30
3	Ni 231.604†	301.2	-1.4	-0.0753 µg/L	-0.0753 ppb	11:14:30
3	P 214.914†	32.5	11.3	23.813 µg/L	23.813 ppb	11:14:30
3	Pb 220.353†	106.8	14.7	3.8229 µg/L	3.8229 ppb	11:14:30
3	S 181.975 Axial†	18.2	4.7	20.211 µg/L	20.211 ppb	11:14:30
3	Sb 206.836†	20.6	0.7	0.6621 µg/L	0.6621 ppb	11:14:30
3	Se 196.026†	11.9	-3.8	-5.7151 µg/L	-5.7151 ppb	11:14:30
3	SiO2†	1336.4	10.3	2.1646 µg/L	2.1646 ppb	11:14:10
3	Si 251.611†	325.3	15.3	1.2408 µg/L	1.2408 ppb	11:14:30
3	Sn 189.927†	-2.2	-5.3	-2.3734 µg/L	-2.3734 ppb	11:14:30
3	Ti 334.940†	186.1	58.1	0.1388 µg/L	0.1388 ppb	11:14:10
3	Tl 190.801†	-27.2	-4.6	-6.3696 µg/L	-6.3696 ppb	11:14:30
3	U 409.014†	-57.6	-14.7	-1.2759 µg/L	-1.2759 ppb	11:14:10
3	V 292.402†	-18.6	13.3	0.1392 µg/L	0.1392 ppb	11:14:10
3	Zn 213.857†	519.0	7.3	0.1817 µg/L	0.1817 ppb	11:14:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008302.4	98.234	%	0.7286				0.74%
Sc RADIAL	56211.5	96.9	%	0.47				0.49%
Y 371.029	1378653.2	98.126	%	0.7041				0.72%
Ag 328.068†	-5.0	-0.0397	µg/L	0.26744	-0.0397	ppb	0.26744	673.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.0	15.446	µg/L	14.4522	15.446	ppb	14.4522	93.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.7	-7.1596	µg/L	4.66446	-7.1596	ppb	4.66446	65.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	61.1	2.6549	µg/L	0.04439	2.6549	ppb	0.04439	1.67%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.2	0.0039	µg/L	0.11875	0.0039	ppb	0.11875	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	55.9	0.0357	µg/L	0.03745	0.0357	ppb	0.03745	104.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.9	7.2937	µg/L	7.21837	7.2937	ppb	7.21837	98.97%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	0.4	0.0104	µg/L	0.04344	0.0104	ppb	0.04344	417.87%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.4	-0.2595	µg/L	0.24525	-0.2595	ppb	0.24525	94.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.1      0.3004 µg/L       0.05398      0.3004 ppb        0.05398  17.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             116.5      0.7977 µg/L       0.10920      0.7977 ppb        0.10920  13.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -5.6435 µg/L      13.20283     -5.6435 ppb       13.20283 233.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        21.3      15.014 µg/L       30.4184      15.014 ppb        30.4184 202.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.1     -38.515 µg/L       18.9582     -38.515 ppb        18.9582  49.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              22.9      0.0782 µg/L       0.01298      0.0782 ppb        0.01298  16.60%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.3      0.5424 µg/L       0.50124      0.5424 ppb        0.50124  92.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       56.5      18.341 µg/L        2.9496      18.341 ppb         2.9496  16.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.0      0.0542 µg/L       0.35154      0.0542 ppb        0.35154 648.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7      3.4014 µg/L      18.03408      3.4014 ppb       18.03408 530.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.6      1.9629 µg/L       1.93146      1.9629 ppb        1.93146  98.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.7      15.965 µg/L        9.5227      15.965 ppb         9.5227  59.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.4      4.2095 µg/L       3.07218      4.2095 ppb        3.07218  72.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.5     -2.3338 µg/L       3.72787     -2.3338 ppb        3.72787 159.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    23.4      4.9433 µg/L       2.65878      4.9433 ppb        2.65878  53.79%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              13.0      1.0550 µg/L       0.32680      1.0550 ppb        0.32680  30.98%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.3     -1.4834 µg/L       0.95488     -1.4834 ppb        0.95488  64.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               5.4      0.0543 µg/L       0.23678      0.0543 ppb        0.23678 436.28%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              35.1      0.0859 µg/L       0.08079      0.0859 ppb        0.08079  94.02%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.4     -4.7022 µg/L       1.65410     -4.7022 ppb        1.65410  35.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               14.5      1.2600 µg/L       6.92170      1.2600 ppb        6.92170 549.32%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -2.0     -0.0146 µg/L       0.13580     -0.0146 ppb        0.13580 927.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              16.3      0.4088 µg/L       0.23961      0.4088 ppb        0.23961  58.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/17/2010 11:34:41 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021710D.sif
Batch ID:
Results Data Set: 021710
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/17/2010 11:34:42**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59137.4	59137.4	102	%			11:35:15
1	Al 396.153Radial†	6901.5	6796.1	4985.4	µg/L	4985.4	ppb	11:35:15
1	Ca 317.933Radial†	5612.1	5312.4	4920.4	µg/L	4920.4	ppb	11:35:35
1	Fe 238.204 Radial†	607.9	579.3	4987.9	µg/L	4987.9	ppb	11:35:35
1	K 766.490 Radial†	7425.0	7110.1	5001.6	µg/L	5001.6	ppb	11:35:15
1	Mg 279.077 IEC†	562.6	538.7	5073.6	µg/L	5073.6	ppb	11:35:35
1	Na 589.592 Radial†	32232.5	31067.2	10086	µg/L	10086	ppb	11:35:15
1	Sr 421.552†	50507.4	49535.2	500.88	µg/L	500.88	ppb	11:35:15
1	Sc 361.383	2039818.1	2039818.1	99.776	%			11:36:35
1	Y 371.029	1393488.8	1393488.8	99.182	%			11:36:35
1	Ag 328.068†	63899.1	64566.3	508.97	µg/L	508.97	ppb	11:36:40
1	As 188.979†	267.8	266.9	512.57	µg/L	512.57	ppb	11:37:00
1	B 249.677†	11945.9	11676.0	505.08	µg/L	505.08	ppb	11:36:40
1	Ba 233.527†	19744.0	19806.3	510.05	µg/L	510.05	ppb	11:36:40
1	Be 313.107†	788238.9	792976.8	507.28	µg/L	507.28	ppb	11:36:35
1	Cd 226.502†	18676.6	18856.5	509.27	µg/L	509.27	ppb	11:36:40
1	Co 228.616†	10568.9	10597.7	512.62	µg/L	512.62	ppb	11:36:40
1	Cr 267.716†	23937.7	24023.6	511.10	µg/L	511.10	ppb	11:36:40
1	Cu 324.752†	76748.4	74383.2	510.41	µg/L	510.41	ppb	11:36:40
1	Mn 257.610†	150477.0	151051.5	511.21	µg/L	511.21	ppb	11:36:35
1	Mo 202.031†	5051.6	5069.8	521.90	µg/L	521.90	ppb	11:37:00
1	Ni 231.604†	9930.1	9645.7	514.53	µg/L	514.53	ppb	11:36:40
1	P 214.914†	1259.0	1240.3	2567.3	µg/L	2567.3	ppb	11:37:00
1	Pb 220.353†	2084.5	1995.6	517.81	µg/L	517.81	ppb	11:37:00
1	S 181.975 Axial†	251.3	238.1	1026.2	µg/L	1026.2	ppb	11:37:00
1	Sb 206.836†	568.0	549.1	527.70	µg/L	527.70	ppb	11:37:00
1	Se 196.026†	348.3	333.2	515.42	µg/L	515.42	ppb	11:37:00
1	SiO2†	27200.1	25916.7	5464.8	µg/L	5464.8	ppb	11:36:40
1	Si 251.611†	31715.9	31472.7	2548.0	µg/L	2548.0	ppb	11:36:40
1	Sn 189.927†	1172.4	1172.0	522.16	µg/L	522.16	ppb	11:37:00
1	Ti 334.940†	214915.1	215267.2	507.81	µg/L	507.81	ppb	11:36:35
1	Tl 190.801†	351.6	375.3	526.50	µg/L	526.50	ppb	11:37:00
1	U 409.014†	5896.2	5953.1	516.88	µg/L	516.88	ppb	11:36:40
1	V 292.402†	49302.2	49445.0	515.21	µg/L	515.21	ppb	11:36:40
1	Zn 213.857†	20963.8	20492.0	509.90	µg/L	509.90	ppb	11:36:40
2	Sc RADIAL	58369.7	58369.7	101	%			11:35:40
2	Al 396.153Radial†	6898.1	6881.8	5048.5	µg/L	5048.5	ppb	11:35:40
2	Ca 317.933Radial†	5628.2	5400.8	5002.3	µg/L	5002.3	ppb	11:36:01
2	Fe 238.204 Radial†	607.2	586.4	5049.2	µg/L	5049.2	ppb	11:36:01
2	K 766.490 Radial†	7463.0	7243.7	5095.5	µg/L	5095.5	ppb	11:35:40
2	Mg 279.077 IEC†	564.2	547.5	5156.7	µg/L	5156.7	ppb	11:36:01
2	Na 589.592 Radial†	32161.4	31412.5	10198	µg/L	10198	ppb	11:35:40
2	Sr 421.552†	50278.3	49959.4	505.17	µg/L	505.17	ppb	11:35:40
2	Sc 361.383	2054854.5	2054854.5	100.51	%			11:37:07
2	Y 371.029	1403911.9	1403911.9	99.924	%			11:37:07
2	Ag 328.068†	64074.5	64272.2	506.66	µg/L	506.66	ppb	11:37:12
2	As 188.979†	270.8	267.9	514.55	µg/L	514.55	ppb	11:37:33

2	B 249.677†	11947.9	11590.4	501.32 µg/L	501.32 ppb	11:37:12
2	Ba 233.527†	19790.2	19707.5	507.51 µg/L	507.51 ppb	11:37:12
2	Be 313.107†	793463.7	792394.0	506.91 µg/L	506.91 ppb	11:37:07
2	Cd 226.502†	18704.3	18747.1	506.30 µg/L	506.30 ppb	11:37:12
2	Co 228.616†	10592.0	10543.1	509.98 µg/L	509.98 ppb	11:37:12
2	Cr 267.716†	23959.3	23869.6	507.82 µg/L	507.82 ppb	11:37:12
2	Cu 324.752†	76876.8	73948.1	507.43 µg/L	507.43 ppb	11:37:12
2	Mn 257.610†	151646.5	151111.5	511.41 µg/L	511.41 ppb	11:37:07
2	Mo 202.031†	5034.7	5016.0	516.37 µg/L	516.37 ppb	11:37:33
2	Ni 231.604†	9898.6	9541.5	508.97 µg/L	508.97 ppb	11:37:12
2	P 214.914†	1243.1	1215.2	2514.6 µg/L	2514.6 ppb	11:37:33
2	Pb 220.353†	2075.0	1970.9	511.40 µg/L	511.40 ppb	11:37:33
2	S 181.975 Axial†	251.0	235.9	1016.9 µg/L	1016.9 ppb	11:37:33
2	Sb 206.836†	553.6	530.7	510.00 µg/L	510.00 ppb	11:37:33
2	Se 196.026†	355.8	338.1	522.92 µg/L	522.92 ppb	11:37:33
2	SiO2†	27189.1	25706.3	5420.5 µg/L	5420.5 ppb	11:37:12
2	Si 251.611†	31887.4	31410.6	2543.0 µg/L	2543.0 ppb	11:37:12
2	Sn 189.927†	1164.9	1155.9	515.02 µg/L	515.02 ppb	11:37:33
2	Ti 334.940†	216064.0	214834.1	506.78 µg/L	506.78 ppb	11:37:07
2	Tl 190.801†	345.3	366.5	514.25 µg/L	514.25 ppb	11:37:33
2	U 409.014†	5909.5	5923.1	514.25 µg/L	514.25 ppb	11:37:12
2	V 292.402†	49447.8	49228.2	512.94 µg/L	512.94 ppb	11:37:12
2	Zn 213.857†	20978.6	20353.0	506.44 µg/L	506.44 ppb	11:37:12
3	Sc RADIAL	59207.3	59207.3	102 %		11:36:06
3	Al 396.153Radial†	6958.4	6843.8	5022.1 µg/L	5022.1 ppb	11:36:06
3	Ca 317.933Radial†	5624.4	5317.9	4925.4 µg/L	4925.4 ppb	11:36:26
3	Fe 238.204 Radial†	606.0	576.8	4965.5 µg/L	4965.5 ppb	11:36:26
3	K 766.490 Radial†	7518.1	7192.8	5059.7 µg/L	5059.7 ppb	11:36:06
3	Mg 279.077 IEC†	566.2	541.6	5099.4 µg/L	5099.4 ppb	11:36:26
3	Na 589.592 Radial†	32543.3	31334.4	10172 µg/L	10172 ppb	11:36:06
3	Sr 421.552†	50959.6	49919.9	504.77 µg/L	504.77 ppb	11:36:06
3	Sc 361.383	2051953.4	2051953.4	100.37 %		11:37:39
3	Y 371.029	1402692.1	1402692.1	99.837 %		11:37:39
3	Ag 328.068†	60901.8	61201.3	482.33 µg/L	482.33 ppb	11:37:45
3	As 188.979†	241.2	238.8	458.63 µg/L	458.63 ppb	11:38:05
3	B 249.677†	11284.1	10945.8	473.30 µg/L	473.30 ppb	11:37:45
3	Ba 233.527†	18340.6	18291.1	471.02 µg/L	471.02 ppb	11:37:45
3	Be 313.107†	761079.6	761245.2	486.98 µg/L	486.98 ppb	11:37:39
3	Cd 226.502†	17309.6	17383.9	469.45 µg/L	469.45 ppb	11:37:45
3	Co 228.616†	9732.9	9702.1	469.23 µg/L	469.23 ppb	11:37:45
3	Cr 267.716†	21539.9	21492.8	457.26 µg/L	457.26 ppb	11:37:45
3	Cu 324.752†	71140.6	68341.2	469.00 µg/L	469.00 ppb	11:37:45
3	Mn 257.610†	145781.6	145481.5	492.37 µg/L	492.37 ppb	11:37:39
3	Mo 202.031†	4333.7	4324.6	445.21 µg/L	445.21 ppb	11:38:05
3	Ni 231.604†	9088.2	8748.0	466.64 µg/L	466.64 ppb	11:37:45
3	P 214.914†	1095.4	1069.7	2210.8 µg/L	2210.8 ppb	11:38:05
3	Pb 220.353†	1875.5	1775.1	460.51 µg/L	460.51 ppb	11:38:05
3	S 181.975 Axial†	224.6	210.0	905.14 µg/L	905.14 ppb	11:38:05
3	Sb 206.836†	493.5	471.5	452.80 µg/L	452.80 ppb	11:38:05
3	Se 196.026†	313.5	296.4	459.30 µg/L	459.30 ppb	11:38:05
3	SiO2†	25609.9	24171.1	5096.7 µg/L	5096.7 ppb	11:37:45
3	Si 251.611†	29815.7	29391.4	2379.5 µg/L	2379.5 ppb	11:37:45
3	Sn 189.927†	987.4	980.7	436.95 µg/L	436.95 ppb	11:38:05
3	Ti 334.940†	206577.1	205686.0	485.19 µg/L	485.19 ppb	11:37:39
3	Tl 190.801†	309.9	331.7	465.83 µg/L	465.83 ppb	11:38:05
3	U 409.014†	5361.4	5385.4	467.49 µg/L	467.49 ppb	11:37:45
3	V 292.402†	45137.6	45003.5	468.73 µg/L	468.73 ppb	11:37:45
3	Zn 213.857†	19356.3	18766.2	466.93 µg/L	466.93 ppb	11:37:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2048875.3	100.22	%	0.390				0.39%
Sc RADIAL	58904.8	101	%	0.8				0.79%
Y 371.029	1400030.9	99.648	%	0.4056				0.41%
Ag 328.068†	63346.6	499.32	µg/L	14.757	499.32	ppb	14.757	2.96%
QC value within limits for Ag 328.068 Recovery = 99.86%								
Al 396.153Radial†	6840.6	5018.7	µg/L	31.71	5018.7	ppb	31.71	0.63%
QC value within limits for Al 396.153Radial Recovery = 100.37%								
As 188.979†	257.9	495.25	µg/L	31.729	495.25	ppb	31.729	6.41%

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   QC value within limits for As 188.979  Recovery = 99.05%
B 249.677†            11404.1      493.24 µg/L        17.363      493.24 ppb        17.363   3.52%
   QC value within limits for B 249.677  Recovery = 98.65%
Ba 233.527†           19268.3      496.19 µg/L        21.838      496.19 ppb        21.838   4.40%
   QC value within limits for Ba 233.527  Recovery = 99.24%
Be 313.107†          782205.3      500.39 µg/L        11.613      500.39 ppb        11.613   2.32%
   QC value within limits for Be 313.107  Recovery = 100.08%
Ca 317.933Radial†      5343.7      4949.4 µg/L         45.89      4949.4 ppb         45.89   0.93%
   QC value within limits for Ca 317.933Radial  Recovery = 98.99%
Cd 226.502†           18329.1      495.01 µg/L        22.184      495.01 ppb        22.184   4.48%
   QC value within limits for Cd 226.502  Recovery = 99.00%
Co 228.616†           10281.0      497.28 µg/L        24.325      497.28 ppb        24.325   4.89%
   QC value within limits for Co 228.616  Recovery = 99.46%
Cr 267.716†           23128.7      492.06 µg/L        30.182      492.06 ppb        30.182   6.13%
   QC value within limits for Cr 267.716  Recovery = 98.41%
Cu 324.752†           72224.1      495.61 µg/L        23.095      495.61 ppb        23.095   4.66%
   QC value within limits for Cu 324.752  Recovery = 99.12%
Fe 238.204 Radial†      580.9      5000.8 µg/L         43.33      5000.8 ppb         43.33   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.02%
K 766.490 Radial†      7182.2      5052.3 µg/L         47.42      5052.3 ppb         47.42   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 101.05%
Mg 279.077 IEC†         542.6      5109.9 µg/L         42.54      5109.9 ppb         42.54   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.20%
Mn 257.610†          149214.8      505.00 µg/L        10.936      505.00 ppb        10.936   2.17%
   QC value within limits for Mn 257.610  Recovery = 101.00%
Mo 202.031†            4803.5      494.49 µg/L        42.768      494.49 ppb        42.768   8.65%
   QC value within limits for Mo 202.031  Recovery = 98.90%
Na 589.592 Radial†    31271.4       10152 µg/L          58.8       10152 ppb          58.8   0.58%
   QC value within limits for Na 589.592 Radial  Recovery = 101.52%
Ni 231.604†            9311.7      496.71 µg/L        26.189      496.71 ppb        26.189   5.27%
   QC value within limits for Ni 231.604  Recovery = 99.34%
P 214.914†             1175.1      2430.9 µg/L        192.44      2430.9 ppb        192.44   7.92%
   QC value within limits for P 214.914  Recovery = 97.24%
Pb 220.353†            1913.9      496.58 µg/L        31.396      496.58 ppb        31.396   6.32%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†        228.0      982.76 µg/L        67.378      982.76 ppb        67.378   6.86%
   QC value within limits for S 181.975 Axial  Recovery = 98.28%
Sb 206.836†             517.1      496.83 µg/L        39.149      496.83 ppb        39.149   7.88%
   QC value within limits for Sb 206.836  Recovery = 99.37%
Se 196.026†             322.6      499.21 µg/L        34.772      499.21 ppb        34.772   6.97%
   QC value within limits for Se 196.026  Recovery = 99.84%
SiO2†                 25264.7      5327.3 µg/L        200.93      5327.3 ppb        200.93   3.77%
   QC value within limits for SiO2  Recovery = 99.62%
Si 251.611†           30758.2      2490.1 µg/L         95.86      2490.1 ppb         95.86   3.85%
   QC value within limits for Si 251.611  Recovery = 99.61%
Sn 189.927†            1102.9      491.38 µg/L        47.270      491.38 ppb        47.270   9.62%
   QC value within limits for Sn 189.927  Recovery = 98.28%
Sr 421.552†           49804.8      503.61 µg/L         2.370      503.61 ppb         2.370   0.47%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†          211929.1      499.93 µg/L        12.772      499.93 ppb        12.772   2.55%
   QC value within limits for Ti 334.940  Recovery = 99.99%
Tl 190.801†             357.9      502.19 µg/L        32.079      502.19 ppb        32.079   6.39%
   QC value within limits for Tl 190.801  Recovery = 100.44%
U 409.014†             5753.9      499.54 µg/L        27.786      499.54 ppb        27.786   5.56%
   QC value within limits for U 409.014  Recovery = 99.91%
V 292.402†            47892.2      498.96 µg/L        26.204      498.96 ppb        26.204   5.25%
   QC value within limits for V 292.402  Recovery = 99.79%
Zn 213.857†           19870.4      494.42 µg/L        23.872      494.42 ppb        23.872   4.83%
   QC value within limits for Zn 213.857  Recovery = 98.88%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 11:38:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58568.4	58568.4	101	%			11:38:45
1	Al 396.153Radial†	-16.1	6.9	5.0985	µg/L	5.0985	ppb	11:38:45
1	Ca 317.933Radial†	192.6	-4.5	-4.1915	µg/L	-4.1915	ppb	11:39:05
1	Fe 238.204 Radial†	16.5	-0.9	-7.8272	µg/L	-7.8272	ppb	11:39:05
1	K 766.490 Radial†	188.6	10.1	7.0797	µg/L	7.0797	ppb	11:38:45
1	Mg 279.077 IEC†	10.9	-2.6	-24.848	µg/L	-24.848	ppb	11:39:05
1	Na 589.592 Radial†	574.8	3.4	1.1161	µg/L	1.1161	ppb	11:38:45
1	Sr 421.552†	36.1	2.5	0.0252	µg/L	0.0252	ppb	11:38:45
1	Sc 361.383	2025153.1	2025153.1	99.059	%			11:40:03
1	Y 371.029	1388005.2	1388005.2	98.792	%			11:40:03
1	Ag 328.068†	-464.4	54.8	0.4269	µg/L	0.4269	ppb	11:40:09
1	As 188.979†	-1.5	-3.0	-5.7102	µg/L	-5.7102	ppb	11:40:29
1	B 249.677†	331.3	37.7	1.6405	µg/L	1.6405	ppb	11:40:29
1	Ba 233.527†	-27.9	-10.2	-0.2623	µg/L	-0.2623	ppb	11:40:29
1	Be 313.107†	-2940.1	-0.5	-0.0004	µg/L	-0.0004	ppb	11:40:09
1	Cd 226.502†	-136.5	0.1	0.0037	µg/L	0.0037	ppb	11:40:29
1	Co 228.616†	-15.3	-10.4	-0.5038	µg/L	-0.5038	ppb	11:40:29
1	Cr 267.716†	-30.3	1.6	0.0349	µg/L	0.0349	ppb	11:40:29
1	Cu 324.752†	2584.8	71.8	0.4912	µg/L	0.4912	ppb	11:40:09
1	Mn 257.610†	-240.7	-6.4	-0.0217	µg/L	-0.0217	ppb	11:40:29
1	Mo 202.031†	-3.6	3.2	0.3299	µg/L	0.3299	ppb	11:40:29
1	Ni 231.604†	296.6	-7.4	-0.3934	µg/L	-0.3934	ppb	11:40:29
1	P 214.914†	36.3	15.0	31.652	µg/L	31.652	ppb	11:40:29
1	Pb 220.353†	90.1	-2.5	-0.6539	µg/L	-0.6539	ppb	11:40:29
1	S 181.975 Axial†	16.7	3.1	13.296	µg/L	13.296	ppb	11:40:29
1	Sb 206.836†	32.3	12.4	11.914	µg/L	11.914	ppb	11:40:29
1	Se 196.026†	11.1	-4.7	-7.1550	µg/L	-7.1550	ppb	11:40:29
1	SiO2†	1338.9	7.1	1.4985	µg/L	1.4985	ppb	11:40:09
1	Si 251.611†	299.0	-12.6	-1.0218	µg/L	-1.0218	ppb	11:40:29
1	Sn 189.927†	3.2	0.1	0.0572	µg/L	0.0572	ppb	11:40:29
1	Ti 334.940†	180.3	51.4	0.1232	µg/L	0.1232	ppb	11:40:09
1	Tl 190.801†	-24.9	-2.2	-3.0860	µg/L	-3.0860	ppb	11:40:29
1	U 409.014†	-110.2	-67.6	-5.8792	µg/L	-5.8792	ppb	11:40:09
1	V 292.402†	-57.3	-25.8	-0.2698	µg/L	-0.2698	ppb	11:40:09
1	Zn 213.857†	496.9	-17.2	-0.4289	µg/L	-0.4289	ppb	11:40:29
2	Sc RADIAL	57722.4	57722.4	99.5	%			11:39:10
2	Al 396.153Radial†	-35.4	-12.7	-9.3640	µg/L	-9.3640	ppb	11:39:10
2	Ca 317.933Radial†	186.5	-7.9	-7.3039	µg/L	-7.3039	ppb	11:39:30
2	Fe 238.204 Radial†	18.2	1.0	8.9965	µg/L	8.9965	ppb	11:39:30
2	K 766.490 Radial†	225.7	50.1	35.241	µg/L	35.241	ppb	11:39:10
2	Mg 279.077 IEC†	8.0	-5.4	-50.933	µg/L	-50.933	ppb	11:39:30
2	Na 589.592 Radial†	554.4	-8.7	-2.8144	µg/L	-2.8144	ppb	11:39:10
2	Sr 421.552†	57.6	24.6	0.2490	µg/L	0.2490	ppb	11:39:10
2	Sc 361.383	2047206.5	2047206.5	100.14	%			11:40:35
2	Y 371.029	1404393.2	1404393.2	99.958	%			11:40:35
2	Ag 328.068†	-559.9	-35.4	-0.2754	µg/L	-0.2754	ppb	11:40:40
2	As 188.979†	-1.9	-3.4	-6.5980	µg/L	-6.5980	ppb	11:41:00
2	B 249.677†	310.3	13.1	0.5659	µg/L	0.5659	ppb	11:41:00
2	Ba 233.527†	-19.3	-1.3	-0.0320	µg/L	-0.0320	ppb	11:41:00
2	Be 313.107†	-3037.3	-65.5	-0.0420	µg/L	-0.0420	ppb	11:40:40
2	Cd 226.502†	-146.0	-7.8	-0.2118	µg/L	-0.2118	ppb	11:41:00
2	Co 228.616†	-5.8	-0.8	-0.0369	µg/L	-0.0369	ppb	11:41:00
2	Cr 267.716†	-34.6	-2.4	-0.0504	µg/L	-0.0504	ppb	11:41:00
2	Cu 324.752†	2536.2	-4.8	-0.0317	µg/L	-0.0317	ppb	11:40:40
2	Mn 257.610†	-242.0	-5.1	-0.0139	µg/L	-0.0139	ppb	11:41:00
2	Mo 202.031†	-4.4	2.5	0.2562	µg/L	0.2562	ppb	11:41:00
2	Ni 231.604†	304.2	-3.0	-0.1612	µg/L	-0.1612	ppb	11:41:00
2	P 214.914†	25.6	4.0	8.4424	µg/L	8.4424	ppb	11:41:00
2	Pb 220.353†	87.3	-6.3	-1.6416	µg/L	-1.6416	ppb	11:41:00

2	S 181.975 Axial†	10.6	-3.2	-13.733 µg/L	-13.733 ppb	11:41:00
2	Sb 206.836†	28.4	8.2	7.8967 µg/L	7.8967 ppb	11:41:00
2	Se 196.026†	22.4	6.5	9.9656 µg/L	9.9656 ppb	11:41:00
2	SiO2†	1306.2	-40.1	-8.4565 µg/L	-8.4565 ppb	11:40:40
2	Si 251.611†	300.7	-14.2	-1.1492 µg/L	-1.1492 ppb	11:41:00
2	Sn 189.927†	-1.3	-4.4	-1.9653 µg/L	-1.9653 ppb	11:41:00
2	Ti 334.940†	146.0	15.2	0.0399 µg/L	0.0399 ppb	11:40:40
2	Tl 190.801†	-25.5	-2.5	-3.4959 µg/L	-3.4959 ppb	11:41:00
2	U 409.014†	-8.5	35.2	3.0579 µg/L	3.0579 ppb	11:40:40
2	V 292.402†	-12.4	19.7	0.2090 µg/L	0.2090 ppb	11:40:40
2	Zn 213.857†	504.5	-15.0	-0.3731 µg/L	-0.3731 ppb	11:41:00
3	Sc RADIAL	57634.8	57634.8	99.3 %		11:39:36
3	Al 396.153Radial†	-10.6	12.3	8.9958 µg/L	8.9958 ppb	11:39:36
3	Ca 317.933Radial†	190.0	-4.1	-3.8059 µg/L	-3.8059 ppb	11:39:56
3	Fe 238.204 Radial†	17.0	-0.2	-1.4167 µg/L	-1.4167 ppb	11:39:56
3	K 766.490 Radial†	191.7	16.2	11.407 µg/L	11.407 ppb	11:39:36
3	Mg 279.077 IEC†	12.2	-1.1	-10.737 µg/L	-10.737 ppb	11:39:56
3	Na 589.592 Radial†	567.0	4.9	1.5773 µg/L	1.5773 ppb	11:39:36
3	Sr 421.552†	4.0	-29.3	-0.2965 µg/L	-0.2965 ppb	11:39:36
3	Sc 361.383	2046195.5	2046195.5	100.09 %		11:41:06
3	Y 371.029	1404558.9	1404558.9	99.970 %		11:41:06
3	Ag 328.068†	-530.3	-6.2	-0.0490 µg/L	-0.0490 ppb	11:41:11
3	As 188.979†	0.6	-0.9	-1.6980 µg/L	-1.6980 ppb	11:41:31
3	B 249.677†	305.5	8.4	0.3676 µg/L	0.3676 ppb	11:41:31
3	Ba 233.527†	-16.0	2.0	0.0504 µg/L	0.0504 ppb	11:41:31
3	Be 313.107†	-3082.4	-112.1	-0.0718 µg/L	-0.0718 ppb	11:41:11
3	Cd 226.502†	-132.9	5.2	0.1386 µg/L	0.1386 ppb	11:41:31
3	Co 228.616†	-9.6	-4.5	-0.2195 µg/L	-0.2195 ppb	11:41:31
3	Cr 267.716†	-26.8	5.5	0.1160 µg/L	0.1160 ppb	11:41:31
3	Cu 324.752†	2554.0	14.2	0.0968 µg/L	0.0968 ppb	11:41:11
3	Mn 257.610†	-242.0	-5.2	-0.0174 µg/L	-0.0174 ppb	11:41:31
3	Mo 202.031†	-1.0	5.9	0.6021 µg/L	0.6021 ppb	11:41:31
3	Ni 231.604†	284.8	-22.3	-1.1889 µg/L	-1.1889 ppb	11:41:31
3	P 214.914†	16.7	-4.9	-10.366 µg/L	-10.366 ppb	11:41:31
3	Pb 220.353†	96.8	3.2	0.8202 µg/L	0.8202 ppb	11:41:31
3	S 181.975 Axial†	14.0	0.2	0.7880 µg/L	0.7880 ppb	11:41:31
3	Sb 206.836†	21.4	1.2	1.1651 µg/L	1.1651 ppb	11:41:31
3	Se 196.026†	13.1	-2.8	-4.2661 µg/L	-4.2661 ppb	11:41:31
3	SiO2†	1350.4	4.7	0.9986 µg/L	0.9986 ppb	11:41:11
3	Si 251.611†	302.5	-12.2	-0.9889 µg/L	-0.9889 ppb	11:41:31
3	Sn 189.927†	-4.1	-7.2	-3.2103 µg/L	-3.2103 ppb	11:41:31
3	Ti 334.940†	150.1	19.3	0.0464 µg/L	0.0464 ppb	11:41:11
3	Tl 190.801†	-22.3	0.7	0.9353 µg/L	0.9353 ppb	11:41:31
3	U 409.014†	6.4	50.0	4.3536 µg/L	4.3536 ppb	11:41:11
3	V 292.402†	-37.8	-5.7	-0.0491 µg/L	-0.0491 ppb	11:41:11
3	Zn 213.857†	495.5	-23.8	-0.5904 µg/L	-0.5904 ppb	11:41:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2039518.3	99.761	%	0.6090				0.61%
Sc RADIAL	57975.2	99.9	%	0.89				0.89%
Y 371.029	1398985.8	99.573	%	0.6769				0.68%
Ag 328.068†	4.4	0.0342	µg/L	0.35842	0.0342	ppb	0.35842	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.2	1.5768	µg/L	9.67327	1.5768	ppb	9.67327	613.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.6688	µg/L	2.61073	-4.6688	ppb	2.61073	55.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	19.8	0.8580	µg/L	0.68490	0.8580	ppb	0.68490	79.83%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.2	-0.0813	µg/L	0.16207	-0.0813	ppb	0.16207	199.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-59.4	-0.0380	µg/L	0.03585	-0.0380	ppb	0.03585	94.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.5	-5.1004	µg/L	1.91794	-5.1004	ppb	1.91794	37.60%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-0.8	-0.0232	µg/L	0.17675	-0.0232	ppb	0.17675	762.81%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.2	-0.2534	µg/L	0.23528	-0.2534	ppb	0.23528	92.86%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.6      0.0335 µg/L       0.08321      0.0335 ppb        0.08321 248.59%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                27.1      0.1855 µg/L       0.27246      0.1855 ppb        0.27246 146.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.0824 µg/L       8.49086     -0.0824 ppb        8.49086 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          25.5      17.909 µg/L      15.1649      17.909 ppb        15.1649  84.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.1     -28.839 µg/L      20.3929     -28.839 ppb        20.3929  70.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -5.6     -0.0176 µg/L       0.00392     -0.0176 ppb        0.00392  22.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.8      0.3960 µg/L       0.18217      0.3960 ppb        0.18217  46.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -0.1     -0.0403 µg/L       2.41346     -0.0403 ppb        2.41346 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.9     -0.5811 µg/L       0.53894     -0.5811 ppb        0.53894  92.74%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.7      9.9095 µg/L      21.04725      9.9095 ppb       21.04725 212.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.9     -0.4918 µg/L       1.23887     -0.4918 ppb        1.23887 251.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.1171 µg/L      13.52689      0.1171 ppb       13.52689 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.3      6.9921 µg/L       5.43144      6.9921 ppb        5.43144  77.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.3     -0.4852 µg/L       9.16516     -0.4852 ppb        9.16516 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -9.4     -1.9865 µg/L       5.60879     -1.9865 ppb        5.60879 282.35%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -13.0     -1.0533 µg/L       0.08470     -1.0533 ppb        0.08470   8.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.8     -1.7061 µg/L       1.64908     -1.7061 ppb        1.64908  96.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.7     -0.0074 µg/L       0.27418     -0.0074 ppb        0.27418 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.7      0.0698 µg/L       0.04633      0.0698 ppb        0.04633  66.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.4     -1.8822 µg/L       2.44860     -1.8822 ppb        2.44860 130.09%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  5.9      0.5108 µg/L       5.57168      0.5108 ppb        5.57168 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -3.9     -0.0366 µg/L       0.23964     -0.0366 ppb        0.23964 654.46%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -18.7     -0.4641 µg/L       0.11285     -0.4641 ppb        0.11285  24.32%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 1202030953|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 301
Date Collected: 2/17/2010 11:41:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030953|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57049.5	57049.5	98.3	%			11:42:14
1	Al 396.153Radial†	-21.2	1.4	0.9899	µg/L	0.9899	ppb	11:42:14
1	Ca 317.933Radial†	201.0	9.1	8.4360	µg/L	8.4360	ppb	11:42:35
1	Fe 238.204 Radial†	22.4	5.5	47.295	µg/L	47.295	ppb	11:42:35
1	K 766.490 Radial†	206.7	33.4	23.522	µg/L	23.522	ppb	11:42:14
1	Mg 279.077 IEC†	12.9	-0.3	-3.2197	µg/L	-3.2197	ppb	11:42:35
1	Na 589.592 Radial†	566.7	10.3	3.3533	µg/L	3.3533	ppb	11:42:14
1	Sr 421.552†	73.3	41.2	0.4168	µg/L	0.4168	ppb	11:42:14
1	Sc 361.383	2008728.3	2008728.3	98.255	%			11:43:33
1	Y 371.029	1376415.8	1376415.8	97.967	%			11:43:33
1	Ag 328.068†	-547.7	-33.7	-0.2560	µg/L	-0.2560	ppb	11:43:38
1	As 188.979†	-4.3	-5.9	-11.272	µg/L	-11.272	ppb	11:43:58
1	B 249.677†	328.8	37.9	1.6222	µg/L	1.6222	ppb	11:43:58
1	Ba 233.527†	-17.8	-0.2	-0.0029	µg/L	-0.0029	ppb	11:43:58
1	Be 313.107†	-3051.2	-137.8	-0.0883	µg/L	-0.0883	ppb	11:43:38
1	Cd 226.502†	-125.9	9.8	0.2583	µg/L	0.2583	ppb	11:43:58
1	Co 228.616†	-10.7	-5.9	-0.2867	µg/L	-0.2867	ppb	11:43:58
1	Cr 267.716†	3.1	35.4	0.7533	µg/L	0.7533	ppb	11:43:58
1	Cu 324.752†	2692.9	203.2	1.3990	µg/L	1.3990	ppb	11:43:38
1	Mn 257.610†	-20.1	216.1	0.7372	µg/L	0.7372	ppb	11:43:58
1	Mo 202.031†	-2.4	4.4	0.4551	µg/L	0.4551	ppb	11:43:58
1	Ni 231.604†	294.3	-7.2	-0.3846	µg/L	-0.3846	ppb	11:43:58
1	P 214.914†	24.8	3.7	7.5186	µg/L	7.5186	ppb	11:43:58
1	Pb 220.353†	112.2	20.7	5.3582	µg/L	5.3582	ppb	11:43:58
1	S 181.975 Axial†	19.3	5.8	24.984	µg/L	24.984	ppb	11:43:58
1	Sb 206.836†	23.7	3.9	3.7470	µg/L	3.7470	ppb	11:43:58
1	Se 196.026†	14.4	-1.2	-1.7628	µg/L	-1.7628	ppb	11:43:58
1	SiO2†	1481.5	163.3	34.430	µg/L	34.430	ppb	11:43:38
1	Si 251.611†	463.9	157.7	12.766	µg/L	12.766	ppb	11:43:58
1	Sn 189.927†	3.1	0.1	0.0243	µg/L	0.0243	ppb	11:43:58
1	Ti 334.940†	169.9	42.3	0.1002	µg/L	0.1002	ppb	11:43:38
1	Tl 190.801†	-21.7	0.9	1.2014	µg/L	1.2014	ppb	11:43:58
1	U 409.014†	-60.8	-18.2	-1.5863	µg/L	-1.5863	ppb	11:43:38
1	V 292.402†	43.6	76.5	0.7962	µg/L	0.7962	ppb	11:43:38
1	Zn 213.857†	574.7	66.1	1.6537	µg/L	1.6537	ppb	11:43:58
2	Sc RADIAL	56889.5	56889.5	98.0	%			11:42:40
2	Al 396.153Radial†	-9.6	13.1	9.6036	µg/L	9.6036	ppb	11:42:40
2	Ca 317.933Radial†	208.5	17.3	16.035	µg/L	16.035	ppb	11:43:00
2	Fe 238.204 Radial†	22.5	5.6	48.473	µg/L	48.473	ppb	11:43:00
2	K 766.490 Radial†	196.9	24.0	16.901	µg/L	16.901	ppb	11:42:40
2	Mg 279.077 IEC†	10.0	-3.3	-30.843	µg/L	-30.843	ppb	11:43:00
2	Na 589.592 Radial†	624.3	70.8	22.973	µg/L	22.973	ppb	11:42:40
2	Sr 421.552†	52.4	20.1	0.2037	µg/L	0.2037	ppb	11:42:40
2	Sc 361.383	2089001.8	2089001.8	102.18	%			11:44:04
2	Y 371.029	1431274.8	1431274.8	101.87	%			11:44:04
2	Ag 328.068†	-549.1	-13.7	-0.1036	µg/L	-0.1036	ppb	11:44:09
2	As 188.979†	0.3	-1.2	-2.2536	µg/L	-2.2536	ppb	11:44:30
2	B 249.677†	317.8	14.3	0.5967	µg/L	0.5967	ppb	11:44:30
2	Ba 233.527†	-24.8	-6.3	-0.1624	µg/L	-0.1624	ppb	11:44:30
2	Be 313.107†	-3031.8	0.5	0.0002	µg/L	0.0002	ppb	11:44:09
2	Cd 226.502†	-137.5	3.4	0.0861	µg/L	0.0861	ppb	11:44:30
2	Co 228.616†	-9.2	-4.0	-0.1918	µg/L	-0.1918	ppb	11:44:30
2	Cr 267.716†	-8.4	24.0	0.5093	µg/L	0.5093	ppb	11:44:30
2	Cu 324.752†	2706.5	111.2	0.7686	µg/L	0.7686	ppb	11:44:09
2	Mn 257.610†	-26.9	210.2	0.7186	µg/L	0.7186	ppb	11:44:30
2	Mo 202.031†	-0.1	6.7	0.6954	µg/L	0.6954	ppb	11:44:30
2	Ni 231.604†	305.4	-7.9	-0.4184	µg/L	-0.4184	ppb	11:44:30
2	P 214.914†	29.7	7.5	15.616	µg/L	15.616	ppb	11:44:30
2	Pb 220.353†	101.9	6.2	1.6044	µg/L	1.6044	ppb	11:44:30

2	S 181.975 Axial†	14.6	0.5	2.0381 µg/L	2.0381 ppb	11:44:30
2	Sb 206.836†	26.8	6.0	5.7705 µg/L	5.7705 ppb	11:44:30
2	Se 196.026†	15.1	-1.0	-1.4225 µg/L	-1.4225 ppb	11:44:30
2	SiO2†	1497.1	120.7	25.446 µg/L	25.446 ppb	11:44:09
2	Si 251.611†	473.1	148.5	12.022 µg/L	12.022 ppb	11:44:30
2	Sn 189.927†	3.1	-0.0	-0.0271 µg/L	-0.0271 ppb	11:44:30
2	Ti 334.940†	235.4	99.8	0.2383 µg/L	0.2383 ppb	11:44:09
2	Tl 190.801†	-24.5	-1.0	-1.3479 µg/L	-1.3479 ppb	11:44:30
2	U 409.014†	11.9	55.4	4.8101 µg/L	4.8101 ppb	11:44:09
2	V 292.402†	-25.8	6.8	0.0877 µg/L	0.0877 ppb	11:44:09
2	Zn 213.857†	574.4	43.3	1.0856 µg/L	1.0856 ppb	11:44:30
3	Sc RADIAL	57513.7	57513.7	99.1 %		11:43:05
3	Al 396.153Radial†	-16.5	6.2	4.5793 µg/L	4.5793 ppb	11:43:05
3	Ca 317.933Radial†	210.6	17.1	15.871 µg/L	15.871 ppb	11:43:25
3	Fe 238.204 Radial†	21.4	4.3	37.060 µg/L	37.060 ppb	11:43:25
3	K 766.490 Radial†	159.3	-16.2	-11.369 µg/L	-11.369 ppb	11:43:05
3	Mg 279.077 IEC†	10.0	-3.3	-31.225 µg/L	-31.225 ppb	11:43:25
3	Na 589.592 Radial†	603.6	42.9	13.939 µg/L	13.939 ppb	11:43:05
3	Sr 421.552†	28.2	-4.9	-0.0495 µg/L	-0.0495 ppb	11:43:05
3	Sc 361.383	2092188.3	2092188.3	102.34 %		11:44:35
3	Y 371.029	1433350.9	1433350.9	102.02 %		11:44:35
3	Ag 328.068†	-510.0	25.3	0.1998 µg/L	0.1998 ppb	11:44:40
3	As 188.979†	3.4	1.8	3.5175 µg/L	3.5175 ppb	11:45:01
3	B 249.677†	330.8	26.5	1.1310 µg/L	1.1310 ppb	11:45:01
3	Ba 233.527†	-14.8	3.5	0.0907 µg/L	0.0907 ppb	11:45:01
3	Be 313.107†	-2958.1	77.0	0.0493 µg/L	0.0493 ppb	11:44:40
3	Cd 226.502†	-137.2	3.9	0.0995 µg/L	0.0995 ppb	11:45:01
3	Co 228.616†	1.9	6.8	0.3313 µg/L	0.3313 ppb	11:45:01
3	Cr 267.716†	-14.9	17.7	0.3757 µg/L	0.3757 ppb	11:45:01
3	Cu 324.752†	2682.4	83.6	0.5779 µg/L	0.5779 ppb	11:44:40
3	Mn 257.610†	-26.5	210.7	0.7186 µg/L	0.7186 ppb	11:45:01
3	Mo 202.031†	-1.3	5.6	0.5819 µg/L	0.5819 ppb	11:45:01
3	Ni 231.604†	295.0	-18.5	-0.9894 µg/L	-0.9894 ppb	11:45:01
3	P 214.914†	30.8	8.5	17.930 µg/L	17.930 ppb	11:45:01
3	Pb 220.353†	110.9	14.8	3.8486 µg/L	3.8486 ppb	11:45:01
3	S 181.975 Axial†	17.3	3.1	13.512 µg/L	13.512 ppb	11:45:01
3	Sb 206.836†	22.0	1.3	1.2441 µg/L	1.2441 ppb	11:45:01
3	Se 196.026†	11.6	-4.6	-6.8206 µg/L	-6.8206 ppb	11:45:01
3	SiO2†	1514.3	135.2	28.510 µg/L	28.510 ppb	11:44:40
3	Si 251.611†	483.4	157.9	12.786 µg/L	12.786 ppb	11:45:01
3	Sn 189.927†	5.1	1.9	0.8380 µg/L	0.8380 ppb	11:45:01
3	Ti 334.940†	107.5	-25.6	-0.0577 µg/L	-0.0577 ppb	11:44:40
3	Tl 190.801†	-24.9	-1.4	-1.9009 µg/L	-1.9009 ppb	11:45:01
3	U 409.014†	-88.1	-42.4	-3.6982 µg/L	-3.6982 ppb	11:44:40
3	V 292.402†	-43.7	-10.7	-0.1040 µg/L	-0.1040 ppb	11:44:40
3	Zn 213.857†	572.3	40.4	1.0165 µg/L	1.0165 ppb	11:45:01

Mean Data: 1202030953|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2063306.1	100.92	%	2.313				2.29%
Sc RADIAL	57150.9	98.5	%	0.56				0.57%
Y 371.029	1413680.5	100.62	%	2.298				2.28%
Ag 328.068†	-7.4	-0.0533	µg/L	0.23199	-0.0533	ppb	0.23199	435.50%
Al 396.153Radial†	6.9	5.0576	µg/L	4.32670	5.0576	ppb	4.32670	85.55%
As 188.979†	-1.7	-3.3362	µg/L	7.45417	-3.3362	ppb	7.45417	223.43%
B 249.677†	26.2	1.1166	µg/L	0.51290	1.1166	ppb	0.51290	45.93%
Ba 233.527†	-1.0	-0.0249	µg/L	0.12799	-0.0249	ppb	0.12799	514.81%
Be 313.107†	-20.1	-0.0129	µg/L	0.06972	-0.0129	ppb	0.06972	540.07%
Ca 317.933Radial†	14.5	13.447	µg/L	4.3408	13.447	ppb	4.3408	32.28%
Cd 226.502†	5.7	0.1480	µg/L	0.09576	0.1480	ppb	0.09576	64.71%
Co 228.616†	-1.0	-0.0491	µg/L	0.33284	-0.0491	ppb	0.33284	678.47%
Cr 267.716†	25.7	0.5461	µg/L	0.19145	0.5461	ppb	0.19145	35.06%
Cu 324.752†	132.7	0.9152	µg/L	0.42974	0.9152	ppb	0.42974	46.96%
Fe 238.204 Radial†	5.2	44.276	µg/L	6.2769	44.276	ppb	6.2769	14.18%
K 766.490 Radial†	13.8	9.6848	µg/L	18.53100	9.6848	ppb	18.53100	191.34%
Mg 279.077 IEC†	-2.3	-21.763	µg/L	16.0597	-21.763	ppb	16.0597	73.80%
Mn 257.610†	212.4	0.7248	µg/L	0.01071	0.7248	ppb	0.01071	1.48%
Mo 202.031†	5.6	0.5775	µg/L	0.12018	0.5775	ppb	0.12018	20.81%
Na 589.592 Radial†	41.3	13.422	µg/L	9.8202	13.422	ppb	9.8202	73.17%

Ni 231.604†	-11.2	-0.5975	µg/L	0.33983	-0.5975	ppb	0.33983 56.88%
P 214.914†	6.5	13.688	µg/L	5.4667	13.688	ppb	5.4667 39.94%
Pb 220.353†	13.9	3.6037	µg/L	1.88889	3.6037	ppb	1.88889 52.41%
S 181.975 Axial†	3.1	13.511	µg/L	11.4730	13.511	ppb	11.4730 84.91%
Sb 206.836†	3.7	3.5872	µg/L	2.26743	3.5872	ppb	2.26743 63.21%
Se 196.026†	-2.3	-3.3353	µg/L	3.02314	-3.3353	ppb	3.02314 90.64%
SiO2†	139.7	29.462	µg/L	4.5670	29.462	ppb	4.5670 15.50%
Si 251.611†	154.7	12.525	µg/L	0.4355	12.525	ppb	0.4355 3.48%
Sn 189.927†	0.6	0.2784	µg/L	0.48532	0.2784	ppb	0.48532 174.32%
Sr 421.552†	18.8	0.1904	µg/L	0.23345	0.1904	ppb	0.23345 122.64%
Ti 334.940†	38.8	0.0936	µg/L	0.14809	0.0936	ppb	0.14809 158.25%
Tl 190.801†	-0.5	-0.6825	µg/L	1.65475	-0.6825	ppb	1.65475 242.47%
U 409.014†	-1.7	-0.1581	µg/L	4.43029	-0.1581	ppb	4.43029 >999.9%
V 292.402†	24.2	0.2599	µg/L	0.47417	0.2599	ppb	0.47417 182.41%
Zn 213.857†	49.9	1.2519	µg/L	0.34969	1.2519	ppb	0.34969 27.93%

Sequence No.: 4
Sample ID: 1202030958|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 302
Date Collected: 2/17/2010 11:45:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030958|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	60601.2	60601.2	104	%			11:45:41
1	Al 396.153Radial†	118551.4	113560.1	83473	µg/L	83473	ppb	11:45:41
1	Ca 317.933Radial†	105956.8	101279.9	93806	µg/L	93806	ppb	11:45:41
1	Fe 238.204 Radial†	22004.4	21056.5	180920	µg/L	180920	ppb	11:46:01
1	K 766.490 Radial†	58732.1	56071.2	39443	µg/L	39443	ppb	11:45:41
1	Mg 279.077 IEC†	4265.0	4071.2	38133	µg/L	38133	ppb	11:46:01
1	Na 589.592 Radial†	32239.6	30309.9	9839.7	µg/L	9839.7	ppb	11:45:41
1	Sr 421.552†	228801.4	219090.9	2215.4	µg/L	2215.4	ppb	11:45:41
1	Sc 361.383	2078274.2	2078274.2	101.66	%			11:47:02
1	Y 371.029	1447363.9	1447363.9	103.02	%			11:47:02
1	Ag 328.068†	36148.7	36083.2	301.59	µg/L	301.59	ppb	11:47:08
1	As 188.979†	557.1	546.6	1056.3	µg/L	1056.3	ppb	11:47:28
1	B 249.677†	35970.8	35087.8	1432.6	µg/L	1432.6	ppb	11:47:08
1	Ba 233.527†	76894.0	75658.6	1947.0	µg/L	1947.0	ppb	11:47:08
1	Be 313.107†	1243389.4	1226090.2	782.54	µg/L	782.54	ppb	11:47:02
1	Cd 226.502†	22331.6	22105.5	577.98	µg/L	577.98	ppb	11:47:08
1	Co 228.616†	19474.8	19162.4	916.89	µg/L	916.89	ppb	11:47:08
1	Cr 267.716†	114258.5	112428.3	2391.1	µg/L	2391.1	ppb	11:47:08
1	Cu 324.752†	262948.7	256125.2	1780.3	µg/L	1780.3	ppb	11:47:08
1	Mn 257.610†	1616965.5	1590846.3	5401.6	µg/L	5401.6	ppb	11:47:02
1	Mo 202.031†	5058.2	4982.6	519.62	µg/L	519.62	ppb	11:47:28
1	Ni 231.604†	25854.8	25126.6	1343.0	µg/L	1343.0	ppb	11:47:08
1	P 214.914†	4045.2	3957.7	8055.1	µg/L	8055.1	ppb	11:47:28
1	Pb 220.353†	3306.7	3159.2	815.85	µg/L	815.85	ppb	11:47:28
1	S 181.975 Axial†	947.0	917.7	3956.2	µg/L	3956.2	ppb	11:47:28
1	Sb 206.836†	1516.8	1471.9	1381.5	µg/L	1381.5	ppb	11:47:28
1	Se 196.026†	1839.1	1793.3	3166.5	µg/L	3166.5	ppb	11:47:28
1	SiO2†	315896.3	309402.9	65241	µg/L	65241	ppb	11:47:08
1	Si 251.611†	389256.2	382597.0	30974	µg/L	30974	ppb	11:47:02
1	Sn 189.927†	2402.9	2360.7	1036.4	µg/L	1036.4	ppb	11:47:28
1	Ti 334.940†	2384155.5	2345164.2	5534.2	µg/L	5534.2	ppb	11:47:02
1	Tl 190.801†	832.6	841.9	1257.4	µg/L	1257.4	ppb	11:47:28
1	U 409.014†	-1947.1	-1871.7	-193.69	µg/L	-193.69	ppb	11:47:08
1	V 292.402†	116790.8	114919.2	1213.3	µg/L	1213.3	ppb	11:47:08
1	Zn 213.857†	233436.5	229112.7	5721.9	µg/L	5721.9	ppb	11:47:08
2	Sc RADIAL	61541.5	61541.5	106	%			11:46:07
2	Al 396.153Radial†	119930.9	113126.4	83154	µg/L	83154	ppb	11:46:07
2	Ca 317.933Radial†	107404.2	101094.5	93634	µg/L	93634	ppb	11:46:07
2	Fe 238.204 Radial†	21898.9	20635.0	177300	µg/L	177300	ppb	11:46:27
2	K 766.490 Radial†	59253.7	55703.6	39184	µg/L	39184	ppb	11:46:07
2	Mg 279.077 IEC†	4244.6	3989.5	37369	µg/L	37369	ppb	11:46:27
2	Na 589.592 Radial†	32586.5	30165.3	9792.7	µg/L	9792.7	ppb	11:46:07
2	Sr 421.552†	231756.4	218529.8	2209.7	µg/L	2209.7	ppb	11:46:07
2	Sc 361.383	2082025.8	2082025.8	101.84	%			11:47:35
2	Y 371.029	1450061.1	1450061.1	103.21	%			11:47:35
2	Ag 328.068†	36381.4	36247.6	302.69	µg/L	302.69	ppb	11:47:40
2	As 188.979†	558.4	546.8	1056.6	µg/L	1056.6	ppb	11:48:00
2	B 249.677†	36264.1	35311.9	1444.2	µg/L	1444.2	ppb	11:47:40
2	Ba 233.527†	77606.9	76222.3	1961.5	µg/L	1961.5	ppb	11:47:40
2	Be 313.107†	1243864.6	1224352.9	781.43	µg/L	781.43	ppb	11:47:35
2	Cd 226.502†	22521.5	22252.5	582.35	µg/L	582.35	ppb	11:47:40
2	Co 228.616†	19635.2	19285.4	922.86	µg/L	922.86	ppb	11:47:40
2	Cr 267.716†	115083.9	113036.3	2404.1	µg/L	2404.1	ppb	11:47:40
2	Cu 324.752†	264484.5	257167.1	1786.9	µg/L	1786.9	ppb	11:47:40
2	Mn 257.610†	1610478.0	1581609.9	5369.9	µg/L	5369.9	ppb	11:47:35
2	Mo 202.031†	5080.3	4995.3	520.79	µg/L	520.79	ppb	11:48:00
2	Ni 231.604†	25928.5	25153.1	1344.4	µg/L	1344.4	ppb	11:47:40
2	P 214.914†	4050.4	3955.6	8052.8	µg/L	8052.8	ppb	11:48:00
2	Pb 220.353†	3315.6	3162.2	816.74	µg/L	816.74	ppb	11:48:00

2	S 181.975 Axial†	952.4	921.4	3971.8	µg/L	3971.8 ppb	11:48:00
2	Sb 206.836†	1524.6	1476.9	1386.1	µg/L	1386.1 ppb	11:48:00
2	Se 196.026†	1854.9	1805.5	3175.9	µg/L	3175.9 ppb	11:48:00
2	SiO2†	318333.8	311236.3	65628	µg/L	65628 ppb	11:47:40
2	Si 251.611†	390169.6	382803.9	30991	µg/L	30991 ppb	11:47:35
2	Sn 189.927†	2419.4	2372.6	1042.0	µg/L	1042.0 ppb	11:48:00
2	Ti 334.940†	2385524.9	2342282.9	5527.4	µg/L	5527.4 ppb	11:47:35
2	Tl 190.801†	834.1	842.0	1256.7	µg/L	1256.7 ppb	11:48:00
2	U 409.014†	-1994.2	-1914.4	-196.89	µg/L	-196.89 ppb	11:47:40
2	V 292.402†	117655.7	115561.5	1219.6	µg/L	1219.6 ppb	11:47:40
2	Zn 213.857†	235269.9	230499.2	5756.9	µg/L	5756.9 ppb	11:47:40
3	Sc RADIAL	61281.8	61281.8	106	%		11:46:32
3	Al 396.153Radial†	119460.5	113160.2	83179	µg/L	83179 ppb	11:46:32
3	Ca 317.933Radial†	107050.4	101188.7	93722	µg/L	93722 ppb	11:46:32
3	Fe 238.204 Radial†	22042.7	20858.7	179220	µg/L	179220 ppb	11:46:53
3	K 766.490 Radial†	59211.6	55900.6	39323	µg/L	39323 ppb	11:46:32
3	Mg 279.077 IEC†	4270.3	4030.8	37755	µg/L	37755 ppb	11:46:53
3	Na 589.592 Radial†	32519.1	30231.6	9814.2	µg/L	9814.2 ppb	11:46:32
3	Sr 421.552†	230703.4	218458.6	2209.0	µg/L	2209.0 ppb	11:46:32
3	Sc 361.383	2066134.6	2066134.6	101.06	%		11:48:08
3	Y 371.029	1440069.1	1440069.1	102.50	%		11:48:08
3	Ag 328.068†	35767.1	35914.5	300.01	µg/L	300.01 ppb	11:48:13
3	As 188.979†	528.9	521.8	1008.7	µg/L	1008.7 ppb	11:48:33
3	B 249.677†	35510.5	34840.2	1422.7	µg/L	1422.7 ppb	11:48:13
3	Ba 233.527†	75362.7	74587.9	1919.4	µg/L	1919.4 ppb	11:48:13
3	Be 313.107†	1227325.8	1217382.1	776.99	µg/L	776.99 ppb	11:48:08
3	Cd 226.502†	21899.8	21807.3	570.08	µg/L	570.08 ppb	11:48:13
3	Co 228.616†	19028.1	18832.9	901.02	µg/L	901.02 ppb	11:48:13
3	Cr 267.716†	111083.4	109947.0	2338.4	µg/L	2338.4 ppb	11:48:13
3	Cu 324.752†	256774.2	251535.4	1748.6	µg/L	1748.6 ppb	11:48:13
3	Mn 257.610†	1592516.2	1575999.8	5351.2	µg/L	5351.2 ppb	11:48:08
3	Mo 202.031†	4809.9	4766.2	497.28	µg/L	497.28 ppb	11:48:33
3	Ni 231.604†	25148.0	24576.6	1313.6	µg/L	1313.6 ppb	11:48:13
3	P 214.914†	3851.1	3789.0	7703.2	µg/L	7703.2 ppb	11:48:33
3	Pb 220.353†	3180.9	3053.9	788.56	µg/L	788.56 ppb	11:48:33
3	S 181.975 Axial†	927.0	903.4	3894.4	µg/L	3894.4 ppb	11:48:33
3	Sb 206.836†	1439.7	1404.3	1317.1	µg/L	1317.1 ppb	11:48:33
3	Se 196.026†	1784.7	1750.1	3096.4	µg/L	3096.4 ppb	11:48:33
3	SiO2†	310095.7	305489.0	64416	µg/L	64416 ppb	11:48:13
3	Si 251.611†	385576.1	381205.4	30862	µg/L	30862 ppb	11:48:08
3	Sn 189.927†	2275.5	2248.4	986.55	µg/L	986.55 ppb	11:48:33
3	Ti 334.940†	2348486.3	2323650.0	5483.4	µg/L	5483.4 ppb	11:48:08
3	Tl 190.801†	798.7	813.3	1216.8	µg/L	1216.8 ppb	11:48:33
3	U 409.014†	-1904.4	-1840.7	-190.75	µg/L	-190.75 ppb	11:48:13
3	V 292.402†	113769.1	112604.3	1189.0	µg/L	1189.0 ppb	11:48:13
3	Zn 213.857†	228724.2	225799.2	5639.2	µg/L	5639.2 ppb	11:48:13

Mean Data: 1202030958|948065|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2075478.2	101.52	%	0.406				0.40%
Sc RADIAL	61141.5	105	%	0.8				0.79%
Y 371.029	1445831.3	102.91	%	0.368				0.36%
Ag 328.068†	36081.8	301.43	µg/L	1.350	301.43	ppb	1.350	0.45%
Al 396.153Radial†	113282.2	83269	µg/L	177.2	83269	ppb	177.2	0.21%
As 188.979†	538.4	1040.5	µg/L	27.60	1040.5	ppb	27.60	2.65%
B 249.677†	35080.0	1433.2	µg/L	10.80	1433.2	ppb	10.80	0.75%
Ba 233.527†	75489.6	1942.6	µg/L	21.37	1942.6	ppb	21.37	1.10%
Be 313.107†	1222608.4	780.32	µg/L	2.939	780.32	ppb	2.939	0.38%
Ca 317.933Radial†	101187.7	93721	µg/L	85.9	93721	ppb	85.9	0.09%
Cd 226.502†	22055.1	576.80	µg/L	6.219	576.80	ppb	6.219	1.08%
Co 228.616†	19093.6	913.59	µg/L	11.288	913.59	ppb	11.288	1.24%
Cr 267.716†	111803.9	2377.8	µg/L	34.81	2377.8	ppb	34.81	1.46%
Cu 324.752†	254942.6	1771.9	µg/L	20.48	1771.9	ppb	20.48	1.16%
Fe 238.204 Radial†	20850.0	179150	µg/L	1811.5	179150	ppb	1811.5	1.01%
K 766.490 Radial†	55891.8	39317	µg/L	129.4	39317	ppb	129.4	0.33%
Mg 279.077 IEC†	4030.5	37752	µg/L	382.2	37752	ppb	382.2	1.01%
Mn 257.610†	1582818.7	5374.3	µg/L	25.48	5374.3	ppb	25.48	0.47%
Mo 202.031†	4914.7	512.56	µg/L	13.248	512.56	ppb	13.248	2.58%
Na 589.592 Radial†	30235.6	9815.5	µg/L	23.50	9815.5	ppb	23.50	0.24%

Ni 231.604†	24952.1	1333.7	µg/L	17.36	1333.7	ppb	17.36	1.30%
P 214.914†	3900.8	7937.0	µg/L	202.52	7937.0	ppb	202.52	2.55%
Pb 220.353†	3125.1	807.05	µg/L	16.015	807.05	ppb	16.015	1.98%
S 181.975 Axial†	914.2	3940.8	µg/L	40.96	3940.8	ppb	40.96	1.04%
Sb 206.836†	1451.0	1361.6	µg/L	38.58	1361.6	ppb	38.58	2.83%
Se 196.026†	1783.0	3146.3	µg/L	43.43	3146.3	ppb	43.43	1.38%
SiO2†	308709.4	65095	µg/L	619.0	65095	ppb	619.0	0.95%
Si 251.611†	382202.1	30943	µg/L	70.4	30943	ppb	70.4	0.23%
Sn 189.927†	2327.2	1021.7	µg/L	30.54	1021.7	ppb	30.54	2.99%
Sr 421.552†	218693.1	2211.4	µg/L	3.50	2211.4	ppb	3.50	0.16%
Ti 334.940†	2337032.4	5515.0	µg/L	27.56	5515.0	ppb	27.56	0.50%
Tl 190.801†	832.4	1243.6	µg/L	23.24	1243.6	ppb	23.24	1.87%
U 409.014†	-1875.6	-193.78	µg/L	3.071	-193.78	ppb	3.071	1.58%
V 292.402†	114361.7	1207.3	µg/L	16.14	1207.3	ppb	16.14	1.34%
Zn 213.857†	228470.4	5706.0	µg/L	60.44	5706.0	ppb	60.44	1.06%

Sequence No.: 5
Sample ID: 245797001|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 303
Date Collected: 2/17/2010 11:48:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797001|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59985.5	59985.5	103	%			11:49:13
1	Al 396.153Radial†	103893.9	100543.9	73914	µg/L	73914	ppb	11:49:13
1	Ca 317.933Radial†	48731.2	46953.8	43489	µg/L	43489	ppb	11:49:13
1	Fe 238.204 Radial†	14260.6	13780.4	118390	µg/L	118390	ppb	11:49:33
1	K 766.490 Radial†	15569.8	14887.5	10473	µg/L	10473	ppb	11:49:13
1	Mg 279.077 IEC†	1802.6	1730.6	16162	µg/L	16162	ppb	11:49:33
1	Na 589.592 Radial†	12383.5	11415.4	3705.8	µg/L	3705.8	ppb	11:49:13
1	Sr 421.552†	24566.2	23735.3	240.00	µg/L	240.00	ppb	11:49:13
1	Sc 361.383	2060832.3	2060832.3	100.80	%			11:50:34
1	Y 371.029	1455050.0	1455050.0	103.56	%			11:50:34
1	Ag 328.068†	-2012.7	-1473.0	-3.1932	µg/L	-3.1932	ppb	11:50:39
1	As 188.979†	20.3	18.7	40.532	µg/L	40.532	ppb	11:50:59
1	B 249.677†	1193.1	886.8	-23.166	µg/L	-23.166	ppb	11:50:39
1	Ba 233.527†	43936.7	43604.3	1121.1	µg/L	1121.1	ppb	11:50:39
1	Be 313.107†	10710.8	13592.9	8.1352	µg/L	8.1352	ppb	11:50:39
1	Cd 226.502†	217.8	354.0	-3.7522	µg/L	-3.7522	ppb	11:50:59
1	Co 228.616†	1741.2	1732.3	80.808	µg/L	80.808	ppb	11:50:59
1	Cr 267.716†	3323.2	3328.9	70.860	µg/L	70.860	ppb	11:50:39
1	Cu 324.752†	10257.4	7638.0	68.796	µg/L	68.796	ppb	11:50:39
1	Mn 257.610†	579972.0	575583.9	1961.3	µg/L	1961.3	ppb	11:50:34
1	Mo 202.031†	50.2	56.6	10.325	µg/L	10.325	ppb	11:50:59
1	Ni 231.604†	1522.1	1203.2	65.689	µg/L	65.689	ppb	11:50:59
1	P 214.914†	295.5	271.6	492.31	µg/L	492.31	ppb	11:50:59
1	Pb 220.353†	439.1	342.1	88.403	µg/L	88.403	ppb	11:50:59
1	S 181.975 Axial†	254.3	238.4	1027.8	µg/L	1027.8	ppb	11:50:59
1	Sb 206.836†	31.3	10.8	5.8895	µg/L	5.8895	ppb	11:50:59
1	Se 196.026†	-38.7	-54.3	214.33	µg/L	214.33	ppb	11:50:59
1	SiO2†	330186.9	326209.5	68785	µg/L	68785	ppb	11:50:34
1	Si 251.611†	397884.2	394397.0	31930	µg/L	31930	ppb	11:50:34
1	Sn 189.927†	-11.6	-14.6	-17.447	µg/L	-17.447	ppb	11:50:59
1	Ti 334.940†	632028.8	626858.4	1479.1	µg/L	1479.1	ppb	11:50:34
1	Tl 190.801†	-46.6	-23.3	6.6255	µg/L	6.6255	ppb	11:50:59
1	U 409.014†	-2060.4	-2000.2	-193.11	µg/L	-193.11	ppb	11:50:34
1	V 292.402†	12971.7	12900.3	146.73	µg/L	146.73	ppb	11:50:39
1	Zn 213.857†	14197.8	13565.7	333.04	µg/L	333.04	ppb	11:50:39
2	Sc RADIAL	59975.5	59975.5	103	%			11:49:38
2	Al 396.153Radial†	103318.2	100003.5	73517	µg/L	73517	ppb	11:49:38
2	Ca 317.933Radial†	47995.9	46250.0	42837	µg/L	42837	ppb	11:49:38
2	Fe 238.204 Radial†	14219.6	13743.0	118070	µg/L	118070	ppb	11:49:58
2	K 766.490 Radial†	15436.5	14761.0	10384	µg/L	10384	ppb	11:49:38
2	Mg 279.077 IEC†	1803.4	1731.8	16173	µg/L	16173	ppb	11:49:58
2	Na 589.592 Radial†	12343.4	11378.5	3693.9	µg/L	3693.9	ppb	11:49:38
2	Sr 421.552†	24289.7	23471.8	237.34	µg/L	237.34	ppb	11:49:38
2	Sc 361.383	2069434.3	2069434.3	101.22	%			11:51:07
2	Y 371.029	1460233.1	1460233.1	103.93	%			11:51:07
2	Ag 328.068†	-2001.7	-1453.8	-3.0563	µg/L	-3.0563	ppb	11:51:12
2	As 188.979†	13.7	12.1	27.855	µg/L	27.855	ppb	11:51:32
2	B 249.677†	1195.4	884.2	-23.114	µg/L	-23.114	ppb	11:51:12
2	Ba 233.527†	44303.6	43785.6	1125.8	µg/L	1125.8	ppb	11:51:12
2	Be 313.107†	10723.1	13560.9	8.1161	µg/L	8.1161	ppb	11:51:12
2	Cd 226.502†	223.9	359.1	-3.5793	µg/L	-3.5793	ppb	11:51:32
2	Co 228.616†	1737.4	1721.4	80.290	µg/L	80.290	ppb	11:51:32
2	Cr 267.716†	3338.1	3329.9	70.883	µg/L	70.883	ppb	11:51:12
2	Cu 324.752†	10364.1	7701.2	69.184	µg/L	69.184	ppb	11:51:12
2	Mn 257.610†	581868.9	575066.3	1959.5	µg/L	1959.5	ppb	11:51:07
2	Mo 202.031†	55.9	62.1	10.874	µg/L	10.874	ppb	11:51:32
2	Ni 231.604†	1506.3	1181.3	64.517	µg/L	64.517	ppb	11:51:32
2	P 214.914†	299.7	274.5	498.74	µg/L	498.74	ppb	11:51:32
2	Pb 220.353†	430.3	331.5	85.647	µg/L	85.647	ppb	11:51:32

2	S 181.975 Axial†	248.8	231.9	999.86 µg/L	999.86 ppb		11:51:32
2	Sb 206.836†	31.6	11.1	6.1934 µg/L	6.1934 ppb		11:51:32
2	Se 196.026†	-49.5	-64.8	197.61 µg/L	197.61 ppb		11:51:32
2	SiO2†	331281.6	325929.5	68726 µg/L	68726 ppb		11:51:07
2	Si 251.611†	399075.2	393932.9	31892 µg/L	31892 ppb		11:51:07
2	Sn 189.927†	-3.3	-6.3	-13.727 µg/L	-13.727 ppb		11:51:32
2	Ti 334.940†	633061.6	625272.5	1475.3 µg/L	1475.3 ppb		11:51:07
2	Tl 190.801†	-48.5	-24.9	4.2569 µg/L	4.2569 ppb		11:51:32
2	U 409.014†	-1877.1	-1810.7	-176.54 µg/L	-176.54 ppb		11:51:07
2	V 292.402†	13125.5	12998.7	147.73 µg/L	147.73 ppb		11:51:12
2	Zn 213.857†	14268.3	13576.9	333.33 µg/L	333.33 ppb		11:51:12
3	Sc RADIAL	60451.6	60451.6	104 %			11:50:04
3	Al 396.153Radial†	105235.4	101056.8	74291 µg/L	74291 ppb		11:50:04
3	Ca 317.933Radial†	49064.8	46910.5	43449 µg/L	43449 ppb		11:50:04
3	Fe 238.204 Radial†	14437.0	13843.3	118930 µg/L	118930 ppb		11:50:24
3	K 766.490 Radial†	15695.7	14892.1	10476 µg/L	10476 ppb		11:50:04
3	Mg 279.077 IEC†	1826.4	1740.1	16250 µg/L	16250 ppb		11:50:24
3	Na 589.592 Radial†	12554.2	11486.8	3729.0 µg/L	3729.0 ppb		11:50:04
3	Sr 421.552†	24788.4	23765.4	240.31 µg/L	240.31 ppb		11:50:04
3	Sc 361.383	2066553.5	2066553.5	101.08 %			11:51:40
3	Y 371.029	1459650.3	1459650.3	103.89 %			11:51:40
3	Ag 328.068†	-2010.8	-1465.6	-3.1133 µg/L	-3.1133 ppb		11:51:45
3	As 188.979†	9.7	8.1	20.190 µg/L	20.190 ppb		11:52:05
3	B 249.677†	1166.6	857.3	-24.733 µg/L	-24.733 ppb		11:51:45
3	Ba 233.527†	43616.2	43166.6	1109.9 µg/L	1109.9 ppb		11:51:45
3	Be 313.107†	10389.3	13245.5	7.9190 µg/L	7.9190 ppb		11:51:45
3	Cd 226.502†	209.7	345.4	-4.0490 µg/L	-4.0490 ppb		11:52:05
3	Co 228.616†	1674.8	1661.8	77.427 µg/L	77.427 ppb		11:52:05
3	Cr 267.716†	3242.9	3240.3	68.975 µg/L	68.975 ppb		11:51:45
3	Cu 324.752†	10224.9	7577.7	68.458 µg/L	68.458 ppb		11:51:45
3	Mn 257.610†	576965.1	571016.4	1945.9 µg/L	1945.9 ppb		11:51:40
3	Mo 202.031†	45.2	51.6	9.8254 µg/L	9.8254 ppb		11:52:05
3	Ni 231.604†	1462.6	1140.2	62.335 µg/L	62.335 ppb		11:52:05
3	P 214.914†	295.5	270.7	490.28 µg/L	490.28 ppb		11:52:05
3	Pb 220.353†	418.6	320.6	82.835 µg/L	82.835 ppb		11:52:05
3	S 181.975 Axial†	248.3	231.9	999.49 µg/L	999.49 ppb		11:52:05
3	Sb 206.836†	38.7	18.1	12.855 µg/L	12.855 ppb		11:52:05
3	Se 196.026†	-46.9	-62.3	203.56 µg/L	203.56 ppb		11:52:05
3	SiO2†	329506.3	324629.4	68452 µg/L	68452 ppb		11:51:40
3	Si 251.611†	396704.2	392136.9	31747 µg/L	31747 ppb		11:51:40
3	Sn 189.927†	-8.0	-11.0	-15.903 µg/L	-15.903 ppb		11:52:05
3	Ti 334.940†	626826.1	619975.7	1462.8 µg/L	1462.8 ppb		11:51:40
3	Tl 190.801†	-46.7	-23.3	6.5031 µg/L	6.5031 ppb		11:52:05
3	U 409.014†	-2024.6	-1959.2	-189.62 µg/L	-189.62 ppb		11:51:40
3	V 292.402†	12823.5	12718.1	144.92 µg/L	144.92 ppb		11:51:45
3	Zn 213.857†	14040.2	13370.8	328.14 µg/L	328.14 ppb		11:51:45

Mean Data: 245797001|948065|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2065606.7	101.04	%	0.214				0.21%
Sc RADIAL	60137.5	104	%	0.5				0.45%
Y 371.029	1458311.1	103.80	%	0.202				0.19%
Ag 328.068†	-1464.1	-3.1209	µg/L	0.06873	-3.1209	ppb	0.06873	2.20%
Al 396.153Radial†	100534.7	73908	µg/L	387.2	73908	ppb	387.2	0.52%
As 188.979†	12.9	29.526	µg/L	10.2738	29.526	ppb	10.2738	34.80%
B 249.677†	876.1	-23.671	µg/L	0.9199	-23.671	ppb	0.9199	3.89%
Ba 233.527†	43518.8	1118.9	µg/L	8.18	1118.9	ppb	8.18	0.73%
Be 313.107†	13466.5	8.0568	µg/L	0.11967	8.0568	ppb	0.11967	1.49%
Ca 317.933Radial†	46704.8	43258	µg/L	365.3	43258	ppb	365.3	0.84%
Cd 226.502†	352.8	-3.7935	µg/L	0.23754	-3.7935	ppb	0.23754	6.26%
Co 228.616†	1705.2	79.508	µg/L	1.8207	79.508	ppb	1.8207	2.29%
Cr 267.716†	3299.7	70.239	µg/L	1.0945	70.239	ppb	1.0945	1.56%
Cu 324.752†	7639.0	68.813	µg/L	0.3635	68.813	ppb	0.3635	0.53%
Fe 238.204 Radial†	13788.9	118470	µg/L	435.5	118470	ppb	435.5	0.37%
K 766.490 Radial†	14846.9	10444	µg/L	52.4	10444	ppb	52.4	0.50%
Mg 279.077 IEC†	1734.2	16195	µg/L	48.1	16195	ppb	48.1	0.30%
Mn 257.610†	573888.9	1955.6	µg/L	8.41	1955.6	ppb	8.41	0.43%
Mo 202.031†	56.7	10.341	µg/L	0.5243	10.341	ppb	0.5243	5.07%
Na 589.592 Radial†	11426.9	3709.6	µg/L	17.88	3709.6	ppb	17.88	0.48%

Ni 231.604†	1174.9	64.180	µg/L	1.7019	64.180	ppb	1.7019	2.65%
P 214.914†	272.3	493.78	µg/L	4.419	493.78	ppb	4.419	0.89%
Pb 220.353†	331.4	85.628	µg/L	2.7838	85.628	ppb	2.7838	3.25%
S 181.975 Axial†	234.1	1009.1	µg/L	16.24	1009.1	ppb	16.24	1.61%
Sb 206.836†	13.4	8.3126	µg/L	3.93662	8.3126	ppb	3.93662	47.36%
Se 196.026†	-60.4	205.16	µg/L	8.479	205.16	ppb	8.479	4.13%
SiO2†	325589.5	68654	µg/L	177.8	68654	ppb	177.8	0.26%
Si 251.611†	393488.9	31856	µg/L	96.6	31856	ppb	96.6	0.30%
Sn 189.927†	-10.7	-15.692	µg/L	1.8690	-15.692	ppb	1.8690	11.91%
Sr 421.552†	23657.5	239.22	µg/L	1.634	239.22	ppb	1.634	0.68%
Ti 334.940†	624035.5	1472.4	µg/L	8.51	1472.4	ppb	8.51	0.58%
Tl 190.801†	-23.8	5.7952	µg/L	1.33358	5.7952	ppb	1.33358	23.01%
U 409.014†	-1923.4	-186.42	µg/L	8.737	-186.42	ppb	8.737	4.69%
V 292.402†	12872.4	146.46	µg/L	1.426	146.46	ppb	1.426	0.97%
Zn 213.857†	13504.5	331.50	µg/L	2.919	331.50	ppb	2.919	0.88%

Sequence No.: 6
Sample ID: 1202030954|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 304
Date Collected: 2/17/2010 11:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030954|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59917.0	59917.0	103	%			11:52:45
1	Al 396.153Radial†	101869.0	98697.4	72557	µg/L	72557	ppb	11:52:45
1	Ca 317.933Radial†	57380.1	55385.3	51298	µg/L	51298	ppb	11:52:45
1	Fe 238.204 Radial†	15256.1	14760.4	126810	µg/L	126810	ppb	11:53:05
1	K 766.490 Radial†	15302.6	14645.9	10303	µg/L	10303	ppb	11:52:45
1	Mg 279.077 IEC†	1844.8	1773.5	16557	µg/L	16557	ppb	11:53:05
1	Na 589.592 Radial†	12432.5	11476.5	3725.7	µg/L	3725.7	ppb	11:52:45
1	Sr 421.552†	25750.5	24909.7	251.88	µg/L	251.88	ppb	11:52:45
1	Sc 361.383	2068340.1	2068340.1	101.17	%			11:54:06
1	Y 371.029	1461247.1	1461247.1	104.00	%			11:54:06
1	Ag 328.068†	-2086.7	-1538.9	-3.2192	µg/L	-3.2192	ppb	11:54:11
1	As 188.979†	10.0	8.4	20.900	µg/L	20.900	ppb	11:54:31
1	B 249.677†	1203.1	892.4	-27.310	µg/L	-27.310	ppb	11:54:11
1	Ba 233.527†	37607.8	37190.5	956.23	µg/L	956.23	ppb	11:54:11
1	Be 313.107†	10567.4	13412.6	8.0016	µg/L	8.0016	ppb	11:54:11
1	Cd 226.502†	232.4	367.7	-4.3314	µg/L	-4.3314	ppb	11:54:31
1	Co 228.616†	2012.6	1994.3	93.396	µg/L	93.396	ppb	11:54:31
1	Cr 267.716†	3574.8	3565.6	75.889	µg/L	75.889	ppb	11:54:11
1	Cu 324.752†	10137.7	7482.8	68.903	µg/L	68.903	ppb	11:54:11
1	Mn 257.610†	631165.9	624096.8	2126.4	µg/L	2126.4	ppb	11:54:06
1	Mo 202.031†	55.1	61.3	11.127	µg/L	11.127	ppb	11:54:31
1	Ni 231.604†	1582.2	1257.1	68.660	µg/L	68.660	ppb	11:54:31
1	P 214.914†	308.1	283.0	509.25	µg/L	509.25	ppb	11:54:31
1	Pb 220.353†	424.7	326.2	83.904	µg/L	83.904	ppb	11:54:31
1	S 181.975 Axial†	234.7	218.2	940.50	µg/L	940.50	ppb	11:54:31
1	Sb 206.836†	41.3	20.7	14.584	µg/L	14.584	ppb	11:54:31
1	Se 196.026†	-43.0	-58.3	228.66	µg/L	228.66	ppb	11:54:31
1	SiO2†	333175.1	327974.1	69157	µg/L	69157	ppb	11:54:06
1	Si 251.611†	401353.9	396393.8	32091	µg/L	32091	ppb	11:54:06
1	Sn 189.927†	-12.9	-15.9	-18.894	µg/L	-18.894	ppb	11:54:31
1	Ti 334.940†	654812.1	647102.1	1527.0	µg/L	1527.0	ppb	11:54:06
1	Tl 190.801†	-48.8	-25.3	5.1817	µg/L	5.1817	ppb	11:54:31
1	U 409.014†	-2080.5	-2012.8	-195.85	µg/L	-195.85	ppb	11:54:06
1	V 292.402†	12411.7	12300.1	141.56	µg/L	141.56	ppb	11:54:11
1	Zn 213.857†	15340.7	14644.3	359.63	µg/L	359.63	ppb	11:54:11
2	Sc RADIAL	60257.9	60257.9	104	%			11:53:10
2	Al 396.153Radial†	102247.8	98504.1	72415	µg/L	72415	ppb	11:53:10
2	Ca 317.933Radial†	57350.4	55042.3	50981	µg/L	50981	ppb	11:53:10
2	Fe 238.204 Radial†	15280.7	14700.6	126300	µg/L	126300	ppb	11:53:31
2	K 766.490 Radial†	15377.4	14634.1	10294	µg/L	10294	ppb	11:53:10
2	Mg 279.077 IEC†	1848.5	1767.0	16496	µg/L	16496	ppb	11:53:31
2	Na 589.592 Radial†	12460.9	11435.7	3712.4	µg/L	3712.4	ppb	11:53:10
2	Sr 421.552†	25842.3	24857.0	251.35	µg/L	251.35	ppb	11:53:10
2	Sc 361.383	2068860.9	2068860.9	101.20	%			11:54:39
2	Y 371.029	1461676.0	1461676.0	104.04	%			11:54:39
2	Ag 328.068†	-2069.2	-1521.1	-3.1125	µg/L	-3.1125	ppb	11:54:44
2	As 188.979†	9.2	7.6	19.364	µg/L	19.364	ppb	11:55:04
2	B 249.677†	1183.3	872.5	-27.905	µg/L	-27.905	ppb	11:54:44
2	Ba 233.527†	37486.0	37060.7	952.90	µg/L	952.90	ppb	11:54:44
2	Be 313.107†	10391.8	13236.5	7.8883	µg/L	7.8883	ppb	11:54:44
2	Cd 226.502†	233.1	368.4	-4.2546	µg/L	-4.2546	ppb	11:55:04
2	Co 228.616†	1993.5	1975.0	92.456	µg/L	92.456	ppb	11:55:04
2	Cr 267.716†	3537.8	3528.2	75.094	µg/L	75.094	ppb	11:54:44
2	Cu 324.752†	10186.7	7528.6	69.145	µg/L	69.145	ppb	11:54:44
2	Mn 257.610†	632810.4	625564.8	2131.3	µg/L	2131.3	ppb	11:54:39
2	Mo 202.031†	51.3	57.6	10.723	µg/L	10.723	ppb	11:55:04
2	Ni 231.604†	1594.0	1268.4	69.261	µg/L	69.261	ppb	11:55:04
2	P 214.914†	315.9	290.6	525.57	µg/L	525.57	ppb	11:55:04
2	Pb 220.353†	400.6	302.3	77.705	µg/L	77.705	ppb	11:55:04

2	S 181.975 Axial†	237.6	221.0	952.73 µg/L	952.73 ppb	11:55:04
2	Sb 206.836†	34.0	13.4	7.6672 µg/L	7.6672 ppb	11:55:04
2	Se 196.026†	-42.1	-57.5	228.69 µg/L	228.69 ppb	11:55:04
2	SiO2†	333582.8	328294.1	69225 µg/L	69225 ppb	11:54:39
2	Si 251.611†	401811.7	396746.3	32120 µg/L	32120 ppb	11:54:39
2	Sn 189.927†	-15.7	-18.6	-20.065 µg/L	-20.065 ppb	11:55:04
2	Ti 334.940†	655595.8	647713.5	1528.4 µg/L	1528.4 ppb	11:54:39
2	Tl 190.801†	-51.3	-27.8	1.6897 µg/L	1.6897 ppb	11:55:04
2	U 409.014†	-2038.2	-1970.4	-192.07 µg/L	-192.07 ppb	11:54:39
2	V 292.402†	12409.4	12294.8	141.44 µg/L	141.44 ppb	11:54:44
2	Zn 213.857†	15295.2	14595.5	358.43 µg/L	358.43 ppb	11:54:44
3	Sc RADIAL	60059.4	60059.4	103 %		11:53:36
3	Al 396.153Radial†	102279.5	98860.1	72677 µg/L	72677 ppb	11:53:36
3	Ca 317.933Radial†	57109.6	54992.2	50934 µg/L	50934 ppb	11:53:36
3	Fe 238.204 Radial†	15240.9	14710.7	126390 µg/L	126390 ppb	11:53:56
3	K 766.490 Radial†	15324.8	14632.2	10293 µg/L	10293 ppb	11:53:36
3	Mg 279.077 IEC†	1848.1	1772.4	16547 µg/L	16547 ppb	11:53:56
3	Na 589.592 Radial†	12462.1	11476.6	3725.7 µg/L	3725.7 ppb	11:53:36
3	Sr 421.552†	25834.2	24931.4	252.10 µg/L	252.10 ppb	11:53:36
3	Sc 361.383	2081313.8	2081313.8	101.81 %		11:55:12
3	Y 371.029	1469417.0	1469417.0	104.59 %		11:55:12
3	Ag 328.068†	-2072.0	-1511.6	-3.0503 µg/L	-3.0503 ppb	11:55:17
3	As 188.979†	7.6	6.0	16.123 µg/L	16.123 ppb	11:55:37
3	B 249.677†	1196.6	878.6	-27.690 µg/L	-27.690 ppb	11:55:17
3	Ba 233.527†	36993.0	36354.8	934.75 µg/L	934.75 ppb	11:55:17
3	Be 313.107†	10154.2	12941.6	7.7108 µg/L	7.7108 ppb	11:55:17
3	Cd 226.502†	216.5	350.6	-4.7458 µg/L	-4.7458 ppb	11:55:37
3	Co 228.616†	1935.9	1906.6	89.205 µg/L	89.205 ppb	11:55:37
3	Cr 267.716†	3484.1	3454.5	73.526 µg/L	73.526 ppb	11:55:17
3	Cu 324.752†	10084.0	7367.6	68.054 µg/L	68.054 ppb	11:55:17
3	Mn 257.610†	626090.9	615223.0	2096.4 µg/L	2096.4 ppb	11:55:12
3	Mo 202.031†	50.3	56.3	10.595 µg/L	10.595 ppb	11:55:37
3	Ni 231.604†	1557.2	1222.8	66.830 µg/L	66.830 ppb	11:55:37
3	P 214.914†	293.2	266.4	474.86 µg/L	474.86 ppb	11:55:37
3	Pb 220.353†	400.3	299.7	77.046 µg/L	77.046 ppb	11:55:37
3	S 181.975 Axial†	229.9	212.0	913.93 µg/L	913.93 ppb	11:55:37
3	Sb 206.836†	34.9	14.1	8.2987 µg/L	8.2987 ppb	11:55:37
3	Se 196.026†	-43.5	-58.6	227.22 µg/L	227.22 ppb	11:55:37
3	SiO2†	330387.1	323182.8	68147 µg/L	68147 ppb	11:55:12
3	Si 251.611†	398116.8	390741.2	31634 µg/L	31634 ppb	11:55:12
3	Sn 189.927†	-12.2	-15.1	-18.515 µg/L	-18.515 ppb	11:55:37
3	Ti 334.940†	646884.0	635280.2	1499.1 µg/L	1499.1 ppb	11:55:12
3	Tl 190.801†	-47.8	-24.0	6.5915 µg/L	6.5915 ppb	11:55:37
3	U 409.014†	-2080.5	-1999.9	-194.65 µg/L	-194.65 ppb	11:55:12
3	V 292.402†	12217.9	12033.2	138.75 µg/L	138.75 ppb	11:55:17
3	Zn 213.857†	15194.6	14406.2	353.69 µg/L	353.69 ppb	11:55:17

Mean Data: 1202030954|948065|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2072838.3	101.39	%	0.359				0.35%
Sc RADIAL	60078.1	104	%	0.3				0.28%
Y 371.029	1464113.3	104.21	%	0.327				0.31%
Ag 328.068†	-1523.8	-3.1273	µg/L	0.08547	-3.1273	ppb	0.08547	2.73%
Al 396.153Radial†	98687.2	72549	µg/L	131.0	72549	ppb	131.0	0.18%
As 188.979†	7.3	18.795	µg/L	2.4385	18.795	ppb	2.4385	12.97%
B 249.677†	881.2	-27.635	µg/L	0.3015	-27.635	ppb	0.3015	1.09%
Ba 233.527†	36868.7	947.96	µg/L	11.563	947.96	ppb	11.563	1.22%
Be 313.107†	13196.9	7.8669	µg/L	0.14657	7.8669	ppb	0.14657	1.86%
Ca 317.933Radial†	55139.9	51071	µg/L	198.2	51071	ppb	198.2	0.39%
Cd 226.502†	362.2	-4.4439	µg/L	0.26426	-4.4439	ppb	0.26426	5.95%
Co 228.616†	1958.6	91.686	µg/L	2.1990	91.686	ppb	2.1990	2.40%
Cr 267.716†	3516.1	74.836	µg/L	1.2024	74.836	ppb	1.2024	1.61%
Cu 324.752†	7459.7	68.701	µg/L	0.5732	68.701	ppb	0.5732	0.83%
Fe 238.204 Radial†	14723.9	126500	µg/L	275.1	126500	ppb	275.1	0.22%
K 766.490 Radial†	14637.4	10297	µg/L	5.2	10297	ppb	5.2	0.05%
Mg 279.077 IEC†	1771.0	16533	µg/L	32.6	16533	ppb	32.6	0.20%
Mn 257.610†	621628.2	2118.1	µg/L	18.93	2118.1	ppb	18.93	0.89%
Mo 202.031†	58.4	10.815	µg/L	0.2776	10.815	ppb	0.2776	2.57%
Na 589.592 Radial†	11462.9	3721.3	µg/L	7.66	3721.3	ppb	7.66	0.21%

Ni 231.604†	1249.4	68.251	µg/L	1.2659	68.251	ppb	1.2659	1.85%
P 214.914†	280.0	503.23	µg/L	25.889	503.23	ppb	25.889	5.14%
Pb 220.353†	309.4	79.552	µg/L	3.7839	79.552	ppb	3.7839	4.76%
S 181.975 Axial†	217.1	935.72	µg/L	19.838	935.72	ppb	19.838	2.12%
Sb 206.836†	16.1	10.183	µg/L	3.8242	10.183	ppb	3.8242	37.55%
Se 196.026†	-58.1	228.19	µg/L	0.842	228.19	ppb	0.842	0.37%
SiO2†	326483.7	68843	µg/L	603.7	68843	ppb	603.7	0.88%
Si 251.611†	394627.1	31948	µg/L	272.8	31948	ppb	272.8	0.85%
Sn 189.927†	-16.5	-19.158	µg/L	0.8080	-19.158	ppb	0.8080	4.22%
Sr 421.552†	24899.4	251.77	µg/L	0.387	251.77	ppb	0.387	0.15%
Ti 334.940†	643365.3	1518.1	µg/L	16.55	1518.1	ppb	16.55	1.09%
Tl 190.801†	-25.7	4.4876	µg/L	2.52351	4.4876	ppb	2.52351	56.23%
U 409.014†	-1994.4	-194.19	µg/L	1.931	-194.19	ppb	1.931	0.99%
V 292.402†	12209.4	140.59	µg/L	1.587	140.59	ppb	1.587	1.13%
Zn 213.857†	14548.7	357.25	µg/L	3.139	357.25	ppb	3.139	0.88%

Sequence No.: 7
Sample ID: 1202030956|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 305
Date Collected: 2/17/2010 11:55:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030956|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59883.8	59883.8	103	%			11:56:17
1	Al 396.153Radial†	166955.4	161832.5	118960	µg/L	118960	ppb	11:56:17
1	Ca 317.933Radial†	62575.3	60451.2	55990	µg/L	55990	ppb	11:56:17
1	Fe 238.204 Radial†	17239.5	16690.9	143410	µg/L	143410	ppb	11:56:37
1	K 766.490 Radial†	26456.4	25464.1	17913	µg/L	17913	ppb	11:56:17
1	Mg 279.077 IEC†	2789.4	2690.0	25174	µg/L	25174	ppb	11:56:37
1	Na 589.592 Radial†	27836.9	26412.8	8574.5	µg/L	8574.5	ppb	11:56:17
1	Sr 421.552†	75639.3	73274.7	740.93	µg/L	740.93	ppb	11:56:17
1	Sc 361.383	2050734.7	2050734.7	100.31	%			11:57:37
1	Y 371.029	1453965.2	1453965.2	103.49	%			11:57:37
1	Ag 328.068†	61957.7	62289.9	500.74	µg/L	500.74	ppb	11:57:43
1	As 188.979†	282.1	279.7	542.61	µg/L	542.61	ppb	11:58:03
1	B 249.677†	12844.1	12507.6	469.09	µg/L	469.09	ppb	11:57:43
1	Ba 233.527†	55334.4	55181.4	1419.6	µg/L	1419.6	ppb	11:57:43
1	Be 313.107†	799542.4	800039.9	511.03	µg/L	511.03	ppb	11:57:37
1	Cd 226.502†	18333.4	18414.7	481.75	µg/L	481.75	ppb	11:57:43
1	Co 228.616†	11339.8	11309.8	542.86	µg/L	542.86	ppb	11:58:03
1	Cr 267.716†	28048.7	27994.2	595.60	µg/L	595.60	ppb	11:57:43
1	Cu 324.752†	93414.4	90588.3	640.69	µg/L	640.69	ppb	11:57:43
1	Mn 257.610†	716873.8	714895.7	2435.3	µg/L	2435.3	ppb	11:57:37
1	Mo 202.031†	4856.6	4848.4	504.38	µg/L	504.38	ppb	11:58:03
1	Ni 231.604†	10948.3	10607.8	567.66	µg/L	567.66	ppb	11:58:03
1	P 214.914†	556.4	533.1	984.34	µg/L	984.34	ppb	11:58:03
1	Pb 220.353†	2296.0	2195.4	570.59	µg/L	570.59	ppb	11:58:03
1	S 181.975 Axial†	1417.1	1399.0	6030.7	µg/L	6030.7	ppb	11:58:03
1	Sb 206.836†	468.8	447.2	424.43	µg/L	424.43	ppb	11:58:03
1	Se 196.026†	267.5	250.9	736.06	µg/L	736.06	ppb	11:58:03
1	SiO2†	346566.7	344151.5	72568	µg/L	72568	ppb	11:57:43
1	Si 251.611†	416835.7	415233.4	33617	µg/L	33617	ppb	11:57:37
1	Sn 189.927†	1158.6	1151.9	500.59	µg/L	500.59	ppb	11:58:03
1	Ti 334.940†	1077227.8	1073769.3	2533.5	µg/L	2533.5	ppb	11:57:37
1	Tl 190.801†	306.3	328.3	510.24	µg/L	510.24	ppb	11:58:03
1	U 409.014†	3554.0	3586.7	288.66	µg/L	288.66	ppb	11:57:43
1	V 292.402†	62267.9	62107.6	661.64	µg/L	661.64	ppb	11:57:43
1	Zn 213.857†	36462.0	35830.5	886.15	µg/L	886.15	ppb	11:57:43
2	Sc RADIAL	59784.8	59784.8	103	%			11:56:42
2	Al 396.153Radial†	167355.7	162489.1	119440	µg/L	119440	ppb	11:56:42
2	Ca 317.933Radial†	62408.9	60390.2	55934	µg/L	55934	ppb	11:56:42
2	Fe 238.204 Radial†	17292.5	16770.0	144090	µg/L	144090	ppb	11:57:02
2	K 766.490 Radial†	26577.6	25624.3	18025	µg/L	18025	ppb	11:56:42
2	Mg 279.077 IEC†	2786.7	2691.9	25190	µg/L	25190	ppb	11:57:02
2	Na 589.592 Radial†	27940.9	26558.4	8621.8	µg/L	8621.8	ppb	11:56:42
2	Sr 421.552†	75642.5	73399.2	742.19	µg/L	742.19	ppb	11:56:42
2	Sc 361.383	2047909.3	2047909.3	100.17	%			11:58:10
2	Y 371.029	1452973.1	1452973.1	103.42	%			11:58:10
2	Ag 328.068†	61619.0	62037.0	498.78	µg/L	498.78	ppb	11:58:16
2	As 188.979†	284.0	282.0	547.07	µg/L	547.07	ppb	11:58:36
2	B 249.677†	12689.6	12371.1	462.81	µg/L	462.81	ppb	11:58:16
2	Ba 233.527†	54978.5	54902.3	1412.4	µg/L	1412.4	ppb	11:58:16
2	Be 313.107†	812320.2	813895.5	519.88	µg/L	519.88	ppb	11:58:10
2	Cd 226.502†	18271.1	18377.7	480.68	µg/L	480.68	ppb	11:58:16
2	Co 228.616†	11427.0	11412.4	547.75	µg/L	547.75	ppb	11:58:36
2	Cr 267.716†	27987.3	27971.5	595.11	µg/L	595.11	ppb	11:58:16
2	Cu 324.752†	93028.1	90331.1	639.02	µg/L	639.02	ppb	11:58:16
2	Mn 257.610†	727787.6	726776.8	2475.6	µg/L	2475.6	ppb	11:58:10
2	Mo 202.031†	4885.1	4883.6	508.03	µg/L	508.03	ppb	11:58:36
2	Ni 231.604†	11008.3	10682.7	571.66	µg/L	571.66	ppb	11:58:36
2	P 214.914†	570.5	548.0	1015.5	µg/L	1015.5	ppb	11:58:36
2	Pb 220.353†	2314.7	2217.2	576.26	µg/L	576.26	ppb	11:58:36

2	S 181.975 Axial†	1423.3	1407.1	6065.6 µg/L	6065.6 ppb	11:58:36
2	Sb 206.836†	477.1	456.1	433.01 µg/L	433.01 ppb	11:58:36
2	Se 196.026†	264.5	248.2	733.85 µg/L	733.85 ppb	11:58:36
2	SiO2†	343804.9	341871.1	72087 µg/L	72087 ppb	11:58:16
2	Si 251.611†	422323.1	421284.8	34107 µg/L	34107 ppb	11:58:10
2	Sn 189.927†	1163.3	1158.2	503.32 µg/L	503.32 ppb	11:58:36
2	Ti 334.940†	1093441.5	1091436.8	2575.2 µg/L	2575.2 ppb	11:58:10
2	Tl 190.801†	300.2	322.6	503.09 µg/L	503.09 ppb	11:58:36
2	U 409.014†	3583.3	3620.8	291.54 µg/L	291.54 ppb	11:58:16
2	V 292.402†	61901.2	61827.1	658.86 µg/L	658.86 ppb	11:58:16
2	Zn 213.857†	36313.4	35732.3	883.64 µg/L	883.64 ppb	11:58:16
3	Sc RADIAL	59526.8	59526.8	103 %		11:57:08
3	Al 396.153Radial†	166095.5	161964.4	119060 µg/L	119060 ppb	11:57:08
3	Ca 317.933Radial†	61827.1	60085.4	55652 µg/L	55652 ppb	11:57:08
3	Fe 238.204 Radial†	17336.3	16885.4	145080 µg/L	145080 ppb	11:57:28
3	K 766.490 Radial†	26374.1	25537.6	17964 µg/L	17964 ppb	11:57:08
3	Mg 279.077 IEC†	2788.6	2705.4	25316 µg/L	25316 ppb	11:57:28
3	Na 589.592 Radial†	27747.6	26487.4	8598.8 µg/L	8598.8 ppb	11:57:08
3	Sr 421.552†	75080.8	73169.7	739.87 µg/L	739.87 ppb	11:57:08
3	Sc 361.383	2067907.7	2067907.7	101.15 %		11:58:43
3	Y 371.029	1465120.7	1465120.7	104.28 %		11:58:43
3	Ag 328.068†	61494.2	61318.7	493.12 µg/L	493.12 ppb	11:58:48
3	As 188.979†	280.4	275.7	535.07 µg/L	535.07 ppb	11:59:09
3	B 249.677†	12670.5	12229.7	456.13 µg/L	456.13 ppb	11:58:48
3	Ba 233.527†	54385.0	53784.7	1383.7 µg/L	1383.7 ppb	11:58:48
3	Be 313.107†	814606.0	808312.9	516.31 µg/L	516.31 ppb	11:58:43
3	Cd 226.502†	18164.2	18095.7	472.92 µg/L	472.92 ppb	11:58:48
3	Co 228.616†	10971.4	10851.7	520.62 µg/L	520.62 ppb	11:59:09
3	Cr 267.716†	27542.1	27261.2	580.00 µg/L	580.00 ppb	11:58:48
3	Cu 324.752†	91953.2	88370.3	625.73 µg/L	625.73 ppb	11:58:48
3	Mn 257.610†	730080.3	722017.1	2459.6 µg/L	2459.6 ppb	11:58:43
3	Mo 202.031†	4732.2	4685.3	487.66 µg/L	487.66 ppb	11:59:09
3	Ni 231.604†	10634.2	10206.5	546.28 µg/L	546.28 ppb	11:59:09
3	P 214.914†	557.6	529.7	977.18 µg/L	977.18 ppb	11:59:09
3	Pb 220.353†	2272.1	2152.7	559.47 µg/L	559.47 ppb	11:59:09
3	S 181.975 Axial†	1404.1	1374.4	5924.7 µg/L	5924.7 ppb	11:59:09
3	Sb 206.836†	461.1	435.7	413.39 µg/L	413.39 ppb	11:59:09
3	Se 196.026†	260.7	241.9	726.93 µg/L	726.93 ppb	11:59:09
3	SiO2†	338590.1	333396.5	70300 µg/L	70300 ppb	11:58:48
3	Si 251.611†	422589.7	417471.1	33798 µg/L	33798 ppb	11:58:43
3	Sn 189.927†	1127.7	1111.8	482.56 µg/L	482.56 ppb	11:59:09
3	Ti 334.940†	1095139.0	1082558.6	2554.2 µg/L	2554.2 ppb	11:58:43
3	Tl 190.801†	300.3	319.8	499.13 µg/L	499.13 ppb	11:59:09
3	U 409.014†	3440.8	3445.4	276.16 µg/L	276.16 ppb	11:58:48
3	V 292.402†	61020.6	60359.0	643.66 µg/L	643.66 ppb	11:58:48
3	Zn 213.857†	36029.3	35100.9	867.90 µg/L	867.90 ppb	11:58:48

Mean Data: 1202030956|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2055517.2	100.54	%	0.529				0.53%
Sc RADIAL	59731.8	103	%	0.3				0.31%
Y 371.029	1457353.0	103.73	%	0.480				0.46%
Ag 328.068†	61881.9	497.55	µg/L	3.954	497.55	ppb	3.954	0.79%
Al 396.153Radial†	162095.3	119150	µg/L	255.3	119150	ppb	255.3	0.21%
As 188.979†	279.1	541.59	µg/L	6.064	541.59	ppb	6.064	1.12%
B 249.677†	12369.5	462.67	µg/L	6.481	462.67	ppb	6.481	1.40%
Ba 233.527†	54622.8	1405.3	µg/L	19.02	1405.3	ppb	19.02	1.35%
Be 313.107†	807416.1	515.74	µg/L	4.453	515.74	ppb	4.453	0.86%
Ca 317.933Radial†	60308.9	55859	µg/L	181.5	55859	ppb	181.5	0.32%
Cd 226.502†	18296.0	478.45	µg/L	4.817	478.45	ppb	4.817	1.01%
Co 228.616†	11191.3	537.07	µg/L	14.460	537.07	ppb	14.460	2.69%
Cr 267.716†	27742.3	590.24	µg/L	8.867	590.24	ppb	8.867	1.50%
Cu 324.752†	89763.2	635.15	µg/L	8.202	635.15	ppb	8.202	1.29%
Fe 238.204 Radial†	16782.1	144190	µg/L	840.3	144190	ppb	840.3	0.58%
K 766.490 Radial†	25542.0	17967	µg/L	56.4	17967	ppb	56.4	0.31%
Mg 279.077 IEC†	2695.8	25227	µg/L	78.0	25227	ppb	78.0	0.31%
Mn 257.610†	721229.9	2456.8	µg/L	20.27	2456.8	ppb	20.27	0.83%
Mo 202.031†	4805.8	500.02	µg/L	10.864	500.02	ppb	10.864	2.17%
Na 589.592 Radial†	26486.2	8598.4	µg/L	23.64	8598.4	ppb	23.64	0.27%

Ni 231.604†	10499.0	561.87	µg/L	13.646	561.87	ppb	13.646	2.43%
P 214.914†	536.9	992.35	µg/L	20.384	992.35	ppb	20.384	2.05%
Pb 220.353†	2188.4	568.78	µg/L	8.542	568.78	ppb	8.542	1.50%
S 181.975 Axial†	1393.5	6007.0	µg/L	73.40	6007.0	ppb	73.40	1.22%
Sb 206.836†	446.3	423.61	µg/L	9.838	423.61	ppb	9.838	2.32%
Se 196.026†	247.0	732.28	µg/L	4.766	732.28	ppb	4.766	0.65%
SiO2†	339806.4	71652	µg/L	1195.0	71652	ppb	1195.0	1.67%
Si 251.611†	417996.5	33840	µg/L	247.7	33840	ppb	247.7	0.73%
Sn 189.927†	1140.7	495.49	µg/L	11.281	495.49	ppb	11.281	2.28%
Sr 421.552†	73281.2	740.99	µg/L	1.162	740.99	ppb	1.162	0.16%
Ti 334.940†	1082588.2	2554.3	µg/L	20.85	2554.3	ppb	20.85	0.82%
Tl 190.801†	323.6	504.15	µg/L	5.628	504.15	ppb	5.628	1.12%
U 409.014†	3551.0	285.45	µg/L	8.179	285.45	ppb	8.179	2.87%
V 292.402†	61431.2	654.72	µg/L	9.678	654.72	ppb	9.678	1.48%
Zn 213.857†	35554.6	879.23	µg/L	9.894	879.23	ppb	9.894	1.13%

Sequence No.: 8
Sample ID: 1202030957|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 306
Date Collected: 2/17/2010 11:59:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030957|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57333.6	57333.6	98.8	%			11:59:48
1	Al 396.153Radial†	179708.8	181939.8	133740	µg/L	133740	ppb	11:59:48
1	Ca 317.933Radial†	63040.3	63619.5	58925	µg/L	58925	ppb	11:59:48
1	Fe 238.204 Radial†	17446.0	17643.1	151590	µg/L	151590	ppb	12:00:08
1	K 766.490 Radial†	27701.8	27865.3	19602	µg/L	19602	ppb	11:59:48
1	Mg 279.077 IEC†	2986.1	3009.4	28171	µg/L	28171	ppb	12:00:08
1	Na 589.592 Radial†	29021.7	28812.2	9353.4	µg/L	9353.4	ppb	11:59:48
1	Sr 421.552†	78389.2	79319.1	802.05	µg/L	802.05	ppb	11:59:48
1	Sc 361.383	2001841.6	2001841.6	97.918	%			12:01:09
1	Y 371.029	1421269.0	1421269.0	101.16	%			12:01:09
1	Ag 328.068†	63343.1	65213.4	524.40	µg/L	524.40	ppb	12:01:14
1	As 188.979†	291.0	295.7	573.77	µg/L	573.77	ppb	12:01:34
1	B 249.677†	13051.9	13032.6	487.64	µg/L	487.64	ppb	12:01:14
1	Ba 233.527†	59465.1	60747.3	1562.8	µg/L	1562.8	ppb	12:01:14
1	Be 313.107†	835366.3	856093.1	546.90	µg/L	546.90	ppb	12:01:09
1	Cd 226.502†	18784.4	19321.7	505.35	µg/L	505.35	ppb	12:01:14
1	Co 228.616†	12029.7	12290.5	590.38	µg/L	590.38	ppb	12:01:34
1	Cr 267.716†	28421.0	29057.5	618.23	µg/L	618.23	ppb	12:01:14
1	Cu 324.752†	90361.5	89745.0	636.05	µg/L	636.05	ppb	12:01:14
1	Mn 257.610†	868762.3	887468.1	3019.8	µg/L	3019.8	ppb	12:01:09
1	Mo 202.031†	4932.7	5044.4	524.86	µg/L	524.86	ppb	12:01:34
1	Ni 231.604†	11174.9	11105.7	594.30	µg/L	594.30	ppb	12:01:34
1	P 214.914†	576.9	567.6	1055.7	µg/L	1055.7	ppb	12:01:34
1	Pb 220.353†	2404.1	2361.7	614.29	µg/L	614.29	ppb	12:01:34
1	S 181.975 Axial†	1452.3	1469.4	6334.4	µg/L	6334.4	ppb	12:01:34
1	Sb 206.836†	462.0	451.6	428.49	µg/L	428.49	ppb	12:01:34
1	Se 196.026†	287.1	277.4	795.33	µg/L	795.33	ppb	12:01:34
1	SiO2†	350908.1	357023.7	75282	µg/L	75282	ppb	12:01:14
1	Si 251.611†	429142.7	437951.4	35456	µg/L	35456	ppb	12:01:09
1	Sn 189.927†	1178.0	1200.0	521.47	µg/L	521.47	ppb	12:01:34
1	Ti 334.940†	1049934.4	1072124.6	2529.4	µg/L	2529.4	ppb	12:01:09
1	Tl 190.801†	311.2	340.8	531.95	µg/L	531.95	ppb	12:01:34
1	U 409.014†	3721.7	3844.5	309.78	µg/L	309.78	ppb	12:01:14
1	V 292.402†	64676.8	66083.8	703.75	µg/L	703.75	ppb	12:01:14
1	Zn 213.857†	36412.9	36668.1	906.47	µg/L	906.47	ppb	12:01:14
2	Sc RADIAL	57715.6	57715.6	99.4	%			12:00:14
2	Al 396.153Radial†	179905.8	180934.1	133000	µg/L	133000	ppb	12:00:14
2	Ca 317.933Radial†	62912.7	63068.9	58415	µg/L	58415	ppb	12:00:14
2	Fe 238.204 Radial†	17423.4	17503.5	150390	µg/L	150390	ppb	12:00:34
2	K 766.490 Radial†	27752.1	27730.4	19507	µg/L	19507	ppb	12:00:14
2	Mg 279.077 IEC†	2985.9	2989.1	27981	µg/L	27981	ppb	12:00:34
2	Na 589.592 Radial†	29034.9	28631.0	9294.6	µg/L	9294.6	ppb	12:00:14
2	Sr 421.552†	78488.7	78894.0	797.75	µg/L	797.75	ppb	12:00:14
2	Sc 361.383	2040066.9	2040066.9	99.788	%			12:01:41
2	Y 371.029	1444135.9	1444135.9	102.79	%			12:01:41
2	Ag 328.068†	62553.1	63209.6	508.48	µg/L	508.48	ppb	12:01:47
2	As 188.979†	289.4	288.5	559.90	µg/L	559.90	ppb	12:02:07
2	B 249.677†	12838.6	12569.1	468.12	µg/L	468.12	ppb	12:01:47
2	Ba 233.527†	58483.3	58625.5	1508.2	µg/L	1508.2	ppb	12:01:47
2	Be 313.107†	818208.4	822913.5	525.70	µg/L	525.70	ppb	12:01:41
2	Cd 226.502†	18558.7	18736.1	489.65	µg/L	489.65	ppb	12:01:47
2	Co 228.616†	11912.9	11943.2	573.75	µg/L	573.75	ppb	12:02:07
2	Cr 267.716†	27968.7	28060.3	597.01	µg/L	597.01	ppb	12:01:47
2	Cu 324.752†	88725.9	86376.8	612.80	µg/L	612.80	ppb	12:01:47
2	Mn 257.610†	854619.3	856670.7	2915.5	µg/L	2915.5	ppb	12:01:41
2	Mo 202.031†	4879.2	4896.4	509.58	µg/L	509.58	ppb	12:02:07
2	Ni 231.604†	11058.4	10775.1	576.65	µg/L	576.65	ppb	12:02:07
2	P 214.914†	578.6	558.3	1039.0	µg/L	1039.0	ppb	12:02:07
2	Pb 220.353†	2373.4	2284.9	594.40	µg/L	594.40	ppb	12:02:07

2	S 181.975 Axial†	1442.7	1431.9	6172.8 µg/L	6172.8 ppb	12:02:07
2	Sb 206.836†	466.4	447.2	424.27 µg/L	424.27 ppb	12:02:07
2	Se 196.026†	279.4	264.2	772.27 µg/L	772.27 ppb	12:02:07
2	SiO2†	344646.0	344033.4	72543 µg/L	72543 ppb	12:01:47
2	Si 251.611†	420670.5	421249.3	34104 µg/L	34104 ppb	12:01:41
2	Sn 189.927†	1166.3	1165.6	506.27 µg/L	506.27 ppb	12:02:07
2	Ti 334.940†	1029983.8	1032040.4	2434.8 µg/L	2434.8 ppb	12:01:41
2	Tl 190.801†	308.1	331.7	517.95 µg/L	517.95 ppb	12:02:07
2	U 409.014†	3579.0	3630.3	291.34 µg/L	291.34 ppb	12:01:47
2	V 292.402†	63455.7	63622.5	678.09 µg/L	678.09 ppb	12:01:47
2	Zn 213.857†	35798.7	35355.9	873.77 µg/L	873.77 ppb	12:01:47
3	Sc RADIAL	58225.0	58225.0	100 %		12:00:39
3	Al 396.153Radial†	179565.1	179011.6	131590 µg/L	131590 ppb	12:00:39
3	Ca 317.933Radial†	62628.3	62231.8	57640 µg/L	57640 ppb	12:00:39
3	Fe 238.204 Radial†	17135.1	17062.8	146600 µg/L	146600 ppb	12:00:59
3	K 766.490 Radial†	27692.7	27427.0	19293 µg/L	19293 ppb	12:00:39
3	Mg 279.077 IEC†	2950.1	2927.2	27403 µg/L	27403 ppb	12:00:59
3	Na 589.592 Radial†	29008.4	28349.1	9203.1 µg/L	9203.1 ppb	12:00:39
3	Sr 421.552†	78197.1	77912.7	787.83 µg/L	787.83 ppb	12:00:39
3	Sc 361.383	2036409.6	2036409.6	99.609 %		12:02:14
3	Y 371.029	1443436.1	1443436.1	102.74 %		12:02:14
3	Ag 328.068†	62257.6	63025.6	506.74 µg/L	506.74 ppb	12:02:20
3	As 188.979†	278.2	277.8	539.13 µg/L	539.13 ppb	12:02:40
3	B 249.677†	12753.8	12507.1	467.38 µg/L	467.38 ppb	12:02:20
3	Ba 233.527†	57786.7	58031.4	1492.9 µg/L	1492.9 ppb	12:02:20
3	Be 313.107†	812022.0	818175.5	522.68 µg/L	522.68 ppb	12:02:14
3	Cd 226.502†	18352.9	18562.9	485.38 µg/L	485.38 ppb	12:02:20
3	Co 228.616†	11432.6	11482.5	551.45 µg/L	551.45 ppb	12:02:40
3	Cr 267.716†	27487.8	27627.8	587.81 µg/L	587.81 ppb	12:02:20
3	Cu 324.752†	87524.6	85330.4	605.11 µg/L	605.11 ppb	12:02:20
3	Mn 257.610†	847708.7	851271.2	2896.8 µg/L	2896.8 ppb	12:02:14
3	Mo 202.031†	4690.5	4715.8	490.85 µg/L	490.85 ppb	12:02:40
3	Ni 231.604†	10640.2	10375.2	555.27 µg/L	555.27 ppb	12:02:40
3	P 214.914†	555.1	535.7	994.53 µg/L	994.53 ppb	12:02:40
3	Pb 220.353†	2319.6	2235.2	581.52 µg/L	581.52 ppb	12:02:40
3	S 181.975 Axial†	1415.2	1407.0	6065.1 µg/L	6065.1 ppb	12:02:40
3	Sb 206.836†	440.0	421.5	399.58 µg/L	399.58 ppb	12:02:40
3	Se 196.026†	279.2	264.5	763.10 µg/L	763.10 ppb	12:02:40
3	SiO2†	339071.2	339057.0	71494 µg/L	71494 ppb	12:02:20
3	Si 251.611†	416375.4	417694.5	33816 µg/L	33816 ppb	12:02:14
3	Sn 189.927†	1124.4	1125.7	488.80 µg/L	488.80 ppb	12:02:40
3	Ti 334.940†	1020511.0	1024384.2	2416.8 µg/L	2416.8 ppb	12:02:14
3	Tl 190.801†	303.4	327.5	511.36 µg/L	511.36 ppb	12:02:40
3	U 409.014†	3473.2	3530.5	283.23 µg/L	283.23 ppb	12:02:20
3	V 292.402†	62545.1	62822.6	669.24 µg/L	669.24 ppb	12:02:20
3	Zn 213.857†	35494.6	35115.0	868.05 µg/L	868.05 ppb	12:02:20

Mean Data: 1202030957|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2026106.0	99.105	%	1.0317				1.04%
Sc RADIAL	57758.1	99.5	%	0.77				0.77%
Y 371.029	1436280.3	102.23	%	0.926				0.91%
Ag 328.068†	63816.2	513.21	µg/L	9.733	513.21	ppb	9.733	1.90%
Al 396.153Radial†	180628.5	132780	µg/L	1093.4	132780	ppb	1093.4	0.82%
As 188.979†	287.4	557.60	µg/L	17.435	557.60	ppb	17.435	3.13%
B 249.677†	12702.9	474.38	µg/L	11.491	474.38	ppb	11.491	2.42%
Ba 233.527†	59134.7	1521.3	µg/L	36.73	1521.3	ppb	36.73	2.41%
Be 313.107†	832394.0	531.76	µg/L	13.199	531.76	ppb	13.199	2.48%
Ca 317.933Radial†	62973.4	58326	µg/L	647.2	58326	ppb	647.2	1.11%
Cd 226.502†	18873.5	493.46	µg/L	10.516	493.46	ppb	10.516	2.13%
Co 228.616†	11905.4	571.86	µg/L	19.531	571.86	ppb	19.531	3.42%
Cr 267.716†	28248.6	601.02	µg/L	15.599	601.02	ppb	15.599	2.60%
Cu 324.752†	87150.7	617.99	µg/L	16.110	617.99	ppb	16.110	2.61%
Fe 238.204 Radial†	17403.2	149530	µg/L	2602.8	149530	ppb	2602.8	1.74%
K 766.490 Radial†	27674.2	19467	µg/L	157.9	19467	ppb	157.9	0.81%
Mg 279.077 IEC†	2975.3	27852	µg/L	400.3	27852	ppb	400.3	1.44%
Mn 257.610†	865136.7	2944.0	µg/L	66.28	2944.0	ppb	66.28	2.25%
Mo 202.031†	4885.5	508.43	µg/L	17.033	508.43	ppb	17.033	3.35%
Na 589.592 Radial†	28597.4	9283.7	µg/L	75.75	9283.7	ppb	75.75	0.82%

Ni 231.604†	10752.0	575.41	µg/L	19.545	575.41	ppb	19.545	3.40%
P 214.914†	553.9	1029.7	µg/L	31.61	1029.7	ppb	31.61	3.07%
Pb 220.353†	2293.9	596.73	µg/L	16.509	596.73	ppb	16.509	2.77%
S 181.975 Axial†	1436.1	6190.8	µg/L	135.51	6190.8	ppb	135.51	2.19%
Sb 206.836†	440.1	417.45	µg/L	15.614	417.45	ppb	15.614	3.74%
Se 196.026†	268.7	776.90	µg/L	16.610	776.90	ppb	16.610	2.14%
SiO2†	346704.7	73107	µg/L	1956.0	73107	ppb	1956.0	2.68%
Si 251.611†	425631.8	34458	µg/L	875.7	34458	ppb	875.7	2.54%
Sn 189.927†	1163.8	505.51	µg/L	16.346	505.51	ppb	16.346	3.23%
Sr 421.552†	78708.6	795.87	µg/L	7.293	795.87	ppb	7.293	0.92%
Ti 334.940†	1042849.8	2460.3	µg/L	60.51	2460.3	ppb	60.51	2.46%
Tl 190.801†	333.3	520.42	µg/L	10.513	520.42	ppb	10.513	2.02%
U 409.014†	3668.5	294.78	µg/L	13.602	294.78	ppb	13.602	4.61%
V 292.402†	64176.3	683.70	µg/L	17.925	683.70	ppb	17.925	2.62%
Zn 213.857†	35713.0	882.77	µg/L	20.729	882.77	ppb	20.729	2.35%

Sequence No.: 9
Sample ID: 1202030955|948065|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 2/17/2010 12:02:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030955|948065|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58395.8	58395.8	101	%			12:03:20
1	Al 396.153Radial†	21454.1	21345.6	15692	µg/L	15692	ppb	12:03:20
1	Ca 317.933Radial†	10142.6	9885.0	9155.6	µg/L	9155.6	ppb	12:03:20
1	Fe 238.204 Radial†	3005.7	2970.1	25517	µg/L	25517	ppb	12:03:40
1	K 766.490 Radial†	3323.4	3126.2	2199.1	µg/L	2199.1	ppb	12:03:20
1	Mg 279.077 IEC†	384.5	368.8	3443.5	µg/L	3443.5	ppb	12:03:40
1	Na 589.592 Radial†	3006.9	2422.4	786.38	µg/L	786.38	ppb	12:03:20
1	Sr 421.552†	5045.1	4980.9	50.365	µg/L	50.365	ppb	12:03:20
1	Sc 361.383	2035527.3	2035527.3	99.566	%			12:04:39
1	Y 371.029	1397380.9	1397380.9	99.459	%			12:04:39
1	Ag 328.068†	-852.1	-332.1	-0.8079	µg/L	-0.8079	ppb	12:04:44
1	As 188.979†	2.9	1.4	3.7623	µg/L	3.7623	ppb	12:05:04
1	B 249.677†	527.5	233.1	-3.1726	µg/L	-3.1726	ppb	12:04:44
1	Ba 233.527†	9132.9	9190.7	236.30	µg/L	236.30	ppb	12:04:44
1	Be 313.107†	-97.1	2870.1	1.7194	µg/L	1.7194	ppb	12:04:44
1	Cd 226.502†	-61.6	76.1	-0.8151	µg/L	-0.8151	ppb	12:05:04
1	Co 228.616†	348.0	354.5	16.525	µg/L	16.525	ppb	12:05:04
1	Cr 267.716†	683.8	719.0	15.305	µg/L	15.305	ppb	12:04:44
1	Cu 324.752†	4073.3	1553.4	14.192	µg/L	14.192	ppb	12:04:44
1	Mn 257.610†	119657.8	120415.9	410.41	µg/L	410.41	ppb	12:04:44
1	Mo 202.031†	7.6	14.5	2.4646	µg/L	2.4646	ppb	12:05:04
1	Ni 231.604†	557.7	253.4	13.843	µg/L	13.843	ppb	12:05:04
1	P 214.914†	84.2	63.0	115.58	µg/L	115.58	ppb	12:05:04
1	Pb 220.353†	160.2	67.4	17.392	µg/L	17.392	ppb	12:05:04
1	S 181.975 Axial†	66.0	52.5	226.43	µg/L	226.43	ppb	12:05:04
1	Sb 206.836†	28.5	8.5	7.1846	µg/L	7.1846	ppb	12:05:04
1	Se 196.026†	1.8	-14.0	42.763	µg/L	42.763	ppb	12:05:04
1	SiO2†	68167.2	67119.8	14153	µg/L	14153	ppb	12:04:44
1	Si 251.611†	81508.0	81548.8	6602.1	µg/L	6602.1	ppb	12:04:44
1	Sn 189.927†	-4.4	-7.5	-5.7165	µg/L	-5.7165	ppb	12:05:04
1	Ti 334.940†	130067.6	130503.9	307.92	µg/L	307.92	ppb	12:04:39
1	Tl 190.801†	-25.5	-2.6	4.6119	µg/L	4.6119	ppb	12:05:04
1	U 409.014†	-350.7	-308.5	-30.943	µg/L	-30.943	ppb	12:04:44
1	V 292.402†	2665.2	2708.9	30.902	µg/L	30.902	ppb	12:04:44
1	Zn 213.857†	3330.1	2825.7	69.326	µg/L	69.326	ppb	12:04:44
2	Sc RADIAL	57591.0	57591.0	99.2	%			12:03:45
2	Al 396.153Radial†	21195.7	21383.1	15720	µg/L	15720	ppb	12:03:45
2	Ca 317.933Radial†	9989.6	9871.8	9143.3	µg/L	9143.3	ppb	12:03:45
2	Fe 238.204 Radial†	2965.8	2971.5	25530	µg/L	25530	ppb	12:04:05
2	K 766.490 Radial†	3292.5	3141.2	2209.7	µg/L	2209.7	ppb	12:03:45
2	Mg 279.077 IEC†	379.7	369.3	3448.2	µg/L	3448.2	ppb	12:04:05
2	Na 589.592 Radial†	2994.4	2451.5	795.84	µg/L	795.84	ppb	12:03:45
2	Sr 421.552†	4995.3	5000.8	50.566	µg/L	50.566	ppb	12:03:45
2	Sc 361.383	2064305.4	2064305.4	100.97	%			12:05:10
2	Y 371.029	1419123.9	1419123.9	101.01	%			12:05:10
2	Ag 328.068†	-869.5	-337.5	-0.8504	µg/L	-0.8504	ppb	12:05:16
2	As 188.979†	2.1	0.6	2.1996	µg/L	2.1996	ppb	12:05:36
2	B 249.677†	517.2	215.4	-3.9459	µg/L	-3.9459	ppb	12:05:16
2	Ba 233.527†	9085.5	9015.9	231.81	µg/L	231.81	ppb	12:05:16
2	Be 313.107†	-160.5	2808.6	1.6794	µg/L	1.6794	ppb	12:05:16
2	Cd 226.502†	-61.7	76.8	-0.7964	µg/L	-0.7964	ppb	12:05:36
2	Co 228.616†	345.1	346.8	16.150	µg/L	16.150	ppb	12:05:36
2	Cr 267.716†	651.9	677.8	14.428	µg/L	14.428	ppb	12:05:16
2	Cu 324.752†	4090.4	1513.4	13.919	µg/L	13.919	ppb	12:05:16
2	Mn 257.610†	119255.8	118342.4	403.40	µg/L	403.40	ppb	12:05:16
2	Mo 202.031†	10.3	17.1	2.7267	µg/L	2.7267	ppb	12:05:36
2	Ni 231.604†	559.1	247.0	13.500	µg/L	13.500	ppb	12:05:36
2	P 214.914†	75.2	52.9	94.228	µg/L	94.228	ppb	12:05:36
2	Pb 220.353†	170.3	75.1	19.414	µg/L	19.414	ppb	12:05:36

2	S 181.975 Axial†	66.3	51.8	223.35 µg/L	223.35 ppb	12:05:36
2	Sb 206.836†	25.2	4.8	3.6891 µg/L	3.6891 ppb	12:05:36
2	Se 196.026†	7.5	-8.4	51.333 µg/L	51.333 ppb	12:05:36
2	SiO2†	68092.4	66091.3	13936 µg/L	13936 ppb	12:05:16
2	Si 251.611†	81218.7	80121.0	6486.5 µg/L	6486.5 ppb	12:05:16
2	Sn 189.927†	-6.1	-9.1	-6.4342 µg/L	-6.4342 ppb	12:05:36
2	Ti 334.940†	132679.7	131269.7	309.73 µg/L	309.73 ppb	12:05:10
2	Tl 190.801†	-27.9	-4.6	1.7852 µg/L	1.7852 ppb	12:05:36
2	U 409.014†	-515.8	-467.1	-44.741 µg/L	-44.741 ppb	12:05:16
2	V 292.402†	2680.0	2686.2	30.656 µg/L	30.656 ppb	12:05:16
2	Zn 213.857†	3319.9	2769.1	67.907 µg/L	67.907 ppb	12:05:16
3	Sc RADIAL	57441.4	57441.4	99.0 %		12:04:10
3	Al 396.153Radial†	21078.5	21320.4	15674 µg/L	15674 ppb	12:04:10
3	Ca 317.933Radial†	9921.6	9829.2	9103.9 µg/L	9103.9 ppb	12:04:10
3	Fe 238.204 Radial†	2966.4	2979.9	25602 µg/L	25602 ppb	12:04:31
3	K 766.490 Radial†	3295.3	3152.7	2217.7 µg/L	2217.7 ppb	12:04:10
3	Mg 279.077 IEC†	381.1	371.6	3470.2 µg/L	3470.2 ppb	12:04:31
3	Na 589.592 Radial†	2944.1	2408.5	781.90 µg/L	781.90 ppb	12:04:10
3	Sr 421.552†	4978.2	4996.5	50.523 µg/L	50.523 ppb	12:04:10
3	Sc 361.383	2091800.3	2091800.3	102.32 %		12:05:42
3	Y 371.029	1437662.1	1437662.1	102.33 %		12:05:42
3	Ag 328.068†	-836.1	-293.5	-0.5125 µg/L	-0.5125 ppb	12:05:47
3	As 188.979†	4.6	3.0	6.7084 µg/L	6.7084 ppb	12:06:08
3	B 249.677†	500.9	192.8	-4.9662 µg/L	-4.9662 ppb	12:05:47
3	Ba 233.527†	8838.3	8656.0	222.55 µg/L	222.55 ppb	12:05:47
3	Be 313.107†	-303.2	2671.3	1.5983 µg/L	1.5983 ppb	12:05:47
3	Cd 226.502†	-69.0	70.5	-0.9772 µg/L	-0.9772 ppb	12:06:08
3	Co 228.616†	307.2	305.3	14.175 µg/L	14.175 ppb	12:06:08
3	Cr 267.716†	643.3	660.9	14.068 µg/L	14.068 ppb	12:05:47
3	Cu 324.752†	4035.8	1406.8	13.199 µg/L	13.199 ppb	12:05:47
3	Mn 257.610†	115656.1	113271.9	386.27 µg/L	386.27 ppb	12:05:47
3	Mo 202.031†	4.8	11.6	2.1644 µg/L	2.1644 ppb	12:06:08
3	Ni 231.604†	542.8	223.7	12.261 µg/L	12.261 ppb	12:06:08
3	P 214.914†	67.6	44.5	76.603 µg/L	76.603 ppb	12:06:08
3	Pb 220.353†	164.1	66.9	17.273 µg/L	17.273 ppb	12:06:08
3	S 181.975 Axial†	61.9	46.6	201.09 µg/L	201.09 ppb	12:06:08
3	Sb 206.836†	20.0	-0.6	-1.5337 µg/L	-1.5337 ppb	12:06:08
3	Se 196.026†	5.7	-10.3	48.714 µg/L	48.714 ppb	12:06:08
3	SiO2†	66836.9	63977.9	13490 µg/L	13490 ppb	12:05:47
3	Si 251.611†	79723.5	77602.4	6282.6 µg/L	6282.6 ppb	12:05:47
3	Sn 189.927†	-2.6	-5.7	-4.8905 µg/L	-4.8905 ppb	12:06:08
3	Ti 334.940†	126613.5	123613.8	291.66 µg/L	291.66 ppb	12:05:42
3	Tl 190.801†	-24.9	-1.4	6.1026 µg/L	6.1026 ppb	12:06:08
3	U 409.014†	-531.2	-475.4	-45.472 µg/L	-45.472 ppb	12:05:47
3	V 292.402†	2548.4	2522.7	28.975 µg/L	28.975 ppb	12:05:47
3	Zn 213.857†	3254.6	2662.0	65.225 µg/L	65.225 ppb	12:05:47

Mean Data: 1202030955|948065|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2063877.7	100.95	%	1.376				1.36%
Sc RADIAL	57809.4	99.6	%	0.88				0.89%
Y 371.029	1418055.6	100.93	%	1.435				1.42%
Ag 328.068†	-321.0	-0.7236	µg/L	0.18409	-0.7236	ppb	0.18409	25.44%
Al 396.153Radial†	21349.7	15695	µg/L	23.2	15695	ppb	23.2	0.15%
As 188.979†	1.7	4.2234	µg/L	2.28948	4.2234	ppb	2.28948	54.21%
B 249.677†	213.8	-4.0282	µg/L	0.89960	-4.0282	ppb	0.89960	22.33%
Ba 233.527†	8954.2	230.22	µg/L	7.011	230.22	ppb	7.011	3.05%
Be 313.107†	2783.3	1.6657	µg/L	0.06166	1.6657	ppb	0.06166	3.70%
Ca 317.933Radial†	9862.0	9134.3	µg/L	27.01	9134.3	ppb	27.01	0.30%
Cd 226.502†	74.5	-0.8629	µg/L	0.09940	-0.8629	ppb	0.09940	11.52%
Co 228.616†	335.5	15.617	µg/L	1.2628	15.617	ppb	1.2628	8.09%
Cr 267.716†	685.9	14.600	µg/L	0.6363	14.600	ppb	0.6363	4.36%
Cu 324.752†	1491.2	13.770	µg/L	0.5132	13.770	ppb	0.5132	3.73%
Fe 238.204 Radial†	2973.8	25549	µg/L	45.7	25549	ppb	45.7	0.18%
K 766.490 Radial†	3140.0	2208.8	µg/L	9.35	2208.8	ppb	9.35	0.42%
Mg 279.077 IEC†	369.9	3454.0	µg/L	14.20	3454.0	ppb	14.20	0.41%
Mn 257.610†	117343.4	400.03	µg/L	12.422	400.03	ppb	12.422	3.11%
Mo 202.031†	14.4	2.4519	µg/L	0.28139	2.4519	ppb	0.28139	11.48%
Na 589.592 Radial†	2427.5	788.04	µg/L	7.117	788.04	ppb	7.117	0.90%

Ni 231.604†	241.4	13.201	µg/L	0.8321	13.201	ppb	0.8321	6.30%
P 214.914†	53.5	95.470	µg/L	19.5183	95.470	ppb	19.5183	20.44%
Pb 220.353†	69.8	18.026	µg/L	1.2033	18.026	ppb	1.2033	6.68%
S 181.975 Axial†	50.3	216.96	µg/L	13.827	216.96	ppb	13.827	6.37%
Sb 206.836†	4.2	3.1134	µg/L	4.38757	3.1134	ppb	4.38757	140.93%
Se 196.026†	-10.9	47.603	µg/L	4.3921	47.603	ppb	4.3921	9.23%
SiO2†	65729.7	13860	µg/L	337.8	13860	ppb	337.8	2.44%
Si 251.611†	79757.4	6457.0	µg/L	161.77	6457.0	ppb	161.77	2.51%
Sn 189.927†	-7.4	-5.6804	µg/L	0.77248	-5.6804	ppb	0.77248	13.60%
Sr 421.552†	4992.7	50.485	µg/L	0.1059	50.485	ppb	0.1059	0.21%
Ti 334.940†	128462.5	303.10	µg/L	9.954	303.10	ppb	9.954	3.28%
Tl 190.801†	-2.9	4.1666	µg/L	2.19286	4.1666	ppb	2.19286	52.63%
U 409.014†	-417.0	-40.385	µg/L	8.1855	-40.385	ppb	8.1855	20.27%
V 292.402†	2639.3	30.178	µg/L	1.0485	30.178	ppb	1.0485	3.47%
Zn 213.857†	2752.3	67.486	µg/L	2.0826	67.486	ppb	2.0826	3.09%

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 12:06:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	60642.4	60642.4	104	%			12:06:53
1	Al 396.153Radial†	6824.9	6554.7	4808.2	µg/L	4808.2	ppb	12:06:53
1	Ca 317.933Radial†	5617.4	5180.7	4798.4	µg/L	4798.4	ppb	12:07:13
1	Fe 238.204 Radial†	612.3	568.7	4896.8	µg/L	4896.8	ppb	12:07:13
1	K 766.490 Radial†	7409.4	6914.3	4863.8	µg/L	4863.8	ppb	12:06:53
1	Mg 279.077 IEC†	563.0	525.4	4948.9	µg/L	4948.9	ppb	12:07:13
1	Na 589.592 Radial†	31755.0	29825.1	9682.3	µg/L	9682.3	ppb	12:06:53
1	Sr 421.552†	49737.0	47567.8	480.99	µg/L	480.99	ppb	12:06:53
1	Sc 361.383	2102125.1	2102125.1	102.82	%			12:08:12
1	Y 371.029	1434702.8	1434702.8	102.12	%			12:08:12
1	Ag 328.068†	64404.3	63159.3	497.89	µg/L	497.89	ppb	12:08:17
1	As 188.979†	272.6	263.6	506.25	µg/L	506.25	ppb	12:08:38
1	B 249.677†	12074.1	11445.7	495.12	µg/L	495.12	ppb	12:08:17
1	Ba 233.527†	20096.5	19562.6	503.77	µg/L	503.77	ppb	12:08:17
1	Be 313.107†	799339.3	780356.4	499.21	µg/L	499.21	ppb	12:08:12
1	Cd 226.502†	19049.3	18664.2	504.08	µg/L	504.08	ppb	12:08:17
1	Co 228.616†	10769.8	10479.0	506.89	µg/L	506.89	ppb	12:08:17
1	Cr 267.716†	24323.1	23687.4	503.94	µg/L	503.94	ppb	12:08:17
1	Cu 324.752†	77286.0	72626.1	498.35	µg/L	498.35	ppb	12:08:17
1	Mn 257.610†	152672.2	148716.3	503.30	µg/L	503.30	ppb	12:08:12
1	Mo 202.031†	5105.3	4972.0	511.84	µg/L	511.84	ppb	12:08:38
1	Ni 231.604†	10053.6	9470.8	505.19	µg/L	505.19	ppb	12:08:17
1	P 214.914†	1263.4	1207.1	2498.5	µg/L	2498.5	ppb	12:08:38
1	Pb 220.353†	2109.0	1957.6	507.95	µg/L	507.95	ppb	12:08:38
1	S 181.975 Axial†	253.4	232.6	1002.9	µg/L	1002.9	ppb	12:08:38
1	Sb 206.836†	571.8	535.9	515.02	µg/L	515.02	ppb	12:08:38
1	Se 196.026†	361.9	336.1	519.72	µg/L	519.72	ppb	12:08:38
1	SiO2†	27832.0	25723.2	5424.0	µg/L	5424.0	ppb	12:08:17
1	Si 251.611†	32616.2	31406.1	2542.6	µg/L	2542.6	ppb	12:08:17
1	Sn 189.927†	1188.1	1152.4	513.41	µg/L	513.41	ppb	12:08:38
1	Ti 334.940†	216919.8	210832.4	497.35	µg/L	497.35	ppb	12:08:12
1	Tl 190.801†	350.7	364.0	510.68	µg/L	510.68	ppb	12:08:38
1	U 409.014†	5853.1	5736.0	498.01	µg/L	498.01	ppb	12:08:17
1	V 292.402†	49862.2	48525.0	505.62	µg/L	505.62	ppb	12:08:17
1	Zn 213.857†	21220.1	20118.5	500.61	µg/L	500.61	ppb	12:08:17
2	Sc RADIAL	60055.0	60055.0	103	%			12:07:18
2	Al 396.153Radial†	6932.3	6722.3	4931.3	µg/L	4931.3	ppb	12:07:18
2	Ca 317.933Radial†	5635.4	5250.7	4863.2	µg/L	4863.2	ppb	12:07:38
2	Fe 238.204 Radial†	616.5	578.6	4981.4	µg/L	4981.4	ppb	12:07:38
2	K 766.490 Radial†	7468.0	7040.3	4952.5	µg/L	4952.5	ppb	12:07:18
2	Mg 279.077 IEC†	557.3	525.1	4946.0	µg/L	4946.0	ppb	12:07:38
2	Na 589.592 Radial†	32184.7	30537.7	9913.6	µg/L	9913.6	ppb	12:07:18
2	Sr 421.552†	50576.6	48844.7	493.90	µg/L	493.90	ppb	12:07:18
2	Sc 361.383	2108587.1	2108587.1	103.14	%			12:08:44
2	Y 371.029	1437971.4	1437971.4	102.35	%			12:08:44
2	Ag 328.068†	64758.4	63310.7	499.09	µg/L	499.09	ppb	12:08:50
2	As 188.979†	284.9	274.8	527.71	µg/L	527.71	ppb	12:09:10
2	B 249.677†	12148.7	11482.1	496.65	µg/L	496.65	ppb	12:08:50
2	Ba 233.527†	20197.1	19600.3	504.74	µg/L	504.74	ppb	12:08:50
2	Be 313.107†	807076.4	785475.6	502.48	µg/L	502.48	ppb	12:08:44
2	Cd 226.502†	19152.6	18707.6	505.24	µg/L	505.24	ppb	12:08:50
2	Co 228.616†	10803.6	10479.7	506.92	µg/L	506.92	ppb	12:08:50
2	Cr 267.716†	24412.3	23701.3	504.24	µg/L	504.24	ppb	12:08:50
2	Cu 324.752†	77576.1	72677.0	498.71	µg/L	498.71	ppb	12:08:50
2	Mn 257.610†	154267.5	149808.0	507.01	µg/L	507.01	ppb	12:08:44
2	Mo 202.031†	5148.9	4999.0	514.62	µg/L	514.62	ppb	12:09:10
2	Ni 231.604†	10149.7	9533.9	508.57	µg/L	508.57	ppb	12:08:50
2	P 214.914†	1278.9	1218.4	2522.4	µg/L	2522.4	ppb	12:09:10
2	Pb 220.353†	2118.3	1960.3	508.65	µg/L	508.65	ppb	12:09:10

2	S 181.975 Axial†	259.4	237.7	1024.6	µg/L	1024.6 ppb	12:09:10
2	Sb 206.836†	582.5	544.6	523.39	µg/L	523.39 ppb	12:09:10
2	Se 196.026†	363.9	337.0	521.30	µg/L	521.30 ppb	12:09:10
2	SiO2†	28144.6	25943.4	5470.5	µg/L	5470.5 ppb	12:08:50
2	Si 251.611†	32951.3	31633.7	2561.0	µg/L	2561.0 ppb	12:08:50
2	Sn 189.927†	1200.8	1161.2	517.33	µg/L	517.33 ppb	12:09:10
2	Ti 334.940†	219071.3	212271.9	500.75	µg/L	500.75 ppb	12:08:44
2	Tl 190.801†	355.7	367.8	516.00	µg/L	516.00 ppb	12:09:10
2	U 409.014†	5961.5	5823.7	505.62	µg/L	505.62 ppb	12:08:50
2	V 292.402†	50168.7	48673.5	507.19	µg/L	507.19 ppb	12:08:50
2	Zn 213.857†	21352.5	20183.6	502.23	µg/L	502.23 ppb	12:08:50
3	Sc RADIAL	60137.6	60137.6	104	%		12:07:43
3	Al 396.153Radial†	6918.8	6700.2	4916.3	µg/L	4916.3 ppb	12:07:43
3	Ca 317.933Radial†	5634.4	5242.3	4855.4	µg/L	4855.4 ppb	12:08:03
3	Fe 238.204 Radial†	617.0	578.2	4977.9	µg/L	4977.9 ppb	12:08:03
3	K 766.490 Radial†	7496.1	7057.6	4964.6	µg/L	4964.6 ppb	12:07:43
3	Mg 279.077 IEC†	559.3	526.3	4956.0	µg/L	4956.0 ppb	12:08:03
3	Na 589.592 Radial†	32084.6	30398.3	9868.4	µg/L	9868.4 ppb	12:07:43
3	Sr 421.552†	50405.4	48612.4	491.55	µg/L	491.55 ppb	12:07:43
3	Sc 361.383	2065428.8	2065428.8	101.03	%		12:09:17
3	Y 371.029	1407855.5	1407855.5	100.20	%		12:09:17
3	Ag 328.068†	63197.2	63077.4	497.14	µg/L	497.14 ppb	12:09:22
3	As 188.979†	243.5	239.6	460.13	µg/L	460.13 ppb	12:09:42
3	B 249.677†	11825.4	11408.2	493.41	µg/L	493.41 ppb	12:09:22
3	Ba 233.527†	19273.9	19095.6	491.73	µg/L	491.73 ppb	12:09:22
3	Be 313.107†	780805.8	775823.5	496.31	µg/L	496.31 ppb	12:09:17
3	Cd 226.502†	18215.5	18168.0	490.65	µg/L	490.65 ppb	12:09:22
3	Co 228.616†	10209.2	10110.3	488.99	µg/L	488.99 ppb	12:09:22
3	Cr 267.716†	22745.1	22545.8	479.66	µg/L	479.66 ppb	12:09:22
3	Cu 324.752†	73667.7	70380.1	482.97	µg/L	482.97 ppb	12:09:22
3	Mn 257.610†	149405.3	148120.7	501.30	µg/L	501.30 ppb	12:09:17
3	Mo 202.031†	4441.1	4402.8	453.26	µg/L	453.26 ppb	12:09:42
3	Ni 231.604†	9613.0	9208.3	491.20	µg/L	491.20 ppb	12:09:22
3	P 214.914†	1124.9	1091.8	2256.1	µg/L	2256.1 ppb	12:09:42
3	Pb 220.353†	1920.4	1807.3	468.85	µg/L	468.85 ppb	12:09:42
3	S 181.975 Axial†	232.5	216.3	932.39	µg/L	932.39 ppb	12:09:42
3	Sb 206.836†	499.2	474.0	455.08	µg/L	455.08 ppb	12:09:42
3	Se 196.026†	331.0	311.7	482.77	µg/L	482.77 ppb	12:09:42
3	SiO2†	27155.2	25534.2	5384.2	µg/L	5384.2 ppb	12:09:22
3	Si 251.611†	31870.6	31231.6	2528.5	µg/L	2528.5 ppb	12:09:22
3	Sn 189.927†	1025.0	1011.5	450.66	µg/L	450.66 ppb	12:09:42
3	Ti 334.940†	211431.2	209147.8	493.37	µg/L	493.37 ppb	12:09:17
3	Tl 190.801†	323.5	343.2	481.75	µg/L	481.75 ppb	12:09:42
3	U 409.014†	5589.5	5576.3	484.10	µg/L	484.10 ppb	12:09:22
3	V 292.402†	47241.8	46792.9	487.28	µg/L	487.28 ppb	12:09:22
3	Zn 213.857†	20273.4	19548.1	486.40	µg/L	486.40 ppb	12:09:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2092047.0	102.33	%	1.139				1.11%
Sc RADIAL	60278.3	104	%	0.5				0.53%
Y 371.029	1426843.2	101.56	%	1.176				1.16%
Ag 328.068†	63182.5	498.04	µg/L	0.985	498.04	ppb	0.985	0.20%
QC value within limits for Ag 328.068 Recovery = 99.61%								
Al 396.153Radial†	6659.1	4885.3	µg/L	67.18	4885.3	ppb	67.18	1.38%
QC value within limits for Al 396.153Radial Recovery = 97.71%								
As 188.979†	259.3	498.03	µg/L	34.530	498.03	ppb	34.530	6.93%
QC value within limits for As 188.979 Recovery = 99.61%								
B 249.677†	11445.4	495.06	µg/L	1.624	495.06	ppb	1.624	0.33%
QC value within limits for B 249.677 Recovery = 99.01%								
Ba 233.527†	19419.5	500.08	µg/L	7.246	500.08	ppb	7.246	1.45%
QC value within limits for Ba 233.527 Recovery = 100.02%								
Be 313.107†	780551.8	499.33	µg/L	3.089	499.33	ppb	3.089	0.62%
QC value within limits for Be 313.107 Recovery = 99.87%								
Ca 317.933Radial†	5224.5	4839.0	µg/L	35.38	4839.0	ppb	35.38	0.73%
QC value within limits for Ca 317.933Radial Recovery = 96.78%								
Cd 226.502†	18513.2	499.99	µg/L	8.109	499.99	ppb	8.109	1.62%
QC value within limits for Cd 226.502 Recovery = 100.00%								
Co 228.616†	10356.4	500.94	µg/L	10.344	500.94	ppb	10.344	2.06%

```
   QC value within limits for Co 228.616  Recovery = 100.19%
Cr 267.716†            23311.5      495.94 µg/L        14.107      495.94 ppb        14.107   2.84%
   QC value within limits for Cr 267.716  Recovery = 99.19%
Cu 324.752†            71894.4      493.35 µg/L         8.985      493.35 ppb         8.985   1.82%
   QC value within limits for Cu 324.752  Recovery = 98.67%
Fe 238.204 Radial†       575.2      4952.0 µg/L        47.85      4952.0 ppb         47.85   0.97%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.04%
K 766.490 Radial†       7004.1      4927.0 µg/L        55.01      4927.0 ppb         55.01   1.12%
   QC value within limits for K 766.490 Radial  Recovery = 98.54%
Mg 279.077 IEC†         525.6      4950.3 µg/L         5.18      4950.3 ppb          5.18   0.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.01%
Mn 257.610†           148881.7      503.87 µg/L        2.895      503.87 ppb         2.895   0.57%
   QC value within limits for Mn 257.610  Recovery = 100.77%
Mo 202.031†             4791.3      493.24 µg/L       34.651      493.24 ppb        34.651   7.03%
   QC value within limits for Mo 202.031  Recovery = 98.65%
Na 589.592 Radial†     30253.7      9821.4 µg/L       122.60      9821.4 ppb        122.60   1.25%
   QC value within limits for Na 589.592 Radial  Recovery = 98.21%
Ni 231.604†             9404.4      501.65 µg/L        9.208      501.65 ppb         9.208   1.84%
   QC value within limits for Ni 231.604  Recovery = 100.33%
P 214.914†              1172.5      2425.7 µg/L       147.36      2425.7 ppb        147.36   6.08%
   QC value within limits for P 214.914  Recovery = 97.03%
Pb 220.353†             1908.4      495.15 µg/L       22.776      495.15 ppb        22.776   4.60%
   QC value within limits for Pb 220.353  Recovery = 99.03%
S 181.975 Axial†         228.9      986.62 µg/L       48.201      986.62 ppb        48.201   4.89%
   QC value within limits for S 181.975 Axial  Recovery = 98.66%
Sb 206.836†              518.2      497.83 µg/L       37.262      497.83 ppb        37.262   7.48%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†              328.3      507.93 µg/L       21.805      507.93 ppb        21.805   4.29%
   QC value within limits for Se 196.026  Recovery = 101.59%
SiO2†                  25733.6      5426.2 µg/L        43.18      5426.2 ppb         43.18   0.80%
   QC value within limits for SiO2  Recovery = 101.47%
Si 251.611†            31423.8      2544.0 µg/L        16.32      2544.0 ppb         16.32   0.64%
   QC value within limits for Si 251.611  Recovery = 101.76%
Sn 189.927†             1108.3      493.80 µg/L       37.414      493.80 ppb        37.414   7.58%
   QC value within limits for Sn 189.927  Recovery = 98.76%
Sr 421.552†            48341.6      488.81 µg/L        6.878      488.81 ppb         6.878   1.41%
   QC value within limits for Sr 421.552  Recovery = 97.76%
Ti 334.940†           210750.7      497.16 µg/L        3.691      497.16 ppb         3.691   0.74%
   QC value within limits for Ti 334.940  Recovery = 99.43%
Tl 190.801†              358.3      502.81 µg/L       18.435      502.81 ppb        18.435   3.67%
   QC value within limits for Tl 190.801  Recovery = 100.56%
U 409.014†              5712.0      495.91 µg/L       10.912      495.91 ppb        10.912   2.20%
   QC value within limits for U 409.014  Recovery = 99.18%
V 292.402†             47997.2      500.03 µg/L       11.069      500.03 ppb        11.069   2.21%
   QC value within limits for V 292.402  Recovery = 100.01%
Zn 213.857†            19950.1      496.41 µg/L        8.708      496.41 ppb         8.708   1.75%
   QC value within limits for Zn 213.857  Recovery = 99.28%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 12:09:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58004.9	58004.9	99.9	%			12:10:22
1	Al 396.153Radial†	7.8	30.7	22.597	µg/L	22.597	ppb	12:10:22
1	Ca 317.933Radial†	197.7	2.4	2.2042	µg/L	2.2042	ppb	12:10:42
1	Fe 238.204 Radial†	18.7	1.5	12.485	µg/L	12.485	ppb	12:10:42
1	K 766.490 Radial†	220.2	43.4	30.558	µg/L	30.558	ppb	12:10:22
1	Mg 279.077 IEC†	8.5	-4.9	-46.184	µg/L	-46.184	ppb	12:10:42
1	Na 589.592 Radial†	602.0	36.2	11.765	µg/L	11.765	ppb	12:10:22
1	Sr 421.552†	32.2	-1.1	-0.0114	µg/L	-0.0114	ppb	12:10:22
1	Sc 361.383	2094242.0	2094242.0	102.44	%			12:11:40
1	Y 371.029	1433211.2	1433211.2	102.01	%			12:11:40
1	Ag 328.068†	-584.2	-46.6	-0.3655	µg/L	-0.3655	ppb	12:11:46
1	As 188.979†	-2.8	-4.2	-8.0963	µg/L	-8.0963	ppb	12:12:06
1	B 249.677†	333.7	29.0	1.2540	µg/L	1.2540	ppb	12:12:06
1	Ba 233.527†	-7.9	10.3	0.2634	µg/L	0.2634	ppb	12:12:06
1	Be 313.107†	-3005.1	33.9	0.0216	µg/L	0.0216	ppb	12:11:46
1	Cd 226.502†	-135.3	5.9	0.1570	µg/L	0.1570	ppb	12:12:06
1	Co 228.616†	1.4	6.4	0.3100	µg/L	0.3100	ppb	12:12:06
1	Cr 267.716†	-13.1	19.4	0.4117	µg/L	0.4117	ppb	12:12:06
1	Cu 324.752†	2609.4	9.7	0.0682	µg/L	0.0682	ppb	12:11:46
1	Mn 257.610†	-111.9	127.4	0.4341	µg/L	0.4341	ppb	12:12:06
1	Mo 202.031†	-4.4	2.6	0.2679	µg/L	0.2679	ppb	12:12:06
1	Ni 231.604†	304.9	-9.2	-0.4901	µg/L	-0.4901	ppb	12:12:06
1	P 214.914†	35.3	12.9	27.164	µg/L	27.164	ppb	12:12:06
1	Pb 220.353†	98.0	2.1	0.5377	µg/L	0.5377	ppb	12:12:06
1	S 181.975 Axial†	20.2	5.9	25.598	µg/L	25.598	ppb	12:12:06
1	Sb 206.836†	24.9	4.2	4.0107	µg/L	4.0107	ppb	12:12:06
1	Se 196.026†	14.8	-1.5	-2.1360	µg/L	-2.1360	ppb	12:12:06
1	SiO2†	1487.3	107.5	22.657	µg/L	22.657	ppb	12:11:46
1	Si 251.611†	479.6	153.7	12.441	µg/L	12.441	ppb	12:12:06
1	Sn 189.927†	0.9	-2.2	-0.9812	µg/L	-0.9812	ppb	12:12:06
1	Ti 334.940†	231.4	95.3	0.2287	µg/L	0.2287	ppb	12:11:46
1	Tl 190.801†	-23.4	0.1	0.1088	µg/L	0.1088	ppb	12:12:06
1	U 409.014†	43.1	85.8	7.4594	µg/L	7.4594	ppb	12:11:46
1	V 292.402†	-56.4	-23.0	-0.2247	µg/L	-0.2247	ppb	12:11:46
1	Zn 213.857†	504.2	-26.7	-0.6649	µg/L	-0.6649	ppb	12:12:06
2	Sc RADIAL	58369.4	58369.4	101	%			12:10:47
2	Al 396.153Radial†	-21.6	1.5	1.0647	µg/L	1.0647	ppb	12:10:47
2	Ca 317.933Radial†	208.5	11.9	11.024	µg/L	11.024	ppb	12:11:07
2	Fe 238.204 Radial†	19.9	2.5	21.502	µg/L	21.502	ppb	12:11:07
2	K 766.490 Radial†	145.6	-32.1	-22.548	µg/L	-22.548	ppb	12:10:47
2	Mg 279.077 IEC†	8.5	-5.0	-47.290	µg/L	-47.290	ppb	12:11:07
2	Na 589.592 Radial†	531.7	-37.4	-12.147	µg/L	-12.147	ppb	12:10:47
2	Sr 421.552†	46.1	12.5	0.1269	µg/L	0.1269	ppb	12:10:47
2	Sc 361.383	2088712.7	2088712.7	102.17	%			12:12:12
2	Y 371.029	1429118.4	1429118.4	101.72	%			12:12:12
2	Ag 328.068†	-562.7	-27.1	-0.2109	µg/L	-0.2109	ppb	12:12:17
2	As 188.979†	-0.9	-2.4	-4.5714	µg/L	-4.5714	ppb	12:12:37
2	B 249.677†	339.9	35.9	1.5482	µg/L	1.5482	ppb	12:12:37
2	Ba 233.527†	-18.9	-0.6	-0.0143	µg/L	-0.0143	ppb	12:12:37
2	Be 313.107†	-3102.5	-69.1	-0.0443	µg/L	-0.0443	ppb	12:12:17
2	Cd 226.502†	-131.3	9.4	0.2516	µg/L	0.2516	ppb	12:12:37
2	Co 228.616†	-0.8	4.2	0.2033	µg/L	0.2033	ppb	12:12:37
2	Cr 267.716†	-19.4	13.2	0.2802	µg/L	0.2802	ppb	12:12:37
2	Cu 324.752†	2631.0	37.6	0.2607	µg/L	0.2607	ppb	12:12:17
2	Mn 257.610†	-154.2	85.6	0.2943	µg/L	0.2943	ppb	12:12:37
2	Mo 202.031†	-1.2	5.7	0.5887	µg/L	0.5887	ppb	12:12:37
2	Ni 231.604†	306.6	-6.7	-0.3551	µg/L	-0.3551	ppb	12:12:37
2	P 214.914†	21.7	-0.3	-0.7790	µg/L	-0.7790	ppb	12:12:37
2	Pb 220.353†	97.3	1.7	0.4390	µg/L	0.4390	ppb	12:12:37

2	S 181.975 Axial†	18.7	4.5	19.366 µg/L	19.366 ppb	12:12:37
2	Sb 206.836†	28.1	7.4	7.0701 µg/L	7.0701 ppb	12:12:37
2	Se 196.026†	13.3	-2.8	-4.2379 µg/L	-4.2379 ppb	12:12:37
2	SiO2†	1497.1	120.9	25.485 µg/L	25.485 ppb	12:12:17
2	Si 251.611†	474.6	150.1	12.148 µg/L	12.148 ppb	12:12:37
2	Sn 189.927†	-1.9	-4.9	-2.1947 µg/L	-2.1947 ppb	12:12:37
2	Ti 334.940†	268.6	132.3	0.3162 µg/L	0.3162 ppb	12:12:17
2	Tl 190.801†	-25.0	-1.5	-2.1011 µg/L	-2.1011 ppb	12:12:37
2	U 409.014†	-108.0	-62.0	-5.4011 µg/L	-5.4011 ppb	12:12:17
2	V 292.402†	-34.6	-1.8	-0.0167 µg/L	-0.0167 ppb	12:12:17
2	Zn 213.857†	512.4	-17.4	-0.4323 µg/L	-0.4323 ppb	12:12:37
3	Sc RADIAL	59004.6	59004.6	102 %		12:11:12
3	Al 396.153Radial†	-11.2	11.9	8.7379 µg/L	8.7379 ppb	12:11:12
3	Ca 317.933Radial†	195.6	-3.0	-2.8044 µg/L	-2.8044 ppb	12:11:33
3	Fe 238.204 Radial†	18.6	1.1	9.2468 µg/L	9.2468 ppb	12:11:33
3	K 766.490 Radial†	148.4	-30.9	-21.748 µg/L	-21.748 ppb	12:11:12
3	Mg 279.077 IEC†	10.1	-3.5	-32.695 µg/L	-32.695 ppb	12:11:33
3	Na 589.592 Radial†	537.7	-37.3	-12.105 µg/L	-12.105 ppb	12:11:12
3	Sr 421.552†	67.2	32.7	0.3310 µg/L	0.3310 ppb	12:11:12
3	Sc 361.383	2071395.8	2071395.8	101.32 %		12:12:43
3	Y 371.029	1417025.5	1417025.5	100.86 %		12:12:43
3	Ag 328.068†	-535.6	-5.0	-0.0374 µg/L	-0.0374 ppb	12:12:48
3	As 188.979†	-1.2	-2.7	-5.2270 µg/L	-5.2270 ppb	12:13:08
3	B 249.677†	335.7	34.6	1.4981 µg/L	1.4981 ppb	12:13:08
3	Ba 233.527†	-14.6	3.5	0.0912 µg/L	0.0912 ppb	12:13:08
3	Be 313.107†	-3009.9	-3.1	-0.0021 µg/L	-0.0021 ppb	12:12:48
3	Cd 226.502†	-132.4	7.2	0.1939 µg/L	0.1939 ppb	12:13:08
3	Co 228.616†	-8.5	-3.4	-0.1628 µg/L	-0.1628 ppb	12:13:08
3	Cr 267.716†	-25.2	7.3	0.1553 µg/L	0.1553 ppb	12:13:08
3	Cu 324.752†	2589.9	18.6	0.1286 µg/L	0.1286 ppb	12:12:48
3	Mn 257.610†	-164.2	74.5	0.2545 µg/L	0.2545 ppb	12:13:08
3	Mo 202.031†	-0.7	6.2	0.6361 µg/L	0.6361 ppb	12:13:08
3	Ni 231.604†	300.6	-10.1	-0.5367 µg/L	-0.5367 ppb	12:13:08
3	P 214.914†	23.7	1.8	3.7789 µg/L	3.7789 ppb	12:13:08
3	Pb 220.353†	101.2	6.3	1.6460 µg/L	1.6460 ppb	12:13:08
3	S 181.975 Axial†	16.6	2.6	11.249 µg/L	11.249 ppb	12:13:08
3	Sb 206.836†	22.1	1.7	1.6298 µg/L	1.6298 ppb	12:13:08
3	Se 196.026†	8.6	-7.3	-11.110 µg/L	-11.110 ppb	12:13:08
3	SiO2†	1521.6	157.3	33.163 µg/L	33.163 ppb	12:12:48
3	Si 251.611†	492.2	171.3	13.868 µg/L	13.868 ppb	12:13:08
3	Sn 189.927†	2.2	-0.9	-0.3934 µg/L	-0.3934 ppb	12:13:08
3	Ti 334.940†	240.1	106.4	0.2536 µg/L	0.2536 ppb	12:12:48
3	Tl 190.801†	-21.0	2.2	3.0662 µg/L	3.0662 ppb	12:13:08
3	U 409.014†	-48.8	-4.4	-0.3873 µg/L	-0.3873 ppb	12:12:48
3	V 292.402†	-20.9	11.5	0.1240 µg/L	0.1240 ppb	12:12:48
3	Zn 213.857†	501.4	-24.0	-0.5978 µg/L	-0.5978 ppb	12:13:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2084783.5	101.98	%	0.583				0.57%
Sc RADIAL	58459.6	101	%	0.9				0.87%
Y 371.029	1426451.7	101.53	%	0.599				0.59%
Ag 328.068†	-26.2	-0.2046	µg/L	0.16411	-0.2046	ppb	0.16411	80.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.7	10.800	µg/L	10.9132	10.800	ppb	10.9132	101.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-5.9649	µg/L	1.87473	-5.9649	ppb	1.87473	31.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	33.2	1.4334	µg/L	0.15744	1.4334	ppb	0.15744	10.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.4	0.1134	µg/L	0.14021	0.1134	ppb	0.14021	123.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-12.8	-0.0083	µg/L	0.03341	-0.0083	ppb	0.03341	404.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.8	3.4746	µg/L	7.00123	3.4746	ppb	7.00123	201.50%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.5	0.2008	µg/L	0.04765	0.2008	ppb	0.04765	23.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.4	0.1168	µg/L	0.24798	0.1168	ppb	0.24798	212.30%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.3      0.2824 µg/L       0.12824      0.2824 ppb        0.12824  45.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              22.0      0.1525 µg/L       0.09849      0.1525 ppb        0.09849  64.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.7      14.411 µg/L        6.3504      14.411 ppb         6.3504  44.07%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -6.5     -4.5794 µg/L      30.43238     -4.5794 ppb       30.43238 664.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -4.5     -42.056 µg/L        8.1258     -42.056 ppb         8.1258  19.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              95.8      0.3277 µg/L       0.09432      0.3277 ppb        0.09432  28.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.8      0.4976 µg/L       0.20032      0.4976 ppb        0.20032  40.26%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -12.8     -4.1623 µg/L      13.79322     -4.1623 ppb       13.79322 331.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.6     -0.4607 µg/L       0.09432     -0.4607 ppb        0.09432  20.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                4.8      10.055 µg/L       14.9915      10.055 ppb        14.9915 149.10%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.4      0.8742 µg/L       0.67016      0.8742 ppb        0.67016  76.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.3      18.738 µg/L        7.1953      18.738 ppb         7.1953  38.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.4      4.2369 µg/L       2.72718      4.2369 ppb        2.72718  64.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9     -5.8278 µg/L       4.69332     -5.8278 ppb        4.69332  80.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   128.5      27.102 µg/L        5.4365      27.102 ppb         5.4365  20.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             158.3      12.819 µg/L        0.9204      12.819 ppb         0.9204   7.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.7     -1.1898 µg/L       0.91862     -1.1898 ppb        0.91862  77.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              14.7      0.1488 µg/L       0.17225      0.1488 ppb        0.17225 115.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             111.3      0.2661 µg/L       0.04508      0.2661 ppb        0.04508  16.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.3      0.3579 µg/L       2.59265      0.3579 ppb        2.59265 724.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                6.4      0.5570 µg/L       6.48204      0.5570 ppb        6.48204 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -4.5     -0.0391 µg/L       0.17541     -0.0391 ppb        0.17541 448.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.7     -0.5650 µg/L       0.11967     -0.5650 ppb        0.11967  21.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 12:45:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56519.5	56519.5	97.4	%			12:45:37
1	Al 396.153Radial†	7323.6	7543.2	5534.1	µg/L	5534.1	ppb	12:45:37
1	Ca 317.933Radial†	5915.9	5879.5	5445.6	µg/L	5445.6	ppb	12:45:57
1	Fe 238.204 Radial†	650.5	650.8	5602.4	µg/L	5602.4	ppb	12:45:57
1	K 766.490 Radial†	7742.0	7773.1	5468.0	µg/L	5468.0	ppb	12:45:37
1	Mg 279.077 IEC†	595.8	598.4	5635.5	µg/L	5635.5	ppb	12:45:57
1	Na 589.592 Radial†	33494.2	33827.9	10982	µg/L	10982	ppb	12:45:37
1	Sr 421.552†	52913.3	54301.6	549.08	µg/L	549.08	ppb	12:45:37
1	Sc 361.383	2026745.3	2026745.3	99.136	%			12:46:57
1	Y 371.029	1377057.3	1377057.3	98.013	%			12:46:57
1	Ag 328.068†	66338.0	67439.5	531.66	µg/L	531.66	ppb	12:47:02
1	As 188.979†	287.2	288.2	553.50	µg/L	553.50	ppb	12:47:22
1	B 249.677†	12414.9	12226.3	528.69	µg/L	528.69	ppb	12:47:02
1	Ba 233.527†	20743.9	20942.6	539.31	µg/L	539.31	ppb	12:47:02
1	Be 313.107†	830387.6	840588.2	537.74	µg/L	537.74	ppb	12:46:57
1	Cd 226.502†	19588.7	19897.3	537.34	µg/L	537.34	ppb	12:47:02
1	Co 228.616†	11149.1	11251.2	544.24	µg/L	544.24	ppb	12:47:02
1	Cr 267.716†	25029.7	25279.9	537.82	µg/L	537.82	ppb	12:47:02
1	Cu 324.752†	79511.8	77666.8	532.99	µg/L	532.99	ppb	12:47:02
1	Mn 257.610†	158178.8	159793.2	540.82	µg/L	540.82	ppb	12:46:57
1	Mo 202.031†	5288.7	5341.7	549.91	µg/L	549.91	ppb	12:47:22
1	Ni 231.604†	10369.2	10152.8	541.57	µg/L	541.57	ppb	12:47:02
1	P 214.914†	1328.0	1318.0	2729.0	µg/L	2729.0	ppb	12:47:22
1	Pb 220.353†	2196.1	2121.7	550.55	µg/L	550.55	ppb	12:47:22
1	S 181.975 Axial†	267.3	255.8	1102.8	µg/L	1102.8	ppb	12:47:22
1	Sb 206.836†	590.1	575.1	552.67	µg/L	552.67	ppb	12:47:22
1	Se 196.026†	368.6	355.9	551.06	µg/L	551.06	ppb	12:47:22
1	SiO2†	28610.9	27515.6	5802.0	µg/L	5802.0	ppb	12:47:02
1	Si 251.611†	33613.6	33591.9	2719.5	µg/L	2719.5	ppb	12:47:02
1	Sn 189.927†	1240.0	1247.7	555.90	µg/L	555.90	ppb	12:47:22
1	Ti 334.940†	226324.6	228165.3	538.22	µg/L	538.22	ppb	12:46:57
1	Tl 190.801†	358.4	384.5	539.53	µg/L	539.53	ppb	12:47:22
1	U 409.014†	6160.7	6258.0	543.28	µg/L	543.28	ppb	12:47:02
1	V 292.402†	51415.4	51895.4	540.81	µg/L	540.81	ppb	12:47:02
1	Zn 213.857†	21899.5	21571.4	536.73	µg/L	536.73	ppb	12:47:02
2	Sc RADIAL	57128.8	57128.8	98.4	%			12:46:02
2	Al 396.153Radial†	7368.1	7508.3	5508.5	µg/L	5508.5	ppb	12:46:02
2	Ca 317.933Radial†	5904.6	5803.2	5374.9	µg/L	5374.9	ppb	12:46:22
2	Fe 238.204 Radial†	649.8	642.8	5534.3	µg/L	5534.3	ppb	12:46:22
2	K 766.490 Radial†	7863.8	7812.0	5495.4	µg/L	5495.4	ppb	12:46:02
2	Mg 279.077 IEC†	590.8	586.8	5526.4	µg/L	5526.4	ppb	12:46:22
2	Na 589.592 Radial†	33761.1	33732.3	10951	µg/L	10951	ppb	12:46:02
2	Sr 421.552†	53452.7	54270.1	548.76	µg/L	548.76	ppb	12:46:02
2	Sc 361.383	2023995.5	2023995.5	99.002	%			12:47:29
2	Y 371.029	1375239.7	1375239.7	97.883	%			12:47:29
2	Ag 328.068†	65665.7	66851.3	527.03	µg/L	527.03	ppb	12:47:34
2	As 188.979†	281.0	282.4	542.29	µg/L	542.29	ppb	12:47:54
2	B 249.677†	12291.8	12119.0	524.06	µg/L	524.06	ppb	12:47:34
2	Ba 233.527†	20500.8	20725.5	533.72	µg/L	533.72	ppb	12:47:34
2	Be 313.107†	825713.8	837005.3	535.45	µg/L	535.45	ppb	12:47:29
2	Cd 226.502†	19354.5	19687.6	531.68	µg/L	531.68	ppb	12:47:34
2	Co 228.616†	11013.6	11129.6	538.35	µg/L	538.35	ppb	12:47:34
2	Cr 267.716†	24743.5	25025.2	532.40	µg/L	532.40	ppb	12:47:34
2	Cu 324.752†	78841.6	77098.8	529.09	µg/L	529.09	ppb	12:47:34
2	Mn 257.610†	157310.9	159133.3	538.59	µg/L	538.59	ppb	12:47:29
2	Mo 202.031†	5233.0	5292.6	544.85	µg/L	544.85	ppb	12:47:54
2	Ni 231.604†	10273.5	10070.3	537.17	µg/L	537.17	ppb	12:47:34
2	P 214.914†	1314.9	1306.6	2705.3	µg/L	2705.3	ppb	12:47:54
2	Pb 220.353†	2179.9	2108.3	547.07	µg/L	547.07	ppb	12:47:54

2	S 181.975 Axial†	262.6	251.5	1084.1 µg/L	1084.1 ppb	12:47:54
2	Sb 206.836†	582.8	568.5	546.34 µg/L	546.34 ppb	12:47:54
2	Se 196.026†	365.5	353.3	546.98 µg/L	546.98 ppb	12:47:54
2	SiO2†	28424.4	27366.4	5770.5 µg/L	5770.5 ppb	12:47:34
2	Si 251.611†	33337.3	33358.9	2700.7 µg/L	2700.7 ppb	12:47:34
2	Sn 189.927†	1219.2	1228.4	547.30 µg/L	547.30 ppb	12:47:54
2	Ti 334.940†	224974.8	227112.2	535.74 µg/L	535.74 ppb	12:47:29
2	Tl 190.801†	362.0	388.6	545.30 µg/L	545.30 ppb	12:47:54
2	U 409.014†	6119.5	6224.9	540.41 µg/L	540.41 ppb	12:47:34
2	V 292.402†	50931.7	51477.2	536.45 µg/L	536.45 ppb	12:47:34
2	Zn 213.857†	21675.8	21375.4	531.86 µg/L	531.86 ppb	12:47:34
3	Sc RADIAL	57312.1	57312.1	98.7 %		12:46:27
3	Al 396.153Radial†	7322.3	7437.9	5458.6 µg/L	5458.6 ppb	12:46:27
3	Ca 317.933Radial†	5858.6	5737.4	5314.0 µg/L	5314.0 ppb	12:46:48
3	Fe 238.204 Radial†	639.5	630.4	5426.3 µg/L	5426.3 ppb	12:46:48
3	K 766.490 Radial†	7771.5	7693.1	5411.6 µg/L	5411.6 ppb	12:46:27
3	Mg 279.077 IEC†	585.5	579.5	5455.7 µg/L	5455.7 ppb	12:46:48
3	Na 589.592 Radial†	33647.2	33507.2	10878 µg/L	10878 ppb	12:46:27
3	Sr 421.552†	53176.4	53816.6	544.18 µg/L	544.18 ppb	12:46:27
3	Sc 361.383	2058907.1	2058907.1	100.71 %		12:48:01
3	Y 371.029	1397924.8	1397924.8	99.498 %		12:48:01
3	Ag 328.068†	63200.6	63278.9	498.76 µg/L	498.76 ppb	12:48:07
3	As 188.979†	246.7	243.5	467.72 µg/L	467.72 ppb	12:48:27
3	B 249.677†	11751.0	11371.4	491.58 µg/L	491.58 ppb	12:48:07
3	Ba 233.527†	19338.4	19220.1	494.94 µg/L	494.94 ppb	12:48:07
3	Be 313.107†	799064.8	796401.8	509.47 µg/L	509.47 ppb	12:48:01
3	Cd 226.502†	18210.9	18220.6	492.02 µg/L	492.02 ppb	12:48:07
3	Co 228.616†	10261.8	10194.5	493.04 µg/L	493.04 ppb	12:48:07
3	Cr 267.716†	22670.6	22543.1	479.60 µg/L	479.60 ppb	12:48:07
3	Cu 324.752†	73889.4	70831.1	486.13 µg/L	486.13 ppb	12:48:07
3	Mn 257.610†	152706.2	151866.8	514.01 µg/L	514.01 ppb	12:48:01
3	Mo 202.031†	4452.3	4427.8	455.85 µg/L	455.85 ppb	12:48:27
3	Ni 231.604†	9606.9	9232.4	492.49 µg/L	492.49 ppb	12:48:07
3	P 214.914†	1149.5	1119.8	2314.7 µg/L	2314.7 ppb	12:48:27
3	Pb 220.353†	1928.5	1821.4	472.51 µg/L	472.51 ppb	12:48:27
3	S 181.975 Axial†	240.6	225.1	970.38 µg/L	970.38 ppb	12:48:27
3	Sb 206.836†	506.6	482.8	463.55 µg/L	463.55 ppb	12:48:27
3	Se 196.026†	326.8	308.7	478.75 µg/L	478.75 ppb	12:48:27
3	SiO2†	27121.6	25586.0	5395.1 µg/L	5395.1 ppb	12:48:07
3	Si 251.611†	31824.7	31286.0	2532.9 µg/L	2532.9 ppb	12:48:07
3	Sn 189.927†	1028.6	1018.3	453.70 µg/L	453.70 ppb	12:48:27
3	Ti 334.940†	216718.6	215060.9	507.30 µg/L	507.30 ppb	12:48:01
3	Tl 190.801†	334.0	354.6	497.83 µg/L	497.83 ppb	12:48:27
3	U 409.014†	5568.6	5573.1	483.73 µg/L	483.73 ppb	12:48:07
3	V 292.402†	47308.9	47007.6	489.56 µg/L	489.56 ppb	12:48:07
3	Zn 213.857†	20382.7	19720.2	490.65 µg/L	490.65 ppb	12:48:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2036549.3	99.616	%	0.9495				0.95%
Sc RADIAL	56986.8	98.2	%	0.71				0.73%
Y 371.029	1383407.3	98.465	%	0.8972				0.91%
Ag 328.068†	65856.6	519.15	µg/L	17.810	519.15	ppb	17.810	3.43%
QC value within limits for Ag 328.068 Recovery = 103.83%								
Al 396.153Radial†	7496.5	5500.4	µg/L	38.38	5500.4	ppb	38.38	0.70%
QC value greater than the upper limit for Al 396.153Radial Recovery = 110.01%								
As 188.979†	271.4	521.17	µg/L	46.624	521.17	ppb	46.624	8.95%
QC value within limits for As 188.979 Recovery = 104.23%								
B 249.677†	11905.5	514.77	µg/L	20.222	514.77	ppb	20.222	3.93%
QC value within limits for B 249.677 Recovery = 102.95%								
Ba 233.527†	20296.1	522.65	µg/L	24.164	522.65	ppb	24.164	4.62%
QC value within limits for Ba 233.527 Recovery = 104.53%								
Be 313.107†	824665.1	527.55	µg/L	15.699	527.55	ppb	15.699	2.98%
QC value within limits for Be 313.107 Recovery = 105.51%								
Ca 317.933Radial†	5806.7	5378.2	µg/L	65.85	5378.2	ppb	65.85	1.22%
QC value within limits for Ca 317.933Radial Recovery = 107.56%								
Cd 226.502†	19268.5	520.35	µg/L	24.694	520.35	ppb	24.694	4.75%
QC value within limits for Cd 226.502 Recovery = 104.07%								
Co 228.616†	10858.5	525.21	µg/L	28.012	525.21	ppb	28.012	5.33%

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   QC value within limits for Co 228.616  Recovery = 105.04%
Cr 267.716†            24282.7      516.61 µg/L        32.164      516.61 ppb         32.164   6.23%
   QC value within limits for Cr 267.716  Recovery = 103.32%
Cu 324.752†            75198.9      516.07 µg/L        26.005      516.07 ppb         26.005   5.04%
   QC value within limits for Cu 324.752  Recovery = 103.21%
Fe 238.204 Radial†       641.3      5521.0 µg/L         88.80      5521.0 ppb          88.80   1.61%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 110.42%
K 766.490 Radial†       7759.4      5458.3 µg/L         42.68      5458.3 ppb          42.68   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 109.17%
Mg 279.077 IEC†          588.2      5539.2 µg/L         90.55      5539.2 ppb          90.55   1.63%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.78%
Mn 257.610†           156931.1      531.14 µg/L        14.880      531.14 ppb         14.880   2.80%
   QC value within limits for Mn 257.610  Recovery = 106.23%
Mo 202.031†             5020.7      516.87 µg/L        52.904      516.87 ppb         52.904  10.24%
   QC value within limits for Mo 202.031  Recovery = 103.37%
Na 589.592 Radial†     33689.1       10937 µg/L          53.4       10937 ppb           53.4   0.49%
   QC value within limits for Na 589.592 Radial  Recovery = 109.37%
Ni 231.604†             9818.5      523.75 µg/L        27.160      523.75 ppb         27.160   5.19%
   QC value within limits for Ni 231.604  Recovery = 104.75%
P 214.914†              1248.1      2583.0 µg/L        232.69      2583.0 ppb         232.69   9.01%
   QC value within limits for P 214.914  Recovery = 103.32%
Pb 220.353†             2017.1      523.38 µg/L        44.083      523.38 ppb         44.083   8.42%
   QC value within limits for Pb 220.353  Recovery = 104.68%
S 181.975 Axial†         244.1      1052.4 µg/L         71.65      1052.4 ppb          71.65   6.81%
   QC value within limits for S 181.975 Axial  Recovery = 105.24%
Sb 206.836†              542.1      520.85 µg/L        49.726      520.85 ppb         49.726   9.55%
   QC value within limits for Sb 206.836  Recovery = 104.17%
Se 196.026†              339.3      525.59 µg/L        40.620      525.59 ppb         40.620   7.73%
   QC value within limits for Se 196.026  Recovery = 105.12%
SiO2†                   26822.7      5655.9 µg/L        226.38      5655.9 ppb         226.38   4.00%
   QC value within limits for SiO2  Recovery = 105.77%
Si 251.611†             32745.6      2651.0 µg/L        102.77      2651.0 ppb         102.77   3.88%
   QC value within limits for Si 251.611  Recovery = 106.04%
Sn 189.927†             1164.8      518.96 µg/L        56.688      518.96 ppb         56.688  10.92%
   QC value within limits for Sn 189.927  Recovery = 103.79%
Sr 421.552†            54129.5      547.34 µg/L         2.744      547.34 ppb          2.744   0.50%
   QC value within limits for Sr 421.552  Recovery = 109.47%
Ti 334.940†           223446.1      527.09 µg/L        17.181      527.09 ppb         17.181   3.26%
   QC value within limits for Ti 334.940  Recovery = 105.42%
Tl 190.801†              375.9      527.55 µg/L        25.902      527.55 ppb         25.902   4.91%
   QC value within limits for Tl 190.801  Recovery = 105.51%
U 409.014†              6018.7      522.47 µg/L        33.585      522.47 ppb         33.585   6.43%
   QC value within limits for U 409.014  Recovery = 104.49%
V 292.402†             50126.7      522.27 µg/L        28.411      522.27 ppb         28.411   5.44%
   QC value within limits for V 292.402  Recovery = 104.45%
Zn 213.857†            20889.0      519.75 µg/L        25.314      519.75 ppb         25.314   4.87%
   QC value within limits for Zn 213.857  Recovery = 103.95%
QC Failed.  Continue with analysis.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 12:48:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58980.0	58980.0	102	%			12:49:07
1	Al 396.153Radial†	-17.8	5.4	3.9529	µg/L	3.9529	ppb	12:49:07
1	Ca 317.933Radial†	200.1	1.5	1.3584	µg/L	1.3584	ppb	12:49:27
1	Fe 238.204 Radial†	17.4	-0.2	-1.3703	µg/L	-1.3703	ppb	12:49:27
1	K 766.490 Radial†	155.4	-23.9	-16.832	µg/L	-16.832	ppb	12:49:07
1	Mg 279.077 IEC†	11.5	-2.1	-19.777	µg/L	-19.777	ppb	12:49:27
1	Na 589.592 Radial†	540.7	-34.1	-11.069	µg/L	-11.069	ppb	12:49:07
1	Sr 421.552†	48.4	14.3	0.1446	µg/L	0.1446	ppb	12:49:07
1	Sc 361.383	2079602.5	2079602.5	101.72	%			12:50:26
1	Y 371.029	1416473.3	1416473.3	100.82	%			12:50:26
1	Ag 328.068†	-551.9	-18.9	-0.1477	µg/L	-0.1477	ppb	12:50:31
1	As 188.979†	-2.5	-4.0	-7.6285	µg/L	-7.6285	ppb	12:50:51
1	B 249.677†	321.3	19.1	0.8311	µg/L	0.8311	ppb	12:50:51
1	Ba 233.527†	-14.5	3.7	0.0957	µg/L	0.0957	ppb	12:50:51
1	Be 313.107†	-3259.0	-236.3	-0.1513	µg/L	-0.1513	ppb	12:50:31
1	Cd 226.502†	-140.0	0.3	0.0076	µg/L	0.0076	ppb	12:50:51
1	Co 228.616†	-17.3	-12.0	-0.5815	µg/L	-0.5815	ppb	12:50:51
1	Cr 267.716†	-39.2	-6.3	-0.1345	µg/L	-0.1345	ppb	12:50:31
1	Cu 324.752†	2597.6	16.0	0.1097	µg/L	0.1097	ppb	12:50:31
1	Mn 257.610†	-143.3	95.7	0.3243	µg/L	0.3243	ppb	12:50:51
1	Mo 202.031†	-2.3	4.6	0.4766	µg/L	0.4766	ppb	12:50:51
1	Ni 231.604†	284.3	-27.3	-1.4588	µg/L	-1.4588	ppb	12:50:51
1	P 214.914†	28.7	6.7	14.054	µg/L	14.054	ppb	12:50:51
1	Pb 220.353†	99.0	3.8	0.9888	µg/L	0.9888	ppb	12:50:51
1	S 181.975 Axial†	18.2	4.1	17.496	µg/L	17.496	ppb	12:50:51
1	Sb 206.836†	26.6	6.0	5.7159	µg/L	5.7159	ppb	12:50:51
1	Se 196.026†	9.4	-6.6	-10.018	µg/L	-10.018	ppb	12:50:51
1	SiO2†	1456.7	87.5	18.452	µg/L	18.452	ppb	12:50:31
1	Si 251.611†	398.7	77.4	6.2693	µg/L	6.2693	ppb	12:50:51
1	Sn 189.927†	-0.3	-3.3	-1.4911	µg/L	-1.4911	ppb	12:50:51
1	Ti 334.940†	235.8	101.2	0.2406	µg/L	0.2406	ppb	12:50:31
1	Tl 190.801†	-25.6	-2.2	-3.0943	µg/L	-3.0943	ppb	12:50:51
1	U 409.014†	-16.5	27.5	2.3921	µg/L	2.3921	ppb	12:50:31
1	V 292.402†	-33.2	-0.5	0.0002	µg/L	0.0002	ppb	12:50:31
1	Zn 213.857†	499.9	-27.4	-0.6785	µg/L	-0.6785	ppb	12:50:51
2	Sc RADIAL	57348.8	57348.8	98.8	%			12:49:32
2	Al 396.153Radial†	-29.9	-7.4	-5.4461	µg/L	-5.4461	ppb	12:49:32
2	Ca 317.933Radial†	188.3	-4.9	-4.5247	µg/L	-4.5247	ppb	12:49:53
2	Fe 238.204 Radial†	16.1	-1.0	-8.2885	µg/L	-8.2885	ppb	12:49:53
2	K 766.490 Radial†	194.5	20.0	14.072	µg/L	14.072	ppb	12:49:32
2	Mg 279.077 IEC†	12.1	-1.2	-11.315	µg/L	-11.315	ppb	12:49:53
2	Na 589.592 Radial†	475.0	-85.4	-27.735	µg/L	-27.735	ppb	12:49:32
2	Sr 421.552†	64.3	31.7	0.3208	µg/L	0.3208	ppb	12:49:32
2	Sc 361.383	2081519.0	2081519.0	101.82	%			12:50:57
2	Y 371.029	1417928.6	1417928.6	100.92	%			12:50:57
2	Ag 328.068†	-567.8	-34.0	-0.2645	µg/L	-0.2645	ppb	12:51:02
2	As 188.979†	0.4	-1.1	-2.1141	µg/L	-2.1141	ppb	12:51:22
2	B 249.677†	315.8	13.5	0.5887	µg/L	0.5887	ppb	12:51:22
2	Ba 233.527†	-15.9	2.3	0.0604	µg/L	0.0604	ppb	12:51:22
2	Be 313.107†	-3347.7	-320.4	-0.2051	µg/L	-0.2051	ppb	12:51:02
2	Cd 226.502†	-135.9	4.5	0.1204	µg/L	0.1204	ppb	12:51:22
2	Co 228.616†	-19.1	-13.8	-0.6653	µg/L	-0.6653	ppb	12:51:22
2	Cr 267.716†	-33.6	-0.8	-0.0167	µg/L	-0.0167	ppb	12:51:02
2	Cu 324.752†	2566.7	-16.7	-0.1154	µg/L	-0.1154	ppb	12:51:02
2	Mn 257.610†	-135.9	103.1	0.3480	µg/L	0.3480	ppb	12:51:22
2	Mo 202.031†	9.5	16.2	1.6628	µg/L	1.6628	ppb	12:51:22
2	Ni 231.604†	296.8	-15.2	-0.8122	µg/L	-0.8122	ppb	12:51:22
2	P 214.914†	27.7	5.7	11.920	µg/L	11.920	ppb	12:51:22
2	Pb 220.353†	92.4	-2.8	-0.7140	µg/L	-0.7140	ppb	12:51:22

2	S 181.975 Axial†	14.8	0.7	2.9957 µg/L	2.9957 ppb	12:51:22
2	Sb 206.836†	25.6	4.9	4.7572 µg/L	4.7572 ppb	12:51:22
2	Se 196.026†	9.4	-6.6	-10.063 µg/L	-10.063 ppb	12:51:22
2	SiO2†	1407.9	38.3	8.0743 µg/L	8.0743 ppb	12:51:02
2	Si 251.611†	428.1	105.9	8.5774 µg/L	8.5774 ppb	12:51:22
2	Sn 189.927†	-0.2	-3.3	-1.4823 µg/L	-1.4823 ppb	12:51:22
2	Ti 334.940†	246.1	111.1	0.2631 µg/L	0.2631 ppb	12:51:02
2	Tl 190.801†	-23.3	0.0	0.0566 µg/L	0.0566 ppb	12:51:22
2	U 409.014†	-13.4	30.5	2.6539 µg/L	2.6539 ppb	12:51:02
2	V 292.402†	-3.3	28.8	0.3111 µg/L	0.3111 ppb	12:51:02
2	Zn 213.857†	497.1	-30.6	-0.7629 µg/L	-0.7629 ppb	12:51:22
3	Sc RADIAL	58272.6	58272.6	100 %		12:49:58
3	Al 396.153Radial†	1.8	24.7	18.151 µg/L	18.151 ppb	12:49:58
3	Ca 317.933Radial†	196.5	0.2	0.2272 µg/L	0.2272 ppb	12:50:18
3	Fe 238.204 Radial†	17.6	0.2	2.0782 µg/L	2.0782 ppb	12:50:18
3	K 766.490 Radial†	129.9	-47.5	-33.436 µg/L	-33.436 ppb	12:49:58
3	Mg 279.077 IEC†	10.5	-3.0	-28.125 µg/L	-28.125 ppb	12:50:18
3	Na 589.592 Radial†	524.8	-43.5	-14.107 µg/L	-14.107 ppb	12:49:58
3	Sr 421.552†	22.6	-10.8	-0.1096 µg/L	-0.1096 ppb	12:49:58
3	Sc 361.383	2093221.5	2093221.5	102.39 %		12:51:28
3	Y 371.029	1427391.0	1427391.0	101.60 %		12:51:28
3	Ag 328.068†	-586.7	-49.3	-0.3842 µg/L	-0.3842 ppb	12:51:33
3	As 188.979†	-0.5	-2.0	-3.7808 µg/L	-3.7808 ppb	12:51:54
3	B 249.677†	311.6	7.6	0.3272 µg/L	0.3272 ppb	12:51:54
3	Ba 233.527†	-17.7	0.7	0.0172 µg/L	0.0172 ppb	12:51:54
3	Be 313.107†	-3353.0	-307.2	-0.1966 µg/L	-0.1966 ppb	12:51:33
3	Cd 226.502†	-142.7	-1.4	-0.0382 µg/L	-0.0382 ppb	12:51:54
3	Co 228.616†	-15.8	-10.4	-0.5022 µg/L	-0.5022 ppb	12:51:54
3	Cr 267.716†	-38.6	-5.5	-0.1170 µg/L	-0.1170 ppb	12:51:33
3	Cu 324.752†	2585.6	-12.2	-0.0836 µg/L	-0.0836 ppb	12:51:33
3	Mn 257.610†	-139.0	100.8	0.3424 µg/L	0.3424 ppb	12:51:54
3	Mo 202.031†	-2.4	4.5	0.4670 µg/L	0.4670 ppb	12:51:54
3	Ni 231.604†	304.6	-9.3	-0.4952 µg/L	-0.4952 ppb	12:51:54
3	P 214.914†	38.0	15.5	32.744 µg/L	32.744 ppb	12:51:54
3	Pb 220.353†	91.6	-4.1	-1.0588 µg/L	-1.0588 ppb	12:51:54
3	S 181.975 Axial†	13.3	-0.8	-3.3478 µg/L	-3.3478 ppb	12:51:54
3	Sb 206.836†	22.5	1.8	1.7316 µg/L	1.7316 ppb	12:51:54
3	Se 196.026†	5.9	-10.1	-15.380 µg/L	-15.380 ppb	12:51:54
3	SiO2†	1450.7	72.3	15.252 µg/L	15.252 ppb	12:51:33
3	Si 251.611†	419.6	95.4	7.7212 µg/L	7.7212 ppb	12:51:54
3	Sn 189.927†	-0.1	-3.2	-1.4145 µg/L	-1.4145 ppb	12:51:54
3	Ti 334.940†	173.7	39.1	0.0945 µg/L	0.0945 ppb	12:51:33
3	Tl 190.801†	-20.9	2.5	3.4698 µg/L	3.4698 ppb	12:51:54
3	U 409.014†	-89.9	-44.1	-3.8339 µg/L	-3.8339 ppb	12:51:33
3	V 292.402†	-9.8	22.5	0.2314 µg/L	0.2314 ppb	12:51:33
3	Zn 213.857†	496.3	-34.2	-0.8521 µg/L	-0.8521 ppb	12:51:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2084781.0	101.98	%	0.361				0.35%
Sc RADIAL	58200.5	100	%	1.4				1.41%
Y 371.029	1420597.6	101.11	%	0.422				0.42%
Ag 328.068†	-34.0	-0.2655	µg/L	0.11828	-0.2655	ppb	0.11828	44.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.6	5.5524	µg/L	11.87937	5.5524	ppb	11.87937	213.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.5078	µg/L	2.82818	-4.5078	ppb	2.82818	62.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	13.4	0.5823	µg/L	0.25204	0.5823	ppb	0.25204	43.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.2	0.0578	µg/L	0.03932	0.0578	ppb	0.03932	68.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-288.0	-0.1844	µg/L	0.02895	-0.1844	ppb	0.02895	15.70%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.1	-0.9797	µg/L	3.12174	-0.9797	ppb	3.12174	318.64%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.1	0.0300	µg/L	0.08163	0.0300	ppb	0.08163	272.41%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-12.0	-0.5830	µg/L	0.08159	-0.5830	ppb	0.08159	13.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.2     -0.0894 µg/L       0.06357     -0.0894 ppb        0.06357  71.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -4.3     -0.0298 µg/L       0.12180     -0.0298 ppb        0.12180 409.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -2.5268 µg/L       5.27926     -2.5268 ppb        5.27926 208.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -17.2     -12.065 µg/L       24.1099     -12.065 ppb        24.1099 199.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.1     -19.739 µg/L        8.4050     -19.739 ppb         8.4050  42.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                99.9      0.3382 µg/L       0.01240      0.3382 ppb        0.01240   3.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.4      0.8688 µg/L       0.68766      0.8688 ppb        0.68766  79.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -54.3     -17.637 µg/L        8.8763     -17.637 ppb         8.8763  50.33%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -17.3     -0.9221 µg/L       0.49110     -0.9221 ppb        0.49110  53.26%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  9.3      19.573 µg/L       11.4562      19.573 ppb        11.4562  58.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.0     -0.2613 µg/L       1.09629     -0.2613 ppb        1.09629 419.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      5.7146 µg/L      10.68458      5.7146 ppb       10.68458 186.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.2      4.0682 µg/L       2.07959      4.0682 ppb        2.07959  51.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.8     -11.821 µg/L        3.0827     -11.821 ppb         3.0827  26.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      66.0      13.926 µg/L        5.3142      13.926 ppb         5.3142  38.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                92.9      7.5226 µg/L       1.16676      7.5226 ppb        1.16676  15.51%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.3     -1.4627 µg/L       0.04190     -1.4627 ppb        0.04190   2.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.7      0.1186 µg/L       0.21635      0.1186 ppb        0.21635 182.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                83.8      0.1994 µg/L       0.09156      0.1994 ppb        0.09156  45.92%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.1      0.1440 µg/L       3.28294      0.1440 ppb        3.28294 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  4.6      0.4040 µg/L       3.67250      0.4040 ppb        3.67250 909.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 16.9      0.1809 µg/L       0.16146      0.1809 ppb        0.16146  89.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -30.7     -0.7645 µg/L       0.08682     -0.7645 ppb        0.08682  11.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 13:27:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	60651.9	60651.9	105	%			13:28:13
1	Al 396.153Radial†	6950.0	6673.4	4895.5	µg/L	4895.5	ppb	13:28:13
1	Ca 317.933Radial†	5772.1	5328.0	4934.8	µg/L	4934.8	ppb	13:28:33
1	Fe 238.204 Radial†	619.2	575.2	4952.6	µg/L	4952.6	ppb	13:28:33
1	K 766.490 Radial†	7545.2	7043.1	4954.5	µg/L	4954.5	ppb	13:28:13
1	Mg 279.077 IEC†	564.7	526.9	4962.6	µg/L	4962.6	ppb	13:28:33
1	Na 589.592 Radial†	32150.1	30198.4	9803.5	µg/L	9803.5	ppb	13:28:13
1	Sr 421.552†	50898.1	48671.3	492.15	µg/L	492.15	ppb	13:28:13
1	Sc 361.383	2104931.1	2104931.1	102.96	%			13:29:33
1	Y 371.029	1424828.3	1424828.3	101.41	%			13:29:33
1	Ag 328.068†	63870.8	62557.7	493.16	µg/L	493.16	ppb	13:29:38
1	As 188.979†	276.5	267.0	512.89	µg/L	512.89	ppb	13:29:58
1	B 249.677†	12068.3	11424.5	494.16	µg/L	494.16	ppb	13:29:38
1	Ba 233.527†	20064.6	19505.6	502.30	µg/L	502.30	ppb	13:29:38
1	Be 313.107†	803108.9	782981.3	500.89	µg/L	500.89	ppb	13:29:33
1	Cd 226.502†	18990.1	18582.0	501.85	µg/L	501.85	ppb	13:29:38
1	Co 228.616†	10811.6	10505.7	508.18	µg/L	508.18	ppb	13:29:38
1	Cr 267.716†	24148.1	23485.8	499.65	µg/L	499.65	ppb	13:29:38
1	Cu 324.752†	76859.1	72111.3	494.83	µg/L	494.83	ppb	13:29:38
1	Mn 257.610†	153096.0	148930.0	504.03	µg/L	504.03	ppb	13:29:33
1	Mo 202.031†	5055.6	4917.0	506.18	µg/L	506.18	ppb	13:29:58
1	Ni 231.604†	10110.3	9512.8	507.44	µg/L	507.44	ppb	13:29:38
1	P 214.914†	1275.4	1217.1	2520.0	µg/L	2520.0	ppb	13:29:58
1	Pb 220.353†	2107.2	1953.1	506.79	µg/L	506.79	ppb	13:29:58
1	S 181.975 Axial†	255.0	233.8	1008.1	µg/L	1008.1	ppb	13:29:58
1	Sb 206.836†	564.7	528.3	507.65	µg/L	507.65	ppb	13:29:58
1	Se 196.026†	348.4	322.5	499.12	µg/L	499.12	ppb	13:29:58
1	SiO2†	27794.1	25650.3	5408.7	µg/L	5408.7	ppb	13:29:38
1	Si 251.611†	32616.4	31364.0	2539.2	µg/L	2539.2	ppb	13:29:38
1	Sn 189.927†	1187.4	1150.2	512.44	µg/L	512.44	ppb	13:29:58
1	Ti 334.940†	218177.3	211772.6	499.57	µg/L	499.57	ppb	13:29:33
1	Tl 190.801†	347.5	360.5	505.78	µg/L	505.78	ppb	13:29:58
1	U 409.014†	5836.4	5712.2	495.93	µg/L	495.93	ppb	13:29:38
1	V 292.402†	49555.9	48162.9	501.85	µg/L	501.85	ppb	13:29:38
1	Zn 213.857†	21280.8	20150.0	501.39	µg/L	501.39	ppb	13:29:38
2	Sc RADIAL	60368.4	60368.4	104	%			13:28:38
2	Al 396.153Radial†	6924.8	6680.4	4900.7	µg/L	4900.7	ppb	13:28:38
2	Ca 317.933Radial†	5743.9	5326.7	4933.6	µg/L	4933.6	ppb	13:28:58
2	Fe 238.204 Radial†	612.9	572.0	4924.9	µg/L	4924.9	ppb	13:28:58
2	K 766.490 Radial†	7431.6	6967.9	4901.5	µg/L	4901.5	ppb	13:28:38
2	Mg 279.077 IEC†	559.1	524.1	4936.0	µg/L	4936.0	ppb	13:28:58
2	Na 589.592 Radial†	31940.5	30141.4	9785.0	µg/L	9785.0	ppb	13:28:38
2	Sr 421.552†	50575.6	48590.0	491.33	µg/L	491.33	ppb	13:28:38
2	Sc 361.383	2110691.0	2110691.0	103.24	%			13:30:05
2	Y 371.029	1428002.3	1428002.3	101.64	%			13:30:05
2	Ag 328.068†	63687.9	62211.2	490.43	µg/L	490.43	ppb	13:30:10
2	As 188.979†	278.2	268.0	514.66	µg/L	514.66	ppb	13:30:30
2	B 249.677†	12037.0	11362.2	491.46	µg/L	491.46	ppb	13:30:10
2	Ba 233.527†	19963.4	19354.4	498.41	µg/L	498.41	ppb	13:30:10
2	Be 313.107†	801421.3	779218.1	498.48	µg/L	498.48	ppb	13:30:05
2	Cd 226.502†	18886.4	18431.2	497.78	µg/L	497.78	ppb	13:30:10
2	Co 228.616†	10736.7	10404.5	503.28	µg/L	503.28	ppb	13:30:10
2	Cr 267.716†	23993.8	23272.4	495.11	µg/L	495.11	ppb	13:30:10
2	Cu 324.752†	76481.2	71541.5	490.92	µg/L	490.92	ppb	13:30:10
2	Mn 257.610†	152675.6	148117.1	501.28	µg/L	501.28	ppb	13:30:05
2	Mo 202.031†	5042.0	4890.5	503.45	µg/L	503.45	ppb	13:30:30
2	Ni 231.604†	10038.5	9416.4	502.29	µg/L	502.29	ppb	13:30:10
2	P 214.914†	1282.3	1220.5	2527.5	µg/L	2527.5	ppb	13:30:30
2	Pb 220.353†	2101.8	1942.3	503.98	µg/L	503.98	ppb	13:30:30

2	S 181.975 Axial†	254.7	232.9	1003.9 µg/L	1003.9 ppb	13:30:30
2	Sb 206.836†	567.7	529.7	509.02 µg/L	509.02 ppb	13:30:30
2	Se 196.026†	347.6	320.9	496.55 µg/L	496.55 ppb	13:30:30
2	SiO2†	27644.3	25431.5	5362.5 µg/L	5362.5 ppb	13:30:10
2	Si 251.611†	32480.7	31146.1	2521.5 µg/L	2521.5 ppb	13:30:10
2	Sn 189.927†	1187.1	1146.7	510.89 µg/L	510.89 ppb	13:30:30
2	Ti 334.940†	217923.9	210948.9	497.63 µg/L	497.63 ppb	13:30:05
2	Tl 190.801†	349.8	361.7	507.45 µg/L	507.45 ppb	13:30:30
2	U 409.014†	5764.6	5627.3	488.54 µg/L	488.54 ppb	13:30:10
2	V 292.402†	49375.5	47856.8	498.65 µg/L	498.65 ppb	13:30:10
2	Zn 213.857†	21178.5	19994.4	497.53 µg/L	497.53 ppb	13:30:10
3	Sc RADIAL	59912.4	59912.4	103 %		13:29:03
3	Al 396.153Radial†	6928.9	6735.1	4942.2 µg/L	4942.2 ppb	13:29:03
3	Ca 317.933Radial†	5812.5	5435.3	5034.2 µg/L	5034.2 ppb	13:29:24
3	Fe 238.204 Radial†	622.1	585.4	5039.1 µg/L	5039.1 ppb	13:29:24
3	K 766.490 Radial†	7480.1	7069.2	4972.8 µg/L	4972.8 ppb	13:29:03
3	Mg 279.077 IEC†	574.3	542.9	5111.8 µg/L	5111.8 ppb	13:29:24
3	Na 589.592 Radial†	32031.9	30463.7	9889.6 µg/L	9889.6 ppb	13:29:03
3	Sr 421.552†	50619.6	49002.6	495.50 µg/L	495.50 ppb	13:29:03
3	Sc 361.383	2107541.1	2107541.1	103.09 %		13:30:37
3	Y 371.029	1427393.9	1427393.9	101.60 %		13:30:37
3	Ag 328.068†	61511.5	60192.3	474.43 µg/L	474.43 ppb	13:30:43
3	As 188.979†	245.4	236.6	454.40 µg/L	454.40 ppb	13:31:03
3	B 249.677†	11562.9	10919.7	472.13 µg/L	472.13 ppb	13:30:43
3	Ba 233.527†	18866.2	18318.9	471.73 µg/L	471.73 ppb	13:30:43
3	Be 313.107†	770394.0	750280.6	479.97 µg/L	479.97 ppb	13:30:37
3	Cd 226.502†	17812.9	17417.2	470.35 µg/L	470.35 ppb	13:30:43
3	Co 228.616†	10114.0	9816.0	474.76 µg/L	474.76 ppb	13:30:43
3	Cr 267.716†	22134.2	21503.3	457.48 µg/L	457.48 ppb	13:30:43
3	Cu 324.752†	72111.5	67413.4	462.65 µg/L	462.65 ppb	13:30:43
3	Mn 257.610†	146984.4	142817.4	483.37 µg/L	483.37 ppb	13:30:37
3	Mo 202.031†	4422.1	4296.5	442.33 µg/L	442.33 ppb	13:31:03
3	Ni 231.604†	9412.6	8823.9	470.69 µg/L	470.69 ppb	13:30:43
3	P 214.914†	1148.6	1092.6	2259.6 µg/L	2259.6 ppb	13:31:03
3	Pb 220.353†	1925.5	1774.3	460.32 µg/L	460.32 ppb	13:31:03
3	S 181.975 Axial†	238.5	217.6	937.85 µg/L	937.85 ppb	13:31:03
3	Sb 206.836†	510.9	475.4	456.47 µg/L	456.47 ppb	13:31:03
3	Se 196.026†	328.4	302.7	469.01 µg/L	469.01 ppb	13:31:03
3	SiO2†	26707.7	24563.0	5179.4 µg/L	5179.4 ppb	13:30:43
3	Si 251.611†	31260.1	30009.1	2429.5 µg/L	2429.5 ppb	13:30:43
3	Sn 189.927†	1027.9	994.0	442.88 µg/L	442.88 ppb	13:31:03
3	Ti 334.940†	208940.7	202550.2	477.79 µg/L	477.79 ppb	13:30:37
3	Tl 190.801†	331.3	344.3	483.14 µg/L	483.14 ppb	13:31:03
3	U 409.014†	5411.1	5292.7	459.41 µg/L	459.41 ppb	13:30:43
3	V 292.402†	46136.5	44786.4	466.48 µg/L	466.48 ppb	13:30:43
3	Zn 213.857†	19929.7	18813.8	468.11 µg/L	468.11 ppb	13:30:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2107721.1	103.10	%	0.141				0.14%
Sc RADIAL	60310.9	104	%	0.6				0.62%
Y 371.029	1426741.5	101.55	%	0.120				0.12%
Ag 328.068†	61653.7	486.01	µg/L	10.121	486.01	ppb	10.121	2.08%
QC value within limits for Ag 328.068 Recovery = 97.20%								
Al 396.153Radial†	6696.3	4912.8	µg/L	25.57	4912.8	ppb	25.57	0.52%
QC value within limits for Al 396.153Radial Recovery = 98.26%								
As 188.979†	257.2	493.98	µg/L	34.293	493.98	ppb	34.293	6.94%
QC value within limits for As 188.979 Recovery = 98.80%								
B 249.677†	11235.5	485.92	µg/L	12.014	485.92	ppb	12.014	2.47%
QC value within limits for B 249.677 Recovery = 97.18%								
Ba 233.527†	19059.7	490.81	µg/L	16.638	490.81	ppb	16.638	3.39%
QC value within limits for Ba 233.527 Recovery = 98.16%								
Be 313.107†	770826.7	493.11	µg/L	11.446	493.11	ppb	11.446	2.32%
QC value within limits for Be 313.107 Recovery = 98.62%								
Ca 317.933Radial†	5363.3	4967.5	µg/L	57.71	4967.5	ppb	57.71	1.16%
QC value within limits for Ca 317.933Radial Recovery = 99.35%								
Cd 226.502†	18143.4	489.99	µg/L	17.136	489.99	ppb	17.136	3.50%
QC value within limits for Cd 226.502 Recovery = 98.00%								
Co 228.616†	10242.1	495.40	µg/L	18.045	495.40	ppb	18.045	3.64%

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   QC value within limits for Co 228.616  Recovery = 99.08%
Cr 267.716†            22753.9      484.08 µg/L        23.150      484.08 ppb        23.150   4.78%
   QC value within limits for Cr 267.716  Recovery = 96.82%
Cu 324.752†            70355.4      482.80 µg/L        17.560      482.80 ppb        17.560   3.64%
   QC value within limits for Cu 324.752  Recovery = 96.56%
Fe 238.204 Radial†       577.5      4972.2 µg/L         59.59      4972.2 ppb         59.59   1.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.44%
K 766.490 Radial†       7026.7      4942.9 µg/L         37.00      4942.9 ppb         37.00   0.75%
   QC value within limits for K 766.490 Radial  Recovery = 98.86%
Mg 279.077 IEC†          531.3      5003.5 µg/L         94.76      5003.5 ppb         94.76   1.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.07%
Mn 257.610†           146621.5      496.23 µg/L        11.220      496.23 ppb        11.220   2.26%
   QC value within limits for Mn 257.610  Recovery = 99.25%
Mo 202.031†             4701.3      483.99 µg/L        36.104      483.99 ppb        36.104   7.46%
   QC value within limits for Mo 202.031  Recovery = 96.80%
Na 589.592 Radial†     30267.8      9826.0 µg/L         55.83      9826.0 ppb         55.83   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 98.26%
Ni 231.604†             9251.0      493.47 µg/L        19.899      493.47 ppb        19.899   4.03%
   QC value within limits for Ni 231.604  Recovery = 98.69%
P 214.914†              1176.7      2435.7 µg/L        152.54      2435.7 ppb        152.54   6.26%
   QC value within limits for P 214.914  Recovery = 97.43%
Pb 220.353†             1889.9      490.36 µg/L        26.057      490.36 ppb        26.057   5.31%
   QC value within limits for Pb 220.353  Recovery = 98.07%
S 181.975 Axial†         228.1      983.26 µg/L        39.379      983.26 ppb        39.379   4.00%
   QC value within limits for S 181.975 Axial  Recovery = 98.33%
Sb 206.836†              511.1      491.05 µg/L        29.952      491.05 ppb        29.952   6.10%
   QC value within limits for Sb 206.836  Recovery = 98.21%
Se 196.026†              315.4      488.23 µg/L        16.688      488.23 ppb        16.688   3.42%
   QC value within limits for Se 196.026  Recovery = 97.65%
SiO2†                  25215.0      5316.9 µg/L        121.26      5316.9 ppb        121.26   2.28%
   QC value within limits for SiO2  Recovery = 99.43%
Si 251.611†            30839.7      2496.7 µg/L         58.90      2496.7 ppb         58.90   2.36%
   QC value within limits for Si 251.611  Recovery = 99.87%
Sn 189.927†             1097.0      488.74 µg/L        39.718      488.74 ppb        39.718   8.13%
   QC value within limits for Sn 189.927  Recovery = 97.75%
Sr 421.552†            48754.6      492.99 µg/L         2.210      492.99 ppb         2.210   0.45%
   QC value within limits for Sr 421.552  Recovery = 98.60%
Ti 334.940†           208423.9      491.66 µg/L        12.053      491.66 ppb        12.053   2.45%
   QC value within limits for Ti 334.940  Recovery = 98.33%
Tl 190.801†              355.5      498.79 µg/L        13.579      498.79 ppb        13.579   2.72%
   QC value within limits for Tl 190.801  Recovery = 99.76%
U 409.014†              5544.1      481.29 µg/L        19.306      481.29 ppb        19.306   4.01%
   QC value within limits for U 409.014  Recovery = 96.26%
V 292.402†             46935.3      488.99 µg/L        19.564      488.99 ppb        19.564   4.00%
   QC value within limits for V 292.402  Recovery = 97.80%
Zn 213.857†            19652.7      489.01 µg/L        18.203      489.01 ppb        18.203   3.72%
   QC value within limits for Zn 213.857  Recovery = 97.80%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 13:31:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59451.7	59451.7	102	%			13:31:43
1	Al 396.153Radial†	19.7	42.2	30.996	µg/L	30.996	ppb	13:31:43
1	Ca 317.933Radial†	195.5	-4.6	-4.2646	µg/L	-4.2646	ppb	13:32:03
1	Fe 238.204 Radial†	18.0	0.4	3.0782	µg/L	3.0782	ppb	13:32:03
1	K 766.490 Radial†	173.9	-7.1	-4.9988	µg/L	-4.9988	ppb	13:31:43
1	Mg 279.077 IEC†	11.8	-1.9	-18.070	µg/L	-18.070	ppb	13:32:03
1	Na 589.592 Radial†	495.0	-82.9	-26.904	µg/L	-26.904	ppb	13:31:43
1	Sr 421.552†	49.9	15.4	0.1556	µg/L	0.1556	ppb	13:31:43
1	Sc 361.383	2092807.8	2092807.8	102.37	%			13:33:01
1	Y 371.029	1421278.8	1421278.8	101.16	%			13:33:01
1	Ag 328.068†	-550.0	-13.6	-0.1047	µg/L	-0.1047	ppb	13:33:07
1	As 188.979†	-2.9	-4.3	-8.2822	µg/L	-8.2822	ppb	13:33:27
1	B 249.677†	334.5	30.0	1.3024	µg/L	1.3024	ppb	13:33:27
1	Ba 233.527†	-17.6	0.8	0.0204	µg/L	0.0204	ppb	13:33:27
1	Be 313.107†	-3503.7	-455.1	-0.2913	µg/L	-0.2913	ppb	13:33:07
1	Cd 226.502†	-134.5	6.5	0.1749	µg/L	0.1749	ppb	13:33:27
1	Co 228.616†	-8.8	-3.6	-0.1735	µg/L	-0.1735	ppb	13:33:27
1	Cr 267.716†	-28.9	3.9	0.0839	µg/L	0.0839	ppb	13:33:27
1	Cu 324.752†	2622.3	24.0	0.1652	µg/L	0.1652	ppb	13:33:07
1	Mn 257.610†	-134.8	104.9	0.3559	µg/L	0.3559	ppb	13:33:27
1	Mo 202.031†	-5.7	1.3	0.1364	µg/L	0.1364	ppb	13:33:27
1	Ni 231.604†	292.7	-20.9	-1.1142	µg/L	-1.1142	ppb	13:33:27
1	P 214.914†	29.2	7.0	14.648	µg/L	14.648	ppb	13:33:27
1	Pb 220.353†	100.7	4.9	1.2593	µg/L	1.2593	ppb	13:33:27
1	S 181.975 Axial†	17.4	3.2	13.729	µg/L	13.729	ppb	13:33:27
1	Sb 206.836†	28.0	7.2	6.8595	µg/L	6.8595	ppb	13:33:27
1	Se 196.026†	19.2	2.9	4.4980	µg/L	4.4980	ppb	13:33:27
1	SiO2†	1426.0	48.5	10.236	µg/L	10.236	ppb	13:33:07
1	Si 251.611†	375.1	52.0	4.2087	µg/L	4.2087	ppb	13:33:27
1	Sn 189.927†	1.7	-1.4	-0.6313	µg/L	-0.6313	ppb	13:33:27
1	Ti 334.940†	255.7	119.2	0.2827	µg/L	0.2827	ppb	13:33:07
1	Tl 190.801†	-24.5	-1.0	-1.3973	µg/L	-1.3973	ppb	13:33:27
1	U 409.014†	-1.2	42.5	3.6947	µg/L	3.6947	ppb	13:33:07
1	V 292.402†	-9.6	22.7	0.2386	µg/L	0.2386	ppb	13:33:07
1	Zn 213.857†	518.2	-12.6	-0.3114	µg/L	-0.3114	ppb	13:33:27
2	Sc RADIAL	59527.2	59527.2	103	%			13:32:08
2	Al 396.153Radial†	9.3	32.0	23.485	µg/L	23.485	ppb	13:32:08
2	Ca 317.933Radial†	201.2	0.7	0.6684	µg/L	0.6684	ppb	13:32:28
2	Fe 238.204 Radial†	18.2	0.5	3.9660	µg/L	3.9660	ppb	13:32:28
2	K 766.490 Radial†	174.0	-7.3	-5.1055	µg/L	-5.1055	ppb	13:32:08
2	Mg 279.077 IEC†	16.9	3.0	28.367	µg/L	28.367	ppb	13:32:28
2	Na 589.592 Radial†	544.4	-35.4	-11.494	µg/L	-11.494	ppb	13:32:08
2	Sr 421.552†	78.1	42.8	0.4327	µg/L	0.4327	ppb	13:32:08
2	Sc 361.383	2089852.0	2089852.0	102.22	%			13:33:33
2	Y 371.029	1419077.9	1419077.9	101.00	%			13:33:33
2	Ag 328.068†	-634.7	-97.2	-0.7587	µg/L	-0.7587	ppb	13:33:38
2	As 188.979†	0.6	-0.9	-1.7885	µg/L	-1.7885	ppb	13:33:58
2	B 249.677†	342.7	38.5	1.6683	µg/L	1.6683	ppb	13:33:58
2	Ba 233.527†	-22.3	-3.8	-0.0978	µg/L	-0.0978	ppb	13:33:58
2	Be 313.107†	-3515.9	-471.9	-0.3021	µg/L	-0.3021	ppb	13:33:38
2	Cd 226.502†	-137.2	3.8	0.1009	µg/L	0.1009	ppb	13:33:58
2	Co 228.616†	-18.9	-13.5	-0.6544	µg/L	-0.6544	ppb	13:33:58
2	Cr 267.716†	-27.1	5.7	0.1204	µg/L	0.1204	ppb	13:33:58
2	Cu 324.752†	2661.6	66.2	0.4540	µg/L	0.4540	ppb	13:33:38
2	Mn 257.610†	-135.5	104.1	0.3514	µg/L	0.3514	ppb	13:33:58
2	Mo 202.031†	3.8	10.6	1.0902	µg/L	1.0902	ppb	13:33:58
2	Ni 231.604†	297.3	-15.9	-0.8478	µg/L	-0.8478	ppb	13:33:58
2	P 214.914†	27.0	4.8	10.075	µg/L	10.075	ppb	13:33:58
2	Pb 220.353†	95.4	-0.2	-0.0508	µg/L	-0.0508	ppb	13:33:58

2	S 181.975 Axial†	19.9	5.6	24.296 µg/L	24.296 ppb	13:33:58
2	Sb 206.836†	26.3	5.6	5.3815 µg/L	5.3815 ppb	13:33:58
2	Se 196.026†	17.5	1.2	1.8676 µg/L	1.8676 ppb	13:33:58
2	SiO2†	1430.0	54.4	11.470 µg/L	11.470 ppb	13:33:38
2	Si 251.611†	370.4	47.9	3.8739 µg/L	3.8739 ppb	13:33:58
2	Sn 189.927†	-0.3	-3.3	-1.4823 µg/L	-1.4823 ppb	13:33:58
2	Ti 334.940†	245.2	109.2	0.2556 µg/L	0.2556 ppb	13:33:38
2	Tl 190.801†	-18.6	4.7	6.5586 µg/L	6.5586 ppb	13:33:58
2	U 409.014†	-13.2	30.8	2.6790 µg/L	2.6790 ppb	13:33:38
2	V 292.402†	-4.4	27.8	0.2979 µg/L	0.2979 ppb	13:33:38
2	Zn 213.857†	512.0	-18.0	-0.4505 µg/L	-0.4505 ppb	13:33:58
3	Sc RADIAL	59720.1	59720.1	103 %		13:32:34
3	Al 396.153Radial†	10.2	32.8	24.113 µg/L	24.113 ppb	13:32:34
3	Ca 317.933Radial†	198.8	-2.3	-2.0898 µg/L	-2.0898 ppb	13:32:54
3	Fe 238.204 Radial†	16.3	-1.5	-12.616 µg/L	-12.616 ppb	13:32:54
3	K 766.490 Radial†	152.3	-28.9	-20.332 µg/L	-20.332 ppb	13:32:34
3	Mg 279.077 IEC†	10.6	-3.1	-29.078 µg/L	-29.078 ppb	13:32:54
3	Na 589.592 Radial†	516.6	-64.1	-20.818 µg/L	-20.818 ppb	13:32:34
3	Sr 421.552†	29.1	-5.1	-0.0512 µg/L	-0.0512 ppb	13:32:34
3	Sc 361.383	2068059.9	2068059.9	101.16 %		13:34:04
3	Y 371.029	1404459.5	1404459.5	99.963 %		13:34:04
3	Ag 328.068†	-633.0	-102.1	-0.8001 µg/L	-0.8001 ppb	13:34:09
3	As 188.979†	-0.7	-2.1	-4.1037 µg/L	-4.1037 ppb	13:34:29
3	B 249.677†	345.3	44.6	1.9406 µg/L	1.9406 ppb	13:34:29
3	Ba 233.527†	-21.3	-3.0	-0.0781 µg/L	-0.0781 ppb	13:34:29
3	Be 313.107†	-3575.6	-567.1	-0.3630 µg/L	-0.3630 ppb	13:34:09
3	Cd 226.502†	-139.4	0.2	0.0056 µg/L	0.0056 ppb	13:34:29
3	Co 228.616†	-16.3	-11.1	-0.5368 µg/L	-0.5368 ppb	13:34:29
3	Cr 267.716†	-43.2	-10.5	-0.2228 µg/L	-0.2228 ppb	13:34:29
3	Cu 324.752†	2586.2	19.1	0.1289 µg/L	0.1289 ppb	13:34:09
3	Mn 257.610†	-148.0	90.3	0.3047 µg/L	0.3047 ppb	13:34:29
3	Mo 202.031†	2.3	9.2	0.9421 µg/L	0.9421 ppb	13:34:29
3	Ni 231.604†	299.4	-10.8	-0.5754 µg/L	-0.5754 ppb	13:34:29
3	P 214.914†	36.3	14.3	30.237 µg/L	30.237 ppb	13:34:29
3	Pb 220.353†	104.7	10.0	2.5986 µg/L	2.5986 ppb	13:34:29
3	S 181.975 Axial†	15.8	1.8	7.8126 µg/L	7.8126 ppb	13:34:29
3	Sb 206.836†	29.7	9.2	8.7746 µg/L	8.7746 ppb	13:34:29
3	Se 196.026†	17.5	1.4	2.1372 µg/L	2.1372 ppb	13:34:29
3	SiO2†	1412.7	52.0	10.968 µg/L	10.968 ppb	13:34:09
3	Si 251.611†	391.1	72.2	5.8448 µg/L	5.8448 ppb	13:34:29
3	Sn 189.927†	-1.4	-4.5	-2.0027 µg/L	-2.0027 ppb	13:34:29
3	Ti 334.940†	200.2	67.3	0.1611 µg/L	0.1611 ppb	13:34:09
3	Tl 190.801†	-28.4	-5.1	-7.0623 µg/L	-7.0623 ppb	13:34:29
3	U 409.014†	-30.0	14.0	1.2222 µg/L	1.2222 ppb	13:34:09
3	V 292.402†	-32.0	0.5	0.0113 µg/L	0.0113 ppb	13:34:09
3	Zn 213.857†	511.3	-13.4	-0.3320 µg/L	-0.3320 ppb	13:34:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2083573.2	101.92	%	0.661				0.65%
Sc RADIAL	59566.3	103	%	0.2				0.23%
Y 371.029	1414938.7	100.71	%	0.651				0.65%
Ag 328.068†	-71.0	-0.5545	µg/L	0.39012	-0.5545	ppb	0.39012	70.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	35.7	26.198	µg/L	4.1673	26.198	ppb	4.1673	15.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.5	-4.7248	µg/L	3.29115	-4.7248	ppb	3.29115	69.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	37.7	1.6371	µg/L	0.32023	1.6371	ppb	0.32023	19.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.0	-0.0518	µg/L	0.06335	-0.0518	ppb	0.06335	122.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-498.1	-0.3188	µg/L	0.03864	-0.3188	ppb	0.03864	12.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.0	-1.8953	µg/L	2.47222	-1.8953	ppb	2.47222	130.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	3.5	0.0938	µg/L	0.08492	0.0938	ppb	0.08492	90.54%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-9.4	-0.4549	µg/L	0.25069	-0.4549	ppb	0.25069	55.11%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.3     -0.0062 µg/L      0.18851     -0.0062 ppb       0.18851 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              36.4      0.2494 µg/L      0.17817      0.2494 ppb       0.17817  71.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.2     -1.8573 µg/L      9.32786     -1.8573 ppb       9.32786 502.24%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -14.4     -10.145 µg/L       8.8218     -10.145 ppb        8.8218  86.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -6.2605 µg/L     30.48948     -6.2605 ppb      30.48948 487.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              99.8      0.3373 µg/L      0.02834      0.3373 ppb       0.02834   8.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.0      0.7229 µg/L      0.51327      0.7229 ppb       0.51327  71.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -60.8     -19.739 µg/L       7.7615     -19.739 ppb        7.7615  39.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -15.8     -0.8458 µg/L      0.26939     -0.8458 ppb       0.26939  31.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                8.7      18.320 µg/L      10.5709      18.320 ppb       10.5709  57.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.9      1.2690 µg/L      1.32469      1.2690 ppb       1.32469 104.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.5      15.279 µg/L       8.3504      15.279 ppb        8.3504  54.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.3      7.0052 µg/L      1.70126      7.0052 ppb       1.70126  24.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.9      2.8343 µg/L      1.44714      2.8343 ppb       1.44714  51.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    51.7      10.891 µg/L       0.6204      10.891 ppb        0.6204   5.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              57.3      4.6425 µg/L      1.05464      4.6425 ppb       1.05464  22.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.1     -1.3721 µg/L      0.69231     -1.3721 ppb       0.69231  50.46%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              17.7      0.1790 µg/L      0.24277      0.1790 ppb       0.24277 135.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              98.6      0.2331 µg/L      0.06384      0.2331 ppb       0.06384  27.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.5     -0.6336 µg/L      6.84252     -0.6336 ppb       6.84252 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               29.1      2.5320 µg/L      1.24277      2.5320 ppb       1.24277  49.08%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               17.0      0.1826 µg/L      0.15129      0.1826 ppb       0.15129  82.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -14.7     -0.3646 µg/L      0.07506     -0.3646 ppb       0.07506  20.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/17/2010 13:52:45
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502

Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021710D.sif
Batch ID:
Results Data Set: 021710
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 13:52:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	60391.9	60391.9	104	%			13:53:24
1	Al 396.153Radial†	6869.6	6624.7	4859.8	µg/L	4859.8	ppb	13:53:24
1	Ca 317.933Radial†	5654.2	5238.4	4851.8	µg/L	4851.8	ppb	13:53:44
1	Fe 238.204 Radial†	602.6	561.8	4837.3	µg/L	4837.3	ppb	13:53:44
1	K 766.490 Radial†	7437.3	6970.5	4903.4	µg/L	4903.4	ppb	13:53:24
1	Mg 279.077 IEC†	557.6	522.4	4920.2	µg/L	4920.2	ppb	13:53:44
1	Na 589.592 Radial†	31925.5	30115.0	9776.4	µg/L	9776.4	ppb	13:53:24
1	Sr 421.552†	50271.9	48279.2	488.18	µg/L	488.18	ppb	13:53:24
1	Sc 361.383	2104799.5	2104799.5	102.95	%			13:54:43
1	Y 371.029	1426284.2	1426284.2	101.52	%			13:54:43
1	Ag 328.068†	63581.5	62280.5	490.97	µg/L	490.97	ppb	13:54:49
1	As 188.979†	273.5	264.2	507.38	µg/L	507.38	ppb	13:55:09
1	B 249.677†	11892.9	11254.8	486.85	µg/L	486.85	ppb	13:54:49
1	Ba 233.527†	19864.5	19312.4	497.33	µg/L	497.33	ppb	13:54:49
1	Be 313.107†	790749.9	771025.7	493.24	µg/L	493.24	ppb	13:54:43
1	Cd 226.502†	18809.3	18407.5	497.15	µg/L	497.15	ppb	13:54:49
1	Co 228.616†	10696.3	10394.4	502.79	µg/L	502.79	ppb	13:54:49
1	Cr 267.716†	23968.9	23313.3	495.98	µg/L	495.98	ppb	13:54:49
1	Cu 324.752†	76350.7	71622.1	491.46	µg/L	491.46	ppb	13:54:49
1	Mn 257.610†	150625.4	146539.5	495.94	µg/L	495.94	ppb	13:54:43
1	Mo 202.031†	5008.6	4871.8	501.52	µg/L	501.52	ppb	13:55:09
1	Ni 231.604†	9976.1	9383.1	500.51	µg/L	500.51	ppb	13:54:49
1	P 214.914†	1271.1	1213.0	2511.6	µg/L	2511.6	ppb	13:55:09
1	Pb 220.353†	2081.6	1928.3	500.34	µg/L	500.34	ppb	13:55:09
1	S 181.975 Axial†	250.3	229.3	988.48	µg/L	988.48	ppb	13:55:09
1	Sb 206.836†	562.7	526.4	505.84	µg/L	505.84	ppb	13:55:09
1	Se 196.026†	350.0	324.1	501.20	µg/L	501.20	ppb	13:55:09
1	SiO2†	27424.4	25292.9	5333.3	µg/L	5333.3	ppb	13:54:49
1	Si 251.611†	32135.7	30899.0	2501.5	µg/L	2501.5	ppb	13:54:49
1	Sn 189.927†	1158.9	1122.5	500.14	µg/L	500.14	ppb	13:55:09
1	Ti 334.940†	215300.9	208992.0	493.01	µg/L	493.01	ppb	13:54:43
1	Tl 190.801†	347.1	360.0	505.07	µg/L	505.07	ppb	13:55:09
1	U 409.014†	5907.2	5781.4	501.96	µg/L	501.96	ppb	13:54:49
1	V 292.402†	49273.5	47891.6	499.00	µg/L	499.00	ppb	13:54:49
1	Zn 213.857†	20974.5	19853.8	494.02	µg/L	494.02	ppb	13:54:49
2	Sc RADIAL	61071.5	61071.5	105	%			13:53:49
2	Al 396.153Radial†	6889.8	6570.5	4820.0	µg/L	4820.0	ppb	13:53:49
2	Ca 317.933Radial†	5652.3	5176.1	4794.1	µg/L	4794.1	ppb	13:54:09
2	Fe 238.204 Radial†	602.1	555.0	4778.5	µg/L	4778.5	ppb	13:54:09
2	K 766.490 Radial†	7515.8	6965.6	4899.9	µg/L	4899.9	ppb	13:53:49
2	Mg 279.077 IEC†	559.2	518.0	4878.8	µg/L	4878.8	ppb	13:54:09
2	Na 589.592 Radial†	32157.6	29994.2	9737.2	µg/L	9737.2	ppb	13:53:49
2	Sr 421.552†	50897.6	48336.2	488.76	µg/L	488.76	ppb	13:53:49
2	Sc 361.383	2109226.6	2109226.6	103.17	%			13:55:16
2	Y 371.029	1429850.1	1429850.1	101.77	%			13:55:16
2	Ag 328.068†	63372.9	61948.8	488.35	µg/L	488.35	ppb	13:55:21
2	As 188.979†	278.4	268.3	515.36	µg/L	515.36	ppb	13:55:41

2	B 249.677†	11924.6	11261.4	487.16 µg/L	487.16 ppb		13:55:21
2	Ba 233.527†	19800.5	19209.9	494.68 µg/L	494.68 ppb		13:55:21
2	Be 313.107†	788661.5	767389.4	490.91 µg/L	490.91 ppb		13:55:16
2	Cd 226.502†	18685.3	18248.9	492.87 µg/L	492.87 ppb		13:55:21
2	Co 228.616†	10642.6	10320.6	499.22 µg/L	499.22 ppb		13:55:21
2	Cr 267.716†	23830.4	23130.2	492.09 µg/L	492.09 ppb		13:55:21
2	Cu 324.752†	76111.5	71234.6	488.80 µg/L	488.80 ppb		13:55:21
2	Mn 257.610†	150027.4	145652.9	492.93 µg/L	492.93 ppb		13:55:16
2	Mo 202.031†	5015.7	4868.4	501.17 µg/L	501.17 ppb		13:55:41
2	Ni 231.604†	9941.6	9329.3	497.64 µg/L	497.64 ppb		13:55:21
2	P 214.914†	1274.0	1213.3	2512.6 µg/L	2512.6 ppb		13:55:41
2	Pb 220.353†	2075.6	1918.3	497.75 µg/L	497.75 ppb		13:55:41
2	S 181.975 Axial†	251.9	230.3	992.80 µg/L	992.80 ppb		13:55:41
2	Sb 206.836†	556.8	519.6	499.34 µg/L	499.34 ppb		13:55:41
2	Se 196.026†	354.5	327.7	506.68 µg/L	506.68 ppb		13:55:41
2	SiO2†	27333.6	25149.0	5302.9 µg/L	5302.9 ppb		13:55:21
2	Si 251.611†	32054.0	30754.3	2489.8 µg/L	2489.8 ppb		13:55:21
2	Sn 189.927†	1175.1	1135.9	506.10 µg/L	506.10 ppb		13:55:41
2	Ti 334.940†	214763.2	208031.8	490.75 µg/L	490.75 ppb		13:55:16
2	Tl 190.801†	345.9	358.2	502.49 µg/L	502.49 ppb		13:55:41
2	U 409.014†	5876.9	5740.0	498.37 µg/L	498.37 ppb		13:55:21
2	V 292.402†	49016.0	47541.6	495.38 µg/L	495.38 ppb		13:55:21
2	Zn 213.857†	20901.7	19740.5	491.20 µg/L	491.20 ppb		13:55:21
3	Sc RADIAL	60421.3	60421.3	104 %			13:54:14
3	Al 396.153Radial†	6883.6	6635.0	4868.8 µg/L	4868.8 ppb		13:54:14
3	Ca 317.933Radial†	5641.2	5223.2	4837.8 µg/L	4837.8 ppb		13:54:34
3	Fe 238.204 Radial†	606.4	565.2	4866.0 µg/L	4866.0 ppb		13:54:34
3	K 766.490 Radial†	7424.4	6954.6	4892.2 µg/L	4892.2 ppb		13:54:14
3	Mg 279.077 IEC†	559.7	524.2	4936.3 µg/L	4936.3 ppb		13:54:34
3	Na 589.592 Radial†	31958.7	30132.1	9781.9 µg/L	9781.9 ppb		13:54:14
3	Sr 421.552†	50413.4	48391.6	489.32 µg/L	489.32 ppb		13:54:14
3	Sc 361.383	2108094.0	2108094.0	103.12 %			13:55:48
3	Y 371.029	1429123.5	1429123.5	101.72 %			13:55:48
3	Ag 328.068†	61551.9	60215.8	474.60 µg/L	474.60 ppb		13:55:53
3	As 188.979†	245.1	236.2	453.71 µg/L	453.71 ppb		13:56:14
3	B 249.677†	11506.0	10861.7	469.70 µg/L	469.70 ppb		13:55:53
3	Ba 233.527†	18870.9	18318.7	471.72 µg/L	471.72 ppb		13:55:53
3	Be 313.107†	767854.9	747622.2	478.27 µg/L	478.27 ppb		13:55:48
3	Cd 226.502†	17735.8	17337.9	468.22 µg/L	468.22 ppb		13:55:53
3	Co 228.616†	10031.0	9732.9	470.73 µg/L	470.73 ppb		13:55:53
3	Cr 267.716†	22055.6	21421.4	455.74 µg/L	455.74 ppb		13:55:53
3	Cu 324.752†	72181.1	67462.6	462.97 µg/L	462.97 ppb		13:55:53
3	Mn 257.610†	146470.3	142281.4	481.54 µg/L	481.54 ppb		13:55:48
3	Mo 202.031†	4362.2	4237.3	436.23 µg/L	436.23 ppb		13:56:14
3	Ni 231.604†	9369.0	8779.1	468.30 µg/L	468.30 ppb		13:55:53
3	P 214.914†	1123.2	1067.7	2207.0 µg/L	2207.0 ppb		13:56:14
3	Pb 220.353†	1882.5	1732.1	449.36 µg/L	449.36 ppb		13:56:14
3	S 181.975 Axial†	232.2	211.4	911.25 µg/L	911.25 ppb		13:56:14
3	Sb 206.836†	498.6	463.4	444.89 µg/L	444.89 ppb		13:56:14
3	Se 196.026†	327.7	302.0	467.64 µg/L	467.64 ppb		13:56:14
3	SiO2†	26337.6	24197.4	5102.3 µg/L	5102.3 ppb		13:55:53
3	Si 251.611†	30786.7	29542.0	2391.7 µg/L	2391.7 ppb		13:55:53
3	Sn 189.927†	998.8	965.5	430.17 µg/L	430.17 ppb		13:56:14
3	Ti 334.940†	208391.3	201964.2	476.42 µg/L	476.42 ppb		13:55:48
3	Tl 190.801†	321.9	335.1	470.40 µg/L	470.40 ppb		13:56:14
3	U 409.014†	5414.4	5294.5	459.60 µg/L	459.60 ppb		13:55:53
3	V 292.402†	46082.6	44722.3	465.75 µg/L	465.75 ppb		13:55:53
3	Zn 213.857†	19814.1	18696.6	465.20 µg/L	465.20 ppb		13:55:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2107373.4	103.08	%	0.112				0.11%
Sc RADIAL	60628.2	104	%	0.7				0.63%
Y 371.029	1428419.3	101.67	%	0.134				0.13%
Ag 328.068†	61481.7	484.64	µg/L	8.794	484.64	ppb	8.794	1.81%
QC value within limits for Ag 328.068 Recovery = 96.93%								
Al 396.153Radial†	6610.1	4849.5	µg/L	25.98	4849.5	ppb	25.98	0.54%
QC value within limits for Al 396.153Radial Recovery = 96.99%								
As 188.979†	256.2	492.15	µg/L	33.533	492.15	ppb	33.533	6.81%

```
   QC value within limits for As 188.979  Recovery = 98.43%
B 249.677†            11125.9      481.24 µg/L        9.990      481.24 ppb        9.990   2.08%
   QC value within limits for B 249.677  Recovery = 96.25%
Ba 233.527†           18947.0      487.91 µg/L       14.081      487.91 ppb       14.081   2.89%
   QC value within limits for Ba 233.527  Recovery = 97.58%
Be 313.107†          762012.4      487.47 µg/L        8.056      487.47 ppb        8.056   1.65%
   QC value within limits for Be 313.107  Recovery = 97.49%
Ca 317.933Radial†      5212.6      4827.9 µg/L       30.08      4827.9 ppb       30.08   0.62%
   QC value within limits for Ca 317.933Radial  Recovery = 96.56%
Cd 226.502†           17998.1      486.08 µg/L       15.613      486.08 ppb       15.613   3.21%
   QC value within limits for Cd 226.502  Recovery = 97.22%
Co 228.616†           10149.3      490.92 µg/L       17.569      490.92 ppb       17.569   3.58%
   QC value within limits for Co 228.616  Recovery = 98.18%
Cr 267.716†           22621.6      481.27 µg/L       22.196      481.27 ppb       22.196   4.61%
   QC value within limits for Cr 267.716  Recovery = 96.25%
Cu 324.752†           70106.5      481.08 µg/L       15.741      481.08 ppb       15.741   3.27%
   QC value within limits for Cu 324.752  Recovery = 96.22%
Fe 238.204 Radial†      560.7      4827.2 µg/L       44.61      4827.2 ppb       44.61   0.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.54%
K 766.490 Radial†      6963.6      4898.5 µg/L        5.71      4898.5 ppb        5.71   0.12%
   QC value within limits for K 766.490 Radial  Recovery = 97.97%
Mg 279.077 IEC†         521.5      4911.7 µg/L       29.69      4911.7 ppb       29.69   0.60%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.23%
Mn 257.610†          144824.6      490.14 µg/L        7.594      490.14 ppb        7.594   1.55%
   QC value within limits for Mn 257.610  Recovery = 98.03%
Mo 202.031†            4659.2      479.64 µg/L       37.594      479.64 ppb       37.594   7.84%
   QC value within limits for Mo 202.031  Recovery = 95.93%
Na 589.592 Radial†    30080.4      9765.2 µg/L       24.40      9765.2 ppb       24.40   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 97.65%
Ni 231.604†            9163.8      488.82 µg/L       17.827      488.82 ppb       17.827   3.65%
   QC value within limits for Ni 231.604  Recovery = 97.76%
P 214.914†             1164.7      2410.4 µg/L      176.17      2410.4 ppb      176.17   7.31%
   QC value within limits for P 214.914  Recovery = 96.42%
Pb 220.353†            1859.6      482.48 µg/L       28.717      482.48 ppb       28.717   5.95%
   QC value within limits for Pb 220.353  Recovery = 96.50%
S 181.975 Axial†        223.7      964.18 µg/L       45.885      964.18 ppb       45.885   4.76%
   QC value within limits for S 181.975 Axial  Recovery = 96.42%
Sb 206.836†             503.1      483.36 µg/L       33.471      483.36 ppb       33.471   6.92%
   QC value within limits for Sb 206.836  Recovery = 96.67%
Se 196.026†             317.9      491.84 µg/L       21.139      491.84 ppb       21.139   4.30%
   QC value within limits for Se 196.026  Recovery = 98.37%
SiO2†                  24879.8      5246.2 µg/L      125.53      5246.2 ppb      125.53   2.39%
   QC value within limits for SiO2  Recovery = 98.11%
Si 251.611†            30398.5      2461.0 µg/L       60.33      2461.0 ppb       60.33   2.45%
   QC value within limits for Si 251.611  Recovery = 98.44%
Sn 189.927†             1074.7      478.80 µg/L       42.222      478.80 ppb       42.222   8.82%
   QC value within limits for Sn 189.927  Recovery = 95.76%
Sr 421.552†            48335.7      488.75 µg/L        0.568      488.75 ppb        0.568   0.12%
   QC value within limits for Sr 421.552  Recovery = 97.75%
Ti 334.940†           206329.3      486.72 µg/L        8.996      486.72 ppb        8.996   1.85%
   QC value within limits for Ti 334.940  Recovery = 97.34%
Tl 190.801†             351.1      492.65 µg/L       19.315      492.65 ppb       19.315   3.92%
   QC value within limits for Tl 190.801  Recovery = 98.53%
U 409.014†             5605.3      486.64 µg/L       23.490      486.64 ppb       23.490   4.83%
   QC value within limits for U 409.014  Recovery = 97.33%
V 292.402†            46718.5      486.71 µg/L       18.244      486.71 ppb       18.244   3.75%
   QC value within limits for V 292.402  Recovery = 97.34%
Zn 213.857†           19430.3      483.47 µg/L       15.884      483.47 ppb       15.884   3.29%
   QC value within limits for Zn 213.857  Recovery = 96.69%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 13:56:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58559.1	58559.1	101	%			13:56:54
1	Al 396.153Radial†	-4.0	18.9	13.896	µg/L	13.896	ppb	13:56:54
1	Ca 317.933Radial†	201.3	4.1	3.7905	µg/L	3.7905	ppb	13:57:14
1	Fe 238.204 Radial†	15.7	-1.7	-14.578	µg/L	-14.578	ppb	13:57:14
1	K 766.490 Radial†	107.7	-70.1	-49.315	µg/L	-49.315	ppb	13:56:54
1	Mg 279.077 IEC†	10.5	-3.0	-27.927	µg/L	-27.927	ppb	13:57:14
1	Na 589.592 Radial†	521.7	-49.1	-15.931	µg/L	-15.931	ppb	13:56:54
1	Sr 421.552†	30.0	-3.6	-0.0366	µg/L	-0.0366	ppb	13:56:54
1	Sc 361.383	2101292.9	2101292.9	102.78	%			13:58:12
1	Y 371.029	1430566.1	1430566.1	101.82	%			13:58:12
1	Ag 328.068†	-644.0	-102.9	-0.8062	µg/L	-0.8062	ppb	13:58:18
1	As 188.979†	-3.8	-5.2	-10.001	µg/L	-10.001	ppb	13:58:38
1	B 249.677†	315.4	10.2	0.4489	µg/L	0.4489	ppb	13:58:38
1	Ba 233.527†	-25.0	-6.4	-0.1633	µg/L	-0.1633	ppb	13:58:38
1	Be 313.107†	-3186.8	-133.0	-0.0850	µg/L	-0.0850	ppb	13:58:18
1	Cd 226.502†	-138.3	3.4	0.0933	µg/L	0.0933	ppb	13:58:38
1	Co 228.616†	-10.8	-5.5	-0.2650	µg/L	-0.2650	ppb	13:58:38
1	Cr 267.716†	-20.4	12.4	0.2635	µg/L	0.2635	ppb	13:58:38
1	Cu 324.752†	2552.8	-53.8	-0.3710	µg/L	-0.3710	ppb	13:58:18
1	Mn 257.610†	-217.5	25.0	0.0836	µg/L	0.0836	ppb	13:58:38
1	Mo 202.031†	6.4	13.0	1.3423	µg/L	1.3423	ppb	13:58:38
1	Ni 231.604†	297.5	-17.3	-0.9260	µg/L	-0.9260	ppb	13:58:38
1	P 214.914†	24.0	1.8	3.8695	µg/L	3.8695	ppb	13:58:38
1	Pb 220.353†	107.7	11.3	2.9288	µg/L	2.9288	ppb	13:58:38
1	S 181.975 Axial†	15.0	0.8	3.4778	µg/L	3.4778	ppb	13:58:38
1	Sb 206.836†	25.3	4.5	4.3269	µg/L	4.3269	ppb	13:58:38
1	Se 196.026†	16.2	-0.1	-0.1649	µg/L	-0.1649	ppb	13:58:38
1	SiO2†	1365.6	-15.8	-3.3406	µg/L	-3.3406	ppb	13:58:18
1	Si 251.611†	315.3	-7.7	-0.6216	µg/L	-0.6216	ppb	13:58:38
1	Sn 189.927†	-0.3	-3.3	-1.4892	µg/L	-1.4892	ppb	13:58:38
1	Ti 334.940†	74.4	-58.2	-0.1351	µg/L	-0.1351	ppb	13:58:18
1	Tl 190.801†	-23.6	0.0	0.0214	µg/L	0.0214	ppb	13:58:38
1	U 409.014†	-25.9	18.5	1.6142	µg/L	1.6142	ppb	13:58:18
1	V 292.402†	-33.3	-0.3	0.0074	µg/L	0.0074	ppb	13:58:18
1	Zn 213.857†	486.8	-45.2	-1.1265	µg/L	-1.1265	ppb	13:58:38
2	Sc RADIAL	59107.2	59107.2	102	%			13:57:19
2	Al 396.153Radial†	-23.5	-0.2	-0.1732	µg/L	-0.1732	ppb	13:57:19
2	Ca 317.933Radial†	196.9	-2.1	-1.9455	µg/L	-1.9455	ppb	13:57:39
2	Fe 238.204 Radial†	17.8	0.3	2.2712	µg/L	2.2712	ppb	13:57:39
2	K 766.490 Radial†	176.1	-4.0	-2.8130	µg/L	-2.8130	ppb	13:57:19
2	Mg 279.077 IEC†	16.6	2.8	26.648	µg/L	26.648	ppb	13:57:39
2	Na 589.592 Radial†	487.1	-87.8	-28.516	µg/L	-28.516	ppb	13:57:19
2	Sr 421.552†	8.0	-25.5	-0.2574	µg/L	-0.2574	ppb	13:57:19
2	Sc 361.383	2091761.7	2091761.7	102.32	%			13:58:44
2	Y 371.029	1424316.5	1424316.5	101.38	%			13:58:44
2	Ag 328.068†	-542.7	-6.7	-0.0488	µg/L	-0.0488	ppb	13:58:49
2	As 188.979†	-3.9	-5.3	-10.213	µg/L	-10.213	ppb	13:59:09
2	B 249.677†	322.8	18.8	0.8139	µg/L	0.8139	ppb	13:59:09
2	Ba 233.527†	-22.4	-3.9	-0.0992	µg/L	-0.0992	ppb	13:59:09
2	Be 313.107†	-3093.1	-55.5	-0.0356	µg/L	-0.0356	ppb	13:58:49
2	Cd 226.502†	-135.5	5.6	0.1497	µg/L	0.1497	ppb	13:59:09
2	Co 228.616†	-8.4	-3.2	-0.1547	µg/L	-0.1547	ppb	13:59:09
2	Cr 267.716†	-27.2	5.7	0.1205	µg/L	0.1205	ppb	13:59:09
2	Cu 324.752†	2562.5	-33.1	-0.2263	µg/L	-0.2263	ppb	13:58:49
2	Mn 257.610†	-195.4	45.6	0.1534	µg/L	0.1534	ppb	13:59:09
2	Mo 202.031†	1.8	8.7	0.8920	µg/L	0.8920	ppb	13:59:09
2	Ni 231.604†	303.0	-10.6	-0.5670	µg/L	-0.5670	ppb	13:59:09
2	P 214.914†	29.9	7.6	16.122	µg/L	16.122	ppb	13:59:09
2	Pb 220.353†	108.1	12.1	3.1366	µg/L	3.1366	ppb	13:59:09

2	S 181.975 Axial†	16.0	1.8	7.7419 µg/L	7.7419 ppb	13:59:09
2	Sb 206.836†	26.0	5.2	5.0217 µg/L	5.0217 ppb	13:59:09
2	Se 196.026†	14.7	-1.5	-2.2743 µg/L	-2.2743 ppb	13:59:09
2	SiO2†	1369.7	-5.8	-1.2252 µg/L	-1.2252 ppb	13:58:49
2	Si 251.611†	330.5	8.6	0.6933 µg/L	0.6933 ppb	13:59:09
2	Sn 189.927†	-0.2	-3.3	-1.4806 µg/L	-1.4806 ppb	13:59:09
2	Ti 334.940†	239.6	103.6	0.2423 µg/L	0.2423 ppb	13:58:49
2	Tl 190.801†	-22.3	1.2	1.6281 µg/L	1.6281 ppb	13:59:09
2	U 409.014†	-34.1	10.3	0.8985 µg/L	0.8985 ppb	13:58:49
2	V 292.402†	20.4	52.0	0.5433 µg/L	0.5433 ppb	13:58:49
2	Zn 213.857†	494.9	-35.1	-0.8794 µg/L	-0.8794 ppb	13:59:09
3	Sc RADIAL	59526.7	59526.7	103 %		13:57:45
3	Al 396.153Radial†	-23.7	-0.2	-0.1550 µg/L	-0.1550 ppb	13:57:45
3	Ca 317.933Radial†	196.5	-3.8	-3.5601 µg/L	-3.5601 ppb	13:58:05
3	Fe 238.204 Radial†	12.7	-4.9	-41.733 µg/L	-41.733 ppb	13:58:05
3	K 766.490 Radial†	199.6	17.7	12.452 µg/L	12.452 ppb	13:57:45
3	Mg 279.077 IEC†	15.9	2.1	19.627 µg/L	19.627 ppb	13:58:05
3	Na 589.592 Radial†	524.1	-55.2	-17.906 µg/L	-17.906 ppb	13:57:45
3	Sr 421.552†	34.9	0.7	0.0074 µg/L	0.0074 ppb	13:57:45
3	Sc 361.383	2072460.7	2072460.7	101.37 %		13:59:15
3	Y 371.029	1410185.3	1410185.3	100.37 %		13:59:15
3	Ag 328.068†	-643.7	-111.4	-0.8715 µg/L	-0.8715 ppb	13:59:20
3	As 188.979†	-3.9	-5.3	-10.192 µg/L	-10.192 ppb	13:59:40
3	B 249.677†	302.8	1.9	0.1052 µg/L	0.1052 ppb	13:59:40
3	Ba 233.527†	-11.6	6.5	0.1678 µg/L	0.1678 ppb	13:59:40
3	Be 313.107†	-3211.6	-200.5	-0.1284 µg/L	-0.1284 ppb	13:59:20
3	Cd 226.502†	-146.0	-6.0	-0.1593 µg/L	-0.1593 ppb	13:59:40
3	Co 228.616†	-12.1	-6.9	-0.3331 µg/L	-0.3331 ppb	13:59:40
3	Cr 267.716†	-22.6	9.9	0.2099 µg/L	0.2099 ppb	13:59:40
3	Cu 324.752†	2604.1	31.3	0.2088 µg/L	0.2088 ppb	13:59:20
3	Mn 257.610†	-217.4	22.2	0.0686 µg/L	0.0686 ppb	13:59:40
3	Mo 202.031†	-3.7	3.3	0.3340 µg/L	0.3340 ppb	13:59:40
3	Ni 231.604†	284.4	-26.3	-1.4023 µg/L	-1.4023 ppb	13:59:40
3	P 214.914†	29.9	8.0	16.746 µg/L	16.746 ppb	13:59:40
3	Pb 220.353†	98.1	3.2	0.8382 µg/L	0.8382 ppb	13:59:40
3	S 181.975 Axial†	15.9	1.9	8.1279 µg/L	8.1279 ppb	13:59:40
3	Sb 206.836†	27.1	6.6	6.3056 µg/L	6.3056 ppb	13:59:40
3	Se 196.026†	15.9	-0.2	-0.3721 µg/L	-0.3721 ppb	13:59:40
3	SiO2†	1369.2	6.2	1.3101 µg/L	1.3101 ppb	13:59:20
3	Si 251.611†	320.8	2.0	0.1629 µg/L	0.1629 ppb	13:59:40
3	Sn 189.927†	-2.2	-5.3	-2.3547 µg/L	-2.3547 ppb	13:59:40
3	Ti 334.940†	161.0	28.2	0.0650 µg/L	0.0650 ppb	13:59:20
3	Tl 190.801†	-25.6	-2.3	-3.1754 µg/L	-3.1754 ppb	13:59:40
3	U 409.014†	-67.0	-22.4	-1.9409 µg/L	-1.9409 ppb	13:59:20
3	V 292.402†	7.8	39.8	0.4054 µg/L	0.4054 ppb	13:59:20
3	Zn 213.857†	492.6	-32.9	-0.8187 µg/L	-0.8187 ppb	13:59:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2088505.1	102.16	%	0.719				0.70%
Sc RADIAL	59064.3	102	%	0.8				0.82%
Y 371.029	1421689.3	101.19	%	0.743				0.73%
Ag 328.068†	-73.7	-0.5755	µg/L	0.45727	-0.5755	ppb	0.45727	79.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.2	4.5224	µg/L	8.11735	4.5224	ppb	8.11735	179.49%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.3	-10.135	µg/L	0.1164	-10.135	ppb	0.1164	1.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	10.3	0.4560	µg/L	0.35439	0.4560	ppb	0.35439	77.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.2	-0.0316	µg/L	0.17559	-0.0316	ppb	0.17559	556.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-129.7	-0.0830	µg/L	0.04640	-0.0830	ppb	0.04640	55.90%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-0.5717	µg/L	3.86307	-0.5717	ppb	3.86307	675.72%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.0	0.0279	µg/L	0.16453	0.0279	ppb	0.16453	589.26%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.2	-0.2510	µg/L	0.09003	-0.2510	ppb	0.09003	35.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.3      0.1980 µg/L       0.07224      0.1980 ppb        0.07224  36.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -18.5     -0.1295 µg/L       0.30178     -0.1295 ppb        0.30178 233.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.1     -18.013 µg/L       22.2022     -18.013 ppb        22.2022 123.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -18.8     -13.225 µg/L       32.1731     -13.225 ppb        32.1731 243.27%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.6      6.1159 µg/L      29.69025      6.1159 ppb       29.69025 485.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.9      0.1019 µg/L       0.04524      0.1019 ppb        0.04524  44.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.3      0.8561 µg/L       0.50510      0.8561 ppb        0.50510  59.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -64.0     -20.784 µg/L        6.7681     -20.784 ppb         6.7681  32.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -18.1     -0.9651 µg/L       0.41898     -0.9651 ppb        0.41898  43.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.8      12.246 µg/L        7.2607      12.246 ppb         7.2607  59.29%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.9      2.3012 µg/L       1.27123      2.3012 ppb        1.27123  55.24%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      6.4492 µg/L       2.58051      6.4492 ppb        2.58051  40.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.4      5.2180 µg/L       1.00386      5.2180 ppb        1.00386  19.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.6     -0.9371 µg/L       1.16268     -0.9371 ppb        1.16268 124.07%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -5.1     -1.0853 µg/L       2.32849     -1.0853 ppb        2.32849 214.56%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 1.0      0.0782 µg/L       0.66150      0.0782 ppb        0.66150 845.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -4.0     -1.7748 µg/L       0.50221     -1.7748 ppb        0.50221  28.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -9.4     -0.0955 µg/L       0.14193     -0.0955 ppb        0.14193 148.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               24.5      0.0574 µg/L       0.18884      0.0574 ppb        0.18884 328.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.4     -0.5086 µg/L       2.44521     -0.5086 ppb        2.44521 480.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  2.2      0.1906 µg/L       1.88032      0.1906 ppb        1.88032 986.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                30.5      0.3187 µg/L       0.27827      0.3187 ppb        0.27827  87.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -37.8     -0.9416 µg/L       0.16304     -0.9416 ppb        0.16304  17.32%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 245797002|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 2/17/2010 13:59:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797002|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	60552.9	60552.9	104	%			14:00:26
1	Al 396.153Radial†	96787.9	92791.1	68215	µg/L	68215	ppb	14:00:26
1	Ca 317.933Radial†	18512.2	17547.9	16253	µg/L	16253	ppb	14:00:26
1	Fe 238.204 Radial†	15266.6	14615.3	125570	µg/L	125570	ppb	14:00:26
1	K 766.490 Radial†	11568.0	10910.7	7675.1	µg/L	7675.1	ppb	14:00:26
1	Mg 279.077 IEC†	1377.2	1306.6	12163	µg/L	12163	ppb	14:00:46
1	Na 589.592 Radial†	6070.0	5251.7	1704.9	µg/L	1704.9	ppb	14:00:26
1	Sr 421.552†	17740.7	16970.5	171.60	µg/L	171.60	ppb	14:00:26
1	Sc 361.383	2090599.6	2090599.6	102.26	%			14:01:47
1	Y 371.029	1525483.9	1525483.9	108.58	%			14:01:47
1	Ag 328.068†	-2116.0	-1545.5	-3.5125	µg/L	-3.5125	ppb	14:01:52
1	As 188.979†	17.1	15.2	35.697	µg/L	35.697	ppb	14:02:12
1	B 249.677†	1297.4	971.9	-23.096	µg/L	-23.096	ppb	14:01:52
1	Ba 233.527†	30915.3	30250.1	777.78	µg/L	777.78	ppb	14:01:52
1	Be 313.107†	20983.5	23487.3	14.363	µg/L	14.363	ppb	14:01:52
1	Cd 226.502†	249.2	381.7	-3.7811	µg/L	-3.7811	ppb	14:02:12
1	Co 228.616†	1521.3	1492.7	68.630	µg/L	68.630	ppb	14:02:12
1	Cr 267.716†	6904.6	6784.2	144.31	µg/L	144.31	ppb	14:01:52
1	Cu 324.752†	79065.3	74780.5	529.89	µg/L	529.89	ppb	14:01:52
1	Mn 257.610†	630875.2	617170.0	2103.0	µg/L	2103.0	ppb	14:01:47
1	Mo 202.031†	23.6	30.0	7.8577	µg/L	7.8577	ppb	14:02:12
1	Ni 231.604†	2190.1	1834.9	99.529	µg/L	99.529	ppb	14:02:12
1	P 214.914†	393.6	363.3	629.92	µg/L	629.92	ppb	14:02:12
1	Pb 220.353†	1038.0	921.5	237.05	µg/L	237.05	ppb	14:02:12
1	S 181.975 Axial†	77.4	61.9	266.97	µg/L	266.97	ppb	14:02:12
1	Sb 206.836†	44.3	23.2	19.164	µg/L	19.164	ppb	14:02:12
1	Se 196.026†	-38.1	-53.1	246.81	µg/L	246.81	ppb	14:02:12
1	SiO2†	295909.5	288025.7	60733	µg/L	60733	ppb	14:01:47
1	Si 251.611†	356912.9	348710.9	28231	µg/L	28231	ppb	14:01:47
1	Sn 189.927†	1.8	-1.3	-12.626	µg/L	-12.626	ppb	14:02:12
1	Ti 334.940†	759693.4	742774.3	1752.6	µg/L	1752.6	ppb	14:01:47
1	Tl 190.801†	-55.9	-31.7	1.5660	µg/L	1.5660	ppb	14:02:12
1	U 409.014†	1021.8	1042.9	72.278	µg/L	72.278	ppb	14:01:47
1	V 292.402†	10093.9	9902.9	117.15	µg/L	117.15	ppb	14:01:52
1	Zn 213.857†	21337.7	20347.3	501.98	µg/L	501.98	ppb	14:01:52
2	Sc RADIAL	60658.1	60658.1	105	%			14:00:51
2	Al 396.153Radial†	97573.7	93382.0	68649	µg/L	68649	ppb	14:00:51
2	Ca 317.933Radial†	18526.0	17530.4	16237	µg/L	16237	ppb	14:00:51
2	Fe 238.204 Radial†	15289.0	14611.4	125530	µg/L	125530	ppb	14:00:51
2	K 766.490 Radial†	11602.8	10924.8	7685.0	µg/L	7685.0	ppb	14:00:51
2	Mg 279.077 IEC†	1395.2	1321.5	12304	µg/L	12304	ppb	14:01:11
2	Na 589.592 Radial†	6072.5	5244.1	1702.4	µg/L	1702.4	ppb	14:00:51
2	Sr 421.552†	17877.3	17071.8	172.62	µg/L	172.62	ppb	14:00:51
2	Sc 361.383	2076353.2	2076353.2	101.56	%			14:02:20
2	Y 371.029	1517213.8	1517213.8	107.99	%			14:02:20
2	Ag 328.068†	-2039.4	-1484.3	-3.0261	µg/L	-3.0261	ppb	14:02:25
2	As 188.979†	7.2	5.6	17.147	µg/L	17.147	ppb	14:02:45
2	B 249.677†	1253.2	937.2	-24.585	µg/L	-24.585	ppb	14:02:25
2	Ba 233.527†	31196.3	30734.2	790.23	µg/L	790.23	ppb	14:02:25
2	Be 313.107†	21083.9	23727.0	14.511	µg/L	14.511	ppb	14:02:25
2	Cd 226.502†	262.8	396.7	-3.3712	µg/L	-3.3712	ppb	14:02:45
2	Co 228.616†	1522.3	1503.9	69.141	µg/L	69.141	ppb	14:02:45
2	Cr 267.716†	6975.0	6899.9	146.77	µg/L	146.77	ppb	14:02:25
2	Cu 324.752†	79719.8	75955.4	537.94	µg/L	537.94	ppb	14:02:25
2	Mn 257.610†	632361.8	622866.7	2122.3	µg/L	2122.3	ppb	14:02:20
2	Mo 202.031†	26.0	32.5	8.1133	µg/L	8.1133	ppb	14:02:45
2	Ni 231.604†	2208.0	1867.3	101.26	µg/L	101.26	ppb	14:02:45
2	P 214.914†	403.7	376.0	655.89	µg/L	655.89	ppb	14:02:45
2	Pb 220.353†	1058.6	948.8	244.14	µg/L	244.14	ppb	14:02:45

2	S 181.975 Axial†	77.4	62.4	269.09	µg/L	269.09 ppb	14:02:45
2	Sb 206.836†	44.1	23.3	19.233	µg/L	19.233 ppb	14:02:45
2	Se 196.026†	-47.7	-62.8	231.86	µg/L	231.86 ppb	14:02:45
2	SiO2†	296001.6	290101.8	61171	µg/L	61171 ppb	14:02:20
2	Si 251.611†	356982.3	351174.1	28431	µg/L	28431 ppb	14:02:20
2	Sn 189.927†	5.7	2.6	-10.869	µg/L	-10.869 ppb	14:02:45
2	Ti 334.940†	760895.2	749054.8	1767.4	µg/L	1767.4 ppb	14:02:20
2	Tl 190.801†	-54.0	-30.3	3.7908	µg/L	3.7908 ppb	14:02:45
2	U 409.014†	1113.4	1140.0	80.726	µg/L	80.726 ppb	14:02:20
2	V 292.402†	10166.7	10042.3	118.60	µg/L	118.60 ppb	14:02:25
2	Zn 213.857†	21541.1	20690.7	510.55	µg/L	510.55 ppb	14:02:25
3	Sc RADIAL	60476.2	60476.2	104	%		14:01:17
3	Al 396.153Radial†	99134.7	95160.9	69957	µg/L	69957 ppb	14:01:17
3	Ca 317.933Radial†	18842.2	17887.2	16567	µg/L	16567 ppb	14:01:17
3	Fe 238.204 Radial†	15558.5	14914.0	128130	µg/L	128130 ppb	14:01:17
3	K 766.490 Radial†	11846.9	11192.4	7873.2	µg/L	7873.2 ppb	14:01:17
3	Mg 279.077 IEC†	1401.6	1331.7	12397	µg/L	12397 ppb	14:01:37
3	Na 589.592 Radial†	6173.9	5358.9	1739.7	µg/L	1739.7 ppb	14:01:17
3	Sr 421.552†	18161.9	17396.4	175.91	µg/L	175.91 ppb	14:01:17
3	Sc 361.383	2074549.9	2074549.9	101.47	%		14:02:53
3	Y 371.029	1514049.8	1514049.8	107.76	%		14:02:53
3	Ag 328.068†	-2044.3	-1490.9	-2.9180	µg/L	-2.9180 ppb	14:02:58
3	As 188.979†	15.2	13.5	32.489	µg/L	32.489 ppb	14:03:18
3	B 249.677†	1266.5	951.4	-25.330	µg/L	-25.330 ppb	14:02:58
3	Ba 233.527†	30671.9	30244.1	777.63	µg/L	777.63 ppb	14:02:58
3	Be 313.107†	20635.7	23303.4	14.243	µg/L	14.243 ppb	14:02:58
3	Cd 226.502†	234.0	368.6	-4.4272	µg/L	-4.4272 ppb	14:03:18
3	Co 228.616†	1463.5	1447.2	66.416	µg/L	66.416 ppb	14:03:18
3	Cr 267.716†	6783.2	6716.8	142.87	µg/L	142.87 ppb	14:02:58
3	Cu 324.752†	78448.1	74770.4	530.18	µg/L	530.18 ppb	14:02:58
3	Mn 257.610†	629404.6	620493.7	2114.6	µg/L	2114.6 ppb	14:02:53
3	Mo 202.031†	22.4	28.9	7.8449	µg/L	7.8449 ppb	14:03:18
3	Ni 231.604†	2139.2	1801.4	97.774	µg/L	97.774 ppb	14:03:18
3	P 214.914†	379.7	352.6	605.78	µg/L	605.78 ppb	14:03:18
3	Pb 220.353†	1022.6	914.2	235.15	µg/L	235.15 ppb	14:03:18
3	S 181.975 Axial†	75.9	61.0	263.07	µg/L	263.07 ppb	14:03:18
3	Sb 206.836†	40.0	19.2	15.383	µg/L	15.383 ppb	14:03:18
3	Se 196.026†	-46.8	-62.0	240.02	µg/L	240.02 ppb	14:03:18
3	SiO2†	295158.3	289524.0	61049	µg/L	61049 ppb	14:02:53
3	Si 251.611†	355842.4	350356.3	28364	µg/L	28364 ppb	14:02:53
3	Sn 189.927†	-1.7	-4.7	-14.384	µg/L	-14.384 ppb	14:03:18
3	Ti 334.940†	756252.8	745131.1	1758.1	µg/L	1758.1 ppb	14:02:53
3	Tl 190.801†	-53.8	-30.0	4.4342	µg/L	4.4342 ppb	14:03:18
3	U 409.014†	1119.0	1146.4	80.910	µg/L	80.910 ppb	14:02:53
3	V 292.402†	10097.2	9982.6	118.28	µg/L	118.28 ppb	14:02:58
3	Zn 213.857†	21328.5	20499.6	505.66	µg/L	505.66 ppb	14:02:58

Mean Data: 245797002|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2080500.9	101.77	%	0.430				0.42%
Sc RADIAL	60562.4	104	%	0.2				0.15%
Y 371.029	1518915.8	108.11	%	0.420				0.39%
Ag 328.068†	-1506.9	-3.1522	µg/L	0.31666	-3.1522	ppb	0.31666	10.05%
Al 396.153Radial†	93778.0	68941	µg/L	906.9	68941	ppb	906.9	1.32%
As 188.979†	11.4	28.444	µg/L	9.9141	28.444	ppb	9.9141	34.85%
B 249.677†	953.5	-24.337	µg/L	1.1376	-24.337	ppb	1.1376	4.67%
Ba 233.527†	30409.5	781.88	µg/L	7.231	781.88	ppb	7.231	0.92%
Be 313.107†	23505.9	14.372	µg/L	0.1340	14.372	ppb	0.1340	0.93%
Ca 317.933Radial†	17655.2	16352	µg/L	186.3	16352	ppb	186.3	1.14%
Cd 226.502†	382.3	-3.8598	µg/L	0.53239	-3.8598	ppb	0.53239	13.79%
Co 228.616†	1481.3	68.063	µg/L	1.4483	68.063	ppb	1.4483	2.13%
Cr 267.716†	6800.3	144.65	µg/L	1.969	144.65	ppb	1.969	1.36%
Cu 324.752†	75168.8	532.67	µg/L	4.565	532.67	ppb	4.565	0.86%
Fe 238.204 Radial†	14713.5	126410	µg/L	1491.2	126410	ppb	1491.2	1.18%
K 766.490 Radial†	11009.3	7744.4	µg/L	111.65	7744.4	ppb	111.65	1.44%
Mg 279.077 IEC†	1319.9	12288	µg/L	117.8	12288	ppb	117.8	0.96%
Mn 257.610†	620176.8	2113.3	µg/L	9.69	2113.3	ppb	9.69	0.46%
Mo 202.031†	30.5	7.9386	µg/L	0.15141	7.9386	ppb	0.15141	1.91%
Na 589.592 Radial†	5284.9	1715.7	µg/L	20.84	1715.7	ppb	20.84	1.21%

Ni 231.604†	1834.5	99.520	µg/L	1.7410	99.520	ppb	1.7410	1.75%
P 214.914†	364.0	630.53	µg/L	25.058	630.53	ppb	25.058	3.97%
Pb 220.353†	928.2	238.78	µg/L	4.741	238.78	ppb	4.741	1.99%
S 181.975 Axial†	61.8	266.38	µg/L	3.053	266.38	ppb	3.053	1.15%
Sb 206.836†	21.9	17.927	µg/L	2.2031	17.927	ppb	2.2031	12.29%
Se 196.026†	-59.3	239.56	µg/L	7.488	239.56	ppb	7.488	3.13%
SiO2†	289217.2	60985	µg/L	225.9	60985	ppb	225.9	0.37%
Si 251.611†	350080.4	28342	µg/L	101.6	28342	ppb	101.6	0.36%
Sn 189.927†	-1.2	-12.626	µg/L	1.7574	-12.626	ppb	1.7574	13.92%
Sr 421.552†	17146.2	173.38	µg/L	2.249	173.38	ppb	2.249	1.30%
Ti 334.940†	745653.4	1759.4	µg/L	7.48	1759.4	ppb	7.48	0.43%
Tl 190.801†	-30.7	3.2637	µg/L	1.50500	3.2637	ppb	1.50500	46.11%
U 409.014†	1109.8	77.972	µg/L	4.9312	77.972	ppb	4.9312	6.32%
V 292.402†	9975.9	118.01	µg/L	0.760	118.01	ppb	0.760	0.64%
Zn 213.857†	20512.6	506.06	µg/L	4.303	506.06	ppb	4.303	0.85%

Sequence No.: 4
Sample ID: 245797003|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 309
Date Collected: 2/17/2010 14:03:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797003|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59501.2	59501.2	103	%			14:03:58
1	Al 396.153Radial†	25503.2	24899.0	18304	µg/L	18304	ppb	14:03:58
1	Ca 317.933Radial†	3955.2	3662.6	3392.3	µg/L	3392.3	ppb	14:04:18
1	Fe 238.204 Radial†	10584.7	10307.1	88554	µg/L	88554	ppb	14:03:58
1	K 766.490 Radial†	5572.5	5258.6	3699.1	µg/L	3699.1	ppb	14:03:58
1	Mg 279.077 IEC†	248.2	228.7	2057.2	µg/L	2057.2	ppb	14:04:18
1	Na 589.592 Radial†	6440.8	5716.3	1855.7	µg/L	1855.7	ppb	14:03:58
1	Sr 421.552†	2986.7	2879.9	29.121	µg/L	29.121	ppb	14:03:58
1	Sc 361.383	2064986.7	2064986.7	101.01	%			14:05:18
1	Y 371.029	1485555.5	1485555.5	105.74	%			14:05:18
1	Ag 328.068†	-1674.3	-1134.0	-3.0282	µg/L	-3.0282	ppb	14:05:23
1	As 188.979†	7.9	6.3	17.074	µg/L	17.074	ppb	14:05:44
1	B 249.677†	931.1	625.1	-18.918	µg/L	-18.918	ppb	14:05:23
1	Ba 233.527†	9342.3	9267.2	238.29	µg/L	238.29	ppb	14:05:23
1	Be 313.107†	5679.9	8590.8	4.6096	µg/L	4.6096	ppb	14:05:23
1	Cd 226.502†	100.8	237.8	-3.5204	µg/L	-3.5204	ppb	14:05:44
1	Co 228.616†	3055.6	3030.2	141.88	µg/L	141.88	ppb	14:05:44
1	Cr 267.716†	4520.5	4507.6	95.864	µg/L	95.864	ppb	14:05:23
1	Cu 324.752†	8994.0	6366.8	55.937	µg/L	55.937	ppb	14:05:23
1	Mn 257.610†	733486.6	726410.5	2467.9	µg/L	2467.9	ppb	14:05:18
1	Mo 202.031†	44.7	51.1	8.6266	µg/L	8.6266	ppb	14:05:44
1	Ni 231.604†	1504.5	1182.8	64.136	µg/L	64.136	ppb	14:05:44
1	P 214.914†	301.1	276.5	511.90	µg/L	511.90	ppb	14:05:44
1	Pb 220.353†	294.2	197.8	49.022	µg/L	49.022	ppb	14:05:44
1	S 181.975 Axial†	39.8	25.6	110.39	µg/L	110.39	ppb	14:05:44
1	Sb 206.836†	29.1	8.6	6.9808	µg/L	6.9808	ppb	14:05:44
1	Se 196.026†	-24.8	-40.4	177.64	µg/L	177.64	ppb	14:05:44
1	SiO2†	133072.2	130401.0	27497	µg/L	27497	ppb	14:05:23
1	Si 251.611†	163962.8	162013.7	13116	µg/L	13116	ppb	14:05:18
1	Sn 189.927†	0.2	-2.9	-10.518	µg/L	-10.518	ppb	14:05:44
1	Ti 334.940†	997675.4	987598.2	2331.1	µg/L	2331.1	ppb	14:05:18
1	Tl 190.801†	-56.1	-32.6	-1.7541	µg/L	-1.7541	ppb	14:05:44
1	U 409.014†	-1649.4	-1589.3	-150.77	µg/L	-150.77	ppb	14:05:18
1	V 292.402†	3949.5	3942.2	51.114	µg/L	51.114	ppb	14:05:23
1	Zn 213.857†	14894.6	14227.3	351.85	µg/L	351.85	ppb	14:05:23
2	Sc RADIAL	59297.7	59297.7	102	%			14:04:23
2	Al 396.153Radial†	25498.6	24979.9	18364	µg/L	18364	ppb	14:04:23
2	Ca 317.933Radial†	3981.2	3701.2	3428.1	µg/L	3428.1	ppb	14:04:43
2	Fe 238.204 Radial†	10600.4	10358.0	88991	µg/L	88991	ppb	14:04:23
2	K 766.490 Radial†	5554.7	5259.8	3700.0	µg/L	3700.0	ppb	14:04:23
2	Mg 279.077 IEC†	247.0	228.3	2053.5	µg/L	2053.5	ppb	14:04:43
2	Na 589.592 Radial†	6443.1	5740.0	1863.4	µg/L	1863.4	ppb	14:04:23
2	Sr 421.552†	2947.1	2851.2	28.831	µg/L	28.831	ppb	14:04:23
2	Sc 361.383	2070714.0	2070714.0	101.29	%			14:05:51
2	Y 371.029	1489651.5	1489651.5	106.03	%			14:05:51
2	Ag 328.068†	-1648.3	-1103.7	-2.7669	µg/L	-2.7669	ppb	14:05:56
2	As 188.979†	6.7	5.2	14.883	µg/L	14.883	ppb	14:06:16
2	B 249.677†	941.4	632.7	-18.814	µg/L	-18.814	ppb	14:05:56
2	Ba 233.527†	9329.1	9228.5	237.30	µg/L	237.30	ppb	14:05:56
2	Be 313.107†	5555.9	8452.8	4.5245	µg/L	4.5245	ppb	14:05:56
2	Cd 226.502†	108.3	244.9	-3.3783	µg/L	-3.3783	ppb	14:06:16
2	Co 228.616†	3075.3	3041.2	142.43	µg/L	142.43	ppb	14:06:16
2	Cr 267.716†	4509.6	4484.5	95.371	µg/L	95.371	ppb	14:05:56
2	Cu 324.752†	8941.2	6290.0	55.472	µg/L	55.472	ppb	14:05:56
2	Mn 257.610†	731402.8	722344.7	2454.2	µg/L	2454.2	ppb	14:05:51
2	Mo 202.031†	45.8	52.1	8.7394	µg/L	8.7394	ppb	14:06:16
2	Ni 231.604†	1511.3	1185.3	64.276	µg/L	64.276	ppb	14:06:16
2	P 214.914†	298.8	273.4	505.20	µg/L	505.20	ppb	14:06:16
2	Pb 220.353†	287.7	190.5	47.131	µg/L	47.131	ppb	14:06:16

2	S 181.975 Axial†	38.2	23.9	102.96 µg/L	102.96 ppb	14:06:16
2	Sb 206.836†	27.7	7.2	5.6007 µg/L	5.6007 ppb	14:06:16
2	Se 196.026†	-28.7	-44.2	173.07 µg/L	173.07 ppb	14:06:16
2	SiO2†	132433.8	129406.3	27287 µg/L	27287 ppb	14:05:56
2	Si 251.611†	163885.0	161487.8	13074 µg/L	13074 ppb	14:05:51
2	Sn 189.927†	6.2	3.0	-7.9257 µg/L	-7.9257 ppb	14:06:16
2	Ti 334.940†	996812.0	984013.9	2322.6 µg/L	2322.6 ppb	14:05:51
2	Tl 190.801†	-55.2	-31.5	-0.4128 µg/L	-0.4128 ppb	14:06:16
2	U 409.014†	-1687.4	-1622.3	-153.70 µg/L	-153.70 ppb	14:05:51
2	V 292.402†	3912.2	3894.6	50.671 µg/L	50.671 ppb	14:05:56
2	Zn 213.857†	14862.0	14154.2	350.00 µg/L	350.00 ppb	14:05:56
3	Sc RADIAL	58889.8	58889.8	101 %		14:04:48
3	Al 396.153Radial†	25414.5	25069.8	18430 µg/L	18430 ppb	14:04:48
3	Ca 317.933Radial†	3955.8	3703.1	3429.9 µg/L	3429.9 ppb	14:05:08
3	Fe 238.204 Radial†	10537.2	10367.5	89073 µg/L	89073 ppb	14:04:48
3	K 766.490 Radial†	5503.7	5247.2	3691.1 µg/L	3691.1 ppb	14:04:48
3	Mg 279.077 IEC†	246.6	229.6	2065.4 µg/L	2065.4 ppb	14:05:08
3	Na 589.592 Radial†	6485.9	5825.9	1891.3 µg/L	1891.3 ppb	14:04:48
3	Sr 421.552†	2951.7	2875.7	29.078 µg/L	29.078 ppb	14:04:48
3	Sc 361.383	2069612.9	2069612.9	101.23 %		14:06:24
3	Y 371.029	1489149.3	1489149.3	105.99 %		14:06:24
3	Ag 328.068†	-1624.9	-1081.5	-2.5925 µg/L	-2.5925 ppb	14:06:29
3	As 188.979†	5.6	4.0	12.725 µg/L	12.725 ppb	14:06:49
3	B 249.677†	920.7	612.7	-19.728 µg/L	-19.728 ppb	14:06:29
3	Ba 233.527†	9186.9	9093.0	233.81 µg/L	233.81 ppb	14:06:29
3	Be 313.107†	5399.0	8300.8	4.4297 µg/L	4.4297 ppb	14:06:29
3	Cd 226.502†	89.5	226.4	-3.8903 µg/L	-3.8903 ppb	14:06:49
3	Co 228.616†	2880.5	2850.4	133.21 µg/L	133.21 ppb	14:06:49
3	Cr 267.716†	4416.3	4394.7	93.462 µg/L	93.462 ppb	14:06:29
3	Cu 324.752†	8898.4	6252.5	55.226 µg/L	55.226 ppb	14:06:29
3	Mn 257.610†	732095.3	723412.9	2457.8 µg/L	2457.8 ppb	14:06:24
3	Mo 202.031†	43.4	49.8	8.5051 µg/L	8.5051 ppb	14:06:49
3	Ni 231.604†	1431.6	1107.4	60.127 µg/L	60.127 ppb	14:06:49
3	P 214.914†	286.4	261.4	479.70 µg/L	479.70 ppb	14:06:49
3	Pb 220.353†	291.6	194.6	48.186 µg/L	48.186 ppb	14:06:49
3	S 181.975 Axial†	37.5	23.3	100.35 µg/L	100.35 ppb	14:06:49
3	Sb 206.836†	29.1	8.6	6.9688 µg/L	6.9688 ppb	14:06:49
3	Se 196.026†	-18.5	-34.2	188.55 µg/L	188.55 ppb	14:06:49
3	SiO2†	131753.9	128804.3	27160 µg/L	27160 ppb	14:06:29
3	Si 251.611†	163376.4	161071.6	13040 µg/L	13040 ppb	14:06:24
3	Sn 189.927†	-4.8	-7.8	-12.749 µg/L	-12.749 ppb	14:06:49
3	Ti 334.940†	993435.8	981202.4	2316.0 µg/L	2316.0 ppb	14:06:24
3	Tl 190.801†	-52.6	-29.0	3.1509 µg/L	3.1509 ppb	14:06:49
3	U 409.014†	-1701.4	-1636.9	-154.99 µg/L	-154.99 ppb	14:06:24
3	V 292.402†	3840.1	3825.4	49.962 µg/L	49.962 ppb	14:06:29
3	Zn 213.857†	14595.0	13898.4	343.60 µg/L	343.60 ppb	14:06:29

Mean Data: 245797003|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2068437.9	101.18	%	0.149				0.15%
Sc RADIAL	59229.6	102	%	0.5				0.53%
Y 371.029	1488118.8	105.92	%	0.159				0.15%
Ag 328.068†	-1106.4	-2.7959	µg/L	0.21929	-2.7959	ppb	0.21929	7.84%
Al 396.153Radial†	24982.9	18366	µg/L	62.8	18366	ppb	62.8	0.34%
As 188.979†	5.2	14.894	µg/L	2.1746	14.894	ppb	2.1746	14.60%
B 249.677†	623.5	-19.153	µg/L	0.5003	-19.153	ppb	0.5003	2.61%
Ba 233.527†	9196.2	236.47	µg/L	2.352	236.47	ppb	2.352	0.99%
Be 313.107†	8448.1	4.5213	µg/L	0.08996	4.5213	ppb	0.08996	1.99%
Ca 317.933Radial†	3689.0	3416.7	µg/L	21.20	3416.7	ppb	21.20	0.62%
Cd 226.502†	236.4	-3.5964	µg/L	0.26432	-3.5964	ppb	0.26432	7.35%
Co 228.616†	2973.9	139.17	µg/L	5.175	139.17	ppb	5.175	3.72%
Cr 267.716†	4462.3	94.899	µg/L	1.2685	94.899	ppb	1.2685	1.34%
Cu 324.752†	6303.1	55.545	µg/L	0.3612	55.545	ppb	0.3612	0.65%
Fe 238.204 Radial†	10344.2	88873	µg/L	278.8	88873	ppb	278.8	0.31%
K 766.490 Radial†	5255.2	3696.8	µg/L	4.89	3696.8	ppb	4.89	0.13%
Mg 279.077 IEC†	228.9	2058.7	µg/L	6.09	2058.7	ppb	6.09	0.30%
Mn 257.610†	724056.0	2460.0	µg/L	7.09	2460.0	ppb	7.09	0.29%
Mo 202.031†	51.0	8.6237	µg/L	0.11717	8.6237	ppb	0.11717	1.36%
Na 589.592 Radial†	5760.8	1870.1	µg/L	18.73	1870.1	ppb	18.73	1.00%

Ni 231.604†	1158.5	62.846	µg/L	2.3557	62.846	ppb	2.3557	3.75%
P 214.914†	270.4	498.93	µg/L	16.992	498.93	ppb	16.992	3.41%
Pb 220.353†	194.3	48.113	µg/L	0.9476	48.113	ppb	0.9476	1.97%
S 181.975 Axial†	24.3	104.57	µg/L	5.207	104.57	ppb	5.207	4.98%
Sb 206.836†	8.2	6.5168	µg/L	0.79337	6.5168	ppb	0.79337	12.17%
Se 196.026†	-39.6	179.75	µg/L	7.951	179.75	ppb	7.951	4.42%
SiO2†	129537.2	27314	µg/L	170.0	27314	ppb	170.0	0.62%
Si 251.611†	161524.4	13077	µg/L	38.2	13077	ppb	38.2	0.29%
Sn 189.927†	-2.6	-10.398	µg/L	2.4141	-10.398	ppb	2.4141	23.22%
Sr 421.552†	2868.9	29.010	µg/L	0.1567	29.010	ppb	0.1567	0.54%
Ti 334.940†	984271.5	2323.2	µg/L	7.57	2323.2	ppb	7.57	0.33%
Tl 190.801†	-31.0	0.3280	µg/L	2.53504	0.3280	ppb	2.53504	772.97%
U 409.014†	-1616.2	-153.15	µg/L	2.164	-153.15	ppb	2.164	1.41%
V 292.402†	3887.4	50.582	µg/L	0.5812	50.582	ppb	0.5812	1.15%
Zn 213.857†	14093.3	348.49	µg/L	4.328	348.49	ppb	4.328	1.24%

Sequence No.: 5
Sample ID: 245797004|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 310
Date Collected: 2/17/2010 14:06:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797004|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58275.0	58275.0	100	%			14:07:29
1	Al 396.153Radial†	42135.9	41987.4	30867	µg/L	30867	ppb	14:07:29
1	Ca 317.933Radial†	8517.5	8287.4	7675.9	µg/L	7675.9	ppb	14:07:49
1	Fe 238.204 Radial†	8720.0	8667.3	74464	µg/L	74464	ppb	14:07:49
1	K 766.490 Radial†	7730.8	7522.5	5291.6	µg/L	5291.6	ppb	14:07:29
1	Mg 279.077 IEC†	633.5	617.5	5732.3	µg/L	5732.3	ppb	14:07:49
1	Na 589.592 Radial†	2130.6	1555.8	505.08	µg/L	505.08	ppb	14:07:29
1	Sr 421.552†	6815.0	6753.9	68.294	µg/L	68.294	ppb	14:07:29
1	Sc 361.383	2039453.3	2039453.3	99.758	%			14:08:49
1	Y 371.029	1408642.3	1408642.3	100.26	%			14:08:49
1	Ag 328.068†	-1221.9	-701.2	-0.1607	µg/L	-0.1607	ppb	14:08:54
1	As 188.979†	3.6	2.1	8.0403	µg/L	8.0403	ppb	14:09:14
1	B 249.677†	880.9	586.3	-13.315	µg/L	-13.315	ppb	14:08:54
1	Ba 233.527†	14884.2	14938.3	384.17	µg/L	384.17	ppb	14:08:54
1	Be 313.107†	58729.4	61839.4	38.864	µg/L	38.864	ppb	14:08:54
1	Cd 226.502†	116.2	254.5	-1.5018	µg/L	-1.5018	ppb	14:09:14
1	Co 228.616†	956.9	964.3	42.805	µg/L	42.805	ppb	14:09:14
1	Cr 267.716†	2515.6	2553.9	54.360	µg/L	54.360	ppb	14:09:14
1	Cu 324.752†	771881.9	771216.3	5295.1	µg/L	5295.1	ppb	14:08:49
1	Mn 257.610†	431308.1	432590.7	1472.4	µg/L	1472.4	ppb	14:08:49
1	Mo 202.031†	28.2	35.1	6.4442	µg/L	6.4442	ppb	14:09:14
1	Ni 231.604†	1045.3	741.1	40.487	µg/L	40.487	ppb	14:09:14
1	P 214.914†	404.4	383.8	200.02	µg/L	200.02	ppb	14:09:14
1	Pb 220.353†	3400.0	3314.7	848.88	µg/L	848.88	ppb	14:09:14
1	S 181.975 Axial†	78.8	65.1	280.84	µg/L	280.84	ppb	14:09:14
1	Sb 206.836†	56.3	36.3	33.467	µg/L	33.467	ppb	14:09:14
1	Se 196.026†	-13.8	-29.7	150.98	µg/L	150.98	ppb	14:09:14
1	SiO2†	216714.3	215895.4	45524	µg/L	45524	ppb	14:08:49
1	Si 251.611†	261000.2	261318.7	21156	µg/L	21156	ppb	14:08:49
1	Sn 189.927†	33.1	30.1	6.1035	µg/L	6.1035	ppb	14:09:14
1	Ti 334.940†	788672.7	790454.7	1865.5	µg/L	1865.5	ppb	14:08:49
1	Tl 190.801†	-40.9	-18.1	10.370	µg/L	10.370	ppb	14:09:14
1	U 409.014†	9656.4	9723.5	835.04	µg/L	835.04	ppb	14:08:54
1	V 292.402†	9305.4	9360.0	106.13	µg/L	106.13	ppb	14:08:54
1	Zn 213.857†	16101.0	15621.2	378.90	µg/L	378.90	ppb	14:08:54
2	Sc RADIAL	58140.2	58140.2	100	%			14:07:54
2	Al 396.153Radial†	42321.8	42270.3	31075	µg/L	31075	ppb	14:07:54
2	Ca 317.933Radial†	8571.5	8361.0	7744.1	µg/L	7744.1	ppb	14:08:14
2	Fe 238.204 Radial†	8790.1	8757.4	75238	µg/L	75238	ppb	14:08:14
2	K 766.490 Radial†	7712.2	7521.8	5291.2	µg/L	5291.2	ppb	14:07:54
2	Mg 279.077 IEC†	636.2	621.7	5770.9	µg/L	5770.9	ppb	14:08:14
2	Na 589.592 Radial†	2101.3	1531.4	497.15	µg/L	497.15	ppb	14:07:54
2	Sr 421.552†	6847.1	6801.8	68.777	µg/L	68.777	ppb	14:07:54
2	Sc 361.383	2040094.5	2040094.5	99.789	%			14:09:22
2	Y 371.029	1409530.1	1409530.1	100.32	%			14:09:22
2	Ag 328.068†	-1179.7	-658.5	0.2208	µg/L	0.2208	ppb	14:09:27
2	As 188.979†	9.2	7.7	18.762	µg/L	18.762	ppb	14:09:47
2	B 249.677†	839.6	544.7	-15.529	µg/L	-15.529	ppb	14:09:27
2	Ba 233.527†	14818.6	14867.9	382.36	µg/L	382.36	ppb	14:09:27
2	Be 313.107†	58525.8	61616.8	38.717	µg/L	38.717	ppb	14:09:27
2	Cd 226.502†	119.0	257.2	-1.5162	µg/L	-1.5162	ppb	14:09:47
2	Co 228.616†	949.1	956.1	42.384	µg/L	42.384	ppb	14:09:47
2	Cr 267.716†	2510.6	2548.1	54.237	µg/L	54.237	ppb	14:09:47
2	Cu 324.752†	777258.3	776360.8	5330.5	µg/L	5330.5	ppb	14:09:22
2	Mn 257.610†	433322.7	434473.6	1478.8	µg/L	1478.8	ppb	14:09:22
2	Mo 202.031†	26.5	33.4	6.2975	µg/L	6.2975	ppb	14:09:47
2	Ni 231.604†	1035.1	730.5	39.930	µg/L	39.930	ppb	14:09:47
2	P 214.914†	395.0	374.3	175.77	µg/L	175.77	ppb	14:09:47
2	Pb 220.353†	3377.9	3291.5	842.76	µg/L	842.76	ppb	14:09:47

2	S 181.975 Axial†	76.8	63.2	272.34 µg/L	272.34 ppb	14:09:47
2	Sb 206.836†	60.5	40.4	37.469 µg/L	37.469 ppb	14:09:47
2	Se 196.026†	-25.7	-41.6	134.85 µg/L	134.85 ppb	14:09:47
2	SiO2†	218179.7	217295.6	45819 µg/L	45819 ppb	14:09:22
2	Si 251.611†	262864.3	263104.5	21301 µg/L	21301 ppb	14:09:22
2	Sn 189.927†	30.3	27.3	4.7676 µg/L	4.7676 ppb	14:09:47
2	Ti 334.940†	794054.3	795599.2	1877.7 µg/L	1877.7 ppb	14:09:22
2	Tl 190.801†	-39.8	-16.9	12.279 µg/L	12.279 ppb	14:09:47
2	U 409.014†	9784.8	9849.2	845.86 µg/L	845.86 ppb	14:09:27
2	V 292.402†	9289.3	9341.0	106.03 µg/L	106.03 ppb	14:09:27
2	Zn 213.857†	16058.8	15573.8	377.62 µg/L	377.62 ppb	14:09:27
3	Sc RADIAL	58518.8	58518.8	101 %		14:08:19
3	Al 396.153Radial†	42565.9	42239.1	31052 µg/L	31052 ppb	14:08:19
3	Ca 317.933Radial†	8527.0	8261.5	7651.8 µg/L	7651.8 ppb	14:08:40
3	Fe 238.204 Radial†	8778.0	8688.6	74647 µg/L	74647 ppb	14:08:40
3	K 766.490 Radial†	7748.9	7508.3	5281.7 µg/L	5281.7 ppb	14:08:19
3	Mg 279.077 IEC†	642.6	623.9	5792.0 µg/L	5792.0 ppb	14:08:40
3	Na 589.592 Radial†	2130.5	1546.8	502.16 µg/L	502.16 ppb	14:08:19
3	Sr 421.552†	6861.0	6771.3	68.469 µg/L	68.469 ppb	14:08:19
3	Sc 361.383	2041882.3	2041882.3	99.877 %		14:09:54
3	Y 371.029	1410580.0	1410580.0	100.40 %		14:09:54
3	Ag 328.068†	-1123.9	-601.6	0.6033 µg/L	0.6033 ppb	14:09:59
3	As 188.979†	3.6	2.1	7.9970 µg/L	7.9970 ppb	14:10:20
3	B 249.677†	840.7	545.0	-15.210 µg/L	-15.210 ppb	14:09:59
3	Ba 233.527†	14391.3	14427.0	371.02 µg/L	371.02 ppb	14:09:59
3	Be 313.107†	56723.7	59761.2	37.541 µg/L	37.541 ppb	14:09:59
3	Cd 226.502†	106.9	245.0	-1.7810 µg/L	-1.7810 ppb	14:10:20
3	Co 228.616†	896.4	902.5	39.855 µg/L	39.855 ppb	14:10:20
3	Cr 267.716†	2336.6	2371.7	50.484 µg/L	50.484 ppb	14:10:20
3	Cu 324.752†	766557.5	764964.8	5252.3 µg/L	5252.3 ppb	14:09:54
3	Mn 257.610†	428098.1	428862.4	1459.8 µg/L	1459.8 ppb	14:09:54
3	Mo 202.031†	23.3	30.2	5.9407 µg/L	5.9407 ppb	14:10:20
3	Ni 231.604†	985.3	679.7	37.216 µg/L	37.216 ppb	14:10:20
3	P 214.914†	376.1	355.0	143.74 µg/L	143.74 ppb	14:10:20
3	Pb 220.353†	3241.9	3152.4	806.85 µg/L	806.85 ppb	14:10:20
3	S 181.975 Axial†	79.3	65.6	282.77 µg/L	282.77 ppb	14:10:20
3	Sb 206.836†	52.6	32.5	29.940 µg/L	29.940 ppb	14:10:20
3	Se 196.026†	-17.2	-33.1	146.24 µg/L	146.24 ppb	14:10:20
3	SiO2†	215411.7	214332.8	45194 µg/L	45194 ppb	14:09:54
3	Si 251.611†	259457.7	259463.1	21006 µg/L	21006 ppb	14:09:54
3	Sn 189.927†	27.7	24.6	3.6556 µg/L	3.6556 ppb	14:10:20
3	Ti 334.940†	781172.5	782004.8	1845.6 µg/L	1845.6 ppb	14:09:54
3	Tl 190.801†	-40.4	-17.5	10.916 µg/L	10.916 ppb	14:10:20
3	U 409.014†	9433.7	9489.0	814.61 µg/L	814.61 ppb	14:09:59
3	V 292.402†	8925.0	8968.1	102.08 µg/L	102.08 ppb	14:09:59
3	Zn 213.857†	15629.9	15130.3	366.68 µg/L	366.68 ppb	14:09:59

Mean Data: 245797004|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2040476.7	99.808	%	0.0616				0.06%
Sc RADIAL	58311.4	100	%	0.3				0.33%
Y 371.029	1409584.1	100.33	%	0.069				0.07%
Ag 328.068†	-653.8	0.2211	µg/L	0.38199	0.2211	ppb	0.38199	172.75%
Al 396.153Radial†	42165.6	30998	µg/L	114.0	30998	ppb	114.0	0.37%
As 188.979†	4.0	11.600	µg/L	6.2027	11.600	ppb	6.2027	53.47%
B 249.677†	558.7	-14.685	µg/L	1.1967	-14.685	ppb	1.1967	8.15%
Ba 233.527†	14744.4	379.18	µg/L	7.127	379.18	ppb	7.127	1.88%
Be 313.107†	61072.5	38.374	µg/L	0.7248	38.374	ppb	0.7248	1.89%
Ca 317.933Radial†	8303.3	7690.6	µg/L	47.84	7690.6	ppb	47.84	0.62%
Cd 226.502†	252.2	-1.5997	µg/L	0.15720	-1.5997	ppb	0.15720	9.83%
Co 228.616†	940.9	41.681	µg/L	1.5958	41.681	ppb	1.5958	3.83%
Cr 267.716†	2491.3	53.027	µg/L	2.2033	53.027	ppb	2.2033	4.16%
Cu 324.752†	770847.3	5292.7	µg/L	39.15	5292.7	ppb	39.15	0.74%
Fe 238.204 Radial†	8704.4	74783	µg/L	404.8	74783	ppb	404.8	0.54%
K 766.490 Radial†	7517.5	5288.2	µg/L	5.61	5288.2	ppb	5.61	0.11%
Mg 279.077 IEC†	621.0	5765.1	µg/L	30.27	5765.1	ppb	30.27	0.53%
Mn 257.610†	431975.5	1470.3	µg/L	9.69	1470.3	ppb	9.69	0.66%
Mo 202.031†	32.9	6.2274	µg/L	0.25892	6.2274	ppb	0.25892	4.16%
Na 589.592 Radial†	1544.7	501.46	µg/L	4.007	501.46	ppb	4.007	0.80%

Ni 231.604†	717.1	39.211 µg/L	1.7500	39.211 ppb	1.7500	4.46%
P 214.914†	371.0	173.18 µg/L	28.232	173.18 ppb	28.232	16.30%
Pb 220.353†	3252.9	832.83 µg/L	22.702	832.83 ppb	22.702	2.73%
S 181.975 Axial†	64.6	278.65 µg/L	5.550	278.65 ppb	5.550	1.99%
Sb 206.836†	36.4	33.626 µg/L	3.7667	33.626 ppb	3.7667	11.20%
Se 196.026†	-34.8	144.02 µg/L	8.288	144.02 ppb	8.288	5.75%
SiO2†	215841.2	45513 µg/L	312.5	45513 ppb	312.5	0.69%
Si 251.611†	261295.4	21154 µg/L	147.4	21154 ppb	147.4	0.70%
Sn 189.927†	27.3	4.8422 µg/L	1.22565	4.8422 ppb	1.22565	25.31%
Sr 421.552†	6775.7	68.513 µg/L	0.2448	68.513 ppb	0.2448	0.36%
Ti 334.940†	789352.9	1862.9 µg/L	16.20	1862.9 ppb	16.20	0.87%
Tl 190.801†	-17.5	11.188 µg/L	0.9827	11.188 ppb	0.9827	8.78%
U 409.014†	9687.2	831.84 µg/L	15.866	831.84 ppb	15.866	1.91%
V 292.402†	9223.0	104.75 µg/L	2.309	104.75 ppb	2.309	2.20%
Zn 213.857†	15441.8	374.40 µg/L	6.722	374.40 ppb	6.722	1.80%

Sequence No.: 6
Sample ID: 245797005|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 311
Date Collected: 2/17/2010 14:10:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797005|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59168.2	59168.2	102	%			14:11:00
1	Al 396.153Radial†	47881.6	46990.0	34544	µg/L	34544	ppb	14:11:00
1	Ca 317.933Radial†	11364.4	10951.9	10144	µg/L	10144	ppb	14:11:20
1	Fe 238.204 Radial†	9495.3	9296.7	79872	µg/L	79872	ppb	14:11:20
1	K 766.490 Radial†	9004.9	8656.0	6089.0	µg/L	6089.0	ppb	14:11:00
1	Mg 279.077 IEC†	691.1	664.5	6168.4	µg/L	6168.4	ppb	14:11:20
1	Na 589.592 Radial†	3038.5	2414.3	783.78	µg/L	783.78	ppb	14:11:00
1	Sr 421.552†	8250.6	8059.7	81.497	µg/L	81.497	ppb	14:11:00
1	Sc 361.383	2053397.3	2053397.3	100.44	%			14:12:20
1	Y 371.029	1422339.9	1422339.9	101.24	%			14:12:20
1	Ag 328.068†	-1320.4	-790.9	-0.4259	µg/L	-0.4259	ppb	14:12:25
1	As 188.979†	11.5	9.9	23.229	µg/L	23.229	ppb	14:12:46
1	B 249.677†	888.9	588.3	-16.061	µg/L	-16.061	ppb	14:12:25
1	Ba 233.527†	17898.8	17838.4	458.75	µg/L	458.75	ppb	14:12:25
1	Be 313.107†	15521.5	18421.0	10.882	µg/L	10.882	ppb	14:12:25
1	Cd 226.502†	2416.2	2543.5	59.712	µg/L	59.712	ppb	14:12:46
1	Co 228.616†	1688.1	1685.7	76.669	µg/L	76.669	ppb	14:12:46
1	Cr 267.716†	2278.7	2300.9	48.990	µg/L	48.990	ppb	14:12:46
1	Cu 324.752†	128743.0	125641.2	872.06	µg/L	872.06	ppb	14:12:25
1	Mn 257.610†	639605.5	637039.3	2164.4	µg/L	2164.4	ppb	14:12:20
1	Mo 202.031†	26.7	33.5	6.4819	µg/L	6.4819	ppb	14:12:46
1	Ni 231.604†	973.1	662.0	36.293	µg/L	36.293	ppb	14:12:46
1	P 214.914†	554.5	530.5	973.14	µg/L	973.14	ppb	14:12:46
1	Pb 220.353†	1373.3	1273.7	327.59	µg/L	327.59	ppb	14:12:46
1	S 181.975 Axial†	174.5	159.9	689.21	µg/L	689.21	ppb	14:12:46
1	Sb 206.836†	41.7	21.3	19.038	µg/L	19.038	ppb	14:12:46
1	Se 196.026†	-30.3	-46.0	139.85	µg/L	139.85	ppb	14:12:46
1	SiO2†	203041.1	200806.9	42342	µg/L	42342	ppb	14:12:20
1	Si 251.611†	244789.7	243402.5	19705	µg/L	19705	ppb	14:12:20
1	Sn 189.927†	4.5	1.4	-7.2287	µg/L	-7.2287	ppb	14:12:46
1	Ti 334.940†	1012730.0	1008161.6	2379.4	µg/L	2379.4	ppb	14:12:20
1	Tl 190.801†	-49.3	-26.1	6.4377	µg/L	6.4377	ppb	14:12:46
1	U 409.014†	2383.4	2416.6	198.50	µg/L	198.50	ppb	14:12:25
1	V 292.402†	10796.2	10780.9	120.72	µg/L	120.72	ppb	14:12:25
1	Zn 213.857†	22272.5	21656.1	537.00	µg/L	537.00	ppb	14:12:25
2	Sc RADIAL	59630.2	59630.2	103	%			14:11:26
2	Al 396.153Radial†	48438.9	47168.5	34676	µg/L	34676	ppb	14:11:26
2	Ca 317.933Radial†	11349.7	10851.2	10050	µg/L	10050	ppb	14:11:46
2	Fe 238.204 Radial†	9468.4	9198.4	79027	µg/L	79027	ppb	14:11:46
2	K 766.490 Radial†	9032.0	8614.0	6059.5	µg/L	6059.5	ppb	14:11:26
2	Mg 279.077 IEC†	688.4	656.6	6095.5	µg/L	6095.5	ppb	14:11:46
2	Na 589.592 Radial†	3052.2	2404.6	780.61	µg/L	780.61	ppb	14:11:26
2	Sr 421.552†	8357.1	8100.7	81.911	µg/L	81.911	ppb	14:11:26
2	Sc 361.383	2046101.2	2046101.2	100.08	%			14:12:53
2	Y 371.029	1416505.2	1416505.2	100.82	%			14:12:53
2	Ag 328.068†	-1295.7	-771.0	-0.3138	µg/L	-0.3138	ppb	14:12:58
2	As 188.979†	8.2	6.7	16.910	µg/L	16.910	ppb	14:13:18
2	B 249.677†	895.2	597.7	-15.209	µg/L	-15.209	ppb	14:12:58
2	Ba 233.527†	17968.5	17971.5	462.17	µg/L	462.17	ppb	14:12:58
2	Be 313.107†	15577.8	18532.4	10.951	µg/L	10.951	ppb	14:12:58
2	Cd 226.502†	2422.5	2558.4	60.208	µg/L	60.208	ppb	14:13:18
2	Co 228.616†	1678.7	1682.3	76.494	µg/L	76.494	ppb	14:13:18
2	Cr 267.716†	2293.4	2323.7	49.476	µg/L	49.476	ppb	14:13:18
2	Cu 324.752†	129322.0	126676.9	879.04	µg/L	879.04	ppb	14:12:58
2	Mn 257.610†	638642.6	638347.9	2168.7	µg/L	2168.7	ppb	14:12:53
2	Mo 202.031†	36.4	43.2	7.4501	µg/L	7.4501	ppb	14:13:18
2	Ni 231.604†	965.6	658.0	36.066	µg/L	36.066	ppb	14:13:18
2	P 214.914†	566.1	544.1	1001.8	µg/L	1001.8	ppb	14:13:18
2	Pb 220.353†	1362.9	1268.2	326.19	µg/L	326.19	ppb	14:13:18

2	S 181.975 Axial†	172.4	158.5	683.25 µg/L	683.25 ppb	14:13:18
2	Sb 206.836†	31.3	11.1	9.3015 µg/L	9.3015 ppb	14:13:18
2	Se 196.026†	-25.2	-41.0	145.26 µg/L	145.26 ppb	14:13:18
2	SiO2†	202906.3	201393.0	42466 µg/L	42466 ppb	14:12:53
2	Si 251.611†	244252.9	243735.3	19732 µg/L	19732 ppb	14:12:53
2	Sn 189.927†	1.7	-1.4	-8.3768 µg/L	-8.3768 ppb	14:13:18
2	Ti 334.940†	1011434.4	1010462.5	2384.8 µg/L	2384.8 ppb	14:12:53
2	Tl 190.801†	-45.0	-22.1	12.061 µg/L	12.061 ppb	14:13:18
2	U 409.014†	2445.1	2486.8	204.73 µg/L	204.73 ppb	14:12:58
2	V 292.402†	10891.6	10914.6	122.01 µg/L	122.01 ppb	14:12:58
2	Zn 213.857†	22308.5	21771.0	539.92 µg/L	539.92 ppb	14:12:58
3	Sc RADIAL	59097.4	59097.4	102 %		14:11:51
3	Al 396.153Radial†	48385.5	47541.1	34950 µg/L	34950 ppb	14:11:51
3	Ca 317.933Radial†	11341.4	10942.7	10135 µg/L	10135 ppb	14:12:11
3	Fe 238.204 Radial†	9462.2	9275.3	79688 µg/L	79688 ppb	14:12:11
3	K 766.490 Radial†	9091.0	8751.1	6156.0 µg/L	6156.0 ppb	14:11:51
3	Mg 279.077 IEC†	691.1	665.3	6176.7 µg/L	6176.7 ppb	14:12:11
3	Na 589.592 Radial†	3054.4	2433.5	790.01 µg/L	790.01 ppb	14:11:51
3	Sr 421.552†	8256.0	8074.7	81.649 µg/L	81.649 ppb	14:11:51
3	Sc 361.383	2044289.6	2044289.6	99.995 %		14:13:25
3	Y 371.029	1415784.3	1415784.3	100.77 %		14:13:25
3	Ag 328.068†	-1304.9	-781.3	-0.3674 µg/L	-0.3674 ppb	14:13:30
3	As 188.979†	12.8	11.3	25.840 µg/L	25.840 ppb	14:13:50
3	B 249.677†	868.0	571.3	-16.706 µg/L	-16.706 ppb	14:13:30
3	Ba 233.527†	17648.1	17667.0	454.34 µg/L	454.34 ppb	14:13:30
3	Be 313.107†	15222.9	18191.3	10.741 µg/L	10.741 ppb	14:13:30
3	Cd 226.502†	2313.8	2451.9	57.255 µg/L	57.255 ppb	14:13:50
3	Co 228.616†	1581.6	1586.7	71.912 µg/L	71.912 ppb	14:13:50
3	Cr 267.716†	2133.4	2165.7	46.116 µg/L	46.116 ppb	14:13:50
3	Cu 324.752†	126942.8	124412.1	863.62 µg/L	863.62 ppb	14:13:30
3	Mn 257.610†	633727.8	633998.4	2154.1 µg/L	2154.1 ppb	14:13:25
3	Mo 202.031†	26.9	33.7	6.4984 µg/L	6.4984 ppb	14:13:50
3	Ni 231.604†	921.1	614.4	33.752 µg/L	33.752 ppb	14:13:50
3	P 214.914†	532.6	511.0	933.21 µg/L	933.21 ppb	14:13:50
3	Pb 220.353†	1333.8	1240.3	318.97 µg/L	318.97 ppb	14:13:50
3	S 181.975 Axial†	172.8	159.0	685.61 µg/L	685.61 ppb	14:13:50
3	Sb 206.836†	32.9	12.7	10.851 µg/L	10.851 ppb	14:13:50
3	Se 196.026†	-28.3	-44.2	142.10 µg/L	142.10 ppb	14:13:50
3	SiO2†	201379.5	200045.8	42182 µg/L	42182 ppb	14:13:25
3	Si 251.611†	242554.6	242253.1	19612 µg/L	19612 ppb	14:13:25
3	Sn 189.927†	7.5	4.4	-5.8631 µg/L	-5.8631 ppb	14:13:50
3	Ti 334.940†	1001395.9	1001319.0	2363.3 µg/L	2363.3 ppb	14:13:25
3	Tl 190.801†	-47.2	-24.2	8.9417 µg/L	8.9417 ppb	14:13:50
3	U 409.014†	2274.2	2318.0	189.95 µg/L	189.95 ppb	14:13:30
3	V 292.402†	10669.1	10701.8	119.86 µg/L	119.86 ppb	14:13:30
3	Zn 213.857†	21970.5	21452.8	531.94 µg/L	531.94 ppb	14:13:30

Mean Data: 245797005|948065|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2047929.4	100.17	%	0.236				0.24%
Sc RADIAL	59298.6	102	%	0.5				0.49%
Y 371.029	1418209.8	100.94	%	0.256				0.25%
Ag 328.068†	-781.1	-0.3691	µg/L	0.05609	-0.3691	ppb	0.05609	15.20%
Al 396.153Radial†	47233.2	34723	µg/L	206.7	34723	ppb	206.7	0.60%
As 188.979†	9.3	21.993	µg/L	4.5914	21.993	ppb	4.5914	20.88%
B 249.677†	585.8	-15.992	µg/L	0.7512	-15.992	ppb	0.7512	4.70%
Ba 233.527†	17825.6	458.42	µg/L	3.926	458.42	ppb	3.926	0.86%
Be 313.107†	18381.6	10.858	µg/L	0.1071	10.858	ppb	0.1071	0.99%
Ca 317.933Radial†	10915.3	10110	µg/L	51.5	10110	ppb	51.5	0.51%
Cd 226.502†	2517.9	59.058	µg/L	1.5814	59.058	ppb	1.5814	2.68%
Co 228.616†	1651.6	75.025	µg/L	2.6974	75.025	ppb	2.6974	3.60%
Cr 267.716†	2263.4	48.194	µg/L	1.8159	48.194	ppb	1.8159	3.77%
Cu 324.752†	125576.7	871.57	µg/L	7.725	871.57	ppb	7.725	0.89%
Fe 238.204 Radial†	9256.8	79529	µg/L	444.1	79529	ppb	444.1	0.56%
K 766.490 Radial†	8673.7	6101.5	µg/L	49.44	6101.5	ppb	49.44	0.81%
Mg 279.077 IEC†	662.1	6146.9	µg/L	44.71	6146.9	ppb	44.71	0.73%
Mn 257.610†	636461.9	2162.4	µg/L	7.51	2162.4	ppb	7.51	0.35%
Mo 202.031†	36.8	6.8101	µg/L	0.55430	6.8101	ppb	0.55430	8.14%
Na 589.592 Radial†	2417.5	784.80	µg/L	4.782	784.80	ppb	4.782	0.61%

Ni 231.604†	644.8	35.370	µg/L	1.4059	35.370	ppb	1.4059	3.97%
P 214.914†	528.5	969.37	µg/L	34.436	969.37	ppb	34.436	3.55%
Pb 220.353†	1260.8	324.25	µg/L	4.624	324.25	ppb	4.624	1.43%
S 181.975 Axial†	159.1	686.02	µg/L	3.004	686.02	ppb	3.004	0.44%
Sb 206.836†	15.1	13.064	µg/L	5.2320	13.064	ppb	5.2320	40.05%
Se 196.026†	-43.7	142.40	µg/L	2.717	142.40	ppb	2.717	1.91%
SiO2†	200748.6	42330	µg/L	142.4	42330	ppb	142.4	0.34%
Si 251.611†	243130.3	19683	µg/L	63.0	19683	ppb	63.0	0.32%
Sn 189.927†	1.5	-7.1562	µg/L	1.25839	-7.1562	ppb	1.25839	17.58%
Sr 421.552†	8078.4	81.686	µg/L	0.2098	81.686	ppb	0.2098	0.26%
Ti 334.940†	1006647.7	2375.8	µg/L	11.23	2375.8	ppb	11.23	0.47%
Tl 190.801†	-24.1	9.1469	µg/L	2.81733	9.1469	ppb	2.81733	30.80%
U 409.014†	2407.1	197.73	µg/L	7.422	197.73	ppb	7.422	3.75%
V 292.402†	10799.1	120.86	µg/L	1.079	120.86	ppb	1.079	0.89%
Zn 213.857†	21626.6	536.28	µg/L	4.035	536.28	ppb	4.035	0.75%

Sequence No.: 7
Sample ID: 245797006|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 2/17/2010 14:13:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797006|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58770.0	58770.0	101	%			14:14:30
1	Al 396.153Radial†	24673.5	24389.2	17930	µg/L	17930	ppb	14:14:30
1	Ca 317.933Radial†	5331.0	5069.2	4695.1	µg/L	4695.1	ppb	14:14:50
1	Fe 238.204 Radial†	9149.1	9017.9	77476	µg/L	77476	ppb	14:14:30
1	K 766.490 Radial†	4824.5	4587.5	3227.1	µg/L	3227.1	ppb	14:14:30
1	Mg 279.077 IEC†	375.7	357.6	3282.9	µg/L	3282.9	ppb	14:14:50
1	Na 589.592 Radial†	4868.1	4241.3	1376.9	µg/L	1376.9	ppb	14:14:30
1	Sr 421.552†	3867.8	3786.3	38.286	µg/L	38.286	ppb	14:14:30
1	Sc 361.383	2070798.4	2070798.4	101.29	%			14:15:50
1	Y 371.029	1459955.9	1459955.9	103.91	%			14:15:50
1	Ag 328.068†	-1592.0	-1048.0	-2.9526	µg/L	-2.9526	ppb	14:15:55
1	As 188.979†	-0.6	-2.1	0.2519	µg/L	0.2519	ppb	14:16:16
1	B 249.677†	742.4	436.2	-21.128	µg/L	-21.128	ppb	14:15:55
1	Ba 233.527†	7344.3	7268.6	186.95	µg/L	186.95	ppb	14:15:55
1	Be 313.107†	3952.4	6869.6	3.6511	µg/L	3.6511	ppb	14:15:55
1	Cd 226.502†	79.1	216.1	-2.7958	µg/L	-2.7958	ppb	14:16:16
1	Co 228.616†	1342.3	1330.2	60.341	µg/L	60.341	ppb	14:16:16
1	Cr 267.716†	10819.1	10713.4	227.82	µg/L	227.82	ppb	14:15:55
1	Cu 324.752†	7379.2	4747.5	43.302	µg/L	43.302	ppb	14:15:55
1	Mn 257.610†	510091.2	503825.0	1713.7	µg/L	1713.7	ppb	14:15:50
1	Mo 202.031†	45.8	52.1	8.3024	µg/L	8.3024	ppb	14:16:16
1	Ni 231.604†	2644.7	2304.2	123.97	µg/L	123.97	ppb	14:16:16
1	P 214.914†	210.9	186.6	332.43	µg/L	332.43	ppb	14:16:16
1	Pb 220.353†	215.1	118.8	28.933	µg/L	28.933	ppb	14:16:16
1	S 181.975 Axial†	68.9	54.2	233.86	µg/L	233.86	ppb	14:16:16
1	Sb 206.836†	29.4	8.8	5.5475	µg/L	5.5475	ppb	14:16:16
1	Se 196.026†	-21.4	-37.0	151.07	µg/L	151.07	ppb	14:16:16
1	SiO2†	146368.0	143157.5	30186	µg/L	30186	ppb	14:15:55
1	Si 251.611†	179804.1	177197.4	14346	µg/L	14346	ppb	14:15:50
1	Sn 189.927†	3.5	0.4	-7.7301	µg/L	-7.7301	ppb	14:16:16
1	Ti 334.940†	839354.9	828524.0	1955.5	µg/L	1955.5	ppb	14:15:50
1	Tl 190.801†	-45.1	-21.6	5.7409	µg/L	5.7409	ppb	14:16:16
1	U 409.014†	-1317.0	-1256.5	-120.36	µg/L	-120.36	ppb	14:15:50
1	V 292.402†	5462.8	5425.3	65.408	µg/L	65.408	ppb	14:15:55
1	Zn 213.857†	12629.5	11949.7	294.99	µg/L	294.99	ppb	14:15:55
2	Sc RADIAL	58717.1	58717.1	101	%			14:14:55
2	Al 396.153Radial†	24791.2	24527.5	18031	µg/L	18031	ppb	14:14:55
2	Ca 317.933Radial†	5363.9	5106.5	4729.6	µg/L	4729.6	ppb	14:15:15
2	Fe 238.204 Radial†	9190.9	9067.4	77902	µg/L	77902	ppb	14:14:55
2	K 766.490 Radial†	4884.6	4651.2	3271.9	µg/L	3271.9	ppb	14:14:55
2	Mg 279.077 IEC†	380.5	362.7	3330.2	µg/L	3330.2	ppb	14:15:15
2	Na 589.592 Radial†	4933.3	4310.1	1399.2	µg/L	1399.2	ppb	14:14:55
2	Sr 421.552†	3892.6	3814.3	38.569	µg/L	38.569	ppb	14:14:55
2	Sc 361.383	2056615.5	2056615.5	100.60	%			14:16:23
2	Y 371.029	1450194.9	1450194.9	103.22	%			14:16:23
2	Ag 328.068†	-1565.6	-1032.7	-2.8017	µg/L	-2.8017	ppb	14:16:28
2	As 188.979†	4.8	3.3	10.578	µg/L	10.578	ppb	14:16:48
2	B 249.677†	771.2	469.8	-19.881	µg/L	-19.881	ppb	14:16:28
2	Ba 233.527†	7393.7	7367.8	189.50	µg/L	189.50	ppb	14:16:28
2	Be 313.107†	4012.8	6956.5	3.7039	µg/L	3.7039	ppb	14:16:28
2	Cd 226.502†	98.9	236.2	-2.2982	µg/L	-2.2982	ppb	14:16:48
2	Co 228.616†	1343.2	1340.2	60.808	µg/L	60.808	ppb	14:16:48
2	Cr 267.716†	10946.5	10913.7	232.07	µg/L	232.07	ppb	14:16:28
2	Cu 324.752†	7389.1	4807.6	43.772	µg/L	43.772	ppb	14:16:28
2	Mn 257.610†	508980.5	506193.8	1721.8	µg/L	1721.8	ppb	14:16:23
2	Mo 202.031†	38.6	45.3	7.6169	µg/L	7.6169	ppb	14:16:48
2	Ni 231.604†	2638.4	2316.0	124.61	µg/L	124.61	ppb	14:16:48
2	P 214.914†	211.2	188.4	335.71	µg/L	335.71	ppb	14:16:48
2	Pb 220.353†	228.1	133.2	32.670	µg/L	32.670	ppb	14:16:48

2	S 181.975 Axial†	66.2	52.0	224.34 µg/L	224.34 ppb	14:16:48
2	Sb 206.836†	36.2	15.8	12.193 µg/L	12.193 ppb	14:16:48
2	Se 196.026†	-22.9	-38.6	149.82 µg/L	149.82 ppb	14:16:48
2	SiO2†	146948.1	144730.8	30518 µg/L	30518 ppb	14:16:28
2	Si 251.611†	179204.6	177825.7	14396 µg/L	14396 ppb	14:16:23
2	Sn 189.927†	-2.2	-5.3	-10.302 µg/L	-10.302 ppb	14:16:48
2	Ti 334.940†	836846.3	831744.9	1963.1 µg/L	1963.1 ppb	14:16:23
2	Tl 190.801†	-48.9	-25.7	0.1628 µg/L	0.1628 ppb	14:16:48
2	U 409.014†	-1365.4	-1313.6	-125.39 µg/L	-125.39 ppb	14:16:23
2	V 292.402†	5482.7	5482.2	66.044 µg/L	66.044 ppb	14:16:28
2	Zn 213.857†	12700.0	12105.7	298.87 µg/L	298.87 ppb	14:16:28
3	Sc RADIAL	58223.8	58223.8	100 %		14:15:20
3	Al 396.153Radial†	24630.1	24574.4	18066 µg/L	18066 ppb	14:15:20
3	Ca 317.933Radial†	5315.5	5103.1	4726.5 µg/L	4726.5 ppb	14:15:41
3	Fe 238.204 Radial†	9158.1	9111.7	78282 µg/L	78282 ppb	14:15:20
3	K 766.490 Radial†	4834.1	4641.8	3265.3 µg/L	3265.3 ppb	14:15:20
3	Mg 279.077 IEC†	381.6	367.0	3370.0 µg/L	3370.0 ppb	14:15:41
3	Na 589.592 Radial†	4855.7	4274.0	1387.5 µg/L	1387.5 ppb	14:15:20
3	Sr 421.552†	3850.9	3805.3	38.478 µg/L	38.478 ppb	14:15:20
3	Sc 361.383	2047940.0	2047940.0	100.17 %		14:16:56
3	Y 371.029	1443919.1	1443919.1	102.77 %		14:16:56
3	Ag 328.068†	-1544.2	-1017.9	-2.6669 µg/L	-2.6669 ppb	14:17:01
3	As 188.979†	5.4	3.9	11.798 µg/L	11.798 ppb	14:17:21
3	B 249.677†	724.0	426.0	-21.991 µg/L	-21.991 ppb	14:17:01
3	Ba 233.527†	7235.2	7240.6	186.23 µg/L	186.23 ppb	14:17:01
3	Be 313.107†	3807.9	6768.8	3.5912 µg/L	3.5912 ppb	14:17:01
3	Cd 226.502†	76.5	214.3	-2.9413 µg/L	-2.9413 ppb	14:17:21
3	Co 228.616†	1254.2	1257.0	56.822 µg/L	56.822 ppb	14:17:21
3	Cr 267.716†	10659.3	10673.1	226.96 µg/L	226.96 ppb	14:17:01
3	Cu 324.752†	7278.2	4728.1	43.280 µg/L	43.280 ppb	14:17:01
3	Mn 257.610†	501615.7	500985.1	1704.2 µg/L	1704.2 ppb	14:16:56
3	Mo 202.031†	45.6	52.4	8.3681 µg/L	8.3681 ppb	14:17:21
3	Ni 231.604†	2498.1	2187.1	117.73 µg/L	117.73 ppb	14:17:21
3	P 214.914†	197.7	175.7	308.84 µg/L	308.84 ppb	14:17:21
3	Pb 220.353†	217.2	123.3	30.084 µg/L	30.084 ppb	14:17:21
3	S 181.975 Axial†	70.6	56.7	244.45 µg/L	244.45 ppb	14:17:21
3	Sb 206.836†	31.8	11.6	8.1805 µg/L	8.1805 ppb	14:17:21
3	Se 196.026†	-19.7	-35.6	155.41 µg/L	155.41 ppb	14:17:21
3	SiO2†	145055.4	143460.2	30250 µg/L	30250 ppb	14:17:01
3	Si 251.611†	177277.6	176656.6	14302 µg/L	14302 ppb	14:16:56
3	Sn 189.927†	-5.1	-8.2	-11.612 µg/L	-11.612 ppb	14:17:21
3	Ti 334.940†	825083.5	823526.3	1943.7 µg/L	1943.7 ppb	14:16:56
3	Tl 190.801†	-41.7	-18.7	9.6415 µg/L	9.6415 ppb	14:17:21
3	U 409.014†	-1363.1	-1317.0	-125.74 µg/L	-125.74 ppb	14:16:56
3	V 292.402†	5391.3	5414.0	65.380 µg/L	65.380 ppb	14:17:01
3	Zn 213.857†	12513.9	11973.4	295.57 µg/L	295.57 ppb	14:17:01

Mean Data: 245797006|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2058451.3	100.69	%	0.564				0.56%
Sc RADIAL	58570.3	101	%	0.5				0.51%
Y 371.029	1451356.6	103.30	%	0.575				0.56%
Ag 328.068†	-1032.9	-2.8071	µg/L	0.14295	-2.8071	ppb	0.14295	5.09%
Al 396.153Radial†	24497.0	18009	µg/L	70.8	18009	ppb	70.8	0.39%
As 188.979†	1.7	7.5427	µg/L	6.34344	7.5427	ppb	6.34344	84.10%
B 249.677†	444.0	-21.000	µg/L	1.0608	-21.000	ppb	1.0608	5.05%
Ba 233.527†	7292.3	187.56	µg/L	1.718	187.56	ppb	1.718	0.92%
Be 313.107†	6865.0	3.6487	µg/L	0.05639	3.6487	ppb	0.05639	1.55%
Ca 317.933Radial†	5092.9	4717.1	µg/L	19.09	4717.1	ppb	19.09	0.40%
Cd 226.502†	222.2	-2.6784	µg/L	0.33722	-2.6784	ppb	0.33722	12.59%
Co 228.616†	1309.1	59.323	µg/L	2.1793	59.323	ppb	2.1793	3.67%
Cr 267.716†	10766.7	228.95	µg/L	2.740	228.95	ppb	2.740	1.20%
Cu 324.752†	4761.1	43.451	µg/L	0.2782	43.451	ppb	0.2782	0.64%
Fe 238.204 Radial†	9065.6	77887	µg/L	403.0	77887	ppb	403.0	0.52%
K 766.490 Radial†	4626.9	3254.8	µg/L	24.19	3254.8	ppb	24.19	0.74%
Mg 279.077 IEC†	362.4	3327.7	µg/L	43.65	3327.7	ppb	43.65	1.31%
Mn 257.610†	503668.0	1713.3	µg/L	8.79	1713.3	ppb	8.79	0.51%
Mo 202.031†	49.9	8.0958	µg/L	0.41603	8.0958	ppb	0.41603	5.14%
Na 589.592 Radial†	4275.1	1387.9	µg/L	11.16	1387.9	ppb	11.16	0.80%

Ni 231.604†	2269.1	122.10	µg/L	3.799	122.10	ppb	3.799	3.11%
P 214.914†	183.6	325.66	µg/L	14.657	325.66	ppb	14.657	4.50%
Pb 220.353†	125.1	30.562	µg/L	1.9136	30.562	ppb	1.9136	6.26%
S 181.975 Axial†	54.3	234.22	µg/L	10.062	234.22	ppb	10.062	4.30%
Sb 206.836†	12.1	8.6405	µg/L	3.34678	8.6405	ppb	3.34678	38.73%
Se 196.026†	-37.1	152.10	µg/L	2.932	152.10	ppb	2.932	1.93%
SiO2†	143782.8	30318	µg/L	176.0	30318	ppb	176.0	0.58%
Si 251.611†	177226.6	14348	µg/L	47.4	14348	ppb	47.4	0.33%
Sn 189.927†	-4.4	-9.8815	µg/L	1.97493	-9.8815	ppb	1.97493	19.99%
Sr 421.552†	3802.0	38.444	µg/L	0.1446	38.444	ppb	0.1446	0.38%
Ti 334.940†	827931.7	1954.1	µg/L	9.78	1954.1	ppb	9.78	0.50%
Tl 190.801†	-22.0	5.1818	µg/L	4.76402	5.1818	ppb	4.76402	91.94%
U 409.014†	-1295.7	-123.83	µg/L	3.006	-123.83	ppb	3.006	2.43%
V 292.402†	5440.5	65.611	µg/L	0.3753	65.611	ppb	0.3753	0.57%
Zn 213.857†	12009.6	296.47	µg/L	2.095	296.47	ppb	2.095	0.71%

Sequence No.: 8
Sample ID: 245797007|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 313
Date Collected: 2/17/2010 14:17:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797007|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59525.4	59525.4	103	%			14:18:01
1	Al 396.153Radial†	63920.8	62346.6	45834	µg/L	45834	ppb	14:18:01
1	Ca 317.933Radial†	10992.6	10522.5	9746.0	µg/L	9746.0	ppb	14:18:21
1	Fe 238.204 Radial†	10806.6	10519.3	90376	µg/L	90376	ppb	14:18:21
1	K 766.490 Radial†	12213.5	11731.4	8252.4	µg/L	8252.4	ppb	14:18:01
1	Mg 279.077 IEC†	1090.0	1049.3	9779.1	µg/L	9779.1	ppb	14:18:21
1	Na 589.592 Radial†	2464.4	1836.7	596.25	µg/L	596.25	ppb	14:18:01
1	Sr 421.552†	9755.4	9478.3	95.842	µg/L	95.842	ppb	14:18:01
1	Sc 361.383	2079419.7	2079419.7	101.71	%			14:19:21
1	Y 371.029	1421092.2	1421092.2	101.15	%			14:19:21
1	Ag 328.068†	-1773.1	-1219.6	-2.7641	µg/L	-2.7641	ppb	14:19:26
1	As 188.979†	5.7	4.2	12.742	µg/L	12.742	ppb	14:19:46
1	B 249.677†	811.4	501.0	-25.241	µg/L	-25.241	ppb	14:19:26
1	Ba 233.527†	16923.3	16656.2	428.46	µg/L	428.46	ppb	14:19:26
1	Be 313.107†	6569.0	9426.0	5.4097	µg/L	5.4097	ppb	14:19:26
1	Cd 226.502†	160.3	295.6	-2.1684	µg/L	-2.1684	ppb	14:19:46
1	Co 228.616†	1268.6	1252.2	57.231	µg/L	57.231	ppb	14:19:46
1	Cr 267.716†	4981.4	4929.7	104.92	µg/L	104.92	ppb	14:19:26
1	Cu 324.752†	13026.3	10269.3	82.933	µg/L	82.933	ppb	14:19:26
1	Mn 257.610†	478206.1	470389.0	1602.1	µg/L	1602.1	ppb	14:19:21
1	Mo 202.031†	-3.6	3.3	3.7762	µg/L	3.7762	ppb	14:19:46
1	Ni 231.604†	1463.9	1132.5	61.578	µg/L	61.578	ppb	14:19:46
1	P 214.914†	265.1	239.1	436.58	µg/L	436.58	ppb	14:19:46
1	Pb 220.353†	582.7	479.4	123.36	µg/L	123.36	ppb	14:19:46
1	S 181.975 Axial†	72.7	57.6	248.41	µg/L	248.41	ppb	14:19:46
1	Sb 206.836†	33.9	13.1	10.531	µg/L	10.531	ppb	14:19:46
1	Se 196.026†	-19.9	-35.4	181.62	µg/L	181.62	ppb	14:19:46
1	SiO2†	257181.2	251505.4	53033	µg/L	53033	ppb	14:19:21
1	Si 251.611†	310074.6	304538.0	24655	µg/L	24655	ppb	14:19:21
1	Sn 189.927†	-13.3	-16.1	-15.707	µg/L	-15.707	ppb	14:19:46
1	Ti 334.940†	704222.6	692231.8	1633.4	µg/L	1633.4	ppb	14:19:21
1	Tl 190.801†	-41.6	-18.0	11.202	µg/L	11.202	ppb	14:19:46
1	U 409.014†	-619.1	-565.0	-62.302	µg/L	-62.302	ppb	14:19:26
1	V 292.402†	16251.3	16009.6	175.60	µg/L	175.60	ppb	14:19:26
1	Zn 213.857†	9565.2	8885.2	217.43	µg/L	217.43	ppb	14:19:26
2	Sc RADIAL	59629.1	59629.1	103	%			14:18:26
2	Al 396.153Radial†	64477.9	62780.4	46153	µg/L	46153	ppb	14:18:26
2	Ca 317.933Radial†	11012.7	10523.4	9746.8	µg/L	9746.8	ppb	14:18:46
2	Fe 238.204 Radial†	10811.7	10506.0	90261	µg/L	90261	ppb	14:18:46
2	K 766.490 Radial†	12359.1	11852.5	8337.6	µg/L	8337.6	ppb	14:18:26
2	Mg 279.077 IEC†	1085.2	1042.8	9718.6	µg/L	9718.6	ppb	14:18:46
2	Na 589.592 Radial†	2459.1	1827.3	593.21	µg/L	593.21	ppb	14:18:26
2	Sr 421.552†	9813.3	9518.1	96.244	µg/L	96.244	ppb	14:18:26
2	Sc 361.383	2075457.6	2075457.6	101.52	%			14:19:53
2	Y 371.029	1418413.5	1418413.5	100.96	%			14:19:53
2	Ag 328.068†	-1724.1	-1174.7	-2.4289	µg/L	-2.4289	ppb	14:19:58
2	As 188.979†	6.1	4.5	13.466	µg/L	13.466	ppb	14:20:19
2	B 249.677†	814.8	505.9	-24.972	µg/L	-24.972	ppb	14:19:58
2	Ba 233.527†	16742.3	16509.8	424.69	µg/L	424.69	ppb	14:19:58
2	Be 313.107†	6476.6	9347.2	5.3661	µg/L	5.3661	ppb	14:19:58
2	Cd 226.502†	145.5	281.3	-2.5420	µg/L	-2.5420	ppb	14:20:19
2	Co 228.616†	1255.0	1241.2	56.736	µg/L	56.736	ppb	14:20:19
2	Cr 267.716†	4896.2	4855.1	103.33	µg/L	103.33	ppb	14:19:58
2	Cu 324.752†	12863.6	10133.6	81.987	µg/L	81.987	ppb	14:19:58
2	Mn 257.610†	471323.1	464506.5	1582.2	µg/L	1582.2	ppb	14:19:53
2	Mo 202.031†	7.6	14.4	4.9115	µg/L	4.9115	ppb	14:20:19
2	Ni 231.604†	1446.5	1118.1	60.807	µg/L	60.807	ppb	14:20:19
2	P 214.914†	260.0	234.5	427.32	µg/L	427.32	ppb	14:20:19
2	Pb 220.353†	586.0	483.7	124.51	µg/L	124.51	ppb	14:20:19

2	S 181.975 Axial†	68.6	53.7	231.61 µg/L	231.61 ppb	14:20:19
2	Sb 206.836†	27.0	6.5	4.1991 µg/L	4.1991 ppb	14:20:19
2	Se 196.026†	-22.5	-38.1	177.30 µg/L	177.30 ppb	14:20:19
2	SiO2†	254565.4	249411.4	52591 µg/L	52591 ppb	14:19:53
2	Si 251.611†	306695.7	301791.7	24433 µg/L	24433 ppb	14:19:53
2	Sn 189.927†	-7.3	-10.3	-13.102 µg/L	-13.102 ppb	14:20:19
2	Ti 334.940†	695213.2	684679.0	1615.5 µg/L	1615.5 ppb	14:19:53
2	Tl 190.801†	-45.9	-22.2	5.0338 µg/L	5.0338 ppb	14:20:19
2	U 409.014†	-727.5	-672.9	-71.681 µg/L	-71.681 ppb	14:19:58
2	V 292.402†	16081.9	15873.3	174.18 µg/L	174.18 ppb	14:19:58
2	Zn 213.857†	9445.5	8785.3	214.94 µg/L	214.94 ppb	14:19:58
3	Sc RADIAL	58006.8	58006.8	99.9 %		14:18:51
3	Al 396.153Radial†	65497.0	65555.2	48193 µg/L	48193 ppb	14:18:51
3	Ca 317.933Radial†	10919.5	10729.9	9938.1 µg/L	9938.1 ppb	14:19:12
3	Fe 238.204 Radial†	10746.6	10735.1	92229 µg/L	92229 ppb	14:19:12
3	K 766.490 Radial†	12540.0	12369.9	8701.6 µg/L	8701.6 ppb	14:18:51
3	Mg 279.077 IEC†	1082.4	1069.5	9967.8 µg/L	9967.8 ppb	14:19:12
3	Na 589.592 Radial†	2536.9	1972.1	640.22 µg/L	640.22 ppb	14:18:51
3	Sr 421.552†	9993.1	9965.1	100.76 µg/L	100.76 ppb	14:18:51
3	Sc 361.383	2087080.7	2087080.7	102.09 %		14:20:26
3	Y 371.029	1426204.9	1426204.9	101.51 %		14:20:26
3	Ag 328.068†	-1673.5	-1115.6	-1.8781 µg/L	-1.8781 ppb	14:20:31
3	As 188.979†	10.7	9.0	22.119 µg/L	22.119 ppb	14:20:51
3	B 249.677†	852.9	538.7	-24.576 µg/L	-24.576 ppb	14:20:31
3	Ba 233.527†	16418.1	16100.3	414.15 µg/L	414.15 ppb	14:20:31
3	Be 313.107†	6247.1	9086.9	5.2056 µg/L	5.2056 ppb	14:20:31
3	Cd 226.502†	121.5	256.9	-3.4260 µg/L	-3.4260 ppb	14:20:51
3	Co 228.616†	1187.6	1168.4	53.241 µg/L	53.241 ppb	14:20:51
3	Cr 267.716†	4817.3	4751.0	101.11 µg/L	101.11 ppb	14:20:31
3	Cu 324.752†	12678.3	9881.4	80.533 µg/L	80.533 ppb	14:20:31
3	Mn 257.610†	470488.3	461103.3	1571.0 µg/L	1571.0 ppb	14:20:26
3	Mo 202.031†	1.7	8.6	4.3856 µg/L	4.3856 ppb	14:20:51
3	Ni 231.604†	1381.8	1046.8	57.030 µg/L	57.030 ppb	14:20:51
3	P 214.914†	237.7	211.3	377.44 µg/L	377.44 ppb	14:20:51
3	Pb 220.353†	554.0	449.1	115.58 µg/L	115.58 ppb	14:20:51
3	S 181.975 Axial†	65.5	50.4	217.17 µg/L	217.17 ppb	14:20:51
3	Sb 206.836†	31.1	10.3	7.8570 µg/L	7.8570 ppb	14:20:51
3	Se 196.026†	-25.0	-40.4	178.86 µg/L	178.86 ppb	14:20:51
3	SiO2†	253619.3	247088.2	52101 µg/L	52101 ppb	14:20:26
3	Si 251.611†	305869.0	299299.4	24231 µg/L	24231 ppb	14:20:26
3	Sn 189.927†	-13.5	-16.3	-15.980 µg/L	-15.980 ppb	14:20:51
3	Ti 334.940†	692233.1	677946.1	1599.6 µg/L	1599.6 ppb	14:20:26
3	Tl 190.801†	-37.2	-13.5	17.440 µg/L	17.440 ppb	14:20:51
3	U 409.014†	-603.5	-547.4	-61.047 µg/L	-61.047 ppb	14:20:31
3	V 292.402†	15641.2	15353.4	169.06 µg/L	169.06 ppb	14:20:31
3	Zn 213.857†	9331.3	8621.6	210.75 µg/L	210.75 ppb	14:20:31

Mean Data: 245797007|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2080652.7	101.77	%	0.289				0.28%
Sc RADIAL	59053.8	102	%	1.6				1.54%
Y 371.029	1421903.5	101.20	%	0.282				0.28%
Ag 328.068†	-1170.0	-2.3570	µg/L	0.44733	-2.3570	ppb	0.44733	18.98%
Al 396.153Radial†	63560.8	46726	µg/L	1279.7	46726	ppb	1279.7	2.74%
As 188.979†	5.9	16.109	µg/L	5.2174	16.109	ppb	5.2174	32.39%
B 249.677†	515.2	-24.930	µg/L	0.3346	-24.930	ppb	0.3346	1.34%
Ba 233.527†	16422.1	422.43	µg/L	7.414	422.43	ppb	7.414	1.76%
Be 313.107†	9286.7	5.3271	µg/L	0.10749	5.3271	ppb	0.10749	2.02%
Ca 317.933Radial†	10591.9	9810.3	µg/L	110.67	9810.3	ppb	110.67	1.13%
Cd 226.502†	277.9	-2.7121	µg/L	0.64584	-2.7121	ppb	0.64584	23.81%
Co 228.616†	1220.6	55.736	µg/L	2.1744	55.736	ppb	2.1744	3.90%
Cr 267.716†	4845.3	103.12	µg/L	1.911	103.12	ppb	1.911	1.85%
Cu 324.752†	10094.8	81.817	µg/L	1.2091	81.817	ppb	1.2091	1.48%
Fe 238.204 Radial†	10586.8	90955	µg/L	1104.7	90955	ppb	1104.7	1.21%
K 766.490 Radial†	11984.6	8430.5	µg/L	238.55	8430.5	ppb	238.55	2.83%
Mg 279.077 IEC†	1053.9	9821.8	µg/L	129.99	9821.8	ppb	129.99	1.32%
Mn 257.610†	465332.9	1585.1	µg/L	15.78	1585.1	ppb	15.78	1.00%
Mo 202.031†	8.8	4.3578	µg/L	0.56816	4.3578	ppb	0.56816	13.04%
Na 589.592 Radial†	1878.7	609.89	µg/L	26.303	609.89	ppb	26.303	4.31%

Ni 231.604†	1099.1	59.805	µg/L	2.4342	59.805	ppb	2.4342	4.07%
P 214.914†	228.3	413.78	µg/L	31.812	413.78	ppb	31.812	7.69%
Pb 220.353†	470.7	121.15	µg/L	4.857	121.15	ppb	4.857	4.01%
S 181.975 Axial†	53.9	232.39	µg/L	15.634	232.39	ppb	15.634	6.73%
Sb 206.836†	10.0	7.5289	µg/L	3.17848	7.5289	ppb	3.17848	42.22%
Se 196.026†	-37.9	179.26	µg/L	2.190	179.26	ppb	2.190	1.22%
SiO2†	249335.0	52575	µg/L	465.9	52575	ppb	465.9	0.89%
Si 251.611†	301876.3	24439	µg/L	212.1	24439	ppb	212.1	0.87%
Sn 189.927†	-14.2	-14.930	µg/L	1.5888	-14.930	ppb	1.5888	10.64%
Sr 421.552†	9653.9	97.617	µg/L	2.7333	97.617	ppb	2.7333	2.80%
Ti 334.940†	684952.3	1616.2	µg/L	16.88	1616.2	ppb	16.88	1.04%
Tl 190.801†	-17.9	11.225	µg/L	6.2029	11.225	ppb	6.2029	55.26%
U 409.014†	-595.1	-65.010	µg/L	5.8111	-65.010	ppb	5.8111	8.94%
V 292.402†	15745.5	172.95	µg/L	3.439	172.95	ppb	3.439	1.99%
Zn 213.857†	8764.0	214.37	µg/L	3.376	214.37	ppb	3.376	1.57%

Sequence No.: 9
Sample ID: 245797008|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 314
Date Collected: 2/17/2010 14:20:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797008|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59196.9	59196.9	102	%			14:21:31
1	Al 396.153Radial†	32438.6	31826.5	23397	µg/L	23397	ppb	14:21:31
1	Ca 317.933Radial†	10750.4	10344.5	9581.1	µg/L	9581.1	ppb	14:21:31
1	Fe 238.204 Radial†	7799.7	7629.8	65550	µg/L	65550	ppb	14:21:31
1	K 766.490 Radial†	7110.9	6794.8	4779.8	µg/L	4779.8	ppb	14:21:31
1	Mg 279.077 IEC†	537.2	513.2	4760.3	µg/L	4760.3	ppb	14:21:51
1	Na 589.592 Radial†	2107.5	1500.1	486.97	µg/L	486.97	ppb	14:21:31
1	Sr 421.552†	6986.8	6816.8	68.929	µg/L	68.929	ppb	14:21:31
1	Sc 361.383	2039114.6	2039114.6	99.742	%			14:22:50
1	Y 371.029	1408527.5	1408527.5	100.25	%			14:22:50
1	Ag 328.068†	-1324.4	-804.2	-1.6731	µg/L	-1.6731	ppb	14:22:56
1	As 188.979†	2.8	1.4	5.9146	µg/L	5.9146	ppb	14:23:16
1	B 249.677†	753.5	458.7	-14.148	µg/L	-14.148	ppb	14:22:56
1	Ba 233.527†	11922.4	11971.3	307.86	µg/L	307.86	ppb	14:22:56
1	Be 313.107†	9263.6	12255.2	7.0940	µg/L	7.0940	ppb	14:22:56
1	Cd 226.502†	150.9	289.3	0.4576	µg/L	0.4576	ppb	14:23:16
1	Co 228.616†	395.5	401.5	15.344	µg/L	15.344	ppb	14:23:16
1	Cr 267.716†	4168.6	4211.6	89.590	µg/L	89.590	ppb	14:22:56
1	Cu 324.752†	18002.0	15511.1	115.40	µg/L	115.40	ppb	14:22:56
1	Mn 257.610†	523106.6	524698.9	1782.7	µg/L	1782.7	ppb	14:22:50
1	Mo 202.031†	21.0	27.9	5.3666	µg/L	5.3666	ppb	14:23:16
1	Ni 231.604†	1270.1	966.6	52.446	µg/L	52.446	ppb	14:23:16
1	P 214.914†	430.4	409.9	806.82	µg/L	806.82	ppb	14:23:16
1	Pb 220.353†	530.2	438.0	112.12	µg/L	112.12	ppb	14:23:16
1	S 181.975 Axial†	147.4	133.9	577.41	µg/L	577.41	ppb	14:23:16
1	Sb 206.836†	33.0	13.0	10.600	µg/L	10.600	ppb	14:23:16
1	Se 196.026†	-20.3	-36.2	117.06	µg/L	117.06	ppb	14:23:16
1	SiO2†	191420.1	190571.7	40184	µg/L	40184	ppb	14:22:56
1	Si 251.611†	234681.3	234975.0	19023	µg/L	19023	ppb	14:22:50
1	Sn 189.927†	-12.1	-15.2	-13.243	µg/L	-13.243	ppb	14:23:16
1	Ti 334.940†	830647.9	832670.0	1965.3	µg/L	1965.3	ppb	14:22:50
1	Tl 190.801†	-45.4	-22.5	3.4636	µg/L	3.4636	ppb	14:23:16
1	U 409.014†	1266.8	1313.8	104.59	µg/L	104.59	ppb	14:22:56
1	V 292.402†	7177.5	7228.2	82.455	µg/L	82.455	ppb	14:22:56
1	Zn 213.857†	14789.2	14308.6	354.78	µg/L	354.78	ppb	14:22:56
2	Sc RADIAL	58259.7	58259.7	100	%			14:21:56
2	Al 396.153Radial†	32246.5	32146.7	23633	µg/L	23633	ppb	14:21:56
2	Ca 317.933Radial†	10592.5	10356.8	9592.5	µg/L	9592.5	ppb	14:21:56
2	Fe 238.204 Radial†	7699.7	7653.2	65751	µg/L	65751	ppb	14:21:56
2	K 766.490 Radial†	7056.8	6853.1	4820.8	µg/L	4820.8	ppb	14:21:56
2	Mg 279.077 IEC†	537.8	522.3	4845.7	µg/L	4845.7	ppb	14:22:16
2	Na 589.592 Radial†	2066.0	1492.0	484.34	µg/L	484.34	ppb	14:21:56
2	Sr 421.552†	6946.0	6886.3	69.631	µg/L	69.631	ppb	14:21:56
2	Sc 361.383	2044919.6	2044919.6	100.03	%			14:23:23
2	Y 371.029	1412520.1	1412520.1	100.54	%			14:23:23
2	Ag 328.068†	-1372.9	-848.9	-2.0132	µg/L	-2.0132	ppb	14:23:28
2	As 188.979†	8.0	6.5	15.821	µg/L	15.821	ppb	14:23:48
2	B 249.677†	718.4	421.4	-15.871	µg/L	-15.871	ppb	14:23:28
2	Ba 233.527†	11945.4	11960.3	307.58	µg/L	307.58	ppb	14:23:28
2	Be 313.107†	9274.7	12239.9	7.0889	µg/L	7.0889	ppb	14:23:28
2	Cd 226.502†	160.2	298.1	0.6747	µg/L	0.6747	ppb	14:23:48
2	Co 228.616†	374.1	379.0	14.280	µg/L	14.280	ppb	14:23:48
2	Cr 267.716†	4181.4	4212.5	89.610	µg/L	89.610	ppb	14:23:28
2	Cu 324.752†	18038.5	15496.3	115.33	µg/L	115.33	ppb	14:23:28
2	Mn 257.610†	522053.6	522157.3	1774.1	µg/L	1774.1	ppb	14:23:23
2	Mo 202.031†	25.5	32.4	5.8291	µg/L	5.8291	ppb	14:23:48
2	Ni 231.604†	1271.4	964.3	52.324	µg/L	52.324	ppb	14:23:48
2	P 214.914†	428.9	407.2	801.08	µg/L	801.08	ppb	14:23:48
2	Pb 220.353†	513.3	419.6	107.35	µg/L	107.35	ppb	14:23:48

2	S 181.975 Axial†	151.3	137.4	592.45	µg/L	592.45 ppb	14:23:48
2	Sb 206.836†	32.4	12.2	9.9074	µg/L	9.9074 ppb	14:23:48
2	Se 196.026†	-14.5	-30.3	126.51	µg/L	126.51 ppb	14:23:48
2	SiO2†	191628.0	190234.7	40113	µg/L	40113 ppb	14:23:28
2	Si 251.611†	233552.1	233178.1	18878	µg/L	18878 ppb	14:23:23
2	Sn 189.927†	-4.2	-7.3	-9.7459	µg/L	-9.7459 ppb	14:23:48
2	Ti 334.940†	827825.8	827484.5	1953.0	µg/L	1953.0 ppb	14:23:23
2	Tl 190.801†	-45.6	-22.6	3.2358	µg/L	3.2358 ppb	14:23:48
2	U 409.014†	1254.0	1297.3	103.13	µg/L	103.13 ppb	14:23:28
2	V 292.402†	7155.8	7186.1	82.047	µg/L	82.047 ppb	14:23:28
2	Zn 213.857†	14870.8	14348.1	355.76	µg/L	355.76 ppb	14:23:28
3	Sc RADIAL	58441.4	58441.4	101	%		14:22:21
3	Al 396.153Radial†	32465.6	32264.5	23719	µg/L	23719 ppb	14:22:21
3	Ca 317.933Radial†	10642.4	10373.5	9608.0	µg/L	9608.0 ppb	14:22:21
3	Fe 238.204 Radial†	7729.9	7659.3	65804	µg/L	65804 ppb	14:22:21
3	K 766.490 Radial†	7176.0	6949.6	4888.7	µg/L	4888.7 ppb	14:22:21
3	Mg 279.077 IEC†	534.0	516.9	4794.5	µg/L	4794.5 ppb	14:22:42
3	Na 589.592 Radial†	2070.8	1490.4	483.83	µg/L	483.83 ppb	14:22:21
3	Sr 421.552†	6941.1	6859.9	69.365	µg/L	69.365 ppb	14:22:21
3	Sc 361.383	2057709.1	2057709.1	100.65	%		14:23:55
3	Y 371.029	1421319.9	1421319.9	101.16	%		14:23:55
3	Ag 328.068†	-1335.0	-802.7	-1.6556	µg/L	-1.6556 ppb	14:24:00
3	As 188.979†	6.0	4.4	11.863	µg/L	11.863 ppb	14:24:20
3	B 249.677†	726.3	424.8	-15.756	µg/L	-15.756 ppb	14:24:00
3	Ba 233.527†	11745.2	11687.2	300.56	µg/L	300.56 ppb	14:24:00
3	Be 313.107†	9059.8	11968.8	6.9221	µg/L	6.9221 ppb	14:24:00
3	Cd 226.502†	125.0	262.2	-0.3053	µg/L	-0.3053 ppb	14:24:20
3	Co 228.616†	371.7	374.3	14.090	µg/L	14.090 ppb	14:24:20
3	Cr 267.716†	4088.2	4093.9	87.088	µg/L	87.088 ppb	14:24:00
3	Cu 324.752†	17707.3	15055.2	112.31	µg/L	112.31 ppb	14:24:00
3	Mn 257.610†	520435.3	517305.6	1757.7	µg/L	1757.7 ppb	14:23:55
3	Mo 202.031†	14.6	21.4	4.7049	µg/L	4.7049 ppb	14:24:20
3	Ni 231.604†	1229.3	914.6	49.670	µg/L	49.670 ppb	14:24:20
3	P 214.914†	416.8	392.5	770.40	µg/L	770.40 ppb	14:24:20
3	Pb 220.353†	508.8	412.0	105.38	µg/L	105.38 ppb	14:24:20
3	S 181.975 Axial†	147.7	133.0	573.23	µg/L	573.23 ppb	14:24:20
3	Sb 206.836†	27.6	7.3	5.1606	µg/L	5.1606 ppb	14:24:20
3	Se 196.026†	-23.4	-39.1	113.36	µg/L	113.36 ppb	14:24:20
3	SiO2†	189105.5	186537.8	39334	µg/L	39334 ppb	14:24:00
3	Si 251.611†	233206.8	231383.9	18732	µg/L	18732 ppb	14:23:55
3	Sn 189.927†	-6.2	-9.2	-10.613	µg/L	-10.613 ppb	14:24:20
3	Ti 334.940†	825404.6	819935.0	1935.2	µg/L	1935.2 ppb	14:23:55
3	Tl 190.801†	-45.5	-22.3	3.5415	µg/L	3.5415 ppb	14:24:20
3	U 409.014†	1235.3	1271.0	100.83	µg/L	100.83 ppb	14:24:00
3	V 292.402†	7094.0	7080.1	80.946	µg/L	80.946 ppb	14:24:00
3	Zn 213.857†	14681.3	14067.5	348.74	µg/L	348.74 ppb	14:24:00

Mean Data: 245797008|948065|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2047247.8	100.14	%	0.465				0.46%
Sc RADIAL	58632.6	101	%	0.9				0.85%
Y 371.029	1414122.5	100.65	%	0.466				0.46%
Ag 328.068†	-818.6	-1.7806	µg/L	0.20162	-1.7806	ppb	0.20162	11.32%
Al 396.153Radial†	32079.2	23583	µg/L	166.6	23583	ppb	166.6	0.71%
As 188.979†	4.1	11.200	µg/L	4.9865	11.200	ppb	4.9865	44.52%
B 249.677†	435.0	-15.258	µg/L	0.9633	-15.258	ppb	0.9633	6.31%
Ba 233.527†	11872.9	305.33	µg/L	4.138	305.33	ppb	4.138	1.36%
Be 313.107†	12154.6	7.0350	µg/L	0.09777	7.0350	ppb	0.09777	1.39%
Ca 317.933Radial†	10358.3	9593.9	µg/L	13.49	9593.9	ppb	13.49	0.14%
Cd 226.502†	283.2	0.2757	µg/L	0.51472	0.2757	ppb	0.51472	186.73%
Co 228.616†	384.9	14.571	µg/L	0.6758	14.571	ppb	0.6758	4.64%
Cr 267.716†	4172.7	88.763	µg/L	1.4504	88.763	ppb	1.4504	1.63%
Cu 324.752†	15354.2	114.35	µg/L	1.763	114.35	ppb	1.763	1.54%
Fe 238.204 Radial†	7647.4	65702	µg/L	133.9	65702	ppb	133.9	0.20%
K 766.490 Radial†	6865.8	4829.7	µg/L	55.00	4829.7	ppb	55.00	1.14%
Mg 279.077 IEC†	517.5	4800.2	µg/L	42.96	4800.2	ppb	42.96	0.90%
Mn 257.610†	521387.3	1771.5	µg/L	12.69	1771.5	ppb	12.69	0.72%
Mo 202.031†	27.2	5.3002	µg/L	0.56499	5.3002	ppb	0.56499	10.66%
Na 589.592 Radial†	1494.1	485.05	µg/L	1.685	485.05	ppb	1.685	0.35%

Ni 231.604†	948.5	51.480 µg/L	1.5687	51.480 ppb	1.5687	3.05%
P 214.914†	403.2	792.77 µg/L	19.578	792.77 ppb	19.578	2.47%
Pb 220.353†	423.2	108.28 µg/L	3.464	108.28 ppb	3.464	3.20%
S 181.975 Axial†	134.8	581.03 µg/L	10.110	581.03 ppb	10.110	1.74%
Sb 206.836†	10.8	8.5561 µg/L	2.96091	8.5561 ppb	2.96091	34.61%
Se 196.026†	-35.2	118.98 µg/L	6.778	118.98 ppb	6.778	5.70%
SiO2†	189114.7	39877 µg/L	471.9	39877 ppb	471.9	1.18%
Si 251.611†	233179.0	18878 µg/L	145.4	18878 ppb	145.4	0.77%
Sn 189.927†	-10.6	-11.200 µg/L	1.8211	-11.200 ppb	1.8211	16.26%
Sr 421.552†	6854.3	69.308 µg/L	0.3548	69.308 ppb	0.3548	0.51%
Ti 334.940†	826696.5	1951.2 µg/L	15.12	1951.2 ppb	15.12	0.77%
Tl 190.801†	-22.5	3.4136 µg/L	0.15886	3.4136 ppb	0.15886	4.65%
U 409.014†	1294.0	102.85 µg/L	1.896	102.85 ppb	1.896	1.84%
V 292.402†	7164.8	81.816 µg/L	0.7805	81.816 ppb	0.7805	0.95%
Zn 213.857†	14241.4	353.09 µg/L	3.801	353.09 ppb	3.801	1.08%

Sequence No.: 10
Sample ID: 245797009|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 315
Date Collected: 2/17/2010 14:24:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797009|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59023.9	59023.9	102	%			14:25:00
1	Al 396.153Radial†	22813.2	22455.1	16508	µg/L	16508	ppb	14:25:00
1	Ca 317.933Radial†	5171.5	4889.7	4528.9	µg/L	4528.9	ppb	14:25:20
1	Fe 238.204 Radial†	8335.7	8179.3	70272	µg/L	70272	ppb	14:25:00
1	K 766.490 Radial†	7903.1	7594.2	5342.1	µg/L	5342.1	ppb	14:25:00
1	Mg 279.077 IEC†	287.7	269.5	2461.3	µg/L	2461.3	ppb	14:25:20
1	Na 589.592 Radial†	8072.1	7371.1	2392.9	µg/L	2392.9	ppb	14:25:00
1	Sr 421.552†	4026.7	3926.1	39.699	µg/L	39.699	ppb	14:25:00
1	Sc 361.383	2046088.2	2046088.2	100.08	%			14:26:20
1	Y 371.029	1480188.0	1480188.0	105.35	%			14:26:20
1	Ag 328.068†	-1502.3	-977.4	-3.0420	µg/L	-3.0420	ppb	14:26:25
1	As 188.979†	4.5	3.0	9.5680	µg/L	9.5680	ppb	14:26:46
1	B 249.677†	799.2	501.8	-14.818	µg/L	-14.818	ppb	14:26:25
1	Ba 233.527†	12505.0	12512.7	321.70	µg/L	321.70	ppb	14:26:25
1	Be 313.107†	2981.7	5946.8	3.3459	µg/L	3.3459	ppb	14:26:25
1	Cd 226.502†	72.2	210.1	-2.2249	µg/L	-2.2249	ppb	14:26:25
1	Co 228.616†	2219.5	2222.6	105.12	µg/L	105.12	ppb	14:26:46
1	Cr 267.716†	1858.0	1888.6	40.172	µg/L	40.172	ppb	14:26:25
1	Cu 324.752†	7451.3	4907.6	43.397	µg/L	43.397	ppb	14:26:25
1	Mn 257.610†	749656.2	749274.0	2542.7	µg/L	2542.7	ppb	14:26:20
1	Mo 202.031†	66.0	72.8	10.161	µg/L	10.161	ppb	14:26:46
1	Ni 231.604†	1067.0	759.3	41.331	µg/L	41.331	ppb	14:26:46
1	P 214.914†	233.4	211.6	390.56	µg/L	390.56	ppb	14:26:46
1	Pb 220.353†	326.8	233.0	58.786	µg/L	58.786	ppb	14:26:46
1	S 181.975 Axial†	39.2	25.4	109.39	µg/L	109.39	ppb	14:26:46
1	Sb 206.836†	35.8	15.6	14.190	µg/L	14.190	ppb	14:26:46
1	Se 196.026†	-14.3	-30.2	142.61	µg/L	142.61	ppb	14:26:46
1	SiO2†	164474.5	162994.2	34369	µg/L	34369	ppb	14:26:25
1	Si 251.611†	199404.1	198925.0	16105	µg/L	16105	ppb	14:26:20
1	Sn 189.927†	6.8	3.7	-5.5556	µg/L	-5.5556	ppb	14:26:46
1	Ti 334.940†	511780.3	511227.3	1206.6	µg/L	1206.6	ppb	14:26:20
1	Tl 190.801†	-42.9	-20.0	3.5300	µg/L	3.5300	ppb	14:26:46
1	U 409.014†	-1789.3	-1744.1	-161.77	µg/L	-161.77	ppb	14:26:20
1	V 292.402†	2627.9	2657.8	35.618	µg/L	35.618	ppb	14:26:25
1	Zn 213.857†	11709.5	11181.0	276.48	µg/L	276.48	ppb	14:26:25
2	Sc RADIAL	58735.3	58735.3	101	%			14:25:25
2	Al 396.153Radial†	22790.4	22542.8	16572	µg/L	16572	ppb	14:25:25
2	Ca 317.933Radial†	5138.9	4882.5	4522.2	µg/L	4522.2	ppb	14:25:45
2	Fe 238.204 Radial†	8325.9	8209.8	70534	µg/L	70534	ppb	14:25:25
2	K 766.490 Radial†	7912.2	7641.4	5375.3	µg/L	5375.3	ppb	14:25:25
2	Mg 279.077 IEC†	290.0	273.1	2495.3	µg/L	2495.3	ppb	14:25:45
2	Na 589.592 Radial†	8068.1	7406.2	2404.3	µg/L	2404.3	ppb	14:25:25
2	Sr 421.552†	4006.9	3926.0	39.698	µg/L	39.698	ppb	14:25:25
2	Sc 361.383	2060809.5	2060809.5	100.80	%			14:26:53
2	Y 371.029	1491616.6	1491616.6	106.17	%			14:26:53
2	Ag 328.068†	-1450.2	-915.0	-2.5383	µg/L	-2.5383	ppb	14:26:58
2	As 188.979†	13.6	12.0	26.905	µg/L	26.905	ppb	14:27:18
2	B 249.677†	813.9	510.6	-14.574	µg/L	-14.574	ppb	14:26:58
2	Ba 233.527†	12433.0	12352.0	317.56	µg/L	317.56	ppb	14:26:58
2	Be 313.107†	2916.0	5860.4	3.2937	µg/L	3.2937	ppb	14:26:58
2	Cd 226.502†	62.1	199.6	-2.5391	µg/L	-2.5391	ppb	14:26:58
2	Co 228.616†	2201.9	2189.3	103.53	µg/L	103.53	ppb	14:27:18
2	Cr 267.716†	1840.6	1858.1	39.524	µg/L	39.524	ppb	14:26:58
2	Cu 324.752†	7503.0	4905.7	43.421	µg/L	43.421	ppb	14:26:58
2	Mn 257.610†	751570.5	745822.3	2531.1	µg/L	2531.1	ppb	14:26:53
2	Mo 202.031†	64.4	70.8	9.9612	µg/L	9.9612	ppb	14:27:18
2	Ni 231.604†	1061.7	746.5	40.651	µg/L	40.651	ppb	14:27:18
2	P 214.914†	235.7	212.3	391.69	µg/L	391.69	ppb	14:27:18
2	Pb 220.353†	311.5	215.5	54.249	µg/L	54.249	ppb	14:27:18

2	S 181.975 Axial†	40.0	25.9	111.59 µg/L	111.59 ppb		14:27:18
2	Sb 206.836†	28.1	7.8	6.7083 µg/L	6.7083 ppb		14:27:18
2	Se 196.026†	-21.0	-36.7	133.39 µg/L	133.39 ppb		14:27:18
2	SiO2†	163371.5	160726.1	33891 µg/L	33891 ppb		14:26:58
2	Si 251.611†	200489.9	198578.9	16077 µg/L	16077 ppb		14:26:53
2	Sn 189.927†	2.6	-0.5	-7.4841 µg/L	-7.4841 ppb		14:27:18
2	Ti 334.940†	512024.0	507816.1	1198.6 µg/L	1198.6 ppb		14:26:53
2	Tl 190.801†	-39.3	-16.0	8.9400 µg/L	8.9400 ppb		14:27:18
2	U 409.014†	-1882.2	-1823.5	-168.71 µg/L	-168.71 ppb		14:26:53
2	V 292.402†	2625.8	2637.0	35.424 µg/L	35.424 ppb		14:26:58
2	Zn 213.857†	11635.8	11024.3	272.54 µg/L	272.54 ppb		14:26:58
3	Sc RADIAL	58461.0	58461.0	101 %			14:25:50
3	Al 396.153Radial†	22860.6	22718.1	16701 µg/L	16701 ppb		14:25:50
3	Ca 317.933Radial†	5174.3	4941.5	4576.8 µg/L	4576.8 ppb		14:26:11
3	Fe 238.204 Radial†	8336.6	8259.0	70958 µg/L	70958 ppb		14:25:50
3	K 766.490 Radial†	7900.2	7666.2	5392.7 µg/L	5392.7 ppb		14:25:50
3	Mg 279.077 IEC†	287.7	272.2	2485.6 µg/L	2485.6 ppb		14:26:11
3	Na 589.592 Radial†	8037.6	7413.3	2406.6 µg/L	2406.6 ppb		14:25:50
3	Sr 421.552†	4029.2	3966.8	40.111 µg/L	40.111 ppb		14:25:50
3	Sc 361.383	2077947.8	2077947.8	101.64 %			14:27:26
3	Y 371.029	1500520.6	1500520.6	106.80 %			14:27:26
3	Ag 328.068†	-1459.9	-912.7	-2.4991 µg/L	-2.4991 ppb		14:27:31
3	As 188.979†	12.9	11.2	25.403 µg/L	25.403 ppb		14:27:51
3	B 249.677†	772.8	463.6	-16.839 µg/L	-16.839 ppb		14:27:31
3	Ba 233.527†	12084.2	11907.1	306.13 µg/L	306.13 ppb		14:27:31
3	Be 313.107†	2794.9	5717.3	3.2121 µg/L	3.2121 ppb		14:27:31
3	Cd 226.502†	47.2	184.4	-2.9996 µg/L	-2.9996 ppb		14:27:31
3	Co 228.616†	2086.0	2057.4	97.191 µg/L	97.191 ppb		14:27:51
3	Cr 267.716†	1781.9	1785.4	37.976 µg/L	37.976 ppb		14:27:31
3	Cu 324.752†	7335.8	4679.8	41.931 µg/L	41.931 ppb		14:27:31
3	Mn 257.610†	743129.5	731368.2	2482.3 µg/L	2482.3 ppb		14:27:26
3	Mo 202.031†	64.3	70.1	9.9112 µg/L	9.9112 ppb		14:27:51
3	Ni 231.604†	1010.1	687.0	37.489 µg/L	37.489 ppb		14:27:51
3	P 214.914†	206.8	181.8	327.37 µg/L	327.37 ppb		14:27:51
3	Pb 220.353†	305.5	207.1	52.057 µg/L	52.057 ppb		14:27:51
3	S 181.975 Axial†	41.2	26.7	115.12 µg/L	115.12 ppb		14:27:51
3	Sb 206.836†	23.6	3.1	2.2085 µg/L	2.2085 ppb		14:27:51
3	Se 196.026†	-24.5	-40.0	129.49 µg/L	129.49 ppb		14:27:51
3	SiO2†	159562.0	155641.4	32819 µg/L	32819 ppb		14:27:31
3	Si 251.611†	198186.6	194672.4	15760 µg/L	15760 ppb		14:27:26
3	Sn 189.927†	4.6	1.5	-6.6398 µg/L	-6.6398 ppb		14:27:51
3	Ti 334.940†	505048.1	496763.5	1172.5 µg/L	1172.5 ppb		14:27:26
3	Tl 190.801†	-42.0	-18.4	5.3015 µg/L	5.3015 ppb		14:27:51
3	U 409.014†	-1825.0	-1751.8	-162.54 µg/L	-162.54 ppb		14:27:26
3	V 292.402†	2559.4	2550.1	34.582 µg/L	34.582 ppb		14:27:31
3	Zn 213.857†	11338.0	10636.1	262.81 µg/L	262.81 ppb		14:27:31

Mean Data: 245797009|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2061615.1	100.84	%	0.780				0.77%
Sc RADIAL	58740.1	101	%	0.5				0.48%
Y 371.029	1490775.1	106.11	%	0.725				0.68%
Ag 328.068†	-935.0	-2.6931	µg/L	0.30274	-2.6931	ppb	0.30274	11.24%
Al 396.153Radial†	22572.0	16594	µg/L	98.5	16594	ppb	98.5	0.59%
As 188.979†	8.7	20.625	µg/L	9.6052	20.625	ppb	9.6052	46.57%
B 249.677†	492.0	-15.410	µg/L	1.2434	-15.410	ppb	1.2434	8.07%
Ba 233.527†	12257.2	315.13	µg/L	8.066	315.13	ppb	8.066	2.56%
Be 313.107†	5841.5	3.2839	µg/L	0.06746	3.2839	ppb	0.06746	2.05%
Ca 317.933Radial†	4904.6	4542.6	µg/L	29.79	4542.6	ppb	29.79	0.66%
Cd 226.502†	198.0	-2.5879	µg/L	0.38966	-2.5879	ppb	0.38966	15.06%
Co 228.616†	2156.5	101.95	µg/L	4.196	101.95	ppb	4.196	4.12%
Cr 267.716†	1844.0	39.224	µg/L	1.1284	39.224	ppb	1.1284	2.88%
Cu 324.752†	4831.0	42.916	µg/L	0.8532	42.916	ppb	0.8532	1.99%
Fe 238.204 Radial†	8216.0	70588	µg/L	345.8	70588	ppb	345.8	0.49%
K 766.490 Radial†	7633.9	5370.1	µg/L	25.72	5370.1	ppb	25.72	0.48%
Mg 279.077 IEC†	271.6	2480.7	µg/L	17.48	2480.7	ppb	17.48	0.70%
Mn 257.610†	742154.9	2518.7	µg/L	32.08	2518.7	ppb	32.08	1.27%
Mo 202.031†	71.2	10.011	µg/L	0.1320	10.011	ppb	0.1320	1.32%
Na 589.592 Radial†	7396.9	2401.3	µg/L	7.33	2401.3	ppb	7.33	0.31%

Ni 231.604†	730.9	39.824	µg/L	2.0504	39.824	ppb	2.0504	5.15%
P 214.914†	201.9	369.87	µg/L	36.817	369.87	ppb	36.817	9.95%
Pb 220.353†	218.5	55.031	µg/L	3.4321	55.031	ppb	3.4321	6.24%
S 181.975 Axial†	26.0	112.03	µg/L	2.890	112.03	ppb	2.890	2.58%
Sb 206.836†	8.8	7.7021	µg/L	6.05203	7.7021	ppb	6.05203	78.58%
Se 196.026†	-35.6	135.17	µg/L	6.735	135.17	ppb	6.735	4.98%
SiO2†	159787.2	33693	µg/L	793.9	33693	ppb	793.9	2.36%
Si 251.611†	197392.1	15981	µg/L	191.2	15981	ppb	191.2	1.20%
Sn 189.927†	1.6	-6.5598	µg/L	0.96677	-6.5598	ppb	0.96677	14.74%
Sr 421.552†	3939.6	39.836	µg/L	0.2378	39.836	ppb	0.2378	0.60%
Ti 334.940†	505269.0	1192.5	µg/L	17.85	1192.5	ppb	17.85	1.50%
Tl 190.801†	-18.1	5.9238	µg/L	2.75815	5.9238	ppb	2.75815	46.56%
U 409.014†	-1773.2	-164.34	µg/L	3.804	-164.34	ppb	3.804	2.32%
V 292.402†	2615.0	35.208	µg/L	0.5505	35.208	ppb	0.5505	1.56%
Zn 213.857†	10947.1	270.61	µg/L	7.036	270.61	ppb	7.036	2.60%

Sequence No.: 11
Sample ID: 245797010|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 316
Date Collected: 2/17/2010 14:27:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797010|948065|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	60784.9	60784.9	105	%			14:28:31
1	Al 396.153Radial†	97760.9	93366.0	68638	µg/L	68638	ppb	14:28:31
1	Ca 317.933Radial†	24819.1	23502.1	21768	µg/L	21768	ppb	14:28:51
1	Fe 238.204 Radial†	12576.4	11990.8	103020	µg/L	103020	ppb	14:28:51
1	K 766.490 Radial†	14564.9	13729.8	9658.2	µg/L	9658.2	ppb	14:28:31
1	Mg 279.077 IEC†	1618.5	1531.9	14308	µg/L	14308	ppb	14:28:51
1	Na 589.592 Radial†	2522.9	1842.8	598.23	µg/L	598.23	ppb	14:28:51
1	Sr 421.552†	19669.2	18747.0	189.56	µg/L	189.56	ppb	14:28:31
1	Sc 361.383	2097542.2	2097542.2	102.60	%			14:29:51
1	Y 371.029	1457687.6	1457687.6	103.75	%			14:29:51
1	Ag 328.068†	-1949.4	-1376.4	-3.2818	µg/L	-3.2818	ppb	14:29:57
1	As 188.979†	12.6	10.8	25.604	µg/L	25.604	ppb	14:30:17
1	B 249.677†	946.1	625.4	-26.438	µg/L	-26.438	ppb	14:29:57
1	Ba 233.527†	29266.1	28542.6	733.98	µg/L	733.98	ppb	14:29:57
1	Be 313.107†	12441.8	15094.1	9.2501	µg/L	9.2501	ppb	14:29:57
1	Cd 226.502†	194.1	327.2	-2.7331	µg/L	-2.7331	ppb	14:30:17
1	Co 228.616†	1007.9	987.3	45.572	µg/L	45.572	ppb	14:30:17
1	Cr 267.716†	5006.8	4912.2	104.53	µg/L	104.53	ppb	14:29:57
1	Cu 324.752†	16347.4	13395.7	106.11	µg/L	106.11	ppb	14:29:57
1	Mn 257.610†	437825.2	426969.2	1456.8	µg/L	1456.8	ppb	14:29:51
1	Mo 202.031†	8.7	15.3	5.4937	µg/L	5.4937	ppb	14:30:17
1	Ni 231.604†	1682.9	1333.5	72.488	µg/L	72.488	ppb	14:30:17
1	P 214.914†	327.9	298.0	554.91	µg/L	554.91	ppb	14:30:17
1	Pb 220.353†	476.2	370.6	95.922	µg/L	95.922	ppb	14:30:17
1	S 181.975 Axial†	131.4	114.3	492.53	µg/L	492.53	ppb	14:30:17
1	Sb 206.836†	26.2	5.3	2.0664	µg/L	2.0664	ppb	14:30:17
1	Se 196.026†	-33.3	-48.3	189.06	µg/L	189.06	ppb	14:30:17
1	SiO2†	303033.2	294011.1	61996	µg/L	61996	ppb	14:29:51
1	Si 251.611†	365224.6	355656.9	28793	µg/L	28793	ppb	14:29:51
1	Sn 189.927†	-10.6	-13.5	-15.400	µg/L	-15.400	ppb	14:30:17
1	Ti 334.940†	467359.4	455387.9	1074.1	µg/L	1074.1	ppb	14:29:51
1	Tl 190.801†	-37.4	-13.6	14.329	µg/L	14.329	ppb	14:30:17
1	U 409.014†	-979.4	-910.9	-94.883	µg/L	-94.883	ppb	14:29:51
1	V 292.402†	15071.1	14721.3	163.81	µg/L	163.81	ppb	14:29:57
1	Zn 213.857†	11755.6	10938.9	267.95	µg/L	267.95	ppb	14:29:57
2	Sc RADIAL	60601.9	60601.9	104	%			14:28:56
2	Al 396.153Radial†	97534.3	93430.8	68685	µg/L	68685	ppb	14:28:56
2	Ca 317.933Radial†	24896.1	23647.4	21902	µg/L	21902	ppb	14:29:16
2	Fe 238.204 Radial†	12621.0	12069.8	103700	µg/L	103700	ppb	14:29:16
2	K 766.490 Radial†	14571.6	13778.3	9692.3	µg/L	9692.3	ppb	14:28:56
2	Mg 279.077 IEC†	1620.3	1538.3	14368	µg/L	14368	ppb	14:29:16
2	Na 589.592 Radial†	2518.8	1846.1	599.30	µg/L	599.30	ppb	14:29:16
2	Sr 421.552†	19589.6	18727.5	189.37	µg/L	189.37	ppb	14:28:56
2	Sc 361.383	2099101.2	2099101.2	102.68	%			14:30:24
2	Y 371.029	1460254.0	1460254.0	103.93	%			14:30:24
2	Ag 328.068†	-1933.0	-1358.9	-3.1054	µg/L	-3.1054	ppb	14:30:30
2	As 188.979†	12.6	10.8	25.611	µg/L	25.611	ppb	14:30:50
2	B 249.677†	926.3	605.4	-27.662	µg/L	-27.662	ppb	14:30:30
2	Ba 233.527†	29233.3	28489.5	732.61	µg/L	732.61	ppb	14:30:30
2	Be 313.107†	12393.7	15038.2	9.2136	µg/L	9.2136	ppb	14:30:30
2	Cd 226.502†	188.2	321.3	-2.9688	µg/L	-2.9688	ppb	14:30:50
2	Co 228.616†	986.0	965.3	44.503	µg/L	44.503	ppb	14:30:50
2	Cr 267.716†	4933.5	4837.1	102.94	µg/L	102.94	ppb	14:30:30
2	Cu 324.752†	16267.9	13306.4	105.60	µg/L	105.60	ppb	14:30:30
2	Mn 257.610†	437882.5	426708.0	1456.0	µg/L	1456.0	ppb	14:30:24
2	Mo 202.031†	21.2	27.5	6.7716	µg/L	6.7716	ppb	14:30:50
2	Ni 231.604†	1680.5	1329.9	72.308	µg/L	72.308	ppb	14:30:50
2	P 214.914†	311.4	281.7	520.03	µg/L	520.03	ppb	14:30:50
2	Pb 220.353†	471.8	365.9	94.690	µg/L	94.690	ppb	14:30:50

2	S 181.975 Axial†	131.8	114.6	493.85 µg/L	493.85 ppb	14:30:50
2	Sb 206.836†	33.3	12.3	8.7437 µg/L	8.7437 ppb	14:30:50
2	Se 196.026†	-39.7	-54.5	181.47 µg/L	181.47 ppb	14:30:50
2	SiO2†	303703.4	294444.4	62087 µg/L	62087 ppb	14:30:24
2	Si 251.611†	366183.7	356326.6	28848 µg/L	28848 ppb	14:30:24
2	Sn 189.927†	-7.7	-10.6	-14.188 µg/L	-14.188 ppb	14:30:50
2	Ti 334.940†	468522.1	456181.9	1076.0 µg/L	1076.0 ppb	14:30:24
2	Tl 190.801†	-42.4	-18.4	7.7363 µg/L	7.7363 ppb	14:30:50
2	U 409.014†	-971.1	-902.1	-94.220 µg/L	-94.220 ppb	14:30:24
2	V 292.402†	15042.7	14682.8	163.50 µg/L	163.50 ppb	14:30:30
2	Zn 213.857†	11698.5	10874.7	266.31 µg/L	266.31 ppb	14:30:30
3	Sc RADIAL	59717.7	59717.7	103 %		14:29:21
3	Al 396.153Radial†	95957.6	93281.7	68576 µg/L	68576 ppb	14:29:21
3	Ca 317.933Radial†	24599.1	23711.8	21962 µg/L	21962 ppb	14:29:42
3	Fe 238.204 Radial†	12523.5	12154.0	104420 µg/L	104420 ppb	14:29:42
3	K 766.490 Radial†	14340.5	13760.3	9679.6 µg/L	9679.6 ppb	14:29:21
3	Mg 279.077 IEC†	1615.8	1556.9	14542 µg/L	14542 ppb	14:29:42
3	Na 589.592 Radial†	2497.9	1861.5	604.32 µg/L	604.32 ppb	14:29:42
3	Sr 421.552†	19202.0	18628.6	188.37 µg/L	188.37 ppb	14:29:21
3	Sc 361.383	2094831.1	2094831.1	102.47 %		14:30:57
3	Y 371.029	1456856.0	1456856.0	103.69 %		14:30:57
3	Ag 328.068†	-1856.4	-1288.0	-2.5273 µg/L	-2.5273 ppb	14:31:03
3	As 188.979†	13.5	11.7	27.355 µg/L	27.355 ppb	14:31:23
3	B 249.677†	969.1	649.1	-26.148 µg/L	-26.148 ppb	14:31:03
3	Ba 233.527†	28691.5	28018.7	720.50 µg/L	720.50 ppb	14:31:03
3	Be 313.107†	12133.3	14808.7	9.0735 µg/L	9.0735 ppb	14:31:03
3	Cd 226.502†	162.3	296.4	-3.7279 µg/L	-3.7279 ppb	14:31:23
3	Co 228.616†	942.5	924.8	42.576 µg/L	42.576 ppb	14:31:23
3	Cr 267.716†	4853.6	4769.0	101.49 µg/L	101.49 ppb	14:31:03
3	Cu 324.752†	16019.8	13096.6	104.26 µg/L	104.26 ppb	14:31:03
3	Mn 257.610†	431454.2	421303.8	1437.8 µg/L	1437.8 ppb	14:30:57
3	Mo 202.031†	10.8	17.5	5.7639 µg/L	5.7639 ppb	14:31:23
3	Ni 231.604†	1593.0	1247.9	67.942 µg/L	67.942 ppb	14:31:23
3	P 214.914†	305.4	276.4	508.50 µg/L	508.50 ppb	14:31:23
3	Pb 220.353†	452.5	348.0	90.009 µg/L	90.009 ppb	14:31:23
3	S 181.975 Axial†	135.1	118.0	508.88 µg/L	508.88 ppb	14:31:23
3	Sb 206.836†	32.0	11.1	7.5955 µg/L	7.5955 ppb	14:31:23
3	Se 196.026†	-24.7	-40.0	205.39 µg/L	205.39 ppb	14:31:23
3	SiO2†	299918.3	291353.5	61435 µg/L	61435 ppb	14:30:57
3	Si 251.611†	361716.7	352694.1	28554 µg/L	28554 ppb	14:30:57
3	Sn 189.927†	-4.9	-7.9	-13.027 µg/L	-13.027 ppb	14:31:23
3	Ti 334.940†	459889.9	448687.7	1058.3 µg/L	1058.3 ppb	14:30:57
3	Tl 190.801†	-40.0	-16.1	10.732 µg/L	10.732 ppb	14:31:23
3	U 409.014†	-897.9	-832.6	-88.280 µg/L	-88.280 ppb	14:30:57
3	V 292.402†	14675.5	14354.2	160.20 µg/L	160.20 ppb	14:31:03
3	Zn 213.857†	11496.1	10700.5	261.92 µg/L	261.92 ppb	14:31:03

Mean Data: 245797010|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2097158.2	102.58	%	0.106				0.10%
Sc RADIAL	60368.2	104	%	1.0				0.95%
Y 371.029	1458265.9	103.79	%	0.126				0.12%
Ag 328.068†	-1341.1	-2.9715	µg/L	0.39468	-2.9715	ppb	0.39468	13.28%
Al 396.153Radial†	93359.5	68633	µg/L	55.0	68633	ppb	55.0	0.08%
As 188.979†	11.1	26.190	µg/L	1.0088	26.190	ppb	1.0088	3.85%
B 249.677†	626.6	-26.749	µg/L	0.8038	-26.749	ppb	0.8038	3.01%
Ba 233.527†	28350.3	729.03	µg/L	7.417	729.03	ppb	7.417	1.02%
Be 313.107†	14980.4	9.1791	µg/L	0.09323	9.1791	ppb	0.09323	1.02%
Ca 317.933Radial†	23620.4	21877	µg/L	99.5	21877	ppb	99.5	0.45%
Cd 226.502†	314.9	-3.1432	µg/L	0.51984	-3.1432	ppb	0.51984	16.54%
Co 228.616†	959.1	44.217	µg/L	1.5183	44.217	ppb	1.5183	3.43%
Cr 267.716†	4839.4	102.99	µg/L	1.524	102.99	ppb	1.524	1.48%
Cu 324.752†	13266.2	105.32	µg/L	0.957	105.32	ppb	0.957	0.91%
Fe 238.204 Radial†	12071.5	103710	µg/L	701.3	103710	ppb	701.3	0.68%
K 766.490 Radial†	13756.1	9676.7	µg/L	17.23	9676.7	ppb	17.23	0.18%
Mg 279.077 IEC†	1542.4	14406	µg/L	121.5	14406	ppb	121.5	0.84%
Mn 257.610†	424993.6	1450.2	µg/L	10.74	1450.2	ppb	10.74	0.74%
Mo 202.031†	20.1	6.0097	µg/L	0.67346	6.0097	ppb	0.67346	11.21%
Na 589.592 Radial†	1850.1	600.62	µg/L	3.247	600.62	ppb	3.247	0.54%

Ni 231.604†	1303.8	70.913	µg/L	2.5744	70.913	ppb	2.5744	3.63%
P 214.914†	285.4	527.81	µg/L	24.166	527.81	ppb	24.166	4.58%
Pb 220.353†	361.5	93.540	µg/L	3.1197	93.540	ppb	3.1197	3.34%
S 181.975 Axial†	115.6	498.42	µg/L	9.083	498.42	ppb	9.083	1.82%
Sb 206.836†	9.6	6.1352	µg/L	3.57013	6.1352	ppb	3.57013	58.19%
Se 196.026†	-47.6	191.97	µg/L	12.226	191.97	ppb	12.226	6.37%
SiO2†	293269.7	61839	µg/L	352.9	61839	ppb	352.9	0.57%
Si 251.611†	354892.5	28732	µg/L	156.5	28732	ppb	156.5	0.54%
Sn 189.927†	-10.6	-14.205	µg/L	1.1863	-14.205	ppb	1.1863	8.35%
Sr 421.552†	18701.1	189.10	µg/L	0.642	189.10	ppb	0.642	0.34%
Ti 334.940†	453419.2	1069.5	µg/L	9.73	1069.5	ppb	9.73	0.91%
Tl 190.801†	-16.0	10.932	µg/L	3.3009	10.932	ppb	3.3009	30.19%
U 409.014†	-881.8	-92.461	µg/L	3.6360	-92.461	ppb	3.6360	3.93%
V 292.402†	14586.1	162.50	µg/L	2.001	162.50	ppb	2.001	1.23%
Zn 213.857†	10838.1	265.39	µg/L	3.118	265.39	ppb	3.118	1.17%

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 14:31:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59524.9	59524.9	103	%			14:32:08
1	Al 396.153Radial†	6808.0	6660.8	4886.4	µg/L	4886.4	ppb	14:32:08
1	Ca 317.933Radial†	5614.9	5279.2	4889.6	µg/L	4889.6	ppb	14:32:28
1	Fe 238.204 Radial†	605.1	572.7	4930.6	µg/L	4930.6	ppb	14:32:28
1	K 766.490 Radial†	7315.3	6955.7	4893.0	µg/L	4893.0	ppb	14:32:08
1	Mg 279.077 IEC†	556.2	528.8	4980.7	µg/L	4980.7	ppb	14:32:28
1	Na 589.592 Radial†	31635.9	30279.6	9829.8	µg/L	9829.8	ppb	14:32:08
1	Sr 421.552†	49681.1	48406.8	489.47	µg/L	489.47	ppb	14:32:08
1	Sc 361.383	2098852.3	2098852.3	102.66	%			14:33:27
1	Y 371.029	1426754.1	1426754.1	101.55	%			14:33:27
1	Ag 328.068†	63191.6	62075.8	489.34	µg/L	489.34	ppb	14:33:33
1	As 188.979†	270.5	262.0	503.13	µg/L	503.13	ppb	14:33:53
1	B 249.677†	11789.6	11186.9	483.84	µg/L	483.84	ppb	14:33:33
1	Ba 233.527†	19580.7	19090.7	491.62	µg/L	491.62	ppb	14:33:33
1	Be 313.107†	790936.1	773383.5	494.75	µg/L	494.75	ppb	14:33:27
1	Cd 226.502†	18383.7	18044.7	487.33	µg/L	487.33	ppb	14:33:33
1	Co 228.616†	10531.8	10263.6	496.45	µg/L	496.45	ppb	14:33:33
1	Cr 267.716†	23587.9	23008.1	489.49	µg/L	489.49	ppb	14:33:33
1	Cu 324.752†	75884.4	71378.1	489.80	µg/L	489.80	ppb	14:33:33
1	Mn 257.610†	150837.3	147160.6	498.05	µg/L	498.05	ppb	14:33:27
1	Mo 202.031†	4983.4	4861.0	500.42	µg/L	500.42	ppb	14:33:53
1	Ni 231.604†	9781.3	9220.8	491.86	µg/L	491.86	ppb	14:33:33
1	P 214.914†	1255.8	1201.6	2487.6	µg/L	2487.6	ppb	14:33:53
1	Pb 220.353†	2076.3	1928.9	500.51	µg/L	500.51	ppb	14:33:53
1	S 181.975 Axial†	254.8	234.4	1010.4	µg/L	1010.4	ppb	14:33:53
1	Sb 206.836†	553.7	519.2	498.98	µg/L	498.98	ppb	14:33:53
1	Se 196.026†	349.2	324.3	501.72	µg/L	501.72	ppb	14:33:53
1	SiO2†	27204.7	25154.4	5304.1	µg/L	5304.1	ppb	14:33:33
1	Si 251.611†	31881.9	30740.3	2488.7	µg/L	2488.7	ppb	14:33:33
1	Sn 189.927†	1157.3	1124.1	500.85	µg/L	500.85	ppb	14:33:53
1	Ti 334.940†	215578.5	209854.9	495.04	µg/L	495.04	ppb	14:33:27
1	Tl 190.801†	343.5	357.5	501.58	µg/L	501.58	ppb	14:33:53
1	U 409.014†	5760.4	5654.7	490.92	µg/L	490.92	ppb	14:33:33
1	V 292.402†	48652.6	47422.4	494.15	µg/L	494.15	ppb	14:33:33
1	Zn 213.857†	20719.0	19662.6	489.26	µg/L	489.26	ppb	14:33:33
2	Sc RADIAL	59496.9	59496.9	103	%			14:32:33
2	Al 396.153Radial†	6838.7	6693.9	4910.7	µg/L	4910.7	ppb	14:32:33
2	Ca 317.933Radial†	5600.4	5267.6	4878.9	µg/L	4878.9	ppb	14:32:53
2	Fe 238.204 Radial†	600.2	568.2	4892.2	µg/L	4892.2	ppb	14:32:53
2	K 766.490 Radial†	7381.6	7023.7	4940.8	µg/L	4940.8	ppb	14:32:33
2	Mg 279.077 IEC†	557.2	530.1	4992.7	µg/L	4992.7	ppb	14:32:53
2	Na 589.592 Radial†	31808.9	30462.8	9889.3	µg/L	9889.3	ppb	14:32:33
2	Sr 421.552†	50089.6	48828.1	493.73	µg/L	493.73	ppb	14:32:33
2	Sc 361.383	2075976.3	2075976.3	101.54	%			14:34:00
2	Y 371.029	1408477.1	1408477.1	100.25	%			14:34:00
2	Ag 328.068†	63287.6	62848.6	495.43	µg/L	495.43	ppb	14:34:05
2	As 188.979†	269.6	264.0	506.99	µg/L	506.99	ppb	14:34:25
2	B 249.677†	11857.4	11380.3	492.27	µg/L	492.27	ppb	14:34:05
2	Ba 233.527†	19640.6	19359.8	498.55	µg/L	498.55	ppb	14:34:05
2	Be 313.107†	786159.3	777168.9	497.17	µg/L	497.17	ppb	14:34:00
2	Cd 226.502†	18494.3	18350.9	495.61	µg/L	495.61	ppb	14:34:05
2	Co 228.616†	10495.7	10341.0	500.20	µg/L	500.20	ppb	14:34:05
2	Cr 267.716†	23657.9	23330.2	496.34	µg/L	496.34	ppb	14:34:05
2	Cu 324.752†	76004.7	72311.1	496.19	µg/L	496.19	ppb	14:34:05
2	Mn 257.610†	149925.9	147882.0	500.48	µg/L	500.48	ppb	14:34:00
2	Mo 202.031†	4957.7	4889.2	503.31	µg/L	503.31	ppb	14:34:25
2	Ni 231.604†	9850.8	9394.2	501.11	µg/L	501.11	ppb	14:34:05
2	P 214.914†	1249.1	1208.6	2501.7	µg/L	2501.7	ppb	14:34:25
2	Pb 220.353†	2061.5	1936.7	502.50	µg/L	502.50	ppb	14:34:25

2	S 181.975 Axial†	249.9	232.3	1001.5 µg/L	1001.5 ppb	14:34:25
2	Sb 206.836†	548.7	520.2	499.88 µg/L	499.88 ppb	14:34:25
2	Se 196.026†	336.1	315.1	487.70 µg/L	487.70 ppb	14:34:25
2	SiO2†	27302.7	25542.9	5386.0 µg/L	5386.0 ppb	14:34:05
2	Si 251.611†	31982.7	31181.7	2524.4 µg/L	2524.4 ppb	14:34:05
2	Sn 189.927†	1146.9	1126.4	501.84 µg/L	501.84 ppb	14:34:25
2	Ti 334.940†	214903.2	211503.8	498.93 µg/L	498.93 ppb	14:34:00
2	Tl 190.801†	341.1	358.9	503.51 µg/L	503.51 ppb	14:34:25
2	U 409.014†	5867.5	5821.9	505.48 µg/L	505.48 ppb	14:34:05
2	V 292.402†	48813.3	48102.9	501.20 µg/L	501.20 ppb	14:34:05
2	Zn 213.857†	20781.0	19946.1	496.31 µg/L	496.31 ppb	14:34:05
3	Sc RADIAL	59828.0	59828.0	103 %		14:32:58
3	Al 396.153Radial†	6870.3	6687.7	4907.4 µg/L	4907.4 ppb	14:32:58
3	Ca 317.933Radial†	5619.0	5255.5	4867.7 µg/L	4867.7 ppb	14:33:19
3	Fe 238.204 Radial†	608.5	573.1	4933.4 µg/L	4933.4 ppb	14:33:19
3	K 766.490 Radial†	7360.6	6963.5	4898.4 µg/L	4898.4 ppb	14:32:58
3	Mg 279.077 IEC†	559.9	529.7	4988.0 µg/L	4988.0 ppb	14:33:19
3	Na 589.592 Radial†	31858.4	30339.1	9849.1 µg/L	9849.1 ppb	14:32:58
3	Sr 421.552†	50190.3	48655.4	491.99 µg/L	491.99 ppb	14:32:58
3	Sc 361.383	2064756.5	2064756.5	101.00 %		14:34:32
3	Y 371.029	1403607.3	1403607.3	99.902 %		14:34:32
3	Ag 328.068†	61150.3	61071.0	481.33 µg/L	481.33 ppb	14:34:38
3	As 188.979†	242.9	239.0	459.15 µg/L	459.15 ppb	14:34:58
3	B 249.677†	11309.7	10901.4	471.40 µg/L	471.40 ppb	14:34:38
3	Ba 233.527†	18544.2	18379.4	473.29 µg/L	473.29 ppb	14:34:38
3	Be 313.107†	758274.1	753765.5	482.20 µg/L	482.20 ppb	14:34:32
3	Cd 226.502†	17455.0	17420.9	470.46 µg/L	470.46 ppb	14:34:38
3	Co 228.616†	9870.0	9777.7	472.90 µg/L	472.90 ppb	14:34:38
3	Cr 267.716†	21791.6	21608.9	459.73 µg/L	459.73 ppb	14:34:38
3	Cu 324.752†	71459.0	68216.9	468.14 µg/L	468.14 ppb	14:34:38
3	Mn 257.610†	144772.3	143581.5	485.94 µg/L	485.94 ppb	14:34:32
3	Mo 202.031†	4310.6	4275.0	440.11 µg/L	440.11 ppb	14:34:58
3	Ni 231.604†	9211.8	8814.3	470.17 µg/L	470.17 ppb	14:34:38
3	P 214.914†	1102.7	1070.2	2211.9 µg/L	2211.9 ppb	14:34:58
3	Pb 220.353†	1863.0	1751.2	454.29 µg/L	454.29 ppb	14:34:58
3	S 181.975 Axial†	233.8	217.7	938.46 µg/L	938.46 ppb	14:34:58
3	Sb 206.836†	498.5	473.4	454.53 µg/L	454.53 ppb	14:34:58
3	Se 196.026†	306.2	287.3	445.38 µg/L	445.38 ppb	14:34:58
3	SiO2†	26104.8	24502.9	5166.7 µg/L	5166.7 ppb	14:34:38
3	Si 251.611†	30554.1	29938.4	2423.8 µg/L	2423.8 ppb	14:34:38
3	Sn 189.927†	990.8	978.0	435.73 µg/L	435.73 ppb	14:34:58
3	Ti 334.940†	206416.9	204251.2	481.81 µg/L	481.81 ppb	14:34:32
3	Tl 190.801†	315.9	335.8	471.36 µg/L	471.36 ppb	14:34:58
3	U 409.014†	5380.1	5370.7	466.22 µg/L	466.22 ppb	14:34:38
3	V 292.402†	45604.7	45187.1	470.58 µg/L	470.58 ppb	14:34:38
3	Zn 213.857†	19543.2	18831.7	468.57 µg/L	468.57 ppb	14:34:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2079861.7	101.73	%	0.850				0.84%
Sc RADIAL	59616.6	103	%	0.3				0.31%
Y 371.029	1412946.2	100.57	%	0.869				0.86%
Ag 328.068†	61998.5	488.70	µg/L	7.075	488.70	ppb	7.075	1.45%
QC value within limits for Ag 328.068 Recovery = 97.74%								
Al 396.153Radial†	6680.8	4901.5	µg/L	13.16	4901.5	ppb	13.16	0.27%
QC value within limits for Al 396.153Radial Recovery = 98.03%								
As 188.979†	255.0	489.76	µg/L	26.577	489.76	ppb	26.577	5.43%
QC value within limits for As 188.979 Recovery = 97.95%								
B 249.677†	11156.2	482.50	µg/L	10.498	482.50	ppb	10.498	2.18%
QC value within limits for B 249.677 Recovery = 96.50%								
Ba 233.527†	18943.3	487.82	µg/L	13.050	487.82	ppb	13.050	2.68%
QC value within limits for Ba 233.527 Recovery = 97.56%								
Be 313.107†	768105.9	491.37	µg/L	8.036	491.37	ppb	8.036	1.64%
QC value within limits for Be 313.107 Recovery = 98.27%								
Ca 317.933Radial†	5267.4	4878.7	µg/L	10.97	4878.7	ppb	10.97	0.22%
QC value within limits for Ca 317.933Radial Recovery = 97.57%								
Cd 226.502†	17938.8	484.47	µg/L	12.820	484.47	ppb	12.820	2.65%
QC value within limits for Cd 226.502 Recovery = 96.89%								
Co 228.616†	10127.4	489.85	µg/L	14.801	489.85	ppb	14.801	3.02%

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   QC value within limits for Co 228.616  Recovery = 97.97%
Cr 267.716†            22649.1      481.85 µg/L        19.466      481.85 ppb        19.466   4.04%
   QC value within limits for Cr 267.716  Recovery = 96.37%
Cu 324.752†            70635.3      484.71 µg/L        14.702      484.71 ppb        14.702   3.03%
   QC value within limits for Cu 324.752  Recovery = 96.94%
Fe 238.204 Radial†       571.3      4918.7 µg/L         22.99      4918.7 ppb         22.99   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.37%
K 766.490 Radial†       6981.0      4910.7 µg/L         26.17      4910.7 ppb         26.17   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 98.21%
Mg 279.077 IEC†          529.6      4987.1 µg/L          6.05      4987.1 ppb          6.05   0.12%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.74%
Mn 257.610†           146208.0      494.82 µg/L         7.785      494.82 ppb         7.785   1.57%
   QC value within limits for Mn 257.610  Recovery = 98.96%
Mo 202.031†            4675.1      481.28 µg/L        35.685      481.28 ppb        35.685   7.41%
   QC value within limits for Mo 202.031  Recovery = 96.26%
Na 589.592 Radial†     30360.5      9856.1 µg/L         30.34      9856.1 ppb         30.34   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 98.56%
Ni 231.604†            9143.1      487.71 µg/L        15.877      487.71 ppb        15.877   3.26%
   QC value within limits for Ni 231.604  Recovery = 97.54%
P 214.914†             1160.1      2400.4 µg/L        163.42      2400.4 ppb        163.42   6.81%
   QC value within limits for P 214.914  Recovery = 96.02%
Pb 220.353†            1872.2      485.77 µg/L        27.277      485.77 ppb        27.277   5.62%
   QC value within limits for Pb 220.353  Recovery = 97.15%
S 181.975 Axial†        228.1      983.43 µg/L        39.201      983.43 ppb        39.201   3.99%
   QC value within limits for S 181.975 Axial  Recovery = 98.34%
Sb 206.836†             504.3      484.46 µg/L        25.923      484.46 ppb        25.923   5.35%
   QC value within limits for Sb 206.836  Recovery = 96.89%
Se 196.026†             308.9      478.27 µg/L        29.329      478.27 ppb        29.329   6.13%
   QC value within limits for Se 196.026  Recovery = 95.65%
SiO2†                  25066.7      5285.6 µg/L        110.81      5285.6 ppb        110.81   2.10%
   QC value within limits for SiO2  Recovery = 98.84%
Si 251.611†            30620.1      2479.0 µg/L         51.03      2479.0 ppb         51.03   2.06%
   QC value within limits for Si 251.611  Recovery = 99.16%
Sn 189.927†            1076.2      479.47 µg/L        37.884      479.47 ppb        37.884   7.90%
   QC value within limits for Sn 189.927  Recovery = 95.89%
Sr 421.552†            48630.1      491.73 µg/L         2.142      491.73 ppb         2.142   0.44%
   QC value within limits for Sr 421.552  Recovery = 98.35%
Ti 334.940†           208536.6      491.93 µg/L         8.974      491.93 ppb         8.974   1.82%
   QC value within limits for Ti 334.940  Recovery = 98.39%
Tl 190.801†             350.7      492.15 µg/L        18.031      492.15 ppb        18.031   3.66%
   QC value within limits for Tl 190.801  Recovery = 98.43%
U 409.014†             5615.8      487.54 µg/L        19.845      487.54 ppb        19.845   4.07%
   QC value within limits for U 409.014  Recovery = 97.51%
V 292.402†             46904.1      488.64 µg/L        16.034      488.64 ppb        16.034   3.28%
   QC value within limits for V 292.402  Recovery = 97.73%
Zn 213.857†            19480.1      484.71 µg/L        14.421      484.71 ppb        14.421   2.98%
   QC value within limits for Zn 213.857  Recovery = 96.94%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 14:35:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57815.5	57815.5	99.6	%			14:35:38
1	Al 396.153Radial†	25.1	48.1	35.339	µg/L	35.339	ppb	14:35:38
1	Ca 317.933Radial†	198.1	3.5	3.2124	µg/L	3.2124	ppb	14:35:58
1	Fe 238.204 Radial†	19.4	2.2	19.026	µg/L	19.026	ppb	14:35:58
1	K 766.490 Radial†	169.5	-6.8	-4.7497	µg/L	-4.7497	ppb	14:35:38
1	Mg 279.077 IEC†	13.5	0.1	1.1937	µg/L	1.1937	ppb	14:35:58
1	Na 589.592 Radial†	531.6	-32.5	-10.543	µg/L	-10.543	ppb	14:35:38
1	Sr 421.552†	45.1	12.0	0.1210	µg/L	0.1210	ppb	14:35:38
1	Sc 361.383	2059932.3	2059932.3	100.76	%			14:36:56
1	Y 371.029	1405795.7	1405795.7	100.06	%			14:36:56
1	Ag 328.068†	-602.1	-73.9	-0.5760	µg/L	-0.5760	ppb	14:37:02
1	As 188.979†	0.4	-1.1	-2.0360	µg/L	-2.0360	ppb	14:37:22
1	B 249.677†	325.7	26.5	1.1422	µg/L	1.1422	ppb	14:37:22
1	Ba 233.527†	-20.2	-2.1	-0.0529	µg/L	-0.0529	ppb	14:37:22
1	Be 313.107†	-3245.8	-253.8	-0.1626	µg/L	-0.1626	ppb	14:37:02
1	Cd 226.502†	-131.5	7.4	0.1971	µg/L	0.1971	ppb	14:37:22
1	Co 228.616†	-17.9	-12.7	-0.6164	µg/L	-0.6164	ppb	14:37:22
1	Cr 267.716†	-26.6	5.8	0.1230	µg/L	0.1230	ppb	14:37:22
1	Cu 324.752†	2540.3	-16.4	-0.1097	µg/L	-0.1097	ppb	14:37:02
1	Mn 257.610†	-135.3	102.4	0.3486	µg/L	0.3486	ppb	14:37:22
1	Mo 202.031†	-6.7	0.2	0.0204	µg/L	0.0204	ppb	14:37:22
1	Ni 231.604†	288.2	-20.8	-1.1088	µg/L	-1.1088	ppb	14:37:22
1	P 214.914†	35.1	13.3	28.029	µg/L	28.029	ppb	14:37:22
1	Pb 220.353†	93.9	-0.3	-0.1003	µg/L	-0.1003	ppb	14:37:22
1	S 181.975 Axial†	15.7	1.8	7.8463	µg/L	7.8463	ppb	14:37:22
1	Sb 206.836†	26.1	5.7	5.4751	µg/L	5.4751	ppb	14:37:22
1	Se 196.026†	18.4	2.4	3.7805	µg/L	3.7805	ppb	14:37:22
1	SiO2†	1421.4	66.2	13.949	µg/L	13.949	ppb	14:37:02
1	Si 251.611†	365.5	48.2	3.9054	µg/L	3.9054	ppb	14:37:22
1	Sn 189.927†	-2.9	-5.9	-2.6487	µg/L	-2.6487	ppb	14:37:22
1	Ti 334.940†	327.2	194.2	0.4583	µg/L	0.4583	ppb	14:37:02
1	Tl 190.801†	-24.9	-1.8	-2.4377	µg/L	-2.4377	ppb	14:37:22
1	U 409.014†	88.9	131.9	11.473	µg/L	11.473	ppb	14:37:02
1	V 292.402†	-13.4	18.7	0.2073	µg/L	0.2073	ppb	14:37:02
1	Zn 213.857†	493.5	-29.1	-0.7251	µg/L	-0.7251	ppb	14:37:22
2	Sc RADIAL	58228.2	58228.2	100	%			14:36:03
2	Al 396.153Radial†	-20.0	2.9	2.1211	µg/L	2.1211	ppb	14:36:03
2	Ca 317.933Radial†	193.6	-2.5	-2.3070	µg/L	-2.3070	ppb	14:36:23
2	Fe 238.204 Radial†	19.9	2.5	21.758	µg/L	21.758	ppb	14:36:23
2	K 766.490 Radial†	164.9	-12.5	-8.7684	µg/L	-8.7684	ppb	14:36:03
2	Mg 279.077 IEC†	9.6	-3.8	-35.996	µg/L	-35.996	ppb	14:36:23
2	Na 589.592 Radial†	533.0	-34.9	-11.335	µg/L	-11.335	ppb	14:36:03
2	Sr 421.552†	72.2	38.7	0.3910	µg/L	0.3910	ppb	14:36:03
2	Sc 361.383	2052973.8	2052973.8	100.42	%			14:37:28
2	Y 371.029	1400103.1	1400103.1	99.653	%			14:37:28
2	Ag 328.068†	-613.8	-87.6	-0.6838	µg/L	-0.6838	ppb	14:37:33
2	As 188.979†	-1.6	-3.1	-5.9816	µg/L	-5.9816	ppb	14:37:53
2	B 249.677†	292.9	-5.0	-0.2304	µg/L	-0.2304	ppb	14:37:53
2	Ba 233.527†	-19.8	-1.8	-0.0455	µg/L	-0.0455	ppb	14:37:53
2	Be 313.107†	-3318.9	-337.4	-0.2161	µg/L	-0.2161	ppb	14:37:33
2	Cd 226.502†	-135.6	3.0	0.0768	µg/L	0.0768	ppb	14:37:53
2	Co 228.616†	-14.7	-9.6	-0.4658	µg/L	-0.4658	ppb	14:37:53
2	Cr 267.716†	-29.8	2.5	0.0537	µg/L	0.0537	ppb	14:37:53
2	Cu 324.752†	2505.7	-42.3	-0.2870	µg/L	-0.2870	ppb	14:37:33
2	Mn 257.610†	-129.0	108.1	0.3698	µg/L	0.3698	ppb	14:37:53
2	Mo 202.031†	2.9	9.8	1.0084	µg/L	1.0084	ppb	14:37:53
2	Ni 231.604†	293.5	-14.5	-0.7757	µg/L	-0.7757	ppb	14:37:53
2	P 214.914†	32.3	10.6	22.379	µg/L	22.379	ppb	14:37:53
2	Pb 220.353†	90.5	-3.4	-0.8858	µg/L	-0.8858	ppb	14:37:53

2	S 181.975 Axial†	14.3	0.4	1.7610 µg/L	1.7610 ppb		14:37:53
2	Sb 206.836†	26.8	6.5	6.2412 µg/L	6.2412 ppb		14:37:53
2	Se 196.026†	20.3	4.3	6.6720 µg/L	6.6720 ppb		14:37:53
2	SiO2†	1392.9	42.6	8.9724 µg/L	8.9724 ppb		14:37:33
2	Si 251.611†	372.9	56.9	4.6032 µg/L	4.6032 ppb		14:37:53
2	Sn 189.927†	-3.6	-6.7	-2.9898 µg/L	-2.9898 ppb		14:37:53
2	Ti 334.940†	336.3	204.3	0.4849 µg/L	0.4849 ppb		14:37:33
2	Tl 190.801†	-24.5	-1.5	-2.0165 µg/L	-2.0165 ppb		14:37:53
2	U 409.014†	-36.1	7.8	0.6746 µg/L	0.6746 ppb		14:37:33
2	V 292.402†	-29.5	2.7	0.0393 µg/L	0.0393 ppb		14:37:33
2	Zn 213.857†	498.8	-22.2	-0.5507 µg/L	-0.5507 ppb		14:37:53
3	Sc RADIAL	58043.7	58043.7	100 %			14:36:29
3	Al 396.153Radial†	-31.5	-8.6	-6.3014 µg/L	-6.3014 ppb		14:36:29
3	Ca 317.933Radial†	193.5	-2.0	-1.8189 µg/L	-1.8189 ppb		14:36:49
3	Fe 238.204 Radial†	16.9	-0.4	-3.1214 µg/L	-3.1214 ppb		14:36:49
3	K 766.490 Radial†	165.2	-11.7	-8.2301 µg/L	-8.2301 ppb		14:36:29
3	Mg 279.077 IEC†	13.6	0.1	1.1753 µg/L	1.1753 ppb		14:36:49
3	Na 589.592 Radial†	448.7	-117.5	-38.129 µg/L	-38.129 ppb		14:36:29
3	Sr 421.552†	55.3	22.0	0.2221 µg/L	0.2221 ppb		14:36:29
3	Sc 361.383	2074244.3	2074244.3	101.46 %			14:37:59
3	Y 371.029	1415307.0	1415307.0	100.74 %			14:37:59
3	Ag 328.068†	-615.5	-83.0	-0.6487 µg/L	-0.6487 ppb		14:38:04
3	As 188.979†	-2.1	-3.5	-6.8128 µg/L	-6.8128 ppb		14:38:24
3	B 249.677†	301.8	0.7	0.0330 µg/L	0.0330 ppb		14:38:24
3	Ba 233.527†	-18.3	-0.1	-0.0015 µg/L	-0.0015 ppb		14:38:24
3	Be 313.107†	-3235.5	-221.4	-0.1417 µg/L	-0.1417 ppb		14:38:04
3	Cd 226.502†	-125.7	14.1	0.3797 µg/L	0.3797 ppb		14:38:24
3	Co 228.616†	-17.4	-12.1	-0.5874 µg/L	-0.5874 ppb		14:38:24
3	Cr 267.716†	-27.8	4.8	0.1012 µg/L	0.1012 ppb		14:38:24
3	Cu 324.752†	2549.5	-24.7	-0.1698 µg/L	-0.1698 ppb		14:38:04
3	Mn 257.610†	-128.0	110.5	0.3730 µg/L	0.3730 ppb		14:38:24
3	Mo 202.031†	-2.4	4.5	0.4600 µg/L	0.4600 ppb		14:38:24
3	Ni 231.604†	298.1	-12.9	-0.6896 µg/L	-0.6896 ppb		14:38:24
3	P 214.914†	30.3	8.3	17.524 µg/L	17.524 ppb		14:38:24
3	Pb 220.353†	93.4	-1.4	-0.3671 µg/L	-0.3671 ppb		14:38:24
3	S 181.975 Axial†	10.7	-3.3	-14.119 µg/L	-14.119 ppb		14:38:24
3	Sb 206.836†	25.9	5.3	5.1059 µg/L	5.1059 ppb		14:38:24
3	Se 196.026†	21.1	4.9	7.4740 µg/L	7.4740 ppb		14:38:24
3	SiO2†	1398.3	33.7	7.1082 µg/L	7.1082 ppb		14:38:04
3	Si 251.611†	389.1	69.0	5.5851 µg/L	5.5851 ppb		14:38:24
3	Sn 189.927†	-2.6	-5.6	-2.5017 µg/L	-2.5017 ppb		14:38:24
3	Ti 334.940†	201.5	68.0	0.1604 µg/L	0.1604 ppb		14:38:04
3	Tl 190.801†	-22.6	0.6	0.8906 µg/L	0.8906 ppb		14:38:24
3	U 409.014†	-42.7	1.6	0.1376 µg/L	0.1376 ppb		14:38:04
3	V 292.402†	-19.7	12.6	0.1334 µg/L	0.1334 ppb		14:38:04
3	Zn 213.857†	479.6	-46.1	-1.1527 µg/L	-1.1527 ppb		14:38:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2062383.5	100.88	%	0.530				0.53%
Sc RADIAL	58029.1	100.0	%	0.36				0.36%
Y 371.029	1407068.6	100.15	%	0.547				0.55%
Ag 328.068†	-81.5	-0.6362	µg/L	0.05495	-0.6362	ppb	0.05495	8.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.1	10.386	µg/L	22.0163	10.386	ppb	22.0163	211.98%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-4.9435	µg/L	2.55202	-4.9435	ppb	2.55202	51.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	7.4	0.3149	µg/L	0.72842	0.3149	ppb	0.72842	231.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0333	µg/L	0.02778	-0.0333	ppb	0.02778	83.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-270.9	-0.1735	µg/L	0.03838	-0.1735	ppb	0.03838	22.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.3	-0.3045	µg/L	3.05549	-0.3045	ppb	3.05549	>999.9%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.1	0.2178	µg/L	0.15249	0.2178	ppb	0.15249	70.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-11.5	-0.5565	µg/L	0.07995	-0.5565	ppb	0.07995	14.37%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.4      0.0926 µg/L       0.03542      0.0926 ppb        0.03542  38.24%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -27.8     -0.1888 µg/L       0.09016     -0.1888 ppb        0.09016  47.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.5      12.554 µg/L       13.6440      12.554 ppb        13.6440 108.68%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -10.3     -7.2494 µg/L       2.18143     -7.2494 ppb        2.18143  30.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.2     -11.209 µg/L       21.4662     -11.209 ppb        21.4662 191.51%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              107.0      0.3638 µg/L       0.01328      0.3638 ppb        0.01328   3.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.8      0.4963 µg/L       0.49503      0.4963 ppb        0.49503  99.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -61.6     -20.002 µg/L       15.7030     -20.002 ppb        15.7030  78.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -16.1     -0.8580 µg/L       0.22140     -0.8580 ppb        0.22140  25.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.7      22.644 µg/L        5.2574      22.644 ppb         5.2574  23.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.7     -0.4511 µg/L       0.39943     -0.4511 ppb        0.39943  88.55%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.3     -1.5038 µg/L      11.34067     -1.5038 ppb       11.34067 754.11%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.9      5.6074 µg/L       0.57911      5.6074 ppb        0.57911  10.33%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.9      5.9755 µg/L       1.94279      5.9755 ppb        1.94279  32.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     47.5      10.010 µg/L        3.5363      10.010 ppb         3.5363  35.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               58.0      4.6979 µg/L       0.84387      4.6979 ppb        0.84387  17.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -6.1     -2.7134 µg/L       0.25037     -2.7134 ppb        0.25037   9.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               24.2      0.2447 µg/L       0.13641      0.2447 ppb        0.13641  55.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              155.5      0.3679 µg/L       0.18015      0.3679 ppb        0.18015  48.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.9     -1.1879 µg/L       1.81228     -1.1879 ppb        1.81228 152.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                47.1      4.0949 µg/L       6.39485      4.0949 ppb        6.39485 156.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                11.4      0.1266 µg/L       0.08423      0.1266 ppb        0.08423  66.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -32.5     -0.8095 µg/L       0.30974     -0.8095 ppb        0.30974  38.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: 245797011|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 317
Date Collected: 2/17/2010 14:38:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797011|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58475.3	58475.3	101	%			14:39:09
1	Al 396.153Radial†	62929.2	62481.6	45933	µg/L	45933	ppb	14:39:09
1	Ca 317.933Radial†	23895.2	23521.1	21785	µg/L	21785	ppb	14:39:09
1	Fe 238.204 Radial†	8445.7	8365.3	71869	µg/L	71869	ppb	14:39:29
1	K 766.490 Radial†	14209.2	13926.1	9796.3	µg/L	9796.3	ppb	14:39:09
1	Mg 279.077 IEC†	1073.0	1051.5	9820.1	µg/L	9820.1	ppb	14:39:29
1	Na 589.592 Radial†	1681.6	1102.8	358.02	µg/L	358.02	ppb	14:39:09
1	Sr 421.552†	17591.9	17427.1	176.22	µg/L	176.22	ppb	14:39:09
1	Sc 361.383	2035488.5	2035488.5	99.564	%			14:40:29
1	Y 371.029	1412933.9	1412933.9	100.57	%			14:40:29
1	Ag 328.068†	-1275.7	-757.7	-0.5288	µg/L	-0.5288	ppb	14:40:34
1	As 188.979†	8.3	6.9	16.300	µg/L	16.300	ppb	14:40:54
1	B 249.677†	1000.9	708.5	-6.6507	µg/L	-6.6507	ppb	14:40:34
1	Ba 233.527†	28404.5	28546.8	734.05	µg/L	734.05	ppb	14:40:34
1	Be 313.107†	27913.8	31003.6	19.051	µg/L	19.051	ppb	14:40:34
1	Cd 226.502†	321.4	460.8	4.3687	µg/L	4.3687	ppb	14:40:54
1	Co 228.616†	850.4	859.2	37.279	µg/L	37.279	ppb	14:40:54
1	Cr 267.716†	2679.9	2723.8	57.995	µg/L	57.995	ppb	14:40:54
1	Cu 324.752†	137511.3	135575.7	939.03	µg/L	939.03	ppb	14:40:34
1	Mn 257.610†	748110.0	751621.6	2550.6	µg/L	2550.6	ppb	14:40:29
1	Mo 202.031†	19.6	26.6	5.4644	µg/L	5.4644	ppb	14:40:54
1	Ni 231.604†	1140.8	839.1	45.690	µg/L	45.690	ppb	14:40:54
1	P 214.914†	830.2	812.3	1570.1	µg/L	1570.1	ppb	14:40:54
1	Pb 220.353†	3144.0	3064.2	792.70	µg/L	792.70	ppb	14:40:54
1	S 181.975 Axial†	375.1	362.9	1564.4	µg/L	1564.4	ppb	14:40:54
1	Sb 206.836†	47.7	27.8	24.049	µg/L	24.049	ppb	14:40:54
1	Se 196.026†	-22.4	-38.4	123.12	µg/L	123.12	ppb	14:40:54
1	SiO2†	290231.6	290157.7	61183	µg/L	61183	ppb	14:40:29
1	Si 251.611†	349971.3	351188.9	28432	µg/L	28432	ppb	14:40:29
1	Sn 189.927†	9.8	6.8	-3.5928	µg/L	-3.5928	ppb	14:40:54
1	Ti 334.940†	875182.6	878883.3	2074.1	µg/L	2074.1	ppb	14:40:29
1	Tl 190.801†	-49.1	-26.4	3.9011	µg/L	3.9011	ppb	14:40:54
1	U 409.014†	3591.3	3650.7	306.26	µg/L	306.26	ppb	14:40:34
1	V 292.402†	12766.9	12854.9	141.25	µg/L	141.25	ppb	14:40:34
1	Zn 213.857†	18619.7	18182.4	449.97	µg/L	449.97	ppb	14:40:34
2	Sc RADIAL	59131.8	59131.8	102	%			14:39:34
2	Al 396.153Radial†	63786.1	62629.2	46042	µg/L	46042	ppb	14:39:34
2	Ca 317.933Radial†	24039.8	23399.7	21673	µg/L	21673	ppb	14:39:34
2	Fe 238.204 Radial†	8376.1	8204.0	70483	µg/L	70483	ppb	14:39:54
2	K 766.490 Radial†	14296.9	13855.6	9746.7	µg/L	9746.7	ppb	14:39:34
2	Mg 279.077 IEC†	1068.8	1035.6	9672.0	µg/L	9672.0	ppb	14:39:54
2	Na 589.592 Radial†	1661.5	1064.7	345.63	µg/L	345.63	ppb	14:39:34
2	Sr 421.552†	17767.9	17405.9	176.00	µg/L	176.00	ppb	14:39:34
2	Sc 361.383	2050019.6	2050019.6	100.27	%			14:41:01
2	Y 371.029	1421731.8	1421731.8	101.19	%			14:41:01
2	Ag 328.068†	-1348.0	-820.7	-1.1250	µg/L	-1.1250	ppb	14:41:06
2	As 188.979†	18.5	16.9	35.544	µg/L	35.544	ppb	14:41:27
2	B 249.677†	1012.0	712.4	-5.7592	µg/L	-5.7592	ppb	14:41:06
2	Ba 233.527†	28309.8	28250.2	726.42	µg/L	726.42	ppb	14:41:06
2	Be 313.107†	27774.3	30665.7	18.834	µg/L	18.834	ppb	14:41:06
2	Cd 226.502†	304.9	442.1	4.0201	µg/L	4.0201	ppb	14:41:27
2	Co 228.616†	848.5	851.2	36.892	µg/L	36.892	ppb	14:41:27
2	Cr 267.716†	2669.1	2694.0	57.360	µg/L	57.360	ppb	14:41:27
2	Cu 324.752†	136514.8	133603.0	925.32	µg/L	925.32	ppb	14:41:06
2	Mn 257.610†	754954.8	753121.6	2555.5	µg/L	2555.5	ppb	14:41:01
2	Mo 202.031†	18.4	25.2	5.2736	µg/L	5.2736	ppb	14:41:27
2	Ni 231.604†	1138.2	828.3	45.099	µg/L	45.099	ppb	14:41:27
2	P 214.914†	827.9	804.0	1555.2	µg/L	1555.2	ppb	14:41:27
2	Pb 220.353†	3150.6	3048.5	788.71	µg/L	788.71	ppb	14:41:27

2	S 181.975 Axial†	369.8	355.0	1530.2	µg/L	1530.2 ppb	14:41:27
2	Sb 206.836†	50.3	30.0	26.192	µg/L	26.192 ppb	14:41:27
2	Se 196.026†	-25.2	-41.0	115.46	µg/L	115.46 ppb	14:41:27
2	SiO2†	292661.6	290514.8	61258	µg/L	61258 ppb	14:41:01
2	Si 251.611†	353054.6	351772.2	28479	µg/L	28479 ppb	14:41:01
2	Sn 189.927†	4.0	0.9	-6.0829	µg/L	-6.0829 ppb	14:41:27
2	Ti 334.940†	882009.6	879460.9	2075.5	µg/L	2075.5 ppb	14:41:01
2	Tl 190.801†	-37.2	-14.2	20.738	µg/L	20.738 ppb	14:41:27
2	U 409.014†	3574.6	3608.5	302.79	µg/L	302.79 ppb	14:41:06
2	V 292.402†	12624.4	12621.8	138.68	µg/L	138.68 ppb	14:41:06
2	Zn 213.857†	18508.8	17939.2	443.98	µg/L	443.98 ppb	14:41:06
3	Sc RADIAL	59373.5	59373.5	102	%		14:39:59
3	Al 396.153Radial†	63630.1	62221.9	45742	µg/L	45742 ppb	14:39:59
3	Ca 317.933Radial†	23930.5	23196.9	21485	µg/L	21485 ppb	14:39:59
3	Fe 238.204 Radial†	8433.4	8226.5	70677	µg/L	70677 ppb	14:40:20
3	K 766.490 Radial†	14287.4	13789.1	9699.9	µg/L	9699.9 ppb	14:39:59
3	Mg 279.077 IEC†	1072.5	1035.0	9665.4	µg/L	9665.4 ppb	14:40:20
3	Na 589.592 Radial†	1671.6	1067.9	346.67	µg/L	346.67 ppb	14:39:59
3	Sr 421.552†	17711.4	17279.8	174.73	µg/L	174.73 ppb	14:39:59
3	Sc 361.383	2039294.4	2039294.4	99.750	%		14:41:34
3	Y 371.029	1414233.1	1414233.1	100.66	%		14:41:34
3	Ag 328.068†	-1254.4	-733.9	-0.4457	µg/L	-0.4457 ppb	14:41:39
3	As 188.979†	11.5	10.1	22.392	µg/L	22.392 ppb	14:41:59
3	B 249.677†	996.4	702.1	-6.3099	µg/L	-6.3099 ppb	14:41:39
3	Ba 233.527†	27859.7	27947.4	718.64	µg/L	718.64 ppb	14:41:39
3	Be 313.107†	27205.3	30241.0	18.567	µg/L	18.567 ppb	14:41:39
3	Cd 226.502†	287.2	425.9	3.5587	µg/L	3.5587 ppb	14:41:59
3	Co 228.616†	821.6	828.6	35.824	µg/L	35.824 ppb	14:41:59
3	Cr 267.716†	2575.9	2614.6	55.670	µg/L	55.670 ppb	14:41:59
3	Cu 324.752†	134620.1	132419.5	917.23	µg/L	917.23 ppb	14:41:39
3	Mn 257.610†	746182.2	748286.7	2539.2	µg/L	2539.2 ppb	14:41:34
3	Mo 202.031†	19.9	26.8	5.4402	µg/L	5.4402 ppb	14:41:59
3	Ni 231.604†	1100.6	796.6	43.410	µg/L	43.410 ppb	14:41:59
3	P 214.914†	806.8	787.3	1520.5	µg/L	1520.5 ppb	14:41:59
3	Pb 220.353†	3082.9	2997.1	775.38	µg/L	775.38 ppb	14:41:59
3	S 181.975 Axial†	366.1	353.2	1522.5	µg/L	1522.5 ppb	14:41:59
3	Sb 206.836†	47.7	27.6	23.970	µg/L	23.970 ppb	14:41:59
3	Se 196.026†	-17.4	-33.3	127.85	µg/L	127.85 ppb	14:41:59
3	SiO2†	289780.9	289161.8	60973	µg/L	60973 ppb	14:41:34
3	Si 251.611†	349521.7	350082.1	28342	µg/L	28342 ppb	14:41:34
3	Sn 189.927†	5.6	2.5	-5.3976	µg/L	-5.3976 ppb	14:41:59
3	Ti 334.940†	872247.7	874300.5	2063.3	µg/L	2063.3 ppb	14:41:34
3	Tl 190.801†	-48.4	-25.6	4.7109	µg/L	4.7109 ppb	14:41:59
3	U 409.014†	3494.2	3546.6	297.39	µg/L	297.39 ppb	14:41:39
3	V 292.402†	12380.3	12443.4	136.86	µg/L	136.86 ppb	14:41:39
3	Zn 213.857†	18338.0	17865.1	442.13	µg/L	442.13 ppb	14:41:39

Mean Data: 245797011|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2041600.8	99.863	%	0.3686				0.37%
Sc RADIAL	58993.5	102	%	0.8				0.79%
Y 371.029	1416299.6	100.81	%	0.338				0.34%
Ag 328.068†	-770.7	-0.6998	µg/L	0.37053	-0.6998	ppb	0.37053	52.95%
Al 396.153Radial†	62444.2	45906	µg/L	151.6	45906	ppb	151.6	0.33%
As 188.979†	11.3	24.745	µg/L	9.8356	24.745	ppb	9.8356	39.75%
B 249.677†	707.7	-6.2400	µg/L	0.44984	-6.2400	ppb	0.44984	7.21%
Ba 233.527†	28248.1	726.37	µg/L	7.708	726.37	ppb	7.708	1.06%
Be 313.107†	30636.8	18.817	µg/L	0.2424	18.817	ppb	0.2424	1.29%
Ca 317.933Radial†	23372.6	21648	µg/L	151.7	21648	ppb	151.7	0.70%
Cd 226.502†	442.9	3.9825	µg/L	0.40630	3.9825	ppb	0.40630	10.20%
Co 228.616†	846.3	36.665	µg/L	0.7537	36.665	ppb	0.7537	2.06%
Cr 267.716†	2677.4	57.008	µg/L	1.2018	57.008	ppb	1.2018	2.11%
Cu 324.752†	133866.0	927.19	µg/L	11.017	927.19	ppb	11.017	1.19%
Fe 238.204 Radial†	8265.3	71010	µg/L	750.7	71010	ppb	750.7	1.06%
K 766.490 Radial†	13857.0	9747.6	µg/L	48.18	9747.6	ppb	48.18	0.49%
Mg 279.077 IEC†	1040.7	9719.1	µg/L	87.48	9719.1	ppb	87.48	0.90%
Mn 257.610†	751009.9	2548.4	µg/L	8.38	2548.4	ppb	8.38	0.33%
Mo 202.031†	26.2	5.3927	µg/L	0.10387	5.3927	ppb	0.10387	1.93%
Na 589.592 Radial†	1078.5	350.11	µg/L	6.874	350.11	ppb	6.874	1.96%

Ni 231.604†	821.3	44.733	µg/L	1.1836	44.733	ppb	1.1836	2.65%
P 214.914†	801.2	1548.6	µg/L	25.42	1548.6	ppb	25.42	1.64%
Pb 220.353†	3036.6	785.60	µg/L	9.068	785.60	ppb	9.068	1.15%
S 181.975 Axial†	357.0	1539.0	µg/L	22.34	1539.0	ppb	22.34	1.45%
Sb 206.836†	28.4	24.737	µg/L	1.2609	24.737	ppb	1.2609	5.10%
Se 196.026†	-37.6	122.14	µg/L	6.250	122.14	ppb	6.250	5.12%
SiO2†	289944.7	61138	µg/L	147.9	61138	ppb	147.9	0.24%
Si 251.611†	351014.4	28418	µg/L	69.5	28418	ppb	69.5	0.24%
Sn 189.927†	3.4	-5.0244	µg/L	1.28631	-5.0244	ppb	1.28631	25.60%
Sr 421.552†	17370.9	175.65	µg/L	0.806	175.65	ppb	0.806	0.46%
Ti 334.940†	877548.2	2071.0	µg/L	6.67	2071.0	ppb	6.67	0.32%
Tl 190.801†	-22.1	9.7832	µg/L	9.49542	9.7832	ppb	9.49542	97.06%
U 409.014†	3601.9	302.14	µg/L	4.471	302.14	ppb	4.471	1.48%
V 292.402†	12640.0	138.93	µg/L	2.206	138.93	ppb	2.206	1.59%
Zn 213.857†	17995.6	445.36	µg/L	4.100	445.36	ppb	4.100	0.92%

Sequence No.: 15
Sample ID: 245797012|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 318
Date Collected: 2/17/2010 14:42:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797012|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58495.7	58495.7	101	%			14:42:40
1	Al 396.153Radial†	45667.1	45332.7	33326	µg/L	33326	ppb	14:42:40
1	Ca 317.933Radial†	12506.2	12213.0	11312	µg/L	11312	ppb	14:43:00
1	Fe 238.204 Radial†	10467.7	10368.6	89081	µg/L	89081	ppb	14:43:00
1	K 766.490 Radial†	8325.4	8083.4	5686.2	µg/L	5686.2	ppb	14:42:40
1	Mg 279.077 IEC†	900.0	879.5	8182.8	µg/L	8182.8	ppb	14:43:00
1	Na 589.592 Radial†	5888.8	5276.6	1713.0	µg/L	1713.0	ppb	14:42:40
1	Sr 421.552†	10156.0	10043.2	101.55	µg/L	101.55	ppb	14:42:40
1	Sc 361.383	2072427.9	2072427.9	101.37	%			14:44:00
1	Y 371.029	1466686.3	1466686.3	104.39	%			14:44:00
1	Ag 328.068†	-1632.8	-1087.1	-2.4285	µg/L	-2.4285	ppb	14:44:05
1	As 188.979†	10.4	8.8	21.437	µg/L	21.437	ppb	14:44:25
1	B 249.677†	849.2	541.0	-22.605	µg/L	-22.605	ppb	14:44:05
1	Ba 233.527†	21973.9	21694.7	557.80	µg/L	557.80	ppb	14:44:05
1	Be 313.107†	7024.1	9896.7	5.8809	µg/L	5.8809	ppb	14:44:05
1	Cd 226.502†	104.7	241.3	-3.3933	µg/L	-3.3933	ppb	14:44:25
1	Co 228.616†	1945.6	1924.3	90.713	µg/L	90.713	ppb	14:44:25
1	Cr 267.716†	11643.8	11518.6	244.94	µg/L	244.94	ppb	14:44:05
1	Cu 324.752†	9191.9	6530.1	57.129	µg/L	57.129	ppb	14:44:05
1	Mn 257.610†	557603.8	550299.0	1872.2	µg/L	1872.2	ppb	14:44:00
1	Mo 202.031†	38.2	44.6	7.9697	µg/L	7.9697	ppb	14:44:25
1	Ni 231.604†	3264.2	2913.3	156.61	µg/L	156.61	ppb	14:44:25
1	P 214.914†	215.2	190.7	334.86	µg/L	334.86	ppb	14:44:25
1	Pb 220.353†	267.0	169.9	42.595	µg/L	42.595	ppb	14:44:25
1	S 181.975 Axial†	60.6	46.0	198.34	µg/L	198.34	ppb	14:44:25
1	Sb 206.836†	30.7	10.1	5.9914	µg/L	5.9914	ppb	14:44:25
1	Se 196.026†	-26.0	-41.5	169.70	µg/L	169.70	ppb	14:44:25
1	SiO2†	257059.6	252238.5	53187	µg/L	53187	ppb	14:44:00
1	Si 251.611†	309850.5	305345.4	24720	µg/L	24720	ppb	14:44:00
1	Sn 189.927†	10.9	7.6	-5.1851	µg/L	-5.1851	ppb	14:44:25
1	Ti 334.940†	510287.0	503255.0	1187.4	µg/L	1187.4	ppb	14:44:00
1	Tl 190.801†	-42.9	-19.4	4.7946	µg/L	4.7946	ppb	14:44:25
1	U 409.014†	-1715.0	-1648.1	-156.44	µg/L	-156.44	ppb	14:44:00
1	V 292.402†	6938.2	6876.4	81.708	µg/L	81.708	ppb	14:44:05
1	Zn 213.857†	16886.1	16138.9	398.97	µg/L	398.97	ppb	14:44:05
2	Sc RADIAL	58819.3	58819.3	101	%			14:43:05
2	Al 396.153Radial†	45698.3	45114.2	33166	µg/L	33166	ppb	14:43:05
2	Ca 317.933Radial†	12341.9	11982.5	11098	µg/L	11098	ppb	14:43:25
2	Fe 238.204 Radial†	10283.9	10130.1	87032	µg/L	87032	ppb	14:43:25
2	K 766.490 Radial†	8252.4	7965.9	5603.6	µg/L	5603.6	ppb	14:43:05
2	Mg 279.077 IEC†	892.9	867.6	8073.1	µg/L	8073.1	ppb	14:43:25
2	Na 589.592 Radial†	5905.5	5260.9	1707.9	µg/L	1707.9	ppb	14:43:05
2	Sr 421.552†	10173.3	10004.8	101.17	µg/L	101.17	ppb	14:43:05
2	Sc 361.383	2065696.1	2065696.1	101.04	%			14:44:33
2	Y 371.029	1461587.5	1461587.5	104.03	%			14:44:33
2	Ag 328.068†	-1691.9	-1150.8	-3.0503	µg/L	-3.0503	ppb	14:44:38
2	As 188.979†	9.9	8.3	20.424	µg/L	20.424	ppb	14:44:58
2	B 249.677†	870.9	565.1	-20.486	µg/L	-20.486	ppb	14:44:38
2	Ba 233.527†	22085.3	21875.6	562.45	µg/L	562.45	ppb	14:44:38
2	Be 313.107†	6997.2	9892.6	5.8798	µg/L	5.8798	ppb	14:44:38
2	Cd 226.502†	94.3	231.3	-3.4326	µg/L	-3.4326	ppb	14:44:58
2	Co 228.616†	1928.9	1914.1	90.225	µg/L	90.225	ppb	14:44:58
2	Cr 267.716†	11672.3	11584.2	246.34	µg/L	246.34	ppb	14:44:38
2	Cu 324.752†	9204.4	6571.9	57.132	µg/L	57.132	ppb	14:44:38
2	Mn 257.610†	553115.0	547649.1	1863.0	µg/L	1863.0	ppb	14:44:33
2	Mo 202.031†	31.6	38.1	7.2295	µg/L	7.2295	ppb	14:44:58
2	Ni 231.604†	3216.3	2876.4	154.62	µg/L	154.62	ppb	14:44:58
2	P 214.914†	211.9	188.2	331.08	µg/L	331.08	ppb	14:44:58
2	Pb 220.353†	258.8	162.6	40.767	µg/L	40.767	ppb	14:44:58

2	S 181.975 Axial†	60.7	46.3	199.43 µg/L	199.43 ppb	14:44:58
2	Sb 206.836†	35.5	15.0	10.644 µg/L	10.644 ppb	14:44:58
2	Se 196.026†	-34.9	-50.4	150.74 µg/L	150.74 ppb	14:44:58
2	SiO2†	255655.7	251675.5	53069 µg/L	53069 ppb	14:44:33
2	Si 251.611†	307943.1	304453.8	24648 µg/L	24648 ppb	14:44:33
2	Sn 189.927†	9.1	5.9	-5.7399 µg/L	-5.7399 ppb	14:44:58
2	Ti 334.940†	506934.1	501577.2	1183.5 µg/L	1183.5 ppb	14:44:33
2	Tl 190.801†	-46.8	-23.4	-1.0804 µg/L	-1.0804 ppb	14:44:58
2	U 409.014†	-1582.5	-1522.4	-145.21 µg/L	-145.21 ppb	14:44:33
2	V 292.402†	7005.3	6965.2	82.389 µg/L	82.389 ppb	14:44:38
2	Zn 213.857†	16910.8	16217.6	401.06 µg/L	401.06 ppb	14:44:38
3	Sc RADIAL	58826.2	58826.2	101 %		14:43:30
3	Al 396.153Radial†	45572.3	44984.7	33070 µg/L	33070 ppb	14:43:30
3	Ca 317.933Radial†	12335.8	11975.1	11091 µg/L	11091 ppb	14:43:50
3	Fe 238.204 Radial†	10279.1	10124.1	86981 µg/L	86981 ppb	14:43:50
3	K 766.490 Radial†	8308.0	8019.9	5641.5 µg/L	5641.5 ppb	14:43:30
3	Mg 279.077 IEC†	888.6	863.3	8032.3 µg/L	8032.3 ppb	14:43:50
3	Na 589.592 Radial†	5892.3	5247.2	1703.4 µg/L	1703.4 ppb	14:43:30
3	Sr 421.552†	10163.3	9993.8	101.05 µg/L	101.05 ppb	14:43:30
3	Sc 361.383	2083188.2	2083188.2	101.90 %		14:45:06
3	Y 371.029	1473350.3	1473350.3	104.87 %		14:45:06
3	Ag 328.068†	-1677.3	-1122.4	-2.8541 µg/L	-2.8541 ppb	14:45:11
3	As 188.979†	10.1	8.4	20.629 µg/L	20.629 ppb	14:45:31
3	B 249.677†	867.9	555.0	-20.915 µg/L	-20.915 ppb	14:45:11
3	Ba 233.527†	21401.9	21021.4	540.49 µg/L	540.49 ppb	14:45:11
3	Be 313.107†	6815.8	9656.4	5.7373 µg/L	5.7373 ppb	14:45:11
3	Cd 226.502†	75.5	212.1	-3.9564 µg/L	-3.9564 ppb	14:45:31
3	Co 228.616†	1817.4	1788.6	84.196 µg/L	84.196 ppb	14:45:31
3	Cr 267.716†	11247.8	11070.5	235.42 µg/L	235.42 ppb	14:45:11
3	Cu 324.752†	8981.3	6276.5	55.100 µg/L	55.100 ppb	14:45:11
3	Mn 257.610†	548287.3	538314.8	1831.4 µg/L	1831.4 ppb	14:45:06
3	Mo 202.031†	29.6	36.0	7.0056 µg/L	7.0056 ppb	14:45:31
3	Ni 231.604†	3052.1	2688.5	144.59 µg/L	144.59 ppb	14:45:31
3	P 214.914†	199.0	173.7	300.83 µg/L	300.83 ppb	14:45:31
3	Pb 220.353†	251.6	153.4	38.385 µg/L	38.385 ppb	14:45:31
3	S 181.975 Axial†	61.4	46.4	200.11 µg/L	200.11 ppb	14:45:31
3	Sb 206.836†	31.3	10.6	6.5728 µg/L	6.5728 ppb	14:45:31
3	Se 196.026†	-30.1	-45.4	158.26 µg/L	158.26 ppb	14:45:31
3	SiO2†	253788.2	247718.2	52234 µg/L	52234 ppb	14:45:06
3	Si 251.611†	305816.3	299807.5	24272 µg/L	24272 ppb	14:45:06
3	Sn 189.927†	3.2	0.1	-8.3538 µg/L	-8.3538 ppb	14:45:31
3	Ti 334.940†	501394.8	491928.3	1160.7 µg/L	1160.7 ppb	14:45:06
3	Tl 190.801†	-34.4	-10.8	16.136 µg/L	16.136 ppb	14:45:31
3	U 409.014†	-1565.6	-1492.8	-142.62 µg/L	-142.62 ppb	14:45:06
3	V 292.402†	6726.3	6633.1	78.941 µg/L	78.941 ppb	14:45:11
3	Zn 213.857†	16467.3	15641.8	386.68 µg/L	386.68 ppb	14:45:11

Mean Data: 245797012|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2073770.7	101.44	%	0.432				0.43%
Sc RADIAL	58713.7	101	%	0.3				0.32%
Y 371.029	1467208.0	104.43	%	0.420				0.40%
Ag 328.068†	-1120.1	-2.7776	µg/L	0.31787	-2.7776	ppb	0.31787	11.44%
Al 396.153Radial†	45143.8	33187	µg/L	129.3	33187	ppb	129.3	0.39%
As 188.979†	8.5	20.830	µg/L	0.5359	20.830	ppb	0.5359	2.57%
B 249.677†	553.7	-21.335	µg/L	1.1203	-21.335	ppb	1.1203	5.25%
Ba 233.527†	21530.6	553.58	µg/L	11.574	553.58	ppb	11.574	2.09%
Be 313.107†	9815.2	5.8326	µg/L	0.08257	5.8326	ppb	0.08257	1.42%
Ca 317.933Radial†	12056.9	11167	µg/L	125.2	11167	ppb	125.2	1.12%
Cd 226.502†	228.2	-3.5941	µg/L	0.31438	-3.5941	ppb	0.31438	8.75%
Co 228.616†	1875.6	88.378	µg/L	3.6301	88.378	ppb	3.6301	4.11%
Cr 267.716†	11391.1	242.23	µg/L	5.944	242.23	ppb	5.944	2.45%
Cu 324.752†	6459.5	56.454	µg/L	1.1723	56.454	ppb	1.1723	2.08%
Fe 238.204 Radial†	10207.6	87698	µg/L	1198.2	87698	ppb	1198.2	1.37%
K 766.490 Radial†	8023.1	5643.8	µg/L	41.34	5643.8	ppb	41.34	0.73%
Mg 279.077 IEC†	870.2	8096.1	µg/L	77.85	8096.1	ppb	77.85	0.96%
Mn 257.610†	545421.0	1855.6	µg/L	21.39	1855.6	ppb	21.39	1.15%
Mo 202.031†	39.5	7.4016	µg/L	0.50457	7.4016	ppb	0.50457	6.82%
Na 589.592 Radial†	5261.6	1708.1	µg/L	4.77	1708.1	ppb	4.77	0.28%

Ni 231.604†	2826.0	151.94	µg/L	6.442	151.94	ppb	6.442	4.24%
P 214.914†	184.2	322.26	µg/L	18.654	322.26	ppb	18.654	5.79%
Pb 220.353†	162.0	40.582	µg/L	2.1110	40.582	ppb	2.1110	5.20%
S 181.975 Axial†	46.2	199.29	µg/L	0.893	199.29	ppb	0.893	0.45%
Sb 206.836†	11.9	7.7360	µg/L	2.53490	7.7360	ppb	2.53490	32.77%
Se 196.026†	-45.8	159.57	µg/L	9.548	159.57	ppb	9.548	5.98%
SiO2†	250544.1	52830	µg/L	519.4	52830	ppb	519.4	0.98%
Si 251.611†	303202.3	24547	µg/L	240.7	24547	ppb	240.7	0.98%
Sn 189.927†	4.5	-6.4262	µg/L	1.69217	-6.4262	ppb	1.69217	26.33%
Sr 421.552†	10014.0	101.26	µg/L	0.262	101.26	ppb	0.262	0.26%
Ti 334.940†	498920.1	1177.2	µg/L	14.43	1177.2	ppb	14.43	1.23%
Tl 190.801†	-17.9	6.6168	µg/L	8.75176	6.6168	ppb	8.75176	132.27%
U 409.014†	-1554.4	-148.09	µg/L	7.347	-148.09	ppb	7.347	4.96%
V 292.402†	6824.9	81.013	µg/L	1.8260	81.013	ppb	1.8260	2.25%
Zn 213.857†	15999.4	395.57	µg/L	7.769	395.57	ppb	7.769	1.96%

Sequence No.: 16
Sample ID: 245797013|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 319
Date Collected: 2/17/2010 14:45:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797013|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59227.4	59227.4	102	%			14:46:11
1	Al 396.153Radial†	62938.7	61697.8	45357	µg/L	45357	ppb	14:46:11
1	Ca 317.933Radial†	17403.5	16858.6	15615	µg/L	15615	ppb	14:46:11
1	Fe 238.204 Radial†	10761.6	10528.2	90452	µg/L	90452	ppb	14:46:31
1	K 766.490 Radial†	11321.1	10916.9	7679.5	µg/L	7679.5	ppb	14:46:11
1	Mg 279.077 IEC†	1026.3	992.3	9242.8	µg/L	9242.8	ppb	14:46:31
1	Na 589.592 Radial†	2319.2	1706.4	553.97	µg/L	553.97	ppb	14:46:11
1	Sr 421.552†	14529.3	14204.3	143.63	µg/L	143.63	ppb	14:46:11
1	Sc 361.383	2057555.6	2057555.6	100.64	%			14:47:31
1	Y 371.029	1440205.7	1440205.7	102.51	%			14:47:31
1	Ag 328.068†	-1695.3	-1160.8	-2.4432	µg/L	-2.4432	ppb	14:47:37
1	As 188.979†	11.2	9.6	22.929	µg/L	22.929	ppb	14:47:57
1	B 249.677†	853.5	551.3	-23.032	µg/L	-23.032	ppb	14:47:37
1	Ba 233.527†	25028.1	24886.0	639.97	µg/L	639.97	ppb	14:47:37
1	Be 313.107†	15214.4	18084.7	10.672	µg/L	10.672	ppb	14:47:37
1	Cd 226.502†	203.2	339.8	-0.9599	µg/L	-0.9599	ppb	14:47:57
1	Co 228.616†	818.0	817.8	34.672	µg/L	34.672	ppb	14:47:57
1	Cr 267.716†	6831.0	6819.5	145.08	µg/L	145.08	ppb	14:47:37
1	Cu 324.752†	41684.3	38880.2	279.00	µg/L	279.00	ppb	14:47:37
1	Mn 257.610†	751219.4	746652.6	2536.3	µg/L	2536.3	ppb	14:47:31
1	Mo 202.031†	32.7	39.3	7.4829	µg/L	7.4829	ppb	14:47:57
1	Ni 231.604†	1855.9	1537.2	83.216	µg/L	83.216	ppb	14:47:57
1	P 214.914†	411.1	386.9	727.36	µg/L	727.36	ppb	14:47:57
1	Pb 220.353†	922.6	823.2	212.14	µg/L	212.14	ppb	14:47:57
1	S 181.975 Axial†	148.4	133.7	576.31	µg/L	576.31	ppb	14:47:57
1	Sb 206.836†	44.2	23.8	19.806	µg/L	19.806	ppb	14:47:57
1	Se 196.026†	-30.7	-46.3	164.02	µg/L	164.02	ppb	14:47:57
1	SiO2†	255516.2	252537.9	53250	µg/L	53250	ppb	14:47:31
1	Si 251.611†	307844.7	305561.9	24738	µg/L	24738	ppb	14:47:31
1	Sn 189.927†	-15.9	-18.9	-17.046	µg/L	-17.046	ppb	14:47:57
1	Ti 334.940†	1008405.2	1001826.7	2364.3	µg/L	2364.3	ppb	14:47:31
1	Tl 190.801†	-46.5	-23.3	13.523	µg/L	13.523	ppb	14:47:57
1	U 409.014†	-60.2	-16.1	-14.926	µg/L	-14.926	ppb	14:47:31
1	V 292.402†	13939.0	13881.9	153.88	µg/L	153.88	ppb	14:47:37
1	Zn 213.857†	15996.8	15375.7	379.69	µg/L	379.69	ppb	14:47:37
2	Sc RADIAL	59299.1	59299.1	102	%			14:46:36
2	Al 396.153Radial†	63443.0	62116.8	45665	µg/L	45665	ppb	14:46:36
2	Ca 317.933Radial†	17440.9	16874.6	15629	µg/L	15629	ppb	14:46:36
2	Fe 238.204 Radial†	10717.5	10472.3	89971	µg/L	89971	ppb	14:46:56
2	K 766.490 Radial†	11362.7	10944.2	7698.6	µg/L	7698.6	ppb	14:46:36
2	Mg 279.077 IEC†	1024.5	989.3	9215.0	µg/L	9215.0	ppb	14:46:56
2	Na 589.592 Radial†	2332.8	1717.0	557.40	µg/L	557.40	ppb	14:46:36
2	Sr 421.552†	14606.9	14263.0	144.22	µg/L	144.22	ppb	14:46:36
2	Sc 361.383	2044198.0	2044198.0	99.990	%			14:48:04
2	Y 371.029	1431052.1	1431052.1	101.86	%			14:48:04
2	Ag 328.068†	-1712.0	-1188.5	-2.6918	µg/L	-2.6918	ppb	14:48:10
2	As 188.979†	8.3	6.8	17.442	µg/L	17.442	ppb	14:48:30
2	B 249.677†	827.8	531.1	-23.661	µg/L	-23.661	ppb	14:48:10
2	Ba 233.527†	24877.6	24898.1	640.28	µg/L	640.28	ppb	14:48:10
2	Be 313.107†	15176.0	18145.0	10.712	µg/L	10.712	ppb	14:48:10
2	Cd 226.502†	206.2	344.2	-0.7874	µg/L	-0.7874	ppb	14:48:30
2	Co 228.616†	814.0	819.1	34.739	µg/L	34.739	ppb	14:48:30
2	Cr 267.716†	6770.0	6802.8	144.73	µg/L	144.73	ppb	14:48:10
2	Cu 324.752†	41505.0	38971.5	279.56	µg/L	279.56	ppb	14:48:10
2	Mn 257.610†	744774.2	745084.1	2530.9	µg/L	2530.9	ppb	14:48:04
2	Mo 202.031†	32.2	39.1	7.4392	µg/L	7.4392	ppb	14:48:30
2	Ni 231.604†	1868.1	1561.5	84.508	µg/L	84.508	ppb	14:48:30
2	P 214.914†	410.0	388.5	731.20	µg/L	731.20	ppb	14:48:30
2	Pb 220.353†	941.3	847.9	218.57	µg/L	218.57	ppb	14:48:30

2	S 181.975 Axial†	154.0	140.2	604.47	µg/L	604.47 ppb	14:48:30
2	Sb 206.836†	41.7	21.6	17.695	µg/L	17.695 ppb	14:48:30
2	Se 196.026†	-33.1	-49.0	158.70	µg/L	158.70 ppb	14:48:30
2	SiO2†	253325.8	252006.2	53138	µg/L	53138 ppb	14:48:04
2	Si 251.611†	305520.6	305236.2	24711	µg/L	24711 ppb	14:48:04
2	Sn 189.927†	-18.9	-22.0	-18.371	µg/L	-18.371 ppb	14:48:30
2	Ti 334.940†	1001323.7	1001291.7	2363.0	µg/L	2363.0 ppb	14:48:04
2	Tl 190.801†	-44.8	-21.9	15.384	µg/L	15.384 ppb	14:48:30
2	U 409.014†	-44.4	-0.7	-13.521	µg/L	-13.521 ppb	14:48:04
2	V 292.402†	13828.3	13861.7	153.62	µg/L	153.62 ppb	14:48:10
2	Zn 213.857†	15897.2	15379.9	379.81	µg/L	379.81 ppb	14:48:10
3	Sc RADIAL	58955.5	58955.5	102	%		14:47:02
3	Al 396.153Radial†	63062.8	62104.3	45656	µg/L	45656 ppb	14:47:02
3	Ca 317.933Radial†	17299.8	16835.1	15593	µg/L	15593 ppb	14:47:02
3	Fe 238.204 Radial†	10736.3	10552.0	90656	µg/L	90656 ppb	14:47:22
3	K 766.490 Radial†	11364.7	11011.0	7745.6	µg/L	7745.6 ppb	14:47:02
3	Mg 279.077 IEC†	1022.9	993.6	9254.5	µg/L	9254.5 ppb	14:47:22
3	Na 589.592 Radial†	2332.0	1729.5	561.47	µg/L	561.47 ppb	14:47:02
3	Sr 421.552†	14489.1	14230.3	143.89	µg/L	143.89 ppb	14:47:02
3	Sc 361.383	2049174.4	2049174.4	100.23	%		14:48:37
3	Y 371.029	1432416.4	1432416.4	101.95	%		14:48:37
3	Ag 328.068†	-1777.8	-1250.0	-3.1224	µg/L	-3.1224 ppb	14:48:43
3	As 188.979†	10.8	9.3	22.266	µg/L	22.266 ppb	14:49:03
3	B 249.677†	865.5	566.7	-22.470	µg/L	-22.470 ppb	14:48:43
3	Ba 233.527†	25003.4	24963.1	641.95	µg/L	641.95 ppb	14:48:43
3	Be 313.107†	15105.2	18037.5	10.646	µg/L	10.646 ppb	14:48:43
3	Cd 226.502†	196.8	334.3	-1.1355	µg/L	-1.1355 ppb	14:49:03
3	Co 228.616†	787.8	791.0	33.394	µg/L	33.394 ppb	14:49:03
3	Cr 267.716†	6797.5	6813.9	144.96	µg/L	144.96 ppb	14:48:43
3	Cu 324.752†	41603.4	38968.9	279.64	µg/L	279.64 ppb	14:48:43
3	Mn 257.610†	743913.8	742416.9	2522.0	µg/L	2522.0 ppb	14:48:37
3	Mo 202.031†	33.5	40.3	7.5927	µg/L	7.5927 ppb	14:49:03
3	Ni 231.604†	1807.3	1496.3	81.033	µg/L	81.033 ppb	14:49:03
3	P 214.914†	389.9	367.4	686.10	µg/L	686.10 ppb	14:49:03
3	Pb 220.353†	918.5	822.9	212.06	µg/L	212.06 ppb	14:49:03
3	S 181.975 Axial†	145.2	131.1	564.95	µg/L	564.95 ppb	14:49:03
3	Sb 206.836†	42.7	22.5	18.555	µg/L	18.555 ppb	14:49:03
3	Se 196.026†	-34.2	-50.0	158.94	µg/L	158.94 ppb	14:49:03
3	SiO2†	253864.1	251928.0	53122	µg/L	53122 ppb	14:48:37
3	Si 251.611†	306001.7	304974.1	24690	µg/L	24690 ppb	14:48:37
3	Sn 189.927†	-14.6	-17.7	-16.536	µg/L	-16.536 ppb	14:49:03
3	Ti 334.940†	1000575.1	998112.9	2355.5	µg/L	2355.5 ppb	14:48:37
3	Tl 190.801†	-49.9	-26.8	8.5911	µg/L	8.5911 ppb	14:49:03
3	U 409.014†	52.5	96.1	-5.1942	µg/L	-5.1942 ppb	14:48:37
3	V 292.402†	13974.0	13973.5	154.86	µg/L	154.86 ppb	14:48:43
3	Zn 213.857†	16032.2	15476.0	382.20	µg/L	382.20 ppb	14:48:43

Mean Data: 245797013|948065|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2050309.3	100.29	%	0.330				0.33%
Sc RADIAL	59160.7	102	%	0.3				0.31%
Y 371.029	1434558.1	102.11	%	0.351				0.34%
Ag 328.068†	-1199.8	-2.7525	µg/L	0.34364	-2.7525	ppb	0.34364	12.48%
Al 396.153Radial†	61973.0	45559	µg/L	175.2	45559	ppb	175.2	0.38%
As 188.979†	8.6	20.879	µg/L	2.9953	20.879	ppb	2.9953	14.35%
B 249.677†	549.7	-23.054	µg/L	0.5957	-23.054	ppb	0.5957	2.58%
Ba 233.527†	24915.8	640.73	µg/L	1.067	640.73	ppb	1.067	0.17%
Be 313.107†	18089.1	10.677	µg/L	0.0332	10.677	ppb	0.0332	0.31%
Ca 317.933Radial†	16856.1	15612	µg/L	18.4	15612	ppb	18.4	0.12%
Cd 226.502†	339.4	-0.9609	µg/L	0.17401	-0.9609	ppb	0.17401	18.11%
Co 228.616†	809.3	34.268	µg/L	0.7581	34.268	ppb	0.7581	2.21%
Cr 267.716†	6812.1	144.92	µg/L	0.181	144.92	ppb	0.181	0.12%
Cu 324.752†	38940.2	279.40	µg/L	0.347	279.40	ppb	0.347	0.12%
Fe 238.204 Radial†	10517.5	90359	µg/L	351.5	90359	ppb	351.5	0.39%
K 766.490 Radial†	10957.3	7707.9	µg/L	34.04	7707.9	ppb	34.04	0.44%
Mg 279.077 IEC†	991.7	9237.4	µg/L	20.31	9237.4	ppb	20.31	0.22%
Mn 257.610†	744717.9	2529.7	µg/L	7.22	2529.7	ppb	7.22	0.29%
Mo 202.031†	39.6	7.5049	µg/L	0.07909	7.5049	ppb	0.07909	1.05%
Na 589.592 Radial†	1717.7	557.61	µg/L	3.752	557.61	ppb	3.752	0.67%

Ni 231.604†	1531.7	82.919	µg/L	1.7562	82.919	ppb	1.7562	2.12%
P 214.914†	380.9	714.89	µg/L	25.005	714.89	ppb	25.005	3.50%
Pb 220.353†	831.3	214.25	µg/L	3.739	214.25	ppb	3.739	1.75%
S 181.975 Axial†	135.0	581.91	µg/L	20.345	581.91	ppb	20.345	3.50%
Sb 206.836†	22.6	18.685	µg/L	1.0618	18.685	ppb	1.0618	5.68%
Se 196.026†	-48.4	160.55	µg/L	3.008	160.55	ppb	3.008	1.87%
SiO2†	252157.4	53170	µg/L	70.0	53170	ppb	70.0	0.13%
Si 251.611†	305257.4	24713	µg/L	23.8	24713	ppb	23.8	0.10%
Sn 189.927†	-19.5	-17.318	µg/L	0.9469	-17.318	ppb	0.9469	5.47%
Sr 421.552†	14232.5	143.91	µg/L	0.297	143.91	ppb	0.297	0.21%
Ti 334.940†	1000410.4	2361.0	µg/L	4.74	2361.0	ppb	4.74	0.20%
Tl 190.801†	-24.0	12.500	µg/L	3.5104	12.500	ppb	3.5104	28.08%
U 409.014†	26.4	-11.214	µg/L	5.2602	-11.214	ppb	5.2602	46.91%
V 292.402†	13905.7	154.12	µg/L	0.654	154.12	ppb	0.654	0.42%
Zn 213.857†	15410.5	380.57	µg/L	1.416	380.57	ppb	1.416	0.37%

Sequence No.: 17
Sample ID: 245797014|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 320
Date Collected: 2/17/2010 14:49:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797014|948065|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58869.4	58869.4	101	%			14:49:43
1	Al 396.153Radial†	52881.9	52158.0	38344	µg/L	38344	ppb	14:49:43
1	Ca 317.933Radial†	17323.7	16883.6	15638	µg/L	15638	ppb	14:49:43
1	Fe 238.204 Radial†	8239.7	8106.0	69642	µg/L	69642	ppb	14:50:03
1	K 766.490 Radial†	13917.4	13544.0	9527.5	µg/L	9527.5	ppb	14:49:43
1	Mg 279.077 IEC†	991.1	963.7	8995.9	µg/L	8995.9	ppb	14:50:03
1	Na 589.592 Radial†	1517.7	930.1	301.95	µg/L	301.95	ppb	14:49:43
1	Sr 421.552†	14595.1	14355.6	145.16	µg/L	145.16	ppb	14:49:43
1	Sc 361.383	2036800.9	2036800.9	99.628	%			14:51:03
1	Y 371.029	1409503.0	1409503.0	100.32	%			14:51:03
1	Ag 328.068†	-1404.8	-886.3	-1.7213	µg/L	-1.7213	ppb	14:51:08
1	As 188.979†	15.0	13.6	29.315	µg/L	29.315	ppb	14:51:28
1	B 249.677†	966.8	673.6	-7.0147	µg/L	-7.0147	ppb	14:51:08
1	Ba 233.527†	26943.1	27061.6	695.86	µg/L	695.86	ppb	14:51:08
1	Be 313.107†	11372.2	14382.2	8.4070	µg/L	8.4070	ppb	14:51:08
1	Cd 226.502†	201.4	340.1	1.3516	µg/L	1.3516	ppb	14:51:28
1	Co 228.616†	665.1	672.5	28.206	µg/L	28.206	ppb	14:51:28
1	Cr 267.716†	2383.4	2424.5	51.627	µg/L	51.627	ppb	14:51:28
1	Cu 324.752†	20128.6	17666.1	130.74	µg/L	130.74	ppb	14:51:08
1	Mn 257.610†	594538.4	596993.0	2027.5	µg/L	2027.5	ppb	14:51:03
1	Mo 202.031†	15.1	22.0	4.9151	µg/L	4.9151	ppb	14:51:28
1	Ni 231.604†	943.4	640.1	35.048	µg/L	35.048	ppb	14:51:28
1	P 214.914†	478.0	458.2	907.91	µg/L	907.91	ppb	14:51:28
1	Pb 220.353†	829.0	738.6	190.72	µg/L	190.72	ppb	14:51:28
1	S 181.975 Axial†	202.3	189.2	815.61	µg/L	815.61	ppb	14:51:28
1	Sb 206.836†	26.7	6.6	4.4482	µg/L	4.4482	ppb	14:51:28
1	Se 196.026†	-21.9	-37.9	120.26	µg/L	120.26	ppb	14:51:28
1	SiO2†	250828.7	250419.9	52804	µg/L	52804	ppb	14:51:03
1	Si 251.611†	302323.5	303136.8	24541	µg/L	24541	ppb	14:51:03
1	Sn 189.927†	-21.6	-24.8	-17.494	µg/L	-17.494	ppb	14:51:28
1	Ti 334.940†	883026.5	886190.1	2091.4	µg/L	2091.4	ppb	14:51:03
1	Tl 190.801†	-46.1	-23.4	5.5945	µg/L	5.5945	ppb	14:51:28
1	U 409.014†	1334.1	1382.7	109.65	µg/L	109.65	ppb	14:51:08
1	V 292.402†	12114.4	12191.6	133.93	µg/L	133.93	ppb	14:51:08
1	Zn 213.857†	10980.5	10502.6	259.02	µg/L	259.02	ppb	14:51:08
2	Sc RADIAL	58716.8	58716.8	101	%			14:50:08
2	Al 396.153Radial†	53303.1	52709.8	38749	µg/L	38749	ppb	14:50:08
2	Ca 317.933Radial†	17367.9	16971.7	15719	µg/L	15719	ppb	14:50:08
2	Fe 238.204 Radial†	8332.1	8218.6	70609	µg/L	70609	ppb	14:50:28
2	K 766.490 Radial†	14030.7	13691.6	9631.3	µg/L	9631.3	ppb	14:50:08
2	Mg 279.077 IEC†	1005.8	980.8	9155.5	µg/L	9155.5	ppb	14:50:28
2	Na 589.592 Radial†	1507.4	923.8	299.91	µg/L	299.91	ppb	14:50:08
2	Sr 421.552†	14673.6	14470.6	146.32	µg/L	146.32	ppb	14:50:08
2	Sc 361.383	2048516.4	2048516.4	100.20	%			14:51:35
2	Y 371.029	1415177.3	1415177.3	100.73	%			14:51:35
2	Ag 328.068†	-1404.1	-877.6	-1.5948	µg/L	-1.5948	ppb	14:51:40
2	As 188.979†	8.0	6.5	15.865	µg/L	15.865	ppb	14:52:01
2	B 249.677†	958.4	659.7	-8.1216	µg/L	-8.1216	ppb	14:51:40
2	Ba 233.527†	26957.5	26921.3	692.25	µg/L	692.25	ppb	14:51:40
2	Be 313.107†	11315.6	14260.4	8.3267	µg/L	8.3267	ppb	14:51:40
2	Cd 226.502†	190.4	328.0	0.9142	µg/L	0.9142	ppb	14:52:01
2	Co 228.616†	673.8	677.5	28.430	µg/L	28.430	ppb	14:52:01
2	Cr 267.716†	2388.6	2416.0	51.447	µg/L	51.447	ppb	14:52:01
2	Cu 324.752†	20131.2	17553.1	130.10	µg/L	130.10	ppb	14:51:40
2	Mn 257.610†	600298.8	599328.9	2035.5	µg/L	2035.5	ppb	14:51:35
2	Mo 202.031†	3.4	10.3	3.7405	µg/L	3.7405	ppb	14:52:01
2	Ni 231.604†	936.6	627.9	34.410	µg/L	34.410	ppb	14:52:01
2	P 214.914†	472.8	450.3	890.69	µg/L	890.69	ppb	14:52:01
2	Pb 220.353†	837.0	741.8	191.53	µg/L	191.53	ppb	14:52:01

2	S 181.975 Axial†	199.6	185.3	799.00 µg/L	799.00 ppb	14:52:01
2	Sb 206.836†	35.5	15.3	12.689 µg/L	12.689 ppb	14:52:01
2	Se 196.026†	-16.5	-32.3	131.16 µg/L	131.16 ppb	14:52:01
2	SiO2†	253027.6	251174.6	52963 µg/L	52963 ppb	14:51:35
2	Si 251.611†	304903.0	303975.7	24609 µg/L	24609 ppb	14:51:35
2	Sn 189.927†	-14.9	-18.0	-14.525 µg/L	-14.525 ppb	14:52:01
2	Ti 334.940†	890826.3	888905.3	2097.8 µg/L	2097.8 ppb	14:51:35
2	Tl 190.801†	-45.8	-22.7	6.6915 µg/L	6.6915 ppb	14:52:01
2	U 409.014†	1318.2	1359.2	107.47 µg/L	107.47 ppb	14:51:40
2	V 292.402†	12139.6	12147.3	133.58 µg/L	133.58 ppb	14:51:40
2	Zn 213.857†	10952.7	10411.9	256.70 µg/L	256.70 ppb	14:51:40
3	Sc RADIAL	58949.3	58949.3	102 %		14:50:33
3	Al 396.153Radial†	53735.2	52927.6	38910 µg/L	38910 ppb	14:50:33
3	Ca 317.933Radial†	17474.6	17009.1	15754 µg/L	15754 ppb	14:50:33
3	Fe 238.204 Radial†	8300.6	8155.0	70063 µg/L	70063 ppb	14:50:54
3	K 766.490 Radial†	14014.3	13620.8	9581.5 µg/L	9581.5 ppb	14:50:33
3	Mg 279.077 IEC†	1000.5	971.6	9069.4 µg/L	9069.4 ppb	14:50:54
3	Na 589.592 Radial†	1501.9	912.5	296.23 µg/L	296.23 ppb	14:50:33
3	Sr 421.552†	14771.9	14510.2	146.72 µg/L	146.72 ppb	14:50:33
3	Sc 361.383	2038638.5	2038638.5	99.718 %		14:52:08
3	Y 371.029	1410368.4	1410368.4	100.38 %		14:52:08
3	Ag 328.068†	-1434.8	-915.2	-1.9370 µg/L	-1.9370 ppb	14:52:13
3	As 188.979†	7.9	6.5	15.676 µg/L	15.676 ppb	14:52:33
3	B 249.677†	915.9	621.7	-9.4894 µg/L	-9.4894 ppb	14:52:13
3	Ba 233.527†	26383.0	26475.6	680.79 µg/L	680.79 ppb	14:52:13
3	Be 313.107†	11040.6	14039.4	8.1923 µg/L	8.1923 ppb	14:52:13
3	Cd 226.502†	185.6	324.1	0.8705 µg/L	0.8705 ppb	14:52:33
3	Co 228.616†	652.9	659.7	27.610 µg/L	27.610 ppb	14:52:33
3	Cr 267.716†	2305.4	2344.1	49.916 µg/L	49.916 ppb	14:52:33
3	Cu 324.752†	19748.4	17266.6	128.06 µg/L	128.06 ppb	14:52:13
3	Mn 257.610†	591485.2	593393.2	2015.4 µg/L	2015.4 ppb	14:52:08
3	Mo 202.031†	5.2	12.1	3.9046 µg/L	3.9046 ppb	14:52:33
3	Ni 231.604†	937.6	633.4	34.698 µg/L	34.698 ppb	14:52:33
3	P 214.914†	447.0	426.6	841.64 µg/L	841.64 ppb	14:52:33
3	Pb 220.353†	817.3	726.1	187.50 µg/L	187.50 ppb	14:52:33
3	S 181.975 Axial†	198.0	184.8	796.63 µg/L	796.63 ppb	14:52:33
3	Sb 206.836†	26.0	5.9	3.7605 µg/L	3.7605 ppb	14:52:33
3	Se 196.026†	-19.9	-35.9	124.37 µg/L	124.37 ppb	14:52:33
3	SiO2†	250054.9	249417.0	52592 µg/L	52592 ppb	14:52:08
3	Si 251.611†	301501.6	302039.1	24453 µg/L	24453 ppb	14:52:08
3	Sn 189.927†	-7.7	-10.8	-11.303 µg/L	-11.303 ppb	14:52:33
3	Ti 334.940†	878682.1	881034.5	2079.2 µg/L	2079.2 ppb	14:52:08
3	Tl 190.801†	-38.5	-15.7	16.169 µg/L	16.169 ppb	14:52:33
3	U 409.014†	1303.6	1351.0	106.82 µg/L	106.82 ppb	14:52:13
3	V 292.402†	11883.3	11948.9	131.47 µg/L	131.47 ppb	14:52:13
3	Zn 213.857†	10837.6	10349.3	255.16 µg/L	255.16 ppb	14:52:13

Mean Data: 245797014|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2041318.6	99.849	%	0.3082				0.31%
Sc RADIAL	58845.2	101	%	0.2				0.20%
Y 371.029	1411682.9	100.48	%	0.218				0.22%
Ag 328.068†	-893.0	-1.7511	µg/L	0.17303	-1.7511	ppb	0.17303	9.88%
Al 396.153Radial†	52598.5	38668	µg/L	291.6	38668	ppb	291.6	0.75%
As 188.979†	8.9	20.285	µg/L	7.8203	20.285	ppb	7.8203	38.55%
B 249.677†	651.7	-8.2086	µg/L	1.23965	-8.2086	ppb	1.23965	15.10%
Ba 233.527†	26819.5	689.64	µg/L	7.868	689.64	ppb	7.868	1.14%
Be 313.107†	14227.3	8.3087	µg/L	0.10850	8.3087	ppb	0.10850	1.31%
Ca 317.933Radial†	16954.8	15704	µg/L	59.7	15704	ppb	59.7	0.38%
Cd 226.502†	330.7	1.0454	µg/L	0.26603	1.0454	ppb	0.26603	25.45%
Co 228.616†	669.9	28.082	µg/L	0.4236	28.082	ppb	0.4236	1.51%
Cr 267.716†	2394.9	50.997	µg/L	0.9402	50.997	ppb	0.9402	1.84%
Cu 324.752†	17495.3	129.63	µg/L	1.399	129.63	ppb	1.399	1.08%
Fe 238.204 Radial†	8159.9	70104	µg/L	484.8	70104	ppb	484.8	0.69%
K 766.490 Radial†	13618.8	9580.1	µg/L	51.92	9580.1	ppb	51.92	0.54%
Mg 279.077 IEC†	972.0	9073.6	µg/L	79.85	9073.6	ppb	79.85	0.88%
Mn 257.610†	596571.7	2026.1	µg/L	10.14	2026.1	ppb	10.14	0.50%
Mo 202.031†	14.8	4.1867	µg/L	0.63607	4.1867	ppb	0.63607	15.19%
Na 589.592 Radial†	922.2	299.36	µg/L	2.901	299.36	ppb	2.901	0.97%

Ni 231.604†	633.8	34.719 µg/L	0.3197	34.719 ppb	0.3197	0.92%
P 214.914†	445.0	880.08 µg/L	34.389	880.08 ppb	34.389	3.91%
Pb 220.353†	735.5	189.91 µg/L	2.134	189.91 ppb	2.134	1.12%
S 181.975 Axial†	186.4	803.74 µg/L	10.340	803.74 ppb	10.340	1.29%
Sb 206.836†	9.3	6.9661 µg/L	4.96855	6.9661 ppb	4.96855	71.33%
Se 196.026†	-35.3	125.26 µg/L	5.504	125.26 ppb	5.504	4.39%
SiO2†	250337.1	52786 µg/L	185.9	52786 ppb	185.9	0.35%
Si 251.611†	303050.6	24535 µg/L	78.6	24535 ppb	78.6	0.32%
Sn 189.927†	-17.9	-14.441 µg/L	3.0960	-14.441 ppb	3.0960	21.44%
Sr 421.552†	14445.5	146.07 µg/L	0.812	146.07 ppb	0.812	0.56%
Ti 334.940†	885376.6	2089.4 µg/L	9.43	2089.4 ppb	9.43	0.45%
Tl 190.801†	-20.6	9.4851 µg/L	5.81454	9.4851 ppb	5.81454	61.30%
U 409.014†	1364.3	107.98 µg/L	1.482	107.98 ppb	1.482	1.37%
V 292.402†	12096.0	133.00 µg/L	1.331	133.00 ppb	1.331	1.00%
Zn 213.857†	10421.3	256.96 µg/L	1.943	256.96 ppb	1.943	0.76%

Sequence No.: 18
Sample ID: 245797015|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 321
Date Collected: 2/17/2010 14:52:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797015|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59205.4	59205.4	102	%			14:53:13
1	Al 396.153Radial†	62194.2	60990.8	44837	µg/L	44837	ppb	14:53:13
1	Ca 317.933Radial†	17978.9	17429.0	16143	µg/L	16143	ppb	14:53:13
1	Fe 238.204 Radial†	8681.7	8493.3	72969	µg/L	72969	ppb	14:53:33
1	K 766.490 Radial†	13575.9	13131.3	9237.2	µg/L	9237.2	ppb	14:53:13
1	Mg 279.077 IEC†	1042.7	1008.7	9416.0	µg/L	9416.0	ppb	14:53:33
1	Na 589.592 Radial†	1700.8	1101.1	357.45	µg/L	357.45	ppb	14:53:13
1	Sr 421.552†	14609.8	14288.4	144.48	µg/L	144.48	ppb	14:53:13
1	Sc 361.383	2058213.7	2058213.7	100.68	%			14:54:33
1	Y 371.029	1425619.7	1425619.7	101.47	%			14:54:33
1	Ag 328.068†	-1480.8	-947.2	-1.9720	µg/L	-1.9720	ppb	14:54:38
1	As 188.979†	9.3	7.7	18.211	µg/L	18.211	ppb	14:54:58
1	B 249.677†	960.4	657.2	-9.4056	µg/L	-9.4056	ppb	14:54:38
1	Ba 233.527†	25574.2	25420.6	653.68	µg/L	653.68	ppb	14:54:38
1	Be 313.107†	29805.8	32573.3	20.079	µg/L	20.079	ppb	14:54:38
1	Cd 226.502†	261.0	397.2	2.5394	µg/L	2.5394	ppb	14:54:58
1	Co 228.616†	674.6	675.0	28.495	µg/L	28.495	ppb	14:54:58
1	Cr 267.716†	4113.7	4118.3	87.641	µg/L	87.641	ppb	14:54:38
1	Cu 324.752†	79759.9	76687.0	535.64	µg/L	535.64	ppb	14:54:38
1	Mn 257.610†	611003.5	607139.2	2062.2	µg/L	2062.2	ppb	14:54:33
1	Mo 202.031†	23.5	30.2	5.8840	µg/L	5.8840	ppb	14:54:58
1	Ni 231.604†	1349.8	1033.9	56.121	µg/L	56.121	ppb	14:54:58
1	P 214.914†	551.0	525.7	1007.0	µg/L	1007.0	ppb	14:54:58
1	Pb 220.353†	1398.0	1295.1	334.11	µg/L	334.11	ppb	14:54:58
1	S 181.975 Axial†	200.6	185.5	799.49	µg/L	799.49	ppb	14:54:58
1	Sb 206.836†	30.2	9.9	7.0957	µg/L	7.0957	ppb	14:54:58
1	Se 196.026†	-21.6	-37.3	129.74	µg/L	129.74	ppb	14:54:58
1	SiO2†	278299.3	275086.9	58005	µg/L	58005	ppb	14:54:33
1	Si 251.611†	335551.1	332984.4	26958	µg/L	26958	ppb	14:54:33
1	Sn 189.927†	1.1	-2.0	-7.6358	µg/L	-7.6358	ppb	14:54:58
1	Ti 334.940†	858046.0	852156.3	2011.0	µg/L	2011.0	ppb	14:54:33
1	Tl 190.801†	-49.6	-26.3	2.4795	µg/L	2.4795	ppb	14:54:58
1	U 409.014†	7019.9	7016.4	599.24	µg/L	599.24	ppb	14:54:38
1	V 292.402†	12482.6	12430.9	137.39	µg/L	137.39	ppb	14:54:38
1	Zn 213.857†	16154.2	15526.9	384.00	µg/L	384.00	ppb	14:54:38
2	Sc RADIAL	58667.3	58667.3	101	%			14:53:38
2	Al 396.153Radial†	62512.6	61865.1	45480	µg/L	45480	ppb	14:53:38
2	Ca 317.933Radial†	17935.9	17548.1	16253	µg/L	16253	ppb	14:53:38
2	Fe 238.204 Radial†	8736.5	8625.6	74105	µg/L	74105	ppb	14:53:58
2	K 766.490 Radial†	13652.0	13328.8	9376.1	µg/L	9376.1	ppb	14:53:38
2	Mg 279.077 IEC†	1051.2	1026.5	9582.1	µg/L	9582.1	ppb	14:53:58
2	Na 589.592 Radial†	1706.3	1121.8	364.19	µg/L	364.19	ppb	14:53:38
2	Sr 421.552†	14585.6	14395.9	145.57	µg/L	145.57	ppb	14:53:38
2	Sc 361.383	2050565.2	2050565.2	100.30	%			14:55:05
2	Y 371.029	1420174.6	1420174.6	101.08	%			14:55:05
2	Ag 328.068†	-1442.1	-914.1	-1.6365	µg/L	-1.6365	ppb	14:55:11
2	As 188.979†	11.5	10.0	22.676	µg/L	22.676	ppb	14:55:31
2	B 249.677†	911.0	611.5	-11.980	µg/L	-11.980	ppb	14:55:11
2	Ba 233.527†	25496.5	25437.8	654.13	µg/L	654.13	ppb	14:55:11
2	Be 313.107†	29720.2	32598.4	20.101	µg/L	20.101	ppb	14:55:11
2	Cd 226.502†	269.2	406.3	2.6584	µg/L	2.6584	ppb	14:55:31
2	Co 228.616†	656.1	659.2	27.758	µg/L	27.758	ppb	14:55:31
2	Cr 267.716†	4103.5	4123.4	87.749	µg/L	87.749	ppb	14:55:11
2	Cu 324.752†	79339.7	76563.5	534.96	µg/L	534.96	ppb	14:55:11
2	Mn 257.610†	605639.1	604054.6	2051.9	µg/L	2051.9	ppb	14:55:05
2	Mo 202.031†	15.0	21.8	5.0621	µg/L	5.0621	ppb	14:55:31
2	Ni 231.604†	1372.6	1061.7	57.621	µg/L	57.621	ppb	14:55:31
2	P 214.914†	548.1	524.9	1004.6	µg/L	1004.6	ppb	14:55:31
2	Pb 220.353†	1391.8	1294.1	333.85	µg/L	333.85	ppb	14:55:31

2	S 181.975 Axial†	203.2	188.8	813.68 µg/L	813.68 ppb	14:55:31
2	Sb 206.836†	32.8	12.6	9.6634 µg/L	9.6634 ppb	14:55:31
2	Se 196.026†	-20.1	-35.9	134.80 µg/L	134.80 ppb	14:55:31
2	SiO2†	275180.6	273008.7	57567 µg/L	57567 ppb	14:55:05
2	Si 251.611†	331926.4	330613.9	26766 µg/L	26766 ppb	14:55:05
2	Sn 189.927†	3.7	0.6	-6.5890 µg/L	-6.5890 ppb	14:55:31
2	Ti 334.940†	848419.4	845737.7	1995.8 µg/L	1995.8 ppb	14:55:05
2	Tl 190.801†	-45.7	-22.7	7.5975 µg/L	7.5975 ppb	14:55:31
2	U 409.014†	6951.8	6974.6	595.43 µg/L	595.43 ppb	14:55:11
2	V 292.402†	12502.4	12496.9	138.19 µg/L	138.19 ppb	14:55:11
2	Zn 213.857†	16088.0	15520.8	383.78 µg/L	383.78 ppb	14:55:11
3	Sc RADIAL	59457.5	59457.5	102 %		14:54:04
3	Al 396.153Radial†	62829.6	61352.6	45103 µg/L	45103 ppb	14:54:04
3	Ca 317.933Radial†	18117.8	17489.9	16199 µg/L	16199 ppb	14:54:04
3	Fe 238.204 Radial†	8700.4	8475.4	72815 µg/L	72815 ppb	14:54:24
3	K 766.490 Radial†	13669.2	13166.0	9261.5 µg/L	9261.5 ppb	14:54:04
3	Mg 279.077 IEC†	1045.8	1007.4	9403.5 µg/L	9403.5 ppb	14:54:24
3	Na 589.592 Radial†	1679.2	1072.9	348.31 µg/L	348.31 ppb	14:54:04
3	Sr 421.552†	14664.3	14280.9	144.40 µg/L	144.40 ppb	14:54:04
3	Sc 361.383	2036783.9	2036783.9	99.628 %		14:55:38
3	Y 371.029	1410528.4	1410528.4	100.39 %		14:55:38
3	Ag 328.068†	-1420.2	-901.9	-1.6243 µg/L	-1.6243 ppb	14:55:43
3	As 188.979†	9.9	8.5	19.734 µg/L	19.734 ppb	14:56:03
3	B 249.677†	926.9	633.6	-10.349 µg/L	-10.349 ppb	14:55:43
3	Ba 233.527†	25303.0	25415.5	653.55 µg/L	653.55 ppb	14:55:43
3	Be 313.107†	29181.7	32258.4	19.884 µg/L	19.884 ppb	14:55:43
3	Cd 226.502†	252.4	391.3	2.3959 µg/L	2.3959 ppb	14:56:03
3	Co 228.616†	658.4	665.9	28.086 µg/L	28.086 ppb	14:56:03
3	Cr 267.716†	4065.2	4112.6	87.521 µg/L	87.521 ppb	14:55:43
3	Cu 324.752†	78895.4	76652.8	535.39 µg/L	535.39 ppb	14:55:43
3	Mn 257.610†	600246.7	602727.5	2047.3 µg/L	2047.3 ppb	14:55:38
3	Mo 202.031†	19.5	26.5	5.4910 µg/L	5.4910 ppb	14:56:03
3	Ni 231.604†	1337.2	1035.4	56.199 µg/L	56.199 ppb	14:56:03
3	P 214.914†	536.9	517.3	989.58 µg/L	989.58 ppb	14:56:03
3	Pb 220.353†	1379.7	1291.4	333.16 µg/L	333.16 ppb	14:56:03
3	S 181.975 Axial†	195.7	182.6	787.24 µg/L	787.24 ppb	14:56:03
3	Sb 206.836†	47.6	27.6	24.077 µg/L	24.077 ppb	14:56:03
3	Se 196.026†	-20.0	-35.9	131.36 µg/L	131.36 ppb	14:56:03
3	SiO2†	273653.8	273332.5	57635 µg/L	57635 ppb	14:55:38
3	Si 251.611†	330043.2	330962.7	26794 µg/L	26794 ppb	14:55:38
3	Sn 189.927†	3.4	0.3	-6.5785 µg/L	-6.5785 ppb	14:56:03
3	Ti 334.940†	842002.8	845020.4	1994.2 µg/L	1994.2 ppb	14:55:38
3	Tl 190.801†	-45.1	-22.3	7.8182 µg/L	7.8182 ppb	14:56:03
3	U 409.014†	6938.3	7007.9	598.51 µg/L	598.51 ppb	14:55:43
3	V 292.402†	12389.3	12467.6	137.74 µg/L	137.74 ppb	14:55:43
3	Zn 213.857†	16012.7	15553.8	384.68 µg/L	384.68 ppb	14:55:43

Mean Data: 245797015|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2048520.9	100.20	%	0.531				0.53%
Sc RADIAL	59110.1	102	%	0.7				0.68%
Y 371.029	1418774.2	100.98	%	0.544				0.54%
Ag 328.068†	-921.1	-1.7443	µg/L	0.19731	-1.7443	ppb	0.19731	11.31%
Al 396.153Radial†	61402.8	45140	µg/L	323.0	45140	ppb	323.0	0.72%
As 188.979†	8.7	20.207	µg/L	2.2699	20.207	ppb	2.2699	11.23%
B 249.677†	634.1	-10.578	µg/L	1.3026	-10.578	ppb	1.3026	12.31%
Ba 233.527†	25424.6	653.79	µg/L	0.300	653.79	ppb	0.300	0.05%
Be 313.107†	32476.7	20.021	µg/L	0.1194	20.021	ppb	0.1194	0.60%
Ca 317.933Radial†	17489.0	16198	µg/L	55.2	16198	ppb	55.2	0.34%
Cd 226.502†	398.3	2.5312	µg/L	0.13147	2.5312	ppb	0.13147	5.19%
Co 228.616†	666.7	28.113	µg/L	0.3694	28.113	ppb	0.3694	1.31%
Cr 267.716†	4118.1	87.637	µg/L	0.1144	87.637	ppb	0.1144	0.13%
Cu 324.752†	76634.5	535.33	µg/L	0.348	535.33	ppb	0.348	0.06%
Fe 238.204 Radial†	8531.4	73296	µg/L	704.6	73296	ppb	704.6	0.96%
K 766.490 Radial†	13208.7	9291.6	µg/L	74.16	9291.6	ppb	74.16	0.80%
Mg 279.077 IEC†	1014.2	9467.2	µg/L	99.66	9467.2	ppb	99.66	1.05%
Mn 257.610†	604640.4	2053.8	µg/L	7.64	2053.8	ppb	7.64	0.37%
Mo 202.031†	26.2	5.4791	µg/L	0.41106	5.4791	ppb	0.41106	7.50%
Na 589.592 Radial†	1098.6	356.65	µg/L	7.967	356.65	ppb	7.967	2.23%

Ni 231.604†	1043.7	56.647	µg/L	0.8446	56.647	ppb	0.8446	1.49%
P 214.914†	522.6	1000.4	µg/L	9.43	1000.4	ppb	9.43	0.94%
Pb 220.353†	1293.5	333.71	µg/L	0.492	333.71	ppb	0.492	0.15%
S 181.975 Axial†	185.6	800.14	µg/L	13.236	800.14	ppb	13.236	1.65%
Sb 206.836†	16.7	13.612	µg/L	9.1531	13.612	ppb	9.1531	67.24%
Se 196.026†	-36.4	131.97	µg/L	2.586	131.97	ppb	2.586	1.96%
SiO2†	273809.3	57736	µg/L	235.8	57736	ppb	235.8	0.41%
Si 251.611†	331520.3	26839	µg/L	103.6	26839	ppb	103.6	0.39%
Sn 189.927†	-0.4	-6.9344	µg/L	0.60740	-6.9344	ppb	0.60740	8.76%
Sr 421.552†	14321.7	144.82	µg/L	0.651	144.82	ppb	0.651	0.45%
Ti 334.940†	847638.1	2000.3	µg/L	9.28	2000.3	ppb	9.28	0.46%
Tl 190.801†	-23.8	5.9651	µg/L	3.02062	5.9651	ppb	3.02062	50.64%
U 409.014†	6999.6	597.73	µg/L	2.021	597.73	ppb	2.021	0.34%
V 292.402†	12465.1	137.77	µg/L	0.402	137.77	ppb	0.402	0.29%
Zn 213.857†	15533.8	384.16	µg/L	0.470	384.16	ppb	0.470	0.12%

Sequence No.: 19
Sample ID: 245797016|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 322
Date Collected: 2/17/2010 14:56:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797016|948065|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58674.4	58674.4	101	%			14:56:43
1	Al 396.153Radial†	27037.2	26766.9	19677	µg/L	19677	ppb	14:56:43
1	Ca 317.933Radial†	8279.2	7994.0	7404.1	µg/L	7404.1	ppb	14:56:43
1	Fe 238.204 Radial†	11075.3	10937.9	93974	µg/L	93974	ppb	14:56:43
1	K 766.490 Radial†	5965.5	5724.0	4026.5	µg/L	4026.5	ppb	14:56:43
1	Mg 279.077 IEC†	392.4	374.7	3426.4	µg/L	3426.4	ppb	14:57:03
1	Na 589.592 Radial†	5593.2	4966.4	1612.3	µg/L	1612.3	ppb	14:56:43
1	Sr 421.552†	6281.6	6180.2	62.492	µg/L	62.492	ppb	14:56:43
1	Sc 361.383	2050472.2	2050472.2	100.30	%			14:58:03
1	Y 371.029	1469727.7	1469727.7	104.61	%			14:58:03
1	Ag 328.068†	-1730.1	-1201.3	-3.1318	µg/L	-3.1318	ppb	14:58:08
1	As 188.979†	5.8	4.3	13.323	µg/L	13.323	ppb	14:58:29
1	B 249.677†	1083.5	783.6	-14.771	µg/L	-14.771	ppb	14:58:08
1	Ba 233.527†	11011.6	10996.9	282.78	µg/L	282.78	ppb	14:58:08
1	Be 313.107†	5756.9	8707.4	4.8349	µg/L	4.8349	ppb	14:58:08
1	Cd 226.502†	110.6	248.2	-3.8203	µg/L	-3.8203	ppb	14:58:29
1	Co 228.616†	3564.3	3558.8	168.31	µg/L	168.31	ppb	14:58:29
1	Cr 267.716†	7272.3	7282.9	154.88	µg/L	154.88	ppb	14:58:08
1	Cu 324.752†	8985.4	6421.2	57.064	µg/L	57.064	ppb	14:58:08
1	Mn 257.610†	626933.4	625313.2	2126.7	µg/L	2126.7	ppb	14:58:03
1	Mo 202.031†	59.6	66.3	10.395	µg/L	10.395	ppb	14:58:29
1	Ni 231.604†	2077.9	1764.9	95.263	µg/L	95.263	ppb	14:58:29
1	P 214.914†	322.4	299.9	557.27	µg/L	557.27	ppb	14:58:29
1	Pb 220.353†	236.3	142.1	34.474	µg/L	34.474	ppb	14:58:29
1	S 181.975 Axial†	68.6	54.5	235.13	µg/L	235.13	ppb	14:58:29
1	Sb 206.836†	25.9	5.7	3.1372	µg/L	3.1372	ppb	14:58:29
1	Se 196.026†	-30.4	-46.2	181.33	µg/L	181.33	ppb	14:58:29
1	SiO2†	170720.5	168870.4	35608	µg/L	35608	ppb	14:58:08
1	Si 251.611†	207803.9	206874.0	16748	µg/L	16748	ppb	14:58:03
1	Sn 189.927†	5.2	2.1	-8.7210	µg/L	-8.7210	ppb	14:58:29
1	Ti 334.940†	822646.6	820079.6	1935.6	µg/L	1935.6	ppb	14:58:03
1	Tl 190.801†	-49.5	-26.4	2.3109	µg/L	2.3109	ppb	14:58:29
1	U 409.014†	-1865.2	-1816.0	-171.48	µg/L	-171.48	ppb	14:58:03
1	V 292.402†	5132.7	5149.5	64.305	µg/L	64.305	ppb	14:58:08
1	Zn 213.857†	15481.7	14917.0	368.66	µg/L	368.66	ppb	14:58:08
2	Sc RADIAL	58579.2	58579.2	101	%			14:57:08
2	Al 396.153Radial†	27194.3	26966.0	19824	µg/L	19824	ppb	14:57:08
2	Ca 317.933Radial†	8304.9	8032.8	7440.0	µg/L	7440.0	ppb	14:57:08
2	Fe 238.204 Radial†	11141.5	11021.4	94691	µg/L	94691	ppb	14:57:08
2	K 766.490 Radial†	6000.6	5768.3	4057.7	µg/L	4057.7	ppb	14:57:08
2	Mg 279.077 IEC†	395.6	378.5	3461.2	µg/L	3461.2	ppb	14:57:28
2	Na 589.592 Radial†	5594.2	4976.4	1615.5	µg/L	1615.5	ppb	14:57:08
2	Sr 421.552†	6318.4	6226.7	62.963	µg/L	62.963	ppb	14:57:08
2	Sc 361.383	2054264.4	2054264.4	100.48	%			14:58:36
2	Y 371.029	1472423.3	1472423.3	104.80	%			14:58:36
2	Ag 328.068†	-1700.6	-1168.7	-2.8307	µg/L	-2.8307	ppb	14:58:41
2	As 188.979†	8.9	7.4	19.281	µg/L	19.281	ppb	14:59:01
2	B 249.677†	1005.8	704.2	-18.591	µg/L	-18.591	ppb	14:58:41
2	Ba 233.527†	10999.1	10964.2	281.94	µg/L	281.94	ppb	14:58:41
2	Be 313.107†	5614.7	8555.3	4.7325	µg/L	4.7325	ppb	14:58:41
2	Cd 226.502†	86.6	224.1	-4.5506	µg/L	-4.5506	ppb	14:59:01
2	Co 228.616†	3624.3	3611.9	170.85	µg/L	170.85	ppb	14:59:01
2	Cr 267.716†	7269.1	7266.4	154.53	µg/L	154.53	ppb	14:58:41
2	Cu 324.752†	9121.7	6540.3	57.979	µg/L	57.979	ppb	14:58:41
2	Mn 257.610†	633269.8	630465.2	2144.2	µg/L	2144.2	ppb	14:58:36
2	Mo 202.031†	58.6	65.2	10.308	µg/L	10.308	ppb	14:59:01
2	Ni 231.604†	2120.1	1803.2	97.312	µg/L	97.312	ppb	14:59:01
2	P 214.914†	333.5	310.3	578.65	µg/L	578.65	ppb	14:59:01
2	Pb 220.353†	239.1	144.4	35.060	µg/L	35.060	ppb	14:59:01

2	S 181.975 Axial†	63.9	49.8	214.61 µg/L	214.61 ppb	14:59:01
2	Sb 206.836†	31.1	10.8	8.0018 µg/L	8.0018 ppb	14:59:01
2	Se 196.026†	-24.3	-40.0	192.58 µg/L	192.58 ppb	14:59:01
2	SiO2†	170610.9	168447.1	35519 µg/L	35519 ppb	14:58:41
2	Si 251.611†	209654.1	208332.8	16866 µg/L	16866 ppb	14:58:36
2	Sn 189.927†	4.6	1.5	-9.0495 µg/L	-9.0495 ppb	14:59:01
2	Ti 334.940†	829841.1	825725.4	1948.9 µg/L	1948.9 ppb	14:58:36
2	Tl 190.801†	-47.2	-24.0	5.9375 µg/L	5.9375 ppb	14:59:01
2	U 409.014†	-1834.6	-1782.1	-168.64 µg/L	-168.64 ppb	14:58:36
2	V 292.402†	5156.0	5163.4	64.533 µg/L	64.533 ppb	14:58:41
2	Zn 213.857†	15449.0	14856.0	367.09 µg/L	367.09 ppb	14:58:41
3	Sc RADIAL	58542.6	58542.6	101 %		14:57:34
3	Al 396.153Radial†	27076.9	26866.4	19751 µg/L	19751 ppb	14:57:34
3	Ca 317.933Radial†	8250.7	7984.2	7395.0 µg/L	7395.0 ppb	14:57:34
3	Fe 238.204 Radial†	11066.5	10953.8	94111 µg/L	94111 ppb	14:57:34
3	K 766.490 Radial†	5958.3	5730.0	4030.8 µg/L	4030.8 ppb	14:57:34
3	Mg 279.077 IEC†	397.0	380.1	3476.8 µg/L	3476.8 ppb	14:57:54
3	Na 589.592 Radial†	5557.8	4943.7	1604.9 µg/L	1604.9 ppb	14:57:34
3	Sr 421.552†	6264.5	6177.2	62.462 µg/L	62.462 ppb	14:57:34
3	Sc 361.383	2041153.9	2041153.9	99.841 %		14:59:09
3	Y 371.029	1462882.4	1462882.4	104.12 %		14:59:09
3	Ag 328.068†	-1729.2	-1208.3	-3.1773 µg/L	-3.1773 ppb	14:59:14
3	As 188.979†	5.6	4.2	13.079 µg/L	13.079 ppb	14:59:34
3	B 249.677†	1049.8	754.7	-16.095 µg/L	-16.095 ppb	14:59:14
3	Ba 233.527†	10942.0	10977.4	282.28 µg/L	282.28 ppb	14:59:14
3	Be 313.107†	5685.8	8662.4	4.8006 µg/L	4.8006 ppb	14:59:14
3	Cd 226.502†	97.6	235.7	-4.1765 µg/L	-4.1765 ppb	14:59:34
3	Co 228.616†	3469.2	3479.8	164.45 µg/L	164.45 ppb	14:59:34
3	Cr 267.716†	7198.2	7241.8	154.00 µg/L	154.00 ppb	14:59:14
3	Cu 324.752†	9030.2	6506.9	57.670 µg/L	57.670 ppb	14:59:14
3	Mn 257.610†	628532.6	629768.5	2141.8 µg/L	2141.8 ppb	14:59:09
3	Mo 202.031†	59.7	66.7	10.439 µg/L	10.439 ppb	14:59:34
3	Ni 231.604†	2011.9	1708.3	92.246 µg/L	92.246 ppb	14:59:34
3	P 214.914†	311.3	290.2	536.61 µg/L	536.61 ppb	14:59:34
3	Pb 220.353†	242.4	149.3	36.336 µg/L	36.336 ppb	14:59:34
3	S 181.975 Axial†	69.5	55.8	240.59 µg/L	240.59 ppb	14:59:34
3	Sb 206.836†	23.8	3.7	1.2189 µg/L	1.2189 ppb	14:59:34
3	Se 196.026†	-33.7	-49.6	176.47 µg/L	176.47 ppb	14:59:34
3	SiO2†	170852.2	169779.4	35800 µg/L	35800 ppb	14:59:14
3	Si 251.611†	209106.4	209124.4	16930 µg/L	16930 ppb	14:59:09
3	Sn 189.927†	3.1	-0.0	-9.6634 µg/L	-9.6634 ppb	14:59:34
3	Ti 334.940†	824967.8	826148.8	1949.9 µg/L	1949.9 ppb	14:59:09
3	Tl 190.801†	-49.4	-26.5	2.3543 µg/L	2.3543 ppb	14:59:34
3	U 409.014†	-1810.1	-1769.3	-167.44 µg/L	-167.44 ppb	14:59:09
3	V 292.402†	5118.4	5158.6	64.417 µg/L	64.417 ppb	14:59:14
3	Zn 213.857†	15525.5	15031.3	371.53 µg/L	371.53 ppb	14:59:14

Mean Data: 245797016|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2048630.2	100.21	%	0.330				0.33%
Sc RADIAL	58598.7	101	%	0.1				0.12%
Y 371.029	1468344.5	104.51	%	0.350				0.33%
Ag 328.068†	-1192.8	-3.0466	µg/L	0.18834	-3.0466	ppb	0.18834	6.18%
Al 396.153Radial†	26866.4	19751	µg/L	73.2	19751	ppb	73.2	0.37%
As 188.979†	5.3	15.228	µg/L	3.5123	15.228	ppb	3.5123	23.06%
B 249.677†	747.5	-16.486	µg/L	1.9401	-16.486	ppb	1.9401	11.77%
Ba 233.527†	10979.5	282.33	µg/L	0.422	282.33	ppb	0.422	0.15%
Be 313.107†	8641.7	4.7893	µg/L	0.05214	4.7893	ppb	0.05214	1.09%
Ca 317.933Radial†	8003.6	7413.0	µg/L	23.80	7413.0	ppb	23.80	0.32%
Cd 226.502†	236.0	-4.1824	µg/L	0.36518	-4.1824	ppb	0.36518	8.73%
Co 228.616†	3550.1	167.87	µg/L	3.222	167.87	ppb	3.222	1.92%
Cr 267.716†	7263.7	154.47	µg/L	0.440	154.47	ppb	0.440	0.28%
Cu 324.752†	6489.5	57.571	µg/L	0.4658	57.571	ppb	0.4658	0.81%
Fe 238.204 Radial†	10971.0	94259	µg/L	380.6	94259	ppb	380.6	0.40%
K 766.490 Radial†	5740.8	4038.3	µg/L	16.90	4038.3	ppb	16.90	0.42%
Mg 279.077 IEC†	377.8	3454.8	µg/L	25.80	3454.8	ppb	25.80	0.75%
Mn 257.610†	628515.7	2137.6	µg/L	9.49	2137.6	ppb	9.49	0.44%
Mo 202.031†	66.1	10.381	µg/L	0.0670	10.381	ppb	0.0670	0.65%
Na 589.592 Radial†	4962.2	1610.9	µg/L	5.43	1610.9	ppb	5.43	0.34%

Ni 231.604†	1758.8	94.940	µg/L	2.5483	94.940	ppb	2.5483	2.68%
P 214.914†	300.1	557.51	µg/L	21.024	557.51	ppb	21.024	3.77%
Pb 220.353†	145.3	35.290	µg/L	0.9524	35.290	ppb	0.9524	2.70%
S 181.975 Axial†	53.4	230.11	µg/L	13.700	230.11	ppb	13.700	5.95%
Sb 206.836†	6.7	4.1193	µg/L	3.49645	4.1193	ppb	3.49645	84.88%
Se 196.026†	-45.3	183.46	µg/L	8.266	183.46	ppb	8.266	4.51%
SiO2†	169032.3	35642	µg/L	143.5	35642	ppb	143.5	0.40%
Si 251.611†	208110.4	16848	µg/L	92.4	16848	ppb	92.4	0.55%
Sn 189.927†	1.2	-9.1446	µg/L	0.47837	-9.1446	ppb	0.47837	5.23%
Sr 421.552†	6194.7	62.639	µg/L	0.2807	62.639	ppb	0.2807	0.45%
Ti 334.940†	823984.6	1944.8	µg/L	8.00	1944.8	ppb	8.00	0.41%
Tl 190.801†	-25.6	3.5342	µg/L	2.08139	3.5342	ppb	2.08139	58.89%
U 409.014†	-1789.1	-169.19	µg/L	2.076	-169.19	ppb	2.076	1.23%
V 292.402†	5157.2	64.418	µg/L	0.1139	64.418	ppb	0.1139	0.18%
Zn 213.857†	14934.7	369.09	µg/L	2.252	369.09	ppb	2.252	0.61%

Sequence No.: 20
Sample ID: 245797017|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 323
Date Collected: 2/17/2010 14:59:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797017|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59965.9	59965.9	103	%			15:00:14
1	Al 396.153Radial†	62559.5	60571.2	44529	µg/L	44529	ppb	15:00:14
1	Ca 317.933Radial†	14040.6	13393.8	12405	µg/L	12405	ppb	15:00:34
1	Fe 238.204 Radial†	8405.5	8118.1	69745	µg/L	69745	ppb	15:00:34
1	K 766.490 Radial†	10569.9	10053.2	7071.9	µg/L	7071.9	ppb	15:00:14
1	Mg 279.077 IEC†	1065.8	1018.1	9507.9	µg/L	9507.9	ppb	15:00:34
1	Na 589.592 Radial†	3541.8	2861.8	929.03	µg/L	929.03	ppb	15:00:14
1	Sr 421.552†	12394.6	11962.8	120.96	µg/L	120.96	ppb	15:00:14
1	Sc 361.383	2080238.7	2080238.7	101.75	%			15:01:34
1	Y 371.029	1473834.7	1473834.7	104.90	%			15:01:34
1	Ag 328.068†	-1553.7	-1003.2	-2.9021	µg/L	-2.9021	ppb	15:01:40
1	As 188.979†	12.0	10.3	23.222	µg/L	23.222	ppb	15:02:00
1	B 249.677†	745.1	435.5	-17.355	µg/L	-17.355	ppb	15:01:40
1	Ba 233.527†	23342.6	22958.4	590.31	µg/L	590.31	ppb	15:01:40
1	Be 313.107†	8411.7	11234.4	6.8261	µg/L	6.8261	ppb	15:01:40
1	Cd 226.502†	80.2	216.8	-1.9676	µg/L	-1.9676	ppb	15:02:00
1	Co 228.616†	892.2	881.8	40.715	µg/L	40.715	ppb	15:02:00
1	Cr 267.716†	3895.7	3860.7	82.137	µg/L	82.137	ppb	15:01:40
1	Cu 324.752†	6751.8	4097.9	37.776	µg/L	37.776	ppb	15:01:40
1	Mn 257.610†	524634.8	515832.7	1753.1	µg/L	1753.1	ppb	15:01:34
1	Mo 202.031†	2.1	8.9	3.5674	µg/L	3.5674	ppb	15:02:00
1	Ni 231.604†	1406.1	1075.1	58.267	µg/L	58.267	ppb	15:02:00
1	P 214.914†	235.1	209.5	395.00	µg/L	395.00	ppb	15:02:00
1	Pb 220.353†	309.9	211.1	54.622	µg/L	54.622	ppb	15:02:00
1	S 181.975 Axial†	65.5	50.6	217.95	µg/L	217.95	ppb	15:02:00
1	Sb 206.836†	29.2	8.6	6.2024	µg/L	6.2024	ppb	15:02:00
1	Se 196.026†	-23.1	-38.5	119.99	µg/L	119.99	ppb	15:02:00
1	SiO2†	281735.6	275537.2	58100	µg/L	58100	ppb	15:01:34
1	Si 251.611†	339477.0	333313.8	26985	µg/L	26985	ppb	15:01:34
1	Sn 189.927†	-1.3	-4.4	-8.3349	µg/L	-8.3349	ppb	15:02:00
1	Ti 334.940†	411380.2	404162.1	953.46	µg/L	953.46	ppb	15:01:34
1	Tl 190.801†	-40.3	-16.7	4.3806	µg/L	4.3806	ppb	15:02:00
1	U 409.014†	-1356.0	-1288.9	-122.58	µg/L	-122.58	ppb	15:01:34
1	V 292.402†	8288.5	8177.7	92.454	µg/L	92.454	ppb	15:01:40
1	Zn 213.857†	7227.5	6584.2	160.84	µg/L	160.84	ppb	15:01:40
2	Sc RADIAL	59231.9	59231.9	102	%			15:00:39
2	Al 396.153Radial†	62618.7	61379.5	45123	µg/L	45123	ppb	15:00:39
2	Ca 317.933Radial†	14020.3	13542.3	12543	µg/L	12543	ppb	15:00:59
2	Fe 238.204 Radial†	8397.7	8211.2	70545	µg/L	70545	ppb	15:00:59
2	K 766.490 Radial†	10612.1	10221.4	7190.2	µg/L	7190.2	ppb	15:00:39
2	Mg 279.077 IEC†	1060.7	1025.9	9580.3	µg/L	9580.3	ppb	15:00:59
2	Na 589.592 Radial†	3540.0	2902.5	942.25	µg/L	942.25	ppb	15:00:39
2	Sr 421.552†	12433.3	12149.4	122.85	µg/L	122.85	ppb	15:00:39
2	Sc 361.383	2072650.2	2072650.2	101.38	%			15:02:07
2	Y 371.029	1466606.1	1466606.1	104.39	%			15:02:07
2	Ag 328.068†	-1538.9	-994.2	-2.7743	µg/L	-2.7743	ppb	15:02:13
2	As 188.979†	9.4	7.7	18.329	µg/L	18.329	ppb	15:02:33
2	B 249.677†	748.0	441.0	-17.531	µg/L	-17.531	ppb	15:02:13
2	Ba 233.527†	23483.2	23181.1	596.04	µg/L	596.04	ppb	15:02:13
2	Be 313.107†	8399.7	11252.7	6.8376	µg/L	6.8376	ppb	15:02:13
2	Cd 226.502†	77.2	214.1	-2.1315	µg/L	-2.1315	ppb	15:02:33
2	Co 228.616†	885.3	878.2	40.538	µg/L	40.538	ppb	15:02:33
2	Cr 267.716†	3972.4	3950.5	84.046	µg/L	84.046	ppb	15:02:13
2	Cu 324.752†	6749.4	4119.8	38.037	µg/L	38.037	ppb	15:02:13
2	Mn 257.610†	522601.1	515714.5	1752.8	µg/L	1752.8	ppb	15:02:07
2	Mo 202.031†	9.2	15.9	4.3212	µg/L	4.3212	ppb	15:02:33
2	Ni 231.604†	1394.0	1068.2	57.907	µg/L	57.907	ppb	15:02:33
2	P 214.914†	227.7	203.0	380.82	µg/L	380.82	ppb	15:02:33
2	Pb 220.353†	302.0	204.4	52.878	µg/L	52.878	ppb	15:02:33

2	S 181.975 Axial†	63.0	48.4	208.56 µg/L	208.56 ppb	15:02:33
2	Sb 206.836†	33.0	12.4	9.8217 µg/L	9.8217 ppb	15:02:33
2	Se 196.026†	-12.0	-27.7	138.51 µg/L	138.51 ppb	15:02:33
2	SiO2†	280058.3	274896.5	57965 µg/L	57965 ppb	15:02:07
2	Si 251.611†	337490.9	332576.3	26925 µg/L	26925 ppb	15:02:07
2	Sn 189.927†	-3.4	-6.4	-9.3099 µg/L	-9.3099 ppb	15:02:33
2	Ti 334.940†	410142.4	404421.4	954.06 µg/L	954.06 ppb	15:02:07
2	Tl 190.801†	-42.2	-18.7	1.7520 µg/L	1.7520 ppb	15:02:33
2	U 409.014†	-1313.2	-1251.6	-119.45 µg/L	-119.45 ppb	15:02:07
2	V 292.402†	8362.1	8280.1	93.616 µg/L	93.616 ppb	15:02:13
2	Zn 213.857†	7242.5	6625.0	161.82 µg/L	161.82 ppb	15:02:13
3	Sc RADIAL	59456.6	59456.6	102 %		15:01:05
3	Al 396.153Radial†	62628.0	61156.7	44959 µg/L	44959 ppb	15:01:05
3	Ca 317.933Radial†	14062.7	13531.8	12533 µg/L	12533 ppb	15:01:25
3	Fe 238.204 Radial†	8393.3	8175.8	70241 µg/L	70241 ppb	15:01:25
3	K 766.490 Radial†	10536.4	10108.1	7110.5 µg/L	7110.5 ppb	15:01:05
3	Mg 279.077 IEC†	1061.9	1023.1	9554.4 µg/L	9554.4 ppb	15:01:25
3	Na 589.592 Radial†	3535.7	2885.2	936.62 µg/L	936.62 ppb	15:01:05
3	Sr 421.552†	12419.1	12089.4	122.24 µg/L	122.24 ppb	15:01:05
3	Sc 361.383	2084604.6	2084604.6	101.97 %		15:02:40
3	Y 371.029	1474300.5	1474300.5	104.93 %		15:02:40
3	Ag 328.068†	-1409.2	-858.4	-1.7528 µg/L	-1.7528 ppb	15:02:46
3	As 188.979†	11.5	9.8	22.291 µg/L	22.291 ppb	15:03:06
3	B 249.677†	721.1	410.5	-18.706 µg/L	-18.706 ppb	15:02:46
3	Ba 233.527†	22716.9	22296.7	573.30 µg/L	573.30 ppb	15:02:46
3	Be 313.107†	7917.2	10732.1	6.5126 µg/L	6.5126 ppb	15:02:46
3	Cd 226.502†	59.1	195.9	-2.5914 µg/L	-2.5914 ppb	15:03:06
3	Co 228.616†	823.8	812.9	37.421 µg/L	37.421 ppb	15:03:06
3	Cr 267.716†	3746.8	3706.7	78.861 µg/L	78.861 ppb	15:02:46
3	Cu 324.752†	6656.5	3990.6	37.109 µg/L	37.109 ppb	15:02:46
3	Mn 257.610†	516166.8	506448.2	1721.4 µg/L	1721.4 ppb	15:02:40
3	Mo 202.031†	12.9	19.5	4.6727 µg/L	4.6727 ppb	15:03:06
3	Ni 231.604†	1337.7	1005.1	54.537 µg/L	54.537 ppb	15:03:06
3	P 214.914†	227.5	201.5	378.01 µg/L	378.01 ppb	15:03:06
3	Pb 220.353†	297.0	197.8	51.176 µg/L	51.176 ppb	15:03:06
3	S 181.975 Axial†	62.6	47.6	205.24 µg/L	205.24 ppb	15:03:06
3	Sb 206.836†	22.7	2.1	0.0215 µg/L	0.0215 ppb	15:03:06
3	Se 196.026†	-20.2	-35.6	125.65 µg/L	125.65 ppb	15:03:06
3	SiO2†	277745.6	271044.2	57153 µg/L	57153 ppb	15:02:40
3	Si 251.611†	334518.7	327752.4	26534 µg/L	26534 ppb	15:02:40
3	Sn 189.927†	-8.1	-11.0	-11.320 µg/L	-11.320 ppb	15:03:06
3	Ti 334.940†	403138.8	395233.0	932.38 µg/L	932.38 ppb	15:02:40
3	Tl 190.801†	-35.6	-12.0	10.698 µg/L	10.698 ppb	15:03:06
3	U 409.014†	-1329.7	-1260.3	-120.17 µg/L	-120.17 ppb	15:02:40
3	V 292.402†	8070.6	7947.0	90.141 µg/L	90.141 ppb	15:02:46
3	Zn 213.857†	7032.1	6377.6	155.66 µg/L	155.66 ppb	15:02:46

Mean Data: 245797017|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2079164.5	101.70	%	0.296				0.29%
Sc RADIAL	59551.5	103	%	0.6				0.63%
Y 371.029	1471580.4	104.74	%	0.307				0.29%
Ag 328.068†	-951.9	-2.4764	µg/L	0.62994	-2.4764	ppb	0.62994	25.44%
Al 396.153Radial†	61035.8	44870	µg/L	306.9	44870	ppb	306.9	0.68%
As 188.979†	9.3	21.281	µg/L	2.5985	21.281	ppb	2.5985	12.21%
B 249.677†	429.0	-17.864	µg/L	0.7345	-17.864	ppb	0.7345	4.11%
Ba 233.527†	22812.1	586.55	µg/L	11.827	586.55	ppb	11.827	2.02%
Be 313.107†	11073.1	6.7254	µg/L	0.18437	6.7254	ppb	0.18437	2.74%
Ca 317.933Radial†	13489.3	12494	µg/L	76.7	12494	ppb	76.7	0.61%
Cd 226.502†	208.9	-2.2302	µg/L	0.32338	-2.2302	ppb	0.32338	14.50%
Co 228.616†	857.7	39.558	µg/L	1.8524	39.558	ppb	1.8524	4.68%
Cr 267.716†	3839.3	81.681	µg/L	2.6221	81.681	ppb	2.6221	3.21%
Cu 324.752†	4069.4	37.641	µg/L	0.4785	37.641	ppb	0.4785	1.27%
Fe 238.204 Radial†	8168.3	70177	µg/L	403.8	70177	ppb	403.8	0.58%
K 766.490 Radial†	10127.6	7124.2	µg/L	60.31	7124.2	ppb	60.31	0.85%
Mg 279.077 IEC†	1022.4	9547.5	µg/L	36.70	9547.5	ppb	36.70	0.38%
Mn 257.610†	512665.1	1742.4	µg/L	18.20	1742.4	ppb	18.20	1.04%
Mo 202.031†	14.8	4.1871	µg/L	0.56475	4.1871	ppb	0.56475	13.49%
Na 589.592 Radial†	2883.1	935.97	µg/L	6.637	935.97	ppb	6.637	0.71%

Ni 231.604†	1049.5	56.903	µg/L	2.0574	56.903	ppb	2.0574	3.62%
P 214.914†	204.7	384.61	µg/L	9.106	384.61	ppb	9.106	2.37%
Pb 220.353†	204.4	52.892	µg/L	1.7230	52.892	ppb	1.7230	3.26%
S 181.975 Axial†	48.8	210.58	µg/L	6.593	210.58	ppb	6.593	3.13%
Sb 206.836†	7.7	5.3485	µg/L	4.95556	5.3485	ppb	4.95556	92.65%
Se 196.026†	-34.0	128.05	µg/L	9.492	128.05	ppb	9.492	7.41%
SiO2†	273826.0	57739	µg/L	512.5	57739	ppb	512.5	0.89%
Si 251.611†	331214.2	26815	µg/L	244.5	26815	ppb	244.5	0.91%
Sn 189.927†	-7.3	-9.6549	µg/L	1.52205	-9.6549	ppb	1.52205	15.76%
Sr 421.552†	12067.2	122.02	µg/L	0.963	122.02	ppb	0.963	0.79%
Ti 334.940†	401272.2	946.63	µg/L	12.349	946.63	ppb	12.349	1.30%
Tl 190.801†	-15.8	5.6103	µg/L	4.59817	5.6103	ppb	4.59817	81.96%
U 409.014†	-1267.0	-120.73	µg/L	1.639	-120.73	ppb	1.639	1.36%
V 292.402†	8135.0	92.070	µg/L	1.7689	92.070	ppb	1.7689	1.92%
Zn 213.857†	6528.9	159.44	µg/L	3.314	159.44	ppb	3.314	2.08%

Sequence No.: 21
Sample ID: 245797018|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 324
Date Collected: 2/17/2010 15:03:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797018|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57360.8	57360.8	98.8	%			15:03:46
1	Al 396.153Radial†	45085.4	45640.6	33553	µg/L	33553	ppb	15:03:46
1	Ca 317.933Radial†	23153.3	23231.3	21517	µg/L	21517	ppb	15:03:46
1	Fe 238.204 Radial†	5991.6	6045.1	51936	µg/L	51936	ppb	15:04:06
1	K 766.490 Radial†	8905.8	8834.1	6214.3	µg/L	6214.3	ppb	15:03:46
1	Mg 279.077 IEC†	771.7	767.4	7166.8	µg/L	7166.8	ppb	15:04:06
1	Na 589.592 Radial†	2070.4	1528.7	496.26	µg/L	496.26	ppb	15:03:46
1	Sr 421.552†	14176.6	14310.6	144.70	µg/L	144.70	ppb	15:03:46
1	Sc 361.383	2083059.8	2083059.8	101.89	%			15:05:06
1	Y 371.029	1439789.0	1439789.0	102.48	%			15:05:06
1	Ag 328.068†	-816.5	-277.7	1.5476	µg/L	1.5476	ppb	15:05:11
1	As 188.979†	3.6	2.1	5.8723	µg/L	5.8723	ppb	15:05:31
1	B 249.677†	818.4	506.5	-5.0123	µg/L	-5.0123	ppb	15:05:11
1	Ba 233.527†	25361.7	24909.0	640.42	µg/L	640.42	ppb	15:05:11
1	Be 313.107†	12911.3	15639.3	9.5310	µg/L	9.5310	ppb	15:05:11
1	Cd 226.502†	152.5	287.6	1.9413	µg/L	1.9413	ppb	15:05:31
1	Co 228.616†	790.9	781.3	35.220	µg/L	35.220	ppb	15:05:31
1	Cr 267.716†	3035.4	3011.2	64.066	µg/L	64.066	ppb	15:05:31
1	Cu 324.752†	37031.1	33806.3	238.88	µg/L	238.88	ppb	15:05:11
1	Mn 257.610†	708215.1	695307.6	2357.6	µg/L	2357.6	ppb	15:05:06
1	Mo 202.031†	9.7	16.4	3.6640	µg/L	3.6640	ppb	15:05:31
1	Ni 231.604†	1105.6	778.4	42.194	µg/L	42.194	ppb	15:05:31
1	P 214.914†	549.0	517.2	1033.9	µg/L	1033.9	ppb	15:05:31
1	Pb 220.353†	768.7	660.9	170.72	µg/L	170.72	ppb	15:05:31
1	S 181.975 Axial†	221.4	203.5	877.12	µg/L	877.12	ppb	15:05:31
1	Sb 206.836†	32.6	11.8	8.7613	µg/L	8.7613	ppb	15:05:31
1	Se 196.026†	-7.9	-23.6	93.567	µg/L	93.567	ppb	15:05:31
1	SiO2†	234652.4	228952.9	48277	µg/L	48277	ppb	15:05:06
1	Si 251.611†	282700.4	277139.1	22437	µg/L	22437	ppb	15:05:06
1	Sn 189.927†	-9.2	-12.1	-10.186	µg/L	-10.186	ppb	15:05:31
1	Ti 334.940†	541131.4	530957.6	1253.1	µg/L	1253.1	ppb	15:05:06
1	Tl 190.801†	-39.7	-16.0	6.4381	µg/L	6.4381	ppb	15:05:31
1	U 409.014†	2087.7	2092.6	173.51	µg/L	173.51	ppb	15:05:11
1	V 292.402†	6708.3	6615.8	74.553	µg/L	74.553	ppb	15:05:11
1	Zn 213.857†	13027.4	12266.8	303.97	µg/L	303.97	ppb	15:05:11
2	Sc RADIAL	58227.9	58227.9	100	%			15:04:11
2	Al 396.153Radial†	45821.0	45694.5	33592	µg/L	33592	ppb	15:04:11
2	Ca 317.933Radial†	23600.1	23327.7	21606	µg/L	21606	ppb	15:04:11
2	Fe 238.204 Radial†	6004.4	5967.6	51270	µg/L	51270	ppb	15:04:31
2	K 766.490 Radial†	9121.0	8914.4	6270.8	µg/L	6270.8	ppb	15:04:11
2	Mg 279.077 IEC†	772.0	756.1	7061.6	µg/L	7061.6	ppb	15:04:31
2	Na 589.592 Radial†	2066.6	1493.7	484.92	µg/L	484.92	ppb	15:04:11
2	Sr 421.552†	14493.0	14412.4	145.73	µg/L	145.73	ppb	15:04:11
2	Sc 361.383	2074619.8	2074619.8	101.48	%			15:05:38
2	Y 371.029	1432686.9	1432686.9	101.97	%			15:05:38
2	Ag 328.068†	-743.8	-209.3	2.0492	µg/L	2.0492	ppb	15:05:43
2	As 188.979†	8.1	6.5	14.295	µg/L	14.295	ppb	15:06:04
2	B 249.677†	830.5	521.6	-4.0060	µg/L	-4.0060	ppb	15:05:43
2	Ba 233.527†	25492.0	25138.6	646.33	µg/L	646.33	ppb	15:05:43
2	Be 313.107†	12916.4	15695.8	9.5674	µg/L	9.5674	ppb	15:05:43
2	Cd 226.502†	131.6	267.7	1.4791	µg/L	1.4791	ppb	15:06:04
2	Co 228.616†	782.4	776.0	34.966	µg/L	34.966	ppb	15:06:04
2	Cr 267.716†	3047.3	3035.1	64.575	µg/L	64.575	ppb	15:06:04
2	Cu 324.752†	37128.3	34049.8	240.45	µg/L	240.45	ppb	15:05:43
2	Mn 257.610†	703025.0	693020.8	2349.8	µg/L	2349.8	ppb	15:05:38
2	Mo 202.031†	14.8	21.5	4.1580	µg/L	4.1580	ppb	15:06:04
2	Ni 231.604†	1123.8	800.6	43.374	µg/L	43.374	ppb	15:06:04
2	P 214.914†	557.6	527.9	1056.8	µg/L	1056.8	ppb	15:06:04
2	Pb 220.353†	770.6	665.8	172.02	µg/L	172.02	ppb	15:06:04

2	S 181.975 Axial†	222.1	205.1	884.15 µg/L	884.15 ppb	15:06:04
2	Sb 206.836†	35.3	14.7	11.454 µg/L	11.454 ppb	15:06:04
2	Se 196.026†	-12.5	-28.2	84.864 µg/L	84.864 ppb	15:06:04
2	SiO2†	233183.1	228441.8	48170 µg/L	48170 ppb	15:05:38
2	Si 251.611†	280894.3	276488.1	22384 µg/L	22384 ppb	15:05:38
2	Sn 189.927†	-9.4	-12.4	-10.269 µg/L	-10.269 ppb	15:06:04
2	Ti 334.940†	538676.4	530699.0	1252.5 µg/L	1252.5 ppb	15:05:38
2	Tl 190.801†	-43.9	-20.3	0.3913 µg/L	0.3913 ppb	15:06:04
2	U 409.014†	2201.2	2212.8	184.05 µg/L	184.05 ppb	15:05:43
2	V 292.402†	6800.7	6733.7	75.704 µg/L	75.704 ppb	15:05:43
2	Zn 213.857†	13100.0	12390.4	307.09 µg/L	307.09 ppb	15:05:43
3	Sc RADIAL	57927.9	57927.9	99.8 %		15:04:36
3	Al 396.153Radial†	46390.1	46501.2	34185 µg/L	34185 ppb	15:04:36
3	Ca 317.933Radial†	23878.4	23728.4	21977 µg/L	21977 ppb	15:04:36
3	Fe 238.204 Radial†	5870.3	5864.2	50382 µg/L	50382 ppb	15:04:57
3	K 766.490 Radial†	9177.3	9017.9	6343.6 µg/L	6343.6 ppb	15:04:36
3	Mg 279.077 IEC†	751.7	739.7	6907.9 µg/L	6907.9 ppb	15:04:57
3	Na 589.592 Radial†	2095.9	1533.7	497.90 µg/L	497.90 ppb	15:04:36
3	Sr 421.552†	14593.5	14587.9	147.51 µg/L	147.51 ppb	15:04:36
3	Sc 361.383	2081804.4	2081804.4	101.83 %		15:06:11
3	Y 371.029	1439204.0	1439204.0	102.44 %		15:06:11
3	Ag 328.068†	-773.4	-235.9	1.7757 µg/L	1.7757 ppb	15:06:16
3	As 188.979†	10.9	9.3	19.589 µg/L	19.589 ppb	15:06:36
3	B 249.677†	815.2	503.8	-4.3209 µg/L	-4.3209 ppb	15:06:16
3	Ba 233.527†	25175.9	24741.5	636.12 µg/L	636.12 ppb	15:06:16
3	Be 313.107†	12726.4	15465.3	9.4213 µg/L	9.4213 ppb	15:06:16
3	Cd 226.502†	131.8	267.4	1.5710 µg/L	1.5710 ppb	15:06:36
3	Co 228.616†	758.3	749.7	33.702 µg/L	33.702 ppb	15:06:36
3	Cr 267.716†	2920.7	2900.4	61.709 µg/L	61.709 ppb	15:06:36
3	Cu 324.752†	36669.8	33473.3	236.38 µg/L	236.38 ppb	15:06:16
3	Mn 257.610†	706149.6	693698.4	2352.0 µg/L	2352.0 ppb	15:06:11
3	Mo 202.031†	21.0	27.5	4.7400 µg/L	4.7400 ppb	15:06:36
3	Ni 231.604†	1090.8	764.4	41.431 µg/L	41.431 ppb	15:06:36
3	P 214.914†	538.1	506.9	1013.8 µg/L	1013.8 ppb	15:06:36
3	Pb 220.353†	749.9	642.9	166.15 µg/L	166.15 ppb	15:06:36
3	S 181.975 Axial†	218.0	200.3	863.48 µg/L	863.48 ppb	15:06:36
3	Sb 206.836†	32.6	11.8	8.7340 µg/L	8.7340 ppb	15:06:36
3	Se 196.026†	-0.5	-16.3	100.53 µg/L	100.53 ppb	15:06:36
3	SiO2†	234440.3	228883.4	48263 µg/L	48263 ppb	15:06:11
3	Si 251.611†	282397.0	277008.5	22426 µg/L	22426 ppb	15:06:11
3	Sn 189.927†	-5.0	-8.0	-8.2407 µg/L	-8.2407 ppb	15:06:36
3	Ti 334.940†	538941.7	529127.6	1248.8 µg/L	1248.8 ppb	15:06:11
3	Tl 190.801†	-42.5	-18.8	2.3402 µg/L	2.3402 ppb	15:06:36
3	U 409.014†	2164.9	2169.7	180.40 µg/L	180.40 ppb	15:06:16
3	V 292.402†	6678.7	6590.7	74.122 µg/L	74.122 ppb	15:06:16
3	Zn 213.857†	12987.0	12234.8	303.26 µg/L	303.26 ppb	15:06:16

Mean Data: 245797018|948065|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2079828.0	101.73	%	0.223				0.22%
Sc RADIAL	57838.9	99.7	%	0.76				0.76%
Y 371.029	1437226.6	102.30	%	0.281				0.27%
Ag 328.068†	-241.0	1.7908	µg/L	0.25117	1.7908	ppb	0.25117	14.03%
Al 396.153Radial†	45945.4	33777	µg/L	354.4	33777	ppb	354.4	1.05%
As 188.979†	5.9	13.252	µg/L	6.9178	13.252	ppb	6.9178	52.20%
B 249.677†	510.6	-4.4464	µg/L	0.51472	-4.4464	ppb	0.51472	11.58%
Ba 233.527†	24929.7	640.96	µg/L	5.126	640.96	ppb	5.126	0.80%
Be 313.107†	15600.1	9.5066	µg/L	0.07606	9.5066	ppb	0.07606	0.80%
Ca 317.933Radial†	23429.1	21700	µg/L	244.2	21700	ppb	244.2	1.13%
Cd 226.502†	274.2	1.6638	µg/L	0.24465	1.6638	ppb	0.24465	14.70%
Co 228.616†	769.0	34.629	µg/L	0.8130	34.629	ppb	0.8130	2.35%
Cr 267.716†	2982.3	63.450	µg/L	1.5289	63.450	ppb	1.5289	2.41%
Cu 324.752†	33776.5	238.57	µg/L	2.054	238.57	ppb	2.054	0.86%
Fe 238.204 Radial†	5959.0	51196	µg/L	779.8	51196	ppb	779.8	1.52%
K 766.490 Radial†	8922.1	6276.2	µg/L	64.83	6276.2	ppb	64.83	1.03%
Mg 279.077 IEC†	754.4	7045.4	µg/L	130.20	7045.4	ppb	130.20	1.85%
Mn 257.610†	694008.9	2353.2	µg/L	4.03	2353.2	ppb	4.03	0.17%
Mo 202.031†	21.8	4.1874	µg/L	0.53857	4.1874	ppb	0.53857	12.86%
Na 589.592 Radial†	1518.7	493.03	µg/L	7.066	493.03	ppb	7.066	1.43%

Ni 231.604†	781.1	42.333	µg/L	0.9787	42.333	ppb	0.9787	2.31%
P 214.914†	517.3	1034.9	µg/L	21.51	1034.9	ppb	21.51	2.08%
Pb 220.353†	656.5	169.63	µg/L	3.080	169.63	ppb	3.080	1.82%
S 181.975 Axial†	203.0	874.92	µg/L	10.509	874.92	ppb	10.509	1.20%
Sb 206.836†	12.8	9.6496	µg/L	1.56231	9.6496	ppb	1.56231	16.19%
Se 196.026†	-22.7	92.988	µg/L	7.8501	92.988	ppb	7.8501	8.44%
SiO2†	228759.4	48237	µg/L	58.4	48237	ppb	58.4	0.12%
Si 251.611†	276878.6	22416	µg/L	27.9	22416	ppb	27.9	0.12%
Sn 189.927†	-10.8	-9.5651	µg/L	1.14776	-9.5651	ppb	1.14776	12.00%
Sr 421.552†	14437.0	145.98	µg/L	1.418	145.98	ppb	1.418	0.97%
Ti 334.940†	530261.4	1251.5	µg/L	2.32	1251.5	ppb	2.32	0.19%
Tl 190.801†	-18.4	3.0565	µg/L	3.08636	3.0565	ppb	3.08636	100.98%
U 409.014†	2158.4	179.32	µg/L	5.355	179.32	ppb	5.355	2.99%
V 292.402†	6646.8	74.793	µg/L	0.8181	74.793	ppb	0.8181	1.09%
Zn 213.857†	12297.3	304.77	µg/L	2.040	304.77	ppb	2.040	0.67%

Sequence No.: 22
Sample ID: 245797019|948065|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 325
Date Collected: 2/17/2010 15:06:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245797019|948065|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58935.0	58935.0	102	%			15:07:16
1	Al 396.153Radial†	17343.5	17102.4	12573	µg/L	12573	ppb	15:07:16
1	Ca 317.933Radial†	3243.8	2999.0	2777.7	µg/L	2777.7	ppb	15:07:36
1	Fe 238.204 Radial†	7139.4	7013.5	60256	µg/L	60256	ppb	15:07:16
1	K 766.490 Radial†	5028.0	4774.6	3358.7	µg/L	3358.7	ppb	15:07:16
1	Mg 279.077 IEC†	228.7	211.8	1929.2	µg/L	1929.2	ppb	15:07:36
1	Na 589.592 Radial†	6434.5	5770.4	1873.3	µg/L	1873.3	ppb	15:07:16
1	Sr 421.552†	2140.7	2074.8	20.979	µg/L	20.979	ppb	15:07:16
1	Sc 361.383	2057769.4	2057769.4	100.65	%			15:08:36
1	Y 371.029	1458526.1	1458526.1	103.81	%			15:08:36
1	Ag 328.068†	-1301.2	-769.1	-2.1110	µg/L	-2.1110	ppb	15:08:41
1	As 188.979†	7.3	5.7	14.353	µg/L	14.353	ppb	15:09:01
1	B 249.677†	586.8	286.2	-18.705	µg/L	-18.705	ppb	15:08:41
1	Ba 233.527†	6497.2	6473.0	166.42	µg/L	166.42	ppb	15:08:41
1	Be 313.107†	3851.5	6794.0	3.7947	µg/L	3.7947	ppb	15:08:41
1	Cd 226.502†	49.8	187.5	-1.6203	µg/L	-1.6203	ppb	15:08:41
1	Co 228.616†	889.0	888.2	39.988	µg/L	39.988	ppb	15:09:01
1	Cr 267.716†	9149.2	9121.9	193.95	µg/L	193.95	ppb	15:08:41
1	Cu 324.752†	3768.3	1206.2	16.641	µg/L	16.641	ppb	15:08:41
1	Mn 257.610†	569870.8	566404.7	1923.1	µg/L	1923.1	ppb	15:08:36
1	Mo 202.031†	50.6	57.1	8.1701	µg/L	8.1701	ppb	15:09:01
1	Ni 231.604†	2675.0	2350.9	126.27	µg/L	126.27	ppb	15:08:41
1	P 214.914†	150.7	128.1	224.20	µg/L	224.20	ppb	15:09:01
1	Pb 220.353†	200.8	106.0	26.028	µg/L	26.028	ppb	15:09:01
1	S 181.975 Axial†	24.5	10.6	45.613	µg/L	45.613	ppb	15:09:01
1	Sb 206.836†	33.6	13.2	10.308	µg/L	10.308	ppb	15:09:01
1	Se 196.026†	-14.3	-30.1	116.32	µg/L	116.32	ppb	15:09:01
1	SiO2†	161053.4	158662.4	33456	µg/L	33456	ppb	15:08:41
1	Si 251.611†	194948.2	193367.1	15655	µg/L	15655	ppb	15:08:36
1	Sn 189.927†	16.9	13.7	-0.0968	µg/L	-0.0968	ppb	15:09:01
1	Ti 334.940†	619240.2	615086.1	1451.8	µg/L	1451.8	ppb	15:08:36
1	Tl 190.801†	-41.2	-17.9	4.5980	µg/L	4.5980	ppb	15:09:01
1	U 409.014†	-1518.1	-1464.5	-135.94	µg/L	-135.94	ppb	15:08:36
1	V 292.402†	1631.0	1652.5	24.459	µg/L	24.459	ppb	15:08:41
1	Zn 213.857†	10083.3	9498.9	234.50	µg/L	234.50	ppb	15:08:41
2	Sc RADIAL	58853.9	58853.9	101	%			15:07:41
2	Al 396.153Radial†	17500.8	17281.1	12704	µg/L	12704	ppb	15:07:41
2	Ca 317.933Radial†	3268.3	3027.5	2804.1	µg/L	2804.1	ppb	15:08:01
2	Fe 238.204 Radial†	7244.8	7127.2	61232	µg/L	61232	ppb	15:07:41
2	K 766.490 Radial†	5123.6	4875.7	3429.8	µg/L	3429.8	ppb	15:07:41
2	Mg 279.077 IEC†	223.4	206.8	1881.1	µg/L	1881.1	ppb	15:08:01
2	Na 589.592 Radial†	6489.6	5833.5	1893.8	µg/L	1893.8	ppb	15:07:41
2	Sr 421.552†	2191.4	2127.7	21.514	µg/L	21.514	ppb	15:07:41
2	Sc 361.383	2070641.2	2070641.2	101.28	%			15:09:09
2	Y 371.029	1467777.6	1467777.6	104.47	%			15:09:09
2	Ag 328.068†	-1311.9	-771.6	-2.0640	µg/L	-2.0640	ppb	15:09:14
2	As 188.979†	6.8	5.3	13.545	µg/L	13.545	ppb	15:09:34
2	B 249.677†	604.8	300.4	-18.602	µg/L	-18.602	ppb	15:09:14
2	Ba 233.527†	6500.7	6436.3	165.48	µg/L	165.48	ppb	15:09:14
2	Be 313.107†	3832.9	6751.9	3.7662	µg/L	3.7662	ppb	15:09:14
2	Cd 226.502†	25.3	162.9	-2.3947	µg/L	-2.3947	ppb	15:09:14
2	Co 228.616†	896.2	889.8	40.058	µg/L	40.058	ppb	15:09:34
2	Cr 267.716†	9128.7	9045.2	192.32	µg/L	192.32	ppb	15:09:14
2	Cu 324.752†	3742.3	1157.3	16.442	µg/L	16.442	ppb	15:09:14
2	Mn 257.610†	576525.5	569455.6	1933.6	µg/L	1933.6	ppb	15:09:09
2	Mo 202.031†	52.9	59.1	8.4060	µg/L	8.4060	ppb	15:09:34
2	Ni 231.604†	2676.4	2335.7	125.47	µg/L	125.47	ppb	15:09:14
2	P 214.914†	149.7	126.2	219.47	µg/L	219.47	ppb	15:09:34
2	Pb 220.353†	186.5	90.6	22.004	µg/L	22.004	ppb	15:09:34

2	S 181.975 Axial†	20.7	6.7	28.784 µg/L	28.784 ppb	15:09:34
2	Sb 206.836†	30.1	9.5	6.7843 µg/L	6.7843 ppb	15:09:34
2	Se 196.026†	-20.1	-35.7	110.47 µg/L	110.47 ppb	15:09:34
2	SiO2†	159759.3	156390.1	32977 µg/L	32977 ppb	15:09:14
2	Si 251.611†	196580.6	193774.8	15688 µg/L	15688 ppb	15:09:09
2	Sn 189.927†	22.4	19.0	2.1452 µg/L	2.1452 ppb	15:09:34
2	Ti 334.940†	624917.3	616866.9	1456.0 µg/L	1456.0 ppb	15:09:09
2	Tl 190.801†	-40.5	-17.1	6.0331 µg/L	6.0331 ppb	15:09:34
2	U 409.014†	-1520.6	-1457.6	-135.48 µg/L	-135.48 ppb	15:09:09
2	V 292.402†	1712.3	1722.6	25.295 µg/L	25.295 ppb	15:09:14
2	Zn 213.857†	10044.3	9398.1	231.93 µg/L	231.93 ppb	15:09:14
3	Sc RADIAL	58585.7	58585.7	101 %		15:08:06
3	Al 396.153Radial†	17365.7	17226.3	12664 µg/L	12664 ppb	15:08:06
3	Ca 317.933Radial†	3246.8	3021.0	2798.1 µg/L	2798.1 ppb	15:08:26
3	Fe 238.204 Radial†	7165.9	7081.7	60842 µg/L	60842 ppb	15:08:06
3	K 766.490 Radial†	5086.8	4862.4	3420.4 µg/L	3420.4 ppb	15:08:06
3	Mg 279.077 IEC†	220.3	204.8	1862.6 µg/L	1862.6 ppb	15:08:26
3	Na 589.592 Radial†	6407.1	5781.1	1876.7 µg/L	1876.7 ppb	15:08:06
3	Sr 421.552†	2178.6	2125.0	21.487 µg/L	21.487 ppb	15:08:06
3	Sc 361.383	2073975.3	2073975.3	101.45 %		15:09:42
3	Y 371.029	1470202.0	1470202.0	104.64 %		15:09:42
3	Ag 328.068†	-1343.9	-801.1	-2.3226 µg/L	-2.3226 ppb	15:09:47
3	As 188.979†	-1.5	-3.0	-2.3835 µg/L	-2.3835 ppb	15:10:07
3	B 249.677†	575.3	270.4	-19.707 µg/L	-19.707 ppb	15:09:47
3	Ba 233.527†	6411.2	6337.8	162.95 µg/L	162.95 ppb	15:09:47
3	Be 313.107†	3689.6	6604.5	3.6779 µg/L	3.6779 ppb	15:09:47
3	Cd 226.502†	65.4	202.5	-1.2827 µg/L	-1.2827 ppb	15:09:47
3	Co 228.616†	859.4	852.1	38.265 µg/L	38.265 ppb	15:10:07
3	Cr 267.716†	8984.2	8888.3	188.99 µg/L	188.99 ppb	15:09:47
3	Cu 324.752†	3768.2	1176.9	16.521 µg/L	16.521 ppb	15:09:47
3	Mn 257.610†	571680.0	563764.1	1914.3 µg/L	1914.3 ppb	15:09:42
3	Mo 202.031†	48.3	54.5	7.9210 µg/L	7.9210 ppb	15:10:07
3	Ni 231.604†	2670.7	2325.8	124.94 µg/L	124.94 ppb	15:09:47
3	P 214.914†	142.3	118.7	203.79 µg/L	203.79 ppb	15:10:07
3	Pb 220.353†	191.2	95.0	23.164 µg/L	23.164 ppb	15:10:07
3	S 181.975 Axial†	19.6	5.6	23.952 µg/L	23.952 ppb	15:10:07
3	Sb 206.836†	29.0	8.5	5.7991 µg/L	5.7991 ppb	15:10:07
3	Se 196.026†	-13.7	-29.4	119.08 µg/L	119.08 ppb	15:10:07
3	SiO2†	158828.5	155219.1	32730 µg/L	32730 ppb	15:09:47
3	Si 251.611†	195353.0	192252.7	15564 µg/L	15564 ppb	15:09:42
3	Sn 189.927†	21.2	17.8	1.6523 µg/L	1.6523 ppb	15:10:07
3	Ti 334.940†	619048.8	610090.2	1440.0 µg/L	1440.0 ppb	15:09:42
3	Tl 190.801†	-42.9	-19.3	2.6723 µg/L	2.6723 ppb	15:10:07
3	U 409.014†	-1567.2	-1501.1	-139.21 µg/L	-139.21 ppb	15:09:42
3	V 292.402†	1672.1	1680.3	24.797 µg/L	24.797 ppb	15:09:47
3	Zn 213.857†	10010.4	9348.8	230.72 µg/L	230.72 ppb	15:09:47

Mean Data: 245797019|948065|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2067462.0	101.13	%	0.419				0.41%
Sc RADIAL	58791.5	101	%	0.3				0.31%
Y 371.029	1465501.9	104.31	%	0.439				0.42%
Ag 328.068†	-780.6	-2.1659	µg/L	0.13776	-2.1659	ppb	0.13776	6.36%
Al 396.153Radial†	17203.3	12647	µg/L	67.3	12647	ppb	67.3	0.53%
As 188.979†	2.7	8.5049	µg/L	9.43826	8.5049	ppb	9.43826	110.97%
B 249.677†	285.7	-19.005	µg/L	0.6104	-19.005	ppb	0.6104	3.21%
Ba 233.527†	6415.7	164.95	µg/L	1.797	164.95	ppb	1.797	1.09%
Be 313.107†	6716.8	3.7463	µg/L	0.06087	3.7463	ppb	0.06087	1.62%
Ca 317.933Radial†	3015.8	2793.3	µg/L	13.87	2793.3	ppb	13.87	0.50%
Cd 226.502†	184.3	-1.7659	µg/L	0.57013	-1.7659	ppb	0.57013	32.29%
Co 228.616†	876.7	39.437	µg/L	1.0155	39.437	ppb	1.0155	2.57%
Cr 267.716†	9018.5	191.76	µg/L	2.532	191.76	ppb	2.532	1.32%
Cu 324.752†	1180.1	16.535	µg/L	0.1005	16.535	ppb	0.1005	0.61%
Fe 238.204 Radial†	7074.1	60776	µg/L	491.5	60776	ppb	491.5	0.81%
K 766.490 Radial†	4837.6	3403.0	µg/L	38.63	3403.0	ppb	38.63	1.14%
Mg 279.077 IEC†	207.8	1891.0	µg/L	34.36	1891.0	ppb	34.36	1.82%
Mn 257.610†	566541.5	1923.6	µg/L	9.66	1923.6	ppb	9.66	0.50%
Mo 202.031†	56.9	8.1657	µg/L	0.24251	8.1657	ppb	0.24251	2.97%
Na 589.592 Radial†	5795.0	1881.3	µg/L	10.96	1881.3	ppb	10.96	0.58%

Ni 231.604†	2337.5	125.56	µg/L	0.668	125.56	ppb	0.668	0.53%
P 214.914†	124.3	215.82	µg/L	10.680	215.82	ppb	10.680	4.95%
Pb 220.353†	97.2	23.732	µg/L	2.0714	23.732	ppb	2.0714	8.73%
S 181.975 Axial†	7.6	32.783	µg/L	11.3706	32.783	ppb	11.3706	34.68%
Sb 206.836†	10.4	7.6306	µg/L	2.37070	7.6306	ppb	2.37070	31.07%
Se 196.026†	-31.7	115.29	µg/L	4.400	115.29	ppb	4.400	3.82%
SiO2†	156757.2	33054	µg/L	369.2	33054	ppb	369.2	1.12%
Si 251.611†	193131.5	15636	µg/L	63.8	15636	ppb	63.8	0.41%
Sn 189.927†	16.8	1.2336	µg/L	1.17818	1.2336	ppb	1.17818	95.51%
Sr 421.552†	2109.1	21.327	µg/L	0.3013	21.327	ppb	0.3013	1.41%
Ti 334.940†	614014.4	1449.3	µg/L	8.29	1449.3	ppb	8.29	0.57%
Tl 190.801†	-18.1	4.4345	µg/L	1.68634	4.4345	ppb	1.68634	38.03%
U 409.014†	-1474.4	-136.88	µg/L	2.035	-136.88	ppb	2.035	1.49%
V 292.402†	1685.1	24.850	µg/L	0.4203	24.850	ppb	0.4203	1.69%
Zn 213.857†	9415.3	232.38	µg/L	1.930	232.38	ppb	1.930	0.83%

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/17/2010 15:10:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57951.6	57951.6	99.9	%			15:10:50
1	Al 396.153Radial†	6617.8	6650.5	4878.5	µg/L	4878.5	ppb	15:10:50
1	Ca 317.933Radial†	5449.8	5262.6	4874.2	µg/L	4874.2	ppb	15:11:10
1	Fe 238.204 Radial†	597.0	580.7	4999.6	µg/L	4999.6	ppb	15:11:10
1	K 766.490 Radial†	7170.4	7004.2	4927.1	µg/L	4927.1	ppb	15:10:50
1	Mg 279.077 IEC†	550.4	537.8	5065.4	µg/L	5065.4	ppb	15:11:10
1	Na 589.592 Radial†	30958.9	30438.9	9881.6	µg/L	9881.6	ppb	15:10:50
1	Sr 421.552†	47914.1	47952.3	484.88	µg/L	484.88	ppb	15:10:50
1	Sc 361.383	2051353.4	2051353.4	100.34	%			15:12:10
1	Y 371.029	1397323.3	1397323.3	99.455	%			15:12:10
1	Ag 328.068†	63344.9	63653.9	501.79	µg/L	501.79	ppb	15:12:15
1	As 188.979†	278.5	276.1	530.30	µg/L	530.30	ppb	15:12:35
1	B 249.677†	11853.1	11516.2	498.13	µg/L	498.13	ppb	15:12:15
1	Ba 233.527†	19743.4	19694.5	507.17	µg/L	507.17	ppb	15:12:15
1	Be 313.107†	799172.0	799430.3	511.41	µg/L	511.41	ppb	15:12:10
1	Cd 226.502†	18648.0	18722.7	505.65	µg/L	505.65	ppb	15:12:15
1	Co 228.616†	10589.6	10558.7	510.73	µg/L	510.73	ppb	15:12:15
1	Cr 267.716†	23844.0	23795.4	506.24	µg/L	506.24	ppb	15:12:15
1	Cu 324.752†	76096.1	73300.5	502.99	µg/L	502.99	ppb	15:12:15
1	Mn 257.610†	152436.9	152156.8	514.95	µg/L	514.95	ppb	15:12:10
1	Mo 202.031†	5053.2	5043.0	519.14	µg/L	519.14	ppb	15:12:35
1	Ni 231.604†	9876.9	9536.7	508.71	µg/L	508.71	ppb	15:12:15
1	P 214.914†	1267.4	1241.6	2570.8	µg/L	2570.8	ppb	15:12:35
1	Pb 220.353†	2095.6	1995.0	517.66	µg/L	517.66	ppb	15:12:35
1	S 181.975 Axial†	257.2	242.6	1045.6	µg/L	1045.6	ppb	15:12:35
1	Sb 206.836†	558.0	536.0	515.15	µg/L	515.15	ppb	15:12:35
1	Se 196.026†	360.6	343.5	531.14	µg/L	531.14	ppb	15:12:35
1	SiO2†	27364.4	25927.1	5467.0	µg/L	5467.0	ppb	15:12:15
1	Si 251.611†	31935.7	31512.9	2551.2	µg/L	2551.2	ppb	15:12:15
1	Sn 189.927†	1175.9	1168.8	520.74	µg/L	520.74	ppb	15:12:35
1	Ti 334.940†	217700.5	216831.9	511.50	µg/L	511.50	ppb	15:12:10
1	Tl 190.801†	348.2	369.9	519.04	µg/L	519.04	ppb	15:12:35
1	U 409.014†	5882.2	5906.0	512.77	µg/L	512.77	ppb	15:12:15
1	V 292.402†	48972.3	48838.4	508.94	µg/L	508.94	ppb	15:12:15
1	Zn 213.857†	20860.4	20270.8	504.40	µg/L	504.40	ppb	15:12:15
2	Sc RADIAL	60100.1	60100.1	104	%			15:11:16
2	Al 396.153Radial†	6747.8	6539.1	4796.8	µg/L	4796.8	ppb	15:11:16
2	Ca 317.933Radial†	5551.2	5165.3	4784.2	µg/L	4784.2	ppb	15:11:36
2	Fe 238.204 Radial†	601.8	563.9	4855.4	µg/L	4855.4	ppb	15:11:36
2	K 766.490 Radial†	7324.6	6896.4	4851.3	µg/L	4851.3	ppb	15:11:16
2	Mg 279.077 IEC†	554.6	522.1	4917.5	µg/L	4917.5	ppb	15:11:36
2	Na 589.592 Radial†	31601.6	29951.2	9723.2	µg/L	9723.2	ppb	15:11:16
2	Sr 421.552†	49390.7	47662.7	481.95	µg/L	481.95	ppb	15:11:16
2	Sc 361.383	2075685.0	2075685.0	101.53	%			15:12:42
2	Y 371.029	1412156.4	1412156.4	100.51	%			15:12:42
2	Ag 328.068†	63968.9	63528.4	500.80	µg/L	500.80	ppb	15:12:48
2	As 188.979†	275.3	269.7	517.94	µg/L	517.94	ppb	15:13:08
2	B 249.677†	11936.8	11460.1	495.77	µg/L	495.77	ppb	15:12:48
2	Ba 233.527†	19952.3	19669.6	506.53	µg/L	506.53	ppb	15:12:48
2	Be 313.107†	799437.2	790355.3	505.60	µg/L	505.60	ppb	15:12:42
2	Cd 226.502†	18880.1	18733.5	505.96	µg/L	505.96	ppb	15:12:48
2	Co 228.616†	10686.3	10530.3	509.35	µg/L	509.35	ppb	15:12:48
2	Cr 267.716†	24151.6	23819.8	506.76	µg/L	506.76	ppb	15:12:48
2	Cu 324.752†	76776.3	73081.5	501.47	µg/L	501.47	ppb	15:12:48
2	Mn 257.610†	152433.3	150372.3	508.90	µg/L	508.90	ppb	15:12:42
2	Mo 202.031†	5003.4	4934.9	508.01	µg/L	508.01	ppb	15:13:08
2	Ni 231.604†	10014.2	9556.5	509.76	µg/L	509.76	ppb	15:12:48
2	P 214.914†	1268.9	1228.2	2542.7	µg/L	2542.7	ppb	15:13:08
2	Pb 220.353†	2070.8	1946.1	504.94	µg/L	504.94	ppb	15:13:08

2	S 181.975 Axial†	254.5	236.9	1021.2 µg/L	1021.2 ppb	15:13:08
2	Sb 206.836†	561.3	532.7	511.82 µg/L	511.82 ppb	15:13:08
2	Se 196.026†	347.7	326.6	505.17 µg/L	505.17 ppb	15:13:08
2	SiO2†	27714.2	25952.0	5472.3 µg/L	5472.3 ppb	15:12:48
2	Si 251.611†	32480.7	31676.6	2564.5 µg/L	2564.5 ppb	15:12:48
2	Sn 189.927†	1163.2	1142.6	509.06 µg/L	509.06 ppb	15:13:08
2	Ti 334.940†	217615.1	214204.5	505.31 µg/L	505.31 ppb	15:12:42
2	Tl 190.801†	346.6	364.3	511.16 µg/L	511.16 ppb	15:13:08
2	U 409.014†	5879.5	5834.6	506.59 µg/L	506.59 ppb	15:12:48
2	V 292.402†	49573.4	48858.2	509.03 µg/L	509.03 ppb	15:12:48
2	Zn 213.857†	21207.5	20369.0	506.87 µg/L	506.87 ppb	15:12:48
3	Sc RADIAL	59831.4	59831.4	103 %		15:11:41
3	Al 396.153Radial†	6776.2	6596.0	4839.9 µg/L	4839.9 ppb	15:11:41
3	Ca 317.933Radial†	5534.8	5173.5	4791.7 µg/L	4791.7 ppb	15:12:01
3	Fe 238.204 Radial†	597.3	562.1	4839.8 µg/L	4839.8 ppb	15:12:01
3	K 766.490 Radial†	7410.1	7011.1	4931.9 µg/L	4931.9 ppb	15:11:41
3	Mg 279.077 IEC†	549.2	519.3	4890.1 µg/L	4890.1 ppb	15:12:01
3	Na 589.592 Radial†	31731.6	30214.3	9808.6 µg/L	9808.6 ppb	15:11:41
3	Sr 421.552†	49686.9	48164.3	487.02 µg/L	487.02 ppb	15:11:41
3	Sc 361.383	2065367.0	2065367.0	101.03 %		15:13:15
3	Y 371.029	1404981.2	1404981.2	100.00 %		15:13:15
3	Ag 328.068†	61551.4	61450.2	484.31 µg/L	484.31 ppb	15:13:20
3	As 188.979†	246.6	242.6	465.98 µg/L	465.98 ppb	15:13:40
3	B 249.677†	11444.7	11031.8	477.12 µg/L	477.12 ppb	15:13:20
3	Ba 233.527†	18817.3	18644.2	480.11 µg/L	480.11 ppb	15:13:20
3	Be 313.107†	761133.7	756374.2	483.87 µg/L	483.87 ppb	15:13:15
3	Cd 226.502†	17730.3	17688.2	477.70 µg/L	477.70 ppb	15:13:20
3	Co 228.616†	9996.8	9900.3	478.84 µg/L	478.84 ppb	15:13:20
3	Cr 267.716†	22152.8	21960.1	467.20 µg/L	467.20 ppb	15:13:20
3	Cu 324.752†	71956.6	68688.5	471.36 µg/L	471.36 ppb	15:13:20
3	Mn 257.610†	145180.4	143943.1	487.16 µg/L	487.16 ppb	15:13:15
3	Mo 202.031†	4339.8	4302.6	442.95 µg/L	442.95 ppb	15:13:40
3	Ni 231.604†	9348.5	8946.8	477.24 µg/L	477.24 ppb	15:13:20
3	P 214.914†	1119.9	1086.9	2246.8 µg/L	2246.8 ppb	15:13:40
3	Pb 220.353†	1877.7	1765.1	457.91 µg/L	457.91 ppb	15:13:40
3	S 181.975 Axial†	233.3	217.1	936.04 µg/L	936.04 ppb	15:13:40
3	Sb 206.836†	496.8	471.6	452.74 µg/L	452.74 ppb	15:13:40
3	Se 196.026†	319.1	300.0	464.62 µg/L	464.62 ppb	15:13:40
3	SiO2†	26434.6	24821.8	5234.0 µg/L	5234.0 ppb	15:13:20
3	Si 251.611†	30745.2	30118.6	2438.4 µg/L	2438.4 ppb	15:13:20
3	Sn 189.927†	994.6	981.4	437.25 µg/L	437.25 ppb	15:13:40
3	Ti 334.940†	206691.1	204462.1	482.32 µg/L	482.32 ppb	15:13:15
3	Tl 190.801†	318.0	337.8	474.10 µg/L	474.10 ppb	15:13:40
3	U 409.014†	5341.8	5331.3	462.81 µg/L	462.81 ppb	15:13:20
3	V 292.402†	46031.7	45596.5	474.82 µg/L	474.82 ppb	15:13:20
3	Zn 213.857†	19814.4	19094.4	475.12 µg/L	475.12 ppb	15:13:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2064135.1	100.97	%	0.597				0.59%
Sc RADIAL	59294.4	102	%	2.0				1.97%
Y 371.029	1404820.3	99.989	%	0.5280				0.53%
Ag 328.068†	62877.5	495.64	µg/L	9.817	495.64	ppb	9.817	1.98%
QC value within limits for Ag 328.068 Recovery = 99.13%								
Al 396.153Radial†	6595.2	4838.4	µg/L	40.85	4838.4	ppb	40.85	0.84%
QC value within limits for Al 396.153Radial Recovery = 96.77%								
As 188.979†	262.8	504.74	µg/L	34.132	504.74	ppb	34.132	6.76%
QC value within limits for As 188.979 Recovery = 100.95%								
B 249.677†	11336.0	490.34	µg/L	11.509	490.34	ppb	11.509	2.35%
QC value within limits for B 249.677 Recovery = 98.07%								
Ba 233.527†	19336.1	497.93	µg/L	15.440	497.93	ppb	15.440	3.10%
QC value within limits for Ba 233.527 Recovery = 99.59%								
Be 313.107†	782053.3	500.29	µg/L	14.519	500.29	ppb	14.519	2.90%
QC value within limits for Be 313.107 Recovery = 100.06%								
Ca 317.933Radial†	5200.5	4816.7	µg/L	49.95	4816.7	ppb	49.95	1.04%
QC value within limits for Ca 317.933Radial Recovery = 96.33%								
Cd 226.502†	18381.5	496.44	µg/L	16.230	496.44	ppb	16.230	3.27%
QC value within limits for Cd 226.502 Recovery = 99.29%								
Co 228.616†	10329.8	499.64	µg/L	18.029	499.64	ppb	18.029	3.61%

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   QC value within limits for Co 228.616  Recovery = 99.93%
Cr 267.716†            23191.8      493.40 µg/L        22.692      493.40 ppb        22.692   4.60%
   QC value within limits for Cr 267.716  Recovery = 98.68%
Cu 324.752†            71690.2      491.94 µg/L        17.836      491.94 ppb        17.836   3.63%
   QC value within limits for Cu 324.752  Recovery = 98.39%
Fe 238.204 Radial†       568.9      4898.3 µg/L         88.11      4898.3 ppb         88.11   1.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.97%
K 766.490 Radial†       6970.6      4903.4 µg/L         45.23      4903.4 ppb         45.23   0.92%
   QC value within limits for K 766.490 Radial  Recovery = 98.07%
Mg 279.077 IEC†          526.4      4957.7 µg/L         94.28      4957.7 ppb         94.28   1.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.15%
Mn 257.610†           148824.0      503.67 µg/L        14.613      503.67 ppb        14.613   2.90%
   QC value within limits for Mn 257.610  Recovery = 100.73%
Mo 202.031†            4760.2      490.04 µg/L        41.155      490.04 ppb        41.155   8.40%
   QC value within limits for Mo 202.031  Recovery = 98.01%
Na 589.592 Radial†    30201.5      9804.5 µg/L         79.25      9804.5 ppb         79.25   0.81%
   QC value within limits for Na 589.592 Radial  Recovery = 98.04%
Ni 231.604†            9346.6      498.57 µg/L        18.478      498.57 ppb        18.478   3.71%
   QC value within limits for Ni 231.604  Recovery = 99.71%
P 214.914†             1185.6      2453.4 µg/L        179.49      2453.4 ppb        179.49   7.32%
   QC value within limits for P 214.914  Recovery = 98.14%
Pb 220.353†            1902.0      493.50 µg/L        31.472      493.50 ppb        31.472   6.38%
   QC value within limits for Pb 220.353  Recovery = 98.70%
S 181.975 Axial†        232.2      1001.0 µg/L         57.52      1001.0 ppb         57.52   5.75%
   QC value within limits for S 181.975 Axial  Recovery = 100.10%
Sb 206.836†             513.4      493.24 µg/L        35.110      493.24 ppb        35.110   7.12%
   QC value within limits for Sb 206.836  Recovery = 98.65%
Se 196.026†             323.4      500.31 µg/L        33.521      500.31 ppb        33.521   6.70%
   QC value within limits for Se 196.026  Recovery = 100.06%
SiO2†                  25567.0      5391.1 µg/L        136.10      5391.1 ppb        136.10   2.52%
   QC value within limits for SiO2  Recovery = 100.81%
Si 251.611†            31102.7      2518.0 µg/L         69.32      2518.0 ppb         69.32   2.75%
   QC value within limits for Si 251.611  Recovery = 100.72%
Sn 189.927†            1097.6      489.02 µg/L        45.210      489.02 ppb        45.210   9.25%
   QC value within limits for Sn 189.927  Recovery = 97.80%
Sr 421.552†           47926.5      484.62 µg/L         2.546      484.62 ppb         2.546   0.53%
   QC value within limits for Sr 421.552  Recovery = 96.92%
Ti 334.940†          211832.8      499.71 µg/L        15.378      499.71 ppb        15.378   3.08%
   QC value within limits for Ti 334.940  Recovery = 99.94%
Tl 190.801†             357.3      501.43 µg/L        24.000      501.43 ppb        24.000   4.79%
   QC value within limits for Tl 190.801  Recovery = 100.29%
U 409.014†             5690.6      494.06 µg/L        27.238      494.06 ppb        27.238   5.51%
   QC value within limits for U 409.014  Recovery = 98.81%
V 292.402†            47764.4      497.60 µg/L        19.724      497.60 ppb        19.724   3.96%
   QC value within limits for V 292.402  Recovery = 99.52%
Zn 213.857†           19911.4      495.46 µg/L        17.658      495.46 ppb        17.658   3.56%
   QC value within limits for Zn 213.857  Recovery = 99.09%
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/17/2010 15:13:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59234.1	59234.1	102	%			15:14:20
1	Al 396.153Radial†	13.7	36.3	26.699	µg/L	26.699	ppb	15:14:20
1	Ca 317.933Radial†	200.2	0.8	0.7250	µg/L	0.7250	ppb	15:14:40
1	Fe 238.204 Radial†	17.4	-0.2	-1.7942	µg/L	-1.7942	ppb	15:14:40
1	K 766.490 Radial†	162.2	-18.0	-12.644	µg/L	-12.644	ppb	15:14:20
1	Mg 279.077 IEC†	11.7	-2.0	-18.502	µg/L	-18.502	ppb	15:14:40
1	Na 589.592 Radial†	477.2	-98.6	-32.005	µg/L	-32.005	ppb	15:14:20
1	Sr 421.552†	46.1	11.9	0.1200	µg/L	0.1200	ppb	15:14:20
1	Sc 361.383	2090483.3	2090483.3	102.25	%			15:15:38
1	Y 371.029	1427833.7	1427833.7	101.63	%			15:15:38
1	Ag 328.068†	-546.8	-11.1	-0.0871	µg/L	-0.0871	ppb	15:15:44
1	As 188.979†	-3.3	-4.7	-9.0074	µg/L	-9.0074	ppb	15:16:04
1	B 249.677†	304.0	0.6	0.0262	µg/L	0.0262	ppb	15:16:04
1	Ba 233.527†	-17.8	0.6	0.0150	µg/L	0.0150	ppb	15:16:04
1	Be 313.107†	-3161.9	-124.7	-0.0800	µg/L	-0.0800	ppb	15:15:44
1	Cd 226.502†	-135.9	5.0	0.1345	µg/L	0.1345	ppb	15:16:04
1	Co 228.616†	-13.7	-8.3	-0.4043	µg/L	-0.4043	ppb	15:16:04
1	Cr 267.716†	-28.0	4.8	0.1024	µg/L	0.1024	ppb	15:16:04
1	Cu 324.752†	2547.8	-45.9	-0.3147	µg/L	-0.3147	ppb	15:15:44
1	Mn 257.610†	-144.6	95.1	0.3222	µg/L	0.3222	ppb	15:16:04
1	Mo 202.031†	-0.4	6.5	0.6693	µg/L	0.6693	ppb	15:16:04
1	Ni 231.604†	295.5	-17.8	-0.9483	µg/L	-0.9483	ppb	15:16:04
1	P 214.914†	30.3	8.0	16.978	µg/L	16.978	ppb	15:16:04
1	Pb 220.353†	93.0	-2.6	-0.6677	µg/L	-0.6677	ppb	15:16:04
1	S 181.975 Axial†	15.1	1.0	4.2403	µg/L	4.2403	ppb	15:16:04
1	Sb 206.836†	21.8	1.2	1.1478	µg/L	1.1478	ppb	15:16:04
1	Se 196.026†	8.3	-7.7	-11.706	µg/L	-11.706	ppb	15:16:04
1	SiO2†	1392.4	17.2	3.6210	µg/L	3.6210	ppb	15:15:44
1	Si 251.611†	376.5	53.7	4.3472	µg/L	4.3472	ppb	15:16:04
1	Sn 189.927†	-2.3	-5.3	-2.3725	µg/L	-2.3725	ppb	15:16:04
1	Ti 334.940†	344.2	206.0	0.4878	µg/L	0.4878	ppb	15:15:44
1	Tl 190.801†	-20.0	3.4	4.6689	µg/L	4.6689	ppb	15:16:04
1	U 409.014†	-98.4	-52.5	-4.5711	µg/L	-4.5711	ppb	15:15:44
1	V 292.402†	-39.0	-6.1	-0.0621	µg/L	-0.0621	ppb	15:15:44
1	Zn 213.857†	501.1	-28.8	-0.7151	µg/L	-0.7151	ppb	15:16:04
2	Sc RADIAL	59219.7	59219.7	102	%			15:14:45
2	Al 396.153Radial†	10.8	33.5	24.586	µg/L	24.586	ppb	15:14:45
2	Ca 317.933Radial†	199.0	-0.4	-0.3815	µg/L	-0.3815	ppb	15:15:05
2	Fe 238.204 Radial†	17.9	0.3	2.6125	µg/L	2.6125	ppb	15:15:05
2	K 766.490 Radial†	127.0	-52.4	-36.880	µg/L	-36.880	ppb	15:14:45
2	Mg 279.077 IEC†	9.9	-3.7	-34.683	µg/L	-34.683	ppb	15:15:05
2	Na 589.592 Radial†	513.4	-63.0	-20.455	µg/L	-20.455	ppb	15:14:45
2	Sr 421.552†	54.4	20.0	0.2024	µg/L	0.2024	ppb	15:14:45
2	Sc 361.383	2092408.3	2092408.3	102.35	%			15:16:10
2	Y 371.029	1428694.2	1428694.2	101.69	%			15:16:10
2	Ag 328.068†	-544.2	-8.1	-0.0630	µg/L	-0.0630	ppb	15:16:15
2	As 188.979†	-2.3	-3.7	-7.1297	µg/L	-7.1297	ppb	15:16:35
2	B 249.677†	311.7	7.8	0.3386	µg/L	0.3386	ppb	15:16:35
2	Ba 233.527†	-29.5	-10.8	-0.2783	µg/L	-0.2783	ppb	15:16:35
2	Be 313.107†	-3155.9	-115.9	-0.0744	µg/L	-0.0744	ppb	15:16:15
2	Cd 226.502†	-148.8	-7.4	-0.2009	µg/L	-0.2009	ppb	15:16:35
2	Co 228.616†	-15.4	-10.0	-0.4838	µg/L	-0.4838	ppb	15:16:35
2	Cr 267.716†	-28.5	4.3	0.0917	µg/L	0.0917	ppb	15:16:35
2	Cu 324.752†	2498.4	-96.5	-0.6608	µg/L	-0.6608	ppb	15:16:15
2	Mn 257.610†	-155.7	84.4	0.2872	µg/L	0.2872	ppb	15:16:35
2	Mo 202.031†	2.8	9.6	0.9891	µg/L	0.9891	ppb	15:16:35
2	Ni 231.604†	299.2	-14.5	-0.7722	µg/L	-0.7722	ppb	15:16:35
2	P 214.914†	25.7	3.5	7.4285	µg/L	7.4285	ppb	15:16:35
2	Pb 220.353†	98.5	2.7	0.7102	µg/L	0.7102	ppb	15:16:35

2	S 181.975 Axial†	13.9	-0.2	-0.9295 µg/L	-0.9295 ppb	15:16:35
2	Sb 206.836†	21.0	0.4	0.3632 µg/L	0.3632 ppb	15:16:35
2	Se 196.026†	8.8	-7.2	-10.991 µg/L	-10.991 ppb	15:16:35
2	SiO2†	1366.5	-9.3	-1.9715 µg/L	-1.9715 ppb	15:16:15
2	Si 251.611†	349.2	26.7	2.1644 µg/L	2.1644 ppb	15:16:35
2	Sn 189.927†	-1.1	-4.2	-1.8548 µg/L	-1.8548 ppb	15:16:35
2	Ti 334.940†	330.9	192.7	0.4575 µg/L	0.4575 ppb	15:16:15
2	Tl 190.801†	-27.3	-3.7	-5.1033 µg/L	-5.1033 ppb	15:16:35
2	U 409.014†	-34.7	9.7	0.8470 µg/L	0.8470 ppb	15:16:15
2	V 292.402†	-30.9	1.9	0.0282 µg/L	0.0282 ppb	15:16:15
2	Zn 213.857†	492.1	-38.1	-0.9480 µg/L	-0.9480 ppb	15:16:35
3	Sc RADIAL	59080.8	59080.8	102 %		15:15:11
3	Al 396.153Radial†	-20.1	3.2	2.3224 µg/L	2.3224 ppb	15:15:11
3	Ca 317.933Radial†	196.9	-2.0	-1.8598 µg/L	-1.8598 ppb	15:15:31
3	Fe 238.204 Radial†	18.5	0.9	7.8034 µg/L	7.8034 ppb	15:15:31
3	K 766.490 Radial†	176.1	-3.9	-2.7393 µg/L	-2.7393 ppb	15:15:11
3	Mg 279.077 IEC†	10.1	-3.5	-32.810 µg/L	-32.810 ppb	15:15:31
3	Na 589.592 Radial†	483.0	-91.7	-29.755 µg/L	-29.755 ppb	15:15:11
3	Sr 421.552†	7.9	-25.5	-0.2580 µg/L	-0.2580 ppb	15:15:11
3	Sc 361.383	2089995.1	2089995.1	102.23 %		15:16:41
3	Y 371.029	1427034.5	1427034.5	101.57 %		15:16:41
3	Ag 328.068†	-587.7	-51.2	-0.3990 µg/L	-0.3990 ppb	15:16:46
3	As 188.979†	-1.1	-2.5	-4.8969 µg/L	-4.8969 ppb	15:17:06
3	B 249.677†	291.0	-12.1	-0.5298 µg/L	-0.5298 ppb	15:17:06
3	Ba 233.527†	-22.8	-4.3	-0.1104 µg/L	-0.1104 ppb	15:17:06
3	Be 313.107†	-3272.0	-233.1	-0.1492 µg/L	-0.1492 ppb	15:16:46
3	Cd 226.502†	-142.0	-1.0	-0.0277 µg/L	-0.0277 ppb	15:17:06
3	Co 228.616†	-17.5	-12.1	-0.5849 µg/L	-0.5849 ppb	15:17:06
3	Cr 267.716†	-23.2	9.5	0.2013 µg/L	0.2013 ppb	15:17:06
3	Cu 324.752†	2536.9	-56.0	-0.3825 µg/L	-0.3825 ppb	15:16:46
3	Mn 257.610†	-152.1	87.8	0.2993 µg/L	0.2993 ppb	15:17:06
3	Mo 202.031†	-4.5	2.5	0.2531 µg/L	0.2531 ppb	15:17:06
3	Ni 231.604†	292.6	-20.5	-1.0962 µg/L	-1.0962 ppb	15:17:06
3	P 214.914†	28.9	6.7	14.197 µg/L	14.197 ppb	15:17:06
3	Pb 220.353†	92.0	-3.5	-0.9171 µg/L	-0.9171 ppb	15:17:06
3	S 181.975 Axial†	19.1	4.8	20.828 µg/L	20.828 ppb	15:17:06
3	Sb 206.836†	18.1	-2.4	-2.3410 µg/L	-2.3410 ppb	15:17:06
3	Se 196.026†	8.8	-7.3	-11.063 µg/L	-11.063 ppb	15:17:06
3	SiO2†	1412.4	37.1	7.8275 µg/L	7.8275 ppb	15:16:46
3	Si 251.611†	383.6	60.8	4.9183 µg/L	4.9183 ppb	15:17:06
3	Sn 189.927†	-0.2	-3.3	-1.4810 µg/L	-1.4810 ppb	15:17:06
3	Ti 334.940†	197.6	62.7	0.1505 µg/L	0.1505 ppb	15:16:46
3	Tl 190.801†	-23.3	0.1	0.1664 µg/L	0.1664 ppb	15:17:06
3	U 409.014†	13.6	57.0	4.9582 µg/L	4.9582 ppb	15:16:46
3	V 292.402†	-16.4	16.0	0.1733 µg/L	0.1733 ppb	15:16:46
3	Zn 213.857†	496.2	-33.5	-0.8327 µg/L	-0.8327 ppb	15:17:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2090962.2	102.28	%	0.062				0.06%
Sc RADIAL	59178.2	102	%	0.1				0.14%
Y 371.029	1427854.1	101.63	%	0.059				0.06%
Ag 328.068†	-23.4	-0.1831	µg/L	0.18741	-0.1831	ppb	0.18741	102.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.3	17.869	µg/L	13.5053	17.869	ppb	13.5053	75.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.6	-7.0113	µg/L	2.05783	-7.0113	ppb	2.05783	29.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-1.2	-0.0550	µg/L	0.43987	-0.0550	ppb	0.43987	799.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.8	-0.1246	µg/L	0.14718	-0.1246	ppb	0.14718	118.13%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-157.9	-0.1012	µg/L	0.04168	-0.1012	ppb	0.04168	41.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.5	-0.5055	µg/L	1.29685	-0.5055	ppb	1.29685	256.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.1	-0.0314	µg/L	0.16776	-0.0314	ppb	0.16776	534.70%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-10.1	-0.4910	µg/L	0.09049	-0.4910	ppb	0.09049	18.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.2      0.1318 µg/L       0.06045      0.1318 ppb        0.06045  45.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -66.1     -0.4527 µg/L       0.18339     -0.4527 ppb        0.18339  40.51%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      2.8739 µg/L       4.80412      2.8739 ppb        4.80412 167.16%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -24.8     -17.421 µg/L       17.5642     -17.421 ppb        17.5642 100.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.0     -28.665 µg/L        8.8512     -28.665 ppb         8.8512  30.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                89.1      0.3029 µg/L       0.01777      0.3029 ppb        0.01777   5.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.2      0.6372 µg/L       0.36908      0.6372 ppb        0.36908  57.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -84.4     -27.405 µg/L        6.1231     -27.405 ppb         6.1231  22.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -17.6     -0.9389 µg/L       0.16216     -0.9389 ppb        0.16216  17.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.1      12.868 µg/L        4.9117      12.868 ppb         4.9117  38.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.1     -0.2915 µg/L       0.87645     -0.2915 ppb        0.87645 300.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.9      8.0463 µg/L      11.36719      8.0463 ppb       11.36719 141.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.3     -0.2767 µg/L       1.83031     -0.2767 ppb        1.83031 661.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.4     -11.253 µg/L        0.3936     -11.253 ppb         0.3936   3.50%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      15.0      3.1590 µg/L       4.91583      3.1590 ppb        4.91583 155.61%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                47.1      3.8100 µg/L       1.45342      3.8100 ppb        1.45342  38.15%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.3     -1.9028 µg/L       0.44770     -1.9028 ppb        0.44770  23.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.1      0.0215 µg/L       0.24553      0.0215 ppb        0.24553 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               153.8      0.3653 µg/L       0.18663      0.3653 ppb        0.18663  51.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.1     -0.0894 µg/L       4.89113     -0.0894 ppb        4.89113 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  4.7      0.4114 µg/L       4.77958      0.4114 ppb        4.77958 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  3.9      0.0465 µg/L       0.11877      0.0465 ppb        0.11877 255.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -33.5     -0.8319 µg/L       0.11642     -0.8319 ppb        0.11642  13.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, February 12, 2010 10:18:56
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.319
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1288.1	1288.058	41.465	3.2
	Mg	24.0	14429.9	14429.886	284.936	2.0
	Co	58.9	44038.8	44038.783	525.856	1.2
	Rh	102.9	94668.0	94668.039	343.034	0.4
	In	114.9	131263.0	131262.952	1490.538	1.1
	Pb	208.0	44782.7	44782.687	416.543	0.9
⌈>	Ba	137.9	108764.6	108764.609	1148.682	1.1
⌊	Ba++	69.0	1110.0	0.010	0.000	1.6
⌈>	Ce	139.9	126796.2	126796.223	410.096	0.3
⌊	CeO	155.9	2967.6	0.023	0.000	1.2
	Bkgd	220.0	3.4	3.400	1.851	54.4

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.5	1121.7
Co	59	17	4.8	34804.3
In	115	17	5.3	96253.2

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	601	2060	0.667
Be	9.0	9.0	2042	2045	0.716
Mg	24.0	24.0	5680	2065	0.694
Mg	25.0	25.0	5943	2080	0.729
Mg	26.0	25.9	6159	2085	0.675
Co	58.9	58.8	14163	2140	0.673
Rh	102.9	102.9	24874	2230	0.669
In	114.9	114.9	27784	2255	0.683
Ce	139.9	139.9	33848	2310	0.639
Pb	206.0	206.0	49936	2500	0.623
Pb	207.0	207.0	50113	2375	0.600
Pb	208.0	208.0	50436	2570	0.595
U	238.1	238.0	57683	2510	0.639

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 12, 2010 22:01:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\Blank.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		11	
	Be	9		ug/L		2	
	B	11		ug/L		168	
	Na	23		ug/L		12005	
	Mg	24		ug/L		333	
	Al	27		ug/L		1333	
	P	31		ug/L		1512	
	K	39		ug/L		227808	
	Ca	43		ug/L		121	
>	Sc	45		ug/L		186466	
	Ti	47		ug/L		62	
	V	51		ug/L		1186	
	Cr	52		ug/L		-161	
	Cr	53		ug/L		40736	
	Mn	55		ug/L		388	
	Fe	57		ug/L		4896	
	Co	59		ug/L		29	
	Ni	60		ug/L		48	
	Cu	63		ug/L		126	
	Cu	65		ug/L		69	
	Zn	66		ug/L		280	
	Zn	67		ug/L		1986	
	Zn	68		ug/L		376	
>	Ge	74		ug/L		186933	
	As	75		ug/L		-293	
	Se	77		ug/L		3607	
	Se	82		ug/L		25	
	Kr	83		ug/L		36	
	Sr	88		ug/L		62	
	Y	89		ug/L		17	
	Zr	90		ug/L		326	
	Mo	98		ug/L		35	
	Ag	107		ug/L		34	
	Cd	111		ug/L		10	
	Cd	114		ug/L		20	
>	In	115		ug/L		138650	
	Sn	120		ug/L		212	
	Sb	121		ug/L		280	
	Sb	123		ug/L		215	
	Ba	135		ug/L		10	
	Ba	137		ug/L		14	
	Ho	165		ug/L		2	
>	Lu	175		ug/L		115315	
	Tl	205		ug/L		1186	
	Pb	208		ug/L		227	
	Th	232		ug/L		447	
	U	238		ug/L		46	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 12, 2010 22:07:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\Standard 1.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.144	3732	0.019
	Be	9	10.000	ug/L	2.912	935	0.005
	B	11	20.000	ug/L	3.047	2219	0.010
	Na	23	1000.000	ug/L	8.944	1452691	7.348
	Mg	24	1000.000	ug/L	4.838	926487	4.727
	Al	27	1000.000	ug/L	1.078	1279881	6.527
	P	31	1000.000	ug/L	0.451	78805	0.394
	K	39	1000.000	ug/L	2.743	2839648	13.275
	Ca	43	1000.000	ug/L	1.029	5811	0.029
>	Sc	45		ug/L		195877	195877.085
	Ti	47	10.000	ug/L	3.051	2574	0.013
	V	51	10.000	ug/L	1.833	33136	0.163
	Cr	52	10.000	ug/L	2.917	22979	0.118
	Cr	53		ug/L		66842	0.123
	Mn	55	10.000	ug/L	2.804	42855	0.217
	Fe	57	1000.000	ug/L	3.955	92477	0.446
	Co	59	10.000	ug/L	1.527	32696	0.167
	Ni	60	10.000	ug/L	2.714	6892	0.035
	Cu	63		ug/L		15148	0.077
	Cu	65	10.000	ug/L	0.979	7552	0.038
	Zn	66	10.000	ug/L	1.864	4437	0.022
	Zn	67		ug/L		3594	0.008
	Zn	68		ug/L		3437	0.016
>	Ge	74		ug/L		188570	188570.277
	As	75	10.000	ug/L	12.967	4460	0.025
	Se	77		ug/L		6488	0.015
	Se	82	10.000	ug/L	2.600	610	0.003
	Kr	83		ug/L		32	-0.000
	Sr	88	10.000	ug/L	1.700	82573	0.603
	Y	89		ug/L		24	0.000
	Zr	90	10.000	ug/L	2.045	42368	0.307
	Mo	98	10.000	ug/L	1.786	17170	0.125
	Ag	107	10.000	ug/L	1.098	30937	0.226
	Cd	111	10.000	ug/L	1.778	7231	0.053
	Cd	114		ug/L		17824	0.130
>	In	115		ug/L		136873	136873.020
	Sn	120	10.000	ug/L	1.117	32354	0.235
	Sb	121	10.000	ug/L	2.970	21720	0.157
	Sb	123		ug/L		16638	0.120
	Ba	135		ug/L		7041	0.061
	Ba	137	10.000	ug/L	0.546	12076	0.105
	Ho	165		ug/L		3	0.000
>	Lu	175		ug/L		115161	115161.136
	Tl	205	10.000	ug/L	2.385	16281	0.131
	Pb	208	10.000	ug/L	1.529	70915	0.614
	Th	232	10.000	ug/L	2.805	83821	0.724
	U	238	10.000	ug/L	1.203	87772	0.762

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 12, 2010 22:13:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\Standard 2.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.958**	**ug/L**	1.583	38990	0.182
	Be	9	**99.938**	**ug/L**	0.809	9592	0.045
	B	11	**199.966**	**ug/L**	2.176	22109	0.102
	Na	23	**10000.977**	**ug/L**	10.349	15880411	74.212
	Mg	24	**9992.085**	**ug/L**	9.711	9354344	43.771
	Al	27	**10003.008**	**ug/L**	5.057	14396352	67.314
	P	31	**10001.220**	**ug/L**	1.714	855177	3.991
	K	39	**10001.189**	**ug/L**	13.522	28980331	134.365
	Ca	43	**9997.227**	**ug/L**	1.488	60502	0.282
>	Sc	45		**ug/L**		213840	213840.150
	Ti	47	**99.997**	**ug/L**	1.408	27369	0.128
	V	51	**99.974**	**ug/L**	1.103	340607	1.587
	Cr	52	**99.974**	**ug/L**	1.222	246086	1.152
	Cr	53		**ug/L**		90304	0.204
	Mn	55	**99.980**	**ug/L**	0.860	454885	2.125
	Fe	57	**9996.914**	**ug/L**	1.942	930508	4.325
	Co	59	**99.967**	**ug/L**	0.861	345245	1.614
	Ni	60	**99.978**	**ug/L**	0.882	73116	0.342
	Cu	63		**ug/L**		160461	0.750
	Cu	65	**99.950**	**ug/L**	0.625	77787	0.363
	Zn	66	**100.051**	**ug/L**	1.035	46720	0.232
	Zn	67		**ug/L**		10215	0.040
	Zn	68		**ug/L**		33746	0.167
>	Ge	74		**ug/L**		199893	199892.561
	As	75	**100.099**	**ug/L**	1.947	55726	0.280
	Se	77		**ug/L**		10849	0.035
	Se	82	**100.061**	**ug/L**	3.229	6635	0.033
	Kr	83		**ug/L**		38	0.000
	Sr	88	**100.000**	**ug/L**	1.709	854556	6.028
	Y	89		**ug/L**		88	0.000
	Zr	90	**99.998**	**ug/L**	1.034	434776	3.065
	Mo	98	**100.030**	**ug/L**	1.092	183085	1.291
	Ag	107	**100.006**	**ug/L**	1.672	321977	2.271
	Cd	111	**100.040**	**ug/L**	0.517	77991	0.550
	Cd	114		**ug/L**		187039	1.319
>	In	115		**ug/L**		141761	141760.523
	Sn	120	**99.975**	**ug/L**	0.743	324963	2.291
	Sb	121	**99.996**	**ug/L**	5.586	221522	1.561
	Sb	123		**ug/L**		171009	1.205
	Ba	135		**ug/L**		73972	0.625
	Ba	137	**100.018**	**ug/L**	0.938	126243	1.066
	Ho	165		**ug/L**		4	0.000
>	Lu	175		**ug/L**		118378	118378.012
	Tl	205	**100.006**	**ug/L**	1.886	157374	1.319
	Pb	208	**99.950**	**ug/L**	1.940	691603	5.841
	Th	232	**99.963**	**ug/L**	1.969	826541	6.979
	U	238	**99.942**	**ug/L**	1.832	851608	7.195

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 12, 2010 22:20:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 1.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.801**	**ug/L**	1.589	20002	0.093
	Be	9	**50.887**	**ug/L**	1.322	4930	0.023
	B	11	**106.903**	**ug/L**	1.832	12018	0.055
	Na	23	**4915.642**	**ug/L**	3.974	7883452	36.476
	Mg	24	**5754.950**	**ug/L**	4.567	5440530	25.210
	Al	27	**5261.121**	**ug/L**	4.539	7638754	35.404
	P	31	**4935.854**	**ug/L**	2.070	426745	1.970
	K	39	**4761.232**	**ug/L**	12.648	14052276	63.967
	Ca	43	**5072.691**	**ug/L**	2.481	31044	0.143
>	Sc	45		**ug/L**		215783	215782.762
	Ti	47	**51.541**	**ug/L**	1.879	14268	0.066
	V	51	**51.559**	**ug/L**	2.391	177965	0.818
	Cr	52	**52.402**	**ug/L**	0.634	130076	0.604
	Cr	53		**ug/L**		86130	0.181
	Mn	55	**51.009**	**ug/L**	2.602	234349	1.084
	Fe	57	**4934.264**	**ug/L**	3.297	466168	2.135
	Co	59	**49.093**	**ug/L**	3.518	171069	0.793
	Ni	60	**51.004**	**ug/L**	5.029	37654	0.174
	Cu	63		**ug/L**		81504	0.377
	Cu	65	**50.111**	**ug/L**	3.125	39382	0.182
	Zn	66	**50.387**	**ug/L**	0.365	24150	0.117
	Zn	67		**ug/L**		6924	0.023
	Zn	68		**ug/L**		17801	0.085
>	Ge	74		**ug/L**		203888	203888.011
	As	75	**47.808**	**ug/L**	1.317	26976	0.134
	Se	77		**ug/L**		9226	0.026
	Se	82	**47.266**	**ug/L**	2.430	3211	0.016
	Kr	83		**ug/L**		33	-0.000
	Sr	88	**51.922**	**ug/L**	1.967	443020	3.130
	Y	89		**ug/L**		38	0.000
	Zr	90	**49.123**	**ug/L**	0.810	213431	1.505
	Mo	98	**50.259**	**ug/L**	1.357	91877	0.649
	Ag	107	**50.869**	**ug/L**	1.367	163565	1.155
	Cd	111	**50.088**	**ug/L**	1.387	38991	0.275
	Cd	114		**ug/L**		93486	0.660
>	In	115		**ug/L**		141546	141545.736
	Sn	120	**51.928**	**ug/L**	0.885	168629	1.190
	Sb	121	**54.901**	**ug/L**	0.593	121583	0.857
	Sb	123		**ug/L**		93054	0.656
	Ba	135		**ug/L**		37244	0.321
	Ba	137	**51.405**	**ug/L**	0.253	63626	0.548
	Ho	165		**ug/L**		15	0.000
>	Lu	175		**ug/L**		116064	116064.107
	Tl	205	**47.751**	**ug/L**	1.857	74312	0.630
	Pb	208	**51.093**	**ug/L**	1.423	346775	2.986
	Th	232	**51.229**	**ug/L**	1.873	415591	3.577
	U	238	**52.410**	**ug/L**	0.648	437952	3.773

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.602				
	Be	9	101.774				
	B	11	106.903				
	Na	23	98.313				
	Mg	24	115.099				
	Al	27	104.181				
	P	31	98.717				
	K	39	95.225				
	Ca	43	101.454				
>	Sc	45		115.7			
	Ti	47	103.082				
	V	51	103.119				
	Cr	52	104.804				
	Cr	53					
	Mn	55	102.017				
	Fe	57	98.685				
	Co	59	98.187				
	Ni	60	102.008				
	Cu	63					
	Cu	65	100.222				
	Zn	66	100.775				
	Zn	67					
	Zn	68					
>	Ge	74		109.1			
	As	75	95.615				
	Se	77					
	Se	82	94.533				
	Kr	83					
	Sr	88	103.844				
	Y	89					
	Zr	90	98.245				
	Mo	98	100.517				
	Ag	107	101.739				
	Cd	111	100.175				
	Cd	114					
>	In	115		102.1			
	Sn	120	103.857				
	Sb	121	109.802				
	Sb	123					
	Ba	135					
	Ba	137	102.810				
	Ho	165					
>	Lu	175		100.6			
	Tl	205	95.501				
	Pb	208	102.185				
	Th	232	102.457				
	U	238	104.820				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Mg	24	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 12, 2010 22:26:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 2.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.054**	**ug/L**	38.774	31	0.000
	Be	9	**0.046**	**ug/L**	40.453	6	0.000
	B	11	**3.887**	**ug/L**	8.652	583	0.002
	Na	23	**4.715**	**ug/L**	63.230	20014	0.035
	Mg	24	**2.616**	**ug/L**	90.885	2667	0.011
	Al	27	**2.138**	**ug/L**	111.873	4334	0.014
	P	31	**4.310**	**ug/L**	29.492	1981	0.002
	K	39	**10.080**	**ug/L**	35.640	273599	0.135
	Ca	43	**3.928**	**ug/L**	78.336	153	0.000
>	Sc	45		**ug/L**		201541	201540.848
	Ti	47	**0.075**	**ug/L**	29.972	86	0.000
	V	51	**-0.032**	**ug/L**	1739.208	1174	-0.001
	Cr	52	**0.395**	**ug/L**	12.606	743	0.005
	Cr	53		**ug/L**		48657	0.023
	Mn	55	**0.043**	**ug/L**	39.045	603	0.001
	Fe	57	**4.535**	**ug/L**	16.551	5686	0.002
	Co	59	**0.028**	**ug/L**	47.443	124	0.000
	Ni	60	**0.046**	**ug/L**	37.523	84	0.000
	Cu	63		**ug/L**		197	0.000
	Cu	65	**0.047**	**ug/L**	75.726	109	0.000
	Zn	66	**0.044**	**ug/L**	10.374	312	0.000
	Zn	67		**ug/L**		2256	0.001
	Zn	68		**ug/L**		437	0.000
>	Ge	74		**ug/L**		194702	194702.239
	As	75	**-0.394**	**ug/L**	99.503	-519	-0.001
	Se	77		**ug/L**		4285	0.003
	Se	82	**-0.167**	**ug/L**	73.357	16	-0.000
	Kr	83		**ug/L**		38	0.000
	Sr	88	**0.031**	**ug/L**	46.273	326	0.002
	Y	89		**ug/L**		19	0.000
	Zr	90	**0.149**	**ug/L**	25.798	971	0.005
	Mo	98	**0.070**	**ug/L**	8.901	163	0.001
	Ag	107	**0.044**	**ug/L**	24.115	176	0.001
	Cd	111	**0.037**	**ug/L**	47.838	39	0.000
	Cd	114		**ug/L**		79	0.000
>	In	115		**ug/L**		140801	140800.533
	Sn	120	**0.241**	**ug/L**	11.014	993	0.006
	Sb	121	**0.619**	**ug/L**	8.474	1645	0.010
	Sb	123		**ug/L**		1273	0.007
	Ba	135		**ug/L**		42	0.000
	Ba	137	**0.037**	**ug/L**	34.604	59	0.000
	Ho	165		**ug/L**		4	0.000
>	Lu	175		**ug/L**		115083	115083.170
	Tl	205	**0.531**	**ug/L**	18.545	1990	0.007
	Pb	208	**0.049**	**ug/L**	35.566	558	0.003
	Th	232	**0.140**	**ug/L**	11.411	1573	0.010
	U	238	**0.043**	**ug/L**	44.094	407	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		108.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 12, 2010 22:32:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 3.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.831**	ug/L	2.311	4290	0.022
	Be	9	**0.636**	ug/L	22.423	58	0.000
	B	11	**17.736**	ug/L	1.322	1981	0.009
	Na	23	**259.310**	ug/L	4.692	394378	1.924
	Mg	24	**21.096**	ug/L	27.593	18679	0.092
	Al	27	**34.473**	ug/L	5.897	47412	0.232
	P	31	**58.447**	ug/L	2.580	6233	0.023
	K	39	**322.774**	ug/L	7.485	1102390	4.336
	Ca	43	**224.408**	ug/L	5.232	1385	0.006
>	Sc	45		ug/L		198298	198297.779
	Ti	47	**9.272**	ug/L	1.056	2413	0.012
	V	51	**11.061**	ug/L	4.697	36066	0.176
	Cr	52	**11.470**	ug/L	1.902	26029	0.132
	Cr	53		ug/L		58537	0.077
	Mn	55	**5.774**	ug/L	3.171	24747	0.123
	Fe	57	**115.230**	ug/L	6.550	15089	0.050
	Co	59	**1.136**	ug/L	0.555	3670	0.018
	Ni	60	**2.233**	ug/L	0.405	1565	0.008
	Cu	63		ug/L		1854	0.009
	Cu	65	**1.198**	ug/L	4.733	937	0.004
	Zn	66	**11.157**	ug/L	3.970	5333	0.026
	Zn	67		ug/L		3258	0.006
	Zn	68		ug/L		4142	0.019
>	Ge	74		ug/L		194781	194780.901
	As	75	**5.415**	ug/L	11.744	2652	0.015
	Se	77		ug/L		5302	0.008
	Se	82	**5.982**	ug/L	3.615	411	0.002
	Kr	83		ug/L		32	-0.000
	Sr	88	**10.856**	ug/L	2.514	92667	0.654
	Y	89		ug/L		16	-0.000
	Zr	90	**1.648**	ug/L	4.584	7485	0.051
	Mo	98	**0.563**	ug/L	0.922	1065	0.007
	Ag	107	**1.034**	ug/L	1.761	3359	0.023
	Cd	111	**1.062**	ug/L	1.096	837	0.006
	Cd	114		ug/L		2065	0.014
>	In	115		ug/L		141544	141543.718
	Sn	120	**5.305**	ug/L	2.080	17418	0.122
	Sb	121	**2.879**	ug/L	7.848	6648	0.045
	Sb	123		ug/L		5129	0.035
	Ba	135		ug/L		1631	0.014
	Ba	137	**2.121**	ug/L	2.437	2620	0.023
	Ho	165		ug/L		4	0.000
>	Lu	175		ug/L		115257	115256.901
	Tl	205	**1.150**	ug/L	3.908	2935	0.015
	Pb	208	**2.234**	ug/L	0.178	15272	0.131
	Th	232	**1.099**	ug/L	3.136	9293	0.077
	U	238	**0.247**	ug/L	4.067	2100	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	118.307				
	Be	9	127.214				
	B	11	118.243				
	Na	23	103.724				
	Mg	24	140.641				
	Al	27	114.909				
	P	31	116.895				
	K	39	107.591				
	Ca	43	112.204				
>	Sc	45		106.3			
	Ti	47	92.721				
	V	51	110.613				
	Cr	52	114.696				
	Cr	53					
	Mn	55	115.484				
	Fe	57	115.230				
	Co	59	113.631				
	Ni	60	111.657				
	Cu	63					
	Cu	65	119.827				
	Zn	66	111.574				
	Zn	67					
	Zn	68					
>	Ge	74		104.2			
	As	75	108.305				
	Se	77					
	Se	82	119.645				
	Kr	83					
	Sr	88	108.562				
	Y	89					
	Zr	90	82.424				
	Mo	98	112.613				
	Ag	107	103.437				
	Cd	111	106.226				
	Cd	114					
>	In	115		102.1			
	Sn	120	106.093				
	Sb	121	95.957				
	Sb	123					
	Ba	135					
	Ba	137	106.050				
	Ho	165					
>	Lu	175		99.9			
	Tl	205	115.036				
	Pb	208	111.675				
	Th	232	109.936				
	U	238	123.744				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Mg	24CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 12, 2010 22:38:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 4.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.076**	ug/L	6.644	44	0.000
	Be	9	**0.046**	ug/L	12.219	7	0.000
	B	11	**1.533**	ug/L	13.124	378	0.001
	Na	23	**96145.456**	ug/L	6.135	159733278	713.443
	Mg	24	**102393.277**	ug/L	3.198	100449333	448.546
	Al	27	**105352.318**	ug/L	2.019	158757013	708.959
	P	31	**95768.628**	ug/L	0.806	8558992	38.220
	K	39	**S**	ug/L	S	S	S
	Ca	43	**96853.102**	ug/L	1.192	612498	2.735
>	Sc	45		ug/L		223901	223900.956
	Ti	47	**1822.369**	ug/L	1.001	520949	2.326
	V	51	**-0.069**	ug/L	726.469	1171	-0.001
	Cr	52	**5.364**	ug/L	2.102	13642	0.062
	Cr	53		ug/L		68440	0.087
	Mn	55	**5.206**	ug/L	0.581	25241	0.111
	Fe	57	**89164.487**	ug/L	0.465	8642444	38.574
	Co	59	**0.245**	ug/L	5.313	922	0.004
	Ni	60	**4.221**	ug/L	2.475	3287	0.014
	Cu	63		ug/L		4804	0.021
	Cu	65	**2.861**	ug/L	4.832	2411	0.010
	Zn	66	**4.324**	ug/L	1.482	2136	0.010
	Zn	67		ug/L		3974	0.011
	Zn	68		ug/L		813	0.002
>	Ge	74		ug/L		185125	185124.964
	As	75	**0.415**	ug/L	343.838	-77	0.001
	Se	77		ug/L		8598	0.027
	Se	82	**0.719**	ug/L	128.972	69	0.000
	Kr	83		ug/L		126	0.000
	Sr	88	**2.898**	ug/L	2.358	22791	0.175
	Y	89		ug/L		252	0.002
	Zr	90	**1.044**	ug/L	51.060	4456	0.032
	Mo	98	**2089.905**	ug/L	1.673	3510978	26.979
	Ag	107	**0.117**	ug/L	1.014	378	0.003
	Cd	111	**0.316**	ug/L	42.196	234	0.002
	Cd	114		ug/L		5159	0.039
>	In	115		ug/L		130159	130159.223
	Sn	120	**0.620**	ug/L	7.593	2046	0.014
	Sb	121	**0.387**	ug/L	19.921	1048	0.006
	Sb	123		ug/L		843	0.005
	Ba	135		ug/L		547	0.005
	Ba	137	**0.763**	ug/L	2.162	889	0.008
	Ho	165		ug/L		2681	0.025
>	Lu	175		ug/L		107781	107780.808
	Tl	205	**0.046**	ug/L	17.238	1174	0.001
	Pb	208	**0.197**	ug/L	3.825	1452	0.012
	Th	232	**0.243**	ug/L	44.349	2251	0.017
	U	238	**0.000**	ug/L	85.507	44	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	96.145				
	Mg	24	102.393				
	Al	27	105.352				
	P	31	95.769				
	K	39	S				
	Ca	43	96.853				
>	Sc	45		120.1			
	Ti	47	91.118				
	V	51					
	Cr	52	162.550				
	Cr	53					
	Mn	55	89.753				
	Fe	57	89.164				
	Co	59	104.376				
	Ni	60	127.520				
	Cu	63					
	Cu	65	85.665				
	Zn	66	115.004				
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	97.907				
	Y	89					
	Zr	90					
	Mo	98	104.495				
	Ag	107					
	Cd	111	71.059				
	Cd	114					
>	In	115		93.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	95.561				
	Ho	165					
>	Lu	175		93.5			
	Tl	205					
	Pb	208	104.190				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	K	39	ICSA is out of limits
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 12, 2010 22:44:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 5.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**17.424**	**ug/L**	1.666	6955	0.032
	Be	9	**16.880**	**ug/L**	2.787	1657	0.008
	B	11	**17.194**	**ug/L**	4.094	2121	0.009
	Na	23	**103698.042**	**ug/L**	12.368	167842424	769.486
	Mg	24	**109380.657**	**ug/L**	8.489	104649942	479.155
	Al	27	**103804.809**	**ug/L**	4.114	152601331	698.545
	P	31	**97963.624**	**ug/L**	2.549	8540951	39.096
	K	39	**86601.514**	**ug/L**	11.907	254239709	1163.483
	Ca	43	**97058.751**	**ug/L**	0.770	598987	2.741
>	Sc	45		**ug/L**		218525	218524.616
	Ti	47	**1860.031**	**ug/L**	1.981	518725	2.374
	V	51	**20.681**	**ug/L**	2.169	73105	0.328
	Cr	52	**25.018**	**ug/L**	2.880	62759	0.288
	Cr	53		**ug/L**		63525	0.072
	Mn	55	**24.024**	**ug/L**	4.644	111931	0.511
	Fe	57	**94006.774**	**ug/L**	6.174	8881147	40.668
	Co	59	**18.265**	**ug/L**	5.479	64418	0.295
	Ni	60	**22.077**	**ug/L**	6.166	16523	0.075
	Cu	63		**ug/L**		33028	0.151
	Cu	65	**20.258**	**ug/L**	3.359	16164	0.074
	Zn	66	**21.748**	**ug/L**	1.941	9667	0.050
	Zn	67		**ug/L**		4880	0.016
	Zn	68		**ug/L**		6296	0.032
>	Ge	74		**ug/L**		185998	185998.267
	As	75	**20.066**	**ug/L**	3.073	10159	0.056
	Se	77		**ug/L**		7676	0.022
	Se	82	**19.329**	**ug/L**	3.890	1213	0.006
	Kr	83		**ug/L**		111	0.000
	Sr	88	**23.581**	**ug/L**	2.219	186264	1.421
	Y	89		**ug/L**		234	0.002
	Zr	90	**21.357**	**ug/L**	3.127	86036	0.655
	Mo	98	**2101.782**	**ug/L**	3.002	3553819	27.132
	Ag	107	**18.652**	**ug/L**	2.307	55519	0.424
	Cd	111	**18.740**	**ug/L**	1.699	13509	0.103
	Cd	114		**ug/L**		37267	0.284
>	In	115		**ug/L**		131018	131017.829
	Sn	120	**20.793**	**ug/L**	0.323	62623	0.476
	Sb	121	**22.395**	**ug/L**	0.906	46062	0.350
	Sb	123		**ug/L**		35375	0.268
	Ba	135		**ug/L**		14552	0.137
	Ba	137	**21.812**	**ug/L**	1.530	24791	0.233
	Ho	165		**ug/L**		2669	0.025
>	Lu	175		**ug/L**		106529	106529.171
	Tl	205	**17.065**	**ug/L**	1.921	25082	0.225
	Pb	208	**18.736**	**ug/L**	0.731	116851	1.095
	Th	232	**19.135**	**ug/L**	1.604	142736	1.336
	U	238	**19.201**	**ug/L**	1.821	147273	1.382

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	87.119				
	Be	9	84.399				
	B	11	85.968				
	Na	23	103.698				
	Mg	24	109.381				
	Al	27	103.805				
	P	31	97.964				
	K	39	86.602				
	Ca	43	97.059				
>	Sc	45		117.2			
	Ti	47	93.002				
	V	51	103.406				
	Cr	52	107.375				
	Cr	53					
	Mn	55	93.116				
	Fe	57	94.007				
	Co	59	90.265				
	Ni	60	94.711				
	Cu	63					
	Cu	65	86.797				
	Zn	66	91.534				
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75	100.332				
	Se	77					
	Se	82	96.646				
	Kr	83					
	Sr	88	102.707				
	Y	89					
	Zr	90	106.784				
	Mo	98	105.089				
	Ag	107	93.262				
	Cd	111	91.664				
	Cd	114					
>	In	115		94.5			
	Sn	120	103.967				
	Sb	121	111.975				
	Sb	123					
	Ba	135					
	Ba	137	104.877				
	Ho	165					
>	Lu	175		92.4			
	Tl	205	85.327				
	Pb	208	92.803				
	Th	232	95.674				
	U	238	96.004				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 12, 2010 22:50:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 6.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.708**	**ug/L**	1.133	19479	0.085
	Be	9	**46.230**	**ug/L**	1.579	4743	0.021
	B	11	**93.789**	**ug/L**	2.335	11190	0.048
	Na	23	**5035.359**	**ug/L**	2.112	8553935	37.365
	Mg	24	**5645.057**	**ug/L**	3.777	5651702	24.729
	Al	27	**5058.039**	**ug/L**	1.762	7779925	34.038
	P	31	**4995.574**	**ug/L**	1.228	457526	1.994
	K	39	**4993.025**	**ug/L**	8.038	15604794	67.081
	Ca	43	**4924.458**	**ug/L**	1.196	31932	0.139
>	Sc	45		**ug/L**		228541	228540.965
	Ti	47	**55.445**	**ug/L**	0.927	16251	0.071
	V	51	**49.809**	**ug/L**	3.588	182068	0.790
	Cr	52	**50.989**	**ug/L**	2.670	134027	0.587
	Cr	53		**ug/L**		81595	0.139
	Mn	55	**48.800**	**ug/L**	0.683	237528	1.037
	Fe	57	**4768.313**	**ug/L**	0.892	477414	2.063
	Co	59	**47.791**	**ug/L**	0.918	176416	0.772
	Ni	60	**50.113**	**ug/L**	1.608	39199	0.171
	Cu	63		**ug/L**		86026	0.376
	Cu	65	**49.608**	**ug/L**	0.473	41302	0.180
	Zn	66	**49.292**	**ug/L**	1.179	24372	0.114
	Zn	67		**ug/L**		7017	0.023
	Zn	68		**ug/L**		18178	0.084
>	Ge	74		**ug/L**		210269	210268.568
	As	75	**48.547**	**ug/L**	1.875	28255	0.136
	Se	77		**ug/L**		9479	0.026
	Se	82	**47.970**	**ug/L**	1.809	3360	0.016
	Kr	83		**ug/L**		35	-0.000
	Sr	88	**50.804**	**ug/L**	2.165	445770	3.062
	Y	89		**ug/L**		78	0.000
	Zr	90	**48.270**	**ug/L**	2.941	215633	1.479
	Mo	98	**49.667**	**ug/L**	1.665	93345	0.641
	Ag	107	**50.281**	**ug/L**	1.073	166216	1.142
	Cd	111	**49.382**	**ug/L**	0.702	39529	0.272
	Cd	114		**ug/L**		95596	0.657
>	In	115		**ug/L**		145544	145544.082
	Sn	120	**51.566**	**ug/L**	2.653	172169	1.182
	Sb	121	**52.881**	**ug/L**	3.699	120426	0.825
	Sb	123		**ug/L**		91454	0.627
	Ba	135		**ug/L**		38551	0.347
	Ba	137	**55.090**	**ug/L**	0.757	65305	0.587
	Ho	165		**ug/L**		12	0.000
>	Lu	175		**ug/L**		111160	111160.265
	Tl	205	**47.856**	**ug/L**	2.726	71331	0.631
	Pb	208	**50.558**	**ug/L**	0.504	328664	2.955
	Th	232	**50.123**	**ug/L**	0.530	389463	3.500
	U	238	**51.078**	**ug/L**	1.186	408781	3.677

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	93.416				
	Be	9	92.459				
	B	11	93.789				
	Na	23	100.707				
	Mg	24	112.901				
	Al	27	100.159				
	P	31	99.911				
	K	39	99.860				
	Ca	43	98.489				
>	Sc	45		122.6			
	Ti	47	110.890				
	V	51	99.619				
	Cr	52	101.977				
	Cr	53					
	Mn	55	97.600				
	Fe	57	95.366				
	Co	59	95.582				
	Ni	60	100.226				
	Cu	63					
	Cu	65	99.216				
	Zn	66	98.585				
	Zn	67					
	Zn	68					
>	Ge	74		112.5			
	As	75	97.093				
	Se	77					
	Se	82	95.939				
	Kr	83					
	Sr	88	101.609				
	Y	89					
	Zr	90	96.539				
	Mo	98	99.333				
	Ag	107	100.562				
	Cd	111	98.763				
	Cd	114					
>	In	115		105.0			
	Sn	120	103.132				
	Sb	121	105.762				
	Sb	123					
	Ba	135					
	Ba	137	110.180				
	Ho	165					
>	Lu	175		96.4			
	Tl	205	95.712				
	Pb	208	101.117				
	Th	232	100.247				
	U	238	102.156				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ti	47	CCV is out of limits (+/- 10%)
QC Std 6	Ba	137	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 12, 2010 22:56:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 7.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.003**	ug/L	394.296	14	0.000
	Be	9	**0.000**	ug/L	7201.742	2	0.000
	B	11	**2.159**	ug/L	16.838	443	0.001
	Na	23	**0.284**	ug/L	1170.795	14675	0.002
	Mg	24	**2.016**	ug/L	79.670	2334	0.009
	Al	27	**1.402**	ug/L	221.051	3668	0.009
	P	31	**2.874**	ug/L	64.154	2040	0.001
	K	39	**1.055**	ug/L	510.150	272583	0.014
	Ca	43	**-0.197**	ug/L	2043.096	141	-0.000
>	Sc	45		ug/L		220497	220496.552
	Ti	47	**0.793**	ug/L	7.568	296	0.001
	V	51	**0.102**	ug/L	522.039	1764	0.002
	Cr	52	**0.384**	ug/L	18.747	784	0.004
	Cr	53		ug/L		48657	0.002
	Mn	55	**0.012**	ug/L	38.886	515	0.000
	Fe	57	**12.232**	ug/L	24.487	6955	0.005
	Co	59	**0.010**	ug/L	48.052	70	0.000
	Ni	60	**0.017**	ug/L	19.895	70	0.000
	Cu	63		ug/L		160	0.000
	Cu	65	**0.006**	ug/L	179.007	86	0.000
	Zn	66	**-0.012**	ug/L	444.374	309	-0.000
	Zn	67		ug/L		2260	0.000
	Zn	68		ug/L		426	0.000
>	Ge	74		ug/L		210095	210095.258
	As	75	**-0.285**	ug/L	177.873	-494	-0.001
	Se	77		ug/L		4820	0.004
	Se	82	**-0.147**	ug/L	68.320	18	-0.000
	Kr	83		ug/L		46	0.000
	Sr	88	**0.010**	ug/L	25.538	160	0.001
	Y	89		ug/L		17	-0.000
	Zr	90	**0.095**	ug/L	23.919	798	0.003
	Mo	98	**0.134**	ug/L	2.634	300	0.002
	Ag	107	**0.017**	ug/L	22.226	95	0.000
	Cd	111	**0.009**	ug/L	84.441	18	0.000
	Cd	114		ug/L		42	0.000
>	In	115		ug/L		151383	151382.950
	Sn	120	**0.172**	ug/L	16.534	827	0.004
	Sb	121	**0.524**	ug/L	21.701	1543	0.008
	Sb	123		ug/L		1201	0.006
	Ba	135		ug/L		17	0.000
	Ba	137	**0.016**	ug/L	22.371	34	0.000
	Ho	165		ug/L		3	0.000
>	Lu	175		ug/L		117476	117475.656
	Tl	205	**0.428**	ug/L	21.210	1871	0.006
	Pb	208	**0.010**	ug/L	19.658	299	0.001
	Th	232	**0.060**	ug/L	21.170	943	0.004
	U	238	**0.014**	ug/L	23.896	165	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		118.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		112.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		109.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, February 12, 2010 23:03:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 10.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**879.459**	ug/L	2.249	362640	1.604
	Be	9	**841.070**	ug/L	2.324	85346	0.377
	B	11	**1.809**	ug/L	20.318	413	0.001
	Na	23	**50207.612**	ug/L	3.206	84301328	372.563
	Mg	24	**54803.180**	ug/L	9.510	54333957	240.072
	Al	27	**57991.576**	ug/L	11.828	88264531	390.249
	P	31	**24340.065**	ug/L	2.669	2198995	9.714
	K	39	**50975.663**	ug/L	3.385	155198697	684.853
	Ca	43	**49727.449**	ug/L	1.238	317723	1.404
>	Sc	45		ug/L		226164	226164.196
	Ti	47	**43.445**	ug/L	2.138	12619	0.055
	V	51	**995.680**	ug/L	0.799	3575484	15.801
	Cr	52	**974.931**	ug/L	0.527	2540143	11.232
	Cr	53		ug/L		361077	1.378
	Mn	55	**940.073**	ug/L	1.457	4518837	19.981
	Fe	57	**47540.555**	ug/L	1.815	4656423	20.567
	Co	59	**899.200**	ug/L	1.958	3283551	14.522
	Ni	60	**877.913**	ug/L	2.783	678411	3.000
	Cu	63		ug/L		1423411	6.295
	Cu	65	**865.139**	ug/L	2.305	711241	3.145
	Zn	66	**2196.402**	ug/L	1.735	996460	5.098
	Zn	67		ug/L		161044	0.814
	Zn	68		ug/L		721020	3.688
>	Ge	74		ug/L		195437	195436.527
	As	75	**892.562**	ug/L	1.531	488125	2.499
	Se	77		ug/L		27909	0.124
	Se	82	**437.916**	ug/L	0.845	28297	0.145
	Kr	83		ug/L		62	0.000
	Sr	88	**1045.561**	ug/L	3.853	8165448	63.026
	Y	89		ug/L		284	0.002
	Zr	90	**538.540**	ug/L	1.874	2139119	16.504
	Mo	98	**1023.269**	ug/L	2.050	1711862	13.209
	Ag	107	**245.746**	ug/L	1.485	723292	5.581
	Cd	111	**956.067**	ug/L	0.478	681430	5.257
	Cd	114		ug/L		1616555	12.471
>	In	115		ug/L		129625	129625.034
	Sn	120	**1113.674**	ug/L	2.726	3306803	25.518
	Sb	121	**262.666**	ug/L	5.713	531338	4.100
	Sb	123		ug/L		410290	3.166
	Ba	135		ug/L		694244	6.571
	Ba	137	**1033.683**	ug/L	0.563	1164395	11.021
	Ho	165		ug/L		96	0.001
>	Lu	175		ug/L		105648	105648.299
	Tl	205	**480.948**	ug/L	0.707	671364	6.345
	Pb	208	**4861.707**	ug/L	0.894	30016414	284.132
	Th	232	**2400.801**	ug/L	1.493	17707863	167.625
	U	238	**4890.056**	ug/L	1.265	37187998	352.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	87.946				
	Be	9	84.107				
	B	11					
	Na	23	100.415				
	Mg	24	109.606				
	Al	27	115.983				
	P	31	97.360				
	K	39	101.951				
	Ca	43	99.455				
>	Sc	45		121.3			
	Ti	47					
	V	51	99.568				
	Cr	52	97.493				
	Cr	53					
	Mn	55	94.007				
	Fe	57	95.081				
	Co	59	89.920				
	Ni	60	87.791				
	Cu	63					
	Cu	65	86.514				
	Zn	66	87.856				
	Zn	67					
	Zn	68					
>	Ge	74		104.5			
	As	75	89.256				
	Se	77					
	Se	82	87.583				
	Kr	83					
	Sr	88	104.556				
	Y	89					
	Zr	90	107.708				
	Mo	98	102.327				
	Ag	107	98.298				
	Cd	111	95.607				
	Cd	114					
>	In	115		93.5			
	Sn	120	111.367				
	Sb	121	105.066				
	Sb	123					
	Ba	135					
	Ba	137	103.368				
	Ho	165					
>	Lu	175		91.6			
	Tl	205	96.190				
	Pb	208	97.234				
	Th	232	96.032				
	U	238	97.801				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Be	9	LRS is out of limits (+/- 10%)
QC Std 10	Al	27	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)

QC Std 10	Cu	65LRS is out of limits (+/- 10%)
QC Std 10	Zn	66LRS is out of limits (+/- 10%)
QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Se	82LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, February 12, 2010 23:09:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 11.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.285**	**ug/L**	0.879	20075	0.084
	Be	9	**44.695**	**ug/L**	1.316	4770	0.020
	B	11	**97.438**	**ug/L**	0.842	12083	0.050
	Na	23	**4893.336**	**ug/L**	9.285	8647644	36.311
	Mg	24	**5602.878**	**ug/L**	2.777	5832910	24.544
	Al	27	**5562.051**	**ug/L**	2.244	8896883	37.429
	P	31	**5189.720**	**ug/L**	0.882	494165	2.071
	K	39	**5294.585**	**ug/L**	6.571	17197120	71.132
	Ca	43	**5061.039**	**ug/L**	2.175	34117	0.143
>	Sc	45		**ug/L**		237660	237659.976
	Ti	47	**52.397**	**ug/L**	1.408	15976	0.067
	V	51	**50.630**	**ug/L**	0.600	192473	0.803
	Cr	52	**51.825**	**ug/L**	0.869	141685	0.597
	Cr	53		**ug/L**		81772	0.126
	Mn	55	**49.905**	**ug/L**	0.571	252585	1.061
	Fe	57	**4873.316**	**ug/L**	1.000	507273	2.108
	Co	59	**48.428**	**ug/L**	0.681	185901	0.782
	Ni	60	**50.290**	**ug/L**	0.797	40909	0.172
	Cu	63		**ug/L**		88275	0.371
	Cu	65	**49.535**	**ug/L**	1.054	42889	0.180
	Zn	66	**50.282**	**ug/L**	1.266	25289	0.117
	Zn	67		**ug/L**		7218	0.023
	Zn	68		**ug/L**		18805	0.086
>	Ge	74		**ug/L**		213957	213956.599
	As	75	**48.419**	**ug/L**	2.232	28675	0.136
	Se	77		**ug/L**		9145	0.023
	Se	82	**47.413**	**ug/L**	3.501	3380	0.016
	Kr	83		**ug/L**		37	-0.000
	Sr	88	**51.400**	**ug/L**	1.702	457089	3.098
	Y	89		**ug/L**		43	0.000
	Zr	90	**53.549**	**ug/L**	4.110	242394	1.641
	Mo	98	**50.270**	**ug/L**	0.892	95765	0.649
	Ag	107	**50.614**	**ug/L**	0.627	169600	1.149
	Cd	111	**49.706**	**ug/L**	1.194	40327	0.273
	Cd	114		**ug/L**		97769	0.663
>	In	115		**ug/L**		147522	147521.905
	Sn	120	**56.217**	**ug/L**	0.489	190252	1.288
	Sb	121	**57.218**	**ug/L**	1.752	132042	0.893
	Sb	123		**ug/L**		101425	0.686
	Ba	135		**ug/L**		39891	0.350
	Ba	137	**55.993**	**ug/L**	1.426	68083	0.597
	Ho	165		**ug/L**		8	0.000
>	Lu	175		**ug/L**		114017	114017.370
	Tl	205	**49.326**	**ug/L**	0.386	75366	0.651
	Pb	208	**50.550**	**ug/L**	1.824	337012	2.954
	Th	232	**50.448**	**ug/L**	2.319	401977	3.522
	U	238	**50.147**	**ug/L**	1.273	411611	3.610

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	92.569				
	Be	9	89.391				
	B	11	97.438				
	Na	23	97.867				
	Mg	24	112.058				
	Al	27	110.140				
	P	31	103.794				
	K	39	105.892				
	Ca	43	101.221				
>	Sc	45		127.5			
	Ti	47	104.795				
	V	51	101.260				
	Cr	52	103.650				
	Cr	53					
	Mn	55	99.810				
	Fe	57	97.466				
	Co	59	96.855				
	Ni	60	100.580				
	Cu	63					
	Cu	65	99.070				
	Zn	66	100.565				
	Zn	67					
	Zn	68					
>	Ge	74		114.5			
	As	75	96.837				
	Se	77					
	Se	82	94.825				
	Kr	83					
	Sr	88	102.799				
	Y	89					
	Zr	90	107.098				
	Mo	98	100.540				
	Ag	107	101.228				
	Cd	111	99.411				
	Cd	114					
>	In	115		106.4			
	Sn	120	112.435				
	Sb	121	114.436				
	Sb	123					
	Ba	135					
	Ba	137	111.987				
	Ho	165					
>	Lu	175		98.9			
	Tl	205	98.651				
	Pb	208	101.099				
	Th	232	100.896				
	U	238	100.294				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Be	9	CCV is out of limits (+/- 10%)
QC Std 11	Mg	24	CCV is out of limits (+/- 10%)
QC Std 11	Al	27	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 11	Sn	120	CCV is out of limits (+/- 10%)
QC Std 11	Sb	121	CCV is out of limits (+/- 10%)

QC Std 11	Ba	137CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, February 12, 2010 23:15:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 12.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.110**	ug/L	24.190	60	0.000
	Be	9	**0.047**	ug/L	92.975	7	0.000
	B	11	**1.868**	ug/L	16.658	435	0.001
	Na	23	**2.098**	ug/L	97.961	18679	0.016
	Mg	24	**4.802**	ug/L	11.732	5334	0.021
	Al	27	**3.387**	ug/L	67.408	7002	0.023
	P	31	**4.624**	ug/L	30.248	2326	0.002
	K	39	**3.663**	ug/L	163.718	297065	0.049
	Ca	43	**-1.094**	ug/L	242.687	144	-0.000
>	Sc	45		ug/L		233734	233733.611
	Ti	47	**0.228**	ug/L	3.291	146	0.000
	V	51	**0.006**	ug/L	8177.797	1515	0.000
	Cr	52	**0.448**	ug/L	14.949	1006	0.005
	Cr	53		ug/L		50306	-0.003
	Mn	55	**0.048**	ug/L	32.772	727	0.001
	Fe	57	**7.857**	ug/L	24.455	6931	0.003
	Co	59	**0.042**	ug/L	24.583	194	0.001
	Ni	60	**0.058**	ug/L	28.683	107	0.000
	Cu	63		ug/L		279	0.001
	Cu	65	**0.066**	ug/L	12.622	142	0.000
	Zn	66	**0.161**	ug/L	18.554	407	0.000
	Zn	67		ug/L		2457	0.001
	Zn	68		ug/L		539	0.000
>	Ge	74		ug/L		216988	216988.433
	As	75	**-0.351**	ug/L	100.125	-553	-0.001
	Se	77		ug/L		4853	0.003
	Se	82	**-0.089**	ug/L	74.265	23	-0.000
	Kr	83		ug/L		39	-0.000
	Sr	88	**0.049**	ug/L	33.266	528	0.003
	Y	89		ug/L		19	-0.000
	Zr	90	**0.197**	ug/L	20.373	1291	0.006
	Mo	98	**0.178**	ug/L	1.164	392	0.002
	Ag	107	**0.046**	ug/L	0.822	197	0.001
	Cd	111	**0.057**	ug/L	41.136	59	0.000
	Cd	114		ug/L		141	0.001
>	In	115		ug/L		153655	153654.946
	Sn	120	**0.883**	ug/L	4.942	3346	0.020
	Sb	121	**1.009**	ug/L	5.637	2730	0.016
	Sb	123		ug/L		2061	0.012
	Ba	135		ug/L		53	0.000
	Ba	137	**0.063**	ug/L	19.050	91	0.001
	Ho	165		ug/L		6	0.000
>	Lu	175		ug/L		114664	114664.500
	Tl	205	**0.761**	ug/L	15.047	2330	0.010
	Pb	208	**0.257**	ug/L	9.169	1951	0.015
	Th	232	**0.259**	ug/L	4.430	2515	0.018
	U	238	**0.181**	ug/L	32.166	1543	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		125.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		116.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		110.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202030959
Sample Date/Time: Friday, February 12, 2010 23:21:29
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\1202030959.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.046**	**ug/L**	24.376	35	0.000
	Be	9	**-0.002**	**ug/L**	944.203	2	-0.000
	B	11	**0.285**	**ug/L**	34.457	256	0.000
	Na	23	**4.783**	**ug/L**	86.701	24355	0.035
	Mg	24	**1.153**	**ug/L**	47.724	1667	0.005
	Al	27	**2.788**	**ug/L**	90.754	6335	0.019
	P	31	**30.029**	**ug/L**	17.857	4903	0.012
	K	39	**2.306**	**ug/L**	79.191	305908	0.031
	Ca	43	**9.823**	**ug/L**	50.153	226	0.000
>	Sc	45		**ug/L**		244213	244213.269
	Ti	47	**1.032**	**ug/L**	58.706	402	0.001
	V	51	**0.874**	**ug/L**	281.554	4882	0.014
	Cr	52	**0.915**	**ug/L**	4.962	2363	0.011
	Cr	53		**ug/L**		52234	-0.005
	Mn	55	**0.273**	**ug/L**	2.822	1927	0.006
	Fe	57	**31.335**	**ug/L**	2.055	9722	0.014
	Co	59	**0.010**	**ug/L**	25.530	77	0.000
	Ni	60	**0.259**	**ug/L**	5.436	279	0.001
	Cu	63		**ug/L**		563	0.002
	Cu	65	**0.236**	**ug/L**	2.038	299	0.001
	Zn	66	**0.609**	**ug/L**	11.341	632	0.001
	Zn	67		**ug/L**		2436	0.001
	Zn	68		**ug/L**		726	0.001
>	Ge	74		**ug/L**		216839	216839.473
	As	75	**-0.564**	**ug/L**	111.275	-683	-0.002
	Se	77		**ug/L**		5045	0.004
	Se	82	**0.027**	**ug/L**	439.427	31	0.000
	Kr	83		**ug/L**		33	-0.000
	Sr	88	**0.051**	**ug/L**	2.606	540	0.003
	Y	89		**ug/L**		40	0.000
	Zr	90	**1.258**	**ug/L**	35.135	6236	0.039
	Mo	98	**0.239**	**ug/L**	18.623	510	0.003
	Ag	107	**0.021**	**ug/L**	21.457	112	0.000
	Cd	111	**0.018**	**ug/L**	132.010	26	0.000
	Cd	114		**ug/L**		58	0.000
>	In	115		**ug/L**		153176	153175.909
	Sn	120	**0.741**	**ug/L**	2.236	2836	0.017
	Sb	121	**0.683**	**ug/L**	10.635	1941	0.011
	Sb	123		**ug/L**		1458	0.008
	Ba	135		**ug/L**		68	0.000
	Ba	137	**0.079**	**ug/L**	3.283	113	0.001
	Ho	165		**ug/L**		4	0.000
>	Lu	175		**ug/L**		116959	116959.102
	Tl	205	**0.539**	**ug/L**	15.190	2033	0.007
	Pb	208	**0.123**	**ug/L**	9.693	1067	0.007
	Th	232	**0.329**	**ug/L**	26.738	3130	0.023
	U	238	**0.047**	**ug/L**	13.342	443	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		131.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		116.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		110.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sarrSc		45	

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202030964
Sample Date/Time: Friday, February 12, 2010 23:27:37
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948067|40|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\1202030964.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.250**	ug/L	3.957	1001	0.004
	Be	9	**16.860**	ug/L	0.926	1823	0.008
	B	11	**33.882**	ug/L	2.137	4396	0.017
	Na	23	**226.913**	ug/L	3.959	420783	1.684
	Mg	24	**1010.808**	ug/L	2.115	1066031	4.428
	Al	27	**3042.478**	ug/L	12.513	4931681	20.474
	P	31	**192.493**	ug/L	3.693	20434	0.077
	K	39	**1126.862**	ug/L	5.488	3936031	15.139
	Ca	43	**2447.532**	ug/L	1.637	16785	0.069
>	Sc	45		ug/L		240631	240630.559
	Ti	47	**113.264**	ug/L	0.446	34872	0.145
	V	51	**30.572**	ug/L	3.004	118305	0.485
	Cr	52	**60.199**	ug/L	0.852	166681	0.694
	Cr	53		ug/L		92593	0.166
	Mn	55	**134.947**	ug/L	1.513	690735	2.868
	Fe	57	**3975.853**	ug/L	2.896	420237	1.720
	Co	59	**23.707**	ug/L	1.523	92165	0.383
	Ni	60	**34.064**	ug/L	3.694	28071	0.116
	Cu	63		ug/L		77209	0.320
	Cu	65	**42.941**	ug/L	1.378	37652	0.156
	Zn	66	**138.518**	ug/L	0.987	71378	0.321
	Zn	67		ug/L		14193	0.054
	Zn	68		ug/L		52289	0.235
>	Ge	74		ug/L		221005	221005.499
	As	75	**26.161**	ug/L	7.619	15847	0.073
	Se	77		ug/L		11259	0.032
	Se	82	**68.765**	ug/L	1.609	5050	0.023
	Kr	83		ug/L		49	0.000
	Sr	88	**56.644**	ug/L	0.382	518447	3.414
	Y	89		ug/L		24449	0.161
	Zr	90	**1.997**	ug/L	1.603	9647	0.061
	Mo	98	**12.885**	ug/L	0.485	25291	0.166
	Ag	107	**6.787**	ug/L	2.272	23435	0.154
	Cd	111	**14.614**	ug/L	1.241	12210	0.080
	Cd	114		ug/L		29512	0.194
>	In	115		ug/L		151816	151815.876
	Sn	120	**8.442**	ug/L	0.433	29601	0.193
	Sb	121	**16.432**	ug/L	0.920	39245	0.256
	Sb	123		ug/L		29800	0.195
	Ba	135		ug/L		38286	0.324
	Ba	137	**51.452**	ug/L	0.883	64837	0.549
	Ho	165		ug/L		891	0.008
>	Lu	175		ug/L		118168	118167.912
	Tl	205	**30.285**	ug/L	2.602	48432	0.400
	Pb	208	**20.668**	ug/L	0.335	142965	1.208
	Th	232	**2.021**	ug/L	1.954	17133	0.141
	U	238	**0.440**	ug/L	1.261	3794	0.032

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		129.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		118.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		109.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797001
Sample Date/Time: Friday, February 12, 2010 23:33:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797001.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**39.442**	**ug/L**	2.091	22411	0.072
	Be	9	**2.440**	**ug/L**	7.789	344	0.001
	B	11	**11.251**	**ug/L**	1.250	2076	0.006
	Na	23	**1749.458**	**ug/L**	8.911	4061172	12.982
	Mg	24	**9241.800**	**ug/L**	8.022	12601825	40.485
	Al	27	**53386.882**	**ug/L**	10.674	111894405	359.262
	P	31	**158.682**	**ug/L**	0.548	22241	0.063
	K	39	**7065.040**	**ug/L**	3.414	29935727	94.918
	Ca	43	**19147.370**	**ug/L**	0.567	168549	0.541
>	Sc	45		**ug/L**		311346	311345.666
	Ti	47	**478.519**	**ug/L**	2.665	190276	0.611
	V	51	**54.066**	**ug/L**	2.861	269093	0.858
	Cr	52	**33.589**	**ug/L**	2.359	120201	0.387
	Cr	53		**ug/L**		59228	-0.028
	Mn	55	**609.754**	**ug/L**	1.601	4035700	12.960
	Fe	57	**43431.552**	**ug/L**	2.046	5857916	18.789
	Co	59	**29.931**	**ug/L**	1.307	150539	0.483
	Ni	60	**30.288**	**ug/L**	1.445	32310	0.104
	Cu	63		**ug/L**		64741	0.207
	Cu	65	**28.115**	**ug/L**	0.974	31940	0.102
	Zn	66	**126.584**	**ug/L**	0.355	61949	0.294
	Zn	67		**ug/L**		13237	0.052
	Zn	68		**ug/L**		48456	0.229
>	Ge	74		**ug/L**		209787	209786.605
	As	75	**11.552**	**ug/L**	2.361	6458	0.032
	Se	77		**ug/L**		4595	0.003
	Se	82	**3.074**	**ug/L**	19.000	242	0.001
	Kr	83		**ug/L**		118	0.000
	Sr	88	**125.677**	**ug/L**	2.066	1130988	7.576
	Y	89		**ug/L**		578009	3.871
	Zr	90	**82.669**	**ug/L**	1.472	378631	2.534
	Mo	98	**3.514**	**ug/L**	0.905	6812	0.045
	Ag	107	**0.469**	**ug/L**	0.582	1627	0.011
	Cd	111	**0.739**	**ug/L**	13.644	618	0.004
	Cd	114		**ug/L**		216	0.001
>	In	115		**ug/L**		149297	149297.083
	Sn	120	**0.829**	**ug/L**	2.239	3064	0.019
	Sb	121	**0.470**	**ug/L**	0.952	1396	0.007
	Sb	123		**ug/L**		1072	0.006
	Ba	135		**ug/L**		369448	3.051
	Ba	137	**481.517**	**ug/L**	1.569	621744	5.134
	Ho	165		**ug/L**		20609	0.170
>	Lu	175		**ug/L**		121123	121123.005
	Tl	205	**0.747**	**ug/L**	21.623	2437	0.010
	Pb	208	**32.806**	**ug/L**	2.654	232392	1.917
	Th	232	**32.971**	**ug/L**	1.770	279229	2.302
	U	238	**2.446**	**ug/L**	2.738	21374	0.176

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		167.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		112.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		107.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Sc 45 Int Std for san	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202030960
Sample Date/Time: Friday, February 12, 2010 23:39:54
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\1202030960.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**39.731**	ug/L	4.010	22047	0.072
	Be	9	**2.556**	ug/L	5.589	351	0.001
	B	11	**11.391**	ug/L	3.704	2051	0.006
	Na	23	**1745.139**	ug/L	12.224	3947665	12.950
	Mg	24	**9189.286**	ug/L	9.007	12236555	40.255
	Al	27	**54805.124**	ug/L	5.604	112092975	368.806
	P	31	**159.036**	ug/L	5.492	21765	0.063
	K	39	**6577.844**	ug/L	1.595	27281850	88.373
	Ca	43	**18034.035**	ug/L	3.554	155101	0.509
>	Sc	45		ug/L		304371	304371.420
	Ti	47	**447.336**	ug/L	0.909	173862	0.571
	V	51	**52.362**	ug/L	2.476	254752	0.831
	Cr	52	**31.474**	ug/L	3.409	109998	0.363
	Cr	53		ug/L		55298	-0.036
	Mn	55	**517.221**	ug/L	4.760	3342263	10.994
	Fe	57	**41106.010**	ug/L	3.741	5414882	17.783
	Co	59	**23.707**	ug/L	4.154	116440	0.383
	Ni	60	**28.355**	ug/L	4.360	29537	0.097
	Cu	63		ug/L		54382	0.178
	Cu	65	**24.201**	ug/L	2.874	26872	0.088
	Zn	66	**118.103**	ug/L	1.851	57693	0.274
	Zn	67		ug/L		12451	0.049
	Zn	68		ug/L		44990	0.213
>	Ge	74		ug/L		209371	209370.543
	As	75	**10.759**	ug/L	4.703	5976	0.030
	Se	77		ug/L		4336	0.001
	Se	82	**3.266**	ug/L	16.321	254	0.001
	Kr	83		ug/L		101	0.000
	Sr	88	**121.552**	ug/L	1.889	1090310	7.327
	Y	89		ug/L		523670	3.519
	Zr	90	**78.173**	ug/L	1.509	356821	2.396
	Mo	98	**2.874**	ug/L	1.281	5560	0.037
	Ag	107	**0.441**	ug/L	6.152	1527	0.010
	Cd	111	**0.563**	ug/L	25.243	470	0.003
	Cd	114		ug/L		212	0.001
>	In	115		ug/L		148824	148824.343
	Sn	120	**0.655**	ug/L	3.188	2462	0.015
	Sb	121	**0.285**	ug/L	2.216	963	0.004
	Sb	123		ug/L		781	0.004
	Ba	135		ug/L		347228	2.877
	Ba	137	**453.782**	ug/L	1.344	583970	4.838
	Ho	165		ug/L		18659	0.155
>	Lu	175		ug/L		120698	120697.963
	Tl	205	**0.295**	ug/L	8.439	1711	0.004
	Pb	208	**31.101**	ug/L	0.826	219612	1.818
	Th	232	**28.326**	ug/L	0.967	239165	1.978
	U	238	**2.405**	ug/L	0.803	20944	0.173

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		163.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		112.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		107.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202030962
Sample Date/Time: Friday, February 12, 2010 23:46:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948067|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\1202030962.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**60.760**	**ug/L**	1.698	33697	0.111
	Be	9	**17.899**	**ug/L**	1.140	2445	0.008
	B	11	**46.528**	**ug/L**	0.821	7525	0.024
	Na	23	**2372.163**	**ug/L**	1.927	5371781	17.603
	Mg	24	**9671.453**	**ug/L**	3.428	12887193	42.367
	Al	27	**57428.579**	**ug/L**	2.512	117553661	386.461
	P	31	**814.841**	**ug/L**	2.388	101292	0.325
	K	39	**7678.908**	**ug/L**	3.767	31740363	103.165
	Ca	43	**19274.506**	**ug/L**	3.050	165597	0.544
>	Sc	45		**ug/L**		304030	304030.496
	Ti	47	**520.367**	**ug/L**	1.050	202032	0.664
	V	51	**73.317**	**ug/L**	0.356	355686	1.164
	Cr	52	**51.266**	**ug/L**	0.640	179287	0.591
	Cr	53		**ug/L**		63051	-0.011
	Mn	55	**674.824**	**ug/L**	2.732	4359277	14.343
	Fe	57	**41760.778**	**ug/L**	2.763	5498202	18.066
	Co	59	**41.482**	**ug/L**	0.873	203698	0.670
	Ni	60	**45.472**	**ug/L**	2.341	47307	0.155
	Cu	63		**ug/L**		92377	0.303
	Cu	65	**41.497**	**ug/L**	2.415	45962	0.151
	Zn	66	**141.978**	**ug/L**	1.827	69432	0.330
	Zn	67		**ug/L**		14413	0.058
	Zn	68		**ug/L**		53641	0.254
>	Ge	74		**ug/L**		209763	209762.927
	As	75	**43.055**	**ug/L**	0.699	24962	0.121
	Se	77		**ug/L**		4749	0.003
	Se	82	**10.574**	**ug/L**	6.063	761	0.003
	Kr	83		**ug/L**		115	0.000
	Sr	88	**139.442**	**ug/L**	0.636	1252859	8.405
	Y	89		**ug/L**		544795	3.655
	Zr	90	**140.990**	**ug/L**	1.341	644334	4.321
	Mo	98	**25.160**	**ug/L**	1.751	48445	0.325
	Ag	107	**21.880**	**ug/L**	1.937	74089	0.497
	Cd	111	**5.234**	**ug/L**	2.026	4300	0.029
	Cd	114		**ug/L**		8648	0.058
>	In	115		**ug/L**		149044	149043.784
	Sn	120	**8.428**	**ug/L**	0.226	29011	0.193
	Sb	121	**32.169**	**ug/L**	0.530	75138	0.502
	Sb	123		**ug/L**		57452	0.384
	Ba	135		**ug/L**		356905	2.928
	Ba	137	**463.990**	**ug/L**	0.713	603082	4.947
	Ho	165		**ug/L**		19908	0.163
>	Lu	175		**ug/L**		121902	121901.804
	Tl	205	**42.112**	**ug/L**	2.063	68979	0.556
	Pb	208	**119.268**	**ug/L**	0.880	849906	6.970
	Th	232	**49.363**	**ug/L**	0.851	420599	3.447
	U	238	**24.659**	**ug/L**	0.603	216436	1.775

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		163.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		112.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		107.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Sc 45 Int Std for san	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202030963
Sample Date/Time: Friday, February 12, 2010 23:52:14
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\1202030963.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.062**	**ug/L**	1.075	31389	0.102
	Be	9	**17.814**	**ug/L**	5.351	2455	0.008
	B	11	**48.219**	**ug/L**	1.588	7860	0.025
	Na	23	**2362.806**	**ug/L**	10.456	5400818	17.533
	Mg	24	**9642.925**	**ug/L**	5.231	12967096	42.242
	Al	27	**51694.372**	**ug/L**	5.381	106731575	347.873
	P	31	**819.516**	**ug/L**	1.765	102861	0.327
	K	39	**7871.119**	**ug/L**	13.583	32801913	105.748
	Ca	43	**19242.243**	**ug/L**	0.338	166945	0.543
>	Sc	45		**ug/L**		306863	306862.957
	Ti	47	**487.715**	**ug/L**	1.281	191154	0.623
	V	51	**67.310**	**ug/L**	1.057	329758	1.068
	Cr	52	**48.334**	**ug/L**	1.003	170612	0.557
	Cr	53		**ug/L**		61388	-0.018
	Mn	55	**594.666**	**ug/L**	1.232	3879513	12.640
	Fe	57	**38258.732**	**ug/L**	1.009	5087296	16.551
	Co	59	**38.148**	**ug/L**	0.689	189106	0.616
	Ni	60	**43.993**	**ug/L**	1.609	46220	0.150
	Cu	63		**ug/L**		90169	0.293
	Cu	65	**39.989**	**ug/L**	0.251	44727	0.145
	Zn	66	**133.727**	**ug/L**	0.628	65799	0.310
	Zn	67		**ug/L**		13669	0.054
	Zn	68		**ug/L**		50781	0.239
>	Ge	74		**ug/L**		210983	210983.121
	As	75	**42.801**	**ug/L**	3.557	24951	0.120
	Se	77		**ug/L**		4615	0.003
	Se	82	**10.448**	**ug/L**	3.608	757	0.003
	Kr	83		**ug/L**		113	0.000
	Sr	88	**139.240**	**ug/L**	2.169	1259223	8.393
	Y	89		**ug/L**		537837	3.585
	Zr	90	**137.094**	**ug/L**	2.675	630584	4.201
	Mo	98	**25.858**	**ug/L**	1.056	50125	0.334
	Ag	107	**22.707**	**ug/L**	2.521	77392	0.516
	Cd	111	**5.299**	**ug/L**	2.264	4382	0.029
	Cd	114		**ug/L**		8783	0.058
>	In	115		**ug/L**		150048	150048.020
	Sn	120	**9.549**	**ug/L**	1.537	33053	0.219
	Sb	121	**36.807**	**ug/L**	0.939	86500	0.575
	Sb	123		**ug/L**		66091	0.439
	Ba	135		**ug/L**		354085	2.898
	Ba	137	**459.453**	**ug/L**	0.814	598442	4.899
	Ho	165		**ug/L**		19134	0.157
>	Lu	175		**ug/L**		122174	122173.948
	Tl	205	**43.747**	**ug/L**	0.313	71765	0.577
	Pb	208	**115.117**	**ug/L**	1.697	821998	6.728
	Th	232	**48.180**	**ug/L**	2.120	411322	3.364
	U	238	**24.782**	**ug/L**	3.017	217907	1.784

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45			164.6		
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74			112.9		
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Zr	90					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115			108.2		
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175			105.9		
|	Tl	205					
|	Pb	208					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

ICPMS#4 - Summary Report

Sample ID: 1202030961
Sample Date/Time: Friday, February 12, 2010 23:58:25
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948067|10|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\1202030961.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.415**	**ug/L**	0.487	4694	0.019
	Be	9	**0.643**	**ug/L**	7.302	73	0.000
	B	11	**4.257**	**ug/L**	2.173	760	0.002
	Na	23	**401.744**	**ug/L**	7.988	750639	2.981
	Mg	24	**2994.185**	**ug/L**	18.317	3226079	13.116
	Al	27	**13829.974**	**ug/L**	2.384	22934878	93.068
	P	31	**51.836**	**ug/L**	3.321	7094	0.021
	K	39	**1623.540**	**ug/L**	4.577	5672661	21.812
	Ca	43	**4911.282**	**ug/L**	1.787	34325	0.139
>	Sc	45		**ug/L**		246382	246381.569
	Ti	47	**123.122**	**ug/L**	1.539	38801	0.157
	V	51	**13.411**	**ug/L**	5.441	54005	0.213
	Cr	52	**8.523**	**ug/L**	0.934	23976	0.098
	Cr	53		**ug/L**		59679	0.024
	Mn	55	**156.525**	**ug/L**	1.465	820190	3.327
	Fe	57	**11191.687**	**ug/L**	1.911	1199172	4.842
	Co	59	**8.030**	**ug/L**	1.024	31988	0.130
	Ni	60	**8.208**	**ug/L**	1.299	6974	0.028
	Cu	63		**ug/L**		14176	0.057
	Cu	65	**7.683**	**ug/L**	2.031	6972	0.028
	Zn	66	**28.162**	**ug/L**	1.712	14212	0.065
	Zn	67		**ug/L**		5087	0.013
	Zn	68		**ug/L**		11232	0.051
>	Ge	74		**ug/L**		212518	212517.758
	As	75	**1.466**	**ug/L**	67.116	543	0.004
	Se	77		**ug/L**		5567	0.007
	Se	82	**1.485**	**ug/L**	29.669	133	0.000
	Kr	83		**ug/L**		42	0.000
	Sr	88	**26.995**	**ug/L**	0.895	239906	1.627
	Y	89		**ug/L**		120962	0.821
	Zr	90	**16.888**	**ug/L**	2.326	76627	0.518
	Mo	98	**0.755**	**ug/L**	1.288	1473	0.010
	Ag	107	**0.094**	**ug/L**	7.577	350	0.002
	Cd	111	**0.124**	**ug/L**	4.263	111	0.001
	Cd	114		**ug/L**		58	0.000
>	In	115		**ug/L**		147399	147399.173
	Sn	120	**0.271**	**ug/L**	8.424	1139	0.006
	Sb	121	**0.254**	**ug/L**	5.347	882	0.004
	Sb	123		**ug/L**		642	0.003
	Ba	135		**ug/L**		76331	0.646
	Ba	137	**103.071**	**ug/L**	0.487	129779	1.099
	Ho	165		**ug/L**		4235	0.036
>	Lu	175		**ug/L**		118082	118081.523
	Tl	205	**0.199**	**ug/L**	49.872	1525	0.003
	Pb	208	**7.211**	**ug/L**	1.598	49997	0.421
	Th	232	**7.072**	**ug/L**	0.847	58762	0.494
	U	238	**0.532**	**ug/L**	2.217	4568	0.038

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		132.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		113.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 13, 2010 00:04:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 6.155

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.000**	ug/L	0.739	20065	0.086
	Be	9	**45.589**	ug/L	2.719	4787	0.020
	B	11	**92.989**	ug/L	2.036	11361	0.048
	Na	23	**4767.043**	ug/L	3.824	8292605	35.374
	Mg	24	**5582.314**	ug/L	3.146	5721617	24.454
	Al	27	**5167.743**	ug/L	2.968	8138283	34.776
	P	31	**4981.337**	ug/L	0.880	466977	1.988
	K	39	**5046.162**	ug/L	5.618	16135569	67.795
	Ca	43	**5006.663**	ug/L	0.881	33227	0.141
>	Sc	45		ug/L		233920	233920.316
	Ti	47	**49.672**	ug/L	2.867	14906	0.063
	V	51	**50.884**	ug/L	0.581	190387	0.808
	Cr	52	**52.740**	ug/L	1.808	141896	0.608
	Cr	53		ug/L		82040	0.132
	Mn	55	**50.802**	ug/L	1.843	253034	1.080
	Fe	57	**4930.304**	ug/L	1.630	505118	2.133
	Co	59	**49.306**	ug/L	0.515	186307	0.796
	Ni	60	**50.984**	ug/L	1.069	40823	0.174
	Cu	63		ug/L		89488	0.382
	Cu	65	**50.898**	ug/L	1.742	43378	0.185
	Zn	66	**49.976**	ug/L	0.030	25729	0.116
	Zn	67		ug/L		7023	0.021
	Zn	68		ug/L		18852	0.084
>	Ge	74		ug/L		218982	218982.003
	As	75	**48.935**	ug/L	3.671	29650	0.137
	Se	77		ug/L		9428	0.024
	Se	82	**46.319**	ug/L	5.080	3378	0.015
	Kr	83		ug/L		40	-0.000
	Sr	88	**50.710**	ug/L	2.329	461997	3.057
	Y	89		ug/L		93	0.000
	Zr	90	**50.108**	ug/L	1.403	232438	1.536
	Mo	98	**49.921**	ug/L	1.415	97435	0.644
	Ag	107	**50.901**	ug/L	1.204	174762	1.156
	Cd	111	**49.113**	ug/L	1.513	40828	0.270
	Cd	114		ug/L		98335	0.650
>	In	115		ug/L		151165	151164.745
	Sn	120	**51.227**	ug/L	0.985	177682	1.174
	Sb	121	**51.836**	ug/L	3.174	122658	0.809
	Sb	123		ug/L		93583	0.617
	Ba	135		ug/L		39837	0.349
	Ba	137	**55.093**	ug/L	1.634	67051	0.587
	Ho	165		ug/L		11	0.000
>	Lu	175		ug/L		114132	114132.259
	Tl	205	**49.278**	ug/L	3.417	75358	0.650
	Pb	208	**50.828**	ug/L	1.607	339233	2.971
	Th	232	**50.866**	ug/L	2.751	405730	3.551
	U	238	**51.610**	ug/L	2.287	424046	3.715

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	94.001				
	Be	9	91.178				
	B	11	92.989				
	Na	23	95.341				
	Mg	24	111.646				
	Al	27	102.332				
	P	31	99.627				
	K	39	100.923				
	Ca	43	100.133				
>	Sc	45		125.4			
	Ti	47	99.345				
	V	51	101.769				
	Cr	52	105.480				
	Cr	53					
	Mn	55	101.605				
	Fe	57	98.606				
	Co	59	98.612				
	Ni	60	101.969				
	Cu	63					
	Cu	65	101.797				
	Zn	66	99.952				
	Zn	67					
	Zn	68					
>	Ge	74		117.1			
	As	75	97.871				
	Se	77					
	Se	82	92.637				
	Kr	83					
	Sr	88	101.421				
	Y	89					
	Zr	90	100.215				
	Mo	98	99.842				
	Ag	107	101.803				
	Cd	111	98.226				
	Cd	114					
>	In	115		109.0			
	Sn	120	102.454				
	Sb	121	103.673				
	Sb	123					
	Ba	135					
	Ba	137	110.186				
	Ho	165					
>	Lu	175		99.0			
	Tl	205	98.557				
	Pb	208	101.656				
	Th	232	101.731				
	U	238	103.221				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ba	137	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 13, 2010 00:10:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 7.156

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.043**	ug/L	9.419	30	0.000
	Be	9	**0.007**	ug/L	449.735	3	0.000
	B	11	**1.785**	ug/L	49.013	404	0.001
	Na	23	**-4.434**	ug/L	0.430	7002	-0.033
	Mg	24	**1.306**	ug/L	120.522	1667	0.006
	Al	27	**0.722**	ug/L	108.330	2667	0.005
	P	31	**0.911**	ug/L	71.601	1884	0.000
	K	39	**4.537**	ug/L	257.938	285177	0.061
	Ca	43	**0.238**	ug/L	2078.477	145	0.000
>	Sc	45		ug/L		222413	222412.546
	Ti	47	**0.119**	ug/L	35.900	108	0.000
	V	51	**-0.548**	ug/L	39.504	-517	-0.009
	Cr	52	**0.415**	ug/L	33.043	872	0.005
	Cr	53		ug/L		47961	-0.003
	Mn	55	**0.021**	ug/L	50.328	560	0.000
	Fe	57	**11.099**	ug/L	5.751	6907	0.005
	Co	59	**0.010**	ug/L	25.263	71	0.000
	Ni	60	**0.028**	ug/L	11.557	79	0.000
	Cu	63		ug/L		171	0.000
	Cu	65	**0.015**	ug/L	82.849	94	0.000
	Zn	66	**0.011**	ug/L	334.794	332	0.000
	Zn	67		ug/L		2263	-0.000
	Zn	68		ug/L		454	0.000
>	Ge	74		ug/L		217561	217561.324
	As	75	**-0.297**	ug/L	60.848	-522	-0.001
	Se	77		ug/L		4459	0.001
	Se	82	**0.100**	ug/L	86.210	37	0.000
	Kr	83		ug/L		35	-0.000
	Sr	88	**0.012**	ug/L	34.862	179	0.001
	Y	89		ug/L		24	0.000
	Zr	90	**0.120**	ug/L	16.393	924	0.004
	Mo	98	**0.048**	ug/L	7.656	135	0.001
	Ag	107	**0.014**	ug/L	36.256	86	0.000
	Cd	111	**0.013**	ug/L	40.388	22	0.000
	Cd	114		ug/L		46	0.000
>	In	115		ug/L		153088	153088.289
	Sn	120	**0.180**	ug/L	6.224	866	0.004
	Sb	121	**0.520**	ug/L	14.531	1551	0.008
	Sb	123		ug/L		1133	0.006
	Ba	135		ug/L		28	0.000
	Ba	137	**0.017**	ug/L	43.411	35	0.000
	Ho	165		ug/L		6	0.000
>	Lu	175		ug/L		117599	117598.889
	Tl	205	**0.058**	ug/L	125.510	1300	0.001
	Pb	208	**0.032**	ug/L	6.413	449	0.002
	Th	232	**0.064**	ug/L	19.845	981	0.004
	U	238	**0.017**	ug/L	18.336	190	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		119.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		116.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		110.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797002
Sample Date/Time: Saturday, February 13, 2010 00:16:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797002.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**35.282**	ug/L	1.108	18210	0.064
	Be	9	**4.550**	ug/L	4.150	580	0.002
	B	11	**9.452**	ug/L	2.457	1625	0.005
	Na	23	**988.264**	ug/L	7.480	2092355	7.333
	Mg	24	**6143.651**	ug/L	0.399	7610749	26.913
	Al	27	**41053.315**	ug/L	4.314	78137442	276.265
	P	31	**206.058**	ug/L	0.127	25547	0.082
	K	39	**4659.453**	ug/L	2.888	18046360	62.599
	Ca	43	**6124.687**	ug/L	0.660	49090	0.173
>	Sc	45		ug/L		282777	282776.832
	Ti	47	**590.526**	ug/L	0.481	213260	0.754
	V	51	**41.288**	ug/L	1.297	187086	0.655
	Cr	52	**30.324**	ug/L	2.290	98535	0.349
	Cr	53		ug/L		50754	-0.039
	Mn	55	**736.966**	ug/L	0.601	4430131	15.664
	Fe	57	**38642.248**	ug/L	0.969	4734757	16.717
	Co	59	**22.330**	ug/L	0.565	102015	0.361
	Ni	60	**27.239**	ug/L	1.230	26397	0.093
	Cu	63		ug/L		281842	0.996
	Cu	65	**134.747**	ug/L	1.018	138628	0.490
	Zn	66	**153.039**	ug/L	1.605	72828	0.355
	Zn	67		ug/L		14043	0.058
	Zn	68		ug/L		55341	0.269
>	Ge	74		ug/L		204193	204192.762
	As	75	**8.060**	ug/L	3.743	4287	0.023
	Se	77		ug/L		3754	-0.001
	Se	82	**2.775**	ug/L	19.210	215	0.001
	Kr	83		ug/L		150	0.001
	Sr	88	**82.752**	ug/L	1.757	735545	4.988
	Y	89		ug/L		1064889	7.222
	Zr	90	**110.401**	ug/L	0.562	499305	3.383
	Mo	98	**2.000**	ug/L	2.835	3843	0.026
	Ag	107	**0.852**	ug/L	1.935	2890	0.019
	Cd	111	**1.086**	ug/L	6.683	891	0.006
	Cd	114		ug/L		503	0.003
>	In	115		ug/L		147465	147464.790
	Sn	120	**1.406**	ug/L	1.532	4975	0.032
	Sb	121	**1.220**	ug/L	2.496	3106	0.019
	Sb	123		ug/L		2439	0.015
	Ba	135		ug/L		300513	2.356
	Ba	137	**374.234**	ug/L	1.856	508970	3.990
	Ho	165		ug/L		38215	0.300
>	Lu	175		ug/L		127592	127591.758
	Tl	205	**0.246**	ug/L	13.321	1726	0.003
	Pb	208	**93.632**	ug/L	1.601	698267	5.472
	Th	232	**29.982**	ug/L	1.173	267563	2.093
	U	238	**81.887**	ug/L	1.835	752008	5.895

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			151.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			109.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			106.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			110.6		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797003
Sample Date/Time: Saturday, February 13, 2010 00:23:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797003.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.189**	**ug/L**	3.772	5649	0.024
	Be	9	**1.659**	**ug/L**	0.512	177	0.001
	B	11	**1.484**	**ug/L**	13.245	390	0.001
	Na	23	**1795.031**	**ug/L**	7.288	3134639	13.320
	Mg	24	**986.159**	**ug/L**	1.370	1013408	4.320
	Al	27	**12081.161**	**ug/L**	3.908	19062756	81.299
	P	31	**185.561**	**ug/L**	0.846	19261	0.074
	K	39	**3194.504**	**ug/L**	9.708	10348460	42.918
	Ca	43	**1630.355**	**ug/L**	2.535	10942	0.046
>	Sc	45		**ug/L**		234445	234444.773
	Ti	47	**490.097**	**ug/L**	0.724	146738	0.626
	V	51	**13.788**	**ug/L**	1.562	52781	0.219
	Cr	52	**14.814**	**ug/L**	0.926	39803	0.171
	Cr	53		**ug/L**		39737	-0.049
	Mn	55	**1001.808**	**ug/L**	3.837	4989665	21.294
	Fe	57	**32236.934**	**ug/L**	3.105	3274195	13.946
	Co	59	**43.023**	**ug/L**	4.498	162815	0.695
	Ni	60	**17.003**	**ug/L**	3.391	13677	0.058
	Cu	63		**ug/L**		52495	0.223
	Cu	65	**30.783**	**ug/L**	3.796	26309	0.112
	Zn	66	**99.417**	**ug/L**	0.407	45873	0.231
	Zn	67		**ug/L**		8871	0.034
	Zn	68		**ug/L**		34236	0.171
>	Ge	74		**ug/L**		197517	197517.065
	As	75	**3.769**	**ug/L**	16.260	1776	0.011
	Se	77		**ug/L**		3208	-0.003
	Se	82	**1.849**	**ug/L**	16.057	147	0.001
	Kr	83		**ug/L**		99	0.000
	Sr	88	**15.087**	**ug/L**	1.238	129931	0.909
	Y	89		**ug/L**		790287	5.534
	Zr	90	**107.497**	**ug/L**	2.730	470710	3.294
	Mo	98	**2.686**	**ug/L**	1.179	4988	0.035
	Ag	107	**0.558**	**ug/L**	2.054	1843	0.013
	Cd	111	**1.153**	**ug/L**	6.273	916	0.006
	Cd	114		**ug/L**		599	0.004
>	In	115		**ug/L**		142796	142796.453
	Sn	120	**3.759**	**ug/L**	1.366	12519	0.086
	Sb	121	**0.539**	**ug/L**	0.443	1490	0.008
	Sb	123		**ug/L**		1138	0.006
	Ba	135		**ug/L**		89832	0.710
	Ba	137	**112.490**	**ug/L**	0.592	151624	1.199
	Ho	165		**ug/L**		28558	0.226
>	Lu	175		**ug/L**		126411	126411.499
	Tl	205	**-0.169**	**ug/L**	3.862	1019	-0.002
	Pb	208	**29.235**	**ug/L**	0.979	216230	1.709
	Th	232	**23.580**	**ug/L**	1.951	208569	1.646
	U	238	**7.019**	**ug/L**	1.312	63920	0.505

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		125.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797004
Sample Date/Time: Saturday, February 13, 2010 00:29:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797004.159

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.998**	ug/L	1.921	9316	0.042
	Be	9	**13.881**	ug/L	3.062	1384	0.006
	B	11	**6.399**	ug/L	1.896	928	0.003
	Na	23	**413.548**	ug/L	7.822	694887	3.069
	Mg	24	**3005.146**	ug/L	4.659	2920736	13.164
	Al	27	**22876.872**	ug/L	2.508	34154104	153.948
	P	31	**221.600**	ug/L	1.614	21419	0.088
	K	39	**3318.727**	ug/L	1.949	10162688	44.587
	Ca	43	**2984.374**	ug/L	0.849	18840	0.084
>	Sc	45		ug/L		221840	221840.076
	Ti	47	**392.268**	ug/L	0.733	111155	0.501
	V	51	**25.544**	ug/L	1.162	91337	0.405
	Cr	52	**17.762**	ug/L	1.496	45202	0.205
	Cr	53		ug/L		40096	-0.038
	Mn	55	**388.961**	ug/L	1.755	1834500	8.267
	Fe	57	**16605.935**	ug/L	1.637	1599563	7.184
	Co	59	**12.814**	ug/L	1.312	45942	0.207
	Ni	60	**15.012**	ug/L	0.878	11438	0.051
	Cu	63		ug/L		1101590	4.965
	Cu	65	**668.644**	ug/L	0.494	539362	2.431
	Zn	66	**109.598**	ug/L	1.031	48583	0.254
	Zn	67		ug/L		9490	0.039
	Zn	68		ug/L		36621	0.191
>	Ge	74		ug/L		189867	189866.621
	As	75	**4.750**	ug/L	10.777	2228	0.013
	Se	77		ug/L		3123	-0.003
	Se	82	**1.612**	ug/L	10.410	127	0.001
	Kr	83		ug/L		53	0.000
	Sr	88	**29.548**	ug/L	0.257	244710	1.781
	Y	89		ug/L		244006	1.776
	Zr	90	**36.530**	ug/L	2.451	154077	1.120
	Mo	98	**1.492**	ug/L	0.468	2681	0.019
	Ag	107	**0.966**	ug/L	0.307	3046	0.022
	Cd	111	**0.879**	ug/L	4.307	674	0.005
	Cd	114		ug/L		1105	0.008
>	In	115		ug/L		137354	137354.412
	Sn	120	**2.780**	ug/L	1.172	8958	0.064
	Sb	121	**8.128**	ug/L	0.639	17703	0.127
	Sb	123		ug/L		13630	0.098
	Ba	135		ug/L		115733	0.955
	Ba	137	**150.294**	ug/L	0.843	194250	1.602
	Ho	165		ug/L		9565	0.079
>	Lu	175		ug/L		121206	121205.561
	Tl	205	**-0.143**	ug/L	20.811	1018	-0.002
	Pb	208	**342.873**	ug/L	1.058	2428902	20.039
	Th	232	**15.113**	ug/L	1.490	128363	1.055
	U	238	**334.573**	ug/L	0.970	2919241	24.086

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		119.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797005
Sample Date/Time: Saturday, February 13, 2010 00:35:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797005.160

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.626**	ug/L	1.045	8516	0.038
	Be	9	**3.843**	ug/L	4.455	392	0.002
	B	11	**5.774**	ug/L	4.970	873	0.003
	Na	23	**572.895**	ug/L	7.523	975666	4.251
	Mg	24	**3326.587**	ug/L	5.129	3293140	14.573
	Al	27	**23293.854**	ug/L	1.528	35444812	156.754
	P	31	**359.804**	ug/L	3.147	34284	0.144
	K	39	**3976.972**	ug/L	7.353	12367064	53.430
	Ca	43	**3434.110**	ug/L	0.532	22072	0.097
>	Sc	45		ug/L		226083	226082.591
	Ti	47	**459.206**	ug/L	0.110	132600	0.586
	V	51	**30.320**	ug/L	3.022	110245	0.481
	Cr	52	**17.161**	ug/L	1.082	44497	0.198
	Cr	53		ug/L		38884	-0.046
	Mn	55	**690.107**	ug/L	1.832	3315948	14.668
	Fe	57	**22337.263**	ug/L	1.875	2190185	9.663
	Co	59	**28.642**	ug/L	2.416	104579	0.463
	Ni	60	**15.534**	ug/L	2.514	12058	0.053
	Cu	63		ug/L		528192	2.336
	Cu	65	**316.713**	ug/L	0.903	260381	1.151
	Zn	66	**177.402**	ug/L	2.407	77385	0.412
	Zn	67		ug/L		13732	0.063
	Zn	68		ug/L		58043	0.308
>	Ge	74		ug/L		187333	187332.969
	As	75	**7.103**	ug/L	3.759	3433	0.020
	Se	77		ug/L		3039	-0.003
	Se	82	**2.233**	ug/L	5.546	163	0.001
	Kr	83		ug/L		62	0.000
	Sr	88	**33.166**	ug/L	0.734	273925	1.999
	Y	89		ug/L		269288	1.966
	Zr	90	**41.566**	ug/L	1.376	174808	1.274
	Mo	98	**2.011**	ug/L	2.152	3592	0.026
	Ag	107	**1.084**	ug/L	0.450	3405	0.025
	Cd	111	**28.010**	ug/L	1.966	21105	0.154
	Cd	114		ug/L		50496	0.368
>	In	115		ug/L		136989	136989.156
	Sn	120	**1.837**	ug/L	2.050	5976	0.042
	Sb	121	**2.193**	ug/L	2.400	4967	0.034
	Sb	123		ug/L		3745	0.026
	Ba	135		ug/L		133555	1.116
	Ba	137	**176.764**	ug/L	1.279	225476	1.885
	Ho	165		ug/L		10526	0.088
>	Lu	175		ug/L		119625	119624.969
	Tl	205	**-0.189**	ug/L	12.933	932	-0.002
	Pb	208	**129.497**	ug/L	1.260	905537	7.568
	Th	232	**17.284**	ug/L	0.434	144820	1.207
	U	238	**142.704**	ug/L	1.291	1228994	10.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		121.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797006
Sample Date/Time: Saturday, February 13, 2010 00:41:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797006.161

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.093**	ug/L	7.851	5081	0.024
	Be	9	**1.053**	ug/L	10.963	102	0.000
	B	11	**2.711**	ug/L	11.250	487	0.001
	Na	23	**978.638**	ug/L	5.814	1558517	7.262
	Mg	24	**1810.965**	ug/L	13.586	1680719	7.933
	Al	27	**12937.549**	ug/L	11.300	18467045	87.062
	P	31	**139.321**	ug/L	9.746	13519	0.056
	K	39	**2197.289**	ug/L	10.984	6520243	29.520
	Ca	43	**2604.408**	ug/L	9.544	15739	0.074
>	Sc	45		ug/L		212879	212878.982
	Ti	47	**418.756**	ug/L	5.305	113635	0.535
	V	51	**20.375**	ug/L	3.410	70104	0.323
	Cr	52	**16.572**	ug/L	4.738	40385	0.191
	Cr	53		ug/L		37305	-0.043
	Mn	55	**577.906**	ug/L	7.469	2607797	12.283
	Fe	57	**21916.519**	ug/L	7.669	2019981	9.481
	Co	59	**40.917**	ug/L	5.134	140438	0.661
	Ni	60	**15.478**	ug/L	6.483	11289	0.053
	Cu	63		ug/L		24651	0.115
	Cu	65	**15.595**	ug/L	5.988	12120	0.057
	Zn	66	**68.804**	ug/L	6.516	28179	0.160
	Zn	67		ug/L		6100	0.024
	Zn	68		ug/L		21415	0.120
>	Ge	74		ug/L		175238	175237.556
	As	75	**4.815**	ug/L	19.194	2093	0.013
	Se	77		ug/L		2814	-0.003
	Se	82	**1.302**	ug/L	21.687	99	0.000
	Kr	83		ug/L		74	0.000
	Sr	88	**21.053**	ug/L	3.574	168434	1.269
	Y	89		ug/L		427778	3.226
	Zr	90	**81.413**	ug/L	4.503	331229	2.495
	Mo	98	**1.695**	ug/L	1.823	2938	0.022
	Ag	107	**0.392**	ug/L	7.232	1214	0.009
	Cd	111	**0.698**	ug/L	13.244	518	0.004
	Cd	114		ug/L		226	0.002
>	In	115		ug/L		132821	132820.982
	Sn	120	**2.533**	ug/L	5.179	7901	0.058
	Sb	121	**0.326**	ug/L	4.365	945	0.005
	Sb	123		ug/L		753	0.004
	Ba	135		ug/L		68515	0.588
	Ba	137	**93.049**	ug/L	9.107	115549	0.992
	Ho	165		ug/L		14953	0.128
>	Lu	175		ug/L		116944	116944.407
	Tl	205	**-0.337**	ug/L	7.705	682	-0.004
	Pb	208	**16.833**	ug/L	7.574	114876	0.984
	Th	232	**20.488**	ug/L	7.862	167139	1.431
	U	238	**3.773**	ug/L	6.341	31716	0.272

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797007
Sample Date/Time: Saturday, February 13, 2010 00:47:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797007.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**32.800**	**ug/L**	0.827	14729	0.060
	Be	9	**2.308**	**ug/L**	6.511	257	0.001
	B	11	**9.857**	**ug/L**	4.787	1465	0.005
	Na	23	**357.075**	**ug/L**	9.096	667654	2.650
	Mg	24	**6756.318**	**ug/L**	4.147	7281150	29.597
	Al	27	**42462.040**	**ug/L**	2.651	70293912	285.745
	P	31	**184.549**	**ug/L**	4.528	20112	0.074
	K	39	**6396.591**	**ug/L**	10.807	21443322	85.938
	Ca	43	**4866.902**	**ug/L**	2.105	33969	0.137
>	Sc	45		**ug/L**		246009	246009.256
	Ti	47	**659.515**	**ug/L**	0.856	207192	0.842
	V	51	**61.670**	**ug/L**	1.303	242333	0.979
	Cr	52	**31.550**	**ug/L**	3.098	89202	0.363
	Cr	53		**ug/L**		43121	-0.043
	Mn	55	**465.889**	**ug/L**	3.891	2436437	9.903
	Fe	57	**33578.729**	**ug/L**	3.551	3579870	14.527
	Co	59	**17.447**	**ug/L**	4.657	69348	0.282
	Ni	60	**20.712**	**ug/L**	5.531	17476	0.071
	Cu	63		**ug/L**		59234	0.240
	Cu	65	**32.691**	**ug/L**	2.747	29328	0.119
	Zn	66	**81.534**	**ug/L**	1.606	36141	0.189
	Zn	67		**ug/L**		8025	0.032
	Zn	68		**ug/L**		27618	0.144
>	Ge	74		**ug/L**		189479	189478.852
	As	75	**7.858**	**ug/L**	4.126	3872	0.022
	Se	77		**ug/L**		2880	-0.004
	Se	82	**0.518**	**ug/L**	53.156	58	0.000
	Kr	83		**ug/L**		68	0.000
	Sr	88	**55.719**	**ug/L**	2.293	462288	3.359
	Y	89		**ug/L**		216106	1.570
	Zr	90	**37.966**	**ug/L**	3.177	160439	1.164
	Mo	98	**1.255**	**ug/L**	1.914	2264	0.016
	Ag	107	**0.253**	**ug/L**	5.913	824	0.006
	Cd	111	**0.395**	**ug/L**	14.595	309	0.002
	Cd	114		**ug/L**		296	0.002
>	In	115		**ug/L**		137627	137627.393
	Sn	120	**0.483**	**ug/L**	3.160	1733	0.011
	Sb	121	**0.379**	**ug/L**	1.862	1091	0.006
	Sb	123		**ug/L**		823	0.004
	Ba	135		**ug/L**		162262	1.380
	Ba	137	**220.535**	**ug/L**	0.636	276439	2.351
	Ho	165		**ug/L**		8863	0.075
>	Lu	175		**ug/L**		117562	117562.290
	Tl	205	**0.113**	**ug/L**	53.310	1384	0.001
	Pb	208	**50.266**	**ug/L**	1.932	345584	2.938
	Th	232	**27.870**	**ug/L**	1.624	229200	1.946
	U	238	**9.656**	**ug/L**	0.551	81768	0.695

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		131.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 13, 2010 00:53:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 6.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.040**	**ug/L**	1.611	19849	0.095
	Be	9	**51.497**	**ug/L**	0.253	4833	0.023
	B	11	**101.625**	**ug/L**	1.396	11074	0.052
	Na	23	**4864.157**	**ug/L**	1.386	7557449	36.094
	Mg	24	**5080.464**	**ug/L**	4.858	4651489	22.256
	Al	27	**5043.432**	**ug/L**	2.170	7095788	33.939
	P	31	**4923.360**	**ug/L**	0.703	412410	1.965
	K	39	**5132.858**	**ug/L**	4.310	14662668	68.959
	Ca	43	**5046.283**	**ug/L**	1.587	29933	0.143
>	Sc	45		ug/L		209053	209052.774
	Ti	47	**51.024**	**ug/L**	2.548	13688	0.065
	V	51	**50.295**	**ug/L**	0.999	168172	0.798
	Cr	52	**52.188**	**ug/L**	1.448	125536	0.601
	Cr	53		ug/L		67134	0.103
	Mn	55	**51.466**	**ug/L**	1.291	229109	1.094
	Fe	57	**5009.328**	**ug/L**	1.357	458484	2.167
	Co	59	**49.714**	**ug/L**	2.378	167842	0.803
	Ni	60	**51.801**	**ug/L**	1.709	37062	0.177
	Cu	63		ug/L		80926	0.386
	Cu	65	**52.383**	**ug/L**	2.650	39890	0.190
	Zn	66	**50.916**	**ug/L**	0.662	23558	0.118
	Zn	67		ug/L		6284	0.021
	Zn	68		ug/L		17283	0.086
>	Ge	74		ug/L		196832	196832.141
	As	75	**48.393**	**ug/L**	1.889	26372	0.136
	Se	77		ug/L		7582	0.019
	Se	82	**48.321**	**ug/L**	4.043	3168	0.016
	Kr	83		ug/L		30	-0.000
	Sr	88	**51.380**	**ug/L**	1.080	437061	3.097
	Y	89		ug/L		113	0.001
	Zr	90	**49.392**	**ug/L**	1.330	213953	1.514
	Mo	98	**50.200**	**ug/L**	0.756	91474	0.648
	Ag	107	**50.247**	**ug/L**	0.509	161034	1.141
	Cd	111	**49.885**	**ug/L**	1.214	38713	0.274
	Cd	114		ug/L		92647	0.656
>	In	115		ug/L		141102	141102.496
	Sn	120	**50.918**	**ug/L**	1.042	164826	1.167
	Sb	121	**51.728**	**ug/L**	2.973	114258	0.807
	Sb	123		ug/L		86897	0.614
	Ba	135		ug/L		37010	0.319
	Ba	137	**50.780**	**ug/L**	2.133	62765	0.541
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		115900	115900.122
	Tl	205	**49.590**	**ug/L**	1.477	77023	0.654
	Pb	208	**51.913**	**ug/L**	1.163	351829	3.034
	Th	232	**52.649**	**ug/L**	2.156	426427	3.676
	U	238	**54.298**	**ug/L**	2.835	452982	3.909

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	104.081				
	Be	9	102.994				
	B	11	101.625				
	Na	23	97.283				
	Mg	24	101.609				
	Al	27	99.870				
	P	31	98.467				
	K	39	102.657				
	Ca	43	100.926				
>	Sc	45		112.1			
	Ti	47	102.048				
	V	51	100.589				
	Cr	52	104.375				
	Cr	53					
	Mn	55	102.932				
	Fe	57	100.187				
	Co	59	99.427				
	Ni	60	103.602				
	Cu	63					
	Cu	65	104.765				
	Zn	66	101.831				
	Zn	67					
	Zn	68					
>	Ge	74		105.3			
	As	75	96.787				
	Se	77					
	Se	82	96.643				
	Kr	83					
	Sr	88	102.761				
	Y	89					
	Zr	90	98.784				
	Mo	98	100.400				
	Ag	107	100.495				
	Cd	111	99.771				
	Cd	114					
>	In	115		101.8			
	Sn	120	101.837				
	Sb	121	103.455				
	Sb	123					
	Ba	135					
	Ba	137	101.560				
	Ho	165					
>	Lu	175		100.5			
	Tl	205	99.179				
	Pb	208	103.826				
	Th	232	105.298				
	U	238	108.596				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 13, 2010 01:00:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 7.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.028**	ug/L	39.619	22	0.000
	Be	9	**0.006**	ug/L	100.168	2	0.000
	B	11	**1.739**	ug/L	19.429	360	0.001
	Na	23	**-1.288**	ug/L	187.468	11005	-0.010
	Mg	24	**1.104**	ug/L	157.910	1333	0.005
	Al	27	**0.182**	ug/L	625.318	1667	0.001
	P	31	**0.886**	ug/L	152.776	1696	0.000
	K	39	**-3.888**	ug/L	116.892	234580	-0.052
	Ca	43	**-5.832**	ug/L	32.424	97	-0.000
>	Sc	45		ug/L		200616	200616.093
	Ti	47	**0.087**	ug/L	4.507	89	0.000
	V	51	**-0.504**	ug/L	22.397	-324	-0.008
	Cr	52	**0.299**	ug/L	10.659	517	0.003
	Cr	53		ug/L		39478	-0.022
	Mn	55	**0.018**	ug/L	47.305	494	0.000
	Fe	57	**5.814**	ug/L	15.891	5773	0.003
	Co	59	**0.006**	ug/L	58.977	50	0.000
	Ni	60	**0.020**	ug/L	54.331	66	0.000
	Cu	63		ug/L		157	0.000
	Cu	65	**0.027**	ug/L	22.865	94	0.000
	Zn	66	**-0.043**	ug/L	147.603	281	-0.000
	Zn	67		ug/L		1987	-0.001
	Zn	68		ug/L		391	-0.000
>	Ge	74		ug/L		201032	201032.065
	As	75	**0.071**	ug/L	575.446	-276	0.000
	Se	77		ug/L		3544	-0.002
	Se	82	**-0.076**	ug/L	321.474	22	-0.000
	Kr	83		ug/L		34	-0.000
	Sr	88	**0.011**	ug/L	17.226	156	0.001
	Y	89		ug/L		26	0.000
	Zr	90	**0.108**	ug/L	15.855	812	0.003
	Mo	98	**0.041**	ug/L	24.277	112	0.001
	Ag	107	**0.015**	ug/L	26.652	85	0.000
	Cd	111	**0.002**	ug/L	457.140	12	0.000
	Cd	114		ug/L		41	0.000
>	In	115		ug/L		143469	143469.164
	Sn	120	**0.159**	ug/L	10.608	744	0.004
	Sb	121	**0.491**	ug/L	16.200	1392	0.008
	Sb	123		ug/L		1040	0.006
	Ba	135		ug/L		23	0.000
	Ba	137	**0.015**	ug/L	50.644	33	0.000
	Ho	165		ug/L		4	0.000
>	Lu	175		ug/L		116978	116977.962
	Tl	205	**-0.168**	ug/L	45.427	945	-0.002
	Pb	208	**0.025**	ug/L	2.386	403	0.001
	Th	232	**0.065**	ug/L	21.986	982	0.005
	U	238	**0.015**	ug/L	8.858	170	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		107.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797008
Sample Date/Time: Saturday, February 13, 2010 01:06:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797008.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.502**	ug/L	3.864	5574	0.026
	Be	9	**8.350**	ug/L	4.731	791	0.004
	B	11	**6.307**	ug/L	4.450	870	0.003
	Na	23	**399.572**	ug/L	12.693	637017	2.965
	Mg	24	**2789.004**	ug/L	10.341	2569734	12.218
	Al	27	**17468.551**	ug/L	10.374	24722011	117.553
	P	31	**323.998**	ug/L	1.039	28926	0.129
	K	39	**3081.478**	ug/L	5.535	8980055	41.399
	Ca	43	**3587.758**	ug/L	2.765	21457	0.101
>	Sc	45		ug/L		210486	210486.009
	Ti	47	**381.526**	ug/L	1.818	102544	0.487
	V	51	**19.764**	ug/L	1.406	67340	0.314
	Cr	52	**12.885**	ug/L	1.576	31053	0.148
	Cr	53		ug/L		37555	-0.040
	Mn	55	**597.793**	ug/L	1.334	2674298	12.706
	Fe	57	**14915.961**	ug/L	3.318	1363184	6.453
	Co	59	**5.360**	ug/L	3.721	18239	0.087
	Ni	60	**11.150**	ug/L	3.593	8069	0.038
	Cu	63		ug/L		72561	0.344
	Cu	65	**46.422**	ug/L	1.728	35592	0.169
	Zn	66	**101.801**	ug/L	0.788	42720	0.236
	Zn	67		ug/L		8290	0.036
	Zn	68		ug/L		31554	0.174
>	Ge	74		ug/L		179648	179647.513
	As	75	**4.884**	ug/L	14.443	2177	0.014
	Se	77		ug/L		2928	-0.003
	Se	82	**0.604**	ug/L	31.995	60	0.000
	Kr	83		ug/L		49	0.000
	Sr	88	**30.266**	ug/L	1.351	242739	1.824
	Y	89		ug/L		213378	1.604
	Zr	90	**31.512**	ug/L	3.053	128758	0.966
	Mo	98	**1.067**	ug/L	2.019	1866	0.014
	Ag	107	**0.333**	ug/L	3.816	1037	0.008
	Cd	111	**1.307**	ug/L	5.246	965	0.007
	Cd	114		ug/L		1873	0.014
>	In	115		ug/L		133031	133030.627
	Sn	120	**1.364**	ug/L	1.219	4361	0.031
	Sb	121	**1.041**	ug/L	6.976	2429	0.016
	Sb	123		ug/L		1840	0.012
	Ba	135		ug/L		99131	0.832
	Ba	137	**131.925**	ug/L	0.419	167681	1.407
	Ho	165		ug/L		7925	0.066
>	Lu	175		ug/L		119198	119198.413
	Tl	205	**-0.190**	ug/L	16.941	928	-0.003
	Pb	208	**50.510**	ug/L	0.912	352098	2.952
	Th	232	**12.464**	ug/L	2.645	104190	0.870
	U	238	**101.906**	ug/L	2.176	874462	7.336

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797009
Sample Date/Time: Saturday, February 13, 2010 01:12:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797009.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**15.449**	**ug/L**	4.164	6019	0.028
	Be	9	**1.426**	**ug/L**	10.259	138	0.001
	B	11	**2.835**	**ug/L**	6.104	502	0.001
	Na	23	**1816.623**	**ug/L**	5.702	2887827	13.480
	Mg	24	**1549.811**	**ug/L**	9.539	1448282	6.789
	Al	27	**13075.206**	**ug/L**	6.611	18764900	87.988
	P	31	**171.070**	**ug/L**	5.196	16288	0.068
	K	39	**3735.402**	**ug/L**	9.506	10962169	50.185
	Ca	43	**2327.878**	**ug/L**	2.212	14154	0.066
>	Sc	45		**ug/L**		213222	213221.573
	Ti	47	**433.264**	**ug/L**	0.736	117994	0.553
	V	51	**17.345**	**ug/L**	4.169	60050	0.275
	Cr	52	**10.543**	**ug/L**	3.474	25711	0.121
	Cr	53		**ug/L**		34427	-0.057
	Mn	55	**922.102**	**ug/L**	2.335	4179157	19.599
	Fe	57	**17582.694**	**ug/L**	1.343	1627398	7.606
	Co	59	**36.323**	**ug/L**	0.431	125108	0.587
	Ni	60	**15.647**	**ug/L**	0.645	11458	0.053
	Cu	63		**ug/L**		32132	0.150
	Cu	65	**20.244**	**ug/L**	1.116	15772	0.074
	Zn	66	**89.711**	**ug/L**	1.166	36970	0.208
	Zn	67		**ug/L**		7535	0.032
	Zn	68		**ug/L**		28020	0.157
>	Ge	74		**ug/L**		176296	176295.999
	As	75	**7.274**	**ug/L**	5.896	3316	0.020
	Se	77		**ug/L**		2815	-0.003
	Se	82	**0.493**	**ug/L**	101.740	53	0.000
	Kr	83		**ug/L**		90	0.000
	Sr	88	**21.426**	**ug/L**	2.643	171141	1.292
	Y	89		**ug/L**		708675	5.350
	Zr	90	**92.782**	**ug/L**	7.664	376804	2.843
	Mo	98	**2.866**	**ug/L**	0.916	4936	0.037
	Ag	107	**0.453**	**ug/L**	2.643	1394	0.010
	Cd	111	**0.958**	**ug/L**	13.853	707	0.005
	Cd	114		**ug/L**		471	0.003
>	In	115		**ug/L**		132488	132488.319
	Sn	120	**3.189**	**ug/L**	1.105	9883	0.073
	Sb	121	**0.516**	**ug/L**	3.654	1335	0.008
	Sb	123		**ug/L**		981	0.006
	Ba	135		**ug/L**		114314	0.915
	Ba	137	**144.270**	**ug/L**	1.054	192233	1.538
	Ho	165		**ug/L**		27448	0.220
>	Lu	175		**ug/L**		124969	124968.845
	Tl	205	**-0.343**	**ug/L**	1.828	721	-0.005
	Pb	208	**29.914**	**ug/L**	0.998	218712	1.748
	Th	232	**27.291**	**ug/L**	1.740	238576	1.905
	U	238	**8.154**	**ug/L**	2.216	73399	0.587

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		108.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797010
Sample Date/Time: Saturday, February 13, 2010 01:18:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797010.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.739**	ug/L	1.590	20119	0.076
	Be	9	**3.642**	ug/L	7.590	434	0.002
	B	11	**11.906**	ug/L	4.448	1850	0.006
	Na	23	**411.216**	ug/L	8.539	822414	3.051
	Mg	24	**8722.197**	ug/L	3.739	10097726	38.209
	Al	27	**57220.582**	ug/L	6.606	101767316	385.061
	P	31	**231.030**	ug/L	2.524	26500	0.092
	K	39	**6640.478**	ug/L	5.115	23884888	89.214
	Ca	43	**8517.821**	ug/L	2.706	63723	0.241
>	Sc	45		ug/L		264180	264179.813
	Ti	47	**593.961**	ug/L	1.094	200379	0.758
	V	51	**65.955**	ug/L	1.392	278209	1.047
	Cr	52	**37.485**	ug/L	1.891	113859	0.432
	Cr	53		ug/L		47117	-0.040
	Mn	55	**540.687**	ug/L	3.485	3036017	11.492
	Fe	57	**44299.189**	ug/L	3.383	5069433	19.164
	Co	59	**18.997**	ug/L	2.306	81078	0.307
	Ni	60	**28.826**	ug/L	2.110	26089	0.099
	Cu	63		ug/L		91429	0.345
	Cu	65	**46.714**	ug/L	1.810	44961	0.170
	Zn	66	**124.759**	ug/L	1.374	54781	0.290
	Zn	67		ug/L		11144	0.049
	Zn	68		ug/L		42154	0.222
>	Ge	74		ug/L		188187	188186.549
	As	75	**10.851**	ug/L	3.365	5420	0.030
	Se	77		ug/L		3126	-0.003
	Se	82	**1.415**	ug/L	30.570	113	0.000
	Kr	83		ug/L		91	0.000
	Sr	88	**95.723**	ug/L	1.220	789567	5.770
	Y	89		ug/L		426711	3.119
	Zr	90	**78.648**	ug/L	1.924	330004	2.410
	Mo	98	**2.033**	ug/L	1.506	3625	0.026
	Ag	107	**0.511**	ug/L	4.304	1622	0.012
	Cd	111	**0.878**	ug/L	14.105	670	0.005
	Cd	114		ug/L		669	0.005
>	In	115		ug/L		136821	136820.935
	Sn	120	**0.522**	ug/L	3.582	1847	0.012
	Sb	121	**0.447**	ug/L	4.871	1232	0.007
	Sb	123		ug/L		973	0.006
	Ba	135		ug/L		264338	2.196
	Ba	137	**348.173**	ug/L	2.193	446860	3.712
	Ho	165		ug/L		15664	0.130
>	Lu	175		ug/L		120400	120400.280
	Tl	205	**0.023**	ug/L	126.017	1275	0.000
	Pb	208	**45.170**	ug/L	1.806	317987	2.640
	Th	232	**29.331**	ug/L	1.838	246968	2.048
	U	238	**22.461**	ug/L	1.814	194674	1.617

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			141.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			100.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.4		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Sc 45 Int Std for san	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

ICPMS#4 - Summary Report

Sample ID: 245797011
Sample Date/Time: Saturday, February 13, 2010 01:24:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797011.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.633**	**ug/L**	0.483	12204	0.045
	Be	9	**8.369**	**ug/L**	3.303	1021	0.004
	B	11	**13.708**	**ug/L**	3.886	2151	0.007
	Na	23	**316.651**	**ug/L**	4.558	655406	2.350
	Mg	24	**6094.451**	**ug/L**	2.695	7241198	26.697
	Al	27	**37395.875**	**ug/L**	8.049	68208923	251.652
	P	31	**637.743**	**ug/L**	1.243	71261	0.255
	K	39	**7278.636**	**ug/L**	20.525	26857230	97.788
	Ca	43	**10668.405**	**ug/L**	2.237	81914	0.301
>	Sc	45		**ug/L**		271315	271314.691
	Ti	47	**728.137**	**ug/L**	0.962	252237	0.929
	V	51	**51.951**	**ug/L**	2.984	225425	0.824
	Cr	52	**28.102**	**ug/L**	0.897	87597	0.324
	Cr	53		**ug/L**		46543	-0.047
	Mn	55	**1050.538**	**ug/L**	1.483	6057965	22.329
	Fe	57	**27882.898**	**ug/L**	1.524	3279234	12.062
	Co	59	**16.276**	**ug/L**	0.458	71353	0.263
	Ni	60	**23.739**	**ug/L**	1.129	22080	0.081
	Cu	63		**ug/L**		792409	2.920
	Cu	65	**394.497**	**ug/L**	0.377	389237	1.434
	Zn	66	**187.341**	**ug/L**	2.130	88409	0.435
	Zn	67		**ug/L**		16190	0.069
	Zn	68		**ug/L**		66791	0.328
>	Ge	74		**ug/L**		202692	202691.568
	As	75	**9.149**	**ug/L**	2.154	4873	0.026
	Se	77		**ug/L**		3547	-0.002
	Se	82	**1.107**	**ug/L**	29.331	101	0.000
	Kr	83		**ug/L**		72	0.000
	Sr	88	**103.023**	**ug/L**	1.026	888606	6.210
	Y	89		**ug/L**		376639	2.632
	Zr	90	**50.042**	**ug/L**	2.470	219703	1.534
	Mo	98	**2.558**	**ug/L**	1.594	4760	0.033
	Ag	107	**1.059**	**ug/L**	2.759	3477	0.024
	Cd	111	**3.240**	**ug/L**	0.587	2560	0.018
	Cd	114		**ug/L**		5567	0.039
>	In	115		**ug/L**		143104	143104.315
	Sn	120	**2.428**	**ug/L**	2.621	8178	0.056
	Sb	121	**3.894**	**ug/L**	0.241	8988	0.061
	Sb	123		**ug/L**		6800	0.046
	Ba	135		**ug/L**		288143	2.375
	Ba	137	**378.209**	**ug/L**	0.914	489209	4.033
	Ho	165		**ug/L**		14111	0.116
>	Lu	175		**ug/L**		121318	121317.520
	Tl	205	**-0.009**	**ug/L**	149.554	1234	-0.000
	Pb	208	**390.218**	**ug/L**	0.804	2766890	22.805
	Th	232	**21.242**	**ug/L**	1.384	180400	1.483
	U	238	**223.876**	**ug/L**	2.015	1955362	16.117

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		145.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		108.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797012
Sample Date/Time: Saturday, February 13, 2010 01:30:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797012.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.503**	ug/L	3.873	12582	0.045
	Be	9	**1.692**	ug/L	3.980	216	0.001
	B	11	**4.978**	ug/L	4.631	972	0.003
	Na	23	**750.956**	ug/L	8.057	1584452	5.572
	Mg	24	**4507.955**	ug/L	13.987	5553250	19.748
	Al	27	**24977.291**	ug/L	5.672	47259749	168.082
	P	31	**125.478**	ug/L	2.438	16371	0.050
	K	39	**3683.127**	ug/L	2.648	14266245	49.482
	Ca	43	**4519.833**	ug/L	3.022	36078	0.128
>	Sc	45		ug/L		281325	281325.262
	Ti	47	**534.346**	ug/L	2.624	191933	0.682
	V	51	**34.759**	ug/L	4.652	156900	0.552
	Cr	52	**27.110**	ug/L	3.306	87594	0.312
	Cr	53		ug/L		46530	-0.053
	Mn	55	**762.943**	ug/L	2.908	4561288	16.216
	Fe	57	**34584.569**	ug/L	2.261	4215525	14.962
	Co	59	**37.081**	ug/L	3.248	168457	0.599
	Ni	60	**30.039**	ug/L	4.556	28940	0.103
	Cu	63		ug/L		51745	0.183
	Cu	65	**24.880**	ug/L	3.679	25541	0.090
	Zn	66	**130.167**	ug/L	1.190	63587	0.302
	Zn	67		ug/L		12245	0.048
	Zn	68		ug/L		47716	0.226
>	Ge	74		ug/L		209427	209427.273
	As	75	**6.380**	ug/L	4.545	3411	0.018
	Se	77		ug/L		3565	-0.002
	Se	82	**0.920**	ug/L	10.189	92	0.000
	Kr	83		ug/L		111	0.000
	Sr	88	**45.275**	ug/L	1.041	402224	2.729
	Y	89		ug/L		689408	4.678
	Zr	90	**90.142**	ug/L	0.971	407439	2.762
	Mo	98	**3.435**	ug/L	1.675	6571	0.044
	Ag	107	**0.433**	ug/L	2.470	1487	0.010
	Cd	111	**0.775**	ug/L	12.130	639	0.004
	Cd	114		ug/L		150	0.001
>	In	115		ug/L		147360	147360.325
	Sn	120	**4.857**	ug/L	1.645	16627	0.111
	Sb	121	**0.269**	ug/L	6.890	918	0.004
	Sb	123		ug/L		708	0.003
	Ba	135		ug/L		203390	1.603
	Ba	137	**253.555**	ug/L	0.285	343126	2.703
	Ho	165		ug/L		25815	0.203
>	Lu	175		ug/L		126916	126916.221
	Tl	205	**-0.263**	ug/L	10.791	865	-0.003
	Pb	208	**16.579**	ug/L	0.971	123221	0.969
	Th	232	**25.241**	ug/L	2.435	224156	1.762
	U	238	**2.552**	ug/L	1.408	23370	0.184

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		150.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		112.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797013
Sample Date/Time: Saturday, February 13, 2010 01:37:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797013.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**26.503**	ug/L	1.887	12732	0.048
	Be	9	**3.897**	ug/L	6.916	462	0.002
	B	11	**7.891**	ug/L	2.906	1302	0.004
	Na	23	**426.739**	ug/L	8.100	849598	3.167
	Mg	24	**5390.317**	ug/L	4.088	6212449	23.613
	Al	27	**34469.705**	ug/L	4.405	61060390	231.961
	P	31	**288.495**	ug/L	3.174	32428	0.115
	K	39	**5310.349**	ug/L	11.334	19107911	71.344
	Ca	43	**6189.657**	ug/L	1.664	46177	0.175
>	Sc	45		ug/L		263163	263162.881
	Ti	47	**671.586**	ug/L	0.381	225684	0.857
	V	51	**46.564**	ug/L	1.466	196109	0.739
	Cr	52	**27.269**	ug/L	1.808	82427	0.314
	Cr	53		ug/L		44683	-0.049
	Mn	55	**983.986**	ug/L	1.791	5503487	20.915
	Fe	57	**30886.392**	ug/L	1.956	3522449	13.362
	Co	59	**13.353**	ug/L	1.751	56781	0.216
	Ni	60	**22.786**	ug/L	2.117	20558	0.078
	Cu	63		ug/L		189219	0.718
	Cu	65	**96.557**	ug/L	3.119	92449	0.351
	Zn	66	**145.329**	ug/L	3.200	68032	0.337
	Zn	67		ug/L		12873	0.053
	Zn	68		ug/L		51408	0.254
>	Ge	74		ug/L		200849	200848.528
	As	75	**8.202**	ug/L	1.172	4298	0.023
	Se	77		ug/L		3208	-0.003
	Se	82	**1.004**	ug/L	29.071	94	0.000
	Kr	83		ug/L		84	0.000
	Sr	88	**70.987**	ug/L	3.244	613710	4.279
	Y	89		ug/L		487073	3.396
	Zr	90	**75.563**	ug/L	3.272	332429	2.316
	Mo	98	**2.081**	ug/L	4.343	3890	0.027
	Ag	107	**0.685**	ug/L	4.795	2267	0.016
	Cd	111	**1.488**	ug/L	11.915	1182	0.008
	Cd	114		ug/L		1841	0.013
>	In	115		ug/L		143489	143488.636
	Sn	120	**1.230**	ug/L	1.068	4265	0.028
	Sb	121	**1.122**	ug/L	1.777	2804	0.018
	Sb	123		ug/L		2179	0.014
	Ba	135		ug/L		228747	1.890
	Ba	137	**296.972**	ug/L	0.885	383244	3.166
	Ho	165		ug/L		17347	0.143
>	Lu	175		ug/L		121034	121034.454
	Tl	205	**-0.199**	ug/L	4.227	928	-0.003
	Pb	208	**98.148**	ug/L	1.559	694449	5.736
	Th	232	**25.918**	ug/L	1.657	219480	1.810
	U	238	**60.493**	ug/L	1.661	527093	4.355

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		141.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		107.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sarr	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 13, 2010 01:43:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 6.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.770**	**ug/L**	1.380	19830	0.087
	Be	9	**48.789**	**ug/L**	4.618	4981	0.022
	B	11	**94.027**	**ug/L**	3.805	11164	0.048
	Na	23	**4715.968**	**ug/L**	3.674	7971882	34.995
	Mg	24	**5779.682**	**ug/L**	2.385	5761568	25.319
	Al	27	**4945.819**	**ug/L**	0.876	7573598	33.282
	P	31	**4913.077**	**ug/L**	1.533	447823	1.961
	K	39	**5092.190**	**ug/L**	9.344	15830373	68.413
	Ca	43	**5022.647**	**ug/L**	2.678	32417	0.142
>	Sc	45		**ug/L**		227500	227499.928
	Ti	47	**51.329**	**ug/L**	1.804	14982	0.066
	V	51	**50.245**	**ug/L**	2.097	182799	0.797
	Cr	52	**51.186**	**ug/L**	0.194	133960	0.590
	Cr	53		**ug/L**		73434	0.104
	Mn	55	**50.421**	**ug/L**	1.834	244324	1.072
	Fe	57	**4937.103**	**ug/L**	1.146	491856	2.136
	Co	59	**48.908**	**ug/L**	0.516	179734	0.790
	Ni	60	**50.759**	**ug/L**	0.807	39528	0.173
	Cu	63		**ug/L**		85787	0.376
	Cu	65	**50.218**	**ug/L**	0.652	41616	0.183
	Zn	66	**50.451**	**ug/L**	3.092	24968	0.117
	Zn	67		**ug/L**		6579	0.021
	Zn	68		**ug/L**		18347	0.085
>	Ge	74		**ug/L**		210588	210587.621
	As	75	**48.188**	**ug/L**	0.172	28087	0.135
	Se	77		**ug/L**		8108	0.019
	Se	82	**48.013**	**ug/L**	2.938	3368	0.016
	Kr	83		**ug/L**		39	-0.000
	Sr	88	**52.217**	**ug/L**	3.343	455466	3.148
	Y	89		**ug/L**		125	0.001
	Zr	90	**49.597**	**ug/L**	3.679	220251	1.520
	Mo	98	**50.188**	**ug/L**	3.322	93773	0.648
	Ag	107	**50.801**	**ug/L**	3.124	166959	1.154
	Cd	111	**50.005**	**ug/L**	2.476	39796	0.275
	Cd	114		**ug/L**		94890	0.656
>	In	115		**ug/L**		144713	144712.632
	Sn	120	**51.446**	**ug/L**	0.759	170803	1.179
	Sb	121	**52.029**	**ug/L**	4.723	117782	0.812
	Sb	123		**ug/L**		89733	0.619
	Ba	135		**ug/L**		38308	0.337
	Ba	137	**52.909**	**ug/L**	0.412	64083	0.564
	Ho	165		**ug/L**		15	0.000
>	Lu	175		**ug/L**		113570	113570.460
	Tl	205	**48.829**	**ug/L**	1.483	74328	0.644
	Pb	208	**51.196**	**ug/L**	0.504	340028	2.992
	Th	232	**51.711**	**ug/L**	1.505	410477	3.611
	U	238	**53.104**	**ug/L**	0.962	434199	3.823

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	95.540				
	Be	9	97.579				
	B	11	94.027				
	Na	23	94.319				
	Mg	24	115.594				
	Al	27	97.937				
	P	31	98.262				
	K	39	101.844				
	Ca	43	100.453				
>	Sc	45		122.0			
	Ti	47	102.657				
	V	51	100.490				
	Cr	52	102.372				
	Cr	53					
	Mn	55	100.842				
	Fe	57	98.742				
	Co	59	97.815				
	Ni	60	101.518				
	Cu	63					
	Cu	65	100.435				
	Zn	66	100.903				
	Zn	67					
	Zn	68					
>	Ge	74		112.7			
	As	75	96.375				
	Se	77					
	Se	82	96.026				
	Kr	83					
	Sr	88	104.434				
	Y	89					
	Zr	90	99.194				
	Mo	98	100.376				
	Ag	107	101.602				
	Cd	111	100.009				
	Cd	114					
>	In	115		104.4			
	Sn	120	102.892				
	Sb	121	104.059				
	Sb	123					
	Ba	135					
	Ba	137	105.819				
	Ho	165					
>	Lu	175		98.5			
	Tl	205	97.657				
	Pb	208	102.393				
	Th	232	103.422				
	U	238	106.207				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 13, 2010 01:49:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 7.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.022**	**ug/L**	68.673	21	0.000
	Be	9	**0.014**	**ug/L**	39.335	3	0.000
	B	11	**1.511**	**ug/L**	62.189	363	0.001
	Na	23	**-0.807**	**ug/L**	265.332	12673	-0.006
	Mg	24	**0.297**	**ug/L**	205.585	667	0.001
	Al	27	**3.051**	**ug/L**	59.748	6001	0.021
	P	31	**2.442**	**ug/L**	28.708	1969	0.001
	K	39	**5.263**	**ug/L**	231.062	280077	0.071
	Ca	43	**-2.333**	**ug/L**	67.642	126	-0.000
>	Sc	45		**ug/L**		216862	216861.521
	Ti	47	**0.172**	**ug/L**	10.372	120	0.000
	V	51	**-0.603**	**ug/L**	182.062	-684	-0.010
	Cr	52	**0.373**	**ug/L**	15.624	745	0.004
	Cr	53		**ug/L**		43035	-0.020
	Mn	55	**0.023**	**ug/L**	13.123	557	0.000
	Fe	57	**7.528**	**ug/L**	33.551	6399	0.003
	Co	59	**0.010**	**ug/L**	28.029	69	0.000
	Ni	60	**0.027**	**ug/L**	68.353	76	0.000
	Cu	63		**ug/L**		167	0.000
	Cu	65	**0.015**	**ug/L**	69.417	92	0.000
	Zn	66	**-0.030**	**ug/L**	171.922	298	-0.000
	Zn	67		**ug/L**		2146	-0.000
	Zn	68		**ug/L**		410	-0.000
>	Ge	74		**ug/L**		208742	208741.595
	As	75	**-0.955**	**ug/L**	45.683	-885	-0.003
	Se	77		**ug/L**		3825	-0.001
	Se	82	**-0.004**	**ug/L**	3042.834	28	-0.000
	Kr	83		**ug/L**		32	-0.000
	Sr	88	**0.013**	**ug/L**	14.640	184	0.001
	Y	89		**ug/L**		25	0.000
	Zr	90	**0.119**	**ug/L**	18.755	883	0.004
	Mo	98	**0.040**	**ug/L**	26.626	113	0.001
	Ag	107	**0.015**	**ug/L**	15.591	85	0.000
	Cd	111	**0.004**	**ug/L**	112.910	14	0.000
	Cd	114		**ug/L**		46	0.000
>	In	115		**ug/L**		147571	147570.871
	Sn	120	**0.151**	**ug/L**	17.690	736	0.003
	Sb	121	**0.499**	**ug/L**	17.116	1447	0.008
	Sb	123		**ug/L**		1084	0.006
	Ba	135		**ug/L**		24	0.000
	Ba	137	**0.023**	**ug/L**	33.933	42	0.000
	Ho	165		**ug/L**		2	-0.000
>	Lu	175		**ug/L**		113644	113644.370
	Tl	205	**-0.273**	**ug/L**	26.777	760	-0.004
	Pb	208	**0.028**	**ug/L**	11.404	409	0.002
	Th	232	**0.070**	**ug/L**	11.960	994	0.005
	U	238	**0.018**	**ug/L**	18.039	194	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		116.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		111.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797014
Sample Date/Time: Saturday, February 13, 2010 01:55:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797014.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.323**	**ug/L**	2.001	9622	0.039
	Be	9	**3.380**	**ug/L**	10.938	377	0.002
	B	11	**10.933**	**ug/L**	3.960	1607	0.006
	Na	23	**272.885**	**ug/L**	12.032	515883	2.025
	Mg	24	**5230.844**	**ug/L**	2.134	5661690	22.914
	Al	27	**29338.340**	**ug/L**	9.903	48749026	197.430
	P	31	**444.640**	**ug/L**	1.184	45856	0.177
	K	39	**5824.642**	**ug/L**	1.426	19638686	78.254
	Ca	43	**7432.730**	**ug/L**	1.485	52031	0.210
>	Sc	45		**ug/L**		247104	247104.453
	Ti	47	**580.035**	**ug/L**	0.859	183040	0.740
	V	51	**41.125**	**ug/L**	0.758	162834	0.653
	Cr	52	**21.010**	**ug/L**	1.733	59596	0.242
	Cr	53		**ug/L**		43361	-0.043
	Mn	55	**824.275**	**ug/L**	2.398	4328964	17.520
	Fe	57	**22223.419**	**ug/L**	2.134	2381769	9.614
	Co	59	**11.946**	**ug/L**	1.078	47707	0.193
	Ni	60	**16.518**	**ug/L**	4.046	14014	0.056
	Cu	63		**ug/L**		144131	0.583
	Cu	65	**78.058**	**ug/L**	1.714	70211	0.284
	Zn	66	**127.016**	**ug/L**	2.107	57531	0.295
	Zn	67		**ug/L**		11299	0.048
	Zn	68		**ug/L**		43979	0.224
>	Ge	74		**ug/L**		194201	194201.271
	As	75	**7.006**	**ug/L**	7.120	3507	0.020
	Se	77		**ug/L**		3191	-0.003
	Se	82	**0.630**	**ug/L**	22.300	67	0.000
	Kr	83		**ug/L**		70	0.000
	Sr	88	**75.439**	**ug/L**	1.185	625362	4.547
	Y	89		**ug/L**		283940	2.065
	Zr	90	**40.532**	**ug/L**	1.971	171116	1.242
	Mo	98	**1.373**	**ug/L**	1.655	2473	0.018
	Ag	107	**0.344**	**ug/L**	1.982	1107	0.008
	Cd	111	**2.093**	**ug/L**	2.059	1593	0.012
	Cd	114		**ug/L**		3291	0.024
>	In	115		**ug/L**		137514	137513.636
	Sn	120	**0.978**	**ug/L**	3.559	3290	0.022
	Sb	121	**1.172**	**ug/L**	2.447	2793	0.018
	Sb	123		**ug/L**		2162	0.014
	Ba	135		**ug/L**		238893	2.048
	Ba	137	**325.826**	**ug/L**	0.505	405219	3.474
	Ho	165		**ug/L**		10694	0.092
>	Lu	175		**ug/L**		116644	116643.822
	Tl	205	**-0.075**	**ug/L**	16.367	1084	-0.001
	Pb	208	**88.632**	**ug/L**	0.892	604399	5.180
	Th	232	**18.719**	**ug/L**	1.211	152897	1.307
	U	238	**110.286**	**ug/L**	0.418	926150	7.939

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		132.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797015
Sample Date/Time: Saturday, February 13, 2010 02:01:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797015.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**26.403**	ug/L	1.745	12031	0.048
	Be	9	**4.617**	ug/L	7.145	519	0.002
	B	11	**11.609**	ug/L	3.254	1710	0.006
	Na	23	**232.315**	ug/L	7.306	446569	1.724
	Mg	24	**6303.828**	ug/L	1.654	6893050	27.615
	Al	27	**37192.024**	ug/L	3.733	62450382	250.280
	P	31	**531.638**	ug/L	1.847	54972	0.212
	K	39	**5859.179**	ug/L	3.708	19957151	78.718
	Ca	43	**9135.886**	ug/L	0.856	64546	0.258
>	Sc	45		ug/L		249581	249580.989
	Ti	47	**557.209**	ug/L	0.770	177617	0.711
	V	51	**45.530**	ug/L	2.549	181951	0.723
	Cr	52	**27.629**	ug/L	1.053	79230	0.318
	Cr	53		ug/L		44753	-0.039
	Mn	55	**720.536**	ug/L	2.863	3822491	15.315
	Fe	57	**25824.104**	ug/L	4.468	2794799	11.172
	Co	59	**11.771**	ug/L	2.348	47485	0.190
	Ni	60	**21.029**	ug/L	2.167	18001	0.072
	Cu	63		ug/L		379182	1.519
	Cu	65	**206.671**	ug/L	2.347	187605	0.751
	Zn	66	**159.260**	ug/L	1.949	73129	0.370
	Zn	67		ug/L		13754	0.059
	Zn	68		ug/L		54271	0.273
>	Ge	74		ug/L		197051	197050.707
	As	75	**8.002**	ug/L	9.148	4108	0.022
	Se	77		ug/L		3238	-0.003
	Se	82	**0.541**	ug/L	25.293	62	0.000
	Kr	83		ug/L		85	0.000
	Sr	88	**84.663**	ug/L	0.622	717447	5.103
	Y	89		ug/L		318908	2.269
	Zr	90	**51.697**	ug/L	1.861	223037	1.584
	Mo	98	**1.876**	ug/L	3.769	3439	0.024
	Ag	107	**0.525**	ug/L	3.164	1709	0.012
	Cd	111	**2.583**	ug/L	4.515	2007	0.014
	Cd	114		ug/L		4024	0.028
>	In	115		ug/L		140573	140573.099
	Sn	120	**1.148**	ug/L	2.004	3915	0.026
	Sb	121	**1.407**	ug/L	2.640	3372	0.022
	Sb	123		ug/L		2587	0.017
	Ba	135		ug/L		222855	1.897
	Ba	137	**300.230**	ug/L	0.568	376130	3.201
	Ho	165		ug/L		11981	0.102
>	Lu	175		ug/L		117498	117498.433
	Tl	205	**-0.162**	ug/L	11.483	958	-0.002
	Pb	208	**150.127**	ug/L	0.423	1031125	8.774
	Th	232	**18.479**	ug/L	1.304	152040	1.290
	U	238	**163.970**	ug/L	1.309	1386949	11.804

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		133.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797016
Sample Date/Time: Saturday, February 13, 2010 02:07:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797016.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.453**	ug/L	6.514	7091	0.030
	Be	9	**1.307**	ug/L	10.657	140	0.001
	B	11	**2.875**	ug/L	9.492	561	0.001
	Na	23	**1009.839**	ug/L	3.957	1786335	7.493
	Mg	24	**1819.339**	ug/L	6.134	1880912	7.970
	Al	27	**12902.354**	ug/L	10.744	20552034	86.825
	P	31	**179.521**	ug/L	4.934	18828	0.072
	K	39	**2266.079**	ug/L	3.441	7480614	30.445
	Ca	43	**3527.696**	ug/L	3.267	23682	0.100
>	Sc	45		ug/L		236498	236497.907
	Ti	47	**425.123**	ug/L	4.312	128198	0.543
	V	51	**18.935**	ug/L	5.678	72413	0.300
	Cr	52	**18.220**	ug/L	4.100	49356	0.210
	Cr	53		ug/L		40117	-0.049
	Mn	55	**725.901**	ug/L	5.380	3641561	15.429
	Fe	57	**26187.720**	ug/L	5.494	2679587	11.329
	Co	59	**70.938**	ug/L	5.775	270343	1.146
	Ni	60	**19.063**	ug/L	4.220	15448	0.065
	Cu	63		ug/L		35165	0.148
	Cu	65	**20.039**	ug/L	6.569	17273	0.073
	Zn	66	**88.640**	ug/L	1.267	40258	0.206
	Zn	67		ug/L		8114	0.031
	Zn	68		ug/L		30088	0.153
>	Ge	74		ug/L		194312	194311.609
	As	75	**4.610**	ug/L	7.884	2202	0.013
	Se	77		ug/L		3053	-0.004
	Se	82	**1.194**	ug/L	15.068	103	0.000
	Kr	83		ug/L		92	0.000
	Sr	88	**33.063**	ug/L	3.418	275890	1.993
	Y	89		ug/L		626980	4.530
	Zr	90	**94.573**	ug/L	3.394	401446	2.898
	Mo	98	**3.293**	ug/L	7.416	5915	0.043
	Ag	107	**0.479**	ug/L	5.041	1540	0.011
	Cd	111	**0.870**	ug/L	28.920	671	0.005
	Cd	114		ug/L		226	0.001
>	In	115		ug/L		138483	138482.605
	Sn	120	**4.342**	ug/L	2.723	13984	0.099
	Sb	121	**0.302**	ug/L	1.520	932	0.005
	Sb	123		ug/L		715	0.004
	Ba	135		ug/L		99825	0.845
	Ba	137	**133.637**	ug/L	1.081	168430	1.425
	Ho	165		ug/L		23845	0.202
>	Lu	175		ug/L		118208	118208.289
	Tl	205	**-0.430**	ug/L	7.490	545	-0.006
	Pb	208	**17.561**	ug/L	1.982	121532	1.026
	Th	232	**23.026**	ug/L	2.226	190461	1.608
	U	238	**4.127**	ug/L	1.755	35163	0.297

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		126.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sarr	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797017
Sample Date/Time: Saturday, February 13, 2010 02:14:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797017.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**26.511**	ug/L	0.644	12105	0.048
	Be	9	**2.244**	ug/L	4.948	254	0.001
	B	11	**6.699**	ug/L	5.234	1084	0.003
	Na	23	**615.504**	ug/L	5.899	1158605	4.567
	Mg	24	**5423.327**	ug/L	14.943	5941350	23.758
	Al	27	**35528.037**	ug/L	6.474	59769682	239.083
	P	31	**146.566**	ug/L	4.633	16653	0.058
	K	39	**4336.148**	ug/L	3.624	14876636	58.256
	Ca	43	**4524.181**	ug/L	0.810	32110	0.128
>	Sc	45		ug/L		250077	250077.449
	Ti	47	**525.639**	ug/L	2.097	167883	0.671
	V	51	**34.782**	ug/L	2.696	139614	0.552
	Cr	52	**20.683**	ug/L	0.697	59372	0.238
	Cr	53		ug/L		40302	-0.057
	Mn	55	**596.556**	ug/L	0.401	3171400	12.680
	Fe	57	**20907.908**	ug/L	1.538	2268338	9.045
	Co	59	**26.576**	ug/L	1.217	107365	0.429
	Ni	60	**19.743**	ug/L	1.425	16938	0.067
	Cu	63		ug/L		27819	0.111
	Cu	65	**15.076**	ug/L	2.288	13799	0.055
	Zn	66	**59.977**	ug/L	0.786	27795	0.139
	Zn	67		ug/L		6612	0.023
	Zn	68		ug/L		22082	0.110
>	Ge	74		ug/L		197532	197532.336
	As	75	**7.330**	ug/L	2.470	3745	0.021
	Se	77		ug/L		3157	-0.003
	Se	82	**0.944**	ug/L	35.851	89	0.000
	Kr	83		ug/L		92	0.000
	Sr	88	**49.246**	ug/L	0.393	412258	2.969
	Y	89		ug/L		587120	4.228
	Zr	90	**68.284**	ug/L	0.656	290926	2.093
	Mo	98	**1.492**	ug/L	1.752	2711	0.019
	Ag	107	**0.328**	ug/L	3.374	1070	0.007
	Cd	111	**0.753**	ug/L	15.805	584	0.004
	Cd	114		ug/L		208	0.001
>	In	115		ug/L		138860	138859.773
	Sn	120	**0.933**	ug/L	1.806	3181	0.021
	Sb	121	**0.229**	ug/L	2.339	776	0.004
	Sb	123		ug/L		587	0.003
	Ba	135		ug/L		184158	1.514
	Ba	137	**238.152**	ug/L	1.188	308916	2.539
	Ho	165		ug/L		22591	0.186
>	Lu	175		ug/L		121674	121673.679
	Tl	205	**-0.323**	ug/L	10.364	734	-0.004
	Pb	208	**20.428**	ug/L	0.771	145494	1.194
	Th	232	**26.170**	ug/L	2.061	222751	1.827
	U	238	**4.235**	ug/L	1.697	37142	0.305

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			134.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			105.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			100.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			105.5		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797018
Sample Date/Time: Saturday, February 13, 2010 02:20:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797018.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.725**	ug/L	3.355	7235	0.031
	Be	9	**4.194**	ug/L	5.567	448	0.002
	B	11	**9.338**	ug/L	4.667	1347	0.005
	Na	23	**361.117**	ug/L	8.427	649483	2.680
	Mg	24	**4003.957**	ug/L	4.025	4154950	17.540
	Al	27	**22492.801**	ug/L	2.899	35841952	151.363
	P	31	**447.654**	ug/L	2.967	44219	0.179
	K	39	**3694.874**	ug/L	15.773	12041965	49.640
	Ca	43	**9811.252**	ug/L	1.677	65765	0.277
>	Sc	45		ug/L		236831	236830.902
	Ti	47	**392.216**	ug/L	1.991	118632	0.501
	V	51	**28.528**	ug/L	1.660	108714	0.453
	Cr	52	**17.598**	ug/L	1.190	47806	0.203
	Cr	53		ug/L		39599	-0.051
	Mn	55	**962.132**	ug/L	2.307	4843811	20.450
	Fe	57	**16340.502**	ug/L	0.390	1680395	7.069
	Co	59	**15.083**	ug/L	0.865	57724	0.244
	Ni	60	**15.369**	ug/L	0.559	12502	0.053
	Cu	63		ug/L		177277	0.748
	Cu	65	**101.611**	ug/L	1.457	87582	0.369
	Zn	66	**124.936**	ug/L	2.899	56213	0.290
	Zn	67		ug/L		10935	0.046
	Zn	68		ug/L		42824	0.220
>	Ge	74		ug/L		192905	192905.106
	As	75	**6.637**	ug/L	13.426	3281	0.019
	Se	77		ug/L		3078	-0.003
	Se	82	**0.681**	ug/L	15.750	70	0.000
	Kr	83		ug/L		53	0.000
	Sr	88	**73.957**	ug/L	1.320	608114	4.458
	Y	89		ug/L		233056	1.708
	Zr	90	**34.335**	ug/L	2.737	143813	1.052
	Mo	98	**1.497**	ug/L	1.704	2671	0.019
	Ag	107	**0.587**	ug/L	3.816	1853	0.013
	Cd	111	**2.075**	ug/L	5.372	1565	0.011
	Cd	114		ug/L		3530	0.026
>	In	115		ug/L		136415	136414.973
	Sn	120	**1.415**	ug/L	1.233	4633	0.032
	Sb	121	**1.092**	ug/L	0.390	2602	0.017
	Sb	123		ug/L		2043	0.013
	Ba	135		ug/L		221310	1.855
	Ba	137	**297.607**	ug/L	0.552	378538	3.173
	Ho	165		ug/L		8704	0.073
>	Lu	175		ug/L		119288	119288.187
	Tl	205	**-0.373**	ug/L	5.811	641	-0.005
	Pb	208	**80.012**	ug/L	0.836	558014	4.676
	Th	232	**11.726**	ug/L	0.633	98127	0.819
	U	238	**130.170**	ug/L	0.841	1117927	9.371

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		127.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797019
Sample Date/Time: Saturday, February 13, 2010 02:26:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\245797019.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.631**	**ug/L**	3.254	5633	0.025
	Be	9	**1.276**	**ug/L**	10.290	131	0.001
	B	11	**0.673**	**ug/L**	18.849	282	0.000
	Na	23	**1275.260**	**ug/L**	20.848	2150410	9.463
	Mg	24	**1107.356**	**ug/L**	3.191	1098051	4.851
	Al	27	**9161.821**	**ug/L**	3.533	13937158	61.654
	P	31	**97.349**	**ug/L**	1.362	10622	0.039
	K	39	**2075.715**	**ug/L**	4.270	6586590	27.887
	Ca	43	**1427.659**	**ug/L**	3.004	9260	0.040
>	Sc	45		**ug/L**		226160	226160.463
	Ti	47	**432.885**	**ug/L**	1.374	125020	0.553
	V	51	**7.588**	**ug/L**	4.877	28687	0.120
	Cr	52	**11.171**	**ug/L**	1.815	28901	0.129
	Cr	53		**ug/L**		35220	-0.063
	Mn	55	**834.743**	**ug/L**	2.837	4011403	17.743
	Fe	57	**11424.694**	**ug/L**	2.930	1123264	4.942
	Co	59	**14.999**	**ug/L**	2.358	54794	0.242
	Ni	60	**22.581**	**ug/L**	4.817	17498	0.077
	Cu	63		**ug/L**		11696	0.051
	Cu	65	**6.931**	**ug/L**	3.640	5779	0.025
	Zn	66	**56.094**	**ug/L**	0.599	24012	0.130
	Zn	67		**ug/L**		5258	0.018
	Zn	68		**ug/L**		18195	0.098
>	Ge	74		**ug/L**		182338	182337.510
	As	75	**3.995**	**ug/L**	7.488	1754	0.011
	Se	77		**ug/L**		2788	-0.004
	Se	82	**2.012**	**ug/L**	9.553	146	0.001
	Kr	83		**ug/L**		83	0.000
	Sr	88	**11.355**	**ug/L**	3.002	92503	0.684
	Y	89		**ug/L**		589622	4.365
	Zr	90	**83.949**	**ug/L**	1.841	347866	2.573
	Mo	98	**1.794**	**ug/L**	3.349	3163	0.023
	Ag	107	**0.356**	**ug/L**	3.625	1127	0.008
	Cd	111	**0.706**	**ug/L**	7.399	534	0.004
	Cd	114		**ug/L**		89	0.001
>	In	115		**ug/L**		135083	135082.575
	Sn	120	**7.375**	**ug/L**	0.230	23034	0.169
	Sb	121	**0.297**	**ug/L**	7.498	900	0.005
	Sb	123		**ug/L**		710	0.004
	Ba	135		**ug/L**		66429	0.546
	Ba	137	**86.247**	**ug/L**	0.744	111849	0.920
	Ho	165		**ug/L**		23465	0.193
>	Lu	175		**ug/L**		121615	121615.042
	Tl	205	**-0.483**	**ug/L**	4.911	477	-0.006
	Pb	208	**12.752**	**ug/L**	1.211	90867	0.745
	Th	232	**23.047**	**ug/L**	1.418	196154	1.609
	U	238	**2.832**	**ug/L**	1.883	24840	0.204

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		121.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 13, 2010 02:32:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 6.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.722**	**ug/L**	2.062	19192	0.094
	Be	9	**51.959**	**ug/L**	2.207	4744	0.023
	B	11	**100.094**	**ug/L**	3.581	10616	0.051
	Na	23	**4783.079**	**ug/L**	0.930	7231447	35.493
	Mg	24	**5576.870**	**ug/L**	7.737	4965393	24.430
	Al	27	**5087.237**	**ug/L**	6.820	6957720	34.234
	P	31	**4945.550**	**ug/L**	2.298	403126	1.974
	K	39	**4766.415**	**ug/L**	4.528	13284311	64.036
	Ca	43	**5078.474**	**ug/L**	2.856	29304	0.143
>	Sc	45		**ug/L**		203409	203408.895
	Ti	47	**51.218**	**ug/L**	3.715	13367	0.065
	V	51	**51.125**	**ug/L**	2.637	166292	0.811
	Cr	52	**51.272**	**ug/L**	2.209	119983	0.591
	Cr	53		**ug/L**		65333	0.103
	Mn	55	**50.819**	**ug/L**	4.348	220159	1.080
	Fe	57	**5027.978**	**ug/L**	3.953	447752	2.175
	Co	59	**49.639**	**ug/L**	1.989	163085	0.802
	Ni	60	**51.022**	**ug/L**	2.960	35532	0.174
	Cu	63		**ug/L**		76998	0.378
	Cu	65	**51.015**	**ug/L**	2.893	37811	0.185
	Zn	66	**50.454**	**ug/L**	0.980	22875	0.117
	Zn	67		**ug/L**		6019	0.021
	Zn	68		**ug/L**		16843	0.085
>	Ge	74		**ug/L**		192879	192879.282
	As	75	**48.317**	**ug/L**	2.993	25785	0.135
	Se	77		**ug/L**		7108	0.018
	Se	82	**48.678**	**ug/L**	2.606	3129	0.016
	Kr	83		**ug/L**		33	-0.000
	Sr	88	**52.049**	**ug/L**	0.588	428288	3.137
	Y	89		**ug/L**		148	0.001
	Zr	90	**51.335**	**ug/L**	0.765	215000	1.573
	Mo	98	**50.475**	**ug/L**	0.747	88973	0.652
	Ag	107	**50.710**	**ug/L**	1.344	157232	1.152
	Cd	111	**49.843**	**ug/L**	0.717	37418	0.274
	Cd	114		**ug/L**		90327	0.662
>	In	115		**ug/L**		136478	136478.392
	Sn	120	**51.583**	**ug/L**	1.137	161506	1.182
	Sb	121	**52.055**	**ug/L**	3.894	111226	0.813
	Sb	123		**ug/L**		85024	0.621
	Ba	135		**ug/L**		36036	0.316
	Ba	137	**50.487**	**ug/L**	3.072	61346	0.538
	Ho	165		**ug/L**		12	0.000
>	Lu	175		**ug/L**		113958	113957.559
	Tl	205	**49.583**	**ug/L**	0.931	75709	0.654
	Pb	208	**51.869**	**ug/L**	0.763	345657	3.031
	Th	232	**53.519**	**ug/L**	0.996	426233	3.737
	U	238	**54.880**	**ug/L**	1.848	450202	3.951

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	103.445				
	Be	9	103.918				
	B	11	100.094				
	Na	23	95.662				
	Mg	24	111.537				
	Al	27	100.737				
	P	31	98.911				
	K	39	95.328				
	Ca	43	101.569				
>	Sc	45		109.1			
	Ti	47	102.435				
	V	51	102.251				
	Cr	52	102.544				
	Cr	53					
	Mn	55	101.638				
	Fe	57	100.560				
	Co	59	99.278				
	Ni	60	102.045				
	Cu	63					
	Cu	65	102.031				
	Zn	66	100.908				
	Zn	67					
	Zn	68					
>	Ge	74		103.2			
	As	75	96.634				
	Se	77					
	Se	82	97.357				
	Kr	83					
	Sr	88	104.097				
	Y	89					
	Zr	90	102.670				
	Mo	98	100.950				
	Ag	107	101.421				
	Cd	111	99.686				
	Cd	114					
>	In	115		98.4			
	Sn	120	103.166				
	Sb	121	104.109				
	Sb	123					
	Ba	135					
	Ba	137	100.974				
	Ho	165					
>	Lu	175		98.8			
	Tl	205	99.167				
	Pb	208	103.738				
	Th	232	107.037				
	U	238	109.761				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 13, 2010 02:38:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100212\QC Std 7.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.024**	ug/L	77.951	20	0.000
	Be	9	**0.025**	ug/L	46.561	4	0.000
	B	11	**1.473**	ug/L	20.203	328	0.001
	Na	23	**-0.527**	ug/L	571.632	12006	-0.004
	Mg	24	**1.897**	ug/L	60.978	2000	0.008
	Al	27	**0.951**	ug/L	242.258	2667	0.006
	P	31	**0.458**	ug/L	114.996	1641	0.000
	K	39	**3.167**	ug/L	202.225	250177	0.043
	Ca	43	**-3.721**	ug/L	24.053	107	-0.000
>	Sc	45		ug/L		197959	197959.230
	Ti	47	**0.117**	ug/L	33.856	95	0.000
	V	51	**-0.529**	ug/L	53.408	-407	-0.008
	Cr	52	**0.251**	ug/L	55.858	400	0.003
	Cr	53		ug/L		38860	-0.022
	Mn	55	**0.026**	ug/L	48.806	520	0.001
	Fe	57	**7.698**	ug/L	46.134	5855	0.003
	Co	59	**0.013**	ug/L	12.855	73	0.000
	Ni	60	**0.026**	ug/L	43.575	69	0.000
	Cu	63		ug/L		158	0.000
	Cu	65	**0.005**	ug/L	276.361	76	0.000
	Zn	66	**-0.023**	ug/L	239.048	286	-0.000
	Zn	67		ug/L		1903	-0.001
	Zn	68		ug/L		395	-0.000
>	Ge	74		ug/L		198122	198122.385
	As	75	**-1.166**	ug/L	31.401	-957	-0.003
	Se	77		ug/L		3377	-0.002
	Se	82	**-0.155**	ug/L	129.289	17	-0.000
	Kr	83		ug/L		38	-0.000
	Sr	88	**0.014**	ug/L	6.816	182	0.001
	Y	89		ug/L		24	0.000
	Zr	90	**0.132**	ug/L	19.892	913	0.004
	Mo	98	**0.038**	ug/L	23.623	106	0.000
	Ag	107	**0.014**	ug/L	50.415	80	0.000
	Cd	111	**0.009**	ug/L	77.543	17	0.000
	Cd	114		ug/L		44	0.000
>	In	115		ug/L		143004	143003.806
	Sn	120	**0.159**	ug/L	12.769	740	0.004
	Sb	121	**0.501**	ug/L	23.858	1406	0.008
	Sb	123		ug/L		1093	0.006
	Ba	135		ug/L		24	0.000
	Ba	137	**0.017**	ug/L	30.997	34	0.000
	Ho	165		ug/L		4	0.000
>	Lu	175		ug/L		114530	114530.129
	Tl	205	**-0.343**	ug/L	22.001	659	-0.005
	Pb	208	**0.016**	ug/L	13.939	332	0.001
	Th	232	**0.083**	ug/L	26.682	1108	0.006
	U	238	**0.022**	ug/L	14.404	226	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		106.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, February 13, 2010 14:53:47
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.320
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1166.8	1166.848	36.468	3.1
	Mg	24.0	14132.2	14132.187	94.630	0.7
	Co	58.9	44494.4	44494.392	551.949	1.2
	Rh	102.9	86899.9	86899.920	746.363	0.9
	In	114.9	120318.0	120317.952	320.860	0.3
	Pb	208.0	48341.3	48341.261	540.347	1.1
⌈>	Ba	137.9	96325.0	96324.966	554.527	0.6
⌊	Ba++	69.0	1075.7	0.011	0.000	3.4
⌈>	Ce	139.9	112930.2	112930.212	483.271	0.4
⌊	CeO	155.9	2573.6	0.023	0.000	1.7
	Bkgd	220.0	2.2	2.200	0.570	25.9

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.3	920.7
Co	59	17	4.8	30244.0
In	115	17	5.5	86185.9

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	603	2060	0.705
Be	9.0	9.0	2045	2045	0.720
Mg	24.0	24.0	5678	2065	0.711
Mg	25.0	25.0	5941	2080	0.701
Mg	26.0	26.0	6157	2085	0.699
Co	58.9	59.0	14186	2140	0.662
Rh	102.9	102.9	24867	2230	0.676
In	114.9	114.9	27777	2255	0.695
Ce	139.9	139.9	33853	2310	0.661
Pb	206.0	205.9	49924	2500	0.612
Pb	207.0	206.9	50101	2375	0.618
Pb	208.0	208.0	50436	2570	0.602
U	238.1	238.1	57689	2510	0.645

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 14, 2010 00:40:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\Blank.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		27	
	Be	9		ug/L		3	
	B	11		ug/L		170	
	Na	23		ug/L		11338	
	Mg	24		ug/L		3001	
	Al	27		ug/L		4334	
	P	31		ug/L		2664	
	K	39		ug/L		296042	
	Ca	43		ug/L		135	
>	Sc	45		ug/L		189992	
	Ti	47		ug/L		113	
	V	51		ug/L		-624	
	Cr	52		ug/L		-564	
	Cr	53		ug/L		63369	
	Mn	55		ug/L		703	
	Fe	57		ug/L		7051	
	Co	59		ug/L		87	
	Ni	60		ug/L		37	
	Cu	63		ug/L		107	
	Cu	65		ug/L		67	
	Zn	66		ug/L		112	
	Zn	67		ug/L		2910	
	Zn	68		ug/L		324	
>	Ge	74		ug/L		195945	
	As	75		ug/L		-402	
	Se	77		ug/L		5411	
	Se	82		ug/L		36	
	Kr	83		ug/L		31	
	Sr	88		ug/L		169	
	Y	89		ug/L		17	
	Zr	90		ug/L		570	
	Mo	98		ug/L		83	
	Ag	107		ug/L		75	
	Cd	111		ug/L		20	
	Cd	114		ug/L		47	
>	In	115		ug/L		124800	
	Sn	120		ug/L		247	
	Sb	121		ug/L		503	
	Sb	123		ug/L		384	
	Ba	135		ug/L		20	
	Ba	137		ug/L		31	
	Ho	165		ug/L		3	
>	Lu	175		ug/L		123684	
	Tl	205		ug/L		1005	
	Pb	208		ug/L		492	
	Th	232		ug/L		849	
	U	238		ug/L		272	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 14, 2010 00:46:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\Standard 1.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	4.703	3851	0.020
	Be	9	10.000	ug/L	0.623	948	0.005
	B	11	20.000	ug/L	7.078	2256	0.011
	Na	23	1000.000	ug/L	4.210	1421042	7.270
	Mg	24	1000.000	ug/L	10.745	1076306	5.538
	Al	27	1000.000	ug/L	7.799	1494349	7.676
	P	31	1000.000	ug/L	2.358	90806	0.454
	K	39	1000.000	ug/L	10.303	3413471	16.038
	Ca	43	1000.000	ug/L	0.918	6809	0.034
>	Sc	45		ug/L		193934	193933.772
	Ti	47	10.000	ug/L	2.279	3024	0.015
	V	51	10.000	ug/L	6.636	36832	0.193
	Cr	52	10.000	ug/L	1.112	26854	0.141
	Cr	53		ug/L		69799	0.026
	Mn	55	10.000	ug/L	2.054	49873	0.254
	Fe	57	1000.000	ug/L	0.891	107951	0.520
	Co	59	10.000	ug/L	0.867	37615	0.194
	Ni	60	10.000	ug/L	1.458	7893	0.041
	Cu	63		ug/L		17333	0.089
	Cu	65	10.000	ug/L	1.432	8452	0.043
	Zn	66	10.000	ug/L	1.874	4833	0.024
	Zn	67		ug/L		3708	0.004
	Zn	68		ug/L		3680	0.017
>	Ge	74		ug/L		198347	198346.513
	As	75	10.000	ug/L	2.247	5139	0.028
	Se	77		ug/L		6131	0.003
	Se	82	10.000	ug/L	1.892	652	0.003
	Kr	83		ug/L		30	-0.000
	Sr	88	10.000	ug/L	1.065	82928	0.658
	Y	89		ug/L		23	0.000
	Zr	90	10.000	ug/L	0.597	40795	0.320
	Mo	98	10.000	ug/L	1.420	16605	0.131
	Ag	107	10.000	ug/L	0.839	29102	0.231
	Cd	111	10.000	ug/L	0.339	6975	0.055
	Cd	114		ug/L		16849	0.134
>	In	115		ug/L		125814	125813.658
	Sn	120	10.000	ug/L	0.951	29475	0.232
	Sb	121	10.000	ug/L	6.173	19544	0.151
	Sb	123		ug/L		15063	0.117
	Ba	135		ug/L		6864	0.055
	Ba	137	10.000	ug/L	0.798	11705	0.094
	Ho	165		ug/L		3	0.000
>	Lu	175		ug/L		124480	124479.893
	Tl	205	10.000	ug/L	1.486	38334	0.300
	Pb	208	10.000	ug/L	0.666	82800	0.661
	Th	232	10.000	ug/L	1.927	104214	0.830
	U	238	10.000	ug/L	0.813	115358	0.925

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 14, 2010 00:52:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\Standard 2.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.942**	**ug/L**	1.083	38384	0.186
	Be	9	**99.941**	**ug/L**	2.351	9470	0.046
	B	11	**199.968**	**ug/L**	4.253	21955	0.106
	Na	23	**10009.934**	**ug/L**	2.073	16640604	80.802
	Mg	24	**9991.981**	**ug/L**	6.038	10548607	51.229
	Al	27	**9996.782**	**ug/L**	1.360	15303639	74.341
	P	31	**9998.281**	**ug/L**	0.955	921918	4.466
	K	39	**10002.225**	**ug/L**	11.304	34075001	164.066
	Ca	43	**9995.406**	**ug/L**	1.040	67805	0.329
>	Sc	45		**ug/L**		205803	205802.554
	Ti	47	**99.989**	**ug/L**	3.606	30653	0.148
	V	51	**99.973**	**ug/L**	2.799	386544	1.882
	Cr	52	**99.971**	**ug/L**	1.621	282198	1.374
	Cr	53		**ug/L**		109548	0.199
	Mn	55	**99.970**	**ug/L**	1.429	507017	2.460
	Fe	57	**9996.175**	**ug/L**	1.417	1037099	5.002
	Co	59	**99.960**	**ug/L**	2.052	382857	1.860
	Ni	60	**99.961**	**ug/L**	1.679	80270	0.390
	Cu	63		**ug/L**		175344	0.851
	Cu	65	**99.944**	**ug/L**	0.970	84296	0.409
	Zn	66	**99.972**	**ug/L**	1.274	48201	0.231
	Zn	67		**ug/L**		11258	0.039
	Zn	68		**ug/L**		35178	0.168
>	Ge	74		**ug/L**		207793	207793.476
	As	75	**99.985**	**ug/L**	1.675	56779	0.275
	Se	77		**ug/L**		11863	0.029
	Se	82	**99.996**	**ug/L**	3.248	6454	0.031
	Kr	83		**ug/L**		34	0.000
	Sr	88	**100.008**	**ug/L**	0.562	858341	6.632
	Y	89		**ug/L**		96	0.001
	Zr	90	**100.009**	**ug/L**	2.418	418248	3.228
	Mo	98	**100.023**	**ug/L**	2.853	174092	1.345
	Ag	107	**99.979**	**ug/L**	0.763	292471	2.260
	Cd	111	**99.987**	**ug/L**	1.632	70617	0.546
	Cd	114		**ug/L**		169135	1.307
>	In	115		**ug/L**		129400	129399.803
	Sn	120	**99.998**	**ug/L**	1.708	300155	2.318
	Sb	121	**100.049**	**ug/L**	6.076	206564	1.592
	Sb	123		**ug/L**		159380	1.228
	Ba	135		**ug/L**		69593	0.566
	Ba	137	**100.029**	**ug/L**	2.123	118695	0.966
	Ho	165		**ug/L**		6	0.000
>	Lu	175		**ug/L**		122882	122882.468
	Tl	205	**99.998**	**ug/L**	0.373	368674	2.992
	Pb	208	**99.979**	**ug/L**	0.974	795963	6.474
	Th	232	**100.018**	**ug/L**	0.183	1039931	8.456
	U	238	**99.984**	**ug/L**	1.174	1118692	9.102

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 14, 2010 00:58:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 1.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.512**	ug/L	1.293	20239	0.096
	Be	9	**51.968**	ug/L	1.494	5037	0.024
	B	11	**103.910**	ug/L	2.214	11754	0.055
	Na	23	**4724.914**	ug/L	4.587	8035216	38.140
	Mg	24	**5092.353**	ug/L	7.664	5499030	26.108
	Al	27	**5243.114**	ug/L	6.110	8210346	38.990
	P	31	**5085.761**	ug/L	1.380	480846	2.272
	K	39	**5475.615**	ug/L	16.300	19213630	89.816
	Ca	43	**4966.806**	ug/L	1.765	34522	0.163
>	Sc	45		ug/L		210407	210406.711
	Ti	47	**50.357**	ug/L	2.842	15843	0.075
	V	51	**50.462**	ug/L	3.595	199128	0.950
	Cr	52	**51.020**	ug/L	2.279	146917	0.701
	Cr	53		ug/L		98843	0.136
	Mn	55	**51.626**	ug/L	2.393	268035	1.270
	Fe	57	**5038.189**	ug/L	2.504	538234	2.521
	Co	59	**49.568**	ug/L	2.851	194118	0.922
	Ni	60	**51.090**	ug/L	3.080	41957	0.199
	Cu	63		ug/L		89498	0.425
	Cu	65	**50.828**	ug/L	1.392	43865	0.208
	Zn	66	**52.409**	ug/L	1.362	25670	0.121
	Zn	67		ug/L		7759	0.022
	Zn	68		ug/L		18513	0.086
>	Ge	74		ug/L		210593	210593.369
	As	75	**48.578**	ug/L	0.883	27737	0.134
	Se	77		ug/L		10005	0.020
	Se	82	**49.630**	ug/L	2.117	3266	0.015
	Kr	83		ug/L		34	0.000
	Sr	88	**51.448**	ug/L	1.367	442980	3.412
	Y	89		ug/L		42	0.000
	Zr	90	**49.716**	ug/L	2.231	208865	1.605
	Mo	98	**49.912**	ug/L	1.938	87191	0.671
	Ag	107	**50.700**	ug/L	1.269	148806	1.146
	Cd	111	**50.459**	ug/L	1.164	35756	0.275
	Cd	114		ug/L		86859	0.669
>	In	115		ug/L		129792	129791.804
	Sn	120	**51.030**	ug/L	0.888	153761	1.183
	Sb	121	**51.060**	ug/L	6.102	106000	0.813
	Sb	123		ug/L		80825	0.620
	Ba	135		ug/L		35242	0.290
	Ba	137	**50.883**	ug/L	2.050	59805	0.491
	Ho	165		ug/L		7	0.000
>	Lu	175		ug/L		121701	121701.494
	Tl	205	**49.482**	ug/L	1.312	181161	1.481
	Pb	208	**51.122**	ug/L	2.061	403249	3.310
	Th	232	**51.427**	ug/L	1.993	529870	4.348
	U	238	**53.665**	ug/L	2.918	594624	4.885

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	103.025				
	Be	9	103.937				
	B	11	103.910				
	Na	23	94.498				
	Mg	24	101.847				
	Al	27	103.824				
	P	31	101.715				
	K	39	109.512				
	Ca	43	99.336				
>	Sc	45		110.7			
	Ti	47	100.714				
	V	51	100.923				
	Cr	52	102.041				
	Cr	53					
	Mn	55	103.252				
	Fe	57	100.764				
	Co	59	99.135				
	Ni	60	102.180				
	Cu	63					
	Cu	65	101.656				
	Zn	66	104.817				
	Zn	67					
	Zn	68					
>	Ge	74		107.5			
	As	75	97.156				
	Se	77					
	Se	82	99.261				
	Kr	83					
	Sr	88	102.896				
	Y	89					
	Zr	90	99.433				
	Mo	98	99.824				
	Ag	107	101.401				
	Cd	111	100.918				
	Cd	114					
>	In	115		104.0			
	Sn	120	102.061				
	Sb	121	102.120				
	Sb	123					
	Ba	135					
	Ba	137	101.765				
	Ho	165					
>	Lu	175		98.4			
	Tl	205	98.964				
	Pb	208	102.245				
	Th	232	102.855				
	U	238	107.330				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 14, 2010 01:04:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 2.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.002**	**ug/L**	1535.232	28	-0.000
	Be	9	**0.013**	**ug/L**	256.608	4	0.000
	B	11	**3.694**	**ug/L**	14.694	566	0.002
	Na	23	**3.004**	**ug/L**	52.852	16677	0.024
	Mg	24	**0.846**	**ug/L**	2.742	4001	0.004
	Al	27	**0.087**	**ug/L**	3567.078	4668	0.001
	P	31	**-0.741**	**ug/L**	329.671	2721	-0.000
	K	39	**-4.096**	**ug/L**	78.315	296380	-0.067
	Ca	43	**0.581**	**ug/L**	84.511	145	0.000
>	Sc	45		**ug/L**		198752	198752.037
	Ti	47	**0.011**	**ug/L**	102.975	121	0.000
	V	51	**0.709**	**ug/L**	131.473	1984	0.013
	Cr	52	**0.585**	**ug/L**	7.307	1008	0.008
	Cr	53		**ug/L**		71229	0.025
	Mn	55	**0.020**	**ug/L**	25.745	832	0.000
	Fe	57	**6.361**	**ug/L**	42.244	8008	0.003
	Co	59	**0.005**	**ug/L**	118.800	110	0.000
	Ni	60	**0.022**	**ug/L**	28.861	56	0.000
	Cu	63		**ug/L**		125	0.000
	Cu	65	**0.013**	**ug/L**	131.390	81	0.000
	Zn	66	**-0.000**	**ug/L**	5714.779	118	-0.000
	Zn	67		**ug/L**		3132	0.000
	Zn	68		**ug/L**		346	0.000
>	Ge	74		**ug/L**		206162	206161.745
	As	75	**-0.471**	**ug/L**	120.344	-692	-0.001
	Se	77		**ug/L**		6388	0.003
	Se	82	**-0.061**	**ug/L**	43.829	34	-0.000
	Kr	83		**ug/L**		33	0.000
	Sr	88	**0.007**	**ug/L**	17.525	237	0.000
	Y	89		**ug/L**		22	0.000
	Zr	90	**0.188**	**ug/L**	18.060	1372	0.006
	Mo	98	**0.057**	**ug/L**	26.620	184	0.001
	Ag	107	**0.018**	**ug/L**	50.913	129	0.000
	Cd	111	**0.004**	**ug/L**	20.922	23	0.000
	Cd	114		**ug/L**		57	0.000
>	In	115		**ug/L**		128904	128903.741
	Sn	120	**0.250**	**ug/L**	2.789	1001	0.006
	Sb	121	**1.131**	**ug/L**	20.127	2839	0.018
	Sb	123		**ug/L**		2210	0.014
	Ba	135		**ug/L**		26	0.000
	Ba	137	**0.005**	**ug/L**	187.677	37	0.000
	Ho	165		**ug/L**		4	0.000
>	Lu	175		**ug/L**		125139	125139.360
	Tl	205	**0.219**	**ug/L**	18.639	1838	0.007
	Pb	208	**0.000**	**ug/L**	34625.781	498	0.000
	Th	232	**0.148**	**ug/L**	27.338	2420	0.012
	U	238	**0.013**	**ug/L**	5.354	420	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 14, 2010 01:11:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 3.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.844**	**ug/L**	1.192	4343	0.022
	Be	9	**0.640**	**ug/L**	15.015	61	0.000
	B	11	**17.532**	**ug/L**	4.389	1987	0.009
	Na	23	**271.280**	**ug/L**	17.526	439447	2.190
	Mg	24	**20.903**	**ug/L**	22.074	24021	0.107
	Al	27	**39.473**	**ug/L**	4.722	61800	0.294
	P	31	**54.911**	**ug/L**	3.321	7531	0.025
	K	39	**299.391**	**ug/L**	0.976	1263876	4.911
	Ca	43	**219.260**	**ug/L**	1.837	1547	0.007
>	Sc	45		**ug/L**		195372	195371.831
	Ti	47	**9.091**	**ug/L**	0.976	2751	0.013
	V	51	**11.564**	**ug/L**	4.607	41887	0.218
	Cr	52	**11.355**	**ug/L**	0.944	29915	0.156
	Cr	53		**ug/L**		73938	0.045
	Mn	55	**5.691**	**ug/L**	0.754	28085	0.140
	Fe	57	**118.554**	**ug/L**	3.622	18842	0.059
	Co	59	**1.134**	**ug/L**	1.730	4213	0.021
	Ni	60	**2.313**	**ug/L**	2.288	1800	0.009
	Cu	63		**ug/L**		2098	0.010
	Cu	65	**1.198**	**ug/L**	3.045	1027	0.005
	Zn	66	**11.426**	**ug/L**	2.896	5456	0.026
	Zn	67		**ug/L**		3983	0.005
	Zn	68		**ug/L**		4219	0.019
>	Ge	74		**ug/L**		201921	201921.402
	As	75	**5.353**	**ug/L**	9.005	2561	0.015
	Se	77		**ug/L**		6546	0.005
	Se	82	**5.247**	**ug/L**	2.105	364	0.002
	Kr	83		**ug/L**		33	0.000
	Sr	88	**11.039**	**ug/L**	1.673	93710	0.732
	Y	89		**ug/L**		16	-0.000
	Zr	90	**1.891**	**ug/L**	5.004	8382	0.061
	Mo	98	**0.527**	**ug/L**	2.395	990	0.007
	Ag	107	**1.052**	**ug/L**	2.183	3115	0.024
	Cd	111	**1.109**	**ug/L**	3.930	793	0.006
	Cd	114		**ug/L**		1894	0.014
>	In	115		**ug/L**		127766	127765.855
	Sn	120	**5.483**	**ug/L**	1.684	16486	0.127
	Sb	121	**3.257**	**ug/L**	7.211	7140	0.052
	Sb	123		**ug/L**		5513	0.040
	Ba	135		**ug/L**		1481	0.012
	Ba	137	**2.175**	**ug/L**	0.912	2586	0.021
	Ho	165		**ug/L**		3	0.000
>	Lu	175		**ug/L**		121706	121705.505
	Tl	205	**1.093**	**ug/L**	1.399	4968	0.033
	Pb	208	**2.217**	**ug/L**	4.110	17948	0.144
	Th	232	**1.092**	**ug/L**	6.955	12061	0.092
	U	238	**0.231**	**ug/L**	5.745	2822	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	118.442				
	Be	9	128.091				
	B	11	116.882				
	Na	23	108.512				
	Mg	24	139.356				
	Al	27	131.576				
	P	31	109.822				
	K	39	99.797				
	Ca	43	109.630				
>	Sc	45		102.8			
	Ti	47	90.911				
	V	51	115.640				
	Cr	52	113.551				
	Cr	53					
	Mn	55	113.828				
	Fe	57	118.554				
	Co	59	113.442				
	Ni	60	115.637				
	Cu	63					
	Cu	65	119.771				
	Zn	66	114.262				
	Zn	67					
	Zn	68					
>	Ge	74		103.1			
	As	75	107.053				
	Se	77					
	Se	82	104.942				
	Kr	83					
	Sr	88	110.385				
	Y	89					
	Zr	90	94.531				
	Mo	98	105.382				
	Ag	107	105.249				
	Cd	111	110.913				
	Cd	114					
>	In	115		102.4			
	Sn	120	109.651				
	Sb	121	108.568				
	Sb	123					
	Ba	135					
	Ba	137	108.764				
	Ho	165					
>	Lu	175		98.4			
	Tl	205	109.280				
	Pb	208	110.846				
	Th	232	109.157				
	U	238	115.361				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Al	27	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 14, 2010 01:17:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 4.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.052**	**ug/L**	24.445	48	0.000
	Be	9	**0.074**	**ug/L**	111.149	10	0.000
	B	11	**1.542**	**ug/L**	5.870	342	0.001
	Na	23	**104604.003**	**ug/L**	1.007	169024617	844.378
	Mg	24	**104634.112**	**ug/L**	2.784	107389469	536.456
	Al	27	**113629.235**	**ug/L**	11.089	169097144	844.998
	P	31	**101434.729**	**ug/L**	2.059	9069880	45.305
	K	39	**75867.220**	**ug/L**	12.659	249432193	1244.444
	Ca	43	**96115.940**	**ug/L**	0.809	632848	3.161
>	Sc	45		**ug/L**		200149	200149.414
	Ti	47	**1840.030**	**ug/L**	0.896	546553	2.730
	V	51	**0.504**	**ug/L**	177.856	1236	0.009
	Cr	52	**4.256**	**ug/L**	3.033	11117	0.059
	Cr	53		**ug/L**		72311	0.028
	Mn	55	**5.373**	**ug/L**	0.420	27203	0.132
	Fe	57	**94855.763**	**ug/L**	0.609	9508021	47.469
	Co	59	**0.276**	**ug/L**	0.424	1118	0.005
	Ni	60	**4.984**	**ug/L**	1.476	3930	0.019
	Cu	63		**ug/L**		5642	0.028
	Cu	65	**3.237**	**ug/L**	1.267	2724	0.013
	Zn	66	**5.301**	**ug/L**	6.720	2472	0.012
	Zn	67		**ug/L**		4206	0.007
	Zn	68		**ug/L**		853	0.003
>	Ge	74		**ug/L**		192569	192568.589
	As	75	**-0.662**	**ug/L**	89.667	-744	-0.002
	Se	77		**ug/L**		8883	0.019
	Se	82	**-1.279**	**ug/L**	34.047	-41	-0.000
	Kr	83		**ug/L**		125	0.000
	Sr	88	**2.732**	**ug/L**	1.009	23556	0.181
	Y	89		**ug/L**		242	0.002
	Zr	90	**0.877**	**ug/L**	50.786	4248	0.028
	Mo	98	**2034.246**	**ug/L**	1.867	3529282	27.351
	Ag	107	**0.085**	**ug/L**	3.313	327	0.002
	Cd	111	**0.382**	**ug/L**	77.806	290	0.002
	Cd	114		**ug/L**		5032	0.039
>	In	115		**ug/L**		129045	129045.419
	Sn	120	**0.441**	**ug/L**	3.738	1575	0.010
	Sb	121	**0.294**	**ug/L**	14.306	1124	0.005
	Sb	123		**ug/L**		859	0.004
	Ba	135		**ug/L**		542	0.005
	Ba	137	**0.773**	**ug/L**	4.241	862	0.007
	Ho	165		**ug/L**		2703	0.024
>	Lu	175		**ug/L**		111788	111788.473
	Tl	205	**-0.042**	**ug/L**	9.053	766	-0.001
	Pb	208	**0.167**	**ug/L**	2.366	1656	0.011
	Th	232	**0.204**	**ug/L**	45.658	2698	0.017
	U	238	**-0.016**	**ug/L**	6.189	80	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	104.604				
	Mg	24	104.634				
	Al	27	113.629				
	P	31	101.435				
	K	39	75.867				
	Ca	43	96.116				
>	Sc	45		105.3			
	Ti	47	92.002				
	V	51					
	Cr	52	128.978				
	Cr	53					
	Mn	55	92.635				
	Fe	57	94.856				
	Co	59	117.277				
	Ni	60	150.570				
	Cu	63					
	Cu	65	96.923				
	Zn	66	140.977				
	Zn	67					
	Zn	68					
>	Ge	74		98.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	92.299				
	Y	89					
	Zr	90					
	Mo	98	101.712				
	Ag	107					
	Cd	111	85.970				
	Cd	114					
>	In	115		103.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	96.894				
	Ho	165					
>	Lu	175		90.4			
	Tl	205					
	Pb	208	88.503				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	K	39ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 14, 2010 01:23:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 5.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.970**	**ug/L**	1.723	6236	0.032
	Be	9	**17.543**	**ug/L**	1.918	1588	0.008
	B	11	**19.152**	**ug/L**	3.977	2163	0.010
	Na	23	**117461.094**	**ug/L**	2.635	186003101	948.162
	Mg	24	**107034.665**	**ug/L**	1.022	107663422	548.764
	Al	27	**111100.778**	**ug/L**	4.800	162146586	826.195
	P	31	**102199.931**	**ug/L**	0.246	8958869	45.647
	K	39	**92365.098**	**ug/L**	5.784	297399923	1515.057
	Ca	43	**95137.940**	**ug/L**	0.801	614067	3.129
>	Sc	45		**ug/L**		196204	196204.334
	Ti	47	**1831.365**	**ug/L**	0.714	533251	2.717
	V	51	**20.332**	**ug/L**	5.222	74412	0.383
	Cr	52	**22.919**	**ug/L**	1.461	61223	0.315
	Cr	53		**ug/L**		69553	0.021
	Mn	55	**23.394**	**ug/L**	1.361	113659	0.576
	Fe	57	**92183.706**	**ug/L**	2.212	9057211	46.132
	Co	59	**18.749**	**ug/L**	2.577	68522	0.349
	Ni	60	**23.109**	**ug/L**	2.422	17717	0.090
	Cu	63		**ug/L**		34804	0.177
	Cu	65	**20.879**	**ug/L**	1.869	16843	0.085
	Zn	66	**22.074**	**ug/L**	0.650	9802	0.051
	Zn	67		**ug/L**		5242	0.013
	Zn	68		**ug/L**		6371	0.032
>	Ge	74		**ug/L**		189701	189700.799
	As	75	**19.773**	**ug/L**	3.495	9939	0.054
	Se	77		**ug/L**		8335	0.016
	Se	82	**20.084**	**ug/L**	5.246	1211	0.006
	Kr	83		**ug/L**		108	0.000
	Sr	88	**21.973**	**ug/L**	0.961	188114	1.457
	Y	89		**ug/L**		228	0.002
	Zr	90	**20.474**	**ug/L**	0.729	85815	0.661
	Mo	98	**2034.955**	**ug/L**	1.209	3529030	27.360
	Ag	107	**18.391**	**ug/L**	2.092	53684	0.416
	Cd	111	**19.148**	**ug/L**	1.002	13497	0.104
	Cd	114		**ug/L**		37276	0.289
>	In	115		**ug/L**		128982	128981.815
	Sn	120	**20.454**	**ug/L**	0.144	61398	0.474
	Sb	121	**21.982**	**ug/L**	0.313	45638	0.350
	Sb	123		**ug/L**		34882	0.267
	Ba	135		**ug/L**		14488	0.129
	Ba	137	**22.834**	**ug/L**	0.686	24664	0.220
	Ho	165		**ug/L**		2744	0.025
>	Lu	175		**ug/L**		111757	111756.554
	Tl	205	**16.700**	**ug/L**	0.774	56754	0.500
	Pb	208	**17.819**	**ug/L**	0.354	129384	1.154
	Th	232	**18.274**	**ug/L**	0.425	173427	1.545
	U	238	**18.356**	**ug/L**	0.676	186984	1.671

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	84.848				
	Be	9	87.714				
	B	11	95.758				
	Na	23	117.461				
	Mg	24	107.035				
	Al	27	111.101				
	P	31	102.200				
	K	39	92.365				
	Ca	43	95.138				
>	Sc	45		103.3			
	Ti	47	91.568				
	V	51	101.660				
	Cr	52	98.364				
	Cr	53					
	Mn	55	90.674				
	Fe	57	92.184				
	Co	59	92.655				
	Ni	60	99.138				
	Cu	63					
	Cu	65	89.457				
	Zn	66	92.902				
	Zn	67					
	Zn	68					
>	Ge	74		96.8			
	As	75	98.863				
	Se	77					
	Se	82	100.422				
	Kr	83					
	Sr	88	95.702				
	Y	89					
	Zr	90	102.369				
	Mo	98	101.748				
	Ag	107	91.956				
	Cd	111	93.661				
	Cd	114					
>	In	115		103.4			
	Sn	120	102.268				
	Sb	121	109.909				
	Sb	123					
	Ba	135					
	Ba	137	109.788				
	Ho	165					
>	Lu	175		90.4			
	Tl	205	83.501				
	Pb	208	88.261				
	Th	232	91.371				
	U	238	91.779				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 01:29:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.935**	**ug/L**	0.998	18316	0.084
	Be	9	**45.521**	**ug/L**	2.358	4576	0.021
	B	11	**94.545**	**ug/L**	1.177	11110	0.050
	Na	23	**5406.309**	**ug/L**	6.310	9537199	43.640
	Mg	24	**5385.285**	**ug/L**	1.351	6028387	27.610
	Al	27	**5487.425**	**ug/L**	6.437	8908505	40.807
	P	31	**5223.516**	**ug/L**	0.816	512183	2.333
	K	39	**4560.852**	**ug/L**	4.789	16665966	74.811
	Ca	43	**5035.159**	**ug/L**	1.144	36295	0.166
>	Sc	45		**ug/L**		218221	218220.590
	Ti	47	**55.948**	**ug/L**	1.092	18245	0.083
	V	51	**49.424**	**ug/L**	2.802	202275	0.930
	Cr	52	**50.022**	**ug/L**	0.847	149404	0.688
	Cr	53		**ug/L**		97303	0.112
	Mn	55	**49.815**	**ug/L**	1.184	268315	1.226
	Fe	57	**4969.277**	**ug/L**	1.798	550761	2.487
	Co	59	**49.612**	**ug/L**	0.779	201543	0.923
	Ni	60	**51.728**	**ug/L**	0.703	44065	0.202
	Cu	63		**ug/L**		94405	0.432
	Cu	65	**51.298**	**ug/L**	0.601	45916	0.210
	Zn	66	**49.972**	**ug/L**	0.592	25913	0.116
	Zn	67		**ug/L**		7806	0.020
	Zn	68		**ug/L**		19076	0.084
>	Ge	74		**ug/L**		222909	222908.874
	As	75	**48.247**	**ug/L**	1.899	29163	0.133
	Se	77		**ug/L**		10580	0.020
	Se	82	**48.665**	**ug/L**	2.537	3390	0.015
	Kr	83		**ug/L**		35	0.000
	Sr	88	**49.635**	**ug/L**	1.324	460483	3.292
	Y	89		**ug/L**		120	0.001
	Zr	90	**49.265**	**ug/L**	3.198	222987	1.590
	Mo	98	**51.051**	**ug/L**	2.581	96068	0.686
	Ag	107	**51.105**	**ug/L**	0.993	161604	1.155
	Cd	111	**50.085**	**ug/L**	1.527	38242	0.273
	Cd	114		**ug/L**		92078	0.658
>	In	115		**ug/L**		139857	139857.473
	Sn	120	**50.812**	**ug/L**	2.512	164953	1.178
	Sb	121	**49.543**	**ug/L**	5.707	110845	0.788
	Sb	123		**ug/L**		84581	0.602
	Ba	135		**ug/L**		37813	0.320
	Ba	137	**56.084**	**ug/L**	2.161	63940	0.541
	Ho	165		**ug/L**		13	0.000
>	Lu	175		**ug/L**		118044	118044.216
	Tl	205	**46.419**	**ug/L**	1.704	164924	1.389
	Pb	208	**49.191**	**ug/L**	0.217	376451	3.185
	Th	232	**48.686**	**ug/L**	1.901	486694	4.116
	U	238	**49.722**	**ug/L**	0.184	534561	4.526

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	89.870				
	Be	9	91.042				
	B	11	94.545				
	Na	23	108.126				
	Mg	24	107.706				
	Al	27	108.662				
	P	31	104.470				
	K	39	91.217				
	Ca	43	100.703				
>	Sc	45		114.9			
	Ti	47	111.896				
	V	51	98.848				
	Cr	52	100.043				
	Cr	53					
	Mn	55	99.630				
	Fe	57	99.386				
	Co	59	99.224				
	Ni	60	103.455				
	Cu	63					
	Cu	65	102.597				
	Zn	66	99.944				
	Zn	67					
	Zn	68					
>	Ge	74		113.8			
	As	75	96.495				
	Se	77					
	Se	82	97.330				
	Kr	83					
	Sr	88	99.270				
	Y	89					
	Zr	90	98.529				
	Mo	98	102.102				
	Ag	107	102.211				
	Cd	111	100.170				
	Cd	114					
>	In	115		112.1			
	Sn	120	101.625				
	Sb	121	99.087				
	Sb	123					
	Ba	135					
	Ba	137	112.168				
	Ho	165					
>	Lu	175		95.4			
	Tl	205	92.839				
	Pb	208	98.383				
	Th	232	97.372				
	U	238	99.443				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Ti	47	CCV is out of limits (+/- 10%)
QC Std 6	Ba	137	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 01:35:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	ug/L	28.081	38	0.000
	Be	9	**0.006**	ug/L	156.164	4	0.000
	B	11	**2.029**	ug/L	7.479	421	0.001
	Na	23	**8.477**	ug/L	20.688	27360	0.068
	Mg	24	**-0.646**	ug/L	84.483	2667	-0.003
	Al	27	**-0.370**	ug/L	528.063	4334	-0.003
	P	31	**-1.222**	ug/L	153.462	2884	-0.001
	K	39	**7.751**	ug/L	36.271	360493	0.127
	Ca	43	**-1.656**	ug/L	221.167	140	-0.000
>	Sc	45		ug/L		213967	213966.909
	Ti	47	**0.843**	ug/L	7.039	395	0.001
	V	51	**-0.292**	ug/L	89.012	-1891	-0.005
	Cr	52	**0.190**	ug/L	51.224	-78	0.003
	Cr	53		ug/L		74405	0.014
	Mn	55	**0.008**	ug/L	43.608	835	0.000
	Fe	57	**11.871**	ug/L	31.890	9206	0.006
	Co	59	**0.005**	ug/L	44.194	119	0.000
	Ni	60	**0.012**	ug/L	17.115	52	0.000
	Cu	63		ug/L		136	0.000
	Cu	65	**-0.003**	ug/L	180.425	73	-0.000
	Zn	66	**-0.018**	ug/L	43.660	119	-0.000
	Zn	67		ug/L		3388	0.000
	Zn	68		ug/L		392	0.000
>	Ge	74		ug/L		223732	223732.476
	As	75	**0.081**	ug/L	432.819	-407	0.000
	Se	77		ug/L		7392	0.005
	Se	82	**-0.036**	ug/L	96.567	39	-0.000
	Kr	83		ug/L		37	0.000
	Sr	88	**0.005**	ug/L	74.646	238	0.000
	Y	89		ug/L		22	0.000
	Zr	90	**0.141**	ug/L	23.827	1294	0.005
	Mo	98	**0.101**	ug/L	22.899	286	0.001
	Ag	107	**0.007**	ug/L	89.289	107	0.000
	Cd	111	**0.003**	ug/L	210.433	24	0.000
	Cd	114		ug/L		51	-0.000
>	In	115		ug/L		142093	142093.461
	Sn	120	**0.185**	ug/L	14.352	890	0.004
	Sb	121	**0.754**	ug/L	22.339	2276	0.012
	Sb	123		ug/L		1724	0.009
	Ba	135		ug/L		24	0.000
	Ba	137	**0.010**	ug/L	53.793	41	0.000
	Ho	165		ug/L		3	0.000
>	Lu	175		ug/L		119802	119802.468
	Tl	205	**0.158**	ug/L	19.868	1539	0.005
	Pb	208	**-0.004**	ug/L	19.629	448	-0.000
	Th	232	**0.080**	ug/L	32.465	1639	0.007
	U	238	**0.008**	ug/L	42.372	349	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		114.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		113.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Sunday, February 14, 2010 01:41:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 10.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**872.083**	ug/L	1.594	322398	1.626
	Be	9	**903.298**	ug/L	2.508	82417	0.416
	B	11	**0.865**	ug/L	19.153	268	0.000
	Na	23	**59197.786**	ug/L	5.251	94690952	477.853
	Mg	24	**58758.360**	ug/L	1.433	59721694	301.252
	Al	27	**57414.460**	ug/L	7.007	84598219	426.960
	P	31	**26986.677**	ug/L	3.511	2391518	12.053
	K	39	**54228.190**	ug/L	9.951	176850318	889.500
	Ca	43	**49397.296**	ug/L	0.531	322244	1.625
>	Sc	45		ug/L		198269	198268.694
	Ti	47	**43.842**	ug/L	1.397	13014	0.065
	V	51	**1019.658**	ug/L	2.352	3803524	19.192
	Cr	52	**982.568**	ug/L	2.238	2676667	13.507
	Cr	53		ug/L		382727	1.597
	Mn	55	**938.606**	ug/L	1.441	4579313	23.097
	Fe	57	**48035.009**	ug/L	1.095	4772761	24.038
	Co	59	**937.271**	ug/L	1.662	3457162	17.440
	Ni	60	**904.459**	ug/L	1.531	699387	3.527
	Cu	63		ug/L		1483284	7.481
	Cu	65	**904.288**	ug/L	2.564	734022	3.703
	Zn	66	**2194.434**	ug/L	1.612	999825	5.080
	Zn	67		ug/L		163079	0.814
	Zn	68		ug/L		725956	3.687
>	Ge	74		ug/L		196779	196778.723
	As	75	**919.446**	ug/L	0.530	497769	2.532
	Se	77		ug/L		28379	0.117
	Se	82	**471.886**	ug/L	0.952	28714	0.146
	Kr	83		ug/L		65	0.000
	Sr	88	**998.301**	ug/L	1.832	8241638	66.202
	Y	89		ug/L		311	0.002
	Zr	90	**541.082**	ug/L	0.633	2174529	17.463
	Mo	98	**1028.944**	ug/L	1.386	1722275	13.834
	Ag	107	**246.344**	ug/L	0.631	693183	5.567
	Cd	111	**990.324**	ug/L	0.567	672764	5.404
	Cd	114		ug/L		1584478	12.727
>	In	115		ug/L		124491	124491.074
	Sn	120	**1128.536**	ug/L	1.308	3256261	26.155
	Sb	121	**260.824**	ug/L	6.653	517137	4.150
	Sb	123		ug/L		396246	3.180
	Ba	135		ug/L		693398	6.192
	Ba	137	**1086.504**	ug/L	1.084	1174624	10.490
	Ho	165		ug/L		116	0.001
>	Lu	175		ug/L		111982	111981.981
	Tl	205	**439.127**	ug/L	0.510	1472255	13.139
	Pb	208	**4663.153**	ug/L	0.604	33810739	301.934
	Th	232	**2295.831**	ug/L	1.129	21735827	194.100
	U	238	**4661.282**	ug/L	1.013	47517287	424.327

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	87.208				
	Be	9	90.330				
	B	11					
	Na	23	118.396				
	Mg	24	117.517				
	Al	27	114.829				
	P	31	107.947				
	K	39	108.456				
	Ca	43	98.795				
>	Sc	45		104.4			
	Ti	47					
	V	51	101.966				
	Cr	52	98.257				
	Cr	53					
	Mn	55	93.861				
	Fe	57	96.070				
	Co	59	93.727				
	Ni	60	90.446				
	Cu	63					
	Cu	65	90.429				
	Zn	66	87.777				
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
	As	75	91.945				
	Se	77					
	Se	82	94.377				
	Kr	83					
	Sr	88	99.830				
	Y	89					
	Zr	90	108.216				
	Mo	98	102.894				
	Ag	107	98.538				
	Cd	111	99.032				
	Cd	114					
>	In	115		99.8			
	Sn	120	112.854				
	Sb	121	104.330				
	Sb	123					
	Ba	135					
	Ba	137	108.650				
	Ho	165					
>	Lu	175		90.5			
	Tl	205	87.825				
	Pb	208	93.263				
	Th	232	91.833				
	U	238	93.226				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Na	23	LRS is out of limits (+/- 10%)
QC Std 10	Mg	24	LRS is out of limits (+/- 10%)
QC Std 10	Al	27	LRS is out of limits (+/- 10%)
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)
QC Std 10	Sn	120	LRS is out of limits (+/- 10%)

QC Std 10	Tl	205LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Sunday, February 14, 2010 01:47:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 11.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.489**	**ug/L**	1.797	18373	0.087
	Be	9	**46.976**	**ug/L**	2.203	4578	0.022
	B	11	**95.649**	**ug/L**	4.199	10895	0.051
	Na	23	**5914.425**	**ug/L**	12.140	10116611	47.742
	Mg	24	**5920.198**	**ug/L**	5.876	6425048	30.353
	Al	27	**5709.817**	**ug/L**	4.242	8987630	42.461
	P	31	**5480.262**	**ug/L**	1.577	520799	2.448
	K	39	**5226.763**	**ug/L**	10.385	18470561	85.734
	Ca	43	**5098.004**	**ug/L**	0.812	35625	0.168
>	Sc	45		**ug/L**		211571	211571.345
	Ti	47	**53.071**	**ug/L**	2.142	16787	0.079
	V	51	**50.701**	**ug/L**	0.985	201210	0.954
	Cr	52	**51.319**	**ug/L**	0.886	148623	0.705
	Cr	53		**ug/L**		94094	0.111
	Mn	55	**51.218**	**ug/L**	1.079	267430	1.260
	Fe	57	**5082.817**	**ug/L**	0.910	545982	2.544
	Co	59	**51.097**	**ug/L**	2.055	201228	0.951
	Ni	60	**52.693**	**ug/L**	2.524	43513	0.205
	Cu	63		**ug/L**		94642	0.447
	Cu	65	**52.344**	**ug/L**	1.604	45420	0.214
	Zn	66	**50.476**	**ug/L**	0.671	25721	0.117
	Zn	67		**ug/L**		8045	0.022
	Zn	68		**ug/L**		19350	0.087
>	Ge	74		**ug/L**		219069	219068.860
	As	75	**48.754**	**ug/L**	2.885	28971	0.134
	Se	77		**ug/L**		9888	0.018
	Se	82	**49.934**	**ug/L**	3.063	3417	0.015
	Kr	83		**ug/L**		36	0.000
	Sr	88	**49.913**	**ug/L**	1.207	467265	3.310
	Y	89		**ug/L**		41	0.000
	Zr	90	**54.022**	**ug/L**	5.687	246571	1.743
	Mo	98	**50.445**	**ug/L**	1.895	95791	0.678
	Ag	107	**50.750**	**ug/L**	0.977	161934	1.147
	Cd	111	**50.849**	**ug/L**	1.839	39172	0.277
	Cd	114		**ug/L**		93806	0.664
>	In	115		**ug/L**		141117	141117.119
	Sn	120	**55.529**	**ug/L**	1.683	181876	1.287
	Sb	121	**54.129**	**ug/L**	4.053	122151	0.861
	Sb	123		**ug/L**		94364	0.665
	Ba	135		**ug/L**		38644	0.329
	Ba	137	**57.408**	**ug/L**	0.737	65161	0.554
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		117523	117522.676
	Tl	205	**47.879**	**ug/L**	0.169	169323	1.433
	Pb	208	**50.275**	**ug/L**	1.371	382984	3.255
	Th	232	**50.234**	**ug/L**	1.543	499848	4.247
	U	238	**50.441**	**ug/L**	1.151	539838	4.592

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	92.978				
	Be	9	93.953				
	B	11	95.649				
	Na	23	118.289				
	Mg	24	118.404				
	Al	27	113.066				
	P	31	109.605				
	K	39	104.535				
	Ca	43	101.960				
>	Sc	45		111.4			
	Ti	47	106.142				
	V	51	101.403				
	Cr	52	102.638				
	Cr	53					
	Mn	55	102.437				
	Fe	57	101.656				
	Co	59	102.194				
	Ni	60	105.386				
	Cu	63					
	Cu	65	104.688				
	Zn	66	100.951				
	Zn	67					
	Zn	68					
>	Ge	74		111.8			
	As	75	97.508				
	Se	77					
	Se	82	99.868				
	Kr	83					
	Sr	88	99.827				
	Y	89					
	Zr	90	108.043				
	Mo	98	100.891				
	Ag	107	101.501				
	Cd	111	101.697				
	Cd	114					
>	In	115		113.1			
	Sn	120	111.058				
	Sb	121	108.258				
	Sb	123					
	Ba	135					
	Ba	137	114.816				
	Ho	165					
>	Lu	175		95.0			
	Tl	205	95.758				
	Pb	208	100.551				
	Th	232	100.467				
	U	238	100.883				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	Mg	24	CCV is out of limits (+/- 10%)
QC Std 11	Al	27	CCV is out of limits (+/- 10%)
QC Std 11	Sn	120	CCV is out of limits (+/- 10%)
QC Std 11	Ba	137	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Sunday, February 14, 2010 01:54:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 12.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.043**	ug/L	67.882	49	0.000
	Be	9	**0.002**	ug/L	1075.129	4	0.000
	B	11	**1.792**	ug/L	33.522	401	0.001
	Na	23	**5.307**	ug/L	102.028	22353	0.043
	Mg	24	**0.521**	ug/L	357.856	4001	0.003
	Al	27	**1.269**	ug/L	171.624	7002	0.009
	P	31	**0.221**	ug/L	927.329	3077	0.000
	K	39	**4.046**	ug/L	68.215	354346	0.066
	Ca	43	**-1.387**	ug/L	105.096	145	-0.000
>	Sc	45		ug/L		218083	218082.577
	Ti	47	**0.111**	ug/L	49.492	165	0.000
	V	51	**-0.063**	ug/L	2013.063	-946	-0.001
	Cr	52	**0.342**	ug/L	26.196	380	0.005
	Cr	53		ug/L		72787	0.000
	Mn	55	**0.000**	ug/L	9602.870	807	0.000
	Fe	57	**5.360**	ug/L	52.127	8678	0.003
	Co	59	**0.006**	ug/L	18.634	124	0.000
	Ni	60	**0.026**	ug/L	57.059	65	0.000
	Cu	63		ug/L		182	0.000
	Cu	65	**0.030**	ug/L	20.169	104	0.000
	Zn	66	**0.102**	ug/L	22.455	183	0.000
	Zn	67		ug/L		3556	0.001
	Zn	68		ug/L		465	0.000
>	Ge	74		ug/L		225935	225934.884
	As	75	**-0.421**	ug/L	21.653	-725	-0.001
	Se	77		ug/L		7026	0.003
	Se	82	**-0.053**	ug/L	317.564	38	-0.000
	Kr	83		ug/L		45	0.000
	Sr	88	**0.007**	ug/L	44.198	264	0.000
	Y	89		ug/L		19	-0.000
	Zr	90	**0.299**	ug/L	15.509	2026	0.010
	Mo	98	**0.169**	ug/L	10.141	418	0.002
	Ag	107	**0.023**	ug/L	11.408	161	0.001
	Cd	111	**0.009**	ug/L	141.681	30	0.000
	Cd	114		ug/L		70	0.000
>	In	115		ug/L		142666	142665.698
	Sn	120	**1.157**	ug/L	8.764	4106	0.027
	Sb	121	**1.883**	ug/L	13.636	4845	0.030
	Sb	123		ug/L		3803	0.024
	Ba	135		ug/L		22	0.000
	Ba	137	**0.012**	ug/L	24.130	43	0.000
	Ho	165		ug/L		5	0.000
>	Lu	175		ug/L		118924	118924.491
	Tl	205	**0.314**	ug/L	17.911	2084	0.009
	Pb	208	**0.151**	ug/L	11.349	1633	0.010
	Th	232	**0.257**	ug/L	16.047	3398	0.022
	U	238	**0.055**	ug/L	8.443	858	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		115.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		114.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030959
Sample Date/Time: Sunday, February 14, 2010 02:00:16
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\1202030959.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.005**	**ug/L**	455.263	35	0.000
	Be	9	**-0.006**	**ug/L**	444.828	3	-0.000
	B	11	**0.288**	**ug/L**	112.471	238	0.000
	Na	23	**8.068**	**ug/L**	39.413	28362	0.065
	Mg	24	**-1.933**	**ug/L**	51.386	1333	-0.010
	Al	27	**2.656**	**ug/L**	47.206	9670	0.020
	P	31	**25.358**	**ug/L**	23.717	5761	0.011
	K	39	**0.330**	**ug/L**	1616.566	355374	0.005
	Ca	43	**11.359**	**ug/L**	39.886	246	0.000
>	Sc	45		**ug/L**		227309	227308.763
	Ti	47	**1.048**	**ug/L**	49.450	488	0.002
	V	51	**0.667**	**ug/L**	70.590	2107	0.013
	Cr	52	**1.155**	**ug/L**	7.601	2933	0.016
	Cr	53		**ug/L**		56735	-0.084
	Mn	55	**0.246**	**ug/L**	2.040	2220	0.006
	Fe	57	**29.535**	**ug/L**	5.120	11796	0.015
	Co	59	**-0.002**	**ug/L**	80.529	95	-0.000
	Ni	60	**0.318**	**ug/L**	4.487	327	0.001
	Cu	63		**ug/L**		646	0.002
	Cu	65	**0.276**	**ug/L**	3.451	338	0.001
	Zn	66	**0.999**	**ug/L**	4.929	659	0.002
	Zn	67		**ug/L**		2872	-0.002
	Zn	68		**ug/L**		758	0.002
>	Ge	74		**ug/L**		228601	228600.625
	As	75	**-0.088**	**ug/L**	540.225	-528	-0.000
	Se	77		**ug/L**		5226	-0.005
	Se	82	**0.033**	**ug/L**	382.340	44	0.000
	Kr	83		**ug/L**		37	0.000
	Sr	88	**0.042**	**ug/L**	2.543	605	0.003
	Y	89		**ug/L**		47	0.000
	Zr	90	**1.081**	**ug/L**	29.951	5741	0.035
	Mo	98	**0.211**	**ug/L**	24.152	509	0.003
	Ag	107	**0.010**	**ug/L**	18.514	121	0.000
	Cd	111	**0.024**	**ug/L**	44.637	42	0.000
	Cd	114		**ug/L**		68	0.000
>	In	115		**ug/L**		145536	145535.662
	Sn	120	**0.638**	**ug/L**	8.707	2440	0.015
	Sb	121	**0.532**	**ug/L**	6.870	1819	0.008
	Sb	123		**ug/L**		1433	0.007
	Ba	135		**ug/L**		76	0.000
	Ba	137	**0.082**	**ug/L**	1.843	128	0.001
	Ho	165		**ug/L**		6	0.000
>	Lu	175		**ug/L**		122678	122678.149
	Tl	205	**0.165**	**ug/L**	17.937	1603	0.005
	Pb	208	**0.100**	**ug/L**	9.169	1279	0.006
	Th	232	**0.297**	**ug/L**	26.983	3918	0.025
	U	238	**0.032**	**ug/L**	13.845	628	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		119.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		116.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		116.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030964
Sample Date/Time: Sunday, February 14, 2010 02:06:24
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948067|40|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\1202030964.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.209**	**ug/L**	2.590	984	0.004
	Be	9	**17.754**	**ug/L**	0.960	1890	0.008
	B	11	**35.183**	**ug/L**	1.279	4504	0.019
	Na	23	**305.233**	**ug/L**	12.935	582054	2.464
	Mg	24	**1043.300**	**ug/L**	9.950	1238820	5.349
	Al	27	**3284.262**	**ug/L**	5.142	5644225	24.423
	P	31	**202.175**	**ug/L**	3.306	24078	0.090
	K	39	**1014.828**	**ug/L**	5.610	4201323	16.646
	Ca	43	**2499.626**	**ug/L**	1.864	19141	0.082
>	Sc	45		**ug/L**		230850	230849.686
	Ti	47	**117.357**	**ug/L**	2.774	40343	0.174
	V	51	**32.072**	**ug/L**	2.198	138618	0.604
	Cr	52	**59.923**	**ug/L**	0.959	189477	0.824
	Cr	53		**ug/L**		102380	0.110
	Mn	55	**135.618**	**ug/L**	0.766	771303	3.337
	Fe	57	**4066.841**	**ug/L**	1.340	478376	2.035
	Co	59	**24.238**	**ug/L**	0.663	104213	0.451
	Ni	60	**35.161**	**ug/L**	1.841	31697	0.137
	Cu	63		**ug/L**		86412	0.374
	Cu	65	**44.420**	**ug/L**	1.335	42069	0.182
	Zn	66	**144.125**	**ug/L**	1.919	76728	0.334
	Zn	67		**ug/L**		15588	0.053
	Zn	68		**ug/L**		56079	0.243
>	Ge	74		**ug/L**		229580	229579.678
	As	75	**26.640**	**ug/L**	2.354	16370	0.073
	Se	77		**ug/L**		12035	0.025
	Se	82	**71.978**	**ug/L**	1.963	5146	0.022
	Kr	83		**ug/L**		47	0.000
	Sr	88	**56.190**	**ug/L**	0.471	541340	3.726
	Y	89		**ug/L**		25500	0.175
	Zr	90	**1.982**	**ug/L**	1.491	9951	0.064
	Mo	98	**13.093**	**ug/L**	0.038	25661	0.176
	Ag	107	**6.990**	**ug/L**	2.440	23026	0.158
	Cd	111	**15.141**	**ug/L**	2.306	12020	0.083
	Cd	114		**ug/L**		29164	0.200
>	In	115		**ug/L**		145231	145230.735
	Sn	120	**8.382**	**ug/L**	0.514	28499	0.194
	Sb	121	**16.319**	**ug/L**	0.757	38300	0.260
	Sb	123		**ug/L**		29045	0.197
	Ba	135		**ug/L**		37276	0.306
	Ba	137	**53.881**	**ug/L**	2.188	63451	0.520
	Ho	165		**ug/L**		893	0.007
>	Lu	175		**ug/L**		121932	121932.403
	Tl	205	**27.978**	**ug/L**	1.127	103075	0.837
	Pb	208	**20.757**	**ug/L**	0.390	164359	1.344
	Th	232	**2.015**	**ug/L**	2.032	21609	0.170
	U	238	**0.431**	**ug/L**	1.684	5053	0.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		121.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		117.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		116.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 02:12:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.400**	**ug/L**	0.213	18539	0.083
	Be	9	**45.318**	**ug/L**	1.956	4665	0.021
	B	11	**94.912**	**ug/L**	1.231	11425	0.050
	Na	23	**5328.081**	**ug/L**	4.822	9632228	43.009
	Mg	24	**5309.096**	**ug/L**	4.321	6086887	27.220
	Al	27	**5502.711**	**ug/L**	7.928	9144328	40.921
	P	31	**5182.178**	**ug/L**	1.297	520584	2.315
	K	39	**5026.941**	**ug/L**	6.718	18789019	82.456
	Ca	43	**4938.142**	**ug/L**	1.255	36468	0.162
>	Sc	45		**ug/L**		223528	223528.064
	Ti	47	**51.569**	**ug/L**	2.244	17232	0.077
	V	51	**49.964**	**ug/L**	1.281	209494	0.940
	Cr	52	**50.362**	**ug/L**	1.087	154079	0.692
	Cr	53		**ug/L**		98570	0.108
	Mn	55	**49.438**	**ug/L**	2.987	272675	1.217
	Fe	57	**4837.824**	**ug/L**	2.421	549326	2.421
	Co	59	**49.097**	**ug/L**	0.236	204306	0.914
	Ni	60	**50.726**	**ug/L**	0.776	44265	0.198
	Cu	63		**ug/L**		95630	0.427
	Cu	65	**50.629**	**ug/L**	1.939	46415	0.207
	Zn	66	**49.834**	**ug/L**	1.121	26169	0.115
	Zn	67		**ug/L**		8006	0.021
	Zn	68		**ug/L**		19326	0.084
>	Ge	74		**ug/L**		225717	225717.137
	As	75	**49.203**	**ug/L**	3.549	30120	0.135
	Se	77		**ug/L**		10456	0.019
	Se	82	**48.520**	**ug/L**	3.023	3424	0.015
	Kr	83		**ug/L**		40	0.000
	Sr	88	**49.783**	**ug/L**	1.065	475190	3.301
	Y	89		**ug/L**		156	0.001
	Zr	90	**49.269**	**ug/L**	1.349	229455	1.590
	Mo	98	**49.821**	**ug/L**	1.812	96470	0.670
	Ag	107	**50.394**	**ug/L**	1.860	163957	1.139
	Cd	111	**49.680**	**ug/L**	1.383	39026	0.271
	Cd	114		**ug/L**		94253	0.655
>	In	115		**ug/L**		143890	143889.750
	Sn	120	**50.844**	**ug/L**	0.933	169837	1.178
	Sb	121	**48.759**	**ug/L**	5.783	112249	0.776
	Sb	123		**ug/L**		85558	0.591
	Ba	135		**ug/L**		38450	0.320
	Ba	137	**56.547**	**ug/L**	1.380	65570	0.546
	Ho	165		**ug/L**		17	0.000
>	Lu	175		**ug/L**		120060	120059.935
	Tl	205	**47.165**	**ug/L**	1.552	170402	1.411
	Pb	208	**48.777**	**ug/L**	0.855	379652	3.158
	Th	232	**47.763**	**ug/L**	1.247	485644	4.038
	U	238	**48.894**	**ug/L**	1.728	534637	4.451

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	88.801				
	Be	9	90.635				
	B	11	94.912				
	Na	23	106.562				
	Mg	24	106.182				
	Al	27	108.965				
	P	31	103.644				
	K	39	100.539				
	Ca	43	98.763				
>	Sc	45		117.7			
	Ti	47	103.137				
	V	51	99.927				
	Cr	52	100.724				
	Cr	53					
	Mn	55	98.876				
	Fe	57	96.756				
	Co	59	98.194				
	Ni	60	101.453				
	Cu	63					
	Cu	65	101.258				
	Zn	66	99.667				
	Zn	67					
	Zn	68					
>	Ge	74		115.2			
	As	75	98.406				
	Se	77					
	Se	82	97.040				
	Kr	83					
	Sr	88	99.565				
	Y	89					
	Zr	90	98.538				
	Mo	98	99.642				
	Ag	107	100.788				
	Cd	111	99.361				
	Cd	114					
>	In	115		115.3			
	Sn	120	101.688				
	Sb	121	97.519				
	Sb	123					
	Ba	135					
	Ba	137	113.094				
	Ho	165					
>	Lu	175		97.1			
	Tl	205	94.330				
	Pb	208	97.553				
	Th	232	95.526				
	U	238	97.788				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	Ba	137	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 02:18:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.001**	ug/L	2132.203	32	0.000
	Be	9	**0.005**	ug/L	339.095	4	0.000
	B	11	**2.205**	ug/L	23.401	455	0.001
	Na	23	**1.952**	ug/L	32.019	16676	0.016
	Mg	24	**-0.435**	ug/L	348.970	3000	-0.002
	Al	27	**-0.231**	ug/L	994.978	4668	-0.002
	P	31	**-1.756**	ug/L	80.972	2926	-0.001
	K	39	**7.994**	ug/L	83.941	373502	0.131
	Ca	43	**-1.378**	ug/L	95.818	147	-0.000
>	Sc	45		ug/L		221047	221047.281
	Ti	47	**-0.030**	ug/L	182.273	121	-0.000
	V	51	**0.005**	ug/L	19634.077	-715	0.000
	Cr	52	**0.450**	ug/L	15.416	712	0.006
	Cr	53		ug/L		75358	0.007
	Mn	55	**0.007**	ug/L	89.362	858	0.000
	Fe	57	**10.432**	ug/L	34.465	9357	0.005
	Co	59	**0.005**	ug/L	74.905	122	0.000
	Ni	60	**0.014**	ug/L	69.764	55	0.000
	Cu	63		ug/L		154	0.000
	Cu	65	**0.018**	ug/L	64.640	95	0.000
	Zn	66	**-0.020**	ug/L	147.519	122	-0.000
	Zn	67		ug/L		3497	0.000
	Zn	68		ug/L		455	0.000
>	Ge	74		ug/L		231726	231726.475
	As	75	**-0.687**	ug/L	109.989	-909	-0.002
	Se	77		ug/L		7246	0.004
	Se	82	**-0.121**	ug/L	9.653	34	-0.000
	Kr	83		ug/L		42	0.000
	Sr	88	**0.008**	ug/L	25.473	271	0.001
	Y	89		ug/L		18	-0.000
	Zr	90	**0.175**	ug/L	13.149	1485	0.006
	Mo	98	**0.045**	ug/L	20.252	184	0.001
	Ag	107	**0.012**	ug/L	18.793	127	0.000
	Cd	111	**-0.001**	ug/L	668.251	22	-0.000
	Cd	114		ug/L		60	0.000
>	In	115		ug/L		145239	145239.453
	Sn	120	**0.319**	ug/L	11.136	1361	0.007
	Sb	121	**0.676**	ug/L	21.260	2149	0.011
	Sb	123		ug/L		1678	0.008
	Ba	135		ug/L		24	0.000
	Ba	137	**0.012**	ug/L	41.373	43	0.000
	Ho	165		ug/L		3	0.000
>	Lu	175		ug/L		119617	119616.891
	Tl	205	**0.296**	ug/L	18.567	2031	0.009
	Pb	208	**0.041**	ug/L	7.621	797	0.003
	Th	232	**0.135**	ug/L	23.044	2187	0.011
	U	238	**0.014**	ug/L	18.367	418	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		116.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		118.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		116.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797001
Sample Date/Time: Sunday, February 14, 2010 02:24:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797001.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**38.185**	**ug/L**	3.249	21646	0.071
	Be	9	**2.408**	**ug/L**	4.912	341	0.001
	B	11	**10.991**	**ug/L**	2.930	2035	0.006
	Na	23	**1921.223**	**ug/L**	1.688	4723725	15.508
	Mg	24	**9682.495**	**ug/L**	2.811	15067400	49.642
	Al	27	**52101.292**	**ug/L**	0.586	117563722	387.449
	P	31	**159.843**	**ug/L**	3.802	25912	0.071
	K	39	**5961.147**	**ug/L**	6.416	30147353	97.780
	Ca	43	**18681.546**	**ug/L**	0.994	186641	0.614
>	Sc	45		**ug/L**		303409	303409.223
	Ti	47	**469.622**	**ug/L**	0.500	211609	0.697
	V	51	**53.781**	**ug/L**	1.783	306118	1.012
	Cr	52	**32.744**	**ug/L**	2.528	135654	0.450
	Cr	53		**ug/L**		65722	-0.117
	Mn	55	**604.925**	**ug/L**	0.841	4517551	14.886
	Fe	57	**43977.787**	**ug/L**	0.355	6688802	22.008
	Co	59	**30.191**	**ug/L**	1.040	170579	0.562
	Ni	60	**30.548**	**ug/L**	2.467	36202	0.119
	Cu	63		**ug/L**		70752	0.233
	Cu	65	**27.888**	**ug/L**	1.522	34755	0.114
	Zn	66	**130.625**	**ug/L**	1.001	65825	0.302
	Zn	67		**ug/L**		14412	0.051
	Zn	68		**ug/L**		51823	0.237
>	Ge	74		**ug/L**		217272	217272.279
	As	75	**11.310**	**ug/L**	6.844	6321	0.031
	Se	77		**ug/L**		4905	-0.005
	Se	82	**1.958**	**ug/L**	7.077	171	0.001
	Kr	83		**ug/L**		113	0.000
	Sr	88	**127.022**	**ug/L**	0.810	1177271	8.423
	Y	89		**ug/L**		598710	4.284
	Zr	90	**87.369**	**ug/L**	2.300	394680	2.820
	Mo	98	**3.599**	**ug/L**	1.362	6855	0.048
	Ag	107	**0.473**	**ug/L**	2.501	1577	0.011
	Cd	111	**0.723**	**ug/L**	26.648	573	0.004
	Cd	114		**ug/L**		229	0.001
>	In	115		**ug/L**		139739	139739.226
	Sn	120	**0.730**	**ug/L**	2.708	2641	0.017
	Sb	121	**0.430**	**ug/L**	7.019	1520	0.007
	Sb	123		**ug/L**		1222	0.006
	Ba	135		**ug/L**		361836	2.877
	Ba	137	**507.946**	**ug/L**	3.140	616766	4.904
	Ho	165		**ug/L**		21423	0.170
>	Lu	175		**ug/L**		125815	125814.652
	Tl	205	**0.553**	**ug/L**	0.790	3105	0.017
	Pb	208	**33.299**	**ug/L**	2.395	271681	2.156
	Th	232	**33.239**	**ug/L**	3.088	354280	2.810
	U	238	**2.448**	**ug/L**	2.080	28301	0.223

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		159.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		110.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		112.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)

QC Action

ICPMS#4 - Summary Report

Sample ID: 1202030960
Sample Date/Time: Sunday, February 14, 2010 02:31:01
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948067|2|sk|
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\1202030960.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**38.003**	**ug/L**	1.622	21364	0.071
	Be	9	**2.546**	**ug/L**	3.381	357	0.001
	B	11	**10.751**	**ug/L**	3.935	1980	0.006
	Na	23	**1737.310**	**ug/L**	6.920	4235382	14.024
	Mg	24	**9527.904**	**ug/L**	3.984	14702130	48.849
	Al	27	**54579.138**	**ug/L**	11.835	122131231	405.875
	P	31	**151.981**	**ug/L**	1.878	24640	0.068
	K	39	**6016.204**	**ug/L**	9.718	30147353	98.683
	Ca	43	**17485.561**	**ug/L**	1.615	173251	0.575
>	Sc	45		**ug/L**		300893	300892.667
	Ti	47	**438.808**	**ug/L**	1.573	196069	0.651
	V	51	**51.483**	**ug/L**	1.600	290552	0.969
	Cr	52	**30.609**	**ug/L**	1.246	125698	0.421
	Cr	53		**ug/L**		61469	-0.129
	Mn	55	**508.516**	**ug/L**	2.195	3766096	12.513
	Fe	57	**40642.703**	**ug/L**	2.706	6130473	20.339
	Co	59	**23.879**	**ug/L**	1.463	133818	0.444
	Ni	60	**28.229**	**ug/L**	2.014	33181	0.110
	Cu	63		**ug/L**		60076	0.199
	Cu	65	**23.675**	**ug/L**	0.303	29276	0.097
	Zn	66	**120.205**	**ug/L**	1.131	61150	0.278
	Zn	67		**ug/L**		13583	0.047
	Zn	68		**ug/L**		48677	0.220
>	Ge	74		**ug/L**		219310	219310.154
	As	75	**10.578**	**ug/L**	3.647	5937	0.029
	Se	77		**ug/L**		4520	-0.007
	Se	82	**2.368**	**ug/L**	6.651	201	0.001
	Kr	83		**ug/L**		111	0.000
	Sr	88	**124.118**	**ug/L**	0.767	1148704	8.231
	Y	89		**ug/L**		547311	3.922
	Zr	90	**81.336**	**ug/L**	1.136	366945	2.625
	Mo	98	**2.982**	**ug/L**	2.959	5686	0.040
	Ag	107	**0.458**	**ug/L**	0.810	1529	0.010
	Cd	111	**0.743**	**ug/L**	7.367	588	0.004
	Cd	114		**ug/L**		192	0.001
>	In	115		**ug/L**		139538	139538.357
	Sn	120	**0.582**	**ug/L**	4.980	2160	0.013
	Sb	121	**0.200**	**ug/L**	7.859	1006	0.003
	Sb	123		**ug/L**		778	0.002
	Ba	135		**ug/L**		340143	2.664
	Ba	137	**467.845**	**ug/L**	0.579	576713	4.517
	Ho	165		**ug/L**		19453	0.152
>	Lu	175		**ug/L**		127675	127674.598
	Tl	205	**0.446**	**ug/L**	7.604	2743	0.013
	Pb	208	**30.690**	**ug/L**	1.227	254215	1.987
	Th	232	**27.790**	**ug/L**	1.468	300843	2.349
	U	238	**2.369**	**ug/L**	1.663	27814	0.216

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		158.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		111.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		111.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

ICPMS#4 - Summary Report

Sample ID: 1202030962
Sample Date/Time: Sunday, February 14, 2010 02:37:11
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\1202030962.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.422**	**ug/L**	0.839	32264	0.107
	Be	9	**18.254**	**ug/L**	0.741	2533	0.008
	B	11	**45.782**	**ug/L**	3.435	7558	0.024
	Na	23	**2397.092**	**ug/L**	3.515	5840314	19.350
	Mg	24	**10407.674**	**ug/L**	8.636	16071893	53.360
	Al	27	**58306.209**	**ug/L**	2.385	130471901	433.591
	P	31	**835.890**	**ug/L**	0.723	116568	0.373
	K	39	**7434.409**	**ug/L**	6.362	37153428	121.946
	Ca	43	**18749.694**	**ug/L**	1.338	185778	0.617
>	Sc	45		**ug/L**		300937	300936.918
	Ti	47	**512.476**	**ug/L**	0.779	229003	0.760
	V	51	**71.452**	**ug/L**	2.127	403761	1.345
	Cr	52	**49.200**	**ug/L**	1.132	202653	0.676
	Cr	53		**ug/L**		70160	-0.100
	Mn	55	**648.880**	**ug/L**	1.417	4805945	15.967
	Fe	57	**40674.150**	**ug/L**	0.913	6136253	20.355
	Co	59	**40.545**	**ug/L**	0.283	227168	0.754
	Ni	60	**45.409**	**ug/L**	1.837	53347	0.177
	Cu	63		**ug/L**		102144	0.339
	Cu	65	**40.857**	**ug/L**	1.925	50447	0.167
	Zn	66	**144.366**	**ug/L**	1.218	73928	0.334
	Zn	67		**ug/L**		15591	0.056
	Zn	68		**ug/L**		57655	0.259
>	Ge	74		**ug/L**		220850	220850.015
	As	75	**44.700**	**ug/L**	2.076	26730	0.123
	Se	77		**ug/L**		4964	-0.005
	Se	82	**10.071**	**ug/L**	5.432	728	0.003
	Kr	83		**ug/L**		113	0.000
	Sr	88	**141.646**	**ug/L**	0.599	1327185	9.393
	Y	89		**ug/L**		572777	4.055
	Zr	90	**146.811**	**ug/L**	1.544	669964	4.738
	Mo	98	**25.642**	**ug/L**	1.620	48795	0.345
	Ag	107	**22.712**	**ug/L**	1.448	72596	0.513
	Cd	111	**5.421**	**ug/L**	3.030	4200	0.030
	Cd	114		**ug/L**		8403	0.059
>	In	115		**ug/L**		141279	141278.953
	Sn	120	**8.427**	**ug/L**	0.287	27872	0.195
	Sb	121	**32.315**	**ug/L**	1.132	73220	0.514
	Sb	123		**ug/L**		56300	0.395
	Ba	135		**ug/L**		346826	2.699
	Ba	137	**476.356**	**ug/L**	1.487	591053	4.599
	Ho	165		**ug/L**		20357	0.158
>	Lu	175		**ug/L**		128514	128514.089
	Tl	205	**40.502**	**ug/L**	2.038	156791	1.212
	Pb	208	**118.247**	**ug/L**	0.698	984454	7.656
	Th	232	**48.910**	**ug/L**	0.382	532306	4.135
	U	238	**24.365**	**ug/L**	0.677	285317	2.218

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		158.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		112.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		113.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

ICPMS#4 - Summary Report

Sample ID: 1202030963
Sample Date/Time: Sunday, February 14, 2010 02:43:21
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\1202030963.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.494**	**ug/L**	1.557	30564	0.102
	Be	9	**18.577**	**ug/L**	0.992	2573	0.009
	B	11	**46.132**	**ug/L**	1.473	7600	0.024
	Na	23	**2604.776**	**ug/L**	8.352	6336575	21.026
	Mg	24	**9131.655**	**ug/L**	5.807	14062907	46.818
	Al	27	**52131.011**	**ug/L**	10.036	116372197	387.670
	P	31	**838.936**	**ug/L**	1.811	116758	0.375
	K	39	**7127.299**	**ug/L**	11.935	35561138	116.908
	Ca	43	**18480.557**	**ug/L**	0.965	182784	0.608
>	Sc	45		**ug/L**		300384	300384.434
	Ti	47	**476.420**	**ug/L**	0.476	212527	0.707
	V	51	**65.117**	**ug/L**	0.951	367186	1.226
	Cr	52	**46.595**	**ug/L**	1.801	191517	0.641
	Cr	53		**ug/L**		69471	-0.102
	Mn	55	**587.475**	**ug/L**	0.224	4343663	14.456
	Fe	57	**38311.907**	**ug/L**	0.498	5770205	19.173
	Co	59	**38.244**	**ug/L**	1.703	213905	0.712
	Ni	60	**44.336**	**ug/L**	1.232	51994	0.173
	Cu	63		**ug/L**		99377	0.330
	Cu	65	**39.255**	**ug/L**	1.331	48388	0.161
	Zn	66	**137.316**	**ug/L**	1.674	70506	0.318
	Zn	67		**ug/L**		14836	0.052
	Zn	68		**ug/L**		54918	0.246
>	Ge	74		**ug/L**		221429	221428.926
	As	75	**44.373**	**ug/L**	0.903	26599	0.122
	Se	77		**ug/L**		4719	-0.006
	Se	82	**10.475**	**ug/L**	4.365	757	0.003
	Kr	83		**ug/L**		109	0.000
	Sr	88	**140.440**	**ug/L**	1.280	1312280	9.313
	Y	89		**ug/L**		557704	3.958
	Zr	90	**144.146**	**ug/L**	0.661	656045	4.652
	Mo	98	**26.690**	**ug/L**	0.435	50653	0.359
	Ag	107	**23.425**	**ug/L**	0.605	74669	0.529
	Cd	111	**5.535**	**ug/L**	2.943	4276	0.030
	Cd	114		**ug/L**		8683	0.061
>	In	115		**ug/L**		140888	140888.443
	Sn	120	**9.604**	**ug/L**	1.129	31638	0.223
	Sb	121	**36.926**	**ug/L**	0.566	83353	0.588
	Sb	123		**ug/L**		63849	0.450
	Ba	135		**ug/L**		348605	2.721
	Ba	137	**477.735**	**ug/L**	0.447	590922	4.612
	Ho	165		**ug/L**		19923	0.155
>	Lu	175		**ug/L**		128110	128109.505
	Tl	205	**42.506**	**ug/L**	0.899	163986	1.272
	Pb	208	**115.495**	**ug/L**	0.676	958496	7.478
	Th	232	**48.047**	**ug/L**	0.825	521253	4.062
	U	238	**24.956**	**ug/L**	1.176	291295	2.272

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		158.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		113.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		112.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 1202030961
Sample Date/Time: Sunday, February 14, 2010 02:49:32
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948067|10|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\1202030961.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.262**	**ug/L**	3.933	4616	0.019
	Be	9	**0.716**	**ug/L**	6.861	83	0.000
	B	11	**4.290**	**ug/L**	4.937	758	0.002
	Na	23	**440.359**	**ug/L**	2.790	865462	3.555
	Mg	24	**2364.946**	**ug/L**	6.509	2907894	12.125
	Al	27	**14821.693**	**ug/L**	12.429	26412120	110.221
	P	31	**44.723**	**ug/L**	5.725	8138	0.020
	K	39	**1500.536**	**ug/L**	6.252	6266324	24.613
	Ca	43	**4901.864**	**ug/L**	2.572	38771	0.161
>	Sc	45		**ug/L**		239436	239436.006
	Ti	47	**123.857**	**ug/L**	1.253	44146	0.184
	V	51	**13.952**	**ug/L**	3.807	62103	0.263
	Cr	52	**8.709**	**ug/L**	1.534	27949	0.120
	Cr	53		**ug/L**		68224	-0.049
	Mn	55	**159.327**	**ug/L**	1.151	939576	3.921
	Fe	57	**11424.972**	**ug/L**	1.050	1377809	5.717
	Co	59	**8.290**	**ug/L**	1.012	37047	0.154
	Ni	60	**8.327**	**ug/L**	0.492	7823	0.032
	Cu	63		**ug/L**		15974	0.066
	Cu	65	**7.836**	**ug/L**	1.189	7767	0.032
	Zn	66	**29.560**	**ug/L**	1.466	15540	0.068
	Zn	67		**ug/L**		5824	0.011
	Zn	68		**ug/L**		12387	0.053
>	Ge	74		**ug/L**		225221	225221.175
	As	75	**2.265**	**ug/L**	28.109	941	0.006
	Se	77		**ug/L**		5937	-0.001
	Se	82	**0.950**	**ug/L**	35.956	108	0.000
	Kr	83		**ug/L**		47	0.000
	Sr	88	**27.166**	**ug/L**	0.526	246835	1.802
	Y	89		**ug/L**		124033	0.906
	Zr	90	**17.651**	**ug/L**	1.568	78618	0.570
	Mo	98	**0.746**	**ug/L**	2.987	1465	0.010
	Ag	107	**0.085**	**ug/L**	13.099	346	0.002
	Cd	111	**0.138**	**ug/L**	68.077	125	0.001
	Cd	114		**ug/L**		67	0.000
>	In	115		**ug/L**		136918	136918.354
	Sn	120	**0.221**	**ug/L**	2.975	973	0.005
	Sb	121	**0.144**	**ug/L**	23.305	865	0.002
	Sb	123		**ug/L**		644	0.002
	Ba	135		**ug/L**		73642	0.604
	Ba	137	**106.321**	**ug/L**	0.519	125247	1.026
	Ho	165		**ug/L**		4344	0.036
>	Lu	175		**ug/L**		121992	121991.905
	Tl	205	**0.512**	**ug/L**	20.106	2857	0.015
	Pb	208	**7.378**	**ug/L**	0.746	58764	0.478
	Th	232	**7.253**	**ug/L**	1.423	75651	0.613
	U	238	**0.529**	**ug/L**	0.586	6142	0.048

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		126.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		114.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		109.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 02:55:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**45.357**	**ug/L**	0.814	19259	0.085
	Be	9	**45.288**	**ug/L**	1.472	4742	0.021
	B	11	**94.336**	**ug/L**	1.067	11548	0.050
	Na	23	**4786.812**	**ug/L**	6.401	8798086	38.640
	Mg	24	**5276.571**	**ug/L**	5.108	6149668	27.053
	Al	27	**5369.625**	**ug/L**	7.038	9074512	39.931
	P	31	**5128.738**	**ug/L**	1.603	523957	2.291
	K	39	**4684.943**	**ug/L**	4.799	17833645	76.847
	Ca	43	**4956.505**	**ug/L**	0.347	37222	0.163
>	Sc	45		**ug/L**		227334	227333.579
	Ti	47	**51.331**	**ug/L**	1.826	17454	0.076
	V	51	**51.059**	**ug/L**	2.159	217671	0.961
	Cr	52	**50.771**	**ug/L**	2.629	157955	0.698
	Cr	53		**ug/L**		97537	0.096
	Mn	55	**50.212**	**ug/L**	2.441	281668	1.236
	Fe	57	**4955.934**	**ug/L**	3.176	572044	2.480
	Co	59	**49.310**	**ug/L**	3.675	208630	0.918
	Ni	60	**50.718**	**ug/L**	0.906	45007	0.198
	Cu	63		**ug/L**		96712	0.425
	Cu	65	**50.835**	**ug/L**	0.900	47397	0.208
	Zn	66	**50.407**	**ug/L**	1.775	26914	0.117
	Zn	67		**ug/L**		7771	0.019
	Zn	68		**ug/L**		20021	0.086
>	Ge	74		**ug/L**		229524	229524.111
	As	75	**48.346**	**ug/L**	0.887	30086	0.133
	Se	77		**ug/L**		10290	0.017
	Se	82	**49.084**	**ug/L**	0.636	3522	0.015
	Kr	83		**ug/L**		36	-0.000
	Sr	88	**51.770**	**ug/L**	2.071	478880	3.433
	Y	89		**ug/L**		141	0.001
	Zr	90	**52.357**	**ug/L**	1.651	236224	1.690
	Mo	98	**51.330**	**ug/L**	2.700	96317	0.690
	Ag	107	**51.388**	**ug/L**	0.688	162012	1.161
	Cd	111	**50.102**	**ug/L**	2.100	38142	0.273
	Cd	114		**ug/L**		91135	0.653
>	In	115		**ug/L**		139433	139433.035
	Sn	120	**50.084**	**ug/L**	3.219	162118	1.161
	Sb	121	**48.307**	**ug/L**	8.542	107758	0.769
	Sb	123		**ug/L**		82132	0.586
	Ba	135		**ug/L**		37597	0.311
	Ba	137	**54.845**	**ug/L**	1.476	64060	0.529
	Ho	165		**ug/L**		13	0.000
>	Lu	175		**ug/L**		120931	120930.919
	Tl	205	**47.780**	**ug/L**	0.763	173864	1.430
	Pb	208	**49.284**	**ug/L**	0.779	386379	3.191
	Th	232	**48.732**	**ug/L**	1.541	499067	4.120
	U	238	**50.296**	**ug/L**	1.062	553955	4.579

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	90.715				
	Be	9	90.577				
	B	11	94.336				
	Na	23	95.736				
	Mg	24	105.531				
	Al	27	106.329				
	P	31	102.575				
	K	39	93.699				
	Ca	43	99.130				
>	Sc	45			119.7		
	Ti	47	102.661				
	V	51	102.117				
	Cr	52	101.542				
	Cr	53					
	Mn	55	100.425				
	Fe	57	99.119				
	Co	59	98.621				
	Ni	60	101.436				
	Cu	63					
	Cu	65	101.670				
	Zn	66	100.814				
	Zn	67					
	Zn	68					
>	Ge	74			117.1		
	As	75	96.692				
	Se	77					
	Se	82	98.168				
	Kr	83					
	Sr	88	103.540				
	Y	89					
	Zr	90	104.713				
	Mo	98	102.660				
	Ag	107	102.777				
	Cd	111	100.205				
	Cd	114					
>	In	115			111.7		
	Sn	120	100.168				
	Sb	121	96.613				
	Sb	123					
	Ba	135					
	Ba	137	109.690				
	Ho	165					
>	Lu	175			97.8		
	Tl	205	95.559				
	Pb	208	98.568				
	Th	232	97.464				
	U	238	100.591				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 03:01:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.022**	**ug/L**	28.616	42	0.000
	Be	9	**0.017**	**ug/L**	136.478	5	0.000
	B	11	**1.587**	**ug/L**	29.835	390	0.001
	Na	23	**1.615**	**ug/L**	125.744	16343	0.013
	Mg	24	**1.000**	**ug/L**	270.282	4668	0.005
	Al	27	**1.524**	**ug/L**	59.242	7669	0.011
	P	31	**-1.269**	**ug/L**	38.484	3021	-0.001
	K	39	**2.185**	**ug/L**	253.687	357766	0.036
	Ca	43	**-0.916**	**ug/L**	672.317	152	-0.000
>	Sc	45		**ug/L**		224495	224494.881
	Ti	47	**0.031**	**ug/L**	144.106	144	0.000
	V	51	**0.430**	**ug/L**	216.962	1127	0.008
	Cr	52	**0.440**	**ug/L**	7.219	689	0.006
	Cr	53		**ug/L**		71254	-0.016
	Mn	55	**-0.001**	**ug/L**	1404.087	827	-0.000
	Fe	57	**13.130**	**ug/L**	15.838	9805	0.007
	Co	59	**0.001**	**ug/L**	350.636	105	0.000
	Ni	60	**0.006**	**ug/L**	65.537	49	0.000
	Cu	63		**ug/L**		156	0.000
	Cu	65	**0.006**	**ug/L**	95.823	85	0.000
	Zn	66	**0.006**	**ug/L**	167.203	134	0.000
	Zn	67		**ug/L**		3279	-0.000
	Zn	68		**ug/L**		387	0.000
>	Ge	74		**ug/L**		228386	228385.725
	As	75	**-0.707**	**ug/L**	50.428	-913	-0.002
	Se	77		**ug/L**		6522	0.001
	Se	82	**0.009**	**ug/L**	2380.789	43	0.000
	Kr	83		**ug/L**		39	0.000
	Sr	88	**0.008**	**ug/L**	34.215	266	0.001
	Y	89		**ug/L**		27	0.000
	Zr	90	**0.173**	**ug/L**	15.293	1448	0.006
	Mo	98	**0.042**	**ug/L**	46.825	174	0.001
	Ag	107	**0.011**	**ug/L**	84.893	122	0.000
	Cd	111	**-0.005**	**ug/L**	130.643	18	-0.000
	Cd	114		**ug/L**		55	0.000
>	In	115		**ug/L**		142555	142554.714
	Sn	120	**0.204**	**ug/L**	9.627	955	0.005
	Sb	121	**0.651**	**ug/L**	22.969	2052	0.010
	Sb	123		**ug/L**		1596	0.008
	Ba	135		**ug/L**		29	0.000
	Ba	137	**0.009**	**ug/L**	72.864	41	0.000
	Ho	165		**ug/L**		3	0.000
>	Lu	175		**ug/L**		122235	122234.938
	Tl	205	**0.266**	**ug/L**	19.055	1965	0.008
	Pb	208	**0.021**	**ug/L**	17.794	650	0.001
	Th	232	**0.088**	**ug/L**	30.596	1745	0.007
	U	238	**0.014**	**ug/L**	12.461	422	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			118.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			116.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			114.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			98.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797002
Sample Date/Time: Sunday, February 14, 2010 03:08:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797002.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**34.701**	ug/L	2.856	18622	0.065
	Be	9	**4.671**	ug/L	4.747	622	0.002
	B	11	**9.077**	ug/L	2.895	1636	0.005
	Na	23	**957.073**	ug/L	7.958	2235817	7.726
	Mg	24	**5930.732**	ug/L	9.500	8737951	30.407
	Al	27	**41431.833**	ug/L	7.994	88470672	308.106
	P	31	**201.098**	ug/L	4.087	29816	0.090
	K	39	**4822.830**	ug/L	22.126	23141278	79.108
	Ca	43	**6124.111**	ug/L	1.177	58034	0.201
>	Sc	45		ug/L		287114	287113.746
	Ti	47	**567.878**	ug/L	0.488	242096	0.843
	V	51	**41.173**	ug/L	2.145	221541	0.775
	Cr	52	**29.519**	ug/L	0.609	115651	0.406
	Cr	53		ug/L		58405	-0.130
	Mn	55	**728.735**	ug/L	1.243	5150010	17.933
	Fe	57	**38027.962**	ug/L	0.629	5474500	19.031
	Co	59	**21.965**	ug/L	1.636	117470	0.409
	Ni	60	**26.859**	ug/L	0.869	30129	0.105
	Cu	63		ug/L		314128	1.094
	Cu	65	**129.800**	ug/L	0.626	152705	0.532
	Zn	66	**159.376**	ug/L	2.084	79433	0.369
	Zn	67		ug/L		15728	0.058
	Zn	68		ug/L		60542	0.280
>	Ge	74		ug/L		215019	215018.591
	As	75	**7.958**	ug/L	3.396	4273	0.022
	Se	77		ug/L		3855	-0.010
	Se	82	**2.365**	ug/L	7.162	197	0.001
	Kr	83		ug/L		148	0.001
	Sr	88	**84.857**	ug/L	1.036	758183	5.627
	Y	89		ug/L		1100139	8.167
	Zr	90	**114.487**	ug/L	0.281	498343	3.695
	Mo	98	**2.086**	ug/L	2.675	3867	0.028
	Ag	107	**0.881**	ug/L	3.880	2763	0.020
	Cd	111	**1.129**	ug/L	15.886	850	0.006
	Cd	114		ug/L		490	0.003
>	In	115		ug/L		134707	134706.982
	Sn	120	**1.359**	ug/L	0.863	4511	0.032
	Sb	121	**1.150**	ug/L	2.115	3009	0.018
	Sb	123		ug/L		2316	0.014
	Ba	135		ug/L		289638	2.136
	Ba	137	**375.871**	ug/L	2.804	492166	3.629
	Ho	165		ug/L		39317	0.290
>	Lu	175		ug/L		135679	135678.521
	Tl	205	**0.472**	ug/L	5.108	3020	0.014
	Pb	208	**95.675**	ug/L	1.925	840884	6.195
	Th	232	**30.186**	ug/L	1.629	347131	2.552
	U	238	**82.590**	ug/L	1.722	1020164	7.518

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			151.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			109.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			107.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			109.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797003
Sample Date/Time: Sunday, February 14, 2010 03:14:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797003.229

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.853**	**ug/L**	2.409	5664	0.024
	Be	9	**1.503**	**ug/L**	10.810	166	0.001
	B	11	**1.455**	**ug/L**	16.641	392	0.001
	Na	23	**2055.069**	**ug/L**	3.574	3912020	16.589
	Mg	24	**968.068**	**ug/L**	11.261	1168119	4.963
	Al	27	**13700.647**	**ug/L**	6.755	23929778	101.884
	P	31	**182.113**	**ug/L**	3.879	22401	0.081
	K	39	**3040.527**	**ug/L**	4.731	12094768	49.874
	Ca	43	**1611.953**	**ug/L**	1.623	12623	0.053
>	Sc	45		**ug/L**		235005	235005.235
	Ti	47	**489.103**	**ug/L**	1.158	170664	0.726
	V	51	**13.479**	**ug/L**	2.551	58837	0.254
	Cr	52	**14.431**	**ug/L**	0.567	45917	0.198
	Cr	53		**ug/L**		44330	-0.145
	Mn	55	**1008.573**	**ug/L**	2.931	5830814	24.819
	Fe	57	**32245.421**	**ug/L**	2.326	3799583	16.137
	Co	59	**43.283**	**ug/L**	1.423	189338	0.805
	Ni	60	**17.088**	**ug/L**	2.342	15701	0.067
	Cu	63		**ug/L**		59618	0.253
	Cu	65	**30.196**	**ug/L**	0.912	29137	0.124
	Zn	66	**102.709**	**ug/L**	0.509	48710	0.238
	Zn	67		**ug/L**		9743	0.033
	Zn	68		**ug/L**		36872	0.179
>	Ge	74		**ug/L**		204376	204375.933
	As	75	**3.898**	**ug/L**	3.311	1774	0.011
	Se	77		**ug/L**		3163	-0.012
	Se	82	**1.678**	**ug/L**	32.017	143	0.001
	Kr	83		**ug/L**		102	0.000
	Sr	88	**15.091**	**ug/L**	1.687	131512	1.001
	Y	89		**ug/L**		794733	6.055
	Zr	90	**110.386**	**ug/L**	1.610	468148	3.563
	Mo	98	**2.704**	**ug/L**	2.270	4859	0.036
	Ag	107	**0.565**	**ug/L**	2.356	1754	0.013
	Cd	111	**1.224**	**ug/L**	3.933	897	0.007
	Cd	114		**ug/L**		564	0.004
>	In	115		**ug/L**		131247	131246.523
	Sn	120	**3.694**	**ug/L**	0.755	11497	0.086
	Sb	121	**0.456**	**ug/L**	2.387	1481	0.007
	Sb	123		**ug/L**		1134	0.006
	Ba	135		**ug/L**		86818	0.628
	Ba	137	**111.148**	**ug/L**	1.090	148350	1.073
	Ho	165		**ug/L**		30236	0.219
>	Lu	175		**ug/L**		138227	138226.707
	Tl	205	**0.143**	**ug/L**	8.784	1712	0.004
	Pb	208	**28.849**	**ug/L**	1.077	258718	1.868
	Th	232	**22.839**	**ug/L**	1.418	267814	1.931
	U	238	**6.838**	**ug/L**	1.295	86340	0.623

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			123.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			104.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			105.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			111.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_
	Mn	55	Sample is out of limits (over linear range)

QC Action

ICPMS#4 - Summary Report

Sample ID: 245797004
Sample Date/Time: Sunday, February 14, 2010 03:20:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797004.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.659**	ug/L	4.821	9956	0.046
	Be	9	**14.195**	ug/L	10.292	1412	0.007
	B	11	**6.688**	ug/L	3.874	957	0.004
	Na	23	**461.770**	ug/L	5.215	817410	3.727
	Mg	24	**3595.832**	ug/L	3.058	3989437	18.436
	Al	27	**23190.052**	ug/L	8.539	37334425	172.452
	P	31	**229.209**	ug/L	2.999	25135	0.102
	K	39	**3039.931**	ug/L	13.069	11078024	49.864
	Ca	43	**3077.343**	ug/L	4.801	22000	0.101
>	Sc	45		ug/L		216083	216082.886
	Ti	47	**398.098**	ug/L	3.090	127674	0.591
	V	51	**26.331**	ug/L	4.638	106274	0.496
	Cr	52	**17.771**	ug/L	3.271	52102	0.244
	Cr	53		ug/L		43771	-0.131
	Mn	55	**415.308**	ug/L	3.869	2207022	10.220
	Fe	57	**16805.382**	ug/L	4.775	1823185	8.410
	Co	59	**13.069**	ug/L	4.019	52594	0.243
	Ni	60	**15.651**	ug/L	3.263	13221	0.061
	Cu	63		ug/L		1239924	5.745
	Cu	65	**688.127**	ug/L	5.474	608123	2.818
	Zn	66	**116.006**	ug/L	3.418	52596	0.269
	Zn	67		ug/L		10450	0.039
	Zn	68		ug/L		39588	0.201
>	Ge	74		ug/L		195519	195519.182
	As	75	**5.462**	ug/L	12.195	2543	0.015
	Se	77		ug/L		3100	-0.012
	Se	82	**1.524**	ug/L	12.967	128	0.000
	Kr	83		ug/L		54	0.000
	Sr	88	**29.502**	ug/L	2.890	246666	1.956
	Y	89		ug/L		243858	1.935
	Zr	90	**37.958**	ug/L	3.392	154914	1.225
	Mo	98	**1.480**	ug/L	3.868	2590	0.020
	Ag	107	**0.980**	ug/L	2.836	2867	0.022
	Cd	111	**0.838**	ug/L	14.582	595	0.005
	Cd	114		ug/L		1047	0.008
>	In	115		ug/L		126017	126016.935
	Sn	120	**2.773**	ug/L	3.159	8347	0.064
	Sb	121	**8.095**	ug/L	2.047	16738	0.129
	Sb	123		ug/L		13102	0.101
	Ba	135		ug/L		110972	0.844
	Ba	137	**148.762**	ug/L	0.193	188789	1.436
	Ho	165		ug/L		10045	0.076
>	Lu	175		ug/L		131426	131426.094
	Tl	205	**0.235**	ug/L	1.872	1990	0.007
	Pb	208	**343.203**	ug/L	0.661	2921036	22.222
	Th	232	**14.692**	ug/L	1.093	164146	1.242
	U	238	**327.698**	ug/L	1.943	3920695	29.831

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		113.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797005
Sample Date/Time: Sunday, February 14, 2010 03:26:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797005.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.561**	ug/L	1.979	8820	0.040
	Be	9	**4.132**	ug/L	2.013	419	0.002
	B	11	**5.498**	ug/L	5.633	831	0.003
	Na	23	**609.449**	ug/L	6.269	1087584	4.920
	Mg	24	**3050.714**	ug/L	4.065	3422982	15.641
	Al	27	**23132.275**	ug/L	8.967	37632306	172.022
	P	31	**356.214**	ug/L	1.803	37843	0.159
	K	39	**3258.021**	ug/L	5.006	12016812	53.441
	Ca	43	**3444.942**	ug/L	0.277	24926	0.113
>	Sc	45		ug/L		218634	218634.433
	Ti	47	**462.485**	ug/L	0.308	150160	0.686
	V	51	**29.903**	ug/L	1.160	122344	0.563
	Cr	52	**16.979**	ug/L	1.453	50374	0.233
	Cr	53		ug/L		43422	-0.135
	Mn	55	**706.584**	ug/L	1.791	3801624	17.387
	Fe	57	**22779.712**	ug/L	1.743	2499821	11.400
	Co	59	**29.660**	ug/L	2.007	120733	0.552
	Ni	60	**16.359**	ug/L	1.441	13989	0.064
	Cu	63		ug/L		612097	2.800
	Cu	65	**331.331**	ug/L	2.355	296601	1.357
	Zn	66	**188.875**	ug/L	1.011	84847	0.437
	Zn	67		ug/L		15229	0.064
	Zn	68		ug/L		62435	0.320
>	Ge	74		ug/L		193811	193810.829
	As	75	**7.164**	ug/L	4.272	3425	0.020
	Se	77		ug/L		2989	-0.012
	Se	82	**2.149**	ug/L	13.466	164	0.001
	Kr	83		ug/L		53	0.000
	Sr	88	**33.171**	ug/L	0.646	275957	2.200
	Y	89		ug/L		275539	2.198
	Zr	90	**43.252**	ug/L	0.143	175580	1.396
	Mo	98	**2.064**	ug/L	1.920	3562	0.028
	Ag	107	**1.097**	ug/L	1.793	3185	0.025
	Cd	111	**29.303**	ug/L	2.203	20063	0.160
	Cd	114		ug/L		48158	0.384
>	In	115		ug/L		125371	125371.364
	Sn	120	**1.865**	ug/L	1.731	5666	0.043
	Sb	121	**2.125**	ug/L	2.096	4744	0.034
	Sb	123		ug/L		3619	0.026
	Ba	135		ug/L		129204	0.994
	Ba	137	**176.261**	ug/L	1.353	221062	1.702
	Ho	165		ug/L		11062	0.085
>	Lu	175		ug/L		129897	129897.274
	Tl	205	**0.210**	ug/L	6.668	1871	0.006
	Pb	208	**129.719**	ug/L	0.854	1091457	8.399
	Th	232	**16.937**	ug/L	1.483	186873	1.432
	U	238	**138.973**	ug/L	1.606	1643424	12.651

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		115.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797006
Sample Date/Time: Sunday, February 14, 2010 03:32:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797006.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.862**	**ug/L**	3.287	5142	0.024
	Be	9	**1.018**	**ug/L**	8.030	103	0.000
	B	11	**2.725**	**ug/L**	7.168	498	0.001
	Na	23	**934.180**	**ug/L**	5.746	1620211	7.541
	Mg	24	**1721.138**	**ug/L**	4.477	1884120	8.824
	Al	27	**12759.400**	**ug/L**	10.266	20255912	94.885
	P	31	**125.615**	**ug/L**	7.359	14942	0.056
	K	39	**2001.799**	**ug/L**	5.982	7334485	32.835
	Ca	43	**2530.064**	**ug/L**	1.676	17888	0.083
>	Sc	45		**ug/L**		213180	213179.586
	Ti	47	**405.537**	**ug/L**	0.935	128417	0.602
	V	51	**20.216**	**ug/L**	3.316	80406	0.381
	Cr	52	**16.129**	**ug/L**	2.746	46637	0.222
	Cr	53		**ug/L**		41810	-0.137
	Mn	55	**575.876**	**ug/L**	1.017	3021498	14.171
	Fe	57	**22444.650**	**ug/L**	1.465	2401965	11.232
	Co	59	**40.538**	**ug/L**	3.217	160837	0.754
	Ni	60	**15.626**	**ug/L**	3.961	13027	0.061
	Cu	63		**ug/L**		27649	0.129
	Cu	65	**15.450**	**ug/L**	3.214	13558	0.063
	Zn	66	**70.135**	**ug/L**	0.568	31264	0.162
	Zn	67		**ug/L**		6805	0.021
	Zn	68		**ug/L**		23069	0.119
>	Ge	74		**ug/L**		191883	191883.001
	As	75	**4.572**	**ug/L**	6.715	2022	0.013
	Se	77		**ug/L**		2885	-0.013
	Se	82	**1.645**	**ug/L**	6.872	133	0.001
	Kr	83		**ug/L**		62	0.000
	Sr	88	**20.320**	**ug/L**	0.253	169759	1.348
	Y	89		**ug/L**		428303	3.403
	Zr	90	**80.482**	**ug/L**	0.490	327468	2.597
	Mo	98	**1.613**	**ug/L**	0.632	2812	0.022
	Ag	107	**0.368**	**ug/L**	2.906	1124	0.008
	Cd	111	**0.623**	**ug/L**	23.698	448	0.003
	Cd	114		**ug/L**		209	0.001
>	In	115		**ug/L**		125855	125855.051
	Sn	120	**2.438**	**ug/L**	2.112	7361	0.057
	Sb	121	**0.211**	**ug/L**	1.793	931	0.003
	Sb	123		**ug/L**		730	0.003
	Ba	135		**ug/L**		65524	0.493
	Ba	137	**87.222**	**ug/L**	0.883	112011	0.842
	Ho	165		**ug/L**		15520	0.117
>	Lu	175		**ug/L**		132974	132974.010
	Tl	205	**0.040**	**ug/L**	48.241	1240	0.001
	Pb	208	**15.821**	**ug/L**	1.166	136747	1.024
	Th	232	**18.569**	**ug/L**	0.724	209667	1.570
	U	238	**3.461**	**ug/L**	2.321	42185	0.315

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		112.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 03:38:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.825**	**ug/L**	3.008	19115	0.100
	Be	9	**53.395**	**ug/L**	2.224	4679	0.025
	B	11	**100.267**	**ug/L**	1.645	10263	0.053
	Na	23	**4698.173**	**ug/L**	3.383	7223511	37.924
	Mg	24	**5505.530**	**ug/L**	4.654	5374895	28.227
	Al	27	**5021.595**	**ug/L**	2.211	7115013	37.343
	P	31	**5018.718**	**ug/L**	0.984	429376	2.242
	K	39	**4708.877**	**ug/L**	3.282	14994062	77.239
	Ca	43	**4990.387**	**ug/L**	0.962	31378	0.164
>	Sc	45		**ug/L**		190316	190315.653
	Ti	47	**51.229**	**ug/L**	0.465	14580	0.076
	V	51	**51.765**	**ug/L**	1.770	184855	0.974
	Cr	52	**51.039**	**ug/L**	0.483	132976	0.702
	Cr	53		**ug/L**		76226	0.067
	Mn	55	**52.584**	**ug/L**	1.586	246896	1.294
	Fe	57	**5195.259**	**ug/L**	2.823	501654	2.600
	Co	59	**51.119**	**ug/L**	2.138	181079	0.951
	Ni	60	**51.967**	**ug/L**	0.740	38603	0.203
	Cu	63		**ug/L**		82145	0.431
	Cu	65	**51.206**	**ug/L**	0.849	39968	0.210
	Zn	66	**50.714**	**ug/L**	1.201	23336	0.117
	Zn	67		**ug/L**		6475	0.018
	Zn	68		**ug/L**		17244	0.086
>	Ge	74		**ug/L**		197813	197812.565
	As	75	**47.795**	**ug/L**	1.992	25623	0.132
	Se	77		**ug/L**		7460	0.010
	Se	82	**49.433**	**ug/L**	2.210	3057	0.015
	Kr	83		**ug/L**		32	0.000
	Sr	88	**49.873**	**ug/L**	1.009	411970	3.307
	Y	89		**ug/L**		176	0.001
	Zr	90	**49.077**	**ug/L**	1.154	197817	1.584
	Mo	98	**49.291**	**ug/L**	0.423	82602	0.663
	Ag	107	**49.646**	**ug/L**	0.125	139786	1.122
	Cd	111	**49.472**	**ug/L**	0.484	33631	0.270
	Cd	114		**ug/L**		81286	0.652
>	In	115		**ug/L**		124519	124519.334
	Sn	120	**50.290**	**ug/L**	0.508	145384	1.166
	Sb	121	**48.588**	**ug/L**	5.746	96878	0.773
	Sb	123		**ug/L**		74727	0.597
	Ba	135		**ug/L**		34031	0.272
	Ba	137	**48.458**	**ug/L**	2.140	58444	0.468
	Ho	165		**ug/L**		15	0.000
>	Lu	175		**ug/L**		124845	124845.453
	Tl	205	**48.475**	**ug/L**	1.166	182099	1.450
	Pb	208	**50.170**	**ug/L**	0.170	406049	3.248
	Th	232	**50.557**	**ug/L**	1.269	534428	4.274
	U	238	**52.375**	**ug/L**	3.022	595356	4.768

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	107.650				
	Be	9	106.791				
	B	11	100.267				
	Na	23	93.963				
	Mg	24	110.111				
	Al	27	99.438				
	P	31	100.374				
	K	39	94.178				
	Ca	43	99.808				
>	Sc	45		100.2			
	Ti	47	102.458				
	V	51	103.531				
	Cr	52	102.079				
	Cr	53					
	Mn	55	105.167				
	Fe	57	103.905				
	Co	59	102.238				
	Ni	60	103.933				
	Cu	63					
	Cu	65	102.411				
	Zn	66	101.429				
	Zn	67					
	Zn	68					
>	Ge	74		101.0			
	As	75	95.590				
	Se	77					
	Se	82	98.866				
	Kr	83					
	Sr	88	99.746				
	Y	89					
	Zr	90	98.153				
	Mo	98	98.581				
	Ag	107	99.292				
	Cd	111	98.945				
	Cd	114					
>	In	115		99.8			
	Sn	120	100.580				
	Sb	121	97.175				
	Sb	123					
	Ba	135					
	Ba	137	96.916				
	Ho	165					
>	Lu	175		100.9			
	Tl	205	96.951				
	Pb	208	100.341				
	Th	232	101.114				
	U	238	104.749				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Mg	24CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 03:44:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.010**	**ug/L**	52.282	24	-0.000
	Be	9	**0.008**	**ug/L**	446.065	4	0.000
	B	11	**1.659**	**ug/L**	21.337	334	0.001
	Na	23	**1.342**	**ug/L**	222.322	13340	0.011
	Mg	24	**-0.653**	**ug/L**	249.037	2334	-0.003
	Al	27	**1.200**	**ug/L**	233.138	6002	0.009
	P	31	**-1.448**	**ug/L**	107.488	2521	-0.001
	K	39	**-5.879**	**ug/L**	60.633	275639	-0.096
	Ca	43	**-2.303**	**ug/L**	178.783	119	-0.000
>	Sc	45		**ug/L**		188488	188488.096
	Ti	47	**0.044**	**ug/L**	75.664	124	0.000
	V	51	**-0.535**	**ug/L**	80.128	-2519	-0.010
	Cr	52	**0.095**	**ug/L**	15.214	-314	0.001
	Cr	53		**ug/L**		56520	-0.034
	Mn	55	**0.002**	**ug/L**	786.494	707	0.000
	Fe	57	**9.026**	**ug/L**	23.435	7847	0.005
	Co	59	**0.004**	**ug/L**	78.614	101	0.000
	Ni	60	**0.011**	**ug/L**	66.289	45	0.000
	Cu	63		**ug/L**		130	0.000
	Cu	65	**0.017**	**ug/L**	62.679	80	0.000
	Zn	66	**-0.003**	**ug/L**	588.256	113	-0.000
	Zn	67		**ug/L**		2666	-0.002
	Zn	68		**ug/L**		303	-0.000
>	Ge	74		**ug/L**		200212	200212.228
	As	75	**0.091**	**ug/L**	549.451	-361	0.000
	Se	77		**ug/L**		4745	-0.004
	Se	82	**-0.147**	**ug/L**	81.271	28	-0.000
	Kr	83		**ug/L**		32	0.000
	Sr	88	**0.006**	**ug/L**	36.793	227	0.000
	Y	89		**ug/L**		17	-0.000
	Zr	90	**0.164**	**ug/L**	12.282	1261	0.005
	Mo	98	**0.035**	**ug/L**	41.920	145	0.000
	Ag	107	**0.008**	**ug/L**	31.061	99	0.000
	Cd	111	**0.000**	**ug/L**	2196.318	20	0.000
	Cd	114		**ug/L**		59	0.000
>	In	115		**ug/L**		127921	127920.816
	Sn	120	**0.188**	**ug/L**	26.311	810	0.004
	Sb	121	**0.662**	**ug/L**	29.638	1864	0.011
	Sb	123		**ug/L**		1413	0.008
	Ba	135		**ug/L**		14	-0.000
	Ba	137	**0.011**	**ug/L**	13.029	44	0.000
	Ho	165		**ug/L**		3	0.000
>	Lu	175		**ug/L**		124416	124415.722
	Tl	205	**0.090**	**ug/L**	55.815	1346	0.003
	Pb	208	**0.011**	**ug/L**	47.204	584	0.001
	Th	232	**0.091**	**ug/L**	27.016	1812	0.008
	U	238	**0.012**	**ug/L**	15.286	413	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797007
Sample Date/Time: Sunday, February 14, 2010 03:51:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797007.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**33.534**	**ug/L**	1.665	15132	0.063
	Be	9	**2.455**	**ug/L**	1.399	277	0.001
	B	11	**10.283**	**ug/L**	2.913	1529	0.005
	Na	23	**358.235**	**ug/L**	9.211	712788	2.892
	Mg	24	**6226.967**	**ug/L**	1.149	7710628	31.925
	Al	27	**42467.758**	**ug/L**	3.291	76257549	315.809
	P	31	**178.859**	**ug/L**	1.489	22673	0.080
	K	39	**6014.968**	**ug/L**	7.642	24202805	98.663
	Ca	43	**4771.433**	**ug/L**	0.854	38057	0.157
>	Sc	45		**ug/L**		241422	241421.860
	Ti	47	**640.127**	**ug/L**	0.841	229448	0.950
	V	51	**59.103**	**ug/L**	1.152	267759	1.112
	Cr	52	**30.521**	**ug/L**	1.453	100559	0.420
	Cr	53		**ug/L**		50397	-0.125
	Mn	55	**469.703**	**ug/L**	1.226	2791653	11.558
	Fe	57	**33342.481**	**ug/L**	0.239	4037273	16.686
	Co	59	**17.664**	**ug/L**	0.425	79459	0.329
	Ni	60	**21.332**	**ug/L**	3.680	20130	0.083
	Cu	63		**ug/L**		67004	0.277
	Cu	65	**33.159**	**ug/L**	1.276	32863	0.136
	Zn	66	**85.829**	**ug/L**	0.877	39014	0.199
	Zn	67		**ug/L**		8939	0.031
	Zn	68		**ug/L**		29913	0.151
>	Ge	74		**ug/L**		195793	195793.288
	As	75	**8.689**	**ug/L**	6.856	4285	0.024
	Se	77		**ug/L**		3088	-0.012
	Se	82	**1.073**	**ug/L**	36.984	101	0.000
	Kr	83		**ug/L**		64	0.000
	Sr	88	**56.555**	**ug/L**	0.939	465121	3.750
	Y	89		**ug/L**		220183	1.776
	Zr	90	**40.449**	**ug/L**	2.184	162404	1.305
	Mo	98	**1.264**	**ug/L**	0.379	2189	0.017
	Ag	107	**0.250**	**ug/L**	6.038	775	0.006
	Cd	111	**0.428**	**ug/L**	7.231	309	0.002
	Cd	114		**ug/L**		291	0.002
>	In	115		**ug/L**		123973	123972.520
	Sn	120	**0.483**	**ug/L**	5.684	1633	0.011
	Sb	121	**0.489**	**ug/L**	5.007	1464	0.008
	Sb	123		**ug/L**		1152	0.006
	Ba	135		**ug/L**		159467	1.245
	Ba	137	**220.233**	**ug/L**	2.568	272403	2.126
	Ho	165		**ug/L**		9216	0.072
>	Lu	175		**ug/L**		128139	128138.544
	Tl	205	**0.522**	**ug/L**	1.616	3040	0.016
	Pb	208	**49.137**	**ug/L**	1.744	408102	3.182
	Th	232	**26.956**	**ug/L**	1.159	292909	2.279
	U	238	**9.384**	**ug/L**	2.361	109713	0.854

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		127.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797008
Sample Date/Time: Sunday, February 14, 2010 03:57:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797008.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.797**	ug/L	2.206	5771	0.028
	Be	9	**8.447**	ug/L	7.270	812	0.004
	B	11	**5.927**	ug/L	2.803	839	0.003
	Na	23	**392.015**	ug/L	4.470	670727	3.164
	Mg	24	**2569.684**	ug/L	2.643	2745235	13.175
	Al	27	**16557.352**	ug/L	10.443	25617770	123.128
	P	31	**317.306**	ug/L	1.409	32409	0.142
	K	39	**2937.182**	ug/L	8.077	10344908	48.178
	Ca	43	**3487.573**	ug/L	1.413	24017	0.115
>	Sc	45		ug/L		208113	208113.148
	Ti	47	**380.088**	ug/L	1.654	117496	0.564
	V	51	**20.542**	ug/L	2.661	79790	0.387
	Cr	52	**12.761**	ug/L	1.026	35888	0.175
	Cr	53		ug/L		40605	-0.138
	Mn	55	**582.056**	ug/L	2.572	2980954	14.323
	Fe	57	**14535.834**	ug/L	2.416	1521293	7.274
	Co	59	**5.243**	ug/L	2.527	20393	0.098
	Ni	60	**11.179**	ug/L	2.686	9112	0.044
	Cu	63		ug/L		80523	0.386
	Cu	65	**45.761**	ug/L	1.771	39065	0.187
	Zn	66	**103.906**	ug/L	2.179	45978	0.241
	Zn	67		ug/L		9207	0.033
	Zn	68		ug/L		35085	0.182
>	Ge	74		ug/L		190743	190743.493
	As	75	**5.555**	ug/L	2.606	2527	0.015
	Se	77		ug/L		2832	-0.013
	Se	82	**0.982**	ug/L	4.655	93	0.000
	Kr	83		ug/L		48	0.000
	Sr	88	**29.519**	ug/L	1.022	241800	1.958
	Y	89		ug/L		211210	1.711
	Zr	90	**32.013**	ug/L	1.975	128088	1.033
	Mo	98	**1.012**	ug/L	2.874	1761	0.014
	Ag	107	**0.321**	ug/L	7.305	968	0.007
	Cd	111	**1.274**	ug/L	4.177	878	0.007
	Cd	114		ug/L		1793	0.014
>	In	115		ug/L		123441	123441.495
	Sn	120	**1.283**	ug/L	1.128	3914	0.030
	Sb	121	**0.763**	ug/L	2.439	1996	0.012
	Sb	123		ug/L		1516	0.009
	Ba	135		ug/L		97029	0.740
	Ba	137	**131.660**	ug/L	1.465	166760	1.271
	Ho	165		ug/L		8296	0.063
>	Lu	175		ug/L		131173	131172.780
	Tl	205	**0.096**	ug/L	12.306	1444	0.003
	Pb	208	**49.011**	ug/L	0.403	416781	3.173
	Th	232	**11.848**	ug/L	1.534	132287	1.002
	U	238	**96.574**	ug/L	1.954	1153421	8.791

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797009
Sample Date/Time: Sunday, February 14, 2010 04:03:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797009.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**15.438**	ug/L	1.593	6268	0.029
	Be	9	**1.319**	ug/L	3.416	135	0.001
	B	11	**2.484**	ug/L	6.781	479	0.001
	Na	23	**1831.669**	ug/L	7.715	3216462	14.785
	Mg	24	**1400.535**	ug/L	3.663	1559460	7.181
	Al	27	**14172.582**	ug/L	14.502	22837547	105.394
	P	31	**165.018**	ug/L	3.385	19010	0.074
	K	39	**3759.197**	ug/L	11.792	13697009	61.662
	Ca	43	**2346.004**	ug/L	0.908	16873	0.077
>	Sc	45		ug/L		216681	216681.435
	Ti	47	**430.746**	ug/L	1.696	138610	0.639
	V	51	**17.534**	ug/L	2.019	70798	0.330
	Cr	52	**10.364**	ug/L	2.093	30224	0.142
	Cr	53		ug/L		37896	-0.159
	Mn	55	**917.085**	ug/L	2.651	4890428	22.567
	Fe	57	**17357.088**	ug/L	3.583	1889946	8.686
	Co	59	**36.488**	ug/L	1.345	147209	0.679
	Ni	60	**15.679**	ug/L	0.521	13292	0.061
	Cu	63		ug/L		37532	0.173
	Cu	65	**20.630**	ug/L	1.970	18380	0.084
	Zn	66	**94.653**	ug/L	0.811	41365	0.219
	Zn	67		ug/L		8415	0.030
	Zn	68		ug/L		31181	0.164
>	Ge	74		ug/L		188289	188289.301
	As	75	**7.744**	ug/L	7.768	3628	0.021
	Se	77		ug/L		2768	-0.013
	Se	82	**0.865**	ug/L	26.590	85	0.000
	Kr	83		ug/L		81	0.000
	Sr	88	**21.038**	ug/L	0.774	173436	1.395
	Y	89		ug/L		714463	5.753
	Zr	90	**93.188**	ug/L	2.750	374160	3.008
	Mo	98	**2.809**	ug/L	1.560	4771	0.038
	Ag	107	**0.466**	ug/L	2.183	1384	0.011
	Cd	111	**1.028**	ug/L	20.946	717	0.006
	Cd	114		ug/L		456	0.003
>	In	115		ug/L		124205	124204.855
	Sn	120	**3.232**	ug/L	1.220	9551	0.075
	Sb	121	**0.366**	ug/L	6.455	1223	0.006
	Sb	123		ug/L		937	0.004
	Ba	135		ug/L		111249	0.825
	Ba	137	**146.301**	ug/L	1.400	190569	1.412
	Ho	165		ug/L		28934	0.214
>	Lu	175		ug/L		134909	134909.075
	Tl	205	**0.049**	ug/L	14.186	1294	0.001
	Pb	208	**29.855**	ug/L	2.135	261286	1.933
	Th	232	**26.728**	ug/L	2.936	305745	2.260
	U	238	**8.110**	ug/L	1.951	99882	0.738

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.1			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797010
Sample Date/Time: Sunday, February 14, 2010 04:09:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797010.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.586**	**ug/L**	1.655	21271	0.078
	Be	9	**3.527**	**ug/L**	10.082	449	0.002
	B	11	**11.602**	**ug/L**	4.521	1926	0.006
	Na	23	**385.278**	**ug/L**	2.756	867943	3.110
	Mg	24	**8533.761**	**ug/L**	3.148	11986859	43.752
	Al	27	**59241.667**	**ug/L**	9.333	120542532	440.548
	P	31	**217.391**	**ug/L**	3.024	30427	0.097
	K	39	**6332.770**	**ug/L**	3.335	28873521	103.876
	Ca	43	**8268.680**	**ug/L**	0.744	74665	0.272
>	Sc	45		**ug/L**		273811	273811.222
	Ti	47	**576.892**	**ug/L**	1.370	234560	0.856
	V	51	**63.084**	**ug/L**	2.496	324231	1.187
	Cr	52	**35.268**	**ug/L**	2.625	131946	0.485
	Cr	53		**ug/L**		51671	-0.145
	Mn	55	**543.788**	**ug/L**	0.601	3665125	13.381
	Fe	57	**44287.168**	**ug/L**	2.359	6080065	22.163
	Co	59	**19.121**	**ug/L**	1.988	97567	0.356
	Ni	60	**28.655**	**ug/L**	1.299	30654	0.112
	Cu	63		**ug/L**		104800	0.382
	Cu	65	**45.469**	**ug/L**	0.773	51082	0.186
	Zn	66	**129.966**	**ug/L**	1.026	60632	0.301
	Zn	67		**ug/L**		12495	0.047
	Zn	68		**ug/L**		46884	0.231
>	Ge	74		**ug/L**		201127	201126.717
	As	75	**11.262**	**ug/L**	3.539	5825	0.031
	Se	77		**ug/L**		3134	-0.012
	Se	82	**1.725**	**ug/L**	4.686	144	0.001
	Kr	83		**ug/L**		93	0.000
	Sr	88	**98.127**	**ug/L**	1.529	828608	6.507
	Y	89		**ug/L**		446071	3.504
	Zr	90	**82.312**	**ug/L**	0.781	338770	2.657
	Mo	98	**2.041**	**ug/L**	3.183	3577	0.027
	Ag	107	**0.501**	**ug/L**	1.539	1518	0.011
	Cd	111	**0.936**	**ug/L**	14.961	670	0.005
	Cd	114		**ug/L**		651	0.005
>	In	115		**ug/L**		127311	127311.078
	Sn	120	**0.497**	**ug/L**	1.719	1719	0.012
	Sb	121	**0.343**	**ug/L**	4.366	1209	0.005
	Sb	123		**ug/L**		951	0.004
	Ba	135		**ug/L**		260571	1.955
	Ba	137	**345.337**	**ug/L**	1.187	444467	3.334
	Ho	165		**ug/L**		16635	0.125
>	Lu	175		**ug/L**		133305	133305.414
	Tl	205	**0.454**	**ug/L**	3.444	2895	0.014
	Pb	208	**44.399**	**ug/L**	0.727	383754	2.875
	Th	232	**28.677**	**ug/L**	0.371	324106	2.424
	U	238	**21.953**	**ug/L**	0.703	266691	1.998

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		144.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

ICPMS#4 - Summary Report

Sample ID: 245797011
Sample Date/Time: Sunday, February 14, 2010 04:15:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797011.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**25.498**	**ug/L**	0.474	13244	0.048
	Be	9	**8.377**	**ug/L**	1.193	1075	0.004
	B	11	**14.170**	**ug/L**	3.513	2330	0.007
	Na	23	**334.153**	**ug/L**	14.716	767811	2.697
	Mg	24	**6047.707**	**ug/L**	3.770	8609535	31.006
	Al	27	**39482.427**	**ug/L**	6.173	81619408	293.609
	P	31	**643.065**	**ug/L**	3.819	83637	0.287
	K	39	**6784.475**	**ug/L**	12.059	31315032	111.285
	Ca	43	**10548.001**	**ug/L**	4.290	96525	0.347
>	Sc	45		**ug/L**		277728	277728.207
	Ti	47	**705.806**	**ug/L**	0.879	290979	1.047
	V	51	**51.539**	**ug/L**	3.713	268506	0.970
	Cr	52	**27.557**	**ug/L**	2.310	104349	0.379
	Cr	53		**ug/L**		50411	-0.152
	Mn	55	**1058.968**	**ug/L**	2.431	7235004	26.059
	Fe	57	**28060.346**	**ug/L**	1.291	3909331	14.042
	Co	59	**16.542**	**ug/L**	1.388	85597	0.308
	Ni	60	**24.082**	**ug/L**	2.691	26125	0.094
	Cu	63		**ug/L**		927532	3.340
	Cu	65	**403.713**	**ug/L**	0.313	459241	1.653
	Zn	66	**197.343**	**ug/L**	1.586	99705	0.457
	Zn	67		**ug/L**		18191	0.069
	Zn	68		**ug/L**		74277	0.339
>	Ge	74		**ug/L**		218003	218003.481
	As	75	**9.908**	**ug/L**	4.645	5501	0.027
	Se	77		**ug/L**		3614	-0.011
	Se	82	**0.963**	**ug/L**	11.844	105	0.000
	Kr	83		**ug/L**		91	0.000
	Sr	88	**104.215**	**ug/L**	0.721	939407	6.911
	Y	89		**ug/L**		396497	2.917
	Zr	90	**52.521**	**ug/L**	0.291	230978	1.695
	Mo	98	**2.636**	**ug/L**	1.873	4907	0.035
	Ag	107	**1.072**	**ug/L**	2.882	3376	0.024
	Cd	111	**3.462**	**ug/L**	3.254	2589	0.019
	Cd	114		**ug/L**		5459	0.040
>	In	115		**ug/L**		135897	135896.799
	Sn	120	**2.407**	**ug/L**	3.239	7849	0.056
	Sb	121	**3.807**	**ug/L**	0.968	8780	0.061
	Sb	123		**ug/L**		6810	0.047
	Ba	135		**ug/L**		291237	2.125
	Ba	137	**374.696**	**ug/L**	0.522	495742	3.617
	Ho	165		**ug/L**		15283	0.112
>	Lu	175		**ug/L**		137033	137033.487
	Tl	205	**0.436**	**ug/L**	7.729	2900	0.013
	Pb	208	**381.692**	**ug/L**	1.055	3387058	24.714
	Th	232	**20.786**	**ug/L**	0.381	241748	1.757
	U	238	**230.875**	**ug/L**	0.726	2880345	21.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		146.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		111.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_
	Mn	55	Sample is out of limits (over linear range)

QC Action

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 04:21:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.764**	**ug/L**	1.820	21038	0.091
	Be	9	**48.871**	**ug/L**	1.437	5200	0.022
	B	11	**92.458**	**ug/L**	1.623	11509	0.049
	Na	23	**4661.292**	**ug/L**	10.139	8703057	37.627
	Mg	24	**4916.979**	**ug/L**	3.996	5825776	25.209
	Al	27	**5217.080**	**ug/L**	4.203	8969012	38.797
	P	31	**4906.713**	**ug/L**	2.655	509664	2.192
	K	39	**4975.350**	**ug/L**	0.932	19213630	81.610
	Ca	43	**5026.838**	**ug/L**	0.510	38363	0.165
>	Sc	45		**ug/L**		231034	231033.700
	Ti	47	**53.534**	**ug/L**	1.624	18487	0.079
	V	51	**50.363**	**ug/L**	1.365	218258	0.948
	Cr	52	**50.703**	**ug/L**	1.617	160343	0.697
	Cr	53		**ug/L**		85885	0.038
	Mn	55	**54.568**	**ug/L**	4.361	310970	1.343
	Fe	57	**5124.444**	**ug/L**	3.070	600899	2.564
	Co	59	**50.185**	**ug/L**	1.551	215815	0.934
	Ni	60	**51.072**	**ug/L**	2.221	46062	0.199
	Cu	63		**ug/L**		101791	0.440
	Cu	65	**51.839**	**ug/L**	1.818	49117	0.212
	Zn	66	**51.413**	**ug/L**	0.767	27543	0.119
	Zn	67		**ug/L**		7115	0.016
	Zn	68		**ug/L**		20091	0.086
>	Ge	74		**ug/L**		230309	230309.342
	As	75	**48.200**	**ug/L**	2.642	30097	0.133
	Se	77		**ug/L**		9086	0.012
	Se	82	**47.189**	**ug/L**	2.765	3400	0.015
	Kr	83		**ug/L**		32	-0.000
	Sr	88	**52.112**	**ug/L**	1.033	478585	3.456
	Y	89		**ug/L**		1538	0.011
	Zr	90	**50.482**	**ug/L**	1.307	226187	1.629
	Mo	98	**51.342**	**ug/L**	1.057	95653	0.690
	Ag	107	**51.077**	**ug/L**	1.748	159879	1.154
	Cd	111	**50.270**	**ug/L**	1.245	37997	0.274
	Cd	114		**ug/L**		90468	0.653
>	In	115		**ug/L**		138442	138442.180
	Sn	120	**50.482**	**ug/L**	1.262	162255	1.170
	Sb	121	**48.423**	**ug/L**	6.935	107263	0.771
	Sb	123		**ug/L**		81482	0.585
	Ba	135		**ug/L**		38219	0.298
	Ba	137	**52.858**	**ug/L**	1.148	65379	0.510
	Ho	165		**ug/L**		60	0.000
>	Lu	175		**ug/L**		128059	128058.707
	Tl	205	**47.685**	**ug/L**	0.911	183747	1.427
	Pb	208	**50.684**	**ug/L**	1.553	420753	3.282
	Th	232	**49.558**	**ug/L**	0.536	537410	4.190
	U	238	**51.748**	**ug/L**	1.818	603560	4.711

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	97.528				
	Be	9	97.742				
	B	11	92.458				
	Na	23	93.226				
	Mg	24	98.340				
	Al	27	103.309				
	P	31	98.134				
	K	39	99.507				
	Ca	43	100.537				
>	Sc	45		121.6			
	Ti	47	107.068				
	V	51	100.727				
	Cr	52	101.407				
	Cr	53					
	Mn	55	109.136				
	Fe	57	102.489				
	Co	59	100.370				
	Ni	60	102.144				
	Cu	63					
	Cu	65	103.678				
	Zn	66	102.827				
	Zn	67					
	Zn	68					
>	Ge	74		117.5			
	As	75	96.401				
	Se	77					
	Se	82	94.379				
	Kr	83					
	Sr	88	104.224				
	Y	89					
	Zr	90	100.964				
	Mo	98	102.685				
	Ag	107	102.154				
	Cd	111	100.540				
	Cd	114					
>	In	115		110.9			
	Sn	120	100.964				
	Sb	121	96.845				
	Sb	123					
	Ba	135					
	Ba	137	105.717				
	Ho	165					
>	Lu	175		103.5			
	Tl	205	95.370				
	Pb	208	101.368				
	Th	232	99.115				
	U	238	103.497				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 04:28:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.093**	ug/L	42.115	71	0.000
	Be	9	**0.128**	ug/L	88.827	17	0.000
	B	11	**2.091**	ug/L	32.081	447	0.001
	Na	23	**12.589**	ug/L	29.013	36046	0.102
	Mg	24	**15.616**	ug/L	79.280	21354	0.080
	Al	27	**23.478**	ug/L	35.569	44072	0.175
	P	31	**9.029**	ug/L	95.974	4035	0.004
	K	39	**6.679**	ug/L	186.845	372842	0.110
	Ca	43	**8.642**	ug/L	52.541	222	0.000
>	Sc	45		ug/L		223764	223763.526
	Ti	47	**0.379**	ug/L	22.471	258	0.001
	V	51	**0.005**	ug/L	6178.638	-706	0.000
	Cr	52	**0.695**	ug/L	13.878	1472	0.010
	Cr	53		ug/L		63112	-0.051
	Mn	55	**0.399**	ug/L	25.001	3022	0.010
	Fe	57	**28.612**	ug/L	41.737	11499	0.014
	Co	59	**0.107**	ug/L	59.340	548	0.002
	Ni	60	**0.118**	ug/L	56.562	147	0.000
	Cu	63		ug/L		567	0.002
	Cu	65	**0.211**	ug/L	47.811	272	0.001
	Zn	66	**0.172**	ug/L	59.236	224	0.000
	Zn	67		ug/L		2660	-0.003
	Zn	68		ug/L		395	0.000
>	Ge	74		ug/L		230289	230288.983
	As	75	**-0.118**	ug/L	234.883	-546	-0.000
	Se	77		ug/L		5692	-0.003
	Se	82	**0.004**	ug/L	7981.241	43	0.000
	Kr	83		ug/L		35	-0.000
	Sr	88	**0.131**	ug/L	48.438	1425	0.009
	Y	89		ug/L		113	0.001
	Zr	90	**0.345**	ug/L	36.058	2227	0.011
	Mo	98	**0.229**	ug/L	61.052	532	0.003
	Ag	107	**0.102**	ug/L	55.848	414	0.002
	Cd	111	**0.099**	ug/L	36.397	99	0.001
	Cd	114		ug/L		235	0.001
>	In	115		ug/L		141364	141364.432
	Sn	120	**0.545**	ug/L	35.578	2071	0.013
	Sb	121	**3.621**	ug/L	56.129	8767	0.058
	Sb	123		ug/L		6713	0.044
	Ba	135		ug/L		165	0.001
	Ba	137	**0.194**	ug/L	33.117	274	0.002
	Ho	165		ug/L		5	0.000
>	Lu	175		ug/L		128673	128672.541
	Tl	205	**0.404**	ug/L	62.746	2606	0.012
	Pb	208	**0.186**	ug/L	38.820	2069	0.012
	Th	232	**0.235**	ug/L	51.021	3451	0.020
	U	238	**0.171**	ug/L	39.508	2296	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		117.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		117.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		113.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.0			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Mg	24	CCB is out of limts (+/- PQL)
QC Std 7	Sb	121	CCB is out of limts (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797012
Sample Date/Time: Sunday, February 14, 2010 04:34:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797012.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.588**	ug/L	1.247	13247	0.046
	Be	9	**1.813**	ug/L	6.426	245	0.001
	B	11	**5.297**	ug/L	2.501	1065	0.003
	Na	23	**865.270**	ug/L	7.425	2030880	6.985
	Mg	24	**4182.570**	ug/L	8.560	6189619	21.444
	Al	27	**26660.551**	ug/L	5.098	57093868	198.260
	P	31	**117.848**	ug/L	3.692	19192	0.053
	K	39	**3418.860**	ug/L	12.565	16573083	56.079
	Ca	43	**4386.189**	ug/L	1.062	41760	0.144
>	Sc	45		ug/L		288060	288059.830
	Ti	47	**525.586**	ug/L	0.940	224825	0.780
	V	51	**35.195**	ug/L	0.303	189870	0.662
	Cr	52	**26.637**	ug/L	2.676	104578	0.366
	Cr	53		ug/L		54410	-0.145
	Mn	55	**782.274**	ug/L	3.552	5543115	19.250
	Fe	57	**35599.898**	ug/L	3.549	5139737	17.815
	Co	59	**37.597**	ug/L	3.596	201536	0.700
	Ni	60	**30.174**	ug/L	3.154	33937	0.118
	Cu	63		ug/L		60802	0.211
	Cu	65	**25.242**	ug/L	3.065	29863	0.103
	Zn	66	**137.498**	ug/L	2.307	72251	0.318
	Zn	67		ug/L		13956	0.047
	Zn	68		ug/L		53782	0.236
>	Ge	74		ug/L		226631	226631.066
	As	75	**6.554**	ug/L	7.505	3628	0.018
	Se	77		ug/L		3876	-0.011
	Se	82	**1.235**	ug/L	34.864	128	0.000
	Kr	83		ug/L		98	0.000
	Sr	88	**45.637**	ug/L	1.122	427714	3.026
	Y	89		ug/L		731942	5.182
	Zr	90	**95.415**	ug/L	0.781	435672	3.079
	Mo	98	**3.553**	ug/L	0.697	6842	0.048
	Ag	107	**0.450**	ug/L	2.531	1523	0.010
	Cd	111	**0.771**	ug/L	15.972	617	0.004
	Cd	114		ug/L		147	0.001
>	In	115		ug/L		141271	141271.440
	Sn	120	**5.066**	ug/L	2.281	16865	0.117
	Sb	121	**0.685**	ug/L	27.237	2109	0.011
	Sb	123		ug/L		1611	0.008
	Ba	135		ug/L		205426	1.426
	Ba	137	**251.417**	ug/L	2.234	349590	2.427
	Ho	165		ug/L		29069	0.202
>	Lu	175		ug/L		144032	144031.931
	Tl	205	**0.362**	ug/L	23.116	2729	0.011
	Pb	208	**16.499**	ug/L	0.236	154441	1.068
	Th	232	**24.852**	ug/L	1.200	303587	2.101
	U	238	**2.529**	ug/L	1.693	33472	0.230

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45			151.6		
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74			115.7		
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Zr	90					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115			113.2		
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175			116.5		
Tl	205					
Pb	208					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797013
Sample Date/Time: Sunday, February 14, 2010 04:40:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797013.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**27.062**	ug/L	0.872	13815	0.050
	Be	9	**3.866**	ug/L	6.419	490	0.002
	B	11	**8.358**	ug/L	1.896	1451	0.004
	Na	23	**452.619**	ug/L	14.424	1012707	3.654
	Mg	24	**5058.983**	ug/L	1.406	7084246	25.937
	Al	27	**34024.743**	ug/L	7.192	69108404	253.023
	P	31	**286.081**	ug/L	1.196	38704	0.128
	K	39	**4956.388**	ug/L	10.756	22610515	81.299
	Ca	43	**6287.006**	ug/L	2.053	56632	0.207
>	Sc	45		ug/L		272977	272977.302
	Ti	47	**660.397**	ug/L	1.266	267629	0.980
	V	51	**46.315**	ug/L	0.646	237062	0.872
	Cr	52	**26.706**	ug/L	0.432	99399	0.367
	Cr	53		ug/L		49283	-0.153
	Mn	55	**977.416**	ug/L	1.386	6566071	24.052
	Fe	57	**31207.134**	ug/L	0.803	4273019	15.617
	Co	59	**13.618**	ug/L	0.582	69294	0.253
	Ni	60	**23.548**	ug/L	2.088	25119	0.092
	Cu	63		ug/L		225392	0.825
	Cu	65	**97.505**	ug/L	0.694	109091	0.399
	Zn	66	**151.113**	ug/L	1.320	77257	0.350
	Zn	67		ug/L		14428	0.051
	Zn	68		ug/L		58109	0.262
>	Ge	74		ug/L		220491	220491.445
	As	75	**9.002**	ug/L	11.031	5011	0.025
	Se	77		ug/L		3321	-0.013
	Se	82	**0.896**	ug/L	18.786	102	0.000
	Kr	83		ug/L		86	0.000
	Sr	88	**70.372**	ug/L	1.209	646783	4.667
	Y	89		ug/L		516989	3.731
	Zr	90	**79.440**	ug/L	1.755	355865	2.564
	Mo	98	**2.134**	ug/L	2.933	4066	0.029
	Ag	107	**0.709**	ug/L	2.496	2305	0.016
	Cd	111	**1.627**	ug/L	10.637	1252	0.009
	Cd	114		ug/L		1792	0.013
>	In	115		ug/L		138563	138562.580
	Sn	120	**1.299**	ug/L	2.555	4446	0.030
	Sb	121	**1.187**	ug/L	1.911	3177	0.019
	Sb	123		ug/L		2425	0.014
	Ba	135		ug/L		233756	1.686
	Ba	137	**297.196**	ug/L	1.012	397726	2.869
	Ho	165		ug/L		19434	0.140
>	Lu	175		ug/L		138611	138610.955
	Tl	205	**0.321**	ug/L	18.273	2455	0.010
	Pb	208	**97.233**	ug/L	1.055	873166	6.296
	Th	232	**25.239**	ug/L	1.615	296711	2.134
	U	238	**58.925**	ug/L	1.673	743776	5.364

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			143.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			112.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			111.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			112.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797014
Sample Date/Time: Sunday, February 14, 2010 04:46:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797014.244

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.055**	**ug/L**	2.766	10807	0.041
	Be	9	**3.324**	**ug/L**	4.533	405	0.002
	B	11	**10.764**	**ug/L**	1.987	1726	0.006
	Na	23	**298.613**	**ug/L**	9.646	647086	2.410
	Mg	24	**5140.385**	**ug/L**	2.539	6905892	26.355
	Al	27	**31298.291**	**ug/L**	8.513	60966322	232.748
	P	31	**437.027**	**ug/L**	1.105	54794	0.195
	K	39	**5468.565**	**ug/L**	10.391	23884347	89.700
	Ca	43	**7421.928**	**ug/L**	1.878	64111	0.244
>	Sc	45		**ug/L**		261911	261910.588
	Ti	47	**572.674**	**ug/L**	1.336	222698	0.850
	V	51	**40.841**	**ug/L**	2.524	200434	0.769
	Cr	52	**20.941**	**ug/L**	1.773	74603	0.288
	Cr	53		**ug/L**		45069	-0.161
	Mn	55	**840.541**	**ug/L**	2.457	5418019	20.684
	Fe	57	**22842.155**	**ug/L**	1.374	3003361	11.431
	Co	59	**12.267**	**ug/L**	1.541	59896	0.228
	Ni	60	**16.957**	**ug/L**	1.142	17372	0.066
	Cu	63		**ug/L**		171481	0.654
	Cu	65	**78.070**	**ug/L**	0.616	83825	0.320
	Zn	66	**131.039**	**ug/L**	2.368	65771	0.303
	Zn	67		**ug/L**		12856	0.045
	Zn	68		**ug/L**		51003	0.234
>	Ge	74		**ug/L**		216434	216433.718
	As	75	**7.707**	**ug/L**	0.363	4150	0.021
	Se	77		**ug/L**		3237	-0.013
	Se	82	**0.743**	**ug/L**	20.658	89	0.000
	Kr	83		**ug/L**		68	0.000
	Sr	88	**75.478**	**ug/L**	1.112	673155	5.005
	Y	89		**ug/L**		305556	2.272
	Zr	90	**42.050**	**ug/L**	0.852	183087	1.357
	Mo	98	**1.400**	**ug/L**	2.188	2620	0.019
	Ag	107	**0.347**	**ug/L**	5.385	1136	0.008
	Cd	111	**2.176**	**ug/L**	5.318	1617	0.012
	Cd	114		**ug/L**		3292	0.024
>	In	115		**ug/L**		134466	134465.538
	Sn	120	**0.905**	**ug/L**	5.495	3083	0.021
	Sb	121	**0.906**	**ug/L**	1.821	2481	0.014
	Sb	123		**ug/L**		1914	0.011
	Ba	135		**ug/L**		249668	1.822
	Ba	137	**321.202**	**ug/L**	0.770	424965	3.101
	Ho	165		**ug/L**		12044	0.088
>	Lu	175		**ug/L**		137033	137033.163
	Tl	205	**0.283**	**ug/L**	5.923	2272	0.008
	Pb	208	**88.155**	**ug/L**	0.517	782712	5.708
	Th	232	**18.353**	**ug/L**	1.255	213554	1.552
	U	238	**108.247**	**ug/L**	1.171	1350550	9.854

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		137.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		110.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		107.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: 245797015
Sample Date/Time: Sunday, February 14, 2010 04:52:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\245797015.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**27.224**	ug/L	1.170	13307	0.051
	Be	9	**4.949**	ug/L	3.159	600	0.002
	B	11	**12.248**	ug/L	0.298	1928	0.006
	Na	23	**237.200**	ug/L	8.833	516924	1.915
	Mg	24	**5429.746**	ug/L	6.523	7274016	27.838
	Al	27	**31872.080**	ug/L	8.730	61959259	237.015
	P	31	**530.813**	ug/L	1.695	65656	0.237
	K	39	**6366.840**	ug/L	2.779	27705842	104.435
	Ca	43	**9054.550**	ug/L	2.879	78017	0.298
>	Sc	45		ug/L		261436	261436.113
	Ti	47	**557.403**	ug/L	2.606	216292	0.827
	V	51	**44.427**	ug/L	3.495	217634	0.836
	Cr	52	**27.154**	ug/L	2.974	96761	0.373
	Cr	53		ug/L		48183	-0.149
	Mn	55	**746.215**	ug/L	1.616	4800485	18.363
	Fe	57	**26937.815**	ug/L	1.760	3533228	13.481
	Co	59	**12.028**	ug/L	2.359	58607	0.224
	Ni	60	**21.243**	ug/L	2.661	21703	0.083
	Cu	63		ug/L		454824	1.740
	Cu	65	**206.184**	ug/L	2.851	220712	0.844
	Zn	66	**166.164**	ug/L	3.754	83962	0.385
	Zn	67		ug/L		15462	0.056
	Zn	68		ug/L		62724	0.286
>	Ge	74		ug/L		218053	218052.786
	As	75	**8.438**	ug/L	3.539	4622	0.023
	Se	77		ug/L		3327	-0.012
	Se	82	**0.750**	ug/L	36.045	91	0.000
	Kr	83		ug/L		68	0.000
	Sr	88	**85.145**	ug/L	1.434	774050	5.646
	Y	89		ug/L		345199	2.519
	Zr	90	**53.646**	ug/L	1.446	237897	1.731
	Mo	98	**1.886**	ug/L	4.263	3567	0.025
	Ag	107	**0.513**	ug/L	1.501	1670	0.012
	Cd	111	**2.663**	ug/L	2.137	2013	0.015
	Cd	114		ug/L		4037	0.029
>	In	115		ug/L		137052	137052.410
	Sn	120	**1.167**	ug/L	0.361	3977	0.027
	Sb	121	**1.286**	ug/L	4.675	3358	0.020
	Sb	123		ug/L		2571	0.016
	Ba	135		ug/L		230862	1.699
	Ba	137	**297.915**	ug/L	3.072	390897	2.876
	Ho	165		ug/L		13364	0.098
>	Lu	175		ug/L		135943	135943.235
	Tl	205	**0.265**	ug/L	8.459	2184	0.008
	Pb	208	**149.362**	ug/L	1.901	1314973	9.671
	Th	232	**18.047**	ug/L	1.755	208322	1.526
	U	238	**158.640**	ug/L	0.896	1963325	14.441

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		137.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		111.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		109.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Sc	45	
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 04:59:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.317**	**ug/L**	1.100	21406	0.092
	Be	9	**48.987**	**ug/L**	1.643	5244	0.023
	B	11	**93.961**	**ug/L**	2.798	11761	0.050
	Na	23	**4781.285**	**ug/L**	14.656	8986824	38.595
	Mg	24	**4994.390**	**ug/L**	3.044	5955618	25.606
	Al	27	**5437.477**	**ug/L**	2.677	9401871	40.436
	P	31	**4879.849**	**ug/L**	1.936	509845	2.180
	K	39	**5028.981**	**ug/L**	6.911	19532088	82.490
	Ca	43	**5022.108**	**ug/L**	1.211	38553	0.165
>	Sc	45		**ug/L**		232422	232421.508
	Ti	47	**53.431**	**ug/L**	0.224	18564	0.079
	V	51	**50.113**	**ug/L**	5.117	218453	0.943
	Cr	52	**50.343**	**ug/L**	2.654	160143	0.692
	Cr	53		**ug/L**		86284	0.038
	Mn	55	**53.721**	**ug/L**	1.954	308072	1.322
	Fe	57	**5086.745**	**ug/L**	2.414	600190	2.546
	Co	59	**49.343**	**ug/L**	2.200	213475	0.918
	Ni	60	**50.757**	**ug/L**	1.107	46051	0.198
	Cu	63		**ug/L**		101307	0.435
	Cu	65	**51.649**	**ug/L**	2.250	49236	0.211
	Zn	66	**52.029**	**ug/L**	1.637	27943	0.120
	Zn	67		**ug/L**		7239	0.016
	Zn	68		**ug/L**		20169	0.086
>	Ge	74		**ug/L**		230932	230931.525
	As	75	**48.546**	**ug/L**	3.324	30402	0.134
	Se	77		**ug/L**		9131	0.012
	Se	82	**48.677**	**ug/L**	4.946	3513	0.015
	Kr	83		**ug/L**		30	-0.000
	Sr	88	**52.842**	**ug/L**	0.752	486360	3.504
	Y	89		**ug/L**		1435	0.010
	Zr	90	**50.639**	**ug/L**	2.722	227373	1.634
	Mo	98	**51.140**	**ug/L**	1.537	95488	0.688
	Ag	107	**51.104**	**ug/L**	1.977	160305	1.155
	Cd	111	**50.007**	**ug/L**	1.115	37881	0.273
	Cd	114		**ug/L**		91033	0.656
>	In	115		**ug/L**		138746	138746.248
	Sn	120	**50.552**	**ug/L**	0.361	162828	1.172
	Sb	121	**48.961**	**ug/L**	5.931	108689	0.779
	Sb	123		**ug/L**		83433	0.598
	Ba	135		**ug/L**		38046	0.296
	Ba	137	**52.899**	**ug/L**	1.811	65678	0.511
	Ho	165		**ug/L**		61	0.000
>	Lu	175		**ug/L**		128568	128568.093
	Tl	205	**47.586**	**ug/L**	1.968	184053	1.424
	Pb	208	**50.608**	**ug/L**	1.549	421728	3.277
	Th	232	**50.524**	**ug/L**	2.956	549888	4.272
	U	238	**52.096**	**ug/L**	2.356	609842	4.742

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.635				
	Be	9	97.973				
	B	11	93.961				
	Na	23	95.626				
	Mg	24	99.888				
	Al	27	107.673				
	P	31	97.597				
	K	39	100.580				
	Ca	43	100.442				
>	Sc	45		122.3			
	Ti	47	106.861				
	V	51	100.225				
	Cr	52	100.686				
	Cr	53					
	Mn	55	107.441				
	Fe	57	101.735				
	Co	59	98.685				
	Ni	60	101.513				
	Cu	63					
	Cu	65	103.298				
	Zn	66	104.058				
	Zn	67					
	Zn	68					
>	Ge	74		117.9			
	As	75	97.093				
	Se	77					
	Se	82	97.354				
	Kr	83					
	Sr	88	105.683				
	Y	89					
	Zr	90	101.277				
	Mo	98	102.280				
	Ag	107	102.208				
	Cd	111	100.014				
	Cd	114					
>	In	115		111.2			
	Sn	120	101.104				
	Sb	121	97.922				
	Sb	123					
	Ba	135					
	Ba	137	105.798				
	Ho	165					
>	Lu	175		103.9			
	Tl	205	95.172				
	Pb	208	101.217				
	Th	232	101.049				
	U	238	104.191				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 05:05:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.247

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.078**	ug/L	68.147	65	0.000
	Be	9	**0.062**	ug/L	63.587	10	0.000
	B	11	**1.986**	ug/L	32.078	441	0.001
	Na	23	**7.220**	ug/L	99.847	26696	0.058
	Mg	24	**12.134**	ug/L	25.704	17678	0.062
	Al	27	**28.633**	ug/L	18.374	53435	0.213
	P	31	**8.006**	ug/L	101.069	3990	0.004
	K	39	**5.306**	ug/L	103.102	373151	0.087
	Ca	43	**12.587**	ug/L	40.492	255	0.000
>	Sc	45		ug/L		226867	226867.259
	Ti	47	**0.686**	ug/L	3.814	365	0.001
	V	51	**0.516**	ug/L	43.747	1452	0.010
	Cr	52	**0.687**	ug/L	31.072	1465	0.009
	Cr	53		ug/L		63199	-0.055
	Mn	55	**0.651**	ug/L	9.896	4474	0.016
	Fe	57	**35.543**	ug/L	6.723	12455	0.018
	Co	59	**0.090**	ug/L	52.931	484	0.002
	Ni	60	**0.110**	ug/L	58.062	142	0.000
	Cu	63		ug/L		589	0.002
	Cu	65	**0.242**	ug/L	19.176	305	0.001
	Zn	66	**0.181**	ug/L	18.265	230	0.000
	Zn	67		ug/L		2705	-0.003
	Zn	68		ug/L		382	-0.000
>	Ge	74		ug/L		232336	232335.812
	As	75	**-0.084**	ug/L	270.837	-529	-0.000
	Se	77		ug/L		5727	-0.003
	Se	82	**0.050**	ug/L	22.618	46	0.000
	Kr	83		ug/L		37	0.000
	Sr	88	**0.127**	ug/L	31.181	1386	0.008
	Y	89		ug/L		251	0.002
	Zr	90	**0.348**	ug/L	35.194	2243	0.011
	Mo	98	**0.204**	ug/L	68.028	484	0.003
	Ag	107	**0.076**	ug/L	54.734	330	0.002
	Cd	111	**0.062**	ug/L	45.963	70	0.000
	Cd	114		ug/L		181	0.001
>	In	115		ug/L		141859	141858.564
	Sn	120	**0.543**	ug/L	37.523	2068	0.013
	Sb	121	**3.710**	ug/L	58.797	8970	0.059
	Sb	123		ug/L		6880	0.045
	Ba	135		ug/L		228	0.002
	Ba	137	**0.304**	ug/L	13.230	410	0.003
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		128869	128869.280
	Tl	205	**0.374**	ug/L	64.085	2488	0.011
	Pb	208	**0.167**	ug/L	23.958	1902	0.011
	Th	232	**0.217**	ug/L	57.440	3245	0.018
	U	238	**0.195**	ug/L	21.942	2564	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			119.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			118.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			113.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 7	Sb	121CCB is out of limts (+/- PQL)

QC Action

QC Action Line: Continue

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, February 15, 2010 10:23:14
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.322
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1273.5	1273.457	32.442	2.5
	Mg	24.0	16319.5	16319.517	146.321	0.9
	Co	58.9	46747.8	46747.764	239.185	0.5
	Rh	102.9	88809.0	88809.012	862.537	1.0
	In	114.9	127527.5	127527.510	960.845	0.8
	Pb	208.0	53547.2	53547.180	666.520	1.2
⌈>	Ba	137.9	100876.4	100876.398	806.090	0.8
⌊	Ba++	69.0	1172.5	0.012	0.000	2.5
⌈>	Ce	139.9	116041.6	116041.600	560.284	0.5
⌊	CeO	155.9	2791.4	0.024	0.001	2.3
	Bkgd	220.0	2.9	2.900	1.294	44.6

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.5	1058.4
Co	59	17	5.0	30831.6
In	115	17	5.8	90782.9

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	607	2060	0.710
Be	9.0	9.1	2052	2045	0.730
Mg	24.0	23.9	5674	2065	0.719
Mg	25.0	25.0	5949	2080	0.753
Mg	26.0	26.0	6166	2085	0.664
Co	58.9	58.9	14182	2140	0.659
Rh	102.9	102.9	24865	2230	0.672
In	114.9	114.9	27789	2255	0.686
Ce	139.9	139.9	33863	2310	0.655
Pb	206.0	205.9	49925	2500	0.623
Pb	207.0	207.0	50113	2375	0.620
Pb	208.0	208.0	50448	2570	0.614
U	238.1	238.1	57689	2510	0.653

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, February 15, 2010 14:00:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100215\Blank.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		174651	
	U	238		ug/L		374	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, February 15, 2010 14:02:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100215\Standard 1.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		168808	168808.265
⌊	U	238	10.000	ug/L	1.069	144260	0.853

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, February 15, 2010 14:04:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100215\Standard 2.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		171896	171895.745
	U	238	99.987	ug/L	0.035	1446453	8.413

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, February 15, 2010 14:06:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 1.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		170990	170990.267
⌊	U	238	52.373	ug/L	0.635	753835	4.406

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		97.9			
⌊	U	238	104.745				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, February 15, 2010 14:09:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 2.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		169024	169024.074
	U	238	-0.001	ug/L	158.109	352	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		96.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, February 15, 2010 14:11:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 3.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		168926	168926.311
	U	238	0.225	ug/L	3.474	3561	0.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		96.7			
	U	238	112.526				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, February 15, 2010 14:13:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 4.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		156096	156095.771
⌊	U	238	-0.004	ug/L	34.516	283	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		89.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, February 15, 2010 14:15:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 5.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		152241	152240.867
	U	238	20.323	ug/L	0.757	260632	1.710

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175			87.2		
	U	238	101.614				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, February 15, 2010 14:17:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 6.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		164249	164248.853
⌊	U	238	52.762	ug/L	1.118	729547	4.439

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		94.0			
⌊	U	238	105.524				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, February 15, 2010 14:20:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 7.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		164189	164189.002
⌊	U	238	-0.008	ug/L	11.401	245	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		94.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797016
Sample Date/Time: Monday, February 15, 2010 14:26:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100215\245797016.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		178850	178849.874
	U	238	4.180	ug/L	0.538	63279	0.352

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		102.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797017
Sample Date/Time: Monday, February 15, 2010 14:28:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100215\245797017.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		174502	174502.060
⌊	U	238	4.290	ug/L	0.688	63356	0.361

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797019
Sample Date/Time: Monday, February 15, 2010 14:33:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100215\245797019.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		185175	185175.023
⌊	U	238	3.036	ug/L	0.384	47704	0.255

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		106.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, February 15, 2010 14:35:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 6.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		169316	169315.518
⌊	U	238	53.338	ug/L	0.873	760165	4.488

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			96.9		
⌊	U	238	106.676				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, February 15, 2010 14:37:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100215\QC Std 7.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		168020	168020.001
⌊	U	238	-0.004	ug/L	15.052	304	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		96.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, February 16, 2010 09:38:01
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.325
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1246.9	1246.854	41.152	3.3
	Mg	24.0	30009.5	30009.510	905.841	3.0
	Co	58.9	56760.4	56760.374	1148.037	2.0
	Rh	102.9	94473.0	94472.993	1236.601	1.3
	In	114.9	124373.5	124373.532	1603.272	1.3
	Pb	208.0	55937.5	55937.513	638.534	1.1
⌈>	Ba	137.9	102198.3	102198.281	1371.976	1.3
⌊	Ba++	69.0	1249.7	0.012	0.000	2.7
⌈>	Ce	139.9	118647.9	118647.922	1389.859	1.2
⌊	CeO	155.9	3133.0	0.026	0.000	1.4
	Bkgd	220.0	1.4	1.400	0.548	39.1

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.8	1055.4
Co	59	17	5.5	38710.7
In	115	17	6.5	94421.7

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	600	2060	0.699
Be	9.0	9.1	2046	2045	0.722
Mg	24.0	24.0	5670	2065	0.676
Mg	25.0	25.0	5945	2080	0.668
Mg	26.0	26.0	6174	2085	0.665
Co	58.9	59.0	14190	2140	0.644
Rh	102.9	102.9	24875	2230	0.651
In	114.9	114.9	27787	2255	0.679
Ce	139.9	139.9	33849	2310	0.657
Pb	206.0	205.9	49926	2500	0.652
Pb	207.0	207.0	50113	2375	0.658
Pb	208.0	207.9	50436	2570	0.646
U	238.1	238.0	57688	2510	0.708

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, February 16, 2010 10:18:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100216\Blank.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		153885	
⌊	U	238		ug/L		297	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, February 16, 2010 10:20:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100216\Standard 1.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		152952	152951.965
⌊	U	238	10.000	ug/L	0.507	111944	0.730

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, February 16, 2010 10:21:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100216\Standard 2.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		151303	151302.867
⌊	U	238	99.990	ug/L	0.619	1093150	7.223

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, February 16, 2010 10:23:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 1.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		153690	153690.166
	U	238	52.373	ug/L	0.146	581761	3.783

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		99.9			
	U	238	104.746				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, February 16, 2010 10:25:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 2.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		153917	153916.925
	U	238	0.038	ug/L	0.523	725	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		100.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, February 16, 2010 10:26:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 3.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		154745	154745.495
⌊	U	238	0.221	ug/L	3.332	2765	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.6			
⌊	U	238	110.343				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, February 16, 2010 10:28:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 4.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		137436	137435.645
⌊	U	238	-0.014	ug/L	10.332	124	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		89.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, February 16, 2010 10:30:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 5.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		135718	135718.357
⌊	U	238	**20.892**	ug/L	0.742	205083	1.509

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		88.2			
⌊	U	238	104.458				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, February 16, 2010 10:32:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 6.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		152306	152306.112
	U	238	51.529	ug/L	0.816	567230	3.722

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		99.0			
	U	238	103.058				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, February 16, 2010 10:33:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 7.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		150557	150557.390
[	U	238	0.015	ug/L	12.860	450	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		97.8			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797018
Sample Date/Time: Tuesday, February 16, 2010 10:38:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|10|skj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100216\245797018.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		154795	154794.681
⌊	U	238	28.431	ug/L	0.540	318216	2.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		100.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, February 16, 2010 10:40:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 6.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		152522	152522.432
⌊	U	238	51.523	ug/L	0.443	567966	3.722

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.1			
⌊	U	238	103.046				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, February 16, 2010 10:42:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100216\QC Std 7.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		153149	153148.753
⌊	U	238	0.020	ug/L	4.407	514	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 17, 2010 09:59:07
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.326
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1240.1	1240.054	28.873	2.3
	Mg	24.0	20403.6	20403.562	257.222	1.3
	Co	58.9	46537.1	46537.082	446.205	1.0
	Rh	102.9	83210.5	83210.461	950.635	1.1
	In	114.9	116809.9	116809.852	1162.659	1.0
	Pb	208.0	53222.0	53221.968	668.146	1.3
⌈>	Ba	137.9	95017.2	95017.249	804.018	0.8
⌊	Ba++	69.0	970.2	0.010	0.000	2.4
⌈>	Ce	139.9	110856.5	110856.478	851.240	0.8
⌊	CeO	155.9	2528.6	0.023	0.000	2.0
	Bkgd	220.0	1.3	1.300	0.671	51.6

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.8	986.0
Co	59	17	5.3	32085.0
In	115	17	6.3	87797.3

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	602	2060	0.688
Be	9.0	9.1	2061	2045	0.683
Mg	24.0	24.0	5668	2065	0.674
Mg	25.0	24.9	5931	2080	0.659
Mg	26.0	25.9	6161	2085	0.688
Co	58.9	58.9	14188	2140	0.660
Rh	102.9	102.9	24868	2230	0.656
In	114.9	114.9	27780	2255	0.680
Ce	139.9	139.9	33854	2310	0.643
Pb	206.0	206.0	49927	2500	0.595
Pb	207.0	207.0	50113	2375	0.622
Pb	208.0	208.0	50436	2570	0.626
U	238.1	238.1	57694	2510	0.668

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, February 17, 2010 14:07:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\Blank.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		5	
>	Sc	45		ug/L		729746	
	Ni	60		ug/L		35	
	Cu	63		ug/L		164	
	Cu	65		ug/L		71	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, February 17, 2010 14:09:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\Standard 1.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	4.716	1198	0.002
>	Sc	45		ug/L		748973	748973.424
	Ni	60	10.000	ug/L	3.238	8597	0.011
	Cu	63		ug/L		18472	0.024
	Cu	65	10.000	ug/L	3.792	8913	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, February 17, 2010 14:11:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\Standard 2.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**99.976**	**ug/L**	1.582	11744	0.016
|>	Sc	45		**ug/L**		754516	754515.653
|	Ni	60	**99.998**	**ug/L**	1.858	86106	0.114
|	Cu	63		**ug/L**		186141	0.246
⌊	Cu	65	**99.997**	**ug/L**	2.837	88939	0.118

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, February 17, 2010 14:13:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 1.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.869**	**ug/L**	4.175	6050	0.007
>	Sc	45		**ug/L**		811605	811605.122
	Ni	60	**49.465**	**ug/L**	2.101	45836	0.056
	Cu	63		**ug/L**		98344	0.121
	Cu	65	**48.771**	**ug/L**	2.903	46688	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.737				
>	Sc	45		111.2			
	Ni	60	98.930				
	Cu	63					
	Cu	65	97.543				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, February 17, 2010 14:14:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 2.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.017	ug/L	167.473	7	0.000
>	Sc	45		ug/L		814443	814442.649
	Ni	60	0.027	ug/L	19.280	64	0.000
	Cu	63		ug/L		227	0.000
	Cu	65	0.028	ug/L	72.302	105	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		111.6			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, February 17, 2010 14:16:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 3.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.504	ug/L	13.565	68	0.000
>	Sc	45		ug/L		802624	802624.461
	Ni	60	2.101	ug/L	2.386	1962	0.002
	Cu	63		ug/L		2372	0.003
	Cu	65	1.118	ug/L	6.084	1134	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	100.866				
>	Sc	45		110.0			
	Ni	60	105.051				
	Cu	63					
	Cu	65	111.815				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, February 17, 2010 14:18:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 4.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.029	ug/L	65.072	9	0.000
>	Sc	45		ug/L		802754	802754.413
	Ni	60	4.480	ug/L	2.668	4141	0.005
	Cu	63		ug/L		6066	0.007
	Cu	65	2.780	ug/L	4.631	2705	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		110.0			
	Ni	60	135.339				
	Cu	63					
	Cu	65	83.242				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, February 17, 2010 14:20:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 5.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**16.419**	**ug/L**	5.415	2017	0.003
>	Sc	45		**ug/L**		787782	787782.203
	Ni	60	**22.231**	**ug/L**	3.063	20006	0.025
	Cu	63		**ug/L**		38771	0.049
	Cu	65	**19.912**	**ug/L**	3.889	18541	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	82.094				
>	Sc	45		108.0			
	Ni	60	95.373				
	Cu	63					
	Cu	65	85.312				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 17, 2010 14:22:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 6.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.418**	**ug/L**	4.595	6009	0.007
>	Sc	45		**ug/L**		831743	831742.949
	Ni	60	**48.686**	**ug/L**	3.239	46223	0.056
	Cu	63		**ug/L**		98065	0.118
	Cu	65	**48.141**	**ug/L**	4.260	47211	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	92.835				
>	Sc	45		114.0			
	Ni	60	97.372				
	Cu	63					
	Cu	65	96.281				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 17, 2010 14:24:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 7.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.013	ug/L	10.895	7	0.000
>	Sc	45		ug/L		832592	832591.728
	Ni	60	0.021	ug/L	8.331	59	0.000
	Cu	63		ug/L		199	0.000
	Cu	65	0.026	ug/L	63.184	106	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		114.1			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030959
Sample Date/Time: Wednesday, February 17, 2010 14:26:07
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\1202030959.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.018	ug/L	43.319	3	-0.000
>	Sc	45		ug/L		849191	849190.895
	Ni	60	0.201	ug/L	2.713	235	0.000
	Cu	63		ug/L		567	0.000
	Cu	65	0.198	ug/L	5.575	280	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		116.4			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030964
Sample Date/Time: Wednesday, February 17, 2010 14:27:57
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948067|40|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\1202030964.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**17.265**	**ug/L**	6.012	2264	0.003
>	Sc	45		**ug/L**		841611	841610.877
	Ni	60	**33.035**	**ug/L**	2.578	31736	0.038
	Cu	63		**ug/L**		86097	0.102
	Cu	65	**41.766**	**ug/L**	6.914	41414	0.049

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		115.3			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 17, 2010 14:39:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 6.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.958**	**ug/L**	4.126	6038	0.007
>	Sc	45		**ug/L**		826126	826125.760
	Ni	60	**47.881**	**ug/L**	2.490	45141	0.055
	Cu	63		**ug/L**		96220	0.116
	Cu	65	**46.821**	**ug/L**	4.901	45590	0.055

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	93.917				
>	Sc	45		113.2			
	Ni	60	95.763				
	Cu	63					
	Cu	65	93.643				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 17, 2010 14:41:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mtb
Dataset File: C:\elandata\Dataset\100217\QC Std 7.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.000	ug/L	2363.348	5	0.000
>	Sc	45		ug/L		822825	822824.969
	Ni	60	0.022	ug/L	35.479	60	0.000
	Cu	63		ug/L		191	0.000
	Cu	65	0.024	ug/L	50.857	102	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		112.8			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797002
Sample Date/Time: Wednesday, February 17, 2010 14:42:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797002.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	6.251	ug/L	5.305	834	0.001
>	Sc	45		ug/L		852270	852270.200
	Ni	60	33.832	ug/L	3.632	32917	0.039
	Cu	63		ug/L		333203	0.391
	Cu	65	159.861	ug/L	5.172	160431	0.188

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		116.8			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797003
Sample Date/Time: Wednesday, February 17, 2010 14:44:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|sk|
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797003.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.852**	**ug/L**	10.596	234	0.000
>	Sc	45		**ug/L**		796429	796429.177
	Ni	60	**19.362**	**ug/L**	1.410	17627	0.022
	Cu	63		**ug/L**		66833	0.084
	Cu	65	**33.869**	**ug/L**	3.216	31834	0.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		109.1			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797004
Sample Date/Time: Wednesday, February 17, 2010 14:46:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797004.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**15.558**	**ug/L**	2.911	1880	0.002
>	Sc	45		**ug/L**		774485	774484.649
	Ni	60	**17.189**	**ug/L**	0.972	15222	0.020
	Cu	63		**ug/L**		1371791	1.772
	Cu	65	**725.325**	**ug/L**	4.278	661282	0.854

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		106.1			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797005
Sample Date/Time: Wednesday, February 17, 2010 14:48:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|sk|
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797005.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	4.770	ug/L	3.925	562	0.001
>	Sc	45		ug/L		750296	750296.230
	Ni	60	18.553	ug/L	2.728	15913	0.021
	Cu	63		ug/L		680225	0.907
	Cu	65	371.194	ug/L	4.620	327899	0.437

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.8			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 17, 2010 14:50:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 6.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.366**	**ug/L**	3.159	5913	0.008
>	Sc	45		**ug/L**		739487	739487.429
	Ni	60	**49.276**	**ug/L**	2.147	41584	0.056
	Cu	63		**ug/L**		88295	0.119
	Cu	65	**48.484**	**ug/L**	5.671	42253	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	102.733				
>	Sc	45		101.3			
	Ni	60	98.551				
	Cu	63					
	Cu	65	96.968				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 17, 2010 14:52:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 7.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.004	ug/L	613.277	4	-0.000
>	Sc	45		ug/L		745639	745638.563
	Ni	60	0.017	ug/L	51.692	50	0.000
	Cu	63		ug/L		245	0.000
	Cu	65	0.054	ug/L	29.613	120	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.2			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797006
Sample Date/Time: Wednesday, February 17, 2010 14:54:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|sk|
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797006.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	1.121	ug/L	9.444	141	0.000
>	Sc	45		ug/L		780781	780781.188
	Ni	60	17.371	ug/L	1.891	15507	0.020
	Cu	63		ug/L		32848	0.042
	Cu	65	16.963	ug/L	3.411	15670	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		107.0			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797007
Sample Date/Time: Wednesday, February 17, 2010 14:56:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797007.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.778**	**ug/L**	1.839	348	0.000
>	Sc	45		**ug/L**		792607	792607.075
	Ni	60	**24.827**	**ug/L**	2.394	22476	0.028
	Cu	63		**ug/L**		73912	0.093
	Cu	65	**37.806**	**ug/L**	3.024	35350	0.045

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			108.6		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797008
Sample Date/Time: Wednesday, February 17, 2010 14:57:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797008.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	9.232	ug/L	3.545	1086	0.001
>	Sc	45		ug/L		752948	752948.325
	Ni	60	12.451	ug/L	4.456	10728	0.014
	Cu	63		ug/L		93357	0.124
	Cu	65	50.237	ug/L	4.904	44593	0.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			103.2		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797009
Sample Date/Time: Wednesday, February 17, 2010 14:59:48
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797009.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	1.577	ug/L	4.759	190	0.000
>	Sc	45		ug/L		755618	755618.300
	Ni	60	18.448	ug/L	3.115	15922	0.021
	Cu	63		ug/L		43974	0.058
	Cu	65	23.691	ug/L	6.459	21112	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		103.5			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797010
Sample Date/Time: Wednesday, February 17, 2010 15:01:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797010.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	4.962	ug/L	2.293	631	0.001
>	Sc	45		ug/L		810305	810305.345
	Ni	60	35.672	ug/L	3.409	33003	0.041
	Cu	63		ug/L		114158	0.141
	Cu	65	57.251	ug/L	3.763	54684	0.067

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		111.0			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 17, 2010 15:03:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 6.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**51.460**	**ug/L**	3.852	6061	0.008
|>	Sc	45		**ug/L**		756520	756520.311
|	Ni	60	**47.978**	**ug/L**	2.501	41433	0.055
|	Cu	63		**ug/L**		88829	0.117
⌊	Cu	65	**48.009**	**ug/L**	4.731	42825	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	102.921				
|>	Sc	45		103.7			
|	Ni	60	95.957				
|	Cu	63					
⌊	Cu	65	96.017				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 17, 2010 15:05:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 7.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.010	ug/L	267.531	4	-0.000
>	Sc	45		ug/L		760045	760044.703
	Ni	60	0.016	ug/L	58.999	50	0.000
	Cu	63		ug/L		211	0.000
	Cu	65	0.048	ug/L	34.379	116	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.2			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797011
Sample Date/Time: Wednesday, February 17, 2010 15:07:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797011.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.381**	**ug/L**	5.401	1353	0.002
>	Sc	45		**ug/L**		833344	833344.101
	Ni	60	**28.575**	**ug/L**	3.384	27185	0.033
	Cu	63		**ug/L**		929226	1.116
	Cu	65	**454.659**	**ug/L**	4.221	445984	0.536

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		114.2			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797012
Sample Date/Time: Wednesday, February 17, 2010 15:09:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797012.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.084**	**ug/L**	7.832	282	0.000
|>	Sc	45		**ug/L**		852113	852113.448
|	Ni	60	**35.384**	**ug/L**	3.538	34416	0.040
|	Cu	63		**ug/L**		60614	0.071
⌊	Cu	65	**29.239**	**ug/L**	5.387	29401	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		116.8			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797013
Sample Date/Time: Wednesday, February 17, 2010 15:11:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797013.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.662**	**ug/L**	6.959	613	0.001
>	Sc	45		**ug/L**		838674	838673.635
	Ni	60	**27.160**	**ug/L**	1.687	26020	0.031
	Cu	63		**ug/L**		227533	0.271
	Cu	65	**111.263**	**ug/L**	5.171	109901	0.131

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		114.9			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797014
Sample Date/Time: Wednesday, February 17, 2010 15:12:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797014.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	4.248	ug/L	1.545	537	0.001
>	Sc	45		ug/L		804118	804118.175
	Ni	60	19.585	ug/L	2.397	17999	0.022
	Cu	63		ug/L		176225	0.219
	Cu	65	89.071	ug/L	3.183	84415	0.105

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		110.2			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 17, 2010 15:14:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 6.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	49.584	ug/L	4.212	5853	0.008
>	Sc	45		ug/L		758163	758163.274
	Ni	60	48.611	ug/L	2.468	42069	0.055
	Cu	63		ug/L		90017	0.119
	Cu	65	47.416	ug/L	4.274	42396	0.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	99.167				
>	Sc	45		103.9			
	Ni	60	97.223				
	Cu	63					
	Cu	65	94.832				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 17, 2010 15:16:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 7.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.012	ug/L	96.019	6	0.000
|>	Sc	45		ug/L		762653	762653.091
|	Ni	60	0.022	ug/L	57.586	55	0.000
|	Cu	63		ug/L		201	0.000
⌊	Cu	65	0.027	ug/L	56.669	98	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		104.5			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797015
Sample Date/Time: Wednesday, February 17, 2010 15:18:36
Sample Type:
Sample Description: LANL 602D
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797015.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.894**	**ug/L**	4.949	744	0.001
>	Sc	45		**ug/L**		806439	806438.884
	Ni	60	**24.698**	**ug/L**	4.169	22760	0.028
	Cu	63		**ug/L**		466695	0.579
	Cu	65	**234.845**	**ug/L**	3.244	223047	0.277

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		110.5			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797016
Sample Date/Time: Wednesday, February 17, 2010 15:20:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797016.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	1.531	ug/L	12.946	198	0.000
|>	Sc	45		ug/L		808841	808840.957
|	Ni	60	22.412	ug/L	2.752	20717	0.026
|	Cu	63		ug/L		46941	0.058
⌊	Cu	65	23.445	ug/L	4.289	22400	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		110.8			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797017
Sample Date/Time: Wednesday, February 17, 2010 15:22:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797017.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.651**	**ug/L**	3.510	342	0.000
|>	Sc	45		**ug/L**		817450	817449.689
|	Ni	60	**23.276**	**ug/L**	2.596	21739	0.027
|	Cu	63		**ug/L**		35180	0.043
⌊	Cu	65	**17.633**	**ug/L**	4.886	17042	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		112.0			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797018
Sample Date/Time: Wednesday, February 17, 2010 15:24:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797018.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.132**	**ug/L**	8.701	635	0.001
>	Sc	45		**ug/L**		789097	789096.706
	Ni	60	**18.832**	**ug/L**	2.880	16982	0.021
	Cu	63		**ug/L**		230229	0.292
	Cu	65	**118.981**	**ug/L**	3.752	110605	0.140

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		108.1			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797019
Sample Date/Time: Wednesday, February 17, 2010 15:26:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797019.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.549**	**ug/L**	7.479	192	0.000
|>	Sc	45		**ug/L**		776643	776643.085
|	Ni	60	**27.194**	**ug/L**	2.774	24121	0.031
|	Cu	63		**ug/L**		16123	0.021
⌊	Cu	65	**8.486**	**ug/L**	6.331	7831	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		106.4			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 17, 2010 15:28:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 6.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**51.671**	**ug/L**	6.574	5830	0.008
|>	Sc	45		**ug/L**		724922	724922.156
|	Ni	60	**48.662**	**ug/L**	1.542	40272	0.056
|	Cu	63		**ug/L**		85524	0.118
⌊	Cu	65	**48.025**	**ug/L**	4.116	41058	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	103.342				
|>	Sc	45			99.3		
|	Ni	60	97.324				
|	Cu	63					
⌊	Cu	65	96.050				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 17, 2010 15:29:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 7.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.005	ug/L	325.379	5	0.000
>	Sc	45		ug/L		734170	734169.782
	Ni	60	0.023	ug/L	63.558	54	0.000
	Cu	63		ug/L		189	0.000
	Cu	65	0.041	ug/L	7.971	107	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		100.6			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245797001
Sample Date/Time: Wednesday, February 17, 2010 15:31:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\245797001.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	3.073	ug/L	3.406	397	0.000
>	Sc	45		ug/L		818256	818256.186
	Ni	60	34.285	ug/L	4.058	32020	0.039
	Cu	63		ug/L		62547	0.076
	Cu	65	31.403	ug/L	4.462	30323	0.037

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		112.1			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030960
Sample Date/Time: Wednesday, February 17, 2010 15:33:39
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\1202030960.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	3.318	ug/L	5.522	444	0.001
>	Sc	45		ug/L		849403	849402.745
	Ni	60	33.989	ug/L	3.773	32960	0.039
	Cu	63		ug/L		59438	0.070
	Cu	65	28.410	ug/L	4.175	28484	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		116.4			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030962
Sample Date/Time: Wednesday, February 17, 2010 15:35:31
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\1202030962.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**22.832**	**ug/L**	1.167	3040	0.004
|>	Sc	45		**ug/L**		854048	854047.908
|	Ni	60	**52.223**	**ug/L**	2.983	50903	0.060
|	Cu	63		**ug/L**		96566	0.113
⌊	Cu	65	**46.200**	**ug/L**	4.557	46524	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45		117.0			
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030963
Sample Date/Time: Wednesday, February 17, 2010 15:37:24
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948067|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\1202030963.155

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**23.389**	**ug/L**	4.493	3140	0.004
>	Sc	45		**ug/L**		861958	861958.320
	Ni	60	**51.026**	**ug/L**	2.449	50191	0.058
	Cu	63		**ug/L**		94497	0.109
	Cu	65	**44.682**	**ug/L**	4.173	45414	0.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		118.1			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030961
Sample Date/Time: Wednesday, February 17, 2010 15:39:17
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948067|10|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\1202030961.156

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.653**	**ug/L**	20.513	87	0.000
>	Sc	45		**ug/L**		803380	803380.290
	Ni	60	**7.668**	**ug/L**	2.192	7065	0.009
	Cu	63		**ug/L**		15059	0.019
	Cu	65	**7.537**	**ug/L**	4.072	7205	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			110.1		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 17, 2010 15:41:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 6.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.858**	**ug/L**	3.724	5968	0.008
>	Sc	45		**ug/L**		784604	784603.597
	Ni	60	**47.424**	**ug/L**	2.021	42482	0.054
	Cu	63		**ug/L**		89783	0.114
	Cu	65	**45.928**	**ug/L**	4.502	42498	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	97.717				
>	Sc	45		107.5			
	Ni	60	94.848				
	Cu	63					
	Cu	65	91.856				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 17, 2010 15:43:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100217\QC Std 7.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.002	ug/L	623.309	5	0.000
>	Sc	45		ug/L		805543	805543.232
	Ni	60	0.030	ug/L	24.719	66	0.000
	Cu	63		ug/L		191	0.000
	Cu	65	0.015	ug/L	49.347	92	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			110.4		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

%RSD: 0.9 0.9 0.9273

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Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/16/2010
Sample ID: 245688001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored

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Element: Hg Seq. No.: 43 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.564	5.564	0.0281	0.0305	10:13:29	No
2	5.567	5.567	0.0281	0.0305	10:14:03	No
Mean:	5.566	5.566	0.0281			
SD :	0.0016	0.0016	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 44 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.092	0.092	0.0010	0.0034	10:15:32	No
2	0.097	0.097	0.0011	0.0035	10:16:06	No
Mean:	0.094	0.094	0.0010			
SD :	0.0035	0.0035	0.0000			
%RSD:	3.7	3.7	1.6345			

==========

Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/16/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021610S1.SIF Results Data Set Name: 021610S2

==========

Element: Hg Seq. No.: 45 AS Loc.: 1 Date: 02/16/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0032	0.0032	10:18:51	No
2			0.0031	0.0031	10:19:26	No
Mean:			0.0031			
SD :			0.0000			
%RSD:			1.1573			

Auto-zero performed.

==========

Element: Hg Seq. No.: 46 AS Loc.: 2 Date: 02/16/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0029	0.0060	10:20:48	No
2			0.0029	0.0060	10:21:23	No
Mean:			0.0029			

SD : 0.0000
%RSD: 0.5208
[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01438
Intercept : 0.00000

==========

Element: Hg Seq. No.: 47 AS Loc.: 3 Date: 02/16/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0060	0.0092	10:22:47	No
2			0.0061	0.0093	10:23:22	No
Mean:			0.0061			
SD :			0.0001			
%RSD:			1.0905			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99653 Slope: 0.01206
Intercept : 0.00017

==========

Element: Hg Seq. No.: 48 AS Loc.: 4 Date: 02/16/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0223	0.0254	10:24:47	No
2			0.0226	0.0257	10:25:22	No
Mean:			0.0224			
SD :			0.0002			
%RSD:			0.9330			

[Hg] Standard number 3 applied. [2.000]
Correlation Coefficient: 0.99956 Slope: 0.01105
Intercept : 0.00039

==========

Element: Hg Seq. No.: 49 AS Loc.: 5 Date: 02/16/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0545	0.0577	10:26:48	No
2			0.0555	0.0587	10:27:23	No
Mean:			0.0550			
SD :			0.0007			
%RSD:			1.2760			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99993 Slope: 0.01093
Intercept : 0.00045

==========

Element: Hg Seq. No.: 50 AS Loc.: 6 Date: 02/16/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1060	0.1091	10:28:49	No
2			0.1066	0.1097	10:29:24	No
Mean:			0.1063			
SD :			0.0004			
%RSD:			0.3772			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99985 Slope: 0.01061
Intercept : 0.00081

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0031	---	----	----	----
S0.2	0.0029	0.200	0.195	0.0000	0.5
S0.5	0.0061	0.500	0.498	0.0001	1.1
S2.0	0.0224	2.000	2.036	0.0002	0.9
S5.0	0.0550	5.000	5.109	0.0007	1.3
S10	0.1063	10.000	9.938	0.0004	0.4

Correlation Coefficient: 0.99985 Slope: 0.01061 Intercept: 0.0008

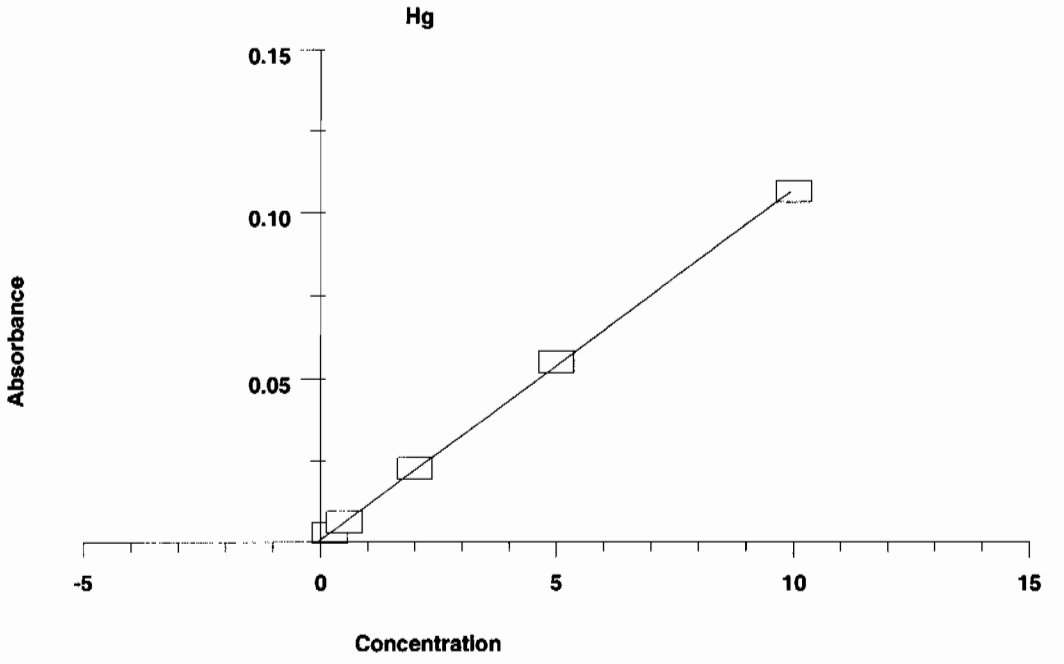

Element: Hg Seq. No.: 51 AS Loc.: 9 Date: 02/16/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.149	5.149	0.0554	0.0586	10:30:53	No
2	5.060	5.060	0.0545	0.0576	10:31:28	No
Mean:	5.104	5.104	0.0550			
SD :	0.0631	0.0631	0.0007			
%RSD:	1.2	1.2	1.2174			

QC value within specified limits.

Element: Hg Seq. No.: 52 AS Loc.: 10 Date: 02/16/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0009	0.0041	10:32:50	No
2	0.014	0.014	0.0010	0.0041	10:33:25	No
Mean:	0.013	0.013	0.0009			
SD :	0.0013	0.0013	0.0000			

%RSD: 10.1 10.1 1.4456
QC value within specified limits.

==========
Element: Hg Seq. No.: 53 AS Loc.: 11 Date: 02/16/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.267	0.267	0.0036	0.0068	10:34:48	No
2	0.268	0.268	0.0036	0.0068	10:35:23	No
Mean:	0.267	0.267	0.0036			
SD :	0.0007	0.0007	0.0000			
%RSD:	0.3	0.3	0.2140			

QC value within specified limits.

==========
Element: Hg Seq. No.: 54 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.777	4.777	0.0515	0.0546	10:36:48	No
2	4.828	4.828	0.0520	0.0552	10:37:24	No
Mean:	4.802	4.802	0.0518			
SD :	0.0364	0.0364	0.0004			
%RSD:	0.8	0.8	0.7458			

QC value within specified limits.

==========
Element: Hg Seq. No.: 55 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0012	0.0043	10:38:52	No
2	0.038	0.038	0.0012	0.0043	10:39:27	No
Mean:	0.038	0.038	0.0012			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.8	0.8	0.2677			

QC value within specified limits.

==========
Element: Hg Seq. No.: 56 AS Loc.: 37 Date: 02/16/2010
Sample ID: 1202029993|i||947654|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0006	0.0037	10:40:55	No
2	-0.029	-0.029	0.0005	0.0036	10:41:30	No
Mean:	-0.025	-0.025	0.0005			
SD :	0.0060	0.0060	0.0001			
%RSD:	24.3	24.3	11.6617			

==========
Element: Hg Seq. No.: 57 AS Loc.: 38 Date: 02/16/2010
Sample ID: 1202029994|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.849	3.849	0.0417	0.0448	10:42:53	No
2	3.831	3.831	0.0415	0.0446	10:43:28	No
Mean:	3.840	3.840	0.0416			
SD :	0.0129	0.0129	0.0001			
%RSD:	0.3	0.3	0.3301			

==========

Mean:	0.276	0.276	0.0037
SD :	0.0181	0.0181	0.0002
%RSD:	6.6	6.6	5.1554

==========

Element: Hg Seq. No.: 64 AS Loc.: 45 Date: 02/16/2010
Sample ID: 245688003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.261	0.261	0.0036	0.0067	10:56:50	No
2	0.270	0.270	0.0037	0.0068	10:57:25	No
Mean:	0.266	0.266	0.0036			
SD :	0.0065	0.0065	0.0001			
%RSD:	2.4	2.4	1.8947			

==========

Element: Hg Seq. No.: 65 AS Loc.: 46 Date: 02/16/2010
Sample ID: 245688004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.284	0.284	0.0038	0.0070	10:58:51	No
2	0.272	0.272	0.0037	0.0068	10:59:26	No
Mean:	0.278	0.278	0.0038			
SD :	0.0079	0.0079	0.0001			
%RSD:	2.8	2.8	2.2293			

==========

Element: Hg Seq. No.: 66 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.777	4.777	0.0515	0.0546	11:00:53	No
2	4.776	4.776	0.0515	0.0546	11:01:28	No
Mean:	4.777	4.777	0.0515			
SD :	0.0009	0.0009	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 67 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0008	0.0039	11:02:56	No
2	-0.008	-0.008	0.0007	0.0039	11:03:30	No
Mean:	-0.004	-0.004	0.0008			
SD :	0.0054	0.0054	0.0001			
%RSD:	143.7	143.7	7.4420			

QC value within specified limits.

==========

Element: Hg Seq. No.: 68 AS Loc.: 47 Date: 02/16/2010
Sample ID: 245688005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.250	0.250	0.0035	0.0066	11:04:57	No
2	0.243	0.243	0.0034	0.0065	11:05:32	No
Mean:	0.247	0.247	0.0034			
SD :	0.0047	0.0047	0.0001			
%RSD:	1.9	1.9	1.4689			

==========

Mean:	0.471	0.471	0.0058
SD :	0.0088	0.0088	0.0001
%RSD:	1.9	1.9	1.5999

==========

Element: Hg Seq. No.: 75 AS Loc.: 54 Date: 02/16/2010
Sample ID: 245688012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.438	0.438	0.0055	0.0086	11:18:31	No
2	0.428	0.428	0.0053	0.0085	11:19:06	No
Mean:	0.433	0.433	0.0054			
SD :	0.0074	0.0074	0.0001			
%RSD:	1.7	1.7	1.4448			

==========

Element: Hg Seq. No.: 76 AS Loc.: 55 Date: 02/16/2010
Sample ID: 245688013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.305	0.305	0.0040	0.0072	11:20:28	No
2	0.295	0.295	0.0039	0.0071	11:21:03	No
Mean:	0.300	0.300	0.0040			
SD :	0.0071	0.0071	0.0001			
%RSD:	2.4	2.4	1.8871			

==========

Element: Hg Seq. No.: 77 AS Loc.: 56 Date: 02/16/2010
Sample ID: 245688014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.135	0.135	0.0022	0.0054	11:22:26	No
2	0.142	0.142	0.0023	0.0055	11:23:01	No
Mean:	0.138	0.138	0.0023			
SD :	0.0050	0.0050	0.0001			
%RSD:	3.6	3.6	2.3207			

==========

Element: Hg Seq. No.: 78 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.920	4.920	0.0530	0.0561	11:24:26	No
2	4.889	4.889	0.0527	0.0558	11:25:01	No
Mean:	4.904	4.904	0.0529			
SD :	0.0213	0.0213	0.0002			
%RSD:	0.4	0.4	0.4284			

QC value within specified limits.

==========

Element: Hg Seq. No.: 79 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.043	0.043	0.0013	0.0044	11:26:29	No
2	0.043	0.043	0.0013	0.0044	11:27:04	No
Mean:	0.043	0.043	0.0013			
SD :	0.0005	0.0005	0.0000			
%RSD:	1.1	1.1	0.3837			

QC value within specified limits.

==========

Mean:	2.292	2.292	0.0251
SD :	0.0003	0.0003	0.0000
%RSD:			

==========

Element: Hg Seq. No.: 86 AS Loc.: 63 Date: 02/16/2010
Sample ID: 1202030033|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.049	-0.049	0.0003	0.0034	11:40:28	No
2	-0.061	-0.061	0.0002	0.0033	11:41:03	No
Mean:	-0.055	-0.055	0.0002			
SD :	0.0084	0.0084	0.0001			
%RSD:	15.2	15.2	40.4041			

==========

Element: Hg Seq. No.: 87 AS Loc.: 64 Date: 02/16/2010
Sample ID: 245783002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.204	0.204	0.0030	0.0061	11:42:23	No
2	0.201	0.201	0.0029	0.0061	11:42:57	No
Mean:	0.202	0.202	0.0030			
SD :	0.0018	0.0018	0.0000			
%RSD:	0.9	0.9	0.6286			

==========

Element: Hg Seq. No.: 88 AS Loc.: 65 Date: 02/16/2010
Sample ID: 245783003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0028	0.0060	11:44:17	No
2	0.184	0.184	0.0028	0.0059	11:44:52	No
Mean:	0.187	0.187	0.0028			
SD :	0.0041	0.0041	0.0000			
%RSD:	2.2	2.2	1.5713			

==========

Element: Hg Seq. No.: 89 AS Loc.: 66 Date: 02/16/2010
Sample ID: 245783004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.175	0.175	0.0027	0.0058	11:46:12	No
2	0.183	0.183	0.0028	0.0059	11:46:46	No
Mean:	0.179	0.179	0.0027			
SD :	0.0058	0.0058	0.0001			
%RSD:	3.2	3.2	2.2798			

==========

Element: Hg Seq. No.: 90 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.951	4.951	0.0533	0.0565	11:48:10	No
2	4.948	4.948	0.0533	0.0565	11:48:45	No
Mean:	4.950	4.950	0.0533			
SD :	0.0023	0.0023	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 91 AS Loc.: 8 Date: 02/16/2010

Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.024	0.024	0.0011	0.0042	11:50:14	No
2	0.015	0.015	0.0010	0.0041	11:50:48	No
Mean:	0.020	0.020	0.0010			
SD :	0.0059	0.0059	0.0001			
%RSD:	30.3	30.3	6.1900			

QC value within specified limits.

Element: Hg Seq. No.: 92 AS Loc.: 67 Date: 02/16/2010
Sample ID: 245783005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.495	0.495	0.0061	0.0092	11:52:13	No
2	0.491	0.491	0.0060	0.0092	11:52:48	No
Mean:	0.493	0.493	0.0060			
SD :	0.0031	0.0031	0.0000			
%RSD:	0.6	0.6	0.5417			

Element: Hg Seq. No.: 93 AS Loc.: 68 Date: 02/16/2010
Sample ID: 245783006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0032	0.0063	11:54:10	No
2	0.197	0.197	0.0029	0.0060	11:54:45	No
Mean:	0.211	0.211	0.0030			
SD :	0.0196	0.0196	0.0002			
%RSD:	9.3	9.3	6.8182			

Element: Hg Seq. No.: 94 AS Loc.: 69 Date: 02/16/2010
Sample ID: 245783007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.290	0.290	0.0039	0.0070	11:56:07	No
2	0.282	0.282	0.0038	0.0069	11:56:42	No
Mean:	0.286	0.286	0.0038			
SD :	0.0056	0.0056	0.0001			
%RSD:	2.0	2.0	1.5463			

Element: Hg Seq. No.: 95 AS Loc.: 70 Date: 02/16/2010
Sample ID: 245783008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.090	0.090	0.0018	0.0049	11:58:05	No
2	0.087	0.087	0.0017	0.0049	11:58:40	No
Mean:	0.089	0.089	0.0017			
SD :	0.0018	0.0018	0.0000			
%RSD:	2.1	2.1	1.1240			

Element: Hg Seq. No.: 96 AS Loc.: 71 Date: 02/16/2010
Sample ID: 245783009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.117	0.117	0.0020	0.0052	12:00:04	No
2	0.116	0.116	0.0020	0.0052	12:00:39	No

Mean:	0.116	0.116	0.0020
SD :	0.0007	0.0007	0.0000
%RSD:	0.6	0.6	0.3404

==========

Element: Hg Seq. No.: 97 AS Loc.: 72 Date: 02/16/2010
Sample ID: 245783010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.181	0.181	0.0027	0.0059	12:02:02	No
2	0.181	0.181	0.0027	0.0059	12:02:37	No
Mean:	0.181	0.181	0.0027			
SD :	0.0002	0.0002	0.0000			
%RSD:	0.1	0.1				

==========

Element: Hg Seq. No.: 98 AS Loc.: 73 Date: 02/16/2010
Sample ID: 245783011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.193	0.193	0.0029	0.0060	12:04:01	No
2	0.195	0.195	0.0029	0.0060	12:04:36	No
Mean:	0.194	0.194	0.0029			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.6	0.6	0.3989			

==========

Element: Hg Seq. No.: 99 AS Loc.: 74 Date: 02/16/2010
Sample ID: 245783012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.239	0.239	0.0033	0.0065	12:06:01	No
2	0.234	0.234	0.0033	0.0064	12:06:36	No
Mean:	0.236	0.236	0.0033			
SD :	0.0036	0.0036	0.0000			
%RSD:	1.5	1.5	1.1447			

==========

Element: Hg Seq. No.: 100 AS Loc.: 75 Date: 02/16/2010
Sample ID: 245783013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.034	-0.034	0.0005	0.0036	12:08:01	No
2	-0.027	-0.027	0.0005	0.0037	12:08:36	No
Mean:	-0.030	-0.030	0.0005			
SD :	0.0044	0.0044	0.0000			
%RSD:	14.6	14.6	9.7338			

==========

Element: Hg Seq. No.: 101 AS Loc.: 76 Date: 02/16/2010
Sample ID: 245783014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.275	0.275	0.0037	0.0069	12:10:01	No
2	0.272	0.272	0.0037	0.0068	12:10:36	No
Mean:	0.273	0.273	0.0037			
SD :	0.0022	0.0022	0.0000			
%RSD:	0.8	0.8	0.6184			

==========

Element: Hg Seq. No.: 102 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.912	4.912	0.0529	0.0561	12:12:03	No
2	4.920	4.920	0.0530	0.0562	12:12:38	No
Mean:	4.916	4.916	0.0530			
SD :	0.0055	0.0055	0.0001			
%RSD:	0.1	0.1	0.1111			

QC value within specified limits.

Element: Hg Seq. No.: 103 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.019	-0.019	0.0006	0.0037	12:14:06	No
2	-0.015	-0.015	0.0006	0.0038	12:14:41	No
Mean:	-0.017	-0.017	0.0006			
SD :	0.0027	0.0027	0.0000			
%RSD:	15.9	15.9	4.6220			

QC value within specified limits.

Element: Hg Seq. No.: 104 AS Loc.: 77 Date: 02/16/2010
Sample ID: 245783015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.288	0.288	0.0039	0.0070	12:16:08	No
2	0.283	0.283	0.0038	0.0069	12:16:43	No
Mean:	0.285	0.285	0.0038			
SD :	0.0035	0.0035	0.0000			
%RSD:	1.2	1.2	0.9737			

Element: Hg Seq. No.: 105 AS Loc.: 78 Date: 02/16/2010
Sample ID: 245783016|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.027	4.027	0.0435	0.0467	12:18:04	No
2	3.981	3.981	0.0430	0.0462	12:18:39	No
Mean:	4.004	4.004	0.0433			
SD :	0.0330	0.0330	0.0004			
%RSD:	0.8	0.8	0.8100			

Element: Hg Seq. No.: 106 AS Loc.: 79 Date: 02/16/2010
Sample ID: 1202030035|i||947668|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.101	-0.101	-0.0003	0.0029	12:19:58	No
2	-0.097	-0.097	-0.0002	0.0029	12:20:33	No
Mean:	-0.099	-0.099	-0.0002			
SD :	0.0025	0.0025	0.0000			
%RSD:	2.6	2.6	10.9470			

Element: Hg Seq. No.: 107 AS Loc.: 80 Date: 02/16/2010
Sample ID: 1202030036|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.591	3.591	0.0389	0.0420	12:21:53	No
2	3.644	3.644	0.0395	0.0426	12:22:27	No

Mean:	3.617	3.617	0.0392
SD :	0.0374	0.0374	0.0004
%RSD:	1.0	1.0	1.0122

==========

Element: Hg Seq. No.: 108 AS Loc.: 81 Date: 02/16/2010
Sample ID: 245797001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.623	0.623	0.0074	0.0106	12:23:47	No
2	0.616	0.616	0.0073	0.0105	12:24:22	No
Mean:	0.620	0.620	0.0074			
SD :	0.0051	0.0051	0.0001			
%RSD:	0.8	0.8	0.7335			

==========

Element: Hg Seq. No.: 109 AS Loc.: 82 Date: 02/16/2010
Sample ID: 1202030037|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.620	0.620	0.0074	0.0105	12:25:43	No
2	0.624	0.624	0.0074	0.0106	12:26:18	No
Mean:	0.622	0.622	0.0074			
SD :	0.0029	0.0029	0.0000			
%RSD:	0.5	0.5	0.4151			

==========

Element: Hg Seq. No.: 110 AS Loc.: 83 Date: 02/16/2010
Sample ID: 1202030038|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.732	2.732	0.0298	0.0329	12:27:39	No
2	2.737	2.737	0.0299	0.0330	12:28:14	No
Mean:	2.734	2.734	0.0298			
SD :	0.0039	0.0039	0.0000			
%RSD:	0.1	0.1	0.1394			

==========

Element: Hg Seq. No.: 111 AS Loc.: 84 Date: 02/16/2010
Sample ID: 1202030040|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.724	2.724	0.0297	0.0329	12:29:36	No
2	2.712	2.712	0.0296	0.0327	12:30:10	No
Mean:	2.718	2.718	0.0297			
SD :	0.0084	0.0084	0.0001			
%RSD:	0.3	0.3	0.3016			

==========

Element: Hg Seq. No.: 112 AS Loc.: 85 Date: 02/16/2010
Sample ID: 1202030039|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0006	0.0037	12:31:32	No
2	-0.022	-0.022	0.0006	0.0037	12:32:07	No
Mean:	-0.023	-0.023	0.0006			
SD :	0.0012	0.0012	0.0000			
%RSD:	5.1	5.1	2.2371			

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Element: Hg Seq. No.: 113 AS Loc.: 86 Date: 02/16/2010
Sample ID: 245797002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.599	0.599	0.0072	0.0103	12:33:29	No
2	0.591	0.591	0.0071	0.0102	12:34:04	No
Mean:	0.595	0.595	0.0071			
SD :	0.0056	0.0056	0.0001			
%RSD:	0.9	0.9	0.8312			

Element: Hg Seq. No.: 114 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.799	4.799	0.0517	0.0549	12:35:29	No
2	4.854	4.854	0.0523	0.0555	12:36:04	No
Mean:	4.827	4.827	0.0520			
SD :	0.0387	0.0387	0.0004			
%RSD:	0.8	0.8	0.7899			

QC value within specified limits.

Element: Hg Seq. No.: 115 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.069	-0.069	0.0001	0.0032	12:37:32	No
2	-0.073	-0.073	0.0000	0.0032	12:38:06	No
Mean:	-0.071	-0.071	0.0001			
SD :	0.0022	0.0022	0.0000			
%RSD:	3.1	3.1	43.7209			

QC value within specified limits.

Element: Hg Seq. No.: 116 AS Loc.: 87 Date: 02/16/2010
Sample ID: 245797003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.072	0.072	0.0016	0.0047	12:39:31	No
2	0.073	0.073	0.0016	0.0047	12:40:06	No
Mean:	0.072	0.072	0.0016			
SD :	0.0004	0.0004	0.0000			
%RSD:	0.5	0.5	0.2594			

Element: Hg Seq. No.: 117 AS Loc.: 88 Date: 02/16/2010
Sample ID: 245797004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.064	0.064	0.0015	0.0046	12:41:30	No
2	0.053	0.053	0.0014	0.0045	12:42:05	No
Mean:	0.058	0.058	0.0014			
SD :	0.0080	0.0080	0.0001			
%RSD:	13.6	13.6	5.9274			

Element: Hg Seq. No.: 118 AS Loc.: 89 Date: 02/16/2010
Sample ID: 245797005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.152	0.152	0.0024	0.0056	12:43:29	No
2	0.147	0.147	0.0024	0.0055	12:44:04	No

Mean:	0.150	0.150	0.0024
SD :	0.0031	0.0031	0.0000
%RSD:	2.1	2.1	1.3783

==========

Element: Hg Seq. No.: 119 AS Loc.: 90 Date: 02/16/2010
Sample ID: 245797006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.287	0.287	0.0039	0.0070	12:45:28	No
2	0.279	0.279	0.0038	0.0069	12:46:03	No
Mean:	0.283	0.283	0.0038			
SD :	0.0061	0.0061	0.0001			
%RSD:	2.2	2.2	1.6969			

==========

Element: Hg Seq. No.: 120 AS Loc.: 91 Date: 02/16/2010
Sample ID: 245797007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.175	0.175	0.0027	0.0058	12:47:29	No
2	0.163	0.163	0.0025	0.0057	12:48:04	No
Mean:	0.169	0.169	0.0026			
SD :	0.0083	0.0083	0.0001			
%RSD:	4.9	4.9	3.3966			

==========

Element: Hg Seq. No.: 121 AS Loc.: 92 Date: 02/16/2010
Sample ID: 245797008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.230	0.230	0.0032	0.0064	12:49:27	No
2	0.225	0.225	0.0032	0.0063	12:50:02	No
Mean:	0.227	0.227	0.0032			
SD :	0.0036	0.0036	0.0000			
%RSD:	1.6	1.6	1.1799			

==========

Element: Hg Seq. No.: 122 AS Loc.: 93 Date: 02/16/2010
Sample ID: 245797009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.040	0.040	0.0012	0.0044	12:51:21	No
2	0.030	0.030	0.0011	0.0043	12:51:55	No
Mean:	0.035	0.035	0.0012			
SD :	0.0066	0.0066	0.0001			
%RSD:	18.7	18.7	5.9240			

==========

Element: Hg Seq. No.: 123 AS Loc.: 94 Date: 02/16/2010
Sample ID: 245797010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.682	0.682	0.0080	0.0112	12:53:15	No
2	0.674	0.674	0.0080	0.0111	12:53:50	No
Mean:	0.678	0.678	0.0080			
SD :	0.0053	0.0053	0.0001			
%RSD:	0.8	0.8	0.7066			

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Element: Hg Seq. No.: 124 AS Loc.: 95 Date: 02/16/2010
Sample ID: 245797011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.233	0.233	0.0033	0.0064	12:55:10	No
2	0.232	0.232	0.0033	0.0064	12:55:45	No
Mean:	0.232	0.232	0.0033			
SD :	0.0008	0.0008	0.0000			
%RSD:	0.4	0.4	0.2666			

Element: Hg Seq. No.: 125 AS Loc.: 96 Date: 02/16/2010
Sample ID: 245797012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.462	0.462	0.0057	0.0089	12:57:05	No
2	0.468	0.468	0.0058	0.0089	12:57:40	No
Mean:	0.465	0.465	0.0057			
SD :	0.0037	0.0037	0.0000			
%RSD:	0.8	0.8	0.6892			

Element: Hg Seq. No.: 126 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.850	4.850	0.0523	0.0554	12:59:04	No
2	4.800	4.800	0.0517	0.0549	12:59:39	No
Mean:	4.825	4.825	0.0520			
SD :	0.0352	0.0352	0.0004			
%RSD:	0.7	0.7	0.7176			

QC value within specified limits.

Element: Hg Seq. No.: 127 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0004	0.0028	13:01:06	No
2	-0.101	-0.101	-0.0003	0.0029	13:01:41	No
Mean:	-0.107	-0.107	-0.0003			
SD :	0.0080	0.0080	0.0001			
%RSD:	7.5	7.5	26.0491			

QC value within specified limits.

Element: Hg Seq. No.: 128 AS Loc.: 97 Date: 02/16/2010
Sample ID: 245797013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.209	0.209	0.0030	0.0062	13:03:06	No
2	0.205	0.205	0.0030	0.0061	13:03:41	No
Mean:	0.207	0.207	0.0030			
SD :	0.0025	0.0025	0.0000			
%RSD:	1.2	1.2	0.8687			

Element: Hg Seq. No.: 129 AS Loc.: 98 Date: 02/16/2010
Sample ID: 245797014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0011	0.0043	13:05:03	No
2	0.030	0.030	0.0011	0.0043	13:05:38	No

Mean:	0.031	0.031	0.0011
SD :	0.0009	0.0009	0.0000
%RSD:	2.8	2.8	0.8066

==========

Element: Hg Seq. No.: 130 AS Loc.: 99 Date: 02/16/2010
Sample ID: 245797015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.147	0.147	0.0024	0.0055	13:07:00	No
2	0.140	0.140	0.0023	0.0054	13:07:34	No
Mean:	0.144	0.144	0.0023			
SD :	0.0053	0.0053	0.0001			
%RSD:	3.7	3.7	2.4010			

==========

Element: Hg Seq. No.: 131 AS Loc.: 100 Date: 02/16/2010
Sample ID: 245797016|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.172	0.172	0.0026	0.0058	13:08:56	No
2	0.169	0.169	0.0026	0.0057	13:09:32	No
Mean:	0.171	0.171	0.0026			
SD :	0.0023	0.0023	0.0000			
%RSD:	1.4	1.4	0.9349			

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Element: Hg Seq. No.: 132 AS Loc.: 101 Date: 02/16/2010
Sample ID: 245797017|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.208	0.208	0.0030	0.0061	13:10:54	No
2	0.203	0.203	0.0030	0.0061	13:11:30	No
Mean:	0.205	0.205	0.0030			
SD :	0.0031	0.0031	0.0000			
%RSD:	1.5	1.5	1.0940			

==========

Element: Hg Seq. No.: 133 AS Loc.: 102 Date: 02/16/2010
Sample ID: 245797018|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.227	0.227	0.0032	0.0064	13:12:53	No
2	0.221	0.221	0.0032	0.0063	13:13:28	No
Mean:	0.224	0.224	0.0032			
SD :	0.0040	0.0040	0.0000			
%RSD:	1.8	1.8	1.3286			

==========

Element: Hg Seq. No.: 134 AS Loc.: 103 Date: 02/16/2010
Sample ID: 245797019|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.274	0.274	0.0037	0.0069	13:14:52	No
2	0.262	0.262	0.0036	0.0067	13:15:27	No
Mean:	0.268	0.268	0.0037			
SD :	0.0089	0.0089	0.0001			
%RSD:	3.3	3.3	2.5883			

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Element: Hg Seq. No.: 135 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.825	4.825	0.0520	0.0551	13:16:52	No
2	4.872	4.872	0.0525	0.0556	13:17:27	No
Mean:	4.848	4.848	0.0523			
SD :	0.0330	0.0330	0.0004			
%RSD:	0.7	0.7	0.6699			

QC value within specified limits.

Element: Hg Seq. No.: 136 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.118	-0.118	-0.0004	0.0027	13:18:55	No
2	-0.112	-0.112	-0.0004	0.0028	13:19:30	No
Mean:	-0.115	-0.115	-0.0004			
SD :	0.0040	0.0040	0.0000			
%RSD:	3.5	3.5	10.2569			

QC value within specified limits.

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948064

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030958	UI062540-I	.521	g
MS	1202030956	UI100120-01	.25	mL
MS	1202030956	UI100120-06	.25	mL
MSD	1202030957	UI100120-01	.25	mL
MSD	1202030957	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030953		SW846 3050B	08-FEB-2010 14:00	0.546 g	50 mL	91.57509	SOIL
LCS	1202030958		SW846 3050B	08-FEB-2010 14:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	245797001		SW846 3050B	08-FEB-2010 14:00	0.522 g	50 mL	95.78544	SOIL
DUP	1202030954	245797001	SW846 3050B	08-FEB-2010 14:00	0.515 g	50 mL	97.08738	SOIL
SDILT	1202030955	245797001	SW846 3050B	08-FEB-2010 14:00	0.522 g	50 mL	95.78544	SOIL
MS	1202030956	245797001	SW846 3050B	08-FEB-2010 14:00	0.534 g	50 mL	93.63296	SOIL
MSD	1202030957	245797001	SW846 3050B	08-FEB-2010 14:00	0.528 g	50 mL	94.69697	SOIL
SAMPLE	245797002		SW846 3050B	08-FEB-2010 14:00	0.541 g	50 mL	92.42144	SOIL
SAMPLE	245797003		SW846 3050B	08-FEB-2010 14:00	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245797004		SW846 3050B	08-FEB-2010 14:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	245797005		SW846 3050B	08-FEB-2010 14:00	0.553 g	50 mL	90.41591	SOIL
SAMPLE	245797006		SW846 3050B	08-FEB-2010 14:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	245797007		SW846 3050B	08-FEB-2010 14:00	0.515 g	50 mL	97.08738	SOIL
SAMPLE	245797008		SW846 3050B	08-FEB-2010 14:00	0.544 g	50 mL	91.91176	SOIL
SAMPLE	245797009		SW846 3050B	08-FEB-2010 14:00	0.529 g	50 mL	94.51796	SOIL
SAMPLE	245797010		SW846 3050B	08-FEB-2010 14:00	0.504 g	50 mL	99.20635	SOIL
SAMPLE	245797011		SW846 3050B	08-FEB-2010 14:00	0.508 g	50 mL	98.4252	SOIL
SAMPLE	245797012		SW846 3050B	08-FEB-2010 14:00	0.505 g	50 mL	99.0099	SOIL
SAMPLE	245797013		SW846 3050B	08-FEB-2010 14:00	0.515 g	50 mL	97.08738	SOIL
SAMPLE	245797014		SW846 3050B	08-FEB-2010 14:00	0.511 g	50 mL	97.84736	SOIL
SAMPLE	245797015		SW846 3050B	08-FEB-2010 14:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	245797016		SW846 3050B	08-FEB-2010 14:00	0.534 g	50 mL	93.63296	SOIL
SAMPLE	245797017		SW846 3050B	08-FEB-2010 14:00	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245797018		SW846 3050B	08-FEB-2010 14:00	0.53 g	50 mL	94.33962	SOIL
SAMPLE	245797019		SW846 3050B	08-FEB-2010 14:00	0.518 g	50 mL	96.5251	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID

Comments Brown,clumpy soil.

Prep LogBook

1264396	1.25 mL	Nitric Acid CONC.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948066

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030964	UI062540-MS	.512	g
MS	1202030962	UI091015-A	.5	mL
MS	1202030962	UI091015-B	.5	mL
MSD	1202030963	UI091015-A	.5	mL
MSD	1202030963	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030959		SW846 3050B	08-FEB-2010 14:00	0.518 g	50 mL	96.5251	SOIL
LCS	1202030964		SW846 3050B	08-FEB-2010 14:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	245797001		SW846 3050B	08-FEB-2010 14:00	0.506 g	50 mL	98.81423	SOIL
DUP	1202030960	245797001	SW846 3050B	08-FEB-2010 14:00	0.511 g	50 mL	97.84736	SOIL
SDILT	1202030961	245797001	SW846 3050B	08-FEB-2010 14:00	0.506 g	50 mL	98.81423	SOIL
MS	1202030962	245797001	SW846 3050B	08-FEB-2010 14:00	0.511 g	50 mL	97.84736	SOIL
MSD	1202030963	245797001	SW846 3050B	08-FEB-2010 14:00	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245797002		SW846 3050B	08-FEB-2010 14:00	0.537 g	50 mL	93.10987	SOIL
SAMPLE	245797003		SW846 3050B	08-FEB-2010 14:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	245797004		SW846 3050B	08-FEB-2010 14:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245797005		SW846 3050B	08-FEB-2010 14:00	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245797006		SW846 3050B	08-FEB-2010 14:00	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245797007		SW846 3050B	08-FEB-2010 14:00	0.551 g	50 mL	90.7441	SOIL
SAMPLE	245797008		SW846 3050B	08-FEB-2010 14:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	245797009		SW846 3050B	08-FEB-2010 14:00	0.531 g	50 mL	94.16196	SOIL
SAMPLE	245797010		SW846 3050B	08-FEB-2010 14:00	0.506 g	50 mL	98.81423	SOIL
SAMPLE	245797011		SW846 3050B	08-FEB-2010 14:00	0.506 g	50 mL	98.81423	SOIL
SAMPLE	245797012		SW846 3050B	08-FEB-2010 14:00	0.511 g	50 mL	97.84736	SOIL
SAMPLE	245797013		SW846 3050B	08-FEB-2010 14:00	0.541 g	50 mL	92.42144	SOIL
SAMPLE	245797014		SW846 3050B	08-FEB-2010 14:00	0.535 g	50 mL	93.45794	SOIL
SAMPLE	245797015		SW846 3050B	08-FEB-2010 14:00	0.549 g	50 mL	91.07468	SOIL
SAMPLE	245797016		SW846 3050B	08-FEB-2010 14:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	245797017		SW846 3050B	08-FEB-2010 14:00	0.504 g	50 mL	99.20635	SOIL
SAMPLE	245797018		SW846 3050B	08-FEB-2010 14:00	0.505 g	50 mL	99.0099	SOIL
SAMPLE	245797019		SW846 3050B	08-FEB-2010 14:00	0.515 g	50 mL	97.08738	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%

Comments: Brown,clumpy soil.

Prep LogBook

1264396	5 mL	Nitric Acid CONC.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 947667

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030036	UI031809A	.2	g
MS	1202030038	WHG100215-14	.3	mL
MSD	1202030040	WHG100215-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030035		SW846 7471A Prep	15-FEB-2010 16:45	0.513 g	30 mL	58.47953	SOIL
LCS	1202030036		SW846 7471A Prep	15-FEB-2010 16:45	0.2 g	30 mL	150	SOIL
SAMPLE	245797001		SW846 7471A Prep	15-FEB-2010 16:45	0.567 g	30 mL	52.91005	SOIL
DUP	1202030037	245797001	SW846 7471A Prep	15-FEB-2010 16:45	0.5 g	30 mL	60	SOIL
MS	1202030038	245797001	SW846 7471A Prep	15-FEB-2010 16:45	0.516 g	30 mL	58.13953	SOIL
MSD	1202030040	245797001	SW846 7471A Prep	15-FEB-2010 16:45	0.572 g	30 mL	52.44755	SOIL
SDILT	1202030039	245797001	SW846 7471A Prep	15-FEB-2010 16:45	0.567 g	30 mL	52.91005	SOIL
SAMPLE	245797002		SW846 7471A Prep	15-FEB-2010 16:45	0.528 g	30 mL	56.81818	SOIL
SAMPLE	245797003		SW846 7471A Prep	15-FEB-2010 16:45	0.549 g	30 mL	54.64481	SOIL
SAMPLE	245797004		SW846 7471A Prep	15-FEB-2010 16:45	0.543 g	30 mL	55.24862	SOIL
SAMPLE	245797005		SW846 7471A Prep	15-FEB-2010 16:45	0.547 g	30 mL	54.84461	SOIL
SAMPLE	245797006		SW846 7471A Prep	15-FEB-2010 16:45	0.566 g	30 mL	53.00353	SOIL
SAMPLE	245797007		SW846 7471A Prep	15-FEB-2010 16:45	0.535 g	30 mL	56.07477	SOIL
SAMPLE	245797008		SW846 7471A Prep	15-FEB-2010 16:45	0.519 g	30 mL	57.80347	SOIL
SAMPLE	245797009		SW846 7471A Prep	15-FEB-2010 16:45	0.526 g	30 mL	57.03422	SOIL
SAMPLE	245797010		SW846 7471A Prep	15-FEB-2010 16:45	0.512 g	30 mL	58.59375	SOIL
SAMPLE	245797011		SW846 7471A Prep	15-FEB-2010 16:45	0.567 g	30 mL	52.91005	SOIL
SAMPLE	245797012		SW846 7471A Prep	15-FEB-2010 16:45	0.502 g	30 mL	59.76096	SOIL
SAMPLE	245797013		SW846 7471A Prep	15-FEB-2010 16:45	0.542 g	30 mL	55.35055	SOIL
SAMPLE	245797014		SW846 7471A Prep	15-FEB-2010 16:45	0.503 g	30 mL	59.64215	SOIL
SAMPLE	245797015		SW846 7471A Prep	15-FEB-2010 16:45	0.501 g	30 mL	59.88024	SOIL
SAMPLE	245797016		SW846 7471A Prep	15-FEB-2010 16:45	0.518 g	30 mL	57.91506	SOIL
SAMPLE	245797017		SW846 7471A Prep	15-FEB-2010 16:45	0.505 g	30 mL	59.40594	SOIL
SAMPLE	245797018		SW846 7471A Prep	15-FEB-2010 16:45	0.503 g	30 mL	59.64215	SOIL
SAMPLE	245797019		SW846 7471A Prep	15-FEB-2010 16:45	0.529 g	30 mL	56.71078	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent

Comments: Sample 245797001 is a brown dry rocky soil.
Digestion Start Date: 15-FEB-10 16:45
Digestion End Date: 15-FEB-10 17:15

Prep LogBook

WHG100215-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100215-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100215-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100215-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100215-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100215-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
17-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
948067	See Below		

Potentially affected work order(s)(SDG): 245797(10-1471)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202030962MS 2. Failed Recovery for MSD/PSD: QC 1202030963MSD	The matrix spike and matrix spike duplicate recovery failed outside of the control limits for Se and Ni due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Samantha Jacobs 18-FEB-10

Data Validator/Group Leader:

Elizabeth Janssen 19-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
18-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
948065	See Below		

Potentially affected work order(s)(SDG): 245797(10-1471)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202030956MS 2. Failed Recovery for MSD/PSD: QC 1202030957MSD	1. The matrix spike recovery failed outside of the control limits for barium, potassium, and magnesium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The matrix spike duplicate recovery failed outside of the control limits for potassium, manganese, and magnesium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Christopher Louviere 18-FEB-10

Data Validator/Group Leader:

Eric Lawson 18-FEB-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Carnello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Carnello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100114-49.20 **Opened:** 17-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-JAN-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 18-FEB-10 **Lot Number :** 1018458
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si

Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100126-11 **Opened:** 26-JAN-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 26-JAN-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 26-JAN-11 **Lot Number :** 1018321
Employee: Elizabeth Janssen **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100215-01 **Opened:** 15-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 15-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 16-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: IHG100215-02 **Opened:** 15-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 16-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100215-07 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100215-08 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100215-09 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Standard Logbook

Serial ID: WHG100215-10 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100215-11 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100215-12 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100215-14 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WI100217-42 **Opened:** 17-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100217-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100217-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100217-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100217-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100217-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100217-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100217-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100217-43 **Opened:** 17-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100217-44 **Opened:** 17-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100217-45 **Opened:** 17-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100217-46 **Opened:** 17-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100217-47 **Opened:** 17-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100212-04 **Opened:** 12-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 12-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 13-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1266278
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100212-04A **Opened:** 12-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 12-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100212-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100212-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100212-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100212-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100212-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100212-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100212-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100212-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100212-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100212-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100212-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100212-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100212-05 **Opened:** 12-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 12-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 13-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100212-06
Name: ICPMS CRDL
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 12-FEB-10
Received: 12-FEB-10
Expires: 13-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1266278

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100212-07 **Opened:** 12-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 12-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 13-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1266278
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100212-08 **Opened:** 12-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 12-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 13-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100212-70 **Opened:** 12-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 12-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 13-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100213-04 **Opened:** 13-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 14-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1266278
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100213-04A **Opened:** 13-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 13-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100213-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100213-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100213-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100213-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100213-05 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 13-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100213-06 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100213-07 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1266278
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100213-08 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100213-70 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 13-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100215-04 **Opened:** 15-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 16-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100215-04A **Opened:** 15-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 15-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100215-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100215-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100215-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100215-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100215-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100215-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100215-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100215-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100215-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100215-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100215-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100215-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100215-05 **Opened:** 15-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 15-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100215-06 **Opened:** 15-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100215-07 **Opened:** 15-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100215-08 **Opened:** 15-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100216-04 **Opened:** 16-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 16-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 17-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100216-04A **Opened:** 16-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 16-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 17-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100216-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100216-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100216-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100216-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100216-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100216-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100216-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100216-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100216-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100216-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100216-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100216-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100216-05 **Opened:** 16-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 16-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 17-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100216-06 **Opened:** 16-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 16-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 17-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100216-07 **Opened:** 16-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 16-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 17-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100216-08 **Opened:** 16-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 16-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 17-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100217-04 **Opened:** 17-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 18-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100217-04A **Opened:** 17-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 17-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100217-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100217-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100217-05 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 17-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100217-06 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 17-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100217-07 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 17-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 18-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100217-08 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 17-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1252836 **Opened:** 08-JAN-10 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 08-JAN-10
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1252838 **Opened:** 08-JAN-10 **Lot Number :** H41032
Name: I-HCL **Received:** 08-JAN-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1266278 **Opened:** 08-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 08-FEB-10
Type: Reagent/Solvent **Expires:** 15-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1252836	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1252838	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1269792 **Opened:** 15-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 15-FEB-10
Type: Reagent/Solvent **Expires:** 22-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1270010 **Opened:** 15-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1471

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	947315 and 947318	**Method:**	SW9012A Cyanide and Total
Prep Batch :	947314 and 947317	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245797001	RE15-10-7888
245797002	RE15-10-7890
245797003	RE15-10-7886
245797004	RE15-10-7889
245797005	RE15-10-7885
245797006	RE15-10-7882
245797007	RE15-10-7887
245797008	RE15-10-7881
245797009	RE15-10-7951
245797010	RE15-10-7950
245797011	RE15-10-7947
245797012	RE15-10-7944
245797013	RE15-10-7948
245797014	RE15-10-7941
245797015	RE15-10-7949
245797016	RE15-10-7946
245797017	RE15-10-7942
245797018	RE15-10-7945
245797019	RE15-10-7943
1202029242	Method Blank (MB)
1202029243	245688011(RE15-10-7940) Sample Duplicate (DUP)
1202029244	245688012(RE15-10-7937) Sample Duplicate (DUP)
1202029245	245688011(RE15-10-7940) Matrix Spike (MS)
1202029246	245688012(RE15-10-7937) Matrix Spike (MS)
1202029247	245688011(RE15-10-7940) Matrix Spike Duplicate (MSD)
1202029248	245688012(RE15-10-7937) Matrix Spike Duplicate (MSD)
1202029249	Laboratory Control Sample (LCS)
1202029252	Method Blank (MB)
1202029253	245797007(RE15-10-7887) Sample Duplicate (DUP)
1202029254	245797008(RE15-10-7881) Sample Duplicate (DUP)
1202029255	245797007(RE15-10-7887) Matrix Spike (MS)
1202029256	245797008(RE15-10-7881) Matrix Spike (MS)
1202029257	245797007(RE15-10-7887) Matrix Spike Duplicate (MSD)
1202029258	245797008(RE15-10-7881) Matrix Spike Duplicate (MSD)
1202029259	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245688011 (RE15-10-7940), 245688012 (RE15-10-7937)- Batch 947315, 245797007 (RE15-10-7887) and 245797008 (RE15-10-7881)- Batch 947318.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202029246 (RE15-10-7937)- Batch 947315.

Matrix Spike Duplicate (MSD) Recovery Statement
The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202029247 (RE15-10-7940)- Batch 947315. The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202029258 (RE15-10-7881)- Batch 947318.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202029243 (RE15-10-7940), 1202029244 (RE15-10-7937)- Batch 947315, 1202029254 (RE15-10-7881) and 245797008 (RE15-10-7881)- Batch 947318.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202029249 (LCS)- Batch 947315 and 1202029259 (LCS)- Batch 947318.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202029242 (MB)- Batch 947315.

Miscellaneous Information

Data Exception (DER) Documentation
The following DERs were generated for this SDG: 788611 1202029246 (RE15-10-7937) and 1202029248 (RE15-10-7937)- Batch 947315. The following DER was generated for this SDG: 788675 1202029258 (RE15-10-7881)- Batch 947318.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 22Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1471 GEL Work Order: 245797

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7888	Project:	LANL01004
Sample ID:	245797001	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	9.32%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.4	255	ug/kg	1	AXC2 02/08/10	1355	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7890	Project:	LANL01004
Sample ID:	245797002	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	9.81%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.9	272	ug/kg	1	AXC2 02/08/10	1356	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7886	Project:	LANL01004
Sample ID:	245797003	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	6.53%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.6	252	ug/kg	1	AXC2 02/08/10	1357	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7889	Project:	LANL01004
Sample ID:	245797004	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	37.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	108	398	ug/kg	1	AXC2 02/08/10	1358	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7885	Project:	LANL01004
Sample ID:	245797005	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	33.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	154	94.1	346	ug/kg	1	AXC2 02/08/10	1359	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7882	Project:	LANL01004
Sample ID:	245797006	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	12.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.7	286	ug/kg	1	AXC2 02/08/10	1359	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7887	Project:	LANL01004
Sample ID:	245797007	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	33%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	87.5	322	ug/kg	1	AXC2 02/08/10	1520	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7881	Project:	LANL01004
Sample ID:	245797008	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	37.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	298	106	390	ug/kg	1	AXC2 02/08/10	1524	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7951	Project:	LANL01004
Sample ID:	245797009	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	19.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.0	287	ug/kg	1	AXC2 02/08/10	1527	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7950	Project:	LANL01004
Sample ID:	245797010	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	19.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.5	289	ug/kg	1	AXC2 02/08/10	1528	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7947	Project:	LANL01004
Sample ID:	245797011	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	36.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	122	105	384	ug/kg	1	AXC2 02/08/10	1533	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7944	Project:	LANL01004
Sample ID:	245797012	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	7.21%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.3	269	ug/kg	1	AXC2 02/08/10	1534	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7948	Project:	LANL01004
Sample ID:	245797013	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	7.88%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.0	261	ug/kg	1	AXC2 02/08/10	1534	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7941	Project:	LANL01004
Sample ID:	245797014	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	23.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total		324	82.5	303	ug/kg	1	AXC2 02/08/10	1535	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7949	Project:	LANL01004
Sample ID:	245797015	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	40.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	115	422	ug/kg	1	AXC2 02/08/10	1536	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7946	Project:	LANL01004
Sample ID:	245797016	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	8.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.2	262	ug/kg	1	AXC2 02/08/10	1537	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7942	Project:	LANL01004
Sample ID:	245797017	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	10.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.7	260	ug/kg	1	AXC2 02/08/10	1538	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7945	Project:	LANL01004
Sample ID:	245797018	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	39.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	234	103	380	ug/kg	1	AXC2 02/08/10	1539	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1471

Client Sample ID:	RE15-10-7943	Project:	LANL01004
Sample ID:	245797019	Client ID:	LANL010
Matrix:	R		
Collect Date:	26-JAN-10 12:00		
Receive Date:	29-JAN-10		
Collector:	Client		
Moisture:	7.55%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.7	241	ug/kg	1	AXC2 02/08/10	1540	947318	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1402	947317

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

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QC Summary

Report Date: February 19, 2010
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Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245797

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 947315										
QC1202029243 245688011 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/08/10 13:43
QC1202029244 245688012 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				02/08/10 13:47
QC1202029249 LCS										
Cyanide, Total	67900			66500	ug/kg		97.9	(32%-157%)		02/08/10 13:28
QC1202029242 MB										
Cyanide, Total			U	250	ug/kg					02/08/10 13:40
QC1202029245 245688011 MS										
Cyanide, Total	4530	U	ND	3920	ug/kg		86.6	(26%-158%)		02/08/10 13:44
QC1202029246 245688012 MS										
Cyanide, Total	6070	U	ND	4200	ug/kg		68.9	(26%-158%)		02/08/10 13:48
QC1202029247 245688011 MSD										
Cyanide, Total	5050	U	ND	3960	ug/kg	0.972	78.4	(0%-30%)		02/08/10 13:45
QC1202029248 245688012 MSD										
Cyanide, Total	5960	U	ND	4260	ug/kg	1.29	71.1	(0%-30%)		02/08/10 13:52
Batch 947318										
QC1202029253 245797007 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/08/10 15:21
QC1202029254 245797008 DUP										
Cyanide, Total	J	298	U	ND	ug/kg	200 ^				02/08/10 15:25
QC1202029259 LCS										
Cyanide, Total	67900			72500	ug/kg		107	(32%-157%)		02/08/10 15:16
QC1202029252 MB										
Cyanide, Total			U	250	ug/kg					02/08/10 15:15
QC1202029255 245797007 MS										
Cyanide, Total	7470	U	ND	6230	ug/kg		83.5	(26%-158%)		02/08/10 15:22
QC1202029256 245797008 MS										
Cyanide, Total	7640	J	298	6810	ug/kg		85.2	(26%-158%)		02/08/10 15:25
QC1202029257 245797007 MSD										
Cyanide, Total	7180	U	ND	6060	ug/kg	2.85	84.4	(0%-30%)		02/08/10 15:23
QC1202029258 245797008 MSD										
Cyanide, Total	7360	J	298	5790	ug/kg	16.2	74.7	(0%-30%)		02/08/10 15:26

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 245797

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 19-FEB-2010 11:09

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1471

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 13:36:51	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 13:49:17	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:01:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:04:19	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes
CCV	08-FEB-2010 15:16:55	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes
CCV	08-FEB-2010 15:29:29	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:41:58	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 13:38:42	OM_2-8-2010_13-14-40	-1.4	10	Yes
CCB	08-FEB-2010 13:51:07	OM_2-8-2010_13-14-40	-1.92	10	Yes
CCB	08-FEB-2010 14:03:31	OM_2-8-2010_13-14-40	-1.86	10	Yes
CCB	08-FEB-2010 15:06:09	OM_2-8-2010_13-14-40	-1.82	10	Yes
CCB	08-FEB-2010 15:18:45	OM_2-8-2010_13-14-40	-1.49	10	Yes
CCB	08-FEB-2010 15:31:18	OM_2-8-2010_13-14-40	-1.86	10	Yes
CCB	08-FEB-2010 15:43:48	OM_2-8-2010_13-14-40	-1.82	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 947314

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029249	URF1200957-01	.25	g
MS	1202029245	URF1184831-02	.025	mL
MS	1202029246	URF1184831-02	.025	mL
MSD	1202029247	URF1184831-02	.025	mL
MSD	1202029248	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029242		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	SOIL
LCS	1202029249		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245682001		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682002		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682003		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245682004		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245682005		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682006		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682007		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245682008		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682009		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245682010		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245688011		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1202029243	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963	SOIL
MS	1202029245	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1202029247	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245688012		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202029244	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	SOIL
MS	1202029246	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202029248	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245688013		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245688014		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245797001		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797002		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245797003		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245797004		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245797005		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797006		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100204-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 947317

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029259	URF1200957-01	.25	g
MS	1202029255	URF1184831-02	.025	mL
MS	1202029256	URF1184831-02	.025	mL
MSD	1202029257	URF1184831-02	.025	mL
MSD	1202029258	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029252		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
LCS	1202029259		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245797007		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.58 g	25 mL	43.10345	SOIL
DUP	1202029253	245797007	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
MS	1202029255	245797007	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
MSD	1202029257	245797007	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245797008		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.51 g	25 mL	49.01961	SOIL
DUP	1202029254	245797008	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202029256	245797008	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
MSD	1202029258	245797008	SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797009		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797010		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797011		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245797012		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245797013		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245797014		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797015		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245797016		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245797017		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797018		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797019		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245806001		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245806002		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245806003		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245806004		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245806005		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245806006		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245806007		SW846 9010B Prep	05-FEB-2010 14:02	>12	0.51 g	25 mL	49.01961	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100205-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010	15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010	15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010	15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010	15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010	15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010	15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010	15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010	15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010	15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010	15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010	15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010	15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010	15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010	15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010	15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010	15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010	15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010	15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010	15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010	15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010	15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010	15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010	15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010	15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010	15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010	15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010	15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010	15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010	15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010	15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010	15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010	15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010	15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	16:02:41	OM_2-8-2010_13-14-40

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029237|LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231|DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233|MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235|MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232|DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234|MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236|MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.47 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.47 > -5.00					
		Message	CCB Passed					
		Action	Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/8/2010

Channel 1: Current View

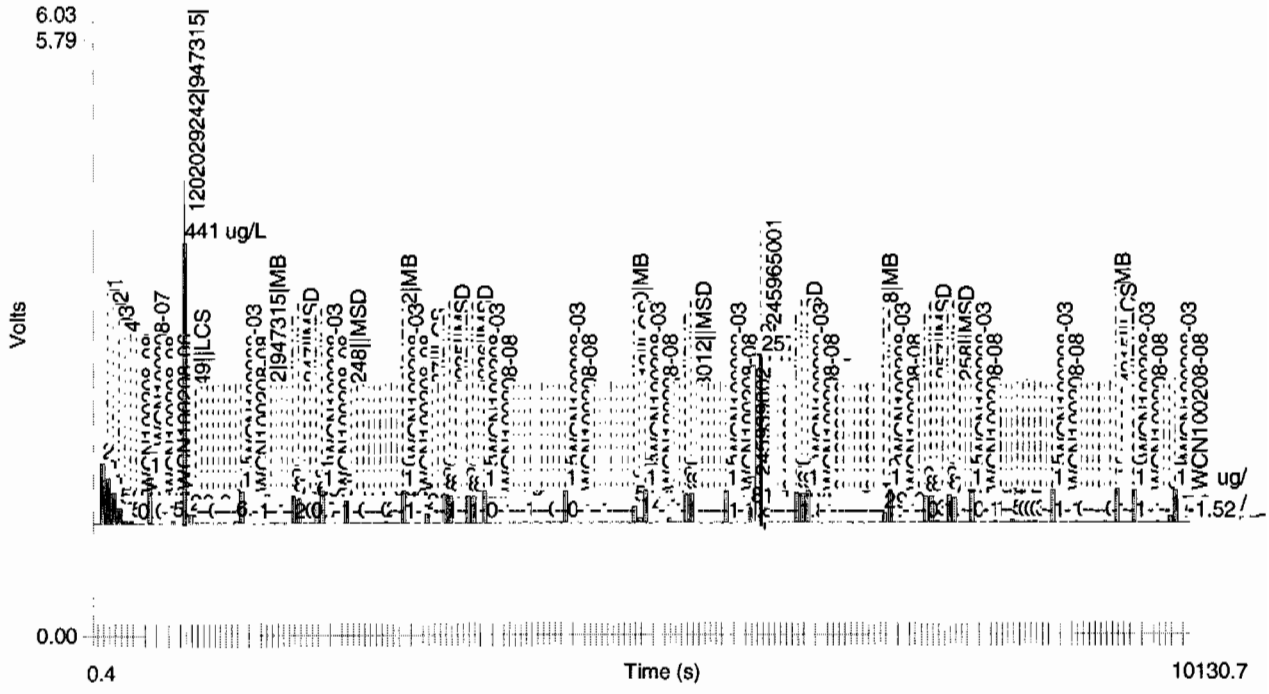

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE

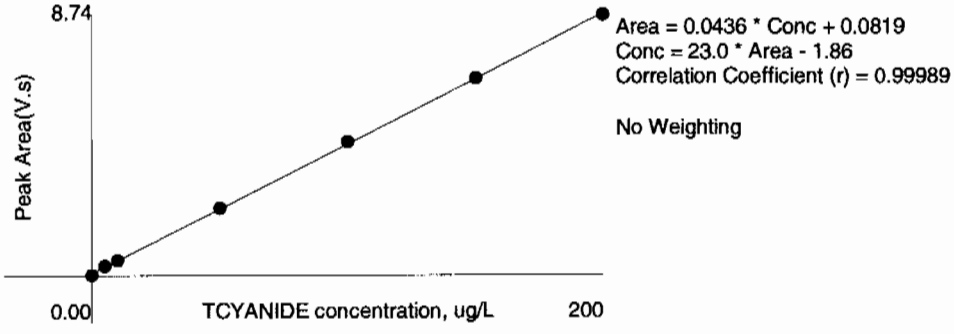

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-FEB-10			
Instrument Type:	**Test / Method:** SW846 9012A	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 947315	**Sample Numbers:** See Below		

Potentially affected work order(s)($DG): 245682(10-1450-1),245688(10-1433),245797(10-1471)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD QC 1202029246MS 1202029248MSD	1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD (soil sample).

Originator's Name:
Ashley Earl 09-FEB-10

Data Validator/Group Leader:
Elzbieta Szulc 19-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-FEB-10			
Instrument Type:	**Test / Method:** SW846 9012A	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 947318	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 245797(10-1471),245806(10-1474)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD: QC 1202029258MSD	1. The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported(soil sample).

Originator's Name:

Ashley Earl 09-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 16-FEB-10

Thursday, January 28, 2010

REQUEST NUMBER: 10-1470

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1470

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
	SW-846:8321A_MOD	1	RE15-10-7881	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1470

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1470

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1470

REQUEST NUMBER: 10-1470

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7888	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7890	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7886	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7889	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7885	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7882	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7887	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7881	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7951	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7950	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7947	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7944	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7948	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7941	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7949	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7946	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7942	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7945	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7943	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	1/28/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7881 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		0908	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610710	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown silty sand - frozen - few rocks + pine needles

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-40 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG.

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1990 dpm

PID Ambient 0.0 / Reading 0.9 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Brenn Sherwood	1/27/10
(Signature)	09:18 AM	(Signature) Brenn Sherwood	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7882 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0955	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610710	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray ~~white~~ brown tuff 12m 1/26/10

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-40 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

~~Alpha~~ ≤ 38 dpm
~~Beta/Gamma~~ ≤ 2010 dpm

PID Ambient Reading ~~0.0~~ 0.6 RS 01-26-10 / 3.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	~~1/27/10~~ 1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:17Am	(Signature) Sherri Sherwood	0917
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7885 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Alth
TIME COLLECTED (HH:MM)		1128	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610712	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown frozen silty sand, pine cone, wire

SAMPLE COMMENTS: TJM 1/26/10 ~~NA~~ Pine cone and wire not placed in sample

LOCATION DESC: 8b-39 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 2260 dpm

PID Ambient 0.0 / Reading 2.6 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 09:17AM	(Printed Name) (Signature)	1/27/10 935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7886 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1145	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610712	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-39 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm
Beta/Gamma ≤ 2130 dpm

PID Ambient 0.2 / Reading 3.5 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luian	1/27/10 9:18 Am	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7887 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ALL H ~~ALLN~~ RS 01-26-10
TIME COLLECTED (HH:MM)		1315	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610713	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: redish brown silty clay

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-63 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 27 dpm
Beta/Gamma ≤ 1534 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteven Lujan	1/27/10	(Printed Name) Sheri Sherwood	1/27/10
(Signature)	09:22 Am	(Signature) Sheri Sherwood	0922
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7888 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610713	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff, some clay

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-63, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 33 **dpm**
Beta/Gamma ≤ 1928 **dpm**

PID Ambient Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature) E L	09:21 Am	(Signature)	935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7889 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1548	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610714	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, fragments

SAMPLE COMMENTS: wire in bowl, not put in sample jar

LOCATION DESC: 8b-36, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 33 **dpm**
Beta/Gamma ≤ 3080 **dpm**

PID Ambient 0.0 / Reading 0.3 **ppm**

COLLECTED BY (PRINT) TL McFarlana

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 0855 AM	(Printed Name)	1/27/10 9:35
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7890 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1603	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	↓	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610714	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-36, mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 60 dpm
Beta/Gamma ≤ 2640 dpm

PID Ambient 0.0 / Reading 0.7 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 08:55 AM	(Printed Name) (Signature)	1/27/10 938
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7941 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	All h
TIME COLLECTED (HH:MM)		0833	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610740	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Frozen brown silty clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-64, mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1845 dpm

PID Ambient .5 / Reading .8 ppm

COLLECTED BY (PRINT) T.L. McFarlang **REVIEWED BY (PRINT)** R. Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	09:18 Am	(Signature)	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7942 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		0845	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610740	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	12/m 1/26/10 ~~4.0~~ 4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-64 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm
Beta/Gamma = 2130 dpm

PID Ambient 0.1 / Reading 1.7 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luian	1/27/10	(Printed Name) Sherry Sherwood	1/27/10
(Signature) E S	09:18 Am	(Signature) Sherry Sherwood	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7943 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0909	SUB-MEDIA:	TUFF 1	L
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610741	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	12m ~~0.~~ 1.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray Tuff
bit tuff at surface

SAMPLE COMMENTS: NA

LOCATION DESC: 8b- 42 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha = 16 **dpm**
Beta/Gamma = 2270 **dpm**

PID Ambient 0.1 / Reading 0.1 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature)	9:18 AM	(Signature) Sherri Sherwood	0918
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7944 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610741	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Grey Tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-42, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 2060 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteven Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	9:19 am	(Signature)	935
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7945 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1014	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610742	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark brown frozen silty sand, numerous rocks, few pine needles

SAMPLE COMMENTS: NA FR RE15-10-8081

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE POSITIVE

Alpha = 16 dpm
Beta/Gamma = 1783 dpm

PID Ambient 0.0 / Reading 0.1 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Luna	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]	09:21 Am	(Signature) Sherri Sherwood	0921
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7946 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1047	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610742	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FD:RE15-10-~~8059~~ 8059 TJM 1/26/10

SAMPLE COMMENTS: Tuff at 2 ft

LOCATION DESC: 8b-41 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 2070 dpm

PID Ambient 0.1 / Reading 83 ppm

COLLECTED BY (PRINT) TLM cFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:20 Am	(Printed Name)	1/27/10 935
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7947 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1029	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610743	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown sandy silt, rocks, some roots, pine needles

FD: RE15-10-8058

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-43 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 2300 **dpm**

PID Ambient 0.1 / Reading 1.5 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteven Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	09:20 am	(Signature)	938
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7948 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1050	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610743	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.9	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brownish gray tuff, some roots

SAMPLE COMMENTS: Tuff at 3'4"

LOCATION DESC: 8b-43 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm
Beta/Gamma ≤ 2050 dpm

PID Ambient 0.1 / Reading 0.4 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]	09:20 Am	(Signature) Sherri Sherwood	0920
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7949 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		~~1243~~ 1143	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610744	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: dark brown frozen silty sand

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-38 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1700 dpm

PID Ambient Reading 0.1 / 0.6 ppm

COLLECTED BY (PRINT) R. Saunders REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/27/10 09:17AM	(Printed Name) (Signature)	1/27/10 935
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7950 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1211	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610744	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1.5	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01.11.10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown clay, few tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-38 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1741 dpm

PID Ambient Reading 0.2 / 0.3 ppm

COLLECTED BY (PRINT) R. Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/27/10
(Signature) [signature]	09:21 Am	(Signature) Sherri Sherwood	0921
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7951 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/26/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1338	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610745	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ 1L POLY RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray moist Tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-65 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 dpm
Beta/Gamma ≤ 2030 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10 09:17 AM	(Printed Name)	1/27/10 938
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7890	RE15-10-7886	RE15-10 7948
" " 7889	" " 7885	" " 7947
" " 7956	" " 7882	" " 8058
" " 7953	" " 7881	" " 7950
" " 8060	" " 7941	
" " 7954	" " 7942	
" " 7955	" " 7943	
" " 7952	" " 7944	
" " 7951	" " 8059	
" " 7949	" " 7946	
	" " 7945	

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8082

RE15-10-8081

Reason: Field Rinsate.

Print Last Name Lujan Signature [signature] Date 1/27/10

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7881	ARS Sample ID:	ARS2-10-00025-001
Sample Collection Date:	01/26/10 09:08	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	10.80	19.79	36.09	19.83		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	41.40	15.01	17.69	15.85		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.60	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	16.84	6.63	1.47	6.65		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.61	0.10	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.15	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.69	0.32	0.06	0.32		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.71	0.40	0.11	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.31	0.49	0.17	0.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.25	0.64	0.26	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.18	1.04	0.37	1.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	6.81	3.33	1.23	3.67		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.53	0.41	0.14	0.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 4.28

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9834

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7882	ARS Sample ID:	ARS2-10-00025-002
Sample Collection Date:	01/26/10 09:55	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 08:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	20.74	22.37	31.78	22.51		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	24.54	13.50	18.25	13.83		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	29.87	11.33	2.43	11.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	15.90	0.16	15.90		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.34	0.23	0.12	0.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.29	0.27	0.10	0.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.38	0.22	0.38		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	2.17	0.81	0.21	0.82		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.77	0.94	0.42	0.95		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.60	0.88	0.28	0.88		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	3.42	4.41	1.96	4.56		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.49	0.46	0.18	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.35

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7885	ARS Sample ID:	ARS2-10-00026-001
Sample Collection Date:	01/26/10 11:28	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:02

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	50.37	33.86	36.09	34.41		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	59.79	17.49	17.69	18.96		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	14.79	5.82	1.29	5.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	8.44	0.09	8.44		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.01	0.02	0.06	0.02		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.90	0.34	0.05	0.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	44.62	0.10	44.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.92	0.44	0.18	0.44		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.06	0.60	0.23	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.05	75.28	0.17	75.28		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	14.39	5.28	1.62	6.19		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.30	0.36	0.15	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.64

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	AR52-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7886	ARS Sample ID:	AR52-10-00026-002
Sample Collection Date:	01/26/10 11:45	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	43.80	30.16	31.78	30.63		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	35.55	15.20	18.25	15.81		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	32.04	11.03	2.17	11.07		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.20	0.14	14.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.01	0.04	0.09	0.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.41	0.47	0.17	0.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.63	0.67	0.24	0.68		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	-0.16	221.15	0.50	221.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.09	79.84	0.22	79.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.90	3.23	1.38	3.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.11	0.27	0.13	0.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.72

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7887	ARS Sample ID:	ARS2-10-00025-003
Sample Collection Date:	01/26/10 13:15	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.69	31.82	30.56	32.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	44.45	17.21	19.68	18.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	17.74	6.61	1.40	6.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.14	0.09	0.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.33	0.17	0.07	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.06	0.10	0.06	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.27	0.34	0.23	0.34		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.15	0.43	0.13	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.08	0.61	0.29	0.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.86	0.63	0.17	0.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.49	2.42	1.13	2.45		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.02	0.09	0.06	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.57

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7888	ARS Sample ID:	ARS2-10-00025-004
Sample Collection Date:	01/26/10 14:26	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	10.53	20.58	38.20	20.59		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	48.05	16.12	18.71	17.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	25.36	5.60	1.67	5.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	10.94	0.11	10.94		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.24	0.21	0.08	0.22		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.07	0.12	0.07	0.12		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.69	0.46	0.13	0.46		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.63	0.61	0.20	0.62		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.57	0.99	0.29	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	3.31	1.28	0.30	1.28		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	5.61	4.38	1.59	4.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.40	0.31	0.11	0.31		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.76

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7889	ARS Sample ID:	ARS2-10-00026-003
Sample Collection Date:	01/26/10 15:48	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	42.86	30.06	30.56	30.52		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	107.24	22.75	19.68	26.26		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	19.09	6.59	1.26	6.61		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.05	0.10	0.08	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.18	0.16	0.05	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.35	0.15	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.82	0.33	0.09	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.52	0.65	0.22	0.65		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.03	0.62	0.13	0.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	18.73	4.35	1.19	4.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.18	0.20	0.05	0.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 5.10

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7890	ARS Sample ID:	ARS2-10-00026-004
Sample Collection Date:	01/26/10 16:03	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.28	32.73	38.20	33.23		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	44.91	16.44	18.71	17.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.08	0.15	0.12	0.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	23.26	8.99	1.96	9.01		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.02	0.05	0.13	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.05	0.09	0.09	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.09	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	13.32	0.15	13.32		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.04	0.55	0.22	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.11	0.90	0.34	0.91		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.01	0.72	0.20	0.73		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	8.91	3.98	1.42	4.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.33	0.41	0.16	0.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.99

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7941	ARS Sample ID:	ARS2-10-00025-005
Sample Collection Date:	01/26/10 08:33	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	25.64	25.97	36.09	26.16		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	48.83	16.04	17.69	17.12		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	15.57	6.26	1.41	6.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	0.22	0.06	0.22		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.11	0.13	0.07	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.73	0.32	0.06	0.33		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.25	0.28	0.11	0.28		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.93	0.35	0.08	0.35		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.08	0.51	0.27	0.51		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.92	1.09	0.31	1.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	7.27	3.27	1.20	3.67		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.34	0.29	0.11	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.46

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7942	ARS Sample ID:	ARS2-10-00025-006
Sample Collection Date:	01/26/10 08:45	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:13

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	39.18	28.78	31.78	29.17		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	49.69	16.59	18.25	17.67		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.85	8.14	1.72	8.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	11.26	0.11	11.26		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	36.94	0.06	36.94		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.01	0.05	0.07	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	1.04	0.58	0.13	0.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.25	0.47	0.13	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.86	0.87	0.30	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.73	0.87	0.17	0.88		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	2.67	3.65	1.58	3.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.13	0.21	0.10	0.21		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.80

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7943	ARS Sample ID:	ARS2-10-00025-007
Sample Collection Date:	01/26/10 09:09	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.20	26.91	30.56	27.22		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	34.60	15.06	19.68	16.42		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	0.13	10.71	5.46	10.71		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.83	0.13	12.83		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.10	0.13	0.09	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	16.79	0.08	16.79		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.24	0.30	0.15	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	2.25	0.63	0.11	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.61	1.10	0.34	1.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.01	1.04	0.36	1.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.46	3.12	1.49	3.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.01	0.11	0.10	0.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.81

Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00025

Client Sample ID: RE15-10-7944

Sample Collection Date: 01/26/10 09:34

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00025-008

Date Received: 01/27/10 00:00

Report Date: 01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	15.13	22.44	38.20	22.51		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	39.91	15.35	18.71	16.11		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	26.25	9.46	1.94	9.49		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	12.70	0.13	12.70		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.17	0.16	0.09	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.04	0.10	0.08	0.10		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.19	0.25	0.15	0.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.51	0.55	0.14	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.80	1.15	0.34	1.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.46	0.69	0.29	0.69		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	3.95	3.14	1.42	3.27		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.01	0.04	0.05	0.04		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.91

Matthew L. Eden

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7945	ARS Sample ID:	ARS2-10-00025-009
Sample Collection Date:	01/26/10 10:14	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:33

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	70.11	39.05	36.09	39.98		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	88.28	20.23	17.69	22.94		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.08	0.16	0.13	0.16		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	14.40	7.46	2.08	7.47		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	13.59	0.14	13.59		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.67	0.38	0.09	0.38		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	14.13	0.16	14.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.10	0.59	0.24	0.60		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.54	1.17	0.36	1.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.62	1.25	0.53	1.25		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	8.04	5.09	1.87	5.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.02	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.84

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7946	ARS Sample ID:	ARS2-10-00025-010
Sample Collection Date:	01/26/10 10:47	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	YMU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.39	31.80	31.78	32.05		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	68.71	18.52	18.25	20.34		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.77	9.78	2.42	9.80		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	15.84	0.16	15.84		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.15	0.20	0.12	0.20		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	20.73	0.10	20.73		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.63	0.57	0.18	0.57		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.04	0.50	0.13	0.50		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.34	1.15	0.42	1.15		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	1.84	1.08	0.25	1.08		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	4.03	4.80	1.98	4.89		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.62	0.53	0.19	0.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.70

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7947
Sample Collection Date: 01/26/10 10:29
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-011
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	91.15	42.42	30.56	43.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	80.25	21.31	19.68	23.47		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	17.04	8.29	2.20	8.31		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	14.37	0.15	14.37		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.02	0.06	0.11	0.06		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.61	0.43	0.09	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.46	0.43	0.17	0.43		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.90	0.55	0.23	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.66	0.85	0.38	0.85		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	0.52	0.63	0.29	0.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	16.48	5.34	1.70	6.53		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.57	0.66	0.23	0.66		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 3.56

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00025
Client Sample ID: RE15-10-7948
Sample Collection Date: 01/26/10 10:50
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00025-012
Date Received: 01/27/10 00:00
Report Date: 01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	93.20	43.38	38.20	44.86		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	68.54	19.33	18.71	21.09		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	20.40	9.39	2.38	9.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	18.86	0.16	15.56		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.52	0.36	0.10	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.47	0.55	0.18	0.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.38	0.57	0.15	0.58		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	2.67	1.55	0.41	1.55		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.10	1.14	0.24	1.14		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	6.40	4.53	1.88	4.76		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.34	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 0.76

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7949	ARS Sample ID:	ARS2-10-00026-005
Sample Collection Date:	01/26/10 11:43	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Result	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	55.31	35.23	36.09	38.87		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	64.55	18.00	17.69	19.66		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	15.70	6.88	1.67	6.89		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	10.92	0.11	10.92		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.30	0.23	0.08	0.23		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.33	0.24	0.07	0.24		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.48	0.42	0.13	0.42		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.77	0.40	0.14	0.40		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	0.98	0.59	0.29	0.59		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	-0.07	97.41	0.22	97.41		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	10.94	6.70	1.99	6.35		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.00	0.05	0.10	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 7.62

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9824

ARS Sample Delivery Group:	ARS2-10-00025	Request or PO Number:	
Client Sample ID:	RE15-10-7950	ARS Sample ID:	ARS2-10-00025-013
Sample Collection Date:	01/26/10 12:11	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 09:34

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	99.82	45.72	36.09	47.32		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	91.98	20.89	17.69	23.73		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	21.70	8.09	1.71	8.11		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.06	0.09	0.11	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.35	0.17	0.08	0.17		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	0.03	0.09	0.07	0.09		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.00	11.63	0.13	11.63		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	1.95	0.51	0.13	0.52		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-228	1.47	0.87	0.30	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.44	0.99	0.35	0.99		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	3.29	3.57	1.53	3.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.23	0.30	0.12	0.30		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 1.96

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00026	Request or PO Number:	
Client Sample ID:	RE15-10-7951	ARS Sample ID:	ARS2-10-00026-006
Sample Collection Date:	01/26/10 13:38	Date Received:	01/27/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/28/10 12:07

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	94.55	42.54	31.78	44.09		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
GROSS BETA	32.04	17.89	18.25	18.80		pCi/g	EPA 900.0M	1/28/2010	ME	N/A
NA-22	0.00	0.13	0.07	0.13		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
K-40	27.84	7.46	1.17	7.50		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CO-60	0.00	7.64	0.00	7.64		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-134	0.02	0.05	0.06	0.05		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
CS-137	-0.01	10.00	0.05	10.00		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
EU-152	0.08	0.47	0.09	0.48		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
PB-212	0.93	0.36	0.11	0.36		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
RA-226	1.64	0.68	0.20	0.69		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-235	2.15	0.86	0.28	0.87		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
U-238	1.41	1.89	0.90	1.92		pCi/g	EPA 901.1M	1/27/2010	ME	N/A
AM-241	0.25	0.29	0.11	0.29		pCi/g	EPA 901.1M	1/27/2010	ME	N/A

NOTES: % Moisture: 2.14

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00041
Client Sample ID: RE15-10-7985
Sample Collection Date: 02/01/10 15:00
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00041-001
Date Received: 02/02/10 00:00
Report Date: 02/04/10 08:01

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	24.44	26.03	37.46	26.21		pCi/g	EPA 900.0M	2/3/2010	NP	N/A
GROSS BETA	85.86	19.68	18.46	22.31		pCi/g	EPA 900.0M	2/3/2010	NP	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
K-40	8.95	5.96	2.01	5.97		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
CO-60	0.00	13.13	0.13	13.13		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
CS-137	0.49	0.32	0.08	0.32		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
EU-152	0.84	0.82	0.26	0.82		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
PB-212	1.21	0.54	0.18	0.54		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
RA-228	0.68	0.43	0.50	0.43		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
U-235	2.16	0.97	0.28	0.97		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
U-238	9.26	5.26	1.93	5.07		pCi/g	EPA 901.1M	2/3/2010	NP	N/A
AM-241	0.09	0.20	0.10	0.20		pCi/g	EPA 901.1M	2/3/2010	NP	N/A

NOTES: % Moisture: 5.49

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5122-1

Records Use only

Los Alamos NATIONAL LABORATORY

Data Validation Cover Sheet

Section I.

REQUEST NUMBER: 10-1470 VALIDATION DATE: 3/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds were >20% with a positive bias for 2,4,6-trinitrotoluene; RDX and p-nitrotoluene. The associated sample results were NDs and, thus, were not qualified. The CCV %D was >20% but ≤40% with a negative bias for 2,4-diamino-6-nitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7c.
2. The LCS %R was < the laboratory's LAL but ≥10% for tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12a.

Reviewed by: Susan Ball **Level:** 1 **Date:** 03/09/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 3/8/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☒	☐	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795001

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216182a

Date Analyzed: 20-FEB-10 10:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795001

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170016.wiff

Date Analyzed: 17-FEB-10 13:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7890

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795002

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216185a

Date Analyzed: 20-FEB-10 12:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7890

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795002

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170019.wiff

Date Analyzed: 17-FEB-10 14:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7886

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795003

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216186a

Date Analyzed: 20-FEB-10 12:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7886

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795003

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170020.wiff

Date Analyzed: 17-FEB-10 14:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7889

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795004

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216187a

Date Analyzed: 20-FEB-10 13:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	9530	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7889

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795004

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170021.wiff

Date Analyzed: 17-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7885

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795005

Sample Amount 2

Moisture: 33.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216188a

Date Analyzed: 20-FEB-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7885

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795005

Sample Amount 2

Moisture: 33.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170022.wiff

Date Analyzed: 17-FEB-10 14:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7882

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795006

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216189a

Date Analyzed: 20-FEB-10 14:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ETM
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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7882

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795006

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170023.wiff

Date Analyzed: 17-FEB-10 15:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7887

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795007

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216193a

Date Analyzed: 20-FEB-10 16:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ETM
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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7887

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795007

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170027.wiff

Date Analyzed: 17-FEB-10 16:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7881

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795008

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216194a

Date Analyzed: 20-FEB-10 16:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7881

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795008

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170028.wiff

Date Analyzed: 17-FEB-10 16:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7951

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216195a

Date Analyzed: 20-FEB-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7951

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170029.wiff

Date Analyzed: 17-FEB-10 16:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7950

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216196a

Date Analyzed: 20-FEB-10 17:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7950

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170030.wiff

Date Analyzed: 17-FEB-10 17:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7947

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216197a

Date Analyzed: 20-FEB-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7947

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170031.wiff

Date Analyzed: 17-FEB-10 17:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7944

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216198a

Date Analyzed: 20-FEB-10 18:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ETM
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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7944

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170032.wiff

Date Analyzed: 17-FEB-10 17:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7948

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795013

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216199a

Date Analyzed: 20-FEB-10 19:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7948

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795013

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170033.wiff

Date Analyzed: 17-FEB-10 17:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7941

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795014

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216200a

Date Analyzed: 20-FEB-10 19:48

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene		500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN		1000	U
88-72-2	o-Nitrotoluene		500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene		500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene		500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7941

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795014

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170034.wiff

Date Analyzed: 17-FEB-10 18:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7949

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795015

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216201a

Date Analyzed: 20-FEB-10 20:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7949

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795015

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170035.wiff

Date Analyzed: 17-FEB-10 18:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7946

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795016

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216202a

Date Analyzed: 20-FEB-10 20:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7946

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795016

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170036.wiff

Date Analyzed: 17-FEB-10 18:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7942

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795017

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216206a

Date Analyzed: 20-FEB-10 22:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7942

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795017

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170040.wiff

Date Analyzed: 17-FEB-10 19:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7945

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795018

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216207a

Date Analyzed: 20-FEB-10 23:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7945

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795018

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170041.wiff

Date Analyzed: 17-FEB-10 19:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15--10--7943

Lab Code: GEL

GEL Job No (SDG) 10--1470

Matrix: SOIL

GEL Sample ID: 245795019

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29--JAN--10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08--FEB--10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216208a

Date Analyzed: 20--FEB--10 23:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118--96--7	2,4,6--Trinitrotoluene	500	U
121--14--2	2,4--Dinitrotoluene	500	U
121--82--4	RDX	500	U
19406--51--0	4--Amino--2,6--dinitrotoluene	500	U
2691--41--0	HMX	500	U
35572--78--2	2--Amino--4,6--dinitrotoluene	500	U
479--45--8	Tetryl UJ,HE12a	500	U
606--20--2	2,6--Dinitrotoluene	500	U
78--11--5	PETN	1000	U
88--72--2	o--Nitrotoluene	500	U
98--95--3	Nitrobenzene	500	U
99--08--1	m--Nitrotoluene	500	U
99--35--4	1,3,5--Trinitrobenzene	500	U
99--65--0	m--Dinitrobenzene	500	U
99--99--0	p--Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7943

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795019

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170042.wiff

Date Analyzed: 17-FEB-10 20:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ETM
3/8/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1470 VALIDATION DATE: 3/8/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Susan Ball **Level:** I **Date:** 03/09/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 3/8/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795008	**Date Received:**	01/29/2010 08:45	**%Moisture:**	37.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7881	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 11:12	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	024f2401.d	**Column:**	1 CLP1	**Level:**	LOW
	024b2401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	5.30	ug/kg	1.76	5.30	1
11104–28–2	Aroclor–1221	U	5.30	ug/kg	1.76	5.30	1
11141–16–5	Aroclor–1232	U	5.30	ug/kg	1.76	5.30	1
53469–21–9	Aroclor–1242	U	5.30	ug/kg	1.76	5.30	1
12672–29–6	Aroclor–1248	U	5.30	ug/kg	1.76	5.30	1
11097–69–1	Aroclor–1254	U	5.30	ug/kg	1.76	5.30	1
11096–82–5	Aroclor–1260	U	5.30	ug/kg	1.76	5.30	1

ETM
3/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795006**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**12.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7882**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 10:26**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**020f2001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	020b2001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.81	ug/kg	1.27	3.81	1
11104-28-2	Aroclor-1221	U	3.81	ug/kg	1.27	3.81	1
11141-16-5	Aroclor-1232	U	3.81	ug/kg	1.27	3.81	1
53469-21-9	Aroclor-1242	U	3.81	ug/kg	1.27	3.81	1
12672-29-6	Aroclor-1248	U	3.81	ug/kg	1.27	3.81	1
11097-69-1	Aroclor-1254	U	3.81	ug/kg	1.27	3.81	1
11096-82-5	Aroclor-1260	U	3.81	ug/kg	1.27	3.81	1

ETM
3/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795005	**Date Received:**	01/29/2010 08:45	**%Moisture:**	33.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7885	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 10:13	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	019f1901.d	**Column:**	1 CLP1	**Level:**	LOW
	019b1901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.97	ug/kg	1.66	4.97	1
11104–28–2	Aroclor–1221	U	4.97	ug/kg	1.66	4.97	1
11141–16–5	Aroclor–1232	U	4.97	ug/kg	1.66	4.97	1
53469–21–9	Aroclor–1242	U	4.97	ug/kg	1.66	4.97	1
12672–29–6	Aroclor–1248	U	4.97	ug/kg	1.66	4.97	1
11097–69–1	Aroclor–1254	J	3.40	ug/kg	1.66	4.97	1
11096–82–5	Aroclor–1260	U	4.97	ug/kg	1.66	4.97	1

ETM
3/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795003**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**6.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–7886**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 09:48**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.54	ug/kg	1.18	3.54	1
11104–28–2	Aroclor–1221	U	3.54	ug/kg	1.18	3.54	1
11141–16–5	Aroclor–1232	U	3.54	ug/kg	1.18	3.54	1
53469–21–9	Aroclor–1242	U	3.54	ug/kg	1.18	3.54	1
12672–29–6	Aroclor–1248	U	3.54	ug/kg	1.18	3.54	1
11097–69–1	Aroclor–1254	U	3.54	ug/kg	1.18	3.54	1
11096–82–5	Aroclor–1260	U	3.54	ug/kg	1.18	3.54	1

ETM
3/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795007	**Date Received:**	01/29/2010 08:45	**%Moisture:**	33
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7887	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 10:39	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	021f2101.d	**Column:**	1 CLP1	**Level:**	LOW
	021b2101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.98	ug/kg	1.66	4.98	1
11104-28-2	Aroclor-1221	U	4.98	ug/kg	1.66	4.98	1
11141-16-5	Aroclor-1232	U	4.98	ug/kg	1.66	4.98	1
53469-21-9	Aroclor-1242	U	4.98	ug/kg	1.66	4.98	1
12672-29-6	Aroclor-1248	U	4.98	ug/kg	1.66	4.98	1
11097-69-1	Aroclor-1254	U	4.98	ug/kg	1.66	4.98	1
11096-82-5	Aroclor-1260	U	4.98	ug/kg	1.66	4.98	1

ETM
3/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795001	**Date Received:**	01/29/2010 08:45	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7888	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 09:23	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	015f1501.d	**Column:**	1 CLP1	**Level:**	LOW
	015b1501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.67	ug/kg	1.22	3.67	1
11104–28–2	Aroclor–1221	U	3.67	ug/kg	1.22	3.67	1
11141–16–5	Aroclor–1232	U	3.67	ug/kg	1.22	3.67	1
53469–21–9	Aroclor–1242	U	3.67	ug/kg	1.22	3.67	1
12672–29–6	Aroclor–1248	U	3.67	ug/kg	1.22	3.67	1
11097–69–1	Aroclor–1254	U	3.67	ug/kg	1.22	3.67	1
11096–82–5	Aroclor–1260	U	3.67	ug/kg	1.22	3.67	1

ETM
3/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	Date Collected:	01/26/2010 12:00	Matrix:	SOIL
Lab Sample ID:	245795004	Date Received:	01/29/2010 08:45	%Moisture:	37.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7889	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	949033	Inst:	ECD1A.I	Dilution:	1
Run Date:	02/05/2010 10:01	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	02/04/2010 20:32	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	1 CLP1	Level:	LOW
	018b1801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	5.30	ug/kg	1.77	5.30	1
11104-28-2	Aroclor-1221	U	5.30	ug/kg	1.77	5.30	1
11141-16-5	Aroclor-1232	U	5.30	ug/kg	1.77	5.30	1
53469-21-9	Aroclor-1242	U	5.30	ug/kg	1.77	5.30	1
12672-29-6	Aroclor-1248	U	5.30	ug/kg	1.77	5.30	1
11097-69-1	Aroclor-1254	P	36.8	ug/kg	1.77	5.30	1
11096-82-5	Aroclor-1260		23.3	ug/kg	1.77	5.30	2
11100-14-4	Aroclor-1268		20.5	ug/kg	1.77	5.30	2

ETM
3/8/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795002	**Date Received:**	01/29/2010 08:45	**%Moisture:**	9.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7890	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 09:36	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	016f1601.d	**Column:**	1 CLP1	**Level:**	LOW
	016b1601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.67	ug/kg	1.22	3.67	1
11104–28–2	Aroclor–1221	U	3.67	ug/kg	1.22	3.67	1
11141–16–5	Aroclor–1232	U	3.67	ug/kg	1.22	3.67	1
53469–21–9	Aroclor–1242	U	3.67	ug/kg	1.22	3.67	1
12672–29–6	Aroclor–1248	U	3.67	ug/kg	1.22	3.67	1
11097–69–1	Aroclor–1254	JP	2.90	ug/kg	1.22	3.67	1
11096–82–5	Aroclor–1260	J	3.10	ug/kg	1.22	3.67	2
11100–14–4	Aroclor–1268	P	4.50	ug/kg	1.22	3.67	2

ETM
3/8/10

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1470

REQUEST NUMBER: 10-1470

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245795 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7888	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7890	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7886	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7889	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7885	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7882	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7887	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7881	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7951	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7950	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7947	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7944	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7948	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7941	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7949	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7946	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7942	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7945	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7943	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	1/28/10	1400	Patricia Dover Dent P.D. Dent	1-29-10	08:45
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: Date Time **Remarks:**

Printed Name Signature

Thursday, January 28, 2010

REQUEST NUMBER: 10-1470

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1470
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010
TURNAROUND/REPORT DUE: 2/27/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
	SW-846:8321A_MOD	1	RE15-10-7881	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1470

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1470

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245795
SDG: 10-1470

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 29, 2010, and analyzed for Explosives by LCMSMS and GC Semivolatile PCB. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1470
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245795
SDG: 10-1470

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Docmentation..... 5

Data Review Qualifier Flag Definition Sheet..... 18

LC/MS/MS Explosives.....20
Sample Data Summary.....26
Quality Control Summary.....65
Sample Data..... 182
Standards Data.....316
Quality Control Data.....514
Miscellaneous Data.....545

GC Semivolatile PCB Analysis.....559
Sample Data Summary.....566
Quality Control Summary.....575
Sample Data..... 579
Standards Data.....630
Quality Control Data.....714
Miscellaneous Data.....729

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245795
SDG # : 10-1470

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 29, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245795001	RE15-10-7888
245795002	RE15-10-7890
245795003	RE15-10-7886
245795004	RE15-10-7889
245795005	RE15-10-7885
245795006	RE15-10-7882
245795007	RE15-10-7887
245795008	RE15-10-7881
245795009	RE15-10-7951
245795010	RE15-10-7950
245795011	RE15-10-7947
245795012	RE15-10-7944
245795013	RE15-10-7948
245795014	RE15-10-7941
245795015	RE15-10-7949
245795016	RE15-10-7946
245795017	RE15-10-7942
245795018	RE15-10-7945
245795019	RE15-10-7943

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS and GC Semivolatile PCB.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, January 28, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1470

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1470

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 245795%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7888	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7890	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7886	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7889	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7885	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7882	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7887	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7881	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7951	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7950	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7947	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7944	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7948	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7941	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7949	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7946	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7942	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7945	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7943	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	1/28/10	1400	Patricia Dover / Signature	1-29-10	08:45
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Thursday, January 28, 2010

REQUEST NUMBER: 10-1470

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1470

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/28/2010

TURNAROUND/REPORT DUE: 2/27/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7881	R	1/26/2010	
		1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
	SW-846:8321A_MOD	1	RE15-10-7881	R	1/26/2010	

Thursday, January 28, 2010

REQUEST NUMBER: 10-1470

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7882	R	1/26/2010	
		1	RE15-10-7885	R	1/26/2010	
		1	RE15-10-7886	R	1/26/2010	
		1	RE15-10-7887	R	1/26/2010	
		1	RE15-10-7888	R	1/26/2010	
		1	RE15-10-7889	R	1/26/2010	
		1	RE15-10-7890	R	1/26/2010	
		1	RE15-10-7941	R	1/26/2010	
		1	RE15-10-7942	R	1/26/2010	
		1	RE15-10-7943	R	1/26/2010	
		1	RE15-10-7944	R	1/26/2010	
		1	RE15-10-7945	R	1/26/2010	
		1	RE15-10-7946	R	1/26/2010	
		1	RE15-10-7947	R	1/26/2010	
		1	RE15-10-7948	R	1/26/2010	
		1	RE15-10-7949	R	1/26/2010	
		1	RE15-10-7950	R	1/26/2010	
		1	RE15-10-7951	R	1/26/2010	

Final Page of REQUEST NUMBER 10-1470

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1470**
Received By: Patricia Dover-Dent	**Date Received: January 29, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-6** **10-12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7419 11C	**7209 7849 7522 6C**
7209 7849 7500 5C	**7209 7849 7533 1C**
7209 7849 7452 2C	**7209 7849 7544 1C**
7209 7849 7474 1C	**7209 7849 7420 10C**
7209 7849 7441 4C	**7209 7849 7496 2C**
7209 7849 7463 3C	**7209 7849 7485 3C**
7209 7849 7430 10C	**7209 7849 7408 12C**
7209 7849 7511 6C	

PM (or PMA) review: Initials _____ Date 2/1/10

ORIGIN ID: SAFA (505) 666-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR2A0515BYD0

11°

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3 of 3
MPS# 0263 7209 7849 7419
Mstr# 7209 7849 7393 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9038
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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1 of 2
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MASTER

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PRIORITY OVERNIGHT

XX CHSA

29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

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PRIORITY OVERNIGHT

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SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 7849 7474
Mstr# 7209 7849 7463 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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LOS ALAMOS, NM 87545
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SHIP DATE: 20JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 7849 7441
Mstr# 7209 7849 7430 0201

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 20JAN10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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Part # 156148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 7849 7511
Mstr# 7209 7849 7500 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-8968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG J237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 54.0 LB MAN
CAD: 8014176/CAFE2449

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TRK# 0201 7209 7849 7522

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PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 04-0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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Part # 156148-434 NRIT V3 04-09

238 1 B 7544 01.29

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AX49A08650000

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TRK# 0201 7209 7849 7544

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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TRK# 0201 7209 7849 7420

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 86.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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MPS# 0203 7209 7849 7496
Mstr# 7209 7849 7485 0201

FRI - 29JAN A1
PRIORITY OVERNIGHT

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Part # 1561-43-434 NRIT V3 04-0

[redacted]

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA#8 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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1 of 2

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA#8 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 28JAN10
ACTWGT: 4.0 LB MAN
CAD: 0014176/CAFE2449

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Master# 7209 7849 7393

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1470

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	947089
Prep Batch Number:	947088

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
245795001	RE15-10-7888
245795002	RE15-10-7890
245795003	RE15-10-7886
245795004	RE15-10-7889
245795005	RE15-10-7885
245795006	RE15-10-7882
245795007	RE15-10-7887
245795008	RE15-10-7881
245795009	RE15-10-7951
245795010	RE15-10-7950
245795011	RE15-10-7947
245795012	RE15-10-7944
245795013	RE15-10-7948
245795014	RE15-10-7941
245795015	RE15-10-7949
245795016	RE15-10-7946
245795017	RE15-10-7942
245795018	RE15-10-7945
245795019	RE15-10-7943
1202028685	Method Blank (MB)
1202028686	Laboratory Control Sample (LCS)
1202028687	245795001(RE15-10-7888) Matrix Spike (MS)
1202028688	245795001(RE15-10-7888) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

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Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered Tetryl at 39.2%. The recovery limits are 51-112%. Since the MS and MSD both met acceptance limits for Tetryl, the data are reported. The Tetryl recovery met the DOD QSM recovery limits of 10-150%. Please see data exception report 739796.

QC Sample Designation
Sample 245795001 (RE15-10-7888) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Sample 245795001 (RE15-10-7888) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 793796 was generated for this SDG.

The LCS recovered Tetryl at 39.2%. The recovery limits are 51-112%. Since the MS and MSD both met acceptance limits for Tetryl, the data are reported. The Tetryl recovery met the DOD QSM recovery limits of 10-150%.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

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Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Maier **Date:** 02/23/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795001

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216182a

Date Analyzed: 20-FEB-10 10:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795001

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170016.wiff

Date Analyzed: 17-FEB-10 13:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7890

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795002

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216185a

Date Analyzed: 20-FEB-10 12:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7890

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795002

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170019.wiff

Date Analyzed: 17-FEB-10 14:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7886

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795003

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216186a

Date Analyzed: 20-FEB-10 12:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7886

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795003

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170020.wiff

Date Analyzed: 17-FEB-10 14:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7889

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795004

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216187a

Date Analyzed: 20-FEB-10 13:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	9530	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7889

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795004

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170021.wiff

Date Analyzed: 17-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7885

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795005

Sample Amount 2

Moisture: 33.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216188a

Date Analyzed: 20-FEB-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7885

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795005

Sample Amount 2

Moisture: 33.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170022.wiff

Date Analyzed: 17-FEB-10 14:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7882

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795006

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216189a

Date Analyzed: 20-FEB-10 14:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7882

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795006

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170023.wiff

Date Analyzed: 17-FEB-10 15:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7887

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795007

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216193a

Date Analyzed: 20-FEB-10 16:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7887

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795007

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170027.wiff

Date Analyzed: 17-FEB-10 16:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7881

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795008

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216194a

Date Analyzed: 20-FEB-10 16:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7881

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795008

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170028.wiff

Date Analyzed: 17-FEB-10 16:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7951

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216195a

Date Analyzed: 20-FEB-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7951

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170029.wiff

Date Analyzed: 17-FEB-10 16:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7950

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216196a

Date Analyzed: 20-FEB-10 17:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7950

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170030.wiff

Date Analyzed: 17-FEB-10 17:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7947

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216197a

Date Analyzed: 20-FEB-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7947

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170031.wiff

Date Analyzed: 17-FEB-10 17:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7944

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216198a

Date Analyzed: 20-FEB-10 18:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7944

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170032.wiff

Date Analyzed: 17-FEB-10 17:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7948

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795013

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216199a

Date Analyzed: 20-FEB-10 19:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7948

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795013

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170033.wiff

Date Analyzed: 17-FEB-10 17:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7941

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795014

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216200a

Date Analyzed: 20-FEB-10 19:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7941

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795014

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170034.wiff

Date Analyzed: 17-FEB-10 18:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7949

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795015

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216201a

Date Analyzed: 20-FEB-10 20:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7949

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795015

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170035.wiff

Date Analyzed: 17-FEB-10 18:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7946

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795016

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216202a

Date Analyzed: 20-FEB-10 20:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7946

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795016

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170036.wiff

Date Analyzed: 17-FEB-10 18:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7942

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795017

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216206a

Date Analyzed: 20-FEB-10 22:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7942

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795017

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170040.wiff

Date Analyzed: 17-FEB-10 19:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7945

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795018

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216207a

Date Analyzed: 20-FEB-10 23:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7945

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795018

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170041.wiff

Date Analyzed: 17-FEB-10 19:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7943

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795019

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216208a

Date Analyzed: 20-FEB-10 23:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7943

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795019

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170042.wiff

Date Analyzed: 17-FEB-10 20:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1470

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245795001	RE15-10-7888	107	70 – 144	
245795001	RE15-10-7888	116	70 – 144	
245795002	RE15-10-7890	116	70 – 144	
245795002	RE15-10-7890	118	70 – 144	
245795003	RE15-10-7886	115	70 – 144	
245795003	RE15-10-7886	116	70 – 144	
245795004	RE15-10-7889	119	70 – 144	
245795004	RE15-10-7889	116	70 – 144	
245795005	RE15-10-7885	118	70 – 144	
245795005	RE15-10-7885	117	70 – 144	
245795006	RE15-10-7882	115	70 – 144	
245795006	RE15-10-7882	122	70 – 144	
245795007	RE15-10-7887	110	70 – 144	
245795007	RE15-10-7887	126	70 – 144	
245795008	RE15-10-7881	110	70 – 144	
245795008	RE15-10-7881	122	70 – 144	
245795009	RE15-10-7951	118	70 – 144	
245795009	RE15-10-7951	125	70 – 144	
245795010	RE15-10-7950	107	70 – 144	
245795010	RE15-10-7950	122	70 – 144	
245795011	RE15-10-7947	116	70 – 144	
245795011	RE15-10-7947	118	70 – 144	
245795012	RE15-10-7944	123	70 – 144	
245795012	RE15-10-7944	121	70 – 144	
245795013	RE15-10-7948	103	70 – 144	
245795013	RE15-10-7948	119	70 – 144	
245795014	RE15-10-7941	110	70 – 144	
245795014	RE15-10-7941	124	70 – 144	
245795015	RE15-10-7949	120	70 – 144	
245795015	RE15-10-7949	123	70 – 144	
245795016	RE15-10-7946	115	70 – 144	
245795016	RE15-10-7946	128	70 – 144	
245795017	RE15-10-7942	115	70 – 144	
245795017	RE15-10-7942	116	70 – 144	
245795018	RE15-10-7945	119	70 – 144	
245795018	RE15-10-7945	127	70 – 144	
245795019	RE15-10-7943	123	70 – 144	

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High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1470

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245795019	RE15-10-7943	118	70 – 144	
1202028685	MB for batch 947088	116	70 – 144	
1202028685	MB for batch 947088	120	70 – 144	
1202028686	LCS for batch 947088	113	70 – 144	
1202028686	LCS for batch 947088	114	70 – 144	
1202028687	RE15-10-7888(245795001MS)	110	70 – 144	
1202028687	RE15-10-7888(245795001MS)	118	70 – 144	
1202028688	RE15-10-7888(245795001MSD)	115	70 – 144	
1202028688	RE15-10-7888(245795001MSD)	110	70 – 144	

DNT = 3,4-Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1470

Extract Batch Code: 947088

Date Extracted: 08-FEB-10

GEL LCS ID: 1202028686

GEL LCSDUP ID:

Analysis Date/Time: 20-FEB-10 10:25

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4170	83.4								69 – 126
2,4,6-Trinitrotoluene	5000	5160	103								73 – 149
2,4-Dinitrotoluene	5000	4590	91.8								87 – 137
2,6-Dinitrotoluene	5000	4790	95.8								89 – 120
2-Amino-4,6-dinitrotoluene	5000	5770	115								90 – 130
4-Amino-2,6-dinitrotoluene	5000	4990	99.8								84 – 130
HMX	5000	4780	95.5								58 – 138
Nitrobenzene	5000	4680	93.7								71 – 122
PETN	5000	5400	108								64 – 137
RDX	5000	4980	99.6								81 – 137
Tetryl	5000	1960	39.2	*							51 – 112
m-Dinitrobenzene	5000	4880	97.5								83 – 122
m-Nitrotoluene	5000	3890	77.9								73 – 118
o-Nitrotoluene	5000	4220	84.4								72 – 119
p-Nitrotoluene	5000	4340	86.9								67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1470

Extract Batch Code: 947088

Date Extracted: 08-FEB-10

GEL LCS ID: 1202028686

GEL LCSDUP ID:

Analysis Date/Time: 17-FEB-10 13:06

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	4550	91								52 – 114
2,6-Diamino-4-nitrotoluene	5000	5340	107								64 – 122
3,5-Dinitroaniline	5000	4540	90.8								70 – 127
tris(o-cresyl) phosphate	5000	4910	98.2								84 – 119
TATB	7500	5960	79.5								28 – 162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7888

Lab Code: GEL

GEL Job No (SDG) 10-1470

Extract Batch Code: 947088

Date Extracted: 08-FEB-10

GEL Spike ID: 1202028687

GEL SpikeDup ID: 1202028688

Analysis Date/Time: 20-FEB-10 11:25

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4770	95.4	4680	93.7	1.87	30	50 - 140
2,4,6-Trinitrotoluene	5000	0	5530	111	5500	110	.467	30	76 - 144
2,4-Dinitrotoluene	5000	0	5490	110	5100	102	7.46	30	86 - 135
2,6-Dinitrotoluene	5000	0	5100	102	5070	101	.523	30	90 - 118
2-Amino-4,6-dinitrotoluene	5000	0	5690	114	5570	111	2.19	30	85 - 137
4-Amino-2,6-dinitrotoluene	5000	0	5130	103	5080	102	1.01	30	72 - 143
HMX	5000	0	4870	97.4	4570	91.3	6.46	30	51 - 144
Nitrobenzene	5000	0	4360	87.2	4270	85.4	2.08	30	70 - 122
PETN	5000	0	5270	105	4330	86.7	19.6	30	60 - 140
RDX	5000	0	4880	97.5	4440	88.8	9.34	30	59 - 152
Tetryl	5000	0	3140	62.9	3390	67.9	7.62	30	36 - 124
m-Dinitrobenzene	5000	0	5140	103	4790	95.9	6.93	30	85 - 118
m-Nitrotoluene	5000	0	4400	88	4340	86.9	1.23	30	70 - 120
o-Nitrotoluene	5000	0	4570	91.4	4620	92.4	1.15	30	69 - 123
p-Nitrotoluene	5000	0	4650	93	4690	93.7	.78	30	65 - 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7888

Lab Code: GEL

GEL Job No (SDG) 10-1470

Extract Batch Code: 947088

Date Extracted: 08-FEB-10

GEL Spike ID: 1202028687

GEL SpikeDup ID: 1202028688

Analysis Date/Time: 17-FEB-10 13:37

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,6-Diamino-4-nitrotoluene	5000	0	5680	114	5360	107	5.8	30	55 - 130
3,5-Dinitroaniline	5000	0	4800	96	4990	99.8	3.88	30	73 - 129
TATB	7500	0	5950	79.3	5400	72	9.69	30	29 - 155
2,4-Diamino-6-nitrotoluene	5000	0	5340	107	5270	105	1.32	26	34 - 135
tris(o-cresyl) phosphate	5000	33.5	4930	97.9	4970	98.7	.808	30	72 - 127

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:07

GEL Data File: EXP0216001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	509.816
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	531.163
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: Untitled, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216001a
Date: 16-Feb-2010
Time: 17:07:38
ID: XIBLK01
Vial: 1:1,A

MAP 2/17/10

HMX

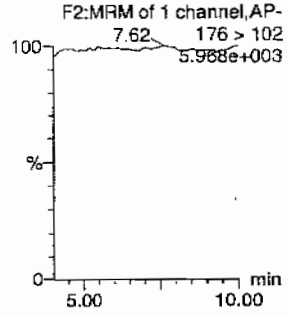

RDX

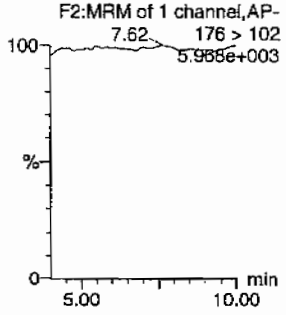

135-Trinitrobenzene

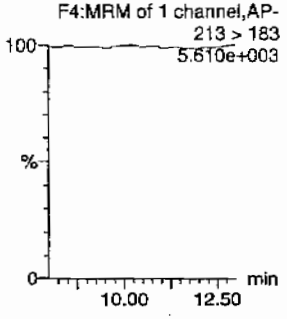

13-Dinitrobenzene-d4

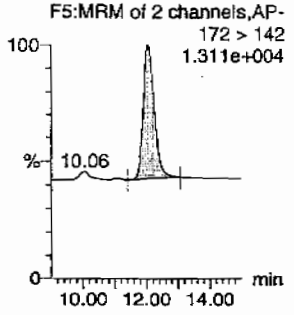

13-Dinitrobenzene

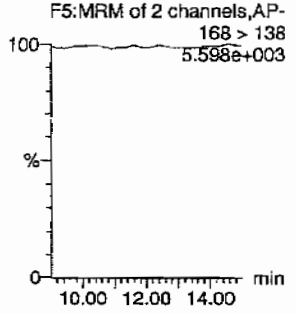

Tetryl

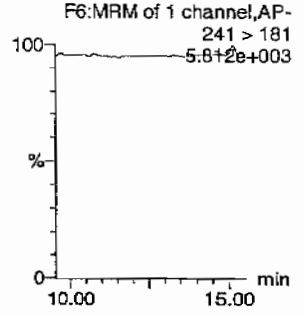

Nitrobenzene

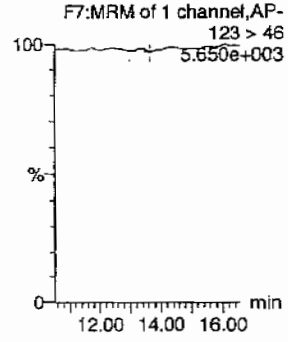

4-Amino-26-dinitrotoluene

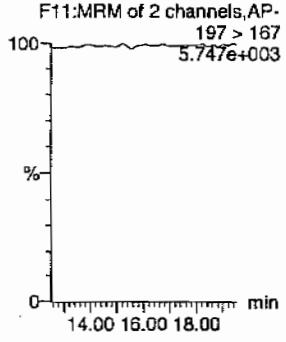

2-Amino-46-dinitrotoluene

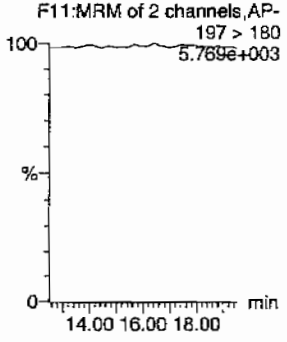

246-Trinitrotoluene

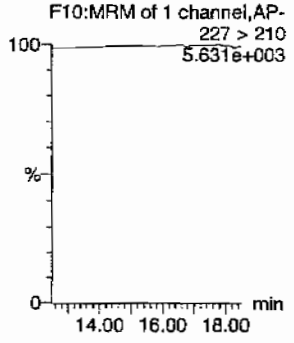

34-dinitrotoluene

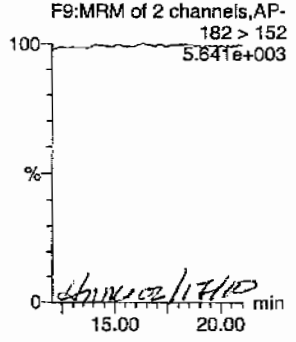

26-dinitrotoluene

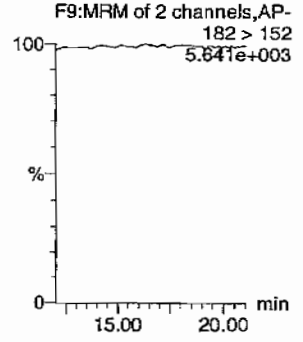

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

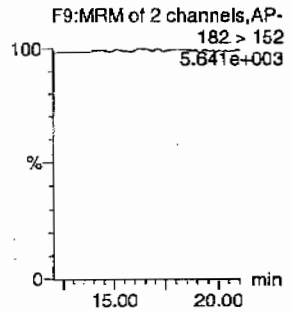

26-dinitrotoluene-d3

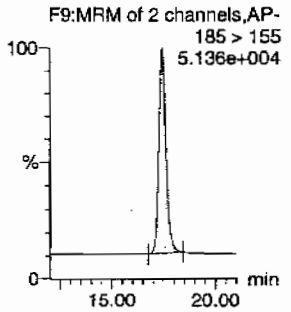

2-Nitrotoluene

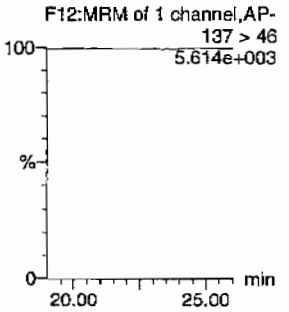

4-Nitrotoluene

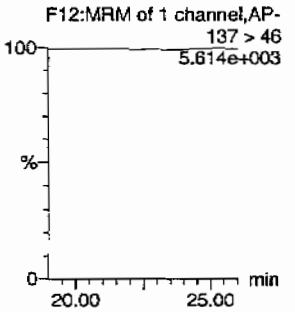

3-Nitrotoluene

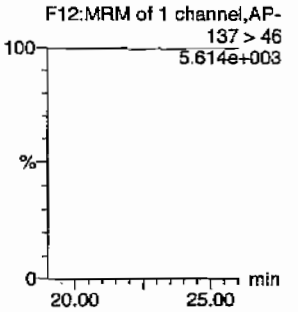

PETN

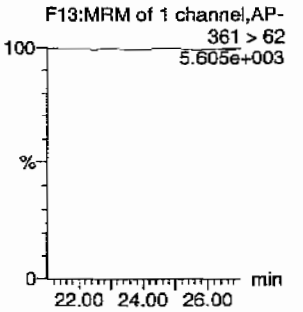

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3071.556									
XIBLK01	RDX	176 > 102			3071.556									
XIBLK01	135-Trinitrobenzene	213 > 183			3071.556									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	3071.556		3071.556	3071.556	bb			509.8160	102.0	2.0	413.3
XIBLK01	13-Dinitrobenzene	168 > 138			3071.556									
XIBLK01	Tetryl	241 > 181			3071.556									
XIBLK01	Nitrobenzene	123 > 46			3071.556			MM-	17-Feb-10	09:21:37				
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18493.566									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18493.566									
XIBLK01	246-Trinitrotoluene	227 > 210			18493.566									
XIBLK01	34-dinitrotoluene	182 > 152			18493.566									
XIBLK01	26-dinitrotoluene	182 > 152			18493.566									
XIBLK01	24-dinitrotoluene	182 > 152			18493.566									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.42	18493.566		18493.566	18493.566	bb			531.1631	106.2	6.2	1741.8
XIBLK01	2-Nitrotoluene	137 > 46			18493.566									
XIBLK01	4-Nitrotoluene	137 > 46			18493.566									
XIBLK01	3-Nitrotoluene	137 > 46			18493.566									
XIBLK01	PETN	361 > 62			18493.566									

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:37

GEL Data File: EXP0216002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	540.968
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.887
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216002a
Date: 16-Feb-2010
Time: 17:37:26
ID: XIBLK01
Vial: 1:1,A

MMP 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

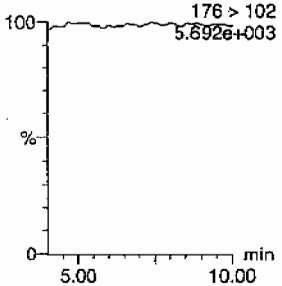

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

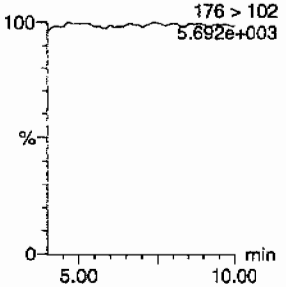

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.395e+003

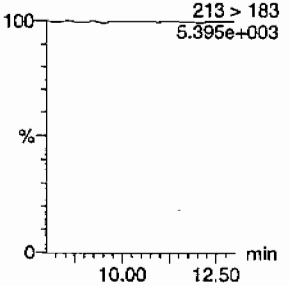

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.342e+004

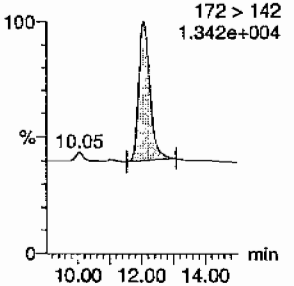

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.400e+003

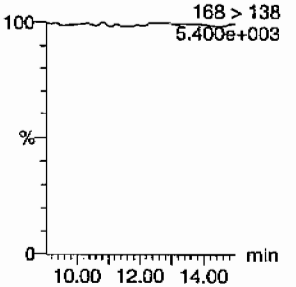

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.394e+003

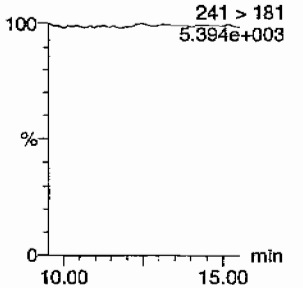

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.387e+003

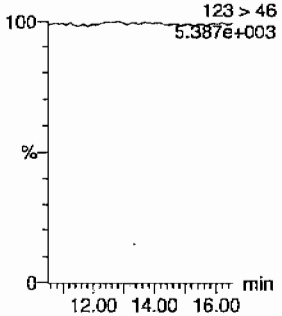

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.503e+003

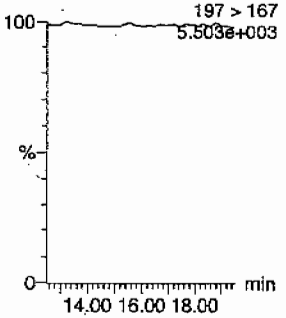

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.498e+003

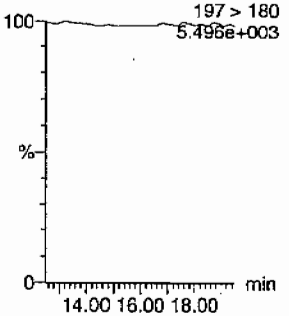

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.402e+003

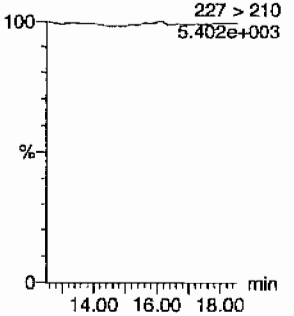

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.473e+003

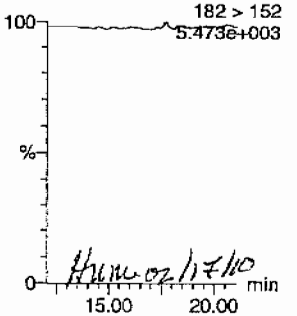

Hum 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.473e+003

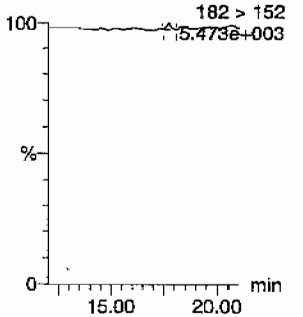

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

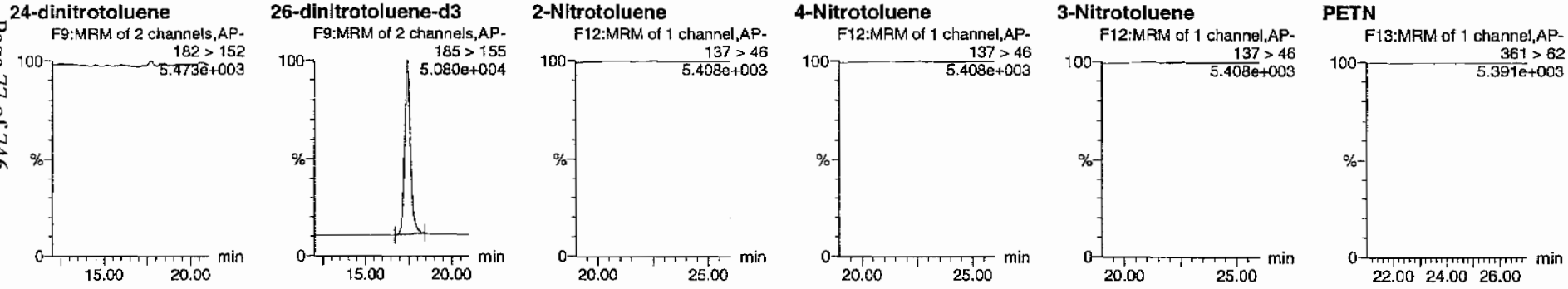

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3259.244									
XIBLK01	RDX	176 > 102			3259.244									
XIBLK01	135-Trinitrobenzene	213 > 183			3259.244									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	3259.244		3259.244	3259.244	bb			540.9684	108.2	8.2	243.5
XIBLK01	13-Dinitrobenzene	168 > 138			3259.244									
XIBLK01	Tetryl	241 > 181			3259.244									
XIBLK01	Nitrobenzene	123 > 46			3259.244									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18483.965									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18483.965									
XIBLK01	246-Trinitrotoluene	227 > 210			18483.965									
XIBLK01	34-dinitrotoluene	182 > 152			18483.965									
XIBLK01	26-dinitrotoluene	182 > 152			18483.965			MM-	17-Feb-10	09:24:48				
XIBLK01	24-dinitrotoluene	182 > 152			18483.965									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.44	18483.965		18483.965	18483.965	bb			530.8874	106.2	6.2	1863.8
XIBLK01	2-Nitrotoluene	137 > 46			18483.965									
XIBLK01	4-Nitrotoluene	137 > 46			18483.965									
XIBLK01	3-Nitrotoluene	137 > 46			18483.965									
XIBLK01	PETN	361 > 62			18483.965									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 17-FEB-10 09:26

GEL Data File: EXS02170001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.59
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ran 2/19/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM

Modified: No

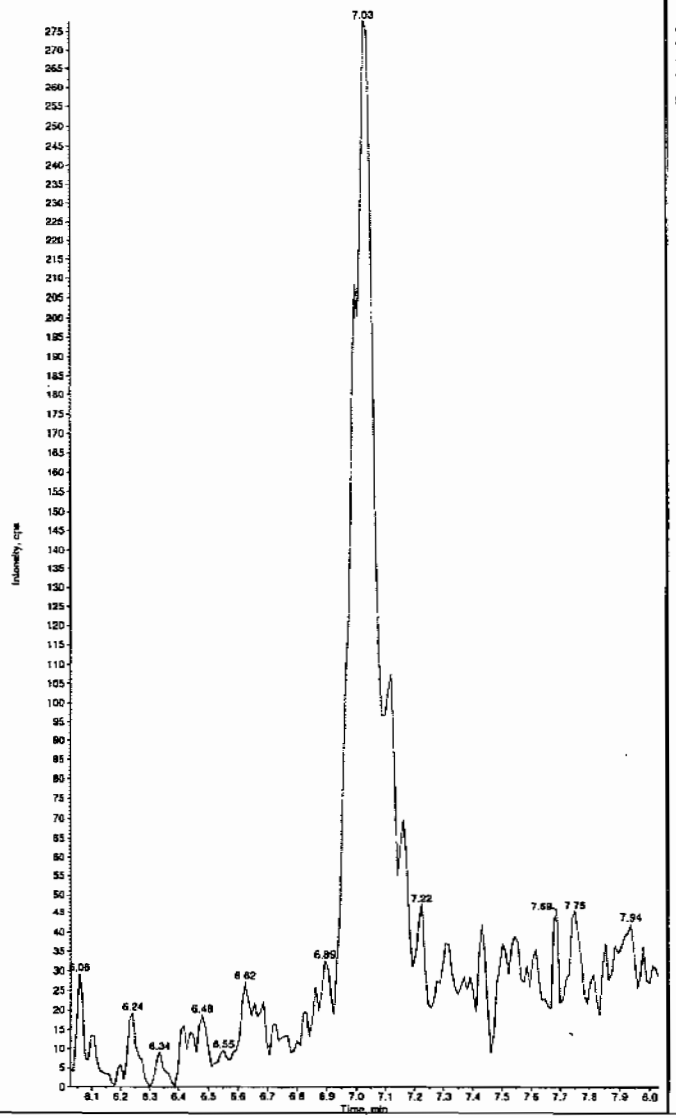

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM

Modified: No

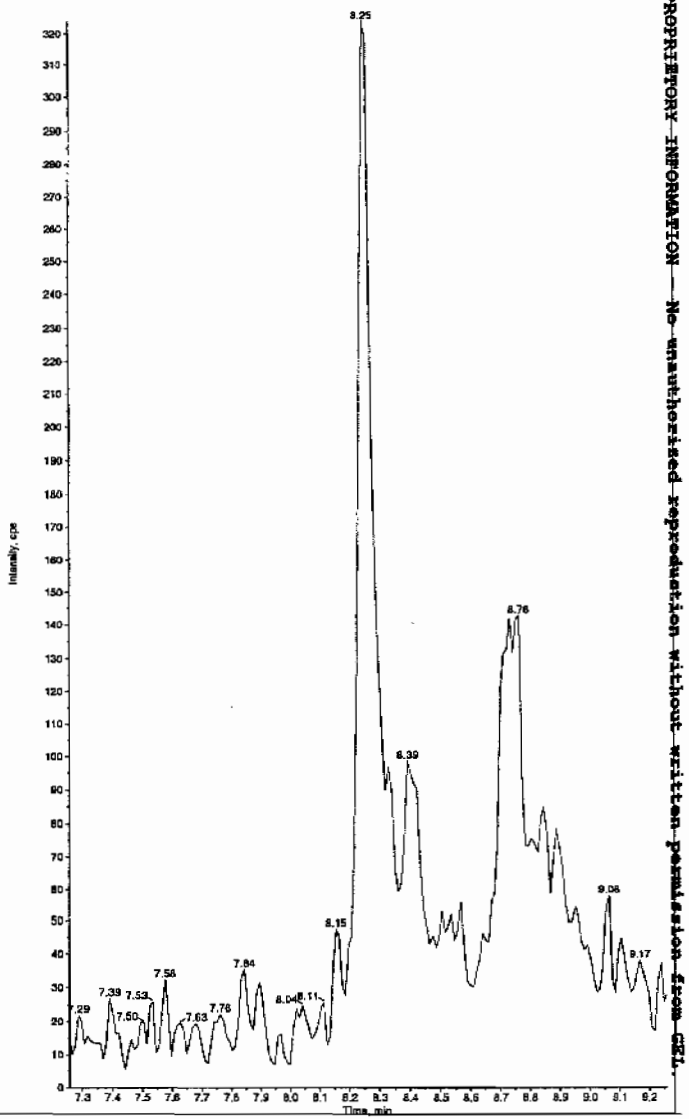

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION — No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM

Modified: No

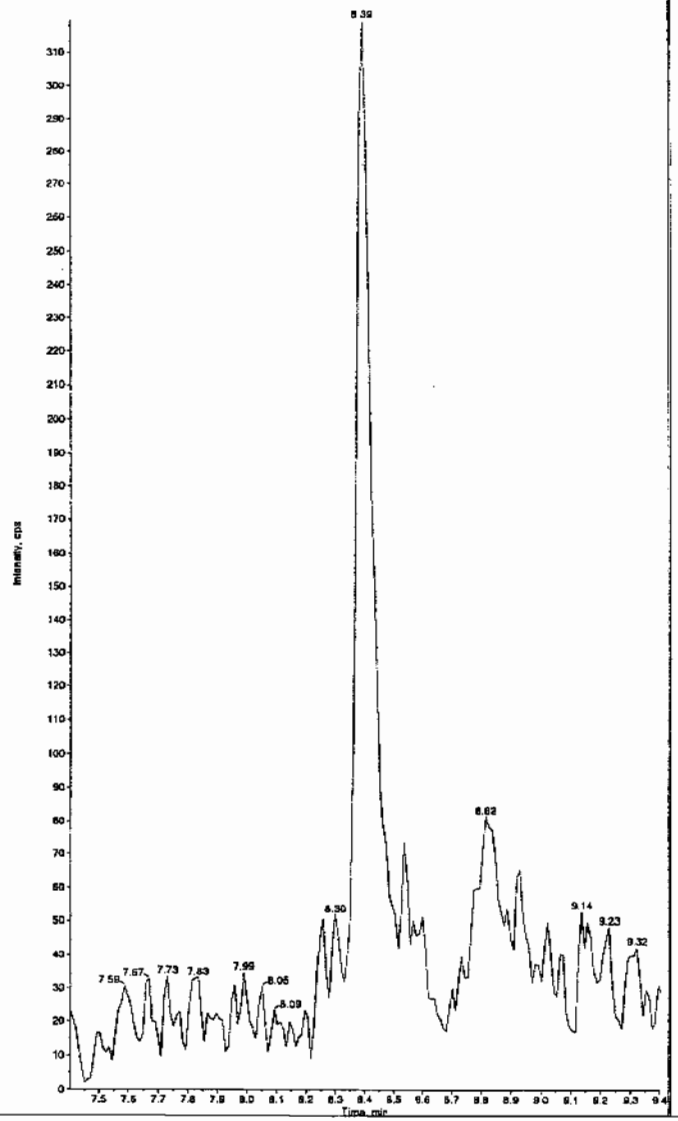

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM

Modified: No

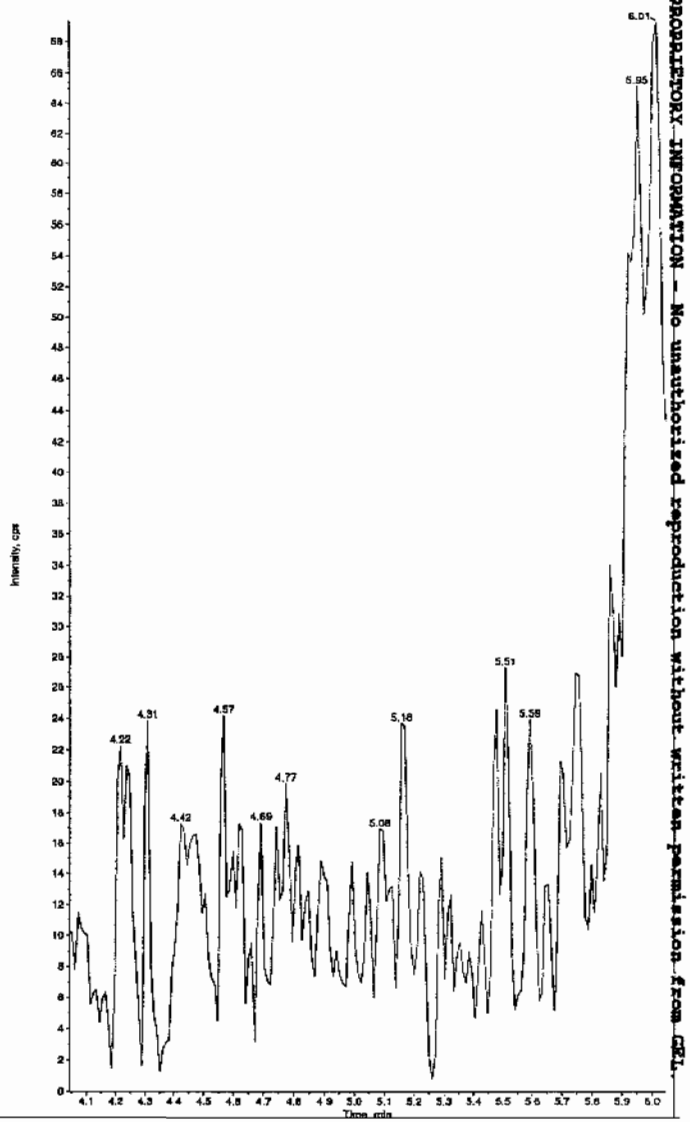

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION -- No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM

Modified: No

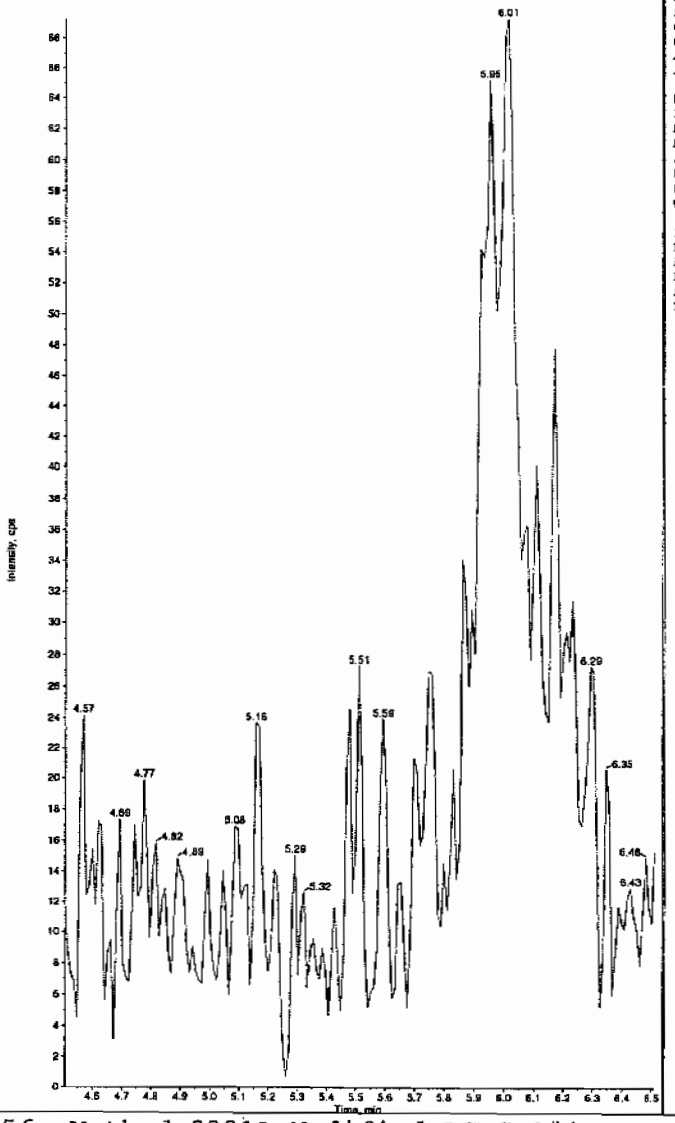

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.59 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.47e+004 counts
Height: 8467.519 cps
Start Time: 10.8 min
End Time: 11.1 min

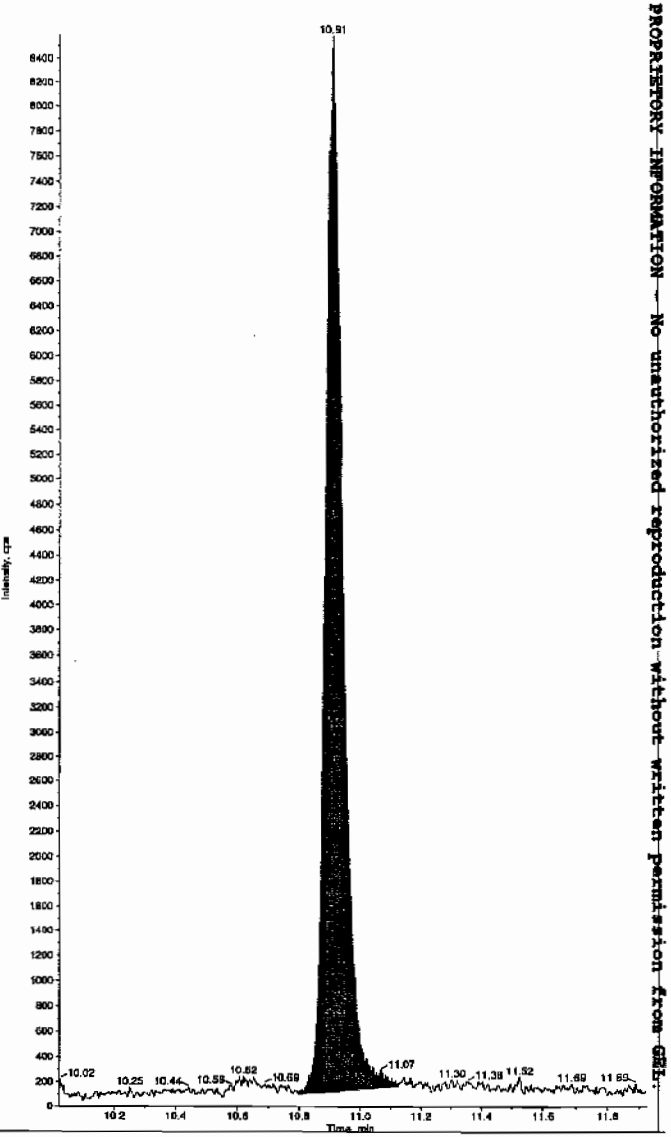

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 17-FEB-10 09:42

GEL Data File: EXS02170002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rcr 2/19/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

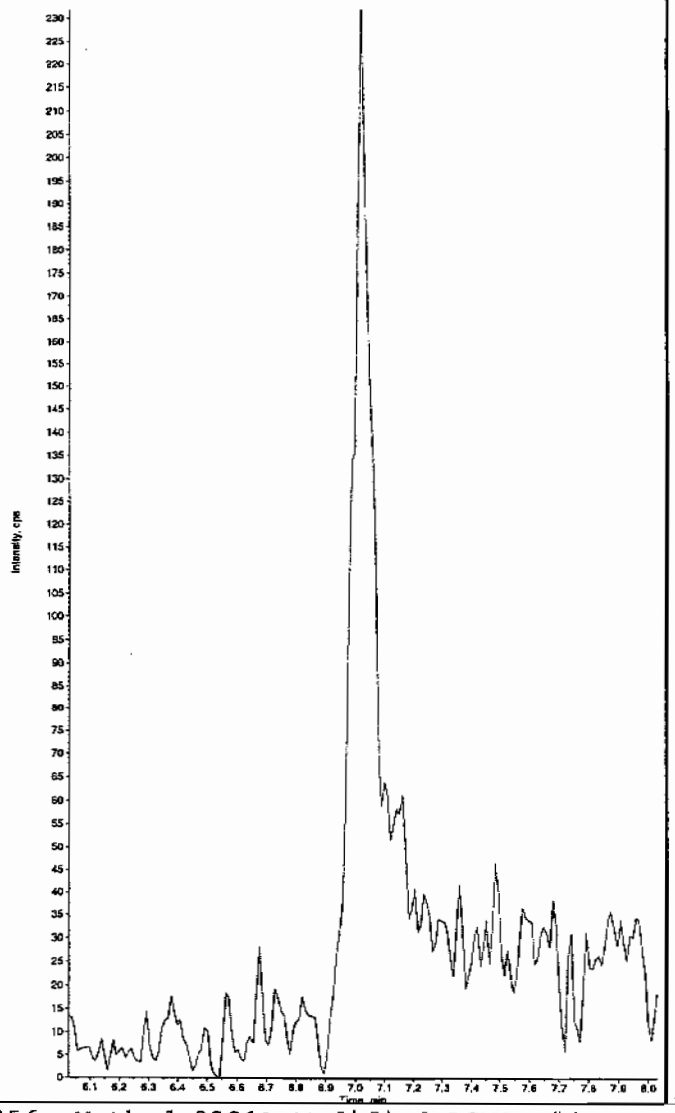

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

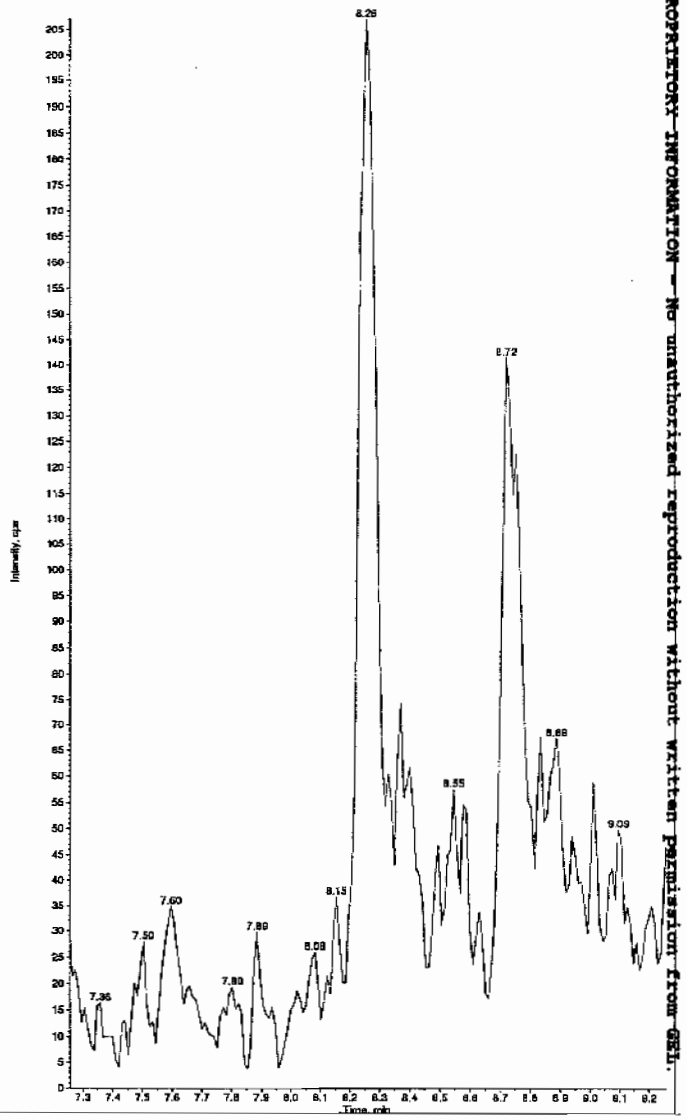

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

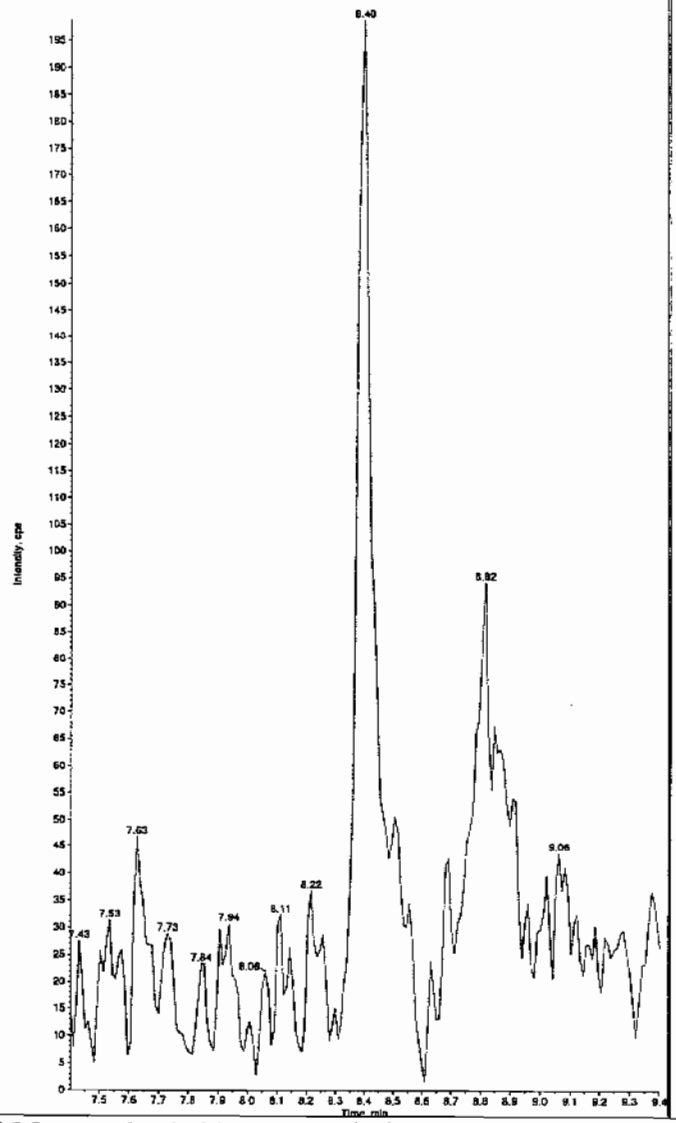

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

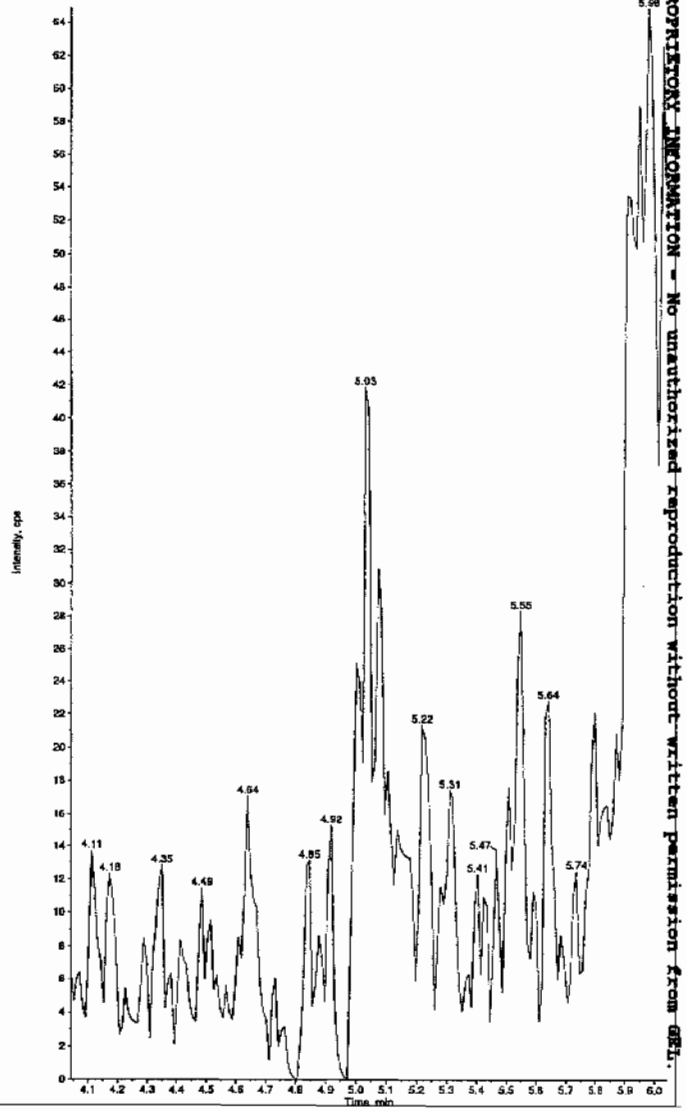

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

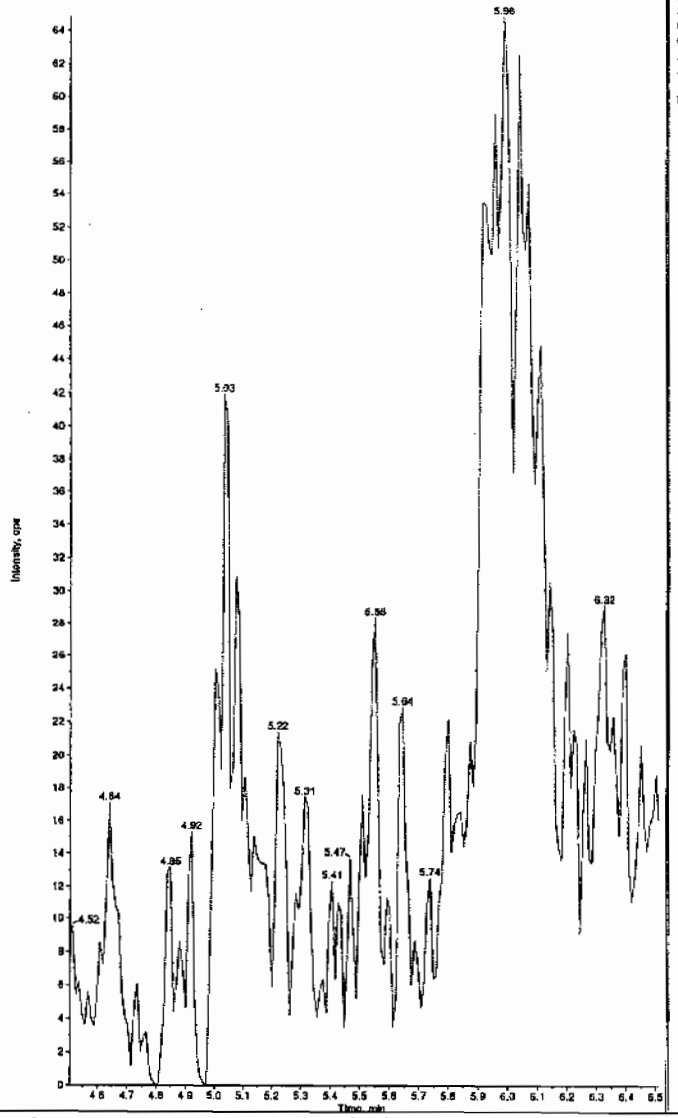

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

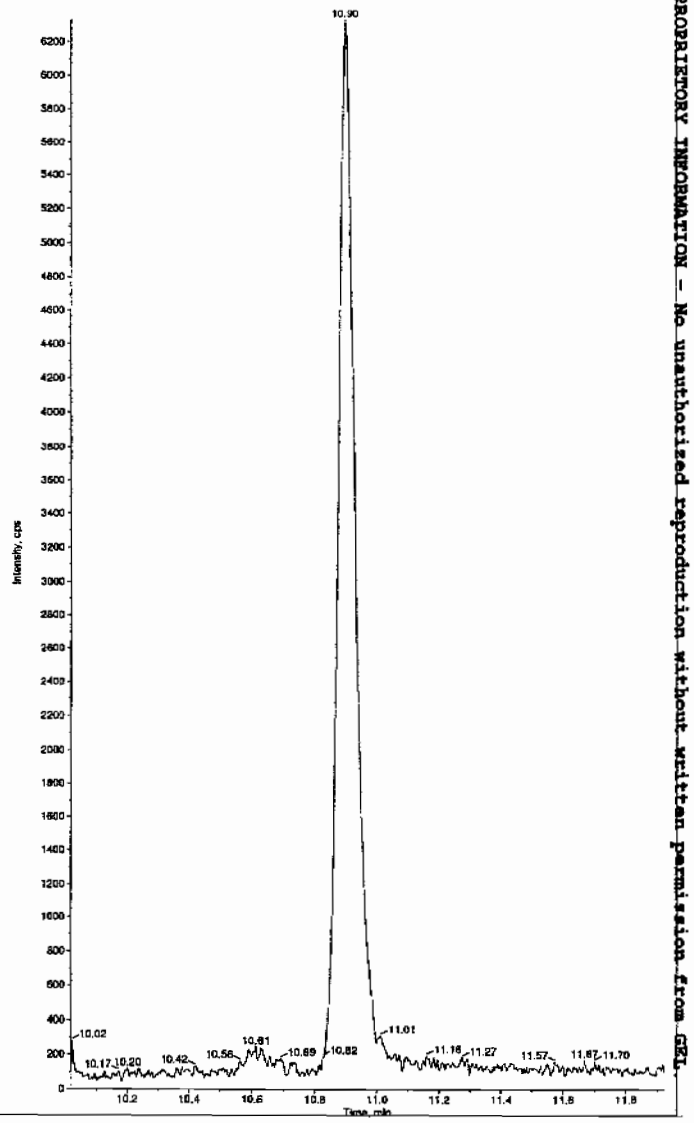

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 16-FEB-10 21:04

GEL Data File: EXP0216009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	570.463
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	494.232
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216009a
Date: 16-Feb-2010
Time: 21:04:59
ID: XIBLK02
Vial: 1:1,A

LOTT 2/17/10

HMX
F2:MRM of 1 channel,AP-
6.65 176 > 102
6.056e+003

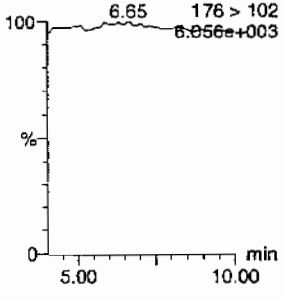

RDX
F2:MRM of 1 channel,AP-
6.65 176 > 102
6.056e+003

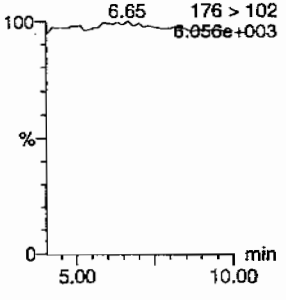

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.678e+003

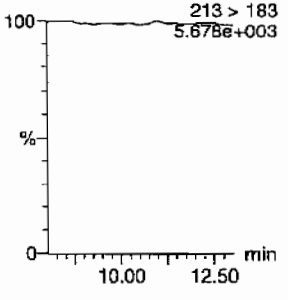

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.420e+004

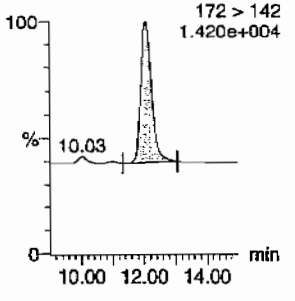

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.641e+003

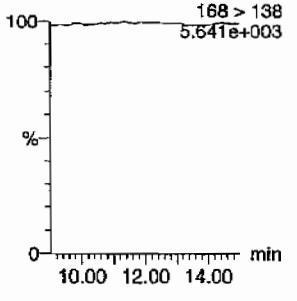

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.642e+003

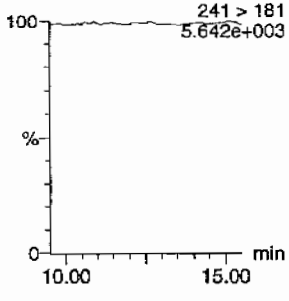

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.644e+003

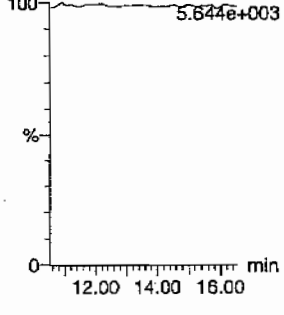

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.637e+003

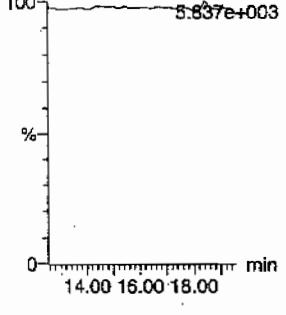

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.730e+003

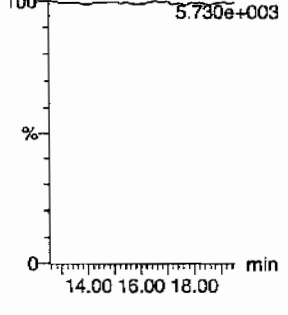

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.639e+003

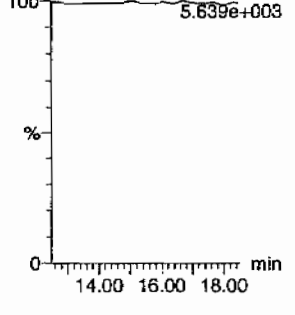

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.674e+003

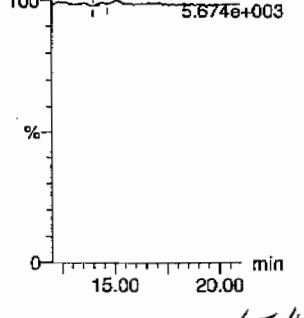

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.674e+003

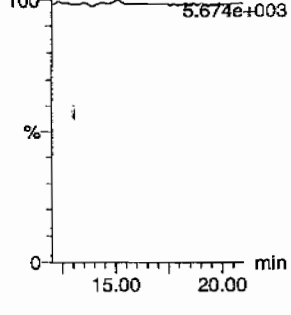

HMM 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

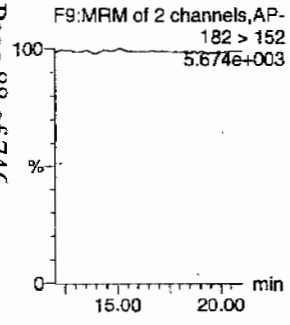

26-dinitrotoluene-d3

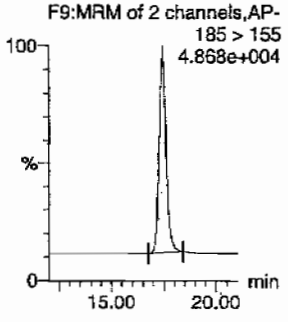

2-Nitrotoluene

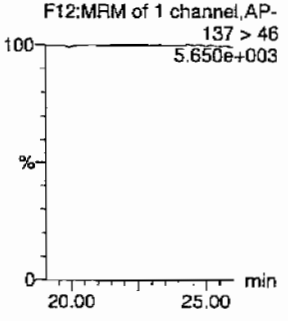

4-Nitrotoluene

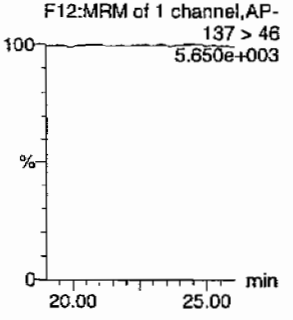

3-Nitrotoluene

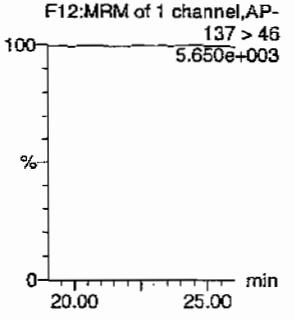

PETN

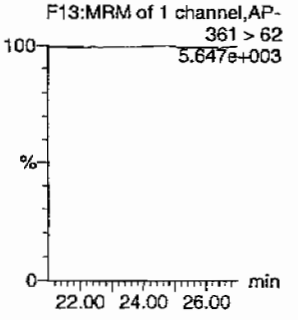

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3436.941									
XIBLK02	RDX	176 > 102			3436.941									
XIBLK02	135-Trinitrobenzene	213 > 183			3436.941									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.03	3436.941		3436.941	3436.941	bb			570.4625	114.1	14.1	178.7
XIBLK02	13-Dinitrobenzene	168 > 138			3436.941									
XIBLK02	Tetryl	241 > 181			3436.941									
XIBLK02	Nitrobenzene	123 > 46			3436.941									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			17207.732									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			17207.732									
XIBLK02	246-Trinitrotoluene	227 > 210			17207.732									
XIBLK02	34-dinitrotoluene	182 > 152			17207.732			MM-	17-Feb-10	09:24:35				
XIBLK02	26-dinitrotoluene	182 > 152			17207.732									
XIBLK02	24-dinitrotoluene	182 > 152			17207.732									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.42	17207.732		17207.732	17207.732	bb			494.2320	98.8	-1.2	2636.1
XIBLK02	2-Nitrotoluene	137 > 46			17207.732									
XIBLK02	4-Nitrotoluene	137 > 46			17207.732									
XIBLK02	3-Nitrotoluene	137 > 46			17207.732									
XIBLK02	PETN	361 > 62			17207.732									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 16-FEB-10 22:04

GEL Data File: EXP0216011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	445.165
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	575.243

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216011a
Date: 16-Feb-2010
Time: 22:04:12
ID: XIBLK03
Vial: 1:1,A

MMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.929e+003

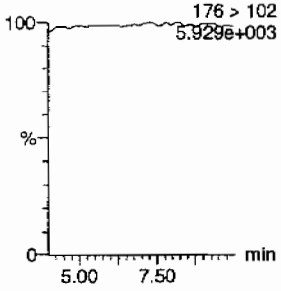

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.929e+003

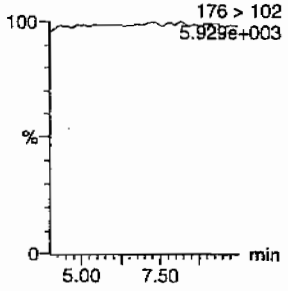

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.731e+003

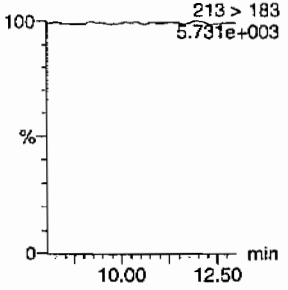

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.226e+004

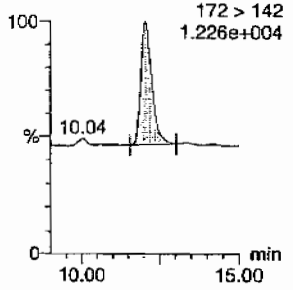

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.708e+003

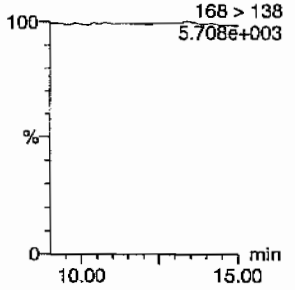

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.756e+003

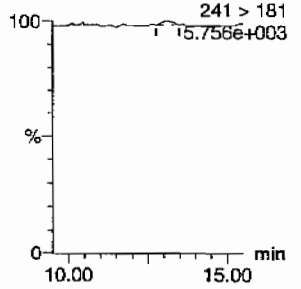

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.719e+003

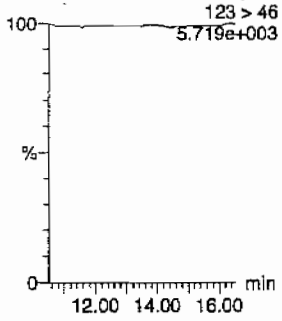

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.833e+003

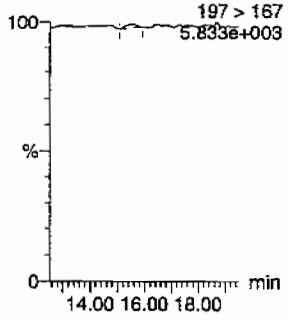

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.836e+003

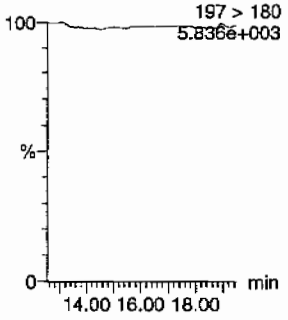

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.700e+003

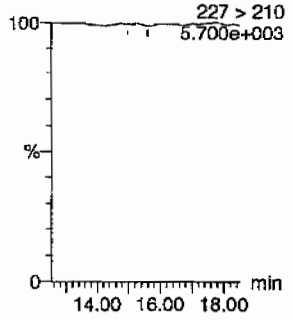

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.716e+003

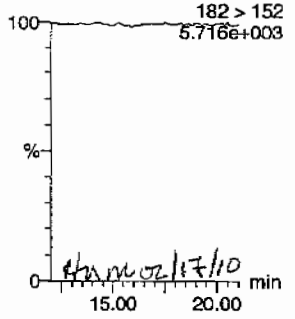

MMT 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.716e+003

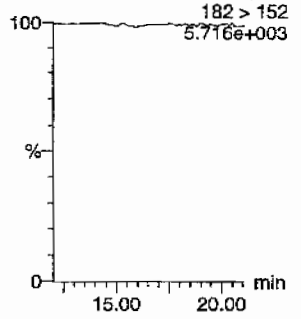

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

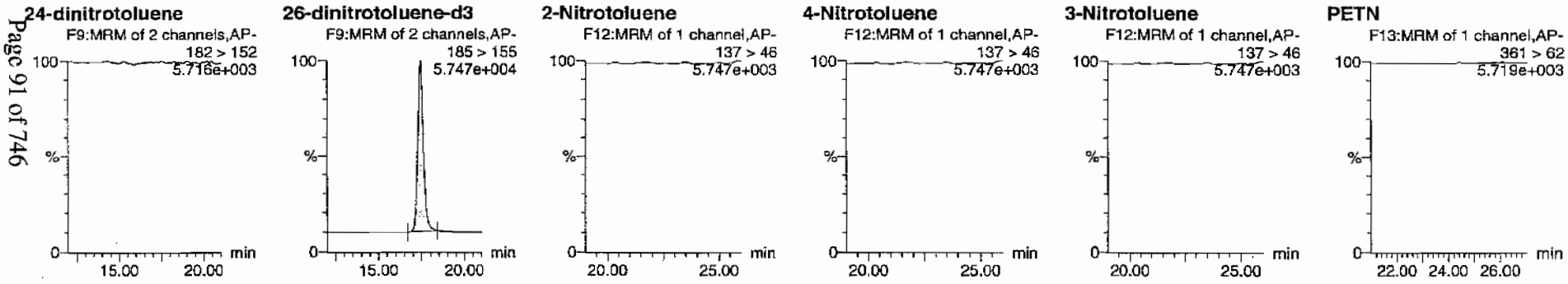

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			2682.047									
XIBLK03	RDX	176 > 102			2682.047									
XIBLK03	135-Trinitrobenzene	213 > 183			2682.047									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.06	2682.047		2682.047	2682.047	bb			445.1654	89.0	-11.0	160.3
XIBLK03	13-Dinitrobenzene	168 > 138			2682.047									
XIBLK03	Tetryl	241 > 181			2682.047			MM-	17-Feb-10	09:21:24				
XIBLK03	Nitrobenzene	123 > 46			2682.047									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			20028.289			MM-	17-Feb-10	09:22:49				
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			20028.289									
XIBLK03	246-Trinitrotoluene	227 > 210			20028.289			MM-	17-Feb-10	09:24:30				
XIBLK03	34-dinitrotoluene	182 > 152			20028.289									
XIBLK03	26-dinitrotoluene	182 > 152			20028.289									
XIBLK03	24-dinitrotoluene	182 > 152			20028.289									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.43	20028.289		20028.289	20028.289	bb			575.2427	115.0	15.0	1997.4
XIBLK03	2-Nitrotoluene	137 > 46			20028.289									
XIBLK03	4-Nitrotoluene	137 > 46			20028.289									
XIBLK03	3-Nitrotoluene	137 > 46			20028.289									
XIBLK03	PETN	361 > 62			20028.289									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 17-FEB-10 03:30

GEL Data File: EXP0216022a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	470.843
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.456
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216022a
Date: 17-Feb-2010
Time: 03:30:28
ID: XIBLK04
Vial: 1:1,A

MATT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.695e+003

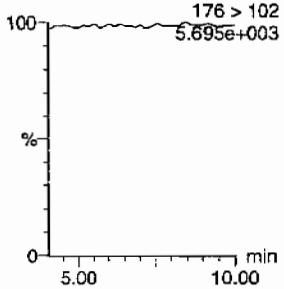

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.695e+003

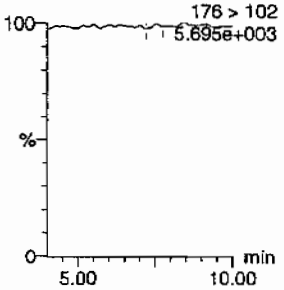

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.555e+003

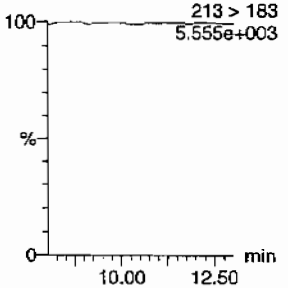

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.247e+004

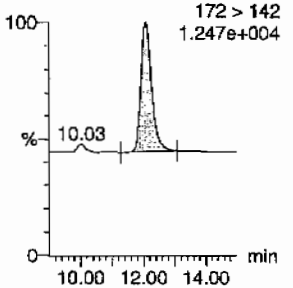

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.594e+003

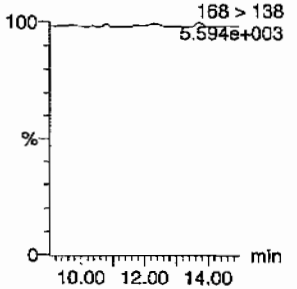

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.571e+003

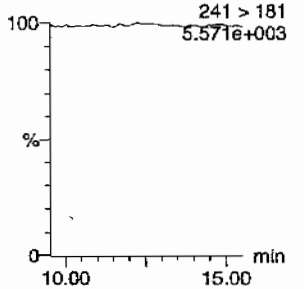

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.538e+003

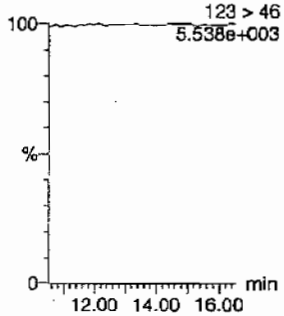

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.644e+003

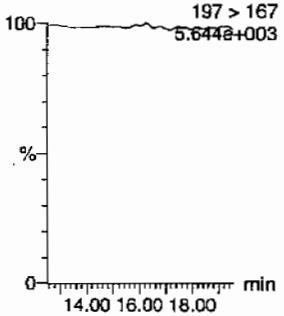

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.633e+003

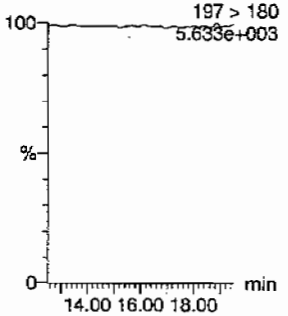

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.551e+003

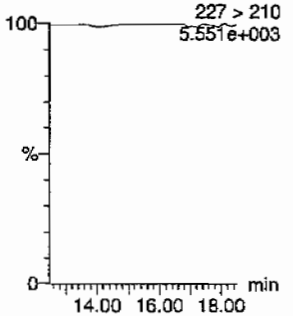

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.566e+003

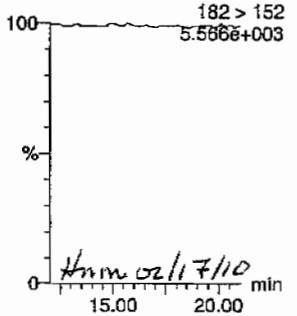

Hnm 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.566e+003

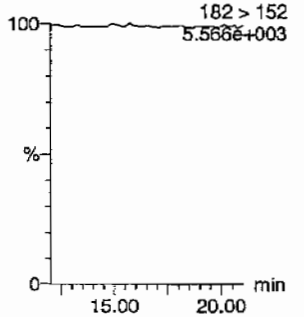

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

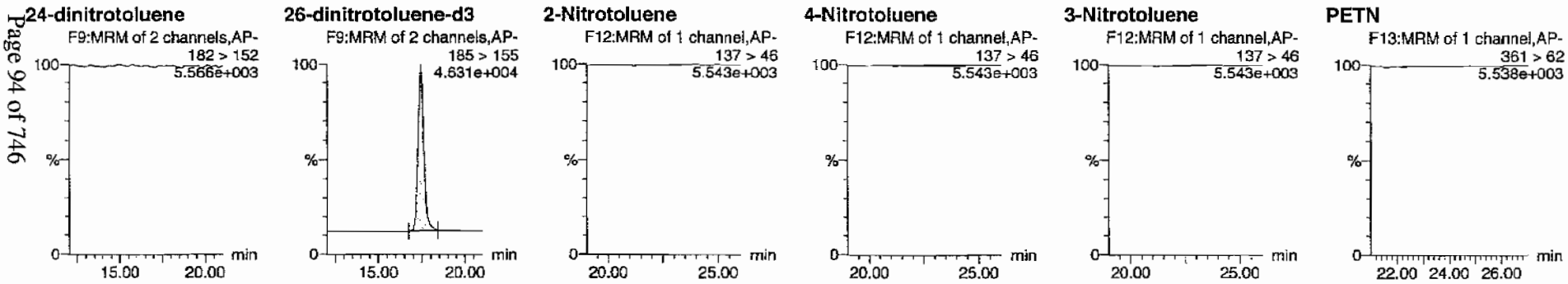

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			2836.752									
XIBLK04	RDX	176 > 102			2836.752			MM-	17-Feb-10	09:20:42				
XIBLK04	135-Trinitrobenzene	213 > 183			2836.752									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.07	2836.752		2836.752	2836.752	bb			470.8433	94.2	-5.8	187.3
XIBLK04	13-Dinitrobenzene	168 > 138			2836.752									
XIBLK04	Tetryl	241 > 181			2836.752									
XIBLK04	Nitrobenzene	123 > 46			2836.752									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			16310.284									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			16310.284									
XIBLK04	246-Trinitrotoluene	227 > 210			16310.284									
XIBLK04	34-dinitrotoluene	182 > 152			16310.284									
XIBLK04	26-dinitrotoluene	182 > 152			16310.284									
XIBLK04	24-dinitrotoluene	182 > 152			16310.284									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.44	16310.284		16310.284	16310.284	bb			468.4560	93.7	-6.3	1281.5
XIBLK04	2-Nitrotoluene	137 > 46			16310.284									
XIBLK04	4-Nitrotoluene	137 > 46			16310.284									
XIBLK04	3-Nitrotoluene	137 > 46			16310.284									
XIBLK04	PETN	361 > 62			16310.284									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 17-FEB-10 06:28

GEL Data File: EXP0216028a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene-d3	500	440.83
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	443.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216028a
Date: 17-Feb-2010
Time: 06:28:06
ID: XIBLK05
Vial: 1:1,A

MATT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.774e+003

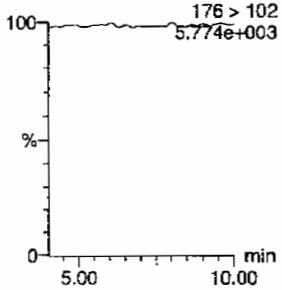

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.774e+003

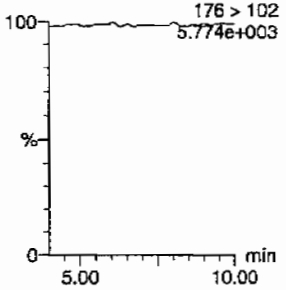

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.638e+003

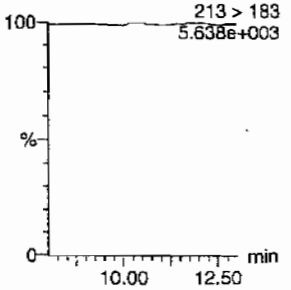

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.231e+004

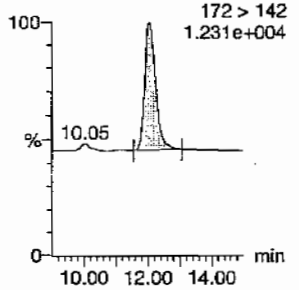

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.607e+003

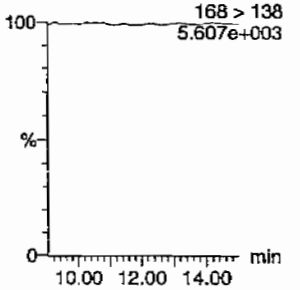

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.623e+003

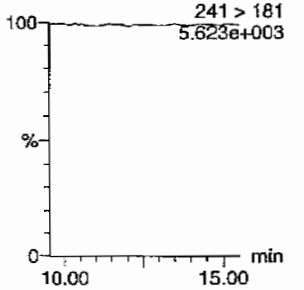

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.619e+003

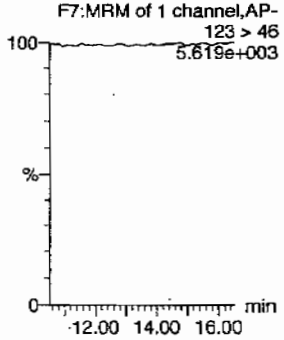

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.715e+003

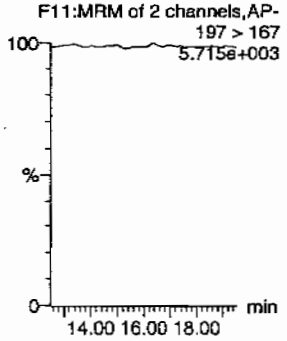

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.688e+003

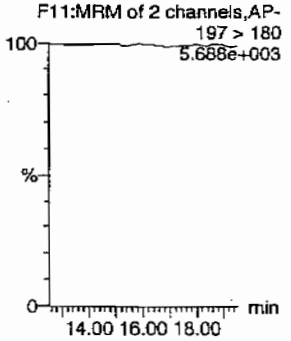

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.630e+003

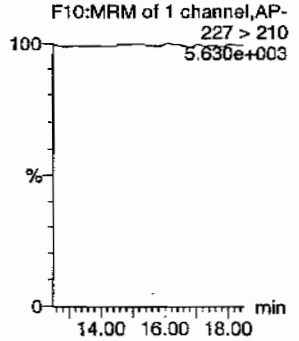

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.642e+003

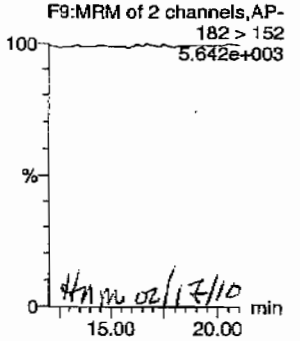

HM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.642e+003

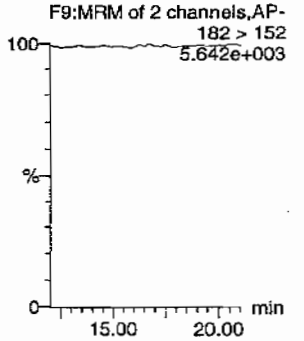

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

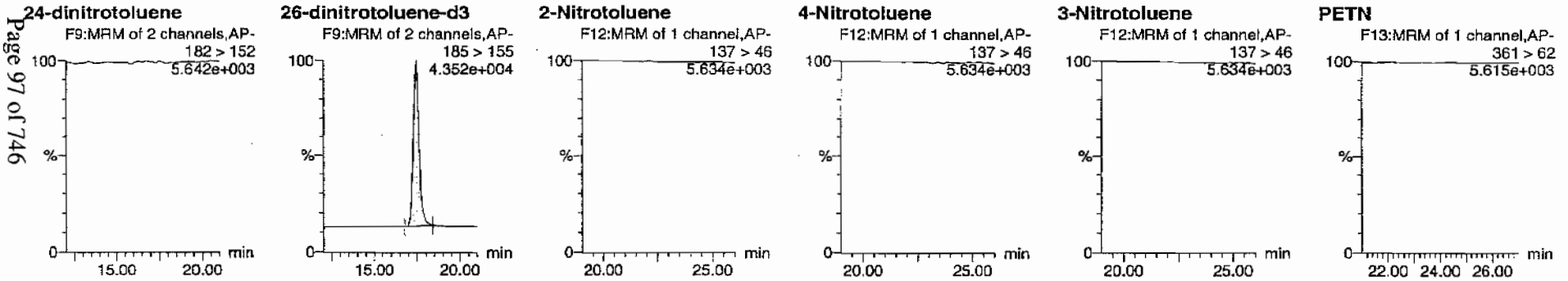

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			2670.289									
XIBLK05	RDX	176 > 102			2670.289									
XIBLK05	135-Trinitrobenzene	213 > 183			2670.289									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.07	2670.289		2670.289	2670.289	bb			443.2139	88.6	-11.4	203.6
XIBLK05	13-Dinitrobenzene	168 > 138			2670.289									
XIBLK05	Tetryl	241 > 181			2670.289									
XIBLK05	Nitrobenzene	123 > 46			2670.289									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			15348.437									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			15348.437									
XIBLK05	246-Trinitrotoluene	227 > 210			15348.437									
XIBLK05	34-dinitrotoluene	182 > 152			15348.437									
XIBLK05	26-dinitrotoluene	182 > 152			15348.437									
XIBLK05	24-dinitrotoluene	182 > 152			15348.437									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.44	15348.437		15348.437	15348.437	bb			440.8303	88.2	-11.8	1328.0
XIBLK05	2-Nitrotoluene	137 > 46			15348.437									
XIBLK05	4-Nitrotoluene	137 > 46			15348.437									
XIBLK05	3-Nitrotoluene	137 > 46			15348.437									
XIBLK05	PETN	361 > 62			15348.437									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 17-FEB-10 12:24

GEL Data File: EXP0216040a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	431.007
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	413.713
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216040a
Date: 17-Feb-2010
Time: 12:24:42
ID: XIBLK06
Vial: 1:1,A

MMP 4/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.698e+003

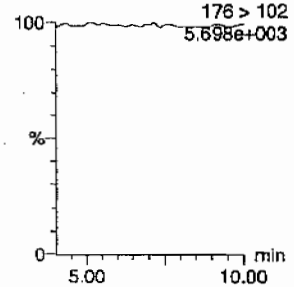

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.698e+003

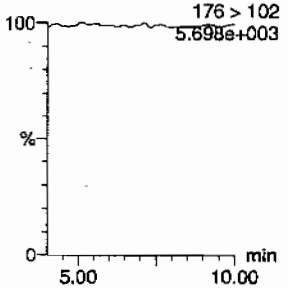

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.591e+003

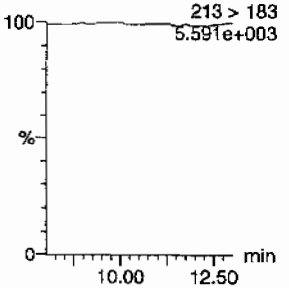

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.197e+004

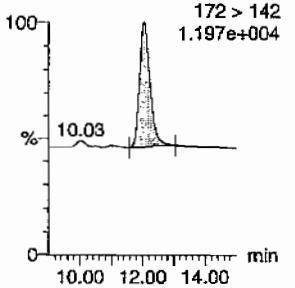

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.563e+003

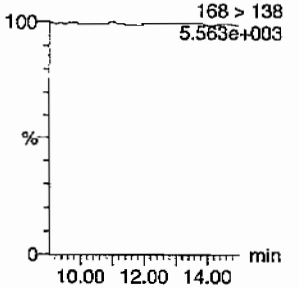

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.591e+003

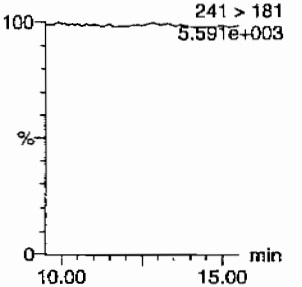

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.573e+003

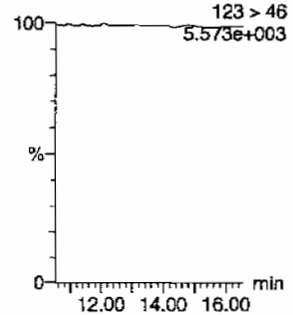

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.641e+003

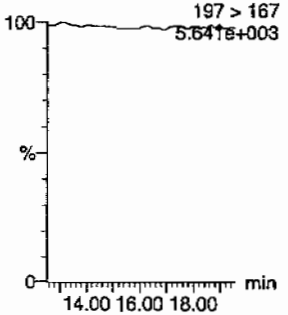

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.586e+003

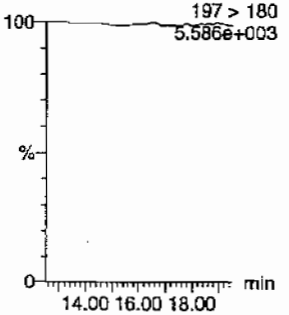

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.553e+003

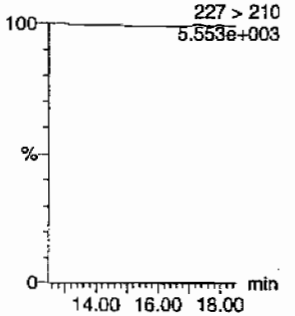

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.553e+003

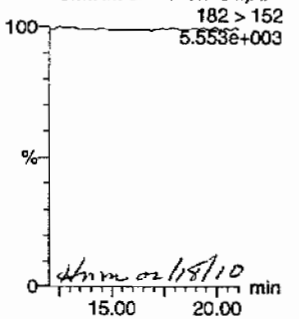

dhm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.553e+003

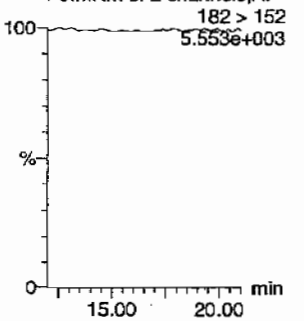

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

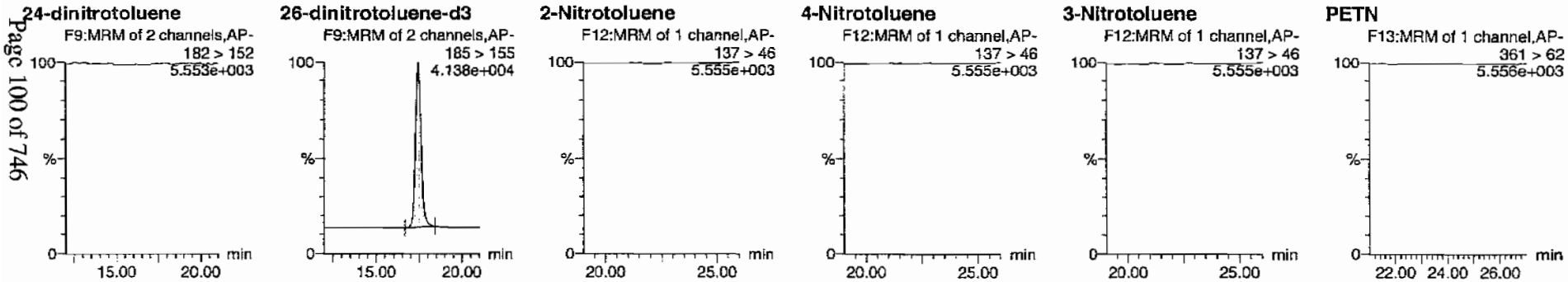

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	mg/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			2596.742									
XIBLK06	RDX	176 > 102			2596.742									
XIBLK06	135-Trinitrobenzene	213 > 183			2596.742									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.03	2596.742		2596.742	2596.742	bb			431.0065	86.2	-13.8	277.6
XIBLK06	13-Dinitrobenzene	168 > 138			2596.742									
XIBLK06	Tetryl	241 > 181			2596.742									
XIBLK06	Nitrobenzene	123 > 46			2596.742									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			14404.283									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			14404.283									
XIBLK06	246-Trinitrotoluene	227 > 210			14404.283									
XIBLK06	34-dinitrotoluene	182 > 152			14404.283									
XIBLK06	26-dinitrotoluene	182 > 152			14404.283									
XIBLK06	24-dinitrotoluene	182 > 152			14404.283									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.44	14404.283		14404.283	14404.283	bb			413.7128	82.7	-17.3	1514.9
XIBLK06	2-Nitrotoluene	137 > 46			14404.283									
XIBLK06	4-Nitrotoluene	137 > 46			14404.283									
XIBLK06	3-Nitrotoluene	137 > 46			14404.283									
XIBLK06	PETN	361 > 62			14404.283									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 17-FEB-10 18:50

GEL Data File: EXP0216053a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	500.527
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	517.203
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216053a
Date: 17-Feb-2010
Time: 18:50:03
ID: XIBLK07
Vial: 1:1,A

MM 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.667e+003

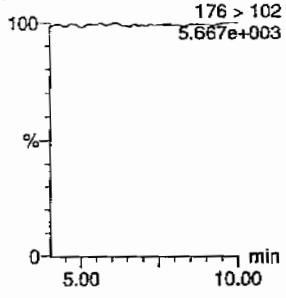

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.667e+003

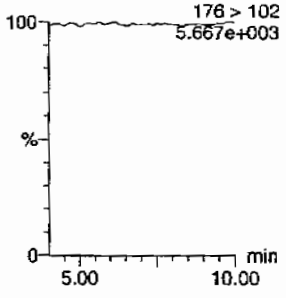

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.582e+003

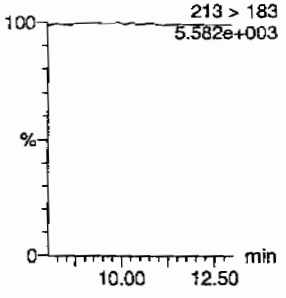

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.296e+004

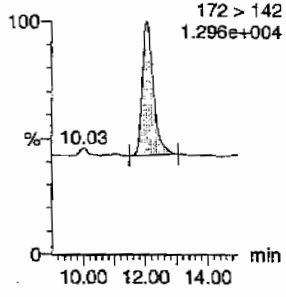

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.566e+003

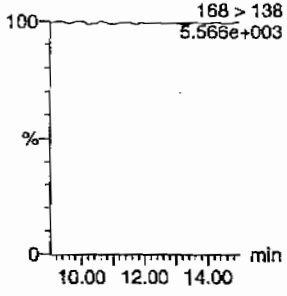

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.574e+003

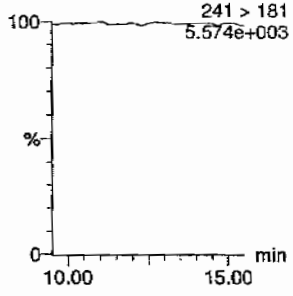

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.569e+003

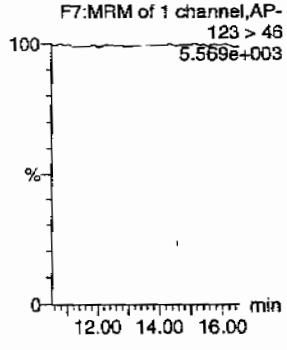

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.629e+003

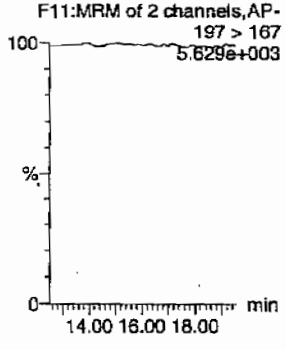

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.615e+003

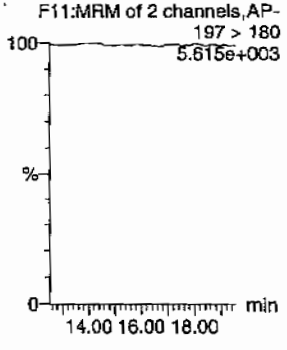

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.587e+003

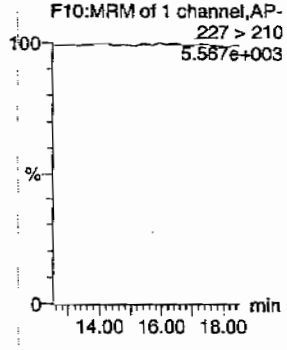

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

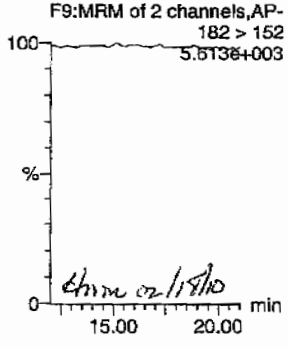

Chm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

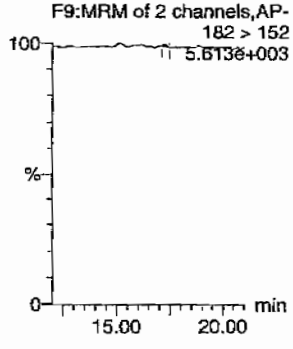

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

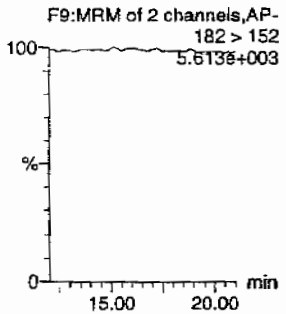

26-dinitrotoluene-d3

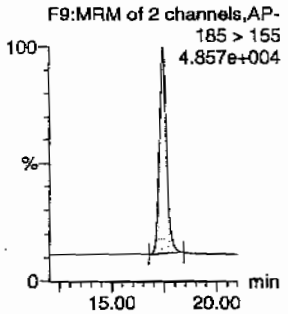

2-Nitrotoluene

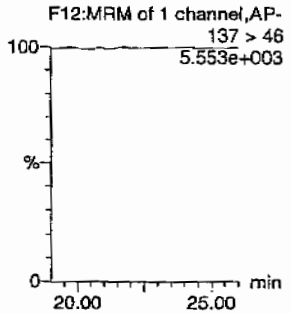

4-Nitrotoluene

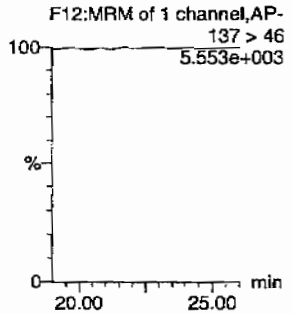

3-Nitrotoluene

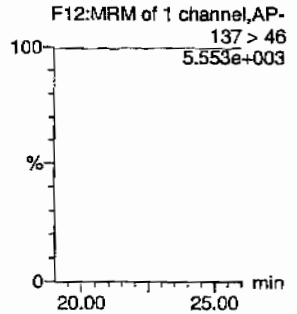

PETN

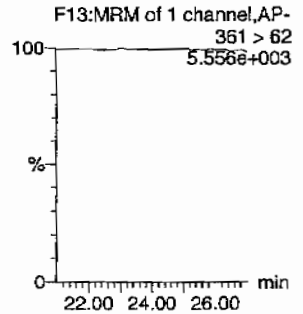

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3116.063									
XIBLK07	RDX	176 > 102			3116.063									
XIBLK07	135-Trinitrobenzene	213 > 183			3116.063									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.03	3116.063		3116.063	3116.063	bb			517.2033	103.4	3.4	364.9
XIBLK07	13-Dinitrobenzene	168 > 138			3116.063									
XIBLK07	Tetryl	241 > 181			3116.063									
XIBLK07	Nitrobenzene	123 > 46			3116.063									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			17426.895									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			17426.895									
XIBLK07	246-Trinitrotoluene	227 > 210			17426.895									
XIBLK07	34-dinitrotoluene	182 > 152			17426.895									
XIBLK07	26-dinitrotoluene	182 > 152			17426.895			MM-	18-Feb-10	08:48:46				
XIBLK07	24-dinitrotoluene	182 > 152			17426.895									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.42	17426.895		17426.895	17426.895	bb			500.5267	100.1	0.1	1075.7
XIBLK07	2-Nitrotoluene	137 > 46			17426.895									
XIBLK07	4-Nitrotoluene	137 > 46			17426.895									
XIBLK07	3-Nitrotoluene	137 > 46			17426.895									
XIBLK07	PETN	361 > 62			17426.895									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1470
Lab Code: GEL
Lab Sample ID: XIBLK08
Analysis Date: 18-FEB-10 01:14
GEL Data File: EXP0216066a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.508
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	477.827
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qid, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216066a
Date: 18-Feb-2010
Time: 01:14:55
ID: XIBLK08
Vial: 1:1,A

MMT 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

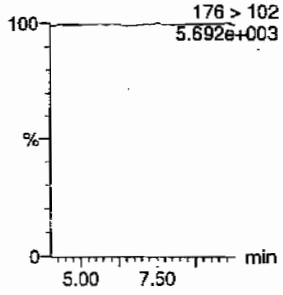

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

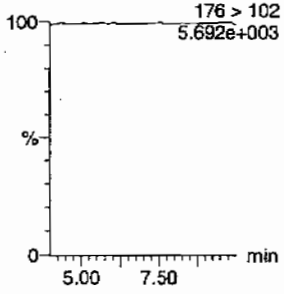

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.674e+003

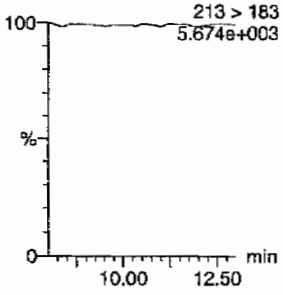

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.398e+004

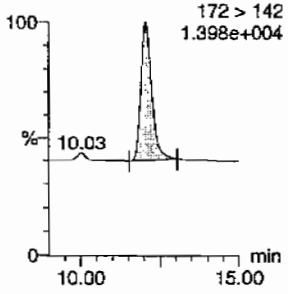

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.652e+003

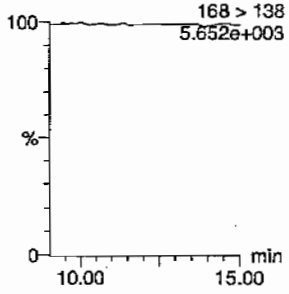

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.636e+003

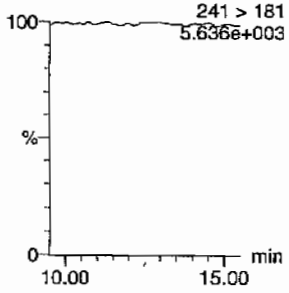

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.659e+003

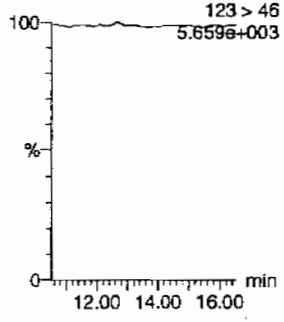

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
16.70
197 > 167
5.759e+003

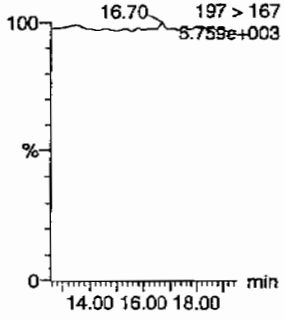

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.677e+003

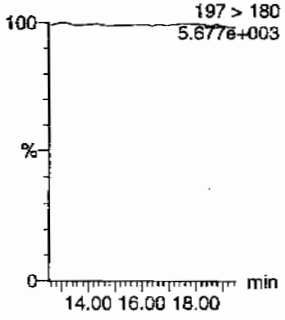

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.610e+003

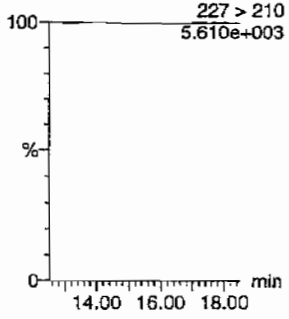

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.646e+003

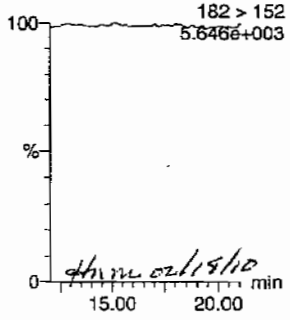

dhm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.646e+003

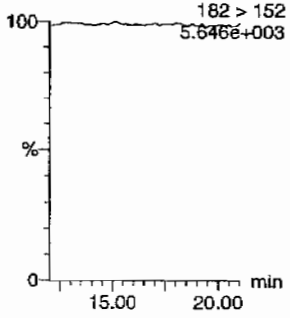

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.646e+003

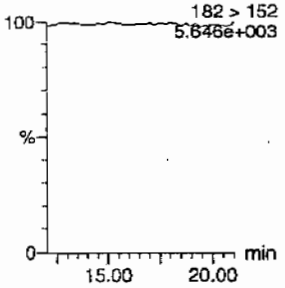

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.717e+004

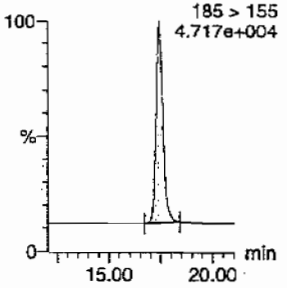

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.619e+003

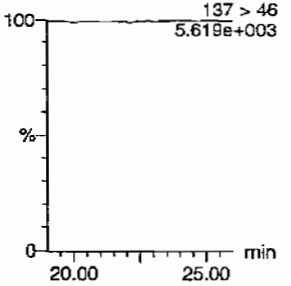

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.619e+003

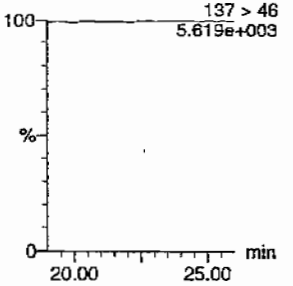

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.619e+003

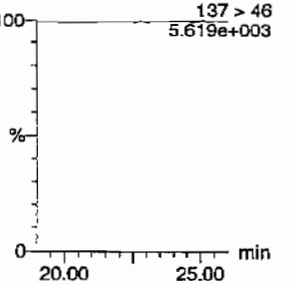

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.629e+003

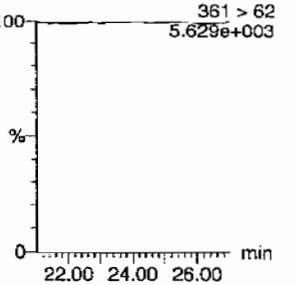

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3346.844									
XIBLK08	RDX	176 > 102			3346.844									
XIBLK08	135-Trinitrobenzene	213 > 183			3346.844									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.03	3346.844		3346.844	3346.844	bb			555.5083	111.1	11.1	89.0
XIBLK08	13-Dinitrobenzene	168 > 138			3346.844									
XIBLK08	Tetryl	241 > 181			3346.844									
XIBLK08	Nitrobenzene	123 > 46			3346.844									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			16636.555									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			16636.555									
XIBLK08	246-Trinitrotoluene	227 > 210			16636.555									
XIBLK08	34-dinitrotoluene	182 > 152			16636.555									
XIBLK08	26-dinitrotoluene	182 > 152			16636.555									
XIBLK08	24-dinitrotoluene	182 > 152			16636.555									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.43	16636.555		16636.555	16636.555	bb			477.8270	95.6	-4.4	925.6
XIBLK08	2-Nitrotoluene	137 > 46			16636.555									
XIBLK08	4-Nitrotoluene	137 > 46			16636.555									
XIBLK08	3-Nitrotoluene	137 > 46			16636.555									
XIBLK08	PETN	361 > 62			16636.555									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 18-FEB-10 02:43

GEL Data File: EXP0216069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	533.187
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	509.45
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216069a
Date: 18-Feb-2010
Time: 02:43:41
ID: XIBLK09
Vial: 1:1,F

MAP 4/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.664e+003

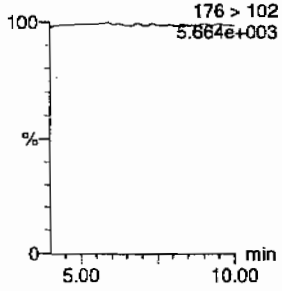

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.664e+003

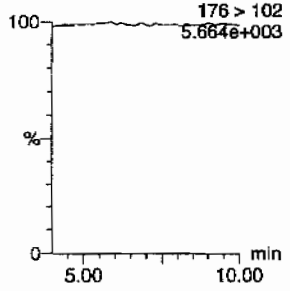

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.609e+003

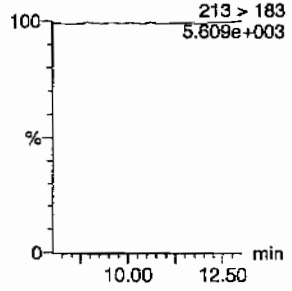

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.341e+004

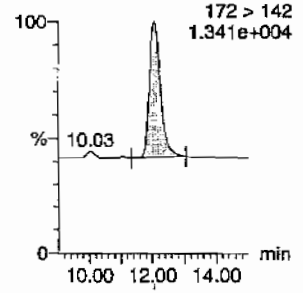

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.606e+003

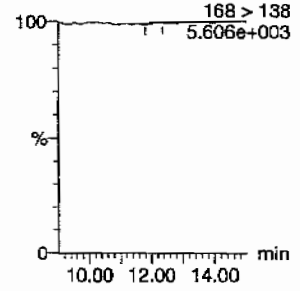

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.617e+003

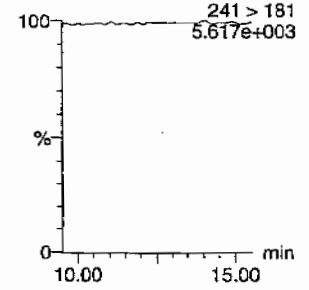

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.665e+003

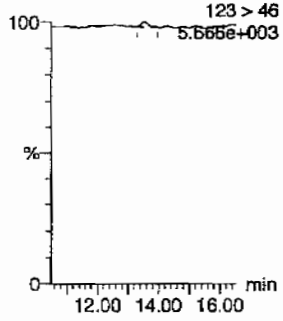

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.651e+003

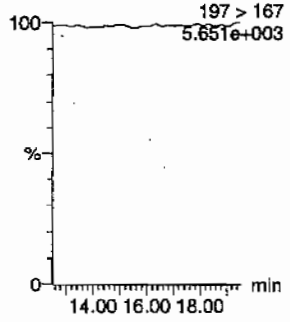

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.659e+003

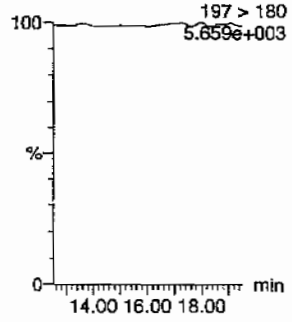

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.604e+003

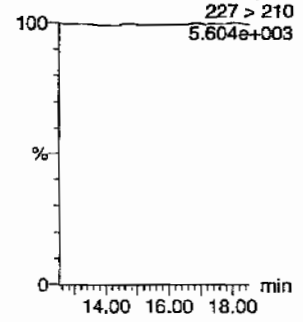

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.629e+003

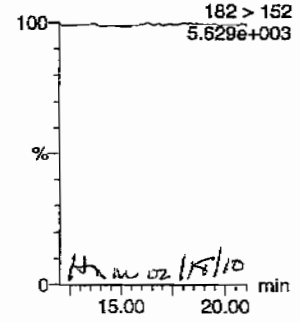

HM 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.629e+003

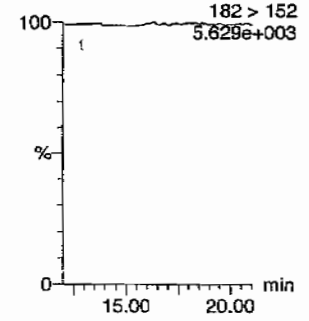

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

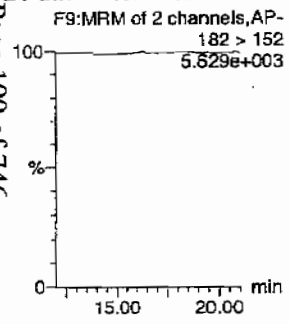

26-dinitrotoluene-d3

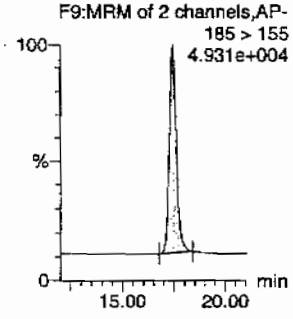

2-Nitrotoluene

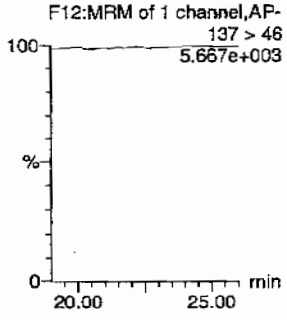

4-Nitrotoluene

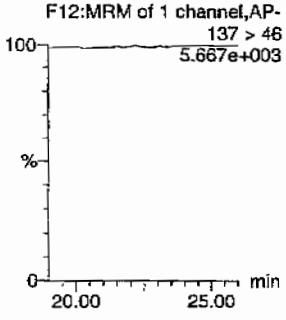

3-Nitrotoluene

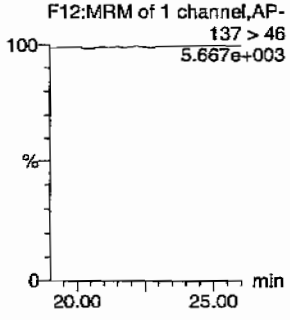

PETN

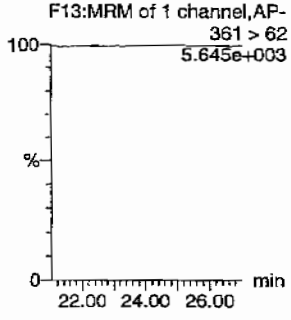

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3212.361									
XIBLK09	RDX	176 > 102			3212.361									
XIBLK09	135-Trinitrobenzene	213 > 183			3212.361									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.07	3212.361		3212.361	3212.361	bb			533.1868	106.6	6.6	611.4
XIBLK09	13-Dinitrobenzene	168 > 138			3212.361			MM-	18-Feb-10	08:42:49				
XIBLK09	Tetryl	241 > 181			3212.361									
XIBLK09	Nitrobenzene	123 > 46			3212.361			MM-	18-Feb-10	08:43:35				
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			17737.570									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			17737.570									
XIBLK09	246-Trinitrotoluene	227 > 210			17737.570									
XIBLK09	34-dinitrotoluene	182 > 152			17737.570									
XIBLK09	26-dinitrotoluene	182 > 152			17737.570									
XIBLK09	24-dinitrotoluene	182 > 152			17737.570									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.44	17737.570		17737.570	17737.570	bb			509.4498	101.9	1.9	1474.7
XIBLK09	2-Nitrotoluene	137 > 46			17737.570									
XIBLK09	4-Nitrotoluene	137 > 46			17737.570									
XIBLK09	3-Nitrotoluene	137 > 46			17737.570									
XIBLK09	PETN	361 > 62			17737.570									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 18-FEB-10 07:40

GEL Data File: EXP0216079a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	480.33
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	458.446
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216079a
Date: 18-Feb-2010
Time: 07:40:00
ID: XIBLK10
Vial: 1:1,A

MM 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.828e+003

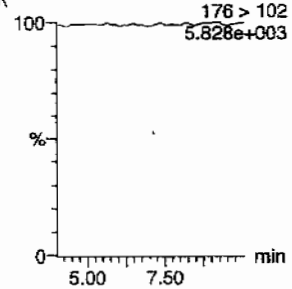

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.828e+003

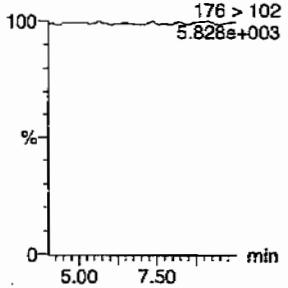

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.789e+003

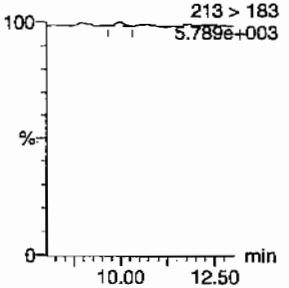

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.289e+004

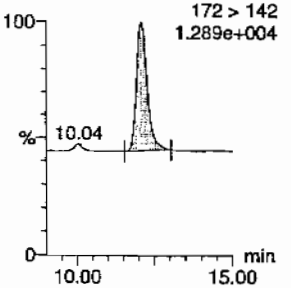

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.737e+003

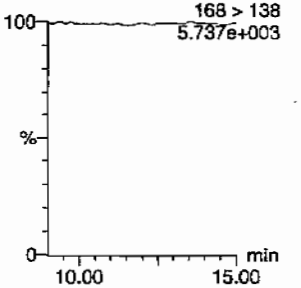

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.744e+003

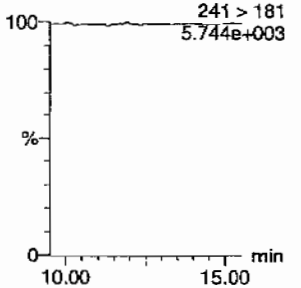

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.761e+003

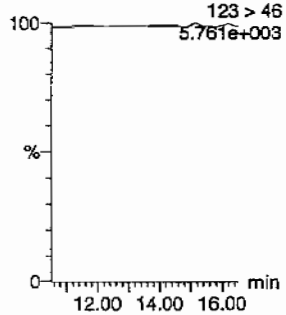

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.802e+003

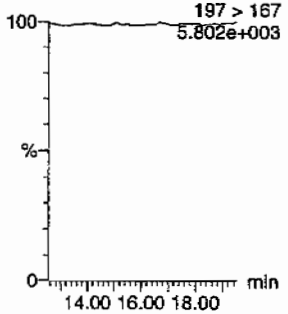

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.805e+003

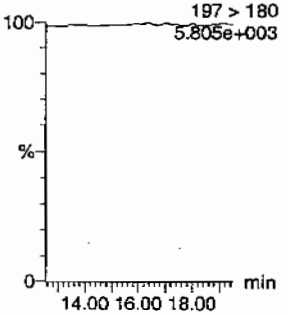

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.736e+003

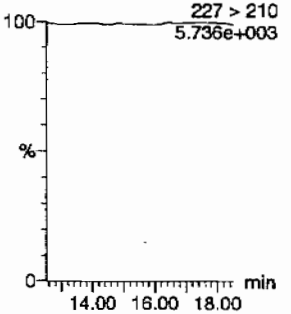

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

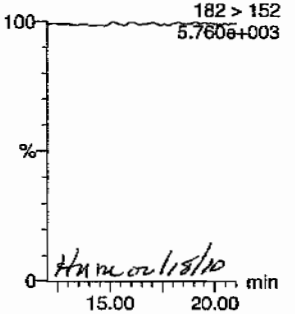

HM 2/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

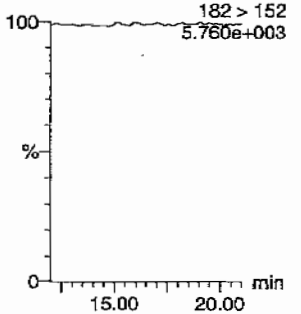

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

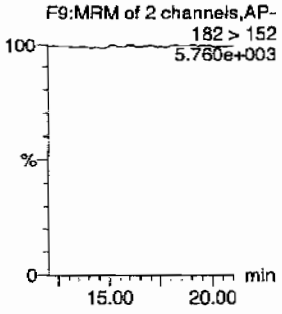

26-dinitrotoluene-d3

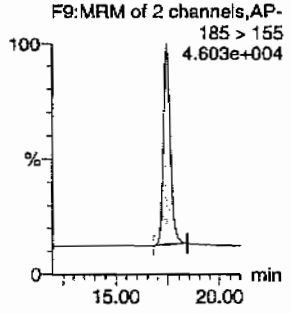

2-Nitrotoluene

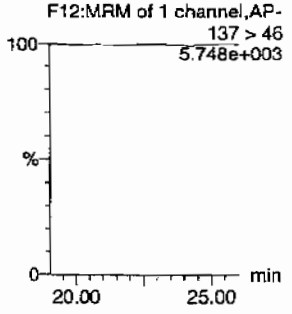

4-Nitrotoluene

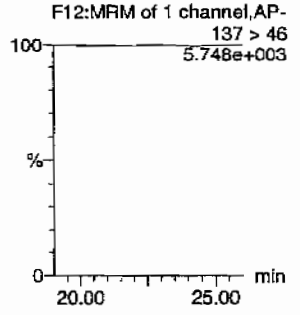

3-Nitrotoluene

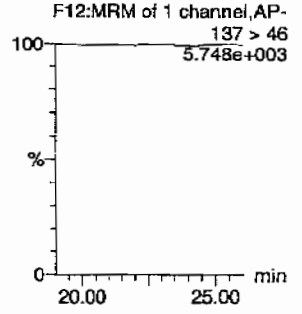

PETN

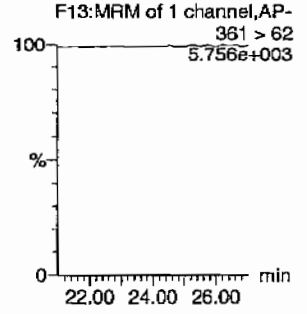

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			2893.907									
XIBLK10	RDX	176 > 102			2893.907									
XIBLK10	135-Trinitrobenzene	213 > 183			2893.907			MM-	18-Feb-10	08:42:38				
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.06	2893.907		2893.907	2893.907	bb			480.3299	96.1	-3.9	382.0
XIBLK10	13-Dinitrobenzene	168 > 138			2893.907									
XIBLK10	Tetryl	241 > 181			2893.907									
XIBLK10	Nitrobenzene	123 > 46			2893.907									
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			15961.760									
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			15961.760									
XIBLK10	246-Trinitrotoluene	227 > 210			15961.760									
XIBLK10	34-dinitrotoluene	182 > 152			15961.760									
XIBLK10	26-dinitrotoluene	182 > 152			15961.760									
XIBLK10	24-dinitrotoluene	182 > 152			15961.760									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.43	15961.760		15961.760	15961.760	bb			458.4458	91.7	-8.3	1442.8
XIBLK10	2-Nitrotoluene	137 > 46			15961.760									
XIBLK10	4-Nitrotoluene	137 > 46			15961.760									
XIBLK10	3-Nitrotoluene	137 > 46			15961.760									
XIBLK10	PETN	361 > 62			15961.760									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 18-FEB-10 13:05

GEL Data File: EXP0216090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	455.405
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	434.95
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216090a
Date: 18-Feb-2010
Time: 13:05:54
ID: XIBLK11
Vial: 1:1,A

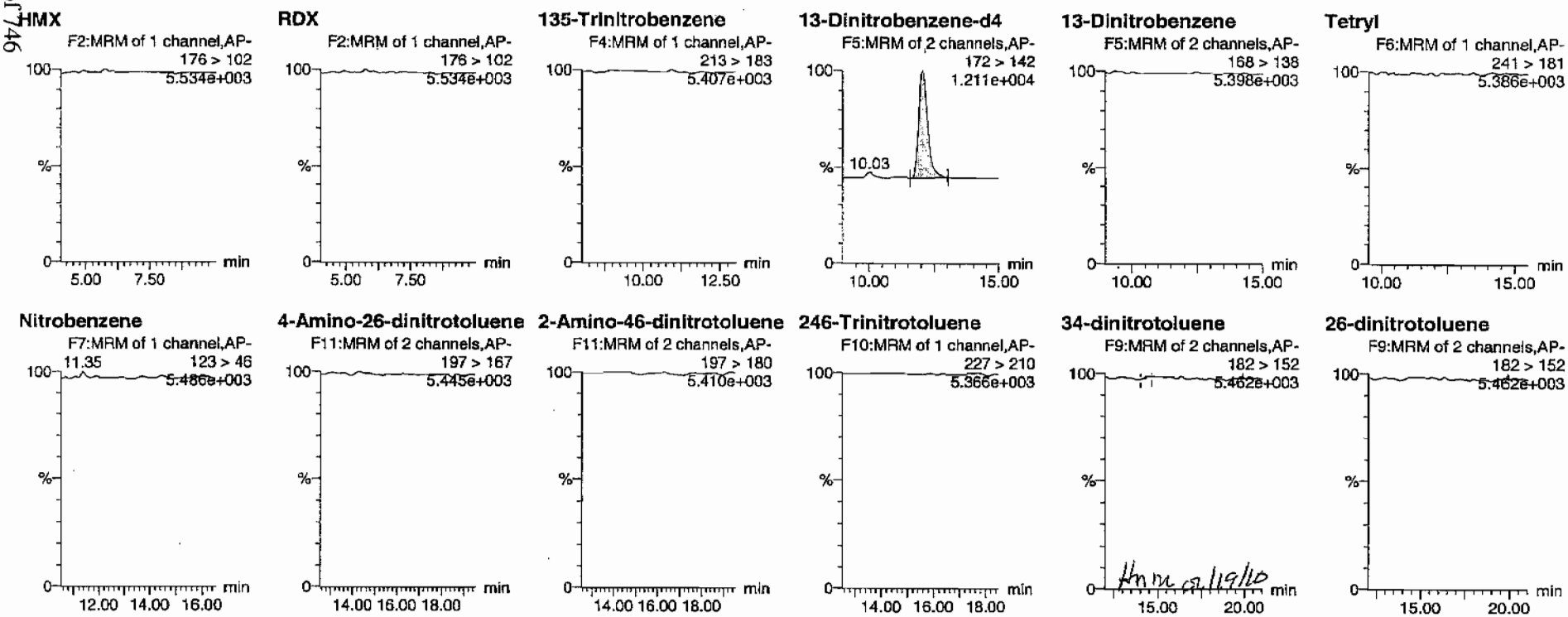

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.462e+003

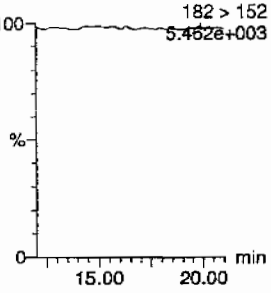

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.336e+004

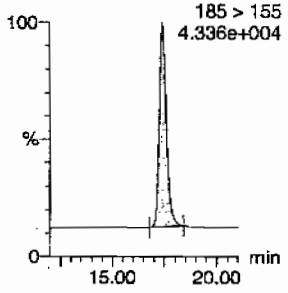

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.375e+003

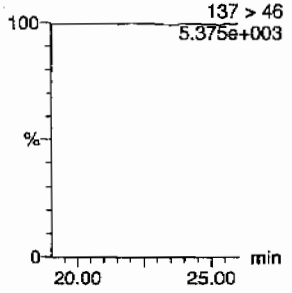

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.375e+003

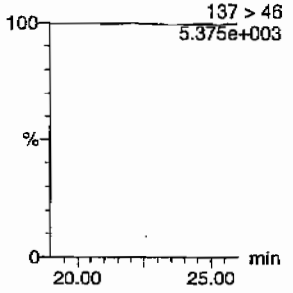

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.375e+003

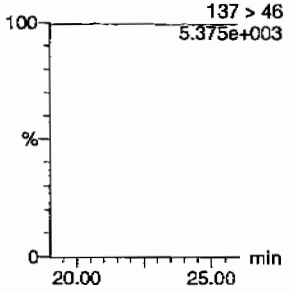

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.365e+003

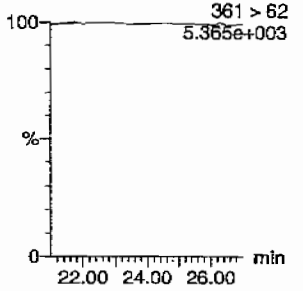

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			2743.740									
XIBLK11	RDX	176 > 102			2743.740									
XIBLK11	135-Trinitrobenzene	213 > 183			2743.740									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.06	2743.740		2743.740	2743.740	bb			455.4052	91.1	-8.9	327.5
XIBLK11	13-Dinitrobenzene	168 > 138			2743.740									
XIBLK11	Tetryl	241 > 181			2743.740									
XIBLK11	Nitrobenzene	123 > 46			2743.740									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			15143.687									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			15143.687									
XIBLK11	246-Trinitrotoluene	227 > 210			15143.687									
XIBLK11	34-dinitrotoluene	182 > 152			15143.687			MM-	19-Feb-10	08:42:41				
XIBLK11	26-dinitrotoluene	182 > 152			15143.687									
XIBLK11	24-dinitrotoluene	182 > 152			15143.687									
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.43	15143.687		15143.687	15143.687	bb			434.9496	87.0	-13.0	1161.5
XIBLK11	2-Nitrotoluene	137 > 46			15143.687									
XIBLK11	4-Nitrotoluene	137 > 46			15143.687									
XIBLK11	3-Nitrotoluene	137 > 46			15143.687									
XIBLK11	PETN	361 > 62			15143.687									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 18-FEB-10 19:00

GEL Data File: EXP0216102a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
Tetryl	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	463.109
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	440.854
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216102a
Date: 18-Feb-2010
Time: 19:00:50
ID: XIBLK12
Vial: 1:1,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.623e+003

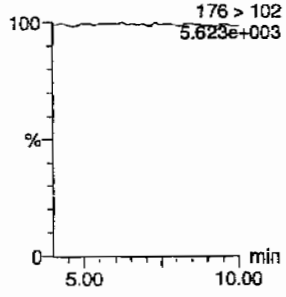

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.623e+003

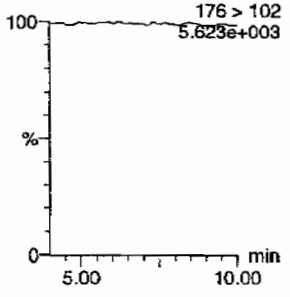

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.551e+003

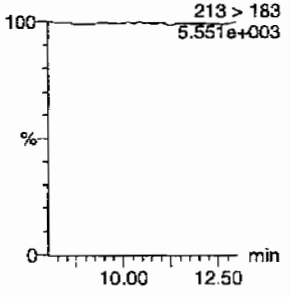

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.224e+004

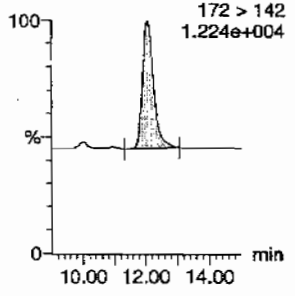

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.533e+003

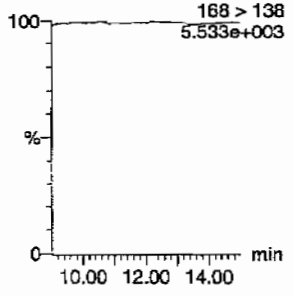

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.536e+003

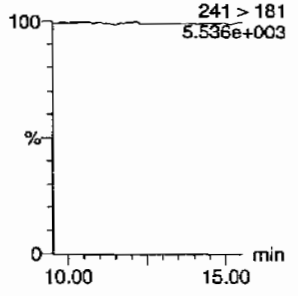

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.558e+003

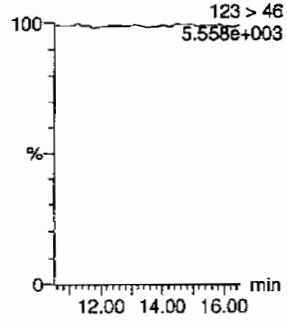

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.572e+003

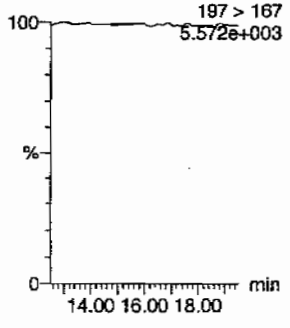

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.589e+003

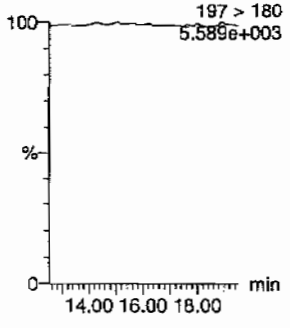

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.529e+003

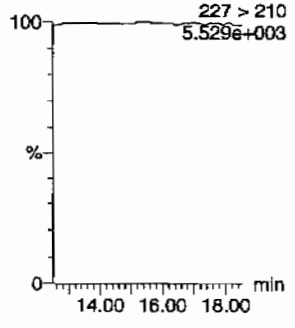

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.573e+003

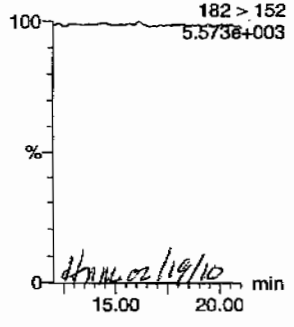

dhm 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.573e+003

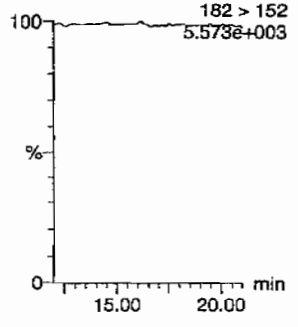

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

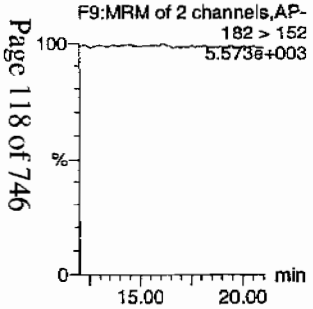

26-dinitrotoluene-d3

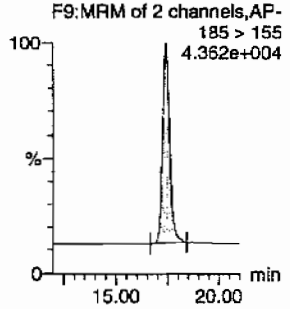

2-Nitrotoluene

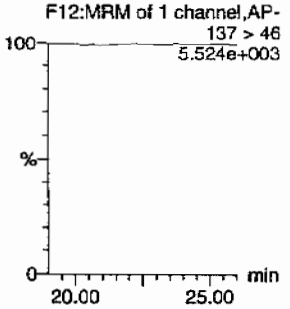

4-Nitrotoluene

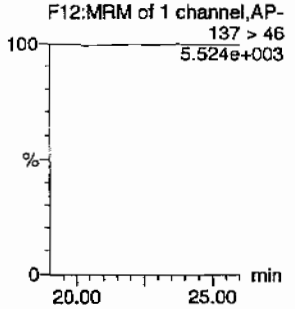

3-Nitrotoluene

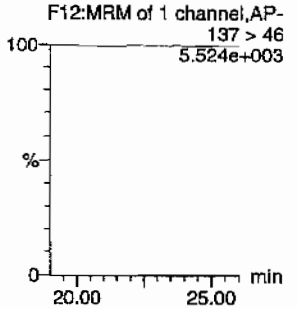

PETN

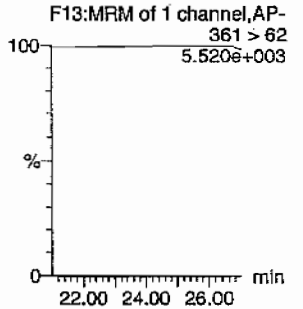

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			2790.156									
XIBLK12	RDX	176 > 102			2790.156									
XIBLK12	135-Trinitrobenzene	213 > 183			2790.156									
XIBLK12	13-Dinitrobenzene-d4	172 > 142	12.03	2790.156		2790.156	2790.156	bb			463.1093	92.6	-7.4	580.1
XIBLK12	13-Dinitrobenzene	168 > 138			2790.156									
XIBLK12	Tetryl	241 > 181			2790.156									
XIBLK12	Nitrobenzene	123 > 46			2790.156									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			15349.260									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			15349.260									
XIBLK12	246-Trinitrotoluene	227 > 210			15349.260									
XIBLK12	34-dinitrotoluene	182 > 152			15349.260									
XIBLK12	26-dinitrotoluene	182 > 152			15349.260									
XIBLK12	24-dinitrotoluene	182 > 152			15349.260									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.42	15349.260		15349.260	15349.260	bb			440.8539	88.2	-11.8	1191.0
XIBLK12	2-Nitrotoluene	137 > 46			15349.260									
XIBLK12	4-Nitrotoluene	137 > 46			15349.260									
XIBLK12	3-Nitrotoluene	137 > 46			15349.260									
XIBLK12	PETN	361 > 62			15349.260									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 19-FEB-10 01:24

GEL Data File: EXP0216115a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	480.924
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	485.557
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216115a
Date: 19-Feb-2010
Time: 01:24:51
ID: XIBLK13
Vial: 1:1,A

MATT 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.626e+003

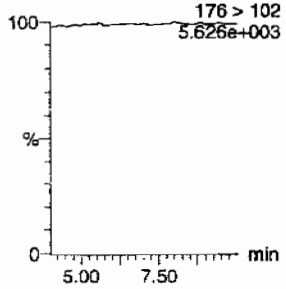

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.626e+003

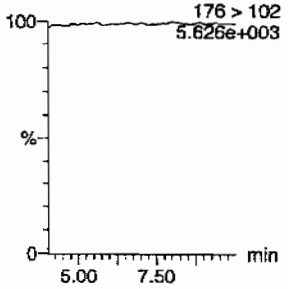

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.562e+003

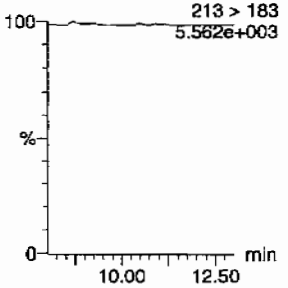

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.247e+004

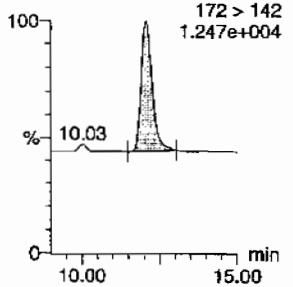

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.520e+003

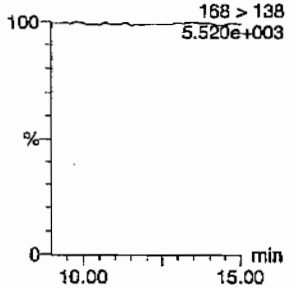

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.521e+003

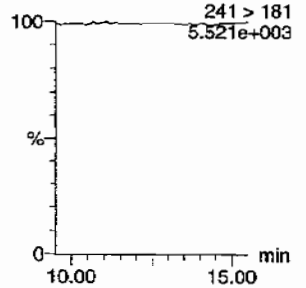

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.515e+003

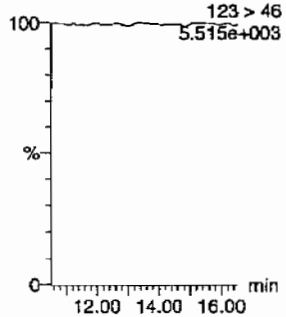

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.593e+003

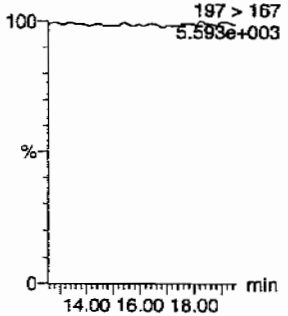

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.580e+003

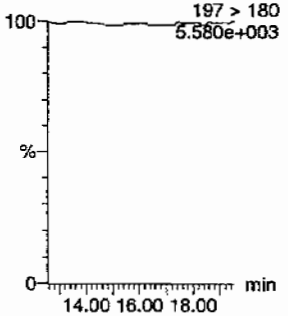

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.523e+003

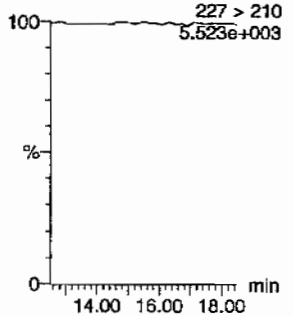

34-dinitrotoluene
F9:MRM of 2 channels,AP-
12.82
182 > 152
5.659e+003

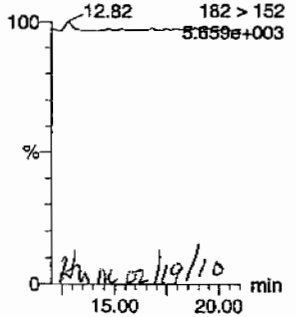

MMM 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
12.82
182 > 152
5.659e+003

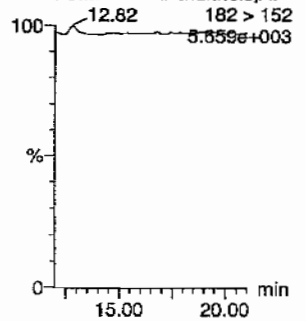

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

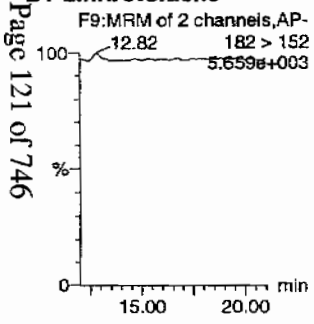

26-dinitrotoluene-d3

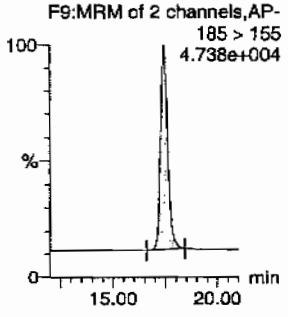

2-Nitrotoluene

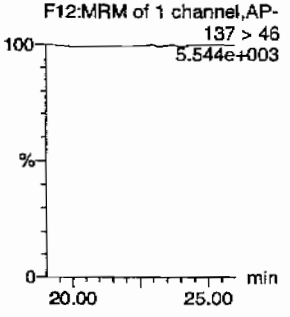

4-Nitrotoluene

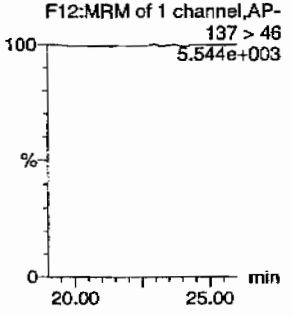

3-Nitrotoluene

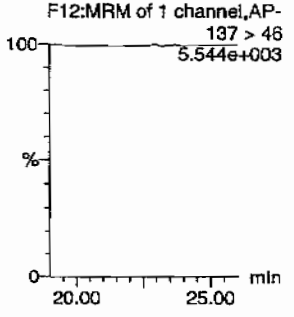

PETN

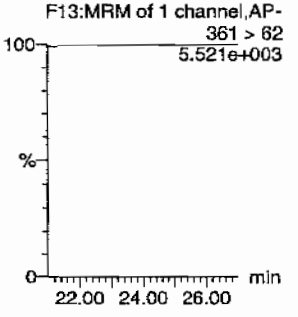

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			2897.485									
XIBLK13	RDX	176 > 102			2897.485									
XIBLK13	135-Trinitrobenzene	213 > 183			2897.485									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	12.06	2897.485		2897.485	2897.485	bb			480.9238	96.2	-3.8	308.6
XIBLK13	13-Dinitrobenzene	168 > 138			2897.485									
XIBLK13	Tetryl	241 > 181			2897.485									
XIBLK13	Nitrobenzene	123 > 46			2897.485									
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			16905.705									
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			16905.705									
XIBLK13	246-Trinitrotoluene	227 > 210			16905.705									
XIBLK13	34-dinitrotoluene	182 > 152			16905.705									
XIBLK13	26-dinitrotoluene	182 > 152			16905.705									
XIBLK13	24-dinitrotoluene	182 > 152			16905.705									
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.43	16905.705		16905.705	16905.705	bb			485.5574	97.1	-2.9	1789.3
XIBLK13	2-Nitrotoluene	137 > 46			16905.705									
XIBLK13	4-Nitrotoluene	137 > 46			16905.705									
XIBLK13	3-Nitrotoluene	137 > 46			16905.705									
XIBLK13	PETN	361 > 62			16905.705									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 19-FEB-10 07:21

GEL Data File: EXP0216127a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	437.668
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	437.697
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216127a
Date: 19-Feb-2010
Time: 07:21:28
ID: XIBLK14
Vial: 1:1,A

MAT 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.654e+003

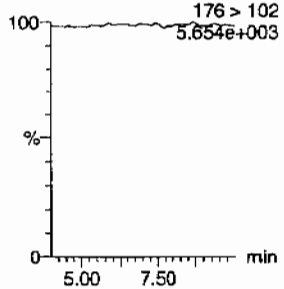

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.654e+003

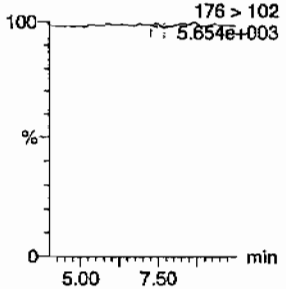

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.556e+003

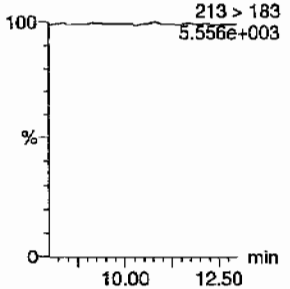

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.197e+004

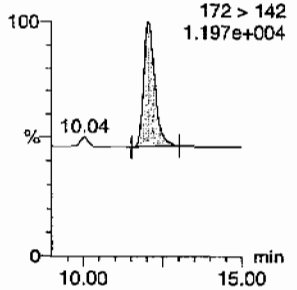

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.535e+003

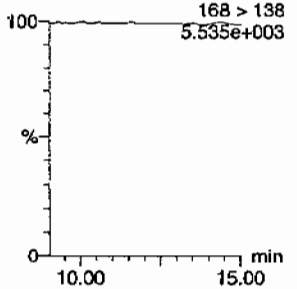

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.533e+003

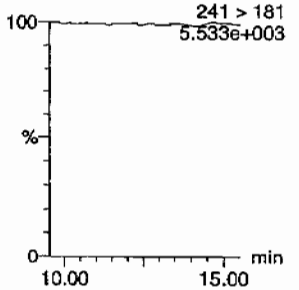

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.551e+003

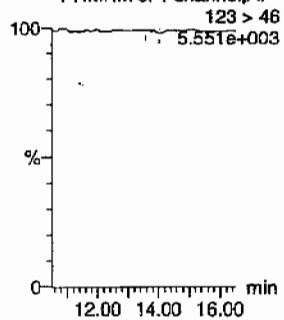

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.574e+003

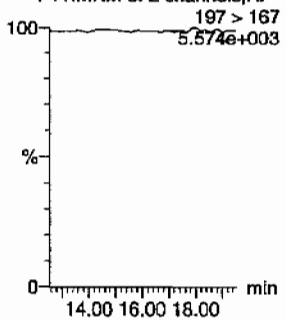

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.598e+003

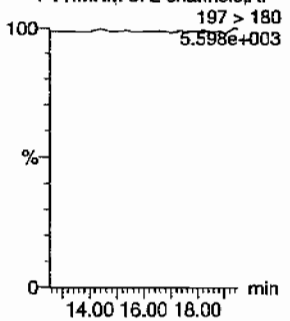

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.505e+003

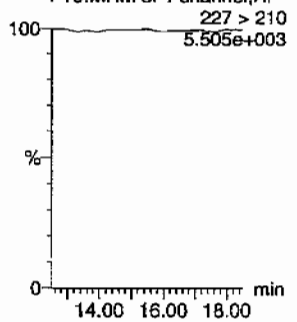

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.569e+003

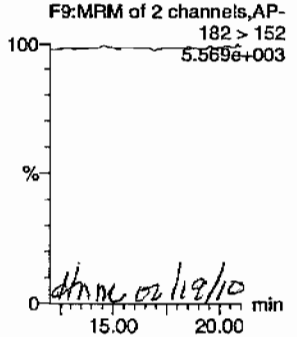

dhm 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.569e+003

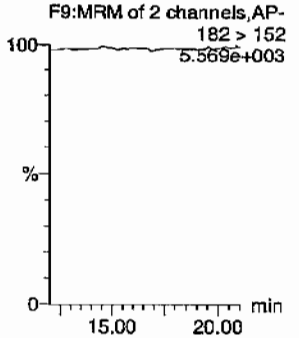

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.569e+003

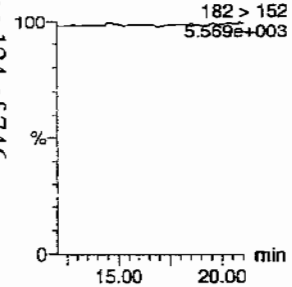

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.361e+004

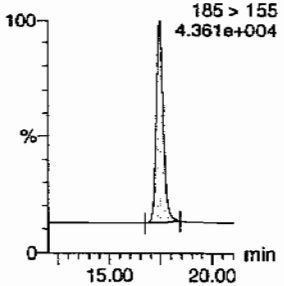

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.533e+003

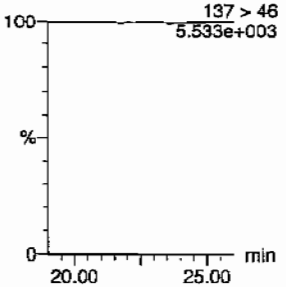

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.533e+003

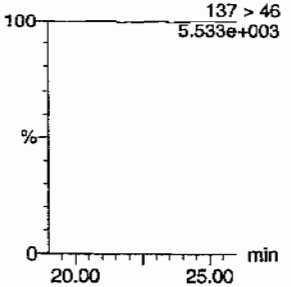

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.533e+003

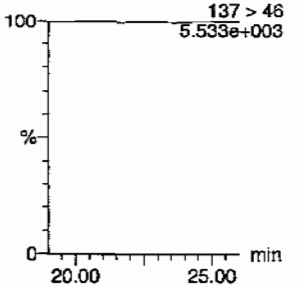

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.518e+003

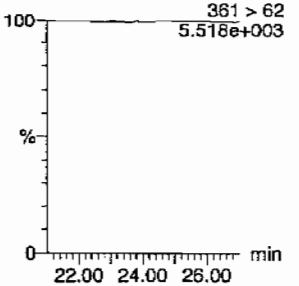

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK14	HMX	176 > 102			2636.874									
XIBLK14	RDX	176 > 102			2636.874			MM-	19-Feb-10	08:36:15				
XIBLK14	135-Trinitrobenzene	213 > 183			2636.874									
XIBLK14	13-Dinitrobenzene-d4	172 > 142	12.06	2636.874		2636.874	2636.874	bb			437.6676	87.5	-12.5	334.8
XIBLK14	13-Dinitrobenzene	168 > 138			2636.874									
XIBLK14	Tetryl	241 > 181			2636.874									
XIBLK14	Nitrobenzene	123 > 46			2636.874			MM-	19-Feb-10	08:37:38				
XIBLK14	4-Amino-26-dinitrotoluene	197 > 167			15239.334									
XIBLK14	2-Amino-46-dinitrotoluene	197 > 180			15239.334									
XIBLK14	246-Trinitrotoluene	227 > 210			15239.334									
XIBLK14	34-dinitrotoluene	182 > 152			15239.334									
XIBLK14	26-dinitrotoluene	182 > 152			15239.334									
XIBLK14	24-dinitrotoluene	182 > 152			15239.334									
XIBLK14	26-dinitrotoluene-d3	185 > 155	17.43	15239.334		15239.334	15239.334	bb			437.6967	87.5	-12.5	1090.2
XIBLK14	2-Nitrotoluene	137 > 46			15239.334									
XIBLK14	4-Nitrotoluene	137 > 46			15239.334									
XIBLK14	3-Nitrotoluene	137 > 46			15239.334									
XIBLK14	PETN	361 > 62			15239.334									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 19-FEB-10 13:46

GEL Data File: EXP0216140a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	506.457
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	507.824

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216140a
Date: 19-Feb-2010
Time: 13:46:31
ID: XIBLK15
Vial: 1:1,A

HMX

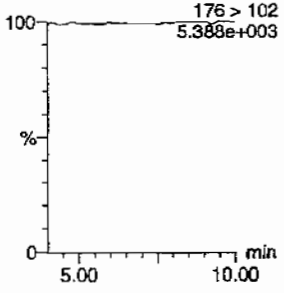

RDX

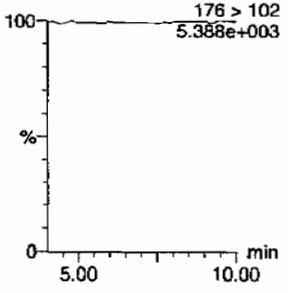

135-Trinitrobenzene

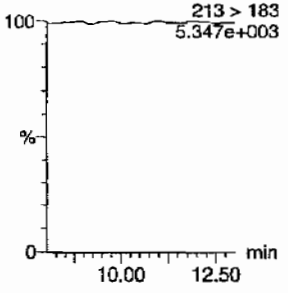

13-Dinitrobenzene-d4

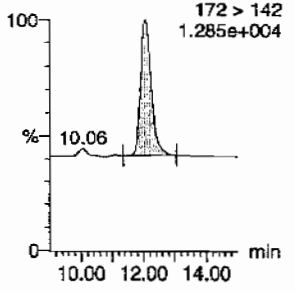

13-Dinitrobenzene

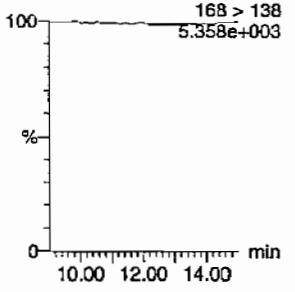

Tetryl

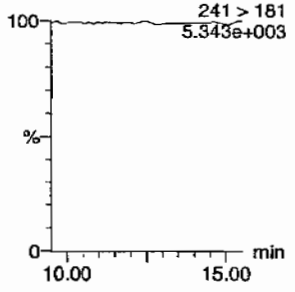

Nitrobenzene

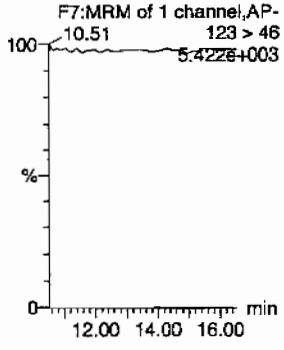

4-Amino-26-dinitrotoluene

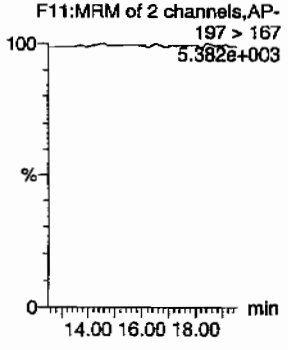

2-Amino-46-dinitrotoluene

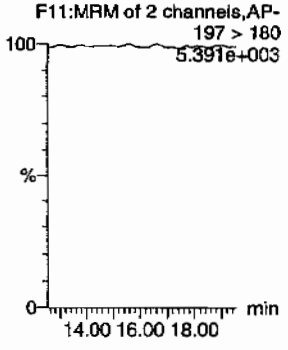

246-Trinitrotoluene

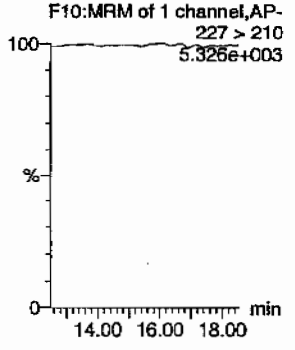

34-dinitrotoluene

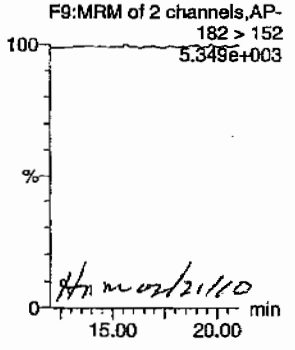

26-dinitrotoluene

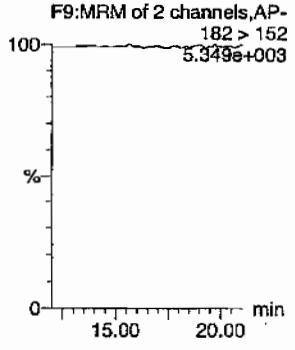

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.349e+003

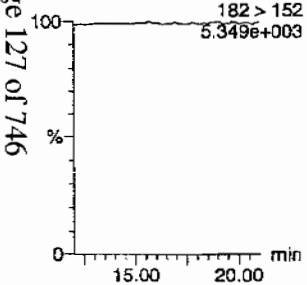

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.963e+004

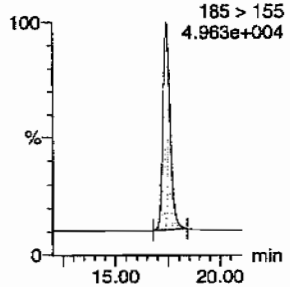

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.345e+003

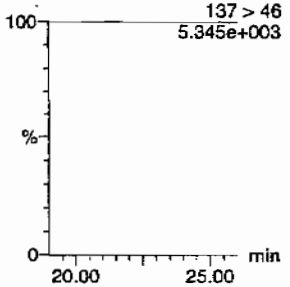

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.345e+003

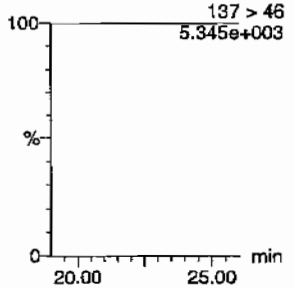

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.345e+003

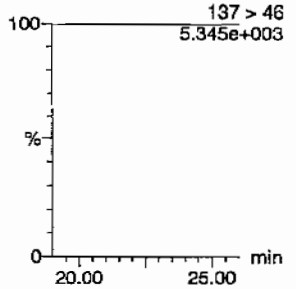

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.350e+003

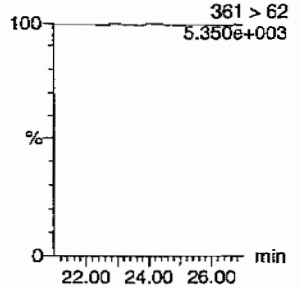

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK15	HMX	176 > 102			3051.319									
XIBLK15	RDX	176 > 102			3051.319									
XIBLK15	135-Trinitrobenzene	213 > 183			3051.319									
XIBLK15	13-Dinitrobenzene-d4	172 > 142	12.07	3051.319		3051.319	3051.319	bb			506.4571	101.3	1.3	229.7
XIBLK15	13-Dinitrobenzene	168 > 138			3051.319									
XIBLK15	Tetryl	241 > 181			3051.319									
XIBLK15	Nitrobenzene	123 > 46			3051.319									
XIBLK15	4-Amino-26-dinitrotoluene	197 > 167			17680.967									
XIBLK15	2-Amino-46-dinitrotoluene	197 > 160			17680.967									
XIBLK15	246-Trinitrotoluene	227 > 210			17680.967									
XIBLK15	34-dinitrotoluene	182 > 152			17680.967									
XIBLK15	26-dinitrotoluene	182 > 152			17680.967									
XIBLK15	24-dinitrotoluene	182 > 152			17680.967									
XIBLK15	26-dinitrotoluene-d3	185 > 155	17.42	17680.967		17680.967	17680.967	bb			507.8241	101.6	1.6	381.0
XIBLK15	2-Nitrotoluene	137 > 46			17680.967									
XIBLK15	4-Nitrotoluene	137 > 46			17680.967									
XIBLK15	3-Nitrotoluene	137 > 46			17680.967									
XIBLK15	PETN	361 > 62			17680.967									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 19-FEB-10 20:34

GEL Data File: EXP0216153a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	483.443
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	427.583
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216153a
Date: 19-Feb-2010
Time: 20:34:41
ID: XIBLK16
Vial: 1:1,A

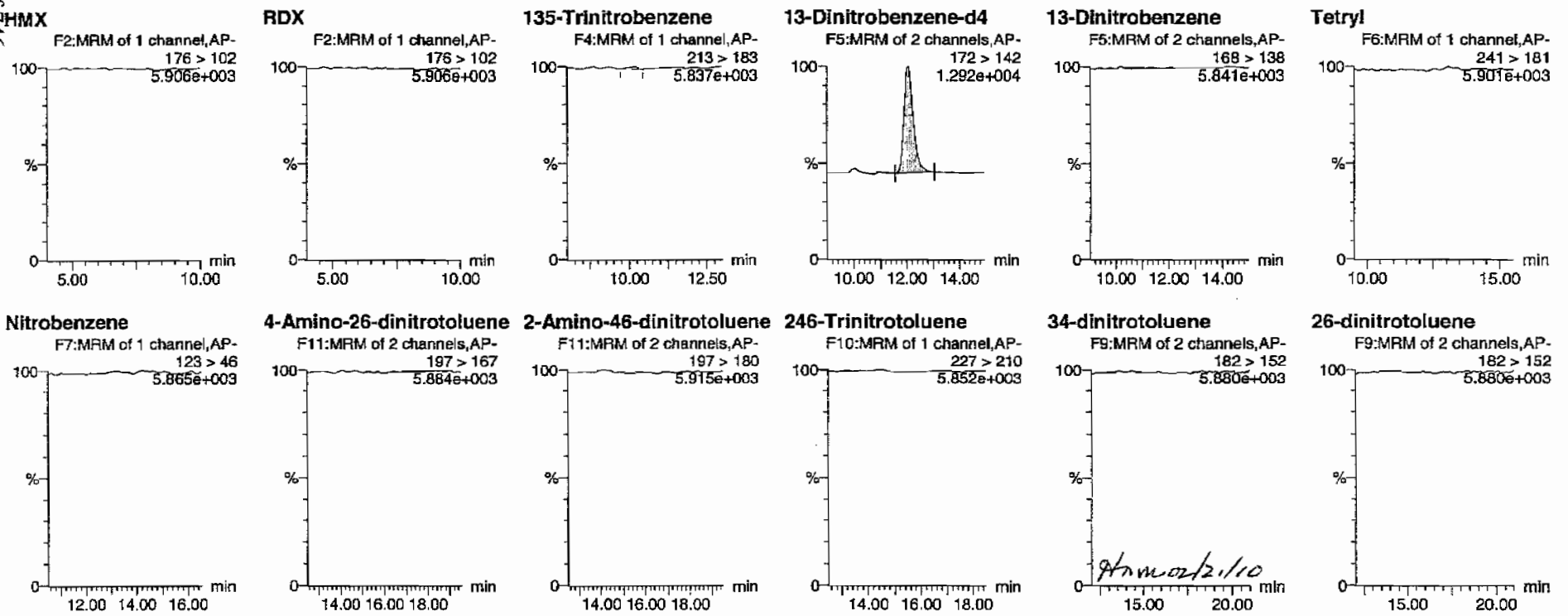

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

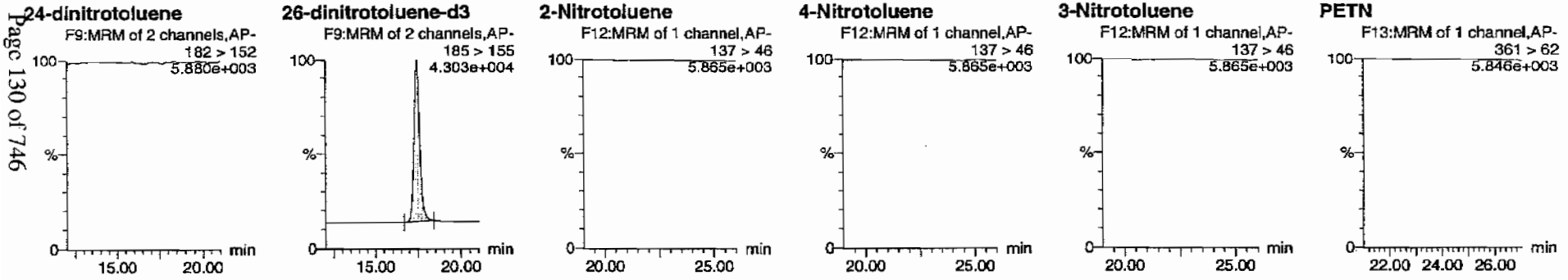

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK16	HMX	176 > 102			2912.660									
XIBLK16	RDX	176 > 102			2912.660									
XIBLK16	135-Trinitrobenzene	213 > 183			2912.660			MM-	20-Feb-10	10:02:08				
XIBLK16	13-Dinitrobenzene-d4	172 > 142	12.07	2912.660		2912.660	2912.660	bb			483.4425	96.7	-3.3	409.1
XIBLK16	13-Dinitrobenzene	168 > 138			2912.660									
XIBLK16	Tetryl	241 > 181			2912.660									
XIBLK16	Nitrobenzene	123 > 46			2912.660									
XIBLK16	4-Amino-26-dinitrotoluene	197 > 167			14887.194									
XIBLK16	2-Amino-46-dinitrotoluene	197 > 180			14887.194									
XIBLK16	246-Trinitrotoluene	227 > 210			14887.194									
XIBLK16	34-dinitrotoluene	182 > 152			14887.194									
XIBLK16	26-dinitrotoluene	182 > 152			14887.194									
XIBLK16	24-dinitrotoluene	182 > 152			14887.194									
XIBLK16	26-dinitrotoluene-d3	185 > 155	17.42	14887.194		14887.194	14887.194	bb			427.5827	85.5	-14.5	1392.1
XIBLK16	2-Nitrotoluene	137 > 46			14887.194									
XIBLK16	4-Nitrotoluene	137 > 46			14887.194									
XIBLK16	3-Nitrotoluene	137 > 46			14887.194									
XIBLK16	PETN	361 > 62			14887.194									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 19-FEB-10 23:03

GEL Data File: EXP0216158a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	510.46
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.442
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216158a
Date: 19-Feb-2010
Time: 23:03:44
ID: XIBLK17
Vial: 1:1,F

MM 7/20/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.497e+003

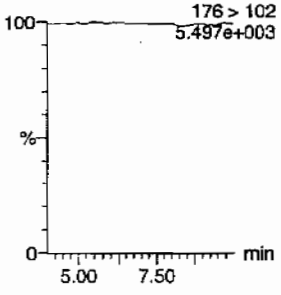

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.497e+003

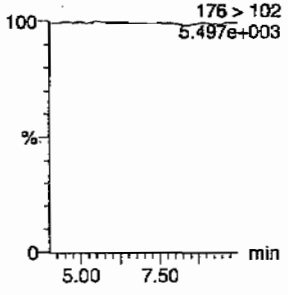

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.454e+003

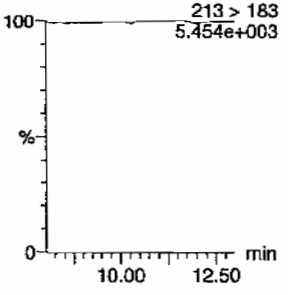

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.313e+004

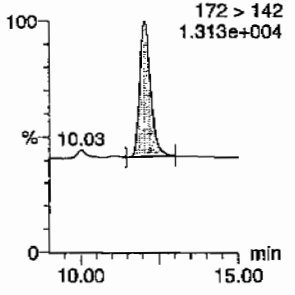

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.469e+003

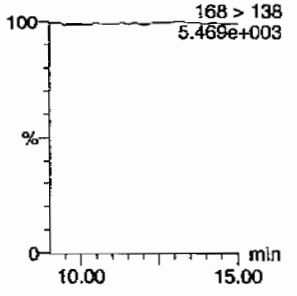

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.486e+003

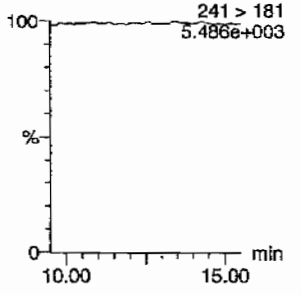

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.511e+003

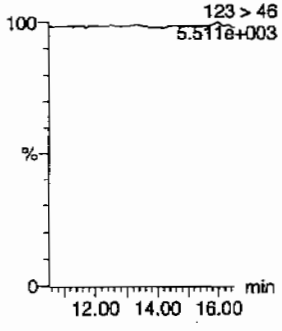

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.481e+003

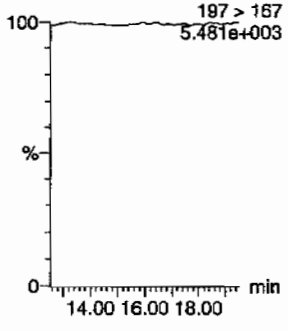

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.503e+003

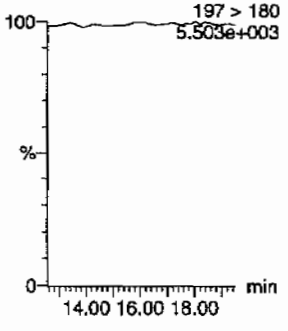

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.462e+003

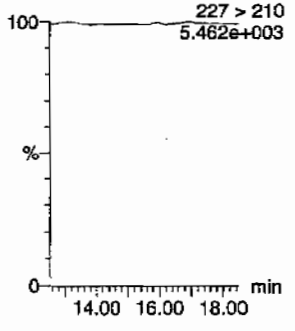

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.491e+003

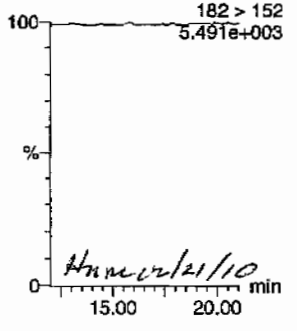

Hmm 2/21/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.491e+003

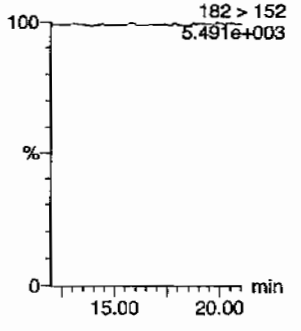

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

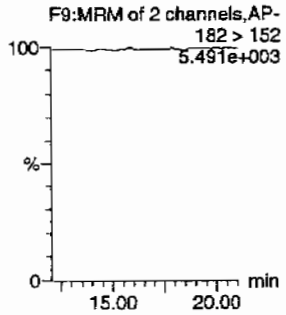

26-dinitrotoluene-d3

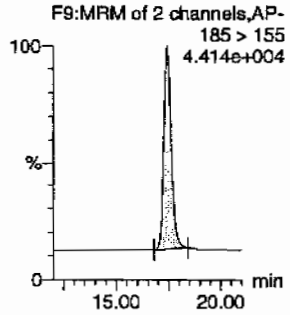

2-Nitrotoluene

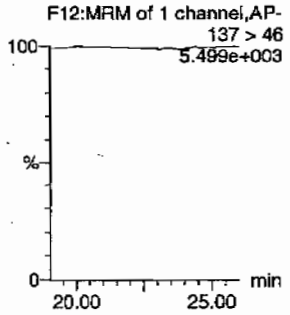

4-Nitrotoluene

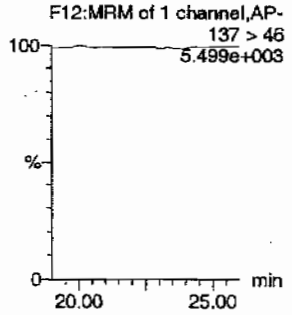

3-Nitrotoluene

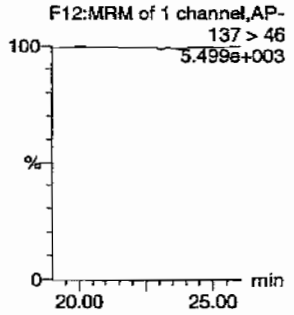

PETN

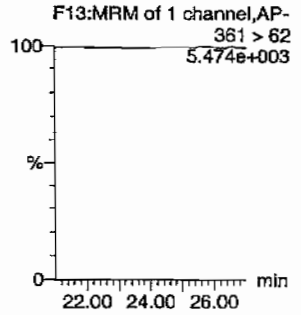

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK17	HMX	176 > 102			3075.434									
XIBLK17	RDX	176 > 102			3075.434									
XIBLK17	135-Trinitrobenzene	213 > 183			3075.434									
XIBLK17	13-Dinitrobenzene-d4	172 > 142	12.06	3075.434		3075.434	3075.434	bb			510.4597	102.1	2.1	446.3
XIBLK17	13-Dinitrobenzene	168 > 138			3075.434									
XIBLK17	Tetryl	241 > 181			3075.434									
XIBLK17	Nitrobenzene	123 > 46			3075.434									
XIBLK17	4-Amino-26-dinitrotoluene	197 > 167			16309.791									
XIBLK17	2-Amino-46-dinitrotoluene	197 > 180			16309.791									
XIBLK17	246-Trinitrotoluene	227 > 210			16309.791									
XIBLK17	34-dinitrotoluene	182 > 152			16309.791									
XIBLK17	26-dinitrotoluene	182 > 152			16309.791									
XIBLK17	24-dinitrotoluene	182 > 152			16309.791									
XIBLK17	26-dinitrotoluene-d3	185 > 155	17.43	16309.791		16309.791	16309.791	bb			468.4418	93.7	-6.3	1679.9
XIBLK17	2-Nitrotoluene	137 > 46			16309.791									
XIBLK17	4-Nitrotoluene	137 > 46			16309.791									
XIBLK17	3-Nitrotoluene	137 > 46			16309.791									
XIBLK17	PETN	361 > 62			16309.791									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 20-FEB-10 03:00

GEL Data File: EXP0216166a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3-Dinitrobenzene-d4	500	483.953
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	451.867
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216166a
Date: 20-Feb-2010
Time: 03:00:21
ID: XIBLK18
Vial: 1:1,A

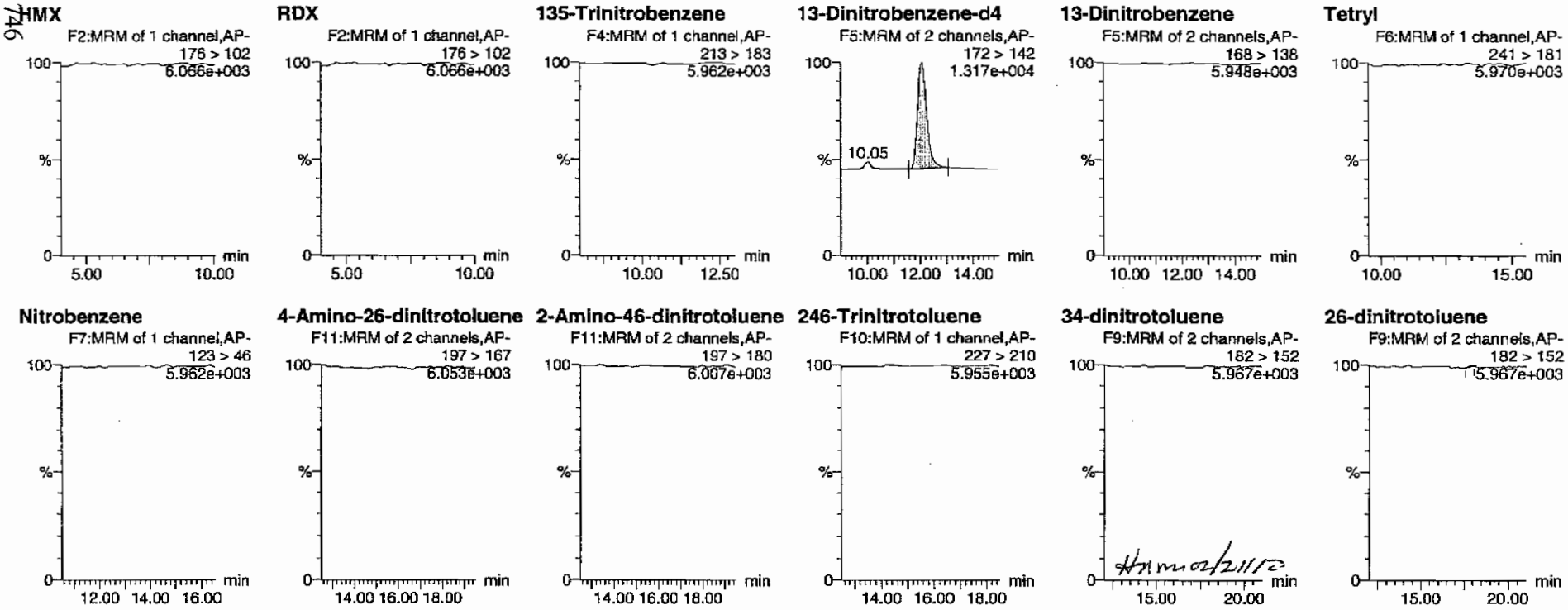

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

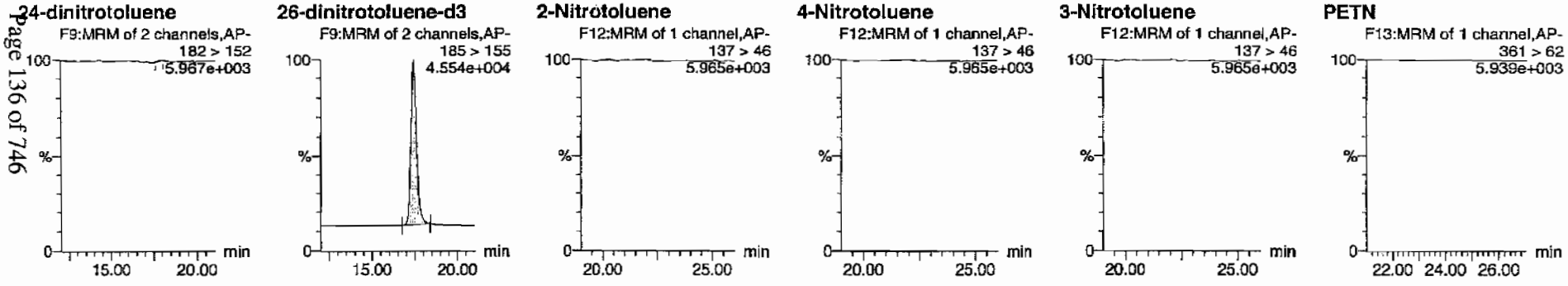

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK18	HMX	176 > 102			2915.735									
XIBLK18	RDX	176 > 102			2915.735									
XIBLK18	135-Trinitrobenzene	213 > 183			2915.735									
XIBLK18	13-Dinitrobenzene-d4	172 > 142	12.07	2915.735		2915.735	2915.735	bb			483.9529	96.8	-3.2	251.0
XIBLK18	13-Dinitrobenzene	168 > 138			2915.735									
XIBLK18	Tetryl	241 > 181			2915.735									
XIBLK18	Nitrobenzene	123 > 46			2915.735									
XIBLK18	4-Amino-26-dinitrotoluene	197 > 167			15732.688									
XIBLK18	2-Amino-46-dinitrotoluene	197 > 180			15732.688									
XIBLK18	246-Trinitrotoluene	227 > 210			15732.688									
XIBLK18	34-dinitrotoluene	182 > 152			15732.688									
XIBLK18	26-dinitrotoluene	182 > 152			15732.688			MM-	20-Feb-10	10:08:34				
XIBLK18	24-dinitrotoluene	182 > 152			15732.688			MM-	20-Feb-10	10:12:31				
XIBLK18	26-dinitrotoluene-d3	185 > 155	17.44	15732.688		15732.688	15732.688	bb			451.8666	90.4	-9.6	1648.4
XIBLK18	2-Nitrotoluene	137 > 46			15732.688									
XIBLK18	4-Nitrotoluene	137 > 46			15732.688									
XIBLK18	3-Nitrotoluene	137 > 46			15732.688									
XIBLK18	PETN	361 > 62			15732.688									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 20-FEB-10 08:56

GEL Data File: EXP0216178a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	473.883
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	498.072
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216178a
Date: 20-Feb-2010
Time: 08:56:12
ID: XIBLK19
Vial: 1:1,A

MM 2/20/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.067e+003

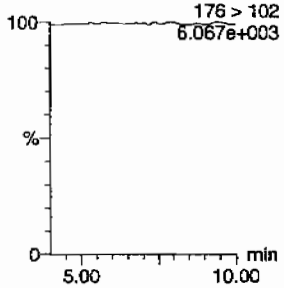

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.067e+003

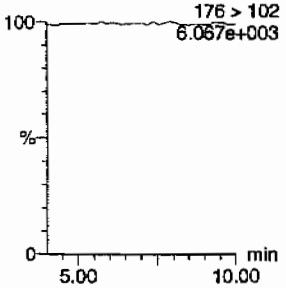

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.976e+003

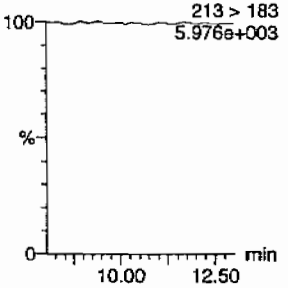

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.293e+004

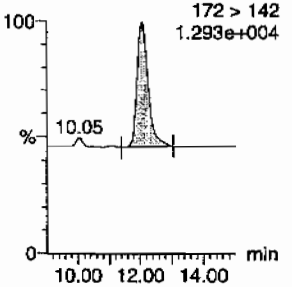

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.961e+003

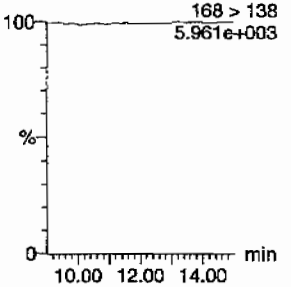

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.974e+003

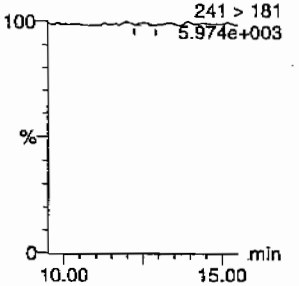

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.978e+003

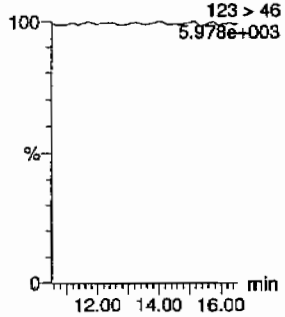

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.055e+003

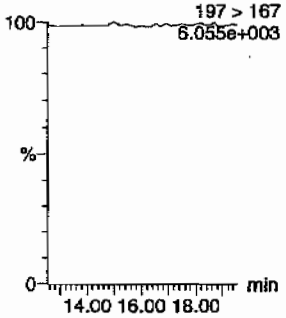

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.051e+003

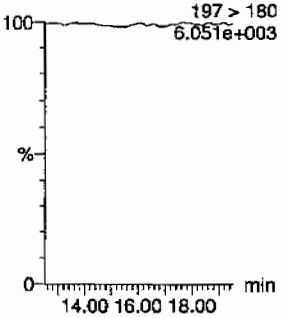

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.984e+003

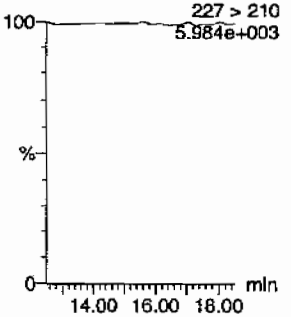

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.030e+003

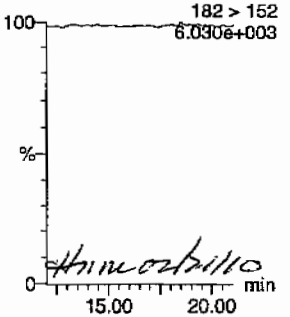

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.030e+003

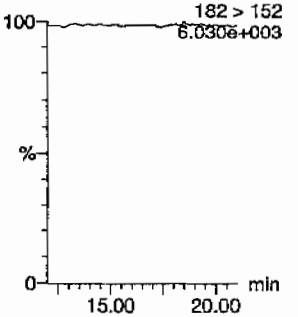

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

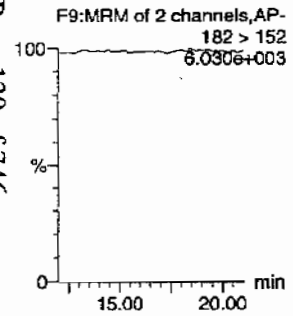

26-dinitrotoluene-d3

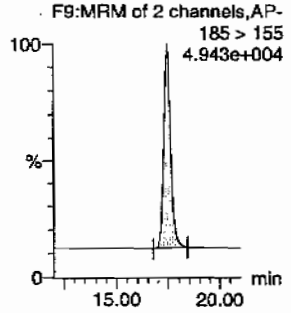

2-Nitrotoluene

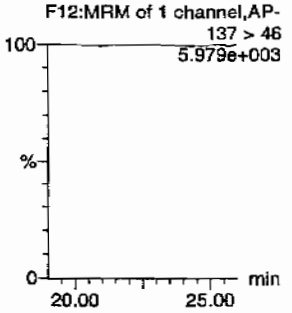

4-Nitrotoluene

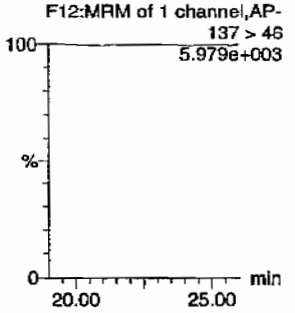

3-Nitrotoluene

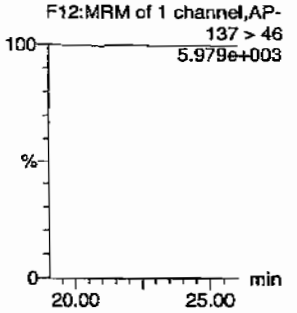

PETN

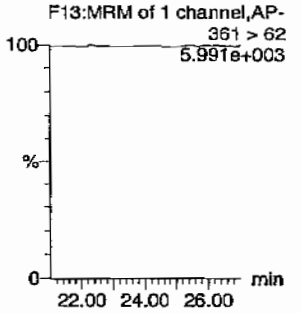

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK19	HMX	176 > 102			2855.063									
XIBLK19	RDX	176 > 102			2855.063									
XIBLK19	135-Trinitrobenzene	213 > 183			2855.063									
XIBLK19	13-Dinitrobenzene-d4	172 > 142	12.07	2855.063		2855.063	2855.063	bb			473.8826	94.8	-5.2	380.6
XIBLK19	13-Dinitrobenzene	168 > 138			2855.063									
XIBLK19	Tetryl	241 > 181			2855.063			MM-	20-Feb-10	10:03:05				
XIBLK19	Nitrobenzene	123 > 46			2855.063									
XIBLK19	4-Amino-26-dinitrotoluene	197 > 167			17341.418									
XIBLK19	2-Amino-46-dinitrotoluene	197 > 180			17341.418									
XIBLK19	246-Trinitrotoluene	227 > 210			17341.418									
XIBLK19	34-dinitrotoluene	182 > 152			17341.418									
XIBLK19	26-dinitrotoluene	182 > 152			17341.418									
XIBLK19	24-dinitrotoluene	182 > 152			17341.418			MM-	20-Feb-10	10:13:31				
XIBLK19	26-dinitrotoluene-d3	185 > 155	17.44	17341.418		17341.418	17341.418	bb			498.0717	99.6	-0.4	2117.9
XIBLK19	2-Nitrotoluene	137 > 46			17341.418									
XIBLK19	4-Nitrotoluene	137 > 46			17341.418									
XIBLK19	3-Nitrotoluene	137 > 46			17341.418									
XIBLK19	PETN	361 > 62			17341.418									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1470
Lab Code: GEL
Lab Sample ID: XTBLK20
Analysis Date: 20-FEB-10 15:22
GEL Data File: EXP0216191a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	471.06
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	488.604
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216191a
Date: 20-Feb-2010
Time: 15:22:35
ID: XIBLK20
Vial: 1:1,A

MM 2/21/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.431e+003

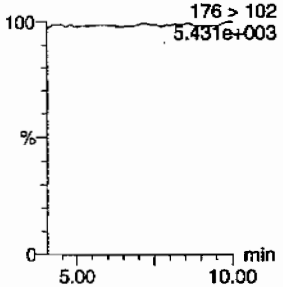

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.431e+003

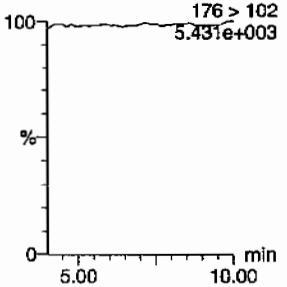

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.339e+003

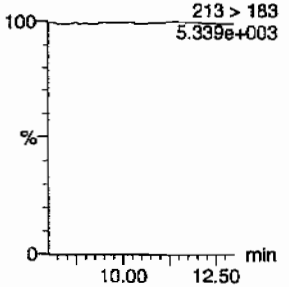

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.243e+004

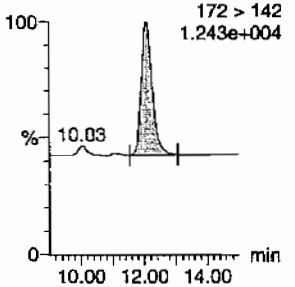

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.330e+003

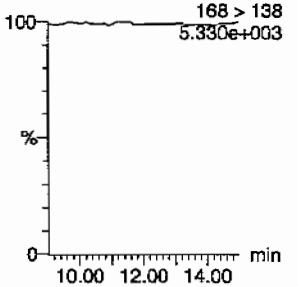

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.331e+003

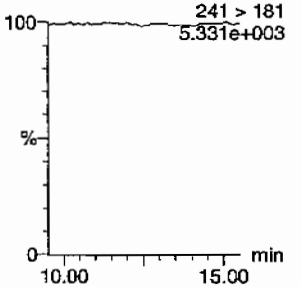

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.352e+003

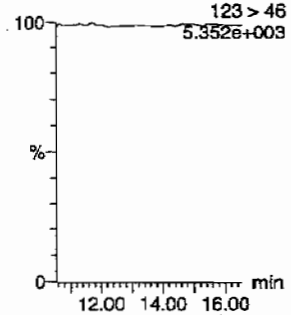

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.411e+003

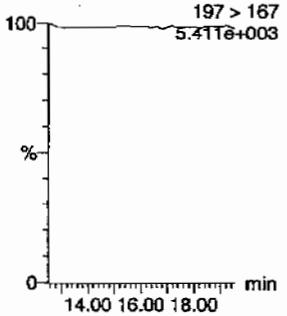

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.397e+003

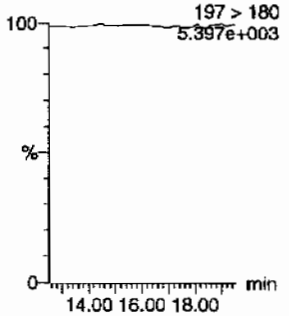

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.392e+003

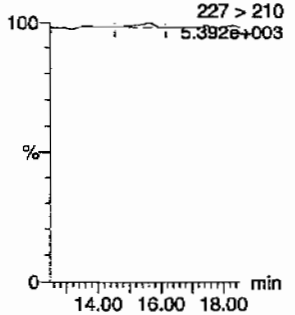

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.370e+003

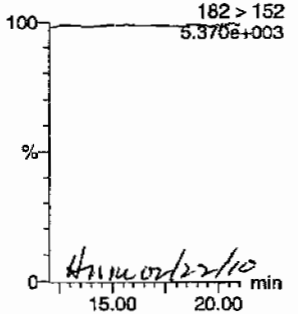

HMM 02/22/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.370e+003

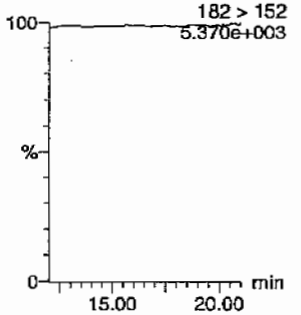

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

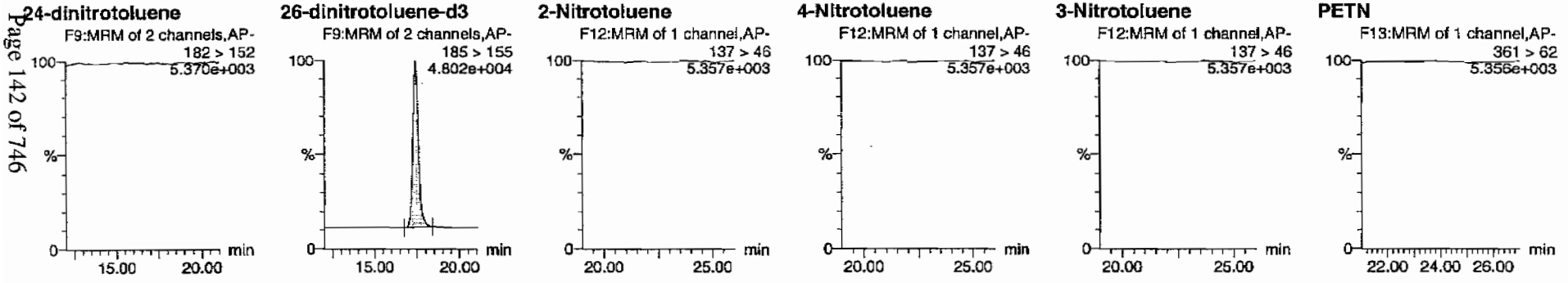

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK20	HMX	176 > 102			2838.057									
XIBLK20	RDX	176 > 102			2838.057									
XIBLK20	135-Trinitrobenzene	213 > 183			2838.057									
XIBLK20	13-Dinitrobenzene-d4	172 > 142	12.03	2838.057		2838.057	2838.057	bb			471.0599	94.2	-5.8	336.9
XIBLK20	13-Dinitrobenzene	168 > 138			2838.057									
XIBLK20	Tetryl	241 > 181			2838.057									
XIBLK20	Nitrobenzene	123 > 46			2838.057									
XIBLK20	4-Amino-26-dinitrotoluene	197 > 167			17011.777									
XIBLK20	2-Amino-46-dinitrotoluene	197 > 180			17011.777									
XIBLK20	246-Trinitrotoluene	227 > 210			17011.777			MM-	21-Feb-10	11:56:48				
XIBLK20	34-dinitrotoluene	182 > 152			17011.777									
XIBLK20	26-dinitrotoluene	182 > 152			17011.777									
XIBLK20	24-dinitrotoluene	182 > 152			17011.777									
XIBLK20	26-dinitrotoluene-d3	185 > 155	17.42	17011.777		17011.777	17011.777	bb			488.6039	97.7	-2.3	1557.9
XIBLK20	2-Nitrotoluene	137 > 46			17011.777									
XIBLK20	4-Nitrotoluene	137 > 46			17011.777									
XIBLK20	3-Nitrotoluene	137 > 46			17011.777									
XIBLK20	PETN	361 > 62			17011.777									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1470
Lab Code: GEL
Lab Sample ID: XIBLK21
Analysis Date: 20-FEB-10 21:47
GEL Data File: EXP0216204a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	511.572
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	461.561
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216204a
Date: 20-Feb-2010
Time: 21:47:20
ID: XIBLK21
Vial: 1:1,A

MMT 2/21/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.838e+003

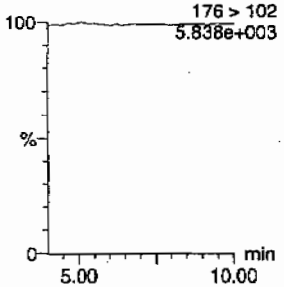

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.838e+003

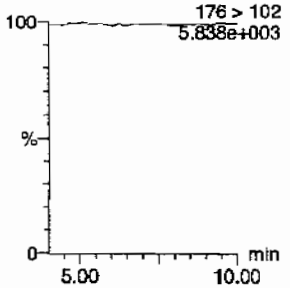

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.793e+003

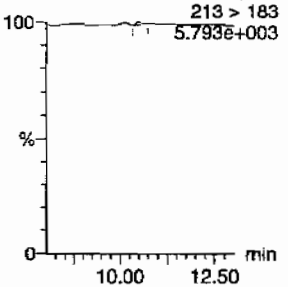

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.341e+004

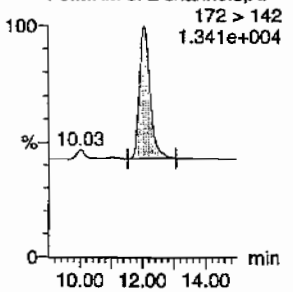

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.769e+003

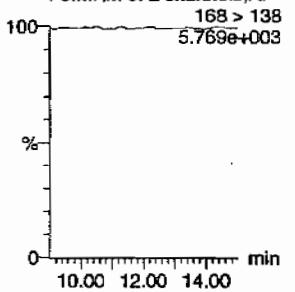

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.761e+003

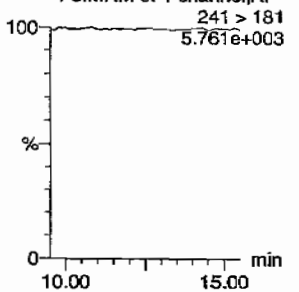

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.782e+003

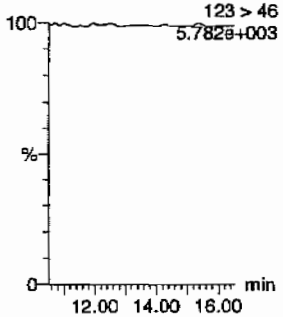

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.848e+003

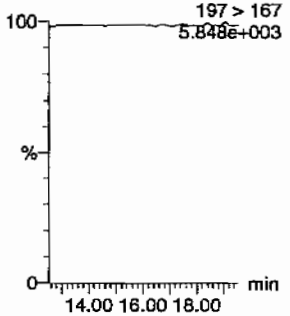

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.805e+003

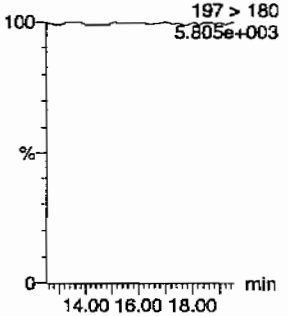

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.764e+003

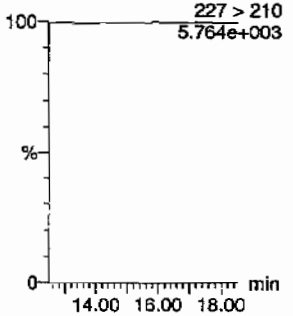

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.806e+003

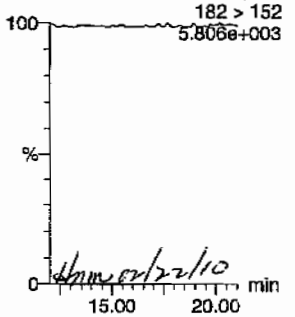

dhm 02/22/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.806e+003

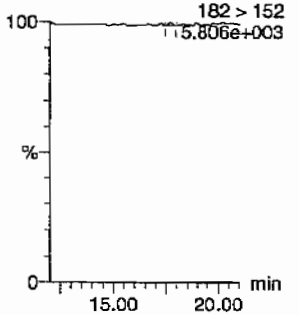

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.806e+003

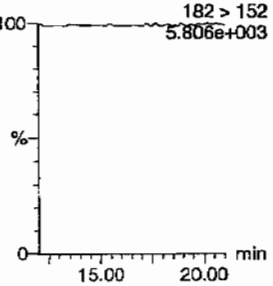

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.589e+004

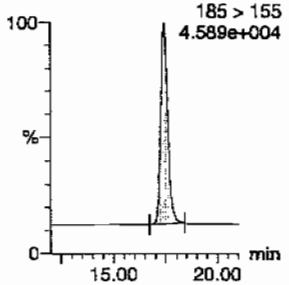

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.813e+003

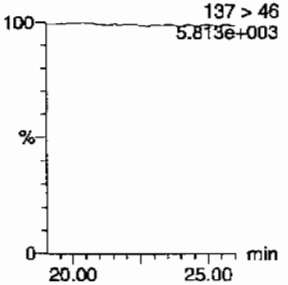

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.813e+003

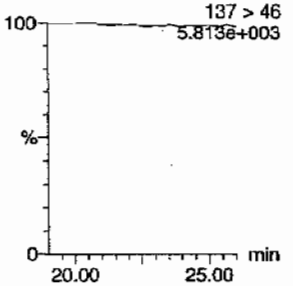

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.813e+003

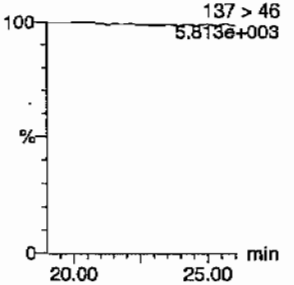

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.759e+003

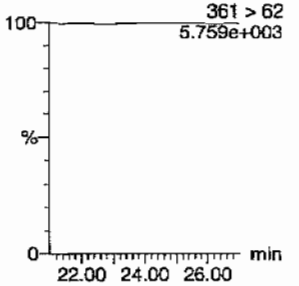

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK21	HMX	176 > 102			3082.136									
XIBLK21	RDX	176 > 102			3082.136									
XIBLK21	135-Trinitrobenzene	213 > 183			3082.136			MM-	21-Feb-10	12:00:27				
XIBLK21	13-Dinitrobenzene-d4	172 > 142	12.07	3082.136		3082.136	3082.136	bb			511.5721	102.3	2.3	378.2
XIBLK21	13-Dinitrobenzene	168 > 138			3082.136									
XIBLK21	Tetryl	241 > 181			3082.136									
XIBLK21	Nitrobenzene	123 > 46			3082.136									
XIBLK21	4-Amino-26-dinitrotoluene	197 > 167			16070.205									
XIBLK21	2-Amino-46-dinitrotoluene	197 > 180			16070.205									
XIBLK21	246-Trinitrotoluene	227 > 210			16070.205									
XIBLK21	34-dinitrotoluene	182 > 152			16070.205									
XIBLK21	26-dinitrotoluene	182 > 152			16070.205			MM-	21-Feb-10	11:55:01				
XIBLK21	24-dinitrotoluene	182 > 152			16070.205									
XIBLK21	26-dinitrotoluene-d3	185 > 155	17.42	16070.205		16070.205	16070.205	bb			461.5606	92.3	-7.7	838.5
XIBLK21	2-Nitrotoluene	137 > 46			16070.205									
XIBLK21	4-Nitrotoluene	137 > 46			16070.205									
XIBLK21	3-Nitrotoluene	137 > 46			16070.205									
XIBLK21	PETN	361 > 62			16070.205									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK22

Analysis Date: 21-FEB-10 00:15

GEL Data File: EXP0216209a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	508.776
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	489.453
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216209a
Date: 21-Feb-2010
Time: 00:15:40
ID: XIBLK22
Vial: 1:1,A

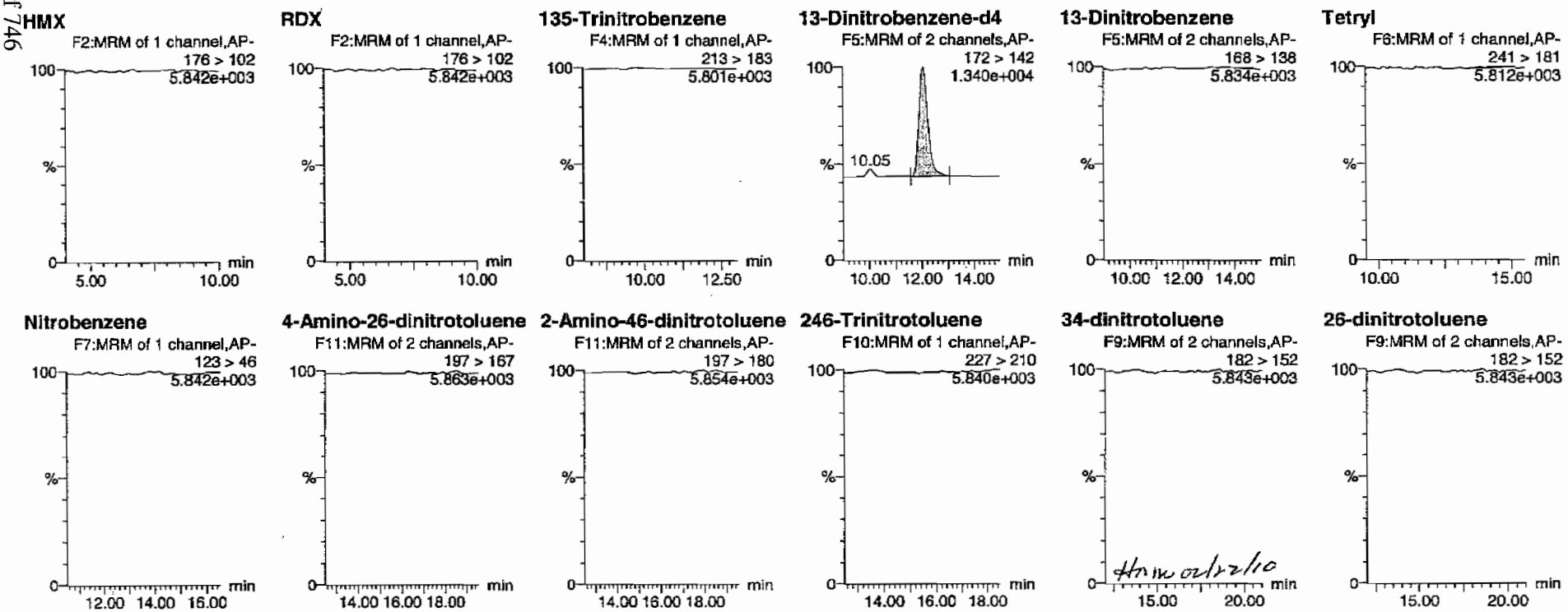

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.843e+003

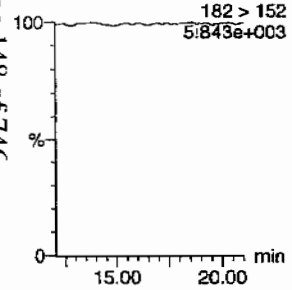

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.866e+004

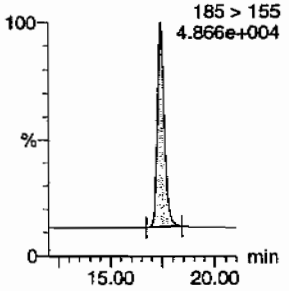

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.831e+003

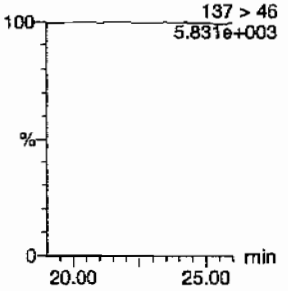

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.831e+003

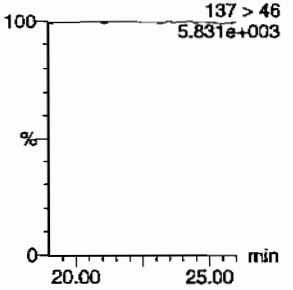

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.831e+003

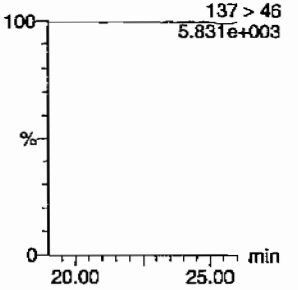

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.826e+003

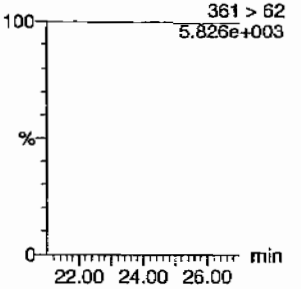

ID	Name	Trace	RT	Area	IS Area	Abs:Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK22	HMX	176 > 102			3065.287									
XIBLK22	RDX	176 > 102			3065.287									
XIBLK22	135-Trinitrobenzene	213 > 183			3065.287									
XIBLK22	13-Dinitrobenzene-d4	172 > 142	12.03	3065.287		3065.287	3065.287	bb			508.7755	101.8	1.8	253.1
XIBLK22	13-Dinitrobenzene	168 > 138			3065.287									
XIBLK22	Tetryl	241 > 181			3065.287									
XIBLK22	Nitrobenzene	123 > 46			3065.287									
XIBLK22	4-Amino-26-dinitrotoluene	197 > 167			17041.354									
XIBLK22	2-Amino-46-dinitrotoluene	197 > 180			17041.354									
XIBLK22	246-Trinitrotoluene	227 > 210			17041.354									
XIBLK22	34-dinitrotoluene	182 > 152			17041.354									
XIBLK22	26-dinitrotoluene	182 > 152			17041.354									
XIBLK22	24-dinitrotoluene	182 > 152			17041.354			MM-	21-Feb-10	11:50:27				
XIBLK22	26-dinitrotoluene-d3	185 > 155	17.42	17041.354		17041.354	17041.354	bb			489.4534	97.9	-2.1	1508.3
XIBLK22	2-Nitrotoluene	137 > 46			17041.354									
XIBLK22	4-Nitrotoluene	137 > 46			17041.354									
XIBLK22	3-Nitrotoluene	137 > 46			17041.354									
XIBLK22	PETN	361 > 62			17041.354									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK23

Analysis Date: 21-FEB-10 04:13

GEL Data File: EXP0216217a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	579.112
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	541.911
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216217a
Date: 21-Feb-2010
Time: 04:13:40
ID: XIBLK23
Vial: 1:1,A

MMT 2/22/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.602e+003

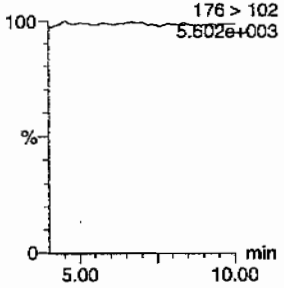

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.602e+003

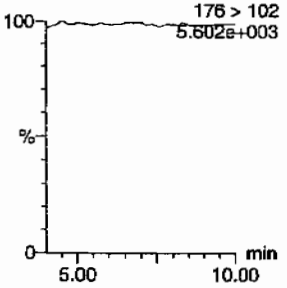

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.485e+003

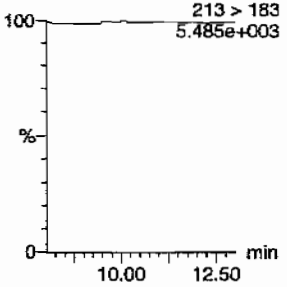

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.398e+004

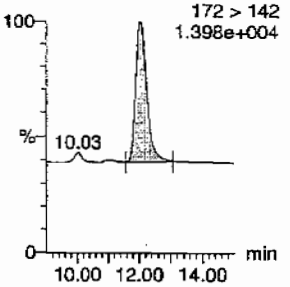

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.473e+003

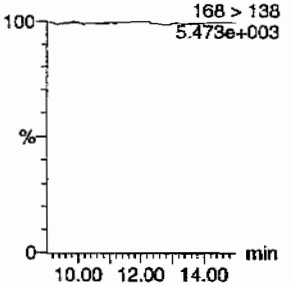

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.499e+003

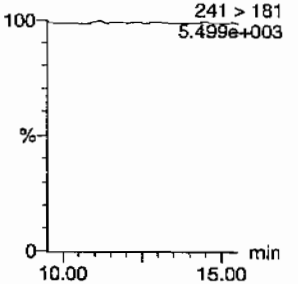

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.503e+003

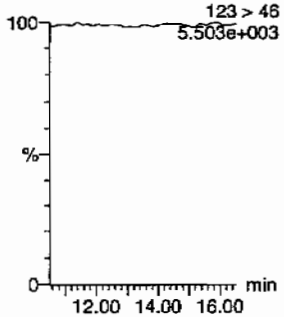

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.570e+003

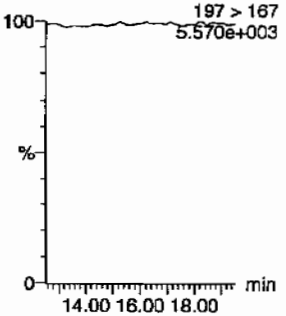

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.576e+003

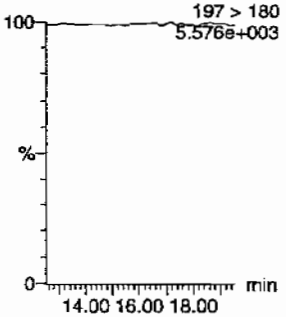

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.509e+003

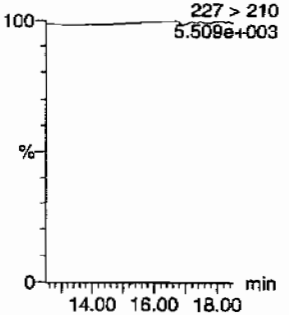

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.526e+003

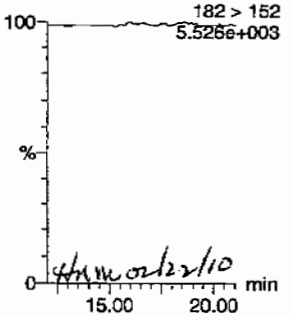

MM 02/22/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.526e+003

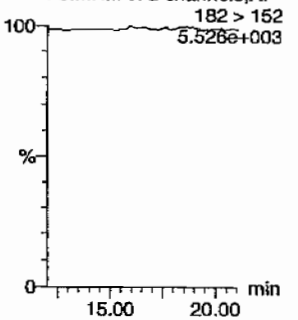

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.526e+003

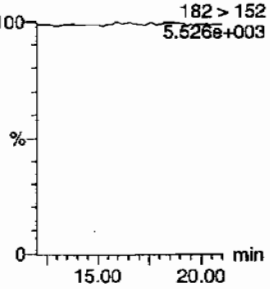

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.153e+004

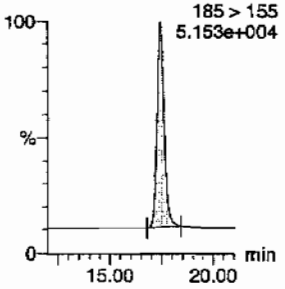

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.495e+003

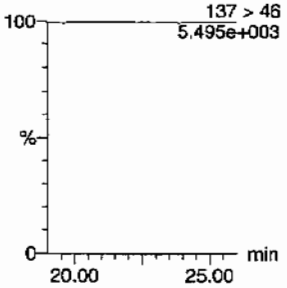

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.495e+003

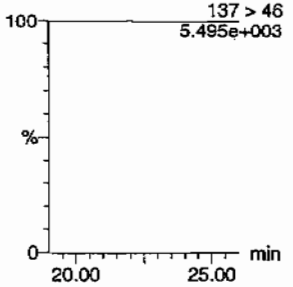

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.495e+003

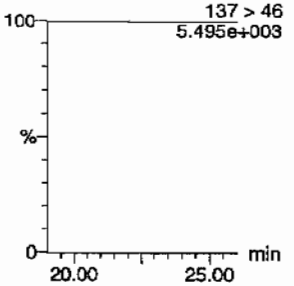

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.484e+003

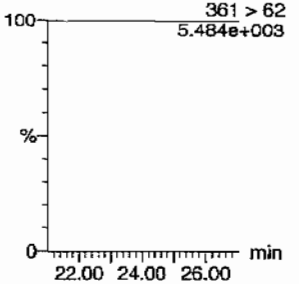

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK23	HMX	176 > 102			3489.055									
XIBLK23	RDX	176 > 102			3489.055									
XIBLK23	135-Trinitrobenzene	213 > 183			3489.055									
XIBLK23	13-Dinitrobenzene-d4	172 > 142	12.03	3489.055		3489.055	3489.055	bb			579.1124	115.8	15.8	123.9
XIBLK23	13-Dinitrobenzene	168 > 138			3489.055									
XIBLK23	Tetryl	241 > 181			3489.055									
XIBLK23	Nitrobenzene	123 > 46			3489.055									
XIBLK23	4-Amino-26-dinitrotoluene	197 > 167			18867.777									
XIBLK23	2-Amino-46-dinitrotoluene	197 > 180			18867.777									
XIBLK23	246-Trinitrotoluene	227 > 210			18867.777									
XIBLK23	34-dinitrotoluene	182 > 152			18867.777									
XIBLK23	26-dinitrotoluene	182 > 152			18867.777									
XIBLK23	24-dinitrotoluene	182 > 152			18867.777									
XIBLK23	26-dinitrotoluene-d3	185 > 155	17.42	18867.777		18867.777	18867.777	bb			541.9110	108.4	8.4	1871.4
XIBLK23	2-Nitrotoluene	137 > 46			18867.777									
XIBLK23	4-Nitrotoluene	137 > 46			18867.777									
XIBLK23	3-Nitrotoluene	137 > 46			18867.777									
XIBLK23	PETN	361 > 62			18867.777									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 17-FEB-10 11:47

GEL Data File: EXS02170010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	11.1
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rcr 2/19/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02170010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 11:47:37 AM

Modified: No

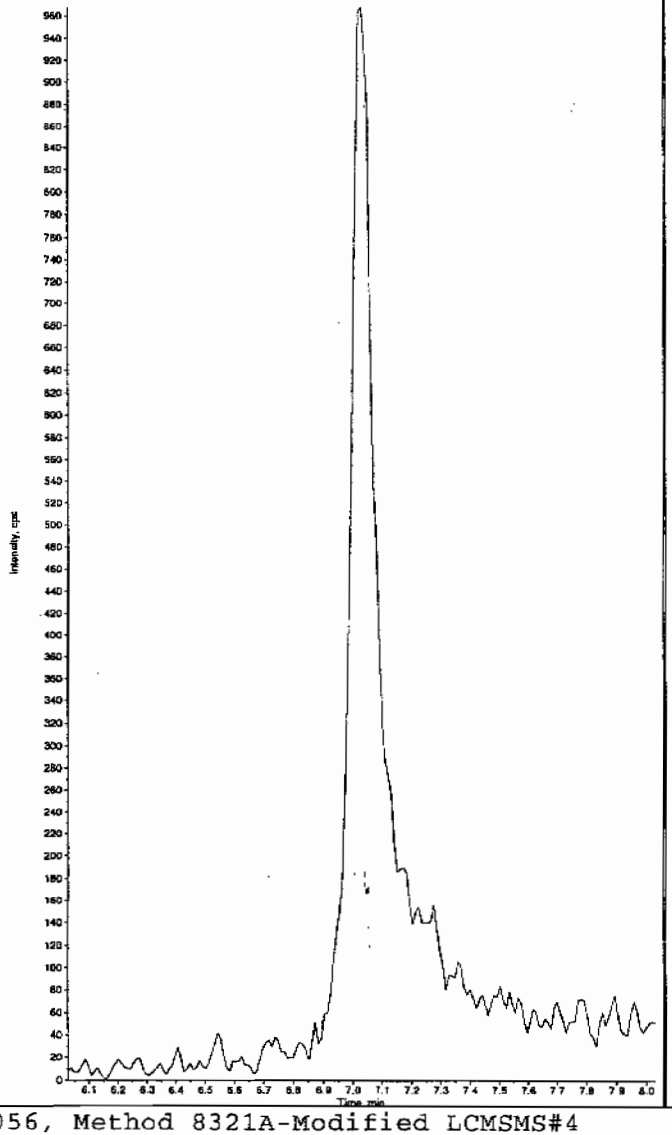

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02170010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 11:47:37 AM

Modified: No

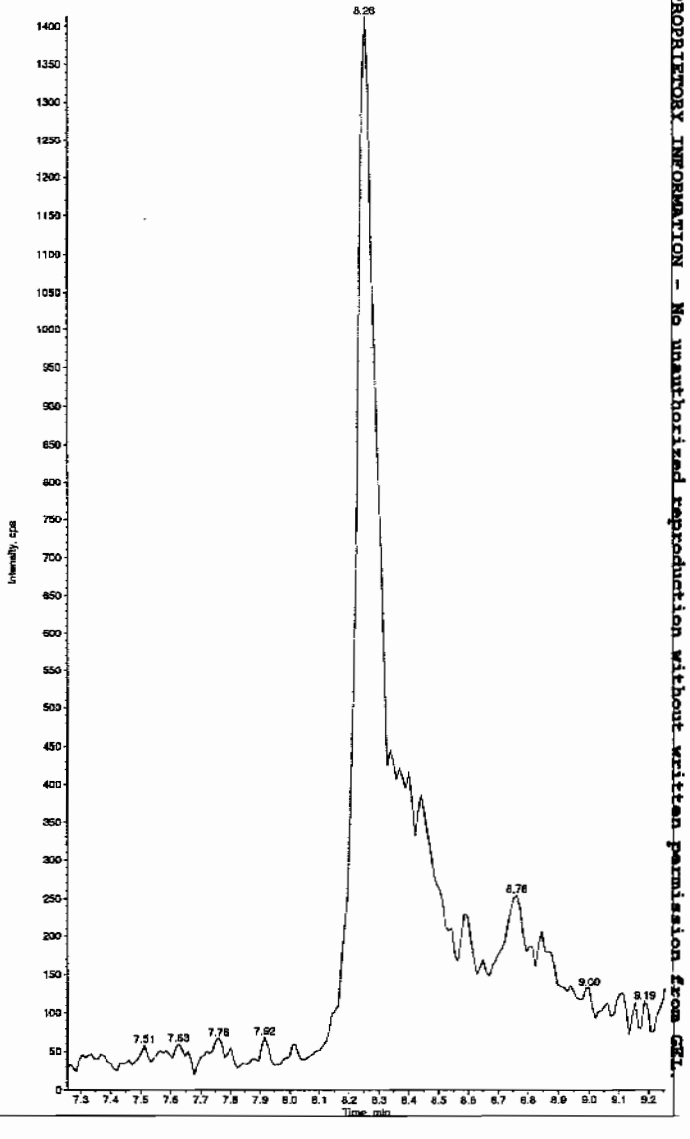

Hw on 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02170010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 11:47:37 AM

Modified: No

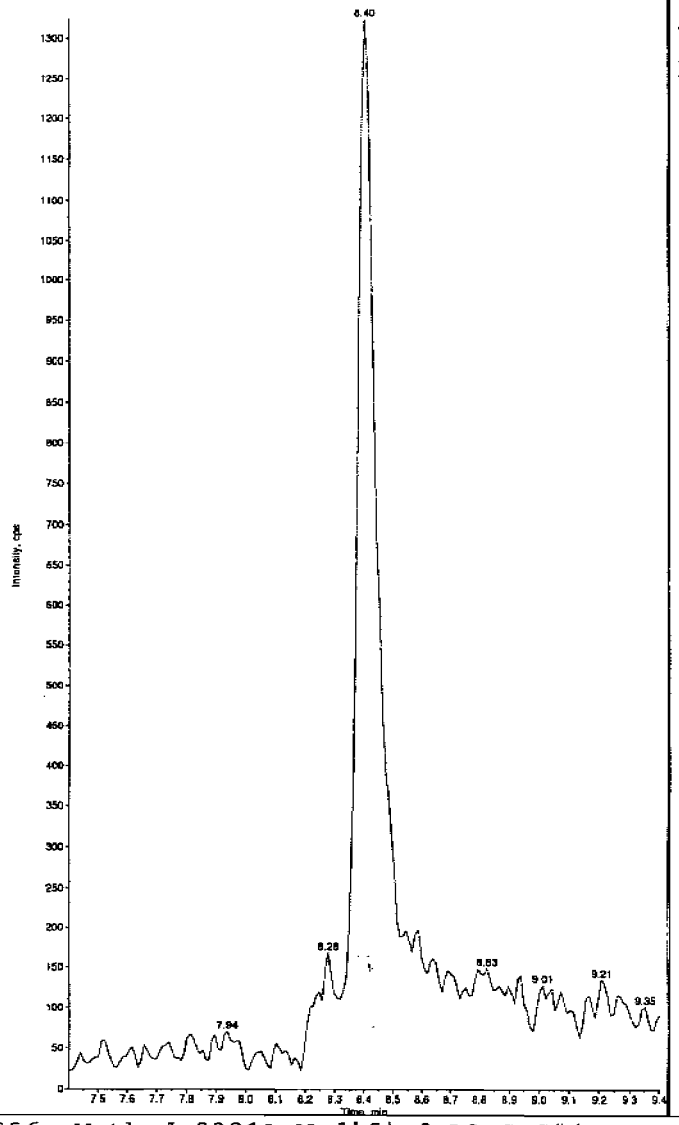

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02170010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 11:47:37 AM

Modified: No

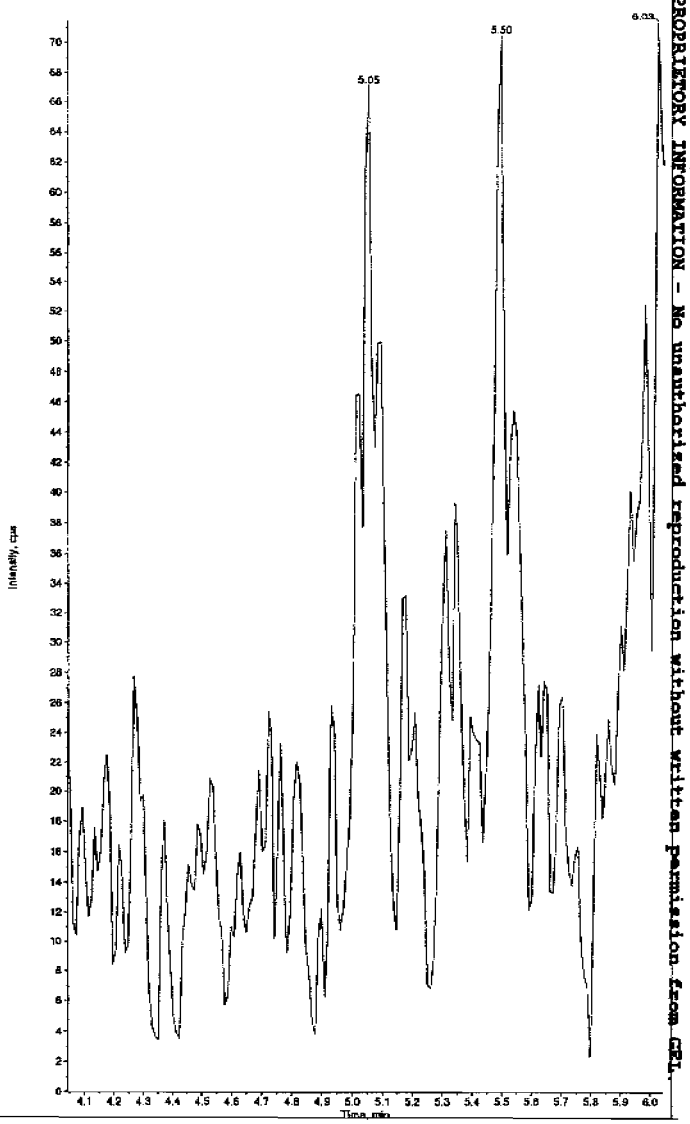

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Sample Name: "XIBLK02" Sample ID: "[1][LER" File: "EXS02170010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 11:47:37 AM

Modified: No

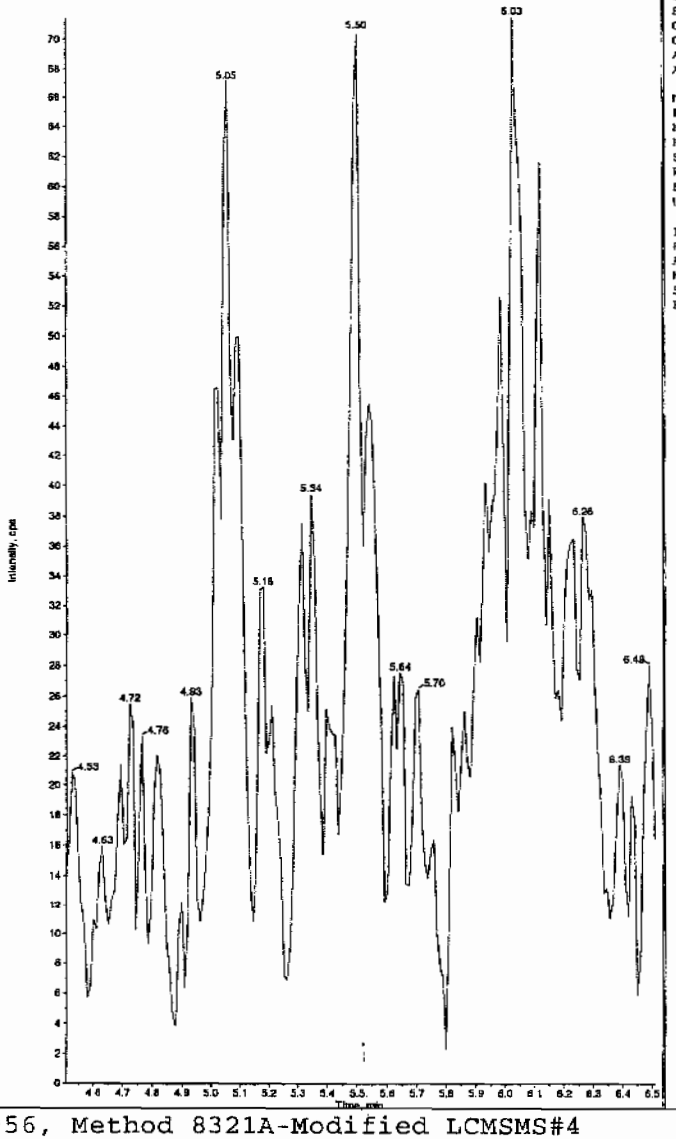

Sample Name: "XIBLK02" Sample ID: "[1][LER" File: "EXS02170010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 11.1 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 11:47:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.42e+005 counts
Height: 57788.788 cps
Start Time: 10.8 min
End Time: 11.3 min

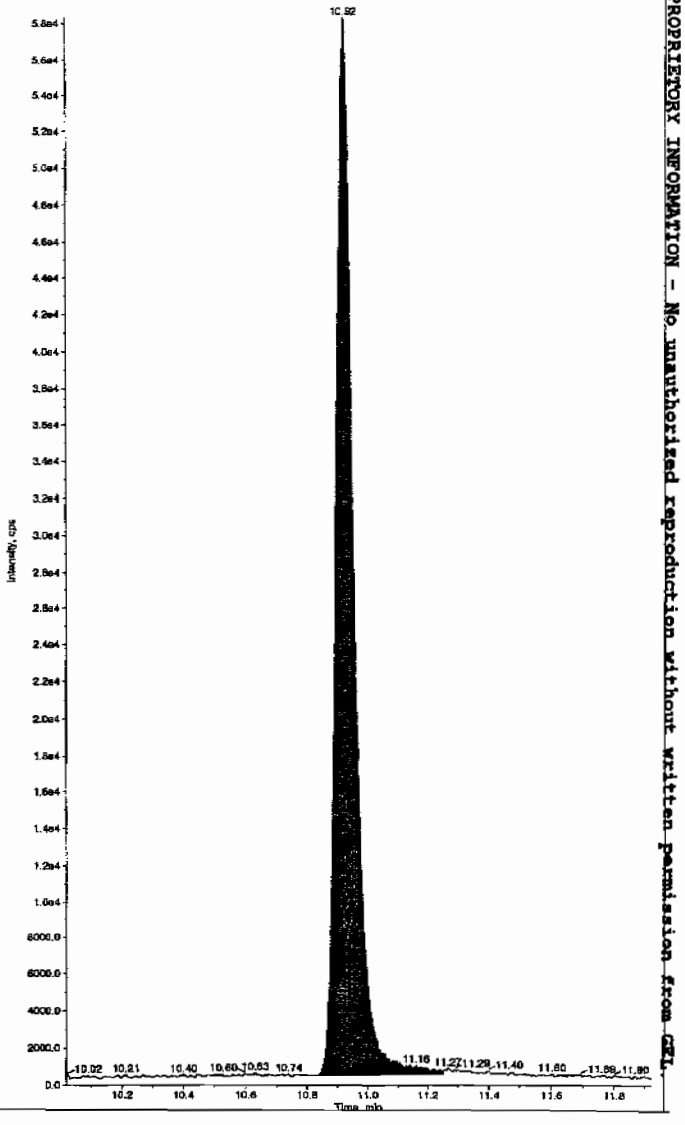

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 17-FEB-10 12:19

GEL Data File: EXS02170012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.28
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 2/19/10

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02170012.wif"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:19:01 PM

Modified: No

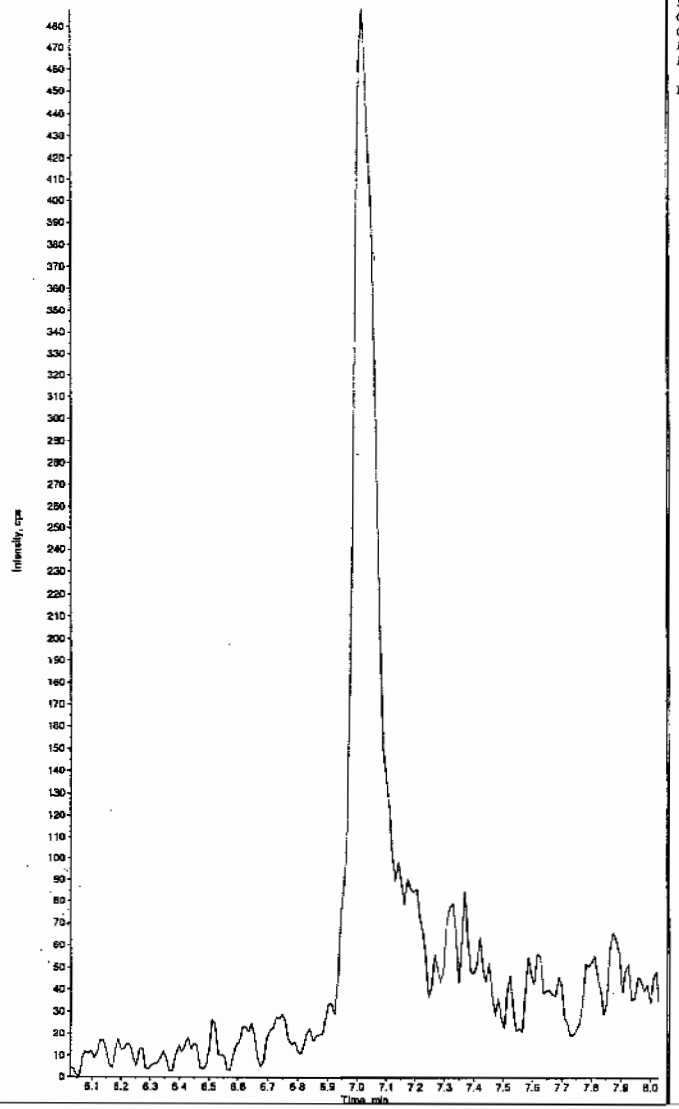

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02170012.wif"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:19:01 PM

Modified: No

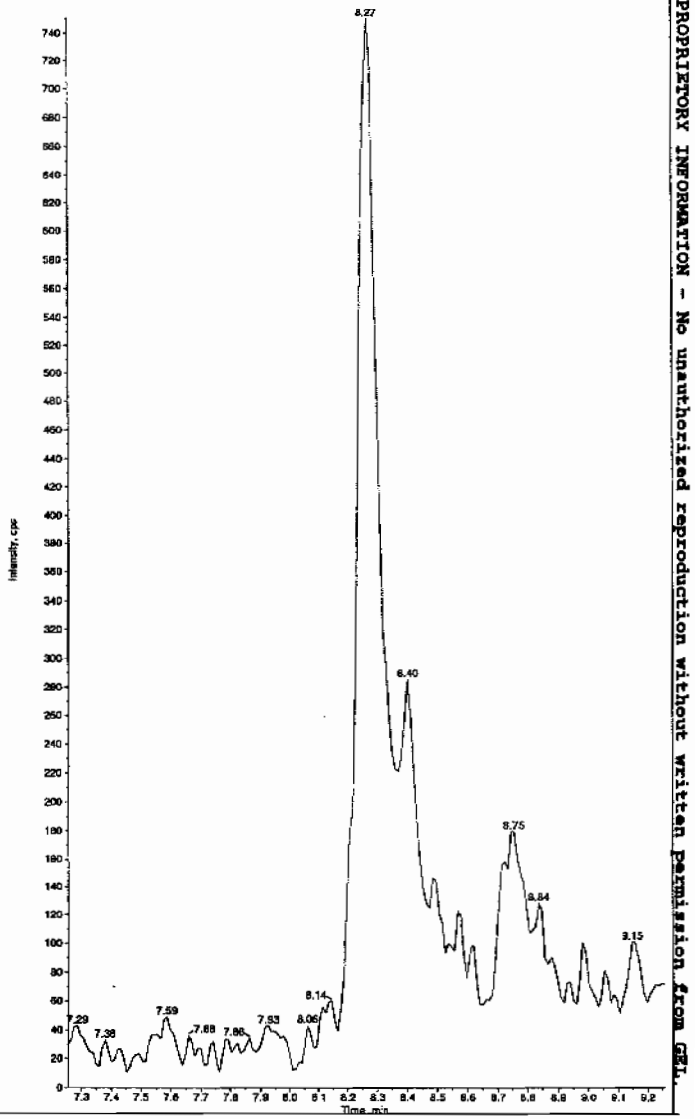

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02170012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:19:01 PM

Modified: No

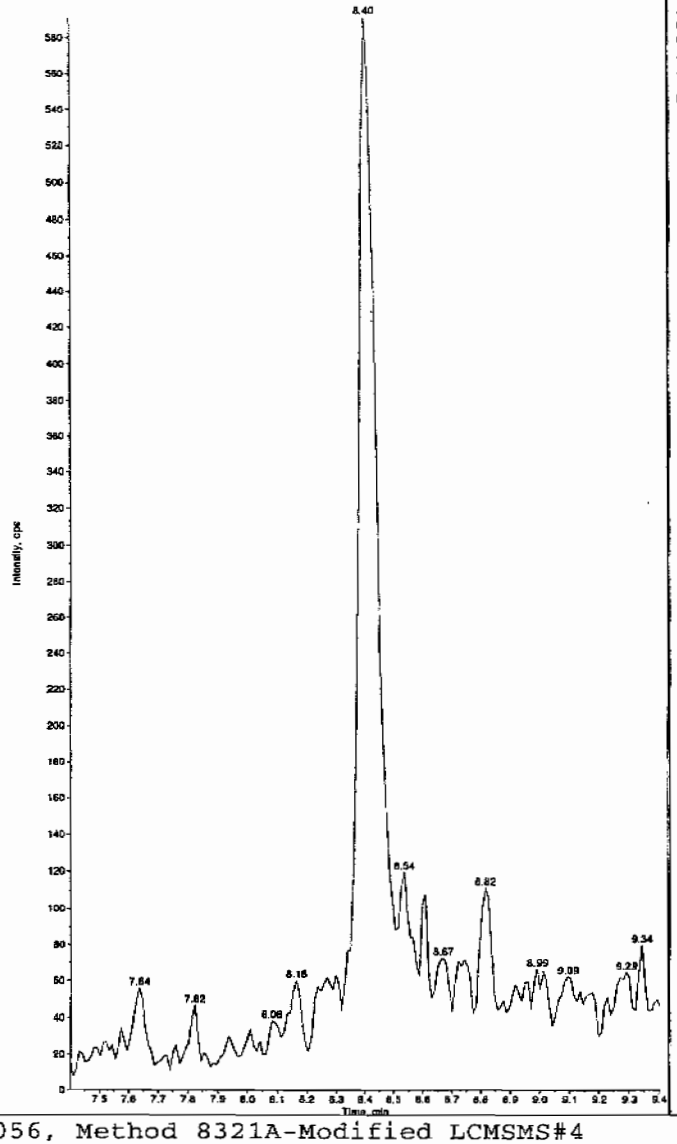

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02170012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:19:01 PM

Modified: No

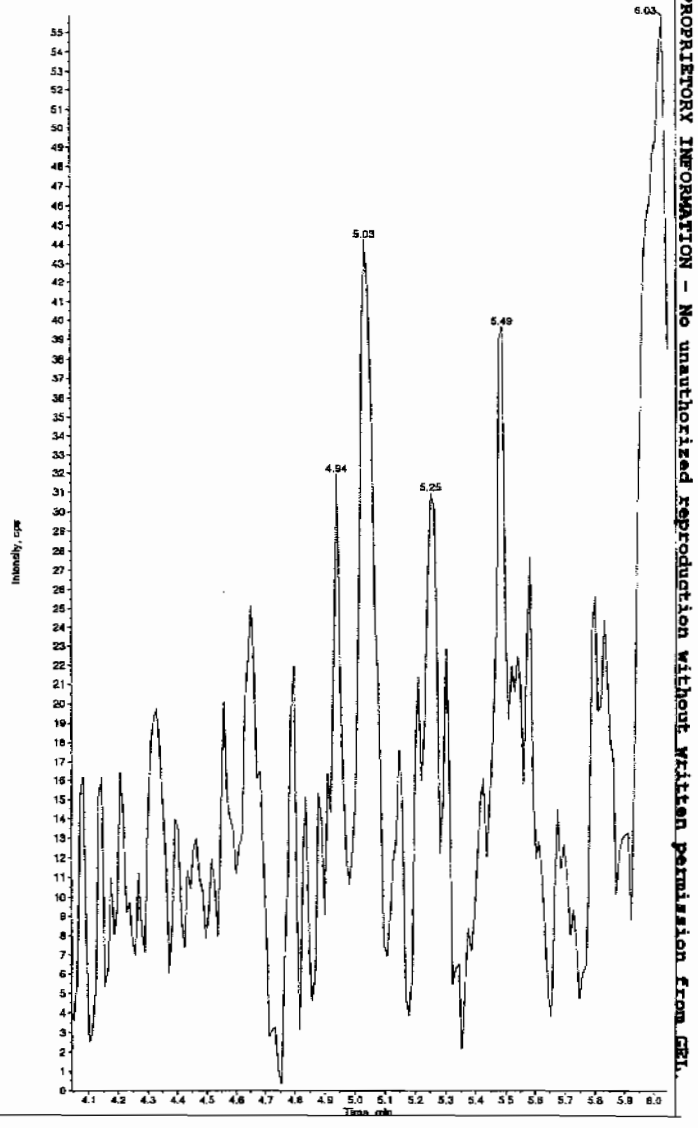

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02170012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:19:01 PM

Modified: No

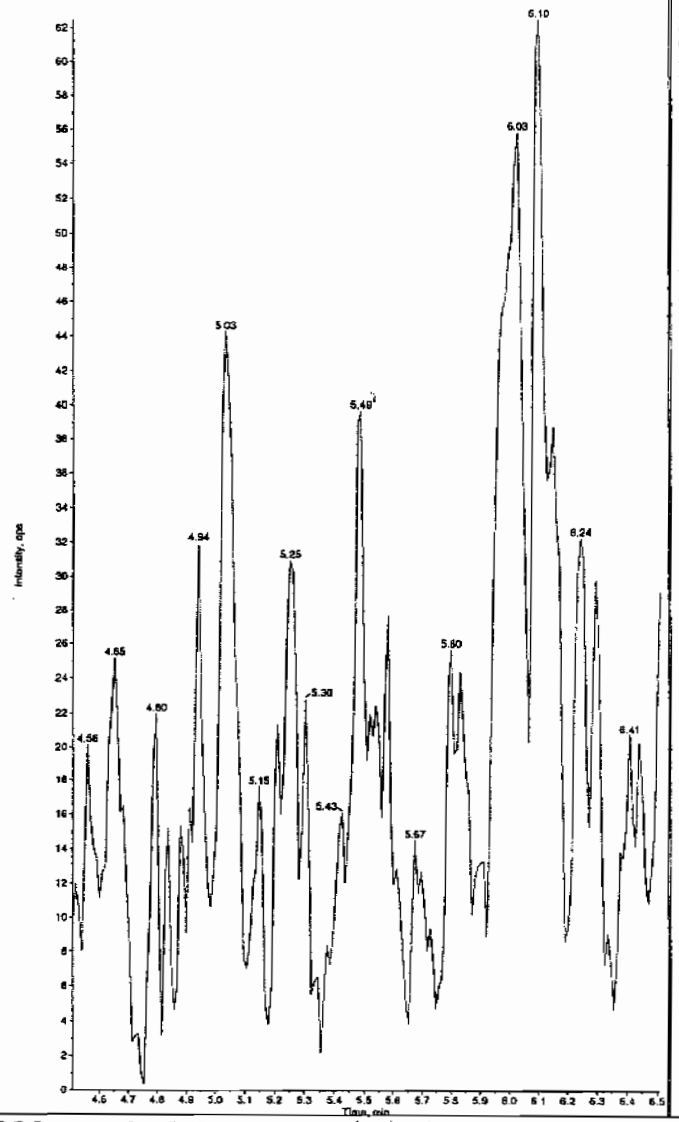

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02170012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.28 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:19:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.15e+005 counts
Height: 27372.225 cps
Start Time: 10.8 min
End Time: 11.2 min

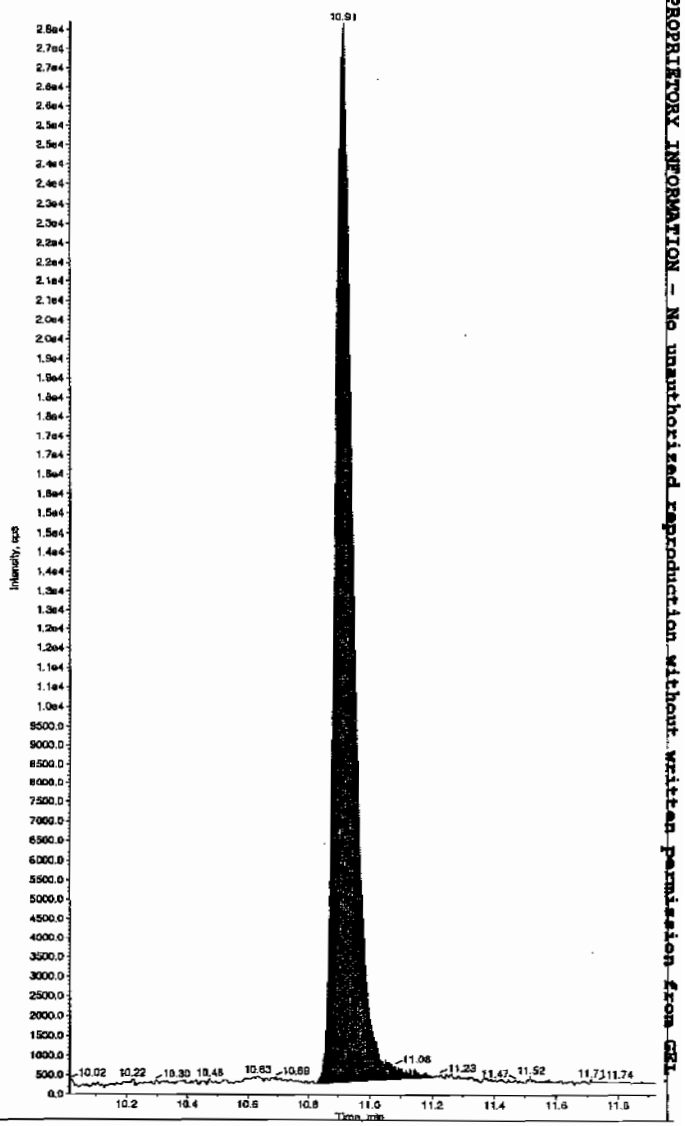

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 17-FEB-10 15:43

GEL Data File: EXS02170025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.23
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lax 2/19/10

Sample Name: "XIBLK04" Sample ID: "1|LER" File: "EXS02170025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM

Modified: No

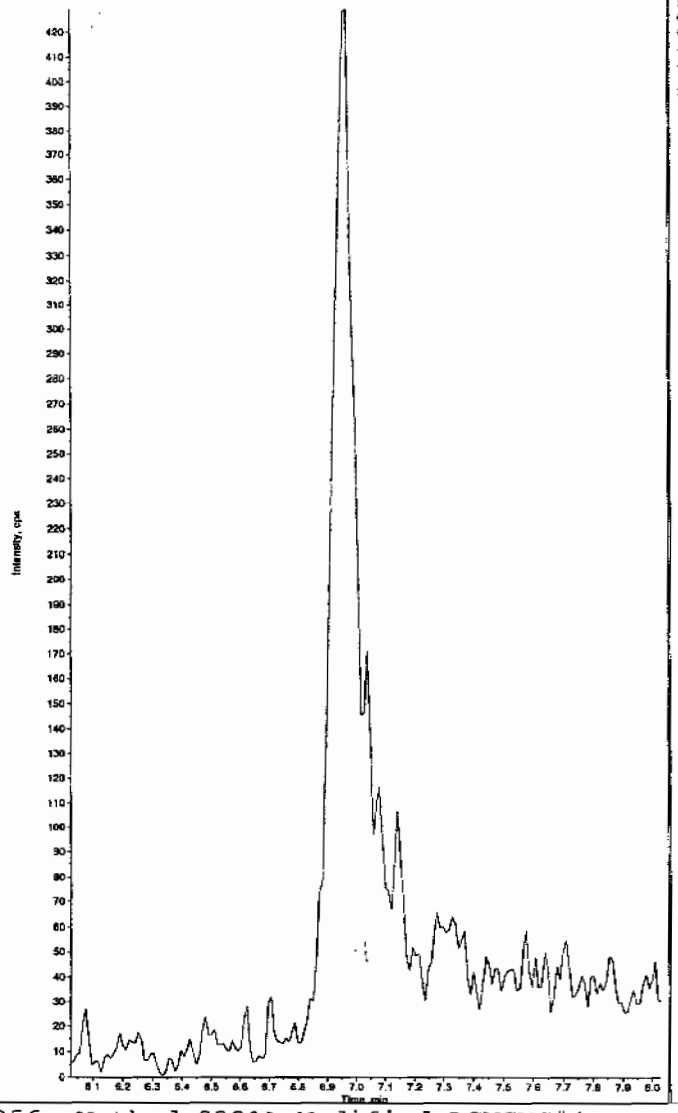

Sample Name: "XIBLK04" Sample ID: "1|LER" File: "EXS02170025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM

Modified: No

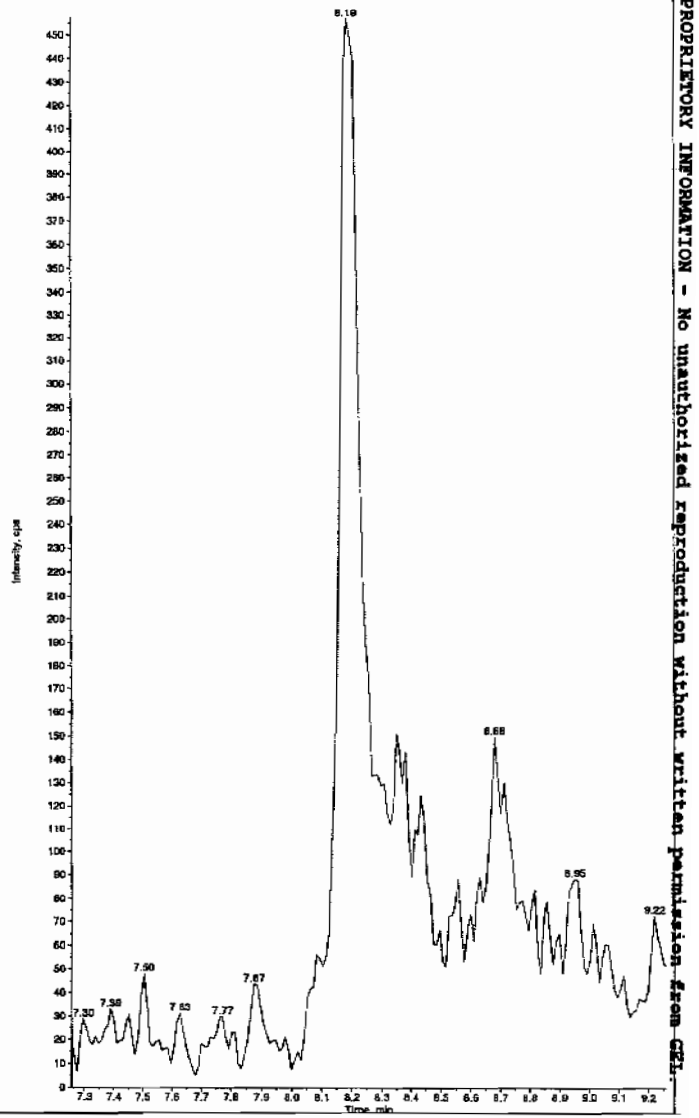

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02170025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM

Modified: No

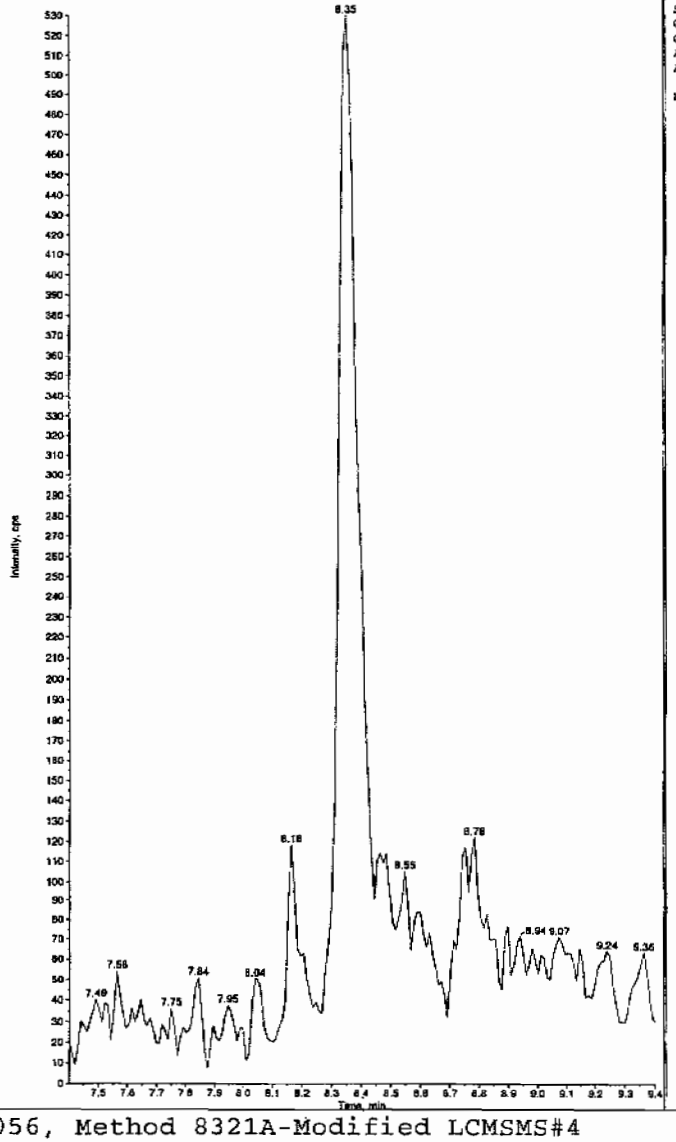

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02170025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM

Modified: No

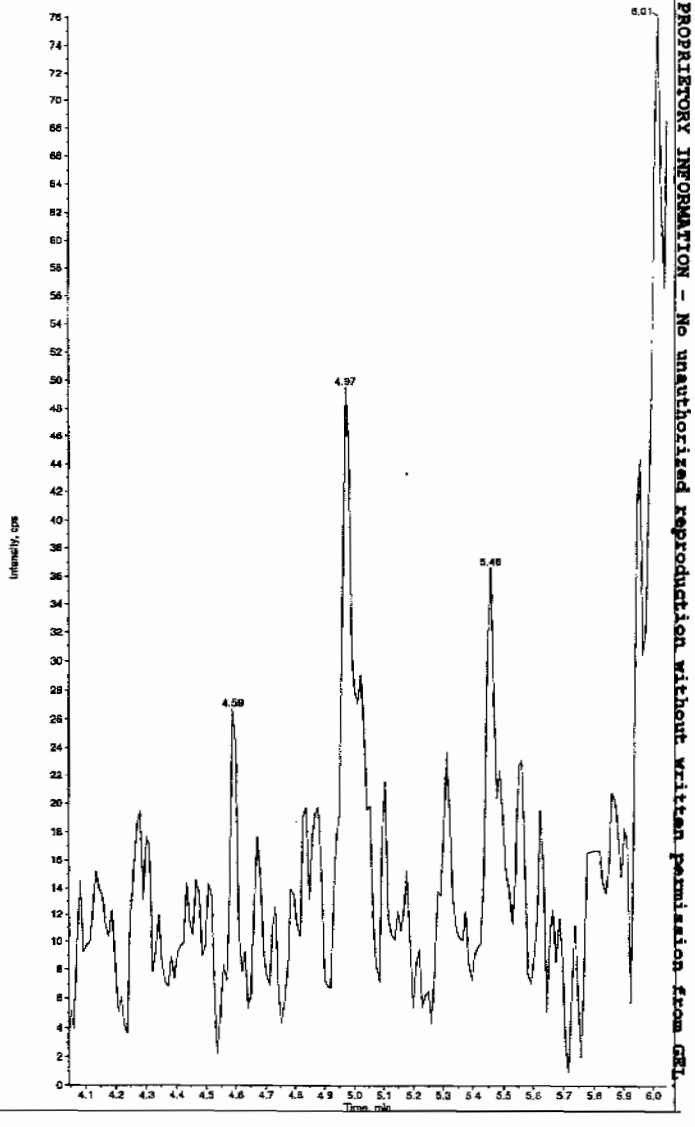

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02170025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM

Modified: No

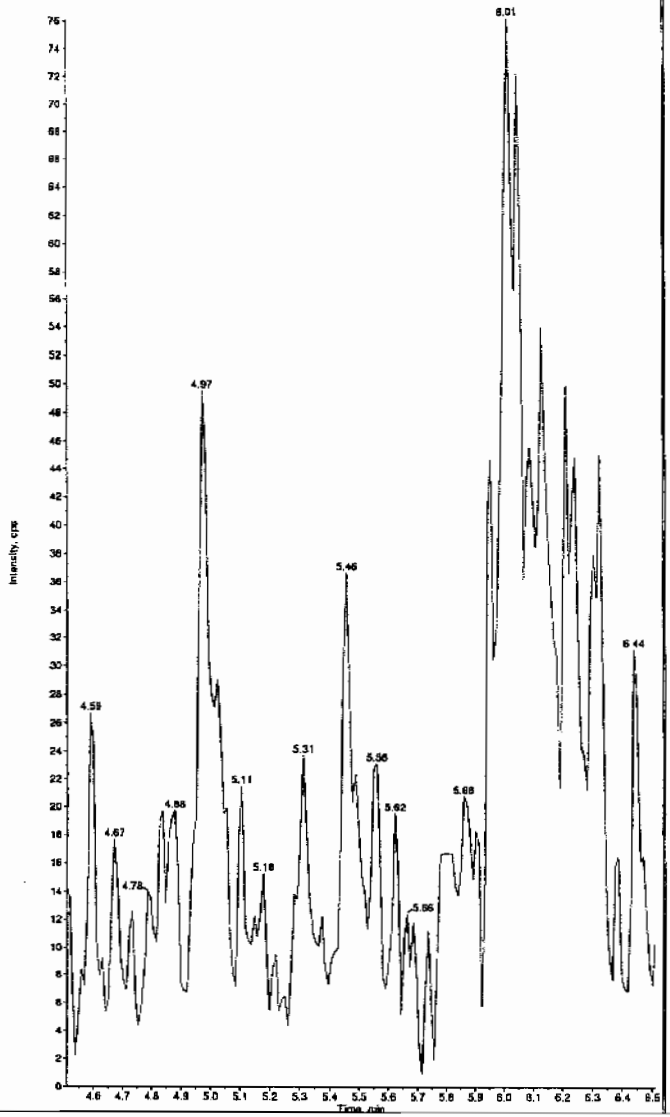

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02170025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.23 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.04e+004 counts
Height: 17063.232 cps
Start Time: 10.7 min
End Time: 11.2 min

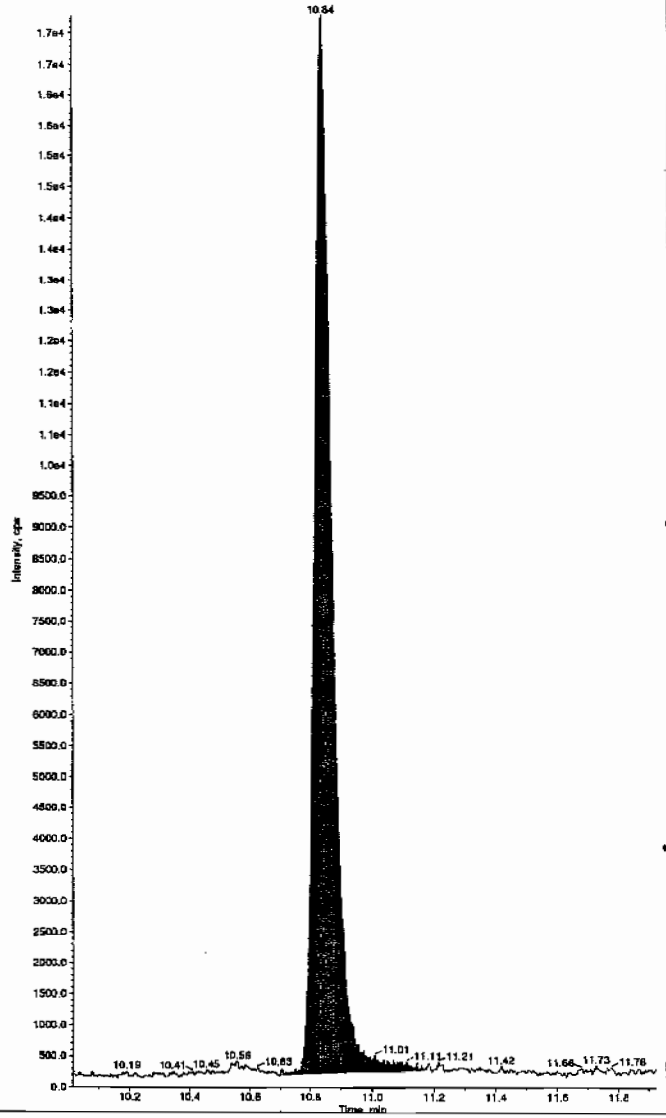

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 17-FEB-10 19:07

GEL Data File: EXS02170038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.34
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ster 2/19/10

Sample Name: "XIBLK05" Sample ID: "1|1|LER" File: "EXS02170038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:07:17 PM

Modified: No

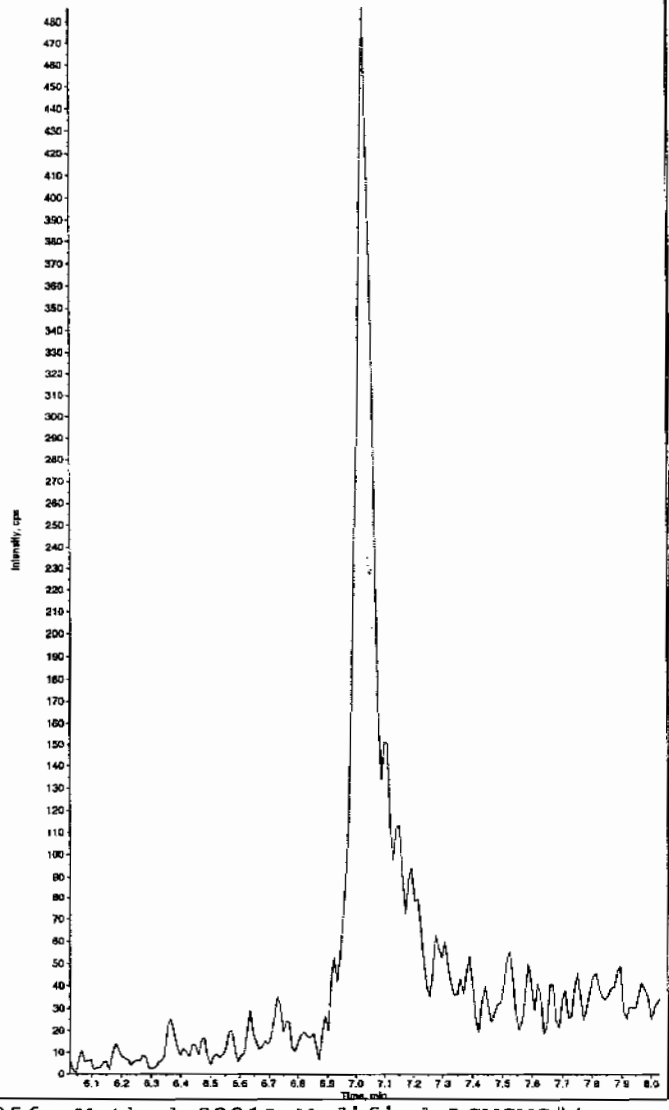

Sample Name: "XIBLK05" Sample ID: "1|1|LER" File: "EXS02170038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:07:17 PM

Modified: No

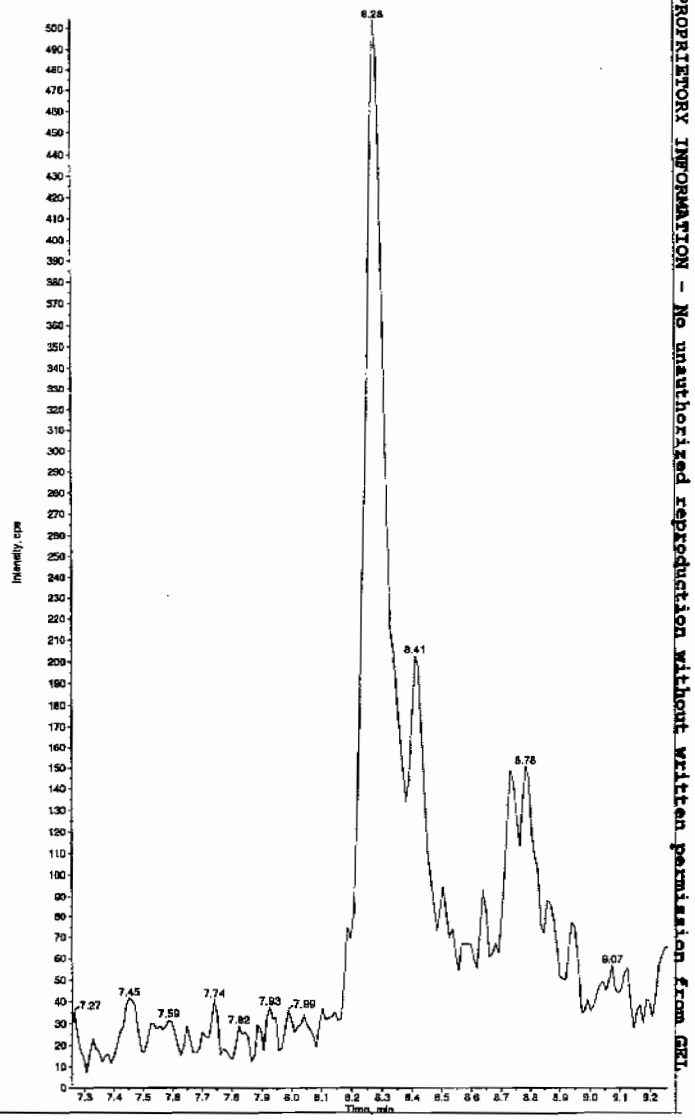

Hum 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02170038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:07:17 PM

Modified: No

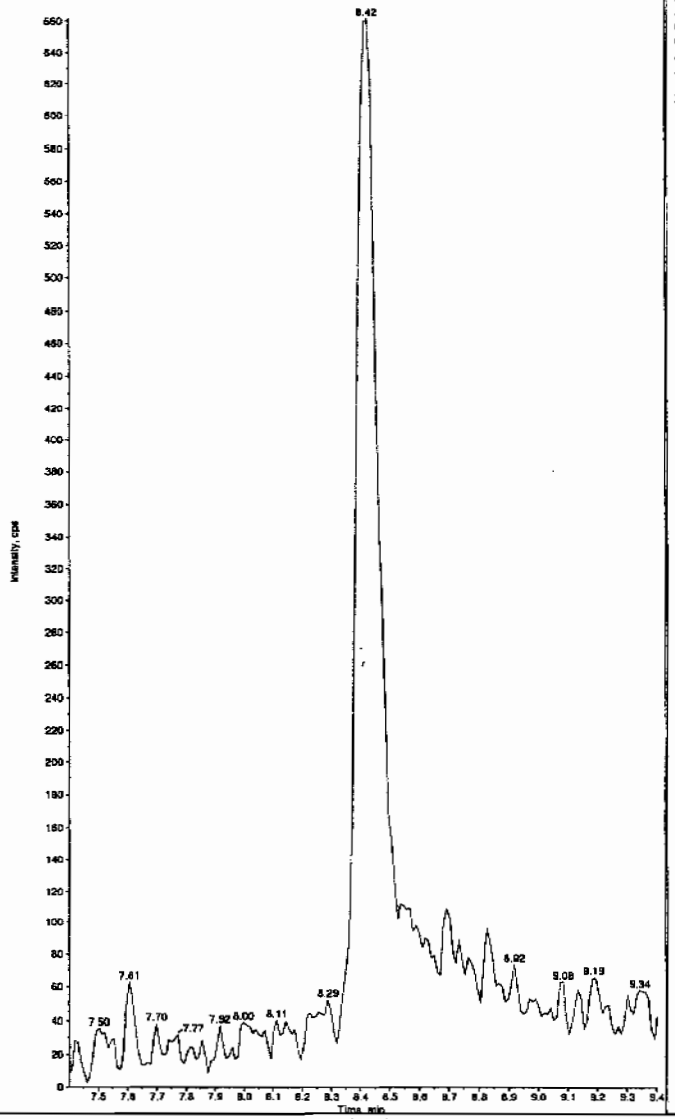

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02170038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:07:17 PM

Modified: No

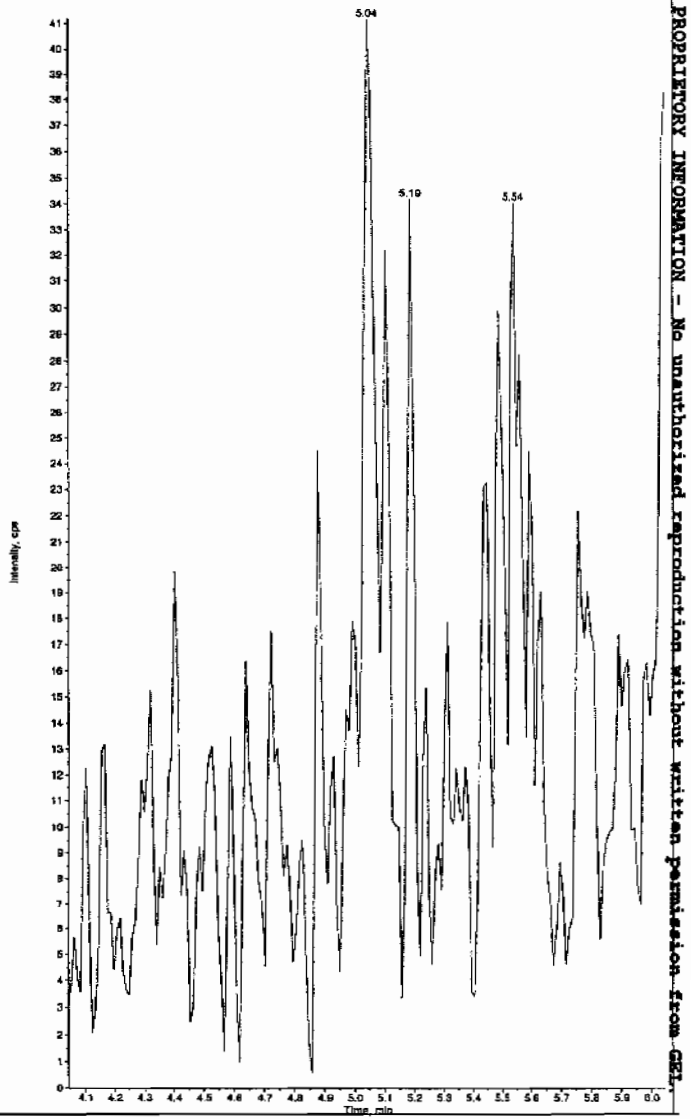

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02170038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:07:17 PM

Modified: No

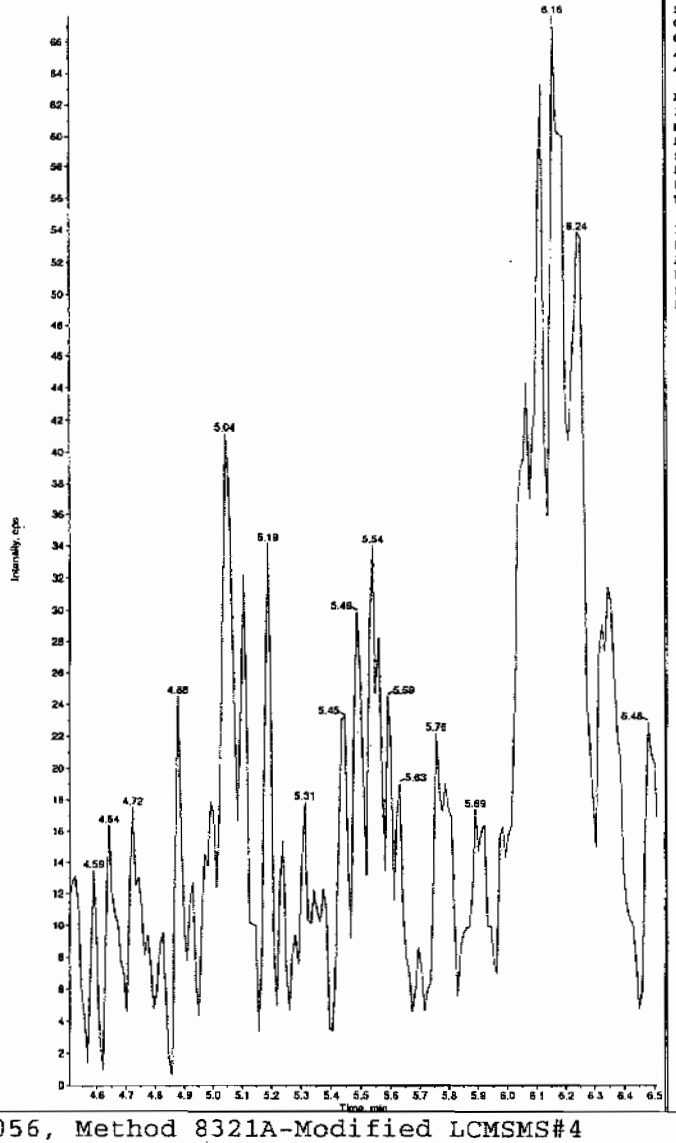

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02170038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.34 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:07:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.28e+004 counts
Height: 17382.101 cps
Start Time: 10.8 min
End Time: 11.1 min

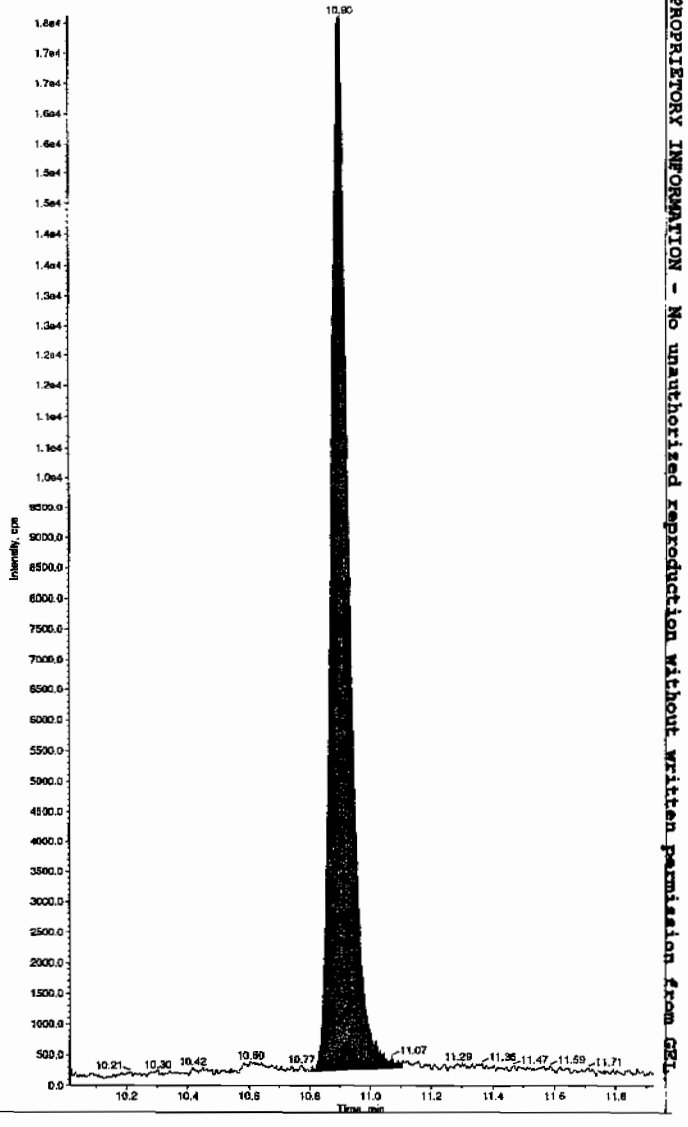

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1470

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 17-FEB-10 20:41

GEL Data File: EXS02170044.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.52
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ker 2/19/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No

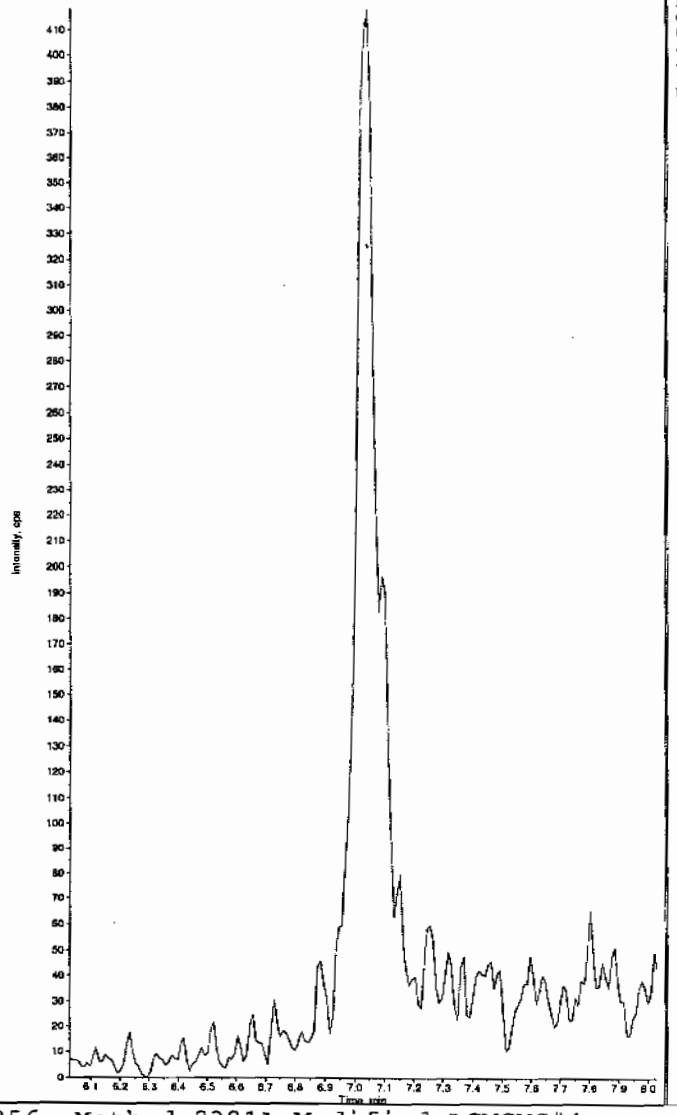

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No

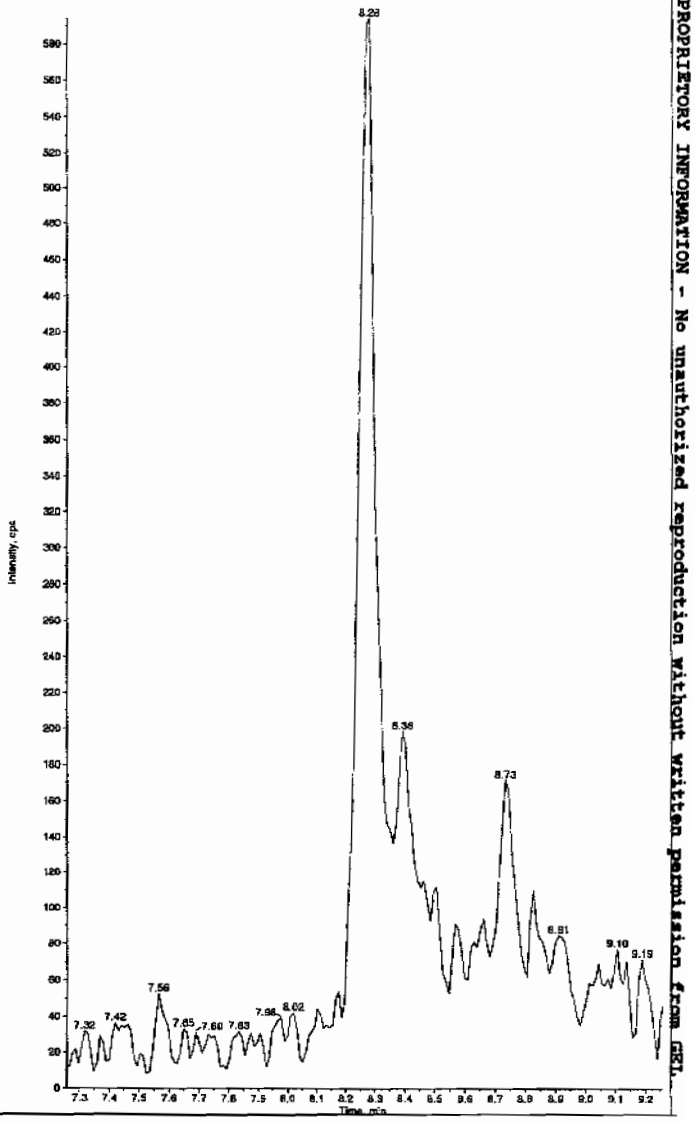

Hnm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No

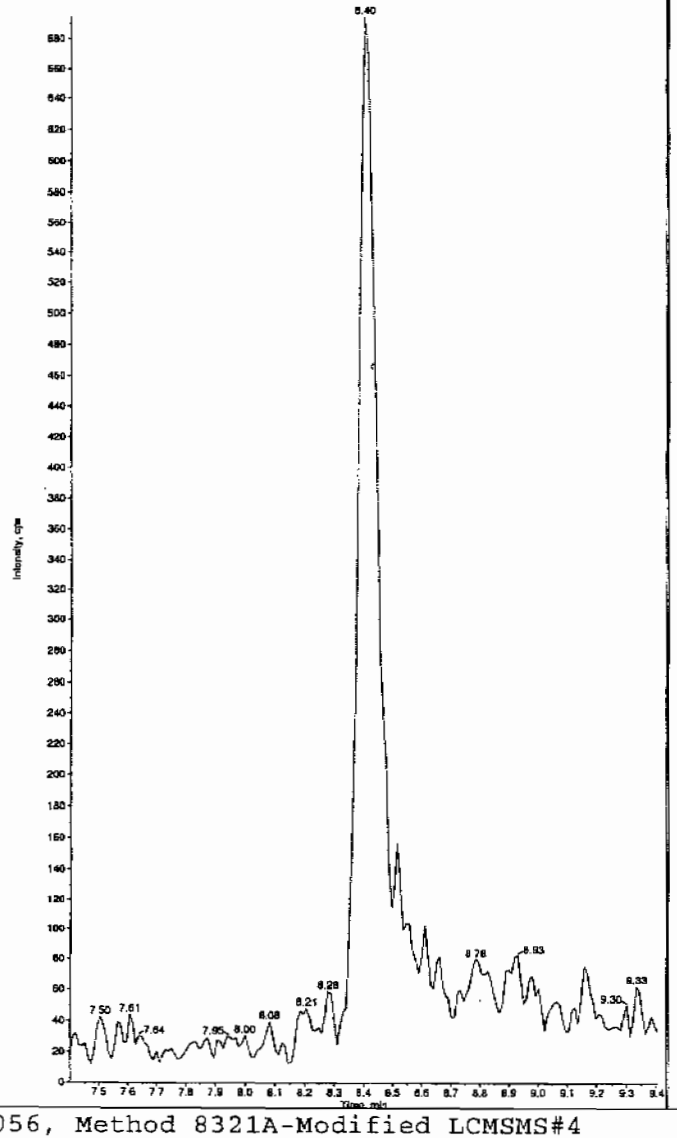

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No

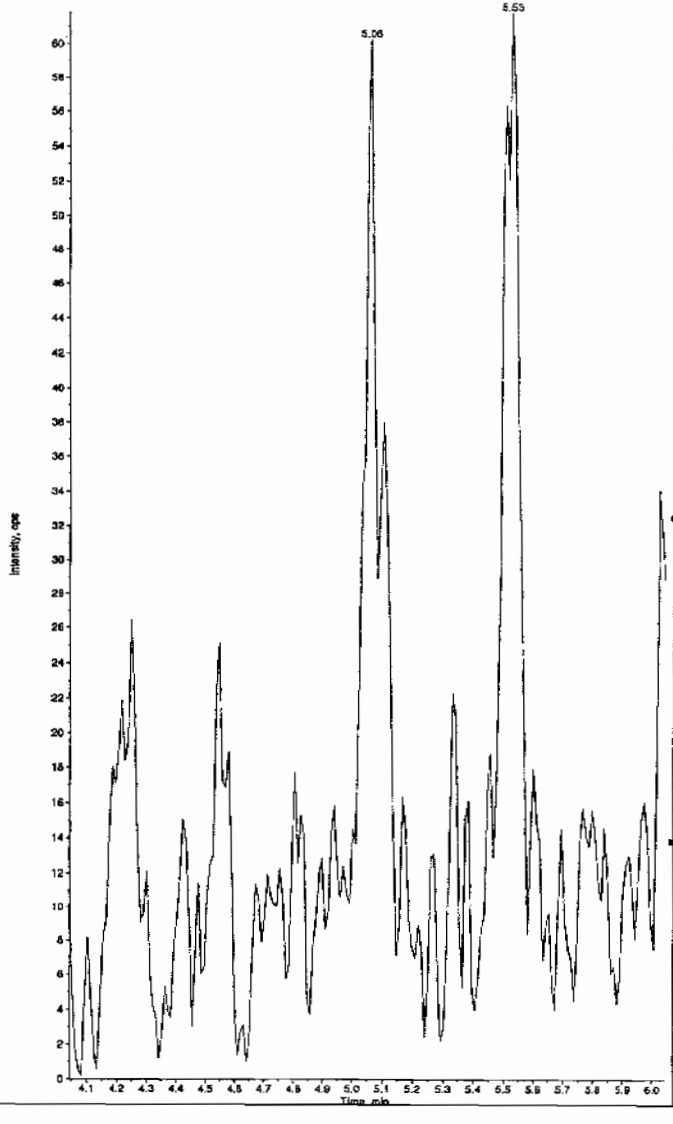

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No

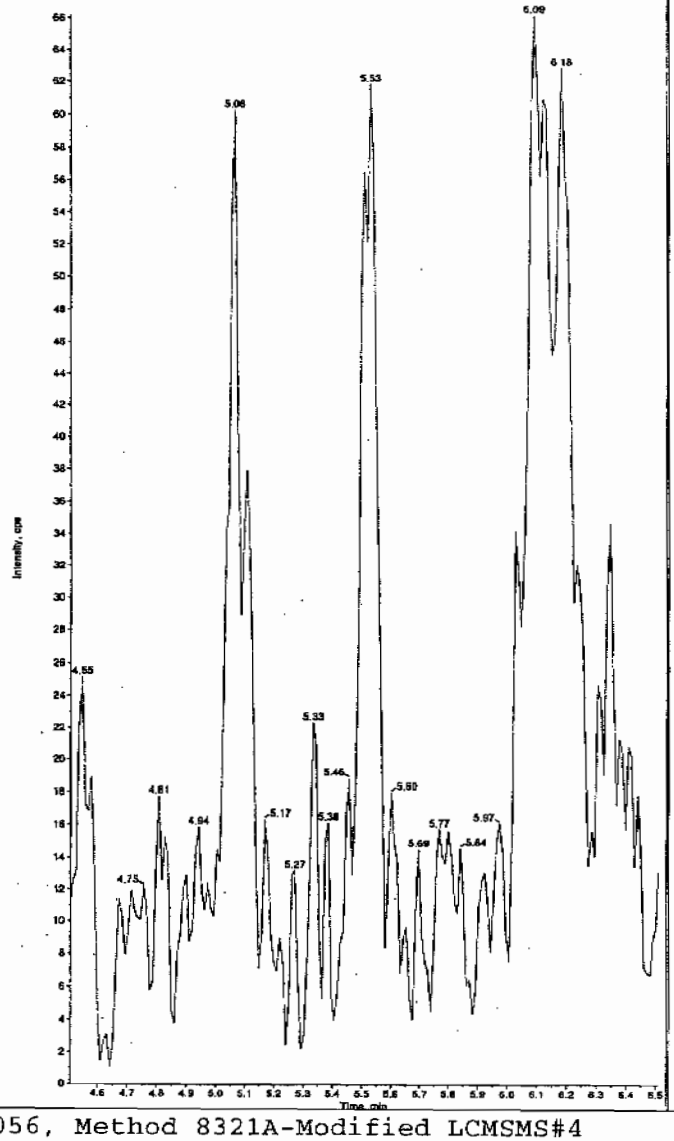

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.52 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.67e+004 counts
Height: 18487.440 cps
Start Time: 10.8 min
End Time: 11.2 min

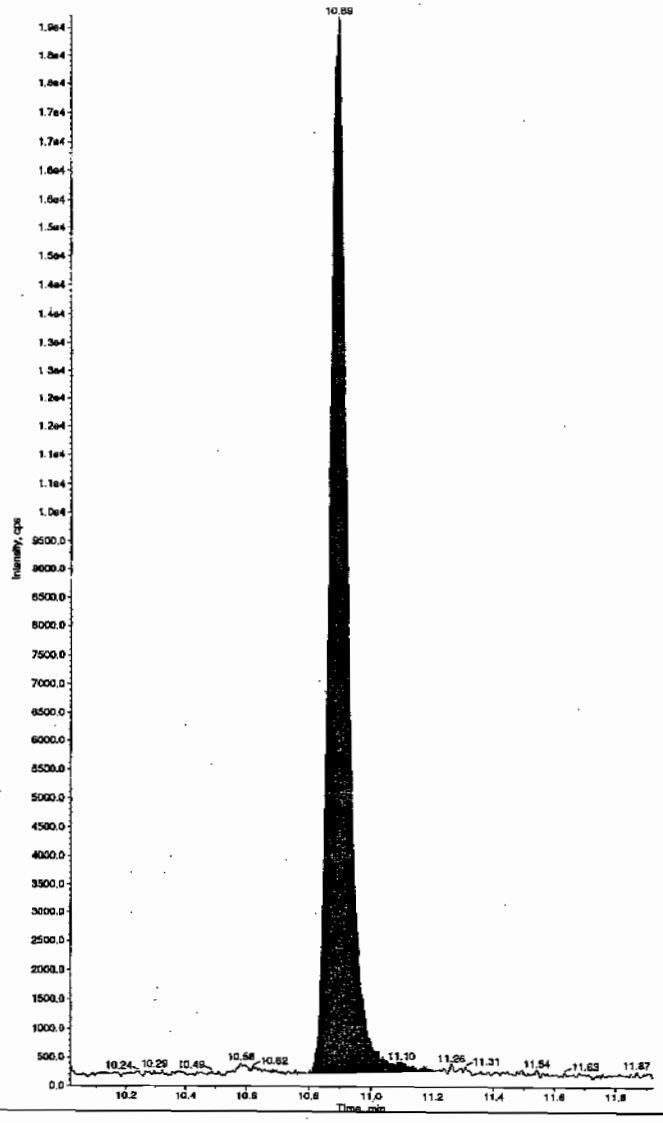

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

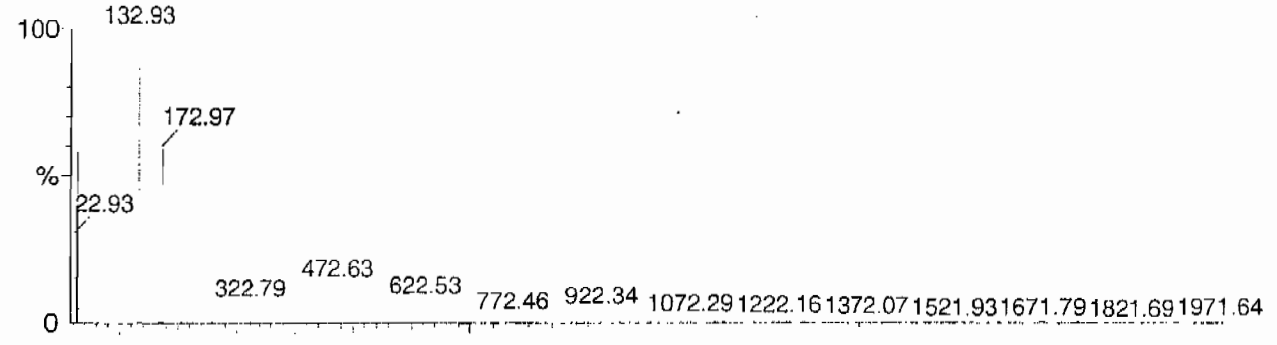

Reference file: Naics2

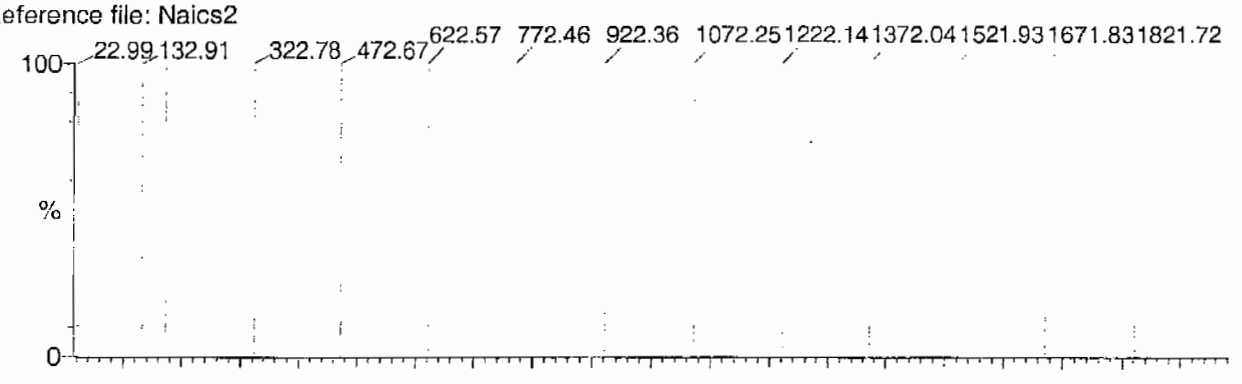

Mass difference (Raw - Ref mass)

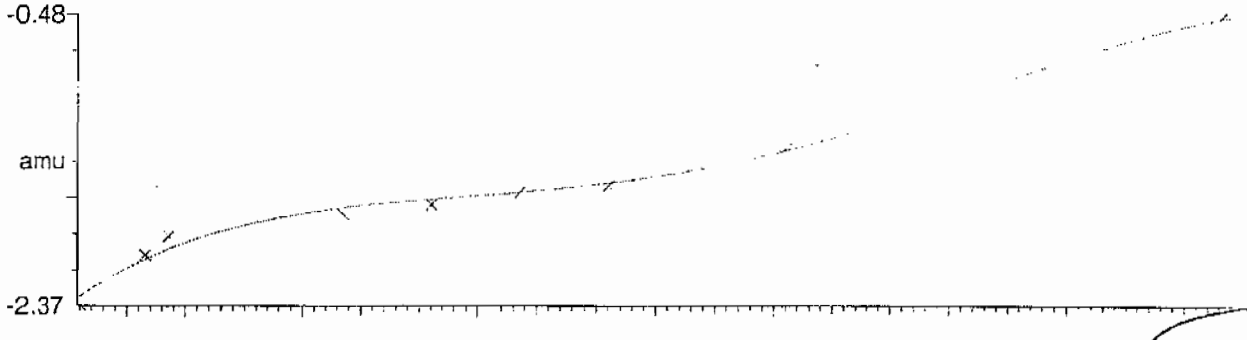

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

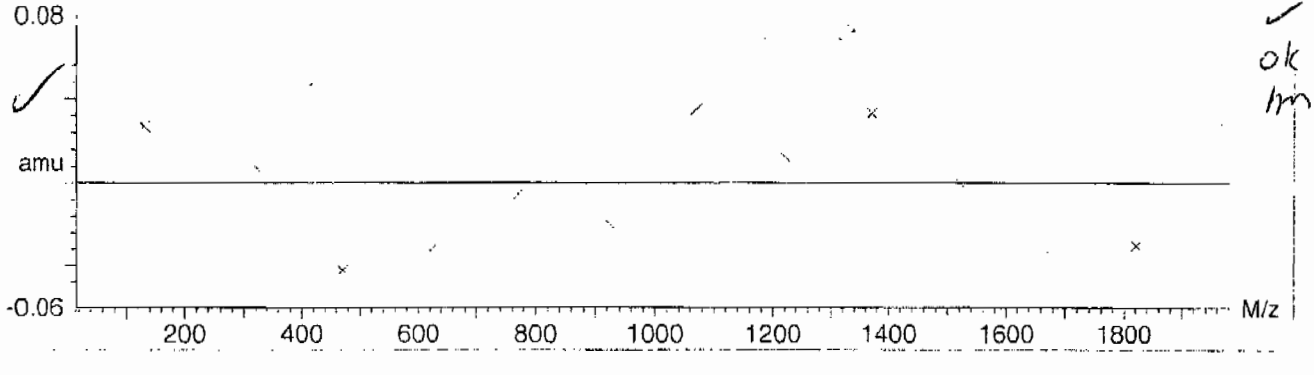

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

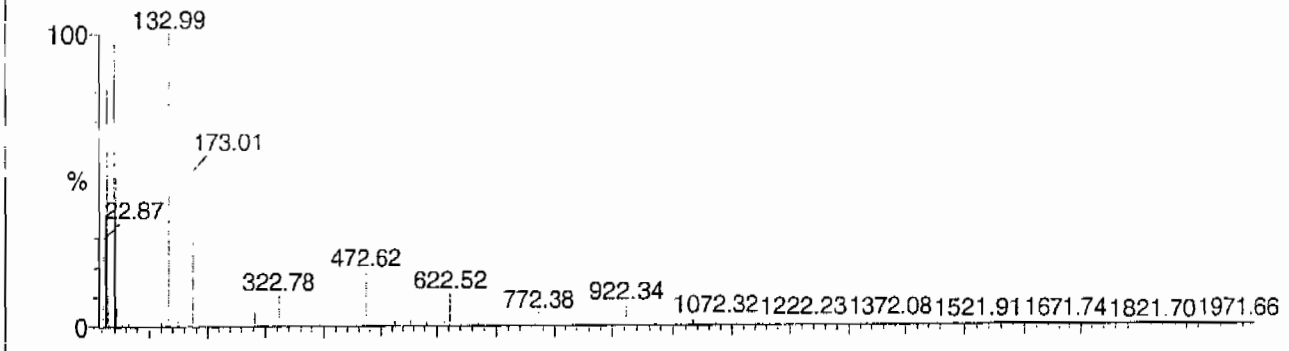

Reference file: Naics2

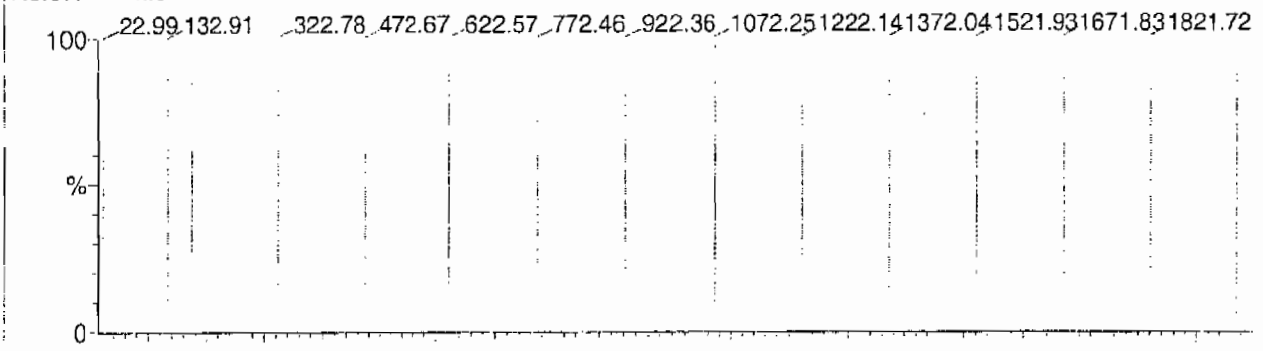

Mass difference (Raw - Ref mass)

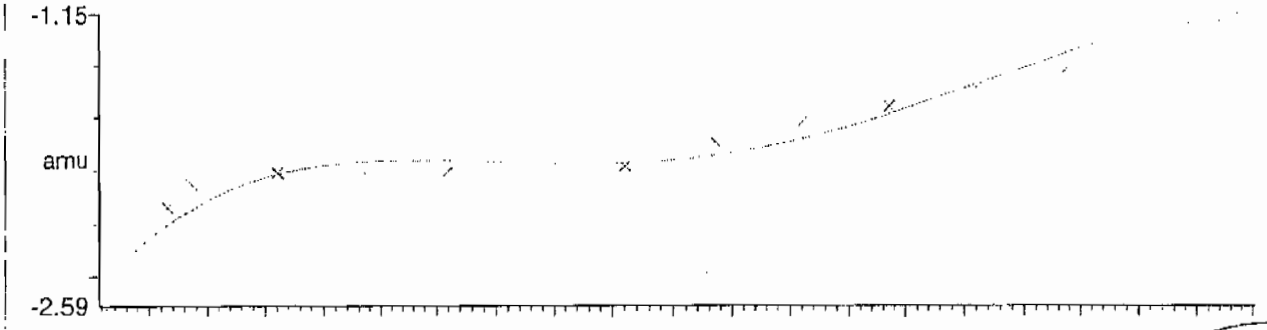

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

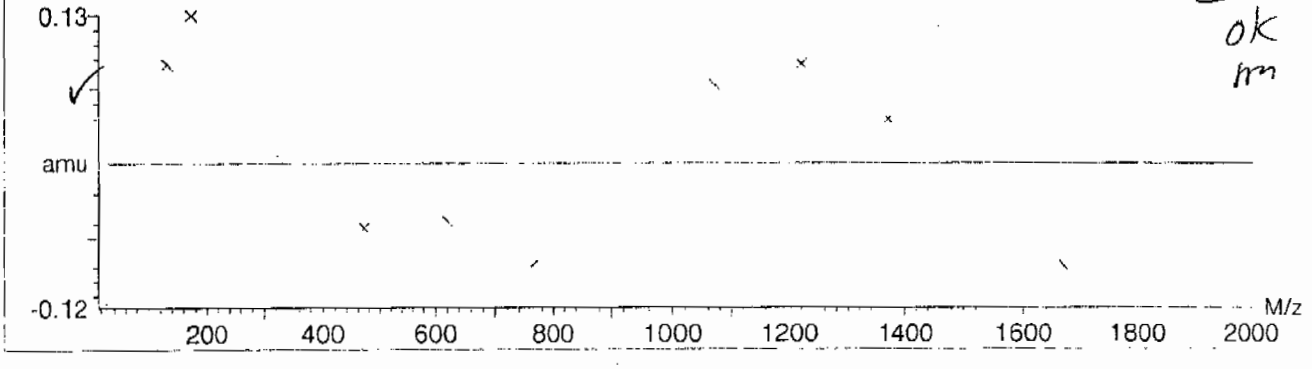

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

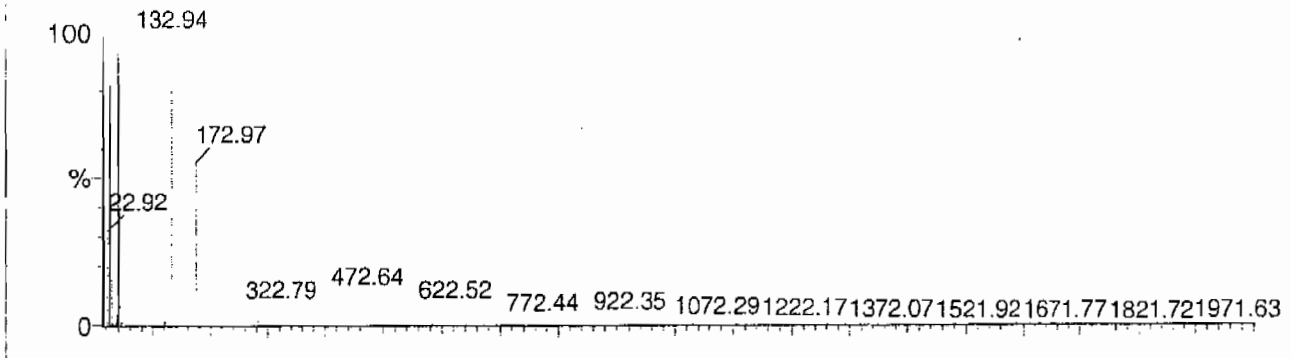

Reference file: Naics2

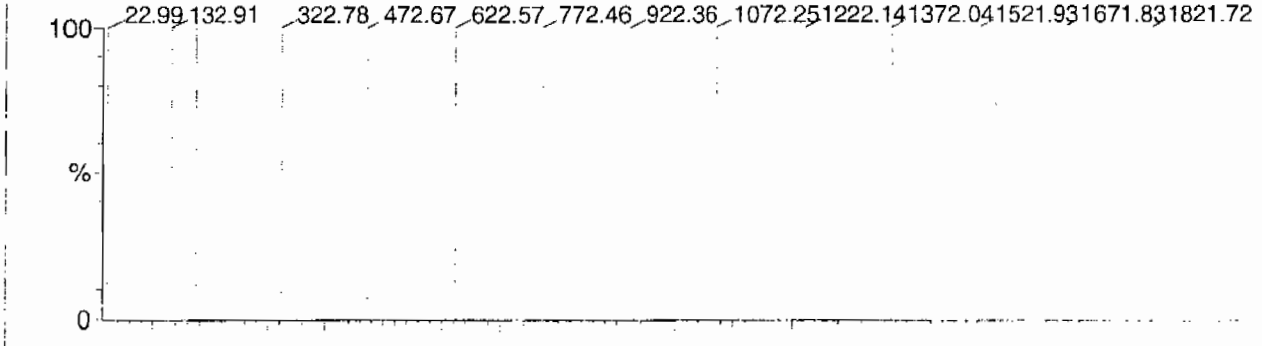

Mass difference (Raw - Ref mass)

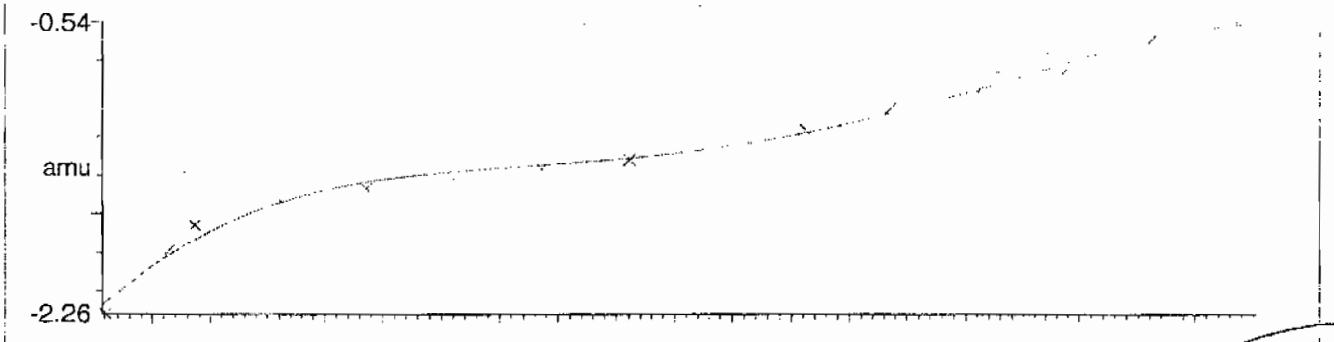

Residuals

Mean residual = 3.486639e-9 ± 0.040487

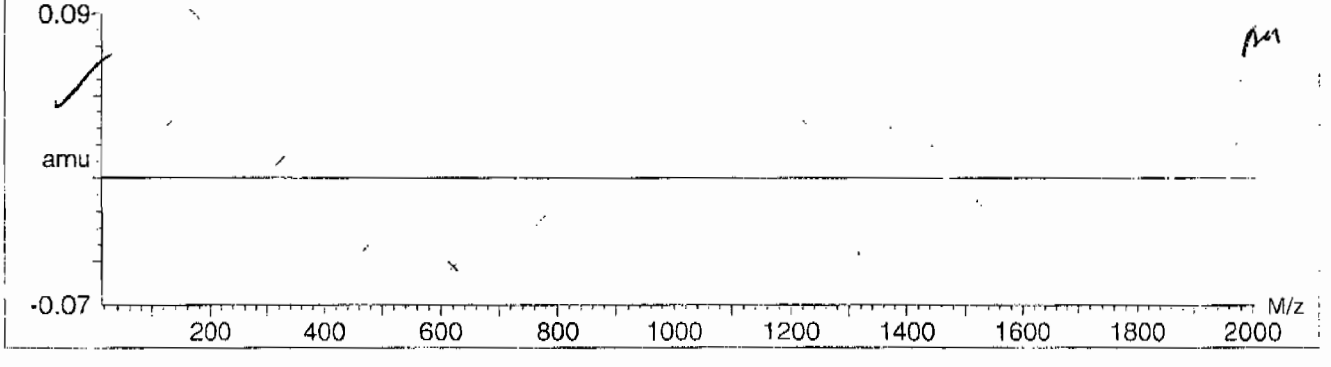

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

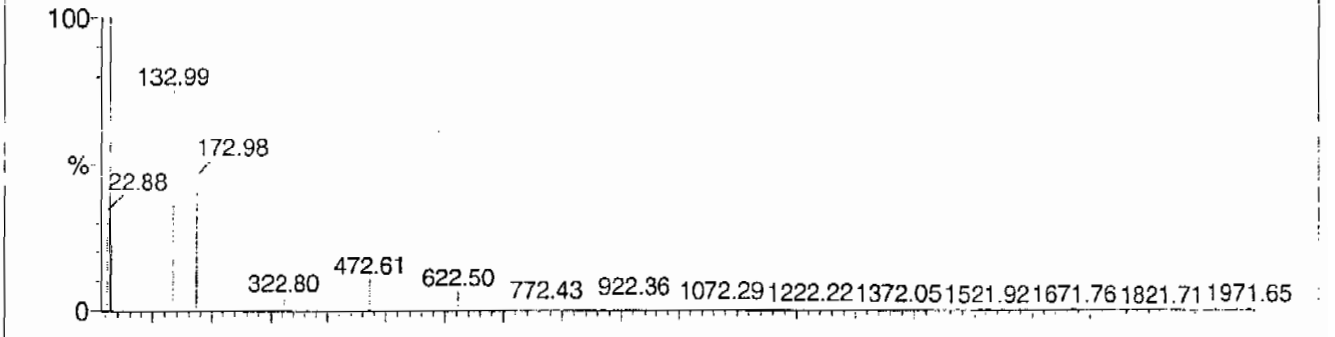

Reference file: Naics2

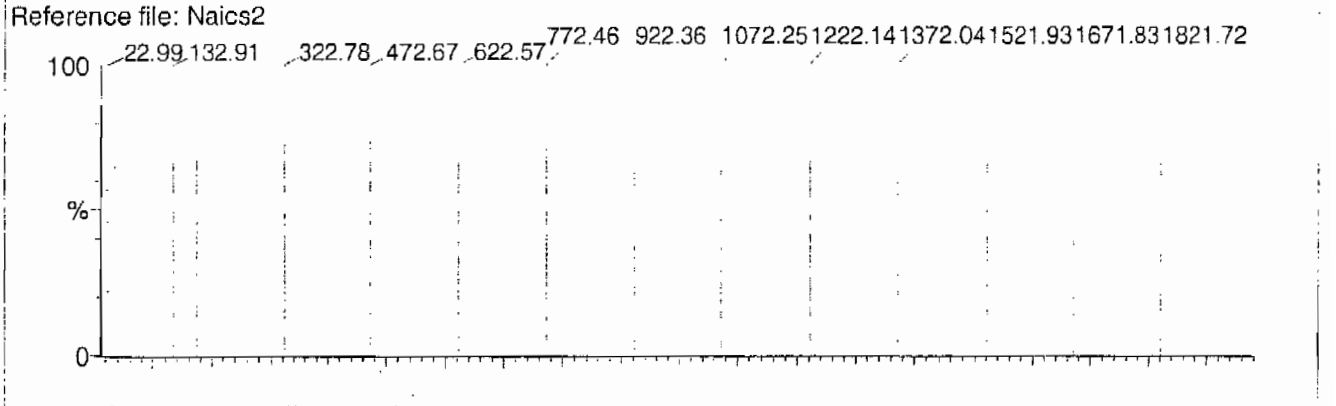

Mass difference (Raw - Ref mass)

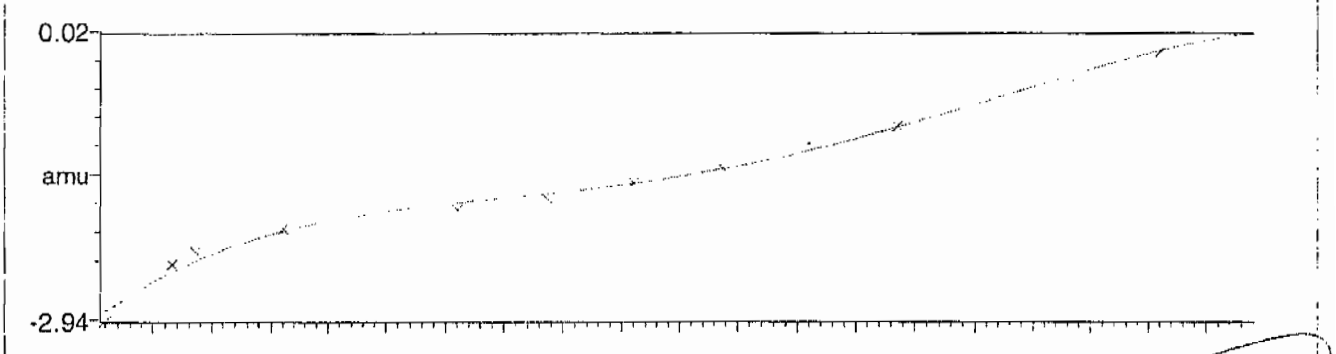

Residuals

Mean residual = 2.048910e-9 ± 0.057803

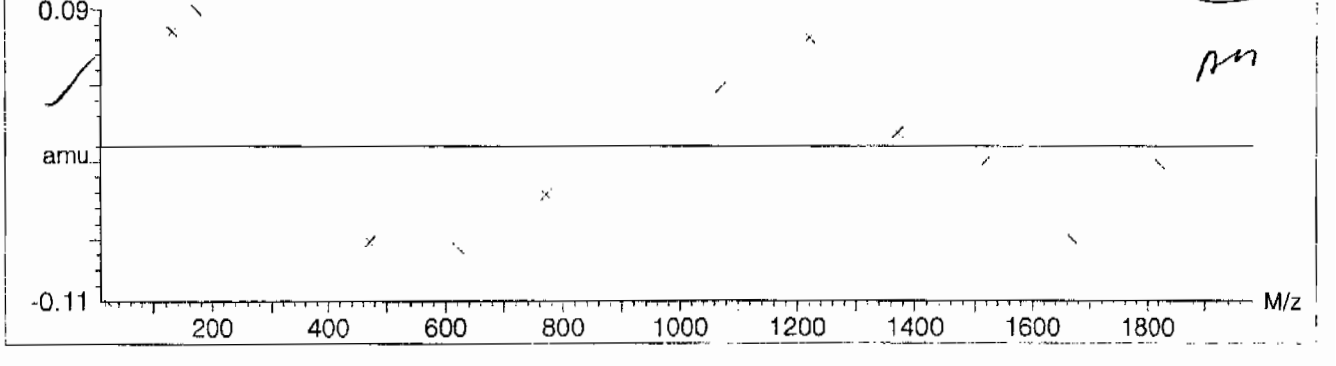

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

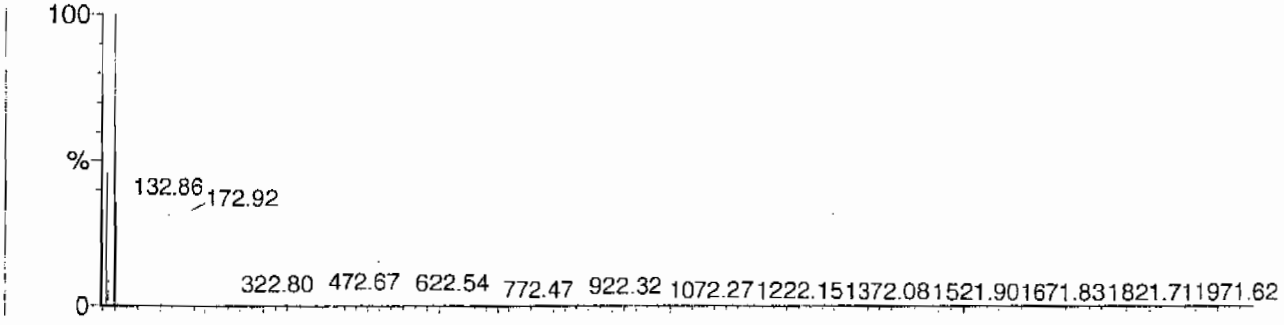

Reference file: Naics2

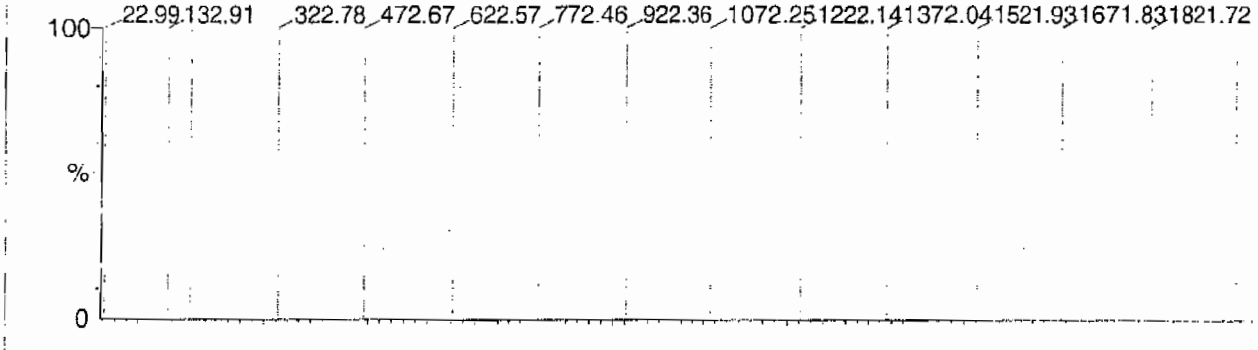

Mass difference (Raw - Ref mass)

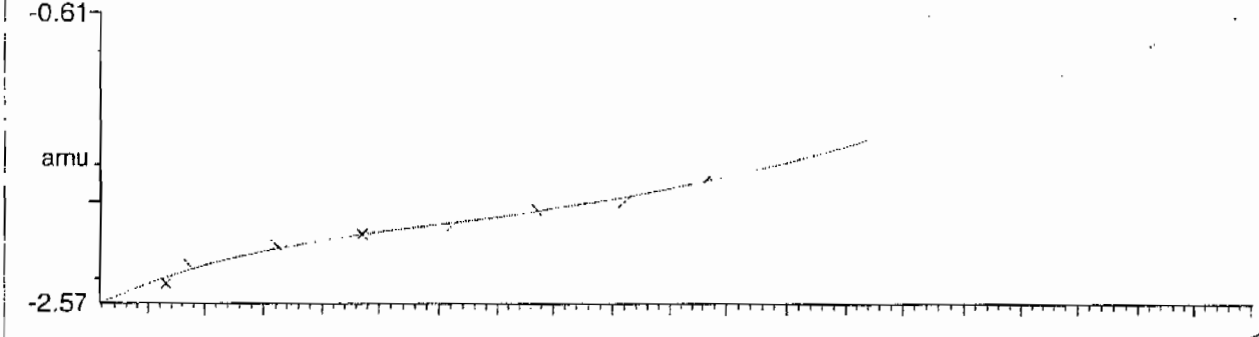

Residuals

Mean residual = -2.623502e-9 ± 0.025622

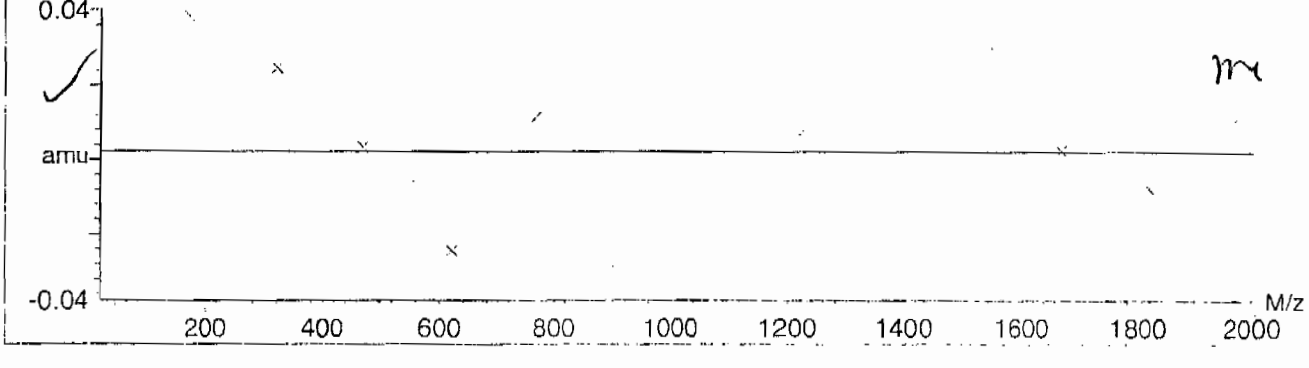

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

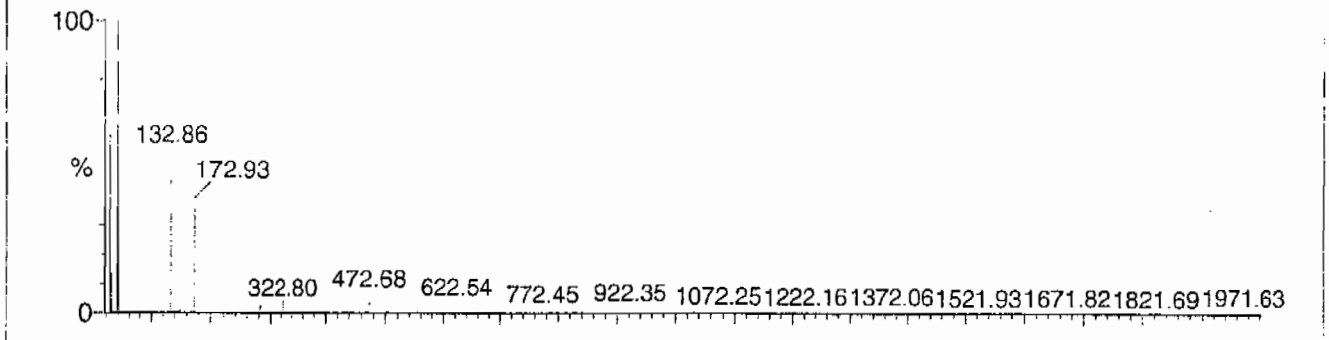

Reference file: Naics2

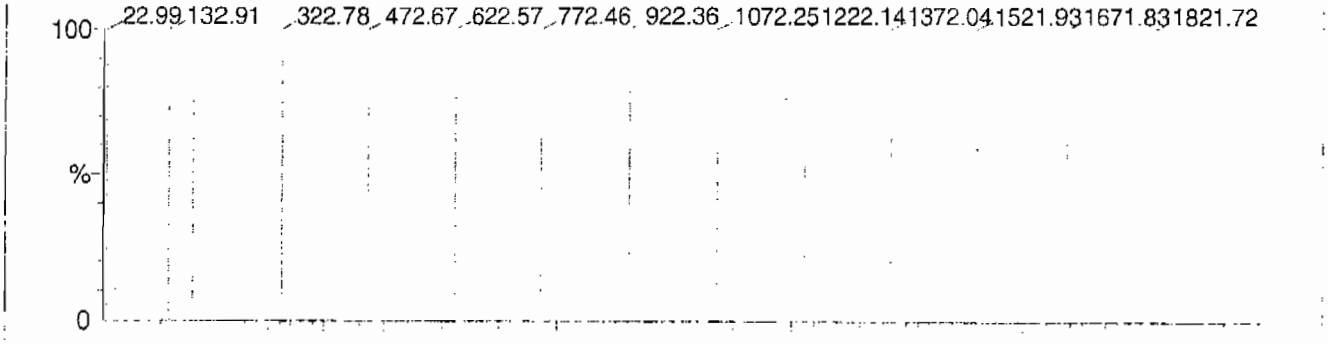

Mass difference (Raw - Ref mass)

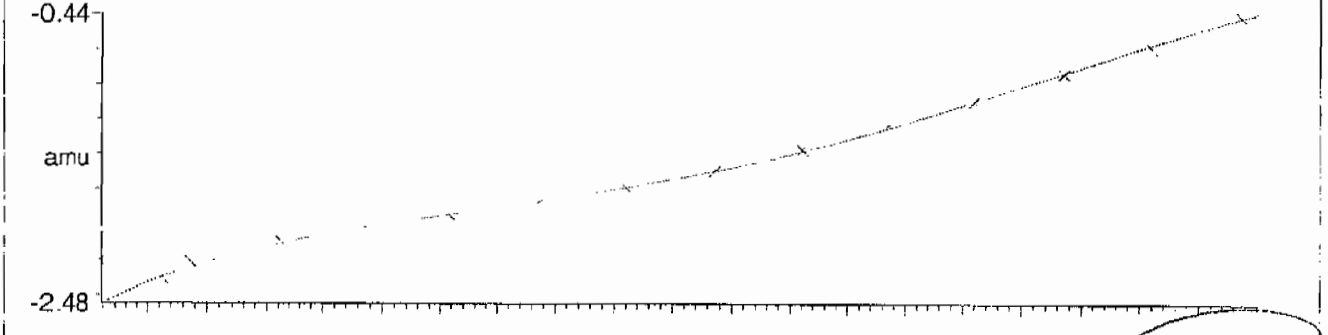

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

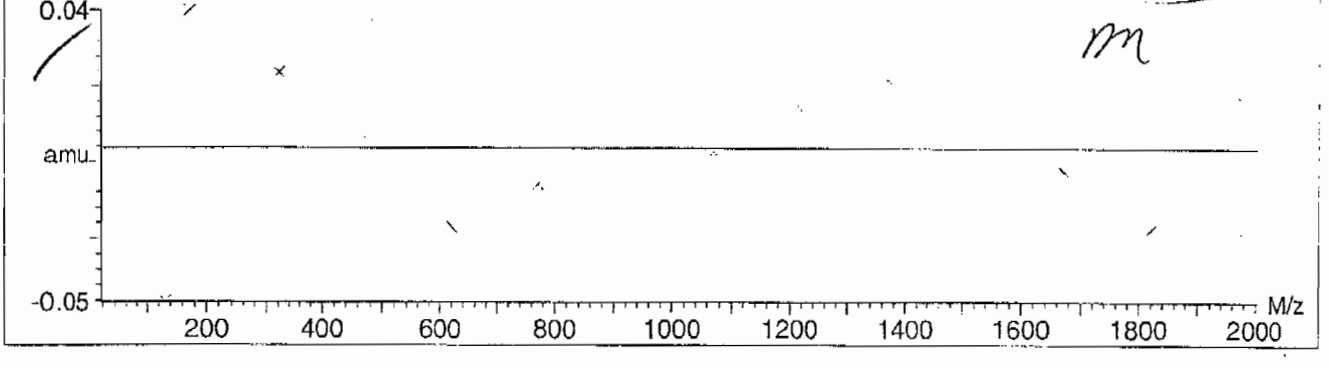

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Tue Feb 16 13:37:41 2010

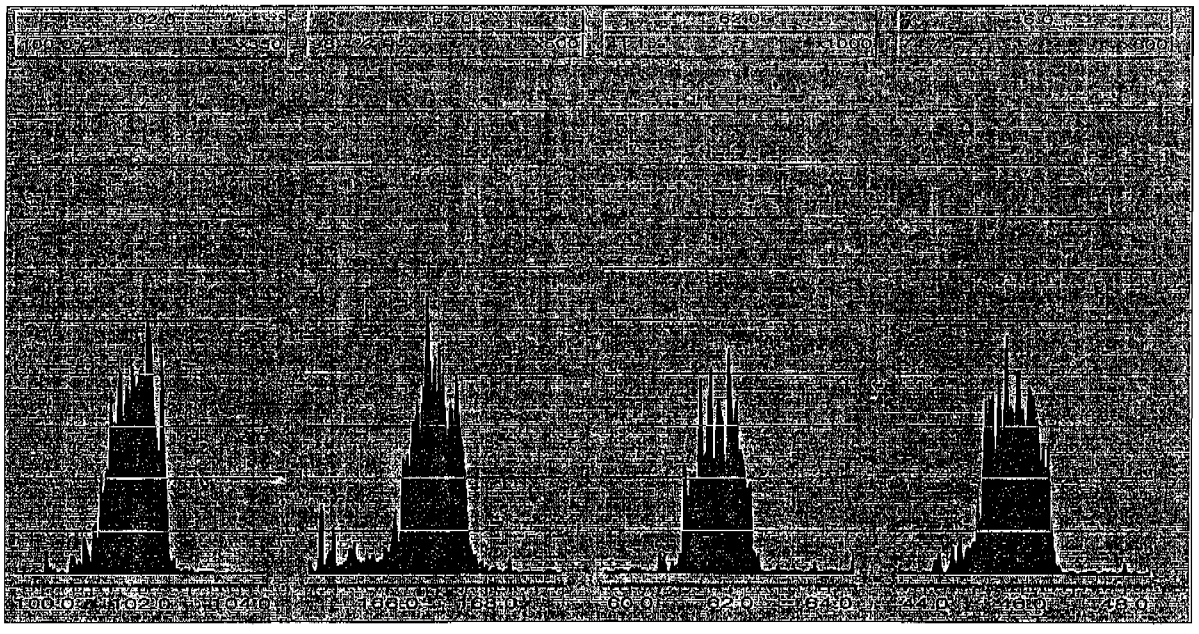

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1470

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3012.417	12.049	17408.567	17.428
Upper Limit			3916.1421	12.549	22631.1371	17.928
Lower Limit			2108.6919	11.549	12185.9969	16.928
MB for batch 947088	20–feb–10 09:55	EXP0216180a	2931.37	12.064	16797.3	17.433
LCS for batch 947088	20–feb–10 10:25	EXP0216181a	2819.01	12.03	15449.9	17.411
RE15–10–7888	20–feb–10 10:55	EXP0216182a	2661.59	12.067	15490.3	17.422
RE15–10–7888(245795001MS)	20–feb–10 11:25	EXP0216183a	3134.02	12.067	17126.2	17.423
RE15–10–7888(245795001MSD)	20–feb–10 11:54	EXP0216184a	2881.06	12.065	15184	17.433
RE15–10–7890	20–feb–10 12:24	EXP0216185a	2670.33	12.033	14398.7	17.422
RE15–10–7886	20–feb–10 12:54	EXP0216186a	2475.78	12.067	14096.8	17.422
RE15–10–7889	20–feb–10 13:23	EXP0216187a	2636.12	12.03	14026.4	17.411
RE15–10–7885	20–feb–10 13:53	EXP0216188a	2575.51	12.033	13352.6	17.422
RE15–10–7882	20–feb–10 14:23	EXP0216189a	2591.05	12.033	13905.9	17.423
RE15–10–7887	20–feb–10 16:21	EXP0216193a	2950.91	12.032	16494.6	17.422
RE15–10–7881	20–feb–10 16:51	EXP0216194a	2625.52	12.033	15390.9	17.422
RE15–10–7951	20–feb–10 17:20	EXP0216195a	2960.16	12.032	15856.8	17.422
RE15–10–7950	20–feb–10 17:50	EXP0216196a	2893.92	12.032	16189.8	17.422
RE15–10–7947	20–feb–10 18:19	EXP0216197a	2900.22	12.03	15293.1	17.433
RE15–10–7944	20–feb–10 18:49	EXP0216198a	2972.06	12.065	15040.4	17.412
RE15–10–7948	20–feb–10 19:19	EXP0216199a	2809.95	12.064	14995.9	17.433
RE15–10–7941	20–feb–10 19:48	EXP0216200a	2696.05	12.064	14578.7	17.433
RE15–10–7949	20–feb–10 20:18	EXP0216201a	2824.84	12.067	14483.3	17.423
RE15–10–7946	20–feb–10 20:48	EXP0216202a	2883.77	12.03	16109.5	17.434
RE15–10–7942	20–feb–10 22:46	EXP0216206a	3105.3	12.032	16257.4	17.444
RE15–10–7945	20–feb–10 23:15	EXP0216207a	2929.41	12.067	14001.5	17.422
RE15–10–7943	20–feb–10 23:45	EXP0216208a	2938.02	12.033	15126.3	17.423

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1470

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

IS1 (DNB) = 1,3-Dinitrobenzene-d4
IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795001

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216182a

Date Analyzed: 20-FEB-10 10:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216182a
Date: 20-Feb-2010
Time: 10:55:29
ID: 245795001 | LANDL | 947089 | Solids | 2 |
Vial: 4:3,C

MMP 4/4/10

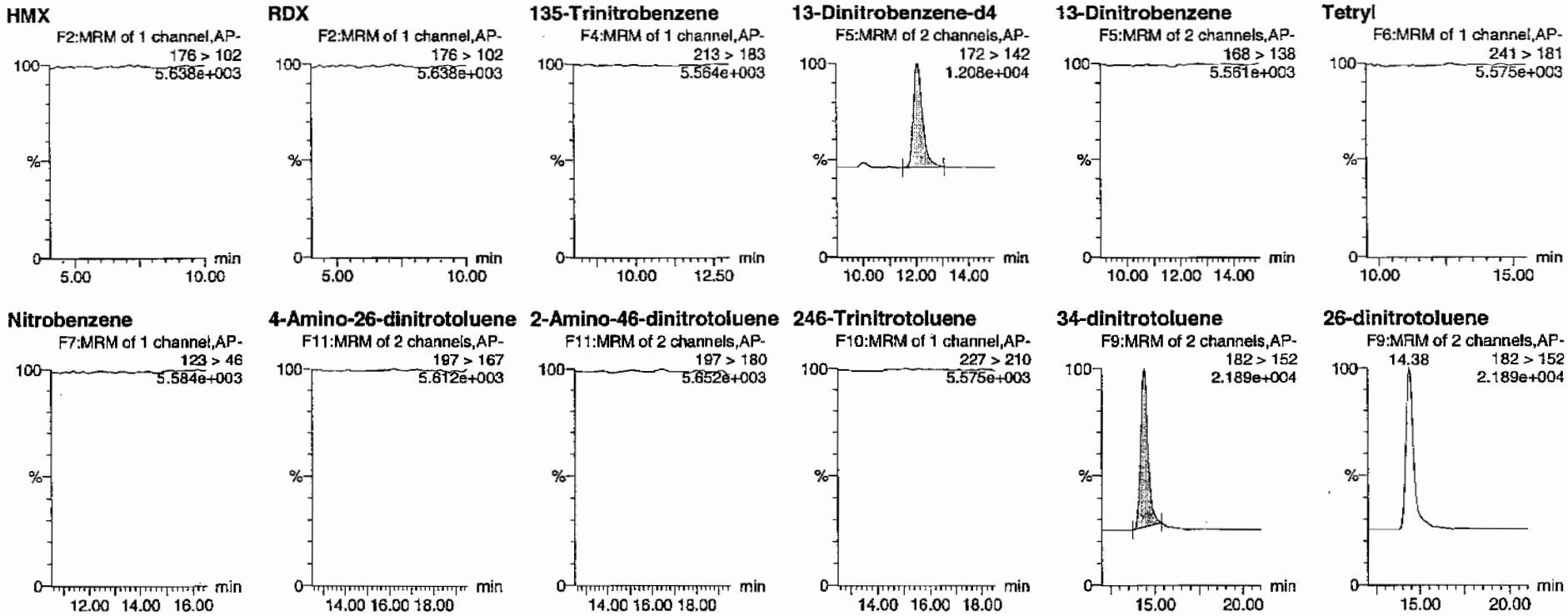

AMM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

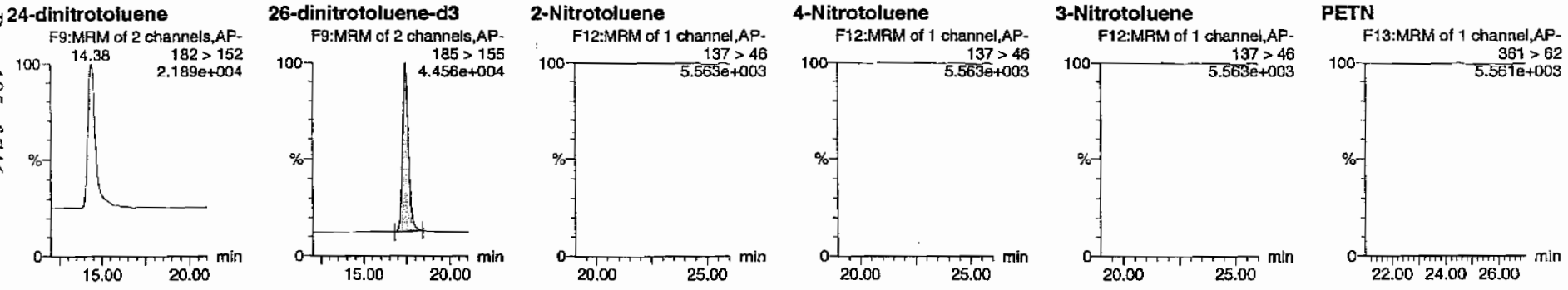

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245795001	HMX	176 > 102			2661.590									
245795001	RDX	176 > 102			2661.590									
245795001	135-Trinitrobenzene	213 > 183			2661.590									
245795001	13-Dinitrobenzene-d4	172 > 142	12.07	2661.590		2661.590	2661.590	bb			441.7700	88.4	-11.6	358.6
245795001	13-Dinitrobenzene	168 > 138			2661.590									
245795001	Tetryl	241 > 181			2661.590									
245795001	Nitrobenzene	123 > 46			2661.590									
245795001	4-Amino-26-dinitrotoluene	197 > 167			15490.322									
245795001	2-Amino-46-dinitrotoluene	197 > 180			15490.322									
245795001	246-Trinitrotoluene	227 > 210			15490.322									
245795001	34-dinitrotoluene	182 > 152	14.38	7516.952	15490.322	7516.952	242.634	bb			267.8074	107.1	7.1	721.6
245795001	26-dinitrotoluene	182 > 152			15490.322									
245795001	24-dinitrotoluene	182 > 152			15490.322									
245795001	26-dinitrotoluene-d3	185 > 155	17.42	15490.322		15490.322	15490.322	bb			444.9054	89.0	-11.0	1808.8
245795001	2-Nitrotoluene	137 > 46			15490.322									
245795001	4-Nitrotoluene	137 > 46			15490.322									
245795001	3-Nitrotoluene	137 > 46			15490.322									
245795001	PETN	361 > 62			15490.322									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795001

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170016.wiff

Date Analyzed: 17-FEB-10 13:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 2/19/10

Sample Name: "245795001" Sample ID: "947089[2]LER" File: "EXS02170016.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:21:49 PM

Modified: No

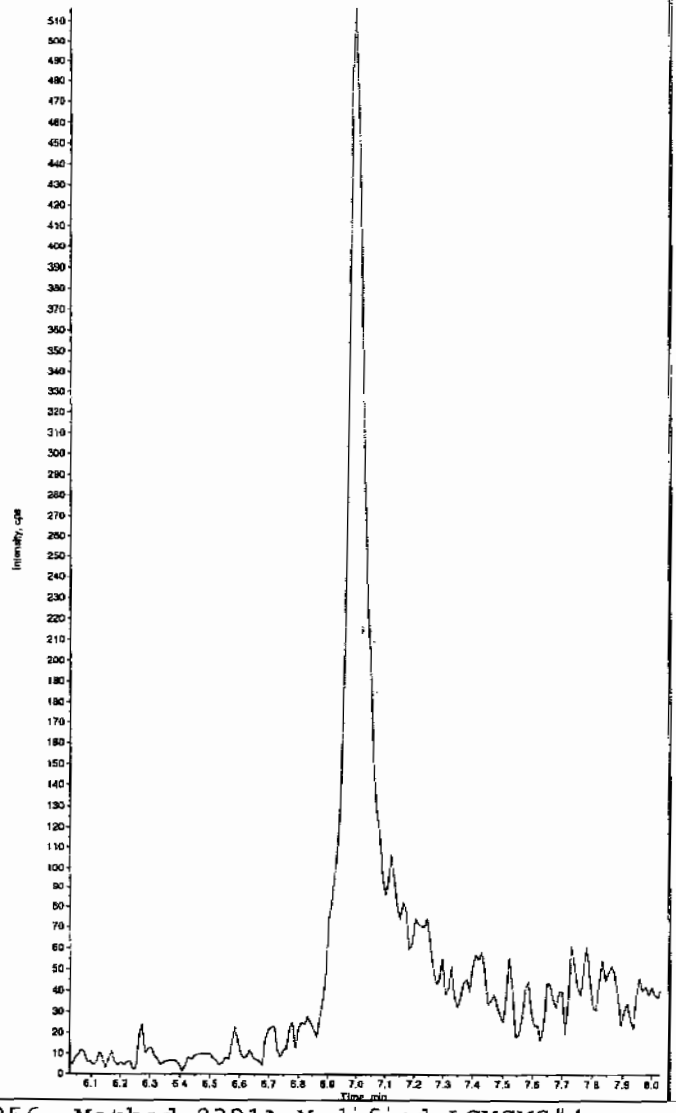

Sample Name: "245795001" Sample ID: "947089[2]LER" File: "EXS02170016.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:21:49 PM

Modified: Yes

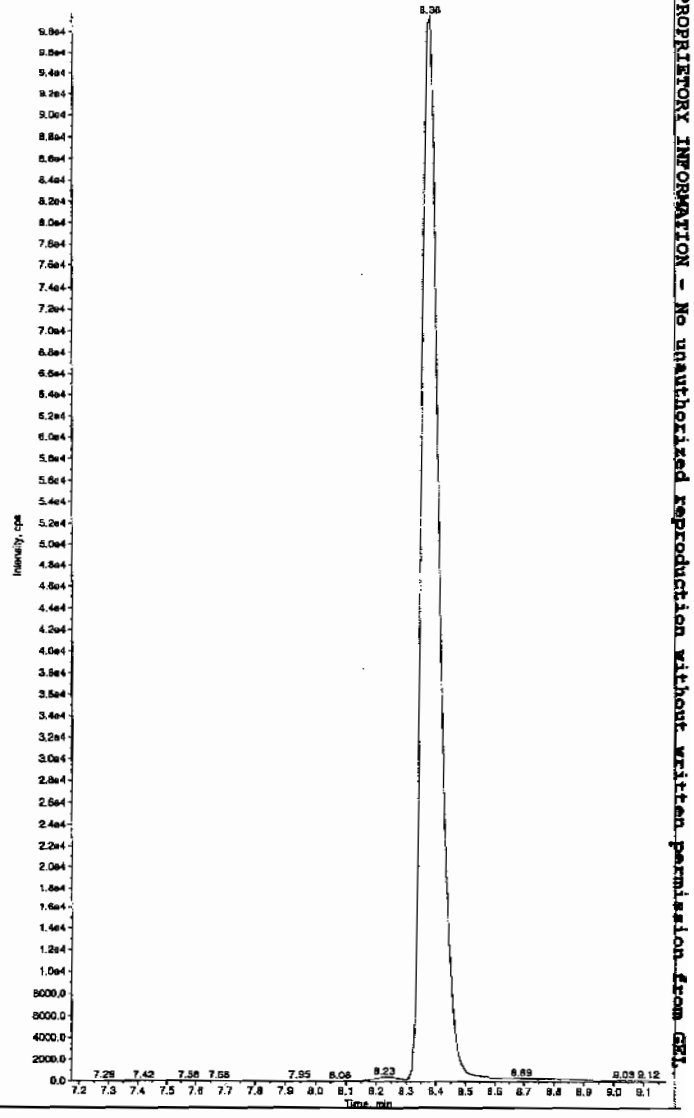

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795001" Sample ID: "947089|2|LER" File: "EXS02170016.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 290. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:21:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.87e+306 counts
Height: 1003293.457 cps
Start Time: 8.28 min
End Time: 8.70 min

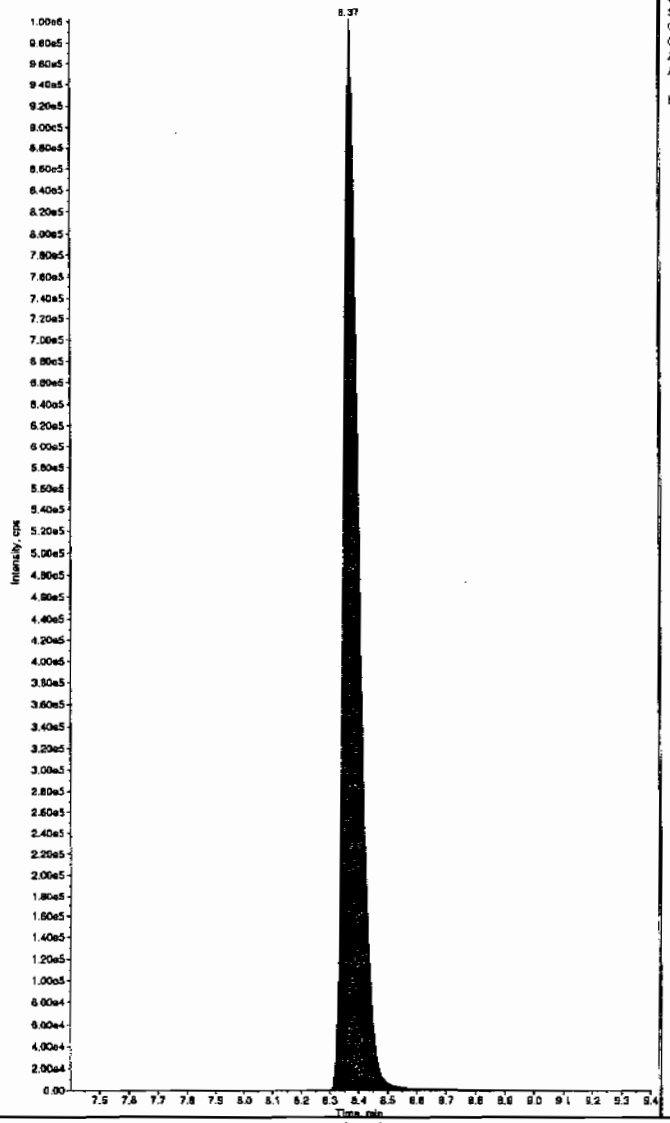

Sample Name: "245795001" Sample ID: "947089|2|LER" File: "EXS02170016.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:21:49 PM

Modified: No

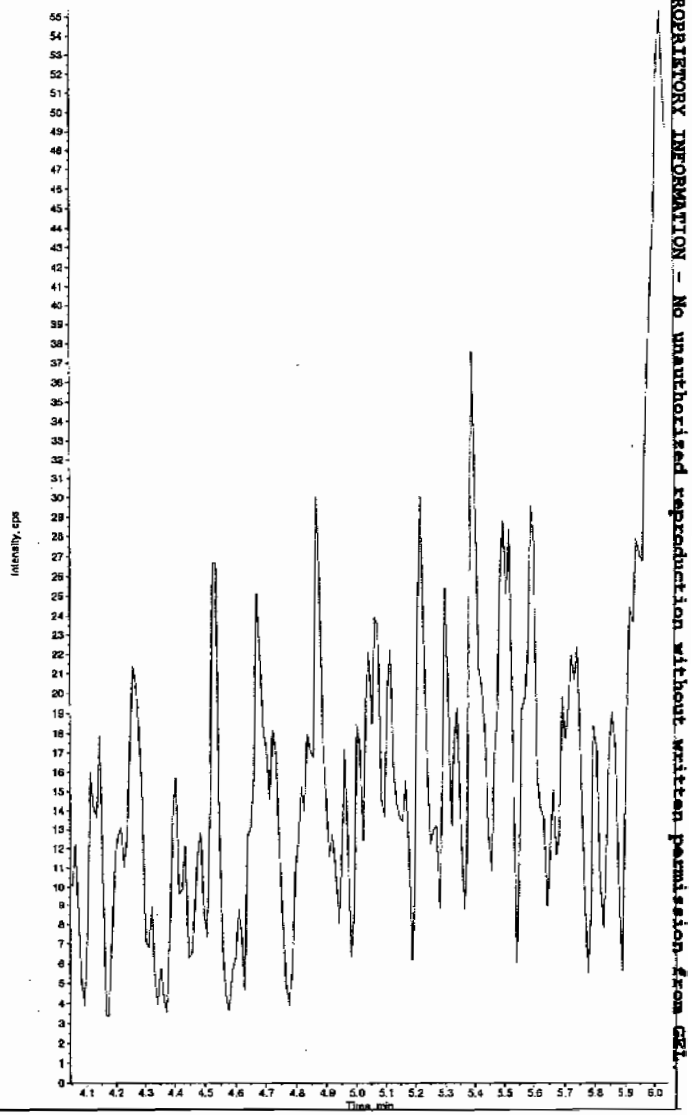

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795001" Sample ID: "947089|2|LER" File: "EXS02170016.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:21:49 PM

Modified: No

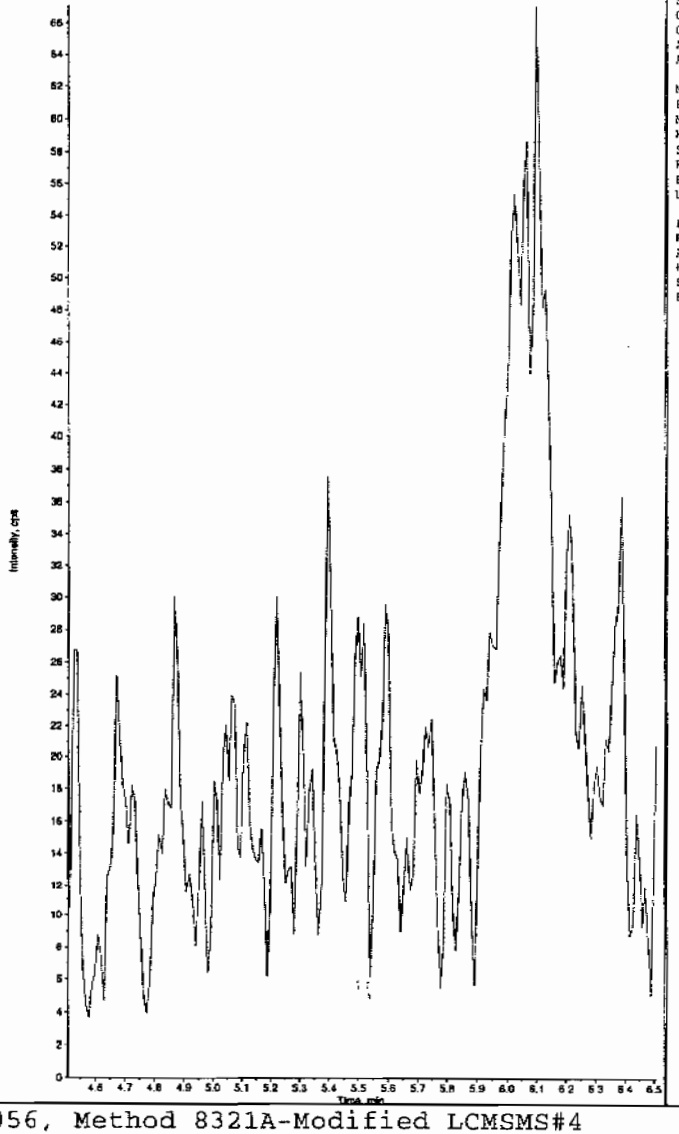

Sample Name: "245795001" Sample ID: "947089|2|LER" File: "EXS02170016.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.35 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:21:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.30e+004 counts
Height: 17564.000 cps
Start Time: 10.8 min
End Time: 11.1 min

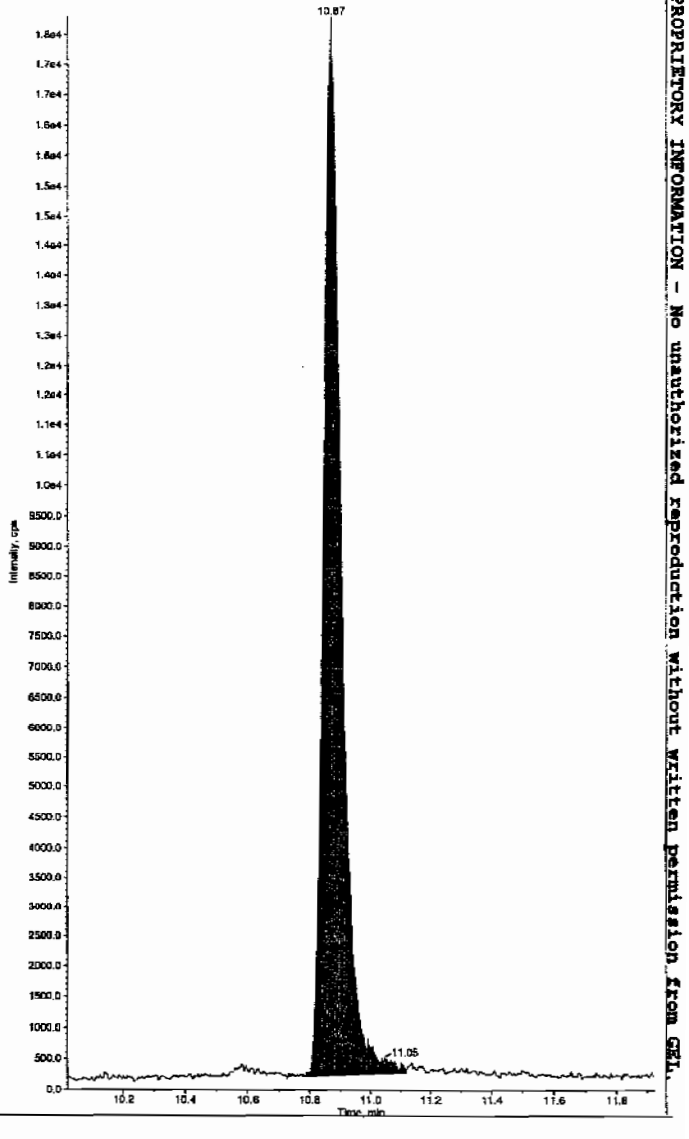

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7890

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795002

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216185a

Date Analyzed: 20-FEB-10 12:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216185a
Date: 20-Feb-2010
Time: 12:24:56
ID: 245795002 | LANL | 942089 | Solid | 2 |
Vial: 4:3,F

MM 2/21/10

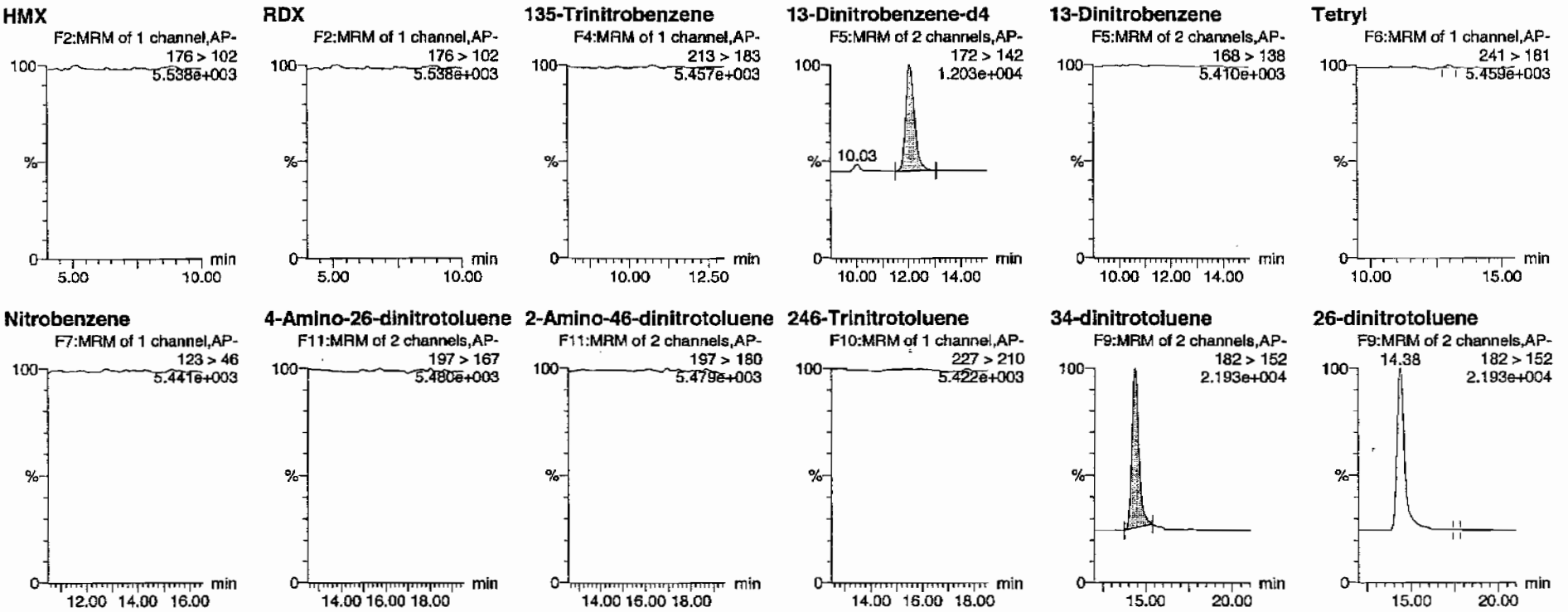

HM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

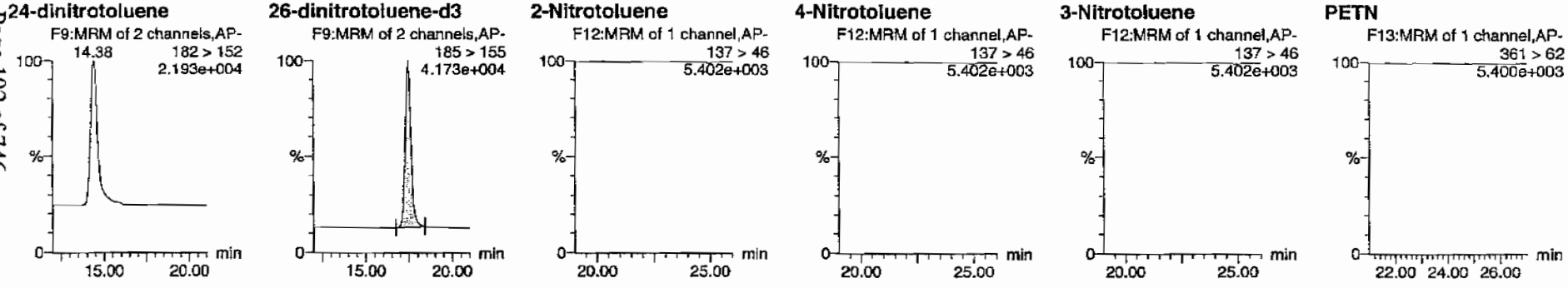

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245795002	HMX	176 > 102			2670.329									
245795002	RDX	176 > 102			2670.329									
245795002	135-Trinitrobenzene	213 > 183			2670.329									
245795002	13-Dinitrobenzene-d4	172 > 142	12.03	2670.329		2670.329	2670.329	bb			443.2205	88.6	-11.4	466.0
245795002	13-Dinitrobenzene	168 > 138			2670.329									
245795002	Tetryl	241 > 181			2670.329			MM-	21-Feb-10	11:59:40				
245795002	Nitrobenzene	123 > 46			2670.329									
245795002	4-Amino-26-dinitrotoluene	197 > 167			14398.652									
245795002	2-Amino-46-dinitrotoluene	197 > 180			14398.652									
245795002	246-Trinitrotoluene	227 > 210			14398.652									
245795002	34-dinitrotoluene	182 > 152	14.38	7561.379	14398.652	7561.379	262.572	bb			289.8147	115.9	15.9	675.3
245795002	26-dinitrotoluene	182 > 152			14398.652			MM-	21-Feb-10	11:54:26				
245795002	24-dinitrotoluene	182 > 152			14398.652									
245795002	26-dinitrotoluene-d3	185 > 155	17.42	14398.652		14398.652	14398.652	bb			413.5510	82.7	-17.3	815.2
245795002	2-Nitrotoluene	137 > 46			14398.652									
245795002	4-Nitrotoluene	137 > 46			14398.652									
245795002	3-Nitrotoluene	137 > 46			14398.652									
245795002	PETN	361 > 62			14398.652									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7890

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795002

Sample Amount 2

Moisture: 9.8

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170019.wiff

Date Analyzed: 17-FEB-10 14:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 2/19/10

Sample Name: "245795002" Sample ID: "947089|2|LER" File: "EXS02170019.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:08:54 PM

Modified: No

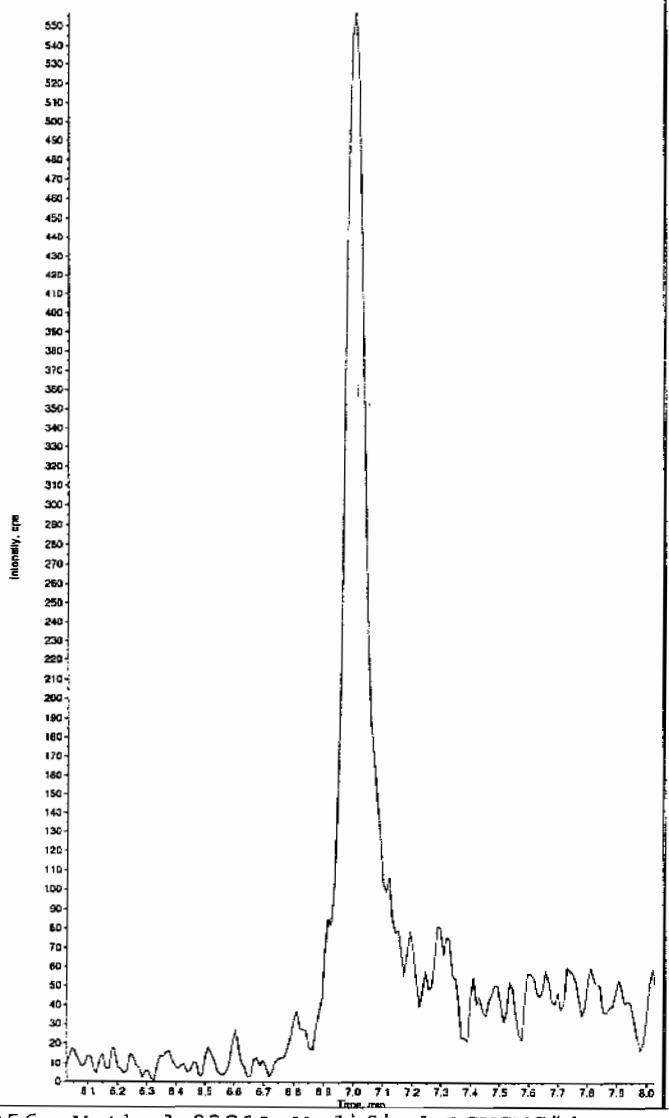

Sample Name: "245795002" Sample ID: "947089|2|LER" File: "EXS02170019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:08:54 PM

Modified: Yes

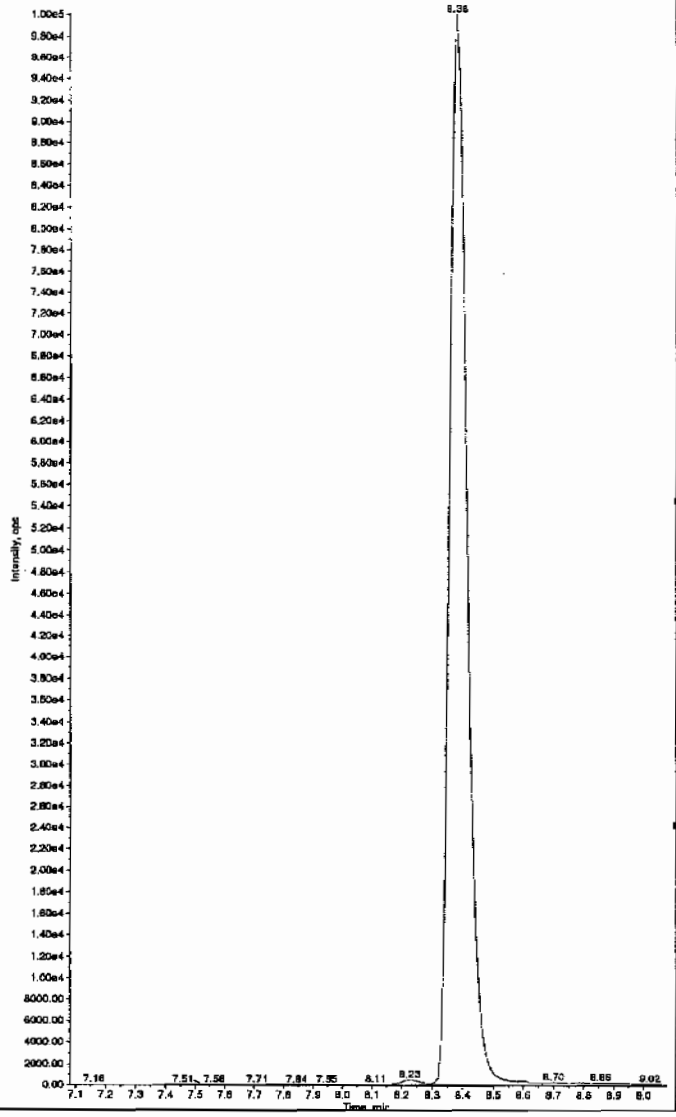

Hmw 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795002" Sample ID: "947089|2|LER" File: "EXS02170019.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 294. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:09:54 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.92e+006 counts
Height: 1051982.788 cps
Start Time: 8.28 min
End Time: 8.71 min

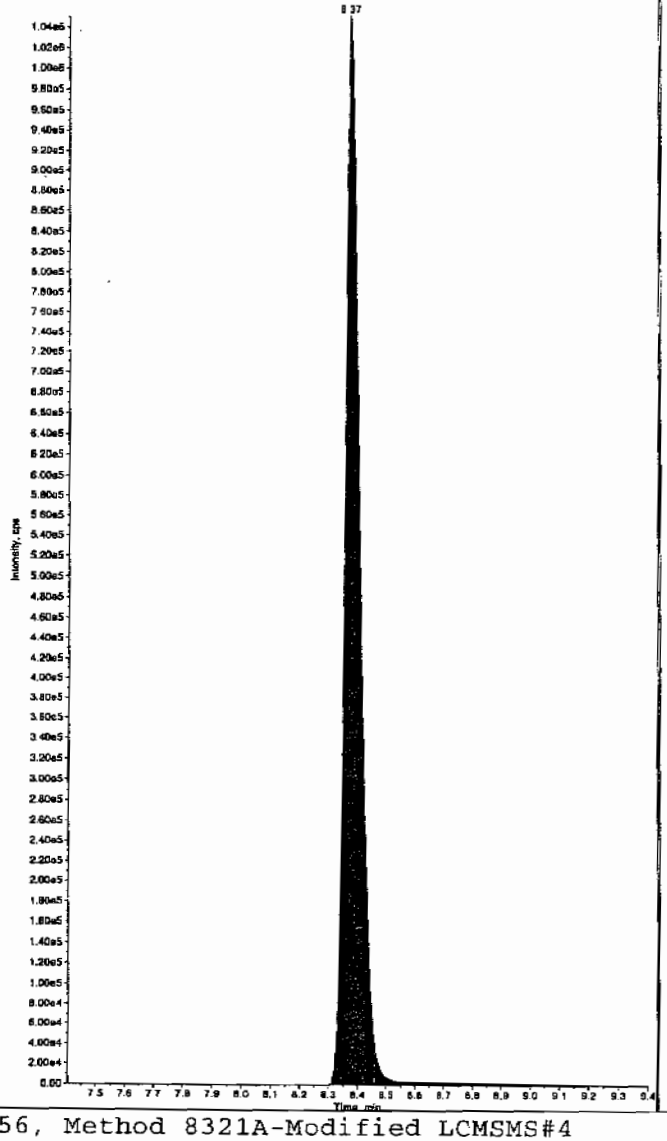

Sample Name: "245795002" Sample ID: "947089|2|LER" File: "EXS02170019.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:08:54 PM

Modified: No

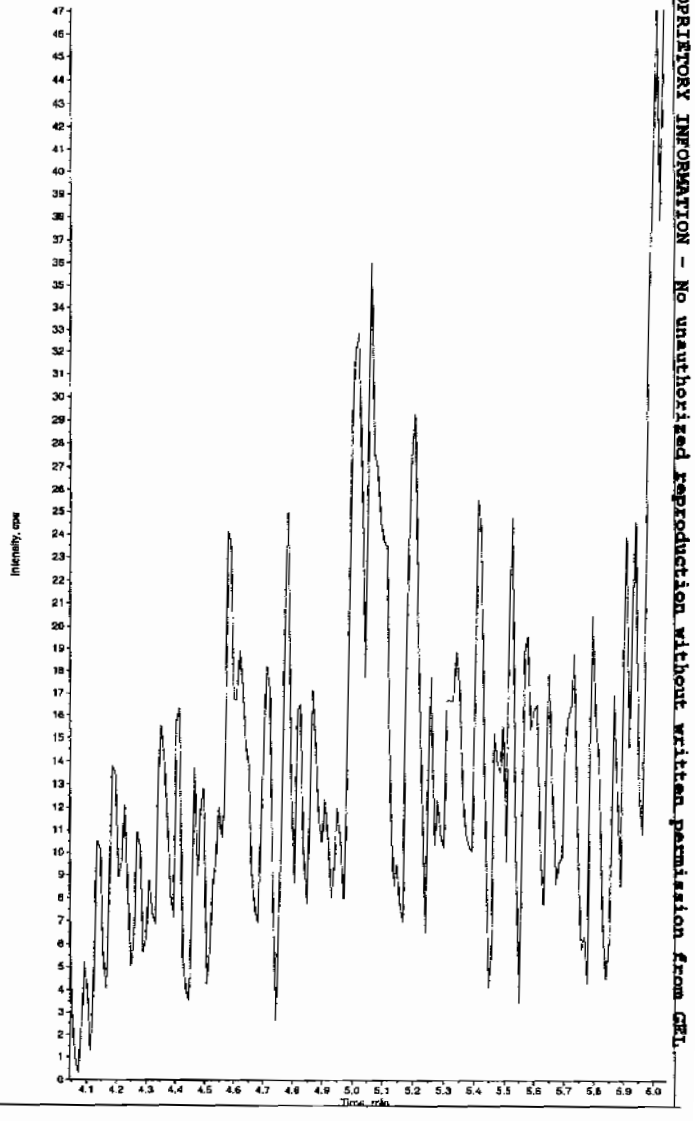

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795002" Sample ID: "947089|2|LER" File: "EXS02170019.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:08:54 PM

Modified: No

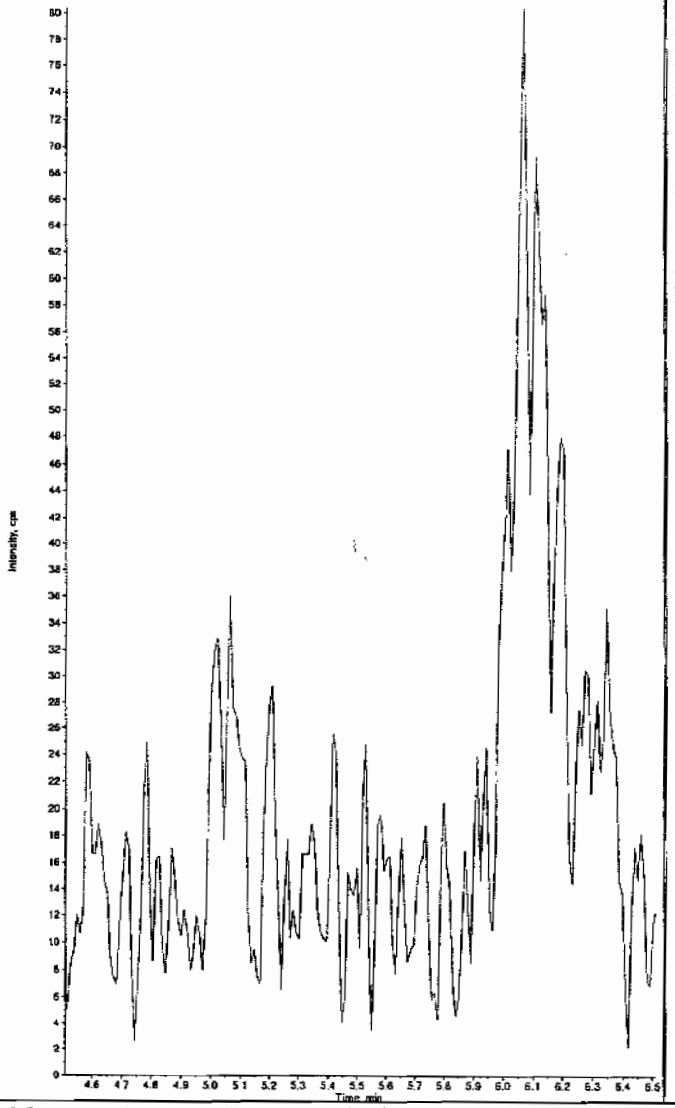

Sample Name: "245795002" Sample ID: "947089|2|LER" File: "EXS02170019.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.56 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:08:54 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 6.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.75e+004 counts
Height: 18690.472 cps
Start Time: 10.7 min
End Time: 11.1 min

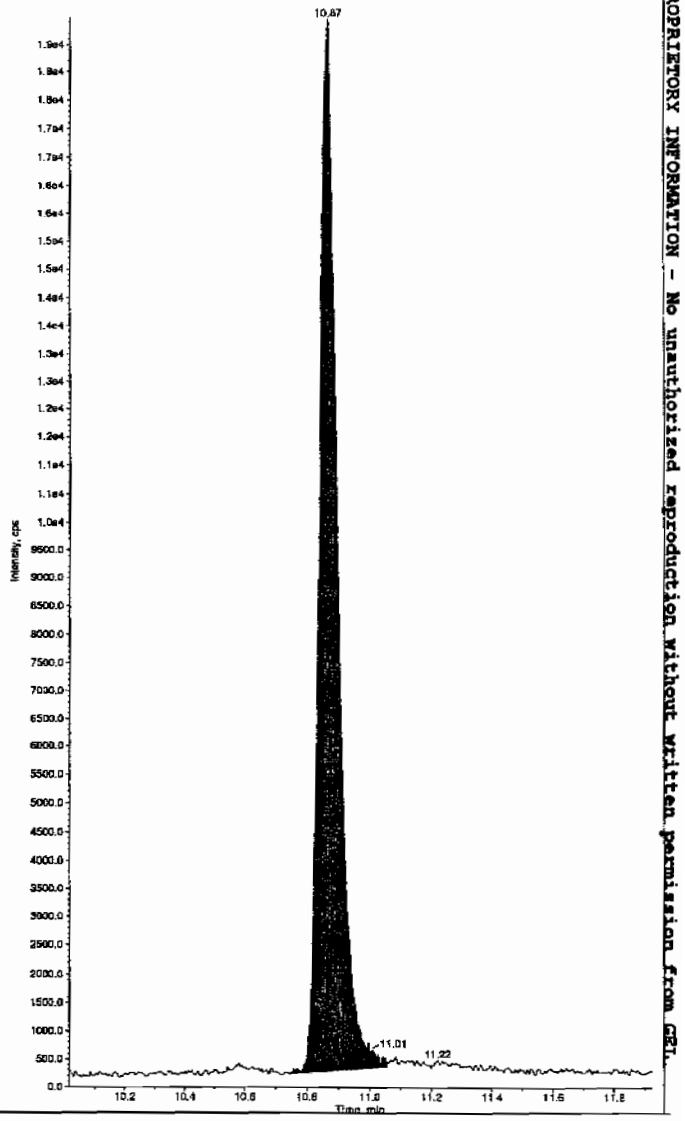

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7886

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795003

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216186a

Date Analyzed: 20-FEB-10 12:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216186a
Date: 20-Feb-2010
Time: 12:54:24
ID: 245795003
Vial: 4:4,A

| LANC | 947089 | Soil | 2

LAM 2/4/10

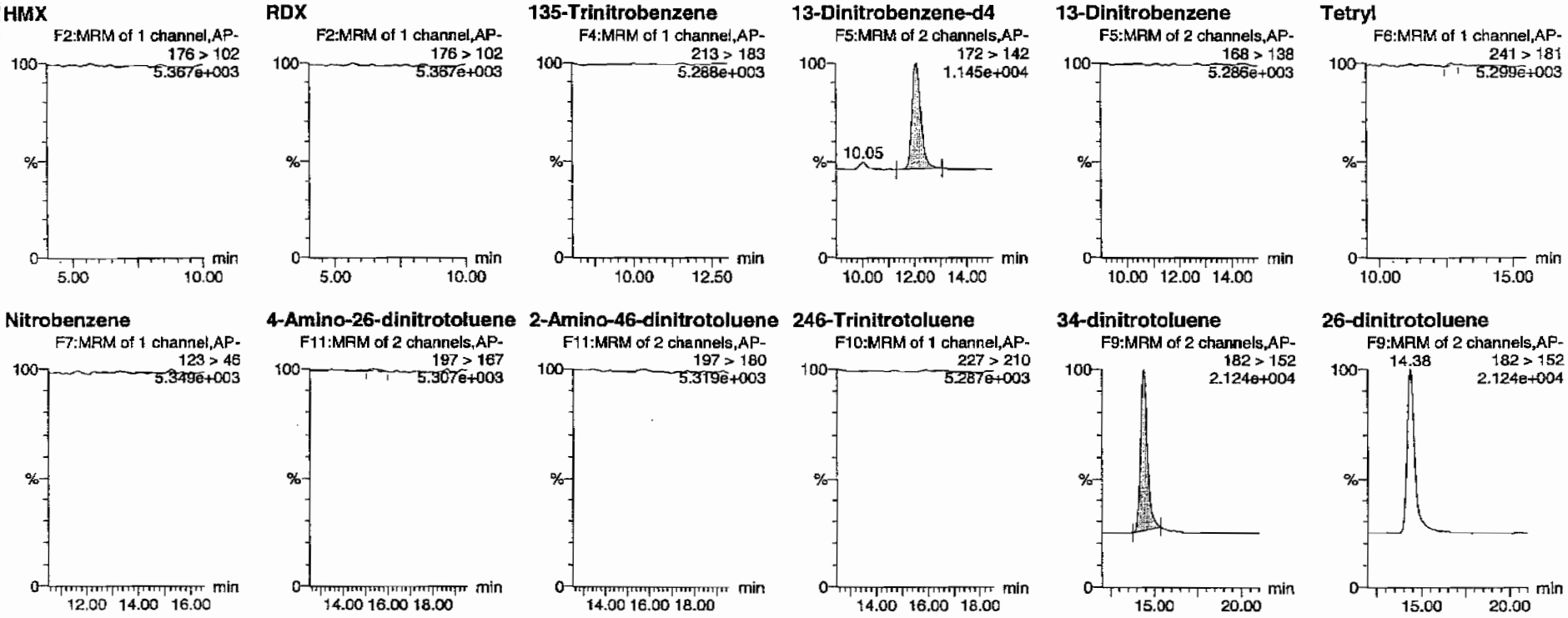

HMM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

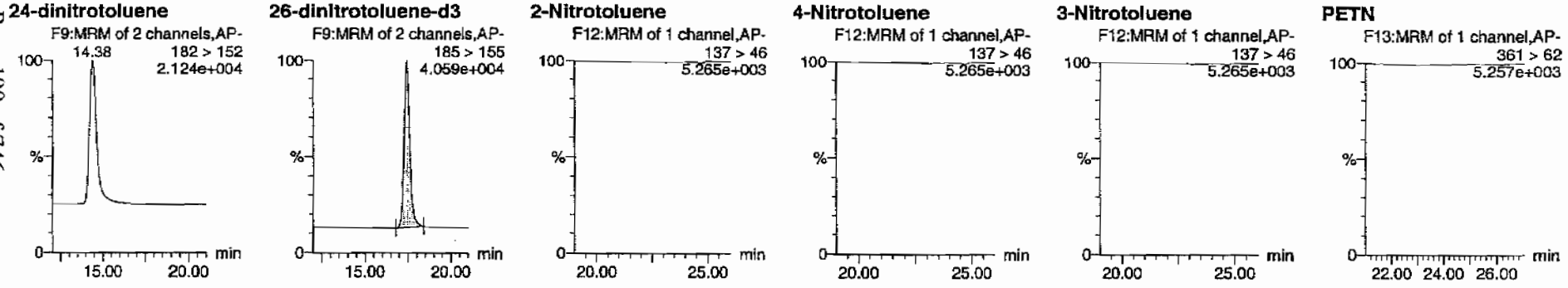

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245795003	HMX	176 > 102			2475.784									
245795003	RDX	176 > 102			2475.784									
245795003	135-Trinitrobenzene	213 > 183			2475.784									
245795003	13-Dinitrobenzene-d4	172 > 142	12.07	2475.784		2475.784	2475.784	bb			410.9300	82.2	-17.8	223.3
245795003	13-Dinitrobenzene	168 > 138			2475.784									
245795003	Tetryl	241 > 181			2475.784			MM-	21-Feb-10	11:59:44				
245795003	Nitrobenzene	123 > 46			2475.784									
245795003	4-Amino-26-dinitrotoluene	197 > 167			14096.821			MM-	21-Feb-10	11:57:27				
245795003	2-Amino-46-dinitrotoluene	197 > 180			14096.821									
245795003	246-Trinitrotoluene	227 > 210			14096.821									
245795003	34-dinitrotoluene	182 > 152	14.38	7350.501	14096.821	7350.501	260.715	bb			287.7644	115.1	15.1	559.2
245795003	26-dinitrotoluene	182 > 152			14096.821									
245795003	24-dinitrotoluene	182 > 152			14096.821									
245795003	26-dinitrotoluene-d3	185 > 155	17.42	14096.821		14096.821	14096.821	bb			404.8820	81.0	-19.0	1547.8
245795003	2-Nitrotoluene	137 > 46			14096.821									
245795003	4-Nitrotoluene	137 > 46			14096.821									
245795003	3-Nitrotoluene	137 > 46			14096.821									
245795003	PETN	361 > 62			14096.821									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7886

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795003

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170020.wiff

Date Analyzed: 17-FEB-10 14:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 2/19/10

Sample Name: "245795003" Sample ID: "947089|2|LER" File: "EXS02170020.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:24:36 PM

Modified: No

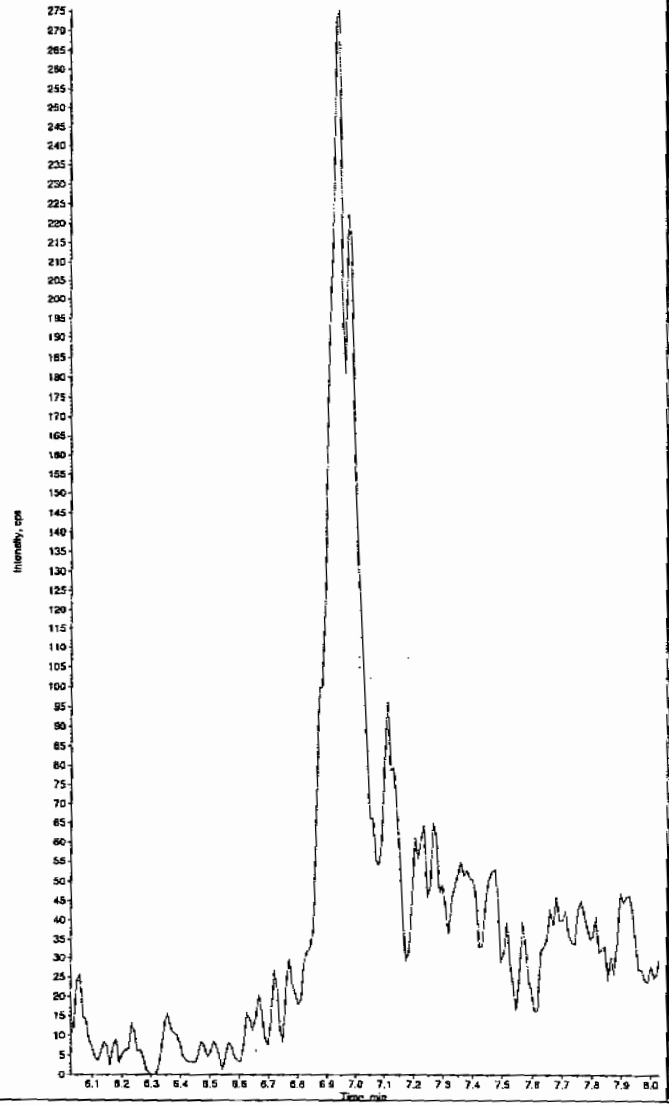

Sample Name: "245795003" Sample ID: "947089|2|LER" File: "EXS02170020.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:24:36 PM

Modified: Yes

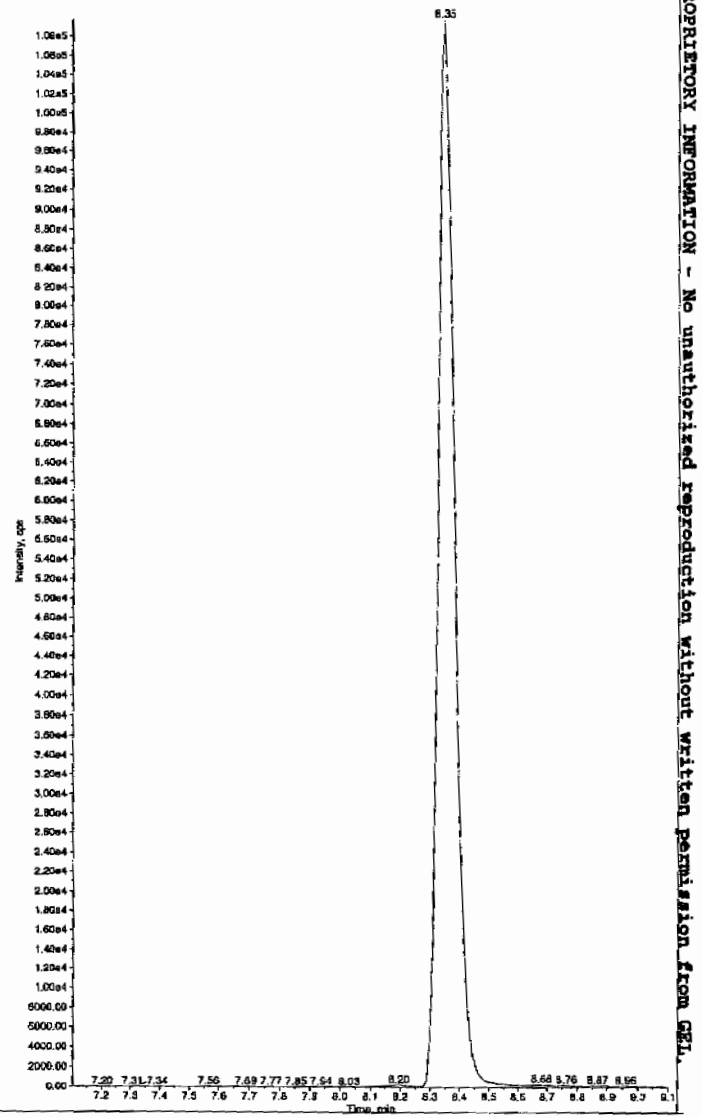

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795003" Sample ID: "947089|2|LER" File: "EXS02170020.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 289. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:24:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 3.85e+006 counts
Height: 999301.025 cps
Start Time: 5.26 min
End Time: 8.71 min

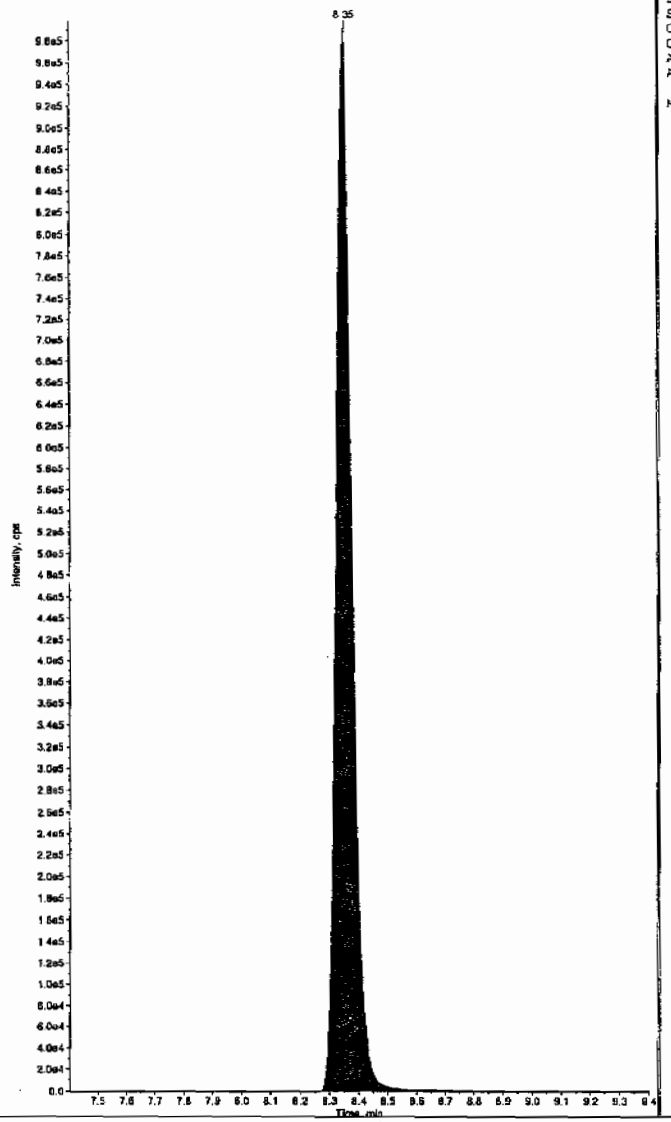

Sample Name: "245795003" Sample ID: "947089|2|LER" File: "EXS02170020.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:24:36 PM

Modified: No

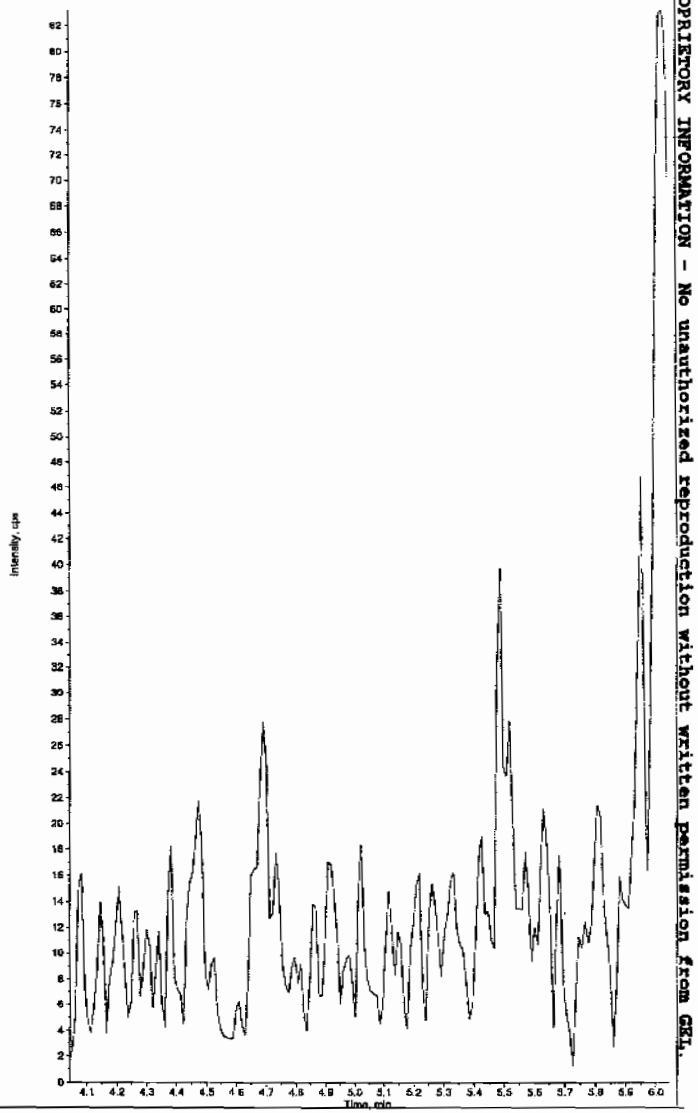

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795003" Sample ID: "947089|2|LER" File: "EXS02170020.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:24:36 PM

Modified: No

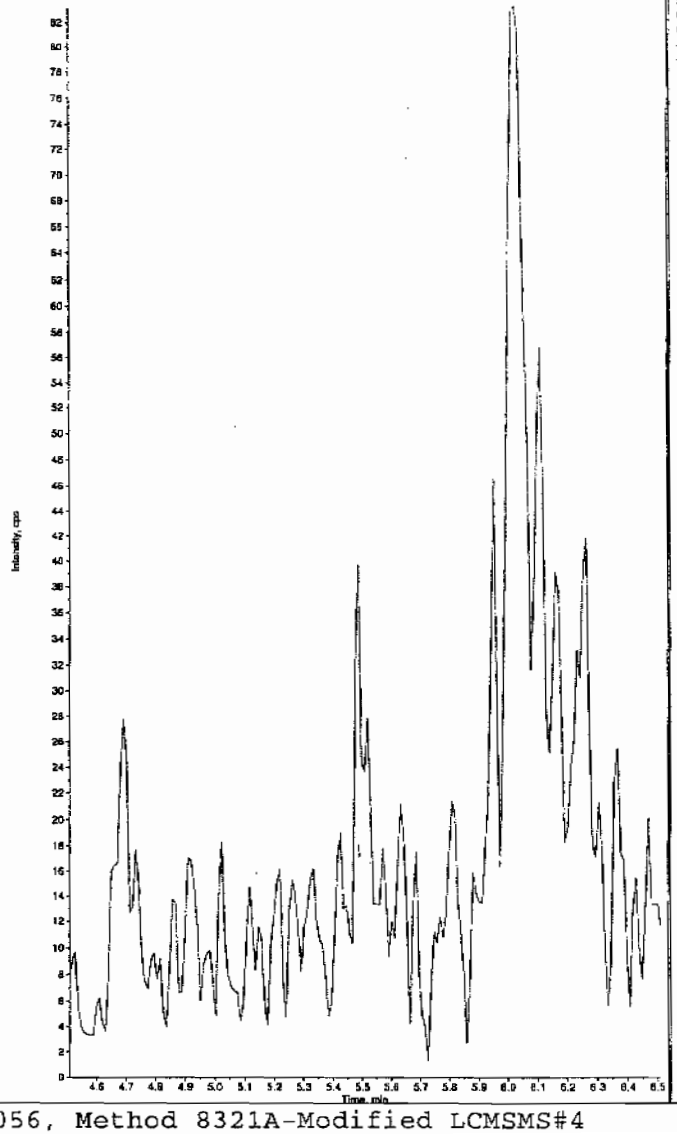

Sample Name: "245795003" Sample ID: "947089|2|LER" File: "EXS02170020.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:24:36 PM

Modified: No

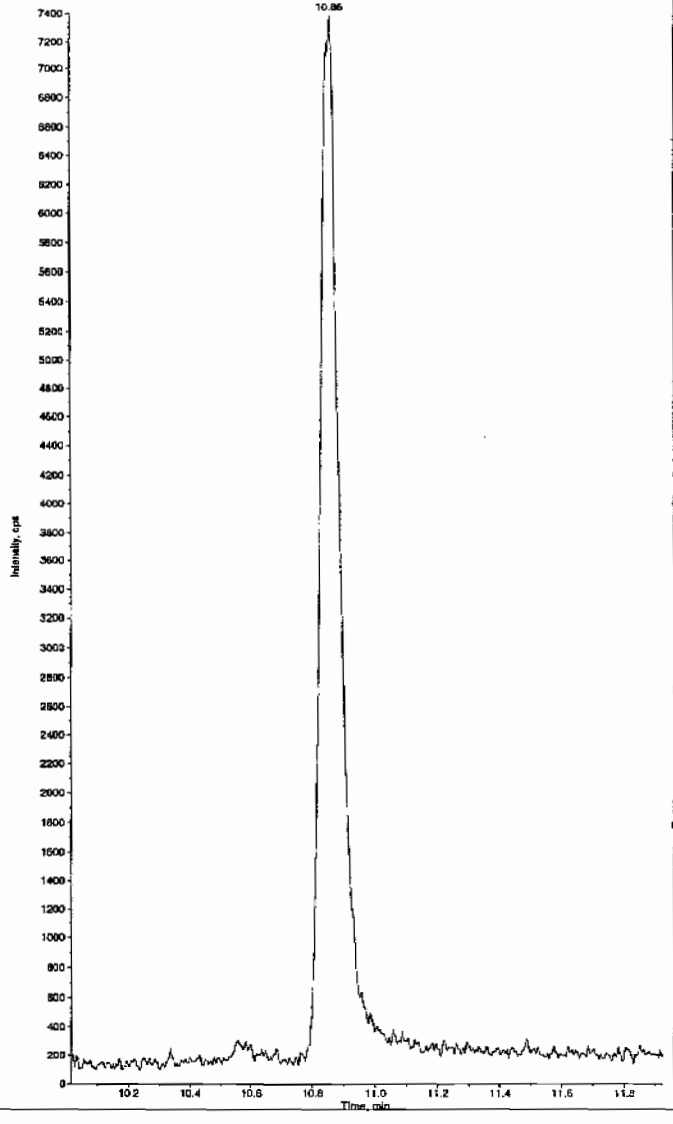

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7889

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795004

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216187a

Date Analyzed: 20-FEB-10 13:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	9530	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216187a
Date: 20-Feb-2010
Time: 13:23:54
ID: 245795004 | LANL | 947089 | Soil | 2 |
Vial: 4:4,B

MAT 4/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.007e+005

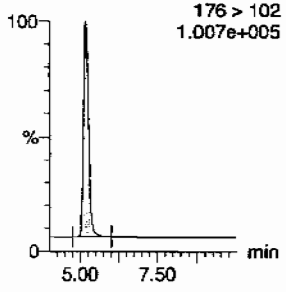

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
1.007e+005

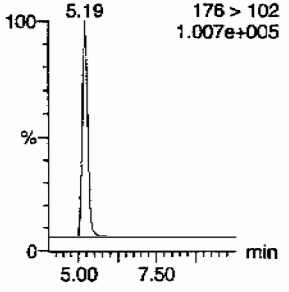

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.879e+003

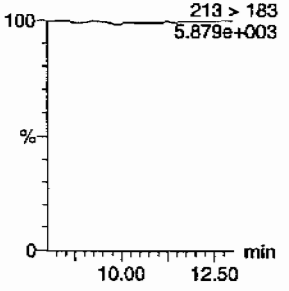

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.214e+004

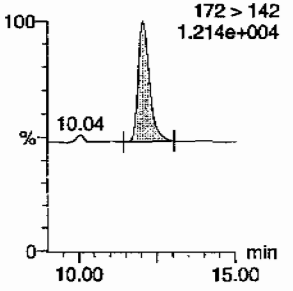

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.904e+003

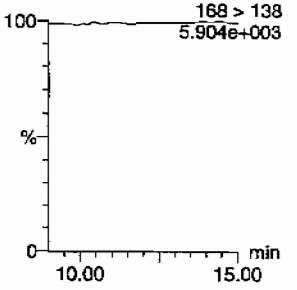

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.945e+003

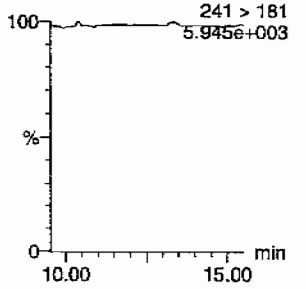

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.891e+003

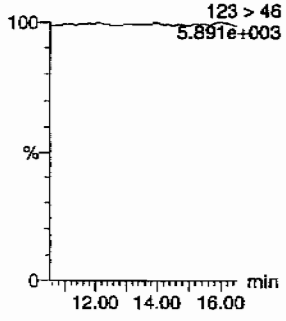

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.910e+003

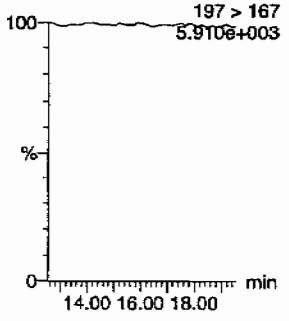

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.909e+003

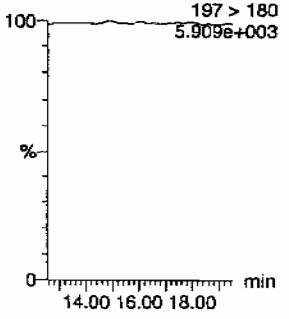

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.879e+003

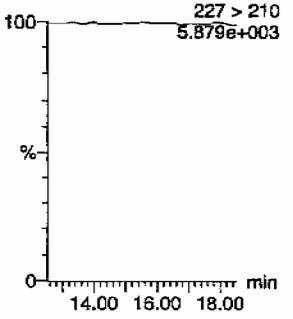

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.201e+004

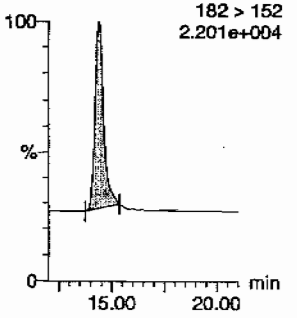

HMM 02/22/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.37
182 > 152
2.201e+004

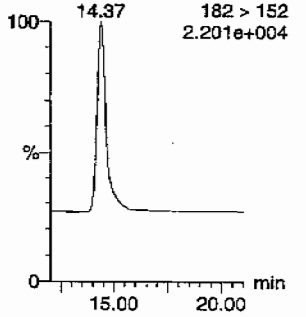

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

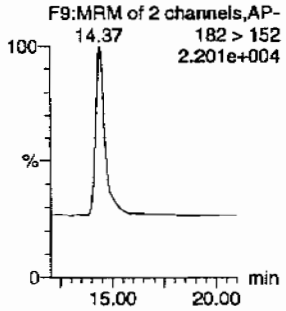

26-dinitrotoluene-d3

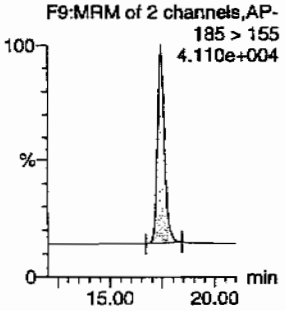

2-Nitrotoluene

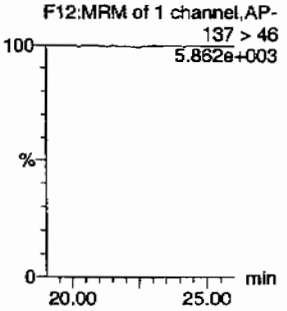

4-Nitrotoluene

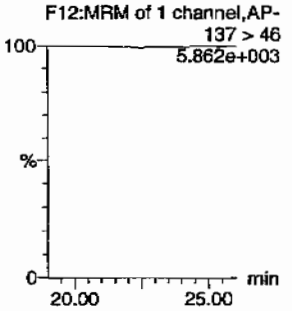

3-Nitrotoluene

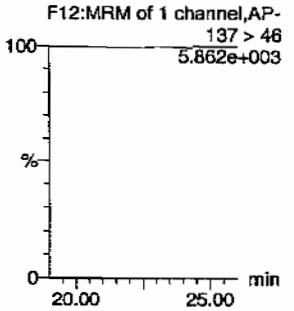

PETN

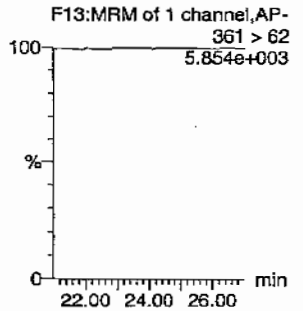

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245795004	HMX	176 > 102	5.19	19378.684	2636.120	19378.684	3675.607	bb			952.6309			6225.1
245795004	RDX	176 > 102			2636.120									
245795004	135-Trinitrobenzene	213 > 183			2636.120									
245795004	13-Dinitrobenzene-d4	172 > 142	12.03	2636.120		2636.120	2636.120	bb			437.5425	87.5	-12.5	200.7
245795004	13-Dinitrobenzene	168 > 138			2636.120									
245795004	Tetryl	241 > 181			2636.120									
245795004	Nitrobenzene	123 > 46			2636.120									
245795004	4-Amino-26-dinitrotoluene	197 > 167			14026.380									
245795004	2-Amino-46-dinitrotoluene	197 > 180			14026.380									
245795004	246-Trinitrotoluene	227 > 210			14026.380									
245795004	34-dinitrotoluene	182 > 152	14.37	7586.093	14026.380	7586.093	270.422	bb			298.4791	119.4	19.4	333.1
245795004	26-dinitrotoluene	182 > 152			14026.380									
245795004	24-dinitrotoluene	182 > 152			14026.380									
245795004	26-dinitrotoluene-d3	185 > 155	17.41	14026.380		14026.380	14026.380	bb			402.8588	80.6	-19.4	1773.0
245795004	2-Nitrotoluene	137 > 46			14026.380									
245795004	4-Nitrotoluene	137 > 46			14026.380									
245795004	3-Nitrotoluene	137 > 46			14026.380									
245795004	PETN	361 > 62			14026.380									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7889

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795004

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170021.wiff

Date Analyzed: 17-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 2/19/10

Sample Name: "245795004" Sample ID: "947089|2|LER" File: "EXS02170021.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 22.5 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:40:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.94 min
Area: 3.81e+004 counts
Height: 8304.358 cps
Start Time: 5.33 min
End Time: 7.25 min

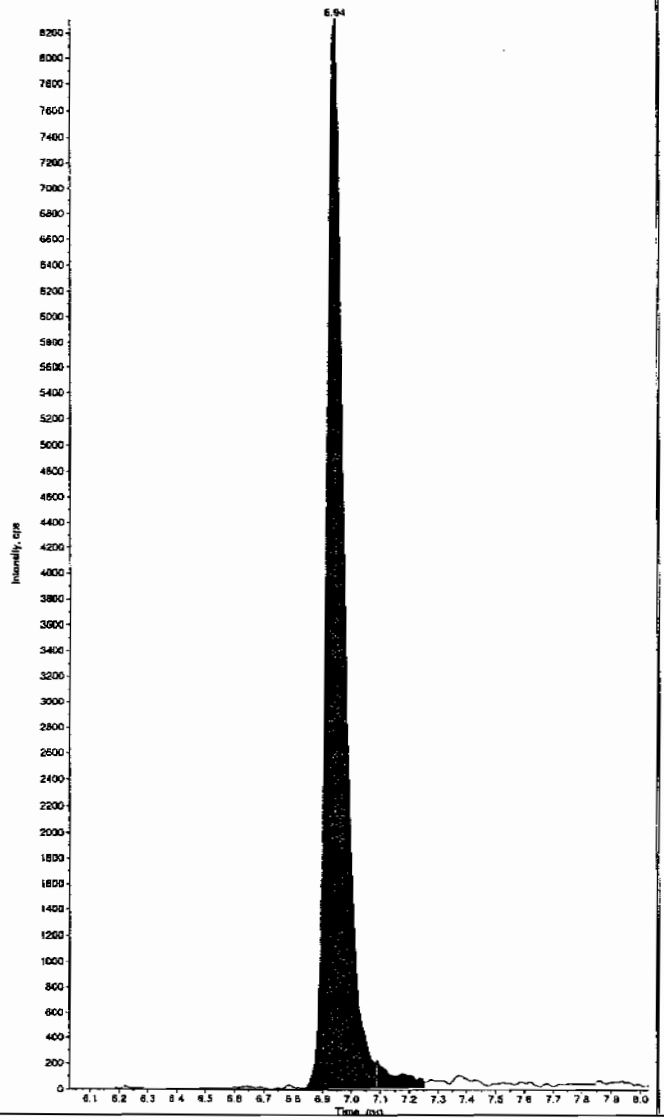

Sample Name: "245795004" Sample ID: "947089|2|LER" File: "EXS02170021.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:40:17 PM

Modified: Yes

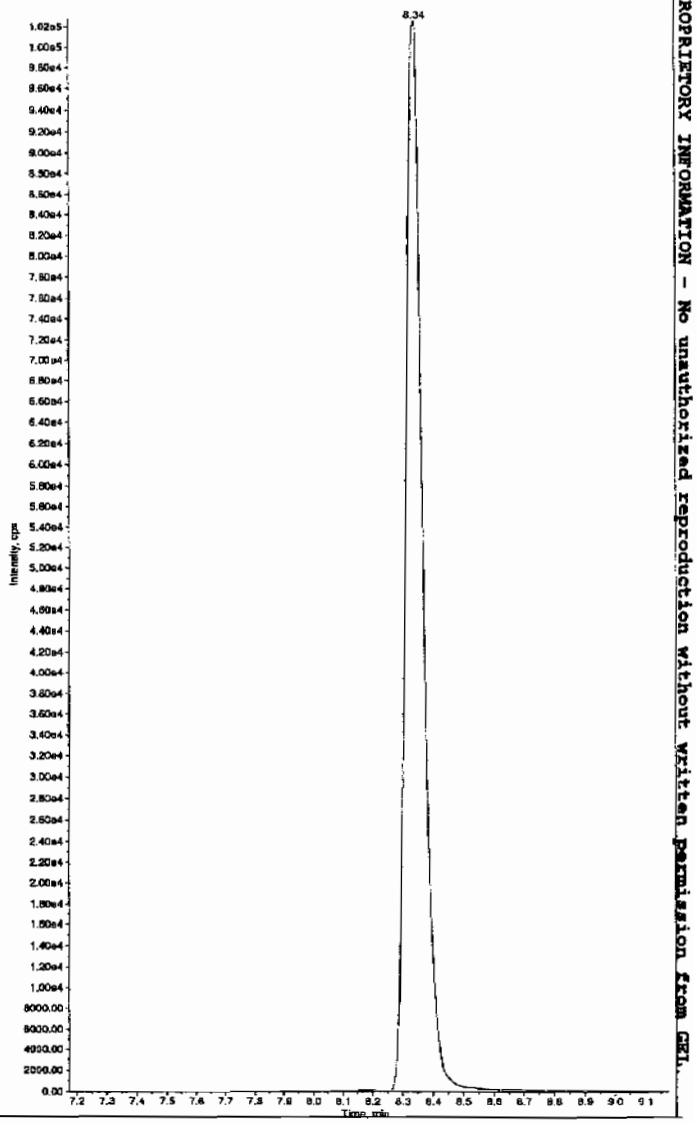

HNM 02/19/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795004" Sample ID: "947089|2|LER" File: "EXS02170021.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 291. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:40:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 3.87e+006 counts
Height: 1026135.010 cps
Start Time: 8.24 min
End Time: 8.72 min

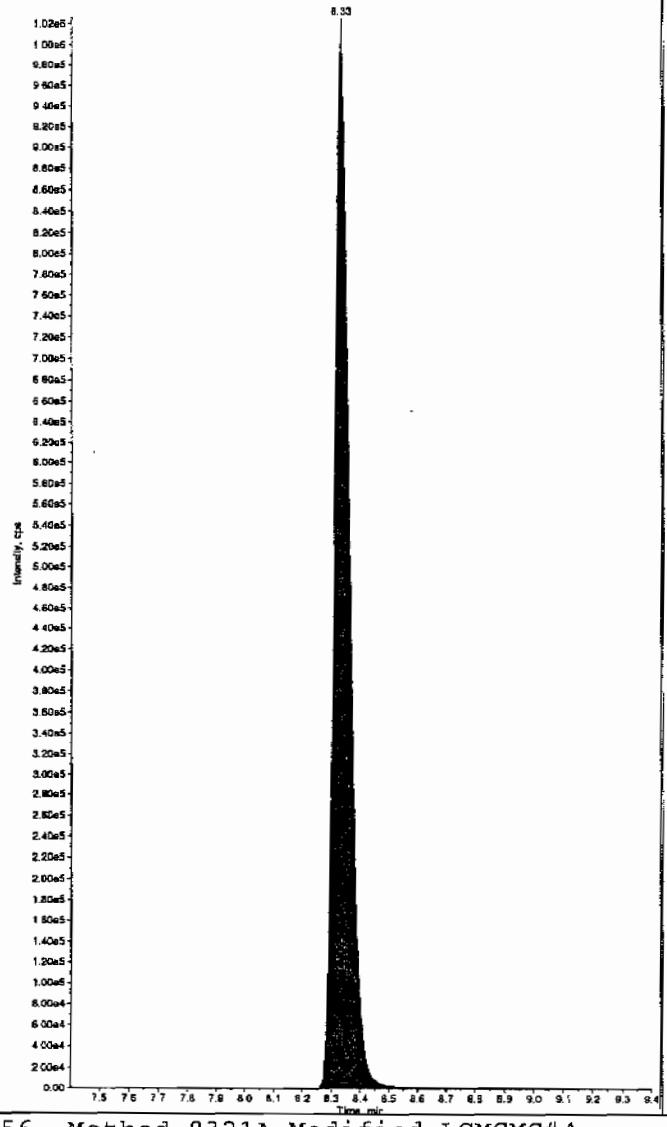

Sample Name: "245795004" Sample ID: "947089|2|LER" File: "EXS02170021.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:40:17 PM

Modified: No

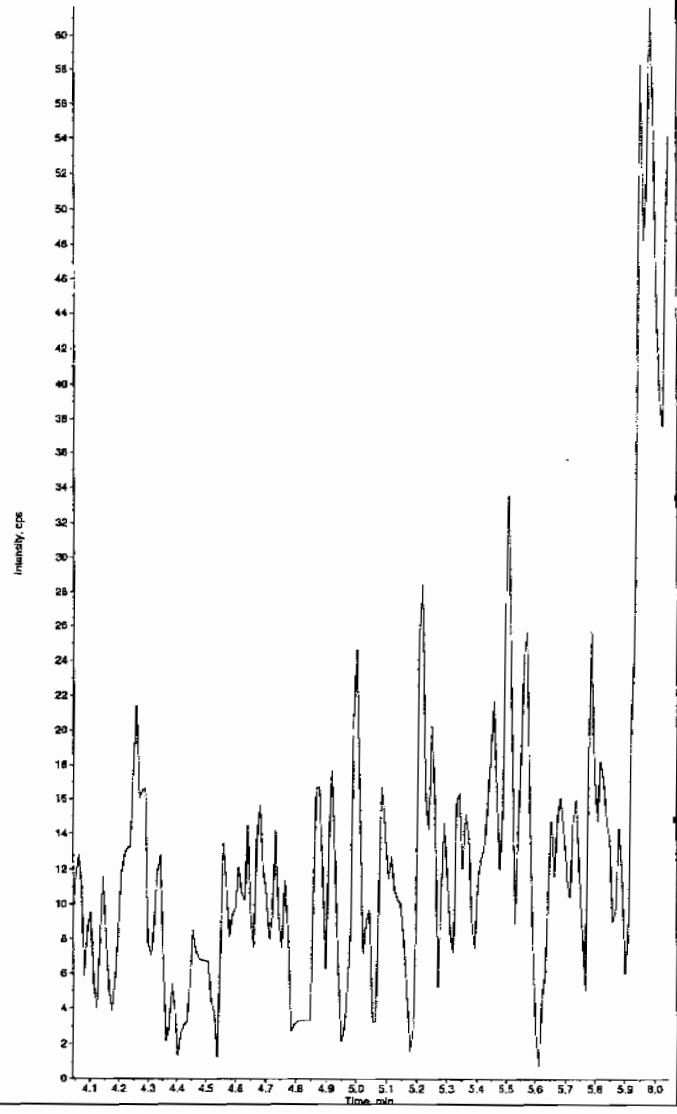

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795004" Sample ID: "947089|2|LER" File: "EXS02170021.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:40:17 PM

Modified: No

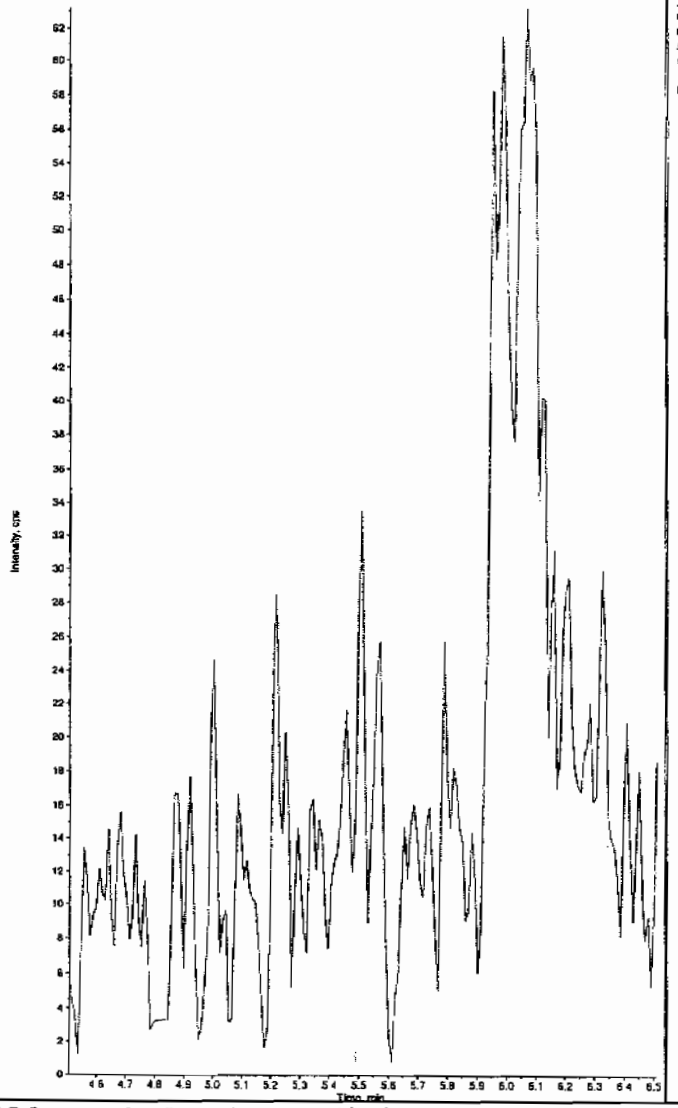

Sample Name: "245795004" Sample ID: "947089|2|LER" File: "EXS02170021.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:40:17 PM

Modified: No

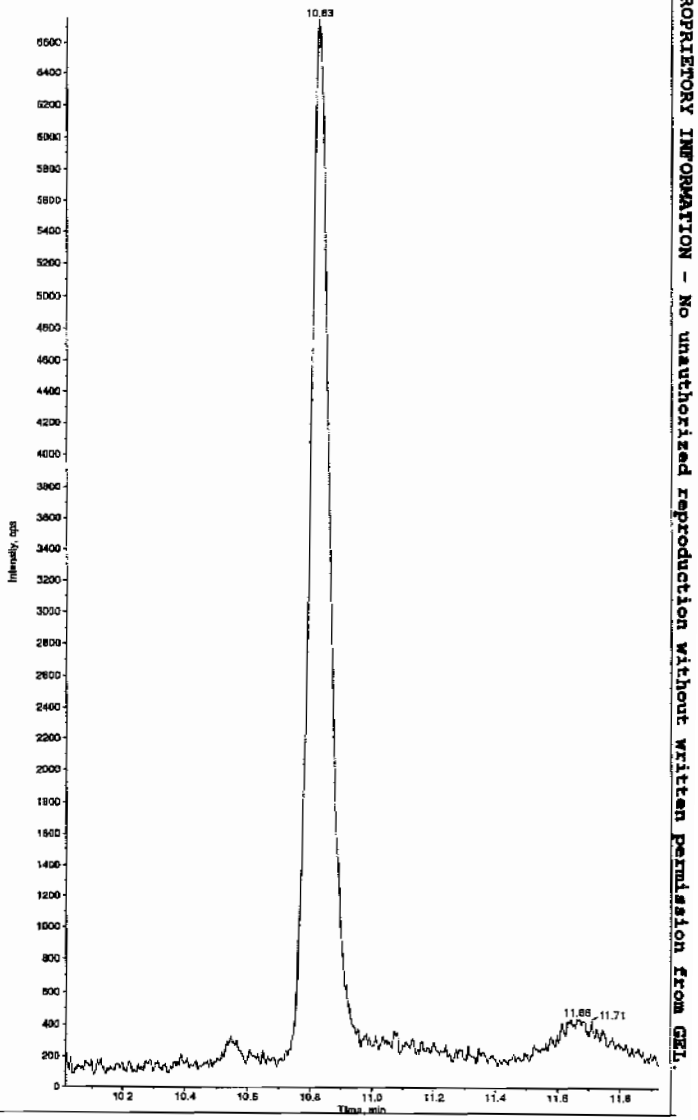

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7885

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795005

Sample Amount 2

Moisture: 33.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216188a

Date Analyzed: 20-FEB-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qid, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216188a
Date: 20-Feb-2010
Time: 13:53:24
ID: 245795005 | LANL | 947089 | Solids | 2
Vial: 4:4,C

2/24/10

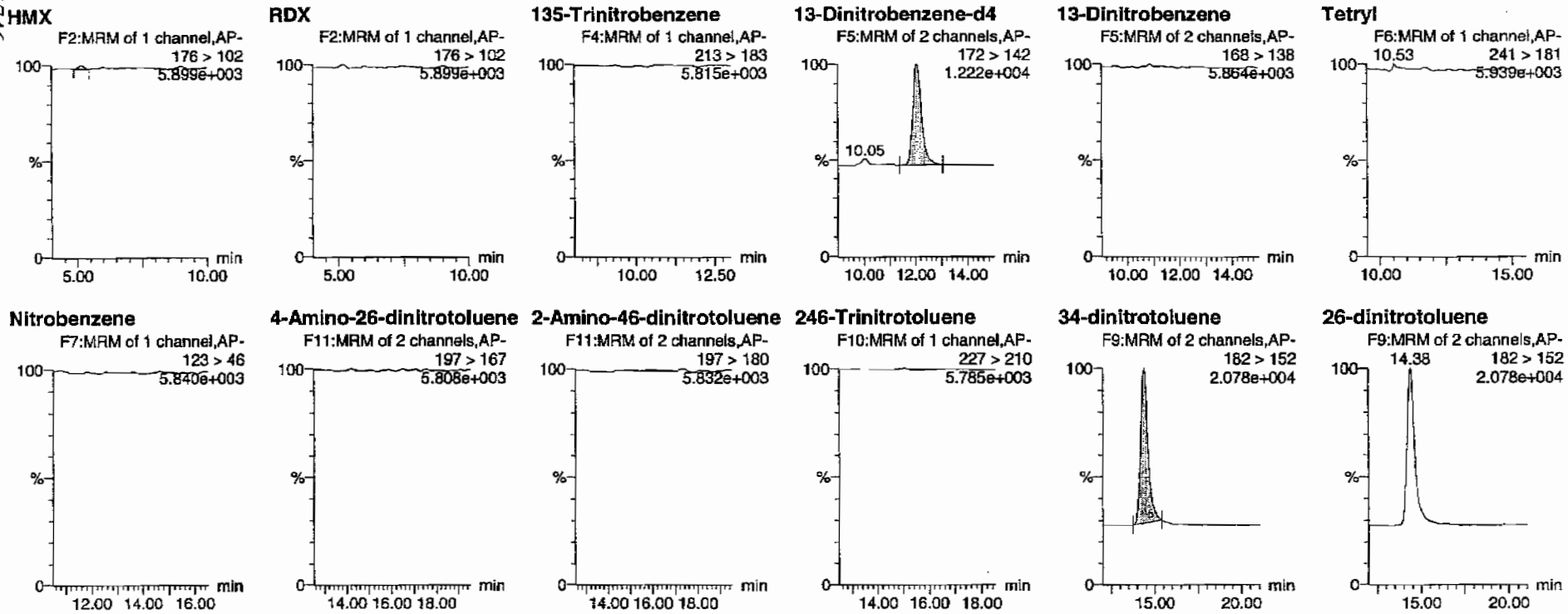

HMM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

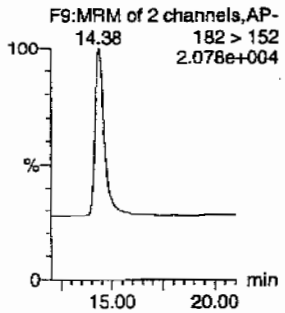

26-dinitrotoluene-d3

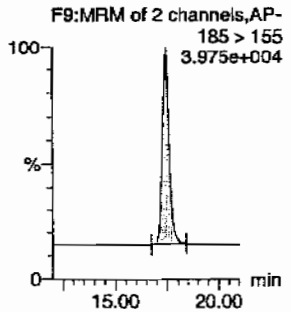

2-Nitrotoluene

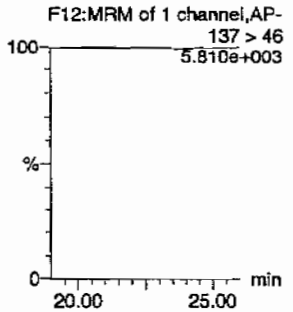

4-Nitrotoluene

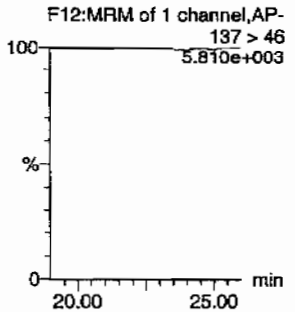

3-Nitrotoluene

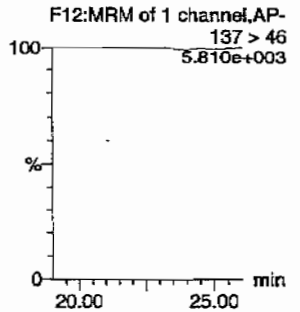

PETN

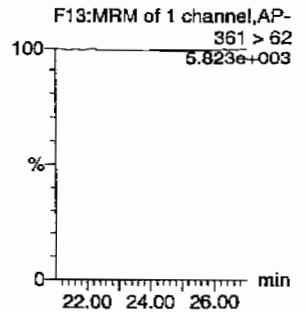

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245795005	HMX	176 > 102	5.19	31.932	2575.506	31.932	6.199	bb			1.6067			6.2
245795005	RDX	176 > 102			2575.506									
245795005	135-Trinitrobenzene	213 > 183			2575.506									
245795005	13-Dinitrobenzene-d4	172 > 142	12.03	2575.506		2575.506	2575.506	bb			427.4818	85.5	-14.5	359.7
245795005	13-Dinitrobenzene	168 > 138			2575.506									
245795005	Tetryl	241 > 181			2575.506									
245795005	Nitrobenzene	123 > 46			2575.506									
245795005	4-Amino-26-dinitrotoluene	197 > 167			13352.633									
245795005	2-Amino-46-dinitrotoluene	197 > 180			13352.633									
245795005	246-Trinitrotoluene	227 > 210			13352.633									
245795005	34-dinitrotoluene	182 > 152	14.38	7126.170	13352.633	7126.170	266.845	bb			294.5307	117.8	17.8	505.7
245795005	26-dinitrotoluene	182 > 152			13352.633									
245795005	24-dinitrotoluene	182 > 152			13352.633									
245795005	26-dinitrotoluene-d3	185 > 155	17.42	13352.633		13352.633	13352.633	bb			383.5078	76.7	-23.3	2147.6
245795005	2-Nitrotoluene	137 > 46			13352.633									
245795005	4-Nitrotoluene	137 > 46			13352.633									
245795005	3-Nitrotoluene	137 > 46			13352.633									
245795005	PETN	361 > 62			13352.633									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7885

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795005

Sample Amount 2

Moisture: 33.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170022.wiff

Date Analyzed: 17-FEB-10 14:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/19/10

Sample Name: "245795005" Sample ID: "947089|2|LER" File: "EXS02170022.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:56:00 PM

Modified: No

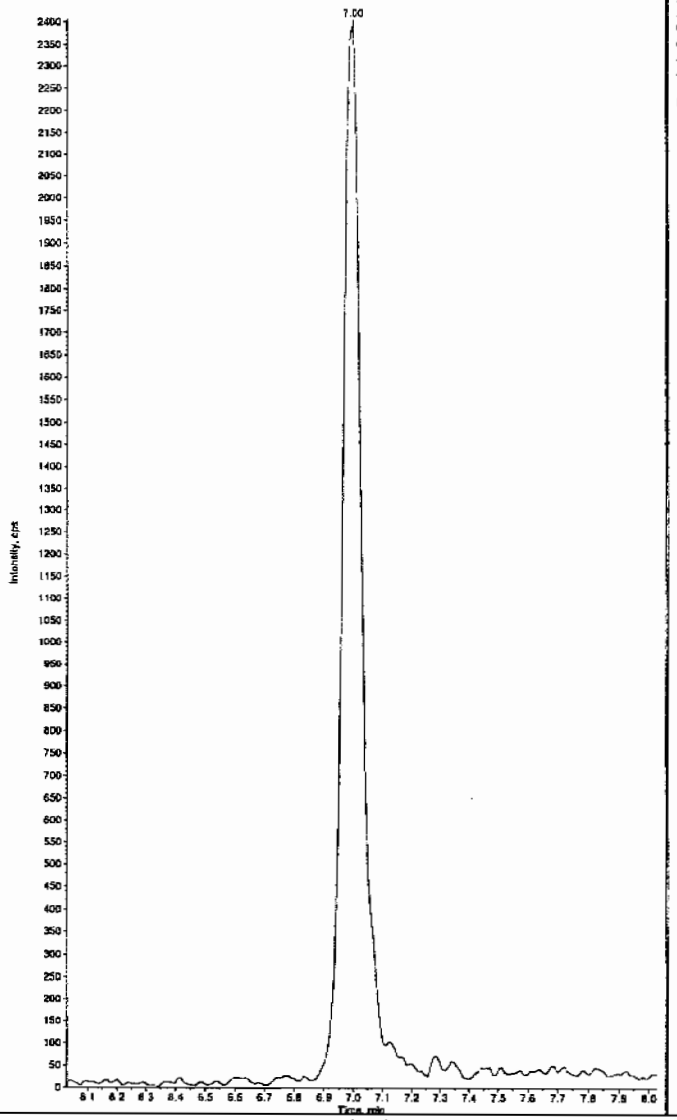

Sample Name: "245795005" Sample ID: "947089|2|LER" File: "EXS02170022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:56:00 PM

Modified: Yes

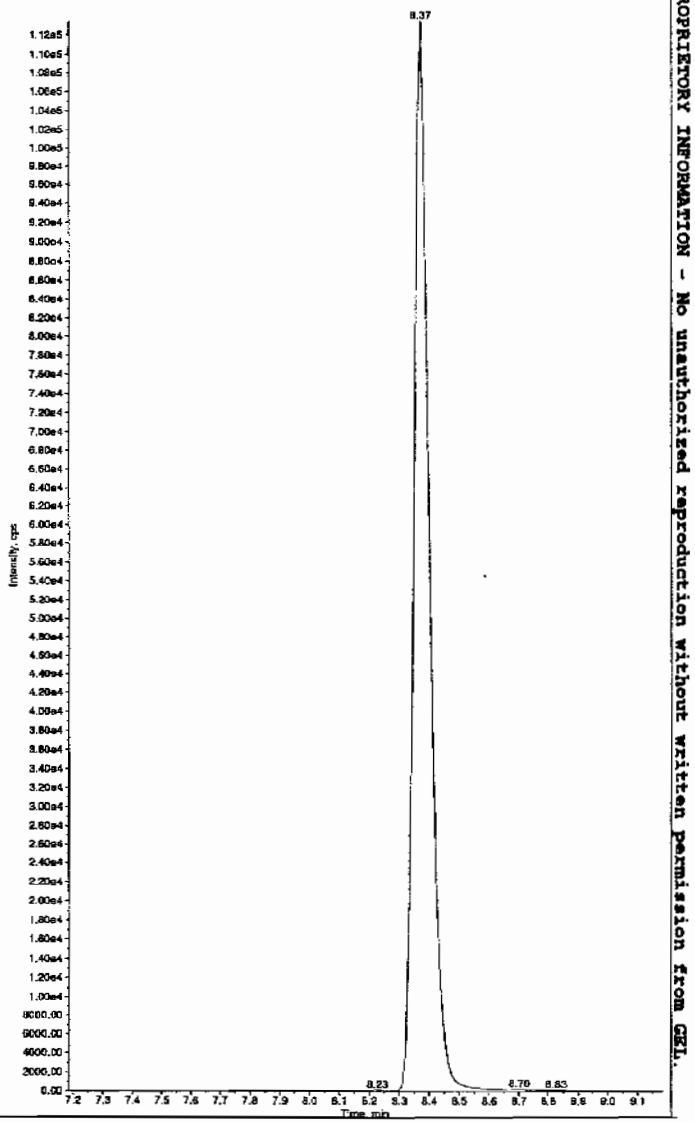

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795005" Sample ID: "947089|2|LER" File: "EXS02170022.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 293. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:56:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IDA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.90e+006 counts
Height: 1052857.544 cps
Start Time: 8.27 min
End Time: 8.72 min

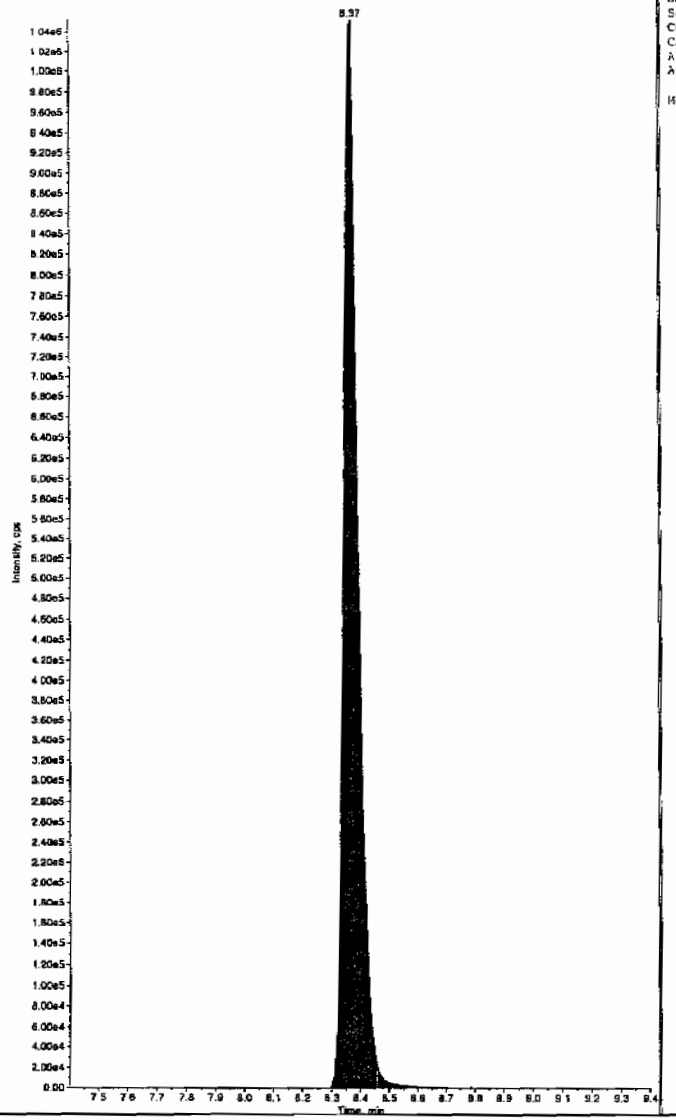

Sample Name: "245795005" Sample ID: "947089|2|LER" File: "EXS02170022.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:56:00 PM

Modified: No

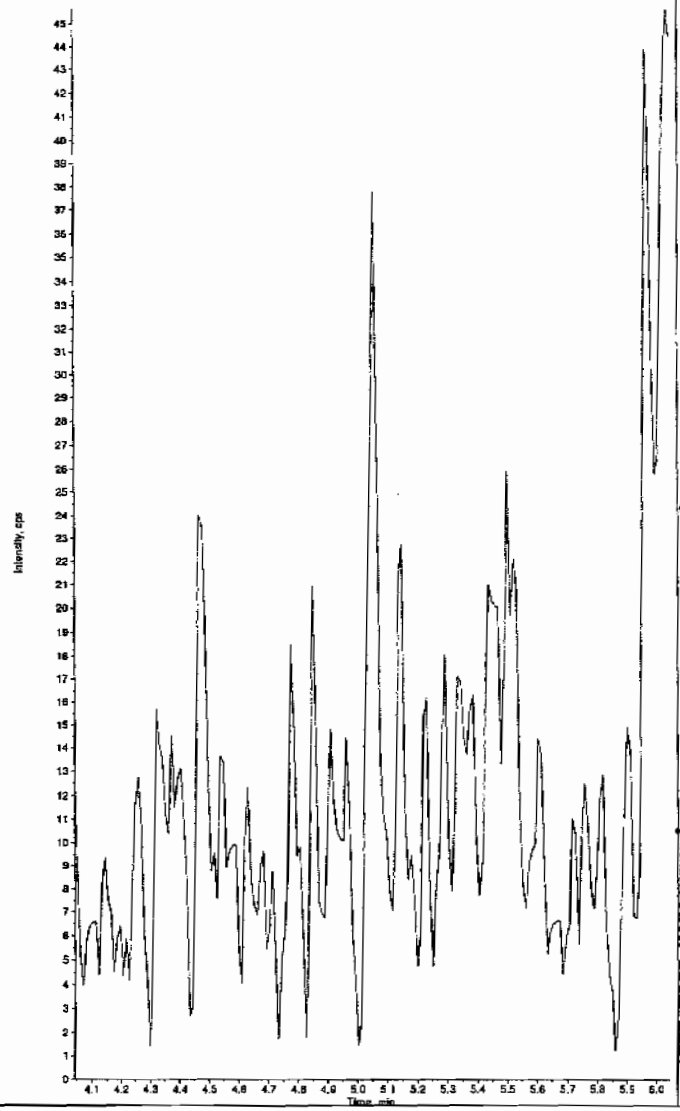

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795005" Sample ID: "947089|2|LER" File: "EXS02170022.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:56:00 PM

Modified: No

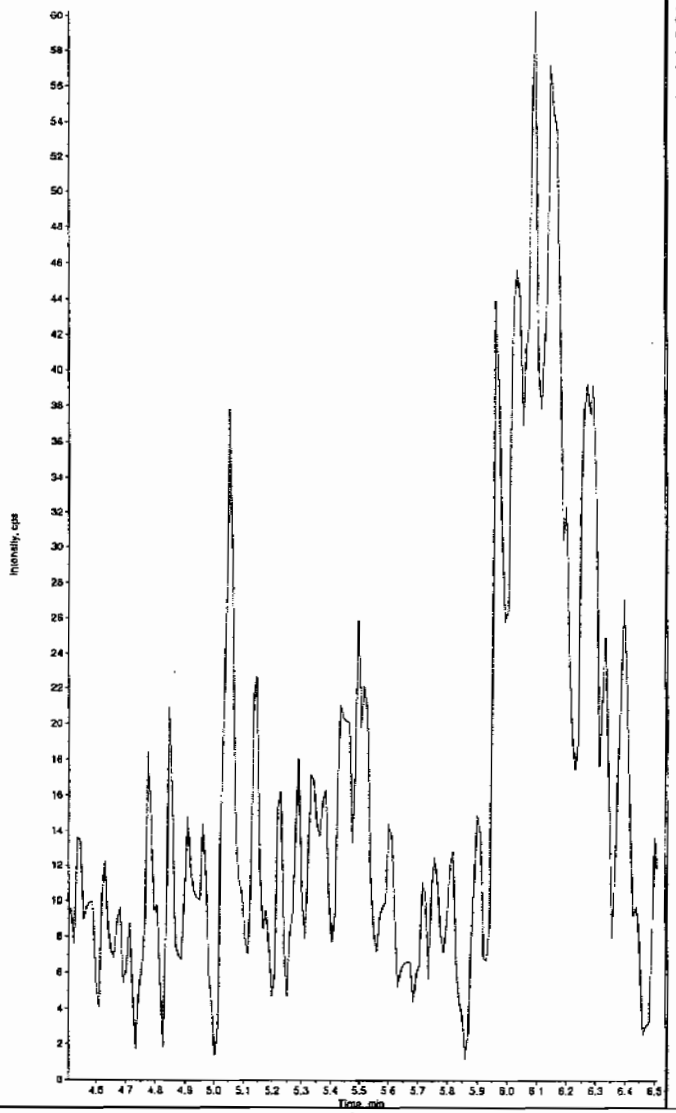

Sample Name: "245795005" Sample ID: "947089|2|LER" File: "EXS02170022.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 2:56:00 PM

Modified: No

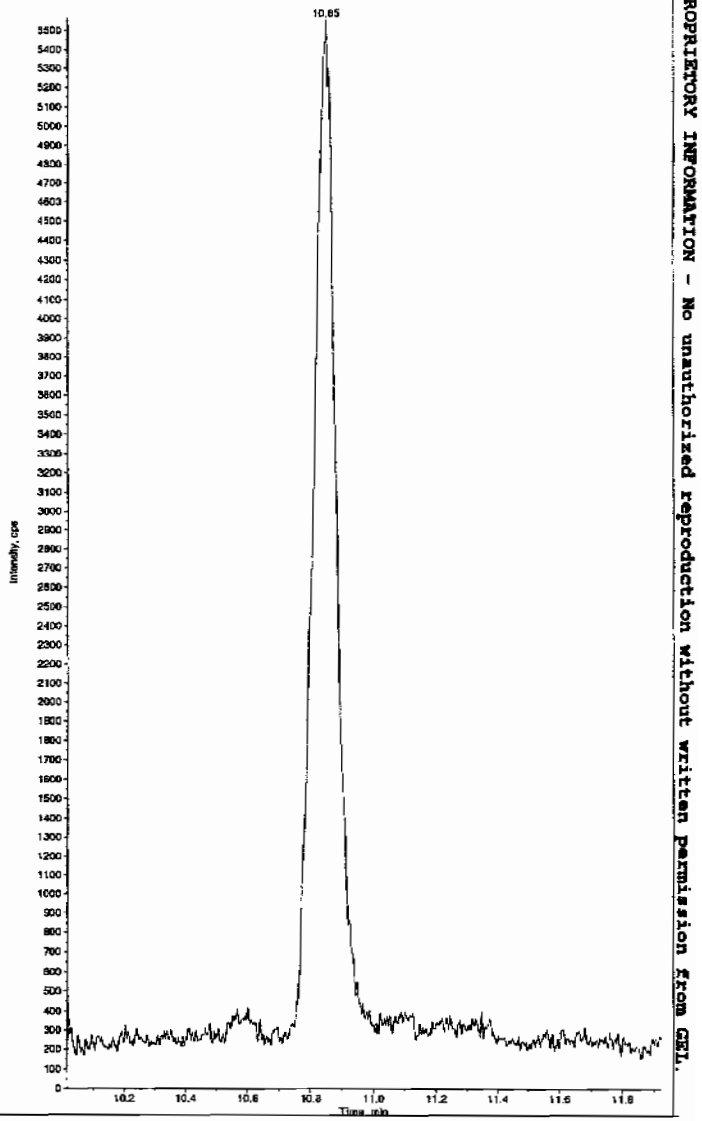

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7882

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795006

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216189a

Date Analyzed: 20-FEB-10 14:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216189a
Date: 20-Feb-2010
Time: 14:23:05
ID: 245795006
Vial: 4:4,D

| LANL | 947089 | Solids | 2 |

MP 2/24/10

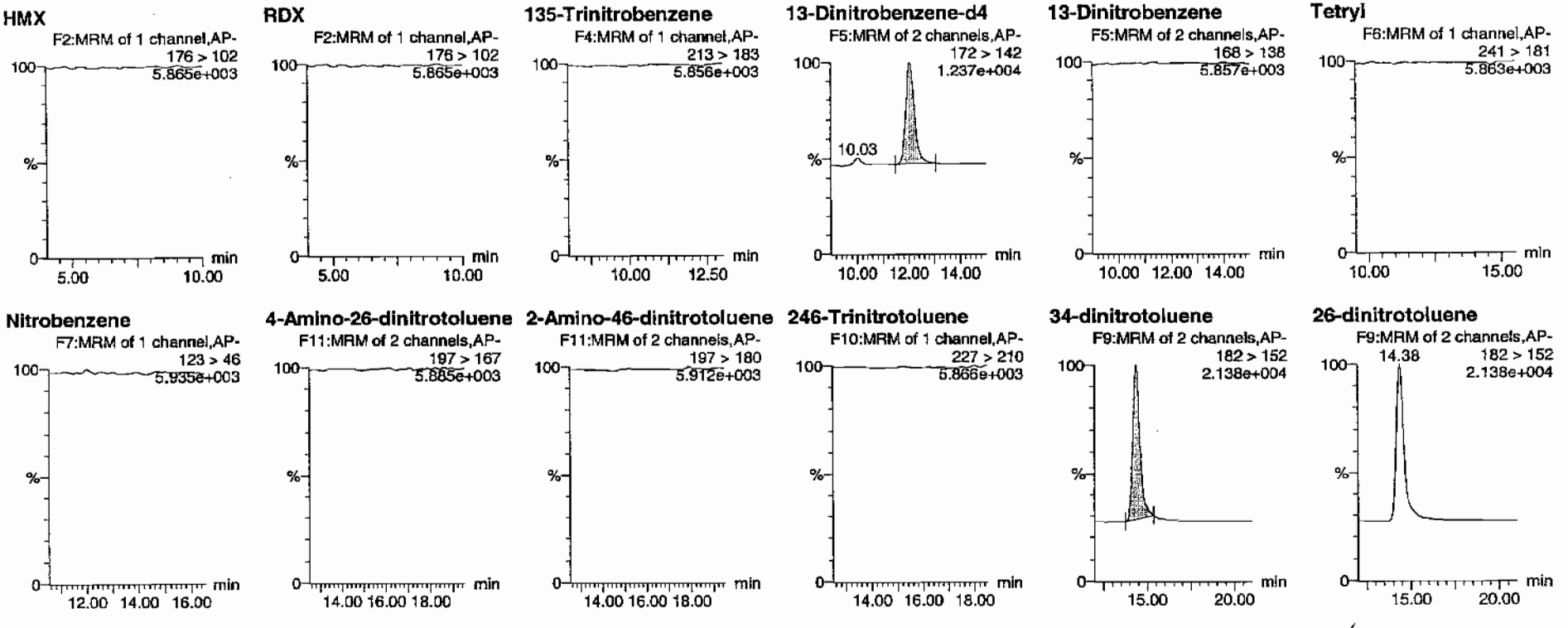

tmm 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

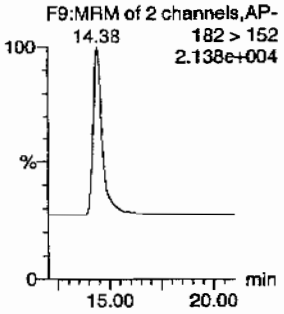

26-dinitrotoluene-d3

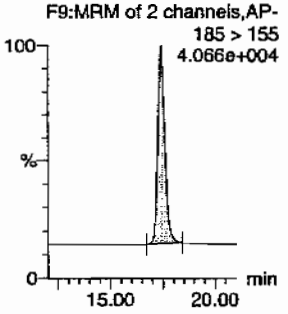

2-Nitrotoluene

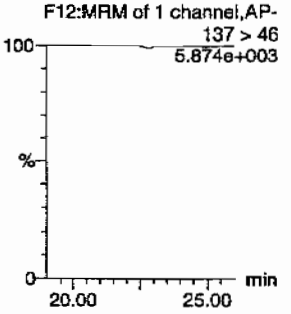

4-Nitrotoluene

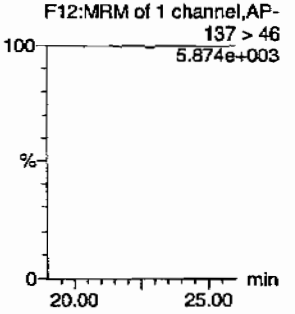

3-Nitrotoluene

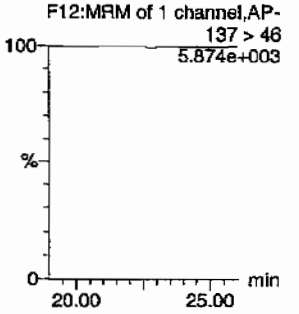

PETN

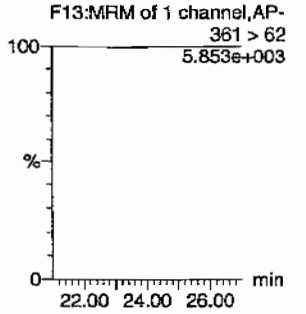

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245795006	HMX	176 > 102			2591.050									
245795006	RDX	176 > 102			2591.050									
245795006	135-Trinitrobenzene	213 > 183			2591.050									
245795006	13-Dinitrobenzene-d4	172 > 142	12.03	2591.050		2591.050	2591.050	bb			430.0618	86.0	-14.0	147.4
245795006	13-Dinitrobenzene	168 > 138			2591.050									
245795006	Tetryl	241 > 181			2591.050									
245795006	Nitrobenzene	123 > 46			2591.050									
245795006	4-Amino-26-dinitrotoluene	197 > 167			13905.869									
245795006	2-Amino-46-dinitrotoluene	197 > 180			13905.869									
245795006	246-Trinitrotoluene	227 > 210			13905.869									
245795006	34-dinitrotoluene	182 > 152	14.38	7260.525	13905.869	7260.525	261.060	bb			288.1451	115.3	15.3	451.3
245795006	26-dinitrotoluene	182 > 152			13905.869									
245795006	24-dinitrotoluene	182 > 152			13905.869									
245795006	26-dinitrotoluene-d3	185 > 155	17.42	13905.869		13905.869	13905.869	bb			399.3976	79.9	-20.1	1118.6
245795006	2-Nitrotoluene	137 > 46			13905.869									
245795006	4-Nitrotoluene	137 > 46			13905.869									
245795006	3-Nitrotoluene	137 > 46			13905.869									
245795006	PETN	361 > 62			13905.869									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7882

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795006

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170023.wiff

Date Analyzed: 17-FEB-10 15:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/19/10

Sample Name: "245795006" Sample ID: "947089|2|LER" File: "EXS02170023.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:11:44 PM

Modified: No

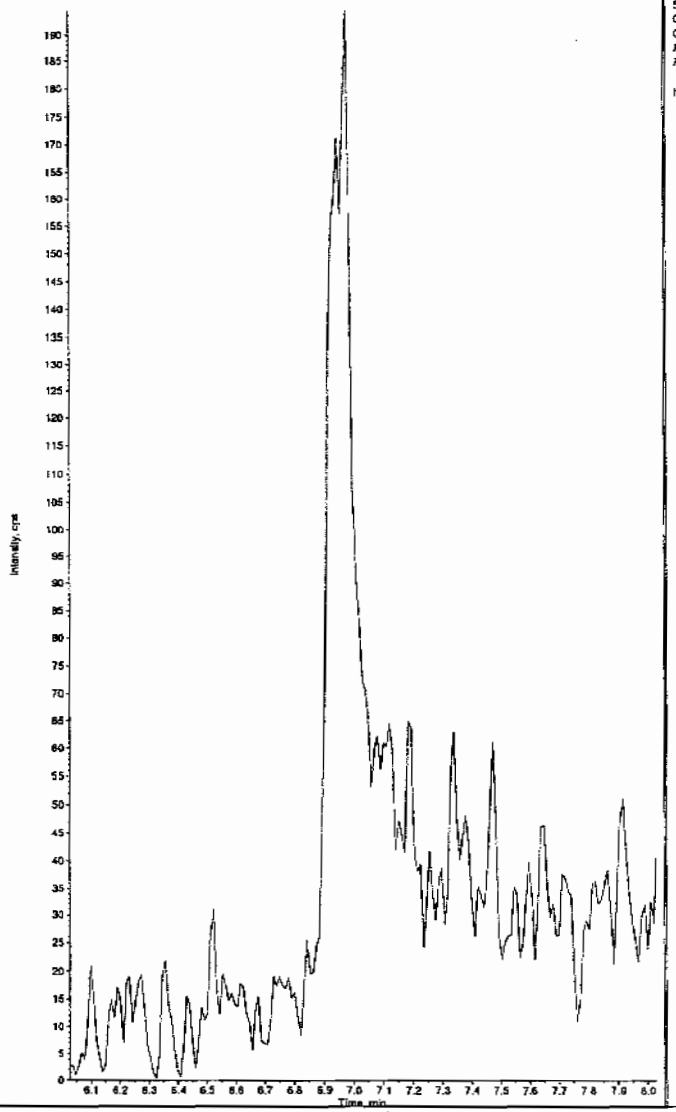

Sample Name: "245795006" Sample ID: "947089|2|LER" File: "EXS02170023.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:11:44 PM

Modified: Yes

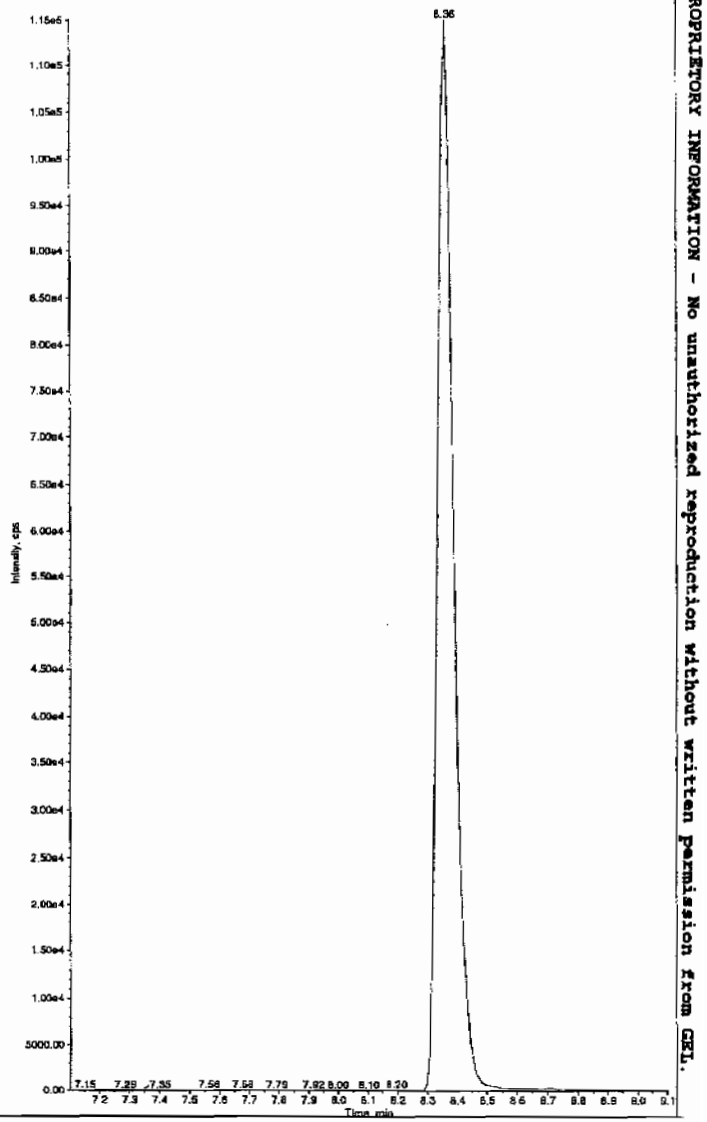

Hmc 02/19/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795006" Sample ID: "947089[2]LER" File: "EXS02170023.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 305. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:11:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 4.06e+006 counts
Height: 1051233.398 cps
Start Time: 8.24 min
End Time: 8.77 min

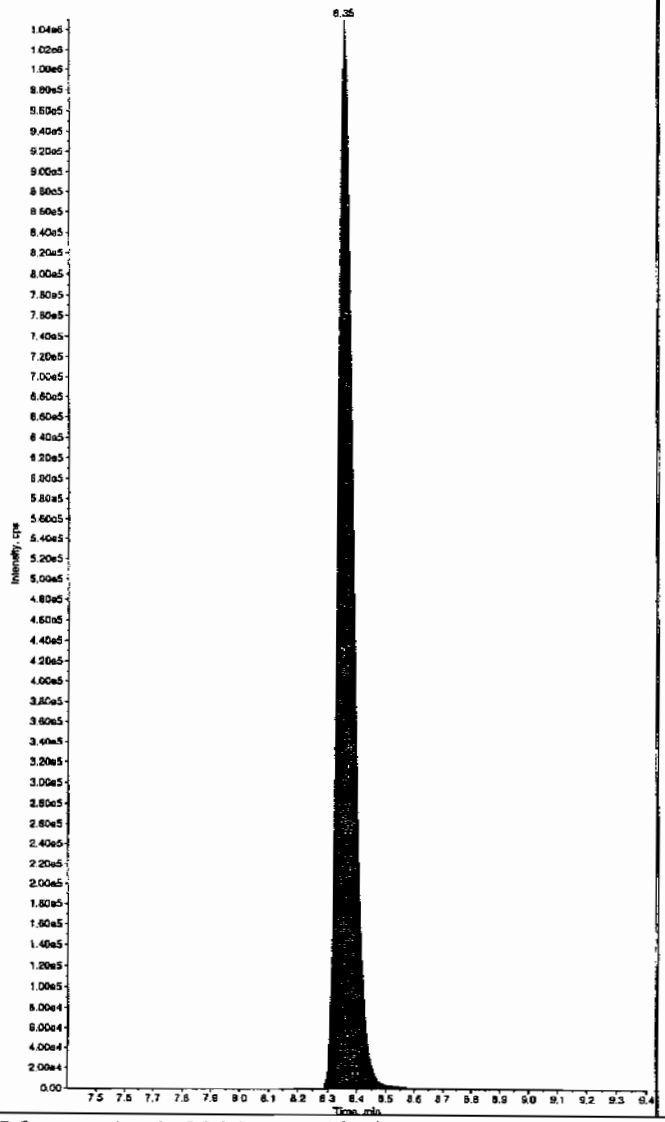

Sample Name: "245795006" Sample ID: "947089[2]LER" File: "EXS02170023.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:11:44 PM

Modified: No

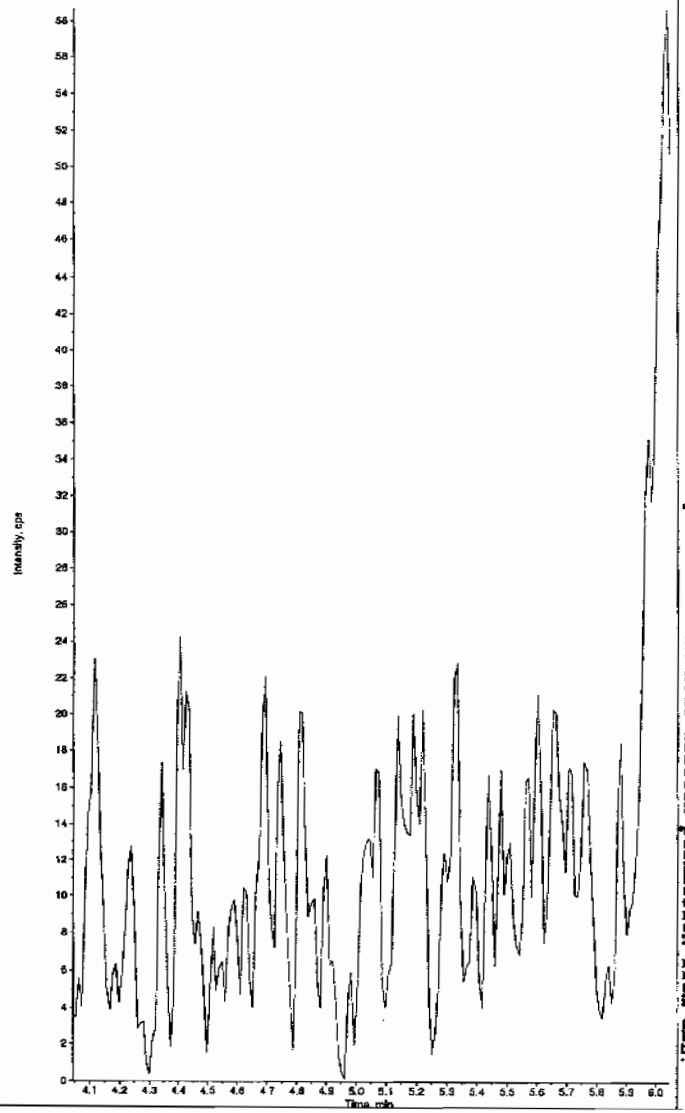

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795006" Sample ID: "947089|2|LER" File: "EXS02170023.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:11:44 PM

Modified: No

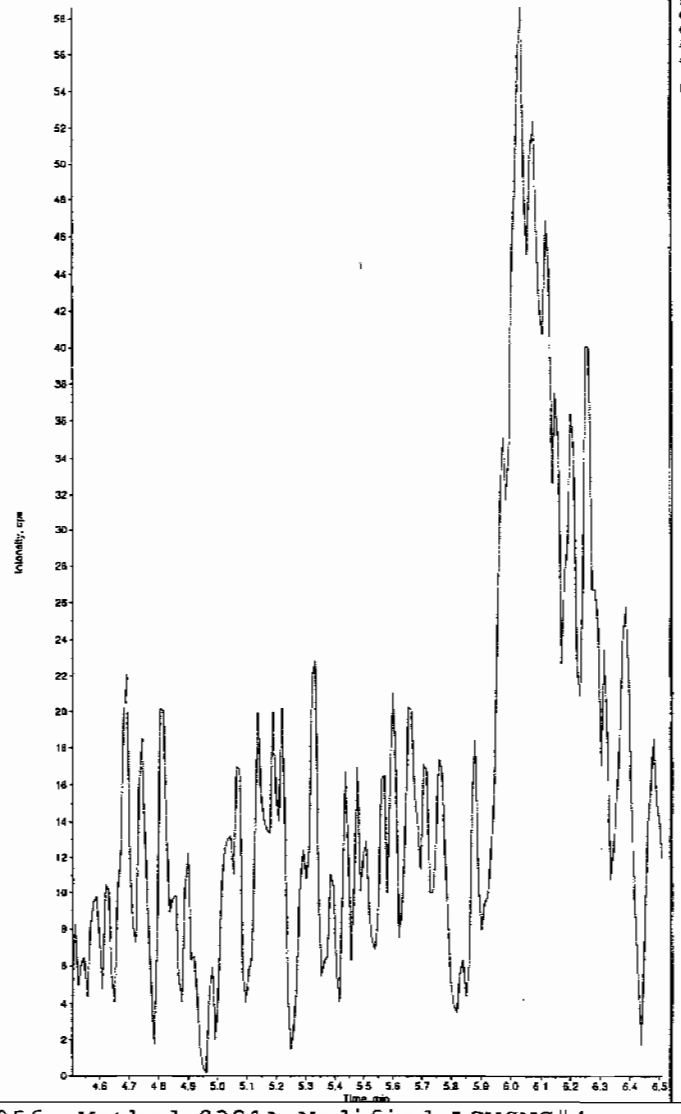

Sample Name: "245795006" Sample ID: "947089|2|LER" File: "EXS02170023.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:11:44 PM

Modified: No

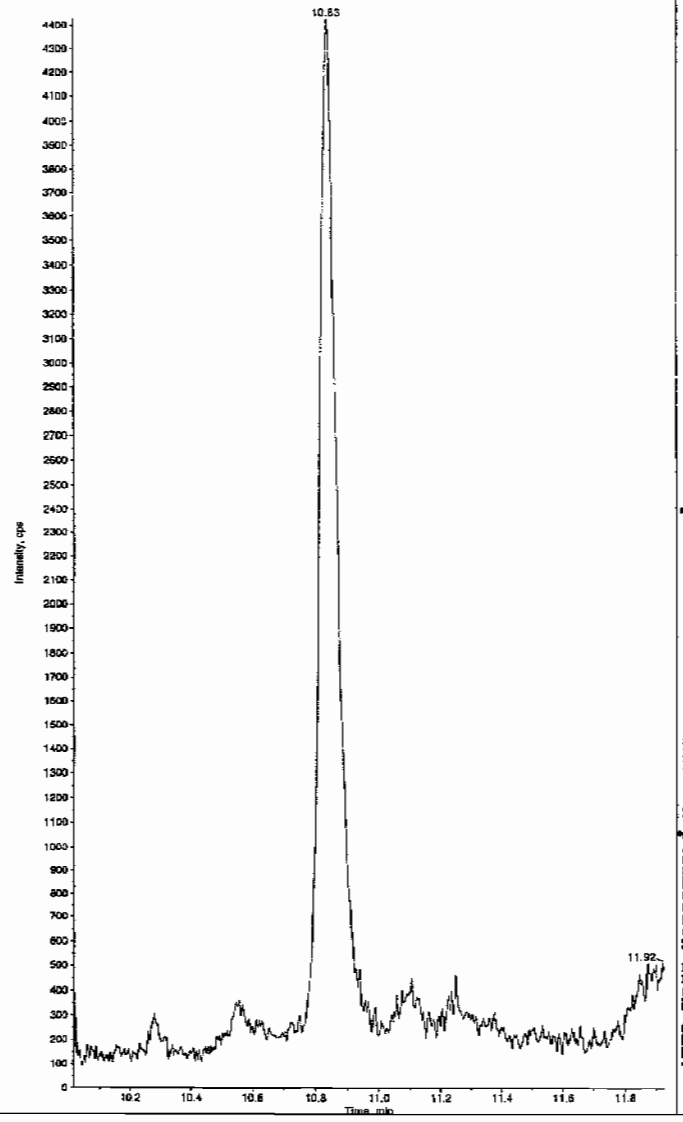

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7887

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795007

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216193a

Date Analyzed: 20-FEB-10 16:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216193a
Date: 20-Feb-2010
Time: 16:21:31
ID: 245795007 | LANL | 947089 | Solids | 21
Vial: 4:4,E

MAT 4/21/10

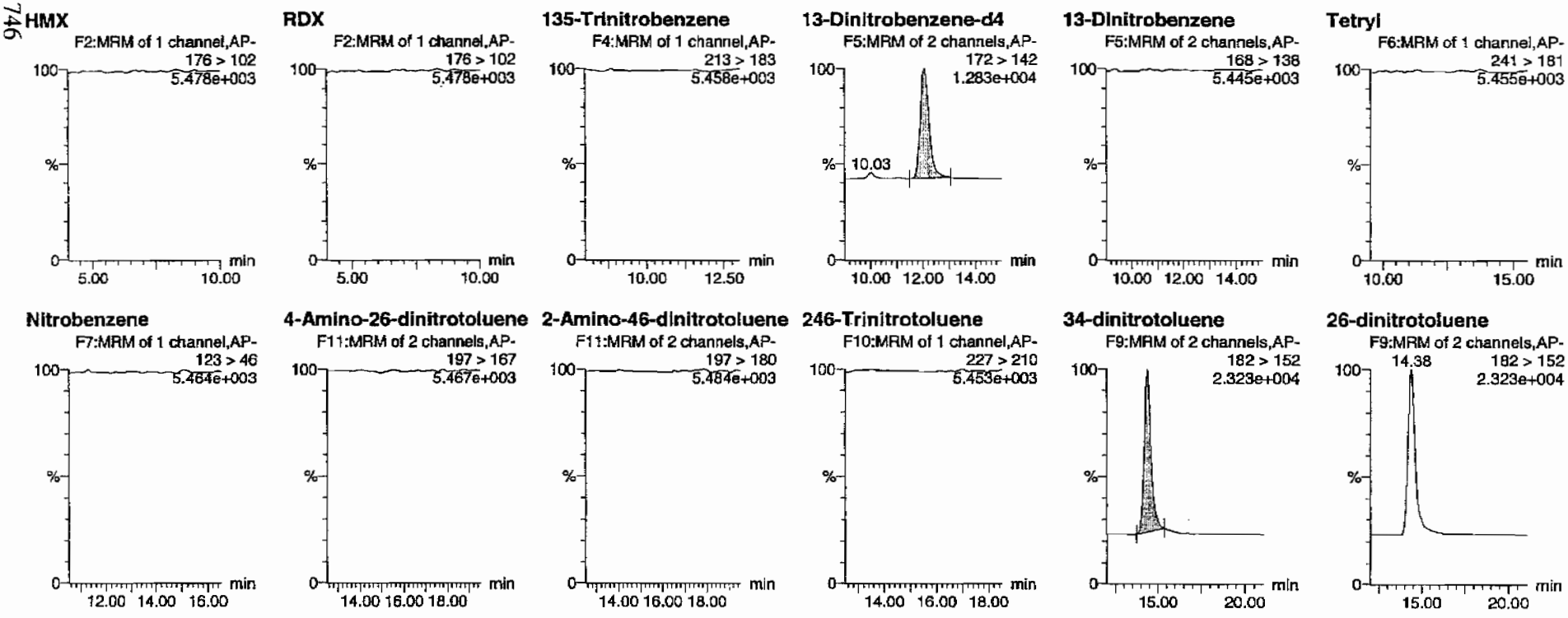

HMM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

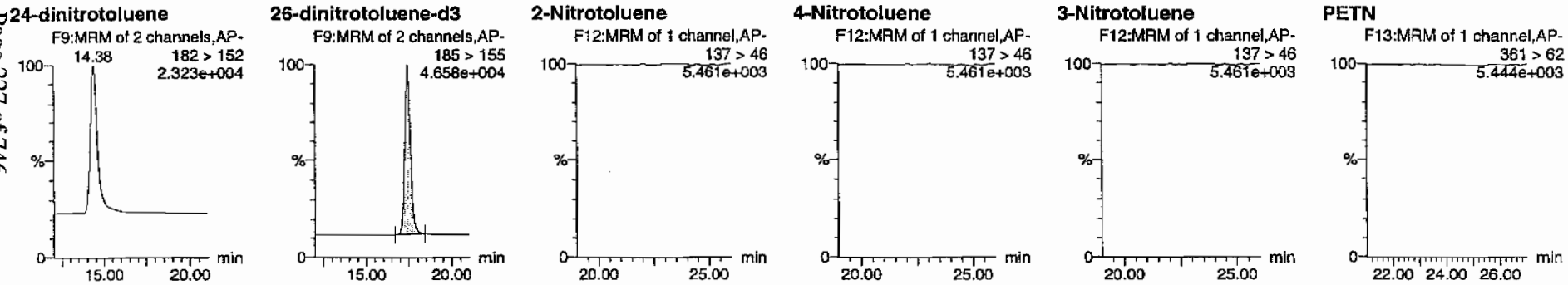

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245795007	HMX	176 > 102			2950.905									
245795007	RDX	176 > 102			2950.905									
245795007	135-Trinitrobenzene	213 > 183			2950.905									
245795007	13-Dinitrobenzene-d4	172 > 142	12.03	2950.905		2950.905	2950.905	bb			489.7904	98.0	-2.0	378.1
245795007	13-Dinitrobenzene	168 > 138			2950.905									
245795007	Tetryl	241 > 181			2950.905									
245795007	Nitrobenzene	123 > 46			2950.905									
245795007	4-Amino-26-dinitrotoluene	197 > 167			16494.607									
245795007	2-Amino-46-dinitrotoluene	197 > 180			16494.607									
245795007	246-Trinitrotoluene	227 > 210			16494.607									
245795007	34-dinitrotoluene	182 > 152	14.38	8241.725	16494.607	8241.725	249.831	bb			275.7512	110.3	10.3	343.7
245795007	26-dinitrotoluene	182 > 152			16494.607									
245795007	24-dinitrotoluene	182 > 152			16494.607									
245795007	26-dinitrotoluene-d3	185 > 155	17.42	16494.607		16494.607	16494.607	bb			473.7500	94.8	-5.2	2098.7
245795007	2-Nitrotoluene	137 > 46			16494.607									
245795007	4-Nitrotoluene	137 > 46			16494.607									
245795007	3-Nitrotoluene	137 > 46			16494.607									
245795007	PETN	361 > 62			16494.607									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7887

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795007

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170027.wiff

Date Analyzed: 17-FEB-10 16:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 2/19/10

Sample Name: "245795007" Sample ID: "947089|2|LER" File: "EXS02170027.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:14:33 PM

Modified: No

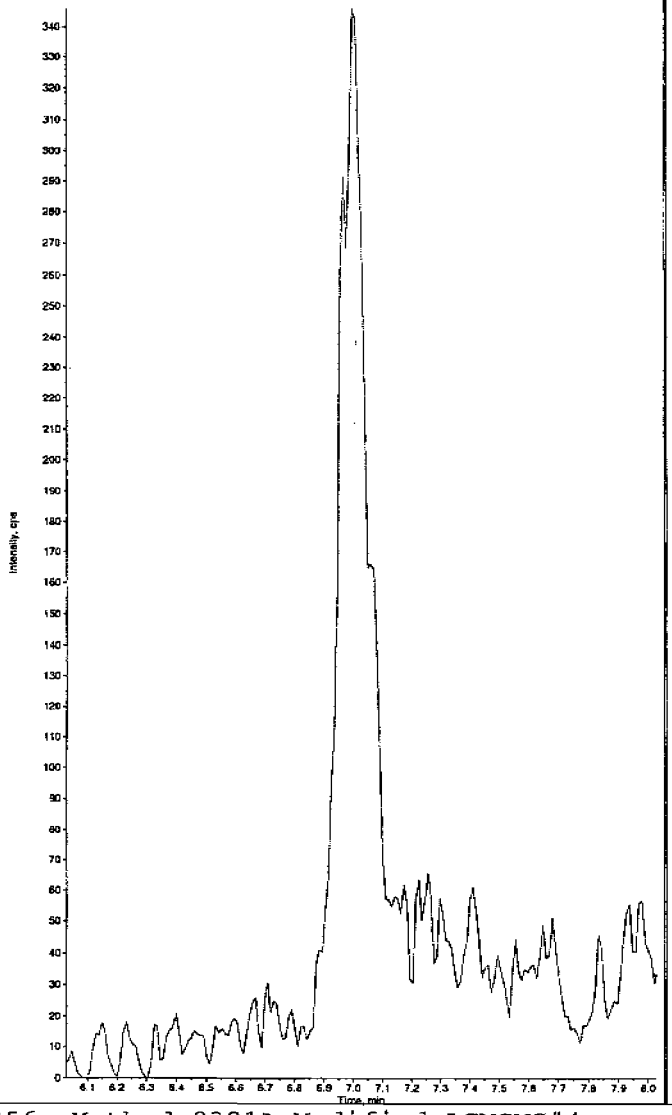

Sample Name: "245795007" Sample ID: "947089|2|LER" File: "EXS02170027.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:14:33 PM

Modified: Yes

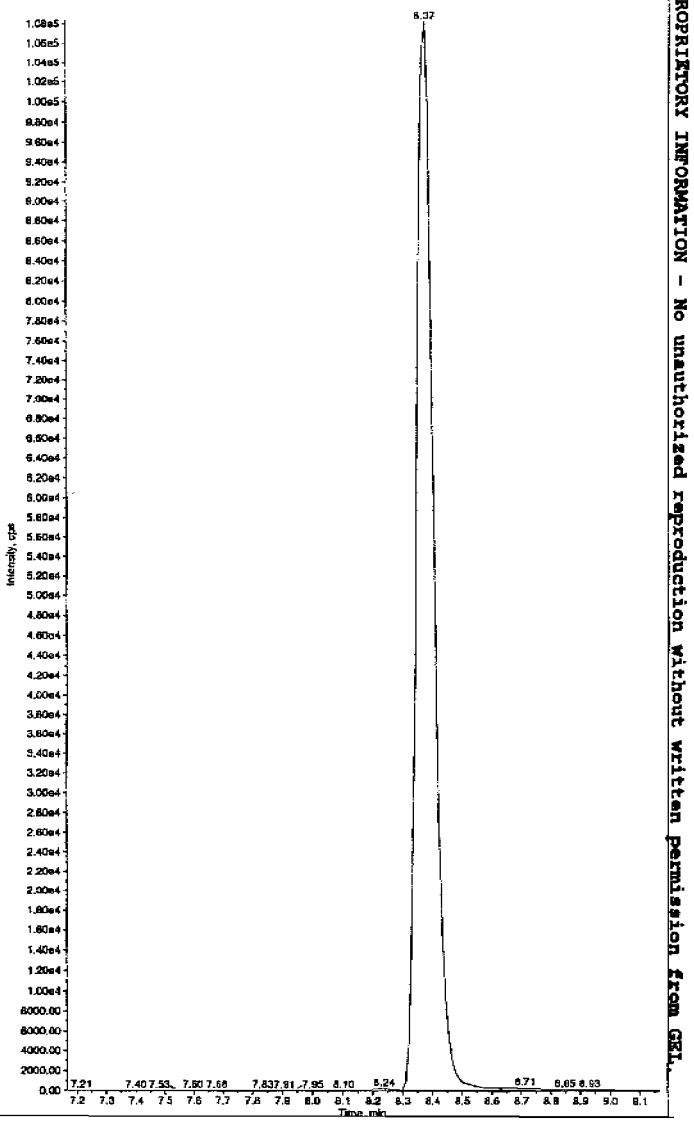

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795007" Sample ID: "947089|2|LER" File: "EXS02170027.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 315. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:14:33 PM

Modified: No
Doc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 4.20e+006 ccounts
Height: 1117809.082 cps
Start Time: 8.28 min
End Time: 8.61 min

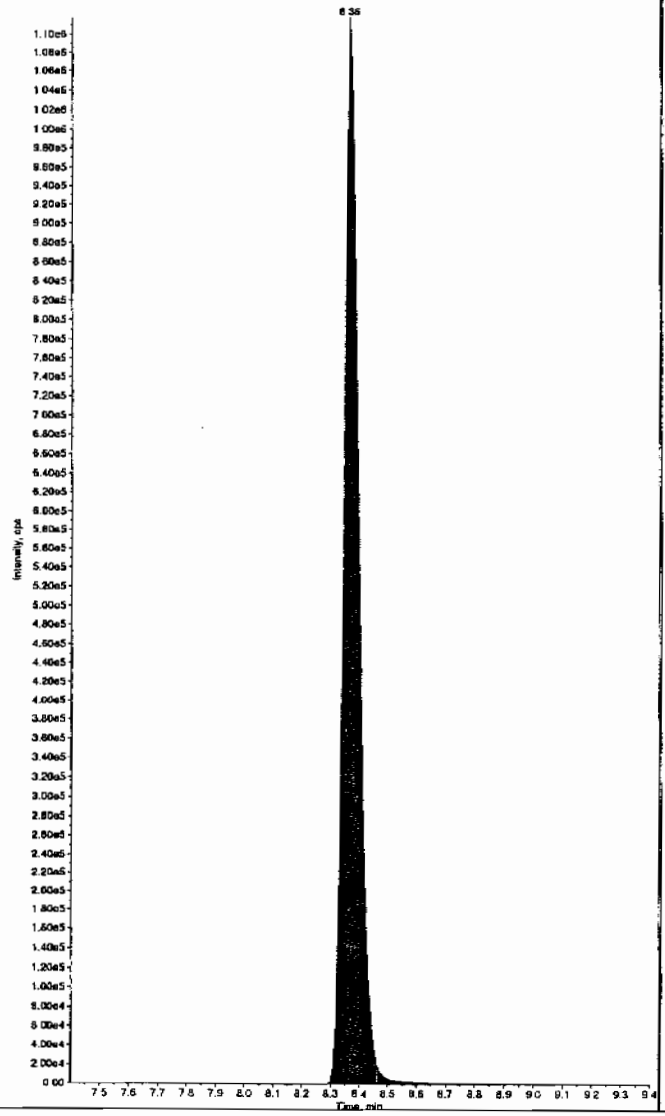

Sample Name: "245795007" Sample ID: "947089|2|LER" File: "EXS02170027.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:14:33 PM

Modified: No

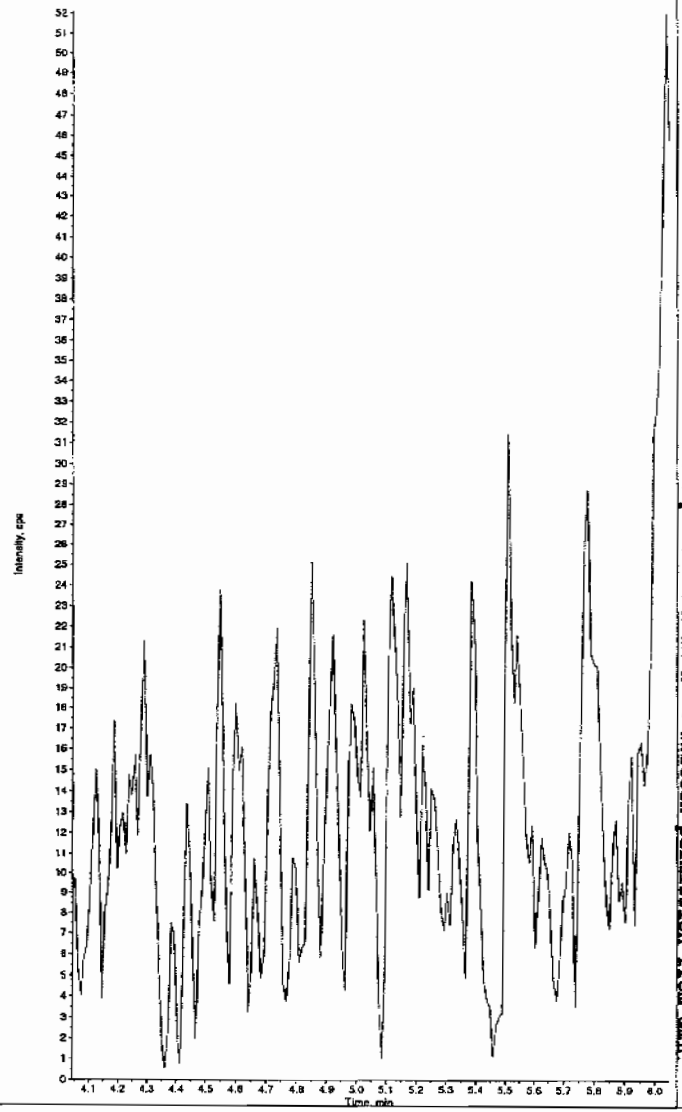

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795007" Sample ID: "947089[2]LER" File: "EXS02170027.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:14:33 PM

Modified: No

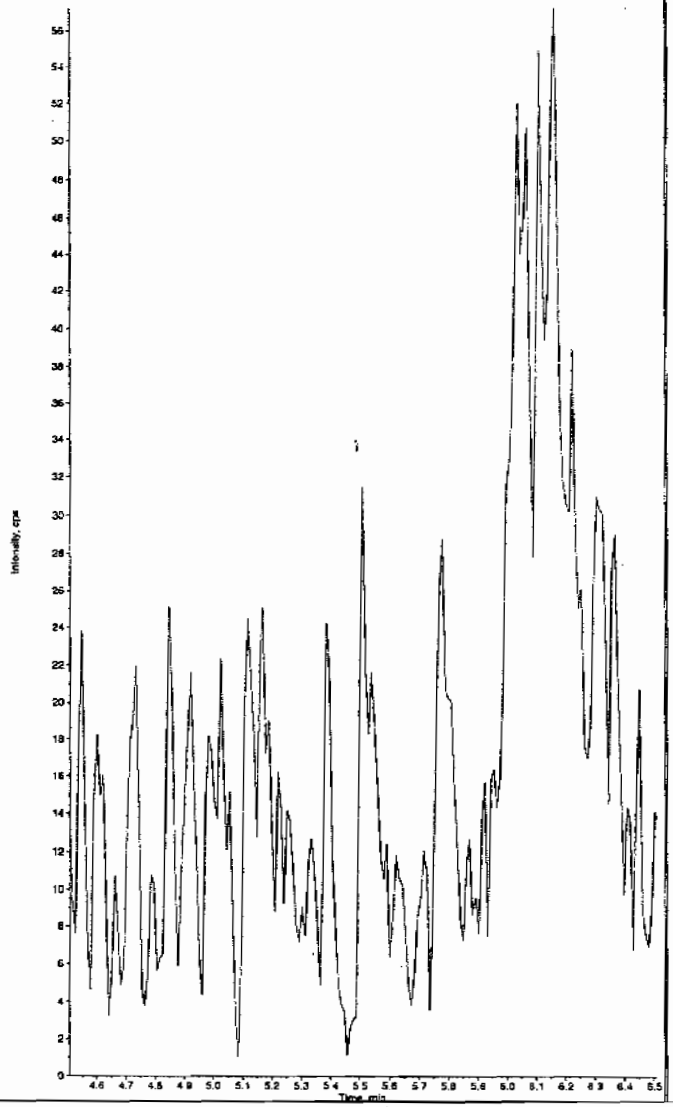

Sample Name: "245795007" Sample ID: "947089[2]LER" File: "EXS02170027.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:14:33 PM

Modified: No

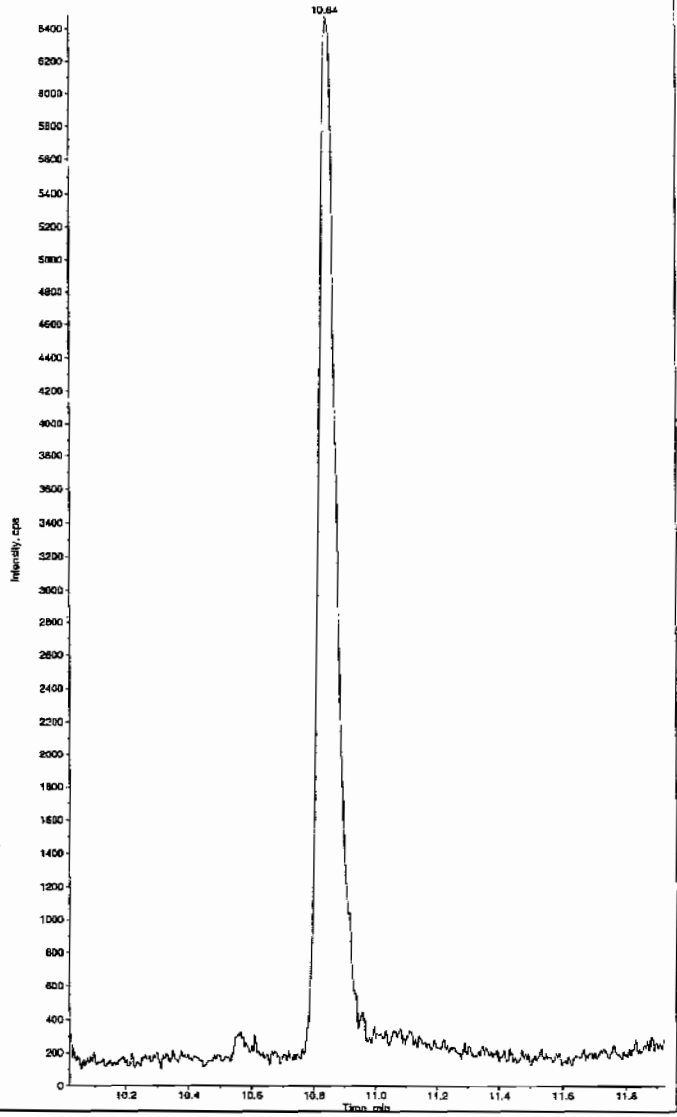

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7881

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795008

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216194a

Date Analyzed: 20-FEB-10 16:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216194a
Date: 20-Feb-2010
Time: 16:51:07
ID: 245795008 | LANL | 947089 | Soil | 2 |
Vial: 4:4,F

4/21/10

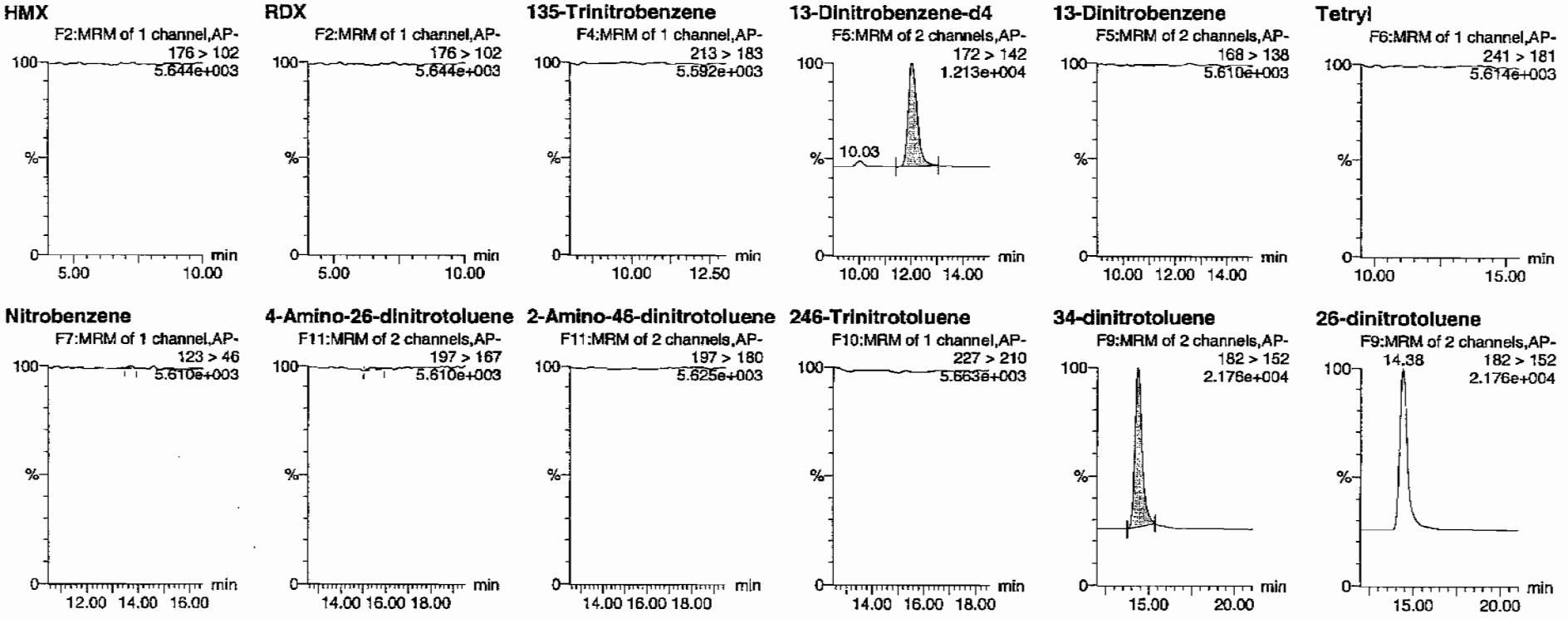

Hmm 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

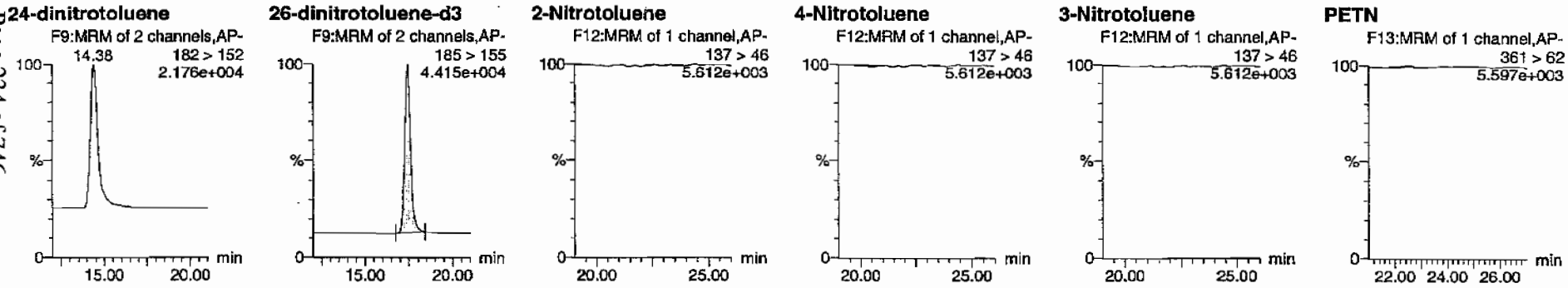

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245795008	HMX	176 > 102			2625.518									
245795008	RDX	176 > 102			2625.518									
245795008	135-Trinitrobenzene	213 > 183			2625.518									
245795008	13-Dinitrobenzene-d4	172 > 142	12.03	2625.518		2625.518	2625.518	bb			435.7828	87.2	-12.8	253.9
245795008	13-Dinitrobenzene	168 > 138			2625.518									
245795008	Tetryl	241 > 181			2625.518									
245795008	Nitrobenzene	123 > 46			2625.518			MM-	21-Feb-10	11:59:32				
245795008	4-Amino-26-dinitrotoluene	197 > 167			15390.931			MM-	21-Feb-10	11:57:48				
245795008	2-Amino-46-dinitrotoluene	197 > 180			15390.931									
245795008	246-Trinitrotoluene	227 > 210			15390.931									
245795008	34-dinitrotoluene	182 > 152	14.38	7663.389	15390.931	7663.389	248.958	bb			274.7877	109.9	9.9	367.5
245795008	26-dinitrotoluene	182 > 152			15390.931									
245795008	24-dinitrotoluene	182 > 152			15390.931									
245795008	26-dinitrotoluene-d3	185 > 155	17.42	15390.931		15390.931	15390.931	bb			442.0508	88.4	-11.6	2009.8
245795008	2-Nitrotoluene	137 > 46			15390.931									
245795008	4-Nitrotoluene	137 > 46			15390.931									
245795008	3-Nitrotoluene	137 > 46			15390.931									
245795008	PETN	361 > 62			15390.931									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7881

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795008

Sample Amount 2

Moisture: 37.1

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170028.wiff

Date Analyzed: 17-FEB-10 16:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 2/19/10

Sample Name: "245795008" Sample ID: "947069|2|LER" File: "EXS02170028.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:30:16 PM

Modified: No

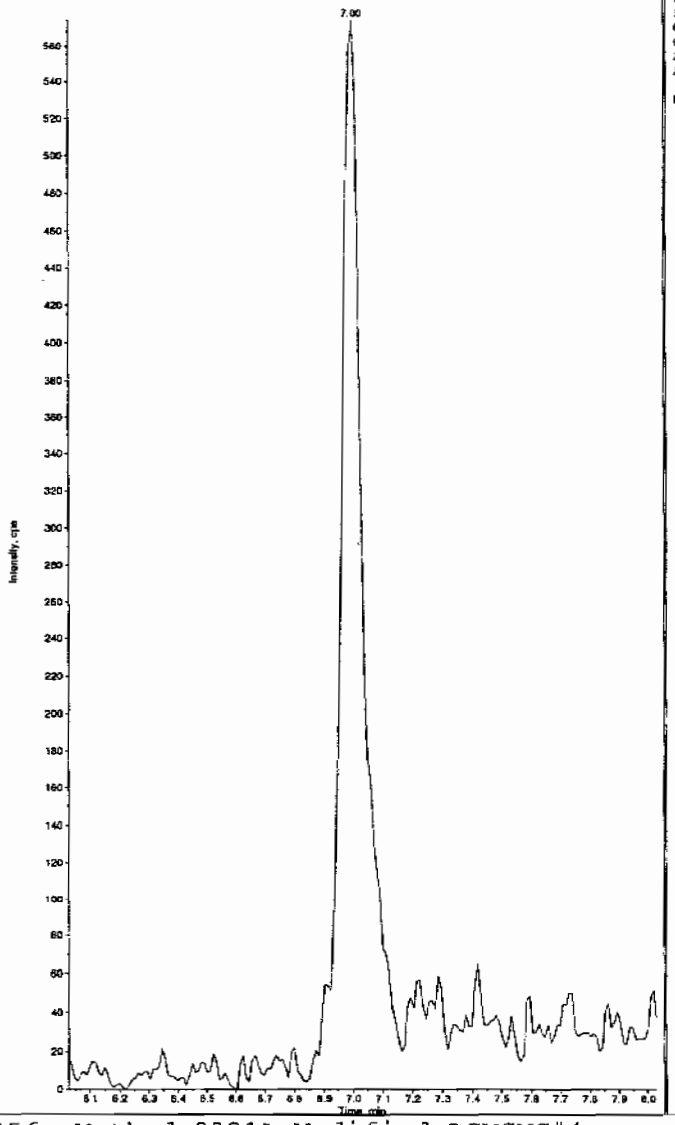

Sample Name: "245795008" Sample ID: "947069|2|LER" File: "EXS02170028.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:30:16 PM

Modified: Yes

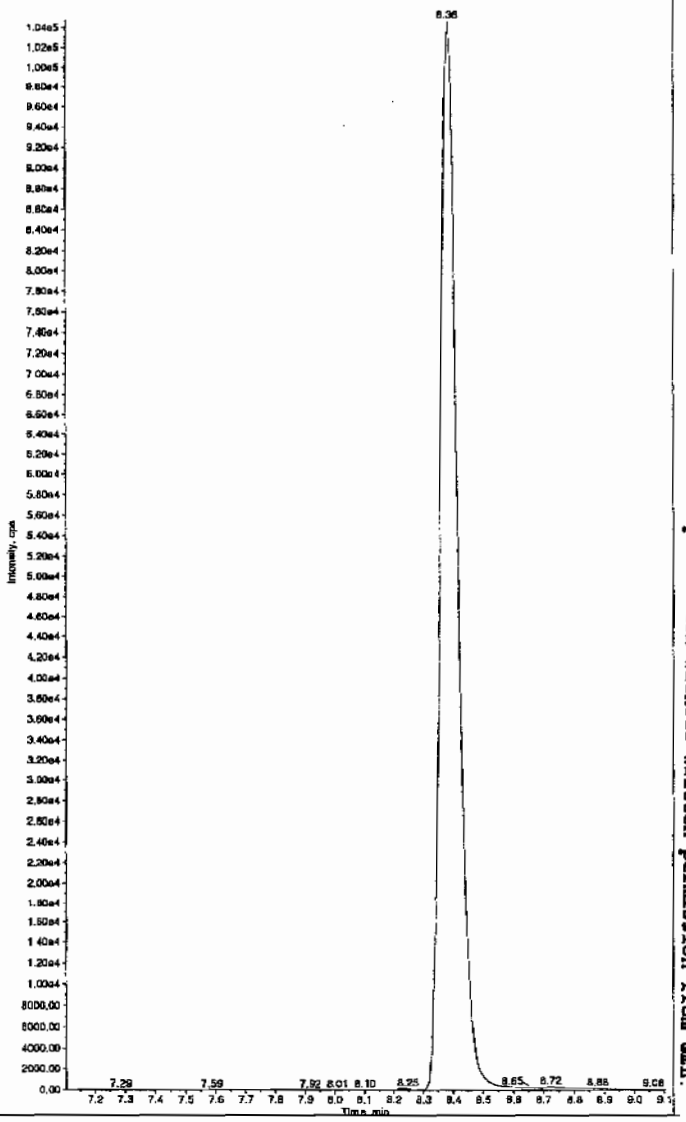

Hrm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795006" Sample ID: "947089|2|LER" File: "EXS02170028.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "152.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 306. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:30:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 4.07e+006 counts
Height: 1055329.346 cps
Start Time: 8.26 min
End Time: 8.73 min

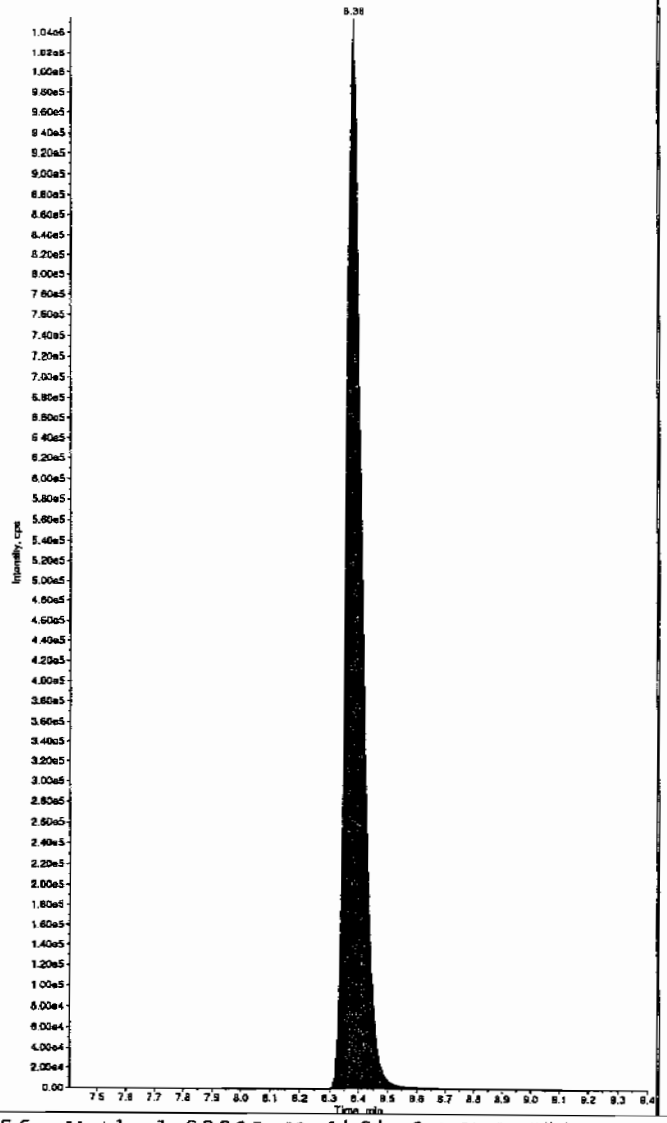

Sample Name: "245795008" Sample ID: "947089|2|LER" File: "EXS02170028.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:30:16 PM

Modified: No

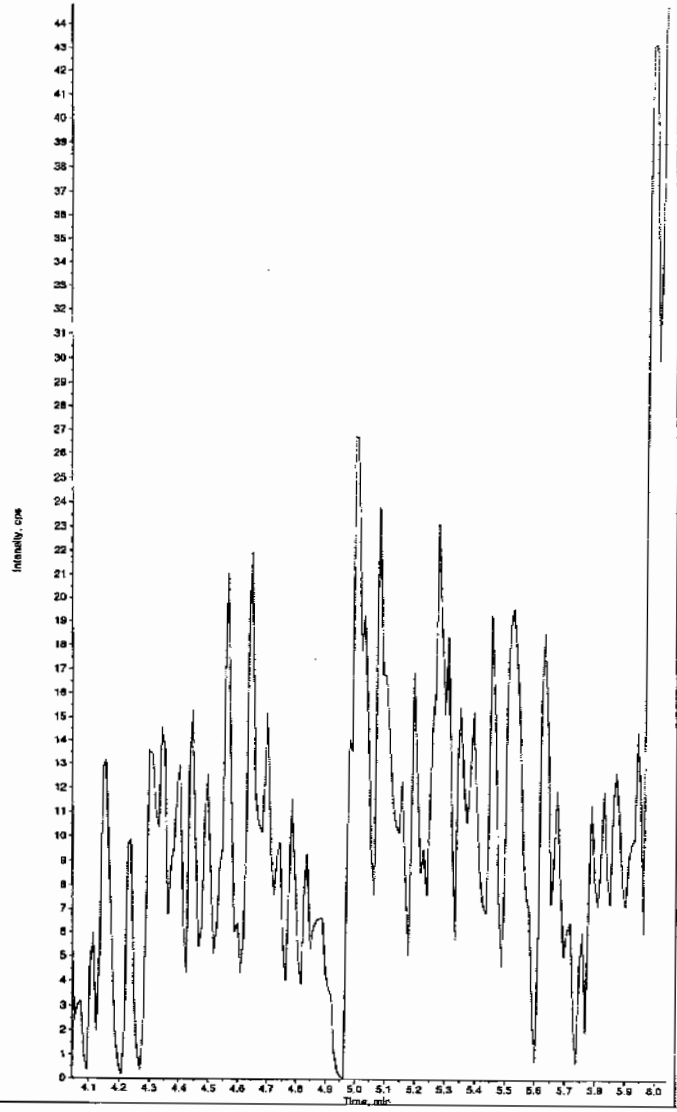

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245795008" Sample ID: "947089|2|LER" File: "EXS02170028.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:30:16 PM

Modified: No

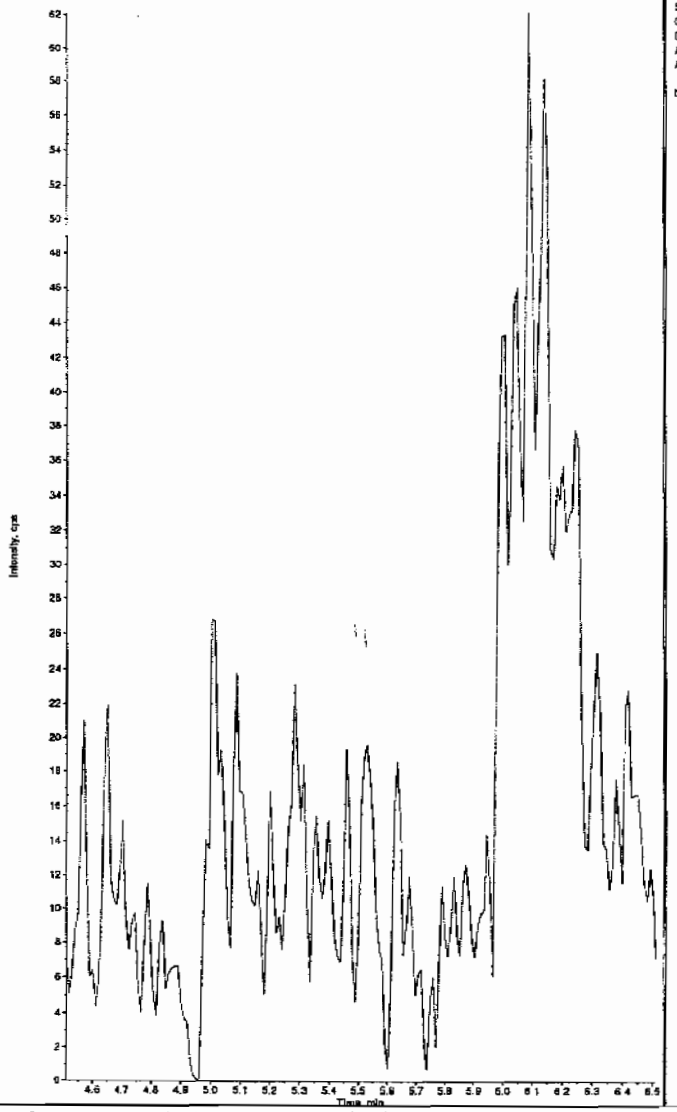

Sample Name: "245795008" Sample ID: "947089|2|LER" File: "EXS02170028.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:30:16 PM

Modified: No

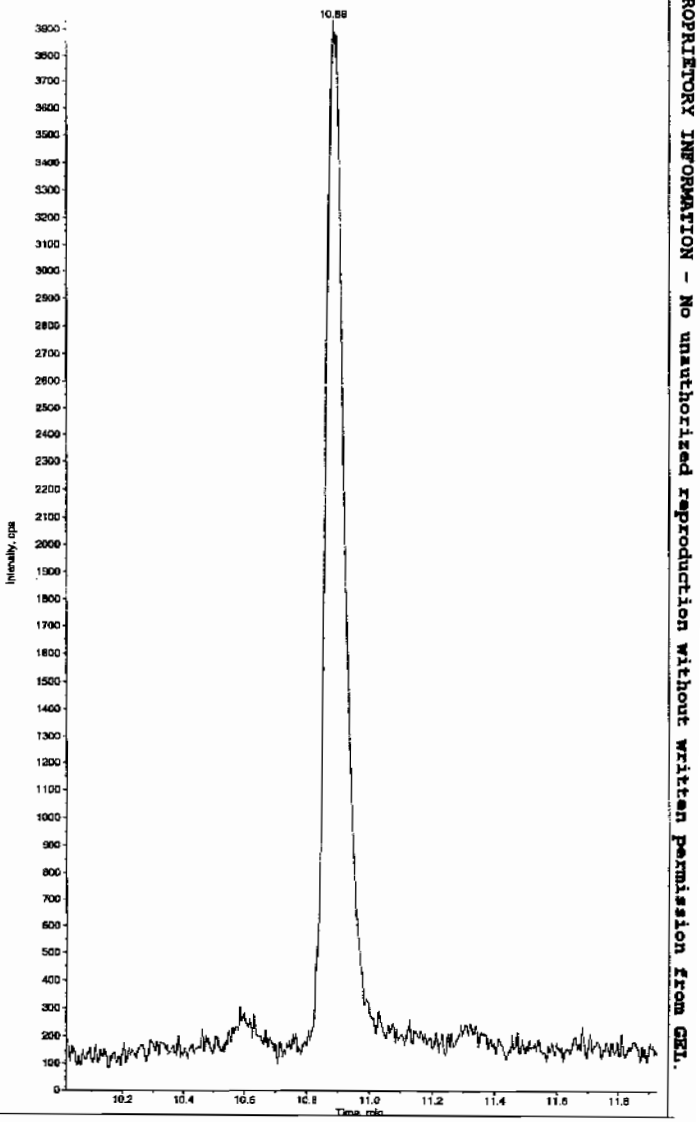

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7951

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216195a

Date Analyzed: 20-FEB-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216195a
Date: 20-Feb-2010
Time: 17:20:35
ID: 245795009 | LANL | 947089 | Solids | 21
Vial: 4:5,A

MMT 2/21/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.925e+003

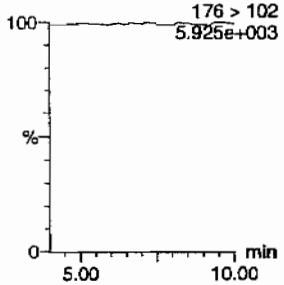

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.925e+003

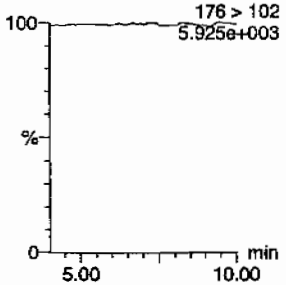

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.899e+003

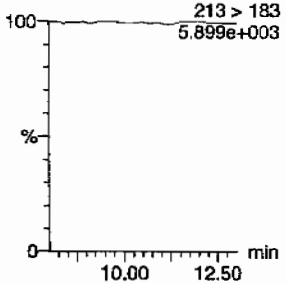

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.337e+004

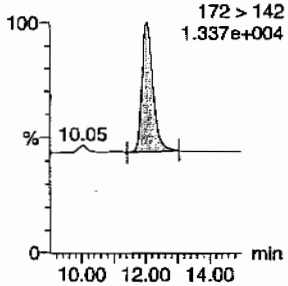

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.894e+003

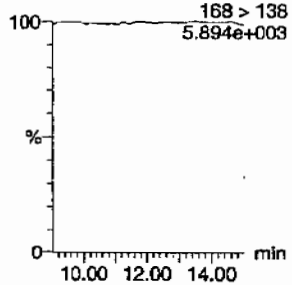

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.910e+003

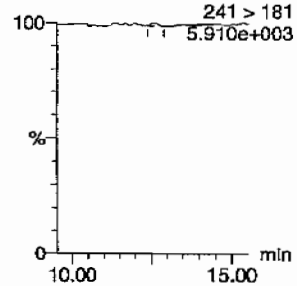

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.014e+003

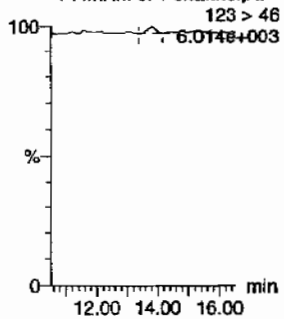

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.935e+003

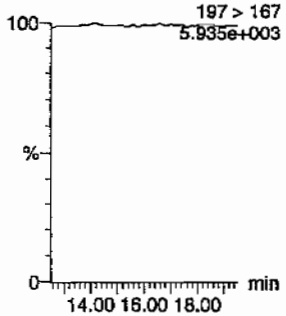

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.923e+003

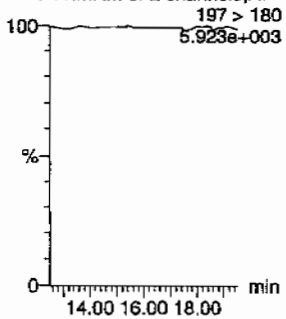

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.918e+003

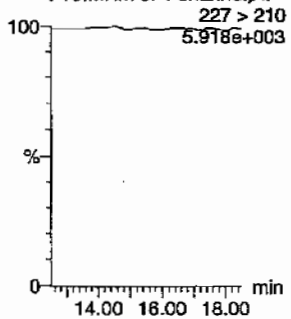

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.387e+004

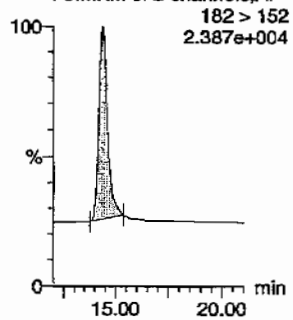

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.387e+004

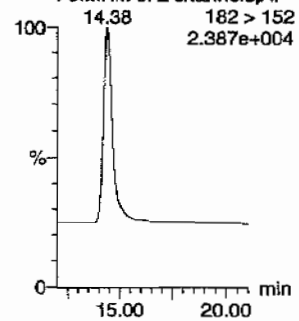

HMM 2/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

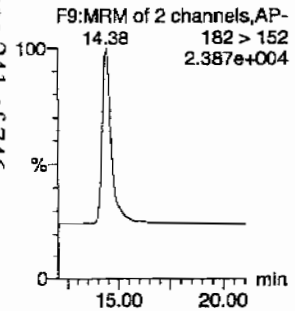

26-dinitrotoluene-d3

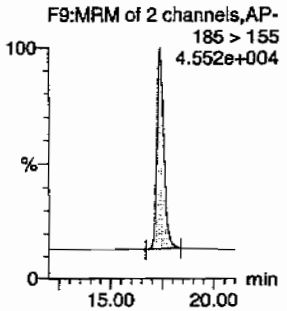

2-Nitrotoluene

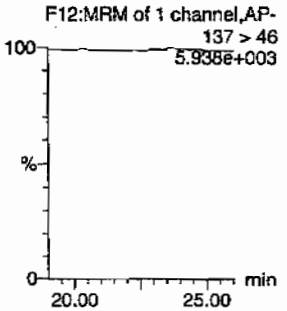

4-Nitrotoluene

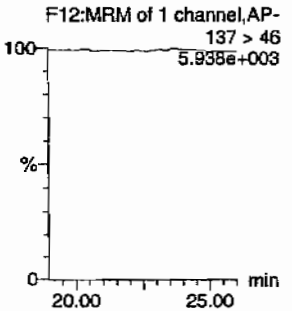

3-Nitrotoluene

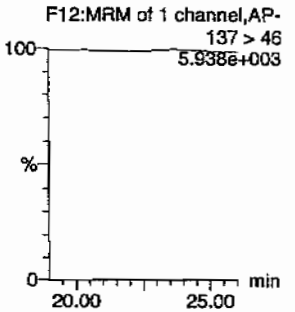

PETN

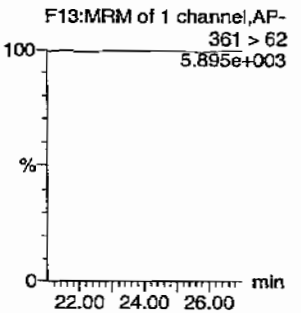

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245795009	HMX	176 > 102			2960.162									
245795009	RDX	176 > 102			2960.162									
245795009	135-Trinitrobenzene	213 > 183			2960.162									
245795009	13-Dinitrobenzene-d4	172 > 142	12.03	2960.162		2960.162	2960.162	bb			491.3269	98.3	-1.7	328.7
245795009	13-Dinitrobenzene	168 > 138			2960.162									
245795009	Tetryl	241 > 181			2960.162			MM-	21-Feb-10	11:59:48				
245795009	Nitrobenzene	123 > 46			2960.162			MM-	21-Feb-10	11:59:29				
245795009	4-Amino-26-dinitrotoluene	197 > 167			15856.794									
245795009	2-Amino-46-dinitrotoluene	197 > 180			15856.794									
245795009	246-Trinitrotoluene	227 > 210			15856.794									
245795009	34-dinitrotoluene	182 > 152	14.38	8493.933	15856.794	8493.933	267.833	bb			295.6206	118.2	18.2	681.5
245795009	26-dinitrotoluene	182 > 152			15856.794									
245795009	24-dinitrotoluene	182 > 152			15856.794									
245795009	26-dinitrotoluene-d3	185 > 155	17.42	15856.794		15856.794	15856.794	bb			455.4311	91.1	-8.9	270.4
245795009	2-Nitrotoluene	137 > 46			15856.794									
245795009	4-Nitrotoluene	137 > 46			15856.794									
245795009	3-Nitrotoluene	137 > 46			15856.794									
245795009	PETN	361 > 62			15856.794									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7951

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170029.wiff

Date Analyzed: 17-FEB-10 16:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/19/10

Sample Name: "245795009" Sample ID: "947089|2|LER" File: "EXS02170029.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:45:58 PM

Modified: No

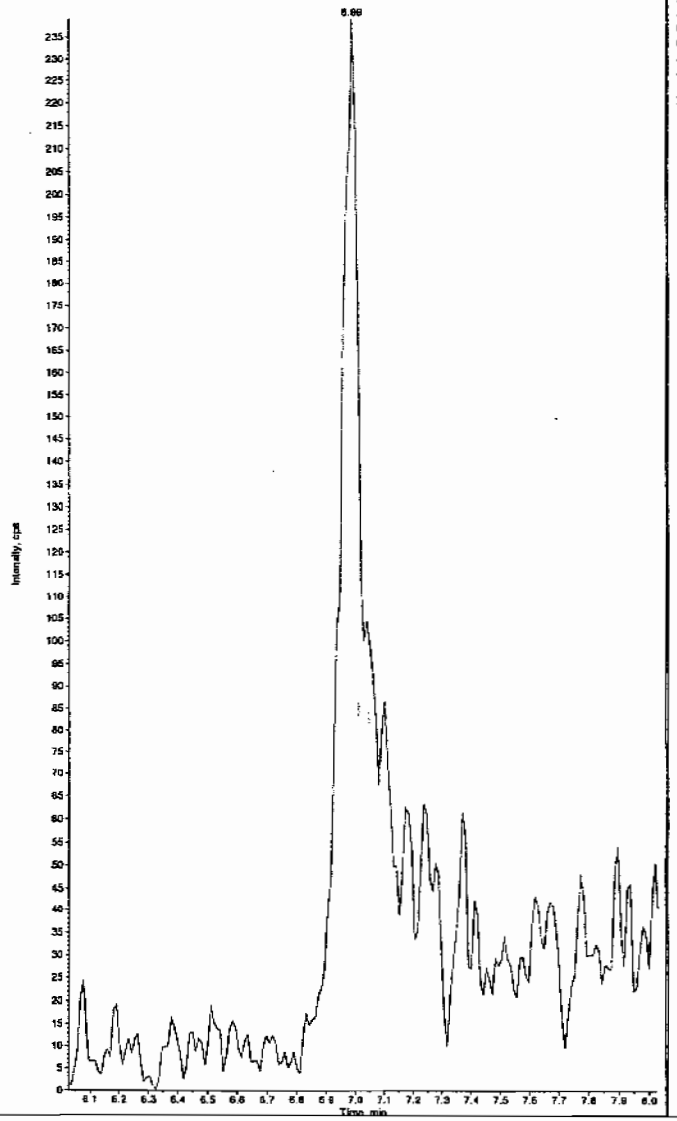

Sample Name: "245795009" Sample ID: "947089|2|LER" File: "EXS02170029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:45:58 PM

Modified: No

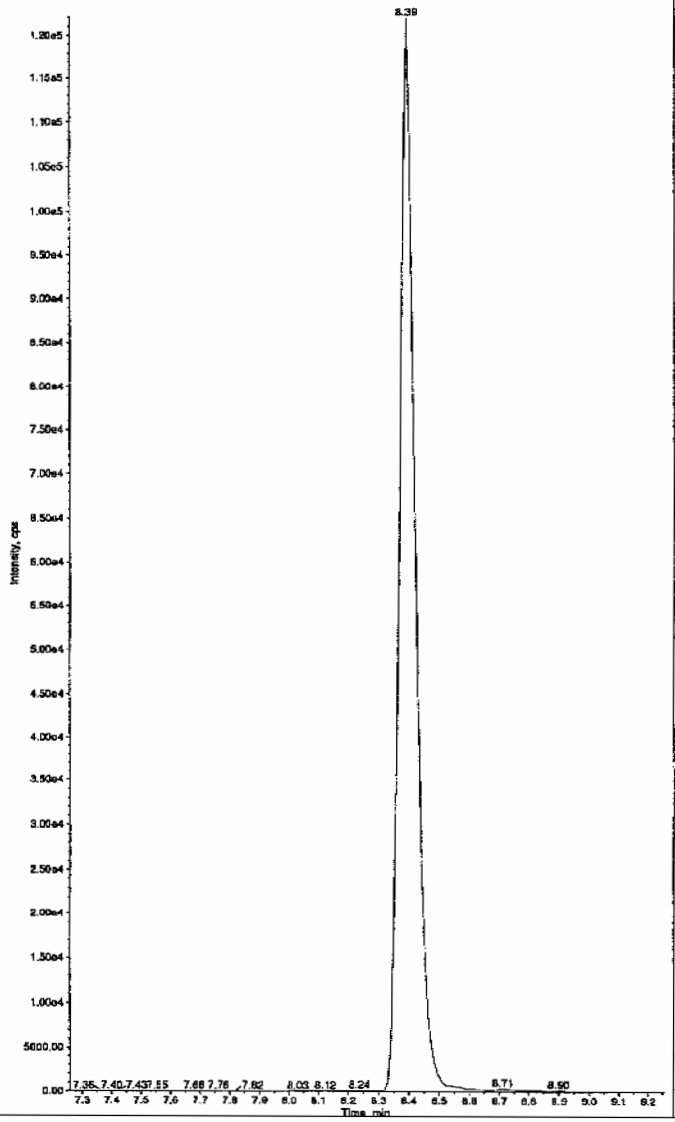

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795009" Sample ID: "947089|2|LER" File: "EXS02170029.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 312. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:45:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1463.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 4.16e+006 counts
Height: 1093610.352 cps
Start Time: 8.28 min
End Time: 8.76 min

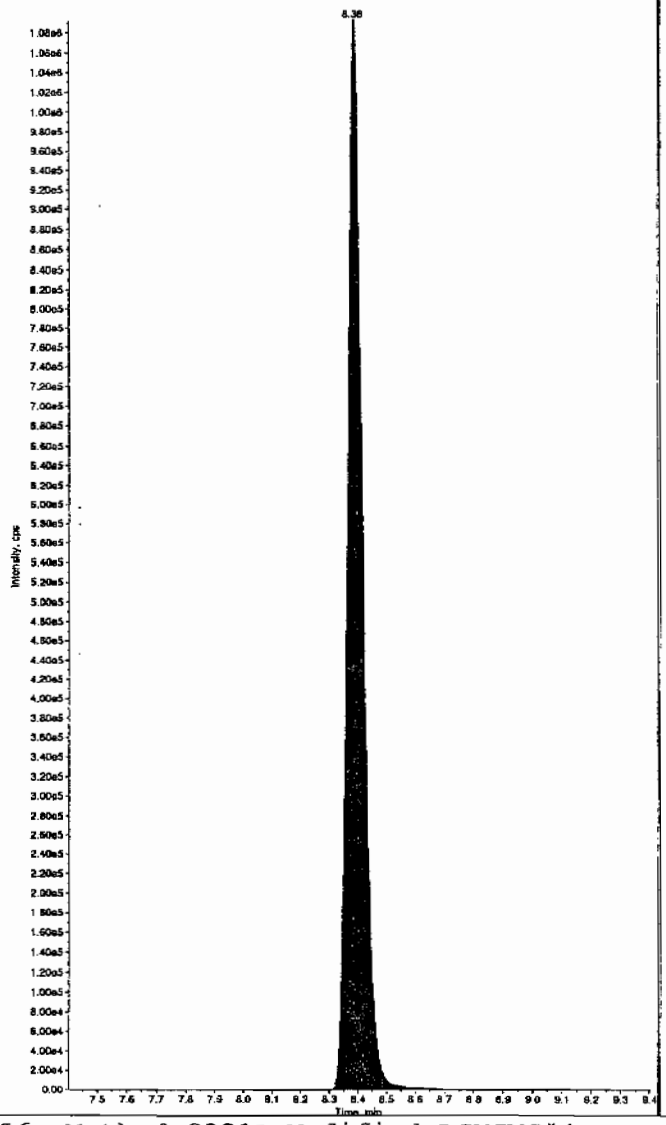

Sample Name: "245795009" Sample ID: "947089|2|LER" File: "EXS02170029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:45:58 PM

Modified: No

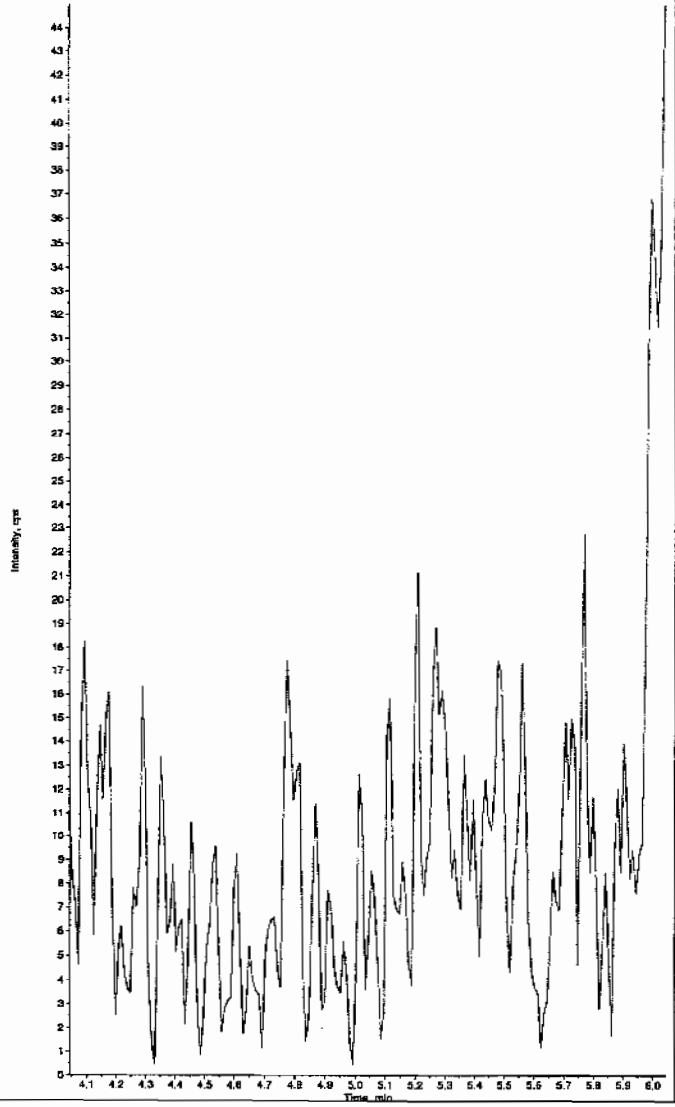

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795009" Sample ID: "947089|2|LER" File: "EXS02170029.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:45:58 PM

Modified: No

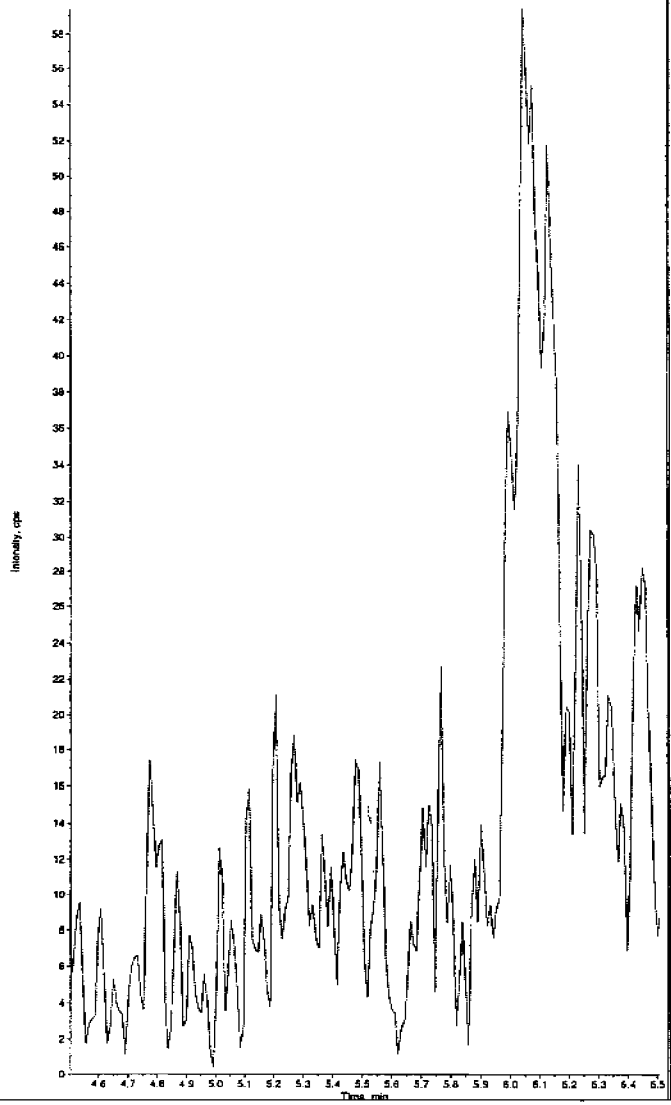

Sample Name: "245795009" Sample ID: "947089|2|LER" File: "EXS02170029.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 4:45:58 PM

Modified: No

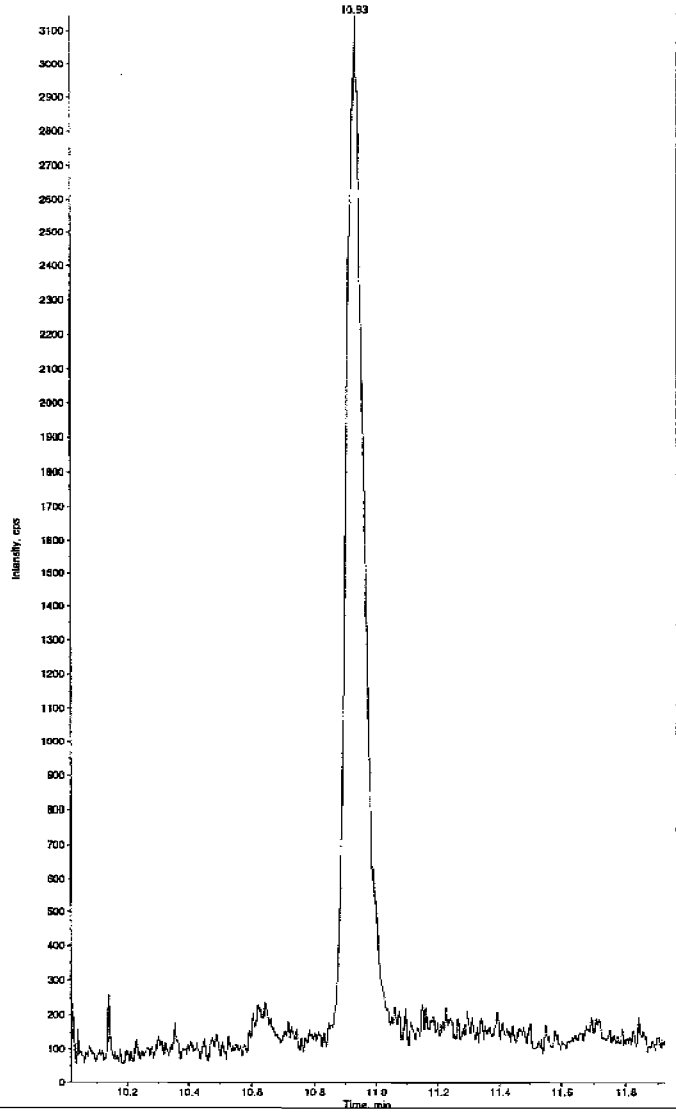

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7950

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216196a

Date Analyzed: 20-FEB-10 17:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216196a
Date: 20-Feb-2010
Time: 17:50:21
ID: 245795010 | LAW | 947089 | SOLID | 2 |
Vial: 4:5,B

MAT 2/21/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.539e+003

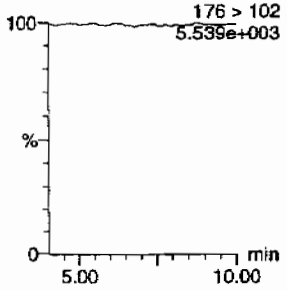

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.539e+003

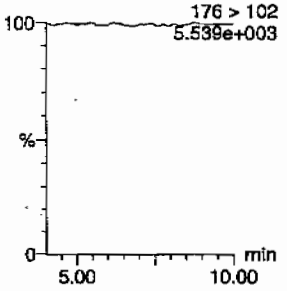

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.503e+003

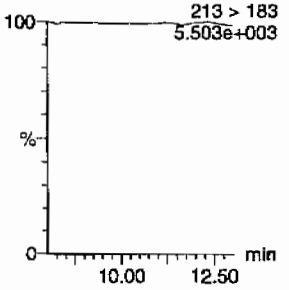

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.269e+004

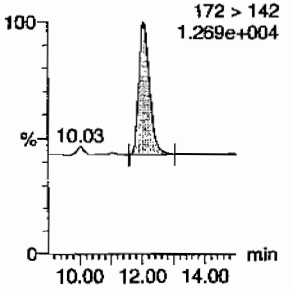

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.524e+003

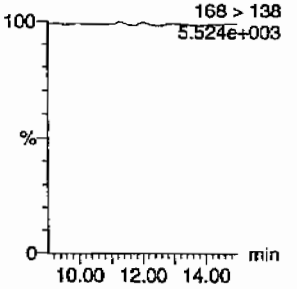

Tetryl
F6:MRM of 1 channel,AP-
10.42
241 > 181
5.593e+003

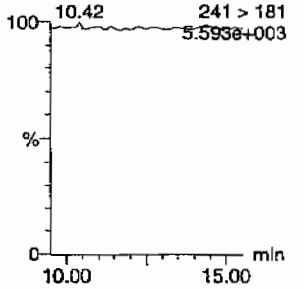

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.531e+003

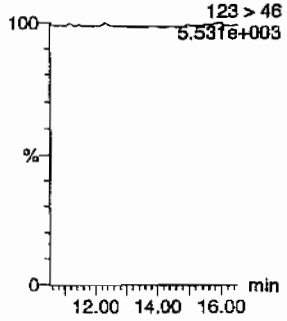

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.524e+003

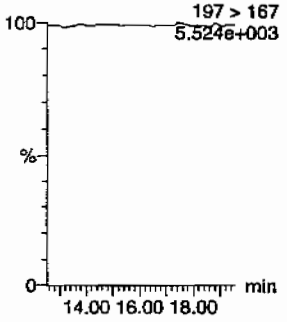

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 160
5.514e+003

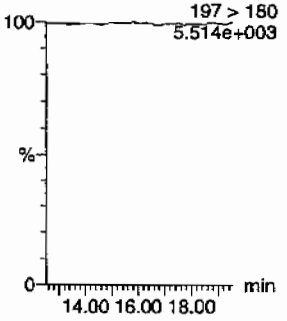

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.493e+003

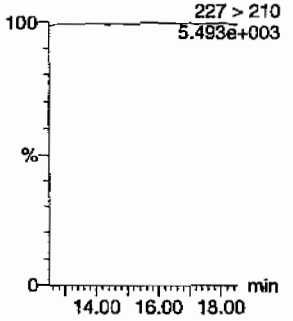

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.262e+004

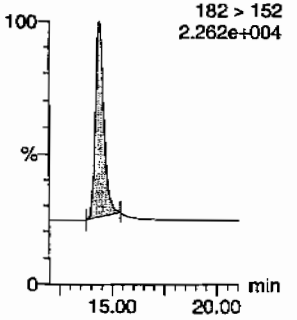

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.262e+004

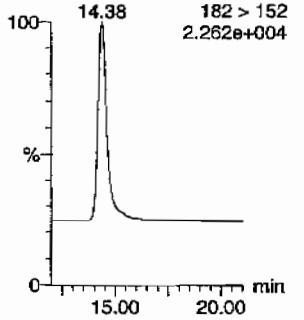

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

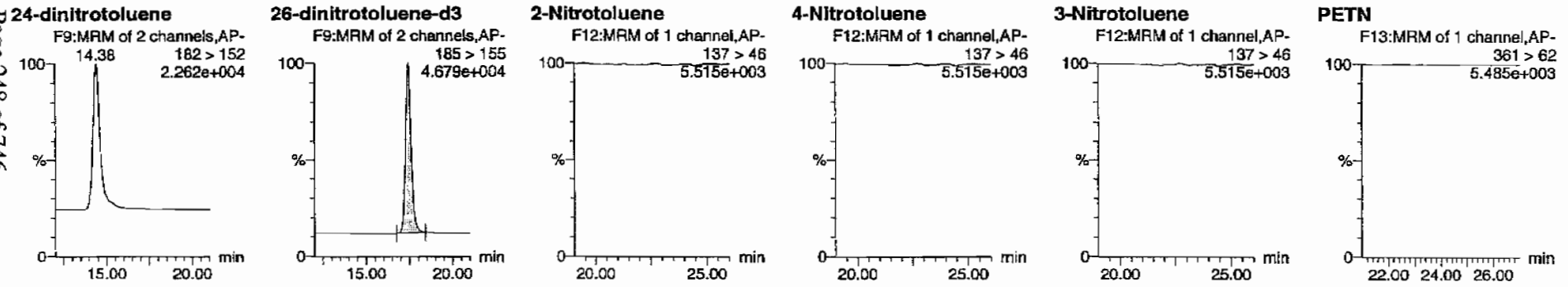

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245795010	HMX	176 > 102			2893.917									
245795010	RDX	176 > 102			2893.917									
245795010	135-Trinitrobenzene	213 > 183			2893.917									
245795010	13-Dinitrobenzene-d4	172 > 142	12.03	2893.917		2893.917	2893.917	bb			480.3316	96.1	-3.9	285.4
245795010	13-Dinitrobenzene	168 > 138			2893.917									
245795010	Tetryl	241 > 181			2893.917									
245795010	Nitrobenzene	123 > 46			2893.917									
245795010	4-Amino-26-dinitrotoluene	197 > 167			16189.825									
245795010	2-Amino-46-dinitrotoluene	197 > 180			16189.825									
245795010	246-Trinitrotoluene	227 > 210			16189.825									
245795010	34-dinitrotoluene	182 > 152	14.38	7875.769	16189.825	7875.769	243.232	bb			268.4678	107.4	7.4	827.1
245795010	26-dinitrotoluene	182 > 152			16189.825									
245795010	24-dinitrotoluene	182 > 152			16189.825									
245795010	26-dinitrotoluene-d3	185 > 155	17.42	16189.825		16189.825	16189.825	bb			464.9962	93.0	-7.0	1366.4
245795010	2-Nitrotoluene	137 > 46			16189.825									
245795010	4-Nitrotoluene	137 > 46			16189.825									
245795010	3-Nitrotoluene	137 > 46			16189.825									
245795010	PETN	361 > 62			16189.825									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7950

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170030.wiff

Date Analyzed: 17-FEB-10 17:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/19/10

Sample Name: "245795010" Sample ID: "947088|2|LER" File: "EXS02170030.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:01:40 PM

Modified: No

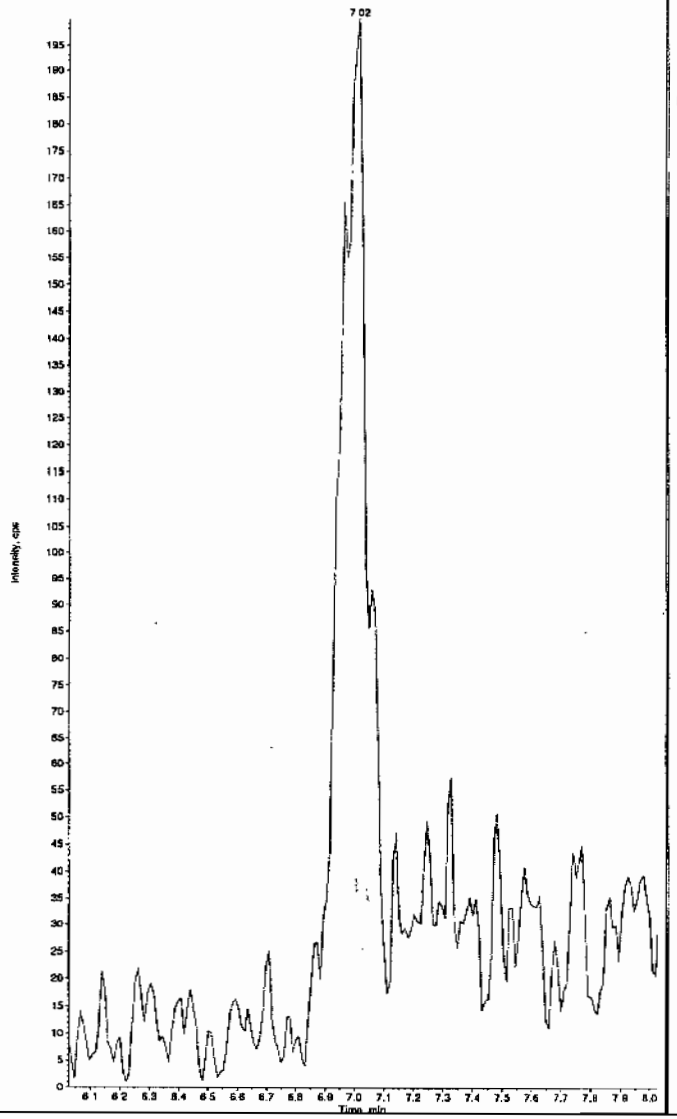

Sample Name: "245795010" Sample ID: "947088|2|LER" File: "EXS02170030.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:01:40 PM

Modified: No

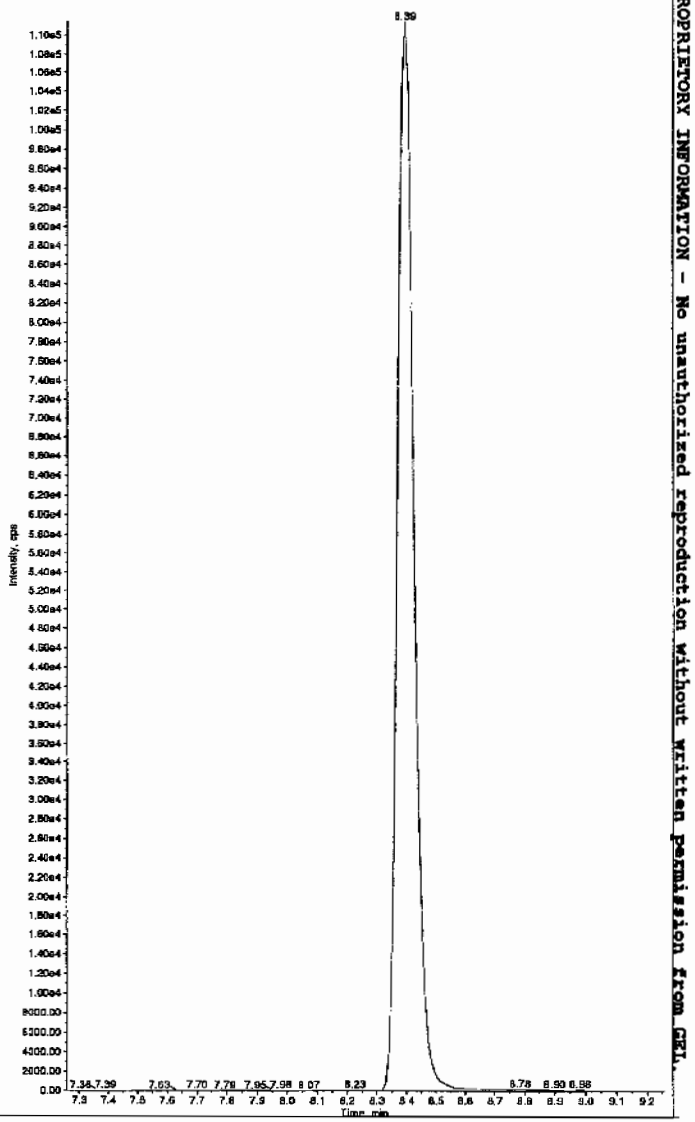

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795010" Sample ID: "947089[2]LER" File: "EXS02170030.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 306. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:01:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - 1QA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 5.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 4.07e+006 counts
Height: 1085568.481 cps
Start Time: 8.29 min
End Time: 8.85 min

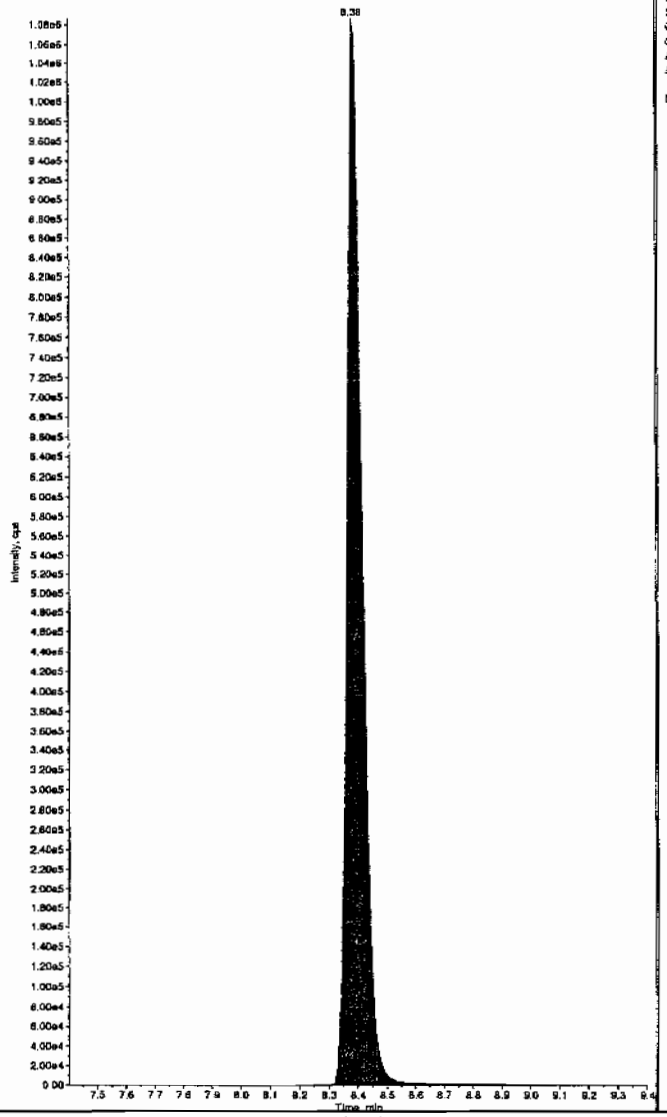

Sample Name: "245795010" Sample ID: "947089[2]LER" File: "EXS02170030.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:01:40 PM

Modified: No

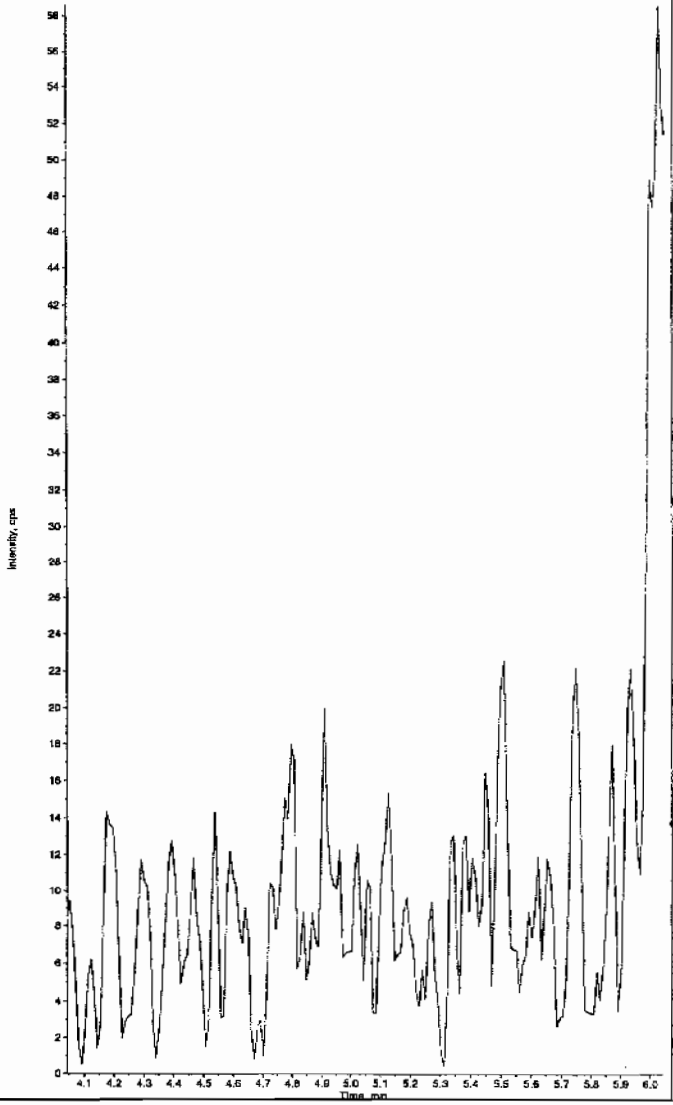

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795010" Sample ID: "947089[2]LER" File: "EXS02170030.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:01:40 PM

Modified: No

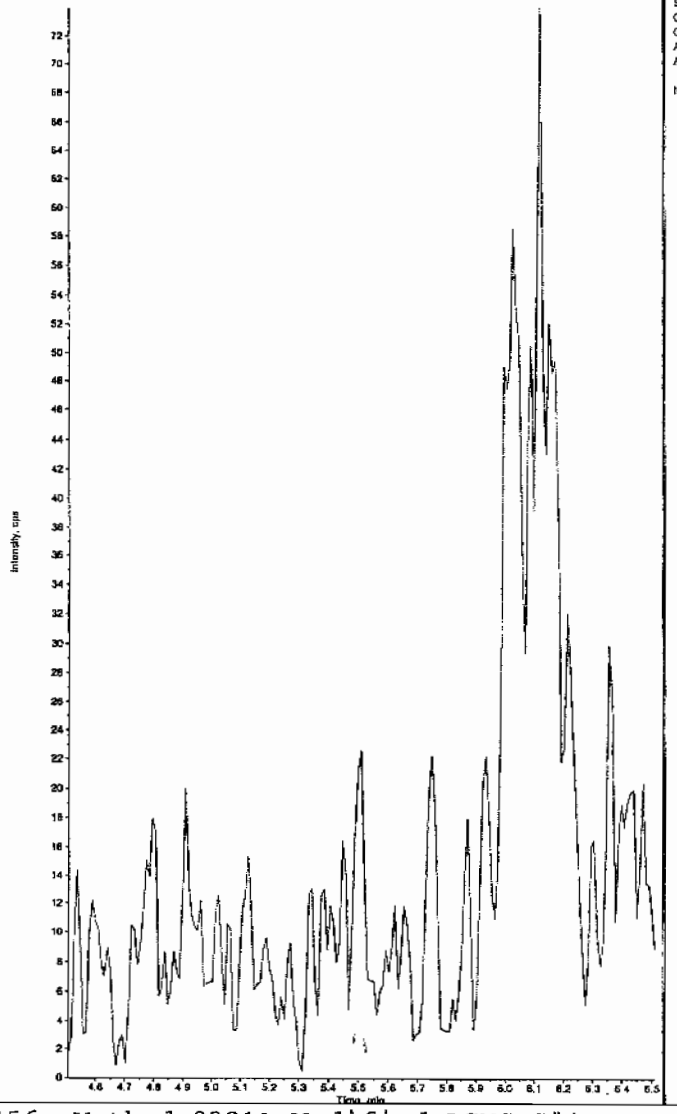

Sample Name: "245795010" Sample ID: "947089[2]LER" File: "EXS02170030.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:01:40 PM

Modified: No

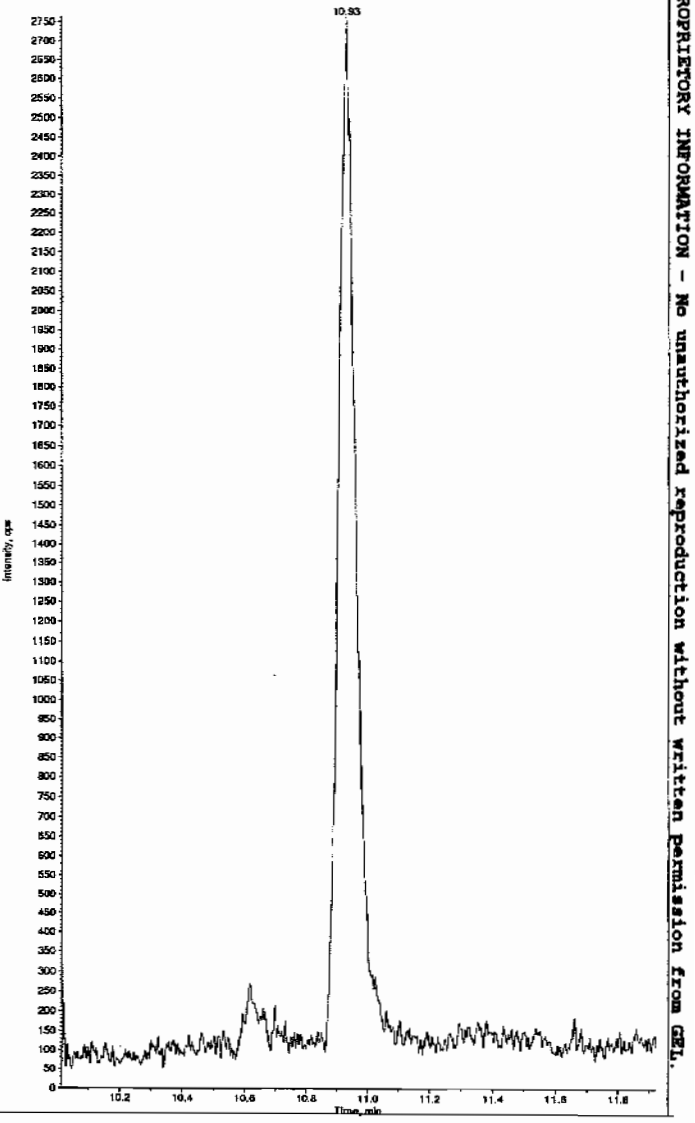

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7947

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216197a

Date Analyzed: 20-FEB-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216197a
Date: 20-Feb-2010
Time: 18:19:51
ID: 245795011 | LANL | 947089 | Solid | 2 |
Vial: 4:5,C

MH 2/4/10

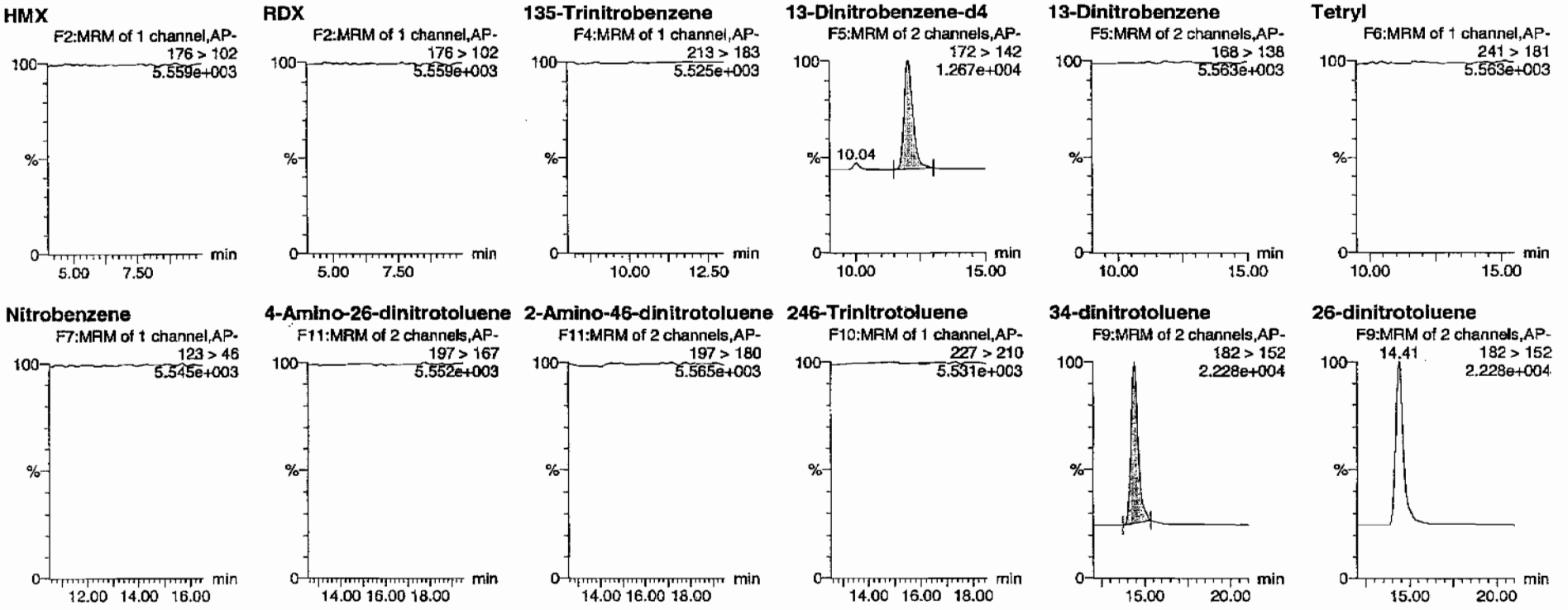

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

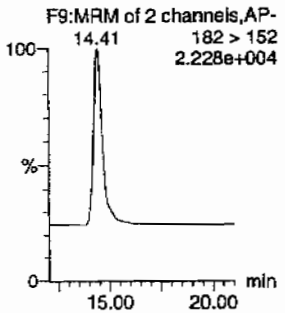

26-dinitrotoluene-d3

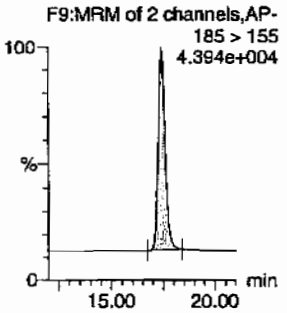

2-Nitrotoluene

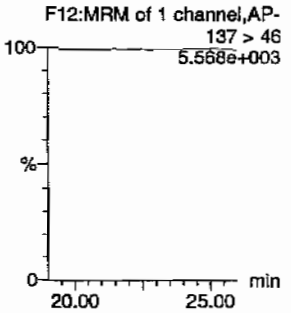

4-Nitrotoluene

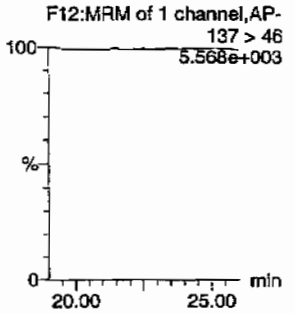

3-Nitrotoluene

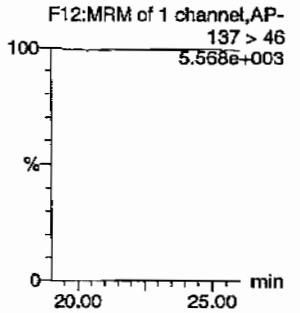

PETN

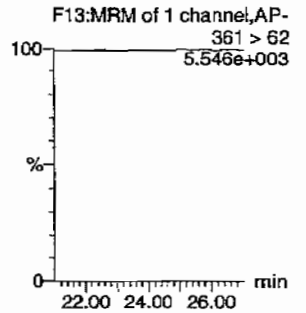

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245795011	HMX	176 > 102			2900.220									
245795011	RDX	176 > 102			2900.220									
245795011	135-Trinitrobenzene	213 > 183			2900.220									
245795011	13-Dinitrobenzene-d4	172 > 142	12.03	2900.220		2900.220	2900.220	bb			481.3777	96.3	-3.7	539.5
245795011	13-Dinitrobenzene	168 > 138			2900.220									
245795011	Tetryl	241 > 181			2900.220									
245795011	Nitrobenzene	123 > 46			2900.220									
245795011	4-Amino-26-dinitrotoluene	197 > 167			15293.089									
245795011	2-Amino-46-dinitrotoluene	197 > 180			15293.089									
245795011	246-Trinitrotoluene	227 > 210			15293.089									
245795011	34-dinitrotoluene	182 > 152	14.41	8013.831	15293.089	8013.831	262.008	bb			289.1920	115.7	15.7	718.0
245795011	26-dinitrotoluene	182 > 152			15293.089									
245795011	24-dinitrotoluene	182 > 152			15293.089									
245795011	26-dinitrotoluene-d3	185 > 155	17.43	15293.089		15293.089	15293.089	bb			439.2406	87.8	-12.2	1602.8
245795011	2-Nitrotoluene	137 > 46			15293.089									
245795011	4-Nitrotoluene	137 > 46			15293.089									
245795011	3-Nitrotoluene	137 > 46			15293.089									
245795011	PETN	361 > 62			15293.089									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7947

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170031.wiff

Date Analyzed: 17-FEB-10 17:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5--Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sar 2/19/10

Sample Name: "245795011" Sample ID: "947089|2|LER" File: "EXS02170031.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:17:21 PM

Modified: No

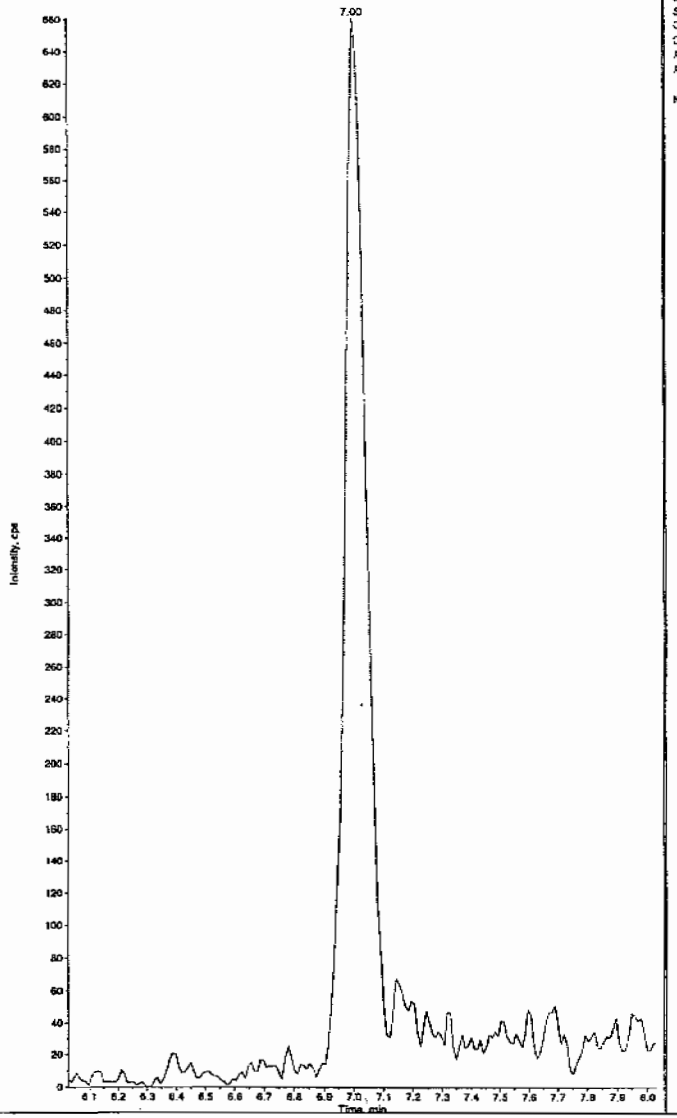

Sample Name: "245795011" Sample ID: "947089|2|LER" File: "EXS02170031.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:17:21 PM

Modified: No

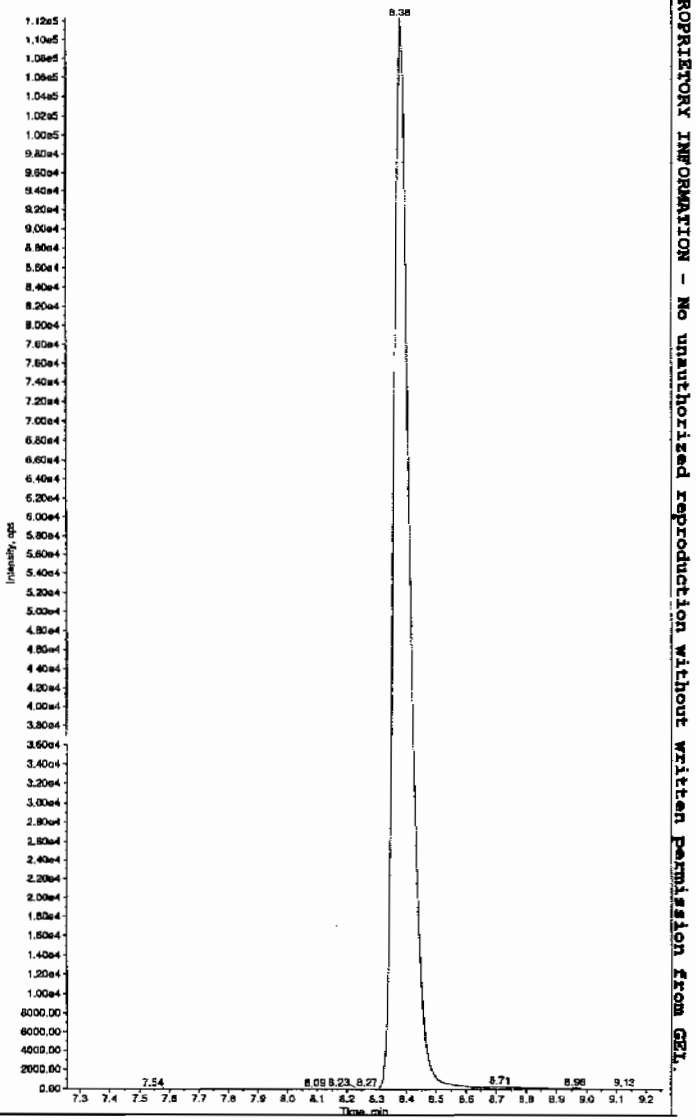

Hn 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795011" Sample ID: "947089|2|LER" File: "EXS02170031.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 295. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:17:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.93e+006 counts
Height: 1035548.340 cps
Start Time: 8.26 min
End Time: 8.81 min

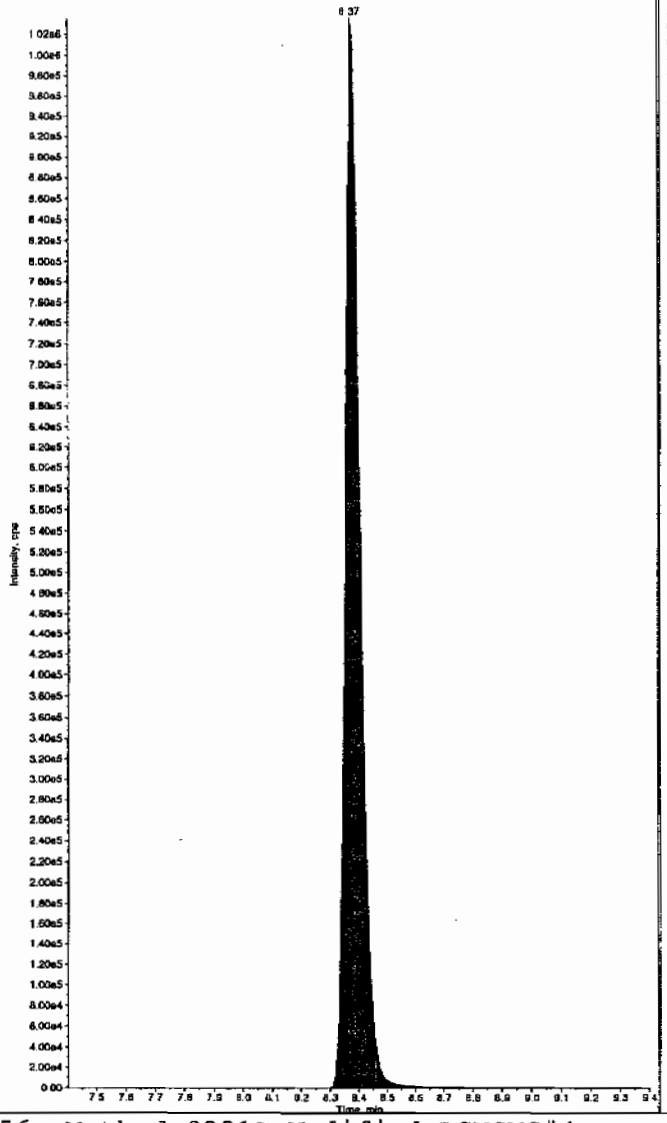

Sample Name: "245795011" Sample ID: "947089|2|LER" File: "EXS02170031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:17:21 PM

Modified: No

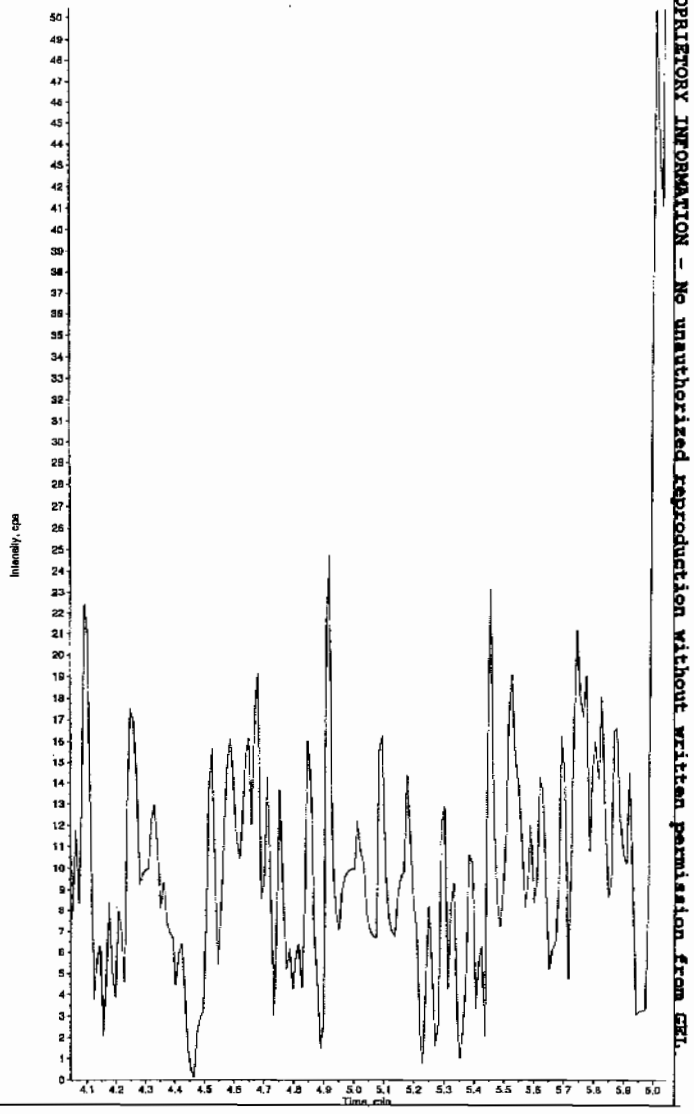

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795011" Sample ID: "947089[2]LER" File: "EXS02170031.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:17:21 PM

Modified: No

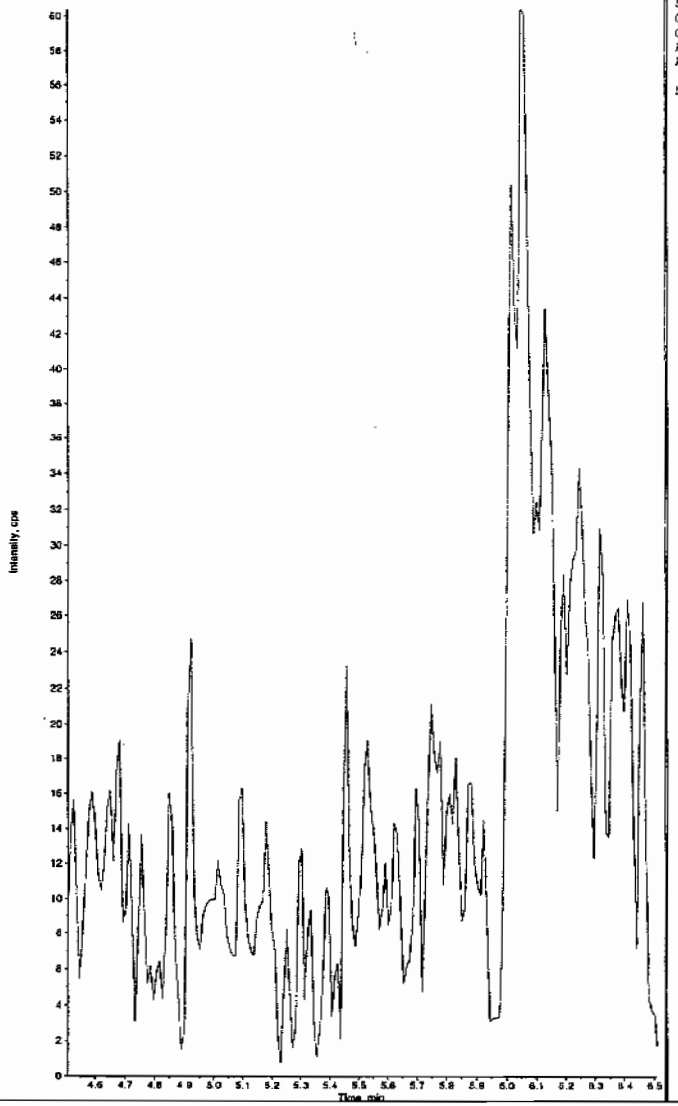

Sample Name: "245795011" Sample ID: "947089[2]LER" File: "EXS02170031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:17:21 PM

Modified: No

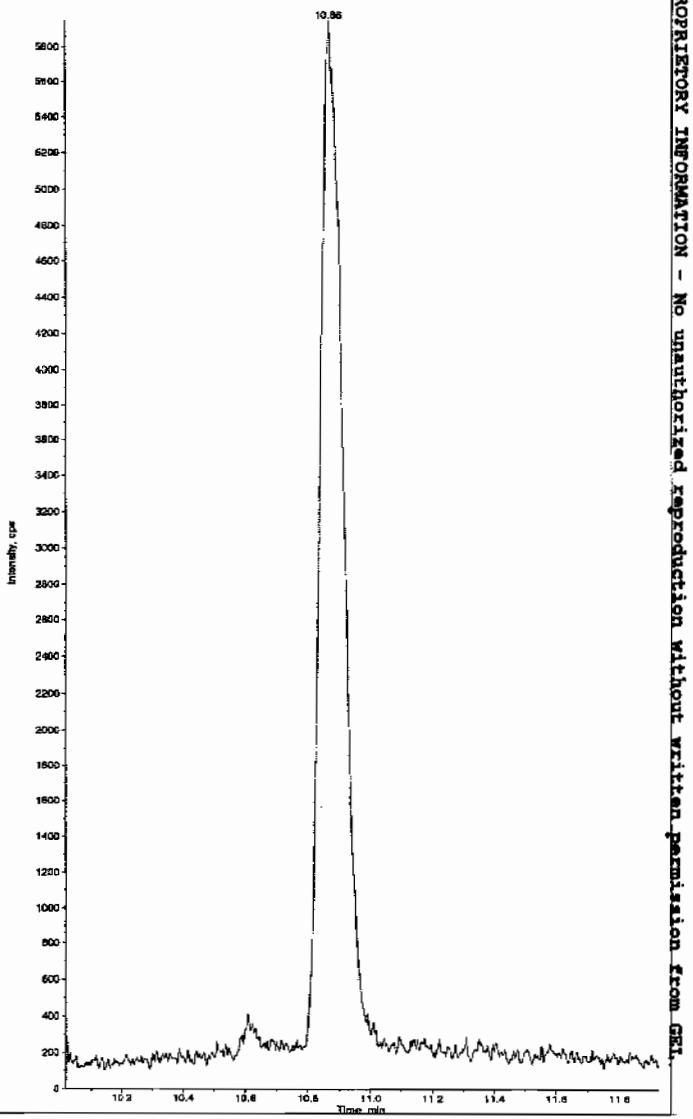

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7944

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216198a

Date Analyzed: 20-FEB-10 18:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216198a
Date: 20-Feb-2010
Time: 18:49:20
ID: 245795012 | LANL | 947089 | Solid | 2 |
Vial: 4:5,D

MMP 2/21/10

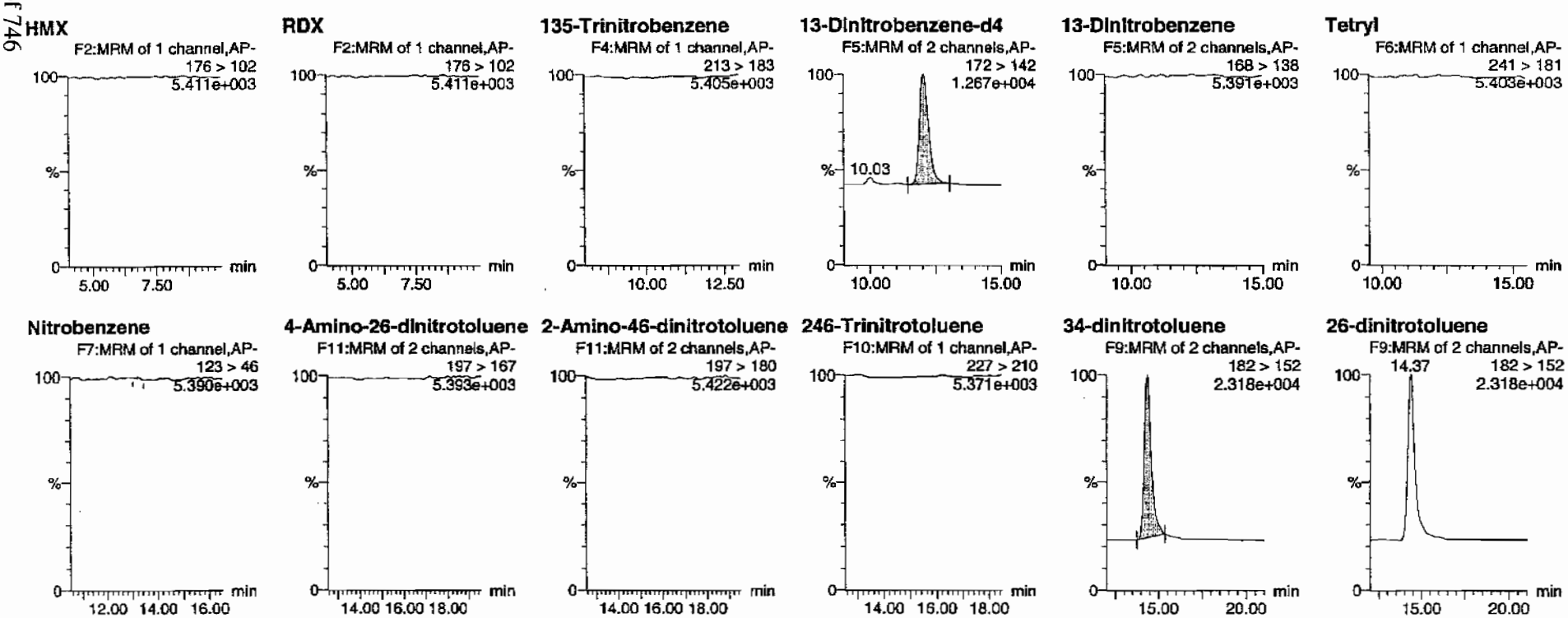

Hmm 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

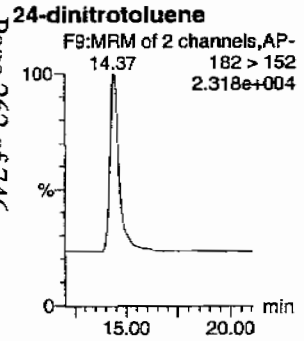

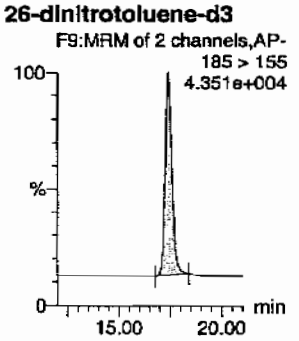

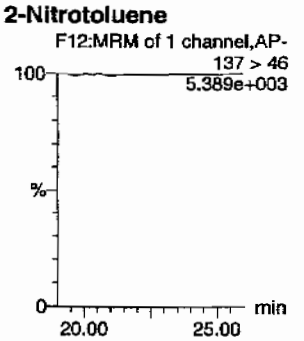

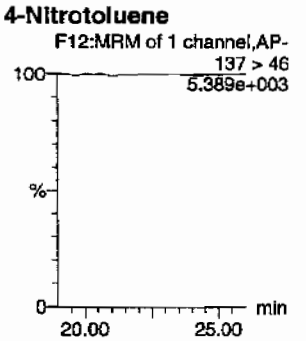

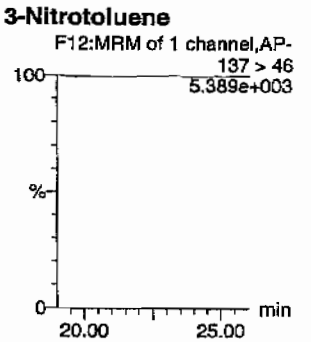

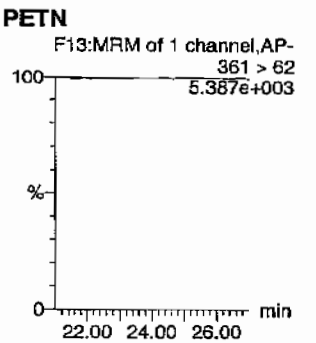

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245795012	HMX	176 > 102			2972.062									
245795012	RDX	176 > 102			2972.062									
245795012	135-Trinitrobenzene	213 > 183			2972.062									
245795012	13-Dinitrobenzene-d4	172 > 142	12.06	2972.062		2972.062	2972.062	bb			493.3021	98.7	-1.3	245.8
245795012	13-Dinitrobenzene	168 > 138			2972.062									
245795012	Tetryl	241 > 181			2972.062									
245795012	Nitrobenzene	123 > 46			2972.062			MM-	21-Feb-10	11:59:25				
245795012	4-Amino-26-dinitrotoluene	197 > 167			15040.382									
245795012	2-Amino-46-dinitrotoluene	197 > 180			15040.382									
245795012	246-Trinitrotoluene	227 > 210			15040.382									
245795012	34-dinitrotoluene	182 > 152	14.37	8399.979	15040.382	8399.979	279.248	bb			308.2199	123.3	23.3	965.2
245795012	26-dinitrotoluene	182 > 152			15040.382									
245795012	24-dinitrotoluene	182 > 152			15040.382									
245795012	26-dinitrotoluene-d3	185 > 155	17.41	15040.382		15040.382	15040.382	bb			431.9825	86.4	-13.6	2686.6
245795012	2-Nitrotoluene	137 > 46			15040.382									
245795012	4-Nitrotoluene	137 > 46			15040.382									
245795012	3-Nitrotoluene	137 > 46			15040.382									
245795012	PETN	361 > 62			15040.382									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7944

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170032.wiff

Date Analyzed: 17-FEB-10 17:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sam 2/19/10

Sample Name: "245795012" Sample ID: "947089|2|LER" File: "EXS02170032.wif"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:33:03 PM

Modified: No

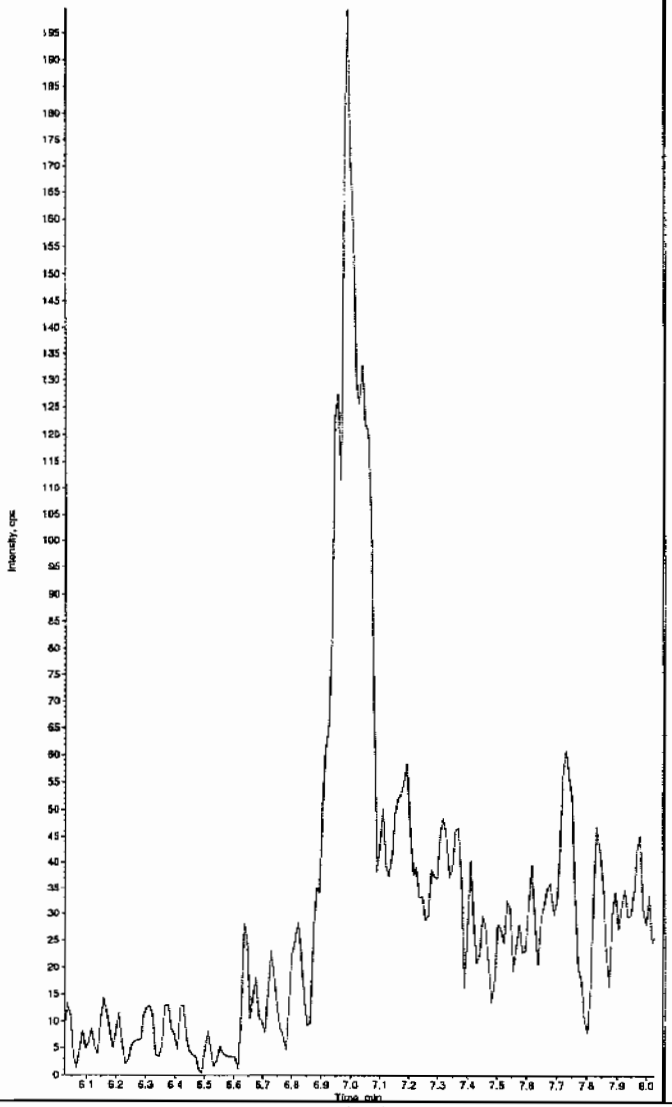

Sample Name: "245795012" Sample ID: "947089|2|LER" File: "EXS02170032.wif"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:33:03 PM

Modified: No

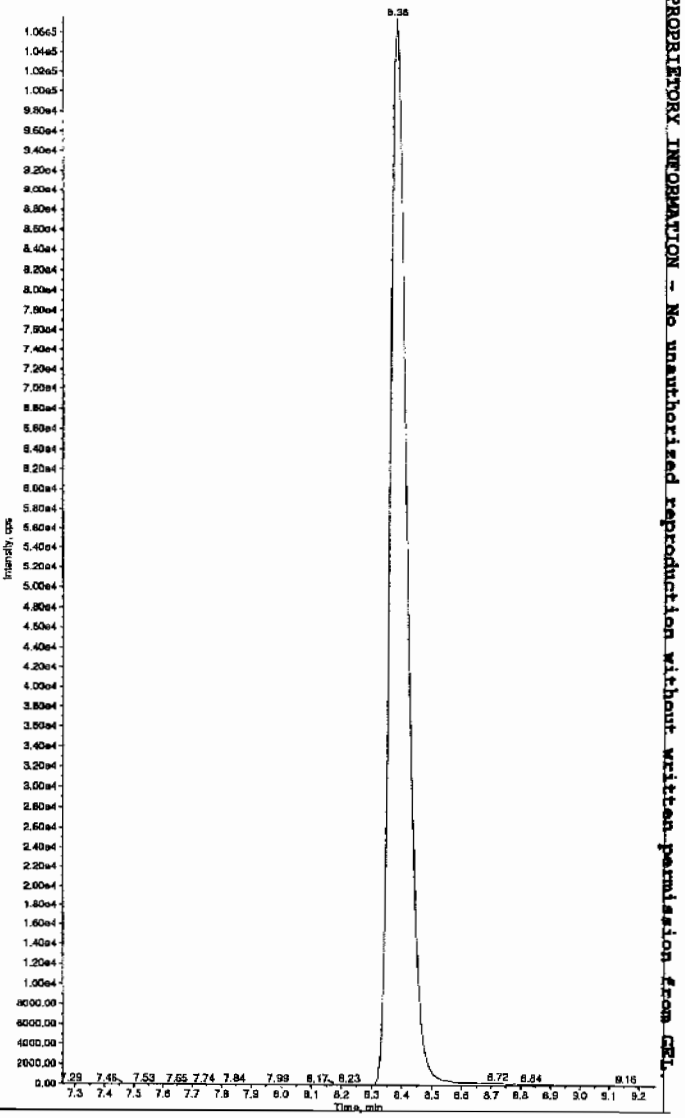

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795012" Sample ID: "947089|2|LER" File: "EXS02170032.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 303. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:33:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 4.04e+006 counts
Height: 1016952.942 cps
Start Time: 8.25 min
End Time: 8.85 min

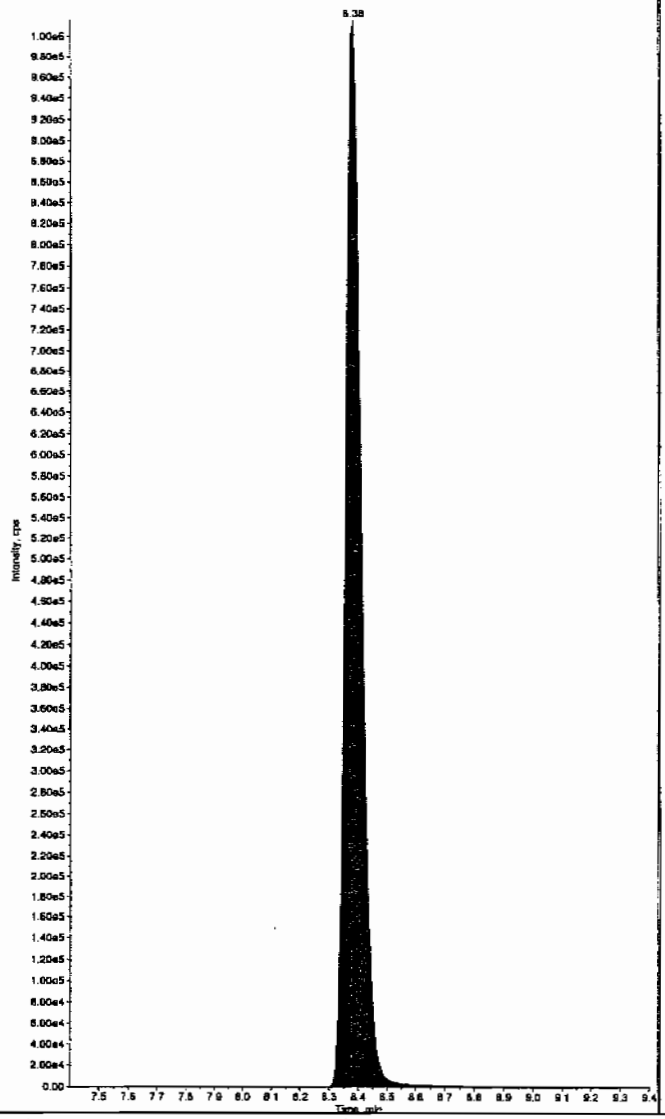

Sample Name: "245795012" Sample ID: "947089|2|LER" File: "EXS02170032.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:33:03 PM

Modified: No

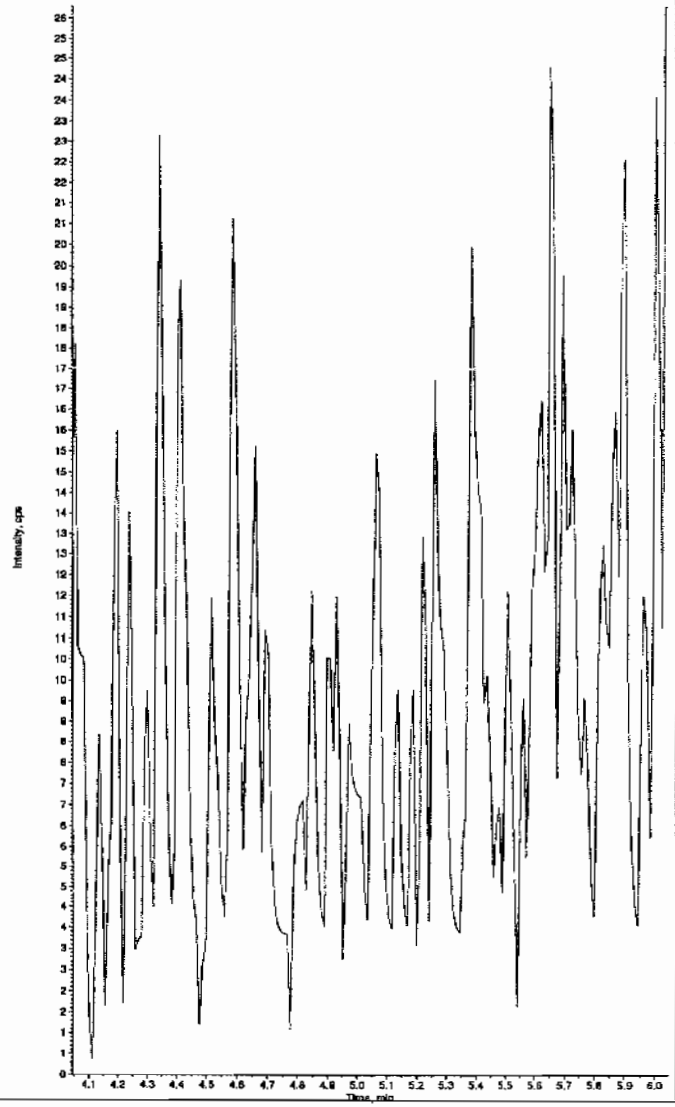

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795012" Sample ID: "947089[2]LER" File: "EXS02170032.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:33:03 PM

Modified: No

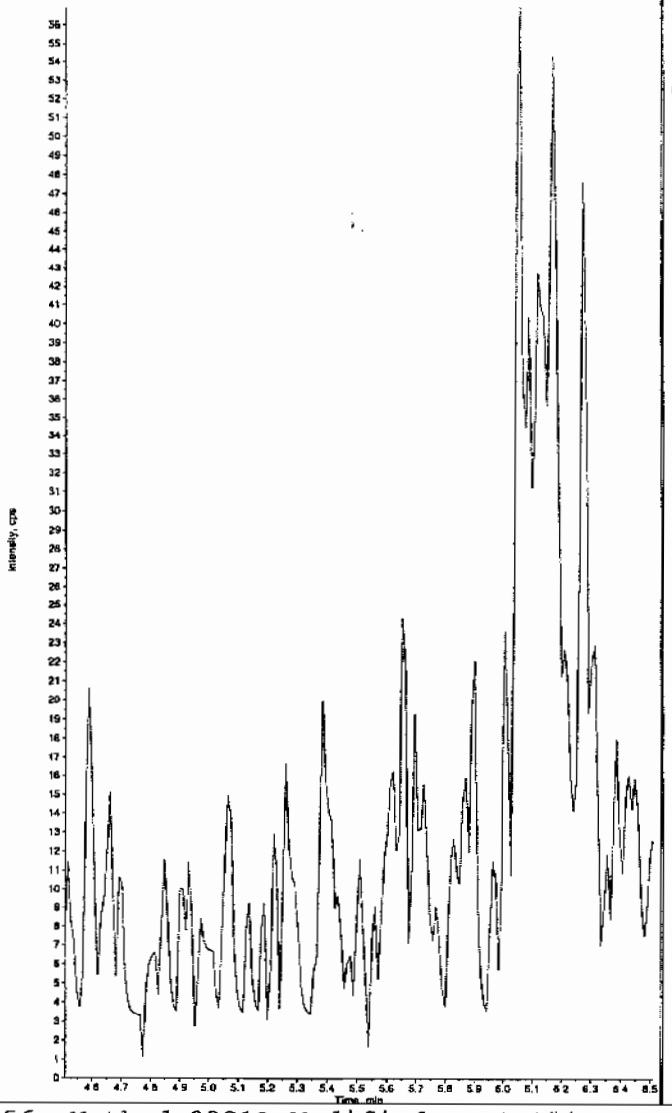

Sample Name: "245795012" Sample ID: "947089[2]LER" File: "EXS02170032.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:33:03 PM

Modified: No

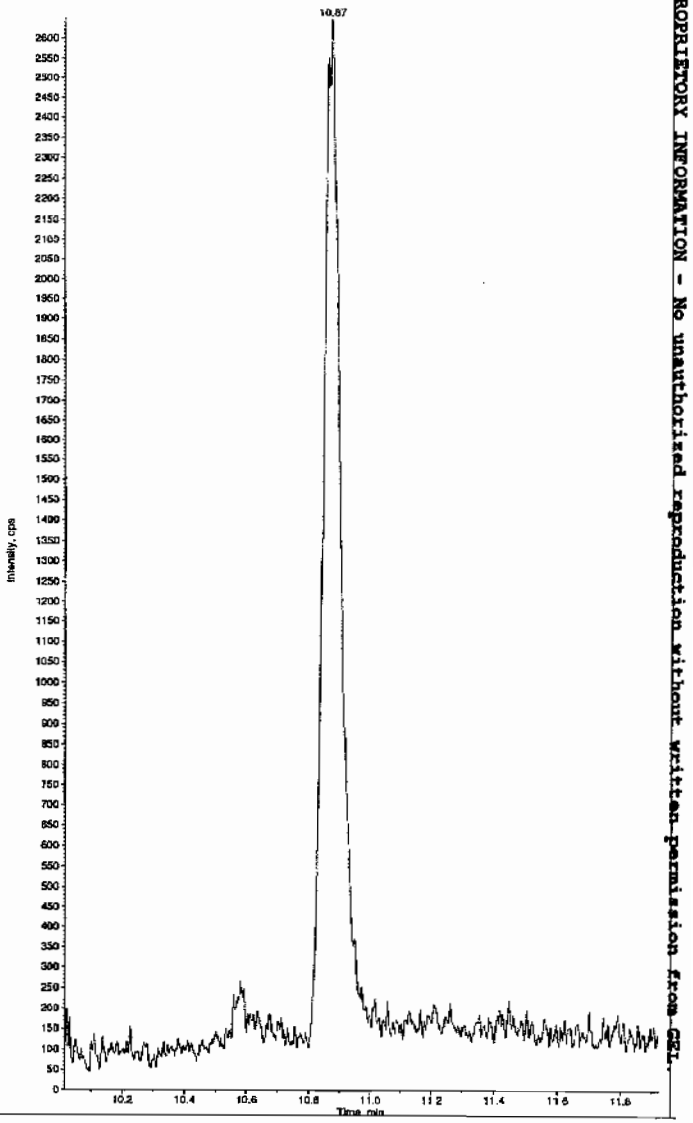

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7948

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795013

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216199a

Date Analyzed: 20-FEB-10 19:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216199a
Date: 20-Feb-2010
Time: 19:19:04
ID: 245795013 | LANL | 947089 | Solids | 2 |
Vial: 4:5,E

MAT 2/21/10

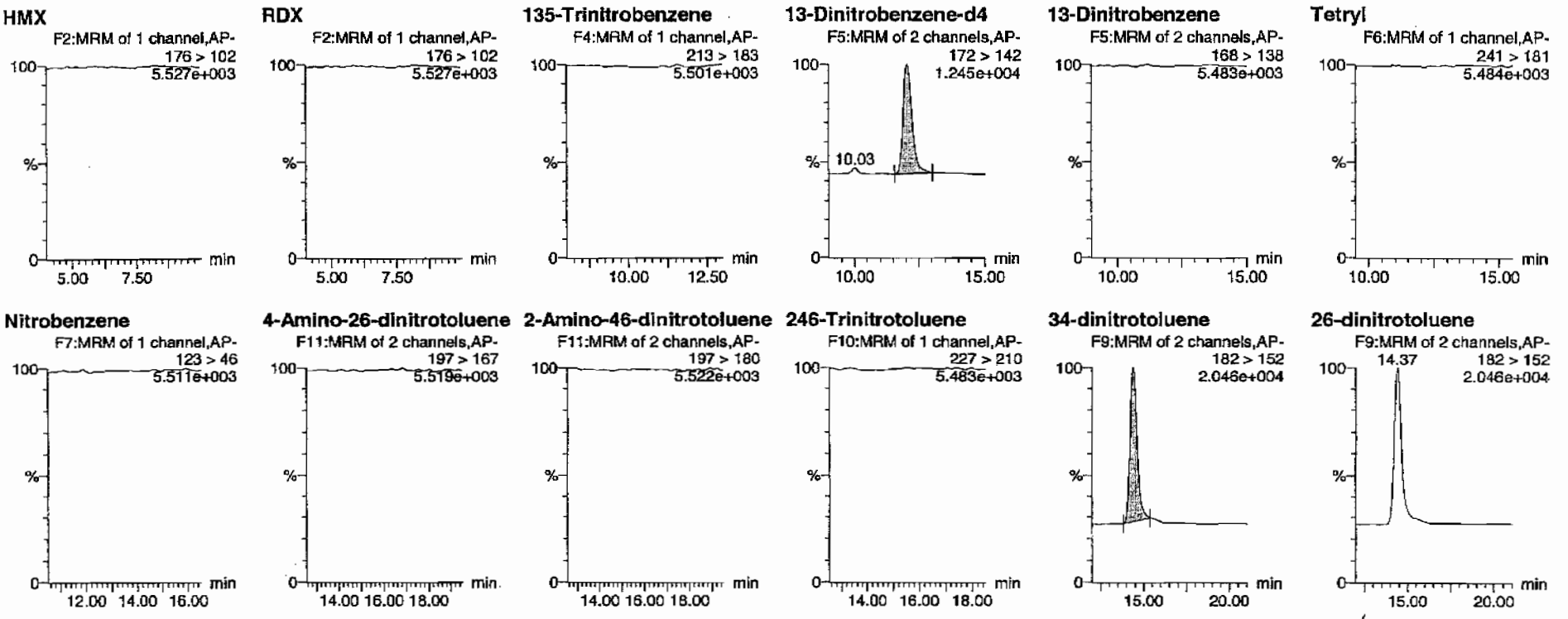

MM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

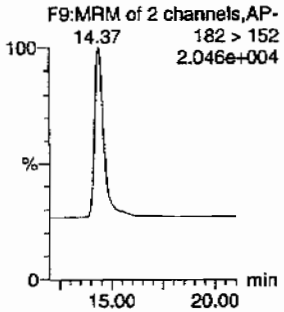

26-dinitrotoluene-d3

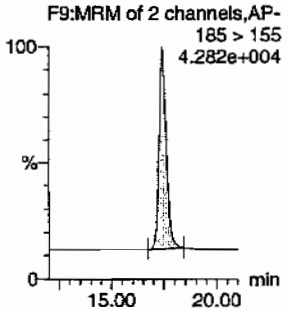

2-Nitrotoluene

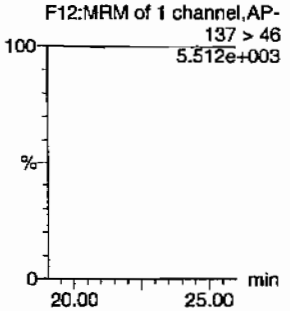

4-Nitrotoluene

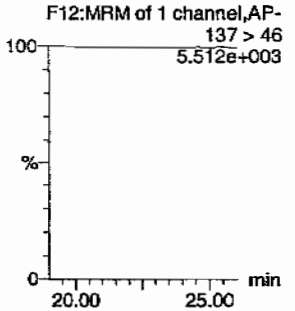

3-Nitrotoluene

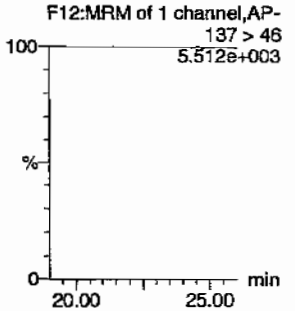

PETN

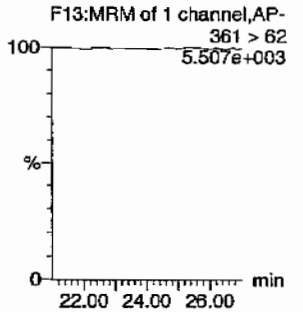

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245795013	HMX	176 > 102			2809.954									
245795013	RDX	176 > 102			2809.954									
245795013	135-Trinitrobenzene	213 > 183			2809.954									
245795013	13-Dinitrobenzene-d4	172 > 142	12.06	2809.954		2809.954	2809.954	bb			466.3954	93.3	-6.7	317.7
245795013	13-Dinitrobenzene	168 > 138			2809.954									
245795013	Tetryl	241 > 181			2809.954									
245795013	Nitrobenzene	123 > 46			2809.954									
245795013	4-Amino-26-dinitrotoluene	197 > 167			14995.920									
245795013	2-Amino-46-dinitrotoluene	197 > 180			14995.920									
245795013	246-Trinitrotoluene	227 > 210			14995.920									
245795013	34-dinitrotoluene	182 > 152	14.37	6976.615	14995.920	6976.615	232.617	bb			256.7515	102.7	2.7	324.8
245795013	26-dinitrotoluene	182 > 152			14995.920									
245795013	24-dinitrotoluene	182 > 152			14995.920									
245795013	26-dinitrotoluene-d3	185 > 155	17.43	14995.920		14995.920	14995.920	bb			430.7055	86.1	-13.9	1832.4
245795013	2-Nitrotoluene	137 > 46			14995.920									
245795013	4-Nitrotoluene	137 > 46			14995.920									
245795013	3-Nitrotoluene	137 > 46			14995.920									
245795013	PETN	361 > 62			14995.920									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7948

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795013

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170033.wiff

Date Analyzed: 17-FEB-10 17:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sen 2/19/10

Sample Name: "245795013" Sample ID: "947089|2|LER" File: "EXS02170033.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:48:45 PM

Modified: No

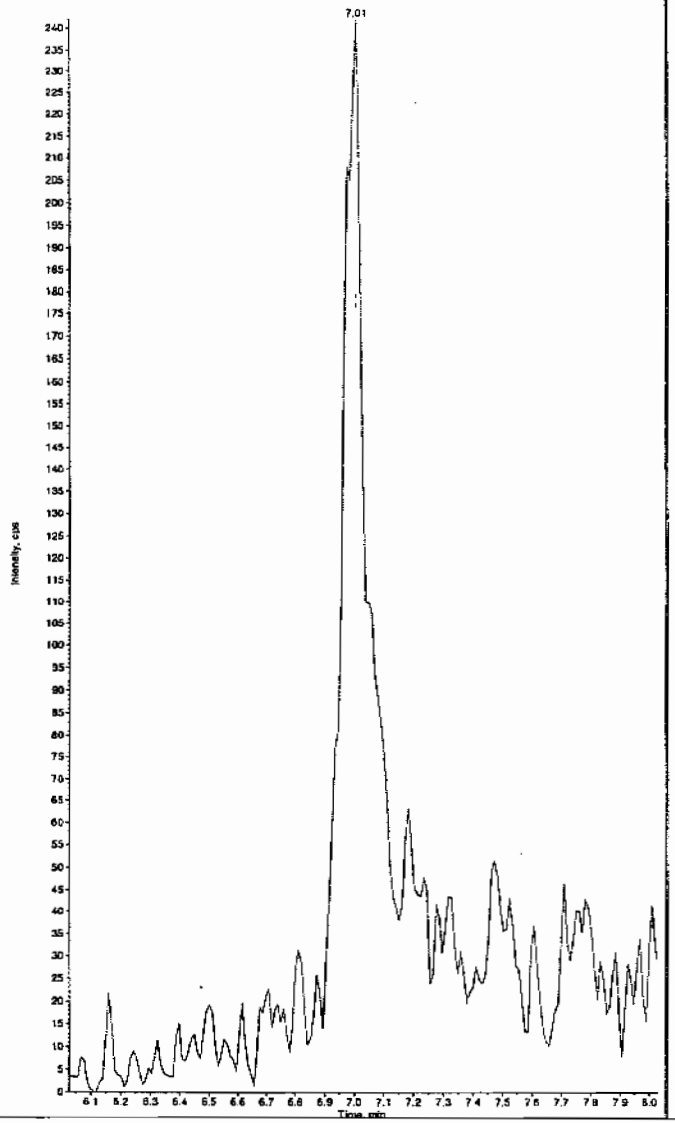

Sample Name: "245795013" Sample ID: "947089|2|LER" File: "EXS02170033.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:48:45 PM

Modified: Yes

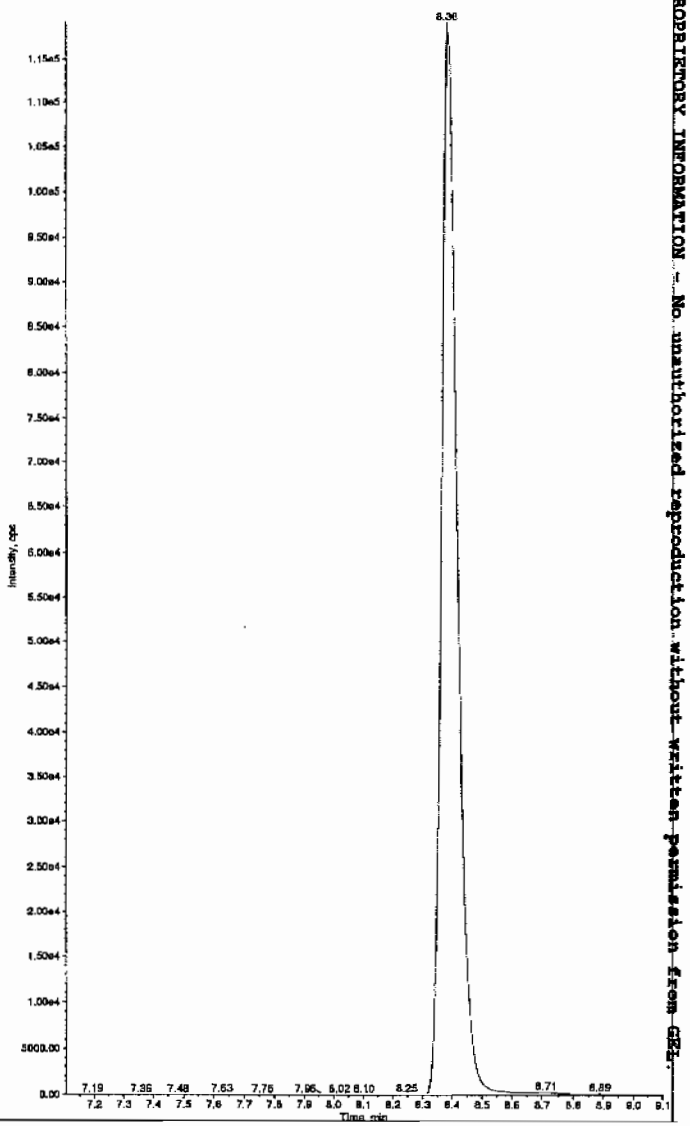

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795013" Sample ID: "947089|2|LER" File: "EXS02170033.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 297. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:43:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 3.86e+006 counts
Height: 1094856.934 cps
Start Time: 8.21 min
End Time: 8.39 min

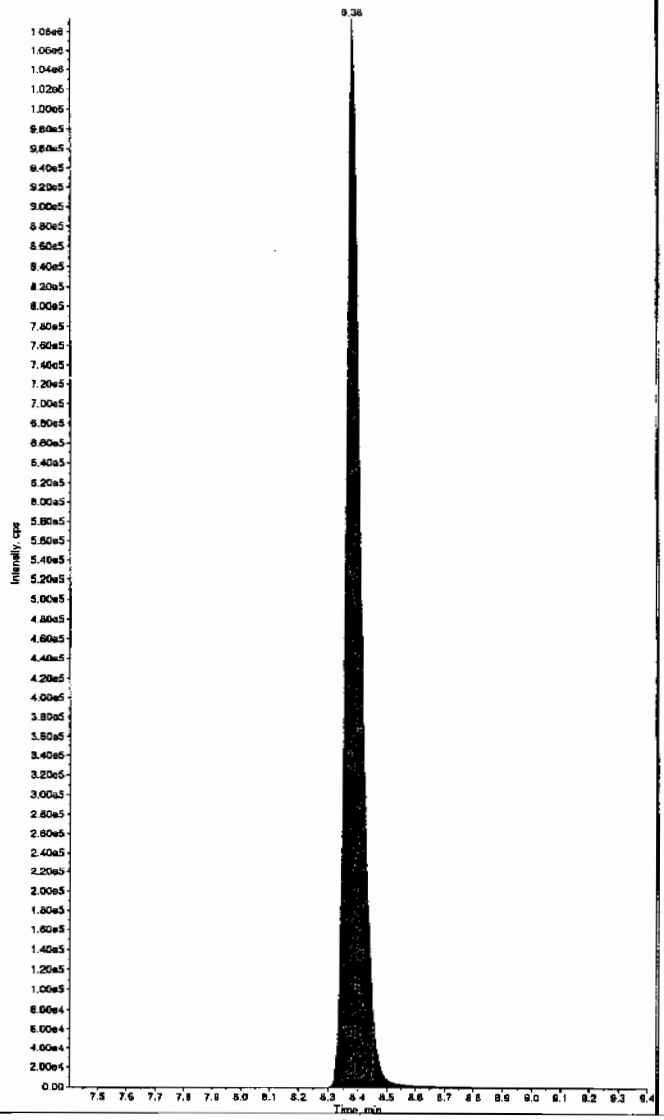

Sample Name: "245795013" Sample ID: "947089|2|LER" File: "EXS02170033.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:48:45 PM

Modified: No

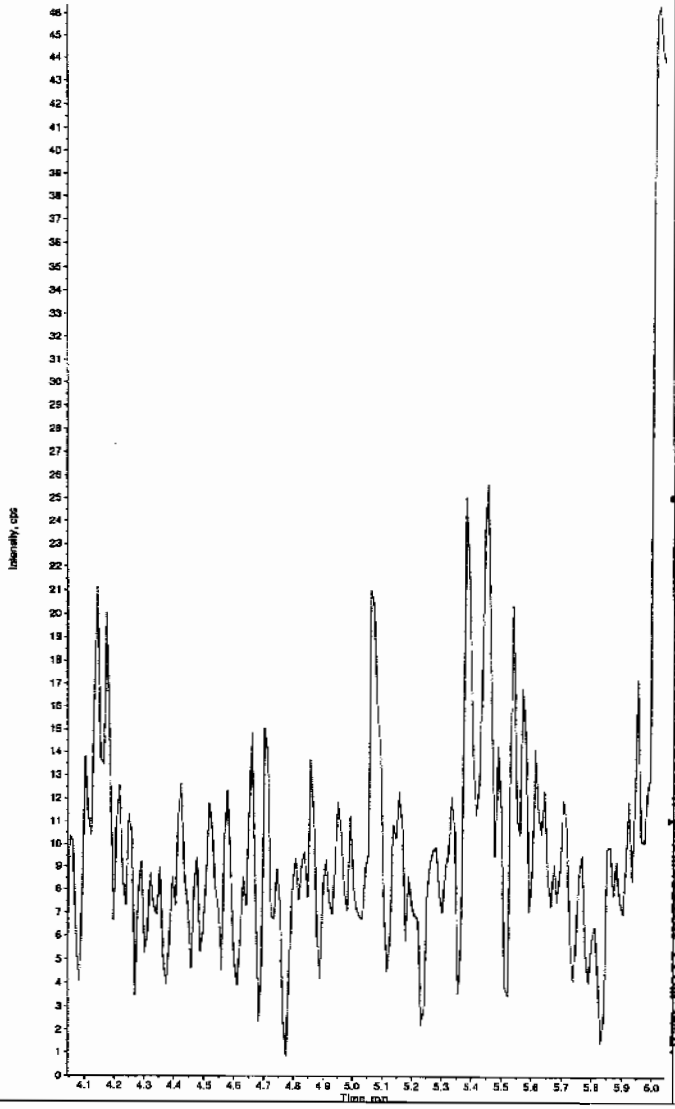

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245795013" Sample ID: "947089|2|LER" File: "EXS02170033.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:48:45 PM

Modified: No

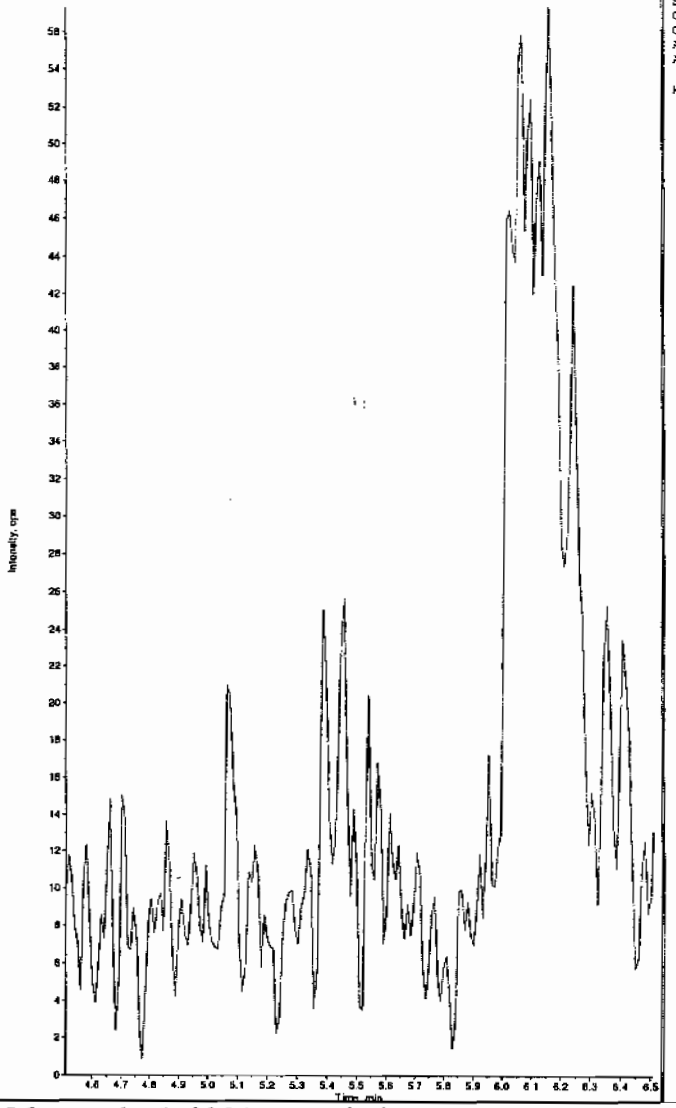

Sample Name: "245795013" Sample ID: "947089|2|LER" File: "EXS02170033.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 5:48:45 PM

Modified: No

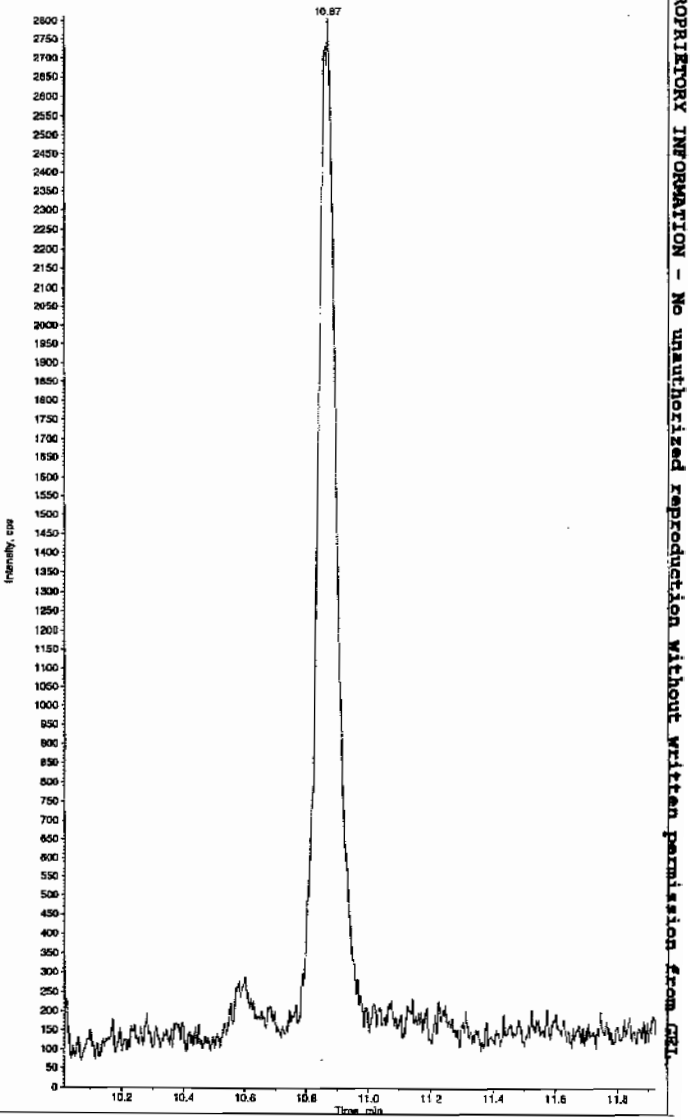

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7941

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795014

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216200a

Date Analyzed: 20-FEB-10 19:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216200a
Date: 20-Feb-2010
Time: 19:48:48
ID: 245795014 | LANC | 947089 | Solids | 2 |
Vial: 4:5,F

HMX
2/21/10

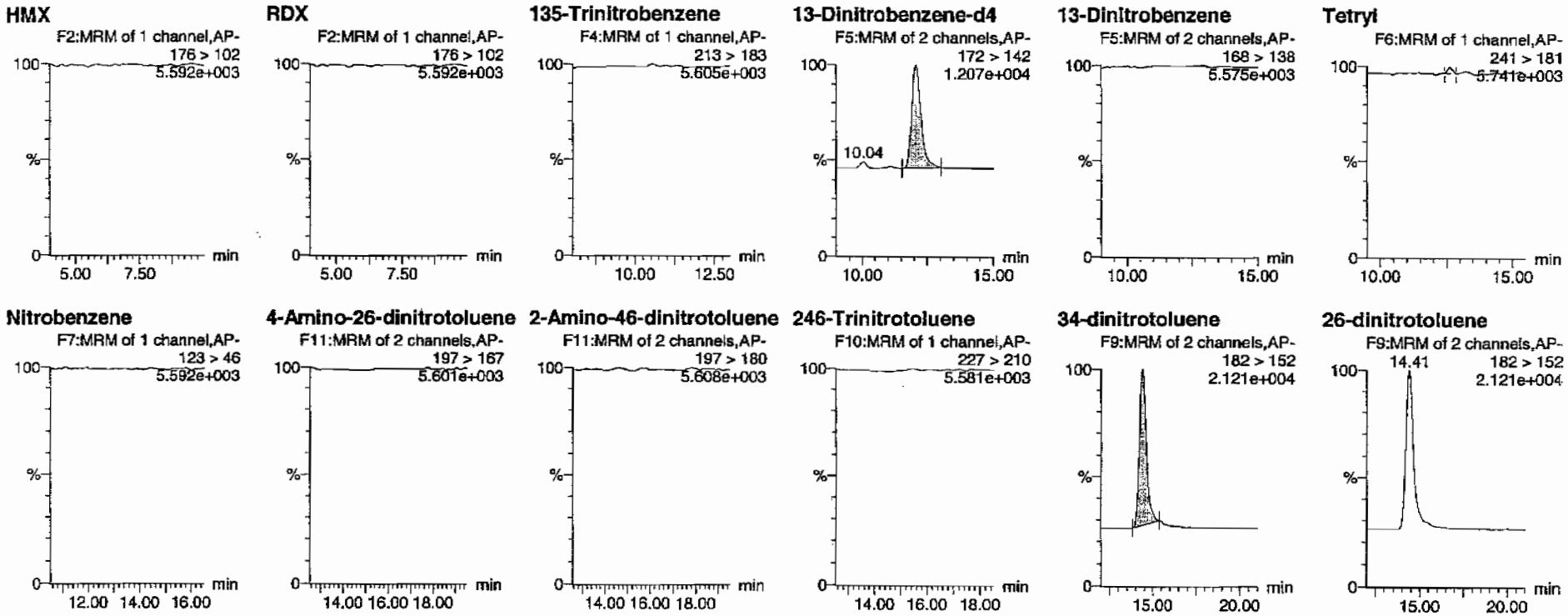

HMM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

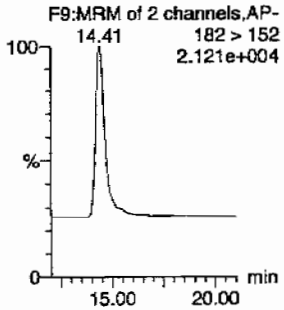

26-dinitrotoluene-d3

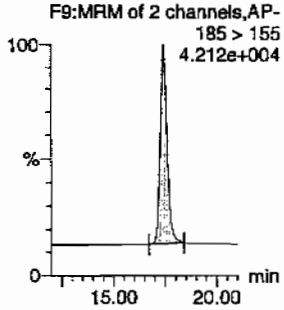

2-Nitrotoluene

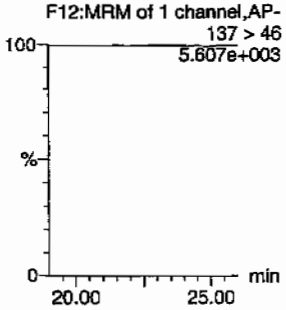

4-Nitrotoluene

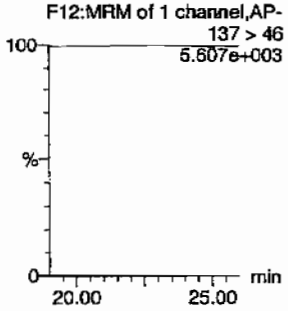

3-Nitrotoluene

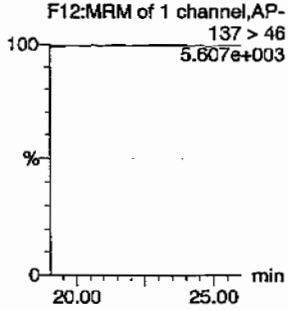

PETN

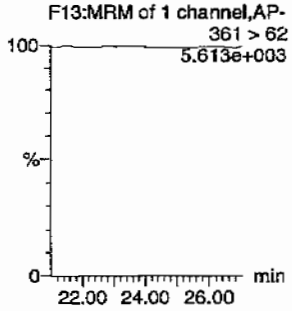

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245795014	HMX	176 > 102			2696.045									
245795014	RDX	176 > 102			2696.045									
245795014	135-Trinitrobenzene	213 > 183			2696.045									
245795014	13-Dinitrobenzene-d4	172 > 142	12.06	2696.045		2696.045	2696.045	bb			447.4888	89.5	-10.5	574.5
245795014	13-Dinitrobenzene	168 > 138			2696.045									
245795014	Tetryl	241 > 181			2696.045			MM-	21-Feb-10	11:59:55				
245795014	Nitrobenzene	123 > 46			2696.045									
245795014	4-Amino-26-dinitrotoluene	197 > 167			14578.744									
245795014	2-Amino-46-dinitrotoluene	197 > 180			14578.744									
245795014	246-Trinitrotoluene	227 > 210			14578.744									
245795014	34-dinitrotoluene	182 > 152	14.41	7283.888	14578.744	7283.888	249.812	bb			275.7303	110.3	10.3	355.9
245795014	26-dinitrotoluene	182 > 152			14578.744									
245795014	24-dinitrotoluene	182 > 152			14578.744									
245795014	26-dinitrotoluene-d3	185 > 155	17.43	14578.744		14578.744	14578.744	bb			418.7235	83.7	-16.3	1697.8
245795014	2-Nitrotoluene	137 > 46			14578.744									
245795014	4-Nitrotoluene	137 > 46			14578.744									
245795014	3-Nitrotoluene	137 > 46			14578.744									
245795014	PETN	361 > 62			14578.744									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7941

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795014

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170034.wiff

Date Analyzed: 17-FEB-10 18:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sar 2/19/10

Sample Name: "245795014" Sample ID: "947089|2|LER" File: "EXS02170034.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:04:23 PM

Modified: No

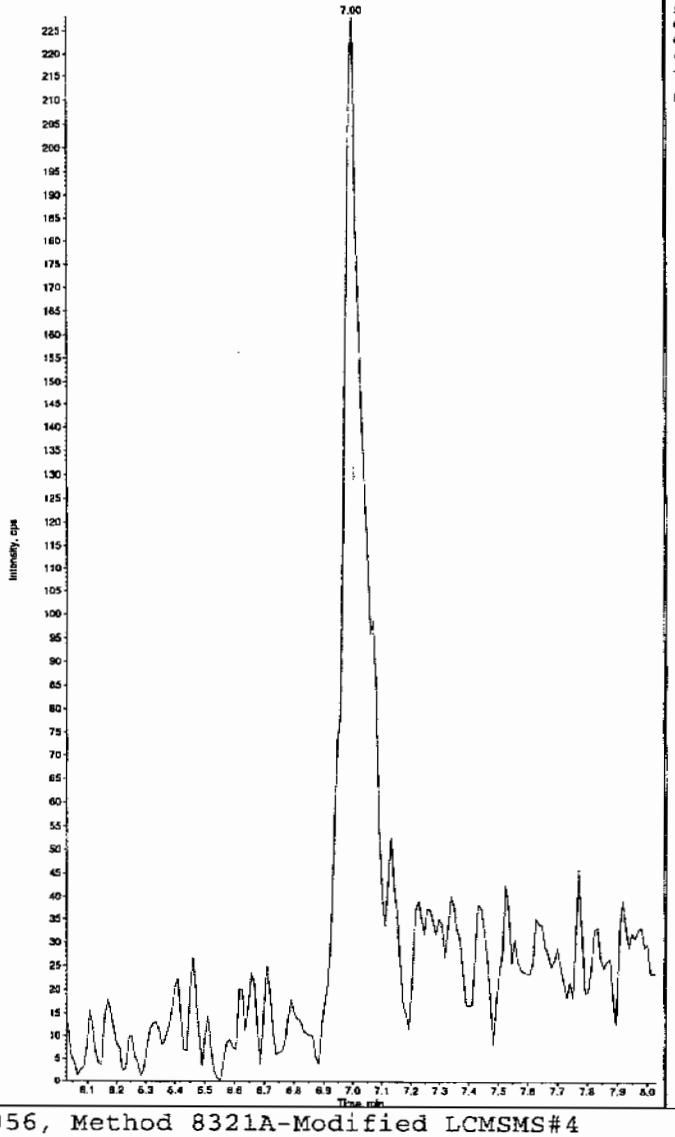

Sample Name: "245795014" Sample ID: "947089|2|LER" File: "EXS02170034.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:04:29 PM

Modified: No

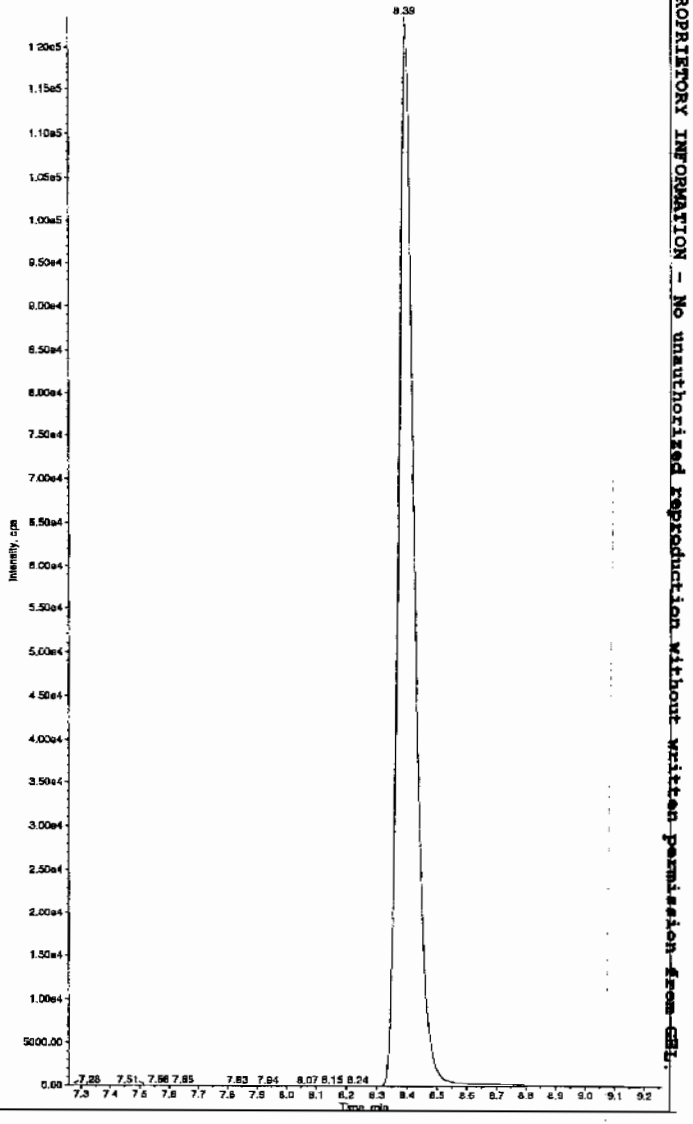

Hmm 02/19/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795014" Sample ID: "947089|2|LER" File: "EXS02170034.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 309. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:04:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 4.12e+006 cpsmin
Height: 1056850.250 cps
Start Time: 8.28 min
End Time: 8.76 min

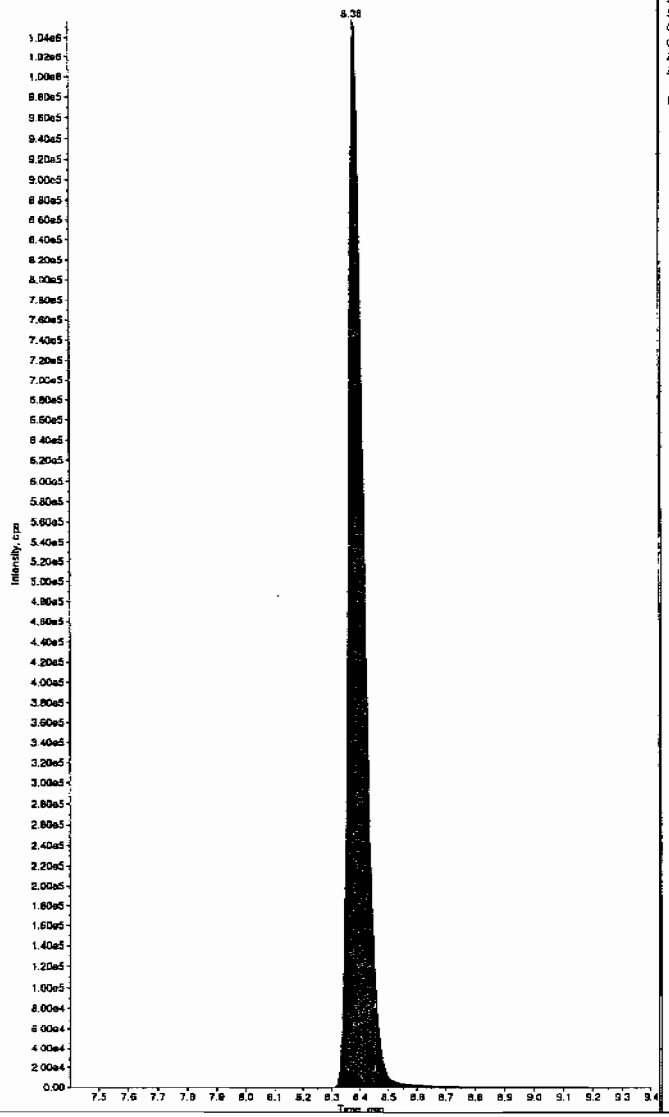

Sample Name: "245795014" Sample ID: "947089|2|LER" File: "EXS02170034.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:04:29 PM

Modified: No

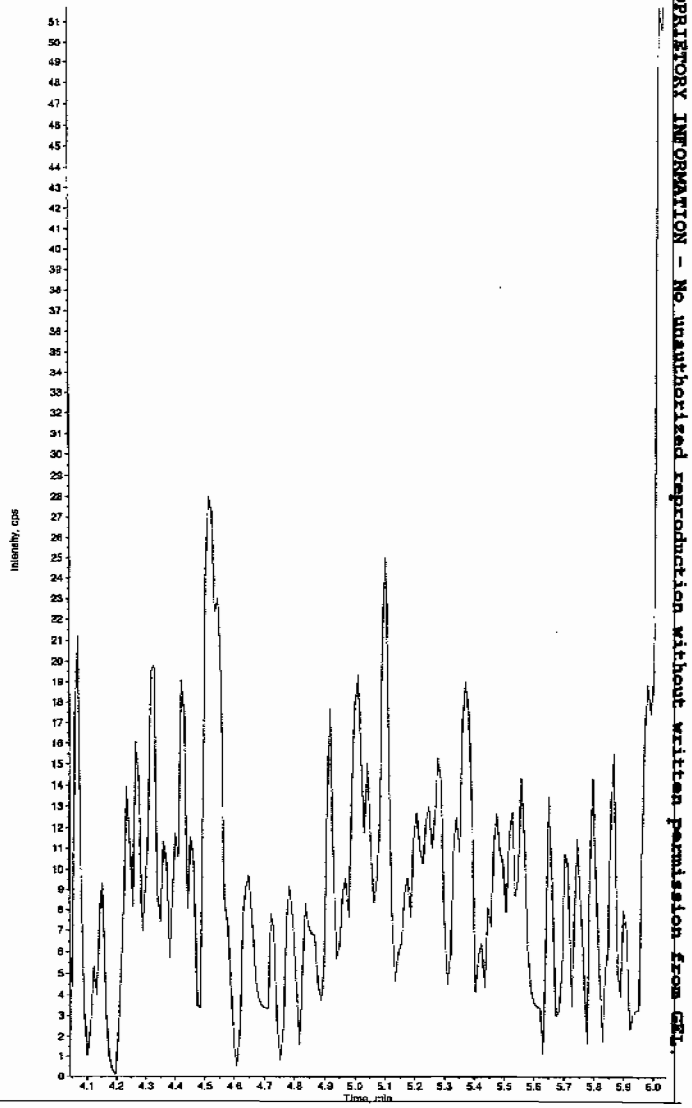

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795014" Sample ID: "947089|2|LER" File: "EXS02170034.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:04:29 PM

Modified: No

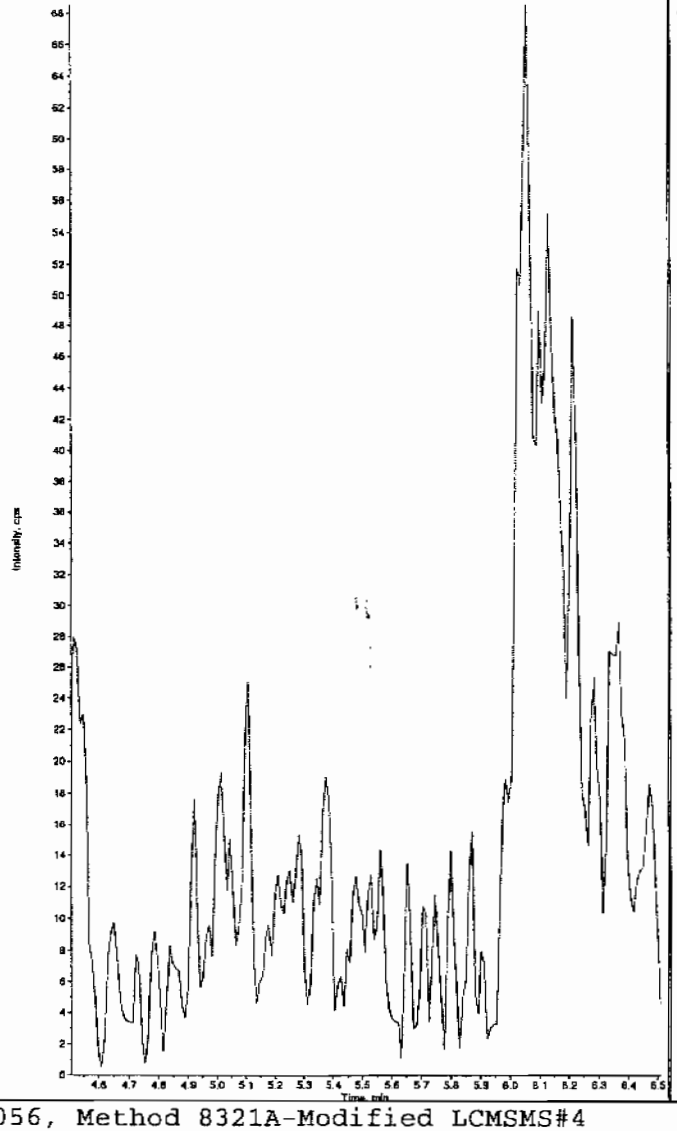

Sample Name: "245795014" Sample ID: "947089|2|LER" File: "EXS02170034.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:04:29 PM

Modified: No

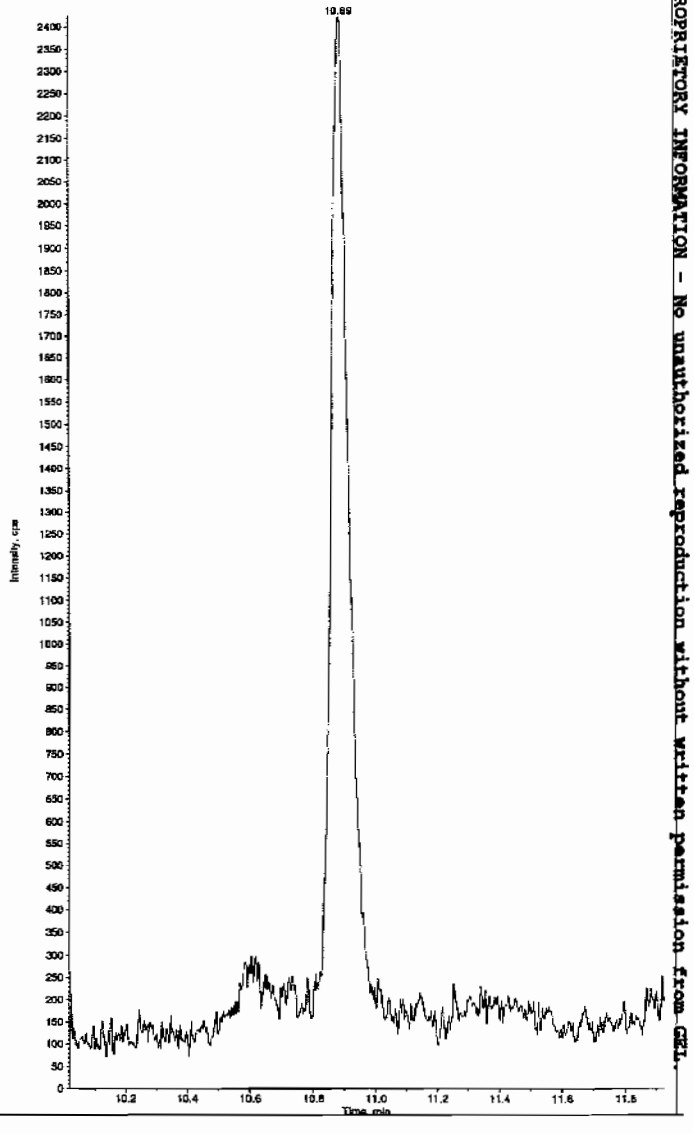

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7949

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795015

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216201a

Date Analyzed: 20-FEB-10 20:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216201a
Date: 20-Feb-2010
Time: 20:18:17
ID: 245795015 | LANU | 947089 | Soils | 2 |
Vial: 4:6,A

MAT 2/21/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.820e+003

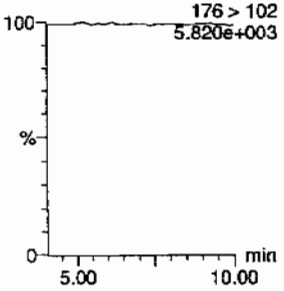

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.820e+003

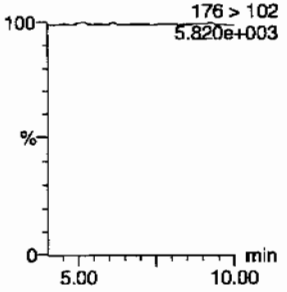

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.775e+003

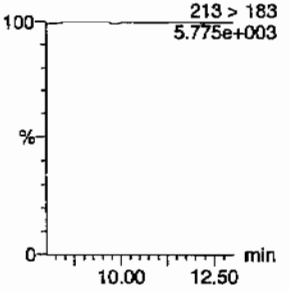

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.272e+004

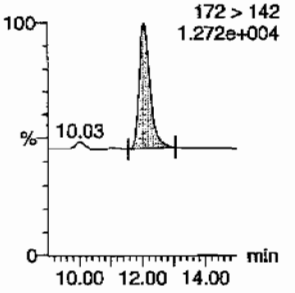

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.805e+003

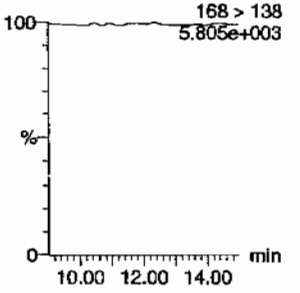

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.801e+003

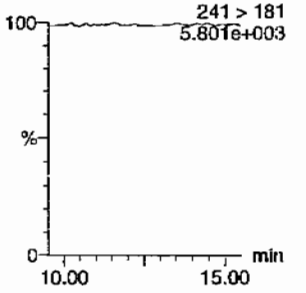

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.835e+003

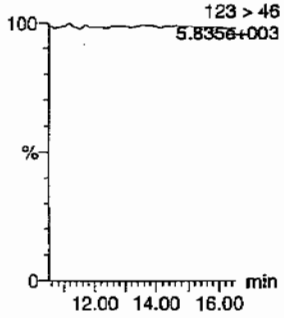

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.817e+003

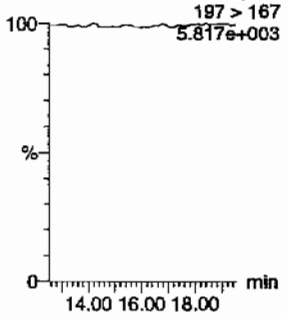

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.838e+003

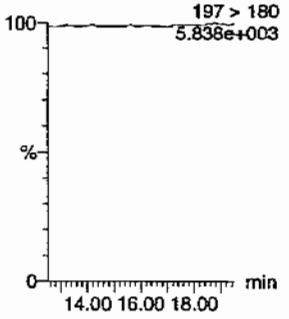

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.815e+003

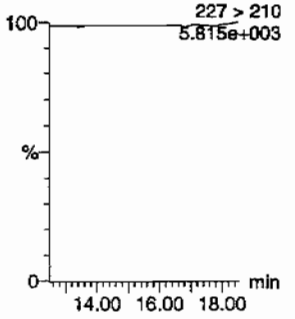

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.275e+004

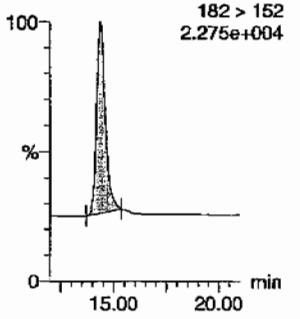

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.275e+004

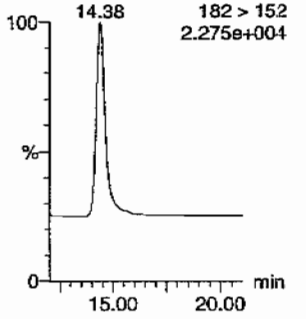

dmm 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

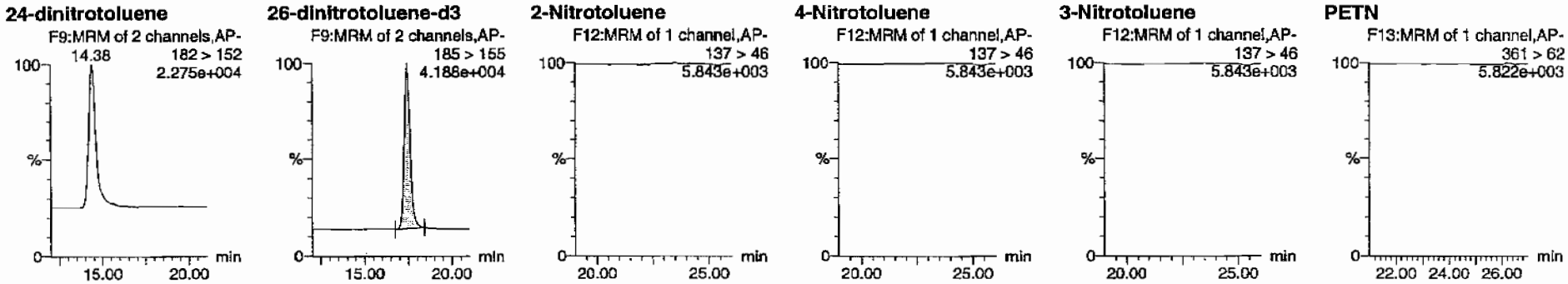

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245795015	HMX	176 > 102			2824.845									
245795015	RDX	176 > 102			2824.845									
245795015	135-Trinitrobenzene	213 > 183			2824.845									
245795015	13-Dinitrobenzene-d4	172 > 142	12.07	2824.845		2824.845	2824.845	bb			468.8670	93.8	-6.2	384.8
245795015	13-Dinitrobenzene	168 > 138			2824.845									
245795015	Tetryl	241 > 181			2824.845									
245795015	Nitrobenzene	123 > 46			2824.845									
245795015	4-Amino-26-dinitrotoluene	197 > 167			14483.329									
245795015	2-Amino-46-dinitrotoluene	197 > 180			14483.329									
245795015	246-Trinitrotoluene	227 > 210			14483.329									
245795015	34-dinitrotoluene	182 > 152	14.38	7900.567	14483.329	7900.567	272.747	bb			301.0448	120.4	20.4	655.7
245795015	26-dinitrotoluene	182 > 152			14483.329									
245795015	24-dinitrotoluene	182 > 152			14483.329									
245795015	26-dinitrotoluene-d3	185 > 155	17.42	14483.329		14483.329	14483.329	bb			415.9831	83.2	-16.8	1726.0
245795015	2-Nitrotoluene	137 > 46			14483.329									
245795015	4-Nitrotoluene	137 > 46			14483.329									
245795015	3-Nitrotoluene	137 > 46			14483.329									
245795015	PETN	361 > 62			14483.329									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7949

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795015

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170035.wiff

Date Analyzed: 17-FEB-10 18:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lar 2/19/10

Sample Name: "245795015" Sample ID: "947089|2|LER" File: "EXS02170035.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 8.07 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:20:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.03 min
Area: 1.37e+004 counts
Height: 3177.605 cps
Start Time: 6.85 min
End Time: 7.24 min

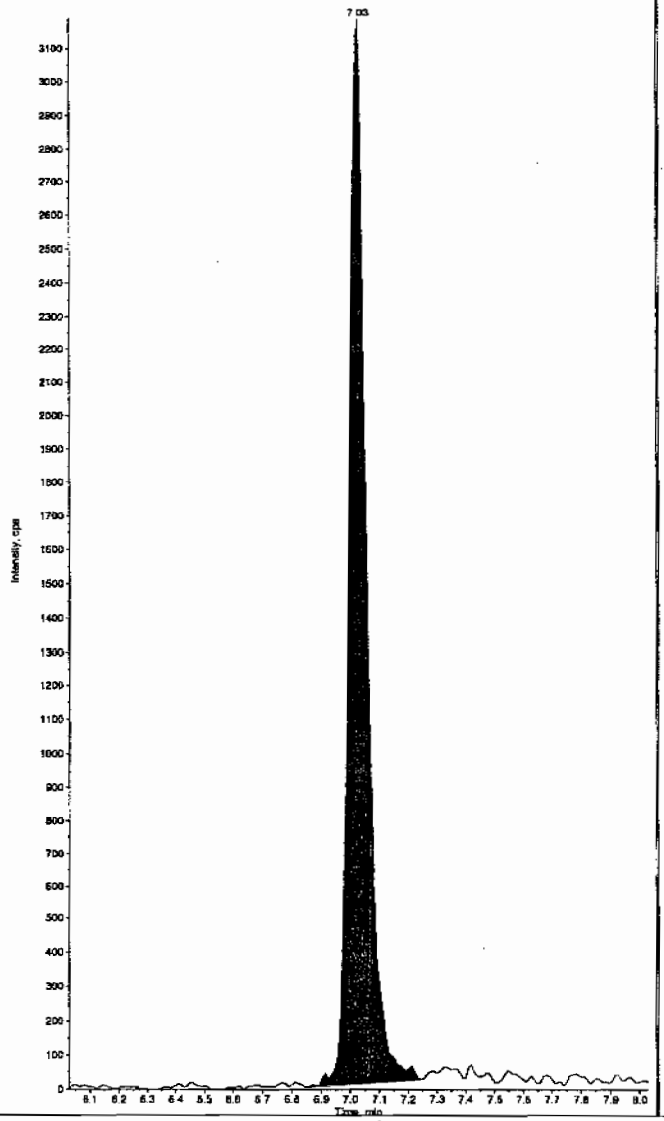

Sample Name: "245795015" Sample ID: "947089|2|LER" File: "EXS02170035.wiff"
Peak Name: "35-Dinitroanilina" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:20:12 PM

Modified: No

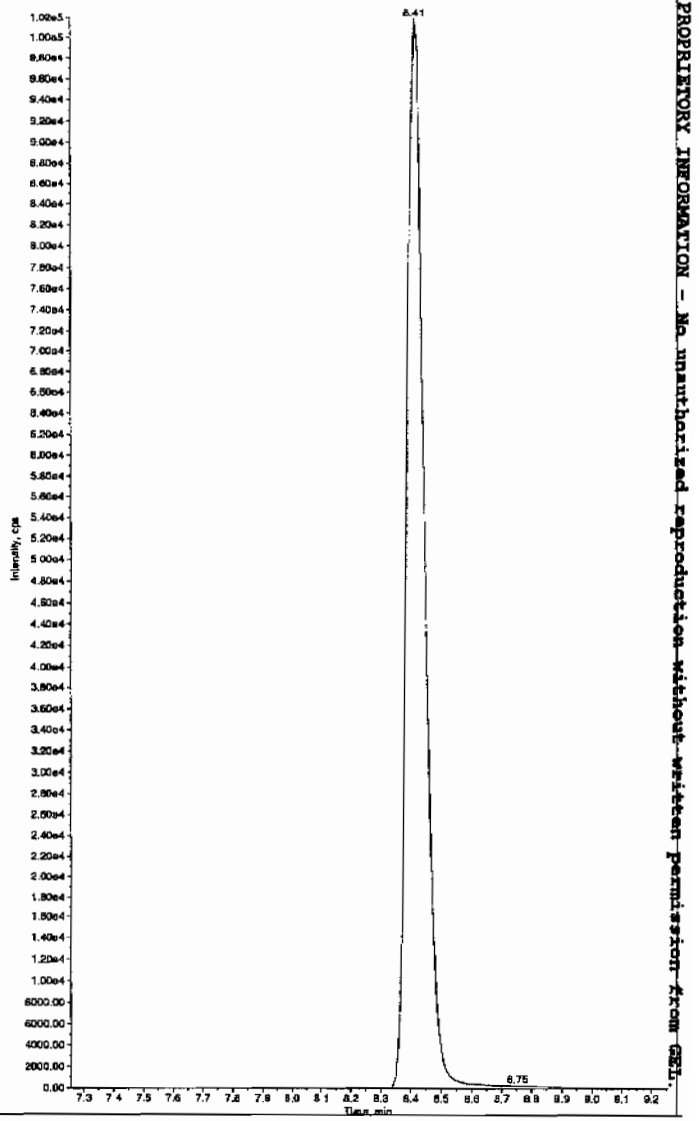

Hum 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245795015" Sample ID: "947089|2|LER" File: "EXS02170035.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 308. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:20:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - 10A
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 5 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 4.10e+006 counts
Height: 1092798.828 cps
Start Time: 8.29 min
End Time: 8.82 min

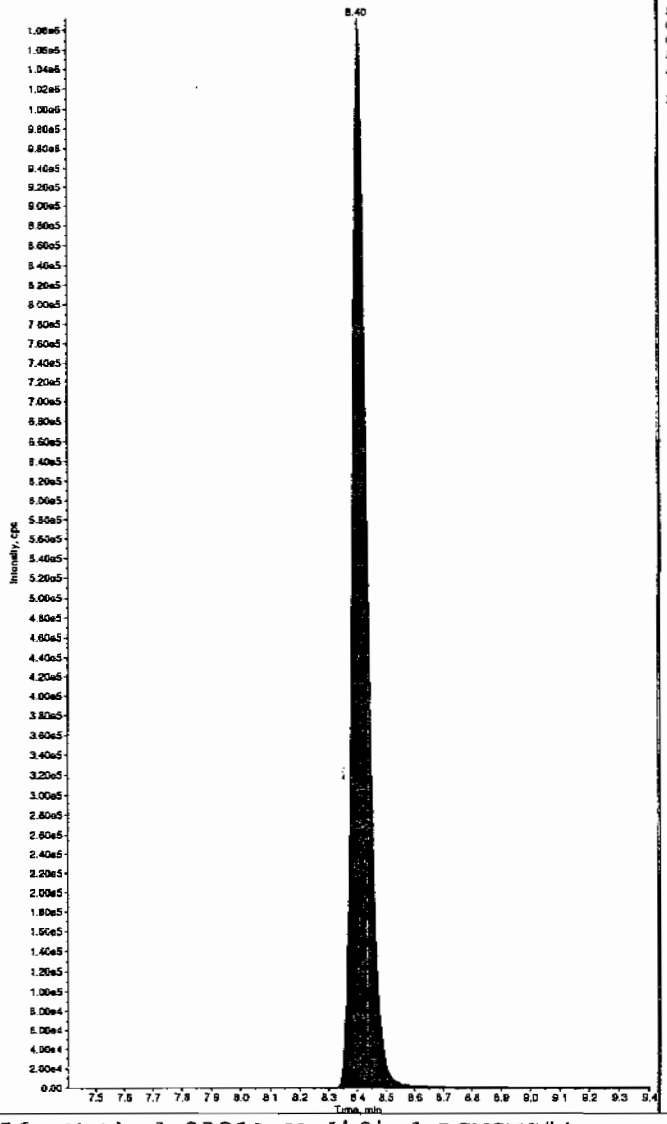

Sample Name: "245795015" Sample ID: "947089|2|LER" File: "EXS02170035.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:20:12 PM

Modified: No

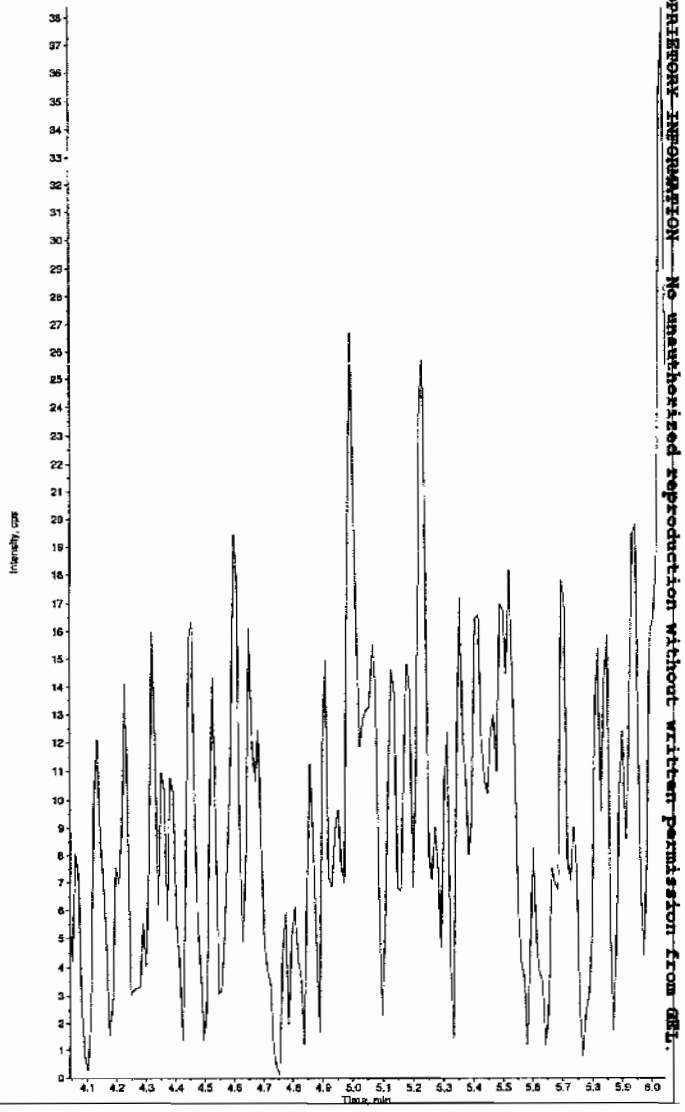

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795015" Sample ID: "947089|2|LER" File: "EXS02170035.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:20:12 PM

Modified: No

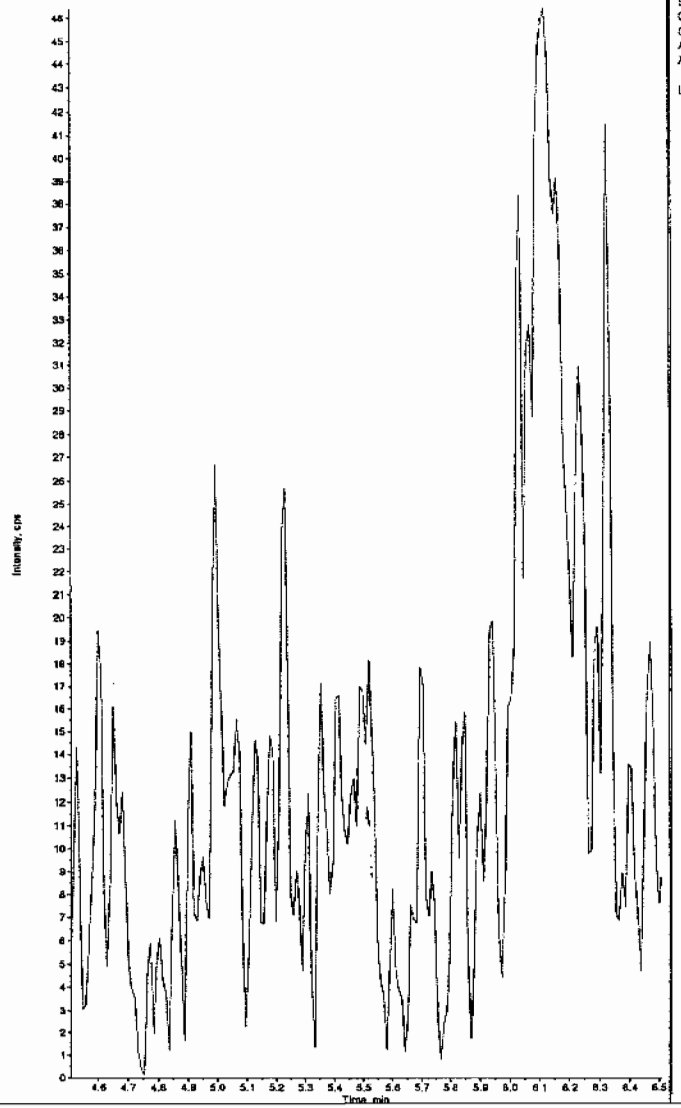

Sample Name: "245795015" Sample ID: "947089|2|LER" File: "EXS02170035.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:20:12 PM

Modified: No

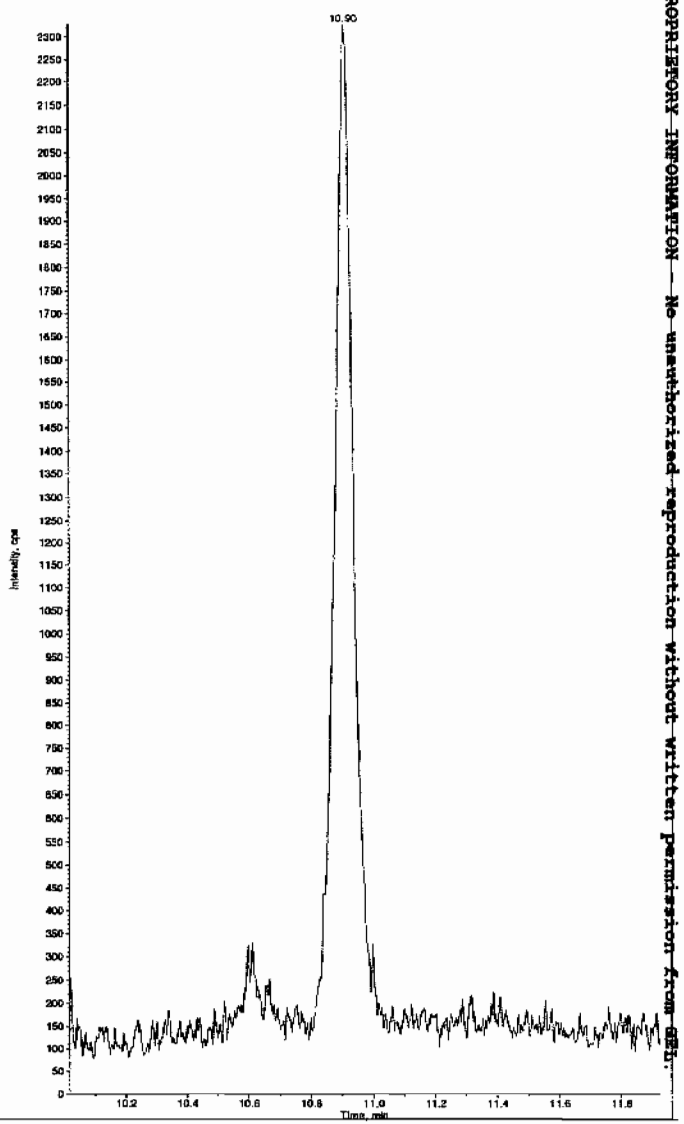

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7946

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795016

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216202a

Date Analyzed: 20-FEB-10 20:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216202a
Date: 20-Feb-2010
Time: 20:48:03
ID: 245795016 | LANL | 947089 | Solid | 2 |
Vial: 4:6,B

MM 2/21/10

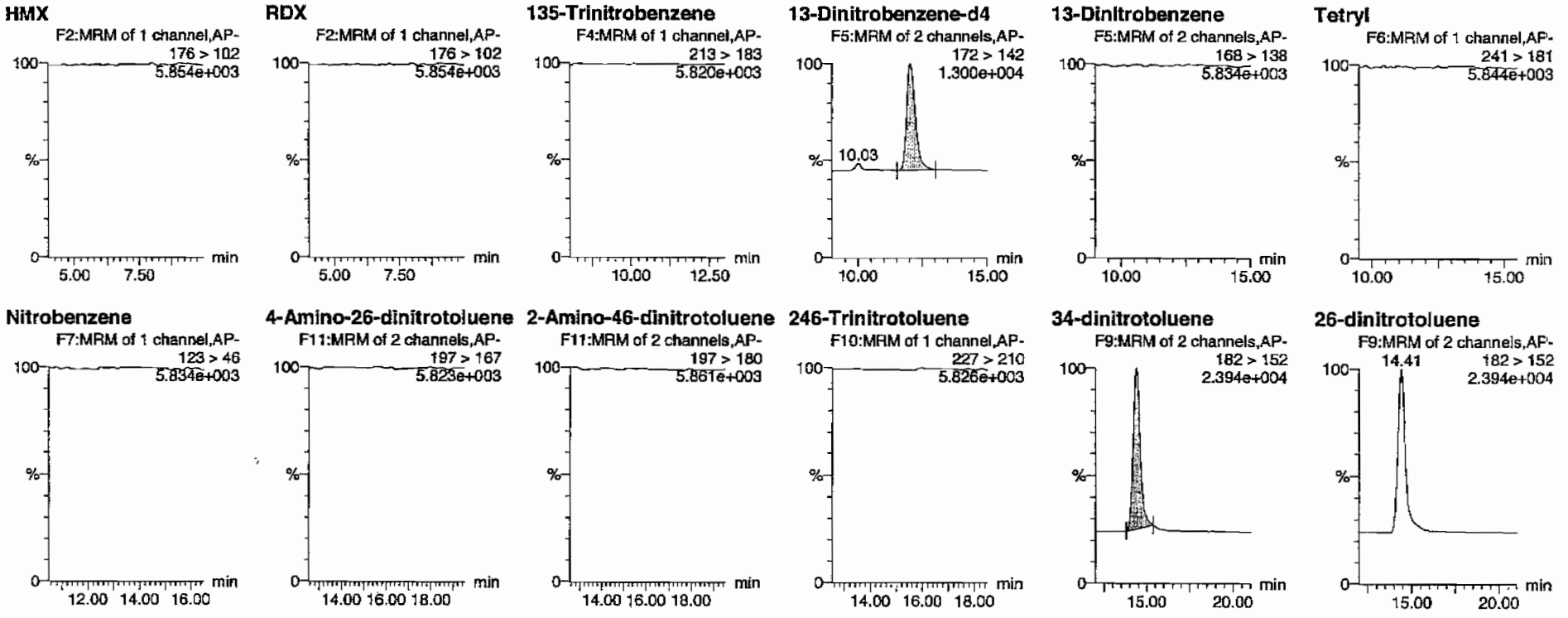

MM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.41 182 > 152
2.394e+004

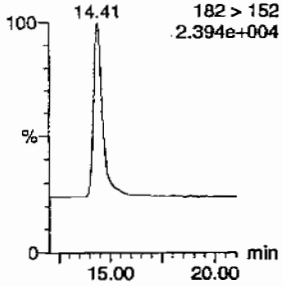

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.655e+004

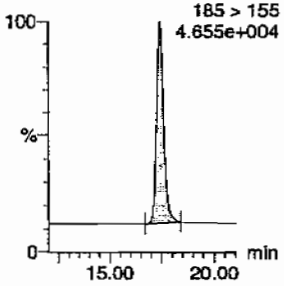

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.842e+003

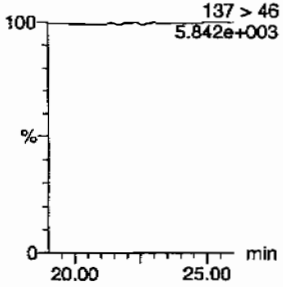

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.842e+003

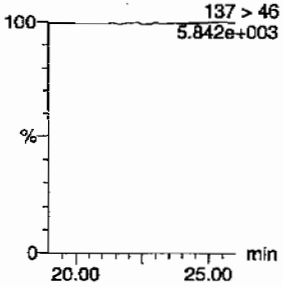

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.842e+003

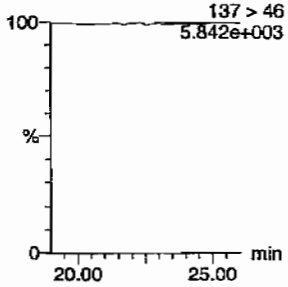

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.825e+003

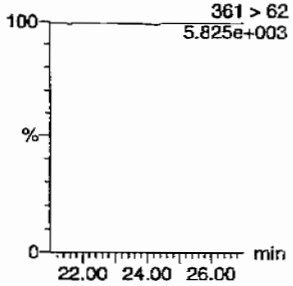

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
245795016	HMX	176 > 102			2883.767									
245795016	RDX	176 > 102			2883.767									
245795016	135-Trinitrobenzene	213 > 183			2883.767									
245795016	13-Dinitrobenzene-d4	172 > 142	12.03	2883.767		2883.767	2883.767	bb			478.6469	95.7	-4.3	220.2
245795016	13-Dinitrobenzene	168 > 138			2883.767									
245795016	Tetryl	241 > 181			2883.767									
245795016	Nitrobenzene	123 > 46			2883.767									
245795016	4-Amino-26-dinitrotoluene	197 > 167			16109.535									
245795016	2-Amino-46-dinitrotoluene	197 > 180			16109.535									
245795016	246-Trinitrotoluene	227 > 210			16109.535									
245795016	34-dinitrotoluene	182 > 152	14.41	8427.881	16109.535	8427.881	261.581	bb			288.7199	115.5	15.5	705.7
245795016	26-dinitrotoluene	182 > 152			16109.535									
245795016	24-dinitrotoluene	182 > 152			16109.535									
245795016	26-dinitrotoluene-d3	185 > 155	17.43	16109.535		16109.535	16109.535	bb			462.6902	92.5	-7.5	1779.5
245795016	2-Nitrotoluene	137 > 46			16109.535									
245795016	4-Nitrotoluene	137 > 46			16109.535									
245795016	3-Nitrotoluene	137 > 46			16109.535									
245795016	PETN	361 > 62			16109.535									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15--10-7946

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795016

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170036.wiff

Date Analyzed: 17-FEB-10 18:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5--Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "245795016" Sample ID: "947089|2|LER" File: "EXS02170036.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:35:54 PM

Modified: No

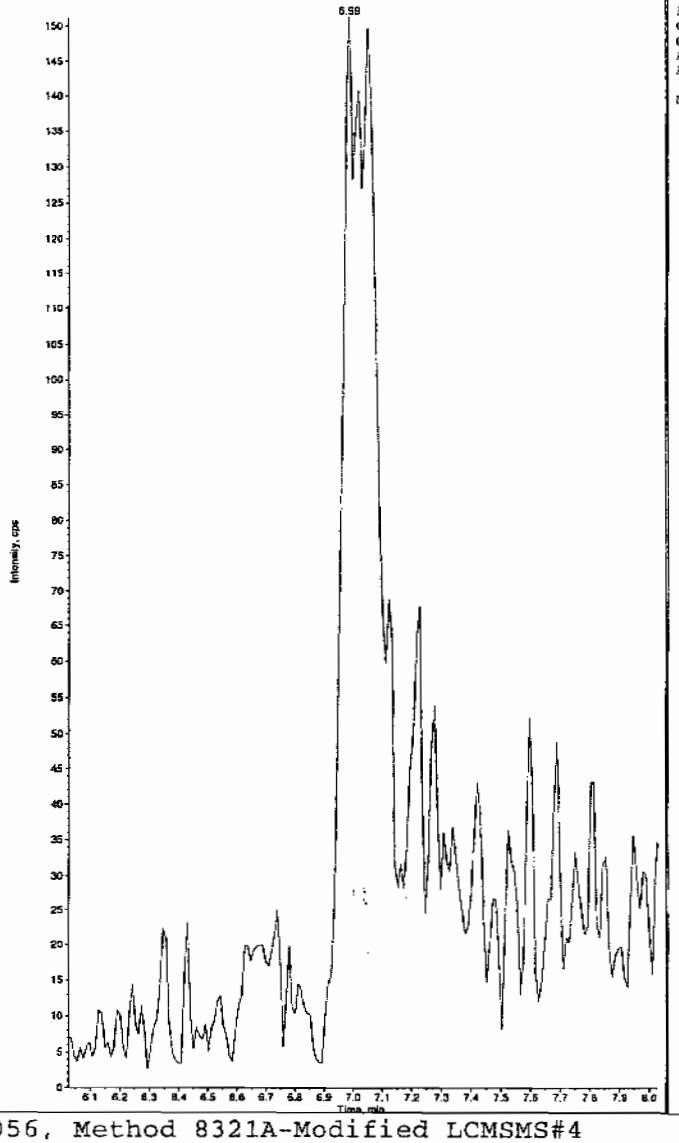

Sample Name: "245795016" Sample ID: "947089|2|LER" File: "EXS02170036.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:35:54 PM

Modified: No

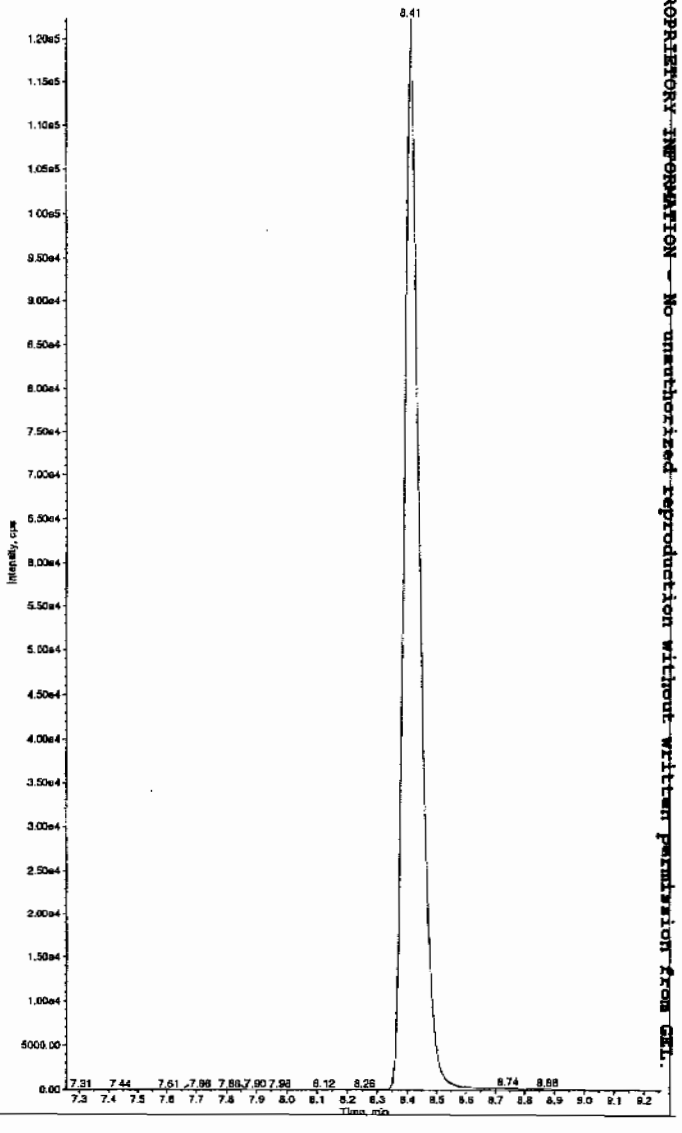

Lcr 2/19/10

Hnm 02/19/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795016" Sample ID: "947089|2|LER" File: "EXS02170036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 321. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:35:54 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1459.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 4.28e+006 counts
Height: 1087769.409 cps
Start Time: 8.30 min
End Time: 8.79 min

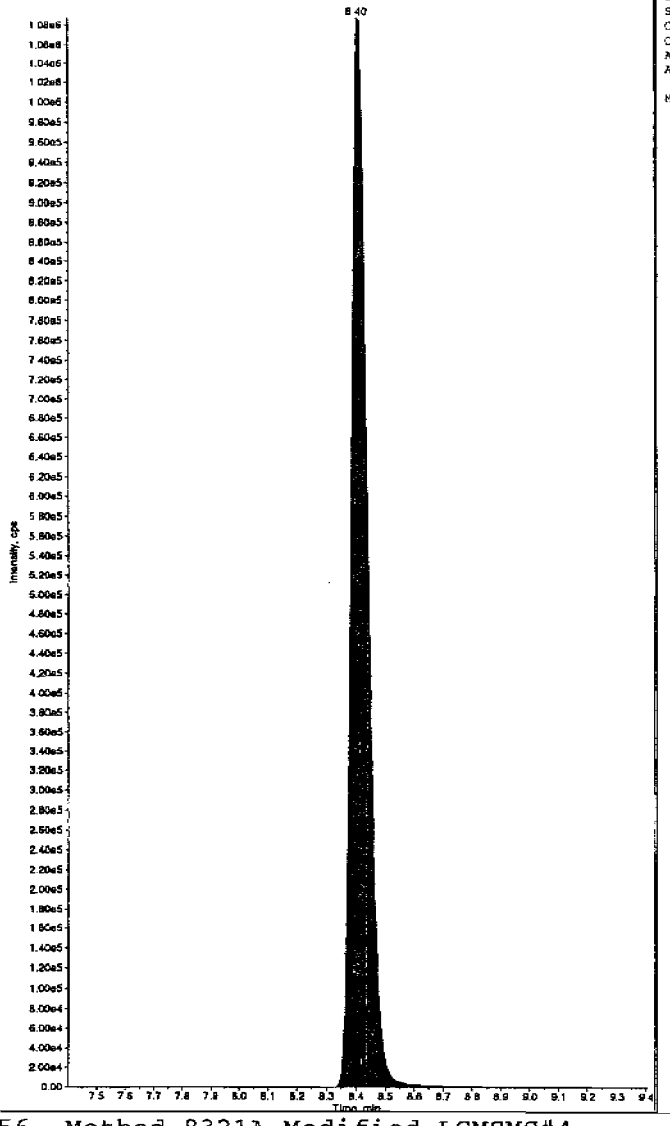

Sample Name: "245795016" Sample ID: "947089|2|LER" File: "EXS02170036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:35:54 PM

Modified: No

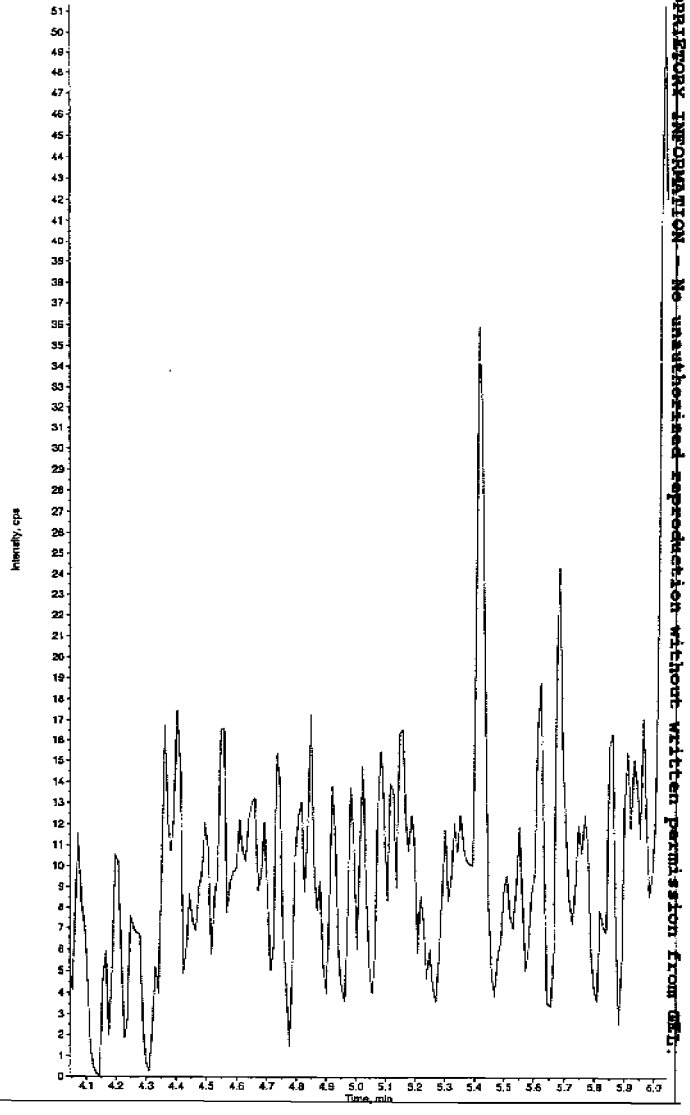

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795016" Sample ID: "947089[2]LER" File: "EXS02170036.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:35:54 PM

Modified: No

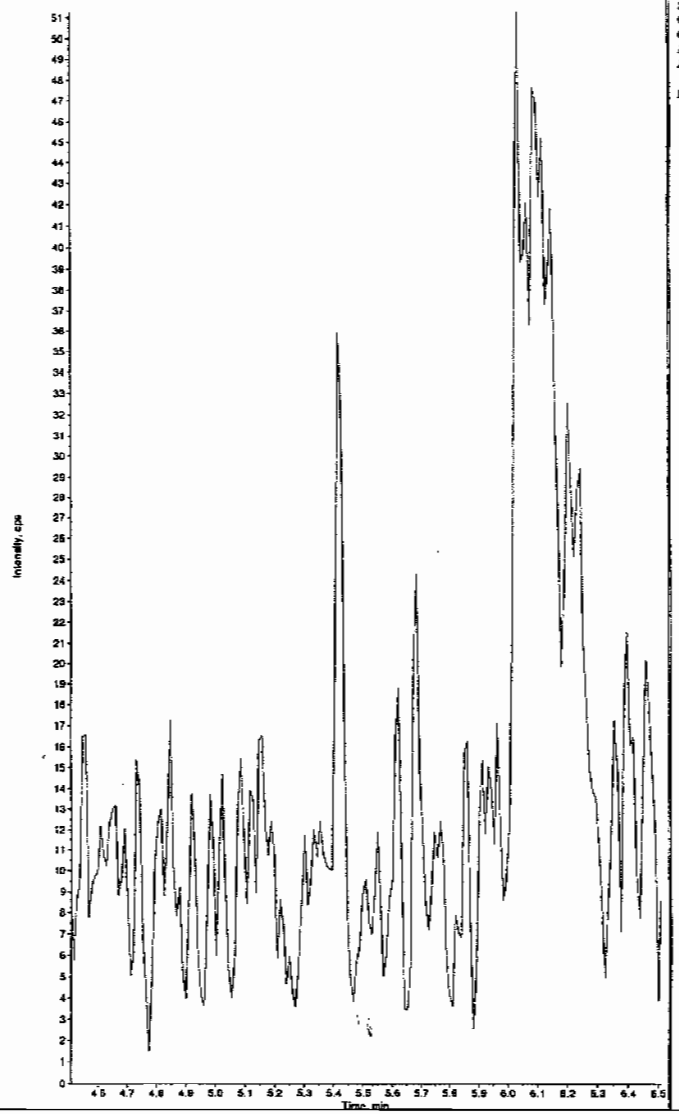

Sample Name: "245795016" Sample ID: "947089[2]LER" File: "EXS02170036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:35:54 PM

Modified: No

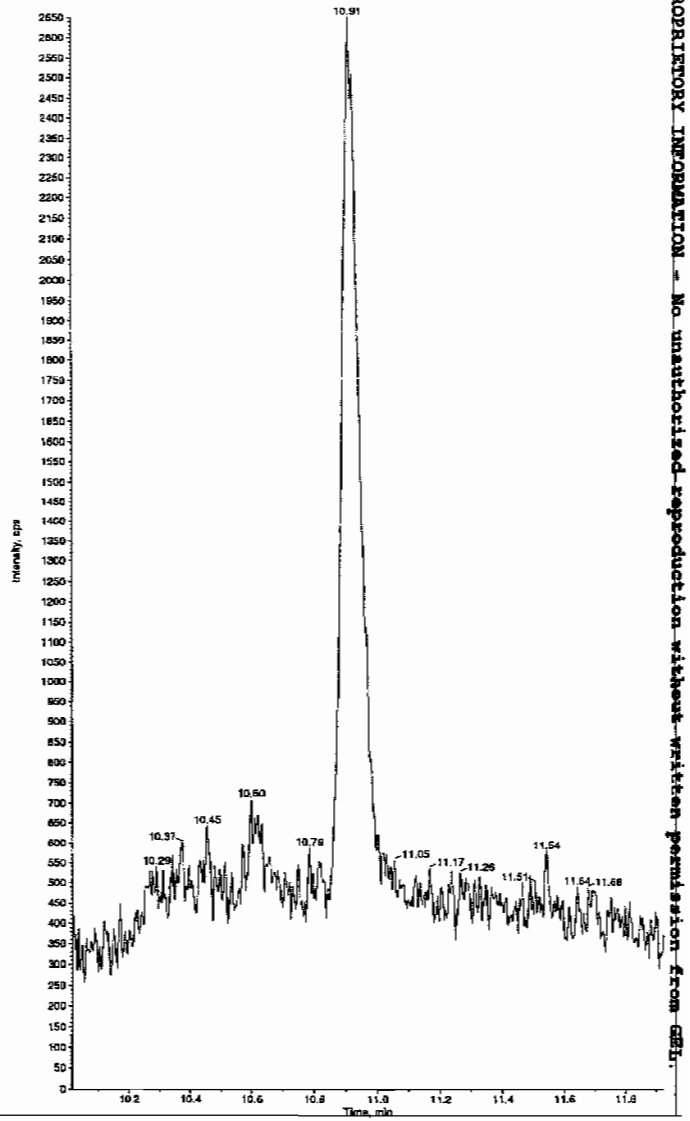

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7942

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795017

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216206a

Date Analyzed: 20-FEB-10 22:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216206a
Date: 20-Feb-2010
Time: 22:46:18
ID: 245795017 | LANL | 947089 | Soil | 2 |
Vial: 4:6,C

MMP 2/21/10

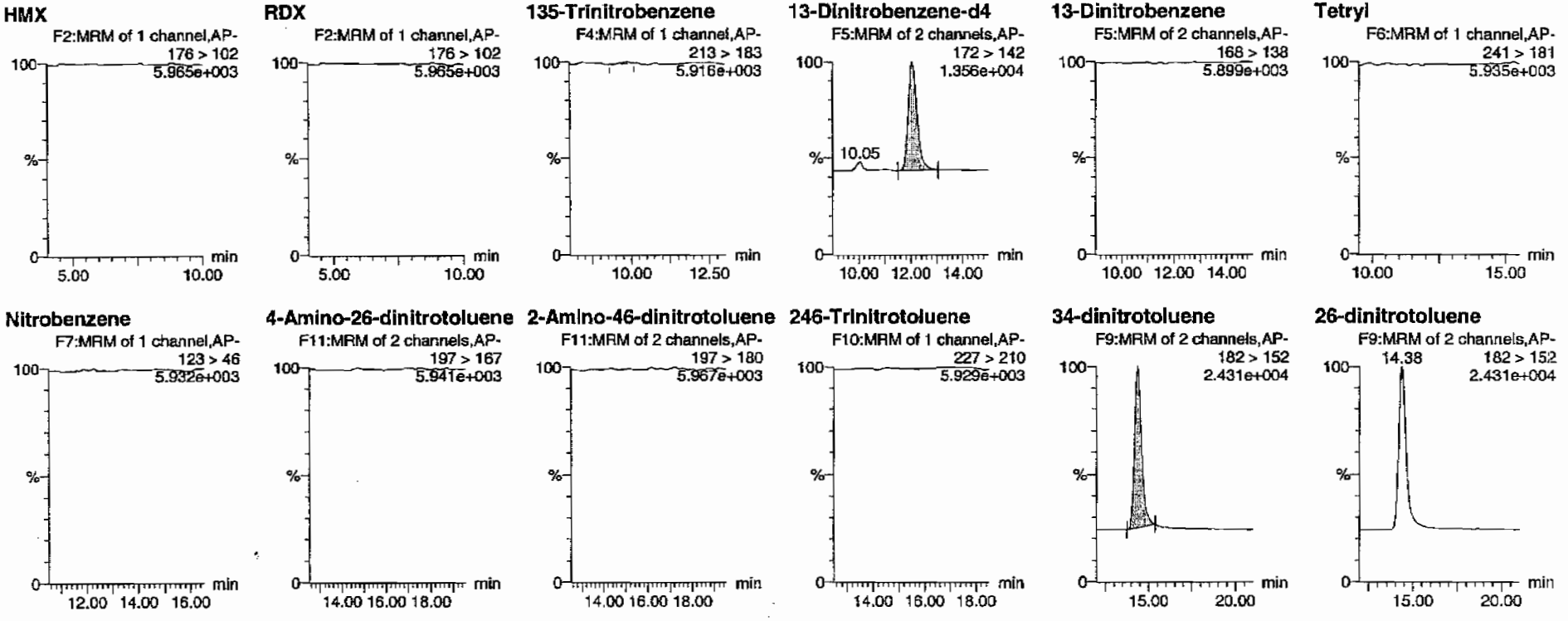

dmm 02/22/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

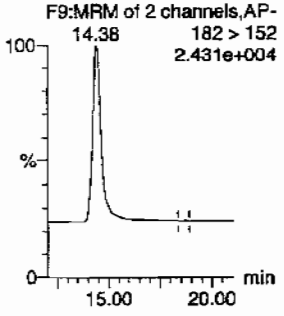

26-dinitrotoluene-d3

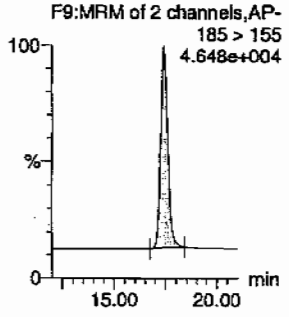

2-Nitrotoluene

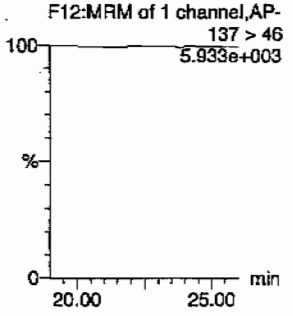

4-Nitrotoluene

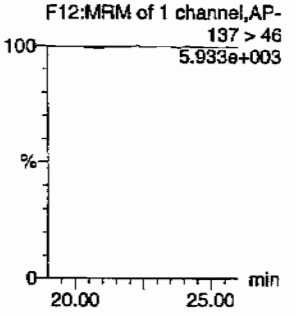

3-Nitrotoluene

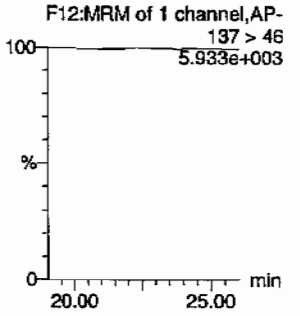

PETN

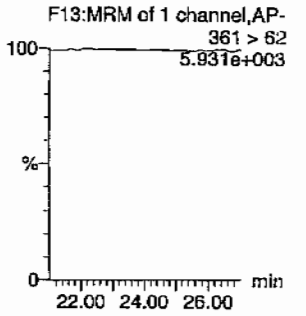

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245795017	HMX	176 > 102			3105.305									
245795017	RDX	176 > 102			3105.305									
245795017	135-Trinitrobenzene	213 > 183			3105.305			MM-	21-Feb-10	12:00:31				
245795017	13-Dinitrobenzene-d4	172 > 142	12.03	3105.305		3105.305	3105.305	bb			515.4177	103.1	3.1	259.9
245795017	13-Dinitrobenzene	168 > 138			3105.305									
245795017	Tetryl	241 > 181			3105.305									
245795017	Nitrobenzene	123 > 46			3105.305									
245795017	4-Amino-26-dinitrotoluene	197 > 167			16257.396									
245795017	2-Amino-46-dinitrotoluene	197 > 180			16257.396									
245795017	246-Trinitrotoluene	227 > 210			16257.396									
245795017	34-dinitrotoluene	182 > 152	14.38	8455.378	16257.396	8455.378	260.047	bb			287.0274	114.8	14.8	403.7
245795017	26-dinitrotoluene	182 > 152			16257.396									
245795017	24-dinitrotoluene	182 > 152			16257.396			MM-	21-Feb-10	11:50:34				
245795017	26-dinitrotoluene-d3	185 > 155	17.44	16257.396		16257.396	16257.396	bb			466.9370	93.4	-6.6	3878.4
245795017	2-Nitrotoluene	137 > 46			16257.396									
245795017	4-Nitrotoluene	137 > 46			16257.396									
245795017	3-Nitrotoluene	137 > 46			16257.396									
245795017	PETN	361 > 62			16257.396									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7942

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795017

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170040.wiff

Date Analyzed: 17-FEB-10 19:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/19/10

Sample Name: "245795017" Sample ID: "947089|2|LER" File: "EXS02170040.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:33:42 PM

Modified: No

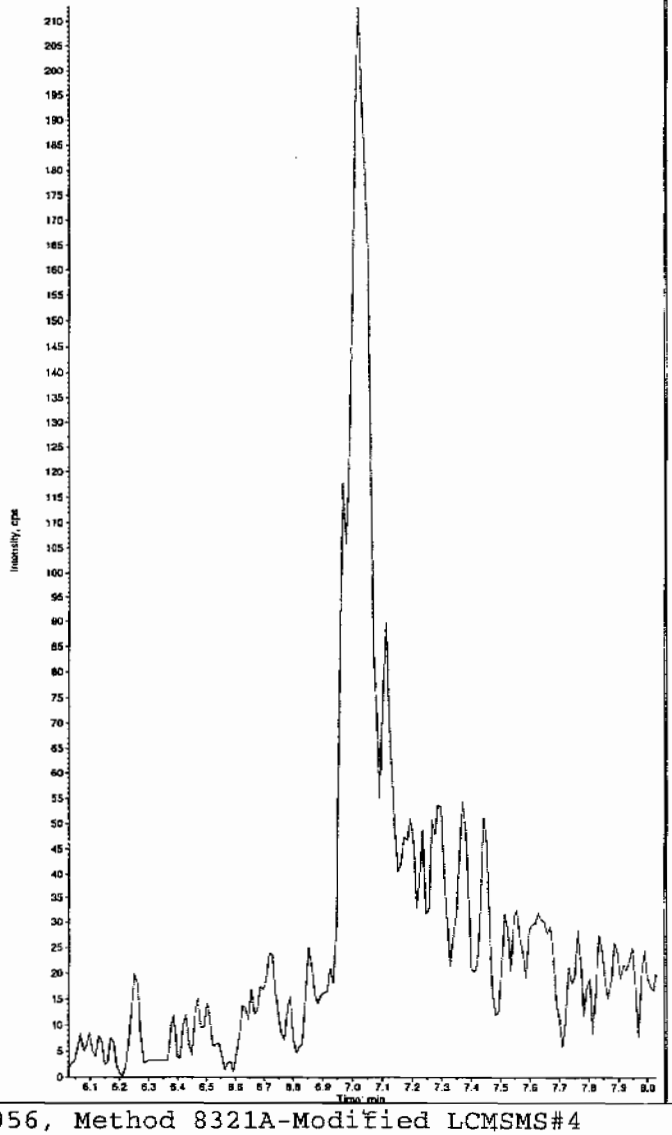

Sample Name: "245795017" Sample ID: "947089|2|LER" File: "EXS02170040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:38:42 PM

Modified: No

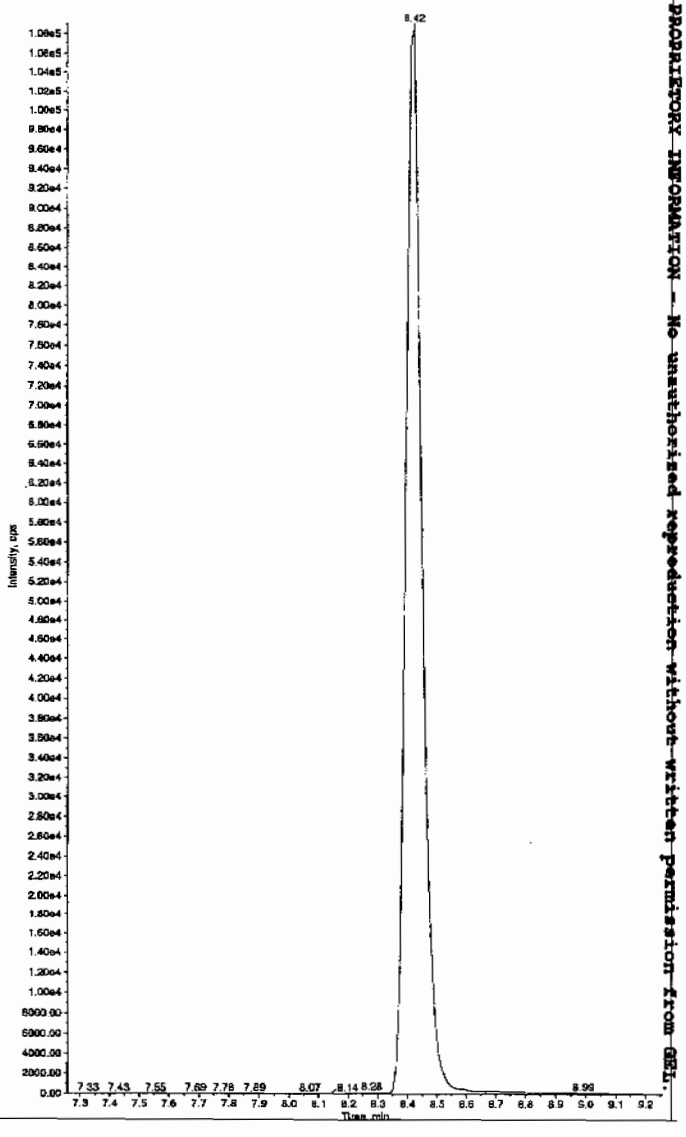

Hume 02/19/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795017" Sample ID: "947089|2|LER" File: "EXS02170040.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 391. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:38:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 3.58e+006 counts
Height: 1043733.511 cps
Start Time: 8.31 min
End Time: 8.91 min

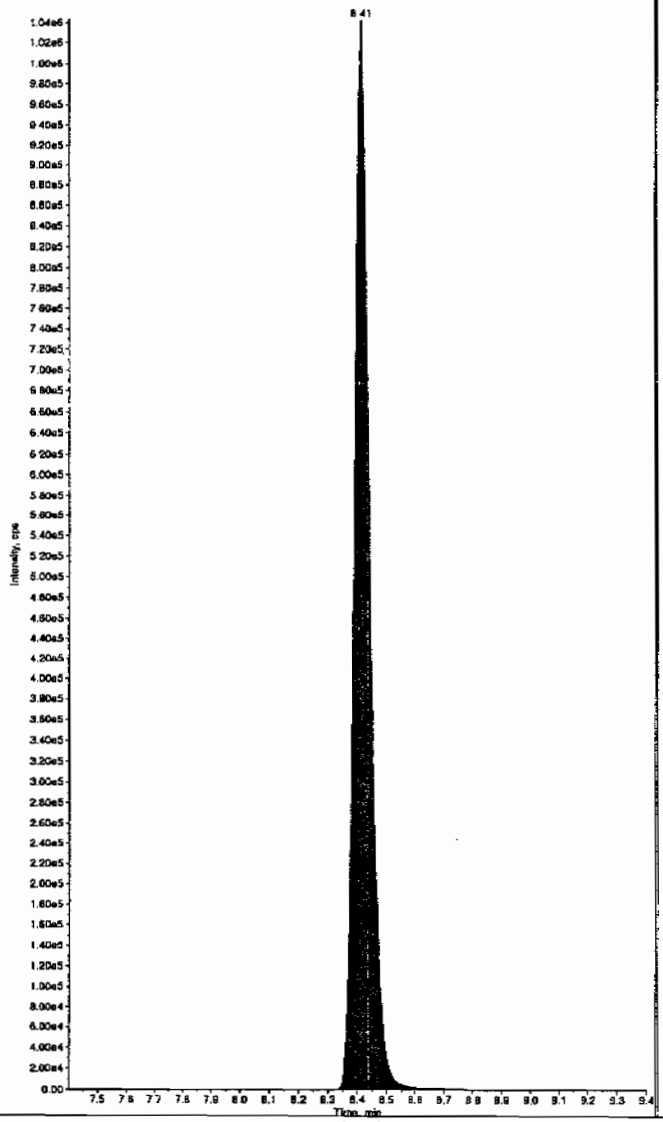

Sample Name: "245795017" Sample ID: "947089|2|LER" File: "EXS02170040.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:38:42 PM

Modified: No

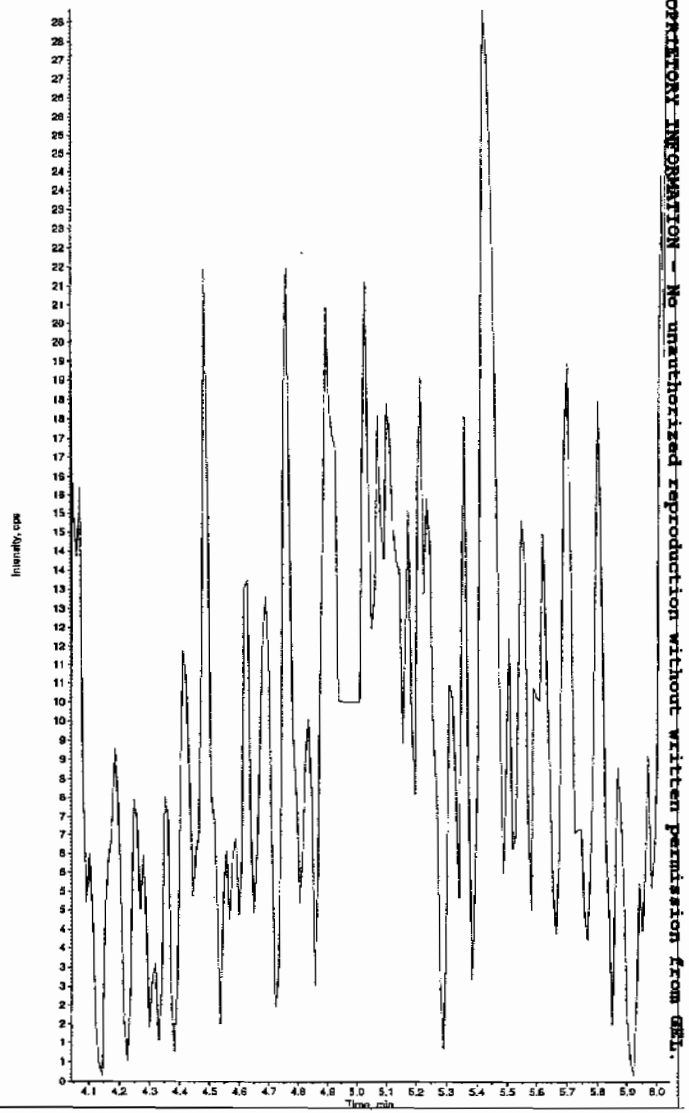

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795017" Sample ID: "947089|2|LER" File: "EXS02170040.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:38:42 PM

Modified: No

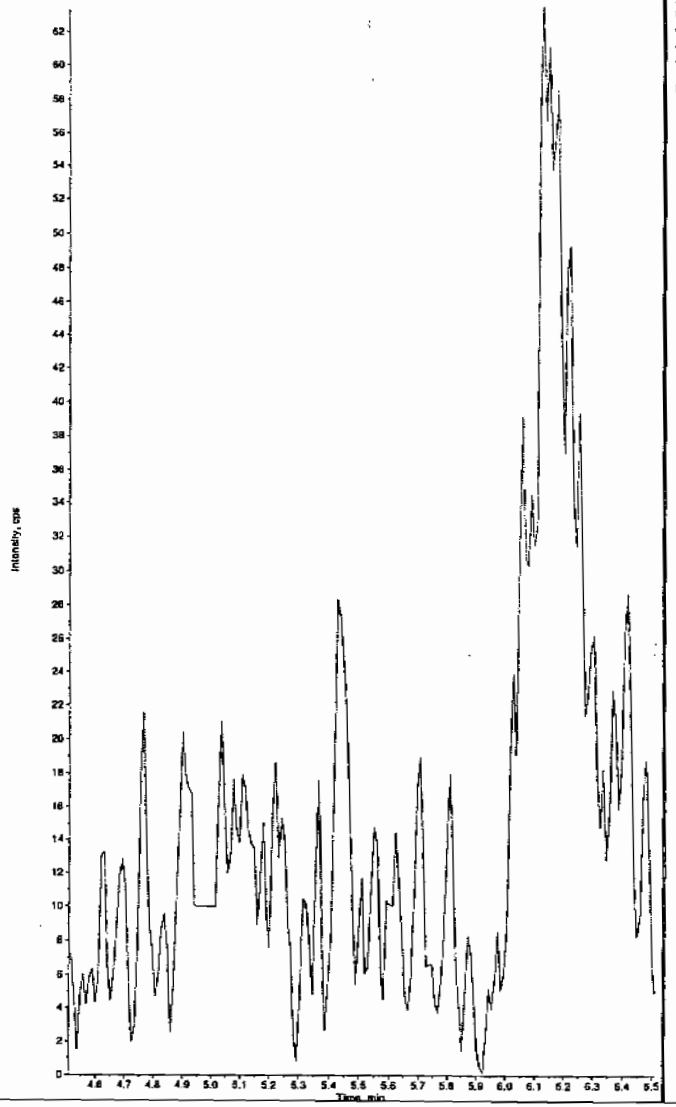

Sample Name: "245795017" Sample ID: "947089|2|LER" File: "EXS02170040.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:38:42 PM

Modified: No

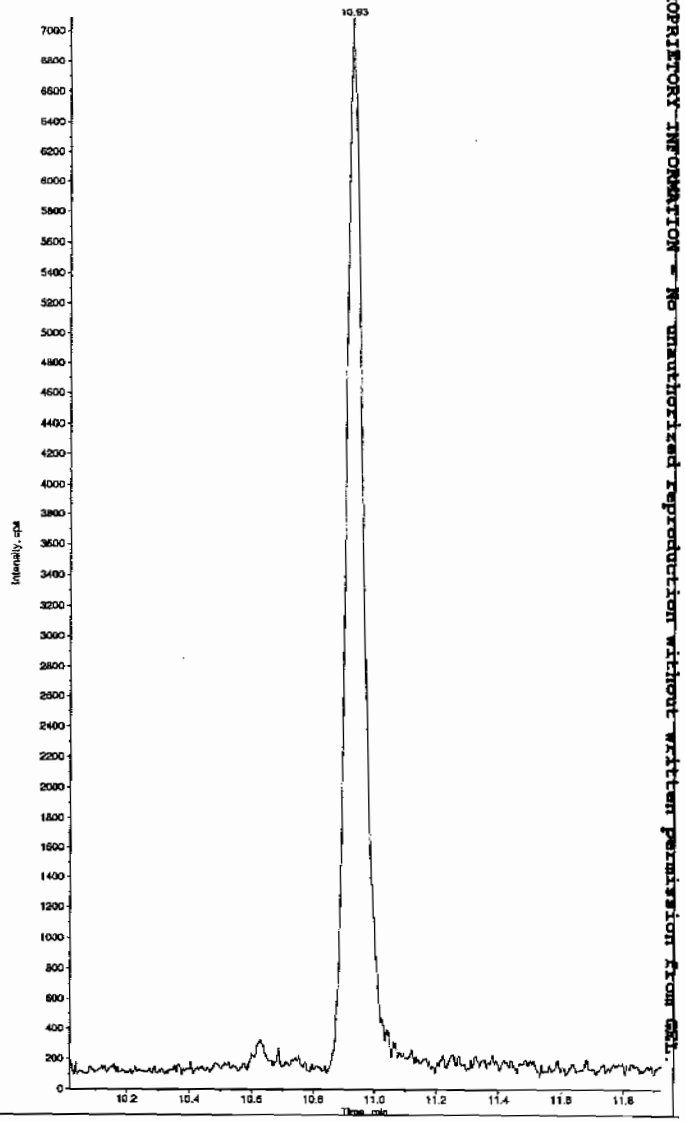

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7945

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795018

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216207a

Date Analyzed: 20-FEB-10 23:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216207a
Date: 20-Feb-2010
Time: 23:15:55
ID: 245795018 | LANC | 947089 | Solids | 21
Vial: 4:6,D

MAP 2/21/10

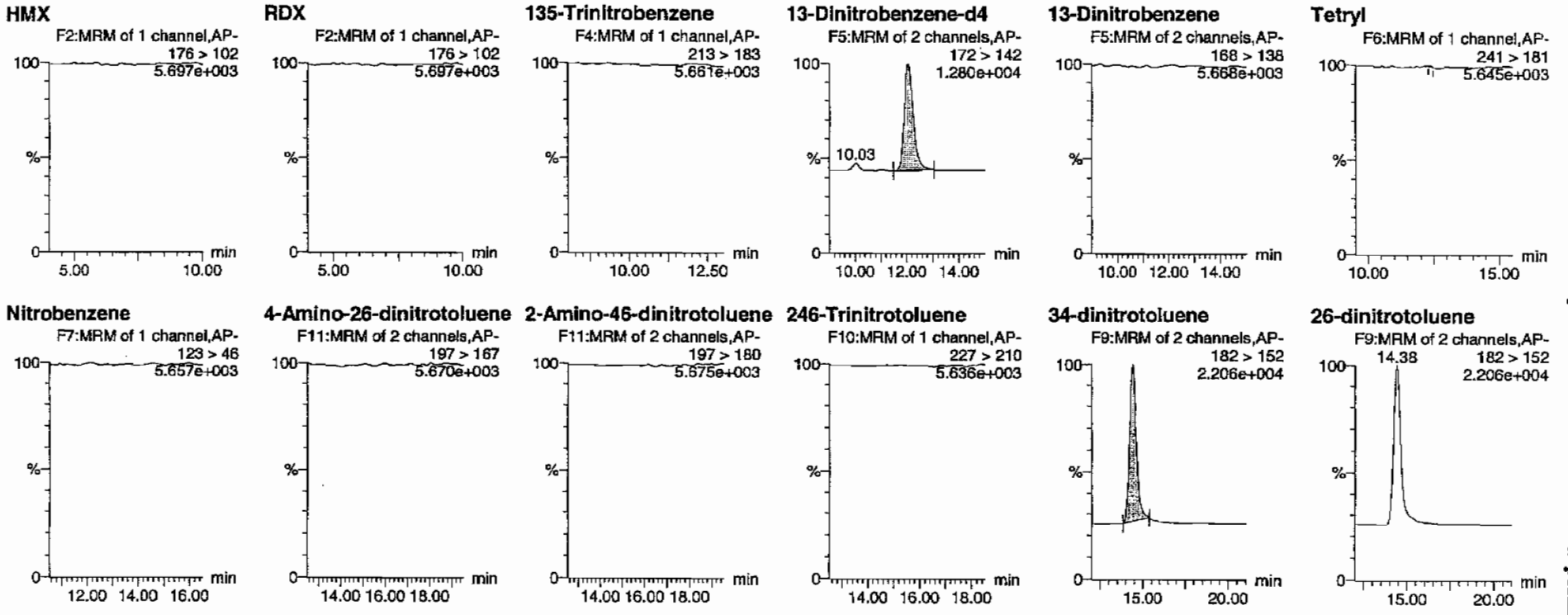

HMM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

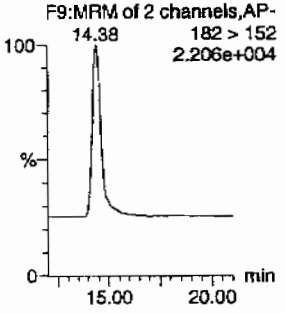

26-dinitrotoluene-d3

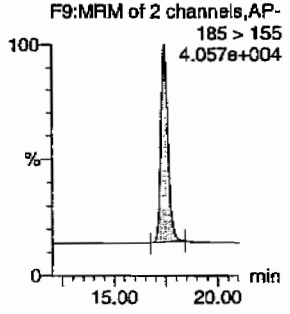

2-Nitrotoluene

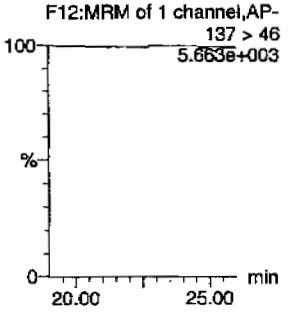

4-Nitrotoluene

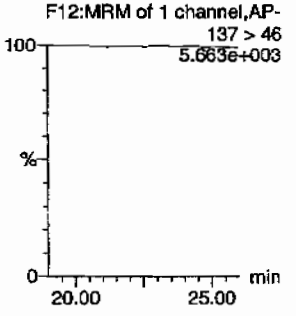

3-Nitrotoluene

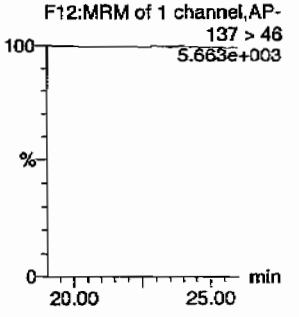

PETN

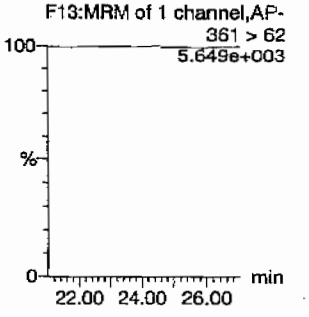

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245795018	HMX	176 > 102			2929.408									
245795018	RDX	176 > 102			2929.408									
245795018	135-Trinitrobenzene	213 > 183			2929.408									
245795018	13-Dinitrobenzene-d4	172 > 142	12.07	2929.408		2929.408	2929.408	bb			486.2224	97.2	-2.8	220.2
245795018	13-Dinitrobenzene	168 > 138			2929.408									
245795018	Tetryl	241 > 181			2929.408			MM-	21-Feb-10	12:00:00				
245795018	Nitrobenzene	123 > 46			2929.408									
245795018	4-Amino-26-dinitrotoluene	197 > 167			14001.547									
245795018	2-Amino-46-dinitrotoluene	197 > 180			14001.547									
245795018	246-Trinitrotoluene	227 > 210			14001.547									
245795018	34-dinitrotoluene	182 > 152	14.38	7574.105	14001.547	7574.105	270.474	bb			298.5359	119.4	19.4	704.6
245795018	26-dinitrotoluene	182 > 152			14001.547									
245795018	24-dinitrotoluene	182 > 152			14001.547									
245795018	26-dinitrotoluene-d3	185 > 155	17.42	14001.547		14001.547	14001.547	bb			402.1456	80.4	-19.6	1121.0
245795018	2-Nitrotoluene	137 > 46			14001.547									
245795018	4-Nitrotoluene	137 > 46			14001.547									
245795018	3-Nitrotoluene	137 > 46			14001.547									
245795018	PETN	361 > 62			14001.547									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7945

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795018

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170041.wiff

Date Analyzed: 17-FEB-10 19:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dan 2/19/10

Sample Name: "245795018" Sample ID: "947089[2]LER" File: "EXS02170041.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:54:23 PM

Modified: No

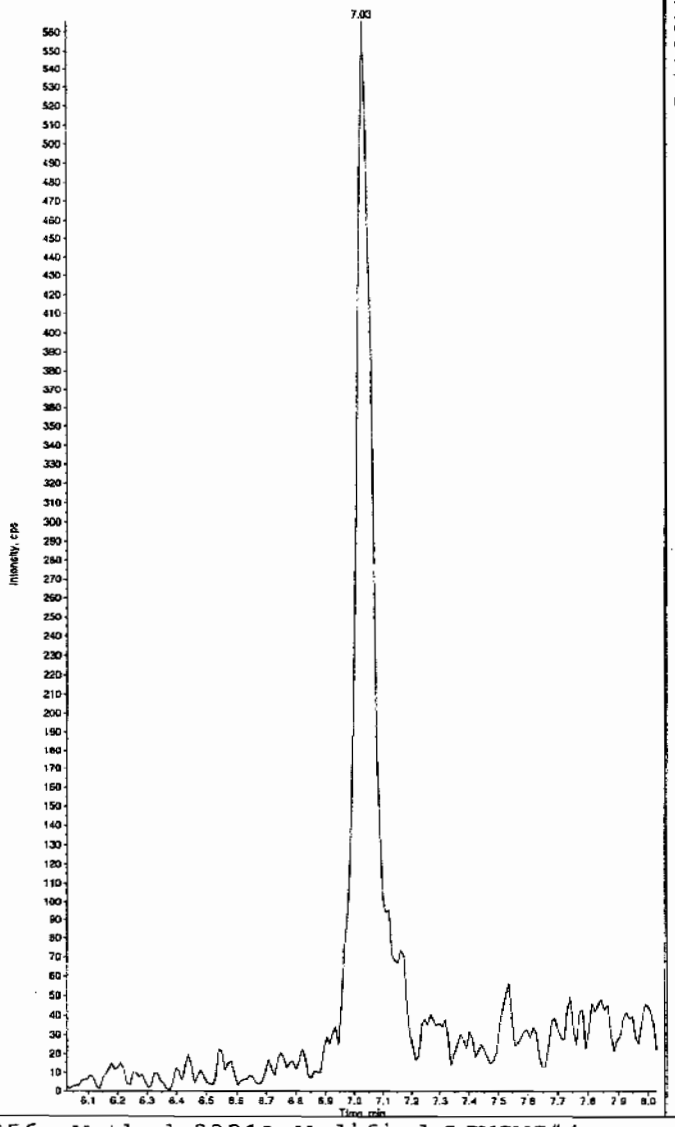

Sample Name: "245795018" Sample ID: "947089[2]LER" File: "EXS02170041.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:54:23 PM

Modified: No

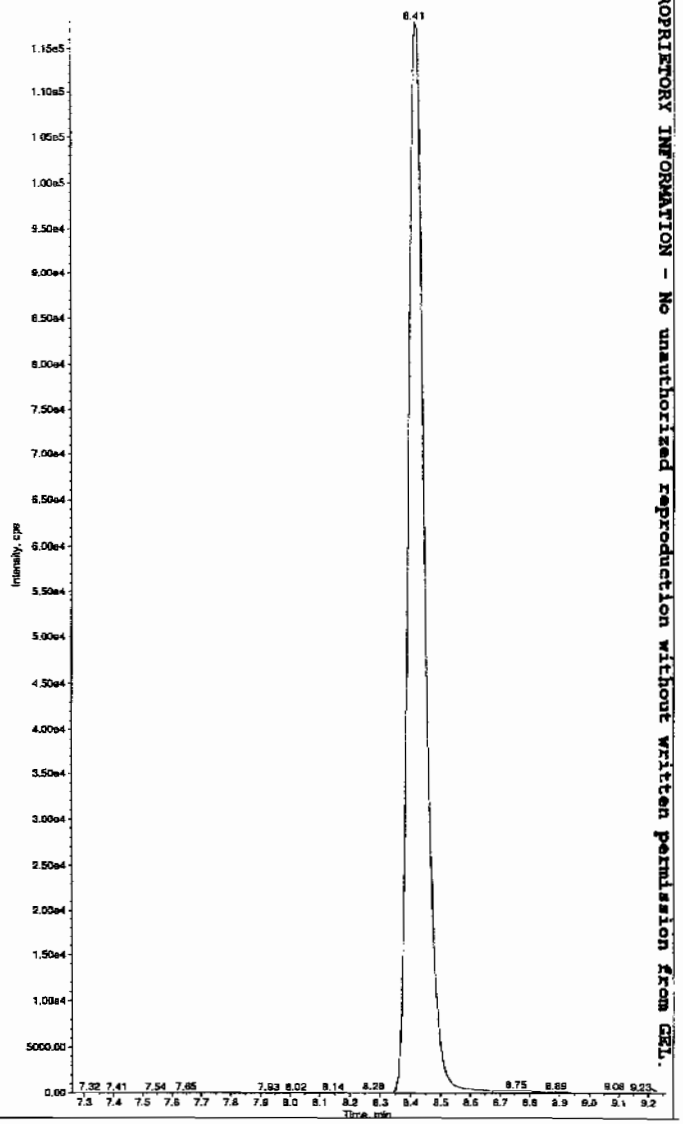

Hmk 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795018" Sample ID: "947089|2|LER" File: "EXS02170041.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 317. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:54:23 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 4.23e+006 counts
Height: 1116090.842 cps
Start Time: 8.31 min
End Time: 8.56 min

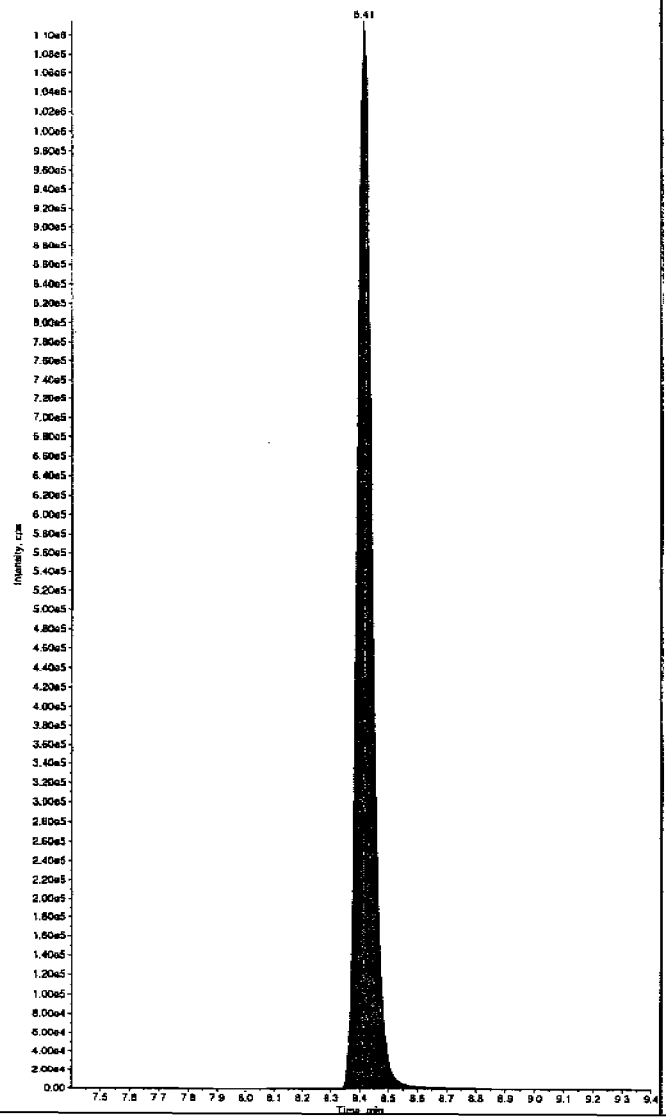

Sample Name: "245795018" Sample ID: "947089|2|LER" File: "EXS02170041.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:54:23 PM

Modified: No

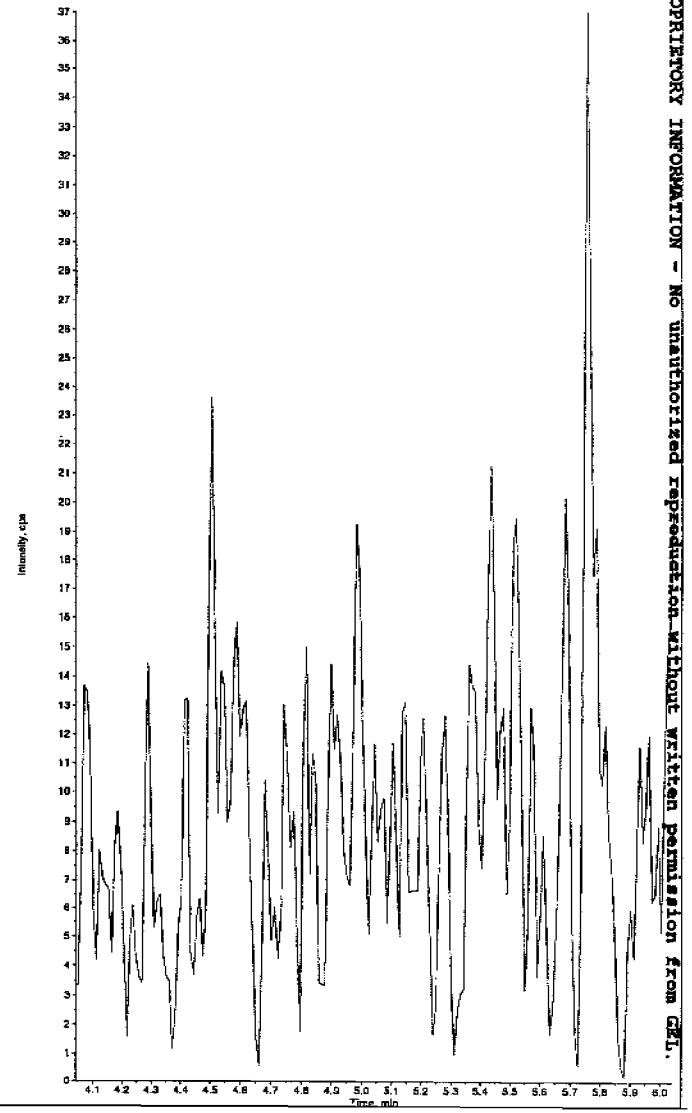

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245795018" Sample ID: "947089[2]LER" File: "EXS02170041.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:54:23 PM

Modified: No

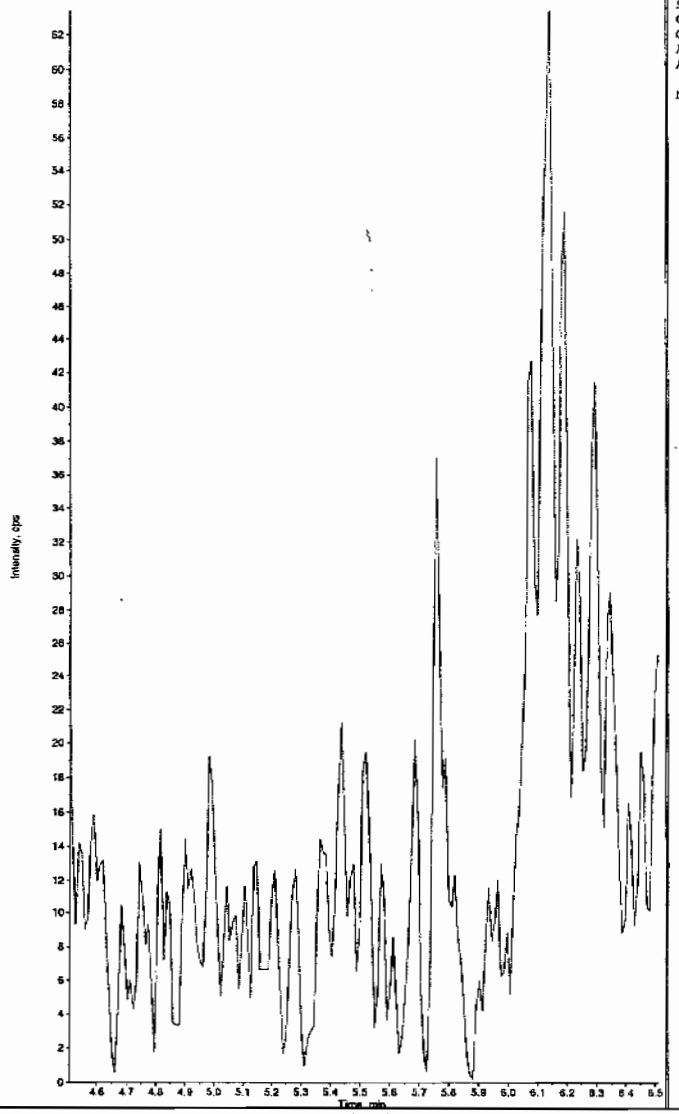

Sample Name: "245795018" Sample ID: "947089[2]LER" File: "EXS02170041.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:54:23 PM

Modified: No

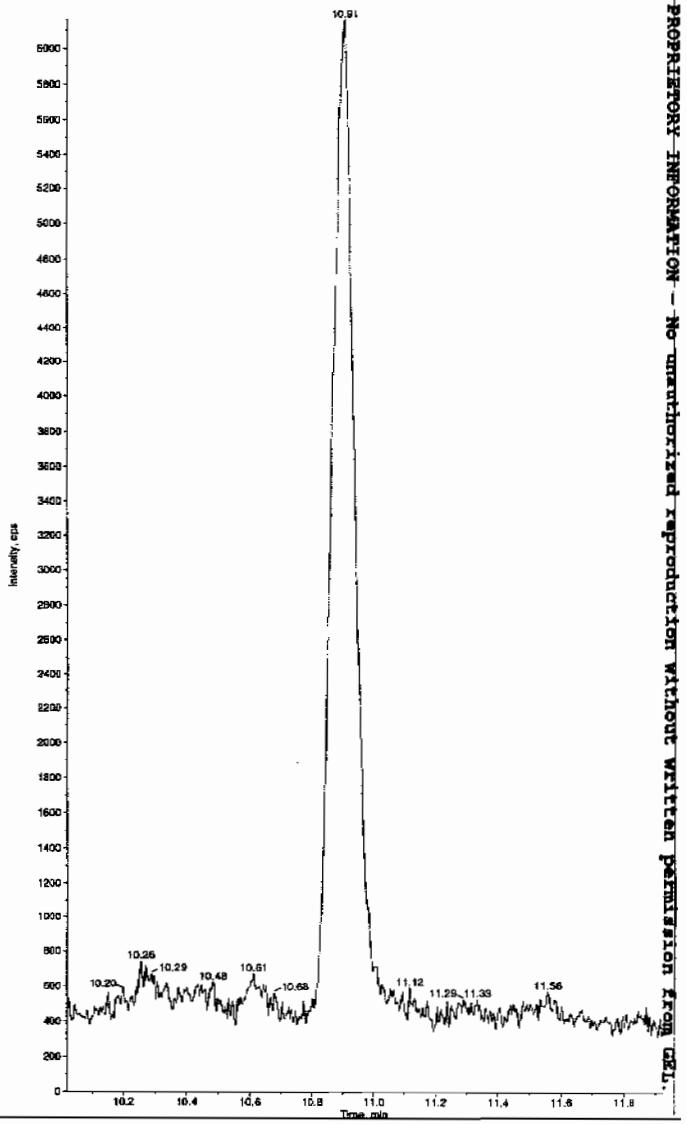

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratorics LLC

Client Sample ID: RE15-10-7943

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795019

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216208a

Date Analyzed: 20-FEB-10 23:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216208a
Date: 20-Feb-2010
Time: 23:45:55
ID: 245795019 | LANL | 947089 | Soils | 2 |
Vial: 4:6,E

MMP 2/21/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.871e+003

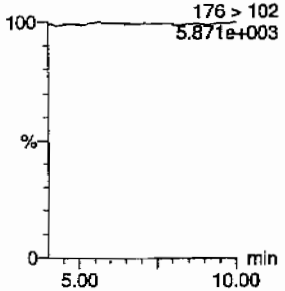

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.871e+003

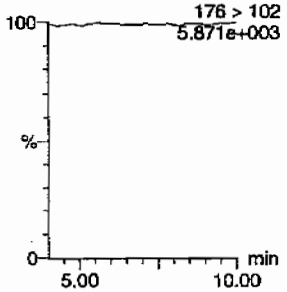

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.861e+003

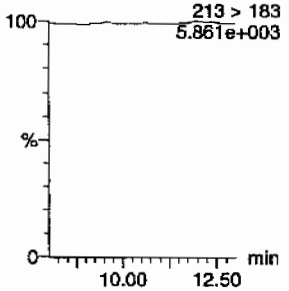

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.317e+004

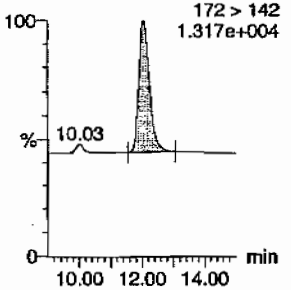

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.852e+003

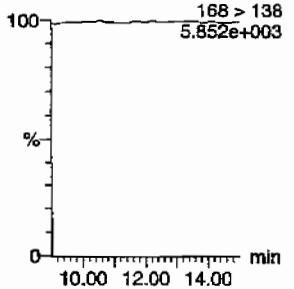

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.855e+003

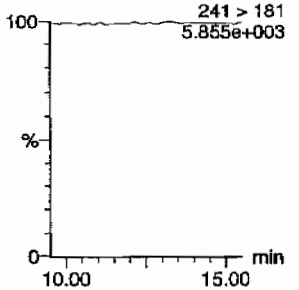

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.911e+003

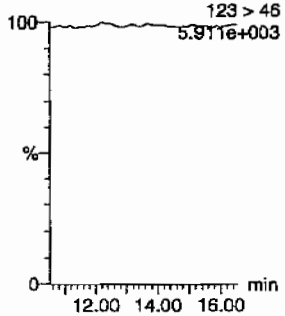

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.989e+003

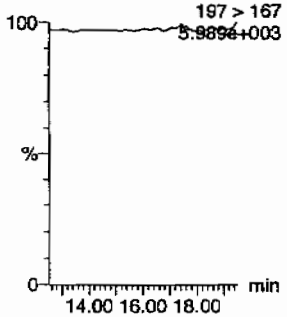

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.896e+003

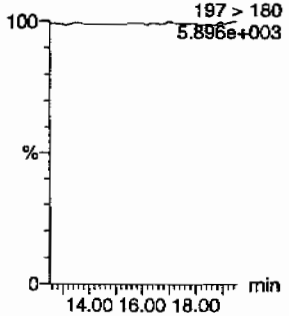

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.868e+003

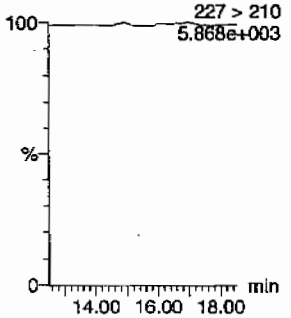

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.414e+004

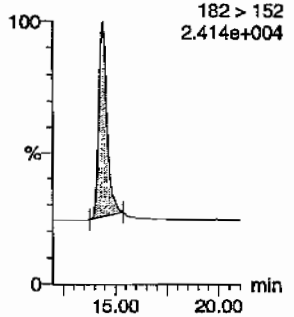

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.414e+004

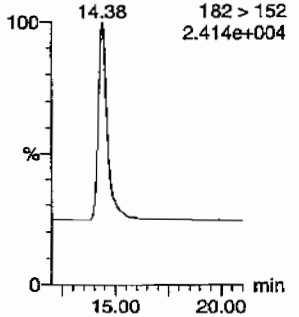

AMM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

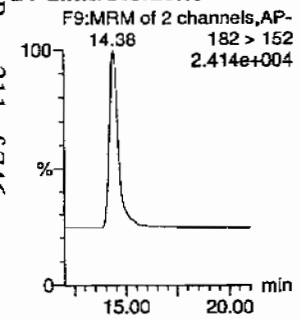

26-dinitrotoluene-d3

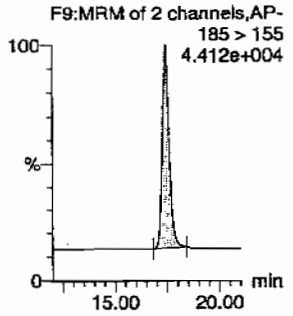

2-Nitrotoluene

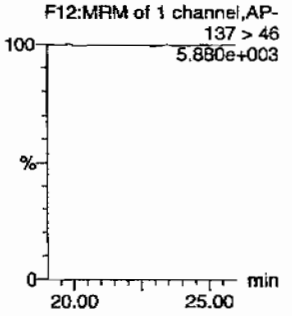

4-Nitrotoluene

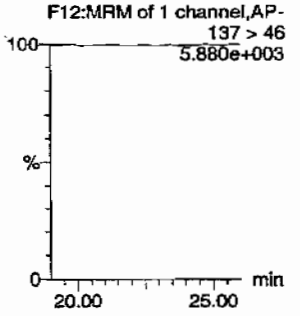

3-Nitrotoluene

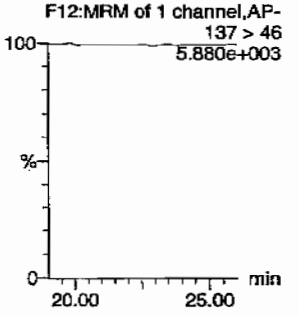

PETN

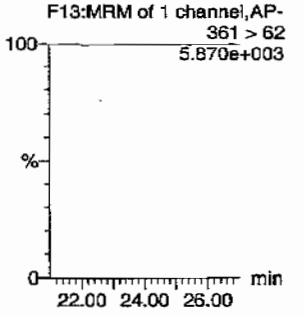

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245795019	HMX	176 > 102			2938.022									
245795019	RDX	176 > 102			2938.022									
245795019	135-Trinitrobenzene	213 > 183			2938.022									
245795019	13-Dinitrobenzene-d4	172 > 142	12.03	2938.022		2938.022	2938.022	bb			487.6521	97.5	-2.5	122.1
245795019	13-Dinitrobenzene	168 > 138			2938.022									
245795019	Tetryl	241 > 181			2938.022									
245795019	Nitrobenzene	123 > 46			2938.022									
245795019	4-Amino-26-dinitrotoluene	197 > 167			15126.341									
245795019	2-Amino-46-dinitrotoluene	197 > 180			15126.341									
245795019	246-Trinitrotoluene	227 > 210			15126.341									
245795019	34-dinitrotoluene	182 > 152	14.38	8409.100	15126.341	8409.100	277.962	bb			306.8011	122.7	22.7	441.2
245795019	26-dinitrotoluene	182 > 152			15126.341									
245795019	24-dinitrotoluene	182 > 152			15126.341									
245795019	26-dinitrotoluene-d3	185 > 155	17.42	15126.341		15126.341	15126.341	bb			434.4514	86.9	-13.1	1559.1
245795019	2-Nitrotoluene	137 > 46			15126.341									
245795019	4-Nitrotoluene	137 > 46			15126.341									
245795019	3-Nitrotoluene	137 > 46			15126.341									
245795019	PETN	361 > 62			15126.341									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7943

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 245795019

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170042.wiff

Date Analyzed: 17-FEB-10 20:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/19/10

Sample Name: "245795019" Sample ID: "947089|2|LER" File: "EXS02170042.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:10:05 PM

Modified: No

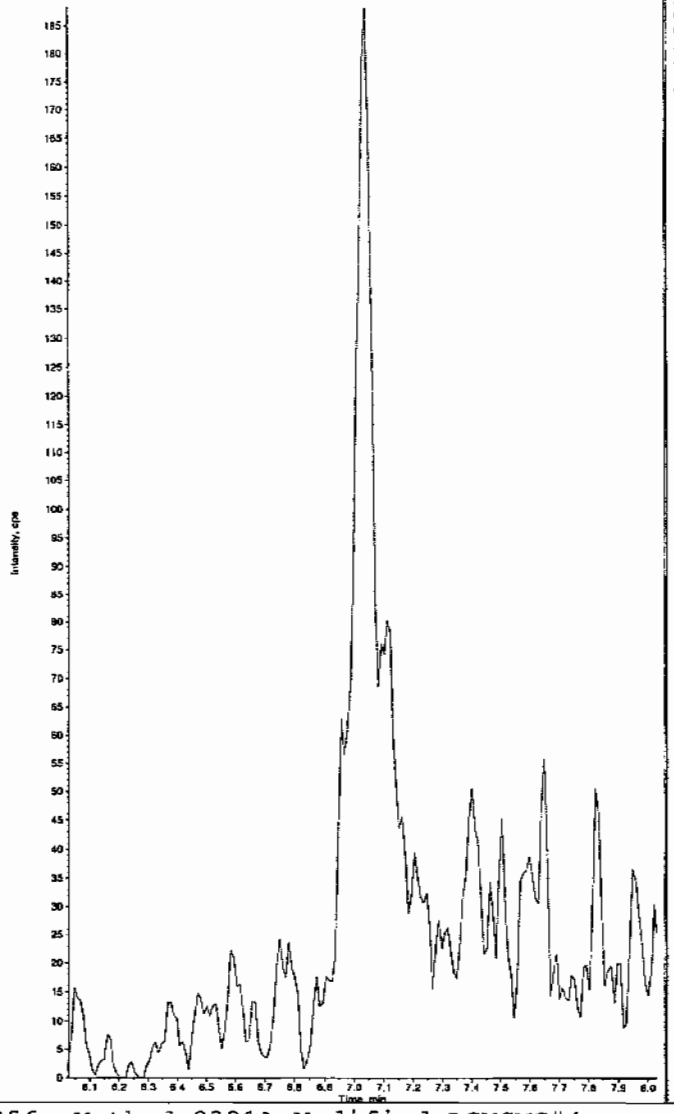

Sample Name: "245795019" Sample ID: "947089|2|LER" File: "EXS02170042.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:10:05 PM

Modified: No

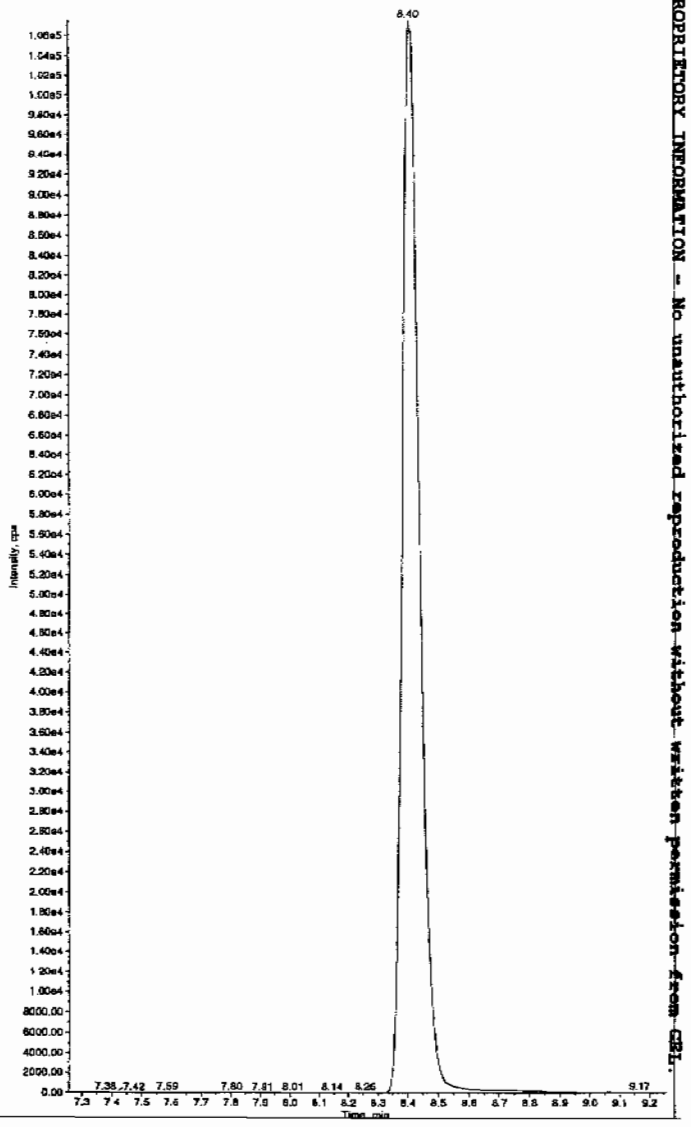

Hrm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795019" Sample ID: "947089|2|LER" File: "EXS02170042.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 254. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:10:05 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.90 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 3.92e+006 counts
Height: 1029998.657 cps
Start Time: 8.31 min
End Time: 8.84 min

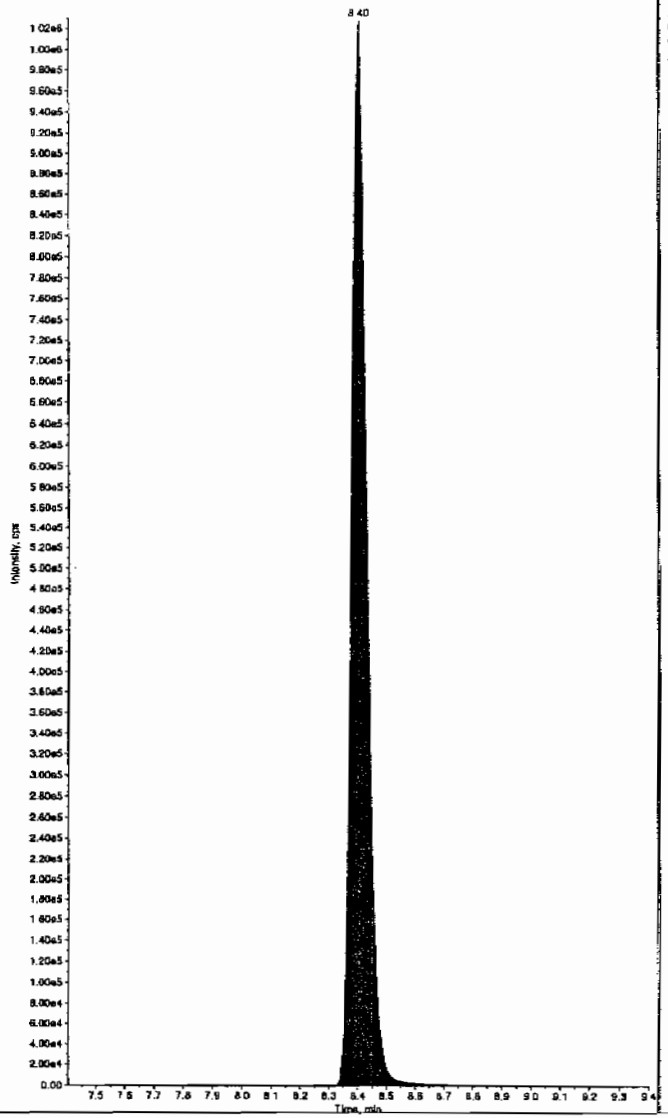

Sample Name: "245795019" Sample ID: "947089|2|LER" File: "EXS02170042.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:10:05 PM

Modified: No

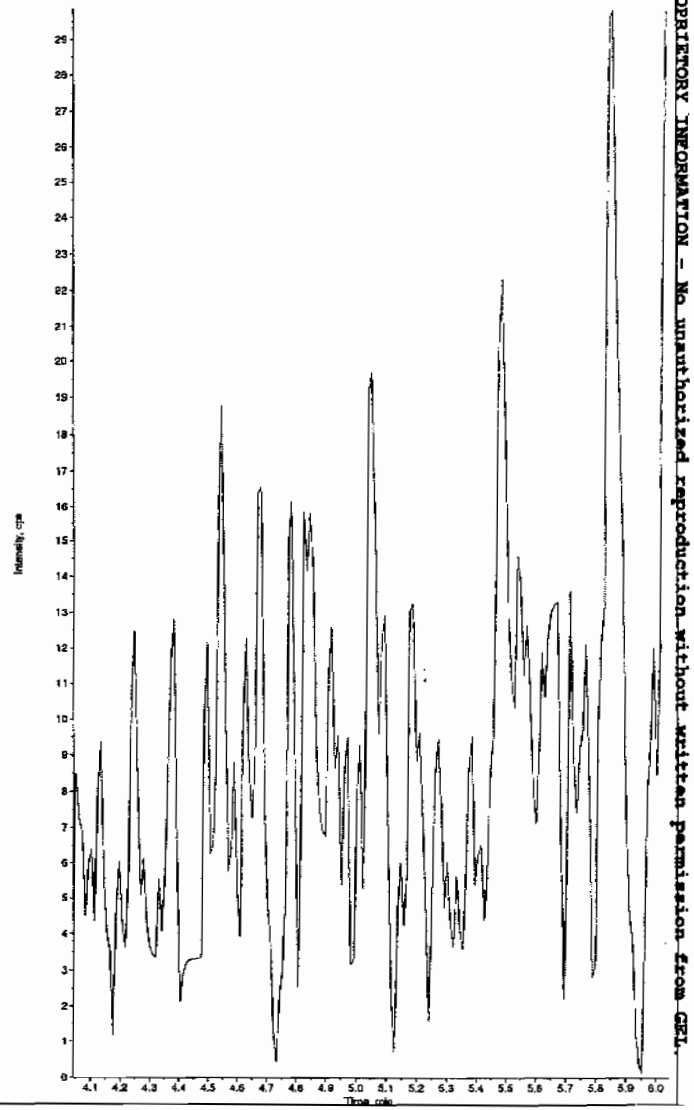

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245795019" Sample ID: "947089|2|LER" File: "EXS02170042.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:10:05 PM

Modified: No

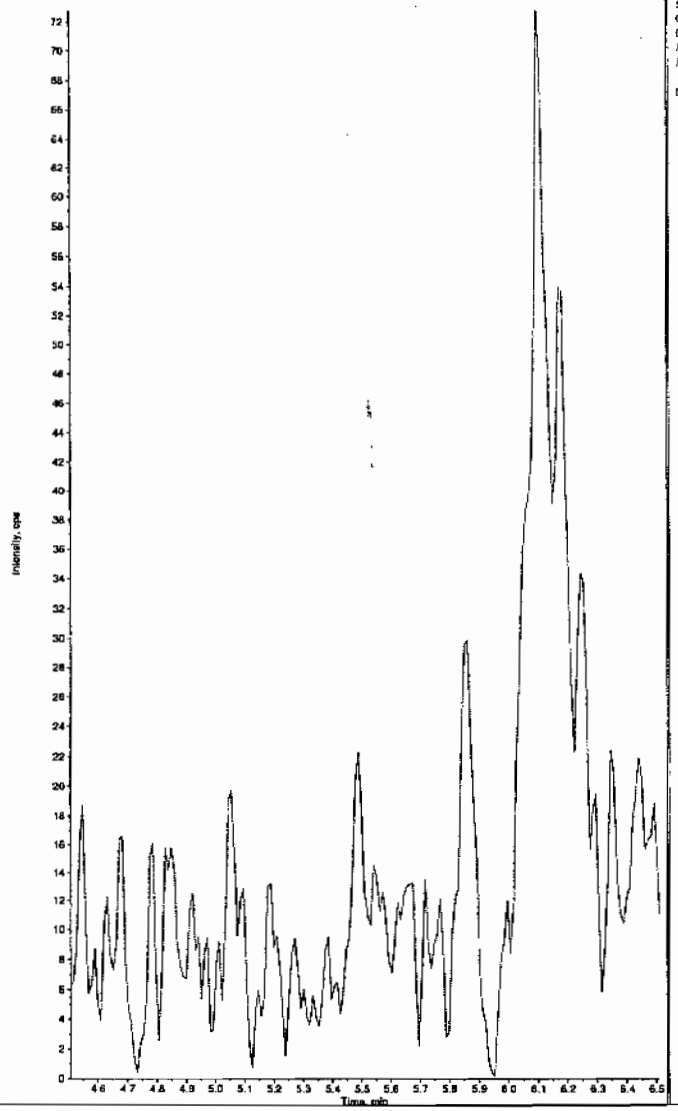

Sample Name: "245795019" Sample ID: "947089|2|LER" File: "EXS02170042.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:10:05 PM

Modified: No

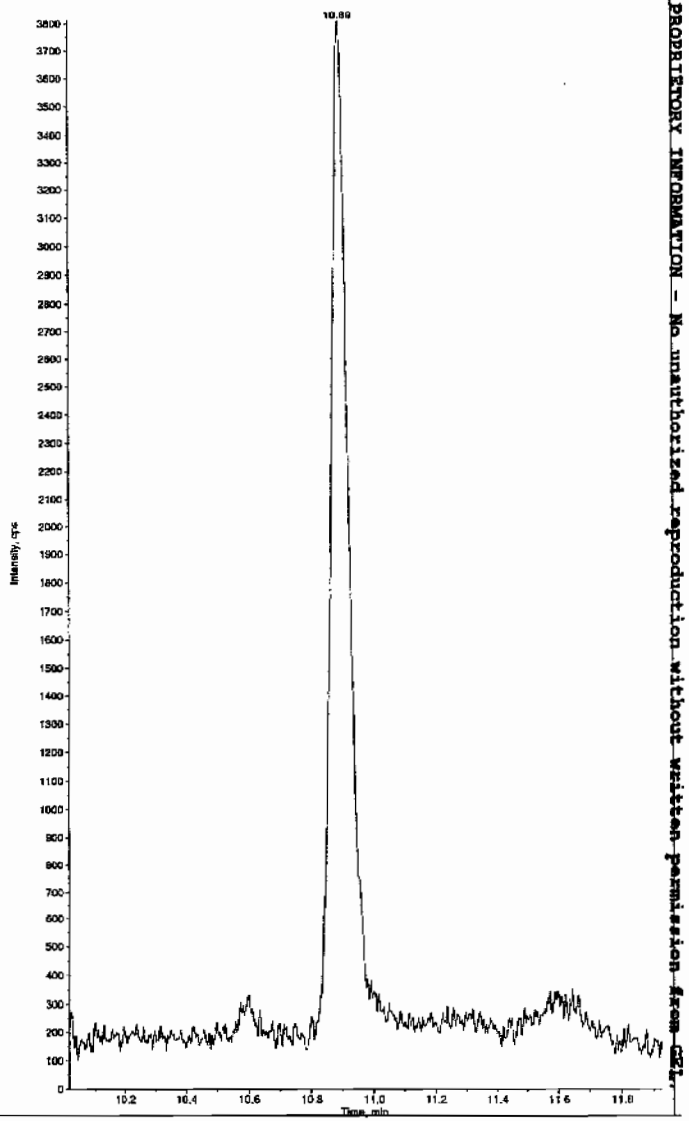

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1470

Lab Code: GEL

Run Date: 16-FEB-10,17-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a			
Parmname									
1,3,5-Trinitrobenzene	3.974	4.275	3.998	3.443	3.801	3.743	3.872	7.253	
1,3-Dinitrobenzene-d4	6.479	6.269	6.407	6.397	5.489	5.109	6.025	9.613	
2,4,6-Trinitrotoluene	.311	.331	.325	.38	.335	.329	0.335	7.003	
2,4-Dinitrotoluene	.22	.247	.233	.258	.258	.262	0.246	6.788	
2,6-Dinitrotoluene	.926	1.085	1.036	1.071	1.113	1.126	1.060	6.868	
2,6-Dinitrotoluene-d3	37.517	35.811	37.549	35.639	32.457	29.93	34.817	8.699	
2-Amino-4,6-dinitrotoluene	.4	.452	.421	.427	.458	.435	0.432	4.923	
3,4-Dinitrotoluene	.812	.944	.904	1.008	.893	.876	0.906	7.276	
4-Amino-2,6-dinitrotoluene	.35	.323	.285	.352	.298	.312	0.320	8.491	
HMX	3.59	3.564	3.729	3.903	4.47	3.894	3.858	8.619	
Nitrobenzene	.831	.943	.785	.911	.849	.831	0.858	6.765	
RDX	2.28	2.16	2.79	2.593	3.02	2.717	2.593	12.46	
Tetryl	1.117	1.386	1.084	1.014	.989	.952	1.090	14.415	
m-Dinitrobenzene	.991	1.315	1.169	1.17	1.25	1.236	1.189	9.364	
m-Nitrotoluene	.078	.09	.083	.1	.095	.091	0.090	8.99	
o-Nitrotoluene	.139	.156	.146	.153	.159	.159	0.152	5.121	
p-Nitrotoluene	.072	.072	.076	.082	.083	.076	0.077	6.293	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1470

Lab Code: GEL

Run Date: 16-FEB-10,17-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a					
Parmname:											
PETN	2110.32	4458.8	14532.6	25000.7	38622.3	42985.8	1.84	-.0004443	26.645	.9992	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: Untitled, Time: Wed Feb 17 10:00:06 2010

Compound name: HMX
Response Factor: 3.85837
RRF SD: 0.33256, % Relative SD: 8.61918
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

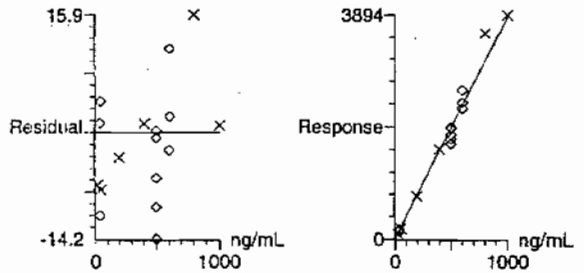

HMT 2/17/10

Compound name: RDX
Response Factor: 2.59344
RRF SD: 0.323138, % Relative SD: 12.4598
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

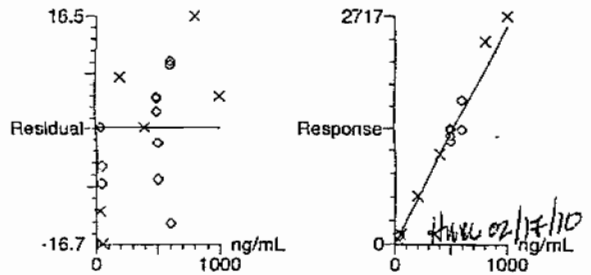

HMT 02/17/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.87255
RRF SD: 0.280856, % Relative SD: 7.2525
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

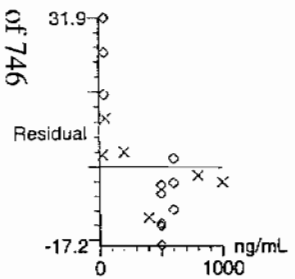

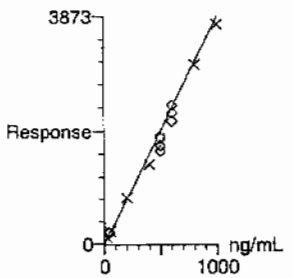

Compound name: 13-Dinitrobenzene-d4
Response Factor: 6.02483
RRF SD: 0.579171, % Relative SD: 9.61306
Response type: External Std, Area
Curve type: RF

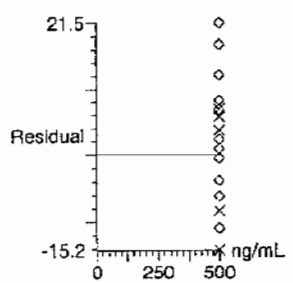

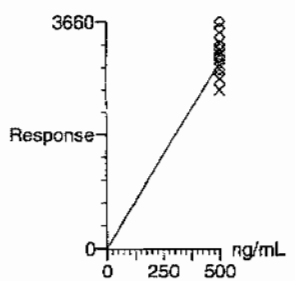

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.18852
RRF SD: 0.111292, % Relative SD: 9.36391
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

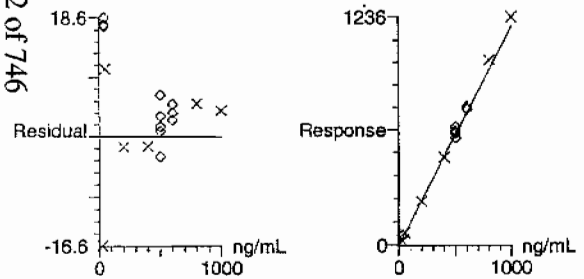

Compound name: Tetryl
Response Factor: 1.09023
RRF SD: 0.157158, % Relative SD: 14.4151
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

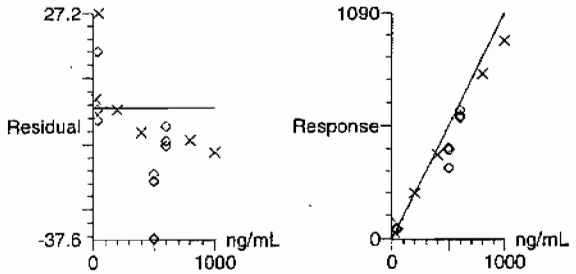

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: Nitrobenzene
Response Factor: 0.858509
RRF SD: 0.0580797, % Relative SD: 6.76517
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

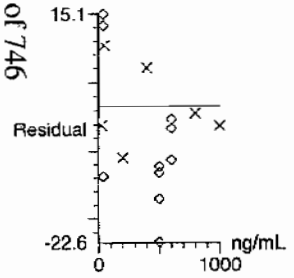

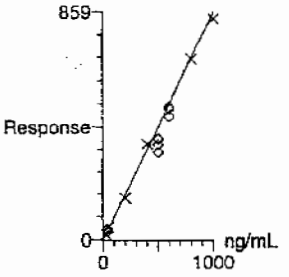

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.320217
RRF SD: 0.0271885, % Relative SD: 8.49063
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

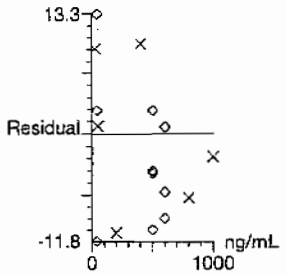

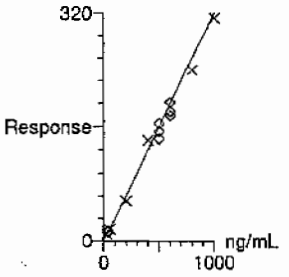

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.432055
RRF SD: 0.0212718, % Relative SD: 4.9234
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

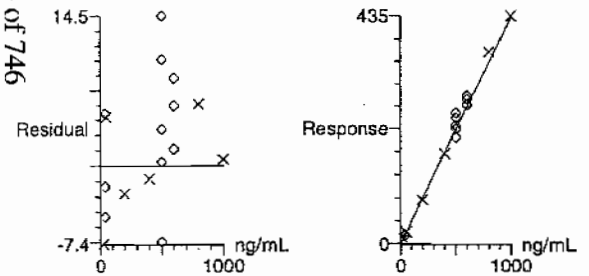

Compound name: 246-Trinitrotoluene
Response Factor: 0.335255
RRF SD: 0.0234791, % Relative SD: 7.00337
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

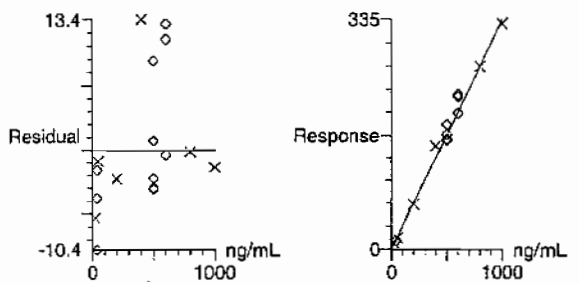

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.906001
RRF SD: 0.0659248, % Relative SD: 7.27646
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

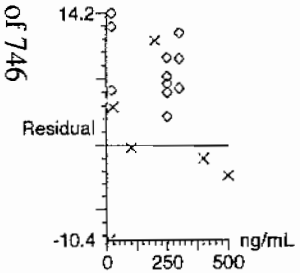

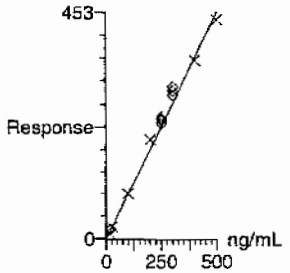

Compound name: 26-dinitrotoluene
Response Factor: 1.05944
RRF SD: 0.0727574, % Relative SD: 6.86754
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

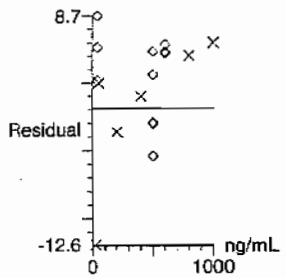

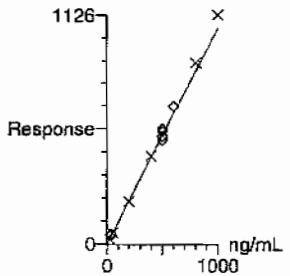

Page 325 of 746

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.24651
RRF SD: 0.0167341, % Relative SD: 6.78841
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

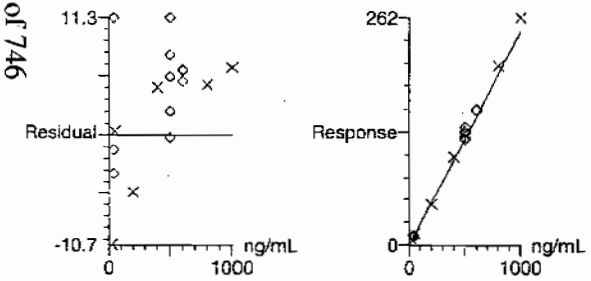

Compound name: 26-dinitrotoluene-d3
Response Factor: 34.8171
RRF SD: 3.02888, % Relative SD: 8.6994
Response type: External Std, Area
Curve type: RF

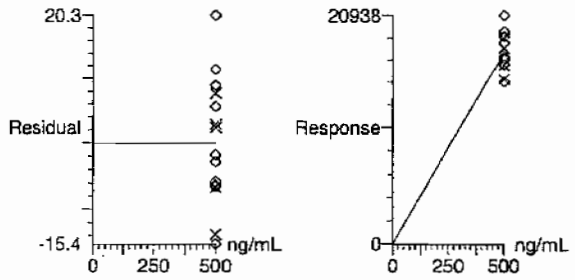

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.152194
RRF SD: 0.0077939, % Relative SD: 5.12103
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

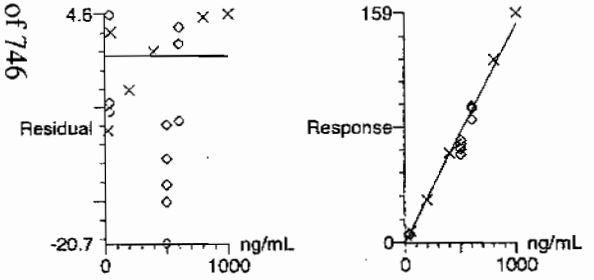

Compound name: 4-Nitrotoluene
Response Factor: 0.0766512
RRF SD: 0.00482394, % Relative SD: 6.29336
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

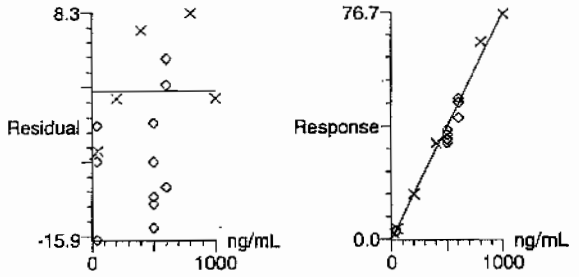

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0894891
RRF SD: 0.0080453, % Relative SD: 8.99027
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

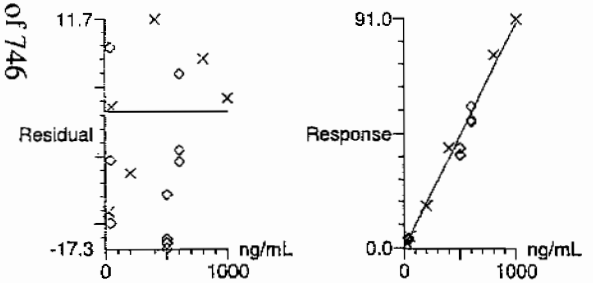

Compound name: PETN
Coefficient of Determination: 0.999195
Calibration curve: -0.000444334 * x^2 + 1.84022 * x + 26.6447
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

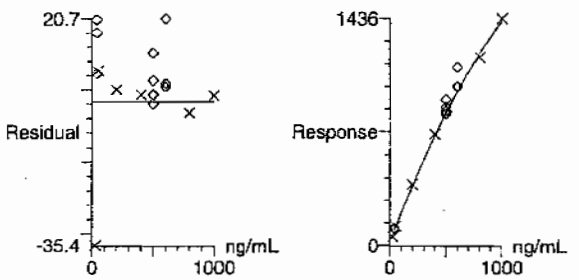

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEI

GEL Sample ID: WXXICV

GEL Data File EXP0216010a

Analysis Date: 16-FEB-10 21:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	600	546.753	91	
PETN	600	622.003	104	
RDX	600	517.279	86	
Tetryl	600	535.085	89	
m-Dinitrobenzene	600	615.667	103	
m-Nitrotoluene	600	571.306	95	
o-Nitrotoluene	600	619.132	103	
p-Nitrotoluene	600	620.215	103	
1,3,5-Trinitrobenzene	600	544.138	91	
1,3-Dinitrobenzene-d4	500	505.15	101	
2,4,6-Trinitrotoluene	600	596.996	99	
2,4-Dinitrotoluene	600	637.037	106	
2,6-Dinitrotoluene	600	631.497	105	
2,6-Dinitrotoluene-d3	500	470.813	94	
2-Amino-4,6-dinitrotoluene	600	609.733	102	
3,4-Dinitrotoluene	300	318.405	106	
4-Amino-2,6-dinitrotoluene	600	544.592	91	
HMX	600	667.211	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216010a
Date: 16-Feb-2010
Time: 21:34:44
ID: WXX100216-07ICV
Vial: 1:1,B

MM 4/17/10

HMX

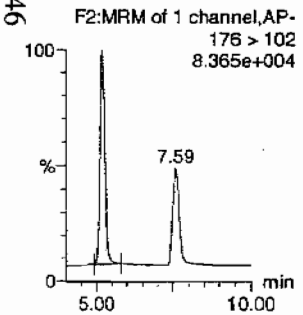

RDX

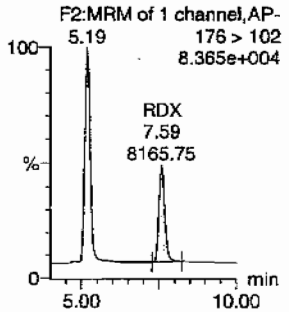

135-Trinitrobenzene

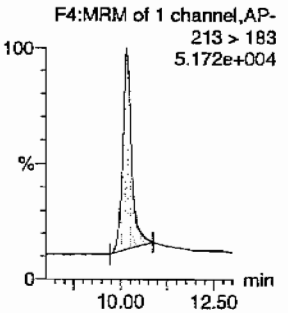

13-Dinitrobenzene-d4

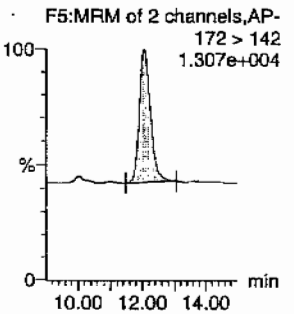

13-Dinitrobenzene

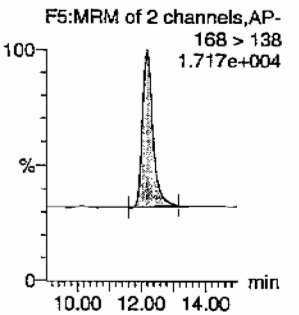

Tetryl

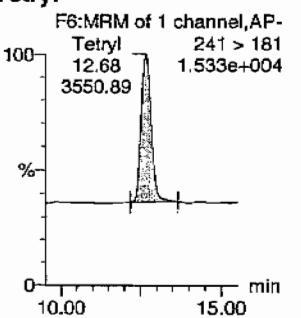

Nitrobenzene

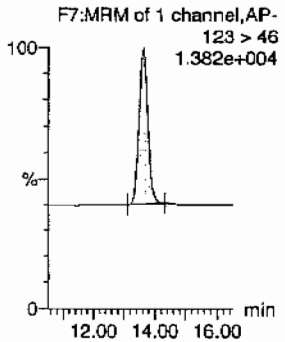

4-Amino-26-dinitrotoluene

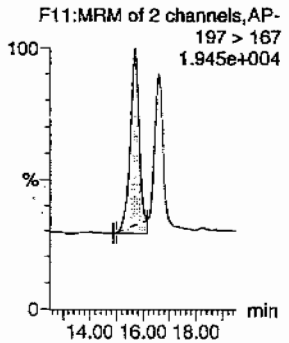

2-Amino-46-dinitrotoluene

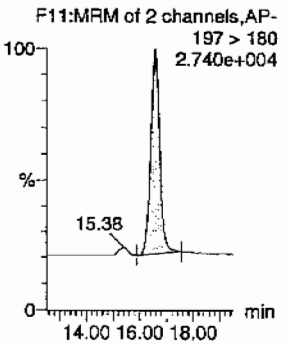

246-Trinitrotoluene

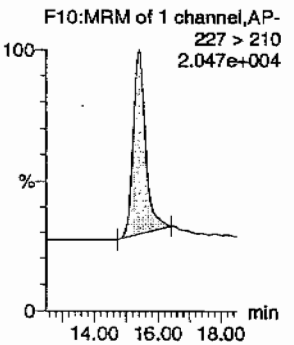

34-dinitrotoluene

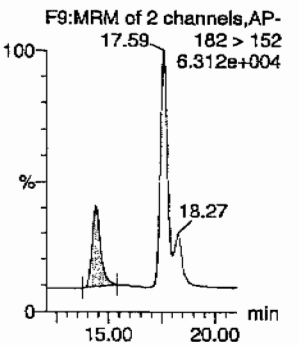

26-dinitrotoluene

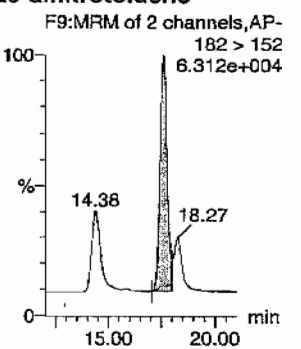

HWW 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

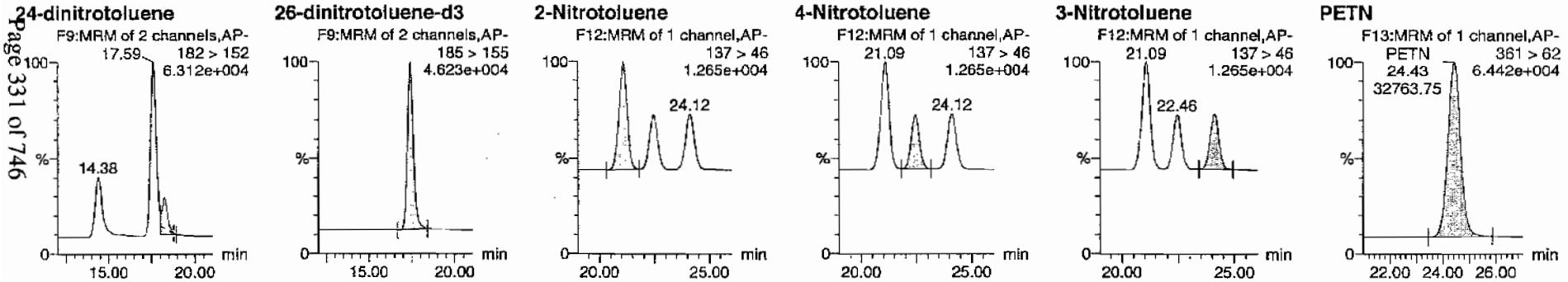

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100216-07ICV	HMX	176 > 102	5.19	15669.772	3043.441	15669.772	2574.351	db			667.2113	111.2	11.2	1616.5
WXX100216-07ICV	RDX	176 > 102	7.59	8165.754	3043.441	8165.754	1341.533	bb			517.2788	86.2	-13.8	736.8
WXX100216-07ICV	135-Trinitrobenzene	213 > 183	10.16	12826.263	3043.441	12826.263	2107.198	bb			544.1376	90.7	-9.3	1038.4
WXX100216-07ICV	13-Dinitrobenzene-d4	172 > 142	12.07	3043.441		3043.441	3043.441	bb			505.1495	101.0	1.0	83.9
WXX100216-07ICV	13-Dinitrobenzene	168 > 138	12.17	4453.971	3043.441	4453.971	731.733	bb			615.6672	102.6	2.6	397.6
WXX100216-07ICV	Tetryl	241 > 181	12.68	3550.885	3043.441	3550.885	583.367	bb			535.0850	89.2	-10.8	465.9
WXX100216-07ICV	Nitrobenzene	123 > 46	13.62	2857.135	3043.441	2857.135	469.392	bb			546.7525	91.1	-8.9	251.4
WXX100216-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.67	5717.246	16392.348	5717.246	174.388	MM	17-Feb-10	09:22:45	544.5918	90.8	-9.2	292.7
WXX100216-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.57	8636.743	16392.348	8636.743	263.438	bb			609.7334	101.6	1.6	597.0
WXX100216-07ICV	246-Trinitrotoluene	227 > 210	15.41	6561.721	16392.348	6561.721	200.146	bb			596.9963	99.5	-0.5	153.4
WXX100216-07ICV	34-dinitrotoluene	182 > 152	14.38	9457.581	16392.348	9457.581	288.475	bb			318.4052	106.1	6.1	368.9
WXX100216-07ICV	26-dinitrotoluene	182 > 152	17.59	21934.039	16392.348	21934.039	669.033	MM	17-Feb-10	09:25:41	631.4965	105.2	5.2	1072.7
WXX100216-07ICV	24-dinitrotoluene	182 > 152	18.27	5148.389	16392.348	5148.389	157.036	MM	17-Feb-10	09:54:19	637.0375	106.2	6.2	230.6
WXX100216-07ICV	26-dinitrotoluene-d3	185 > 155	17.42	16392.348		16392.348	16392.348	bb			470.8130	94.2	-5.8	1428.4
WXX100216-07ICV	2-Nitrotoluene	137 > 46	21.09	3089.247	16392.348	3089.247	94.228	bb			619.1324	103.2	3.2	357.3
WXX100216-07ICV	4-Nitrotoluene	137 > 46	22.46	1558.593	16392.348	1558.593	47.540	bb			620.2153	103.4	3.4	179.8
WXX100216-07ICV	3-Nitrotoluene	137 > 46	24.12	1676.139	16392.348	1676.139	51.126	bb			571.3062	95.2	-4.8	182.7
WXX100216-07ICV	PETN	361 > 62	24.43	32763.752	16392.348	32763.752	999.361	bb			622.0025	103.7	3.7	5170.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/16/10
Time of Injection: 2134
Standard Number: WXX100216-07ICV
Data File: EXP0216010a

HMX	111.2
RDX	86.2
135-TNB	90.7
13-DNB	102.6
Tetryl	89.2
Nitrobenzene	91.1
4A-26-DNT	90.8
2A-46-DNT	101.6
246-TNT	99.5
34-DNT(surr)	106.1
26-DNT	105.2
24-DNT	106.2
2-NT	103.2
4-NT	103.4
3-NT	95.2
PETN	103.7
Total	1585.9
Average	99.1

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1470

Lab Code: GEL

Run Date: 16-FEB-10,17-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: Average RF

Calibration Level:	19	20	21	22	23	24	25	Ave RF	RSD	Q
Data File:	EXS02170003.w	EXS02170004.w	EXS02170005.w	EXS02170006.w	EXS02170007.w	EXS02170008.w	EXS02170009.w			
Parmname										
2,4-Diamino-6-nitrotoluene	1240	1340	1270	1220	1250	1240	1090	1235.714	6.03	
2,6-Diamino-4-nitrotoluene	2010	2030	2100	1920	1730	2070	1920	1968.571	6.42	
3,4-Dinitrotoluene	14000	13200	13200	12400	15900	12700	11800	13314.286	9.91	
3,5-Dinitroaniline	8310	7580	7260	7390	7380	7150	6410	7354.286	7.67	
TATB	1770	1730	1760	1710	1710	1650	1550	1697.143	4.42	
tris(o-cresyl) phosphate	25700	24600	23700	22100	21200	19500	15500	21757.143	16	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.7e+003
Standard deviation 75.1
%RSD 4.42
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 7.36e+003
Standard deviation 564
%RSD 7.67
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.33e+004
Standard deviation 1.32e+003
%RSD 9.91
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.97e+003
Standard deviation 126
%RSD 6.42
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Scan 2/19/10

Hmm 02/19/10

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Fit Mean Response Factor Weighting None Iterate No
Factor 1.24e+003
Standard deviation 74.5
%RSD 6.03
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.18e+004
Standard deviation 3.47e+003
%RSD 16
Use Area

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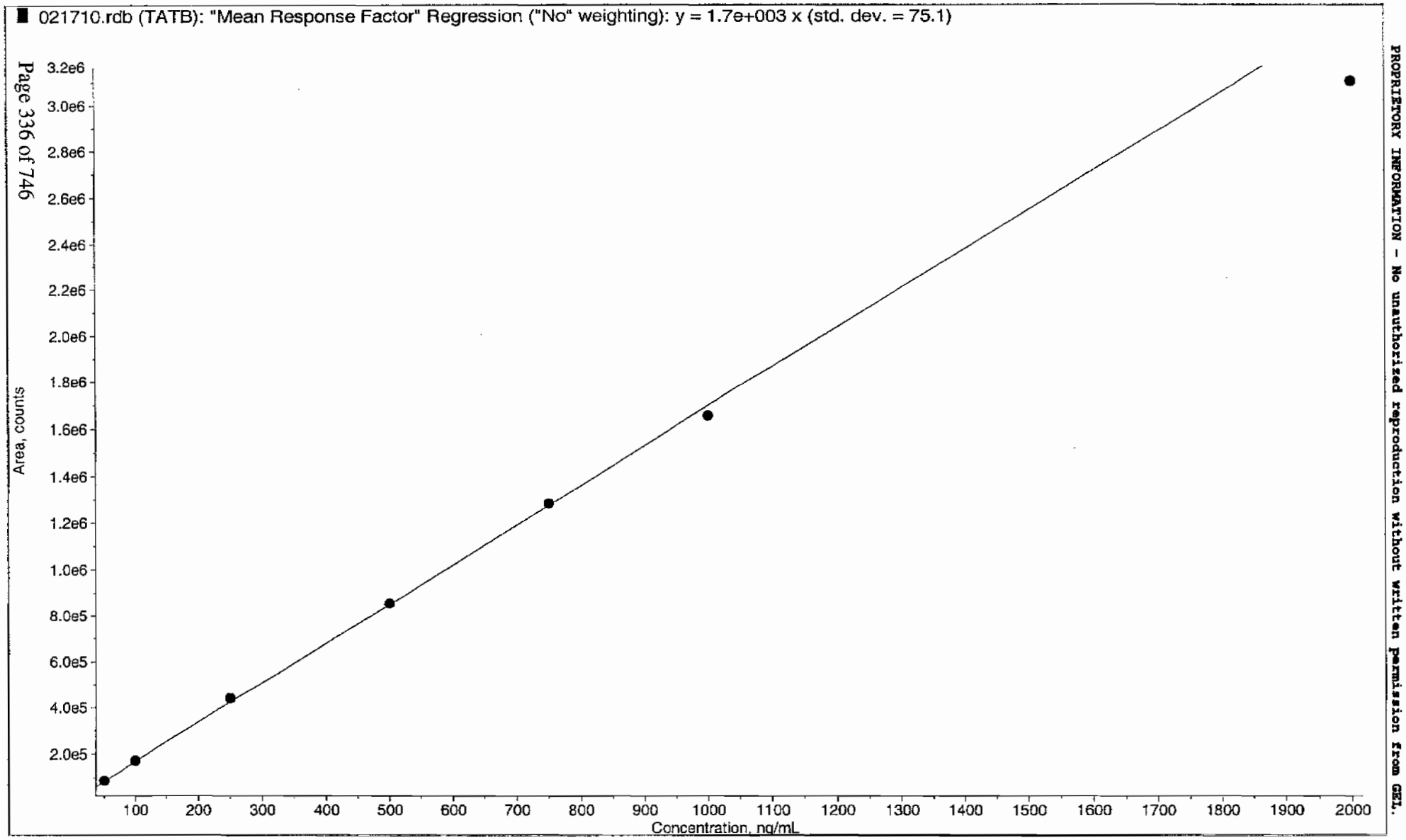

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

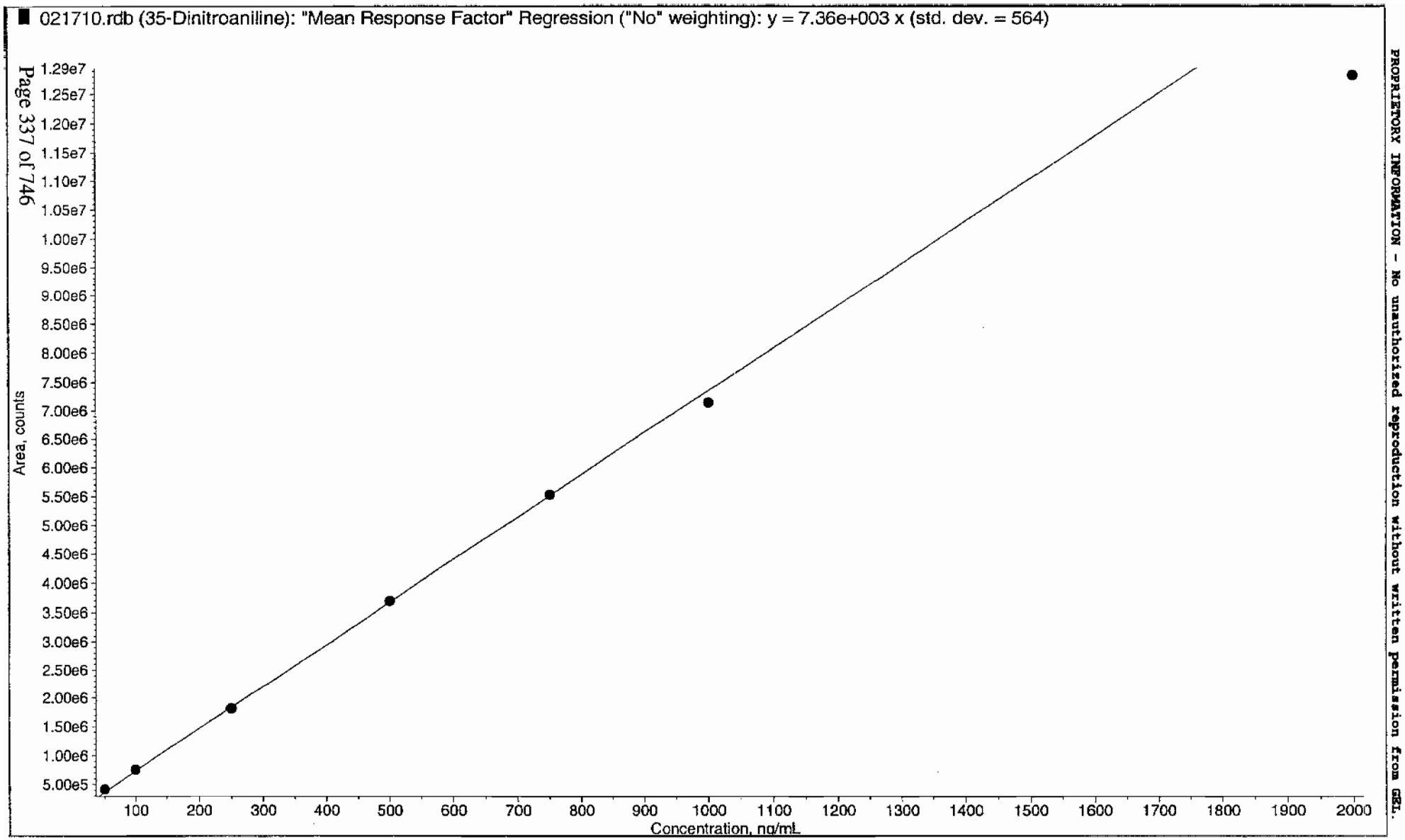

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

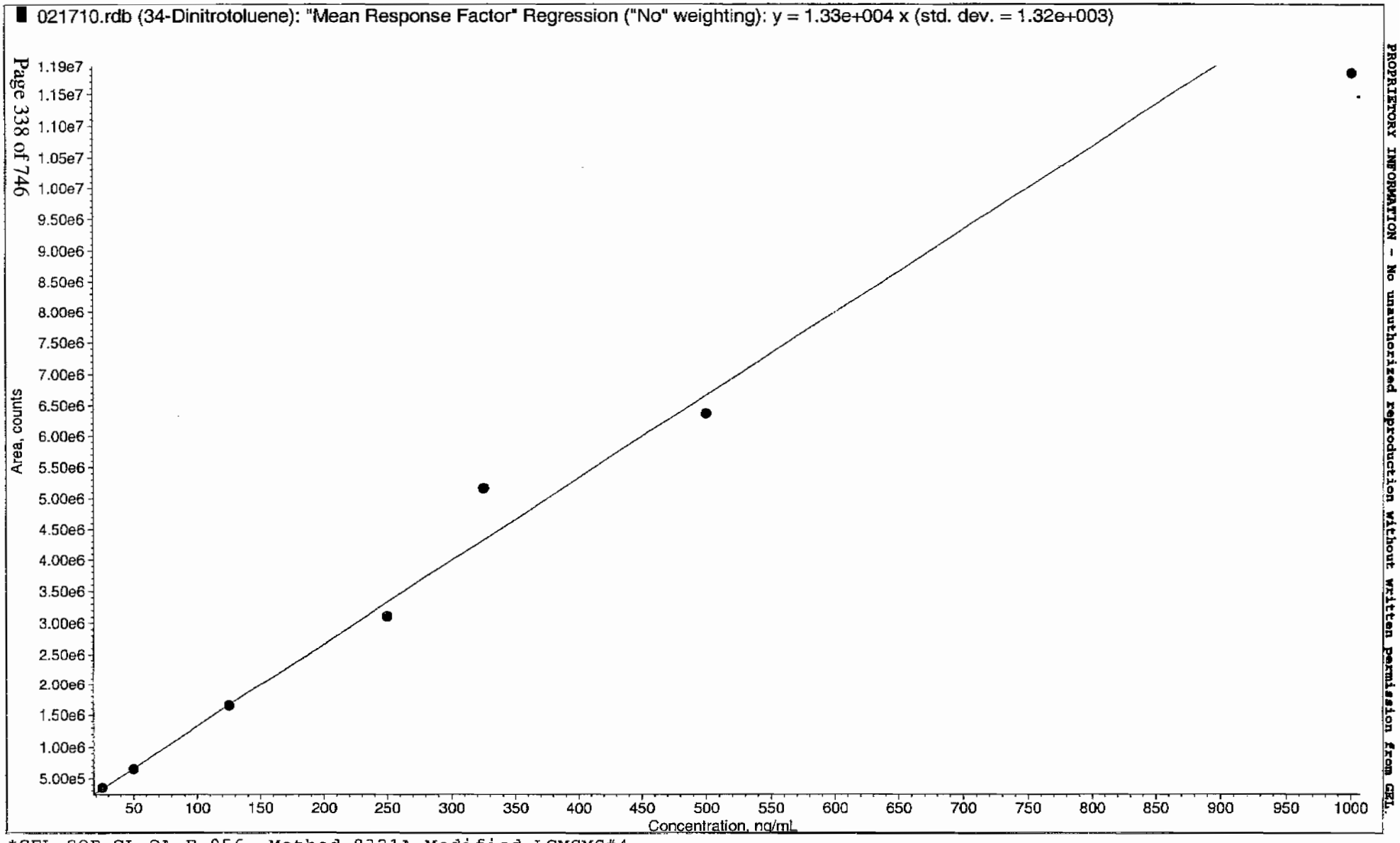

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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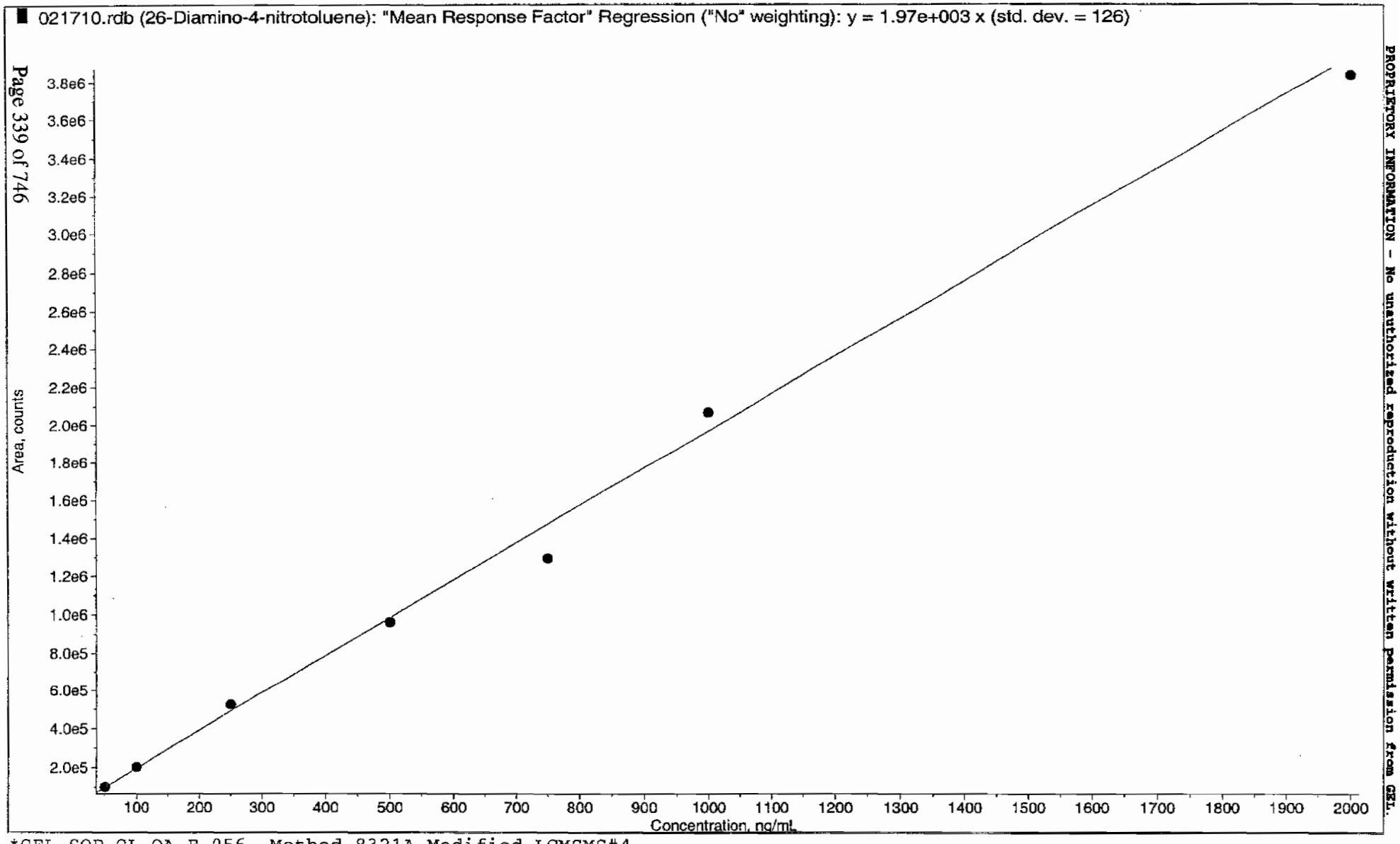

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

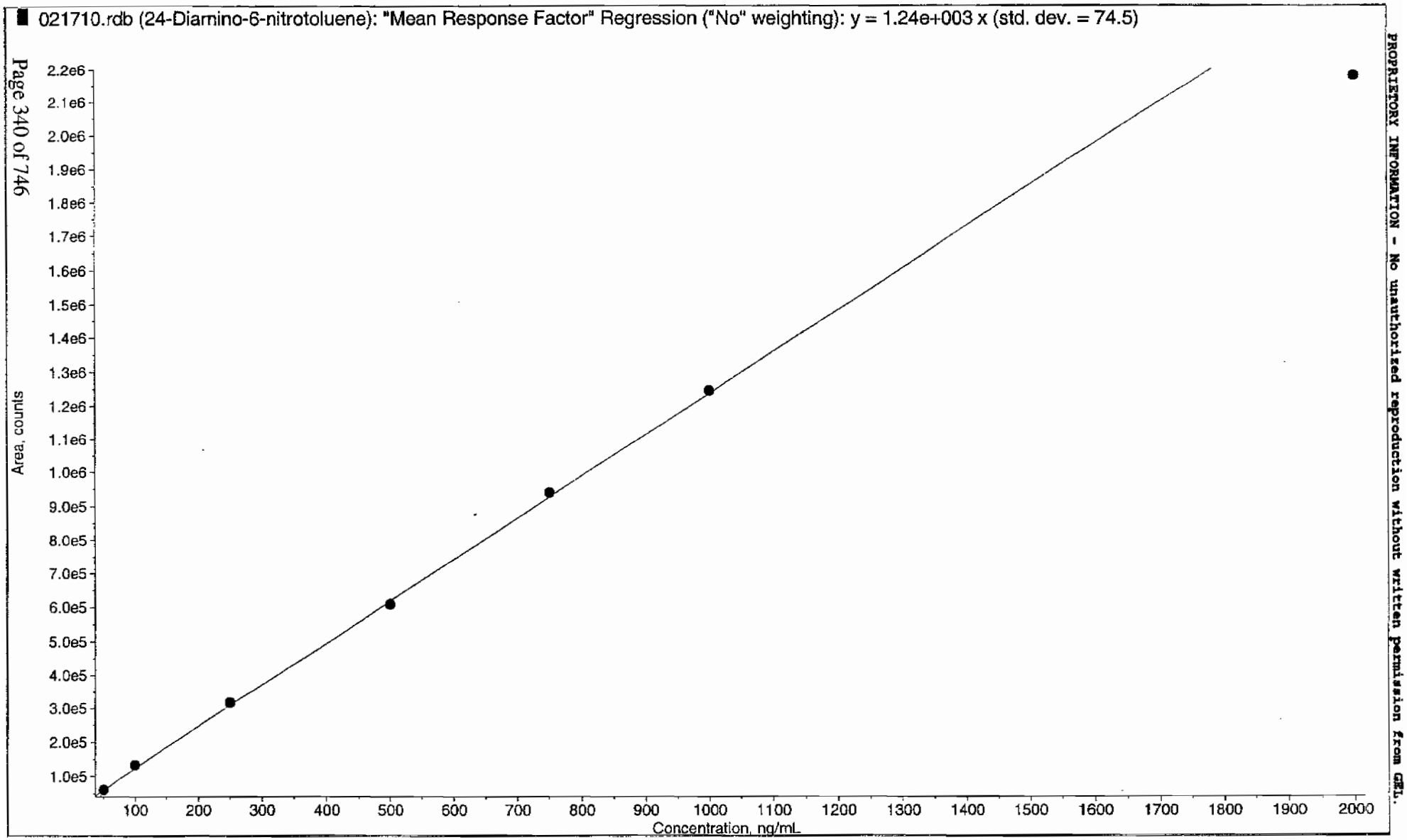

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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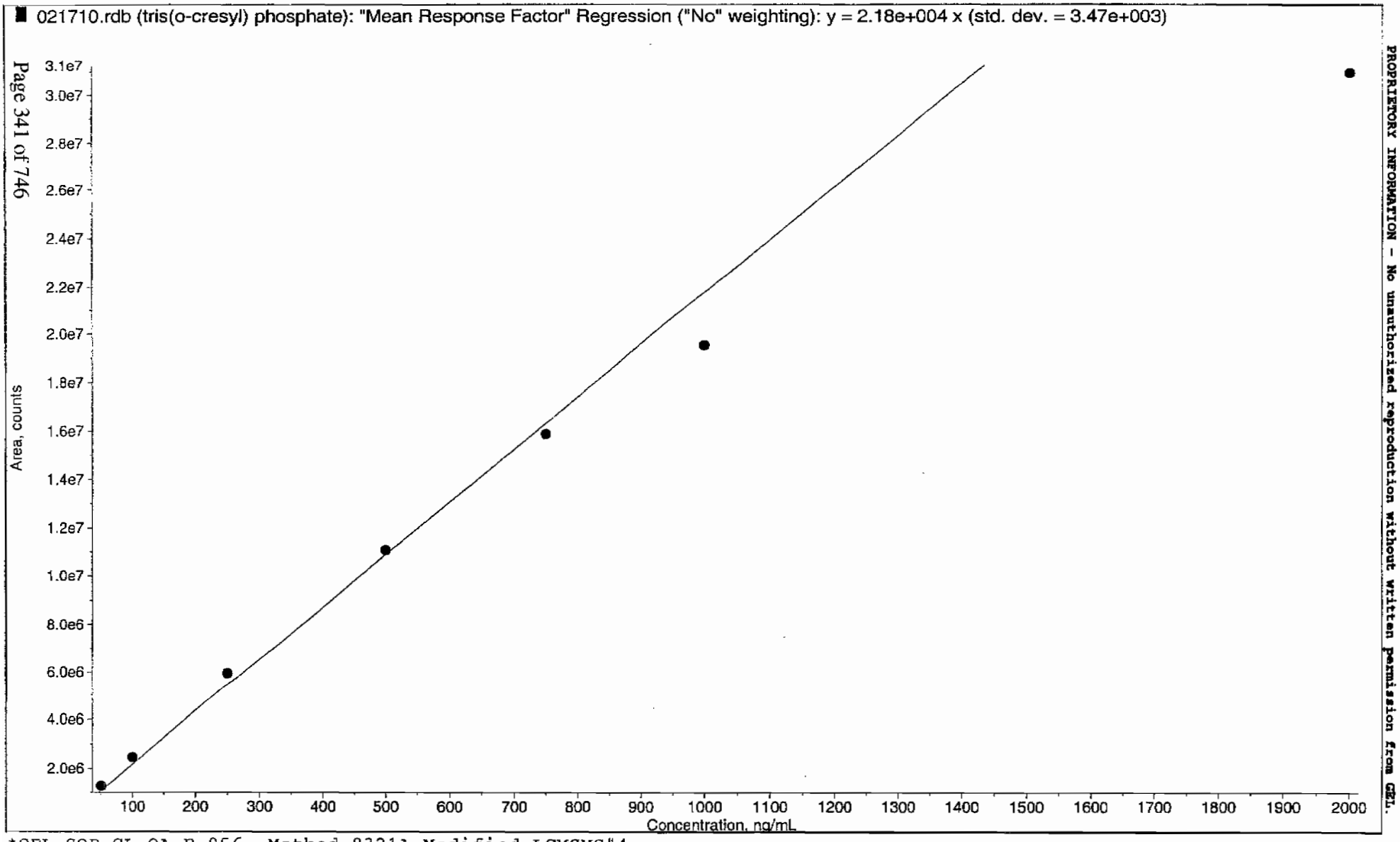

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02170011.wiff

Analysis Date: 17-FEB-10 12:03

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	434	87	
2,6-Diamino-4-nitrotoluene	500	522	104	
3,4-Dinitrotoluene	250	238	95	
3,5-Dinitroaniline	500	521	104	
TATB	500	485	97	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 2/19/10

Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:03:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.03 min
Area: 8.23e+005 counts
Height: 178808.243 cps
Start Time: 6.89 min
End Time: 7.72 min

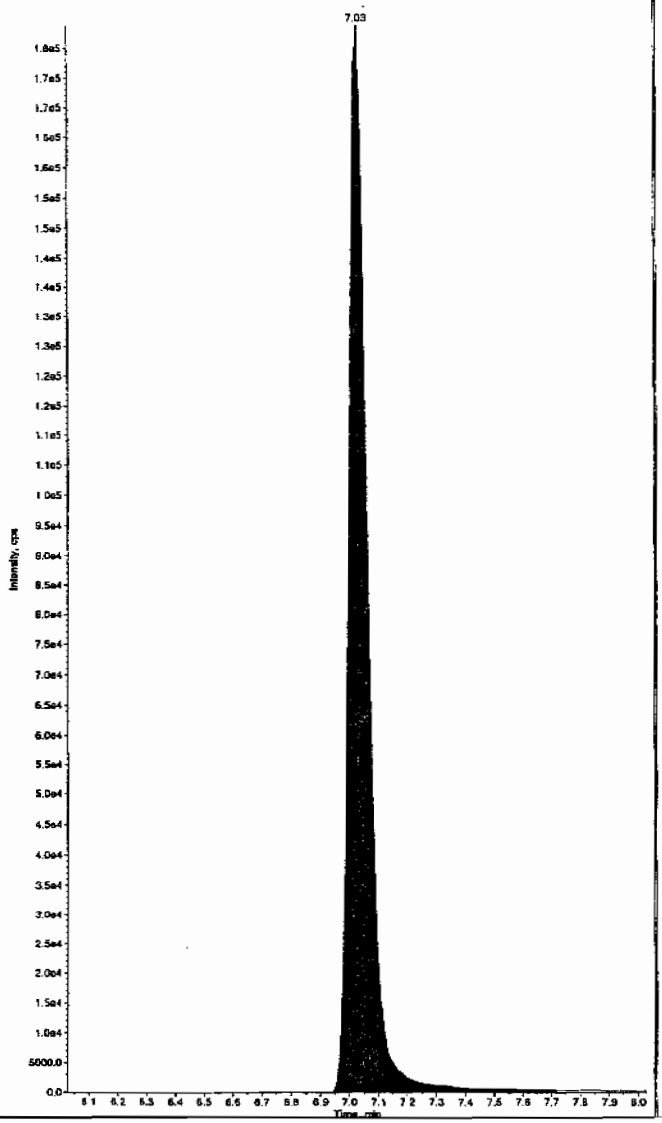

Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 521. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:03:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.26 min
Area: 3.83e+006 counts
Height: 981809.998 cps
Start Time: 8.14 min
End Time: 8.36 min

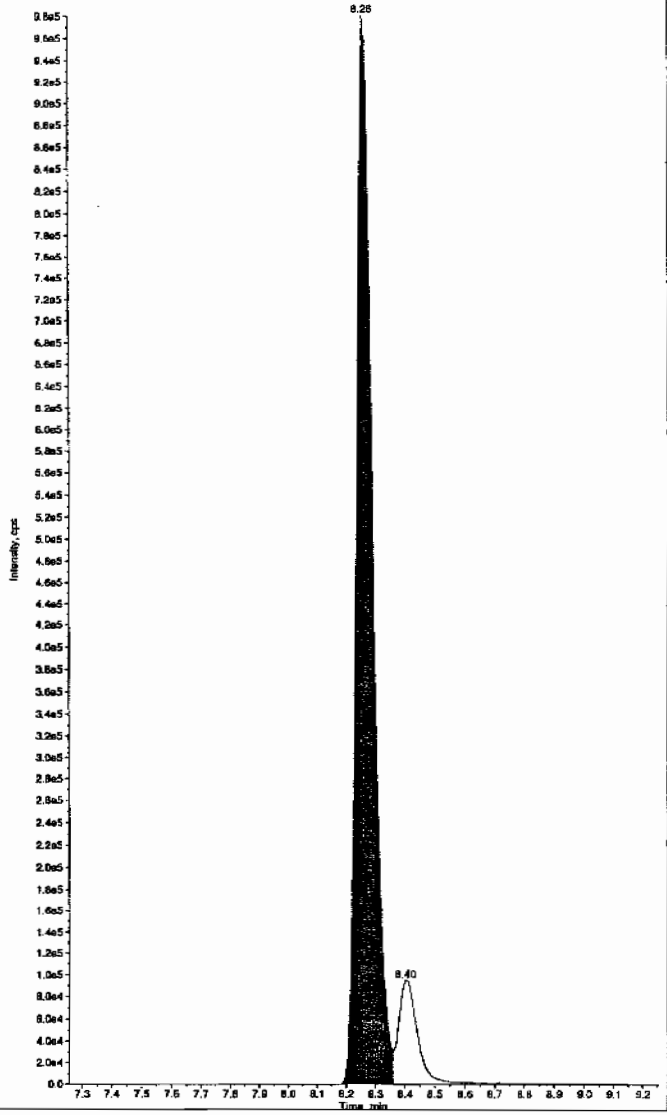

Hrm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100217-26ICV" Sample ID: "1|LER" File: "EXS02170011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 238. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:03:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 3.17e+006 counts
Height: 806022.278 cps
Start Time: 8.33 min
End Time: 8.62 min

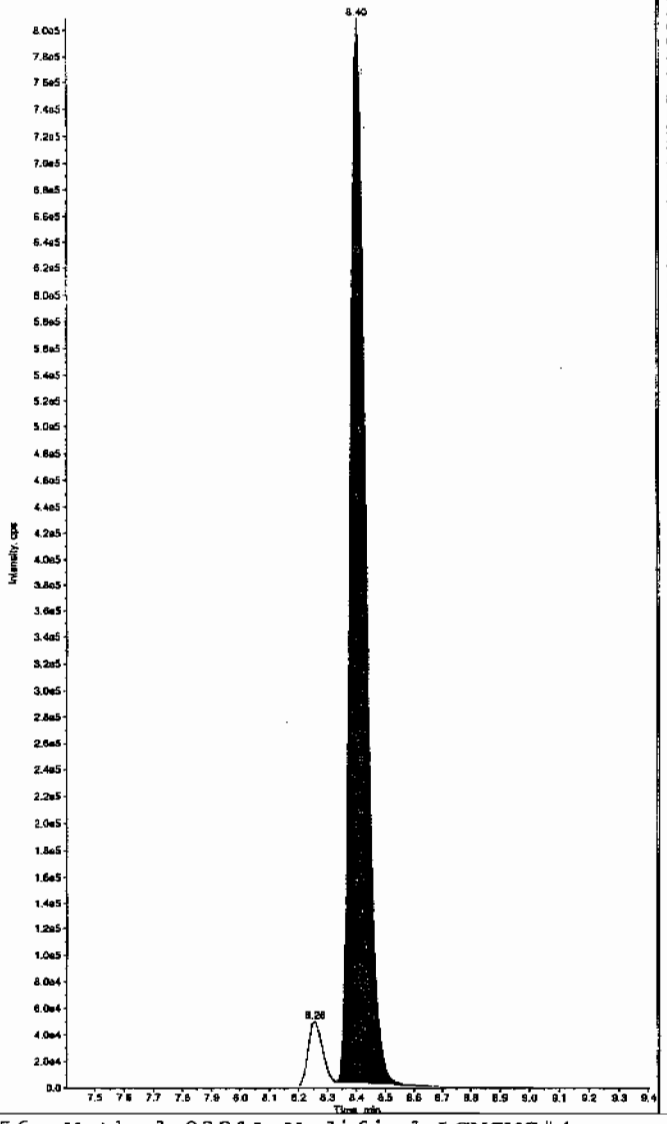

Sample Name: "WXX100217-26ICV" Sample ID: "1|LER" File: "EXS02170011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 522. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:03:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 1.03e+006 counts
Height: 252953.461 cps
Start Time: 4.92 min
End Time: 5.34 min

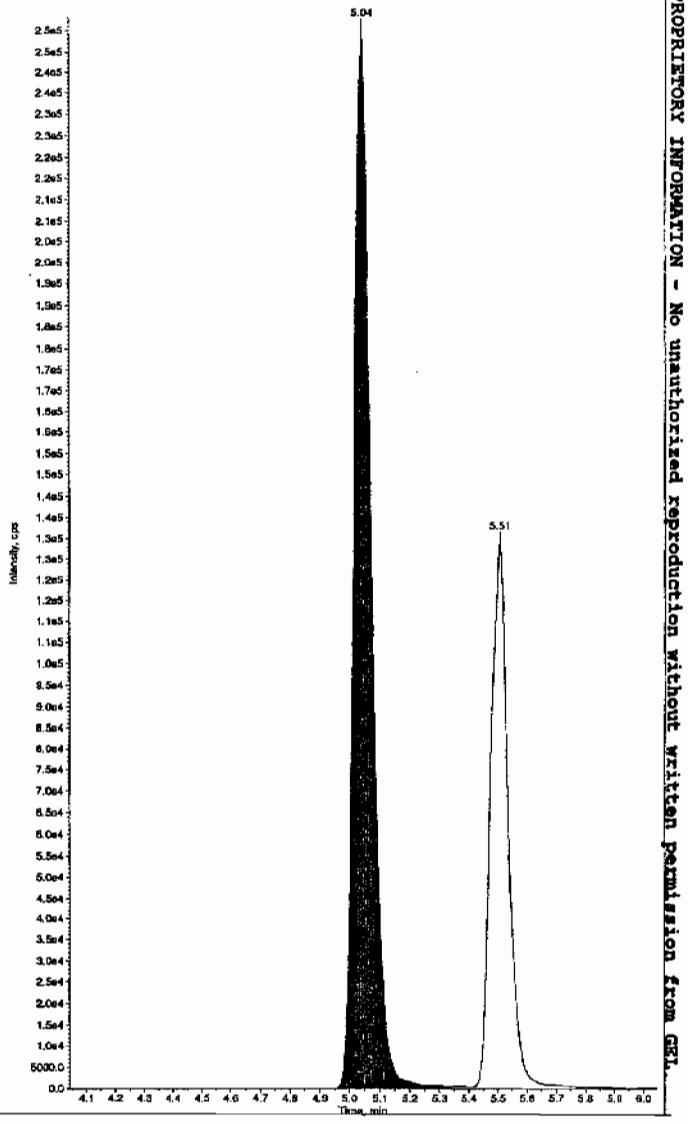

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 434. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:03:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.51 min
Area: 5.37e+005 counts
Height: 131656.830 cps
Start Time: 5.41 min
End Time: 5.86 min

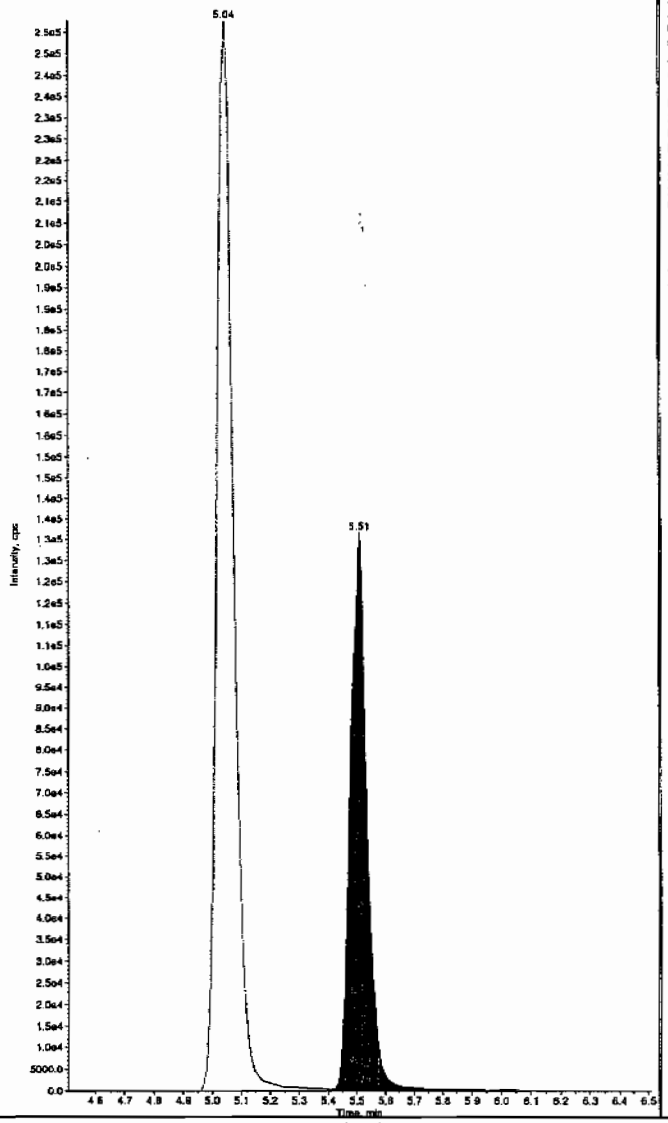

Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:03:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.08e+007 counts
Height: 2574622.314 cps
Start Time: 10.8 min
End Time: 11.3 min

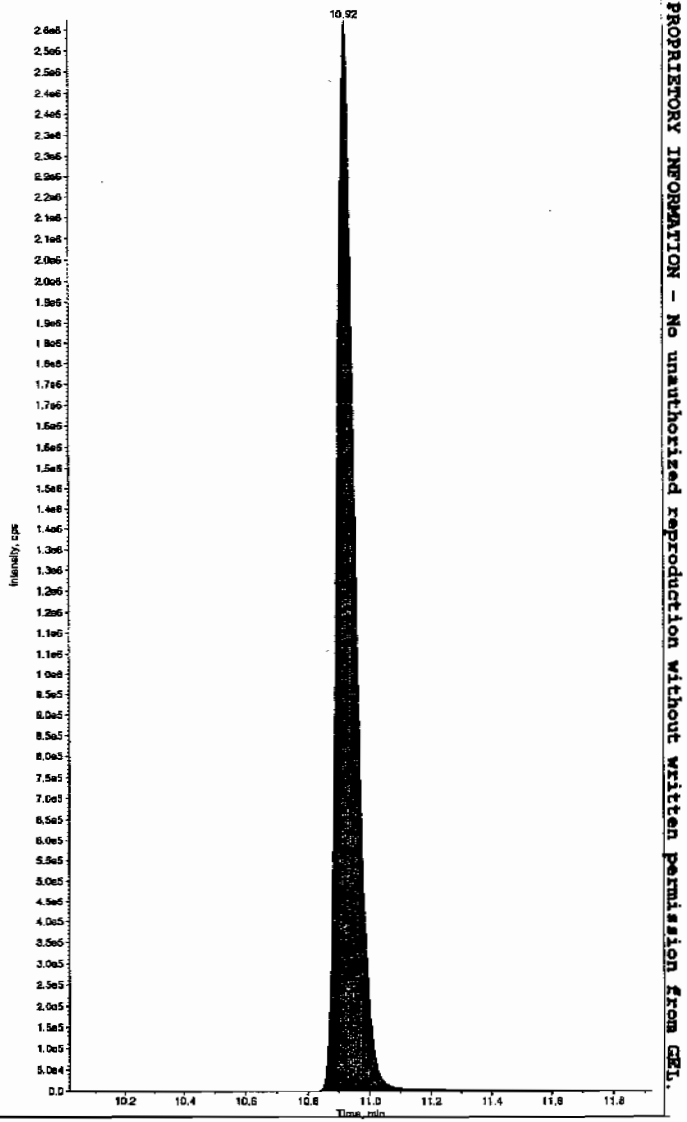

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216012a

Analysis Date: 16-FEB-10 22:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	46.913	117	
m-Nitrotoluene	40	43.185	108	
o-Nitrotoluene	40	41.818	105	
p-Nitrotoluene	40	36.985	92	
1,3,5-Trinitrobenzene	40	52.773	132	*
1,3-Dinitrobenzene-d4	500	467.275	93	
2,4,6-Trinitrotoluene	40	39.143	98	
2,4-Dinitrotoluene	40	38.529	96	
2,6-Dinitrotoluene	40	43.494	109	
2,6-Dinitrotoluene-d3	500	466.982	93	
2-Amino-4,6-dinitrotoluene	40	39.227	98	
3,4-Dinitrotoluene	20	22.552	113	
4-Amino-2,6-dinitrotoluene	40	41.012	103	
HMX	40	41.651	104	
Nitrobenzene	40	45.259	113	
PETN	40	42.843	107	
RDX	40	36.749	92	
Tetryl	40	39.776	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216012a
Date: 16-Feb-2010
Time: 22:33:56
ID: WXX100216-08CRI
Vial: 1:1,C

HMX

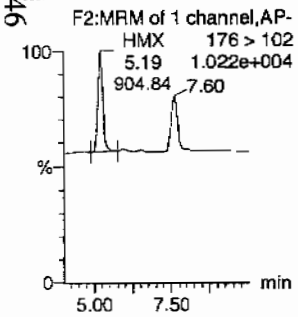

RDX

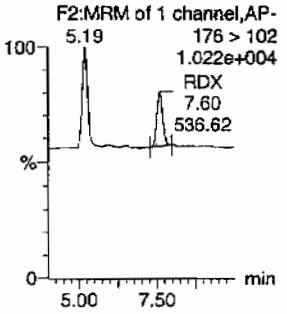

135-Trinitrobenzene

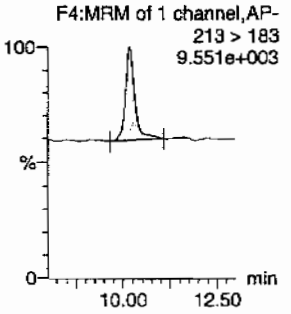

13-Dinitrobenzene-d4

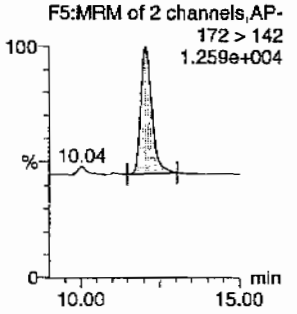

13-Dinitrobenzene

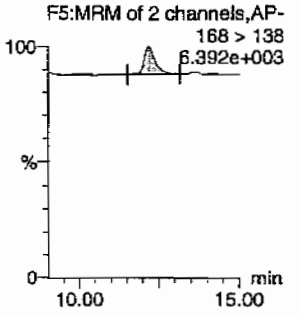

Tetryl

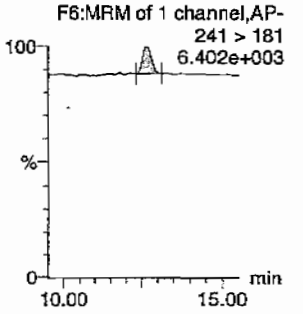

Nitrobenzene

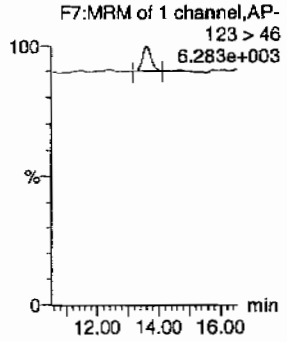

4-Amino-26-dinitrotoluene

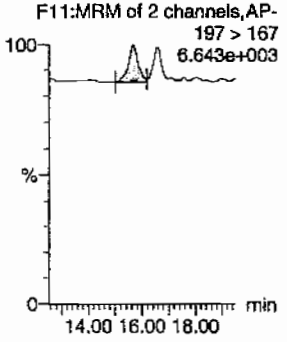

2-Amino-46-dinitrotoluene

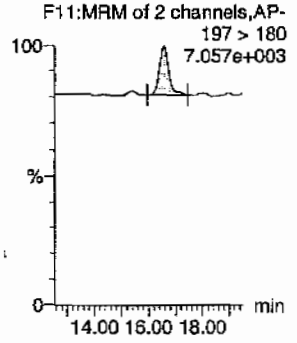

246-Trinitrotoluene

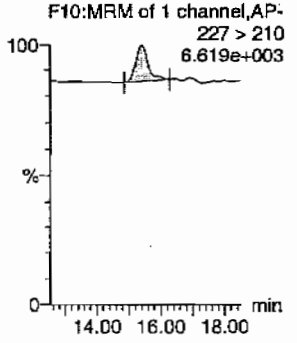

34-dinitrotoluene

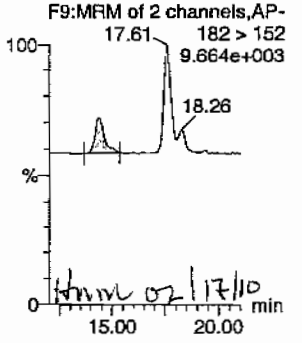

26-dinitrotoluene

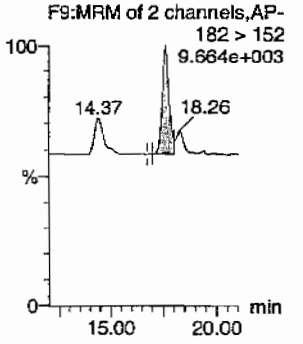

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

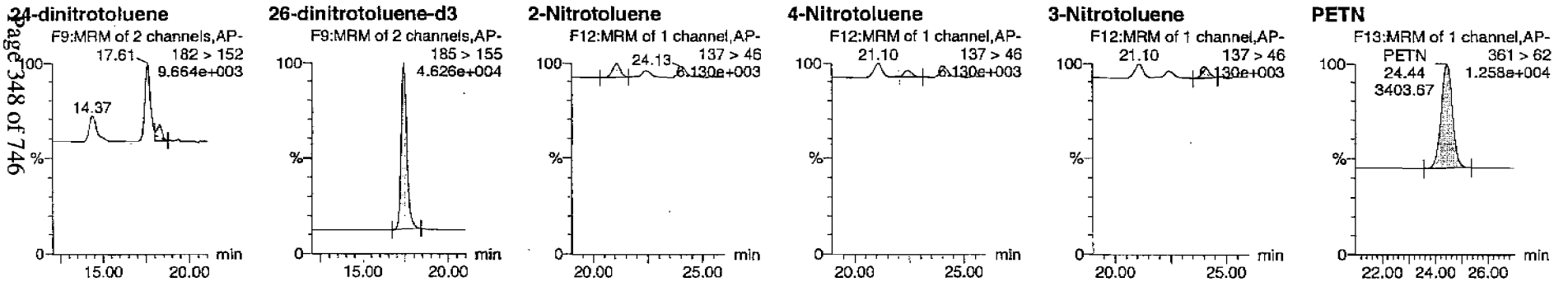

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	904.843	2815.255	904.843	160.704	bb			41.6506	104.1	4.1	146.1
WXX100216-08CRI	RDX	176 > 102	7.60	536.624	2815.255	536.624	95.306	bb			36.7490	91.9	-8.1	78.6
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1150.692	2815.255	1150.692	204.367	bb			52.7734	131.9	31.9	153.3
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2815.255		2815.255	2815.255	bb			467.2753	93.5	-6.5	116.9
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	313.940	2815.255	313.940	55.757	bb			46.9129	117.3	17.3	56.5
WXX100216-08CRI	Tetryl	241 > 181	12.66	244.166	2815.255	244.166	43.365	bb			39.7758	99.4	-0.6	26.2
WXX100216-08CRI	Nitrobenzene	123 > 46	13.61	218.774	2815.255	218.774	38.855	bb			45.2588	113.1	13.1	13.8
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.67	427.054	16258.972	427.054	13.133	MM	17-Feb-10	09:22:56	41.0124	102.5	2.5	29.2
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	551.120	16258.972	551.120	16.948	bb			39.2269	98.1	-1.9	56.9
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.40	426.730	16258.972	426.730	13.123	bb			39.1431	97.9	-2.1	30.4
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	664.397	16258.972	664.397	20.432	bb			22.5515	112.8	12.8	21.1
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1498.403	16258.972	1498.403	46.079	MM	17-Feb-10	09:25:53	43.4940	108.7	8.7	65.6
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.26	308.850	16258.972	308.850	9.498	MM	17-Feb-10	09:54:26	38.5291	96.3	-3.7	13.0
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16258.972		16258.972	16258.972	bb			466.9822	93.4	-6.6	1321.7
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	206.957	16258.972	206.957	6.364	bb			41.8176	104.5	4.5	61.3
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.41	92.186	16258.972	92.186	2.835	bb			36.9848	92.5	-7.5	27.2
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.13	125.667	16258.972	125.667	3.865	bb			43.1845	108.0	8.0	39.5
WXX100216-08CRI	PETN	361 > 62	24.44	3403.665	16258.972	3403.665	104.670	bb			42.8433	107.1	7.1	656.3

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/16/10
Time of Injection	2233
Standard Number	WXX100216-08CRI
Data File	EXP0216012a

HMX		104.1
RDX		91.9
135-TNB		131.9
13-DNB		117.3
Tetryl		99.4
Nitrobenzene		113.1
4A-26-DNT		102.5
2A-46-DNT		98.1
246-TNT		97.9
34-DNT(surr)		112.8
26-DNT		108.7
24-DNT		96.3
2-NT		104.5
4-NT		92.5
3-NT		108.0
PETN		107.1
Total		1686.1
Average		105.4

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1470

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216021a **Analysis Date:** 17-FEB-10 03:00

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	579.243	97	
1,3-Dinitrobenzene-d4	500	497.509	100	
2,4,6-Trinitrotoluene	600	668.453	111	
2,4-Dinitrotoluene	600	630.739	105	
2,6-Dinitrotoluene	600	632.433	105	
2,6-Dinitrotoluene-d3	500	485.976	97	
2-Amino-4,6-dinitrotoluene	600	634.785	106	
3,4-Dinitrotoluene	300	327.796	109	
4-Amino-2,6-dinitrotoluene	600	562.441	94	
HMX	600	585.906	98	
Nitrobenzene	600	587.781	98	
PETN	600	627.186	105	
RDX	600	656.37	109	
Tetryl	600	543.324	91	
m-Dinitrobenzene	600	630.615	105	
m-Nitrotoluene	600	562.285	94	
o-Nitrotoluene	600	556.59	93	
p-Nitrotoluene	600	538.033	90	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216021a
Date: 17-Feb-2010
Time: 03:00:59
ID: WXX100216-07CCV
Vial: 1:1,B

MTT 2/17/10

HMX

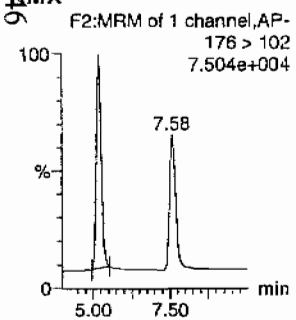

RDX

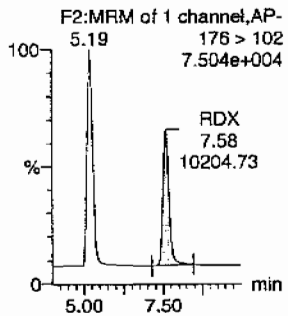

135-Trinitrobenzene

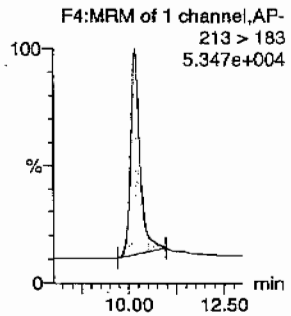

13-Dinitrobenzene-d4

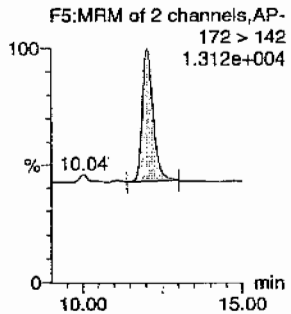

13-Dinitrobenzene

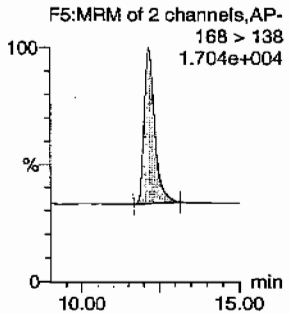

Tetryl

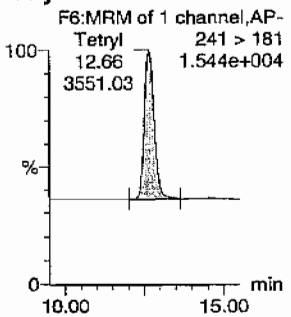

Nitrobenzene

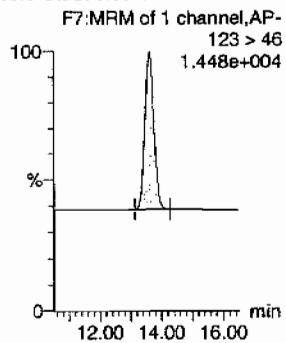

4-Amino-26-dinitrotoluene

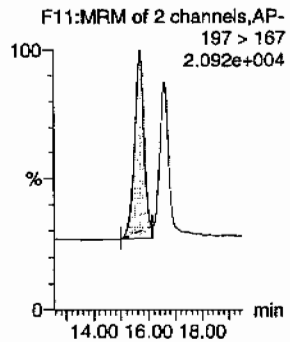

2-Amino-46-dinitrotoluene

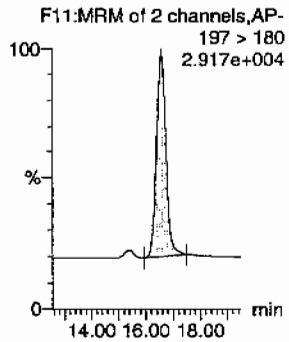

246-Trinitrotoluene

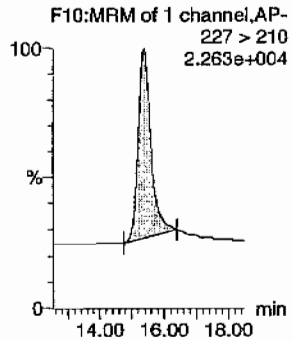

34-dinitrotoluene

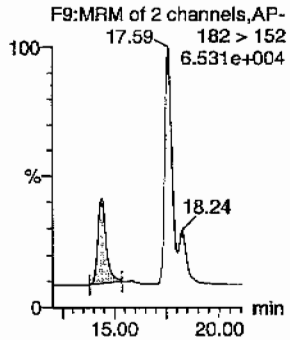

26-dinitrotoluene

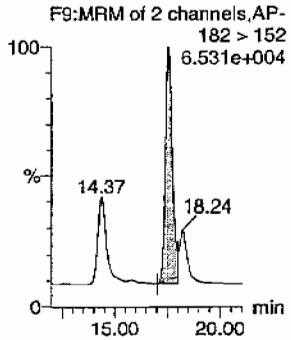

HMM 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

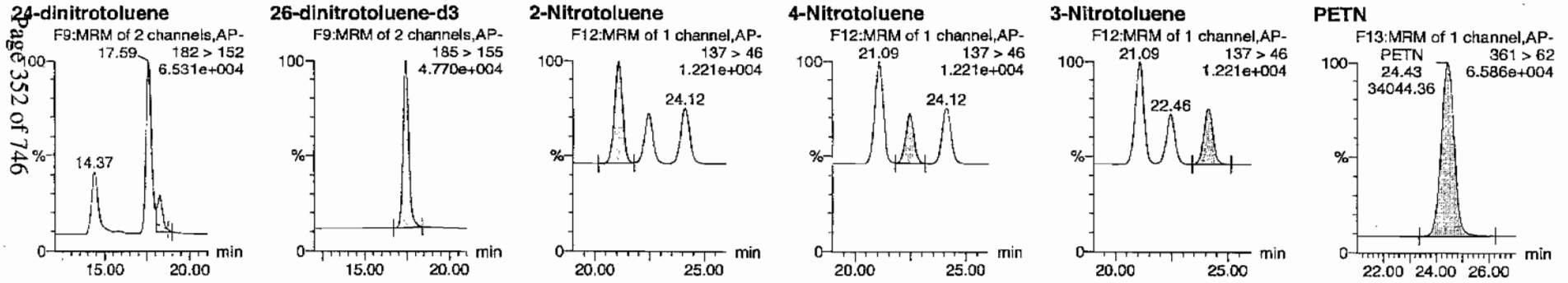

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	13552.134	2997.406	13552.134	2260.644	bb			585.9057	97.7	-2.3	2331.3
WXX100216-07CCV	RDX	176 > 102	7.58	10204.725	2997.406	10204.725	1702.259	bb			656.3705	109.4	9.4	1478.9
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13447.239	2997.406	13447.239	2243.146	bb			579.2434	96.5	-3.5	1192.4
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	2997.406		2997.406	2997.406	bb			497.5086	99.5	-0.5	158.4
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4493.104	2997.406	4493.104	749.499	bb			630.6152	105.1	5.1	503.7
WXX100216-07CCV	Tetryl	241 > 181	12.66	3551.025	2997.406	3551.025	592.350	bb			543.3244	90.6	-9.4	473.6
WXX100216-07CCV	Nitrobenzene	123 > 46	13.61	3025.073	2997.406	3025.073	504.615	bb			587.7805	98.0	-2.0	278.1
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	6094.788	16920.273	6094.788	180.103	MM	17-Feb-10	09:23:30	562.4405	93.7	-6.3	422.1
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9281.178	16920.273	9281.178	274.262	bb			634.7853	105.8	5.8	337.8
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7583.733	16920.273	7583.733	224.102	bb			668.4527	111.4	11.4	213.3
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10050.091	16920.273	10050.091	296.984	bb			327.7962	109.3	9.3	453.5
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.59	22674.004	16920.273	22674.004	670.025	MM	17-Feb-10	09:26:18	632.4328	105.4	5.4	1271.5
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.24	5261.653	16920.273	5261.653	155.484	MM	17-Feb-10	09:58:25	630.7389	105.1	5.1	273.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16920.273		16920.273	16920.273	bb			485.9758	97.2	-2.8	2036.1
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	2866.625	16920.273	2866.625	84.710	bb			556.5902	92.8	-7.2	705.7
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1395.615	16920.273	1395.615	41.241	bb			538.0334	89.7	-10.3	337.1
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1702.802	16920.273	1702.802	50.318	bb			562.2854	93.7	-6.3	379.3
WXX100216-07CCV	PETN	361 > 62	24.43	34044.359	16920.273	34044.359	1006.023	bb			627.1860	104.5	4.5	7276.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 0300
Standard Number: WXX100216-07CCV
Data File: EXP0216021a

HMX	97.7
RDX	109.4
135-TNB	96.5
13-DNB	105.1
Tetryl	90.6
Nitrobenzene	98.0
4A-26-DNT	93.7
2A-46-DNT	105.8
246-TNT	111.4
34-DNT(surr)	109.3
26-DNT	105.4
24-DNT	105.1
2-NT	92.8
4-NT	89.7
3-NT	93.7
PETN	104.5
Total	1608.7
Average	100.5

MT 2/17/10

Hmx 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216023a

Analysis Date: 17-FEB-10 03:59

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.744	124	
1,3-Dinitrobenzene-d4	500	479.66	96	
2,4,6-Trinitrotoluene	40	35.851	90	
2,4-Dinitrotoluene	40	39.455	99	
2,6-Dinitrotoluene	40	41.064	103	
2,6-Dinitrotoluene-d3	500	491.1	98	
2-Amino-4,6-dinitrotoluene	40	38.066	95	
3,4-Dinitrotoluene	20	21.18	106	
4-Amino-2,6-dinitrotoluene	40	45.31	113	
HMX	40	40.495	101	
Nitrobenzene	40	46.027	115	
PETN	40	46.88	117	
RDX	40	40.003	100	
Tetryl	40	46.382	116	
m-Dinitrobenzene	40	47.022	118	
m-Nitrotoluene	40	34.333	86	
o-Nitrotoluene	40	37.918	95	
p-Nitrotoluene	40	33.624	84	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216023a
Date: 17-Feb-2010
Time: 03:59:56
ID: WXX100216-08CRI
Vial: 1:1,C

MMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.016e+004
903.05 7.58

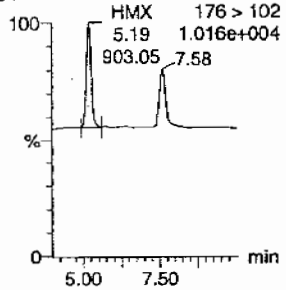

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.016e+004
RDX
7.58
599.62

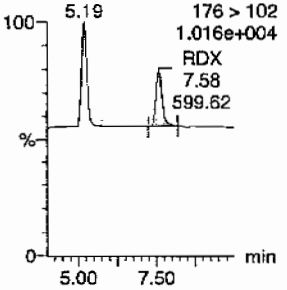

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.592e+003

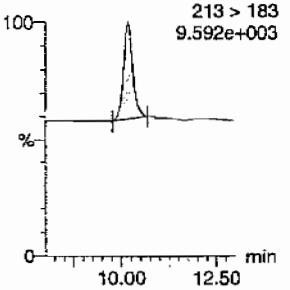

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.270e+004

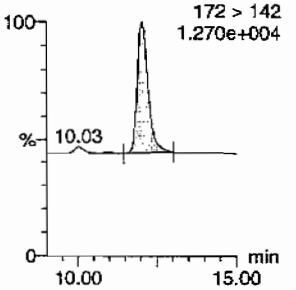

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.403e+003

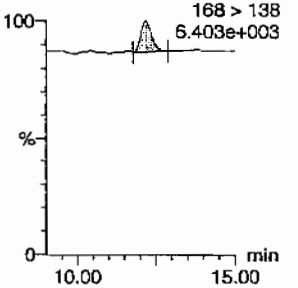

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.399e+003

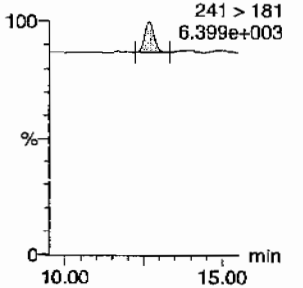

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.267e+003

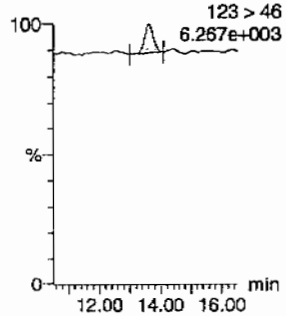

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.805e+003

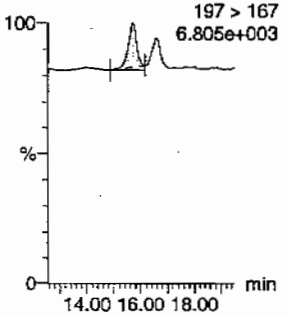

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.123e+003

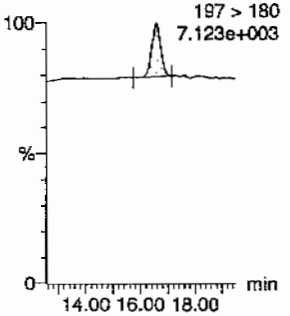

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.472e+003

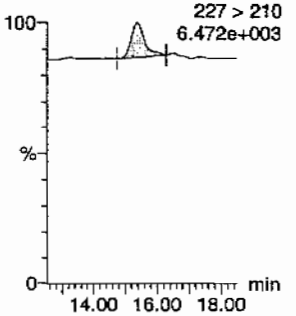

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.688e+003

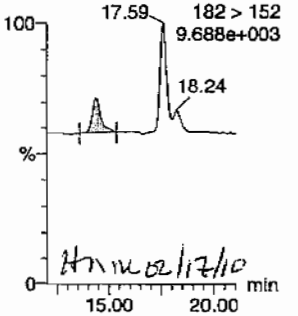

HMM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.688e+003

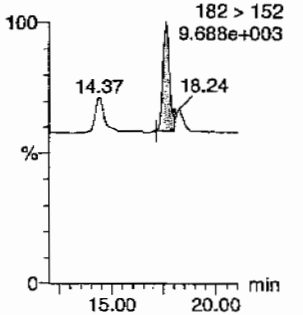

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

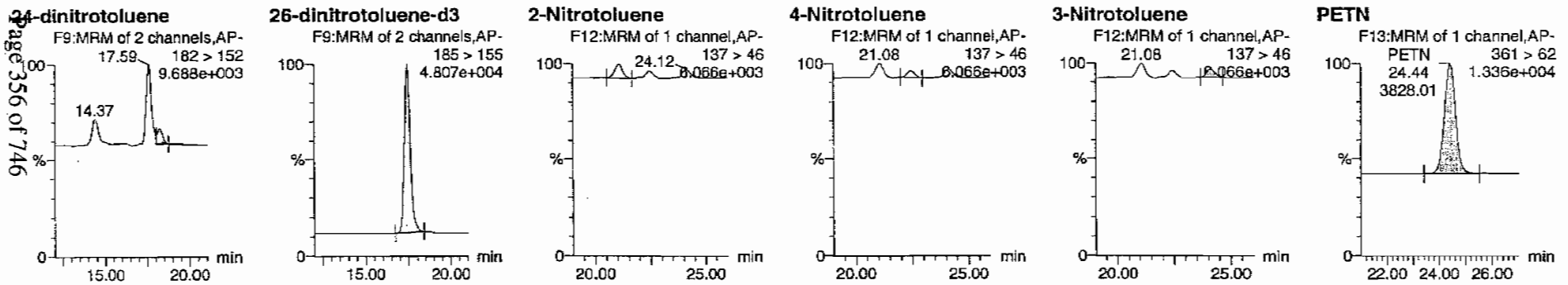

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	903.051	2889.872	903.051	156.244	bb			40.4948	101.2	1.2	129.0
WXX100216-08CRI	RDX	176 > 102	7.58	599.618	2889.872	599.618	103.745	bb			40.0027	100.0	0.0	71.5
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1113.391	2889.872	1113.391	192.637	bb			49.7442	124.4	24.4	149.0
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2889.872		2889.872	2889.872	bb			479.6602	95.9	-4.1	417.1
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	323.009	2889.872	323.009	55.886	bb			47.0218	117.6	17.6	49.9
WXX100216-08CRI	Tetryl	241 > 181	12.66	292.267	2889.872	292.267	50.567	bb			46.3823	116.0	16.0	23.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.61	228.386	2889.872	228.386	39.515	bb			46.0273	115.1	15.1	23.5
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	496.172	17098.684	496.172	14.509	MM	17-Feb-10	09:23:37	45.3101	113.3	13.3	43.7
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	562.424	17098.684	562.424	16.446	bb			38.0656	95.2	-4.8	54.4
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.37	411.028	17098.684	411.028	12.019	bb			35.8512	89.6	-10.4	34.7
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	656.211	17098.684	656.211	19.189	bb			21.1798	105.9	5.9	25.2
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.59	1487.743	17098.684	1487.743	43.505	MM	17-Feb-10	09:26:28	41.0638	102.7	2.7	76.0
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.24	332.609	17098.684	332.609	9.726	MM	17-Feb-10	09:58:34	39.4554	98.6	-1.4	15.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	17098.684		17098.684	17098.684	bb			491.1000	98.2	-1.8	1844.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	197.351	17098.684	197.351	5.771	bb			37.9183	94.8	-5.2	50.3
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	88.137	17098.684	88.137	2.577	bb			33.6238	84.1	-15.9	24.1
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.12	105.069	17098.684	105.069	3.072	bb			34.3330	85.8	-14.2	27.3
WXX100216-08CRI	PETN	361 > 62	24.44	3828.005	17098.684	3828.005	111.939	bb			46.8804	117.2	17.2	698.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	0359
Standard Number	WXX100216-08CRI
Data File	EXP0216023a

HMX	101.2
RDX	100.0
135-TNB	124.4
13-DNB	117.6
Tetryl	116.0
Nitrobenzene	115.1
4A-26-DNT	113.3
2A-46-DNT	95.2
246-TNT	89.6
34-DNT(surr)	105.9
26-DNT	102.7
24-DNT	98.6
2-NT	94.8
4-NT	84.1
3-NT	85.8
PETN	117.2
Total	1661.5
Average	103.8

HMM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1470

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216027a **Analysis Date:** 17-FEB-10 05:58

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	300	336.279	112	
4-Amino-2,6-dinitrotoluene	600	604.644	101	
HMX	600	612.626	102	
Nitrobenzene	600	578.267	96	
PETN	600	723.944	121	*
RDX	600	659.537	110	
Tetryl	600	567.895	95	
m-Dinitrobenzene	600	622.089	104	
m-Nitrotoluene	600	628.032	105	
o-Nitrotoluene	600	608.219	101	
p-Nitrotoluene	600	603.723	101	
1,3,5-Trinitrobenzene	600	611.171	102	
1,3-Dinitrobenzene-d4	500	441.467	88	
2,4,6-Trinitrotoluene	600	677.667	113	
2,4-Dinitrotoluene	600	637.719	106	
2,6-Dinitrotoluene	600	636.41	106	
2,6-Dinitrotoluene-d3	500	422.753	85	
2-Amino-4,6-dinitrotoluene	600	651.036	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216027a
Date: 17-Feb-2010
Time: 05:58:23
ID: WXX100216-07CCV
Dial: 1:1,B

MAP 2/17/10

HMX

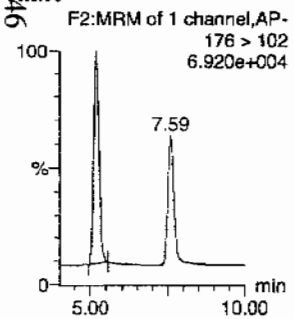

RDX

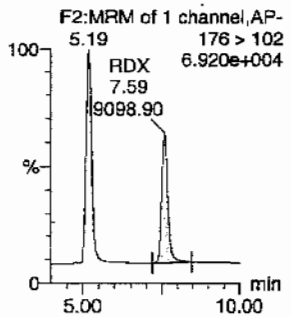

135-Trinitrobenzene

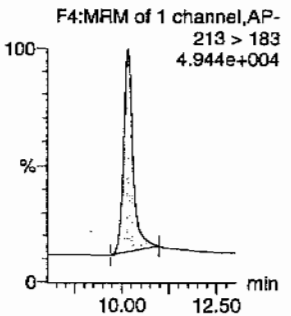

13-Dinitrobenzene-d4

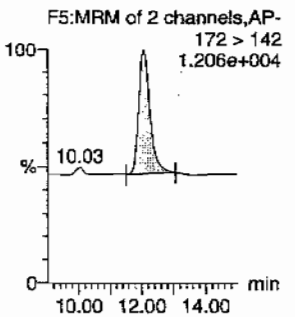

13-Dinitrobenzene

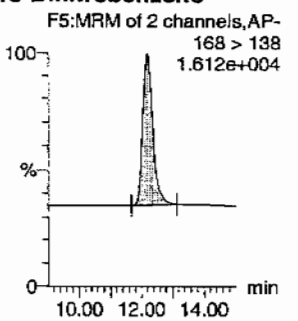

Tetryl

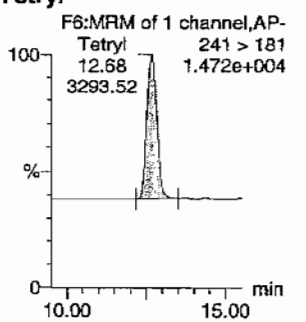

Nitrobenzene

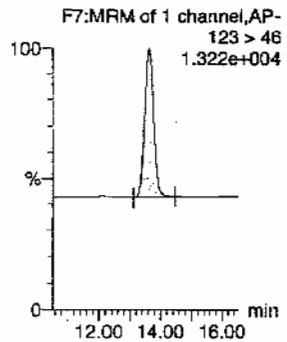

4-Amino-26-dinitrotoluene

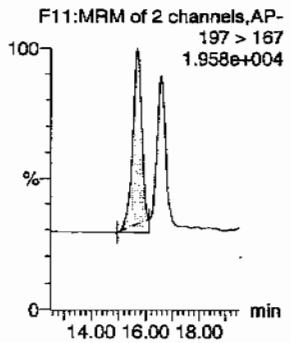

2-Amino-46-dinitrotoluene

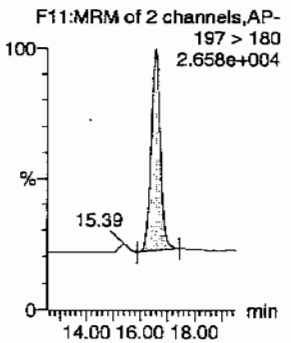

246-Trinitrotoluene

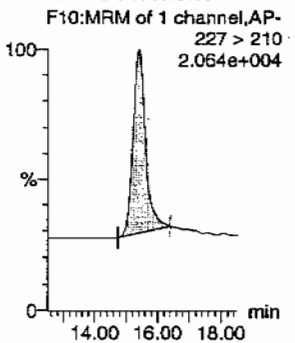

34-dinitrotoluene

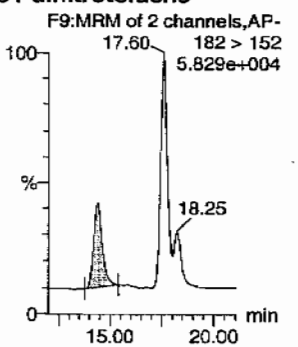

26-dinitrotoluene

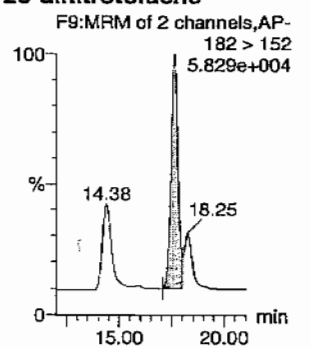

AHM 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

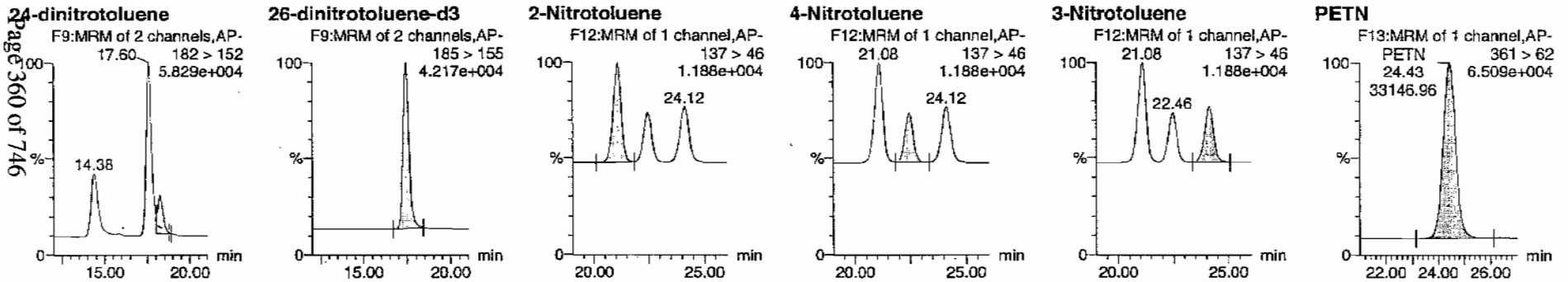

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	12573.983	2659.764	12573.983	2363.740	bb			612.6259	102.1	2.1	1867.4
WXX100216-07CCV	RDX	176 > 102	7.59	9098.897	2659.764	9098.897	1710.471	bb			659.5367	109.9	9.9	1136.2
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12590.188	2659.764	12590.188	2366.787	bb			611.1709	101.9	1.9	720.5
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2659.764		2659.764	2659.764	bb			441.4669	88.3	-11.7	384.7
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3933.075	2659.764	3933.075	739.365	bb			622.0892	103.7	3.7	572.6
WXX100216-07CCV	Tetryl	241 > 181	12.68	3293.519	2659.764	3293.519	619.137	bb			567.8951	94.6	-5.4	186.1
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2640.866	2659.764	2640.866	496.447	bb			578.2667	96.4	-3.6	244.7
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5699.717	14719.028	5699.717	193.617	MM	17-Feb-10	09:24:07	604.6437	100.8	0.8	191.5
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8280.438	14719.028	8280.438	281.283	bb			651.0364	108.5	8.5	208.4
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	6688.060	14719.028	6688.060	227.191	bb			677.6666	112.9	12.9	176.3
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8968.860	14719.028	8968.860	304.669	bb			336.2788	112.1	12.1	355.9
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	19848.275	14719.028	19848.275	674.239	MM	17-Feb-10	09:27:00	636.4103	106.1	6.1	997.2
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4627.791	14719.028	4627.791	157.204	MM	17-Feb-10	09:59:44	637.7191	106.3	6.3	221.0
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14719.028		14719.028	14719.028	bb			422.7527	84.6	-15.4	873.5
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2725.003	14719.028	2725.003	92.567	bb			608.2189	101.4	1.4	310.4
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1362.278	14719.028	1362.278	46.276	bb			603.7228	100.6	0.6	155.4
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1654.478	14719.028	1654.478	56.202	bb			628.0322	104.7	4.7	174.3
WXX100216-07CCV	PETN	361 > 62	24.43	33146.961	14719.028	33146.961	1125.990	bb			723.9440	120.7	20.7	4875.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 0558
Standard Number: WXX100216-07CCV
Data File: EXP0216027a

HMX		102.1
RDX		109.9
135-TNB		101.9
13-DNB		103.7
Tetryl		94.6
Nitrobenzene		96.4
4A-26-DNT		100.8
2A-46-DNT		108.5
246-TNT		112.9
34-DNT(surr)		112.1
26-DNT		106.1
24-DNT		106.3
2-NT		101.4
4-NT		100.6
3-NT		104.7
PETN		120.7
Total		1682.7
Average		105.2

HMT 2/17/10

KMM 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216029a

Analysis Date: 17-FEB-10 06:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	42.003	105	
3,4-Dinitrotoluene	20	22.85	114	
4-Amino-2,6-dinitrotoluene	40	35.28	88	
HMX	40	35.563	89	
Nitrobenzene	40	35.31	88	
PETN	40	48.188	120	
RDX	40	37.715	94	
Tetryl	40	38.583	96	
m-Dinitrobenzene	40	47.424	119	
m-Nitrotoluene	40	37.561	94	
o-Nitrotoluene	40	37.519	94	
p-Nitrotoluene	40	38.529	96	
1,3,5-Trinitrobenzene	40	46.171	115	
1,3-Dinitrobenzene-d4	500	512.607	103	
2,4,6-Trinitrotoluene	40	37.982	95	
2,4-Dinitrotoluene	40	44.51	111	
2,6-Dinitrotoluene	40	42.325	106	
2,6-Dinitrotoluene-d3	500	468.417	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216029a
Date: 17-Feb-2010
Time: 06:57:50
ID: WXX100216-08CRI
Vial: 1:1,C

MAP 2/17/10

HMX

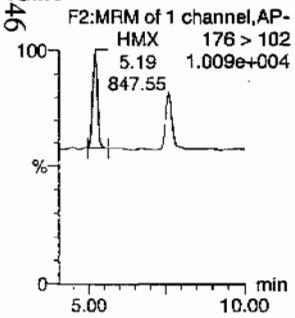

RDX

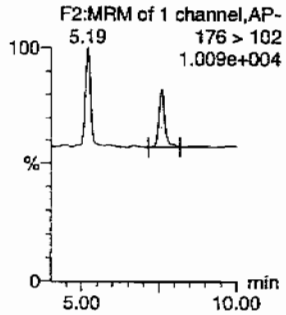

135-Trinitrobenzene

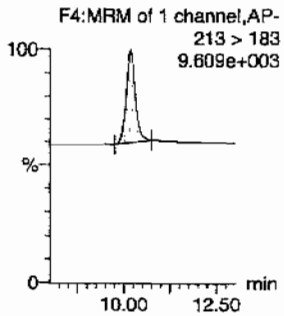

13-Dinitrobenzene-d4

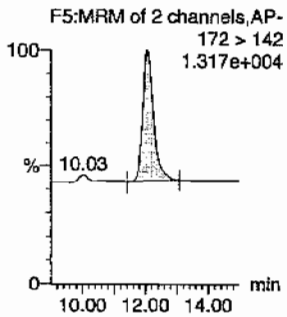

13-Dinitrobenzene

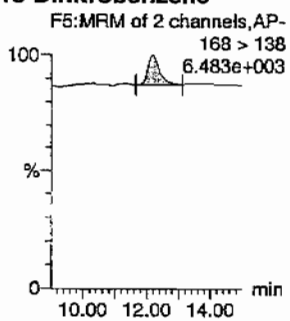

Tetryl

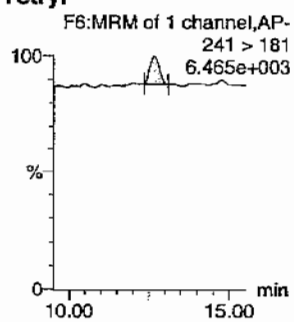

Nitrobenzene

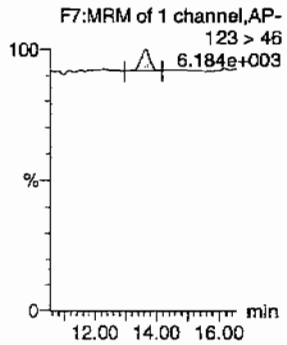

4-Amino-26-dinitrotoluene

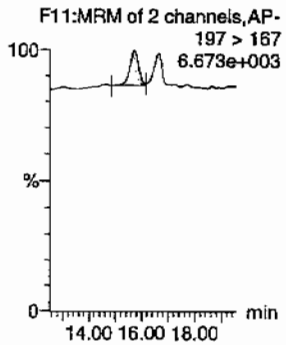

2-Amino-46-dinitrotoluene

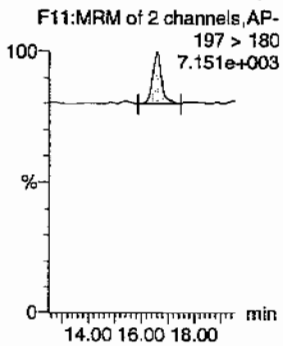

246-Trinitrotoluene

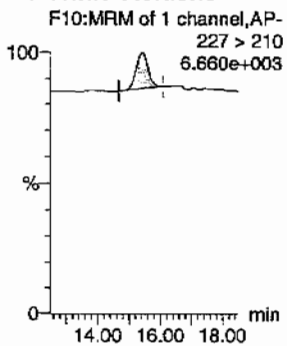

34-dinitrotoluene

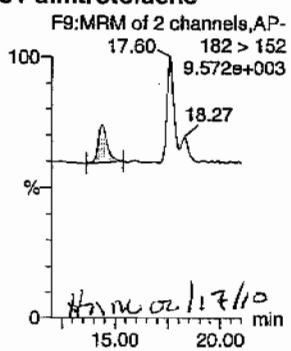

Hmc 02/17/10

26-dinitrotoluene

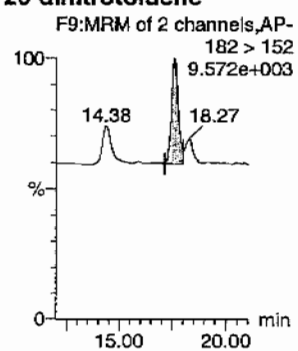

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

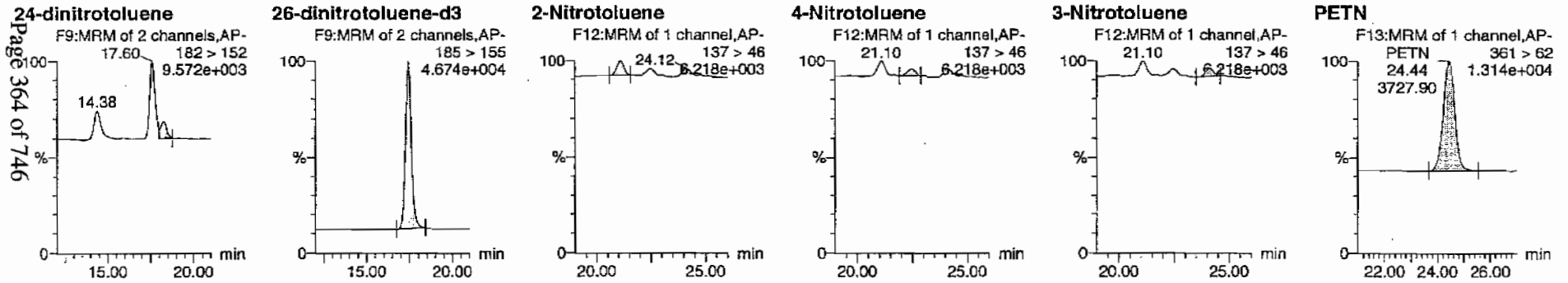

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	847.548	3088.373	847.548	137.216	bb			35.5631	88.9	-11.1	67.2
WXX100216-08CRI	RDX	176 > 102	7.59	604.150	3088.373	604.150	97.810	bb			37.7145	94.3	-5.7	40.2
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1104.404	3088.373	1104.404	178.800	bb			46.1713	115.4	15.4	242.0
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3088.373		3088.373	3088.373	bb			512.6073	102.5	2.5	183.7
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	348.146	3088.373	348.146	56.364	bb			47.4237	118.6	18.6	32.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	259.818	3088.373	259.818	42.064	bb			38.5825	96.5	-3.5	17.3
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	187.241	3088.373	187.241	30.314	bb			35.3099	88.3	-11.7	24.4
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	368.489	16308.923	368.489	11.297	MM	17-Feb-10	09:24:15	35.2797	88.2	-11.8	20.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	591.929	16308.923	591.929	18.147	bb			42.0025	105.0	5.0	42.9
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	415.344	16308.923	415.344	12.734	bb			37.9820	95.0	-5.0	34.9
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	675.250	16308.923	675.250	20.702	bb			22.8497	114.2	14.2	40.8
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1462.626	16308.923	1462.626	44.841	MM	17-Feb-10	09:27:06	42.3254	105.8	5.8	114.5
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.27	357.891	16308.923	357.891	10.972	MM	17-Feb-10	09:59:53	44.5103	111.3	11.3	25.2
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16308.923		16308.923	16308.923	bb			468.4169	93.7	-6.3	1631.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	186.251	16308.923	186.251	5.710	bb			37.5185	93.8	-6.2	60.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	96.329	16308.923	96.329	2.953	bb			38.5286	96.3	-3.7	29.1
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.12	109.637	16308.923	109.637	3.361	bb			37.5605	93.9	-6.1	32.5
WXX100216-08CRI	PETN	361 > 62	24.44	3727.896	16308.923	3727.896	114.290	bb			48.1882	120.5	20.5	1683.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	0657
Standard Number	WXX100216-08CRI
Data File	EXP0216029a

HMX	88.9
RDX	94.3
135-TNB	115.4
13-DNB	118.6
Tetryl	96.5
Nitrobenzene	88.3
4A-26-DNT	88.2
2A-46-DNT	105.0
246-TNT	95.0
34-DNT(surr)	114.2
26-DNT	105.8
24-DNT	111.3
2-NT	93.8
4-NT	96.3
3-NT	93.9
PETN	120.5
Total	1626.0
Average	101.6

4/27/10

HMM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216039a

Analysis Date: 17-FEB-10 11:55

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	585.479	98	
1,3-Dinitrobenzene-d4	500	387.961	78	*
2,4,6-Trinitrotoluene	600	707.346	118	
2,4-Dinitrotoluene	600	645.209	108	
2,6-Dinitrotoluene	600	613.479	102	
2,6-Dinitrotoluene-d3	500	403.474	81	
2-Amino-4,6-dinitrotoluene	600	628.06	105	
3,4-Dinitrotoluene	300	337.542	113	
4-Amino-2,6-dinitrotoluene	600	652.842	109	
HMX	600	593.956	99	
Nitrobenzene	600	632.339	105	
PETN	600	805.557	134	*
RDX	600	659.382	110	
Tetryl	600	551.825	92	
m-Dinitrobenzene	600	625.313	104	
m-Nitrotoluene	600	627.48	105	
o-Nitrotoluene	600	662.654	110	
p-Nitrotoluene	600	651.214	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qid, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216039a
Date: 17-Feb-2010
Time: 11:55:13
ID: WXX100216-07CCV
Vial: 1:1,B

MM 4/13/10

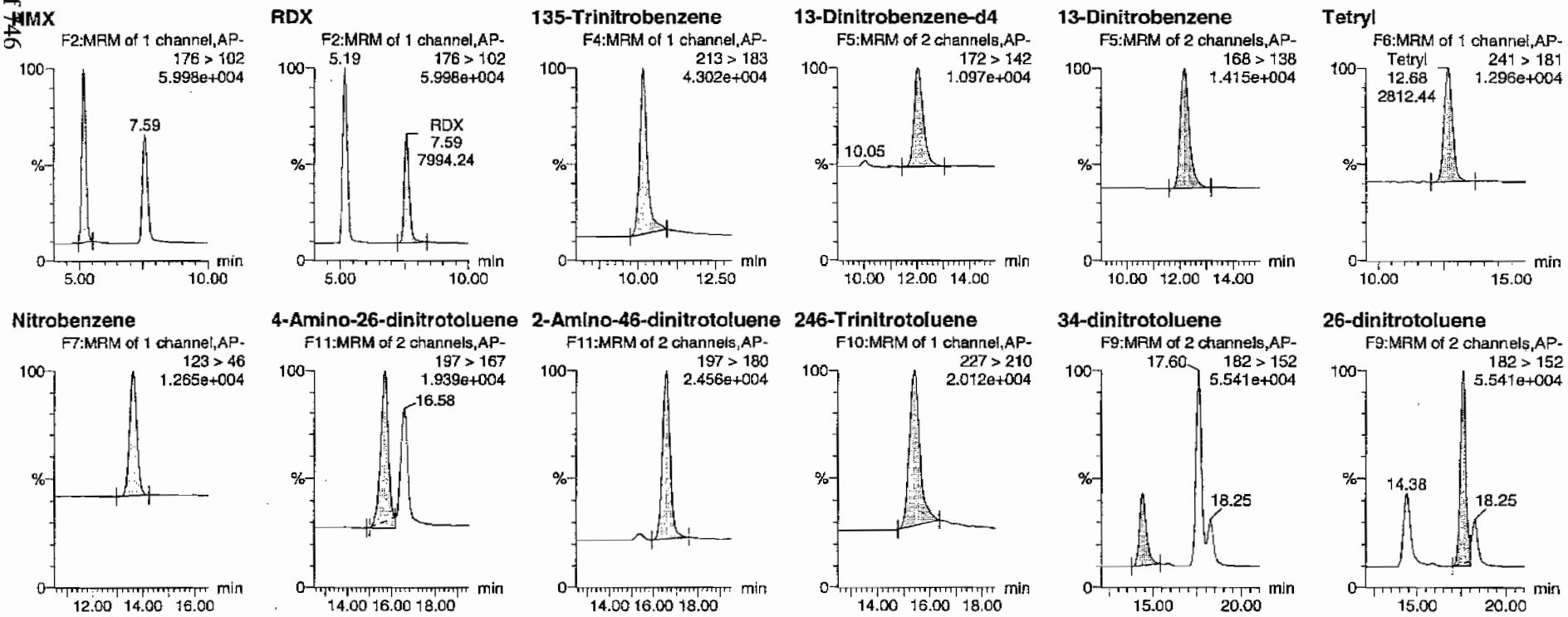

Hmm 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

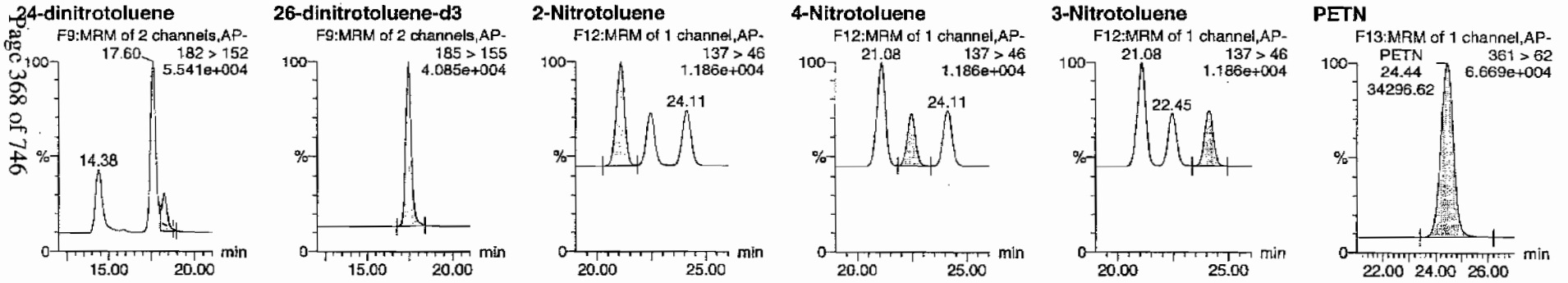

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	10713.271	2337.401	10713.271	2291.706	bb			593.9562	99.0	-1.0	1627.0
WXX100216-07CCV	RDX	176 > 102	7.59	7994.240	2337.401	7994.240	1710.070	bb			659.3823	109.9	9.9	1027.0
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	10599.146	2337.401	10599.146	2267.293	bb			585.4788	97.6	-2.4	1024.7
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2337.401		2337.401	2337.401	bb			387.9612	77.6	-22.4	133.1
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3474.301	2337.401	3474.301	743.197	bb			625.3134	104.2	4.2	284.5
WXX100216-07CCV	Tetryl	241 > 181	12.68	2812.442	2337.401	2812.442	601.617	bb			551.8250	92.0	-8.0	285.9
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2537.805	2337.401	2537.805	542.869	bb			632.3390	105.4	5.4	222.2
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5873.420	14047.796	5873.420	209.051	MM	18-Feb-10	08:44:27	652.8422	108.8	8.8	505.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7623.921	14047.796	7623.921	271.356	bb			628.0603	104.7	4.7	448.6
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.38	6662.623	14047.796	6662.623	237.141	bb			707.3463	117.9	17.9	323.1
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8592.021	14047.796	8592.021	305.814	bb			337.5425	112.5	12.5	393.2
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18260.570	14047.796	18260.570	649.944	MM	18-Feb-10	08:47:58	613.4790	102.2	2.2	1068.9
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4468.623	14047.796	4468.623	159.051	MM	18-Feb-10	08:52:01	645.2089	107.5	7.5	245.7
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14047.796		14047.796	14047.796	bb			403.4739	80.7	-19.3	1385.8
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2833.500	14047.796	2833.500	100.852	bb			662.6544	110.4	10.4	243.8
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1402.429	14047.796	1402.429	49.916	bb			651.2139	108.5	8.5	120.3
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1577.640	14047.796	1577.640	56.153	bb			627.4798	104.6	4.6	127.1
WXX100216-07CCV	PETN	361 > 62	24.44	34296.621	14047.796	34296.621	1220.712	bb			805.5575	134.3	34.3	5120.9

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 1155
Standard Number: WXX100216-07CCV
Data File: EXP0216039a

HMX	99.0
RDX	109.9
135-TNB	97.6
13-DNB	104.2
Tetryl	92.0
Nitrobenzene	105.4
4A-26-DNT	108.8
2A-46-DNT	104.7
246-TNT	117.9
34-DNT(surr)	112.5
26-DNT	102.2
24-DNT	107.5
2-NT	110.4
4-NT	108.5
3-NT	104.6
PETN	134.3
Total	1719.5
Average	107.5

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0216041a

Analysis Date: 17-FEB-10 12:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	46.625	117	
1,3,5-Trinitrobenzene	40	49.958	125	
1,3-Dinitrobenzene-d4	500	436.567	87	
2,4,6-Trinitrotoluene	40	33.868	85	
2,4-Dinitrotoluene	40	48.789	122	
2,6-Dinitrotoluene	40	42.876	107	
2,6-Dinitrotoluene-d3	500	442.639	89	
2-Amino-4,6-dinitrotoluene	40	38.248	96	
3,4-Dinitrotoluene	20	20.64	103	
4-Amino-2,6-dinitrotoluene	40	36.085	90	
HMX	40	43.087	108	
Nitrobenzene	40	41.223	103	
PETN	40	49.973	125	
RDX	40	39.872	100	
Tetryl	40	51.62	129	
m-Dinitrobenzene	40	47.407	119	
m-Nitrotoluene	40	45.574	114	
o-Nitrotoluene	40	37.868	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216041a
Date: 17-Feb-2010
Time: 12:54:26
ID: WXX100216-08CRI
Vial: 1:1,C

HMX

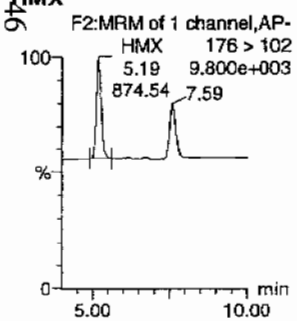

RDX

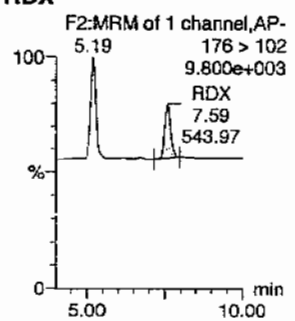

135-Trinitrobenzene

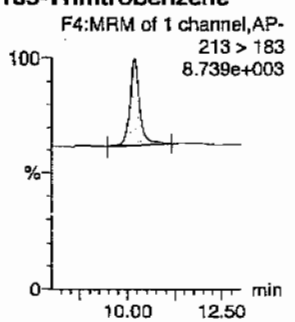

13-Dinitrobenzene-d4

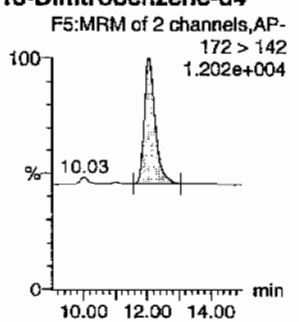

13-Dinitrobenzene

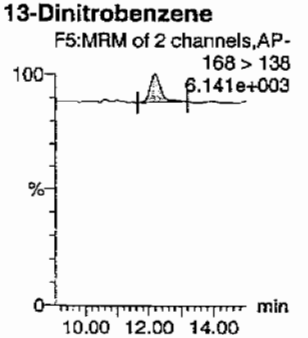

Tetryl

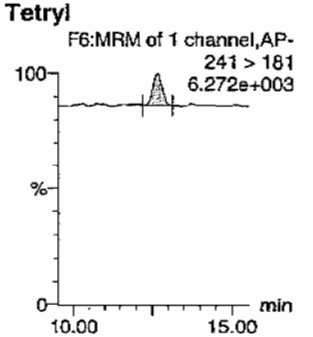

Nitrobenzene

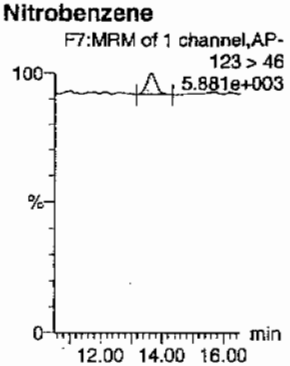

4-Amino-26-dinitrotoluene

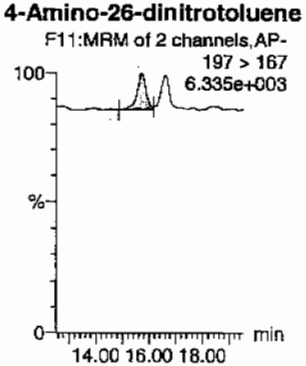

2-Amino-46-dinitrotoluene

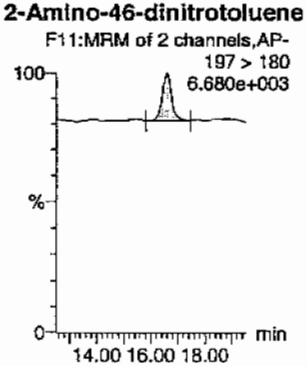

246-Trinitrotoluene

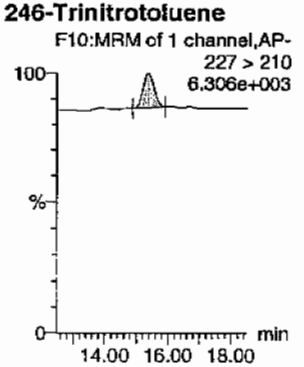

34-dinitrotoluene

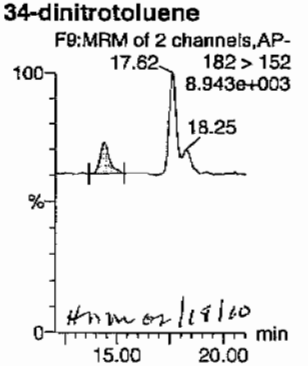

26-dinitrotoluene

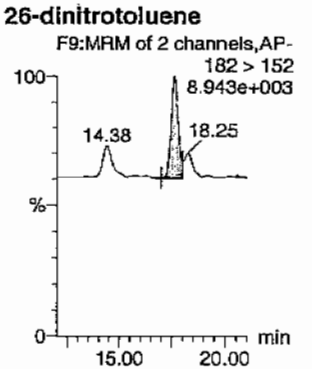

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

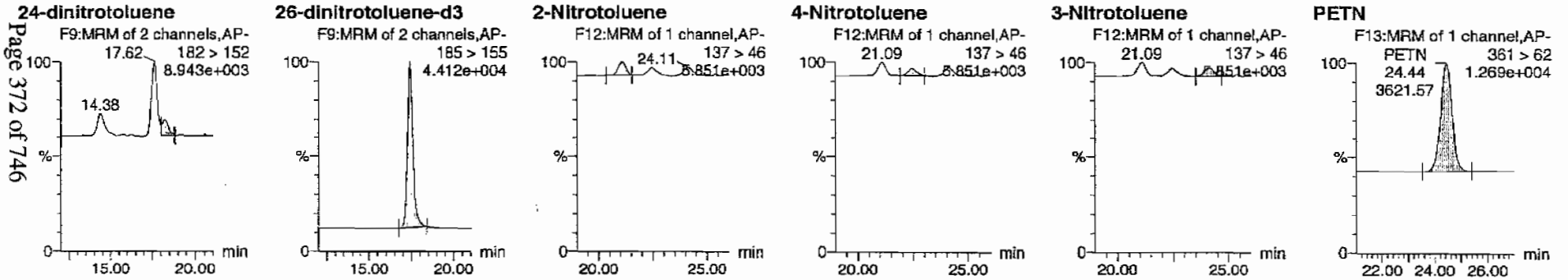

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	874.541	2630.245	874.541	166.247	bb			43.0873	107.7	7.7	143.8
WXX100216-08CRI	RDX	176 > 102	7.59	543.971	2630.245	543.971	103.407	bb			39.8724	99.7	-0.3	77.7
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1017.727	2630.245	1017.727	193.466	bb			49.9584	124.9	24.9	42.9
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2630.245		2630.245	2630.245	bb			436.5674	87.3	-12.7	269.0
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	296.395	2630.245	296.395	56.344	bb			47.4065	118.5	18.5	27.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	296.048	2630.245	296.048	56.278	bb			51.6199	129.0	29.0	24.9
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	186.169	2630.245	186.169	35.390	bb			41.2227	103.1	3.1	18.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	356.159	15411.399	356.159	11.555	MM	18-Feb-10	08:44:35	36.0850	90.2	-9.8	23.5
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	509.352	15411.399	509.352	16.525	bb			38.2479	95.6	-4.4	62.5
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	349.977	15411.399	349.977	11.354	bb			33.8682	84.7	-15.3	59.5
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	576.394	15411.399	576.394	18.700	bb			20.6404	103.2	3.2	14.6
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1400.108	15411.399	1400.108	45.424	MM	18-Feb-10	08:48:09	42.8759	107.2	7.2	47.1
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.25	370.708	15411.399	370.708	12.027	MM	18-Feb-10	08:51:46	48.7893	122.0	22.0	10.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15411.399		15411.399	15411.399	bb			442.6386	88.5	-11.5	1346.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	177.640	15411.399	177.640	5.763	bb			37.8679	94.7	-5.3	32.4
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	110.157	15411.399	110.157	3.574	bb			46.6252	116.6	16.6	18.9
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	125.706	15411.399	125.706	4.078	bb			45.5737	113.9	13.9	20.0
WXX100216-08CRI	PETN	361 > 62	24.44	3621.569	15411.399	3621.569	117.496	bb			49.9729	124.9	24.9	470.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	1254
Standard Number	WXX100216-08CRI
Data File	EXP0216041a

HMX	107.7
RDX	99.7
135-TNB	124.9
13-DNB	118.5
Tetryl	129.0
Nitrobenzene	103.1
4A-26-DNT	90.2
2A-46-DNT	95.6
246-TNT	84.7
34-DNT(surr)	103.2
26-DNT	107.2
24-DNT	122.0
2-NT	94.7
4-NT	116.6
3-NT	113.9
PETN	124.9
Total	1735.9
Average	108.5

HMT 2/18/10

Hmm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216052a

Analysis Date: 17-FEB-10 18:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	528.568	88	
1,3,5-Trinitrobenzene	600	586.393	98	
1,3-Dinitrobenzene-d4	500	469.603	94	
2,4,6-Trinitrotoluene	600	667.732	111	
2,4-Dinitrotoluene	600	640.278	107	
2,6-Dinitrotoluene	600	617.89	103	
2,6-Dinitrotoluene-d3	500	472.936	95	
2-Amino-4,6-dinitrotoluene	600	700.294	117	
3,4-Dinitrotoluene	300	322.55	108	
4-Amino-2,6-dinitrotoluene	600	558.036	93	
HMX	600	526.292	88	
Nitrobenzene	600	561.562	94	
PETN	600	685.593	114	
RDX	600	615.154	103	
Tetryl	600	581.072	97	
m-Dinitrobenzene	600	614.714	102	
m-Nitrotoluene	600	522.1	87	
o-Nitrotoluene	600	521.805	87	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216052a
Date: 17-Feb-2010
Time: 18:20:28
ID: WXX100216-07CCV
Vial: 1:1,B

Page 573 of 746

MAP 2/18/10

HMX

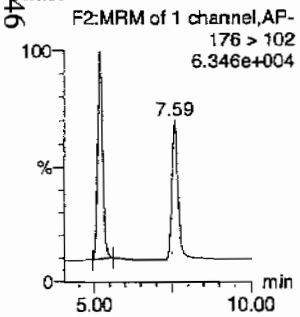

RDX

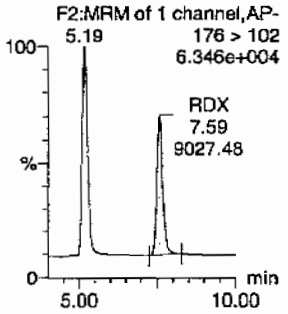

135-Trinitrobenzene

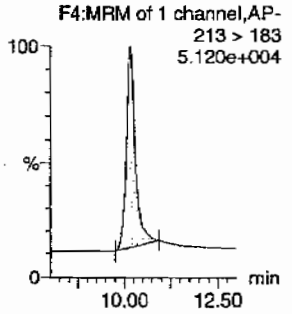

13-Dinitrobenzene-d4

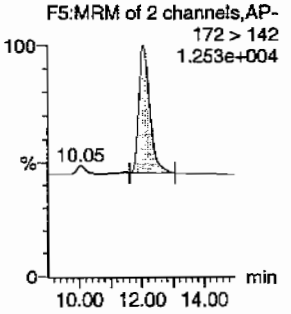

13-Dinitrobenzene

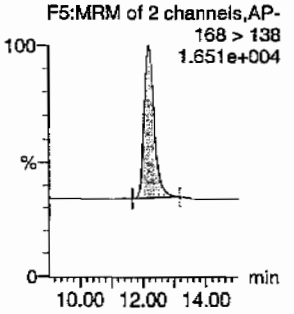

Tetryl

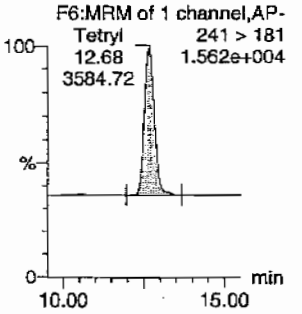

Nitrobenzene

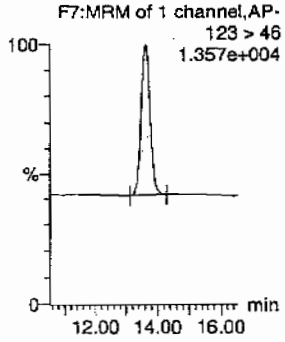

4-Amino-26-dinitrotoluene

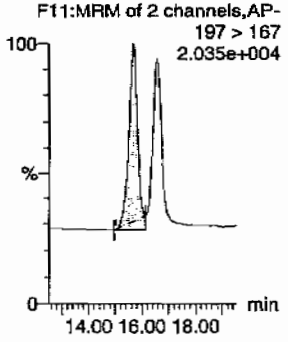

2-Amino-46-dinitrotoluene

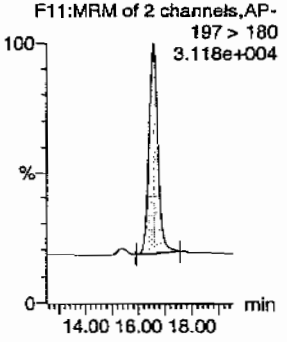

246-Trinitrotoluene

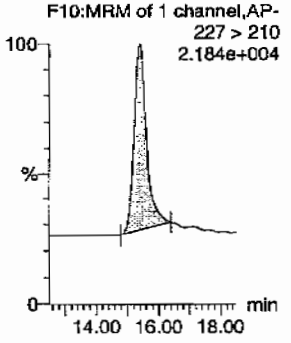

34-dinitrotoluene

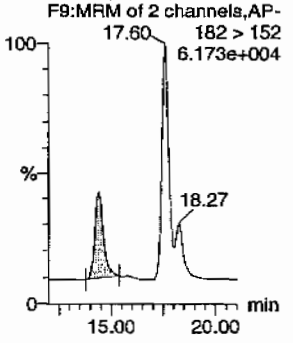

26-dinitrotoluene

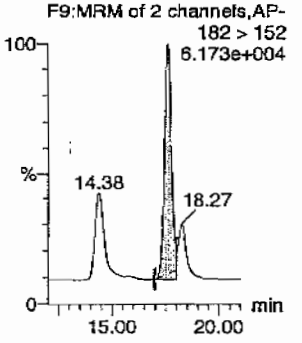

Hmm 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

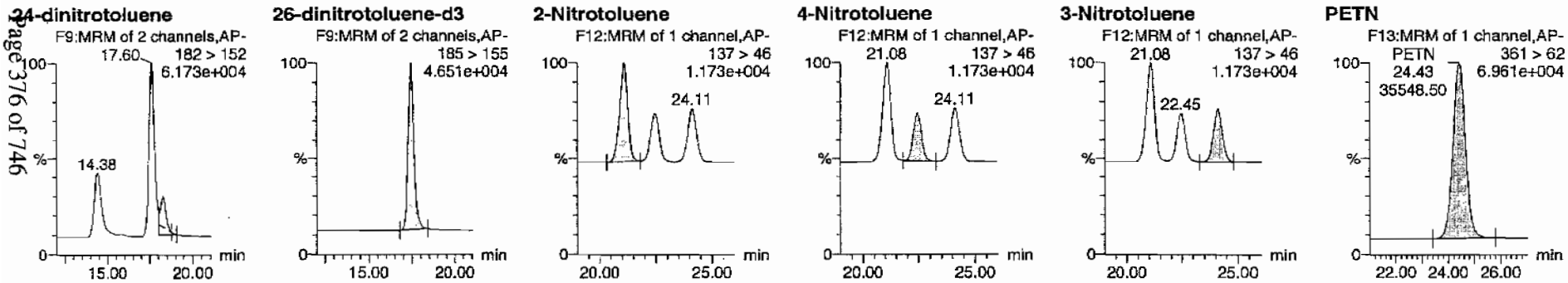

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	11490.467	2829.281	11490.467	2030.634	bb			526.2925	87.7	-12.3	815.5
WXX100216-07CCV	RDX	176 > 102	7.59	9027.476	2829.281	9027.476	1595.366	bb			615.1536	102.5	2.5	550.4
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12849.643	2829.281	12849.643	2270.832	bb			586.3926	97.7	-2.3	1070.5
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2829.281		2829.281	2829.281	bb			469.6033	93.9	-6.1	279.7
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.21	4134.145	2829.281	4134.145	730.600	bb			614.7141	102.5	2.5	343.4
WXX100216-07CCV	Tetryl	241 > 181	12.68	3584.717	2829.281	3584.717	633.503	bb			581.0719	96.8	-3.2	310.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2728.030	2829.281	2728.030	482.107	bb			561.5623	93.6	-6.4	278.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5884.796	16466.256	5884.796	178.693	MM	18-Feb-10	08:45:27	558.0356	93.0	-7.0	329.4
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	9964.233	16466.256	9964.233	302.565	bb			700.2936	116.7	16.7	436.1
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7372.284	16466.256	7372.284	223.860	bb			667.7320	111.3	11.3	133.4
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	9623.878	16466.256	9623.878	292.230	bb			322.5496	107.5	7.5	471.5
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	21558.193	16466.256	21558.193	654.617	MM	18-Feb-10	08:48:43	617.8898	103.0	3.0	1307.8
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.27	5197.906	16466.256	5197.906	157.835	MM	18-Feb-10	08:50:57	640.2777	106.7	6.7	288.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	16466.256		16466.256	16466.256	bb			472.9357	94.6	-5.4	1834.5
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2615.357	16466.256	2615.357	79.416	bb			521.8049	87.0	-13.0	493.9
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1334.272	16466.256	1334.272	40.515	bb			528.5675	88.1	-11.9	245.7
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1538.681	16466.256	1538.681	46.722	bb			522.1001	87.0	-13.0	271.2
WXX100216-07CCV	PETN	361 > 62	24.43	35548.496	16466.256	35548.496	1079.435	bb			685.5926	114.3	14.3	8100.8

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 1820
Standard Number: WXX100216-07CCV
Data File: EXP0216052a

HMX		87.7
RDX		102.5
135-TNB		97.7
13-DNB		102.5
Tetryl		96.8
Nitrobenzene		93.6
4A-26-DNT		93.0
2A-46-DNT		116.7
246-TNT		111.3
34-DNT(surr)		107.5
26-DNT		103.0
24-DNT		106.7
2-NT		87.0
4-NT		88.1
3-NT		87.0
PETN		114.3
Total		1595.4
Average		99.7

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216054a

Analysis Date: 17-FEB-10 19:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.067	123	
1,3-Dinitrobenzene-d4	500	526.622	105	
2,4,6-Trinitrotoluene	40	45.215	113	
2,4-Dinitrotoluene	40	38.588	96	
2,6-Dinitrotoluene	40	43.371	108	
2,6-Dinitrotoluene-d3	500	482.623	97	
2-Amino-4,6-dinitrotoluene	40	45.806	115	
3,4-Dinitrotoluene	20	22.123	111	
4-Amino-2,6-dinitrotoluene	40	49.639	124	
HMX	40	43.201	108	
Nitrobenzene	40	41.456	104	
PETN	40	47.927	120	
RDX	40	45.793	114	
Tetryl	40	38.525	96	
m-Dinitrobenzene	40	46.393	116	
m-Nitrotoluene	40	35.588	89	
o-Nitrotoluene	40	43.751	109	
p-Nitrotoluene	40	34.462	86	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216054a
Date: 17-Feb-2010
Time: 19:19:47
ID: WXX100216-08CRI
Vial: 1:1,C

MMT 2/18/10

HMX

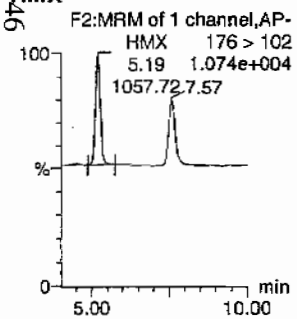

RDX

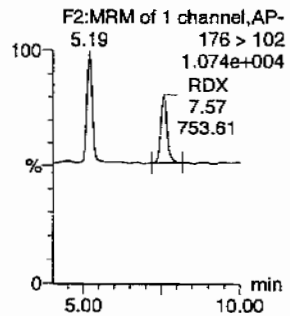

135-Trinitrobenzene

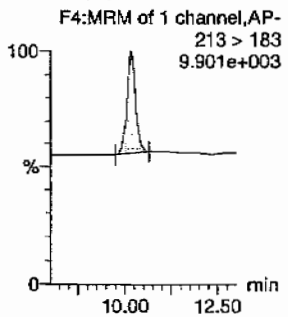

13-Dinitrobenzene-d4

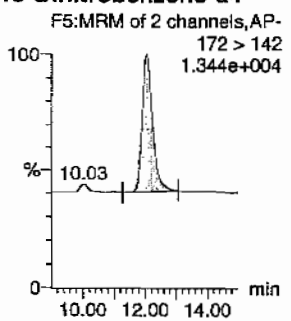

13-Dinitrobenzene

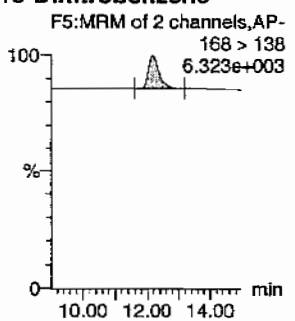

Tetryl

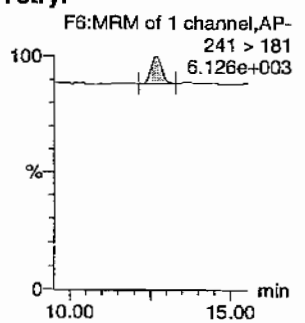

Nitrobenzene

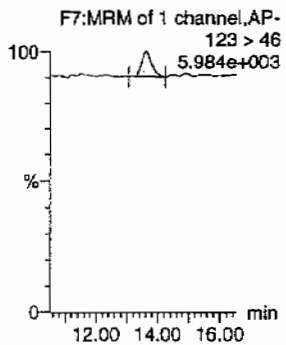

4-Amino-26-dinitrotoluene

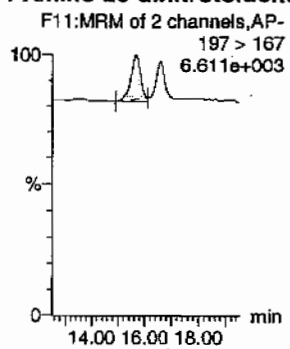

2-Amino-46-dinitrotoluene

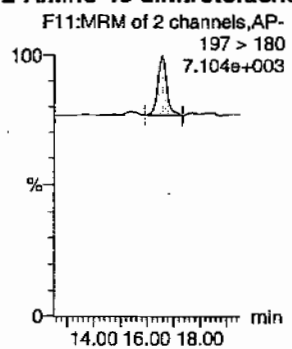

246-Trinitrotoluene

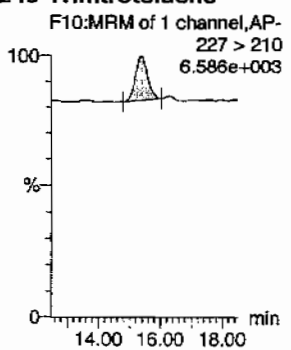

34-dinitrotoluene

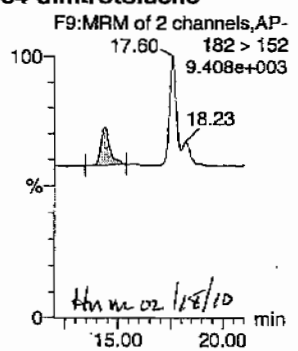

HM m 02 1/18/10

26-dinitrotoluene

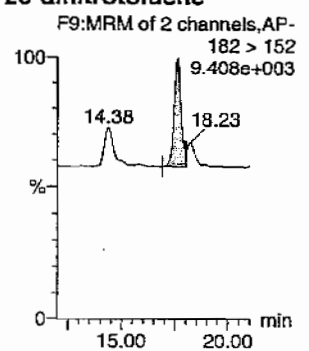

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

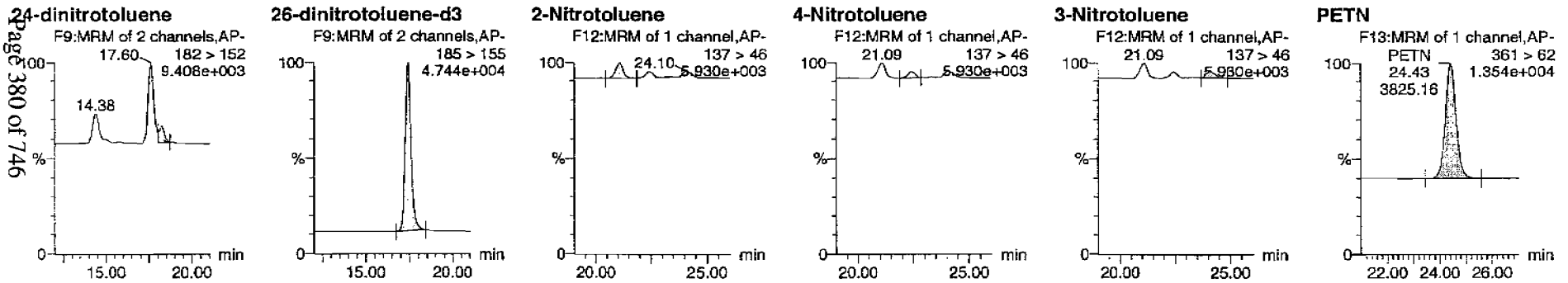

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1057.724	3172.809	1057.724	166.686	bb			43.2010	108.0	8.0	337.5
WXX100216-08CRI	RDX	176 > 102	7.57	753.607	3172.809	753.607	118.760	bb			45.7925	114.5	14.5	206.1
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1205.768	3172.809	1205.768	190.016	bb			49.0674	122.7	22.7	83.7
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3172.809		3172.809	3172.809	bb			526.6220	105.3	5.3	217.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	349.888	3172.809	349.888	55.139	bb			46.3926	116.0	16.0	58.6
WXX100216-08CRI	Tetryl	241 > 181	12.68	266.522	3172.809	266.522	42.001	bb			38.5248	96.3	-3.7	16.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	225.843	3172.809	225.843	35.590	bb			41.4560	103.6	3.6	30.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	534.191	16803.529	534.191	15.895	MM	18-Feb-10	08:45:35	49.6388	124.1	24.1	30.5
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	665.112	16803.529	665.112	19.791	bb			45.8063	114.5	14.5	84.8
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	509.430	16803.529	509.430	15.158	bb			45.2146	113.0	13.0	71.3
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	673.596	16803.529	673.596	20.043	bb			22.1228	110.6	10.6	46.6
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1544.212	16803.529	1544.212	45.949	MM	18-Feb-10	08:48:53	43.3711	108.4	8.4	133.2
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	319.681	16803.529	319.681	9.512	MM	18-Feb-10	08:50:42	38.5879	96.5	-3.5	27.1
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16803.529		16803.529	16803.529	bb			482.6227	96.5	-3.5	1788.6
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	223.779	16803.529	223.779	6.659	bb			43.7513	109.4	9.4	29.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.42	88.774	16803.529	88.774	2.642	bb			34.4617	86.2	-13.8	12.3
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	107.030	16803.529	107.030	3.185	bb			35.5881	89.0	-11.0	12.7
WXX100216-08CRI	PETN	361 > 62	24.43	3825.164	16803.529	3825.164	113.820	bb			47.9269	119.8	19.8	958.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	1919
Standard Number	WXX100216-08CRI
Data File	EXP0216054a

HMX	108.0
RDX	114.5
135-TNB	122.7
13-DNB	116.0
Tetryl	96.3
Nitrobenzene	103.6
4A-26-DNT	124.1
2A-46-DNT	114.5
246-TNT	113.0
34-DNT(surr)	110.6
26-DNT	108.4
24-DNT	96.5
2-NT	109.4
4-NT	86.2
3-NT	89.0
PETN	119.8
Total	1732.6
Average	108.3

4/13/10

HMC 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216065a

Analysis Date: 18-FEB-10 00:45

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	589.98	98	
1,3-Dinitrobenzene-d4	500	503.448	101	
2,4,6-Trinitrotoluene	600	674.628	112	
2,4-Dinitrotoluene	600	646.389	108	
2,6-Dinitrotoluene	600	642.938	107	
2,6-Dinitrotoluene-d3	500	484.848	97	
2-Amino-4,6-dinitrotoluene	600	685.308	114	
3,4-Dinitrotoluene	300	332.023	111	
4-Amino-2,6-dinitrotoluene	600	595.679	99	
HMX	600	685.513	114	
Nitrobenzene	600	619.311	103	
PETN	600	592.614	99	
RDX	600	694.615	116	
Tetryl	600	564.648	94	
m-Dinitrobenzene	600	607.21	101	
m-Nitrotoluene	600	591.803	99	
o-Nitrotoluene	600	604.859	101	
p-Nitrotoluene	600	605.824	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216065a
Date: 18-Feb-2010
Time: 00:45:20
ID: WXX100216-07CCV
Vial: 1:1,B

MMT 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.593e+004

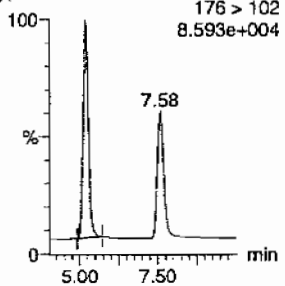

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
8.593e+004

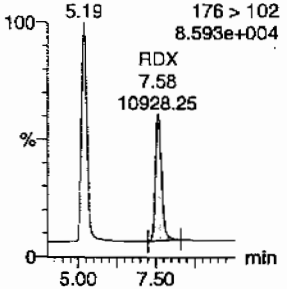

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.475e+004

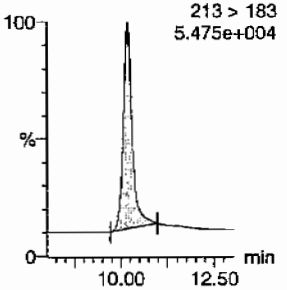

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.293e+004

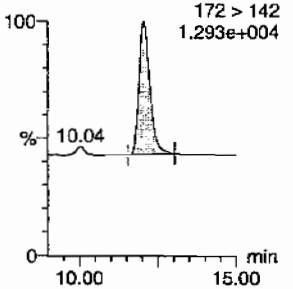

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.687e+004

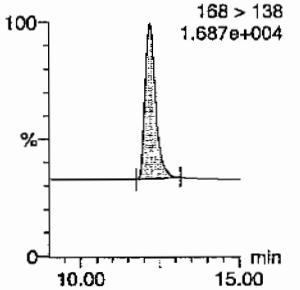

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.66
3734.45
241 > 181
1.629e+004

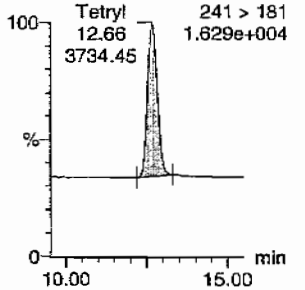

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.463e+004

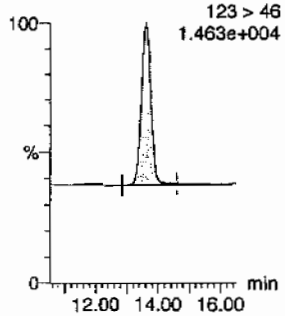

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.138e+004

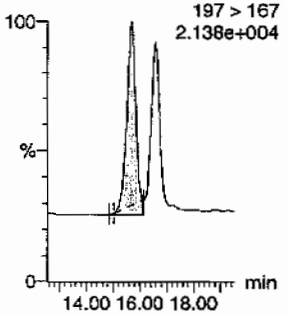

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.160e+004

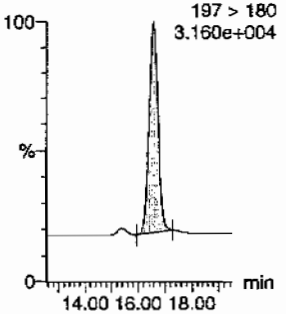

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.280e+004

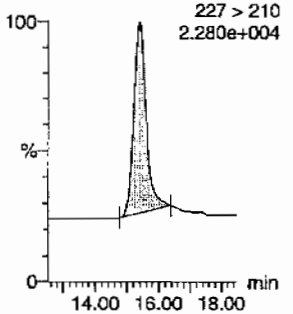

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.61
182 > 152
6.563e+004

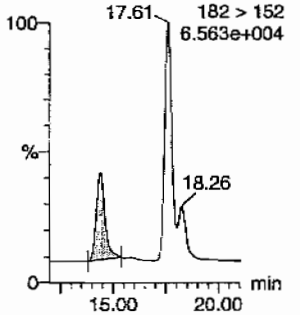

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.563e+004

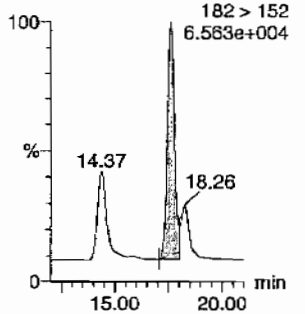

Hmm 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

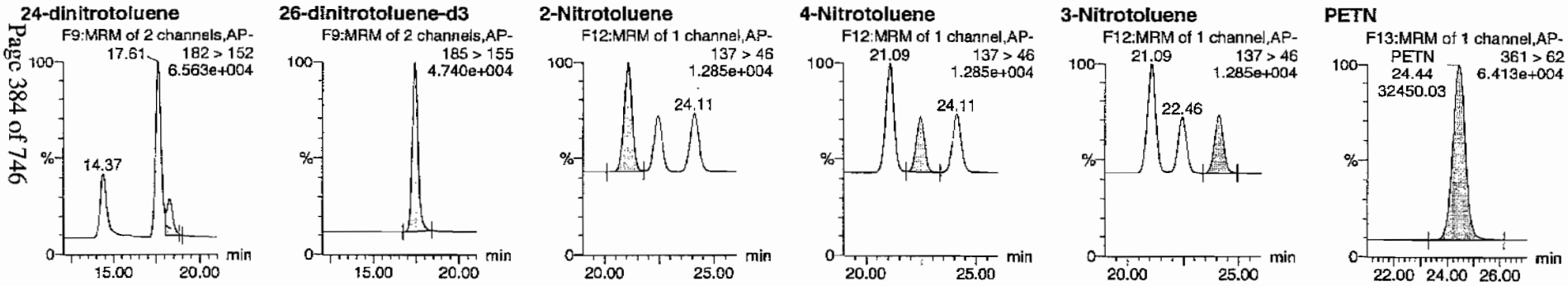

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	16045.377	3033.191	16045.377	2644.966	bb			685.5131	114.3	14.3	4796.8
WXX100216-07CCV	RDX	176 > 102	7.58	10928.254	3033.191	10928.254	1801.445	bb			694.6153	115.8	15.8	2791.9
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13860.002	3033.191	13860.002	2284.723	bb			589.9797	98.3	-1.7	651.9
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3033.191		3033.191	3033.191	bb			503.4482	100.7	0.7	211.0
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4377.993	3033.191	4377.993	721.681	bb			607.2099	101.2	1.2	1168.9
WXX100216-07CCV	Tetryl	241 > 181	12.66	3734.446	3033.191	3734.446	615.597	bb			564.6476	94.1	-5.9	245.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.61	3225.402	3033.191	3225.402	531.685	bb			619.3113	103.2	3.2	203.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6439.984	16881.000	6439.984	190.747	MM	18-Feb-10	08:45:48	595.6786	99.3	-0.7	289.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9996.612	16881.000	9996.612	296.091	bb			685.3080	114.2	14.2	311.7
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7636.027	16881.000	7636.027	226.172	bb			674.6279	112.4	12.4	330.2
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10156.054	16881.000	10156.054	300.813	bb			332.0230	110.7	10.7	270.1
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.61	22997.145	16881.000	22997.145	681.155	MM	18-Feb-10	08:49:12	642.9383	107.2	7.2	748.4
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.26	5379.695	16881.000	5379.695	159.342	MM	18-Feb-10	08:50:31	646.3895	107.7	7.7	160.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16881.000		16881.000	16881.000	bb			484.8478	97.0	-3.0	2282.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	3107.994	16881.000	3107.994	92.056	bb			604.8589	100.8	0.8	698.8
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1567.810	16881.000	1567.810	46.437	bb			605.8236	101.0	1.0	345.9
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1788.032	16881.000	1788.032	52.960	bb			591.8030	98.6	-1.4	366.6
WXX100216-07CCV	PETN	361 > 62	24.44	32450.031	16881.000	32450.031	961.141	bb			592.6141	98.8	-1.2	10378.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 0045
Standard Number: WXX100216-07CCV
Data File: EXP0216065a

HMX	114.3
RDX	115.8
135-TNB	98.3
13-DNB	101.2
Tetryl	94.1
Nitrobenzene	103.2
4A-26-DNT	99.3
2A-46-DNT	114.2
246-TNT	112.4
34-DNT(surr)	110.7
26-DNT	107.2
24-DNT	107.7
2-NT	100.8
4-NT	101.0
3-NT	98.6
PETN	98.8
Total	1677.6
Average	104.9

MOT 2/18/10

HMW 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216067a

Analysis Date: 18-FEB-10 01:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	31.977	80	
Nitrobenzene	40	28.466	71	
PETN	40	44.163	110	
RDX	40	37.7	94	
Tetryl	40	40.159	100	
m-Dinitrobenzene	40	38.48	96	
m-Nitrotoluene	40	33.219	83	
o-Nitrotoluene	40	44.575	111	
p-Nitrotoluene	40	37.562	94	
1,3,5-Trinitrobenzene	40	50.874	127	
1,3-Dinitrobenzene-d4	500	574.253	115	
2,4,6-Trinitrotoluene	40	44.52	111	
2,4-Dinitrotoluene	40	35.748	89	
2,6-Dinitrotoluene	40	41.094	103	
2,6-Dinitrotoluene-d3	500	534.755	107	
2-Amino-4,6-dinitrotoluene	40	37.567	94	
3,4-Dinitrotoluene	20	20.903	105	
4-Amino-2,6-dinitrotoluene	40	37.482	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216067a
Date: 18-Feb-2010
Time: 01:44:38
ID: WXX100216-08CRI
Vial: 1:1,C

MT 2/18/10

HMX

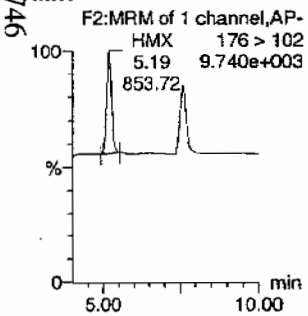

RDX

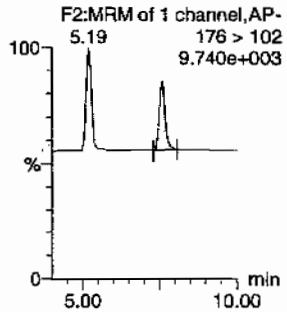

135-Trinitrobenzene

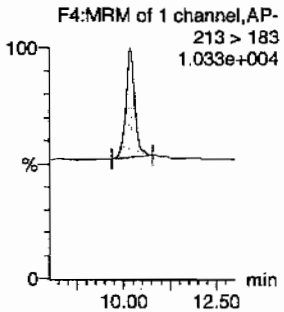

13-Dinitrobenzene-d4

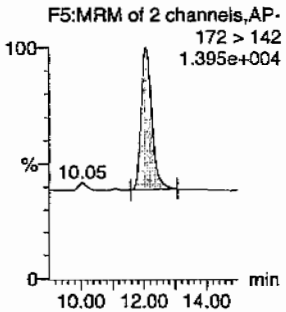

13-Dinitrobenzene

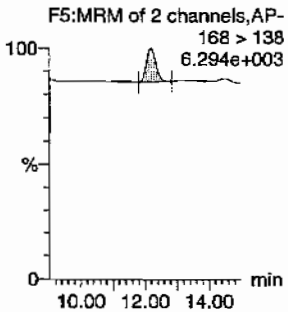

Tetryl

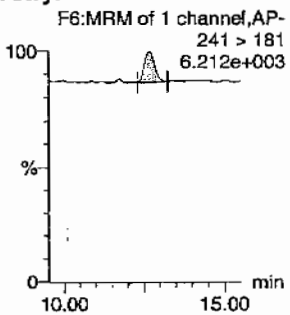

Nitrobenzene

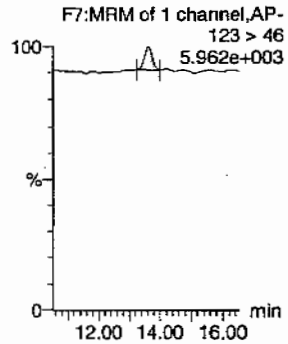

4-Amino-26-dinitrotoluene

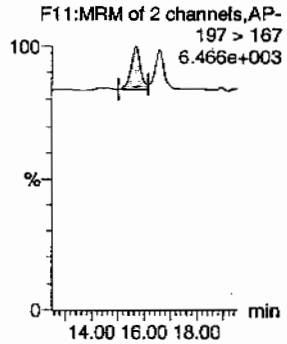

2-Amino-46-dinitrotoluene

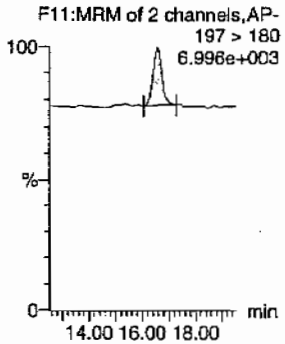

246-Trinitrotoluene

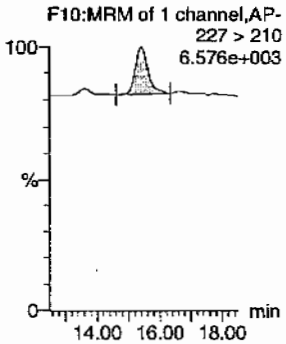

34-dinitrotoluene

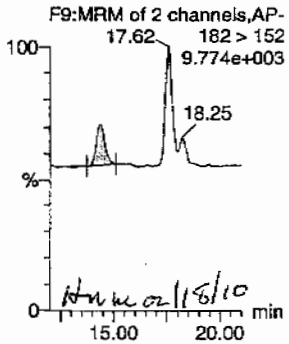

HM 02/18/10

26-dinitrotoluene

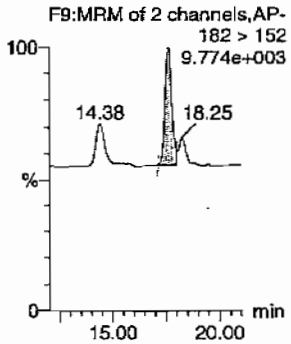

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

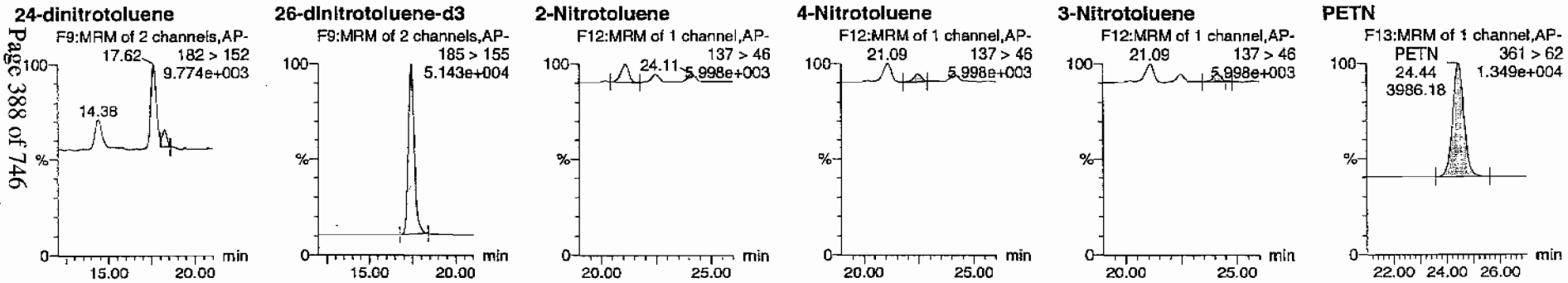

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	853.724	3459.779	853.724	123.378	bb			31.9768	79.9	-20.1	197.3
WXX100216-08CRI	RDX	176 > 102	7.59	676.552	3459.779	676.552	97.774	bb			37.7004	94.3	-5.7	132.5
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1363.239	3459.779	1363.239	197.012	bb			50.8741	127.2	27.2	225.1
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3459.779		3459.779	3459.779	bb			574.2532	114.9	14.9	215.0
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	316.458	3459.779	316.458	45.734	bb			38.4797	96.2	-3.8	49.6
WXX100216-08CRI	Tetryl	241 > 181	12.68	302.953	3459.779	302.953	43.782	bb			40.1585	100.4	0.4	45.9
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	169.101	3459.779	169.101	24.438	bb			28.4658	71.2	-28.8	16.7
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	446.929	18618.615	446.929	12.002	MM	18-Feb-10	08:46:00	37.4815	93.7	-6.3	9.9
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	604.400	18618.615	604.400	16.231	bb			37.5671	93.9	-6.1	115.4
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	555.791	18618.615	555.791	14.926	bb			44.5204	111.3	11.3	29.1
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	705.192	18618.615	705.192	18.938	bb			20.9026	104.5	4.5	30.4
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1621.167	18618.615	1621.167	43.536	MM	18-Feb-10	08:49:18	41.0936	102.7	2.7	86.4
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.25	328.140	18618.615	328.140	8.812	MM	18-Feb-10	08:50:18	35.7476	89.4	-10.6	18.8
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	18618.615		18618.615	18618.615	bb			534.7547	107.0	7.0	729.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	252.621	18618.615	252.621	6.784	bb			44.5753	111.4	11.4	39.4
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	107.213	18618.615	107.213	2.879	bb			37.5622	93.9	-6.1	17.2
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	110.695	18618.615	110.695	2.973	MM	18-Feb-10	08:53:07	33.2186	83.0	-17.0	17.0
WXX100216-08CRI	PETN	361 > 62	24.44	3986.175	18618.615	3986.175	107.048	bb			44.1631	110.4	10.4	1704.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	0144
Standard Number	WXX100216-08CRI
Data File	EXP0216067a

HMX	79.9
RDX	94.3
135-TNB	127.2
13-DNB	96.2
Tetryl	100.4
Nitrobenzene	71.2
4A-26-DNT	93.7
2A-46-DNT	93.9
246-TNT	111.3
34-DNT(surr)	104.5
26-DNT	102.7
24-DNT	89.4
2-NT	111.4
4-NT	93.9
3-NT	83.0
PETN	110.4
Total	1563.4
Average	97.7

MATT 2/18/10

Hyme 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216078a

Analysis Date: 18-FEB-10 07:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	519.274	87	
Nitrobenzene	600	504.757	84	
PETN	600	715.342	119	
RDX	600	628.868	105	
Tetryl	600	541.018	90	
m-Dinitrobenzene	600	590.189	98	
m-Nitrotoluene	600	537.034	90	
o-Nitrotoluene	600	576.847	96	
p-Nitrotoluene	600	589.034	98	
1,3,5-Trinitrobenzene	600	520.611	87	
1,3-Dinitrobenzene-d4	500	542.41	108	
2,4,6-Trinitrotoluene	600	648.856	108	
2,4-Dinitrotoluene	600	647.037	108	
2,6-Dinitrotoluene	600	629.886	105	
2,6-Dinitrotoluene-d3	500	468.716	94	
2-Amino-4,6-dinitrotoluene	600	615.257	103	
3,4-Dinitrotoluene	300	357.759	119	
4-Amino-2,6-dinitrotoluene	600	549.787	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216078a
Date: 18-Feb-2010
Time: 07:10:32
ID: WXX100216-07CCV
Vial: 1:1,B

HMX

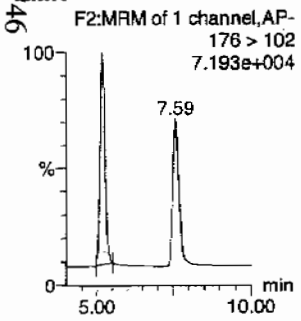

RDX

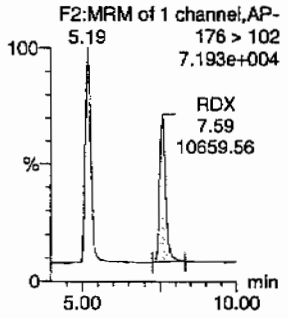

135-Trinitrobenzene

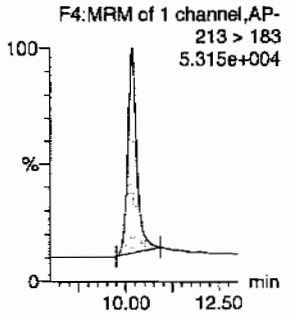

13-Dinitrobenzene-d4

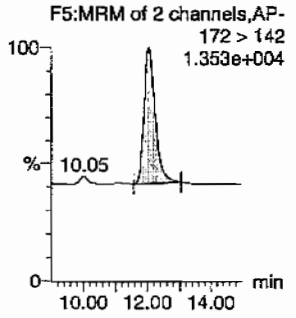

13-Dinitrobenzene

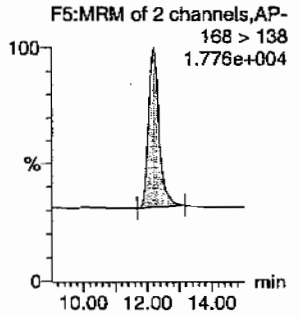

Tetryl

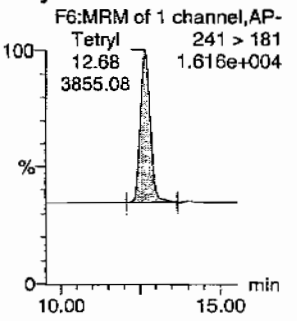

Nitrobenzene

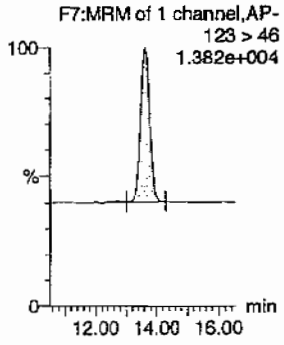

4-Amino-26-dinitrotoluene

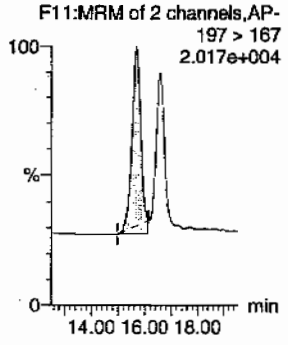

2-Amino-46-dinitrotoluene

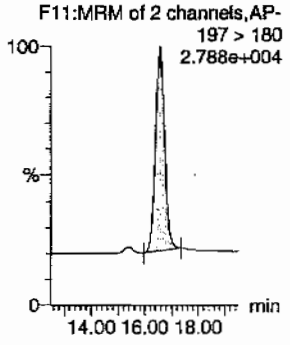

246-Trinitrotoluene

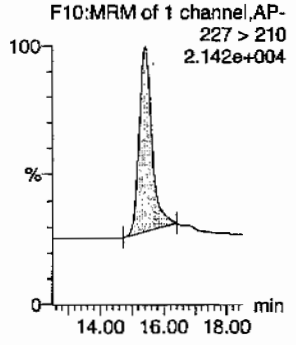

34-dinitrotoluene

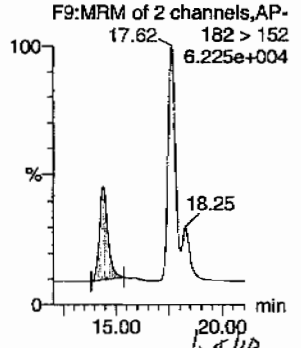

26-dinitrotoluene

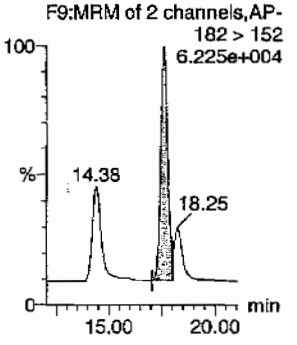

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

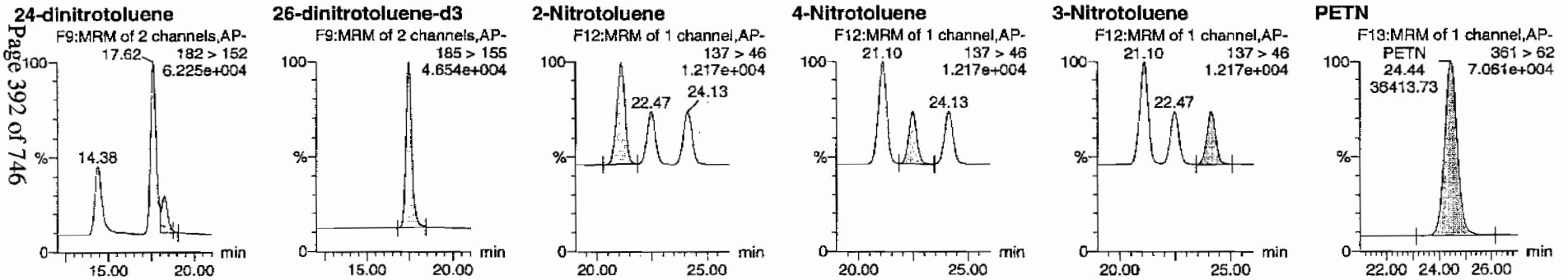

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	13094.961	3267.932	13094.961	2003.555	bb			519.2742	86.5	-13.5	2314.4
WXX100216-07CCV	RDX	176 > 102	7.59	10659.564	3267.932	10659.564	1630.934	bb			628.8663	104.8	4.8	1607.8
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13176.895	3267.932	13176.895	2016.091	bb			520.6113	86.8	-13.2	844.8
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3267.932		3267.932	3267.932	bb			542.4105	108.5	8.5	247.9
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.21	4584.592	3267.932	4584.592	701.452	bb			590.1891	98.4	-1.6	710.8
WXX100216-07CCV	Tetryl	241 > 181	12.68	3855.081	3267.932	3855.081	589.835	bb			541.0178	90.2	-9.8	423.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2832.244	3267.932	2832.244	433.339	bb			504.7572	84.1	-15.9	236.8
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5746.081	16319.334	5746.081	176.051	MM	18-Feb-10	08:46:17	549.7873	91.6	-8.4	542.5
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8676.166	16319.334	8676.166	265.825	bb			615.2570	102.5	2.5	836.2
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7099.956	16319.334	7099.956	217.532	bb			648.8559	108.1	8.1	417.5
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	10579.176	16319.334	10579.176	324.130	bb			357.7591	119.3	19.3	478.8
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.62	21780.637	16319.334	21780.637	667.326	MM	18-Feb-10	08:49:35	629.8856	105.0	5.0	1206.0
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	5205.910	16319.334	5205.910	159.501	MM	18-Feb-10	08:50:07	647.0369	107.8	7.8	267.1
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	16319.334		16319.334	16319.334	bb			468.7159	93.7	-6.3	1228.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.10	2865.436	16319.334	2865.436	87.793	bb			576.8466	96.1	-3.9	675.9
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.47	1473.642	16319.334	1473.642	45.150	bb			589.0342	98.2	-1.8	344.1
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.13	1568.570	16319.334	1568.570	48.059	bb			537.0337	89.5	-10.5	344.9
WXX100216-07CCV	PETN	361 > 62	24.44	36413.730	16319.334	36413.730	1115.662	bb			715.3425	119.2	19.2	7773.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 0710
Standard Number: WXX100216-07CCV
Data File: EXP0216078a

HMX	86.5
RDX	104.8
135-TNB	86.8
13-DNB	98.4
Tetryl	90.2
Nitrobenzene	84.1
4A-26-DNT	91.6
2A-46-DNT	102.5
246-TNT	108.1
34-DNT(surr)	119.3
26-DNT	105.0
24-DNT	107.8
2-NT	96.1
4-NT	98.2
3-NT	89.5
PETN	119.2
Total	1588.1
Average	99.3

MTT 2/18/10

Hime 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216080a

Analysis Date: 18-FEB-10 08:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.403	121	
1,3-Dinitrobenzene-d4	500	494.727	99	
2,4,6-Trinitrotoluene	40	41.136	103	
2,4-Dinitrotoluene	40	38.771	97	
2,6-Dinitrotoluene	40	44.76	112	
2,6-Dinitrotoluene-d3	500	481.497	96	
2-Amino-4,6-dinitrotoluene	40	41.233	103	
3,4-Dinitrotoluene	20	22.678	113	
4-Amino-2,6-dinitrotoluene	40	37.418	94	
HMX	40	43.826	110	
Nitrobenzene	40	37.223	93	
PETN	40	54.239	136	*
RDX	40	42.015	105	
Tetryl	40	39.964	100	
m-Dinitrobenzene	40	45.818	115	
m-Nitrotoluene	40	40.759	102	
o-Nitrotoluene	40	45.987	115	
p-Nitrotoluene	40	51.62	129	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216080a
Date: 18-Feb-2010
Time: 08:10:12
ID: WXX100216-08CRI
Vial: 1:1,C

MMT 2/18/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.076e+004
1008.04 7.60

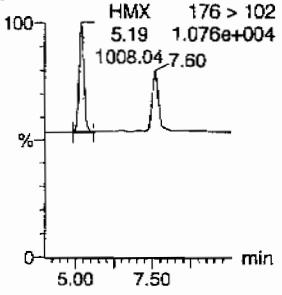

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.076e+004
RDX
7.50
649.56

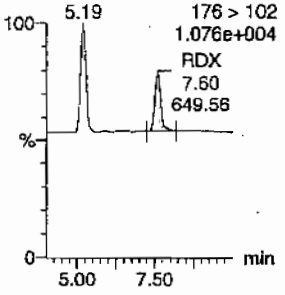

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.607e+003

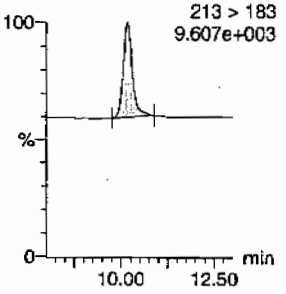

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.317e+004

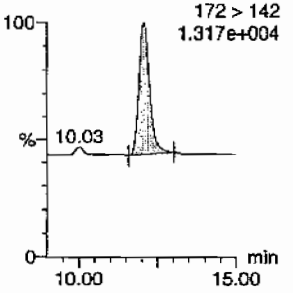

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.530e+003

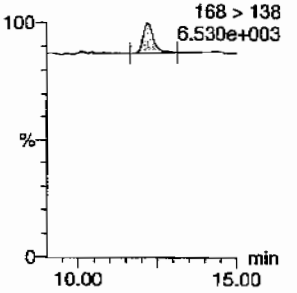

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.438e+003

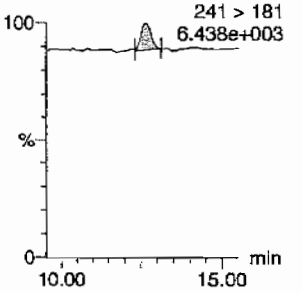

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.321e+003

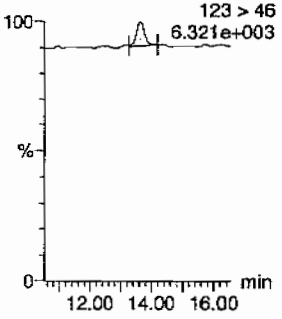

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.694e+003

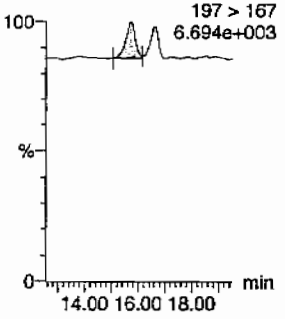

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.325e+003

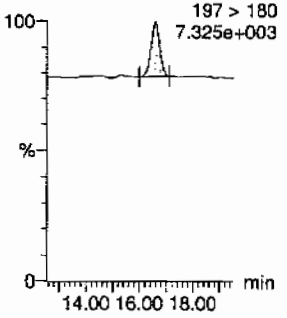

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.705e+003

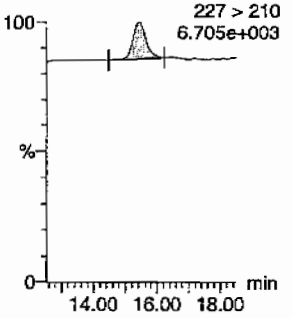

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
17.61 9.825e+003
18.29

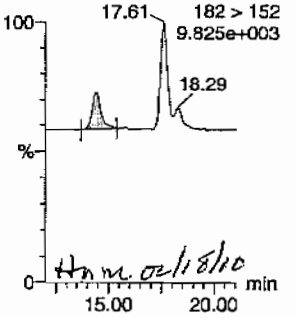

Hm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.825e+003
14.41
18.29

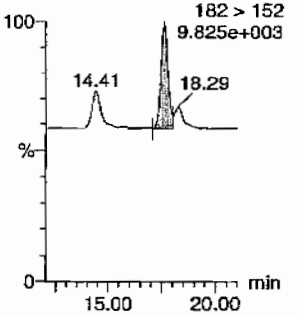

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

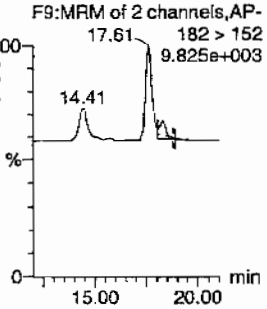

26-dinitrotoluene-d3

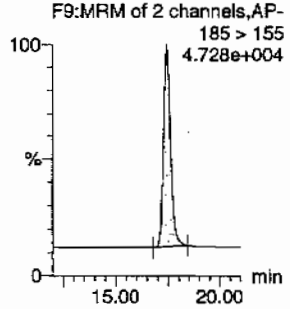

2-Nitrotoluene

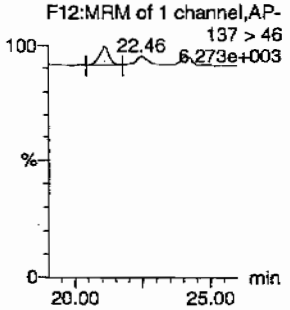

4-Nitrotoluene

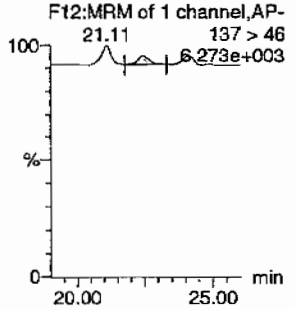

3-Nitrotoluene

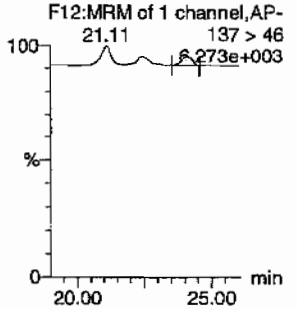

PETN

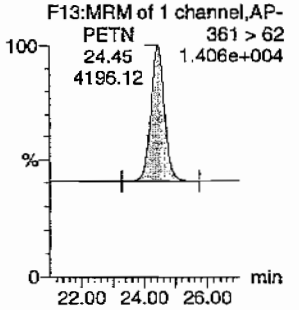

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1008.036	2980.646	1008.036	169.097	bb			43.8259	109.6	9.6	201.4
WXX100216-08CRI	RDX	176 > 102	7.60	649.563	2980.646	649.563	108.963	bb			42.0150	105.0	5.0	111.9
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1117.398	2980.646	1117.398	187.442	bb			48.4029	121.0	21.0	143.8
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2980.646		2980.646	2980.646	bb			494.7268	98.9	-1.1	450.8
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	324.627	2980.646	324.627	54.456	bb			45.8182	114.5	14.5	34.8
WXX100216-08CRI	Tetryl	241 > 181	12.66	259.731	2980.646	259.731	43.570	db			39.9636	99.9	-0.1	29.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.61	190.499	2980.646	190.499	31.956	db			37.2226	93.1	-6.9	28.0
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	401.731	16764.338	401.731	11.982	MM	18-Feb-10	08:46:24	37.4175	93.5	-6.5	26.2
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.59	597.310	16764.338	597.310	17.815	bb			41.2330	103.1	3.1	68.2
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.44	462.397	16764.338	462.397	13.791	bb			41.1361	102.8	2.8	49.8
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.41	688.876	16764.338	688.876	20.546	bb			22.6775	113.4	13.4	28.8
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1589.948	16764.338	1589.948	47.421	MM	18-Feb-10	08:49:42	44.7600	111.9	11.9	83.5
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.29	320.451	16764.338	320.451	9.558	MM	18-Feb-10	08:50:00	38.7713	96.9	-3.1	15.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16764.338		16764.338	16764.338	bb			481.4971	96.3	-3.7	1198.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.11	234.663	16764.338	234.663	6.999	bb			45.9865	115.0	15.0	54.3
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	132.665	16764.338	132.665	3.957	bb			51.6203	129.1	29.1	25.9
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	122.295	16764.338	122.295	3.647	bb			40.7589	101.9	1.9	25.8
WXX100216-08CRI	PETN	361 > 62	24.45	4196.118	16764.338	4196.118	125.150	bb			54.2394	135.6	35.6	1668.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	0810
Standard Number	WXX100216-08CRI
Data File	EXP0216080a

HMX	109.6
RDX	105.0
135-TNB	121.0
13-DNB	114.5
Tetryl	99.9
Nitrobenzene	93.1
4A-26-DNT	93.5
2A-46-DNT	103.1
246-TNT	102.8
34-DNT(surr)	113.4
26-DNT	111.9
24-DNT	96.9
2-NT	115.0
4-NT	129.1
3-NT	101.9
PETN	135.6
Total	1746.3
Average	109.1

MJT 2/18/10

Hmc 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216089a

Analysis Date: 18-FEB-10 12:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	575.828	96	
1,3-Dinitrobenzene-d4	500	495.598	99	
2,4,6-Trinitrotoluene	600	691.665	115	
2,4-Dinitrotoluene	600	659.229	110	
2,6-Dinitrotoluene	600	644.249	107	
2,6-Dinitrotoluene-d3	500	461.757	92	
2-Amino-4,6-dinitrotoluene	600	655.311	109	
3,4-Dinitrotoluene	300	351.733	117	
4-Amino-2,6-dinitrotoluene	600	586.497	98	
HMX	600	695.878	116	
Nitrobenzene	600	570.735	95	
PETN	600	765.325	128	*
RDX	600	762.426	127	*
Tetryl	600	584.833	97	
m-Dinitrobenzene	600	636.337	106	
m-Nitrotoluene	600	573.92	96	
o-Nitrotoluene	600	648.456	108	
p-Nitrotoluene	600	589.135	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216089a
Date: 18-Feb-2010
Time: 12:36:18
ID: WXX100216-07CCV
Vial: 1:1,B

MM 4/9/10

HMX

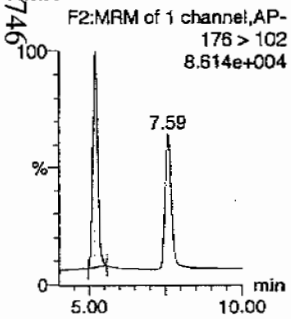

RDX

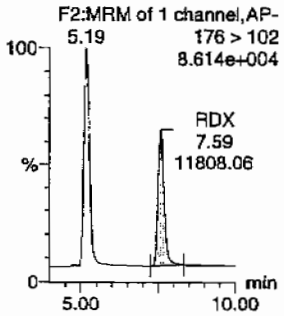

135-Trinitrobenzene

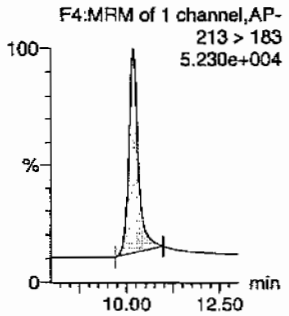

13-Dinitrobenzene-d4

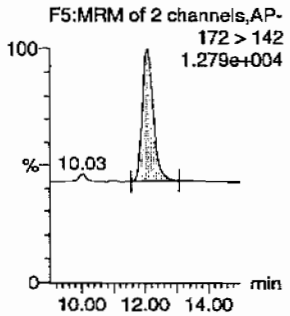

13-Dinitrobenzene

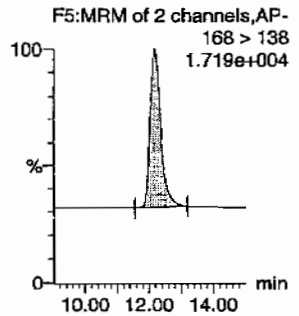

Tetryl

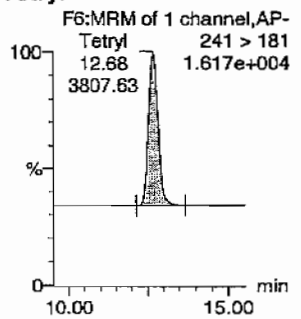

Nitrobenzene

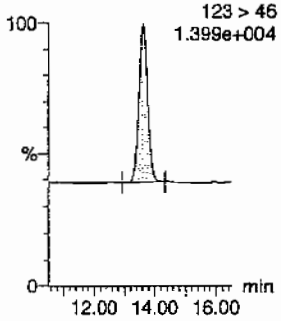

4-Amino-26-dinitrotoluene

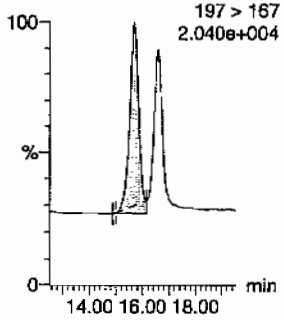

2-Amino-46-dinitrotoluene

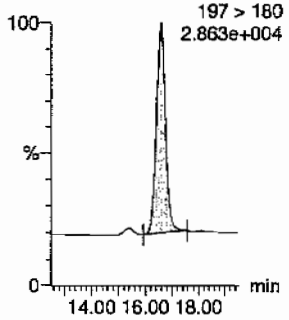

246-Trinitrotoluene

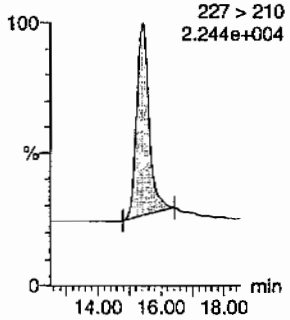

34-dinitrotoluene

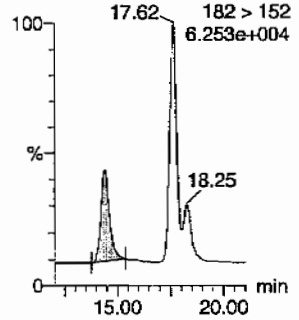

26-dinitrotoluene

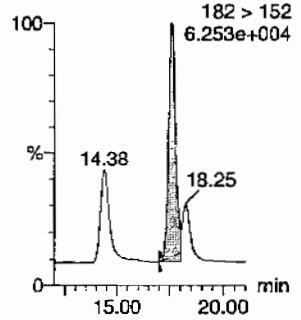

Hmw 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

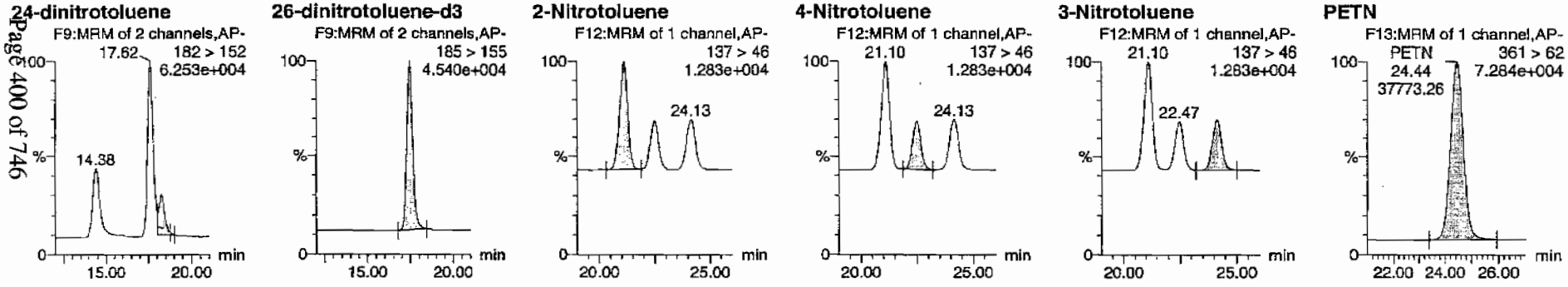

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	16034.003	2985.895	16034.003	2684.958	bb			695.8778	116.0	16.0	2037.0
WXX100216-07CCV	RDX	176 > 102	7.59	11808.064	2985.895	11808.064	1977.307	bb			762.4256	127.1	27.1	1280.5
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13316.616	2985.895	13316.616	2229.920	bb			575.8281	96.0	-4.0	890.3
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2985.895		2985.895	2985.895	bb			495.5981	99.1	-0.9	653.7
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4516.458	2985.895	4516.458	756.299	bb			636.3367	106.1	6.1	360.2
WXX100216-07CCV	Tetryl	241 > 181	12.68	3807.633	2985.895	3807.633	637.603	bb			584.8326	97.5	-2.5	267.7
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2926.067	2985.895	2926.067	489.982	bb			570.7352	95.1	-4.9	316.4
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	6038.745	16077.056	6038.745	187.806	MM	19-Feb-10	08:38:58	586.4966	97.7	-2.3	179.9
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	9103.798	16077.056	9103.798	283.130	bb			655.3106	109.2	9.2	218.0
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7456.020	16077.056	7456.020	231.884	bb			691.6646	115.3	15.3	356.6
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	10246.576	16077.056	10246.576	318.671	bb			351.7334	117.2	17.2	267.6
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.62	21946.574	16077.056	21946.574	682.543	MM	19-Feb-10	08:43:11	644.2490	107.4	7.4	711.3
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	5225.263	16077.056	5225.263	162.507	MM	19-Feb-10	08:46:54	659.2292	109.9	9.9	160.9
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	16077.056		16077.056	16077.056	bb			461.7573	92.4	-7.6	850.8
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.10	3173.327	16077.056	3173.327	98.691	bb			648.4558	108.1	8.1	417.7
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.47	1452.012	16077.056	1452.012	45.158	bb			589.1347	98.2	-1.8	190.0
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.13	1651.421	16077.056	1651.421	51.360	bb			573.9200	95.7	-4.3	197.5
WXX100216-07CCV	PETN	361 > 62	24.44	37773.258	16077.056	37773.258	1174.757	bb			765.3245	127.6	27.6	10691.0

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 1236
Standard Number: WXX100216-07CCV
Data File: EXP0216089a

HMX	116.0
RDX	127.1
135-TNB	96.0
13-DNB	106.1
Tetryl	97.5
Nitrobenzene	95.1
4A-26-DNT	97.7
2A-46-DNT	109.2
246-TNT	115.3
34-DNT(surr)	117.2
26-DNT	107.4
24-DNT	109.9
2-NT	108.1
4-NT	98.2
3-NT	95.7
PETN	127.6
Total	1724.1
Average	107.8

MJP 2/19/10

tm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216091a

Analysis Date: 18-FEB-10 13:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	40	39.308	98	
HMX	40	45.096	113	
Nitrobenzene	40	40.389	101	
PETN	40	50.626	127	
RDX	40	44.527	111	
Tetryl	40	44.164	110	
m-Dinitrobenzene	40	38.138	95	
m-Nitrotoluene	40	37.355	93	
o-Nitrotoluene	40	34.55	86	
p-Nitrotoluene	40	31.551	79	
1,3,5-Trinitrobenzene	40	49.419	124	
1,3-Dinitrobenzene-d4	500	495.095	99	
2,4,6-Trinitrotoluene	40	63.823	160	*
2,4-Dinitrotoluene	40	44.759	112	
2,6-Dinitrotoluene	40	43.488	109	
2,6-Dinitrotoluene-d3	500	500.11	100	
2-Amino-4,6-dinitrotoluene	40	42.691	107	
3,4-Dinitrotoluene	20	22.924	115	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216091a
Date: 18-Feb-2010
Time: 13:35:23
ID: WXX100216-08CRI
Vial: 1:1,C

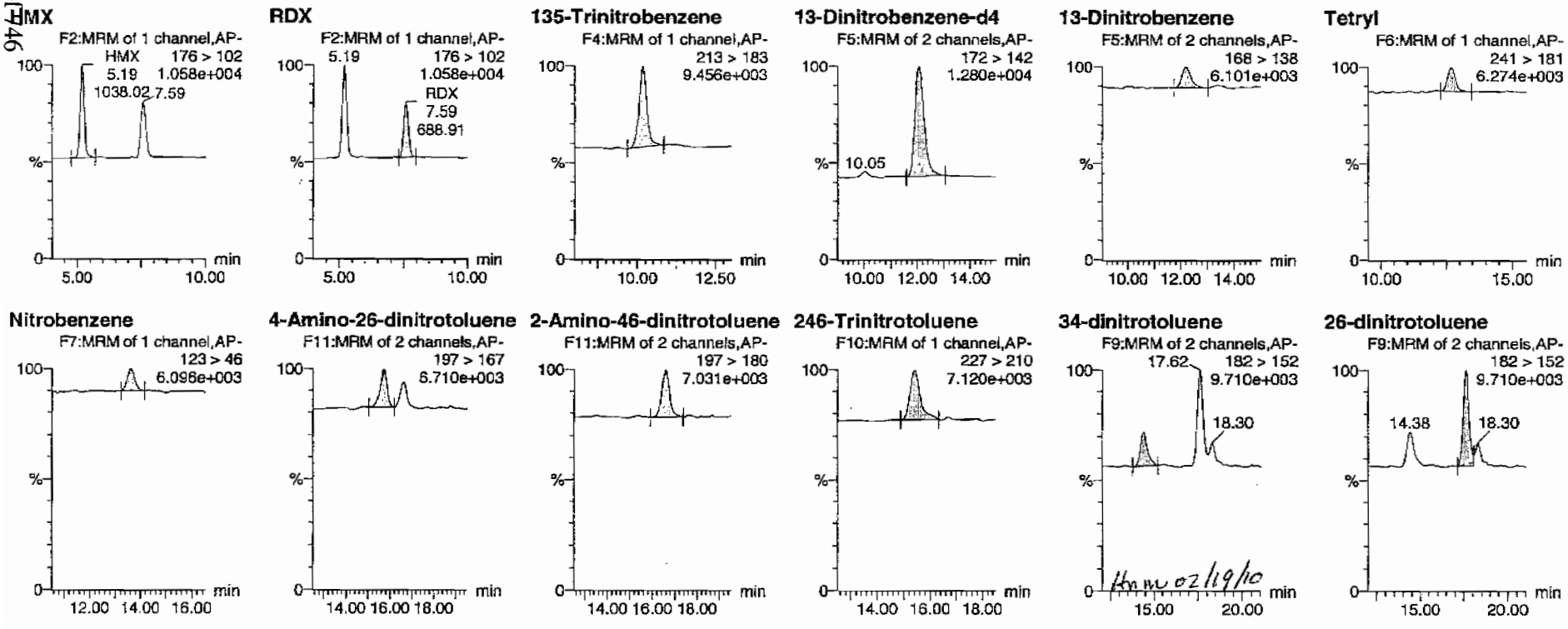

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

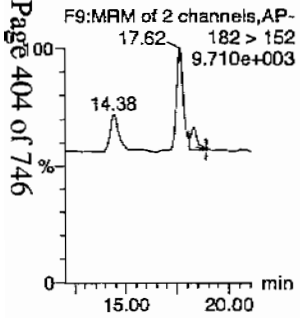

26-dinitrotoluene-d3

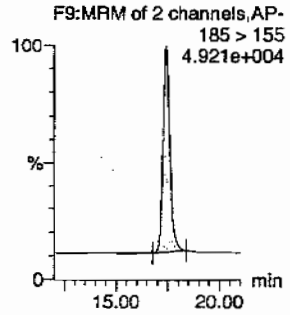

2-Nitrotoluene

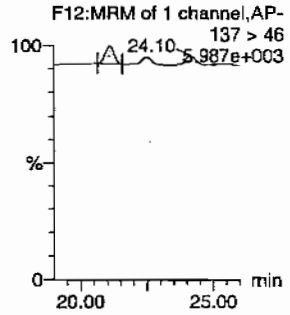

4-Nitrotoluene

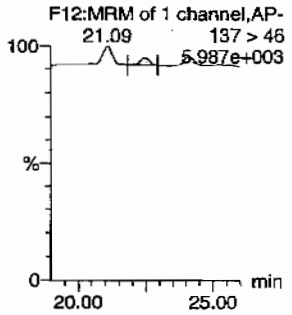

3-Nitrotoluene

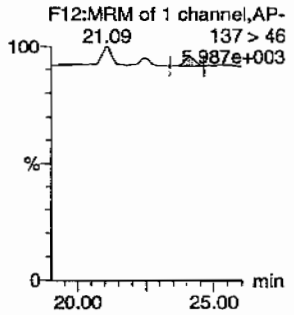

PETN

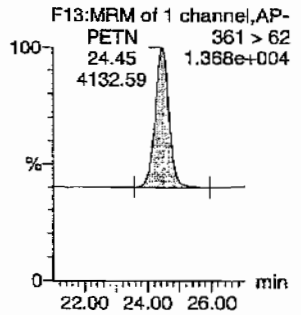

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1038.023	2982.866	1038.023	173.998	bb			45.0961	112.7	12.7	166.4
WXX100216-08CRI	RDX	176 > 102	7.59	688.912	2982.866	688.912	115.478	bb			44.5270	111.3	11.3	97.9
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1141.707	2982.866	1141.707	191.378	bb			49.4191	123.5	23.5	56.1
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2982.866		2982.866	2982.866	bb			495.0953	99.0	-1.0	121.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	270.413	2982.866	270.413	45.328	bb			38.1380	95.3	-4.7	27.2
WXX100216-08CRI	Tetryl	241 > 181	12.68	287.244	2982.866	287.244	48.149	bb			44.1640	110.4	10.4	28.0
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	206.859	2982.866	206.859	34.675	bb			40.3892	101.0	1.0	31.0
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	438.338	17412.377	438.338	12.587	bb			39.3076	98.3	-1.7	36.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	642.342	17412.377	642.342	18.445	bb			42.6913	106.7	6.7	109.0
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	745.148	17412.377	745.148	21.397	bb			63.8233	159.6	59.6	80.8
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	723.283	17412.377	723.283	20.769	bb			22.9241	114.6	14.6	41.3
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1604.459	17412.377	1604.459	46.072	MM	19-Feb-10	08:43:19	43.4875	108.7	8.7	115.7
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.30	384.242	17412.377	384.242	11.034	MM	19-Feb-10	08:46:31	44.7591	111.9	11.9	26.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	17412.377		17412.377	17412.377	bb			500.1098	100.0	0.0	2498.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	183.120	17412.377	183.120	5.258	bb			34.5501	86.4	-13.6	48.1
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.47	84.222	17412.377	84.222	2.418	bb			31.5514	78.9	-21.1	19.4
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	116.415	17412.377	116.415	3.343	bb			37.3552	93.4	-6.6	24.4
WXX100216-08CRI	PETN	361 > 62	24.45	4132.593	17412.377	4132.593	118.668	bb			50.6256	126.6	26.6	818.9

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	1335
Standard Number	WXX100216-08CRI
Data File	EXP0216091a

HMX	112.7
RDX	111.3
135-TNB	123.5
13-DNB	95.3
Tetryl	110.4
Nitrobenzene	101.0
4A-26-DNT	98.3
2A-46-DNT	106.7
246-TNT	159.6
34-DNT(surr)	114.6
26-DNT	108.7
24-DNT	111.9
2-NT	86.4
4-NT	78.9
3-NT	93.4
PETN	126.6
Total	1739.3
Average	108.7

MAP 2/9/10

HM. 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216101a

Analysis Date: 18–FEB–10 18:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	661.47	110	
Nitrobenzene	600	556.503	93	
PETN	600	838.314	140	*
RDX	600	788.92	131	*
Tetryl	600	597.56	100	
m–Dinitrobenzene	600	622.496	104	
m–Nitrotoluene	600	569.513	95	
o–Nitrotoluene	600	604.641	101	
p–Nitrotoluene	600	614.496	102	
1,3,5–Trinitrobenzene	600	636.536	106	
1,3–Dinitrobenzene–d4	500	417.68	84	
2,4,6–Trinitrotoluene	600	691.126	115	
2,4–Dinitrotoluene	600	637.013	106	
2,6–Dinitrotoluene	600	619.323	103	
2,6–Dinitrotoluene–d3	500	397.466	79	*
2–Amino–4,6–dinitrotoluene	600	648.012	108	
3,4–Dinitrotoluene	300	329.226	110	
4–Amino–2,6–dinitrotoluene	600	589.342	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216101a
Date: 18-Feb-2010
Time: 18:31:14
ID: WXX100216-07CCV
Vial: 1:1,B

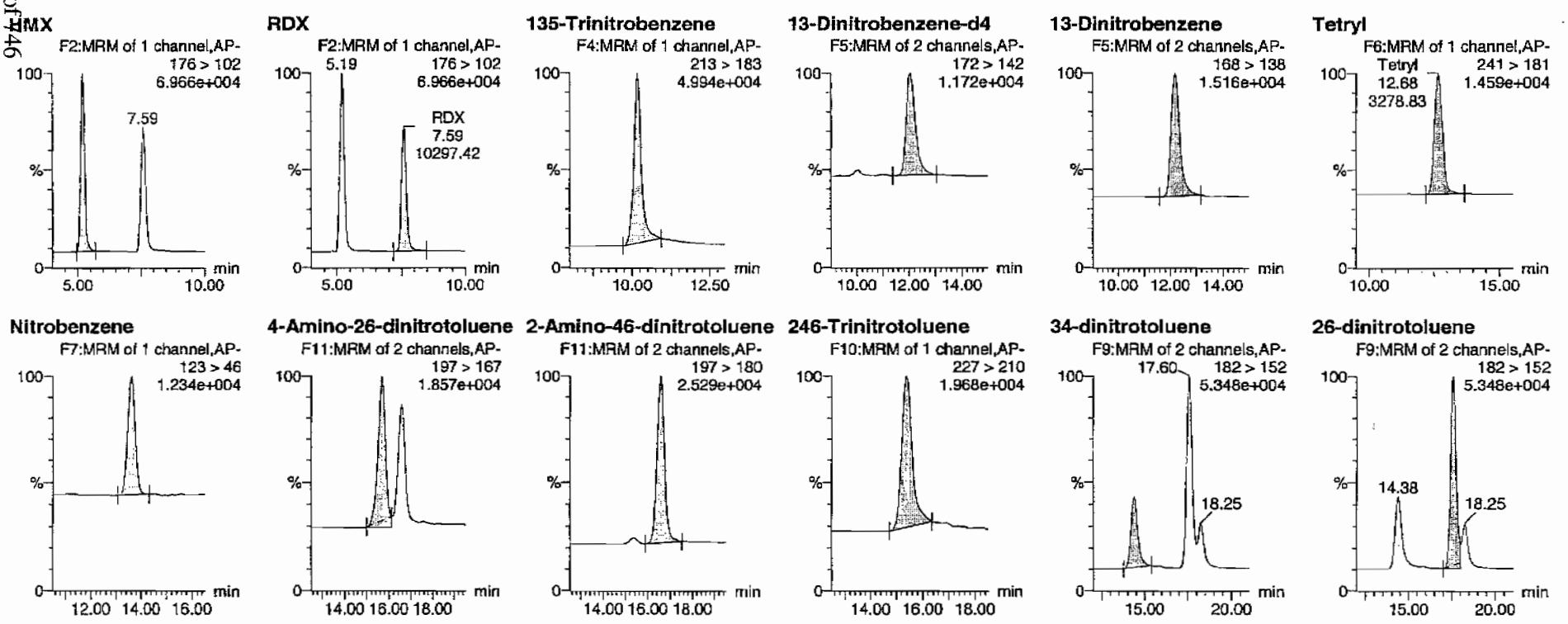

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

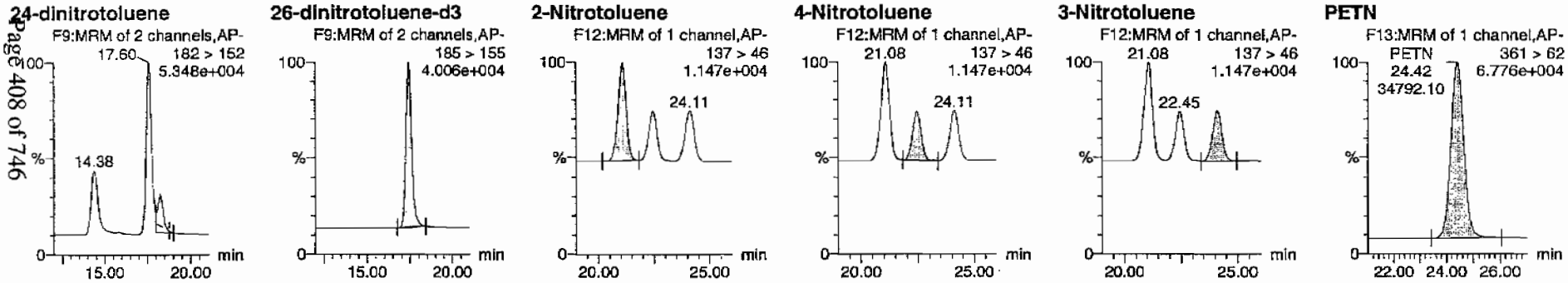

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	12844.975	2516.453	12844.975	2552.198	bb			661.4698	110.2	10.2	805.0
WXX100216-07CCV	RDX	176 > 102	7.59	10297.420	2516.453	10297.420	2046.019	bb			788.9199	131.5	31.5	562.4
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12406.179	2516.453	12406.179	2465.013	bb			636.5357	106.1	6.1	424.6
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2516.453		2516.453	2516.453	bb			417.6802	83.5	-16.5	330.0
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3723.589	2516.453	3723.589	739.849	bb			622.4958	103.7	3.7	190.3
WXX100216-07CCV	Tetryl	241 > 181	12.68	3278.833	2516.453	3278.833	651.479	bb			597.5600	99.6	-0.4	372.1
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2404.535	2516.453	2404.535	477.763	bb			556.5026	92.8	-7.2	198.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.66	5223.180	13838.627	5223.180	188.717	MM	19-Feb-10	08:39:12	589.3419	98.2	-1.8	189.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7748.987	13838.627	7748.987	279.977	bb			648.0120	108.0	8.0	493.7
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.38	6412.913	13838.627	6412.913	231.703	bb			691.1262	115.2	15.2	120.2
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8255.552	13838.627	8255.552	298.279	bb			329.2262	109.7	9.7	337.2
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18160.029	13838.627	18160.029	656.136	MM	19-Feb-10	08:43:33	619.3228	103.2	3.2	922.8
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4346.167	13838.627	4346.167	157.030	MM	19-Feb-10	08:46:08	637.0129	106.2	6.2	207.3
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	13838.627		13838.627	13838.627	bb			397.4663	79.5	-20.5	1774.9
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2546.937	13838.627	2546.937	92.023	bb			604.6405	100.8	0.8	226.0
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1303.650	13838.627	1303.650	47.102	bb			614.4959	102.4	2.4	112.4
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1410.576	13838.627	1410.576	50.965	bb			569.5129	94.9	-5.1	114.8
WXX100216-07CCV	PETN	361 > 62	24.42	34792.098	13838.627	34792.098	1257.065	bb			838.3138	139.7	39.7	7852.2

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 1831
Standard Number: WXX100216-07CCV
Data File: EXP0216101a

HMX	110.2
RDX	131.5
135-TNB	106.1
13-DNB	109.7
Tetryl	99.6
Nitrobenzene	92.8
4A-26-DNT	98.2
2A-46-DNT	108.0
246-TNT	115.2
34-DNT(surr)	109.7
26-DNT	103.2
24-DNT	106.2
2-NT	100.8
4-NT	102.4
3-NT	94.9
PETN	139.7
Total	1728.2
Average	108.0

MAP 2/19/10

Hmm 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216103a

Analysis Date: 18-FEB-10 19:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	58.779	147	*
1,3-Dinitrobenzene-d4	500	457.386	91	
2,4,6-Trinitrotoluene	40	46.527	116	
2,4-Dinitrotoluene	40	46.8	117	
2,6-Dinitrotoluene	40	41.187	103	
2,6-Dinitrotoluene-d3	500	451.82	90	
2-Amino-4,6-dinitrotoluene	40	40.759	102	
3,4-Dinitrotoluene	20	21.612	108	
4-Amino-2,6-dinitrotoluene	40	34.649	87	
HMX	40	46.441	116	
Nitrobenzene	40	31.128	78	
PETN	40	54.273	136	*
RDX	40	41.533	104	
Tetryl	40	53.24	133	*
m-Dinitrobenzene	40	46.745	117	
m-Nitrotoluene	40	40.745	102	
o-Nitrotoluene	40	34.511	86	
p-Nitrotoluene	40	26.865	67	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216103a
Date: 18-Feb-2010
Time: 19:30:18
ID: WXX100216-08CRI
Vial: 1:1,C

MAT 4/19/10

HMX

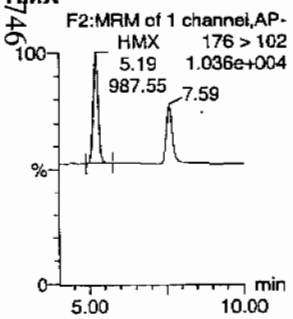

RDX

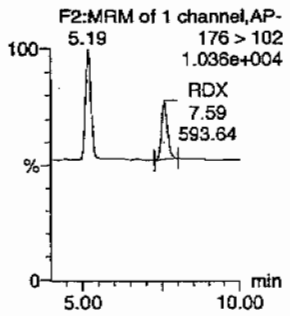

135-Trinitrobenzene

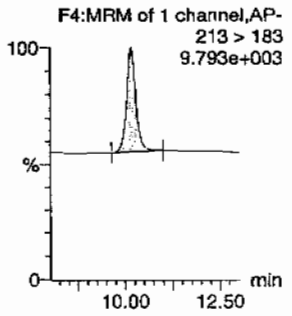

13-Dinitrobenzene-d4

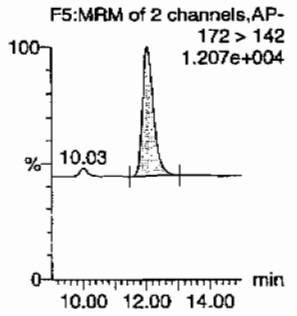

13-Dinitrobenzene

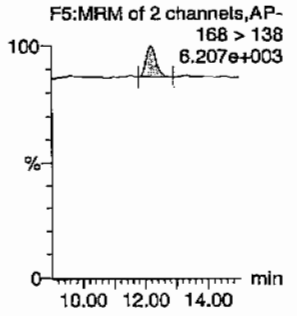

Tetryl

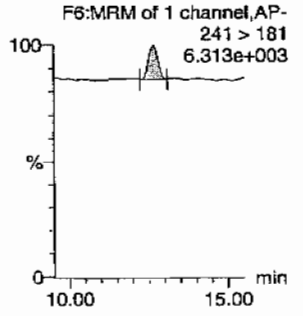

Nitrobenzene

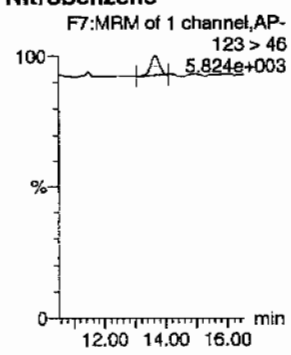

4-Amino-26-dinitrotoluene

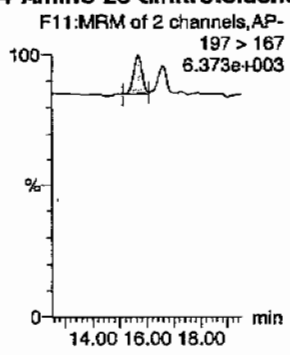

2-Amino-46-dinitrotoluene

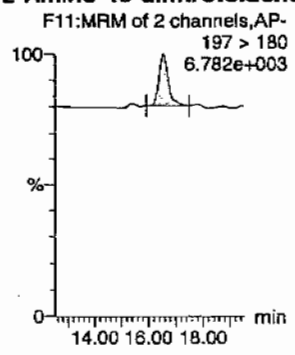

246-Trinitrotoluene

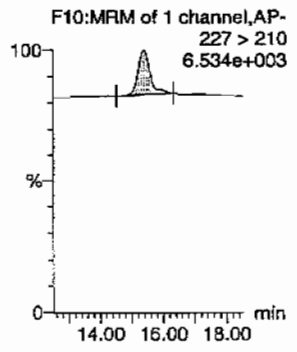

34-dinitrotoluene

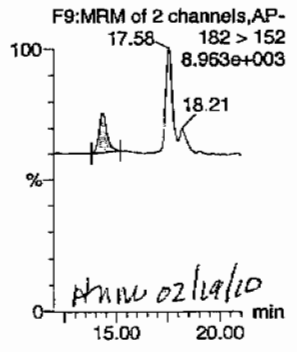

AMW 02/19/10

26-dinitrotoluene

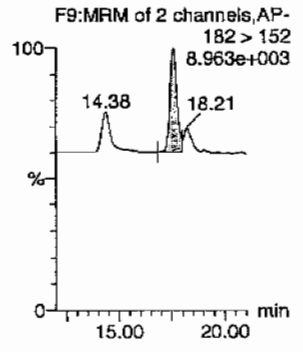

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

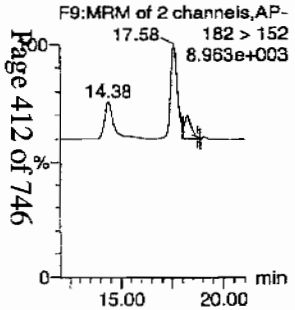

26-dinitrotoluene-d3

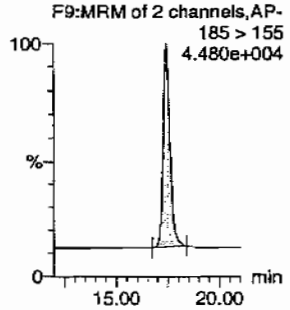

2-Nitrotoluene

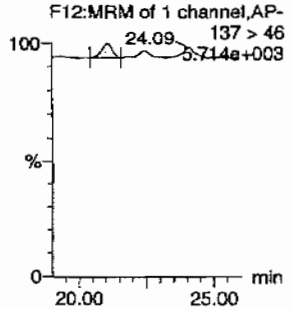

4-Nitrotoluene

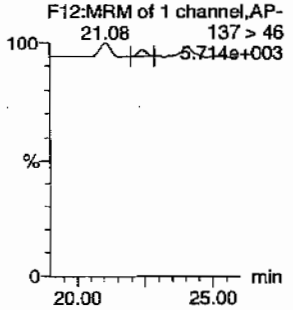

3-Nitrotoluene

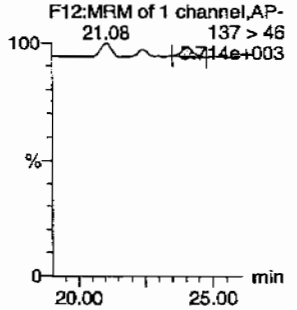

PETN

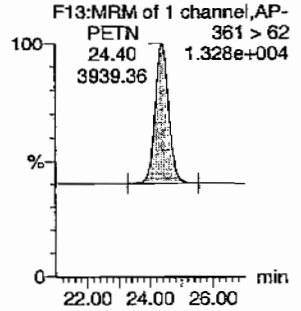

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	987.551	2755.674	987.551	179.185	bb			46.4405	116.1	16.1	119.3
WXX100216-08CRI	RDX	176 > 102	7.59	593.639	2755.674	593.639	107.712	bb			41.5325	103.8	3.8	63.3
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1254.523	2755.674	1254.523	227.625	bb			58.7793	146.9	46.9	350.7
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2755.674		2755.674	2755.674	bb			457.3860	91.5	-8.5	182.7
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.21	306.197	2755.674	306.197	55.558	bb			46.7452	116.9	16.9	25.3
WXX100216-08CRI	Tetryl	241 > 181	12.68	319.900	2755.674	319.900	58.044	bd			53.2399	133.1	33.1	42.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	147.282	2755.674	147.282	26.723	bb			31.1277	77.8	-22.2	24.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	349.075	15731.055	349.075	11.095	MM	19-Feb-10	08:39:18	34.6486	86.6	-13.4	44.9
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	554.050	15731.055	554.050	17.610	bb			40.7589	101.9	1.9	110.5
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	490.756	15731.055	490.756	15.598	bb			46.5268	116.3	16.3	47.2
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	616.030	15731.055	616.030	19.580	bb			21.6115	108.1	8.1	45.2
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.58	1372.843	15731.055	1372.843	43.635	MM	19-Feb-10	08:43:46	41.1867	103.0	3.0	119.6
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.21	362.966	15731.055	362.966	11.537	MM	19-Feb-10	08:46:00	46.7997	117.0	17.0	29.0
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15731.055		15731.055	15731.055	bb			451.8197	90.4	-9.6	848.8
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	165.251	15731.055	165.251	5.252	bb			34.5111	86.3	-13.7	27.1
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.43	64.787	15731.055	64.787	2.059	bb			26.8646	67.2	-32.8	12.7
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.09	114.719	15731.055	114.719	3.646	bb			40.7453	101.9	1.9	17.0
WXX100216-08CRI	PETN	361 > 62	24.40	3939.359	15731.055	3939.359	125.210	bb			54.2726	135.7	35.7	757.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	1930
Standard Number	WXX100216-08CRI
Data File	EXP0216103a

HMX	116.1
RDX	103.8
135-TNB	146.9
13-DNB	116.9
Tetryl	133.1
Nitrobenzene	77.8
4A-26-DNT	86.6
2A-46-DNT	101.9
246-TNT	116.3
34-DNT(surr)	108.1
26-DNT	103.0
24-DNT	117.0
2-NT	86.3
4-NT	67.2
3-NT	101.9
PETN	135.7
Total	1718.6
Average	107.4

HMK 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216114a

Analysis Date: 19-FEB-10 00:55

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	571.409	95	
1,3-Dinitrobenzene-d4	500	465.878	93	
2,4,6-Trinitrotoluene	600	690.895	115	
2,4-Dinitrotoluene	600	648.45	108	
2,6-Dinitrotoluene	600	627.387	105	
2,6-Dinitrotoluene-d3	500	447.599	90	
2-Amino-4,6-dinitrotoluene	600	606.475	101	
3,4-Dinitrotoluene	300	332.84	111	
4-Amino-2,6-dinitrotoluene	600	583.14	97	
HMX	600	691.106	115	
Nitrobenzene	600	588.13	98	
PETN	600	649.5	108	
RDX	600	760.723	127	*
Tetryl	600	549.314	92	
m-Dinitrobenzene	600	621.892	104	
m-Nitrotoluene	600	658.774	110	
o-Nitrotoluene	600	731.578	122	*
p-Nitrotoluene	600	638.105	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216114a
Date: 19-Feb-2010
Time: 00:55:04
ID: WXX100216-07CCV
Vial: 1:1,B

MATT 2/19/10

HMX

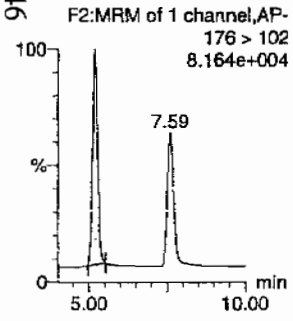

RDX

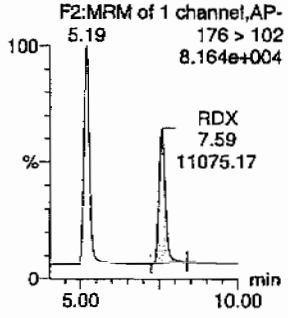

135-Trinitrobenzene

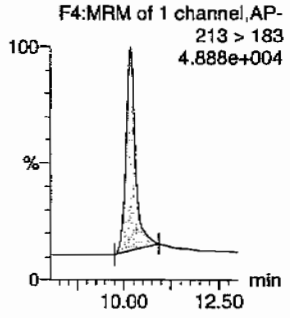

13-Dinitrobenzene-d4

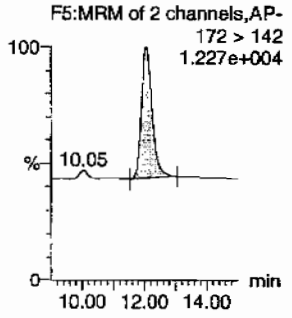

13-Dinitrobenzene

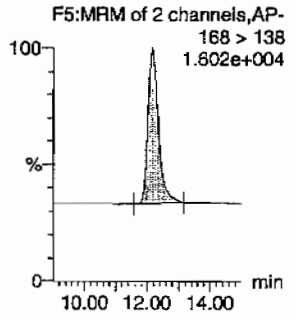

Tetryl

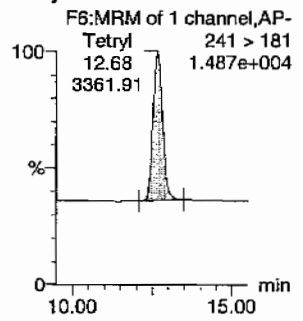

Nitrobenzene

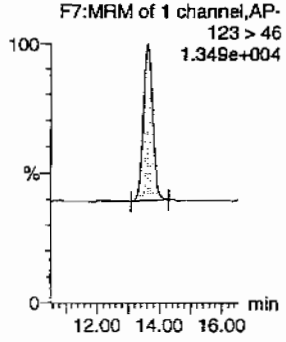

4-Amino-26-dinitrotoluene

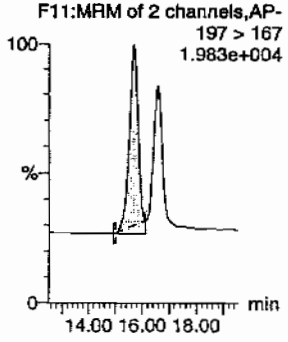

2-Amino-46-dinitrotoluene

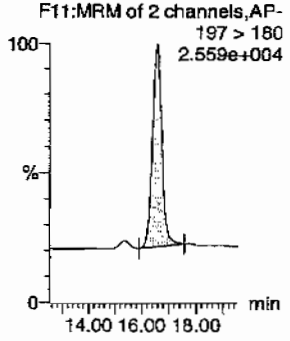

246-Trinitrotoluene

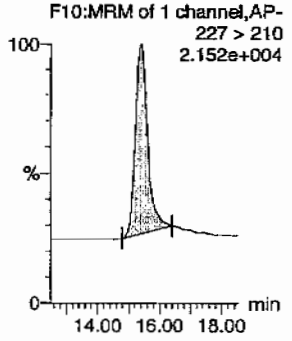

34-dinitrotoluene

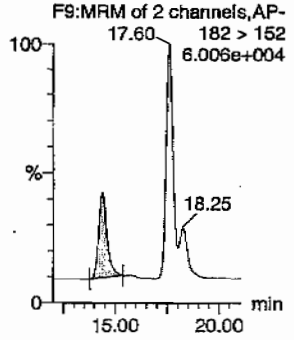

26-dinitrotoluene

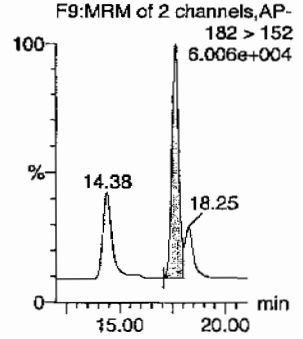

Kmm 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

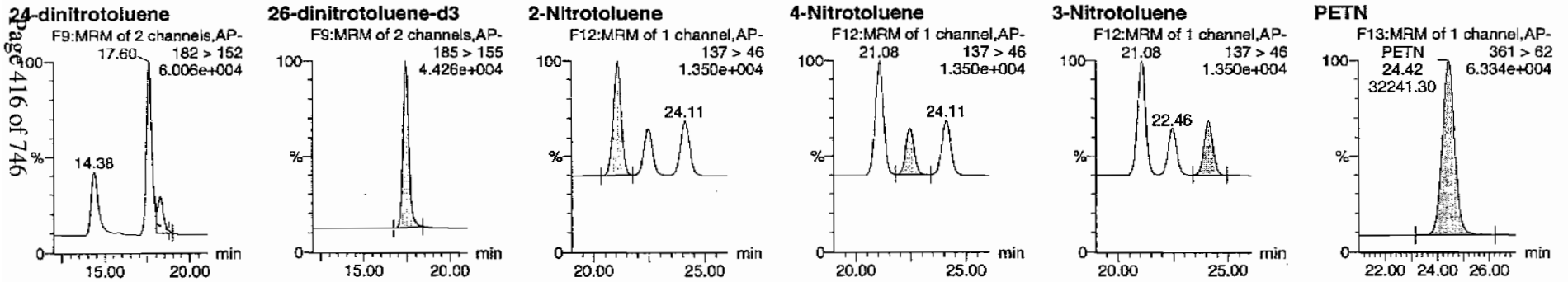

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	14969.111	2806.837	14969.111	2666.544	bb			691.1056	115.2	15.2	1193.4
WXX100216-07CCV	RDX	176 > 102	7.59	11075.168	2806.837	11075.168	1972.891	bb			760.7228	126.8	26.8	742.0
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12421.971	2806.837	12421.971	2212.806	bb			571.4087	95.2	-4.8	748.6
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2806.837		2806.837	2806.837	bb			465.8781	93.2	-6.8	619.5
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.20	4149.243	2806.837	4149.243	739.131	bb			621.8923	103.6	3.6	930.8
WXX100216-07CCV	Tetryl	241 > 181	12.68	3361.914	2806.837	3361.914	598.879	bb			549.3137	91.6	-8.4	206.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2834.431	2806.837	2834.431	504.915	bb			588.1304	98.0	-2.0	310.1
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5820.088	15584.121	5820.088	186.731	MM	19-Feb-10	08:39:50	583.1397	97.2	-2.8	247.4
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8167.027	15584.121	8167.027	262.030	bb			606.4749	101.1	1.1	560.1
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7219.366	15584.121	7219.366	231.626	bb			690.8946	115.1	15.1	540.5
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	9398.891	15584.121	9398.891	301.553	bb			332.8401	110.9	10.9	291.8
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	20716.889	15584.121	20716.889	664.679	MM	19-Feb-10	08:44:03	627.3874	104.6	4.6	804.4
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4982.229	15584.121	4982.229	159.850	MM	19-Feb-10	08:45:40	648.4495	108.1	8.1	168.8
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	15584.121		15584.121	15584.121	bb			447.5995	89.5	-10.5	1930.1
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	3470.329	15584.121	3470.329	111.342	bb			731.5776	121.9	21.9	122.3
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1524.486	15584.121	1524.486	48.912	bb			638.1049	106.4	6.4	49.8
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1837.464	15584.121	1837.464	58.953	bb			658.7742	109.8	9.8	58.5
WXX100216-07CCV	PETN	361 > 62	24.42	32241.301	15584.121	32241.301	1034.428	bb			649.5005	108.3	8.3	10805.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 0055
Standard Number: WXX100216-07CCV
Data File: EXP0216114a

HMX	115.2
RDX	126.8
135-TNB	95.2
13-DNB	103.6
Tetryl	91.6
Nitrobenzene	98.0
4A-26-DNT	97.2
2A-46-DNT	101.1
246-TNT	115.1
34-DNT(surr)	110.9
26-DNT	104.6
24-DNT	108.1
2-NT	121.9
4-NT	106.4
3-NT	109.8
PETN	108.3
Total	1713.8
Average	107.1

MTP 2/19/10

Hm 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216116a

Analysis Date: 19-FEB-10 01:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	470.242	94	
2,4,6-Trinitrotoluene	40	41.446	104	
2,4-Dinitrotoluene	40	40.654	102	
2,6-Dinitrotoluene	40	43.246	108	
2,6-Dinitrotoluene-d3	500	447.67	90	
2-Amino-4,6-dinitrotoluene	40	36.207	91	
3,4-Dinitrotoluene	20	19.336	97	
4-Amino-2,6-dinitrotoluene	40	36.956	92	
HMX	40	44.381	111	
Nitrobenzene	40	40.08	100	
PETN	40	50.067	125	
RDX	40	41.692	104	
Tetryl	40	48.261	121	
m-Dinitrobenzene	40	44.048	110	
m-Nitrotoluene	40	38.744	97	
o-Nitrotoluene	40	45.248	113	
p-Nitrotoluene	40	44.246	111	
1,3,5-Trinitrobenzene	40	54.134	135	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216116a
Date: 19-Feb-2010
Time: 01:54:19
ID: WXX100216-08CRI
Vial: 1:1,C

MM 4/9/10

HMX

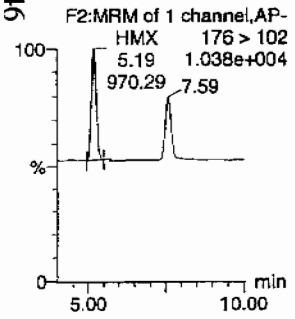

RDX

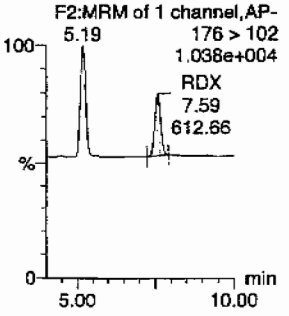

135-Trinitrobenzene

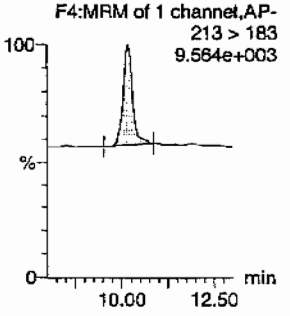

13-Dinitrobenzene-d4

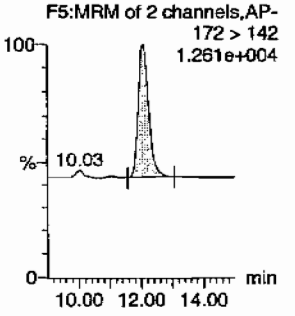

13-Dinitrobenzene

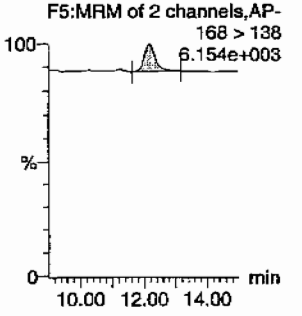

Tetryl

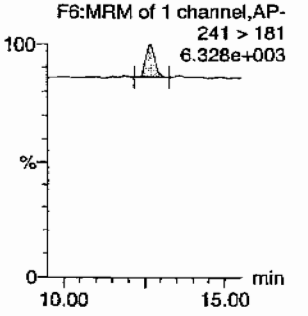

Nitrobenzene

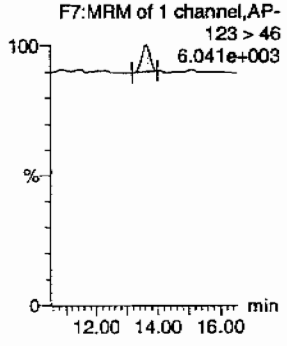

4-Amino-26-dinitrotoluene

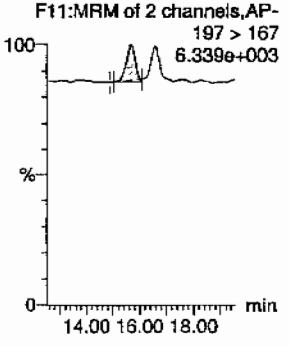

2-Amino-46-dinitrotoluene

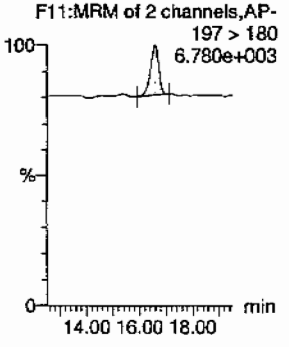

246-Trinitrotoluene

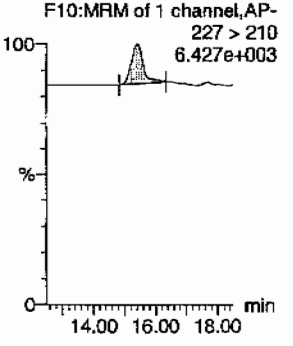

34-dinitrotoluene

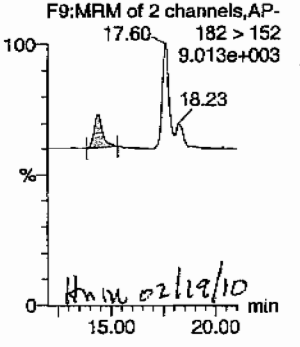

26-dinitrotoluene

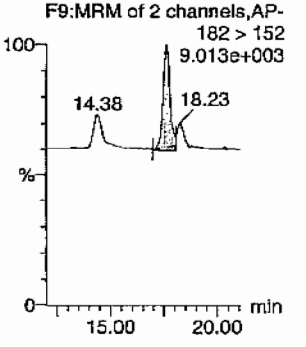

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

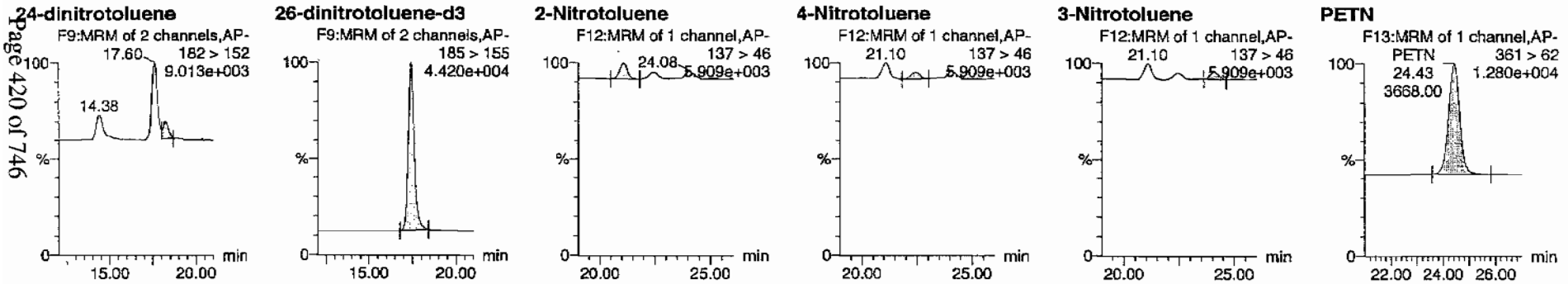

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	970.289	2833.130	970.289	171.240	bb			44.3813	111.0	11.0	149.0
WXX100216-08CRI	RDX	176 > 102	7.59	612.665	2833.130	612.665	108.125	bb			41.6917	104.2	4.2	82.7
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1187.855	2833.130	1187.855	209.637	bb			54.1340	135.3	35.3	146.8
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2833.130		2833.130	2833.130	bb			470.2422	94.0	-6.0	767.4
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	296.639	2833.130	296.639	52.352	bb			44.0479	110.1	10.1	43.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	298.134	2833.130	298.134	52.616	bb			48.2610	120.7	20.7	37.3
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	194.969	2833.130	194.969	34.409	bb			40.0797	100.2	0.2	15.5
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	368.902	15586.563	368.902	11.834	MM	19-Feb-10	08:40:08	36.9561	92.4	-7.6	33.0
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	487.656	15586.563	487.656	15.643	bb			36.2071	90.5	-9.5	37.9
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	433.146	15586.563	433.146	13.895	bb			41.4457	103.6	3.6	86.2
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	546.092	15586.563	546.092	17.518	bb			19.3356	96.7	-3.3	50.2
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1428.232	15586.563	1428.232	45.816	MM	19-Feb-10	08:44:14	43.2456	108.1	8.1	158.9
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	312.408	15586.563	312.408	10.022	MM	19-Feb-10	08:45:32	40.6543	101.6	1.6	37.0
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15586.563		15586.563	15586.563	bb			447.6696	89.5	-10.5	3275.7
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	214.671	15586.563	214.671	6.886	bb			45.2476	113.1	13.1	114.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	105.725	15586.563	105.725	3.392	bb			44.2464	110.6	10.6	49.1
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.08	108.083	15586.563	108.083	3.467	bb			38.7442	96.9	-3.1	54.6
WXX100216-08CRI	PETN	361 > 62	24.43	3668.000	15586.563	3668.000	117.665	bb			50.0670	125.2	25.2	1125.6

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	0154
Standard Number	WXX100216-08CRI
Data File	EXP0216116a

HMX	111.0
RDX	104.2
135-TNB	135.3
13-DNB	110.1
Tetryl	120.7
Nitrobenzene	100.2
4A-26-DNT	92.4
2A-46-DNT	90.5
246-TNT	103.6
34-DNT(surr)	96.7
26-DNT	108.1
24-DNT	101.6
2-NT	113.1
4-NT	110.6
3-NT	96.9
PETN	125.2
Total	1720.2
Average	107.5

MJP 2/19/10

Hmc 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216126a

Analysis Date: 19-FEB-10 06:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	602.103	100	
1,3-Dinitrobenzene-d4	500	399.789	80	*
2,4,6-Trinitrotoluene	600	636.088	106	
2,4-Dinitrotoluene	600	631.293	105	
2,6-Dinitrotoluene	600	639.245	107	
2,6-Dinitrotoluene-d3	500	397.902	80	*
2-Amino-4,6-dinitrotoluene	600	620.207	103	
3,4-Dinitrotoluene	300	328.459	109	
4-Amino-2,6-dinitrotoluene	600	549.091	92	
HMX	600	579.088	97	
Nitrobenzene	600	570.011	95	
PETN	600	752.558	125	*
RDX	600	664.439	111	
Tetryl	600	546.113	91	
m-Dinitrobenzene	600	654.383	109	
m-Nitrotoluene	600	546.709	91	
o-Nitrotoluene	600	565.725	94	
p-Nitrotoluene	600	596.095	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216126a
Date: 19-Feb-2010
Time: 06:51:55
ID: WXX100216-07CCV
Vial: 1:1,B

MMP 2/19/10

HMX

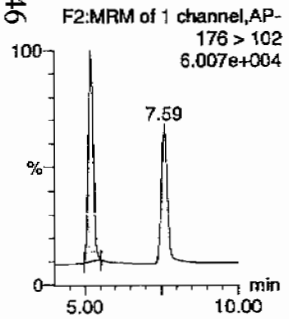

RDX

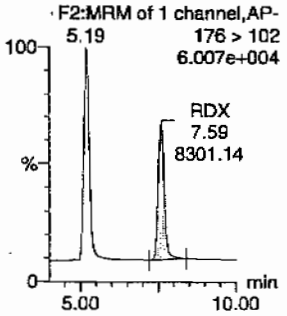

135-Trinitrobenzene

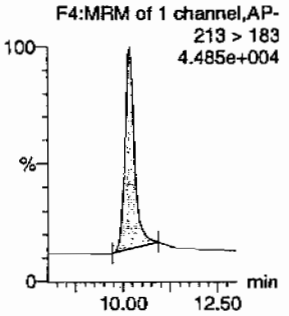

13-Dinitrobenzene-d4

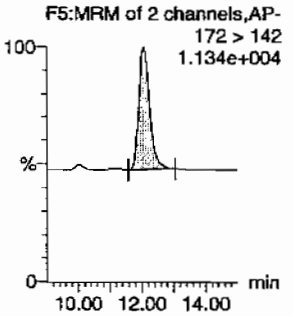

13-Dinitrobenzene

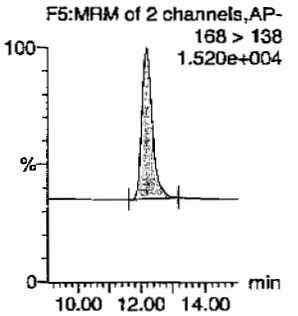

Tetryl

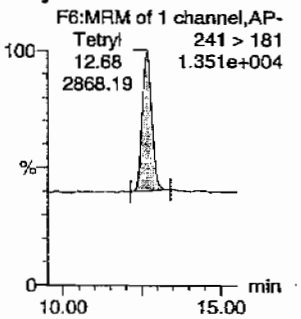

Nitrobenzene

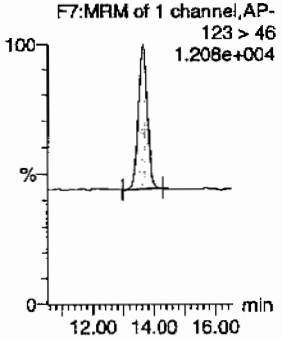

4-Amino-26-dinitrotoluene

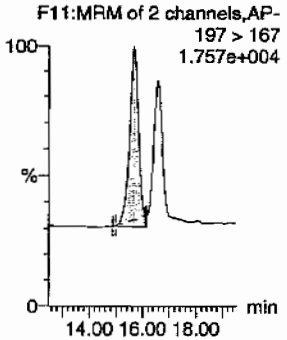

2-Amino-46-dinitrotoluene

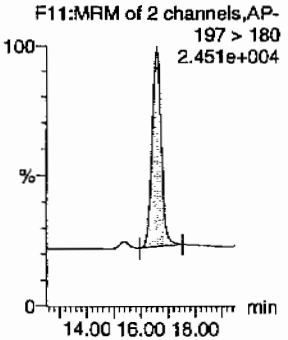

246-Trinitrotoluene

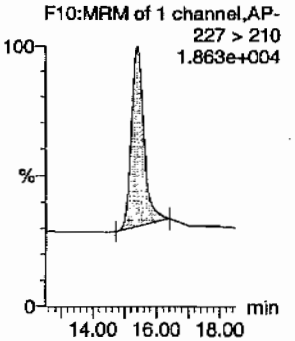

34-dinitrotoluene

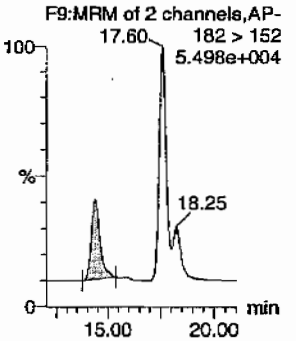

26-dinitrotoluene

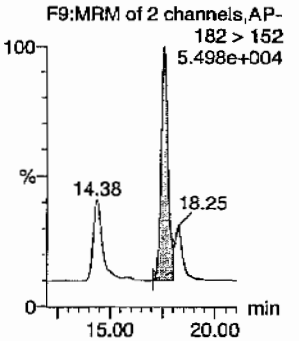

Hmc 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

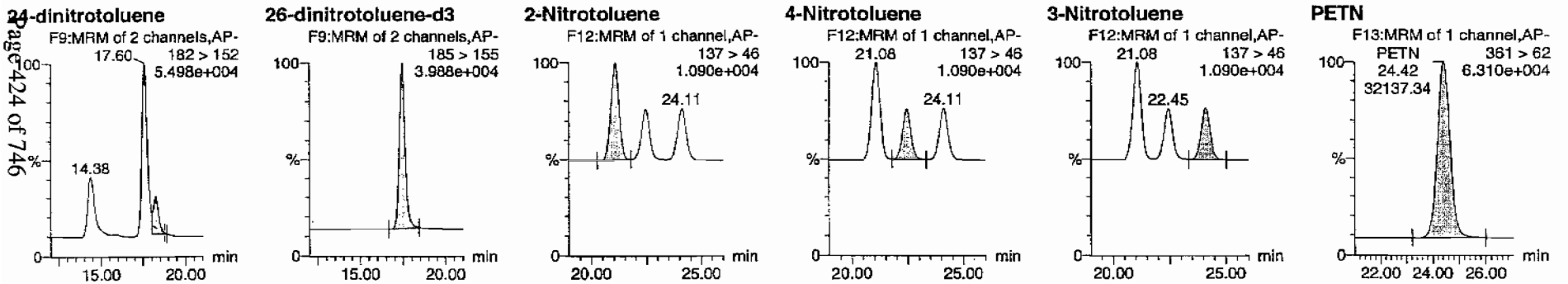

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	10763.521	2408.661	10763.521	2234.337	bb			579.0876	96.5	-3.5	1447.4
WXX100216-07CCV	RDX	176 > 102	7.59	8301.136	2408.661	8301.136	1723.185	bb			664.4390	110.7	10.7	948.0
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	11232.409	2408.661	11232.409	2331.671	bb			602.1029	100.4	0.4	594.9
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2408.661		2408.661	2408.661	bb			399.7889	80.0	-20.0	410.6
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3746.660	2408.661	3746.660	777.747	bb			654.3832	109.1	9.1	625.2
WXX100216-07CCV	Tetryl	241 > 181	12.68	2868.187	2408.661	2868.187	595.390	bb			546.1134	91.0	-9.0	233.9
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2357.406	2408.661	2357.406	489.360	bb			570.0115	95.0	-5.0	201.3
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	4871.783	13853.808	4871.783	175.828	MM	19-Feb-10	08:40:41	549.0908	91.5	-8.5	722.8
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7424.633	13853.808	7424.633	267.964	bb			620.2074	103.4	3.4	998.6
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	5908.694	13853.808	5908.694	213.252	bb			636.0882	106.0	6.0	440.8
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8245.339	13853.808	8245.339	297.584	bb			328.4586	109.5	9.5	217.5
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18764.768	13853.808	18764.768	677.242	MM	19-Feb-10	08:44:36	639.2453	106.5	6.5	633.1
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4311.870	13853.808	4311.870	155.620	MM	19-Feb-10	08:45:00	631.2935	105.2	5.2	137.2
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	13853.808		13853.808	13853.808	bb			397.9023	79.6	-20.4	1755.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2385.626	13853.808	2385.626	86.100	bb			565.7249	94.3	-5.7	842.5
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1266.000	13853.808	1266.000	45.691	bb			596.0950	99.3	-0.7	436.0
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1355.580	13853.808	1355.580	48.924	bb			546.7088	91.1	-8.9	445.0
WXX100216-07CCV	PETN	361 > 62	24.42	32137.336	13853.808	32137.336	1159.874	bb			752.5580	125.4	25.4	6987.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 0651
Standard Number: WXX100216-07CCV
Data File: EXP0216126a

HMX	96.5
RDX	110.7
135-TNB	100.4
13-DNB	109.1
Tetryl	91.0
Nitrobenzene	95.0
4A-26-DNT	91.5
2A-46-DNT	103.4
246-TNT	106.0
34-DNT(surr)	109.5
26-DNT	106.5
24-DNT	105.2
2-NT	94.3
4-NT	99.3
3-NT	91.1
PETN	125.4
Total	1634.9
Average	102.2

MMT 2/19/10

Hope 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216128a

Analysis Date: 19-FEB-10 07:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	40	54.004	135	*
RDX	40	44.767	112	
Tetryl	40	41.893	105	
m-Dinitrobenzene	40	46.8	117	
m-Nitrotoluene	40	44.528	111	
o-Nitrotoluene	40	39.368	98	
p-Nitrotoluene	40	54.772	137	*
1,3,5-Trinitrobenzene	40	55.601	139	*
1,3-Dinitrobenzene-d4	500	449.803	90	
2,4,6-Trinitrotoluene	40	55.731	139	*
2,4-Dinitrotoluene	40	40.622	102	
2,6-Dinitrotoluene	40	39.408	99	
2,6-Dinitrotoluene-d3	500	428.152	86	
2-Amino-4,6-dinitrotoluene	40	37.221	93	
3,4-Dinitrotoluene	20	25.924	130	
4-Amino-2,6-dinitrotoluene	40	38.795	97	
HMX	40	51.235	128	
Nitrobenzene	40	44.876	112	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216128a
Date: 19-Feb-2010
Time: 07:51:13
ID: WXX100216-08CRI
Vial: 1:1,C

HMM 2/19/10

HMX

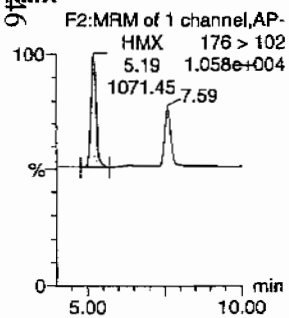

RDX

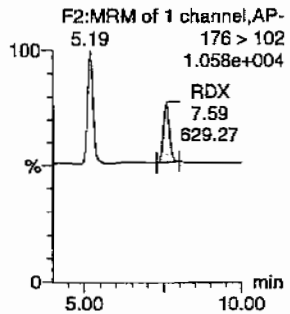

135-Trinitrobenzene

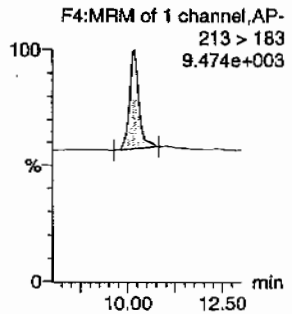

13-Dinitrobenzene-d4

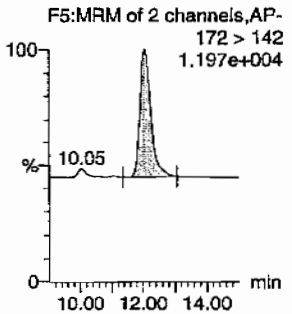

13-Dinitrobenzene

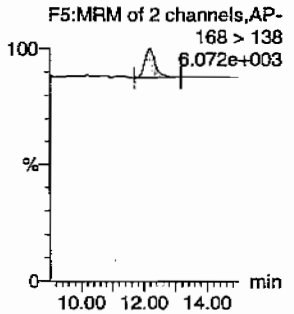

Tetryl

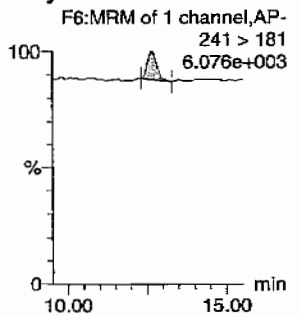

Nitrobenzene

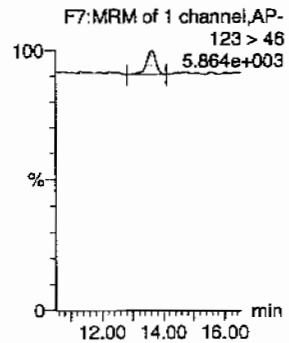

4-Amino-26-dinitrotoluene

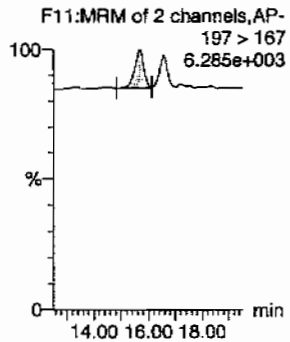

2-Amino-46-dinitrotoluene

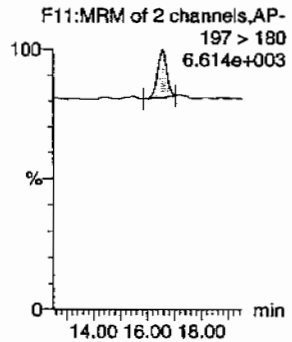

246-Trinitrotoluene

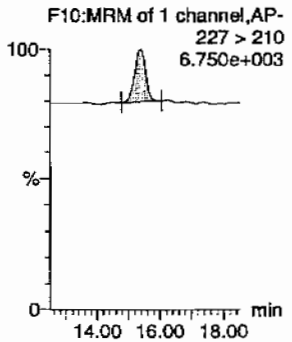

34-dinitrotoluene

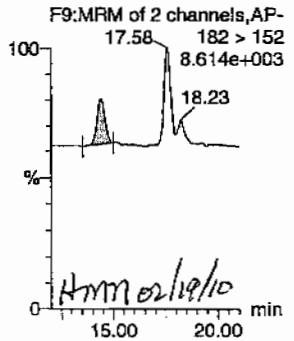

HMM 02/19/10

26-dinitrotoluene

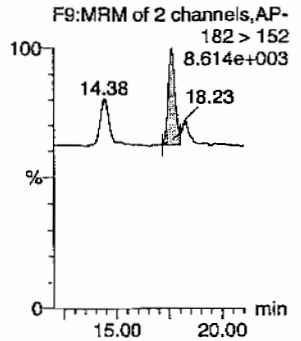

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

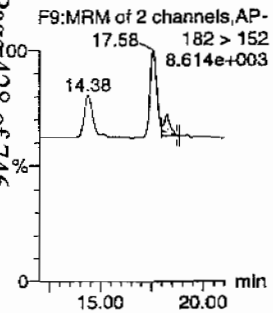

26-dinitrotoluene-d3

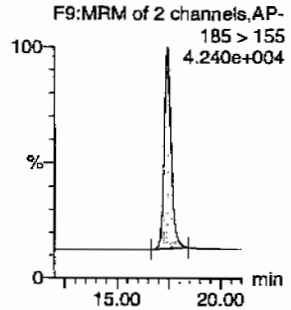

2-Nitrotoluene

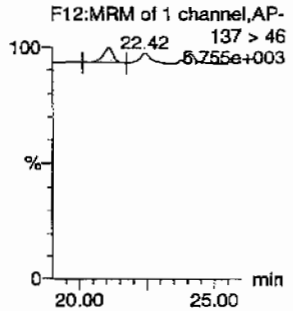

4-Nitrotoluene

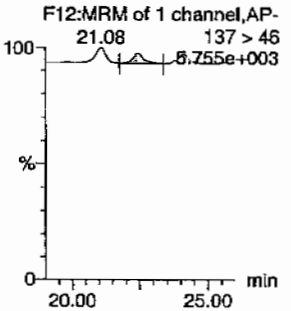

3-Nitrotoluene

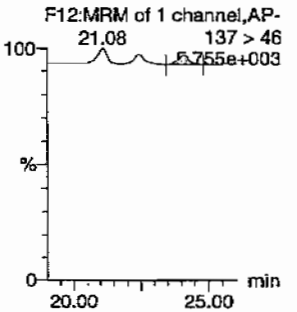

PETN

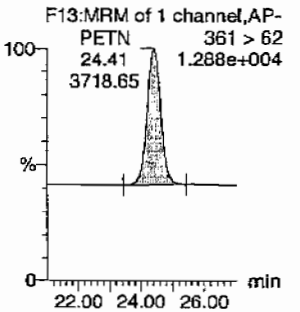

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1071.448	2709.986	1071.448	197.685	bb			51.2353	128.1	28.1	254.9
WXX100216-08CRI	RDX	176 > 102	7.59	629.268	2709.986	629.268	116.102	bb			44.7674	111.9	11.9	136.1
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1167.005	2709.986	1167.005	215.316	bb			55.6006	139.0	39.0	134.4
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2709.986		2709.986	2709.986	bb			449.8027	90.0	-10.0	92.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	301.476	2709.986	301.476	55.623	bb			46.8004	117.0	17.0	31.1
WXX100216-08CRI	Tetryl	241 > 181	12.68	247.547	2709.986	247.547	45.673	bb			41.8930	104.7	4.7	23.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	208.814	2709.986	208.814	38.527	bb			44.8763	112.2	12.2	15.4
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	370.375	14907.007	370.375	12.423	MM	19-Feb-10	08:40:47	38.7951	97.0	-3.0	37.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	479.459	14907.007	479.459	16.082	bb			37.2214	93.1	-6.9	51.1
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	557.049	14907.007	557.049	18.684	bb			55.7311	139.3	39.3	59.0
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	700.235	14907.007	700.235	23.487	bb			25.9236	129.6	29.6	54.4
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.58	1244.735	14907.007	1244.735	41.750	MM	19-Feb-10	08:44:46	39.4076	98.5	-1.5	115.4
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	298.548	14907.007	298.548	10.014	MM	19-Feb-10	08:44:53	40.6217	101.6	1.6	28.4
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	14907.007		14907.007	14907.007	bb			428.1517	85.6	-14.4	1997.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	178.632	14907.007	178.632	5.992	bb			39.3678	98.4	-1.6	20.2
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.42	125.170	14907.007	125.170	4.198	bb			54.7723	136.9	36.9	13.4
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	118.801	14907.007	118.801	3.985	bb			44.5276	111.3	11.3	12.6
WXX100216-08CRI	PETN	361 > 62	24.41	3718.648	14907.007	3718.648	124.728	bb			54.0040	135.0	35.0	1127.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	0751
Standard Number	WXX100216-08CRI
Data File	EXP0216128a

HMX	128.1
RDX	111.9
135-TNB	139.0
13-DNB	117.0
Tetryl	104.7
Nitrobenzene	112.2
4A-26-DNT	97.0
2A-46-DNT	93.1
246-TNT	139.3
34-DNT(surr)	129.6
26-DNT	98.5
24-DNT	101.6
2-NT	98.4
4-NT	136.9
3-NT	111.3
PETN	135.0
Total	1853.6
Average	115.9

HMM 2/19/10

HMM 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216139a

Analysis Date: 19-FEB-10 13:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	569.897	95	
m-Dinitrobenzene	600	615.3	103	
m-Nitrotoluene	600	562.081	94	
o-Nitrotoluene	600	617.05	103	
p-Nitrotoluene	600	581.656	97	
1,3,5-Trinitrobenzene	600	581.663	97	
1,3-Dinitrobenzene-d4	500	443.331	89	
2,4,6-Trinitrotoluene	600	659.577	110	
2,4-Dinitrotoluene	600	628.747	105	
2,6-Dinitrotoluene	600	636.836	106	
2,6-Dinitrotoluene-d3	500	420.393	84	
2-Amino-4,6-dinitrotoluene	600	637.114	106	
3,4-Dinitrotoluene	300	320.79	107	
4-Amino-2,6-dinitrotoluene	600	595.642	99	
HMX	600	592.154	99	
Nitrobenzene	600	551.705	92	
PETN	600	668.485	111	
RDX	600	661.851	110	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216139a
Date: 19-Feb-2010
Time: 13:16:57
ID: WXX100219-07CCV
Vial: 1:1,B

MM 2/22/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.719e+004

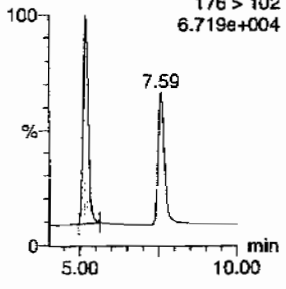

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
6.719e+004

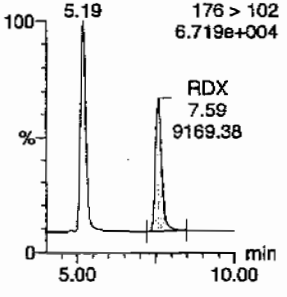

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.857e+004

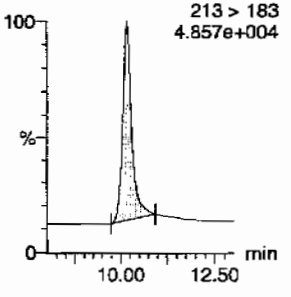

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.245e+004

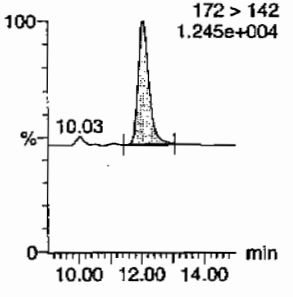

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.633e+004

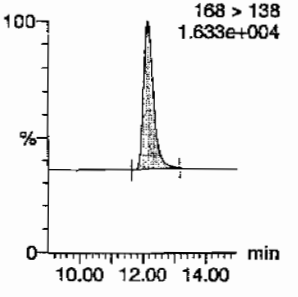

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.68
3319.08
241 > 181
1.516e+004

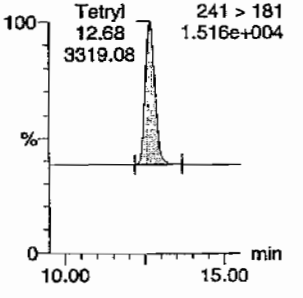

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.323e+004

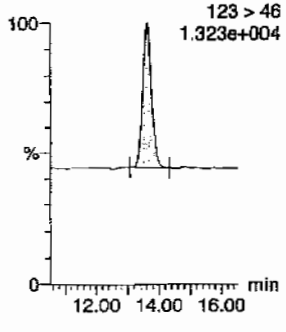

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.966e+004

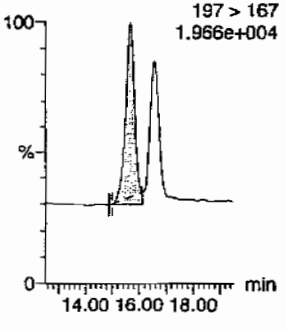

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.635e+004

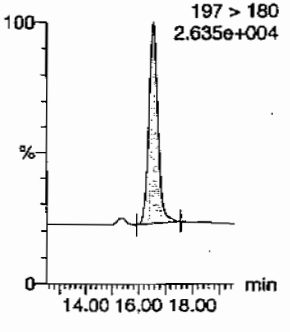

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.047e+004

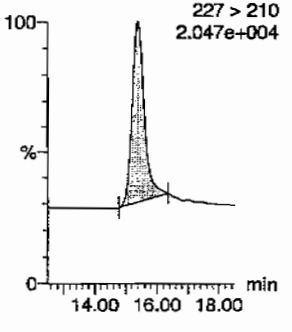

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.60
182 > 152
5.829e+004

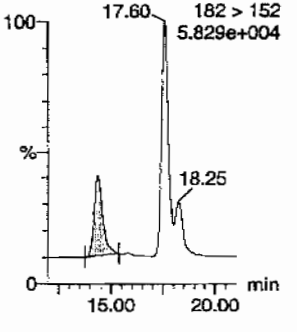

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.829e+004

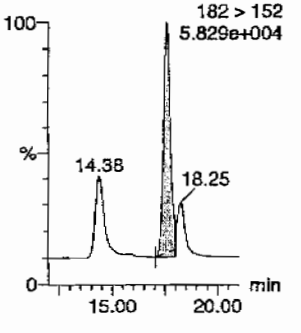

MMC 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

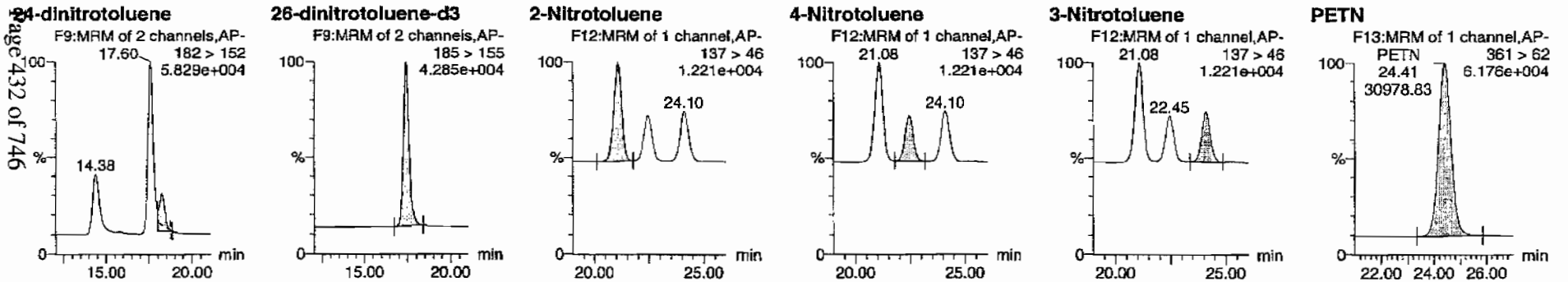

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	12205.122	2670.995	12205.122	2284.752	bb			592.1540	98.7	-1.3	1579.1
WXX100219-07CCV	RDX	176 > 102	7.59	9169.379	2670.995	9169.379	1716.473	bb			661.8509	110.3	10.3	1007.2
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	12032.914	2670.995	12032.914	2252.515	bb			581.6628	96.9	-3.1	315.0
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2670.995		2670.995	2670.995	bb			443.3310	88.7	-11.3	218.1
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	3906.578	2670.995	3906.578	731.296	bb			615.3000	102.6	2.6	376.1
WXX100219-07CCV	Tetryl	241 > 181	12.68	3319.083	2670.995	3319.083	621.320	bb			569.8966	95.0	-5.0	282.6
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2530.200	2670.995	2530.200	473.644	bb			551.7047	92.0	-8.0	232.8
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5583.528	14636.881	5583.528	190.735	MM	20-Feb-10	10:04:05	595.6423	99.3	-0.7	161.9
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8058.131	14636.881	8058.131	275.268	bb			637.1136	106.2	6.2	451.8
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.38	6473.199	14636.881	6473.199	221.126	bb			659.5769	109.9	9.9	711.6
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	8508.010	14636.881	8508.010	290.636	bb			320.7900	106.9	6.9	353.2
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	19750.691	14636.881	19750.691	674.689	MM	20-Feb-10	10:10:22	636.8355	106.1	6.1	1036.7
WXX100219-07CCV	24-dinitrotoluene'	182 > 152	18.25	4537.216	14636.881	4537.216	154.993	MM	20-Feb-10	10:10:57	628.7467	104.8	4.8	222.0
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14636.881		14636.881	14636.881	bb			420.3933	84.1	-15.9	1348.8
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.08	2749.140	14636.881	2749.140	93.911	bb			617.0500	102.8	2.8	710.2
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.45	1305.160	14636.881	1305.160	44.585	bb			581.6559	96.9	-3.1	328.4
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.10	1472.474	14636.881	1472.474	50.300	bb			562.0813	93.7	-6.3	362.2
WXX100219-07CCV	PETN	361 > 62	24.41	30978.832	14636.881	30978.832	1058.246	bb			668.4848	111.4	11.4	8528.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 1316
Standard Number: WXX100219-07CCV
Data File: EXP0216139a

HMX	98.7
RDX	110.3
135-TNB	96.9
13-DNB	102.6
Tetryl	95.0
Nitrobenzene	92.0
4A-26-DNT	99.3
2A-46-DNT	106.2
246-TNT	109.9
34-DNT(surr)	106.9
26-DNT	106.1
24-DNT	104.8
2-NT	102.8
4-NT	96.9
3-NT	93.7
PETN	111.4
Total	1633.5
Average	102.1

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216141a

Analysis Date: 19-FEB-10 14:38

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	51.493	129	
1,3-Dinitrobenzene-d4	500	432.424	86	
2,4,6-Trinitrotoluene	40	45.9	115	
2,4-Dinitrotoluene	40	37.747	94	
2,6-Dinitrotoluene	40	40.216	101	
2,6-Dinitrotoluene-d3	500	427.034	85	
2-Amino-4,6-dinitrotoluene	40	39.792	99	
3,4-Dinitrotoluene	20	19.371	97	
4-Amino-2,6-dinitrotoluene	40	39.356	98	
HMX	40	40.293	101	
Nitrobenzene	40	37.237	93	
PETN	40	46.953	117	
RDX	40	40.492	101	
Tetryl	40	47.198	118	
m-Dinitrobenzene	40	42.001	105	
m-Nitrotoluene	40	28.745	72	
o-Nitrotoluene	40	40.324	101	
p-Nitrotoluene	40	44.263	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216141a
Date: 19-Feb-2010
Time: 14:38:39
ID: WXX100219-08CRI
Vial: 1:1,C

MMT 2/22/10

HMX

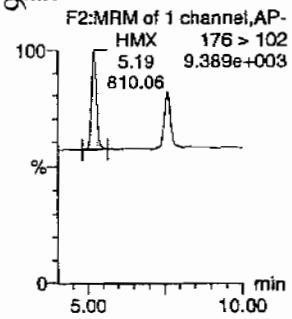

RDX

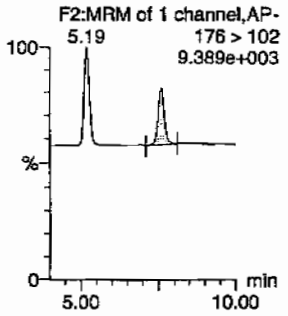

135-Trinitrobenzene

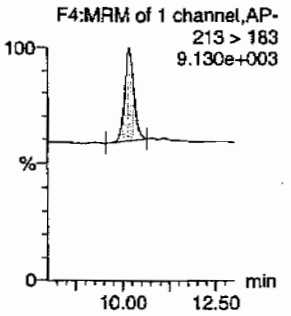

13-Dinitrobenzene-d4

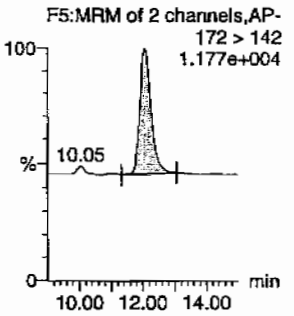

13-Dinitrobenzene

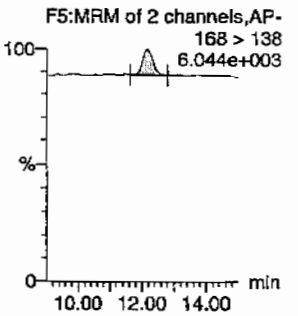

Tetryl

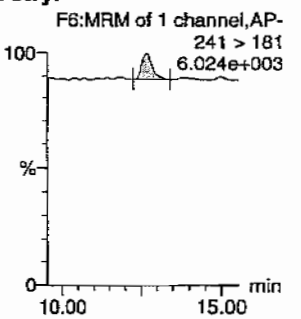

Nitrobenzene

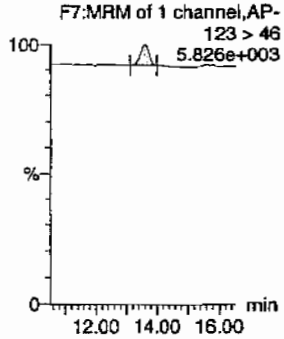

4-Amino-26-dinitrotoluene

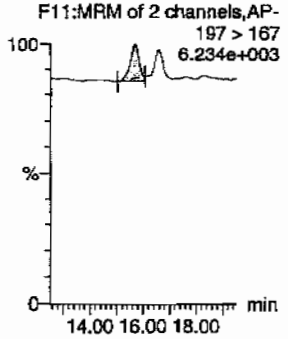

2-Amino-46-dinitrotoluene

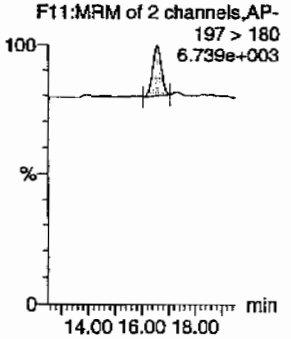

246-Trinitrotoluene

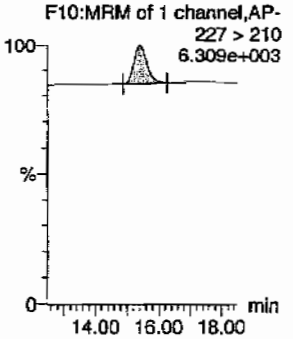

34-dinitrotoluene

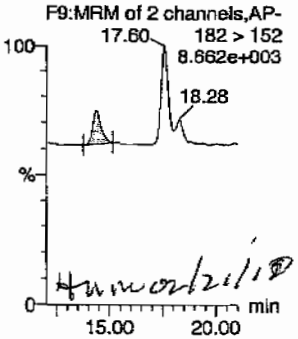

Hmm 02/21/10

26-dinitrotoluene

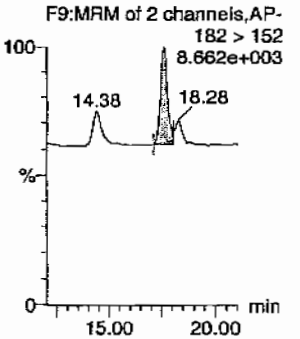

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

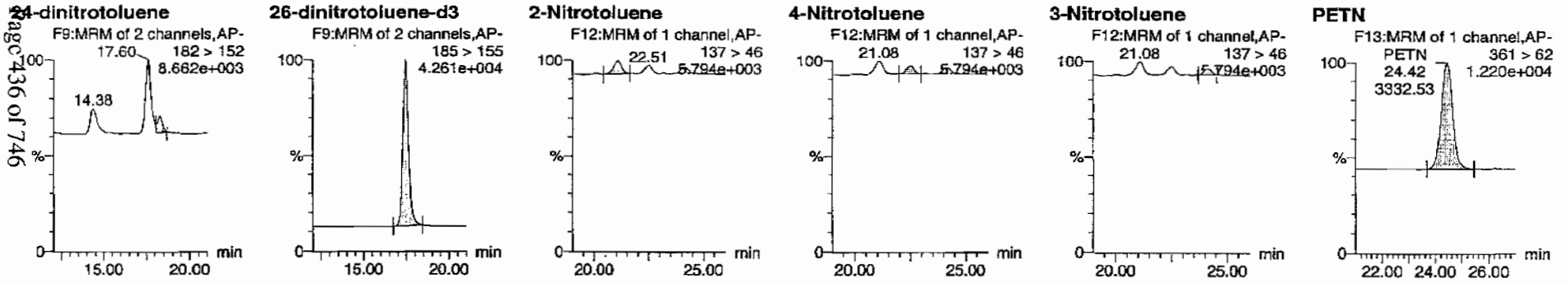

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	810.057	2605.284	810.057	155.464	bb			40.2927	100.7	0.7	350.8
WXX100219-08CRI	RDX	176 > 102	7.59	547.179	2605.284	547.179	105.013	bb			40.4919	101.2	1.2	199.0
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1039.041	2605.284	1039.041	199.410	bb			51.4933	128.7	28.7	140.6
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2605.284		2605.284	2605.284	bb			432.4243	86.5	-13.5	129.6
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.17	260.106	2605.284	260.106	49.919	bb			42.0009	105.0	5.0	32.9
WXX100219-08CRI	Tetryl	241 > 181	12.68	268.118	2605.284	268.118	51.457	bb			47.1978	118.0	18.0	13.3
WXX100219-08CRI	Nitrobenzene	123 > 46	13.58	166.572	2605.284	166.572	31.968	bb			37.2368	93.1	-6.9	18.3
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	374.749	14868.098	374.749	12.602	MM	20-Feb-10	10:04:14	39.3560	98.4	-1.6	29.7
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	511.231	14868.098	511.231	17.192	bb			39.7917	99.5	-0.5	84.6
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.41	457.584	14868.098	457.584	15.388	bb			45.8998	114.7	14.7	55.8
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	521.863	14868.098	521.863	17.550	bb			19.3706	96.9	-3.1	39.5
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.60	1266.948	14868.098	1266.948	42.606	MM	20-Feb-10	10:10:11	40.2158	100.5	0.5	116.9
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.28	276.695	14868.098	276.695	9.305	MM	20-Feb-10	10:11:06	37.7468	94.4	-5.6	26.6
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	14868.098		14868.098	14868.098	bb			427.0342	85.4	-14.6	1374.8
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.08	182.492	14868.098	182.492	6.137	bb			40.3237	100.8	0.8	62.0
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.51	100.890	14868.098	100.890	3.393	bb			44.2633	110.7	10.7	37.2
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.15	76.491	14868.098	76.491	2.572	bb			28.7445	71.9	-28.1	27.0
WXX100219-08CRI	PETN	361 > 62	24.42	3332.531	14868.098	3332.531	112.070	bb			46.9534	117.4	17.4	1998.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	1438
Standard Number	WXX100219-08CRI
Data File	EXP0216141a

HMX	100.7
RDX	101.2
135-TNB	128.7
13-DNB	105.0
Tetryl	118.0
Nitrobenzene	93.1
4A-26-DNT	98.4
2A-46-DNT	99.5
246-TNT	114.7
34-DNT(surr)	96.9
26-DNT	100.5
24-DNT	94.4
2-NT	100.8
4-NT	110.7
3-NT	71.9
PETN	117.4
Total	1651.9
Average	103.2

MTP 2/20/10

Hmcaz/2/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216152a

Analysis Date: 19-FEB-10 20:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	585.615	98	
1,3-Dinitrobenzene-d4	500	433.279	87	
2,4,6-Trinitrotoluene	600	622.918	104	
2,4-Dinitrotoluene	600	632.455	105	
2,6-Dinitrotoluene	600	610.704	102	
2,6-Dinitrotoluene-d3	500	405.063	81	
2-Amino-4,6-dinitrotoluene	600	607.913	101	
3,4-Dinitrotoluene	300	354.753	118	
4-Amino-2,6-dinitrotoluene	600	546.925	91	
HMX	600	513.424	86	
Nitrobenzene	600	539.863	90	
PETN	600	705.299	118	
RDX	600	587.648	98	
Tetryl	600	522.811	87	
m-Dinitrobenzene	600	623.69	104	
m-Nitrotoluene	600	566.188	94	
o-Nitrotoluene	600	572.566	95	
p-Nitrotoluene	600	581.489	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216152a
Date: 19-Feb-2010
Time: 20:04:52
ID: WXX100219-07CCV
Vial: 1:1,B

MM 2/20/10

HMX

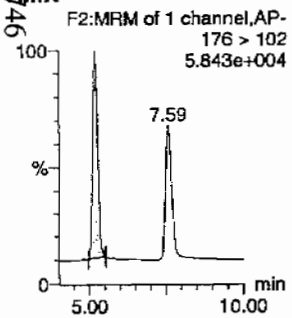

RDX

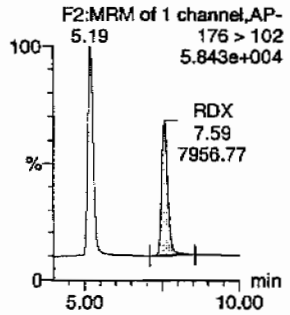

135-Trinitrobenzene

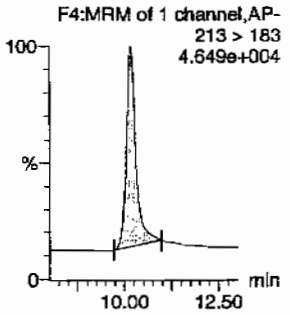

13-Dinitrobenzene-d4

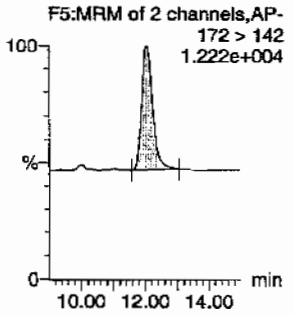

13-Dinitrobenzene

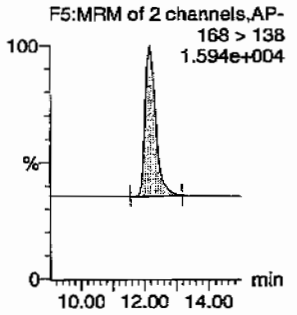

Tetryl

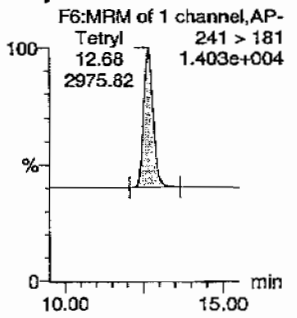

Nitrobenzene

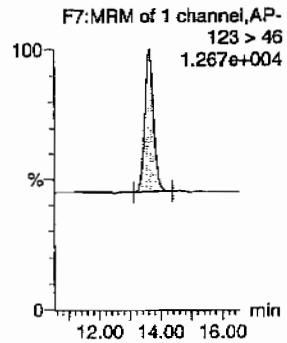

4-Amino-26-dinitrotoluene

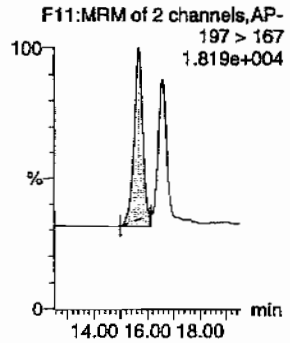

2-Amino-46-dinitrotoluene

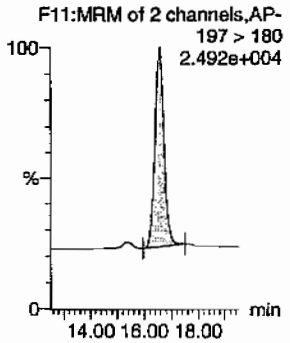

246-Trinitrotoluene

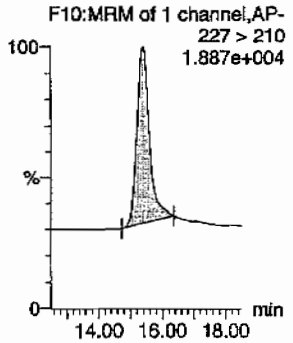

34-dinitrotoluene

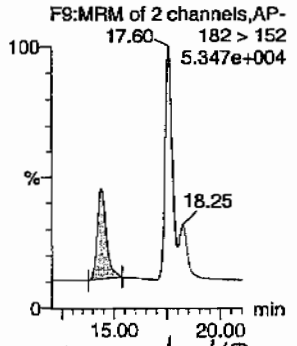

HMC 2/21/10

26-dinitrotoluene

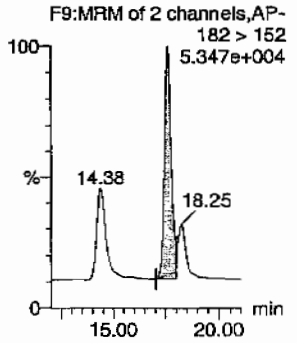

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

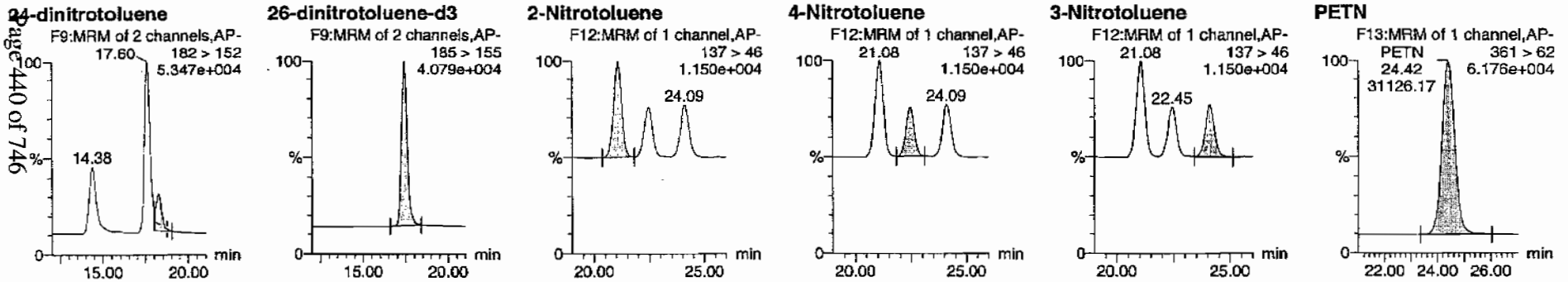

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	10342.441	2610.435	10342.441	1980.980	bb			513.4235	85.6	-14.4	941.3
WXX100219-07CCV	RDX	176 > 102	7.59	7956.770	2610.435	7956.770	1524.031	bb			587.6479	97.9	-2.1	611.8
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	11839.990	2610.435	11839.990	2267.819	bb			585.6147	97.6	-2.4	1833.3
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2610.435		2610.435	2610.435	bb			433.2793	86.7	-13.3	205.4
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	3870.066	2610.435	3870.066	741.268	bb			623.6903	103.9	3.9	583.8
WXX100219-07CCV	Tetryl	241 > 181	12.68	2975.819	2610.435	2975.819	569.985	bb			522.8110	87.1	-12.9	232.9
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2419.756	2610.435	2419.756	463.478	bb			539.8630	90.0	-10.0	166.1
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	4939.896	14103.129	4939.896	175.135	MM	20-Feb-10	10:04:48	546.9249	91.2	-8.8	352.5
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7408.422	14103.129	7408.422	262.652	bb			607.9129	101.3	1.3	1245.8
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.38	5890.485	14103.129	5890.485	208.836	bb			622.9176	103.8	3.8	239.3
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	9065.670	14103.129	9065.670	321.406	bb			354.7527	118.3	18.3	386.4
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	18249.580	14103.129	18249.580	647.005	MM	20-Feb-10	10:09:35	610.7042	101.8	1.8	995.0
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.25	4397.545	14103.129	4397.545	155.907	MM	20-Feb-10	10:11:37	632.4550	105.4	5.4	222.0
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14103.129		14103.129	14103.129	bb			405.0632	81.0	-19.0	1460.9
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.08	2457.925	14103.129	2457.925	87.141	bb			572.5656	95.4	-4.6	516.3
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.45	1257.205	14103.129	1257.205	44.572	bb			581.4891	96.9	-3.1	259.3
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.09	1429.144	14103.129	1429.144	50.668	bb			566.1879	94.4	-5.6	275.7
WXX100219-07CCV	PETN	361 > 62	24.42	31126.166	14103.129	31126.166	1103.520	bb			705.2990	117.5	17.5	9173.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 2004
Standard Number: WXX100219-07CCV
Data File: EXP0216152a

HMX		85.6
RDX		97.9
135-TNB		97.6
13-DNB		103.9
Tetryl		87.1
Nitrobenzene		90.0
4A-26-DNT		91.2
2A-46-DNT		101.3
246-TNT		103.8
34-DNT(surr)		118.3
26-DNT		101.8
24-DNT		105.4
2-NT		95.4
4-NT		96.9
3-NT		94.4
PETN		117.5
Total		1588.1
Average		99.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216154a

Analysis Date: 19-FEB-10 21:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	40	43.032	108	
2,6-Dinitrotoluene-d3	500	422.29	84	
2-Amino-4,6-dinitrotoluene	40	33.702	84	
3,4-Dinitrotoluene	20	18.829	94	
4-Amino-2,6-dinitrotoluene	40	39.443	99	
HMX	40	39.672	99	
Nitrobenzene	40	34.869	87	
PETN	40	50.568	126	
RDX	40	44.347	111	
Tetryl	40	41.943	105	
m-Dinitrobenzene	40	42.885	107	
m-Nitrotoluene	40	30.88	77	
o-Nitrotoluene	40	43.984	110	
p-Nitrotoluene	40	47.734	119	
1,3,5-Trinitrobenzene	40	50.147	125	
1,3-Dinitrobenzene-d4	500	450.637	90	
2,4,6-Trinitrotoluene	40	41.511	104	
2,4-Dinitrotoluene	40	34.056	85	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216154a
Date: 19-Feb-2010
Time: 21:04:26
ID: WXX100219-08CRI
Vial: 1:1,C

MM 2/20/10

HMX

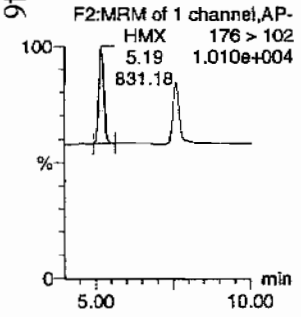

RDX

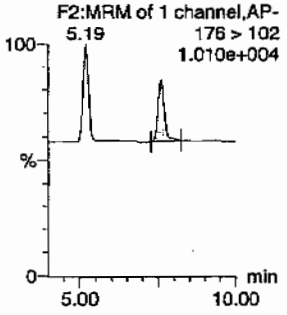

135-Trinitrobenzene

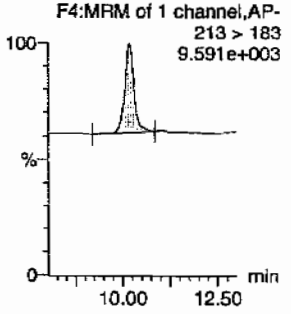

13-Dinitrobenzene-d4

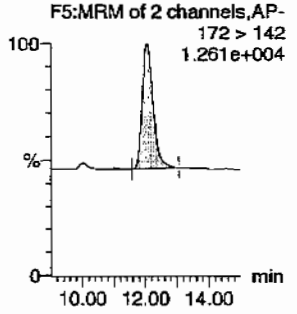

13-Dinitrobenzene

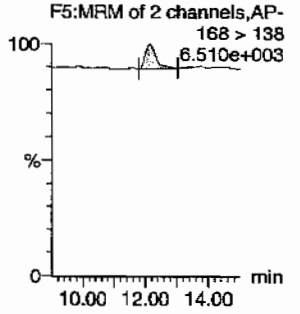

Tetryl

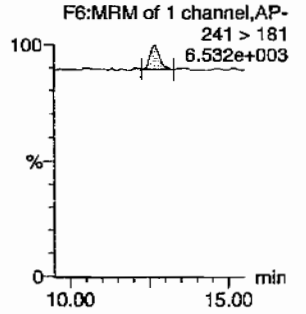

Nitrobenzene

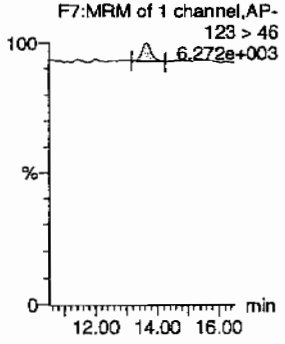

4-Amino-26-dinitrotoluene

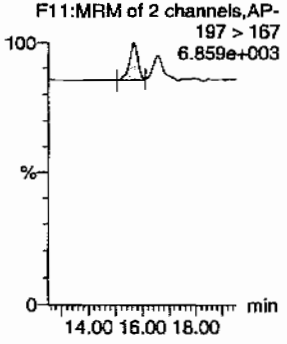

2-Amino-46-dinitrotoluene

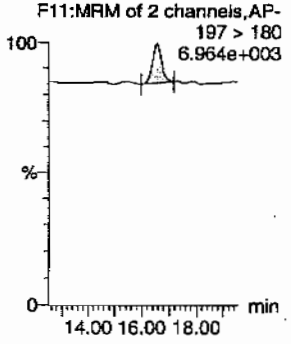

246-Trinitrotoluene

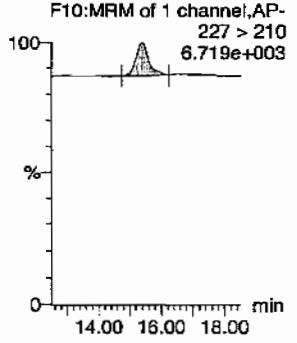

34-dinitrotoluene

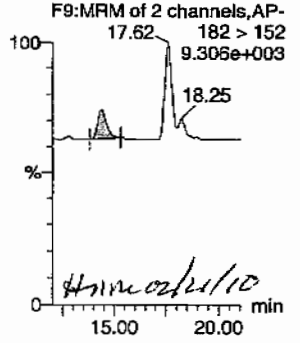

HMM 02/21/10

26-dinitrotoluene

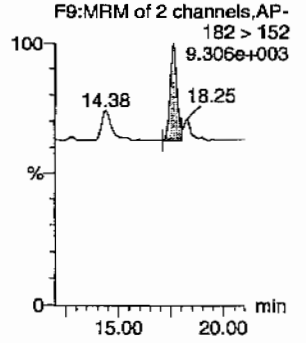

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

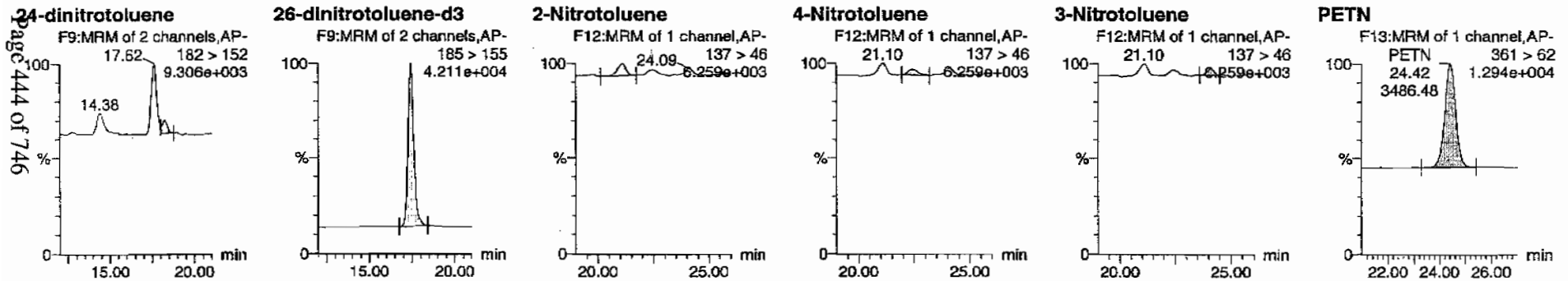

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	831.178	2715.011	831.178	153.071	bb			39.6724	99.2	-0.8	241.8
WXX100219-08CRI	RDX	176 > 102	7.59	624.515	2715.011	624.515	115.012	bb			44.3470	110.9	10.9	151.2
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1054.494	2715.011	1054.494	194.197	bb			50.1471	125.4	25.4	172.5
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2715.011		2715.011	2715.011	bb			450.6368	90.1	-9.9	317.8
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.17	276.765	2715.011	276.765	50.969	bb			42.8848	107.2	7.2	22.2
WXX100219-08CRI	Tetryl	241 > 181	12.68	248.303	2715.011	248.303	45.728	bb			41.9432	104.9	4.9	23.3
WXX100219-08CRI	Nitrobenzene	123 > 46	13.63	162.550	2715.011	162.550	29.935	bb			34.8691	87.2	-12.8	10.9
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	371.408	14702.928	371.408	12.630	MM	20-Feb-10	10:04:53	39.4433	98.6	-1.4	38.6
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.55	428.183	14702.928	428.183	14.561	bb			33.7021	84.3	-15.7	41.3
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.38	409.232	14702.928	409.232	13.917	bb			41.5108	103.8	3.8	42.4
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	501.647	14702.928	501.647	17.059	bb			18.8294	94.1	-5.9	29.0
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.62	1340.603	14702.928	1340.603	45.590	MM	20-Feb-10	10:09:21	43.0318	107.6	7.6	99.5
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.25	246.870	14702.928	246.870	8.395	MM	20-Feb-10	10:11:45	34.0564	85.1	-14.9	19.2
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	14702.928		14702.928	14702.928	bb			422.2903	84.5	-15.5	874.5
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.10	196.847	14702.928	196.847	6.694	bb			43.9842	110.0	10.0	17.5
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.42	107.593	14702.928	107.593	3.659	bb			47.7344	119.3	19.3	8.2
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.09	81.260	14702.928	81.260	2.763	bb			30.8797	77.2	-22.8	8.8
WXX100219-08CRI	PETN	361 > 62	24.42	3486.482	14702.928	3486.482	118.564	bb			50.5676	126.4	26.4	762.6

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	2104
Standard Number	WXX100219-08CRI
Data File	EXP0216154a

HMX	99.2
RDX	110.9
135-TNB	125.4
13-DNB	107.2
Tetryl	104.9
Nitrobenzene	87.2
4A-26-DNT	98.6
2A-46-DNT	84.3
246-TNT	103.8
34-DNT(surr)	94.1
26-DNT	107.6
24-DNT	85.1
2-NT	110.0
4-NT	119.3
3-NT	77.2
PETN	126.4
Total	1641.2
Average	102.6

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216165a

Analysis Date: 20-FEB-10 02:30

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	432.19	86	
2-Amino-4,6-dinitrotoluene	600	630.547	105	
3,4-Dinitrotoluene	300	334.157	111	
4-Amino-2,6-dinitrotoluene	600	598.402	100	
HMX	600	628.779	105	
Nitrobenzene	600	589.272	98	
PETN	600	616.152	103	
RDX	600	688.147	115	
Tetryl	600	511.851	85	
m-Dinitrobenzene	600	600.417	100	
m-Nitrotoluene	600	618.203	103	
o-Nitrotoluene	600	675.613	113	
p-Nitrotoluene	600	646.307	108	
1,3,5-Trinitrobenzene	600	556.869	93	
1,3-Dinitrobenzene-d4	500	459.017	92	
2,4,6-Trinitrotoluene	600	686.791	114	
2,4-Dinitrotoluene	600	654.331	109	
2,6-Dinitrotoluene	600	632.741	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216165a
Date: 20-Feb-2010
Time: 02:30:52
ID: WXX100219-07CCV
Vial: 1:1,B

MM 2/22/10

HMX

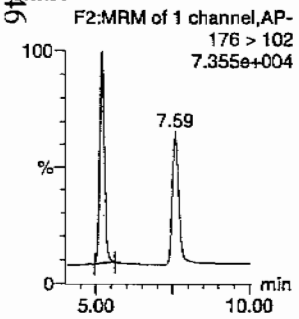

RDX

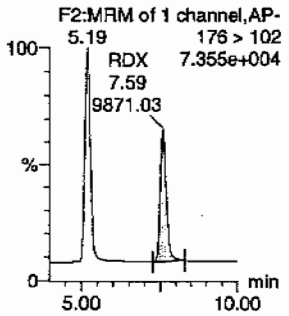

135-Trinitrobenzene

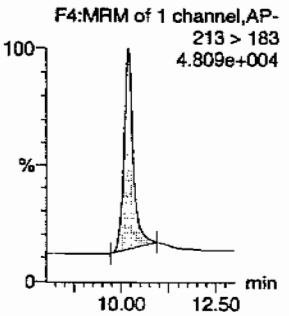

13-Dinitrobenzene-d4

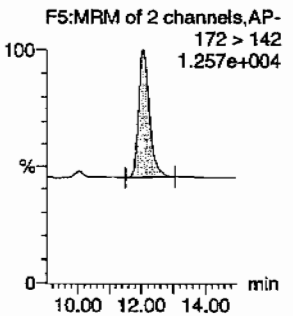

13-Dinitrobenzene

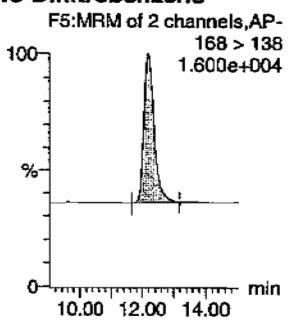

Tetryl

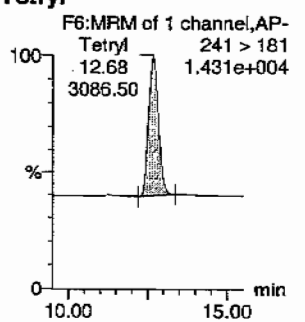

Nitrobenzene

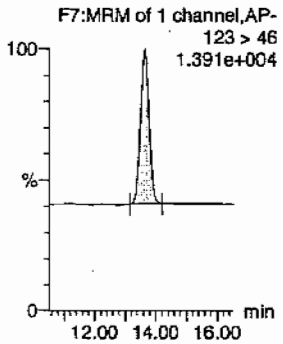

4-Amino-26-dinitrotoluene

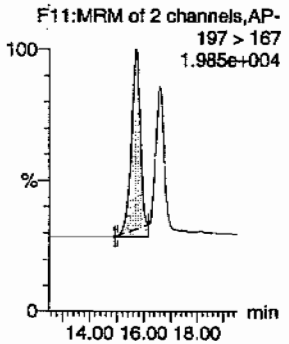

2-Amino-46-dinitrotoluene

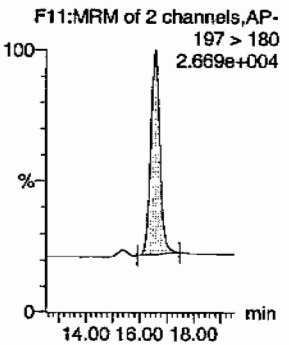

246-Trinitrotoluene

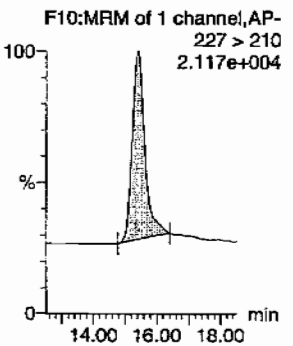

34-dinitrotoluene

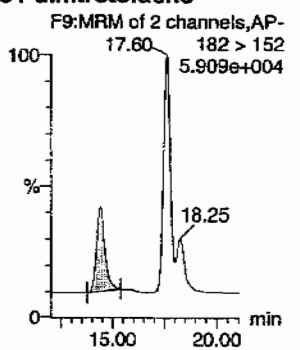

MM 02/21/10

26-dinitrotoluene

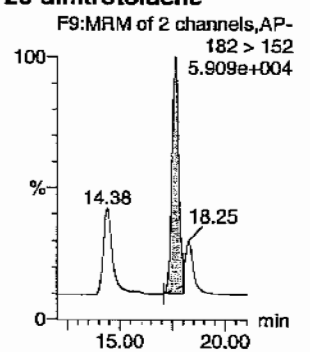

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

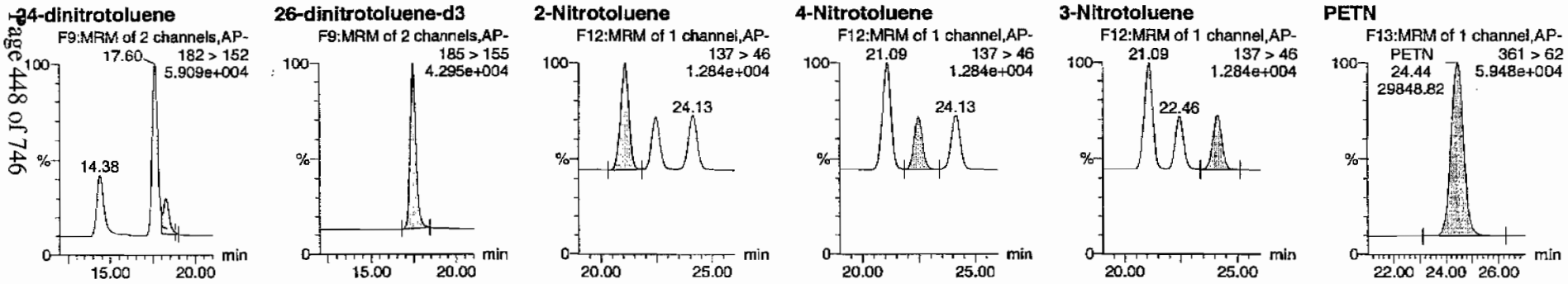

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	13418.572	2765.503	13418.572	2426.064	bb			628.7786	104.8	4.8	1190.5
WXX100219-07CCV	RDX	176 > 102	7.59	9871.026	2765.503	9871.026	1784.671	bb			688.1474	114.7	14.7	750.3
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	11927.621	2765.503	11927.621	2156.501	bb			556.8692	92.8	-7.2	332.6
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2765.503		2765.503	2765.503	bb			459.0174	91.8	-8.2	182.6
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.20	3946.971	2765.503	3946.971	713.608	bb			600.4175	100.1	0.1	373.2
WXX100219-07CCV	Tetryl	241 > 181	12.68	3086.500	2765.503	3086.500	558.036	bb			511.8506	85.3	-14.7	402.7
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2798.110	2765.503	2798.110	505.895	bb			589.2717	98.2	-1.8	301.7
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5766.798	15047.595	5766.798	191.619	MM	20-Feb-10	10:05:41	598.4020	99.7	-0.3	504.2
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8198.860	15047.595	8198.860	272.431	bb			630.5471	105.1	5.1	949.3
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.41	6929.416	15047.595	6929.416	230.250	bb			686.7909	114.5	14.5	318.7
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	9111.224	15047.595	9111.224	302.747	bb			334.1573	111.4	11.4	270.1
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	20174.352	15047.595	20174.352	670.351	MM	20-Feb-10	10:08:40	632.7411	105.5	5.5	759.6
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.25	4854.334	15047.595	4854.334	161.299	MM	20-Feb-10	10:12:25	654.3308	109.1	9.1	163.8
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	15047.595		15047.595	15047.595	bb			432.1896	86.4	-13.6	1668.3
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.09	3094.519	15047.595	3094.519	102.824	bb			675.6132	112.6	12.6	255.1
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.46	1490.923	15047.595	1490.923	49.540	bb			646.3073	107.7	7.7	122.8
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.13	1664.937	15047.595	1664.937	55.322	bb			618.2025	103.0	3.0	126.8
WXX100219-07CCV	PETN	361 > 62	24.44	29848.820	15047.595	29848.820	991.814	bb			616.1521	102.7	2.7	9170.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/20/10
Time of Injection: 0230
Standard Number: WXX100219-07CCV
Data File: EXP0216165a

HMX	104.8
RDX	114.7
135-TNB	92.8
13-DNB	100.1
Tetryl	85.3
Nitrobenzene	98.2
4A-26-DNT	99.7
2A-46-DNT	105.1
246-TNT	114.5
34-DNT(surr)	111.4
26-DNT	105.5
24-DNT	109.1
2-NT	112.6
4-NT	107.7
3-NT	103.0
PETN	102.7
Total	1667.2
Average	104.2

MTP 2/20/10

dm 02/21/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216167a

Analysis Date: 20-FEB-10 03:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	40	46.564	116	
o-Nitrotoluene	40	43.88	110	
p-Nitrotoluene	40	52.931	132	*
1,3,5-Trinitrobenzene	40	56.003	140	*
1,3-Dinitrobenzene-d4	500	461.866	92	
2,4,6-Trinitrotoluene	40	35.563	89	
2,4-Dinitrotoluene	40	35.113	88	
2,6-Dinitrotoluene	40	42.037	105	
2,6-Dinitrotoluene-d3	500	447.009	89	
2-Amino-4,6-dinitrotoluene	40	40.822	102	
3,4-Dinitrotoluene	20	20.486	102	
4-Amino-2,6-dinitrotoluene	40	34.462	86	
HMX	40	39.712	99	
Nitrobenzene	40	40.158	100	
PETN	40	43.603	109	
RDX	40	40.632	102	
Tetryl	40	35.927	90	
m-Dinitrobenzene	40	46.565	116	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216167a
Date: 20-Feb-2010
Time: 03:30:20
ID: WXX100219-08CRI
Vial: 1:1,C

MMT 2/20/10

HMX

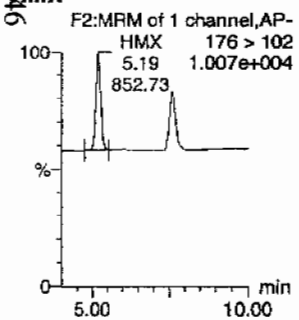

RDX

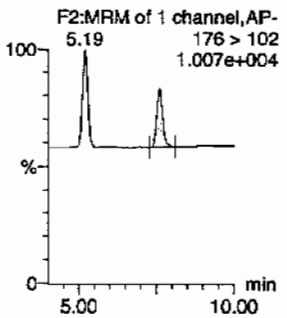

135-Trinitrobenzene

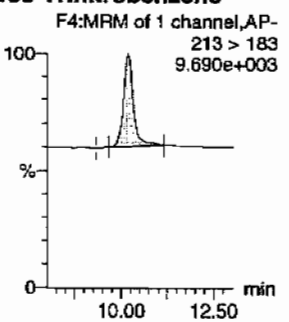

13-Dinitrobenzene-d4

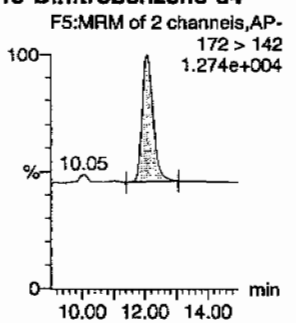

13-Dinitrobenzene

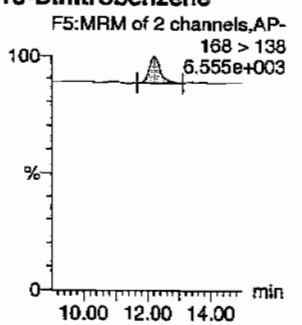

Tetryl

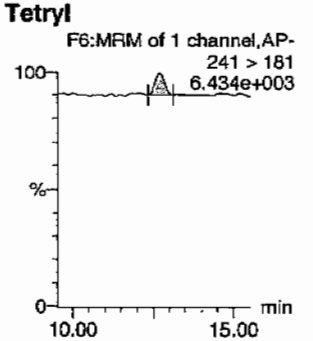

Nitrobenzene

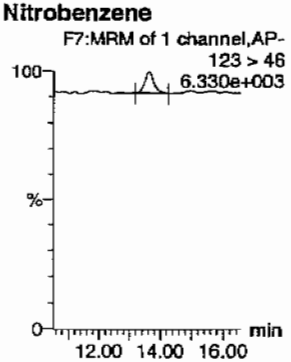

4-Amino-26-dinitrotoluene

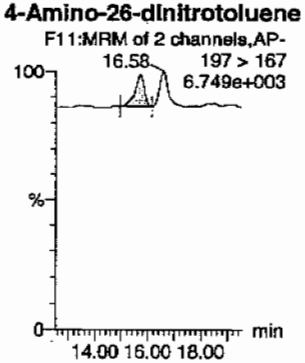

2-Amino-46-dinitrotoluene

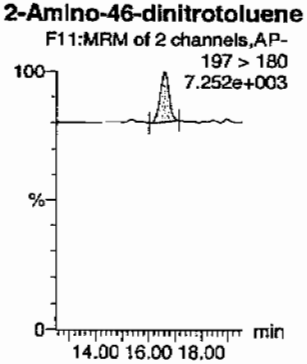

246-Trinitrotoluene

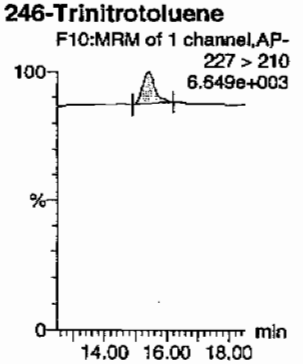

34-dinitrotoluene

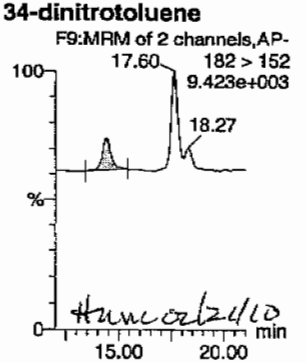

26-dinitrotoluene

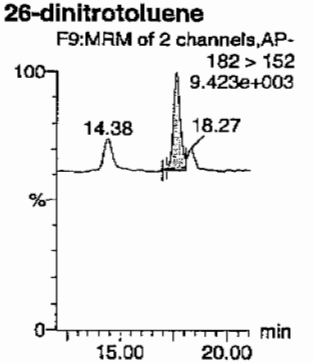

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

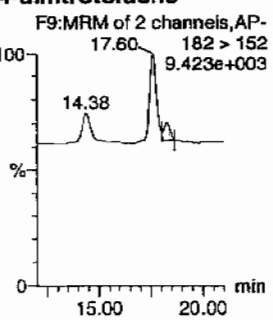

26-dinitrotoluene-d3

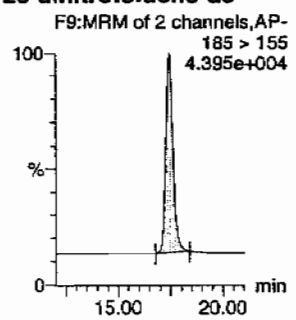

2-Nitrotoluene

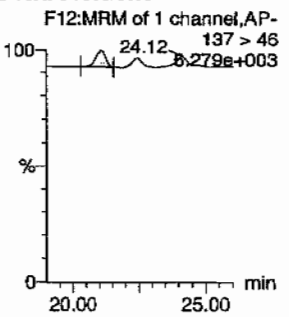

4-Nitrotoluene

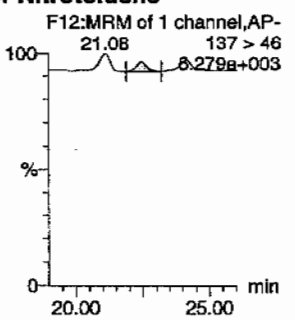

3-Nitrotoluene

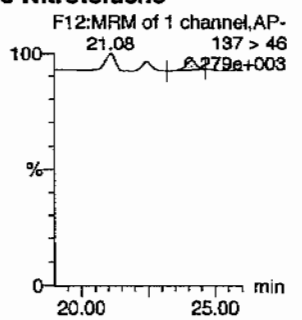

PETN

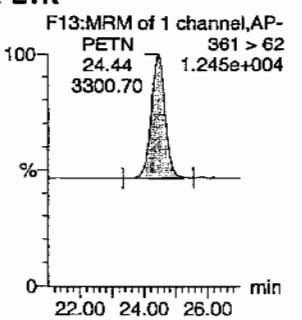

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	852.730	2782.665	852.730	153.222	bb			39.7115	99.3	-0.7	230.0
WXX100219-08CRI	RDX	176 > 102	7.59	586.456	2782.665	586.456	105.377	bb			40.6320	101.6	1.6	136.4
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1206.980	2782.665	1206.980	216.875	MM	20-Feb-10	10:01:56	56.0032	140.0	40.0	189.4
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2782.665		2782.665	2782.665	bb			461.8660	92.4	-7.6	254.2
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.20	308.003	2782.665	308.003	55.343	bb			46.5648	116.4	16.4	26.5
WXX100219-08CRI	Tetryl	241 > 181	12.68	217.988	2782.665	217.988	39.169	bb			35.9271	89.8	-10.2	16.9
WXX100219-08CRI	Nitrobenzene	123 > 46	13.63	191.872	2782.665	191.872	34.476	bb			40.1583	100.4	0.4	18.5
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	343.501	15563.579	343.501	11.035	bb			34.4623	86.2	-13.8	26.2
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	548.994	15563.579	548.994	17.637	bb			40.8215	102.1	2.1	28.9
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.38	371.118	15563.579	371.118	11.923	bb			35.5629	88.9	-11.1	59.9
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	577.740	15563.579	577.740	18.561	bb			20.4863	102.4	2.4	22.4
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.60	1386.269	15563.579	1386.269	44.536	MM	20-Feb-10	10:08:31	42.0370	105.1	5.1	68.8
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.27	269.426	15563.579	269.426	8.656	MM	20-Feb-10	10:12:38	35.1127	87.8	-12.2	13.9
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	15563.579		15563.579	15563.579	bb			447.0095	89.4	-10.6	825.2
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.08	207.875	15563.579	207.875	6.678	bb			43.8798	109.7	9.7	48.9
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.43	126.290	15563.579	126.290	4.057	bb			52.9310	132.3	32.3	27.9
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.12	129.707	15563.579	129.707	4.167	bb			46.5644	116.4	16.4	27.4
WXX100219-08CRI	PETN	361 > 62	24.44	3300.701	15563.579	3300.701	106.039	bb			43.6030	109.0	9.0	354.4

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/20/10
Time of Injection	0330
Standard Number	WXX100219-08CRI
Data File	EXP0216167a

HMX	99.3
RDX	101.6
135-TNB	140.0
13-DNB	116.4
Tetryl	89.8
Nitrobenzene	100.4
4A-26-DNT	86.2
2A-46-DNT	102.1
246-TNT	88.9
34-DNT(surr)	102.4
26-DNT	105.1
24-DNT	87.8
2-NT	109.7
4-NT	132.3
3-NT	116.4
PETN	109.0
Total	1687.4
Average	105.5

MTP 2/20/10

HM 02/22/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1470

Lab Code: GEI **GEL Sample ID:** WXXCCV

GEL Data File EXP0216177a **Analysis Date:** 20-FEB-10 08:26

LCMSMS ID: 903 **Column ID** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	609.973	102	
o-Nitrotoluene	600	659.656	110	
p-Nitrotoluene	600	642.171	107	
1,3,5-Trinitrobenzene	600	597.11	100	
1,3-Dinitrobenzene-d4	500	401.83	80	
2,4,6-Trinitrotoluene	600	672.388	112	
2,4-Dinitrotoluene	600	632.659	105	
2,6-Dinitrotoluene	600	641.568	107	
2,6-Dinitrotoluene-d3	500	402.991	81	
2-Amino-4,6-dinitrotoluene	600	699.831	117	
3,4-Dinitrotoluene	300	342.356	114	
4-Amino-2,6-dinitrotoluene	600	569.079	95	
HMX	600	669.568	112	
Nitrobenzene	600	585.971	98	
PETN	600	541.695	90	
RDX	600	633.284	106	
Tetryl	600	484.225	81	
m-Dinitrobenzene	600	594.511	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216177a
Date: 20-Feb-2010
Time: 08:26:41
ID: WXX100219-07CCV
Vial: 1:1,B

MM 2/20/10

HMX

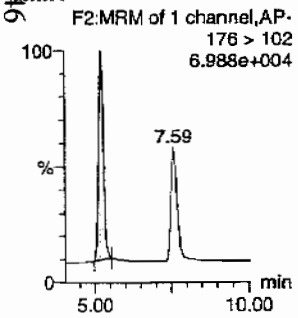

RDX

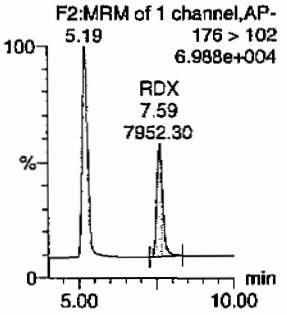

135-Trinitrobenzene

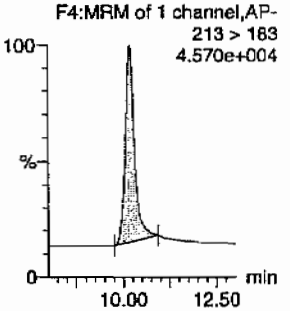

13-Dinitrobenzene-d4

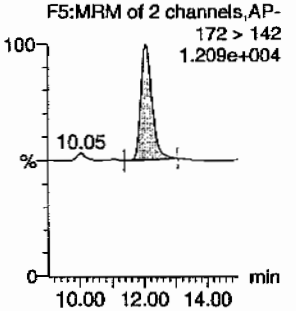

13-Dinitrobenzene

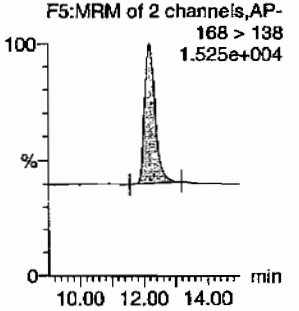

Tetryl

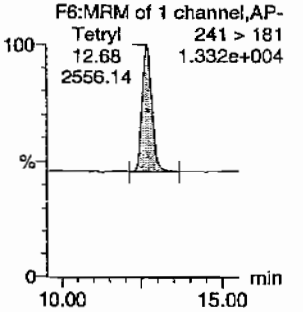

Nitrobenzene

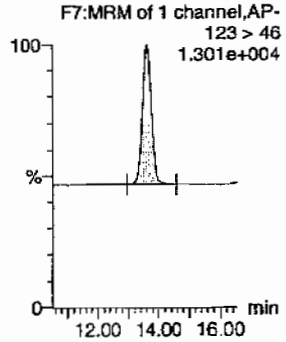

4-Amino-26-dinitrotoluene

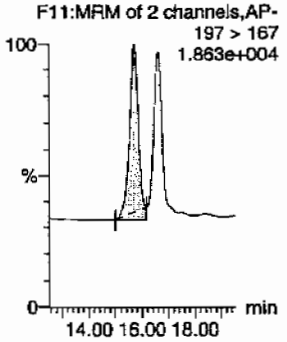

2-Amino-46-dinitrotoluene

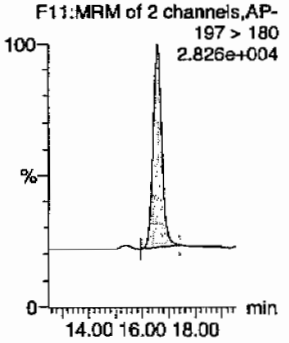

246-Trinitrotoluene

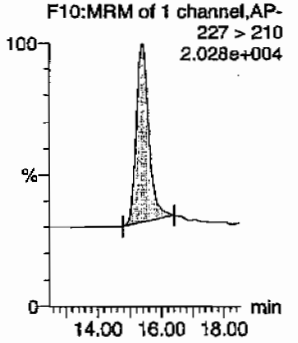

34-dinitrotoluene

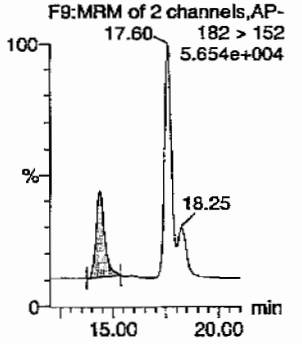

HMM 02/21/10

26-dinitrotoluene

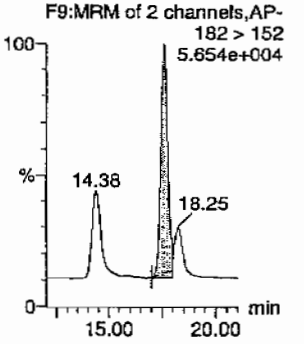

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

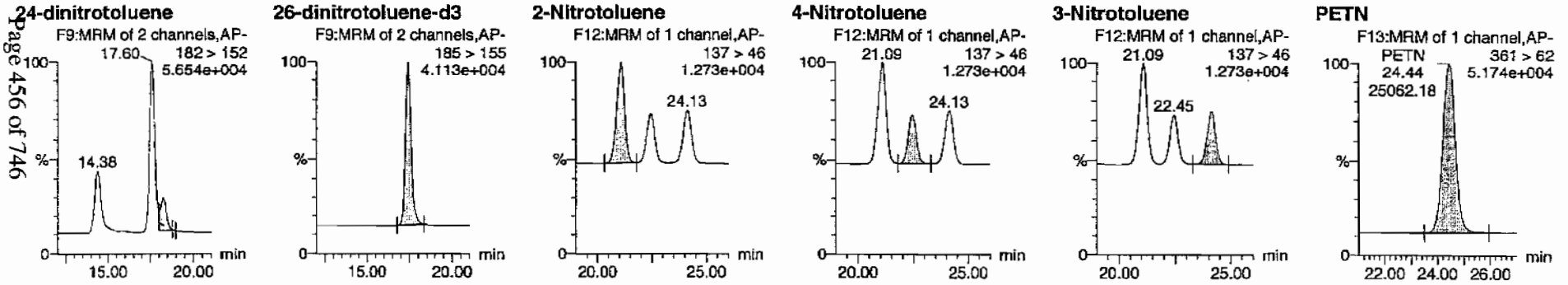

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	12508.823	2420.959	12508.823	2583.444	bb			669.5679	111.6	11.6	1323.5
WXX100219-07CCV	RDX	176 > 102	7.59	7952.295	2420.959	7952.295	1642.385	bb			633.2838	105.5	5.5	719.0
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	11196.143	2420.959	11196.143	2312.336	bb			597.1102	99.5	-0.5	648.9
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2420.959		2420.959	2420.959	bb			401.8301	80.4	-19.6	305.5
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	3421.240	2420.959	3421.240	706.588	bb			594.5106	99.1	-0.9	492.5
WXX100219-07CCV	Tetryl	241 > 181	12.68	2556.135	2420.959	2556.135	527.918	bb			484.2252	80.7	-19.3	192.4
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2435.783	2420.959	2435.783	503.062	bb			585.9709	97.7	-2.3	263.7
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	5113.692	14030.965	5113.692	182.229	MM	20-Feb-10	10:06:37	569.0788	94.8	-5.2	271.6
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8484.951	14030.965	8484.951	302.365	bb			699.8306	116.6	16.6	1227.7
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.41	6325.760	14030.965	6325.760	225.421	bb			672.3884	112.1	12.1	230.3
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	8704.100	14030.965	8704.100	310.175	bb			342.3558	114.1	14.1	271.7
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	19073.775	14030.965	19073.775	679.703	MM	20-Feb-10	10:07:59	641.5679	106.9	6.9	739.9
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.25	4376.453	14030.965	4376.453	155.957	MM	20-Feb-10	10:13:28	632.6588	105.4	5.4	149.8
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	14030.965		14030.965	14030.965	bb			402.9905	80.6	-19.4	938.1
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.09	2817.298	14030.965	2817.298	100.396	bb			659.6557	109.9	9.9	577.9
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.45	1381.297	14030.965	1381.297	49.223	bb			642.1707	107.0	7.0	276.4
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.13	1531.785	14030.965	1531.785	54.586	bb			609.9726	101.7	1.7	298.8
WXX100219-07CCV	PETN	361 > 62	24.44	25062.178	14030.965	25062.178	893.102	bb			541.6953	90.3	-9.7	4992.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/20/10
Time of Injection: 0826
Standard Number: WXX100219-07CCV
Data File: EXP0216177a

HMX	111.6
RDX	105.5
135-TNB	99.5
13-DNB	99.1
Tetryl	80.7
Nitrobenzene	97.7
4A-26-DNT	94.8
2A-46-DNT	116.6
246-TNT	112.1
34-DNT(surr)	114.1
26-DNT	106.9
24-DNT	105.4
2-NT	109.9
4-NT	107.0
3-NT	101.7
PETN	90.3
Total	1652.9
Average	103.3

MTP 2/20/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216179a

Analysis Date: 20-FEB-10 09:25

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	38.029	95	
1,3-Dinitrobenzene-d4	500	467.621	94	
2,4,6-Trinitrotoluene	40	42.418	106	
2,4-Dinitrotoluene	40	35.714	89	
2,6-Dinitrotoluene	40	42.694	107	
2,6-Dinitrotoluene-d3	500	425.329	85	
2-Amino-4,6-dinitrotoluene	40	43.06	108	
3,4-Dinitrotoluene	20	23.991	120	
4-Amino-2,6-dinitrotoluene	40	41.554	104	
HMX	40	44.103	110	
Nitrobenzene	40	43.726	109	
PETN	40	42.516	106	
RDX	40	44.98	112	
Tetryl	40	33.469	84	
m-Dinitrobenzene	40	46.367	116	
m-Nitrotoluene	40	42.917	107	
o-Nitrotoluene	40	38.507	96	
p-Nitrotoluene	40	32.981	82	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216179a
Date: 20-Feb-2010
Time: 09:25:41
ID: WXX100219-08CRI
Vial: 1:1,C

MMT 2/22/10

HMX

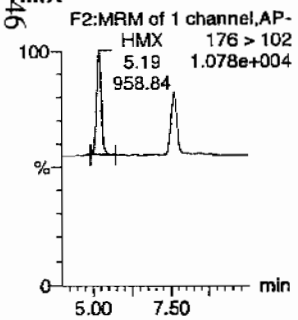

RDX

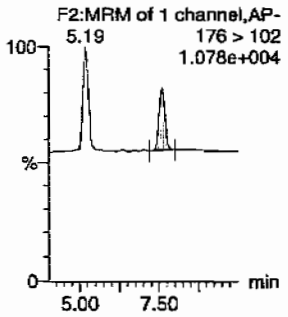

135-Trinitrobenzene

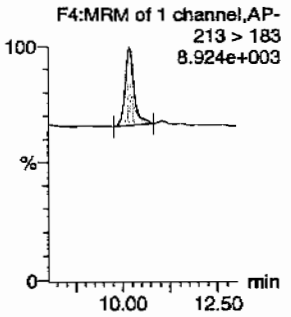

13-Dinitrobenzene-d4

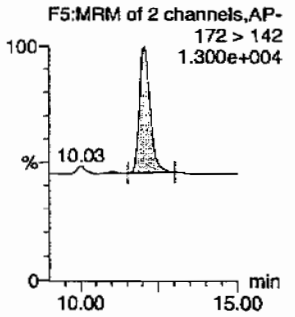

13-Dinitrobenzene

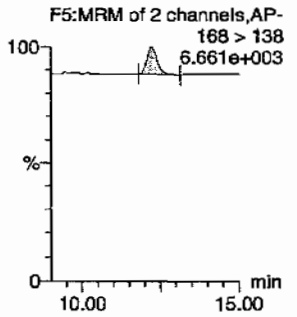

Tetryl

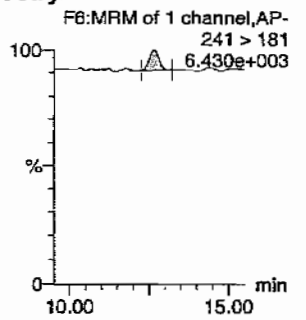

Nitrobenzene

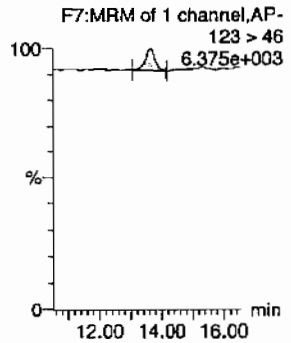

4-Amino-26-dinitrotoluene

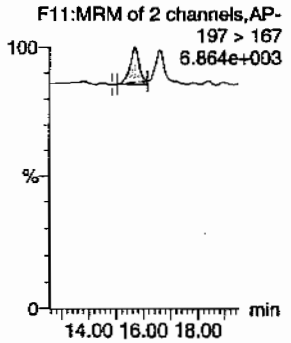

2-Amino-46-dinitrotoluene

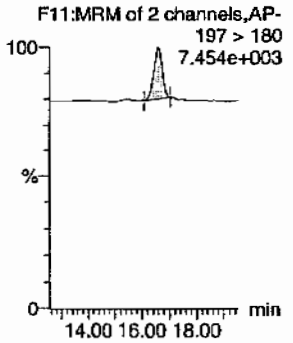

246-Trinitrotoluene

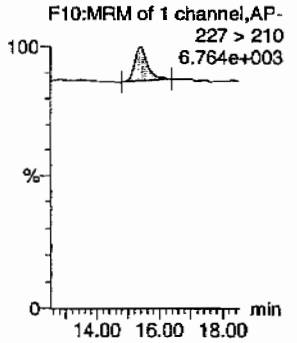

34-dinitrotoluene

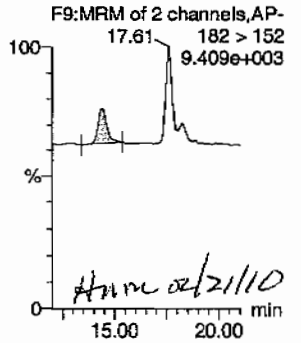

Hmm 02/21/10

26-dinitrotoluene

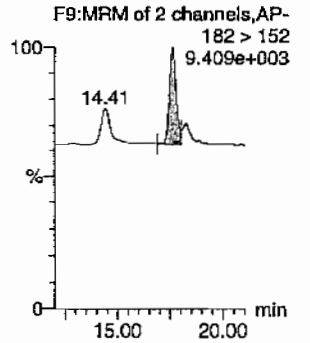

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

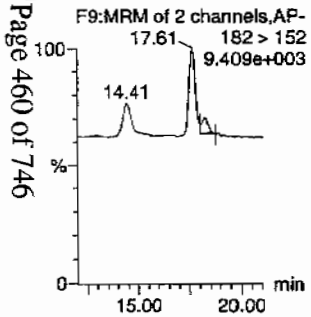

26-dinitrotoluene-d3

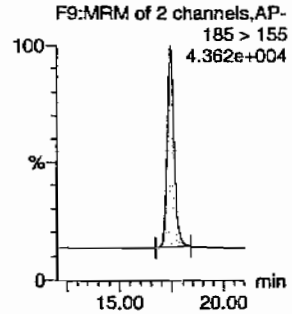

2-Nitrotoluene

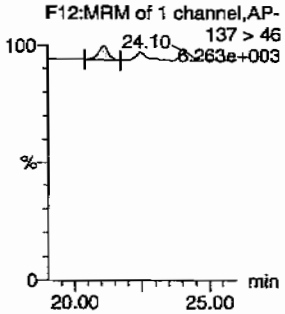

4-Nitrotoluene

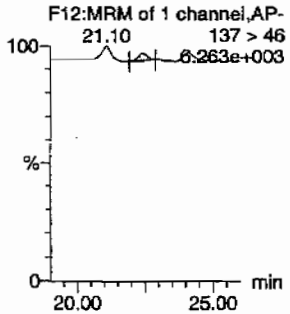

3-Nitrotoluene

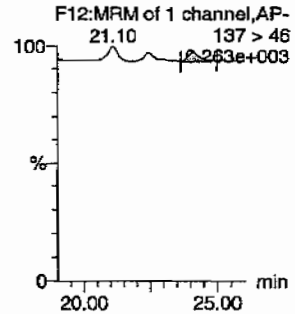

PETN

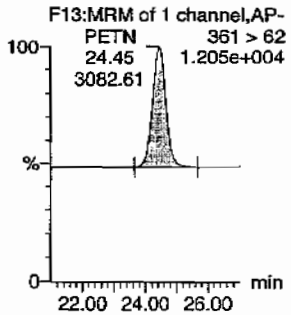

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	958.837	2817.335	958.837	170.167	bb			44.1034	110.3	10.3	190.2
WXX100219-08CRI	RDX	176 > 102	7.60	657.295	2817.335	657.295	116.652	bb			44.9796	112.4	12.4	113.9
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	829.815	2817.335	829.815	147.269	bb			38.0291	95.1	-4.9	106.2
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2817.335		2817.335	2817.335	bb			467.6205	93.5	-6.5	161.8
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.24	310.516	2817.335	310.516	55.108	bb			46.3670	115.9	15.9	40.4
WXX100219-08CRI	Tetryl	241 > 181	12.66	205.605	2817.335	205.605	36.489	bb			33.4693	83.7	-16.3	23.3
WXX100219-08CRI	Nitrobenzene	123 > 46	13.61	211.523	2817.335	211.523	37.540	bb			43.7264	109.3	9.3	21.2
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	394.094	14808.711	394.094	13.306	MM	20-Feb-10	10:06:47	41.5535	103.9	3.9	21.6
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.59	551.006	14808.711	551.006	18.604	bb			43.0596	107.6	7.6	69.2
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.40	421.188	14808.711	421.188	14.221	bb			42.4183	106.0	6.0	25.1
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.41	643.765	14808.711	643.765	21.736	bb			23.9912	120.0	20.0	22.8
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.61	1339.638	14808.711	1339.638	45.231	MM	20-Feb-10	10:07:53	42.6937	106.7	6.7	61.9
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.24	260.751	14808.711	260.751	8.804	MM	20-Feb-10	10:13:38	35.7144	89.3	-10.7	11.8
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	14808.711		14808.711	14808.711	bb			425.3285	85.1	-14.9	1243.4
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.10	173.574	14808.711	173.574	5.861	bb			38.5070	96.3	-3.7	68.5
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.44	74.873	14808.711	74.873	2.528	bb			32.9806	82.5	-17.5	34.0
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.10	113.748	14808.711	113.748	3.841	bb			42.9167	107.3	7.3	39.4
WXX100219-08CRI	PETN	361 > 62	24.45	3082.607	14808.711	3082.607	104.081	bb			42.5162	106.3	6.3	828.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/20/10
Time of Injection	0925
Standard Number	WXX100219-08CRI
Data File	EXP0216179a

HMX	110.3
RDX	112.4
135-TNB	95.1
13-DNB	115.9
Tetryl	83.7
Nitrobenzene	109.3
4A-26-DNT	103.9
2A-46-DNT	107.6
246-TNT	106.0
34-DNT(surr)	120.0
26-DNT	106.7
24-DNT	89.3
2-NT	96.3
4-NT	82.5
3-NT	107.3
PETN	106.3
Total	1652.6
Average	103.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216190a

Analysis Date: 20-FEB-10 14:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	567.43	95	
RDX	600	754.371	126	*
Tetryl	600	519.863	87	
m-Dinitrobenzene	600	627.347	105	
m-Nitrotoluene	600	515.094	86	
o-Nitrotoluene	600	568.637	95	
p-Nitrotoluene	600	543.273	91	
1,3,5-Trinitrobenzene	600	632.26	105	
1,3-Dinitrobenzene-d4	500	461.676	92	
2,4,6-Trinitrotoluene	600	610.504	102	
2,4-Dinitrotoluene	600	647.235	108	
2,6-Dinitrotoluene	600	628.302	105	
2,6-Dinitrotoluene-d3	500	453.879	91	
2-Amino-4,6-dinitrotoluene	600	629.232	105	
3,4-Dinitrotoluene	300	320.161	107	
4-Amino-2,6-dinitrotoluene	600	552.564	92	
HMX	600	598.916	100	
Nitrobenzene	600	550.216	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216190a
Date: 20-Feb-2010
Time: 14:52:34
ID: WXX100219-07CCV
Vial: 1:1,B

MD 2/21/10

HMX

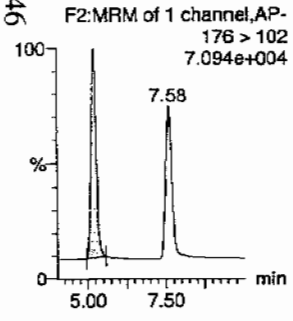

RDX

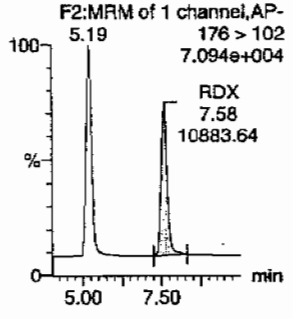

135-Trinitrobenzene

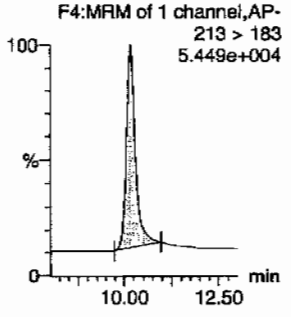

13-Dinitrobenzene-d4

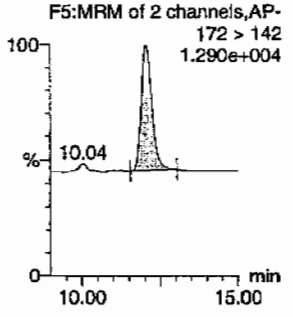

13-Dinitrobenzene

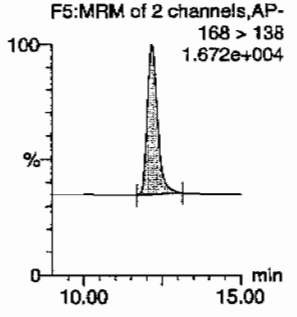

Tetryl

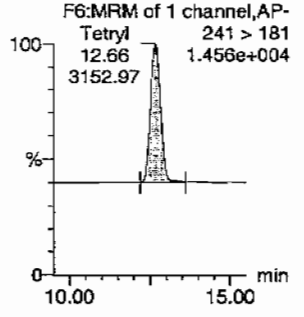

Nitrobenzene

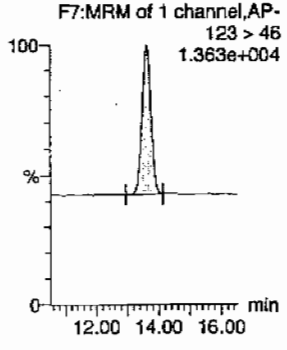

4-Amino-26-dinitrotoluene

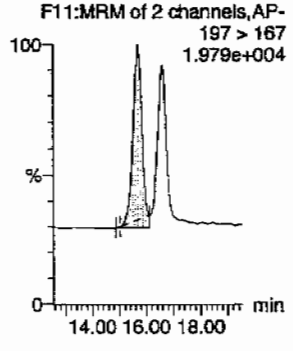

2-Amino-46-dinitrotoluene

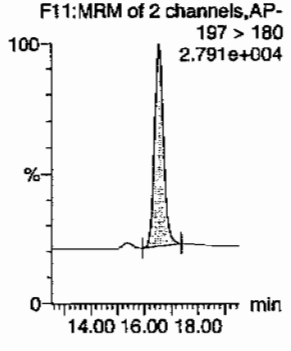

246-Trinitrotoluene

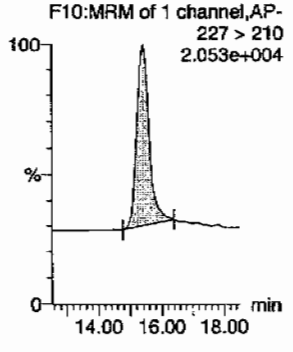

34-dinitrotoluene

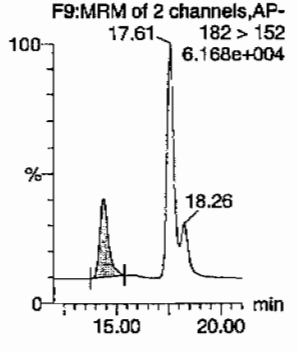

26-dinitrotoluene

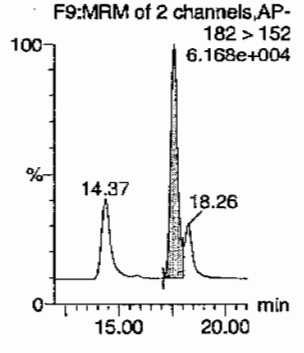

HMM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

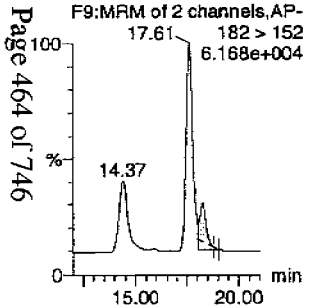

26-dinitrotoluene-d3

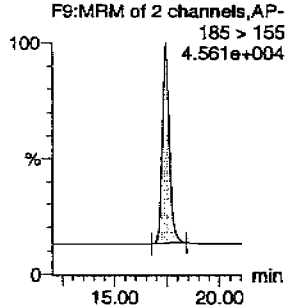

2-Nitrotoluene

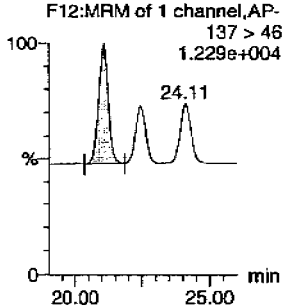

4-Nitrotoluene

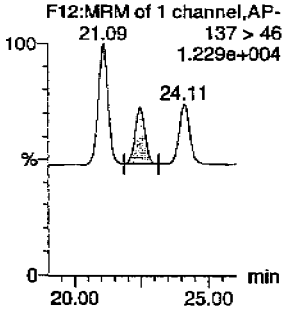

3-Nitrotoluene

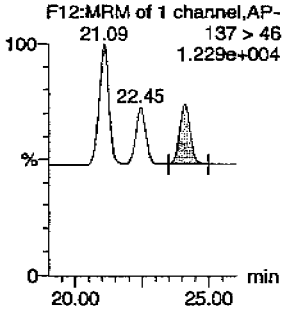

PETN

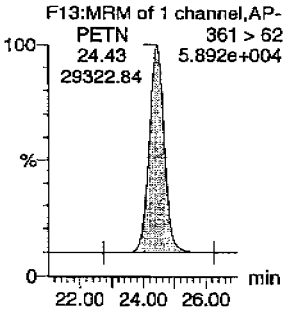

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	12855.319	2781.521	12855.319	2310.843	bb			598.9162	99.8	-0.2	1279.1
WXX100219-07CCV	RDX	176 > 102	7.58	10883.643	2781.521	10883.643	1956.419	bb			754.3714	125.7	25.7	927.3
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	13620.853	2781.521	13620.853	2448.454	bb			632.2597	105.4	5.4	759.3
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2781.521		2781.521	2781.521	bb			461.6761	92.3	-7.7	281.9
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	4147.885	2781.521	4147.885	745.615	bb			627.3471	104.6	4.6	229.7
WXX100219-07CCV	Tetryl	241 > 181	12.66	3152.974	2781.521	3152.974	566.772	bb			519.8632	86.6	-13.4	261.8
WXX100219-07CCV	Nitrobenzene	123 > 46	13.61	2627.792	2781.521	2627.792	472.366	bb			550.2164	91.7	-8.3	150.3
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	5592.291	15802.747	5592.291	176.940	MM	21-Feb-10	11:57:35	552.5639	92.1	-7.9	403.1
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	8592.353	15802.747	8592.353	271.863	bb			629.2318	104.9	4.9	530.3
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.40	6468.837	15802.747	6468.837	204.674	bb			610.5042	101.8	1.8	153.2
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.37	9167.683	15802.747	9167.683	290.066	bb			320.1609	106.7	6.7	223.6
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.61	21038.156	15802.747	21038.156	665.649	MM	21-Feb-10	11:54:34	628.3022	104.7	4.7	657.3
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.26	5042.658	15802.747	5042.658	159.550	MM	21-Feb-10	11:51:15	647.2346	107.9	7.9	146.7
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	15802.747		15802.747	15802.747	bb			453.8788	90.8	-9.2	790.3
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.09	2735.239	15802.747	2735.239	86.543	bb			568.6365	94.8	-5.2	173.4
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.45	1316.132	15802.747	1316.132	41.643	bb			543.2726	90.5	-9.5	82.1
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.11	1456.863	15802.747	1456.863	46.095	bb			515.0936	85.8	-14.2	85.6
WXX100219-07CCV	PETN	361 > 62	24.43	29322.842	15802.747	29322.842	927.777	bb			567.4295	94.6	-5.4	5146.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/20/10
Time of Injection: 1452
Standard Number: WXX100219-07CCV
Data File: EXP0216190a

HMX	99.8
RDX	125.7
135-TNB	105.4
13-DNB	104.6
Tetryl	86.6
Nitrobenzene	91.7
4A-26-DNT	92.1
2A-46-DNT	104.9
246-TNT	101.8
34-DNT(surr)	106.7
26-DNT	104.7
24-DNT	107.9
2-NT	94.8
4-NT	90.5
3-NT	85.8
PETN	94.6
Total	1597.6
Average	99.9

AMT 2/21/10

Hmw 02/22/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216192a

Analysis Date: 20-FEB-10 15:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	20	21.504	108	
4-Amino-2,6-dinitrotoluene	40	35.217	88	
HMX	40	39.059	98	
Nitrobenzene	40	34.43	86	
PETN	40	46.979	117	
RDX	40	39.647	99	
Tetryl	40	41.334	103	
m-Dinitrobenzene	40	45.747	114	
m-Nitrotoluene	40	45.897	115	
o-Nitrotoluene	40	42.98	107	
p-Nitrotoluene	40	35.861	90	
1,3,5-Trinitrobenzene	40	51.869	130	
1,3-Dinitrobenzene-d4	500	476.034	95	
2,4,6-Trinitrotoluene	40	43.68	109	
2,4-Dinitrotoluene	40	46.942	117	
2,6-Dinitrotoluene	40	42.844	107	
2,6-Dinitrotoluene-d3	500	428.89	86	
2-Amino-4,6-dinitrotoluene	40	45.494	114	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216192a
Date: 20-Feb-2010
Time: 15:52:03
ID: WXX100219-08CRI
Vial: 1:1,C

HMD 2/21/10

HMX

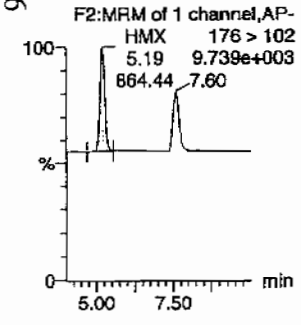

RDX

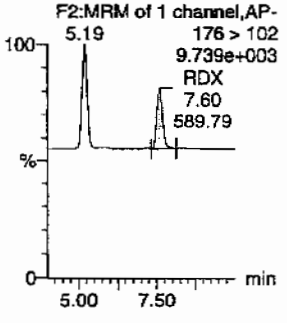

135-Trinitrobenzene

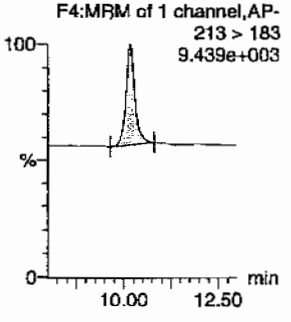

13-Dinitrobenzene-d4

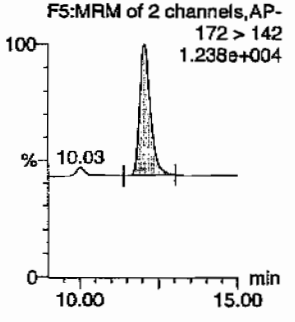

13-Dinitrobenzene

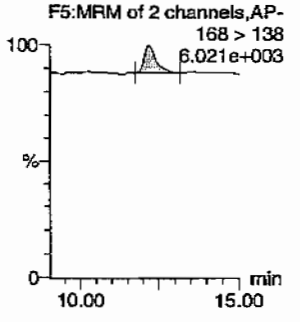

Tetryl

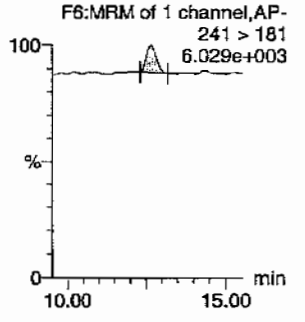

Nitrobenzene

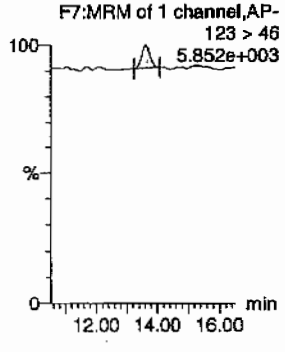

4-Amino-26-dinitrotoluene

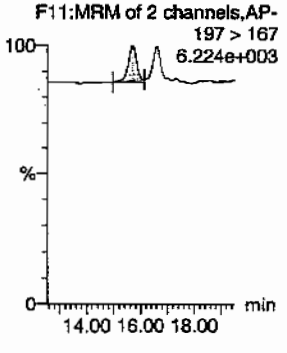

2-Amino-46-dinitrotoluene

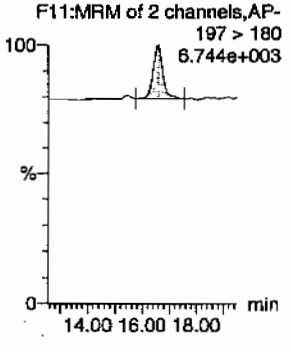

246-Trinitrotoluene

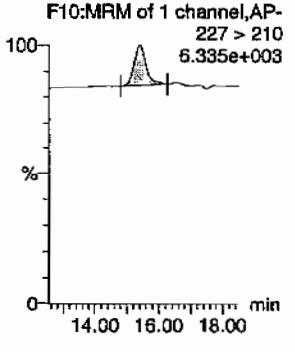

34-dinitrotoluene

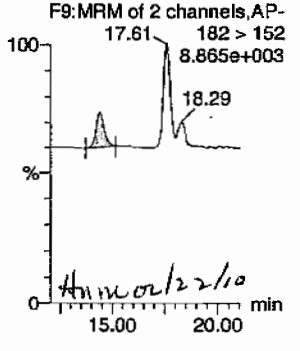

Hmm 02/22/10

26-dinitrotoluene

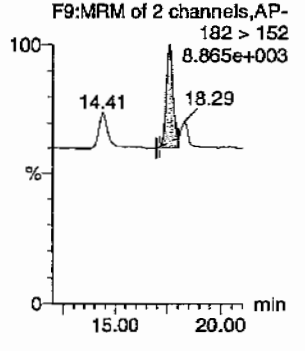

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

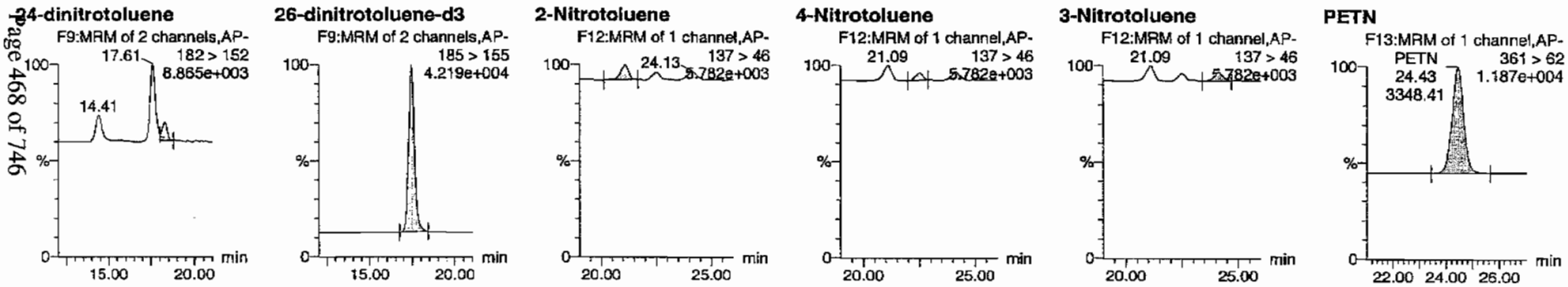

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	864.439	2868.025	864.439	150.703	bb			39.0586	97.6	-2.4	157.7
WXX100219-08CRI	RDX	176 > 102	7.60	589.792	2868.025	589.792	102.822	bb			39.6469	99.1	-0.9	92.1
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1152.179	2868.025	1152.179	200.866	bb			51.8693	129.7	29.7	165.8
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2868.025		2868.025	2868.025	bb			476.0340	95.2	-4.8	200.3
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.20	311.877	2868.025	311.877	54.371	bb			45.7471	114.4	14.4	19.6
WXX100219-08CRI	Tetryl	241 > 181	12.66	258.490	2868.025	258.490	45.064	bb			41.3344	103.3	3.3	24.0
WXX100219-08CRI	Nitrobenzene	123 > 46	13.61	169.551	2868.025	169.551	29.559	bb			34.4304	86.1	-13.9	18.2
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.67	336.791	14932.700	336.791	11.277	MM	21-Feb-10	11:57:44	35.2166	88.0	-12.0	32.4
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	587.026	14932.700	587.026	19.656	bb			45.4936	113.7	13.7	41.0
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.40	437.350	14932.700	437.350	14.644	bb			43.6803	109.2	9.2	39.8
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.41	581.858	14932.700	581.858	19.483	bb			21.5040	107.5	7.5	23.8
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.61	1355.619	14932.700	1355.619	45.391	MM	21-Feb-10	11:54:46	42.8443	107.1	7.1	68.9
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.29	345.590	14932.700	345.590	11.572	MM	21-Feb-10	11:51:06	46.9416	117.4	17.4	16.9
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	14932.700		14932.700	14932.700	bb			428.8897	85.8	-14.2	843.7
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.09	195.359	14932.700	195.359	6.541	bb			42.9801	107.5	7.5	97.2
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.50	82.093	14932.700	82.093	2.749	bb			35.8607	89.7	-10.3	43.2
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.13	122.665	14932.700	122.665	4.107	bb			45.8968	114.7	14.7	53.6
WXX100219-08CRI	PETN	361 > 62	24.43	3348.405	14932.700	3348.405	112.117	bb			46.9793	117.4	17.4	682.3

✓

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/20/10
Time of Injection	1552
Standard Number	WXX100219-08CRI
Data File	EXP0216192a

HMX	97.6
RDX	99.1
135-TNB	129.7
13-DNB	114.4
Tetryl	103.3
Nitrobenzene	86.1
4A-26-DNT	88.0
2A-46-DNT	113.7
246-TNT	109.2
34-DNT(surr)	107.5
26-DNT	107.1
24-DNT	117.4
2-NT	107.5
4-NT	89.7
3-NT	114.7
PETN	117.4
Total	1702.4
Average	106.4

HMP 2/21/10

Hmm 02/22/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216203a

Analysis Date: 20-FEB-10 21:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	611.625	102	
1,3-Dinitrobenzene-d4	500	447.544	90	
2,4,6-Trinitrotoluene	600	766.416	128	*
2,4-Dinitrotoluene	600	682.394	114	
2,6-Dinitrotoluene	600	627.061	105	
2,6-Dinitrotoluene-d3	500	373.694	75	*
2-Amino-4,6-dinitrotoluene	600	678.43	113	
3,4-Dinitrotoluene	300	394.655	132	*
4-Amino-2,6-dinitrotoluene	600	609.287	102	
HMX	600	635.385	106	
Nitrobenzene	600	597.696	100	
PETN	600	708.615	118	
RDX	600	771.67	129	*
Tetryl	600	540.565	90	
m-Dinitrobenzene	600	636.381	106	
m-Nitrotoluene	600	675.517	113	
o-Nitrotoluene	600	691.274	115	
p-Nitrotoluene	600	803.018	134	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216203a
Date: 20-Feb-2010
Time: 21:17:32
ID: WXX100219-07CCV
Vial: 1:1,B

MMT 2/21/10

HMX

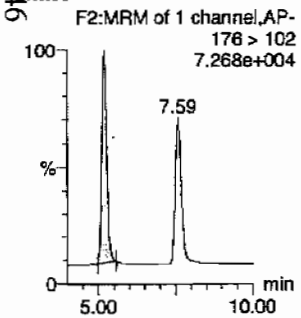

RDX

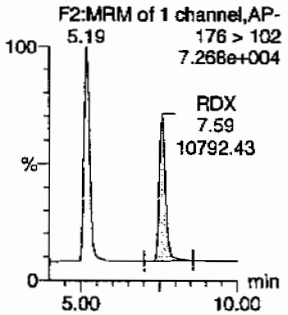

135-Trinitrobenzene

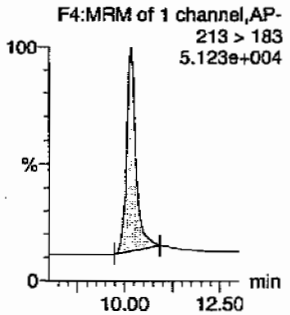

13-Dinitrobenzene-d4

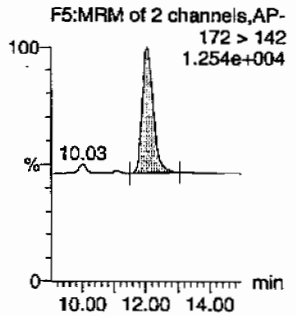

13-Dinitrobenzene

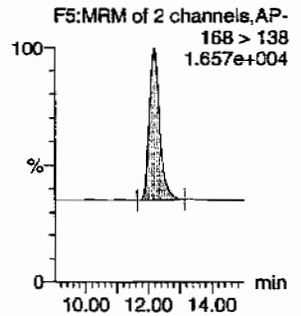

Tetryl

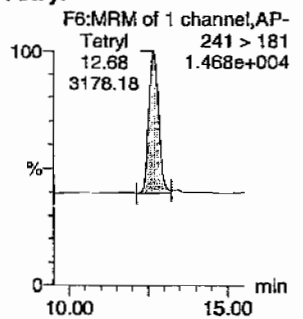

Nitrobenzene

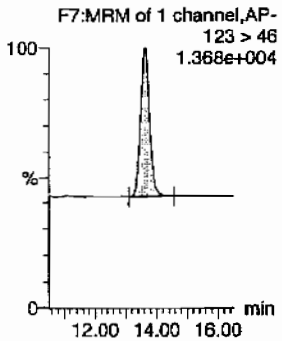

4-Amino-26-dinitrotoluene

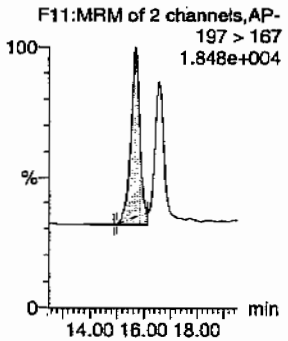

2-Amino-46-dinitrotoluene

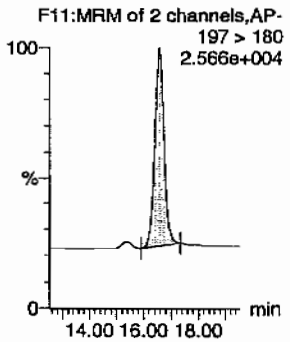

246-Trinitrotoluene

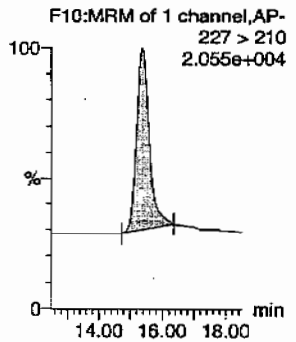

34-dinitrotoluene

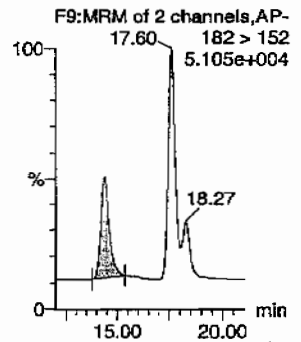

Hmm 02/22/10

26-dinitrotoluene

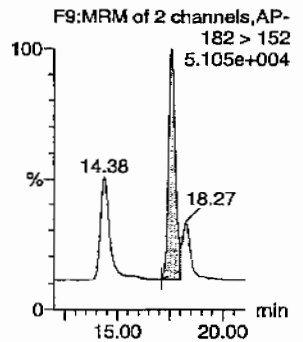

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

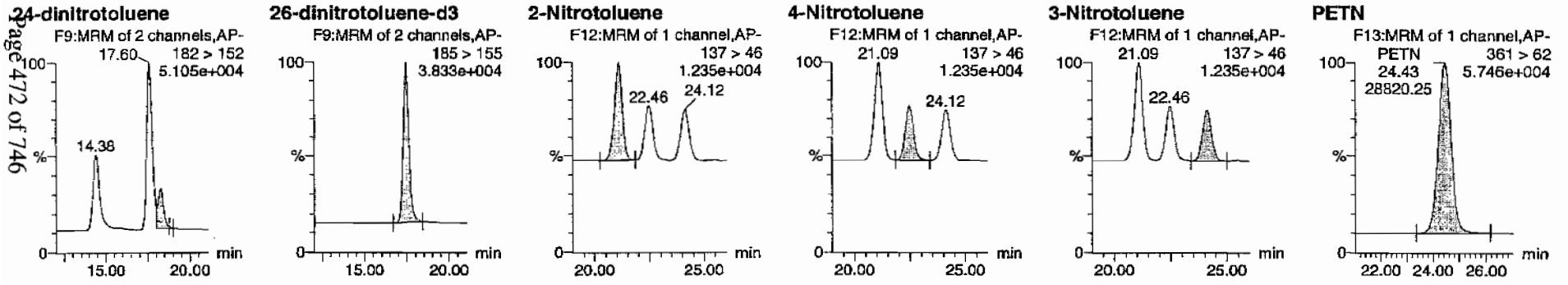

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	13220.640	2696.379	13220.640	2451.554	bb			635.3852	105.9	5.9	2452.9
WXX100219-07CCV	RDX	176 > 102	7.59	10792.427	2696.379	10792.427	2001.282	bb			771.6698	128.6	28.6	1689.4
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	12773.001	2696.379	12773.001	2368.547	bb			611.6254	101.9	1.9	1548.7
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2696.379		2696.379	2696.379	bb			447.5443	89.5	-10.5	374.6
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	4078.823	2696.379	4078.823	756.352	bb			636.3814	106.1	6.1	593.9
WXX100219-07CCV	Tetryl	241 > 181	12.68	3178.176	2696.379	3178.176	589.341	bd			540.5652	90.1	-9.9	203.9
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2767.174	2696.379	2767.174	513.128	bb			597.6961	99.6	-0.4	221.5
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	5076.981	13010.947	5076.981	195.104	MM	21-Feb-10	11:57:59	609.2871	101.5	1.5	248.4
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7627.506	13010.947	7627.506	293.119	bb			678.4296	113.1	13.1	469.2
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.38	6686.185	13010.947	6686.185	256.945	bb			766.4159	127.7	27.7	465.3
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	9304.330	13010.947	9304.330	357.558	bb			394.6549	131.6	31.6	261.3
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	17287.217	13010.947	17287.217	664.334	MM	21-Feb-10	11:54:56	627.0609	104.5	4.5	595.1
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.27	4377.332	13010.947	4377.332	168.217	MM	21-Feb-10	11:50:51	682.3943	113.7	13.7	140.0
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	13010.947		13010.947	13010.947	bb			373.6940	74.7	-25.3	1452.3
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.09	2737.709	13010.947	2737.709	105.208	bb			691.2744	115.2	15.2	395.8
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.46	1601.708	13010.947	1601.708	61.552	bb			803.0182	133.8	33.8	221.0
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.12	1573.059	13010.947	1573.059	60.451	bb			675.5168	112.6	12.6	206.8
WXX100219-07CCV	PETN	361 > 62	24.43	28820.246	13010.947	28820.246	1107.538	bb			708.6147	118.1	18.1	7690.1

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/20/10
Time of Injection: 2117
Standard Number: WXX100219-07CCV
Data File: EXP0216203a

HMX		105.9
RDX		128.6
135-TNB		101.9
13-DNB		106.1
Tetryl		90.1
Nitrobenzene		99.6
4A-26-DNT		101.5
2A-46-DNT		113.1
246-TNT		127.7
34-DNT(surr)		131.6
26-DNT		104.5
24-DNT		113.7
2-NT		115.2
4-NT		133.8
3-NT		112.6
PETN		118.1
Total		1804.0
Average		112.8

MTP 2/21/10

Hume 02/22/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216205a

Analysis Date: 20-FEB-10 22:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	57.022	143	*
1,3-Dinitrobenzene-d4	500	453.827	91	
2,4,6-Trinitrotoluene	40	38.114	95	
2,4-Dinitrotoluene	40	36.968	92	
2,6-Dinitrotoluene	40	42.44	106	
2,6-Dinitrotoluene-d3	500	462.56	93	
2-Amino-4,6-dinitrotoluene	40	39.865	100	
3,4-Dinitrotoluene	20	21.776	109	
4-Amino-2,6-dinitrotoluene	40	33.428	84	
HMX	40	44.957	112	
Nitrobenzene	40	39.149	98	
PETN	40	42.286	106	
RDX	40	39.549	99	
Tetryl	40	49.5	124	
m-Dinitrobenzene	40	41.382	103	
m-Nitrotoluene	40	37.542	94	
o-Nitrotoluene	40	37.92	95	
p-Nitrotoluene	40	45.462	114	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216205a
Date: 20-Feb-2010
Time: 22:16:48
ID: WXX100219-08CRI
Vial: 1:1,C

Page 475 of 746

MMT 2/22/10

HMX

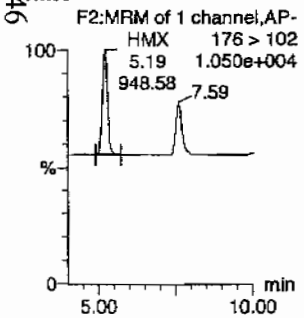

RDX

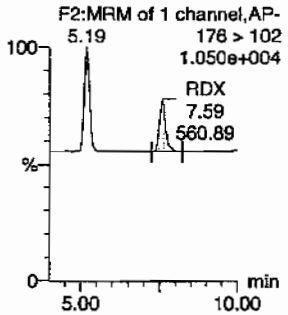

135-Trinitrobenzene

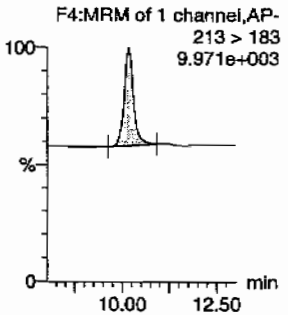

13-Dinitrobenzene-d4

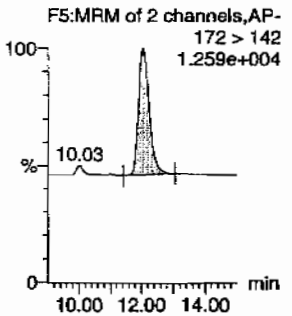

13-Dinitrobenzene

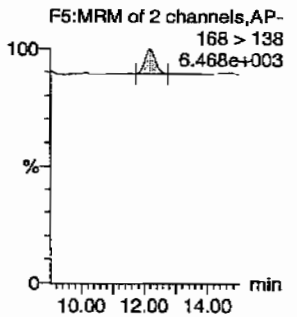

Tetryl

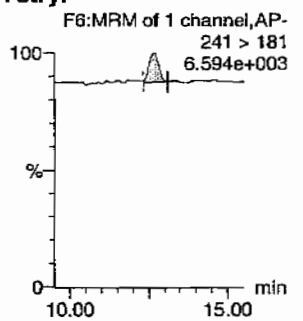

Nitrobenzene

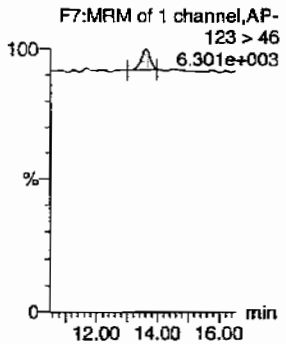

4-Amino-26-dinitrotoluene

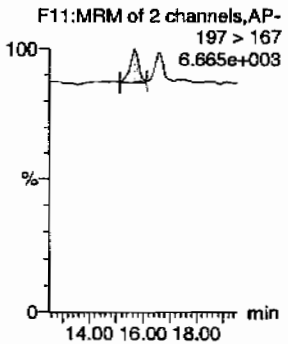

2-Amino-46-dinitrotoluene

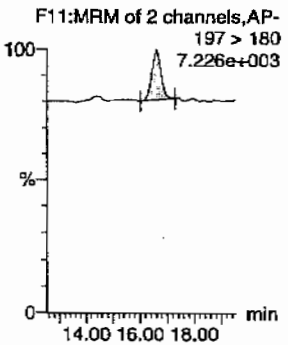

246-Trinitrotoluene

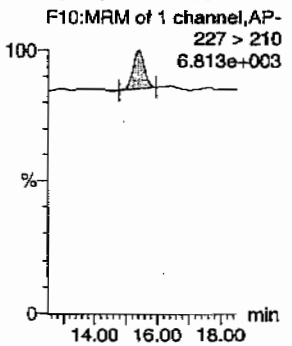

34-dinitrotoluene

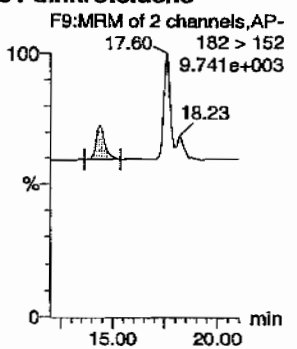

26-dinitrotoluene

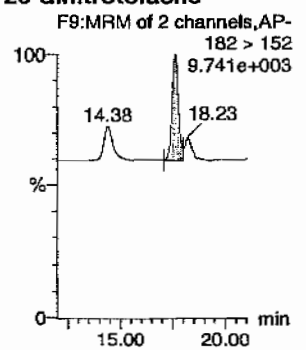

Hmc 02/22/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

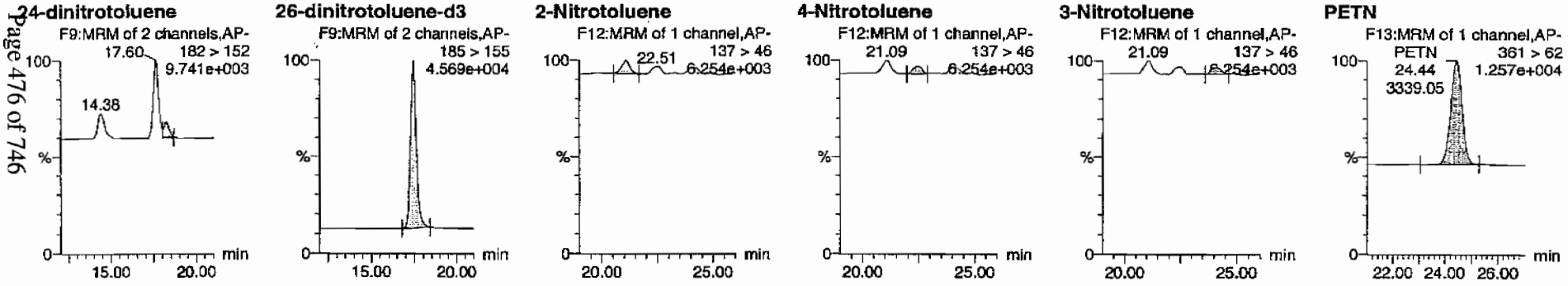

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	948.575	2734.234	948.575	173.463	bb			44.9574	112.4	12.4	232.2
WXX100219-08CRI	RDX	176 > 102	7.59	560.890	2734.234	560.890	102.568	bb			39.5490	98.9	-1.1	115.4
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1207.549	2734.234	1207.549	220.820	bb			57.0220	142.6	42.6	228.9
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2734.234		2734.234	2734.234	bb			453.8274	90.8	-9.2	446.3
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.21	268.955	2734.234	268.955	49.183	bb			41.3816	103.5	3.5	48.6
WXX100219-08CRI	Tetryl	241 > 181	12.68	295.112	2734.234	295.112	53.966	db			49.4997	123.7	23.7	29.4
WXX100219-08CRI	Nitrobenzene	123 > 46	13.63	183.792	2734.234	183.792	33.609	bb			39.1486	97.9	-2.1	17.4
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	344.778	16105.001	344.778	10.704	MM	21-Feb-10	11:58:05	33.4275	83.6	-16.4	22.8
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 160	16.58	554.781	16105.001	554.781	17.224	bb			39.8650	99.7	-0.3	59.1
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.41	411.581	16105.001	411.581	12.778	bb			38.1144	95.3	-4.7	27.6
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	635.461	16105.001	635.461	19.729	bb			21.7756	108.9	8.9	38.5
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.60	1448.252	16105.001	1448.252	44.963	MM	21-Feb-10	11:55:07	42.4402	106.1	6.1	117.7
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.23	293.529	16105.001	293.529	9.113	MM	21-Feb-10	11:50:42	36.9679	92.4	-7.6	24.0
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	16105.001		16105.001	16105.001	bb			462.5599	92.5	-7.5	761.9
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.09	185.888	16105.001	185.888	5.771	bb			37.9195	94.8	-5.2	38.7
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.51	112.242	16105.001	112.242	3.485	bb			45.4617	113.7	13.7	21.5
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.12	108.212	16105.001	108.212	3.360	bb			37.5418	93.9	-6.1	18.8
WXX100219-08CRI	PETN	361 > 62	24.44	3339.054	16105.001	3339.054	103.665	bb			42.2856	105.7	5.7	892.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/20/10
Time of Injection	2216
Standard Number	WXX100219-08CRI
Data File	EXP0216205a

HMX	112.4
RDX	98.9
135-TNB	142.6
13-DNB	103.5
Tetryl	123.7
Nitrobenzene	97.9
4A-26-DNT	83.6
2A-46-DNT	99.7
246-TNT	95.3
34-DNT(surr)	108.9
26-DNT	106.1
24-DNT	92.4
2-NT	94.8
4-NT	113.7
3-NT	93.9
PETN	105.7
Total	1673.1
Average	104.6

MTP 2/21/10

02/22/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216216a

Analysis Date: 21-FEB-10 03:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	642.266	107	
2,6-Dinitrotoluene	600	608.283	101	
2,6-Dinitrotoluene-d3	500	506.816	101	
2-Amino-4,6-dinitrotoluene	600	689.157	115	
3,4-Dinitrotoluene	300	308.236	103	
4-Amino-2,6-dinitrotoluene	600	594.975	99	
HMX	600	710.543	118	
Nitrobenzene	600	540.945	90	
PETN	600	538.301	90	
RDX	600	735.478	123	*
Tetryl	600	581.73	97	
m-Dinitrobenzene	600	668.212	111	
m-Nitrotoluene	600	534.42	89	
o-Nitrotoluene	600	536.288	89	
p-Nitrotoluene	600	557.564	93	
1,3,5-Trinitrobenzene	600	644.022	107	
1,3-Dinitrobenzene-d4	500	490.284	98	
2,4,6-Trinitrotoluene	600	668.921	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216216a
Date: 21-Feb-2010
Time: 03:43:35
ID: WXX100219-07CCV
Vial: 1:1,B

MAT 2/22/10

HMX

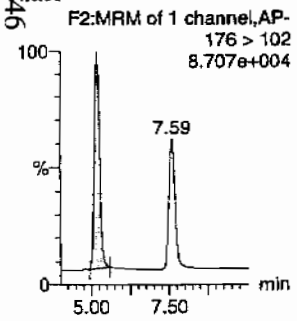

RDX

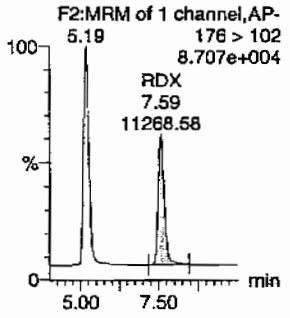

135-Trinitrobenzene

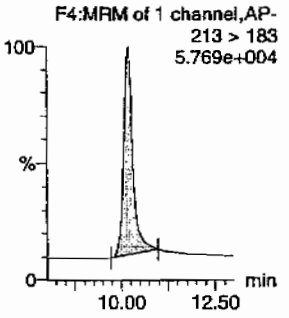

13-Dinitrobenzene-d4

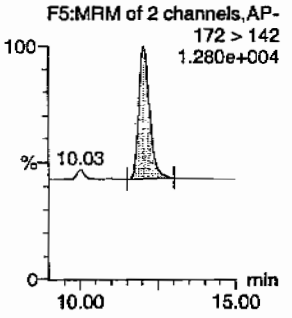

13-Dinitrobenzene

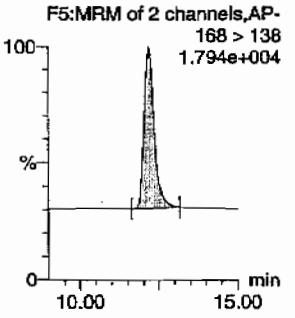

Tetryl

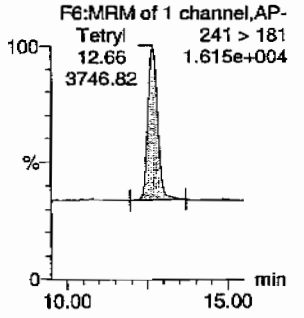

Nitrobenzene

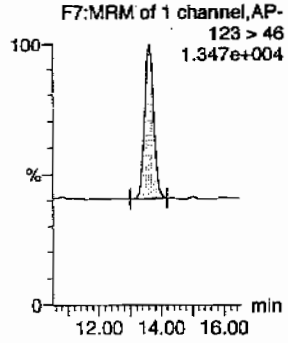

4-Amino-26-dinitrotoluene

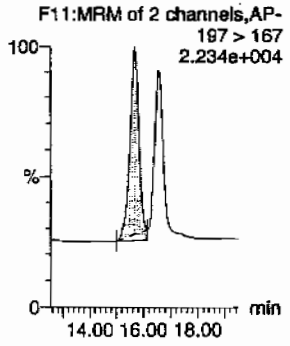

2-Amino-46-dinitrotoluene

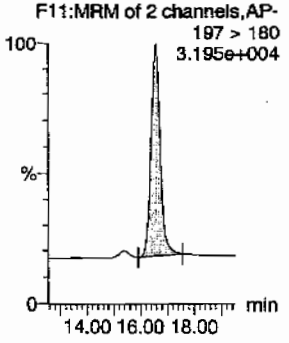

246-Trinitrotoluene

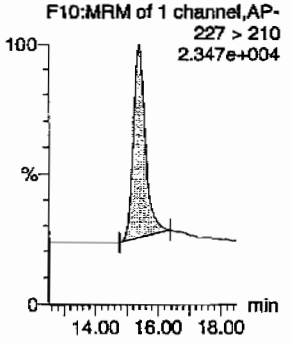

34-dinitrotoluene

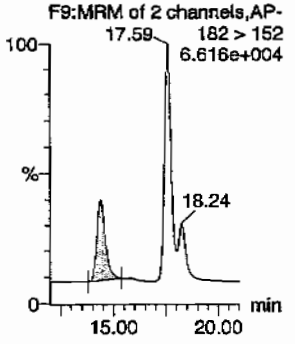

26-dinitrotoluene

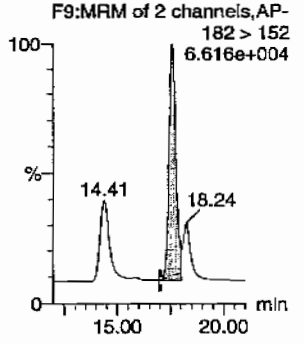

Hsinc 02/22/10

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Quantity Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

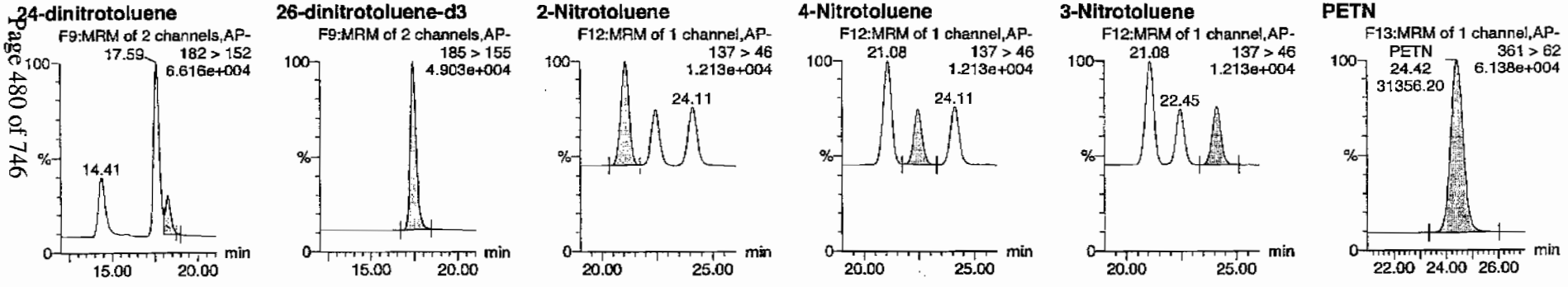

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	16196.361	2953.877	16196.361	2741.543	bb			710.5434	118.4	18.4	2862.8
WXX100219-07CCV	RDX	176 > 102	7.59	11268.577	2953.877	11268.577	1907.422	bb			735.4785	122.6	22.6	1702.1
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	14733.954	2953.877	14733.954	2494.003	bb			644.0216	107.3	7.3	1510.4
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2953.877		2953.877	2953.877	bb			490.2837	98.1	-1.9	201.4
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	4691.840	2953.877	4691.840	794.183	bb			668.2121	111.4	11.4	405.5
WXX100219-07CCV	Tetryl	241 > 181	12.66	3746.820	2953.877	3746.820	634.221	bb			581.7300	97.0	-3.0	263.5
WXX100219-07CCV	Nitrobenzene	123 > 46	13.61	2743.598	2953.877	2743.598	464.406	bb			540.9448	90.2	-9.8	207.7
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6723.828	17645.883	6723.828	190.521	MM	21-Feb-10	11:58:44	594.9748	99.2	-0.8	368.2
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	10508.256	17645.883	10508.256	297.754	bb			689.1573	114.9	14.9	496.9
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.40	7914.493	17645.883	7914.493	224.259	bb			668.9208	111.5	11.5	472.0
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.41	9855.668	17645.883	9855.668	279.263	bb			308.2364	102.7	2.7	827.8
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.59	22743.420	17645.883	22743.420	644.440	MM	21-Feb-10	11:55:54	608.2833	101.4	1.4	2449.8
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.24	5587.581	17645.883	5587.581	158.325	MM	21-Feb-10	11:49:20	642.2665	107.0	7.0	569.3
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.41	17645.883		17645.883	17645.883	bb			506.8164	101.4	1.4	1379.2
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.08	2880.511	17645.883	2880.511	81.620	bb			536.2882	89.4	-10.6	657.3
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.45	1508.297	17645.883	1508.297	42.738	bb			557.5636	92.9	-7.1	343.9
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.11	1687.821	17645.883	1687.821	47.825	bb			534.4204	89.1	-10.9	360.6
WXX100219-07CCV	PETN	361 > 62	24.42	31356.201	17645.883	31356.201	888.485	bb			538.3009	89.7	-10.3	7369.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/21/10
Time of Injection: 0343
Standard Number: WXX100219-07CCV
Data File: EXP0216216a

HMX	118.4
RDX	122.6
135-TNB	107.3
13-DNB	111.4
Tetryl	97.0
Nitrobenzene	90.2
4A-26-DNT	99.2
2A-46-DNT	114.9
246-TNT	111.5
34-DNT(surr)	102.7
26-DNT	101.4
24-DNT	107.0
2-NT	89.4
4-NT	92.9
3-NT	89.1
PETN	89.7
Total	1644.7
Average	102.8

HMW 4/21/10

Hmw 02/22/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216218a

Analysis Date: 21-FEB-10 04:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	57.255	143	*
1,3-Dinitrobenzene-d4	500	494.944	99	
2,4,6-Trinitrotoluene	40	39.972	100	
2,4-Dinitrotoluene	40	42.817	107	
2,6-Dinitrotoluene	40	43.432	109	
2,6-Dinitrotoluene-d3	500	452.034	90	
2-Amino-4,6-dinitrotoluene	40	46.553	116	
3,4-Dinitrotoluene	20	23.16	116	
4-Amino-2,6-dinitrotoluene	40	37.763	94	
HMX	40	49.465	124	
Nitrobenzene	40	38.618	97	
PETN	40	48.235	121	
RDX	40	49.497	124	
Tetryl	40	44.521	111	
m-Dinitrobenzene	40	44.674	112	
m-Nitrotoluene	40	35.713	89	
o-Nitrotoluene	40	44.134	110	
p-Nitrotoluene	40	49.34	123	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216218a
Date: 21-Feb-2010
Time: 04:43:09
ID: WXX100219-08CRI
Vial: 1:1,C

MM 2/22/10

HMX

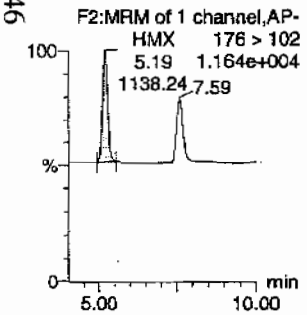

RDX

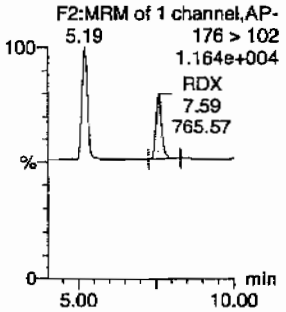

135-Trinitrobenzene

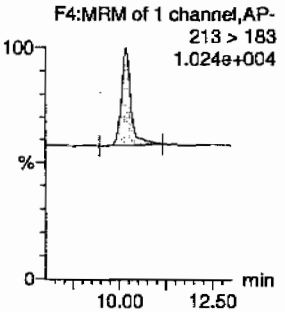

13-Dinitrobenzene-d4

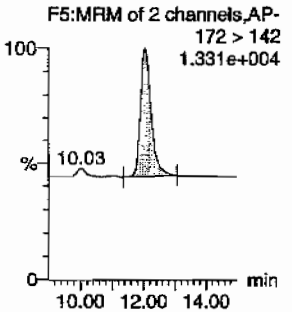

13-Dinitrobenzene

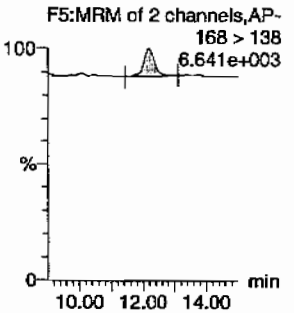

Tetryl

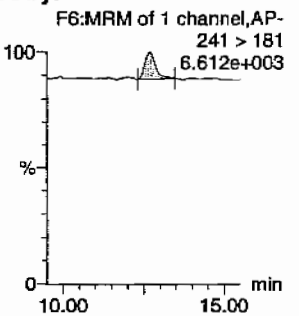

Nitrobenzene

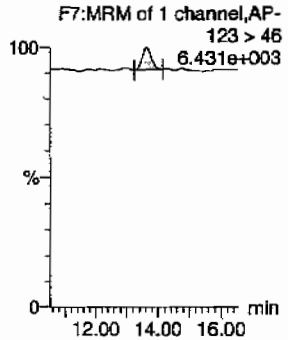

4-Amino-26-dinitrotoluene

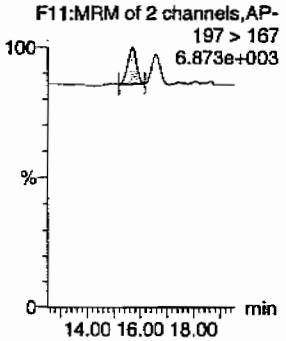

2-Amino-46-dinitrotoluene

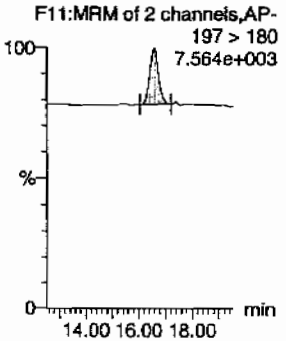

246-Trinitrotoluene

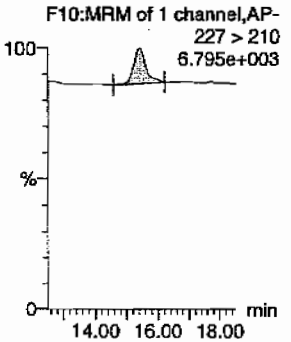

34-dinitrotoluene

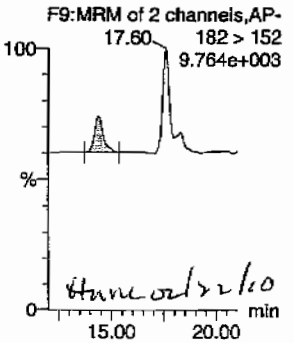

Hmc 02/22/10

26-dinitrotoluene

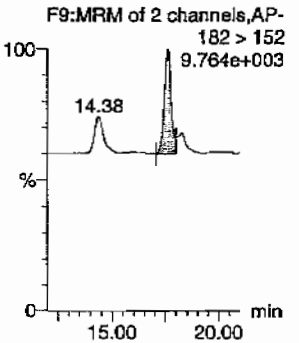

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

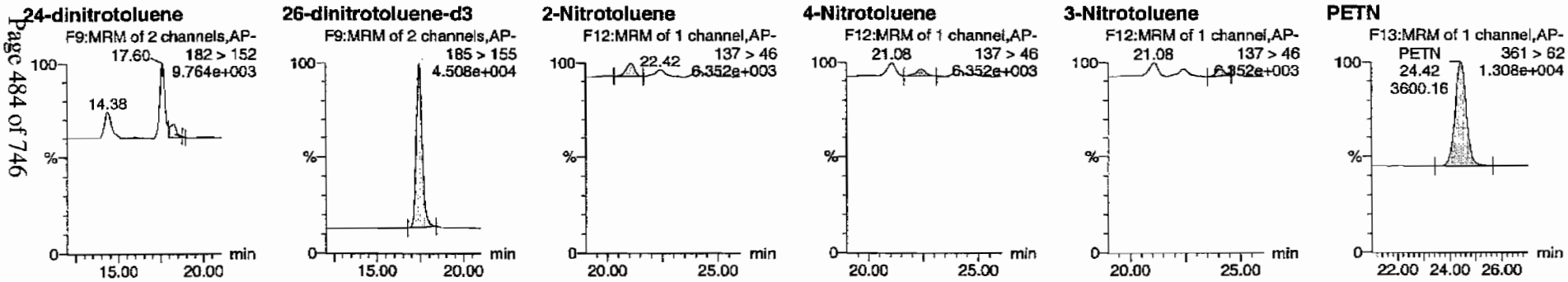

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/m	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	1138.241	2981.956	1138.241	190.855	bb			49.4651	123.7	23.7	267.4
WXX100219-08CRI	RDX	176 > 102	7.59	765.570	2981.956	765.570	128.367	bb			49.4968	123.7	23.7	155.9
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1322.337	2981.956	1322.337	221.723	bb			57.2551	143.1	43.1	116.1
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2981.956		2981.956	2981.956	bb			494.9443	99.0	-1.0	347.4
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.17	316.659	2981.956	316.659	53.096	bb			44.6739	111.7	11.7	41.5
WXX100219-08CRI	Tetryl	241 > 181	12.68	289.480	2981.956	289.480	48.539	bb			44.5214	111.3	11.3	28.6
WXX100219-08CRI	Nitrobenzene	123 > 46	13.63	197.729	2981.956	197.729	33.154	bb			38.6184	96.5	-3.5	18.6
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	380.634	15738.529	380.634	12.092	MM	21-Feb-10	11:58:49	37.7632	94.4	-5.6	23.1
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	633.111	15738.529	633.111	20.113	bb			46.5529	116.4	16.4	38.3
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.41	421.815	15738.529	421.815	13.401	bb			39.9717	99.9	-0.1	50.3
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	660.468	15738.529	660.468	20.983	bb			23.1595	115.8	15.8	39.8
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.60	1448.370	15738.529	1448.370	46.014	MM	21-Feb-10	11:56:04	43.4319	108.6	8.6	113.7
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.27	332.232	15738.529	332.232	10.555	MM	21-Feb-10	11:49:10	42.8166	107.0	7.0	20.9
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15738.529		15738.529	15738.529	bb			452.0343	90.4	-9.6	1541.1
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.08	211.428	15738.529	211.428	6.717	bb			44.1337	110.3	10.3	32.0
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.42	119.046	15738.529	119.046	3.782	bb			49.3403	123.4	23.4	15.8
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.10	100.598	15738.529	100.598	3.196	bb			35.7129	89.3	-10.7	14.8
WXX100219-08CRI	PETN	361 > 62	24.42	3600.158	15738.529	3600.158	114.374	bb			48.2350	120.6	20.6	1290.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/21/10
Time of Injection	0443
Standard Number	WXX100219-08CRI
Data File	EXP0216218a

HMX	123.7
RDX	123.7
135-TNB	143.1
13-DNB	111.7
Tetryl	111.3
Nitrobenzene	96.5
4A-26-DNT	94.4
2A-46-DNT	116.4
246-TNT	99.9
34-DNT(surr)	115.8
26-DNT	108.6
24-DNT	107.0
2-NT	110.3
4-NT	123.4
3-NT	89.3
PETN	120.6
Total	1795.7
Average	112.2

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170013.wiff

Analysis Date: 17-FEB-10 12:34

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	49.3	99	
3,5-Dinitroaniline	100	97.1	97	
TATB	100	96.4	96	
tris(o-cresyl) phosphate	100	112	112	
2,4-Diamino-6-nitrotoluene	100	91.2	91	
2,6-Diamino-4-nitrotoluene	100	82.2	82	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ker 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.4 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:34:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.64e+005 counts
Height: 36377.789 cps
Start Time: 6.86 min
End Time: 7.43 min

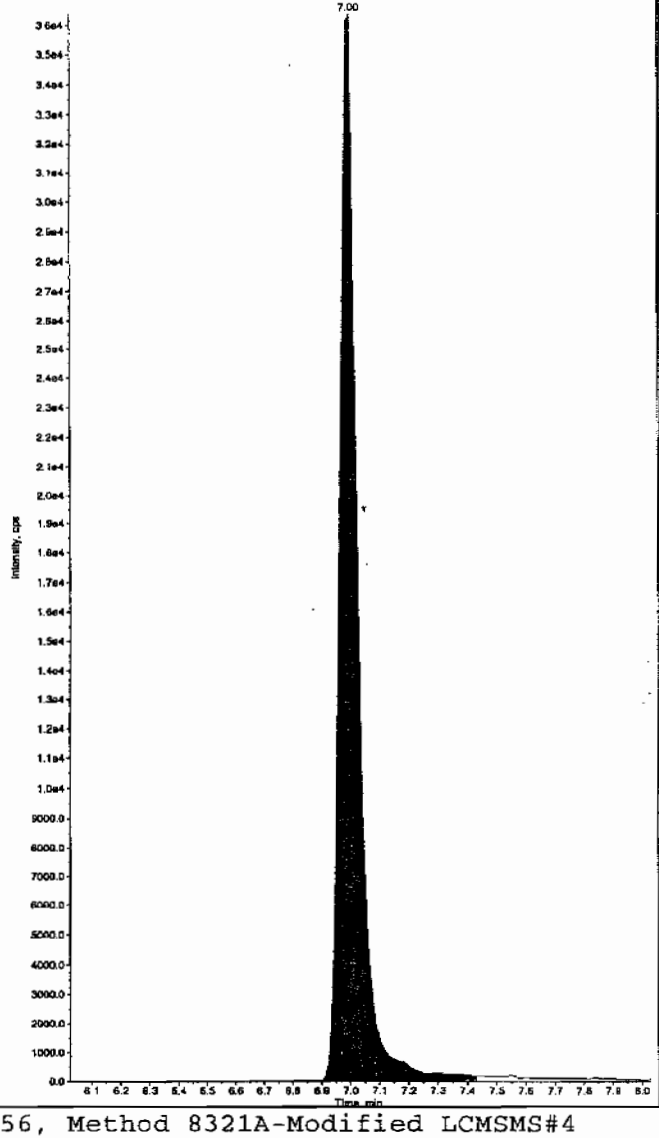

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.1 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:34:44 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 7.14e+005 counts
Height: 178003.189 cps
Start Time: 8.09 min
End Time: 8.32 min

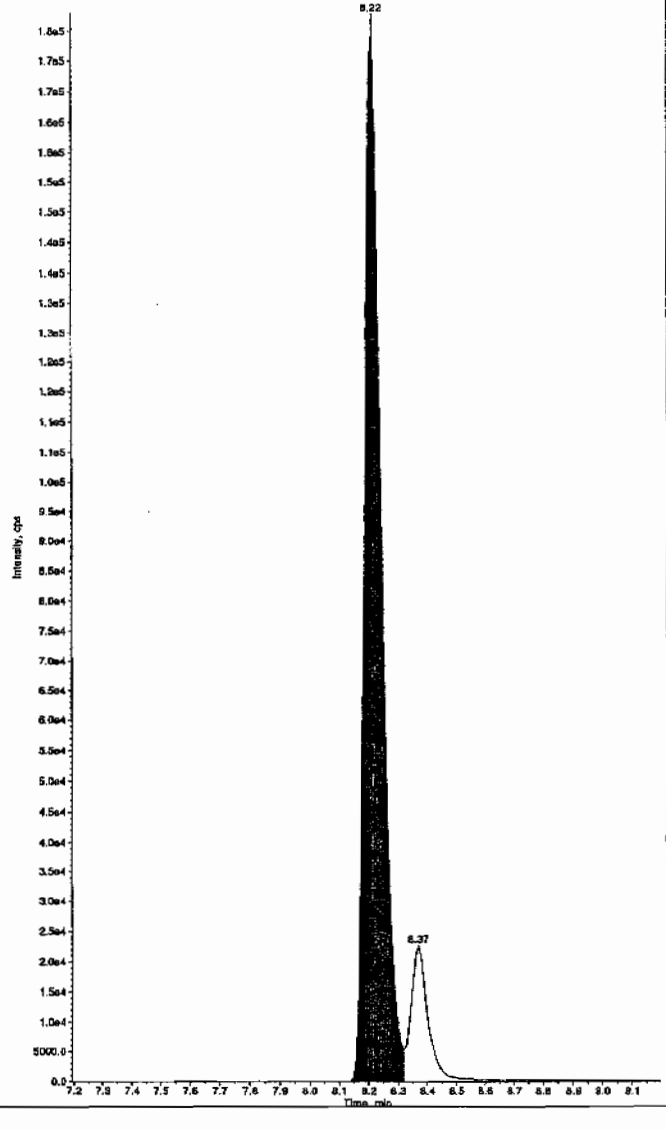

Hum 02/19/10

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 49.3 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:34:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 6.57e+005 counts
Height: 178358.765 cps
Start Time: 8.29 min
End Time: 8.60 min

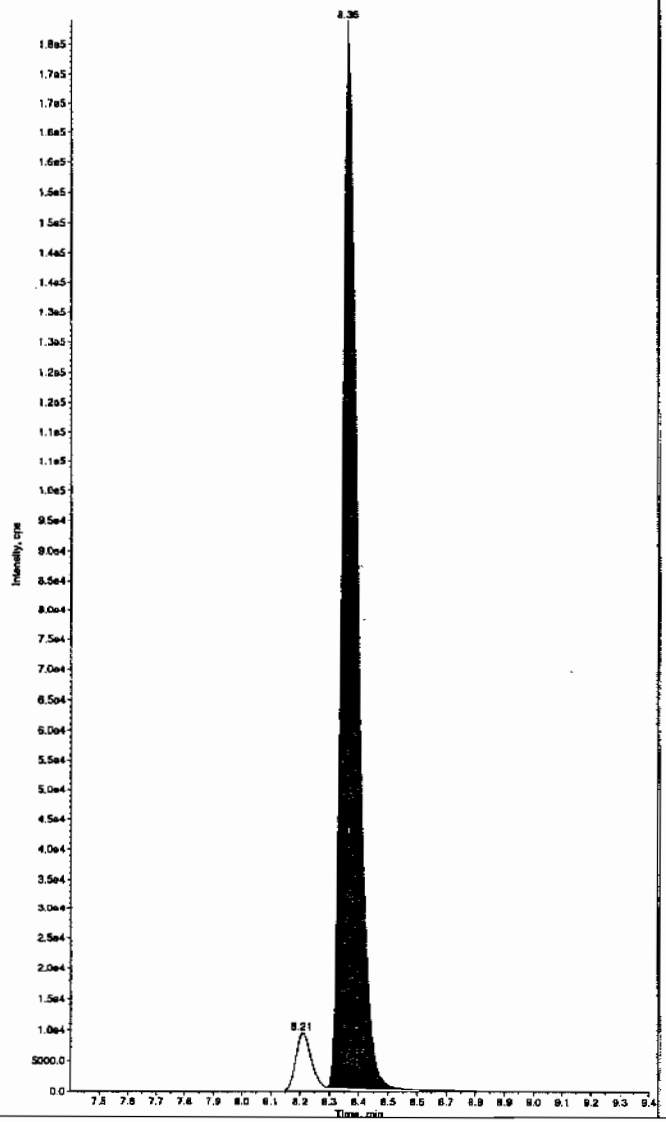

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 82.2 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:34:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.62e+005 counts
Height: 45664.162 cps
Start Time: 4.93 min
End Time: 5.30 min

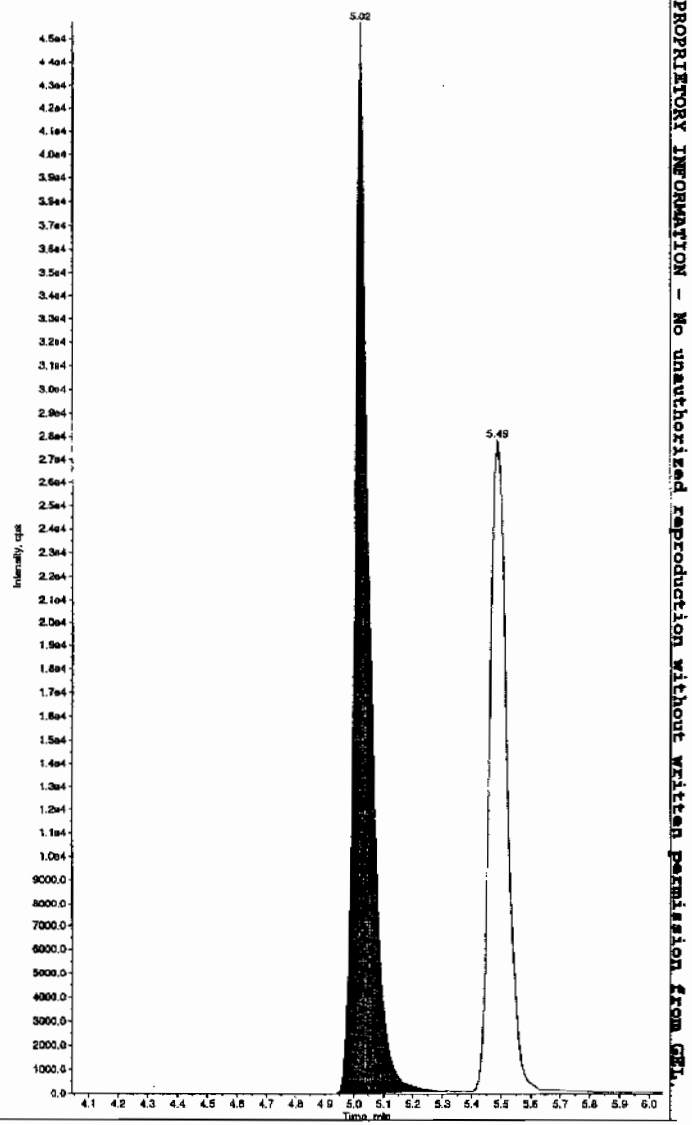

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.2 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:34:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 1.13e+005 counts
Height: 27769.400 cps
Start Time: 5.40 min
End Time: 5.82 min

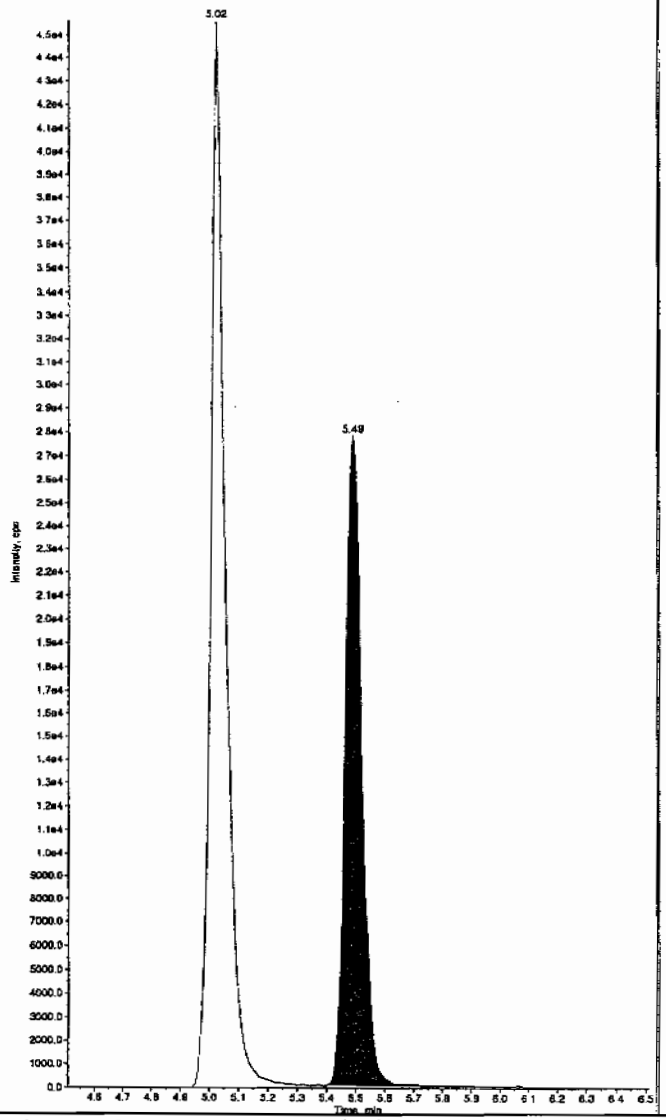

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:34:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.43e+006 counts
Height: 616631.775 cps
Start Time: 10.8 min
End Time: 11.2 min

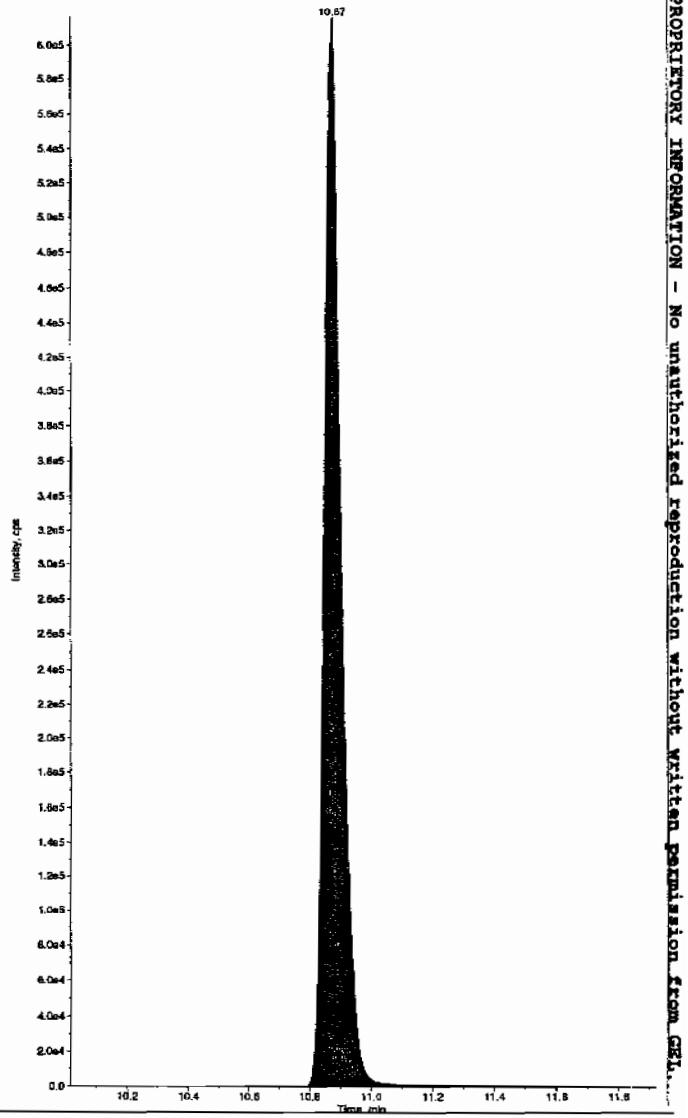

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170024.wiff

Analysis Date: 17-FEB-10 15:27

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	250	257	103	
3,5-Dinitroaniline	500	497	100	
TATB	500	470	94	
tris(o-cresyl) phosphate	500	488	98	
2,4-Diamino-6-nitrotoluene	500	456	91	
2,6-Diamino-4-nitrotoluene	500	464	93	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/19/10

Sample Name: "WXX100217-25CCV" Sample ID: "1|1|LER" File: "EXS02170024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 470. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:27:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.97 min
Area: 7.99e+005 counts
Height: 176526.779 cps
Start Time: 6.85 min
End Time: 7.55 min

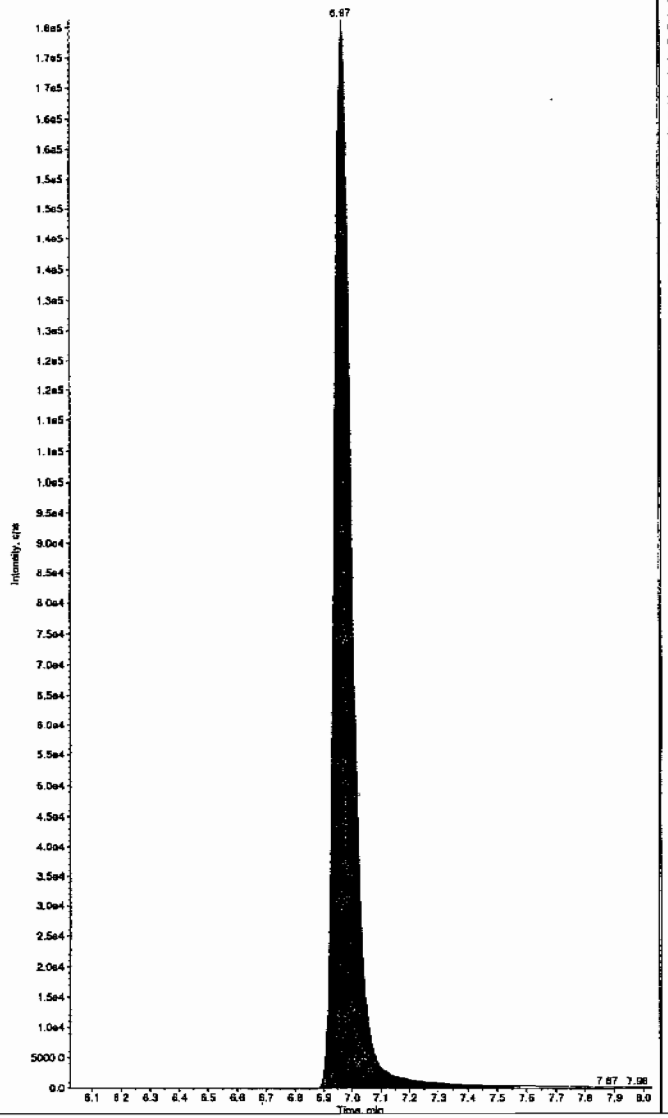

Sample Name: "WXX100217-26CCV" Sample ID: "1|1|LER" File: "EXS02170024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 497. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:29:27 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 3.66e+006 counts
Height: 898610.413 cps
Start Time: 8.10 min
End Time: 8.31 min

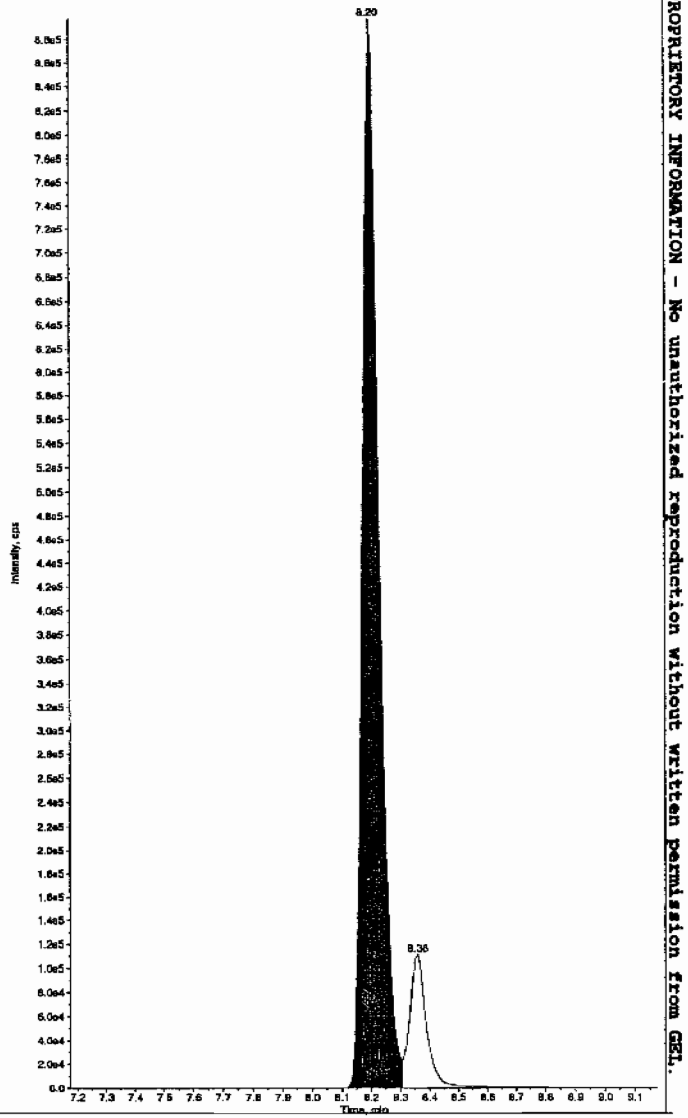

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 257. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:27:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 3.42e+006 counts
Height: 921489.441 cps
Start Time: 8.28 min
End Time: 8.62 min

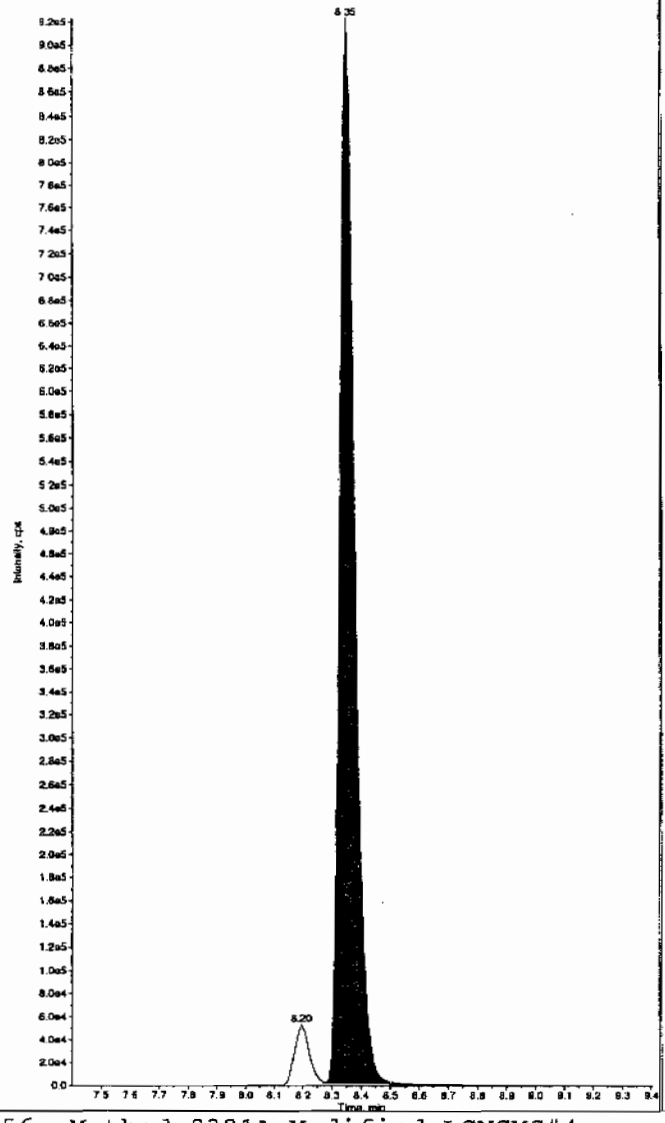

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 464. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:27:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 9.14e+005 counts
Height: 231902.298 cps
Start Time: 4.90 min
End Time: 5.30 min

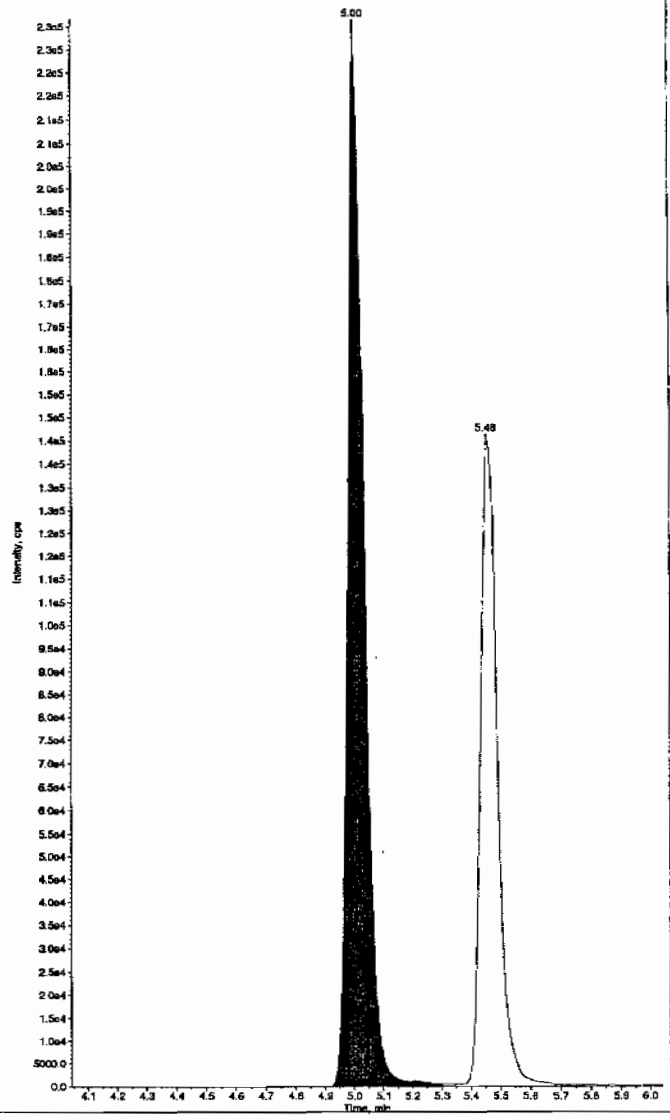

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 456. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:27:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 5.63e+005 counts
Height: 141389.374 cps
Start Time: 5.35 min
End Time: 5.83 min

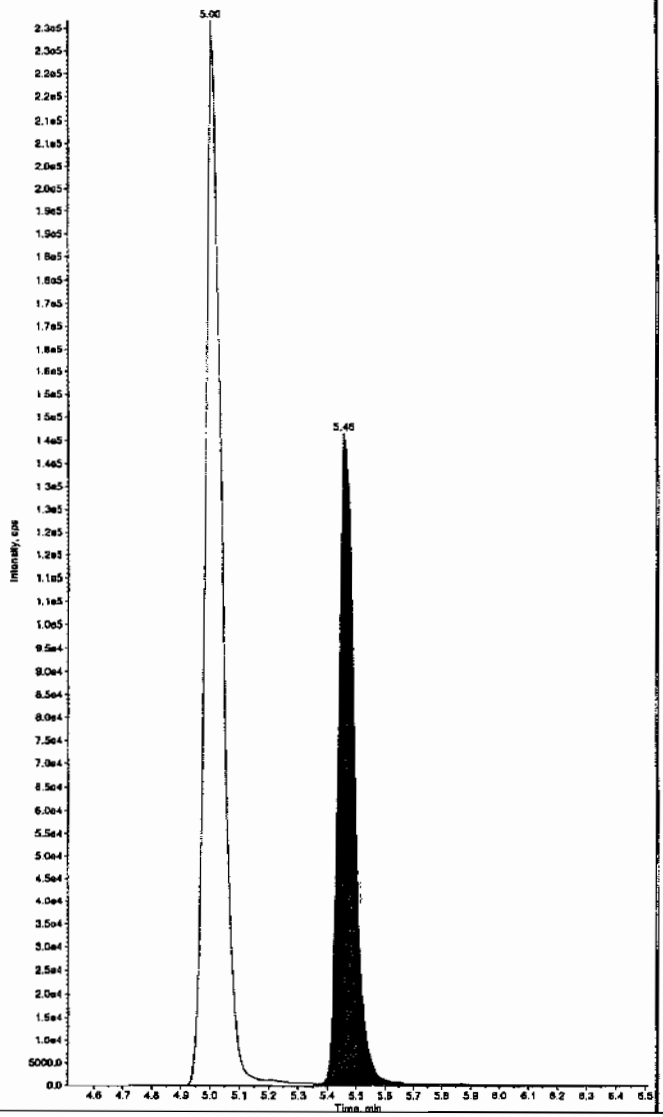

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170024.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:27:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.06e+007 counts
Height: 2651478.027 cps
Start Time: 10.7 min
End Time: 11.2 min

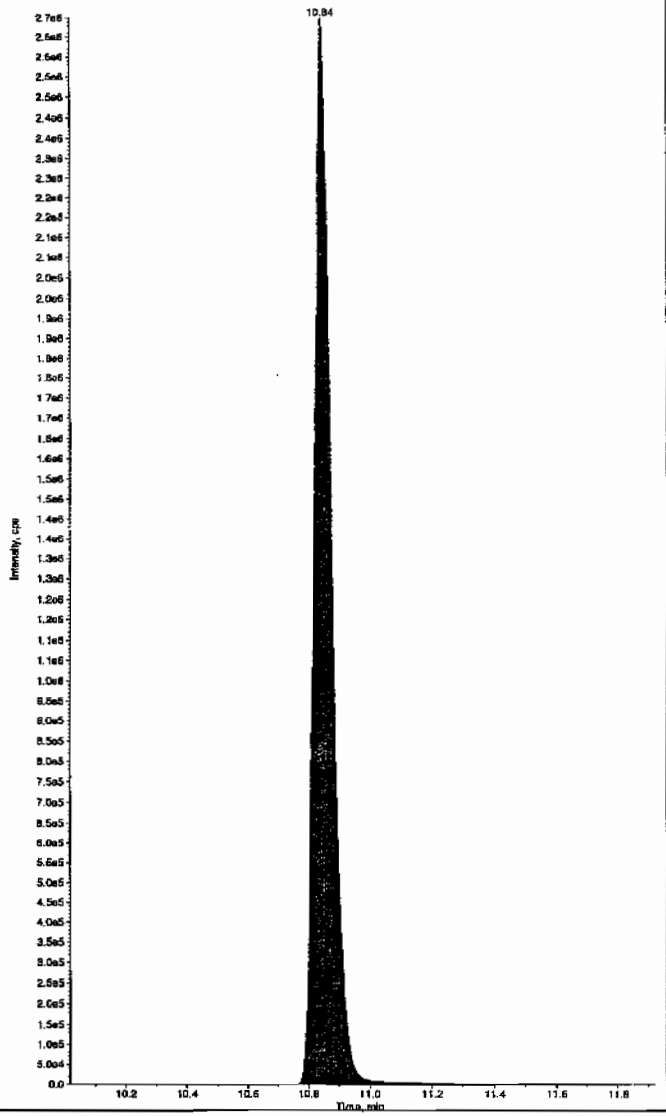

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10--1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170026.wiff

Analysis Date: 17-FEB--10 15:58

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	79.7	80	
2,6-Diamino-4-nitrotoluene	100	104	104	
3,4-Dinitrotoluene	50	51	102	
3,5-Dinitroaniline	100	114	114	
TATB	100	97.5	98	
tris(o-cresyl) phosphate	100	111	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.5 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:58:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.66e+005 counts
Height: 36459.801 cps
Start Time: 6.88 min
End Time: 7.41 min

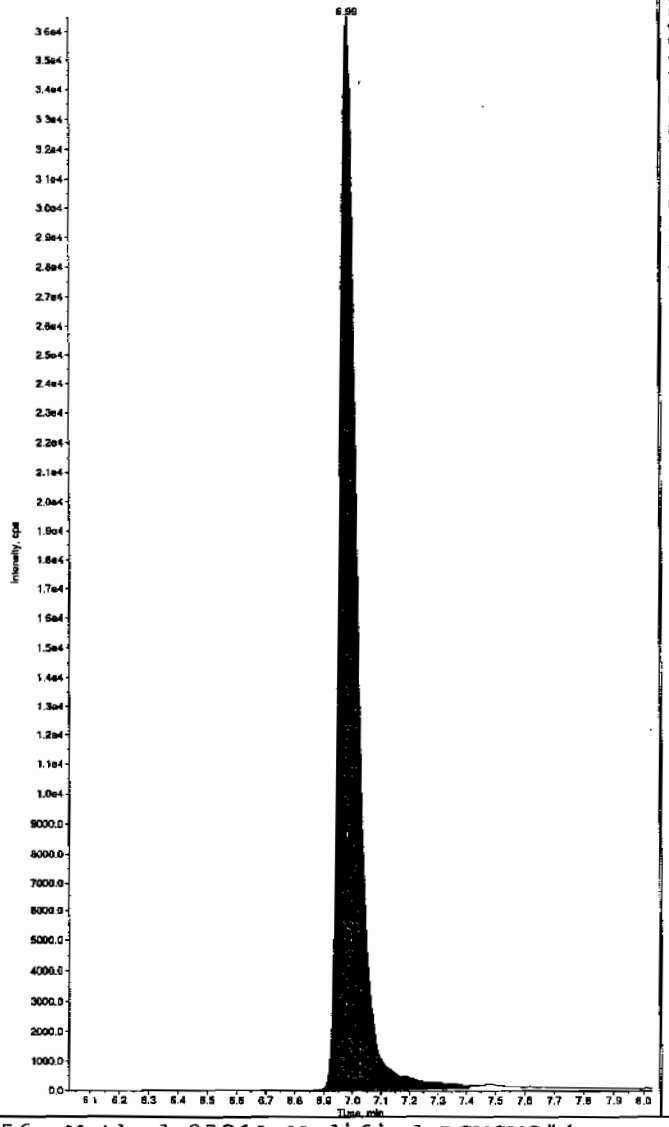

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:58:51 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 8.40e+005 counts
Height: 206971.222 cps
Start Time: 8.07 min
End Time: 8.32 min

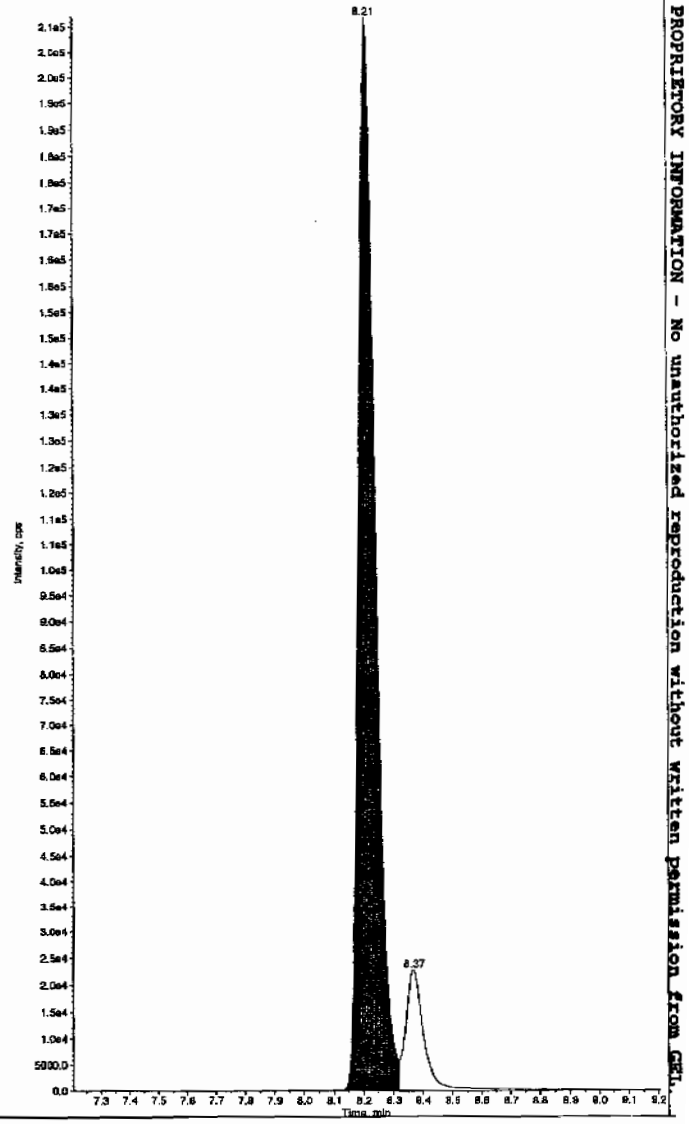

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 51.0 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:58:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 6.79e+005 counts
Height: 189974.213 cps
Start Time: 8.29 min
End Time: 8.64 min

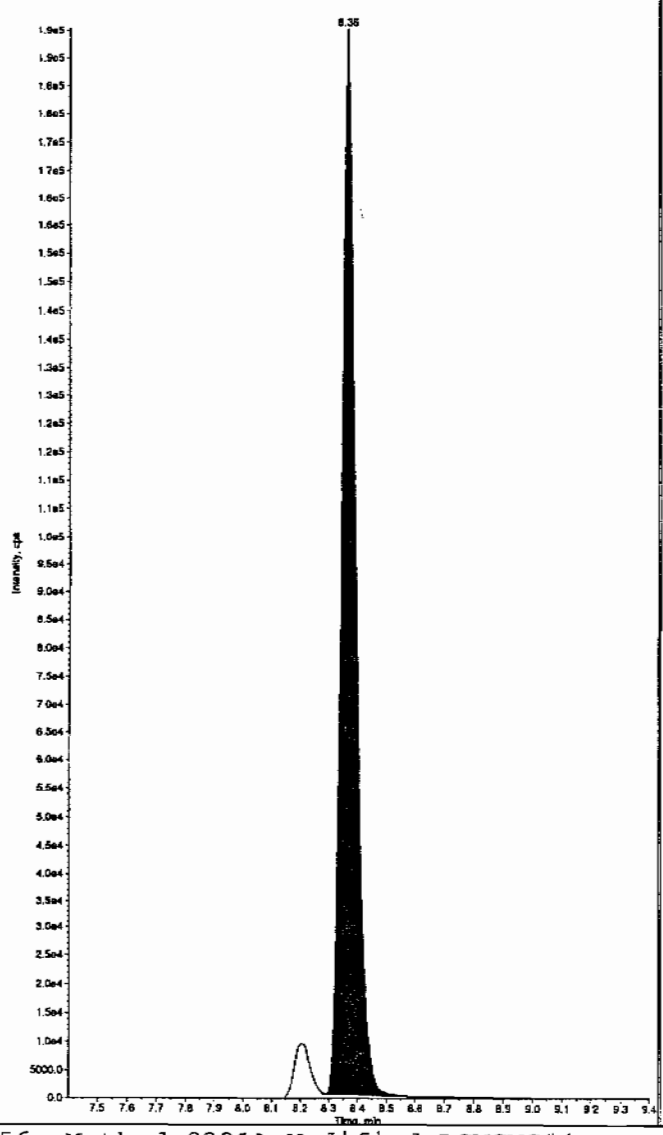

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:58:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.04e+005 counts
Height: 51492.031 cps
Start Time: 4.86 min
End Time: 5.28 min

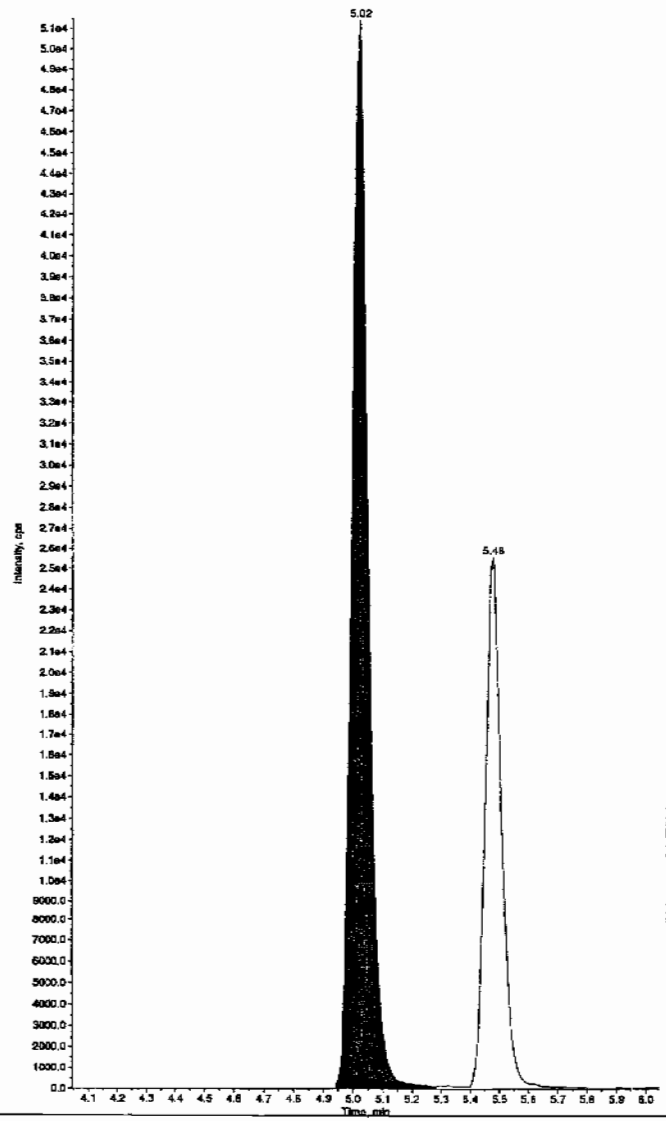

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 79.7 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:58:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 9.85e+004 counts
Height: 25549.866 cps
Start Time: 5.39 min
End Time: 5.70 min

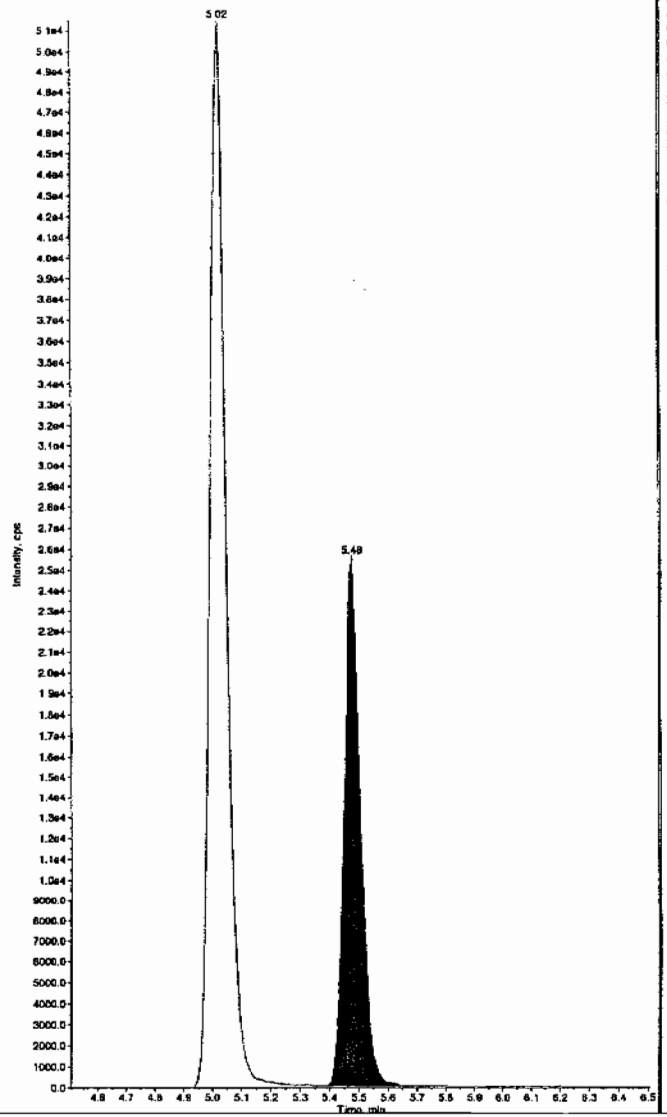

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:58:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.41e+006 counts
Height: 634995.117 cps
Start Time: 10.7 min
End Time: 11.2 min

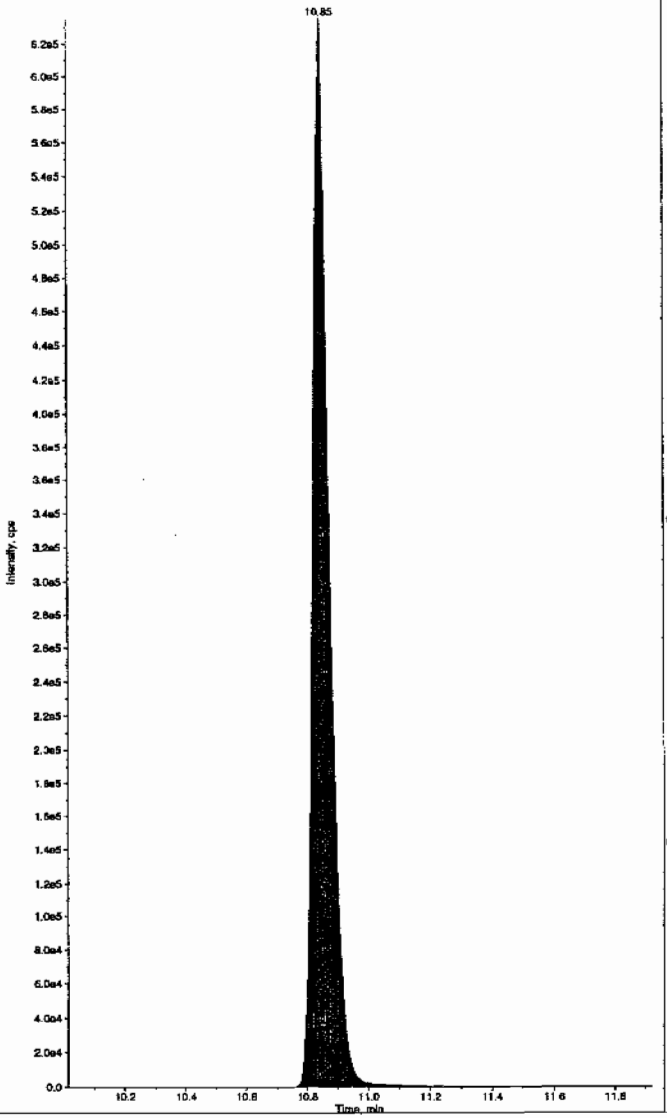

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170037.wiff

Analysis Date: 17-FEB-10 18:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	351	70	
2,6-Diamino-4-nitrotoluene	500	477	95	
3,4-Dinitrotoluene	250	253	101	
3,5-Dinitroaniline	500	506	101	
TATB	500	509	102	
tris(o-cresyl) phosphate	500	502	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 2/19/10

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.03 min
Area: 8.64e+005 counts
Height: 195147.095 cps
Start Time: 6.92 min
End Time: 7.85 min

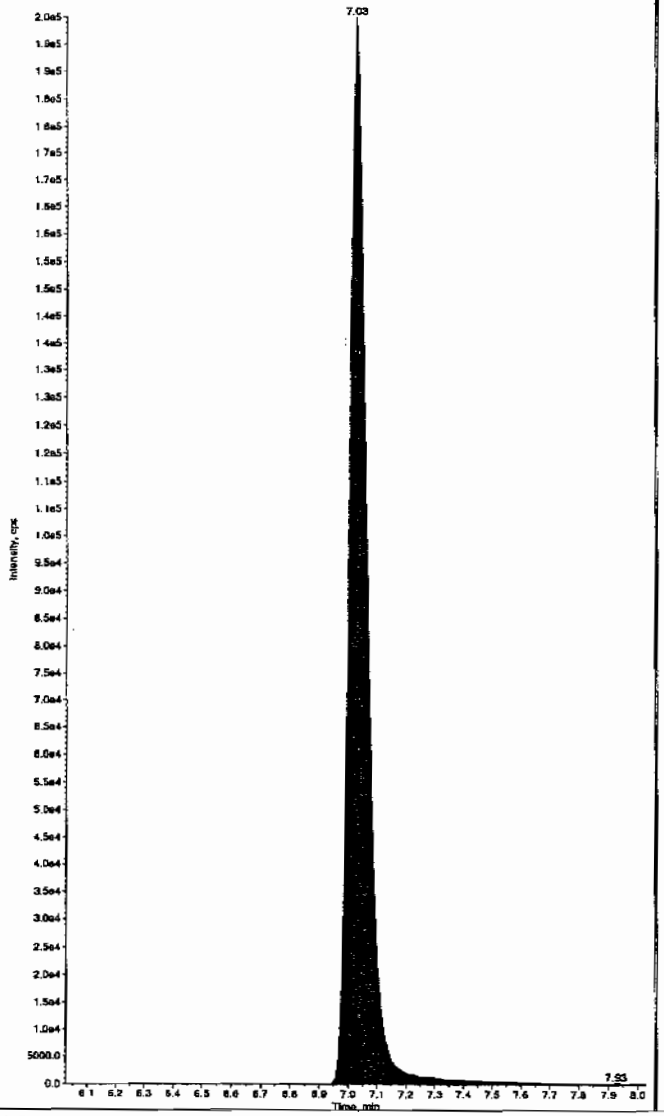

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 506. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 3.72e+006 counts
Height: 977664.917 cps
Start Time: 8.17 min
End Time: 8.37 min

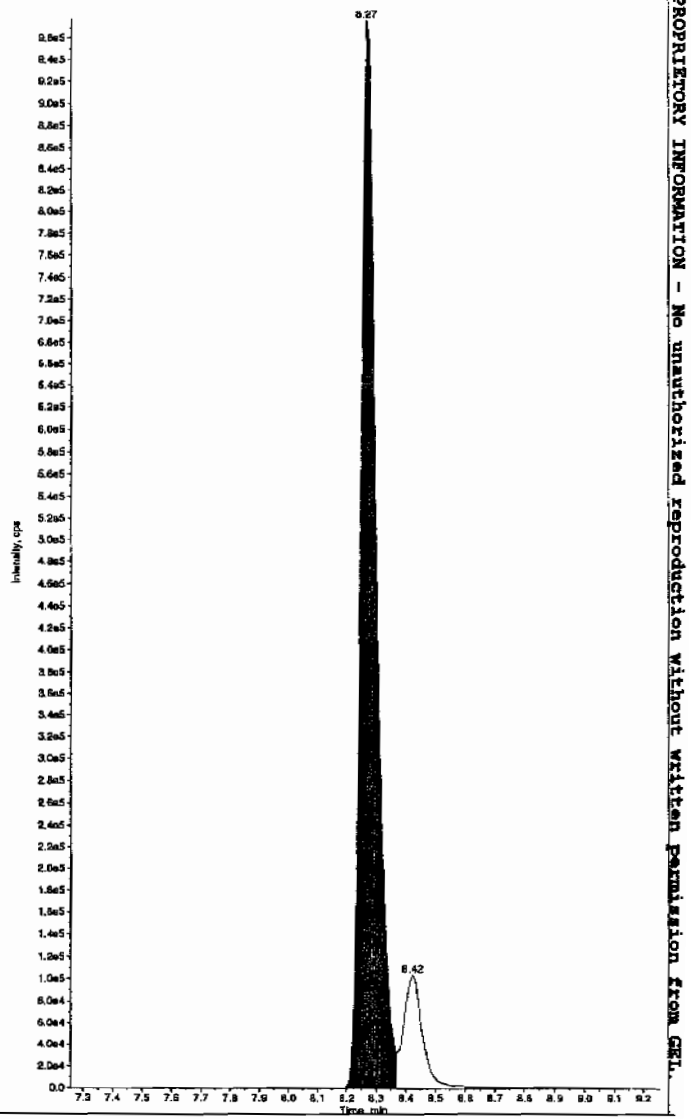

Hmm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100217-25CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 253. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 3.37e+006 counts
Height: 888978.943 cps
Start Time: 8.34 min
End Time: 8.66 min

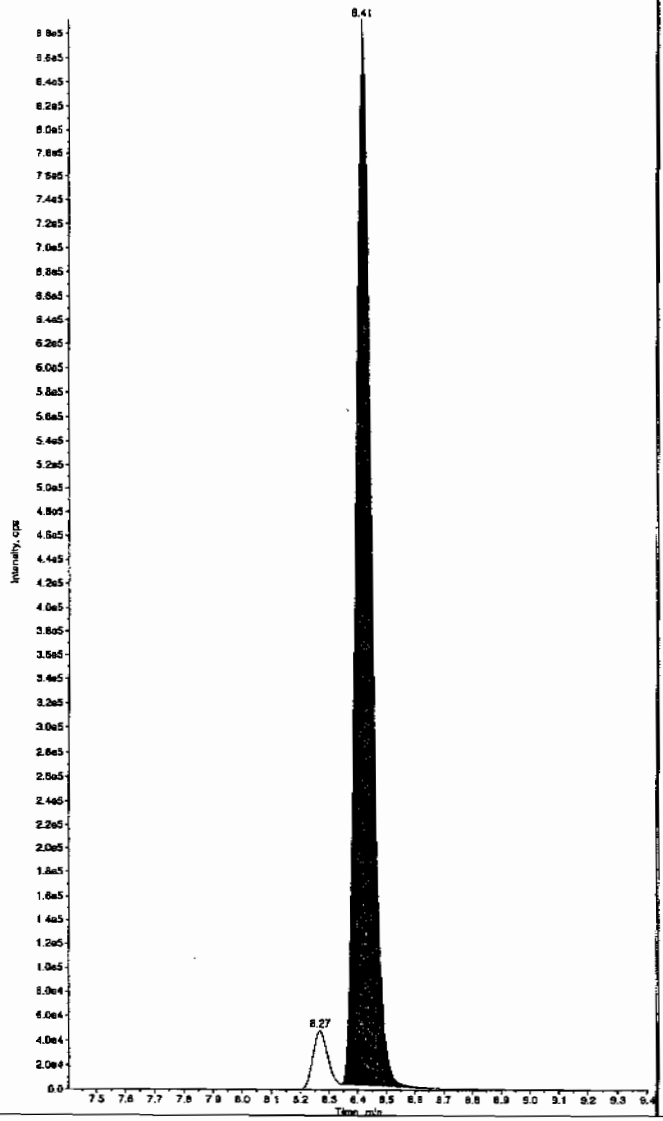

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 477. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 9.39e+005 counts
Height: 222264.755 cps
Start Time: 4.92 min
End Time: 5.34 min

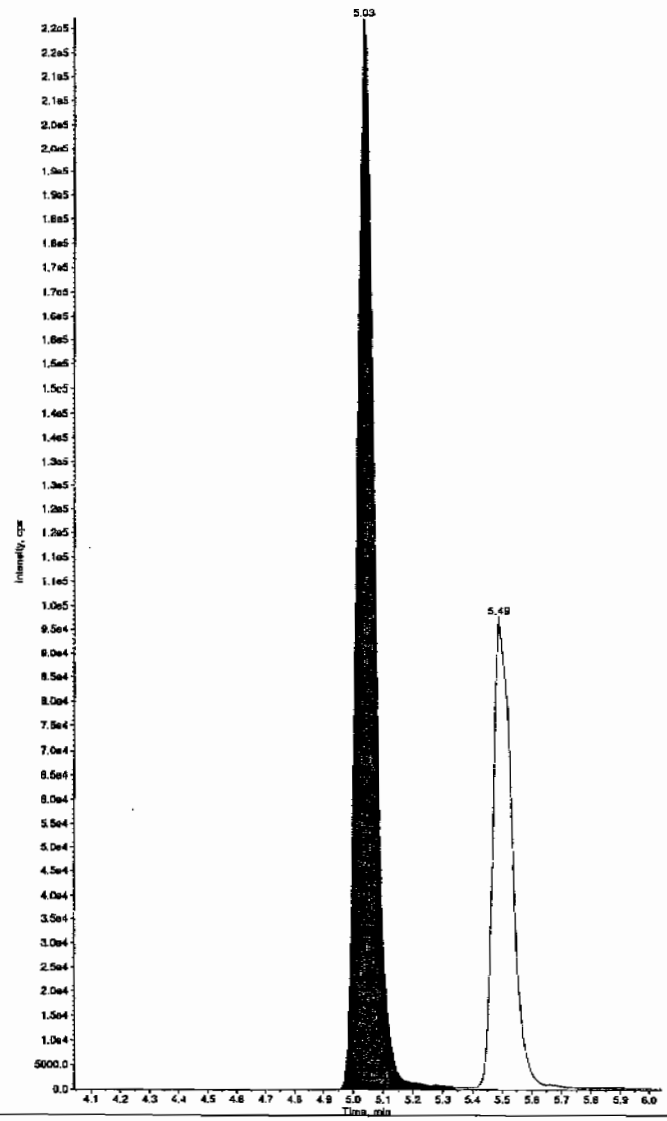

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 351. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 4.34e+005 counts
Height: 97745.071 cps
Start Time: 5.36 min
End Time: 5.80 min

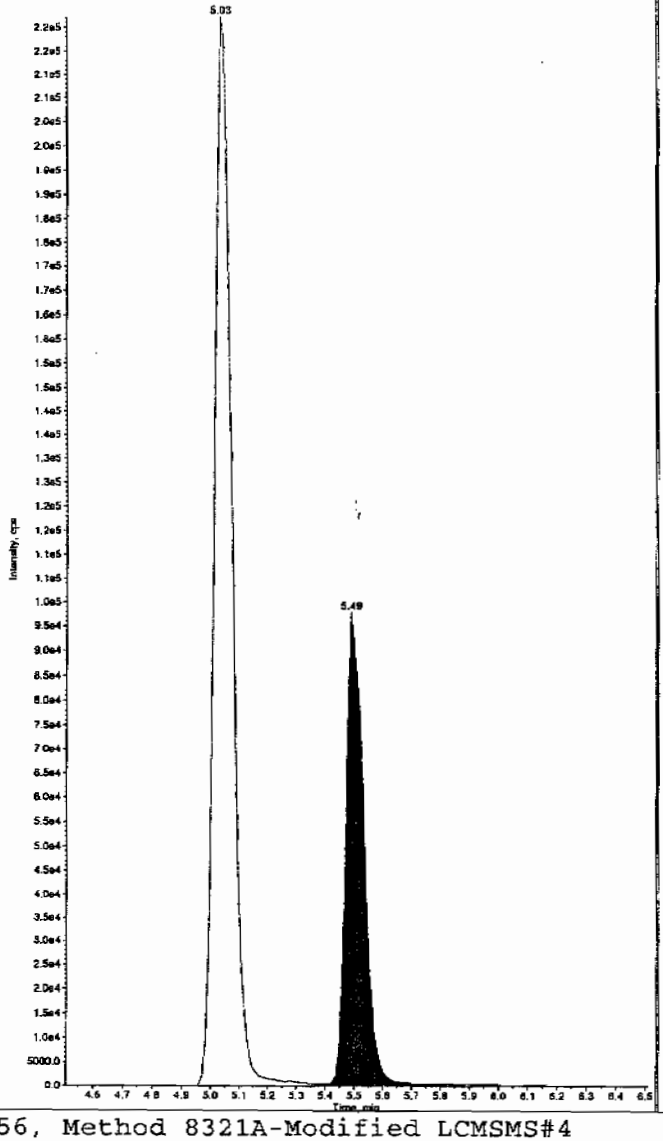

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.09e+007 counts
Height: 2590401.855 cps
Start Time: 10.8 min
End Time: 11.2 min

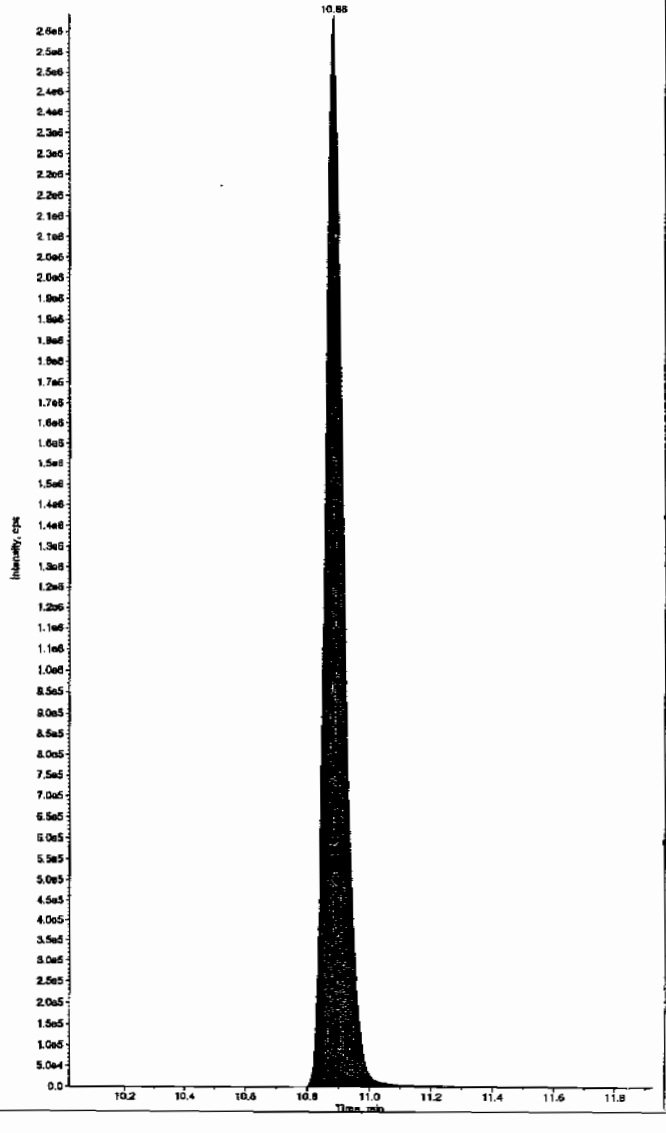

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02170039.wiff

Analysis Date: 17-FEB-10 19:23

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	87.9	88	
2,6-Diamino-4-nitrotoluene	100	98.8	99	
3,4-Dinitrotoluene	50	53.1	106	
3,5-Dinitroaniline	100	104	104	
TATB	100	97.2	97	
tris(o-cresyl) phosphate	100	111	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.2 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:23:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.03 min
Area: 1.65e+005 counts
Height: 36261.650 cps
Start Time: 6.86 min
End Time: 7.49 min

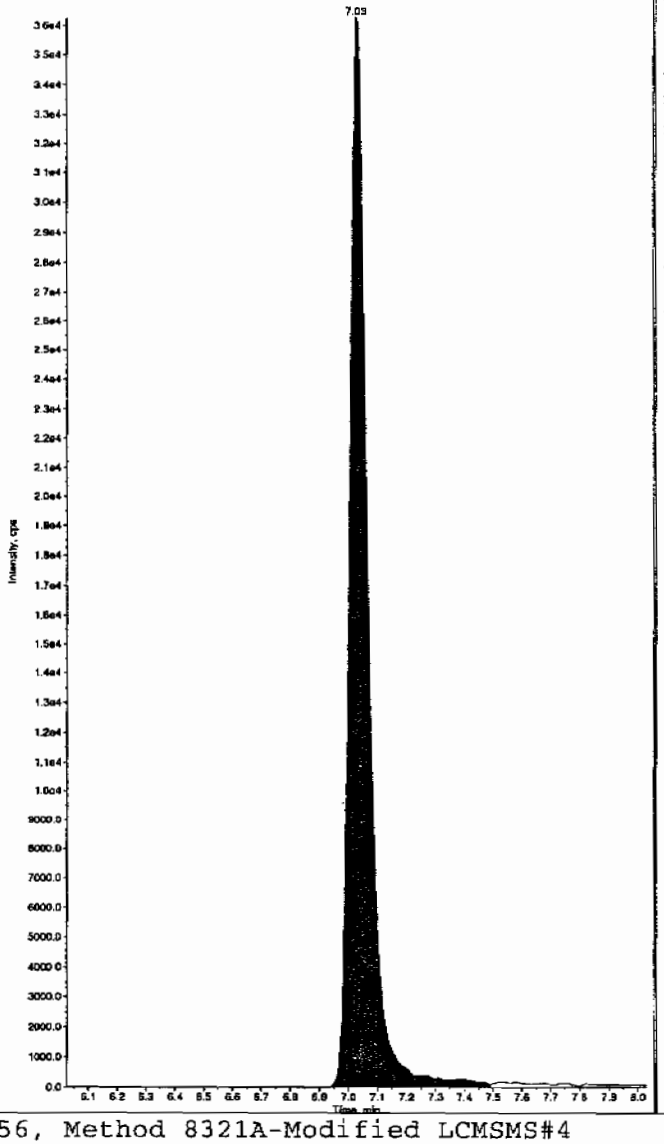

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:23:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 7.62e+005 counts
Height: 185758.255 cps
Start Time: 8.17 min
End Time: 8.37 min

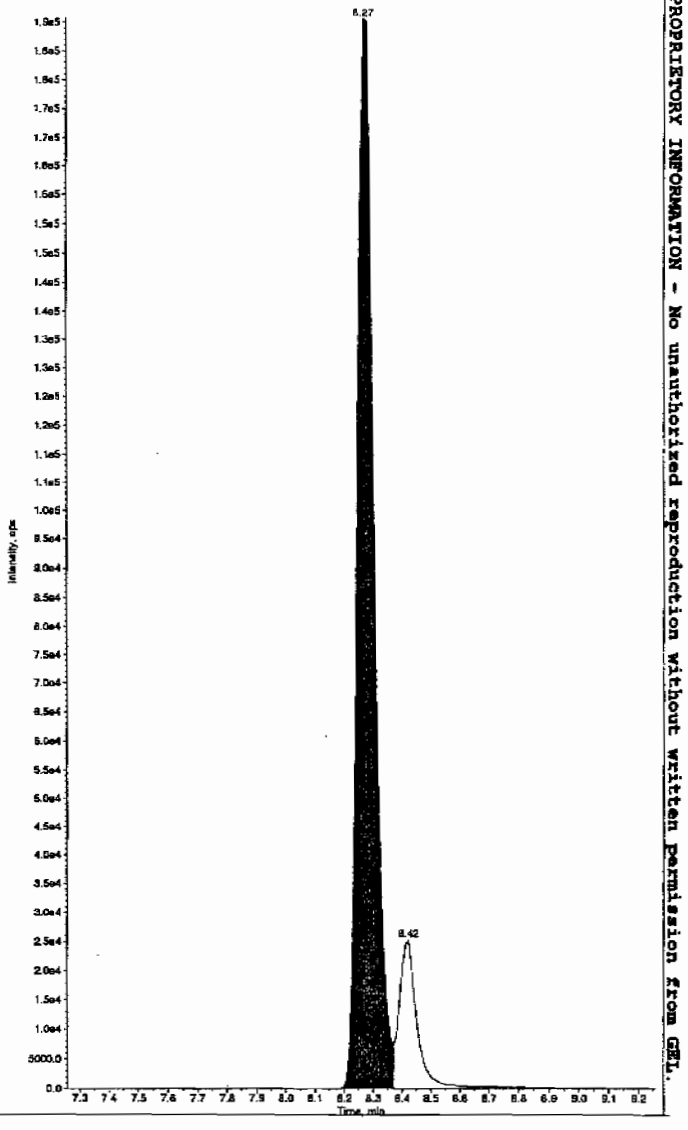

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100217-27CRF" Sample ID: "[1]LER" File: "EXS02170039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 53.1 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:23:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 7.07e+005 counts
Height: 198498.306 cps
Start Time: 8.34 min
End Time: 8.65 min

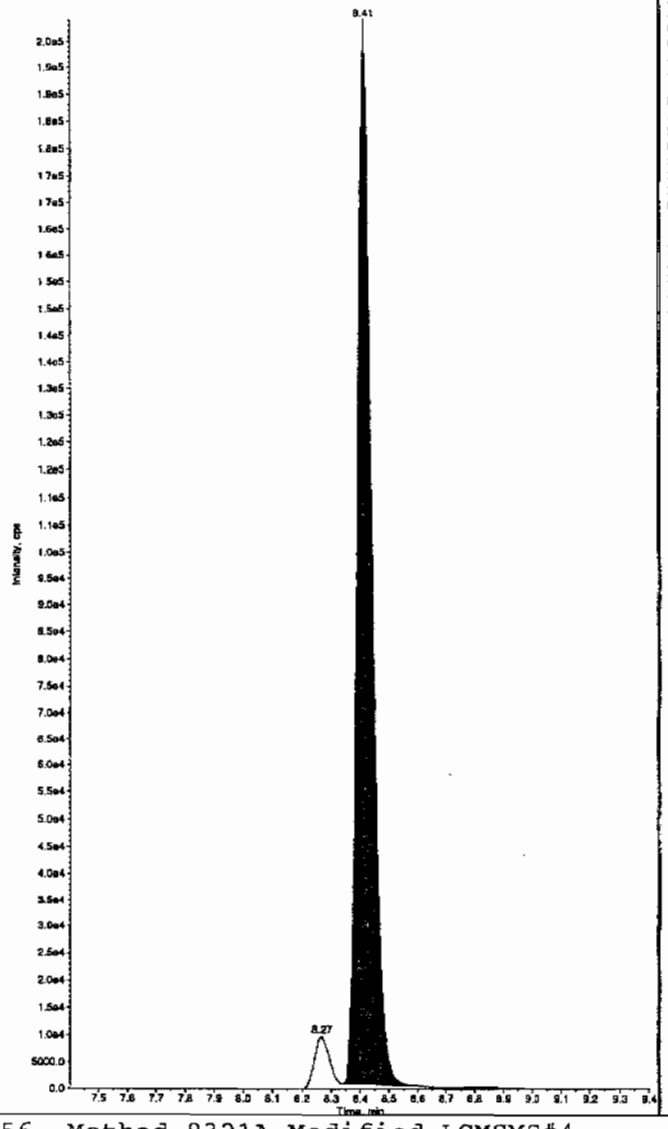

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.8 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:23:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 1.95e+005 counts
Height: 48939.819 cps
Start Time: 4.95 min
End Time: 5.35 min

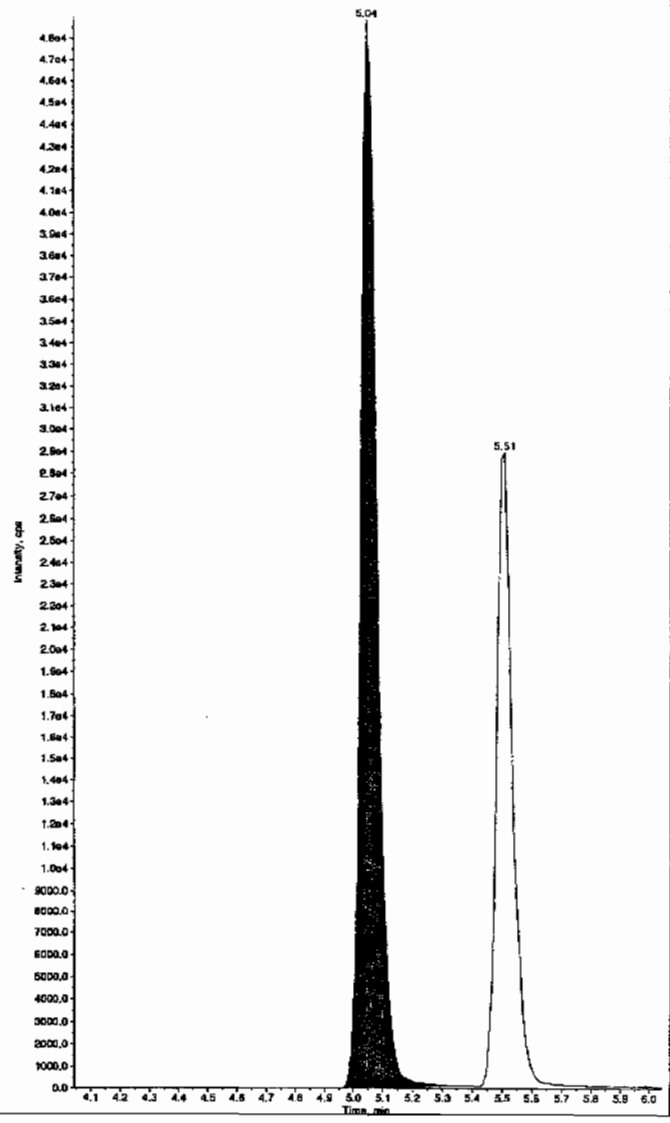

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100217-27CRI" Sample ID: "1|LER" File: "EXS02170039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.9 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:23:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.51 min
Area: 1.09e+005 counts
Height: 28936.251 cps
Start Time: 5.42 min
End Time: 5.79 min

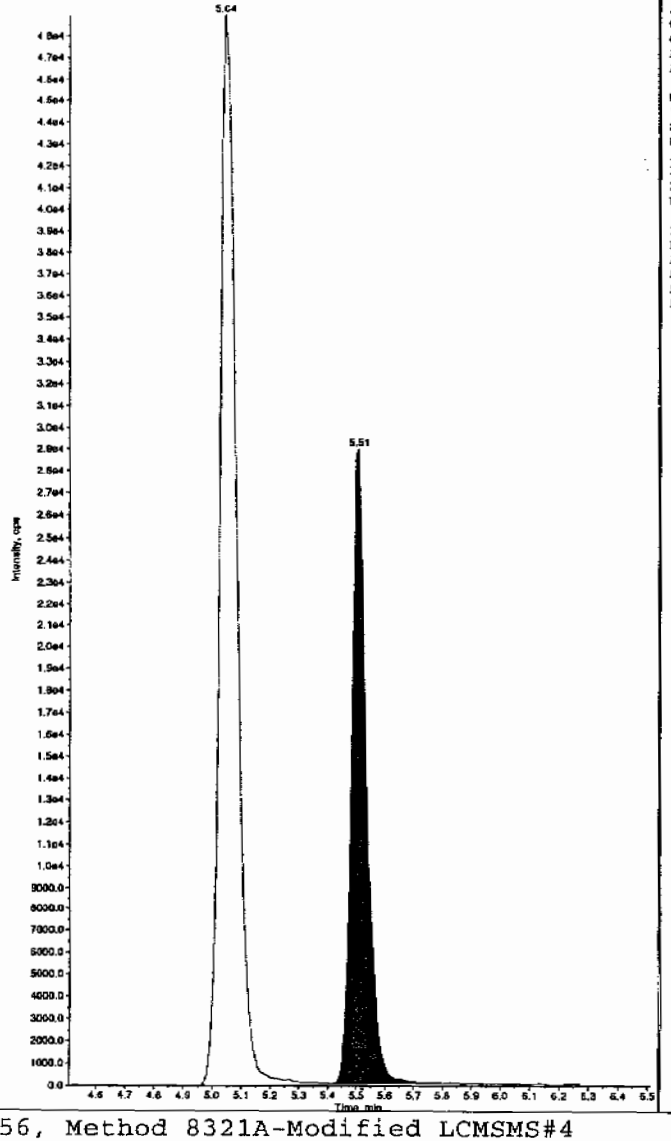

Sample Name: "WXX100217-27CRI" Sample ID: "1|LER" File: "EXS02170039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:23:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.41e+006 counts
Height: 590095.642 cps
Start Time: 10.8 min
End Time: 11.3 min

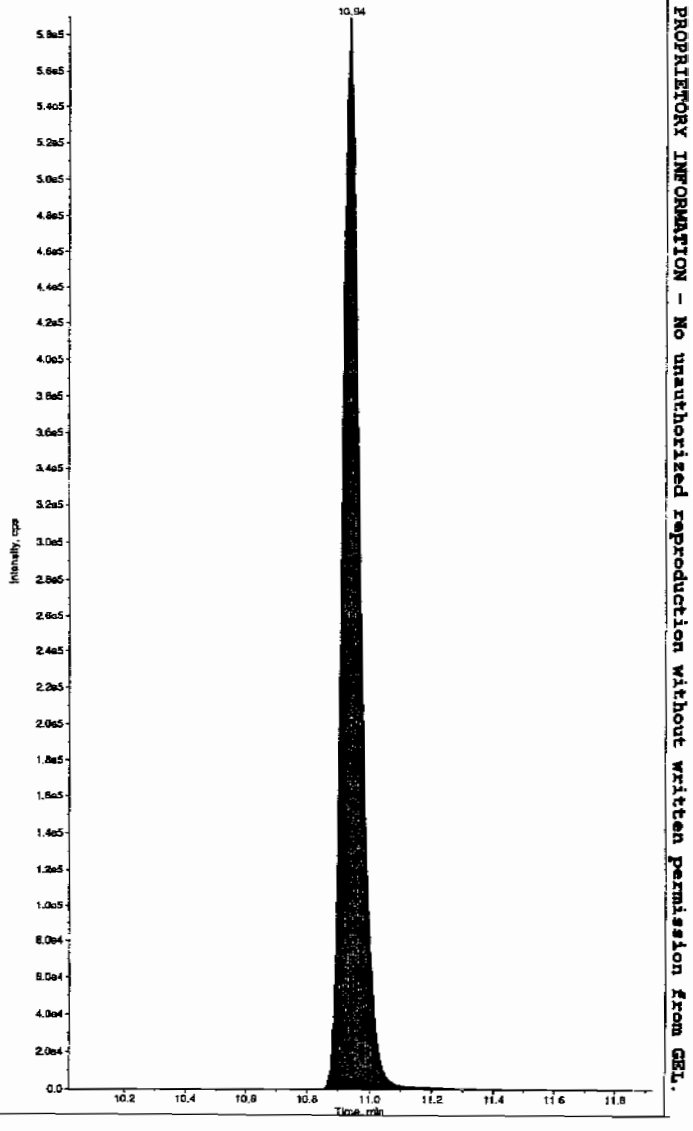

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170043.wiff

Analysis Date: 17-FEB-10 20:25

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	500	100	
2,6-Diamino-4-nitrotoluene	500	503	101	
3,4-Dinitrotoluene	250	250	100	
3,5-Dinitroaniline	500	509	102	
TATB	500	483	97	
tris(o-cresyl) phosphate	500	502	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o--cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino--4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcn 2/19/10

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:25:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.04 min
Area: 8.21e+005 counts
Height: 180905.807 cps
Start Time: 6.87 min
End Time: 7.67 min

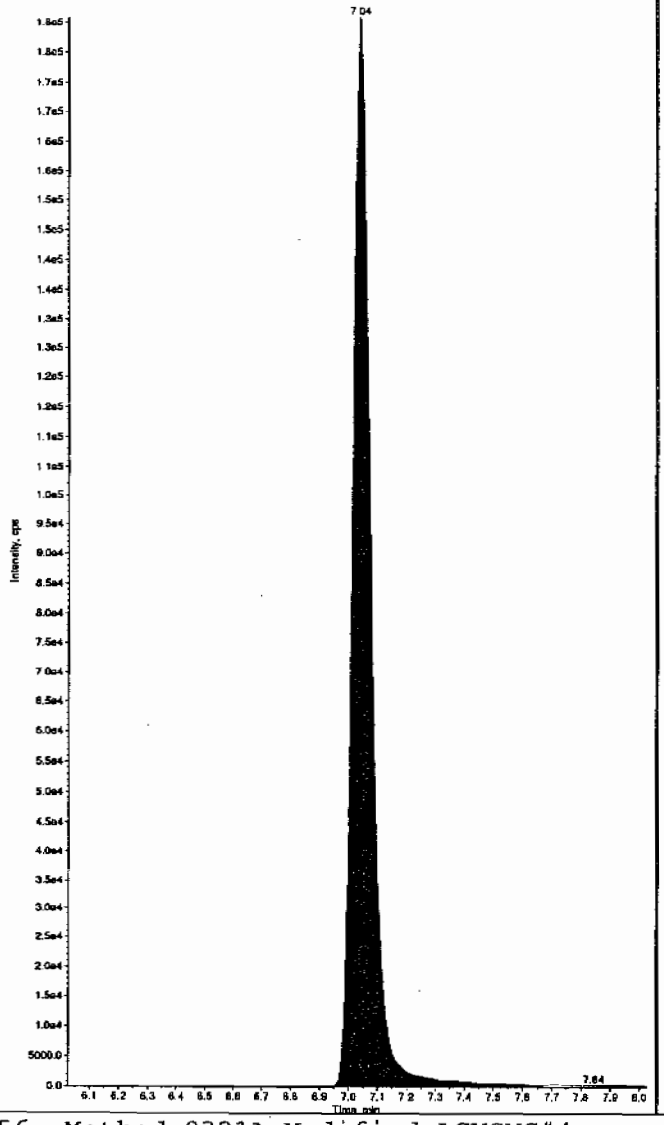

Page 30 of 48

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:25:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.28 min
Area: 3.74e+006 counts
Height: 968300.720 cps
Start Time: 8.19 min
End Time: 8.37 min

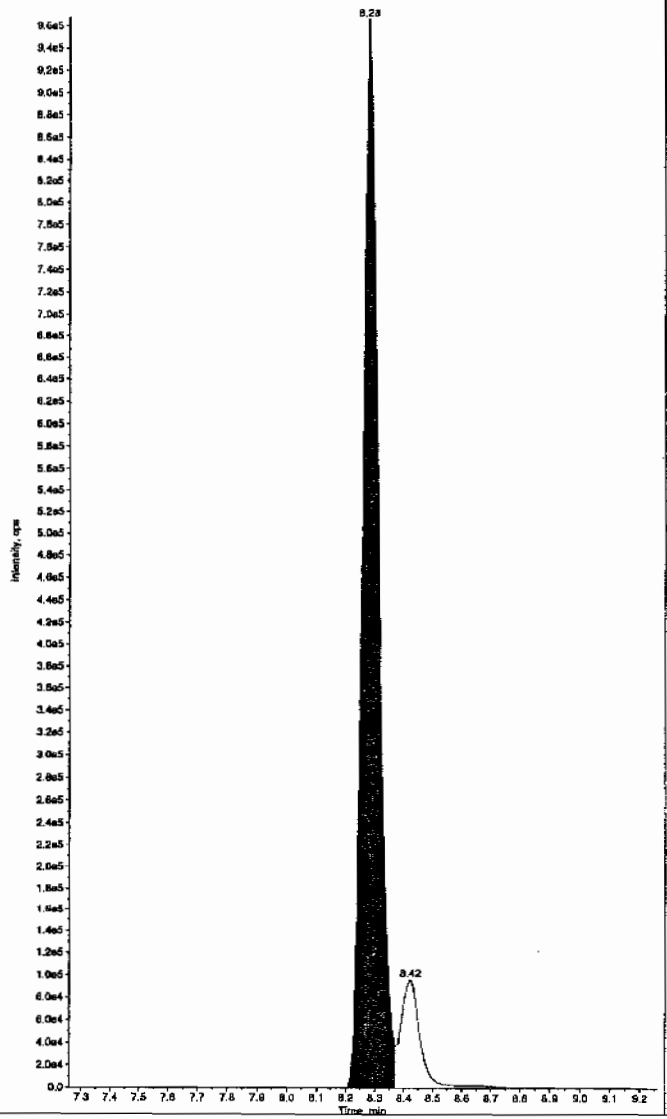

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 250. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:25:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 3.33e+006 counts
Height: 899135.742 cps
Start Time: 8.34 min
End Time: 8.62 min

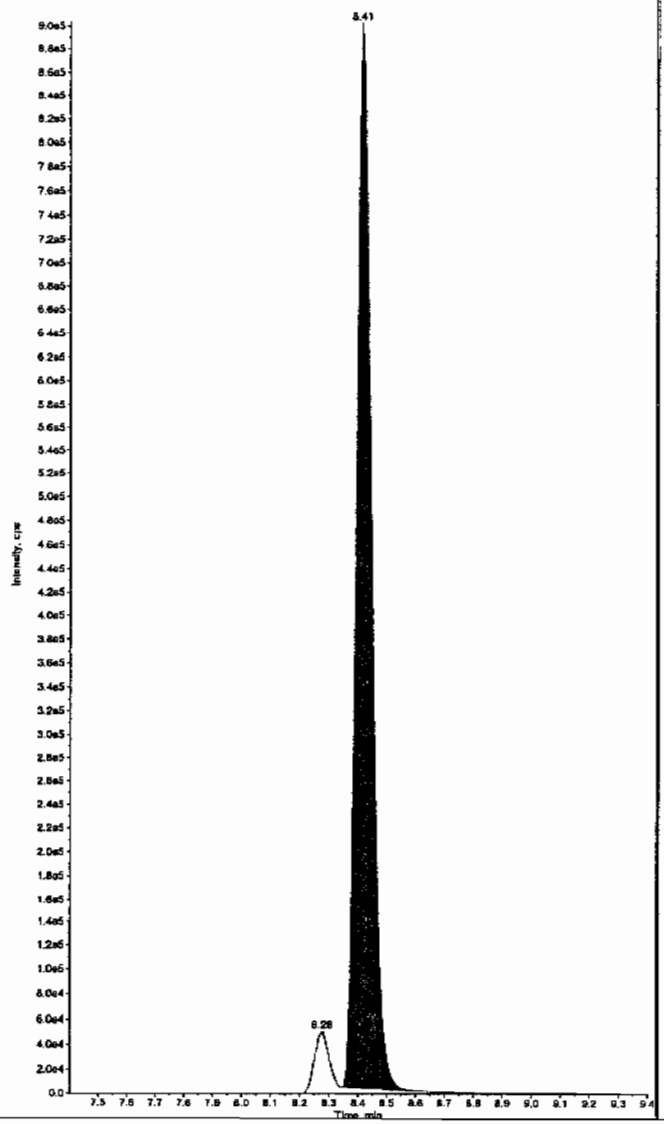

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:25:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 9.90e+005 counts
Height: 228248.566 cps
Start Time: 4.94 min
End Time: 5.34 min

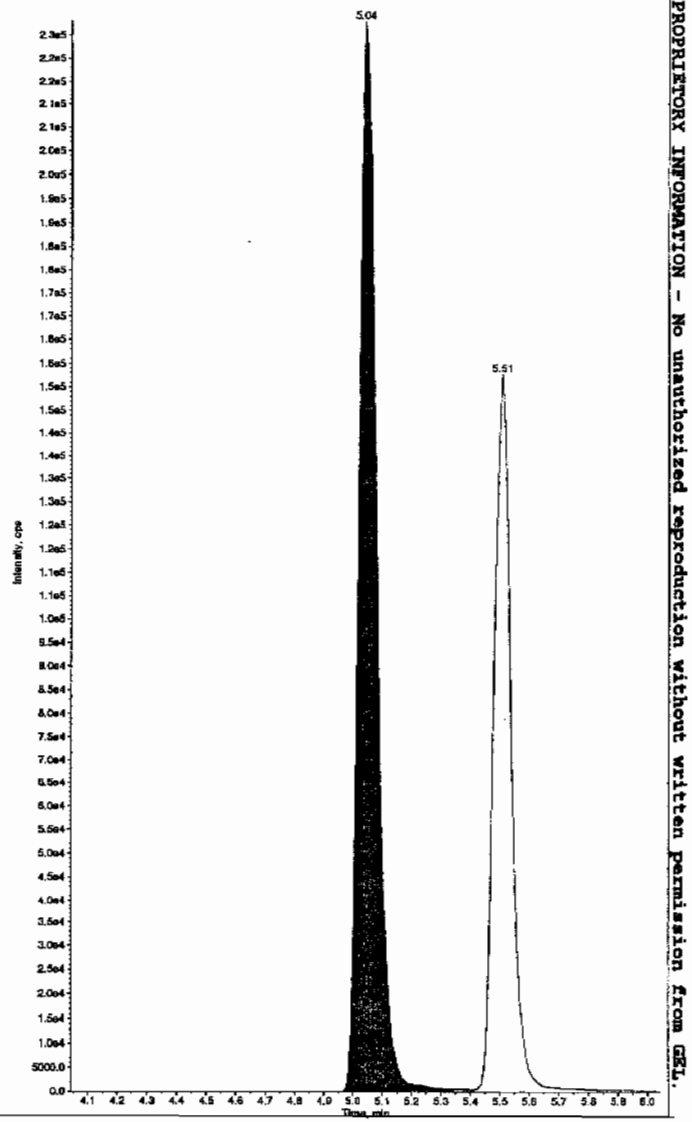

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:25:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.51 min
Area: 6.18e+005 counts
Height: 152685.837 cps
Start Time: 5.40 min
End Time: 5.87 min

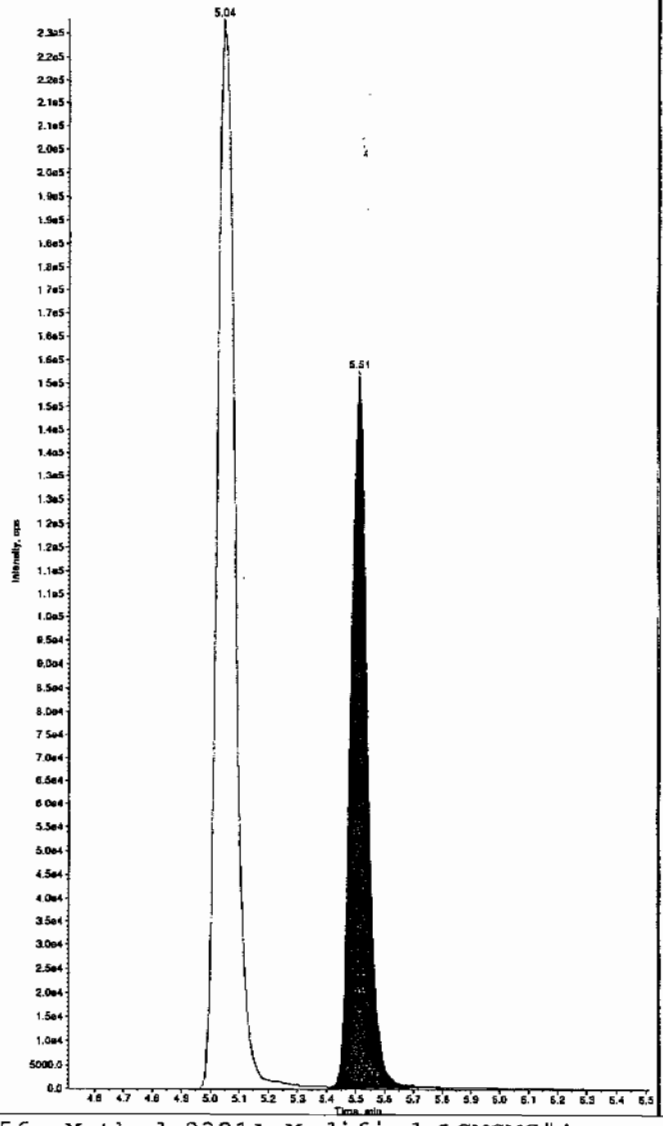

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:25:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.09e+007 counts
Height: 2649898.682 cps
Start Time: 10.8 min
End Time: 11.3 min

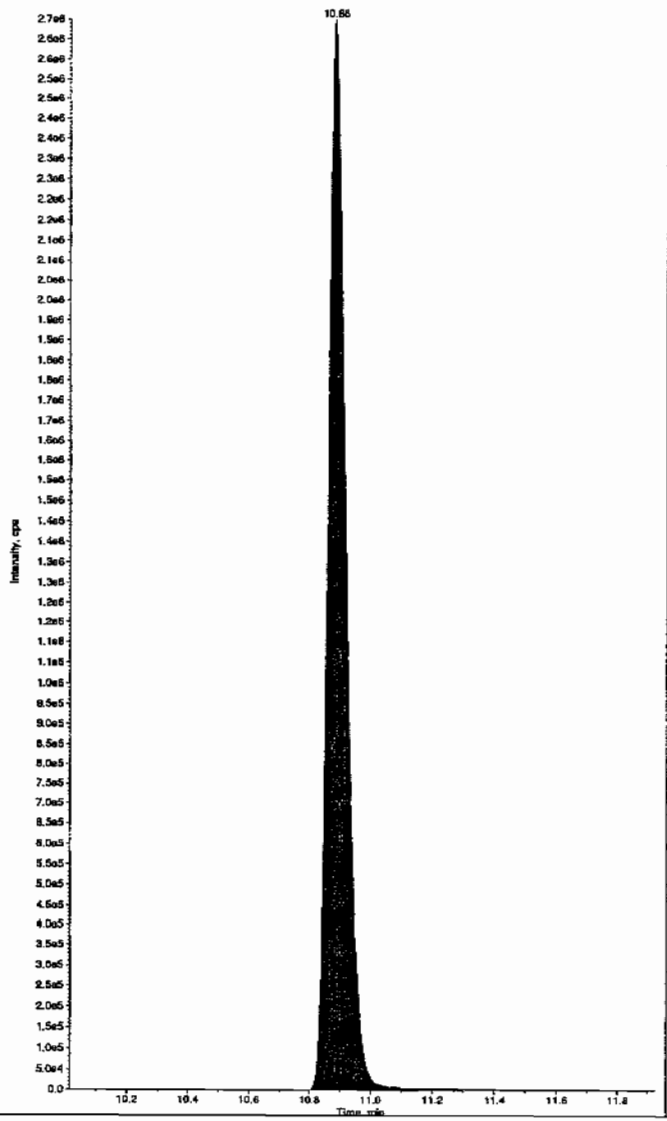

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1470

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170045.wiff

Analysis Date: 17-FEB-10 20:57

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	50.3	101	
3,5-Dinitroaniline	100	108	108	
TATB	100	98.9	99	
tris(o-cresyl) phosphate	100	112	112	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170045.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.9 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:57:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.03 min
Area: 1.68e+005 counts
Height: 37732.765 cps
Start Time: 6.93 min
End Time: 7.68 min

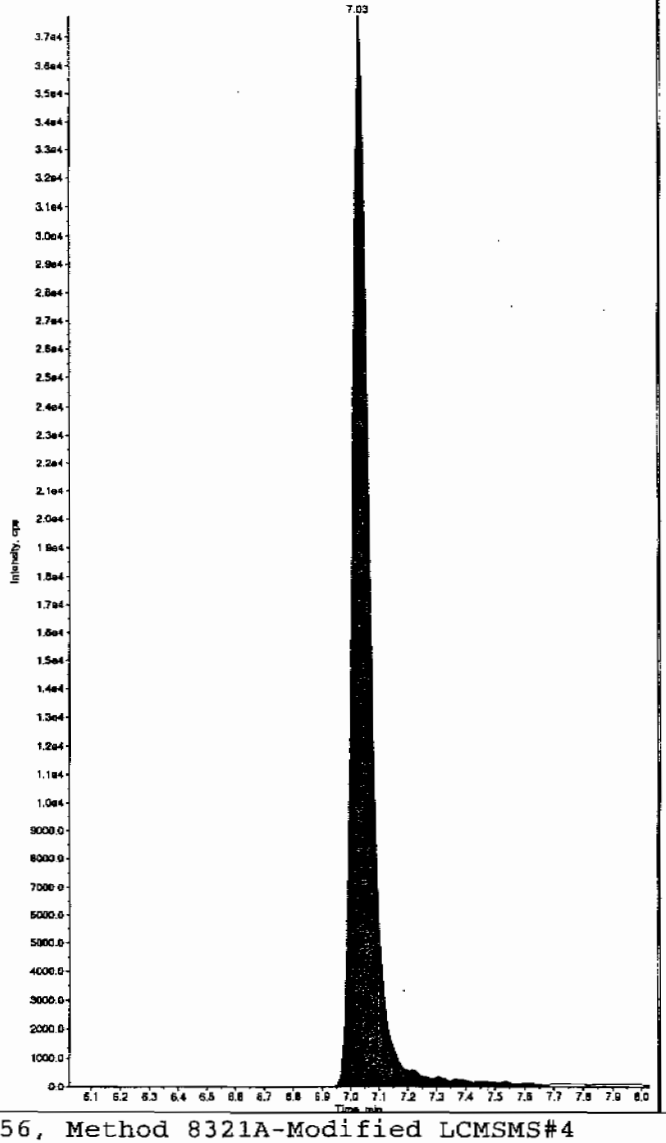

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:57:12 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 7.94e+005 counts
Height: 197506.607 cps
Start Time: 8.17 min
End Time: 8.36 min

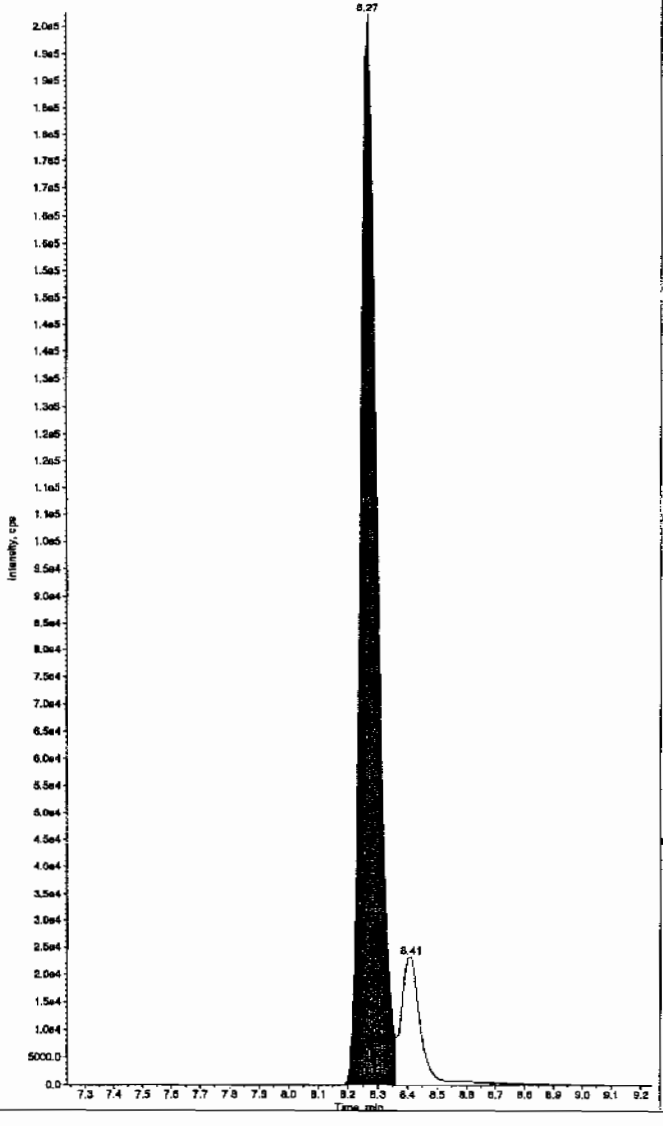

Hnm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 50.3 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:57:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 6.71e+005 counts
Height: 138689.957 cps
Start Time: 8.33 min
End Time: 8.58 min

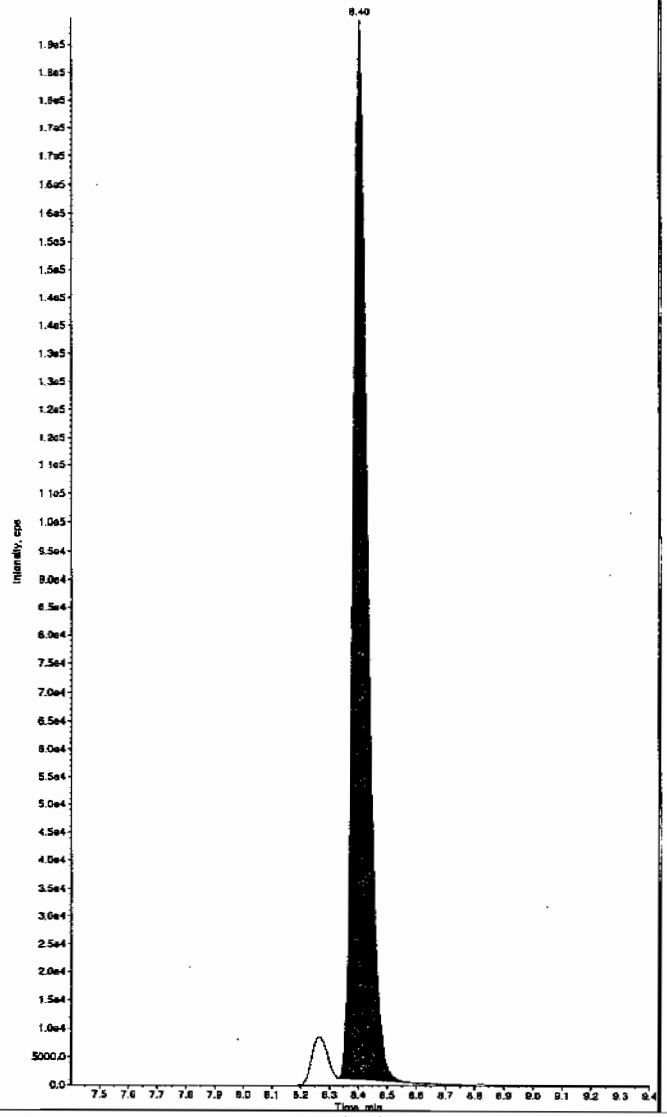

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170046.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:57:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 2.14e+005 counts
Height: 53865.376 cps
Start Time: 4.95 min
End Time: 5.31 min

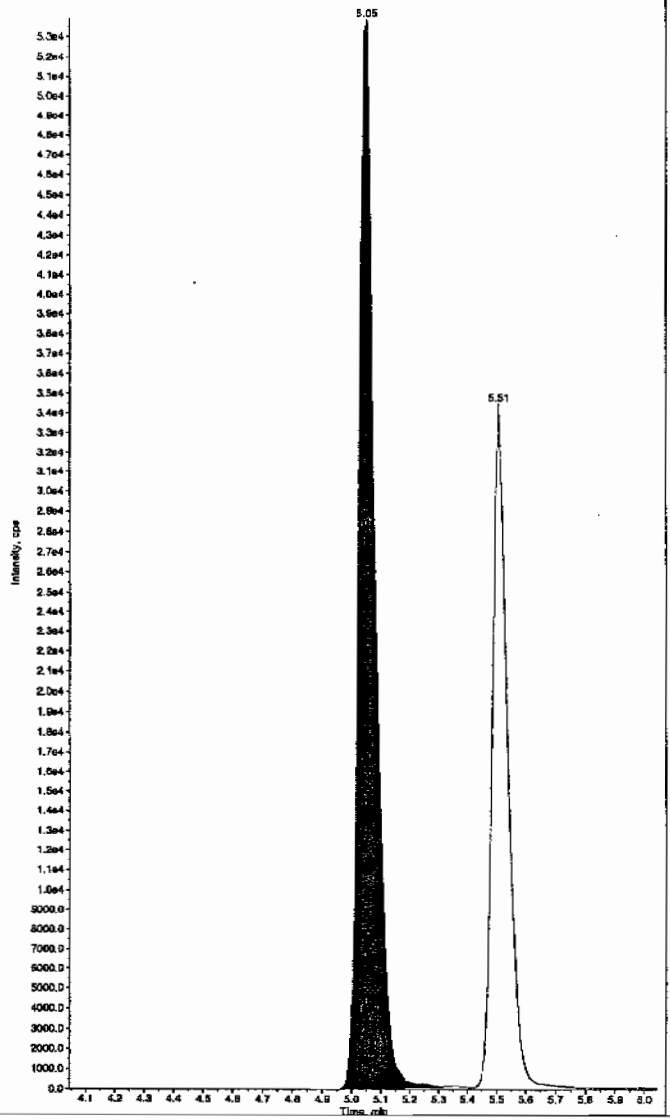

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:57:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.51 min
Area: 1.25e+005 counts
Height: 34412.647 cps
Start Time: 5.43 min
End Time: 5.78 min

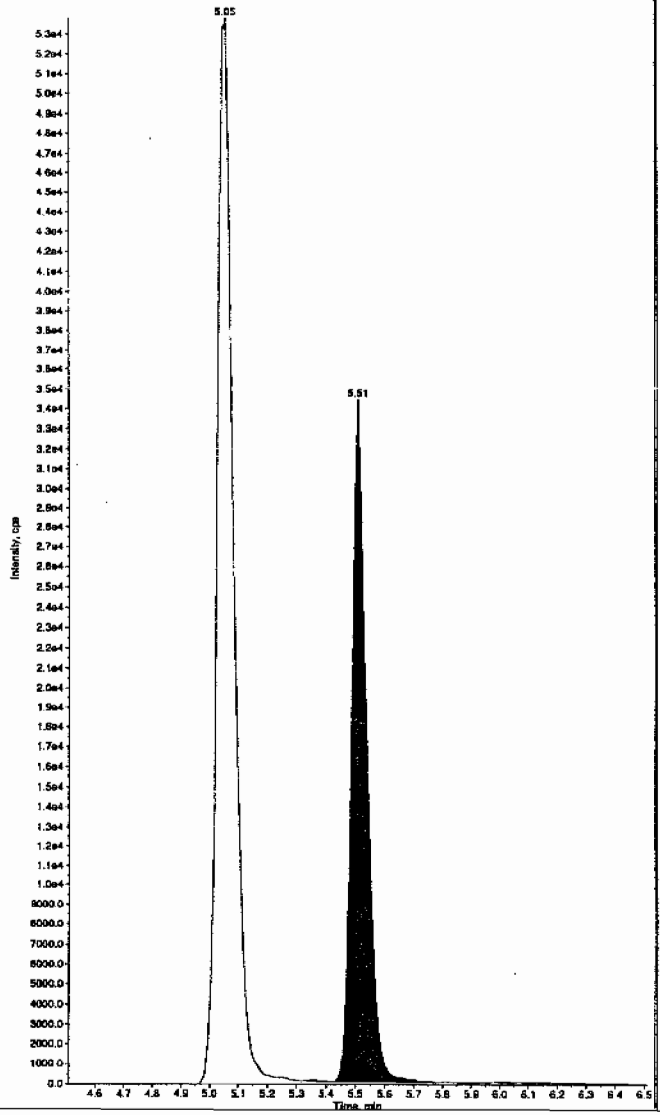

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:57:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.44e+006 counts
Height: 610908.875 cps
Start Time: 10.8 min
End Time: 11.3 min

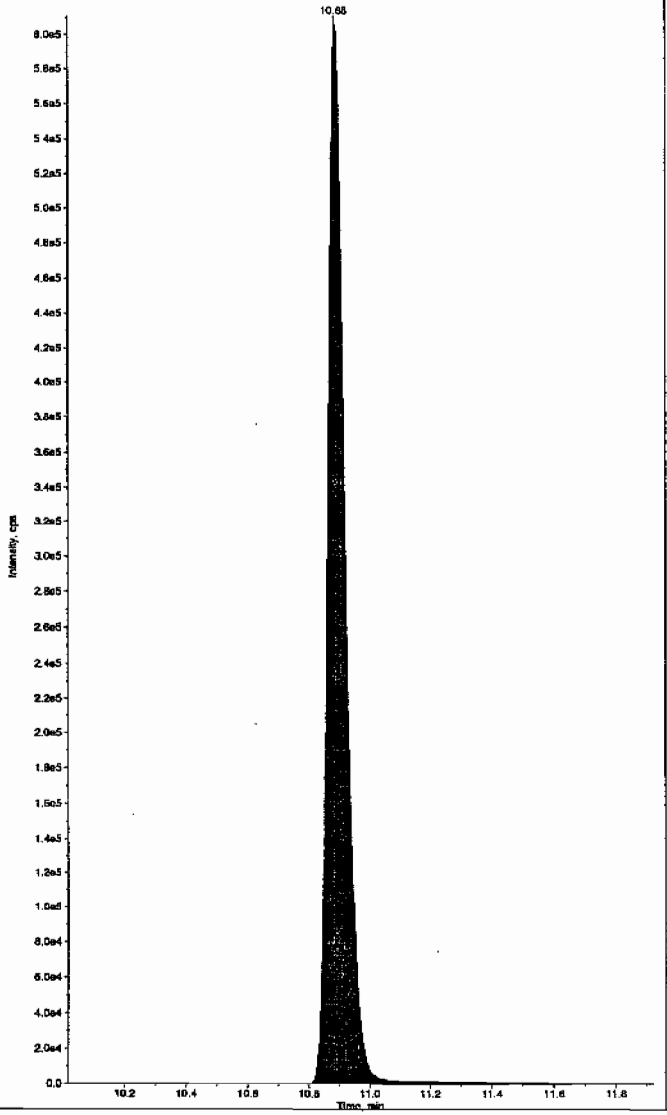

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 947088

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 1202028685

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216180a

Date Analyzed: 20-FEB-10 09:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\021610expa.cdb, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216180a
Date: 20-Feb-2010
Time: 09:55:11
ID: 1202028685 | LANL | 947089 | Soil | MB | 2 |
Vial: 4:3,A

MAP 2/21/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.069e+003

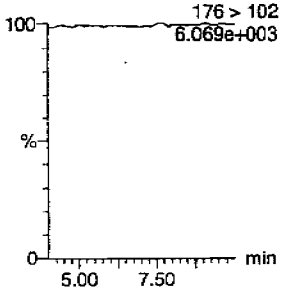

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.069e+003

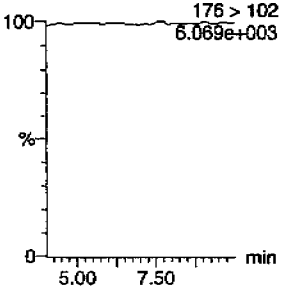

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.988e+003

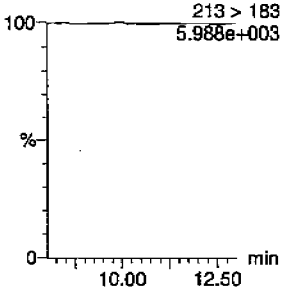

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.321e+004

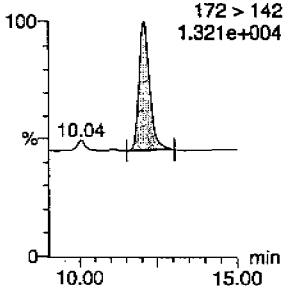

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.000e+003

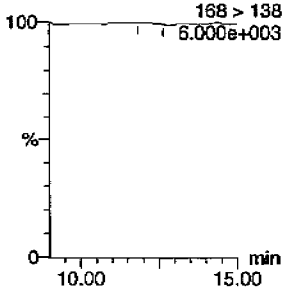

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.000e+003

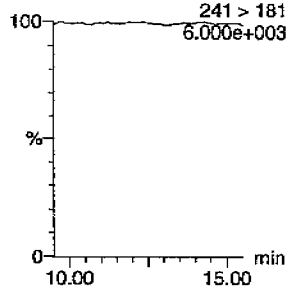

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.068e+003

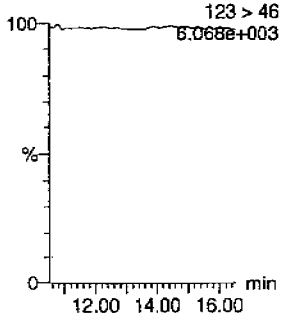

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.045e+003

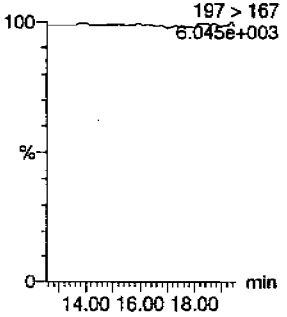

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.025e+003

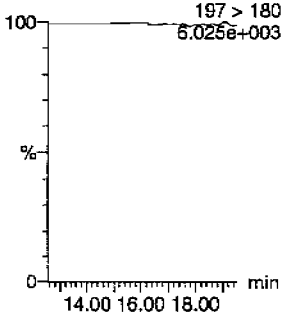

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.982e+003

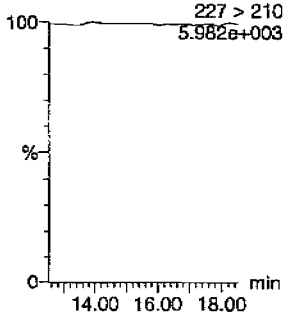

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.513e+004

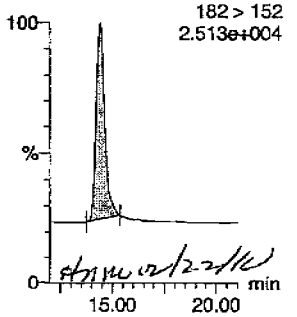

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.41
182 > 152
2.513e+004

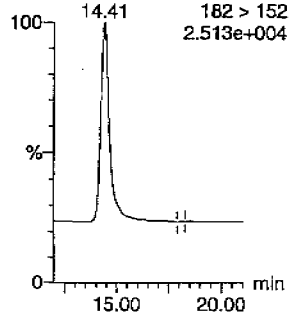

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

24-dinitrotoluene

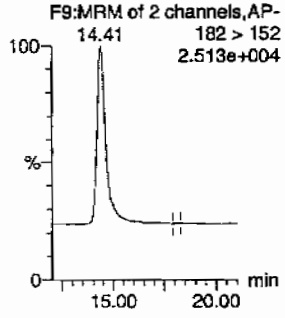

26-dinitrotoluene-d3

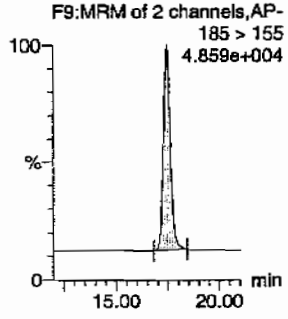

2-Nitrotoluene

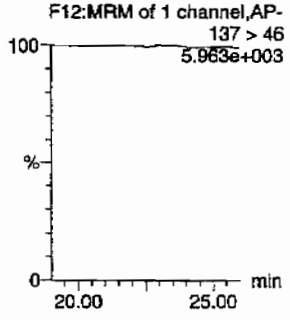

4-Nitrotoluene

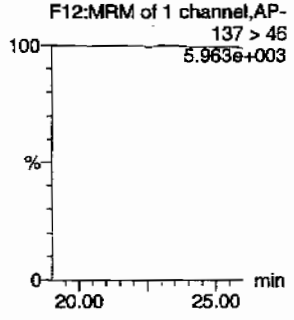

3-Nitrotoluene

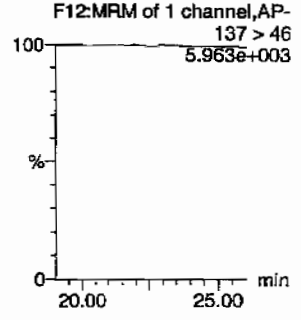

PETN

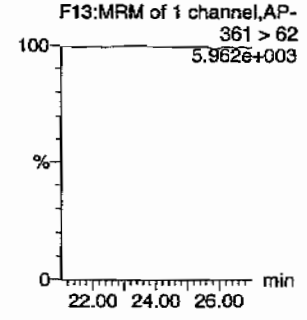

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202028685	HMX	176 > 102			2931.374									
1202028685	RDX	176 > 102			2931.374									
1202028685	135-Trinitrobenzene	213 > 183			2931.374									
1202028685	13-Dinitrobenzene-d4	172 > 142	12.06	2931.374		2931.374	2931.374	bb			486.5487	97.3	-2.7	268.9
1202028685	13-Dinitrobenzene	168 > 138			2931.374			MM-	21-Feb-10	12:00:19				
1202028685	Tetryl	241 > 181			2931.374									
1202028685	Nitrobenzene	123 > 46			2931.374									
1202028685	4-Amino-26-dinitrotoluene	197 > 167			16797.260									
1202028685	2-Amino-46-dinitrotoluene	197 > 180			16797.260									
1202028685	246-Trinitrotoluene	227 > 210			16797.260									
1202028685	34-dinitrotoluene	182 > 152	14.41	8851.727	16797.260	8851.727	263.487	bb			290.8244	116.3	16.3	438.5
1202028685	26-dinitrotoluene	182 > 152			16797.260			MM-	21-Feb-10	11:53:29				
1202028685	24-dinitrotoluene	182 > 152			16797.260			MM-	21-Feb-10	11:51:48				
1202028685	26-dinitrotoluene-d3	185 > 155	17.43	16797.260		16797.260	16797.260	bb			482.4427	96.5	-3.5	2408.4
1202028685	2-Nitrotoluene	137 > 46			16797.260									
1202028685	4-Nitrotoluene	137 > 46			16797.260									
1202028685	3-Nitrotoluene	137 > 46			16797.260									
1202028685	PETN	361 > 62			16797.260									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 947088

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 1202028685

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170014.wiff

Date Analyzed: 17-FEB-10 12:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LER 2/19/10

Sample Name: "1202028685" Sample ID: "947089|2|LER" File: "EXS02170014.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:50:25 PM

Modified: No

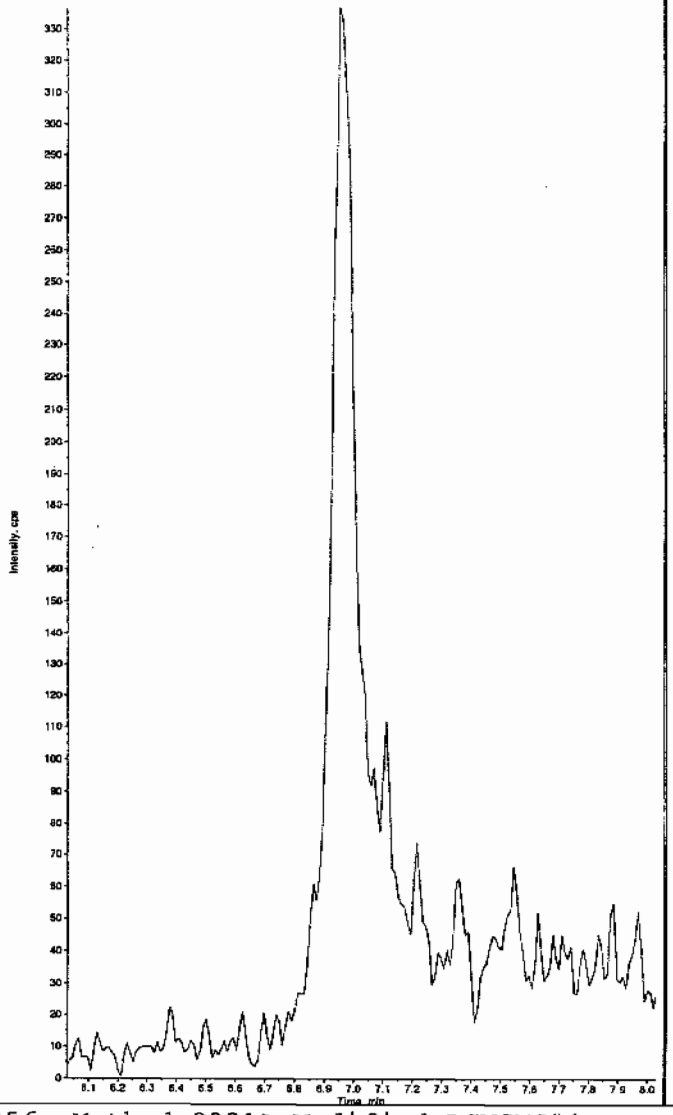

Sample Name: "1202028685" Sample ID: "947089|2|LER" File: "EXS02170014.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:50:25 PM

Modified: Yes

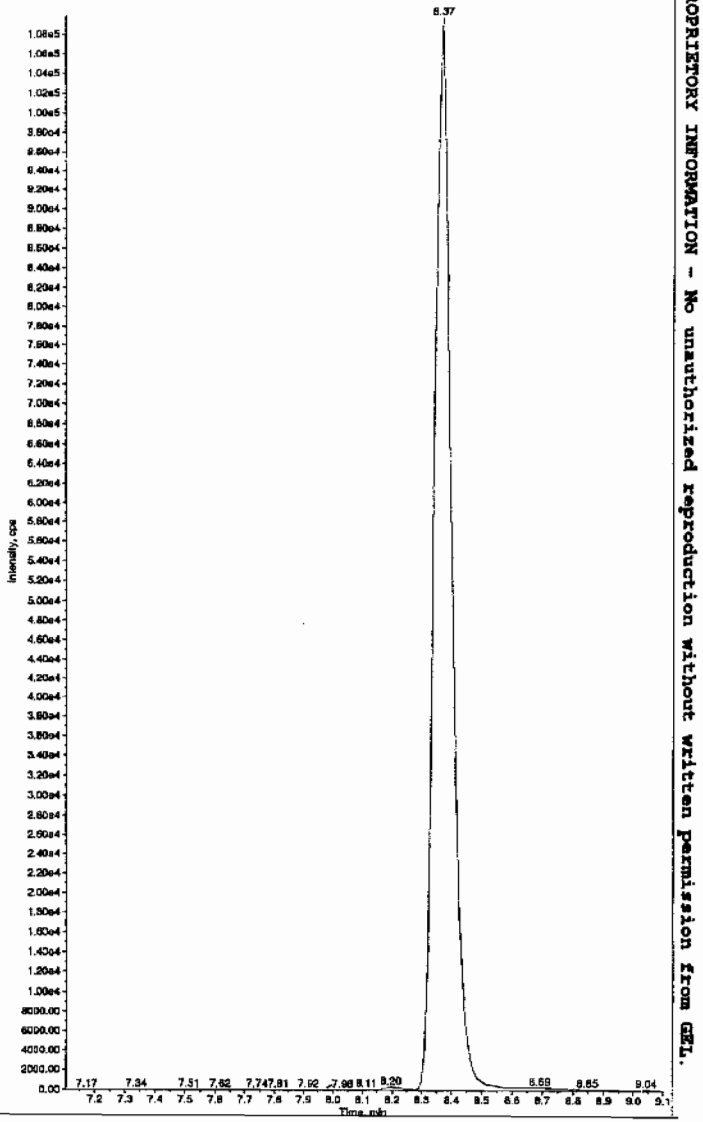

HMM 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028685" Sample ID: "947069|2|LER" File: "EXS02170014.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 301. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:50:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 4.01e+006 counts
Height: 1030414.917 cps
Start Time: 8.26 min
End Time: 8.83 min

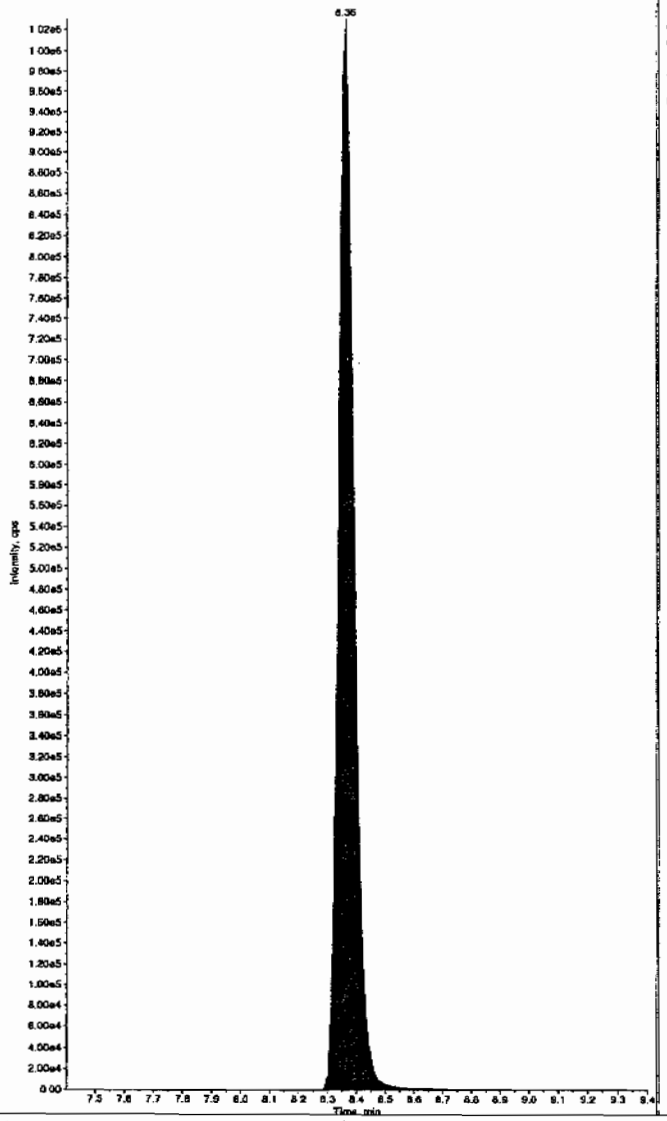

Sample Name: "1202028685" Sample ID: "947069|2|LER" File: "EXS02170014.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:50:25 PM

Modified: No

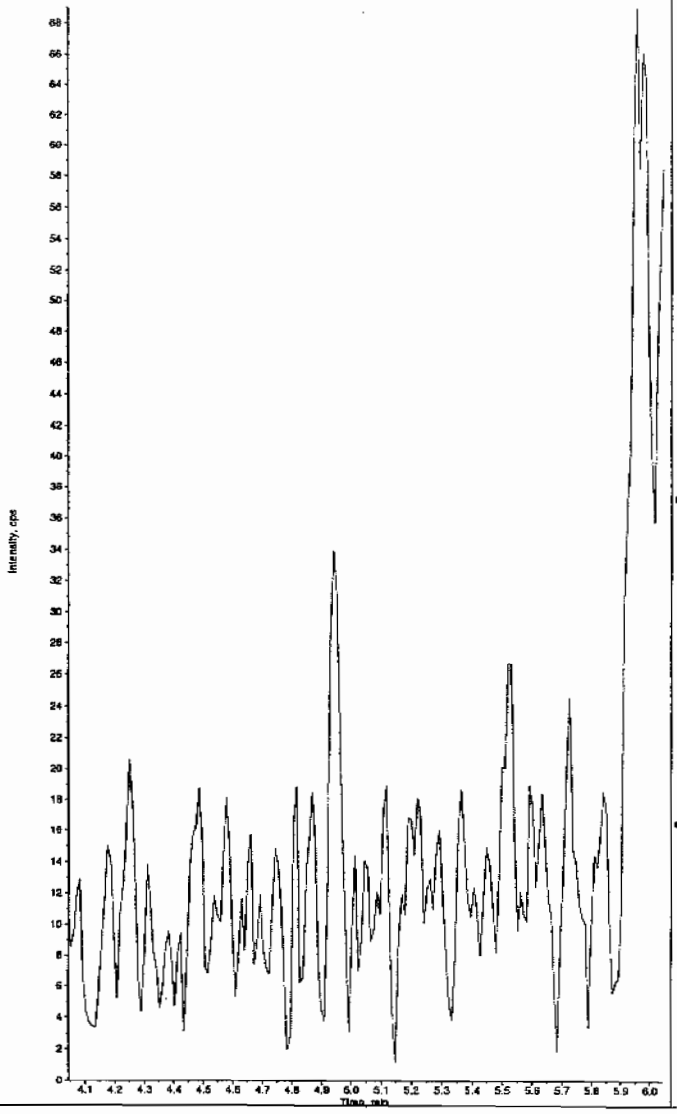

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "1202028585" Sample ID: "947089|2|LER" File: "EXS02170014.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:50:25 PM

Modified: No

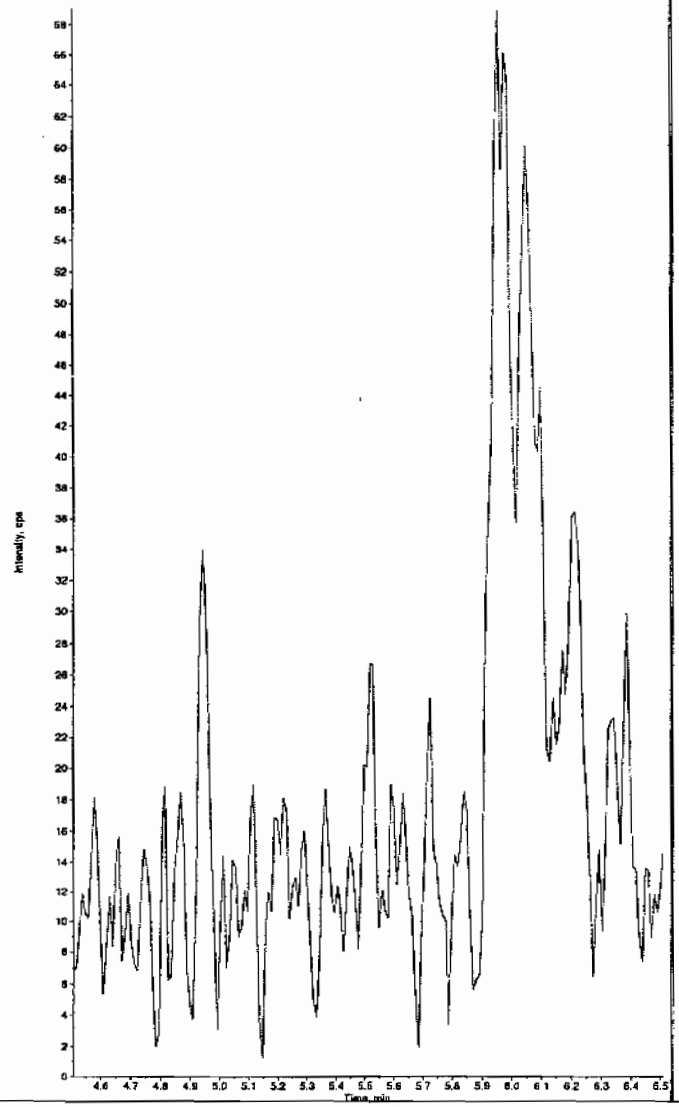

Sample Name: "1202028585" Sample ID: "947089|2|LER" File: "EXS02170014.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.27 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:50:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.95e+004 counts
Height: 12962.493 cps
Start Time: 10.7 min
End Time: 11.0 min

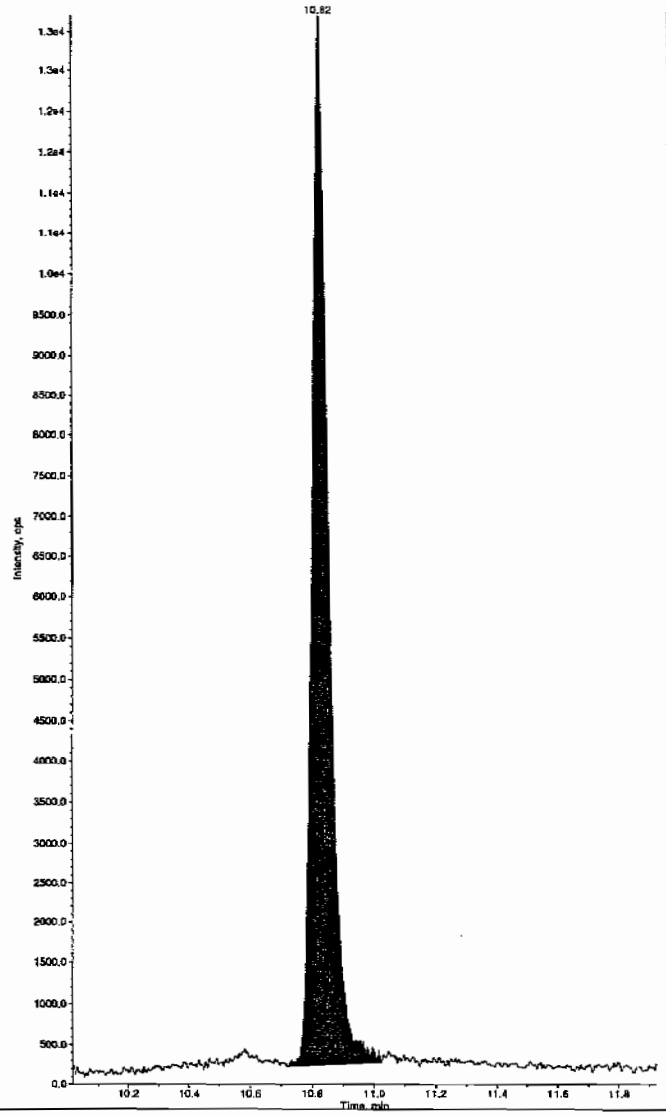

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 947088

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 1202028686

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216181a

Date Analyzed: 20-FEB-10 10:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5160	
121-14-2	2,4-Dinitrotoluene	4590	
121-82-4	RDX	4980	
19406-51-0	4-Amino-2,6-dinitrotoluene	4990	
2691-41-0	HMX	4780	
35572-78-2	2-Amino-4,6-dinitrotoluene	5770	
479-45-8	Tetryl	1960	
606-20-2	2,6-Dinitrotoluene	4790	
78-11-5	PETN	5400	
88-72-2	o-Nitrotoluene	4220	
98-95-3	Nitrobenzene	4680	
99-08-1	m-Nitrotoluene	3890	
99-35-4	1,3,5-Trinitrobenzene	4170	
99-65-0	m-Dinitrobenzene	4880	
99-99-0	p-Nitrotoluene	4340	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

↓ TETRYL

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216181a
Date: 20-Feb-2010
Time: 10:25:22
ID: 1202028686 | LANL | 947089 | SOLID | LCS | 2 |
Vial: 4:3,B

MAP 2/21/10

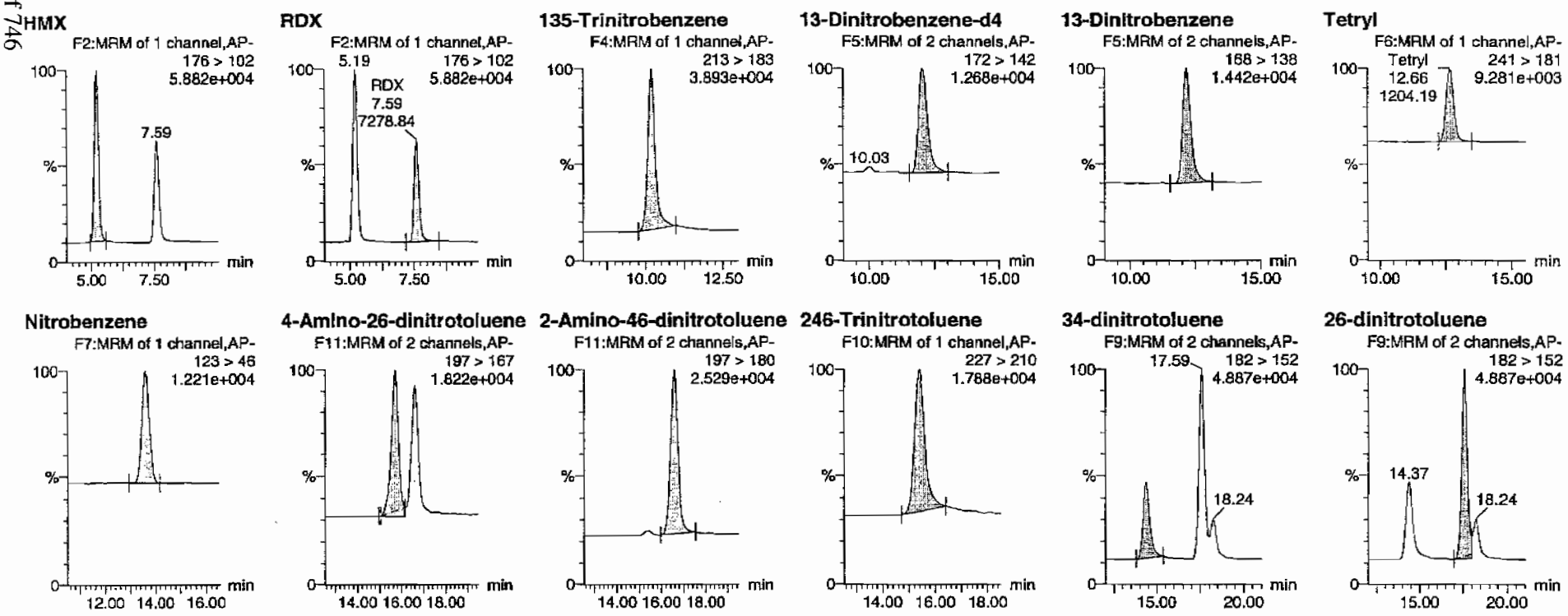

MM 02/22/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

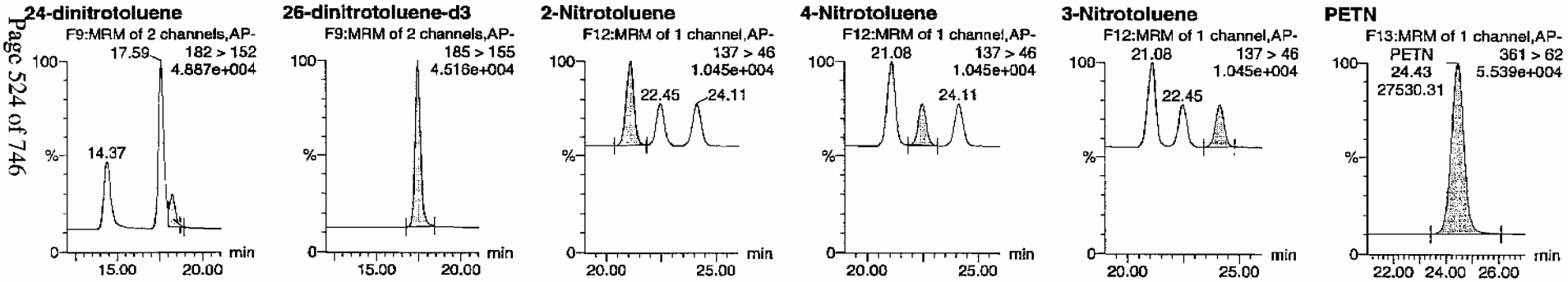

ID	Name	Trace	RT	Area	IS Area	Abs Resp	IS Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202028686	HMX	176 > 102	5.19	10387.526	2819.005	10387.526	1842.410	bb			477.5093	95.5	-4.5	1355.0
1202028686	RDX	176 > 102	7.59	7278.841	2819.005	7278.841	1291.030	bb			497.8055	99.6	-0.4	802.4
1202028686	135-Trinitrobenzene	213 > 183	10.18	9105.998	2819.005	9105.998	1615.109	bb			417.0664	83.4	-16.6	1806.9
1202028686	13-Dinitrobenzene-d4	172 > 142	12.03	2819.005		2819.005	2819.005	bb			467.8977	93.6	-6.4	437.3
1202028686	13-Dinitrobenzene	168 > 138	12.17	3268.184	2819.005	3268.184	579.670	bb			487.7241	97.5	-2.5	320.7
1202028686	Tetryl	241 > 181	12.66	1204.191	2819.005	1204.191	213.584	bb			195.9073	39.2	-60.8	145.7
1202028686	Nitrobenzene	123 > 46	13.61	2267.319	2819.005	2267.319	402.149	bb			468.4268	93.7	-6.3	308.2
1202028686	4-Amino-26-dinitrotoluene	197 > 167	15.70	4938.017	15449.936	4938.017	159.807	MM	21-Feb-10	11:57:07	499.0583	99.8	-0.2	213.4
1202028686	2-Amino-46-dinitrotoluene	197 > 180	16.59	7702.740	15449.936	7702.740	249.281	bb			576.9653	115.4	15.4	121.1
1202028686	246-Trinitrotoluene	227 > 210	15.40	5349.230	15449.936	5349.230	173.115	bb			516.3683	103.3	3.3	183.5
1202028686	34-dinitrotoluene	182 > 152	14.37	7883.857	15449.936	7883.857	255.142	bb			281.6134	112.6	12.6	843.6
1202028686	26-dinitrotoluene	182 > 152	17.59	15675.634	15449.936	15675.634	507.304	MM	21-Feb-10	11:54:07	478.8417	95.8	-4.2	2146.8
1202028686	24-dinitrotoluene	182 > 152	18.24	3494.404	15449.936	3494.404	113.088	MM	21-Feb-10	11:51:44	458.7554	91.8	-8.2	424.0
1202028686	26-dinitrotoluene-d3	185 > 155	17.41	15449.936		15449.936	15449.936	bb			443.7455	88.7	-11.3	1428.9
1202028686	2-Nitrotoluene	137 > 46	21.08	1984.837	15449.936	1984.837	64.234	bb			422.0561	84.4	-15.6	264.7
1202028686	4-Nitrotoluene	137 > 46	22.45	1028.567	15449.936	1028.567	33.287	bb			434.2670	86.9	-13.1	133.9
1202028686	3-Nitrotoluene	137 > 46	24.11	1076.850	15449.936	1076.850	34.850	bb			389.4293	77.9	-22.1	134.2
1202028686	PETN	361 > 62	24.43	27530.309	15449.936	27530.309	890.952	bb			540.1137	108.0	8.0	7944.4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 947088

Lab Code: GEI

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 1202028686

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170015.wiff

Date Analyzed: 17-FEB-10 13:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5960	
59229-75-3	2,6-Diamino-4-nitrotoluene	5340	
618-87-1	3,5-Dinitroaniline	4540	
6629-29-4	2,4-Diamino-6-nitrotoluene	4550	
78-30-8	tris(o-cresyl) phosphate	4910	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/19/10

Sample Name: "1202028686" Sample ID: "947089|2|LER" File: "EXS02170015.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 596. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:36:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 2.01e+006 counts
Height: 231672.333 cps
Start Time: 6.86 min
End Time: 7.61 min

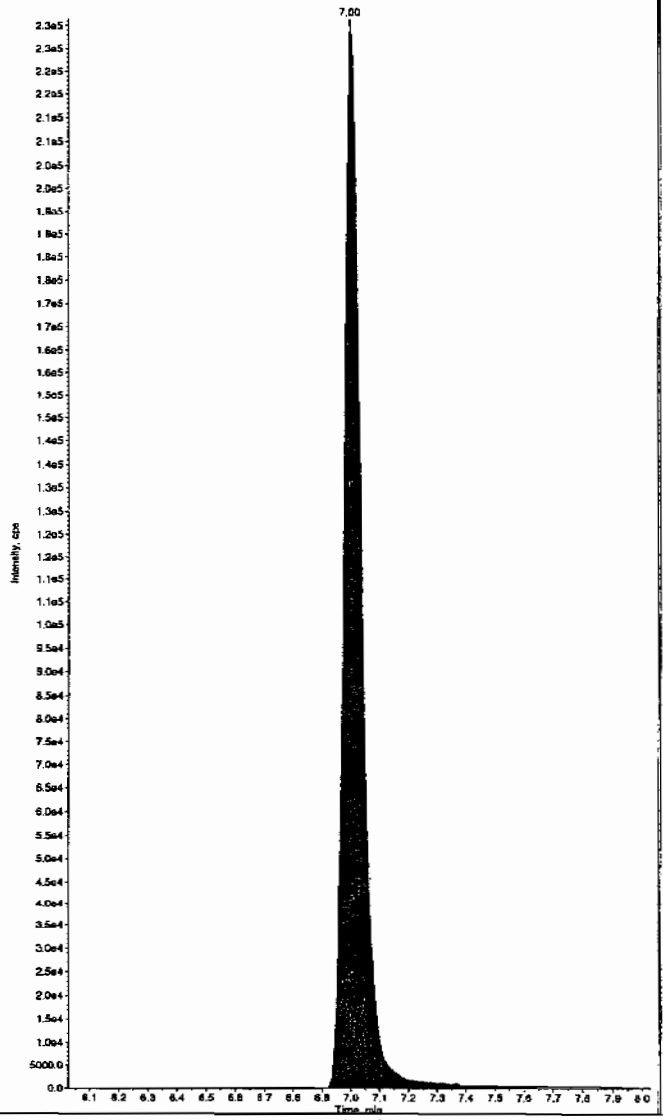

Sample Name: "1202028686" Sample ID: "947089|2|LER" File: "EXS02170015.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 454. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:06:07 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 3.34e+006 counts
Height: 828281.311 cps
Start Time: 8.15 min
End Time: 8.33 min

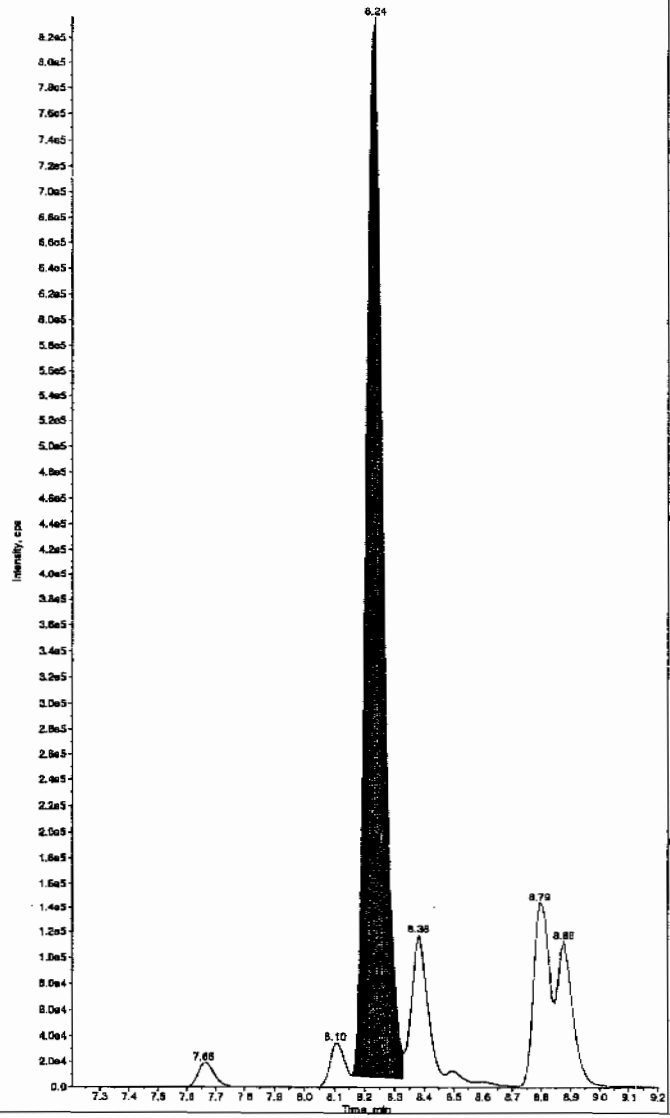

Hnm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028586" Sample ID: "947089|2|LER" File: "EXS02170015.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 284. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:06:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 3.79e+006 counts
Height: 1022637.268 cps
Start Time: 8.30 min
End Time: 8.61 min

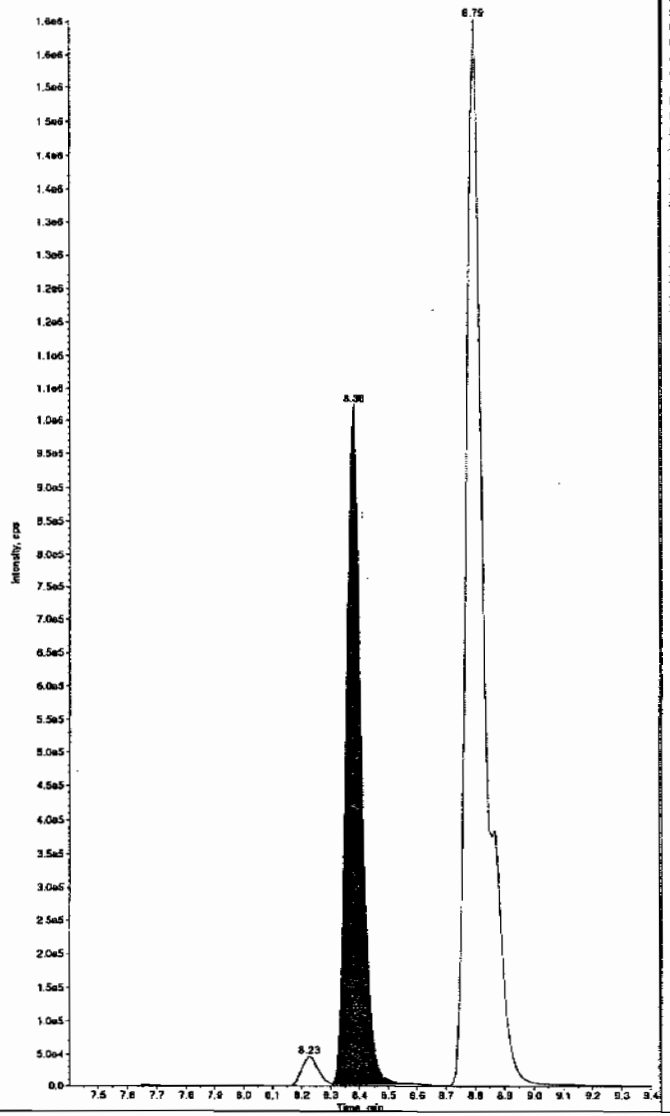

Sample Name: "1202028586" Sample ID: "947089|2|LER" File: "EXS02170015.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 534. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:06:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.05e+006 counts
Height: 253489.380 cps
Start Time: 4.93 min
End Time: 5.28 min

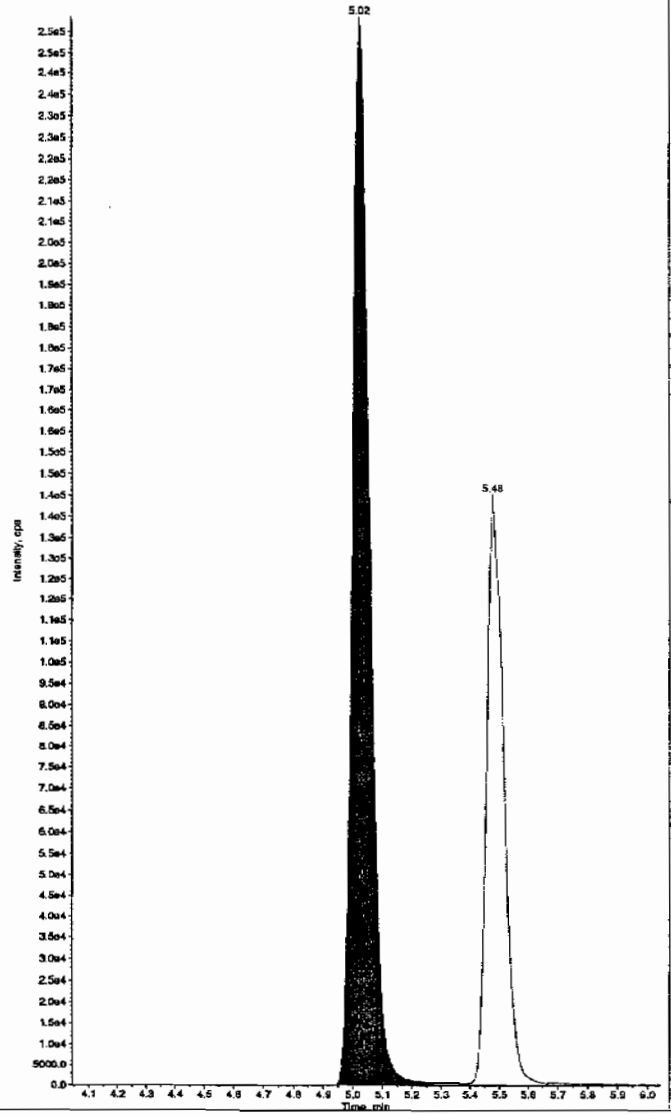

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028686" Sample ID: "947089|2|LER" File: "EXS02170015.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 455. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:06:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 5.62e+005 counts
Height: 139508.743 cps
Start Time: 5.41 min
End Time: 5.64 min

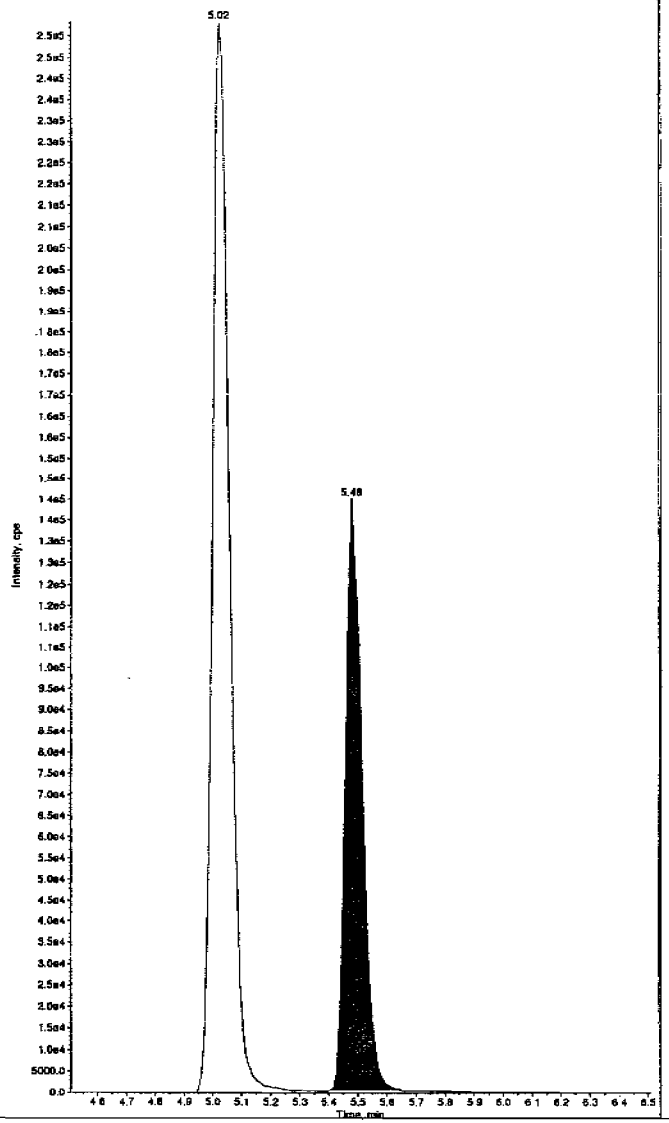

Sample Name: "1202028686" Sample ID: "947089|2|LER" File: "EXS02170015.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 491. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:06:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.07e+007 counts
Height: 2564430.908 cps
Start Time: 10.8 min
End Time: 11.2 min

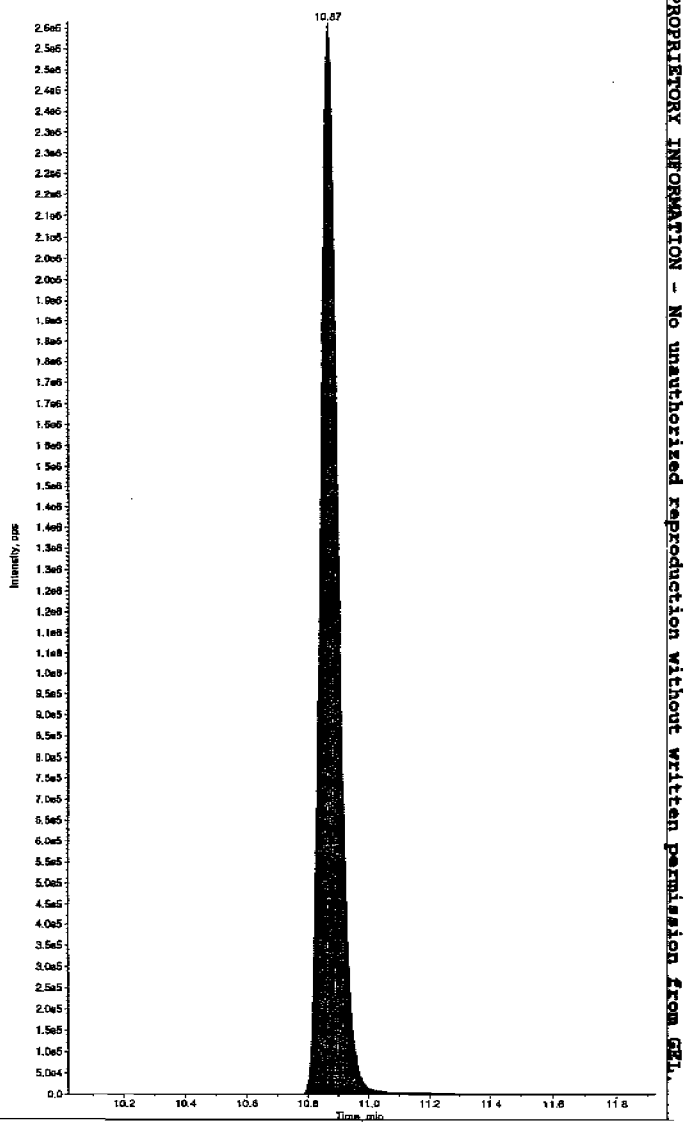

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888(245795001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 1202028687

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216183a

Date Analyzed: 20-FEB-10 11:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5530	
121-14-2	2,4--Dinitrotoluene	5490	
121-82-4	RDX	4880	
19406-51-0	4-Amino-2,6-dinitrotoluene	5130	
2691-41-0	HMX	4870	
35572-78-2	2-Amino-4,6-dinitrotoluene	5690	
479-45-8	Tetryl	3140	
606-20-2	2,6-Dinitrotoluene	5100	
78-11-5	PETN	5270	
88-72-2	o-Nitrotoluene	4570	
98-95-3	Nitrobenzene	4360	
99-08-1	m-Nitrotoluene	4400	
99-35-4	1,3,5-Trinitrobenzene	4770	
99-65-0	m-Dinitrobenzene	5140	
99-99-0	p-Nitrotoluene	4650	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216183a
Date: 20-Feb-2010
Time: 11:25:29
ID: 1202028687 | LANC | 947089 | Solids | 24579500 | MS | 2 |
Vial: 4:3,D

MM 2/21/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.515e+004
7.59

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.515e+004
5.20
RDX
7.59
7928.02

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.668e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.328e+004
10.03

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.534e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.170e+004
Tetryl
12.68
2148.32

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.233e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.936e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.657e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
1.963e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.466e+004
17.60
18.25

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.466e+004
14.38
18.25

HMM 02/22/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

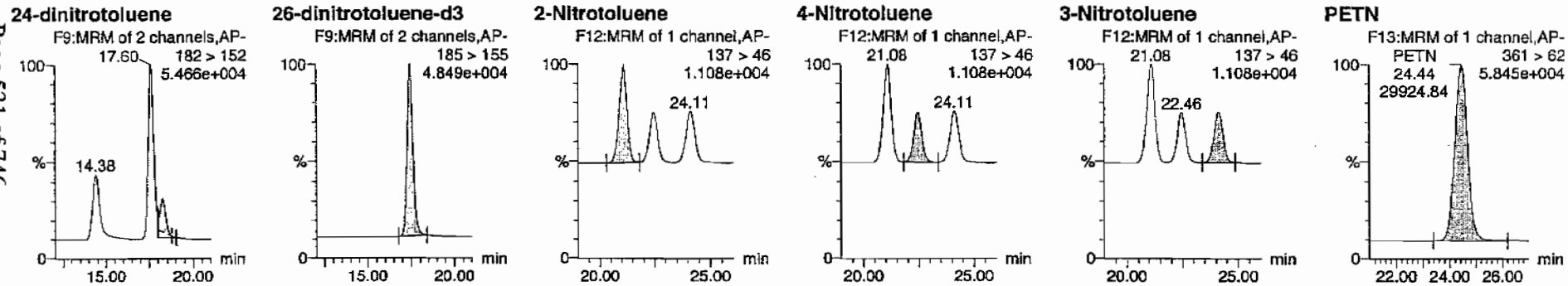

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202028687	HMX	176 > 102	5.20	11781.587	3134.016	11781.587	1879.631	bb			487.1561	97.4	-2.6	1537.5
1202028687	RDX	176 > 102	7.59	7928.023	3134.016	7928.023	1264.834	bb			487.7048	97.5	-2.5	877.7
1202028687	135-Trinitrobenzene	213 > 183	10.18	11581.791	3134.016	11581.791	1847.756	bb			477.1424	95.4	-4.6	1547.2
1202028687	13-Dinitrobenzene-d4	172 > 142	12.07	3134.016		3134.016	3134.016	bb			520.1831	104.0	4.0	668.3
1202028687	13-Dinitrobenzene	168 > 138	12.20	3828.062	3134.016	3828.062	610.728	bb			513.8558	102.8	2.8	242.6
1202028687	Tetryl	241 > 181	12.68	2148.318	3134.016	2148.318	342.742	bb			314.3753	62.9	-37.1	167.4
1202028687	Nitrobenzene	123 > 46	13.63	2345.777	3134.016	2345.777	374.245	bb			435.9236	87.2	-12.8	326.6
1202028687	4-Amino-26-dinitrotoluene	197 > 167	15.68	5626.742	17126.211	5626.742	164.273	MM	21-Feb-10	11:57:15	513.0044	102.6	2.6	251.7
1202028687	2-Amino-46-dinitrotoluene	197 > 180	16.58	8422.721	17126.211	8422.721	245.901	bb			569.1441	113.8	13.8	825.8
1202028687	246-Trinitrotoluene	227 > 210	15.41	6348.849	17126.211	6348.849	185.355	bb			552.8773	110.6	10.6	400.4
1202028687	34-dinitrotoluene	182 > 152	14.38	8566.688	17126.211	8566.688	250.105	bb			276.0533	110.4	10.4	542.2
1202028687	26-dinitrotoluene	182 > 152	17.60	18506.498	17126.211	18506.498	540.298	MM	21-Feb-10	11:54:16	509.9839	102.0	2.0	1467.0
1202028687	24-dinitrotoluene	182 > 152	18.25	4635.242	17126.211	4635.242	135.326	MM	21-Feb-10	11:51:31	548.9666	109.8	9.8	336.0
1202028687	26-dinitrotoluene-d3	185 > 155	17.42	17126.211		17126.211	17126.211	bb			491.8906	98.4	-1.6	1172.1
1202028687	2-Nitrotoluene	137 > 46	21.08	2382.048	17126.211	2382.048	69.544	bb			456.9422	91.4	-8.6	149.8
1202028687	4-Nitrotoluene	137 > 46	22.46	1220.961	17126.211	1220.961	35.646	bb			465.0412	93.0	-7.0	75.7
1202028687	3-Nitrotoluene	137 > 46	24.11	1348.323	17126.211	1348.323	39.364	bb			439.8785	88.0	-12.0	76.9
1202028687	PETN	361 > 62	24.44	29924.844	17126.211	29924.844	873.656	bb			527.4508	105.5	5.5	7617.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888(245795001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 1202028687

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170017.wiff

Date Analyzed: 17-FEB-10 13:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5950	
59229-75-3	2,6-Diamino-4-nitrotoluene	5680	
618-87-1	3,5-Dinitroaniline	4800	
6629-29-4	2,4-Diamino-6-nitrotoluene	5340	
78-30-8	tris(o-cresyl) phosphate	4930	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Dan 2/19/10

Sample Name: "1202028687" Sample ID: "947089|2|LER" File: "EXS02170017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 595. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:37:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.01e+006 counts
Height: 331425.720 cps
Start Time: 6.87 min
End Time: 7.67 min

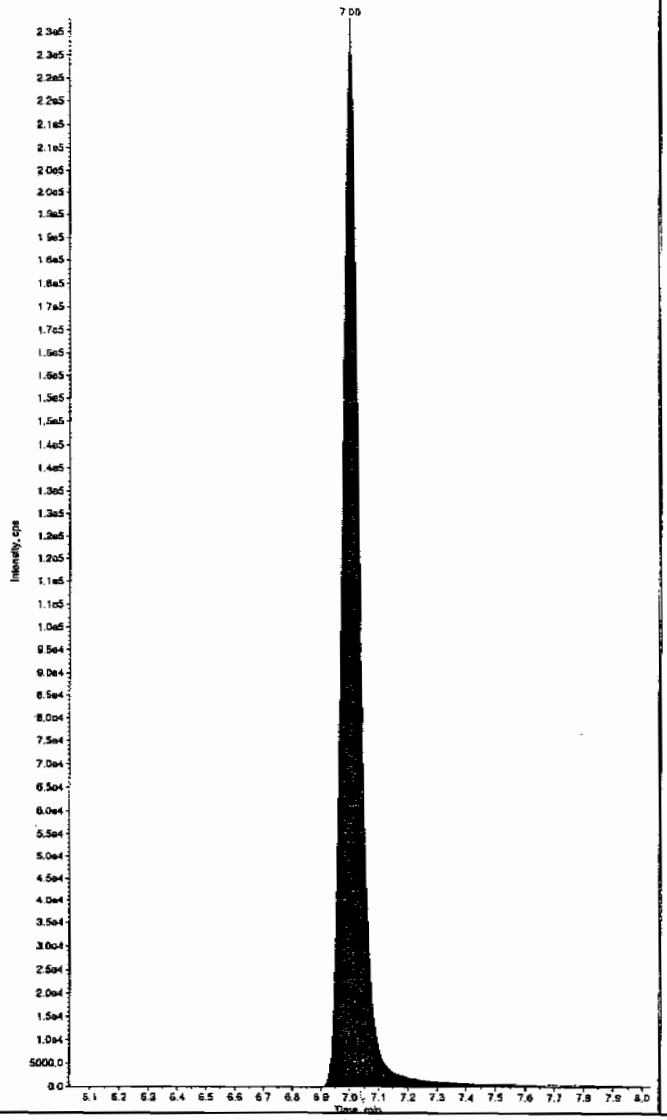

Sample Name: "1202028687" Sample ID: "947089|2|LER" File: "EXS02170017.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 438. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:37:32 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.22e+006 counts
Height: 869786.743 cps
Start Time: 8.16 min
End Time: 8.31 min

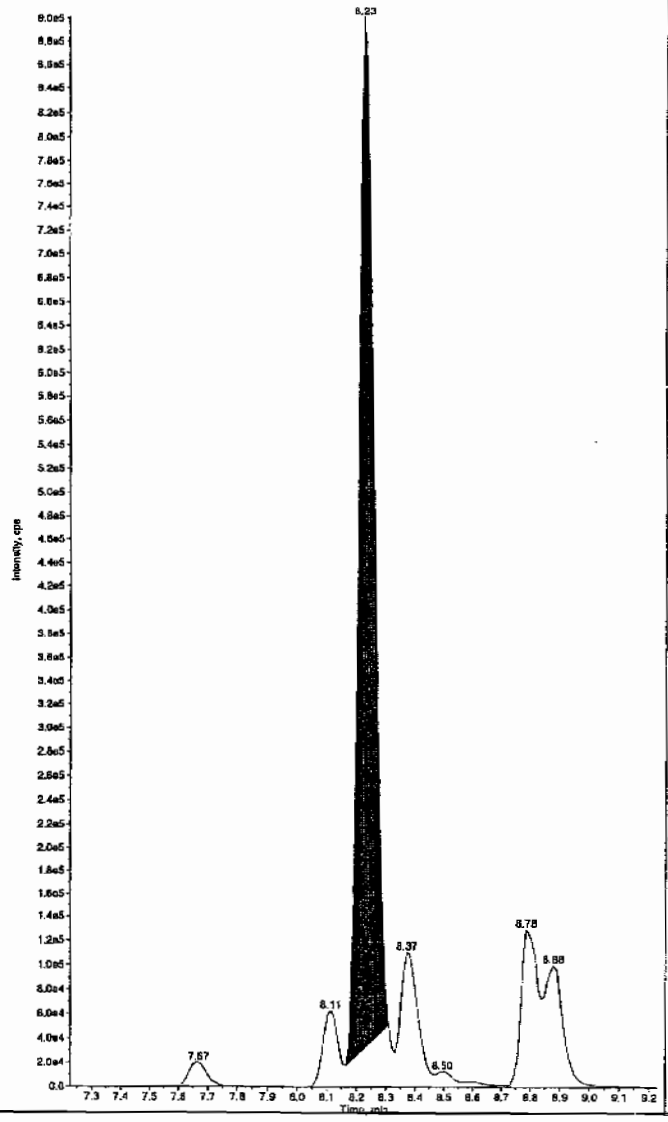

Hn m 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Dan 2/19/10

Sample Name: "1202028687" Sample ID: "947089|2|LER" File: "EXS02170017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 595. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:37:32 PM

Modified: No
Int. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.01e+006 counts
Height: 233425.720 cps
Start Time: 6.87 min
End Time: 7.67 min

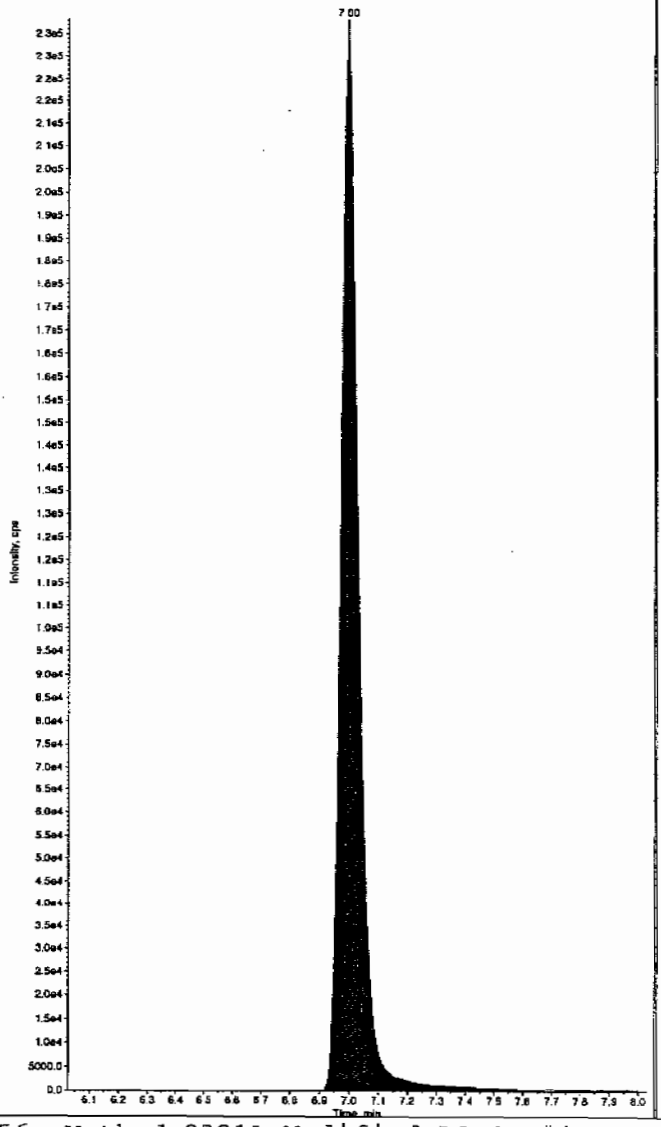

Sample Name: "1202028687" Sample ID: "947089|2|LER" File: "EXS02170017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 480. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:37:32 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.53e+006 counts
Height: 902734.217 cps
Start Time: 8.16 min
End Time: 8.32 min

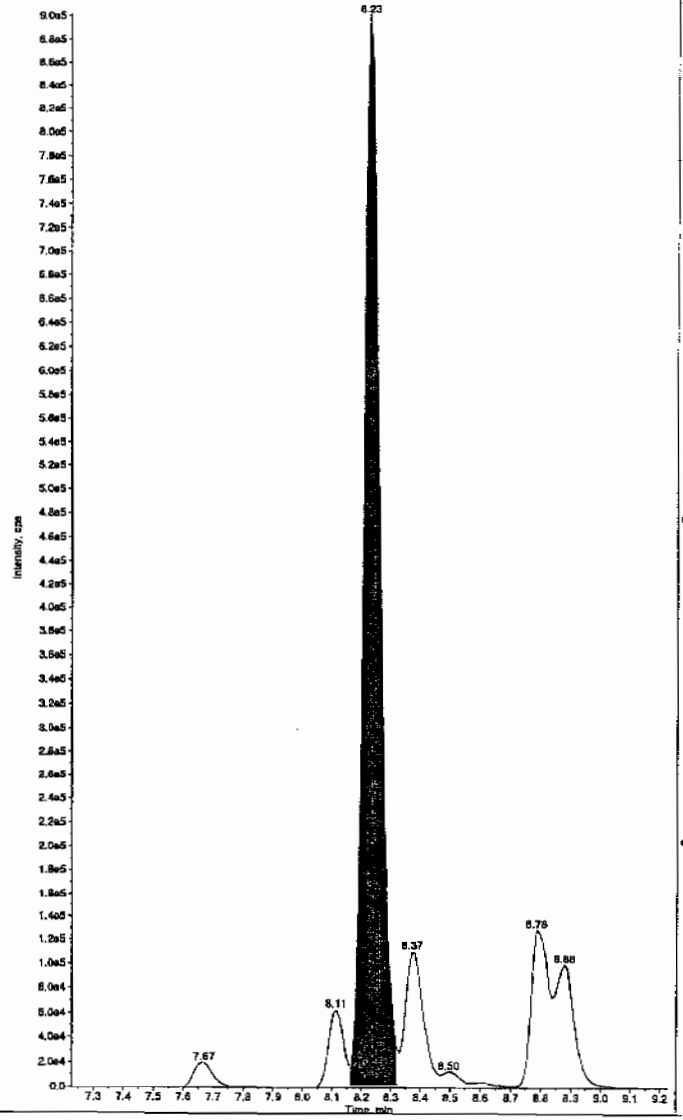

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202028687" Sample ID: "947089|2|LER" File: "EXS02170017.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 295. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:37:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.91e+006 counts
Height: 1002550.659 cps
Start Time: 8.30 min
End Time: 8.60 min

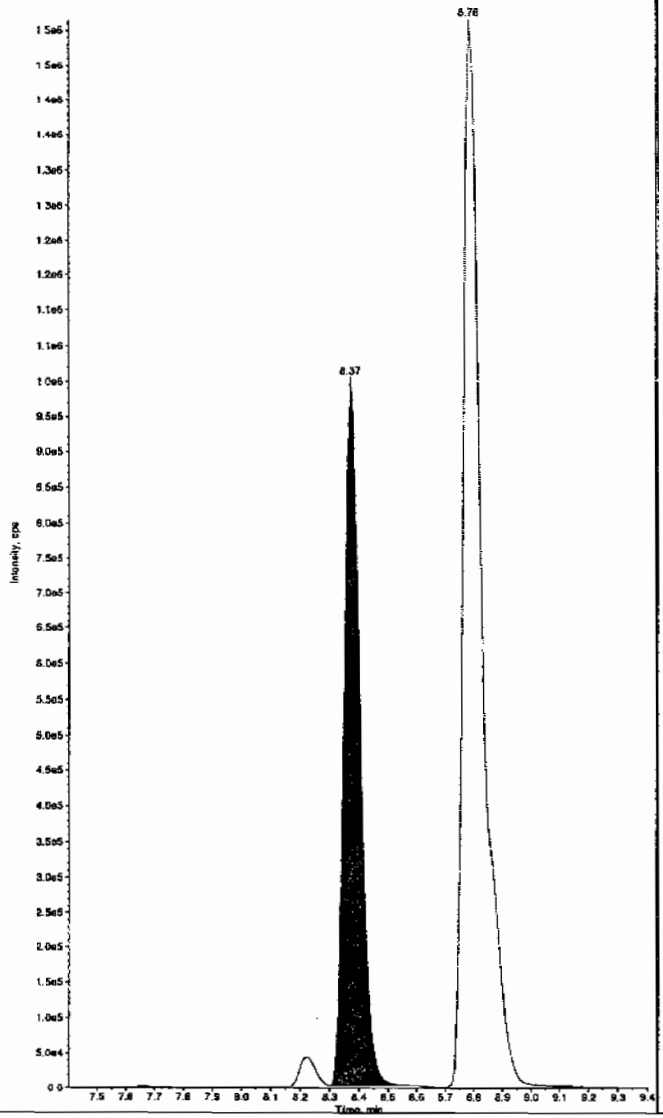

Sample Name: "1202028687" Sample ID: "947089|2|LER" File: "EXS02170017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 568. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:37:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.12e+006 counts
Height: 278999.115 cps
Start Time: 4.92 min
End Time: 5.32 min

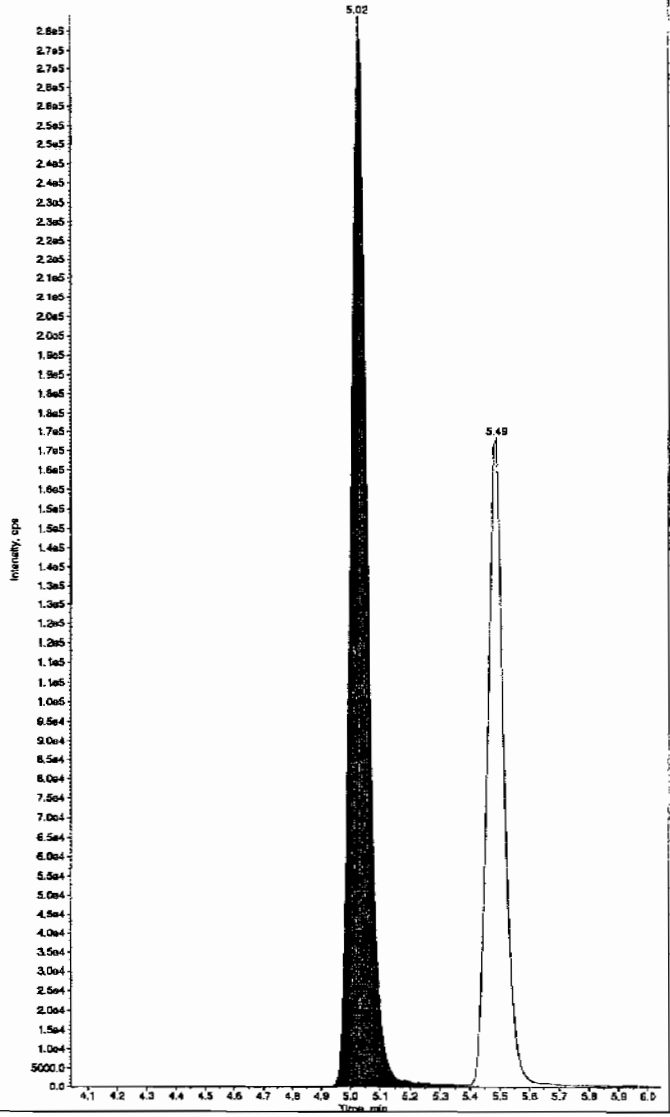

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028687" Sample ID: "947089|2|LER" File: "EXS02170017.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 534. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:37:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 6.60e+005 counts
Height: 168305.740 cps
Start Time: 5.37 min
End Time: 5.88 min

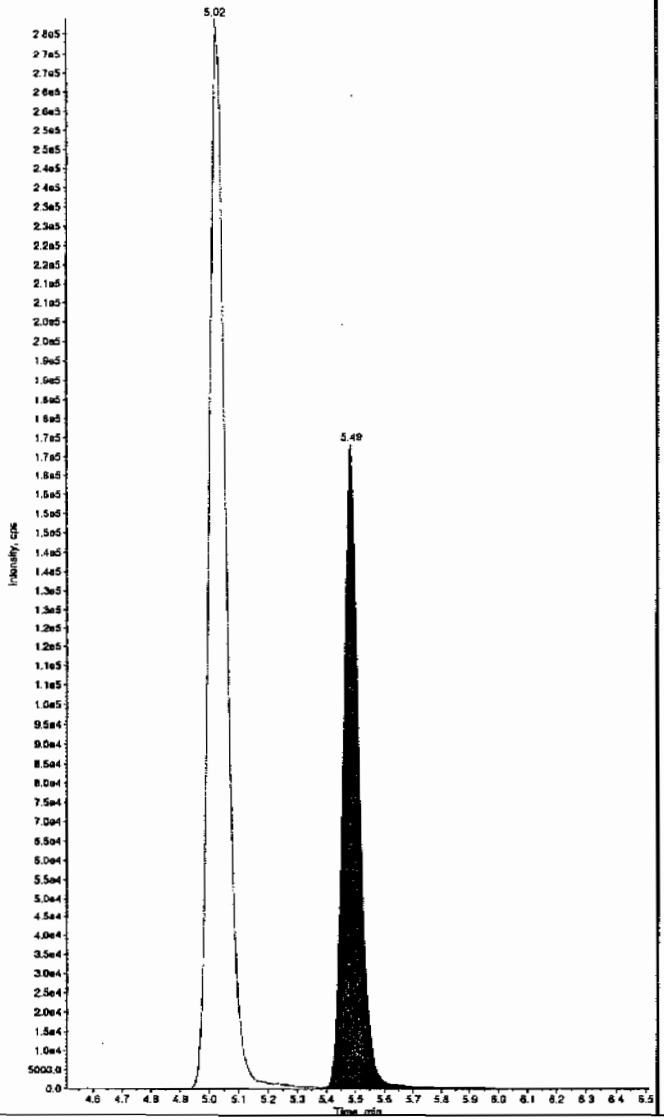

Sample Name: "1202028687" Sample ID: "947089|2|LER" File: "EXS02170017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 493. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:37:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.07e+007 counts
Height: 2577224.854 cps
Start Time: 10.8 min
End Time: 11.2 min

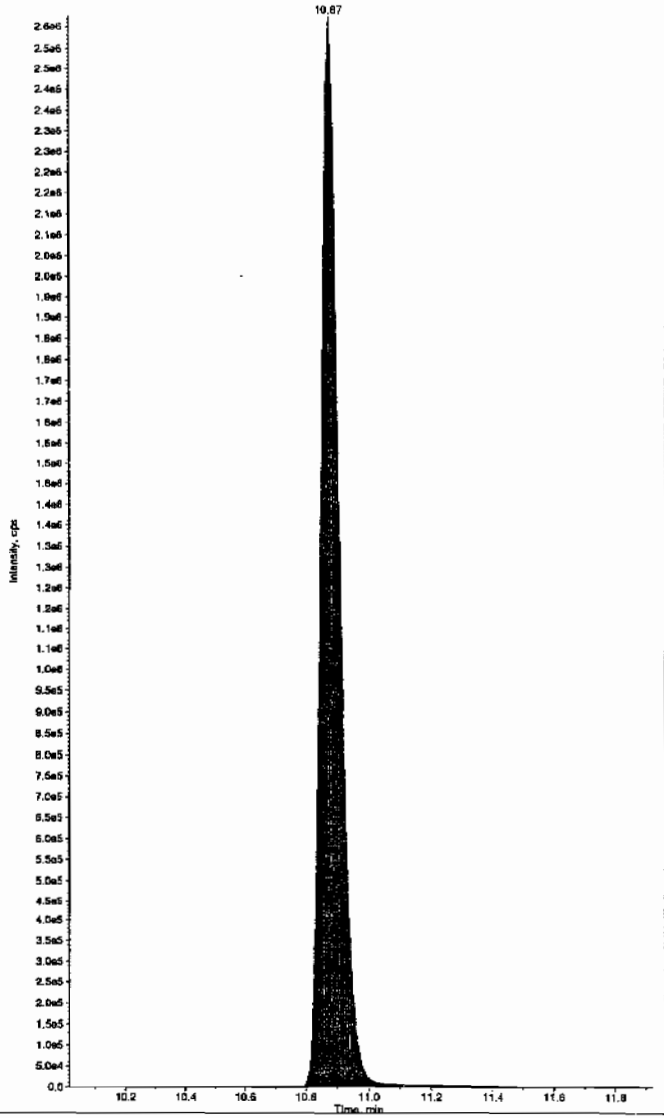

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888(245795001MSD)

Lab Code: GEI

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 1202028688

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216184a

Date Analyzed: 20-FEB-10 11:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5500	
121-14-2	2,4-Dinitrotoluene	5100	
121-82-4	RDX	4440	
19406-51-0	4-Amino-2,6-dinitrotoluene	5080	
2691-41-0	HMX	4570	
35572-78-2	2-Amino-4,6-dinitrotoluene	5570	
479-45-8	Tetryl	3390	
606-20-2	2,6-Dinitrotoluene	5070	
78-11-5	PETN	4330	
88-72-2	o-Nitrotoluene	4620	
98-95-3	Nitrobenzene	4270	
99-08-1	m-Nitrotoluene	4340	
99-35-4	1,3,5-Trinitrobenzene	4680	
99-65-0	m-Dinitrobenzene	4790	
99-99-0	p-Nitrotoluene	4690	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216184a
Date: 20-Feb-2010
Time: 11:54:58
ID: 1202028688 | LANC | 947089 | Solids | 24579500 1 MSD | 2 |
Vial: 4:3,E

MDP 2/21/10

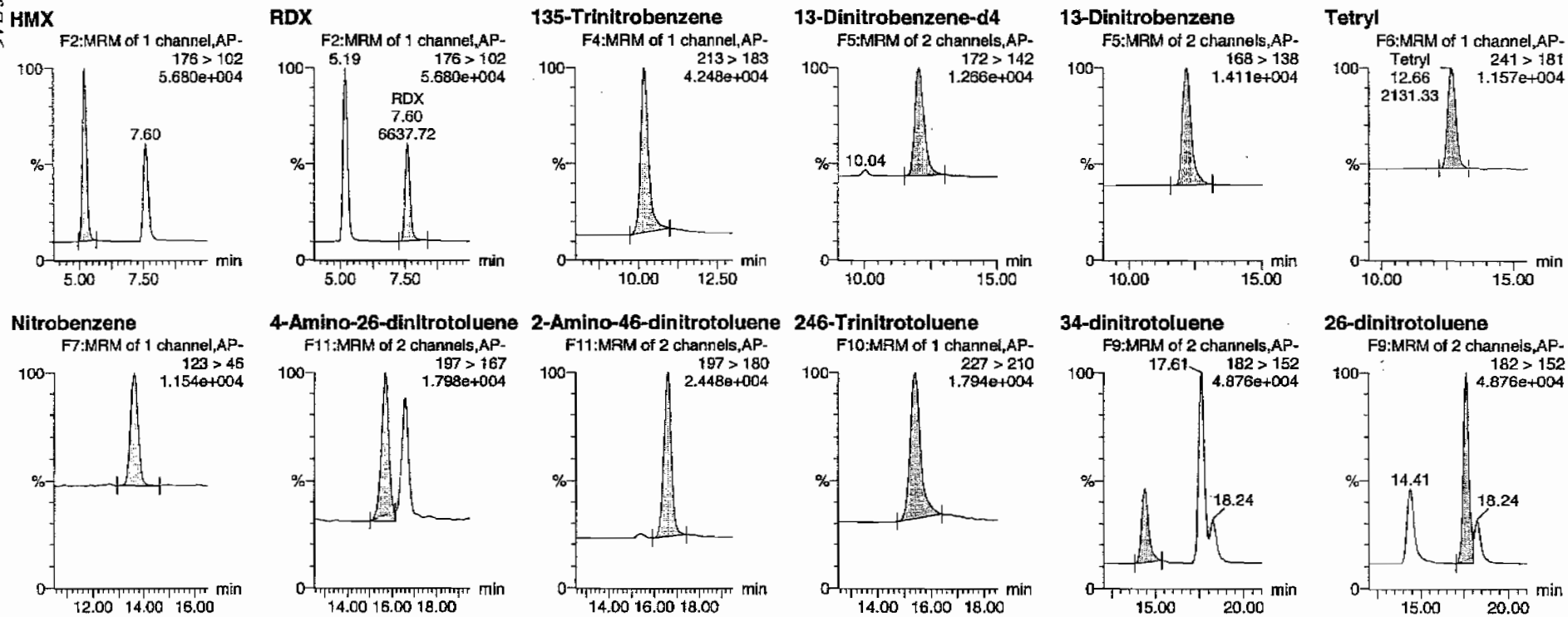

HMM 02/22/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA4.qld, Time: Sun Feb 21 12:00:43 2010

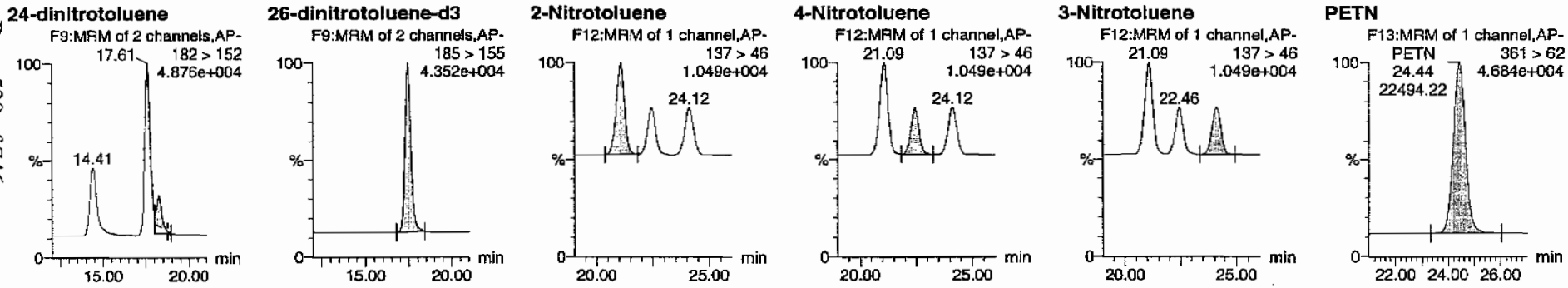

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202028688	HMX	176 > 102	5.19	10153.348	2881.064	10153.348	1762.083	bb			456.6905	91.3	-8.7	1248.6
1202028688	RDX	176 > 102	7.60	6637.717	2881.064	6637.717	1151.956	bb			444.1801	88.8	-11.2	702.0
1202028688	135-Trinitrobenzene	213 > 183	10.18	10450.207	2881.064	10450.207	1813.602	bb			468.3230	93.7	-6.3	889.6
1202028688	13-Dinitrobenzene-d4	172 > 142	12.06	2881.064		2881.064	2881.064	bb			478.1982	95.6	-4.4	219.8
1202028688	13-Dinitrobenzene	168 > 138	12.20	3283.302	2881.064	3283.302	569.807	bb			479.4259	95.9	-4.1	336.1
1202028688	Tetryl	241 > 181	12.66	2131.334	2881.064	2131.334	369.887	bb			339.2733	67.9	-32.1	173.4
1202028688	Nitrobenzene	123 > 46	13.61	2111.963	2881.064	2111.963	366.525	bb			426.9316	85.4	-14.6	243.1
1202028688	4-Amino-26-dinitrotoluene	197 > 167	15.70	4938.442	15184.015	4938.442	162.620	MM	21-Feb-10	11:57:24	507.8421	101.6	1.6	139.9
1202028688	2-Amino-46-dinitrotoluene	197 > 180	16.59	7305.962	15184.015	7305.962	240.581	bb			556.8291	111.4	11.4	548.0
1202028688	246-Trinitrotoluene	227 > 210	15.40	5602.617	15184.015	5602.617	184.491	bb			550.2998	110.1	10.1	233.2
1202028688	34-dinitrotoluene	182 > 152	14.41	7924.310	15184.015	7924.310	260.943	bb			288.0157	115.2	15.2	294.4
1202028688	26-dinitrotoluene	182 > 152	17.61	16322.113	15184.015	16322.113	537.477	MM	21-Feb-10	11:54:22	507.3215	101.5	1.5	755.3
1202028688	24-dinitrotoluene	182 > 152	18.24	3814.200	15184.015	3814.200	125.599	MM	21-Feb-10	11:51:23	509.5087	101.9	1.9	166.5
1202028688	26-dinitrotoluene-d3	185 > 155	17.43	15184.015		15184.015	15184.015	bb			436.1078	87.2	-12.8	1612.7
1202028688	2-Nitrotoluene	137 > 46	21.09	2136.403	15184.015	2136.403	70.350	bb			462.2412	92.4	-7.6	464.3
1202028688	4-Nitrotoluene	137 > 46	22.46	1090.975	15184.015	1090.975	35.925	bb			468.6829	93.7	-6.3	239.7
1202028688	3-Nitrotoluene	137 > 46	24.12	1180.796	15184.015	1180.796	38.883	bb			434.4985	86.9	-13.1	241.6
1202028688	PETN	361 > 62	24.44	22494.223	15184.015	22494.223	740.721	bb			433.3895	86.7	-13.3	3483.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7888(245795001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1470

Matrix: SOIL

GEL Sample ID: 1202028688

Sample Amount 2

Moisture: 9.3

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947088

Concentrated Extract Volume (mL) 10

Date Extracted: 08-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170018.wiff

Date Analyzed: 17-FEB-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5400	
59229-75-3	2,6-Diamino-4-nitrotoluene	5360	
618-87-1	3,5-Dinitroaniline	4990	
6629-29-4	2,4-Diamino-6-nitrotoluene	5270	
78-30-8	tris(o-cresyl) phosphate	4970	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Scan 2/19/10

Sample Name: "1202028688" Sample ID: "947089[2]LER" File: "EXS02170018.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 540. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:53:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 9.17e+005 counts
Height: 208655.821 cps
Start Time: 6.88 min
End Time: 7.49 min

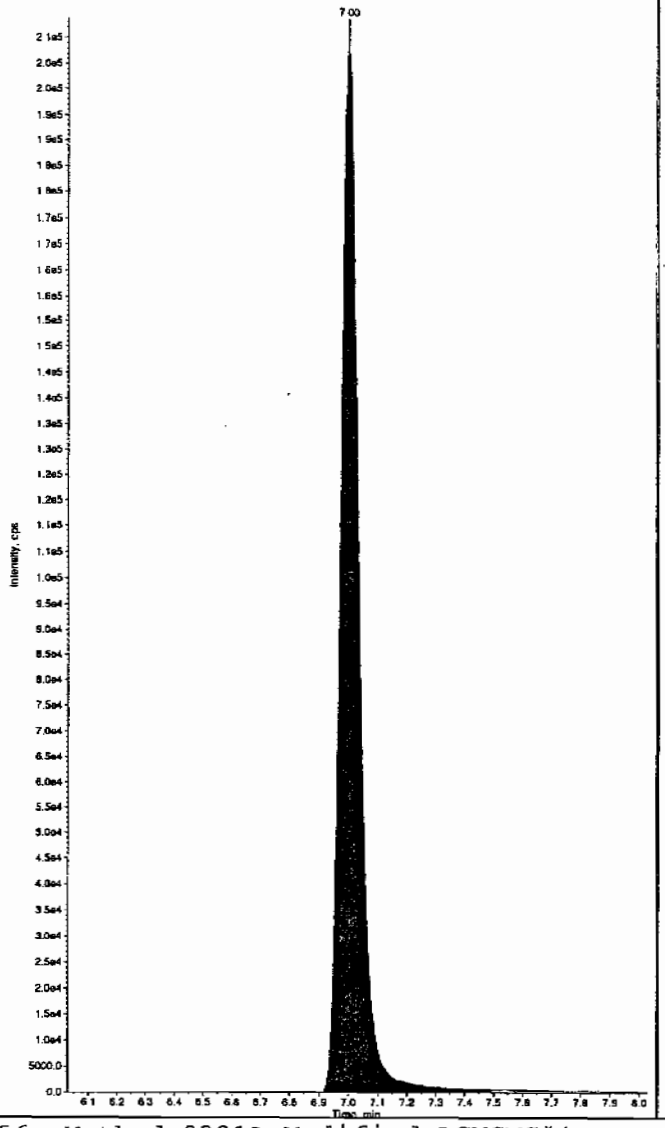

Sample Name: "1202028688" Sample ID: "947089[2]LER" File: "EXS02170018.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 448. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:53:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.29e+006 counts
Height: 885946.960 cps
Start Time: 8.15 min
End Time: 8.31 min

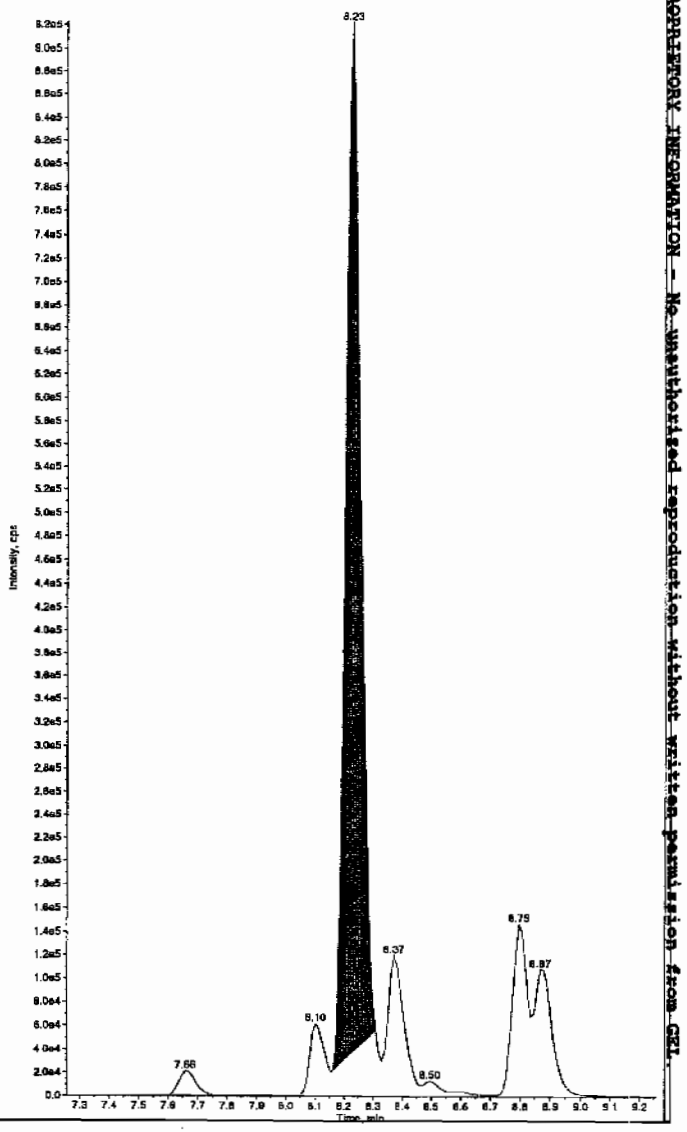

dhm 02/19/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Dan 2/19/10

Sample Name: "1202028688" Sample ID: "947089|2|LER" File: "EXS02170018.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 540. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:53:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2510.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 9.17e+005 counts
Height: 208658.821 cps
Start Time: 6.88 min
End Time: 7.49 min

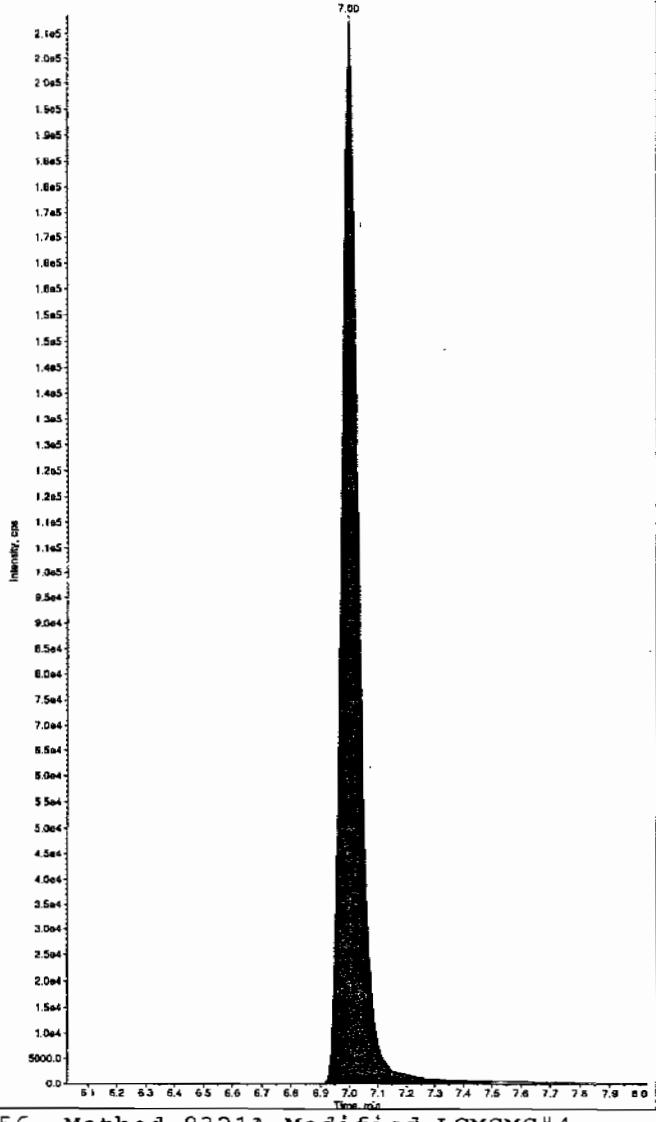

Sample Name: "1202028688" Sample ID: "947089|2|LER" File: "EXS02170018.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/48.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 499. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:53:14 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.67e+006 counts
Height: 921338.817 cps
Start Time: 8.16 min
End Time: 8.33 min

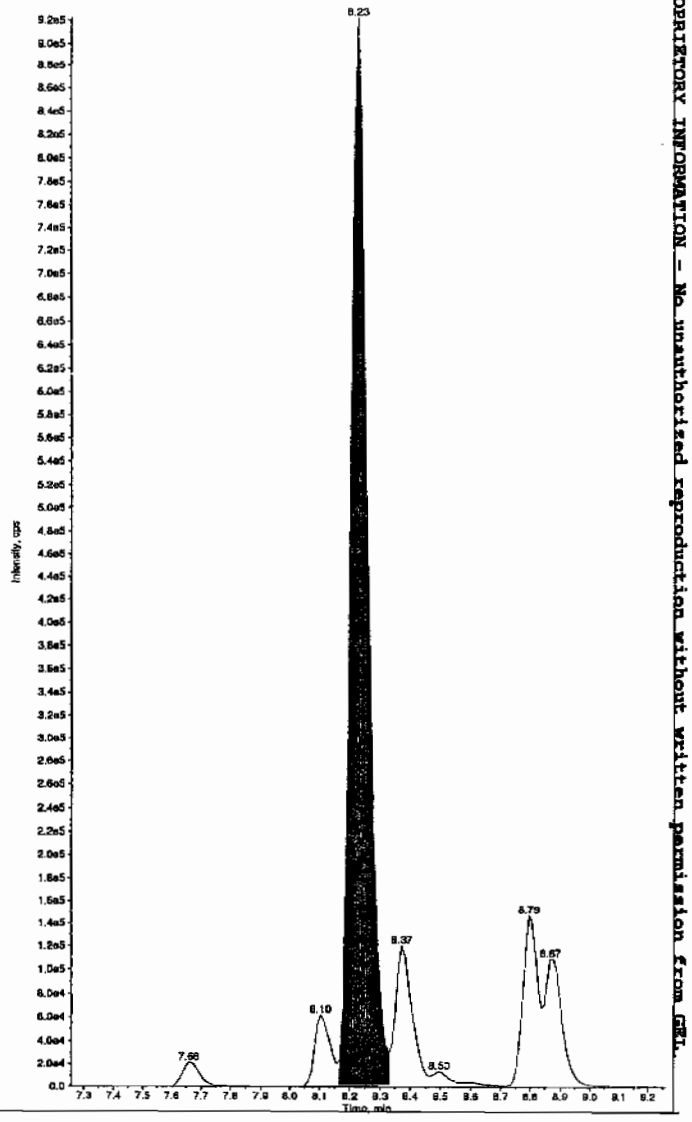

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202028688" Sample ID: "947069|2|LER" File: "EXS02170018.wiff"
Peak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 275. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:53:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.66e+006 counts
Height: 993926.331 cps
Start Time: 8.30 min
End Time: 8.58 min

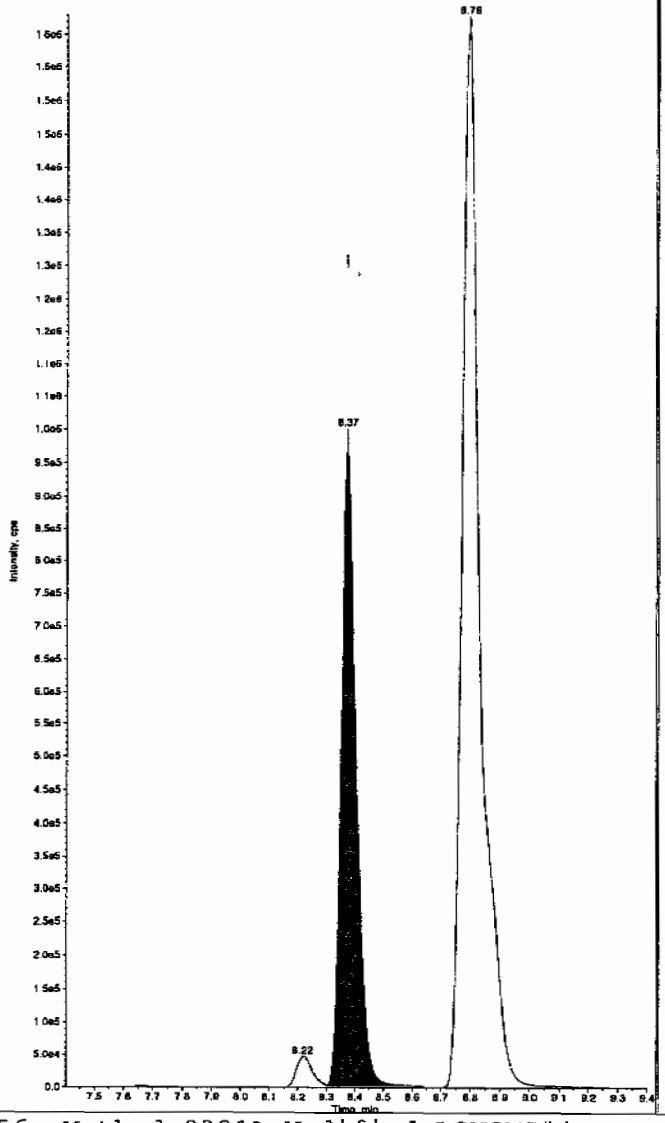

Sample Name: "1202028688" Sample ID: "947069|2|LER" File: "EXS02170018.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 536. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:53:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.06e+006 counts
Height: 265939.972 cps
Start Time: 4.89 min
End Time: 5.33 min

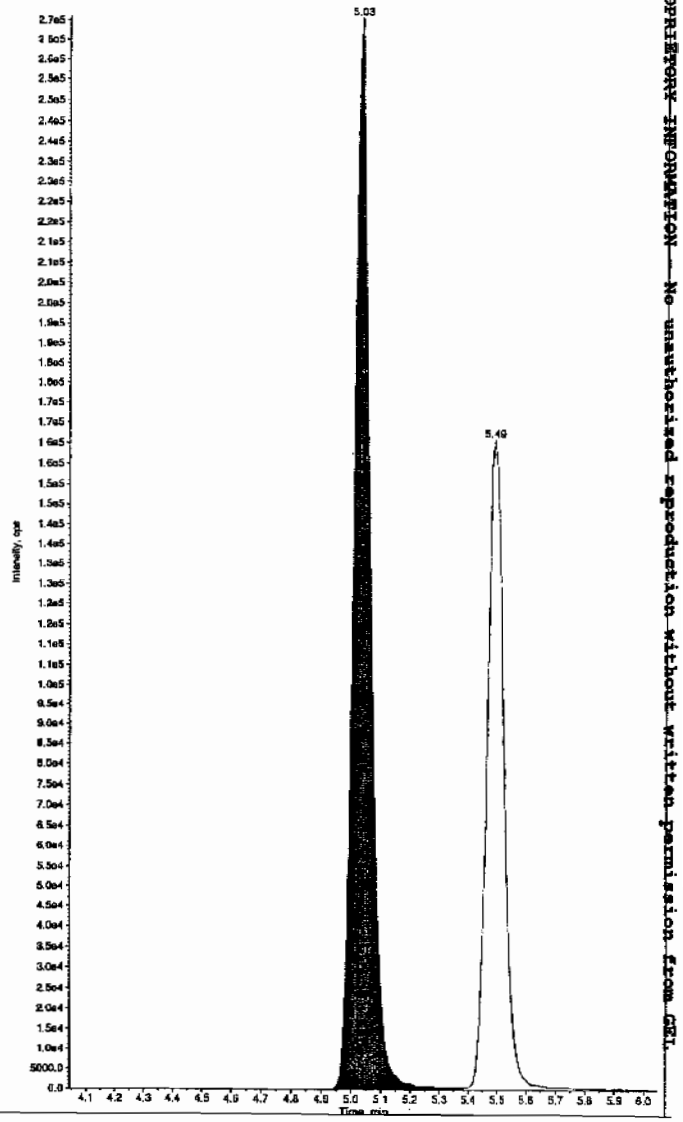

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028688" Sample ID: "947089|2|LER" File: "EXS02170018.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 527. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:53:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.51 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 6.51e+005 counts
Height: 160845.413 cps
Start Time: 5.36 min
End Time: 5.79 min

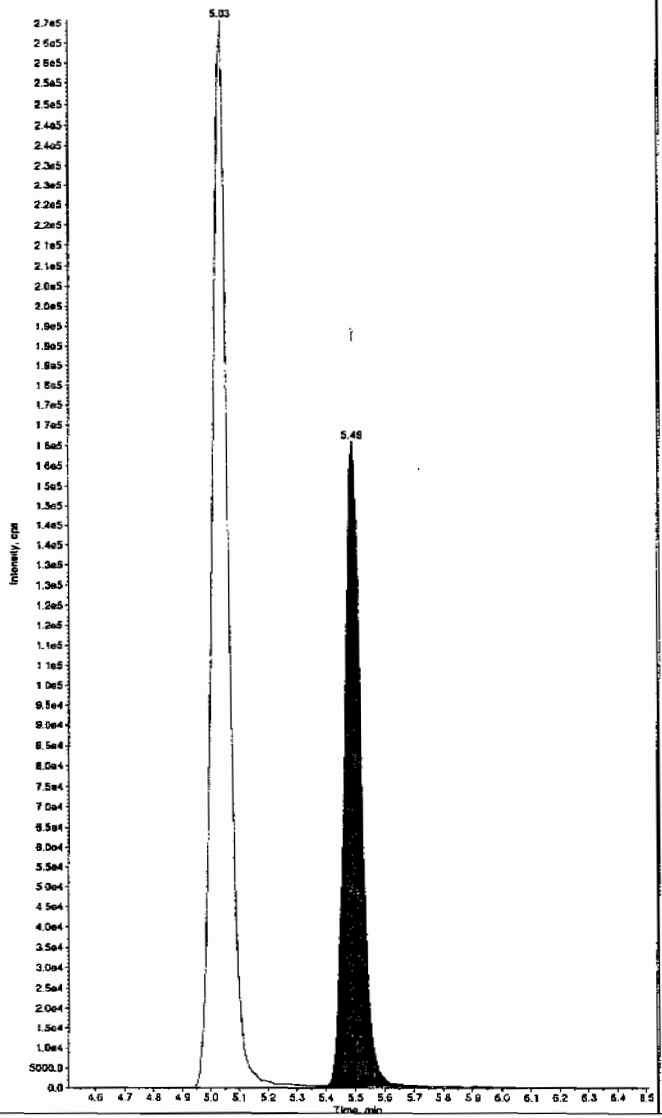

Sample Name: "1202028688" Sample ID: "947089|2|LER" File: "EXS02170018.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 497. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 1:53:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.08e+007 counts
Height: 2623266.113 cps
Start Time: 10.8 min
End Time: 11.2 min

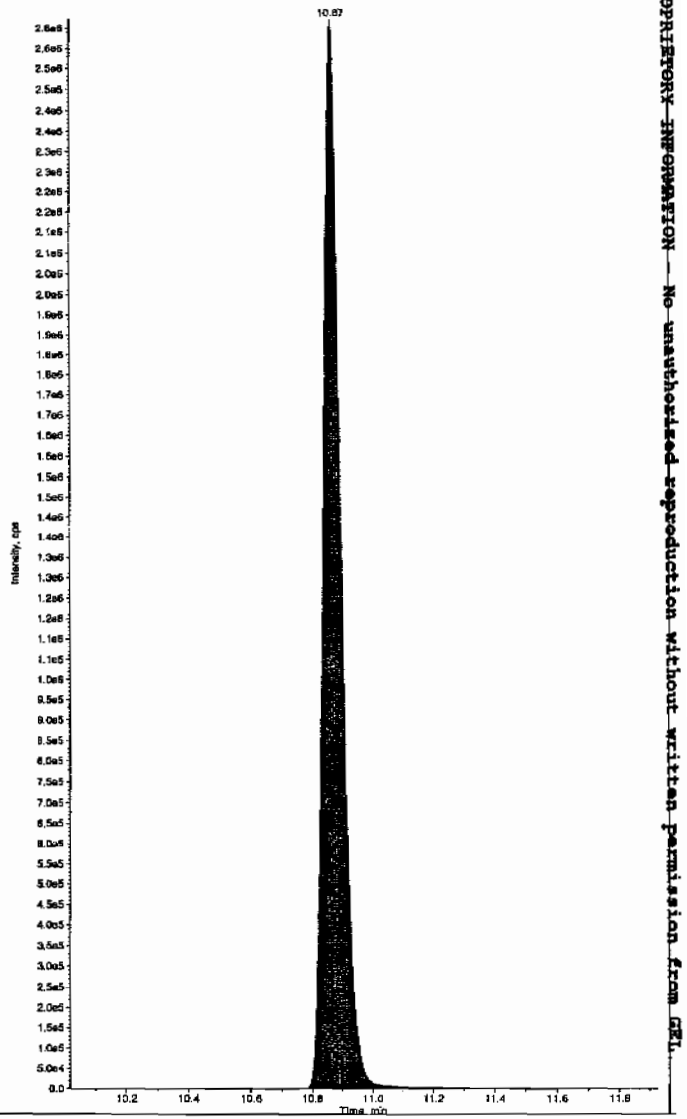

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 947088 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202028685 MB	08-FEB-2010 17:07:00	2	10	5
1202028686 LCS	08-FEB-2010 17:07:00	2	10	5
245795001	08-FEB-2010 17:07:00	2	10	5
1202028687 MS (245795001)	08-FEB-2010 17:07:00	2	10	5
1202028688 MSD (245795001)	08-FEB-2010 17:07:00	2	10	5
245795002	08-FEB-2010 17:07:00	2	10	5
245795003	08-FEB-2010 17:07:00	2	10	5
245795004	08-FEB-2010 17:07:00	2	10	5
245795005	08-FEB-2010 17:07:00	2	10	5
245795006	08-FEB-2010 17:07:00	2	10	5
245795007	08-FEB-2010 17:07:00	2	10	5
245795008	08-FEB-2010 17:07:00	2	10	5
245795009	08-FEB-2010 17:07:00	2	10	5
245795010	08-FEB-2010 17:07:00	2	10	5
245795011	08-FEB-2010 17:07:00	2	10	5
245795012	08-FEB-2010 17:07:00	2	10	5
245795013	08-FEB-2010 17:07:00	2	10	5
245795014	08-FEB-2010 17:07:00	2	10	5
245795015	08-FEB-2010 17:07:00	2	10	5
245795016	08-FEB-2010 17:07:00	2	10	5
245795017	08-FEB-2010 17:07:00	2	10	5
245795018	08-FEB-2010 17:07:00	2	10	5
245795019	08-FEB-2010 17:07:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202028686	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202028686	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MS	1202028687	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202028687	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MSD	1202028688	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202028688	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100204-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 02/16/10
Extr. Injection Volume: 50uL
Sequence Number: 021610expA
Initial Calibration Date: 02/16/10

Method: SW846 8321A-Modified
Int. Std.: UXX100128-01.3
Mobile Phase Lot#: 1269631, 1263794
Standard-Samp Reagent Lot#: 1260901, 1261217

Reviewed BY: [illegible]
Date: 02/22/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100216-07, WXX100219-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0216001a	XIBLK01	MAP	2/16/10 17:07			1		USE	B
EXP0216002a	XIBLK01	MAP	2/16/10 17:37			1		USE	B
EXP0216003a	WXXICAL-01	MAP	2/16/10 18:07			1		USE	I
EXP0216004a	WXXICAL-02	MAP	2/16/10 18:36			1		USE	I
EXP0216005a	WXXICAL-03	MAP	2/16/10 19:06			1		USE	I
EXP0216006a	WXXICAL-04	MAP	2/16/10 19:35			1		USE	I
EXP0216007a	WXXICAL-05	MAP	2/16/10 20:05			1		USE	I
EXP0216008a	WXXICAL-06	MAP	2/16/10 20:35			1		USE	I
EXP0216009a	XIBLK02	MAP	2/16/10 21:04			1		USE	B
EXP0216010a	WXXICV	MAP	2/16/10 21:34			1		USE	C
EXP0216011a	XIBLK03	MAP	2/16/10 22:04			1		USE	B
EXP0216012a	WXXCRI	MAP	2/16/10 22:33			1		USE	C
EXP0216013a	1202038759	MAP	2/16/10 23:03	951342	Various	2	LANL	USE	S
EXP0216014a	1202038760	MAP	2/16/10 23:33	951342	Various	2	LANL	USE	S
EXP0216015a	246569007	MAP	2/17/10 0:02	951342	10-1669	2	LANL	USE	S
EXP0216016a	1202038761	MAP	2/17/10 0:32	951342	10-1669	2	LANL	USE	S
EXP0216017a	1202038762	MAP	2/17/10 1:02	951342	10-1669	2	LANL	USE	S
EXP0216018a	246572005	MAP	2/17/10 1:32	951342	10-1678	2	LANL	USE	S
EXP0216019a	246580002	MAP	2/17/10 2:01	951342	10-1683	2	LANL	USE	S
EXP0216020a	246580003	MAP	2/17/10 2:31	951342	10-1683	2	LANL	USE	S
EXP0216021a	WXXCCV	MAP	2/17/10 3:00			1		USE	C
EXP0216022a	XIBLK04	MAP	2/17/10 3:30			1		USE	B
EXP0216023a	WXXCRI	MAP	2/17/10 3:59			1		USE	C
EXP0216024a	246595004	MAP	2/17/10 4:29	951342	10-1694	2	LANL	USE	S
EXP0216025a	1202038763	MAP	2/17/10 4:58	951342	10-1694	2	LANL	USE	S
EXP0216026a	1202038764	MAP	2/17/10 5:28	951342	10-1694	2	LANL	USE	S
EXP0216027a	WXXCCV	MAP	2/17/10 5:58			1		USE	C
EXP0216028a	XIBLK05	MAP	2/17/10 6:28			1		USE	B
EXP0216029a	WXXCRI	MAP	2/17/10 6:57			1		USE	C
EXP0216030a	1202030577	MAP	2/17/10 7:27	947919	Various	2	LANL	USE	S
EXP0216031a	1202030578	MAP	2/17/10 7:57	947919	Various	2	LANL	USE	S

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EXP0216032a	245908001	MAP	2/17/10 8:27	947919	10-1486	2	LANL	USE	S
EXP0216033a	1202030579	MAP	2/17/10 8:56	947919	10-1486	2	LANL	USE	S
EXP0216034a	1202030580	MAP	2/17/10 9:26	947919	10-1486	2	LANL	USE	S
EXP0216035a	245908002	MAP	2/17/10 9:56	947919	10-1486	2	LANL	USE	S
EXP0216036a	245908005	MAP	2/17/10 10:25	947919	10-1486	2	LANL	USE	S
EXP0216037a	245908006	MAP	2/17/10 10:55	947919	10-1486	2	LANL	USE	S
EXP0216038a	245912003	MAP	2/17/10 11:25	947919	10-1488	2	LANL	USE	S
EXP0216039a	WXXCCV	MAP	2/17/10 11:55			1		USE	C
EXP0216040a	XIBLK06	MAP	2/17/10 12:24			1		USE	B
EXP0216041a	WXXCRI	MAP	2/17/10 12:54			1		USE	C
EXP0216042a	1202038769	MAP	2/17/10 13:23	951349	Various	2	LANL	USE	S
EXP0216043a	1202038770	MAP	2/17/10 13:53	951349	Various	2	LANL	USE	S
EXP0216044a	246554001	MAP	2/17/10 14:23	951349	10-1665	2	LANL	USE	S
EXP0216045a	1202038771	MAP	2/17/10 14:52	951349	10-1665	2	LANL	USE	S
EXP0216046a	1202038772	MAP	2/17/10 15:22	951349	10-1665	2	LANL	USE	S
EXP0216047a	246554002	MAP	2/17/10 15:52	951349	10-1665	2	LANL	USE	S
EXP0216048a	246554003	MAP	2/17/10 16:21	951349	10-1665	2	LANL	USE	S
EXP0216049a	246554004	MAP	2/17/10 16:51	951349	10-1665	2	LANL	USE	S
EXP0216050a	246554005	MAP	2/17/10 17:20	951349	10-1665	2	LANL	USE	S
EXP0216051a	246554006	MAP	2/17/10 17:50	951349	10-1665	2	LANL	USE	S
EXP0216052a	WXXCCV	MAP	2/17/10 18:20			1		USE	C
EXP0216053a	XIBLK07	MAP	2/17/10 18:50			1		USE	B
EXP0216054a	WXXCRI	MAP	2/17/10 19:19			1		USE	C
EXP0216055a	246557001	MAP	2/17/10 19:49	951349	10-1666	2	LANL	USE	S
EXP0216056a	246562001	MAP	2/17/10 20:19	951349	10-1668	2	LANL	USE	S
EXP0216057a	246575003	MAP	2/17/10 20:49	951349	10-1675	2	LANL	USE	S
EXP0216058a	246575004	MAP	2/17/10 21:18	951349	10-1675	2	LANL	USE	S
EXP0216059a	246582002	MAP	2/17/10 21:48	951349	10-1685	2	LANL	USE	S
EXP0216060a	246582003	MAP	2/17/10 22:17	951349	10-1685	2	LANL	USE	S
EXP0216061a	246582004	MAP	2/17/10 22:47	951349	10-1685	2	LANL	USE	S
EXP0216062a	246582005	MAP	2/17/10 23:16	951349	10-1685	2	LANL	USE	S
EXP0216063a	246582006	MAP	2/17/10 23:46	951349	10-1685	2	LANL	USE	S
EXP0216064a	246582007	MAP	2/18/10 0:15	951349	10-1685	2	LANL	USE	S
EXP0216065a	WXXCCV	MAP	2/18/10 0:45			1		USE	C
EXP0216066a	XIBLK08	MAP	2/18/10 1:14			1		USE	B
EXP0216067a	WXXCRI	MAP	2/18/10 1:44			1		USE	C
EXP0216068a	246582008	MAP	2/18/10 2:14	951349	10-1685	2	LANL	USE	S
EXP0216069a	XIBLK09	MAP	2/18/10 2:43			1		USE	B
EXP0216070a	1202032097	MAP	2/18/10 3:13	948572	Various	2	LANL	DUSE	S

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EXP0216071a	1202032098	MAP	2/18/10 3:43	948572	Various	2	LANL	DUSE	S
EXP0216072a	245955001	MAP	2/18/10 4:12	948572	10-1509	2	LANL	DUSE	S
EXP0216073a	245955002	MAP	2/18/10 4:42	948572	10-1509	2	LANL	DUSE	S
EXP0216074a	245959001	MAP	2/18/10 5:12	948572	10-1510	2	LANL	DUSE	S
EXP0216075a	1202032099	MAP	2/18/10 5:42	948572	10-1510	2	LANL	DUSE	S
EXP0216076a	1202032100	MAP	2/18/10 6:11	948572	10-1510	2	LANL	DUSE	S
EXP0216077a	245959002	MAP	2/18/10 6:41	948572	10-1510	2	LANL	DUSE	S
EXP0216078a	WXXCCV	MAP	2/18/10 7:10			1		USE	C
EXP0216079a	XIBLK10	MAP	2/18/10 7:40			1		USE	B
EXP0216080a	WXXCRI	MAP	2/18/10 8:10			1		USE	C
EXP0216081a	1202032097	MAP	2/18/10 8:39	948572	Various	2	LANL	USE	S
EXP0216082a	1202032098	MAP	2/18/10 9:09	948572	Various	2	LANL	USE	S
EXP0216083a	245955001	MAP	2/18/10 9:38	948572	10-1509	2	LANL	USE	S
EXP0216084a	245955002	MAP	2/18/10 10:08	948572	10-1509	2	LANL	USE	S
EXP0216085a	245959001	MAP	2/18/10 10:37	948572	10-1510	2	LANL	USE	S
EXP0216086a	1202032099	MAP	2/18/10 11:07	948572	10-1510	2	LANL	USE	S
EXP0216087a	1202032100	MAP	2/18/10 11:36	948572	10-1510	2	LANL	USE	S
EXP0216088a	245959002	MAP	2/18/10 12:06	948572	10-1510	2	LANL	USE	S
EXP0216089a	WXXCCV	MAP	2/18/10 12:36			1		USE	C
EXP0216090a	XIBLK11	MAP	2/18/10 13:05			1		USE	B
EXP0216091a	WXXCRI	MAP	2/18/10 13:35			1		USE	C
EXP0216092a	245959003	MAP	2/18/10 14:04	948572	10-1510	2	LANL	USE	S
EXP0216093a	245959004	MAP	2/18/10 14:34	948572	10-1510	2	LANL	USE	S
EXP0216094a	245959005	MAP	2/18/10 15:03	948572	10-1510	2	LANL	USE	S
EXP0216095a	245959006	MAP	2/18/10 15:33	948572	10-1510	2	LANL	USE	S
EXP0216096a	245959007	MAP	2/18/10 16:03	948572	10-1510	2	LANL	USE	S
EXP0216097a	245959008	MAP	2/18/10 16:32	948572	10-1510	2	LANL	USE	S
EXP0216098a	245959009	MAP	2/18/10 17:02	948572	10-1510	2	LANL	USE	S
EXP0216099a	245959010	MAP	2/18/10 17:32	948572	10-1510	2	LANL	USE	S
EXP0216100a	245959012	MAP	2/18/10 18:01	948572	10-1510	2	LANL	USE	S
EXP0216101a	WXXCCV	MAP	2/18/10 18:31			1		USE	C
EXP0216102a	XIBLK12	MAP	2/18/10 19:00			1		USE	B
EXP0216103a	WXXCRI	MAP	2/18/10 19:30			1		USE	C
EXP0216104a	1202023589	MAP	2/18/10 19:59	944915	Various	2	LANL	USE	S
EXP0216105a	1202023590	MAP	2/18/10 20:29	944915	Various	2	LANL	USE	S
EXP0216106a	245377001	MAP	2/18/10 20:58	944915	10-1378	2	LANL	USE	S
EXP0216107a	245377002	MAP	2/18/10 21:28	944915	10-1378	2	LANL	USE	S
EXP0216108a	245377003	MAP	2/18/10 21:57	944915	10-1378	2	LANL	USE	S
EXP0216109a	245377004	MAP	2/18/10 22:27	944915	10-1378	2	LANL	USE	S

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EXP0216110a	245377005	MAP	2/18/10 22:56	944915	10-1378	2	LANL	USE	S
EXP0216111a	245377006	MAP	2/18/10 23:26	944915	10-1378	2	LANL	USE	S
EXP0216112a	245377007	MAP	2/18/10 23:56	944915	10-1378	2	LANL	USE	S
EXP0216113a	245377008	MAP	2/19/10 0:25	944915	10-1378	2	LANL	USE	S
EXP0216114a	WXXCCV	MAP	2/19/10 0:55			1		USE	C
EXP0216115a	XIBLK13	MAP	2/19/10 1:24			1		USE	B
EXP0216116a	WXXCRI	MAP	2/19/10 1:54			1		USE	C
EXP0216117a	245377009	MAP	2/19/10 2:23	944915	10-1378	2	LANL	USE	S
EXP0216118a	245377010	MAP	2/19/10 2:53	944915	10-1378	2	LANL	USE	S
EXP0216119a	245396001	MAP	2/19/10 3:23	944915	10-1394	2	LANL	USE	S
EXP0216120a	1202023591	MAP	2/19/10 3:52	944915	10-1394	2	LANL	USE	S
EXP0216121a	1202023592	MAP	2/19/10 4:22	944915	10-1394	2	LANL	USE	S
EXP0216122a	245396002	MAP	2/19/10 4:52	944915	10-1394	2	LANL	USE	S
EXP0216123a	245396003	MAP	2/19/10 5:22	944915	10-1394	2	LANL	USE	S
EXP0216124a	245396004	MAP	2/19/10 5:51	944915	10-1394	2	LANL	USE	S
EXP0216125a	247033002	MAP	2/19/10 6:21	944915	10-1821	2	LANL	USE	S
EXP0216126a	WXXCCV	MAP	2/19/10 6:51			1		USE	C
EXP0216127a	XIBLK14	MAP	2/19/10 7:21			1		USE	B
EXP0216128a	WXXCRI	MAP	2/19/10 7:51			1		USE	C
EXP0216129a	1202032113	MAP	2/19/10 8:20	948579	Various	2	LANL	USE	S
EXP0216130a	1202032114	MAP	2/19/10 8:51	948579	Various	2	LANL	USE	S
EXP0216131a	245994001	MAP	2/19/10 9:20	948579	10-1516	2	LANL	USE	S
EXP0216132a	245994002	MAP	2/19/10 9:50	948579	10-1516	2	LANL	USE	S
EXP0216133a	245994003	MAP	2/19/10 10:19	948579	10-1516	2	LANL	USE	S
EXP0216134a	245994004	MAP	2/19/10 10:49	948579	10-1516	2	LANL	USE	S
EXP0216135a	245994005	MAP	2/19/10 11:18	948579	10-1516	2	LANL	USE	S
EXP0216136a	245994006	MAP	2/19/10 11:48	948579	10-1516	2	LANL	USE	S
EXP0216137a	245994007	MAP	2/19/10 12:18	948579	10-1516	2	LANL	USE	S
EXP0216138a	245994008	MAP	2/19/10 12:47	948579	10-1516	2	LANL	USE	S
EXP0216139a	WXXCCV	MAP	2/19/10 13:16			1		USE	C
EXP0216140a	XIBLK15	MAP	2/19/10 13:46			1		USE	B
EXP0216141a	WXXCRI	MAP	2/19/10 14:38			1		USE	C
EXP0216142a	245994009	MAP	2/19/10 15:08	948579	10-1516	2	LANL	USE	S
EXP0216143a	246006001	MAP	2/19/10 15:37	948579	10-1520	500	LANL	DUSE	S
EXP0216144a	246006001	MAP	2/19/10 16:07	948579	10-1520	2	LANL	USE	S
EXP0216145a	1202032115	MAP	2/19/10 16:37	948579	10-1520	2	LANL	USE	S
EXP0216146a	1202032116	MAP	2/19/10 17:07	948579	10-1520	2	LANL	USE	S
EXP0216147a	246006002	MAP	2/19/10 17:36	948579	10-1520	2	LANL	USE	S
EXP0216148a	246006003	MAP	2/19/10 18:06	948579	10-1520	2	LANL	USE	S

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EXP0216149a	246006004	MAP	2/19/10 18:35	948579	10-1520	2	LANL	USE	S
EXP0216150a	246006005	MAP	2/19/10 19:05	948579	10-1520	2	LANL	USE	S
EXP0216151a	246006006	MAP	2/19/10 19:35	948579	10-1520	2	LANL	USE	S
EXP0216152a	WXXCCV	MAP	2/19/10 20:04			1		USE	C
EXP0216153a	XIBLK16	MAP	2/19/10 20:34			1		USE	B
EXP0216154a	WXXCRI	MAP	2/19/10 21:04			1		USE	C
EXP0216155a	246006007	MAP	2/19/10 21:34	948579	10-1520	2	LANL	USE	S
EXP0216156a	246006008	MAP	2/19/10 22:04	948579	10-1520	2	LANL	USE	S
EXP0216157a	246006009	MAP	2/19/10 22:34	948579	10-1520	2	LANL	USE	S
EXP0216158a	XIBLK17	MAP	2/19/10 23:03			1		USE	B
EXP0216159a	1202040417	MAP	2/19/10 23:33	952030	Various	2	LANL	USE	S
EXP0216160a	1202040418	MAP	2/20/10 0:03	952030	Various	2	LANL	USE	S
EXP0216161a	246707005	MAP	2/20/10 0:32	952030	10-1726	2	LANL	USE	S
EXP0216162a	1202040419	MAP	2/20/10 1:02	952030	10-1726	2	LANL	USE	S
EXP0216163a	1202040420	MAP	2/20/10 1:31	952030	10-1726	2	LANL	USE	S
EXP0216164a	246764004	MAP	2/20/10 2:01	952030	10-1721	2	LANL	USE	S
EXP0216165a	WXXCCV	MAP	2/20/10 2:30			1		USE	C
EXP0216166a	XIBLK18	MAP	2/20/10 3:00			1		USE	B
EXP0216167a	WXXCRI	MAP	2/20/10 3:30			1		USE	C
EXP0216168a	1202028657	MAP	2/20/10 3:59	947074	Various	2	LANL	USE	S
EXP0216169a	1202028658	MAP	2/20/10 4:29	947074	Various	2	LANL	USE	S
EXP0216170a	245789005	MAP	2/20/10 4:59	947074	10-1466	2	LANL	USE	S
EXP0216171a	245789009	MAP	2/20/10 5:28	947074	10-1466	2	LANL	USE	S
EXP0216172a	245789013	MAP	2/20/10 5:58	947074	10-1466	2	LANL	USE	S
EXP0216173a	245789017	MAP	2/20/10 6:28	947074	10-1466	2	LANL	USE	S
EXP0216174a	245809001	MAP	2/20/10 6:57	947074	10-1480	2	LANL	USE	S
EXP0216175a	1202028659	MAP	2/20/10 7:27	947074	10-1480	2	LANL	USE	S
EXP0216176a	1202028660	MAP	2/20/10 7:57	947074	10-1480	2	LANL	USE	S
EXP0216177a	WXXCCV	MAP	2/20/10 8:26			1		USE	C
EXP0216178a	XIBLK19	MAP	2/20/10 8:56			1		USE	B
EXP0216179a	WXXCRI	MAP	2/20/10 9:25			1		USE	C
EXP0216180a	1202028685	MAP	2/20/10 9:55	947089	10-1470	2	LANL	USE	S
EXP0216181a	1202028686	MAP	2/20/10 10:25	947089	10-1470	2	LANL	USE	S
EXP0216182a	245795001	MAP	2/20/10 10:55	947089	10-1470	2	LANL	USE	S
EXP0216183a	1202028687	MAP	2/20/10 11:25	947089	10-1470	2	LANL	USE	S
EXP0216184a	1202028688	MAP	2/20/10 11:54	947089	10-1470	2	LANL	USE	S
EXP0216185a	245795002	MAP	2/20/10 12:24	947089	10-1470	2	LANL	USE	S
EXP0216186a	245795003	MAP	2/20/10 12:54	947089	10-1470	2	LANL	USE	S
EXP0216187a	245795004	MAP	2/20/10 13:23	947089	10-1470	2	LANL	USE	S

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EXP0216188a	245795005	MAP	2/20/10 13:53	947089	10-1470	2	LANL	USE	S
EXP0216189a	245795006	MAP	2/20/10 14:23	947089	10-1470	2	LANL	USE	S
EXP0216190a	WXXCCV	MAP	2/20/10 14:52			1		USE	C
EXP0216191a	XIBLK20	MAP	2/20/10 15:22			1		USE	B
EXP0216192a	WXXCRI	MAP	2/20/10 15:52			1		USE	C
EXP0216193a	245795007	MAP	2/20/10 16:21	947089	10-1470	2	LANL	USE	S
EXP0216194a	245795008	MAP	2/20/10 16:51	947089	10-1470	2	LANL	USE	S
EXP0216195a	245795009	MAP	2/20/10 17:20	947089	10-1470	2	LANL	USE	S
EXP0216196a	245795010	MAP	2/20/10 17:50	947089	10-1470	2	LANL	USE	S
EXP0216197a	245795011	MAP	2/20/10 18:19	947089	10-1470	2	LANL	USE	S
EXP0216198a	245795012	MAP	2/20/10 18:49	947089	10-1470	2	LANL	USE	S
EXP0216199a	245795013	MAP	2/20/10 19:19	947089	10-1470	2	LANL	USE	S
EXP0216200a	245795014	MAP	2/20/10 19:48	947089	10-1470	2	LANL	USE	S
EXP0216201a	245795015	MAP	2/20/10 20:18	947089	10-1470	2	LANL	USE	S
EXP0216202a	245795016	MAP	2/20/10 20:48	947089	10-1470	2	LANL	USE	S
EXP0216203a	WXXCCV	MAP	2/20/10 21:17			1		USE	C
EXP0216204a	XIBLK21	MAP	2/20/10 21:47			1		USE	B
EXP0216205a	WXXCRI	MAP	2/20/10 22:16			1		USE	C
EXP0216206a	245795017	MAP	2/20/10 22:46	947089	10-1470	2	LANL	USE	S
EXP0216207a	245795018	MAP	2/20/10 23:15	947089	10-1470	2	LANL	USE	S
EXP0216208a	245795019	MAP	2/20/10 23:45	947089	10-1470	2	LANL	USE	S
EXP0216209a	XIBLK22	MAP	2/21/10 0:15			1		USE	B
EXP0216210a	1202035656	MAP	2/21/10 0:45	950070	Various	2	LANL	USE	S
EXP0216211a	1202035657	MAP	2/21/10 1:14	950070	Various	2	LANL	USE	S
EXP0216212a	246266001	MAP	2/21/10 1:44	950070	10-1547	2	LANL	USE	S
EXP0216213a	1202035658	MAP	2/21/10 2:14	950070	10-1547	2	LANL	USE	S
EXP0216214a	1202035659	MAP	2/21/10 2:44	950070	10-1547	2	LANL	USE	S
EXP0216215a	246266002	MAP	2/21/10 3:14	950070	10-1547	2	LANL	USE	S
EXP0216216a	WXXCCV	MAP	2/21/10 3:43			1		USE	C
EXP0216217a	XIBLK23	MAP	2/21/10 4:13			1		USE	B
EXP0216218a	WXXCRI	MAP	2/21/10 4:43			1		USE	C
EXP0216219a	246266003	MAP	2/21/10 5:12	950070	10-1547	2	LANL	USE	S
EXP0216220a	246266004	MAP	2/21/10 5:42	950070	10-1547	2	LANL	USE	S
EXP0216221a	246266005	MAP	2/21/10 6:12	950070	10-1547	2	LANL	USE	S
EXP0216222a	246266006	MAP	2/21/10 6:42	950070	10-1547	2	LANL	USE	S
EXP0216223a	246273002	MAP	2/21/10 7:11	950070	10-1550	2	LANL	USE	S
EXP0216224a	246273003	MAP	2/21/10 7:41	950070	10-1550	2	LANL	USE	S
EXP0216225a	246273004	MAP	2/21/10 8:10	950070	10-1550	2	LANL	USE	S
EXP0216226a	246273005	MAP	2/21/10 8:40	950070	10-1550	2	LANL	USE	S

EXP0216227a	246273006	MAP	2/21/10 9:10	950070	10-1550	2	LANL	USE	S
EXP0216228a	246273007	MAP	2/21/10 9:39	950070	10-1550	2	LANL	USE	S
EXP0216229a	WXXCCV	MAP	2/21/10 10:09			1		USE	C
EXP0216230a	XIBLK24	MAP	2/21/10 10:39			1		USE	B
EXP0216231a	WXXCRI	MAP	2/21/10 11:09			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 02/17/10
Extr. Injection Volume: 10uL
Sequence Number: 021710exs
Initial Calibration Date: 021710

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1263794, 1258141
Standard-Samp Reagent Lot# :1260901, 1261217

Reviewed By: [illegible]
Date: 02/19/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100217-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02170001.wiff	XIBLK01	LER	2/17/2010 9:26			1		USE	B
EXS02170002.wiff	XIBLK01	LER	2/17/2010 9:42			1		USE	B
EXS02170003.wiff	WXXICAL-19	LER	2/17/2010 9:57			1		USE	I
EXS02170004.wiff	WXXICAL-20	LER	2/17/2010 10:13			1		USE	I
EXS02170005.wiff	WXXICAL-21	LER	2/17/2010 10:29			1		USE	I
EXS02170006.wiff	WXXICAL-22	LER	2/17/2010 10:44			1		USE	I
EXS02170007.wiff	WXXICAL-23	LER	2/17/2010 11:00			1		USE	I
EXS02170008.wiff	WXXICAL-24	LER	2/17/2010 11:16			1		USE	I
EXS02170009.wiff	WXXICAL-25	LER	2/17/2010 11:31			1		USE	I
EXS02170010.wiff	XIBLK02	LER	2/17/2010 11:47			1		USE	B
EXS02170011.wiff	WXXICV	LER	2/17/2010 12:03			1		USE	C
EXS02170012.wiff	XIBLK03	LER	2/17/2010 12:19			1		USE	B
EXS02170013.wiff	WXXCRI	LER	2/17/2010 12:34			1		USE	C
EXS02170014.wiff	1202028685	LER	2/17/2010 12:50	947089	10-1470	2	LANL	USE	S
EXS02170015.wiff	1202028686	LER	2/17/2010 13:06	947089	10-1470	2	LANL	USE	S
EXS02170016.wiff	245795001	LER	2/17/2010 13:21	947089	10-1470	2	LANL	USE	S
EXS02170017.wiff	1202028687	LER	2/17/2010 13:37	947089	10-1470	2	LANL	USE	S
EXS02170018.wiff	1202028688	LER	2/17/2010 13:53	947089	10-1470	2	LANL	USE	S
EXS02170019.wiff	245795002	LER	2/17/2010 14:08	947089	10-1470	2	LANL	USE	S
EXS02170020.wiff	245795003	LER	2/17/2010 14:24	947089	10-1470	2	LANL	USE	S
EXS02170021.wiff	245795004	LER	2/17/2010 14:40	947089	10-1470	2	LANL	USE	S
EXS02170022.wiff	245795005	LER	2/17/2010 14:56	947089	10-1470	2	LANL	USE	S
EXS02170023.wiff	245795006	LER	2/17/2010 15:11	947089	10-1470	2	LANL	USE	S
EXS02170024.wiff	WXXCCV	LER	2/17/2010 15:27			1		USE	C
EXS02170025.wiff	XIBLK04	LER	2/17/2010 15:43			1		USE	B
EXS02170026.wiff	WXXCRI	LER	2/17/2010 15:58			1		USE	C
EXS02170027.wiff	245795007	LER	2/17/2010 16:14	947089	10-1470	2	LANL	USE	S
EXS02170028.wiff	245795008	LER	2/17/2010 16:30	947089	10-1470	2	LANL	USE	S
EXS02170029.wiff	245795009	LER	2/17/2010 16:45	947089	10-1470	2	LANL	USE	S
EXS02170030.wiff	245795010	LER	2/17/2010 17:01	947089	10-1470	2	LANL	USE	S

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EXS02170031.wiff	245795011	LER	2/17/2010 17:17	947089	10-1470	2	LANL	USE	S
EXS02170032.wiff	245795012	LER	2/17/2010 17:33	947089	10-1470	2	LANL	USE	S
EXS02170033.wiff	245795013	LER	2/17/2010 17:48	947089	10-1470	2	LANL	USE	S
EXS02170034.wiff	245795014	LER	2/17/2010 18:04	947089	10-1470	2	LANL	USE	S
EXS02170035.wiff	245795015	LER	2/17/2010 18:20	947089	10-1470	2	LANL	USE	S
EXS02170036.wiff	245795016	LER	2/17/2010 18:35	947089	10-1470	2	LANL	USE	S
EXS02170037.wiff	WXXCCV	LER	2/17/2010 18:51			1		USE	C
EXS02170038.wiff	XIBLK05	LER	2/17/2010 19:07			1		USE	B
EXS02170039.wiff	WXXCRI	LER	2/17/2010 19:23			1		USE	C
EXS02170040.wiff	245795017	LER	2/17/2010 19:38	947089	10-1470	2	LANL	USE	S
EXS02170041.wiff	245795018	LER	2/17/2010 19:54	947089	10-1470	2	LANL	USE	S
EXS02170042.wiff	245795019	LER	2/17/2010 20:10	947089	10-1470	2	LANL	USE	S
EXS02170043.wiff	WXXCCV	LER	2/17/2010 20:25			1		USE	C
EXS02170044.wiff	XIBLK06	LER	2/17/2010 20:41			1		USE	B
EXS02170045.wiff	WXXCRI	LER	2/17/2010 20:57			1		USE	C
EXS02170046.wiff	1202035656	LER	2/17/2010 21:12	950070	VARIOUS	2	LANL	USE	S
EXS02170047.wiff	1202035657	LER	2/17/2010 21:28	950070	VARIOUS	2	LANL	USE	S
EXS02170048.wiff	246266001	LER	2/17/2010 21:44	950070	10-1547	2	LANL	USE	S
EXS02170049.wiff	1202035658	LER	2/17/2010 22:00	950070	10-1547	2	LANL	USE	S
EXS02170050.wiff	1202035659	LER	2/17/2010 22:15	950070	10-1547	2	LANL	USE	S
EXS02170051.wiff	246266002	LER	2/17/2010 22:31	950070	10-1547	2	LANL	USE	S
EXS02170052.wiff	246266003	LER	2/17/2010 22:47	950070	10-1547	2	LANL	USE	S
EXS02170053.wiff	246266004	LER	2/17/2010 23:02	950070	10-1547	2	LANL	USE	S
EXS02170054.wiff	246266005	LER	2/17/2010 23:18	950070	10-1547	2	LANL	USE	S
EXS02170055.wiff	246266006	LER	2/17/2010 23:34	950070	10-1547	2	LANL	USE	S
EXS02170056.wiff	WXXCCV	LER	2/17/2010 23:49			1		USE	C
EXS02170057.wiff	XIBLK07	LER	2/18/2010 0:05			1		USE	B
EXS02170058.wiff	WXXCRI	LER	2/18/2010 0:21			1		USE	C
EXS02170059.wiff	246273002	LER	2/18/2010 0:37	950070	10-1550	2	LANL	USE	S
EXS02170060.wiff	246273003	LER	2/18/2010 0:52	950070	10-1550	2	LANL	USE	S
EXS02170061.wiff	246273004	LER	2/18/2010 1:08	950070	10-1550	2	LANL	USE	S
EXS02170062.wiff	246273005	LER	2/18/2010 1:24	950070	10-1550	2	LANL	USE	S
EXS02170063.wiff	246273006	LER	2/18/2010 1:39	950070	10-1550	2	LANL	USE	S
EXS02170064.wiff	246273007	LER	2/18/2010 1:55	950070	10-1550	2	LANL	USE	S
EXS02170065.wiff	246273008	LER	2/18/2010 2:11	950070	10-1550	2	LANL	USE	S
EXS02170066.wiff	246273009	LER	2/18/2010 2:26	950070	10-1550	2	LANL	USE	S
EXS02170067.wiff	246273010	LER	2/18/2010 2:42	950070	10-1550	2	LANL	USE	S

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EXS02170068.wiff	246273011	LER	2/18/2010 2:58	950070	10-1550	2	LANL	USE	S
EXS02170069.wiff	WXXCCV	LER	2/18/2010 3:14			1		USE	C
EXS02170070.wiff	XIBLK08	LER	2/18/2010 3:29			1		USE	B
EXS02170071.wiff	WXXCRI	LER	2/18/2010 3:45			1		USE	C
EXS02170072.wiff	246273012	LER	2/18/2010 4:01	950070	10-1550	2	LANL	USE	S
EXS02170073.wiff	XIBLK09	LER	2/18/2010 4:16			1		USE	B
EXS02170074.wiff	1202035670	LER	2/18/2010 4:32	950077	VARIOUS	2	LANL	USE	S
EXS02170075.wiff	1202035671	LER	2/18/2010 4:48	950077	VARIOUS	2	LANL	USE	S
EXS02170076.wiff	246287001	LER	2/18/2010 5:04	950077	10-1553	2	LANL	USE	S
EXS02170077.wiff	1202035672	LER	2/18/2010 5:19	950077	10-1553	2	LANL	USE	S
EXS02170078.wiff	1202035673	LER	2/18/2010 5:35	950077	10-1553	2	LANL	USE	S
EXS02170079.wiff	246287002	LER	2/18/2010 5:51	950077	10-1553	2	LANL	USE	S
EXS02170080.wiff	246287003	LER	2/18/2010 6:06	950077	10-1553	2	LANL	USE	S
EXS02170081.wiff	246287004	LER	2/18/2010 6:22	950077	10-1553	2	LANL	USE	S
EXS02170082.wiff	WXXCCV	LER	2/18/2010 6:38			1		USE	C
EXS02170083.wiff	XIBLK10	LER	2/18/2010 6:53			1		USE	B
EXS02170084.wiff	WXXCRI	LER	2/18/2010 7:09			1		USE	C
EXS02170085.wiff	246287005	LER	2/18/2010 7:25	950077	10-1553	2	LANL	USE	S
EXS02170086.wiff	246287006	LER	2/18/2010 7:41	950077	10-1553	2	LANL	USE	S
EXS02170087.wiff	246287007	LER	2/18/2010 7:56	950077	10-1553	2	LANL	USE	S
EXS02170088.wiff	246287008	LER	2/18/2010 8:12	950077	10-1553	2	LANL	USE	S
EXS02170089.wiff	246287010	LER	2/18/2010 8:28	950077	10-1553	2	LANL	USE	S
EXS02170090.wiff	246297002	LER	2/18/2010 8:43	950077	10-1556	2	LANL	USE	S
EXS02170091.wiff	246297003	LER	2/18/2010 8:59	950077	10-1556	2	LANL	USE	S
EXS02170092.wiff	246297004	LER	2/18/2010 9:15	950077	10-1556	2	LANL	USE	S
EXS02170093.wiff	246302001	LER	2/18/2010 9:31	950077	10-1558	2	LANL	USE	S
EXS02170094.wiff	246302002	LER	2/18/2010 9:46	950077	10-1558	2	LANL	USE	S
EXS02170095.wiff	WXXCCV	LER	2/18/2010 10:02			1		USE	C
EXS02170096.wiff	XIBLK11	LER	2/18/2010 10:18			1		USE	B
EXS02170097.wiff	WXXCRI	LER	2/18/2010 10:33			1		USE	C
EXS02170098.wiff	246302003	LER	2/18/2010 10:49	950077	10-1558	2	LANL	USE	S
EXS02170099.wiff	246302004	LER	2/18/2010 11:05	950077	10-1558	2	LANL	USE	S
EXS02170100.wiff	246312001	LER	2/18/2010 11:21	950077	10-1561	2	LANL	USE	S
EXS02170101.wiff	WXXCCV	LER	2/18/2010 11:36			1		USE	C
EXS02170102.wiff	XIBLK12	LER	2/18/2010 11:52			1		USE	B
EXS02170103.wiff	WXXCRI	LER	2/18/2010 12:08			1		USE	C
EXS02170104.wiff	1202023589	LER	2/18/2010 12:23	944915	VARIOUS	2	LANL	USE	S

EXS02170105.wiff	1202023590	LER	2/18/2010 12:39	944915	VARIOUS	2	LANL	USE	S
EXS02170106.wiff	245377001	LER	2/18/2010 12:55	944915	10-1378	2	LANL	USE	S
EXS02170107.wiff	245377002	LER	2/18/2010 13:11	944915	10-1378	2	LANL	USE	S
EXS02170108.wiff	245377003	LER	2/18/2010 13:26	944915	10-1378	2	LANL	USE	S
EXS02170109.wiff	245377004	LER	2/18/2010 13:42	944915	10-1378	2	LANL	USE	S
EXS02170110.wiff	245377005	LER	2/18/2010 13:58	944915	10-1378	2	LANL	USE	S
EXS02170111.wiff	245377006	LER	2/18/2010 14:13	944915	10-1378	2	LANL	USE	S
EXS02170112.wiff	245377007	LER	2/18/2010 14:29	944915	10-1378	2	LANL	USE	S
EXS02170113.wiff	245377008	LER	2/18/2010 14:45	944915	10-1378	2	LANL	USE	S
EXS02170114.wiff	WXXCCV	LER	2/18/2010 15:01			1		USE	C
EXS02170115.wiff	XIBLK13	LER	2/18/2010 15:16			1		USE	B
EXS02170116.wiff	WXXCRI	LER	2/18/2010 15:32			1		USE	C
EXS02170117.wiff	245377009	LER	2/18/2010 15:48	944915	10-1378	2	LANL	USE	S
EXS02170118.wiff	245377010	LER	2/18/2010 16:04	944915	10-1378	2	LANL	USE	S
EXS02170119.wiff	245396001	LER	2/18/2010 16:19	944915	10-1394	2	LANL	USE	S
EXS02170120.wiff	1202023591	LER	2/18/2010 16:35	944915	10-1394	2	LANL	USE	S
EXS02170121.wiff	1202023592	LER	2/18/2010 16:51	944915	10-1394	2	LANL	USE	S
EXS02170122.wiff	245396002	LER	2/18/2010 17:06	944915	10-1394	2	LANL	USE	S
EXS02170123.wiff	245396003	LER	2/18/2010 17:22	944915	10-1394	2	LANL	USE	S
EXS02170124.wiff	245396004	LER	2/18/2010 17:38	944915	10-1394	2	LANL	USE	S
EXS02170125.wiff	247033002	LER	2/18/2010 17:54	944915	10-1821	2	LANL	USE	S
EXS02170126.wiff	WXXCCV	LER	2/18/2010 18:09			1		USE	C
EXS02170127.wiff	XIBLK14	LER	2/18/2010 18:25			1		USE	B
EXS02170128.wiff	WXXCRI	LER	2/18/2010 18:41			1		USE	C
EXS02170129.wiff	1202035674	LER	2/18/2010 18:57	950079	10-1562	2	LANL	USE	S
EXS02170130.wiff	1202035675	LER	2/18/2010 19:12	950079	10-1562	2	LANL	USE	S
EXS02170131.wiff	246316001	LER	2/18/2010 19:28	950079	10-1562	2	LANL	USE	S
EXS02170132.wiff	1202035676	LER	2/18/2010 19:44	950079	10-1562	2	LANL	USE	S
EXS02170133.wiff	1202035677	LER	2/18/2010 19:59	950079	10-1562	2	LANL	USE	S
EXS02170134.wiff	246316002	LER	2/18/2010 20:15	950079	10-1562	2	LANL	USE	S
EXS02170135.wiff	246316003	LER	2/18/2010 20:31	950079	10-1562	2	LANL	USE	S
EXS02170136.wiff	246316004	LER	2/18/2010 20:47	950079	10-1562	2	LANL	USE	S
EXS02170137.wiff	246316005	LER	2/18/2010 21:02	950079	10-1562	2	LANL	USE	S
EXS02170138.wiff	WXXCCV	LER	2/18/2010 21:18			1		USE	C
EXS02170139.wiff	XIBLK15	LER	2/18/2010 21:34			1		USE	B
EXS02170140.wiff	WXXCRI	LER	2/18/2010 21:50			1		USE	C

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
21-FEB-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
947089	1202028686		

Potentially affected work order(s)(SDG): 245795(10-1470)

Application Issues:

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. The Laboratory Control Sample (1202028686) did not meet spike recovery limits for Tetryl at 39.2%. The recovery limits are 51-112%.	1. Since the Matrix Spike and Matrix Spike Duplicate both met acceptance limits for Tetryl, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative. The Tetryl recovery met the DOD QSM recovery limits of 10-150%.

Originator's Name:

Michael Penny 21-FEB-10

Data Validator/Group Leader:

Herbert Maier 22-FEB-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1470

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	949033
Prep Batch Number:	949031

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
245795001	RE15-10-7888
245795002	RE15-10-7890
245795003	RE15-10-7886
245795004	RE15-10-7889
245795005	RE15-10-7885
245795006	RE15-10-7882
245795007	RE15-10-7887
245795008	RE15-10-7881
1202033246	Method Blank (MB)
1202033247	Laboratory Control Sample (LCS)
1202033248	245969001(RE15-10-7880) Matrix Spike (MS)
1202033249	245969001(RE15-10-7880) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear

equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

One or more of the five quantified peaks did not meet the acceptance criteria in Aroclor-1254 and Aroclor-1268 standards analyzed for this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1512) was selected for the matrix spike and matrix spike duplicate analysis for this batch; however the MS and MSD results were not reportable because the parent sample was re-extracted and reported in another batch.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Samples 245795002 (RE15-10-7890) and 245795004 (RE15-10-7889) were extracted and analyzed twice. The two sets of the results match with each other. The first analysis was reported.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic

signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 2/25/10

Roadmap for LANL 10-1470 PCB

This roadmap was analyzed by yip00818 on 02-12-2010, 13:38.
This roadmap was reviewed by jim01140 on 02-16-2010, 08:57.
This roadmap was packaged by yml on 02-24-2010, 18:11.
This roadmap was validated by jim01140 on 02-25-2010, 09:14.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020510.b/015f1501.d	245795001	sample	05-FEB-2010	09:23	10-1470.sub	RE15-10-7888	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/021010b.b/017f1701.d	245795002	sample	10-FEB-2010	16:01	10-1470.sub	RE15-10-7890	1.00000	950898	DUSE CONFIRMATION FOR AR1268 HIT
☐	N	/chem/ecd1a.i/020510.b/016f1601.d	245795002	sample	05-FEB-2010	09:36	10-1470.sub	RE15-10-7890	1.00000	949033	AR1268 RE TO CONFIRM
☐	N	/chem/ecd1a.i/020510.b/017f1701.d	245795003	sample	05-FEB-2010	09:48	10-1470.sub	RE15-10-7886	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/021010b.b/018f1801.d	245795004	sample	10-FEB-2010	16:14	10-1470.sub	RE15-10-7889	1.00000	950898	DUSE CONFIRMATION FOR AR1268 HIT
☐	N	/chem/ecd1a.i/020510.b/018f1801.d	245795004	sample	05-FEB-2010	10:01	10-1470.sub	RE15-10-7889	1.00000	949033	AR1268 RE TO CONFIRM
☐	N	/chem/ecd1a.i/020510.b/019f1901.d	245795005	sample	05-FEB-2010	10:13	10-1470.sub	RE15-10-7885	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/020f2001.d	245795006	sample	05-FEB-2010	10:26	10-1470.sub	RE15-10-7882	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/021f2101.d	245795007	sample	05-FEB-2010	10:39	10-1470.sub	RE15-10-7887	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/024f2401.d	245795008	sample	05-FEB-2010	11:12	10-1470.sub	RE15-10-7881	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020510.b/015b1501.d	245795001	sample	05-FEB-2010	09:23	10-1470.sub	RE15-10-7888	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/021010b.b/017b1701.d	245795002	sample	10-FEB-2010	16:01	10-1470.sub	RE15-10-7890	1.00000	950898	DUSE CONFIRMATION FOR AR1268 HIT
☐	N	/chem/ecd1a.i/020510.b/016b1601.d	245795002	sample	05-FEB-2010	09:36	10-1470.sub	RE15-10-7890	1.00000	949033	AR1268 RE TO CONFIRM
☐	N	/chem/ecd1a.i/020510.b/017b1701.d	245795003	sample	05-FEB-2010	09:48	10-1470.sub	RE15-10-7886	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/021010b.b/018b1801.d	245795004	sample	10-FEB-2010	16:14	10-1470.sub	RE15-10-7889	1.00000	950898	DUSE CONFIRMATION FOR AR1268 HIT
☐	N	/chem/ecd1a.i/020510.b/018b1801.d	245795004	sample	05-FEB-2010	10:01	10-1470.sub	RE15-10-7889	1.00000	949033	AR1268 RE TO CONFIRM
☐	N	/chem/ecd1a.i/020510.b/019b1901.d	245795005	sample	05-FEB-2010	10:13	10-1470.sub	RE15-10-7885	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/020b2001.d	245795006	sample	05-FEB-2010	10:26	10-1470.sub	RE15-10-7882	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/021b2101.d	245795007	sample	05-FEB-2010	10:39	10-1470.sub	RE15-10-7887	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/020510.b/024b2401.d	245795008	sample	05-FEB-2010	11:12	10-1470.sub	RE15-10-7881	1.00000	949033	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment

☐	N	/chem/ecd1a.i/020510.b/012f1201-1.d	1202033246	mb	05-FEB-2010	08:52	10-1470.sub	PBLK01	1.00000	949033	
☐	N	/chem/ecd1a.i/020510.b/013f1301-1.d	1202033247	lcs	05-FEB-2010	09:02	10-1470.sub	PBLK01LCS	1.00000	949033	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/020510.b/012b1201-1.d	1202033246	mb	05-FEB-2010	08:52	10-1470.sub	PBLK01	1.00000	949033	
☐	N	/chem/ecd1a.i/020510.b/013b1301-1.d	1202033247	lcs	05 FEB 2010	09:02	10-1470.sub	PBLK01LCS	1.00000	949033	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795008	**Date Received:**	01/29/2010 08:45	**%Moisture:**	37.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7881	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A,I	**Dilution:**	1
Run Date:	02/05/2010 11:12	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	024f2401.d	**Column:**	1 CLP1	**Level:**	LOW
	024b2401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	5.30	ug/kg	1.76	5.30	1
11104-28-2	Aroclor-1221	U	5.30	ug/kg	1.76	5.30	1
11141-16-5	Aroclor-1232	U	5.30	ug/kg	1.76	5.30	1
53469-21-9	Aroclor-1242	U	5.30	ug/kg	1.76	5.30	1
12672-29-6	Aroclor 1248	U	5.30	ug/kg	1.76	5.30	1
11097-69-1	Aroclor-1254	U	5.30	ug/kg	1.76	5.30	1
11096-82-5	Aroclor-1260	U	5.30	ug/kg	1.76	5.30	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795006	**Date Received:**	01/29/2010 08:45	**%Moisture:**	12.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7882	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 10:26	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	020f2001.d	**Column:**	1 CLP1	**Level:**	LOW
	020b2001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.81	ug/kg	1.27	3.81	1
11104-28-2	Aroclor-1221	U	3.81	ug/kg	1.27	3.81	1
11141-16-5	Aroclor-1232	U	3.81	ug/kg	1.27	3.81	1
53469-21-9	Aroclor-1242	U	3.81	ug/kg	1.27	3.81	1
12672-29-6	Aroclor 1248	U	3.81	ug/kg	1.27	3.81	1
11097-69-1	Aroclor-1254	U	3.81	ug/kg	1.27	3.81	1
11096-82-5	Aroclor-1260	U	3.81	ug/kg	1.27	3.81	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795005**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**33.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 10:13**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	019b1901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.97	ug/kg	1.66	4.97	1
11104-28-2	Aroclor-1221	U	4.97	ug/kg	1.66	4.97	1
11141-16-5	Aroclor-1232	U	4.97	ug/kg	1.66	4.97	1
53469-21-9	Aroclor-1242	U	4.97	ug/kg	1.66	4.97	1
12672-29-6	Aroclor-1248	U	4.97	ug/kg	1.66	4.97	1
11097-69-1	Aroclor-1254	J	3.40	ug/kg	1.66	4.97	1
11096-82-5	Aroclor-1260	U	4.97	ug/kg	1.66	4.97	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795003**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**6.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–7886**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 09:48**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.54	ug/kg	1.18	3.54	1
11104–28–2	Aroclor–1221	U	3.54	ug/kg	1.18	3.54	1
11141–16–5	Aroclor–1232	U	3.54	ug/kg	1.18	3.54	1
53469–21–9	Aroclor–1242	U	3.54	ug/kg	1.18	3.54	1
12672–29–6	Aroclor–1248	U	3.54	ug/kg	1.18	3.54	1
11097–69–1	Aroclor–1254	U	3.54	ug/kg	1.18	3.54	1
11096–82–5	Aroclor–1260	U	3.54	ug/kg	1.18	3.54	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795007**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**33**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7887**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 10:39**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	021b2101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.98	ug/kg	1.66	4.98	1
11104-28-2	Aroclor-1221	U	4.98	ug/kg	1.66	4.98	1
11141-16-5	Aroclor-1232	U	4.98	ug/kg	1.66	4.98	1
53469-21-9	Aroclor-1242	U	4.98	ug/kg	1.66	4.98	1
12672-29-6	Aroclor-1248	U	4.98	ug/kg	1.66	4.98	1
11097-69-1	Aroclor-1254	U	4.98	ug/kg	1.66	4.98	1
11096-82-5	Aroclor-1260	U	4.98	ug/kg	1.66	4.98	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795001**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**9.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7888**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 09:23**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.67	ug/kg	1.22	3.67	1
11104-28-2	Aroclor-1221	U	3.67	ug/kg	1.22	3.67	1
11141-16-5	Aroclor-1232	U	3.67	ug/kg	1.22	3.67	1
53469-21-9	Aroclor-1242	U	3.67	ug/kg	1.22	3.67	1
12672-29-6	Aroclor-1248	U	3.67	ug/kg	1.22	3.67	1
11097-69-1	Aroclor-1254	U	3.67	ug/kg	1.22	3.67	1
11096-82-5	Aroclor-1260	U	3.67	ug/kg	1.22	3.67	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795004**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**37.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7889**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 10:01**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	5.30	ug/kg	1.77	5.30	1
11104-28-2	Aroclor-1221	U	5.30	ug/kg	1.77	5.30	1
11141-16-5	Aroclor-1232	U	5.30	ug/kg	1.77	5.30	1
53469-21-9	Aroclor-1242	U	5.30	ug/kg	1.77	5.30	1
12672-29-6	Aroclor-1248	U	5.30	ug/kg	1.77	5.30	1
11097-69-1	Aroclor-1254	P	36.8	ug/kg	1.77	5.30	1
11096-82-5	Aroclor-1260		23.3	ug/kg	1.77	5.30	2
11100-14-4	Aroclor-1268		20.5	ug/kg	1.77	5.30	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795002**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**9.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–7890**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 09:36**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.67	ug/kg	1.22	3.67	1
11104–28–2	Aroclor–1221	U	3.67	ug/kg	1.22	3.67	1
11141–16–5	Aroclor–1232	U	3.67	ug/kg	1.22	3.67	1
53469–21–9	Aroclor–1242	U	3.67	ug/kg	1.22	3.67	1
12672–29–6	Aroclor–1248	U	3.67	ug/kg	1.22	3.67	1
11097–69–1	Aroclor–1254	JP	2.90	ug/kg	1.22	3.67	1
11096–82–5	Aroclor–1260	J	3.10	ug/kg	1.22	3.67	2
11100–14–4	Aroclor–1268	P	4.50	ug/kg	1.22	3.67	2

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1470

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202033246	MB for batch 949031	61	61	56	67
1202033247	LCS for batch 949031	63	62	61	67
245795001	RE15-10-7888	59	58	65	66
245795002	RE15-10-7890	62	62	55	71
245795003	RE15-10-7886	59	59	63	68
245795004	RE15-10-7889	59	58	63	69
245795005	RE15-10-7885	54	54	53	62
245795006	RE15-10-7882	62	62	57	71
245795007	RE15-10-7887	58	57	55	67
245795008	RE15-10-7881	62	61	54	70

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1470
Client ID: LCS for batch 949031
Lab Sample ID: 1202033247
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/05/2010 09:02
Dilution: 1
Prep Batch ID: 949031
Batch ID: 949033

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	20.2	61	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	23.7	71	45-118

Method Blank Summary

SDG Number:	10–1470	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 949031	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201–1.d 012f1201–1.d
Lab Sample ID:	1202033246				
Column:	CLP2 CLP1	Prep Date:	02/04/2010 20:32	Analyzed:	02/05/10 08:52
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 949031	1202033247	013f1301–1.d 013b1301–1.d	02/05/10	0902
02 RE15–10–7888	245795001	015f1501.d 015b1501.d	02/05/10	0923
03 RE15–10–7890	245795002	016f1601.d 016b1601.d	02/05/10	0936
04 RE15–10–7886	245795003	017f1701.d 017b1701.d	02/05/10	0948
05 RE15–10–7889	245795004	018f1801.d 018b1801.d	02/05/10	1001
06 RE15–10–7885	245795005	019f1901.d 019b1901.d	02/05/10	1013
07 RE15–10–7882	245795006	020f2001.d 020b2001.d	02/05/10	1026
08 RE15–10–7887	245795007	021f2101.d 021b2101.d	02/05/10	1039
09 RE15–10–7881	245795008	024f2401.d 024b2401.d	02/05/10	1112

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	Date Collected:	01/26/2010 12:00	Matrix:	SOIL
Lab Sample ID:	245795008	Date Received:	01/29/2010 08:45	%Moisture:	37.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7881	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	949033	Inst:	ECD1A.I	Dilution:	1
Run Date:	02/05/2010 11:12	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	02/04/2010 20:32	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	024f2401.d	Column:	1 CLP1	Level:	LOW
	024b2401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	5.30	ug/kg	1.76	5.30	1
11104-28-2	Aroclor-1221	U	5.30	ug/kg	1.76	5.30	1
11141-16-5	Aroclor-1232	U	5.30	ug/kg	1.76	5.30	1
53469-21-9	Aroclor-1242	U	5.30	ug/kg	1.76	5.30	1
12672-29-6	Aroclor-1248	U	5.30	ug/kg	1.76	5.30	1
11097-69-1	Aroclor-1254	U	5.30	ug/kg	1.76	5.30	1
11096-82-5	Aroclor-1260	U	5.30	ug/kg	1.76	5.30	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/024f2401.d
Lab Smp Id: 245795008 Client Smp ID: RE15-10-7881
Inj Date : 05-FEB-2010 11:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795008|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7881|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 11:31 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	37.09770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	49277875	123.612	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.276	5.275	0.001	34656359	107.190	5.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/024f2401.d
Date : 05-FEB-2010 11:12
Client ID: RE15-10-7881
Sample Info: 1245795008111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

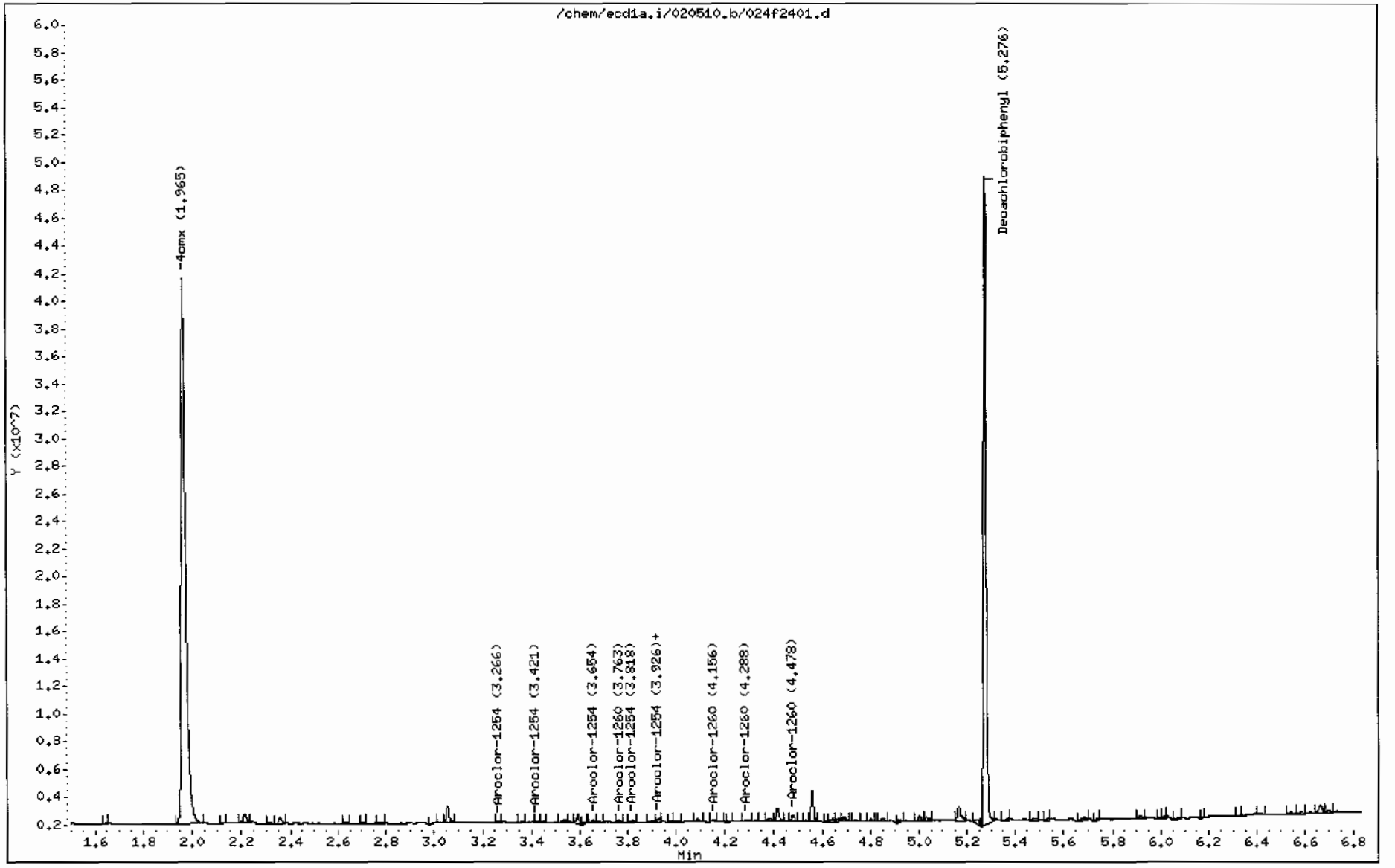

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/024b2401.d
Lab Smp Id: 245795008 Client Smp ID: RE15-10-7881
Inj Date : 05-FEB-2010 11:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795008|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7881|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	37.09770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	35244273	122.698	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.942	5.942	0.000	30533292	140.300	7.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/024b2401.d

Page 1

Date : 05-FEB-2010 11:12

Client ID: RE15-10-7881

Instrument: ecd1a.i

Sample Info: |245795008|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

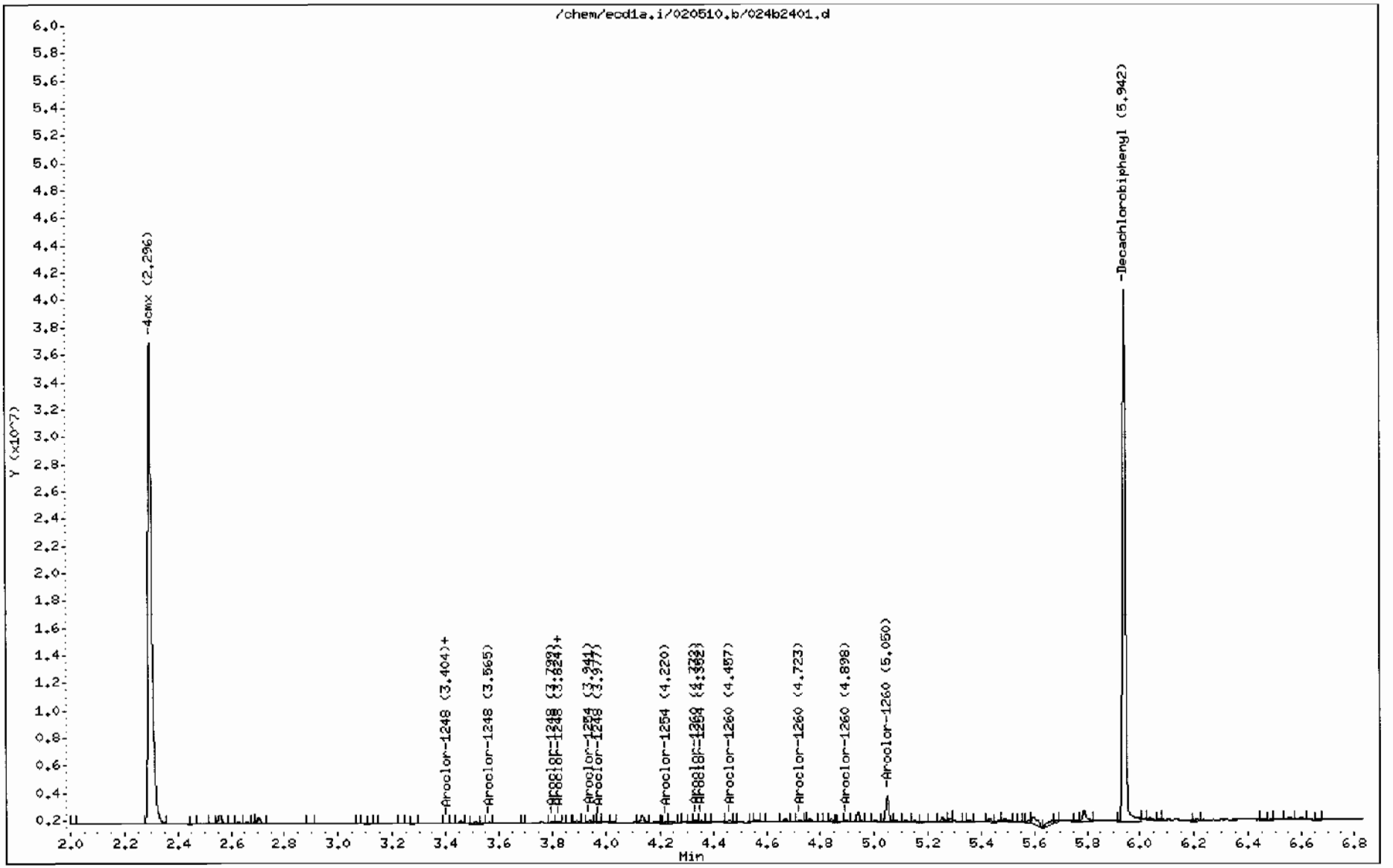

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795006	**Date Received:**	01/29/2010 08:45	**%Moisture:**	12.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7882	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A,I	**Dilution:**	1
Run Date:	02/05/2010 10:26	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	020f2001.d	**Column:**	1 CLP1	**Level:**	LOW
	020b2001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.81	ug/kg	1.27	3.81	1
11104-28-2	Aroclor-1221	U	3.81	ug/kg	1.27	3.81	1
11141-16-5	Aroclor-1232	U	3.81	ug/kg	1.27	3.81	1
53469-21-9	Aroclor-1242	U	3.81	ug/kg	1.27	3.81	1
12672-29-6	Aroclor-1248	U	3.81	ug/kg	1.27	3.81	1
11097-69-1	Aroclor-1254	U	3.81	ug/kg	1.27	3.81	1
11096-82-5	Aroclor-1260	U	3.81	ug/kg	1.27	3.81	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/020f2001.d
Lab Smp Id: 245795006 Client Smp ID: RE15-10-7882
Inj Date : 05-FEB-2010 10:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795006|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7882|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 11:26 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.49770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	49779103	124.870	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	36764816	113.712	4.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/020f2001.d

Date : 05-FEB-2010 10:26

Client ID: RE15-10-7882

Sample Info: |245795006|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

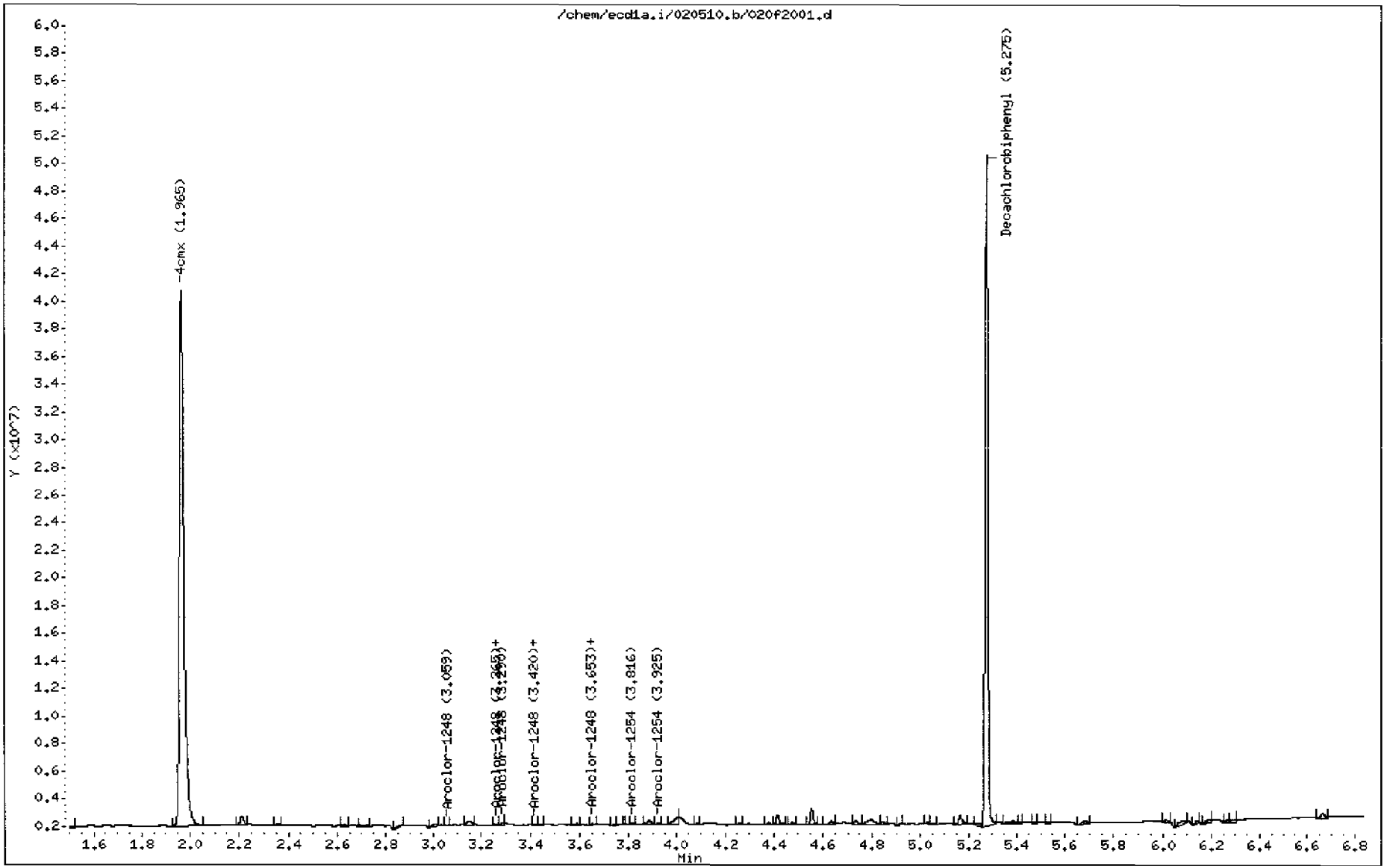

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/020b2001.d
Lab Smp Id: 245795006 Client Smp ID: RE15-10-7882
Inj Date : 05-FEB-2010 10:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795006|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7882|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:27 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	12.49770	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.296	-0.001	35678279	124.209	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	30700178	141.067	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/020b2001.d

Page 1

Date : 05-FEB-2010 10:26

Client ID: RE15-10-7882

Instrument: ecd1a.i

Sample Info: |245795006|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

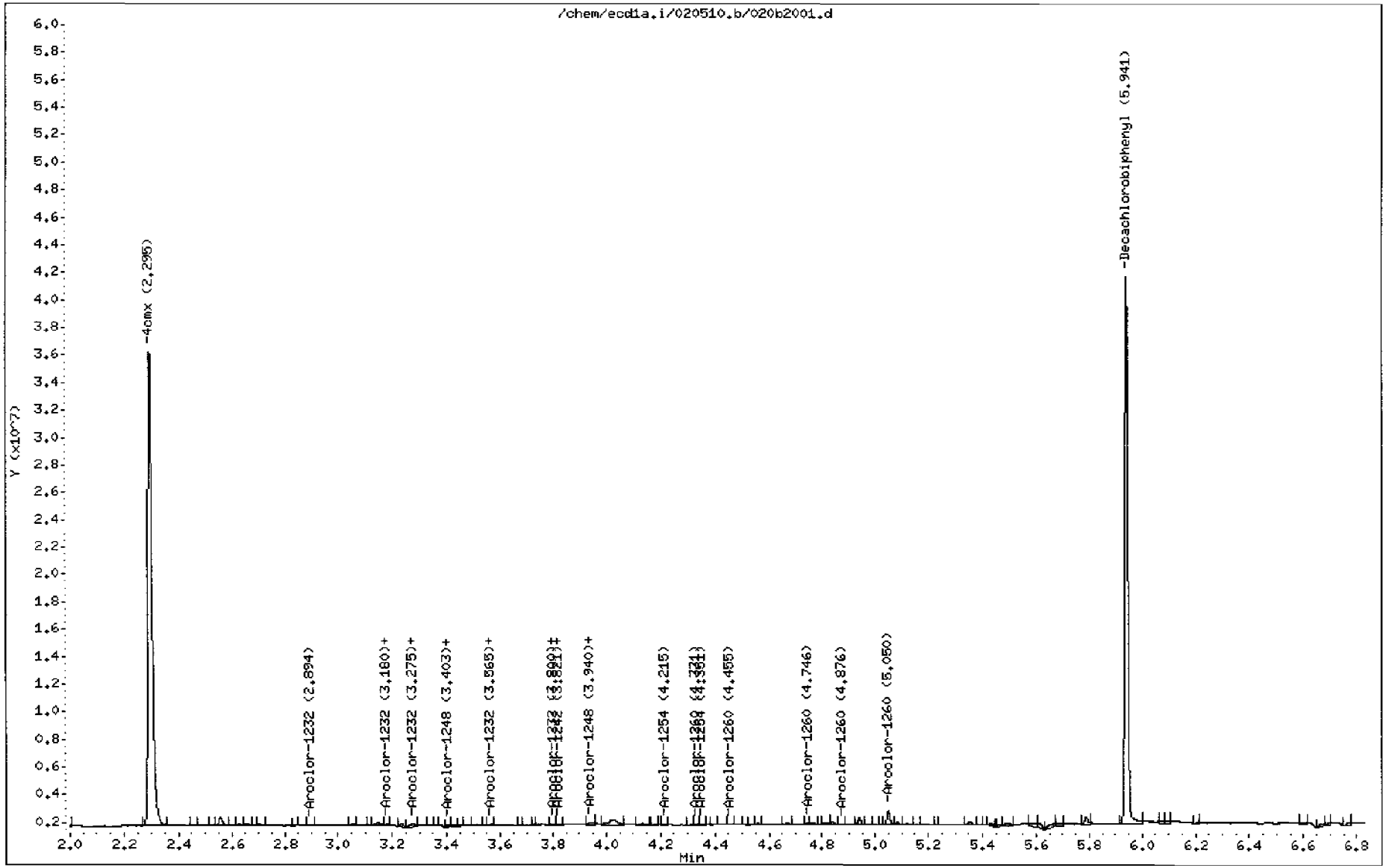

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795005**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**33.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–7885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 10:13**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.05 g**	**Final Volume:**	**1 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	019b1901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.97	ug/kg	1.66	4.97	1
11104–28–2	Aroclor–1221	U	4.97	ug/kg	1.66	4.97	1
11141–16–5	Aroclor–1232	U	4.97	ug/kg	1.66	4.97	1
53469–21–9	Aroclor–1242	U	4.97	ug/kg	1.66	4.97	1
12672–29–6	Aroclor–1248	U	4.97	ug/kg	1.66	4.97	1
11097–69–1	Aroclor–1254	J	3.40	ug/kg	1.66	4.97	1
11096–82–5	Aroclor–1260	U	4.97	ug/kg	1.66	4.97	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/019f1901.d
Lab Smp Id: 245795005 Client Smp ID: RE15-10-7885
Inj Date : 05-FEB-2010 10:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795005|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7885|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 11:31 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	33.07300	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	42915967	107.654	5.4	80.00 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	34531028	106.803	5.3	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.266	-0.002	712194	57.0418	2.8	80.00- 120.00	100.00(a)
3.419	3.421	-0.002	845054	50.5356	2.5	118.05- 158.05	118.66
3.653	3.655	-0.002	1399731	67.5744	3.4	160.50 200.50	196.54
3.816	3.818	-0.002	961296	61.2517	3.0	116.88- 156.88	134.98

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.924	3.926	-0.002	1654321	109.034	5.4	110.22- 150.22	232.28
			Average of Peak Concentrations =		3.4		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/020510.b/019f1901.d
Date : 05-FEB-2010 10:13
Client ID: RE15-10-7885
Sample Info: |245795005|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

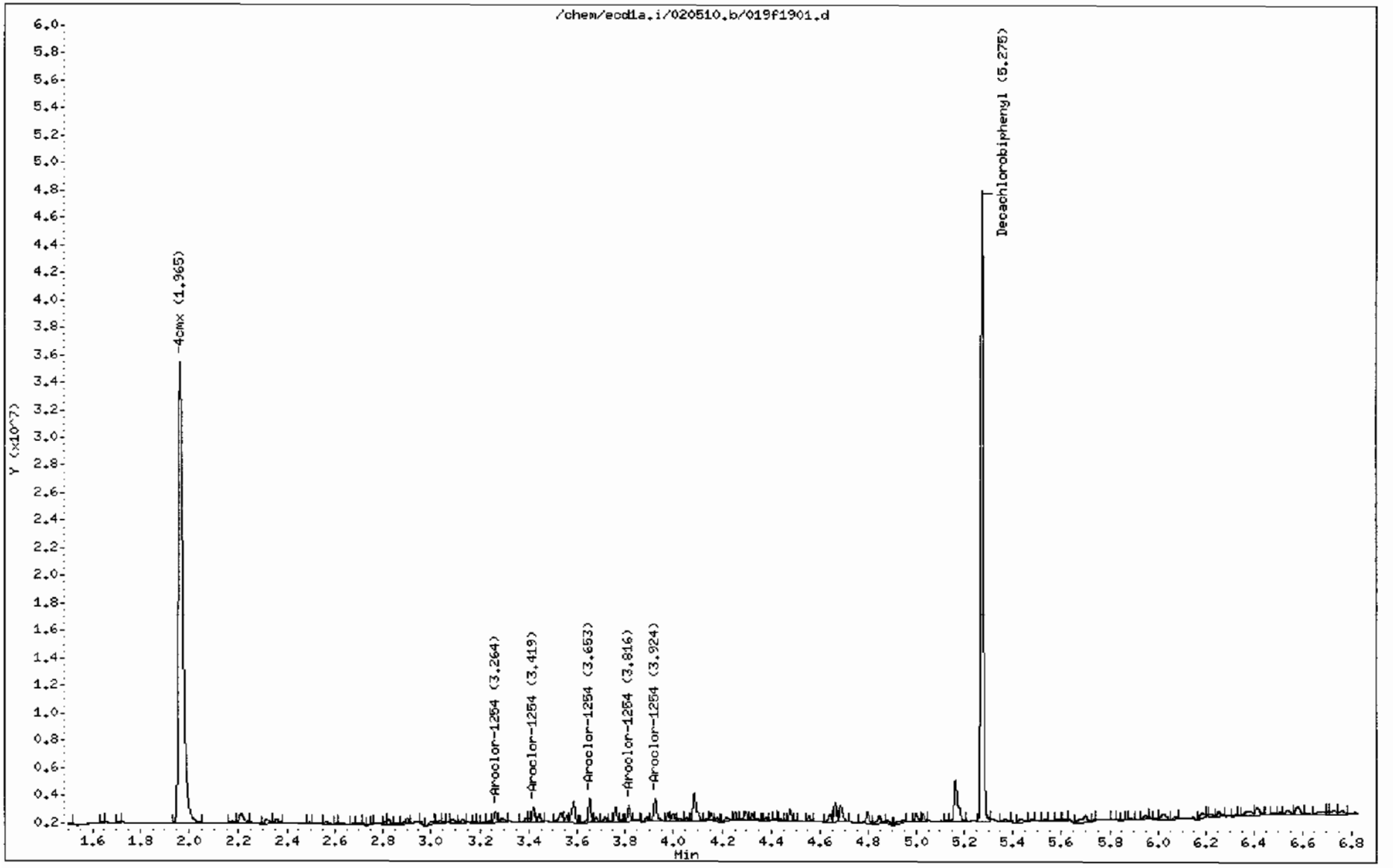

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/019b1901.d
Lab Smp Id: 245795005 Client Smp ID: RE15-10-7885
Inj Date : 05-FEB-2010 10:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795005|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7885|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	33.07300	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09 8		
2.296	2.296	0.000	31058309	108.125	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	26930404	123.745	6.2	80.00 120.00	100.00
6 Aroclor-1254					CAS #: 11097 69-1		
3.401	3.401	0.000	319661	49.6734	2.5	80.00- 120.00	100.00(a)
3.822	3.824	-0.002	717035	62.0309	3.1	160.72- 200.72	224.31
3.939	3.940	-0.001	848731	68.2738	3.4	179.44- 219.44	265.51
4.216	4.216	0.000	754816	44.7164	2.2	255.74- 295.74	236.13

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.351	4.353	-0.002	921423	74.0963	3.7	176.59- 216.59	288.25
Average of Peak Concentrations =					3.0		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/020510.b/019b1901.d

Page 1

Date : 05-FEB-2010 10:13

Client ID: RE15-10-7885

Instrument: ecd1a.i

Sample Info: |245795005|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

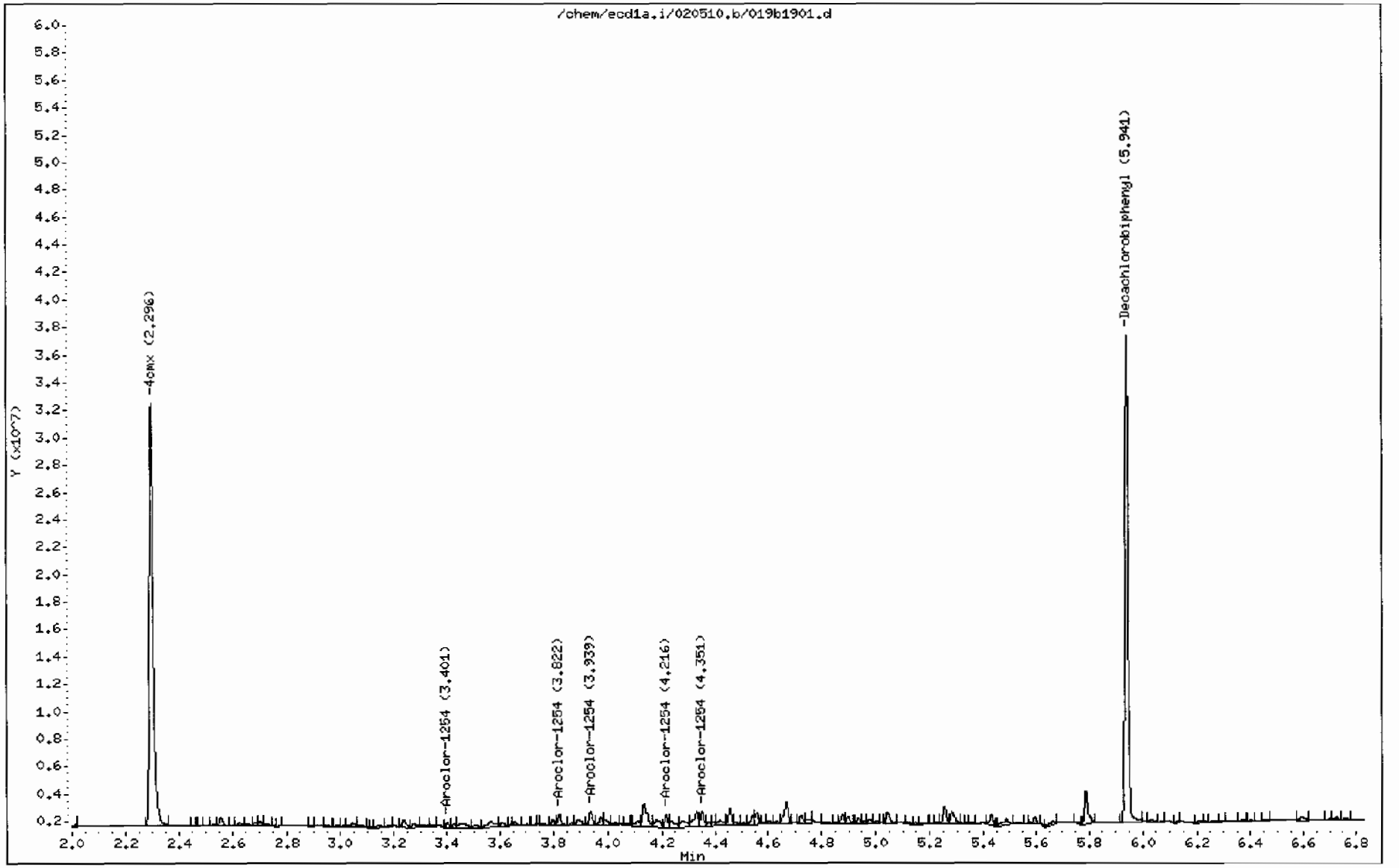

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795003	**Date Received:**	01/29/2010 08:45	**%Moisture:**	6.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7886	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A,I	**Dilution:**	1
Run Date:	02/05/2010 09:48	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	017f1701.d	**Column:**	1 CLP1	**Level:**	LOW
	017b1701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.54	ug/kg	1.18	3.54	1
11104-28-2	Aroclor-1221	U	3.54	ug/kg	1.18	3.54	1
11141-16-5	Aroclor-1232	U	3.54	ug/kg	1.18	3.54	1
53469-21-9	Aroclor-1242	U	3.54	ug/kg	1.18	3.54	1
12672-29-6	Aroclor-1248	U	3.54	ug/kg	1.18	3.54	1
11097-69-1	Aroclor-1254	U	3.54	ug/kg	1.18	3.54	1
11096-82-5	Aroclor-1260	U	3.54	ug/kg	1.18	3.54	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/017f1701.d
Lab Smp Id: 245795003 Client Smp ID: RE15-10-7886
Inj Date : 05-FEB-2010 09:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795003|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7886|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 11:26 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	6.52600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	47111847	118.179	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	40774112	126.112	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/017f1701.d

Page 1

Date : 05-FEB-2010 09:48

Client ID: RE15-10-7886

Instrument: ecd1a.i

Sample Info: 1245795003111

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

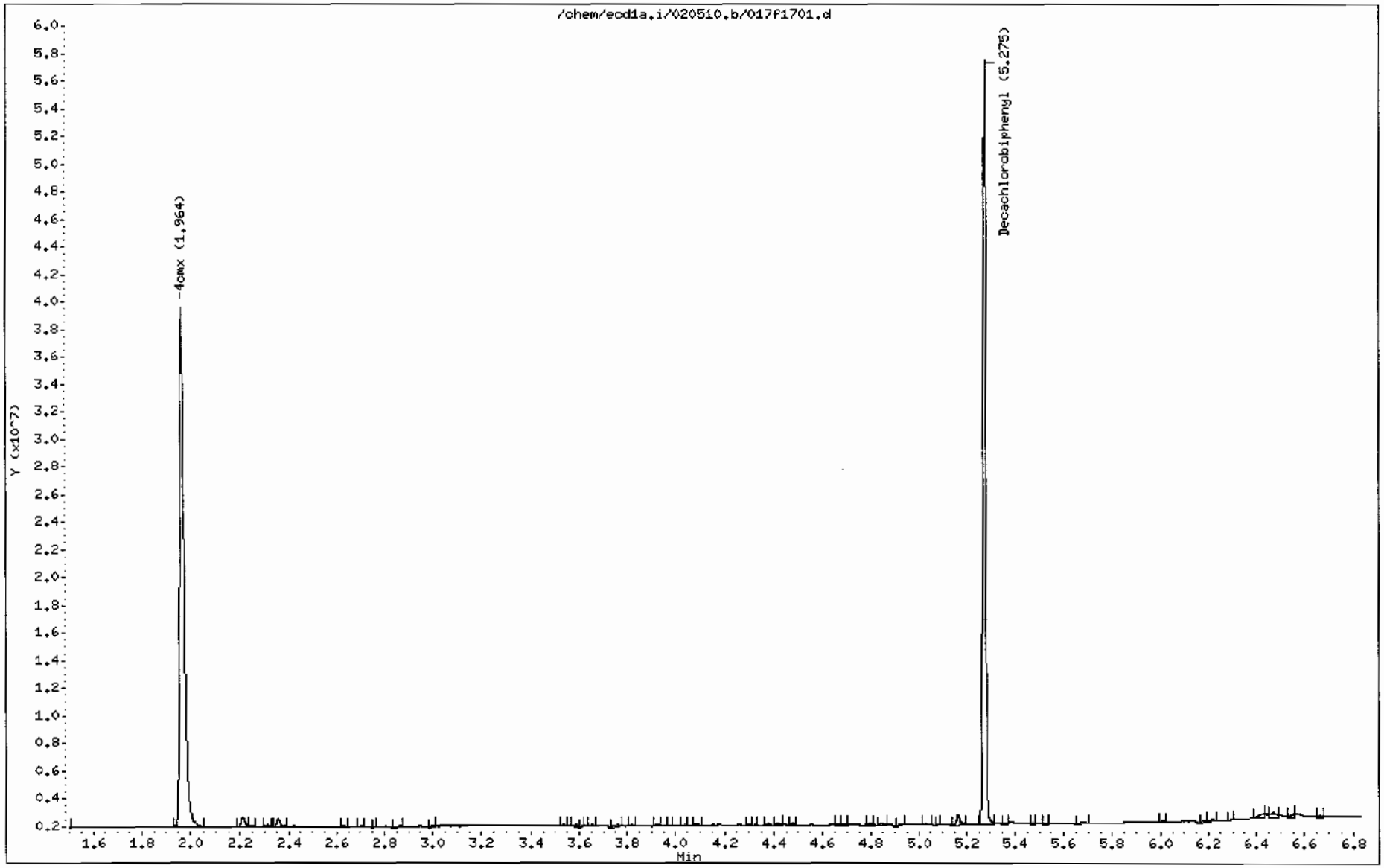

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/017b1701.d
Lab Smp Id: 245795003 Client Smp ID: RE15-10-7886
Inj Date : 05-FEB-2010 09:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795003|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7886|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:27 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	6.52600	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.296	-0.001	34051652	118.546	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.942	-0.002	29665470	136.313	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/017b1701.d

Date : 05-FEB-2010 09:48

Client ID: RE15-10-7886

Sample Info: |245795003|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

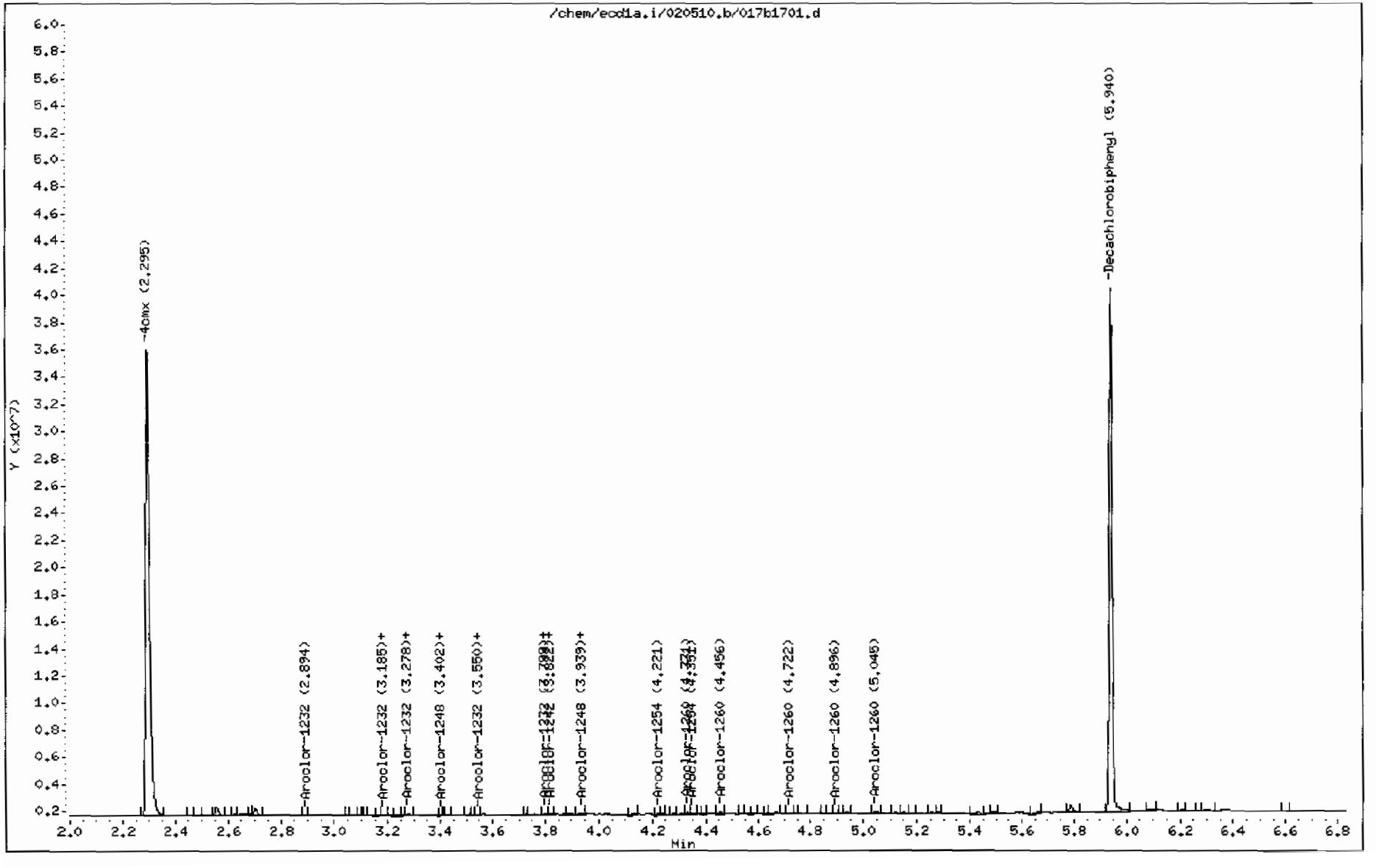

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1470**	**Date Collected:**	**01/26/2010 12:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**245795007**	**Date Received:**	**01/29/2010 08:45**	**%Moisture:**	**33**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7887**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 10:39**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	021b2101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.98	ug/kg	1.66	4.98	1
11104-28-2	Aroclor-1221	U	4.98	ug/kg	1.66	4.98	1
11141-16-5	Aroclor-1232	U	4.98	ug/kg	1.66	4.98	1
53469-21-9	Aroclor-1242	U	4.98	ug/kg	1.66	4.98	1
12672-29-6	Aroclor-1248	U	4.98	ug/kg	1.66	4.98	1
11097-69-1	Aroclor-1254	U	4.98	ug/kg	1.66	4.98	1
11096-82-5	Aroclor-1260	U	4.98	ug/kg	1.66	4.98	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/021f2101.d
Lab Smp Id: 245795007 Client Smp ID: RE15-10-7887
Inj Date : 05-FEB-2010 10:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795007|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7887|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 11:26 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	33.03920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	46070157	115.566	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	35493900	109.781	5.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/021f2101.d

Date : 05-FEB-2010 10:39

Client ID: RE15-10-7887

Sample Info: |245795007|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

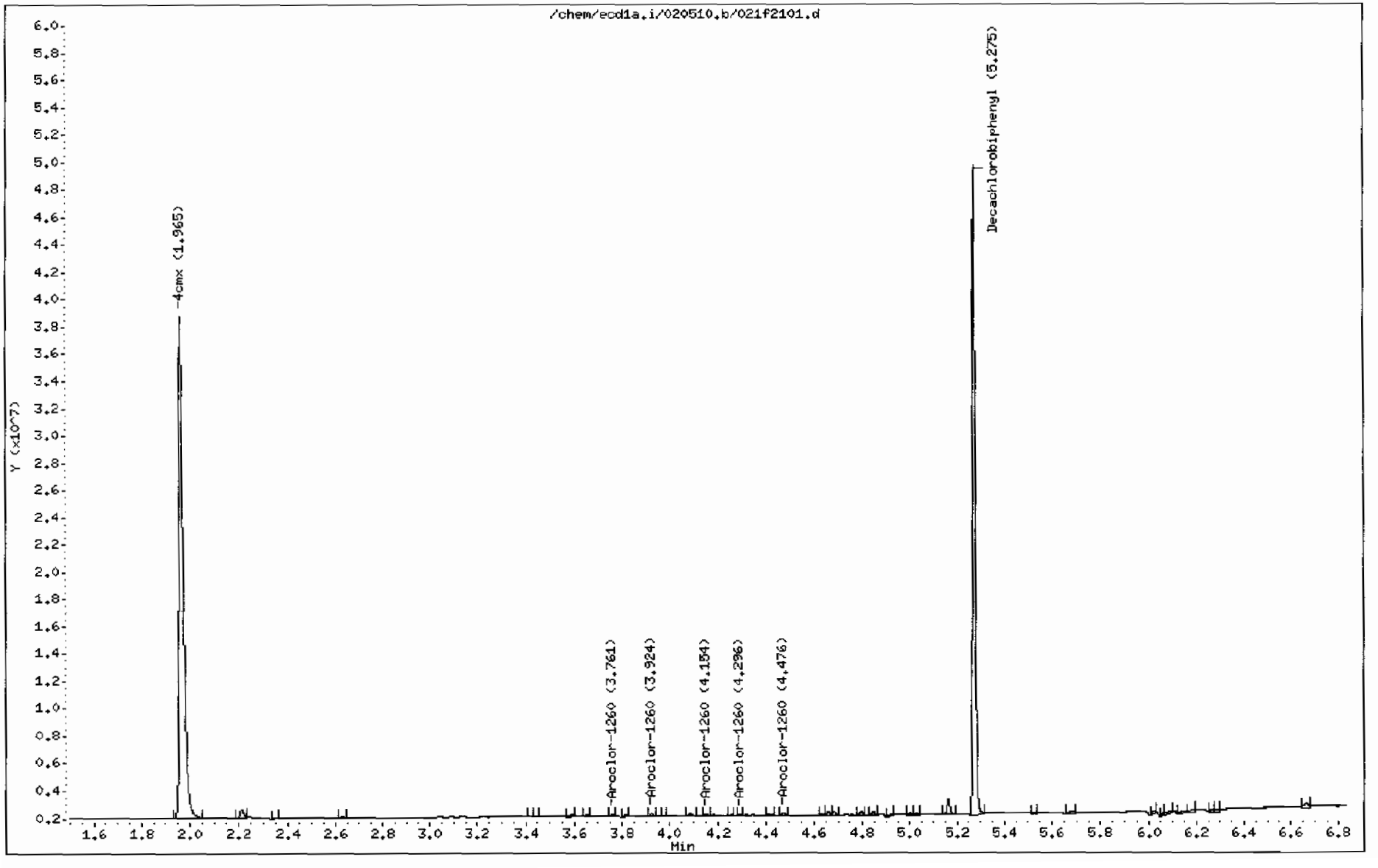

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/021b2101.d
Lab Smp Id: 245795007 Client Smp ID: RE15-10-7887
Inj Date : 05-FEB-2010 10:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795007|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7887|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:27 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	33.03920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	32981032	114.819	5.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	29048840	133.479	6.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/021b2101.d
Date : 05-FEB-2010 10:39
Client ID: RE15-10-7887
Sample Info: |245795007|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

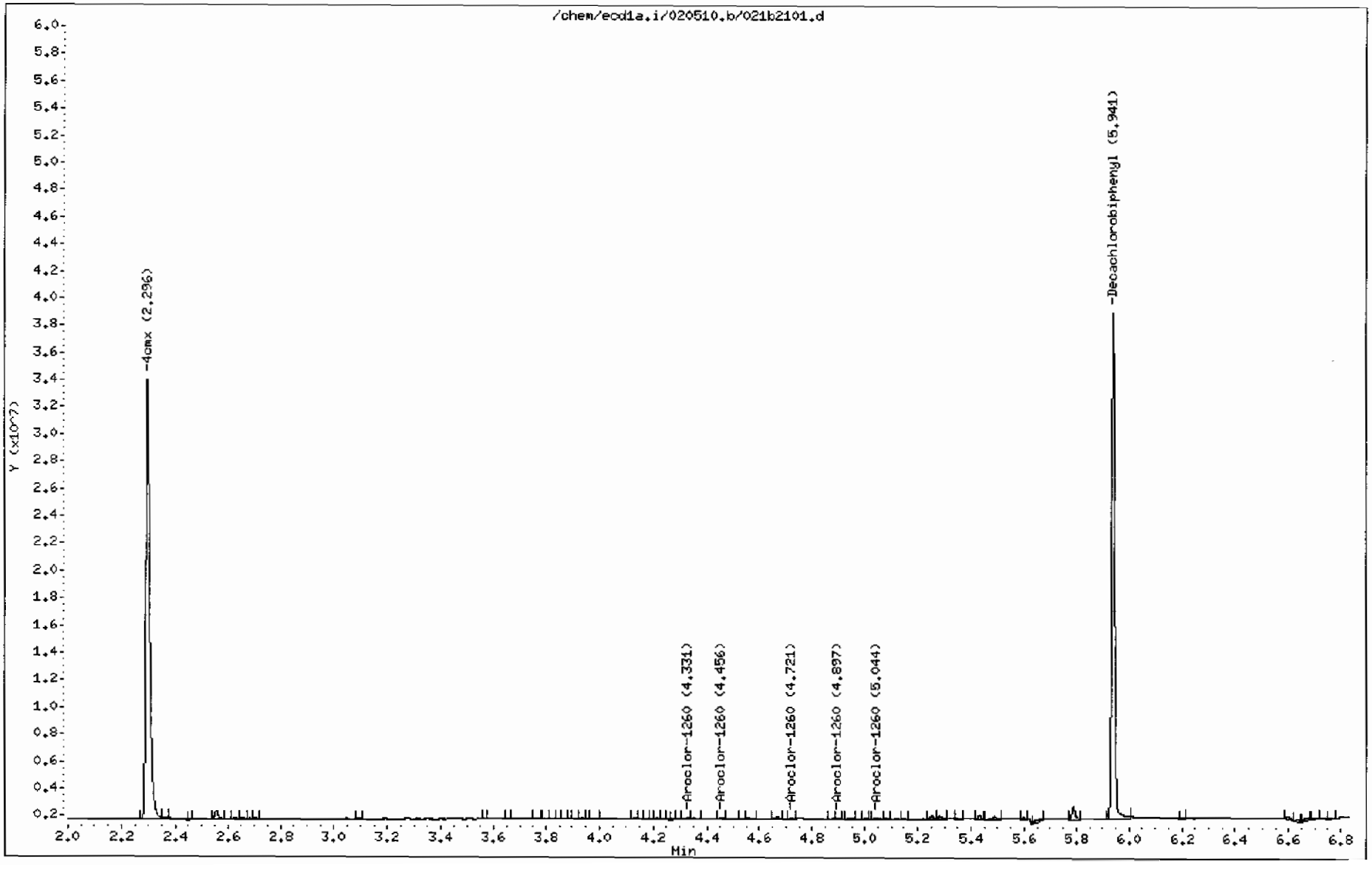

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	**Date Collected:**	01/26/2010 12:00	**Matrix:**	SOIL
Lab Sample ID:	245795001	**Date Received:**	01/29/2010 08:45	**%Moisture:**	9.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7888	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 09:23	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.05 g	**Final Volume:**	1 mL
Data File:	015f1501.d	**Column:**	1 CLP1	**Level:**	LOW
	015b1501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.67	ug/kg	1.22	3.67	1
11104-28-2	Aroclor-1221	U	3.67	ug/kg	1.22	3.67	1
11141-16-5	Aroclor-1232	U	3.67	ug/kg	1.22	3.67	1
53469-21-9	Aroclor-1242	U	3.67	ug/kg	1.22	3.67	1
12672-29-6	Aroclor-1248	U	3.67	ug/kg	1.22	3.67	1
11097-69-1	Aroclor-1254	U	3.67	ug/kg	1.22	3.67	1
11096-82-5	Aroclor-1260	U	3.67	ug/kg	1.22	3.67	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/015f1501.d
Lab Smp Id: 245795001 Client Smp ID: RE15-10-7888
Inj Date : 05-FEB-2010 09:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795001|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7888|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	9.31910	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	47248654	118.522	4.3	80.00 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	41889715	129.563	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/015f1501.d

Page 1

Date : 05-FEB-2010 09:23

Client ID: RE15-10-7888

Instrument: ecd1a.i

Sample Info: |245795001|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

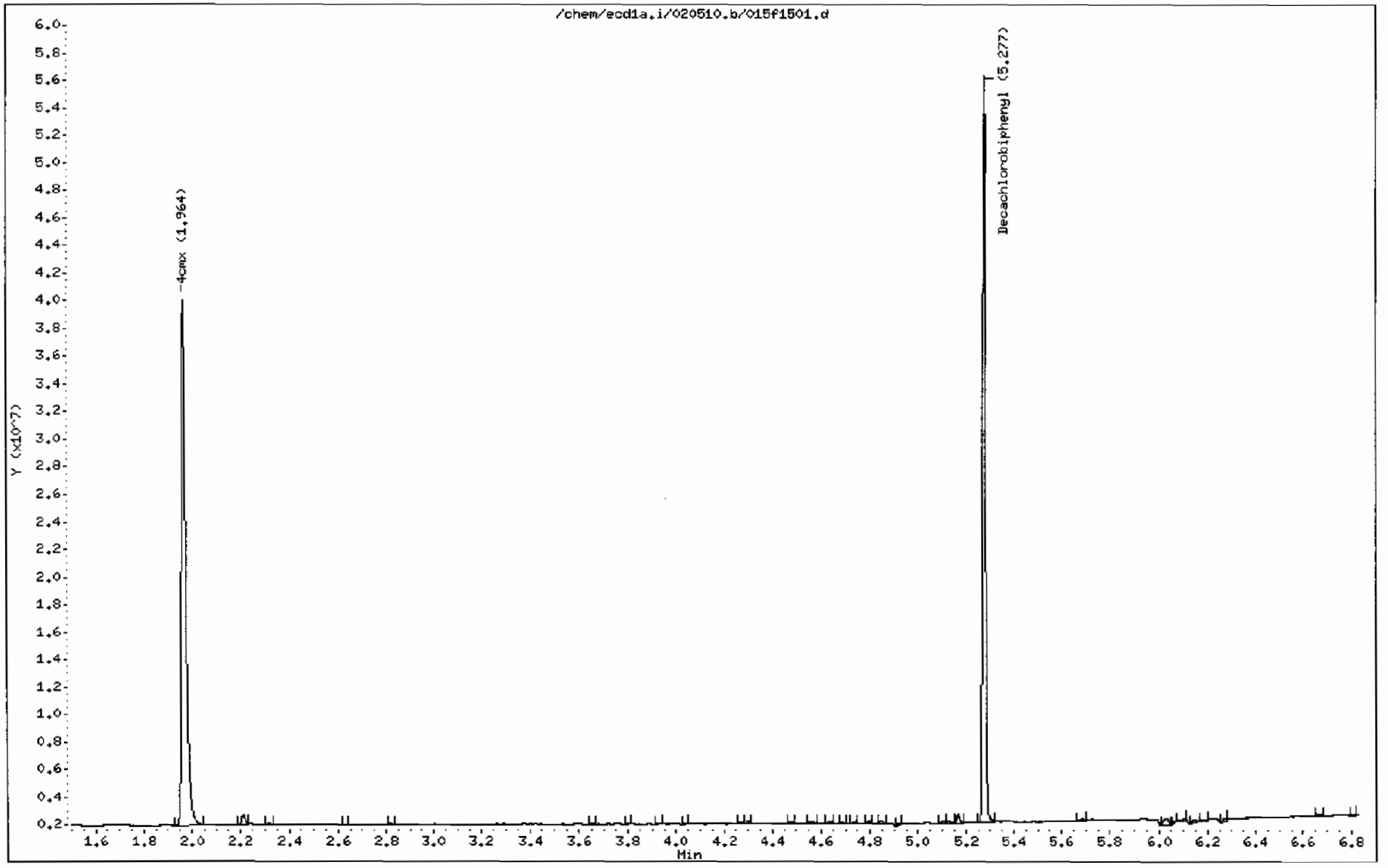

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/015b1501.d
Lab Smp Id: 245795001 Client Smp ID: RE15-10-7888
Inj Date : 05-FEB-2010 09:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795001|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7888|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	9.31910	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	33112884	115.278	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	28538261	131.133	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/015b1501.d

Date : 05-FEB-2010 09:23

Client ID: RE15-10-7888

Sample Info: |245795001|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

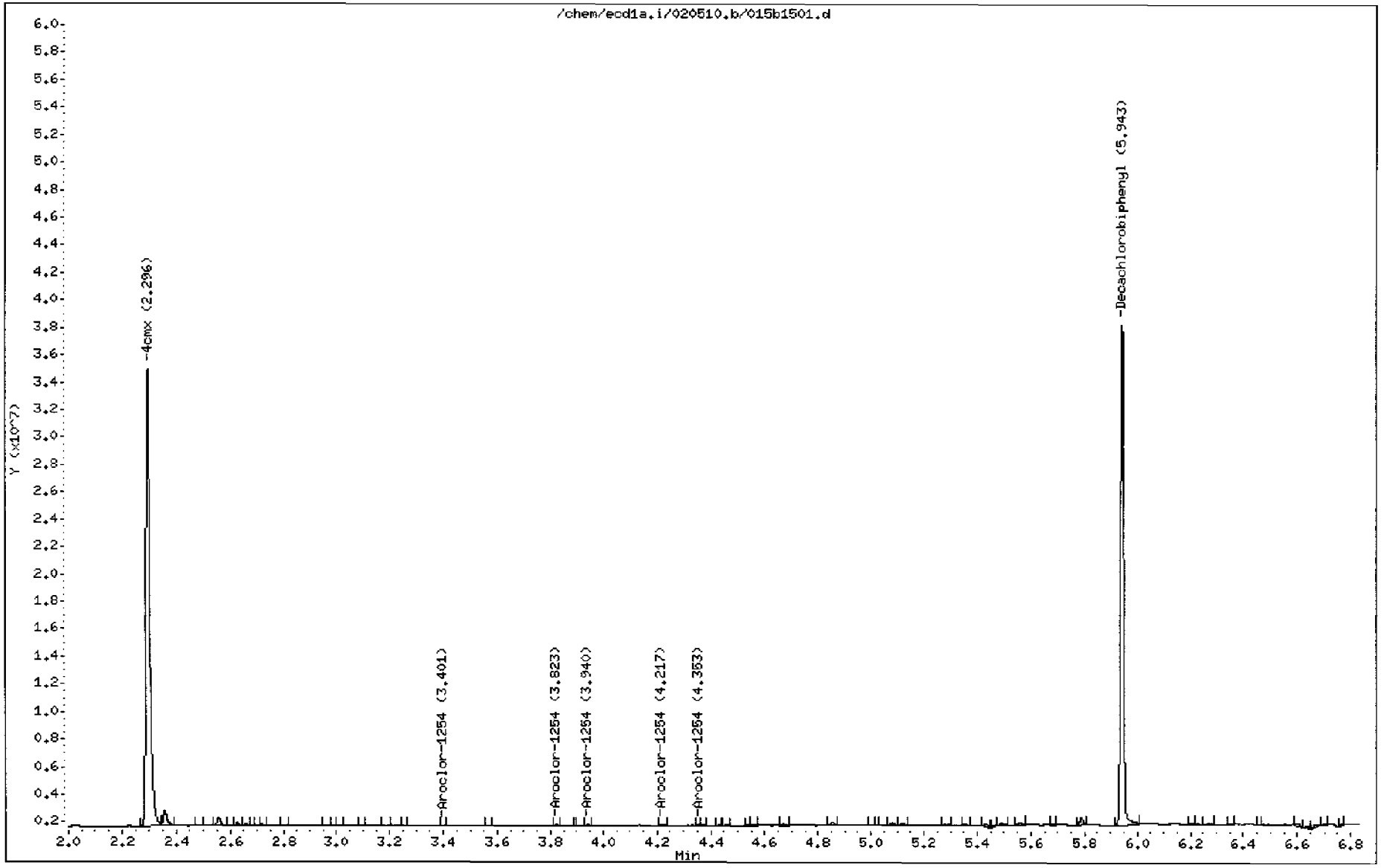

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	Date Collected:	01/26/2010 12:00	Matrix:	SOIL
Lab Sample ID:	245795004	Date Received:	01/29/2010 08:45	%Moisture:	37.1
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7889	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	949033	Inst:	ECD1A.I	Dilution:	1
Run Date:	02/05/2010 10:01	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	02/04/2010 20:32	Aliquot:	30.01 g	Final Volume:	1 mL
Data File:	018f1801.d	Column:	1 CLP1	Level:	LOW
	018b1801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	5.30	ug/kg	1.77	5.30	1
11104-28-2	Aroclor-1221	U	5.30	ug/kg	1.77	5.30	1
11141-16-5	Aroclor-1232	U	5.30	ug/kg	1.77	5.30	1
53469-21-9	Aroclor-1242	U	5.30	ug/kg	1.77	5.30	1
12672-29-6	Aroclor-1248	U	5.30	ug/kg	1.77	5.30	1
11097-69-1	Aroclor-1254	P	36.8	ug/kg	1.77	5.30	1
11096-82-5	Aroclor-1260		23.3	ug/kg	1.77	5.30	2
11100-14-4	Aroclor-1268		20.5	ug/kg	1.77	5.30	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/018f1801.d
Lab Smp Id: 245795004 Client Smp ID: RE15-10-7889
Inj Date : 05-FEB-2010 10:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795004|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7889|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	37.14030	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	47096858	118.141	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	0.001	40708489	125.909	6.7	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.266	-0.002	7058954	565.373	30.0	80.00- 120.00	100.00(M)
3.419	3.421	-0.002	11060105	661.413	35.1	118.05- 158.05	156.68
3.655	3.655	0.000	12690043	612.633	32.5	160.50- 200.50	179.77
3.815	3.818	-0.003	11067642	705.206	37.4	116.88- 156.88	156.79

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.924	3.926	-0.002	14074388	927.625	49.2	110.22- 150.22	199.38
Average of Peak Concentrations =					36.8		
7 Aroclor 1260					CAS #: 11096 82 5		
3.760	3.762	-0.002	8288640	469.970	24.9	80.00- 120.00	100.00(M)
3.924	3.925	-0.001	14074388	527.881	28.0	132.59- 172.59	169.80
4.154	4.155	-0.001	6131997	385.136	20.4	71.05- 111.05	73.98
4.294	4.297	-0.003	6260676	378.273	20.0	74.81- 114.81	75.53
4.475	4.477	-0.002	7081910	190.705	10.1	197.56- 237.56	85.44
Average of Peak Concentrations =					20.7		
9 Aroclor-1268					CAS #: 11100-14-4		
4.659	4.663	-0.004	16971904	323.367	17.1	80.00- 120.00	100.00
4.684	4.686	-0.002	17880347	371.593	19.7	74.24- 114.24	105.35
4.796	4.799	-0.003	9447332	255.143	13.5	54.84- 94.84	55.66
4.999	5.001	-0.002	6878493	422.142	22.4	17.12- 57.12	40.53
5.164	5.167	-0.003	40107098	370.411	19.6	228.13- 268.13	236.31
Average of Peak Concentrations =					18.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/018f1801.d

Date : 05-FEB-2010 10:01

Client ID: RE15-10-7889

Sample Info: 1245795004|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

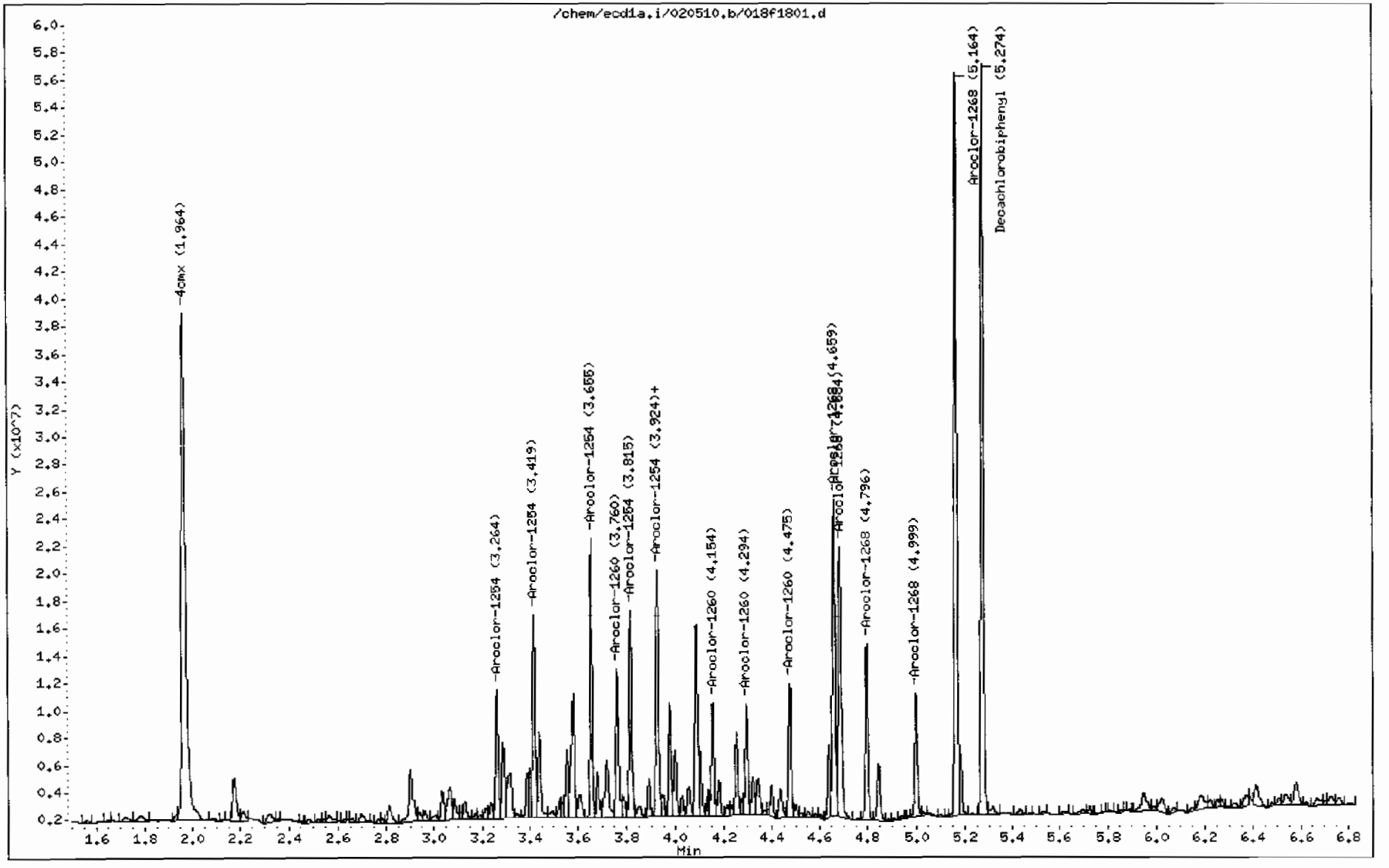

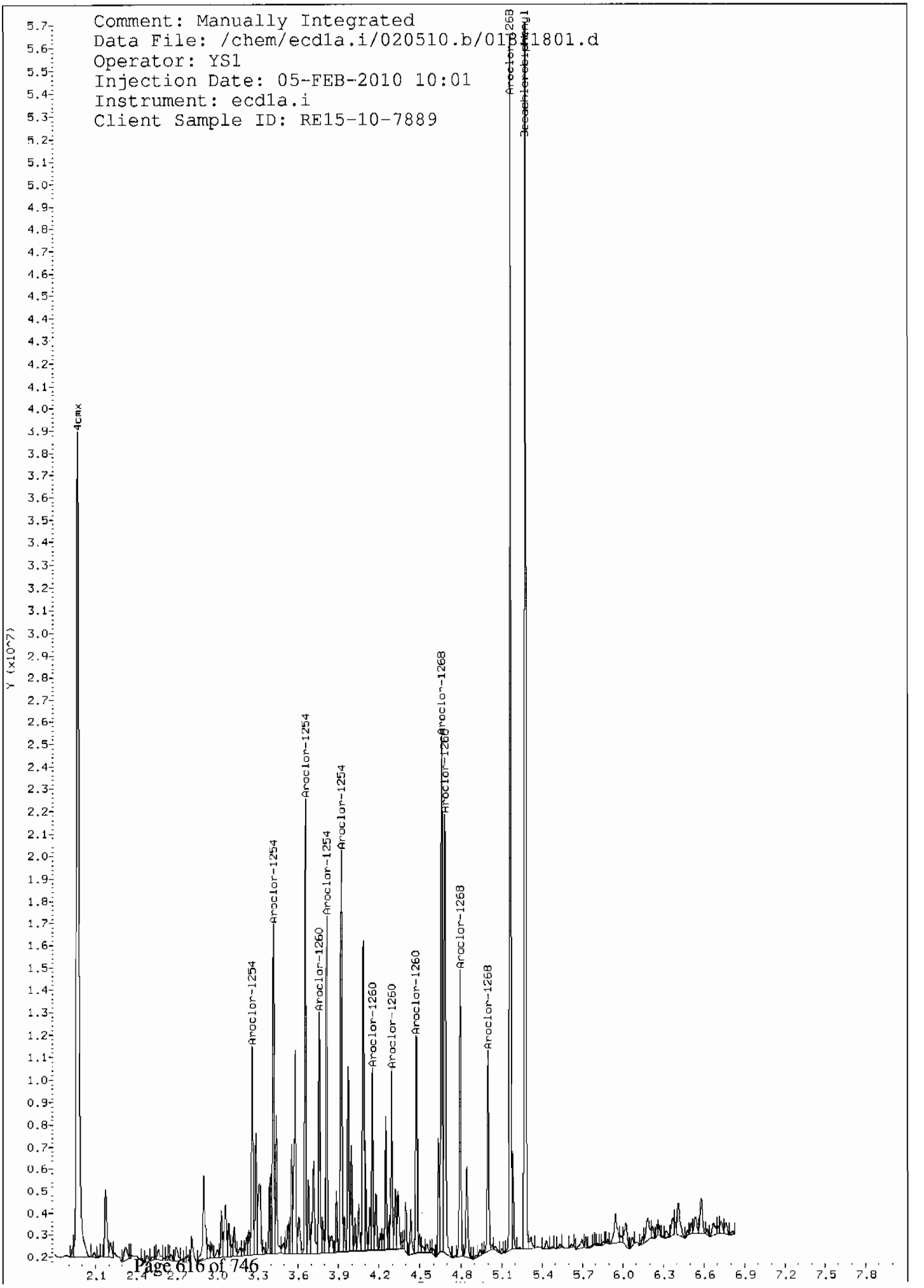
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/01031801.d
Operator: YS1
Injection Date: 05-FEB-2010 10:01
Instrument: ecd1a.i
Client Sample ID: RE15-10-7889
Y (x10^7)
4CMX
Aroclor-1254
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
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Aroclor-1268
Aroclor-1268
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Decachlorobiphenyl

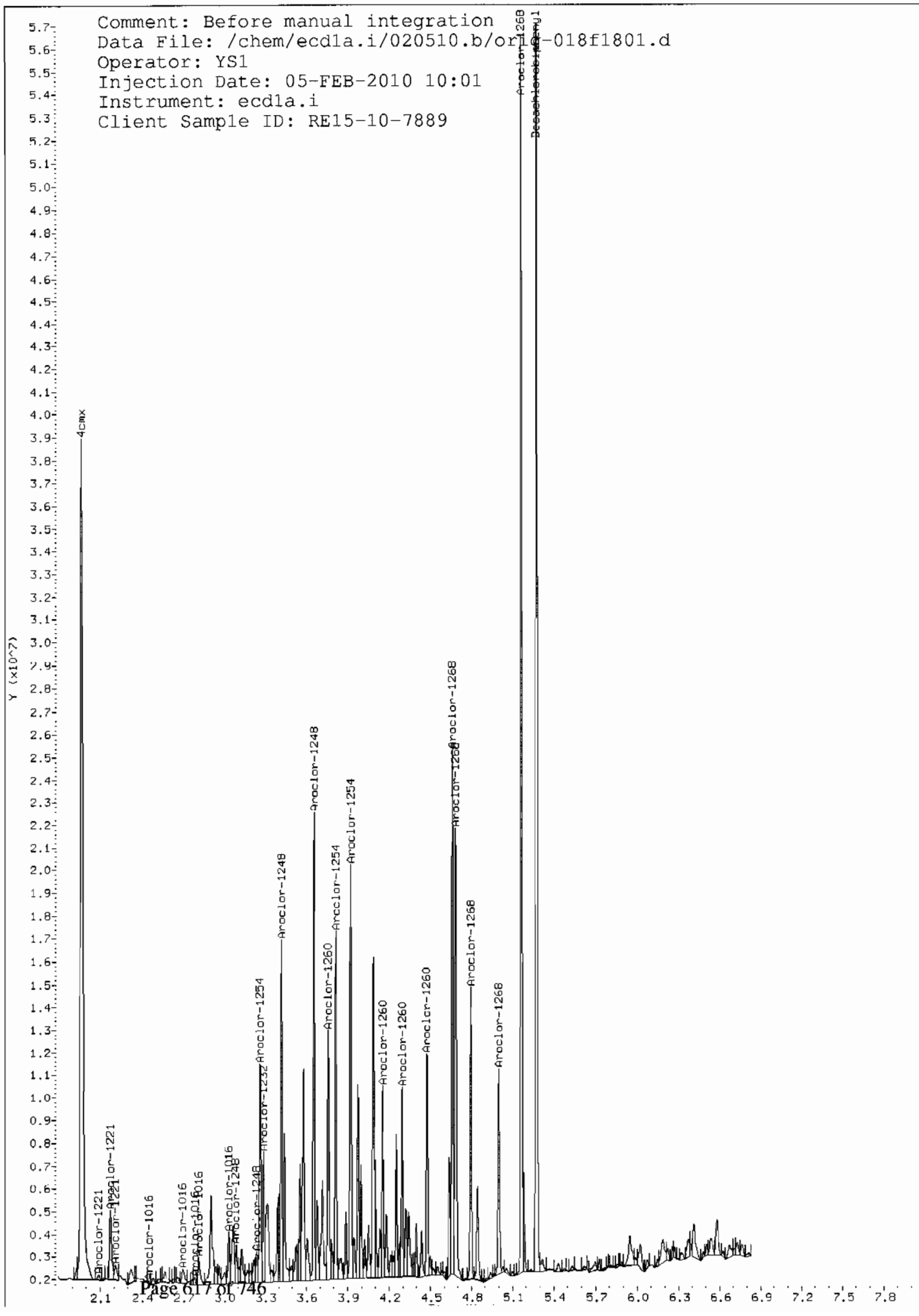
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Operator: YS1
Injection Date: 05-FEB-2010 10:01
Instrument: ecd1a.i
Client Sample ID: RE15-10-7889
Y (x10^7)
4cmx
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1232
Aroclor-1254
Aroclor-1260
Aroclor-1268

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/018b1801.d
Lab Smp Id: 245795004 Client Smp ID: RE15-10-7889
Inj Date : 05-FEB-2010 10:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795004|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7889|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	37.14030	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.296	-0.001	33297200	115.920	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.942	-0.002	30134215	138.467	7.3	80.00 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.401	3.401	0.000	2176647	338.238	17.9	80.00 120.00	100.00(M)
3.821	3.824	-0.003	4578372	396.076	21.0	160.72- 200.72	210.34
3.939	3.940	-0.001	8020274	645.169	34.2	179.44- 219.44	368.47
4.222	4.216	0.006	3074713	182.151	9.6	255.74- 295.74	310.35

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.351	4.353	0.002	7551047	607.218	32.2	176.59 216.59	346.91
Average of Peak Concentrations =					23.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.332	-0.002	6462419	511.093	27.1	80.00- 120.00	100.00(M)
4.455	4.457	-0.002	7885830	518.120	27.5	101.42- 141.42	122.03
4.722	4.722	0.000	5905731	506.907	26.9	72.62- 112.62	91.39
4.897	4.896	0.001	5184074	430.088	22.8	76.48- 116.48	80.22
5.042	5.043	-0.001	6039481	231.678	12.3	194.90- 234.90	93.46
Average of Peak Concentrations =					23.3		
9 Aroclor-1268					CAS #: 11100-14-4		
5.254	5.255	-0.001	15614500	430.679	22.8	80.00- 120.00	100.00(M)
5.282	5.283	-0.001	13513450	402.395	21.3	75.81- 115.81	86.54
5.430	5.433	-0.003	8357266	321.651	17.0	55.31 95.31	53.52
5.595	5.598	-0.003	3920996	345.564	18.3	17.23- 57.23	25.11
5.789	5.790	-0.001	29270526	436.378	23.1	217.43- 257.43	187.46
Average of Peak Concentrations =					20.5		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/018b1801.d

Date : 05-FEB-2010 10:01

Client ID: RE15-10-7889

Sample Info: |245795004|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

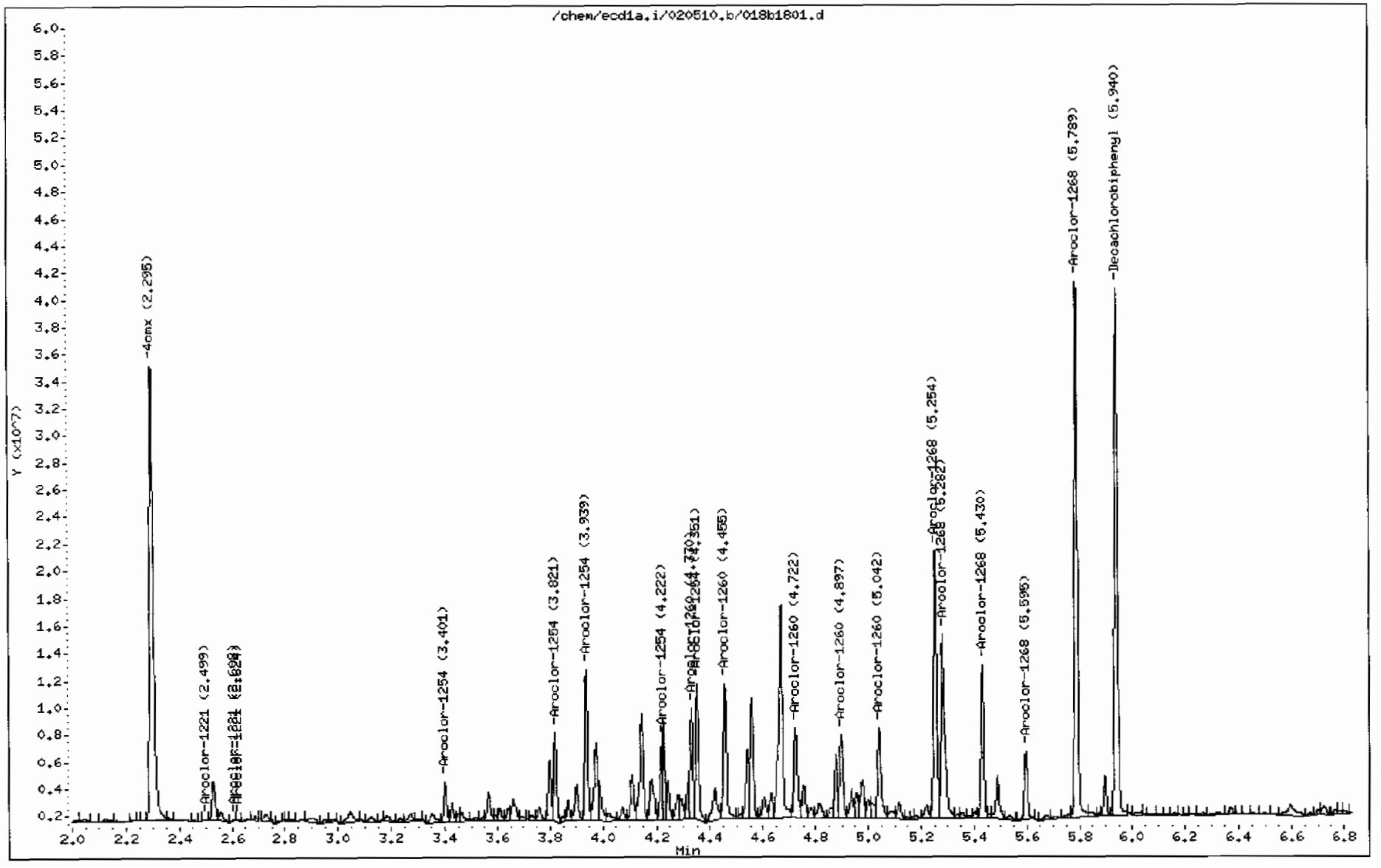

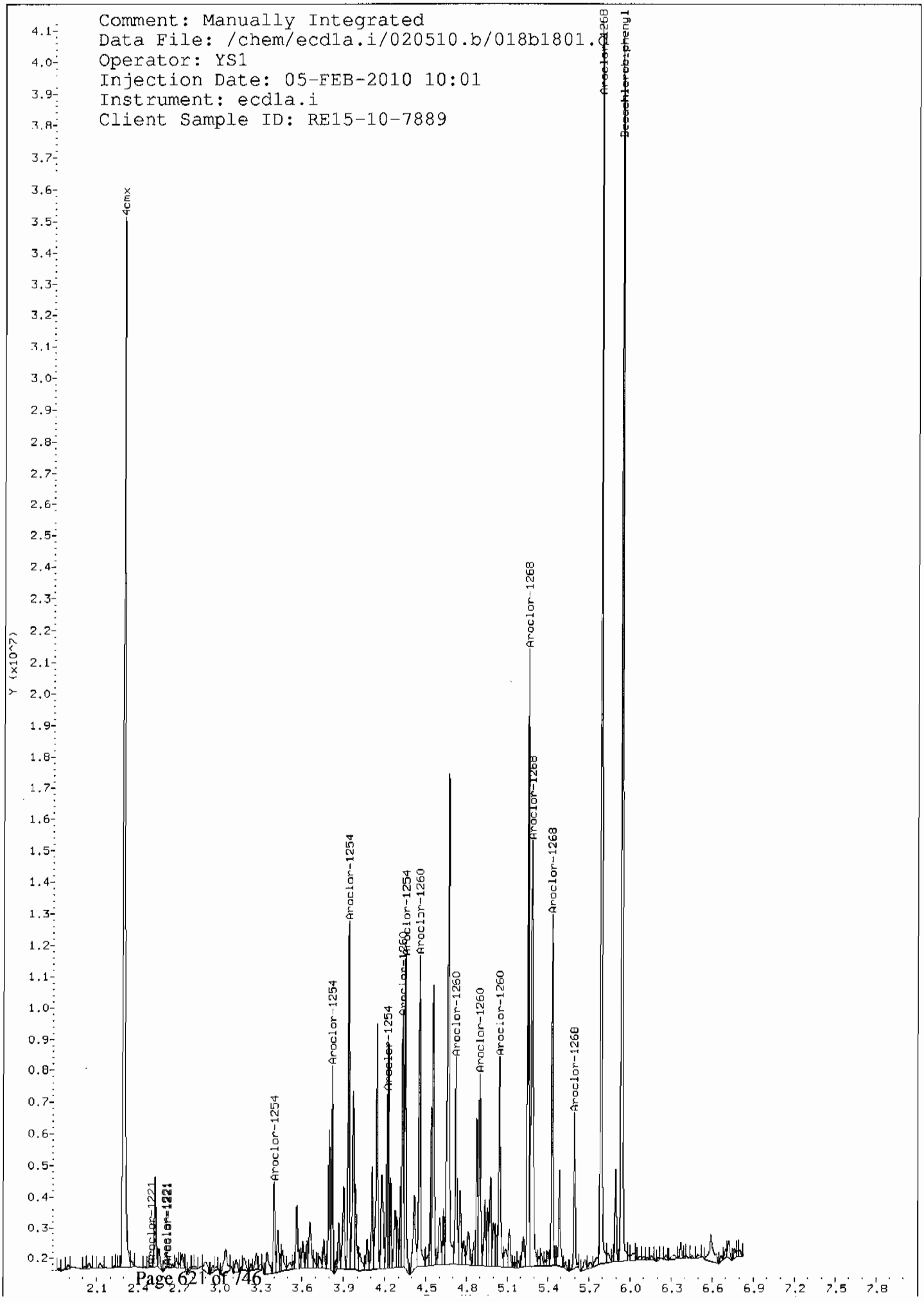
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/018b1801.d
Operator: YS1
Injection Date: 05-FEB-2010 10:01
Instrument: ecd1a.i
Client Sample ID: RE15-10-7889
Y (x10^7)
4cmx
Aroclor-1221
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

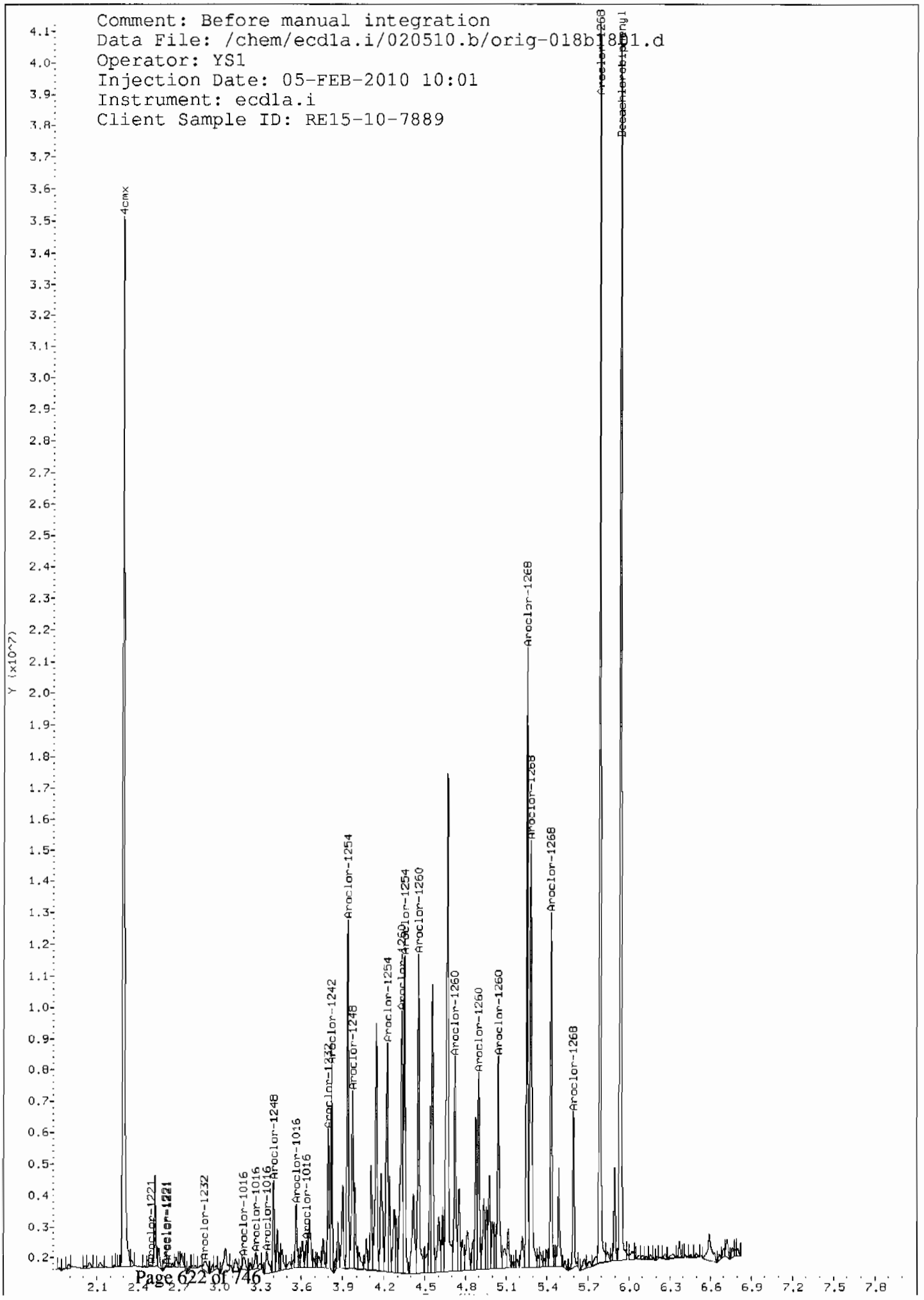
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-018b1801.d
Operator: YS1
Injection Date: 05-FEB-2010 10:01
Instrument: ecd1a.i
Client Sample ID: RE15-10-7889
Y (x10^7)
4cmx
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1248
Aroclor-1242
Aroclor-1254
Aroclor-1260
Aroclor-1268
Decachlorobiphenyl

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1470	Date Collected:	01/26/2010 12:00	Matrix:	SOIL
Lab Sample ID:	245795002	Date Received:	01/29/2010 08:45	%Moisture:	9.8
		Client:	LANL010	Project:	LANL01004
Client ID:	RE15-10-7890	Method:	SW846 8082	SOP Ref:	GL-OA-E-040
Batch ID:	949033	Inst:	ECD1A.I	Dilution:	1
Run Date:	02/05/2010 09:36	Analyst:	YS1	Inj. Vol:	1 uL
Prep Date:	02/04/2010 20:32	Aliquot:	30.19 g	Final Volume:	1 mL
Data File:	016f1601.d	Column:	1 CLP1	Level:	LOW
	016b1601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.67	ug/kg	1.22	3.67	1
11104-28-2	Aroclor-1221	U	3.67	ug/kg	1.22	3.67	1
11141-16-5	Aroclor-1232	U	3.67	ug/kg	1.22	3.67	1
53469-21-9	Aroclor-1242	U	3.67	ug/kg	1.22	3.67	1
12672-29-6	Aroclor-1248	U	3.67	ug/kg	1.22	3.67	1
11097-69-1	Aroclor-1254	JP	2.90	ug/kg	1.22	3.67	1
11096-82-5	Aroclor-1260	J	3.10	ug/kg	1.22	3.67	2
11100-14-4	Aroclor-1268	P	4.50	ug/kg	1.22	3.67	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/016f1601.d
Lab Smp Id: 245795002 Client Smp ID: RE15-10-7890
Inj Date : 05-FEB-2010 09:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795002|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7890|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	9.80970	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	0.001	49631587	124.499	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	35341886	109.311	4.0	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.266	-0.002	688841	55.1714	2.0	80.00- 120.00	100.00(a)
3.419	3.421	-0.002	1134809	67.8635	2.5	118.05- 158.05	164.74
3.652	3.655	-0.003	1486600	71.7682	2.6	160.50- 200.50	215.81
3.816	3.818	-0.002	1230573	78.4094	2.9	116.88- 156.88	178.64

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.924	3.926	-0.002	1794877	118.298	4.3	110.22- 150.22	260.56
Average of Peak Concentrations =					2.9		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	1093670	62.0116	2.3	80.00- 120.00	100.00(a)
3.924	3.925	-0.001	1794877	67.3196	2.5	132.59- 172.59	164.12
4.154	4.155	-0.001	1446279	90.8373	3.3	71.05- 111.05	132.24
4.296	4.297	-0.001	2172696	131.275	4.8	74.81- 114.81	198.66
4.476	4.477	-0.001	1471928	39.6368	1.4	197.56- 237.56	134.59
Average of Peak Concentrations =					2.9		
9 Aroclor-1268					CAS #: 11100-14-4		
4.661	4.663	-0.002	3797269	72.3496	2.6	80.00- 120.00	100.00(a)
4.684	4.686	0.002	4485155	93.2114	3.4	74.24- 114.24	118.12
4.796	4.799	-0.003	2238167	60.4460	2.2	54.84- 94.84	58.94
4.999	5.001	-0.002	1754406	107.670	4.0	17.12- 57.12	46.20
5.164	5.167	-0.003	8373786	77.3364	2.8	228.13- 268.13	220.52
Average of Peak Concentrations =					3.0		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/020510.b/016f1601.d
Date : 05-FEB-2010 09:36
Client ID: RE15-10-7890
Sample Info: |245795002|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

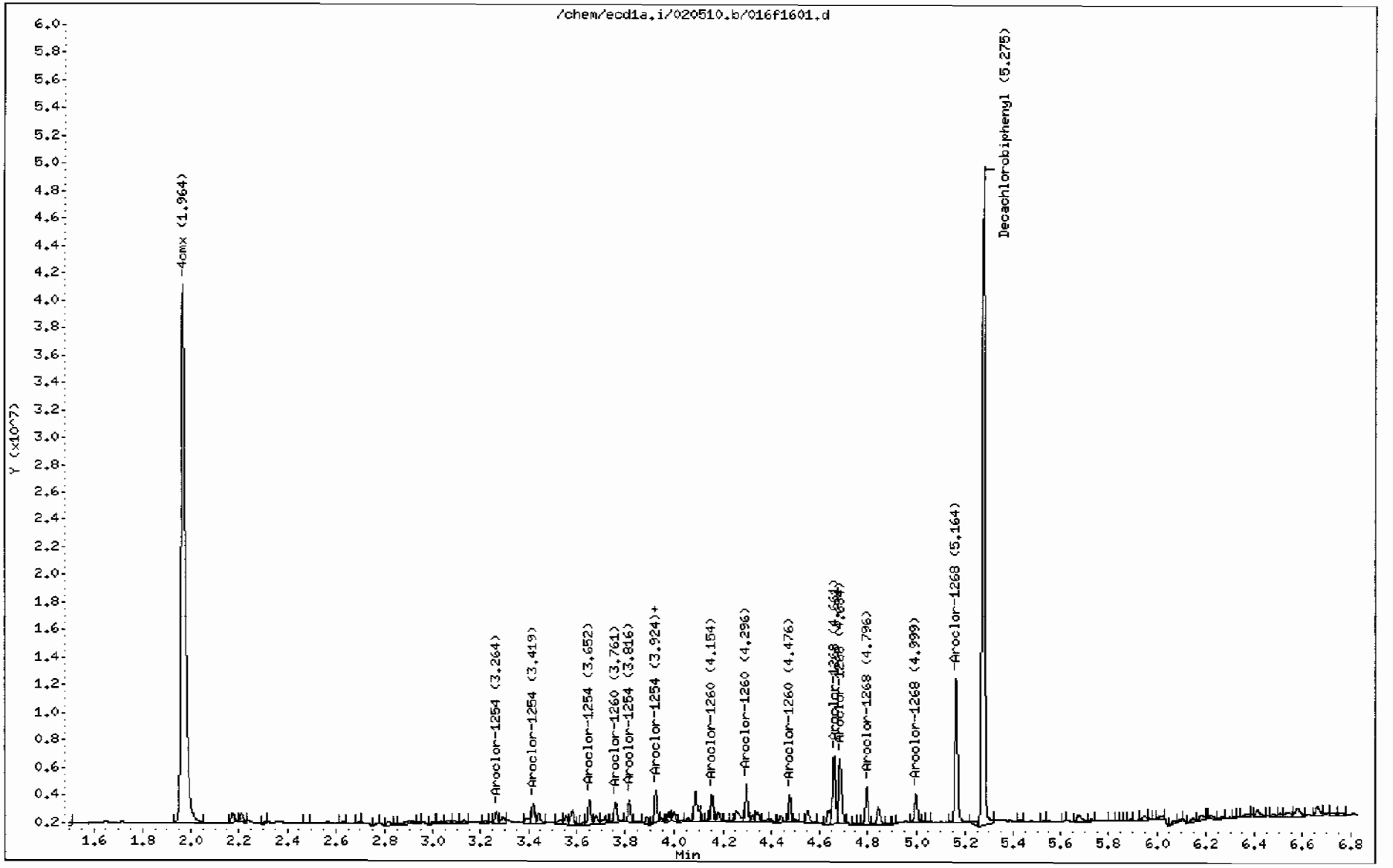

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/016b1601.d
Lab Smp Id: 245795002 Client Smp ID: RE15-10-7890
Inj Date : 05-FEB-2010 09:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245795002|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7890|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	9.80970	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	35626057	124.027	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.942	-0.002	30984321	142.373	5.2	80.00 120.00	100.00
6 Aroclor-1254					CAS #: 11097 69-1		
3.401	3.401	0.000	279753	43.4720	1.6	80.00- 120.00	100.00(a)
3.821	3.824	-0.003	489971	42.3876	1.6	160.72- 200.72	175.14
3.938	3.940	-0.002	815016	65.5617	2.4	179.44 219.44	291.33
4.216	4.216	0.000	656380	38.8850	1.4	255.74 - 295.74	234.63

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.351	4.353	-0.002	771406	62.0328	2.3	176.59- 216.59	275.75
Average of Peak Concentrations =					1.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	0.001	1095286	86.6229	3.2	80.00- 120.00	100.00(a)
4.456	4.457	-0.001	1228701	80.7289	3.0	101.42- 141.42	112.18
4.721	4.722	-0.001	1270999	109.094	4.0	72.62- 112.62	116.04
4.897	4.896	0.001	1145151	95.0055	3.5	76.48- 116.48	104.55
5.042	5.043	-0.001	1219505	46.7810	1.7	194.90- 234.90	111.34
Average of Peak Concentrations =					3.1		
9 Aroclor-1268					CAS #: 11100-14-4		
5.254	5.255	-0.001	3633276	100.213	3.7	80.00- 120.00	100.00
5.281	5.283	-0.002	3828271	113.996	4.2	75.81- 115.81	105.37
5.431	5.433	-0.002	2384375	91.7689	3.4	55.31- 95.31	65.63
5.595	5.598	-0.003	2432411	214.372	7.9	17.23- 57.23	66.95
5.788	5.790	-0.002	6355445	94.7498	3.5	217.43- 257.43	174.92
Average of Peak Concentrations =					4.5		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecdia.i/020510.b/016b1601.d
Date : 05-FEB-2010 09:36
Client ID: RE15-10-7890
Sample Info: 1245795002111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

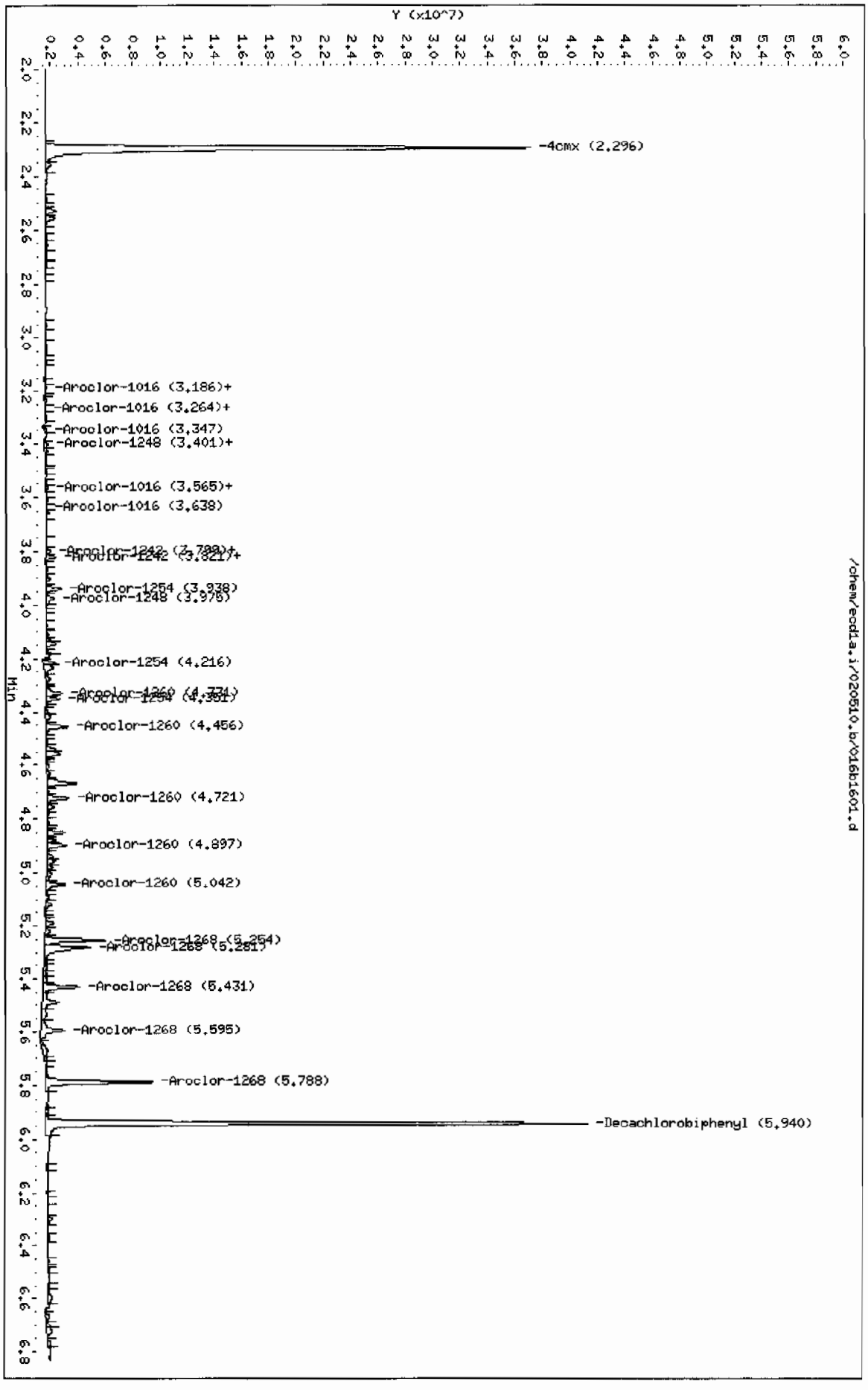

STANDARDS DATA

Report Date: 08-Feb-2010 09:31

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006f0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018f1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010f1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007f0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019f1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011f1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008f0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020f2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012f1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013f1301.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021f2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009f0901.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010f1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022f2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014f1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 15:29	AR1660	/chem/ecd1a.i/020510.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 14:05	AR1660	/chem/ecd1a.i/020510.b/038f3801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 12:40	AR1660	/chem/ecd1a.i/020510.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 10:51	AR1660	/chem/ecd1a.i/020510.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:20	AR1268	/chem/ecd1a.i/020510.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:59	AR1221	/chem/ecd1a.i/020510.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:48	AR1232	/chem/ecd1a.i/020510.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:38	AR1248	/chem/ecd1a.i/020510.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:27	AR1242	/chem/ecd1a.i/020510.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:17	AR1254	/chem/ecd1a.i/020510.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:06	AR1660	/chem/ecd1a.i/020510.b/002f0201.d

Report Date: 08-Feb-2010 09:45

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006b0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018b1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010b1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007b0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019b1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011b1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008b0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020b2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012b1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021b2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009b0901.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013b1301.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010b1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022b2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d

29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014b1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 15:29	AR1660	/chem/ecd1a.i/020510.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 14:05	AR1660	/chem/ecd1a.i/020510.b/038b3801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 12:40	AR1660	/chem/ecd1a.i/020510.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 10:51	AR1660	/chem/ecd1a.i/020510.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:38	AR1248	/chem/ecd1a.i/020510.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:20	AR1268	/chem/ecd1a.i/020510.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:59	AR1221	/chem/ecd1a.i/020510.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:48	AR1232	/chem/ecd1a.i/020510.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:09	AR1262	/chem/ecd1a.i/020510.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:27	AR1242	/chem/ecd1a.i/020510.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:17	AR1254	/chem/ecd1a.i/020510.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:06	AR1660	/chem/ecd1a.i/020510.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.419	2.389-2.449	1.466e+04
	2.707	2.677-2.737	1.832e+04
	2.788	2.758-2.818	1.202e+04
	2.826	2.796-2.856	7.180e+03
	3.036	3.006-3.066	9.290e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.077	2.047-2.107	4.301e+03
	2.170	2.140-2.200	2.440e+03
	2.195	2.165-2.225	1.027e+04
3 Aroclor-1232	2.421	2.391-2.451	6.849e+03
	2.709	2.679-2.739	8.426e+03
	2.789	2.759-2.819	5.627e+03
	3.038	3.008-3.068	3.983e+03
	3.291	3.261-3.321	3.858e+03
4 Aroclor-1242	2.420	2.390-2.450	1.166e+04
	2.708	2.678-2.738	1.345e+04
	2.826	2.796-2.856	5.506e+03
	3.037	3.007-3.067	7.245e+03
	3.290	3.260-3.320	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecdla.i/020510.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.088	3.058-3.118	7.848e+03
	3.240	3.210-3.270	6.870e+03
	3.291	3.261-3.321	1.331e+04
	3.422	3.392-3.452	1.101e+04
	3.655	3.625-3.685	7.455e+03
6 Aroclor-1254	3.266	3.236-3.296	1.249e+04
	3.421	3.391-3.451	1.672e+04
	3.655	3.625-3.685	2.071e+04
	3.818	3.788-3.848	1.569e+04
	3.926	3.896-3.956	1.517e+04
7 Aroclor-1260	3.762	3.732-3.792	1.764e+04
	3.925	3.895-3.955	2.666e+04
	4.155	4.125-4.185	1.592e+04
	4.297	4.267-4.327	1.655e+04
	4.477	4.447-4.507	3.714e+04
8 Aroclor-1262	3.763	3.733-3.793	1.500e+04
	3.926	3.896-3.956	2.038e+04
	4.156	4.126-4.186	2.520e+04
	4.299	4.269-4.329	2.299e+04
	4.478	4.448-4.508	4.717e+04
9 Aroclor-1268	4.663	4.633-4.693	5.248e+04
	4.686	4.656-4.716	4.812e+04
	4.799	4.769-4.829	3.703e+04
	5.001	4.971-5.031	1.629e+04
	5.167	5.137-5.197	1.083e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.965	1.935-1.995	3.986e+05
$ 12 Decachlorobiphenyl	5.275	5.245-5.305	3.233e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.192	3.162-3.222	1.248e+04
	3.275	3.245-3.305	8.547e+03
	3.339	3.309-3.369	5.291e+03
	3.565	3.535-3.595	6.814e+03
	3.641	3.611-3.671	6.405e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.492	2.462-2.522	3.640e+03
	2.586	2.556-2.616	2.329e+03
	2.627	2.597-2.657	8.119e+03
3 Aroclor-1232	2.895	2.865-2.925	5.892e+03
	3.193	3.163-3.223	6.222e+03
	3.276	3.246-3.306	4.345e+03
	3.567	3.537-3.597	3.111e+03
	3.800	3.770-3.830	3.193e+03
4 Aroclor-1242	3.192	3.162-3.222	1.059e+04
	3.275	3.245-3.305	8.054e+03
	3.566	3.536-3.596	5.962e+03
	3.800	3.770-3.830	6.057e+03
	3.828	3.798-3.858	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.401	3.371-3.431	8.054e+03
	3.566	3.536-3.596	9.874e+03
	3.800	3.770-3.830	1.122e+04
	3.827	3.797-3.857	1.248e+04
	3.965	3.935-3.995	1.210e+04
6 Aroclor-1254	3.401	3.371-3.431	6.435e+03
	3.824	3.794-3.854	1.156e+04
	3.940	3.910-3.970	1.243e+04
	4.216	4.186-4.246	1.688e+04
	4.353	4.323-4.383	1.244e+04
7 Aroclor-1260	4.332	4.302-4.362	1.264e+04
	4.457	4.427-4.487	1.522e+04
	4.722	4.692-4.752	1.165e+04
	4.896	4.866-4.926	1.205e+04
	5.043	5.013-5.073	2.607e+04
8 Aroclor-1262	4.457	4.427-4.487	1.356e+04
	4.723	4.693-4.753	1.889e+04
	4.897	4.867-4.927	1.747e+04
	5.044	5.014-5.074	3.453e+04
	5.257	5.227-5.287	2.487e+04
9 Aroclor-1268	5.255	5.225-5.285	3.626e+04
	5.283	5.253-5.313	3.358e+04
	5.433	5.403-5.463	2.598e+04
	5.598	5.568-5.628	1.135e+04
	5.790	5.760-5.820	6.708e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.296	2.266-2.326	2.872e+05
$ 12 Decachlorobiphenyl	5.942	5.912-5.972	2.176e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17274	15624	14668	13618	12110	14659	13.365
(2)	20414	18506	18422	17664	16607	18323	7.617
(3)	13811	12507	11857	11466	10478	12024	10.320
(4)	8094	7393	7100	6874	6439	7180	8.612
(5)	10520	9736	9158	8813	8222	9290	9.475
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	19303	18084	17596	17320	15881	17637	7.037
(2)	28906	27177	26621	26372	24235	26662	6.298
(3)	17466	16264	15774	15593	14511	15922	6.750
(4)	17694	16895	16482	16357	15325	16551	5.206
(5)	38673	37803	37114	37178	34909	37135	3.753
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25043	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor 1268(1)	55111	53385	52967	52495	48466	52485	4.676
(2)	51014	48609	47960	48222	44786	48118	4.620
(3)	39244	37391	36973	36968	34562	37028	4.505
(4)	17802	16531	16072	16029	15038	16294	6.158
(5)	113064	109648	108755	109096	100824	108277	4.162
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	416570	402663	398822	398666	376523	398649	3.607
$ 12 Decachlorobiphenyl	349811	330143	318231	316573	301823	323316	5.537

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14228	12876	12485	11870	10964	12485	9.713
(2)	10308	9112	8344	7935	7035	8547	14.474
(3)	6330	5599	5139	4929	4456	5291	13.452
(4)	8280	7111	6551	6409	5718	6814	14.062
(5)	7890	6662	6193	5904	5375	6405	14.872
62 4,4-DDT	++++++	++++++	++++++	243613	++++++	243613	0.000
63 4,4-DDE	++++++	++++++	++++++	357996	++++++	357996	0.000
64 4,4-DDD	++++++	++++++	++++++	289343	++++++	289343	0.000
2 Aroclor-1221(1)	++++++	++++++	++++++	3640	++++++	3640	0.000
(2)	++++++	++++++	++++++	2329	++++++	2329	0.000
(3)	++++++	++++++	++++++	8119	++++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	14858	13325	12348	11932	10758	12644	12.198
(2)	17461	15979	14935	14482	13243	15220	10.456
(3)	13572	12242	11423	10976	10040	11651	11.471
(4)	14023	12666	11806	11380	10392	12054	11.383
(5)	28927	27037	25880	25311	23188	26068	8.140
8 Aroclor-1262(1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268(1)	40076	37508	36193	35765	31736	36256	8.369
(2)	36699	34342	33454	33223	30195	33583	6.968
(3)	29294	26633	25688	25340	22957	25982	8.826
(4)	12990	11609	11161	10996	9978	11347	9.656
(5)	67306	67058	67598	69416	64002	67076	2.911
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	314910	295845	285456	280701	259306	287244	7.105
$ 12 Decachlorobiphenyl	251054	227132	210476	206848	192632	217628	10.274

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002F0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	12837.588	0.01	-12.4	15.0
(2)	18322.626	16881.446	0.01	-7.9	15.0
(3)	12023.655	10579.542	0.01	-12.0	15.0
(4)	7180.129	6340.762	0.01	-11.7	15.0
(5)	9289.783	8310.417	0.01	-10.5	15.0
Aroclor-1260	17636.550	17492.483	0.01	-0.8	15.0
(2)	26662.025	26719.248	0.01	0.2	15.0
(3)	15921.638	15874.558	0.01	-0.3	15.0
(4)	16550.665	16698.516	0.01	0.9	15.0
(5)	37135.384	38229.555	0.01	2.9	15.0
4cmx	398648.98	371361.76	0.01	-6.8	15.0
Decachlorobiphenyl	323316.27	306305.72	0.01	-5.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002B0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	11513.111	0.01	-7.8	15.0
(2)	8546.824	7680.091	0.01	-10.1	15.0
(3)	5290.741	4732.691	0.01	-10.5	15.0
(4)	6813.513	6037.895	0.01	-11.4	15.0
(5)	6404.782	5752.367	0.01	-10.2	15.0
Aroclor-1260	12644.310	12622.486	0.01	-0.2	15.0
(2)	15220.096	15319.189	0.01	0.6	15.0
(3)	11650.528	11665.669	0.01	0.1	15.0
(4)	12053.523	12022.139	0.01	-0.3	15.0
(5)	26068.381	27036.683	0.01	3.7	15.0
4cmx	287243.52	273128.74	0.01	-4.9	15.0
Decachlorobiphenyl	217628.16	208183.20	0.01	-4.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0717

Lab File ID: 003F0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1254	12485.476	13316.408	0.01	6.6	15.0	
(2)	16721.938	18383.138	0.01	9.9	15.0	
(3)	20713.923	24035.597	0.01	16.0	15.0	<-
(4)	15694.205	18227.087	0.01	16.1	15.0	<-
(5)	15172.491	17340.088	0.01	14.3	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0717

Lab File ID: 003B0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6435.255	6210.292	0.01	-3.5	15.0
(2)	11559.316	11223.428	0.01	-2.9	15.0
(3)	12431.285	12385.662	0.01	-0.4	15.0
(4)	16880.060	17124.358	0.01	1.4	15.0
(5)	12435.475	12208.508	0.01	-1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0820

Lab File ID: 009F0901 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1268	52484.978	48680.194	0.01	-7.2	15.0
(2)	48118.088	45876.697	0.01	-4.6	15.0
(3)	37027.541	36431.401	0.01	-1.6	15.0
(4)	16294.262	18070.217	0.01	10.9	15.0
(5)	108277.36	120791.94	0.01	11.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0820

Lab File ID: 009B0901 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1268	36255.530	33206.637	0.01	-8.4	15.0	
(2)	33582.584	31815.832	0.01	-5.3	15.0	
(3)	25982.381	25007.382	0.01	-3.8	15.0	
(4)	11346.665	12362.596	0.01	9.0	15.0	
(5)	67076.083	78842.117	0.01	17.5	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022F2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14089.870	0.01	-3.9	15.0
(2)	18322.626	18254.738	0.01	-0.4	15.0
(3)	12023.655	11539.563	0.01	-4.0	15.0
(4)	7180.129	6922.359	0.01	-3.6	15.0
(5)	9289.783	8923.226	0.01	-3.9	15.0
Aroclor-1260	17636.550	19002.908	0.01	7.7	15.0
(2)	26662.025	28995.739	0.01	8.8	15.0
(3)	15921.638	17302.329	0.01	8.7	15.0
(4)	16550.665	18016.442	0.01	8.8	15.0
(5)	37135.384	41342.662	0.01	11.3	15.0
4cmx	398648.98	405041.02	0.01	1.6	15.0
Decachlorobiphenyl	323316.27	329068.95	0.01	1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022B2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12553.097	0.01	0.5	15.0
(2)	8546.824	8166.106	0.01	-4.4	15.0
(3)	5290.741	5045.053	0.01	-4.6	15.0
(4)	6813.513	6628.314	0.01	-2.7	15.0
(5)	6404.782	6123.430	0.01	-4.4	15.0
Aroclor-1260	12644.310	13388.386	0.01	5.9	15.0
(2)	15220.096	16291.509	0.01	7.0	15.0
(3)	11650.528	12420.565	0.01	6.6	15.0
(4)	12053.523	12892.266	0.01	7.0	15.0
(5)	26068.381	28894.660	0.01	10.8	15.0
4cmx	287243.52	289912.86	0.01	0.9	15.0
Decachlorobiphenyl	217628.16	222287.65	0.01	2.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031F3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14012.608	0.01	-4.4	15.0
(2)	18322.626	18319.018	0.01	-0.0	15.0
(3)	12023.655	11547.801	0.01	-4.0	15.0
(4)	7180.129	6929.943	0.01	-3.5	15.0
(5)	9289.783	8939.715	0.01	-3.8	15.0
Aroclor-1260	17636.550	18972.127	0.01	7.6	15.0
(2)	26662.025	28835.947	0.01	8.2	15.0
(3)	15921.638	17204.186	0.01	8.0	15.0
(4)	16550.665	18148.577	0.01	9.6	15.0
(5)	37135.384	41262.622	0.01	11.1	15.0
4cmx	398648.98	404599.75	0.01	1.5	15.0
Decachlorobiphenyl	323316.27	326299.17	0.01	0.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031B3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12359.615	0.01	-1.0	15.0
(2)	8546.824	8069.931	0.01	-5.6	15.0
(3)	5290.741	4988.684	0.01	-5.7	15.0
(4)	6813.513	6345.906	0.01	-6.9	15.0
(5)	6404.782	6017.327	0.01	-6.0	15.0
Aroclor-1260	12644.310	13242.341	0.01	4.7	15.0
(2)	15220.096	16223.303	0.01	6.6	15.0
(3)	11650.528	12301.397	0.01	5.6	15.0
(4)	12053.523	12694.909	0.01	5.3	15.0
(5)	26068.381	28307.638	0.01	8.6	15.0
4cmx	287243.52	286907.88	0.01	-0.1	15.0
Decachlorobiphenyl	217628.16	219266.81	0.01	0.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	37136176	100.000	93.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	30630572	100.000	94.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.419	2.419	0.000	12837588	1000.00	876	80.00- 120.00	100.00
2.707	2.707	0.000	16881446	1000.00	921	111.50- 151.50	131.50
2.788	2.788	0.000	10579542	1000.00	880	62.41- 102.41	82.41
2.826	2.826	0.000	6340762	1000.00	883	29.39- 69.39	49.39
3.036	3.036	0.000	8310417	1000.00	894	44.74- 84.74	64.74
Average of Peak Amounts =					891		
7 Aroclor-1260					CAS #: 11096-82-5		
3.762	3.762	0.000	17492483	1000.00	992	80.00- 120.00	100.00
3.925	3.925	0.000	26719248	1000.00	1000	132.75- 172.75	152.75
4.155	4.155	0.000	15874558	1000.00	997	70.75- 110.75	90.75
4.297	4.297	0.000	16698516	1000.00	1010	75.46- 115.46	95.46
4.477	4.477	0.000	38229555	1000.00	1030	198.55- 238.55	218.55
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd1a.i/020510.b/002f0201.d

Date : 05-FEB-2010 07:06

Client ID: AR166001

Sample Info: |WAR100203-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

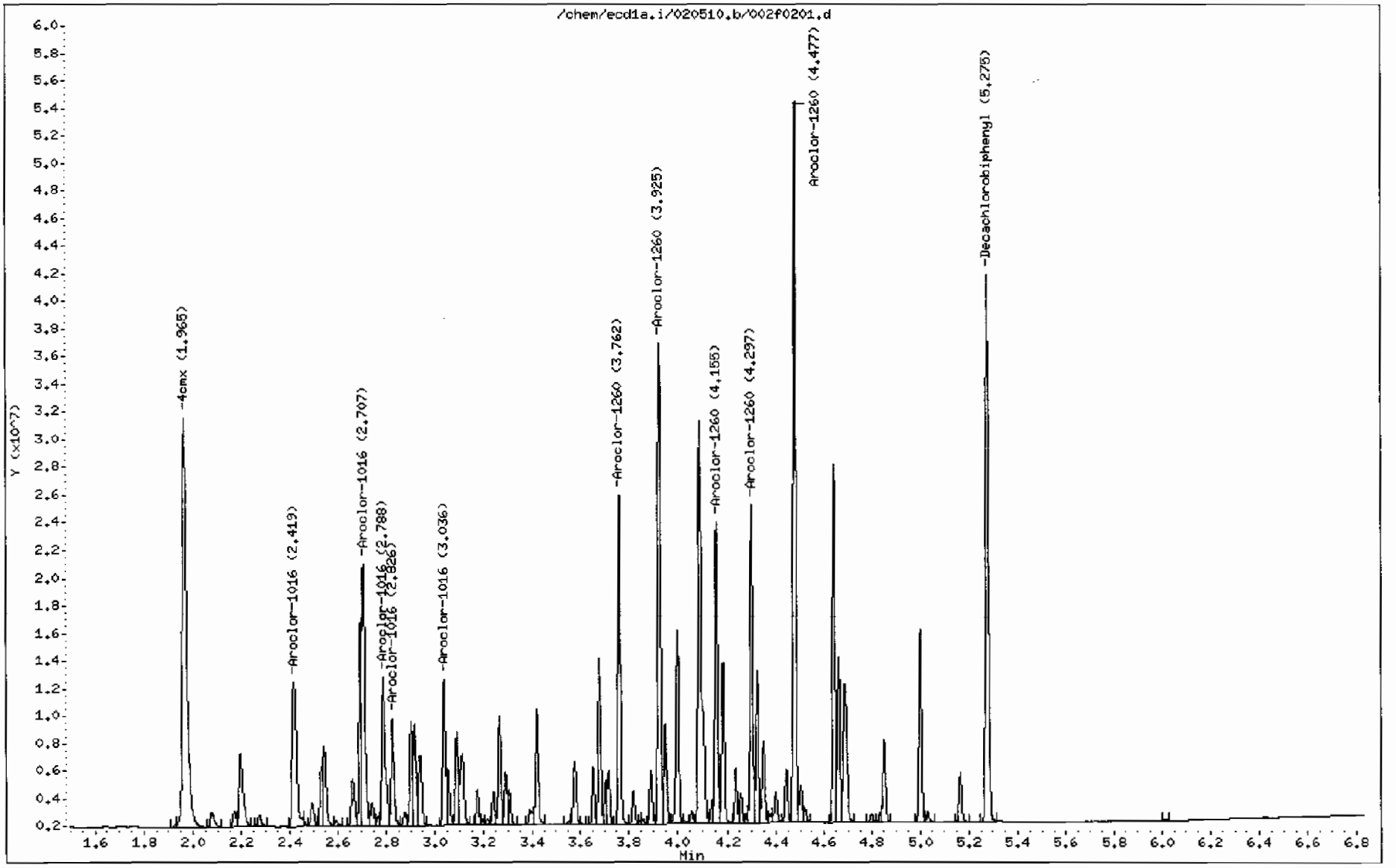

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	27312874	100.000	95.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24 3		
5.942	5.942	0.000	20818320	100.000	95.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	11513111	1000.00	922	80.00- 120.00	100.00(M)
3.275	3.275	0.000	7680091	1000.00	898	46.71- 86.71	66.71
3.339	3.339	0.000	4732691	1000.00	894	21.11- 61.11	41.11
3.565	3.565	0.000	6037895	1000.00	886	32.44- 72.44	52.44
3.641	3.641	0.000	5752367	1000.00	898	29.96- 69.96	49.96
Average of Peak Amounts =					900		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.332	0.000	12622486	1000.00	998	80.00- 120.00	100.00
4.457	4.457	0.000	15319189	1000.00	1010	101.36- 141.36	121.36
4.722	4.722	0.000	11665669	1000.00	1000	72.42- 112.42	92.42
4.896	4.896	0.000	12022139	1000.00	997	75.24- 115.24	95.24
5.043	5.043	0.000	27036683	1000.00	1040	194.19- 234.19	214.19
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/002b0201.d
Date : 05-FEB-2010 07:06
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

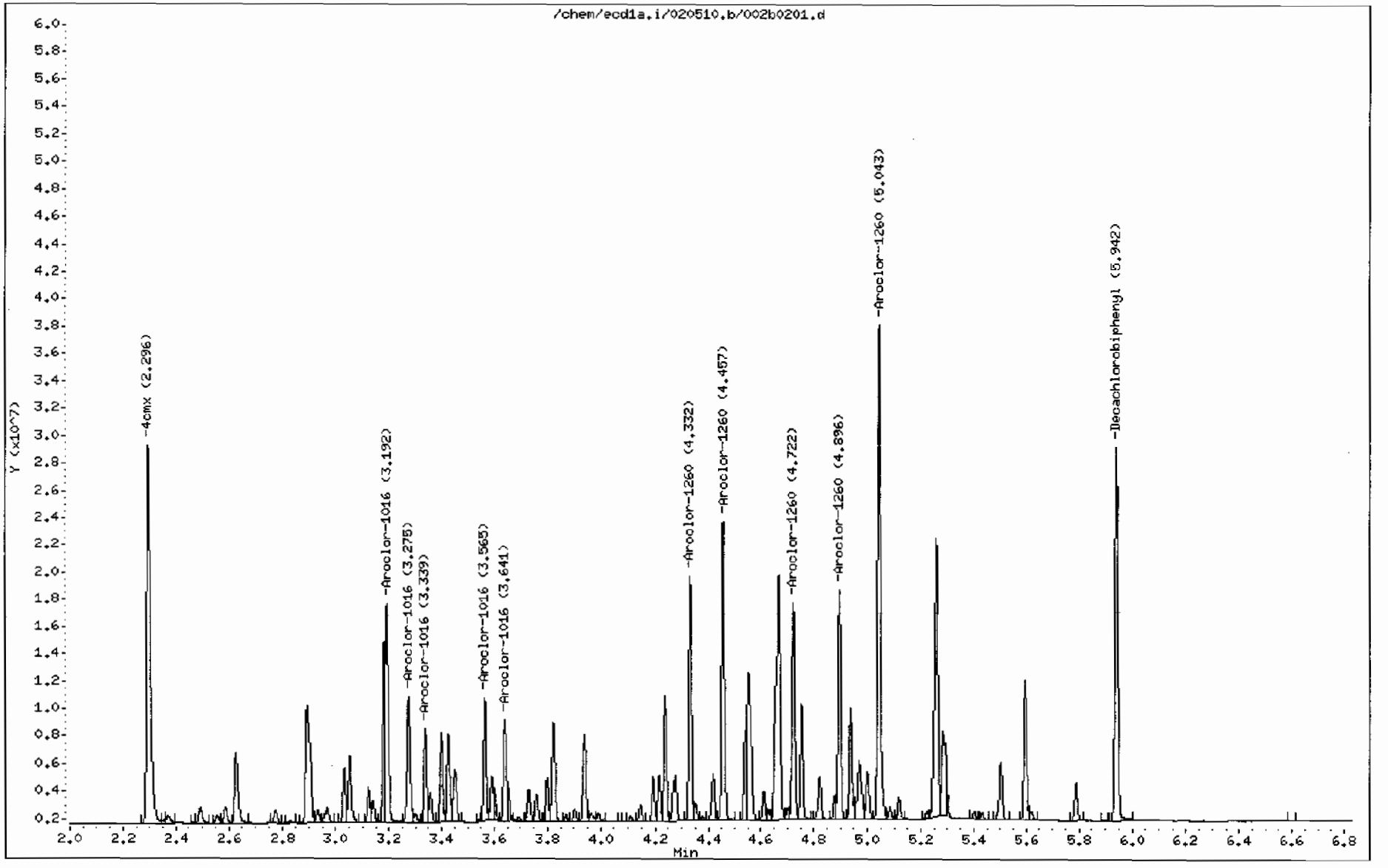

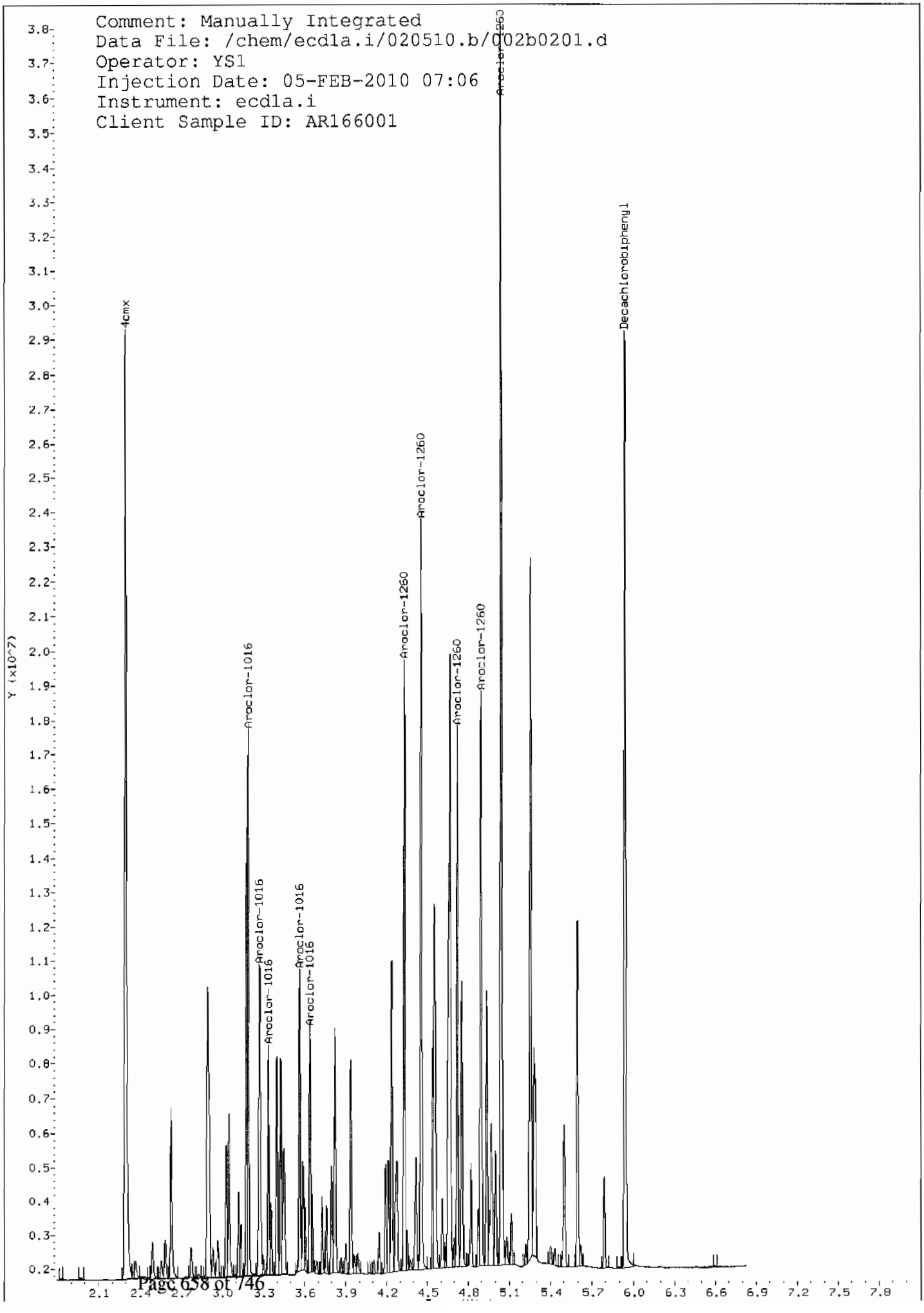
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Data File: /chem/ecd1a.i/020510.b/002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
Y (x10^7)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl

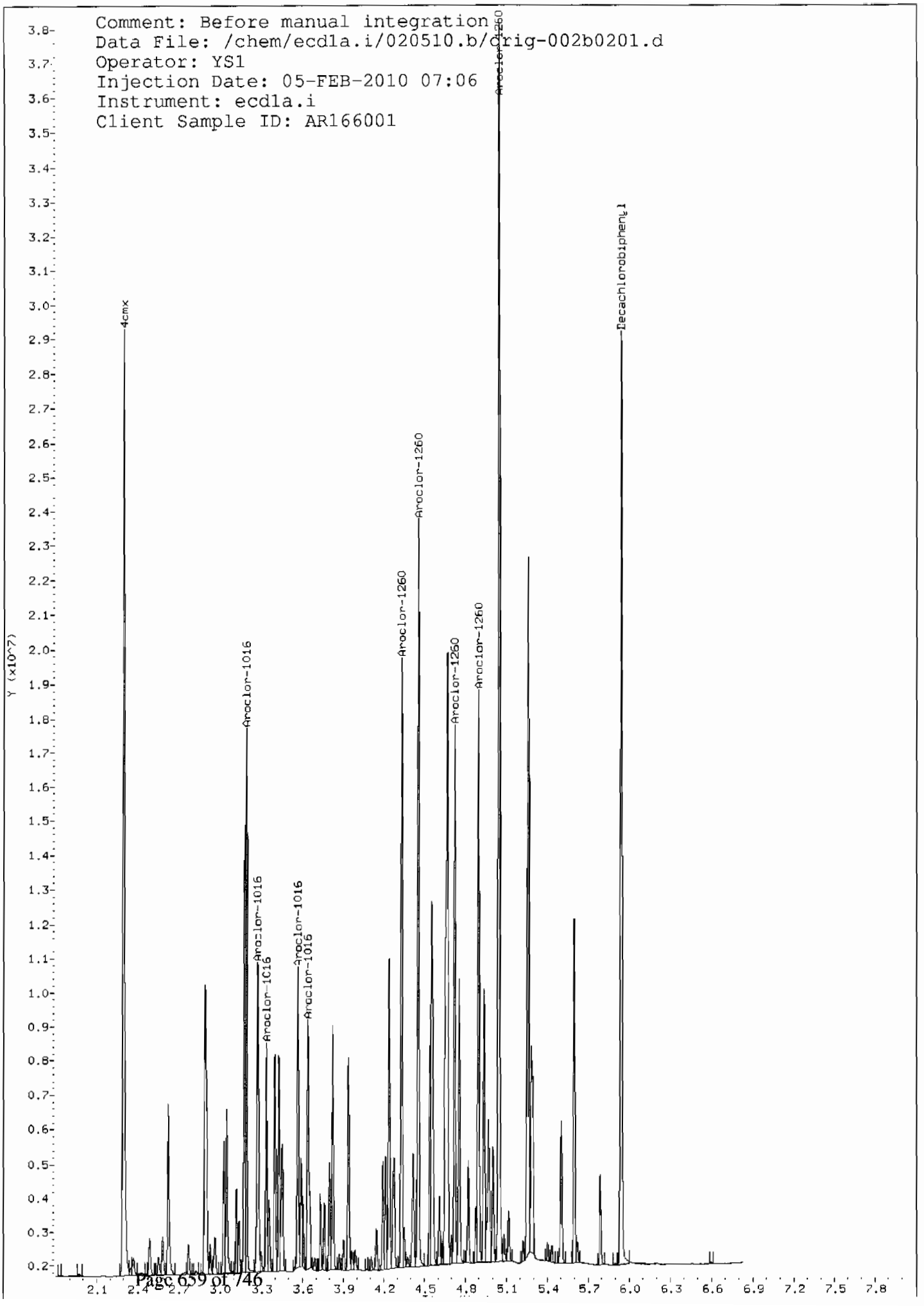
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Data File: /chem/ecd1a.i/020510.b/orig-002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.266	3.266	0.000	13316408	1000.00	1070	80.00- 120.00	100.00
3.421	3.421	0.000	18383138	1000.00	1100	118.05- 158.05	138.05
3.655	3.655	0.000	24035597	1000.00	1160	160.50- 200.50	180.50
3.818	3.818	0.000	18227087	1000.00	1160	116.88- 156.88	136.88
3.926	3.926	0.000	17340088	1000.00	1140	110.22- 150.22	130.22

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/020510.b/003f0301.d
Date : 05-FEB-2010 07:17
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

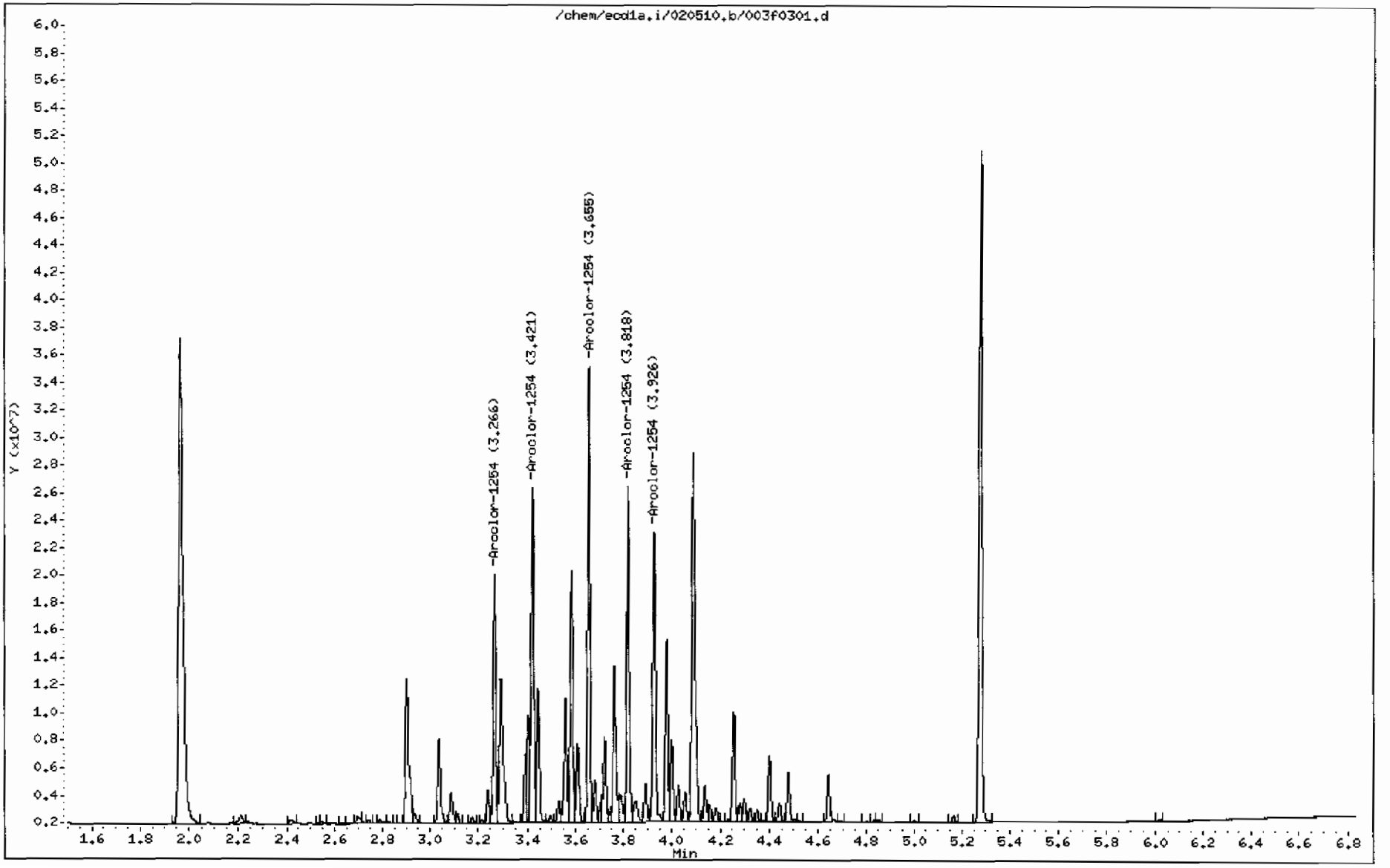

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.401	3.401	0.000	6210292	1000.00	965	80.00- 120.00	100.00
3.824	3.824	0.000	11223428	1000.00	971	160.72- 200.72	180.72
3.940	3.940	0.000	12385662	1000.00	996	179.44- 219.44	199.44
4.216	4.216	0.000	17124358	1000.00	1010	255.74- 295.74	275.74
4.353	4.353	0.000	12208508	1000.00	982	176.59- 216.59	196.59

Average of Peak Amounts = 986

Data File: /chem/ecd1a.i/020510.b/003b0301.d

Date : 05-FEB-2010 07:17

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

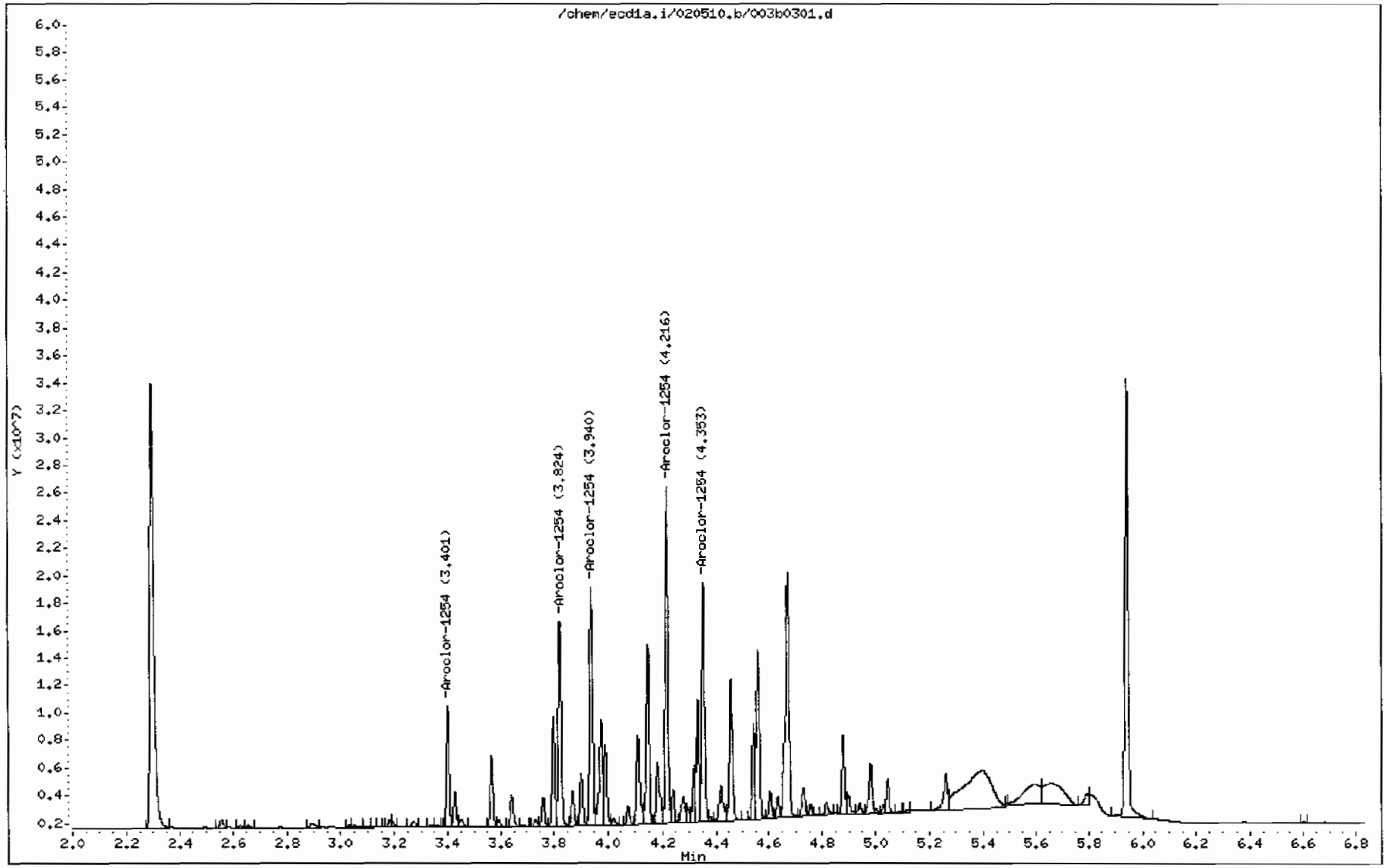

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.420	2.420	0.000	11255044	1000.00	965	80.00- 120.00	100.00
2.708	2.708	0.000	14293317	1000.00	1060	106.99- 146.99	126.99
2.826	2.826	0.000	5433097	1000.00	987	28.27- 68.27	48.27
3.037	3.037	0.000	7156483	1000.00	988	43.58- 83.58	63.58
3.290	3.290	0.000	6999007	1000.00	1030	42.19- 82.19	62.19

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/004f0401.d

Date : 05-FEB-2010 07:27

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

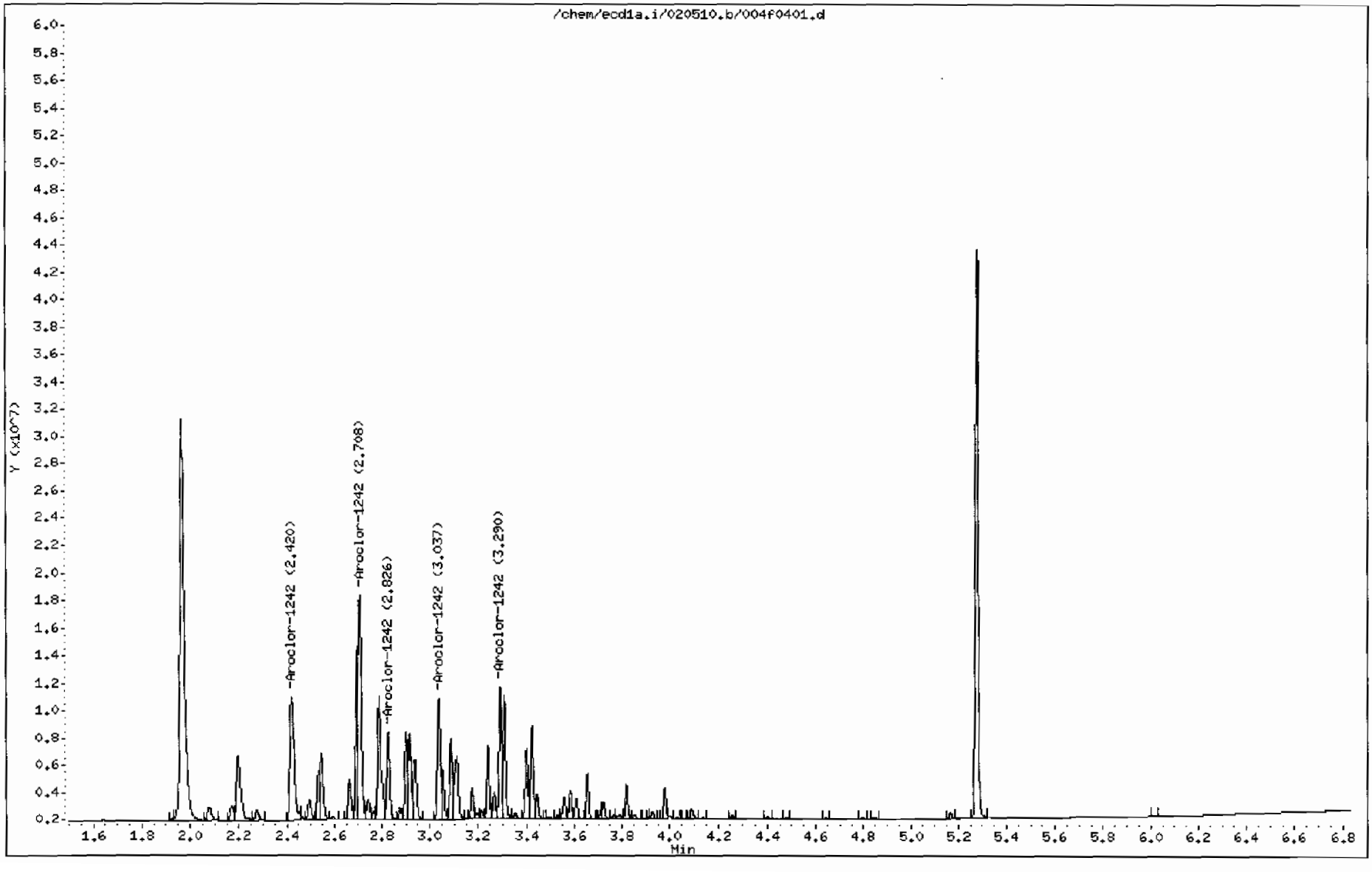

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS			
				CAL AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.192	3.192	0.000	10109273	1000.00	955	80.00- 120.00	100.00
3.275	3.275	0.000	6573360	1000.00	816	45.02- 85.02	65.02
3.566	3.566	0.000	5197092	1000.00	872	31.41- 71.41	51.41
3.800	3.800	0.000	5378692	1000.00	888	33.21- 73.21	53.21
3.828	3.828	0.000	6016980	1000.00	898	39.52- 79.52	59.52
Average of Peak Amounts =					886		

Data File: /chem/ecd1a.i/020510.b/004b0401.d

Page 1

Date : 05-FEB-2010 07:27

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR091217-42

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

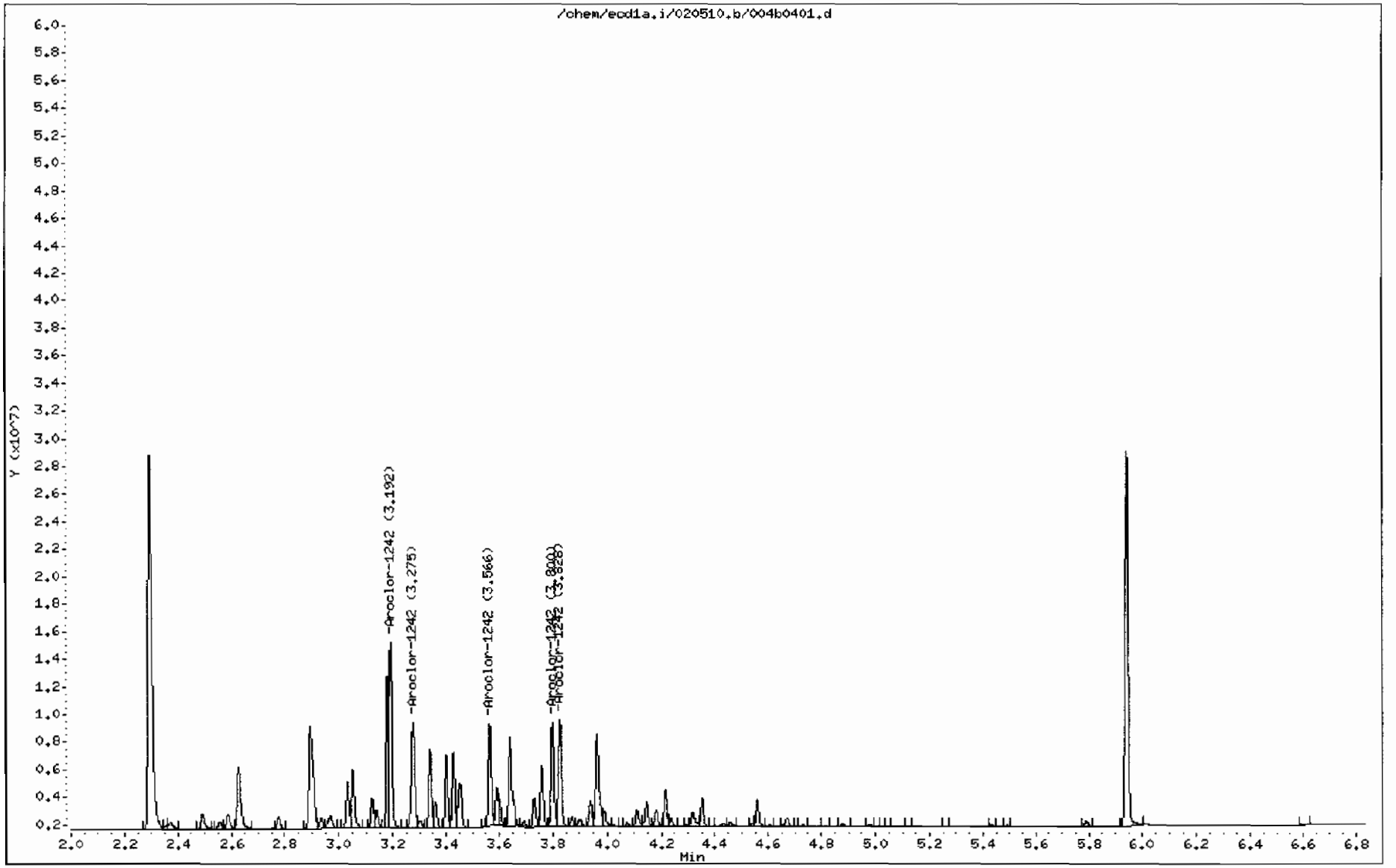

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.088	3.088	0.000	8241247	1000.00	1050	80.00 120.00	100.00
3.240	3.240	0.000	7125731	1000.00	1040	66.46- 106.46	86.46
3.291	3.291	0.000	14052338	1000.00	1060	150.51- 190.51	170.51
3.422	3.422	0.000	11222456	1000.00	1020	116.17- 156.17	136.17
3.655	3.655	0.000	7182031	1000.00	963	67.15- 107.15	87.15

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/020510.b/005f0501.d

Page 1

Date : 05-FEB-2010 07:38

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR091217-48

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

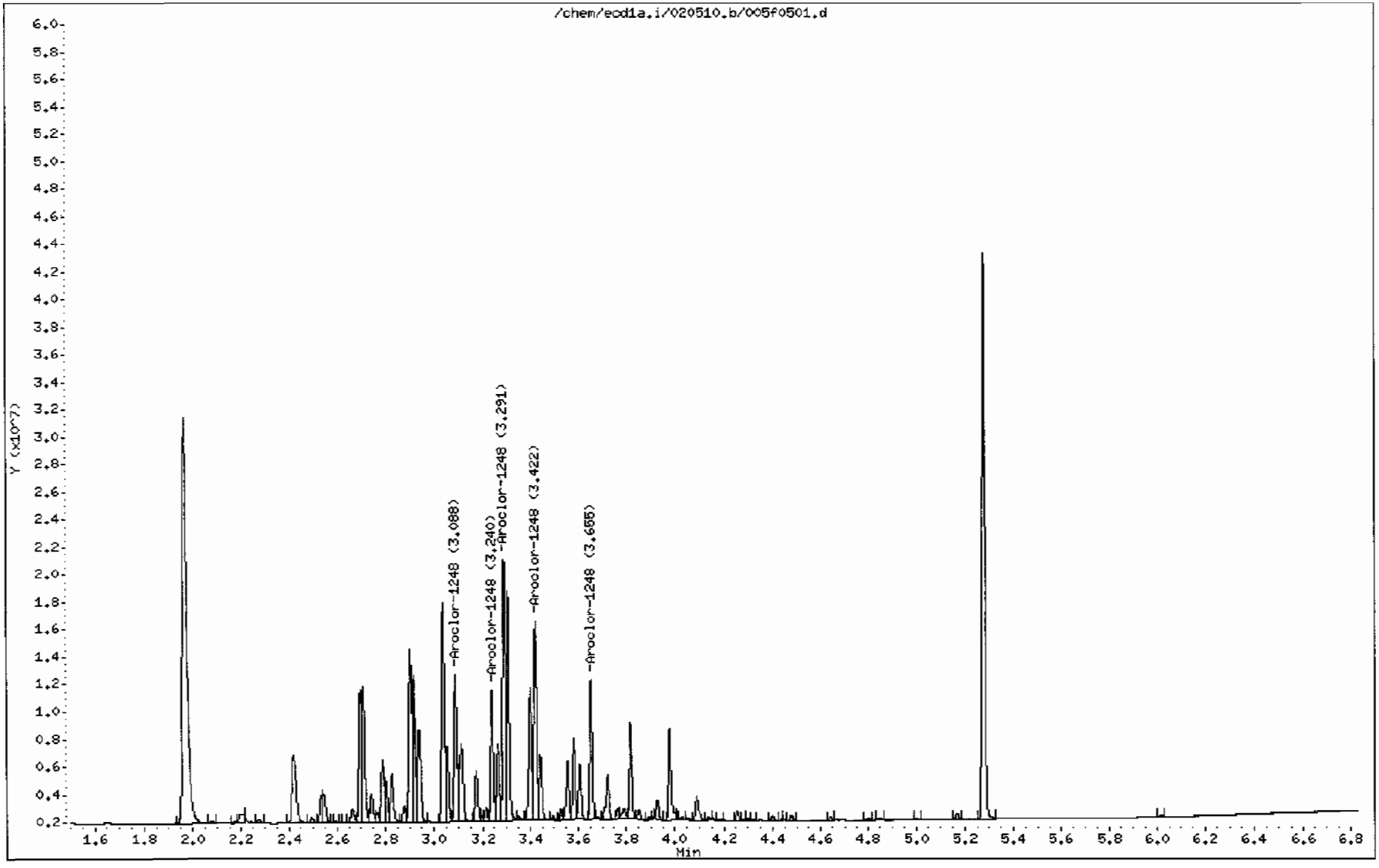

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.401	3.401	0.000	7358985	1000.00	914	80.00- 120.00	100.00
3.566	3.566	0.000	9216148	1000.00	933	105.24 145.24	125.24
3.800	3.800	0.000	10436092	1000.00	930	121.81- 161.81	141.81
3.827	3.827	0.000	11626532	1000.00	931	137.99 177.99	157.99
3.965	3.965	0.000	11178442	1000.00	924	131.90- 171.90	151.90
		Average of Peak Amounts =			926		

Data File: /chem/ecd1a.i/020510.b/005b0501.d

Page 1

Date : 05-FEB-2010 07:38

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: |WAR091217-48

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

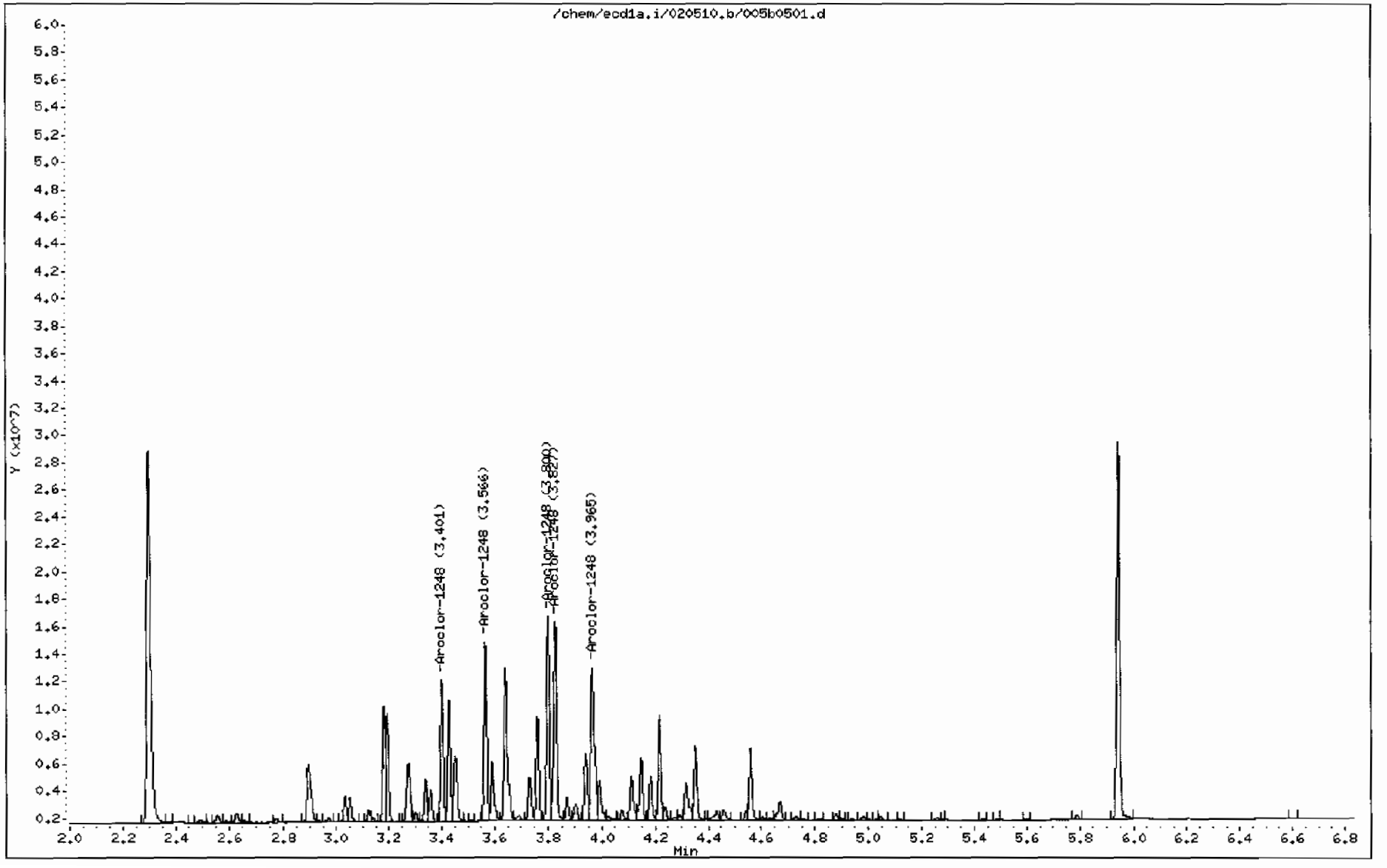

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE		RATIO
3 Aroclor-1232					CAS #: 11141-16-5			
2.421	2.421	0.000	6684520	1000.00	976	80.00	120.00	100.00
2.709	2.709	0.000	8973672	1000.00	1060	114.25-	154.25	134.25
2.789	2.789	0.000	5627474	1000.00	1000	64.19-	104.19	84.19
3.038	3.038	0.000	4163606	1000.00	1040	42.29-	82.29	62.29
3.291	3.291	0.000	3786517	1000.00	981	36.65-	76.65	56.65

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/006f0601.d

Date : 05-FEB-2010 07:48

Client ID: AR123201

Sample Info: |WAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

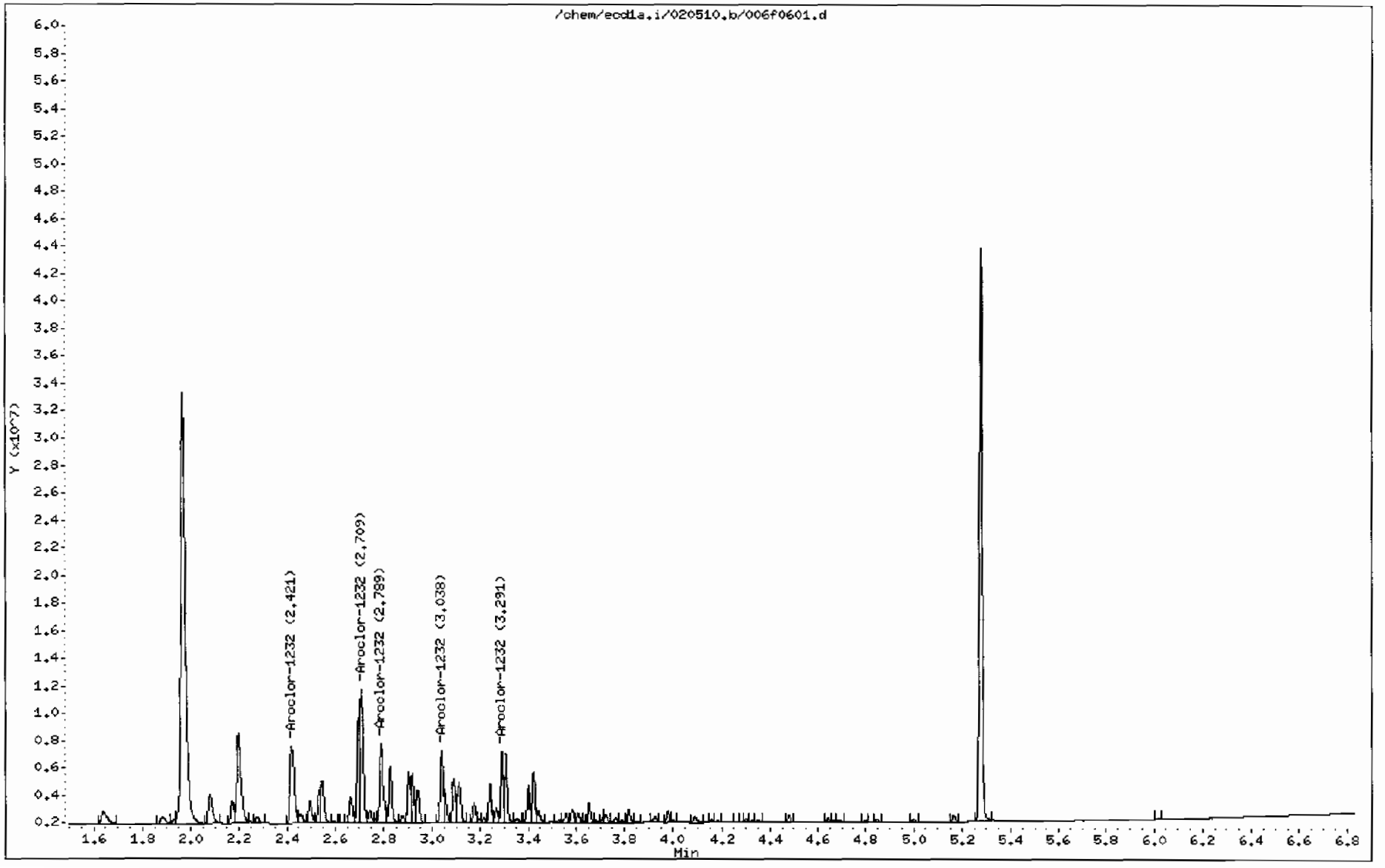

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141 16-5		
2.895	2.895	0.000	5518314	1000.00	937	80.00- 120.00	100.00
3.193	3.193	0.000	6067838	1000.00	975	89.96- 129.96	109.96
3.276	3.276	0.000	4176572	1000.00	961	55.69- 95.69	75.69
3.567	3.567	0.000	3101183	1000.00	997	36.20- 76.20	56.20
3.800	3.800	0.000	3042822	1000.00	953	35.14- 75.14	55.14
Average of Peak Amounts =					965		

Data File: /chem/ecd1a.i/020510.b/006b0601.d

Date : 05-FEB-2010 07:48

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

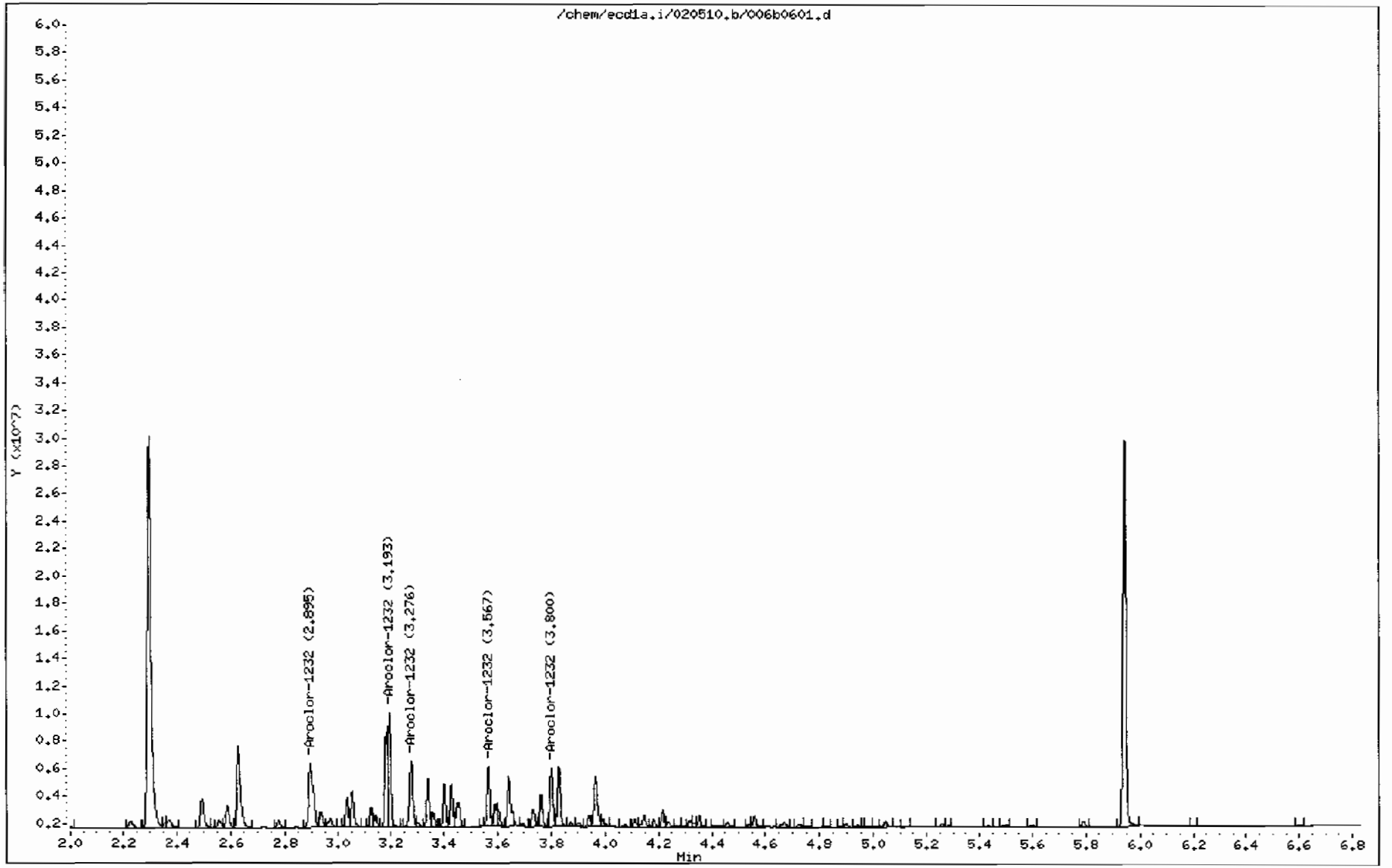

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.077	2.077	0.000	4201820	1000.00	977	80.00- 120.00	100.00
2.170	2.170	0.000	2263486	1000.00	927	33.87- 73.87	53.87
2.195	2.195	0.000	10281522	1000.00	1000	224.69- 264.69	244.69
Average of Peak Amounts =					968		

Data File: /chem/ecd1a.i/020510.b/007f0701.d

Date : 05-FEB-2010 07:59

Client ID: AR122101

Sample Info: |WAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

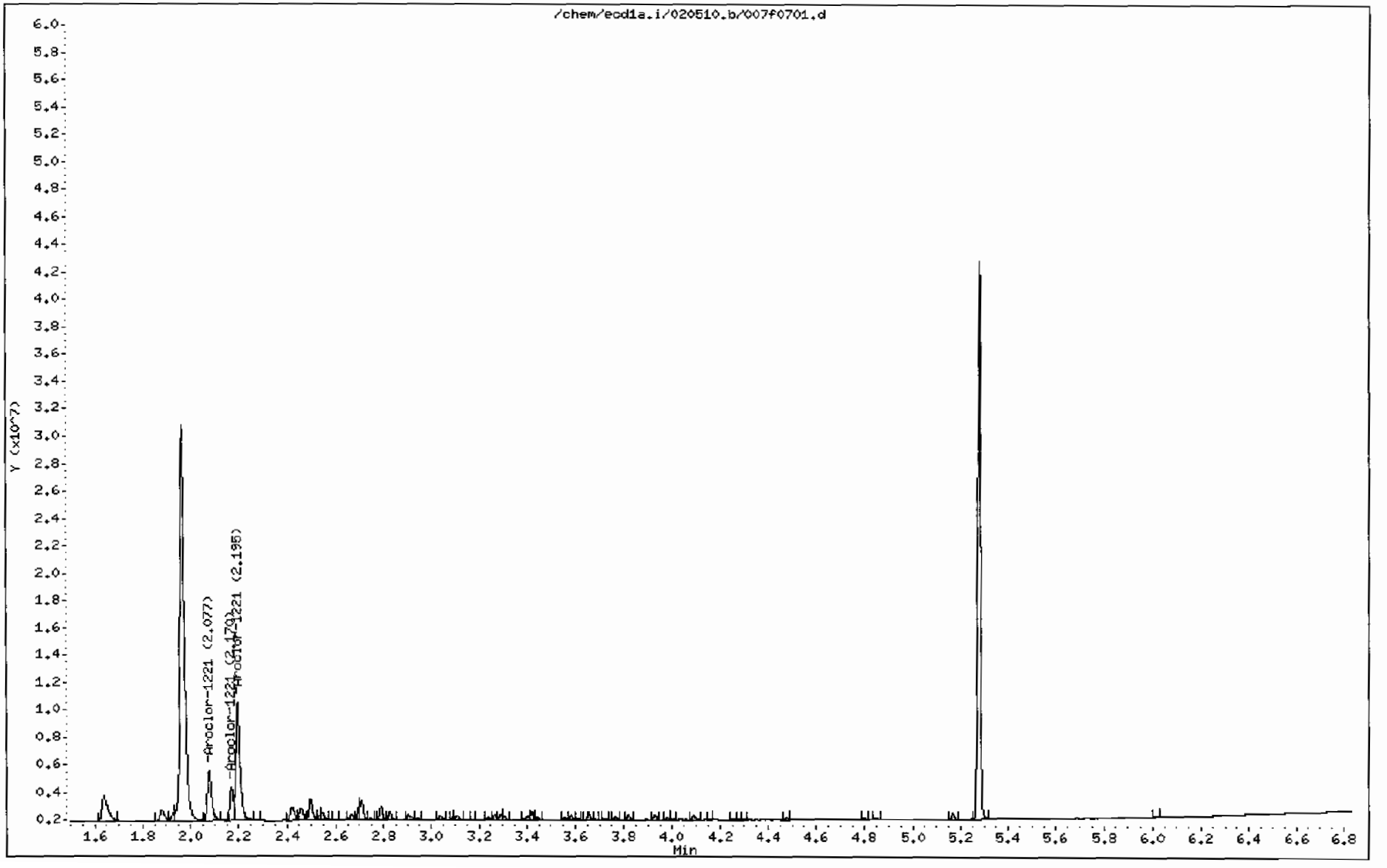

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.492	2.492	0.000	3283686	1000.00	902	80.00- 120.00	100.00
2.586	2.586	0.000	2130872	1000.00	915	44.89- 84.89	64.89
2.627	2.627	0.000	7321346	1000.00	902	202.96- 242.96	222.96
Average of Peak Amounts =					906		

Data File: /chem/ecd1a.i/020510.b/007b0701.d

Page 1

Date : 05-FEB-2010 07:59

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: |WAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

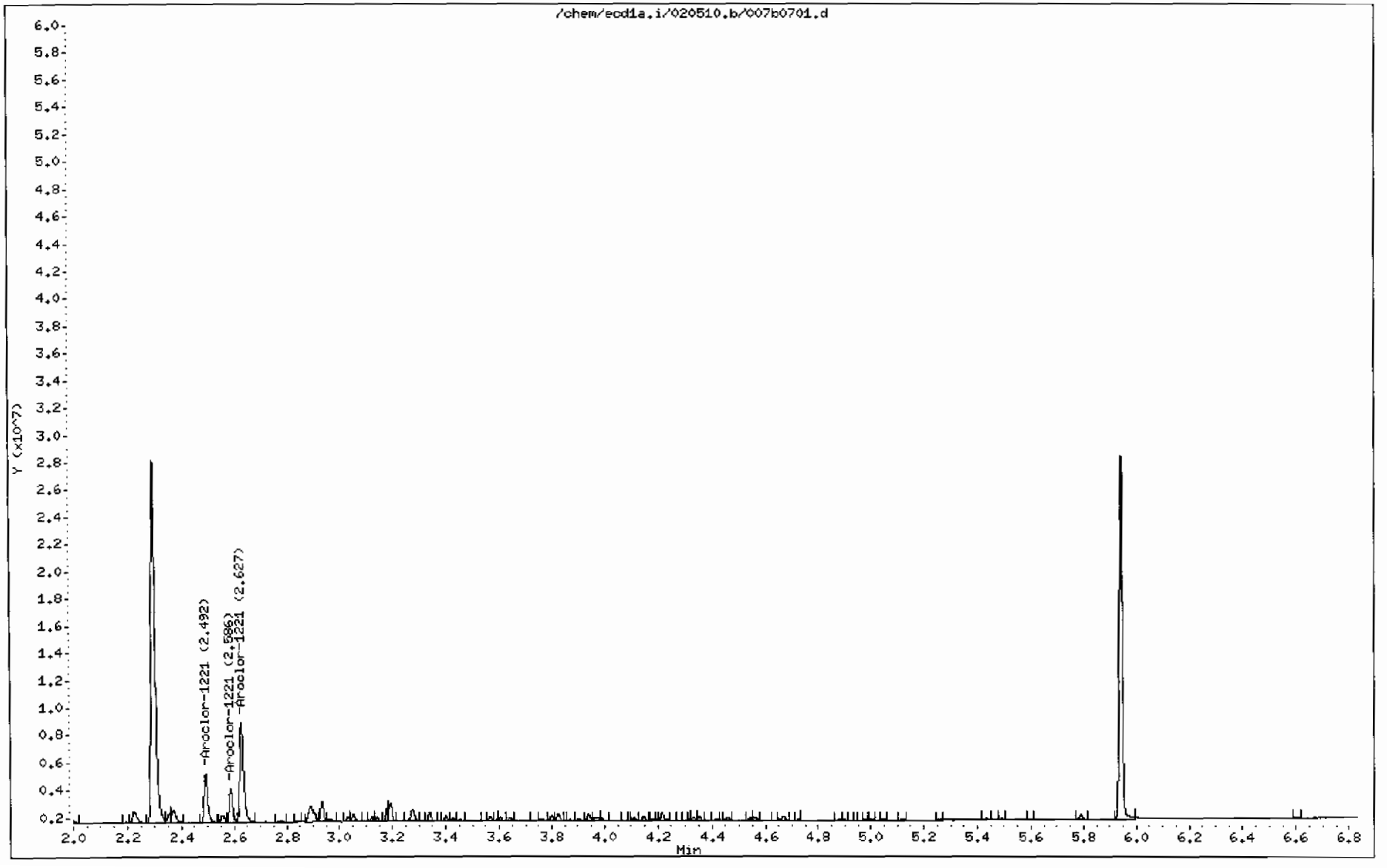

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/009f0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 05-FEB-2010 08:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
4.663	4.663	0.000	48680193	1000.00	928	80.00- 120.00	100.00
4.686	4.686	0.000	45876696	1000.00	953	74.24- 114.24	94.24
4.799	4.799	0.000	36431401	1000.00	984	54.84- 94.84	74.84
5.001	5.001	0.000	18070217	1000.00	1110	17.12- 57.12	37.12
5.167	5.167	0.000	120791943	1000.00	1120	228.13- 268.13	248.13

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/020510.b/009f0901.d

Date : 05-FEB-2010 08:20

Client ID: AR126801

Sample Info: IWAR100107-68

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

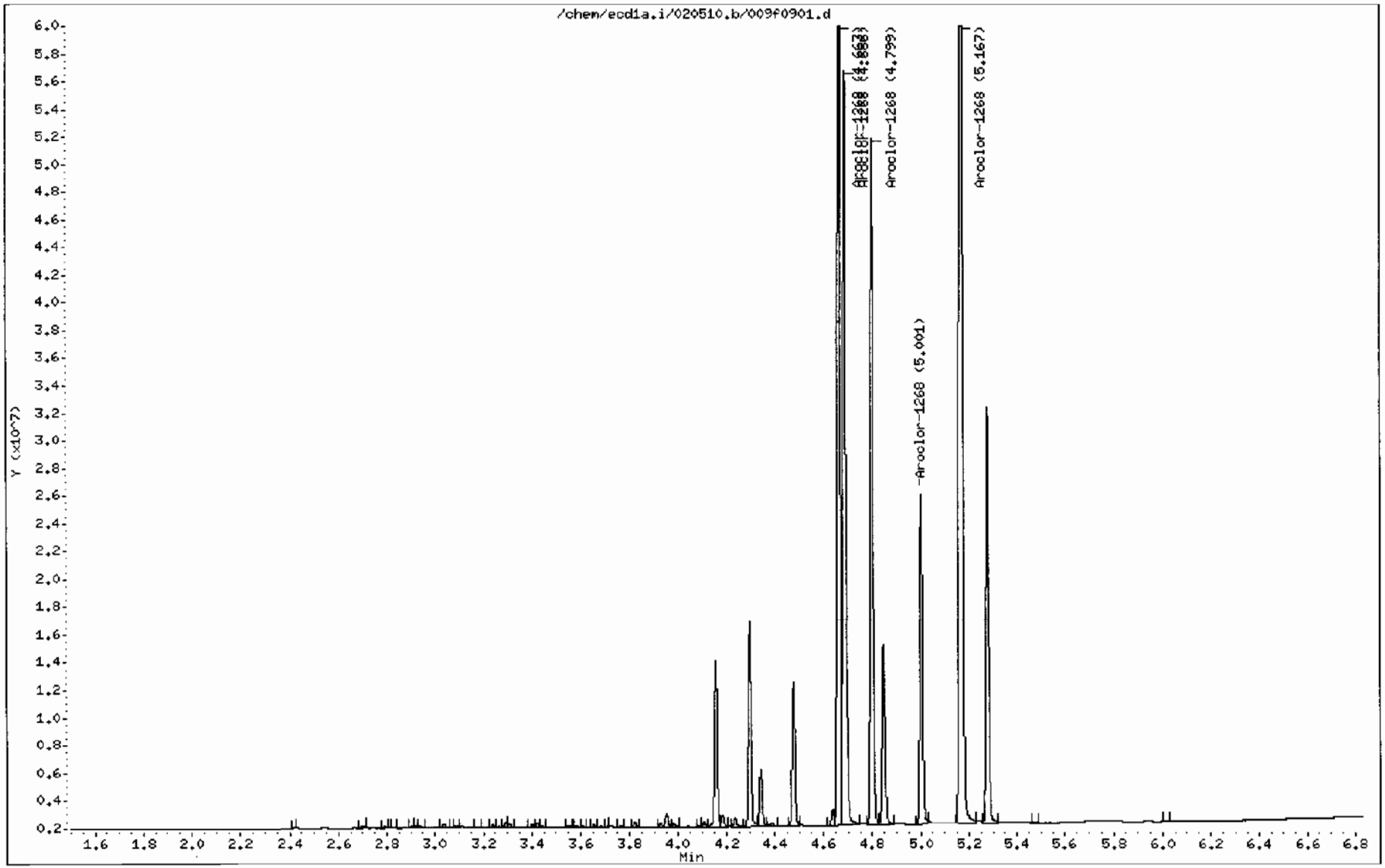

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/009b0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 05-FEB-2010 08:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
5.255	5.255	0.000	33206637	1000.00	916	80.00- 120.00	100.00
5.283	5.283	0.000	31815831	1000.00	947	75.81- 115.81	95.81
5.433	5.433	0.000	25007381	1000.00	962	55.31- 95.31	75.31
5.598	5.598	0.000	12362596	1000.00	1090	17.23- 57.23	37.23
5.790	5.790	0.000	78842117	1000.00	1180	217.43- 257.43	237.43

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/020510.b/009b0901.d

Date : 05-FEB-2010 08:20

Client ID: AR126801

Sample Info: |WAR100107-68

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

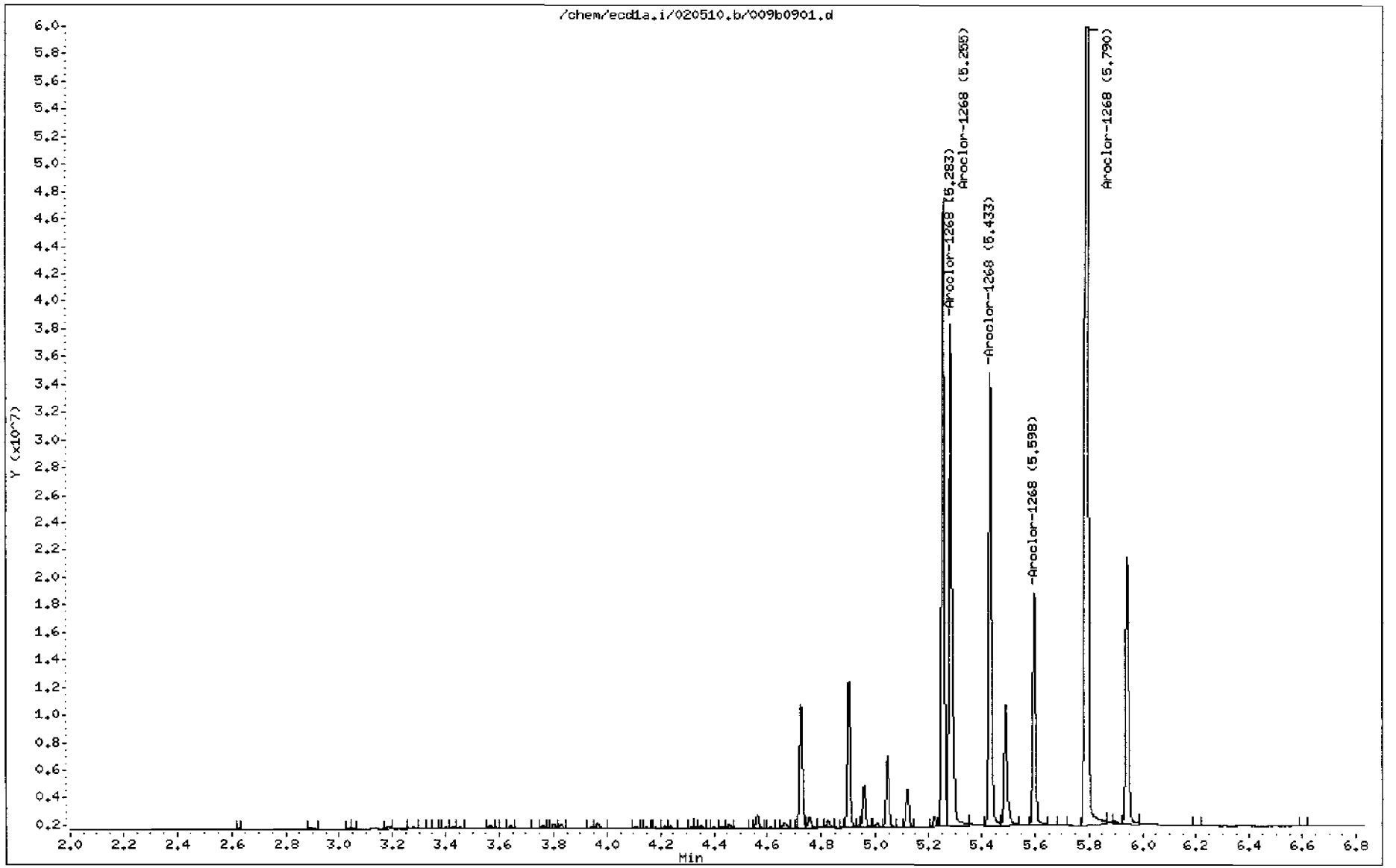

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022f2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	40504102	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32906895	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	14089870	1000.00	961	80.00- 120.00	100.00
2.707	2.707	0.000	18254738	1000.00	996	106.82- 146.82	129.56
2.787	2.788	-0.001	11539563	1000.00	960	60.66- 100.66	81.90
2.826	2.826	0.000	6922359	1000.00	964	28.59- 68.59	49.13
3.036	3.036	0.000	8923226	1000.00	960	42.97- 82.97	63.33
Average of Peak Amounts =					968		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	19002907	1000.00	1080	80.00- 120.00	100.00(M)
3.924	3.925	-0.001	28995739	1000.00	1090	132.12- 172.12	152.59
4.154	4.155	-0.001	17302329	1000.00	1090	70.53- 110.53	91.05
4.297	4.297	0.000	18016442	1000.00	1090	75.55- 115.55	94.81
4.476	4.477	-0.001	41342662	1000.00	1110	197.21 237.21	217.56
Average of Peak Amounts =					1.09e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/022f2201.d

Date : 05-FEB-2010 10:51

Client ID: AR166002

Sample Info: |WAR100203-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

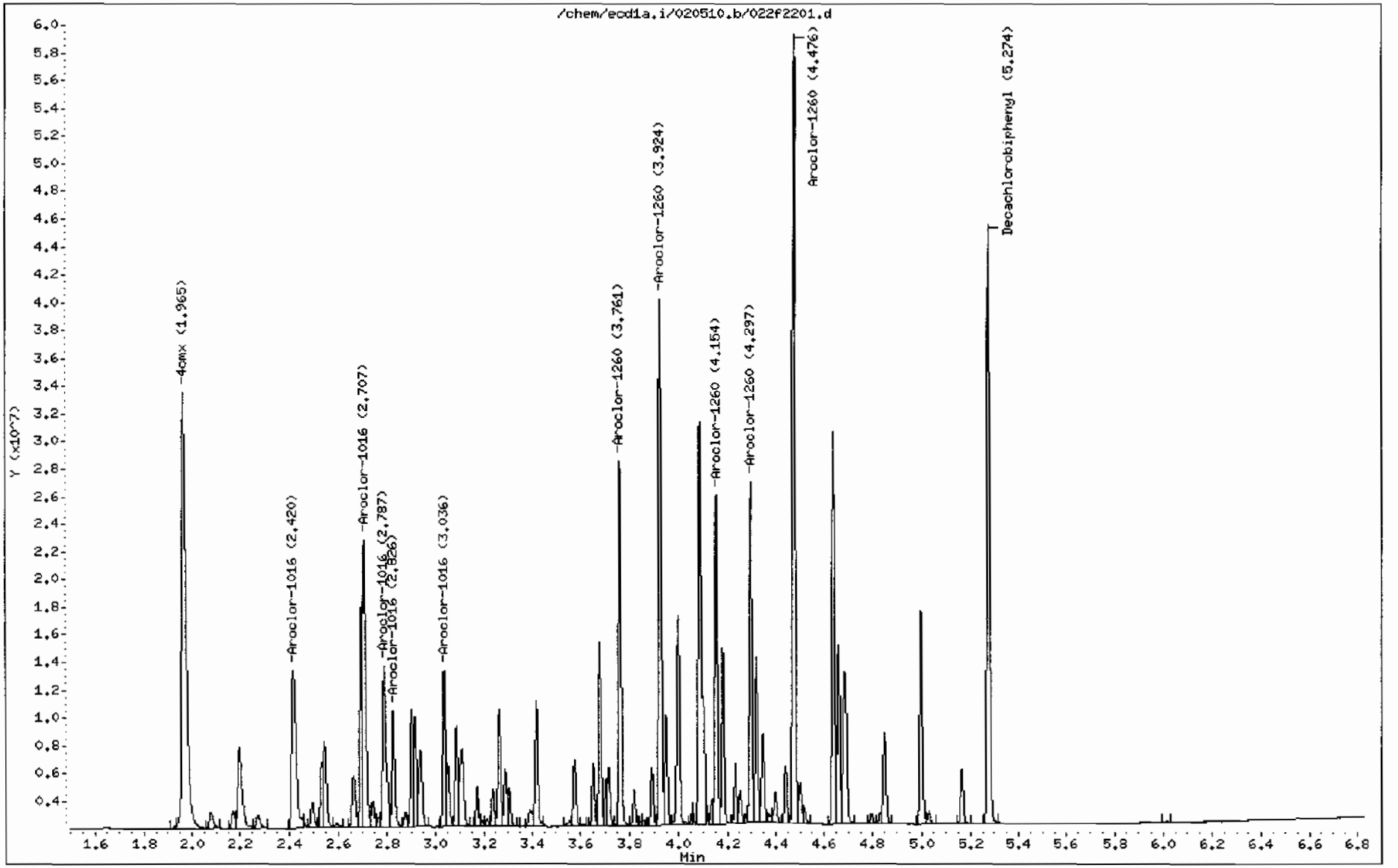

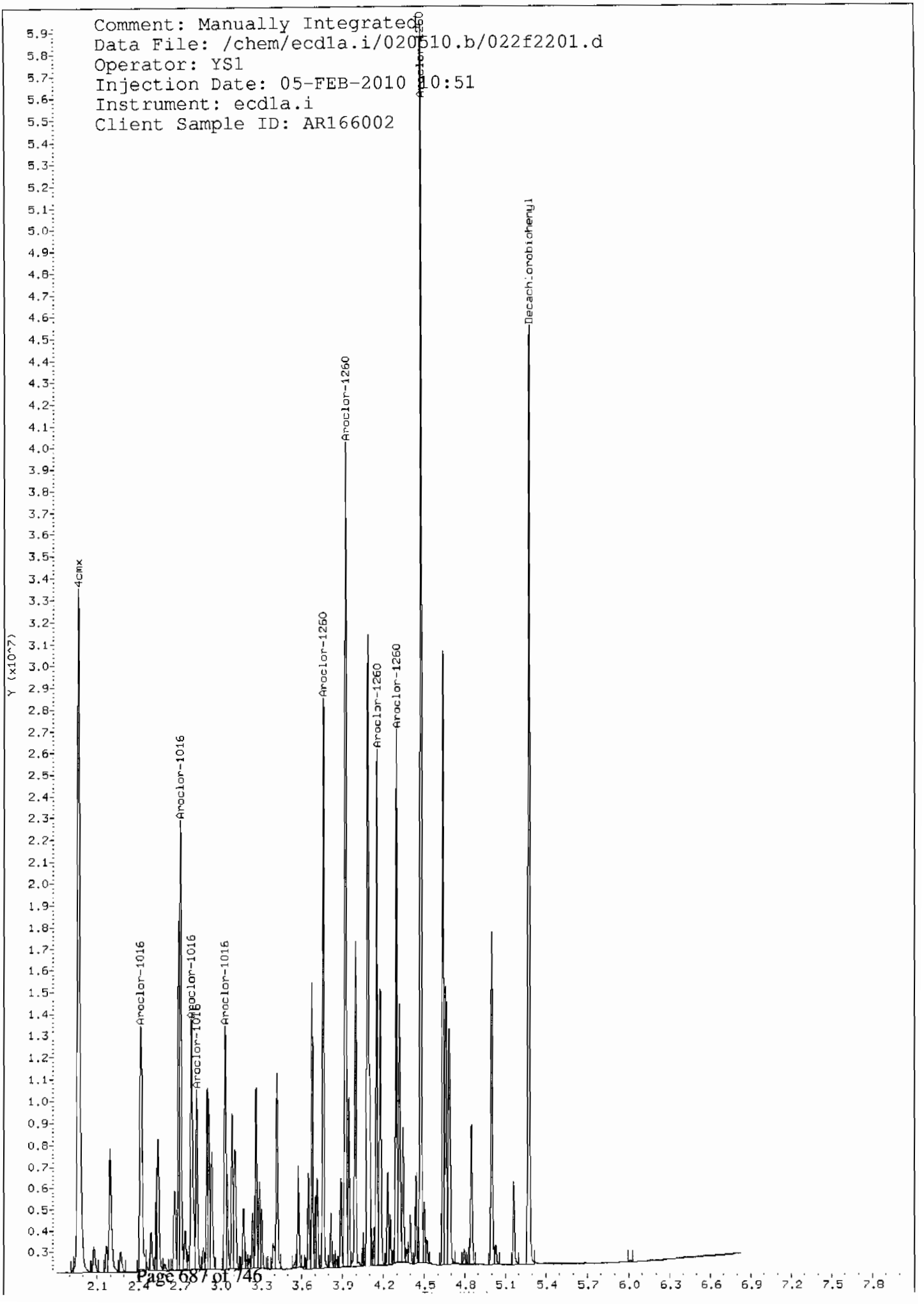
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002
Y (x10^7)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002

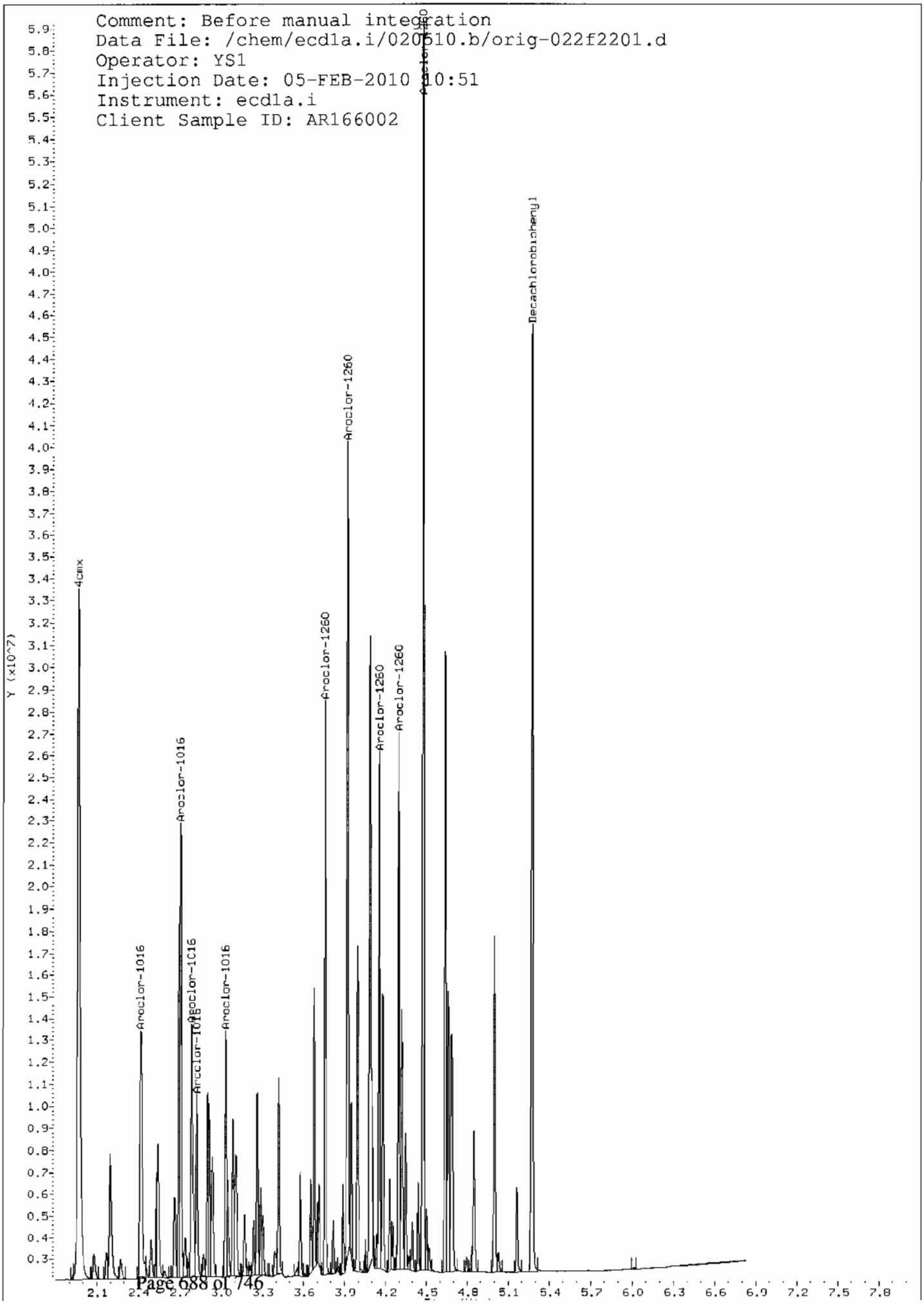

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022b2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877 09 8		
2.297	2.296	0.001	28991286	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	22228765	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12553096	1000.00	1000	80.00- 120.00	100.00
3.275	3.275	0.000	8166105	1000.00	955	45.05- 85.05	65.05
3.338	3.339	-0.001	5045053	1000.00	954	20.19- 60.19	40.19
3.565	3.565	0.000	6628313	1000.00	973	32.80- 72.80	52.80
3.641	3.641	0.000	6123429	1000.00	956	28.78- 68.78	48.78
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13388385	1000.00	1060	80.00 120.00	100.00
4.456	4.457	-0.001	16291509	1000.00	1070	101.68- 141.68	121.68
4.722	4.722	0.000	12420564	1000.00	1070	72.77 112.77	92.77
4.896	4.896	0.000	12892265	1000.00	1070	76.29- 116.29	96.29
5.042	5.043	-0.001	28894660	1000.00	1110	195.82- 235.82	215.82
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/020510.b/022b2201.d

Page 1

Date : 05-FEB-2010 10:51

Client ID: AR166002

Instrument: ecd1a.i

Sample Info: IWAR100203-60 02

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

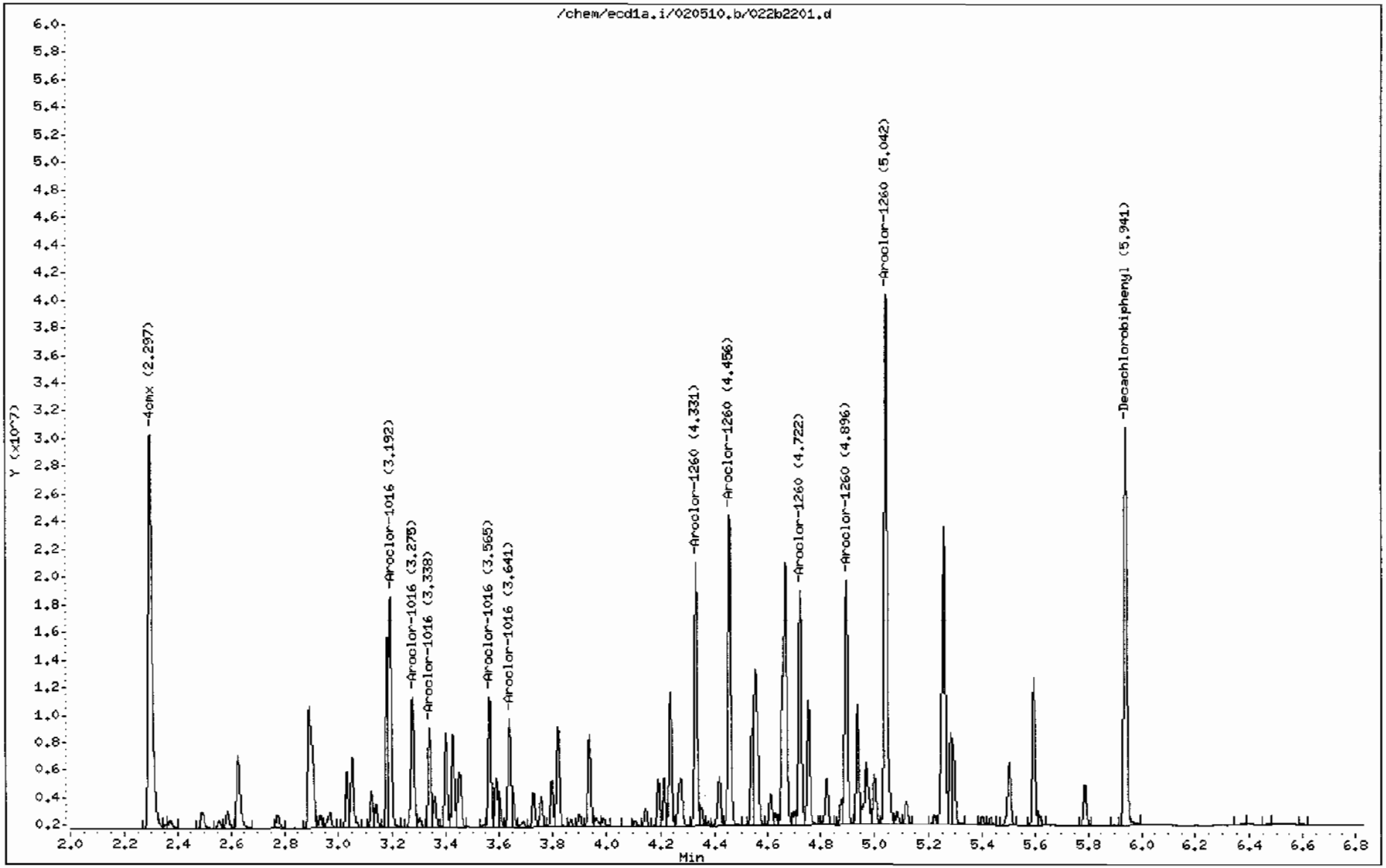

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031f3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.966	1.965	0.001	40459975	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32629917	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674 11 2		
2.420	2.419	0.001	14012607	1000.00	956	80.00- 120.00	100.00
2.708	2.707	0.001	18319018	1000.00	1000	110.73- 150.73	130.73
2.788	2.788	0.000	11547800	1000.00	960	62.41- 102.41	82.41
2.826	2.826	0.000	6929943	1000.00	965	29.46- 69.46	49.46
3.036	3.036	0.000	8939714	1000.00	962	43.80- 83.80	63.80
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	18972126	1000.00	1080	80.00- 120.00	100.00
3.924	3.925	-0.001	28835947	1000.00	1080	131.99- 171.99	151.99
4.154	4.155	-0.001	17204186	1000.00	1080	70.68- 110.68	90.68
4.297	4.297	0.000	18148577	1000.00	1100	75.66- 115.66	95.66
4.476	4.477	-0.001	41262621	1000.00	1110	197.49- 237.49	217.49
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd1a.i/020510.b/031f3101.d
Date : 05-FEB-2010 12:40
Client ID: AR166003
Sample Info: IWAR100203-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

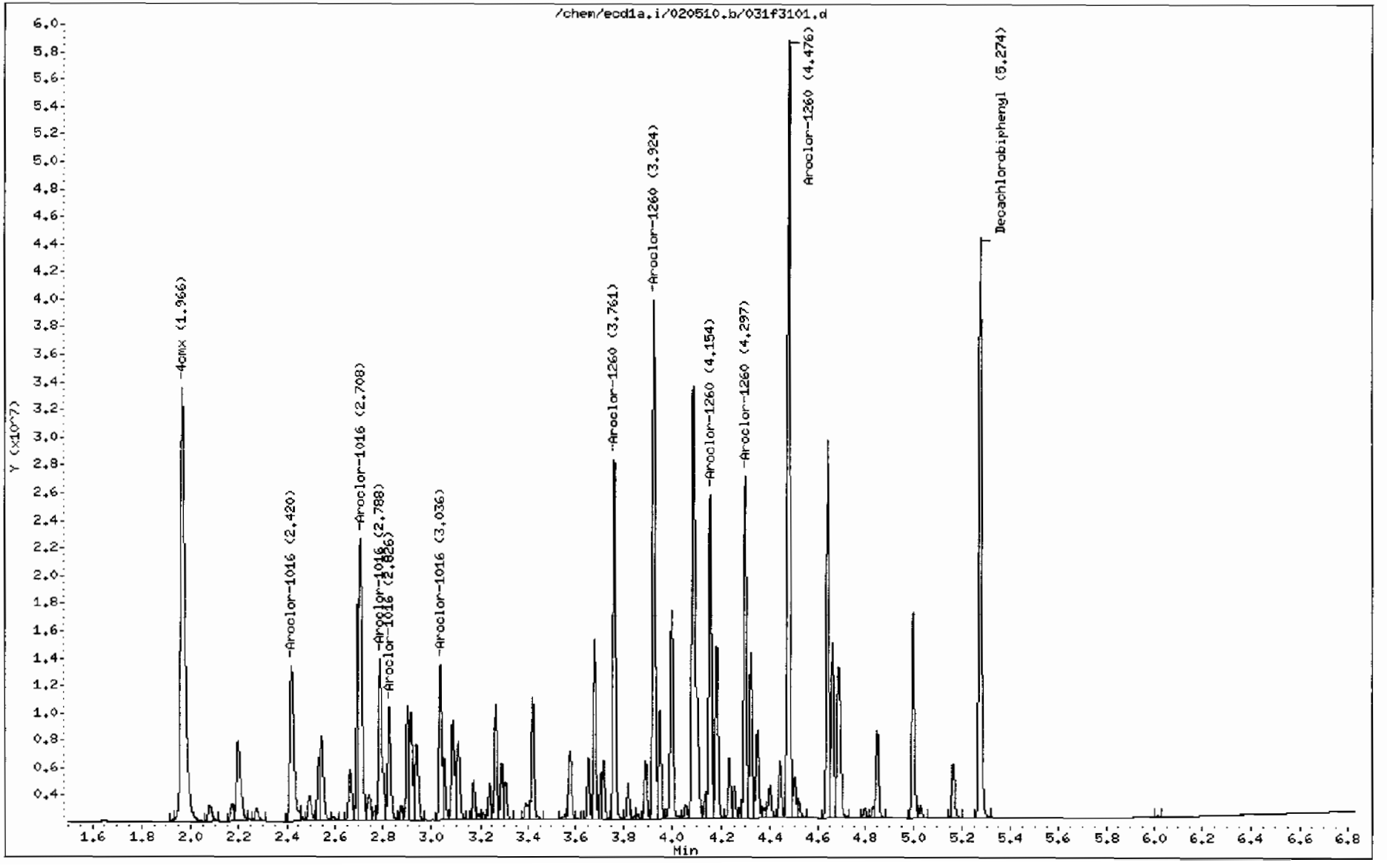

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031b3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	28690788	100.000	99.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	21926681	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12359615	1000.00	990	80.00- 120.00	100.00(M)
3.275	3.275	0.000	8069931	1000.00	944	45.29- 85.29	65.29
3.338	3.339	-0.001	4988684	1000.00	943	20.36- 60.36	40.36
3.565	3.565	0.000	6345906	1000.00	931	31.34- 71.34	51.34
3.641	3.641	0.000	6017327	1000.00	940	38.11- 78.11	58.11
Average of Peak Amounts =					950		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13242341	1000.00	1050	80.00- 120.00	100.00
4.456	4.457	0.001	16223303	1000.00	1060	102.51- 142.51	122.51
4.722	4.722	0.000	12301397	1000.00	1060	72.89- 112.89	92.89
4.895	4.896	-0.001	12694909	1000.00	1050	75.87- 115.87	95.87
5.043	5.043	0.000	28307638	1000.00	1080	193.77- 233.77	213.77
Average of Peak Amounts =					1.06e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/031b3101.d
Date : 05-FEB-2010 12:40
Client ID: AR166003
Sample Info: IWAR100203-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

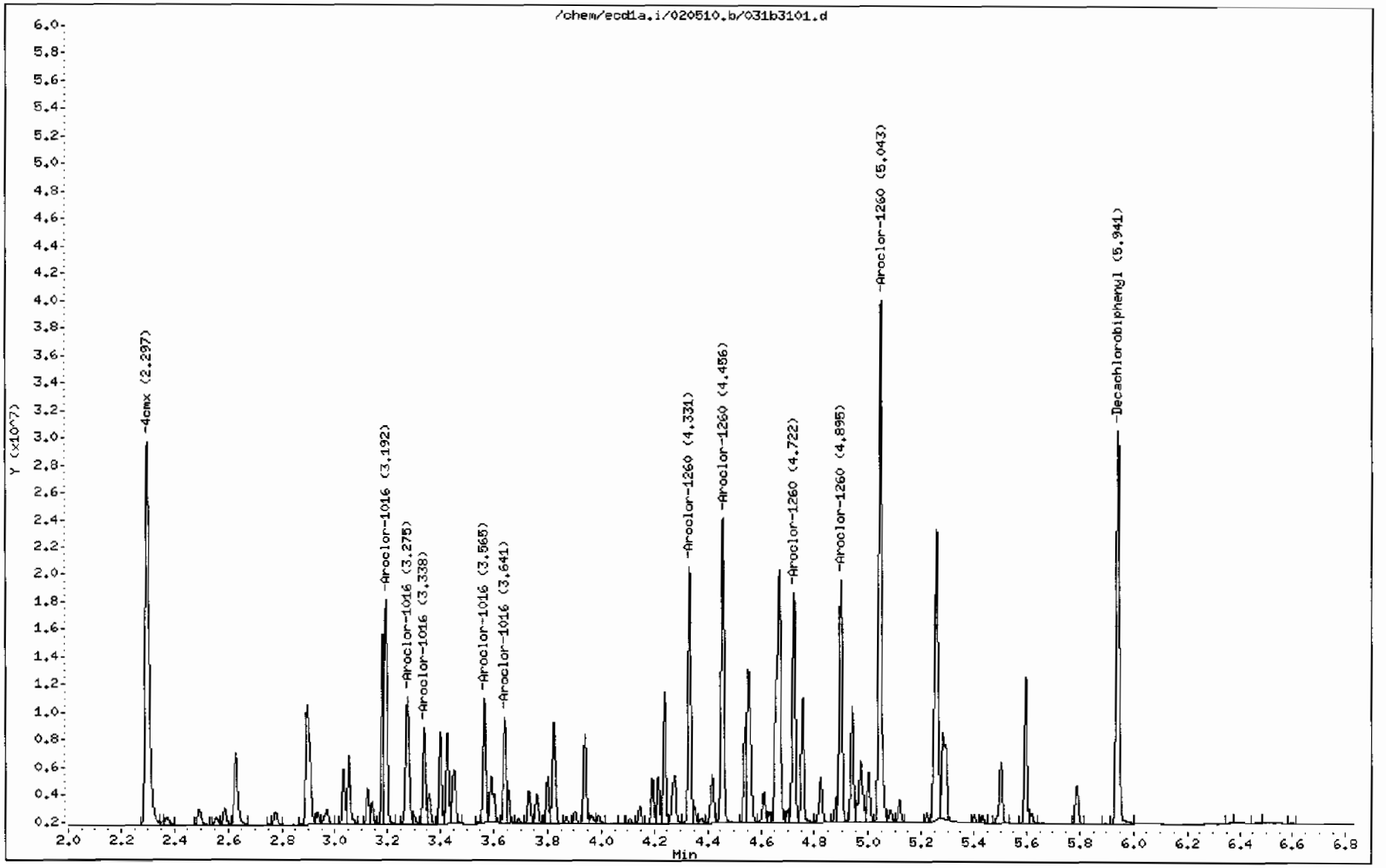

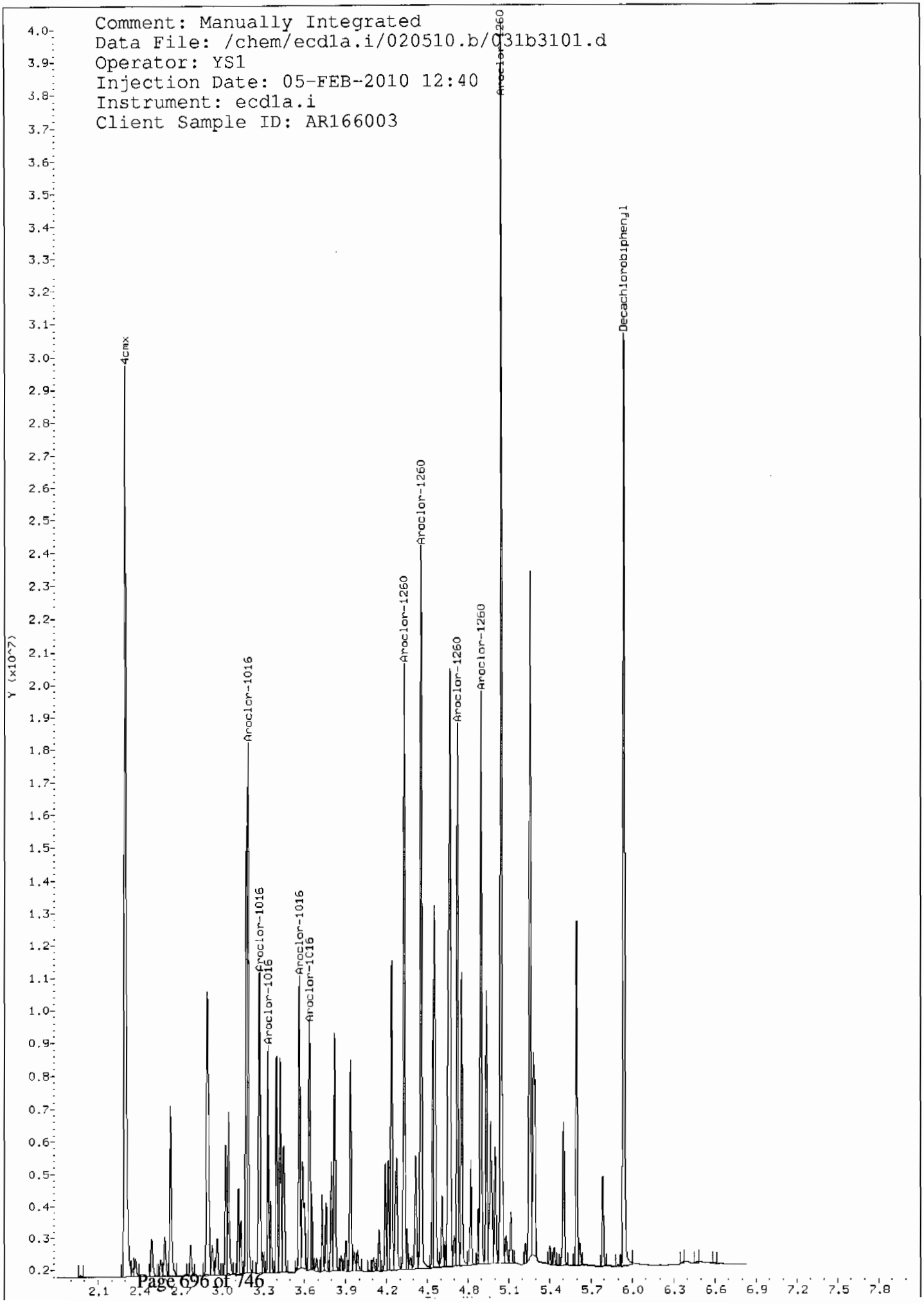
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
Y (x10^7)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl

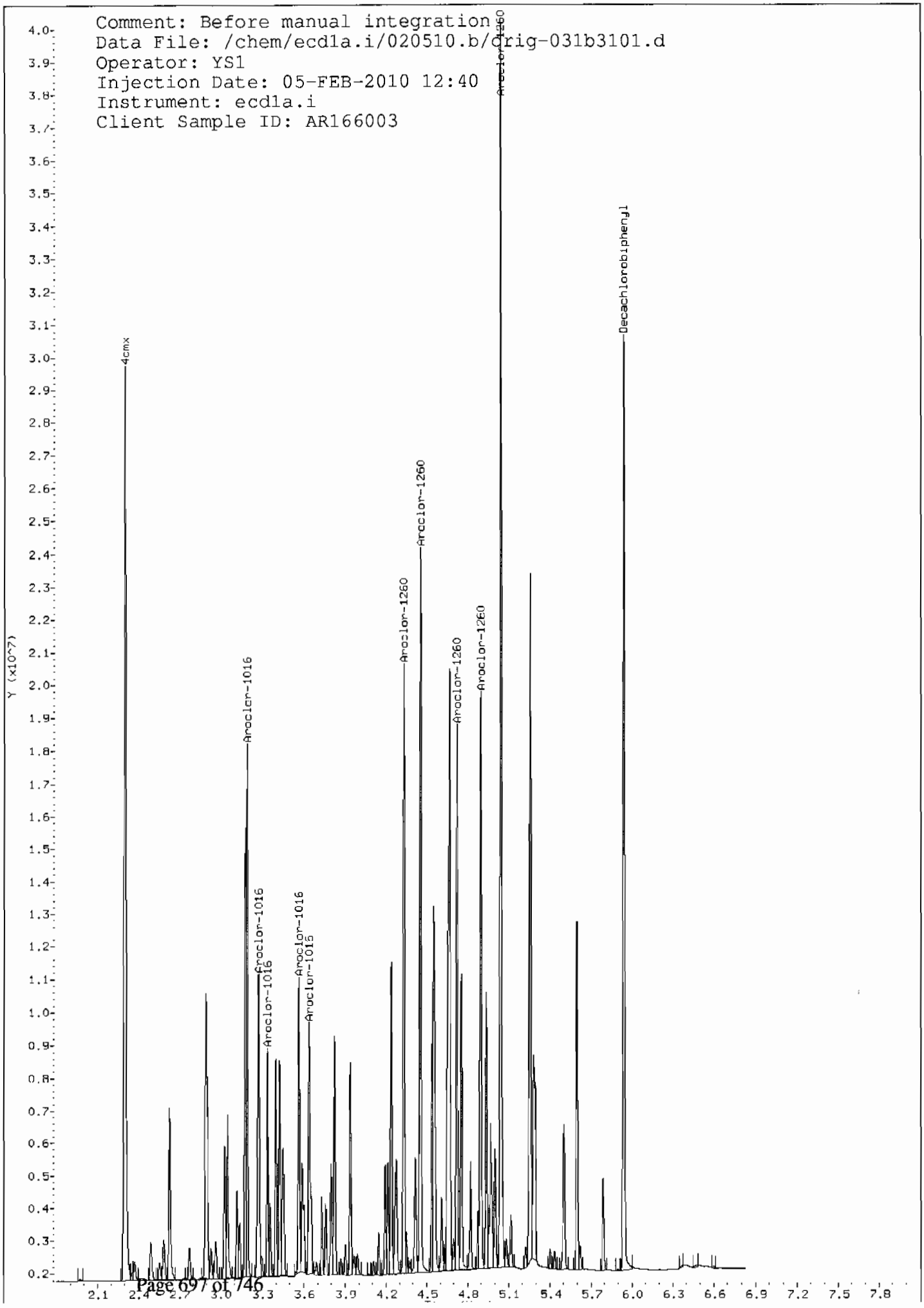
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/crig-031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
Y (x10^7)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134		
09	AR126802	WAR091214-18	12/14/09	1144		
10	AR126803	WAR091214-19	12/14/09	1155		
11	AR126804	WAR091214-20	12/14/09	1206		
12	AR126805	IAR090817-02	12/14/09	1216		
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PIBLK01	WAR100105-99	01/28/10	0916	1.97	5.28
02	ZZZZZ	ZZZZZ	01/28/10	0927		
03	AR125401	WAR091216-54	01/28/10	0937		
04	AR124201	WAR091217-42	01/28/10	0948		
05	AR124801	WAR091217-48	01/28/10	0958		
06	AR123201	WAR100104-32	01/28/10	1009		
07	AR122101	WAR100104-21	01/28/10	1019		
08	AR126201	WAR100104-62	01/28/10	1030		
09	ZZZZZ	ZZZZZ	01/28/10	1040		
10	AR166001	WAR100128-01	01/28/10	1051	1.97	5.28
11	AR166002	WAR100128-02	01/28/10	1101	1.97	5.28
12	AR166003	WAR100128-03	01/28/10	1112	1.97	5.28
13	AR166004	WAR100128-04	01/28/10	1122	1.97	5.28
14	AR166005	IAR100104-01	01/28/10	1134	1.97	5.28
15	AR166001	WAR100104-60	01/28/10	1144	1.97	5.28
16	ZZZZZ	ZZZZZ	01/28/10	1155		
17	DDTANALOGSTD	WAR091219-DD	01/28/10	1205		
18	AR126801	WAR100128-05	01/28/10	1218		
19	AR126802	WAR100128-06	01/28/10	1229		
20	AR126803	WAR100128-07	01/28/10	1239		
21	AR126804	WAR100128-08	01/28/10	1250		
22	AR126805	IAR100104-05	01/28/10	1300		
23	AR126801	WAR100107-68	01/28/10	1311		
24	PIBLK02	WAR100105-99	01/28/10	1321	1.97	5.28
25	ZZZZZ	ZZZZZ	01/28/10	1332	1.97	5.28
26	ZZZZZ	ZZZZZ	01/28/10	1342	1.97	5.28
27	ZZZZZ	ZZZZZ	01/28/10	1353	1.97	5.28
28	ZZZZZ	ZZZZZ	01/28/10	1405	1.97	5.28
29	ZZZZZ	ZZZZZ	01/28/10	1418	1.97	5.28
30	ZZZZZ	ZZZZZ	01/28/10	1430	1.97	5.28
31	ZZZZZ	ZZZZZ	01/28/10	1443	1.97	5.28
32	AR166002	WAR100104-60	01/28/10	1456	1.97	5.28

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PIBLK01	WAR100105-99	01/28/10	0916	2.30	5.94
02	ZZZZZ	ZZZZZ	01/28/10	0927		
03	AR125401	WAR091216-54	01/28/10	0937		
04	AR124201	WAR091217-42	01/28/10	0948		
05	AR124801	WAR091217-48	01/28/10	0958		
06	AR123201	WAR100104-32	01/28/10	1009		
07	AR122101	WAR100104-21	01/28/10	1019		
08	AR126201	WAR100104-62	01/28/10	1030		
09	ZZZZZ	ZZZZZ	01/28/10	1040		
10	AR166001	WAR100128-01	01/28/10	1051	2.30	5.94
11	AR166002	WAR100128-02	01/28/10	1101	2.30	5.94
12	AR166003	WAR100128-03	01/28/10	1112	2.30	5.95
13	AR166004	WAR100128-04	01/28/10	1122	2.30	5.95
14	AR166005	IAR100104-01	01/28/10	1134	2.30	5.95
15	AR166001	WAR100104-60	01/28/10	1144	2.30	5.94
16	ZZZZZ	ZZZZZ	01/28/10	1155		
17	DDTANALOGSTD	WAR091219-DD	01/28/10	1205		
18	AR126801	WAR100128-05	01/28/10	1218		
19	AR126802	WAR100128-06	01/28/10	1229		
20	AR126803	WAR100128-07	01/28/10	1239		
21	AR126804	WAR100128-08	01/28/10	1250		
22	AR126805	IAR100104-05	01/28/10	1300		
23	AR126801	WAR100107-68	01/28/10	1311		
24	PIBLK02	WAR100105-99	01/28/10	1321	2.30	5.94
25	ZZZZZ	ZZZZZ	01/28/10	1332	2.30	5.94
26	ZZZZZ	ZZZZZ	01/28/10	1342	2.30	5.94
27	ZZZZZ	ZZZZZ	01/28/10	1353	2.30	5.94
28	ZZZZZ	ZZZZZ	01/28/10	1405	2.30	5.94
29	ZZZZZ	ZZZZZ	01/28/10	1418	2.30	5.94
30	ZZZZZ	ZZZZZ	01/28/10	1430	2.30	5.94
31	ZZZZZ	ZZZZZ	01/28/10	1443	2.30	5.94
32	AR166002	WAR100104-60	01/28/10	1456	2.30	5.94

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	1.96	5.28
02	ZZZZZ	ZZZZZ	01/29/10	0622	1.97	5.28
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	1.96	5.28
11	AR166002	WAR100129-02	01/29/10	0757	1.97	5.28
12	AR166003	WAR100129-03	01/29/10	0807	1.97	5.28
13	AR166004	WAR100129-04	01/29/10	0818	1.97	5.28
14	AR166005	IAR100104-01	01/29/10	0859	1.97	5.29
15	AR166001	WAR100104-60	01/29/10	0909	1.97	5.28
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	1.97	5.28
18	ZZZZZ	ZZZZZ	01/29/10	0941	1.97	5.28
19	ZZZZZ	ZZZZZ	01/29/10	0951	1.97	5.28
20	ZZZZZ	ZZZZZ	01/29/10	1002	1.97	5.28
21	ZZZZZ	ZZZZZ	01/29/10	1014	1.97	5.28
22	ZZZZZ	ZZZZZ	01/29/10	1027	1.96	5.28
23	ZZZZZ	ZZZZZ	01/29/10	1040	1.97	5.28
24	ZZZZZ	ZZZZZ	01/29/10	1052	1.97	5.28
25	ZZZZZ	ZZZZZ	01/29/10	1105	1.97	5.28
26	ZZZZZ	ZZZZZ	01/29/10	1117	1.96	5.28
27	ZZZZZ	ZZZZZ	01/29/10	1130	1.96	5.28
28	AR166002	WAR100104-60	01/29/10	1142	1.97	5.28
29	PIBLK03	WAR100105-99	01/29/10	1153	1.97	5.28
30	ZZZZZ	ZZZZZ	01/29/10	1203	1.97	5.28
31	ZZZZZ	ZZZZZ	01/29/10	1216	1.97	5.28
32	ZZZZZ	ZZZZZ	01/29/10	1228	1.97	5.28

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	2.30	5.94
02	ZZZZZ	ZZZZZ	01/29/10	0622	2.30	5.94
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	2.30	5.94
11	AR166002	WAR100129-02	01/29/10	0757	2.30	5.94
12	AR166003	WAR100129-03	01/29/10	0807	2.30	5.94
13	AR166004	WAR100129-04	01/29/10	0818	2.30	5.94
14	AR166005	IAR100104-01	01/29/10	0859	2.30	5.95
15	AR166001	WAR100104-60	01/29/10	0909	2.30	5.95
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	2.30	5.94
18	ZZZZZ	ZZZZZ	01/29/10	0941	2.30	5.94
19	ZZZZZ	ZZZZZ	01/29/10	0951	2.30	5.94
20	ZZZZZ	ZZZZZ	01/29/10	1002	2.30	5.94
21	ZZZZZ	ZZZZZ	01/29/10	1014	2.30	5.94
22	ZZZZZ	ZZZZZ	01/29/10	1027	2.30	5.94
23	ZZZZZ	ZZZZZ	01/29/10	1040	2.30	5.94
24	ZZZZZ	ZZZZZ	01/29/10	1052	2.30	5.94
25	ZZZZZ	ZZZZZ	01/29/10	1105	2.30	5.94
26	ZZZZZ	ZZZZZ	01/29/10	1117	2.30	5.94
27	ZZZZZ	ZZZZZ	01/29/10	1130	2.30	5.94
28	AR166002	WAR100104-60	01/29/10	1142	2.30	5.94
29	PIBLK03	WAR100105-99	01/29/10	1153	2.30	5.94
30	ZZZZZ	ZZZZZ	01/29/10	1203	2.30	5.94
31	ZZZZZ	ZZZZZ	01/29/10	1216	2.30	5.94
32	ZZZZZ	ZZZZZ	01/29/10	1228	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/05/10	0656	1.96	5.27
02	AR166001	WAR100203-60	02/05/10	0706	1.96	5.27
03	AR125401	WAR091216-54	02/05/10	0717		
04	AR124201	WAR091217-42	02/05/10	0727		
05	AR124801	WAR091217-48	02/05/10	0738		
06	AR123201	WAR100104-32	02/05/10	0748		
07	AR122101	WAR100104-21	02/05/10	0759		
08	AR166002	WAR100104-62	02/05/10	0809		
09	AR126801	WAR100107-68	02/05/10	0820		
10	DDTANALOGSTD	WAR091219-DD	02/05/10	0831		
11	PIBLK02	WAR100105-99	02/05/10	0841	1.97	5.28
12	PBLK01	1202033246	02/05/10	0852	1.97	5.28
13	PBLK01LCS	1202033247	02/05/10	0902	1.96	5.28
14	ZZZZZ	ZZZZZ	02/05/10	0913	1.96	5.28
15	RE15-10-7888	245795001	02/05/10	0923	1.96	5.28
16	RE15-10-7890	245795002	02/05/10	0936	1.96	5.27
17	RE15-10-7886	245795003	02/05/10	0948	1.96	5.27
18	RE15-10-7889	245795004	02/05/10	1001	1.96	5.27
19	RE15-10-7885	245795005	02/05/10	1013	1.97	5.28
20	RE15-10-7882	245795006	02/05/10	1026	1.96	5.28
21	RE15-10-7887	245795007	02/05/10	1039	1.96	5.27
22	AR166002	WAR100203-60	02/05/10	1051	1.96	5.27
23	PIBLK03	WAR100105-99	02/05/10	1102	1.97	5.28
24	RE15-10-7881	245795008	02/05/10	1112	1.97	5.28
25	ZZZZZ	ZZZZZ	02/05/10	1125	1.96	5.27
26	ZZZZZ	ZZZZZ	02/05/10	1137	1.96	5.27
27	ZZZZZ	ZZZZZ	02/05/10	1150	1.97	5.27
28	ZZZZZ	ZZZZZ	02/05/10	1203	1.96	5.27
29	ZZZZZ	ZZZZZ	02/05/10	1215	1.96	5.27
30	ZZZZZ	ZZZZZ	02/05/10	1228	1.96	5.27
31	AR166003	WAR100203-60	02/05/10	1240	1.97	5.27
32	PIBLK04	WAR100105-99	02/05/10	1251	1.97	5.28

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1470

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/05/10	0656	2.29	5.94
02	AR166001	WAR100203-60	02/05/10	0706	2.30	5.94
03	AR125401	WAR091216-54	02/05/10	0717		
04	AR124201	WAR091217-42	02/05/10	0727		
05	AR124801	WAR091217-48	02/05/10	0738		
06	AR123201	WAR100104-32	02/05/10	0748		
07	AR123201	WAR100104-21	02/05/10	0759		
08	AR126201	WAR100104-62	02/05/10	0809		
09	AR126801	WAR100107-68	02/05/10	0820		
10	DDTANALOGSTD	WAR091219-DD	02/05/10	0831		
11	PIBLK02	WAR100105-99	02/05/10	0841	2.30	5.94
12	PBLK01	1202033246	02/05/10	0852	2.30	5.94
13	PBLK01LCS	1202033247	02/05/10	0902	2.29	5.94
14	ZZZZZ	ZZZZZ	02/05/10	0913	2.30	5.94
15	RE15-10-7888	245795001	02/05/10	0923	2.30	5.94
16	RE15-10-7890	245795002	02/05/10	0936	2.30	5.94
17	RE15-10-7886	245795003	02/05/10	0948	2.30	5.94
18	RE15-10-7889	245795004	02/05/10	1001	2.30	5.94
19	RE15-10-7885	245795005	02/05/10	1013	2.30	5.94
20	RE15-10-7882	245795006	02/05/10	1026	2.30	5.94
21	RE15-10-7887	245795007	02/05/10	1039	2.30	5.94
22	AR166002	WAR100203-60	02/05/10	1051	2.30	5.94
23	PIBLK03	WAR100105-99	02/05/10	1102	2.30	5.94
24	RE15-10-7881	245795008	02/05/10	1112	2.30	5.94
25	ZZZZZ	ZZZZZ	02/05/10	1125	2.30	5.94
26	ZZZZZ	ZZZZZ	02/05/10	1137	2.30	5.94
27	ZZZZZ	ZZZZZ	02/05/10	1150	2.30	5.94
28	ZZZZZ	ZZZZZ	02/05/10	1203	2.30	5.94
29	ZZZZZ	ZZZZZ	02/05/10	1215	2.30	5.94
30	ZZZZZ	ZZZZZ	02/05/10	1228	2.30	5.94
31	AR166003	WAR100203-60	02/05/10	1240	2.30	5.94
32	PIBLK04	WAR100105-99	02/05/10	1251	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1470 **Client ID:** LCS for batch 949031

Lab Sample ID: 1202033247

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 09:02	**Analyzed:**	05–FEB–10 09:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.689
Column 1	1	2.42	2.39 – 2.45	20.2		ug/kg	
	2	2.71	2.68 – 2.74	20.8		ug/kg	
	3	2.79	2.76 – 2.82	20		ug/kg	
	4	2.83	2.8 – 2.86	20.2		ug/kg	
	5	3.04	3.01 – 3.07	20		ug/kg	
					20.2		
Column 2	1	3.19	3.16 – 3.22	20.9		ug/kg	
	2	3.27	3.24 – 3.3	20.3		ug/kg	
	3	3.34	3.31 – 3.37	19.5		ug/kg	
	4	3.57	3.53 – 3.59	19.8		ug/kg	
	5	3.64	3.61 – 3.67	20		ug/kg	
					20.1		
Aroclor–1260							.412
Column 1	1	3.76	3.73 3.79	23.2		ug/kg	
	2	3.93	3.89 – 3.95	23.4		ug/kg	
	3	4.16	4.12 – 4.18	23.7		ug/kg	
	4	4.3	4.27 – 4.33	23.9		ug/kg	
	5	4.48	4.45 – 4.51	24.4		ug/kg	
					23.7		
Column 2	1	4.33	4.3 – 4.36	22.9		ug/kg	
	2	4.46	4.43 4.49	23.5		ug/kg	
	3	4.72	4.69 – 4.75	23.7		ug/kg	
	4	4.9	4.87 – 4.93	23.4		ug/kg	
	5	5.04	5.01 – 5.07	24.6		ug/kg	
					23.6		

Identification Summary

SDG Number: 10–1470 **Client ID:** RE15–10–7885

Lab Sample ID: 245795005

Data File:	019f1901.d	**Data File:**	019b1901.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 10:13	**Analyzed:**	05–FEB–10 10:13

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							14.5
Column 1	1	3.26	3.24 – 3.3	2.84		ug/kg	
	2	3.42	3.39 – 3.45	2.51		ug/kg	
	3	3.65	3.62 – 3.68	3.36		ug/kg	
	4	3.82	3.79 – 3.85	3.05		ug/kg	
	5	3.92	3.9 – 3.96	5.42		ug/kg	
					3.44		
Column 2	1	3.4	3.37 – 3.43	2.47		ug/kg	
	2	3.82	3.79 – 3.85	3.08		ug/kg	
	3	3.94	3.91 – 3.97	3.39		ug/kg	
	4	4.22	4.19 – 4.25	2.22		ug/kg	
	5	4.35	4.32 – 4.38	3.68		ug/kg	
					2.97		

Identification Summary

SDG Number: 10–1470 **Client ID:** RE15–10–7889

Lab Sample ID: 245795004

Data File:	018f1801.d	**Data File:**	018b1801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 10:01	**Analyzed:**	05–FEB–10 10:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							46.2
Column 1	1	3.26	3.24 – 3.3	30		ug/kg	
	2	3.42	3.39 – 3.45	35.1		ug/kg	
	3	3.66	3.62 – 3.68	32.5		ug/kg	
	4	3.82	3.79 – 3.85	37.4		ug/kg	
	5	3.92	3.9 – 3.96	49.2		ug/kg	
					36.8		
Column 2	1	3.4	3.37 – 3.43	17.9		ug/kg	
	2	3.82	3.79 – 3.85	21		ug/kg	
	3	3.94	3.91 – 3.97	34.2		ug/kg	
	4	4.22	4.19 – 4.25	9.66		ug/kg	
	5	4.35	4.32 – 4.38	32.2		ug/kg	
					23		
Aroclor–1260							11.9
Column 1	1	3.76	3.73 – 3.79	24.9		ug/kg	
	2	3.92	3.89 – 3.95	28		ug/kg	
	3	4.15	4.12 – 4.18	20.4		ug/kg	
	4	4.29	4.27 – 4.33	20.1		ug/kg	
	5	4.48	4.45 – 4.51	10.1		ug/kg	
					20.7		
Column 2	1	4.33	4.3 – 4.36	27.1		ug/kg	
	2	4.46	4.43 – 4.49	27.5		ug/kg	
	3	4.72	4.69 – 4.75	26.9		ug/kg	
	4	4.9	4.87 – 4.93	22.8		ug/kg	
	5	5.04	5.01 – 5.07	12.3		ug/kg	
					23.3		

Identification Summary

SDG Number: 10–1470 **Client ID:** RE15–10–7889

Lab Sample ID: 245795004

Data File:	018f1801.d	**Data File:**	018b1801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 10:01	**Analyzed:**	05–FEB–10 10:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1268							10.5
Column 1	1	4.66	4.63 - 4.69	17.1		ug/kg	
	2	4.68	4.66 – 4.72	19.7		ug/kg	
	3	4.8	4.77 – 4.83	13.5		ug/kg	
	4	5	4.97 – 5.03	22.4		ug/kg	
	5	5.16	5.14 – 5.2	19.6		ug/kg	
					18.5		
Column 2	1	5.25	5.23 – 5.29	22.8		ug/kg	
	2	5.28	5.25 – 5.31	21.3		ug/kg	
	3	5.43	5.4 – 5.46	17		ug/kg	
	4	5.6	5.57 – 5.63	18.3		ug/kg	
	5	5.79	5.76 – 5.82	23.1		ug/kg	
					20.5		

Identification Summary

SDG Number: 10–1470 **Client ID:** RE15–10–7890

Lab Sample ID: 245795002

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 09:36	**Analyzed:**	05–FEB–10 09:36

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							43.2
Column 1	1	3.26	3.24 – 3.3	2.03		ug/kg	
	2	3.42	3.39 – 3.45	2.49		ug/kg	
	3	3.65	3.62 – 3.68	2.64		ug/kg	
	4	3.82	3.79 – 3.85	2.88		ug/kg	
	5	3.92	3.9 – 3.96	4.34		ug/kg	
					2.88		
Column 2	1	3.4	3.37 – 3.43	1.6		ug/kg	
	2	3.82	3.79 – 3.85	1.56		ug/kg	
	3	3.94	3.91 – 3.97	2.41		ug/kg	
	4	4.22	4.19 – 4.25	1.43		ug/kg	
	5	4.35	4.32 – 4.38	2.28		ug/kg	
					1.85		
Aroclor–1260							6.71
Column 1	1	3.76	3.73 – 3.79	2.28		ug/kg	
	2	3.92	3.89 – 3.95	2.47		ug/kg	
	3	4.15	4.12 – 4.18	3.34		ug/kg	
	4	4.3	4.27 – 4.33	4.82		ug/kg	
	5	4.48	4.45 – 4.51	1.46		ug/kg	
					2.87		
Column 2	1	4.33	4.3 – 4.36	3.18		ug/kg	
	2	4.46	4.43 – 4.49	2.96		ug/kg	
	3	4.72	4.69 – 4.75	4.01		ug/kg	
	4	4.9	4.87 – 4.93	3.49		ug/kg	
	5	5.04	5.01 – 5.07	1.72		ug/kg	
					3.07		

Identification Summary

SDG Number: 10-1470 **Client ID:** RE15-10-7890

Lab Sample ID: 245795002

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05-FEB-10 09:36	**Analyzed:**	05-FEB-10 09:36

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1268							39.8
Column 1	1	4.66	4.63 - 4.69	2.66		ug/kg	
	2	4.68	4.66 – 4.72	3.42		ug/kg	
	3	4.8	4.77 – 4.83	2.22		ug/kg	
	4	5	4.97 – 5.03	3.95		ug/kg	
	5	5.16	5.14 – 5.2	2.84		ug/kg	
					3.02		
Column 2	1	5.25	5.23 – 5.29	3.68		ug/kg	
	2	5.28	5.25 – 5.31	4.19		ug/kg	
	3	5.43	5.4 – 5.46	3.37		ug/kg	
	4	5.59	5.57 – 5.63	7.87		ug/kg	
	5	5.79	5.76 – 5.82	3.48		ug/kg	
					4.52		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1470**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033246**				
Client Sample:	**QC for batch 949031**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949031**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 08:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1
11100-14-4	Aroclor-1268	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/012f1201-1.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	48584892	121.874	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	36515828	112.942	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/012f1201-1.d

Page 1

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |120203324611|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

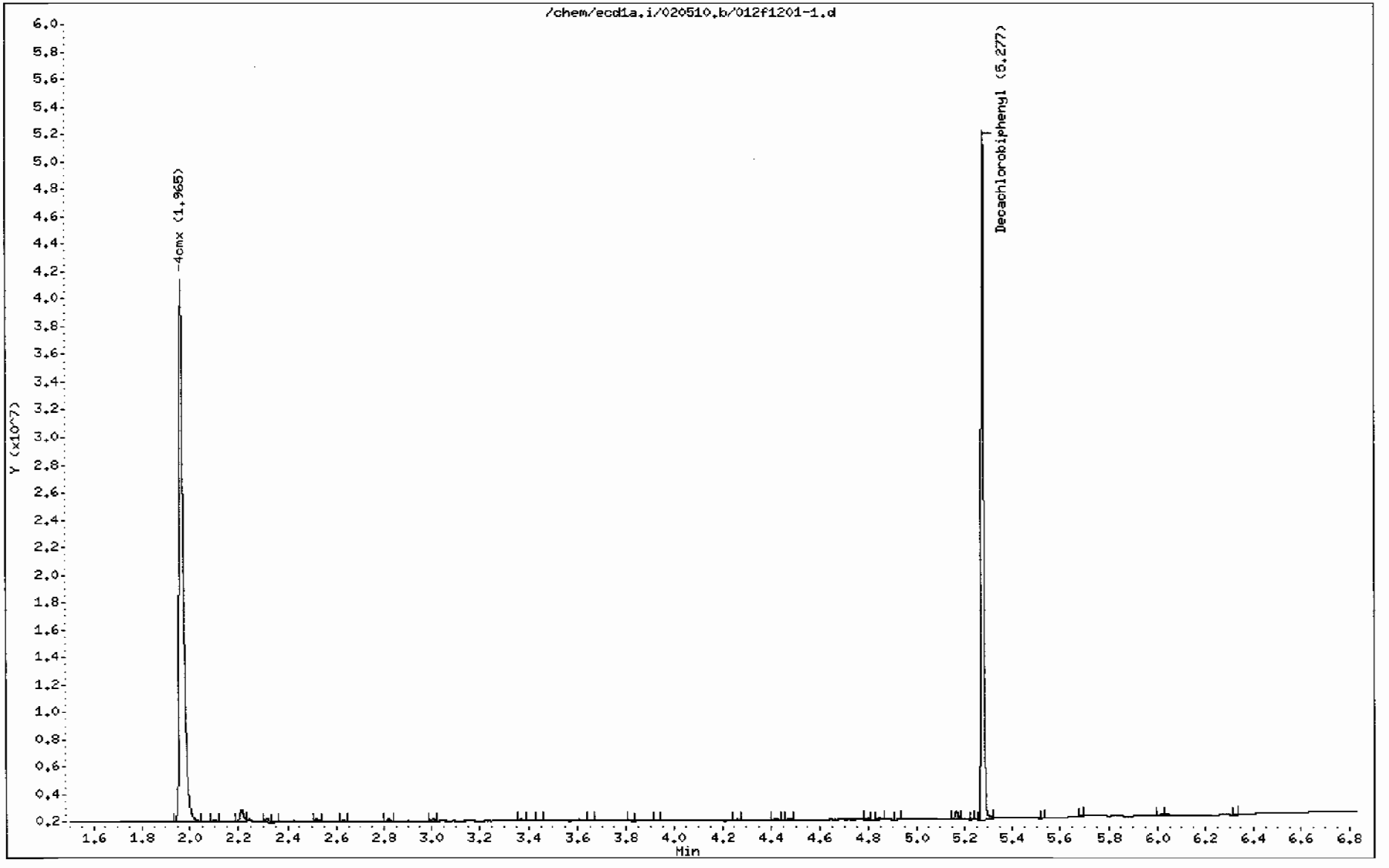

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/012b1201-1.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	34903615	121.512	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	29195934	134.155	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/012b1201-1.d

Page 1

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |12020332461|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

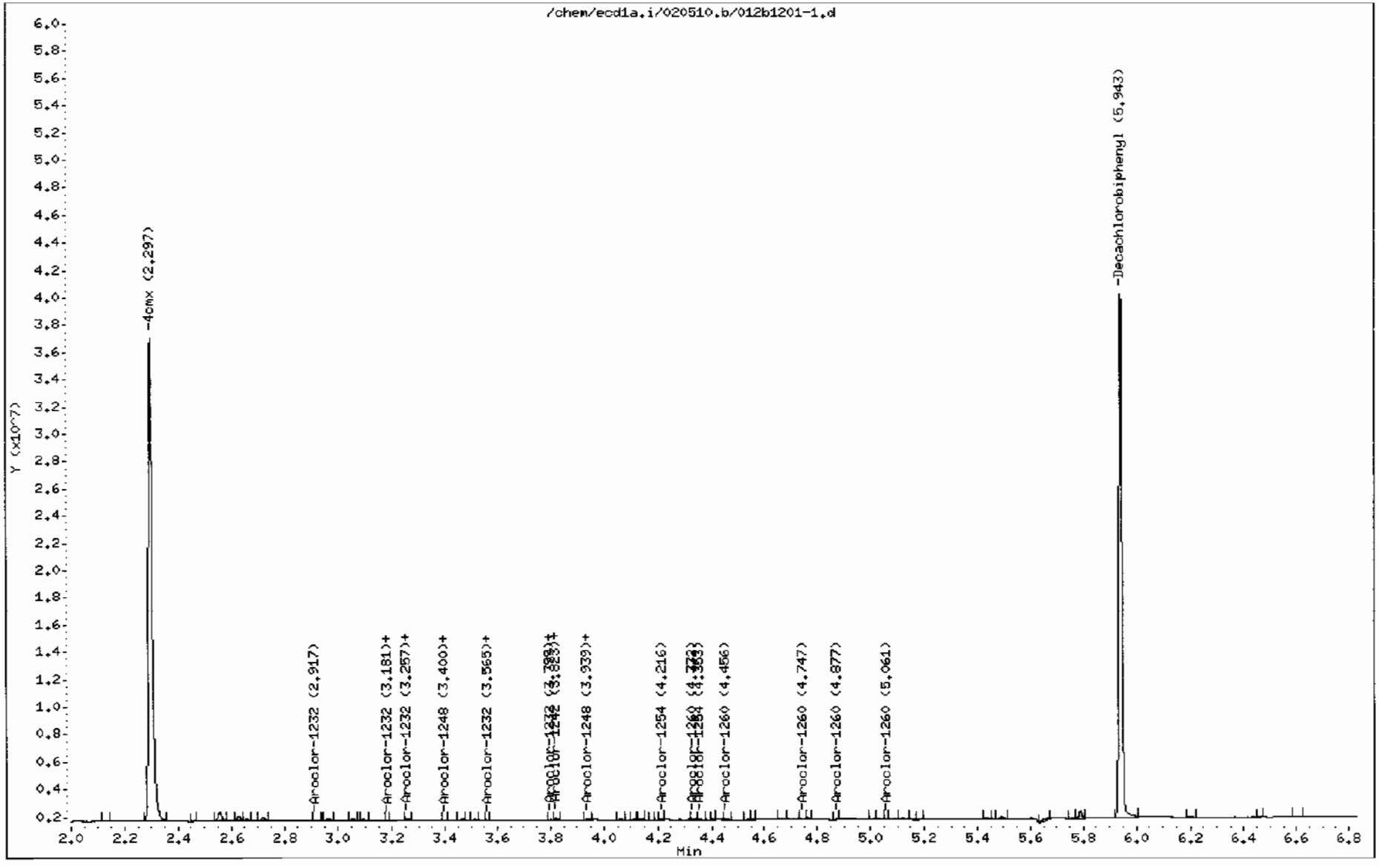

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1470**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033247**				
Client Sample:	**QC for batch 949031**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949031**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 09:02**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		20.2	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		23.7	ug/kg	1.11	3.33	1
11100-14-4	Aroclor-1268	U	3.33	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013f1301-1.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	50013903	125.458	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	39702847	122.799	4.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	8867856	604.950	20.2	80.00- 120.00	100.00
2.708	2.707	0.001	11431437	623.897	20.8	111.50- 151.50	128.91
2.789	2.788	0.001	7213810	599.968	20.0	62.41- 102.41	81.35
2.826	2.826	0.000	4356989	606.812	20.2	29.39 69.39	49.13

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.037	3.036	0.001	5584390	601.132	20.0	44.74- 84.74	62.97
Average of Peak Concentrations =					20.2		
7 Aroclor-1260					CAS #: 11096-82-5		
3.763	3.762	0.001	12251339	694.656	23.2	80.00- 120.00	100.00
3.926	3.925	0.001	18755441	703.451	23.4	132.75- 172.75	153.09
4.156	4.155	0.001	11339517	712.208	23.7	70.75- 110.75	92.56
4.299	4.297	0.002	11864393	716.853	23.9	75.46- 115.46	96.84
4.478	4.477	0.001	27215780	732.880	24.4	198.55- 238.55	222.15
Average of Peak Concentrations =					23.7		

Data File: /chem/ecd1a.i/020510.b/013f1301-1.d

Date : 05-FEB-2010 09:02

Client ID: PBLK01LCS

Sample Info: |1202033247|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

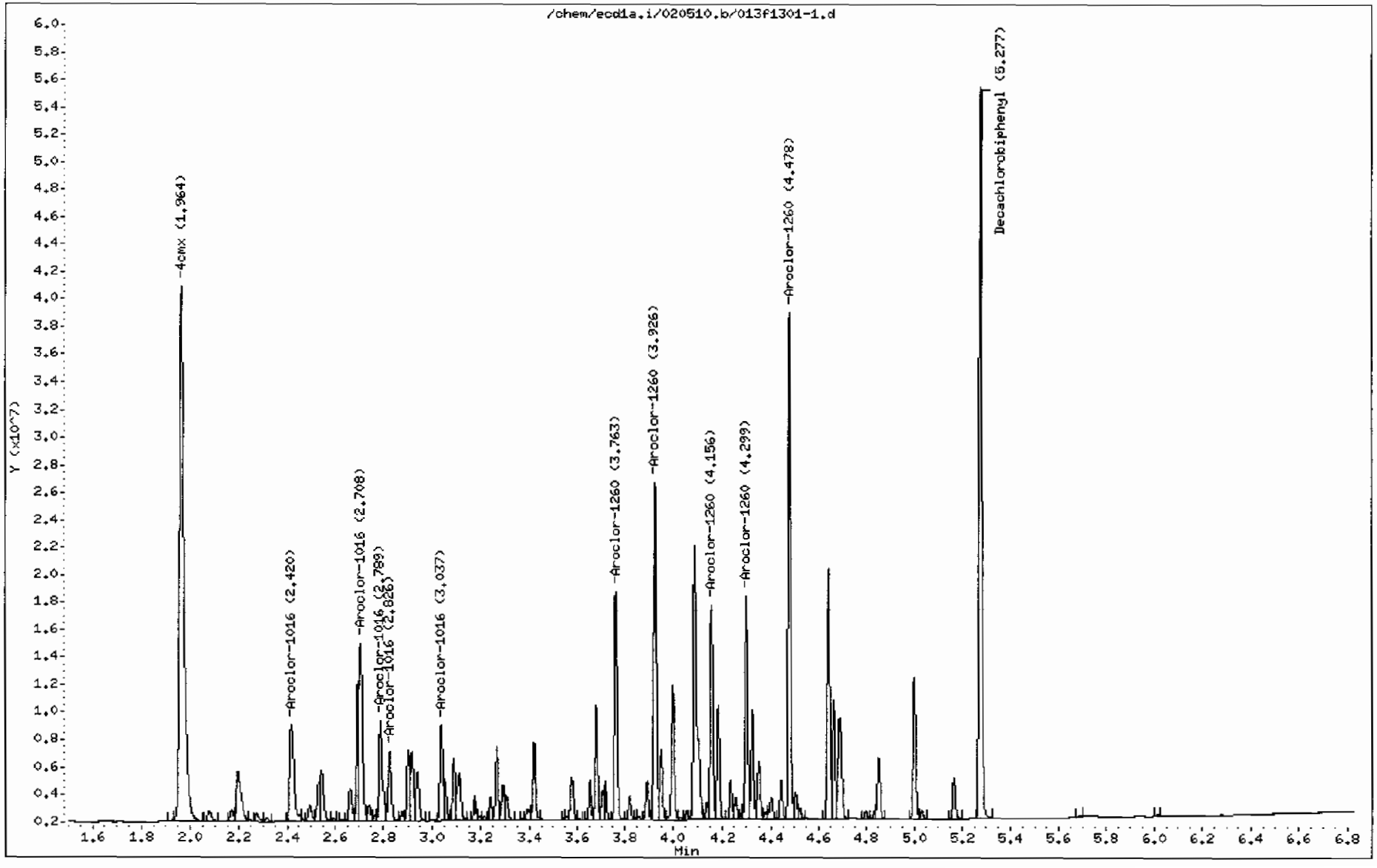

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013b1301-1.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1470.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.296	-0.001	35785063	124.581	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	29148749	133.938	4.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	7837768	627.787	20.9	80.00- 120.00	100.00(M)
3.275	3.275	0.000	5207354	609.274	20.3	46.71 86.71	66.44
3.340	3.339	0.001	3101086	586.135	19.5	21.11- 61.11	39.57
3.566	3.565	0.001	4040701	593.042	19.8	32.44- 72.44	51.55

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.642	3.641	0.001	3840836	599.683	20.0	29.96- 69.96	49.00
Average of Peak Concentrations =					20.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.332	0.000	8683387	686.743	22.9	80.00- 120.00	100.00
4.457	4.457	0.000	10720030	704.334	23.5	101.36- 141.36	123.45
4.723	4.722	0.001	8290264	711.578	23.7	72.42- 112.42	95.47
4.896	4.896	0.000	8478479	703.403	23.4	75.24- 115.24	97.64
5.044	5.043	0.001	19273891	739.359	24.6	194.19- 234.19	221.96
Average of Peak Concentrations =					23.6		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/013b1301-1.d

Page 1

Date : 05-FEB-2010 09:02

Client ID: PBLK01LCS

Instrument: ecd1a.i

Sample Info: |120203324711|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

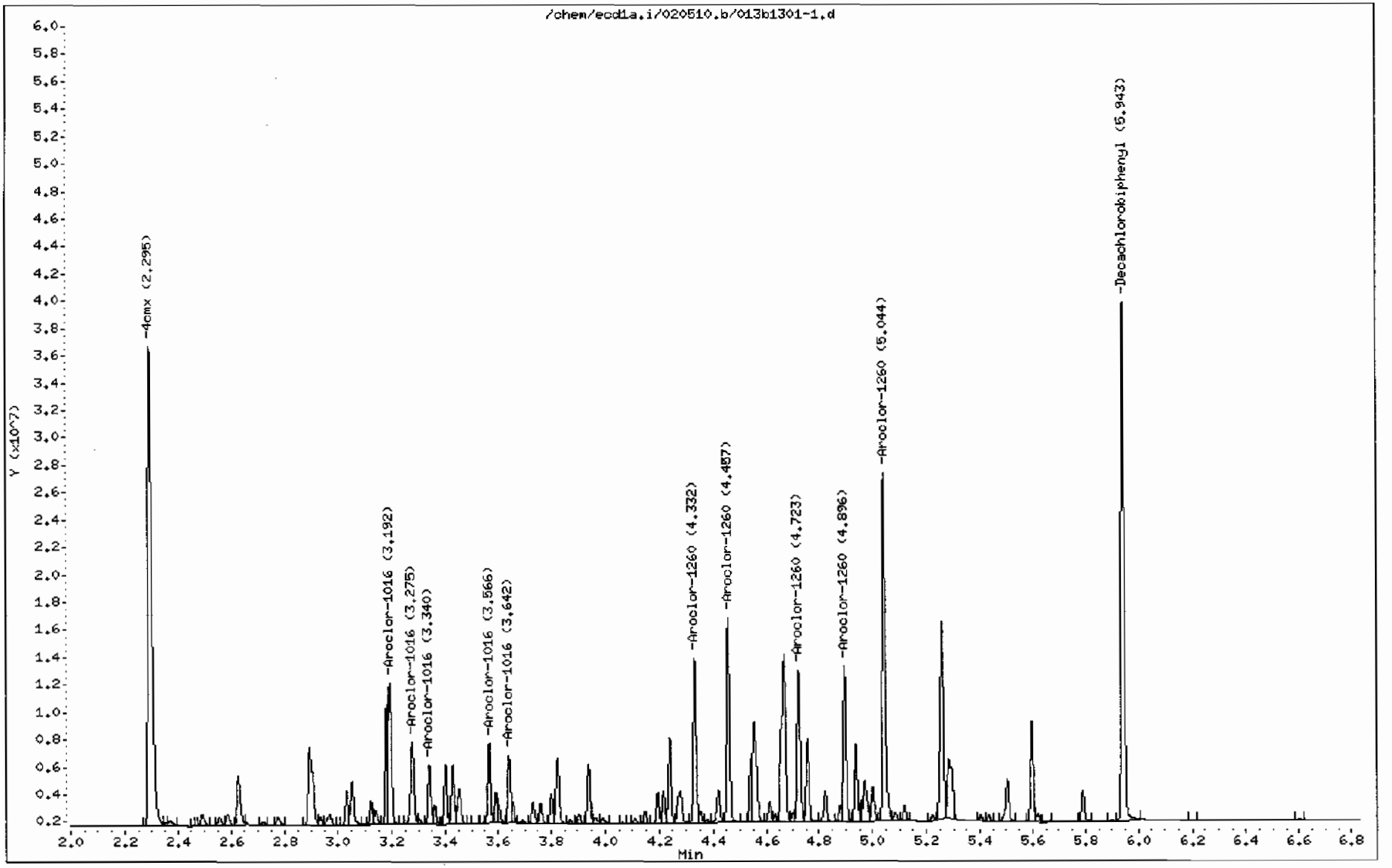

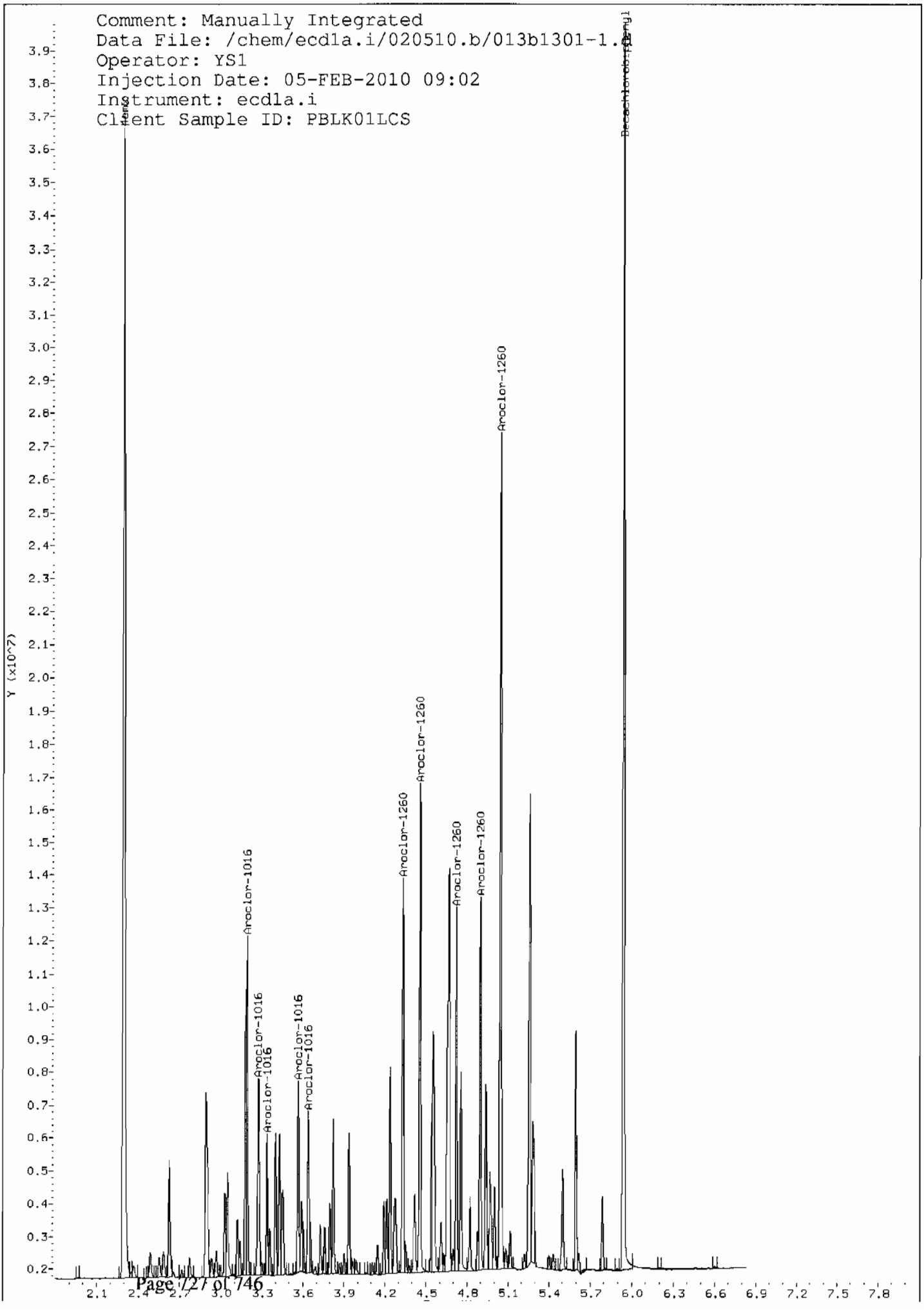
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/013b1301-1.d
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)

Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-013b1301-1.d
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS

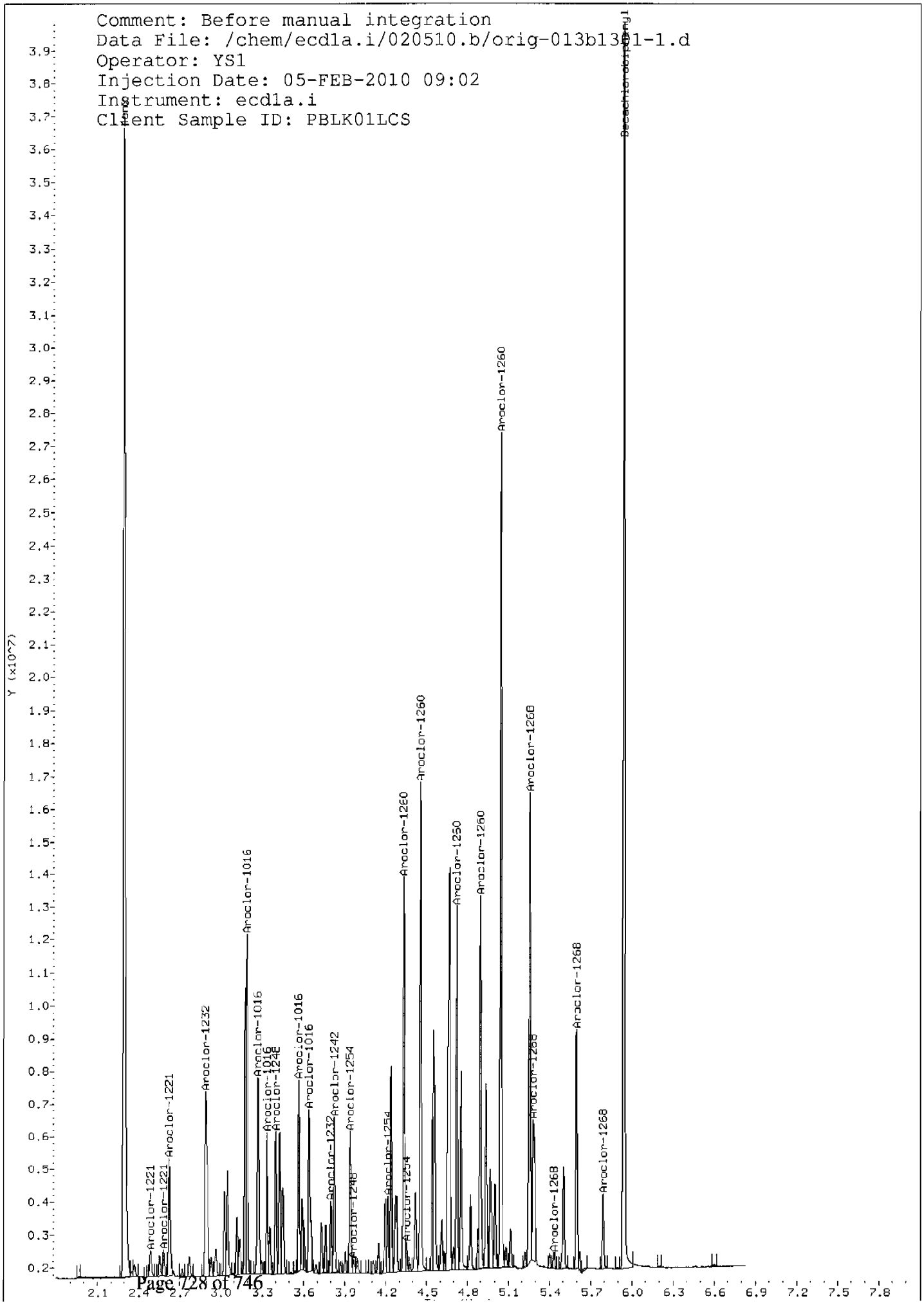

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	WAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409		1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409		1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409		1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409		1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409		1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409		1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409		1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409		1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409		1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409		1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409		1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409		1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409		1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409		1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409		1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409		1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409		1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409		1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409		1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409		1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409		1.0	AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409		1.0	AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409		1.0	AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 C1	YS1	14-DEC-2009 11:23		121409		1.0	PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409		1.0	AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 C3	YS1	14-DEC-2009 17:19		121409		1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 C4	YS1	14-DEC-2009 17:31		121409		1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264		5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 C4	YS1	14-DEC-2009 19:50		121409	1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 C5	YS1	14-DEC-2009 20:03		121409	1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 C5	YS1	14-DEC-2009 20:53		121409	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 C6	YS1	14-DEC-2009 21:06		121409	1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782	1.0	LANL	

090f9001.d	WAR091211-60 C6	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 C7	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012810a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	28-JAN-2010 09:16		012810a	1.0		CLEAN
002f0201.d	WAR100104-60 01	YS1	28-JAN-2010 09:27		012810a	1.0		DUSE RE-I-CAL
003f0301.d	WAR091216-54	YS1	28-JAN-2010 09:37		012810a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	28-JAN-2010 09:48		012810a	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	28-JAN-2010 09:58		012810a	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	28-JAN-2010 10:09		012810a	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	28-JAN-2010 10:19		012810a	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	28-JAN-2010 10:30		012810a	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	28-JAN-2010 10:40		012810a	1.0		DUSE RE-I-CAL
010f1001.d	WAR100128-01 60	YS1	28-JAN-2010 10:51		012810a	1.0		AR1660 I-CAL LEVEL 1
011f1101.d	WAR100128-02 60	YS1	28-JAN-2010 11:01		012810a	1.0		AR1660 I-CAL LEVEL 2
012f1201.d	WAR100128-03 60	YS1	28-JAN-2010 11:12		012810a	1.0		AR1660 I-CAL LEVEL 3
013f1301.d	WAR100128-04 60	YS1	28-JAN-2010 11:22		012810a	1.0		AR1660 I-CAL LEVEL 4
014f1401.d	WAR100104-01-01	YS1	28-JAN-2010 11:34		012810a	1.0		AR1660 I-CAL LEVEL 5
015f1501.d	WAR100104-60 01	YS1	28-JAN-2010 11:44		012810a	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012810a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100122-68	YS1	28-JAN-2010 11:55		012810a	1.0		DUSE RE-ICAL
017f1701.d	WAR091219-DDT	YS1	28-JAN-2010 12:05		012810a	1.0		DDT ANALOG STANDARD
018f1801.d	WAR100128-05 68	YS1	28-JAN-2010 12:18		012810a	1.0		AR1268 I-CAL LEVEL 1
019f1901.d	WAR100128-06 68	YS1	28-JAN-2010 12:29		012810a	1.0		AR1268 I-CAL LEVEL 2
020f2001.d	WAR100128-07 68	YS1	28-JAN-2010 12:39		012810a	1.0		AR1268 I-CAL LEVEL 3
021f2101.d	WAR100128-08 68	YS1	28-JAN-2010 12:50		012810a	1.0		AR1268 I-CAL LEVEL 4
022f2201.d	IAR100104-05	YS1	28-JAN-2010 13:00		012810a	1.0		AR1268 I-CAL LEVEL 5
023f2301.d	WAR100107-68	YS1	28-JAN-2010 13:11		012810a	1.0		PASSED ON BOTH COLUMNS
024f2401.d	WAR100105-99 02	YS1	28-JAN-2010 13:21		012810a	1.0		CLEAN
025f2501.d	1202026135	YS1	28-JAN-2010 13:32	945965	245586	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	1202026136	YS1	28-JAN-2010 13:42	945965	245586	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245586001	YS1	28-JAN-2010 13:53	945965	245586	250.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202026137	YS1	28-JAN-2010 14:05	945965	245586	250.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	1202026138	YS1	28-JAN-2010 14:18	945965	245586	250.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	245586002	YS1	28-JAN-2010 14:30	945965	245586	50.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245586003	YS1	28-JAN-2010 14:43	945965	245586	1.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	WAR100104-60 02	YS1	28-JAN-2010 14:56		012810a	1.0		PASSED ON BOTH COLUMNS
033f3301.d	WAR091216-54 02	YS1	28-JAN-2010 15:06		012810a	1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR091217-42 02	YS1	28-JAN-2010 15:16		012810a	1.0		PASSED ON BOTH COLUMNS
035f3501.d	WAR091217-48 02	YS1	28-JAN-2010 15:27		012810a	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR100104-32 02	YS1	28-JAN-2010 15:38		012810a	1.0		PATTERN ONLY
037f3701.d	WAR100104-21 02	YS1	28-JAN-2010 15:48		012810a	1.0		PATTERN ONLY
038f3801.d	WAR100104-62 02	YS1	28-JAN-2010 15:58		012810a	1.0		PATTERN ONLY
039f3901.d	WAR100122-68 02	YS1	28-JAN-2010 16:09		012810a	1.0		PASSED ON BOTH COLUMNS

040f4001.d	WAR100105-99 03	YS1	28-JAN-2010 16:19		012810a	1.0		CLEAN	
041f4101.d	245096008	YS1	28-JAN-2010 16:30	944883	10-1299	20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
042f4201.d	245096009	YS1	28-JAN-2010 16:43	944883	10-1299	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
043f4301.d	245096010	YS1	28-JAN-2010 16:55	944883	10-1299	20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
044f4401.d	245096011	YS1	28-JAN-2010 17:08	944883	10-1299	20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
045f4501.d	245099015	YS1	28-JAN-2010 17:20	944883	10-1301	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
046f4601.d	245114003	YS1	28-JAN-2010 17:33	944883	10-1324	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
047f4701.d	1202023863	YS1	28-JAN-2010 17:45	944883	10-1324	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
048f4801.d	1202023864	YS1	28-JAN-2010 17:58	944883	10-1324	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
049f4901.d	245114004	YS1	28-JAN-2010 18:11	944883	10-1324	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
050f5001.d	245114005	YS1	28-JAN-2010 18:23	944883	10-1324	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
051f5101.d	WAR100104-60 03	YS1	28-JAN-2010 18:38		012810a	1.0		PASSED ON BOTH COLUMNS	
052f5201.d	WAR100105-99 04	YS1	28-JAN-2010 18:50		012810a	1.0		CLEAN	
053f5301.d	245114006	YS1	28-JAN-2010 19:03	944883	10-1324	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
054f5401.d	WAR100104-60 04	YS1	28-JAN-2010 19:17		012810a	1.0		PASSED ON BOTH COLUMNS	
055f5501.d	WAR100105-99 05	YS1	28-JAN-2010 19:30		012810a	1.0		CLEAN	

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202026131	YS1	28-JAN-2010 19:42	945963	10-1372	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	1202026132	YS1	28-JAN-2010 19:55	945963	10-1372	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	245376001	YS1	28-JAN-2010 20:08	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	245376002	YS1	28-JAN-2010 20:20	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	245376003	YS1	28-JAN-2010 20:33	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	245376004	YS1	28-JAN-2010 20:45	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	245376005	YS1	28-JAN-2010 20:58	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	245376006	YS1	28-JAN-2010 21:10	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	245376007	YS1	28-JAN-2010 21:23	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	245381002	YS1	28-JAN-2010 21:36	945963	10-1380	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100104-60 05	YS1	28-JAN-2010 21:48		012810a	1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100105-99 06	YS1	28-JAN-2010 22:01		012810a	1.0		CLEAN
068f6801.d	245384001	YS1	28-JAN-2010 22:13	945963	10-1382	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202026133	YS1	28-JAN-2010 22:26	945963	10-1382	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	1202026134	YS1	28-JAN-2010 22:39	945963	10-1382	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	245384002	YS1	28-JAN-2010 22:51	945963	10-1382	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	245384003	YS1	28-JAN-2010 23:04	945963	10-1382	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	245384004	YS1	28-JAN-2010 23:16	945963	10-1382	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	245384005	YS1	28-JAN-2010 23:29	945963	10-1382	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	245384006	YS1	28-JAN-2010 23:41	945963	10-1382	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	245384007	YS1	28-JAN-2010 23:54	945963	10-1382	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	245384008	YS1	29-JAN-2010 00:07	945963	10-1382	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100104-60 06	YS1	29-JAN-2010 00:19		012810a	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100105-99 07	YS1	29-JAN-2010 00:32		012810a	1.0		CLEAN
080f8001.d	245384012	YS1	29-JAN-2010 00:45	945963	10-1382	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	WAR100104-60 07	YS1	29-JAN-2010 00:57		012810a	1.0		PASSED ON BOTH COLUMNS
082f8201.d	WAR100105-99 08	YS1	29-JAN-2010 01:10		012810a	1.0		CLEAN
083f8301.d	1202026309	YS1	29-JAN-2010 01:22	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	1202026310	YS1	29-JAN-2010 01:35	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	1202026313	YS1	29-JAN-2010 01:48	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	245309001	YS1	29-JAN-2010 02:00	946042	EUI-7483	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	1202026311	YS1	29-JAN-2010 02:13	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	1202026312	YS1	29-JAN-2010 02:25	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

089f8901.d	WAR100104-60 08	YS1	29-JAN-2010 02:38		012810a	1.0	PASSED ON BOTH COLUMNS
090f9001.d	WAR100105-99 09	YS1	29-JAN-2010 02:51		012810a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	29-JAN-2010 06:12		012910	1.0		CLEAN
002f0201.d	WAR100104-60 01	YS1	29-JAN-2010 06:22		012910	1.0		DUSE RE I-CAL
003f0301.d	WAR091216-54	YS1	29-JAN-2010 06:33		012910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	29-JAN-2010 06:43		012910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	29-JAN-2010 06:54		012910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	29-JAN-2010 07:04		012910	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	29-JAN-2010 07:15		012910	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	29-JAN-2010 07:25		012910	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	29-JAN-2010 07:36		012910	1.0		PATTERN ONLY
010f1001.d	WAR100129-01 60	YS1	29-JAN-2010 07:46		012910	1.0		AR1660 I-CAL LEVEL 1
011f1101.d	WAR100129-02 60	YS1	29-JAN-2010 07:57		012910	1.0		AR1660 I-CAL LEVEL 2
012f1201.d	WAR100129-03 60	YS1	29-JAN-2010 08:07		012910	1.0		AR1660 I-CAL LEVEL 3
013f1301.d	WAR100129-04 60	YS1	29-JAN-2010 08:18		012910	1.0		AR1660 I-CAL LEVEL 4
014f1401.d	IAR100104-01	YS1	29-JAN-2010 08:59		012910	1.0		AR1660 I-CAL LEVEL 5
015f1501.d	WAR100104-60 01	YS1	29-JAN-2010 09:09		012910	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091219-DDT	YS1	29-JAN-2010 09:20		012910		1.0		DDT ANALOG STANDARD
017f1701.d	WAR100105-99 02	YS1	29-JAN-2010 09:30		012910		1.0		CLEAN
018f1801.d	1202027001	YS1	29-JAN-2010 09:41	946348	10-1416		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	1202027002	YS1	29-JAN-2010 09:51	946348	10-1416		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245609001	YS1	29-JAN-2010 10:02	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245609002	YS1	29-JAN-2010 10:14	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	245609003	YS1	29-JAN-2010 10:27	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202027003	YS1	29-JAN-2010 10:40	946348	10-1416		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	1202027004	YS1	29-JAN-2010 10:52	946348	10-1416		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245609004	YS1	29-JAN-2010 11:05	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	245609005	YS1	29-JAN-2010 11:17	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245609006	YS1	29-JAN-2010 11:30	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	WAR100104-60 02	YS1	29-JAN-2010 11:42		012910		1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100105-99 03	YS1	29-JAN-2010 11:53		012910		1.0		CLEAN
030f3001.d	245609007	YS1	29-JAN-2010 12:03	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245609008	YS1	29-JAN-2010 12:16	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	245609009	YS1	29-JAN-2010 12:28	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	245609010	YS1	29-JAN-2010 12:41	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	245609011	YS1	29-JAN-2010 12:54	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	245609012	YS1	29-JAN-2010 13:06	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/012910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	245609013	YS1	29-JAN-2010 13:19	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	245609014	YS1	29-JAN-2010 13:31	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	245609015	YS1	29-JAN-2010 13:44	946348	10-1416	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	245609016	YS1	29-JAN-2010 13:56	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100104-60 03	YS1	29-JAN-2010 14:09		012910	1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/08/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/020510.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	05-FEB-2010 06:56		020510	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	05-FEB-2010 07:06		020510	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091216-54	YS1	05-FEB-2010 07:17		020510	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	05-FEB-2010 07:27		020510	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	05-FEB-2010 07:38		020510	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	05-FEB-2010 07:48		020510	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	05-FEB-2010 07:59		020510	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	05-FEB-2010 08:09		020510	1.0		PASSED ON BOTH COLUMNS
009f0901.d	WAR100107-68	YS1	05-FEB-2010 08:20		020510	1.0		PASSED ON BOTH COLUMNS
010f1001.d	WAR091219-DDT	YS1	05-FEB-2010 08:31		020510	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100105-99 02	YS1	05-FEB-2010 08:41		020510	1.0		CLEAN
012f1201.d	1202033246	YS1	05-FEB-2010 08:52	949033	10-1462	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202033247	YS1	05-FEB-2010 09:02	949033	10-1462	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	245786001	YS1	05-FEB-2010 09:13	949033	10-1462	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	245795001	YS1	05-FEB-2010 09:23	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/020510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	245795002	YS1	05-FEB-2010 09:36	949033	10-1470		1.0	LANL	AR1268 RE TO CONFIRM
017f1701.d	245795003	YS1	05-FEB-2010 09:48	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	245795004	YS1	05-FEB-2010 10:01	949033	10-1470		1.0	LANL	AR1268 RE TO CONFIRM
019f1901.d	245795005	YS1	05-FEB-2010 10:13	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245795006	YS1	05-FEB-2010 10:26	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245795007	YS1	05-FEB-2010 10:39	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	WAR100203-60 02	YS1	05-FEB-2010 10:51		020510		1.0		PASSED ON BOTH COLUMNS
023f2301.d	WAR100105-99 03	YS1	05-FEB-2010 11:02		020510		1.0		CLEAN
024f2401.d	245795008	YS1	05-FEB-2010 11:12	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245803006	YS1	05-FEB-2010 11:25	949033	10-1473		1.0	LANL	AR1268 RE TO CONFIRM
026f2601.d	245803007	YS1	05-FEB-2010 11:37	949033	10-1473		1.0	LANL	AR1268 RE TO CONFIRM
027f2701.d	245803008	YS1	05-FEB-2010 11:50	949033	10-1473		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	245959001	YS1	05-FEB-2010 12:03	949033	10-1510		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	245959002	YS1	05-FEB-2010 12:15	949033	10-1510		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	245959012	YS1	05-FEB-2010 12:28	949033	10-1510		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	WAR100203-60 03	YS1	05-FEB-2010 12:40		020510		1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100105-99 04	YS1	05-FEB-2010 12:51		020510		1.0		CLEAN
033f3301.d	245969001	YS1	05-FEB-2010 13:01	949033	10-1512		1.0	LANL	RE RESULT DID NOT MATCH WITH MS/MSD
034f3401.d	1202033248	YS1	05-FEB-2010 13:14	949033	10-1512		1.0	QC A	DUSE
035f3501.d	1202033249	YS1	05-FEB-2010 13:27	949033	10-1512		1.0	QC A	DUSE
036f3601.d	245969002	YS1	05-FEB-2010 13:39	949033	10-1512		1.0	LANL	AR1268 RE TO CONFIRM

Instrument Batch: /chem/ecd1a.i/020510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
037f3701.d	245969003	YS1	05-FEB-2010 13:52	949033	10-1512	1.0	LANL	UPLOAD BOTH COLUMNS ,USE HIGHER
038f3801.d	WAR100203-60 04	YS1	05-FEB-2010 14:05		020510	1.0		PASSED ON BOTH COLUMNS
039f3901.d	WAR100105-99 05	YS1	05-FEB-2010 14:15		020510	1.0		CLEAN
040f4001.d	1202026314	YS1	05-FEB-2010 14:26	946047	020510	1.0	QC A	REPORT FROM ECD 8

041f4101.d	1202026315	YS1	05-FEB-2010 14:36	946047			1.0	QC A	REPORT FROM ECD 8
042f4201.d	243861001	YS1	05-FEB-2010 14:47	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
043f4301.d	243861002	YS1	05-FEB-2010 14:57	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
044f4401.d	243861003	YS1	05-FEB-2010 15:08	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
045f4501.d	243861004	YS1	05-FEB-2010 15:18	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
046f4601.d	WAR100203-60 05	YS1	05-FEB-2010 15:29		020510		1.0		PASSED ON BOTH COLUMNS
047f4701.d	WAR100105-99 06	YS1	05-FEB-2010 15:39		020510		1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 949031 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202033246 MB	04–FEB–2010 20:32:00	30	H2SO4/KMn2		2	9	1	0.03333
1202033247 LCS	04–FEB–2010 20:32:00	30	H2SO4/KMn2		2	9	1	0.03333
245786001	04–FEB–2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795001	04–FEB–2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795002	04–FEB–2010 20:32:00	30.19	H2SO4/KMn2		2	9	1	0.03312
245795003	04–FEB–2010 20:32:00	30.18	H2SO4/KMn2		2	9	1	0.03313
245795004	04–FEB–2010 20:32:00	30.01	H2SO4/KMn2		2	9	1	0.03332
245795005	04–FEB–2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795006	04–FEB–2010 20:32:00	30.03	H2SO4/KMn2		2	9	1	0.0333
245795007	04–FEB–2010 20:32:00	30.01	H2SO4/KMn2		2	9	1	0.03332
245795008	04–FEB–2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245803006	04–FEB–2010 20:32:00	30.11	H2SO4/KMn2		2	9	1	0.03321
245803007	04–FEB–2010 20:32:00	30.04	H2SO4/KMn2		2	9	1	0.03329
245803008	04–FEB–2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245959001	04–FEB–2010 20:32:00	30.19	H2SO4/KMn2		2	9	1	0.03312
245959002	04–FEB–2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245959012	04–FEB–2010 20:32:00	30.03	H2SO4/KMn2		2	9	1	0.0333
245969001	04–FEB–2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
1202033248 MS (245969001)	04–FEB–2010 20:32:00	30.26	H2SO4/KMn2		2	9	1	0.03305
1202033249 MSD (245969001)	04–FEB–2010 20:32:00	30.04	H2SO4/KMn2		2	9	1	0.03329
245969002	04–FEB–2010 20:32:00	30.21	H2SO4/KMn2		2	9	1	0.0331
245969003	04–FEB–2010 20:32:00	30.11	H2SO4/KMn2		2	9	1	0.03321

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202033247	PCB Laboratory Control	WE100126–07	1	mL
MS	1202033248	PCB Laboratory Control	WE100126–07	1	mL
MSD	1202033249	PCB Laboratory Control	WE100126–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100108–15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/4/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1434
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/27/2010
TURNAROUND/REPORT DUE: 2/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	EPA:906.0	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	HASL-300:AM-241	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	HASL-300:ISOPU	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	HASL-300:ISOU	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

Final Page of REQUEST NUMBER 10-1434

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1434

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1434

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7883	1	POLY	H3	Ice	R
RE15-10-7884	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7884	1	POLY	H3	Ice	R
RE15-10-7932	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7932	1	POLY	H3	Ice	R
RE15-10-7931	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7931	1	POLY	H3	Ice	R
RE15-10-7938	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7938	1	POLY	H3	Ice	R
RE15-10-7933	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7933	1	POLY	H3	Ice	R
RE15-10-7939	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7939	1	POLY	H3	Ice	R
RE15-10-7936	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7936	1	POLY	H3	Ice	R
RE15-10-7935	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7935	1	POLY	H3	Ice	R
RE15-10-7934	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7934	1	POLY	H3	Ice	R
RE15-10-7940	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7940	1	POLY	H3	Ice	R
RE15-10-7937	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7937	1	POLY	H3	Ice	R
RE15-10-8056	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8056	1	POLY	H3	Ice	R
RE15-10-8057	1	POLY	AM241+GS+ISOPU+ISO	None	R

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1434

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8057	1	POLY	H3	Ice	R

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
		1/27/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7883 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610711	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1GAL~~ POLY 1L RS 01.11.10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist sandy brown clay

FD: RE15-10-8057

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-66 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HF negative

Alpha ≤ 52 dpm
Beta/Gamma ≤ 2120 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R Marin	1/25/10 16:55	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1655
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7884 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	TUFF 1	
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	15-610711		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3.8	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-66, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 91 dpm
Beta/Gamma ≤ 2410 dpm

PID Ambient 0.4 / Reading 4.7 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jerry Marin	1/25/10 16:55	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1655
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7931 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1342	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610735	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown clayey silt, roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-82, mesa top S of fire rd

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 39 dpm
Beta/Gamma ≤ 2370 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TL McFarling

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10 1655	(Printed Name) Sherri Sherwood	1/25/10 1655
(Signature) Jack Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7932 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1406	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610735	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01.11.10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff, few small rocks

SAMPLE COMMENTS: Hit tuff at 3.5'

LOCATION DESC: 8b - 82 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 39 dpm
Beta/Gamma ≤ 2490 dpm

PID Ambient 0.2 / Reading 1.3 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gouvas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jerry Marin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7933 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		1339	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610736	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty clay, some roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-81, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 39 dpm
Beta/Gamma ≤ 2440 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jan R. Marin	1/25/10 16:56	(Printed Name) (Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7934 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1428	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610736	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	RM 1/25/10 ~~3.10~~ 3.9	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-10-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brownish grey tuff

SAMPLE COMMENTS: Hit tuff at 1.0 ft

LOCATION DESC: 8b-81 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 85 **dpm**
Beta/Gamma = 2880 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) A. Goomas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) [signature]	1656	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7935 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1347	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610737	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty clay, small rocks, moist

FR: RE15-10-8079

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-78, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha = 104 dpm
Beta/Gamma = 4540 dpm

PID Ambient/Reading 0.0/0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) A. Gomez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jan R. Marin	1656	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7936 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610737	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FD RE15-10-8056

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-78, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 72 **dpm**
Beta/Gamma = 2710 **dpm**

PID Ambient 0.0 / Reading 0.0 = **ppm** 0.0 / 0.0

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gouvas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) Jon R. Marin	16:56	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7937 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610738	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-80 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 85 dpm
Beta/Gamma ≤ 2330 dpm

PID Ambient Reading 0.1 / 0.2 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jack R Marin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7938 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1525	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610738	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FR RE15-10-8080

SAMPLE COMMENTS: Hit tuff at 2.9'

LOCATION DESC: 8b-80 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm
Beta/Gamma = 2060 dpm

PID Ambient Reading 0.0 / 1.9 ppm

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R. Marin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1650
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7939 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		1522	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610739	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist brown silty sand, some clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-79 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 27 dpm
Beta/Gamma ≤ 159 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jon R. Marin	16:56	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7940 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1600	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610739	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01·11·10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 86-79 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 7940 dpm

PID Ambient 0.2 / Reading 0.2 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) T L McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARCH (Signature) Jack R. Marcin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8056 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610737	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER RAM 1/25/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082+~~NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 JRC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-~~8056~~ 7936 RG 1/25/10

Gray tuff

SAMPLE COMMENTS:

LOCATION DESC: 8b-78

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 72 **dpm**
Beta/Gamma ≤ 2710 **dpm**

PID Ambient Reading 0.0 / 0.0 ppm 0.0 / 0.0

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jan R. Marin	16:56	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8057 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610711	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-~~7833~~ 7883 JRM 1/26/10
moist brown sandy clay

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-66 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 52 dpm
Beta/Gamma ≤ 2120 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jack R Marin	1/25/10 16:57	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1657
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8079 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1450	SUB-MEDIA:	OTHER	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	↓
LOCATION ID:	UNK	15-610737	FIELD QC TYPE:	FR	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	↓	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	↓	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1	↓	SW-846:6850	250 ML POLY	Ice	Y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7935

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = _____ **dpm** TJM 1/25/10
Beta/Gamma = _____ **dpm**

PID ~~**Ambient Reading**~~ **=** **ppm** TJM 1/25/10

COLLECTED BY (PRINT) THMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARVIN (Signature) Jan R. Marvin	1/25/10 16:57	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1657
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8080 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		15:35	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610738	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7938

SAMPLE COMMENTS: Rinsate

LOCATION DESC:
8b-80

FIELD SCREENING/MEASUREMENT RESULTS:

JRM 1/25/10
Alpha = ____ dpm
~~Beta/Gamma~~ = ____ dpm

JRM 1/25/10
~~PID Ambient Reading~~ = ppm

COLLECTED BY (PRINT) J. MARIN **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R. Marin	MARIN 1/25/10 16:57	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1657
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7883
7884
7931
7932
7933
7934
7935
7936
7937
7938
7939

RE15-10-7940
8056
8057

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8080 FR
8079 FR

Reason:

Print Last Name MARIN Signature Jen R. Marin Date 1/25/10

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-7883

Sample Collection Date: 01/25/10 14:45

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-001

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.44	32.43	36.09	32.90		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	49.89	16.45	17.69	17.55		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	19.62	7.19	1.50	7.21		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.79	0.10	0.79		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.14	0.15	0.06	0.15		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.33	0.43	0.11	0.43		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	0.69	0.41	0.18	0.41		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.16	0.90	0.26	0.90		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.10	0.86	0.26	0.86		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.30	3.64	1.41	3.84		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.21	0.24	0.10	0.24		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.50

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-7884
Sample Collection Date: 01/25/10 15:00
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-002
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.95	25.78	31.78	26.03		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	42.70	15.72	18.25	16.57		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	23.70	8.15	1.61	8.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.50	0.11	10.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.16	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	13.74	0.07	13.74		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.15	0.24	0.14	0.24		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	2.30	0.63	0.17	0.64		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.73	0.40	0.57	0.40		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.95	0.87	0.16	0.87		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	4.36	3.03	1.44	3.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.08	0.14	0.06	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.52

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-7931

Sample Collection Date: 01/25/10 13:42

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-003

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDA	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.20	26.91	30.56	27.22		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	47.72	17.26	19.66	18.22		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-1.19	-30.61	4.37	-30.61		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.29	0.10	10.29		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.10	0.12	0.08	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.00	0.03	0.06	0.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.28	0.32	0.12	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.21	0.47	0.15	0.47		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.08	0.76	0.27	0.76		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.43	0.80	0.31	0.80		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.51	2.64	1.21	2.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.83	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 1.43

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-7932
Sample Collection Date: 01/25/10 14:06
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-004
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	15.13	22.44	38.20	22.51		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	43.35	18.72	18.71	16.59		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-2.70	-28.07	4.29	-28.07		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.06	0.13	0.11	0.13		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.23	0.20	0.08	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.24	0.20	0.07	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	11.12	0.12	11.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.61	0.49	0.09	0.49		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.96	0.68	0.62	0.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	2.18	0.97	0.17	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.90	3.24	1.43	3.31		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.39	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 1.01

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-7933

Sample Collection Date: 01/25/10 13:39

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-005

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	75.13	40.22	36.09	41.26		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	58.76	17.74	17.69	19.15		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.05	0.09	0.07	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	15.44	5.66	1.18	5.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	7.71	0.08	7.71		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.14	0.13	0.05	0.13		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	8.01	0.09	8.01		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	0.97	0.35	0.10	0.33		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.97	0.50	0.21	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.92	0.70	0.29	0.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.44	3.80	1.34	4.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.04	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.33

Matthew J. Eden

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-7934
Sample Collection Date: 01/25/10 14:28
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-006
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	-2.35	9.58	31.78	9.58		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	45.35	15.44	18.25	16.41		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	24.86	8.16	1.59	8.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.38	0.11	10.38		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.15	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.34	0.32	0.12	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.24	0.50	0.17	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	1.94	0.86	0.28	0.86		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.77	0.58	0.21	0.58		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	3.71	3.38	1.38	3.49		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.05	0.18	0.09	0.18		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.98

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7935	ARS Sample ID:	ARS2-10-00023-007
Sample Collection Date:	01/25/10 13:47	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 3 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.69	31.52	30.56	32.05		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	141.19	25.34	19.68	30.67		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	0.43	4.80	2.88	4.80		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.33	0.08	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.14	0.12	0.06	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.01	0.04	0.05	0.04		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	0.65	0.10	0.66		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.36	0.42	0.11	0.43		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.29	0.45	0.37	0.45		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	2.38	1.28	0.43	1.28		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	41.91	6.65	1.77	11.65		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.83	0.65	0.23	0.66		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.46

Matthew J. Eden

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AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-7936
Sample Collection Date: 01/25/10 14:26
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-008
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.91	27.32	38.20	27.55		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	39.59	15.57	18.71	16.31		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-1.94	-30.91	3.71	-30.91		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	11.53	0.12	11.53		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.10	0.11	0.08	0.11		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	15.08	0.07	15.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	11.99	0.13	11.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.37	0.52	0.16	0.52		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	1.72	1.07	0.31	1.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.04	0.45	0.29	0.45		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.36	3.67	1.46	3.87		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.45	0.46	0.17	0.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.38

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7937	ARS Sample ID:	ARS2-10-00023-009
Sample Collection Date:	01/25/10 14:57	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	50.41	33.85	36.09	34.40		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	42.67	15.79	17.69	16.64		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.16	0.21	0.10	0.21		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.44	-6.08	2.30	-6.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.29	0.10	10.29		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.12	0.18	0.08	0.18		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.07	0.11	0.06	0.11		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	1.94	0.98	0.23	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.28	0.62	0.27	0.62		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.89	0.60	0.38	0.60		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	4.21	2.20	0.98	2.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	34.62	7.38	2.38	10.82		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	1.17	0.93	0.33	0.93		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.63

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
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ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7938	ARS Sample ID:	ARS2-10-00023-010
Sample Collection Date:	01/25/10 15:10	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.40	31.49	31.78	32.05		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	54.09	17.17	18.25	18.40		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	24.77	8.28	1.59	8.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.40	0.11	10.40		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.03	0.08	0.07	0.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	54.99	0.12	54.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.29	0.50	0.17	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	2.55	0.96	0.28	0.96		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.44	0.98	0.29	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	0.66	1.64	0.96	1.65		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.01	0.09	0.06	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.57

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7939	ARS Sample ID:	ARS2-10-00023-011
Sample Collection Date:	01/25/10 15:22	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.37	15.20	30.56	25.43		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	61.21	18.52	19.58	19.97		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.10	-6.00	2.94	-6.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.01	0.09	0.01		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.06	0.08	0.07	0.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.10	0.12	0.06	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.37	0.28	0.10	0.28		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.14	0.48	0.19	0.48		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	2.06	0.78	0.24	0.78		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.75	1.39	0.46	1.39		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	13.79	5.54	1.92	5.57		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.26	0.32	0.14	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.19

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-7940
Sample Collection Date: 01/25/10 16:00
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-012
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.50	28.77	38.20	29.06		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	44.37	16.15	18.71	17.04		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	26.35	8.47	1.57	8.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.25	0.10	10.25		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	33.64	0.08	33.64		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.00	0.03	0.06	0.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.18	0.25	0.12	0.25		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.72	0.54	0.15	0.55		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.36	0.59	0.32	0.59		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.81	0.51	0.19	0.51		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	4.08	3.73	1.44	3.85		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.33	0.35	0.14	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.46

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-8056

Sample Collection Date: 01/25/10 14:26

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-013

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	70.21	39.02	36.09	39.96		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	45.44	16.39	17.69	17.30		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	29.01	10.74	2.74	10.77		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	11.83	0.12	11.82		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.53	0.35	0.09	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	15.46	0.07	15.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	1.16	0.63	0.14	0.63		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.68	0.61	0.21	0.62		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.57	0.81	0.32	0.81		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.48	0.85	0.38	0.85		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	0.60	2.94	1.58	2.94		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.31	0.42	0.18	0.42		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.32

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-8057
Sample Collection Date: 01/25/10 14:45
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-014
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDA*	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	39.18	28.78	31.78	29.17		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	43.67	15.98	16.25	16.85		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.78	-15.99	3.11	-15.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.50	0.11	10.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.23	0.20	0.07	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.61	0.50	0.12	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.16	0.46	0.13	0.47		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	1.32	0.81	0.28	0.81		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.82	0.84	0.18	0.84		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.20	3.50	1.31	3.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.01	0.09	0.08	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 3.76

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1434 VALIDATION DATE: 3/4/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Gamma spec results that were rejected by the laboratory due to interference, low abundance, or no valid peak were qualified R,R5a. The duplicate results for Bi-211; Cd-109; and Ra-224 were also rejected by the laboratory. The rejections occurred in a QC sample, thus, no sample results were qualified.
2. It should be noted that an MS was not analyzed for tritium. However, an LCS was analyzed and passed acceptance criteria. Thus, no sample data were qualified.

Reviewed by: Mary Donivan Level: 1 Date: 03/05/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 3/4/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7883
Sample ID: 245691001
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 31.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.0032		0.0235	+/-0.00275	0.050	pCi/g		CXM2	02/10/10	1813	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00468		0.0239	+/-0.00271	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	-0.000249		0.0181	+/-0.00294	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.31		0.0666	+/-0.108	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.0848		0.0425	+/-0.0182	0.100	pCi/g						
Uranium-238		2.73		0.0455	+/-0.206	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.00746		0.270	+/-0.0887	0.200	pCi/g		MJH1	02/09/10	1325	947037	4
Bismuth-211	UI	4.19	R,R5a	0.311	+/-0.262		pCi/g						
Bismuth-214		1.08		0.119	+/-0.096	0.200	pCi/g						
Cadmium-109	UI	2.22	R,R5a	1.40	+/-0.474		pCi/g						
Cerium-139	U	0.00868		0.055	+/-0.0163	0.050	pCi/g						
Cesium-134	UI	0.249	R,R5a	0.100	+/-0.0417	0.100	pCi/g						
Cesium-137	U	0.0433		0.0783	+/-0.0222	0.100	pCi/g						
Cobalt-60	U	0.032		0.0692	+/-0.0191	0.100	pCi/g						
Europium-152	U	0.012		0.165	+/-0.0627	0.200	pCi/g						
Lanthanum-140	U	-0.0321		0.133	+/-0.0431		pCi/g						
Lead-212		1.53		0.096	+/-0.0787	0.100	pCi/g						
Lead-214		1.46		0.108	+/-0.0988	0.100	pCi/g						
Mercury-203	U	0.0137		0.0739	+/-0.0211	0.100	pCi/g						
Potassium-40		24.3		0.513	+/-1.21	1.00	pCi/g						
Radium-223	U	-0.785		1.14	+/-0.358		pCi/g						
Radium-224	UI	4.26	R,R5a	1.09	+/-0.565		pCi/g						
Radium-226		1.08		0.119	+/-0.096		pCi/g						
Radium-228		1.59		0.188	+/-0.165	0.500	pCi/g						
Ruthenium-106	U	-0.193		0.532	+/-0.168	0.800	pCi/g						
Sodium-22	U	-0.0165		0.0648	+/-0.0204	0.080	pCi/g						
Strontium-85	U	0.0583		0.0691	+/-0.0212		pCi/g						

AMF
3/4/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7883
Sample ID: 245691001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.543	0.0627	+/-0.0453	0.080	pCi/g						
Thorium-227	U	0.0825	0.662	+/-0.200		pCi/g						
Thorium-231	U	-0.785	1.14	+/-0.358		pCi/g						
Thorium-234		4.66	2.21	+/-1.23	2.00	pCi/g						
Tin-113	U	0.00895	0.0779	+/-0.0227	0.100	pCi/g						
Uranium-235	U	0.0264	0.372	+/-0.113	0.500	pCi/g						
Yttrium-88	U	0.0201	0.0613	+/-0.017	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	155	203	+/-63.6	250	pCi/L		KXK2	02/16/10	1743	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	104	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value

AMF
3/4/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7884
Sample ID: 245691002
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 5.82%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00133		0.026	+/-0.00214	0.050	pCi/g		CXM2	02/10/10	1813	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00363		0.0245	+/-0.003	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	-0.000701		0.0185	+/-0.00228	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.664		0.0784	+/-0.0656	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.0615		0.050	+/-0.016	0.100	pCi/g						
Uranium-238		0.690		0.0536	+/-0.0667	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0319		0.207	+/-0.0637	0.200	pCi/g		MJH1	02/09/10	1521	947037	4
Bismuth-211	UI	4.00	R,R5a	0.284	+/-0.289		pCi/g						
Bismuth-214		1.20		0.0936	+/-0.0987	0.200	pCi/g						
Cadmium-109	UI	3.84	R,R5a	1.03	+/-0.454		pCi/g						
Cerium-139	U	-0.0124		0.0466	+/-0.0134	0.050	pCi/g						
Cesium-134	UI	0.0854	R,R5a	0.0736	+/-0.0232	0.100	pCi/g						
Cesium-137	U	-0.028		0.0489	+/-0.0154	0.100	pCi/g						
Cobalt-60	U	0.016		0.0561	+/-0.0163	0.100	pCi/g						
Europium-152	U	0.0129		0.141	+/-0.0531	0.200	pCi/g						
Lanthanum-140	U	0.0657		0.112	+/-0.0346		pCi/g						
Lead-212		1.68		0.0781	+/-0.121	0.100	pCi/g						
Lead-214		1.39		0.0989	+/-0.107	0.100	pCi/g						
Mercury-203	U	0.0347		0.0637	+/-0.0185	0.100	pCi/g						
Potassium-40		36.3		0.411	+/-1.82	1.00	pCi/g						
Radium-223	U	-0.727		0.957	+/-0.298		pCi/g						
Radium-224	UI	4.70	R,R5a	0.888	+/-0.512		pCi/g						
Radium-226		1.20		0.0936	+/-0.0987		pCi/g						
Radium-228		1.48		0.180	+/-0.154	0.500	pCi/g						
Ruthenium-106	U	-0.161		0.430	+/-0.132	0.800	pCi/g						
Sodium-22	U	-0.0416		0.0546	+/-0.0179	0.080	pCi/g						
Strontium-85	UI	0.112	R,R5a	0.0644	+/-0.0199		pCi/g						
Thallium-208		0.528		0.0505	+/-0.044	0.080	pCi/g						

AMF
3/4/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7884
Sample ID: 245691002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0132	0.563	+/-0.167		pCi/g						
Thorium-231	U	-0.727	0.957	+/-0.298		pCi/g						
Thorium-234	U	0.304	1.76	+/-0.581	2.00	pCi/g						
Tin-113	U	0.000945	0.0656	+/-0.0192	0.100	pCi/g						
Uranium-235	U	0.0427	0.338	+/-0.0961	0.500	pCi/g						
Yttrium-88	U	0.0132	0.0416	+/-0.0118	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	189	202	+/-64.5	250	pCi/L		KXK2	02/16/10	1921	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

AMF
3/4/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7932
Sample ID: 245691003
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 9.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00162		0.0228	+/-0.00301	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.000774		0.027	+/-0.00251	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.000492		0.0204	+/-0.00217	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.525		0.079	+/-0.0549	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236	U	0.0309		0.0503	+/-0.0112	0.100	pCi/g						
Uranium-238		0.616		0.0539	+/-0.0616	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0018		0.0771	+/-0.0248	0.200	pCi/g		MJH1	02/09/10	1446	947037	4
Bismuth-211	UI	4.16	R,R5a	0.294	+/-0.297		pCi/g						
Bismuth-214		1.25		0.111	+/-0.106	0.200	pCi/g						
Cadmium-109	UI	4.62	R,R5a	0.694	+/-0.375		pCi/g						
Cerium-139	U	-0.0125		0.0402	+/-0.012	0.050	pCi/g						
Cesium-134	UI	0.0997	R,R5a	0.0951	+/-0.0327	0.100	pCi/g						
Cesium-137	U	-0.0301		0.0771	+/-0.0224	0.100	pCi/g						
Cobalt-60	U	0.0228		0.069	+/-0.020	0.100	pCi/g						
Europium-152	U	-0.0523		0.138	+/-0.0416	0.200	pCi/g						
Lanthanum-140	U	-0.0189		0.138	+/-0.0445		pCi/g						
Lead-212		1.80		0.0779	+/-0.116	0.100	pCi/g						
Lead-214		1.45		0.101	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.00324		0.0622	+/-0.0189	0.100	pCi/g						
Potassium-40		35.7		0.528	+/-1.80	1.00	pCi/g						
Radium-223	U	0.0378		1.01	+/-0.330		pCi/g						
Radium-224	UI	5.25	R,R5a	0.887	+/-0.617		pCi/g						
Radium-226		1.25		0.111	+/-0.106		pCi/g						
Radium-228		1.87		0.258	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	0.103		0.566	+/-0.162	0.800	pCi/g						
Sodium-22	U	-0.00392		0.0844	+/-0.0257	0.080	pCi/g						
Strontium-85	U	0.057		0.0647	+/-0.0199		pCi/g						
Thallium-208		0.604		0.0606	+/-0.0525	0.080	pCi/g						

AMF
3/4/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7932
Sample ID: 245691003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.389	0.571	+/-0.166		pCi/g						
Thorium-231	U	0.0378	1.01	+/-0.330		pCi/g						
Thorium-234		1.76	0.750	+/-0.394	2.00	pCi/g						
Tin-113	U	-0.0355	0.0685	+/-0.0213	0.100	pCi/g						
Uranium-235	U	0.0347	0.297	+/-0.0859	0.500	pCi/g						
Yttrium-88	U	0.037	0.0683	+/-0.0176	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		212	203	+/-65.5	250	pCi/L		KXK2	02/16/10	2059	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7931
Sample ID: 245691004
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 17.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00175		0.0267	+/-0.00179	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00106		0.0227	+/-0.00182	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00336		0.0171	+/-0.00277	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.873		0.0617	+/-0.0755	0.100	pCi/g		CXM2	02/11/10	1506	947357	3
Uranium-235/236		0.0695		0.0393	+/-0.0152	0.100	pCi/g						
Uranium-238		1.85		0.0421	+/-0.143	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0204		0.116	+/-0.0355	0.200	pCi/g		MJH1	02/09/10	1453	947037	5
Bismuth-211	UI	4.05	R,R5a	0.418	+/-0.312		pCi/g						
Bismuth-214		1.26		0.126	+/-0.123	0.200	pCi/g						
Cadmium-109	UI	4.36	R,R5a	1.04	+/-0.500		pCi/g						
Cerium-139	U	0.00178		0.0511	+/-0.0151	0.050	pCi/g						
Cesium-134	U	0.0441		0.112	+/-0.0313	0.100	pCi/g						
Cesium-137	U	0.0326		0.0875	+/-0.0361	0.100	pCi/g						
Cobalt-60	U	-0.0315		0.0809	+/-0.0261	0.100	pCi/g						
Europium-152	U	-0.0635		0.177	+/-0.0536	0.200	pCi/g						
Lanthanum-140	U	-0.0761		0.169	+/-0.0578		pCi/g						
Lead-212		1.90		0.0931	+/-0.115	0.100	pCi/g						
Lead-214		1.41		0.132	+/-0.115	0.100	pCi/g						
Mercury-203	U	-0.0244		0.0722	+/-0.0214	0.100	pCi/g						
Potassium-40		30.5		0.776	+/-1.74	1.00	pCi/g						
Radium-223	U	0.256		1.18	+/-0.378		pCi/g						
Radium-224	UI	5.85	R,R5a	1.06	+/-0.845		pCi/g						
Radium-226		1.26		0.126	+/-0.123		pCi/g						
Radium-228		2.41		0.246	+/-0.238	0.500	pCi/g						
Ruthenium-106	U	0.486		0.724	+/-0.201	0.800	pCi/g						
Sodium-22	U	-0.0329		0.0998	+/-0.0326	0.080	pCi/g						
Strontium-85	U	0.0517		0.0772	+/-0.0214		pCi/g						
Thallium-208		0.632		0.0764	+/-0.061	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7931
Sample ID: 245691004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.071	0.711	+/-0.215		pCi/g						
Thorium-231	U	0.256	1.18	+/-0.378		pCi/g						
Thorium-234		2.29	1.11	+/-0.554	2.00	pCi/g						
Tin-113	U	-0.0156	0.0848	+/-0.0255	0.100	pCi/g						
Uranium-235	U	0.0725	0.385	+/-0.114	0.500	pCi/g						
Yttrium-88	U	0.0379	0.075	+/-0.0185	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		278	181	+/-61.4	250	pCi/L		KXK2	02/14/10	2001	948402	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	72.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7938
Sample ID: 245691005
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 3.57%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00181		0.0222	+/-0.00149	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.000524		0.0251	+/-0.00436	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00183		0.019	+/-0.00403	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.665		0.0698	+/-0.0628	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.0752		0.0445	+/-0.0169	0.100	pCi/g						
Uranium-238		0.711		0.0477	+/-0.0663	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.125		0.409	+/-0.120	0.200	pCi/g		MJH1	02/09/10	1524	947037	4
Bismuth-211	UI	4.19	R,R5a	0.347	+/-0.275		pCi/g						
Bismuth-214		1.28		0.116	+/-0.0946	0.200	pCi/g						
Cadmium-109	UI	4.11	R,R5a	1.66	+/-0.658		pCi/g						
Cerium-139	U	-0.0133		0.0513	+/-0.0159	0.050	pCi/g						
Cesium-134	U	0.0684		0.0887	+/-0.027	0.100	pCi/g						
Cesium-137	U	-0.00714		0.0631	+/-0.0189	0.100	pCi/g						
Cobalt-60	U	0.00297		0.0747	+/-0.0223	0.100	pCi/g						
Europium-152	U	-0.0444		0.162	+/-0.0513	0.200	pCi/g						
Lanthanum-140	U	-0.0505		0.131	+/-0.0444		pCi/g						
Lead-212		1.85		0.0964	+/-0.0921	0.100	pCi/g						
Lead-214		1.46		0.121	+/-0.103	0.100	pCi/g						
Mercury-203	UI	0.135	R,R5a	0.0677	+/-0.0372	0.100	pCi/g						
Potassium-40		39.7		0.481	+/-2.01	1.00	pCi/g						
Radium-223	U	0.158		1.04	+/-0.342		pCi/g						
Radium-224	UI	4.40	R,R5a	1.10	+/-0.697		pCi/g						
Radium-226		1.28		0.116	+/-0.0946		pCi/g						
Radium-228		1.71		0.216	+/-0.187	0.500	pCi/g						
Ruthenium-106	U	0.284		0.602	+/-0.168	0.800	pCi/g						
Sodium-22	U	-0.0106		0.0839	+/-0.0257	0.080	pCi/g						
Strontium-85	U	0.00686		0.0578	+/-0.0199		pCi/g						
Thallium-208		0.622		0.0602	+/-0.0479	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7938
Sample ID: 245691005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.016	0.624	+/-0.182		pCi/g						
Thorium-231	U	0.158	1.04	+/-0.342		pCi/g						
Thorium-234	U	2.17	3.32	+/-0.947	2.00	pCi/g						
Tin-113	U	-0.0393	0.0745	+/-0.0236	0.100	pCi/g						
Uranium-235	U	0.126	0.382	+/-0.114	0.500	pCi/g						
Yttrium-88	U	-0.00219	0.0555	+/-0.0175	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	115	202	+/-62.1	250	pCi/L		KXK2	02/16/10	2237	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	102	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7933
Sample ID: 245691006
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 20.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00339		0.026	+/-0.00244	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00296		0.0277	+/-0.0076	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00945		0.0209	+/-0.00704	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.72		0.0833	+/-0.213	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.196		0.0531	+/-0.0314	0.100	pCi/g						
Uranium-238		4.68		0.0569	+/-0.350	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0447		0.108	+/-0.0317	0.200	pCi/g		MJH1	02/09/10	1524	947037	4
Bismuth-211	UI	3.47	R,R5a	0.346	+/-0.303		pCi/g						
Bismuth-214		1.19		0.129	+/-0.0999	0.200	pCi/g						
Cadmium-109	UI	2.84	R,R5a	0.928	+/-0.377		pCi/g						
Cerium-139	U	0.00366		0.0511	+/-0.015	0.050	pCi/g						
Cesium-134	U	0.0808		0.105	+/-0.0284	0.100	pCi/g						
Cesium-137		0.317		0.0724	+/-0.0392	0.100	pCi/g						
Cobalt-60	U	0.00478		0.0743	+/-0.022	0.100	pCi/g						
Europium-152	U	0.0631		0.178	+/-0.0683	0.200	pCi/g						
Lanthanum-140	U	0.0658		0.183	+/-0.052		pCi/g						
Lead-212		1.34		0.0935	+/-0.0808	0.100	pCi/g						
Lead-214		1.21		0.121	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0468		0.0755	+/-0.0208	0.100	pCi/g						
Potassium-40		21.3		0.684	+/-1.02	1.00	pCi/g						
Radium-223	U	0.386		1.14	+/-0.368		pCi/g						
Radium-224	UI	3.15	R,R5a	1.06	+/-0.508		pCi/g						
Radium-226		1.19		0.129	+/-0.0999		pCi/g						
Radium-228		1.32		0.264	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.366		0.571	+/-0.184	0.800	pCi/g						
Sodium-22	U	-0.0161		0.0854	+/-0.0261	0.080	pCi/g						
Strontium-85	UI	0.127	R,R5a	0.0857	+/-0.0246		pCi/g						
Thallium-208		0.452		0.0627	+/-0.044	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7933
Sample ID: 245691006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	U	0.131		0.687	+/-0.194		pCi/g						
Thorium-231	U	0.386		1.14	+/-0.368		pCi/g						
Thorium-234		5.23		1.01	+/-0.751	2.00	pCi/g						
Tin-113	U	-0.0282		0.0793	+/-0.0246	0.100	pCi/g						
Uranium-235	UI	0.503	R,R5a	0.336	+/-0.180	0.500	pCi/g						
Yttrium-88	U	-0.0393		0.045	+/-0.0175	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		184		181	+/-58.0	250	pCi/L		KXK2	02/14/10	2139	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	74.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	86.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7939
Sample ID: 245691007
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 23.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00663		0.0253	+/-0.00337	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00549		0.0251	+/-0.00698	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00137		0.0189	+/-0.00349	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.37		0.0759	+/-0.115	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.104		0.0484	+/-0.0228	0.100	pCi/g						
Uranium-238		2.23		0.0518	+/-0.176	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.080		0.222	+/-0.0697	0.200	pCi/g		MJH1	02/09/10	1524	947037	4
Bismuth-211	UI	3.51	R,R5a	0.253	+/-0.286		pCi/g						
Bismuth-214		1.15		0.0969	+/-0.0955	0.200	pCi/g						
Cadmium-109	UI	3.44	R,R5a	0.963	+/-0.495		pCi/g						
Cerium-139	U	-0.011		0.0423	+/-0.0124	0.050	pCi/g						
Cesium-134	UI	0.114	R,R5a	0.0811	+/-0.0354	0.100	pCi/g						
Cesium-137		0.083		0.0563	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	-0.00829		0.0514	+/-0.0164	0.100	pCi/g						
Europium-152	U	0.00503		0.125	+/-0.0401	0.200	pCi/g						
Lanthanum-140	U	-0.0847		0.0923	+/-0.0349		pCi/g						
Lead-212		1.51		0.0759	+/-0.101	0.100	pCi/g						
Lead-214		1.22		0.0882	+/-0.104	0.100	pCi/g						
Mercury-203	U	-0.00108		0.0561	+/-0.0169	0.100	pCi/g						
Potassium-40		22.8		0.478	+/-1.24	1.00	pCi/g						
Radium-223	U	-0.0559		0.875	+/-0.302		pCi/g						
Radium-224	UI	3.94	R,R5a	0.864	+/-0.590		pCi/g						
Radium-226		1.15		0.0969	+/-0.0955		pCi/g						
Radium-228		1.38		0.200	+/-0.169	0.500	pCi/g						
Ruthenium-106	U	-0.023		0.422	+/-0.128	0.800	pCi/g						
Sodium-22	U	0.00468		0.0577	+/-0.0174	0.080	pCi/g						
Strontium-85	U	0.0554		0.0566	+/-0.0166		pCi/g						
Thallium-208		0.430		0.0508	+/-0.0407	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7939
Sample ID: 245691007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.347	0.527	+/-0.170		pCi/g						
Thorium-231	U	-0.0559	0.875	+/-0.302		pCi/g						
Thorium-234		1.94	1.83	+/-0.769	2.00	pCi/g						
Tin-113	U	-0.0263	0.0585	+/-0.0177	0.100	pCi/g						
Uranium-235	U	0.140	0.314	+/-0.0882	0.500	pCi/g						
Yttrium-88	U	0.0116	0.0452	+/-0.0125	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	152	180	+/-56.8	250	pCi/L		KXK2	02/14/10	2317	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7936
Sample ID: 245691008
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 3.67%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.000133		0.0227	+/-0.00187	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0111		0.0279	+/-0.00809	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	-0.00734		0.0211	+/-0.00391	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.919		0.0728	+/-0.0821	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.0784		0.0464	+/-0.0176	0.100	pCi/g						
Uranium-238		1.51		0.0497	+/-0.123	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.112		0.285	+/-0.0872	0.200	pCi/g		MJH1	02/09/10	1532	947037	4
Bismuth-211	UI	4.46	R,R5a	0.336	+/-0.271		pCi/g						
Bismuth-214		1.30		0.114	+/-0.100	0.200	pCi/g						
Cadmium-109	UI	4.42	R,R5a	1.28	+/-0.625		pCi/g						
Cerium-139	U	0.00905		0.0525	+/-0.0157	0.050	pCi/g						
Cesium-134	U	0.0999		0.103	+/-0.0279	0.100	pCi/g						
Cesium-137	U	0.00503		0.0694	+/-0.0209	0.100	pCi/g						
Cobalt-60	U	-0.0124		0.066	+/-0.0209	0.100	pCi/g						
Europium-152	U	-0.0872		0.161	+/-0.0508	0.200	pCi/g						
Lanthanum-140	U	-0.0286		0.137	+/-0.0431		pCi/g						
Lead-212		1.73		0.0976	+/-0.0857	0.100	pCi/g						
Lead-214		1.55		0.117	+/-0.103	0.100	pCi/g						
Mercury-203	U	0.0043		0.0731	+/-0.0213	0.100	pCi/g						
Potassium-40		38.7		0.316	+/-1.73	1.00	pCi/g						
Radium-223	U	-0.602		1.11	+/-0.403		pCi/g						
Radium-224	UI	4.20	R,R5a	1.11	+/-0.499		pCi/g						
Radium-226		1.30		0.114	+/-0.100		pCi/g						
Radium-228		1.87		0.237	+/-0.190	0.500	pCi/g						
Ruthenium-106	U	0.0591		0.622	+/-0.183	0.800	pCi/g						
Sodium-22	U	-0.0404		0.0808	+/-0.0265	0.080	pCi/g						
Strontium-85	U	0.0567		0.0679	+/-0.0212		pCi/g						
Thallium-208		0.593		0.0607	+/-0.0544	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7936
Sample ID: 245691008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.157	0.674	+/-0.193		pCi/g						
Thorium-231	U	-0.602	1.11	+/-0.403		pCi/g						
Thorium-234	U	1.86	2.42	+/-0.981	2.00	pCi/g						
Tin-113	U	-0.0332	0.075	+/-0.0237	0.100	pCi/g						
Uranium-235	U	-0.0688	0.375	+/-0.115	0.500	pCi/g						
Yttrium-88	U	0.0164	0.0643	+/-0.018	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		5220	369	+/-456	250	pCi/L		KXK2	02/15/10	0839	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7935
Sample ID: 245691009
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 23.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00172		0.0232	+/-0.00238	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00123		0.0262	+/-0.0021	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.0173		0.0198	+/-0.00669	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		16.8		0.316	+/-1.33	0.100	pCi/g		CXM2	02/18/10	1841	952128	3
Uranium-235/236		1.44		0.202	+/-0.184	0.100	pCi/g						
Uranium-238		72.1		0.216	+/-5.46	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.308		0.475	+/-0.143	0.200	pCi/g		MJH1	02/09/10	1532	947037	5
Bismuth-211	UI	3.70	R,R5a	0.281	+/-0.226		pCi/g						
Bismuth-214		1.15		0.0915	+/-0.0834	0.200	pCi/g						
Cadmium-109	UI	2.47	R,R5a	2.29	+/-0.708		pCi/g						
Cerium-139	U	0.000849		0.0515	+/-0.0163	0.050	pCi/g						
Cesium-134	UI	0.110	R,R5a	0.0772	+/-0.0235	0.100	pCi/g						
Cesium-137	U	0.0432		0.0581	+/-0.016	0.100	pCi/g						
Cobalt-60	U	0.0142		0.052	+/-0.0152	0.100	pCi/g						
Europium-152	U	0.0395		0.138	+/-0.0549	0.200	pCi/g						
Lanthanum-140	U	-0.000368		0.0999	+/-0.030		pCi/g						
Lead-212		1.42		0.0821	+/-0.0674	0.100	pCi/g						
Lead-214		1.29		0.0978	+/-0.0856	0.100	pCi/g						
Mercury-203	U	-0.00269		0.0592	+/-0.0175	0.100	pCi/g						
Potassium-40		25.8		0.400	+/-1.17	1.00	pCi/g						
Protactinium-234m		97.3		5.31	+/-6.99		pCi/g						
Radium-223	U	0.243		0.918	+/-0.307		pCi/g						
Radium-224	UI	4.25	R,R5a	0.933	+/-0.570		pCi/g						
Radium-226		1.15		0.0915	+/-0.0834		pCi/g						
Radium-228		1.50		0.167	+/-0.154	0.500	pCi/g						
Ruthenium-106	U	-0.0133		0.446	+/-0.135	0.800	pCi/g						
Sodium-22	U	-0.0172		0.0516	+/-0.0163	0.080	pCi/g						
Strontium-85	UI	0.066	R,R5a	0.0567	+/-0.0174		pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7935
Sample ID: 245691009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.450	0.0478	+/-0.041	0.080	pCi/g						
Thorium-227	U	0.264	0.614	+/-0.199		pCi/g						
Thorium-231	U	0.243	0.918	+/-0.307		pCi/g						
Thorium-234		69.6	3.48	+/-6.48	2.00	pCi/g						
Tin-113	U	-0.0313	0.0611	+/-0.0183	0.100	pCi/g						
Uranium-235		1.27	0.365	+/-0.197	0.500	pCi/g						
Yttrium-88	U	-0.0438	0.0379	+/-0.0146	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		13700	369	+/-1040	250	pCi/L		KXK2	02/15/10	0855	948402	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	70.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7934
Sample ID: 245691010
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 9.67%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00289		0.0235	+/-0.00214	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00373		0.027	+/-0.00468	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00527		0.0204	+/-0.00306	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.825		0.0742	+/-0.0756	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236	U	0.040		0.0473	+/-0.0134	0.100	pCi/g						
Uranium-238		1.03		0.0506	+/-0.0904	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.193		0.263	+/-0.0811	0.200	pCi/g		MJH1	02/09/10	1533	947037	4
Bismuth-211	UI	3.94	R,R5a	0.316	+/-0.257		pCi/g						
Bismuth-214		1.17		0.100	+/-0.0931	0.200	pCi/g						
Cadmium-109	UI	3.50	R,R5a	1.40	+/-0.499		pCi/g						
Cerium-139	U	-0.00522		0.0495	+/-0.0148	0.050	pCi/g						
Cesium-134	U	0.0665		0.0914	+/-0.0328	0.100	pCi/g						
Cesium-137	U	-0.0141		0.064	+/-0.0198	0.100	pCi/g						
Cobalt-60	U	-0.0267		0.0604	+/-0.0197	0.100	pCi/g						
Europium-152	U	-0.167		0.150	+/-0.0658	0.200	pCi/g						
Lanthanum-140	U	0.0726		0.137	+/-0.0403		pCi/g						
Lead-212		1.65		0.0998	+/-0.0821	0.100	pCi/g						
Lead-214		1.37		0.110	+/-0.0962	0.100	pCi/g						
Mercury-203	U	0.0414		0.0726	+/-0.0226	0.100	pCi/g						
Potassium-40		28.2		0.480	+/-1.34	1.00	pCi/g						
Radium-223	U	0.0609		1.13	+/-0.372		pCi/g						
Radium-224	UI	3.86	R,R5a	1.14	+/-0.654		pCi/g						
Radium-226		1.17		0.100	+/-0.0931		pCi/g						
Radium-228		1.69		0.221	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	0.0157		0.532	+/-0.159	0.800	pCi/g						
Sodium-22	U	0.00576		0.0712	+/-0.0211	0.080	pCi/g						
Strontium-85	U	0.0672		0.0691	+/-0.0208		pCi/g						
Thallium-208		0.585		0.0523	+/-0.0454	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7934
Sample ID: 245691010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0921	0.671	+/-0.205		pCi/g						
Thorium-231	U	0.0609	1.13	+/-0.372		pCi/g						
Thorium-234	U	1.13	2.13	+/-1.00	2.00	pCi/g						
Tin-113	U	0.0108	0.0762	+/-0.0219	0.100	pCi/g						
Uranium-235	U	0.0263	0.361	+/-0.108	0.500	pCi/g						
Yttrium-88	U	-0.00791	0.0546	+/-0.0175	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		843	369	+/-156	250	pCi/L		KXK2	02/15/10	0911	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	89.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
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- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7940
Sample ID: 245691011
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 4.85%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00488		0.0251	+/-0.00288	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.000808		0.0282	+/-0.00262	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.000514		0.0213	+/-0.00226	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.700		0.0744	+/-0.0667	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236	U	0.0364		0.0474	+/-0.0129	0.100	pCi/g						
Uranium-238		0.640		0.0508	+/-0.0622	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.127		0.193	+/-0.0592	0.200	pCi/g		MJH1	02/09/10	1533	947037	4
Bismuth-211	UI	4.24	R,R5a	0.327	+/-0.296		pCi/g						
Bismuth-214		1.30		0.106	+/-0.111	0.200	pCi/g						
Cadmium-109	UI	4.14	R,R5a	1.08	+/-0.495		pCi/g						
Cerium-139	U	-0.00689		0.0472	+/-0.0145	0.050	pCi/g						
Cesium-134	UI	0.140	R,R5a	0.0943	+/-0.0365	0.100	pCi/g						
Cesium-137	U	-0.0473		0.0553	+/-0.018	0.100	pCi/g						
Cobalt-60	U	0.0271		0.0652	+/-0.0187	0.100	pCi/g						
Europium-152	U	0.0293		0.159	+/-0.0522	0.200	pCi/g						
Lanthanum-140	U	-0.00883		0.117	+/-0.036		pCi/g						
Lead-212		1.80		0.0895	+/-0.111	0.100	pCi/g						
Lead-214		1.47		0.103	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0306		0.0679	+/-0.0191	0.100	pCi/g						
Potassium-40		35.7		0.526	+/-1.80	1.00	pCi/g						
Radium-223	U	-0.014		1.02	+/-0.340		pCi/g						
Radium-224	UI	5.04	R,R5a	1.02	+/-0.779		pCi/g						
Radium-226		1.30		0.106	+/-0.111		pCi/g						
Radium-228		1.96		0.231	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	0.138		0.513	+/-0.152	0.800	pCi/g						
Sodium-22	U	-0.00601		0.0712	+/-0.0223	0.080	pCi/g						
Strontium-85	U	0.062		0.0694	+/-0.0217		pCi/g						
Thallium-208		0.608		0.0545	+/-0.0515	0.080	pCi/g						

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7940
Sample ID: 245691011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.322	0.566	+/-0.174		pCi/g						
Thorium-231	U	-0.014	1.02	+/-0.340		pCi/g						
Thorium-234	U	1.43	1.70	+/-0.690	2.00	pCi/g						
Tin-113	U	-0.00679	0.0656	+/-0.0197	0.100	pCi/g						
Uranium-235	U	-0.0501	0.337	+/-0.102	0.500	pCi/g						
Yttrium-88	U	0.0145	0.0503	+/-0.0139	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		794	369	+/-152	250	pCi/L		KXK2	02/15/10	0928	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	89.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	102	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7937
Sample ID: 245691012
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 23.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00541		0.0287	+/-0.00336	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00244		0.0293	+/-0.00303	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.0144		0.0221	+/-0.0061	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.32		0.0737	+/-0.181	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.152		0.047	+/-0.0266	0.100	pCi/g						
Uranium-238		4.53		0.0503	+/-0.334	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.227		0.355	+/-0.109	0.200	pCi/g		MJH1	02/09/10	1533	947037	4
Bismuth-211	UI	4.25	R,R5a	0.340	+/-0.281		pCi/g						
Bismuth-214		1.13		0.119	+/-0.0911	0.200	pCi/g						
Cadmium-109	UI	2.84	R,R5a	1.43	+/-0.448		pCi/g						
Cerium-139	U	0.00608		0.0557	+/-0.0164	0.050	pCi/g						
Cesium-134	U	0.060		0.0892	+/-0.024	0.100	pCi/g						
Cesium-137	UI	0.283	R,R5a	0.119	+/-0.0296	0.100	pCi/g						
Cobalt-60	U	-0.0112		0.0582	+/-0.0187	0.100	pCi/g						
Europium-152	U	-0.0108		0.163	+/-0.0698	0.200	pCi/g						
Lanthanum-140	U	-0.139		0.0993	+/-0.0427		pCi/g						
Lead-212		1.47		0.102	+/-0.0765	0.100	pCi/g						
Lead-214		1.48		0.118	+/-0.105	0.100	pCi/g						
Mercury-203	U	-0.00778		0.074	+/-0.0214	0.100	pCi/g						
Potassium-40		19.7		0.669	+/-1.08	1.00	pCi/g						
Radium-223	U	-0.848		1.11	+/-0.406		pCi/g						
Radium-224	UI	4.33	R,R5a	1.16	+/-0.576		pCi/g						
Radium-226		1.13		0.119	+/-0.0911		pCi/g						
Radium-228	UI	1.38	R,R5a	0.469	+/-0.162	0.500	pCi/g						
Ruthenium-106	U	-0.111		0.541	+/-0.168	0.800	pCi/g						
Sodium-22	U	-0.00306		0.0786	+/-0.0241	0.080	pCi/g						
Strontium-85	U	0.0349		0.0646	+/-0.0205		pCi/g						
Thallium-208		0.451		0.0596	+/-0.0445	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7937
Sample ID: 245691012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.271	0.715	+/-0.209		pCi/g						
Thorium-231	U	-0.848	1.11	+/-0.406		pCi/g						
Thorium-234		4.76	2.89	+/-1.16	2.00	pCi/g						
Tin-113	U	0.0308	0.0847	+/-0.0239	0.100	pCi/g						
Uranium-235	U	0.241	0.412	+/-0.119	0.500	pCi/g						
Yttrium-88	U	0.0114	0.0615	+/-0.0176	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		186	181	+/-58.1	250	pCi/L		KXK2	02/15/10	0055	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	65.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8056
Sample ID: 245691013
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 3.56%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0042		0.0225	+/-0.00252	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00179		0.0229	+/-0.00498	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00679		0.0173	+/-0.00396	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.976		0.0546	+/-0.0806	0.100	pCi/g		CXM2	02/09/10	1126	947357	3
Uranium-235/236		0.0802		0.0348	+/-0.0156	0.100	pCi/g						
Uranium-238		1.91		0.0373	+/-0.145	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0276		0.310	+/-0.099	0.200	pCi/g		MJH1	02/09/10	1737	947037	4
Bismuth-211	UI	3.96	R,R5a	0.283	+/-0.240		pCi/g						
Bismuth-214		1.16		0.0972	+/-0.0848	0.200	pCi/g						
Cadmium-109	UI	2.61	R,R5a	1.54	+/-0.530		pCi/g						
Cerium-139	U	-0.00238		0.0437	+/-0.0126	0.050	pCi/g						
Cesium-134	UI	0.0766	R,R5a	0.076	+/-0.0215	0.100	pCi/g						
Cesium-137	U	-0.0209		0.0508	+/-0.0156	0.100	pCi/g						
Cobalt-60	U	-0.0219		0.0529	+/-0.0171	0.100	pCi/g						
Europium-152	U	0.00258		0.141	+/-0.0492	0.200	pCi/g						
Lanthanum-140	U	-0.00382		0.0977	+/-0.0321		pCi/g						
Lead-212		1.79		0.0803	+/-0.0805	0.100	pCi/g						
Lead-214		1.38		0.0984	+/-0.0908	0.100	pCi/g						
Mercury-203	UI	0.0724	R,R5a	0.0549	+/-0.0281	0.100	pCi/g						
Potassium-40		37.0		0.461	+/-1.61	1.00	pCi/g						
Radium-223	U	0.210		0.918	+/-0.312		pCi/g						
Radium-224	UI	4.76	R,R5a	0.913	+/-0.580		pCi/g						
Radium-226		1.16		0.0972	+/-0.0848		pCi/g						
Radium-228		1.57		0.189	+/-0.160	0.500	pCi/g						
Ruthenium-106	U	0.0867		0.458	+/-0.138	0.800	pCi/g						
Sodium-22	U	0.0144		0.0678	+/-0.0201	0.080	pCi/g						
Strontium-85	UI	0.103	R,R5a	0.0634	+/-0.0188		pCi/g						
Thallium-208		0.532		0.0503	+/-0.0389	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8056
Sample ID: 245691013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.266	0.540	+/-0.168		pCi/g						
Thorium-231	U	0.210	0.918	+/-0.312		pCi/g						
Thorium-234		2.69	2.50	+/-1.09	2.00	pCi/g						
Tin-113	U	0.0274	0.0639	+/-0.018	0.100	pCi/g						
Uranium-235	U	0.122	0.327	+/-0.0984	0.500	pCi/g						
Yttrium-88	U	-0.0179	0.0447	+/-0.015	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		4080	369	+/-378	250	pCi/L		KXK2	02/15/10	0944	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8057
Sample ID: 245691014
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 29.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00389		0.0214	+/-0.00237	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00323		0.0248	+/-0.00229	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.0117		0.0187	+/-0.00475	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.48		0.0596	+/-0.117	0.100	pCi/g		CXM2	02/09/10	1126	947357	3
Uranium-235/236		0.149		0.038	+/-0.0236	0.100	pCi/g						
Uranium-238		3.54		0.0407	+/-0.258	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.019		0.108	+/-0.034	0.200	pCi/g		MJH1	02/09/10	1727	947037	4
Bismuth-211	UI	3.96	R,R5a	0.361	+/-0.329		pCi/g						
Bismuth-214		1.17		0.133	+/-0.117	0.200	pCi/g						
Cadmium-109	UI	3.83	R,R5a	1.02	+/-0.472		pCi/g						
Cerium-139	U	-0.0282		0.0473	+/-0.0148	0.050	pCi/g						
Cesium-134	U	0.0849		0.114	+/-0.0305	0.100	pCi/g						
Cesium-137		0.0903		0.078	+/-0.0303	0.100	pCi/g						
Cobalt-60	U	0.0384		0.0917	+/-0.025	0.100	pCi/g						
Europium-152	U	-0.0639		0.165	+/-0.0522	0.200	pCi/g						
Lanthanum-140	U	-0.0674		0.158	+/-0.0541		pCi/g						
Lead-212		1.34		0.112	+/-0.0952	0.100	pCi/g						
Lead-214		1.38		0.126	+/-0.120	0.100	pCi/g						
Mercury-203	U	0.00198		0.0755	+/-0.0216	0.100	pCi/g						
Potassium-40		24.3		0.717	+/-1.45	1.00	pCi/g						
Radium-223	U	0.0993		1.08	+/-0.349		pCi/g						
Radium-224	UI	3.04	R,R5a	1.41	+/-0.501		pCi/g						
Radium-226		1.17		0.133	+/-0.117		pCi/g						
Radium-228		1.55		0.295	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	-0.355		0.546	+/-0.187	0.800	pCi/g						
Sodium-22	U	0.0193		0.0959	+/-0.0282	0.080	pCi/g						
Strontium-85	U	0.0348		0.073	+/-0.0206		pCi/g						
Thallium-208		0.449		0.0712	+/-0.0484	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8057
Sample ID: 245691014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.121	0.684	+/-0.206		pCi/g						
Thorium-231	U	0.0993	1.08	+/-0.349		pCi/g						
Thorium-234		3.59	1.04	+/-0.685	2.00	pCi/g						
Tin-113	U	0.010	0.0823	+/-0.0239	0.100	pCi/g						
Uranium-235	U	0.146	0.389	+/-0.114	0.500	pCi/g						
Yttrium-88	U	-0.00525	0.0612	+/-0.0195	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	89.9	181	+/-55.2	250	pCi/L		KXK2	02/15/10	0233	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	92.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

AMF
3/4/10

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1434

REQUEST NUMBER: 10-1434

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 845691 0/0

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7883	1	POLY	H3	Ice	R
RE15-10-7884	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7884	1	POLY	H3	Ice	R
RE15-10-7932	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7932	1	POLY	H3	Ice	R
RE15-10-7931	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7931	1	POLY	H3	Ice	R
RE15-10-7938	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7938	1	POLY	H3	Ice	R
RE15-10-7933	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7933	1	POLY	H3	Ice	R
RE15-10-7939	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7939	1	POLY	H3	Ice	R
RE15-10-7936	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7936	1	POLY	H3	Ice	R
RE15-10-7935	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7935	1	POLY	H3	Ice	R
RE15-10-7934	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7934	1	POLY	H3	Ice	R
RE15-10-7940	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7940	1	POLY	H3	Ice	R
RE15-10-7937	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7937	1	POLY	H3	Ice	R
RE15-10-8056	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8056	1	POLY	H3	Ice	R
RE15-10-8057	1	POLY	AM241+GS+ISOPU+ISO	None	R

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1434

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8057	1	POLY	H3	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
Jeryl Wy	1/27/10	1400	Patricia Dover-Dent P. Dover	1-28-10	08:45
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1434
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/27/2010
TURNAROUND/REPORT DUE: 2/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	EPA:906.0	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	HASL-300:AM-241	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	HASL-300:ISOPU	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	HASL-300:ISOU	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

Final Page of REQUEST NUMBER 10-1434

GEL Laboratories LLC

a member of **The GEL Group** INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P **843.556.8171** F **843.766.1178**

www.gel.com

February 01, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245691
SDG: 10-1434

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 28, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1434
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245691
SDG: 10-1434

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Reveiw Qualifier Flag Definition Sheet..... 17

Radiological Analysis..... 19
- Sample Data Summary.....35
- Quality Control Data.....79
- Raw Data..... 87
- Background and Efficiency Data.....962
- Standards Data.....1151
- Runlogs.....1186

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245691
SDG # : 10-1434

February 01, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 28, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 12-14C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245691001	RE15-10-7883
245691002	RE15-10-7884
245691003	RE15-10-7932
245691004	RE15-10-7931
245691005	RE15-10-7938
245691006	RE15-10-7933
245691007	RE15-10-7939
245691008	RE15-10-7936
245691009	RE15-10-7935
245691010	RE15-10-7934
245691011	RE15-10-7940
245691012	RE15-10-7937
245691013	RE15-10-8056
245691014	RE15-10-8057

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 01 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1434

REQUEST NUMBER: 10-1434

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 2/26/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 245691 0/0

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7883	1	POLY	H3	Ice	R
RE15-10-7884	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7884	1	POLY	H3	Ice	R
RE15-10-7932	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7932	1	POLY	H3	Ice	R
RE15-10-7931	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7931	1	POLY	H3	Ice	R
RE15-10-7938	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7938	1	POLY	H3	Ice	R
RE15-10-7933	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7933	1	POLY	H3	Ice	R
RE15-10-7939	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7939	1	POLY	H3	Ice	R
RE15-10-7936	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7936	1	POLY	H3	Ice	R
RE15-10-7935	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7935	1	POLY	H3	Ice	R
RE15-10-7934	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7934	1	POLY	H3	Ice	R
RE15-10-7940	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7940	1	POLY	H3	Ice	R
RE15-10-7937	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7937	1	POLY	H3	Ice	R
RE15-10-8056	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8056	1	POLY	H3	Ice	R
RE15-10-8057	1	POLY	AM241+GS+ISOPU+ISO	None	R

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1434

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8057	1	POLY	H3	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
Jeff Wy		1/27/10	1400	Patricia Dover-Dent	P. Dover-Dent	1-28-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1434

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/27/2010

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7883	R	1/25/2010	
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		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7938	R	1/25/2010	
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		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	EPA:906.0	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	HASL-300:AM-241	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7938	R	1/25/2010	
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		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	HASL-300:ISOPU	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
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		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1434

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

Final Page of REQUEST NUMBER 10-1434

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1434**
Received By: Patricia Dover-Dent	**Date Received: January 28, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **0-3** **12-14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7165 0C
7209 7849 7132 1C
7209 7849 7187 1C
7209 7849 7257 1C
7209 7849 7143 2C
7209 7849 7154 2C
7209 7849 7176 2C
7209 7849 7202 2C
7209 7849 7198 3C
7209 7849 7268 3C
7209 7849 7110 12C
7209 7849 7095 13C
7209 7849 7121 13C
7209 7849 7100 14C

PM (or PMA) review: Initials _____ Date 1/29/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

0c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7165
Mstr# 7209 7849 7143 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2 of 2
7209 7849 7132
Mstr# 7209 7849 7121 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
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UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWG0

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1 of 2
TRK# 0201 7209 7849 7187
MM MASTER MM

THU - 28JAN A1
PRIORITY OVERNIGHT

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SC-US
CHS

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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SHIP DATE: 27JAN10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR1A0515BYD0

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1 of 2
TRK# 0201 7209 7849 7257
MM MASTER MM

THU - 28JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2c

FedEx Express

1 of 3

TRK# 0201 7209 7849 7143

THU - 28JAN A1
PRIORITY OVERNIGHT

MASTER

29407
SC-US
CHS

XX CHSA

Part # 1561-8-434 NRIT V3 04-0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2c

FedEx Express

2 of 3

MPS# 0263 7209 7849 7154

Mstr# 7209 7849 7143 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 1561-8-434 NRIT V3 04-0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2c

FedEx Express

TRK# 0201 7209 7849 7176

THU - 28JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWG0

2c

FedEx Express

TRK# 0201 7209 7849 7202

THU - 28JAN A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWGO

3c

FedEx Express

2 of 2
MPS# 0263 7209 7849 7198
Mstr# 7209 7849 7187 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 35.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A0515BYDO

3c

FedEx Express

2 of 2
MPS# 0263 7209 7849 7268
Mstr# 7209 7849 7257 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

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29407
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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

12c

FedEx Express

TRK# 0201 7209 7849 7110

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

13c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7095
Mstr# 7209 7849 7084 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0352VA00

13c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7121
MASTER

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156019-434 MAN V3 04-0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 69.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

14c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7100
Mstr# 7209 7849 7084 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1434

Method/Analysis Information

Product: Dry Weight
Analytical Method: Dry Soil Prep
Analytical Batch Number: 947354

Sample ID	Client ID
245691001	RE15-10-7883
245691002	RE15-10-7884
245691003	RE15-10-7932
245691004	RE15-10-7931
245691005	RE15-10-7938
245691006	RE15-10-7933
245691007	RE15-10-7939
245691008	RE15-10-7936
245691009	RE15-10-7935
245691010	RE15-10-7934
245691011	RE15-10-7940
245691012	RE15-10-7937
245691013	RE15-10-8056
245691014	RE15-10-8057
1202028224	245691001(RE15-10-7883) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-021 REV# 16.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 245691001 (RE15-10-7883). The QC was from LANL work order 245691.

QC Information
Refer to Data Exception Report (DER).

CSU
The blank result is less than 1.65 times the CSU. Not Applicable.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 785601 was generated due to Failed RPD for DUP. The relative percent difference for the duplicate failed due to a non-homogeneous sample matrix. The Group Leader was consulted. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
Samples 245691001, 245691006, 245691007, 245691009, 245691012 and 245691014 were a very wet mud. They could not be homogenized thoroughly prior to taking aliquot.

Blank Decision Level
The blank result is less than the decision level. Not Applicable.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	947354
Prep Batch Number:	946897

Sample ID	Client ID
245691001	RE15-10-7883
245691002	RE15-10-7884
245691003	RE15-10-7932
245691004	RE15-10-7931
245691005	RE15-10-7938
245691006	RE15-10-7933
245691007	RE15-10-7939
245691008	RE15-10-7936
245691009	RE15-10-7935
245691010	RE15-10-7934

245691011	RE15-10-7940
245691012	RE15-10-7937
245691013	RE15-10-8056
245691014	RE15-10-8057
1202029343	Method Blank (MB)
1202029344	245691001(RE15-10-7883) Sample Duplicate (DUP)
1202029345	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202029343 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245691001 (RE15-10-7883). The QC was from LANL work order 245691.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202029345 (LCS), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	947356
Prep Batch Number:	946897

Sample ID	Client ID
245691001	RE15-10-7883
245691002	RE15-10-7884
245691003	RE15-10-7932
245691004	RE15-10-7931
245691005	RE15-10-7938
245691006	RE15-10-7933
245691007	RE15-10-7939
245691008	RE15-10-7936
245691009	RE15-10-7935
245691010	RE15-10-7934
245691011	RE15-10-7940
245691012	RE15-10-7937
245691013	RE15-10-8056
245691014	RE15-10-8057
1202029347	Method Blank (MB)
1202029348	245691001(RE15-10-7883) Sample Duplicate (DUP)
1202029349	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202029347 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245691001 (RE15-10-7883). The QC was from LANL work order 245691.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: **ISOU**

Analytical Method: DOE EML HASL-300, U-02-RC Modified
Prep Method: Dry Soil Prep
Analytical Batch Number: 947357
Prep Batch Number: 946897

Sample ID	Client ID
245691001	RE15-10-7883
245691002	RE15-10-7884
245691003	RE15-10-7932
245691004	RE15-10-7931
245691005	RE15-10-7938
245691006	RE15-10-7933
245691007	RE15-10-7939
245691008	RE15-10-7936
245691010	RE15-10-7934
245691011	RE15-10-7940
245691012	RE15-10-7937
245691013	RE15-10-8056
245691014	RE15-10-8057
1202029350	Method Blank (MB)
1202029351	245691001(RE15-10-7883) Sample Duplicate (DUP)
1202029352	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202029350 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245691001 (RE15-10-7883). The QC was from LANL work order 245691.

QC Information

All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-238 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245691004 (RE15-10-7931) was recounted due to a peak shift.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234 and U-238 blank results are greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	952128
Prep Batch Number:	946897

Sample ID	**Client ID**
245691009	RE15-10-7935
1202040645	Method Blank (MB)
1202040646	245691009(RE15-10-7935) Sample Duplicate (DUP)
1202040647	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202040645 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245691009 (RE15-10-7935). The QC was from LANL work order 245691.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U233/234 blank result is greater than 1.65 times the CSU but less than the MDC. Additionally, the sample results are greater than five times the blank result.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245691009 (RE15-10-7935) was reprepped with reduced aliquot size due to high activity levels.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	947037
Prep Batch Number:	946897

Sample ID	Client ID
245691001	RE15-10-7883
245691002	RE15-10-7884
245691003	RE15-10-7932
245691004	RE15-10-7931
245691005	RE15-10-7938
245691006	RE15-10-7933
245691007	RE15-10-7939
245691008	RE15-10-7936
245691009	RE15-10-7935
245691010	RE15-10-7934
245691011	RE15-10-7940
245691012	RE15-10-7937
245691013	RE15-10-8056
245691014	RE15-10-8057
1202028548	Method Blank (MB)
1202028549	245691006(RE15-10-7933) Sample Duplicate (DUP)
1202028550	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, April 2009, June 2009, July 2009, August 2009, October 2009, November 2009, December 2009 and January 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245691006 (RE15-10-7933). The QC was from LANL work order 245691.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202028548 (MB) result is greater than 1.65 times the CSU but less than the MDC for Co-60, K-40, and Sr-85.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Pa-234m was positively identified and added to sample 245691009 (RE15-10-7935).

Blank Decision Level
The blank 1202028548 (MB) result is greater than the decision level but less than the MDC for K-40, Ra-224, Ra-226, and Sr-85.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high peak-width.	Mercury-203	245691005	RE15-10-7938
UI	Data rejected due to interference.	Bismuth-211	245691001	RE15-10-7883
			245691002	RE15-10-7884
			245691003	RE15-10-7932
			245691004	RE15-10-7931
			245691005	RE15-10-7938
			245691006	RE15-10-7933
			245691007	RE15-10-7939
			245691008	RE15-10-7936
			245691009	RE15-10-7935
			245691010	RE15-10-7934
			245691011	RE15-10-7940
			245691012	RE15-10-7937
			245691013	RE15-10-8056

			245691014	RE15-10-8057
			1202028549	RE15-10-7933(245691006DUP)
		Cadmium-109	245691001	RE15-10-7883
			245691002	RE15-10-7884
			245691003	RE15-10-7932
			245691004	RE15-10-7931
			245691005	RE15-10-7938
			245691006	RE15-10-7933
			245691007	RE15-10-7939
			245691008	RE15-10-7936
			245691009	RE15-10-7935
			245691010	RE15-10-7934
			245691011	RE15-10-7940
			245691012	RE15-10-7937
			245691013	RE15-10-8056
			245691014	RE15-10-8057
			1202028549	RE15-10-7933(245691006DUP)
		Mercury-203	245691013	RE15-10-8056
		Radium-224	245691001	RE15-10-7883
			245691002	RE15-10-7884
			245691003	RE15-10-7932
			245691004	RE15-10-7931
			245691005	RE15-10-7938
			245691006	RE15-10-7933
			245691007	RE15-10-7939
			245691008	RE15-10-7936
			245691009	RE15-10-7935
			245691010	RE15-10-7934
			245691011	RE15-10-7940
			245691012	RE15-10-7937
			245691013	RE15-10-8056
			245691014	RE15-10-8057
			1202028549	RE15-10-7933(245691006DUP)
UI	Data rejected due to low abundance.	Cesium-134	245691001	RE15-10-7883
			245691002	RE15-10-7884
			245691003	RE15-10-7932
			245691007	RE15-10-7939
			245691009	RE15-10-7935

			245691011	RE15-10-7940
			245691013	RE15-10-8056
		Cesium-137	245691012	RE15-10-7937
		Radium-228	245691012	RE15-10-7937
		Strontium-85	245691002	RE15-10-7884
			245691006	RE15-10-7933
			245691009	RE15-10-7935
			245691013	RE15-10-8056
UI	Data rejected due to no valid peak.	Uranium-235	245691006	RE15-10-7933

Method/Analysis Information

Product: **H3**

Analytical Method: GL-RAD-A-002

Analytical Batch Number: 948402

Sample ID	**Client ID**
245691001	RE15-10-7883
245691002	RE15-10-7884
245691003	RE15-10-7932
245691004	RE15-10-7931
245691005	RE15-10-7938
245691006	RE15-10-7933
245691007	RE15-10-7939
245691008	RE15-10-7936
245691009	RE15-10-7935
245691010	RE15-10-7934
245691011	RE15-10-7940
245691012	RE15-10-7937
245691013	RE15-10-8056
245691014	RE15-10-8057
1202031682	Method Blank (MB)
1202031683	245691001(RE15-10-7883) Sample Duplicate (DUP)
1202031684	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245691001 (RE15-10-7883). The QC was from LANL work order 245691.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 1202031682 (MB), 1202031683 (RE15-10-7883), 1202031684 (LCS), 245691004 (RE15-10-7931), 245691012 (RE15-10-7937), 245691013 (RE15-10-8056) and 245691014 (RE15-10-8057) were recounted due to the quench number being outside the calibration range. Recount is being reported. Samples 1202031682 (MB), 1202031683 (RE15-10-7883), 1202031684 (LCS), 245691006 (RE15-10-7933), 245691007 (RE15-10-7939), 245691008 (RE15-10-7936), 245691009 (RE15-10-7935), 245691010 (RE15-10-7934), 245691011 (RE15-10-7940), 245691012 (RE15-10-7937), 245691013 (RE15-10-8056) and 245691014 (RE15-10-8057) were recounted due to a detector lock out condition. Recount is being reported. Samples 245691001 (RE15-10-7883), 245691002 (RE15-10-7884), 245691003 (RE15-10-7932) and 245691005 (RE15-10-7938) were recounted due to the samples not counting within 24 hours of the laboratory control sample.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the

requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package. **The following data validator verified the information presented in this case narrative:**

Reviewer/Date: Kathl Bbellaff 2/22/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-FEB-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
BALANCE		Solid	LANL010

Batch ID:
946897

Sample Numbers:
245667001, 245667002, 245667003, 245667004, 245667005, 245667006, 245691001, 245691002, 245691003, 245691004, 245691005, 245691006, 245691007, 245691008, 245691009, 245691010, 245691011, 245691012, 245691013, 245691014, 1202028224

Potentially affected work order(s)(SDG): 245663(10-1436),245664(10-1437),245667(10-1438),245686(10-1432),245688(10-1433),245691(10-1434)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
The relative percent difference for the duplicate failed due to a non-homogeneous sample matrix.	The Group Leader was consulted. Reporting results.

Originator's Name:
David Swan 01-FEB-10

Data Validator/Group Leader:
Tim Winters 01-FEB-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1434 GEL Work Order: 245691

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7883
Sample ID: 245691001
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 31.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.0032	0.0235	+/-0.00275	0.050	pCi/g		CXM2	02/10/10	1813	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00468	0.0239	+/-0.00271	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	-0.000249	0.0181	+/-0.00294	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.31	0.0666	+/-0.108	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.0848	0.0425	+/-0.0182	0.100	pCi/g						
Uranium-238		2.73	0.0455	+/-0.206	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00746	0.270	+/-0.0887	0.200	pCi/g		MJH1	02/09/10	1325	947037	4
Bismuth-211	UI	4.19	0.311	+/-0.262		pCi/g						
Bismuth-214		1.08	0.119	+/-0.096	0.200	pCi/g						
Cadmium-109	UI	2.22	1.40	+/-0.474		pCi/g						
Cerium-139	U	0.00868	0.055	+/-0.0163	0.050	pCi/g						
Cesium-134	UI	0.249	0.100	+/-0.0417	0.100	pCi/g						
Cesium-137	U	0.0433	0.0783	+/-0.0222	0.100	pCi/g						
Cobalt-60	U	0.032	0.0692	+/-0.0191	0.100	pCi/g						
Europium-152	U	0.012	0.165	+/-0.0627	0.200	pCi/g						
Lanthanum-140	U	-0.0321	0.133	+/-0.0431		pCi/g						
Lead-212		1.53	0.096	+/-0.0787	0.100	pCi/g						
Lead-214		1.46	0.108	+/-0.0988	0.100	pCi/g						
Mercury-203	U	0.0137	0.0739	+/-0.0211	0.100	pCi/g						
Potassium-40		24.3	0.513	+/-1.21	1.00	pCi/g						
Radium-223	U	-0.785	1.14	+/-0.358		pCi/g						
Radium-224	UI	4.26	1.09	+/-0.565		pCi/g						
Radium-226		1.08	0.119	+/-0.096		pCi/g						
Radium-228		1.59	0.188	+/-0.165	0.500	pCi/g						
Ruthenium-106	U	-0.193	0.532	+/-0.168	0.800	pCi/g						
Sodium-22	U	-0.0165	0.0648	+/-0.0204	0.080	pCi/g						
Strontium-85	U	0.0583	0.0691	+/-0.0212		pCi/g						

Certificate of Analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7883
Sample ID: 245691001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.543	0.0627	+/-0.0453	0.080	pCi/g						
Thorium-227	U	0.0825	0.662	+/-0.200		pCi/g						
Thorium-231	U	-0.785	1.14	+/-0.358		pCi/g						
Thorium-234		4.66	2.21	+/-1.23	2.00	pCi/g						
Tin-113	U	0.00895	0.0779	+/-0.0227	0.100	pCi/g						
Uranium-235	U	0.0264	0.372	+/-0.113	0.500	pCi/g						
Yttrium-88	U	0.0201	0.0613	+/-0.017	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	155	203	+/-63.6	250	pCi/L		KXK2	02/16/10	1743	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	104	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value

Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7883
Sample ID: 245691001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7884
Sample ID: 245691002
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 5.82%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00133	0.026	+/-0.00214	0.050	pCi/g		CXM2	02/10/10	1813	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00363	0.0245	+/-0.003	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	-0.000701	0.0185	+/-0.00228	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.664	0.0784	+/-0.0656	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.0615	0.050	+/-0.016	0.100	pCi/g						
Uranium-238		0.690	0.0536	+/-0.0667	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0319	0.207	+/-0.0637	0.200	pCi/g		MJH1	02/09/10	1521	947037	4
Bismuth-211	UI	4.00	0.284	+/-0.289		pCi/g						
Bismuth-214		1.20	0.0936	+/-0.0987	0.200	pCi/g						
Cadmium-109	UI	3.84	1.03	+/-0.454		pCi/g						
Cerium-139	U	-0.0124	0.0466	+/-0.0134	0.050	pCi/g						
Cesium-134	UI	0.0854	0.0736	+/-0.0232	0.100	pCi/g						
Cesium-137	U	-0.028	0.0489	+/-0.0154	0.100	pCi/g						
Cobalt-60	U	0.016	0.0561	+/-0.0163	0.100	pCi/g						
Europium-152	U	0.0129	0.141	+/-0.0531	0.200	pCi/g						
Lanthanum-140	U	0.0657	0.112	+/-0.0346		pCi/g						
Lead-212		1.68	0.0781	+/-0.121	0.100	pCi/g						
Lead-214		1.39	0.0989	+/-0.107	0.100	pCi/g						
Mercury-203	U	0.0347	0.0637	+/-0.0185	0.100	pCi/g						
Potassium-40		36.3	0.411	+/-1.82	1.00	pCi/g						
Radium-223	U	-0.727	0.957	+/-0.298		pCi/g						
Radium-224	UI	4.70	0.888	+/-0.512		pCi/g						
Radium-226		1.20	0.0936	+/-0.0987		pCi/g						
Radium-228		1.48	0.180	+/-0.154	0.500	pCi/g						
Ruthenium-106	U	-0.161	0.430	+/-0.132	0.800	pCi/g						
Sodium-22	U	-0.0416	0.0546	+/-0.0179	0.080	pCi/g						
Strontium-85	UI	0.112	0.0644	+/-0.0199		pCi/g						
Thallium-208		0.528	0.0505	+/-0.044	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7884
Sample ID: 245691002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0132	0.563	+/-0.167		pCi/g						
Thorium-231	U	-0.727	0.957	+/-0.298		pCi/g						
Thorium-234	U	0.304	1.76	+/-0.581	2.00	pCi/g						
Tin-113	U	0.000945	0.0656	+/-0.0192	0.100	pCi/g						
Uranium-235	U	0.0427	0.338	+/-0.0961	0.500	pCi/g						
Yttrium-88	U	0.0132	0.0416	+/-0.0118	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	189	202	+/-64.5	250	pCi/L		KXK2	02/16/10	1921	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7884
Sample ID: 245691002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7932
Sample ID: 245691003
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 9.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00162	0.0228	+/-0.00301	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000774	0.027	+/-0.00251	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.000492	0.0204	+/-0.00217	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.525	0.079	+/-0.0549	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236	U	0.0309	0.0503	+/-0.0112	0.100	pCi/g						
Uranium-238		0.616	0.0539	+/-0.0616	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0018	0.0771	+/-0.0248	0.200	pCi/g		MJH1	02/09/10	1446	947037	4
Bismuth-211	UI	4.16	0.294	+/-0.297		pCi/g						
Bismuth-214		1.25	0.111	+/-0.106	0.200	pCi/g						
Cadmium-109	UI	4.62	0.694	+/-0.375		pCi/g						
Cerium-139	U	-0.0125	0.0402	+/-0.012	0.050	pCi/g						
Cesium-134	UI	0.0997	0.0951	+/-0.0327	0.100	pCi/g						
Cesium-137	U	-0.0301	0.0771	+/-0.0224	0.100	pCi/g						
Cobalt-60	U	0.0228	0.069	+/-0.020	0.100	pCi/g						
Europium-152	U	-0.0523	0.138	+/-0.0416	0.200	pCi/g						
Lanthanum-140	U	-0.0189	0.138	+/-0.0445		pCi/g						
Lead-212		1.80	0.0779	+/-0.116	0.100	pCi/g						
Lead-214		1.45	0.101	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.00324	0.0622	+/-0.0189	0.100	pCi/g						
Potassium-40		35.7	0.528	+/-1.80	1.00	pCi/g						
Radium-223	U	0.0378	1.01	+/-0.330		pCi/g						
Radium-224	UI	5.25	0.887	+/-0.617		pCi/g						
Radium-226		1.25	0.111	+/-0.106		pCi/g						
Radium-228		1.87	0.258	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	0.103	0.566	+/-0.162	0.800	pCi/g						
Sodium-22	U	-0.00392	0.0844	+/-0.0257	0.080	pCi/g						
Strontium-85	U	0.057	0.0647	+/-0.0199		pCi/g						
Thallium-208		0.604	0.0606	+/-0.0525	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7932
Sample ID: 245691003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.389	0.571	+/-0.166		pCi/g						
Thorium-231	U	0.0378	1.01	+/-0.330		pCi/g						
Thorium-234		1.76	0.750	+/-0.394	2.00	pCi/g						
Tin-113	U	-0.0355	0.0685	+/-0.0213	0.100	pCi/g						
Uranium-235	U	0.0347	0.297	+/-0.0859	0.500	pCi/g						
Yttrium-88	U	0.037	0.0683	+/-0.0176	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		212	203	+/-65.5	250	pCi/L		KXK2	02/16/10	2059	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Report Date: February 20, 2010

Client Sample ID: RE15-10-7932
Sample ID: 245691003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7931
Sample ID: 245691004
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 17.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00175	0.0267	+/-0.00179	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00106	0.0227	+/-0.00182	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00336	0.0171	+/-0.00277	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.873	0.0617	+/-0.0755	0.100	pCi/g		CXM2	02/11/10	1506	947357	3
Uranium-235/236		0.0695	0.0393	+/-0.0152	0.100	pCi/g						
Uranium-238		1.85	0.0421	+/-0.143	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0204	0.116	+/-0.0355	0.200	pCi/g		MJH1	02/09/10	1453	947037	5
Bismuth-211	UI	4.05	0.418	+/-0.312		pCi/g						
Bismuth-214		1.26	0.126	+/-0.123	0.200	pCi/g						
Cadmium-109	UI	4.36	1.04	+/-0.500		pCi/g						
Cerium-139	U	0.00178	0.0511	+/-0.0151	0.050	pCi/g						
Cesium-134	U	0.0441	0.112	+/-0.0313	0.100	pCi/g						
Cesium-137	U	0.0326	0.0875	+/-0.0361	0.100	pCi/g						
Cobalt-60	U	-0.0315	0.0809	+/-0.0261	0.100	pCi/g						
Europium-152	U	-0.0635	0.177	+/-0.0536	0.200	pCi/g						
Lanthanum-140	U	-0.0761	0.169	+/-0.0578		pCi/g						
Lead-212		1.90	0.0931	+/-0.115	0.100	pCi/g						
Lead-214		1.41	0.132	+/-0.115	0.100	pCi/g						
Mercury-203	U	-0.0244	0.0722	+/-0.0214	0.100	pCi/g						
Potassium-40		30.5	0.776	+/-1.74	1.00	pCi/g						
Radium-223	U	0.256	1.18	+/-0.378		pCi/g						
Radium-224	UI	5.85	1.06	+/-0.845		pCi/g						
Radium-226		1.26	0.126	+/-0.123		pCi/g						
Radium-228		2.41	0.246	+/-0.238	0.500	pCi/g						
Ruthenium-106	U	0.486	0.724	+/-0.201	0.800	pCi/g						
Sodium-22	U	-0.0329	0.0998	+/-0.0326	0.080	pCi/g						
Strontium-85	U	0.0517	0.0772	+/-0.0214		pCi/g						
Thallium-208		0.632	0.0764	+/-0.061	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7931
Sample ID: 245691004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.071	0.711	+/-0.215		pCi/g						
Thorium-231	U	0.256	1.18	+/-0.378		pCi/g						
Thorium-234		2.29	1.11	+/-0.554	2.00	pCi/g						
Tin-113	U	-0.0156	0.0848	+/-0.0255	0.100	pCi/g						
Uranium-235	U	0.0725	0.385	+/-0.114	0.500	pCi/g						
Yttrium-88	U	0.0379	0.075	+/-0.0185	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		278	181	+/-61.4	250	pCi/L		KXK2	02/14/10	2001	948402	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	72.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- > Result is greater than value reported
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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Report Date: February 20, 2010

Client Sample ID: RE15-10-7931
Sample ID: 245691004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7938
Sample ID: 245691005
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 3.57%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00181	0.0222	+/-0.00149	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000524	0.0251	+/-0.00436	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00183	0.019	+/-0.00403	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.665	0.0698	+/-0.0628	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.0752	0.0445	+/-0.0169	0.100	pCi/g						
Uranium-238		0.711	0.0477	+/-0.0663	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.125	0.409	+/-0.120	0.200	pCi/g		MJH1	02/09/10	1524	947037	4
Bismuth-211	UI	4.19	0.347	+/-0.275		pCi/g						
Bismuth-214		1.28	0.116	+/-0.0946	0.200	pCi/g						
Cadmium-109	UI	4.11	1.66	+/-0.658		pCi/g						
Cerium-139	U	-0.0133	0.0513	+/-0.0159	0.050	pCi/g						
Cesium-134	U	0.0684	0.0887	+/-0.027	0.100	pCi/g						
Cesium-137	U	-0.00714	0.0631	+/-0.0189	0.100	pCi/g						
Cobalt-60	U	0.00297	0.0747	+/-0.0223	0.100	pCi/g						
Europium-152	U	-0.0444	0.162	+/-0.0513	0.200	pCi/g						
Lanthanum-140	U	-0.0505	0.131	+/-0.0444		pCi/g						
Lead-212		1.85	0.0964	+/-0.0921	0.100	pCi/g						
Lead-214		1.46	0.121	+/-0.103	0.100	pCi/g						
Mercury-203	UI	0.135	0.0677	+/-0.0372	0.100	pCi/g						
Potassium-40		39.7	0.481	+/-2.01	1.00	pCi/g						
Radium-223	U	0.158	1.04	+/-0.342		pCi/g						
Radium-224	UI	4.40	1.10	+/-0.697		pCi/g						
Radium-226		1.28	0.116	+/-0.0946		pCi/g						
Radium-228		1.71	0.216	+/-0.187	0.500	pCi/g						
Ruthenium-106	U	0.284	0.602	+/-0.168	0.800	pCi/g						
Sodium-22	U	-0.0106	0.0839	+/-0.0257	0.080	pCi/g						
Strontium-85	U	0.00686	0.0578	+/-0.0199		pCi/g						
Thallium-208		0.622	0.0602	+/-0.0479	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7938
Sample ID: 245691005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.016	0.624	+/-0.182		pCi/g						
Thorium-231	U	0.158	1.04	+/-0.342		pCi/g						
Thorium-234	U	2.17	3.32	+/-0.947	2.00	pCi/g						
Tin-113	U	-0.0393	0.0745	+/-0.0236	0.100	pCi/g						
Uranium-235	U	0.126	0.382	+/-0.114	0.500	pCi/g						
Yttrium-88	U	-0.00219	0.0555	+/-0.0175	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	115	202	+/-62.1	250	pCi/L		KXK2	02/16/10	2237	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	102	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7938
Sample ID: 245691005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7933
Sample ID: 245691006
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 20.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00339	0.026	+/-0.00244	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00296	0.0277	+/-0.0076	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00945	0.0209	+/-0.00704	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.72	0.0833	+/-0.213	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.196	0.0531	+/-0.0314	0.100	pCi/g						
Uranium-238		4.68	0.0569	+/-0.350	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0447	0.108	+/-0.0317	0.200	pCi/g		MJH1	02/09/10	1524	947037	4
Bismuth-211	UI	3.47	0.346	+/-0.303		pCi/g						
Bismuth-214		1.19	0.129	+/-0.0999	0.200	pCi/g						
Cadmium-109	UI	2.84	0.928	+/-0.377		pCi/g						
Cerium-139	U	0.00366	0.0511	+/-0.015	0.050	pCi/g						
Cesium-134	U	0.0808	0.105	+/-0.0284	0.100	pCi/g						
Cesium-137		0.317	0.0724	+/-0.0392	0.100	pCi/g						
Cobalt-60	U	0.00478	0.0743	+/-0.022	0.100	pCi/g						
Europium-152	U	0.0631	0.178	+/-0.0683	0.200	pCi/g						
Lanthanum-140	U	0.0658	0.183	+/-0.052		pCi/g						
Lead-212		1.34	0.0935	+/-0.0808	0.100	pCi/g						
Lead-214		1.21	0.121	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0468	0.0755	+/-0.0208	0.100	pCi/g						
Potassium-40		21.3	0.684	+/-1.02	1.00	pCi/g						
Radium-223	U	0.386	1.14	+/-0.368		pCi/g						
Radium-224	UI	3.15	1.06	+/-0.508		pCi/g						
Radium-226		1.19	0.129	+/-0.0999		pCi/g						
Radium-228		1.32	0.264	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.366	0.571	+/-0.184	0.800	pCi/g						
Sodium-22	U	-0.0161	0.0854	+/-0.0261	0.080	pCi/g						
Strontium-85	UI	0.127	0.0857	+/-0.0246		pCi/g						
Thallium-208		0.452	0.0627	+/-0.044	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7933
Sample ID: 245691006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.131	0.687	+/-0.194		pCi/g						
Thorium-231	U	0.386	1.14	+/-0.368		pCi/g						
Thorium-234		5.23	1.01	+/-0.751	2.00	pCi/g						
Tin-113	U	-0.0282	0.0793	+/-0.0246	0.100	pCi/g						
Uranium-235	UI	0.503	0.336	+/-0.180	0.500	pCi/g						
Yttrium-88	U	-0.0393	0.045	+/-0.0175	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		184	181	+/-58.0	250	pCi/L		KXK2	02/14/10	2139	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	74.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	86.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Report Date: February 20, 2010

Client Sample ID: RE15-10-7933
Sample ID: 245691006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7939
Sample ID: 245691007
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 23.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00663	0.0253	+/-0.00337	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00549	0.0251	+/-0.00698	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00137	0.0189	+/-0.00349	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.37	0.0759	+/-0.115	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.104	0.0484	+/-0.0228	0.100	pCi/g						
Uranium-238		2.23	0.0518	+/-0.176	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.080	0.222	+/-0.0697	0.200	pCi/g		MJH1	02/09/10	1524	947037	4
Bismuth-211	UI	3.51	0.253	+/-0.286		pCi/g						
Bismuth-214		1.15	0.0969	+/-0.0955	0.200	pCi/g						
Cadmium-109	UI	3.44	0.963	+/-0.495		pCi/g						
Cerium-139	U	-0.011	0.0423	+/-0.0124	0.050	pCi/g						
Cesium-134	UI	0.114	0.0811	+/-0.0354	0.100	pCi/g						
Cesium-137		0.083	0.0563	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	-0.00829	0.0514	+/-0.0164	0.100	pCi/g						
Europium-152	U	0.00503	0.125	+/-0.0401	0.200	pCi/g						
Lanthanum-140	U	-0.0847	0.0923	+/-0.0349		pCi/g						
Lead-212		1.51	0.0759	+/-0.101	0.100	pCi/g						
Lead-214		1.22	0.0882	+/-0.104	0.100	pCi/g						
Mercury-203	U	-0.00108	0.0561	+/-0.0169	0.100	pCi/g						
Potassium-40		22.8	0.478	+/-1.24	1.00	pCi/g						
Radium-223	U	-0.0559	0.875	+/-0.302		pCi/g						
Radium-224	UI	3.94	0.864	+/-0.590		pCi/g						
Radium-226		1.15	0.0969	+/-0.0955		pCi/g						
Radium-228		1.38	0.200	+/-0.169	0.500	pCi/g						
Ruthenium-106	U	-0.023	0.422	+/-0.128	0.800	pCi/g						
Sodium-22	U	0.00468	0.0577	+/-0.0174	0.080	pCi/g						
Strontium-85	U	0.0554	0.0566	+/-0.0166		pCi/g						
Thallium-208		0.430	0.0508	+/-0.0407	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7939
Sample ID: 245691007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.347	0.527	+/-0.170		pCi/g						
Thorium-231	U	-0.0559	0.875	+/-0.302		pCi/g						
Thorium-234		1.94	1.83	+/-0.769	2.00	pCi/g						
Tin-113	U	-0.0263	0.0585	+/-0.0177	0.100	pCi/g						
Uranium-235	U	0.140	0.314	+/-0.0882	0.500	pCi/g						
Yttrium-88	U	0.0116	0.0452	+/-0.0125	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	152	180	+/-56.8	250	pCi/L		KXK2	02/14/10	2317	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Report Date: February 20, 2010

Client Sample ID: RE15-10-7939
Sample ID: 245691007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7936
Sample ID: 245691008
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 3.67%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000133	0.0227	+/-0.00187	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0111	0.0279	+/-0.00809	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	-0.00734	0.0211	+/-0.00391	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.919	0.0728	+/-0.0821	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.0784	0.0464	+/-0.0176	0.100	pCi/g						
Uranium-238		1.51	0.0497	+/-0.123	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.112	0.285	+/-0.0872	0.200	pCi/g		MJH1	02/09/10	1532	947037	4
Bismuth-211	UI	4.46	0.336	+/-0.271		pCi/g						
Bismuth-214		1.30	0.114	+/-0.100	0.200	pCi/g						
Cadmium-109	UI	4.42	1.28	+/-0.625		pCi/g						
Cerium-139	U	0.00905	0.0525	+/-0.0157	0.050	pCi/g						
Cesium-134	U	0.0999	0.103	+/-0.0279	0.100	pCi/g						
Cesium-137	U	0.00503	0.0694	+/-0.0209	0.100	pCi/g						
Cobalt-60	U	-0.0124	0.066	+/-0.0209	0.100	pCi/g						
Europium-152	U	-0.0872	0.161	+/-0.0508	0.200	pCi/g						
Lanthanum-140	U	-0.0286	0.137	+/-0.0431		pCi/g						
Lead-212		1.73	0.0976	+/-0.0857	0.100	pCi/g						
Lead-214		1.55	0.117	+/-0.103	0.100	pCi/g						
Mercury-203	U	0.0043	0.0731	+/-0.0213	0.100	pCi/g						
Potassium-40		38.7	0.316	+/-1.73	1.00	pCi/g						
Radium-223	U	-0.602	1.11	+/-0.403		pCi/g						
Radium-224	UI	4.20	1.11	+/-0.499		pCi/g						
Radium-226		1.30	0.114	+/-0.100		pCi/g						
Radium-228		1.87	0.237	+/-0.190	0.500	pCi/g						
Ruthenium-106	U	0.0591	0.622	+/-0.183	0.800	pCi/g						
Sodium-22	U	-0.0404	0.0808	+/-0.0265	0.080	pCi/g						
Strontium-85	U	0.0567	0.0679	+/-0.0212		pCi/g						
Thallium-208		0.593	0.0607	+/-0.0544	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7936
Sample ID: 245691008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.157	0.674	+/-0.193		pCi/g						
Thorium-231	U	-0.602	1.11	+/-0.403		pCi/g						
Thorium-234	U	1.86	2.42	+/-0.981	2.00	pCi/g						
Tin-113	U	-0.0332	0.075	+/-0.0237	0.100	pCi/g						
Uranium-235	U	-0.0688	0.375	+/-0.115	0.500	pCi/g						
Yttrium-88	U	0.0164	0.0643	+/-0.018	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		5220	369	+/-456	250	pCi/L		KXK2	02/15/10	0839	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
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- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Report Date: February 20, 2010

Client Sample ID: RE15-10-7936
Sample ID: 245691008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7935
Sample ID: 245691009
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 23.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00172	0.0232	+/-0.00238	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00123	0.0262	+/-0.0021	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.0173	0.0198	+/-0.00669	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		16.8	0.316	+/-1.33	0.100	pCi/g		CXM2	02/18/10	1841	952128	3
Uranium-235/236		1.44	0.202	+/-0.184	0.100	pCi/g						
Uranium-238		72.1	0.216	+/-5.46	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.308	0.475	+/-0.143	0.200	pCi/g		MJH1	02/09/10	1532	947037	5
Bismuth-211	UI	3.70	0.281	+/-0.226		pCi/g						
Bismuth-214		1.15	0.0915	+/-0.0834	0.200	pCi/g						
Cadmium-109	UI	2.47	2.29	+/-0.708		pCi/g						
Cerium-139	U	0.000849	0.0515	+/-0.0163	0.050	pCi/g						
Cesium-134	UI	0.110	0.0772	+/-0.0235	0.100	pCi/g						
Cesium-137	U	0.0432	0.0581	+/-0.016	0.100	pCi/g						
Cobalt-60	U	0.0142	0.052	+/-0.0152	0.100	pCi/g						
Europium-152	U	0.0395	0.138	+/-0.0549	0.200	pCi/g						
Lanthanum-140	U	-0.000368	0.0999	+/-0.030		pCi/g						
Lead-212		1.42	0.0821	+/-0.0674	0.100	pCi/g						
Lead-214		1.29	0.0978	+/-0.0856	0.100	pCi/g						
Mercury-203	U	-0.00269	0.0592	+/-0.0175	0.100	pCi/g						
Potassium-40		25.8	0.400	+/-1.17	1.00	pCi/g						
Protactinium-234m		97.3	5.31	+/-6.99		pCi/g						
Radium-223	U	0.243	0.918	+/-0.307		pCi/g						
Radium-224	UI	4.25	0.933	+/-0.570		pCi/g						
Radium-226		1.15	0.0915	+/-0.0834		pCi/g						
Radium-228		1.50	0.167	+/-0.154	0.500	pCi/g						
Ruthenium-106	U	-0.0133	0.446	+/-0.135	0.800	pCi/g						
Sodium-22	U	-0.0172	0.0516	+/-0.0163	0.080	pCi/g						
Strontium-85	UI	0.066	0.0567	+/-0.0174		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7935 Project: LANL01004
Sample ID: 245691009 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.450	0.0478	+/-0.041	0.080	pCi/g						
Thorium-227	U	0.264	0.614	+/-0.199		pCi/g						
Thorium-231	U	0.243	0.918	+/-0.307		pCi/g						
Thorium-234		69.6	3.48	+/-6.48	2.00	pCi/g						
Tin-113	U	-0.0313	0.0611	+/-0.0183	0.100	pCi/g						
Uranium-235		1.27	0.365	+/-0.197	0.500	pCi/g						
Yttrium-88	U	-0.0438	0.0379	+/-0.0146	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		13700	369	+/-1040	250	pCi/L		KXK2	02/15/10	0855	948402	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	70.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Report Date: February 20, 2010

Client Sample ID: RE15-10-7935
Sample ID: 245691009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7934
Sample ID: 245691010
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 9.67%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00289	0.0235	+/-0.00214	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00373	0.027	+/-0.00468	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00527	0.0204	+/-0.00306	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.825	0.0742	+/-0.0756	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236	U	0.040	0.0473	+/-0.0134	0.100	pCi/g						
Uranium-238		1.03	0.0506	+/-0.0904	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.193	0.263	+/-0.0811	0.200	pCi/g		MJH1	02/09/10	1533	947037	4
Bismuth-211	UI	3.94	0.316	+/-0.257		pCi/g						
Bismuth-214		1.17	0.100	+/-0.0931	0.200	pCi/g						
Cadmium-109	UI	3.50	1.40	+/-0.499		pCi/g						
Cerium-139	U	-0.00522	0.0495	+/-0.0148	0.050	pCi/g						
Cesium-134	U	0.0665	0.0914	+/-0.0328	0.100	pCi/g						
Cesium-137	U	-0.0141	0.064	+/-0.0198	0.100	pCi/g						
Cobalt-60	U	-0.0267	0.0604	+/-0.0197	0.100	pCi/g						
Europium-152	U	-0.167	0.150	+/-0.0658	0.200	pCi/g						
Lanthanum-140	U	0.0726	0.137	+/-0.0403		pCi/g						
Lead-212		1.65	0.0998	+/-0.0821	0.100	pCi/g						
Lead-214		1.37	0.110	+/-0.0962	0.100	pCi/g						
Mercury-203	U	0.0414	0.0726	+/-0.0226	0.100	pCi/g						
Potassium-40		28.2	0.480	+/-1.34	1.00	pCi/g						
Radium-223	U	0.0609	1.13	+/-0.372		pCi/g						
Radium-224	UI	3.86	1.14	+/-0.654		pCi/g						
Radium-226		1.17	0.100	+/-0.0931		pCi/g						
Radium-228		1.69	0.221	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	0.0157	0.532	+/-0.159	0.800	pCi/g						
Sodium-22	U	0.00576	0.0712	+/-0.0211	0.080	pCi/g						
Strontium-85	U	0.0672	0.0691	+/-0.0208		pCi/g						
Thallium-208		0.585	0.0523	+/-0.0454	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7934
Sample ID: 245691010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0921	0.671	+/-0.205		pCi/g						
Thorium-231	U	0.0609	1.13	+/-0.372		pCi/g						
Thorium-234	U	1.13	2.13	+/-1.00	2.00	pCi/g						
Tin-113	U	0.0108	0.0762	+/-0.0219	0.100	pCi/g						
Uranium-235	U	0.0263	0.361	+/-0.108	0.500	pCi/g						
Yttrium-88	U	-0.00791	0.0546	+/-0.0175	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		843	369	+/-156	250	pCi/L		KXK2	02/15/10	0911	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	89.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Report Date: February 20, 2010

Client Sample ID: RE15-10-7934
Sample ID: 245691010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7940
Sample ID: 245691011
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 4.85%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00488	0.0251	+/-0.00288	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000808	0.0282	+/-0.00262	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.000514	0.0213	+/-0.00226	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.700	0.0744	+/-0.0667	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236	U	0.0364	0.0474	+/-0.0129	0.100	pCi/g						
Uranium-238		0.640	0.0508	+/-0.0622	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.127	0.193	+/-0.0592	0.200	pCi/g		MJH1	02/09/10	1533	947037	4
Bismuth-211	UI	4.24	0.327	+/-0.296		pCi/g						
Bismuth-214		1.30	0.106	+/-0.111	0.200	pCi/g						
Cadmium-109	UI	4.14	1.08	+/-0.495		pCi/g						
Cerium-139	U	-0.00689	0.0472	+/-0.0145	0.050	pCi/g						
Cesium-134	UI	0.140	0.0943	+/-0.0365	0.100	pCi/g						
Cesium-137	U	-0.0473	0.0553	+/-0.018	0.100	pCi/g						
Cobalt-60	U	0.0271	0.0652	+/-0.0187	0.100	pCi/g						
Europium-152	U	0.0293	0.159	+/-0.0522	0.200	pCi/g						
Lanthanum-140	U	-0.00883	0.117	+/-0.036		pCi/g						
Lead-212		1.80	0.0895	+/-0.111	0.100	pCi/g						
Lead-214		1.47	0.103	+/-0.110	0.100	pCi/g						
Mercury-203	U	0.0306	0.0679	+/-0.0191	0.100	pCi/g						
Potassium-40		35.7	0.526	+/-1.80	1.00	pCi/g						
Radium-223	U	-0.014	1.02	+/-0.340		pCi/g						
Radium-224	UI	5.04	1.02	+/-0.779		pCi/g						
Radium-226		1.30	0.106	+/-0.111		pCi/g						
Radium-228		1.96	0.231	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	0.138	0.513	+/-0.152	0.800	pCi/g						
Sodium-22	U	-0.00601	0.0712	+/-0.0223	0.080	pCi/g						
Strontium-85	U	0.062	0.0694	+/-0.0217		pCi/g						
Thallium-208		0.608	0.0545	+/-0.0515	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7940 Project: LANL01004
Sample ID: 245691011 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.322	0.566	+/-0.174		pCi/g						
Thorium-231	U	-0.014	1.02	+/-0.340		pCi/g						
Thorium-234	U	1.43	1.70	+/-0.690	2.00	pCi/g						
Tin-113	U	-0.00679	0.0656	+/-0.0197	0.100	pCi/g						
Uranium-235	U	-0.0501	0.337	+/-0.102	0.500	pCi/g						
Yttrium-88	U	0.0145	0.0503	+/-0.0139	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		794	369	+/-152	250	pCi/L		KXK2	02/15/10	0928	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	89.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	102	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7940
Sample ID: 245691011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7937
Sample ID: 245691012
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 23.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00541	0.0287	+/-0.00336	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00244	0.0293	+/-0.00303	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.0144	0.0221	+/-0.0061	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.32	0.0737	+/-0.181	0.100	pCi/g		CXM2	02/10/10	1043	947357	3
Uranium-235/236		0.152	0.047	+/-0.0266	0.100	pCi/g						
Uranium-238		4.53	0.0503	+/-0.334	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.227	0.355	+/-0.109	0.200	pCi/g		MJH1	02/09/10	1533	947037	4
Bismuth-211	UI	4.25	0.340	+/-0.281		pCi/g						
Bismuth-214		1.13	0.119	+/-0.0911	0.200	pCi/g						
Cadmium-109	UI	2.84	1.43	+/-0.448		pCi/g						
Cerium-139	U	0.00608	0.0557	+/-0.0164	0.050	pCi/g						
Cesium-134	U	0.060	0.0892	+/-0.024	0.100	pCi/g						
Cesium-137	UI	0.283	0.119	+/-0.0296	0.100	pCi/g						
Cobalt-60	U	-0.0112	0.0582	+/-0.0187	0.100	pCi/g						
Europium-152	U	-0.0108	0.163	+/-0.0698	0.200	pCi/g						
Lanthanum-140	U	-0.139	0.0993	+/-0.0427		pCi/g						
Lead-212		1.47	0.102	+/-0.0765	0.100	pCi/g						
Lead-214		1.48	0.118	+/-0.105	0.100	pCi/g						
Mercury-203	U	-0.00778	0.074	+/-0.0214	0.100	pCi/g						
Potassium-40		19.7	0.669	+/-1.08	1.00	pCi/g						
Radium-223	U	-0.848	1.11	+/-0.406		pCi/g						
Radium-224	UI	4.33	1.16	+/-0.576		pCi/g						
Radium-226		1.13	0.119	+/-0.0911		pCi/g						
Radium-228	UI	1.38	0.469	+/-0.162	0.500	pCi/g						
Ruthenium-106	U	-0.111	0.541	+/-0.168	0.800	pCi/g						
Sodium-22	U	-0.00306	0.0786	+/-0.0241	0.080	pCi/g						
Strontium-85	U	0.0349	0.0646	+/-0.0205		pCi/g						
Thallium-208		0.451	0.0596	+/-0.0445	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7937
Sample ID: 245691012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.271	0.715	+/-0.209		pCi/g						
Thorium-231	U	-0.848	1.11	+/-0.406		pCi/g						
Thorium-234		4.76	2.89	+/-1.16	2.00	pCi/g						
Tin-113	U	0.0308	0.0847	+/-0.0239	0.100	pCi/g						
Uranium-235	U	0.241	0.412	+/-0.119	0.500	pCi/g						
Yttrium-88	U	0.0114	0.0615	+/-0.0176	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		186	181	+/-58.1	250	pCi/L		KXK2	02/15/10	0055	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	65.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-7937
Sample ID: 245691012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID:	RE15-10-8056	Project:	LANL01004
Sample ID:	245691013	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	3.56%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0042	0.0225	+/-0.00252	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00179	0.0229	+/-0.00498	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.00679	0.0173	+/-0.00396	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.976	0.0546	+/-0.0806	0.100	pCi/g		CXM2	02/09/10	1126	947357	3
Uranium-235/236		0.0802	0.0348	+/-0.0156	0.100	pCi/g						
Uranium-238		1.91	0.0373	+/-0.145	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0276	0.310	+/-0.099	0.200	pCi/g		MJH1	02/09/10	1737	947037	4
Bismuth-211	UI	3.96	0.283	+/-0.240		pCi/g						
Bismuth-214		1.16	0.0972	+/-0.0848	0.200	pCi/g						
Cadmium-109	UI	2.61	1.54	+/-0.530		pCi/g						
Cerium-139	U	-0.00238	0.0437	+/-0.0126	0.050	pCi/g						
Cesium-134	UI	0.0766	0.076	+/-0.0215	0.100	pCi/g						
Cesium-137	U	-0.0209	0.0508	+/-0.0156	0.100	pCi/g						
Cobalt-60	U	-0.0219	0.0529	+/-0.0171	0.100	pCi/g						
Europium-152	U	0.00258	0.141	+/-0.0492	0.200	pCi/g						
Lanthanum-140	U	-0.00382	0.0977	+/-0.0321		pCi/g						
Lead-212		1.79	0.0803	+/-0.0805	0.100	pCi/g						
Lead-214		1.38	0.0984	+/-0.0908	0.100	pCi/g						
Mercury-203	UI	0.0724	0.0549	+/-0.0281	0.100	pCi/g						
Potassium-40		37.0	0.461	+/-1.61	1.00	pCi/g						
Radium-223	U	0.210	0.918	+/-0.312		pCi/g						
Radium-224	UI	4.76	0.913	+/-0.580		pCi/g						
Radium-226		1.16	0.0972	+/-0.0848		pCi/g						
Radium-228		1.57	0.189	+/-0.160	0.500	pCi/g						
Ruthenium-106	U	0.0867	0.458	+/-0.138	0.800	pCi/g						
Sodium-22	U	0.0144	0.0678	+/-0.0201	0.080	pCi/g						
Strontium-85	UI	0.103	0.0634	+/-0.0188		pCi/g						
Thallium-208		0.532	0.0503	+/-0.0389	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8056
Sample ID: 245691013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.266	0.540	+/-0.168		pCi/g						
Thorium-231	U	0.210	0.918	+/-0.312		pCi/g						
Thorium-234		2.69	2.50	+/-1.09	2.00	pCi/g						
Tin-113	U	0.0274	0.0639	+/-0.018	0.100	pCi/g						
Uranium-235	U	0.122	0.327	+/-0.0984	0.500	pCi/g						
Yttrium-88	U	-0.0179	0.0447	+/-0.015	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		4080	369	+/-378	250	pCi/L		KXK2	02/15/10	0944	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	103	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8056
Sample ID: 245691013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8057
Sample ID: 245691014
Matrix: R
Collect Date: 25-JAN-10
Receive Date: 28-JAN-10
Collector: Client
Moisture: 29.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00389	0.0214	+/-0.00237	0.050	pCi/g		CXM2	02/10/10	1814	947354	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00323	0.0248	+/-0.00229	0.050	pCi/g		CXM2	02/10/10	1627	947356	2
Plutonium-239/240	U	0.0117	0.0187	+/-0.00475	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.48	0.0596	+/-0.117	0.100	pCi/g		CXM2	02/09/10	1126	947357	3
Uranium-235/236		0.149	0.038	+/-0.0236	0.100	pCi/g						
Uranium-238		3.54	0.0407	+/-0.258	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.019	0.108	+/-0.034	0.200	pCi/g		MJH1	02/09/10	1727	947037	4
Bismuth-211	UI	3.96	0.361	+/-0.329		pCi/g						
Bismuth-214		1.17	0.133	+/-0.117	0.200	pCi/g						
Cadmium-109	UI	3.83	1.02	+/-0.472		pCi/g						
Cerium-139	U	-0.0282	0.0473	+/-0.0148	0.050	pCi/g						
Cesium-134	U	0.0849	0.114	+/-0.0305	0.100	pCi/g						
Cesium-137		0.0903	0.078	+/-0.0303	0.100	pCi/g						
Cobalt-60	U	0.0384	0.0917	+/-0.025	0.100	pCi/g						
Europium-152	U	-0.0639	0.165	+/-0.0522	0.200	pCi/g						
Lanthanum-140	U	-0.0674	0.158	+/-0.0541		pCi/g						
Lead-212		1.34	0.112	+/-0.0952	0.100	pCi/g						
Lead-214		1.38	0.126	+/-0.120	0.100	pCi/g						
Mercury-203	U	0.00198	0.0755	+/-0.0216	0.100	pCi/g						
Potassium-40		24.3	0.717	+/-1.45	1.00	pCi/g						
Radium-223	U	0.0993	1.08	+/-0.349		pCi/g						
Radium-224	UI	3.04	1.41	+/-0.501		pCi/g						
Radium-226		1.17	0.133	+/-0.117		pCi/g						
Radium-228		1.55	0.295	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	-0.355	0.546	+/-0.187	0.800	pCi/g						
Sodium-22	U	0.0193	0.0959	+/-0.0282	0.080	pCi/g						
Strontium-85	U	0.0348	0.073	+/-0.0206		pCi/g						
Thallium-208		0.449	0.0712	+/-0.0484	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8057
Sample ID: 245691014
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.121	0.684	+/-0.206		pCi/g						
Thorium-231	U	0.0993	1.08	+/-0.349		pCi/g						
Thorium-234		3.59	1.04	+/-0.685	2.00	pCi/g						
Tin-113	U	0.010	0.0823	+/-0.0239	0.100	pCi/g						
Uranium-235	U	0.146	0.389	+/-0.114	0.500	pCi/g						
Yttrium-88	U	-0.00525	0.0612	+/-0.0195	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	89.9	181	+/-55.2	250	pCi/L		KXK2	02/15/10	0233	948402	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	92.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

Certificate of Analysis

Company : Los Alamos National Laboratory
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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 20, 2010

Client Sample ID: RE15-10-8057
Sample ID: 245691014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

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QC Summary

Report Date: February 20, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245691

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 947354										
QC1202029344 245691001 DUP										
Americium-241	U	-0.0032	U	0.00364	pCi/g	0.641		(0-1)	CXM2	02/10/1018:14
	TPU:	+/-0.00275		+/-0.00258						
	Yield:	82.5		73.8						
QC1202029345 LCS										
Americium-241	33.2			26.4	pCi/g		79.6	(75%-125%)		02/10/1018:14
	TPU:			+/-1.86						
	Yield:			107						
QC1202029343 MB										
Americium-241			U	-0.00541	pCi/g					02/10/1018:14
	TPU:			+/-0.0031						
	Yield:			78.3						
Batch 947356										
QC1202029348 245691001 DUP										
Plutonium-238	U	0.00468	U	0.00	pCi/g	0.519		(0-1)	CXM2	02/10/1016:27
	TPU:	+/-0.00271		+/-0.00179						
	Yield:	95.1		94.7						
Plutonium-239/240	U	-0.000249	U	0.00587	pCi/g	0.453		(0-1)		
	TPU:	+/-0.00294		+/-0.00382						
	Yield:	95.1		94.7						
QC1202029349 LCS										
Plutonium-238				6.81	pCi/g			(75%-125%)		
	TPU:			+/-0.558						
	Yield:			93.8						
Plutonium-239/240	41.8			42.1	pCi/g		101	(75%-125%)		
	TPU:			+/-2.77						
	Yield:			93.8						
QC1202029347 MB										
Plutonium-238			U	-0.00158	pCi/g					
	TPU:			+/-0.00271						
	Yield:			90.4						
Plutonium-239/240			U	0.00281	pCi/g					
	TPU:			+/-0.00349						
	Yield:			90.4						
Batch 947357										
QC1202029351 245691001 DUP										
Uranium-233/234		1.31		1.46	pCi/g	0.319		(0-1)	CXM2	02/09/1011:26
	TPU:	+/-0.108		+/-0.121						
	Yield:	104		75.8						
Uranium-235/236		0.0848		0.125	pCi/g	0.462		(0-1)		
	TPU:	+/-0.0182		+/-0.0247						
	Yield:	104		75.8						
Uranium-238		2.73		2.83	pCi/g	0.118		(0-1)		
	TPU:	+/-0.206		+/-0.217						

QC Summary

Workorder: 245691

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 947357										
	Yield:	104		75.8						
QC1202029352 LCS										
Uranium-233/234				6.27	pCi/g			(75%-125%)		02/09/1011:26
	TPU:			+/-0.543						
	Yield:			89.9						
Uranium-235/236				0.359	pCi/g			(75%-125%)		
	TPU:			+/-0.0809						
	Yield:			89.9						
Uranium-238	5.75			5.77	pCi/g		100	(75%-125%)		
	TPU:			+/-0.504						
	Yield:			89.9						
QC1202029350 MB										
Uranium-233/234			U	0.0183	pCi/g					02/09/1011:26
	TPU:			+/-0.00512						
	Yield:			103						
Uranium-235/236			U	0.00591	pCi/g					
	TPU:			+/-0.00364						
	Yield:			103						
Uranium-238			U	0.00956	pCi/g					
	TPU:			+/-0.00383						
	Yield:			103						
Batch 952128										
QC1202040646 245691009 DUP										
Uranium-233/234		16.8		15.3	pCi/g	0.304		(0-1)	CXM2	02/18/1018:41
	TPU:	+/-1.33		+/-1.22						
	Yield:	70.9		66.4						
Uranium-235/236		1.44		1.62	pCi/g	0.239		(0-1)		
	TPU:	+/-0.184		+/-0.200						
	Yield:	70.9		66.4						
Uranium-238		72.1		78.9	pCi/g	0.295		(0-1)		
	TPU:	+/-5.46		+/-5.96						
	Yield:	70.9		66.4						
QC1202040647 LCS										
Uranium-233/234				6.94	pCi/g			(75%-125%)		02/18/1018:41
	TPU:			+/-0.629						
	Yield:			96.6						
Uranium-235/236			U	0.269	pCi/g			(75%-125%)		
	TPU:			+/-0.0775						
	Yield:			96.6						
Uranium-238	5.75			6.66	pCi/g		116	(75%-125%)		
	TPU:			+/-0.607						
	Yield:			96.6						
QC1202040645 MB										
Uranium-233/234			U	0.0134	pCi/g					02/18/1018:41
	TPU:			+/-0.0049						
	Yield:			103						
Uranium-235/236			U	0.00213	pCi/g					
	TPU:			+/-0.00213						
	Yield:			103						
Uranium-238			U	0.00172	pCi/g					

QC Summary

Workorder: 245691

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 952128										
	TPU:			+/-0.00299						
	Yield:			103						
Rad Gamma Spec										
Batch 947037										
QC1202028549 245691006 DUP										
Americium-241	U	0.0447	U	0.0195	pCi/g	0.0876		(0-1)	MJH1	02/09/1017:44
	TPU:	+/-0.0317		+/-0.112						
Bismuth-211	UI	3.47	UI	3.47	pCi/g	0.00457		(0-1)		
	TPU:	+/-0.303		+/-0.244						
Bismuth-214		1.19		1.07	pCi/g	0.323		(0-1)		
	TPU:	+/-0.0999		+/-0.0797						
Cadmium-109	UI	2.84	UI	4.00	pCi/g	0.616		(0-1)		
	TPU:	+/-0.377		+/-0.563						
Cerium-139	U	0.00366	U	-0.006	pCi/g	0.171		(0-1)		
	TPU:	+/-0.015		+/-0.0133						
Cesium-134	U	0.0808	U	0.0284	pCi/g	0.499		(0-1)		
	TPU:	+/-0.0284		+/-0.0241						
Cesium-137		0.317		0.298	pCi/g	0.139		(0-1)		
	TPU:	+/-0.0392		+/-0.0284						
Cobalt-60	U	0.00478	U	-0.00388	pCi/g	0.117		(0-1)		
	TPU:	+/-0.022		+/-0.015						
Europium-152	U	0.0631	U	0.0507	pCi/g	0.055		(0-1)		
	TPU:	+/-0.0683		+/-0.0447						
Lanthanum-140	U	0.0658	U	0.0356	pCi/g	0.164		(0-1)		
	TPU:	+/-0.052		+/-0.0404						
Lead-212		1.34		1.37	pCi/g	0.0895		(0-1)		
	TPU:	+/-0.0808		+/-0.070						
Lead-214		1.21		1.21	pCi/g	0.00249		(0-1)		
	TPU:	+/-0.110		+/-0.0906						
Mercury-203	U	0.0468	U	0.000818	pCi/g	0.603		(0-1)		
	TPU:	+/-0.0208		+/-0.0173						
Potassium-40		21.3		21.0	pCi/g	0.0681		(0-1)		
	TPU:	+/-1.02		+/-1.18						
Protactinium-234m	U	6.36	U	5.11	pCi/g	0.104		(0-1)		
	TPU:	+/-3.44		+/-2.54						
Radium-223	U	0.386	U	0.334	pCi/g	0.0386		(0-1)		
	TPU:	+/-0.368		+/-0.308						
Radium-224	UI	3.15	UI	4.10	pCi/g	0.445		(0-1)		
	TPU:	+/-0.508		+/-0.568						
Radium-226		1.19		1.07	pCi/g	0.323		(0-1)		
	TPU:	+/-0.0999		+/-0.0797						
Radium-228		1.32		1.40	pCi/g	0.128		(0-1)		
	TPU:	+/-0.166		+/-0.147						
Ruthenium-106	U	-0.366	U	0.280	pCi/g	1.04		(0-1)		
	TPU:	+/-0.184		+/-0.127						
Sodium-22	U	-0.0161	U	-0.0392	pCi/g	0.248		(0-1)		
	TPU:	+/-0.0261		+/-0.0204						
Strontium-85	UI	0.127	U	0.00602	pCi/g	1.46		(0-1)		
	TPU:	+/-0.0246		+/-0.0168						
Thallium-208		0.452		0.454	pCi/g	0.0123		(0-1)		

QC Summary

Workorder: 245691

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947037										
	TPU:	+/-0.044		+/-0.0374						
Thorium-227	U	0.131	U	0.0279	pCi/g	0.147		(0-1)		
	TPU:	+/-0.194		+/-0.155						
Thorium-231	U	0.386	U	0.334	pCi/g	0.0386		(0-1)		
	TPU:	+/-0.368		+/-0.308						
Thorium-234		5.23		5.51	pCi/g	0.0651		(0-1)		
	TPU:	+/-0.751		+/-1.37						
Tin-113	U	-0.0282	U	0.000544	pCi/g	0.331		(0-1)		
	TPU:	+/-0.0246		+/-0.0188						
Uranium-235	U1	0.503	U	0.0484	pCi/g	0.816		(0-1)		
	TPU:	+/-0.180		+/-0.0989						
Yttrium-88	U	-0.0393	U	0.0148	pCi/g	0.857		(0-1)		
	TPU:	+/-0.0175		+/-0.0141						
QC1202028550 LCS										
Americium-241	15.9			13.2	pCi/g		83.1	(75%-125%)		02/09/1017:44
	TPU:			+/-0.672						
Bismuth-211				2.18	pCi/g					
	TPU:			+/-0.321						
Bismuth-214				0.537	pCi/g					
	TPU:			+/-0.102						
Cadmium-109				31.2	pCi/g					
	TPU:			+/-1.93						
Cerium-139			U	0.0373	pCi/g					
	TPU:			+/-0.0228						
Cesium-134			U	0.0665	pCi/g					
	TPU:			+/-0.0462						
Cesium-137	5.56			5.53	pCi/g		99.5	(75%-125%)		
	TPU:			+/-0.210						
Cobalt-60	6.41			6.71	pCi/g		105	(75%-125%)		
	TPU:			+/-0.296						
Europium-152			U	0.160	pCi/g					
	TPU:			+/-0.111						
Lanthanum-140			U	-0.000377	pCi/g					
	TPU:			+/-0.038						
Lead-212				0.917	pCi/g					
	TPU:			+/-0.103						
Lead-214				0.757	pCi/g					
	TPU:			+/-0.113						
Mercury-203			U	0.022	pCi/g					
	TPU:			+/-0.0329						
Potassium-40			U	0.597	pCi/g					
	TPU:			+/-0.284						
Protactinium-234m			U	4.86	pCi/g					
	TPU:			+/-4.86						
Radium-223			U	-0.657	pCi/g					
	TPU:			+/-0.609						
Radium-224				5.86	pCi/g					
	TPU:			+/-0.793						
Radium-226				0.537	pCi/g					
	TPU:			+/-0.102						
Radium-228				0.988	pCi/g					

QC Summary

Workorder: 245691

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947037										
	TPU:			+/-0.258						
Ruthenium-106			U	-0.0699	pCi/g					
	TPU:			+/-0.297						
Sodium-22			U	0.0147	pCi/g					
	TPU:			+/-0.0246						
Strontium-85			U	0.0588	pCi/g					
	TPU:			+/-0.0365						
Thallium-208				0.338	pCi/g					
	TPU:			+/-0.075						
Thorium-227			U	-0.405	pCi/g					
	TPU:			+/-0.346						
Thorium-231			U	-0.657	pCi/g					
	TPU:			+/-0.609						
Thorium-234			U	-2.03	pCi/g					
	TPU:			+/-1.16						
Tin-113			U	0.0291	pCi/g					
	TPU:			+/-0.0406						
Uranium-235			U	0.0661	pCi/g					
	TPU:			+/-0.168						
Yttrium-88			U	-0.00667	pCi/g					
	TPU:			+/-0.0202						
QC1202028548 MB										
Americium-241			U	0.00685	pCi/g					02/09/1017:28
	TPU:			+/-0.00599						
Bismuth-211			U	0.0469	pCi/g					
	TPU:			+/-0.0511						
Bismuth-214			U	0.0393	pCi/g					
	TPU:			+/-0.0247						
Cadmium-109			U	0.0741	pCi/g					
	TPU:			+/-0.064						
Cerium-139			U	-0.00775	pCi/g					
	TPU:			+/-0.00463						
Cesium-134			U	-0.0154	pCi/g					
	TPU:			+/-0.0128						
Cesium-137			U	0.0107	pCi/g					
	TPU:			+/-0.00949						
Cobalt-60			U	0.0214	pCi/g					
	TPU:			+/-0.0127						
Europium-152			U	-0.0194	pCi/g					
	TPU:			+/-0.0222						
Lanthanum-140			U	0.0125	pCi/g					
	TPU:			+/-0.0202						
Lead-212			U	0.0158	pCi/g					
	TPU:			+/-0.0213						
Lead-214			U	0.0132	pCi/g					
	TPU:			+/-0.021						
Mercury-203			U	-0.00281	pCi/g					
	TPU:			+/-0.00727						
Potassium-40			U	0.268	pCi/g					
	TPU:			+/-0.131						
Protactinium-234m			U	-0.513	pCi/g					

QC Summary

Workorder: 245691

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 947037										
	TPU:			+/-0.820						
Radium-223			U	-0.00294	pCi/g					
	TPU:			+/-0.133						
Radium-224			U	0.179	pCi/g					
	TPU:			+/-0.241						
Radium-226			U	0.0393	pCi/g					
	TPU:			+/-0.0247						
Radium-228			U	-0.0038	pCi/g					
	TPU:			+/-0.0303						
Ruthenium-106			U	-0.115	pCi/g					
	TPU:			+/-0.0983						
Sodium-22			U	-0.0206	pCi/g					
	TPU:			+/-0.0115						
Strontium-85			U	0.0196	pCi/g					
	TPU:			+/-0.0107						
Thallium-208			U	-0.0099	pCi/g					
	TPU:			+/-0.011						
Thorium-227			U	0.00934	pCi/g					
	TPU:			+/-0.0633						
Thorium-231			U	-0.00294	pCi/g					
	TPU:			+/-0.133						
Thorium-234			U	0.0891	pCi/g					
	TPU:			+/-0.0565						
Tin-113			U	-0.0123	pCi/g					
	TPU:			+/-0.00919						
Uranium-235			U	-0.0131	pCi/g					
	TPU:			+/-0.0372						
Yttrium-88			U	-0.0106	pCi/g					
	TPU:			+/-0.0137						
Rad Liquid Scintillation										
Batch 948402										
QC1202031683 245691001 DUP										
Tritium	U	155	U	113	pCi/L	0.177		(0-1)	KXK2	02/15/1005:49
	TPU:	+/-63.6		+/-55.9						
QC1202031684 LCS										
Tritium	5560			5630	pCi/L		101	(75%-125%)		02/15/1010:00
	TPU:			+/-484						
QC1202031682 MB										
Tritium			U	-34.2	pCi/L					02/15/1004:11
	TPU:			+/-52.2						

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: **245691**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 947354 Product: Am Date: 2/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/11/10

Secondary Review Performed By: [illegible] 2/15/10

2/18
LANL

Am/Cm Que Sheet

01-FEB-10

Batch #: 947354 Analyst: CXM2 First Client Due Date: 18-FEB-10 Internal Due Date08-FEB-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-55 Expiration Date: 5/11/10 Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0244-B / — Expiration Date: 4/30/20 / — Vol(s): 0.111g / — * SRM

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 2/4/10 Initials: CMM Pipet ID: 2471058 Balance ID: 50410272 Witness: MG 2/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245667001-1	RE16-10-1343	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	1	1	1.253	88
245667002-1	RE16-10-1345	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	2	2	1.256	211
245667003-1	RE16-10-1347	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	3	3	1.259	212
245667004-1	RE16-10-1349	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	4	4	1.267	213
245667005-1	RE16-10-1351	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	5	5	1.254	214
245667006-1	RE16-10-1365	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	6	6	1.266	215
245691001-1	RE15-10-7883	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	7	7	1.255	216
245691002-1	RE15-10-7884	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	8	8	1.254	217
245691003-1	RE15-10-7932	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	9	9	1.263	218
245691004-1	RE15-10-7931	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	10	10	1.253	219
245691005-1	RE15-10-7938	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	11	11	1.264	220
245691006-1	RE15-10-7933	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	12	12	1.251	231
245691007-1	RE15-10-7939	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	13	13	1.264	232
245691008-1	RE15-10-7936	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	14	14	1.262	233
245691009-1	RE15-10-7935	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	15	15	1.253	234
245691010-1	RE15-10-7934	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	16	16	1.262	235
245691011-1	RE15-10-7940	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	17	17	1.250	236
245691012-1	RE15-10-7937	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	18	18	1.262	237
245691013-1	RE15-10-8056	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	19	19	1.265	238
245691014-1	RE15-10-8057	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	20	20	1.253	239
1202029343-1	MB for batch 947354	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.00	240
1202029344-1	RE15-10-7883(245691001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	25-JAN-10	22	22	1.254	241
1202029345-1	LCS for batch 947354	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.111	242

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [signature] 2/11/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 947354

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202029344	DUP	Americium-241	1.25 g	0.00364	0.00258	0.0272	-.004328	pCi/g	NO
1202029345	LCS	Americium-241	0.111 g	26.4	1.86	0.207	-.04873874	pCi/g	NO
1202029343	MB	Americium-241	1.00 g	-0.00541	0.0031	0.0325	-.00541	pCi/g	NO
245667001	RE16-10-1343	Americium-241	1.25 g	0.00623	0.00543	0.0314	-.004328	pCi/g	NO
245667002	RE16-10-1345	Americium-241	1.26 g	-0.00283	0.00359	0.0253	-.00429365	pCi/g	NO
245667003	RE16-10-1347	Americium-241	1.26 g	-9.66E-05	0.00172	0.0257	-.00429365	pCi/g	NO
245667004	RE16-10-1349	Americium-241	1.27 g	-0.0018	0.00178	0.0266	-.00425984	pCi/g	NO
245667005	RE16-10-1351	Americium-241	1.25 g	-0.00055	0.0034	0.034	-.004328	pCi/g	NO
245667006	RE16-10-1365	Americium-241	1.27 g	-0.00424	0.00241	0.0253	-.00425984	pCi/g	NO
245691001	RE15-10-7883	Americium-241	1.26 g	-0.0032	0.00275	0.0235	-.00429365	pCi/g	NO
245691002	RE15-10-7884	Americium-241	1.25 g	-0.00133	0.00214	0.026	-.004328	pCi/g	NO
245691003	RE15-10-7932	Americium-241	1.26 g	-0.00162	0.00301	0.0228	-.00429365	pCi/g	NO
245691004	RE15-10-7931	Americium-241	1.25 g	0.00175	0.00179	0.0267	-.004328	pCi/g	NO
245691005	RE15-10-7938	Americium-241	1.26 g	-0.00181	0.00149	0.0222	-.00429365	pCi/g	NO
245691006	RE15-10-7933	Americium-241	1.25 g	0.00339	0.00244	0.026	-.004328	pCi/g	NO
245691007	RE15-10-7939	Americium-241	1.26 g	0.00663	0.00337	0.0253	-.00429365	pCi/g	NO
245691008	RE15-10-7936	Americium-241	1.26 g	0.000133	0.00187	0.0227	-.00429365	pCi/g	NO
245691009	RE15-10-7935	Americium-241	1.25 g	0.00172	0.00238	0.0232	-.004328	pCi/g	NO
245691010	RE15-10-7934	Americium-241	1.26 g	0.00289	0.00214	0.0235	-.00429365	pCi/g	NO
245691011	RE15-10-7940	Americium-241	1.25 g	0.00488	0.00288	0.0251	-.004328	pCi/g	NO
245691012	RE15-10-7937	Americium-241	1.26 g	-0.00541	0.00336	0.0287	-.00429365	pCi/g	NO
245691013	RE15-10-8056	Americium-241	1.27 g	0.0042	0.00252	0.0225	-.00425984	pCi/g	NO
245691014	RE15-10-8057	Americium-241	1.25 g	0.00389	0.00237	0.0214	-.004328	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354	CHAMBER : 216	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245691001_AM	DETECTOR S/N : 79195	BKG FILE : B216.CNF;78
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 38.5339	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 18:13:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W216.CNF;28
% YIELD : 82.502		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4062E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5524.599	108.625	2.000	-2.039	2.880	2.8409	99.94000	-3.20E-03	2.75E-03	9.62E-03	2.35E-02	2.75E-03
AM243	5270.000	5283.335	46.434	669.000	666.120	2.880	1.6971	99.78000	1.05E+00	7.72E-02	5.75E-03	1.58E-02	4.07E-02
CM-242	6102.000	6062.522	4.938	1.000	1.000	0.000	4.3413	100.0000	1.69E-03	1.69E-03	1.47E-02	3.36E-02	1.69E-03
CM-3/4	5795.020	5745.961	4.938	1.000	1.000	0.000	5.1799	100.0000	1.57E-03	1.57E-03	1.75E-02	3.93E-02	1.57E-03
CM-5/6	5386.000	5375.854	0.000	6.000	6.000	0.000	14.2480	86.09000	1.09E-02	4.51E-03	5.60E-02	1.17E-01	4.46E-03
CM-247	4946.000	4910.513	54.313	10.000	10.000	0.000	13.7917	79.30000	1.98E-02	6.37E-03	5.88E-02	1.23E-01	6.25E-03
CM-248	5078.600	5068.525	13.964	17.000	17.000	0.000	19.5080	91.00000	2.93E-02	7.34E-03	7.25E-02	1.50E-01	7.10E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

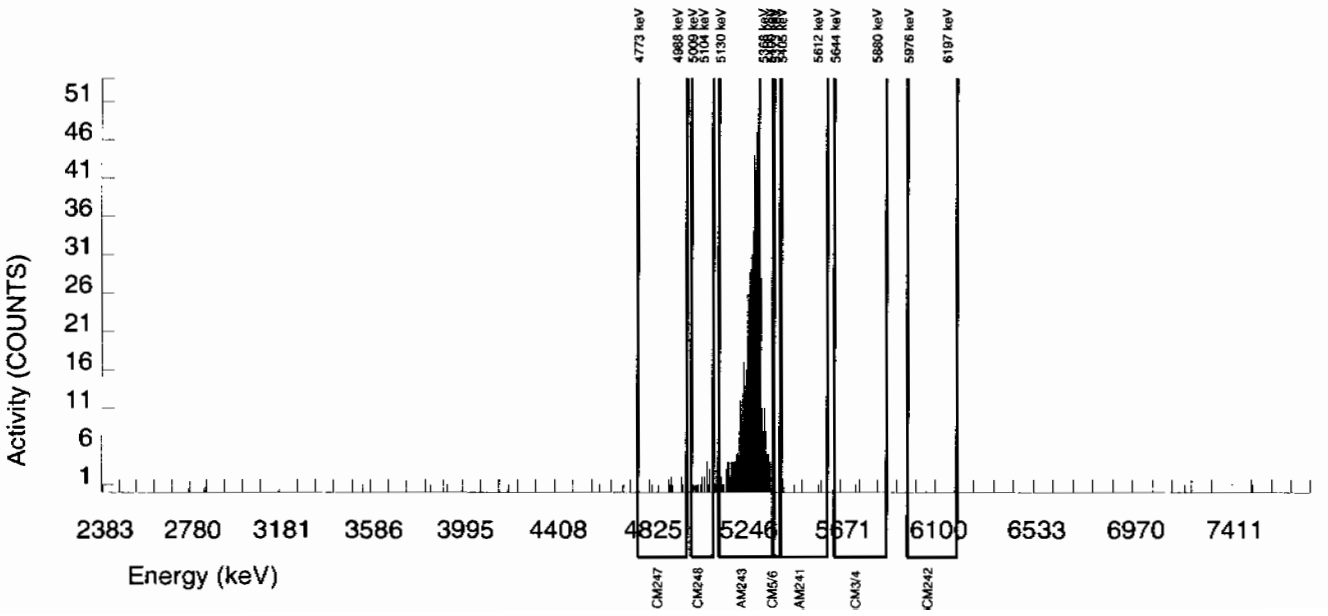

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354	CHAMBER : 217	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245691002_AM	DETECTOR S/N : 79410	BKG FILE : B217.CNF;80
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 36.8046	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 18:13:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W217.CNF;30
% YIELD : 78.100		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2778E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5528.775	4.928	1.000	-0.768	0.720	2.8409	99.94000	-1.33E-03	2.14E-03	1.06E-02	2.60E-02	2.14E-03
AM243	5270.000	5271.186	46.382	603.000	602.280	0.720	0.8485	99.78000	1.05E+00	7.94E-02	3.18E-03	1.11E-02	4.27E-02
CM-242	6102.000	6039.005	88.706	3.000	3.000	0.000	4.3413	100.0000	5.60E-03	3.25E-03	1.63E-02	3.72E-02	3.23E-03
CM-3/4	5795.020	5760.868	0.000	1.000	1.000	0.000	5.1799	100.0000	1.74E-03	1.74E-03	1.94E-02	4.35E-02	1.74E-03
CM-5/6	5386.000	5380.687	8.162	8.000	8.000	0.000	14.2480	86.09000	1.61E-02	5.79E-03	6.20E-02	1.29E-01	5.70E-03
CM-247	4946.000	4901.551	4.928	14.000	13.280	0.720	13.7917	79.30000	2.91E-02	8.54E-03	6.51E-02	1.36E-01	8.34E-03
CM-248	5078.600	5082.479	8.162	17.000	17.000	0.000	19.5080	91.00000	3.24E-02	8.13E-03	8.03E-02	1.66E-01	7.86E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

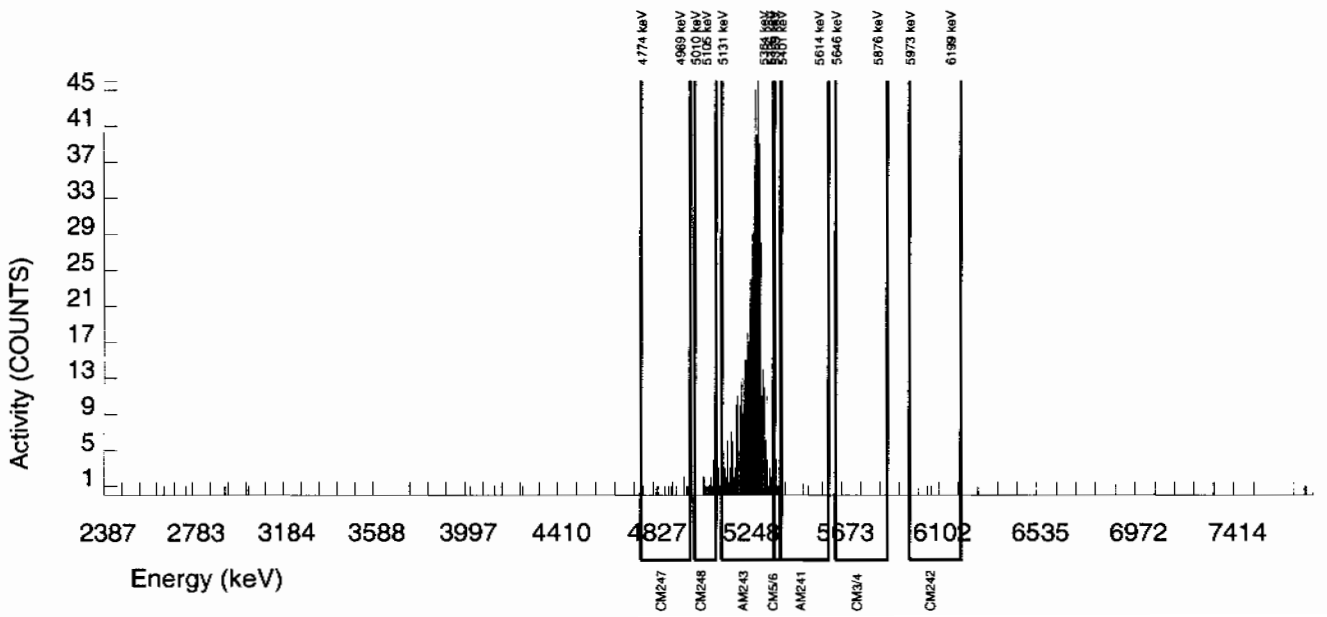

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354	CHAMBER : 218	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245691003_AM	DETECTOR S/N : 79411	BKG FILE : B218.CNF;78
SAMPLE QTY : 1.263 G	AVERAGE %EFFICIENCY : 37.5225	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 18:14:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W218.CNF;28
% YIELD : 86.562		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5246E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.897	127.924	3.000	-1.064	2.880	2.8409	99.94000	-1.62E-03	3.01E-03	9.35E-03	2.28E-02	3.01E-03
AM243	5270.000	5275.953	46.819	682.000	680.560	1.440	1.2000	99.78000	1.04E+00	7.62E-02	3.96E-03	1.21E-02	3.99E-02
CM-242	6102.000	6086.218	4.944	1.000	1.000	0.000	4.3413	100.0000	1.64E-03	1.64E-03	1.43E-02	3.27E-02	1.64E-03
CM-3/4	5795.020	5769.260	4.944	1.000	1.000	0.000	5.1799	100.0000	1.53E-03	1.53E-03	1.70E-02	3.82E-02	1.53E-03
CM-5/6	5386.000	5375.227	0.000	12.000	12.000	0.000	14.2480	86.09000	2.13E-02	6.28E-03	5.45E-02	1.14E-01	6.14E-03
CM-247	4946.000	4943.149	34.505	14.000	14.000	0.000	13.7917	79.30000	2.69E-02	7.39E-03	5.72E-02	1.20E-01	7.20E-03
CM-248	5078.600	5057.946	5.742	21.000	21.000	0.000	19.5080	91.00000	3.52E-02	7.99E-03	7.05E-02	1.46E-01	7.68E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

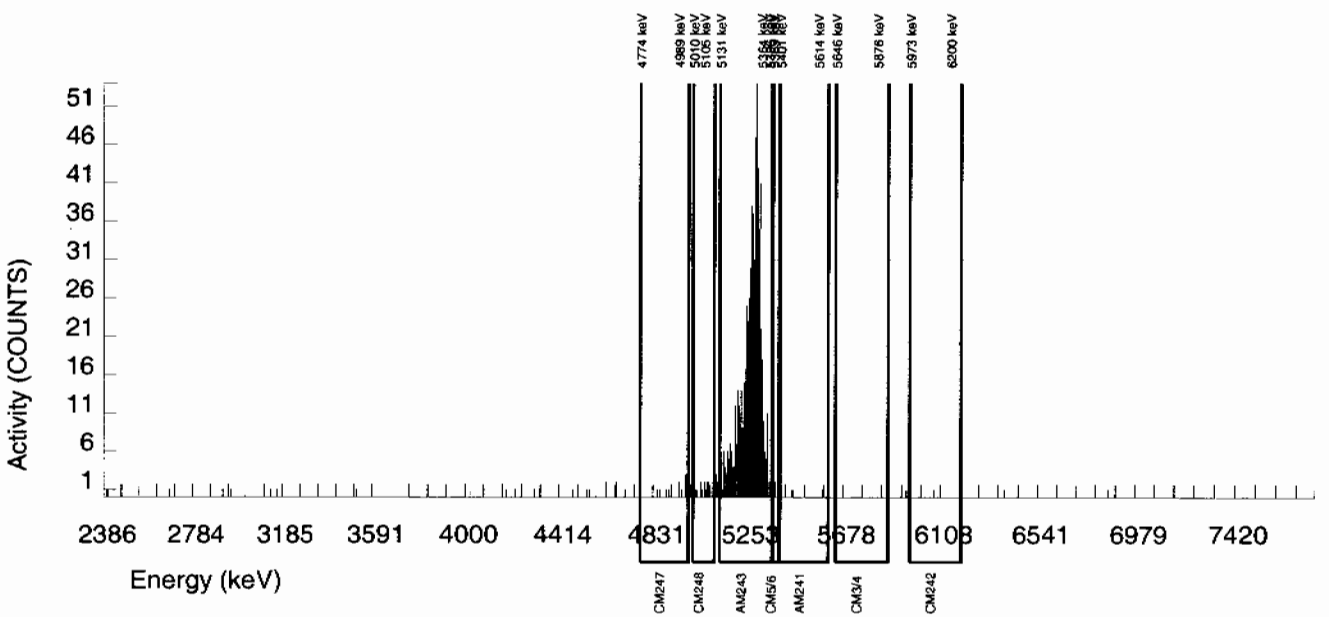

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S0245691004_AM
SAMPLE QTY : 1.253 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 72.780

CHAMBER : 219
DETECTOR S/N : 79412
AVERAGE %EFFICIENCY : 38.4458
COUNT DATE : 10-FEB-2010 18:14:02
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B219.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W219.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1227E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5456.459	0.000	2.000	0.980	0.000	2.8409	99.94000	1.75E-03	1.79E-03	1.09E-02	2.67E-02	1.79E-03
AM243	5270.000	5276.727	61.522	587.000	586.280	0.720	0.8485	99.78000	1.05E+00	8.01E-02	3.27E-03	1.14E-02	4.33E-02
CM-242	6102.000	6020.507	0.000	5.000	4.280	0.720	4.3413	100.0000	8.21E-03	4.54E-03	1.67E-02	3.83E-02	4.51E-03
CM-3/4	5795.020	5764.550	4.916	11.000	10.280	0.720	5.1799	100.0000	1.84E-02	6.18E-03	1.99E-02	4.47E-02	6.07E-03
CM-5/6	5386.000	5375.831	0.000	13.000	13.000	0.000	14.2480	86.09000	2.69E-02	7.67E-03	6.37E-02	1.33E-01	7.47E-03
CM-247	4946.000	4898.154	5.515	11.000	10.280	0.720	13.7917	79.30000	2.31E-02	7.78E-03	6.70E-02	1.40E-01	7.64E-03
CM-248	5078.600	5065.662	26.014	22.000	22.000	0.000	19.5080	91.00000	4.31E-02	9.61E-03	8.25E-02	1.70E-01	9.20E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

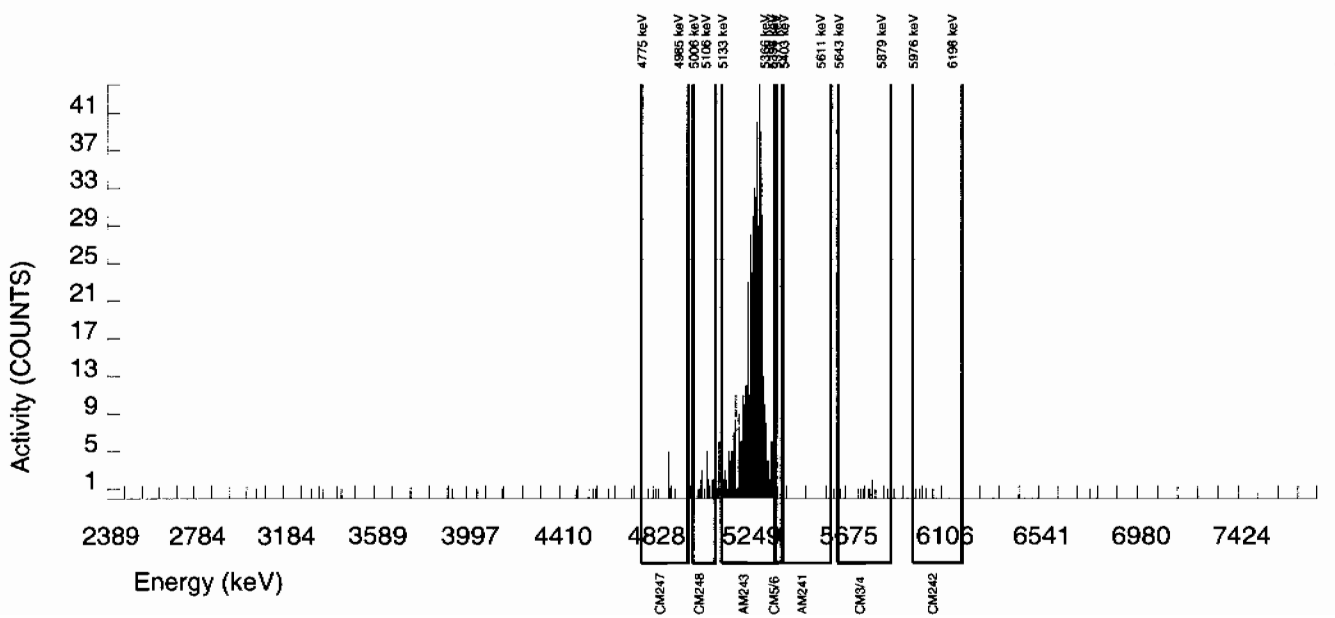

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S0245691005_AM
SAMPLE QTY : 1.264 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 87.962

CHAMBER : 220
DETECTOR S/N : 79413
AVERAGE %EFFICIENCY : 37.8868
COUNT DATE : 10-FEB-2010 18:14:04
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B220.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W220.CNF;30
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5655E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.904	0.000	0.000	-1.215	0.000	2.8409	99.94000	-1.81E-03	1.49E-03	9.11E-03	2.22E-02	1.49E-03
AM243	5270.000	5271.871	54.288	699.000	698.280	0.720	0.8485	99.78000	1.04E+00	7.55E-02	2.72E-03	9.48E-03	3.94E-02
CM-242	6102.000	6043.153	49.227	4.000	4.000	0.000	4.3413	100.0000	6.39E-03	3.22E-03	1.39E-02	3.18E-02	3.19E-03
CM-3/4	5795.020	5722.597	4.923	3.000	2.280	0.720	5.1799	100.0000	3.39E-03	2.80E-03	1.66E-02	3.72E-02	2.79E-03
CM-5/6	5386.000	5380.363	0.000	7.000	7.000	0.000	14.2480	86.09000	1.21E-02	4.63E-03	5.30E-02	1.11E-01	4.56E-03
CM-247	4946.000	4919.280	0.000	19.000	19.000	0.000	13.7917	79.30000	3.56E-02	8.46E-03	5.57E-02	1.17E-01	8.16E-03
CM-248	5078.600	5061.937	0.000	22.000	22.000	0.000	19.5080	91.00000	3.59E-02	7.97E-03	6.87E-02	1.42E-01	7.66E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)
* Sg of AM243 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  AM-241

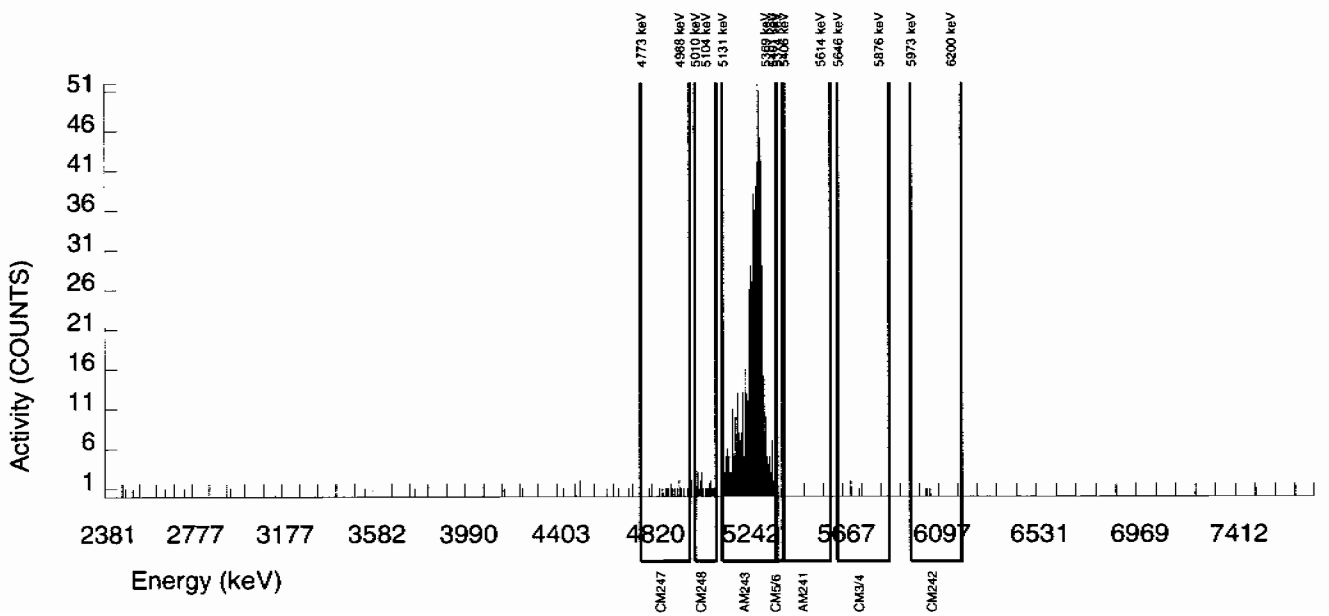

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	: 947354	CHAMBER	: 231	LIB FILE	: ENV_ALPHA_AM
SAMPLE ID	: S0245691006_AM	DETECTOR S/N	: 79424	BKG FILE	: B231.CNF;78
SAMPLE QTY	: 1.251 G	AVERAGE %EFFICIENCY	: 38.8428	BKG DATE	: 7-FEB-2010
SAMPLE DATE	: 25-JAN-2010 00:00:00	COUNT DATE	: 10-FEB-2010 18:14:07	BKG LIVE TIME(SEC)	: 60000.00
ANALYST	: CXM2	ELAPSED LIVE TIME(SEC)	: 43200.00	EFF FILE	: W231.CNF;28
% YIELD	: 74.159			CAL DATE	: 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.1629E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5503.902	93.751	3.000	1.950	0.000	2.8409	99.94000	3.39E-03	2.44E-03	1.06E-02	2.60E-02	2.43E-03
AM243	5270.000	5279.094	51.408	605.000	603.560	1.440	1.2000	99.78000	1.05E+00	7.96E-02	4.50E-03	1.37E-02	4.28E-02
CM-242	6102.000	5994.648	4.934	1.000	1.000	0.000	4.3413	100.0000	1.87E-03	1.87E-03	1.63E-02	3.72E-02	1.87E-03
CM-3/4	5795.020	5741.286	74.014	5.000	5.000	0.000	5.1799	100.0000	8.70E-03	3.93E-03	1.94E-02	4.35E-02	3.89E-03
CM-5/6	5386.000	5378.960	6.117	6.000	6.000	0.000	14.2480	86.09000	1.21E-02	5.00E-03	6.20E-02	1.29E-01	4.94E-03
CM-247	4946.000	4863.928	103.619	4.000	2.560	1.440	13.7917	79.30000	5.60E-03	4.93E-03	6.51E-02	1.36E-01	4.91E-03
CM-248	5078.600	5068.007	20.523	18.000	18.000	0.000	19.5080	91.00000	3.43E-02	8.39E-03	8.03E-02	1.66E-01	8.09E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

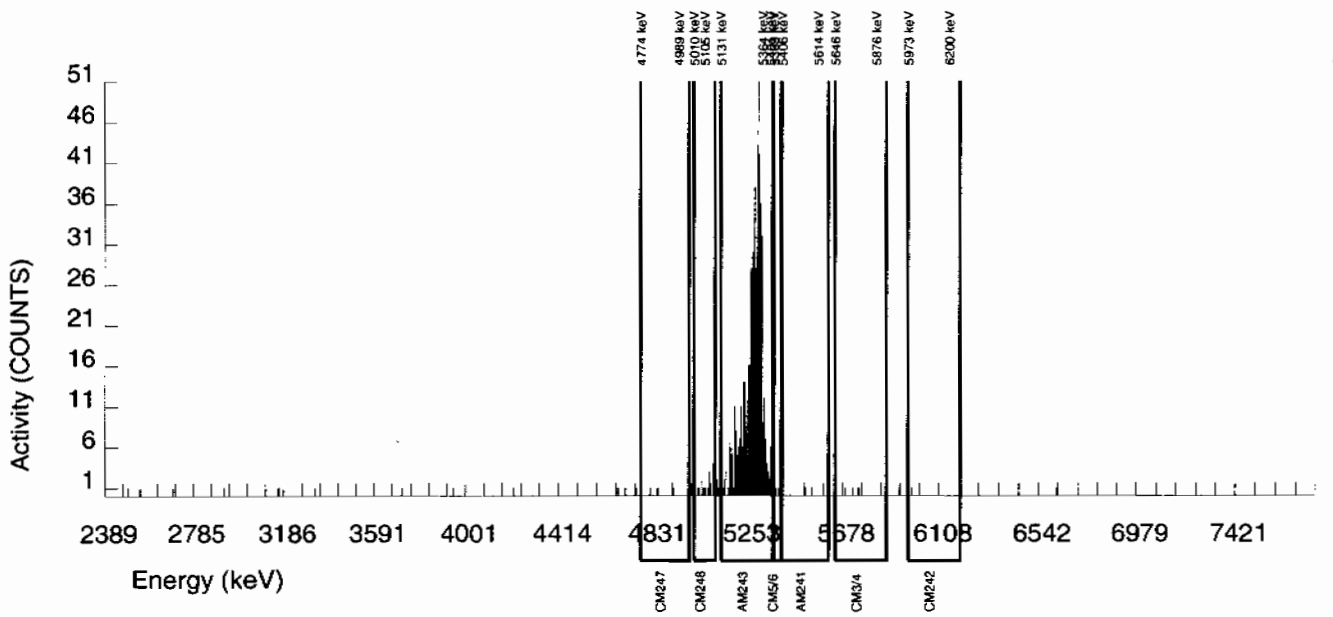

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S0245691007_AM
SAMPLE QTY : 1.264 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 78.896

CHAMBER : 232
DETECTOR S/N : 79425
AVERAGE %EFFICIENCY : 37.1929
COUNT DATE : 10-FEB-2010 18:14:09
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B232.CNF;80
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W232.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.3011E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5486.120	64.876	5.000	3.930	0.000	2.8409	99.94000	6.63E-03	3.37E-03	1.03E-02	2.53E-02	3.35E-03
AM243	5270.000	5281.310	43.886	617.000	614.840	2.160	1.4697	99.78000	1.04E+00	7.84E-02	5.36E-03	1.53E-02	4.20E-02
CM-242	6102.000	6069.683	4.990	1.000	1.000	0.000	4.3413	100.0000	1.81E-03	1.82E-03	1.58E-02	3.62E-02	1.81E-03
CM-3/4	5795.020	5782.980	59.886	2.000	1.280	0.720	5.1799	100.0000	2.16E-03	2.69E-03	1.88E-02	4.23E-02	2.68E-03
CM-5/6	5386.000	5373.819	0.000	17.000	17.000	0.000	14.2480	86.09000	3.33E-02	8.35E-03	6.02E-02	1.26E-01	8.08E-03
CM-247	4946.000	4926.354	0.000	11.000	9.560	1.440	13.7917	79.30000	2.03E-02	7.49E-03	6.33E-02	1.32E-01	7.38E-03
CM-248	5078.600	5070.045	24.869	15.000	15.000	0.000	19.5080	91.00000	2.78E-02	7.39E-03	7.80E-02	1.61E-01	7.18E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

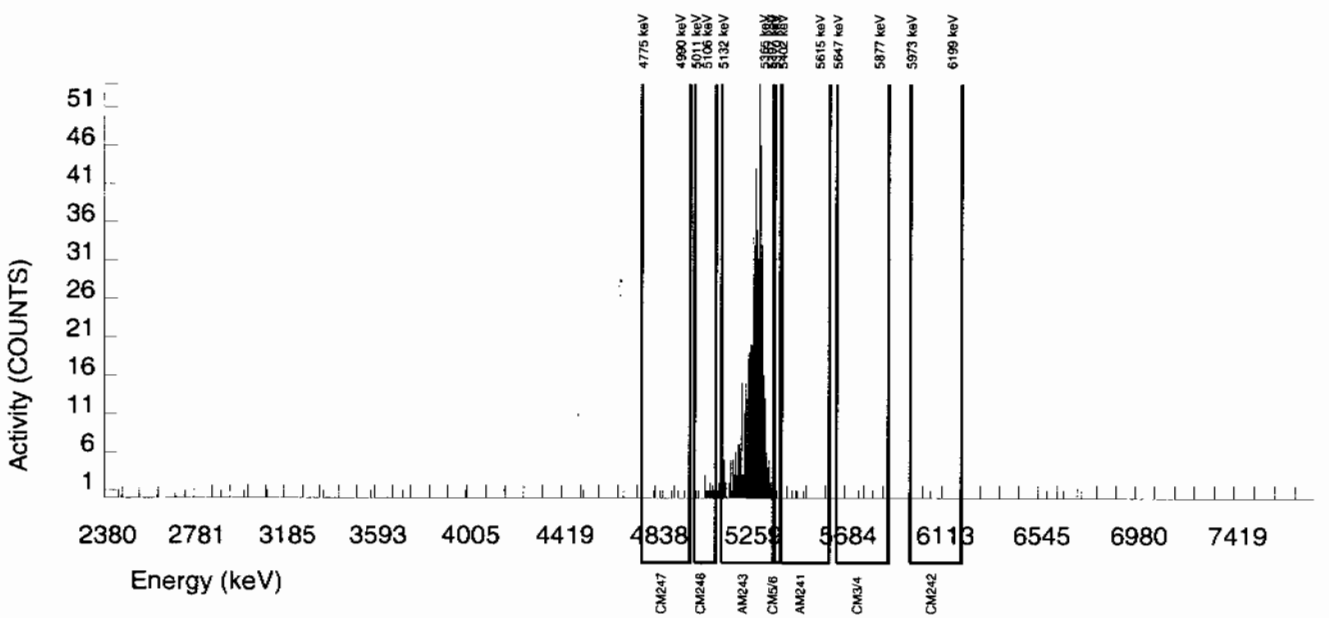

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S0245691008_AM
SAMPLE QTY : 1.262 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.705

CHAMBER : 233
DETECTOR S/N : 79426
AVERAGE %EFFICIENCY : 37.7051
COUNT DATE : 10-FEB-2010 18:14:11
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B233.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W233.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5288E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5486.827	29.455	2.000	0.088	0.720	2.8409	99.94000	1.33E-04	1.87E-03	9.30E-03	2.27E-02	1.87E-03
AM243	5270.000	5275.946	39.536	685.000	685.000	0.000	0.0000	99.78000	1.04E+00	7.60E-02	0.00E+00	4.12E-03	3.98E-02
CM-242	6102.000	6023.586	19.637	2.000	1.280	0.720	4.3413	100.0000	2.09E-03	2.59E-03	1.42E-02	3.25E-02	2.59E-03
CM-3/4	5795.020	5708.736	4.909	3.000	3.000	0.000	5.1799	100.0000	4.56E-03	2.65E-03	1.69E-02	3.80E-02	2.63E-03
CM-5/6	5386.000	5381.198	0.000	6.000	6.000	0.000	14.2480	86.09000	1.06E-02	4.36E-03	5.41E-02	1.13E-01	4.31E-03
CM-247	4946.000	4943.008	0.000	6.000	4.560	1.440	13.7917	79.30000	8.72E-03	5.10E-03	5.69E-02	1.19E-01	5.07E-03
CM-248	5078.600	5071.236	19.637	12.000	12.000	0.000	19.5080	91.00000	2.00E-02	5.91E-03	7.01E-02	1.45E-01	5.77E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

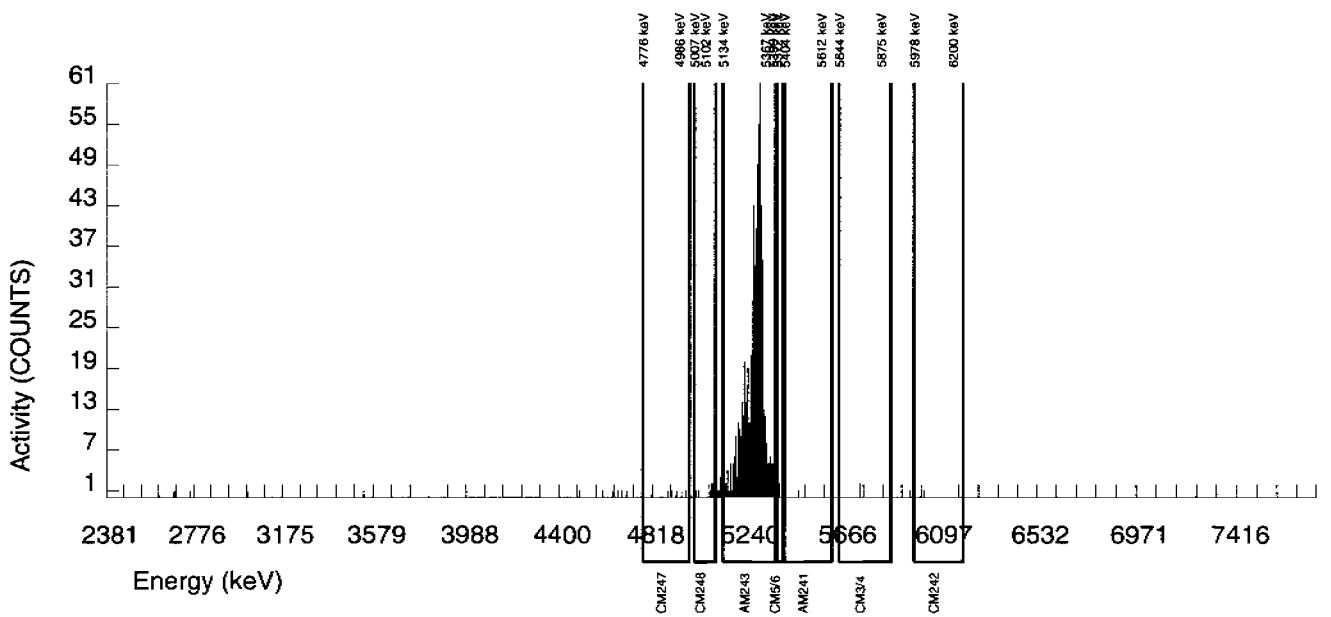

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354	CHAMBER : 234	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245691009_AM	DETECTOR S/N : 79427	BKG FILE : B234.CNF;78
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 38.3923	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 18:14:14	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W234.CNF;28
% YIELD : 83.785		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4437E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.784	49.141	3.000	1.107	0.720	2.8409	99.94000	1.72E-03	2.38E-03	9.52E-03	2.32E-02	2.38E-03
AM243	5270.000	5271.229	44.777	674.000	674.000	0.000	0.0000	99.78000	1.05E+00	7.69E-02	0.00E+00	4.22E-03	4.04E-02
CM-242	6102.000	6087.301	0.000	0.000	-0.720	0.720	4.3413	100.0000	-1.20E-03	2.06E-03	1.45E-02	3.33E-02	2.06E-03
CM-3/4	5795.020	5773.018	113.025	2.000	1.280	0.720	5.1799	100.0000	1.99E-03	2.47E-03	1.73E-02	3.89E-02	2.47E-03
CM-5/6	5386.000	5376.056	0.000	8.000	8.000	0.000	14.2480	86.09000	1.44E-02	5.18E-03	5.54E-02	1.16E-01	5.10E-03
CM-247	4946.000	4884.219	181.823	9.000	9.000	0.000	13.7917	79.30000	1.76E-02	5.97E-03	5.82E-02	1.22E-01	5.87E-03
CM-248	5078.600	5067.313	0.000	27.000	27.000	0.000	19.5080	91.00000	4.61E-02	9.32E-03	7.18E-02	1.48E-01	8.86E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

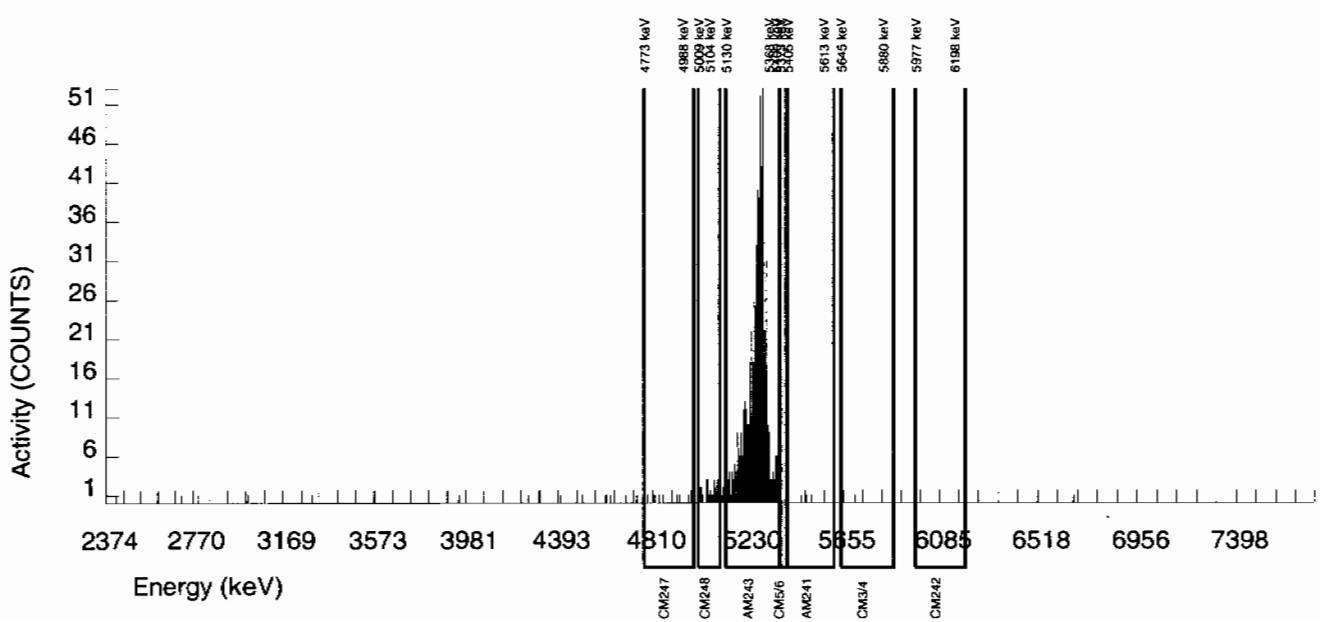

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S0245691010_AM
SAMPLE QTY : 1.262 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.006

CHAMBER : 235
DETECTOR S/N : 79428
AVERAGE %EFFICIENCY : 37.6823
COUNT DATE : 10-FEB-2010 18:14:16
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B235.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W235.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4501E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5504.860	171.408	3.000	1.846	0.000	2.8409	99.94000	2.89E-03	2.14E-03	9.60E-03	2.35E-02	2.13E-03
AM243	5270.000	5268.989	54.370	664.000	663.280	0.720	0.8485	99.78000	1.04E+00	7.81E-02	2.87E-03	1.00E-02	4.05E-02
CM-242	6102.000	6037.814	4.897	1.000	1.000	0.000	4.3413	100.0000	1.68E-03	1.69E-03	1.47E-02	3.36E-02	1.68E-03
CM-3/4	5795.020	5759.669	39.179	2.000	1.280	0.720	5.1799	100.0000	2.01E-03	2.49E-03	1.75E-02	3.92E-02	2.49E-03
CM-5/6	5386.000	5373.549	0.000	5.000	5.000	0.000	14.2480	86.09000	9.10E-03	4.11E-03	5.59E-02	1.17E-01	4.07E-03
CM-247	4946.000	4897.178	4.897	9.000	6.840	2.160	13.7917	79.30000	1.35E-02	6.47E-03	5.88E-02	1.23E-01	6.42E-03
CM-248	5078.600	5067.623	40.077	25.000	25.000	0.000	19.5080	91.00000	4.30E-02	9.04E-03	7.24E-02	1.50E-01	8.60E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

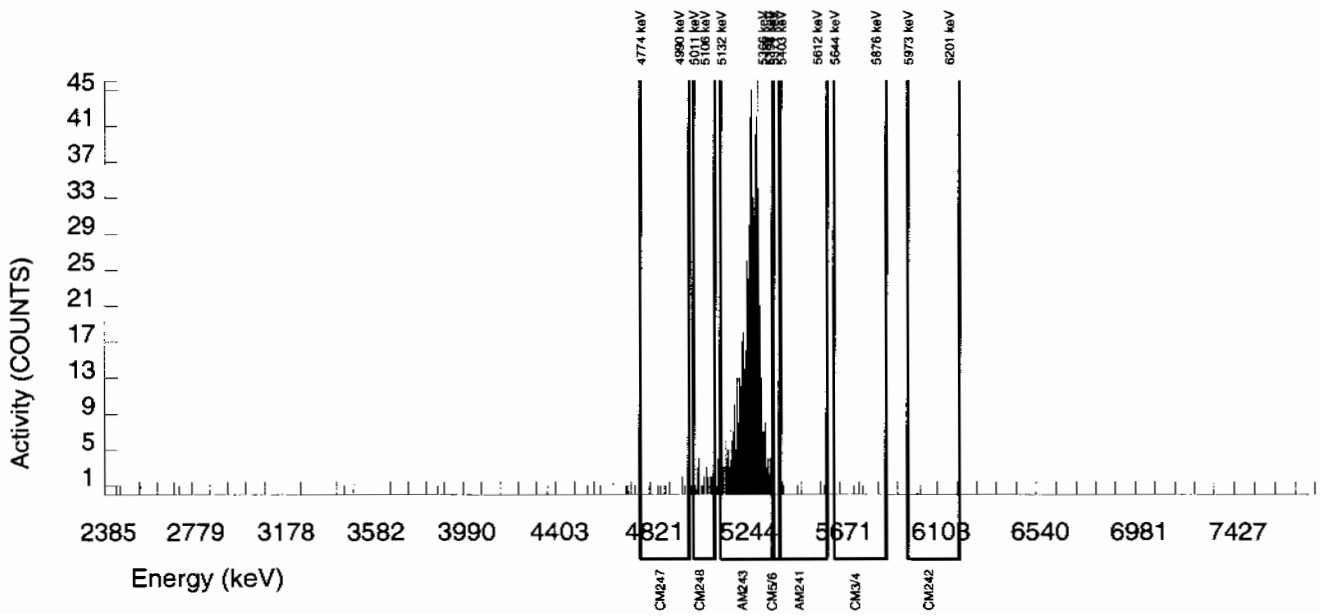

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S0245691011_AM
SAMPLE QTY : 1.250 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.224

CHAMBER : 236
DETECTOR S/N : 79429
AVERAGE %EFFICIENCY : 38.6953
COUNT DATE : 10-FEB-2010 18:14:18
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B236.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W236.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.2523E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5501.075	122.507	4.000	2.910	0.000	2.8409	99.94000	4.88E-03	2.88E-03	1.03E-02	2.51E-02	2.86E-03
AM243	5270.000	5268.197	57.264	629.000	626.120	2.880	1.6971	99.78000	1.05E+00	7.89E-02	6.15E-03	1.68E-02	4.22E-02
CM-242	6102.000	5983.394	4.900	1.000	1.000	0.000	4.3413	100.0000	1.80E-03	1.80E-03	1.57E-02	3.59E-02	1.80E-03
CM-3/4	5795.020	5759.648	0.000	0.000	0.000	0.000	5.1799	100.0000	0.00E+00	1.68E-03	1.87E-02	4.20E-02	1.68E-03
CM-5/6	5386.000	5378.854	0.000	6.000	6.000	0.000	14.2480	86.09000	1.17E-02	4.82E-03	5.98E-02	1.25E-01	4.77E-03
CM-247	4946.000	4904.287	0.000	15.000	15.000	0.000	13.7917	79.30000	3.17E-02	8.42E-03	6.28E-02	1.31E-01	8.18E-03
CM-248	5078.600	5064.601	0.000	25.000	25.000	0.000	19.5080	91.00000	4.60E-02	9.65E-03	7.75E-02	1.60E-01	9.20E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

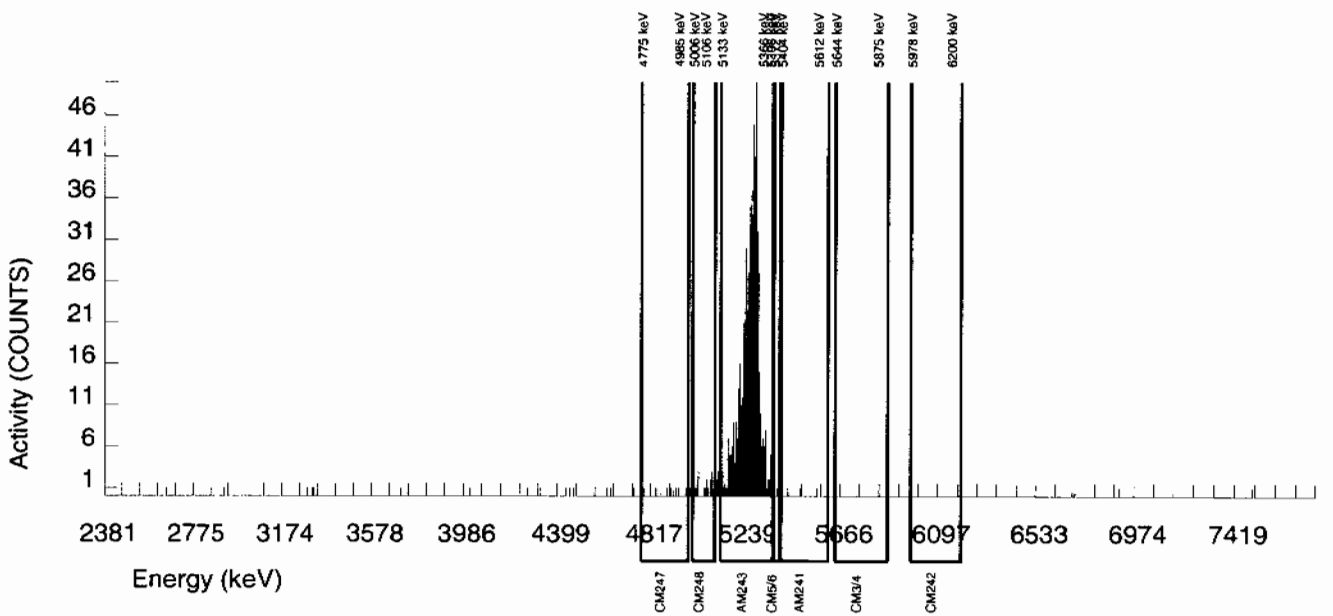

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	: 947354	CHAMBER	: 237	LIB FILE	: ENV_ALPHA_AM
SAMPLE ID	: S0245691012_AM	DETECTOR S/N	: 79430	BKG FILE	: B237.CNF;78
SAMPLE QTY	: 1.262 G	AVERAGE %EFFICIENCY	: 39.3990	BKG DATE	: 7-FEB-2010
SAMPLE DATE	: 25-JAN-2010 00:00:00	COUNT DATE	: 10-FEB-2010 18:14:21	BKG LIVE TIME(SEC)	: 60000.00
ANALYST	: CXM2	ELAPSED LIVE TIME(SEC)	: 43200.00	EFF FILE	: W237.CNF;28
% YIELD	: 65.689			CAL DATE	: 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.9159E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5470.440	4.920	1.000	-2.824	2.880	2.8409	99.94000	-5.41E-03	3.36E-03	1.17E-02	2.87E-02	3.36E-03
AM243	5270.000	5273.593	56.699	543.000	542.280	0.720	0.8485	99.78000	1.04E+00	8.27E-02	3.51E-03	1.22E-02	4.48E-02
CM-242	6102.000	6065.286	59.037	3.000	3.000	0.000	4.3413	100.0000	6.18E-03	3.59E-03	1.79E-02	4.11E-02	3.57E-03
CM-3/4	5795.020	5746.201	9.225	2.000	2.000	0.000	5.1799	100.0000	3.84E-03	2.73E-03	2.14E-02	4.80E-02	2.71E-03
CM-5/6	5386.000	5377.154	0.000	6.000	6.000	0.000	14.2480	86.09000	1.33E-02	5.52E-03	6.84E-02	1.43E-01	5.45E-03
CM-247	4946.000	4896.804	11.377	20.000	18.560	1.440	13.7917	79.30000	4.48E-02	1.15E-02	7.19E-02	1.50E-01	1.11E-02
CM-248	5078.600	5072.841	8.695	15.000	15.000	0.000	19.5080	91.00000	3.16E-02	8.42E-03	8.86E-02	1.83E-01	8.15E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

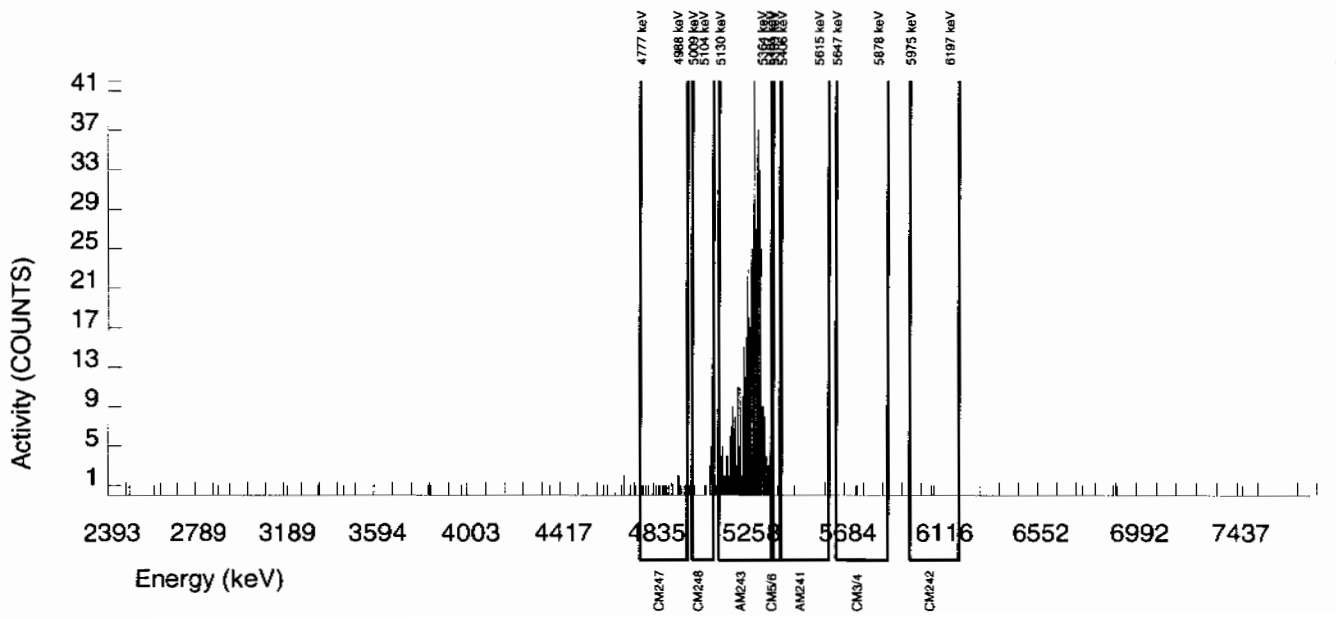

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S0245691013_AM
SAMPLE QTY : 1.265 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 83.813

CHAMBER : 238
DETECTOR S/N : 79431
AVERAGE %EFFICIENCY : 39.3479
COUNT DATE : 10-FEB-2010 18:14:23
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B238.CNF;80
BKG DATE : 8-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W238.CNF;30
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4445E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5543.806	93.359	4.000	2.798	0.000	2.8409	99.94000	4.20E-03	2.52E-03	9.20E-03	2.25E-02	2.51E-03
AM243	5270.000	5270.026	46.323	691.000	691.000	0.000	0.0000	99.78000	1.04E+00	7.57E-02	0.00E+00	4.07E-03	3.95E-02
CM-242	6102.000	6038.420	78.618	3.000	3.000	0.000	4.3413	100.0000	4.84E-03	2.81E-03	1.40E-02	3.22E-02	2.79E-03
CM-3/4	5795.020	5760.436	7.217	7.000	7.000	0.000	5.1799	100.0000	1.05E-02	4.03E-03	1.68E-02	3.76E-02	3.97E-03
CM-5/6	5386.000	5377.944	0.000	8.000	8.000	0.000	14.2480	86.09000	1.39E-02	5.00E-03	5.35E-02	1.12E-01	4.93E-03
CM-247	4946.000	4858.887	191.631	10.000	9.280	0.720	13.7917	79.30000	1.75E-02	6.23E-03	5.63E-02	1.18E-01	6.13E-03
CM-248	5078.600	5063.170	0.000	24.000	24.000	0.000	19.5080	91.00000	3.96E-02	8.44E-03	6.94E-02	1.43E-01	8.07E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

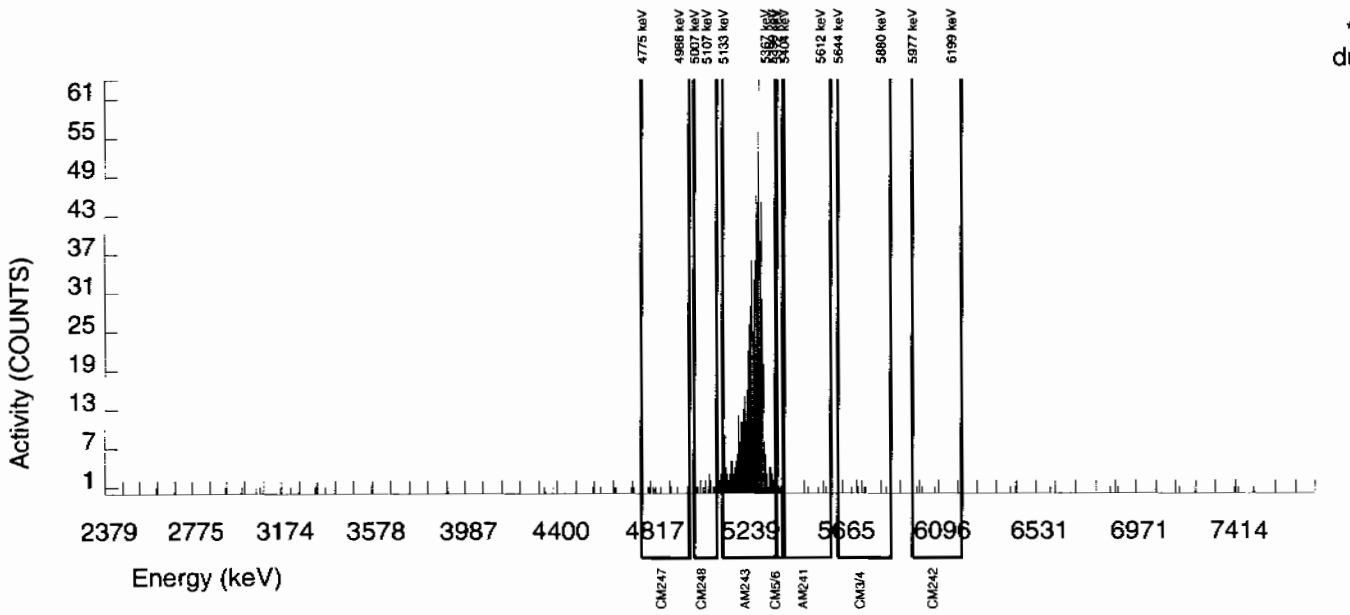

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S0245691014_AM
SAMPLE QTY : 1.253 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 92.444

CHAMBER : 239
DETECTOR S/N : 79432
AVERAGE %EFFICIENCY : 37.8194
COUNT DATE : 10-FEB-2010 18:14:26
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B239.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W239.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.6962E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5494.458	4.908	4.000	2.725	0.000	2.8409	99.94000	3.89E-03	2.37E-03	8.76E-03	2.14E-02	2.36E-03
AM243	5270.000	5274.500	46.983	734.000	732.560	1.440	1.2000	99.78000	1.05E+00	7.67E-02	3.71E-03	1.13E-02	3.88E-02
CM-242	6102.000	6054.590	63.801	2.000	2.000	0.000	4.3413	100.0000	3.07E-03	2.18E-03	1.34E-02	3.06E-02	2.17E-03
CM-3/4	5795.020	5784.315	152.141	4.000	3.280	0.720	5.1799	100.0000	4.69E-03	3.06E-03	1.60E-02	3.58E-02	3.04E-03
CM-5/6	5386.000	5380.175	17.024	5.000	5.000	0.000	14.2480	86.09000	8.29E-03	3.75E-03	5.10E-02	1.06E-01	3.71E-03
CM-247	4946.000	4908.622	170.494	19.000	18.280	0.720	13.7917	79.30000	3.29E-02	8.22E-03	5.36E-02	1.12E-01	7.96E-03
CM-248	5078.600	5076.773	0.000	27.000	27.000	0.000	19.5080	91.00000	4.24E-02	8.58E-03	6.60E-02	1.36E-01	8.15E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

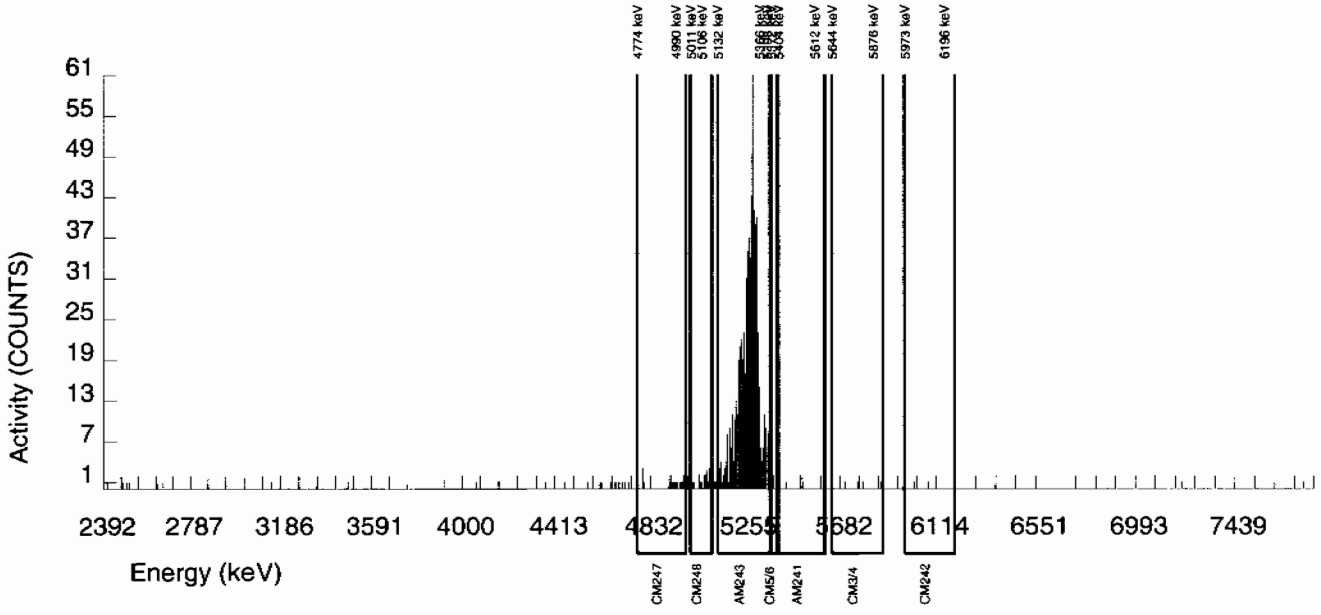

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S1202029343_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : CXM2
% YIELD : 78.317

CHAMBER : 240
DETECTOR S/N : 79433
AVERAGE %EFFICIENCY : 36.8412
COUNT DATE : 10-FEB-2010 18:14:28
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B240.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W240.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.2842E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.939	0.000	0.000	-2.492	1.440	2.8409	99.94000	-5.41E-03	3.10E-03	1.33E-02	3.25E-02	3.10E-03
AM243	5270.000	5271.003	33.751	606.000	604.560	1.440	1.2000	99.78000	1.31E+00	9.96E-02	5.63E-03	1.71E-02	5.35E-02
CM-242	6102.000	6044.245	29.483	8.000	8.000	0.000	4.3413	100.0000	1.79E-02	6.42E-03	2.03E-02	4.65E-02	6.32E-03
CM-3/4	5795.020	5742.207	4.914	7.000	6.280	0.720	5.1799	100.0000	1.36E-02	6.01E-03	2.42E-02	5.43E-02	5.95E-03
CM-5/6	5386.000	5373.032	0.000	6.000	6.000	0.000	14.2480	86.09000	1.51E-02	6.24E-03	7.74E-02	1.62E-01	6.17E-03
CM-247	4946.000	4929.200	33.783	16.000	15.280	0.720	13.7917	79.30000	4.18E-02	1.14E-02	8.14E-02	1.70E-01	1.11E-02
CM-248	5078.600	5071.869	8.139	16.000	16.000	0.000	19.5080	91.00000	3.81E-02	9.84E-03	1.00E-01	2.07E-01	9.53E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)
* Sg of AM243 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  AM-241

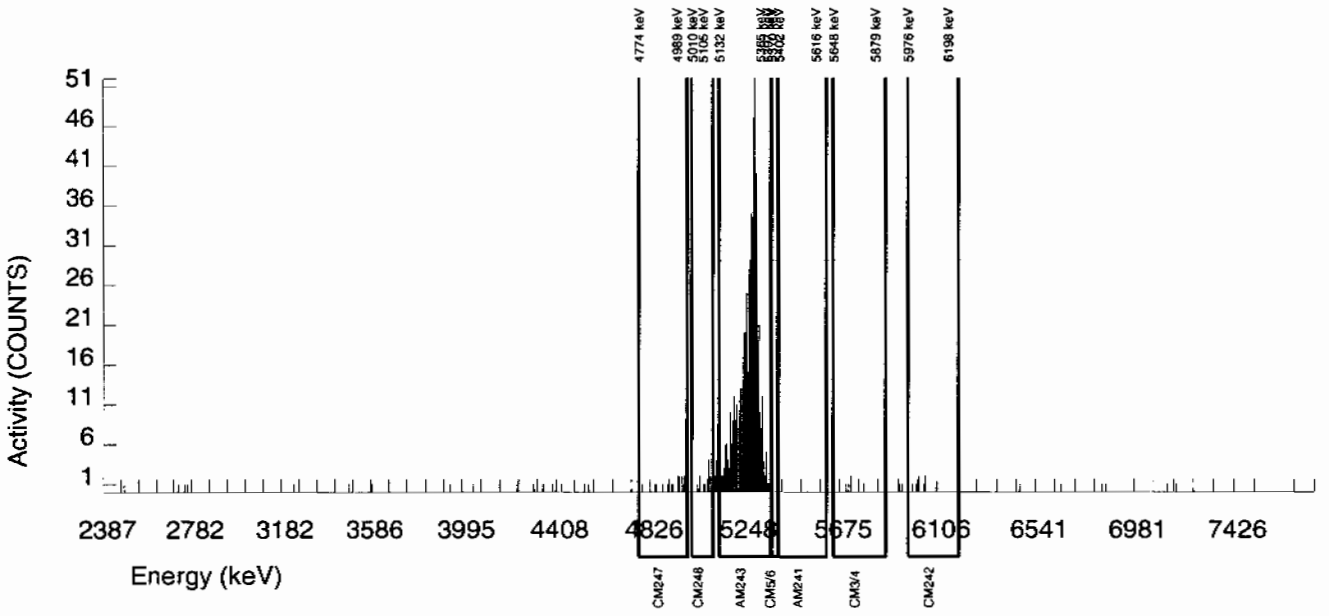

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S1202029344_AM
SAMPLE QTY : 1.254 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 73.757

CHAMBER : 241
DETECTOR S/N : 79434
AVERAGE %EFFICIENCY : 37.1962
COUNT DATE : 10-FEB-2010 18:14:31
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B241.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W241.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.1512E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5492.294	4.919	3.000	2.000	0.000	2.8409	99.94000	3.64E-03	2.58E-03	1.12E-02	2.72E-02	2.57E-03
AM243	5270.000	5274.583	30.853	577.000	574.840	2.160	1.4697	99.78000	1.05E+00	8.19E-02	5.78E-03	1.65E-02	4.38E-02
CM-242	6102.000	6085.159	0.000	0.000	0.000	0.000	4.3413	100.0000	0.00E+00	1.96E-03	1.70E-02	3.90E-02	1.95E-03
CM-3/4	5795.020	5770.265	44.273	2.000	1.280	0.720	5.1799	100.0000	2.33E-03	2.90E-03	2.03E-02	4.56E-02	2.89E-03
CM-5/6	5386.000	5378.427	0.000	15.000	15.000	0.000	14.2480	86.09000	3.17E-02	8.44E-03	6.49E-02	1.36E-01	8.18E-03
CM-247	4946.000	4928.965	4.919	9.000	8.280	0.720	13.7917	79.30000	1.90E-02	7.19E-03	6.82E-02	1.43E-01	7.08E-03
CM-248	5078.600	5065.468	0.000	27.000	26.280	0.720	19.5080	91.00000	5.25E-02	1.10E-02	8.41E-02	1.74E-01	1.05E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)
* Sg of AM243 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  AM-241

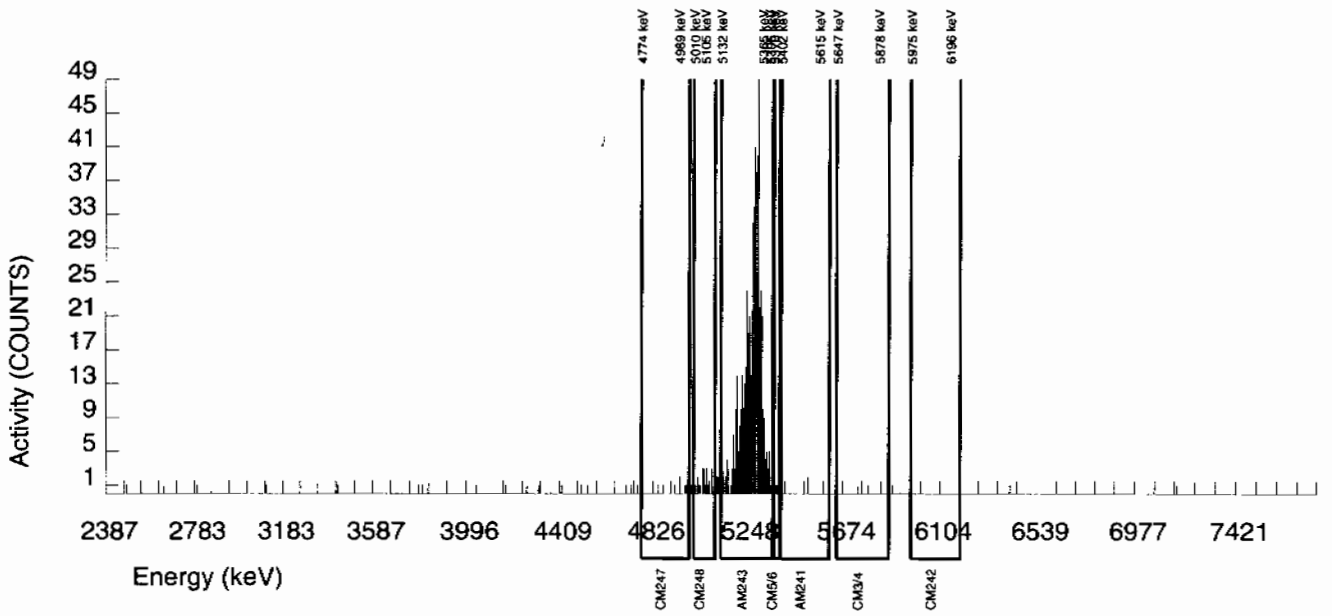

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947354
SAMPLE ID : S1202029345_AM
SAMPLE QTY : 0.111 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : CXM2
% YIELD : 107.282

CHAMBER : 242
DETECTOR S/N : 79435
AVERAGE %EFFICIENCY : 38.0803
COUNT DATE : 10-FEB-2010 18:14:33
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B242.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W242.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 3.1289E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3155E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5498.269	56.103	1913.000	1911.510	0.000	2.8409	99.94000	2.64E+01	1.86E+00	8.46E-02	2.07E-01	6.04E-01
AM243	5270.000	5275.359	54.498	856.000	856.000	0.000	0.0000	99.78000	1.18E+01	8.85E-01	0.00E+00	3.75E-02	4.05E-01
CM-242	6102.000	6034.167	78.461	7.000	7.000	0.000	4.3413	100.0000	9.95E-02	3.82E-02	1.29E-01	2.96E-01	3.76E-02
CM-3/4	5795.020	5735.358	107.884	7.000	6.280	0.720	5.1799	100.0000	8.67E-02	3.83E-02	1.54E-01	3.46E-01	3.79E-02
CM-5/6	5386.000	5386.705	0.000	94.000	94.000	0.000	14.2480	86.09000	1.51E+00	1.85E-01	4.93E-01	1.03E+00	1.55E-01
CM-247	4946.000	4892.778	92.968	23.000	22.280	0.720	13.7917	79.30000	3.88E-01	8.82E-02	5.18E-01	1.08E+00	8.44E-02
CM-248	5078.600	5062.687	0.000	29.000	29.000	0.000	19.5080	91.00000	4.40E-01	8.67E-02	6.38E-01	1.32E+00	8.16E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

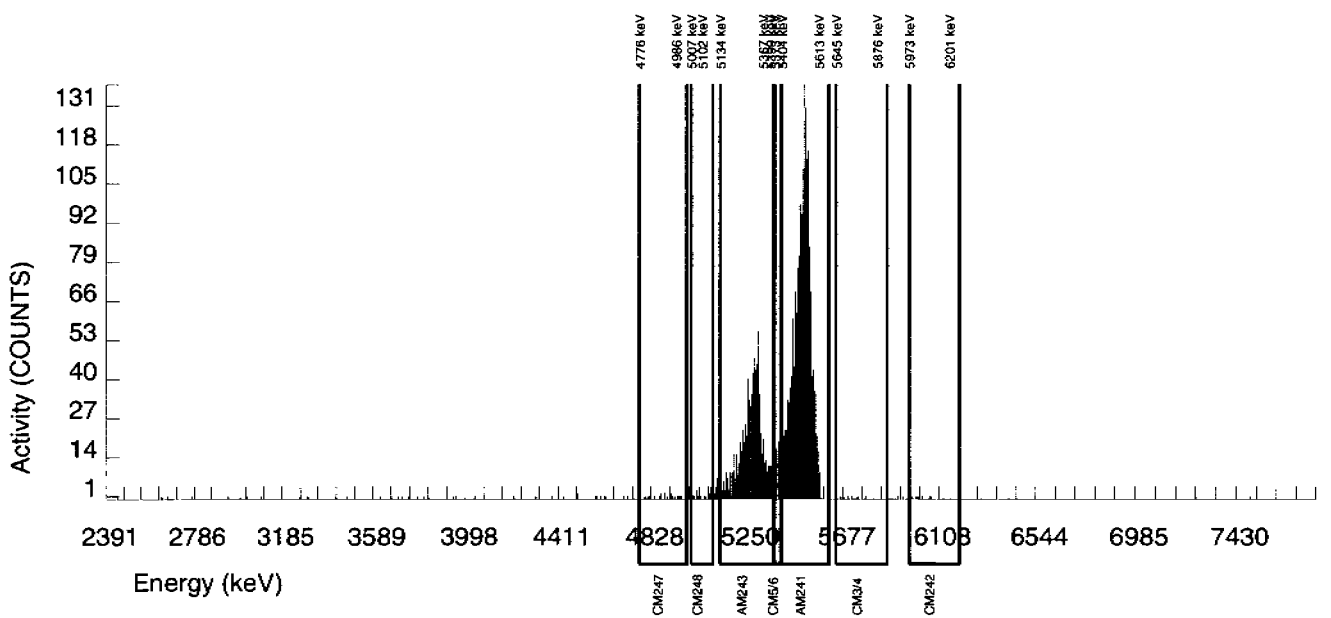

Radiochemistry Batch Checklist, Rev10

Batch# 947356 Product: PU Date: 2/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/11/10

Secondary Review Performed By: [illegible] 2/15/10

2/18
LANL

Plutonium Que Sheet

01-FEB-10

Batch #: 947356 Analyst: CXM2 First Client Due Date:18-FEB-10 Internal Due Date:08-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 1/8/11 Vol: 0.1mL

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0244-B Expiration Date: 4/30/20 Vol: 0.111g

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 2/4/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: MW 2/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
~~245667001-1~~	~~RE16-10-1343~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~25-JAN-10~~	~~1~~	~~1~~	~~1.253~~	~~37~~
245667002-1	RE16-10-1345	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	2	2	1.256	38
245667003-1	RE16-10-1347	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	3	3	1.259	39
245667004-1	RE16-10-1349	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	4	4	1.267	40
245667005-1	RE16-10-1351	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	5	5	1.254	41
245667006-1	RE16-10-1365	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	6	6	1.266	42
245691001-1	RE15-10-7883	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	7	7	1.255	43
245691002-1	RE15-10-7884	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	8	8	1.254	44
245691003-1	RE15-10-7932	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	9	9	1.263	45
245691004-1	RE15-10-7931	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	10	10	1.253	46
245691005-1	RE15-10-7938	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	11	11	1.264	47
245691006-1	RE15-10-7933	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	12	12	1.251	48
245691007-1	RE15-10-7939	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	13	13	1.264	71
245691008-1	RE15-10-7936	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	14	14	1.262	72
245691009-1	RE15-10-7935	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	15	15	1.253	73
245691010-1	RE15-10-7934	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	16	16	1.262	74
245691011-1	RE15-10-7940	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	17	17	1.250	75
245691012-1	RE15-10-7937	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	18	18	1.262	76
245691013-1	RE15-10-8056	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	19	19	1.265	83
245691014-1	RE15-10-8057	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	20	20	1.253	84
1202029347-1	MB for batch 947356	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	85
1202029348-1	RE15-10-7883(245691001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	25-JAN-10	22	22	1.254	86
1202029349-1	LCS for batch 947356	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.111	87

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/11/10

Blank Correction Report

Batch ID 947356

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202029348	DUP	Plutonium-238	1.25 g	0.00	0.00179	0.0275	-.001264	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00587	0.00382	0.0208	.002248	pCi/g	YES
1202029349	LCS	Plutonium-238	0.111 g	6.81	0.558	0.301	-.01423423	pCi/g	NO
		Plutonium-239/240	0.111 g	42.1	2.77	0.227	.025315315	pCi/g	NO
1202029347	MB	Plutonium-238	1.00 g	-0.00158	0.00271	0.0337	-.00158	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00281	0.00349	0.0255	.00281	pCi/g	YES
245667002	RE16-10-1345	Plutonium-238	1.26 g	-0.00687	0.00396	0.0235	-.00125397	pCi/g	YES
		Plutonium-239/240	1.26 g	0.000429	0.00189	0.0178	.002230159	pCi/g	YES
245667003	RE16-10-1347	Plutonium-238	1.26 g	-0.00511	0.00543	0.0233	-.00125397	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.000669	0.00217	0.0176	.002230159	pCi/g	YES
245667004	RE16-10-1349	Plutonium-238	1.27 g	0.00	0.00172	0.0263	-.00124409	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0022	0.00273	0.0199	.002212598	pCi/g	YES
245667005	RE16-10-1351	Plutonium-238	1.25 g	-0.000711	0.00231	0.0248	-.001264	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00375	0.00365	0.0187	.002248	pCi/g	YES
245667006	RE16-10-1365	Plutonium-238	1.27 g	-0.0014	0.00322	0.0245	-.00124409	pCi/g	NO
		Plutonium-239/240	1.27 g	-0.000702	0.00228	0.0185	.002212598	pCi/g	YES
245691001	RE15-10-7883	Plutonium-238	1.26 g	0.00468	0.00271	0.0239	-.00125397	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.000249	0.00294	0.0181	.002230159	pCi/g	YES
245691002	RE15-10-7884	Plutonium-238	1.25 g	0.00363	0.003	0.0245	-.001264	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.000701	0.00228	0.0185	.002248	pCi/g	YES
245691003	RE15-10-7932	Plutonium-238	1.26 g	-0.000774	0.00251	0.027	-.00125397	pCi/g	NO
		Plutonium-239/240	1.26 g	0.000492	0.00217	0.0204	.002230159	pCi/g	YES
245691004	RE15-10-7931	Plutonium-238	1.25 g	-0.00106	0.00182	0.0227	-.001264	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00336	0.00277	0.0171	.002248	pCi/g	YES
245691005	RE15-10-7938	Plutonium-238	1.26 g	-0.000524	0.00436	0.0251	-.00125397	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00183	0.00403	0.019	.002230159	pCi/g	YES
245691006	RE15-10-7933	Plutonium-238	1.25 g	0.00296	0.0076	0.0277	-.001264	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00945	0.00704	0.0209	.002248	pCi/g	YES
245691007	RE15-10-7939	Plutonium-238	1.26 g	0.00549	0.00698	0.0251	-.00125397	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00137	0.00349	0.0189	.002230159	pCi/g	YES
245691008	RE15-10-7936	Plutonium-238	1.26 g	0.0111	0.00809	0.0279	-.00125397	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00734	0.00391	0.0211	.002230159	pCi/g	YES
245691009	RE15-10-7935	Plutonium-238	1.25 g	-0.00123	0.0021	0.0262	-.001264	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0173	0.00669	0.0198	.002248	pCi/g	NO
245691010	RE15-10-7934	Plutonium-238	1.26 g	0.00373	0.00468	0.027	-.00125397	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00527	0.00306	0.0204	.002230159	pCi/g	YES
245691011	RE15-10-7940	Plutonium-238	1.25 g	-0.000808	0.00262	0.0282	-.001264	pCi/g	NO
		Plutonium-239/240	1.25 g	0.000514	0.00226	0.0213	.002248	pCi/g	YES
245691012	RE15-10-7937	Plutonium-238	1.26 g	0.00244	0.00303	0.0293	-.00125397	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245691012	RE15-10-7937	Plutonium-239/240	1.26 g	0.0144	0.0061	0.0221	.002230159	pCi/g	NO
245691013	RE15-10-8056	Plutonium-238	1.27 g	-0.00179	0.00498	0.0229	-.00124409	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00679	0.00396	0.0173	.002212598	pCi/g	YES
245691014	RE15-10-8057	Plutonium-238	1.25 g	0.00323	0.00229	0.0248	-.001264	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0117	0.00475	0.0187	.002248	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S0245691001_PU
SAMPLE QTY : 1.255 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 95.148

CHAMBER : 043
DETECTOR S/N : 76543
AVERAGE %EFFICIENCY : 33.6471
COUNT DATE : 10-FEB-2010 16:27:03
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B043.CNF;1104
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W043.CNF;286
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.2167E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5780.768	0.000	5.000	2.120	2.880	2.6925	100.0000	3.34E-03	4.19E-03	9.05E-03	2.23E-02	4.19E-03
PU-238	5499.000	5434.961	24.740	3.000	3.000	0.000	2.9312	99.90000	4.68E-03	2.71E-03	9.86E-03	2.39E-02	2.70E-03
PU-9/0	5155.000	5197.443	49.479	2.000	-0.160	2.160	2.0604	99.90000	-2.49E-04	2.94E-03	6.93E-03	1.81E-02	2.94E-03
PU242	4890.000	4893.569	38.867	780.000	779.280	0.720	0.8485	100.0000	1.21E+00	7.82E-02	2.85E-03	9.92E-03	4.35E-02
PU-244	4589.000	4502.612	4.948	1.000	1.000	0.000	3.7241	99.90000	1.56E-03	1.56E-03	1.25E-02	2.93E-02	1.56E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

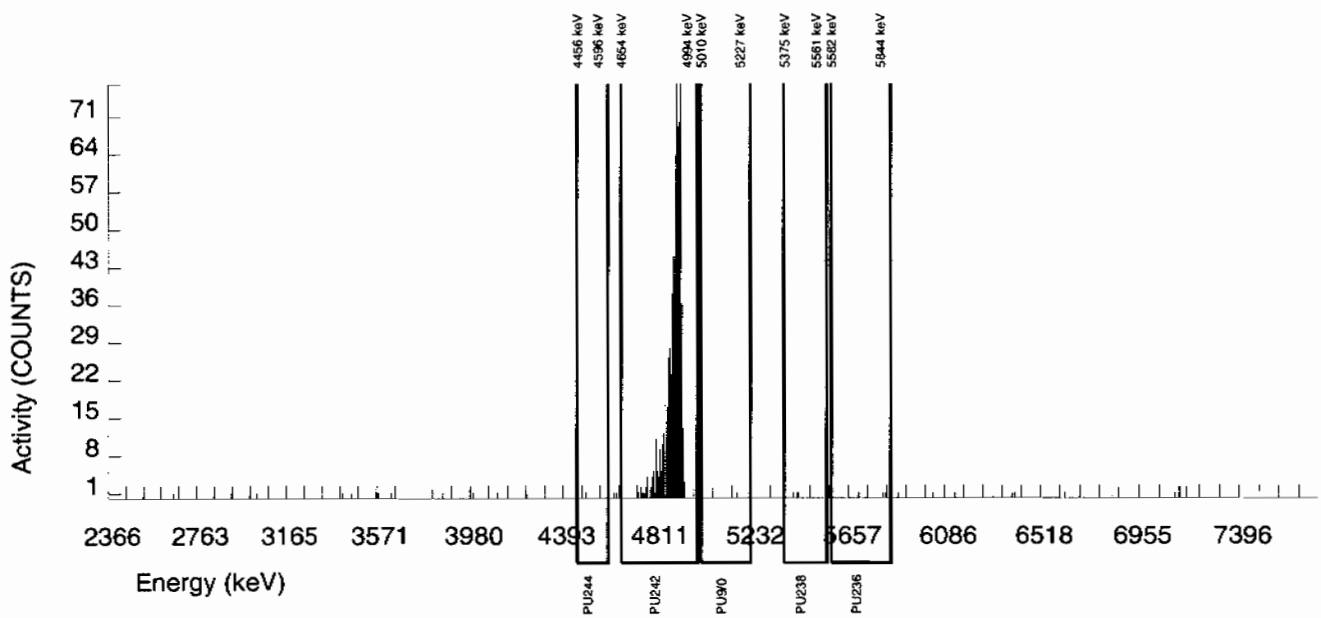

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356	CHAMBER : 044	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245691002_PU	DETECTOR S/N : 79459	BKG FILE : B044.CNF;1114
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 34.2824	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 16:27:03	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W044.CNF;307
% YIELD : 91.414		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0905E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5732.155	0.000	3.000	-2.040	5.040	2.6925	100.0000	-3.28E-03	4.15E-03	9.25E-03	2.28E-02	4.15E-03
PU-238	5499.000	5424.868	98.457	3.000	2.280	0.720	2.9312	99.90000	3.63E-03	3.00E-03	1.01E-02	2.45E-02	2.99E-03
PU-9/0	5155.000	5155.224	4.923	1.000	-0.440	1.440	2.0604	99.90000	-7.01E-04	2.28E-03	7.08E-03	1.85E-02	2.27E-03
PU242	4890.000	4877.387	59.255	765.000	762.840	2.160	1.4697	100.0000	1.21E+00	7.88E-02	5.05E-03	1.44E-02	4.41E-02
PU-244	4589.000	4534.188	4.923	7.000	7.000	0.000	3.7241	99.90000	1.12E-02	4.26E-03	1.28E-02	2.99E-02	4.22E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

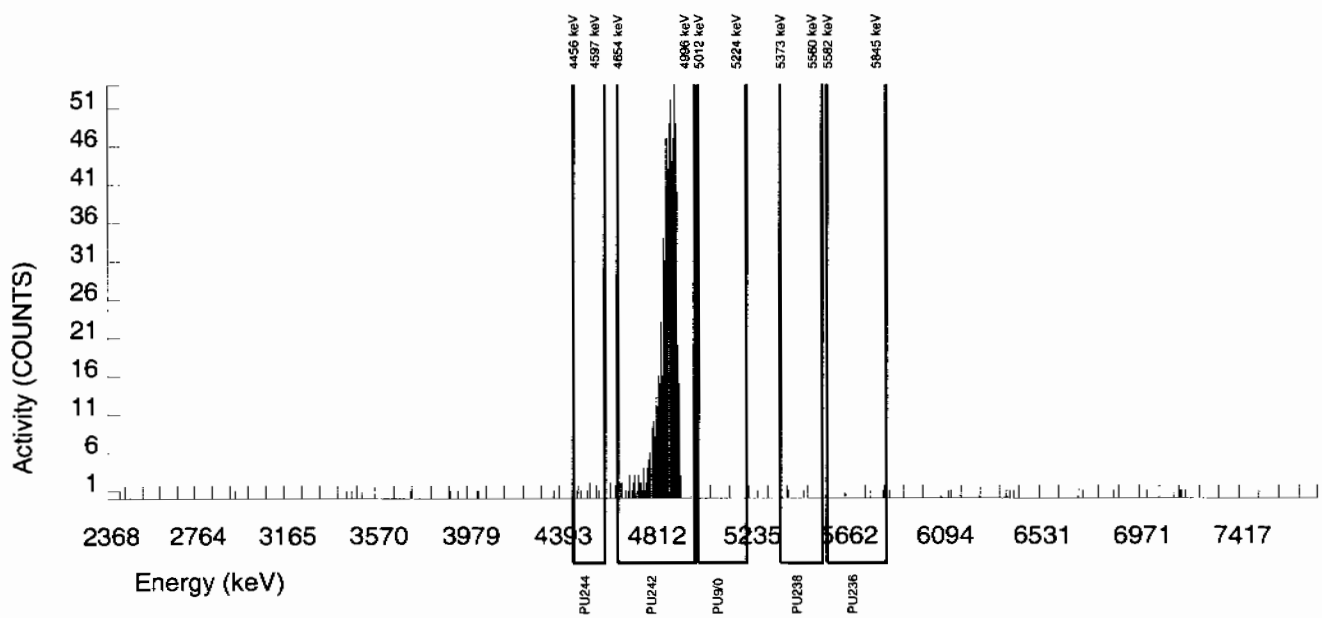

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S0245691003_PU
SAMPLE QTY : 1.263 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 83.804

CHAMBER : 045
DETECTOR S/N : 78783
AVERAGE %EFFICIENCY : 33.6564
COUNT DATE : 10-FEB-2010 16:27:03
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B045.CNF;1103
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W045.CNF;298
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.8332E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.251	0.000	0.000	-5.040	5.040	2.6925	100.0000	-8.95E-03	3.82E-03	1.02E-02	2.52E-02	3.82E-03
PU-238	5499.000	5378.840	4.942	1.000	-0.440	1.440	2.9312	99.90000	-7.74E-04	2.51E-03	1.11E-02	2.70E-02	2.51E-03
PU-9/0	5155.000	5076.927	4.942	1.000	0.280	0.720	2.0604	99.90000	4.92E-04	2.17E-03	7.81E-03	2.04E-02	2.17E-03
PU242	4890.000	4882.656	44.781	688.000	686.560	1.440	1.2000	100.0000	1.21E+00	8.10E-02	4.55E-03	1.39E-02	4.61E-02
PU-244	4589.000	4569.188	0.000	4.000	4.000	0.000	3.7241	99.90000	7.03E-03	3.54E-03	1.41E-02	3.30E-02	3.52E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

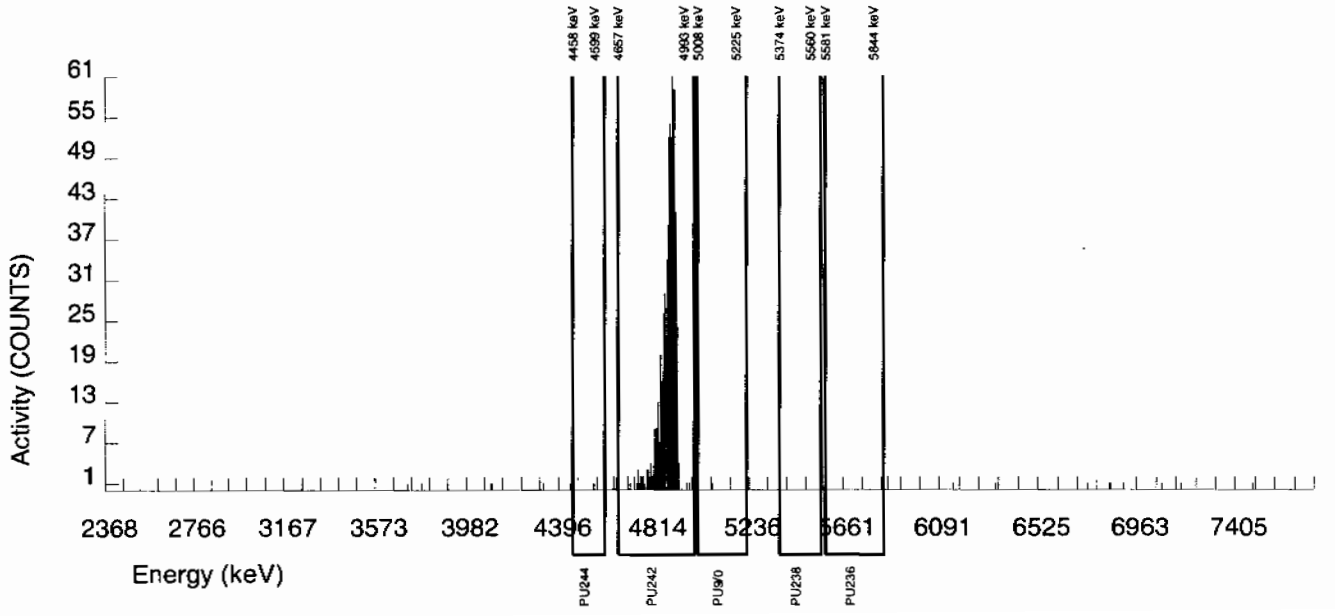

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356	CHAMBER : 046	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245691004_PU	DETECTOR S/N : 76544	BKG FILE : B046.CNF;1114
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 33.4175	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 16:27:03	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W046.CNF;289
% YIELD : 101.403		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.4282E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5824.852	4.894	1.000	-1.880	2.880	2.6925	100.0000	-2.80E-03	2.61E-03	8.56E-03	2.11E-02	2.61E-03
PU-238	5499.000	5469.852	0.000	0.000	-0.720	0.720	2.9312	99.90000	-1.06E-03	1.82E-03	9.33E-03	2.27E-02	1.82E-03
PU-9/0	5155.000	5117.912	141.913	3.000	2.280	0.720	2.0604	99.90000	3.36E-03	2.77E-03	6.56E-03	1.71E-02	2.77E-03
PU242	4890.000	4886.275	47.400	827.000	824.840	2.160	1.4697	100.0000	1.22E+00	7.70E-02	4.67E-03	1.33E-02	4.24E-02
PU-244	4589.000	4475.021	14.681	2.000	2.000	0.000	3.7241	99.90000	2.95E-03	2.09E-03	1.19E-02	2.77E-02	2.09E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

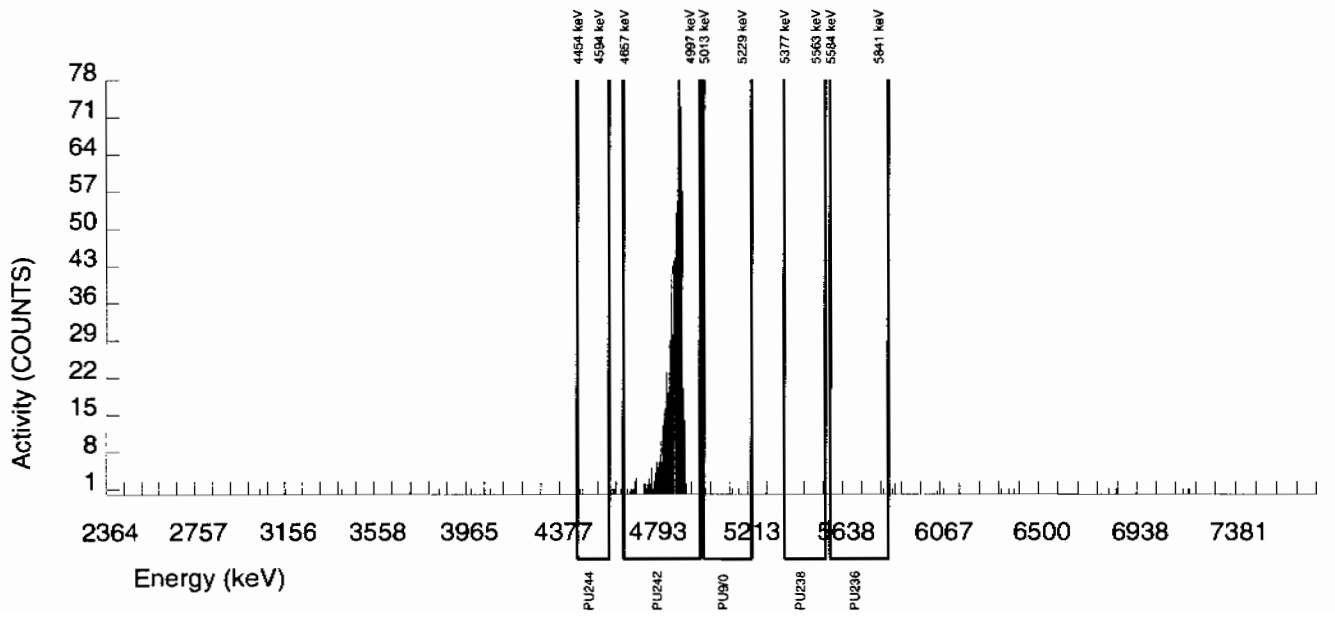

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S0245691005_PU
SAMPLE QTY : 1.264 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 88.066

CHAMBER : 047
DETECTOR S/N : 46-089B1
AVERAGE %EFFICIENCY : 34.3991
COUNT DATE : 10-FEB-2010 16:27:03
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B047.CNF;1109
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W047.CNF;303
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.9773E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5696.016	109.299	5.000	0.680	4.320	2.6925	100.0000	1.12E-03	4.71E-03	9.49E-03	2.34E-02	4.71E-03
PU-238	5499.000	5448.429	58.996	4.000	-0.320	4.320	2.9312	99.90000	-5.24E-04	4.36E-03	1.03E-02	2.51E-02	4.36E-03
PU-9/0	5155.000	5125.913	183.821	4.000	1.120	2.880	2.0604	99.90000	1.83E-03	4.03E-03	7.27E-03	1.90E-02	4.03E-03
PU242	4890.000	4885.958	42.653	741.000	737.400	3.600	1.8974	100.0000	1.20E+00	7.91E-02	6.69E-03	1.78E-02	4.46E-02
PU-244	4589.000	4543.315	0.000	3.000	1.560	1.440	3.7241	99.90000	2.55E-03	3.29E-03	1.31E-02	3.07E-02	3.29E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

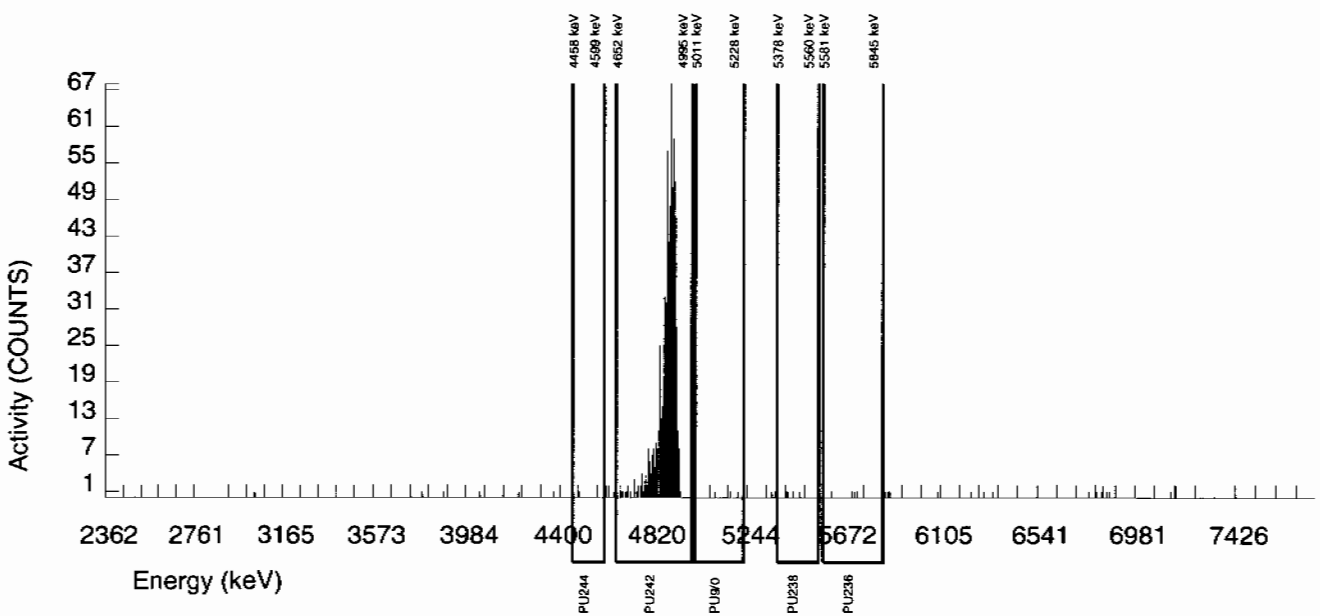

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S0245691006_PU
SAMPLE QTY : 1.251 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.498

CHAMBER : 048
DETECTOR S/N : 42483
AVERAGE %EFFICIENCY : 32.0990
COUNT DATE : 10-FEB-2010 16:27:03
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B048.CNF;1110
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W048.CNF;316
CAL DATE : 3-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.9243E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5751.014	49.339	11.000	-4.120	15.120	2.6925	100.0000	-7.50E-03	8.52E-03	1.05E-02	2.58E-02	8.52E-03
PU-238	5499.000	5449.912	7.247	11.000	1.640	9.360	2.9312	99.90000	2.96E-03	7.60E-03	1.14E-02	2.77E-02	7.60E-03
PU-9/0	5155.000	5133.546	7.247	11.000	5.240	5.760	2.0604	99.90000	9.45E-03	7.04E-03	8.01E-03	2.09E-02	7.02E-03
PU242	4890.000	4889.492	54.345	678.000	675.840	2.160	1.4697	100.0000	1.22E+00	8.22E-02	5.71E-03	1.63E-02	4.70E-02
PU-244	4589.000	4526.617	0.000	0.000	-0.720	0.720	3.7241	99.90000	-1.30E-03	2.22E-03	1.45E-02	3.39E-02	2.22E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

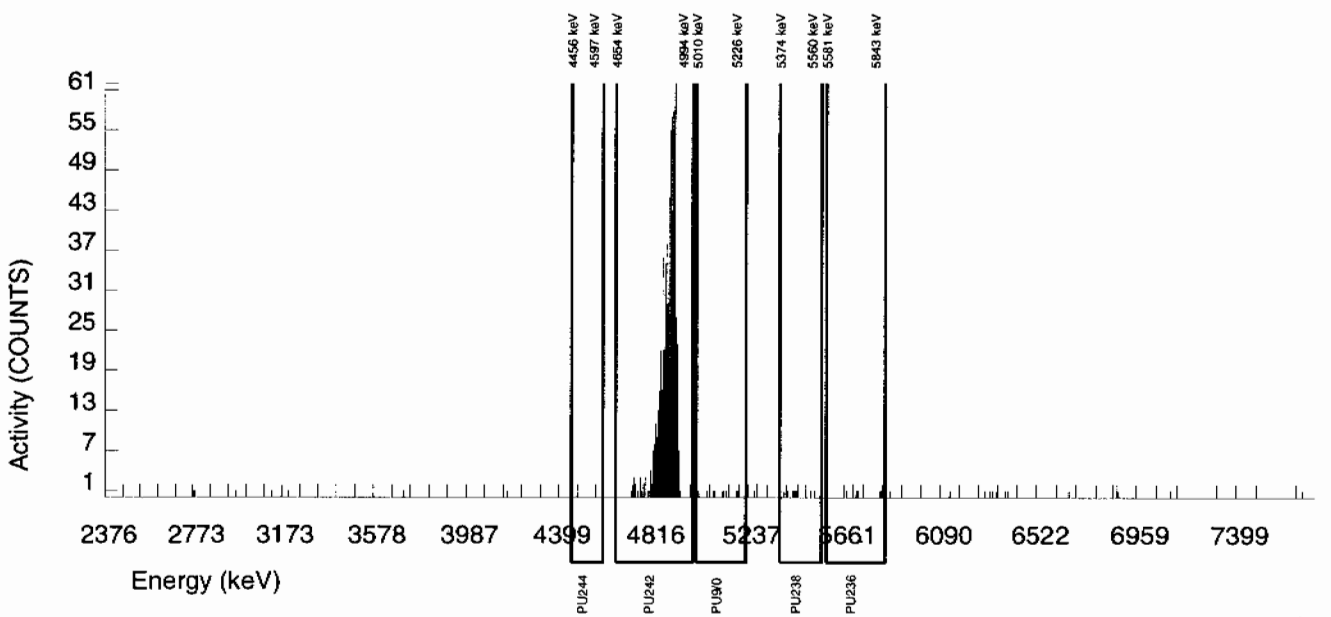

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S0245691007_PU
SAMPLE QTY : 1.264 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 94.304

CHAMBER : 071
DETECTOR S/N : 64259
AVERAGE %EFFICIENCY : 32.1673
COUNT DATE : 10-FEB-2010 16:27:04
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B071.CNF;1099
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W071.CNF;286
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.1882E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5707.176	214.200	8.000	2.960	5.040	2.6925	100.0000	4.88E-03	5.63E-03	9.48E-03	2.34E-02	5.63E-03
PU-238	5499.000	5447.647	129.516	12.000	3.360	8.640	2.9312	99.90000	5.49E-03	6.98E-03	1.03E-02	2.51E-02	6.97E-03
PU-9/0	5155.000	5100.702	4.981	3.000	0.840	2.160	2.0604	99.90000	1.37E-03	3.49E-03	7.26E-03	1.89E-02	3.49E-03
PU242	4890.000	4898.732	35.472	742.000	738.400	3.600	1.8974	100.0000	1.20E+00	7.91E-02	6.68E-03	1.78E-02	4.45E-02
PU-244	4589.000	4511.103	44.833	3.000	2.280	0.720	3.7241	99.90000	3.72E-03	3.07E-03	1.31E-02	3.07E-02	3.06E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

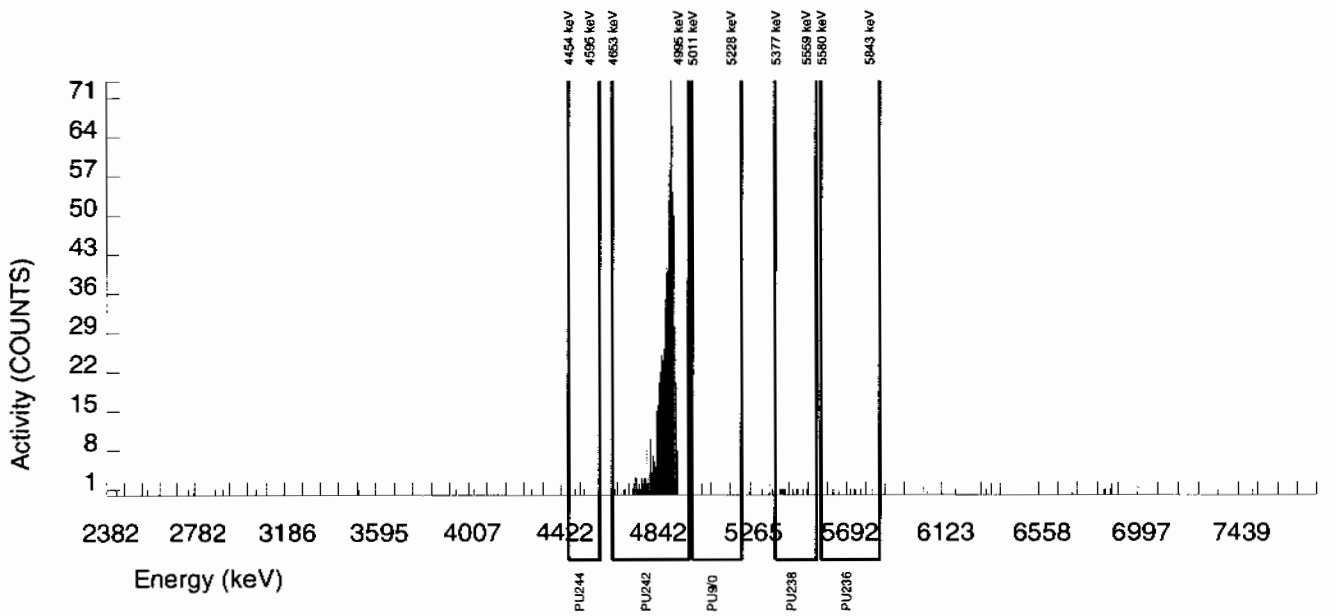

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S0245691008_PU
SAMPLE QTY : 1.262 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 85.059

CHAMBER : 072
DETECTOR S/N : 45-149AA3
AVERAGE %EFFICIENCY : 32.1107
COUNT DATE : 10-FEB-2010 16:27:04
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B072.CNF;1097
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W072.CNF;277
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.8756E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5716.228	4.964	10.000	0.640	9.360	2.6925	100.0000	1.17E-03	7.51E-03	1.05E-02	2.60E-02	7.51E-03
PU-238	5499.000	5445.944	81.912	14.000	6.080	7.920	2.9312	99.90000	1.11E-02	8.09E-03	1.15E-02	2.79E-02	8.07E-03
PU-9/0	5155.000	5128.601	4.964	1.000	-4.040	5.040	2.0604	99.90000	-7.34E-03	3.91E-03	8.08E-03	2.11E-02	3.91E-03
PU242	4890.000	4894.549	39.769	667.000	664.840	2.160	1.4697	100.0000	1.21E+00	8.19E-02	5.75E-03	1.64E-02	4.69E-02
PU-244	4589.000	4505.260	4.964	1.000	-0.440	1.440	3.7241	99.90000	-7.99E-04	2.59E-03	1.46E-02	3.41E-02	2.59E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

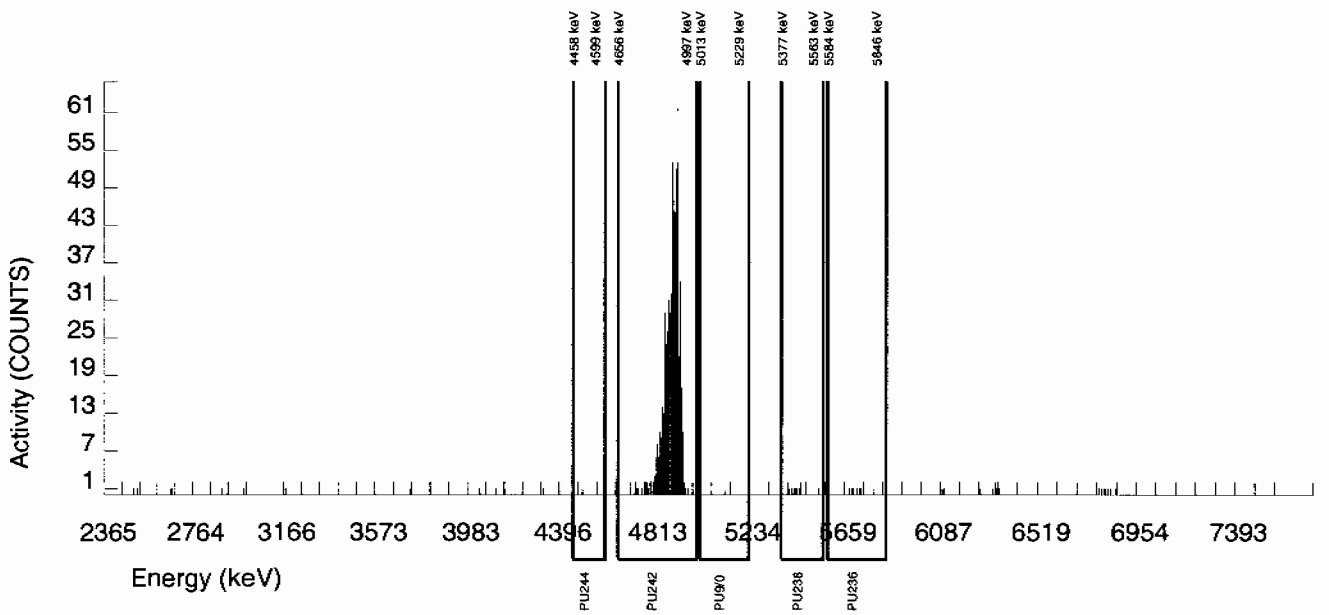

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356	CHAMBER : 073	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245691009_PU	DETECTOR S/N : 78775	BKG FILE : B073.CNF;1099
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 33.1249	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 16:27:04	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W073.CNF;285
% YIELD : 88.462		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9907E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5700.343	4.934	1.000	0.280	0.720	2.6925	100.0000	4.82E-04	2.13E-03	9.90E-03	2.44E-02	2.12E-03
PU-238	5499.000	5468.476	0.000	0.000	-0.720	0.720	2.9312	99.90000	-1.23E-03	2.10E-03	1.08E-02	2.62E-02	2.10E-03
PU-9/0	5155.000	5163.796	19.738	13.000	10.120	2.880	2.0604	99.90000	1.73E-02	6.69E-03	7.58E-03	1.98E-02	6.62E-03
PU242	4890.000	4894.249	34.417	714.000	713.280	0.720	0.8485	100.0000	1.22E+00	8.05E-02	3.12E-03	1.09E-02	4.55E-02
PU-244	4589.000	4586.680	14.803	2.000	2.000	0.000	3.7241	99.90000	3.41E-03	2.42E-03	1.37E-02	3.20E-02	2.41E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

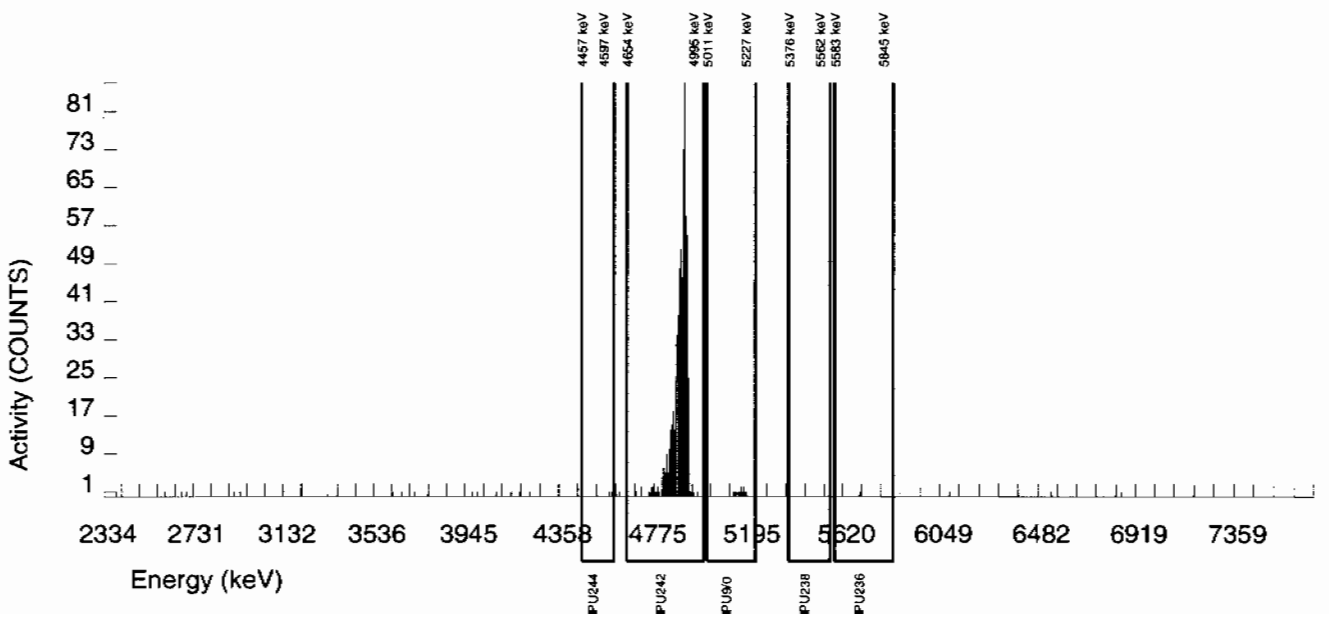

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356	CHAMBER : 074	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245691010_PU	DETECTOR S/N : 78266	BKG FILE : B074.CNF;1121
SAMPLE QTY : 1.262 G	AVERAGE %EFFICIENCY : 31.7390	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 16:27:04	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W074.CNF;332
% YIELD : 89.012		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0093E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5706.375	4.989	1.000	-0.440	1.440	2.6925	100.0000	-7.81E-04	2.53E-03	1.02E-02	2.51E-02	2.53E-03
PU-238	5499.000	5440.660	94.169	5.000	2.120	2.880	2.9312	99.90000	3.73E-03	4.68E-03	1.11E-02	2.70E-02	4.67E-03
PU-9/0	5155.000	5147.357	49.267	3.000	3.000	0.000	2.0604	99.90000	5.27E-03	3.06E-03	7.81E-03	2.04E-02	3.04E-03
PU242	4890.000	4898.179	28.903	692.000	687.680	4.320	2.0785	100.0000	1.21E+00	8.11E-02	7.87E-03	2.05E-02	4.63E-02
PU-244	4589.000	4499.553	69.847	2.000	2.000	0.000	3.7241	99.90000	3.51E-03	2.49E-03	1.41E-02	3.30E-02	2.48E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

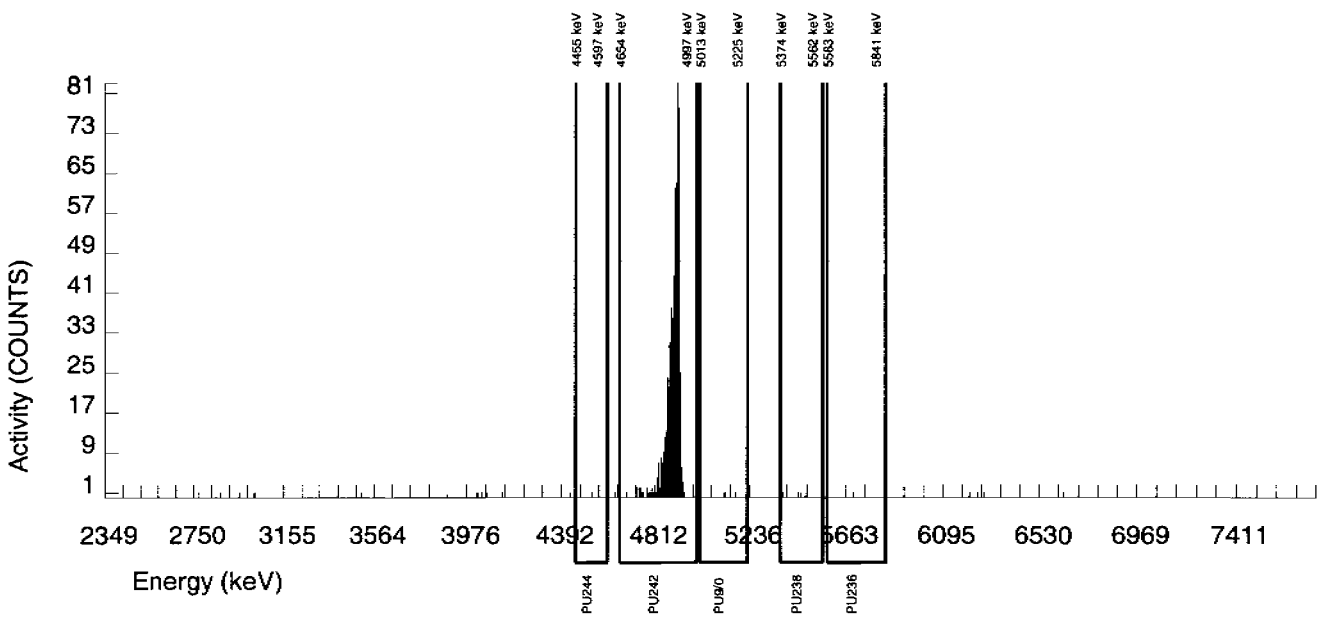

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356	CHAMBER : 075	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245691011_PU	DETECTOR S/N : 80010	BKG FILE : B075.CNF;1102
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 30.5707	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 16:27:04	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W075.CNF;290
% YIELD : 89.263		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0178E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.397	4.939	2.000	2.000	0.000	2.6925	100.0000	3.71E-03	2.63E-03	1.07E-02	2.63E-02	2.62E-03
PU-238	5499.000	5395.153	4.939	1.000	-0.440	1.440	2.9312	99.90000	-8.08E-04	2.62E-03	1.16E-02	2.82E-02	2.62E-03
PU-9/0	5155.000	5214.351	4.939	1.000	0.280	0.720	2.0604	99.90000	5.14E-04	2.26E-03	8.16E-03	2.13E-02	2.26E-03
PU242	4890.000	4898.070	37.649	670.000	664.240	5.760	2.4000	100.0000	1.22E+00	8.29E-02	9.50E-03	2.40E-02	4.76E-02
PU-244	4589.000	4522.192	0.000	2.000	0.560	1.440	3.7241	99.90000	1.03E-03	3.20E-03	1.48E-02	3.45E-02	3.20E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

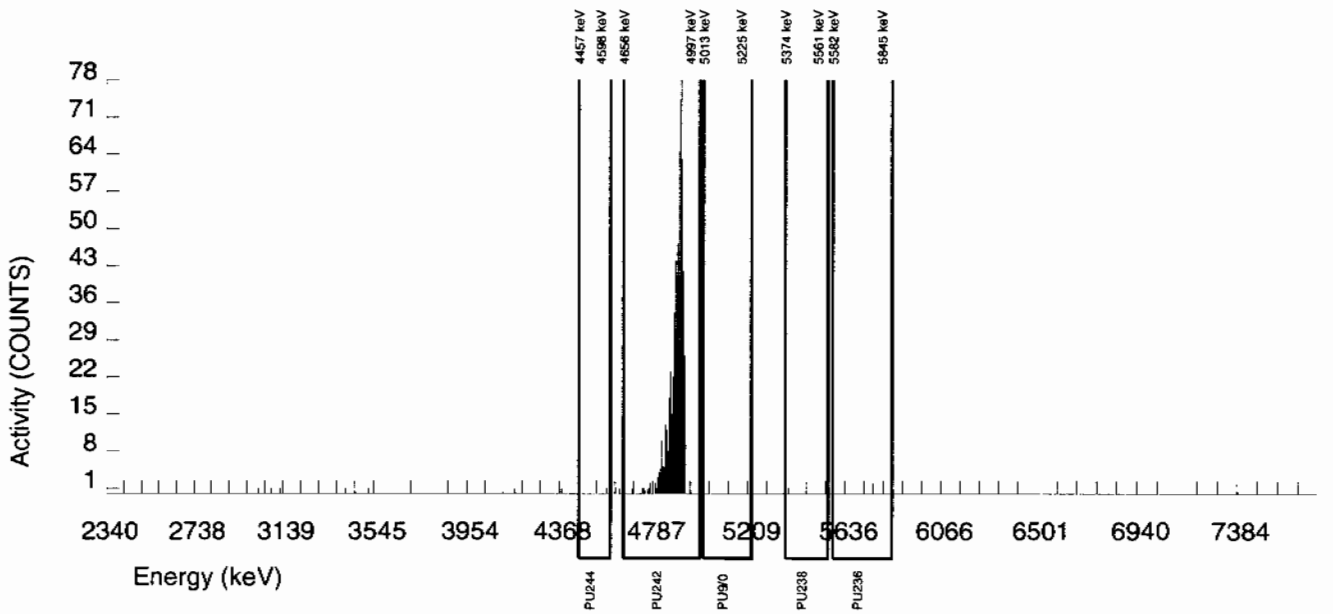

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S0245691012_PU
SAMPLE QTY : 1.262 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 85.666

CHAMBER : 076
DETECTOR S/N : 78779
AVERAGE %EFFICIENCY : 30.3696
COUNT DATE : 10-FEB-2010 16:27:04
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B076.CNF;1105
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W076.CNF;295
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.8962E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5747.153	158.583	2.000	2.000	0.000	2.6925	100.0000	3.85E-03	2.73E-03	1.11E-02	2.73E-02	2.73E-03
PU-238	5499.000	5469.013	0.000	2.000	1.280	0.720	2.9312	99.90000	2.44E-03	3.03E-03	1.21E-02	2.93E-02	3.03E-03
PU-9/0	5155.000	5123.400	163.539	9.000	7.560	1.440	2.0604	99.90000	1.44E-02	6.10E-03	8.48E-03	2.21E-02	6.04E-03
PU242	4890.000	4898.899	30.590	634.000	633.280	0.720	0.8485	100.0000	1.21E+00	8.31E-02	3.49E-03	1.21E-02	4.80E-02
PU-244	4589.000	4485.232	4.956	1.000	1.000	0.000	3.7241	99.90000	1.91E-03	1.91E-03	1.53E-02	3.58E-02	1.91E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

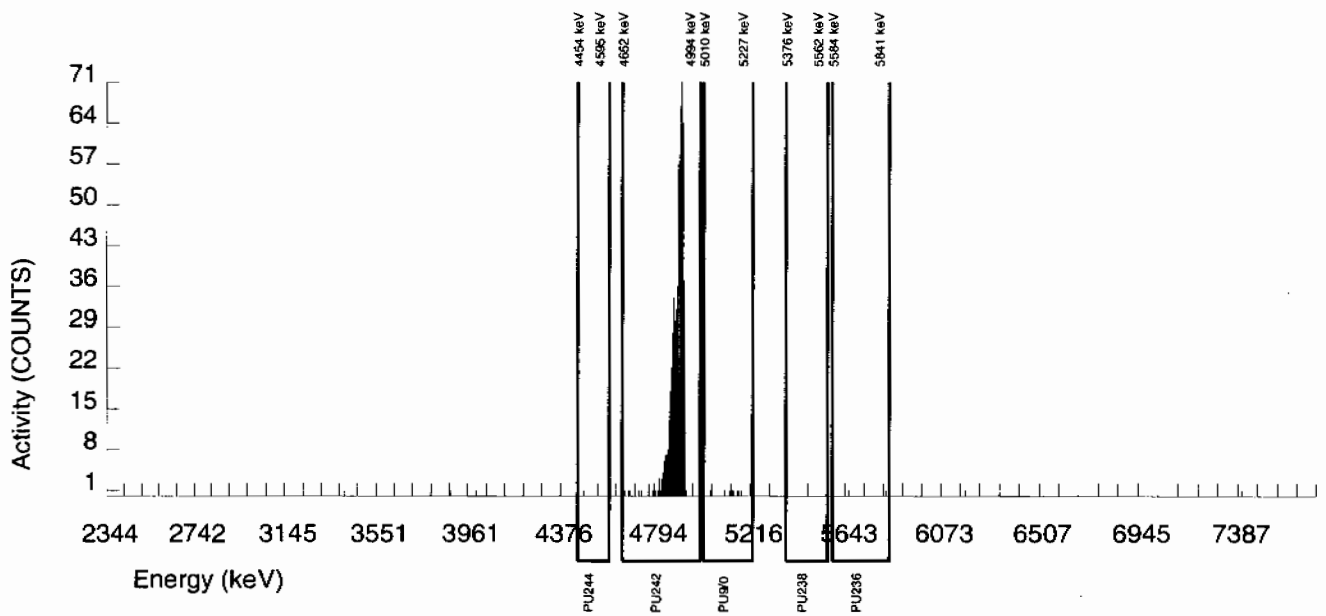

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356	CHAMBER : 083	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245691013_PU	DETECTOR S/N : 64278	BKG FILE : B083.CNF;1021
SAMPLE QTY : 1.265 G	AVERAGE %EFFICIENCY : 34.7636	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 16:27:05	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W083.CNF;292
% YIELD : 95.703		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2355E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5751.739	5.063	6.000	0.240	5.760	2.6925	100.0000	3.61E-04	4.79E-03	8.63E-03	2.13E-02	4.79E-03
PU-238	5499.000	5447.437	7.436	6.000	-1.200	7.200	2.9312	99.90000	-1.79E-03	4.98E-03	9.41E-03	2.29E-02	4.98E-03
PU-9/0	5155.000	5104.833	162.001	6.000	4.560	1.440	2.0604	99.90000	6.79E-03	3.96E-03	6.61E-03	1.73E-02	3.95E-03
PU242	4890.000	4906.153	56.947	812.000	809.840	2.160	1.4697	100.0000	1.20E+00	7.67E-02	4.71E-03	1.35E-02	4.24E-02
PU-244	4589.000	4509.942	5.063	7.000	4.120	2.880	3.7241	99.90000	6.13E-03	4.49E-03	1.20E-02	2.79E-02	4.48E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

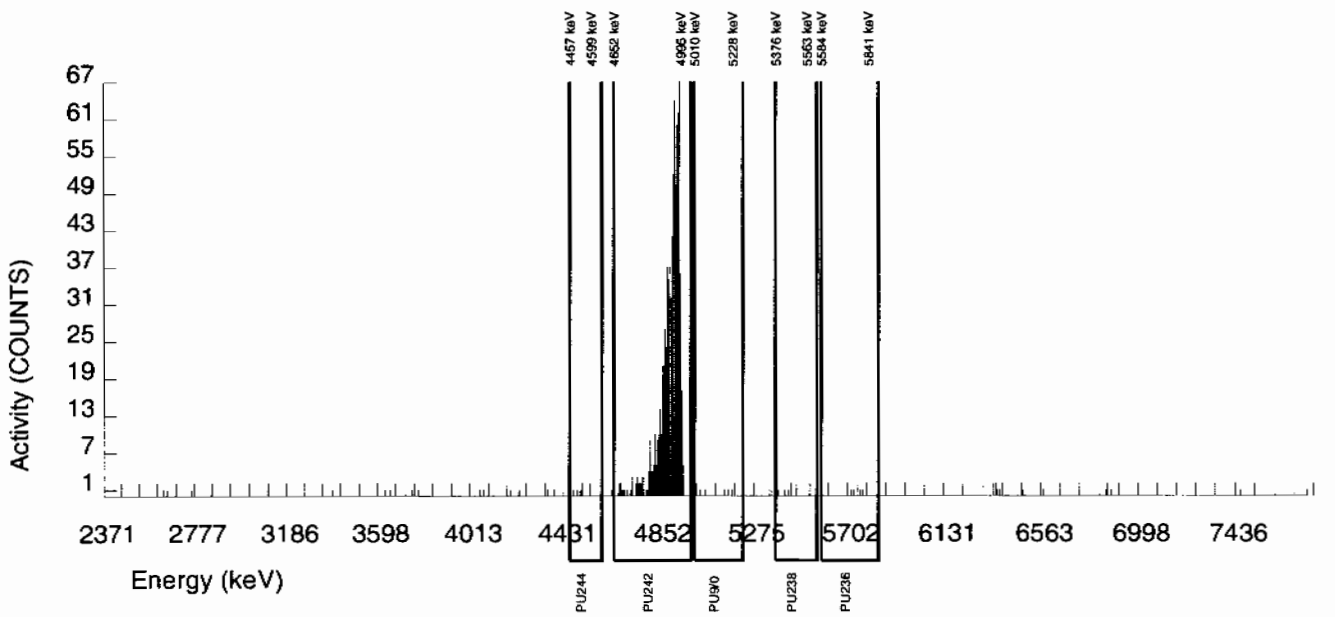

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S0245691014_PU
SAMPLE QTY : 1.253 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 91.950

CHAMBER : 084
DETECTOR S/N : 78265
AVERAGE %EFFICIENCY : 33.6931
COUNT DATE : 10-FEB-2010 16:27:05
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B084.CNF;1019
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W084.CNF;295
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.1086E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.235	0.000	0.000	-3.600	3.600	2.6925	100.0000	-5.87E-03	3.09E-03	9.36E-03	2.31E-02	3.09E-03
PU-238	5499.000	5470.946	20.142	2.000	2.000	0.000	2.9312	99.90000	3.23E-03	2.29E-03	1.02E-02	2.48E-02	2.28E-03
PU-9/0	5155.000	5164.173	50.355	8.000	7.280	0.720	2.0604	99.90000	1.17E-02	4.75E-03	7.17E-03	1.87E-02	4.71E-03
PU242	4890.000	4905.892	25.069	757.000	754.120	2.880	1.6971	100.0000	1.22E+00	7.92E-02	5.90E-03	1.62E-02	4.44E-02
PU-244	4589.000	4534.783	5.035	1.000	1.000	0.000	3.7241	99.90000	1.61E-03	1.62E-03	1.30E-02	3.03E-02	1.61E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

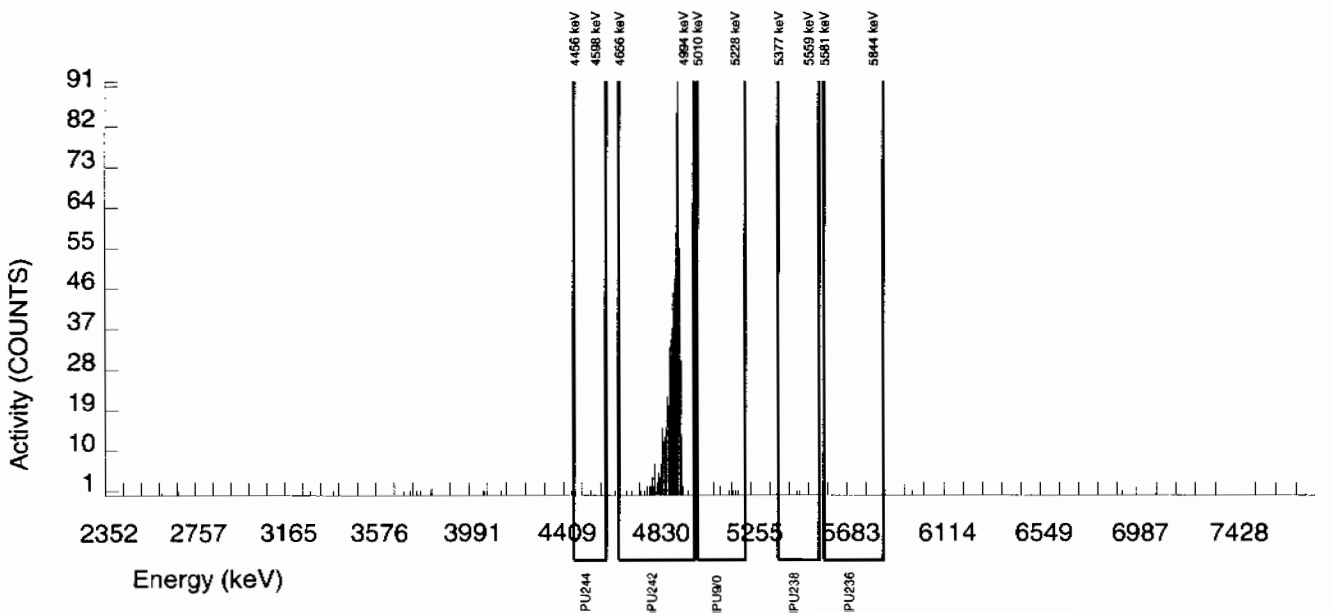

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S1202029347_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : CXM2
% YIELD : 90.428

CHAMBER : 085
DETECTOR S/N : 78776
AVERAGE %EFFICIENCY : 31.5289
COUNT DATE : 10-FEB-2010 16:27:05
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B085.CNF;1022
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W085.CNF;302
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.0572E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.024	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	2.21E-03	1.27E-02	3.14E-02	2.20E-03
PU-238	5499.000	5467.760	0.000	0.000	-0.720	0.720	2.9312	99.90000	-1.58E-03	2.71E-03	1.39E-02	3.37E-02	2.71E-03
PU-9/0	5155.000	5157.359	65.287	2.000	1.280	0.720	2.0604	99.90000	2.81E-03	3.49E-03	9.76E-03	2.55E-02	3.49E-03
PU242	4890.000	4898.068	29.525	694.000	694.000	0.000	0.0000	100.0000	1.52E+00	1.02E-01	0.00E+00	5.95E-03	5.78E-02
PU-244	4589.000	4593.996	0.000	2.000	2.000	0.000	3.7241	99.90000	4.39E-03	3.12E-03	1.76E-02	4.12E-02	3.11E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

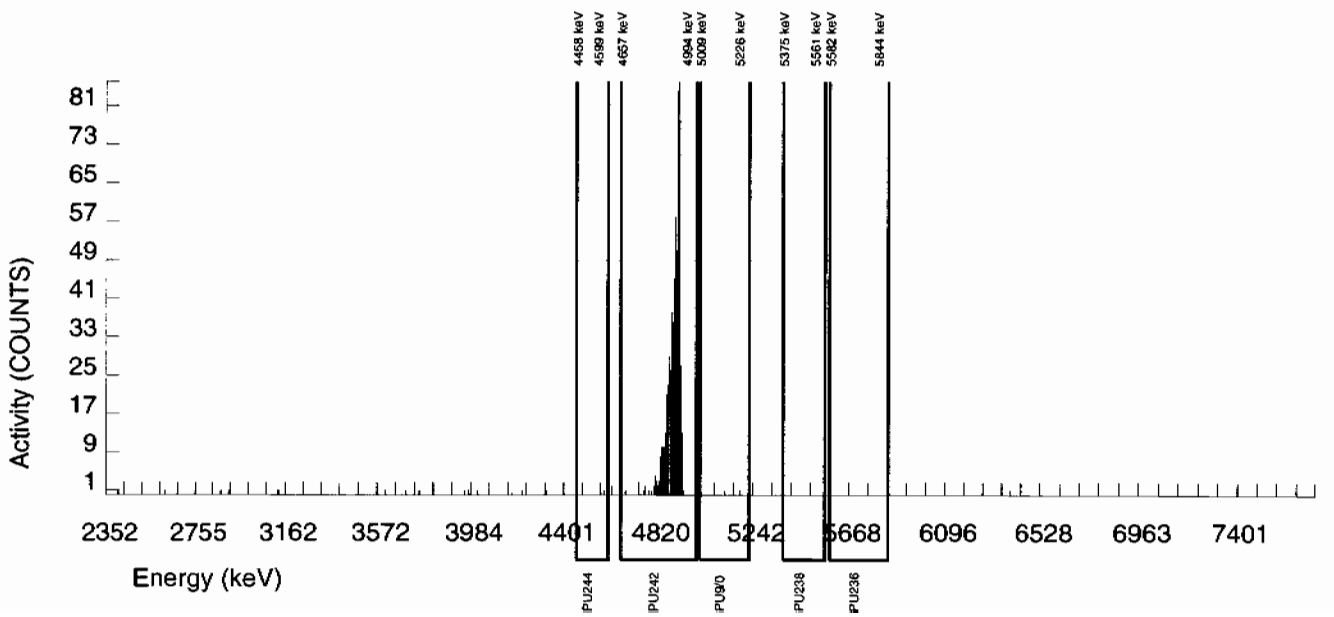

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S1202029348_PU
SAMPLE QTY : 1.254 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 94.742

CHAMBER : 086
DETECTOR S/N : 78198
AVERAGE %EFFICIENCY : 29.4361
COUNT DATE : 10-FEB-2010 16:27:05
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B086.CNF;1021
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W086.CNF;283
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.2030E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5828.083	5.021	1.000	-0.440	1.440	2.6925	100.0000	-7.96E-04	2.58E-03	1.04E-02	2.56E-02	2.58E-03
PU-238	5499.000	5468.799	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.79E-03	1.13E-02	2.75E-02	1.79E-03
PU-9/0	5155.000	5140.692	50.206	4.000	3.280	0.720	2.0604	99.90000	5.87E-03	3.82E-03	7.96E-03	2.08E-02	3.81E-03
PU242	4890.000	4901.095	33.601	681.000	678.840	2.160	1.4697	100.0000	1.21E+00	8.18E-02	5.67E-03	1.62E-02	4.67E-02
PU-244	4589.000	4547.380	70.289	2.000	2.000	0.000	3.7241	99.90000	3.58E-03	2.54E-03	1.44E-02	3.36E-02	2.53E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

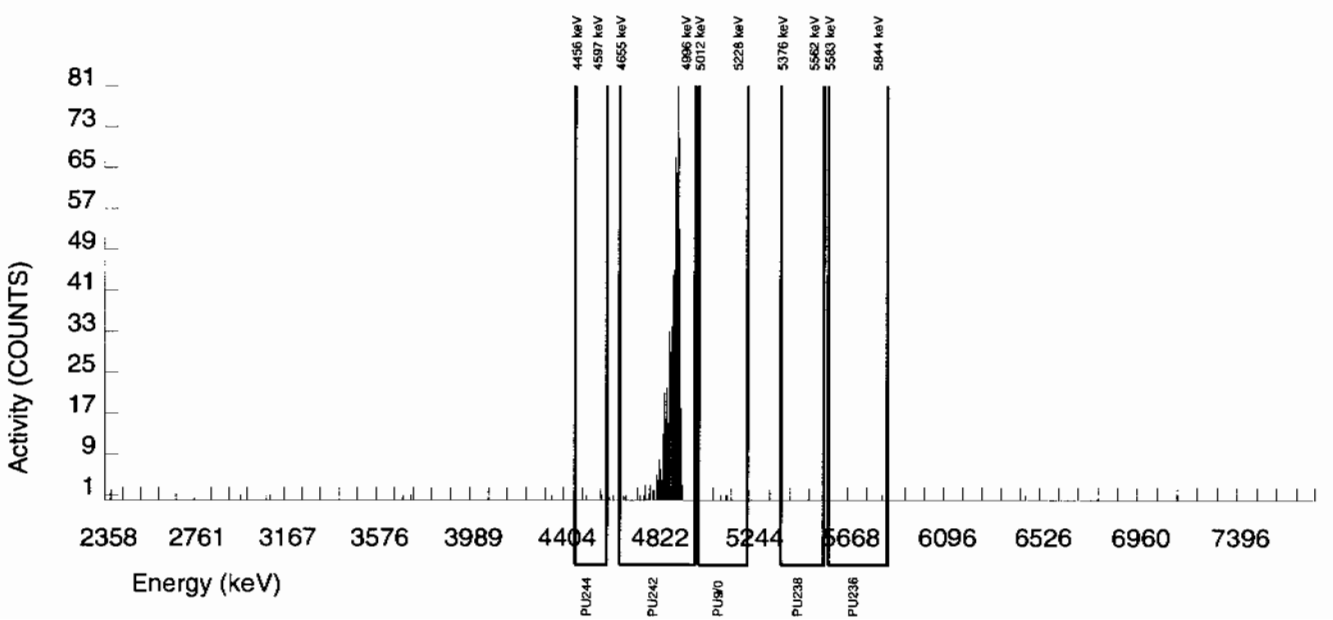

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947356
SAMPLE ID : S1202029349_PU
SAMPLE QTY : 0.111 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : CXM2
% YIELD : 93.836

CHAMBER : 087
DETECTOR S/N : 78199
AVERAGE %EFFICIENCY : 30.6587
COUNT DATE : 10-FEB-2010 16:27:05
ELAPSED LIVE TIME(SEC) : 43199.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B087.CNF;1028
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W087.CNF;276
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.1724E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5650.562	4.948	1.000	1.000	0.000	2.6925	100.0000	1.97E-02	1.97E-02	1.14E-01	2.81E-01	1.97E-02
PU-238	5499.000	5499.873	57.056	347.000	347.000	0.000	2.9312	99.90000	6.81E+00	5.58E-01	1.24E-01	3.01E-01	3.65E-01
PU-9/0	5155.000	5158.251	32.874	2154.000	2147.520	6.480	2.0604	99.90000	4.21E+01	2.77E+00	8.72E-02	2.27E-01	9.11E-01
PU242	4890.000	4896.292	33.449	701.000	700.280	0.720	0.8485	100.0000	1.37E+01	9.97E-01	3.59E-02	1.25E-01	5.19E-01
PU-244	4589.000	4537.426	34.637	2.000	-0.880	2.880	3.7241	99.90000	-1.73E-02	3.96E-02	1.58E-01	3.68E-01	3.96E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

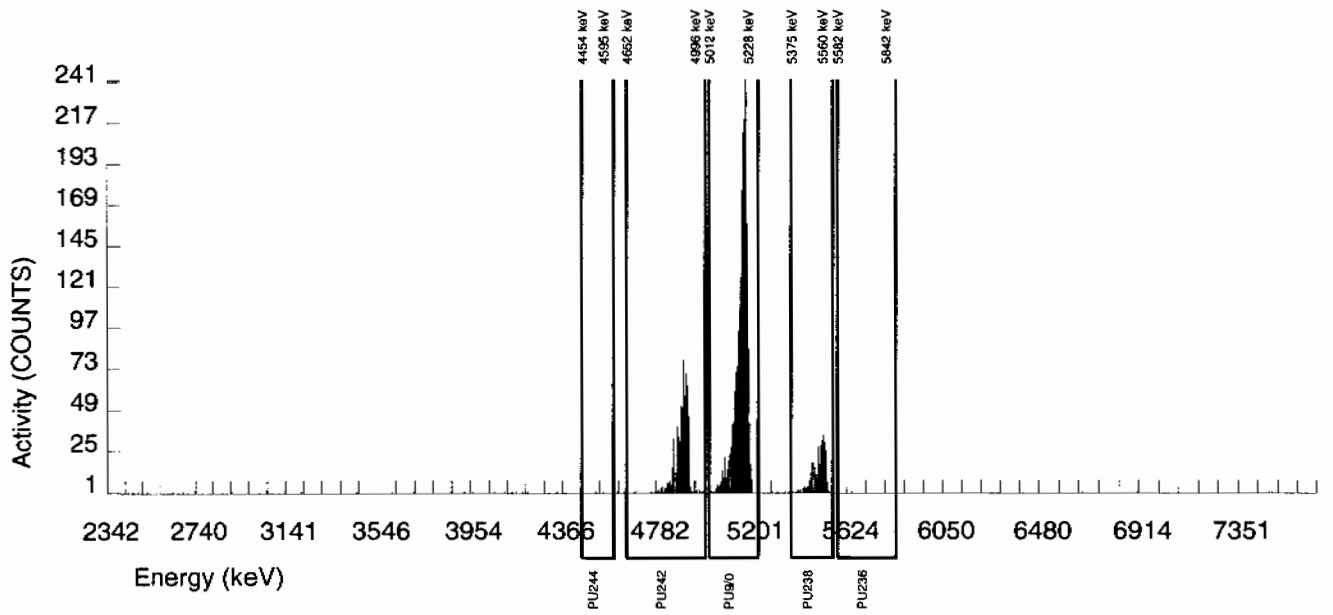

Radiochemistry Batch Checklist, Rev10

Batch# 947357 Product: U Date: 2/12/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		case narrative
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/12/10

Secondary Review Performed By: 2/15/10

2/8 - 2/18

CAR

Uranium Que Sheet

09-FEB-10

Batch #: 947357 **Analyst:** CXM2 **First Client Due Date:** 18-FEB-10 **Internal Due Date:** 08-FEB-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/9/10 **Vol:** 0.1 mL
LCS Isotope: U-238 **LCS Code:** 0244-A **Expiration Date:** 10/31/20 **Vol:** 0.108 g * SRM
Spike Isotope: U-238 **Spike Code:** — **Expiration Date:** — **Vol:** —
Prep Date: 2/4/10 **Initials:** CMM **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** MR 2/4/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
245667001-1	RE16-10-1343	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	1	1	0.529	139
245667002-1	RE16-10-1345	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	2	2	0.527	140
245667003-1	RE16-10-1347	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	3	3	0.522	145
245667004-1	RE16-10-1349	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	4	4	0.504	146
245667005-1	RE16-10-1351	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	5	5	0.518	147
245667006-1	RE16-10-1365	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	6	6	0.502	148
245691001-1	RE15-10-7883	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	7	7	0.511	1
245691002-1	RE15-10-7884	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	8	8	0.508	2
245691003-1	RE15-10-7932	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	9	9	0.507	3
245691004-1	RE15-10-7931	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	10	10	0.514	162 4
245691005-1	RE15-10-7938	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	11	11	0.502	5
245691006-1	RE15-10-7933	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	12	12	0.505	6
245691007-1	RE15-10-7939	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	13	13	0.518	7
245691008-1	RE15-10-7936	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	14	14	0.518	8
~~245691009-1~~	~~RE15-10-7935~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~25-JAN-10~~	~~15~~	~~15~~	~~0.504~~	~~9~~
245691010-1	RE15-10-7934	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	16	16	0.501	10
245691011-1	RE15-10-7940	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	17	17	0.504	11
245691012-1	RE15-10-7937	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	18	18	0.508	12
245691013-1	RE15-10-8056	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	19	19	0.516	166
245691014-1	RE15-10-8057	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	20	20	0.514	169
1202029350-1	MB for batch 947357	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1.00	170
1202029351-1	RE15-10-7883(245691001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	25-JAN-10	22	22	0.526	171
1202029352-1	LCS for batch 947357	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.108	172

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: [signature] 2/12/10

Blank Correction Report

Batch ID 947357

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202029351	DUP	Uranium-233/234	0.526 g	1.46	0.121	0.0748	.034790875	pCi/g	NO
		Uranium-235/236	0.526 g	0.125	0.0247	0.0477	.011235741	pCi/g	NO
		Uranium-238	0.526 g	2.83	0.217	0.0511	.018174905	pCi/g	NO
1202029352	LCS	Uranium-233/234	0.108 g	6.27	0.543	0.306	.169444444	pCi/g	NO
		Uranium-235/236	0.108 g	0.359	0.0809	0.195	.054722222	pCi/g	NO
		Uranium-238	0.108 g	5.77	0.504	0.209	.088518519	pCi/g	NO
1202029350	MB	Uranium-233/234	1.00 g	0.0183	0.00512	0.0302	.0183	pCi/g	YES
		Uranium-235/236	1.00 g	0.00591	0.00364	0.0192	.00591	pCi/g	YES
		Uranium-238	1.00 g	0.00956	0.00383	0.0206	.00956	pCi/g	YES
245667001	RE16-10-1343	Uranium-233/234	0.529 g	0.992	0.0942	0.0938	.034593573	pCi/g	NO
		Uranium-235/236	0.529 g	0.0459	0.0163	0.0598	.011172023	pCi/g	YES
		Uranium-238	0.529 g	1.09	0.101	0.064	.018071834	pCi/g	NO
245667002	RE16-10-1345	Uranium-233/234	0.527 g	0.944	0.0879	0.0883	.034724858	pCi/g	NO
		Uranium-235/236	0.527 g	0.0562	0.0172	0.0563	.011214421	pCi/g	NO
		Uranium-238	0.527 g	0.941	0.0878	0.0603	.018140417	pCi/g	NO
245667003	RE16-10-1347	Uranium-233/234	0.522 g	0.820	0.0798	0.0881	.035057471	pCi/g	NO
		Uranium-235/236	0.522 g	0.0345	0.0125	0.0562	.011321839	pCi/g	YES
		Uranium-238	0.522 g	0.877	0.084	0.0602	.018314176	pCi/g	NO
245667004	RE16-10-1349	Uranium-233/234	0.504 g	0.824	0.0832	0.106	.036309524	pCi/g	NO
		Uranium-235/236	0.504 g	0.0568	0.0191	0.0673	.011726190	pCi/g	YES
		Uranium-238	0.504 g	1.04	0.0992	0.072	.018968254	pCi/g	NO
245667005	RE16-10-1351	Uranium-233/234	0.518 g	0.964	0.092	0.0933	.035328185	pCi/g	NO
		Uranium-235/236	0.518 g	0.0548	0.0163	0.0595	.011409266	pCi/g	YES
		Uranium-238	0.518 g	1.12	0.103	0.0637	.018455598	pCi/g	NO
245667006	RE16-10-1365	Uranium-233/234	0.502 g	0.924	0.111	0.194	.036454183	pCi/g	NO
		Uranium-235/236	0.502 g	0.0758	0.0305	0.123	.011772908	pCi/g	NO
		Uranium-238	0.502 g	0.989	0.117	0.132	.019043825	pCi/g	NO
245691001	RE15-10-7883	Uranium-233/234	0.511 g	1.31	0.108	0.0666	.035812133	pCi/g	NO
		Uranium-235/236	0.511 g	0.0848	0.0182	0.0425	.011565558	pCi/g	NO
		Uranium-238	0.511 g	2.73	0.206	0.0455	.018708415	pCi/g	NO
245691002	RE15-10-7884	Uranium-233/234	0.508 g	0.664	0.0656	0.0764	.036023622	pCi/g	NO
		Uranium-235/236	0.508 g	0.0615	0.016	0.050	.011633858	pCi/g	NO
		Uranium-238	0.508 g	0.690	0.0667	0.0536	.018818898	pCi/g	NO
245691003	RE15-10-7932	Uranium-233/234	0.507 g	0.525	0.0549	0.079	.036094675	pCi/g	NO
		Uranium-235/236	0.507 g	0.0309	0.0112	0.0503	.011656805	pCi/g	YES
		Uranium-238	0.507 g	0.616	0.0616	0.0539	.018856016	pCi/g	NO
245691004	RE15-10-7931	Uranium-233/234	0.514 g	0.873	0.0755	0.0617	.035603113	pCi/g	NO
		Uranium-235/236	0.514 g	0.0695	0.0152	0.0393	.011498054	pCi/g	NO
		Uranium-238	0.514 g	1.85	0.143	0.0421	.018599222	pCi/g	NO
245691005	RE15-10-7938	Uranium-233/234	0.502 g	0.665	0.0628	0.0698	.036454183	pCi/g	NO
		Uranium-235/236	0.502 g	0.0752	0.0169	0.0445	.011772908	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245691005	RE15-10-7938	Uranium-238	0.502 g	0.711	0.0663	0.0477	.019043825	pCi/g	NO
245691006	RE15-10-7933	Uranium-233/234	0.505 g	2.72	0.213	0.0833	.036237624	pCi/g	NO
		Uranium-235/236	0.505 g	0.196	0.0314	0.0531	.011702970	pCi/g	NO
		Uranium-238	0.505 g	4.68	0.350	0.0569	.018930693	pCi/g	NO
245691007	RE15-10-7939	Uranium-233/234	0.518 g	1.37	0.115	0.0759	.035328185	pCi/g	NO
		Uranium-235/236	0.518 g	0.104	0.0228	0.0484	.011409266	pCi/g	NO
		Uranium-238	0.518 g	2.23	0.176	0.0518	.018455598	pCi/g	NO
245691008	RE15-10-7936	Uranium-233/234	0.518 g	0.919	0.0821	0.0728	.035328185	pCi/g	NO
		Uranium-235/236	0.518 g	0.0784	0.0176	0.0464	.011409266	pCi/g	NO
		Uranium-238	0.518 g	1.51	0.123	0.0497	.018455598	pCi/g	NO
245691010	RE15-10-7934	Uranium-233/234	0.501 g	0.825	0.0756	0.0742	.036526946	pCi/g	NO
		Uranium-235/236	0.501 g	0.040	0.0134	0.0473	.011796407	pCi/g	YES
		Uranium-238	0.501 g	1.03	0.0904	0.0506	.019081836	pCi/g	NO
245691011	RE15-10-7940	Uranium-233/234	0.504 g	0.700	0.0667	0.0744	.036309524	pCi/g	NO
		Uranium-235/236	0.504 g	0.0364	0.0129	0.0474	.011726190	pCi/g	YES
		Uranium-238	0.504 g	0.640	0.0622	0.0508	.018968254	pCi/g	NO
245691012	RE15-10-7937	Uranium-233/234	0.508 g	2.32	0.181	0.0737	.036023622	pCi/g	NO
		Uranium-235/236	0.508 g	0.152	0.0266	0.047	.011633858	pCi/g	NO
		Uranium-238	0.508 g	4.53	0.334	0.0503	.018818898	pCi/g	NO
245691013	RE15-10-8056	Uranium-233/234	0.516 g	0.976	0.0806	0.0546	.035465116	pCi/g	NO
		Uranium-235/236	0.516 g	0.0802	0.0156	0.0348	.011453488	pCi/g	NO
		Uranium-238	0.516 g	1.91	0.145	0.0373	.018527132	pCi/g	NO
245691014	RE15-10-8057	Uranium-233/234	0.514 g	1.48	0.117	0.0596	.035603113	pCi/g	NO
		Uranium-235/236	0.514 g	0.149	0.0236	0.038	.011498054	pCi/g	NO
		Uranium-238	0.514 g	3.54	0.258	0.0407	.018599222	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S0245691001_UU
SAMPLE QTY : 0.511 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 103.575

CHAMBER : 001
DETECTOR S/N : 79451
AVERAGE %EFFICIENCY : 32.2368
COUNT DATE : 10-FEB-2010 10:43:06
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B001.CNF;1123
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W001.CNF;382
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5065E+00 dpm
RESULTS : 4.6676E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.108	54.103	1505.000	1504.000	1.000	1.0000	100.0000	3.97E+00	2.92E-01	6.14E-03	1.94E-02	1.03E-01
U-3/4	4763.020	4756.924	22.882	502.000	496.478	4.000	4.8416	100.0000	1.31E+00	1.08E-01	2.97E-02	6.66E-02	5.93E-02
U-235	4391.000	4395.728	30.566	27.000	26.000	1.000	2.2152	80.90000	8.48E-02	1.82E-02	1.68E-02	4.25E-02	1.73E-02
U-238	4184.730	4188.603	38.426	1037.000	1035.000	2.000	3.1208	100.0000	2.73E+00	2.06E-01	1.92E-02	4.55E-02	8.51E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

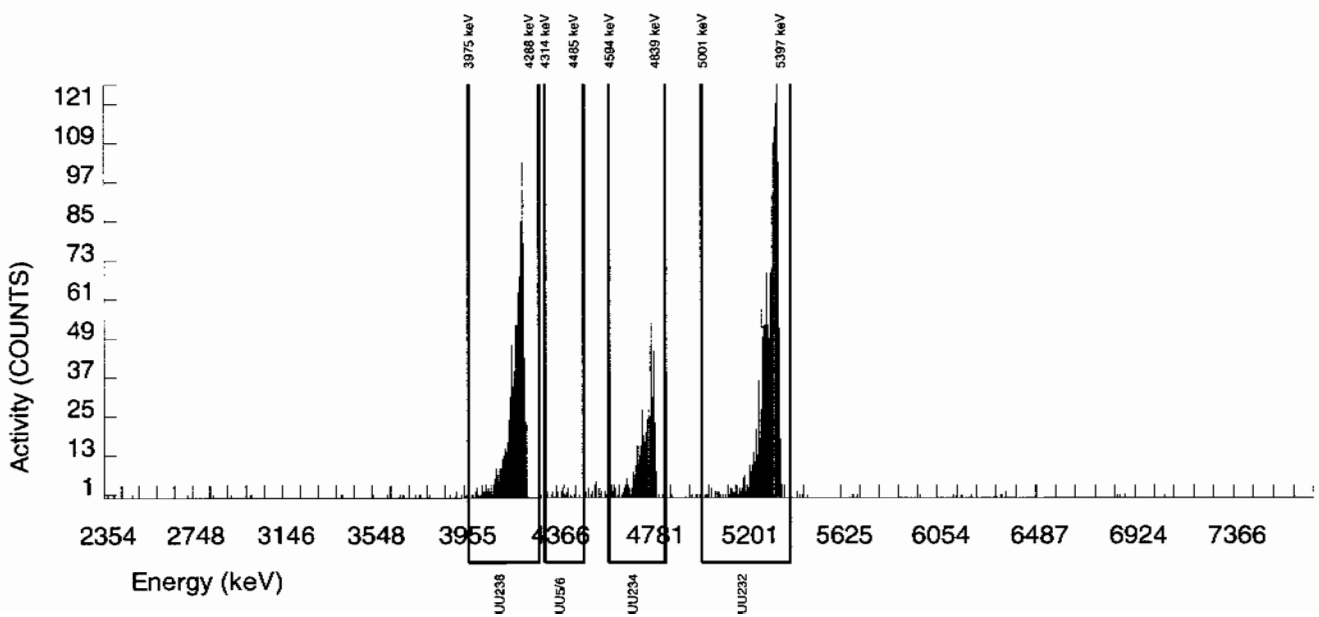

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S0245691002_UU
SAMPLE QTY : 0.508 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 96.440

CHAMBER : 002
DETECTOR S/N : 79452
AVERAGE %EFFICIENCY : 29.5805
COUNT DATE : 10-FEB-2010 10:43:06
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B002.CNF;1113
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W002.CNF;328
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5065E+00 dpm
RESULTS : 4.3461E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.672	35.957	1292.000	1285.000	7.000	2.6458	100.0000	4.00E+00	3.00E-01	1.91E-02	4.67E-02	1.12E-01
U-3/4	4763.020	4758.918	17.402	220.000	213.700	5.000	4.8416	100.0000	6.64E-01	6.56E-02	3.50E-02	7.84E-02	4.65E-02
U-235	4391.000	4389.717	44.184	16.000	16.000	0.000	2.2152	80.90000	6.15E-02	1.60E-02	1.98E-02	5.00E-02	1.54E-02
U-238	4184.730	4183.790	64.004	222.000	222.000	0.000	3.1208	100.0000	6.90E-01	6.67E-02	2.26E-02	5.36E-02	4.63E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

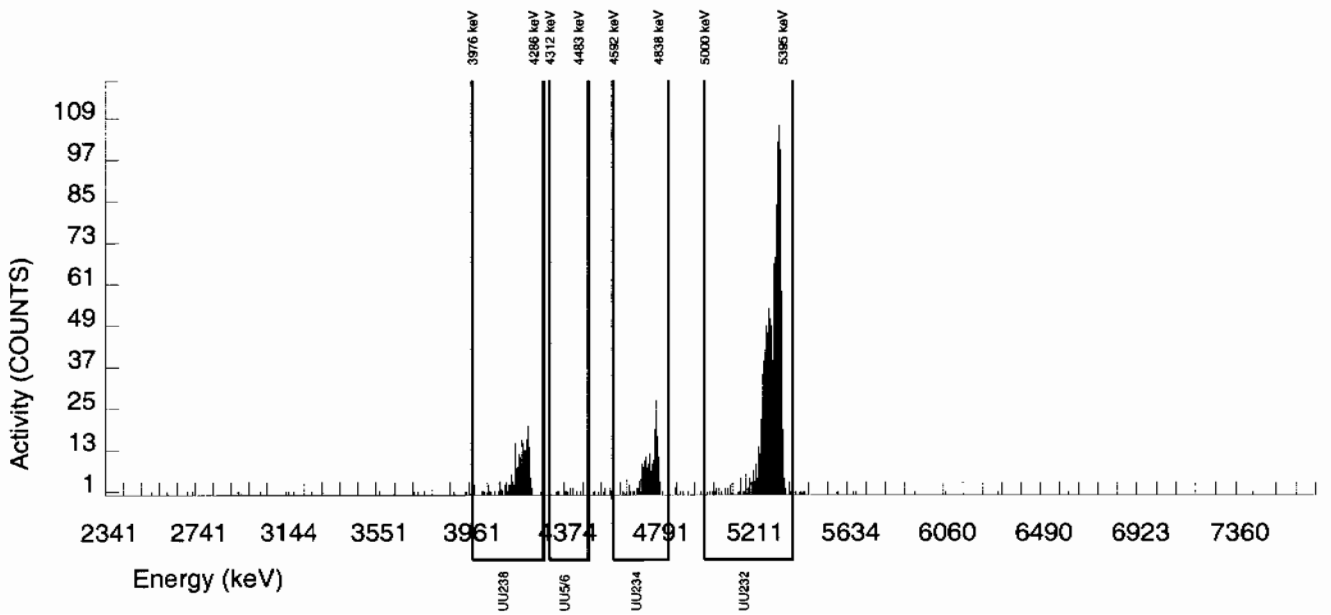

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S0245691003_UU
SAMPLE QTY : 0.507 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 91.317

CHAMBER : 003
DETECTOR S/N : 79453
AVERAGE %EFFICIENCY : 31.0941
COUNT DATE : 10-FEB-2010 10:43:06
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B003.CNF;1108
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W003.CNF;341
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5065E+00 dpm
RESULTS : 4.1152E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5311.228	56.093	1282.000	1279.000	3.000	1.7321	100.0000	4.00E+00	3.00E-01	1.26E-02	3.37E-02	1.12E-01
U-3/4	4763.020	4767.283	66.225	171.000	167.706	2.000	4.8416	100.0000	5.25E-01	5.49E-02	3.52E-02	7.90E-02	4.10E-02
U-235	4391.000	4400.985	134.117	8.000	8.000	0.000	2.2152	80.90000	3.09E-02	1.11E-02	1.99E-02	5.03E-02	1.09E-02
U-238	4184.730	4198.726	38.874	198.000	197.000	1.000	3.1208	100.0000	6.16E-01	6.16E-02	2.27E-02	5.39E-02	4.41E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

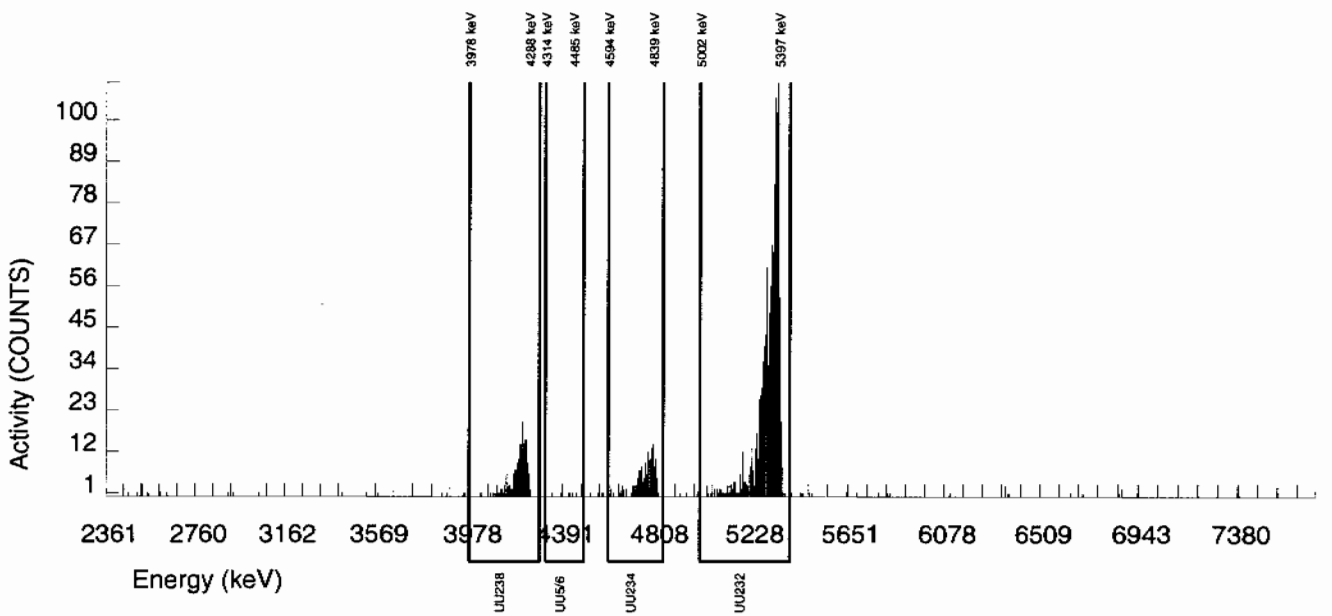

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357	CHAMBER : 162	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245691004_UU	DETECTOR S/N : 70323	BKG FILE : B162.CNF;170
SAMPLE QTY : 0.514 G	AVERAGE %EFFICIENCY : 37.0846	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 11-FEB-2010 15:06:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W162.CNF;66
% YIELD : 96.683		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5065E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3571E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.271	54.456	1616.000	1615.000	1.000	1.0000	100.0000	3.95E+00	2.87E-01	5.69E-03	1.80E-02	9.83E-02
U-3/4	4763.020	4763.432	42.263	360.000	357.366	1.000	4.8416	100.0000	8.73E-01	7.55E-02	2.75E-02	6.17E-02	4.63E-02
U-235	4391.000	4405.841	117.273	23.000	23.000	0.000	2.2152	80.90000	6.95E-02	1.52E-02	1.56E-02	3.93E-02	1.45E-02
U-238	4184.730	4190.238	55.430	756.000	756.000	0.000	3.1208	100.0000	1.85E+00	1.43E-01	1.77E-02	4.21E-02	6.72E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

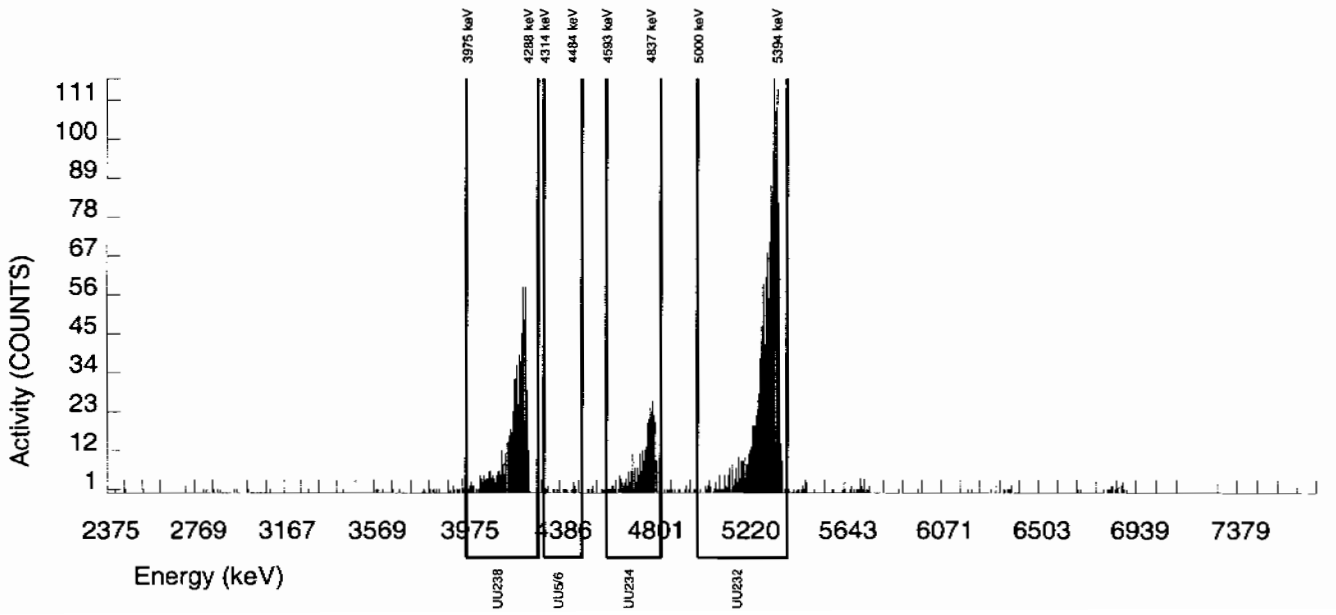

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S0245691005_UU
SAMPLE QTY : 0.502 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 101.602

CHAMBER : 005
DETECTOR S/N : 79454
AVERAGE %EFFICIENCY : 31.9230
COUNT DATE : 10-FEB-2010 10:43:06
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B005.CNF;1103
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W005.CNF;337
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5065E+00 dpm
RESULTS : 4.5788E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5321.529	42.140	1465.000	1461.000	4.000	2.0000	100.0000	4.04E+00	2.98E-01	1.29E-02	3.32E-02	1.06E-01
U-3/4	4763.020	4773.803	41.615	242.000	240.522	0.000	4.8416	100.0000	6.65E-01	6.28E-02	3.12E-02	6.98E-02	4.29E-02
U-235	4391.000	4410.337	96.057	22.000	22.000	0.000	2.2152	80.90000	7.52E-02	1.69E-02	1.76E-02	4.45E-02	1.60E-02
U-238	4184.730	4204.017	39.748	259.000	257.000	2.000	3.1208	100.0000	7.11E-01	6.63E-02	2.01E-02	4.77E-02	4.47E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

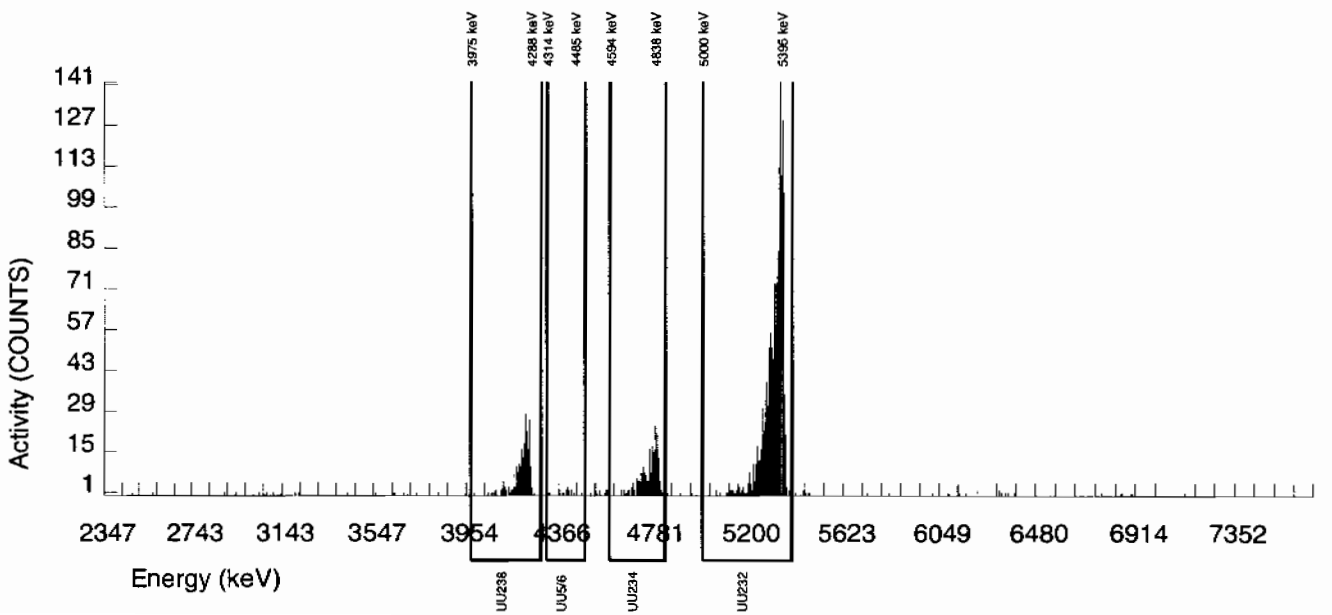

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357	CHAMBER : 006	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245691006_UU	DETECTOR S/N : 79455	BKG FILE : B006.CNF;1116
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 31.1643	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 10:43:06	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W006.CNF;361
% YIELD : 86.694		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5065E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9069E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.573	34.761	1218.000	1217.000	1.000	1.0000	100.0000	4.02E+00	3.04E-01	7.68E-03	2.43E-02	1.15E-01
U-3/4	4763.020	4757.882	57.369	826.000	824.769	0.000	4.8416	100.0000	2.72E+00	2.13E-01	3.72E-02	8.33E-02	9.48E-02
U-235	4391.000	4396.874	7.792	48.000	48.000	0.000	2.2152	80.90000	1.96E-01	3.14E-02	2.10E-02	5.31E-02	2.83E-02
U-238	4184.730	4190.083	44.470	1418.000	1418.000	0.000	3.1208	100.0000	4.68E+00	3.50E-01	2.40E-02	5.69E-02	1.24E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

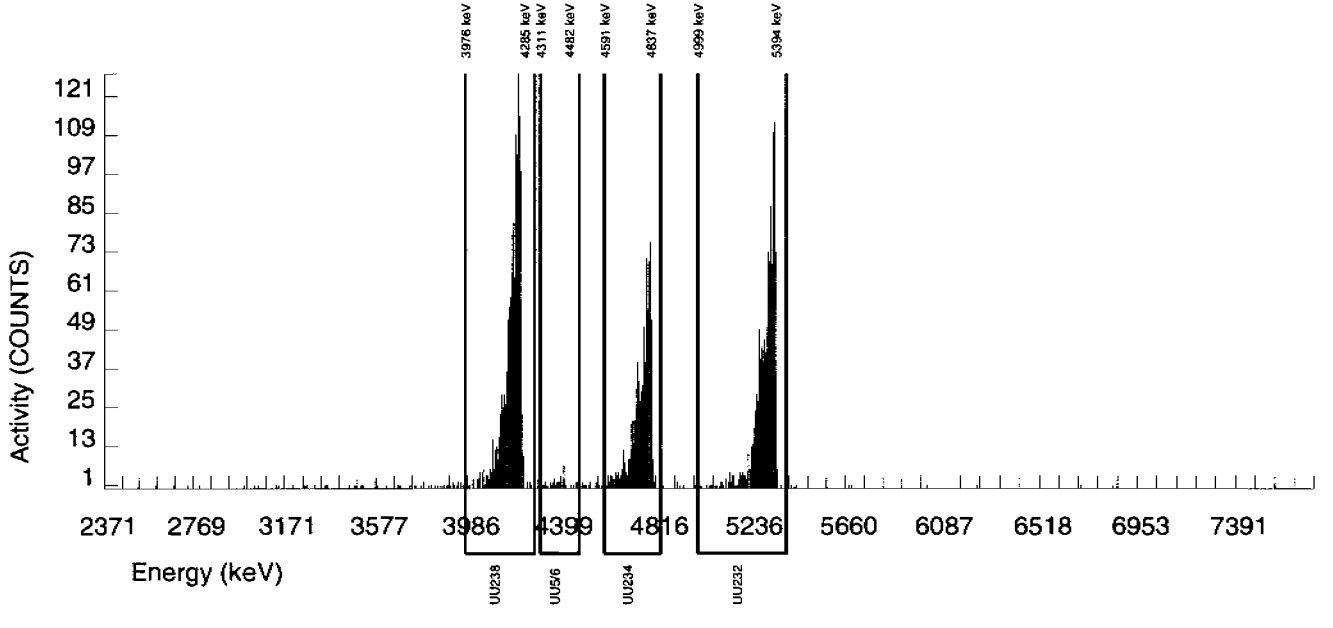

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357	CHAMBER : 007	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245691007_UU	DETECTOR S/N : 67607	BKG FILE : B007.CNF;1111
SAMPLE QTY : 0.518 G	AVERAGE %EFFICIENCY : 29.5407	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 10:43:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W007.CNF;312
% YIELD : 97.922		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5065E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4129E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5310.342	61.863	1316.000	1303.000	13.000	3.6056	100.0000	3.92E+00	2.94E-01	2.52E-02	5.86E-02	1.10E-01
U-3/4	4763.020	4766.654	51.759	456.000	454.682	0.000	4.8416	100.0000	1.37E+00	1.15E-01	3.39E-02	7.59E-02	6.41E-02
U-235	4391.000	4398.811	65.029	31.000	28.000	3.000	2.2152	80.90000	1.04E-01	2.28E-02	1.91E-02	4.84E-02	2.17E-02
U-238	4184.730	4193.396	52.346	745.000	742.000	3.000	3.1208	100.0000	2.23E+00	1.76E-01	2.18E-02	5.18E-02	8.22E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

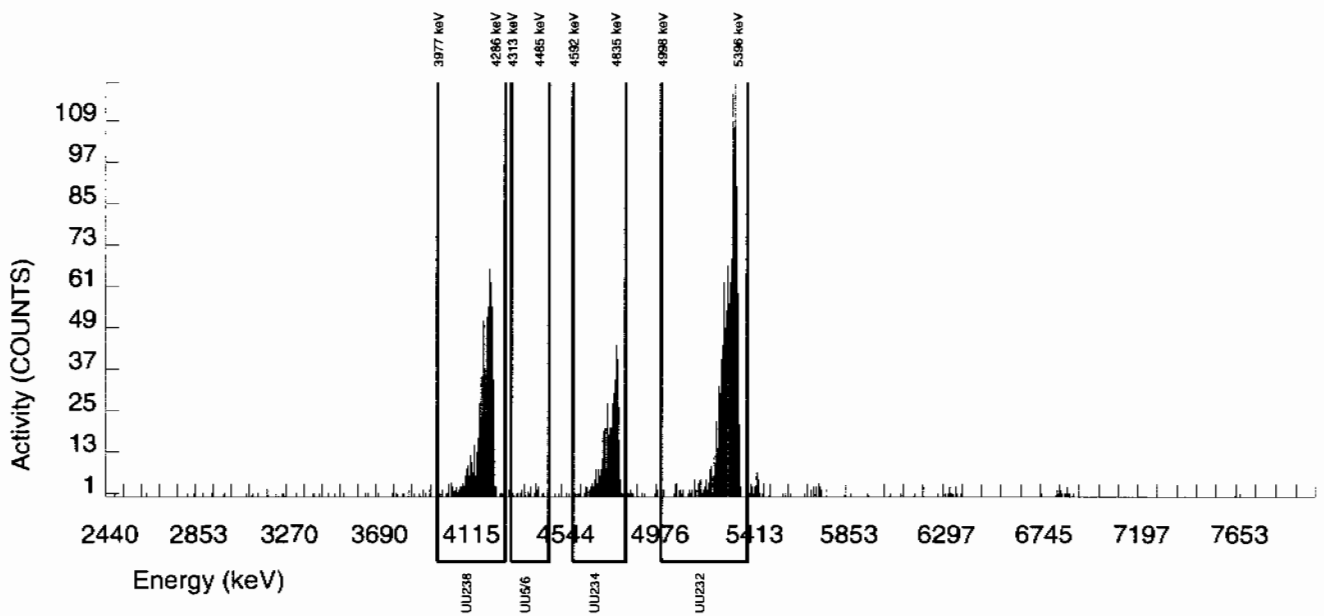

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S0245691008_UU
SAMPLE QTY : 0.518 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 94.879

CHAMBER : 008
DETECTOR S/N : 78788
AVERAGE %EFFICIENCY : 31.7753
COUNT DATE : 10-FEB-2010 10:43:07
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B008.CNF;1113
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W008.CNF;343
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5065E+00 dpm
RESULTS : 4.2757E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.611	57.073	1361.000	1358.000	3.000	1.7321	100.0000	3.92E+00	2.92E-01	1.16E-02	3.11E-02	1.07E-01
U-3/4	4763.020	4755.024	34.856	322.000	318.626	2.000	4.8416	100.0000	9.19E-01	8.21E-02	3.25E-02	7.28E-02	5.18E-02
U-235	4391.000	4403.773	119.521	22.000	22.000	0.000	2.2152	80.90000	7.84E-02	1.76E-02	1.84E-02	4.64E-02	1.67E-02
U-238	4184.730	4179.842	36.736	523.000	522.000	1.000	3.1208	100.0000	1.51E+00	1.23E-01	2.09E-02	4.97E-02	6.60E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

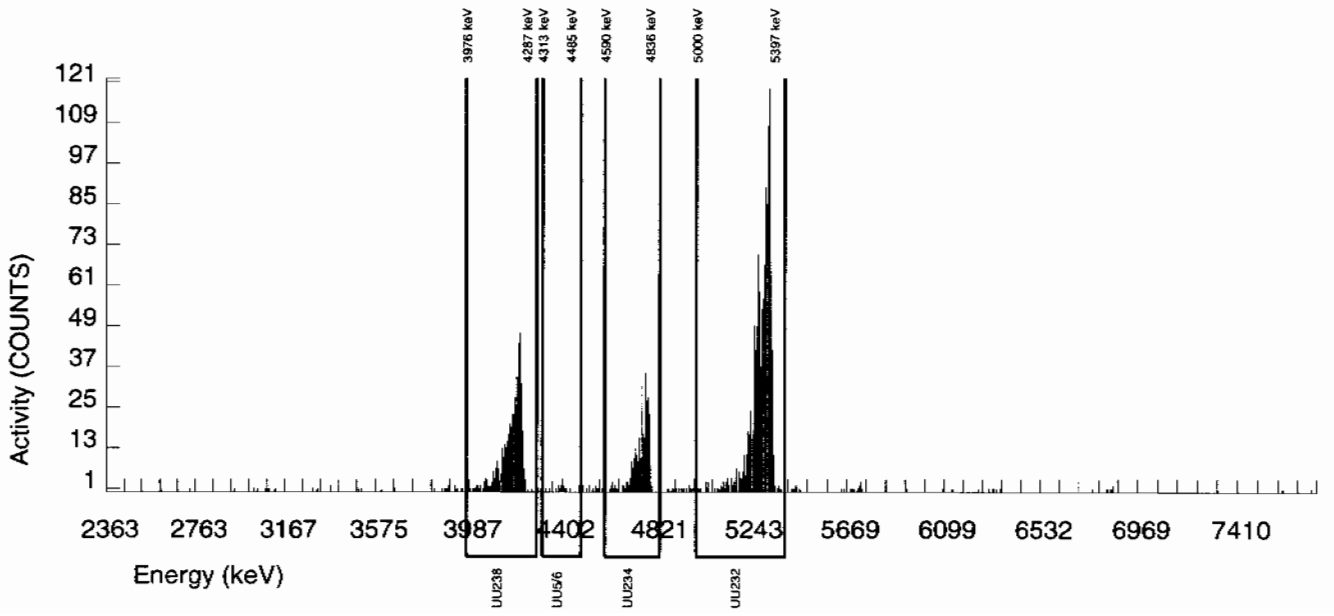

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357	CHAMBER : 010	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245691010_UU	DETECTOR S/N : 72529	BKG FILE : B010.CNF;1122
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 31.8962	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 10:43:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W010.CNF;335
% YIELD : 95.911		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5065E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3223E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.664	43.018	1386.000	1378.000	8.000	2.8284	100.0000	4.05E+00	3.01E-01	1.93E-02	4.66E-02	1.10E-01
U-3/4	4763.020	4759.016	41.443	284.000	280.606	2.000	4.8416	100.0000	8.25E-01	7.56E-02	3.31E-02	7.42E-02	4.96E-02
U-235	4391.000	4383.847	0.000	12.000	11.000	1.000	2.2152	80.90000	4.00E-02	1.34E-02	1.87E-02	4.73E-02	1.31E-02
U-238	4184.730	4190.269	47.152	353.000	351.000	2.000	3.1208	100.0000	1.03E+00	9.04E-02	2.13E-02	5.06E-02	5.54E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

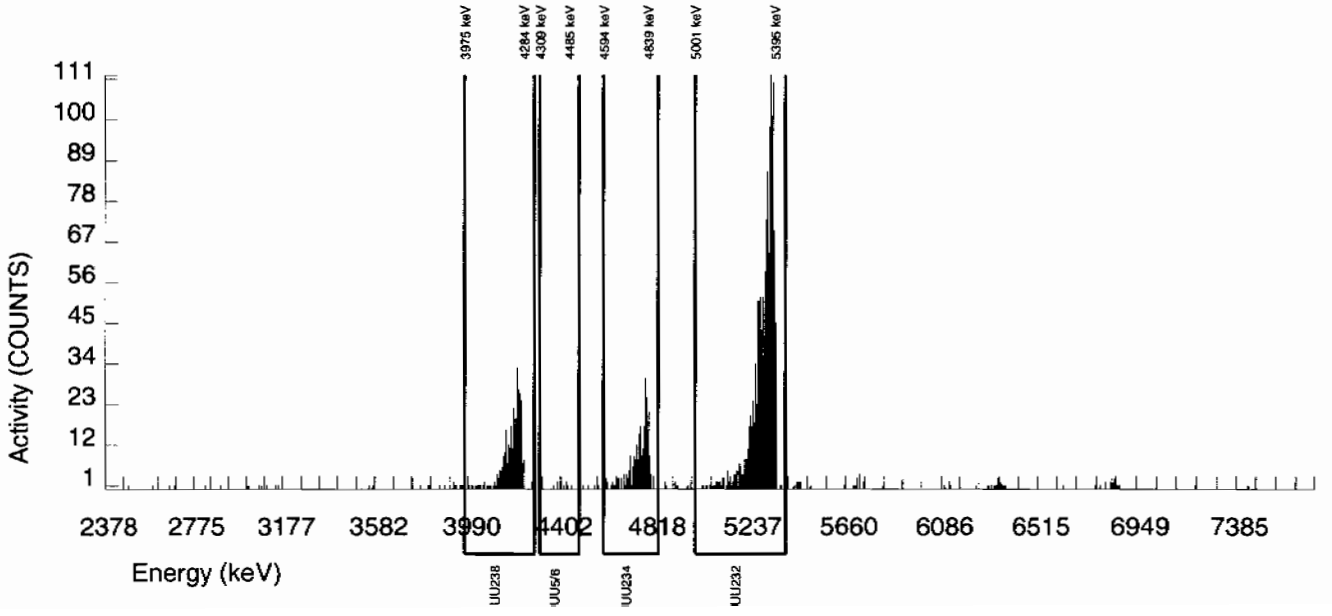

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S0245691011_UU
SAMPLE QTY : 0.504 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 102.282

CHAMBER : 011
DETECTOR S/N : 72531
AVERAGE %EFFICIENCY : 29.6489
COUNT DATE : 10-FEB-2010 10:43:07
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B011.CNF;1114
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W011.CNF;313
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5065E+00 dpm
RESULTS : 4.6094E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5313.024	33.612	1372.000	1366.000	6.000	2.4495	100.0000	4.03E+00	3.00E-01	1.68E-02	4.16E-02	1.09E-01
U-3/4	4763.020	4764.110	55.323	241.000	237.618	2.000	4.8416	100.0000	7.00E-01	6.67E-02	3.32E-02	7.44E-02	4.58E-02
U-235	4391.000	4393.932	149.862	11.000	10.000	1.000	2.2152	80.90000	3.64E-02	1.29E-02	1.88E-02	4.74E-02	1.26E-02
U-238	4184.730	4192.344	57.450	218.000	217.000	1.000	3.1208	100.0000	6.40E-01	6.22E-02	2.14E-02	5.08E-02	4.36E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

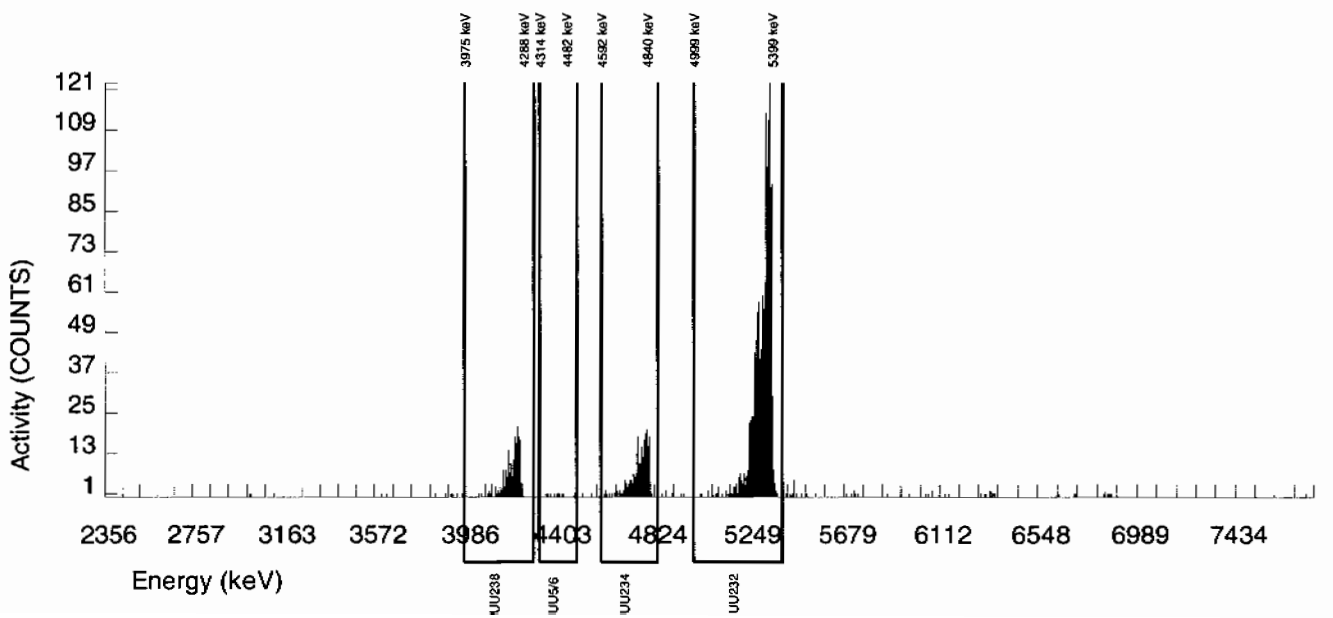

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357	CHAMBER : 012	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245691012_UU	DETECTOR S/N : 67594	BKG FILE : B012.CNF;1116
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 29.3895	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 10:43:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W012.CNF;314
% YIELD : 103.336		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5065E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.6569E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.713	57.720	1376.000	1368.000	8.000	2.8284	100.0000	4.00E+00	2.97E-01	1.92E-02	4.63E-02	1.09E-01
U-3/4	4763.020	4759.638	60.643	800.000	793.616	5.000	4.8416	100.0000	2.32E+00	1.81E-01	3.29E-02	7.37E-02	8.28E-02
U-235	4391.000	4403.167	42.096	44.000	42.000	2.000	2.2152	80.90000	1.52E-01	2.66E-02	1.86E-02	4.70E-02	2.45E-02
U-238	4184.730	4191.963	53.217	1558.000	1550.000	8.000	3.1208	100.0000	4.53E+00	3.34E-01	2.12E-02	5.03E-02	1.16E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

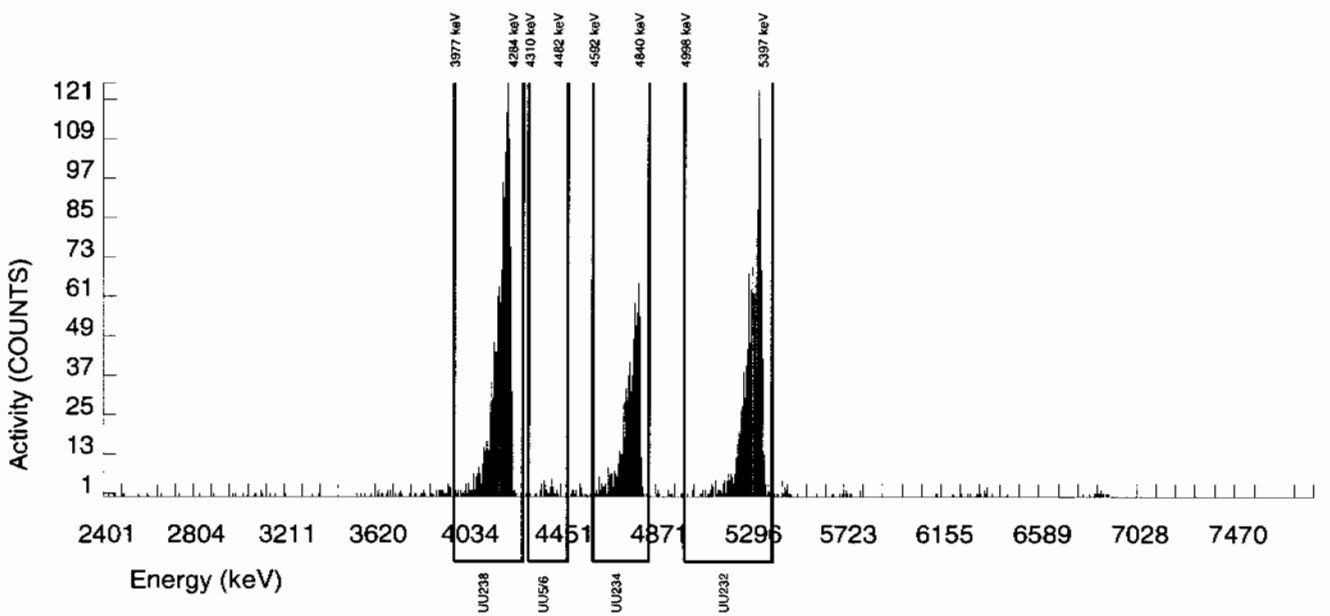

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357	CHAMBER : 166	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245691013_UU	DETECTOR S/N : 74545	BKG FILE : B166.CNF;169
SAMPLE QTY : 0.516 G	AVERAGE %EFFICIENCY : 39.0948	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 9-FEB-2010 11:26:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W166.CNF;55
% YIELD : 103.234		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5065E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.6523E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.401	56.916	1829.000	1818.000	11.000	3.3166	100.0000	3.93E+00	2.83E-01	1.67E-02	3.92E-02	9.28E-02
U-3/4	4763.020	4757.787	60.654	454.000	451.160	1.000	4.8416	100.0000	9.76E-01	8.06E-02	2.44E-02	5.46E-02	4.60E-02
U-235	4391.000	4405.067	0.000	30.000	30.000	0.000	2.2152	80.90000	8.02E-02	1.56E-02	1.38E-02	3.48E-02	1.46E-02
U-238	4184.730	4184.785	32.786	885.000	885.000	0.000	3.1208	100.0000	1.91E+00	1.45E-01	1.57E-02	3.73E-02	6.43E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

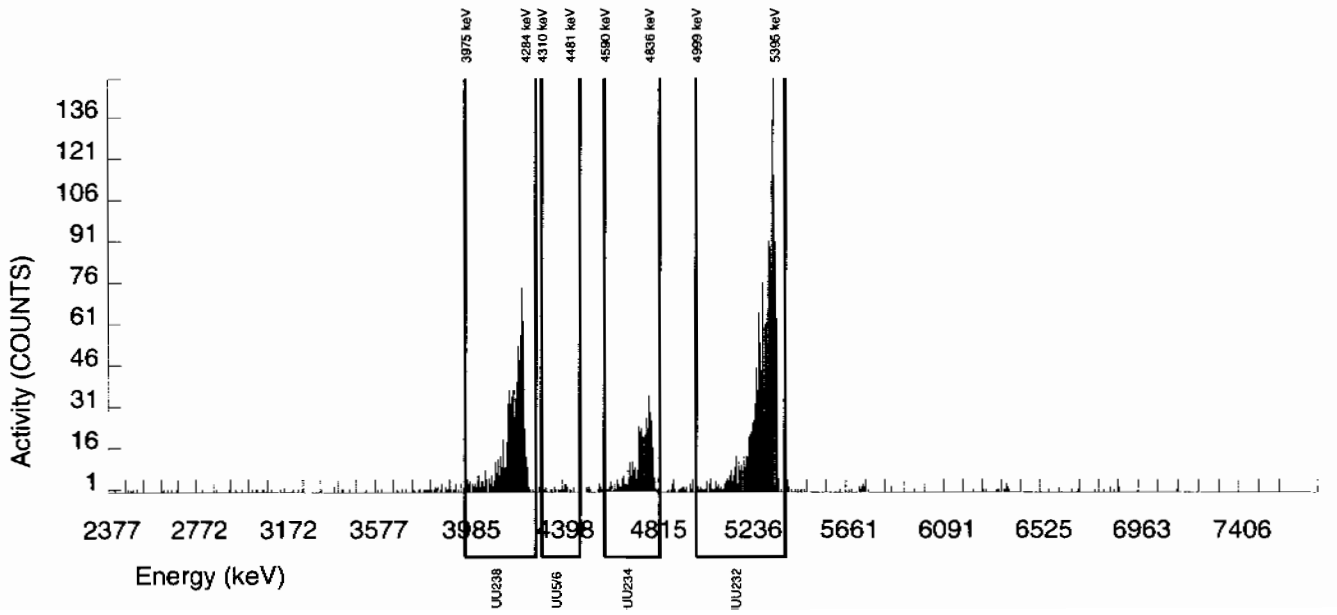

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S0245691014_UU
SAMPLE QTY : 0.514 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 98.589

CHAMBER : 169
DETECTOR S/N : 72548
AVERAGE %EFFICIENCY : 37.6264
COUNT DATE : 9-FEB-2010 11:26:38
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B169.CNF;171
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W169.CNF;65
CAL DATE : 21-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5065E+00 dpm
RESULTS : 4.4430E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.019	47.098	1674.000	1671.000	3.000	1.7321	100.0000	3.95E+00	2.86E-01	9.52E-03	2.54E-02	9.68E-02
U-3/4	4763.020	4762.535	60.401	631.000	628.309	1.000	4.8416	100.0000	1.48E+00	1.17E-01	2.66E-02	5.96E-02	5.93E-02
U-235	4391.000	4409.569	7.644	52.000	51.000	1.000	2.2152	80.90000	1.49E-01	2.36E-02	1.50E-02	3.80E-02	2.13E-02
U-238	4184.730	4189.075	42.514	1499.000	1497.000	2.000	3.1208	100.0000	3.54E+00	2.58E-01	1.72E-02	4.07E-02	9.15E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

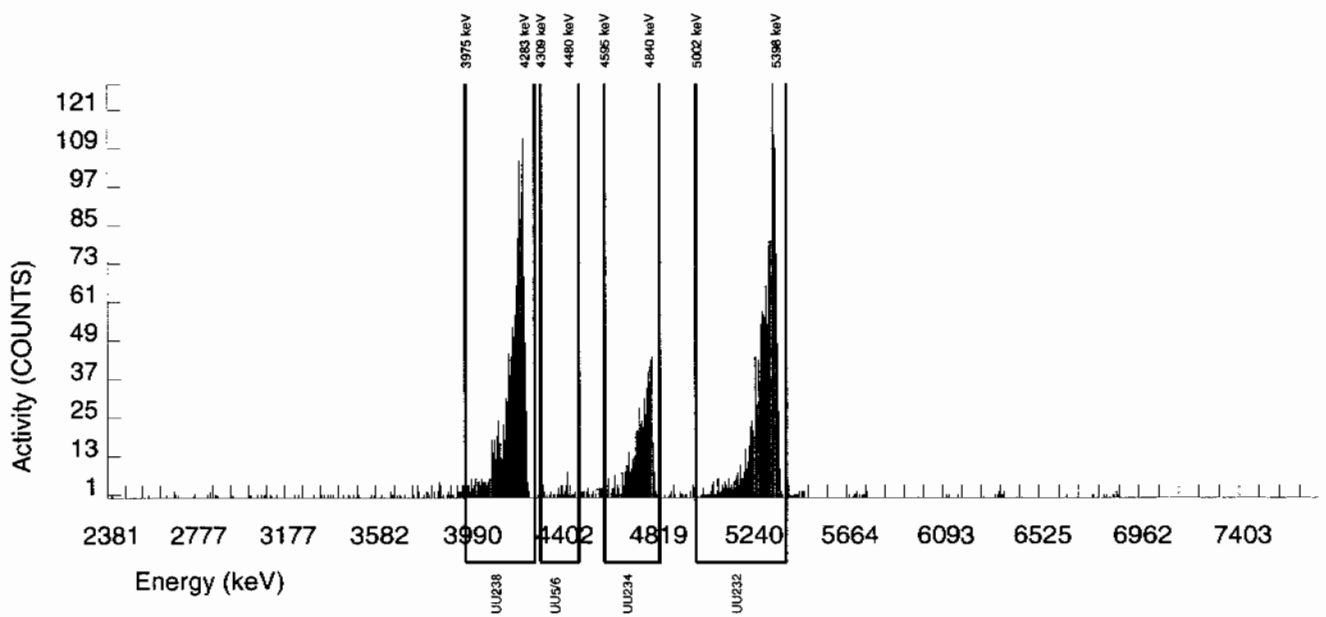

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S1202029350_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : CXM2
% YIELD : 102.915

CHAMBER : 170
DETECTOR S/N : 72549
AVERAGE %EFFICIENCY : 36.6271
COUNT DATE : 9-FEB-2010 11:26:41
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B170.CNF;169
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W170.CNF;55
CAL DATE : 21-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5053E+00 dpm
RESULTS : 4.6366E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.687	69.459	1706.000	1698.000	8.000	2.8284	100.0000	2.03E+00	1.46E-01	7.86E-03	1.90E-02	4.95E-02
U-3/4	4763.020	4741.597	22.200	18.000	15.282	1.000	4.8416	100.0000	1.83E-02	5.12E-03	1.35E-02	3.02E-02	4.97E-03
U-235	4391.000	4449.196	0.000	5.000	4.000	1.000	2.2152	80.90000	5.91E-03	3.64E-03	7.61E-03	1.92E-02	3.62E-03
U-238	4184.730	4175.569	7.246	9.000	8.000	1.000	3.1208	100.0000	9.56E-03	3.83E-03	8.68E-03	2.06E-02	3.78E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

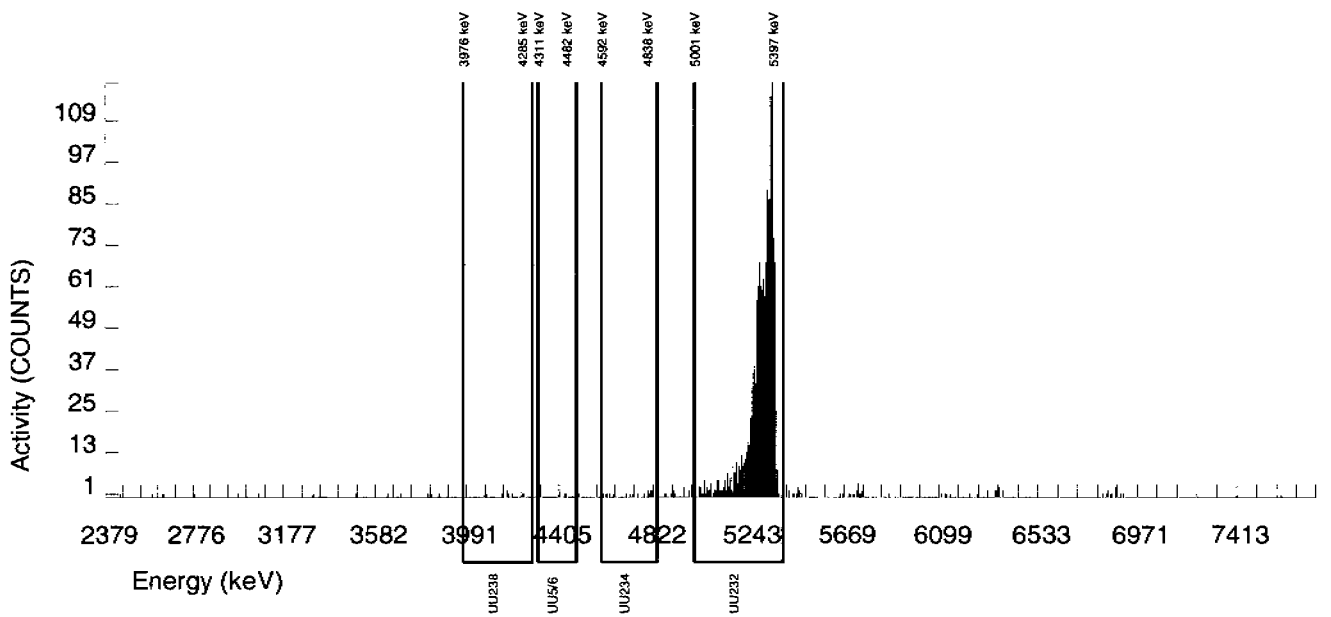

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357	CHAMBER : 171	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202029351_UU	DETECTOR S/N : 78260	BKG FILE : B171.CNF;175
SAMPLE QTY : 0.526 G	AVERAGE %EFFICIENCY : 38.1329	BKG DATE : 7-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 9-FEB-2010 11:26:44	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W171.CNF;72
% YIELD : 75.798		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5065E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.4159E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.477	55.770	1316.000	1302.000	14.000	3.7417	100.0000	3.86E+00	2.89E-01	2.58E-02	5.96E-02	1.08E-01
U-3/4	4763.020	4767.649	50.367	495.000	491.683	2.000	4.8416	100.0000	1.46E+00	1.21E-01	3.34E-02	7.48E-02	6.60E-02
U-235	4391.000	4408.942	61.327	37.000	34.000	3.000	2.2152	80.90000	1.25E-01	2.47E-02	1.89E-02	4.77E-02	2.32E-02
U-238	4184.730	4191.537	56.670	958.000	956.000	2.000	3.1208	100.0000	2.83E+00	2.17E-01	2.15E-02	5.11E-02	9.18E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

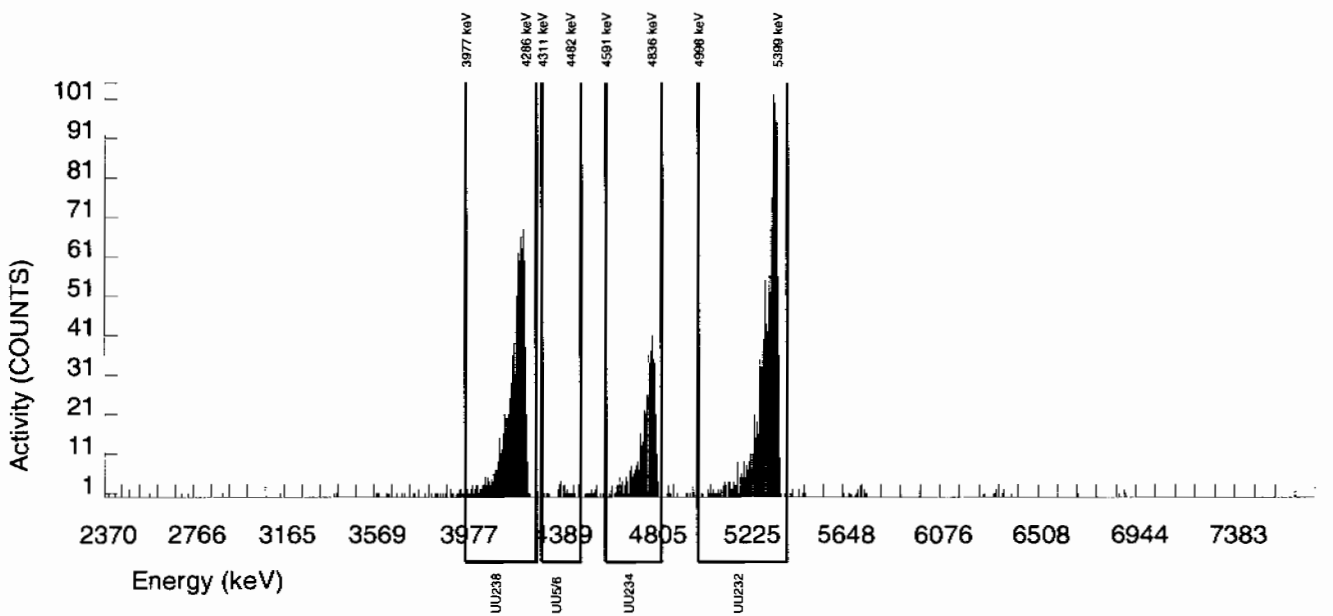

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 947357
SAMPLE ID : S1202029352_UU
SAMPLE QTY : 0.108 G
SAMPLE DATE : 4-FEB-2010 00:00:00.
ANALYST : CXM2
% YIELD : 89.917

CHAMBER : 172
DETECTOR S/N : 78772
AVERAGE %EFFICIENCY : 38.2928
COUNT DATE : 9-FEB-2010 11:26:46
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B172.CNF;173
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W172.CNF;65
CAL DATE : 21-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5053E+00 dpm
RESULTS : 4.0510E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.537	42.028	1553.000	1551.000	2.000	1.4142	100.0000	1.88E+01	1.48E+00	3.99E-02	1.13E-01	4.78E-01
U-3/4	4763.020	4753.610	65.449	521.000	517.431	2.000	4.8416	100.0000	6.27E+00	5.43E-01	1.36E-01	3.06E-01	2.77E-01
U-235	4391.000	4395.176	55.335	25.000	24.000	1.000	2.2152	80.90000	3.59E-01	8.09E-02	7.72E-02	1.95E-01	7.63E-02
U-238	4184.730	4186.970	54.026	477.000	476.000	1.000	3.1208	100.0000	5.77E+00	5.04E-01	8.79E-02	2.09E-01	2.65E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)
* Sg of U232 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  U-3/4

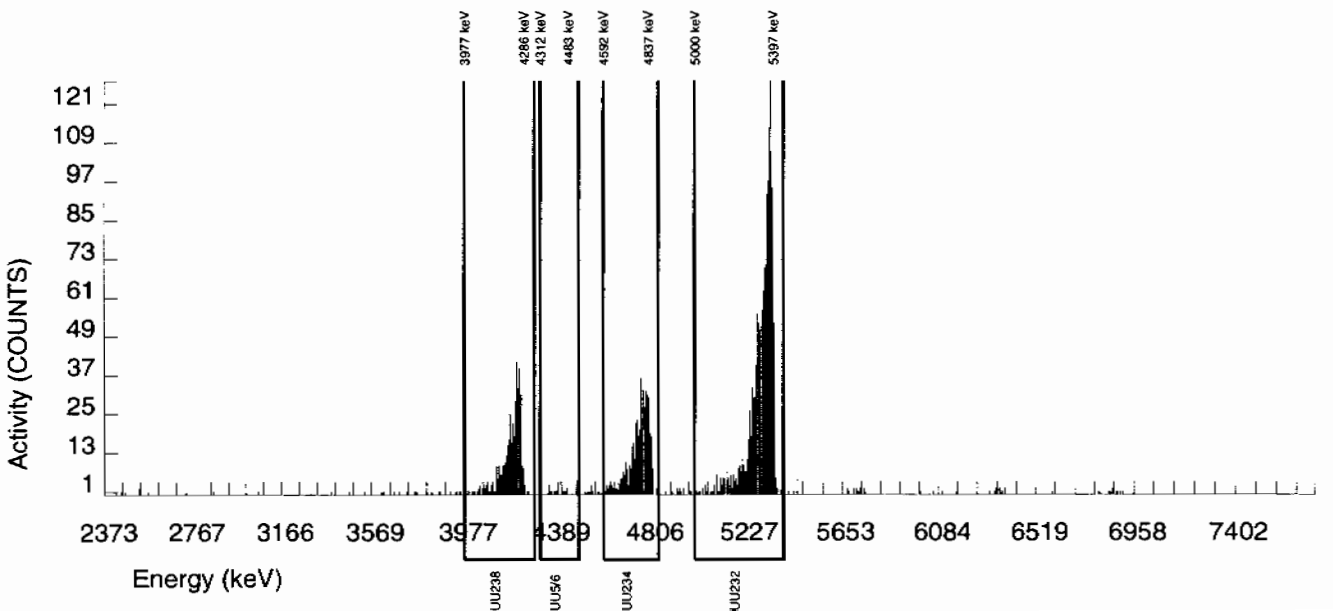

Radiochemistry Batch Checklist, Rev10

Batch# 952128 Product: U Date: 2/20/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/20/10

Secondary Review Performed By: [signature] 2/20/10

2/19 2/25

Uranium Que Sheet

11-FEB-10

Batch #: 952128 **Analyst:** CXM2 **First Client Due Date:** 25-FEB-10 **Internal Due Date:** 19-FEB-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/9/10 **Vol:** 0.1mL

LCS Isotope: U-238 **LCS Code:** 0244-A **Expiration Date:** 10/31/20 **Vol:** 0.109g * SRM

Spike Isotope: U-238 **Spike Code:** ~~0~~ **~~Expiration Date:~~** **~~Vol:~~** 2/16/10 CMM

Prep Date: 2/16/10 **Initials:** CMM **Pipet ID:** 2971058 **Balance ID:** 5041027 2 **Witness:** ME 2/16/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/l)	U Det #
245691009-2	RE15-10-7935	SAMPLE		.1 pCi/g	SOIL	LANL010	25-JAN-10	1	1	0.204	113
1202040645-1	MB for batch 952128	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		2	2	1	114
1202040646-2	RE15-10-7935(245691009DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	25-JAN-10	3	3	0.213	115
1202040647-1	LCS for batch 952128	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		4	4	0.109	119

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: **LEACH** or **DIGESTION**
Circle One

Data Reviewed By: JoLM 2/20/10

Blank Correction Report

Batch ID 952128

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202040646	DUP	Uranium-233/234	0.213 g	15.3	1.22	0.313	.062910798	pCi/g	NO
		Uranium-235/236	0.213 g	1.62	0.200	0.200	.01	pCi/g	NO
		Uranium-238	0.213 g	78.9	5.96	0.214	.008075117	pCi/g	NO
1202040647	LCS	Uranium-233/234	0.109 g	6.94	0.629	0.423	.122935780	pCi/g	NO
		Uranium-235/236	0.109 g	0.269	0.0775	0.270	.019541284	pCi/g	NO
		Uranium-238	0.109 g	6.66	0.607	0.289	.015779817	pCi/g	NO
1202040645	MB	Uranium-233/234	1.00 g	0.0134	0.0049	0.0435	.0134	pCi/g	YES
		Uranium-235/236	1.00 g	0.00213	0.00213	0.0277	.00213	pCi/g	YES
		Uranium-238	1.00 g	0.00172	0.00299	0.0297	.00172	pCi/g	YES
245691009	RE15-10-7935	Uranium-233/234	0.204 g	16.8	1.33	0.316	.065686275	pCi/g	NO
		Uranium-235/236	0.204 g	1.44	0.184	0.202	.010441176	pCi/g	NO
		Uranium-238	0.204 g	72.1	5.46	0.216	.008431373	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 952128
SAMPLE ID : S0245691009_UU
SAMPLE QTY : 0.204 G
SAMPLE DATE : 25-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 70.941

CHAMBER : 113
DETECTOR S/N : 45-111B4
AVERAGE %EFFICIENCY : 24.8218
COUNT DATE : 18-FEB-2010 18:41:38
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B113.CNF;446
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W113.CNF;125
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5065E+00 dpm
RESULTS : 3.1970E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.644	73.123	796.000	793.000	3.000	1.7321	100.0000	9.95E+00	8.22E-01	5.05E-02	1.35E-01	3.55E-01
U-3/4	4763.020	4752.851	76.283	1342.000	1340.197	1.000	4.8416	100.0000	1.68E+01	1.33E+00	1.41E-01	3.16E-01	4.59E-01
U-235	4391.000	4417.515	0.000	93.000	93.000	0.000	2.2152	80.90000	1.44E+00	1.84E-01	7.99E-02	2.02E-01	1.49E-01
U-238	4184.730	4182.849	78.869	5753.000	5753.000	0.000	3.1208	100.0000	7.21E+01	5.46E+00	9.10E-02	2.16E-01	9.51E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

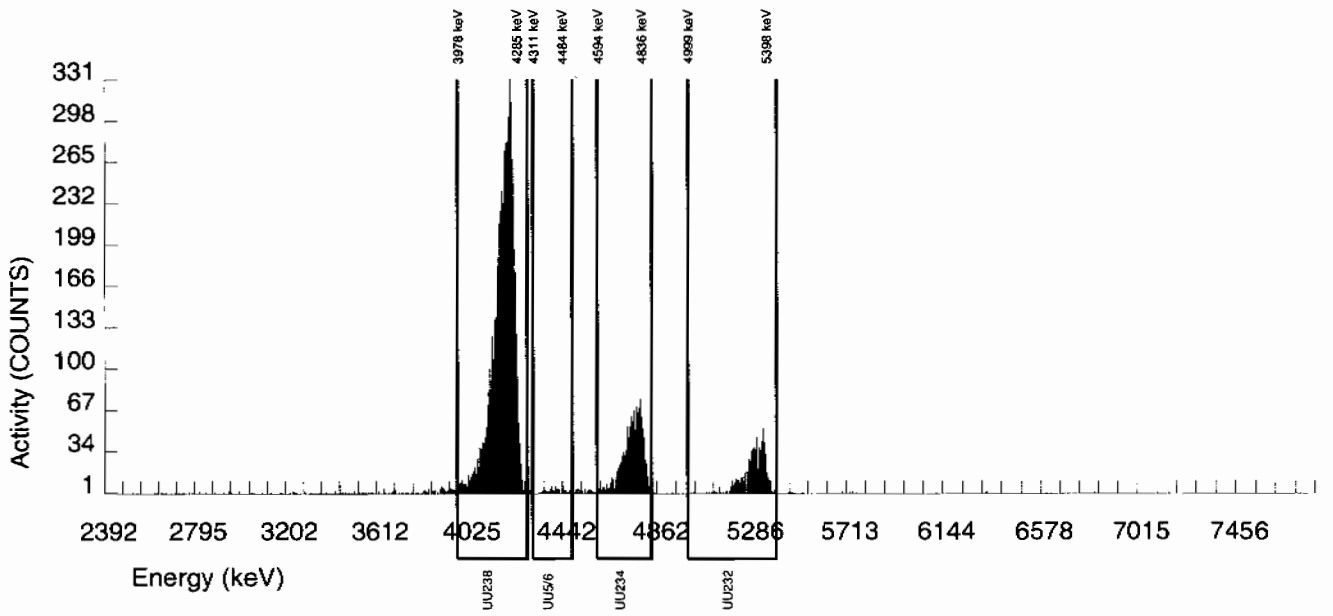

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 952128
SAMPLE ID : S1202040645_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 16-FEB-2010 00:00:00
ANALYST : CXM2
% YIELD : 102.752

CHAMBER : 114
DETECTOR S/N : 78258
AVERAGE %EFFICIENCY : 25.4572
COUNT DATE : 18-FEB-2010 18:41:41
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B114.CNF;447
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W114.CNF;121
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5038E+00 dpm
RESULTS : 4.6278E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5316.428	28.354	1178.000	1178.000	0.000	0.0000	100.0000	2.03E+00	1.54E-01	0.00E+00	4.67E-03	5.91E-02
U-3/4	4763.020	4703.535	7.299	9.000	7.808	0.000	4.8416	100.0000	1.34E-02	4.90E-03	1.94E-02	4.35E-02	4.81E-03
U-235	4391.000	4364.233	4.969	1.000	1.000	0.000	2.2152	80.90000	2.13E-03	2.13E-03	1.10E-02	2.77E-02	2.13E-03
U-238	4184.730	4139.546	9.318	2.000	1.000	1.000	3.1208	100.0000	1.72E-03	2.99E-03	1.25E-02	2.97E-02	2.98E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

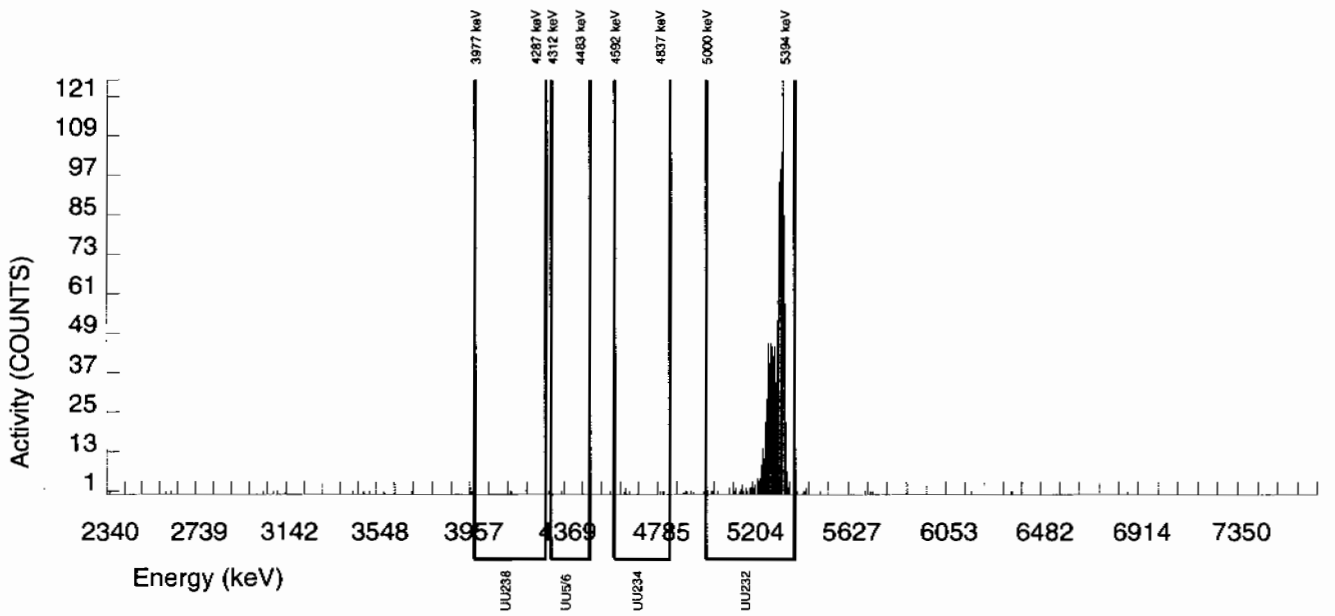

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 952128	CHAMBER : 115	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202040646_UU	DETECTOR S/N : 79995	BKG FILE : B115.CNF;454
SAMPLE QTY : 0.213 G	AVERAGE %EFFICIENCY : 25.6793	BKG DATE : 14-FEB-2010
SAMPLE DATE : 25-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W115.CNF;149
% YIELD : 66.410		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5065E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.9928E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.259	58.783	770.000	768.000	2.000	1.4142	100.0000	9.53E+00	7.90E-01	4.08E-02	1.15E-01	3.45E-01
U-3/4	4763.020	4753.958	64.242	1234.000	1230.223	3.000	4.8416	100.0000	1.53E+01	1.22E+00	1.40E-01	3.13E-01	4.36E-01
U-235	4391.000	4400.390	29.486	107.000	106.000	1.000	2.2152	80.90000	1.62E+00	2.00E-01	7.90E-02	2.00E-01	1.59E-01
U-238	4184.730	4182.480	56.088	6362.000	6361.000	1.000	3.1208	100.0000	7.89E+01	5.96E+00	9.00E-02	2.14E-01	9.89E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

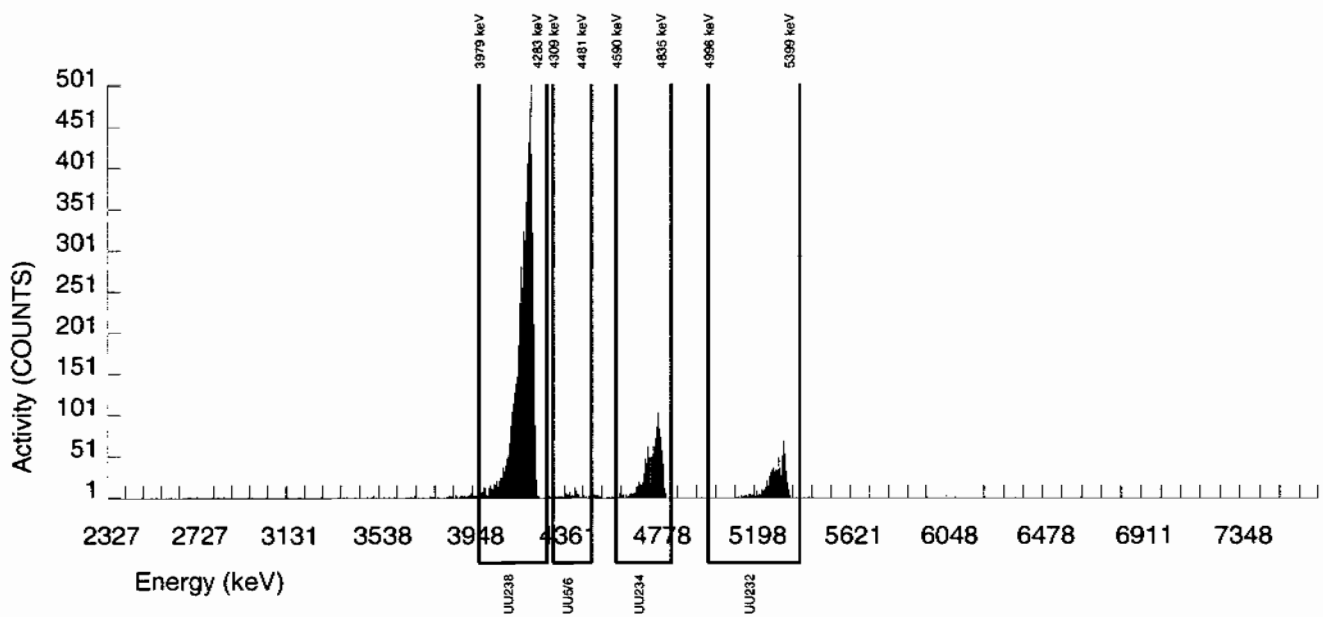

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 952128
SAMPLE ID : S1202040647_UU
SAMPLE QTY : 0.109 G
SAMPLE DATE : 16-FEB-2010 00:00:00
ANALYST : CXM2
% YIELD : 96.581

CHAMBER : 119
DETECTOR S/N : 79450
AVERAGE %EFFICIENCY : 25.5204
COUNT DATE : 18-FEB-2010 18:41:46
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B119.CNF;460
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W119.CNF;121
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5038E+00 dpm
RESULTS : 4.3498E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5310.770	39.283	1114.000	1110.000	4.000	2.0000	100.0000	1.86E+01	1.52E+00	7.80E-02	2.01E-01	5.61E-01
U-3/4	4763.020	4765.184	40.761	415.000	413.877	0.000	4.8416	100.0000	6.94E+00	6.29E-01	1.89E-01	4.23E-01	3.41E-01
U-235	4391.000	4407.706	39.448	13.000	13.000	0.000	2.2152	80.90000	2.69E-01	7.75E-02	1.07E-01	2.70E-01	7.47E-02
U-238	4184.730	4196.194	28.770	397.000	397.000	0.000	3.1208	100.0000	6.66E+00	6.07E-01	1.22E-01	2.89E-01	3.34E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

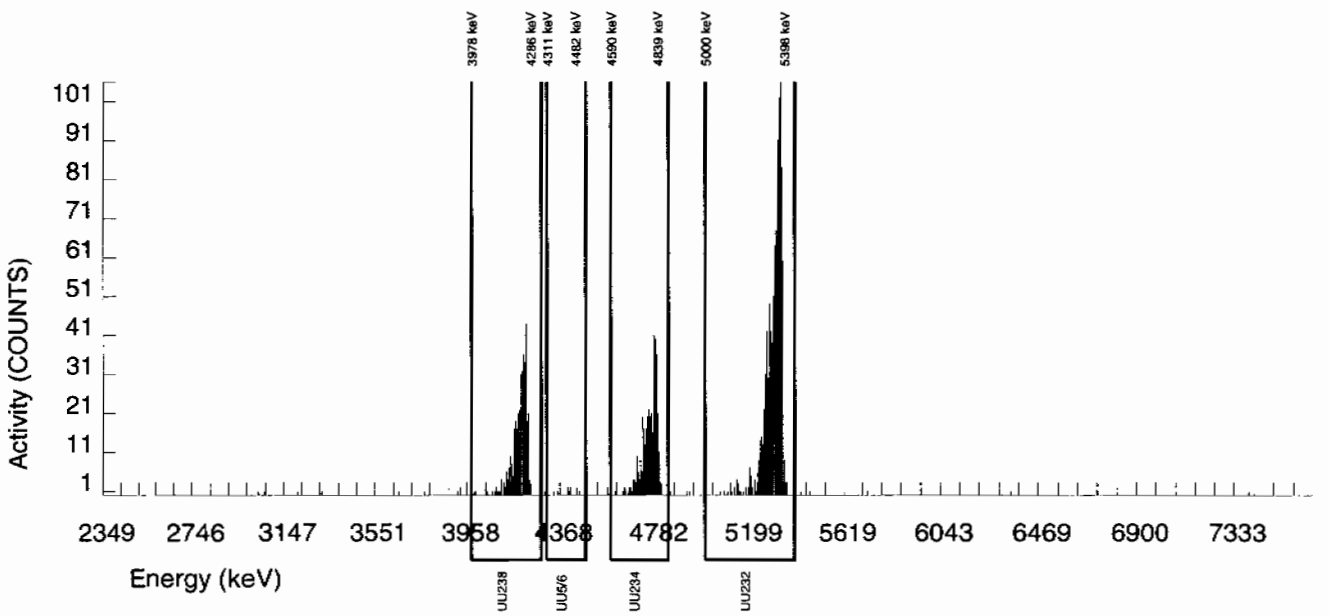

Radiochemistry Batch Checklist, Rev10

Batch# 947037 Product: γ-S Date: 2/10/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: KBatz 2/10/10

Secondary Review Performed By: [illegible] 2/11/10

LANL

2/18

Gamma Spec Que Sheet

I.G. – 2/8/10

02/01/2010

Batch #: 947037 **Analyst:** MJH1 **First Client DueDate** 02/18/2010 **Internal Due Date:** 02/08/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** n/a **Vol:** n/a **Nominal Concentration:** n/a Co-60 6.413

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Cs-137 5.562 Am-241 15.91

Initials: RF **Prep Date:** 2/1/10 **Library:** 50110 **Witness:** n/a

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1/8/F)	Detector	Sealing Date/Time (if Applicable)
245667001-1	RE16-10-1343	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	RF	can	132.72	10	2/1/10
245667002-1	RE16-10-1345	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	RF		130.46	12	
245667003-1	RE16-10-1347	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	RF		119.48	16	
245667004-1	RE16-10-1349	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	RF		129.99	13	
245667005-1	RE16-10-1351	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	RF		120.30	23	
245667006-1	RE16-10-1365	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	RF		118.19	20	
245691001-1	RE15-10-7883	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	RF		127.31	19	
245691002-1	RE15-10-7884	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		145.72	22	
245691003-1	RE15-10-7932	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		135.05	25	
245691004-1	RE15-10-7931	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		129.92	17	
245691005-1	RE15-10-7938	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		126.97	10	
245691006-1	RE15-10-7933	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		148.71	13	
245691007-1	RE15-10-7939	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		144.93	16	
245691008-1	RE15-10-7936	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		122.13	12	
245691009-1	RE15-10-7935	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		144.89	18	
245691010-1	RE15-10-7934	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		136.29	19	
245691011-1	RE15-10-7940	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		134.15	20	
245691012-1	RE15-10-7937	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	MS		137.64	23	
245691013-1	RE15-10-8056	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	KL		127.76	~~18.21~~ 2/9/10	
245691014-1	RE15-10-8057	SAMPLE		LANL010	SOIL	25-JAN-10 12:00:00	KL		130.09	17	
1202028548-1	MB	MB		QC ACCOUNT	SOIL	2/1/10	KL		149.71	21	
1202028549-1	DUP RE15-10-7933(245691006)	DUP		QC ACCOUNT	SOIL	25-JAN-10 12:00:00	KL		148.15	10	
1202028550-1	LCS	LCS		QC ACCOUNT	SOIL	2/1/10	KL		155.44	19	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: KPost 2/10/10

√ no history
√ daily

J Eulau 2/11/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
947037	245667001	SAMPLE	09-FEB-10		Americium-241	-0.02281	0.3532	0.200
					Sodium-22	0.00972	0.08052	0.080
					Thorium-234	0.4279	2.819	2.00
947037	245667002	SAMPLE	09-FEB-10		Americium-241	-0.07933	0.2429	0.200
					Thorium-234	0.2901	2.052	2.00
947037	245667003	SAMPLE	09-FEB-10		Americium-241	-0.1571	0.2201	0.200
					Sodium-22	0.05259	0.08254	0.080
947037	245667004	SAMPLE	09-FEB-10		Cerium-139	-0.00578	0.055	0.050
					Cesium-134	0.08277	0.1117	0.100
					Sodium-22	0.01656	0.102	0.080
947037	245667005	SAMPLE	09-FEB-10		Americium-241	-0.3315	0.3411	0.200
					Cerium-139	-0.05468	0.05057	0.050
					Sodium-22	0.00772	0.09496	0.080
					Thorium-234	1.487	3.055	2.00
947037	245667006	SAMPLE	09-FEB-10					
947037	245691001	SAMPLE	09-FEB-10		Americium-241	0.00746	0.2699	0.200
					Cerium-139	0.00868	0.05502	0.050
947037	245691002	SAMPLE	09-FEB-10		Americium-241	0.03193	0.2071	0.200
947037	245691003	SAMPLE	09-FEB-10		Sodium-22	-0.00392	0.08437	0.080
947037	245691004	SAMPLE	09-FEB-10		Cerium-139	0.00178	0.05109	0.050
					Cesium-134	0.04414	0.1117	0.100
					Sodium-22	-0.03289	0.09982	0.080
947037	245691005	SAMPLE	09-FEB-10		Americium-241	-0.1253	0.4091	0.200
					Cerium-139	-0.01325	0.05125	0.050
					Sodium-22	-0.0106	0.08393	0.080
					Thorium-234	2.173	3.317	2.00
947037	245691006	SAMPLE	09-FEB-10		Cerium-139	0.00366	0.05106	0.050
					Cesium-134	0.08075	0.1048	0.100
					Sodium-22	-0.01614	0.08538	0.080
947037	245691007	SAMPLE	09-FEB-10		Americium-241	0.08002	0.2223	0.200
947037	245691008	SAMPLE	09-FEB-10		Americium-241	0.1121	0.2846	0.200
					Cerium-139	0.00905	0.05251	0.050
					Cesium-134	0.0999	0.1029	0.100
					Sodium-22	-0.04042	0.08075	0.080
					Thorium-234	1.862	2.419	2.00
947037	245691009	SAMPLE	09-FEB-10		Americium-241	0.3081	0.4745	0.200
					Cerium-139	0.00085	0.0515	0.050
947037	245691010	SAMPLE	09-FEB-10		Americium-241	0.1926	0.2628	0.200
					Thorium-234	1.128	2.133	2.00
947037	245691011	SAMPLE	09-FEB-10					
947037	245691012	SAMPLE	09-FEB-10		Americium-241	0.2272	0.3552	0.200
					Cerium-139	0.00608	0.05571	0.050
947037	245691013	SAMPLE	09-FEB-10		Americium-241	-0.02762	0.3099	0.200

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
947037	245691014	SAMPLE	09-FEB-10		Cesium-134	0.08487	0.114	0.100
					Sodium-22	0.01925	0.09591	0.080
947037	1202028548	MB	09-FEB-10					
947037	1202028549	DUP	09-FEB-10		Americium-241	0.01948	0.3649	0.200
947037	1202028550	LCS	09-FEB-10		Cerium-139	0.03729	0.08161	0.050
					Cesium-134	0.06648	0.1615	0.100
					Europium-152	0.1601	0.3384	0.200
					Mercury-203	0.02195	0.1185	0.100
					Potassium-40	0.5971	1.094	1.00
					Ruthenium-106	-0.06985	0.9975	0.800
					Sodium-22	0.01469	0.08627	0.080
					Thorium-234	-2.025	3.479	2.00
					Tin-113	0.02914	0.144	0.100
					Uranium-235	0.06613	0.587	0.500

GEL QUALS

Batch ID: 947037

Report run on: February 10, 2010 3:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245667001-1 09-FEB-2010 13:16	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.027			
	Cadmium-109	UI	UI	UI	Data rejected due to high peak-width.		3.167			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.389			
245667002-1 09-FEB-2010 13:17	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.617			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.138			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.846			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.06885			
245667003-1 09-FEB-2010 13:17	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.352			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.817			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1503		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.333			
245667004-1 09-FEB-2010 13:19	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.224			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.276			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.675			
245667005-1 09-FEB-2010 13:21	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.895			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.9239		.2	.2
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.787			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.212			
	Radium-226	UI	UI	UI	Data rejected due to low abundance.		.9239			

GEL QUALS

Batch ID: 947037

Report run on: February 10, 2010 3:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245667006-1 09-FEB-2010 13:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.509			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.307			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.446			
	Radium-228	UI	UI	UI	Data rejected due to low abundance.		1.448		.5	.5
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07565			
245691001-1 09-FEB-2010 13:25	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.189			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.224			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.2486		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.255			
245691003-1 09-FEB-2010 14:46	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.161			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.616			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09971		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.248			
245691004-1 09-FEB-2010 14:53	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.049			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.356			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.849			
245691002-1 09-FEB-2010 15:21	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.002			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.836			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.08537		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.695			

GEL QUALS

Batch ID: 947037

Report run on: February 10, 2010 3:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245691002-1 09-FEB-2010 15:21	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1121			
245691005-1 09-FEB-2010 15:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.194			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.112			
	Mercury-203	UI	UI	UI	Data rejected due to high peak-width.		.1353		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.398			
245691006-1 09-FEB-2010 15:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.471			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.838			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.145			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1267			
	Uranium-235	UI	UI	UI	Data rejected due to no valid peak.		.5033		.5	.5
245691007-1 09-FEB-2010 15:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.505			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.438			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1135		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.944			
245691008-1 09-FEB-2010 15:32	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.461			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.415			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.202			
245691009-1 09-FEB-2010 15:32	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.701			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.47			

GEL QUALS

Batch ID: 947037

Report run on: February 10, 2010 3:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245691009-1 09-FEB-2010 15:32	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1101		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.245			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.06596			
245691010-1 09-FEB-2010 15:33	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.939			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.495			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.855			
245691011-1 09-FEB-2010 15:33	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.238			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.137			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1395		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.042			
245691012-1 09-FEB-2010 15:33	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.249			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.836			
	Cesium-137	UI	UI	UI	Data rejected due to low abundance.		.2829		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.333			
	Radium-228	UI	UI	UI	Data rejected due to low abundance.		1.376		.5	.5
245691014-1 09-FEB-2010 17:27	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.957			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.825			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.036			
245691013-1 09-FEB-2010 17:37	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.962			

GEL QUALS

Batch ID: 947037

Report run on: February 10, 2010 3:55 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245691013-1 09-FEB-2010 17:37	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.612			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.0766		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.07237		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.758			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1025			
1202028549-1 DUP 09-FEB-2010 17:44	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.466			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.995			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.103			

Gamma Review Report based on Result > MDA for Batch:947037

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245667001	25-JAN-10 12:00	09-FEB-10 13:16	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.209	0.169	pCi/g	0.2167	N	910.6	3	1.486	IDENTIFIED	12.55		
Americium-243	INT	0.3354	0.04492	pCi/g	0.09537	N	74.57	1	1.107	IDENTIFIED	12.22		
Annihilation Rad.	HE	0.07892	0.03248	pCi/g	0.04542	N	510.3	1	1.727	IDENTIFIED	41.03		
Bismuth-211	INT	3.027	0.2377	pCi/g	0.3021	Y	351.6	4	1.186	IDENTIFIED	6.955	UI	
Bismuth-212	HE	0.6879	0.2267	pCi/g	0.5711	N	0	9	0	FAIL_ABUND	0		
Bismuth-214	✓	0.8244	0.07771	pCi/g	0.1076	0.200	608.9	4	1.437	IDENTIFIED	8.624		
Cadmium-109	INT MAN	3.167	0.8041	pCi/g	1.41	Y	88.31	2	3.482	IDENTIFIED	24.76	UI	Data rejected due to high peak-width.
Cerium-143	—	717	108.4	pCi/g	0	N	0	9	0	SHORT_HLIF	0		
Cesium-135	HE	0.3265	0.07999	pCi/g	0.2727	N	0	9	0	NOT_IDENTI	0		
Gross Gamma	—	8.796	1.241	pCi/g	2.739	N		0					
Iodine-133	HE	3308	2562	pCi/g	0	N	0	9	0	SHORT_HLIF	0		
Lead-212	✓	1.262	0.06737	pCi/g	0.08384	0.100	238.3	4	1.076	IDENTIFIED	3.756		
Lead-214	✓	1.053	0.08712	pCi/g	0.1053	0.100	351.6	4	1.186	IDENTIFIED	6.955		
Lutetium-177	HE	3.019	0.688	pCi/g	1.817	N	0	9	0	FAIL_ABUND	0		
Polonium-212	NR	1.262	0.06737	pCi/g	0.08384	N	238.3	4	1.076	IDENTIFIED	3.756		
Polonium-214	NR	1.053	0.08712	pCi/g	0.1053	N	351.6	4	1.186	IDENTIFIED	6.955		
Polonium-216	NR	1.262	0.06737	pCi/g	0.08384	N	238.3	4	1.076	IDENTIFIED	3.756		
Polonium-218	NR	1.053	0.08712	pCi/g	0.1053	N	351.6	4	1.186	IDENTIFIED	6.955		
Potassium-40	✓	39.45	1.985	pCi/g	0.4722	1.00	1460	1	2.128	IDENTIFIED	2.597		
Radium-224	INT	3.389	0.3998	pCi/g	0.9538	Y	241.1	1	1.777	IDENTIFIED	11.39	UI	
Radium-226	✓	0.8244	0.07771	pCi/g	0.1076	Y	608.9	4	1.437	IDENTIFIED	8.624		
Radium-228	✓	1.209	0.169	pCi/g	0.2167	0.500	910.6	3	1.486	IDENTIFIED	12.55		
Sodium-24	HE	4.87E+05	3.37E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0		
Thallium-200	HE	212.7	211	pCi/g	0	N	0	9	0	SHORT_HLIF	0		
Thallium-208	✓	0.3727	0.03754	pCi/g	0.05257	0.080	582.8	1	1.323	IDENTIFIED	9.494		
Thorium-228	NR	1.281	0.06839	pCi/g	0.0851	N	238.3	4	1.076	IDENTIFIED	3.756		
Thorium-230	NR	0.8244	0.07771	pCi/g	0.1076	N	608.9	4	1.437	IDENTIFIED	8.624		
Thorium-232	NR	1.209	0.169	pCi/g	0.2167	N	910.6	3	1.486	IDENTIFIED	12.55		
Tin-126	NR	0.3113	0.07904	pCi/g	0.1397	N	88.31	2	3.482	IDENTIFIED	24.76		
Titanium-44	—	0.1533	0.022	pCi/g	0.07396	N	0	9	0	NOT_IDENTI	0		
Uranium-234	NR	0.8244	0.07771	pCi/g	0.1076	N	608.9	4	1.437	IDENTIFIED	8.624		
Zirconium-97	—	2.98E+06	8.63E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245667002	25-JAN-10 12:00	09-FEB-10 13:17	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.199	0.1375	pCi/g	0.2052	N	910.6	3	1.652	IDENTIFIED	10.07		
Americium-243	INT	0.2987	0.03483	pCi/g	0.08373	N	74.68	1	0.9621	IDENTIFIED	11.16		
Annihilation Rad.	—	0.1878	0.03542	pCi/g	0.04011	N	511	1	2.327	IDENTIFIED	18.61		
Bismuth-211	INT	2.617	0.2181	pCi/g	0.3119	Y	351.7	4	1.298	IDENTIFIED	7.72	UI	
Bismuth-212	HE	0.8305	0.2537	pCi/g	0.6013	N	0	10	0	FAIL_ABUND	0		

Bismuth-214	✓	0.9041	0.08579	pCi/g	0.1134	0.200	609	4	1.539	IDENTIFIED	8.549	☐		
Cadmium-109	INT	2.138	0.4682	pCi/g	1.339	Y	87.06	3	0.9973	IDENTIFIED	21.56	☑	UI	
Cerium-143	—	515.8	90.85	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Gross Gamma	—	8.776	1.763	pCi/g	2.902	N		0				☐		
Iodine-123	HE	1.80E+06	2.32E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Iodine-135	HE	1.44E+15	2.56E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Krypton-85	HE	13.44	3.399	pCi/g	12.61	N	0	10	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.393	0.07068	pCi/g	0.08081	0.100	238.4	4	1.111	IDENTIFIED	3.627	☐		
Lead-214	✓	0.9103	0.07951	pCi/g	0.1087	0.100	351.7	4	1.298	IDENTIFIED	7.72	☐		
Lutetium-177	HE	1.966	0.6185	pCi/g	1.842	N	0	10	0	FAIL_ABUND	0	☐		
Neptunium-237	HE	0.6173	0.1494	pCi/g	0.39	N	87.06	3	0.9973	IDENTIFIED	21.56	☐		
Niobium-97	HE	22940	46070	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.393	0.07068	pCi/g	0.08081	N	238.4	4	1.111	IDENTIFIED	3.627	☐		
Polonium-214	NR	0.9103	0.07951	pCi/g	0.1087	N	351.7	4	1.298	IDENTIFIED	7.72	☐		
Polonium-216	NR	1.393	0.07068	pCi/g	0.08081	N	238.4	4	1.111	IDENTIFIED	3.627	☐		
Polonium-218	NR	0.9103	0.07951	pCi/g	0.1087	N	351.7	4	1.298	IDENTIFIED	7.72	☐		
Potassium-40	✓	36.05	1.624	pCi/g	0.4665	1.00	1460	1	2.201	IDENTIFIED	2.753	☐		
Radium-224	INT	2.846	0.5694	pCi/g	0.9197	Y	241.2	1	1.624	IDENTIFIED	19.82	☑	UI	
Radium-226	✓	0.9041	0.08579	pCi/g	0.1134	Y	609	4	1.539	IDENTIFIED	8.549	☐		
Radium-228	✓	1.199	0.1375	pCi/g	0.2052	0.500	910.6	3	1.652	IDENTIFIED	10.07	☐		
Strontium-85	LA	0.06885	0.01742	pCi/g	0.06459	Y	0	10	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.4453	0.04396	pCi/g	0.05612	0.080	582.9	1	1.58	IDENTIFIED	9.202	☐		
Thorium-228	NR	1.414	0.07175	pCi/g	0.08203	N	238.4	4	1.111	IDENTIFIED	3.627	☐		
Thorium-230	NR	0.9041	0.08579	pCi/g	0.1134	N	609	4	1.539	IDENTIFIED	8.549	☐		
Thorium-232	NR	1.199	0.1375	pCi/g	0.2052	N	910.6	3	1.652	IDENTIFIED	10.07	☐		
Tin-126	HE	0.2102	0.04602	pCi/g	0.1322	N	87.06	3	0.9973	IDENTIFIED	21.56	☐		
Titanium-44	—	0.3115	0.02448	pCi/g	0.0658	N	0	10	0	FAIL_ABUND	0	☐		
Uranium-234	NR	0.9041	0.08579	pCi/g	0.1134	N	609	4	1.539	IDENTIFIED	8.549	☐		
Zirconium-97	—	3.26E+06	9.07E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245667003	25-JAN-10 12:00	09-FEB-10 13:17	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.529	0.1869	pCi/g	0.22	N	911.3	3	1.317	IDENTIFIED	10.68	☐		
Americium-243	INT	0.3202	0.03693	pCi/g	0.07776	N	74.76	1	1.126	IDENTIFIED	10.77	☐		
Annihilation Rad.	HE	0.08311	0.03118	pCi/g	0.04847	N	510.8	1	1.294	IDENTIFIED	37.21	☐		
Bismuth-211	INT	3.352	0.2862	pCi/g	0.3035	Y	351.8	4	1.082	IDENTIFIED	6.564	☑	UI	
Bismuth-212	HE	0.7398	0.1911	pCi/g	0.5991	N	0	9	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.073	0.09774	pCi/g	0.1113	0.200	609.3	4	1.35	IDENTIFIED	7.419	☐		
Cadmium-109	INT	2.817	0.5345	pCi/g	0.8604	Y	87.29	3	0.9907	IDENTIFIED	18.36	☑	UI	
Cerium-143	—	237.5	80.96	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1503	0.03985	pCi/g	0.09768	0.100	0	9	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	9.647	1.578	pCi/g	2.656	N		0				☐		
Iodine-123	HE	3.26E+06	2.29E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Iodine-133	HE	945.4	2800	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.461	0.1011	pCi/g	0.08056	0.100	238.6	4	0.9638	IDENTIFIED	3.584	☐		
Lead-214	✓	1.166	0.1041	pCi/g	0.1058	0.100	351.8	4	1.082	IDENTIFIED	6.564	☐		

Neptunium-237	INT	0.813	0.1756	pCi/g	0.3568	N	87.29	3	0.9907	IDENTIFIED	18.36	☐		
Niobium-97	HE	70780	41350	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.461	0.1011	pCi/g	0.08056	N	238.6	4	0.9638	IDENTIFIED	3.584	☐		
Polonium-214	NR	1.166	0.1041	pCi/g	0.1058	N	351.8	4	1.082	IDENTIFIED	6.564	☐		
Polonium-216	NR	1.461	0.1011	pCi/g	0.08056	N	238.6	4	0.9638	IDENTIFIED	3.584	☐		
Polonium-218	NR	1.166	0.1041	pCi/g	0.1058	N	351.8	4	1.082	IDENTIFIED	6.564	☐		
Potassium-40	✓	41.12	2.074	pCi/g	0.4856	1.00	1461	1	1.922	IDENTIFIED	2.477	☐		
Radium-224	INT	4.333	0.6484	pCi/g	0.9169	Y	241.6	1	1.736	IDENTIFIED	13.91	☑	UJ	
Radium-226	✓	1.073	0.09774	pCi/g	0.1113	Y	609.3	4	1.35	IDENTIFIED	7.419	☐		
Radium-228	✓	1.529	0.1869	pCi/g	0.22	0.500	911.3	3	1.317	IDENTIFIED	10.68	☐		
Sodium-24	HE	2.96E+05	3.38E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4745	0.04429	pCi/g	0.06126	0.080	583.2	1	1.237	IDENTIFIED	7.909	☐		
Thorium-228	NR	1.483	0.1026	pCi/g	0.08178	N	238.6	4	0.9638	IDENTIFIED	3.584	☐		
Thorium-230	NR	1.073	0.09774	pCi/g	0.1113	N	609.3	4	1.35	IDENTIFIED	7.419	☐		
Thorium-232	NR	1.529	0.1869	pCi/g	0.22	N	911.3	3	1.317	IDENTIFIED	10.68	☐		
Tin-126	NR	0.2769	0.05254	pCi/g	0.1202	N	87.29	3	0.9907	IDENTIFIED	18.36	☐		
Titanium-44	—	0.333	0.02593	pCi/g	0.06608	N	0	9	0	FAIL_ABUND	0	☐		
Uranium-234	NR	1.073	0.09774	pCi/g	0.1113	N	609.3	4	1.35	IDENTIFIED	7.419	☐		
Zirconium-97	—	2.15E+06	8.31E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245667004	25-JAN-10 12:00	09-FEB-10 13:19	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.238	0.2065	pCi/g	0.2814	N	911.8	3	1.774	IDENTIFIED	15.85	☐	
Americium-243	INT	0.2872	0.0277	pCi/g	0.06089	N	74.8	1	1.075	IDENTIFIED	8.625	☐	
Annihilation Rad.	—	0.1992	0.04708	pCi/g	0.06011	N	511.6	1	2.82	IDENTIFIED	23.38	☐	
Bismuth-211	INT	2.224	0.2333	pCi/g	0.3675	Y	352	4	1.357	IDENTIFIED	9.843	☑	UJ
Bismuth-212	HE	1.181	0.4345	pCi/g	0.8073	N	0	5	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.8114	0.1024	pCi/g	0.148	0.200	609.6	4	1.632	IDENTIFIED	11.73	☐	
Cadmium-109	INT	2.276	0.4384	pCi/g	1.332	Y	87	3	1.359	IDENTIFIED	18.84	☑	UJ
Cerium-143	—	428.6	100	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.291	1.75	pCi/g	2.951	N		0				☐	
Iodine-135	HE	6.27E+15	3.42E+15	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.262	0.07917	pCi/g	0.1046	0.100	238.7	4	1.181	IDENTIFIED	4.329	☐	
Lead-214	✓	0.7735	0.08364	pCi/g	0.1344	0.100	352	4	1.357	IDENTIFIED	9.843	☐	
Neptunium-237	INT	0.6571	0.1436	pCi/g	0.2864	N	87	3	1.359	IDENTIFIED	18.84	☐	
Polonium-212	NR	1.262	0.07917	pCi/g	0.1046	N	238.7	4	1.181	IDENTIFIED	4.329	☐	
Polonium-214	NR	0.7735	0.08364	pCi/g	0.1344	N	352	4	1.357	IDENTIFIED	9.843	☐	
Polonium-216	NR	1.262	0.07917	pCi/g	0.1046	N	238.7	4	1.181	IDENTIFIED	4.329	☐	
Polonium-218	NR	0.7735	0.08364	pCi/g	0.1344	N	352	4	1.357	IDENTIFIED	9.843	☐	
Potassium-40	✓	35.74	1.518	pCi/g	0.7682	1.00	1461	1	2.145	IDENTIFIED	2.949	☐	
Radium-224	INT	3.675	0.7668	pCi/g	1.19	Y	241.8	1	2.013	IDENTIFIED	20.49	☑	UJ
Radium-226	✓	0.8114	0.1024	pCi/g	0.148	Y	609.6	4	1.632	IDENTIFIED	11.73	☐	
Radium-228	✓	1.238	0.2065	pCi/g	0.2814	0.500	911.8	3	1.774	IDENTIFIED	15.85	☐	
Thallium-208	✓	0.4834	0.04882	pCi/g	0.07397	0.080	583.4	1	1.36	IDENTIFIED	9.212	☐	
Thorium-228	NR	1.281	0.08037	pCi/g	0.1062	N	238.7	4	1.181	IDENTIFIED	4.329	☐	
Thorium-230	NR	0.8114	0.1024	pCi/g	0.148	N	609.6	4	1.632	IDENTIFIED	11.73	☐	

Thorium-232	NR	1.238	0.2065	pCi/g	0.2814	N	911.8	3	1.774	IDENTIFIED	15.85	☐		
Tin-126	NR	0.2238	0.0431	pCi/g	0.1308	N	87	3	1.359	IDENTIFIED	18.84	☐		
Titanium-44	—	0.2964	0.02393	pCi/g	0.05753	N	0	5	0	FAIL_ABUND	0	☐		
Total Uranium	—	2.4943	1.64E-06	ug/g	1.5205	N		0				☐		
Uranium-234	NR	0.8114	0.1024	pCi/g	0.148	N	609.6	4	1.632	IDENTIFIED	11.73	☐		
Zirconium-97	—	4.02E+06	1.18E+06	pCi/g	0	N	0	5	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245667005	25-JAN-10 12:00	09-FEB-10 13:21	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	✓	1.538	0.1904	pCi/g	0.2539	N	910.2	3	2.024	IDENTIFIED	10.95	☐		
Americium-243	INT	0.4519	0.04918	pCi/g	0.1061	N	74.62	1	1.264	IDENTIFIED	9.934	☐		
Annihilation Rad.	HE	0.08899	0.03824	pCi/g	0.05578	N	510.4	1	1.575	IDENTIFIED	42.88	☐		
Bismuth-211	INT	2.895	0.2661	pCi/g	0.3917	Y	351.5	4	1.312	IDENTIFIED	8.597	☑	UI	
Bismuth-212	HE	1.125	0.2124	pCi/g	0.748	N	0	10	0	NOT_IDENTI	0	☐		
Bismuth-214	LA	0.9239	0.08546	pCi/g	0.2777	0.200	0	10	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cadmium-109	INT	1.787	0.5813	pCi/g	1.421	Y	86.58	3	0.9651	IDENTIFIED	32.16	☑	UI	
Cerium-143	—	940.2	157.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Gross Gamma	—	8.082	1.246	pCi/g	2.905	N		0				☐		
Lead-212	✓	1.553	0.08117	pCi/g	0.1028	0.100	238.3	4	1.114	IDENTIFIED	3.795	☐		
Lead-214	✓	1.007	0.09624	pCi/g	0.1286	0.100	351.5	4	1.312	IDENTIFIED	8.597	☐		
Lutetium-177	HE	3.03	0.9127	pCi/g	2.256	N	0	10	0	FAIL_ABUND	0	☐		
Neptunium-237	HE	0.516	0.176	pCi/g	0.3999	N	86.58	3	0.9651	IDENTIFIED	32.16	☐		
Niobium-95m	—	0.6029	0.09163	pCi/g	0.3028	N	0	10	0	NOT_IDENTI	0	☐		
Polonium-212	NR	1.553	0.08117	pCi/g	0.1028	N	238.3	4	1.114	IDENTIFIED	3.795	☐		
Polonium-214	NR	1.007	0.09624	pCi/g	0.1286	N	351.5	4	1.312	IDENTIFIED	8.597	☐		
Polonium-216	NR	1.553	0.08117	pCi/g	0.1028	N	238.3	4	1.114	IDENTIFIED	3.795	☐		
Polonium-218	NR	1.007	0.09624	pCi/g	0.1286	N	351.5	4	1.312	IDENTIFIED	8.597	☐		
Potassium-40	✓	26.57	1.413	pCi/g	0.4459	1.00	1459	1	2.084	IDENTIFIED	3.776	☐		
Radium-224	INT	4.212	0.7595	pCi/g	1.17	Y	241.3	1	1.952	IDENTIFIED	17.81	☑	UI	
Radium-226	LA	0.9239	0.08546	pCi/g	0.2777	Y	0	10	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Radium-228	✓	1.538	0.1904	pCi/g	0.2539	0.500	910.2	3	2.024	IDENTIFIED	10.95	☐		
Thallium-208	✓	0.5292	0.04486	pCi/g	0.06101	0.080	582.4	1	1.521	IDENTIFIED	7.831	☐		
Thorium-228	NR	1.576	0.0824	pCi/g	0.1044	N	238.3	4	1.114	IDENTIFIED	3.795	☐		
Thorium-230	—	0.9239	0.08546	pCi/g	0.2777	N	0	10	0	FAIL_ABUND	0	☐		
Thorium-232	NR	1.538	0.1904	pCi/g	0.2539	N	910.2	3	2.024	IDENTIFIED	10.95	☐		
Tin-126	HE	0.1757	0.05714	pCi/g	0.1688	N	86.58	3	0.9651	IDENTIFIED	32.16	☐		
Titanium-44	—	0.3879	0.03323	pCi/g	0.09387	N	0	10	0	FAIL_ABUND	0	☐		
Uranium-234	—	0.9239	0.08546	pCi/g	0.2777	N	0	10	0	FAIL_ABUND	0	☐		
Zirconium-97	—	6.56E+06	1.21E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245667006	25-JAN-10 12:00	09-FEB-10 13:24	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	LA	1.448	0.1662	pCi/g	0.4848	N	0	12	0	FAIL_ABUND	0	☐		
Americium-243	INT	0.3818	0.03568	pCi/g	0.07334	N	74.93	1	1.2	IDENTIFIED	8.428	☐		
Annihilation Rad.	—	0.1593	0.03336	pCi/g	0.04151	N	511.2	1	1.832	IDENTIFIED	20.41	☐		

Bismuth-211	INT	3.509	0.2819	pCi/g	0.2986	Y	352	4	1.342	IDENTIFIED	6.452	☑	UI		
Bismuth-212	—	1.298	0.2585	pCi/g	0.6448	N	0	12	0	FAIL_ABUND	0	☐			
Bismuth-214	✓	0.8903	0.08711	pCi/g	0.105	0.200	609.7	4	1.415	IDENTIFIED	8.048	☐			
Cadmium-109	INT	3.307	0.4251	pCi/g	1.066	Y	87.33	3	0.9609	IDENTIFIED	11.97	☑	UI		
Cerium-143	—	361.1	85.29	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐			
Gross Gamma	—	8.964	1.193	pCi/g	2.675	N		0				☐			
Iodine-133	HE	1280	2838	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐			
Iodine-135	HE	1.88E+15	2.45E+15	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐			
Krypton-85	HE	14.76	4.031	pCi/g	13.36	N	0	12	0	NOT_IDENTI	0	☐			
Lead-212	✓	1.571	0.1001	pCi/g	0.08811	0.100	238.7	4	1.158	IDENTIFIED	3.51	☐			
Lead-214	✓	1.221	0.1031	pCi/g	0.1041	0.100	352	4	1.342	IDENTIFIED	6.452	☐			
Lutetium-177	HE	2.179	0.6794	pCi/g	1.967	N	0	12	0	FAIL_ABUND	0	☐			
Neptunium-237	INT	0.9544	0.1573	pCi/g	0.3183	N	87.33	3	0.9609	IDENTIFIED	11.97	☐			
Polonium-212	NR	1.571	0.1001	pCi/g	0.08811	N	238.7	4	1.158	IDENTIFIED	3.51	☐			
Polonium-214	NR	1.221	0.1031	pCi/g	0.1041	N	352	4	1.342	IDENTIFIED	6.452	☐			
Polonium-216	NR	1.571	0.1001	pCi/g	0.08811	N	238.7	4	1.158	IDENTIFIED	3.51	☐			
Polonium-218	NR	1.221	0.1031	pCi/g	0.1041	N	352	4	1.342	IDENTIFIED	6.452	☐			
Potassium-40	✓	34.31	1.755	pCi/g	0.4768	1.00	1461	1	1.845	IDENTIFIED	2.676	☐			
Radium-224	INT	3.446	0.5794	pCi/g	1.002	Y	241.6	1	1.707	IDENTIFIED	16.1	☑	UI		
Radium-226	✓	0.8903	0.08711	pCi/g	0.105	Y	609.7	4	1.415	IDENTIFIED	8.048	☐			
Radium-228	LA	1.448	0.1662	pCi/g	0.4848	0.500	0	12	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.	
Strontium-85	LA	0.07565	0.02065	pCi/g	0.06843	Y	0	12	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.	
Thallium-208	✓	0.5125	0.04906	pCi/g	0.05632	0.080	583.5	1	1.282	IDENTIFIED	8.076	☐			
Thorium-228	NR	1.595	0.1016	pCi/g	0.08944	N	238.7	4	1.158	IDENTIFIED	3.51	☐			
Thorium-230	NR	0.8903	0.08711	pCi/g	0.105	N	609.7	4	1.415	IDENTIFIED	8.048	☐			
Thorium-232	—	1.448	0.1662	pCi/g	0.4848	N	0	12	0	FAIL_ABUND	0	☐			
Tin-126	NR	0.325	0.04178	pCi/g	0.105	N	87.33	3	0.9609	IDENTIFIED	11.97	☐			
Titanium-44	—	0.3441	0.02556	pCi/g	0.07313	N	0	12	0	FAIL_ABUND	0	☐			
Uranium-234	NR	0.8903	0.08711	pCi/g	0.105	N	609.7	4	1.415	IDENTIFIED	8.048	☐			
Zirconium-97	HE	1.04E+06	8.66E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐			

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691001	25-JAN-10 12:00	09-FEB-10 13:25	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.587	0.1648	pCi/g	0.1877	N	911.6	3	1.419	IDENTIFIED	8.714	☐		
Americium-243	INT	0.397	0.04999	pCi/g	0.09564	N	74.86	1	1.617	IDENTIFIED	11.95	☐		
Annihilation Rad.	—	0.1569	0.03382	pCi/g	0.04611	N	510.7	1	1.565	IDENTIFIED	21.35	☐		
Bismuth-211	INT	4.189	0.2621	pCi/g	0.3105	Y	351.8	4	1.308	IDENTIFIED	5.382	☑	UI	
Bismuth-212	—	1.141	0.2384	pCi/g	0.6426	N	0	9	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.079	0.09597	pCi/g	0.1186	0.200	609.4	4	1.595	IDENTIFIED	7.976	☐		
Cadmium-109	INT	2.224	0.474	pCi/g	1.401	Y	87.22	3	1.245	IDENTIFIED	20.84	☑	UI	
Cerium-143	—	1046	147.8	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.2486	0.04167	pCi/g	0.1002	0.100	0	9	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	9.137	1.378	pCi/g	3.934	N		0				☐		
Iodine-133	HE	1534	2775	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.531	0.07866	pCi/g	0.09601	0.100	238.5	4	1.309	IDENTIFIED	3.658	☐		
Lead-214	✓	1.457	0.09878	pCi/g	0.1082	0.100	351.8	4	1.308	IDENTIFIED	5.382	☐		

Neptunium-237	HE	0.642	0.152	pCi/g	0.4217	N	87.22	3	1.245	IDENTIFIED	20.84	☐		
Niobium-95m	HE	0.3377	0.0779	pCi/g	0.2493	N	0	9	0	NOT_IDENTI	0	☐		
Polonium-212	NR	1.531	0.07866	pCi/g	0.09601	N	238.5	4	1.309	IDENTIFIED	3.658	☐		
Polonium-214	NR	1.457	0.09878	pCi/g	0.1082	N	351.8	4	1.308	IDENTIFIED	5.382	☐		
Polonium-216	NR	1.531	0.07866	pCi/g	0.09601	N	238.5	4	1.309	IDENTIFIED	3.658	☐		
Polonium-218	NR	1.457	0.09878	pCi/g	0.1082	N	351.8	4	1.308	IDENTIFIED	5.382	☐		
Potassium-40	✓	24.27	1.211	pCi/g	0.5126	1.00	1461	1	2.087	IDENTIFIED	3.322	☐		
Radium-224	INT	4.255	0.5646	pCi/g	1.092	Y	241.6	1	1.691	IDENTIFIED	12.96	☑	UJ	
Radium-226	✓	1.079	0.09597	pCi/g	0.1186	Y	609.4	4	1.595	IDENTIFIED	7.976	☐		
Radium-228	✓	1.587	0.1648	pCi/g	0.1877	0.500	911.6	3	1.419	IDENTIFIED	8.714	☐		
Sodium-24	HE	16450	3.20E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5426	0.04529	pCi/g	0.06274	0.080	583.3	1	1.415	IDENTIFIED	7.621	☐		
Thorium-228	NR	1.554	0.07985	pCi/g	0.09746	N	238.5	4	1.309	IDENTIFIED	3.658	☐		
Thorium-230	NR	1.079	0.09597	pCi/g	0.1186	N	609.4	4	1.595	IDENTIFIED	7.976	☐		
Thorium-232	NR	1.587	0.1648	pCi/g	0.1877	N	911.6	3	1.419	IDENTIFIED	8.714	☐		
Thorium-234	✓	4.659	1.226	pCi/g	2.208	2.00	63.47	2	1.131	IDENTIFIED	24.81	☐		
Tin-126	HE	0.2186	0.0466	pCi/g	0.1383	N	87.22	3	1.245	IDENTIFIED	20.84	☐		
Titanium-44	—	0.4039	0.03173	pCi/g	0.08857	N	0	9	0	FAIL_ABUND	0	☐		
Total Uranium	—	13.871	3.65E-06	ug/g	3.288	N		0				☐		
Tungsten-181	HE	1.012	0.2237	pCi/g	0.73	N	0	9	0	NOT_IDENTI	0	☐		
Uranium-234	NR	1.079	0.09597	pCi/g	0.1186	N	609.4	4	1.595	IDENTIFIED	7.976	☐		
Uranium-238	HE	4.659	1.226	pCi/g	2.208	N	63.47	2	1.131	IDENTIFIED	24.81	☐		
Zirconium-97	—	4.24E+06	9.86E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691002	25-JAN-10 12:00	09-FEB-10 15:21	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.476	0.154	pCi/g	0.1801	N	911.5	3	1.71	IDENTIFIED	8.066	☐		
Americium-243	INT	0.3854	0.03718	pCi/g	0.07472	N	74.82	1	1.337	IDENTIFIED	8.741	☐		
Annihilation Rad.	—	0.124	0.02569	pCi/g	0.04036	N	510.8	1	2.889	IDENTIFIED	20.11	☐		
Bismuth-211	INT	4.002	0.2893	pCi/g	0.2838	Y	351.9	4	1.505	IDENTIFIED	4.295	☑	UJ	
Bismuth-212	—	1.002	0.2018	pCi/g	0.5555	N	0	9	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.196	0.0987	pCi/g	0.09358	0.200	609.3	4	1.738	IDENTIFIED	5.853	☐		
Cadmium-109	INT	3.836	0.454	pCi/g	1.031	Y	87.24	3	1.245	IDENTIFIED	10.86	☑	UJ	
Cerium-143	—	787.5	123.7	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.08537	0.02315	pCi/g	0.07359	0.100	0	9	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	9.858	1.374	pCi/g	1.94	N		0				☐		
Krypton-85	—	21.85	3.882	pCi/g	12.55	N	0	9	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.681	0.121	pCi/g	0.0781	0.100	238.7	4	1.257	IDENTIFIED	2.853	☐		
Lead-214	✓	1.392	0.107	pCi/g	0.0989	0.100	351.9	4	1.505	IDENTIFIED	4.295	☐		
Lutetium-177	HE	2.632	0.6664	pCi/g	1.856	N	0	9	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	1.107	0.1738	pCi/g	0.3017	N	87.24	3	1.245	IDENTIFIED	10.86	☐		
Niobium-97	HE	73750	39190	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.681	0.121	pCi/g	0.0781	N	238.7	4	1.257	IDENTIFIED	2.853	☐		
Polonium-214	NR	1.392	0.107	pCi/g	0.0989	N	351.9	4	1.505	IDENTIFIED	4.295	☐		
Polonium-216	NR	1.681	0.121	pCi/g	0.0781	N	238.7	4	1.257	IDENTIFIED	2.853	☐		
Polonium-218	NR	1.392	0.107	pCi/g	0.0989	N	351.9	4	1.505	IDENTIFIED	4.295	☐		

Potassium-40	✓	36.3	1.822	pCi/g	0.4112	1.00	1461	1	2.533	IDENTIFIED	2.054	☐		
Radium-224	INT	4.695	0.5119	pCi/g	0.8877	Y	241.6	1	1.855	IDENTIFIED	8.919	☑	UI	
Radium-226	✓	1.196	0.0987	pCi/g	0.09358	Y	609.3	4	1.738	IDENTIFIED	5.853	☐		
Radium-228	✓	1.476	0.154	pCi/g	0.1801	0.500	911.5	3	1.71	IDENTIFIED	8.066	☐		
Strontium-85	LA	0.1121	0.01991	pCi/g	0.06436	Y	0	9	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.5275	0.044	pCi/g	0.05046	0.080	583.3	1	1.583	IDENTIFIED	6.339	☐		
Thorium-228	NR	1.706	0.1228	pCi/g	0.07929	N	238.7	4	1.257	IDENTIFIED	2.853	☐		
Thorium-230	NR	1.196	0.0987	pCi/g	0.09358	N	609.3	4	1.738	IDENTIFIED	5.853	☐		
Thorium-232	NR	1.476	0.154	pCi/g	0.1801	N	911.5	3	1.71	IDENTIFIED	8.066	☐		
Tin-126	NR	0.377	0.04462	pCi/g	0.1017	N	87.24	3	1.245	IDENTIFIED	10.86	☐		
Titanium-44	—	0.3627	0.02499	pCi/g	0.06891	N	0	9	0	FAIL_ABUND	0	☐		
Uranium-234	NR	1.196	0.0987	pCi/g	0.09358	N	609.3	4	1.738	IDENTIFIED	5.853	☐		
Zirconium-97	—	3.16E+06	9.43E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691003	25-JAN-10 12:00	09-FEB-10 14:46	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.868	0.1821	pCi/g	0.258	N	911	3	1.829	IDENTIFIED	7.718	☐		
Americium-243	INT	0.393	0.02759	pCi/g	0.04397	N	74.82	1	0.8167	IDENTIFIED	4.843	☐		
Annihilation Rad.	—	0.1216	0.03707	pCi/g	0.04522	N	510.9	1	2.221	IDENTIFIED	30.05	☐		
Bismuth-211	INT	4.161	0.2971	pCi/g	0.2937	Y	351.9	4	1.087	IDENTIFIED	4.829	☑	UI	
Bismuth-212	—	1.499	0.2696	pCi/g	0.7355	N	0	9	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.251	0.1061	pCi/g	0.1108	0.200	609.1	4	1.452	IDENTIFIED	5.962	☐		
Cadmium-109	INT	4.616	0.3751	pCi/g	0.694	Y	87.25	3	1.226	IDENTIFIED	6.114	☑	UI	
Cerium-143	—	399.1	83.78	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.09971	0.03273	pCi/g	0.09506	0.100	0	9	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gold-195	HE	0.3655	0.1334	pCi/g	0.2788	N	0	9	0	FAIL_ABUND	0	☐		
Gross Gamma	—	10.65	1.449	pCi/g	3.291	N		0				☐		
Iodine-135	HE	3.79E+15	3.18E+15	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.802	0.1156	pCi/g	0.07788	0.100	238.6	4	0.9737	IDENTIFIED	2.955	☐		
Lead-214	✓	1.447	0.11	pCi/g	0.1009	0.100	351.9	4	1.087	IDENTIFIED	4.829	☐		
Lutetium-177	HE	2.832	0.7209	pCi/g	1.734	N	0	9	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	1.332	0.175	pCi/g	0.2086	N	87.25	3	1.226	IDENTIFIED	6.114	☐		
Polonium-212	NR	1.802	0.1156	pCi/g	0.07788	N	238.6	4	0.9737	IDENTIFIED	2.955	☐		
Polonium-214	NR	1.447	0.11	pCi/g	0.1009	N	351.9	4	1.087	IDENTIFIED	4.829	☐		
Polonium-216	NR	1.802	0.1156	pCi/g	0.07788	N	238.6	4	0.9737	IDENTIFIED	2.955	☐		
Polonium-218	NR	1.447	0.11	pCi/g	0.1009	N	351.9	4	1.087	IDENTIFIED	4.829	☐		
Potassium-40	✓	35.65	1.8	pCi/g	0.528	1.00	1461	1	2.039	IDENTIFIED	2.712	☐		
Radium-224	INT	5.248	0.6167	pCi/g	0.8873	Y	241.5	1	1.662	IDENTIFIED	10.51	☑	UI	
Radium-226	✓	1.251	0.1061	pCi/g	0.1108	Y	609.1	4	1.452	IDENTIFIED	5.962	☐		
Radium-228	✓	1.868	0.1821	pCi/g	0.258	0.500	911	3	1.829	IDENTIFIED	7.718	☐		
Technetium-99m	—	4.81E+15	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.604	0.0525	pCi/g	0.06062	0.080	583	1	1.372	IDENTIFIED	6.617	☐		
Thorium-228	NR	1.829	0.1173	pCi/g	0.07907	N	238.6	4	0.9737	IDENTIFIED	2.955	☐		
Thorium-230	NR	1.251	0.1061	pCi/g	0.1108	N	609.1	4	1.452	IDENTIFIED	5.962	☐		
Thorium-232	NR	1.868	0.1821	pCi/g	0.258	N	911	3	1.829	IDENTIFIED	7.718	☐		
Thorium-234	✓	1.756	0.3942	pCi/g	0.7498	2.00	63.39	2	0.9652	IDENTIFIED	20.43	☐		

Tin-126	NR	0.4537	0.03687	pCi/g	0.06808	N	87.25	3	1.226	IDENTIFIED	6.114	☐		
Titanium-44	—	0.386	0.02444	pCi/g	0.04477	N	0	9	0	FAIL_ABUND	0	☐		
Total Uranium	—	5.2398	1.17E-06	ug/g	1.1182	N		0				☐		
Uranium-234	NR	1.251	0.1061	pCi/g	0.1108	N	609.1	4	1.452	IDENTIFIED	5.962	☐		
Uranium-238	NR	1.756	0.3942	pCi/g	0.7498	N	63.39	2	0.9652	IDENTIFIED	20.43	☐		
Zirconium-97	HE	1.55E+06	9.83E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691004	25-JAN-10 12:00	09-FEB-10 14:53	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	2.405	0.2378	pCi/g	0.2461	N	910.4	3	1.616	IDENTIFIED	8.101	☐		
Americium-243	INT	0.388	0.03318	pCi/g	0.0641	N	74.83	1	1.026	IDENTIFIED	7.022	☐		
Annihilation Rad.	—	0.2296	0.04725	pCi/g	0.05318	N	510.9	1	2.221	IDENTIFIED	20.09	☐		
Bismuth-210	HE	1.326	0.4745	pCi/g	0.8982	N	46.5	3	1.211	IDENTIFIED	35.36	☐		
Bismuth-211	INT	4.049	0.3121	pCi/g	0.4179	Y	351.8	4	1.159	IDENTIFIED	6.138	☑	UI	
Bismuth-212	HE	1.381	0.3262	pCi/g	0.8367	N	0	9	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.262	0.1226	pCi/g	0.1262	0.200	608.9	4	1.47	IDENTIFIED	8.274	☐		
Cadmium-109	INT	4.356	0.5002	pCi/g	1.043	Y	87.24	3	1.101	IDENTIFIED	10.4	☑	UI	
Cerium-143	—	718.2	122.2	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Gross Gamma	—	10.28	1.508	pCi/g	3.742	N		0				☐		
Iodine-123	HE	3.66E+06	3.06E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Iodine-133	HE	1529	3834	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Iodine-135	HE	4.19E+15	3.74E+15	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Lead-210	HE	1.326	0.4745	pCi/g	0.8982	N	46.5	3	1.211	IDENTIFIED	35.36	☐		
Lead-212	✓	1.901	0.115	pCi/g	0.09313	0.100	238.5	4	1.016	IDENTIFIED	3.344	☐		
Lead-214	✓	1.408	0.1146	pCi/g	0.1323	0.100	351.8	4	1.159	IDENTIFIED	6.138	☐		
Neptunium-237	INT	1.257	0.1941	pCi/g	0.2996	N	87.24	3	1.101	IDENTIFIED	10.4	☐		
Niobium-97	HE	95920	79280	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Polonium-210	HE	1.326	0.4738	pCi/g	0.8982	N	46.5	3	1.211	IDENTIFIED	35.36	☐		
Polonium-212	NR	1.901	0.115	pCi/g	0.09313	N	238.5	4	1.016	IDENTIFIED	3.344	☐		
Polonium-214	NR	1.408	0.1146	pCi/g	0.1323	N	351.8	4	1.159	IDENTIFIED	6.138	☐		
Polonium-216	NR	1.901	0.115	pCi/g	0.09313	N	238.5	4	1.016	IDENTIFIED	3.344	☐		
Polonium-218	NR	1.408	0.1146	pCi/g	0.1323	N	351.8	4	1.159	IDENTIFIED	6.138	☐		
Potassium-40	✓	30.46	1.738	pCi/g	0.7756	1.00	1460	1	1.998	IDENTIFIED	3.583	☐		
Radium-224	INT	5.849	0.8447	pCi/g	1.061	Y	241.4	1	1.821	IDENTIFIED	13.71	☑	UI	
Radium-226	✓	1.262	0.1226	pCi/g	0.1262	Y	608.9	4	1.47	IDENTIFIED	8.274	☐		
Radium-228	✓	2.405	0.2378	pCi/g	0.2461	0.500	910.4	3	1.616	IDENTIFIED	8.101	☐		
Thallium-200	HE	102.7	252.3	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.6324	0.061	pCi/g	0.07636	0.080	582.8	1	1.293	IDENTIFIED	8.406	☐		
Thorium-228	NR	1.93	0.1168	pCi/g	0.09454	N	238.5	4	1.016	IDENTIFIED	3.344	☐		
Thorium-230	NR	1.262	0.1226	pCi/g	0.1262	N	608.9	4	1.47	IDENTIFIED	8.274	☐		
Thorium-232	NR	2.405	0.2378	pCi/g	0.2461	N	910.4	3	1.616	IDENTIFIED	8.101	☐		
Thorium-234	✓	2.287	0.5541	pCi/g	1.107	2.00	63.41	2	0.8759	IDENTIFIED	22.36	☐		
Tin-126	NR	0.4282	0.04917	pCi/g	0.1023	N	87.24	3	1.101	IDENTIFIED	10.4	☐		
Titanium-44	—	0.4342	0.02948	pCi/g	0.06787	N	0	9	0	FAIL_ABUND	0	☐		
Total Uranium	—	6.8375	1.65E-06	ug/g	1.6499	N		0				☐		
Uranium-234	NR	1.262	0.1226	pCi/g	0.1262	N	608.9	4	1.47	IDENTIFIED	8.274	☐		

Uranium-238	NR	2.287	0.5541	pCi/g	1.107	N	63.41	2	0.8759	IDENTIFIED	22.36	☐		
Zirconium-97	—	2.83E+06	1.20E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691005	25-JAN-10 12:00	09-FEB-10 15:24	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	1.708	0.187	pCi/g	0.2162	N	910.3	3	1.574	IDENTIFIED	9.044	☐	
Americium-243	INT	0.3685	0.04502	pCi/g	0.1144	N	74.53	1	0.8903	IDENTIFIED	10.92	☐	
Annihilation Rad.	—	0.1562	0.03158	pCi/g	0.04412	N	510.2	1	1.718	IDENTIFIED	19.96	☐	
Bismuth-211	INT	4.194	0.2751	pCi/g	0.3467	Y	351.5	4	1.305	IDENTIFIED	5.452	☑	UI
Bismuth-212	HE	1.131	0.2637	pCi/g	0.7137	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.279	0.09461	pCi/g	0.1155	0.200	608.7	4	1.32	IDENTIFIED	6.345	☐	
Cadmium-109	INT	4.112	0.6578	pCi/g	1.655	Y	87	3	1.218	IDENTIFIED	14.97	☑	UI
Cerium-143	—	1397	184.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3151	0.09132	pCi/g	0.3024	N	0	7	0	NOT_IDENTI	0	☐	
Gross Gamma	—	11.04	1.509	pCi/g	3.509	N		0				☐	
Iodine-123	HE	2.00E+06	3.09E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.853	0.09213	pCi/g	0.09637	0.100	238.3	4	1.129	IDENTIFIED	3.217	☐	
Lead-214	✓	1.459	0.103	pCi/g	0.1209	0.100	351.5	4	1.305	IDENTIFIED	5.452	☐	
Lutetium-177	HE	3.045	0.9315	pCi/g	2.185	N	0	7	0	FAIL_ABUND	0	☐	
Mercury-203	↑PW	0.1353	0.03715	pCi/g	0.06772	0.100	277.8	1	3.939	IDENTIFIED	27.26	☑	UI	Data rejected due to high peak-width.
Neptunium-237	INT	1.187	0.2259	pCi/g	0.4906	N	87	3	1.218	IDENTIFIED	14.97	☐	
Niobium-95	INT	0.1512	0.02944	pCi/g	0.06892	N	767.2	1	1.835	IDENTIFIED	19.16	☐	
Polonium-212	NR	1.853	0.09213	pCi/g	0.09637	N	238.3	4	1.129	IDENTIFIED	3.217	☐	
Polonium-214	NR	1.459	0.103	pCi/g	0.1209	N	351.5	4	1.305	IDENTIFIED	5.452	☐	
Polonium-216	NR	1.853	0.09213	pCi/g	0.09637	N	238.3	4	1.129	IDENTIFIED	3.217	☐	
Polonium-218	NR	1.459	0.103	pCi/g	0.1209	N	351.5	4	1.305	IDENTIFIED	5.452	☐	
Potassium-40	✓	39.72	2.009	pCi/g	0.4808	1.00	1459	1	2.013	IDENTIFIED	2.649	☐	
Radium-224	INT	4.398	0.6972	pCi/g	1.096	Y	241.3	1	1.668	IDENTIFIED	15.55	☑	UI
Radium-226	✓	1.279	0.09461	pCi/g	0.1155	Y	608.7	4	1.32	IDENTIFIED	6.345	☐	
Radium-228	✓	1.708	0.187	pCi/g	0.2162	0.500	910.3	3	1.574	IDENTIFIED	9.044	☐	
Thallium-208	✓	0.6219	0.04789	pCi/g	0.06024	0.080	582.6	1	1.416	IDENTIFIED	6.928	☐	
Thorium-228	NR	1.881	0.09354	pCi/g	0.09784	N	238.3	4	1.129	IDENTIFIED	3.217	☐	
Thorium-230	NR	1.278	0.09461	pCi/g	0.1155	N	608.7	4	1.32	IDENTIFIED	6.345	☐	
Thorium-232	NR	1.708	0.187	pCi/g	0.2162	N	910.3	3	1.574	IDENTIFIED	9.044	☐	
Tin-126	NR	0.4042	0.06465	pCi/g	0.1713	N	87	3	1.218	IDENTIFIED	14.97	☐	
Titanium-44	—	0.1564	0.026	pCi/g	0.08525	N	0	7	0	NOT_IDENTI	0	☐	
Total Uranium	—	6.5227	2.82E-06	ug/g	4.9371	N		0				☐	
Uranium-234	NR	1.278	0.09461	pCi/g	0.1155	N	608.7	4	1.32	IDENTIFIED	6.345	☐	
Zirconium-97	—	5.87E+06	1.12E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691006	25-JAN-10 12:00	09-FEB-10 15:24	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	1.319	0.166	pCi/g	0.2637	N	911.7	3	1.808	IDENTIFIED	11.46	☐	
Americium-243	INT	0.2598	0.02847	pCi/g	0.06131	N	74.82	1	1.087	IDENTIFIED	10.07	☐	
Annihilation Rad.	HE	0.1278	0.0418	pCi/g	0.05432	N	511.1	1	2.086	IDENTIFIED	32.52	☐	

Barium-137m	✓	0.2995	0.03705	pCi/g	0.06852	N	662.1	2	1.165	IDENTIFIED	11.68	☐		
Bismuth-210	HE	1.548	0.418	pCi/g	0.8229	N	46.27	3	1.297	IDENTIFIED	26.7	☐		
Bismuth-211	INT	3.471	0.303	pCi/g	0.346	Y	352	4	1.387	IDENTIFIED	7.937	☑	UI	
Bismuth-212	HE	0.8429	0.2162	pCi/g	0.7143	N	0	11	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.186	0.09988	pCi/g	0.1293	0.200	609.4	4	1.55	IDENTIFIED	7.003	☐		
Cadmium-109	INT	2.838	0.3768	pCi/g	0.9277	Y	87.09	3	1.379	IDENTIFIED	12.67	☑	UI	
Cerium-143	—	522	101.3	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Cesium-137	✓	0.3166	0.03917	pCi/g	0.07244	0.100	662.1	2	1.165	IDENTIFIED	11.68	☐		
Gross Gamma	—	8.159	1.269	pCi/g	3.08	N		0				☐		
Iodine-123	HE	1.01E+06	3.12E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Iodine-133	HE	2953	3318	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Krypton-85	HE	24.71	4.804	pCi/g	16.71	N	0	11	0	NOT_IDENTI	0	☐		
Lead-210	HE	1.548	0.418	pCi/g	0.8229	N	46.27	3	1.297	IDENTIFIED	26.7	☐		
Lead-212	✓	1.343	0.08079	pCi/g	0.09345	0.100	238.7	4	1.357	IDENTIFIED	3.943	☐		
Lead-214	✓	1.207	0.11	pCi/g	0.1207	0.100	352	4	1.387	IDENTIFIED	7.937	☐		
Lutetium-177	HE	2.496	0.6666	pCi/g	2.022	N	0	11	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	0.8191	0.1377	pCi/g	0.3002	N	87.09	3	1.379	IDENTIFIED	12.67	☐		
Niobium-97	HE	9939	65120	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Polonium-210	HE	1.548	0.4168	pCi/g	0.8229	N	46.27	3	1.297	IDENTIFIED	26.7	☐		
Polonium-212	NR	1.343	0.08079	pCi/g	0.09345	N	238.7	4	1.357	IDENTIFIED	3.943	☐		
Polonium-214	NR	1.207	0.11	pCi/g	0.1207	N	352	4	1.387	IDENTIFIED	7.937	☐		
Polonium-216	NR	1.343	0.08079	pCi/g	0.09345	N	238.7	4	1.357	IDENTIFIED	3.943	☐		
Polonium-218	NR	1.207	0.11	pCi/g	0.1207	N	352	4	1.387	IDENTIFIED	7.937	☐		
Potassium-40	✓	21.26	1.023	pCi/g	0.6838	1.00	1461	1	2.427	IDENTIFIED	3.719	☐		
Radium-224	INT	3.145	0.5075	pCi/g	1.064	Y	241.7	1	1.559	IDENTIFIED	15.65	☑	UI	
Radium-226	✓	1.186	0.09988	pCi/g	0.1293	Y	609.4	4	1.55	IDENTIFIED	7.003	☐		
Radium-228	✓	1.319	0.166	pCi/g	0.2637	0.500	911.7	3	1.808	IDENTIFIED	11.46	☐		
Strontium-85	LA	0.1267	0.02464	pCi/g	0.08571	Y	0	11	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	72.73	249.2	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4519	0.04396	pCi/g	0.06269	0.080	583.3	1	1.224	IDENTIFIED	8.805	☐		
Thorium-228	NR	1.364	0.08202	pCi/g	0.09487	N	238.7	4	1.357	IDENTIFIED	3.943	☐		
Thorium-230	NR	1.186	0.09988	pCi/g	0.1293	N	609.4	4	1.55	IDENTIFIED	7.003	☐		
Thorium-232	NR	1.319	0.166	pCi/g	0.2637	N	911.7	3	1.808	IDENTIFIED	11.46	☐		
Thorium-234	✓	5.23	0.7507	pCi/g	1.009	2.00	63.14	2	1.226	IDENTIFIED	11.04	☐		
Tin-126	NR	0.279	0.03704	pCi/g	0.09107	N	87.09	3	1.379	IDENTIFIED	12.67	☐		
Titanium-44	—	0.3065	0.02189	pCi/g	0.05656	N	0	11	0	FAIL_ABUND	0	☐		
Total Uranium	—	15.791	2.23E-06	ug/g	1.5042	N		0				☐		
Uranium-234	NR	1.186	0.09988	pCi/g	0.1293	N	609.4	4	1.55	IDENTIFIED	7.003	☐		
Uranium-235	NVP	0.5033	0.1799	pCi/g	0.3359	0.500	143.7	1	1.358	IDENTIFIED	34.53	☑	UI	
Uranium-238	NR	5.23	0.7507	pCi/g	1.009	N	63.14	2	1.226	IDENTIFIED	11.04	☐		
Zirconium-97	HE	6.33E+05	1.14E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691007	25-JAN-10 12:00	09-FEB-10 15:24	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.376	0.1688	pCi/g	0.1997	N	911.3	3	1.563	IDENTIFIED	10.74	☐	
Americium-243	INT	0.3081	0.02963	pCi/g	0.07474	N	74.88	1	0.9069	IDENTIFIED	8.675	☐	

Annihilation Rad.	—	0.1201	0.03165	pCi/g	0.03813	N	510.9	1	1.578	IDENTIFIED	25.93	☐		
Barium-137m	HE	0.07853	0.01835	pCi/g	0.05322	N	661.5	2	1.423	IDENTIFIED	22.95	☐		
Bismuth-211	INT	3.505	0.2858	pCi/g	0.2531	Y	351.9	4	1.133	IDENTIFIED	6.061	☑	UI	
Bismuth-212	✓	0.9555	0.2004	pCi/g	0.3409	N	727.2	1	1.017	IDENTIFIED	20.31	☐		
Bismuth-214	✓	1.146	0.09551	pCi/g	0.09691	0.200	609.4	4	1.166	IDENTIFIED	6.441	☐		
Cadmium-109	INT	3.438	0.4953	pCi/g	0.9626	Y	87.15	3	1.272	IDENTIFIED	13.59	☑	UI	
Cerium-143	—	417	85.73	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1135	0.03542	pCi/g	0.08112	0.100	0	7	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	INT	0.4648	0.1111	pCi/g	0.201	N	269.6	1	1.145	IDENTIFIED	23.03	☐		
Cesium-137	✓	0.08301	0.0194	pCi/g	0.05625	0.100	661.5	2	1.423	IDENTIFIED	22.95	☐		
Gross Gamma	—	8.078	1.16	pCi/g	2.97	N		0				☐		
Lead-212	✓	1.505	0.1011	pCi/g	0.07594	0.100	238.6	4	0.9775	IDENTIFIED	3.177	☐		
Lead-214	✓	1.219	0.1044	pCi/g	0.08822	0.100	351.9	4	1.133	IDENTIFIED	6.061	☐		
Lutetium-177	HE	2.565	0.7031	pCi/g	1.816	N	0	7	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	0.9922	0.1758	pCi/g	0.2823	N	87.15	3	1.272	IDENTIFIED	13.59	☐		
Polonium-212	NR	1.505	0.1011	pCi/g	0.07594	N	238.6	4	0.9775	IDENTIFIED	3.177	☐		
Polonium-214	NR	1.219	0.1044	pCi/g	0.08822	N	351.9	4	1.133	IDENTIFIED	6.061	☐		
Polonium-216	NR	1.505	0.1011	pCi/g	0.07594	N	238.6	4	0.9775	IDENTIFIED	3.177	☐		
Polonium-218	NR	1.219	0.1044	pCi/g	0.08822	N	351.9	4	1.133	IDENTIFIED	6.061	☐		
Potassium-40	✓	22.78	1.237	pCi/g	0.4775	1.00	1461	1	1.779	IDENTIFIED	3.188	☐		
Radium-224	INT	3.944	0.5898	pCi/g	0.8642	Y	241.5	1	1.721	IDENTIFIED	13.9	☑	UI	
Radium-226	✓	1.146	0.09551	pCi/g	0.09691	Y	609.4	4	1.166	IDENTIFIED	6.441	☐		
Radium-228	✓	1.376	0.1688	pCi/g	0.1997	0.500	911.3	3	1.563	IDENTIFIED	10.74	☐		
Sodium-24	HE	67100	2.79E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Thallium-200	HE	71.74	181.4	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4299	0.04069	pCi/g	0.05083	0.080	583.2	1	1.248	IDENTIFIED	8.066	☐		
Thorium-228	NR	1.528	0.1026	pCi/g	0.07709	N	238.6	4	0.9775	IDENTIFIED	3.177	☐		
Thorium-230	NR	1.146	0.09551	pCi/g	0.09691	N	609.4	4	1.166	IDENTIFIED	6.441	☐		
Thorium-232	NR	1.376	0.1688	pCi/g	0.1997	N	911.3	3	1.563	IDENTIFIED	10.74	☐		
Thorium-234	✓	1.941	0.7693	pCi/g	1.825	2.00	63.38	2	0.6463	IDENTIFIED	38.66	☐		
Tin-126	NR	0.3379	0.04868	pCi/g	0.09505	N	87.15	3	1.272	IDENTIFIED	13.59	☐		
Titanium-44	—	0.3254	0.02506	pCi/g	0.06379	N	0	7	0	FAIL_ABUND	0	☐		
Total Uranium	—	5.8395	2.29E-06	ug/g	2.7179	N		0				☐		
Uranium-234	NR	1.146	0.09551	pCi/g	0.09691	N	609.4	4	1.166	IDENTIFIED	6.441	☐		
Uranium-238	HE	1.941	0.7693	pCi/g	1.825	N	63.38	2	0.6463	IDENTIFIED	38.66	☐		
Zirconium-97	—	2.32E+06	8.41E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691008	25-JAN-10 12:00	09-FEB-10 15:32	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.871	0.19	pCi/g	0.237	N	910.9	3	1.515	IDENTIFIED	8.544	☐		
Americium-243	INT	0.4785	0.04722	pCi/g	0.09967	N	74.75	1	1.174	IDENTIFIED	9.263	☐		
Annihilation Rad.	—	0.2016	0.03988	pCi/g	0.04657	N	510.5	1	2.401	IDENTIFIED	19.54	☐		
Bismuth-211	INT	4.461	0.271	pCi/g	0.3359	Y	351.7	4	1.286	IDENTIFIED	5.198	☑	UI	
Bismuth-212	✓	1.323	0.2763	pCi/g	0.523	N	726.8	1	1.114	IDENTIFIED	20.43	☐		
Bismuth-214	✓	1.302	0.1001	pCi/g	0.1138	0.200	609	4	1.439	IDENTIFIED	6.497	☐		
Cadmium-109	INT	4.415	0.6245	pCi/g	1.276	Y	87	3	1.385	IDENTIFIED	13.63	☑	UI	

Cerium-143	—	985.4	141.7	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.3636	0.08849	pCi/g	0.2997	N	0	7	0	NOT_IDENTI	0	☐		
Gross Gamma	—	11.23	1.557	pCi/g	4.14	N		0				☐		
Lead-212	✓	1.734	0.0857	pCi/g	0.0976	0.100	238.5	4	1.121	IDENTIFIED	3.44	☐		
Lead-214	✓	1.552	0.1026	pCi/g	0.1171	0.100	351.7	4	1.286	IDENTIFIED	5.198	☐		
Lutetium-177	HE	2.418	0.8128	pCi/g	2.109	N	0	7	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	1.274	0.2231	pCi/g	0.3745	N	87	3	1.385	IDENTIFIED	13.63	☐		
Niobium-95	HE	0.1275	0.03333	pCi/g	0.07681	N	767.3	1	1.251	IDENTIFIED	25.88	☐		
Niobium-97	HE	75600	53370	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.734	0.0857	pCi/g	0.0976	N	238.5	4	1.121	IDENTIFIED	3.44	☐		
Polonium-214	NR	1.552	0.1026	pCi/g	0.1171	N	351.7	4	1.286	IDENTIFIED	5.198	☐		
Polonium-216	NR	1.734	0.0857	pCi/g	0.0976	N	238.5	4	1.121	IDENTIFIED	3.44	☐		
Polonium-218	NR	1.552	0.1026	pCi/g	0.1171	N	351.7	4	1.286	IDENTIFIED	5.198	☐		
Potassium-40	✓	38.69	1.727	pCi/g	0.3156	1.00	1460	1	1.927	IDENTIFIED	2.685	☐		
Radium-224	INT	4.202	0.499	pCi/g	1.111	Y	241.3	1	1.59	IDENTIFIED	11.55	☑	UI	
Radium-226	✓	1.302	0.1001	pCi/g	0.1138	Y	609	4	1.439	IDENTIFIED	6.497	☐		
Radium-228	✓	1.871	0.19	pCi/g	0.237	0.500	910.9	3	1.515	IDENTIFIED	8.544	☐		
Thallium-200	—	475.5	234.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Thallium-208	INT ✓	0.593	0.05441	pCi/g	0.06066	0.080	583	1	1.465	IDENTIFIED	8.45	☐		
Thorium-228	NR	1.76	0.087	pCi/g	0.09908	N	238.5	4	1.121	IDENTIFIED	3.44	☐		
Thorium-230	NR	1.302	0.1001	pCi/g	0.1138	N	609	4	1.439	IDENTIFIED	6.497	☐		
Thorium-232	NR	1.871	0.19	pCi/g	0.237	N	910.9	3	1.515	IDENTIFIED	8.544	☐		
Tin-126	NR	0.4339	0.06138	pCi/g	0.126	N	87	3	1.385	IDENTIFIED	13.63	☐		
Titanium-44	—	0.4111	0.03052	pCi/g	0.08216	N	0	7	0	FAIL_ABUND	0	☐		
Total Uranium	—	5.5072	2.92E-06	ug/g	3.6015	N		0				☐		
Uranium-234	NR	1.302	0.1001	pCi/g	0.1138	N	609	4	1.439	IDENTIFIED	6.497	☐		
Zirconium-97	—	6.02E+06	1.13E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691009	25-JAN-10 12:00	09-FEB-10 15:32	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	✓	1.495	0.1537	pCi/g	0.1672	N	910.9	3	1.975	IDENTIFIED	7.866	☐		
Americium-243	INT	0.3009	0.0548	pCi/g	0.1417	N	75.05	1	1.185	IDENTIFIED	17.73	☐		
Annihilation Rad.	—	0.09763	0.02817	pCi/g	0.03795	N	510.7	1	2.007	IDENTIFIED	28.67	☐		
Bismuth-211	INT	3.701	0.2262	pCi/g	0.2806	Y	351.9	4	1.346	IDENTIFIED	5.202	☑	UI	
Bismuth-212	✓	1.102	0.1903	pCi/g	0.3659	N	726.9	1	2.015	IDENTIFIED	16.53	☐		
Bismuth-214	✓	1.153	0.08338	pCi/g	0.09145	0.200	609.1	4	1.636	IDENTIFIED	5.691	☐		
Cadmium-109	INT	2.47	0.7079	pCi/g	2.287	Y	87.3	3	0.998	IDENTIFIED	28.29	☑	UI	
Cerium-141	—	0.3099	0.04053	pCi/g	0.1349	N	0	14	0	NOT_IDENTI	0	☐		
Cerium-143	—	593.5	98.17	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1101	0.02348	pCi/g	0.07723	0.100	0	14	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Gadolinium-153	—	0.8958	0.09281	pCi/g	0.224	N	0	14	0	FAIL_ABUND	0	☐		
Gold-195	—	2.608	0.2703	pCi/g	0.6725	N	0	14	0	FAIL_ABUND	0	☐		
Gross Gamma	—	17.02	1.946	pCi/g	4.249	N		0				☐		
Iodine-123	HE	1.11E+06	3.30E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Iodine-133	HE	3515	2460	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Krypton-85	HE	12.86	3.39	pCi/g	11.06	N	0	14	0	NOT_IDENTI	0	☐		

Lead-212	✓	1.418	0.06742	pCi/g	0.08208	0.100	238.7	4	1.171	IDENTIFIED	3.14	☐		
Lead-214	✓	1.288	0.08557	pCi/g	0.09779	0.100	351.9	4	1.346	IDENTIFIED	5.202	☐		
Lutetium-177	NR	3.285	0.6569	pCi/g	1.468	N	209.5	1	1.292	IDENTIFIED	19.81	☐		
Neptunium-237	HE	0.7129	0.2172	pCi/g	0.5998	N	87.3	3	0.998	IDENTIFIED	28.29	☐		
Niobium-95	NR	0.3623	0.04343	pCi/g	0.05644	N	766.5	1	1.885	IDENTIFIED	11.08	☐		
Polonium-212	NR	1.418	0.06742	pCi/g	0.08208	N	238.7	4	1.171	IDENTIFIED	3.14	☐		
Polonium-214	NR	1.288	0.08557	pCi/g	0.09779	N	351.9	4	1.346	IDENTIFIED	5.202	☐		
Polonium-216	NR	1.418	0.06742	pCi/g	0.08208	N	238.7	4	1.171	IDENTIFIED	3.14	☐		
Polonium-218	NR	1.288	0.08557	pCi/g	0.09779	N	351.9	4	1.346	IDENTIFIED	5.202	☐		
Potassium-40	✓	25.75	1.174	pCi/g	0.4	1.00	1460	1	2.365	IDENTIFIED	2.528	☐		
Protactinium-234m	✓	97.34	6.985	pCi/g	5.306	N	1001	1	1.98	IDENTIFIED	4.728	☐		
Radium-224	INT	4.245	0.5703	pCi/g	0.9328	Y	241.8	1	1.767	IDENTIFIED	13.14	☑	UI	
Radium-226	✓	1.153	0.08338	pCi/g	0.09145	Y	609.1	4	1.636	IDENTIFIED	5.691	☐		
Radium-228	✓	1.495	0.1537	pCi/g	0.1672	0.500	910.9	3	1.975	IDENTIFIED	7.866	☐		
Rhenium-183	HE	0.3124	0.09374	pCi/g	0.2125	N	0	14	0	FAIL_ABUND	0	☐		
Sodium-24	HE	2.93E+05	3.34E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Strontium-85	LA	0.06596	0.01739	pCi/g	0.05673	Y	0	14	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.45	0.041	pCi/g	0.0478	0.080	582.9	1	1.633	IDENTIFIED	8.226	☐		
Thorium-228	NR	1.439	0.06844	pCi/g	0.08333	N	238.7	4	1.171	IDENTIFIED	3.14	☐		
Thorium-230	NR	1.153	0.08338	pCi/g	0.09145	N	609.1	4	1.636	IDENTIFIED	5.691	☐		
Thorium-232	NR	1.495	0.1537	pCi/g	0.1672	N	910.9	3	1.975	IDENTIFIED	7.866	☐		
Thorium-234	✓	69.57	6.481	pCi/g	3.484	2.00	63.43	2	1.005	IDENTIFIED	3.008	☐		
Tin-126	HE	0.2428	0.06958	pCi/g	0.2289	N	87.3	3	0.998	IDENTIFIED	28.29	☐		
Titanium-44	—	0.3276	0.03434	pCi/g	0.1026	N	0	14	0	FAIL_ABUND	0	☐		
Total Uranium	—	207.56	1.93E-05	ug/g	5.1856	N		0				☐		
Tungsten-181	—	4.533	0.3831	pCi/g	1.258	N	0	14	0	NOT_IDENTI	0	☐		
Uranium-231	NR	4.924	1.187	pCi/g	2.428	N	94.75	1	1.024	IDENTIFIED	23.77	☐		
Uranium-234	NR	1.153	0.08338	pCi/g	0.09145	N	609.1	4	1.636	IDENTIFIED	5.691	☐		
Uranium-235	✓	1.266	0.1974	pCi/g	0.3653	0.500	143.9	1	1.09	IDENTIFIED	13.32	☐		
Uranium-238	NR	69.57	6.481	pCi/g	3.484	N	63.43	2	1.005	IDENTIFIED	3.008	☐		
Zirconium-97	—	4.44E+06	8.67E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691010	25-JAN-10 12:00	09-FEB-10 15:33	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.688	0.1764	pCi/g	0.2211	N	911.7	3	1.74	IDENTIFIED	8.791	☐		
Americium-243	INT	0.4076	0.0507	pCi/g	0.09479	N	74.86	1	1.617	IDENTIFIED	11.79	☐		
Annihilation Rad.	—	0.1661	0.03429	pCi/g	0.04773	N	511	1	1.914	IDENTIFIED	20.43	☐		
Bismuth-211	INT	3.939	0.2566	pCi/g	0.3158	Y	351.8	4	1.214	IDENTIFIED	5.678	☑	UI	
Bismuth-212	HE	0.971	0.2382	pCi/g	0.7034	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.171	0.09309	pCi/g	0.1003	0.200	609.4	4	1.605	IDENTIFIED	6.907	☐		
Cadmium-109	INT	3.495	0.4992	pCi/g	1.397	Y	87.22	3	1.216	IDENTIFIED	13.57	☑	UI	
Cerium-143	—	1061	149.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-135	NR	0.5541	0.1243	pCi/g	0.2468	N	269.7	1	1.332	IDENTIFIED	22.1	☐		
Gross Gamma	—	9.422	1.465	pCi/g	3.777	N		0				☐		
Iodine-123	HE	9.43E+05	3.15E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.645	0.08212	pCi/g	0.09984	0.100	238.6	4	1.317	IDENTIFIED	3.45	☐		

Lead-214	✓	1.37	0.09615	pCi/g	0.1101	0.100	351.8	4	1.214	IDENTIFIED	5.678	☐		
Lutetium-177	HE	2.874	0.7416	pCi/g	2.182	N	0	7	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	1.009	0.1777	pCi/g	0.4312	N	87.22	3	1.216	IDENTIFIED	13.57	☐		
Niobium-95m	HE	0.4	0.08231	pCi/g	0.2651	N	0	7	0	NOT_IDENTI	0	☐		
Polonium-212	NR	1.645	0.08212	pCi/g	0.09984	N	238.6	4	1.317	IDENTIFIED	3.45	☐		
Polonium-214	NR	1.37	0.09615	pCi/g	0.1101	N	351.8	4	1.214	IDENTIFIED	5.678	☐		
Polonium-216	NR	1.645	0.08212	pCi/g	0.09984	N	238.6	4	1.317	IDENTIFIED	3.45	☐		
Polonium-218	NR	1.37	0.09615	pCi/g	0.1101	N	351.8	4	1.214	IDENTIFIED	5.678	☐		
* Potassium-40	✓	28.19	1.339	pCi/g	0.4802	1.00	1461	1	1.858	IDENTIFIED	2.95	☐		
* Radium-224	INT	3.855	0.6542	pCi/g	1.135	Y	241.5	1	1.713	IDENTIFIED	16.73	☑	UI	
* Radium-226	✓	1.171	0.09309	pCi/g	0.1003	Y	609.4	4	1.605	IDENTIFIED	6.907	☐		
* Radium-228	✓	1.688	0.1764	pCi/g	0.2211	0.500	911.7	3	1.74	IDENTIFIED	8.791	☐		
* Thallium-208	✓	0.5848	0.04539	pCi/g	0.05234	0.080	583.2	1	1.548	IDENTIFIED	6.976	☐		
Thorium-228	NR	1.67	0.08337	pCi/g	0.1014	N	238.6	4	1.317	IDENTIFIED	3.45	☐		
Thorium-230	NR	1.171	0.09309	pCi/g	0.1003	N	609.4	4	1.605	IDENTIFIED	6.907	☐		
Thorium-232	NR	1.688	0.1764	pCi/g	0.2211	N	911.7	3	1.74	IDENTIFIED	8.791	☐		
Tin-126	NR	0.3435	0.04907	pCi/g	0.138	N	87.22	3	1.216	IDENTIFIED	13.57	☐		
Titanium-44	—	0.3767	0.03125	pCi/g	0.08825	N	0	7	0	FAIL_ABUND	0	☐		
Total Uranium	—	3.3676	2.98E-06	ug/g	3.1754	N		0				☐		
Uranium-234	NR	1.171	0.09309	pCi/g	0.1003	N	609.4	4	1.605	IDENTIFIED	6.907	☐		
Zirconium-97	—	3.80E+06	1.02E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691011	25-JAN-10 12:00	09-FEB-10 15:33	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	1.961	0.1804	pCi/g	0.2313	N	911.7	3	1.639	IDENTIFIED	6.866	☐	
Americium-243	INT	0.3993	0.03671	pCi/g	0.07662	N	75.01	1	1.086	IDENTIFIED	8.259	☐	
Annihilation Rad.	—	0.14	0.03295	pCi/g	0.04729	N	511.4	1	1.791	IDENTIFIED	23.07	☐	
Antimony-122	HE	3.678	0.9947	pCi/g	3.652	N	0	11	0	NOT_IDENTI	0	☐	
* Bismuth-211	INT	4.238	0.2962	pCi/g	0.3266	Y	352.1	4	1.188	IDENTIFIED	5.099	☑	UI
Bismuth-212	—	1.397	0.2496	pCi/g	0.6907	N	0	11	0	FAIL_ABUND	0	☐	
* Bismuth-214	✓	1.3	0.1107	pCi/g	0.1057	0.200	609.6	4	1.503	IDENTIFIED	6.443	☐	
* Cadmium-109	INT	4.137	0.4948	pCi/g	1.084	Y	87.39	3	1.23	IDENTIFIED	11	☑	UI
Cerium-143	—	495.5	95.32	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1395	0.03646	pCi/g	0.09427	0.100	0	11	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-135	HE	0.3278	0.08011	pCi/g	0.2929	N	0	11	0	NOT_IDENTI	0	☐	
Gross Gamma	—	11.22	1.633	pCi/g	3.969	N		0				☐	
Iodine-123	HE	3.81E+06	2.90E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Iodine-133	HE	5399	2838	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
* Lead-212	✓	1.8	0.1114	pCi/g	0.08945	0.100	238.7	4	1.09	IDENTIFIED	3.171	☐	
* Lead-214	✓	1.474	0.11	pCi/g	0.1034	0.100	352.1	4	1.188	IDENTIFIED	5.099	☐	
Lutetium-177	HE	3.253	0.7972	pCi/g	2.021	N	0	11	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	1.194	0.1886	pCi/g	0.3161	N	87.39	3	1.23	IDENTIFIED	11	☐	
Niobium-97	HE	92420	46780	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.8	0.1114	pCi/g	0.08945	N	238.7	4	1.09	IDENTIFIED	3.171	☐	
Polonium-214	NR	1.474	0.11	pCi/g	0.1034	N	352.1	4	1.188	IDENTIFIED	5.099	☐	
Polonium-216	NR	1.8	0.1114	pCi/g	0.08945	N	238.7	4	1.09	IDENTIFIED	3.171	☐	

Polonium-218	NR	1.474	0.11	pCi/g	0.1034	N	352.1	4	1.188	IDENTIFIED	5.099	☐		
Potassium-40	✓	35.74	1.803	pCi/g	0.5256	1.00	1461	1	1.975	IDENTIFIED	2.535	☐		
Radium-224	INT	5.042	0.7791	pCi/g	1.018	Y	241.5	1	1.944	IDENTIFIED	14.68	☑	UI	
Radium-226	✓	1.3	0.1107	pCi/g	0.1057	Y	609.6	4	1.503	IDENTIFIED	6.443	☐		
Radium-228	✓	1.961	0.1804	pCi/g	0.2313	0.500	911.7	3	1.639	IDENTIFIED	6.866	☐		
Sodium-24	HE	4.62E+05	3.17E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.6083	0.05145	pCi/g	0.0545	0.080	583.6	1	1.248	IDENTIFIED	6.716	☐		
Thorium-228	NR	1.827	0.1131	pCi/g	0.09081	N	238.7	4	1.09	IDENTIFIED	3.171	☐		
Thorium-230	NR	1.3	0.1107	pCi/g	0.1057	N	609.6	4	1.503	IDENTIFIED	6.443	☐		
Thorium-232	NR	1.961	0.1804	pCi/g	0.2313	N	911.7	3	1.639	IDENTIFIED	6.866	☐		
Tin-126	NR	0.4066	0.04863	pCi/g	0.1069	N	87.39	3	1.23	IDENTIFIED	11	☐		
Titanium-44	—	0.4088	0.02731	pCi/g	0.07493	N	0	11	0	FAIL_ABUND	0	☐		
Total Uranium	—	4.2353	2.05E-06	ug/g	2.5346	N		0				☐		
Uranium-234	NR	1.3	0.1107	pCi/g	0.1057	N	609.6	4	1.503	IDENTIFIED	6.443	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691012	25-JAN-10 12:00	09-FEB-10 15:33	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)		Qual	Qual Comment
Actinium-228	—	1.376	0.1622	pCi/g	0.4691	N	0	13	0	FAIL_ABUND	0	☐	
Americium-243	INT	0.391	0.05287	pCi/g	0.1115	N	74.73	1	1.418	IDENTIFIED	12.77	☐	
Annihilation Rad.	HE	0.08224	0.03223	pCi/g	0.05209	N	510.3	1	1.277	IDENTIFIED	39.09	☐	
Barium-137m	—	0.2676	0.028	pCi/g	0.1124	N	0	13	0	NOT_IDENTI	0	☐	
Bismuth-211	INT	4.249	0.2807	pCi/g	0.3398	Y	351.5	4	1.363	IDENTIFIED	5.747	☑	UI
Bismuth-212	✓	1.374	0.2548	pCi/g	0.5042	N	726.7	1	1.923	IDENTIFIED	18.11	☐	
Bismuth-214	✓	1.126	0.09111	pCi/g	0.119	0.200	608.7	4	1.567	IDENTIFIED	7.163	☐	
Cadmium-109	INT	2.836	0.4479	pCi/g	1.434	Y	87.05	3	1.248	IDENTIFIED	15.03	☑	UI
Cerium-143	—	1132	156.6	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cesium-137	LA	0.2829	0.02961	pCi/g	0.1188	0.100	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	8.034	1.177	pCi/g	2.86	N		0				☐	
Iodine-123	HE	1.48E+06	3.17E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.72E+15	2.96E+15	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.472	0.0765	pCi/g	0.102	0.100	238.3	4	1.285	IDENTIFIED	3.752	☐	
Lead-214	✓	1.478	0.105	pCi/g	0.1184	0.100	351.5	4	1.363	IDENTIFIED	5.747	☐	
Lutetium-177	HE	2.534	0.6615	pCi/g	2.139	N	0	13	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	0.8185	0.1544	pCi/g	0.4156	N	87.05	3	1.248	IDENTIFIED	15.03	☐	
Niobium-95m	—	0.4549	0.08542	pCi/g	0.2795	N	0	13	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.472	0.0765	pCi/g	0.102	N	238.3	4	1.285	IDENTIFIED	3.752	☐	
Polonium-214	NR	1.478	0.105	pCi/g	0.1184	N	351.5	4	1.363	IDENTIFIED	5.747	☐	
Polonium-216	NR	1.472	0.0765	pCi/g	0.102	N	238.3	4	1.285	IDENTIFIED	3.752	☐	
Polonium-218	NR	1.478	0.105	pCi/g	0.1184	N	351.5	4	1.363	IDENTIFIED	5.747	☐	
Potassium-40	✓	19.66	1.082	pCi/g	0.669	1.00	1459	1	2.406	IDENTIFIED	4.032	☐	
Radium-224	INT	4.333	0.5763	pCi/g	1.16	Y	241.4	1	1.728	IDENTIFIED	13	☑	UI
Radium-226	✓	1.126	0.09111	pCi/g	0.119	Y	608.7	4	1.567	IDENTIFIED	7.163	☐	
Radium-228	LA	1.376	0.1622	pCi/g	0.4691	0.500	0	13	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Sodium-24	HE	1.81E+05	3.76E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4514	0.04452	pCi/g	0.05955	0.080	582.6	1	1.407	IDENTIFIED	9.315	☐	
Thorium-228	NR	1.495	0.07766	pCi/g	0.1035	N	238.3	4	1.285	IDENTIFIED	3.752	☐	

Thorium-230	NR	1.126	0.09111	pCi/g	0.119	N	608.7	4	1.567	IDENTIFIED	7.163	☐		
Thorium-232	—	1.376	0.1622	pCi/g	0.4691	N	0	13	0	FAIL_ABUND	0	☐		
Thorium-234	✓	4.762	1.161	pCi/g	2.889	2.00	63.17	2	1.148	IDENTIFIED	22.65	☐		
Tin-126	NR	0.2787	0.04402	pCi/g	0.1418	N	87.05	3	1.248	IDENTIFIED	15.03	☐		
Titanium-44	—	0.3696	0.0331	pCi/g	0.09529	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium	—	14.279	3.45E-06	ug/g	4.3005	N		0				☐		
Uranium-234	NR	1.126	0.09111	pCi/g	0.119	N	608.7	4	1.567	IDENTIFIED	7.163	☐		
Uranium-238	HE	4.762	1.161	pCi/g	2.889	N	63.17	2	1.148	IDENTIFIED	22.65	☐		
Zirconium-97	—	5.94E+06	1.28E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691013	25-JAN-10 12:00	09-FEB-10 17:37	15.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.574	0.1598	pCi/g	0.1888	N	910.9	3	2.078	IDENTIFIED	7.698	☐		
Americium-243	INT	0.3303	0.03878	pCi/g	0.09693	N	75.01	1	0.9572	IDENTIFIED	10.97	☐		
Annihilation Rad.	—	0.1216	0.03014	pCi/g	0.03966	N	510.7	1	2.193	IDENTIFIED	24.55	☐		
Bismuth-211	INT	3.962	0.2395	pCi/g	0.2825	Y	351.9	4	1.249	IDENTIFIED	5.123	☑	UJ	
Bismuth-212	✓	1.164	0.1947	pCi/g	0.5656	N	0	12	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.161	0.08482	pCi/g	0.09719	0.200	609.1	4	1.368	IDENTIFIED	5.785	☐		
Cadmium-109	INT	2.612	0.5297	pCi/g	1.535	Y	87.33	3	1.226	IDENTIFIED	19.75	☑	UJ	
Cerium-143	—	799.4	115.9	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.0766	0.02151	pCi/g	0.07596	0.100	0	12	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	10.33	1.449	pCi/g	2.608	N		0				☐		
Iodine-123	HE	1.23E+06	2.86E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Iodine-133	HE	340.4	2737	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Iodine-135	HE	1.32E+14	3.18E+15	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Krypton-85	—	19.96	3.668	pCi/g	12.35	N	0	12	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.787	0.08052	pCi/g	0.08034	0.100	238.7	4	1.209	IDENTIFIED	2.745	☐		
Lead-214	✓	1.378	0.09075	pCi/g	0.09844	0.100	351.9	4	1.249	IDENTIFIED	5.123	☐		
Mercury-203	INT	0.07237	0.02814	pCi/g	0.05487	0.100	277.8	1	2.017	IDENTIFIED	38.77	☑	UJ	
Neptunium-237	NR	0.7538	0.1715	pCi/g	0.4095	N	87.33	3	1.226	IDENTIFIED	19.75	☐		
Niobium-97	HE	64100	42730	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.787	0.08052	pCi/g	0.08034	N	238.7	4	1.209	IDENTIFIED	2.745	☐		
Polonium-214	NR	1.378	0.09075	pCi/g	0.09844	N	351.9	4	1.249	IDENTIFIED	5.123	☐		
Polonium-216	NR	1.787	0.08052	pCi/g	0.08034	N	238.7	4	1.209	IDENTIFIED	2.745	☐		
Polonium-218	NR	1.378	0.09075	pCi/g	0.09844	N	351.9	4	1.249	IDENTIFIED	5.123	☐		
Potassium-40	✓	36.95	1.613	pCi/g	0.4605	1.00	1460	1	2.4	IDENTIFIED	2.154	☐		
Radium-224	INT	4.758	0.5795	pCi/g	0.913	Y	241.7	1	1.767	IDENTIFIED	11.86	☑	UJ	
Radium-226	✓	1.161	0.08482	pCi/g	0.09719	Y	609.1	4	1.368	IDENTIFIED	5.785	☐		
Radium-228	✓	1.574	0.1598	pCi/g	0.1888	0.500	910.9	3	2.078	IDENTIFIED	7.698	☐		
Strontium-85	LA	0.1025	0.01883	pCi/g	0.06339	Y	0	12	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	8.687	200.7	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5316	0.03892	pCi/g	0.05034	0.080	583.1	1	1.67	IDENTIFIED	6.184	☐		
Thorium-228	NR	1.815	0.08175	pCi/g	0.08157	N	238.7	4	1.209	IDENTIFIED	2.745	☐		
Thorium-230	NR	1.161	0.08482	pCi/g	0.09719	N	609.1	4	1.368	IDENTIFIED	5.785	☐		
Thorium-232	NR	1.574	0.1598	pCi/g	0.1888	N	910.9	3	2.078	IDENTIFIED	7.698	☐		
Thorium-234	✓	2.688	1.091	pCi/g	2.504	2.00	63.37	2	1.169	IDENTIFIED	39.62	☐		

Tin-126	NR	0.2567	0.05206	pCi/g	0.1409	N	87.33	3	1.226	IDENTIFIED	19.75	☐		
Titanium-44	—	0.3815	0.02809	pCi/g	0.08625	N	0	12	0	FAIL_ABUND	0	☐		
Total Uranium	—	8.0523	3.25E-06	ug/g	3.7271	N		0				☐		
Uranium-234	NR	1.161	0.08482	pCi/g	0.09719	N	609.1	4	1.368	IDENTIFIED	5.785	☐		
Uranium-238	HE	2.688	1.091	pCi/g	2.504	N	63.37	2	1.169	IDENTIFIED	39.62	☐		
Zirconium-97	—	6.02E+06	9.90E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245691014	25-JAN-10 12:00	09-FEB-10 17:27	15.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.545	0.1968	pCi/g	0.2954	N	910.6	3	1.541	IDENTIFIED	11.41	☐		
Americium-243	INT	0.3652	0.0313	pCi/g	0.06042	N	74.85	1	1.045	IDENTIFIED	7.045	☐		
Annihilation Rad.	—	0.1481	0.04677	pCi/g	0.05312	N	510.8	1	2.03	IDENTIFIED	31.27	☐		
Barium-137m	HE	0.08541	0.02867	pCi/g	0.07378	N	661.2	2	1.449	IDENTIFIED	33.3	☐		
Bismuth-210	HE	1.629	0.4757	pCi/g	0.8419	N	46.47	3	0.9661	IDENTIFIED	28.69	☐		
Bismuth-211	INT	3.957	0.329	pCi/g	0.3605	Y	351.6	4	1.218	IDENTIFIED	6.882	☑	UI	
Bismuth-212	—	1.477	0.2824	pCi/g	0.7848	N	0	6	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.165	0.1174	pCi/g	0.1332	0.200	609	4	1.426	IDENTIFIED	8.698	☐		
Cadmium-109	INT	3.825	0.4724	pCi/g	1.019	Y	87.23	3	1.171	IDENTIFIED	11.35	☑	UI	
Cerium-143	—	635	116	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Cesium-135	INT	0.6095	0.1258	pCi/g	0.2585	N	269.7	1	1.055	IDENTIFIED	19.97	☐		
Cesium-137	✓	0.09028	0.03031	pCi/g	0.07799	0.100	661.2	2	1.449	IDENTIFIED	33.3	☐		
Gross Gamma	—	8.591	1.167	pCi/g	3.117	N		0				☐		
Iodine-123	HE	3.06E+06	3.36E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		
Lead-210	HE	1.629	0.4757	pCi/g	0.8419	N	46.47	3	0.9661	IDENTIFIED	28.69	☐		
Lead-212	✓	1.34	0.09516	pCi/g	0.1121	0.100	238.5	4	1.065	IDENTIFIED	5.002	☐		
Lead-214	✓	1.377	0.1199	pCi/g	0.1257	0.100	351.6	4	1.218	IDENTIFIED	6.882	☐		
Lutetium-177	HE	4.25	1.03	pCi/g	2.268	N	0	6	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	1.104	0.1776	pCi/g	0.2928	N	87.23	3	1.171	IDENTIFIED	11.35	☐		
Polonium-210	HE	1.629	0.4746	pCi/g	0.8419	N	46.47	3	0.9661	IDENTIFIED	28.69	☐		
Polonium-212	NR	1.34	0.09516	pCi/g	0.1121	N	238.5	4	1.065	IDENTIFIED	5.002	☐		
Polonium-214	NR	1.377	0.1199	pCi/g	0.1257	N	351.6	4	1.218	IDENTIFIED	6.882	☐		
Polonium-216	NR	1.34	0.09516	pCi/g	0.1121	N	238.5	4	1.065	IDENTIFIED	5.002	☐		
Polonium-218	NR	1.377	0.1199	pCi/g	0.1257	N	351.6	4	1.218	IDENTIFIED	6.882	☐		
Potassium-40	✓	24.25	1.451	pCi/g	0.7172	1.00	1460	1	2.013	IDENTIFIED	4.009	☐		
Radium-224	INT	3.036	0.5013	pCi/g	1.408	Y	241.6	1	1.232	IDENTIFIED	15.88	☑	UI	
Radium-226	✓	1.165	0.1174	pCi/g	0.1332	Y	609	4	1.426	IDENTIFIED	8.698	☐		
Radium-228	✓	1.545	0.1968	pCi/g	0.2954	0.500	910.6	3	1.541	IDENTIFIED	11.41	☐		
Thallium-208	✓	0.4485	0.04838	pCi/g	0.07116	0.080	582.7	1	1.431	IDENTIFIED	9.694	☐		
Thorium-228	NR	1.361	0.09661	pCi/g	0.1139	N	238.5	4	1.065	IDENTIFIED	5.002	☐		
Thorium-230	NR	1.165	0.1173	pCi/g	0.1332	N	609	4	1.426	IDENTIFIED	8.698	☐		
Thorium-232	NR	1.545	0.1968	pCi/g	0.2954	N	910.6	3	1.541	IDENTIFIED	11.41	☐		
Thorium-234	✓	3.585	0.6845	pCi/g	1.035	2.00	63.2	2	0.8312	IDENTIFIED	16.66	☐		
Tin-126	NR	0.3759	0.04643	pCi/g	0.1	N	87.23	3	1.171	IDENTIFIED	11.35	☐		
Titanium-44	—	0.3715	0.02632	pCi/g	0.06381	N	0	6	0	FAIL_ABUND	0	☐		
Total Uranium	—	10.734	2.04E-06	ug/g	1.5428	N		0				☐		
Uranium-234	NR	1.165	0.1173	pCi/g	0.1332	N	609	4	1.426	IDENTIFIED	8.698	☐		

Uranium-238	NR	3.585	0.6845	pCi/g	1.035	N	63.2	2	0.8312	IDENTIFIED	16.66	☐		
Zirconium-97	—	3.34E+06	1.26E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202028548		09-FEB-10 17:28	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-133	HE	0.1727	8.21	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.76E+07	1.64E+08	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Niobium-97	HE	71.99	53.21	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Sodium-24	HE	66.58	190.9	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-200	HE	2.707	1.628	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Zirconium-97	HE	587	1021	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202028549	25-JAN-10 12:00	09-FEB-10 17:44	15.2	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228		1.399	0.1465	pCi/g	0.1732	N	910.3	3	1.509	IDENTIFIED	8.458	☐	
Americium-243		0.3308	0.04107	pCi/g	0.101	N	74.55	1	1.053	IDENTIFIED	11.14	☐	
Annihilation Rad.	HE	0.05725	0.0273	pCi/g	0.04025	N	510.1	1	1.693	IDENTIFIED	47.57	☐	
Barium-137m		0.2817	0.02689	pCi/g	0.04998	N	660.9	2	1.646	IDENTIFIED	9.219	☐	
Bismuth-211		3.466	0.2442	pCi/g	0.2713	Y	351.5	4	1.147	IDENTIFIED	6.03	☐	
Bismuth-212	—	1.209	0.2109	pCi/g	0.5948	N	0	11	0	FAIL_ABUND	0	☐	
Bismuth-214		1.07	0.07971	pCi/g	0.08943	0.200	608.7	4	1.271	IDENTIFIED	6.404	☐	
Cadmium-109		3.995	0.5629	pCi/g	1.155	Y	86.8	3	1.362	IDENTIFIED	12.91	☐	
Cerium-143	—	947.3	132.9	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-137		0.2978	0.02844	pCi/g	0.05283	0.100	660.9	2	1.646	IDENTIFIED	9.219	☐	
Gross Gamma	—	8.372	1.196	pCi/g	3.076	N		0				☐	
Iodine-123	HE	1.21E+06	2.94E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2812	2875	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.07E+15	3.35E+15	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Lead-212		1.37	0.06998	pCi/g	0.07945	0.100	238.2	4	1.191	IDENTIFIED	3.425	☐	
Lead-214		1.206	0.0906	pCi/g	0.09455	0.100	351.5	4	1.147	IDENTIFIED	6.03	☐	
Lutetium-177	HE	2.551	0.6413	pCi/g	1.801	N	0	11	0	FAIL_ABUND	0	☐	
Neptunium-237		1.153	0.2013	pCi/g	0.3419	N	86.8	3	1.362	IDENTIFIED	12.91	☐	
Niobium-95m	HE	0.2469	0.06142	pCi/g	0.2098	N	0	11	0	NOT_IDENTI	0	☐	
Niobium-97	—	1.24E+05	57360	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.37	0.06998	pCi/g	0.07945	N	238.2	4	1.191	IDENTIFIED	3.425	☐	
Polonium-214	NR	1.206	0.0906	pCi/g	0.09455	N	351.5	4	1.147	IDENTIFIED	6.03	☐	
Polonium-216	NR	1.37	0.06998	pCi/g	0.07945	N	238.2	4	1.191	IDENTIFIED	3.425	☐	
Polonium-218	NR	1.206	0.0906	pCi/g	0.09455	N	351.5	4	1.147	IDENTIFIED	6.03	☐	
Potassium-40		19.5	1.074	pCi/g	3.085	1.00	0	11	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Radium-224		4.103	0.5677	pCi/g	0.9038	Y	241.3	1	1.809	IDENTIFIED	13.49	☐	
Radium-226		1.07	0.07971	pCi/g	0.08943	Y	608.7	4	1.271	IDENTIFIED	6.404	☐	
Radium-228		1.399	0.1465	pCi/g	0.1732	0.500	910.3	3	1.509	IDENTIFIED	8.458	☐	
Thallium-208		0.4539	0.0374	pCi/g	0.04723	0.080	582.5	1	1.47	IDENTIFIED	7.522	☐	
Thorium-228		1.391	0.07105	pCi/g	0.08067	N	238.2	4	1.191	IDENTIFIED	3.425	☐	
Thorium-230		1.07	0.07971	pCi/g	0.08943	N	608.7	4	1.271	IDENTIFIED	6.404	☐	

2/02/10/10

Uranium-238		3.585	0.6845	pCi/g	1.035	N	63.2	2	0.8312	IDENTIFIED	16.66	☐	
Zirconium-97		3.34E+06	1.26E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202028548		09-FEB-10 17:28	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-133	HE	0.1727	8.21	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.76E+07	1.64E+08	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Niobium-97	HE	71.99	53.21	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Sodium-24	HE	66.58	190.9	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Thallium-200	HE	2.707	1.628	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Zirconium-97	HE	587	1021	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

2/10/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202028549	25-JAN-10 12:00	09-FEB-10 17:44	15.2	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	1.399	0.1465	pCi/g	0.1732	N	910.3	3	1.509	IDENTIFIED	8.458	☐	
Americium-243	INT	0.3308	0.04107	pCi/g	0.101	N	74.55	1	1.053	IDENTIFIED	11.14	☐	
Annihilation Rad.	HE	0.05725	0.0273	pCi/g	0.04025	N	510.1	1	1.693	IDENTIFIED	47.57	☐	
Barium-137m	NR	0.2817	0.02689	pCi/g	0.04998	N	660.9	2	1.646	IDENTIFIED	9.219	☐	
Bismuth-211	INT	3.466	0.2442	pCi/g	0.2713	Y	351.5	4	1.147	IDENTIFIED	6.03	☑	UJ
Bismuth-212	—	1.209	0.2109	pCi/g	0.5948	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.07	0.07971	pCi/g	0.08943	0.200	608.7	4	1.271	IDENTIFIED	6.404	☐	
Cadmium-109	INT	3.995	0.5629	pCi/g	1.155	Y	86.8	3	1.362	IDENTIFIED	12.91	☑	UJ
Cerium-143	—	1350	172.8	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-135	NR	0.4609	0.091	pCi/g	0.2259	N	269.8	1	2.011	IDENTIFIED	19.33	☐	
Cesium-137	✓	0.2978	0.02844	pCi/g	0.05283	0.100	660.9	2	1.646	IDENTIFIED	9.219	☐	
Gross Gamma	—	8.372	1.196	pCi/g	3.076	N		0				☐	
Iodine-123	HE	1.21E+06	2.94E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2812	2875	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	4.07E+15	3.35E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.37	0.06998	pCi/g	0.07945	0.100	238.2	4	1.191	IDENTIFIED	3.425	☐	
Lead-214	✓	1.206	0.0906	pCi/g	0.09455	0.100	351.5	4	1.147	IDENTIFIED	6.03	☐	
Lutetium-177	HE	2.551	0.6413	pCi/g	1.801	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	1.153	0.2013	pCi/g	0.3419	N	86.8	3	1.362	IDENTIFIED	12.91	☐	
Niobium-95m	HE	0.2469	0.06142	pCi/g	0.2098	N	0	10	0	NOT_IDENTI	0	☐	
Niobium-97	—	1.24E+05	57360	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.37	0.06998	pCi/g	0.07945	N	238.2	4	1.191	IDENTIFIED	3.425	☐	
Polonium-214	NR	1.206	0.0906	pCi/g	0.09455	N	351.5	4	1.147	IDENTIFIED	6.03	☐	
Polonium-216	NR	1.37	0.06998	pCi/g	0.07945	N	238.2	4	1.191	IDENTIFIED	3.425	☐	
Polonium-218	NR	1.206	0.0906	pCi/g	0.09455	N	351.5	4	1.147	IDENTIFIED	6.03	☐	
Potassium-40	✓	20.96	1.179	pCi/g	0.4805	1.00	1459	1	2.242	IDENTIFIED	3.614	☐	
Radium-224	INT	4.103	0.5677	pCi/g	0.9038	Y	241.3	1	1.809	IDENTIFIED	13.49	☑	UJ
Radium-226	✓	1.07	0.07971	pCi/g	0.08943	Y	608.7	4	1.271	IDENTIFIED	6.404	☐	
Radium-228	✓	1.399	0.1465	pCi/g	0.1732	0.500	910.3	3	1.509	IDENTIFIED	8.458	☐	
Thallium-208	✓	0.4539	0.0374	pCi/g	0.04723	0.080	582.5	1	1.47	IDENTIFIED	7.522	☐	
Thorium-228	NR	1.391	0.07105	pCi/g	0.08067	N	238.2	4	1.191	IDENTIFIED	3.425	☐	

Thorium-230	NL	1.07	0.07971	pCi/g	0.08943	N	608.7	4	1.271	IDENTIFIED	6.404	☐		
Thorium-232	NL	1.399	0.1465	pCi/g	0.1732	N	910.3	3	1.509	IDENTIFIED	8.458	☐		
Thorium-234	✓	5.506	1.37	pCi/g	2.683	2.00	63.03	2	0.75	IDENTIFIED	22.85	☐		
Tin-126	NL	0.3926	0.05532	pCi/g	0.1144	N	86.8	3	1.362	IDENTIFIED	12.91	☐		
Titanium-44	—	0.121	0.0214	pCi/g	0.07267	N	0	10	0	NOT_IDENTI	0	☐		
Total Uranium	✓	16.403	4.08E-06	ug/g	3.9941	N		0				☐		
Uranium-234	NL	1.07	0.07971	pCi/g	0.08943	N	608.7	4	1.271	IDENTIFIED	6.404	☐		
Uranium-238	NL	5.506	1.37	pCi/g	2.683	N	63.03	2	0.75	IDENTIFIED	22.85	☐		
Zirconium-97	✓	4.64E+06	1.03E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202020550		09-FEB-10 17:44	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	HE	0.9877	0.2579	pCi/g	0.5367	N	912	3	1.428	IDENTIFIED	25.5	☐	
Americium-241		13.22	0.6722	pCi/g	0.5421	0.200	59.51	1	1.249	IDENTIFIED	2.987	☐	
Americium-243		0.3239	0.0483	pCi/g	0.1484	N	74.86	1	1.543	IDENTIFIED	14.38	☐	
Annihilation Rad.	HE	0.0952	0.06079	pCi/g	0.09274	N	510.8	1	1.844	IDENTIFIED	63.79	☐	
Barium-137m		5.234	0.1984	pCi/g	0.1132	N	661.7	2	1.587	IDENTIFIED	2.428	☐	
Bismuth-211		2.176	0.321	pCi/g	0.6334	Y	351.7	1	1.418	IDENTIFIED	14.4	☐	
Bismuth-214		0.5371	0.1022	pCi/g	0.2191	0.200	609.5	4	1.671	IDENTIFIED	18.62	☐	
Cadmium-109		31.23	1.932	pCi/g	2.365	Y	88.09	2	1.404	IDENTIFIED	4.275	☐	
Cerium-143	HE	23.25	5.426	pCi/g	18.86	N	0	13	0	FAIL_ABUND	0	☐	
Cesium-137		5.533	0.2103	pCi/g	0.1196	0.100	661.7	2	1.587	IDENTIFIED	2.428	☐	
Cobalt-57		0.2394	0.03644	pCi/g	0.06811	N	122.2	1	1.243	IDENTIFIED	14.93	☐	
Cobalt-60		6.714	0.296	pCi/g	0.07984	0.100	1333	1	1.936	IDENTIFIED	2.421	☐	
Gross Gamma		26.64	2.637	pCi/g	4.474	N		0				☐	
Lead-212		0.9169	0.1029	pCi/g	0.2094	0.100	238.4	4	1.221	IDENTIFIED	10.62	☐	
Lead-214		0.7571	0.1134	pCi/g	0.3231	0.100	0	13	0	FAIL_ABUND	0	☐	
Lutetium-177	HE	2.097	0.5907	pCi/g	1.799	N	0	13	0	FAIL_ABUND	0	☐	
Neptunium-237		6.936	0.8362	pCi/g	1.267	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-97		1182	220.8	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212		0.9169	0.1029	pCi/g	0.2094	N	238.4	4	1.221	IDENTIFIED	10.62	☐	
Polonium-214		0.7571	0.1134	pCi/g	0.3231	N	0	13	0	FAIL_ABUND	0	☐	
Polonium-216		0.9169	0.1029	pCi/g	0.2094	N	238.4	4	1.221	IDENTIFIED	10.62	☐	
Polonium-218		0.7571	0.1134	pCi/g	0.3231	N	0	13	0	FAIL_ABUND	0	☐	
Radium-224		5.862	0.7925	pCi/g	2.732	Y	0	13	0	NOT_IDENTI	0	☐	
Radium-226		0.5371	0.1022	pCi/g	0.2191	Y	609.5	4	1.671	IDENTIFIED	18.62	☐	
Radium-228		0.9877	0.2579	pCi/g	0.5367	0.500	912	3	1.428	IDENTIFIED	25.5	☐	
Silver-110m	HE	0.1732	0.04064	pCi/g	0.1396	N	0	13	0	NOT_IDENTI	0	☐	
Sodium-24	HE	414.7	342.2	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.29E+08	6.53E+08	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208		0.3375	0.07504	pCi/g	0.1087	0.080	583.6	1	2.143	IDENTIFIED	21.97	☐	
Thorium-228		0.9249	0.1038	pCi/g	0.2112	N	238.4	4	1.221	IDENTIFIED	10.62	☐	
Thorium-230		0.5371	0.1022	pCi/g	0.2191	N	609.5	4	1.671	IDENTIFIED	18.62	☐	
Thorium-232	HE	0.9877	0.2579	pCi/g	0.5367	N	912	3	1.428	IDENTIFIED	25.5	☐	
Tin-126		3.099	0.1917	pCi/g	0.2357	N	88.09	2	1.404	IDENTIFIED	4.275	☐	
Titanium-44		0.2576	0.04278	pCi/g	0.1161	N	0	13	0	FAIL_ABUND	0	☐	

Thorium-232	1.399	0.1465	pCi/g	0.1732	N	910.3	3	1.509	IDENTIFIED	8.458	☐		
Thorium-234	5.506	1.37	pCi/g	2.683	2.00	63.03	2	0.75	IDENTIFIED	22.85	☐		
Tin-126	0.3926	0.05532	pCi/g	0.1144	N	86.8	3	1.362	IDENTIFIED	12.91	☐		
Titanium-44	0.121	0.0214	pCi/g	0.07267	N	0	11	0	NOT_IDENTI	0	☐		
Total Uranium	16.403	4.08E-06	ug/g	3.9941	N		0				☐		
Uranium-234	1.07	0.07971	pCi/g	0.08943	N	608.7	4	1.271	IDENTIFIED	6.404	☐		
Uranium-238	5.506	1.37	pCi/g	2.683	N	63.03	2	0.75	IDENTIFIED	22.85	☐		
Zirconium-97	4.64E+06	1.03E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

2/10/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202028550		09-FEB-10 17:44	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	HE	0.9877	0.2579	pCi/g	0.5367	N	912	3	1.428	IDENTIFIED	25.5	☐	
Americium-241	✓	13.22	0.6722	pCi/g	0.5421	0.200	59.51	1	1.249	IDENTIFIED	2.987	☐	
Americium-243		0.3239	0.0483	pCi/g	0.1484	N	74.86	1	1.543	IDENTIFIED	14.38	☐	
Annihilation Rad.	HE	0.0952	0.06079	pCi/g	0.09274	N	510.8	1	1.844	IDENTIFIED	63.79	☐	
Barium-137m		5.234	0.1984	pCi/g	0.1132	N	661.7	2	1.587	IDENTIFIED	2.428	☐	
Bismuth-211		2.176	0.321	pCi/g	0.6334	Y	351.7	1	1.418	IDENTIFIED	14.4	☐	
Bismuth-214		0.5371	0.1022	pCi/g	0.2191	0.200	609.5	4	1.671	IDENTIFIED	18.62	☐	
Cadmium-109		31.23	1.932	pCi/g	2.365	Y	88.09	2	1.404	IDENTIFIED	4.275	☐	
Cerium-143	HE	23.25	5.426	pCi/g	18.86	N	0	13	0	FAIL_ABUND	0	☐	
Cesium-137	✓	5.533	0.2103	pCi/g	0.1196	0.100	661.7	2	1.587	IDENTIFIED	2.428	☐	
Cobalt-57		0.2394	0.03644	pCi/g	0.06811	N	122.2	1	1.243	IDENTIFIED	14.93	☐	
Cobalt-60	✓	6.714	0.296	pCi/g	0.07984	0.100	1333	1	1.936	IDENTIFIED	2.421	☐	
Gross Gamma		26.64	2.637	pCi/g	4.474	N		0				☐	
Lead-212		0.9169	0.1029	pCi/g	0.2094	0.100	238.4	4	1.221	IDENTIFIED	10.62	☐	
Lead-214		0.7571	0.1134	pCi/g	0.3231	0.100	0	13	0	FAIL_ABUND	0	☐	
Lutetium-177	HE	2.097	0.5907	pCi/g	1.799	N	0	13	0	FAIL_ABUND	0	☐	
Neptunium-237		6.936	0.8362	pCi/g	1.267	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-97		1182	220.8	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212		0.9169	0.1029	pCi/g	0.2094	N	238.4	4	1.221	IDENTIFIED	10.62	☐	
Polonium-214		0.7571	0.1134	pCi/g	0.3231	N	0	13	0	FAIL_ABUND	0	☐	
Polonium-216		0.9169	0.1029	pCi/g	0.2094	N	238.4	4	1.221	IDENTIFIED	10.62	☐	
Polonium-218		0.7571	0.1134	pCi/g	0.3231	N	0	13	0	FAIL_ABUND	0	☐	
Radium-224		5.862	0.7925	pCi/g	2.732	Y	0	13	0	NOT_IDENTI	0	☐	
Radium-226		0.5371	0.1022	pCi/g	0.2191	Y	609.5	4	1.671	IDENTIFIED	18.62	☐	
Radium-228		0.9877	0.2579	pCi/g	0.5367	0.500	912	3	1.428	IDENTIFIED	25.5	☐	
Silver-110m	HE	0.1732	0.04064	pCi/g	0.1396	N	0	13	0	NOT_IDENTI	0	☐	
Sodium-24	HE	414.7	342.2	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.29E+08	6.53E+08	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208		0.3375	0.07504	pCi/g	0.1087	0.080	583.6	1	2.143	IDENTIFIED	21.97	☐	
Thorium-228		0.9249	0.1038	pCi/g	0.2112	N	238.4	4	1.221	IDENTIFIED	10.62	☐	
Thorium-230		0.5371	0.1022	pCi/g	0.2191	N	609.5	4	1.671	IDENTIFIED	18.62	☐	
Thorium-232	HE	0.9877	0.2579	pCi/g	0.5367	N	912	3	1.428	IDENTIFIED	25.5	☐	
Tin-126		3.099	0.1917	pCi/g	0.2357	N	88.09	2	1.404	IDENTIFIED	4.275	☐	
Titanium-44		0.2576	0.04278	pCi/g	0.1161	N	0	13	0	FAIL_ABUND	0	☐	
Uranium-234		0.5371	0.1022	pCi/g	0.2191	N	609.5	4	1.671	IDENTIFIED	18.62	☐	

Zirconium-97	HE	3796	3397	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
947037	245691014	SAMPLE	09-FEB-10	Lead-212	1.34	0.09516	pCi/g	0.05611	0.100
				Lead-214	1.377	0.1199	pCi/g	0.06288	0.100
				Potassium-40	24.25	1.451	pCi/g	0.3588	1.00
				Protactinium-234m	7.304	3.134	pCi/g	5.731	N
				Radium-224	3.036	0.5013	pCi/g	0.7048	Y
				Radium-226	1.165	0.1174	pCi/g	0.06666	Y
				Radium-228	1.545	0.1968	pCi/g	0.1478	0.500
				Radon-220	37.98	14.01	pCi/g	26.02	N
				Thallium-208	0.4485	0.04838	pCi/g	0.0356	0.080
				Thorium-234	3.585	0.6845	pCi/g	0.5177	2.00
				Zirconium-97	3.34E+06	1.26E+06	pCi/g	0	N
947037	1202028548	MB	09-FEB-10	Bismuth-214	0.03933	0.02474	pCi/g	0.03828	0.200
				Iodine-135	1.76E+07	1.64E+08	pCi/g	0	N
				Niobium-97	71.99	53.21	pCi/g	0	N
				Potassium-40	0.2684	0.1305	pCi/g	0.2664	1.00
				Radium-224	0.1786	0.2405	pCi/g	0.1619	Y
				Radium-226	0.03933	0.02474	pCi/g	0.03828	Y
				Sodium-24	66.58	190.9	pCi/g	0	N
				Strontium-85	0.01957	0.01073	pCi/g	0.01886	Y
				Zirconium-97	587	1021	pCi/g	0	N
947037	1202028549	DUP	09-FEB-10	Bismuth-211	3.466	0.2442	pCi/g	0.1357	Y
				Bismuth-214	1.07	0.07971	pCi/g	0.04474	0.200
				Cadmium-109	3.995	0.5629	pCi/g	0.578	Y
				Cerium-143	1350	172.8	pCi/g	0	N
				Cesium-137	0.2978	0.02844	pCi/g	0.02643	0.100
				Gross Gamma	8.372	1.196	pCi/g	1.49	N
				Iodine-123	1.21E+06	2.94E+06	pCi/g	0	N
				Iodine-133	2812	2875	pCi/g	0	N
				Iodine-135	4.07E+15	3.35E+15	pCi/g	0	N
				Lead-212	1.37	0.06998	pCi/g	0.03975	0.100
				Lead-214	1.206	0.0906	pCi/g	0.0473	0.100
				Niobium-97	1.24E+05	57360	pCi/g	0	N
				Potassium-40	20.96	1.179	pCi/g	0.2404	1.00
				Protactinium-234m	5.112	2.541	pCi/g	3.983	Y
				Radium-224	4.103	0.5677	pCi/g	0.4622	Y
				Radium-226	1.07	0.07971	pCi/g	0.04474	Y
				Radium-228	1.399	0.1465	pCi/g	0.08664	0.500

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 15:26:23.67

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691001.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 13:25:50.
Sample ID         : G245691001           Sample quantity  : 1.27310E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.47*	219	669	1.13	126.81	122	12	3.04E-02	24.8	
2	2	74.86	451	600	1.62	149.56	144	15	6.26E-02	12.0	4.23E+00
3	2	77.19	709	421	1.31	154.22	144	15	9.85E-02	6.7	
4	1	87.22	167	422	1.24	174.25	171	23	2.32E-02	20.8	2.29E+00
5	1	90.17	179	485	1.49	180.16	171	23	2.49E-02	23.6	
6	1	92.96*	408	420	1.49	185.73	171	23	5.67E-02	11.4	
7	0	185.92*	289	291	1.52	371.51	366	10	4.02E-02	13.0	
8	0	209.03	67	241	1.38	417.69	415	8	9.35E-03	41.6	
9	3	238.54*	1162	195	1.31	476.69	471	17	1.61E-01	3.7	2.72E+00
10	3	241.63	283	221	1.69	482.85	471	17	3.94E-02	13.0	
11	0	269.94	106	213	1.74	539.45	534	12	1.48E-02	29.1	
12	0	295.16	403	228	1.45	589.84	585	11	5.59E-02	8.8	
13	0	303.36	119	397	9.66	606.24	596	24	1.66E-02	45.3	
14	0	338.20	276	153	1.36	675.87	671	11	3.83E-02	10.5	
15	0	351.84*	696	158	1.31	703.13	697	13	9.67E-02	5.4	
16	0	463.92	39	132	1.56	927.19	920	12	5.36E-03	62.1	
17	0	510.75*	151	123	1.56	1020.80	1013	17	2.10E-02	21.4	
18	0	568.51*	107	177	1.93	1136.29	1129	16	1.48E-02	30.1	
19	0	583.29*	396	110	1.41	1165.84	1160	14	5.50E-02	7.6	
20	0	609.41*	418	135	1.59	1218.06	1210	15	5.80E-02	8.0	
21	0	728.11	97	64	3.24	1455.38	1449	14	1.35E-02	20.5	
22	0	769.32	70	95	1.83	1537.80	1530	18	9.75E-03	35.2	
23	0	795.91	126	45	1.92	1590.97	1582	20	1.74E-02	16.3	
24	0	860.53	61	60	1.58	1720.19	1713	13	8.43E-03	29.6	
25	0	911.57	260	58	1.42	1822.27	1816	14	3.61E-02	8.7	
26	0	970.35*	90	128	1.50	1939.83	1929	14	1.25E-02	28.8	
27	0	1120.75	123	36	1.35	2240.64	2235	13	1.71E-02	13.5	
28	0	1238.52	40	66	1.50	2476.24	2471	12	5.60E-03	42.6	
29	0	1378.65	27	20	1.54	2756.58	2751	9	3.80E-03	35.2	
30	0	1408.97	18	14	1.25	2817.26	2813	9	2.43E-03	44.8	
31	0	1461.30*	1026	24	2.09	2921.96	2914	16	1.43E-01	3.3	
32	0	1562.14	23	0	1.54	3123.74	3117	13	3.19E-03	20.9	
33	0	1764.85*	87	10	2.50	3529.43	3522	14	1.21E-02	13.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 15:26:26

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 13:25:50
Sample ID : G245691001 Sample quantity : 127.31 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.47 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.427E+01	2.422E+00	5.127E-01	3.818E-02	47.343
CD-109	+	88.03	*	2.224E+00	9.481E-01	1.344E+00	1.204E-01	1.655
SN-126	+	64.28		1.844E+00	9.539E-01	8.039E-01	1.174E-01	2.294
	+	86.94		9.089E-01	5.341E-01	5.978E-01	2.475E-01	1.521
	+	87.57	*	2.186E-01	9.320E-02	1.327E-01	1.183E-02	1.648
TL-208		277.35		6.766E-01	4.047E-01	7.059E-01	7.448E-02	0.959
	+	510.84		7.264E-01	3.190E-01	2.100E-01	2.145E-02	3.459
	+	583.14	*	5.426E-01	9.057E-02	6.188E-02	4.208E-03	8.770
	+	860.37		7.820E-01	4.676E-01	4.555E-01	4.079E-02	1.717
BI-211		72.87		1.137E+01	3.919E+00	6.125E+00	4.799E-01	1.857
	+	351.07	*	4.189E+00	5.242E-01	3.039E-01	1.941E-02	13.781
PB-212	+	74.81		2.449E+00	6.578E-01	5.630E-01	6.904E-02	4.349
	+	77.11		2.189E+00	3.439E-01	3.204E-01	2.588E-02	6.832
	+	87.30		1.011E+00	4.427E-01	6.627E-01	8.869E-02	1.526
	+	238.63	*	1.531E+00	1.573E-01	9.344E-02	6.744E-03	16.385
		300.09		8.759E-01	1.292E+00	1.390E+00	1.148E-01	0.630
PO-212	+	74.81		2.449E+00	6.578E-01	5.630E-01	6.904E-02	4.349
	+	77.11		2.189E+00	3.439E-01	3.204E-01	2.588E-02	6.832
	+	87.30		1.011E+00	4.427E-01	6.627E-01	8.869E-02	1.526
		115.19		1.116E+00	3.661E+00	6.039E+00	3.845E-01	0.185
	+	238.63	*	1.531E+00	1.573E-01	9.344E-02	6.744E-03	16.385
		300.09		8.759E-01	1.292E+00	1.390E+00	1.148E-01	0.630
BI-214	+	609.31	*	1.079E+00	1.919E-01	1.171E-01	9.204E-03	9.219
	+	1120.29		1.649E+00	4.701E-01	4.257E-01	3.894E-02	3.873
	+	1764.49		1.573E+00	4.490E-01	3.311E-01	2.007E-02	4.750
PB-214	+	74.81		4.219E+00	1.108E+00	9.701E-01	1.053E-01	4.349
	+	77.11		3.752E+00	6.552E-01	5.492E-01	6.099E-02	6.832
	+	87.30		1.732E+00	7.504E-01	1.135E+00	1.336E-01	1.526
	+	241.98		2.244E+00	6.086E-01	5.630E-01	4.490E-02	3.986
	+	295.21		1.434E+00	2.814E-01	2.265E-01	1.933E-02	6.332
	+	351.92	*	1.457E+00	1.976E-01	1.059E-01	8.734E-03	13.754
PO-214	+	74.81		4.219E+00	1.108E+00	9.701E-01	1.053E-01	4.349
	+	77.11		3.752E+00	6.552E-01	5.492E-01	6.099E-02	6.832
	+	87.30		1.732E+00	7.504E-01	1.135E+00	1.336E-01	1.526

Sample ID : G245691001 Acquisition date : 9-FEB-2010 13:25:50

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.244E+00	6.086E-01	5.630E-01	4.490E-02	3.986
	+	295.21		1.434E+00	2.814E-01	2.265E-01	1.933E-02	6.332
	+	351.92	*	1.457E+00	1.976E-01	1.059E-01	8.734E-03	13.754
PO-216	+	74.81		2.449E+00	6.578E-01	5.630E-01	6.904E-02	4.349
	+	77.11		2.189E+00	3.439E-01	3.204E-01	2.588E-02	6.832
	+	87.30		1.011E+00	4.427E-01	6.627E-01	8.869E-02	1.526
	+	238.63	*	1.531E+00	1.573E-01	9.344E-02	6.744E-03	16.385
		300.09		8.759E-01	1.292E+00	1.390E+00	1.148E-01	0.630
PO-218	+	74.81		4.219E+00	1.108E+00	9.701E-01	1.053E-01	4.349
	+	77.11		3.752E+00	6.552E-01	5.492E-01	6.099E-02	6.832
	+	87.30		1.732E+00	7.504E-01	1.135E+00	1.336E-01	1.526
	+	241.98		2.244E+00	6.086E-01	5.630E-01	4.490E-02	3.986
	+	295.21		1.434E+00	2.814E-01	2.265E-01	1.933E-02	6.332
	+	351.92	*	1.457E+00	1.976E-01	1.059E-01	8.734E-03	13.754
RA-224	+	240.98	*	4.255E+00	1.129E+00	1.063E+00	6.022E-02	4.004
RA-226	+	609.31	*	1.079E+00	1.919E-01	1.171E-01	9.204E-03	9.219
	+	1120.29		1.649E+00	4.701E-01	4.257E-01	3.894E-02	3.873
	+	1764.49		1.573E+00	4.490E-01	3.311E-01	2.007E-02	4.750
AC-228	+	338.32		1.828E+00	8.390E-01	3.952E-01	1.611E-01	4.625
	+	911.07	*	1.587E+00	3.296E-01	1.864E-01	2.109E-02	8.512
	+	969.11		9.694E-01	6.010E-01	3.303E-01	7.657E-02	2.934
RA-228	+	338.32		1.828E+00	8.390E-01	3.952E-01	1.611E-01	4.625
	+	911.07	*	1.587E+00	3.296E-01	1.864E-01	2.109E-02	8.512
	+	969.11		9.694E-01	6.010E-01	3.303E-01	7.657E-02	2.934
TH-228	+	74.81		2.486E+00	6.267E-01	5.715E-01	4.582E-02	4.349
	+	77.11		2.222E+00	3.491E-01	3.252E-01	2.627E-02	6.832
	+	87.30		1.026E+00	4.375E-01	6.727E-01	5.983E-02	1.526
	+	238.63	*	1.554E+00	1.597E-01	9.485E-02	6.846E-03	16.385
		300.09		8.891E-01	1.411E+00	1.411E+00	8.313E-01	0.630
TH-230	+	609.31	*	1.079E+00	1.919E-01	1.171E-01	9.204E-03	9.219
	+	1120.29		1.649E+00	4.701E-01	4.257E-01	3.894E-02	3.873
	+	1764.49		1.573E+00	4.490E-01	3.311E-01	2.007E-02	4.750
TH-232	+	338.32		1.828E+00	3.997E-01	3.952E-01	2.285E-02	4.625
	+	911.07	*	1.587E+00	3.296E-01	1.864E-01	2.109E-02	8.512
	+	969.11		9.694E-01	6.010E-01	3.303E-01	7.657E-02	2.934
TH-234	+	63.29	*	4.659E+00	2.451E+00	2.109E+00	3.689E-01	2.209
	+	92.38		3.481E+00	1.007E+00	8.728E-01	1.567E-01	3.988
U-234	+	609.31	*	1.079E+00	1.919E-01	1.171E-01	9.204E-03	9.219
	+	1120.29		1.649E+00	4.701E-01	4.257E-01	3.894E-02	3.873
	+	1764.49		1.573E+00	4.490E-01	3.311E-01	2.007E-02	4.750
NP-237	+	86.50	*	6.420E-01	3.041E-01	4.045E-01	9.076E-02	1.587
		95.87		-2.678E-01	1.144E+00	1.617E+00	3.947E-01	-0.166
U-238	+	63.29	*	4.659E+00	2.451E+00	2.109E+00	3.689E-01	2.209
	+	92.38		3.481E+00	8.416E-01	8.728E-01	7.289E-02	3.988
AM-243	+	74.67	*	3.970E-01	9.998E-02	9.153E-02	7.259E-03	4.337
	+	86.72		2.408E+01	1.026E+01	1.513E+01	1.338E+00	1.591
		117.66		-3.861E+00	3.885E+00	6.049E+00	3.758E-01	-0.638
		142.18		2.359E+01	1.837E+01	3.124E+01	1.739E+00	0.755
ANH-511	+	511.00	*	1.569E-01	6.764E-02	4.538E-02	2.678E-03	3.458

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.331E-02	3.315E-01	5.524E-01	3.750E-02	0.060
NA-22		1274.54	*	-1.654E-02	4.081E-02	6.471E-02	4.317E-03	-0.256
NA-24		1368.53	*	1.645E-02	4.081E-02	Half-Life too short		
AL-26		1129.67		-5.034E-01	1.790E+00	2.847E+00	1.757E-01	-0.177
		1808.65	*	-1.073E-02	2.956E-02	4.446E-02	2.596E-03	-0.241
TI-44		67.85		-5.528E-02	6.022E-02	7.696E-02	5.875E-03	-0.718
	+	78.38	*	4.039E-01	6.346E-02	8.483E-02	6.924E-03	4.761
SC-46		889.25	*	1.650E-02	3.799E-02	6.401E-02	5.562E-03	0.258
	+	1120.51		2.821E-01	7.823E-02	1.322E-01	8.338E-03	2.134
V-48		944.10		1.547E-02	8.954E-01	1.443E+00	1.216E-01	0.011
		983.50	*	-3.675E-02	7.716E-02	1.178E-01	9.472E-03	-0.312
		1312.09		-4.297E-02	7.373E-02	1.133E-01	8.059E-03	-0.379
CR-51		320.08	*	1.526E-01	3.739E-01	6.403E-01	4.143E-02	0.238
MN-52		744.21		-4.318E-02	2.314E-01	3.698E-01	2.514E-02	-0.117
		848.13		2.257E+00	6.143E+00	1.032E+01	8.388E-01	0.219
		935.52		2.128E-01	2.635E-01	4.556E-01	3.873E-02	0.467
		1246.25		-2.784E+00	7.501E+00	1.105E+01	6.982E-01	-0.252
		1333.61		4.225E+00	4.959E+00	8.988E+00	6.622E-01	0.470
		1434.06	*	-3.291E-02	1.916E-01	3.071E-01	2.215E-02	-0.107
MN-54		834.83	*	1.613E-02	3.854E-02	6.463E-02	5.141E-03	0.250
CO-56		846.75	*	-3.772E-04	3.719E-02	6.008E-02	4.874E-03	-0.006
		977.42		3.922E-01	2.910E+00	4.742E+00	3.842E-01	0.083
		1037.82		2.952E-01	2.995E-01	5.457E-01	4.341E-02	0.541
		1175.09		1.321E-01	2.042E+00	3.426E+00	1.885E-01	0.039
	+	1238.25		1.517E-01	1.297E-01	1.770E-01	1.163E-02	0.857
		1360.21		1.159E-01	9.312E-01	1.566E+00	1.149E-01	0.074
		1771.40		-1.111E+00	3.771E-01	3.302E-01	1.990E-02	-3.364
CO-57		122.06	*	1.843E-02	2.641E-02	4.416E-02	2.636E-03	0.417
		136.48		2.606E-02	2.171E-01	3.541E-01	2.338E-02	0.074
CO-58		810.76	*	-1.373E-02	4.050E-02	6.350E-02	4.866E-03	-0.216
FE-59		142.65		2.503E+00	2.830E+00	4.746E+00	2.639E-01	0.527
		192.34		-3.848E-01	1.008E+00	1.593E+00	1.850E-01	-0.242
		1099.22	*	-1.065E-01	9.059E-02	1.335E-01	1.002E-02	-0.798
		1291.56		5.265E-02	1.138E-01	1.984E-01	1.643E-02	0.265
CO-60		1173.22		-6.068E-03	4.123E-02	6.775E-02	3.713E-03	-0.090
		1332.49	*	3.196E-02	3.815E-02	6.915E-02	5.096E-03	0.462
ZN-65		1115.52	*	-4.151E-02	9.693E-02	1.311E-01	8.383E-03	-0.317
GE-68		1077.35	*	1.217E+00	1.229E+00	2.234E+00	1.546E-01	0.545
AS-73		53.44	*	-4.966E-01	8.183E-01	1.321E+00	9.767E-02	-0.376
AS-74		595.88	*	-4.783E-02	9.705E-02	1.534E-01	9.086E-03	-0.312
		634.78		-4.714E-02	3.405E-01	5.507E-01	3.237E-02	-0.086
SE-75		66.05		2.490E+00	5.622E+00	8.275E+00	7.943E-01	0.301
		96.73		-3.878E-01	9.346E-01	1.300E+00	1.710E-01	-0.298
		121.11		-6.177E-02	1.421E-01	2.269E-01	2.125E-02	-0.272
		136.00		2.436E-03	4.052E-02	6.596E-02	3.799E-03	0.037
		198.60		1.523E+00	2.015E+00	3.274E+00	2.235E-01	0.465
		264.65	*	2.744E-02	4.739E-02	7.252E-02	4.217E-03	0.378
		279.53		-1.280E-02	1.118E-01	1.873E-01	1.173E-02	-0.068
	+	303.91		6.889E+00	6.276E+00	3.657E+00	3.493E-01	1.883

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		3.296E-01	2.706E-01	4.788E-01	4.299E-02	0.689
BR-77	+	87.88		4.726E+02	2.015E+02	3.376E+02	3.021E+01	1.400
		200.40		-5.220E+01	1.790E+02	2.841E+02	1.546E+01	-0.184
	+	239.00		2.418E+02	2.236E+01	3.716E+01	2.102E+00	6.507
		249.79		-1.493E+01	6.765E+01	1.068E+02	6.089E+00	-0.140
		281.68		-1.090E+02	9.262E+01	1.435E+02	8.316E+00	-0.760
		297.23		3.391E+02	9.628E+01	1.294E+02	7.525E+00	2.620
	+	303.76		5.776E+02	5.243E+02	3.068E+02	1.784E+01	1.883
		439.47		-3.030E+01	1.271E+02	2.073E+02	1.191E+01	-0.146
		484.57		-1.743E+02	2.305E+02	3.605E+02	2.111E+01	-0.484
		520.65	*	9.187E+00	1.018E+01	1.786E+01	1.056E+00	0.514
		574.64		1.312E+02	2.578E+02	3.854E+02	2.287E+01	0.341
		578.91		-7.744E+01	1.016E+02	1.325E+02	7.860E+00	-0.585
		585.48		1.573E+03	2.802E+02	5.193E+02	3.080E+01	3.029
		755.35		2.472E+01	1.574E+02	2.595E+02	1.800E+01	0.095
		817.79		1.424E+02	1.265E+02	2.263E+02	1.750E+01	0.629
SR-82		698.33		-2.743E+00	3.543E+01	5.743E+01	3.588E+00	-0.048
		776.49	*	9.763E-02	4.121E-01	5.965E-01	4.295E-02	0.164
		1395.20		3.665E-01	7.628E+00	1.272E+01	9.266E-01	0.029
RB-83		520.41	*	4.301E-02	6.921E-02	1.192E-01	7.049E-03	0.361
		529.64		2.439E-02	1.011E-01	1.698E-01	1.005E-02	0.144
		552.65		1.293E-01	2.006E-01	3.458E-01	2.052E-02	0.374
RB-84		881.50	*	5.612E-02	7.018E-02	1.219E-01	1.046E-02	0.460
KR-85		513.99	*	1.137E+01	8.285E+00	1.328E+01	7.843E-01	0.856
SR-85		513.99	*	5.827E-02	4.245E-02	6.806E-02	4.019E-03	0.856
RB-86		1076.63	*	8.960E-01	7.767E-01	1.430E+00	9.905E-02	0.627
Y-88		898.02		-1.595E-02	3.974E-02	6.124E-02	5.421E-03	-0.261
		1836.01	*	2.014E-02	3.399E-02	6.149E-02	3.510E-03	0.328
ZR-88		392.90	*	5.873E-03	3.169E-02	5.338E-02	2.972E-03	0.110
Y-91		1204.90	*	7.923E-01	1.836E+01	3.068E+01	1.792E+00	0.026
NB-94		702.63	*	-1.001E-02	3.758E-02	6.004E-02	3.781E-03	-0.167
		871.10		-1.222E-03	3.479E-02	5.598E-02	4.725E-03	-0.022
NB-95		765.79	*	5.718E-02	5.422E-02	8.425E-02	5.954E-03	0.679
NB-95M		235.69	*	3.377E-01	1.558E-01	2.426E-01	1.797E-02	1.392
ZR-95		724.18		2.855E-02	1.118E-01	1.619E-01	1.216E-02	0.176
		756.15	*	3.363E-02	6.883E-02	1.167E-01	9.346E-03	0.288
NB-97		657.90	*	-1.325E-01	6.883E-02	Half-Life too short		
		1024.50		-2.941E+00	6.883E-02	Half-Life too short		
ZR-97		254.15		-2.820E+00	6.883E-02	Half-Life too short		
		355.39		3.698E+00	6.883E-02	Half-Life too short		
		507.63	*	4.241E+00	6.883E-02	Half-Life too short		
		602.52		-4.724E-01	6.883E-02	Half-Life too short		
		1021.30		9.917E-01	6.883E-02	Half-Life too short		
		1147.95		-1.981E+00	6.883E-02	Half-Life too short		
		1362.66		-1.778E+00	6.883E-02	Half-Life too short		
		1750.46		5.336E+00	6.883E-02	Half-Life too short		
MO-99		140.51		-5.332E-01	2.726E+01	4.419E+01	1.189E+01	-0.012
		181.06		-1.499E+00	2.085E+01	2.922E+01	4.962E+00	-0.051
		366.43		-3.684E+01	8.319E+01	1.352E+02	7.695E+00	-0.273

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		739.58	*	-5.877E+00	1.161E+01	1.796E+01	2.551E+00	-0.327
		778.00		-1.748E+01	3.772E+01	5.231E+01	3.777E+00	-0.334
TC-99M		140.51	*	-6.711E+08	3.772E+01	Half-Life too short		
RH-101		127.23		-4.159E-04	3.606E-02	5.861E-02	3.420E-03	-0.007
		198.01	*	3.091E-02	3.703E-02	6.039E-02	3.276E-03	0.512
		325.23		-3.694E-02	2.358E-01	3.922E-01	2.277E-02	-0.094
RH-102		418.52		-1.306E-01	2.992E-01	4.840E-01	2.745E-02	-0.270
		475.06	*	1.665E-02	2.948E-02	5.064E-02	2.956E-03	0.329
		631.29		1.016E-02	5.403E-02	8.986E-02	5.286E-03	0.113
		697.49		-2.645E-02	7.961E-02	1.263E-01	7.880E-03	-0.209
		766.84		9.793E-02	1.499E-01	2.235E-01	1.582E-02	0.438
		1046.59		9.241E-02	1.062E-01	1.924E-01	1.408E-02	0.480
		1112.84		3.364E-02	2.297E-01	3.722E-01	2.390E-02	0.090
RU-103		497.08	*	-3.460E-02	3.799E-02	5.779E-02	7.329E-03	-0.599
	+	610.33		1.164E+01	2.586E+00	2.976E+00	4.601E-01	3.912
RH-106	+	511.85		7.837E-01	3.378E-01	4.558E-01	2.690E-02	1.719
		621.84	*	-1.926E-01	3.363E-01	5.249E-01	6.187E-02	-0.367
		1050.47		-7.594E-01	2.155E+00	3.484E+00	2.532E-01	-0.218
RU-106	+	511.85		7.837E-01	3.378E-01	4.558E-01	2.690E-02	1.719
		621.84	*	-1.926E-01	3.357E-01	5.249E-01	3.095E-02	-0.367
		1050.47		-7.594E-01	2.155E+00	3.484E+00	2.532E-01	-0.218
AG-108M		433.93	*	8.795E-03	3.121E-02	5.282E-02	3.290E-03	0.166
		614.37		3.234E-02	4.375E-02	6.700E-02	4.282E-03	0.483
		722.95		-2.783E-03	4.721E-02	6.594E-02	4.603E-03	-0.042
AG-110M		657.75	*	-5.533E-02	3.727E-02	5.320E-02	3.301E-03	-1.040
		677.61		-7.650E-03	3.119E-01	5.083E-01	3.227E-02	-0.015
		706.67		-3.507E-02	2.331E-01	3.756E-01	2.504E-02	-0.093
		763.93		1.239E-01	1.922E-01	2.899E-01	2.128E-02	0.427
		884.67		-6.471E-03	5.032E-02	8.014E-02	7.135E-03	-0.081
		937.48		-1.894E-01	1.182E-01	1.557E-01	1.370E-02	-1.216
		1384.27		7.194E-02	1.366E-01	2.247E-01	1.705E-02	0.320
IN-111		171.28		-7.424E-01	1.083E+00	1.695E+00	8.898E-02	-0.438
		245.39	*	6.744E-01	1.212E+00	1.758E+00	9.993E-02	0.384
IN-113M		391.69	*	8.945E-03	4.532E-02	7.641E-02	4.559E-03	0.117
SN-113		391.69	*	8.945E-03	4.532E-02	7.641E-02	4.559E-03	0.117
IN-114M		190.27	*	-4.327E-02	2.147E-01	2.979E-01	1.601E-02	-0.145
CD-115		260.90		-9.445E+01	1.345E+02	2.059E+02	1.183E+01	-0.459
		492.35		1.585E+01	3.550E+01	5.991E+01	3.518E+00	0.265
		527.90	*	2.139E+00	1.031E+01	1.727E+01	1.022E+00	0.124
SN-117M		156.02		1.851E+00	2.500E+00	4.161E+00	2.230E-01	0.445
		158.56	*	-7.547E-03	5.969E-02	9.606E-02	5.113E-03	-0.079
SB-122		563.90	*	1.596E-01	2.471E+00	3.544E+00	2.103E-01	0.045
		692.80		-2.141E+01	4.212E+01	6.565E+01	4.058E+00	-0.326
I-123		159.00	*	-4.262E+00	4.212E+01	Half-Life too short		
		528.96		5.820E+01	4.212E+01	Half-Life too short		
TE-123M		159.00	*	-2.263E-02	3.126E-02	4.901E-02	2.647E-03	-0.462
I-124		602.71	*	-3.164E-01	8.026E-01	1.092E+00	6.464E-02	-0.290
		722.78		1.259E-01	4.915E+00	6.936E+00	4.535E-01	0.018
		1325.50		-1.675E+01	3.177E+01	4.903E+01	3.570E+00	-0.342

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		1376.25		4.507E+01	3.586E+01	6.073E+01	4.442E+00	0.742
		1509.49		4.127E-01	1.475E+01	2.438E+01	1.715E+00	0.017
		1691.02		-1.691E+00	3.005E+00	4.231E+00	2.706E-01	-0.400
SB-124		602.71		-1.855E-02	4.706E-02	6.405E-02	3.792E-03	-0.290
		645.85		1.243E-01	4.867E-01	8.135E-01	5.365E-02	0.153
		709.31		3.927E+00	2.973E+00	5.313E+00	3.388E-01	0.739
		713.82		-1.218E+00	1.648E+00	2.499E+00	2.645E-01	-0.488
		722.78		1.070E-02	4.177E-01	5.896E-01	3.999E-02	0.018
		968.20		1.517E+01	3.851E+00	7.295E+00	5.978E-01	2.079
		1045.16		1.347E-01	2.359E+00	3.976E+00	2.917E-01	0.034
		1325.50		-1.520E+00	2.884E+00	4.451E+00	3.241E-01	-0.342
		1368.21		1.144E-01	1.624E+00	2.713E+00	3.442E-01	0.042
		1436.60		-5.117E-01	2.997E+00	4.800E+00	3.460E-01	-0.107
		1691.02	*	-3.391E-02	6.026E-02	8.482E-02	5.809E-03	-0.400
SB-125		427.89	*	6.567E-03	9.571E-02	1.597E-01	9.509E-03	0.041
	+	463.38		3.626E-01	4.513E-01	5.259E-01	3.561E-02	0.689
		600.56		1.015E-01	1.900E-01	3.158E-01	2.152E-02	0.321
		635.90		-6.157E-02	2.560E-01	4.101E-01	2.812E-02	-0.150
TE-125M		109.28	*	-8.564E+00	1.008E+01	1.586E+01	1.402E+00	-0.540
I-126		388.63		1.025E-02	2.129E-01	3.560E-01	1.986E-02	0.029
		666.33	*	-2.233E-01	2.151E-01	3.247E-01	1.908E-02	-0.688
		753.82		-6.036E-01	1.459E+00	2.280E+00	1.577E-01	-0.265
SB-126		223.80		1.866E-01	4.286E+00	6.885E+00	3.842E-01	0.027
		278.60		3.722E+00	2.514E+00	4.497E+00	2.603E-01	0.828
	+	296.50		1.423E+01	2.648E+00	3.890E+00	2.261E-01	3.658
		414.70		1.004E-03	7.521E-02	1.252E-01	7.084E-03	0.008
		415.30		1.264E+00	6.326E+00	1.065E+01	6.027E-01	0.119
		555.20		1.158E+00	4.167E+00	6.996E+00	4.152E-01	0.166
		573.80		1.344E+00	1.258E+00	1.978E+00	1.174E-01	0.680
		593.00		-4.465E-01	9.665E-01	1.530E+00	9.066E-02	-0.292
		656.30		-4.572E+00	3.322E+00	4.749E+00	2.771E-01	-0.963
		666.33		-9.329E-02	8.985E-02	1.357E-01	7.972E-03	-0.688
		675.00		-1.003E+00	2.076E+00	3.253E+00	1.944E-01	-0.308
		695.00		-7.420E-03	7.600E-02	1.229E-01	7.633E-03	-0.060
		697.00		-2.184E-02	2.747E-01	4.451E-01	2.774E-02	-0.049
		720.50	*	3.377E-02	1.481E-01	2.325E-01	1.514E-02	0.145
		856.80		1.436E-01	4.836E-01	7.044E-01	5.810E-02	0.204
		989.30		4.197E-01	1.333E+00	2.206E+00	1.760E-01	0.190
		1034.80		7.110E-02	8.998E+00	1.510E+01	1.127E+00	0.005
		1213.00		6.413E-02	4.888E+00	8.144E+00	4.831E-01	0.008
SB-127		61.10		6.340E+01	6.544E+01	9.839E+01	1.015E+01	0.644
		252.40		6.989E-03	4.397E+00	7.023E+00	2.917E+00	0.001
		290.80		-6.699E+00	2.521E+01	3.625E+01	3.315E+00	-0.185
		411.60		1.361E+00	1.205E+01	2.018E+01	2.886E+00	0.067
		444.90		4.648E+00	8.968E+00	1.541E+01	1.656E+00	0.302
		473.00		-6.397E-01	1.660E+00	2.671E+00	2.985E-01	-0.239
		543.00		3.638E+00	1.523E+01	2.556E+01	3.310E+00	0.142
		603.60		-8.355E+00	1.379E+01	1.828E+01	1.975E+00	-0.457
		685.20	*	-1.910E-01	1.378E+00	2.222E+00	2.132E-01	-0.086

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		-3.959E-01	1.570E+01	2.556E+01	3.744E+00	-0.015
		722.20		1.965E+01	3.187E+01	4.822E+01	4.638E+00	0.407
		783.80		3.568E+00	3.665E+00	6.400E+00	7.372E-01	0.557
XE-127		57.60		8.036E+00	6.593E+00	1.056E+01	7.908E-01	0.761
		145.22		-3.488E-01	7.497E-01	1.163E+00	6.421E-02	-0.300
		172.10		-2.508E-02	1.278E-01	2.045E-01	1.075E-02	-0.123
		202.84	*	-3.315E-02	5.169E-02	8.066E-02	4.401E-03	-0.411
		374.96		-8.086E-02	1.972E-01	3.208E-01	1.813E-02	-0.252
I-131		80.18		2.316E-01	5.195E+00	7.491E+00	6.253E-01	0.031
		284.30		-6.464E-01	1.478E+00	2.433E+00	1.568E-01	-0.266
		364.48	*	8.069E-02	1.123E-01	1.954E-01	1.247E-02	0.413
		636.97		-9.161E-01	1.474E+00	2.276E+00	1.493E-01	-0.402
		722.89		-2.301E-01	7.929E+00	1.112E+01	7.350E-01	-0.021
TE-132		49.72		-2.361E+01	1.836E+01	2.864E+01	2.782E+00	-0.824
		111.76		-3.686E+00	3.085E+01	5.007E+01	4.661E+00	-0.074
		116.30		9.689E+00	2.759E+01	4.558E+01	4.149E+00	0.213
		228.16	*	1.759E-01	7.355E-01	1.191E+00	1.700E-01	0.148
BA-133		53.15		-2.261E+00	3.519E+00	5.671E+00	4.188E-01	-0.399
		79.62		2.978E+00	1.582E+00	2.367E+00	3.555E-01	1.258
		81.00		-1.276E-01	1.165E-01	1.567E-01	2.466E-02	-0.814
		276.40		7.826E-01	4.222E-01	6.975E-01	9.038E-02	1.122
	+	302.84		4.694E-01	4.288E-01	2.536E-01	2.958E-02	1.851
		356.01	*	2.912E-02	4.596E-02	7.032E-02	8.105E-03	0.414
		383.85		-5.481E-02	3.220E-01	5.317E-01	5.727E-02	-0.103
I-133	+	510.53		1.525E+00	3.220E-01	Half-Life too short		
		529.87	*	1.534E-03	3.220E-01	Half-Life too short		
		706.58		-5.471E-02	3.220E-01	Half-Life too short		
		856.28		-4.220E-02	3.220E-01	Half-Life too short		
		875.33		3.370E-03	3.220E-01	Half-Life too short		
		1236.41		9.490E-01	3.220E-01	Half-Life too short		
		1298.22		5.000E-02	3.220E-01	Half-Life too short		
CS-134		475.35		8.749E-01	1.939E+00	3.307E+00	1.930E-01	0.265
		563.23		1.930E-01	4.246E-01	6.333E-01	3.835E-02	0.305
	+	569.32		7.942E-01	4.798E-01	5.454E-01	3.329E-02	1.456
		604.70		-3.234E-02	4.005E-02	5.182E-02	3.082E-03	-0.624
	+	795.84	*	2.486E-01	8.333E-02	9.931E-02	7.468E-03	2.503
		801.93		-3.202E-01	4.838E-01	6.206E-01	4.704E-02	-0.516
		1038.57		2.882E+00	3.751E+00	6.720E+00	4.984E-01	0.429
		1167.94		1.193E+00	2.411E+00	4.199E+00	2.337E-01	0.284
		1365.15		6.451E-01	1.177E+00	2.082E+00	1.622E-01	0.310
CS-135		268.24	*	2.810E-01	1.815E-01	2.910E-01	2.221E-02	0.965
I-135		288.45		-8.147E+09	1.815E-01	Half-Life too short		
		417.63		-1.075E+10	1.815E-01	Half-Life too short		
		546.56		-1.122E+10	1.815E-01	Half-Life too short		
		836.80		4.732E+09	1.815E-01	Half-Life too short		
		1038.76		1.180E+10	1.815E-01	Half-Life too short		
		1124.00		2.272E+10	1.815E-01	Half-Life too short		
		1131.51		-1.370E+09	1.815E-01	Half-Life too short		
		1260.41	*	-4.593E+08	1.815E-01	Half-Life too short		

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		1457.56		1.900E+11	1.815E-01	Half-Life too short		
		1678.03		-3.142E+09	1.815E-01	Half-Life too short		
		1706.46		1.533E+08	1.815E-01	Half-Life too short		
		1791.20		6.715E+09	1.815E-01	Half-Life too short		
CS-136		66.91		-8.149E-01	9.213E-01	1.266E+00	1.886E-01	-0.644
	+	86.29		2.845E+00	1.242E+00	2.093E+00	2.715E-01	1.359
		153.22		6.012E-01	7.280E-01	1.215E+00	8.388E-02	0.495
		163.89		-2.068E-01	1.176E+00	1.887E+00	1.286E-01	-0.110
		176.55		2.392E-02	3.934E-01	6.363E-01	3.857E-02	0.038
		273.65		-1.072E+00	5.594E-01	7.116E-01	4.694E-02	-1.506
		340.57		4.644E-01	1.573E-01	2.682E-01	1.648E-02	1.731
		818.51		6.615E-02	7.149E-02	1.259E-01	9.756E-03	0.525
		1048.07	*	-2.662E-02	1.005E-01	1.640E-01	1.268E-02	-0.162
		1235.34		9.313E-02	6.663E-01	9.700E-01	9.913E-02	0.096
BA-137M		661.65	*	4.097E-02	4.207E-02	7.316E-02	4.260E-03	0.560
CS-137		661.65	*	4.331E-02	4.447E-02	7.733E-02	4.522E-03	0.560
CE-139		165.85	*	8.683E-03	3.261E-02	5.326E-02	2.780E-03	0.163
BA-140		162.64		6.886E-01	8.007E-01	1.339E+00	8.103E-02	0.514
	+	304.84		4.197E+00	3.972E+00	2.336E+00	6.375E-01	1.797
		423.70		-1.155E+00	2.071E+00	3.220E+00	1.023E+00	-0.359
		537.32	*	-2.643E-02	2.561E-01	4.185E-01	1.362E-01	-0.063
LA-140		328.77		3.255E-01	3.238E-01	5.649E-01	3.670E-02	0.576
		432.53		1.459E+00	1.985E+00	3.454E+00	2.188E-01	0.422
		487.03		-2.327E-02	1.372E-01	2.242E-01	1.485E-02	-0.104
		751.79		-5.652E-01	1.659E+00	2.609E+00	2.091E-01	-0.217
		815.85		-2.245E-02	3.250E-01	5.229E-01	4.603E-02	-0.043
		867.82		-1.479E+00	1.549E+00	2.076E+00	1.840E-01	-0.712
		919.63		3.860E-02	3.177E+00	4.821E+00	5.140E-01	0.008
		925.24		5.962E-02	1.247E+00	2.018E+00	1.843E-01	0.030
		1596.49	*	-3.210E-02	8.618E-02	1.333E-01	9.018E-03	-0.241
CE-141		145.44	*	-3.013E-02	6.778E-02	1.052E-01	6.060E-03	-0.286
CE-143		57.37		1.227E-03	6.778E-02	Half-Life too short		
		231.56		9.700E-04	6.778E-02	Half-Life too short		
		293.26	*	1.046E-03	6.778E-02	Half-Life too short		
	+	350.59		3.226E-02	6.778E-02	Half-Life too short		
		490.36		6.092E-04	6.778E-02	Half-Life too short		
		664.57		1.106E-03	6.778E-02	Half-Life too short		
		721.93		1.147E-03	6.778E-02	Half-Life too short		
CE-144		80.11		3.372E-01	2.410E+00	3.490E+00	2.892E-01	0.097
		133.54	*	-2.394E-01	2.197E-01	3.364E-01	4.766E-02	-0.712
PM-144		476.78		-7.239E-03	6.882E-02	1.131E-01	7.891E-03	-0.064
		618.01		-1.011E-02	3.326E-02	5.311E-02	3.316E-03	-0.190
		696.49	*	-1.163E-03	3.462E-02	5.631E-02	3.508E-03	-0.021
		778.57		-4.884E-01	2.484E+00	3.716E+00	2.687E-01	-0.131
PR-144		696.49	*	-7.880E-02	2.346E+00	3.815E+00	2.375E-01	-0.021
		1489.15		7.876E-01	9.784E+00	1.635E+01	1.159E+00	0.048
PM-146		453.90	*	7.869E-02	4.280E-02	7.860E-02	6.769E-03	1.001
		633.02		3.238E-01	1.325E+00	2.207E+00	8.128E-01	0.147
		735.90		2.345E-02	1.634E-01	2.539E-01	7.130E-02	0.092

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		747.13		-6.050E-03	8.822E-02	1.425E-01	1.856E-02	-0.042
ND-147	+	91.11		7.824E-01	3.767E-01	6.104E-01	5.638E-02	1.282
		319.41		-1.060E+00	3.335E+00	5.497E+00	3.196E-01	-0.193
		439.89		5.667E-01	5.213E+00	8.723E+00	5.012E-01	0.065
		531.02	*	7.580E-02	5.473E-01	9.117E-01	1.238E-01	0.083
PM-149		285.90	*	4.464E+01	8.853E+01	1.523E+02	2.160E+01	0.293
EU-152		121.78		-7.923E-05	7.712E-02	1.255E-01	9.717E-03	-0.001
		244.69		4.511E-01	3.873E-01	5.831E-01	3.313E-02	0.774
		344.27	*	1.200E-02	1.253E-01	1.614E-01	1.051E-02	0.074
		443.98		-2.743E-01	9.187E-01	1.493E+00	8.591E-02	-0.184
		778.89		-5.688E-02	2.736E-01	4.229E-01	3.058E-02	-0.134
		867.32		-5.429E-01	9.263E-01	1.246E+00	1.045E-01	-0.436
		964.01		1.016E-01	3.740E-01	5.342E-01	4.400E-02	0.190
		1085.78		4.266E-01	3.605E-01	6.702E-01	4.561E-02	0.636
		1112.02		1.010E-01	3.118E-01	5.260E-01	3.383E-02	0.192
	+	1407.95		2.079E-01	1.868E-01	3.390E-01	2.462E-02	0.613
GD-153		69.67		3.551E-01	2.663E+00	2.802E+00	2.156E-01	0.127
		83.37		1.193E+01	1.738E+01	2.556E+01	2.183E+00	0.467
		97.43	*	2.895E-02	9.350E-02	1.351E-01	1.051E-02	0.214
		103.18		-7.005E-02	1.144E-01	1.824E-01	1.321E-02	-0.384
EU-154		123.07		5.170E-02	5.496E-02	9.242E-02	8.768E-03	0.559
		247.94		-1.245E-01	4.000E-01	6.047E-01	5.732E-02	-0.206
		591.81		-6.180E-02	6.544E-01	1.037E+00	1.022E-01	-0.060
		723.30		-6.109E-02	1.987E-01	2.687E-01	2.070E-02	-0.227
		756.87		6.438E-01	7.452E-01	1.300E+00	1.410E-01	0.495
		873.19		1.614E-01	3.003E-01	5.096E-01	6.186E-02	0.317
		996.32		-1.677E-01	3.636E-01	5.517E-01	9.616E-02	-0.304
		1004.76		3.695E-03	2.141E-01	3.601E-01	3.980E-02	0.010
		1274.45	*	-4.113E-02	1.146E-01	1.827E-01	1.808E-02	-0.225
EU-155		48.70		8.221E-01	2.253E+00	3.779E+00	2.650E-01	0.218
		60.01		-1.043E+00	5.690E+00	8.165E+00	6.143E-01	-0.128
	+	86.54		2.633E-01	1.123E-01	1.916E-01	1.707E-02	1.374
		105.31	*	8.433E-02	1.173E-01	1.962E-01	1.412E-02	0.430
TB-160	+	86.79		7.030E-01	2.997E-01	5.045E-01	4.463E-02	1.393
		197.04		1.773E-01	6.215E-01	1.012E+00	5.482E-02	0.175
		215.65		9.107E-02	8.011E-01	1.292E+00	7.151E-02	0.070
		298.57		1.907E-01	1.892E-01	2.111E-01	1.228E-02	0.903
		879.36	*	-9.579E-03	1.434E-01	2.299E-01	1.967E-02	-0.042
		962.29		1.172E-01	6.523E-01	9.233E-01	7.620E-02	0.127
		966.15		4.889E-01	2.811E-01	4.542E-01	3.731E-02	1.077
		1177.93		-3.002E-01	3.464E-01	5.283E-01	2.923E-02	-0.568
		1271.85		1.010E-01	6.973E-01	1.175E+00	7.786E-02	0.086
HO-166M		80.57		-2.937E-01	3.160E-01	4.339E-01	3.610E-02	-0.677
		184.41		1.547E-01	4.742E-02	7.606E-02	4.057E-03	2.034
		280.46		-8.520E-02	8.686E-02	1.391E-01	8.059E-03	-0.612
		410.95		1.452E-01	2.488E-01	4.280E-01	2.415E-02	0.339
		711.68	*	-2.680E-02	6.418E-02	1.009E-01	6.465E-03	-0.266
		752.31		-7.998E-02	2.672E-01	4.221E-01	2.912E-02	-0.190
		810.29		-2.559E-02	6.057E-02	9.412E-02	7.185E-03	-0.272

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TM-171		51.35		-9.116E+00	2.872E+01	4.688E+01	3.419E+00	-0.194
		52.39		-4.384E+00	1.515E+01	2.477E+01	1.821E+00	-0.177
		59.40		2.700E+00	3.061E+01	4.450E+01	3.348E+00	0.061
		66.72	*	-1.479E+01	3.284E+01	4.645E+01	3.531E+00	-0.318
LU-176	+	88.36		5.186E-01	2.210E-01	3.813E-01	3.396E-02	1.360
		201.83		-3.222E-02	3.200E-02	4.907E-02	2.674E-03	-0.657
		306.84	*	1.705E-02	2.918E-02	4.444E-02	2.585E-03	0.384
		401.10		3.709E+00	7.123E+00	1.221E+01	6.839E-01	0.304
LU-177		112.95		2.742E-01	1.705E+00	2.797E+00	1.821E-01	0.098
	+	208.36	*	1.568E+00	1.307E+00	1.991E+00	1.093E-01	0.788
LU-177M		52.97		-9.906E-01	1.593E+00	2.570E+00	1.896E-01	-0.385
		54.07		-3.320E-02	8.431E-01	1.391E+00	1.032E-01	-0.024
		61.30		2.285E+00	1.719E+00	2.623E+00	1.974E-01	0.871
		121.62		-2.771E-02	3.943E-01	6.400E-01	3.826E-02	-0.043
		147.16		-4.105E-01	6.838E-01	1.080E+00	5.928E-02	-0.380
		171.86		-2.125E-01	5.205E-01	8.252E-01	4.334E-02	-0.258
		218.09		-9.658E-02	9.180E-01	1.465E+00	8.129E-02	-0.066
	+	268.79		2.139E+00	1.252E+00	1.512E+00	8.720E-02	1.414
		319.02		-1.046E-01	2.596E-01	4.259E-01	2.475E-02	-0.246
		367.43		-8.036E-01	8.931E-01	1.407E+00	7.998E-02	-0.571
		413.65	*	-8.586E-02	1.830E-01	2.957E-01	1.672E-02	-0.290
HF-181		56.28		6.298E-02	9.721E-01	1.609E+00	1.201E-01	0.039
		57.53		6.553E-01	5.541E-01	8.861E-01	6.638E-02	0.739
		65.20		2.603E+00	1.151E+00	1.793E+00	1.357E-01	1.452
		133.02		-5.992E-02	7.021E-02	1.100E-01	6.292E-03	-0.545
		136.25		5.182E-02	4.734E-01	7.720E-01	4.373E-02	0.067
		345.85		-2.205E-01	2.225E-01	2.966E-01	1.709E-02	-0.743
		482.03	*	3.701E-02	4.288E-02	7.501E-02	4.390E-03	0.493
W-181		56.28		5.779E-02	3.796E-01	6.301E-01	4.705E-02	0.092
		57.53		2.566E-01	2.172E-01	3.473E-01	2.602E-02	0.739
		65.20	*	1.012E+00	4.474E-01	6.973E-01	5.277E-02	1.452
TA-182		67.75		-1.035E-01	1.319E-01	1.835E-01	1.400E-02	-0.564
		100.10		1.598E-01	2.008E-01	3.142E-01	2.361E-02	0.509
		152.43		1.408E-01	3.725E-01	6.121E-01	3.312E-02	0.230
		222.10		4.773E-02	3.718E-01	5.997E-01	3.341E-02	0.080
		1001.68		6.632E-02	2.210E+00	3.581E+00	2.809E-01	0.019
	+	1121.28		7.792E-01	2.161E-01	3.659E-01	2.303E-02	2.130
		1189.05		1.752E-01	3.034E-01	5.308E-01	3.003E-02	0.330
		1221.42	*	8.901E-02	2.035E-01	3.504E-01	2.113E-02	0.254
		1230.97		2.952E-01	4.771E-01	7.846E-01	4.818E-02	0.376
RE-183		57.98		3.027E-01	2.270E-01	3.481E-01	2.610E-02	0.870
		59.32		1.443E-02	1.259E-01	1.834E-01	1.379E-02	0.079
		67.20		-1.884E-01	2.354E-01	3.272E-01	2.492E-02	-0.576
		162.32	*	7.668E-02	1.175E-01	1.950E-01	1.027E-02	0.393
	+	208.81		1.417E+00	1.181E+00	1.804E+00	9.910E-02	0.786
		291.72		1.464E-02	1.116E+00	1.637E+00	9.510E-02	0.009
RE-184		57.98		1.116E+00	8.366E-01	1.283E+00	9.620E-02	0.870
		59.32		5.314E-02	4.638E-01	6.753E-01	5.079E-02	0.079
		67.20		-6.944E-01	8.675E-01	1.206E+00	9.181E-02	-0.576

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		1.132E-01	3.820E-01	6.252E-01	3.303E-02	0.181
		216.55		6.766E-02	2.807E-01	4.555E-01	2.523E-02	0.149
		252.85	*	-5.465E-02	2.372E-01	3.738E-01	2.137E-02	-0.146
		318.01		-1.320E-01	4.480E-01	7.395E-01	4.298E-02	-0.179
		792.07		1.155E+00	1.112E+00	1.755E+00	1.298E-01	0.658
		903.28		1.096E+00	9.625E-01	1.690E+00	1.482E-01	0.649
		920.93		2.872E-02	4.894E-01	7.928E-01	6.840E-02	0.036
OS-185		59.72		-5.899E-03	3.357E-01	4.857E-01	3.654E-02	-0.012
		61.14		1.944E-01	1.880E-01	2.839E-01	2.136E-02	0.685
		69.30		-1.875E-01	4.899E-01	4.944E-01	3.798E-02	-0.379
		592.07		-5.096E-01	2.651E+00	4.168E+00	2.470E-01	-0.122
		646.12	*	9.677E-03	4.195E-02	6.997E-02	4.098E-03	0.138
		717.42		6.387E-02	8.523E-01	1.398E+00	9.050E-02	0.046
		874.81		1.648E-01	6.146E-01	1.018E+00	8.643E-02	0.162
		880.27		4.875E-01	7.740E-01	1.326E+00	1.136E-01	0.368
RE-188		155.03	*	1.867E-01	1.895E-01	3.182E-01	1.710E-02	0.587
		477.96		2.729E-01	3.115E+00	5.187E+00	3.031E-01	0.053
		633.10		6.176E-01	2.663E+00	4.447E+00	2.615E-01	0.139
W-188	+	63.58		1.871E+02	9.393E+01	1.030E+02	7.767E+00	1.817
		227.08		-2.612E+00	1.379E+01	2.189E+01	1.226E+00	-0.119
		290.67	*	-2.695E+00	8.831E+00	1.267E+01	7.357E-01	-0.213
IR-192	+	295.96		1.093E+00	2.036E-01	3.053E-01	1.803E-02	3.579
		308.46		3.465E-02	1.111E-01	1.662E-01	9.777E-03	0.208
		316.51	*	-1.513E-02	3.443E-02	5.637E-02	3.294E-03	-0.268
		468.07		1.368E-02	7.228E-02	1.059E-01	7.101E-03	0.129
		604.41		-5.652E-01	5.595E-01	7.035E-01	8.027E-02	-0.803
		612.46		2.676E+00	9.689E-01	1.657E+00	1.269E-01	1.615
AU-195		65.12		4.921E-01	2.082E-01	3.253E-01	2.461E-02	1.513
		66.83		-5.940E-02	1.082E-01	1.523E-01	1.159E-02	-0.390
	+	75.70		1.284E+00	3.235E-01	4.944E-01	3.951E-02	2.598
		98.88	*	2.608E-01	2.685E-01	4.001E-01	3.053E-02	0.652
		129.76		4.945E+00	3.088E+00	5.297E+00	3.064E-01	0.933
TL-200		367.94	*	-3.240E-04	3.088E+00	Half-Life too short		
		579.30		-1.984E-03	3.088E+00	Half-Life too short		
		828.27		-1.256E-03	3.088E+00	Half-Life too short		
		1205.75		5.892E-04	3.088E+00	Half-Life too short		
TL-201		68.90		-4.150E+00	7.782E+00	7.753E+00	5.944E-01	-0.535
		70.82		1.698E+00	3.371E+00	4.639E+00	3.591E-01	0.366
		80.30		-6.708E-01	5.588E+00	7.996E+00	6.637E-01	-0.084
		135.34		4.529E+00	2.582E+01	4.224E+01	2.399E+00	0.107
		167.43	*	-1.326E+00	7.674E+00	1.231E+01	6.431E-01	-0.108
TL-202		68.90		-3.769E-01	7.068E-01	7.041E-01	5.399E-02	-0.535
		70.82		1.538E-01	3.053E-01	4.201E-01	3.252E-02	0.366
		80.30		-6.077E-02	5.063E-01	7.244E-01	6.013E-02	-0.084
		439.56	*	-1.572E-02	6.232E-02	1.015E-01	5.830E-03	-0.155
HG-203		70.83		1.136E+00	1.225E+00	1.825E+00	2.385E-01	0.622
		72.87		2.260E+00	8.109E-01	1.217E+00	1.546E-01	1.857
		82.60		3.095E-01	1.526E+00	1.870E+00	2.554E-01	0.166
		279.20	*	1.374E-02	4.217E-02	7.205E-02	4.430E-03	0.191

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		6.698E-01	2.257E-01	3.536E-01	2.770E-02	1.894
	+	74.97		7.126E-01	1.795E-01	2.506E-01	1.992E-02	2.844
		84.90		2.654E-01	2.283E-01	3.408E-01	2.957E-02	0.779
	+	569.67		1.238E-01	7.476E-02	8.445E-02	5.013E-03	1.466
		1063.62	*	-2.935E-02	5.452E-02	8.777E-02	6.233E-03	-0.334
		1770.23		-1.956E-01	5.264E-01	6.541E-01	3.946E-02	-0.299
TL-207		81.07		-2.753E-01	2.545E-01	3.466E-01	2.897E-02	-0.794
		83.78		8.779E-02	1.471E-01	2.155E-01	1.849E-02	0.407
		94.90		9.330E-01	2.995E-01	4.728E-01	3.806E-02	1.973
		122.32		1.849E+00	1.836E+00	3.103E+00	2.119E-01	0.596
		144.24		-1.066E-02	7.316E-01	1.157E+00	8.127E-02	-0.009
		154.21		2.406E-01	4.397E-01	7.265E-01	4.849E-02	0.331
	+	269.46		5.009E-01	2.933E-01	3.601E-01	2.172E-02	1.391
		323.87	*	-7.850E-01	7.164E-01	1.114E+00	1.841E-01	-0.704
	+	338.28		7.634E+00	1.799E+00	2.603E+00	2.738E-01	2.933
		445.03		3.246E-01	2.161E+00	3.624E+00	3.713E-01	0.090
PO-209		260.50		-1.876E+00	9.917E+00	1.565E+01	8.987E-01	-0.120
		262.80		-1.029E+01	2.815E+01	4.226E+01	2.429E+00	-0.243
		896.60	*	-1.986E+00	6.917E+00	1.079E+01	9.488E-01	-0.184
BI-210		46.50	*	-1.655E-01	3.331E+00	5.429E+00	4.138E-01	-0.030
PB-210		46.50	*	-1.655E-01	3.331E+00	5.429E+00	4.138E-01	-0.030
PO-210		46.50	*	-1.655E-01	3.331E+00	5.429E+00	3.538E-01	-0.030
PB-211		404.84	*	-9.072E-01	1.135E+00	1.549E+00	9.654E-01	-0.586
		427.08		6.829E-01	2.176E+00	3.617E+00	2.235E+00	0.189
		831.96		-9.769E-02	1.264E+00	1.979E+00	1.238E+00	-0.049
BI-212	+	727.18	*	1.141E+00	4.768E-01	6.359E-01	5.294E-02	1.795
		785.46		1.216E+00	1.847E+00	3.159E+00	2.311E-01	0.385
		1620.62		3.598E-01	1.154E+00	1.992E+00	1.330E-01	0.181
PO-215		81.07		-2.753E-01	2.545E-01	3.466E-01	2.897E-02	-0.794
		83.78		8.779E-02	1.471E-01	2.155E-01	1.849E-02	0.407
		94.90		9.330E-01	2.995E-01	4.728E-01	3.806E-02	1.973
		122.32		1.849E+00	1.836E+00	3.103E+00	2.119E-01	0.596
		144.24		-1.066E-02	7.316E-01	1.157E+00	8.127E-02	-0.009
		154.21		2.406E-01	4.397E-01	7.265E-01	4.849E-02	0.331
	+	269.46		5.009E-01	2.933E-01	3.601E-01	2.172E-02	1.391
		323.87	*	-7.850E-01	7.164E-01	1.114E+00	1.841E-01	-0.704
	+	338.28		7.634E+00	1.799E+00	2.603E+00	2.738E-01	2.933
		445.03		3.246E-01	2.161E+00	3.624E+00	3.713E-01	0.090
RN-219	+	271.23		6.426E-01	3.779E-01	4.493E-01	3.632E-02	1.430
		401.81	*	2.033E-01	4.337E-01	7.401E-01	1.001E-01	0.275
RN-220		549.76	*	-2.674E+00	2.497E+01	4.076E+01	2.419E+00	-0.066
RA-223		81.07		-2.753E-01	2.545E-01	3.466E-01	2.897E-02	-0.794
		83.78		8.779E-02	1.471E-01	2.155E-01	1.849E-02	0.407
		94.90		9.330E-01	2.995E-01	4.728E-01	3.806E-02	1.973
		122.32		1.849E+00	1.836E+00	3.103E+00	2.119E-01	0.596
		144.24		-1.066E-02	7.316E-01	1.157E+00	8.127E-02	-0.009
		154.21		2.406E-01	4.397E-01	7.265E-01	4.849E-02	0.331
	+	269.46		5.009E-01	2.933E-01	3.601E-01	2.172E-02	1.391
		323.87	*	-7.850E-01	7.164E-01	1.114E+00	1.841E-01	-0.704

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.634E+00	1.799E+00	2.603E+00	2.738E-01	2.933
		445.03		3.246E-01	2.161E+00	3.624E+00	3.713E-01	0.090
AC-227		79.80		1.963E+00	1.920E+00	2.823E+00	6.030E-01	0.695
		236.00		1.685E+00	3.644E-01	5.634E-01	5.840E-02	2.991
		256.20	*	8.250E-02	3.996E-01	6.449E-01	8.984E-02	0.128
		286.10		6.952E-01	1.505E+00	2.588E+00	2.992E-01	0.269
		299.80		1.884E+00	2.417E+00	2.614E+00	4.259E-01	0.721
	+	304.40		6.172E+00	5.693E+00	3.333E+00	5.767E-01	1.852
		334.20		-4.056E-01	2.690E+00	3.875E+00	7.103E-01	-0.105
TH-227		79.80		1.963E+00	1.921E+00	2.823E+00	6.108E-01	0.695
	+	94.00		1.345E+01	4.221E+00	4.523E+00	9.768E-01	2.974
		236.00		1.685E+00	3.536E-01	5.634E-01	5.046E-02	2.991
		256.20	*	8.250E-02	3.997E-01	6.449E-01	1.088E-01	0.128
		286.10		6.952E-01	1.657E+00	2.588E+00	2.592E+00	0.269
		299.80		1.884E+00	2.417E+00	2.614E+00	4.259E-01	0.721
	+	304.40		6.172E+00	5.693E+00	3.333E+00	5.767E-01	1.852
		334.20		-4.056E-01	2.690E+00	3.875E+00	7.103E-01	-0.105
TH-229		85.43		4.215E-01	2.318E-01	3.519E-01	3.069E-02	1.198
	+	88.47		2.985E-01	1.272E-01	2.191E-01	1.948E-02	1.362
		100.00		1.801E-01	2.091E-01	3.279E-01	2.467E-02	0.549
		193.63	*	-2.857E-01	5.505E-01	8.650E-01	4.667E-02	-0.330
		210.97		7.143E-01	9.547E-01	1.396E+00	7.686E-02	0.512
PA-231		283.67	*	-8.792E-01	1.565E+00	2.495E+00	3.438E-01	-0.352
		301.29		8.412E-01	6.529E-01	1.031E+00	1.078E-01	0.816
TH-231		81.07		-2.753E-01	2.545E-01	3.466E-01	2.897E-02	-0.794
		83.78		8.779E-02	1.471E-01	2.155E-01	1.849E-02	0.407
		94.90		9.330E-01	2.995E-01	4.728E-01	3.806E-02	1.973
		122.32		1.849E+00	1.836E+00	3.103E+00	2.119E-01	0.596
		144.24		-1.066E-02	7.316E-01	1.157E+00	8.127E-02	-0.009
		154.21		2.406E-01	4.397E-01	7.265E-01	4.849E-02	0.331
	+	269.46		5.009E-01	2.933E-01	3.601E-01	2.172E-02	1.391
		323.87	*	-7.850E-01	7.164E-01	1.114E+00	1.841E-01	-0.704
	+	338.28		7.634E+00	1.799E+00	2.603E+00	2.738E-01	2.933
		445.03		3.246E-01	2.161E+00	3.624E+00	3.713E-01	0.090
U-231		84.21		9.721E-01	6.398E+00	9.207E+00	7.932E-01	0.106
	+	92.29		1.316E+01	3.181E+00	4.747E+00	3.970E-01	2.772
		95.87	*	-3.006E-01	1.282E+00	1.815E+00	1.442E-01	-0.166
		108.00		-6.546E-01	2.205E+00	3.558E+00	2.440E-01	-0.184
PA-233	+	75.28		2.079E+01	5.865E+00	7.651E+00	1.147E+00	2.718
	+	86.59		4.280E+00	2.124E+00	3.106E+00	8.350E-01	1.378
		300.12		4.450E-01	6.691E-01	7.168E-01	9.636E-02	0.621
		311.98	*	4.559E-03	7.321E-02	1.075E-01	6.637E-03	0.042
		340.50		2.443E+00	9.452E-01	1.330E+00	3.054E-01	1.837
		398.62		-1.137E-02	2.227E+00	3.709E+00	9.573E-01	-0.003
		415.76		3.312E-01	1.681E+00	2.828E+00	5.811E-01	0.117
PA-234	+	63.00		5.430E+00	2.814E+00	3.043E+00	4.542E-01	1.784
		94.67		6.550E-01	2.160E-01	3.591E-01	4.321E-02	1.824
		98.44		6.151E-02	1.154E-01	1.613E-01	8.976E-02	0.381
		99.86		4.748E-01	5.596E-01	8.348E-01	6.293E-02	0.569

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		8.674E-02	1.971E-01	3.265E-01	3.516E-02	0.266
		131.20		-4.747E-02	1.156E-01	1.848E-01	1.064E-02	-0.257
		152.70		1.421E-01	3.624E-01	5.947E-01	9.318E-02	0.239
	+	186.00		7.254E+00	2.902E+00	2.815E+00	8.579E-01	2.577
		226.40		-2.255E-01	4.361E-01	6.800E-01	7.792E-02	-0.332
		227.20		-2.269E-02	4.639E-01	7.414E-01	4.151E-02	-0.031
		248.90		-4.858E-01	8.822E-01	1.358E+00	2.914E-01	-0.358
	+	293.70		6.883E+00	1.645E+00	1.890E+00	3.040E-01	3.643
		369.80		-3.527E-01	8.122E-01	1.313E+00	2.730E-01	-0.269
	+	568.70		4.028E+00	2.433E+00	2.761E+00	1.639E-01	1.459
	+	569.50		1.099E+00	6.636E-01	7.530E-01	4.470E-02	1.459
		574.00		1.913E+00	1.810E+00	2.844E+00	1.688E-01	0.673
		699.00		3.391E-01	7.546E-01	1.269E+00	2.301E-01	0.267
		706.10		-1.472E-01	1.181E+00	1.904E+00	8.417E-01	-0.077
		733.00		4.867E-02	4.557E-01	6.371E-01	1.371E-01	0.076
		742.81		5.206E-01	1.378E+00	2.245E+00	1.505E+00	0.232
	+	796.30		4.832E+00	2.039E+00	1.885E+00	5.033E-01	2.563
		805.60		1.666E+00	1.166E+00	1.866E+00	5.667E-01	0.893
		819.60		-2.244E-02	1.178E+00	1.904E+00	7.203E-01	-0.012
		826.30		3.554E-01	7.777E-01	1.292E+00	5.762E-01	0.275
		831.60		-1.982E-01	6.348E-01	9.925E-01	2.942E-01	-0.200
		876.40		-2.113E-01	9.042E-01	1.384E+00	1.422E+00	-0.153
		880.51		1.346E-01	2.871E-01	4.844E-01	4.151E-02	0.278
		883.24		-1.029E-02	2.795E-01	4.492E-01	3.019E-01	-0.023
		899.00		-4.997E-01	8.561E-01	1.249E+00	5.463E-01	-0.400
		925.00		3.479E-02	1.298E+00	2.095E+00	1.800E-01	0.017
		926.50		-2.702E-02	1.903E-01	3.021E-01	7.631E-02	-0.089
		946.00	*	-1.901E-02	3.115E-01	4.980E-01	9.296E-02	-0.038
		949.00		9.309E-02	4.883E-01	7.995E-01	6.699E-02	0.116
		980.50		1.290E-01	7.453E-01	1.219E+00	9.835E-02	0.106
		1394.10		6.064E-02	8.006E-01	1.341E+00	8.706E-01	0.045
PA-234M		766.42		1.367E+01	1.679E+01	2.337E+01	1.180E+01	0.585
		1001.03	*	-6.892E-01	4.909E+00	7.820E+00	7.280E-01	-0.088
U-235	+	89.95		3.127E+00	1.765E+00	2.057E+00	6.351E-01	1.520
	+	93.35		4.185E+00	1.506E+00	1.458E+00	4.069E-01	2.870
		105.00		9.173E-01	1.161E+00	1.900E+00	5.594E-01	0.483
		143.76	*	2.638E-02	2.259E-01	3.593E-01	5.826E-02	0.073
		163.35		-3.626E-02	5.192E-01	8.368E-01	1.491E-01	-0.043
	+	185.71		2.687E-01	7.111E-02	1.048E-01	5.600E-03	2.564
		205.31		2.813E-01	6.308E-01	9.061E-01	1.620E-01	0.310
NP-236		94.67		5.009E-01	1.579E-01	2.728E-01	2.203E-02	1.836
		98.44		4.649E-02	8.340E-02	1.219E-01	9.358E-03	0.381
		111.00		6.561E-02	1.490E-01	2.469E-01	1.641E-02	0.266
		160.31	*	-1.044E-01	8.833E-02	1.355E-01	7.179E-03	-0.770
NP-239		99.55		1.892E-01	1.858E-01	2.793E-01	2.114E-02	0.677
		117.00	*	-5.116E-02	1.936E-01	3.119E-01	1.950E-02	-0.164
	+	209.75		1.119E+00	9.324E-01	1.433E+00	7.882E-02	0.781
		228.18		5.805E-02	2.434E-01	3.943E-01	2.210E-02	0.147
		277.60		3.103E-01	1.923E-01	3.383E-01	1.957E-02	0.917

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-1.929E-01	1.526E+00	2.203E+00	1.275E-01	-0.088
AM-241		59.54	*	7.455E-03	1.775E-01	2.575E-01	2.120E-02	0.029
CM-243		99.55		1.947E-01	1.912E-01	2.874E-01	2.175E-02	0.677
		103.76	*	-1.018E-02	1.049E-01	1.706E-01	1.227E-02	-0.060
		117.00		-5.263E-02	1.992E-01	3.209E-01	2.006E-02	-0.164
	+	209.75		1.103E+00	9.192E-01	1.413E+00	7.770E-02	0.781
		228.18		5.865E-02	2.459E-01	3.985E-01	2.233E-02	0.147
		277.60		3.128E-01	1.939E-01	3.410E-01	1.973E-02	0.917
AM-246		798.80		1.772E-02	1.504E-01	2.139E-01	1.601E-02	0.083
		1036.00		-2.129E-03	2.993E-01	5.015E-01	3.736E-02	-0.004
		1062.04		5.323E-02	2.314E-01	3.956E-01	2.817E-02	0.135
		1078.86	*	-4.566E-02	1.419E-01	2.302E-01	1.588E-02	-0.198
CM-247		278.00		1.168E+00	7.787E-01	1.392E+00	8.057E-02	0.839
		287.40		9.705E-01	1.253E+00	2.184E+00	1.268E-01	0.444
		402.60	*	-1.309E-02	3.946E-02	6.443E-02	3.614E-03	-0.203
CF-249		252.85		-2.051E-01	8.903E-01	1.403E+00	8.019E-02	-0.146
		333.44		-5.341E-02	2.044E-01	2.922E-01	1.692E-02	-0.183
		387.95	*	-2.330E-03	4.245E-02	7.055E-02	3.940E-03	-0.033
CF-251		176.60	*	2.177E-02	1.354E-01	2.199E-01	1.162E-02	0.099
		227.00		-9.172E-02	4.136E-01	6.554E-01	3.669E-02	-0.140
		285.00		-1.129E+00	1.744E+00	2.838E+00	1.646E-01	-0.398

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691001      *
* Acquisition date :  9-FEB-2010 13:25:50 Detector SN#    :                 *
* Detector ID        : GAM19               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.47      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691001           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.2731E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.427E+01	2.374E+00	5.126E-01	0.000E+00
CD-109	2.224E+00	9.291E-01	1.401E+00	0.000E+00
SN-126	2.186E-01	9.133E-02	1.383E-01	0.000E+00
TL-208	5.426E-01	8.876E-02	6.274E-02	0.000E+00
BI-211	4.189E+00	5.137E-01	3.105E-01	0.000E+00
PB-212	1.531E+00	1.542E-01	9.601E-02	0.000E+00
PO-212	1.531E+00	1.542E-01	9.601E-02	0.000E+00
BI-214	1.079E+00	1.881E-01	1.186E-01	0.000E+00
PB-214	1.457E+00	1.936E-01	1.082E-01	0.000E+00
PO-214	1.457E+00	1.936E-01	1.082E-01	0.000E+00
PO-216	1.531E+00	1.542E-01	9.601E-02	0.000E+00
PO-218	1.457E+00	1.936E-01	1.082E-01	0.000E+00
RA-224	4.255E+00	1.107E+00	1.092E+00	0.000E+00
RA-226	1.079E+00	1.881E-01	1.186E-01	0.000E+00
AC-228	1.587E+00	3.230E-01	1.877E-01	0.000E+00
RA-228	1.587E+00	3.230E-01	1.877E-01	0.000E+00
TH-228	1.554E+00	1.565E-01	9.746E-02	0.000E+00
TH-230	1.079E+00	1.881E-01	1.186E-01	0.000E+00
TH-232	1.587E+00	3.230E-01	1.877E-01	0.000E+00
TH-234	4.659E+00	2.402E+00	2.208E+00	0.000E+00
U-234	1.079E+00	1.881E-01	1.186E-01	0.000E+00
NP-237	6.420E-01	2.980E-01	4.217E-01	0.000E+00
U-238	4.659E+00	2.402E+00	2.208E+00	0.000E+00
AM-243	3.970E-01	9.798E-02	9.564E-02	0.000E+00
ANH-511	1.569E-01	6.629E-02	4.611E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.331E-02	3.249E-01	5.618E-01	0.000E+00	NOT IDENT.
NA-22	-1.654E-02	4.000E-02	6.484E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	6.263E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.073E-02	2.897E-02	4.431E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.219E-02	8.857E-02	0.000E+00	FAIL ABUN
SC-46	1.650E-02	3.723E-02	6.449E-02	0.000E+00	FAIL ABUN
V-48	-3.675E-02	7.562E-02	1.185E-01	0.000E+00	NOT IDENT.
CR-51	1.526E-01	3.664E-01	6.551E-01	0.000E+00	NOT IDENT.
MN-52	-3.291E-02	1.878E-01	3.071E-01	0.000E+00	NOT IDENT.
MN-54	1.613E-02	3.777E-02	6.517E-02	0.000E+00	NOT IDENT.
CO-56	-3.772E-04	3.645E-02	6.057E-02	0.000E+00	FAIL ABUN
CO-57	1.843E-02	2.588E-02	4.582E-02	0.000E+00	NOT IDENT.
CO-58	-1.373E-02	3.969E-02	6.406E-02	0.000E+00	NOT IDENT.
FE-59	-1.065E-01	8.878E-02	1.340E-01	0.000E+00	NOT IDENT.
CO-60	3.196E-02	3.739E-02	6.924E-02	0.000E+00	NOT IDENT.
ZN-65	-4.151E-02	9.500E-02	1.316E-01	0.000E+00	NOT IDENT.
GE-68	1.217E+00	1.204E+00	2.244E+00	0.000E+00	NOT IDENT.
AS-73	-4.966E-01	8.019E-01	1.386E+00	0.000E+00	NOT IDENT.
AS-74	-4.783E-02	9.510E-02	1.555E-01	0.000E+00	NOT IDENT.
SE-75	2.744E-02	4.644E-02	7.440E-02	0.000E+00	FAIL ABUN
BR-77	9.187E+00	9.974E+00	1.814E+01	0.000E+00	FAIL ABUN
SR-82	9.763E-02	4.039E-01	6.022E-01	0.000E+00	NOT IDENT.
RB-83	4.301E-02	6.782E-02	1.211E-01	0.000E+00	NOT IDENT.
RB-84	5.612E-02	6.878E-02	1.228E-01	0.000E+00	NOT IDENT.
KR-85	1.137E+01	8.119E+00	1.349E+01	0.000E+00	NOT IDENT.
SR-85	5.827E-02	4.160E-02	6.914E-02	0.000E+00	NOT IDENT.
RB-86	8.960E-01	7.611E-01	1.436E+00	0.000E+00	NOT IDENT.
Y-88	2.014E-02	3.331E-02	6.126E-02	0.000E+00	NOT IDENT.
ZR-88	5.873E-03	3.106E-02	5.445E-02	0.000E+00	NOT IDENT.
Y-91	7.923E-01	1.799E+01	3.077E+01	0.000E+00	NOT IDENT.
NB-94	-1.001E-02	3.683E-02	6.070E-02	0.000E+00	NOT IDENT.
NB-95	5.718E-02	5.314E-02	8.508E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.527E-01	2.493E-01	0.000E+00	NOT IDENT.
ZR-95	3.363E-02	6.745E-02	1.179E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.714E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.932E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-5.877E+00	1.137E+01	1.815E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.362E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.091E-02	3.629E-02	6.222E-02	0.000E+00	NOT IDENT.
RH-102	1.665E-02	2.889E-02	5.150E-02	0.000E+00	NOT IDENT.
RU-103	-3.460E-02	3.723E-02	5.874E-02	0.000E+00	FAIL ABUN
RH-106	-1.926E-01	3.296E-01	5.318E-01	0.000E+00	FAIL ABUN
RU-106	-1.926E-01	3.290E-01	5.318E-01	0.000E+00	FAIL ABUN
AG-108M	8.795E-03	3.058E-02	5.380E-02	0.000E+00	NOT IDENT.
AG-110M	-5.533E-02	3.652E-02	5.384E-02	0.000E+00	NOT IDENT.
IN-111	6.744E-01	1.188E+00	1.805E+00	0.000E+00	NOT IDENT.
IN-113M	8.945E-03	4.442E-02	7.794E-02	0.000E+00	NOT IDENT.
SN-113	8.945E-03	4.442E-02	7.794E-02	0.000E+00	NOT IDENT.
IN-114M	-4.327E-02	2.104E-01	3.071E-01	0.000E+00	NOT IDENT.
CD-115	2.139E+00	1.010E+01	1.753E+01	0.000E+00	NOT IDENT.
SN-117M	-7.547E-03	5.850E-02	9.929E-02	0.000E+00	NOT IDENT.
SB-122	1.596E-01	2.421E+00	3.595E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.769E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.263E-02	3.064E-02	5.066E-02	0.000E+00	NOT IDENT.
I-124	-3.164E-01	7.865E-01	1.107E+00	0.000E+00	NOT IDENT.
SB-124	-3.391E-02	5.905E-02	8.461E-02	0.000E+00	NOT IDENT.
SB-125	6.567E-03	9.379E-02	1.627E-01	0.000E+00	FAIL ABUN
TE-125M	-8.564E+00	9.876E+00	1.648E+01	0.000E+00	NOT IDENT.
I-126	-2.233E-01	2.107E-01	3.286E-01	0.000E+00	NOT IDENT.
SB-126	3.377E-02	1.451E-01	2.350E-01	0.000E+00	FAIL ABUN
SB-127	-1.910E-01	1.350E+00	2.248E+00	0.000E+00	NOT IDENT.
XE-127	-3.315E-02	5.065E-02	8.308E-02	0.000E+00	NOT IDENT.
I-131	8.069E-02	1.100E-01	1.995E-01	0.000E+00	NOT IDENT.
TE-132	1.759E-01	7.208E-01	1.225E+00	0.000E+00	NOT IDENT.
BA-133	2.912E-02	4.504E-02	7.183E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.438E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.167E-02	1.002E-01	0.000E+00	FAIL ABUN
CS-135	2.810E-01	1.779E-01	2.985E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.364E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.662E-02	9.853E-02	1.648E-01	0.000E+00	FAIL ABUN
BA-137M	4.097E-02	4.123E-02	7.403E-02	0.000E+00	NOT IDENT.
CS-137	4.331E-02	4.358E-02	7.826E-02	0.000E+00	NOT IDENT.
CE-139	8.683E-03	3.195E-02	5.502E-02	0.000E+00	NOT IDENT.
BA-140	-2.643E-02	2.510E-01	4.249E-01	0.000E+00	FAIL ABUN
LA-140	-3.210E-02	8.445E-02	1.331E-01	0.000E+00	NOT IDENT.
CE-141	-3.013E-02	6.642E-02	1.089E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.896E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.394E-01	2.153E-01	3.486E-01	0.000E+00	NOT IDENT.
PM-144	-1.163E-03	3.392E-02	5.694E-02	0.000E+00	NOT IDENT.
PR-144	-7.880E-02	2.299E+00	3.858E+00	0.000E+00	NOT IDENT.

PM-146	7.869E-02	4.194E-02	7.999E-02	0.000E+00	NOT IDENT.
ND-147	7.580E-02	5.363E-01	9.258E-01	0.000E+00	FAIL ABUN
PM-149	4.464E+01	8.676E+01	1.561E+02	0.000E+00	NOT IDENT.
EU-152	1.200E-02	1.228E-01	1.650E-01	0.000E+00	FAIL ABUN
GD-153	2.895E-02	9.163E-02	1.406E-01	0.000E+00	NOT IDENT.
EU-154	-4.113E-02	1.123E-01	1.830E-01	0.000E+00	NOT IDENT.
EU-155	8.433E-02	1.149E-01	2.040E-01	0.000E+00	FAIL ABUN
TB-160	-9.579E-03	1.405E-01	2.317E-01	0.000E+00	FAIL ABUN
HO-166M	-2.680E-02	6.289E-02	1.020E-01	0.000E+00	NOT IDENT.
TM-171	-1.479E+01	3.218E+01	4.861E+01	0.000E+00	NOT IDENT.
LU-176	1.705E-02	2.859E-02	4.550E-02	0.000E+00	FAIL ABUN
LU-177	1.568E+00	1.281E+00	2.050E+00	0.000E+00	FAIL ABUN
LU-177M	-8.586E-02	1.794E-01	3.014E-01	0.000E+00	FAIL ABUN
HF-181	3.701E-02	4.202E-02	7.628E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	4.385E-01	7.300E-01	0.000E+00	NOT IDENT.
TA-182	8.901E-02	1.994E-01	3.513E-01	0.000E+00	FAIL ABUN
RE-183	7.668E-02	1.151E-01	2.015E-01	0.000E+00	FAIL ABUN
RE-184	-5.465E-02	2.325E-01	3.838E-01	0.000E+00	NOT IDENT.
OS-185	9.677E-03	4.111E-02	7.083E-02	0.000E+00	NOT IDENT.
RE-188	1.867E-01	1.858E-01	3.290E-01	0.000E+00	NOT IDENT.
W-188	-2.695E+00	8.654E+00	1.298E+01	0.000E+00	FAIL ABUN
IR-192	-1.513E-02	3.374E-02	5.768E-02	0.000E+00	FAIL ABUN
AU-195	2.608E-01	2.632E-01	4.164E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.264E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.326E+00	7.521E+00	1.271E+01	0.000E+00	NOT IDENT.
TL-202	-1.572E-02	6.107E-02	1.034E-01	0.000E+00	NOT IDENT.
HG-203	1.374E-02	4.132E-02	7.386E-02	0.000E+00	NOT IDENT.
BI-207	-2.935E-02	5.343E-02	8.819E-02	0.000E+00	FAIL ABUN
TL-207	-7.850E-01	7.021E-01	1.140E+00	0.000E+00	FAIL ABUN
PO-209	-1.986E+00	6.778E+00	1.087E+01	0.000E+00	NOT IDENT.
BI-210	-1.655E-01	3.264E+00	5.711E+00	0.000E+00	NOT IDENT.
PB-210	-1.655E-01	3.264E+00	5.711E+00	0.000E+00	NOT IDENT.
PO-210	-1.655E-01	3.264E+00	5.711E+00	0.000E+00	NOT IDENT.
PB-211	-9.072E-01	1.112E+00	1.579E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.673E-01	6.426E-01	0.000E+00	FAIL ABUN
PO-215	-7.850E-01	7.021E-01	1.140E+00	0.000E+00	FAIL ABUN
RN-219	2.033E-01	4.250E-01	7.547E-01	0.000E+00	FAIL ABUN
RN-220	-2.674E+00	2.447E+01	4.137E+01	0.000E+00	NOT IDENT.
RA-223	-7.850E-01	7.021E-01	1.140E+00	0.000E+00	FAIL ABUN
AC-227	8.250E-02	3.917E-01	6.620E-01	0.000E+00	FAIL ABUN
TH-227	8.250E-02	3.917E-01	6.620E-01	0.000E+00	FAIL ABUN
TH-229	-2.857E-01	5.395E-01	8.915E-01	0.000E+00	FAIL ABUN
PA-231	-8.792E-01	1.534E+00	2.557E+00	0.000E+00	NOT IDENT.
TH-231	-7.850E-01	7.021E-01	1.140E+00	0.000E+00	FAIL ABUN
U-231	-3.006E-01	1.256E+00	1.890E+00	0.000E+00	FAIL ABUN
PA-233	4.559E-03	7.174E-02	1.100E-01	0.000E+00	FAIL ABUN
PA-234	-1.901E-02	3.053E-01	5.013E-01	0.000E+00	FAIL ABUN
PA-234M	-6.892E-01	4.811E+00	7.865E+00	0.000E+00	NOT IDENT.
U-235	2.638E-02	2.214E-01	3.720E-01	0.000E+00	FAIL ABUN
NP-236	-1.044E-01	8.656E-02	1.401E-01	0.000E+00	NOT IDENT.
NP-239	-5.116E-02	1.897E-01	3.238E-01	0.000E+00	FAIL ABUN
AM-241	7.455E-03	1.739E-01	2.699E-01	0.000E+00	NOT IDENT.
CM-243	-1.018E-02	1.028E-01	1.775E-01	0.000E+00	FAIL ABUN
AM-246	-4.566E-02	1.390E-01	2.313E-01	0.000E+00	NOT IDENT.
CM-247	-1.309E-02	3.867E-02	6.569E-02	0.000E+00	NOT IDENT.
CF-249	-2.330E-03	4.160E-02	7.197E-02	0.000E+00	NOT IDENT.
CF-251	2.177E-02	1.327E-01	2.270E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 15:26:24.57

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691001.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 13:25:50.
Sample ID         : G245691001           Sample quantity  : 1.27310E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1026	10.67*	1.168E+00	2.427E+01	2.427E+01	9.98
CD-109	88.03	167	3.72*	6.092E+00	2.175E+00	2.224E+00	42.63
SN-126	64.28	219	9.60	3.650E+00	1.844E+00	1.844E+00	51.73
	86.94	167	8.90	6.092E+00	9.089E-01	9.089E-01	58.76
	87.57	167	37.00*	6.092E+00	2.186E-01	2.186E-01	42.63
TL-208	277.35	------	6.80	4.511E+00	------ Line Not Found		------
	510.84	151	21.60	2.842E+00	7.264E-01	7.264E-01	43.91
	583.14	396	84.20*	2.554E+00	5.426E-01	5.426E-01	16.69
	860.37	61	12.46	1.836E+00	7.820E-01	7.820E-01	59.79
BI-211	72.87	------	1.27	4.857E+00	------ Line Not Found		------
	351.07	696	12.94*	3.787E+00	4.189E+00	4.189E+00	12.51
PB-212	74.81	451	10.70	5.073E+00	2.449E+00	2.449E+00	26.86
	77.11	709	18.00	5.307E+00	2.189E+00	2.189E+00	15.71
	87.30	167	8.00	6.092E+00	1.011E+00	1.011E+00	43.78
	238.63	1162	44.60*	5.017E+00	1.531E+00	1.531E+00	10.28
	300.09	------	3.41	4.261E+00	------ Line Not Found		------
PO-212	74.81	451	10.70	5.073E+00	2.449E+00	2.449E+00	26.86
	77.11	709	18.00	5.307E+00	2.189E+00	2.189E+00	15.71
	87.30	167	8.00	6.092E+00	1.011E+00	1.011E+00	43.78
	115.19	------	0.60	6.866E+00	------ Line Not Found		------
	238.63	1162	44.60*	5.017E+00	1.531E+00	1.531E+00	10.28
	300.09	------	3.41	4.261E+00	------ Line Not Found		------
BI-214	609.31	418	46.30*	2.464E+00	1.079E+00	1.079E+00	17.79
	1120.29	123	15.10	1.455E+00	1.649E+00	1.649E+00	28.51
	1764.49	87	15.80	1.029E+00	1.573E+00	1.573E+00	28.55
PB-214	74.81	451	6.21	5.073E+00	4.219E+00	4.219E+00	26.25
	77.11	709	10.50	5.307E+00	3.752E+00	3.752E+00	17.46
	87.30	167	4.67	6.092E+00	1.732E+00	1.732E+00	43.32
	241.98	283	7.49	4.973E+00	2.244E+00	2.244E+00	27.12
	295.21	403	19.20	4.313E+00	1.434E+00	1.434E+00	19.63
	351.92	696	37.20*	3.787E+00	1.457E+00	1.457E+00	13.56
PO-214	74.81	451	6.21	5.073E+00	4.219E+00	4.219E+00	26.25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	709	10.50	5.307E+00	3.752E+00	3.752E+00	17.46
	87.30	167	4.67	6.092E+00	1.732E+00	1.732E+00	43.32
	241.98	283	7.49	4.973E+00	2.244E+00	2.244E+00	27.12
	295.21	403	19.20	4.313E+00	1.434E+00	1.434E+00	19.63
	351.92	696	37.20*	3.787E+00	1.457E+00	1.457E+00	13.56
PO-216	74.81	451	10.70	5.073E+00	2.449E+00	2.449E+00	26.86
	77.11	709	18.00	5.307E+00	2.189E+00	2.189E+00	15.71
	87.30	167	8.00	6.092E+00	1.011E+00	1.011E+00	43.78
	238.63	1162	44.60*	5.017E+00	1.531E+00	1.531E+00	10.28
	300.09	------	3.41	4.261E+00	------ Line Not Found		------
PO-218	74.81	451	6.21	5.073E+00	4.219E+00	4.219E+00	26.25
	77.11	709	10.50	5.307E+00	3.752E+00	3.752E+00	17.46
	87.30	167	4.67	6.092E+00	1.732E+00	1.732E+00	43.32
	241.98	283	7.49	4.973E+00	2.244E+00	2.244E+00	27.12
	295.21	403	19.20	4.313E+00	1.434E+00	1.434E+00	19.63
	351.92	696	37.20*	3.787E+00	1.457E+00	1.457E+00	13.56
RA-224	240.98	283	3.95*	4.973E+00	4.255E+00	4.255E+00	26.53
RA-226	609.31	418	46.30*	2.464E+00	1.079E+00	1.079E+00	17.79
	1120.29	123	15.10	1.455E+00	1.649E+00	1.649E+00	28.51
	1764.49	87	15.80	1.029E+00	1.573E+00	1.573E+00	28.55
AC-228	338.32	276	11.40	3.901E+00	1.828E+00	1.828E+00	45.89
	911.07	260	27.70*	1.745E+00	1.587E+00	1.587E+00	20.78
	969.11	90	16.60	1.652E+00	9.694E-01	9.694E-01	62.00
RA-228	338.32	276	11.40	3.901E+00	1.828E+00	1.828E+00	45.89
	911.07	260	27.70*	1.745E+00	1.587E+00	1.587E+00	20.78
	969.11	90	16.60	1.652E+00	9.694E-01	9.694E-01	62.00
TH-228	74.81	451	10.70	5.073E+00	2.449E+00	2.486E+00	25.21
	77.11	709	18.00	5.307E+00	2.189E+00	2.222E+00	15.71
	87.30	167	8.00	6.092E+00	1.011E+00	1.026E+00	42.63
	238.63	1162	44.60*	5.017E+00	1.531E+00	1.554E+00	10.28
	300.09	------	3.41	4.261E+00	------ Line Not Found		------
TH-230	609.31	418	46.30*	2.464E+00	1.079E+00	1.079E+00	17.79
	1120.29	123	15.10	1.455E+00	1.649E+00	1.649E+00	28.51
	1764.49	87	15.80	1.029E+00	1.573E+00	1.573E+00	28.55
TH-232	338.32	276	11.40	3.901E+00	1.828E+00	1.828E+00	21.86
	911.07	260	27.70*	1.745E+00	1.587E+00	1.587E+00	20.78
	969.11	90	16.60	1.652E+00	9.694E-01	9.694E-01	62.00
TH-234	63.29	219	3.80*	3.650E+00	4.659E+00	4.659E+00	52.62
	92.38	408	5.41	6.396E+00	3.481E+00	3.481E+00	28.94
U-234	609.31	418	46.30*	2.464E+00	1.079E+00	1.079E+00	17.79
	1120.29	123	15.10	1.455E+00	1.649E+00	1.649E+00	28.51
	1764.49	87	15.80	1.029E+00	1.573E+00	1.573E+00	28.55
NP-237	86.50	167	12.60*	6.092E+00	6.420E-01	6.420E-01	47.36
	95.87	------	2.60	6.515E+00	------ Line Not Found		------
U-238	63.29	219	3.80*	3.650E+00	4.659E+00	4.659E+00	52.62
	92.38	408	5.41	6.396E+00	3.481E+00	3.481E+00	24.18
AM-243	74.67	451	66.00*	5.073E+00	3.970E-01	3.970E-01	25.19
	86.72	167	0.34	6.092E+00	2.408E+01	2.408E+01	42.63
	117.66	------	0.55	6.871E+00	------ Line Not Found		------

Sample ID : G245691001 Acquisition date : 9-FEB-2010 13:25:50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	6.659E+00	------ Line Not Found		------
ANH-511	511.00	151	100.00*	2.842E+00	1.569E-01	1.569E-01	43.11

Flag: "*" = Keyline

Sample ID : G245691001 Acquisition date : 9-FEB-2010 13:25:50

Total number of lines in spectrum 33
Number of unidentified lines 3
Number of lines tentatively identified by NID 30 90.91%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.427E+01	2.427E+01	0.242E+01	9.98	
CD-109	464.00D	1.02	2.175E+00	2.224E+00	0.948E+00	42.63	
SN-126	1.00E+05Y	1.00	2.186E-01	2.186E-01	0.932E-01	42.63	
TL-208	1.41E+10Y	1.00	5.426E-01	5.426E-01	0.906E-01	16.69	
BI-211	7.04E+08Y	1.00	4.189E+00	4.189E+00	0.524E+00	12.51	
PB-212	1.41E+10Y	1.00	1.531E+00	1.531E+00	0.157E+00	10.28	
PO-212	1.41E+10Y	1.00	1.531E+00	1.531E+00	0.157E+00	10.28	
BI-214	1600.00Y	1.00	1.079E+00	1.079E+00	0.192E+00	17.79	
PB-214	1600.00Y	1.00	1.457E+00	1.457E+00	0.198E+00	13.56	
PO-214	1600.00Y	1.00	1.457E+00	1.457E+00	0.198E+00	13.56	
PO-216	1.41E+10Y	1.00	1.531E+00	1.531E+00	0.157E+00	10.28	
PO-218	1600.00Y	1.00	1.457E+00	1.457E+00	0.198E+00	13.56	
RA-224	1.41E+10Y	1.00	4.255E+00	4.255E+00	1.129E+00	26.53	
RA-226	1600.00Y	1.00	1.079E+00	1.079E+00	0.192E+00	17.79	
AC-228	1.41E+10Y	1.00	1.587E+00	1.587E+00	0.330E+00	20.78	
RA-228	1.41E+10Y	1.00	1.587E+00	1.587E+00	0.330E+00	20.78	
TH-228	1.91Y	1.02	1.531E+00	1.554E+00	0.160E+00	10.28	
TH-230	4.47E+09Y	1.00	1.079E+00	1.079E+00	0.192E+00	17.79	
TH-232	1.41E+10Y	1.00	1.587E+00	1.587E+00	0.330E+00	20.78	
TH-234	4.47E+09Y	1.00	4.659E+00	4.659E+00	2.451E+00	52.62	
U-234	4.47E+09Y	1.00	1.079E+00	1.079E+00	0.192E+00	17.79	
NP-237	2.14E+06Y	1.00	6.420E-01	6.420E-01	3.041E-01	47.36	
U-238	4.47E+09Y	1.00	4.659E+00	4.659E+00	2.451E+00	52.62	
AM-243	7380.00Y	1.00	3.970E-01	3.970E-01	0.100E+00	25.19	
ANH-511	1.00E+09Y	1.00	1.569E-01	1.569E-01	0.676E-01	43.11	
	Total Activity :		6.574E+01	6.581E+01			

Grand Total Activity : 6.574E+01 6.581E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691001 Acquisition date : 9-FEB-2010 13:25:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	90.17	179	485	1.49	180.16	171	23	2.49E-02	47.2	6.26E+00	T
0	185.92	289	291	1.52	371.51	366	10	4.02E-02	25.9	5.88E+00	T
0	209.03	67	241	1.38	417.69	415	8	9.35E-03	83.2	5.48E+00	T
0	269.94	106	213	1.74	539.45	534	12	1.48E-02	58.3	4.60E+00	T
0	303.36	119	397	9.66	606.24	596	24	1.66E-02	90.6	4.23E+00	T
0	463.92	39	132	1.56	927.19	920	12	5.36E-03	****	3.07E+00	T
0	568.51	107	177	1.93	1136.29	1129	16	1.48E-02	60.1	2.61E+00	T
0	728.11	97	64	3.24	1455.38	1449	14	1.35E-02	40.9	2.12E+00	T
0	769.32	70	95	1.83	1537.80	1530	18	9.75E-03	70.4	2.02E+00	
0	795.91	126	45	1.92	1590.97	1582	20	1.74E-02	32.7	1.97E+00	T
0	1238.52	40	66	1.50	2476.24	2471	12	5.60E-03	85.3	1.34E+00	T
0	1378.65	27	20	1.54	2756.58	2751	9	3.80E-03	70.3	1.22E+00	
0	1408.97	18	14	1.25	2817.26	2813	9	2.43E-03	89.5	1.20E+00	T
0	1562.14	23	0	1.54	3123.74	3117	13	3.19E-03	41.7	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 15:26:29.57

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691001.CNF;1 *
* Acquisition date  : 9-FEB-2010 13:25:50.  Detector SN#     :             *
* Detector ID       : GAM19                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.47          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245691001            Analyst initials: MJH1         *
* Batch Number      : 947037                Sample Quantity : 1.27310E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.427E+01	2.422E+00	5.127E-01	3.818E-02	47.343
CD-109	2.224E+00	9.481E-01	1.344E+00	1.204E-01	1.655
SN-126	2.186E-01	9.320E-02	1.327E-01	1.183E-02	1.648
TL-208	5.426E-01	9.057E-02	6.188E-02	4.208E-03	8.770
BI-211	4.189E+00	5.242E-01	3.039E-01	1.941E-02	13.781
PB-212	1.531E+00	1.573E-01	9.344E-02	6.744E-03	16.385
PO-212	1.531E+00	1.573E-01	9.344E-02	6.744E-03	16.385
BI-214	1.079E+00	1.919E-01	1.171E-01	9.204E-03	9.219
PB-214	1.457E+00	1.976E-01	1.059E-01	8.734E-03	13.754
PO-214	1.457E+00	1.976E-01	1.059E-01	8.734E-03	13.754
PO-216	1.531E+00	1.573E-01	9.344E-02	6.744E-03	16.385
PO-218	1.457E+00	1.976E-01	1.059E-01	8.734E-03	13.754
RA-224	4.255E+00	1.129E+00	1.063E+00	6.022E-02	4.004
RA-226	1.079E+00	1.919E-01	1.171E-01	9.204E-03	9.219
AC-228	1.587E+00	3.296E-01	1.864E-01	2.109E-02	8.512
RA-228	1.587E+00	3.296E-01	1.864E-01	2.109E-02	8.512
TH-228	1.554E+00	1.597E-01	9.485E-02	6.846E-03	16.385
TH-230	1.079E+00	1.919E-01	1.171E-01	9.204E-03	9.219

Sample ID : G245691001 Acquisition date : 9-FEB-2010 13:25:50

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.587E+00	3.296E-01	1.864E-01	2.109E-02	8.512
TH-234	4.659E+00	2.451E+00	2.109E+00	3.689E-01	2.209
U-234	1.079E+00	1.919E-01	1.171E-01	9.204E-03	9.219
NP-237	6.420E-01	3.041E-01	4.045E-01	9.076E-02	1.587
U-238	4.659E+00	2.451E+00	2.109E+00	3.689E-01	2.209
AM-243	3.970E-01	9.998E-02	9.153E-02	7.259E-03	4.337
ANH-511	1.569E-01	6.764E-02	4.538E-02	2.678E-03	3.458

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.331E-02		3.315E-01	5.524E-01	3.750E-02	0.060
NA-22	-1.654E-02		4.081E-02	6.471E-02	4.317E-03	-0.256
NA-24	1.645E-02		3.195E-01	Half-Life too short		
AL-26	-1.073E-02		2.956E-02	4.446E-02	2.596E-03	-0.241
TI-44	4.039E-01	+	6.346E-02	8.483E-02	6.924E-03	4.761
SC-46	1.650E-02		3.799E-02	6.401E-02	5.562E-03	0.258
V-48	-3.675E-02		7.716E-02	1.178E-01	9.472E-03	-0.312
CR-51	1.526E-01		3.739E-01	6.403E-01	4.143E-02	0.238
MN-52	-3.291E-02		1.916E-01	3.071E-01	2.215E-02	-0.107
MN-54	1.613E-02		3.854E-02	6.463E-02	5.141E-03	0.250
CO-56	-3.772E-04		3.719E-02	6.008E-02	4.874E-03	-0.006
CO-57	1.843E-02		2.641E-02	4.416E-02	2.636E-03	0.417
CO-58	-1.373E-02		4.050E-02	6.350E-02	4.866E-03	-0.216
FE-59	-1.065E-01		9.059E-02	1.335E-01	1.002E-02	-0.798
CO-60	3.196E-02		3.815E-02	6.915E-02	5.096E-03	0.462
ZN-65	-4.151E-02		9.693E-02	1.311E-01	8.383E-03	-0.317
GE-68	1.217E+00		1.229E+00	2.234E+00	1.546E-01	0.545
AS-73	-4.966E-01		8.183E-01	1.321E+00	9.767E-02	-0.376
AS-74	-4.783E-02		9.705E-02	1.534E-01	9.086E-03	-0.312
SE-75	2.744E-02		4.739E-02	7.252E-02	4.217E-03	0.378
BR-77	9.187E+00		1.018E+01	1.786E+01	1.056E+00	0.514
SR-82	9.763E-02		4.121E-01	5.965E-01	4.295E-02	0.164
RB-83	4.301E-02		6.921E-02	1.192E-01	7.049E-03	0.361
RB-84	5.612E-02		7.018E-02	1.219E-01	1.046E-02	0.460
KR-85	1.137E+01		8.285E+00	1.328E+01	7.843E-01	0.856
SR-85	5.827E-02		4.245E-02	6.806E-02	4.019E-03	0.856
RB-86	8.960E-01		7.767E-01	1.430E+00	9.905E-02	0.627
Y-88	2.014E-02		3.399E-02	6.149E-02	3.510E-03	0.328
ZR-88	5.873E-03		3.169E-02	5.338E-02	2.972E-03	0.110
Y-91	7.923E-01		1.836E+01	3.068E+01	1.792E+00	0.026
NB-94	-1.001E-02		3.758E-02	6.004E-02	3.781E-03	-0.167
NB-95	5.718E-02		5.422E-02	8.425E-02	5.954E-03	0.679
NB-95M	3.377E-01		1.558E-01	2.426E-01	1.797E-02	1.392
ZR-95	3.363E-02		6.883E-02	1.167E-01	9.346E-03	0.288
NB-97	-1.325E-01		4.956E-02	Half-Life too short		
ZR-97	4.241E+00		9.858E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-5.877E+00		1.161E+01	1.796E+01	2.551E+00	-0.327
TC-99M	-6.711E+08		1.715E+10	Half-Life too short		
RH-101	3.091E-02		3.703E-02	6.039E-02	3.276E-03	0.512
RH-102	1.665E-02		2.948E-02	5.064E-02	2.956E-03	0.329
RU-103	-3.460E-02		3.799E-02	5.779E-02	7.329E-03	-0.599
RH-106	-1.926E-01		3.363E-01	5.249E-01	6.187E-02	-0.367
RU-106	-1.926E-01		3.357E-01	5.249E-01	3.095E-02	-0.367
AG-108M	8.795E-03		3.121E-02	5.282E-02	3.290E-03	0.166
AG-110M	-5.533E-02		3.727E-02	5.320E-02	3.301E-03	-1.040
IN-111	6.744E-01		1.212E+00	1.758E+00	9.993E-02	0.384
IN-113M	8.945E-03		4.532E-02	7.641E-02	4.559E-03	0.117
SN-113	8.945E-03		4.532E-02	7.641E-02	4.559E-03	0.117
IN-114M	-4.327E-02		2.147E-01	2.979E-01	1.601E-02	-0.145
CD-115	2.139E+00		1.031E+01	1.727E+01	1.022E+00	0.124
SN-117M	-7.547E-03		5.969E-02	9.606E-02	5.113E-03	-0.079
SB-122	1.596E-01		2.471E+00	3.544E+00	2.103E-01	0.045
I-123	-4.262E+00		2.943E+00	Half-Life too short		
TE-123M	-2.263E-02		3.126E-02	4.901E-02	2.647E-03	-0.462
I-124	-3.164E-01		8.026E-01	1.092E+00	6.464E-02	-0.290
SB-124	-3.391E-02		6.026E-02	8.482E-02	5.809E-03	-0.400
SB-125	6.567E-03		9.571E-02	1.597E-01	9.509E-03	0.041
TE-125M	-8.564E+00		1.008E+01	1.586E+01	1.402E+00	-0.540
I-126	-2.233E-01		2.151E-01	3.247E-01	1.908E-02	-0.688
SB-126	3.377E-02		1.481E-01	2.325E-01	1.514E-02	0.145
SB-127	-1.910E-01		1.378E+00	2.222E+00	2.132E-01	-0.086
XE-127	-3.315E-02		5.169E-02	8.066E-02	4.401E-03	-0.411
I-131	8.069E-02		1.123E-01	1.954E-01	1.247E-02	0.413
TE-132	1.759E-01		7.355E-01	1.191E+00	1.700E-01	0.148
BA-133	2.912E-02		4.596E-02	7.032E-02	8.105E-03	0.414
I-133	1.534E-03		2.775E-03	Half-Life too short		
CS-134	2.486E-01	+	8.333E-02	9.931E-02	7.468E-03	2.503
CS-135	2.810E-01		1.815E-01	2.910E-01	2.221E-02	0.965
I-135	-4.593E+08		2.226E+09	Half-Life too short		
CS-136	-2.662E-02		1.005E-01	1.640E-01	1.268E-02	-0.162
BA-137M	4.097E-02		4.207E-02	7.316E-02	4.260E-03	0.560
CS-137	4.331E-02		4.447E-02	7.733E-02	4.522E-03	0.560
CE-139	8.683E-03		3.261E-02	5.326E-02	2.780E-03	0.163
BA-140	-2.643E-02		2.561E-01	4.185E-01	1.362E-01	-0.063
LA-140	-3.210E-02		8.618E-02	1.333E-01	9.018E-03	-0.241
CE-141	-3.013E-02		6.778E-02	1.052E-01	6.060E-03	-0.286
CE-143	1.046E-03		1.478E-04	Half-Life too short		
CE-144	-2.394E-01		2.197E-01	3.364E-01	4.766E-02	-0.712
PM-144	-1.163E-03		3.462E-02	5.631E-02	3.508E-03	-0.021
PR-144	-7.880E-02		2.346E+00	3.815E+00	2.375E-01	-0.021
PM-146	7.869E-02		4.280E-02	7.860E-02	6.769E-03	1.001
ND-147	7.580E-02		5.473E-01	9.117E-01	1.238E-01	0.083
PM-149	4.464E+01		8.853E+01	1.523E+02	2.160E+01	0.293
EU-152	1.200E-02		1.253E-01	1.614E-01	1.051E-02	0.074

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	2.895E-02		9.350E-02	1.351E-01	1.051E-02	0.214
EU-154	-4.113E-02		1.146E-01	1.827E-01	1.808E-02	-0.225
EU-155	8.433E-02		1.173E-01	1.962E-01	1.412E-02	0.430
TB-160	-9.579E-03		1.434E-01	2.299E-01	1.967E-02	-0.042
HO-166M	-2.680E-02		6.418E-02	1.009E-01	6.465E-03	-0.266
TM-171	-1.479E+01		3.284E+01	4.645E+01	3.531E+00	-0.318
LU-176	1.705E-02		2.918E-02	4.444E-02	2.585E-03	0.384
LU-177	1.568E+00	+	1.307E+00	1.991E+00	1.093E-01	0.788
LU-177M	-8.586E-02		1.830E-01	2.957E-01	1.672E-02	-0.290
HF-181	3.701E-02		4.288E-02	7.501E-02	4.390E-03	0.493
W-181	1.012E+00		4.474E-01	6.973E-01	5.277E-02	1.452
TA-182	8.901E-02		2.035E-01	3.504E-01	2.113E-02	0.254
RE-183	7.668E-02		1.175E-01	1.950E-01	1.027E-02	0.393
RE-184	-5.465E-02		2.372E-01	3.738E-01	2.137E-02	-0.146
OS-185	9.677E-03		4.195E-02	6.997E-02	4.098E-03	0.138
RE-188	1.867E-01		1.895E-01	3.182E-01	1.710E-02	0.587
W-188	-2.695E+00		8.831E+00	1.267E+01	7.357E-01	-0.213
IR-192	-1.513E-02		3.443E-02	5.637E-02	3.294E-03	-0.268
AU-195	2.608E-01		2.685E-01	4.001E-01	3.053E-02	0.652
TL-200	-3.240E-04		2.175E-04	Half-Life too short		
TL-201	-1.326E+00		7.674E+00	1.231E+01	6.431E-01	-0.108
TL-202	-1.572E-02		6.232E-02	1.015E-01	5.830E-03	-0.155
HG-203	1.374E-02		4.217E-02	7.205E-02	4.430E-03	0.191
BI-207	-2.935E-02		5.452E-02	8.777E-02	6.233E-03	-0.334
TL-207	-7.850E-01		7.164E-01	1.114E+00	1.841E-01	-0.704
PO-209	-1.986E+00		6.917E+00	1.079E+01	9.488E-01	-0.184
BI-210	-1.655E-01		3.331E+00	5.429E+00	4.138E-01	-0.030
PB-210	-1.655E-01		3.331E+00	5.429E+00	4.138E-01	-0.030
PO-210	-1.655E-01		3.331E+00	5.429E+00	3.538E-01	-0.030
PB-211	-9.072E-01		1.135E+00	1.549E+00	9.654E-01	-0.586
BI-212	1.141E+00	+	4.768E-01	6.359E-01	5.294E-02	1.795
PO-215	-7.850E-01		7.164E-01	1.114E+00	1.841E-01	-0.704
RN-219	2.033E-01		4.337E-01	7.401E-01	1.001E-01	0.275
RN-220	-2.674E+00		2.497E+01	4.076E+01	2.419E+00	-0.066
RA-223	-7.850E-01		7.164E-01	1.114E+00	1.841E-01	-0.704
AC-227	8.250E-02		3.996E-01	6.449E-01	8.984E-02	0.128
TH-227	8.250E-02		3.997E-01	6.449E-01	1.088E-01	0.128
TH-229	-2.857E-01		5.505E-01	8.650E-01	4.667E-02	-0.330
PA-231	-8.792E-01		1.565E+00	2.495E+00	3.438E-01	-0.352
TH-231	-7.850E-01		7.164E-01	1.114E+00	1.841E-01	-0.704
U-231	-3.006E-01		1.282E+00	1.815E+00	1.442E-01	-0.166
PA-233	4.559E-03		7.321E-02	1.075E-01	6.637E-03	0.042
PA-234	-1.901E-02		3.115E-01	4.980E-01	9.296E-02	-0.038
PA-234M	-6.892E-01		4.909E+00	7.820E+00	7.280E-01	-0.088
U-235	2.638E-02		2.259E-01	3.593E-01	5.826E-02	0.073
NP-236	-1.044E-01		8.833E-02	1.355E-01	7.179E-03	-0.770
NP-239	-5.116E-02		1.936E-01	3.119E-01	1.950E-02	-0.164
AM-241	7.455E-03		1.775E-01	2.575E-01	2.120E-02	0.029

Sample ID : G245691001 Acquisition date : 9-FEB-2010 13:25:50

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.018E-02		1.049E-01	1.706E-01	1.227E-02	-0.060
AM-246	-4.566E-02		1.419E-01	2.302E-01	1.588E-02	-0.198
CM-247	-1.309E-02		3.946E-02	6.443E-02	3.614E-03	-0.203
CF-249	-2.330E-03		4.245E-02	7.055E-02	3.940E-03	-0.033
CF-251	2.177E-02		1.354E-01	2.199E-01	1.162E-02	0.099

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691001           *
* Acquisition date  :  9-FEB-2010 13:25:50 Detector SN#     :               *
* Detector ID       : GAM19                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.47      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691001           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.2731E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.427E+01	2.374E+00	2.565E-01	1.211E+00
CD-109	2.224E+00	9.291E-01	7.009E-01	4.740E-01
SN-126	2.186E-01	9.133E-02	6.920E-02	4.660E-02
TL-208	5.426E-01	8.876E-02	3.139E-02	4.529E-02
BI-211	4.189E+00	5.137E-01	1.554E-01	2.621E-01
PB-212	1.531E+00	1.542E-01	4.803E-02	7.866E-02
PO-212	1.531E+00	1.542E-01	4.803E-02	7.866E-02
BI-214	1.079E+00	1.881E-01	5.934E-02	9.597E-02
PB-214	1.457E+00	1.936E-01	5.415E-02	9.878E-02
PO-214	1.457E+00	1.936E-01	5.415E-02	9.878E-02
PO-216	1.531E+00	1.542E-01	4.803E-02	7.866E-02
PO-218	1.457E+00	1.936E-01	5.415E-02	9.878E-02
RA-224	4.255E+00	1.107E+00	5.462E-01	5.646E-01
RA-226	1.079E+00	1.881E-01	5.934E-02	9.597E-02
AC-228	1.587E+00	3.230E-01	9.392E-02	1.648E-01
RA-228	1.587E+00	3.230E-01	9.392E-02	1.648E-01
TH-228	1.554E+00	1.565E-01	4.876E-02	7.985E-02
TH-230	1.079E+00	1.881E-01	5.934E-02	9.597E-02
TH-232	1.587E+00	3.230E-01	9.392E-02	1.648E-01
TH-234	4.659E+00	2.402E+00	1.105E+00	1.226E+00
U-234	1.079E+00	1.881E-01	5.934E-02	9.597E-02
NP-237	6.420E-01	2.980E-01	2.110E-01	1.520E-01
U-238	4.659E+00	2.402E+00	1.105E+00	1.226E+00
AM-243	3.970E-01	9.798E-02	4.785E-02	4.999E-02
ANH-511	1.569E-01	6.629E-02	2.307E-02	3.382E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.331E-02	3.249E-01	2.811E-01	1.657E-01	NOT IDENT.
NA-22	-1.654E-02	4.000E-02	3.244E-02	2.041E-02	NOT IDENT.

NA-24	1.645E+04	6.263E+05	0.000E+00	3.195E+05	SHORT HLIF
AL-26	-1.073E-02	2.897E-02	2.217E-02	1.478E-02	NOT IDENT.
TI-44	4.039E-01	6.219E-02	4.431E-02	3.173E-02	FAIL ABUN
SC-46	1.650E-02	3.723E-02	3.226E-02	1.899E-02	FAIL ABUN
V-48	-3.675E-02	7.562E-02	5.930E-02	3.858E-02	NOT IDENT.
CR-51	1.526E-01	3.664E-01	3.277E-01	1.869E-01	NOT IDENT.
MN-52	-3.291E-02	1.878E-01	1.537E-01	9.582E-02	NOT IDENT.
MN-54	1.613E-02	3.777E-02	3.261E-02	1.927E-02	NOT IDENT.
CO-56	-3.772E-04	3.645E-02	3.031E-02	1.860E-02	FAIL ABUN
CO-57	1.843E-02	2.588E-02	2.292E-02	1.320E-02	NOT IDENT.
CO-58	-1.373E-02	3.969E-02	3.205E-02	2.025E-02	NOT IDENT.
FE-59	-1.065E-01	8.878E-02	6.705E-02	4.529E-02	NOT IDENT.
CO-60	3.196E-02	3.739E-02	3.464E-02	1.907E-02	NOT IDENT.
ZN-65	-4.151E-02	9.500E-02	6.586E-02	4.847E-02	NOT IDENT.
GE-68	1.217E+00	1.204E+00	1.123E+00	6.143E-01	NOT IDENT.
AS-73	-4.966E-01	8.019E-01	6.936E-01	4.092E-01	NOT IDENT.
AS-74	-4.783E-02	9.510E-02	7.777E-02	4.852E-02	NOT IDENT.
SE-75	2.744E-02	4.644E-02	3.722E-02	2.369E-02	FAIL ABUN
BR-77	9.187E+00	9.974E+00	9.077E+00	5.089E+00	FAIL ABUN
SR-82	9.763E-02	4.039E-01	3.013E-01	2.061E-01	NOT IDENT.
RB-83	4.301E-02	6.782E-02	6.059E-02	3.460E-02	NOT IDENT.
RB-84	5.612E-02	6.878E-02	6.146E-02	3.509E-02	NOT IDENT.
KR-85	1.137E+01	8.119E+00	6.751E+00	4.142E+00	NOT IDENT.
SR-85	5.827E-02	4.160E-02	3.459E-02	2.123E-02	NOT IDENT.
RB-86	8.960E-01	7.611E-01	7.184E-01	3.883E-01	NOT IDENT.
Y-88	2.014E-02	3.331E-02	3.065E-02	1.700E-02	NOT IDENT.
ZR-88	5.873E-03	3.106E-02	2.724E-02	1.585E-02	NOT IDENT.
Y-91	7.923E-01	1.799E+01	1.539E+01	9.180E+00	NOT IDENT.
NB-94	-1.001E-02	3.683E-02	3.037E-02	1.879E-02	NOT IDENT.
NB-95	5.718E-02	5.314E-02	4.256E-02	2.711E-02	NOT IDENT.
NB-95M	3.377E-01	1.527E-01	1.247E-01	7.790E-02	NOT IDENT.
ZR-95	3.363E-02	6.745E-02	5.899E-02	3.441E-02	NOT IDENT.
NB-97	-1.325E+05	9.714E+04	0.000E+00	4.956E+04	SHORT HLIF
ZR-97	4.241E+06	1.932E+06	0.000E+00	9.858E+05	SHORT HLIF
MO-99	-5.877E+00	1.137E+01	9.078E+00	5.803E+00	NOT IDENT.
TC-99M	-6.711E+14	3.362E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.091E-02	3.629E-02	3.113E-02	1.851E-02	NOT IDENT.
RH-102	1.665E-02	2.889E-02	2.577E-02	1.474E-02	NOT IDENT.
RU-103	-3.460E-02	3.723E-02	2.939E-02	1.900E-02	FAIL ABUN
RH-106	-1.926E-01	3.296E-01	2.660E-01	1.682E-01	FAIL ABUN
RU-106	-1.926E-01	3.290E-01	2.660E-01	1.679E-01	FAIL ABUN
AG-108M	8.795E-03	3.058E-02	2.691E-02	1.560E-02	NOT IDENT.
AG-110M	-5.533E-02	3.652E-02	2.694E-02	1.863E-02	NOT IDENT.
IN-111	6.744E-01	1.188E+00	9.031E-01	6.060E-01	NOT IDENT.
IN-113M	8.945E-03	4.442E-02	3.899E-02	2.266E-02	NOT IDENT.
SN-113	8.945E-03	4.442E-02	3.899E-02	2.266E-02	NOT IDENT.
IN-114M	-4.327E-02	2.104E-01	1.536E-01	1.074E-01	NOT IDENT.
CD-115	2.139E+00	1.010E+01	8.772E+00	5.154E+00	NOT IDENT.
SN-117M	-7.547E-03	5.850E-02	4.967E-02	2.985E-02	NOT IDENT.
SB-122	1.596E-01	2.421E+00	1.799E+00	1.235E+00	NOT IDENT.
I-123	-4.262E+06	5.769E+06	0.000E+00	2.943E+06	SHORT HLIF
TE-123M	-2.263E-02	3.064E-02	2.534E-02	1.563E-02	NOT IDENT.
I-124	-3.164E-01	7.865E-01	5.538E-01	4.013E-01	NOT IDENT.
SB-124	-3.391E-02	5.905E-02	4.233E-02	3.013E-02	NOT IDENT.
SB-125	6.567E-03	9.379E-02	8.139E-02	4.785E-02	FAIL ABUN
TE-125M	-8.564E+00	9.876E+00	8.247E+00	5.039E+00	NOT IDENT.
I-126	-2.233E-01	2.107E-01	1.644E-01	1.075E-01	NOT IDENT.
SB-126	3.377E-02	1.451E-01	1.175E-01	7.404E-02	FAIL ABUN
SB-127	-1.910E-01	1.350E+00	1.125E+00	6.889E-01	NOT IDENT.
XE-127	-3.315E-02	5.065E-02	4.156E-02	2.584E-02	NOT IDENT.
I-131	8.069E-02	1.100E-01	9.980E-02	5.614E-02	NOT IDENT.
TE-132	1.759E-01	7.208E-01	6.127E-01	3.677E-01	NOT IDENT.
BA-133	2.912E-02	4.504E-02	3.594E-02	2.298E-02	FAIL ABUN
I-133	1.534E+03	5.438E+03	0.000E+00	2.775E+03	SHORT HLIF
CS-134	2.486E-01	8.167E-02	5.014E-02	4.167E-02	FAIL ABUN
CS-135	2.810E-01	1.779E-01	1.494E-01	9.075E-02	NOT IDENT.
I-135	-4.593E+14	4.364E+15	0.000E+00	2.226E+15	SHORT HLIF
CS-136	-2.662E-02	9.853E-02	8.247E-02	5.027E-02	FAIL ABUN
BA-137M	4.097E-02	4.123E-02	3.704E-02	2.103E-02	NOT IDENT.
CS-137	4.331E-02	4.358E-02	3.915E-02	2.224E-02	NOT IDENT.
CE-139	8.683E-03	3.195E-02	2.753E-02	1.630E-02	NOT IDENT.
BA-140	-2.643E-02	2.510E-01	2.126E-01	1.280E-01	FAIL ABUN
LA-140	-3.210E-02	8.445E-02	6.658E-02	4.309E-02	NOT IDENT.
CE-141	-3.013E-02	6.642E-02	5.448E-02	3.389E-02	NOT IDENT.
CE-143	1.046E+03	2.896E+02	0.000E+00	1.478E+02	SHORT HLIF
CE-144	-2.394E-01	2.153E-01	1.744E-01	1.098E-01	NOT IDENT.
PM-144	-1.163E-03	3.392E-02	2.849E-02	1.731E-02	NOT IDENT.
PR-144	-7.880E-02	2.299E+00	1.930E+00	1.173E+00	NOT IDENT.

PM-146	7.869E-02	4.194E-02	4.002E-02	2.140E-02	NOT IDENT.
ND-147	7.580E-02	5.363E-01	4.632E-01	2.736E-01	FAIL ABUN
PM-149	4.464E+01	8.676E+01	7.810E+01	4.426E+01	NOT IDENT.
EU-152	1.200E-02	1.228E-01	8.254E-02	6.266E-02	FAIL ABUN
GD-153	2.895E-02	9.163E-02	7.036E-02	4.675E-02	NOT IDENT.
EU-154	-4.113E-02	1.123E-01	9.157E-02	5.730E-02	NOT IDENT.
EU-155	8.433E-02	1.149E-01	1.021E-01	5.863E-02	FAIL ABUN
TB-160	-9.579E-03	1.405E-01	1.159E-01	7.169E-02	FAIL ABUN
HO-166M	-2.680E-02	6.289E-02	5.105E-02	3.209E-02	NOT IDENT.
TM-171	-1.479E+01	3.218E+01	2.432E+01	1.642E+01	NOT IDENT.
LU-176	1.705E-02	2.859E-02	2.276E-02	1.459E-02	FAIL ABUN
LU-177	1.568E+00	1.281E+00	1.025E+00	6.535E-01	FAIL ABUN
LU-177M	-8.586E-02	1.794E-01	1.508E-01	9.151E-02	FAIL ABUN
HF-181	3.701E-02	4.202E-02	3.816E-02	2.144E-02	NOT IDENT.
W-181	1.012E+00	4.385E-01	3.652E-01	2.237E-01	NOT IDENT.
TA-182	8.901E-02	1.994E-01	1.758E-01	1.017E-01	FAIL ABUN
RE-183	7.668E-02	1.151E-01	1.008E-01	5.875E-02	FAIL ABUN
RE-184	-5.465E-02	2.325E-01	1.920E-01	1.186E-01	NOT IDENT.
OS-185	9.677E-03	4.111E-02	3.544E-02	2.098E-02	NOT IDENT.
RE-188	1.867E-01	1.858E-01	1.646E-01	9.477E-02	NOT IDENT.
W-188	-2.695E+00	8.654E+00	6.493E+00	4.415E+00	FAIL ABUN
IR-192	-1.513E-02	3.374E-02	2.886E-02	1.721E-02	FAIL ABUN
AU-195	2.608E-01	2.632E-01	2.083E-01	1.343E-01	FAIL ABUN
TL-200	-3.240E+02	4.264E+02	0.000E+00	2.175E+02	SHORT HLIF
TL-201	-1.326E+00	7.521E+00	6.360E+00	3.837E+00	NOT IDENT.
TL-202	-1.572E-02	6.107E-02	5.172E-02	3.116E-02	NOT IDENT.
HG-203	1.374E-02	4.132E-02	3.695E-02	2.108E-02	NOT IDENT.
BI-207	-2.935E-02	5.343E-02	4.412E-02	2.726E-02	FAIL ABUN
TL-207	-7.850E-01	7.021E-01	5.703E-01	3.582E-01	FAIL ABUN
PO-209	-1.986E+00	6.778E+00	5.439E+00	3.458E+00	NOT IDENT.
BI-210	-1.655E-01	3.264E+00	2.857E+00	1.666E+00	NOT IDENT.
PB-210	-1.655E-01	3.264E+00	2.857E+00	1.666E+00	NOT IDENT.
PO-210	-1.655E-01	3.264E+00	2.857E+00	1.666E+00	NOT IDENT.
PB-211	-9.072E-01	1.112E+00	7.901E-01	5.675E-01	NOT IDENT.
BI-212	1.141E+00	4.673E-01	3.215E-01	2.384E-01	FAIL ABUN
PO-215	-7.850E-01	7.021E-01	5.703E-01	3.582E-01	FAIL ABUN
RN-219	2.033E-01	4.250E-01	3.776E-01	2.168E-01	FAIL ABUN
RN-220	-2.674E+00	2.447E+01	2.070E+01	1.249E+01	NOT IDENT.
RA-223	-7.850E-01	7.021E-01	5.703E-01	3.582E-01	FAIL ABUN
AC-227	8.250E-02	3.917E-01	3.312E-01	1.998E-01	FAIL ABUN
TH-227	8.250E-02	3.917E-01	3.312E-01	1.999E-01	FAIL ABUN
TH-229	-2.857E-01	5.395E-01	4.460E-01	2.752E-01	FAIL ABUN
PA-231	-8.792E-01	1.534E+00	1.279E+00	7.825E-01	NOT IDENT.
TH-231	-7.850E-01	7.021E-01	5.703E-01	3.582E-01	FAIL ABUN
U-231	-3.006E-01	1.256E+00	9.456E-01	6.410E-01	FAIL ABUN
PA-233	4.559E-03	7.174E-02	5.504E-02	3.660E-02	FAIL ABUN
PA-234	-1.901E-02	3.053E-01	2.508E-01	1.558E-01	FAIL ABUN
PA-234M	-6.892E-01	4.811E+00	3.935E+00	2.455E+00	NOT IDENT.
U-235	2.638E-02	2.214E-01	1.861E-01	1.130E-01	FAIL ABUN
NP-236	-1.044E-01	8.656E-02	7.007E-02	4.416E-02	NOT IDENT.
NP-239	-5.116E-02	1.897E-01	1.620E-01	9.680E-02	FAIL ABUN
AM-241	7.455E-03	1.739E-01	1.350E-01	8.873E-02	NOT IDENT.
CM-243	-1.018E-02	1.028E-01	8.879E-02	5.243E-02	FAIL ABUN
AM-246	-4.566E-02	1.390E-01	1.157E-01	7.094E-02	NOT IDENT.
CM-247	-1.309E-02	3.867E-02	3.287E-02	1.973E-02	NOT IDENT.
CF-249	-2.330E-03	4.160E-02	3.601E-02	2.122E-02	NOT IDENT.
CF-251	2.177E-02	1.327E-01	1.135E-01	6.769E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	330.4184
46.50	330.4184
46.50	330.4184
48.70	320.5806
49.72	379.5052
51.35	338.1995
52.39	354.2634
52.97	378.9801
53.15	379.0583
53.44	382.1225
54.07	369.6482
56.28	408.8922
56.28	403.9792
57.37	0.0000
57.53	367.4583
57.53	367.4594
57.60	367.4865
57.98	363.9618
57.98	363.9618
59.32	426.0237
59.32	426.0237
59.40	426.0600
59.54	426.1242
59.72	426.2058
60.01	438.9698
61.10	426.8296
61.14	426.8469
61.30	423.7562
63.00	448.4660
63.29	448.6004
63.29	448.6004
63.58	448.7343
64.28	449.0566
65.12	458.7668
65.20	458.8038
65.20	458.8038
66.05	479.8545
66.72	499.2569
66.83	499.3125
66.91	526.3878
67.20	526.5393
67.20	526.5393
67.75	536.3759
67.85	553.1452
68.90	529.8163
68.90	529.8163
69.30	530.0254
69.67	494.3387
70.82	504.8669
70.82	504.8669
70.83	477.3342
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72.87	521.4587
74.67	495.7081
74.81	495.7742
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75.70	496.1859
77.11	496.8354
77.11	496.8354

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77.11	496.8354
77.11	496.8354
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79.80	447.5471
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80.18	468.6354
80.30	468.6869
80.30	468.6869
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81.07	531.8672
81.07	531.8672
81.07	531.8672
81.07	531.8672
82.60	481.4868
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83.78	465.2930
83.78	465.2930
83.78	465.2930
83.78	465.2930
84.21	504.2578
84.90	481.9219
85.43	490.2334
86.29	484.1230
86.50	505.2633
86.54	505.2804
86.59	505.3033
86.72	505.3604
86.79	505.3890
86.94	555.6771
87.30	555.8488
87.30	555.8488
87.30	555.8488
87.30	555.8488
87.30	555.8488
87.30	555.8488
87.30	555.8488
87.57	479.1871
87.88	479.3134
88.03	479.3748
88.36	479.5101
88.47	479.5552
89.95	480.1579
91.11	480.6252
92.29	481.0997
92.38	481.1358
92.38	481.1358
93.35	481.5219
94.00	481.7800
94.67	482.0434
94.67	482.0452
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94.90	396.3107
94.90	396.3107
94.90	396.3107
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95.87	414.5778
96.73	395.2677
97.43	349.7314
98.44	346.7437
98.44	346.7450
98.88	327.2327
99.55	332.3183
99.55	332.3183
99.86	340.5873
100.00	338.4419
100.10	338.4696
103.18	396.0658
103.76	376.7411
105.00	343.1940
105.31	357.6656
108.00	383.1198
109.28	394.8300

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111.00	345.7933
111.76	353.2198
112.95	345.2618
115.19	315.8041
116.30	300.5150
117.00	314.1459
117.00	314.1459
117.66	331.9299
121.11	324.4327
121.62	317.2678
121.78	317.3038
122.06	295.5152
122.32	290.3657
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122.32	290.3657
123.07	299.8916
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131.20	371.7381
133.02	358.5662
133.54	356.5938
135.34	304.5186
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136.25	306.8036
136.48	308.9521
140.51	332.9510
140.51	0.0000
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142.65	305.9789
143.76	318.8682
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144.24	321.0796
144.24	321.0796
144.24	321.0796
145.22	335.0204
145.44	331.8954
147.16	336.4897
152.43	339.7266
152.70	345.0918
153.22	329.2709
154.21	335.8488
154.21	335.8488
154.21	335.8488
154.21	335.8488
155.03	320.0674
156.02	324.5186
158.56	327.1525
159.00	0.0000
159.00	346.4258
160.31	362.7000
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162.32	294.7830
162.64	288.4303
163.35	330.2315
163.89	333.5447
165.85	313.5948
167.43	331.0283
171.28	323.1814
171.86	308.2526
172.10	297.5522
176.55	292.9263
176.60	287.5497
181.06	312.6758
184.41	334.0276
185.71	294.4308
186.00	275.4240
190.27	274.3321
192.34	290.0655
193.63	302.2257
197.04	301.6881
198.01	271.3312
198.60	271.4167
200.40	312.0444
201.83	329.7480
202.84	313.5362
205.31	271.2784

208.36	308.5178
208.81	302.4520
209.75	267.5135
209.75	267.5135
210.97	284.3563
215.65	258.4190
216.55	246.4338
218.09	260.9383
222.10	249.3238
223.80	245.1160
226.40	263.1161
227.00	254.3473
227.08	254.3578
227.20	248.8421
228.16	242.3199
228.18	242.3215
228.18	242.3215
231.56	0.0000
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236.00	238.1264
236.00	238.1264
238.63	232.4191
238.63	232.4191
238.63	232.4191
238.63	232.4191
239.00	232.4589
240.98	232.6758
241.98	233.4541
241.98	233.4541
241.98	233.4541
244.69	189.1412
245.39	189.2020
247.94	214.4443
248.90	219.0091
249.79	198.9775
252.40	186.9054
252.85	190.3019
252.85	190.3019
254.15	0.0000
256.20	191.7136
256.20	191.7136
260.50	188.7155
260.90	204.4778
262.80	183.7674
264.65	159.0539
268.24	175.8380
268.79	181.8939
269.46	190.3688
269.46	190.3688
269.46	190.3688
269.46	190.3688
271.23	209.1759
273.65	277.1867
276.40	168.0633
277.35	179.0526
277.60	179.0719
277.60	179.0719
278.00	181.1157
278.60	173.0098
279.20	199.3293
279.53	204.7946
280.46	215.7543
281.68	214.0536
283.67	185.1863
284.30	183.4200
285.00	188.0157
285.90	160.8276
286.10	160.8427
286.10	160.8427
287.40	167.2947
288.45	0.0000
290.67	204.8538
290.80	203.3473
291.72	200.3901
293.26	0.0000
293.70	179.2831
295.21	186.9974
295.21	186.9974

295.21	186.9974
295.96	173.3680
296.50	173.4075
297.23	173.4608
298.57	173.5559
299.80	173.6440
299.80	173.6440
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300.09	173.6649
300.09	173.6649
300.09	173.6649
300.12	173.6672
301.29	160.0336
302.84	160.1340
303.76	160.1938
303.91	160.2045
304.40	160.2365
304.40	160.2365
304.84	160.2643
306.84	160.3946
308.46	157.4421
311.98	154.6049
316.51	161.9385
318.01	159.2732
319.02	163.0206
319.41	163.0455
320.08	149.2666
323.87	203.0112
323.87	203.0112
323.87	203.0112
323.87	203.0112
325.23	186.4999
328.77	173.8128
333.44	180.6107
334.20	169.8541
334.20	169.8541
334.30	169.8608
338.28	164.2436
338.28	164.2436
338.28	164.2436
338.28	164.2436
338.32	164.2457
338.32	164.2457
338.32	164.2457
340.50	142.4023
340.57	142.4061
344.27	139.5044
345.85	162.8534
350.59	0.0000
351.07	118.4160
351.92	118.4532
351.92	118.4532
351.92	118.4532
355.39	0.0000
356.01	110.5374
364.48	112.4414
366.43	135.9641
367.43	139.7639
367.94	0.0000
369.80	122.9852
374.96	134.4989
383.85	148.1342
387.95	144.5674
388.63	137.9853
391.69	126.7798
391.69	126.7798
392.90	129.6717
398.62	140.3597
400.65	116.7314
401.10	131.9363
401.81	129.1203
402.60	147.1989
404.84	154.9156
410.95	119.9984
411.60	121.9297
413.65	138.2173
414.70	119.1956
415.30	118.2662

415.76	118.2844
417.63	0.0000
418.52	132.7151
423.70	130.0732
427.08	115.8554
427.89	119.7174
432.53	91.1232
433.93	95.0035
439.47	91.3285
439.56	91.3320
439.89	85.5723
443.98	102.0522
444.90	83.7842
445.03	93.4182
445.03	93.4182
445.03	93.4182
445.03	93.4182
453.90	72.4347
463.38	95.8990
468.07	90.5408
473.00	104.9282
475.06	93.3293
475.35	96.2543
476.78	105.0508
477.59	104.1030
477.96	100.2226
482.03	86.7076
484.57	112.1250
487.03	98.5477
490.36	0.0000
492.35	81.1145
497.08	92.9741
507.63	0.0000
510.53	0.0000
510.84	88.4394
511.00	88.4432
511.85	88.4647
511.85	88.4647
513.99	93.4385
513.99	93.4385
520.41	81.7882
520.65	75.8815
527.90	79.9895
528.96	0.0000
529.64	78.0530
529.87	0.0000
531.02	82.0375
537.32	87.1363
543.00	71.4076
546.56	0.0000
549.76	79.4922
552.65	78.5603
555.20	89.5627
563.23	86.4382
563.90	96.4283
568.70	106.8772
569.32	106.8955
569.50	106.9007
569.67	106.9060
573.80	81.6866
574.00	81.6906
574.64	95.0441
578.91	105.1692
579.30	0.0000
583.14	94.2593
585.48	81.9438
591.81	87.1068
592.07	87.1131
593.00	94.5072
595.88	100.6177
600.56	87.3099
602.52	0.0000
602.71	104.1583
602.71	104.1583
603.60	105.8639
604.41	115.9714
604.70	107.5755
609.31	94.9157

609.31	94.9157
609.31	94.9157
609.31	94.9157
610.33	97.6343
612.46	85.8965
614.37	74.1444
618.01	85.0090
621.84	93.1972
621.84	93.1972
631.29	71.0835
633.02	65.0188
633.10	65.0203
634.78	70.1287
635.90	69.1322
636.97	75.2538
645.85	66.2489
646.12	68.2922
656.30	90.9469
657.75	105.2908
657.90	0.0000
661.65	93.1150
661.65	93.1150
664.57	0.0000
666.33	124.9785
666.33	124.9785
675.00	85.2067
677.61	73.9617
685.20	76.1553
692.80	78.3564
695.00	74.2720
696.49	77.3950
696.49	77.3950
697.00	81.5324
697.49	86.7029
698.33	84.6546
698.50	84.6586
699.00	79.5059
702.63	99.2086
706.10	97.2221
706.58	0.0000
706.67	95.1670
709.31	66.2438
711.68	84.9229
713.82	79.7841
717.42	62.2222
720.50	64.8621
721.93	0.0000
722.20	58.8318
722.78	72.6831
722.78	72.6831
722.89	72.6848
722.95	72.6865
723.30	76.1532
724.18	79.6315
727.18	76.2230
733.00	65.9171
735.90	68.9996
739.58	72.9668
742.81	58.4158
744.21	64.6958
747.13	61.6072
751.79	65.8531
752.31	65.8608
753.82	70.0670
755.35	59.6287
756.15	56.5009
756.87	51.2777
763.93	66.3825
765.79	78.6438
766.42	92.6379
766.84	101.3867
776.49	54.3068
778.00	70.5967
778.57	68.3531
778.89	66.6051
783.80	57.9031
785.46	65.2968
792.07	52.7356

795.84	54.8907
796.30	54.8958
798.80	54.5729
801.93	70.4655
805.60	43.6348
810.29	66.7099
810.76	66.7176
815.85	59.3687
817.79	41.3632
818.51	43.4914
819.60	51.9895
826.30	44.6260
828.27	0.0000
831.60	65.9507
831.96	62.7653
834.83	63.8672
836.80	0.0000
846.75	51.2227
848.13	43.7647
856.28	0.0000
856.80	44.5567
860.37	57.7890
867.32	61.2402
867.82	69.6671
871.10	55.7718
873.19	48.2849
874.81	55.8137
875.33	0.0000
876.40	61.2012
879.36	56.9401
880.27	46.2051
880.51	50.5066
881.50	45.1418
883.24	50.5342
884.67	55.9267
889.25	45.2136
896.60	48.5145
898.02	52.8425
899.00	58.2464
903.28	37.1850
911.07	43.2490
911.07	43.2490
911.07	43.2490
919.63	59.5695
920.93	59.5842
925.00	61.8010
925.24	61.8038
926.50	61.8191
935.52	49.9778
937.48	76.0823
944.10	51.1492
946.00	55.5235
949.00	59.9132
962.29	70.9874
964.01	78.2944
966.15	74.6829
968.20	64.5082
969.11	43.7422
969.11	43.7422
969.11	43.7422
977.42	47.0963
980.50	49.3165
983.50	63.5989
989.30	51.5933
996.32	53.8605
1001.03	51.3402
1001.68	52.2639
1004.76	55.9638
1021.30	0.0000
1024.50	0.0000
1034.80	54.4290
1036.00	52.5956
1037.82	38.7683
1038.57	41.5430
1038.76	0.0000
1045.16	48.0623
1046.59	36.9808
1048.07	49.0125

1050.47	49.9592
1050.47	49.9592
1062.04	51.9167
1063.62	58.4242
1076.63	39.0383
1077.35	40.9027
1078.86	55.7935
1085.78	31.6550
1099.22	65.3259
1112.02	48.9759
1112.84	52.7580
1115.52	56.1523
1120.29	46.5647
1120.29	46.5647
1120.29	46.5647
1120.29	46.5647
1120.51	52.4544
1121.28	52.4613
1124.00	0.0000
1129.67	62.4297
1131.51	0.0000
1147.95	0.0000
1167.94	48.1570
1173.22	50.0908
1175.09	47.2697
1177.93	62.4255
1189.05	51.1699
1204.90	57.9545
1205.75	0.0000
1213.00	68.4961
1221.42	62.8740
1230.97	50.8876
1235.34	67.1083
1236.41	0.0000
1238.25	45.8516
1246.25	56.1148
1260.41	0.0000
1271.85	43.2184
1274.45	44.1956
1274.54	44.1975
1291.56	32.7549
1298.22	0.0000
1312.09	37.6924
1325.50	34.8647
1325.50	34.8647
1332.49	26.1760
1333.61	27.1501
1360.21	26.2870
1362.66	0.0000
1365.15	23.3838
1368.21	25.3441
1368.53	0.0000
1376.25	26.7690
1384.27	14.6564
1394.10	12.7212
1395.20	13.7015
1407.95	13.7277
1434.06	18.7016
1436.60	17.7239
1457.56	0.0000
1460.81	21.7386
1489.15	14.8816
1509.49	22.8840
1596.49	25.1729
1620.62	15.1526
1678.03	0.0000
1691.02	12.2344
1691.02	12.2344
1706.46	0.0000
1750.46	0.0000
1764.49	15.4370
1764.49	15.4370
1764.49	15.4370
1764.49	15.4370
1770.23	15.8894
1771.40	63.8593
1791.20	0.0000
1808.65	14.4871

1836.01	10.3825

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691001

Total Uranium Activity	1.3871E+01	ug/g
Total Uranium Counting Unc.	7.1478E+00	ug/g
Total Uranium Tpu	3.6468E-06	ug/g
Total Uranium Mda	3.2880E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID   : G245691001      *
*   ANALYST       : MJH1                      DETECTOR    : GAM19           *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 13:25:50.23    SAMPLE ALQT:  127.310 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.137E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.378E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.934E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.913E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:21:57.16

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691002.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:21:30.
Sample ID         : G245691002           Sample quantity  : 1.45720E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.46  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.28*	19	494	0.92	126.80	124	6	2.70E-03	190.9	
2	3	74.82	609	720	1.34	149.87	144	16	8.46E-02	8.7	1.24E+00
3	3	77.16	888	524	1.03	154.54	144	16	1.23E-01	5.5	
4	5	84.37	160	626	1.27	168.95	164	29	2.22E-02	28.1	1.39E+00
5	5	87.24*	405	546	1.25	174.68	164	29	5.63E-02	10.9	
6	5	89.96	241	544	1.09	180.13	164	29	3.34E-02	17.4	
7	5	92.60*	255	619	1.30	185.39	164	29	3.55E-02	19.7	
8	0	129.02	133	551	1.01	258.16	255	8	1.85E-02	31.7	
9	0	186.02*	257	817	1.37	372.05	365	15	3.57E-02	25.6	
10	0	209.39	168	477	1.20	418.75	414	9	2.34E-02	24.7	
11	3	238.69*	1952	324	1.26	477.31	470	18	2.71E-01	2.9	1.89E+00
12	3	241.60	480	315	1.86	483.11	470	18	6.67E-02	8.9	
13	0	270.89*	180	429	1.27	541.65	535	13	2.50E-02	25.2	
14	0	295.32*	528	442	1.34	590.46	582	13	7.34E-02	9.4	
15	0	300.68*	114	352	1.15	601.18	596	11	1.58E-02	33.8	
16	0	338.46*	432	437	1.39	676.68	671	14	6.00E-02	11.5	
17	0	351.90*	1086	257	1.50	703.53	697	12	1.51E-01	4.3	
18	0	463.13	135	259	1.62	925.84	919	14	1.87E-02	26.8	
19	0	510.83*	207	220	2.89	1021.16	1013	16	2.87E-02	20.1	
20	0	583.32*	678	217	1.58	1166.05	1160	15	9.41E-02	6.3	
21	0	609.26*	820	254	1.74	1217.90	1208	18	1.14E-01	5.9	
22	0	727.15*	153	166	1.22	1453.57	1449	13	2.13E-02	19.2	
23	0	793.85	76	138	2.29	1586.91	1583	14	1.05E-02	34.8	
24	0	860.61	96	119	1.47	1720.37	1712	15	1.33E-02	26.9	
25	0	911.47*	442	139	1.71	1822.06	1814	18	6.14E-02	8.1	
26	1	964.22	104	109	2.34	1927.54	1920	25	1.44E-02	23.2	2.58E+00
27	1	968.96*	343	94	2.54	1937.01	1920	25	4.76E-02	8.6	
28	0	1120.58*	146	208	2.19	2240.18	2229	20	2.03E-02	26.2	
29	0	1460.69*	2870	84	2.53	2920.40	2908	23	3.99E-01	2.1	
30	0	1587.73*	65	73	1.39	3174.53	3161	29	9.06E-03	40.8	
31	0	1764.78*	168	33	2.87	3528.75	3520	19	2.33E-02	11.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:21:59

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:21:30
Sample ID : G245691002 Sample quantity : 145.72 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.46 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.630E+01	3.644E+00	4.089E-01	3.746E-02	88.760
CD-109	+	88.03	*	3.836E+00	9.080E-01	9.623E-01	9.131E-02	3.986
SN-126	+	64.28		1.203E-01	4.596E-01	6.471E-01	9.399E-02	0.186
	+	86.94		1.567E+00	7.346E-01	3.970E-01	1.649E-01	3.948
	+	87.57	*	3.770E-01	8.925E-02	9.496E-02	8.966E-03	3.970
TL-208		277.35		2.992E-01	3.604E-01	5.491E-01	9.054E-02	0.545
	+	510.84		5.740E-01	2.427E-01	1.813E-01	2.362E-02	3.166
	+	583.14	*	5.275E-01	8.801E-02	4.912E-02	5.326E-03	10.740
	+	860.37		6.790E-01	3.733E-01	4.005E-01	4.667E-02	1.695
BI-211		72.87		3.932E+00	2.770E+00	4.254E+00	3.405E-01	0.924
	+	351.07	*	4.002E+00	5.787E-01	2.731E-01	3.186E-02	14.655
PB-212	+	74.81		2.377E+00	5.097E-01	4.276E-01	5.306E-02	5.559
	+	77.11		1.966E+00	2.709E-01	2.435E-01	2.036E-02	8.072
	+	87.30		1.744E+00	4.481E-01	4.403E-01	6.046E-02	3.961
	+	238.63	*	1.681E+00	2.419E-01	7.451E-02	9.845E-03	22.555
	+	300.09		1.454E+00	1.004E+00	1.006E+00	1.467E-01	1.445
PO-212	+	74.81		2.377E+00	5.097E-01	4.276E-01	5.306E-02	5.559
	+	77.11		1.966E+00	2.709E-01	2.435E-01	2.036E-02	8.072
	+	87.30		1.744E+00	4.481E-01	4.403E-01	6.046E-02	3.961
		115.19		1.975E+00	3.157E+00	5.131E+00	4.251E-01	0.385
	+	238.63	*	1.681E+00	2.419E-01	7.451E-02	9.845E-03	22.555
	+	300.09		1.454E+00	1.004E+00	1.006E+00	1.467E-01	1.445
BI-214	+	609.31	*	1.196E+00	1.974E-01	9.118E-02	1.060E-02	13.123
	+	1120.29		1.064E+00	5.697E-01	4.215E-01	4.657E-02	2.525
	+	1764.49		1.597E+00	4.025E-01	2.124E-01	1.770E-02	7.516
PB-214	+	74.81		4.096E+00	8.466E-01	7.368E-01	8.122E-02	5.559
	+	77.11		3.370E+00	5.306E-01	4.174E-01	4.722E-02	8.072
	+	87.30		2.987E+00	7.437E-01	7.542E-01	9.175E-02	3.961
	+	241.98		2.476E+00	5.575E-01	4.151E-01	5.709E-02	5.965
	+	295.21		1.187E+00	2.844E-01	1.861E-01	2.771E-02	6.379
	+	351.92	*	1.392E+00	2.140E-01	9.517E-02	1.213E-02	14.628
PO-214	+	74.81		4.096E+00	8.466E-01	7.368E-01	8.122E-02	5.559
	+	77.11		3.370E+00	5.306E-01	4.174E-01	4.722E-02	8.072
	+	87.30		2.987E+00	7.437E-01	7.542E-01	9.175E-02	3.961

Sample ID : G245691002 Acquisition date : 9-FEB-2010 15:21:30

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.476E+00	5.575E-01	4.151E-01	5.709E-02	5.965
	+	295.21		1.187E+00	2.844E-01	1.861E-01	2.771E-02	6.379
	+	351.92	*	1.392E+00	2.140E-01	9.517E-02	1.213E-02	14.628
PO-216	+	74.81		2.377E+00	5.097E-01	4.276E-01	5.306E-02	5.559
	+	77.11		1.966E+00	2.709E-01	2.435E-01	2.036E-02	8.072
	+	87.30		1.744E+00	4.481E-01	4.403E-01	6.046E-02	3.961
	+	238.63	*	1.681E+00	2.419E-01	7.451E-02	9.845E-03	22.555
	+	300.09		1.454E+00	1.004E+00	1.006E+00	1.467E-01	1.445
PO-218	+	74.81		4.096E+00	8.466E-01	7.368E-01	8.122E-02	5.559
	+	77.11		3.370E+00	5.306E-01	4.174E-01	4.722E-02	8.072
	+	87.30		2.987E+00	7.437E-01	7.542E-01	9.175E-02	3.961
	+	241.98		2.476E+00	5.575E-01	4.151E-01	5.709E-02	5.965
	+	295.21		1.187E+00	2.844E-01	1.861E-01	2.771E-02	6.379
	+	351.92	*	1.392E+00	2.140E-01	9.517E-02	1.213E-02	14.628
RA-224	+	240.98	*	4.695E+00	1.024E+00	8.471E-01	1.060E-01	5.543
RA-226	+	609.31	*	1.196E+00	1.974E-01	9.118E-02	1.060E-02	13.123
	+	1120.29		1.064E+00	5.697E-01	4.215E-01	4.657E-02	2.525
	+	1764.49		1.597E+00	4.025E-01	2.124E-01	1.770E-02	7.516
AC-228	+	338.32		1.766E+00	8.473E-01	3.192E-01	1.343E-01	5.531
	+	911.07	*	1.476E+00	3.081E-01	1.771E-01	2.347E-02	8.331
	+	969.11		2.007E+00	5.943E-01	2.969E-01	7.169E-02	6.759
RA-228	+	338.32		1.766E+00	8.473E-01	3.192E-01	1.343E-01	5.531
	+	911.07	*	1.476E+00	3.081E-01	1.771E-01	2.347E-02	8.331
	+	969.11		2.007E+00	5.943E-01	2.969E-01	7.169E-02	6.759
TH-228	+	74.81		2.413E+00	4.665E-01	4.341E-01	3.577E-02	5.559
	+	77.11		1.995E+00	2.750E-01	2.472E-01	2.067E-02	8.072
	+	87.30		1.770E+00	4.190E-01	4.469E-01	4.206E-02	3.961
	+	238.63	*	1.706E+00	2.456E-01	7.565E-02	9.995E-03	22.555
	+	300.09		1.476E+00	1.335E+00	1.021E+00	6.143E-01	1.445
TH-230	+	609.31	*	1.196E+00	1.974E-01	9.117E-02	1.060E-02	13.123
	+	1120.29		1.064E+00	5.697E-01	4.214E-01	4.657E-02	2.525
	+	1764.49		1.597E+00	4.024E-01	2.124E-01	1.770E-02	7.516
TH-232	+	338.32		1.766E+00	4.586E-01	3.192E-01	3.796E-02	5.531
	+	911.07	*	1.476E+00	3.081E-01	1.771E-01	2.347E-02	8.331
	+	969.11		2.007E+00	5.943E-01	2.969E-01	7.169E-02	6.759
TH-234	+	63.29	*	3.039E-01	1.161E+00	1.633E+00	2.843E-01	0.186
	+	92.38		1.548E+00	6.728E-01	6.262E-01	1.147E-01	2.472
U-234	+	609.31	*	1.196E+00	1.974E-01	9.117E-02	1.060E-02	13.123
	+	1120.29		1.064E+00	5.697E-01	4.214E-01	4.657E-02	2.525
	+	1764.49		1.597E+00	4.024E-01	2.124E-01	1.770E-02	7.516
NP-237	+	86.50	*	1.107E+00	3.477E-01	2.816E-01	6.376E-02	3.931
		95.87		-7.445E-02	8.984E-01	1.286E+00	3.181E-01	-0.058
U-238	+	63.29	*	3.039E-01	1.161E+00	1.633E+00	2.843E-01	0.186
	+	92.38		1.548E+00	6.262E-01	6.262E-01	5.706E-02	2.472
AM-243	+	74.67	*	3.854E-01	7.437E-02	6.952E-02	5.667E-03	5.544
	+	86.72		4.152E+01	9.828E+00	1.054E+01	9.848E-01	3.940
		117.66		-1.189E+00	3.414E+00	5.356E+00	4.424E-01	-0.222
		142.18		-5.400E+00	1.537E+01	2.564E+01	2.265E+00	-0.211
ANH-511	+	511.00	*	1.240E-01	5.139E-02	3.916E-02	3.924E-03	3.166

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.064E-01	2.759E-01	4.616E-01	4.817E-02	0.447
NA-22		1274.54	*	-4.161E-02	3.580E-02	5.411E-02	4.663E-03	-0.769
NA-24		1368.53	*	-5.782E-01	3.580E-02	Half-Life too short		
AL-26		1129.67		3.241E-02	1.645E+00	2.354E+00	2.050E-01	0.014
		1808.65	*	1.957E-02	2.040E-02	3.795E-02	3.103E-03	0.516
TI-44		67.85		-1.271E-02	3.653E-02	5.962E-02	4.551E-03	-0.213
	+	78.38	*	3.627E-01	4.999E-02	6.418E-02	5.442E-03	5.651
SC-46		889.25	*	-2.369E-02	3.329E-02	5.265E-02	5.894E-03	-0.450
	+	1120.51		1.822E-01	9.679E-02	1.036E-01	9.160E-03	1.759
V-48		944.10		-7.696E-01	8.024E-01	1.240E+00	1.344E-01	-0.621
		983.50	*	-3.389E-03	5.939E-02	9.720E-02	1.019E-02	-0.035
		1312.09		9.089E-03	6.593E-02	1.099E-01	9.682E-03	0.083
CR-51		320.08	*	1.205E-01	3.171E-01	5.377E-01	6.963E-02	0.224
MN-52		744.21		-7.463E-02	1.976E-01	3.131E-01	3.403E-02	-0.238
		848.13		2.177E-01	5.648E+00	9.431E+00	1.050E+00	0.023
		935.52		2.440E-01	2.187E-01	3.815E-01	4.165E-02	0.640
		1246.25		-1.817E+00	6.807E+00	1.113E+01	9.407E-01	-0.163
		1333.61		2.696E-01	4.210E+00	6.971E+00	6.217E-01	0.039
		1434.06	*	4.635E-03	1.902E-01	3.118E-01	2.786E-02	0.015
MN-54		834.83	*	2.778E-03	3.224E-02	5.404E-02	6.003E-03	0.051
CO-56		846.75	*	3.505E-03	3.404E-02	5.704E-02	6.349E-03	0.061
		977.42		3.146E-01	2.707E+00	3.977E+00	4.194E-01	0.079
		1037.82		-1.787E-01	2.874E-01	4.508E-01	4.649E-02	-0.396
		1175.09		-1.950E+00	1.868E+00	2.911E+00	2.344E-01	-0.670
		1238.25		8.798E-02	8.000E-02	1.395E-01	1.209E-02	0.631
		1360.21		-7.415E-02	8.524E-01	1.392E+00	1.243E-01	-0.053
		1771.40		2.353E-02	1.999E-01	2.851E-01	2.369E-02	0.083
CO-57		122.06	*	-1.785E-02	2.320E-02	3.566E-02	2.941E-03	-0.500
		136.48		-3.816E-02	1.823E-01	3.062E-01	2.841E-02	-0.125
CO-58		810.76	*	-1.576E-02	3.048E-02	4.930E-02	5.460E-03	-0.320
FE-59		142.65		-1.452E+00	2.463E+00	3.987E+00	3.528E-01	-0.364
		192.34		-2.314E-01	9.347E-01	1.336E+00	1.984E-01	-0.173
		1099.22	*	3.218E-02	8.137E-02	1.353E-01	1.326E-02	0.238
		1291.56		-3.444E-02	1.045E-01	1.688E-01	1.664E-02	-0.204
CO-60		1173.22		-1.324E-02	3.759E-02	6.141E-02	4.939E-03	-0.216
		1332.49	*	1.599E-02	3.259E-02	5.565E-02	4.963E-03	0.287
ZN-65		1115.52	*	6.550E-02	1.010E-01	1.463E-01	1.305E-02	0.448
GE-68		1077.35	*	9.355E-01	1.100E+00	1.879E+00	1.772E-01	0.498
AS-73		53.44	*	2.624E-01	6.457E-01	1.066E+00	8.057E-02	0.246
AS-74		595.88	*	-9.801E-02	7.528E-02	1.149E-01	1.191E-02	-0.853
		634.78		8.486E-02	2.906E-01	4.864E-01	5.098E-02	0.174
SE-75		66.05		-2.006E+00	4.353E+00	6.250E+00	5.963E-01	-0.321
		96.73		-7.142E-01	7.588E-01	1.035E+00	1.424E-01	-0.690
		121.11		-1.404E-01	1.263E-01	1.906E-01	2.084E-02	-0.737
		136.00		1.711E-03	3.429E-02	5.808E-02	5.040E-03	0.029
		198.60		2.886E-02	1.622E+00	2.605E+00	3.045E-01	0.011
		264.65	*	1.944E-02	4.540E-02	6.510E-02	8.763E-03	0.299
		279.53		7.022E-02	9.784E-02	1.603E-01	2.275E-02	0.438
		303.91		7.051E-01	1.986E+00	2.959E+00	4.509E-01	0.238

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		3.204E-02	2.158E-01	3.566E-01	4.173E-02	0.090
BR-77	+	87.88		8.343E+02	1.975E+02	2.887E+02	2.736E+01	2.890
		200.40		-1.730E+02	1.502E+02	2.354E+02	2.589E+01	-0.735
	+	239.00		2.717E+02	3.716E+01	3.226E+01	4.014E+00	8.422
		249.79		3.513E+00	5.836E+01	9.448E+01	1.215E+01	0.037
		281.68		-3.742E+01	8.257E+01	1.292E+02	1.800E+01	-0.290
		297.23		3.100E+02	9.209E+01	1.066E+02	1.434E+01	2.907
		303.76		7.073E+01	1.707E+02	2.551E+02	3.374E+01	0.277
		439.47		6.769E+01	1.214E+02	2.028E+02	1.952E+01	0.334
		484.57		-8.969E+01	1.993E+02	3.137E+02	3.101E+01	-0.286
		520.65	*	-1.147E-01	8.879E+00	1.489E+01	1.498E+00	-0.008
		574.64		-1.614E+02	1.805E+02	2.782E+02	2.863E+01	-0.580
		578.91		4.672E+01	8.277E+01	1.230E+02	1.268E+01	0.380
		585.48		2.017E+03	3.090E+02	4.488E+02	4.636E+01	4.494
		755.35		7.408E+01	1.503E+02	2.500E+02	2.725E+01	0.296
		817.79		1.195E+02	1.037E+02	1.839E+02	2.037E+01	0.650
SR-82		698.33		2.581E+01	2.869E+01	4.889E+01	5.231E+00	0.528
		776.49	*	-3.852E-01	3.247E-01	4.811E-01	5.276E-02	-0.801
		1395.20		-5.793E+00	8.386E+00	1.280E+01	1.145E+00	-0.453
RB-83		520.41	*	-6.478E-03	5.802E-02	9.683E-02	9.745E-03	-0.067
		529.64		-4.756E-02	8.688E-02	1.414E-01	1.429E-02	-0.336
		552.65		1.870E-01	1.617E-01	2.835E-01	2.893E-02	0.660
RB-84		881.50	*	5.164E-02	6.011E-02	1.042E-01	1.166E-02	0.495
KR-85		513.99	*	2.185E+01	7.764E+00	1.218E+01	1.222E+00	1.794
SR-85		513.99	*	1.121E-01	3.982E-02	6.247E-02	6.268E-03	1.794
RB-86		1076.63	*	7.028E-01	6.946E-01	1.197E+00	1.129E-01	0.587
Y-88		898.02		-1.499E-02	3.383E-02	5.444E-02	6.117E-03	-0.275
		1836.01	*	1.322E-02	2.349E-02	4.156E-02	3.360E-03	0.318
ZR-88		392.90	*	1.475E-02	2.625E-02	4.419E-02	4.114E-03	0.334
Y-91		1204.90	*	1.512E+01	1.699E+01	2.948E+01	2.424E+00	0.513
NB-94		702.63	*	-4.514E-04	2.825E-02	4.607E-02	4.937E-03	-0.010
		871.10		9.290E-03	2.911E-02	4.925E-02	5.501E-03	0.189
NB-95		765.79	*	2.239E-02	3.832E-02	6.379E-02	6.975E-03	0.351
NB-95M		235.69	*	1.067E-01	1.294E-01	1.896E-01	2.506E-02	0.563
ZR-95		724.18		1.614E-01	9.355E-02	1.448E-01	1.651E-02	1.115
		756.15	*	2.188E-02	6.459E-02	1.066E-01	1.237E-02	0.205
NB-97		657.90	*	7.375E-02	6.459E-02	Half-Life too short		
		1024.50		-5.221E+00	6.459E-02	Half-Life too short		
ZR-97		254.15		-4.530E+00	6.459E-02	Half-Life too short		
		355.39		2.354E+00	6.459E-02	Half-Life too short		
		507.63	*	3.155E+00	6.459E-02	Half-Life too short		
		602.52		-1.428E+00	6.459E-02	Half-Life too short		
		1021.30		-2.947E+00	6.459E-02	Half-Life too short		
		1147.95		-1.638E+00	6.459E-02	Half-Life too short		
		1362.66		1.856E-01	6.459E-02	Half-Life too short		
		1750.46		8.920E-01	6.459E-02	Half-Life too short		
MO-99		140.51		-1.275E+01	2.373E+01	3.806E+01	1.056E+01	-0.335
		181.06		-1.041E+01	1.683E+01	2.363E+01	4.523E+00	-0.441
		366.43		-4.451E+01	6.878E+01	1.100E+02	1.167E+01	-0.404

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	-1.932E-01	9.550E+00	1.549E+01	2.565E+00	-0.012
		778.00		-4.961E+01	2.953E+01	4.173E+01	4.579E+00	-1.189
TC-99M		140.51	*	-1.964E+10	2.953E+01	Half-Life too short		
RH-101		127.23		-6.496E-03	3.423E-02	4.760E-02	3.979E-03	-0.136
		198.01	*	4.384E-04	2.958E-02	4.750E-02	5.182E-03	0.009
		325.23		-1.708E-01	1.954E-01	3.137E-01	3.899E-02	-0.545
RH-102		418.52		-1.568E-01	2.401E-01	3.793E-01	3.599E-02	-0.413
		475.06	*	1.532E-02	2.505E-02	4.169E-02	4.100E-03	0.367
		631.29		2.300E-02	4.403E-02	7.460E-02	7.812E-03	0.308
		697.49		3.058E-02	6.516E-02	1.090E-01	1.166E-02	0.281
		766.84		3.790E-02	9.834E-02	1.622E-01	1.774E-02	0.234
		1046.59		-3.016E-02	9.889E-02	1.582E-01	1.551E-02	-0.191
		1112.84		1.294E-01	2.500E-01	3.593E-01	3.216E-02	0.360
RU-103		497.08	*	-2.516E-02	3.375E-02	5.167E-02	7.755E-03	-0.487
	+	610.33		1.292E+01	2.740E+00	2.299E+00	4.064E-01	5.622
RH-106	+	511.85		6.193E-01	2.567E-01	3.452E-01	3.460E-02	1.794
		621.84	*	-1.610E-01	2.635E-01	4.188E-01	6.116E-02	-0.384
		1050.47		-1.049E+00	1.946E+00	3.057E+00	2.984E-01	-0.343
RU-106	+	511.85		6.193E-01	2.567E-01	3.452E-01	3.460E-02	1.794
		621.84	*	-1.610E-01	2.630E-01	4.188E-01	4.375E-02	-0.384
		1050.47		-1.049E+00	1.946E+00	3.057E+00	2.984E-01	-0.343
AG-108M		433.93	*	4.015E-03	2.733E-02	4.487E-02	4.442E-03	0.089
		614.37		1.747E-02	3.669E-02	5.392E-02	5.772E-03	0.324
		722.95		2.662E-03	3.919E-02	5.493E-02	6.078E-03	0.048
AG-110M		657.75	*	2.752E-02	2.760E-02	4.762E-02	5.118E-03	0.578
		677.61		4.989E-02	2.576E-01	4.264E-01	4.610E-02	0.117
		706.67		1.423E-01	1.697E-01	2.887E-01	3.154E-02	0.493
		763.93		-5.921E-02	1.501E-01	2.377E-01	2.644E-02	-0.249
		884.67		4.211E-02	4.318E-02	7.516E-02	8.571E-03	0.560
		937.48		5.929E-02	9.551E-02	1.630E-01	1.817E-02	0.364
		1384.27		-2.124E-01	1.460E-01	2.087E-01	1.915E-02	-1.018
IN-111		171.28		5.068E-01	8.892E-01	1.504E+00	1.501E-01	0.337
		245.39	*	8.867E-02	1.007E+00	1.430E+00	1.814E-01	0.062
IN-113M		391.69	*	9.454E-04	3.841E-02	6.325E-02	6.040E-03	0.015
SN-113		391.69	*	9.454E-04	3.841E-02	6.325E-02	6.040E-03	0.015
IN-114M		190.27	*	1.305E-01	1.745E-01	2.610E-01	2.774E-02	0.500
CD-115		260.90		-3.725E+01	1.186E+02	1.882E+02	2.501E+01	-0.198
		492.35		-1.805E+01	2.965E+01	4.601E+01	4.567E+00	-0.392
		527.90	*	1.935E+00	9.051E+00	1.532E+01	1.547E+00	0.126
SN-117M		156.02		4.333E-01	1.988E+00	3.352E+00	3.142E-01	0.129
		158.56	*	-3.872E-02	4.836E-02	7.866E-02	7.460E-03	-0.492
SB-122		563.90	*	-6.702E-03	1.704E+00	2.838E+00	2.909E-01	-0.002
		692.80		-2.277E+00	3.720E+01	6.061E+01	6.471E+00	-0.038
I-123		159.00	*	-3.899E+00	3.720E+01	Half-Life too short		
		528.96		-2.116E+02	3.720E+01	Half-Life too short		
TE-123M		159.00	*	-1.871E-02	2.485E-02	4.048E-02	3.866E-03	-0.462
I-124		602.71	*	-1.039E-01	6.432E-01	9.051E-01	9.401E-02	-0.115
		722.78		-2.545E-01	4.083E+00	5.661E+00	6.110E-01	-0.045
		1325.50		-4.156E-01	3.126E+01	4.878E+01	4.332E+00	-0.009

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		1376.25		4.352E+01	2.601E+01	4.743E+01	4.239E+00	0.917
		1509.49		1.186E+01	1.327E+01	2.324E+01	2.065E+00	0.510
		1691.02		-1.257E+00	2.665E+00	4.127E+00	3.529E-01	-0.305
SB-124		602.71		-6.018E-03	3.725E-02	5.242E-02	5.445E-03	-0.115
		645.85		-2.961E-01	3.943E-01	6.174E-01	6.753E-02	-0.480
		709.31		-5.495E-01	2.234E+00	3.590E+00	3.856E-01	-0.153
		713.82		-7.474E-01	1.317E+00	2.066E+00	2.821E-01	-0.362
		722.78		-2.137E-02	3.428E-01	4.753E-01	5.200E-02	-0.045
	+	968.20		2.066E+01	4.168E+00	6.015E+00	6.396E-01	3.435
		1045.16		-8.846E-01	2.183E+00	3.470E+00	3.408E-01	-0.255
		1325.50		-3.727E-02	2.803E+00	4.374E+00	3.884E-01	-0.009
		1368.21		-2.849E-01	1.403E+00	2.263E+00	3.096E-01	-0.126
		1436.60		4.061E-01	2.982E+00	4.939E+00	4.413E-01	0.082
		1691.02	*	-2.490E-02	5.278E-02	8.172E-02	7.269E-03	-0.305
SB-125		427.89	*	-3.409E-02	7.365E-02	1.172E-01	1.137E-02	-0.291
	+	463.38		7.398E-01	4.036E-01	4.670E-01	4.842E-02	1.584
		600.56		1.713E-01	1.618E-01	2.475E-01	2.701E-02	0.692
		635.90		5.868E-02	2.324E-01	3.814E-01	4.220E-02	0.154
TE-125M		109.28	*	6.359E+00	8.012E+00	1.312E+01	1.329E+00	0.485
I-126		388.63		-1.131E-02	1.773E-01	2.910E-01	2.755E-02	-0.039
		666.33	*	1.104E-01	1.487E-01	2.530E-01	2.673E-02	0.436
		753.82		6.363E-01	1.323E+00	2.199E+00	2.396E-01	0.289
SB-126		223.80		-1.050E+00	3.642E+00	5.871E+00	6.966E-01	-0.179
		278.60		1.238E+00	2.235E+00	3.645E+00	5.096E-01	0.340
	+	296.50		1.183E+01	2.737E+00	3.043E+00	4.099E-01	3.889
		414.70		3.479E-04	6.508E-02	1.065E-01	1.008E-02	0.003
		415.30		1.950E+00	5.252E+00	8.740E+00	8.276E-01	0.223
		555.20		-1.137E+00	3.285E+00	5.381E+00	5.496E-01	-0.211
		573.80		-7.288E-01	8.750E-01	1.389E+00	1.429E-01	-0.525
		593.00		-4.009E-01	7.672E-01	1.206E+00	1.248E-01	-0.333
		656.30		1.488E+00	2.704E+00	4.572E+00	4.816E-01	0.326
		666.33		4.613E-02	6.213E-02	1.057E-01	1.117E-02	0.436
		675.00		5.001E-01	1.695E+00	2.821E+00	2.991E-01	0.177
		695.00		1.671E-03	6.700E-02	1.096E-01	1.171E-02	0.015
		697.00		4.610E-02	2.297E-01	3.792E-01	4.055E-02	0.122
		720.50	*	-3.660E-02	1.335E-01	1.899E-01	2.047E-02	-0.193
		856.80		8.399E-02	4.270E-01	6.189E-01	6.900E-02	0.136
		989.30		9.634E-01	1.093E+00	1.884E+00	1.965E-01	0.511
		1034.80		7.153E+00	8.014E+00	1.375E+01	1.367E+00	0.520
		1213.00		-1.277E+00	4.083E+00	6.674E+00	5.518E-01	-0.191
SB-127		61.10		-1.936E+00	4.708E+01	6.991E+01	7.059E+00	-0.028
		252.40		2.462E+00	3.910E+00	6.235E+00	2.690E+00	0.395
		290.80		-1.592E+01	2.082E+01	2.913E+01	4.483E+00	-0.547
		411.60		5.983E+00	1.067E+01	1.784E+01	2.889E+00	0.335
		444.90		-7.957E+00	8.129E+00	1.242E+01	1.648E+00	-0.641
		473.00		3.267E-01	1.400E+00	2.290E+00	3.139E-01	0.143
		543.00		-5.668E+00	1.257E+01	2.044E+01	3.142E+00	-0.277
		603.60		-2.476E+00	1.130E+01	1.584E+01	2.184E+00	-0.156
		685.20	*	1.292E-01	1.092E+00	1.800E+00	2.338E-01	0.072

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		1.142E+01	1.291E+01	2.183E+01	3.721E+00	0.523
		722.20		-6.621E+00	2.816E+01	3.844E+01	4.965E+00	-0.172
		783.80		4.035E+00	2.921E+00	5.026E+00	7.121E-01	0.803
XE-127		57.60		1.214E+00	4.546E+00	7.638E+00	5.486E-01	0.159
		145.22		9.013E-01	6.347E-01	1.079E+00	9.654E-02	0.835
		172.10		-3.793E-02	1.047E-01	1.720E-01	1.721E-02	-0.221
		202.84	*	2.657E-02	4.374E-02	7.076E-02	7.844E-03	0.375
		374.96		6.336E-02	1.649E-01	2.768E-01	2.818E-02	0.229
I-131		80.18		8.853E-01	4.903E+00	5.707E+00	4.969E-01	0.155
		284.30		-7.926E-01	1.379E+00	2.141E+00	3.027E-01	-0.370
		364.48	*	9.875E-02	9.295E-02	1.602E-01	1.776E-02	0.616
		636.97		-2.945E-01	1.315E+00	2.101E+00	2.287E-01	-0.140
		722.89		1.461E-01	6.598E+00	9.214E+00	9.985E-01	0.016
TE-132		49.72		-1.971E-01	1.454E+01	2.441E+01	2.535E+00	-0.008
		111.76		-6.026E+00	2.655E+01	4.126E+01	4.388E+00	-0.146
		116.30		-7.889E+00	2.495E+01	3.923E+01	4.153E+00	-0.201
		228.16	*	2.607E-01	6.165E-01	1.016E+00	1.810E-01	0.257
BA-133		53.15		6.716E-01	2.800E+00	4.600E+00	3.491E-01	0.146
		79.62		1.023E+00	1.363E+00	1.638E+00	2.491E-01	0.625
		81.00		-9.197E-03	1.037E-01	1.185E-01	1.888E-02	-0.078
		276.40		1.816E-01	3.750E-01	5.358E-01	9.695E-02	0.339
		302.84		1.246E-01	1.394E-01	2.114E-01	3.525E-02	0.589
		356.01	*	5.852E-03	3.957E-02	5.749E-02	8.591E-03	0.102
		383.85		-4.763E-02	2.559E-01	4.180E-01	5.593E-02	-0.114
I-133	+	510.53		1.285E+00	2.559E-01	Half-Life too short		
		529.87	*	-1.744E-03	2.559E-01	Half-Life too short		
		706.58		2.745E-01	2.559E-01	Half-Life too short		
		856.28		-2.193E-02	2.559E-01	Half-Life too short		
		875.33		-2.009E-02	2.559E-01	Half-Life too short		
		1236.41		8.391E-01	2.559E-01	Half-Life too short		
		1298.22		6.211E-02	2.559E-01	Half-Life too short		
CS-134		475.35		7.622E-01	1.646E+00	2.721E+00	2.676E-01	0.280
		563.23		6.616E-05	2.929E-01	4.880E-01	5.035E-02	0.000
		569.32		1.664E-01	1.654E-01	2.870E-01	2.976E-02	0.580
		604.70		1.178E-02	3.306E-02	4.820E-02	5.018E-03	0.244
		795.84	*	8.537E-02	4.630E-02	7.215E-02	7.986E-03	1.183
		801.93		-1.902E-01	4.059E-01	5.231E-01	5.793E-02	-0.364
		1038.57		-3.384E+00	3.635E+00	5.577E+00	5.522E-01	-0.607
		1167.94		1.002E+00	2.166E+00	3.704E+00	3.010E-01	0.270
		1365.15		-6.524E-01	1.062E+00	1.598E+00	1.488E-01	-0.408
CS-135		268.24	*	1.138E-01	1.690E-01	2.402E-01	3.474E-02	0.474
I-135		288.45		2.350E+09	1.690E-01	Half-Life too short		
		417.63		-6.078E+09	1.690E-01	Half-Life too short		
		546.56		-7.117E+09	1.690E-01	Half-Life too short		
		836.80		-3.616E+09	1.690E-01	Half-Life too short		
		1038.76		-1.516E+10	1.690E-01	Half-Life too short		
		1124.00		1.098E+11	1.690E-01	Half-Life too short		
		1131.51		-4.099E+09	1.690E-01	Half-Life too short		
		1260.41	*	-2.928E+09	1.690E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1457.56		1.412E+12	1.690E-01	Half-Life too short		
		1678.03		-6.281E+09	1.690E-01	Half-Life too short		
		1706.46		-1.283E+10	1.690E-01	Half-Life too short		
		1791.20		-1.788E+08	1.690E-01	Half-Life too short		
CS-136		66.91		-1.336E-01	6.946E-01	1.008E+00	1.499E-01	-0.133
	+	86.29		4.926E+00	1.257E+00	1.697E+00	2.259E-01	2.903
		153.22		1.871E-01	5.796E-01	9.809E-01	1.002E-01	0.191
		163.89		1.040E+00	9.610E-01	1.646E+00	1.752E-01	0.632
		176.55		1.777E-01	3.175E-01	5.357E-01	5.669E-02	0.332
		273.65		-3.651E-01	4.652E-01	6.170E-01	8.729E-02	-0.592
		340.57		6.156E-01	1.587E-01	2.392E-01	2.865E-02	2.574
		818.51		4.580E-02	5.842E-02	1.018E-01	1.128E-02	0.450
		1048.07	*	4.904E-02	8.895E-02	1.503E-01	1.520E-02	0.326
		1235.34		5.026E-01	5.249E-01	9.063E-01	1.059E-01	0.555
BA-137M		661.65	*	-2.646E-02	2.913E-02	4.513E-02	4.759E-03	-0.586
CS-137		661.65	*	-2.798E-02	3.079E-02	4.771E-02	5.037E-03	-0.586
CE-139		165.85	*	-1.244E-02	2.686E-02	4.411E-02	4.326E-03	-0.282
BA-140		162.64		2.861E-01	6.734E-01	1.138E+00	1.151E-01	0.251
		304.84		9.281E-01	1.216E+00	1.808E+00	5.378E-01	0.513
		423.70		1.354E-01	1.552E+00	2.545E+00	8.316E-01	0.053
		537.32	*	1.464E-01	2.064E-01	3.480E-01	1.168E-01	0.421
LA-140		328.77		3.817E-01	2.614E-01	4.521E-01	5.711E-02	0.844
		432.53		2.171E-01	1.712E+00	2.785E+00	2.774E-01	0.078
		487.03		3.936E-02	1.152E-01	1.891E-01	1.960E-02	0.208
		751.79		-1.457E-01	1.531E+00	2.470E+00	2.873E-01	-0.059
		815.85		-5.627E-02	2.458E-01	4.050E-01	4.803E-02	-0.139
		867.82		-4.934E-02	1.405E+00	1.992E+00	2.295E-01	-0.025
		919.63		2.740E-01	2.741E+00	3.906E+00	4.957E-01	0.070
		925.24		-1.704E-01	9.657E-01	1.578E+00	1.804E-01	-0.108
		1596.49	*	6.569E-02	6.915E-02	1.119E-01	9.813E-03	0.587
CE-141		145.44	*	9.219E-02	5.609E-02	9.773E-02	8.896E-03	0.943
CE-143		57.37		-7.059E-05	5.609E-02	Half-Life too short		
		231.56		-8.614E-04	5.609E-02	Half-Life too short		
		293.26	*	7.875E-04	5.609E-02	Half-Life too short		
	+	350.59		3.210E-02	5.609E-02	Half-Life too short		
		490.36		4.248E-04	5.609E-02	Half-Life too short		
		664.57		6.363E-04	5.609E-02	Half-Life too short		
		721.93		-3.320E-04	5.609E-02	Half-Life too short		
CE-144		80.11		4.720E-01	2.254E+00	2.629E+00	2.273E-01	0.180
		133.54	*	1.692E-01	2.044E-01	3.132E-01	4.862E-02	0.540
PM-144		476.78		2.605E-02	5.790E-02	9.563E-02	1.010E-02	0.272
		618.01		4.472E-02	2.745E-02	4.678E-02	4.974E-03	0.956
		696.49	*	9.912E-03	2.919E-02	4.853E-02	5.190E-03	0.204
		778.57		-3.362E+00	1.976E+00	2.786E+00	3.057E-01	-1.207
PR-144		696.49	*	6.717E-01	1.978E+00	3.289E+00	3.516E-01	0.204
		1489.15		-8.003E+00	1.022E+01	1.530E+01	1.362E+00	-0.523
PM-146		453.90	*	8.008E-03	3.821E-02	6.264E-02	7.279E-03	0.128
		633.02		1.588E-02	1.169E+00	1.928E+00	7.296E-01	0.008
		735.90		1.072E-01	1.362E-01	2.108E-01	6.187E-02	0.508

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		747.13		5.113E-02	7.604E-02	1.277E-01	1.983E-02	0.400
ND-147	+	91.11		7.512E-01	2.717E-01	4.355E-01	4.303E-02	1.725
		319.41		1.677E+00	2.806E+00	4.793E+00	6.067E-01	0.350
		439.89		3.576E+00	4.916E+00	8.270E+00	7.964E-01	0.432
		531.02	*	-2.376E-01	4.608E-01	7.493E-01	1.188E-01	-0.317
PM-149		285.90	*	5.375E+01	8.298E+01	1.352E+02	2.557E+01	0.398
EU-152		121.78		-9.474E-02	6.890E-02	1.028E-01	9.865E-03	-0.922
		244.69		1.290E-01	3.200E-01	4.618E-01	5.847E-02	0.279
		344.27	*	1.290E-02	1.061E-01	1.354E-01	1.627E-02	0.095
		443.98		-6.036E-01	7.856E-01	1.222E+00	1.180E-01	-0.494
		778.89		-3.543E-01	2.229E-01	3.170E-01	3.479E-02	-1.118
		867.32		4.512E-01	8.131E-01	1.209E+00	1.350E-01	0.373
	+	964.01		7.009E-01	3.336E-01	4.907E-01	5.236E-02	1.428
		1085.78		-2.316E-01	3.363E-01	5.201E-01	4.846E-02	-0.445
		1112.02		1.572E-01	3.508E-01	5.017E-01	4.496E-02	0.313
		1407.95		1.290E-01	1.568E-01	2.731E-01	2.442E-02	0.472
GD-153		69.67		4.534E-02	1.441E+00	2.116E+00	1.642E-01	0.021
	+	83.37		2.705E+01	1.542E+01	1.981E+01	1.778E+00	1.366
		97.43	*	-5.259E-02	7.760E-02	1.078E-01	9.480E-03	-0.488
		103.18		-3.096E-02	9.145E-02	1.449E-01	1.239E-02	-0.214
EU-154		123.07		1.738E-02	4.702E-02	7.544E-02	8.368E-03	0.230
		247.94		1.457E-01	3.174E-01	5.211E-01	7.745E-02	0.280
		591.81		3.607E-01	5.434E-01	8.432E-01	1.096E-01	0.428
		723.30		6.351E-02	1.665E-01	2.391E-01	2.758E-02	0.266
		756.87		4.878E-01	7.039E-01	1.179E+00	1.617E-01	0.414
		873.19		3.721E-02	2.518E-01	4.220E-01	5.975E-02	0.088
		996.32		-1.158E-01	3.251E-01	5.205E-01	9.719E-02	-0.223
		1004.76		-7.330E-02	1.785E-01	2.844E-01	3.672E-02	-0.258
		1274.45	*	-1.156E-01	1.004E-01	1.513E-01	1.710E-02	-0.764
EU-155		48.70		2.439E-02	1.816E+00	3.054E+00	2.487E-01	0.008
		60.01		7.927E-01	4.082E+00	6.131E+00	4.354E-01	0.129
	+	86.54		4.541E-01	1.076E-01	1.576E-01	1.483E-02	2.881
		105.31	*	1.874E-02	9.422E-02	1.520E-01	1.305E-02	0.123
TB-160	+	86.79		1.213E+00	2.872E-01	4.185E-01	3.913E-02	2.899
		197.04		2.188E-02	5.040E-01	8.105E-01	8.813E-02	0.027
		215.65		-5.429E-03	6.675E-01	1.091E+00	1.261E-01	-0.005
		298.57		1.078E-01	1.633E-01	1.712E-01	2.295E-02	0.630
		879.36	*	-6.431E-02	1.208E-01	1.939E-01	2.169E-02	-0.332
		962.29		1.210E+00	5.238E-01	8.453E-01	9.033E-02	1.431
		966.15		1.586E+00	2.798E-01	4.627E-01	4.929E-02	3.427
		1177.93		-2.829E-01	3.029E-01	4.759E-01	3.840E-02	-0.594
		1271.85		-7.860E-01	5.687E-01	8.397E-01	7.217E-02	-0.936
HO-166M		80.57		7.643E-04	2.873E-01	3.304E-01	2.871E-02	0.002
		184.41		8.261E-02	3.329E-02	5.723E-02	5.966E-03	1.443
		280.46		-1.135E-02	7.725E-02	1.228E-01	1.715E-02	-0.092
		410.95		1.832E-01	2.139E-01	3.623E-01	3.420E-02	0.506
		711.68	*	-5.532E-02	5.031E-02	7.604E-02	8.175E-03	-0.727
		752.31		-2.877E-02	2.459E-01	3.962E-01	4.316E-02	-0.073
		810.29		-2.519E-03	4.579E-02	7.636E-02	8.442E-03	-0.033

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TM-171		51.35		-6.701E+00	2.299E+01	3.814E+01	2.975E+00	-0.176
		52.39		-3.306E+00	1.236E+01	1.997E+01	1.533E+00	-0.166
		59.40		5.212E+00	2.192E+01	3.301E+01	2.333E+00	0.158
		66.72	*	-4.985E+00	2.521E+01	3.658E+01	2.764E+00	-0.136
LU-176	+	88.36		8.942E-01	2.117E-01	3.085E-01	2.918E-02	2.898
		201.83		6.095E-03	2.581E-02	4.272E-02	4.720E-03	0.143
		306.84	*	9.434E-03	2.224E-02	3.469E-02	4.552E-03	0.272
		401.10		2.244E+00	5.598E+00	9.351E+00	8.762E-01	0.240
LU-177		112.95		-5.924E-01	1.471E+00	2.269E+00	1.886E-01	-0.261
	+	208.36	*	2.632E+00	1.333E+00	1.766E+00	1.993E-01	1.491
LU-177M		52.97		1.569E-01	1.270E+00	2.078E+00	1.581E-01	0.075
		54.07		3.366E-01	6.633E-01	1.098E+00	8.226E-02	0.306
		61.30		1.710E-01	1.217E+00	1.821E+00	1.310E-01	0.094
		121.62		-5.015E-01	3.522E-01	5.253E-01	4.327E-02	-0.955
		147.16		-4.936E-01	5.774E-01	9.437E-01	8.510E-02	-0.523
		171.86		-1.189E-01	4.228E-01	6.966E-01	6.967E-02	-0.171
		218.09		-2.645E-01	7.697E-01	1.241E+00	1.446E-01	-0.213
		268.79		8.878E-01	8.737E-01	1.257E+00	1.709E-01	0.706
		319.02		1.514E-01	2.182E-01	3.737E-01	4.735E-02	0.405
		367.43		-3.037E-01	7.228E-01	1.170E+00	1.236E-01	-0.259
		413.65	*	-8.919E-02	1.545E-01	2.459E-01	2.325E-02	-0.363
HF-181		56.28		-3.647E-01	7.111E-01	1.165E+00	8.483E-02	-0.313
		57.53		5.731E-03	3.848E-01	6.414E-01	4.610E-02	0.009
		65.20		-3.458E-01	8.437E-01	1.215E+00	9.058E-02	-0.285
		133.02		3.686E-02	6.487E-02	9.915E-02	8.451E-03	0.372
		136.25		-1.294E-02	3.991E-01	6.742E-01	5.816E-02	-0.019
		345.85		-5.683E-02	2.354E-01	2.611E-01	3.020E-02	-0.218
		482.03	*	1.485E-02	3.625E-02	5.974E-02	5.897E-03	0.249
W-181		56.28		-1.425E-01	2.783E-01	4.557E-01	3.320E-02	-0.313
		57.53		2.055E-03	1.507E-01	2.512E-01	1.805E-02	0.008
		65.20	*	-1.344E-01	3.278E-01	4.721E-01	3.520E-02	-0.285
TA-182		67.75		-2.581E-02	8.734E-02	1.428E-01	1.089E-02	-0.181
		100.10		1.813E-01	1.521E-01	2.533E-01	2.195E-02	0.716
		152.43		7.414E-02	2.928E-01	4.948E-01	4.565E-02	0.150
		222.10		2.986E-01	3.116E-01	5.219E-01	6.159E-02	0.572
		1001.68		1.505E+00	1.792E+00	2.995E+00	3.087E-01	0.502
	+	1121.28		5.032E-01	2.673E-01	2.840E-01	2.508E-02	1.772
		1189.05		-2.950E-01	2.602E-01	4.029E-01	3.277E-02	-0.732
		1221.42	*	-1.652E-02	1.742E-01	2.880E-01	2.395E-02	-0.057
		1230.97		-6.559E-01	4.455E-01	6.786E-01	5.679E-02	-0.967
RE-183		57.98		6.940E-02	1.497E-01	2.530E-01	1.811E-02	0.274
		59.32		2.077E-02	9.017E-02	1.358E-01	9.603E-03	0.153
		67.20		-4.365E-02	1.677E-01	2.577E-01	1.955E-02	-0.169
		162.32	*	4.979E-02	9.832E-02	1.665E-01	1.607E-02	0.299
	+	208.81		2.361E+00	1.196E+00	1.601E+00	1.810E-01	1.474
		291.72		-7.006E-01	9.061E-01	1.269E+00	1.728E-01	-0.552
RE-184		57.98		2.557E-01	5.517E-01	9.322E-01	6.671E-02	0.274
		59.32		7.646E-02	3.319E-01	4.998E-01	3.535E-02	0.153
		67.20		-1.608E-01	6.176E-01	9.491E-01	7.202E-02	-0.169

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		2.115E-02	3.121E-01	5.226E-01	5.018E-02	0.040
		216.55		8.890E-02	2.351E-01	3.889E-01	4.509E-02	0.229
		252.85	*	3.100E-02	2.005E-01	3.255E-01	4.224E-02	0.095
		318.01		1.015E-01	3.748E-01	6.338E-01	8.055E-02	0.160
		792.07		7.437E-01	1.021E+00	1.486E+00	1.637E-01	0.500
		903.28		1.896E-01	9.262E-01	1.335E+00	1.491E-01	0.142
		920.93		4.227E-01	4.192E-01	6.619E-01	7.303E-02	0.639
OS-185		59.72		3.422E-02	2.430E-01	3.643E-01	2.579E-02	0.094
		61.14		-3.078E-03	1.334E-01	1.983E-01	1.424E-02	-0.016
		69.30		-6.811E-02	2.614E-01	3.794E-01	2.934E-02	-0.180
		592.07		1.222E+00	2.143E+00	3.414E+00	3.534E-01	0.358
		646.12	*	-2.766E-02	3.353E-02	5.223E-02	5.489E-03	-0.530
		717.42		4.703E-01	7.175E-01	1.212E+00	1.305E-01	0.388
		874.81		-1.494E-01	4.955E-01	8.079E-01	9.029E-02	-0.185
		880.27		1.646E-01	6.834E-01	1.150E+00	1.286E-01	0.143
RE-188		155.03	*	1.218E-01	1.500E-01	2.567E-01	2.396E-02	0.475
		477.96		2.014E+00	2.645E+00	4.428E+00	4.362E-01	0.455
		633.10		2.751E-01	2.341E+00	3.884E+00	4.069E-01	0.071
W-188	+	63.58		1.222E+01	4.665E+01	7.047E+01	5.178E+00	0.173
		227.08		7.039E+00	1.133E+01	1.881E+01	2.255E+00	0.374
		290.67	*	-5.003E+00	7.182E+00	1.011E+01	1.381E+00	-0.495
IR-192	+	295.96		9.054E-01	2.096E-01	2.346E-01	3.174E-02	3.859
		308.46		-9.208E-03	7.998E-02	1.336E-01	1.749E-02	-0.069
		316.51	*	1.964E-03	2.877E-02	4.831E-02	6.174E-03	0.041
		468.07		-3.084E-02	6.242E-02	8.367E-02	8.656E-03	-0.369
		604.41		-3.493E-02	4.510E-01	6.386E-01	9.103E-02	-0.055
		612.46		4.081E+00	9.674E-01	1.502E+00	1.727E-01	2.718
AU-195		65.12		-6.927E-02	1.525E-01	2.192E-01	1.633E-02	-0.316
		66.83		-1.622E-02	8.335E-02	1.209E-01	9.147E-03	-0.134
	+	75.70		1.247E+00	2.407E-01	3.672E-01	3.025E-02	3.397
		98.88	*	1.802E-01	2.037E-01	3.218E-01	2.806E-02	0.560
	+	129.76		5.251E+00	3.357E+00	4.581E+00	3.861E-01	1.146
TL-200		367.94	*	-1.098E-04	3.357E+00	Half-Life too short		
		579.30		5.606E-03	3.357E+00	Half-Life too short		
		828.27		2.008E-03	3.357E+00	Half-Life too short		
		1205.75		1.983E-03	3.357E+00	Half-Life too short		
TL-201		68.90		-1.708E+00	3.980E+00	6.120E+00	4.716E-01	-0.279
		70.82		-7.488E-01	2.394E+00	3.461E+00	2.716E-01	-0.216
		80.30		6.746E-01	5.353E+00	6.209E+00	5.378E-01	0.109
		135.34		-6.590E+00	2.233E+01	3.743E+01	3.218E+00	-0.176
		167.43	*	-3.498E+00	6.290E+00	1.028E+01	1.014E+00	-0.340
TL-202		68.90		-1.530E-01	3.566E-01	5.482E-01	4.225E-02	-0.279
		70.82		-6.690E-02	2.138E-01	3.092E-01	2.426E-02	-0.216
		80.30		6.029E-02	4.784E-01	5.549E-01	4.806E-02	0.109
		439.56	*	3.294E-02	5.847E-02	9.771E-02	9.406E-03	0.337
HG-203		70.83		-2.809E-01	9.265E-01	1.340E+00	1.759E-01	-0.210
		72.87		7.824E-01	5.567E-01	8.465E-01	1.084E-01	0.924
		82.60		3.539E-01	1.037E+00	1.397E+00	1.945E-01	0.253
		279.20	*	3.469E-02	3.703E-02	6.095E-02	8.627E-03	0.569

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		1.963E-01	1.607E-01	2.455E-01	1.964E-02	0.800
	+	74.97		6.918E-01	1.335E-01	1.822E-01	1.490E-02	3.797
	+	84.90		3.499E-01	1.994E-01	2.615E-01	2.391E-02	1.338
		569.67		2.859E-02	2.557E-02	4.458E-02	4.579E-03	0.641
		1063.62	*	2.855E-03	4.685E-02	7.665E-02	7.359E-03	0.037
		1770.23		6.810E-01	4.653E-01	7.886E-01	6.555E-02	0.864
TL-207		81.07		-2.274E-02	2.288E-01	2.612E-01	2.282E-02	-0.087
	+	83.78		2.307E-01	1.315E-01	1.713E-01	1.545E-02	1.347
		94.90		4.586E-01	2.147E-01	3.310E-01	2.959E-02	1.386
		122.32		-1.011E+00	1.611E+00	2.491E+00	2.216E-01	-0.406
		144.24		5.589E-01	6.234E-01	1.050E+00	1.039E-01	0.532
		154.21		1.866E-01	3.458E-01	5.881E-01	5.941E-02	0.317
	+	269.46		5.448E-01	2.848E-01	2.973E-01	4.084E-02	1.832
		323.87	*	-7.269E-01	5.962E-01	9.196E-01	1.828E-01	-0.790
	+	338.28		7.373E+00	2.022E+00	2.154E+00	3.185E-01	3.424
		445.03		-1.882E+00	1.884E+00	2.875E+00	3.694E-01	-0.655
PO-209		260.50		-3.354E+00	8.783E+00	1.390E+01	1.845E+00	-0.241
		262.80		-1.782E+01	2.476E+01	3.847E+01	5.140E+00	-0.463
		896.60	*	2.063E+00	5.836E+00	9.882E+00	1.107E+00	0.209
BI-210		46.50	*	-1.427E+00	2.665E+00	4.312E+00	4.006E-01	-0.331
PB-210		46.50	*	-1.427E+00	2.665E+00	4.312E+00	4.006E-01	-0.331
PO-210		46.50	*	-1.427E+00	2.664E+00	4.312E+00	3.625E-01	-0.331
PB-211		404.84	*	-1.619E-01	8.102E-01	1.306E+00	8.201E-01	-0.124
		427.08		-4.297E-01	1.678E+00	2.668E+00	1.661E+00	-0.161
		831.96		3.459E-01	1.041E+00	1.730E+00	1.091E+00	0.200
BI-212	+	727.18	*	1.002E+00	4.036E-01	5.434E-01	6.490E-02	1.843
		785.46		2.095E+00	1.492E+00	2.535E+00	2.787E-01	0.826
		1620.62		8.151E-01	9.111E-01	1.653E+00	1.441E-01	0.493
PO-215		81.07		-2.274E-02	2.288E-01	2.612E-01	2.282E-02	-0.087
	+	83.78		2.307E-01	1.315E-01	1.713E-01	1.545E-02	1.347
		94.90		4.586E-01	2.147E-01	3.310E-01	2.959E-02	1.386
		122.32		-1.011E+00	1.611E+00	2.491E+00	2.216E-01	-0.406
		144.24		5.589E-01	6.234E-01	1.050E+00	1.039E-01	0.532
		154.21		1.866E-01	3.458E-01	5.881E-01	5.941E-02	0.317
	+	269.46		5.448E-01	2.848E-01	2.973E-01	4.084E-02	1.832
		323.87	*	-7.269E-01	5.962E-01	9.196E-01	1.828E-01	-0.790
	+	338.28		7.373E+00	2.022E+00	2.154E+00	3.185E-01	3.424
		445.03		-1.882E+00	1.884E+00	2.875E+00	3.694E-01	-0.655
RN-219	+	271.23		6.989E-01	3.674E-01	3.936E-01	5.831E-02	1.776
		401.81	*	9.012E-02	3.472E-01	5.762E-01	8.915E-02	0.156
RN-220		549.76	*	-1.588E+00	2.108E+01	3.506E+01	3.574E+00	-0.045
RA-223		81.07		-2.274E-02	2.288E-01	2.612E-01	2.282E-02	-0.087
	+	83.78		2.307E-01	1.315E-01	1.713E-01	1.545E-02	1.347
		94.90		4.586E-01	2.147E-01	3.310E-01	2.959E-02	1.386
		122.32		-1.011E+00	1.611E+00	2.491E+00	2.216E-01	-0.406
		144.24		5.589E-01	6.234E-01	1.050E+00	1.039E-01	0.532
		154.21		1.866E-01	3.458E-01	5.881E-01	5.941E-02	0.317
	+	269.46		5.448E-01	2.848E-01	2.973E-01	4.084E-02	1.832
		323.87	*	-7.269E-01	5.962E-01	9.196E-01	1.828E-01	-0.790

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.373E+00	2.022E+00	2.154E+00	3.185E-01	3.424
		445.03		-1.882E+00	1.884E+00	2.875E+00	3.694E-01	-0.655
AC-227		79.80		1.014E+00	1.726E+00	2.048E+00	4.404E-01	0.495
		236.00		9.936E-01	2.944E-01	4.171E-01	6.293E-02	2.382
		256.20	*	1.317E-02	3.333E-01	5.381E-01	9.819E-02	0.024
		286.10		8.843E-01	1.381E+00	2.251E+00	3.836E-01	0.393
	+	299.80		2.694E+00	1.899E+00	2.222E+00	4.499E-01	1.213
		304.40		1.636E+00	1.757E+00	2.654E+00	5.567E-01	0.616
		334.20		-1.031E+00	2.255E+00	3.167E+00	6.703E-01	-0.325
TH-227		79.80		1.014E+00	1.726E+00	2.048E+00	4.460E-01	0.495
	+	94.00		5.981E+00	2.699E+00	3.124E+00	6.850E-01	1.915
		236.00		9.936E-01	2.898E-01	4.171E-01	5.905E-02	2.382
		256.20	*	1.317E-02	3.334E-01	5.381E-01	1.108E-01	0.024
		286.10		8.843E-01	1.637E+00	2.251E+00	2.273E+00	0.393
	+	299.80		2.694E+00	1.899E+00	2.222E+00	4.499E-01	1.213
		304.40		1.636E+00	1.757E+00	2.654E+00	5.567E-01	0.616
		334.20		-1.031E+00	2.255E+00	3.167E+00	6.703E-01	-0.325
TH-229	+	85.43		3.453E-01	1.968E-01	2.710E-01	2.493E-02	1.274
	+	88.47		5.148E-01	1.218E-01	1.764E-01	1.667E-02	2.918
		100.00		1.590E-01	1.588E-01	2.633E-01	2.282E-02	0.604
		193.63	*	-1.717E-01	4.611E-01	7.236E-01	7.780E-02	-0.237
		210.97		1.710E+00	7.967E-01	1.217E+00	1.386E-01	1.405
PA-231		283.67	*	-9.311E-01	1.405E+00	2.163E+00	4.040E-01	-0.430
	+	301.29		1.078E+00	7.476E-01	8.943E-01	1.422E-01	1.205
TH-231		81.07		-2.274E-02	2.288E-01	2.612E-01	2.282E-02	-0.087
	+	83.78		2.307E-01	1.315E-01	1.713E-01	1.545E-02	1.347
		94.90		4.586E-01	2.147E-01	3.310E-01	2.959E-02	1.386
		122.32		-1.011E+00	1.611E+00	2.491E+00	2.216E-01	-0.406
		144.24		5.589E-01	6.234E-01	1.050E+00	1.039E-01	0.532
		154.21		1.866E-01	3.458E-01	5.881E-01	5.941E-02	0.317
	+	269.46		5.448E-01	2.848E-01	2.973E-01	4.084E-02	1.832
		323.87	*	-7.269E-01	5.962E-01	9.196E-01	1.828E-01	-0.790
	+	338.28		7.373E+00	2.022E+00	2.154E+00	3.185E-01	3.424
		445.03		-1.882E+00	1.884E+00	2.875E+00	3.694E-01	-0.655
U-231	+	84.21		9.971E+00	5.683E+00	7.400E+00	6.708E-01	1.347
	+	92.29		5.929E+00	2.399E+00	3.345E+00	3.050E-01	1.772
		95.87	*	-8.468E-02	1.022E+00	1.463E+00	1.299E-01	-0.058
		108.00		-3.573E-01	1.810E+00	2.875E+00	2.417E-01	-0.124
PA-233	+	75.28		2.019E+01	4.663E+00	5.525E+00	8.352E-01	3.654
	+	86.59		7.381E+00	2.562E+00	2.563E+00	6.935E-01	2.880
	+	300.12		7.511E-01	5.249E-01	6.201E-01	1.118E-01	1.211
		311.98	*	1.418E-02	5.154E-02	8.733E-02	1.144E-02	0.162
		340.50		3.190E+00	1.057E+00	1.178E+00	2.965E-01	2.707
		398.62		-1.438E+00	1.837E+00	2.841E+00	7.634E-01	-0.506
		415.76		-2.318E-01	1.395E+00	2.262E+00	4.956E-01	-0.102
PA-234	+	63.00		3.543E-01	1.353E+00	2.058E+00	3.048E-01	0.172
		94.67		4.222E-01	1.621E-01	2.452E-01	3.098E-02	1.722
		98.44		5.034E-02	9.225E-02	1.293E-01	7.217E-02	0.389
		99.86		4.348E-01	4.034E-01	6.699E-01	5.812E-02	0.649

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-1.046E-01	1.637E-01	2.547E-01	3.029E-02	-0.411
		131.20		6.275E-02	1.061E-01	1.623E-01	1.375E-02	0.387
		152.70		7.726E-02	2.850E-01	4.814E-01	8.360E-02	0.160
	+	186.00		4.354E+00	2.625E+00	2.171E+00	6.899E-01	2.006
		226.40		-2.128E-02	3.602E-01	5.852E-01	9.125E-02	-0.036
		227.20		1.689E-01	3.843E-01	6.346E-01	7.611E-02	0.266
		248.90		4.977E-01	7.177E-01	1.175E+00	2.861E-01	0.423
		293.70		5.250E+00	1.315E+00	1.425E+00	2.882E-01	3.683
		369.80		-6.048E-01	6.992E-01	1.086E+00	2.450E-01	-0.557
		568.70		5.319E-01	8.252E-01	1.414E+00	1.452E-01	0.376
		569.50		2.597E-01	2.273E-01	3.965E-01	4.073E-02	0.655
		574.00		-1.151E+00	1.260E+00	1.990E+00	2.047E-01	-0.578
		699.00		2.826E-01	6.037E-01	1.006E+00	2.023E-01	0.281
		706.10		3.306E-01	8.762E-01	1.439E+00	6.482E-01	0.230
		733.00		-5.609E-02	3.694E-01	5.069E-01	1.173E-01	-0.111
		742.81		-1.075E+00	1.335E+00	1.709E+00	1.154E+00	-0.629
		796.30		1.709E+00	9.994E-01	1.404E+00	3.920E-01	1.217
		805.60		1.032E+00	8.619E-01	1.432E+00	4.500E-01	0.721
		819.60		5.091E-02	9.693E-01	1.625E+00	6.282E-01	0.031
		826.30		-8.531E-02	6.894E-01	1.142E+00	5.169E-01	-0.075
		831.60		-3.231E-01	5.636E-01	8.760E-01	2.685E-01	-0.369
		876.40		-7.298E-01	1.047E+00	1.138E+00	1.173E+00	-0.641
		880.51		9.820E-02	2.470E-01	4.190E-01	4.686E-02	0.234
		883.24		3.304E-01	3.341E-01	4.433E-01	2.996E-01	0.745
		899.00		-4.902E-01	7.191E-01	1.085E+00	4.805E-01	-0.452
		925.00		-7.508E-03	9.898E-01	1.635E+00	1.799E-01	-0.005
		926.50		-4.503E-02	1.495E-01	2.416E-01	6.326E-02	-0.186
		946.00	*	-4.274E-03	2.743E-01	4.519E-01	8.982E-02	-0.009
		949.00		6.286E-01	4.019E-01	7.110E-01	7.682E-02	0.884
		980.50		1.804E-01	6.038E-01	1.011E+00	1.063E-01	0.179
		1394.10		-1.086E+00	1.157E+00	1.326E+00	8.639E-01	-0.819
PA-234M		766.42		7.371E+00	1.093E+01	1.721E+01	8.807E+00	0.428
		1001.03	*	1.418E+00	4.049E+00	6.597E+00	7.560E-01	0.215
U-235	+	89.95		2.988E+00	1.393E+00	1.570E+00	4.875E-01	1.903
	+	93.35		1.861E+00	9.017E-01	1.040E+00	2.928E-01	1.789
		105.00		2.987E-01	9.250E-01	1.492E+00	4.448E-01	0.200
		143.76	*	4.273E-02	1.922E-01	3.186E-01	5.620E-02	0.134
		163.35		3.585E-01	4.239E-01	7.161E-01	1.403E-01	0.501
	+	185.71		1.613E-01	8.435E-02	8.027E-02	8.405E-03	2.009
		205.31		1.877E-01	5.383E-01	7.783E-01	1.585E-01	0.241
NP-236		94.67		3.222E-01	1.197E-01	1.861E-01	1.667E-02	1.731
		98.44		3.803E-02	6.650E-02	9.775E-02	8.546E-03	0.389
		111.00		-7.909E-02	1.237E-01	1.926E-01	1.608E-02	-0.411
		160.31	*	-4.553E-02	7.008E-02	1.146E-01	1.095E-02	-0.397
NP-239		99.55		1.408E-01	1.358E-01	2.252E-01	1.957E-02	0.625
		117.00	*	1.067E-02	1.707E-01	2.721E-01	2.249E-02	0.039
	+	209.75		1.862E+00	9.430E-01	1.255E+00	1.424E-01	1.483
		228.18		8.290E-02	2.003E-01	3.303E-01	3.974E-02	0.251
		277.60		1.184E-01	1.668E-01	2.644E-01	3.686E-02	0.448

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-3.072E-01	1.256E+00	1.793E+00	2.163E-01	-0.171
AM-241		59.54	*	3.193E-02	1.273E-01	1.918E-01	1.499E-02	0.166
CM-243		99.55		1.449E-01	1.397E-01	2.318E-01	2.014E-02	0.625
		103.76	*	5.157E-02	8.257E-02	1.352E-01	1.153E-02	0.381
		117.00		1.098E-02	1.757E-01	2.800E-01	2.314E-02	0.039
	+	209.75		1.836E+00	9.296E-01	1.238E+00	1.403E-01	1.483
		228.18		8.376E-02	2.024E-01	3.338E-01	4.016E-02	0.251
		277.60		1.194E-01	1.682E-01	2.666E-01	3.716E-02	0.448
AM-246		798.80		-1.025E-01	1.381E-01	1.764E-01	1.945E-02	-0.581
		1036.00		1.571E-01	2.698E-01	4.557E-01	4.525E-02	0.345
		1062.04		1.811E-01	2.000E-01	3.431E-01	3.300E-02	0.528
		1078.86	*	4.658E-02	1.201E-01	2.003E-01	1.885E-02	0.233
CM-247		278.00		4.426E-01	6.903E-01	1.092E+00	1.524E-01	0.405
		287.40		6.482E-01	1.197E+00	1.807E+00	2.486E-01	0.359
		402.60	*	1.547E-02	3.103E-02	5.202E-02	4.880E-03	0.297
CF-249		252.85		1.163E-01	7.524E-01	1.221E+00	1.585E-01	0.095
		333.44		-8.805E-02	1.700E-01	2.387E-01	2.888E-02	-0.369
		387.95	*	7.491E-03	3.436E-02	5.709E-02	5.426E-03	0.131
CF-251		176.60	*	6.233E-02	1.094E-01	1.846E-01	1.876E-02	0.338
		227.00		2.151E-01	3.402E-01	5.648E-01	6.770E-02	0.381
		285.00		-1.230E+00	1.619E+00	2.486E+00	3.439E-01	-0.495

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691002     *
* Acquisition date :  9-FEB-2010 15:21:30 Detector SN#    :                *
* Detector ID        : GAM22              Sensitivity     : 5.000          *
* Geometry           : CAN                Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.46     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245691002           Analyst initials: MJH1         *
* Batch Number       : 947037               Sample Quantity : 1.4572E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.630E+01	3.571E+00	4.112E-01	0.000E+00
CD-109	3.836E+00	8.899E-01	1.031E+00	0.000E+00
SN-126	3.770E-01	8.746E-02	1.017E-01	0.000E+00
TL-208	5.275E-01	8.625E-02	5.046E-02	0.000E+00
BI-211	4.002E+00	5.671E-01	2.838E-01	0.000E+00
PB-212	1.681E+00	2.371E-01	7.810E-02	0.000E+00
PO-212	1.681E+00	2.371E-01	7.810E-02	0.000E+00
BI-214	1.196E+00	1.935E-01	9.358E-02	0.000E+00
PB-214	1.392E+00	2.097E-01	9.890E-02	0.000E+00
PO-214	1.392E+00	2.097E-01	9.890E-02	0.000E+00
PO-216	1.681E+00	2.371E-01	7.810E-02	0.000E+00
PO-218	1.392E+00	2.097E-01	9.890E-02	0.000E+00
RA-224	4.695E+00	1.003E+00	8.877E-01	0.000E+00
RA-226	1.196E+00	1.935E-01	9.358E-02	0.000E+00
AC-228	1.476E+00	3.019E-01	1.801E-01	0.000E+00
RA-228	1.476E+00	3.019E-01	1.801E-01	0.000E+00
TH-228	1.706E+00	2.407E-01	7.929E-02	0.000E+00
TH-230	1.196E+00	1.934E-01	9.358E-02	0.000E+00
TH-232	1.476E+00	3.019E-01	1.801E-01	0.000E+00
TH-234	3.039E-01	1.138E+00	1.761E+00	0.000E+00
U-234	1.196E+00	1.934E-01	9.358E-02	0.000E+00
NP-237	1.107E+00	3.407E-01	3.017E-01	0.000E+00
U-238	3.039E-01	1.138E+00	1.761E+00	0.000E+00
AM-243	3.854E-01	7.288E-02	7.472E-02	0.000E+00
ANH-511	1.240E-01	5.036E-02	4.036E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	2.064E-01	2.704E-01	4.764E-01	0.000E+00	NOT IDENT.
NA-22	-4.161E-02	3.508E-02	5.459E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	6.224E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.957E-02	1.999E-02	3.796E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.899E-02	6.891E-02	0.000E+00	FAIL ABUN
SC-46	-2.369E-02	3.263E-02	5.357E-02	0.000E+00	FAIL ABUN
V-48	-3.389E-03	5.820E-02	9.866E-02	0.000E+00	NOT IDENT.
CR-51	1.205E-01	3.107E-01	5.600E-01	0.000E+00	NOT IDENT.
MN-52	4.635E-03	1.864E-01	3.137E-01	0.000E+00	NOT IDENT.
MN-54	2.778E-03	3.160E-02	5.506E-02	0.000E+00	NOT IDENT.
CO-56	3.505E-03	3.336E-02	5.810E-02	0.000E+00	NOT IDENT.
CO-57	-1.785E-02	2.274E-02	3.793E-02	0.000E+00	NOT IDENT.
CO-58	-1.576E-02	2.987E-02	5.027E-02	0.000E+00	NOT IDENT.
FE-59	3.218E-02	7.974E-02	1.370E-01	0.000E+00	NOT IDENT.
CO-60	1.599E-02	3.194E-02	5.608E-02	0.000E+00	NOT IDENT.
ZN-65	6.550E-02	9.900E-02	1.480E-01	0.000E+00	NOT IDENT.
GE-68	9.355E-01	1.078E+00	1.903E+00	0.000E+00	NOT IDENT.
AS-73	2.624E-01	6.328E-01	1.154E+00	0.000E+00	NOT IDENT.
AS-74	-9.801E-02	7.378E-02	1.180E-01	0.000E+00	NOT IDENT.
SE-75	1.944E-02	4.449E-02	6.809E-02	0.000E+00	NOT IDENT.
BR-77	-1.147E-01	8.701E+00	1.533E+01	0.000E+00	FAIL ABUN
SR-82	-3.852E-01	3.182E-01	4.911E-01	0.000E+00	NOT IDENT.
RB-83	-6.478E-03	5.686E-02	9.975E-02	0.000E+00	NOT IDENT.
RB-84	5.164E-02	5.891E-02	1.061E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.609E+00	1.255E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.902E-02	6.436E-02	0.000E+00	NOT IDENT.
RB-86	7.028E-01	6.807E-01	1.212E+00	0.000E+00	NOT IDENT.
Y-88	1.322E-02	2.302E-02	4.156E-02	0.000E+00	NOT IDENT.
ZR-88	1.475E-02	2.572E-02	4.580E-02	0.000E+00	NOT IDENT.
Y-91	1.512E+01	1.665E+01	2.978E+01	0.000E+00	NOT IDENT.
NB-94	-4.514E-04	2.768E-02	4.713E-02	0.000E+00	NOT IDENT.
NB-95	2.239E-02	3.755E-02	6.512E-02	0.000E+00	NOT IDENT.
NB-95M	1.067E-01	1.268E-01	1.987E-01	0.000E+00	NOT IDENT.
ZR-95	2.188E-02	6.330E-02	1.088E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.681E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.848E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.932E-01	9.359E+00	1.583E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.585E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.384E-04	2.899E-02	4.999E-02	0.000E+00	NOT IDENT.
RH-102	1.532E-02	2.455E-02	4.303E-02	0.000E+00	NOT IDENT.
RU-103	-2.516E-02	3.307E-02	5.328E-02	0.000E+00	FAIL ABUN
RH-106	-1.610E-01	2.583E-01	4.297E-01	0.000E+00	FAIL ABUN
RU-106	-1.610E-01	2.577E-01	4.297E-01	0.000E+00	FAIL ABUN
AG-108M	4.015E-03	2.678E-02	4.641E-02	0.000E+00	NOT IDENT.
AG-110M	2.752E-02	2.705E-02	4.879E-02	0.000E+00	NOT IDENT.
IN-111	8.867E-02	9.865E-01	1.498E+00	0.000E+00	NOT IDENT.
IN-113M	9.454E-04	3.764E-02	6.557E-02	0.000E+00	NOT IDENT.
SN-113	9.454E-04	3.764E-02	6.557E-02	0.000E+00	NOT IDENT.
IN-114M	1.305E-01	1.710E-01	2.749E-01	0.000E+00	NOT IDENT.
CD-115	1.935E+00	8.870E+00	1.577E+01	0.000E+00	NOT IDENT.
SN-117M	-3.872E-02	4.739E-02	8.319E-02	0.000E+00	NOT IDENT.
SB-122	-6.702E-03	1.670E+00	2.918E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.075E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.871E-02	2.436E-02	4.281E-02	0.000E+00	NOT IDENT.
I-124	-1.039E-01	6.303E-01	9.292E-01	0.000E+00	NOT IDENT.
SB-124	-2.490E-02	5.173E-02	8.188E-02	0.000E+00	FAIL ABUN
SB-125	-3.409E-02	7.217E-02	1.212E-01	0.000E+00	FAIL ABUN
TE-125M	6.359E+00	7.852E+00	1.399E+01	0.000E+00	NOT IDENT.
I-126	1.104E-01	1.457E-01	2.591E-01	0.000E+00	NOT IDENT.
SB-126	-3.660E-02	1.308E-01	1.941E-01	0.000E+00	FAIL ABUN
SB-127	1.292E-01	1.071E+00	1.842E+00	0.000E+00	NOT IDENT.
XE-127	2.657E-02	4.286E-02	7.444E-02	0.000E+00	NOT IDENT.
I-131	9.875E-02	9.109E-02	1.664E-01	0.000E+00	NOT IDENT.
TE-132	2.607E-01	6.041E-01	1.066E+00	0.000E+00	NOT IDENT.
BA-133	5.852E-03	3.878E-02	5.973E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.906E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.537E-02	7.359E-02	0.000E+00	NOT IDENT.
CS-135	1.138E-01	1.656E-01	2.511E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.961E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.904E-02	8.717E-02	1.523E-01	0.000E+00	FAIL ABUN
BA-137M	-2.646E-02	2.854E-02	4.623E-02	0.000E+00	NOT IDENT.
CS-137	-2.798E-02	3.017E-02	4.887E-02	0.000E+00	NOT IDENT.
CE-139	-1.244E-02	2.632E-02	4.661E-02	0.000E+00	NOT IDENT.
BA-140	1.464E-01	2.023E-01	3.582E-01	0.000E+00	NOT IDENT.
LA-140	6.569E-02	6.777E-02	1.123E-01	0.000E+00	NOT IDENT.
CE-141	9.219E-02	5.496E-02	1.035E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.424E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.692E-01	2.003E-01	3.325E-01	0.000E+00	NOT IDENT.
PM-144	9.912E-03	2.861E-02	4.966E-02	0.000E+00	NOT IDENT.
PR-144	6.717E-01	1.939E+00	3.365E+00	0.000E+00	NOT IDENT.

PM-146	8.008E-03	3.744E-02	6.472E-02	0.000E+00	NOT IDENT.
ND-147	-2.376E-01	4.516E-01	7.715E-01	0.000E+00	FAIL ABUN
PM-149	5.375E+01	8.132E+01	1.411E+02	0.000E+00	NOT IDENT.
EU-152	1.290E-02	1.040E-01	1.408E-01	0.000E+00	FAIL ABUN
GD-153	-5.259E-02	7.605E-02	1.152E-01	0.000E+00	FAIL ABUN
EU-154	-1.156E-01	9.838E-02	1.526E-01	0.000E+00	NOT IDENT.
EU-155	1.874E-02	9.233E-02	1.622E-01	0.000E+00	FAIL ABUN
TB-160	-6.431E-02	1.184E-01	1.974E-01	0.000E+00	FAIL ABUN
HO-166M	-5.532E-02	4.930E-02	7.776E-02	0.000E+00	NOT IDENT.
TM-171	-4.985E+00	2.471E+01	3.941E+01	0.000E+00	NOT IDENT.
LU-176	9.434E-03	2.179E-02	3.616E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.306E+00	1.856E+00	0.000E+00	FAIL ABUN
LU-177M	-8.919E-02	1.514E-01	2.546E-01	0.000E+00	NOT IDENT.
HF-181	1.485E-02	3.553E-02	6.164E-02	0.000E+00	NOT IDENT.
W-181	-1.344E-01	3.212E-01	5.088E-01	0.000E+00	NOT IDENT.
TA-182	-1.652E-02	1.707E-01	2.909E-01	0.000E+00	FAIL ABUN
RE-183	4.979E-02	9.635E-02	1.760E-01	0.000E+00	FAIL ABUN
RE-184	3.100E-02	1.965E-01	3.408E-01	0.000E+00	NOT IDENT.
OS-185	-2.766E-02	3.286E-02	5.353E-02	0.000E+00	NOT IDENT.
RE-188	1.218E-01	1.470E-01	2.716E-01	0.000E+00	NOT IDENT.
W-188	-5.003E+00	7.038E+00	1.056E+01	0.000E+00	FAIL ABUN
IR-192	1.964E-03	2.819E-02	5.032E-02	0.000E+00	FAIL ABUN
AU-195	1.802E-01	1.996E-01	3.438E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.599E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.498E+00	6.164E+00	1.086E+01	0.000E+00	NOT IDENT.
TL-202	3.294E-02	5.730E-02	1.010E-01	0.000E+00	NOT IDENT.
HG-203	3.469E-02	3.629E-02	6.367E-02	0.000E+00	NOT IDENT.
BI-207	2.855E-03	4.592E-02	7.766E-02	0.000E+00	FAIL ABUN
TL-207	-7.269E-01	5.843E-01	9.574E-01	0.000E+00	FAIL ABUN
PO-209	2.063E+00	5.719E+00	1.005E+01	0.000E+00	NOT IDENT.
BI-210	-1.427E+00	2.612E+00	4.679E+00	0.000E+00	NOT IDENT.
PB-210	-1.427E+00	2.612E+00	4.679E+00	0.000E+00	NOT IDENT.
PO-210	-1.427E+00	2.611E+00	4.679E+00	0.000E+00	NOT IDENT.
PB-211	-1.619E-01	7.940E-01	1.353E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.956E-01	5.555E-01	0.000E+00	FAIL ABUN
PO-215	-7.269E-01	5.843E-01	9.574E-01	0.000E+00	FAIL ABUN
RN-219	9.012E-02	3.403E-01	5.970E-01	0.000E+00	FAIL ABUN
RN-220	-1.588E+00	2.066E+01	3.607E+01	0.000E+00	NOT IDENT.
RA-223	-7.269E-01	5.843E-01	9.574E-01	0.000E+00	FAIL ABUN
AC-227	1.317E-02	3.267E-01	5.632E-01	0.000E+00	FAIL ABUN
TH-227	1.317E-02	3.267E-01	5.632E-01	0.000E+00	FAIL ABUN
TH-229	-1.717E-01	4.518E-01	7.620E-01	0.000E+00	FAIL ABUN
PA-231	-9.311E-01	1.377E+00	2.259E+00	0.000E+00	FAIL ABUN
TH-231	-7.269E-01	5.843E-01	9.574E-01	0.000E+00	FAIL ABUN
U-231	-8.468E-02	1.001E+00	1.564E+00	0.000E+00	FAIL ABUN
PA-233	1.418E-02	5.051E-02	9.100E-02	0.000E+00	FAIL ABUN
PA-234	-4.274E-03	2.688E-01	4.591E-01	0.000E+00	FAIL ABUN
PA-234M	1.418E+00	3.968E+00	6.693E+00	0.000E+00	NOT IDENT.
U-235	4.273E-02	1.883E-01	3.377E-01	0.000E+00	FAIL ABUN
NP-236	-4.553E-02	6.868E-02	1.211E-01	0.000E+00	NOT IDENT.
NP-239	1.067E-02	1.673E-01	2.897E-01	0.000E+00	FAIL ABUN
AM-241	3.193E-02	1.248E-01	2.071E-01	0.000E+00	NOT IDENT.
CM-243	5.157E-02	8.092E-02	1.443E-01	0.000E+00	FAIL ABUN
AM-246	4.658E-02	1.177E-01	2.029E-01	0.000E+00	NOT IDENT.
CM-247	1.547E-02	3.041E-02	5.390E-02	0.000E+00	NOT IDENT.
CF-249	7.491E-03	3.367E-02	5.920E-02	0.000E+00	NOT IDENT.
CF-251	6.233E-02	1.072E-01	1.948E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:21:58.10

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691002.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:21:30.
Sample ID         : G245691002           Sample quantity  : 1.45720E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.46  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2870	10.67*	1.909E+00	3.630E+01	3.630E+01	10.04
CD-109	88.03	405	3.72*	7.482E+00	3.750E+00	3.836E+00	23.67
SN-126	64.28	19	9.60	4.332E+00	1.203E-01	1.203E-01	382.01
	86.94	405	8.90	7.482E+00	1.567E+00	1.567E+00	46.87
	87.57	405	37.00*	7.482E+00	3.770E-01	3.770E-01	23.67
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	207	21.60	4.299E+00	5.740E-01	5.740E-01	42.28
	583.14	678	84.20*	3.930E+00	5.275E-01	5.275E-01	16.68
	860.37	96	12.46	2.923E+00	6.790E-01	6.790E-01	54.98
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	1086	12.94*	5.402E+00	4.002E+00	4.002E+00	14.46
PB-212	74.81	609	10.70	6.167E+00	2.377E+00	2.377E+00	21.44
	77.11	888	18.00	6.468E+00	1.966E+00	1.966E+00	13.78
	87.30	405	8.00	7.482E+00	1.744E+00	1.744E+00	25.70
	238.63	1952	44.60*	6.709E+00	1.681E+00	1.681E+00	14.39
	300.09	114	3.41	5.909E+00	1.454E+00	1.454E+00	69.07
PO-212	74.81	609	10.70	6.167E+00	2.377E+00	2.377E+00	21.44
	77.11	888	18.00	6.468E+00	1.966E+00	1.966E+00	13.78
	87.30	405	8.00	7.482E+00	1.744E+00	1.744E+00	25.70
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	1952	44.60*	6.709E+00	1.681E+00	1.681E+00	14.39
	300.09	114	3.41	5.909E+00	1.454E+00	1.454E+00	69.07
BI-214	609.31	820	46.30*	3.811E+00	1.196E+00	1.196E+00	16.50
	1120.29	146	15.10	2.345E+00	1.064E+00	1.064E+00	53.53
	1764.49	168	15.80	1.716E+00	1.597E+00	1.597E+00	25.21
PB-214	74.81	609	6.21	6.167E+00	4.096E+00	4.096E+00	20.67
	77.11	888	10.50	6.468E+00	3.370E+00	3.370E+00	15.75
	87.30	405	4.67	7.482E+00	2.987E+00	2.987E+00	24.89
	241.98	480	7.49	6.666E+00	2.476E+00	2.476E+00	22.52
	295.21	528	19.20	5.969E+00	1.187E+00	1.187E+00	23.96
	351.92	1086	37.20*	5.402E+00	1.392E+00	1.392E+00	15.37
PO-214	74.81	609	6.21	6.167E+00	4.096E+00	4.096E+00	20.67

Sample ID : G245691002 Acquisition date : 9-FEB-2010 15:21:30

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	888	10.50	6.468E+00	3.370E+00	3.370E+00	15.75
	87.30	405	4.67	7.482E+00	2.987E+00	2.987E+00	24.89
	241.98	480	7.49	6.666E+00	2.476E+00	2.476E+00	22.52
	295.21	528	19.20	5.969E+00	1.187E+00	1.187E+00	23.96
	351.92	1086	37.20*	5.402E+00	1.392E+00	1.392E+00	15.37
PO-216	74.81	609	10.70	6.167E+00	2.377E+00	2.377E+00	21.44
	77.11	888	18.00	6.468E+00	1.966E+00	1.966E+00	13.78
	87.30	405	8.00	7.482E+00	1.744E+00	1.744E+00	25.70
	238.63	1952	44.60*	6.709E+00	1.681E+00	1.681E+00	14.39
	300.09	114	3.41	5.909E+00	1.454E+00	1.454E+00	69.07
PO-218	74.81	609	6.21	6.167E+00	4.096E+00	4.096E+00	20.67
	77.11	888	10.50	6.468E+00	3.370E+00	3.370E+00	15.75
	87.30	405	4.67	7.482E+00	2.987E+00	2.987E+00	24.89
	241.98	480	7.49	6.666E+00	2.476E+00	2.476E+00	22.52
	295.21	528	19.20	5.969E+00	1.187E+00	1.187E+00	23.96
	351.92	1086	37.20*	5.402E+00	1.392E+00	1.392E+00	15.37
RA-224	240.98	480	3.95*	6.666E+00	4.695E+00	4.695E+00	21.81
RA-226	609.31	820	46.30*	3.811E+00	1.196E+00	1.196E+00	16.50
	1120.29	146	15.10	2.345E+00	1.064E+00	1.064E+00	53.53
	1764.49	168	15.80	1.716E+00	1.597E+00	1.597E+00	25.21
AC-228	338.32	432	11.40	5.524E+00	1.766E+00	1.766E+00	47.99
	911.07	442	27.70*	2.788E+00	1.476E+00	1.476E+00	20.87
	969.11	343	16.60	2.649E+00	2.007E+00	2.007E+00	29.62
RA-228	338.32	432	11.40	5.524E+00	1.766E+00	1.766E+00	47.99
	911.07	442	27.70*	2.788E+00	1.476E+00	1.476E+00	20.87
	969.11	343	16.60	2.649E+00	2.007E+00	2.007E+00	29.62
TH-228	74.81	609	10.70	6.167E+00	2.377E+00	2.413E+00	19.33
	77.11	888	18.00	6.468E+00	1.966E+00	1.995E+00	13.78
	87.30	405	8.00	7.482E+00	1.744E+00	1.770E+00	23.67
	238.63	1952	44.60*	6.709E+00	1.681E+00	1.706E+00	14.39
	300.09	114	3.41	5.909E+00	1.454E+00	1.476E+00	90.43
TH-230	609.31	820	46.30*	3.811E+00	1.196E+00	1.196E+00	16.50
	1120.29	146	15.10	2.345E+00	1.064E+00	1.064E+00	53.53
	1764.49	168	15.80	1.716E+00	1.597E+00	1.597E+00	25.21
TH-232	338.32	432	11.40	5.524E+00	1.766E+00	1.766E+00	25.97
	911.07	442	27.70*	2.788E+00	1.476E+00	1.476E+00	20.87
	969.11	343	16.60	2.649E+00	2.007E+00	2.007E+00	29.62
TH-234	63.29	19	3.80*	4.332E+00	3.039E-01	3.039E-01	382.13
	92.38	255	5.41	7.854E+00	1.548E+00	1.548E+00	43.47
U-234	609.31	820	46.30*	3.811E+00	1.196E+00	1.196E+00	16.50
	1120.29	146	15.10	2.345E+00	1.064E+00	1.064E+00	53.53
	1764.49	168	15.80	1.716E+00	1.597E+00	1.597E+00	25.21
NP-237	86.50	405	12.60*	7.482E+00	1.107E+00	1.107E+00	31.40
	95.87	------	2.60	8.032E+00	------ Line Not Found		------
U-238	63.29	19	3.80*	4.332E+00	3.039E-01	3.039E-01	382.13
	92.38	255	5.41	7.854E+00	1.548E+00	1.548E+00	40.46
AM-243	74.67	609	66.00*	6.167E+00	3.854E-01	3.854E-01	19.29
	86.72	405	0.34	7.482E+00	4.152E+01	4.152E+01	23.67
	117.66	------	0.55	8.550E+00	------ Line Not Found		------

Sample ID : G245691002 Acquisition date : 9-FEB-2010 15:21:30

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	8.387E+00	------	Line Not Found	------
ANH-511	511.00	207	100.00*	4.299E+00	1.240E-01	1.240E-01	41.45

Flag: "*" = Keyline

Sample ID : G245691002 Acquisition date : 9-FEB-2010 15:21:30

Total number of lines in spectrum 31
Number of unidentified lines 2
Number of lines tentatively identified by NID 29 93.55%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.630E+01	3.630E+01	0.364E+01	10.04	
CD-109	464.00D	1.02	3.750E+00	3.836E+00	0.908E+00	23.67	
SN-126	1.00E+05Y	1.00	3.770E-01	3.770E-01	0.892E-01	23.67	
TL-208	1.41E+10Y	1.00	5.275E-01	5.275E-01	0.880E-01	16.68	
BI-211	7.04E+08Y	1.00	4.002E+00	4.002E+00	0.579E+00	14.46	
PB-212	1.41E+10Y	1.00	1.681E+00	1.681E+00	0.242E+00	14.39	
PO-212	1.41E+10Y	1.00	1.681E+00	1.681E+00	0.242E+00	14.39	
BI-214	1600.00Y	1.00	1.196E+00	1.196E+00	0.197E+00	16.50	
PB-214	1600.00Y	1.00	1.392E+00	1.392E+00	0.214E+00	15.37	
PO-214	1600.00Y	1.00	1.392E+00	1.392E+00	0.214E+00	15.37	
PO-216	1.41E+10Y	1.00	1.681E+00	1.681E+00	0.242E+00	14.39	
PO-218	1600.00Y	1.00	1.392E+00	1.392E+00	0.214E+00	15.37	
RA-224	1.41E+10Y	1.00	4.695E+00	4.695E+00	1.024E+00	21.81	
RA-226	1600.00Y	1.00	1.196E+00	1.196E+00	0.197E+00	16.50	
AC-228	1.41E+10Y	1.00	1.476E+00	1.476E+00	0.308E+00	20.87	
RA-228	1.41E+10Y	1.00	1.476E+00	1.476E+00	0.308E+00	20.87	
TH-228	1.91Y	1.02	1.681E+00	1.706E+00	0.246E+00	14.39	
TH-230	4.47E+09Y	1.00	1.196E+00	1.196E+00	0.197E+00	16.50	
TH-232	1.41E+10Y	1.00	1.476E+00	1.476E+00	0.308E+00	20.87	
TH-234	4.47E+09Y	1.00	3.039E-01	3.039E-01	11.61E-01	382.13	
U-234	4.47E+09Y	1.00	1.196E+00	1.196E+00	0.197E+00	16.50	
NP-237	2.14E+06Y	1.00	1.107E+00	1.107E+00	0.348E+00	31.40	
U-238	4.47E+09Y	1.00	3.039E-01	3.039E-01	11.61E-01	382.13	
AM-243	7380.00Y	1.00	3.854E-01	3.854E-01	0.744E-01	19.29	
ANH-511	1.00E+09Y	1.00	1.240E-01	1.240E-01	0.514E-01	41.45	
	Total Activity :		7.198E+01	7.210E+01			

Grand Total Activity : 7.198E+01 7.210E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691002 Acquisition date : 9-FEB-2010 15:21:30

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	84.37	160	626	1.27	168.95	164	29	2.22E-02	56.3	7.24E+00	T
5	89.96	241	544	1.09	180.13	164	29	3.34E-02	34.8	7.68E+00	T
0	129.02	133	551	1.01	258.16	255	8	1.85E-02	63.4	8.53E+00	T
0	186.02	257	817	1.37	372.05	365	15	3.57E-02	51.2	7.60E+00	T
0	209.39	168	477	1.20	418.75	414	9	2.34E-02	49.4	7.18E+00	T
0	270.89	180	429	1.27	541.65	535	13	2.50E-02	50.4	6.26E+00	T
0	463.13	135	259	1.62	925.84	919	14	1.87E-02	53.6	4.58E+00	T
0	727.15	153	166	1.22	1453.57	1449	13	2.13E-02	38.5	3.34E+00	T
0	793.85	76	138	2.29	1586.91	1583	14	1.05E-02	69.6	3.12E+00	
1	964.22	104	109	2.34	1927.54	1920	25	1.44E-02	46.4	2.66E+00	T
0	1587.73	65	73	1.39	3174.53	3161	29	9.06E-03	81.6	1.81E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:22:02.49

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691002.CNF;1 *
* Acquisition date  : 9-FEB-2010 15:21:30.  Detector SN#     :            *
* Detector ID       : GAM22                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:02.46          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245691002            Analyst initials: MJH1         *
* Batch Number      : 947037                Sample Quantity : 1.45720E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.630E+01	3.644E+00	4.089E-01	3.746E-02	88.760
CD-109	3.836E+00	9.080E-01	9.623E-01	9.131E-02	3.986
SN-126	3.770E-01	8.925E-02	9.496E-02	8.966E-03	3.970
TL-208	5.275E-01	8.801E-02	4.912E-02	5.326E-03	10.740
BI-211	4.002E+00	5.787E-01	2.731E-01	3.186E-02	14.655
PB-212	1.681E+00	2.419E-01	7.451E-02	9.845E-03	22.555
PO-212	1.681E+00	2.419E-01	7.451E-02	9.845E-03	22.555
BI-214	1.196E+00	1.974E-01	9.118E-02	1.060E-02	13.123
PB-214	1.392E+00	2.140E-01	9.517E-02	1.213E-02	14.628
PO-214	1.392E+00	2.140E-01	9.517E-02	1.213E-02	14.628
PO-216	1.681E+00	2.419E-01	7.451E-02	9.845E-03	22.555
PO-218	1.392E+00	2.140E-01	9.517E-02	1.213E-02	14.628
RA-224	4.695E+00	1.024E+00	8.471E-01	1.060E-01	5.543
RA-226	1.196E+00	1.974E-01	9.118E-02	1.060E-02	13.123
AC-228	1.476E+00	3.081E-01	1.771E-01	2.347E-02	8.331
RA-228	1.476E+00	3.081E-01	1.771E-01	2.347E-02	8.331
TH-228	1.706E+00	2.456E-01	7.565E-02	9.995E-03	22.555
TH-230	1.196E+00	1.974E-01	9.117E-02	1.060E-02	13.123

Sample ID : G245691002 Acquisition date : 9-FEB-2010 15:21:30

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.476E+00	3.081E-01	1.771E-01	2.347E-02	8.331
TH-234	3.039E-01	1.161E+00	1.633E+00	2.843E-01	0.186
U-234	1.196E+00	1.974E-01	9.117E-02	1.060E-02	13.123
NP-237	1.107E+00	3.477E-01	2.816E-01	6.376E-02	3.931
U-238	3.039E-01	1.161E+00	1.633E+00	2.843E-01	0.186
AM-243	3.854E-01	7.437E-02	6.952E-02	5.667E-03	5.544
ANH-511	1.240E-01	5.139E-02	3.916E-02	3.924E-03	3.166

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.064E-01		2.759E-01	4.616E-01	4.817E-02	0.447
NA-22	-4.161E-02		3.580E-02	5.411E-02	4.663E-03	-0.769
NA-24	-5.782E-01		3.176E-01	Half-Life too short		
AL-26	1.957E-02		2.040E-02	3.795E-02	3.103E-03	0.516
TI-44	3.627E-01	+	4.999E-02	6.418E-02	5.442E-03	5.651
SC-46	-2.369E-02		3.329E-02	5.265E-02	5.894E-03	-0.450
V-48	-3.389E-03		5.939E-02	9.720E-02	1.019E-02	-0.035
CR-51	1.205E-01		3.171E-01	5.377E-01	6.963E-02	0.224
MN-52	4.635E-03		1.902E-01	3.118E-01	2.786E-02	0.015
MN-54	2.778E-03		3.224E-02	5.404E-02	6.003E-03	0.051
CO-56	3.505E-03		3.404E-02	5.704E-02	6.349E-03	0.061
CO-57	-1.785E-02		2.320E-02	3.566E-02	2.941E-03	-0.500
CO-58	-1.576E-02		3.048E-02	4.930E-02	5.460E-03	-0.320
FE-59	3.218E-02		8.137E-02	1.353E-01	1.326E-02	0.238
CO-60	1.599E-02		3.259E-02	5.565E-02	4.963E-03	0.287
ZN-65	6.550E-02		1.010E-01	1.463E-01	1.305E-02	0.448
GE-68	9.355E-01		1.100E+00	1.879E+00	1.772E-01	0.498
AS-73	2.624E-01		6.457E-01	1.066E+00	8.057E-02	0.246
AS-74	-9.801E-02		7.528E-02	1.149E-01	1.191E-02	-0.853
SE-75	1.944E-02		4.540E-02	6.510E-02	8.763E-03	0.299
BR-77	-1.147E-01		8.879E+00	1.489E+01	1.498E+00	-0.008
SR-82	-3.852E-01		3.247E-01	4.811E-01	5.276E-02	-0.801
RB-83	-6.478E-03		5.802E-02	9.683E-02	9.745E-03	-0.067
RB-84	5.164E-02		6.011E-02	1.042E-01	1.166E-02	0.495
KR-85	2.185E+01		7.764E+00	1.218E+01	1.222E+00	1.794
SR-85	1.121E-01		3.982E-02	6.247E-02	6.268E-03	1.794
RB-86	7.028E-01		6.946E-01	1.197E+00	1.129E-01	0.587
Y-88	1.322E-02		2.349E-02	4.156E-02	3.360E-03	0.318
ZR-88	1.475E-02		2.625E-02	4.419E-02	4.114E-03	0.334
Y-91	1.512E+01		1.699E+01	2.948E+01	2.424E+00	0.513
NB-94	-4.514E-04		2.825E-02	4.607E-02	4.937E-03	-0.010
NB-95	2.239E-02		3.832E-02	6.379E-02	6.975E-03	0.351
NB-95M	1.067E-01		1.294E-01	1.896E-01	2.506E-02	0.563
ZR-95	2.188E-02		6.459E-02	1.066E-01	1.237E-02	0.205
NB-97	7.375E-02		3.919E-02	Half-Life too short		
ZR-97	3.155E+00		9.430E-01	Half-Life too short		

Sample ID : G245691002 Acquisition date : 9-FEB-2010 15:21:30

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-1.932E-01		9.550E+00	1.549E+01	2.565E+00	-0.012
TC-99M	-1.964E+10		1.829E+10	Half-Life too short		
RH-101	4.384E-04		2.958E-02	4.750E-02	5.182E-03	0.009
RH-102	1.532E-02		2.505E-02	4.169E-02	4.100E-03	0.367
RU-103	-2.516E-02		3.375E-02	5.167E-02	7.755E-03	-0.487
RH-106	-1.610E-01		2.635E-01	4.188E-01	6.116E-02	-0.384
RU-106	-1.610E-01		2.630E-01	4.188E-01	4.375E-02	-0.384
AG-108M	4.015E-03		2.733E-02	4.487E-02	4.442E-03	0.089
AG-110M	2.752E-02		2.760E-02	4.762E-02	5.118E-03	0.578
IN-111	8.867E-02		1.007E+00	1.430E+00	1.814E-01	0.062
IN-113M	9.454E-04		3.841E-02	6.325E-02	6.040E-03	0.015
SN-113	9.454E-04		3.841E-02	6.325E-02	6.040E-03	0.015
IN-114M	1.305E-01		1.745E-01	2.610E-01	2.774E-02	0.500
CD-115	1.935E+00		9.051E+00	1.532E+01	1.547E+00	0.126
SN-117M	-3.872E-02		4.836E-02	7.866E-02	7.460E-03	-0.492
SB-122	-6.702E-03		1.704E+00	2.838E+00	2.909E-01	-0.002
I-123	-3.899E+00		2.589E+00	Half-Life too short		
TE-123M	-1.871E-02		2.485E-02	4.048E-02	3.866E-03	-0.462
I-124	-1.039E-01		6.432E-01	9.051E-01	9.401E-02	-0.115
SB-124	-2.490E-02		5.278E-02	8.172E-02	7.269E-03	-0.305
SB-125	-3.409E-02		7.365E-02	1.172E-01	1.137E-02	-0.291
TE-125M	6.359E+00		8.012E+00	1.312E+01	1.329E+00	0.485
I-126	1.104E-01		1.487E-01	2.530E-01	2.673E-02	0.436
SB-126	-3.660E-02		1.335E-01	1.899E-01	2.047E-02	-0.193
SB-127	1.292E-01		1.092E+00	1.800E+00	2.338E-01	0.072
XE-127	2.657E-02		4.374E-02	7.076E-02	7.844E-03	0.375
I-131	9.875E-02		9.295E-02	1.602E-01	1.776E-02	0.616
TE-132	2.607E-01		6.165E-01	1.016E+00	1.810E-01	0.257
BA-133	5.852E-03		3.957E-02	5.749E-02	8.591E-03	0.102
I-133	-1.744E-03		2.503E-03	Half-Life too short		
CS-134	8.537E-02		4.630E-02	7.215E-02	7.986E-03	1.183
CS-135	1.138E-01		1.690E-01	2.402E-01	3.474E-02	0.474
I-135	-2.928E+09		2.531E+09	Half-Life too short		
CS-136	4.904E-02		8.895E-02	1.503E-01	1.520E-02	0.326
BA-137M	-2.646E-02		2.913E-02	4.513E-02	4.759E-03	-0.586
CS-137	-2.798E-02		3.079E-02	4.771E-02	5.037E-03	-0.586
CE-139	-1.244E-02		2.686E-02	4.411E-02	4.326E-03	-0.282
BA-140	1.464E-01		2.064E-01	3.480E-01	1.168E-01	0.421
LA-140	6.569E-02		6.915E-02	1.119E-01	9.813E-03	0.587
CE-141	9.219E-02		5.609E-02	9.773E-02	8.896E-03	0.943
CE-143	7.875E-04		1.237E-04	Half-Life too short		
CE-144	1.692E-01		2.044E-01	3.132E-01	4.862E-02	0.540
PM-144	9.912E-03		2.919E-02	4.853E-02	5.190E-03	0.204
PR-144	6.717E-01		1.978E+00	3.289E+00	3.516E-01	0.204
PM-146	8.008E-03		3.821E-02	6.264E-02	7.279E-03	0.128
ND-147	-2.376E-01		4.608E-01	7.493E-01	1.188E-01	-0.317
PM-149	5.375E+01		8.298E+01	1.352E+02	2.557E+01	0.398
EU-152	1.290E-02		1.061E-01	1.354E-01	1.627E-02	0.095

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-5.259E-02		7.760E-02	1.078E-01	9.480E-03	-0.488
EU-154	-1.156E-01		1.004E-01	1.513E-01	1.710E-02	-0.764
EU-155	1.874E-02		9.422E-02	1.520E-01	1.305E-02	0.123
TB-160	-6.431E-02		1.208E-01	1.939E-01	2.169E-02	-0.332
HO-166M	-5.532E-02		5.031E-02	7.604E-02	8.175E-03	-0.727
TM-171	-4.985E+00		2.521E+01	3.658E+01	2.764E+00	-0.136
LU-176	9.434E-03		2.224E-02	3.469E-02	4.552E-03	0.272
LU-177	2.632E+00	+	1.333E+00	1.766E+00	1.993E-01	1.491
LU-177M	-8.919E-02		1.545E-01	2.459E-01	2.325E-02	-0.363
HF-181	1.485E-02		3.625E-02	5.974E-02	5.897E-03	0.249
W-181	-1.344E-01		3.278E-01	4.721E-01	3.520E-02	-0.285
TA-182	-1.652E-02		1.742E-01	2.880E-01	2.395E-02	-0.057
RE-183	4.979E-02		9.832E-02	1.665E-01	1.607E-02	0.299
RE-184	3.100E-02		2.005E-01	3.255E-01	4.224E-02	0.095
OS-185	-2.766E-02		3.353E-02	5.223E-02	5.489E-03	-0.530
RE-188	1.218E-01		1.500E-01	2.567E-01	2.396E-02	0.475
W-188	-5.003E+00		7.182E+00	1.011E+01	1.381E+00	-0.495
IR-192	1.964E-03		2.877E-02	4.831E-02	6.174E-03	0.041
AU-195	1.802E-01		2.037E-01	3.218E-01	2.806E-02	0.560
TL-200	-1.098E-04		1.836E-04	Half-Life too short		
TL-201	-3.498E+00		6.290E+00	1.028E+01	1.014E+00	-0.340
TL-202	3.294E-02		5.847E-02	9.771E-02	9.406E-03	0.337
HG-203	3.469E-02		3.703E-02	6.095E-02	8.627E-03	0.569
BI-207	2.855E-03		4.685E-02	7.665E-02	7.359E-03	0.037
TL-207	-7.269E-01		5.962E-01	9.196E-01	1.828E-01	-0.790
PO-209	2.063E+00		5.836E+00	9.882E+00	1.107E+00	0.209
BI-210	-1.427E+00		2.665E+00	4.312E+00	4.006E-01	-0.331
PB-210	-1.427E+00		2.665E+00	4.312E+00	4.006E-01	-0.331
PO-210	-1.427E+00		2.664E+00	4.312E+00	3.625E-01	-0.331
PB-211	-1.619E-01		8.102E-01	1.306E+00	8.201E-01	-0.124
BI-212	1.002E+00	+	4.036E-01	5.434E-01	6.490E-02	1.843
PO-215	-7.269E-01		5.962E-01	9.196E-01	1.828E-01	-0.790
RN-219	9.012E-02		3.472E-01	5.762E-01	8.915E-02	0.156
RN-220	-1.588E+00		2.108E+01	3.506E+01	3.574E+00	-0.045
RA-223	-7.269E-01		5.962E-01	9.196E-01	1.828E-01	-0.790
AC-227	1.317E-02		3.333E-01	5.381E-01	9.819E-02	0.024
TH-227	1.317E-02		3.334E-01	5.381E-01	1.108E-01	0.024
TH-229	-1.717E-01		4.611E-01	7.236E-01	7.780E-02	-0.237
PA-231	-9.311E-01		1.405E+00	2.163E+00	4.040E-01	-0.430
TH-231	-7.269E-01		5.962E-01	9.196E-01	1.828E-01	-0.790
U-231	-8.468E-02		1.022E+00	1.463E+00	1.299E-01	-0.058
PA-233	1.418E-02		5.154E-02	8.733E-02	1.144E-02	0.162
PA-234	-4.274E-03		2.743E-01	4.519E-01	8.982E-02	-0.009
PA-234M	1.418E+00		4.049E+00	6.597E+00	7.560E-01	0.215
U-235	4.273E-02		1.922E-01	3.186E-01	5.620E-02	0.134
NP-236	-4.553E-02		7.008E-02	1.146E-01	1.095E-02	-0.397
NP-239	1.067E-02		1.707E-01	2.721E-01	2.249E-02	0.039
AM-241	3.193E-02		1.273E-01	1.918E-01	1.499E-02	0.166

Sample ID : G245691002 Acquisition date : 9-FEB-2010 15:21:30

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.157E-02		8.257E-02	1.352E-01	1.153E-02	0.381
AM-246	4.658E-02		1.201E-01	2.003E-01	1.885E-02	0.233
CM-247	1.547E-02		3.103E-02	5.202E-02	4.880E-03	0.297
CF-249	7.491E-03		3.436E-02	5.709E-02	5.426E-03	0.131
CF-251	6.233E-02		1.094E-01	1.846E-01	1.876E-02	0.338

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691002           *
* Acquisition date  :  9-FEB-2010 15:21:30 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.46      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691002           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.4572E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.630E+01	3.571E+00	2.057E-01	1.822E+00
CD-109	3.836E+00	8.899E-01	5.156E-01	4.540E-01
SN-126	3.770E-01	8.746E-02	5.088E-02	4.462E-02
TL-208	5.275E-01	8.625E-02	2.525E-02	4.400E-02
BI-211	4.002E+00	5.671E-01	1.420E-01	2.893E-01
PB-212	1.681E+00	2.371E-01	3.908E-02	1.210E-01
PO-212	1.681E+00	2.371E-01	3.908E-02	1.210E-01
BI-214	1.196E+00	1.935E-01	4.682E-02	9.870E-02
PB-214	1.392E+00	2.097E-01	4.948E-02	1.070E-01
PO-214	1.392E+00	2.097E-01	4.948E-02	1.070E-01
PO-216	1.681E+00	2.371E-01	3.908E-02	1.210E-01
PO-218	1.392E+00	2.097E-01	4.948E-02	1.070E-01
RA-224	4.695E+00	1.003E+00	4.441E-01	5.119E-01
RA-226	1.196E+00	1.935E-01	4.682E-02	9.870E-02
AC-228	1.476E+00	3.019E-01	9.012E-02	1.540E-01
RA-228	1.476E+00	3.019E-01	9.012E-02	1.540E-01
TH-228	1.706E+00	2.407E-01	3.967E-02	1.228E-01
TH-230	1.196E+00	1.934E-01	4.682E-02	9.870E-02
TH-232	1.476E+00	3.019E-01	9.012E-02	1.540E-01
TH-234	3.039E-01	1.138E+00	8.811E-01	5.807E-01
U-234	1.196E+00	1.934E-01	4.682E-02	9.870E-02
NP-237	1.107E+00	3.407E-01	1.509E-01	1.738E-01
U-238	3.039E-01	1.138E+00	8.811E-01	5.807E-01
AM-243	3.854E-01	7.288E-02	3.738E-02	3.718E-02
ANH-511	1.240E-01	5.036E-02	2.019E-02	2.569E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.064E-01	2.704E-01	2.383E-01	1.380E-01	NOT IDENT.
NA-22	-4.161E-02	3.508E-02	2.731E-02	1.790E-02	NOT IDENT.

NA-24	-5.782E+05	6.224E+05	0.000E+00	3.176E+05	SHORT HLIF
AL-26	1.957E-02	1.999E-02	1.899E-02	1.020E-02	NOT IDENT.
TI-44	3.627E-01	4.899E-02	3.447E-02	2.499E-02	FAIL ABUN
SC-46	-2.369E-02	3.263E-02	2.680E-02	1.665E-02	FAIL ABUN
V-48	-3.389E-03	5.820E-02	4.936E-02	2.970E-02	NOT IDENT.
CR-51	1.205E-01	3.107E-01	2.802E-01	1.585E-01	NOT IDENT.
MN-52	4.635E-03	1.864E-01	1.569E-01	9.510E-02	NOT IDENT.
MN-54	2.778E-03	3.160E-02	2.755E-02	1.612E-02	NOT IDENT.
CO-56	3.505E-03	3.336E-02	2.907E-02	1.702E-02	NOT IDENT.
CO-57	-1.785E-02	2.274E-02	1.898E-02	1.160E-02	NOT IDENT.
CO-58	-1.576E-02	2.987E-02	2.515E-02	1.524E-02	NOT IDENT.
FE-59	3.218E-02	7.974E-02	6.853E-02	4.069E-02	NOT IDENT.
CO-60	1.599E-02	3.194E-02	2.806E-02	1.630E-02	NOT IDENT.
ZN-65	6.550E-02	9.900E-02	7.405E-02	5.051E-02	NOT IDENT.
GE-68	9.355E-01	1.078E+00	9.523E-01	5.501E-01	NOT IDENT.
AS-73	2.624E-01	6.328E-01	5.773E-01	3.229E-01	NOT IDENT.
AS-74	-9.801E-02	7.378E-02	5.902E-02	3.764E-02	NOT IDENT.
SE-75	1.944E-02	4.449E-02	3.406E-02	2.270E-02	NOT IDENT.
BR-77	-1.147E-01	8.701E+00	7.672E+00	4.439E+00	FAIL ABUN
SR-82	-3.852E-01	3.182E-01	2.457E-01	1.623E-01	NOT IDENT.
RB-83	-6.478E-03	5.686E-02	4.990E-02	2.901E-02	NOT IDENT.
RB-84	5.164E-02	5.891E-02	5.307E-02	3.005E-02	NOT IDENT.
KR-85	2.185E+01	7.609E+00	6.279E+00	3.882E+00	NOT IDENT.
SR-85	1.121E-01	3.902E-02	3.220E-02	1.991E-02	NOT IDENT.
RB-86	7.028E-01	6.807E-01	6.063E-01	3.473E-01	NOT IDENT.
Y-88	1.322E-02	2.302E-02	2.079E-02	1.175E-02	NOT IDENT.
ZR-88	1.475E-02	2.572E-02	2.292E-02	1.312E-02	NOT IDENT.
Y-91	1.512E+01	1.665E+01	1.490E+01	8.494E+00	NOT IDENT.
NB-94	-4.514E-04	2.768E-02	2.358E-02	1.412E-02	NOT IDENT.
NB-95	2.239E-02	3.755E-02	3.258E-02	1.916E-02	NOT IDENT.
NB-95M	1.067E-01	1.268E-01	9.943E-02	6.470E-02	NOT IDENT.
ZR-95	2.188E-02	6.330E-02	5.445E-02	3.229E-02	NOT IDENT.
NB-97	7.375E+04	7.681E+04	0.000E+00	3.919E+04	SHORT HLIF
ZR-97	3.155E+06	1.848E+06	0.000E+00	9.430E+05	SHORT HLIF
MO-99	-1.932E-01	9.359E+00	7.920E+00	4.775E+00	NOT IDENT.
TC-99M	-1.964E+16	3.585E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.384E-04	2.899E-02	2.501E-02	1.479E-02	NOT IDENT.
RH-102	1.532E-02	2.455E-02	2.153E-02	1.253E-02	NOT IDENT.
RU-103	-2.516E-02	3.307E-02	2.665E-02	1.687E-02	FAIL ABUN
RH-106	-1.610E-01	2.583E-01	2.150E-01	1.318E-01	FAIL ABUN
RU-106	-1.610E-01	2.577E-01	2.150E-01	1.315E-01	FAIL ABUN
AG-108M	4.015E-03	2.678E-02	2.322E-02	1.366E-02	NOT IDENT.
AG-110M	2.752E-02	2.705E-02	2.441E-02	1.380E-02	NOT IDENT.
IN-111	8.867E-02	9.865E-01	7.494E-01	5.033E-01	NOT IDENT.
IN-113M	9.454E-04	3.764E-02	3.280E-02	1.920E-02	NOT IDENT.
SN-113	9.454E-04	3.764E-02	3.280E-02	1.920E-02	NOT IDENT.
IN-114M	1.305E-01	1.710E-01	1.375E-01	8.723E-02	NOT IDENT.
CD-115	1.935E+00	8.870E+00	7.892E+00	4.525E+00	NOT IDENT.
SN-117M	-3.872E-02	4.739E-02	4.162E-02	2.418E-02	NOT IDENT.
SB-122	-6.702E-03	1.670E+00	1.460E+00	8.520E-01	NOT IDENT.
I-123	-3.899E+06	5.075E+06	0.000E+00	2.589E+06	SHORT HLIF
TE-123M	-1.871E-02	2.436E-02	2.142E-02	1.243E-02	NOT IDENT.
I-124	-1.039E-01	6.303E-01	4.649E-01	3.216E-01	NOT IDENT.
SB-124	-2.490E-02	5.173E-02	4.097E-02	2.639E-02	FAIL ABUN
SB-125	-3.409E-02	7.217E-02	6.065E-02	3.682E-02	FAIL ABUN
TE-125M	6.359E+00	7.852E+00	7.000E+00	4.006E+00	NOT IDENT.
I-126	1.104E-01	1.457E-01	1.296E-01	7.434E-02	NOT IDENT.
SB-126	-3.660E-02	1.308E-01	9.711E-02	6.676E-02	FAIL ABUN
SB-127	1.292E-01	1.071E+00	9.217E-01	5.462E-01	NOT IDENT.
XE-127	2.657E-02	4.286E-02	3.724E-02	2.187E-02	NOT IDENT.
I-131	9.875E-02	9.109E-02	8.324E-02	4.647E-02	NOT IDENT.
TE-132	2.607E-01	6.041E-01	5.331E-01	3.082E-01	NOT IDENT.
BA-133	5.852E-03	3.878E-02	2.988E-02	1.979E-02	NOT IDENT.
I-133	-1.744E+03	4.906E+03	0.000E+00	2.503E+03	SHORT HLIF
CS-134	8.537E-02	4.537E-02	3.682E-02	2.315E-02	NOT IDENT.
CS-135	1.138E-01	1.656E-01	1.256E-01	8.448E-02	NOT IDENT.
I-135	-2.928E+15	4.961E+15	0.000E+00	2.531E+15	SHORT HLIF
CS-136	4.904E-02	8.717E-02	7.619E-02	4.448E-02	FAIL ABUN
BA-137M	-2.646E-02	2.854E-02	2.313E-02	1.456E-02	NOT IDENT.
CS-137	-2.798E-02	3.017E-02	2.445E-02	1.540E-02	NOT IDENT.
CE-139	-1.244E-02	2.632E-02	2.332E-02	1.343E-02	NOT IDENT.
BA-140	1.464E-01	2.023E-01	1.792E-01	1.032E-01	NOT IDENT.
LA-140	6.569E-02	6.777E-02	5.620E-02	3.458E-02	NOT IDENT.
CE-141	9.219E-02	5.496E-02	5.181E-02	2.804E-02	NOT IDENT.
CE-143	7.875E+02	2.424E+02	0.000E+00	1.237E+02	SHORT HLIF
CE-144	1.692E-01	2.003E-01	1.663E-01	1.022E-01	NOT IDENT.
PM-144	9.912E-03	2.861E-02	2.484E-02	1.460E-02	NOT IDENT.
PR-144	6.717E-01	1.939E+00	1.684E+00	9.891E-01	NOT IDENT.

PM-146	8.008E-03	3.744E-02	3.238E-02	1.910E-02	NOT IDENT.
ND-147	-2.376E-01	4.516E-01	3.860E-01	2.304E-01	FAIL ABUN
PM-149	5.375E+01	8.132E+01	7.059E+01	4.149E+01	NOT IDENT.
EU-152	1.290E-02	1.040E-01	7.043E-02	5.307E-02	FAIL ABUN
GD-153	-5.259E-02	7.605E-02	5.764E-02	3.880E-02	FAIL ABUN
EU-154	-1.156E-01	9.838E-02	7.636E-02	5.019E-02	NOT IDENT.
EU-155	1.874E-02	9.233E-02	8.114E-02	4.711E-02	FAIL ABUN
TB-160	-6.431E-02	1.184E-01	9.874E-02	6.040E-02	FAIL ABUN
HO-166M	-5.532E-02	4.930E-02	3.890E-02	2.515E-02	NOT IDENT.
TM-171	-4.985E+00	2.471E+01	1.972E+01	1.261E+01	NOT IDENT.
LU-176	9.434E-03	2.179E-02	1.809E-02	1.112E-02	FAIL ABUN
LU-177	2.632E+00	1.306E+00	9.287E-01	6.664E-01	FAIL ABUN
LU-177M	-8.919E-02	1.514E-01	1.274E-01	7.725E-02	NOT IDENT.
HF-181	1.485E-02	3.553E-02	3.084E-02	1.813E-02	NOT IDENT.
W-181	-1.344E-01	3.212E-01	2.546E-01	1.639E-01	NOT IDENT.
TA-182	-1.652E-02	1.707E-01	1.455E-01	8.709E-02	FAIL ABUN
RE-183	4.979E-02	9.635E-02	8.806E-02	4.916E-02	FAIL ABUN
RE-184	3.100E-02	1.965E-01	1.705E-01	1.003E-01	NOT IDENT.
OS-185	-2.766E-02	3.286E-02	2.678E-02	1.677E-02	NOT IDENT.
RE-188	1.218E-01	1.470E-01	1.359E-01	7.498E-02	NOT IDENT.
W-188	-5.003E+00	7.038E+00	5.281E+00	3.591E+00	FAIL ABUN
IR-192	1.964E-03	2.819E-02	2.517E-02	1.438E-02	FAIL ABUN
AU-195	1.802E-01	1.996E-01	1.720E-01	1.018E-01	FAIL ABUN
TL-200	-1.098E+02	3.599E+02	0.000E+00	1.836E+02	SHORT HLIF
TL-201	-3.498E+00	6.164E+00	5.435E+00	3.145E+00	NOT IDENT.
TL-202	3.294E-02	5.730E-02	5.055E-02	2.924E-02	NOT IDENT.
HG-203	3.469E-02	3.629E-02	3.185E-02	1.851E-02	NOT IDENT.
BI-207	2.855E-03	4.592E-02	3.885E-02	2.343E-02	FAIL ABUN
TL-207	-7.269E-01	5.843E-01	4.790E-01	2.981E-01	FAIL ABUN
PO-209	2.063E+00	5.719E+00	5.029E+00	2.918E+00	NOT IDENT.
BI-210	-1.427E+00	2.612E+00	2.341E+00	1.332E+00	NOT IDENT.
PB-210	-1.427E+00	2.612E+00	2.341E+00	1.332E+00	NOT IDENT.
PO-210	-1.427E+00	2.611E+00	2.341E+00	1.332E+00	NOT IDENT.
PB-211	-1.619E-01	7.940E-01	6.771E-01	4.051E-01	NOT IDENT.
BI-212	1.002E+00	3.956E-01	2.779E-01	2.018E-01	FAIL ABUN
PO-215	-7.269E-01	5.843E-01	4.790E-01	2.981E-01	FAIL ABUN
RN-219	9.012E-02	3.403E-01	2.987E-01	1.736E-01	FAIL ABUN
RN-220	-1.588E+00	2.066E+01	1.805E+01	1.054E+01	NOT IDENT.
RA-223	-7.269E-01	5.843E-01	4.790E-01	2.981E-01	FAIL ABUN
AC-227	1.317E-02	3.267E-01	2.817E-01	1.667E-01	FAIL ABUN
TH-227	1.317E-02	3.267E-01	2.817E-01	1.667E-01	FAIL ABUN
TH-229	-1.717E-01	4.518E-01	3.812E-01	2.305E-01	FAIL ABUN
PA-231	-9.311E-01	1.377E+00	1.130E+00	7.025E-01	FAIL ABUN
TH-231	-7.269E-01	5.843E-01	4.790E-01	2.981E-01	FAIL ABUN
U-231	-8.468E-02	1.001E+00	7.826E-01	5.108E-01	FAIL ABUN
PA-233	1.418E-02	5.051E-02	4.552E-02	2.577E-02	FAIL ABUN
PA-234	-4.274E-03	2.688E-01	2.297E-01	1.371E-01	FAIL ABUN
PA-234M	1.418E+00	3.968E+00	3.348E+00	2.025E+00	NOT IDENT.
U-235	4.273E-02	1.883E-01	1.689E-01	9.608E-02	FAIL ABUN
NP-236	-4.553E-02	6.868E-02	6.060E-02	3.504E-02	NOT IDENT.
NP-239	1.067E-02	1.673E-01	1.449E-01	8.537E-02	FAIL ABUN
AM-241	3.193E-02	1.248E-01	1.036E-01	6.365E-02	NOT IDENT.
CM-243	5.157E-02	8.092E-02	7.220E-02	4.129E-02	FAIL ABUN
AM-246	4.658E-02	1.177E-01	1.015E-01	6.006E-02	NOT IDENT.
CM-247	1.547E-02	3.041E-02	2.696E-02	1.551E-02	NOT IDENT.
CF-249	7.491E-03	3.367E-02	2.962E-02	1.718E-02	NOT IDENT.
CF-251	6.233E-02	1.072E-01	9.747E-02	5.469E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	373.9135
46.50	373.9135
46.50	373.9135
48.70	368.6566
49.72	370.3785
51.35	382.3280
52.39	380.3680
52.97	370.1674
53.15	365.8019
53.44	358.8030
54.07	357.9034
56.28	416.8861
56.28	416.8907
57.37	0.0000
57.53	416.1924
57.53	416.1957
57.60	403.9837
57.98	405.5575
57.98	405.5575
59.32	421.1154
59.32	421.1154
59.40	421.2489
59.54	421.4833
59.72	430.3929
60.01	430.8872
61.10	451.4861
61.14	451.5560
61.30	451.8372
63.00	498.8794
63.29	504.2796
63.29	504.2796
63.58	547.5504
64.28	547.5369
65.12	553.6525
65.20	547.9572
65.20	547.9572
66.05	561.4385
66.72	539.2435
66.83	539.4613
66.91	539.6205
67.20	544.3227
67.20	544.3227
67.75	571.8284
67.85	572.0364
68.90	567.8584
68.90	567.8584
69.30	563.6104
69.67	543.5067
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70.83	577.1212
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74.81	554.7216
74.97	555.0203
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77.11	558.9659

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80.30	512.2885
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81.07	513.5397
81.07	513.5397
81.07	513.5397
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83.78	479.4158
83.78	479.4158
83.78	479.4158
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84.90	481.0642
85.43	481.8403
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86.50	483.3972
86.54	483.4558
86.59	483.5285
86.72	483.7185
86.79	483.8170
86.94	484.0374
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87.88	485.3950
88.03	485.6107
88.36	486.0844
88.47	486.2438
89.95	488.3588
91.11	490.0071
92.29	491.6719
92.38	491.7985
92.38	491.7985
93.35	493.1562
94.00	494.0636
94.67	450.9668
94.67	450.9732
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94.90	451.2637
94.90	451.2637
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95.87	509.0464
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98.44	458.9492
98.88	451.0248
99.55	447.2736
99.55	447.2736
99.86	437.8432
100.00	438.0088
100.10	425.0529
103.18	479.0837
103.76	429.1908
105.00	459.2826
105.31	466.2803
108.00	481.7402
109.28	429.7216

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111.00	494.3440
111.76	468.3212
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116.30	481.4662
117.00	460.6595
117.00	460.6595
117.66	470.4963
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121.62	522.0210
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122.32	488.3112
122.32	488.3112
122.32	488.3112
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136.25	492.5536
136.48	499.0320
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140.51	0.0000
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144.24	483.5464
144.24	483.5464
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147.16	541.0361
152.43	478.5538
152.70	488.0115
153.22	488.5008
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154.21	470.9617
154.21	470.9617
154.21	470.9617
155.03	460.6021
156.02	480.9319
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162.64	479.4095
163.35	456.5483
163.89	454.1760
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167.43	497.7922
171.28	435.4631
171.86	457.8442
172.10	458.0383
176.55	417.3581
176.60	417.3946
181.06	463.5996
184.41	406.3708
185.71	407.2457
186.00	407.4429
190.27	395.1412
192.34	437.5295
193.63	451.0981
197.04	421.7162
198.01	422.3567
198.60	426.7330
200.40	505.9228
201.83	457.9449
202.84	445.0355
205.31	451.3257

208.36	492.2781
208.81	454.7345
209.75	413.7929
209.75	413.7929
210.97	408.0435
215.65	427.6502
216.55	405.6740
218.09	439.4386
222.10	387.2509
223.80	426.4907
226.40	412.4745
227.00	382.6670
227.08	382.7091
227.20	392.1350
228.16	387.4536
228.18	387.4650
228.18	387.4650
231.56	0.0000
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236.00	431.2500
236.00	431.2500
238.63	346.5656
238.63	346.5656
238.63	346.5656
238.63	346.5656
239.00	346.7383
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241.98	298.8777
241.98	298.8777
241.98	298.8777
244.69	339.1502
245.39	318.9934
247.94	329.4753
248.90	311.6785
249.79	334.5564
252.40	307.7132
252.85	319.7318
252.85	319.7318
254.15	0.0000
256.20	331.9154
256.20	331.9154
260.50	365.2441
260.90	354.5529
262.80	378.2870
264.65	330.4224
268.24	358.2202
268.79	367.2502
269.46	360.5167
269.46	360.5167
269.46	360.5167
269.46	360.5167
271.23	352.4805
273.65	383.5592
276.40	333.3971
277.35	322.5293
277.60	329.8106
277.60	329.8106
278.00	329.9693
278.60	341.1590
279.20	322.4976
279.53	322.6215
280.46	349.7045
281.68	351.3229
283.67	346.5504
284.30	347.9246
285.00	353.8076
285.90	299.2587
286.10	300.4490
286.10	300.4490
287.40	303.8929
288.45	0.0000
290.67	344.1057
290.80	344.1569
291.72	346.0248
293.26	0.0000
293.70	324.1841
295.21	317.1875
295.21	317.1875

295.21	317.1875
295.96	335.5970
296.50	335.8003
297.23	336.0758
298.57	336.5817
299.80	286.9415
299.80	286.9415
300.09	287.0376
300.09	287.0376
300.09	287.0376
300.09	287.0376
300.12	287.0453
301.29	291.9805
302.84	289.4377
303.76	288.2065
303.91	288.2527
304.40	257.8907
304.40	257.8907
304.84	264.1214
306.84	264.9207
308.46	285.0963
311.98	252.9483
316.51	273.6600
318.01	269.4536
319.02	263.2294
319.41	267.0620
320.08	278.4218
323.87	346.8478
323.87	346.8478
323.87	346.8478
323.87	346.8478
325.23	343.5921
328.77	289.4155
333.44	325.7411
334.20	311.8202
334.20	311.8202
334.30	299.2523
338.28	281.7983
338.28	281.7983
338.28	281.7983
338.28	281.7983
338.32	281.8128
338.32	281.8128
338.32	281.8128
340.50	271.0179
340.57	271.0353
344.27	260.1058
345.85	270.8718
350.59	0.0000
351.07	254.6484
351.92	254.8587
351.92	254.8587
351.92	254.8587
355.39	0.0000
356.01	230.1232
364.48	196.6270
366.43	236.9725
367.43	226.4577
367.94	0.0000
369.80	240.6548
374.96	229.0351
383.85	249.7329
387.95	247.6717
388.63	257.7765
391.69	250.4975
391.69	250.4975
392.90	231.7848
398.62	264.0851
400.65	235.3825
401.10	226.4200
401.81	232.6017
402.60	225.7090
404.84	256.4340
410.95	239.5175
411.60	241.6810
413.65	265.4987
414.70	241.3020
415.30	217.9942

415.76	231.3283
417.63	0.0000
418.52	233.9087
423.70	205.1758
427.08	204.7232
427.89	204.8592
432.53	194.2743
433.93	205.8771
439.47	199.5305
439.56	199.5445
439.89	195.4401
443.98	211.7276
444.90	217.1025
445.03	217.1254
445.03	217.1254
445.03	217.1254
445.03	217.1254
453.90	219.7051
463.38	181.0905
468.07	198.3949
473.00	187.7605
475.06	192.3267
475.35	197.7142
476.78	195.7868
477.59	188.4115
477.96	188.4652
482.03	190.1130
484.57	211.9962
487.03	182.1949
490.36	0.0000
492.35	186.1577
497.08	194.4025
507.63	0.0000
510.53	0.0000
510.84	197.4287
511.00	197.4507
511.85	184.7629
511.85	184.7629
513.99	197.8682
513.99	197.8682
520.41	199.6805
520.65	199.7158
527.90	184.9976
528.96	0.0000
529.64	197.2564
529.87	0.0000
531.02	192.8122
537.32	149.8860
543.00	161.6772
546.56	0.0000
549.76	176.4910
552.65	153.3166
555.20	187.4937
563.23	183.7458
563.90	186.6714
568.70	175.8464
569.32	173.0614
569.50	167.3776
569.67	167.3955
573.80	206.9385
574.00	209.8263
574.64	207.1400
578.91	180.4189
579.30	0.0000
583.14	184.1914
585.48	182.8178
591.81	147.5806
592.07	149.2103
593.00	176.9116
595.88	200.1733
600.56	151.2932
602.52	0.0000
602.71	198.1064
602.71	198.1064
603.60	206.5427
604.41	214.9790
604.70	203.3475
609.31	180.3818

609.31	180.3818
609.31	180.3818
609.31	180.3818
610.33	188.9967
612.46	207.6628
614.37	174.3683
618.01	136.4416
621.84	178.8045
621.84	178.8045
631.29	146.2174
633.02	170.1033
633.10	165.1653
634.78	153.4485
635.90	161.4745
636.97	166.5337
645.85	157.4310
646.12	158.4533
656.30	147.3529
657.75	133.4302
657.90	0.0000
661.65	180.9814
661.65	180.9814
664.57	0.0000
666.33	153.2339
666.33	153.2339
675.00	163.0964
677.61	158.2598
685.20	144.6637
692.80	175.9543
695.00	181.2853
696.49	170.1574
696.49	170.1574
697.00	176.3567
697.49	169.2230
698.33	158.0135
698.50	158.0292
699.00	167.3078
702.63	174.8352
706.10	158.6746
706.58	0.0000
706.67	143.2646
709.31	156.8830
711.68	175.6826
713.82	156.2256
717.42	132.6823
720.50	161.9700
721.93	0.0000
722.20	160.3313
722.78	156.8175
722.78	156.8175
722.89	156.8267
722.95	156.8298
723.30	156.8605
724.18	148.0145
727.18	153.6044
733.00	159.4438
735.90	132.5732
739.58	142.6102
742.81	159.6538
744.21	151.3564
747.13	133.6869
751.79	171.9903
752.31	174.1476
753.82	163.7162
755.35	163.8424
756.15	170.2534
756.87	162.9106
763.93	201.7088
765.79	185.9553
766.42	188.1381
766.84	197.7461
776.49	169.8513
778.00	177.4591
778.57	177.5098
778.89	168.9808
783.80	112.5687
785.46	121.7319
792.07	156.8462

795.84	123.8561
796.30	122.0351
798.80	159.2074
801.93	142.7610
805.60	115.1515
810.29	125.6467
810.76	133.1224
815.85	120.3774
817.79	99.9393
818.51	110.2505
819.60	122.4584
826.30	143.4749
828.27	0.0000
831.60	168.2682
831.96	146.6717
834.83	167.5796
836.80	0.0000
846.75	148.6194
848.13	137.3459
856.28	0.0000
856.80	123.1474
860.37	148.3460
867.32	127.0741
867.82	143.8259
871.10	131.1157
873.19	131.2375
874.81	138.9996
875.33	0.0000
876.40	159.2435
879.36	148.8858
880.27	140.2969
880.51	137.4290
881.50	122.1055
883.24	117.3876
884.67	123.2388
889.25	144.7109
896.60	109.3643
898.02	131.7049
899.00	137.5724
903.28	118.9005
911.07	130.4972
911.07	130.4972
911.07	130.4972
919.63	126.5755
920.93	106.4887
925.00	127.3521
925.24	133.2441
926.50	135.2758
935.52	119.0609
937.48	127.0361
944.10	158.9841
946.00	150.2161
949.00	116.7592
962.29	116.6509
964.01	118.4729
966.15	118.5767
968.20	118.6742
969.11	118.7198
969.11	118.7198
969.11	118.7198
977.42	113.6664
980.50	113.2503
983.50	122.4170
989.30	113.6483
996.32	145.2305
1001.03	116.1973
1001.68	108.1420
1004.76	131.5461
1021.30	0.0000
1024.50	0.0000
1034.80	121.8223
1036.00	126.9971
1037.82	154.7550
1038.57	164.0290
1038.76	0.0000
1045.16	139.7709
1046.59	131.6205
1048.07	107.0033

1050.47	129.7529
1050.47	129.7529
1062.04	114.8017
1063.62	135.5689
1076.63	113.3452
1077.35	117.5362
1078.86	114.4810
1085.78	130.4191
1099.22	131.0599
1112.02	152.9907
1112.84	154.8801
1115.52	166.1023
1120.29	155.2903
1120.29	155.2903
1120.29	155.2903
1120.29	155.2903
1120.51	155.3057
1121.28	133.1543
1124.00	0.0000
1129.67	130.2523
1131.51	0.0000
1147.95	0.0000
1167.94	139.0978
1173.22	144.0538
1175.09	153.5686
1177.93	154.6609
1189.05	162.8142
1204.90	153.2124
1205.75	0.0000
1213.00	167.9380
1221.42	172.2327
1230.97	224.6023
1235.34	173.0182
1236.41	0.0000
1238.25	158.7511
1246.25	173.6279
1260.41	0.0000
1271.85	119.6217
1274.45	122.6393
1274.54	122.6431
1291.56	110.5792
1298.22	0.0000
1312.09	87.6501
1325.50	84.0558
1325.50	84.0558
1332.49	76.3068
1333.61	82.2806
1360.21	78.9445
1362.66	0.0000
1365.15	74.0565
1368.21	68.1141
1368.53	0.0000
1376.25	62.2516
1384.27	102.6568
1394.10	71.6630
1395.20	64.6172
1407.95	64.8574
1434.06	58.1968
1436.60	55.1750
1457.56	0.0000
1460.81	48.3511
1489.15	65.3206
1509.49	52.1301
1596.49	30.7257
1620.62	30.5347
1678.03	0.0000
1691.02	31.0755
1691.02	31.0755
1706.46	0.0000
1750.46	0.0000
1764.49	23.1277
1764.49	23.1277
1764.49	23.1277
1764.49	23.1277
1770.23	28.5031
1771.40	28.5109
1791.20	0.0000
1808.65	15.9770

1836.01 20.0966

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691002

Total Uranium Activity	9.2402E-01	ug/g
Total Uranium Counting Unc.	3.3874E+00	ug/g
Total Uranium Tpu	1.7283E-06	ug/g
Total Uranium Mda	2.6226E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID   : G245691002      *
*   ANALYST       : MJH1                      DETECTOR    : GAM22           *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 15:21:30.66    SAMPLE ALQT:  145.720 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.858E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.374E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 1.940E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 9.437E-01
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 16:47:04.17

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691003.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 14:46:29.
Sample ID         : G245691003           Sample quantity  : 1.35050E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.09  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.65*	81	592	0.90	92.86	89	9	1.12E-02	57.3	
2	0	63.39*	235	635	0.97	126.34	123	8	3.26E-02	20.4	
3	2	74.82	905	459	0.82	149.20	144	15	1.26E-01	4.8	1.62E+00
4	2	77.10*	1307	424	0.85	153.75	144	15	1.82E-01	3.7	
5	0	84.09*	185	479	1.19	167.73	164	7	2.57E-02	21.3	
6	6	87.25*	568	318	1.23	174.06	171	23	7.89E-02	6.1	3.61E+00
7	6	89.94	321	343	1.06	179.44	171	23	4.46E-02	10.7	
8	6	92.83*	536	449	1.43	185.22	171	23	7.44E-02	9.1	
9	0	99.75*	122	505	1.04	199.05	195	10	1.69E-02	36.0	
10	0	129.71	70	359	0.84	258.98	254	7	9.76E-03	46.4	
11	0	185.84*	327	405	1.16	371.22	365	12	4.54E-02	13.9	
12	0	209.35	138	300	0.88	418.23	413	10	1.92E-02	25.0	
13	6	238.61*	1544	200	0.97	476.74	472	16	2.14E-01	3.0	5.02E+00
14	6	241.50	395	264	1.66	482.52	472	16	5.48E-02	10.5	
15	0	270.14	118	233	1.30	539.81	535	10	1.64E-02	25.9	
16	0	277.55	52	264	1.43	554.62	551	12	7.27E-03	63.9	
17	0	295.15*	387	218	1.15	589.82	585	10	5.38E-02	8.8	
18	0	299.88	95	220	1.27	599.27	595	10	1.32E-02	31.0	
19	0	327.93	102	157	0.85	655.37	651	9	1.42E-02	24.3	
20	0	338.25*	275	131	1.24	676.02	672	8	3.82E-02	9.6	
21	0	351.86*	753	156	1.09	703.24	699	10	1.05E-01	4.8	
22	0	463.12	87	94	0.95	925.74	921	10	1.21E-02	23.5	
23	0	510.90*	123	201	2.22	1021.31	1016	16	1.71E-02	30.0	
24	0	582.99*	457	95	1.37	1165.47	1158	14	6.35E-02	6.6	
25	0	609.14*	500	84	1.45	1217.78	1210	13	6.95E-02	6.0	
26	0	726.82	131	84	1.44	1453.12	1446	13	1.81E-02	16.9	
27	0	769.17	97	109	4.02	1537.82	1530	18	1.34E-02	27.3	
28	0	794.92	52	61	1.30	1589.32	1584	11	7.15E-03	32.4	
29	0	860.67	98	60	1.37	1720.82	1713	16	1.36E-02	20.4	
30	0	911.00*	312	67	1.83	1821.49	1815	11	4.34E-02	7.7	
31	0	969.18*	163	108	1.61	1937.84	1930	13	2.26E-02	15.5	
32	0	1120.14	75	73	2.02	2239.77	2235	11	1.04E-02	25.0	
33	0	1407.53	33	16	2.00	2814.58	2807	16	4.58E-03	32.2	
34	0	1460.51*	1517	30	2.04	2920.54	2911	17	2.11E-01	2.7	
35	0	1588.35	17	29	1.36	3176.26	3168	13	2.32E-03	71.0	
36	0	1764.26*	87	4	3.08	3528.10	3520	17	1.21E-02	12.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 16:47:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 14:46:29
Sample ID : G245691003 Sample quantity : 135.05 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.09 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.565E+01	3.599E+00	5.268E-01	4.486E-02	67.671
CD-109	+	88.03	*	4.616E+00	7.503E-01	6.582E-01	7.073E-02	7.013
SN-126	+	64.28		6.950E-01	3.048E-01	2.803E-01	4.466E-02	2.480
	+	86.94		1.886E+00	8.222E-01	2.676E-01	1.120E-01	7.048
	+	87.57	*	4.537E-01	7.374E-02	6.456E-02	6.922E-03	7.028
TL-208	+	277.35		4.517E-01	5.805E-01	5.371E-01	7.630E-02	0.841
	+	510.84		5.630E-01	3.465E-01	2.048E-01	2.712E-02	2.750
	+	583.14	*	6.040E-01	1.050E-01	5.945E-02	6.702E-03	10.160
	+	860.37		1.235E+00	5.206E-01	4.173E-01	4.362E-02	2.960
BI-210	+	46.50	*	6.039E-01	6.948E-01	5.910E-01	6.094E-02	1.022
PB-210	+	46.50	*	6.039E-01	6.948E-01	5.910E-01	6.094E-02	1.022
PO-210	+	46.50	*	6.039E-01	6.944E-01	5.910E-01	5.628E-02	1.022
BI-211		72.87		8.741E-01	1.573E+00	2.333E+00	2.355E-01	0.375
	+	351.07	*	4.161E+00	5.942E-01	2.854E-01	3.007E-02	14.582
PB-212	+	74.81		2.424E+00	4.088E-01	2.566E-01	3.543E-02	9.447
	+	77.11		2.092E+00	2.648E-01	1.538E-01	1.576E-02	13.601
	+	87.30		2.098E+00	4.004E-01	2.982E-01	4.369E-02	7.036
	+	238.63	*	1.802E+00	2.312E-01	7.516E-02	8.556E-03	23.977
	+	300.09		1.742E+00	1.100E+00	1.035E+00	1.289E-01	1.683
PO-212	+	74.81		2.424E+00	4.088E-01	2.566E-01	3.543E-02	9.447
	+	77.11		2.092E+00	2.648E-01	1.538E-01	1.576E-02	13.601
	+	87.30		2.098E+00	4.004E-01	2.982E-01	4.369E-02	7.036
		115.19		2.304E+00	2.453E+00	4.277E+00	5.305E-01	0.539
	+	238.63	*	1.802E+00	2.312E-01	7.516E-02	8.556E-03	23.977
	+	300.09		1.742E+00	1.100E+00	1.035E+00	1.289E-01	1.683
BI-214	+	609.31	*	1.251E+00	2.122E-01	1.087E-01	1.312E-02	11.501
	+	1120.29		9.870E-01	5.057E-01	4.662E-01	5.059E-02	2.117
	+	1764.49		1.623E+00	4.259E-01	3.099E-01	2.553E-02	5.239
PB-214	+	74.81		4.177E+00	6.630E-01	4.421E-01	5.560E-02	9.447
	+	77.11		3.585E+00	5.299E-01	2.636E-01	3.366E-02	13.601
	+	87.30		3.595E+00	6.466E-01	5.109E-01	6.741E-02	7.036
	+	241.98		2.768E+00	6.687E-01	4.534E-01	5.408E-02	6.104
	+	295.21		1.245E+00	2.706E-01	1.818E-01	2.305E-02	6.851
	+	351.92	*	1.447E+00	2.201E-01	9.807E-02	1.152E-02	14.759

Sample ID : G245691003 Acquisition date : 9-FEB-2010 14:46:29

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.177E+00	6.630E-01	4.421E-01	5.560E-02	9.447
	+	77.11		3.585E+00	5.299E-01	2.636E-01	3.366E-02	13.601
	+	87.30		3.595E+00	6.466E-01	5.109E-01	6.741E-02	7.036
	+	241.98		2.768E+00	6.687E-01	4.534E-01	5.408E-02	6.104
	+	295.21		1.245E+00	2.706E-01	1.818E-01	2.305E-02	6.851
	+	351.92	*	1.447E+00	2.201E-01	9.807E-02	1.152E-02	14.759
PO-216	+	74.81		2.424E+00	4.088E-01	2.566E-01	3.543E-02	9.447
	+	77.11		2.092E+00	2.648E-01	1.538E-01	1.576E-02	13.601
	+	87.30		2.098E+00	4.004E-01	2.982E-01	4.369E-02	7.036
	+	238.63	*	1.802E+00	2.312E-01	7.516E-02	8.556E-03	23.977
	+	300.09		1.742E+00	1.100E+00	1.035E+00	1.289E-01	1.683
PO-218	+	74.81		4.177E+00	6.630E-01	4.421E-01	5.560E-02	9.447
	+	77.11		3.585E+00	5.299E-01	2.636E-01	3.366E-02	13.601
	+	87.30		3.595E+00	6.466E-01	5.109E-01	6.741E-02	7.036
	+	241.98		2.768E+00	6.687E-01	4.534E-01	5.408E-02	6.104
	+	295.21		1.245E+00	2.706E-01	1.818E-01	2.305E-02	6.851
	+	351.92	*	1.447E+00	2.201E-01	9.807E-02	1.152E-02	14.759
RA-224	+	240.98	*	5.248E+00	1.233E+00	8.564E-01	9.000E-02	6.128
RA-226	+	609.31	*	1.251E+00	2.122E-01	1.087E-01	1.312E-02	11.501
	+	1120.29		9.870E-01	5.057E-01	4.662E-01	5.059E-02	2.117
	+	1764.49		1.623E+00	4.259E-01	3.099E-01	2.553E-02	5.239
AC-228	+	338.32		1.668E+00	7.650E-01	3.435E-01	1.431E-01	4.855
	+	911.07	*	1.868E+00	3.641E-01	2.551E-01	3.034E-02	7.324
	+	969.11		1.715E+00	6.677E-01	3.941E-01	9.300E-02	4.351
RA-228	+	338.32		1.668E+00	7.650E-01	3.435E-01	1.431E-01	4.855
	+	911.07	*	1.868E+00	3.641E-01	2.551E-01	3.034E-02	7.324
	+	969.11		1.715E+00	6.677E-01	3.941E-01	9.300E-02	4.351
TH-228	+	74.81		2.461E+00	3.466E-01	2.605E-01	2.663E-02	9.447
	+	77.11		2.123E+00	2.689E-01	1.561E-01	1.600E-02	13.601
	+	87.30		2.130E+00	3.462E-01	3.027E-01	3.242E-02	7.036
	+	238.63	*	1.829E+00	2.347E-01	7.630E-02	8.686E-03	23.977
	+	300.09		1.769E+00	1.521E+00	1.051E+00	6.270E-01	1.683
TH-229	+	85.43		3.281E-01	1.438E-01	1.503E-01	1.595E-02	2.183
	+	88.47		6.195E-01	1.007E-01	8.850E-02	9.530E-03	7.000
	+	100.00		3.034E-01	2.214E-01	1.803E-01	2.058E-02	1.682
		193.63	*	1.350E-01	4.412E-01	7.300E-01	6.964E-02	0.185
		210.97		4.860E-01	6.969E-01	1.051E+00	1.042E-01	0.462
TH-230	+	609.31	*	1.251E+00	2.122E-01	1.087E-01	1.312E-02	11.501
	+	1120.29		9.870E-01	5.057E-01	4.661E-01	5.059E-02	2.117
	+	1764.49		1.623E+00	4.259E-01	3.098E-01	2.553E-02	5.239
TH-232	+	338.32		1.668E+00	3.640E-01	3.435E-01	3.580E-02	4.855
	+	911.07	*	1.868E+00	3.641E-01	2.551E-01	3.034E-02	7.324
	+	969.11		1.715E+00	6.677E-01	3.941E-01	9.300E-02	4.351
TH-234	+	63.29	*	1.756E+00	7.885E-01	7.071E-01	1.316E-01	2.483
	+	92.38		2.980E+00	7.918E-01	4.514E-01	8.720E-02	6.602
U-234	+	609.31	*	1.251E+00	2.122E-01	1.087E-01	1.312E-02	11.501
	+	1120.29		9.870E-01	5.057E-01	4.661E-01	5.059E-02	2.117
	+	1764.49		1.623E+00	4.259E-01	3.098E-01	2.553E-02	5.239
NP-237	+	86.50	*	1.332E+00	3.500E-01	1.977E-01	4.593E-02	6.738

Sample ID : G245691003 Acquisition date : 9-FEB-2010 14:46:29

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		95.87		4.580E-01	7.267E-01	9.332E-01	2.393E-01	0.491
U-238	+	63.29	*	1.756E+00	7.885E-01	7.071E-01	1.316E-01	2.483
	+	92.38		2.980E+00	6.345E-01	4.514E-01	4.954E-02	6.602
AM-243	+	74.67	*	3.930E-01	5.517E-02	4.158E-02	4.223E-03	9.451
	+	86.72		4.996E+01	8.120E+00	7.082E+00	7.563E-01	7.055
		117.66		-3.814E+00	2.637E+00	4.112E+00	5.170E-01	-0.928
		142.18		-5.506E+00	1.401E+01	2.260E+01	2.551E+00	-0.244
ANH-511	+	511.00	*	1.216E-01	7.414E-02	4.424E-02	4.554E-03	2.749

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.821E-02	3.155E-01	5.096E-01	5.395E-02	-0.075
NA-22		1274.54	*	-3.916E-03	5.142E-02	8.396E-02	6.885E-03	-0.047
NA-24		1368.53	*	-3.051E-01	5.142E-02	Half-Life too short		
AL-26		1129.67		-1.513E-01	1.829E+00	3.022E+00	2.580E-01	-0.050
		1808.65	*	3.545E-03	3.238E-02	5.446E-02	4.463E-03	0.065
TI-44		67.85		7.797E-03	1.863E-02	2.975E-02	2.961E-03	0.262
	+	78.38	*	3.860E-01	4.887E-02	4.237E-02	4.363E-03	9.110
SC-46		889.25	*	2.143E-03	3.961E-02	6.478E-02	6.204E-03	0.033
	+	1120.51		1.690E-01	8.583E-02	1.288E-01	1.108E-02	1.311
V-48		944.10		-5.051E-03	1.002E+00	1.620E+00	1.520E-01	-0.003
		983.50	*	9.327E-03	7.573E-02	1.234E-01	1.144E-02	0.076
		1312.09		-8.896E-03	8.365E-02	1.355E-01	1.104E-02	-0.066
CR-51		320.08	*	5.834E-02	3.251E-01	5.531E-01	6.142E-02	0.105
MN-52		744.21		-3.791E-02	2.483E-01	4.058E-01	4.385E-02	-0.093
		848.13		2.501E+00	7.006E+00	1.180E+01	1.183E+00	0.212
		935.52		2.683E-01	2.868E-01	4.990E-01	4.692E-02	0.538
		1246.25		1.963E+00	8.204E+00	1.378E+01	1.131E+00	0.142
		1333.61		8.271E-01	5.032E+00	8.267E+00	6.715E-01	0.100
		1434.06	*	5.435E-03	2.279E-01	3.715E-01	3.062E-02	0.015
MN-54		834.83	*	-2.524E-03	4.170E-02	6.794E-02	6.894E-03	-0.037
CO-56		846.75	*	8.054E-03	4.155E-02	6.904E-02	6.927E-03	0.117
		977.42		-1.908E-01	3.196E+00	5.121E+00	4.756E-01	-0.037
		1037.82		1.453E-01	3.337E-01	5.792E-01	5.496E-02	0.251
		1175.09		2.808E-01	2.713E+00	4.531E+00	3.729E-01	0.062
		1238.25		1.222E-01	1.047E-01	1.855E-01	1.572E-02	0.659
		1360.21		-6.622E-02	1.048E+00	1.698E+00	1.386E-01	-0.039
		1771.40		4.167E-02	2.190E-01	3.286E-01	2.705E-02	0.127
CO-57		122.06	*	-1.445E-02	1.811E-02	2.938E-02	3.788E-03	-0.492
		136.48		-4.358E-03	1.563E-01	2.614E-01	3.205E-02	-0.017
CO-58		810.76	*	-1.838E-02	4.427E-02	7.017E-02	7.281E-03	-0.262
FE-59		142.65		-4.881E-01	2.187E+00	3.557E+00	4.002E-01	-0.137
		192.34		3.005E-01	8.364E-01	1.386E+00	1.943E-01	0.217
		1099.22	*	-3.590E-03	9.452E-02	1.571E-01	1.480E-02	-0.023
		1291.56		-6.185E-02	1.382E-01	2.168E-01	2.037E-02	-0.285
CO-60		1173.22		-2.714E-02	5.490E-02	8.755E-02	7.206E-03	-0.310
		1332.49	*	2.279E-02	3.998E-02	6.870E-02	5.579E-03	0.332

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZN-65		1115.52	*	2.405E-02	1.097E-01	1.614E-01	1.394E-02	0.149
GE-68		1077.35	*	-2.465E-01	1.302E+00	2.139E+00	1.893E-01	-0.115
AS-73		53.44	*	1.686E-01	1.621E-01	2.705E-01	2.596E-02	0.623
AS-74		595.88	*	3.528E-02	9.648E-02	1.583E-01	1.715E-02	0.223
		634.78		1.101E-01	3.250E-01	5.596E-01	6.155E-02	0.197
SE-75		66.05		3.912E-01	1.946E+00	2.859E+00	3.295E-01	0.137
		96.73		4.732E-01	5.814E-01	7.618E-01	1.174E-01	0.621
		121.11		4.015E-02	9.384E-02	1.609E-01	2.365E-02	0.250
		136.00		-1.072E-02	2.920E-02	4.811E-02	5.708E-03	-0.223
		198.60		3.644E-01	1.534E+00	2.491E+00	2.615E-01	0.146
		264.65	*	-2.609E-02	3.971E-02	5.710E-02	6.258E-03	-0.457
		279.53		-3.272E-02	9.900E-02	1.537E-01	1.753E-02	-0.213
		303.91		4.519E-01	1.926E+00	2.929E+00	3.899E-01	0.154
		400.65		-1.572E-01	2.479E-01	3.930E-01	4.546E-02	-0.400
BR-77	+	87.88		9.969E+02	1.620E+02	2.311E+02	2.482E+01	4.313
		200.40		-9.934E+00	1.383E+02	2.245E+02	2.175E+01	-0.044
	+	239.00		2.893E+02	3.476E+01	3.734E+01	3.910E+00	7.748
		249.79		-4.423E+01	5.934E+01	9.055E+01	9.662E+00	-0.489
		281.68		-4.938E+00	8.781E+01	1.229E+02	1.370E+01	-0.040
		297.23		1.191E+02	7.133E+01	9.143E+01	1.007E+01	1.302
		303.76		4.639E+01	1.645E+02	2.509E+02	2.747E+01	0.185
		439.47		1.193E+02	1.424E+02	2.454E+02	2.364E+01	0.486
		484.57		-1.430E+02	2.231E+02	3.447E+02	3.471E+01	-0.415
		520.65	*	5.813E+00	1.056E+01	1.774E+01	1.839E+00	0.328
		574.64		-2.088E+02	2.216E+02	3.263E+02	3.499E+01	-0.640
		578.91		8.565E+01	9.663E+01	1.473E+02	1.583E+01	0.581
		585.48		8.789E+02	2.513E+02	4.210E+02	4.540E+01	2.088
		755.35		1.377E+02	1.887E+02	3.262E+02	3.505E+01	0.422
		817.79		-8.911E+01	1.434E+02	2.219E+02	2.285E+01	-0.402
SR-82		698.33		-3.985E-01	3.649E+01	6.069E+01	6.673E+00	-0.007
		776.49	*	2.162E-01	4.348E-01	6.571E-01	6.974E-02	0.329
		1395.20		-3.959E+00	1.011E+01	1.549E+01	1.270E+00	-0.256
RB-83		520.41	*	3.061E-02	7.000E-02	1.167E-01	1.210E-02	0.262
		529.64		-1.047E-02	1.054E-01	1.688E-01	1.762E-02	-0.062
		552.65		9.167E-02	1.858E-01	3.106E-01	3.290E-02	0.295
RB-84		881.50	*	2.261E-02	7.331E-02	1.227E-01	1.186E-02	0.184
KR-85		513.99	*	1.112E+01	7.756E+00	1.235E+01	1.274E+00	0.900
SR-85		513.99	*	5.701E-02	3.977E-02	6.333E-02	6.533E-03	0.900
RB-86		1076.63	*	-6.689E-01	8.312E-01	1.285E+00	1.138E-01	-0.521
Y-88		898.02		1.402E-02	4.134E-02	6.935E-02	6.596E-03	0.202
		1836.01	*	3.695E-02	3.523E-02	6.849E-02	5.597E-03	0.539
ZR-88		392.90	*	-2.512E-02	2.988E-02	4.682E-02	4.262E-03	-0.536
Y-91		1204.90	*	-1.834E+01	2.304E+01	3.616E+01	2.976E+00	-0.507
NB-94		702.63	*	2.543E-02	3.347E-02	5.858E-02	6.432E-03	0.434
		871.10		2.188E-03	3.770E-02	6.176E-02	6.041E-03	0.035
NB-95		765.79	*	1.523E-02	5.412E-02	7.958E-02	8.500E-03	0.191
NB-95M		235.69	*	-4.709E-02	1.133E-01	1.572E-01	1.802E-02	-0.300
ZR-95		724.18		1.062E-01	1.122E-01	1.759E-01	2.023E-02	0.604
		756.15	*	4.902E-02	8.180E-02	1.402E-01	1.606E-02	0.350

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97		657.90	*	-1.468E-01	8.180E-02	Half-Life too short		
		1024.50		1.575E+00	8.180E-02	Half-Life too short		
ZR-97		254.15		-3.414E+00	8.180E-02	Half-Life too short		
		355.39		1.094E+00	8.180E-02	Half-Life too short		
		507.63	*	1.545E+00	8.180E-02	Half-Life too short		
		602.52		3.689E+00	8.180E-02	Half-Life too short		
		1021.30		-5.483E+00	8.180E-02	Half-Life too short		
		1147.95		4.155E-01	8.180E-02	Half-Life too short		
		1362.66		1.169E+00	8.180E-02	Half-Life too short		
		1750.46		-8.304E+00	8.180E-02	Half-Life too short		
MO-99		140.51		3.319E+00	2.011E+01	3.380E+01	9.700E+00	0.098
		181.06		-9.197E+00	1.583E+01	2.227E+01	4.143E+00	-0.413
		366.43		5.414E+01	7.336E+01	1.276E+02	1.250E+01	0.424
		739.58	*	-3.023E+00	1.301E+01	2.115E+01	3.497E+00	-0.143
		778.00		-8.408E+00	3.695E+01	5.612E+01	5.951E+00	-0.150
TC-99M		140.51	*	4.808E+09	3.695E+01	Half-Life too short		
RH-101		127.23		-2.534E-02	2.705E-02	3.858E-02	4.828E-03	-0.657
		198.01	*	-2.795E-03	2.817E-02	4.506E-02	4.342E-03	-0.062
		325.23		4.503E-02	2.227E-01	3.354E-01	3.573E-02	0.134
RH-102		418.52		1.194E-01	2.615E-01	4.437E-01	4.172E-02	0.269
		475.06	*	4.493E-03	2.808E-02	4.630E-02	4.622E-03	0.097
		631.29		-2.754E-02	4.881E-02	7.798E-02	8.566E-03	-0.353
		697.49		2.220E-02	8.292E-02	1.405E-01	1.545E-02	0.158
		766.84		1.180E-01	1.417E-01	2.179E-01	2.326E-02	0.542
		1046.59		2.291E-03	1.296E-01	2.175E-01	1.960E-02	0.011
		1112.84		-8.236E-03	2.429E-01	3.740E-01	3.234E-02	-0.022
RU-103		497.08	*	-1.677E-02	4.013E-02	6.295E-02	9.545E-03	-0.266
	+	610.33		1.350E+01	2.912E+00	2.949E+00	5.300E-01	4.579
RH-106	+	511.85		6.074E-01	3.703E-01	4.290E-01	4.419E-02	1.416
		621.84	*	1.026E-01	3.235E-01	5.553E-01	8.311E-02	0.185
		1050.47		7.118E-01	2.596E+00	4.442E+00	3.994E-01	0.160
RU-106	+	511.85		6.074E-01	3.703E-01	4.290E-01	4.419E-02	1.416
		621.84	*	1.026E-01	3.233E-01	5.553E-01	6.080E-02	0.185
		1050.47		7.118E-01	2.596E+00	4.442E+00	3.994E-01	0.160
AG-108M		433.93	*	3.625E-03	3.106E-02	5.144E-02	5.083E-03	0.070
		614.37		2.528E-02	3.998E-02	6.237E-02	6.978E-03	0.405
		722.95		1.956E-02	4.752E-02	7.143E-02	7.982E-03	0.274
AG-110M		657.75	*	-5.279E-02	3.870E-02	5.781E-02	6.514E-03	-0.913
		677.61		-1.701E-01	3.076E-01	4.902E-01	5.509E-02	-0.347
		706.67		-1.422E-01	2.061E-01	3.230E-01	3.604E-02	-0.440
		763.93		1.805E-02	2.002E-01	2.892E-01	3.150E-02	0.062
		884.67		3.677E-03	5.222E-02	8.554E-02	8.450E-03	0.043
		937.48		-9.423E-02	1.303E-01	1.971E-01	1.909E-02	-0.478
		1384.27		-4.425E-02	1.660E-01	2.612E-01	2.205E-02	-0.169
IN-111		171.28		4.423E-01	8.333E-01	1.404E+00	1.268E-01	0.315
		245.39	*	8.636E-02	9.822E-01	1.410E+00	1.493E-01	0.061
IN-113M		391.69	*	-3.551E-02	4.255E-02	6.666E-02	6.227E-03	-0.533
SN-113		391.69	*	-3.551E-02	4.255E-02	6.666E-02	6.227E-03	-0.533
IN-114M		190.27	*	3.891E-02	1.733E-01	2.565E-01	2.428E-02	0.152

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CD-115		260.90		1.403E+02	1.122E+02	1.905E+02	2.069E+01	0.737
		492.35		-7.965E+00	3.599E+01	5.750E+01	5.830E+00	-0.139
		527.90	*	2.095E+00	1.074E+01	1.759E+01	1.834E+00	0.119
SN-117M		156.02		-7.178E-01	1.832E+00	2.987E+00	2.979E-01	-0.240
		158.56	*	-1.515E-02	4.298E-02	7.008E-02	6.804E-03	-0.216
SB-122		563.90	*	2.001E+00	2.130E+00	3.641E+00	3.883E-01	0.549
		692.80		7.443E-01	4.724E+01	7.876E+01	8.673E+00	0.009
I-123		159.00	*	-5.261E-01	4.724E+01	Half-Life too short		
		528.96		5.115E+01	4.724E+01	Half-Life too short		
TE-123M		159.00	*	-2.603E-03	2.215E-02	3.651E-02	3.545E-03	-0.071
I-124		602.71	*	3.102E-01	7.359E-01	1.124E+00	1.222E-01	0.276
		722.78		2.652E+00	4.909E+00	7.474E+00	8.151E-01	0.355
		1325.50		4.266E+00	3.491E+01	5.798E+01	4.715E+00	0.074
		1376.25		1.159E+01	3.604E+01	6.071E+01	4.966E+00	0.191
		1509.49		1.402E+01	1.560E+01	2.834E+01	2.350E+00	0.495
		1691.02		-2.489E-01	3.895E+00	6.395E+00	5.302E-01	-0.039
SB-124		602.71		1.803E-02	4.278E-02	6.536E-02	7.105E-03	0.276
		645.85		-1.680E-01	4.693E-01	7.634E-01	8.735E-02	-0.220
		709.31		1.301E-01	2.715E+00	4.529E+00	4.963E-01	0.029
		713.82		-5.000E-01	1.617E+00	2.616E+00	3.610E-01	-0.191
		722.78		2.235E-01	4.137E-01	6.299E-01	6.962E-02	0.355
	+	968.20		1.765E+01	5.709E+00	8.014E+00	7.465E-01	2.202
		1045.16		-8.684E-01	2.785E+00	4.548E+00	4.100E-01	-0.191
		1325.50		3.839E-01	3.142E+00	5.218E+00	4.243E-01	0.074
		1368.21		-1.795E+00	1.890E+00	2.675E+00	3.529E-01	-0.671
		1436.60		-6.808E-01	3.691E+00	5.830E+00	4.806E-01	-0.117
		1691.02	*	-4.947E-03	7.741E-02	1.271E-01	1.099E-02	-0.039
SB-125		427.89	*	1.123E-02	8.191E-02	1.361E-01	1.314E-02	0.083
	+	463.38		7.709E-01	3.715E-01	5.219E-01	5.463E-02	1.477
		600.56		1.928E-01	1.813E-01	3.109E-01	3.535E-02	0.620
		635.90		-4.206E-02	2.626E-01	4.353E-01	5.030E-02	-0.097
TE-125M		109.28	*	4.868E+00	6.486E+00	1.126E+01	1.496E+00	0.432
I-126		388.63		6.952E-02	1.924E-01	3.225E-01	2.961E-02	0.216
		666.33	*	-2.619E-01	1.981E-01	2.967E-01	3.285E-02	-0.882
		753.82		7.669E-01	1.661E+00	2.826E+00	3.039E-01	0.271
SB-126		223.80		1.838E+00	3.481E+00	5.762E+00	5.863E-01	0.319
	+	278.60		2.986E+00	3.829E+00	3.844E+00	4.286E-01	0.777
	+	296.50		1.240E+01	2.580E+00	3.249E+00	3.582E-01	3.815
		414.70		-3.726E-02	6.717E-02	1.064E-01	9.959E-03	-0.350
		415.30		-2.942E+00	5.589E+00	8.871E+00	8.309E-01	-0.332
		555.20		-2.934E+00	3.850E+00	5.758E+00	6.108E-01	-0.510
		573.80		-1.346E+00	1.134E+00	1.632E+00	1.749E-01	-0.825
		593.00		-1.512E-01	9.703E-01	1.529E+00	1.655E-01	-0.099
		656.30		-7.637E-01	3.420E+00	5.630E+00	6.229E-01	-0.136
		666.33		-1.094E-01	8.278E-02	1.240E-01	1.373E-02	-0.882
		675.00		7.020E-02	1.961E+00	3.283E+00	3.629E-01	0.021
		695.00		8.507E-02	8.519E-02	1.504E-01	1.655E-02	0.566
		697.00		3.487E-01	2.927E-01	5.214E-01	5.735E-02	0.669
		720.50	*	4.946E-02	1.662E-01	2.476E-01	2.703E-02	0.200

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		856.80		2.577E-01	4.637E-01	7.073E-01	7.025E-02	0.364
		989.30		5.187E-01	1.423E+00	2.367E+00	2.188E-01	0.219
		1034.80		-5.498E+00	9.629E+00	1.535E+01	1.391E+00	-0.358
		1213.00		-4.879E-02	5.500E+00	9.080E+00	7.470E-01	-0.005
SB-127		61.10		7.309E+00	1.927E+01	2.877E+01	3.490E+00	0.254
		252.40		1.919E-02	3.823E+00	6.113E+00	2.599E+00	0.003
		290.80		-1.788E+00	2.018E+01	3.008E+01	3.956E+00	-0.059
		411.60		3.165E+00	1.131E+01	1.899E+01	3.061E+00	0.167
		444.90		3.948E-01	8.841E+00	1.454E+01	1.933E+00	0.027
		473.00		5.509E-02	1.587E+00	2.595E+00	3.581E-01	0.021
		543.00		1.907E+01	1.710E+01	2.890E+01	4.511E+00	0.660
		603.60		2.327E+00	1.228E+01	1.838E+01	2.602E+00	0.127
		685.20	*	-4.136E-01	1.411E+00	2.299E+00	3.058E-01	-0.180
		698.50		-1.674E+00	1.622E+01	2.680E+01	4.617E+00	-0.062
		722.20		9.318E+00	3.393E+01	5.040E+01	6.557E+00	0.185
		783.80		2.081E-01	3.722E+00	6.156E+00	8.517E-01	0.034
XE-127		57.60		-9.668E-02	1.584E+00	2.525E+00	2.461E-01	-0.038
		145.22		4.386E-01	5.400E-01	9.263E-01	1.021E-01	0.474
		172.10		1.173E-01	1.002E-01	1.724E-01	1.561E-02	0.680
		202.84	*	-1.146E-02	4.005E-02	6.426E-02	6.259E-03	-0.178
		374.96		8.922E-02	1.757E-01	3.011E-01	2.883E-02	0.296
I-131		80.18		1.312E+00	2.908E+00	3.765E+00	3.923E-01	0.348
		284.30		4.190E-01	1.388E+00	2.132E+00	2.448E-01	0.196
		364.48	*	2.786E-03	1.017E-01	1.699E-01	1.744E-02	0.016
		636.97		3.465E-01	1.521E+00	2.595E+00	2.955E-01	0.134
		722.89		4.215E+00	7.911E+00	1.204E+01	1.318E+00	0.350
TE-132		49.72		2.234E+00	2.969E+00	4.582E+00	5.310E-01	0.488
		111.76		-1.074E+01	2.026E+01	3.358E+01	4.648E+00	-0.320
		116.30		1.364E+01	1.861E+01	3.225E+01	4.552E+00	0.423
		228.16	*	-3.200E-01	5.948E-01	9.275E-01	1.546E-01	-0.345
BA-133		53.15		6.219E-01	6.859E-01	1.140E+00	1.093E-01	0.546
		79.62		2.606E-01	7.109E-01	1.041E+00	1.693E-01	0.250
		81.00		2.048E-02	6.233E-02	7.996E-02	1.352E-02	0.256
	+	276.40		4.464E-01	5.747E-01	5.782E-01	9.288E-02	0.772
		302.84		6.874E-02	1.305E-01	2.022E-01	3.015E-02	0.340
		356.01	*	3.557E-03	4.012E-02	5.949E-02	8.435E-03	0.060
		383.85		-6.324E-02	2.640E-01	4.314E-01	5.649E-02	-0.147
I-133	+	510.53		1.236E+00	2.640E-01	Half-Life too short		
		529.87	*	-1.878E-03	2.640E-01	Half-Life too short		
		706.58		-2.480E-01	2.640E-01	Half-Life too short		
		856.28		-1.664E-01	2.640E-01	Half-Life too short		
		875.33		1.922E-02	2.640E-01	Half-Life too short		
		1236.41		1.113E+00	2.640E-01	Half-Life too short		
		1298.22		-5.781E-02	2.640E-01	Half-Life too short		
CS-134		475.35		3.035E-01	1.856E+00	3.060E+00	3.055E-01	0.099
		563.23		5.085E-02	3.779E-01	6.126E-01	6.570E-02	0.083
		569.32		1.164E-01	2.016E-01	3.369E-01	3.635E-02	0.346
		604.70		-1.587E-02	3.784E-02	5.328E-02	5.805E-03	-0.298
	+	795.84	*	9.971E-02	6.545E-02	9.377E-02	9.871E-03	1.063

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		801.93		-4.129E-01	4.689E-01	6.646E-01	6.958E-02	-0.621
		1038.57		5.460E-02	4.207E+00	7.063E+00	6.390E-01	0.008
		1167.94		1.411E-01	3.132E+00	5.210E+00	4.308E-01	0.027
		1365.15		-1.928E-01	1.179E+00	1.882E+00	1.614E-01	-0.102
CS-135		268.24	*	1.891E-01	1.484E-01	2.284E-01	2.757E-02	0.828
I-135		288.45		1.518E+10	1.484E-01	Half-Life too short		
		417.63		1.626E+10	1.484E-01	Half-Life too short		
		546.56		-6.837E+09	1.484E-01	Half-Life too short		
		836.80		9.413E+09	1.484E-01	Half-Life too short		
		1038.76		1.532E+09	1.484E-01	Half-Life too short		
		1124.00		9.819E+09	1.484E-01	Half-Life too short		
		1131.51		8.920E+08	1.484E-01	Half-Life too short		
		1260.41	*	3.785E+09	1.484E-01	Half-Life too short		
		1457.56		9.583E+11	1.484E-01	Half-Life too short		
		1678.03		-2.192E+09	1.484E-01	Half-Life too short		
		1706.46		-3.115E+10	1.484E-01	Half-Life too short		
		1791.20		7.991E+09	1.484E-01	Half-Life too short		
CS-136		66.91		4.646E-02	3.290E-01	4.814E-01	7.802E-02	0.097
	+	86.29		5.920E+00	1.115E+00	1.303E+00	1.863E-01	4.545
		153.22		1.639E-01	5.403E-01	9.080E-01	1.010E-01	0.181
		163.89		-3.036E-02	8.692E-01	1.422E+00	1.439E-01	-0.021
		176.55		-5.844E-02	2.954E-01	4.812E-01	4.632E-02	-0.121
		273.65		3.934E-01	5.455E-01	6.458E-01	7.440E-02	0.609
		340.57		2.425E-01	1.214E-01	2.017E-01	2.136E-02	1.202
		818.51		-1.962E-02	7.779E-02	1.247E-01	1.284E-02	-0.157
		1048.07	*	4.226E-02	1.231E-01	2.117E-01	1.980E-02	0.200
		1235.34		5.801E-01	7.017E-01	1.216E+00	1.406E-01	0.477
BA-137M		661.65	*	-2.847E-02	4.235E-02	7.166E-02	7.939E-03	-0.397
CS-137		661.65	*	-3.009E-02	4.477E-02	7.576E-02	8.402E-03	-0.397
CE-139		165.85	*	-1.246E-02	2.392E-02	3.855E-02	3.438E-03	-0.323
BA-140		162.64		1.653E-01	6.028E-01	9.998E-01	9.739E-02	0.165
		304.84		1.872E-01	1.164E+00	1.759E+00	5.071E-01	0.106
		423.70		-3.119E-01	1.751E+00	2.844E+00	9.285E-01	-0.110
		537.32	*	2.274E-02	2.652E-01	4.257E-01	1.434E-01	0.053
LA-140	+	328.77		7.614E-01	3.795E-01	5.180E-01	5.694E-02	1.470
		432.53		-8.610E-01	1.960E+00	3.121E+00	3.102E-01	-0.276
		487.03		4.424E-02	1.374E-01	2.285E-01	2.411E-02	0.194
		751.79		-1.817E+00	1.873E+00	2.840E+00	3.270E-01	-0.640
		815.85		-1.145E-01	3.515E-01	5.603E-01	6.253E-02	-0.204
		867.82		-2.633E-01	1.667E+00	2.300E+00	2.350E-01	-0.115
		919.63		2.676E-01	2.958E+00	4.837E+00	5.474E-01	0.055
		925.24		7.575E-02	1.086E+00	1.772E+00	1.759E-01	0.043
		1596.49	*	-1.889E-02	8.894E-02	1.379E-01	1.147E-02	-0.137
CE-141		145.44	*	8.099E-03	4.932E-02	8.277E-02	9.205E-03	0.098
CE-143		57.37		2.885E-05	4.932E-02	Half-Life too short		
		231.56		1.130E-03	4.932E-02	Half-Life too short		
		293.26	*	3.991E-04	4.932E-02	Half-Life too short		
	+	350.59		3.296E-02	4.932E-02	Half-Life too short		
		490.36		-1.896E-03	4.932E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		664.57		-9.164E-05	4.932E-02	Half-Life too short		
		721.93		3.896E-04	4.932E-02	Half-Life too short		
CE-144		80.11		5.979E-01	1.337E+00	1.731E+00	1.795E-01	0.345
		133.54	*	-5.984E-02	1.538E-01	2.532E-01	4.477E-02	-0.236
PM-144		476.78		2.107E-02	6.578E-02	1.096E-01	1.173E-02	0.192
		618.01		-1.060E-02	3.097E-02	5.077E-02	5.647E-03	-0.209
		696.49	*	6.557E-02	3.767E-02	6.871E-02	7.560E-03	0.954
		778.57		-2.037E-01	2.429E+00	3.866E+00	4.099E-01	-0.053
PR-144		696.49	*	4.443E+00	2.553E+00	4.656E+00	5.122E-01	0.954
		1489.15		4.847E+00	1.213E+01	2.080E+01	1.722E+00	0.233
PM-146		453.90	*	1.379E-02	4.216E-02	7.050E-02	8.232E-03	0.196
		633.02		-1.716E-01	1.227E+00	2.033E+00	7.725E-01	-0.084
		735.90		3.954E-03	1.663E-01	2.760E-01	8.100E-02	0.014
		747.13		-1.010E-02	9.215E-02	1.510E-01	2.336E-02	-0.067
ND-147	+	91.11		8.898E-01	2.155E-01	3.113E-01	3.573E-02	2.858
		319.41		-1.315E+00	2.945E+00	4.837E+00	5.197E-01	-0.272
		439.89		3.030E+00	5.795E+00	9.819E+00	9.463E-01	0.309
		531.02	*	-3.276E-01	5.629E-01	8.620E-01	1.385E-01	-0.380
PM-149		285.90	*	-8.789E+01	8.637E+01	1.257E+02	2.144E+01	-0.699
EU-152		121.78		-2.985E-02	5.207E-02	8.550E-02	1.178E-02	-0.349
		244.69		-1.690E-01	3.125E-01	4.264E-01	4.510E-02	-0.396
		344.27	*	-5.228E-02	8.315E-02	1.337E-01	1.436E-02	-0.391
		443.98		-5.473E-01	9.053E-01	1.418E+00	1.373E-01	-0.386
		778.89		-5.979E-02	2.775E-01	4.363E-01	4.623E-02	-0.137
		867.32		-7.757E-01	1.031E+00	1.301E+00	1.278E-01	-0.596
		964.01		3.085E-01	3.998E-01	5.998E-01	5.595E-02	0.514
		1085.78		1.108E-01	4.156E-01	7.099E-01	6.251E-02	0.156
		1112.02		5.612E-02	3.337E-01	5.525E-01	4.779E-02	0.102
	+	1407.95		3.879E-01	2.519E-01	3.612E-01	2.967E-02	1.074
GD-153		69.67		-8.681E-02	7.016E-01	1.103E+00	1.102E-01	-0.079
	+	83.37		2.570E+01	1.126E+01	1.422E+01	1.496E+00	1.807
		97.43	*	1.989E-02	6.095E-02	7.766E-02	8.746E-03	0.256
		103.18		-4.860E-02	7.619E-02	1.130E-01	1.312E-02	-0.430
EU-154		123.07		-2.793E-02	3.780E-02	6.143E-02	9.097E-03	-0.455
		247.94		-1.502E-01	3.162E-01	4.913E-01	6.415E-02	-0.306
		591.81		-5.187E-01	6.558E-01	9.727E-01	1.301E-01	-0.533
		723.30		9.927E-02	2.001E-01	3.030E-01	3.525E-02	0.328
		756.87		3.810E-01	8.858E-01	1.506E+00	2.044E-01	0.253
		873.19		2.165E-01	3.254E-01	5.588E-01	7.304E-02	0.388
		996.32		-1.472E-02	4.236E-01	6.792E-01	1.227E-01	-0.022
		1004.76		-6.685E-02	2.453E-01	3.842E-01	4.637E-02	-0.174
		1274.45	*	3.913E-03	1.416E-01	2.334E-01	2.564E-02	0.017
EU-155		48.70		1.043E-01	3.455E-01	5.229E-01	4.977E-02	0.199
		60.01		1.322E+00	1.589E+00	2.421E+00	2.382E-01	0.546
	+	86.54		5.464E-01	8.907E-02	1.251E-01	1.344E-02	4.367
		105.31	*	1.046E-01	7.360E-02	1.299E-01	1.535E-02	0.805
TB-160	+	86.79		1.460E+00	2.372E-01	3.450E-01	3.686E-02	4.230
		197.04		-2.058E-01	4.822E-01	7.591E-01	7.298E-02	-0.271
		215.65		8.028E-01	6.266E-01	1.071E+00	1.072E-01	0.750

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	298.57		2.535E-01	1.594E-01	1.867E-01	2.055E-02	1.357
		879.36	*	-8.718E-02	1.526E-01	2.352E-01	2.279E-02	-0.371
		962.29		7.409E-02	7.180E-01	1.011E+00	9.433E-02	0.073
		966.15		1.015E+00	3.248E-01	5.516E-01	5.142E-02	1.840
		1177.93		-1.357E-02	4.314E-01	7.131E-01	5.870E-02	-0.019
		1271.85		-9.500E-02	8.152E-01	1.326E+00	1.087E-01	-0.072
HO-166M		80.57		5.228E-02	1.730E-01	2.218E-01	2.304E-02	0.236
	+	184.41		1.965E-01	5.770E-02	5.685E-02	5.306E-03	3.457
		280.46		-5.067E-02	8.502E-02	1.133E-01	1.264E-02	-0.447
		410.95		2.715E-01	2.220E-01	3.923E-01	3.655E-02	0.692
		711.68	*	2.800E-02	5.957E-02	1.025E-01	1.122E-02	0.273
		752.31		-2.072E-01	3.000E-01	4.680E-01	5.036E-02	-0.443
		810.29		-4.160E-02	6.686E-02	1.040E-01	1.078E-02	-0.400
TM-171		51.35		-6.290E+00	5.145E+00	7.766E+00	7.416E-01	-0.810
		52.39		8.039E-01	2.847E+00	4.629E+00	4.430E-01	0.174
		59.40		-1.260E+00	8.437E+00	1.232E+01	1.211E+00	-0.102
		66.72	*	-9.822E-01	1.195E+01	1.732E+01	1.719E+00	-0.057
LU-176	+	88.36		1.076E+00	1.749E-01	2.328E-01	2.505E-02	4.623
		201.83		-6.190E-03	2.440E-02	3.923E-02	3.812E-03	-0.158
		306.84	*	4.989E-03	1.997E-02	3.424E-02	3.736E-03	0.146
		401.10		8.408E-01	6.215E+00	1.037E+01	9.540E-01	0.081
LU-177		112.95		-7.885E-01	1.096E+00	1.798E+00	2.202E-01	-0.438
	+	208.36	*	2.832E+00	1.442E+00	1.669E+00	1.645E-01	1.696
LU-177M		52.97		3.309E-01	3.041E-01	5.086E-01	4.876E-02	0.651
		54.07		1.243E-01	1.788E-01	2.945E-01	2.832E-02	0.422
		61.30		9.215E-02	5.083E-01	7.522E-01	7.406E-02	0.123
		121.62		-6.114E-02	2.627E-01	4.389E-01	5.643E-02	-0.139
		147.16		-1.929E-01	4.958E-01	8.116E-01	8.796E-02	-0.238
		171.86		4.620E-01	4.030E-01	6.933E-01	6.273E-02	0.666
		218.09		-9.217E-01	7.421E-01	1.114E+00	1.121E-01	-0.827
	+	268.79		2.128E+00	1.126E+00	1.292E+00	1.421E-01	1.647
		319.02		-1.021E-01	2.288E-01	3.759E-01	4.041E-02	-0.272
		367.43		-1.168E-01	7.940E-01	1.311E+00	1.281E-01	-0.089
		413.65	*	-1.811E-01	1.620E-01	2.455E-01	2.295E-02	-0.738
HF-181		56.28		-7.033E-02	2.250E-01	3.550E-01	3.442E-02	-0.198
		57.53		1.320E-02	1.319E-01	2.116E-01	2.063E-02	0.062
		65.20		-2.355E-01	3.787E-01	5.342E-01	5.286E-02	-0.441
		133.02		-1.888E-03	5.128E-02	8.203E-02	9.896E-03	-0.023
		136.25		-7.441E-02	3.399E-01	5.639E-01	6.654E-02	-0.132
		345.85		-4.774E-02	1.626E-01	2.580E-01	2.651E-02	-0.185
		482.03	*	1.315E-02	3.983E-02	6.642E-02	6.674E-03	0.198
W-181		56.28		-2.747E-02	8.808E-02	1.390E-01	1.348E-02	-0.198
		57.53		5.173E-03	5.166E-02	8.290E-02	8.079E-03	0.062
		65.20	*	-9.154E-02	1.472E-01	2.076E-01	2.055E-02	-0.441
TA-182		67.75		3.028E-02	4.409E-02	7.105E-02	7.069E-03	0.426
	+	100.10		2.924E-01	2.134E-01	2.127E-01	2.429E-02	1.374
		152.43		8.472E-02	2.710E-01	4.559E-01	4.711E-02	0.186
		222.10		-2.385E-01	3.076E-01	4.759E-01	4.827E-02	-0.501
		1001.68		4.033E-01	2.345E+00	3.794E+00	3.491E-01	0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1121.28		4.667E-01	2.371E-01	3.539E-01	3.040E-02	1.319
		1189.05		-3.611E-01	3.686E-01	5.619E-01	4.625E-02	-0.643
		1221.42	*	7.737E-03	2.239E-01	3.707E-01	3.049E-02	0.021
		1230.97		-1.639E-01	5.555E-01	8.962E-01	7.367E-02	-0.183
RE-183		57.98		-1.855E-03	5.357E-02	8.544E-02	8.344E-03	-0.022
		59.32		-1.684E-02	3.220E-02	5.024E-02	4.938E-03	-0.335
		67.20		2.675E-02	8.539E-02	1.259E-01	1.251E-02	0.212
		162.32	*	2.612E-02	8.797E-02	1.461E-01	1.360E-02	0.179
	+	208.81		2.546E+00	1.296E+00	1.534E+00	1.513E-01	1.660
		291.72		-8.884E-01	9.071E-01	1.256E+00	1.391E-01	-0.707
RE-184		57.98		-6.835E-03	1.974E-01	3.149E-01	3.075E-02	-0.022
		59.32		-6.202E-02	1.186E-01	1.850E-01	1.818E-02	-0.335
		67.20		9.852E-02	3.145E-01	4.638E-01	4.609E-02	0.212
		161.27		-5.881E-02	2.784E-01	4.564E-01	4.300E-02	-0.129
		216.55		5.828E-02	2.273E-01	3.726E-01	3.736E-02	0.156
		252.85	*	-1.570E-01	2.084E-01	3.173E-01	3.403E-02	-0.495
		318.01		-9.005E-02	3.980E-01	6.626E-01	7.132E-02	-0.136
		792.07		6.664E-01	1.150E+00	1.745E+00	1.833E-01	0.382
		903.28		7.958E-01	1.104E+00	1.812E+00	1.715E-01	0.439
		920.93		-9.454E-02	4.601E-01	7.306E-01	6.892E-02	-0.129
OS-185		59.72		1.179E-02	9.501E-02	1.405E-01	1.382E-02	0.084
		61.14		8.109E-03	5.552E-02	8.203E-02	8.076E-03	0.099
		69.30		4.681E-03	1.234E-01	1.952E-01	1.950E-02	0.024
		592.07		-1.620E+00	2.704E+00	4.098E+00	4.433E-01	-0.395
		646.12	*	-1.522E-02	3.986E-02	6.470E-02	7.140E-03	-0.235
		717.42		-1.216E-01	9.033E-01	1.484E+00	1.621E-01	-0.082
		874.81		1.853E-01	6.413E-01	1.071E+00	1.043E-01	0.173
		880.27		-4.632E-01	8.528E-01	1.318E+00	1.276E-01	-0.351
RE-188		155.03	*	2.063E-01	1.400E-01	2.435E-01	2.453E-02	0.847
		477.96		-6.601E-01	3.035E+00	4.866E+00	4.871E-01	-0.136
		633.10		-3.291E-01	2.478E+00	4.115E+00	4.523E-01	-0.080
W-188	+	63.58		7.057E+01	2.967E+01	3.663E+01	3.616E+00	1.927
		227.08		-5.214E+00	1.096E+01	1.721E+01	1.762E+00	-0.303
		290.67	*	7.181E-01	6.934E+00	1.048E+01	1.161E+00	0.069
IR-192	+	295.96		9.495E-01	1.978E-01	2.663E-01	2.950E-02	3.566
		308.46		-3.558E-02	7.448E-02	1.221E-01	1.334E-02	-0.291
		316.51	*	1.170E-02	3.055E-02	5.253E-02	5.674E-03	0.223
		468.07		1.799E-02	6.667E-02	9.800E-02	1.025E-02	0.184
		604.41		-2.428E-01	5.105E-01	7.135E-01	1.043E-01	-0.340
		612.46		9.235E-01	7.509E-01	1.220E+00	1.458E-01	0.757
AU-195		65.12		-4.064E-02	6.802E-02	9.610E-02	9.509E-03	-0.423
		66.83		3.632E-03	3.936E-02	5.749E-02	5.708E-03	0.063
	+	75.70		1.272E+00	1.785E-01	2.603E-01	2.653E-02	4.887
	+	98.88	*	3.655E-01	2.667E-01	2.650E-01	3.007E-02	1.379
	+	129.76		3.185E+00	2.979E+00	4.076E+00	5.021E-01	0.782
TL-200		367.94	*	-2.765E-04	2.979E+00	Half-Life too short		
		579.30		2.152E-03	2.979E+00	Half-Life too short		
		828.27		3.766E-03	2.979E+00	Half-Life too short		
		1205.75		-1.738E-03	2.979E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-201		68.90		-1.486E+00	2.001E+00	3.062E+00	3.055E-01	-0.485
		70.82		-1.764E-01	1.308E+00	1.888E+00	1.894E-01	-0.093
		80.30		1.179E+00	3.188E+00	4.106E+00	4.261E-01	0.287
		135.34		5.020E-01	1.858E+01	3.117E+01	3.702E+00	0.016
		167.43	*	2.142E-01	5.507E+00	9.108E+00	8.147E-01	0.024
TL-202		68.90		-1.336E-01	1.800E-01	2.754E-01	2.748E-02	-0.485
		70.82		-1.582E-02	1.174E-01	1.694E-01	1.699E-02	-0.093
		80.30		1.058E-01	2.861E-01	3.684E-01	3.824E-02	0.287
		439.56	*	4.489E-02	6.948E-02	1.185E-01	1.142E-02	0.379
HG-203		70.83		-6.576E-02	5.090E-01	7.346E-01	1.068E-01	-0.090
		72.87		1.739E-01	3.134E-01	4.640E-01	6.593E-02	0.375
	+	82.60		1.911E+00	8.619E-01	9.499E-01	1.423E-01	2.011
		279.20	*	3.237E-03	3.776E-02	6.014E-02	6.827E-03	0.054
BI-207		72.80		3.066E-02	9.103E-02	1.339E-01	1.351E-02	0.229
	+	74.97		7.054E-01	9.903E-02	1.341E-01	1.363E-02	5.262
	+	84.90		3.324E-01	1.457E-01	1.843E-01	1.952E-02	1.803
		569.67		1.894E-02	3.150E-02	5.272E-02	5.639E-03	0.359
		1063.62	*	2.080E-02	5.801E-02	9.980E-02	8.907E-03	0.208
		1770.23		1.848E-02	4.612E-01	6.593E-01	5.428E-02	0.028
TL-207		81.07		4.278E-02	1.375E-01	1.764E-01	1.836E-02	0.243
	+	83.78		2.192E-01	9.605E-02	1.254E-01	1.321E-02	1.748
		94.90		2.116E-01	1.859E-01	2.471E-01	2.747E-02	0.856
		122.32		-1.455E+00	1.276E+00	2.026E+00	2.696E-01	-0.718
		144.24		3.881E-01	5.506E-01	9.250E-01	1.102E-01	0.420
		154.21		1.614E-01	3.232E-01	5.467E-01	5.956E-02	0.295
	+	269.46		4.981E-01	2.638E-01	3.216E-01	3.585E-02	1.549
		323.87	*	3.784E-02	6.599E-01	9.841E-01	1.849E-01	0.038
	+	338.28		6.964E+00	1.639E+00	2.367E+00	3.228E-01	2.941
		445.03		4.015E-01	2.050E+00	3.409E+00	4.388E-01	0.118
PO-209		260.50		5.048E+00	8.491E+00	1.398E+01	1.518E+00	0.361
		262.80		8.867E+00	2.333E+01	3.799E+01	4.139E+00	0.233
		896.60	*	2.860E+00	7.111E+00	1.202E+01	1.140E+00	0.238
PB-211		404.84	*	-3.558E-02	8.705E-01	1.435E+00	9.004E-01	-0.025
		427.08		-8.658E-01	1.915E+00	2.921E+00	1.819E+00	-0.296
		831.96		-1.682E+00	1.731E+00	2.015E+00	1.268E+00	-0.835
BI-212	+	727.18	*	1.499E+00	5.391E-01	7.243E-01	8.703E-02	2.070
		785.46		7.154E-01	1.897E+00	3.119E+00	3.291E-01	0.229
		1620.62		1.666E-01	1.403E+00	2.376E+00	1.975E-01	0.070
PO-215		81.07		4.278E-02	1.375E-01	1.764E-01	1.836E-02	0.243
	+	83.78		2.192E-01	9.605E-02	1.254E-01	1.321E-02	1.748
		94.90		2.116E-01	1.859E-01	2.471E-01	2.747E-02	0.856
		122.32		-1.455E+00	1.276E+00	2.026E+00	2.696E-01	-0.718
		144.24		3.881E-01	5.506E-01	9.250E-01	1.102E-01	0.420
		154.21		1.614E-01	3.232E-01	5.467E-01	5.956E-02	0.295
	+	269.46		4.981E-01	2.638E-01	3.216E-01	3.585E-02	1.549
		323.87	*	3.784E-02	6.599E-01	9.841E-01	1.849E-01	0.038
	+	338.28		6.964E+00	1.639E+00	2.367E+00	3.228E-01	2.941
		445.03		4.015E-01	2.050E+00	3.409E+00	4.388E-01	0.118
RN-219	+	271.23		6.391E-01	3.402E-01	4.120E-01	5.109E-02	1.551

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		401.81	*	-5.622E-02	3.900E-01	6.393E-01	9.827E-02	-0.088
RN-220		549.76	*	8.795E+00	2.427E+01	4.021E+01	4.252E+00	0.219
RA-223		81.07		4.278E-02	1.375E-01	1.764E-01	1.836E-02	0.243
	+	83.78		2.192E-01	9.605E-02	1.254E-01	1.321E-02	1.748
		94.90		2.116E-01	1.859E-01	2.471E-01	2.747E-02	0.856
		122.32		-1.455E+00	1.276E+00	2.026E+00	2.696E-01	-0.718
		144.24		3.881E-01	5.506E-01	9.250E-01	1.102E-01	0.420
		154.21		1.614E-01	3.232E-01	5.467E-01	5.956E-02	0.295
	+	269.46		4.981E-01	2.638E-01	3.216E-01	3.585E-02	1.549
		323.87	*	3.784E-02	6.599E-01	9.841E-01	1.849E-01	0.038
	+	338.28		6.964E+00	1.639E+00	2.367E+00	3.228E-01	2.941
		445.03		4.015E-01	2.050E+00	3.409E+00	4.388E-01	0.118
AC-227		79.80		4.426E-01	1.032E+00	1.331E+00	2.961E-01	0.333
		236.00		5.835E-02	2.153E-01	3.137E-01	4.256E-02	0.186
		256.20	*	3.889E-01	3.294E-01	5.520E-01	9.195E-02	0.705
		286.10		-1.414E+00	1.445E+00	2.120E+00	3.169E-01	-0.667
	+	299.80		3.229E+00	2.089E+00	2.491E+00	4.677E-01	1.296
		304.40		4.244E-02	1.734E+00	2.596E+00	5.095E-01	0.016
		334.20		7.162E-01	2.261E+00	3.422E+00	6.952E-01	0.209
TH-227		79.80		4.426E-01	1.033E+00	1.331E+00	2.997E-01	0.333
	+	94.00		1.152E+01	3.364E+00	2.602E+00	5.948E-01	4.425
		236.00		5.835E-02	2.153E-01	3.137E-01	3.929E-02	0.186
		256.20	*	3.889E-01	3.314E-01	5.520E-01	1.059E-01	0.705
		286.10		-1.414E+00	2.016E+00	2.120E+00	2.133E+00	-0.667
	+	299.80		3.229E+00	2.089E+00	2.491E+00	4.677E-01	1.296
		304.40		4.244E-02	1.734E+00	2.596E+00	5.095E-01	0.016
		334.20		7.162E-01	2.261E+00	3.422E+00	6.952E-01	0.209
PA-231		283.67	*	2.211E-01	1.512E+00	2.152E+00	3.601E-01	0.103
	+	301.29		1.291E+00	8.199E-01	9.602E-01	1.344E-01	1.345
TH-231		81.07		4.278E-02	1.375E-01	1.764E-01	1.836E-02	0.243
	+	83.78		2.192E-01	9.605E-02	1.254E-01	1.321E-02	1.748
		94.90		2.116E-01	1.859E-01	2.471E-01	2.747E-02	0.856
		122.32		-1.455E+00	1.276E+00	2.026E+00	2.696E-01	-0.718
		144.24		3.881E-01	5.506E-01	9.250E-01	1.102E-01	0.420
		154.21		1.614E-01	3.232E-01	5.467E-01	5.956E-02	0.295
	+	269.46		4.981E-01	2.638E-01	3.216E-01	3.585E-02	1.549
		323.87	*	3.784E-02	6.599E-01	9.841E-01	1.849E-01	0.038
	+	338.28		6.964E+00	1.639E+00	2.367E+00	3.228E-01	2.941
		445.03		4.015E-01	2.050E+00	3.409E+00	4.388E-01	0.118
U-231	+	84.21		9.435E+00	4.135E+00	5.346E+00	5.644E-01	1.765
	+	92.29		1.137E+01	2.421E+00	2.870E+00	3.149E-01	3.961
		95.87	*	5.189E-01	8.146E-01	1.057E+00	1.181E-01	0.491
		108.00		5.379E-02	1.431E+00	2.437E+00	2.904E-01	0.022
PA-233	+	75.28		2.059E+01	3.897E+00	3.919E+00	6.377E-01	5.253
	+	86.59		8.882E+00	2.678E+00	2.049E+00	5.645E-01	4.334
	+	300.12		9.001E-01	5.765E-01	6.961E-01	1.139E-01	1.293
		311.98	*	8.684E-03	5.238E-02	8.927E-02	9.858E-03	0.097
		340.50		1.345E+00	6.710E-01	1.007E+00	2.469E-01	1.336
		398.62		7.554E-03	2.056E+00	3.404E+00	9.128E-01	0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-2.673E-01	1.474E+00	2.398E+00	5.244E-01	-0.111
PA-234	+	63.00		2.047E+00	8.999E-01	1.059E+00	1.718E-01	1.933
		94.67		2.361E-01	1.380E-01	1.859E-01	2.648E-02	1.270
	+	98.44		1.481E-01	1.354E-01	1.035E-01	5.825E-02	1.431
	+	99.86		7.677E-01	5.602E-01	5.602E-01	6.389E-02	1.370
		111.00		-9.046E-02	1.263E-01	2.073E-01	3.065E-02	-0.436
	+	131.20		1.194E-01	1.117E-01	1.346E-01	1.643E-02	0.887
		152.70		1.712E-01	2.630E-01	4.456E-01	8.002E-02	0.384
	+	186.00		7.075E+00	2.970E+00	2.366E+00	7.437E-01	2.990
		226.40		-9.236E-02	3.477E-01	5.526E-01	7.905E-02	-0.167
		227.20		-2.311E-01	3.718E-01	5.786E-01	5.927E-02	-0.399
		248.90		-1.714E-01	7.129E-01	1.123E+00	2.614E-01	-0.153
	+	293.70		5.977E+00	1.533E+00	1.514E+00	2.820E-01	3.949
		369.80		-4.252E-01	7.672E-01	1.224E+00	2.720E-01	-0.348
		568.70		8.081E-03	1.038E+00	1.665E+00	1.780E-01	0.005
		569.50		1.647E-01	2.792E-01	4.670E-01	4.995E-02	0.353
		574.00		-2.021E+00	1.624E+00	2.321E+00	2.489E-01	-0.871
		699.00		-2.388E-01	7.694E-01	1.250E+00	2.533E-01	-0.191
		706.10		-1.576E-01	1.036E+00	1.698E+00	7.660E-01	-0.093
		733.00		-9.145E-02	4.521E-01	6.668E-01	1.544E-01	-0.137
		742.81		9.238E-01	1.544E+00	2.456E+00	1.659E+00	0.376
	+	796.30		1.938E+00	1.365E+00	1.799E+00	4.984E-01	1.077
		805.60		1.139E-01	1.090E+00	1.804E+00	5.628E-01	0.063
		819.60		3.426E-01	1.271E+00	2.122E+00	8.156E-01	0.161
		826.30		1.242E-01	8.851E-01	1.464E+00	6.601E-01	0.085
		831.60		-8.509E-01	7.558E-01	1.049E+00	3.181E-01	-0.811
		876.40		-1.881E-01	9.397E-01	1.471E+00	1.513E+00	-0.128
		880.51		-1.173E-01	3.077E-01	4.835E-01	4.679E-02	-0.243
		883.24		3.040E-01	3.608E-01	5.280E-01	3.557E-01	0.576
		899.00		-3.702E-01	8.808E-01	1.349E+00	5.921E-01	-0.274
		925.00		8.615E-02	1.129E+00	1.844E+00	1.738E-01	0.047
		926.50		6.328E-02	1.666E-01	2.793E-01	7.140E-02	0.227
		946.00	*	-3.168E-01	3.672E-01	5.408E-01	1.034E-01	-0.586
		949.00		5.461E-01	5.177E-01	9.065E-01	8.494E-02	0.602
		980.50		-3.428E-01	7.858E-01	1.210E+00	1.122E-01	-0.283
		1394.10		-4.337E-01	1.171E+00	1.748E+00	1.137E+00	-0.248
PA-234M		766.42		1.105E+01	1.591E+01	2.278E+01	1.165E+01	0.485
		1001.03	*	-2.971E-01	5.457E+00	8.658E+00	9.069E-01	-0.034
U-235	+	89.95		3.544E+00	1.351E+00	1.251E+00	3.947E-01	2.834
	+	93.35		3.582E+00	1.223E+00	9.259E-01	2.672E-01	3.869
		105.00		1.009E+00	7.961E-01	1.261E+00	3.896E-01	0.800
		143.76	*	3.470E-02	1.718E-01	2.840E-01	5.362E-02	0.122
		163.35		-4.863E-02	3.834E-01	6.248E-01	1.209E-01	-0.078
	+	185.71		2.620E-01	7.693E-02	8.810E-02	8.249E-03	2.974
		205.31		-6.048E-03	4.881E-01	6.992E-01	1.373E-01	-0.009
NP-236		94.67		1.815E-01	1.036E-01	1.413E-01	1.569E-02	1.285
	+	98.44		1.120E-01	8.170E-02	7.824E-02	8.858E-03	1.431
		111.00		-6.843E-02	9.537E-02	1.568E-01	1.900E-02	-0.436
		160.31	*	-1.707E-02	6.220E-02	1.017E-01	9.686E-03	-0.168

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		2.559E-01	1.867E-01	1.861E-01	2.120E-02	1.375
		117.00	*	-1.025E-01	1.301E-01	2.119E-01	2.654E-02	-0.484
	+	209.75		2.009E+00	1.023E+00	1.227E+00	1.213E-01	1.637
		228.18		-1.032E-01	1.942E-01	3.037E-01	3.117E-02	-0.340
	+	277.60		2.179E-01	2.793E-01	2.816E-01	3.135E-02	0.774
		334.30		3.115E-01	1.274E+00	1.921E+00	2.017E-01	0.162
AM-241		59.54	*	-1.796E-03	4.950E-02	7.266E-02	7.549E-03	-0.025
CM-243	+	99.55		2.633E-01	1.922E-01	1.915E-01	2.181E-02	1.375
		103.76	*	-2.842E-02	6.969E-02	1.047E-01	1.219E-02	-0.271
		117.00		-1.054E-01	1.339E-01	2.180E-01	2.731E-02	-0.484
	+	209.75		1.980E+00	1.008E+00	1.210E+00	1.196E-01	1.637
		228.18		-1.043E-01	1.962E-01	3.069E-01	3.149E-02	-0.340
	+	277.60		2.196E-01	2.816E-01	2.839E-01	3.161E-02	0.774
AM-246		798.80		-1.080E-01	1.665E-01	2.174E-01	2.272E-02	-0.497
		1036.00		-3.709E-02	3.244E-01	5.389E-01	4.882E-02	-0.069
		1062.04		8.749E-02	2.496E-01	4.294E-01	3.836E-02	0.204
		1078.86	*	6.978E-02	1.427E-01	2.486E-01	2.199E-02	0.281
CM-247	+	278.00		9.034E-01	1.158E+00	1.177E+00	1.312E-01	0.767
		287.40		5.261E-01	1.114E+00	1.810E+00	2.010E-01	0.291
		402.60	*	-5.430E-03	3.401E-02	5.567E-02	5.132E-03	-0.098
CF-249		252.85		-5.893E-01	7.818E-01	1.191E+00	1.277E-01	-0.495
		333.44		4.521E-02	1.819E-01	2.567E-01	2.699E-02	0.176
		387.95	*	7.884E-03	3.763E-02	6.252E-02	5.753E-03	0.126
CF-251		176.60	*	-1.590E-02	1.021E-01	1.666E-01	1.526E-02	-0.095
		227.00		-1.356E-01	3.298E-01	5.198E-01	5.323E-02	-0.261
		285.00		-4.033E-01	1.583E+00	2.463E+00	2.740E-01	-0.164

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691003      *
* Acquisition date :  9-FEB-2010 14:46:29 Detector SN#    :                 *
* Detector ID        : GAM25               Sensitivity     : 5.000          *
* Geometry           : CAN                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.09      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691003           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.3505E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.565E+01	3.527E+00	5.280E-01	0.000E+00
CD-109	4.616E+00	7.352E-01	6.940E-01	0.000E+00
SN-126	4.537E-01	7.227E-02	6.808E-02	0.000E+00
TL-208	6.040E-01	1.029E-01	6.062E-02	0.000E+00
BI-210	6.039E-01	6.809E-01	6.300E-01	0.000E+00
PB-210	6.039E-01	6.809E-01	6.300E-01	0.000E+00
PO-210	6.039E-01	6.805E-01	6.300E-01	0.000E+00
BI-211	4.161E+00	5.824E-01	2.937E-01	0.000E+00
PB-212	1.802E+00	2.265E-01	7.788E-02	0.000E+00
PO-212	1.802E+00	2.265E-01	7.788E-02	0.000E+00
BI-214	1.251E+00	2.079E-01	1.108E-01	0.000E+00
PB-214	1.447E+00	2.157E-01	1.009E-01	0.000E+00
PO-214	1.447E+00	2.157E-01	1.009E-01	0.000E+00
PO-216	1.802E+00	2.265E-01	7.788E-02	0.000E+00
PO-218	1.447E+00	2.157E-01	1.009E-01	0.000E+00
RA-224	5.248E+00	1.209E+00	8.873E-01	0.000E+00
RA-226	1.251E+00	2.079E-01	1.108E-01	0.000E+00
AC-228	1.868E+00	3.568E-01	2.580E-01	0.000E+00
RA-228	1.868E+00	3.568E-01	2.580E-01	0.000E+00
TH-228	1.829E+00	2.300E-01	7.907E-02	0.000E+00
TH-229	1.350E-01	4.324E-01	7.593E-01	0.000E+00
TH-230	1.251E+00	2.079E-01	1.108E-01	0.000E+00
TH-232	1.868E+00	3.568E-01	2.580E-01	0.000E+00
TH-234	1.756E+00	7.727E-01	7.498E-01	0.000E+00
U-234	1.251E+00	2.079E-01	1.108E-01	0.000E+00
NP-237	1.332E+00	3.430E-01	2.086E-01	0.000E+00
U-238	1.756E+00	7.727E-01	7.498E-01	0.000E+00
AM-243	3.930E-01	5.407E-02	4.397E-02	0.000E+00
ANH-511	1.216E-01	7.266E-02	4.522E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	-3.821E-02	3.092E-01	5.215E-01	0.000E+00	NOT IDENT.
NA-22	-3.916E-03	5.039E-02	8.437E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.693E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.545E-03	3.173E-02	5.436E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.790E-02	4.477E-02	0.000E+00	FAIL ABUN
SC-46	2.143E-03	3.882E-02	6.554E-02	0.000E+00	FAIL ABUN
V-48	9.327E-03	7.421E-02	1.246E-01	0.000E+00	NOT IDENT.
CR-51	5.834E-02	3.186E-01	5.701E-01	0.000E+00	NOT IDENT.
MN-52	5.435E-03	2.233E-01	3.725E-01	0.000E+00	NOT IDENT.
MN-54	-2.524E-03	4.087E-02	6.881E-02	0.000E+00	NOT IDENT.
CO-56	8.054E-03	4.071E-02	6.991E-02	0.000E+00	NOT IDENT.
CO-57	-1.445E-02	1.774E-02	3.080E-02	0.000E+00	NOT IDENT.
CO-58	-1.838E-02	4.339E-02	7.112E-02	0.000E+00	NOT IDENT.
FE-59	-3.590E-03	9.263E-02	1.583E-01	0.000E+00	NOT IDENT.
CO-60	2.279E-02	3.918E-02	6.897E-02	0.000E+00	NOT IDENT.
ZN-65	2.405E-02	1.075E-01	1.626E-01	0.000E+00	NOT IDENT.
GE-68	-2.465E-01	1.276E+00	2.156E+00	0.000E+00	NOT IDENT.
AS-73	1.686E-01	1.589E-01	2.877E-01	0.000E+00	NOT IDENT.
AS-74	3.528E-02	9.455E-02	1.613E-01	0.000E+00	NOT IDENT.
SE-75	-2.609E-02	3.892E-02	5.906E-02	0.000E+00	NOT IDENT.
BR-77	5.813E+00	1.035E+01	1.813E+01	0.000E+00	FAIL ABUN
SR-82	2.162E-01	4.261E-01	6.665E-01	0.000E+00	NOT IDENT.
RB-83	3.061E-02	6.860E-02	1.193E-01	0.000E+00	NOT IDENT.
RB-84	2.261E-02	7.184E-02	1.241E-01	0.000E+00	NOT IDENT.
KR-85	1.112E+01	7.601E+00	1.262E+01	0.000E+00	NOT IDENT.
SR-85	5.701E-02	3.897E-02	6.472E-02	0.000E+00	NOT IDENT.
RB-86	-6.689E-01	8.146E-01	1.295E+00	0.000E+00	NOT IDENT.
Y-88	3.695E-02	3.452E-02	6.834E-02	0.000E+00	NOT IDENT.
ZR-88	-2.512E-02	2.928E-02	4.809E-02	0.000E+00	NOT IDENT.
Y-91	-1.834E+01	2.258E+01	3.638E+01	0.000E+00	NOT IDENT.
NB-94	2.543E-02	3.280E-02	5.952E-02	0.000E+00	NOT IDENT.
NB-95	1.523E-02	5.304E-02	8.073E-02	0.000E+00	NOT IDENT.
NB-95M	-4.709E-02	1.110E-01	1.629E-01	0.000E+00	NOT IDENT.
ZR-95	4.902E-02	8.017E-02	1.423E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.056E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.928E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-3.023E+00	1.275E+01	2.147E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.856E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.795E-03	2.761E-02	4.685E-02	0.000E+00	NOT IDENT.
RH-102	4.493E-03	2.752E-02	4.738E-02	0.000E+00	NOT IDENT.
RU-103	-1.677E-02	3.932E-02	6.438E-02	0.000E+00	FAIL ABUN
RH-106	1.026E-01	3.170E-01	5.655E-01	0.000E+00	FAIL ABUN
RU-106	1.026E-01	3.168E-01	5.655E-01	0.000E+00	FAIL ABUN
AG-108M	3.625E-03	3.044E-02	5.274E-02	0.000E+00	NOT IDENT.
AG-110M	-5.279E-02	3.793E-02	5.881E-02	0.000E+00	NOT IDENT.
IN-111	8.636E-02	9.625E-01	1.461E+00	0.000E+00	NOT IDENT.
IN-113M	-3.551E-02	4.169E-02	6.847E-02	0.000E+00	NOT IDENT.
SN-113	-3.551E-02	4.169E-02	6.847E-02	0.000E+00	NOT IDENT.
IN-114M	3.891E-02	1.698E-01	2.669E-01	0.000E+00	NOT IDENT.
CD-115	2.095E+00	1.052E+01	1.797E+01	0.000E+00	NOT IDENT.
SN-117M	-1.515E-02	4.213E-02	7.315E-02	0.000E+00	NOT IDENT.
SB-122	2.001E+00	2.087E+00	3.715E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.387E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.603E-03	2.171E-02	3.811E-02	0.000E+00	NOT IDENT.
I-124	3.102E-01	7.212E-01	1.146E+00	0.000E+00	NOT IDENT.
SB-124	-4.947E-03	7.587E-02	1.270E-01	0.000E+00	FAIL ABUN
SB-125	1.123E-02	8.027E-02	1.395E-01	0.000E+00	FAIL ABUN
TE-125M	4.868E+00	6.357E+00	1.183E+01	0.000E+00	NOT IDENT.
I-126	-2.619E-01	1.941E-01	3.018E-01	0.000E+00	NOT IDENT.
SB-126	4.946E-02	1.629E-01	2.515E-01	0.000E+00	FAIL ABUN
SB-127	-4.136E-01	1.383E+00	2.337E+00	0.000E+00	NOT IDENT.
XE-127	-1.146E-02	3.925E-02	6.678E-02	0.000E+00	NOT IDENT.
I-131	2.786E-03	9.970E-02	1.748E-01	0.000E+00	NOT IDENT.
TE-132	-3.200E-01	5.829E-01	9.619E-01	0.000E+00	NOT IDENT.
BA-133	3.557E-03	3.932E-02	6.121E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.894E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.414E-02	9.506E-02	0.000E+00	FAIL ABUN
CS-135	1.891E-01	1.454E-01	2.362E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.233E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.226E-02	1.206E-01	2.135E-01	0.000E+00	FAIL ABUN
BA-137M	-2.847E-02	4.151E-02	7.290E-02	0.000E+00	NOT IDENT.
CS-137	-3.009E-02	4.388E-02	7.706E-02	0.000E+00	NOT IDENT.
CE-139	-1.246E-02	2.344E-02	4.021E-02	0.000E+00	NOT IDENT.
BA-140	2.274E-02	2.599E-01	4.347E-01	0.000E+00	NOT IDENT.
LA-140	-1.889E-02	8.716E-02	1.380E-01	0.000E+00	FAIL ABUN
CE-141	8.099E-03	4.833E-02	8.652E-02	0.000E+00	NOT IDENT.

CE-143	0.000E+00	1.642E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.984E-02	1.507E-01	2.651E-01	0.000E+00	NOT IDENT.
PM-144	6.557E-02	3.691E-02	6.982E-02	0.000E+00	NOT IDENT.
PR-144	4.443E+00	2.501E+00	4.732E+00	0.000E+00	NOT IDENT.
PM-146	1.379E-02	4.132E-02	7.222E-02	0.000E+00	NOT IDENT.
ND-147	-3.276E-01	5.516E-01	8.805E-01	0.000E+00	FAIL ABUN
PM-149	-8.789E+01	8.464E+01	1.299E+02	0.000E+00	NOT IDENT.
EU-152	-5.228E-02	8.149E-02	1.377E-01	0.000E+00	FAIL ABUN
GD-153	1.989E-02	5.973E-02	8.175E-02	0.000E+00	FAIL ABUN
EU-154	3.913E-03	1.388E-01	2.345E-01	0.000E+00	NOT IDENT.
EU-155	1.046E-01	7.212E-02	1.365E-01	0.000E+00	FAIL ABUN
TB-160	-8.718E-02	1.495E-01	2.380E-01	0.000E+00	FAIL ABUN
HO-166M	2.800E-02	5.838E-02	1.041E-01	0.000E+00	FAIL ABUN
TM-171	-9.822E-01	1.171E+01	1.835E+01	0.000E+00	NOT IDENT.
LU-176	4.989E-03	1.958E-02	3.532E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.413E+00	1.734E+00	0.000E+00	FAIL ABUN
LU-177M	-1.811E-01	1.588E-01	2.519E-01	0.000E+00	FAIL ABUN
HF-181	1.315E-02	3.904E-02	6.796E-02	0.000E+00	NOT IDENT.
W-181	-9.154E-02	1.442E-01	2.200E-01	0.000E+00	NOT IDENT.
TA-182	7.737E-03	2.195E-01	3.728E-01	0.000E+00	FAIL ABUN
RE-183	2.612E-02	8.621E-02	1.524E-01	0.000E+00	FAIL ABUN
RE-184	-1.570E-01	2.042E-01	3.285E-01	0.000E+00	NOT IDENT.
OS-185	-1.522E-02	3.907E-02	6.585E-02	0.000E+00	NOT IDENT.
RE-188	2.063E-01	1.372E-01	2.543E-01	0.000E+00	NOT IDENT.
W-188	7.181E-01	6.796E+00	1.082E+01	0.000E+00	FAIL ABUN
IR-192	1.170E-02	2.994E-02	5.416E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.614E-01	2.788E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.962E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.142E-01	5.397E+00	9.497E+00	0.000E+00	NOT IDENT.
TL-202	4.489E-02	6.809E-02	1.215E-01	0.000E+00	NOT IDENT.
HG-203	3.237E-03	3.700E-02	6.215E-02	0.000E+00	FAIL ABUN
BI-207	2.080E-02	5.685E-02	1.006E-01	0.000E+00	FAIL ABUN
TL-207	3.784E-02	6.467E-01	1.014E+00	0.000E+00	FAIL ABUN
PO-209	2.860E+00	6.968E+00	1.215E+01	0.000E+00	NOT IDENT.
PB-211	-3.558E-02	8.531E-01	1.473E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.283E-01	7.355E-01	0.000E+00	FAIL ABUN
PO-215	3.784E-02	6.467E-01	1.014E+00	0.000E+00	FAIL ABUN
RN-219	-5.622E-02	3.822E-01	6.563E-01	0.000E+00	FAIL ABUN
RN-220	8.795E+00	2.379E+01	4.104E+01	0.000E+00	NOT IDENT.
RA-223	3.784E-02	6.467E-01	1.014E+00	0.000E+00	FAIL ABUN
AC-227	3.889E-01	3.228E-01	5.713E-01	0.000E+00	FAIL ABUN
TH-227	3.889E-01	3.248E-01	5.713E-01	0.000E+00	FAIL ABUN
PA-231	2.211E-01	1.482E+00	2.223E+00	0.000E+00	FAIL ABUN
TH-231	3.784E-02	6.467E-01	1.014E+00	0.000E+00	FAIL ABUN
U-231	5.189E-01	7.983E-01	1.113E+00	0.000E+00	FAIL ABUN
PA-233	8.684E-03	5.133E-02	9.206E-02	0.000E+00	FAIL ABUN
PA-234	-3.168E-01	3.598E-01	5.465E-01	0.000E+00	FAIL ABUN
PA-234M	-2.971E-01	5.348E+00	8.740E+00	0.000E+00	NOT IDENT.
U-235	3.470E-02	1.684E-01	2.969E-01	0.000E+00	FAIL ABUN
NP-236	-1.707E-02	6.096E-02	1.061E-01	0.000E+00	FAIL ABUN
NP-239	-1.025E-01	1.275E-01	2.223E-01	0.000E+00	FAIL ABUN
AM-241	-1.796E-03	4.851E-02	7.713E-02	0.000E+00	NOT IDENT.
CM-243	-2.842E-02	6.829E-02	1.101E-01	0.000E+00	FAIL ABUN
AM-246	6.978E-02	1.399E-01	2.506E-01	0.000E+00	NOT IDENT.
CM-247	-5.430E-03	3.333E-02	5.715E-02	0.000E+00	FAIL ABUN
CF-249	7.884E-03	3.688E-02	6.423E-02	0.000E+00	NOT IDENT.
CF-251	-1.590E-02	1.000E-01	1.736E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 16:47:05.27

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691003.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 14:46:29.
Sample ID         : G245691003           Sample quantity  : 1.35050E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.09  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1517	10.67*	1.109E+00	3.565E+01	3.565E+01	10.10
CD-109	88.03	568	3.72*	9.404E+00	4.513E+00	4.616E+00	16.25
SN-126	64.28	235	9.60	9.779E+00	6.950E-01	6.950E-01	43.86
	86.94	568	8.90	9.404E+00	1.886E+00	1.886E+00	43.59
	87.57	568	37.00*	9.404E+00	4.537E-01	4.537E-01	16.25
TL-208	277.35	52	6.80	4.736E+00	4.517E-01	4.517E-01	128.51
	510.84	123	21.60	2.808E+00	5.630E-01	5.630E-01	61.54
	583.14	457	84.20*	2.497E+00	6.040E-01	6.040E-01	17.38
	860.37	98	12.46	1.765E+00	1.235E+00	1.235E+00	42.14
BI-210	46.50	81	4.05*	9.199E+00	6.031E-01	6.039E-01	115.05
PB-210	46.50	81	4.05*	9.199E+00	6.031E-01	6.039E-01	115.05
PO-210	46.50	81	4.05*	9.199E+00	6.031E-01	6.039E-01	114.98
BI-211	72.87	------	1.27	9.724E+00	------ Line Not Found		------
	351.07	753	12.94*	3.886E+00	4.161E+00	4.161E+00	14.28
PB-212	74.81	905	10.70	9.694E+00	2.424E+00	2.424E+00	16.86
	77.11	1307	18.00	9.652E+00	2.092E+00	2.092E+00	12.66
	87.30	568	8.00	9.404E+00	2.098E+00	2.098E+00	19.08
	238.63	1544	44.60*	5.339E+00	1.802E+00	1.802E+00	12.83
	300.09	95	3.41	4.445E+00	1.742E+00	1.742E+00	63.16
PO-212	74.81	905	10.70	9.694E+00	2.424E+00	2.424E+00	16.86
	77.11	1307	18.00	9.652E+00	2.092E+00	2.092E+00	12.66
	87.30	568	8.00	9.404E+00	2.098E+00	2.098E+00	19.08
	115.19	------	0.60	8.498E+00	------ Line Not Found		------
	238.63	1544	44.60*	5.339E+00	1.802E+00	1.802E+00	12.83
	300.09	95	3.41	4.445E+00	1.742E+00	1.742E+00	63.16
BI-214	609.31	500	46.30*	2.401E+00	1.251E+00	1.251E+00	16.97
	1120.29	75	15.10	1.398E+00	9.870E-01	9.870E-01	51.23
	1764.49	87	15.80	9.413E-01	1.623E+00	1.623E+00	26.23
PB-214	74.81	905	6.21	9.694E+00	4.177E+00	4.177E+00	15.87
	77.11	1307	10.50	9.652E+00	3.585E+00	3.585E+00	14.78
	87.30	568	4.67	9.404E+00	3.595E+00	3.595E+00	17.99
	241.98	395	7.49	5.290E+00	2.768E+00	2.768E+00	24.16

Sample ID : G245691003 Acquisition date : 9-FEB-2010 14:46:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	387	19.20	4.503E+00	1.245E+00	1.245E+00	21.73
	351.92	753	37.20*	3.886E+00	1.447E+00	1.447E+00	15.20
PO-214	74.81	905	6.21	9.694E+00	4.177E+00	4.177E+00	15.87
	77.11	1307	10.50	9.652E+00	3.585E+00	3.585E+00	14.78
	87.30	568	4.67	9.404E+00	3.595E+00	3.595E+00	17.99
	241.98	395	7.49	5.290E+00	2.768E+00	2.768E+00	24.16
	295.21	387	19.20	4.503E+00	1.245E+00	1.245E+00	21.73
	351.92	753	37.20*	3.886E+00	1.447E+00	1.447E+00	15.20
PO-216	74.81	905	10.70	9.694E+00	2.424E+00	2.424E+00	16.86
	77.11	1307	18.00	9.652E+00	2.092E+00	2.092E+00	12.66
	87.30	568	8.00	9.404E+00	2.098E+00	2.098E+00	19.08
	238.63	1544	44.60*	5.339E+00	1.802E+00	1.802E+00	12.83
	300.09	95	3.41	4.445E+00	1.742E+00	1.742E+00	63.16
PO-218	74.81	905	6.21	9.694E+00	4.177E+00	4.177E+00	15.87
	77.11	1307	10.50	9.652E+00	3.585E+00	3.585E+00	14.78
	87.30	568	4.67	9.404E+00	3.595E+00	3.595E+00	17.99
	241.98	395	7.49	5.290E+00	2.768E+00	2.768E+00	24.16
	295.21	387	19.20	4.503E+00	1.245E+00	1.245E+00	21.73
	351.92	753	37.20*	3.886E+00	1.447E+00	1.447E+00	15.20
RA-224	240.98	395	3.95*	5.290E+00	5.248E+00	5.248E+00	23.50
RA-226	609.31	500	46.30*	2.401E+00	1.251E+00	1.251E+00	16.97
	1120.29	75	15.10	1.398E+00	9.870E-01	9.870E-01	51.23
	1764.49	87	15.80	9.413E-01	1.623E+00	1.623E+00	26.23
AC-228	338.32	275	11.40	4.019E+00	1.668E+00	1.668E+00	45.88
	911.07	312	27.70*	1.678E+00	1.868E+00	1.868E+00	19.49
	969.11	163	16.60	1.589E+00	1.715E+00	1.715E+00	38.94
RA-228	338.32	275	11.40	4.019E+00	1.668E+00	1.668E+00	45.88
	911.07	312	27.70*	1.678E+00	1.868E+00	1.868E+00	19.49
	969.11	163	16.60	1.589E+00	1.715E+00	1.715E+00	38.94
TH-228	74.81	905	10.70	9.694E+00	2.424E+00	2.461E+00	14.08
	77.11	1307	18.00	9.652E+00	2.092E+00	2.123E+00	12.66
	87.30	568	8.00	9.404E+00	2.098E+00	2.130E+00	16.25
	238.63	1544	44.60*	5.339E+00	1.802E+00	1.829E+00	12.83
	300.09	95	3.41	4.445E+00	1.742E+00	1.769E+00	85.99
TH-229	85.43	185	16.50	9.490E+00	3.281E-01	3.281E-01	43.82
	88.47	568	27.10	9.404E+00	6.194E-01	6.195E-01	16.25
	100.00	122	12.40	9.017E+00	3.034E-01	3.034E-01	72.98
	193.63	------	4.59*	6.236E+00	------	Line Not Found	------
	210.97	------	3.26	5.861E+00	------	Line Not Found	------
TH-230	609.31	500	46.30*	2.401E+00	1.251E+00	1.251E+00	16.97
	1120.29	75	15.10	1.398E+00	9.870E-01	9.870E-01	51.23
	1764.49	87	15.80	9.413E-01	1.623E+00	1.623E+00	26.23
TH-232	338.32	275	11.40	4.019E+00	1.668E+00	1.668E+00	21.83
	911.07	312	27.70*	1.678E+00	1.868E+00	1.868E+00	19.49
	969.11	163	16.60	1.589E+00	1.715E+00	1.715E+00	38.94
TH-234	63.29	235	3.80*	9.779E+00	1.756E+00	1.756E+00	44.90
	92.38	536	5.41	9.238E+00	2.980E+00	2.980E+00	26.57
U-234	609.31	500	46.30*	2.401E+00	1.251E+00	1.251E+00	16.97
	1120.29	75	15.10	1.398E+00	9.870E-01	9.870E-01	51.23

Sample ID : G245691003 Acquisition date : 9-FEB-2010 14:46:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	87	15.80	9.413E-01	1.623E+00	1.623E+00	26.23
NP-237	86.50	568	12.60*	9.404E+00	1.332E+00	1.332E+00	26.27
	95.87	------	2.60	9.143E+00	------ Line Not Found		------
U-238	63.29	235	3.80*	9.779E+00	1.756E+00	1.756E+00	44.90
	92.38	536	5.41	9.238E+00	2.980E+00	2.980E+00	21.29
AM-243	74.67	905	66.00*	9.694E+00	3.930E-01	3.930E-01	14.04
	86.72	568	0.34	9.404E+00	4.996E+01	4.996E+01	16.25
	117.66	------	0.55	8.415E+00	------ Line Not Found		------
	142.18	------	0.13	7.617E+00	------ Line Not Found		------
ANH-511	511.00	123	100.00*	2.808E+00	1.216E-01	1.216E-01	60.97

Flag: "*" = Keyline

Sample ID : G245691003 Acquisition date : 9-FEB-2010 14:46:29

Total number of lines in spectrum 36
Number of unidentified lines 2
Number of lines tentatively identified by NID 34 94.44%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.565E+01	3.565E+01	0.360E+01	10.10	
CD-109	464.00D	1.02	4.513E+00	4.616E+00	0.750E+00	16.25	
SN-126	1.00E+05Y	1.00	4.537E-01	4.537E-01	0.737E-01	16.25	
TL-208	1.41E+10Y	1.00	6.040E-01	6.040E-01	1.050E-01	17.38	
BI-210	22.26Y	1.00	6.031E-01	6.039E-01	6.948E-01	115.05	
PB-210	22.26Y	1.00	6.031E-01	6.039E-01	6.948E-01	115.05	
PO-210	22.26Y	1.00	6.031E-01	6.039E-01	6.944E-01	114.98	
BI-211	7.04E+08Y	1.00	4.161E+00	4.161E+00	0.594E+00	14.28	
PB-212	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.231E+00	12.83	
PO-212	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.231E+00	12.83	
BI-214	1600.00Y	1.00	1.251E+00	1.251E+00	0.212E+00	16.97	
PB-214	1600.00Y	1.00	1.447E+00	1.447E+00	0.220E+00	15.20	
PO-214	1600.00Y	1.00	1.447E+00	1.447E+00	0.220E+00	15.20	
PO-216	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.231E+00	12.83	
PO-218	1600.00Y	1.00	1.447E+00	1.447E+00	0.220E+00	15.20	
RA-224	1.41E+10Y	1.00	5.248E+00	5.248E+00	1.233E+00	23.50	
RA-226	1600.00Y	1.00	1.251E+00	1.251E+00	0.212E+00	16.97	
AC-228	1.41E+10Y	1.00	1.868E+00	1.868E+00	0.364E+00	19.49	
RA-228	1.41E+10Y	1.00	1.868E+00	1.868E+00	0.364E+00	19.49	
TH-228	1.91Y	1.02	1.802E+00	1.829E+00	0.235E+00	12.83	
TH-229	7340.00Y	1.00	6.194E-01	6.195E-01	1.007E-01	16.25	K
TH-230	4.47E+09Y	1.00	1.251E+00	1.251E+00	0.212E+00	16.97	
TH-232	1.41E+10Y	1.00	1.868E+00	1.868E+00	0.364E+00	19.49	
TH-234	4.47E+09Y	1.00	1.756E+00	1.756E+00	0.788E+00	44.90	
U-234	4.47E+09Y	1.00	1.251E+00	1.251E+00	0.212E+00	16.97	
NP-237	2.14E+06Y	1.00	1.332E+00	1.332E+00	0.350E+00	26.27	
U-238	4.47E+09Y	1.00	1.756E+00	1.756E+00	0.788E+00	44.90	
AM-243	7380.00Y	1.00	3.930E-01	3.930E-01	0.552E-01	14.04	
ANH-511	1.00E+09Y	1.00	1.216E-01	1.216E-01	0.741E-01	60.97	
	Total Activity :		8.057E+01	8.071E+01			

Grand Total Activity : 8.057E+01 8.071E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691003 Acquisition date : 9-FEB-2010 14:46:29

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
6	89.94	321	343	1.06	179.44	171	23	4.46E-02	21.4	9.33E+00	T
0	129.71	70	359	0.84	258.98	254	7	9.76E-03	92.7	8.01E+00	T
0	185.84	327	405	1.16	371.22	365	12	4.54E-02	27.8	6.42E+00	T
0	209.35	138	300	0.88	418.23	413	10	1.92E-02	50.0	5.89E+00	T
0	270.14	118	233	1.30	539.81	535	10	1.64E-02	51.8	4.84E+00	T
0	327.93	102	157	0.85	655.37	651	9	1.42E-02	48.6	4.13E+00	T
0	463.12	87	94	0.95	925.74	921	10	1.21E-02	47.0	3.06E+00	T
0	726.82	131	84	1.44	1453.12	1446	13	1.81E-02	33.9	2.05E+00	T
0	769.17	97	109	4.02	1537.82	1530	18	1.34E-02	54.5	1.95E+00	
0	794.92	52	61	1.30	1589.32	1584	11	7.15E-03	64.8	1.89E+00	T
0	1407.53	33	16	2.00	2814.58	2807	16	4.58E-03	64.4	1.14E+00	T
0	1588.35	17	29	1.36	3176.26	3168	13	2.32E-03	****	1.03E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 16:47:09.75

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691003.CNF;1  *
* Acquisition date : 9-FEB-2010 14:46:29.  Detector SN#    :                *
* Detector ID      : GAM25                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.09         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 25-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245691003            Analyst initials: MJH1           *
* Batch Number     : 947037                Sample Quantity : 1.35050E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.565E+01	3.599E+00	5.268E-01	4.486E-02	67.671
CD-109	4.616E+00	7.503E-01	6.582E-01	7.073E-02	7.013
SN-126	4.537E-01	7.374E-02	6.456E-02	6.922E-03	7.028
TL-208	6.040E-01	1.050E-01	5.945E-02	6.702E-03	10.160
BI-210	6.039E-01	6.948E-01	5.910E-01	6.094E-02	1.022
PB-210	6.039E-01	6.948E-01	5.910E-01	6.094E-02	1.022
PO-210	6.039E-01	6.944E-01	5.910E-01	5.628E-02	1.022
BI-211	4.161E+00	5.942E-01	2.854E-01	3.007E-02	14.582
PB-212	1.802E+00	2.312E-01	7.516E-02	8.556E-03	23.977
PO-212	1.802E+00	2.312E-01	7.516E-02	8.556E-03	23.977
BI-214	1.251E+00	2.122E-01	1.087E-01	1.312E-02	11.501
PB-214	1.447E+00	2.201E-01	9.807E-02	1.152E-02	14.759
PO-214	1.447E+00	2.201E-01	9.807E-02	1.152E-02	14.759
PO-216	1.802E+00	2.312E-01	7.516E-02	8.556E-03	23.977
PO-218	1.447E+00	2.201E-01	9.807E-02	1.152E-02	14.759
RA-224	5.248E+00	1.233E+00	8.564E-01	9.000E-02	6.128
RA-226	1.251E+00	2.122E-01	1.087E-01	1.312E-02	11.501
AC-228	1.868E+00	3.641E-01	2.551E-01	3.034E-02	7.324

Sample ID : G245691003 Acquisition date : 9-FEB-2010 14:46:29

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.868E+00	3.641E-01	2.551E-01	3.034E-02	7.324
TH-228	1.829E+00	2.347E-01	7.630E-02	8.686E-03	23.977
TH-229	6.195E-01	1.007E-01	7.300E-01	6.964E-02	0.849
TH-230	1.251E+00	2.122E-01	1.087E-01	1.312E-02	11.501
TH-232	1.868E+00	3.641E-01	2.551E-01	3.034E-02	7.324
TH-234	1.756E+00	7.885E-01	7.071E-01	1.316E-01	2.483
U-234	1.251E+00	2.122E-01	1.087E-01	1.312E-02	11.501
NP-237	1.332E+00	3.500E-01	1.977E-01	4.593E-02	6.738
U-238	1.756E+00	7.885E-01	7.071E-01	1.316E-01	2.483
AM-243	3.930E-01	5.517E-02	4.158E-02	4.223E-03	9.451
ANH-511	1.216E-01	7.414E-02	4.424E-02	4.554E-03	2.749

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.821E-02		3.155E-01	5.096E-01	5.395E-02	-0.075
NA-22	-3.916E-03		5.142E-02	8.396E-02	6.885E-03	-0.047
NA-24	-3.051E-01		3.925E-01	Half-Life too short		
AL-26	3.545E-03		3.238E-02	5.446E-02	4.463E-03	0.065
TI-44	3.860E-01	+	4.887E-02	4.237E-02	4.363E-03	9.110
SC-46	2.143E-03		3.961E-02	6.478E-02	6.204E-03	0.033
V-48	9.327E-03		7.573E-02	1.234E-01	1.144E-02	0.076
CR-51	5.834E-02		3.251E-01	5.531E-01	6.142E-02	0.105
MN-52	5.435E-03		2.279E-01	3.715E-01	3.062E-02	0.015
MN-54	-2.524E-03		4.170E-02	6.794E-02	6.894E-03	-0.037
CO-56	8.054E-03		4.155E-02	6.904E-02	6.927E-03	0.117
CO-57	-1.445E-02		1.811E-02	2.938E-02	3.788E-03	-0.492
CO-58	-1.838E-02		4.427E-02	7.017E-02	7.281E-03	-0.262
FE-59	-3.590E-03		9.452E-02	1.571E-01	1.480E-02	-0.023
CO-60	2.279E-02		3.998E-02	6.870E-02	5.579E-03	0.332
ZN-65	2.405E-02		1.097E-01	1.614E-01	1.394E-02	0.149
GE-68	-2.465E-01		1.302E+00	2.139E+00	1.893E-01	-0.115
AS-73	1.686E-01		1.621E-01	2.705E-01	2.596E-02	0.623
AS-74	3.528E-02		9.648E-02	1.583E-01	1.715E-02	0.223
SE-75	-2.609E-02		3.971E-02	5.710E-02	6.258E-03	-0.457
BR-77	5.813E+00		1.056E+01	1.774E+01	1.839E+00	0.328
SR-82	2.162E-01		4.348E-01	6.571E-01	6.974E-02	0.329
RB-83	3.061E-02		7.000E-02	1.167E-01	1.210E-02	0.262
RB-84	2.261E-02		7.331E-02	1.227E-01	1.186E-02	0.184
KR-85	1.112E+01		7.756E+00	1.235E+01	1.274E+00	0.900
SR-85	5.701E-02		3.977E-02	6.333E-02	6.533E-03	0.900
RB-86	-6.689E-01		8.312E-01	1.285E+00	1.138E-01	-0.521
Y-88	3.695E-02		3.523E-02	6.849E-02	5.597E-03	0.539
ZR-88	-2.512E-02		2.988E-02	4.682E-02	4.262E-03	-0.536
Y-91	-1.834E+01		2.304E+01	3.616E+01	2.976E+00	-0.507
NB-94	2.543E-02		3.347E-02	5.858E-02	6.432E-03	0.434
NB-95	1.523E-02		5.412E-02	7.958E-02	8.500E-03	0.191

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	-4.709E-02		1.133E-01	1.572E-01	1.802E-02	-0.300
ZR-95	4.902E-02		8.180E-02	1.402E-01	1.606E-02	0.350
NB-97	-1.468E-01		5.387E-02	Half-Life too short		
ZR-97	1.545E+00		9.834E-01	Half-Life too short		
MO-99	-3.023E+00		1.301E+01	2.115E+01	3.497E+00	-0.143
TC-99M	4.808E+09		1.457E+10	Half-Life too short		
RH-101	-2.795E-03		2.817E-02	4.506E-02	4.342E-03	-0.062
RH-102	4.493E-03		2.808E-02	4.630E-02	4.622E-03	0.097
RU-103	-1.677E-02		4.013E-02	6.295E-02	9.545E-03	-0.266
RH-106	1.026E-01		3.235E-01	5.553E-01	8.311E-02	0.185
RU-106	1.026E-01		3.233E-01	5.553E-01	6.080E-02	0.185
AG-108M	3.625E-03		3.106E-02	5.144E-02	5.083E-03	0.070
AG-110M	-5.279E-02		3.870E-02	5.781E-02	6.514E-03	-0.913
IN-111	8.636E-02		9.822E-01	1.410E+00	1.493E-01	0.061
IN-113M	-3.551E-02		4.255E-02	6.666E-02	6.227E-03	-0.533
SN-113	-3.551E-02		4.255E-02	6.666E-02	6.227E-03	-0.533
IN-114M	3.891E-02		1.733E-01	2.565E-01	2.428E-02	0.152
CD-115	2.095E+00		1.074E+01	1.759E+01	1.834E+00	0.119
SN-117M	-1.515E-02		4.298E-02	7.008E-02	6.804E-03	-0.216
SB-122	2.001E+00		2.130E+00	3.641E+00	3.883E-01	0.549
I-123	-5.261E-01		2.238E+00	Half-Life too short		
TE-123M	-2.603E-03		2.215E-02	3.651E-02	3.545E-03	-0.071
I-124	3.102E-01		7.359E-01	1.124E+00	1.222E-01	0.276
SB-124	-4.947E-03		7.741E-02	1.271E-01	1.099E-02	-0.039
SB-125	1.123E-02		8.191E-02	1.361E-01	1.314E-02	0.083
TE-125M	4.868E+00		6.486E+00	1.126E+01	1.496E+00	0.432
I-126	-2.619E-01		1.981E-01	2.967E-01	3.285E-02	-0.882
SB-126	4.946E-02		1.662E-01	2.476E-01	2.703E-02	0.200
SB-127	-4.136E-01		1.411E+00	2.299E+00	3.058E-01	-0.180
XE-127	-1.146E-02		4.005E-02	6.426E-02	6.259E-03	-0.178
I-131	2.786E-03		1.017E-01	1.699E-01	1.744E-02	0.016
TE-132	-3.200E-01		5.948E-01	9.275E-01	1.546E-01	-0.345
BA-133	3.557E-03		4.012E-02	5.949E-02	8.435E-03	0.060
I-133	-1.878E-03		3.007E-03	Half-Life too short		
CS-134	9.971E-02	+	6.545E-02	9.377E-02	9.871E-03	1.063
CS-135	1.891E-01		1.484E-01	2.284E-01	2.757E-02	0.828
I-135	3.785E+09		3.180E+09	Half-Life too short		
CS-136	4.226E-02		1.231E-01	2.117E-01	1.980E-02	0.200
BA-137M	-2.847E-02		4.235E-02	7.166E-02	7.939E-03	-0.397
CS-137	-3.009E-02		4.477E-02	7.576E-02	8.402E-03	-0.397
CE-139	-1.246E-02		2.392E-02	3.855E-02	3.438E-03	-0.323
BA-140	2.274E-02		2.652E-01	4.257E-01	1.434E-01	0.053
LA-140	-1.889E-02		8.894E-02	1.379E-01	1.147E-02	-0.137
CE-141	8.099E-03		4.932E-02	8.277E-02	9.205E-03	0.098
CE-143	3.991E-04		8.378E-05	Half-Life too short		
CE-144	-5.984E-02		1.538E-01	2.532E-01	4.477E-02	-0.236
PM-144	6.557E-02		3.767E-02	6.871E-02	7.560E-03	0.954
PR-144	4.443E+00		2.553E+00	4.656E+00	5.122E-01	0.954

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	1.379E-02		4.216E-02	7.050E-02	8.232E-03	0.196
ND-147	-3.276E-01		5.629E-01	8.620E-01	1.385E-01	-0.380
PM-149	-8.789E+01		8.637E+01	1.257E+02	2.144E+01	-0.699
EU-152	-5.228E-02		8.315E-02	1.337E-01	1.436E-02	-0.391
GD-153	1.989E-02		6.095E-02	7.766E-02	8.746E-03	0.256
EU-154	3.913E-03		1.416E-01	2.334E-01	2.564E-02	0.017
EU-155	1.046E-01		7.360E-02	1.299E-01	1.535E-02	0.805
TB-160	-8.718E-02		1.526E-01	2.352E-01	2.279E-02	-0.371
HO-166M	2.800E-02		5.957E-02	1.025E-01	1.122E-02	0.273
TM-171	-9.822E-01		1.195E+01	1.732E+01	1.719E+00	-0.057
LU-176	4.989E-03		1.997E-02	3.424E-02	3.736E-03	0.146
LU-177	2.832E+00	+	1.442E+00	1.669E+00	1.645E-01	1.696
LU-177M	-1.811E-01		1.620E-01	2.455E-01	2.295E-02	-0.738
HF-181	1.315E-02		3.983E-02	6.642E-02	6.674E-03	0.198
W-181	-9.154E-02		1.472E-01	2.076E-01	2.055E-02	-0.441
TA-182	7.737E-03		2.239E-01	3.707E-01	3.049E-02	0.021
RE-183	2.612E-02		8.797E-02	1.461E-01	1.360E-02	0.179
RE-184	-1.570E-01		2.084E-01	3.173E-01	3.403E-02	-0.495
OS-185	-1.522E-02		3.986E-02	6.470E-02	7.140E-03	-0.235
RE-188	2.063E-01		1.400E-01	2.435E-01	2.453E-02	0.847
W-188	7.181E-01		6.934E+00	1.048E+01	1.161E+00	0.069
IR-192	1.170E-02		3.055E-02	5.253E-02	5.674E-03	0.223
AU-195	3.655E-01	+	2.667E-01	2.650E-01	3.007E-02	1.379
TL-200	-2.765E-04		2.021E-04	Half-Life too short		
TL-201	2.142E-01		5.507E+00	9.108E+00	8.147E-01	0.024
TL-202	4.489E-02		6.948E-02	1.185E-01	1.142E-02	0.379
HG-203	3.237E-03		3.776E-02	6.014E-02	6.827E-03	0.054
BI-207	2.080E-02		5.801E-02	9.980E-02	8.907E-03	0.208
TL-207	3.784E-02		6.599E-01	9.841E-01	1.849E-01	0.038
PO-209	2.860E+00		7.111E+00	1.202E+01	1.140E+00	0.238
PB-211	-3.558E-02		8.705E-01	1.435E+00	9.004E-01	-0.025
BI-212	1.499E+00	+	5.391E-01	7.243E-01	8.703E-02	2.070
PO-215	3.784E-02		6.599E-01	9.841E-01	1.849E-01	0.038
RN-219	-5.622E-02		3.900E-01	6.393E-01	9.827E-02	-0.088
RN-220	8.795E+00		2.427E+01	4.021E+01	4.252E+00	0.219
RA-223	3.784E-02		6.599E-01	9.841E-01	1.849E-01	0.038
AC-227	3.889E-01		3.294E-01	5.520E-01	9.195E-02	0.705
TH-227	3.889E-01		3.314E-01	5.520E-01	1.059E-01	0.705
PA-231	2.211E-01		1.512E+00	2.152E+00	3.601E-01	0.103
TH-231	3.784E-02		6.599E-01	9.841E-01	1.849E-01	0.038
U-231	5.189E-01		8.146E-01	1.057E+00	1.181E-01	0.491
PA-233	8.684E-03		5.238E-02	8.927E-02	9.858E-03	0.097
PA-234	-3.168E-01		3.672E-01	5.408E-01	1.034E-01	-0.586
PA-234M	-2.971E-01		5.457E+00	8.658E+00	9.069E-01	-0.034
U-235	3.470E-02		1.718E-01	2.840E-01	5.362E-02	0.122
NP-236	-1.707E-02		6.220E-02	1.017E-01	9.686E-03	-0.168
NP-239	-1.025E-01		1.301E-01	2.119E-01	2.654E-02	-0.484
AM-241	-1.796E-03		4.950E-02	7.266E-02	7.549E-03	-0.025

Sample ID : G245691003 Acquisition date : 9-FEB-2010 14:46:29

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.842E-02		6.969E-02	1.047E-01	1.219E-02	-0.271
AM-246	6.978E-02		1.427E-01	2.486E-01	2.199E-02	0.281
CM-247	-5.430E-03		3.401E-02	5.567E-02	5.132E-03	-0.098
CF-249	7.884E-03		3.763E-02	6.252E-02	5.753E-03	0.126
CF-251	-1.590E-02		1.021E-01	1.666E-01	1.526E-02	-0.095

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691003           *
* Acquisition date :  9-FEB-2010 14:46:29 Detector SN#    :                 *
* Detector ID       : GAM25               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.09     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691003           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.3505E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.565E+01	3.527E+00	2.641E-01	1.800E+00
CD-109	4.616E+00	7.352E-01	3.472E-01	3.751E-01
SN-126	4.537E-01	7.227E-02	3.406E-02	3.687E-02
TL-208	6.040E-01	1.029E-01	3.033E-02	5.250E-02
BI-210	6.039E-01	6.809E-01	3.152E-01	3.474E-01
PB-210	6.039E-01	6.809E-01	3.152E-01	3.474E-01
PO-210	6.039E-01	6.805E-01	3.152E-01	3.472E-01
BI-211	4.161E+00	5.824E-01	1.469E-01	2.971E-01
PB-212	1.802E+00	2.265E-01	3.896E-02	1.156E-01
PO-212	1.802E+00	2.265E-01	3.896E-02	1.156E-01
BI-214	1.251E+00	2.079E-01	5.543E-02	1.061E-01
PB-214	1.447E+00	2.157E-01	5.049E-02	1.100E-01
PO-214	1.447E+00	2.157E-01	5.049E-02	1.100E-01
PO-216	1.802E+00	2.265E-01	3.896E-02	1.156E-01
PO-218	1.447E+00	2.157E-01	5.049E-02	1.100E-01
RA-224	5.248E+00	1.209E+00	4.439E-01	6.167E-01
RA-226	1.251E+00	2.079E-01	5.543E-02	1.061E-01
AC-228	1.868E+00	3.568E-01	1.291E-01	1.821E-01
RA-228	1.868E+00	3.568E-01	1.291E-01	1.821E-01
TH-228	1.829E+00	2.300E-01	3.956E-02	1.173E-01
TH-229	1.350E-01	4.324E-01	3.799E-01	2.206E-01
TH-230	1.251E+00	2.079E-01	5.542E-02	1.061E-01
TH-232	1.868E+00	3.568E-01	1.291E-01	1.821E-01
TH-234	1.756E+00	7.727E-01	3.751E-01	3.942E-01
U-234	1.251E+00	2.079E-01	5.542E-02	1.061E-01
NP-237	1.332E+00	3.430E-01	1.044E-01	1.750E-01
U-238	1.756E+00	7.727E-01	3.751E-01	3.942E-01
AM-243	3.930E-01	5.407E-02	2.200E-02	2.759E-02
ANH-511	1.216E-01	7.266E-02	2.262E-02	3.707E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	-3.821E-02	3.092E-01	2.609E-01	1.578E-01	NOT IDENT.
NA-22	-3.916E-03	5.039E-02	4.221E-02	2.571E-02	NOT IDENT.
NA-24	-3.051E+05	7.693E+05	0.000E+00	3.925E+05	SHORT HLIF
AL-26	3.545E-03	3.173E-02	2.720E-02	1.619E-02	NOT IDENT.
TI-44	3.860E-01	4.790E-02	2.240E-02	2.444E-02	FAIL ABUN
SC-46	2.143E-03	3.882E-02	3.279E-02	1.981E-02	FAIL ABUN
V-48	9.327E-03	7.421E-02	6.235E-02	3.786E-02	NOT IDENT.
CR-51	5.834E-02	3.186E-01	2.852E-01	1.625E-01	NOT IDENT.
MN-52	5.435E-03	2.233E-01	1.863E-01	1.139E-01	NOT IDENT.
MN-54	-2.524E-03	4.087E-02	3.443E-02	2.085E-02	NOT IDENT.
CO-56	8.054E-03	4.071E-02	3.498E-02	2.077E-02	NOT IDENT.
CO-57	-1.445E-02	1.774E-02	1.541E-02	9.053E-03	NOT IDENT.
CO-58	-1.838E-02	4.339E-02	3.558E-02	2.214E-02	NOT IDENT.
FE-59	-3.590E-03	9.263E-02	7.921E-02	4.726E-02	NOT IDENT.
CO-60	2.279E-02	3.918E-02	3.451E-02	1.999E-02	NOT IDENT.
ZN-65	2.405E-02	1.075E-01	8.135E-02	5.483E-02	NOT IDENT.
GE-68	-2.465E-01	1.276E+00	1.079E+00	6.509E-01	NOT IDENT.
AS-73	1.686E-01	1.589E-01	1.439E-01	8.106E-02	NOT IDENT.
AS-74	3.528E-02	9.455E-02	8.071E-02	4.824E-02	NOT IDENT.
SE-75	-2.609E-02	3.892E-02	2.955E-02	1.986E-02	NOT IDENT.
BR-77	5.813E+00	1.035E+01	9.068E+00	5.280E+00	FAIL ABUN
SR-82	2.162E-01	4.261E-01	3.334E-01	2.174E-01	NOT IDENT.
RB-83	3.061E-02	6.860E-02	5.967E-02	3.500E-02	NOT IDENT.
RB-84	2.261E-02	7.184E-02	6.210E-02	3.665E-02	NOT IDENT.
KR-85	1.112E+01	7.601E+00	6.315E+00	3.878E+00	NOT IDENT.
SR-85	5.701E-02	3.897E-02	3.238E-02	1.988E-02	NOT IDENT.
RB-86	-6.689E-01	8.146E-01	6.481E-01	4.156E-01	NOT IDENT.
Y-88	3.695E-02	3.452E-02	3.419E-02	1.761E-02	NOT IDENT.
ZR-88	-2.512E-02	2.928E-02	2.406E-02	1.494E-02	NOT IDENT.
Y-91	-1.834E+01	2.258E+01	1.820E+01	1.152E+01	NOT IDENT.
NB-94	2.543E-02	3.280E-02	2.978E-02	1.674E-02	NOT IDENT.
NB-95	1.523E-02	5.304E-02	4.039E-02	2.706E-02	NOT IDENT.
NB-95M	-4.709E-02	1.110E-01	8.151E-02	5.664E-02	NOT IDENT.
ZR-95	4.902E-02	8.017E-02	7.117E-02	4.090E-02	NOT IDENT.
NB-97	-1.468E+05	1.056E+05	0.000E+00	5.387E+04	SHORT HLIF
ZR-97	1.545E+06	1.928E+06	0.000E+00	9.834E+05	SHORT HLIF
MO-99	-3.023E+00	1.275E+01	1.074E+01	6.503E+00	NOT IDENT.
TC-99M	4.808E+15	2.856E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.795E-03	2.761E-02	2.344E-02	1.409E-02	NOT IDENT.
RH-102	4.493E-03	2.752E-02	2.371E-02	1.404E-02	NOT IDENT.
RU-103	-1.677E-02	3.932E-02	3.221E-02	2.006E-02	FAIL ABUN
RH-106	1.026E-01	3.170E-01	2.829E-01	1.617E-01	FAIL ABUN
RU-106	1.026E-01	3.168E-01	2.829E-01	1.616E-01	FAIL ABUN
AG-108M	3.625E-03	3.044E-02	2.638E-02	1.553E-02	NOT IDENT.
AG-110M	-5.279E-02	3.793E-02	2.942E-02	1.935E-02	NOT IDENT.
IN-111	8.636E-02	9.625E-01	7.308E-01	4.911E-01	NOT IDENT.
IN-113M	-3.551E-02	4.169E-02	3.425E-02	2.127E-02	NOT IDENT.
SN-113	-3.551E-02	4.169E-02	3.425E-02	2.127E-02	NOT IDENT.
IN-114M	3.891E-02	1.698E-01	1.335E-01	8.663E-02	NOT IDENT.
CD-115	2.095E+00	1.052E+01	8.991E+00	5.368E+00	NOT IDENT.
SN-117M	-1.515E-02	4.213E-02	3.660E-02	2.149E-02	NOT IDENT.
SB-122	2.001E+00	2.087E+00	1.859E+00	1.065E+00	NOT IDENT.
I-123	-5.261E+05	4.387E+06	0.000E+00	2.238E+06	SHORT HLIF
TE-123M	-2.603E-03	2.171E-02	1.906E-02	1.108E-02	NOT IDENT.
I-124	3.102E-01	7.212E-01	5.732E-01	3.679E-01	NOT IDENT.
SB-124	-4.947E-03	7.587E-02	6.356E-02	3.871E-02	FAIL ABUN
SB-125	1.123E-02	8.027E-02	6.980E-02	4.095E-02	FAIL ABUN
TE-125M	4.868E+00	6.357E+00	5.921E+00	3.243E+00	NOT IDENT.
I-126	-2.619E-01	1.941E-01	1.510E-01	9.905E-02	NOT IDENT.
SB-126	4.946E-02	1.629E-01	1.258E-01	8.310E-02	FAIL ABUN
SB-127	-4.136E-01	1.383E+00	1.169E+00	7.054E-01	NOT IDENT.
XE-127	-1.146E-02	3.925E-02	3.341E-02	2.003E-02	NOT IDENT.
I-131	2.786E-03	9.970E-02	8.744E-02	5.087E-02	NOT IDENT.
TE-132	-3.200E-01	5.829E-01	4.812E-01	2.974E-01	NOT IDENT.
BA-133	3.557E-03	3.932E-02	3.062E-02	2.006E-02	FAIL ABUN
I-133	-1.878E+03	5.894E+03	0.000E+00	3.007E+03	SHORT HLIF
CS-134	9.971E-02	6.414E-02	4.756E-02	3.273E-02	FAIL ABUN
CS-135	1.891E-01	1.454E-01	1.182E-01	7.421E-02	NOT IDENT.
I-135	3.785E+15	6.233E+15	0.000E+00	3.180E+15	SHORT HLIF
CS-136	4.226E-02	1.206E-01	1.068E-01	6.156E-02	FAIL ABUN
BA-137M	-2.847E-02	4.151E-02	3.647E-02	2.118E-02	NOT IDENT.
CS-137	-3.009E-02	4.388E-02	3.855E-02	2.239E-02	NOT IDENT.
CE-139	-1.246E-02	2.344E-02	2.012E-02	1.196E-02	NOT IDENT.
BA-140	2.274E-02	2.599E-01	2.175E-01	1.326E-01	NOT IDENT.
LA-140	-1.889E-02	8.716E-02	6.905E-02	4.447E-02	FAIL ABUN
CE-141	8.099E-03	4.833E-02	4.329E-02	2.466E-02	NOT IDENT.

CE-143	3.991E+02	1.642E+02	0.000E+00	8.378E+01	SHORT HLIF
CE-144	-5.984E-02	1.507E-01	1.326E-01	7.690E-02	NOT IDENT.
PM-144	6.557E-02	3.691E-02	3.493E-02	1.883E-02	NOT IDENT.
PR-144	4.443E+00	2.501E+00	2.367E+00	1.276E+00	NOT IDENT.
PM-146	1.379E-02	4.132E-02	3.613E-02	2.108E-02	NOT IDENT.
ND-147	-3.276E-01	5.516E-01	4.405E-01	2.815E-01	FAIL ABUN
PM-149	-8.789E+01	8.464E+01	6.497E+01	4.318E+01	NOT IDENT.
EU-152	-5.228E-02	8.149E-02	6.887E-02	4.158E-02	FAIL ABUN
GD-153	1.989E-02	5.973E-02	4.090E-02	3.047E-02	FAIL ABUN
EU-154	3.913E-03	1.388E-01	1.173E-01	7.080E-02	NOT IDENT.
EU-155	1.046E-01	7.212E-02	6.831E-02	3.680E-02	FAIL ABUN
TB-160	-8.718E-02	1.495E-01	1.191E-01	7.629E-02	FAIL ABUN
HO-166M	2.800E-02	5.838E-02	5.208E-02	2.979E-02	FAIL ABUN
TM-171	-9.822E-01	1.171E+01	9.179E+00	5.976E+00	NOT IDENT.
LU-176	4.989E-03	1.958E-02	1.767E-02	9.987E-03	FAIL ABUN
LU-177	2.832E+00	1.413E+00	8.674E-01	7.209E-01	FAIL ABUN
LU-177M	-1.811E-01	1.588E-01	1.260E-01	8.100E-02	FAIL ABUN
HF-181	1.315E-02	3.904E-02	3.400E-02	1.992E-02	NOT IDENT.
W-181	-9.154E-02	1.442E-01	1.101E-01	7.358E-02	NOT IDENT.
TA-182	7.737E-03	2.195E-01	1.865E-01	1.120E-01	FAIL ABUN
RE-183	2.612E-02	8.621E-02	7.625E-02	4.399E-02	FAIL ABUN
RE-184	-1.570E-01	2.042E-01	1.643E-01	1.042E-01	NOT IDENT.
OS-185	-1.522E-02	3.907E-02	3.294E-02	1.993E-02	NOT IDENT.
RE-188	2.063E-01	1.372E-01	1.272E-01	6.998E-02	NOT IDENT.
W-188	7.181E-01	6.796E+00	5.415E+00	3.467E+00	FAIL ABUN
IR-192	1.170E-02	2.994E-02	2.710E-02	1.527E-02	FAIL ABUN
AU-195	3.655E-01	2.614E-01	1.395E-01	1.334E-01	FAIL ABUN
TL-200	-2.765E+02	3.962E+02	0.000E+00	2.021E+02	SHORT HLIF
TL-201	2.142E-01	5.397E+00	4.751E+00	2.754E+00	NOT IDENT.
TL-202	4.489E-02	6.809E-02	6.077E-02	3.474E-02	NOT IDENT.
HG-203	3.237E-03	3.700E-02	3.109E-02	1.888E-02	FAIL ABUN
BI-207	2.080E-02	5.685E-02	5.034E-02	2.900E-02	FAIL ABUN
TL-207	3.784E-02	6.467E-01	5.074E-01	3.299E-01	FAIL ABUN
PO-209	2.860E+00	6.968E+00	6.081E+00	3.555E+00	NOT IDENT.
PB-211	-3.558E-02	8.531E-01	7.368E-01	4.352E-01	NOT IDENT.
BI-212	1.499E+00	5.283E-01	3.680E-01	2.696E-01	FAIL ABUN
PO-215	3.784E-02	6.467E-01	5.074E-01	3.299E-01	FAIL ABUN
RN-219	-5.622E-02	3.822E-01	3.283E-01	1.950E-01	FAIL ABUN
RN-220	8.795E+00	2.379E+01	2.053E+01	1.214E+01	NOT IDENT.
RA-223	3.784E-02	6.467E-01	5.074E-01	3.299E-01	FAIL ABUN
AC-227	3.889E-01	3.228E-01	2.858E-01	1.647E-01	FAIL ABUN
TH-227	3.889E-01	3.248E-01	2.858E-01	1.657E-01	FAIL ABUN
PA-231	2.211E-01	1.482E+00	1.112E+00	7.562E-01	FAIL ABUN
TH-231	3.784E-02	6.467E-01	5.074E-01	3.299E-01	FAIL ABUN
U-231	5.189E-01	7.983E-01	5.569E-01	4.073E-01	FAIL ABUN
PA-233	8.684E-03	5.133E-02	4.606E-02	2.619E-02	FAIL ABUN
PA-234	-3.168E-01	3.598E-01	2.734E-01	1.836E-01	FAIL ABUN
PA-234M	-2.971E-01	5.348E+00	4.373E+00	2.728E+00	NOT IDENT.
U-235	3.470E-02	1.684E-01	1.485E-01	8.590E-02	FAIL ABUN
NP-236	-1.707E-02	6.096E-02	5.310E-02	3.110E-02	FAIL ABUN
NP-239	-1.025E-01	1.275E-01	1.112E-01	6.505E-02	FAIL ABUN
AM-241	-1.796E-03	4.851E-02	3.859E-02	2.475E-02	NOT IDENT.
CM-243	-2.842E-02	6.829E-02	5.508E-02	3.484E-02	FAIL ABUN
AM-246	6.978E-02	1.399E-01	1.254E-01	7.135E-02	NOT IDENT.
CM-247	-5.430E-03	3.333E-02	2.859E-02	1.701E-02	FAIL ABUN
CF-249	7.884E-03	3.688E-02	3.213E-02	1.882E-02	NOT IDENT.
CF-251	-1.590E-02	1.000E-01	8.685E-02	5.104E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	288.7149
46.50	288.7149
46.50	288.7149
48.70	282.6424
49.72	262.3026
51.35	326.5789
52.39	291.9467
52.97	268.5463
53.15	278.6216
53.44	275.6649
54.07	303.9154
56.28	334.4386
56.28	334.4432
57.37	0.0000
57.53	340.5805
57.53	340.5828
57.60	349.6104
57.98	359.0825
57.98	359.0825
59.32	405.9432
59.32	405.9432
59.40	388.4473
59.54	388.6568
59.72	387.4252
60.01	354.7838
61.10	381.9218
61.14	397.0777
61.30	397.3185
63.00	412.7737
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63.29	413.2163
63.58	413.6568
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65.20	426.0664
66.05	385.8629
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66.91	400.9206
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67.20	399.7896
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67.85	392.1947
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68.90	449.5313
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87.30	301.2024
87.30	301.2024
87.30	301.2024
87.30	301.2024
87.30	301.2024
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89.95	303.5033
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93.35	306.4036
94.00	306.9528
94.67	307.5131
94.67	307.5168
94.90	307.7104
94.90	307.7104
94.90	307.7104
94.90	307.7104
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95.87	255.4158
96.73	233.1979
97.43	233.6331
98.44	221.5303
98.44	221.5303
98.88	242.1822
99.55	242.6112
99.55	242.6112
99.86	242.8084
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100.10	242.9635
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103.76	294.3220
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105.31	265.2397
108.00	311.3836
109.28	284.4442

111.00	300.5332
111.00	300.5332
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112.95	286.9778
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116.30	233.3568
117.00	270.1748
117.00	270.1748
117.66	283.9406
121.11	231.4636
121.62	251.4899
121.78	265.9571
122.06	274.2158
122.32	288.7691
122.32	288.7691
122.32	288.7691
122.32	288.7691
123.07	282.9462
127.23	315.1092
129.76	286.6606
131.20	266.9069
133.02	268.4865
133.54	276.5228
135.34	250.7323
136.00	264.9713
136.25	260.4732
136.48	259.6688
140.51	272.0961
140.51	0.0000
142.18	282.3896
142.65	287.3513
143.76	281.3953
144.24	259.0546
144.24	259.0546
144.24	259.0546
144.24	259.0546
145.22	255.7800
145.44	276.6636
147.16	267.1719
152.43	269.8828
152.70	262.3604
153.22	280.8274
154.21	269.8262
154.21	269.8262
154.21	269.8262
154.21	269.8262
155.03	239.4659
156.02	281.3364
158.56	253.6180
159.00	0.0000
159.00	245.1015
160.31	248.6016
161.27	248.0611
162.32	231.9619
162.64	233.0702
163.35	248.0133
163.89	245.3214
165.85	259.9078
167.43	235.0614
171.28	239.6096
171.86	225.9729
172.10	226.0657
176.55	236.7734
176.60	236.7927
181.06	264.2250
184.41	247.9658
185.71	248.4892
186.00	248.6038
190.27	248.2652
192.34	256.2510
193.63	247.5261
197.04	245.7401
198.01	235.7675
198.60	226.6636
200.40	239.7415
201.83	245.4636
202.84	246.8798
205.31	224.2688

208.36	209.0043
208.81	209.1439
209.75	209.4314
209.75	209.4314
210.97	208.7516
215.65	181.5083
216.55	212.5651
218.09	244.9856
222.10	241.0183
223.80	199.7139
226.40	214.4416
227.00	214.6198
227.08	214.6441
227.20	218.9936
228.16	214.9599
228.18	214.9659
228.18	214.9659
231.56	0.0000
235.69	212.7933
236.00	212.8806
236.00	212.8806
238.63	191.7142
238.63	191.7142
238.63	191.7142
238.63	191.7142
239.00	191.8068
240.98	192.3070
241.98	192.5580
241.98	192.5580
241.98	192.5580
244.69	190.4758
245.39	167.4384
247.94	186.2844
248.90	178.7404
249.79	196.7267
252.40	175.0742
252.85	194.1428
252.85	194.1428
254.15	0.0000
256.20	140.0553
256.20	140.0553
260.50	158.8258
260.90	136.3638
262.80	157.0141
264.65	167.1040
268.24	136.4453
268.79	141.6557
269.46	160.5585
269.46	160.5585
269.46	160.5585
269.46	160.5585
271.23	174.5903
273.65	144.1930
276.40	185.9908
277.35	179.2991
277.60	179.3530
277.60	179.3530
278.00	179.4355
278.60	179.5625
279.20	179.6863
279.53	179.7561
280.46	171.2983
281.68	152.4800
283.67	147.6164
284.30	145.9849
285.00	162.3364
285.90	184.5554
286.10	184.5975
286.10	184.5975
287.40	148.8281
288.45	0.0000
290.67	156.8465
290.80	162.4708
291.72	185.0707
293.26	0.0000
293.70	158.7821
295.21	147.7896
295.21	147.7896

295.21	147.7896
295.96	154.9561
296.50	155.0474
297.23	155.1736
298.57	155.4019
299.80	147.1234
299.80	147.1234
300.09	147.1691
300.09	147.1691
300.09	147.1691
300.09	147.1691
300.12	147.1742
301.29	133.1927
302.84	130.5789
303.76	136.3922
303.91	136.4133
304.40	140.7511
304.40	140.7511
304.84	133.7067
306.84	125.6190
308.46	125.8385
311.98	126.3096
316.51	141.3134
318.01	152.3543
319.02	155.2215
319.41	156.1873
320.08	140.9370
323.87	149.4707
323.87	149.4707
323.87	149.4707
323.87	149.4707
325.23	151.1326
328.77	163.3434
333.44	146.5308
334.20	140.7773
334.20	140.7773
334.30	140.7914
338.28	148.1590
338.28	148.1590
338.28	148.1590
338.28	148.1590
338.32	148.1639
338.32	148.1639
338.32	148.1639
340.50	109.1952
340.57	109.2024
344.27	136.9998
345.85	120.7870
350.59	0.0000
351.07	123.7401
351.92	120.2978
351.92	120.2978
351.92	120.2978
355.39	0.0000
356.01	109.3449
364.48	117.9562
366.43	102.0987
367.43	118.2785
367.94	0.0000
369.80	128.9672
374.96	109.5690
383.85	116.2107
387.95	116.6335
388.63	113.8102
391.69	144.0959
391.69	144.0959
392.90	148.1207
398.62	136.2082
400.65	142.2930
401.10	119.9239
401.81	128.7773
402.60	122.0303
404.84	124.2211
410.95	96.3521
411.60	116.0788
413.65	131.0578
414.70	114.4070
415.30	113.4769

415.76	107.5979
417.63	0.0000
418.52	100.9183
423.70	110.2920
427.08	106.6114
427.89	96.7114
432.53	116.0903
433.93	107.2025
439.47	104.6586
439.56	109.6985
439.89	109.7268
443.98	113.1125
444.90	95.0026
445.03	91.9803
445.03	91.9803
445.03	91.9803
445.03	91.9803
453.90	102.7954
463.38	98.4170
468.07	83.9520
473.00	96.0340
475.06	97.2158
475.35	99.3062
476.78	97.3405
477.59	104.6510
477.96	106.7531
482.03	87.3223
484.57	107.2718
487.03	98.0749
490.36	0.0000
492.35	102.6431
497.08	102.9915
507.63	0.0000
510.53	0.0000
510.84	92.3240
511.00	92.3346
511.85	92.3890
511.85	92.3890
513.99	85.0824
513.99	85.0824
520.41	90.8028
520.65	88.6789
527.90	88.0459
528.96	0.0000
529.64	93.5261
529.87	0.0000
531.02	98.9910
537.32	88.6064
543.00	70.5026
546.56	0.0000
549.76	71.9075
552.65	70.9509
555.20	90.7509
563.23	97.8163
563.90	82.4661
568.70	97.0557
569.32	86.0599
569.50	86.0718
569.67	86.0814
573.80	119.4994
574.00	119.5159
574.64	110.7086
578.91	76.3712
579.30	0.0000
583.14	93.4900
585.48	85.6008
591.81	101.8279
592.07	101.8418
593.00	91.8221
595.88	88.6194
600.56	76.4979
602.52	0.0000
602.71	88.6128
602.71	88.6128
603.60	85.6554
604.41	105.2421
604.70	105.2620
609.31	87.4578

609.31	87.4578
609.31	87.4578
609.31	87.4578
610.33	75.4415
612.46	72.5156
614.37	71.0871
618.01	88.2165
621.84	84.7694
621.84	84.7694
631.29	73.3262
633.02	66.9761
633.10	66.9796
634.78	65.2087
635.90	79.9546
636.97	77.2447
645.85	75.7919
646.12	75.8040
656.30	90.1868
657.75	120.9673
657.90	0.0000
661.65	96.0545
661.65	96.0545
664.57	0.0000
666.33	119.6781
666.33	119.6781
675.00	77.0372
677.61	85.6147
685.20	87.8596
692.80	96.7581
695.00	84.5239
696.49	71.2848
696.49	71.2848
697.00	80.8123
697.49	94.1467
698.33	97.0444
698.50	98.0034
699.00	101.8381
702.63	72.4728
706.10	82.1577
706.58	0.0000
706.67	87.9166
709.31	75.5997
711.68	68.9854
713.82	78.6547
717.42	78.8029
720.50	68.9827
721.93	0.0000
722.20	70.6496
722.78	72.2772
722.78	72.2772
722.89	72.2809
722.95	75.4953
723.30	75.5087
724.18	78.7577
727.18	88.5402
733.00	91.3416
735.90	89.2575
739.58	92.3420
742.81	68.1526
744.21	78.9177
747.13	73.1799
751.79	96.8223
752.31	93.9117
753.82	78.3203
755.35	75.4397
756.15	79.3903
756.87	87.2639
763.93	85.2723
765.79	95.1987
766.42	96.8689
766.84	95.2483
776.49	62.6978
778.00	74.3024
778.57	73.7720
778.89	73.7847
783.80	75.5046
785.46	69.5984
792.07	66.4958

795.84	58.2878
796.30	64.9635
798.80	80.0488
801.93	82.6732
805.60	76.2913
810.29	88.5328
810.76	85.5333
815.85	76.6587
817.79	77.7369
818.51	69.6839
819.60	60.6255
826.30	68.9214
828.27	0.0000
831.60	99.5695
831.96	99.5863
834.83	86.4879
836.80	0.0000
846.75	65.4734
848.13	60.3958
856.28	0.0000
856.80	41.1055
860.37	50.4344
867.32	73.9902
867.82	63.6811
871.10	68.2542
873.19	58.9997
874.81	64.2206
875.33	0.0000
876.40	70.4853
879.36	73.6902
880.27	73.7197
880.51	71.6498
881.50	58.1752
883.24	48.8623
884.67	61.3767
889.25	56.2860
896.60	47.0533
898.02	52.3132
899.00	64.8957
903.28	55.0519
911.07	84.1660
911.07	84.1660
911.07	84.1660
919.63	60.1847
920.93	58.1045
925.00	48.6796
925.24	48.6841
926.50	44.4743
935.52	60.5834
937.48	85.0977
944.10	67.1959
946.00	88.5968
949.00	59.8500
962.29	91.3335
964.01	87.8116
966.15	80.7129
968.20	90.4723
969.11	64.6465
969.11	64.6465
969.11	64.6465
977.42	61.6173
980.50	63.8571
983.50	57.4318
989.30	60.8207
996.32	70.7891
1001.03	74.1924
1001.68	67.6626
1004.76	73.2076
1021.30	0.0000
1024.50	0.0000
1034.80	70.9186
1036.00	65.4242
1037.82	58.0909
1038.57	64.5626
1038.76	0.0000
1045.16	73.9681
1046.59	70.3099
1048.07	67.5702

1050.47	66.7031
1050.47	66.7031
1062.04	61.4077
1063.62	63.3045
1076.63	69.2214
1077.35	61.7542
1078.86	49.6163
1085.78	56.3110
1099.22	60.3542
1112.02	59.9412
1112.84	59.3849
1115.52	66.6679
1120.29	57.9570
1120.29	57.9570
1120.29	57.9570
1120.29	57.9570
1120.51	63.6631
1121.28	58.6557
1124.00	0.0000
1129.67	67.6805
1131.51	0.0000
1147.95	0.0000
1167.94	91.7529
1173.22	94.8219
1175.09	85.1999
1177.93	85.2786
1189.05	99.2151
1204.90	99.7380
1205.75	0.0000
1213.00	88.2385
1221.42	83.5647
1230.97	95.6580
1235.34	90.8545
1236.41	0.0000
1238.25	83.0327
1246.25	70.3615
1260.41	0.0000
1271.85	62.9410
1274.45	62.9923
1274.54	65.9919
1291.56	59.3073
1298.22	0.0000
1312.09	43.4969
1325.50	35.5483
1325.50	35.5483
1332.49	29.5168
1333.61	31.5626
1360.21	34.8923
1362.66	0.0000
1365.15	28.7770
1368.21	42.1745
1368.53	0.0000
1376.25	45.3678
1384.27	34.1051
1394.10	29.0208
1395.20	26.9564
1407.95	23.9331
1434.06	24.1109
1436.60	26.2258
1457.56	0.0000
1460.81	23.2354
1489.15	20.2231
1509.49	18.1939
1596.49	24.0876
1620.62	24.5500
1678.03	0.0000
1691.02	16.3336
1691.02	16.3336
1706.46	0.0000
1750.46	0.0000
1764.49	12.7103
1764.49	12.7103
1764.49	12.7103
1764.49	12.7103
1770.23	10.2795
1771.40	8.5687
1791.20	0.0000
1808.65	13.8276

1836.01	7.9506

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691003

Total Uranium Activity	5.2398E+00	ug/g
Total Uranium Counting Unc.	2.3001E+00	ug/g
Total Uranium Tpu	1.1735E-06	ug/g
Total Uranium Mda	1.1182E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691003         *
*   ANALYST       : MJH1                      DETECTOR   : GAM25              *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  9-FEB-2010 14:46:29.12    SAMPLE ALQT:  135.050 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.065E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.449E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.291E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.598E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 16:53:37.69

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691004.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 14:53:04.
Sample ID         : G245691004           Sample quantity  : 1.29920E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:09.89  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.50*	117	450	1.21	92.64	88	9	1.63E-02	35.4	
2	0	63.41*	204	583	0.88	126.45	123	8	2.83E-02	22.4	
3	2	74.83*	602	478	1.03	149.30	144	14	8.37E-02	7.0	3.04E+00
4	2	77.15*	994	434	0.92	153.95	144	14	1.38E-01	4.7	
5	5	87.24	366	404	1.10	174.13	163	29	5.08E-02	10.4	2.75E+00
6	5	89.97	235	433	1.30	179.60	163	29	3.27E-02	16.9	
7	5	92.74*	417	349	1.14	185.15	163	29	5.79E-02	9.7	
8	0	129.23	79	293	1.48	258.15	254	7	1.10E-02	37.4	
9	0	185.98*	196	256	1.21	371.70	368	9	2.72E-02	17.1	
10	0	209.18	64	262	0.99	418.11	415	9	8.94E-03	47.0	
11	5	238.54*	1181	119	1.02	476.85	470	20	1.64E-01	3.3	2.62E+00
12	5	241.38	319	183	1.82	482.53	470	20	4.43E-02	13.7	
13	0	270.43	72	190	1.14	540.65	536	9	1.00E-02	36.4	
14	0	294.95*	376	143	1.09	589.72	584	11	5.22E-02	8.1	
15	0	299.66	90	137	1.22	599.14	596	9	1.25E-02	25.4	
16	0	327.79	50	143	1.68	655.43	652	9	7.00E-03	44.9	
17	0	337.87*	198	165	1.06	675.59	670	11	2.74E-02	14.6	
18	0	351.80*	527	133	1.16	703.47	699	10	7.32E-02	6.1	
19	0	463.09	54	99	1.31	926.17	920	11	7.50E-03	38.2	
20	0	510.89*	163	116	2.22	1021.82	1012	22	2.27E-02	20.1	
21	0	582.77*	334	103	1.29	1165.65	1160	13	4.64E-02	8.4	
22	0	608.88*	351	98	1.47	1217.90	1211	15	4.88E-02	8.3	
23	0	661.75*	15	76	1.42	1323.70	1319	10	2.13E-03	110.9	
24	0	726.72	83	60	1.18	1453.71	1447	14	1.15E-02	23.1	
25	0	768.42	39	89	1.24	1537.15	1531	13	5.42E-03	52.1	
26	0	910.43*	273	40	1.62	1821.37	1813	16	3.79E-02	8.1	
27	0	964.22	40	33	1.23	1929.01	1924	9	5.53E-03	31.1	
28	0	968.15*	114	44	1.30	1936.89	1933	10	1.58E-02	14.4	
29	0	1119.74	96	46	1.53	2240.29	2236	13	1.33E-02	18.1	
30	0	1459.52*	876	17	2.00	2920.40	2910	18	1.22E-01	3.6	
31	0	1763.31*	56	10	2.12	3528.54	3522	13	7.82E-03	18.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 16:53:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 14:53:04
Sample ID : G245691004 Sample quantity : 129.92 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:09.89 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.046E+01	3.475E+00	7.751E-01	6.882E-02	39.300
CD-109	+	88.03	*	4.356E+00	1.000E+00	9.963E-01	9.726E-02	4.373
SN-126	+	64.28		9.053E-01	4.299E-01	4.075E-01	6.505E-02	2.221
	+	86.94		1.780E+00	8.280E-01	4.057E-01	1.688E-01	4.387
	+	87.57	*	4.282E-01	9.834E-02	9.778E-02	9.542E-03	4.379
BA-137M	+	661.65	*	3.079E-02	6.838E-02	8.161E-02	6.875E-03	0.377
CS-137	+	661.65	*	3.255E-02	7.228E-02	8.627E-02	7.282E-03	0.377
TL-208		277.35		3.245E-01	3.967E-01	6.980E-01	8.886E-02	0.465
	+	510.84		1.063E+00	4.464E-01	2.417E-01	2.953E-02	4.397
	+	583.14	*	6.324E-01	1.220E-01	7.516E-02	7.109E-03	8.413
		860.37		5.761E-01	4.044E-01	7.456E-01	7.015E-02	0.773
BI-210	+	46.50	*	1.326E+00	9.491E-01	8.500E-01	9.221E-02	1.560
PB-210	+	46.50	*	1.326E+00	9.491E-01	8.500E-01	9.221E-02	1.560
PO-210	+	46.50	*	1.326E+00	9.476E-01	8.500E-01	8.588E-02	1.560
BI-211		72.87		2.371E+00	2.229E+00	3.514E+00	3.436E-01	0.675
	+	351.07	*	4.049E+00	6.242E-01	4.080E-01	3.808E-02	9.923
PB-212	+	74.81		2.393E+00	4.665E-01	3.770E-01	5.094E-02	6.349
	+	77.11		2.353E+00	3.195E-01	2.251E-01	2.194E-02	10.454
	+	87.30		1.980E+00	4.960E-01	4.519E-01	6.313E-02	4.382
	+	238.63	*	1.901E+00	2.300E-01	9.037E-02	9.111E-03	21.039
	+	300.09		2.286E+00	1.188E+00	1.254E+00	1.366E-01	1.822
PO-212	+	74.81		2.393E+00	4.665E-01	3.770E-01	5.094E-02	6.349
	+	77.11		2.353E+00	3.195E-01	2.251E-01	2.194E-02	10.454
	+	87.30		1.980E+00	4.960E-01	4.519E-01	6.313E-02	4.382
		115.19		9.748E-01	3.642E+00	6.101E+00	6.869E-01	0.160
	+	238.63	*	1.901E+00	2.300E-01	9.037E-02	9.111E-03	21.039
	+	300.09		2.286E+00	1.188E+00	1.254E+00	1.366E-01	1.822
BI-214	+	609.31	*	1.262E+00	2.451E-01	1.243E-01	1.264E-02	10.152
	+	1120.29		1.879E+00	7.078E-01	6.325E-01	6.762E-02	2.971
	+	1764.49		1.532E+00	5.672E-01	3.350E-01	2.833E-02	4.574
PB-214	+	74.81		4.124E+00	7.686E-01	6.495E-01	7.959E-02	6.349
	+	77.11		4.034E+00	6.281E-01	3.859E-01	4.774E-02	10.454
	+	87.30		3.392E+00	8.218E-01	7.741E-01	9.626E-02	4.382
	+	241.98		3.085E+00	9.076E-01	5.449E-01	5.800E-02	5.662

Sample ID : G245691004 Acquisition date : 9-FEB-2010 14:53:04

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.669E+00	3.290E-01	2.151E-01	2.389E-02	7.762
	+	351.92	*	1.408E+00	2.292E-01	1.291E-01	1.380E-02	10.906
PO-214	+	74.81		4.124E+00	7.686E-01	6.495E-01	7.959E-02	6.349
	+	77.11		4.034E+00	6.281E-01	3.859E-01	4.774E-02	10.454
	+	87.30		3.392E+00	8.218E-01	7.741E-01	9.626E-02	4.382
	+	241.98		3.085E+00	9.076E-01	5.449E-01	5.800E-02	5.662
	+	295.21		1.669E+00	3.290E-01	2.151E-01	2.389E-02	7.762
	+	351.92	*	1.408E+00	2.292E-01	1.291E-01	1.380E-02	10.906
PO-216	+	74.81		2.393E+00	4.665E-01	3.770E-01	5.094E-02	6.349
	+	77.11		2.353E+00	3.195E-01	2.251E-01	2.194E-02	10.454
	+	87.30		1.980E+00	4.960E-01	4.519E-01	6.313E-02	4.382
	+	238.63	*	1.901E+00	2.300E-01	9.037E-02	9.111E-03	21.039
	+	300.09		2.286E+00	1.188E+00	1.254E+00	1.366E-01	1.822
PO-218	+	74.81		4.124E+00	7.686E-01	6.495E-01	7.959E-02	6.349
	+	77.11		4.034E+00	6.281E-01	3.859E-01	4.774E-02	10.454
	+	87.30		3.392E+00	8.218E-01	7.741E-01	9.626E-02	4.382
	+	241.98		3.085E+00	9.076E-01	5.449E-01	5.800E-02	5.662
	+	295.21		1.669E+00	3.290E-01	2.151E-01	2.389E-02	7.762
	+	351.92	*	1.408E+00	2.292E-01	1.291E-01	1.380E-02	10.906
RA-224	+	240.98	*	5.849E+00	1.689E+00	1.029E+00	9.309E-02	5.683
RA-226	+	609.31	*	1.262E+00	2.451E-01	1.243E-01	1.264E-02	10.152
	+	1120.29		1.879E+00	7.078E-01	6.325E-01	6.762E-02	2.971
	+	1764.49		1.532E+00	5.672E-01	3.350E-01	2.833E-02	4.574
AC-228	+	338.32		1.661E+00	8.410E-01	4.384E-01	1.812E-01	3.789
	+	911.07	*	2.405E+00	4.757E-01	2.440E-01	2.767E-02	9.858
	+	969.11		1.775E+00	6.589E-01	5.133E-01	1.200E-01	3.459
RA-228	+	338.32		1.661E+00	8.410E-01	4.384E-01	1.812E-01	3.789
	+	911.07	*	2.405E+00	4.757E-01	2.440E-01	2.767E-02	9.858
	+	969.11		1.775E+00	6.589E-01	5.133E-01	1.200E-01	3.459
TH-228	+	74.81		2.430E+00	4.165E-01	3.827E-01	3.760E-02	6.349
	+	77.11		2.389E+00	3.244E-01	2.285E-01	2.228E-02	10.454
	+	87.30		2.010E+00	4.617E-01	4.587E-01	4.476E-02	4.382
	+	238.63	*	1.930E+00	2.335E-01	9.175E-02	9.249E-03	21.039
	+	300.09		2.321E+00	1.813E+00	1.273E+00	7.559E-01	1.822
TH-230	+	609.31	*	1.262E+00	2.451E-01	1.243E-01	1.264E-02	10.152
	+	1120.29		1.879E+00	7.078E-01	6.325E-01	6.762E-02	2.971
	+	1764.49		1.532E+00	5.671E-01	3.350E-01	2.832E-02	4.574
TH-232	+	338.32		1.661E+00	5.080E-01	4.384E-01	3.950E-02	3.789
	+	911.07	*	2.405E+00	4.757E-01	2.440E-01	2.767E-02	9.858
	+	969.11		1.775E+00	6.589E-01	5.133E-01	1.200E-01	3.459
TH-234	+	63.29	*	2.287E+00	1.108E+00	1.052E+00	1.964E-01	2.173
	+	92.38		3.375E+00	9.116E-01	6.791E-01	1.274E-01	4.970
U-234	+	609.31	*	1.262E+00	2.451E-01	1.243E-01	1.264E-02	10.152
	+	1120.29		1.879E+00	7.078E-01	6.325E-01	6.762E-02	2.971
	+	1764.49		1.532E+00	5.671E-01	3.350E-01	2.832E-02	4.574
NP-237	+	86.50	*	1.257E+00	3.882E-01	2.862E-01	6.533E-02	4.393
		95.87		-3.805E-01	8.894E-01	1.296E+00	3.266E-01	-0.294
U-238	+	63.29	*	2.287E+00	1.108E+00	1.052E+00	1.964E-01	2.173
	+	92.38		3.375E+00	7.369E-01	6.791E-01	6.769E-02	4.970

Sample ID : G245691004 Acquisition date : 9-FEB-2010 14:53:04

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	74.67	*	3.880E-01	6.636E-02	6.110E-02	5.965E-03	6.351
	+	86.72		4.715E+01	1.083E+01	1.074E+01	1.048E+00	4.390
		117.66		-3.847E+00	3.882E+00	6.109E+00	6.975E-01	-0.630
		142.18		3.622E+00	1.872E+01	3.097E+01	3.194E+00	0.117
ANH-511	+	511.00	*	2.296E-01	9.450E-02	5.224E-02	4.665E-03	4.396

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.739E-02	3.791E-01	6.239E-01	5.936E-02	0.028
NA-22		1274.54	*	-3.289E-02	6.514E-02	9.952E-02	8.384E-03	-0.330
NA-24		1368.53	*	-5.077E-01	6.514E-02	Half-Life too short		
AL-26		1129.67		-2.568E+00	2.225E+00	3.087E+00	2.580E-01	-0.832
		1808.65	*	-2.457E-02	3.441E-02	4.427E-02	3.711E-03	-0.555
TI-44		67.85		-2.645E-03	2.714E-02	4.384E-02	4.318E-03	-0.060
	+	78.38	*	4.342E-01	5.896E-02	6.474E-02	6.308E-03	6.708
SC-46		889.25	*	-2.080E-03	5.449E-02	8.985E-02	7.866E-03	-0.023
	+	1120.51		3.217E-01	1.193E-01	1.776E-01	1.490E-02	1.811
V-48		944.10		-2.349E-01	1.188E+00	1.916E+00	1.677E-01	-0.123
		983.50	*	6.751E-02	9.307E-02	1.642E-01	1.432E-02	0.411
		1312.09		-2.571E-02	1.010E-01	1.640E-01	1.392E-02	-0.157
CR-51		320.08	*	-1.018E-02	3.916E-01	6.579E-01	6.283E-02	-0.015
MN-52		744.21		1.191E-01	3.190E-01	5.516E-01	4.795E-02	0.216
		848.13		-2.984E-01	8.446E+00	1.398E+01	1.229E+00	-0.021
		935.52		-4.472E-02	3.332E-01	5.416E-01	4.740E-02	-0.083
		1246.25		-8.081E+00	1.034E+01	1.516E+01	1.267E+00	-0.533
		1333.61		-1.813E+00	6.800E+00	1.102E+01	9.390E-01	-0.165
		1434.06	*	-2.179E-02	3.229E-01	5.325E-01	4.591E-02	-0.041
MN-54		834.83	*	3.527E-02	5.375E-02	9.398E-02	8.264E-03	0.375
CO-56		846.75	*	4.915E-02	4.656E-02	8.538E-02	7.505E-03	0.576
		977.42		3.333E+00	4.302E+00	7.569E+00	6.607E-01	0.440
		1037.82		-1.766E-01	4.153E-01	6.457E-01	5.871E-02	-0.273
		1175.09		-1.049E+00	3.370E+00	5.282E+00	4.318E-01	-0.199
		1238.25		9.341E-02	1.442E-01	2.440E-01	2.097E-02	0.383
		1360.21		-7.521E-01	1.242E+00	1.889E+00	1.617E-01	-0.398
		1771.40		-7.988E-03	2.216E-01	3.585E-01	3.027E-02	-0.022
CO-57		122.06	*	1.348E-02	2.558E-02	4.319E-02	5.060E-03	0.312
		136.48		4.512E-02	2.129E-01	3.534E-01	3.978E-02	0.128
CO-58		810.76	*	1.502E-02	4.865E-02	8.352E-02	7.355E-03	0.180
FE-59		142.65		2.524E+00	2.944E+00	4.900E+00	5.036E-01	0.515
		192.34		1.310E-01	1.014E+00	1.648E+00	2.214E-01	0.079
		1099.22	*	1.462E-02	1.275E-01	2.100E-01	1.927E-02	0.070
		1291.56		-6.319E-02	1.720E-01	2.628E-01	2.532E-02	-0.240
CO-60		1173.22		-1.365E-02	6.626E-02	1.050E-01	8.575E-03	-0.130
		1332.49	*	-3.149E-02	5.225E-02	8.069E-02	6.877E-03	-0.390
ZN-65		1115.52	*	-2.595E-02	1.503E-01	2.058E-01	1.732E-02	-0.126
GE-68		1077.35	*	9.128E-01	1.731E+00	2.975E+00	2.539E-01	0.307
AS-73		53.44	*	5.110E-02	2.407E-01	4.080E-01	4.082E-02	0.125

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-74		595.88	*	-5.191E-02	1.142E-01	1.761E-01	1.552E-02	-0.295
		634.78		-4.511E-02	4.403E-01	6.994E-01	6.024E-02	-0.064
SE-75		66.05		-8.809E-01	2.742E+00	4.128E+00	4.748E-01	-0.213
		96.73		-6.267E-01	7.651E-01	1.089E+00	1.597E-01	-0.576
		121.11		6.739E-02	1.379E-01	2.324E-01	3.180E-02	0.290
		136.00		-2.599E-02	4.057E-02	6.457E-02	6.983E-03	-0.402
		198.60		6.710E-01	1.915E+00	3.097E+00	2.984E-01	0.217
		264.65	*	-4.480E-02	5.511E-02	7.769E-02	7.138E-03	-0.577
		279.53		-9.530E-02	1.129E-01	1.817E-01	1.723E-02	-0.525
		303.91		6.727E-01	2.446E+00	3.725E+00	4.431E-01	0.181
		400.65		7.768E-02	2.974E-01	5.021E-01	5.527E-02	0.155
BR-77	+	87.88		9.421E+02	2.164E+02	3.109E+02	3.035E+01	3.030
		200.40		5.360E+01	1.678E+02	2.749E+02	2.397E+01	0.195
	+	239.00		3.056E+02	3.434E+01	4.542E+01	4.102E+00	6.729
		249.79		-6.506E+01	7.468E+01	1.115E+02	1.014E+01	-0.583
		281.68		-2.790E+00	9.257E+01	1.567E+02	1.439E+01	-0.018
		297.23		1.651E+02	7.582E+01	1.072E+02	9.838E+00	1.540
		303.76		6.478E+01	2.089E+02	3.192E+02	2.927E+01	0.203
		439.47		1.030E+02	1.723E+02	2.961E+02	2.580E+01	0.348
		484.57		-7.240E+01	2.879E+02	4.620E+02	4.105E+01	-0.157
		520.65	*	-6.137E+00	1.310E+01	1.963E+01	1.755E+00	-0.313
		574.64		-7.019E+01	2.533E+02	3.989E+02	3.542E+01	-0.176
		578.91		-8.263E+01	1.215E+02	1.559E+02	1.383E+01	-0.530
		585.48		4.388E+02	2.698E+02	4.392E+02	3.885E+01	0.999
		755.35		2.500E+02	2.318E+02	4.195E+02	3.656E+01	0.596
		817.79		1.503E+00	1.649E+02	2.749E+02	2.416E+01	0.005
SR-82		698.33		-8.214E+00	4.214E+01	6.985E+01	5.981E+00	-0.118
		776.49	*	-3.995E-01	5.171E-01	8.034E-01	7.031E-02	-0.497
		1395.20		-1.027E+01	1.348E+01	1.972E+01	1.694E+00	-0.521
RB-83		520.41	*	-4.896E-02	8.584E-02	1.272E-01	1.137E-02	-0.385
		529.64		6.344E-02	1.310E-01	2.217E-01	1.982E-02	0.286
		552.65		-8.591E-02	2.481E-01	3.897E-01	3.477E-02	-0.220
RB-84		881.50	*	-3.652E-02	9.247E-02	1.468E-01	1.287E-02	-0.249
KR-85		513.99	*	1.009E+01	8.334E+00	1.479E+01	1.321E+00	0.682
SR-85		513.99	*	5.173E-02	4.273E-02	7.583E-02	6.775E-03	0.682
RB-86		1076.63	*	-1.744E-01	1.166E+00	1.872E+00	1.598E-01	-0.093
Y-88		898.02		4.497E-03	5.252E-02	8.723E-02	7.662E-03	0.052
		1836.01	*	3.791E-02	3.698E-02	7.521E-02	6.272E-03	0.504
ZR-88		392.90	*	2.238E-02	3.448E-02	5.978E-02	5.037E-03	0.374
Y-91		1204.90	*	1.702E+01	2.662E+01	4.563E+01	3.766E+00	0.373
NB-94		702.63	*	-2.997E-03	4.107E-02	6.876E-02	5.898E-03	-0.044
		871.10		1.917E-02	4.210E-02	7.308E-02	6.413E-03	0.262
NB-95		765.79	*	7.776E-02	5.881E-02	9.869E-02	8.620E-03	0.788
NB-95M		235.69	*	8.684E-02	1.444E-01	2.138E-01	2.183E-02	0.406
ZR-95		724.18		1.237E-01	1.368E-01	2.200E-01	2.065E-02	0.562
		756.15	*	8.454E-02	1.005E-01	1.789E-01	1.715E-02	0.472
NB-97		657.90	*	9.592E-02	1.005E-01	Half-Life too short		
		1024.50		3.090E+00	1.005E-01	Half-Life too short		
ZR-97		254.15		6.799E+00	1.005E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		355.39		1.331E+00	1.005E-01	Half-Life too short		
		507.63	*	2.830E+00	1.005E-01	Half-Life too short		
		602.52		-7.601E+00	1.005E-01	Half-Life too short		
		1021.30		-8.469E+00	1.005E-01	Half-Life too short		
		1147.95		-4.627E+00	1.005E-01	Half-Life too short		
		1362.66		5.654E+00	1.005E-01	Half-Life too short		
		1750.46		-7.276E-01	1.005E-01	Half-Life too short		
MO-99		140.51		-5.420E+00	2.853E+01	4.586E+01	1.298E+01	-0.118
		181.06		3.414E+00	1.966E+01	3.061E+01	5.582E+00	0.112
		366.43		8.217E+00	9.060E+01	1.521E+02	1.332E+01	0.054
		739.58	*	-1.519E+00	1.505E+01	2.504E+01	3.810E+00	-0.061
		778.00		-6.343E+01	4.678E+01	6.795E+01	5.948E+00	-0.934
TC-99M		140.51	*	-7.944E+09	4.678E+01	Half-Life too short		
RH-101		127.23		1.709E-02	3.628E-02	5.497E-02	6.252E-03	0.311
		198.01	*	-1.833E-03	3.491E-02	5.529E-02	4.807E-03	-0.033
		325.23		5.578E-02	2.637E-01	3.979E-01	3.617E-02	0.140
RH-102		418.52		-1.652E-01	3.299E-01	5.247E-01	4.512E-02	-0.315
		475.06	*	-3.001E-02	3.504E-02	5.318E-02	4.711E-03	-0.564
		631.29		-1.801E-02	6.622E-02	1.033E-01	8.920E-03	-0.174
		697.49		4.845E-02	9.723E-02	1.702E-01	1.457E-02	0.285
		766.84		3.460E-01	1.603E-01	2.839E-01	2.480E-02	1.219
		1046.59		-9.788E-02	1.476E-01	2.216E-01	1.909E-02	-0.442
		1112.84		3.014E-01	3.194E-01	5.433E-01	4.575E-02	0.555
RU-103		497.08	*	4.202E-02	4.772E-02	8.313E-02	1.192E-02	0.506
	+	610.33		1.363E+01	3.209E+00	3.470E+00	5.812E-01	3.927
RH-106	+	511.85		1.147E+00	4.720E-01	4.971E-01	4.440E-02	2.307
		621.84	*	4.863E-01	4.043E-01	7.138E-01	9.565E-02	0.681
		1050.47		2.592E-01	2.903E+00	4.790E+00	4.122E-01	0.054
RU-106	+	511.85		1.147E+00	4.720E-01	4.971E-01	4.440E-02	2.307
		621.84	*	4.863E-01	4.013E-01	7.138E-01	6.201E-02	0.681
		1050.47		2.592E-01	2.903E+00	4.790E+00	4.122E-01	0.054
AG-108M		433.93	*	-2.228E-02	3.929E-02	6.197E-02	5.593E-03	-0.360
		614.37		8.186E-03	5.348E-02	7.664E-02	6.945E-03	0.107
		722.95		1.580E-02	5.831E-02	8.820E-02	7.917E-03	0.179
AG-110M		657.75	*	5.103E-02	5.521E-02	8.542E-02	7.445E-03	0.597
		677.61		-3.729E-02	4.042E-01	6.396E-01	5.587E-02	-0.058
		706.67		-5.609E-02	2.812E-01	4.660E-01	4.114E-02	-0.120
		763.93		-4.808E-03	2.067E-01	3.001E-01	2.692E-02	-0.016
		884.67		-5.649E-03	6.897E-02	1.133E-01	1.024E-02	-0.050
		937.48		-6.873E-02	1.498E-01	2.349E-01	2.128E-02	-0.293
		1384.27		-1.243E-01	1.776E-01	2.603E-01	2.298E-02	-0.477
IN-111		171.28		-2.594E-01	1.026E+00	1.644E+00	1.381E-01	-0.158
		245.39	*	-7.276E-01	1.306E+00	1.756E+00	1.593E-01	-0.414
IN-113M		391.69	*	-1.558E-02	5.104E-02	8.295E-02	7.207E-03	-0.188
SN-113		391.69	*	-1.558E-02	5.104E-02	8.295E-02	7.207E-03	-0.188
IN-114M		190.27	*	7.029E-02	2.144E-01	3.157E-01	2.719E-02	0.223
CD-115		260.90		-4.404E+01	1.492E+02	2.317E+02	2.117E+01	-0.190
		492.35		-1.294E+00	4.341E+01	7.083E+01	6.305E+00	-0.018
		527.90	*	3.973E+00	1.354E+01	2.257E+01	2.018E+00	0.176

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-117M		156.02		-1.710E+00	2.379E+00	3.739E+00	3.443E-01	-0.457
		158.56	*	5.256E-02	5.752E-02	9.766E-02	8.778E-03	0.538
SB-122		563.90	*	-3.364E-01	2.528E+00	4.045E+00	3.602E-01	-0.083
		692.80		6.800E+00	5.412E+01	9.220E+01	7.878E+00	0.074
I-123		159.00	*	3.660E+00	5.412E+01	Half-Life too short		
		528.96		4.525E+02	5.412E+01	Half-Life too short		
TE-123M		159.00	*	1.801E-02	3.006E-02	5.037E-02	4.534E-03	0.357
I-124		602.71	*	-5.519E-01	9.081E-01	1.169E+00	1.027E-01	-0.472
		722.78		-7.781E-02	6.263E+00	9.157E+00	7.910E-01	-0.008
		1325.50		-7.780E+00	4.741E+01	7.790E+01	6.630E+00	-0.100
		1376.25		5.335E+01	4.128E+01	7.876E+01	6.753E+00	0.677
		1509.49		9.601E+00	1.849E+01	3.322E+01	2.873E+00	0.289
		1691.02		2.214E+00	3.597E+00	6.858E+00	5.866E-01	0.323
SB-124		602.71		-3.206E-02	5.275E-02	6.794E-02	5.967E-03	-0.472
		645.85		3.152E-01	6.452E-01	1.082E+00	9.807E-02	0.291
		709.31		2.522E+00	3.866E+00	6.659E+00	5.726E-01	0.379
		713.82		-9.177E-01	2.180E+00	3.536E+00	4.255E-01	-0.260
		722.78		-6.552E-03	5.274E-01	7.711E-01	6.804E-02	-0.008
	+	968.20		1.828E+01	5.505E+00	9.485E+00	8.286E-01	1.927
		1045.16		-7.890E-01	3.235E+00	5.138E+00	4.428E-01	-0.154
		1325.50		-6.997E-01	4.264E+00	7.006E+00	5.963E-01	-0.100
		1368.21		-1.735E+00	2.176E+00	3.171E+00	4.263E-01	-0.547
		1436.60		5.444E-02	4.894E+00	8.163E+00	7.039E-01	0.007
		1691.02	*	4.398E-02	7.145E-02	1.362E-01	1.212E-02	0.323
SB-125		427.89	*	3.442E-02	1.121E-01	1.891E-01	1.668E-02	0.182
	+	463.38		6.747E-01	5.192E-01	6.419E-01	6.085E-02	1.051
		600.56		5.691E-02	2.066E-01	3.418E-01	3.218E-02	0.167
		635.90		-3.261E-02	3.424E-01	5.443E-01	5.064E-02	-0.060
TE-125M		109.28	*	7.579E+00	8.870E+00	1.518E+01	1.866E+00	0.499
I-126		388.63		4.308E-02	2.254E-01	3.797E-01	3.214E-02	0.113
		666.33	*	9.633E-02	2.753E-01	4.009E-01	3.385E-02	0.240
		753.82		7.906E-01	2.086E+00	3.599E+00	3.136E-01	0.220
SB-126		223.80		1.197E+00	4.517E+00	7.333E+00	6.546E-01	0.163
		278.60		3.663E-01	2.567E+00	4.388E+00	4.028E-01	0.083
		296.50		1.225E+01	2.524E+00	3.917E+00	3.596E-01	3.127
		414.70		3.583E-02	8.448E-02	1.441E-01	1.236E-02	0.249
		415.30		5.766E+00	6.956E+00	1.218E+01	1.045E+00	0.473
		555.20		1.015E+00	4.961E+00	8.190E+00	7.306E-01	0.124
		573.80		-2.688E-01	1.266E+00	2.007E+00	1.782E-01	-0.134
		593.00		7.971E-01	1.199E+00	2.046E+00	1.804E-01	0.390
		656.30		9.044E+00	4.889E+00	8.323E+00	7.046E-01	1.087
		666.33		4.025E-02	1.150E-01	1.675E-01	1.414E-02	0.240
		675.00		1.295E+00	2.542E+00	4.263E+00	3.614E-01	0.304
		695.00		7.859E-03	9.913E-02	1.682E-01	1.438E-02	0.047
		697.00		1.447E-01	3.383E-01	5.893E-01	5.044E-02	0.245
		720.50	*	2.204E-02	2.012E-01	2.987E-01	2.579E-02	0.074
		856.80		-5.537E-01	6.555E-01	9.989E-01	8.777E-02	-0.554
		989.30		1.184E-01	1.779E+00	2.939E+00	2.562E-01	0.040
		1034.80		-3.692E-01	1.178E+01	1.920E+01	1.659E+00	-0.019

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1213.00		-9.531E-01	6.973E+00	1.110E+01	9.186E-01	-0.086
SB-127		61.10		1.677E+01	2.780E+01	4.360E+01	5.352E+00	0.385
		252.40		8.831E-01	4.940E+00	7.911E+00	3.333E+00	0.112
		290.80		-1.655E+01	2.492E+01	3.507E+01	4.069E+00	-0.472
		411.60		-8.984E+00	1.423E+01	2.238E+01	3.512E+00	-0.401
		444.90		-1.010E+01	1.160E+01	1.767E+01	2.229E+00	-0.572
		473.00		1.671E+00	1.868E+00	3.274E+00	4.263E-01	0.510
		543.00		-3.457E+00	1.934E+01	3.087E+01	4.502E+00	-0.112
		603.60		-1.077E+01	1.603E+01	2.043E+01	2.578E+00	-0.527
		685.20	*	8.952E-01	1.727E+00	2.897E+00	3.275E-01	0.309
		698.50		-9.027E+00	1.901E+01	3.068E+01	4.843E+00	-0.294
		722.20		5.805E+00	4.140E+01	6.168E+01	6.892E+00	0.094
		783.80		7.324E+00	4.823E+00	8.919E+00	1.116E+00	0.821
XE-127		57.60		1.607E-01	2.176E+00	3.720E+00	3.736E-01	0.043
		145.22		5.590E-02	7.220E-01	1.163E+00	1.172E-01	0.048
		172.10		3.256E-02	1.229E-01	2.024E-01	1.702E-02	0.161
		202.84	*	-2.344E-02	4.748E-02	7.415E-02	6.482E-03	-0.316
		374.96		-2.233E-01	2.286E-01	3.537E-01	3.060E-02	-0.631
I-131		80.18		-3.321E+00	4.792E+00	5.484E+00	5.368E-01	-0.606
		284.30		-1.282E+00	1.603E+00	2.584E+00	2.483E-01	-0.496
		364.48	*	-4.439E-02	1.209E-01	1.962E-01	1.811E-02	-0.226
		636.97		7.061E-01	1.890E+00	3.145E+00	2.857E-01	0.224
		722.89		1.857E-01	1.012E+01	1.485E+01	1.291E+00	0.013
TE-132		49.72		1.167E+00	4.312E+00	6.755E+00	8.109E-01	0.173
		111.76		2.403E+00	2.958E+01	4.926E+01	6.338E+00	0.049
		116.30		1.661E+01	2.753E+01	4.664E+01	6.115E+00	0.356
		228.16	*	-3.253E-01	7.497E-01	1.164E+00	1.851E-01	-0.280
BA-133		53.15		7.772E-01	1.010E+00	1.741E+00	1.741E-01	0.447
		79.62		-5.051E-02	1.247E+00	1.500E+00	2.383E-01	-0.034
		81.00		-1.099E-01	1.039E-01	1.138E-01	1.878E-02	-0.966
		276.40		1.753E-01	3.969E-01	6.875E-01	1.017E-01	0.255
		302.84		9.478E-02	1.642E-01	2.558E-01	3.492E-02	0.371
		356.01	*	5.996E-03	5.225E-02	7.774E-02	1.039E-02	0.077
		383.85		-1.756E-01	3.394E-01	5.427E-01	6.808E-02	-0.324
I-133	+	510.53		2.342E+00	3.394E-01	Half-Life too short		
		529.87	*	1.529E-03	3.394E-01	Half-Life too short		
		706.58		-1.282E-01	3.394E-01	Half-Life too short		
		856.28		-8.637E-01	3.394E-01	Half-Life too short		
		875.33		1.147E-01	3.394E-01	Half-Life too short		
		1236.41		1.577E+00	3.394E-01	Half-Life too short		
		1298.22		-4.891E-01	3.394E-01	Half-Life too short		
CS-134		475.35		-2.067E+00	2.283E+00	3.447E+00	3.054E-01	-0.600
		563.23		-8.204E-03	4.475E-01	7.237E-01	6.503E-02	-0.011
		569.32		1.103E-01	2.447E-01	4.113E-01	3.704E-02	0.268
		604.70		2.103E-03	4.305E-02	6.097E-02	5.362E-03	0.034
		795.84	*	4.414E-02	6.267E-02	1.105E-01	9.765E-03	0.399
		801.93		-2.587E-01	5.353E-01	8.495E-01	7.499E-02	-0.305
		1038.57		-1.869E+00	5.147E+00	8.062E+00	6.960E-01	-0.232
		1167.94		-1.940E-01	3.639E+00	5.859E+00	4.800E-01	-0.033

---- Non-Identified Nuclides ----

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		1365.15		4.383E-01	1.479E+00	2.579E+00	2.310E-01	0.170
CS-135		268.24	*	8.801E-02	2.017E-01	2.934E-01	3.061E-02	0.300
I-135		288.45		1.898E+10	2.017E-01	Half-Life too short		
		417.63		-1.131E+10	2.017E-01	Half-Life too short		
		546.56		-5.728E+09	2.017E-01	Half-Life too short		
		836.80		1.662E+10	2.017E-01	Half-Life too short		
		1038.76		-7.704E+09	2.017E-01	Half-Life too short		
		1124.00		4.050E+10	2.017E-01	Half-Life too short		
		1131.51		-1.307E+09	2.017E-01	Half-Life too short		
		1260.41	*	4.188E+09	2.017E-01	Half-Life too short		
		1457.56		1.181E+12	2.017E-01	Half-Life too short		
		1678.03		-6.534E+09	2.017E-01	Half-Life too short		
		1706.46		-2.823E+10	2.017E-01	Half-Life too short		
		1791.20		4.480E+09	2.017E-01	Half-Life too short		
CS-136		66.91		-1.762E-01	4.677E-01	7.012E-01	1.134E-01	-0.251
	+	86.29		5.589E+00	1.390E+00	1.771E+00	2.416E-01	3.155
		153.22		3.749E-01	6.829E-01	1.143E+00	1.186E-01	0.328
		163.89		-2.106E-01	1.097E+00	1.769E+00	1.692E-01	-0.119
		176.55		-3.377E-01	3.875E-01	5.974E-01	5.356E-02	-0.565
		273.65		-5.444E-03	5.912E-01	8.284E-01	8.041E-02	-0.007
		340.57		2.398E-02	1.519E-01	2.274E-01	2.099E-02	0.105
		818.51		-2.413E-02	9.412E-02	1.527E-01	1.343E-02	-0.158
		1048.07	*	2.811E-03	1.348E-01	2.208E-01	1.982E-02	0.013
		1235.34		9.435E-01	9.821E-01	1.638E+00	1.906E-01	0.576
CE-139		165.85	*	1.776E-03	3.020E-02	4.930E-02	4.111E-03	0.036
BA-140		162.64		-3.298E-01	7.865E-01	1.254E+00	1.145E-01	-0.263
		304.84		-2.820E-02	1.482E+00	2.203E+00	6.212E-01	-0.013
		423.70		-1.754E+00	2.380E+00	3.555E+00	1.152E+00	-0.493
		537.32	*	2.455E-01	3.506E-01	5.863E-01	1.948E-01	0.419
LA-140	+	328.77		5.216E-01	4.712E-01	6.325E-01	6.029E-02	0.825
		432.53		-6.598E-01	2.508E+00	4.058E+00	3.691E-01	-0.163
		487.03		1.424E-01	1.695E-01	2.949E-01	2.775E-02	0.483
		751.79		-1.732E-01	2.300E+00	3.831E+00	3.686E-01	-0.045
		815.85		-2.031E-01	3.970E-01	6.251E-01	6.104E-02	-0.325
		867.82		-3.483E-01	1.687E+00	2.734E+00	2.523E-01	-0.127
		919.63		4.894E-01	3.141E+00	5.282E+00	5.680E-01	0.093
		925.24		-1.330E+00	1.439E+00	2.113E+00	1.962E-01	-0.629
		1596.49	*	-7.614E-02	1.157E-01	1.690E-01	1.459E-02	-0.451
CE-141		145.44	*	-3.335E-02	6.474E-02	1.034E-01	1.054E-02	-0.323
CE-143		57.37		1.003E-05	6.474E-02	Half-Life too short		
		231.56		2.573E-03	6.474E-02	Half-Life too short		
		293.26	*	7.182E-04	6.474E-02	Half-Life too short		
	+	350.59		3.215E-02	6.474E-02	Half-Life too short		
		490.36		-2.229E-03	6.474E-02	Half-Life too short		
		664.57		-1.291E-04	6.474E-02	Half-Life too short		
		721.93		3.139E-04	6.474E-02	Half-Life too short		
CE-144		80.11		-1.530E+00	2.203E+00	2.521E+00	2.455E-01	-0.607
		133.54	*	-3.581E-02	2.138E-01	3.492E-01	5.924E-02	-0.103
PM-144		476.78		1.018E-02	7.885E-02	1.307E-01	1.261E-02	0.078

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		618.01		3.150E-04	4.118E-02	6.629E-02	5.929E-03	0.005
		696.49	*	2.232E-02	4.258E-02	7.476E-02	6.400E-03	0.299
		778.57		-4.871E+00	3.171E+00	4.504E+00	3.944E-01	-1.081
PR-144		696.49	*	1.513E+00	2.885E+00	5.066E+00	4.335E-01	0.299
		1489.15		-6.973E+00	1.397E+01	2.099E+01	1.815E+00	-0.332
PM-146		453.90	*	3.619E-02	4.493E-02	7.879E-02	8.552E-03	0.459
		633.02		-1.465E-01	1.679E+00	2.670E+00	9.978E-01	-0.055
		735.90		-6.167E-02	1.774E-01	2.863E-01	8.193E-02	-0.215
		747.13		8.621E-03	1.181E-01	1.994E-01	2.808E-02	0.043
ND-147	+	91.11		9.531E-01	3.370E-01	4.625E-01	4.870E-02	2.061
		319.41		-5.328E-01	3.520E+00	5.867E+00	5.351E-01	-0.091
		439.89		3.776E+00	6.980E+00	1.195E+01	1.042E+00	0.316
		531.02	*	-2.375E-01	7.290E-01	1.152E+00	1.744E-01	-0.206
PM-149		285.90	*	-1.115E+01	9.604E+01	1.616E+02	2.563E+01	-0.069
EU-152		121.78		2.121E-02	7.457E-02	1.248E-01	1.583E-02	0.170
		244.69		-8.142E-02	3.813E-01	5.290E-01	4.795E-02	-0.154
		344.27	*	-6.347E-02	1.073E-01	1.725E-01	1.632E-02	-0.368
		443.98		-7.530E-01	1.140E+00	1.778E+00	1.554E-01	-0.423
		778.89		-4.699E-01	3.570E-01	5.198E-01	4.551E-02	-0.904
		867.32		1.170E-02	9.693E-01	1.610E+00	1.413E-01	0.007
	+	964.01		7.151E-01	4.498E-01	7.228E-01	6.317E-02	0.989
		1085.78		1.479E-01	4.774E-01	8.069E-01	6.867E-02	0.183
		1112.02		5.232E-01	4.369E-01	7.920E-01	6.671E-02	0.661
		1407.95		7.873E-02	2.565E-01	4.442E-01	3.822E-02	0.177
GD-153		69.67		2.432E-01	1.103E+00	1.695E+00	1.664E-01	0.143
		83.37		1.637E+01	1.122E+01	1.930E+01	1.880E+00	0.848
		97.43	*	-2.841E-02	7.897E-02	1.160E-01	1.186E-02	-0.245
		103.18		-6.330E-02	9.584E-02	1.548E-01	1.631E-02	-0.409
EU-154		123.07		-2.081E-02	5.338E-02	8.658E-02	1.195E-02	-0.240
		247.94		3.994E-01	4.012E-01	6.471E-01	7.653E-02	0.617
		591.81		3.073E-01	8.232E-01	1.370E+00	1.620E-01	0.224
		723.30		6.608E-02	2.439E-01	3.688E-01	3.521E-02	0.179
		756.87		9.066E-01	1.065E+00	1.897E+00	2.285E-01	0.478
		873.19		-2.953E-02	3.848E-01	6.327E-01	7.816E-02	-0.047
		996.32		-4.754E-01	4.961E-01	7.136E-01	1.271E-01	-0.666
		1004.76		-4.505E-02	2.985E-01	4.817E-01	5.634E-02	-0.094
		1274.45	*	-2.834E-02	1.750E-01	2.787E-01	3.109E-02	-0.102
EU-155		48.70		-7.181E-02	4.856E-01	7.459E-01	7.492E-02	-0.096
		60.01		3.120E+00	2.278E+00	3.654E+00	3.676E-01	0.854
	+	86.54		5.157E-01	1.186E-01	1.693E-01	1.664E-02	3.046
		105.31	*	1.183E-01	1.021E-01	1.766E-01	1.897E-02	0.670
TB-160	+	86.79		1.378E+00	3.164E-01	4.536E-01	4.424E-02	3.037
		197.04		-3.758E-01	6.039E-01	9.253E-01	8.036E-02	-0.406
		215.65		3.963E-01	8.182E-01	1.346E+00	1.192E-01	0.294
	+	298.57		3.326E-01	1.718E-01	2.268E-01	2.081E-02	1.467
		879.36	*	3.790E-02	1.782E-01	3.016E-01	2.644E-02	0.126
		962.29		8.802E-01	8.753E-01	1.399E+00	1.223E-01	0.629
		966.15		1.762E+00	4.069E-01	7.211E-01	6.301E-02	2.444
		1177.93		2.305E-01	5.381E-01	9.058E-01	7.411E-02	0.254

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		3.234E-01	1.027E+00	1.710E+00	1.438E-01	0.189
HO-166M		80.57		6.688E-02	2.581E-01	3.171E-01	3.089E-02	0.211
		184.41		4.531E-02	4.575E-02	6.992E-02	5.977E-03	0.648
		280.46		-8.082E-02	8.958E-02	1.437E-01	1.319E-02	-0.563
		410.95		1.393E-01	2.831E-01	4.843E-01	4.142E-02	0.288
		711.68	*	2.280E-02	8.080E-02	1.390E-01	1.196E-02	0.164
		752.31		1.737E-01	3.704E-01	6.443E-01	5.612E-02	0.270
		810.29		2.082E-02	7.303E-02	1.251E-01	1.099E-02	0.166
TM-171		51.35		-4.574E+00	7.296E+00	1.218E+01	1.219E+00	-0.375
		52.39		1.730E-01	4.168E+00	7.023E+00	7.026E-01	0.025
		59.40		1.780E+00	1.208E+01	1.857E+01	1.872E+00	0.096
		66.72	*	-7.233E+00	1.696E+01	2.540E+01	2.507E+00	-0.285
LU-176	+	88.36		1.016E+00	2.332E-01	3.298E-01	3.224E-02	3.080
		201.83		-1.643E-02	2.975E-02	4.634E-02	4.047E-03	-0.355
		306.84	*	-1.960E-02	2.552E-02	4.083E-02	3.741E-03	-0.480
		401.10		1.179E+00	7.710E+00	1.293E+01	1.097E+00	0.091
LU-177		112.95		-2.125E-01	1.638E+00	2.703E+00	3.005E-01	-0.079
	+	208.36	*	1.825E+00	1.722E+00	2.171E+00	1.909E-01	0.841
LU-177M		52.97		2.946E-01	4.491E-01	7.715E-01	7.718E-02	0.382
		54.07		5.320E-02	2.546E-01	4.312E-01	4.315E-02	0.123
		61.30		1.311E-01	7.401E-01	1.143E+00	1.144E-01	0.115
		121.62		1.170E-01	3.826E-01	6.408E-01	7.484E-02	0.183
		147.16		-3.786E-01	6.456E-01	1.025E+00	1.018E-01	-0.369
		171.86		2.702E-02	4.940E-01	8.048E-01	6.763E-02	0.034
		218.09		-1.111E-01	9.368E-01	1.491E+00	1.324E-01	-0.075
		268.79		1.038E+00	1.064E+00	1.603E+00	1.469E-01	0.648
		319.02		6.456E-02	2.692E-01	4.598E-01	4.194E-02	0.140
		367.43		3.456E-01	9.860E-01	1.684E+00	1.472E-01	0.205
		413.65	*	-9.405E-02	2.030E-01	3.245E-01	2.780E-02	-0.290
HF-181		56.28		1.080E-02	3.161E-01	5.401E-01	5.415E-02	0.020
		57.53		1.093E-02	1.823E-01	3.116E-01	3.129E-02	0.035
		65.20		-1.410E-01	5.205E-01	7.859E-01	7.783E-02	-0.179
		133.02		2.278E-02	7.263E-02	1.157E-01	1.271E-02	0.197
		136.25		-2.223E-01	4.767E-01	7.661E-01	8.234E-02	-0.290
		345.85		-1.249E-01	2.223E-01	3.452E-01	3.090E-02	-0.362
		482.03	*	-2.202E-02	5.188E-02	8.198E-02	7.278E-03	-0.269
W-181		56.28		4.275E-03	1.238E-01	2.115E-01	2.120E-02	0.020
		57.53		4.250E-03	7.141E-02	1.220E-01	1.226E-02	0.035
		65.20	*	-5.480E-02	2.023E-01	3.054E-01	3.025E-02	-0.179
TA-182		67.75		-1.928E-02	6.898E-02	1.040E-01	1.024E-02	-0.185
		100.10		1.271E-02	1.613E-01	2.699E-01	2.798E-02	0.047
		152.43		2.232E-01	3.443E-01	5.794E-01	5.508E-02	0.385
		222.10		-2.158E-01	3.811E-01	5.892E-01	5.251E-02	-0.366
		1001.68		3.804E+00	2.710E+00	5.025E+00	4.371E-01	0.757
		1121.28		6.402E-01	2.699E-01	4.682E-01	3.927E-02	1.367
		1189.05		-4.153E-01	4.200E-01	6.005E-01	4.931E-02	-0.692
		1221.42	*	-1.341E-01	2.906E-01	4.470E-01	3.708E-02	-0.300
		1230.97		-4.370E-01	7.402E-01	1.126E+00	9.370E-02	-0.388
RE-183		57.98		-5.837E-02	7.586E-02	1.244E-01	1.250E-02	-0.469

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		3.269E-03	4.936E-02	7.564E-02	7.621E-03	0.043
		67.20		-1.411E-02	1.193E-01	1.812E-01	1.787E-02	-0.078
		162.32	*	-1.531E-03	1.134E-01	1.847E-01	1.599E-02	-0.008
	+	208.81		1.641E+00	1.548E+00	1.937E+00	1.704E-01	0.847
		291.72		3.974E-01	1.052E+00	1.619E+00	1.487E-01	0.245
RE-184		57.98		-2.151E-01	2.795E-01	4.584E-01	4.606E-02	-0.469
		59.32		1.203E-02	1.817E-01	2.785E-01	2.806E-02	0.043
		67.20		-5.199E-02	4.396E-01	6.676E-01	6.583E-02	-0.078
		161.27		5.716E-02	3.749E-01	6.156E-01	5.387E-02	0.093
		216.55		2.668E-01	2.860E-01	4.808E-01	4.263E-02	0.555
		252.85	*	4.849E-02	2.648E-01	4.252E-01	3.872E-02	0.114
		318.01		2.545E-02	4.666E-01	7.881E-01	7.191E-02	0.032
		792.07		1.784E-01	1.260E+00	2.130E+00	1.868E-01	0.084
		903.28		1.176E-01	1.264E+00	1.842E+00	1.611E-01	0.064
		920.93		2.718E-01	5.121E-01	8.974E-01	7.853E-02	0.303
OS-185		59.72		1.294E-01	1.345E-01	2.131E-01	2.146E-02	0.607
		61.14		4.820E-02	7.909E-02	1.242E-01	1.244E-02	0.388
		69.30		9.660E-03	1.808E-01	2.935E-01	2.883E-02	0.033
		592.07		1.450E+00	3.275E+00	5.488E+00	4.843E-01	0.264
		646.12	*	-1.192E-03	5.591E-02	8.944E-02	7.637E-03	-0.013
		717.42		-1.104E-01	1.108E+00	1.848E+00	1.593E-01	-0.060
		874.81		3.227E-01	7.726E-01	1.332E+00	1.169E-01	0.242
		880.27		2.793E-02	9.848E-01	1.636E+00	1.434E-01	0.017
RE-188		155.03	*	4.203E-02	1.768E-01	2.921E-01	2.713E-02	0.144
		477.96		9.553E-01	3.626E+00	6.070E+00	5.382E-01	0.157
		633.10		-1.686E-01	3.404E+00	5.437E+00	4.689E-01	-0.031
W-188	+	63.58		9.192E+01	4.211E+01	5.401E+01	5.371E+00	1.702
		227.08		-6.168E+00	1.396E+01	2.171E+01	1.943E+00	-0.284
		290.67	*	-6.113E+00	8.595E+00	1.205E+01	1.107E+00	-0.507
IR-192	+	295.96		1.273E+00	2.383E-01	3.284E-01	3.034E-02	3.876
		308.46		-2.961E-02	1.010E-01	1.672E-01	1.538E-02	-0.177
		316.51	*	5.480E-03	3.591E-02	6.104E-02	5.584E-03	0.090
		468.07		-4.566E-02	8.666E-02	1.168E-01	1.102E-02	-0.391
		604.41		-1.498E-02	5.785E-01	8.110E-01	1.064E-01	-0.018
		612.46		7.659E-03	9.964E-01	1.402E+00	1.402E-01	0.005
AU-195		65.12		-2.784E-04	9.424E-02	1.441E-01	1.427E-02	-0.002
		66.83		-2.024E-02	5.601E-02	8.414E-02	8.303E-03	-0.241
	+	75.70		1.256E+00	2.148E-01	3.562E-01	3.475E-02	3.526
		98.88	*	2.997E-01	2.039E-01	3.562E-01	3.668E-02	0.842
	+	129.76		5.093E+00	3.856E+00	5.474E+00	6.132E-01	0.930
TL-200		367.94	*	1.027E-04	3.856E+00	Half-Life too short		
		579.30		-3.158E-03	3.856E+00	Half-Life too short		
		828.27		3.388E-03	3.856E+00	Half-Life too short		
		1205.75		3.196E-03	3.856E+00	Half-Life too short		
TL-201		68.90		-3.007E-01	2.765E+00	4.668E+00	4.589E-01	-0.064
		70.82		3.861E-01	1.828E+00	2.808E+00	2.753E-01	0.137
		80.30		2.397E+00	4.791E+00	5.983E+00	5.827E-01	0.401
		135.34		-2.007E+01	2.638E+01	4.173E+01	4.513E+00	-0.481
		167.43	*	3.487E+00	6.947E+00	1.159E+01	9.679E-01	0.301

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		-2.703E-02	2.485E-01	4.196E-01	4.125E-02	-0.064
		70.82		3.461E-02	1.639E-01	2.518E-01	2.468E-02	0.137
		80.30		2.149E-01	4.296E-01	5.364E-01	5.225E-02	0.401
		439.56	*	4.927E-02	8.328E-02	1.431E-01	1.247E-02	0.344
HG-203		70.83		1.496E-01	7.105E-01	1.091E+00	1.569E-01	0.137
		72.87		4.716E-01	4.459E-01	6.990E-01	9.776E-02	0.675
		82.60		-1.880E-01	8.969E-01	1.342E+00	1.942E-01	-0.140
		279.20	*	-2.436E-02	4.281E-02	7.023E-02	6.609E-03	-0.347
BI-207		72.80		1.251E-01	1.294E-01	2.035E-01	1.990E-02	0.615
	+	74.97		6.965E-01	1.191E-01	1.733E-01	1.691E-02	4.019
		84.90		2.790E-01	1.493E-01	2.581E-01	2.516E-02	1.081
		569.67		3.375E-02	3.757E-02	6.538E-02	5.814E-03	0.516
		1063.62	*	-4.558E-02	7.268E-02	1.101E-01	9.443E-03	-0.414
		1770.23		-1.026E+00	6.873E-01	7.320E-01	6.183E-02	-1.401
TL-207		81.07		-2.452E-01	2.272E-01	2.510E-01	2.445E-02	-0.977
		83.78		1.662E-01	9.719E-02	1.678E-01	1.635E-02	0.991
		94.90		2.446E-01	2.140E-01	3.375E-01	3.406E-02	0.725
		122.32		1.121E+00	1.781E+00	3.016E+00	3.671E-01	0.372
		144.24		4.460E-01	7.381E-01	1.217E+00	1.343E-01	0.367
		154.21		1.879E-02	4.163E-01	6.817E-01	6.923E-02	0.028
	+	269.46		4.212E-01	3.094E-01	3.983E-01	3.717E-02	1.057
		323.87	*	2.562E-01	7.560E-01	1.153E+00	2.069E-01	0.222
	+	338.28		6.936E+00	2.207E+00	2.845E+00	3.582E-01	2.438
		445.03		-2.188E+00	2.711E+00	4.158E+00	5.063E-01	-0.526
PO-209		260.50		-1.144E+01	1.111E+01	1.632E+01	1.491E+00	-0.701
		262.80		1.409E+01	3.060E+01	4.986E+01	4.559E+00	0.283
		896.60	*	4.426E+00	9.505E+00	1.646E+01	1.439E+00	0.269
PB-211		404.84	*	-2.581E-01	1.072E+00	1.727E+00	1.082E+00	-0.150
		427.08		4.062E-01	2.572E+00	4.275E+00	2.657E+00	0.095
		831.96		-1.623E+00	2.047E+00	2.722E+00	1.706E+00	-0.596
BI-212	+	727.18	*	1.381E+00	6.523E-01	8.266E-01	8.294E-02	1.671
		785.46		-8.534E-01	2.337E+00	3.777E+00	3.310E-01	-0.226
		1620.62		1.623E+00	1.411E+00	2.813E+00	2.424E-01	0.577
PO-215		81.07		-2.452E-01	2.272E-01	2.510E-01	2.445E-02	-0.977
		83.78		1.662E-01	9.719E-02	1.678E-01	1.635E-02	0.991
		94.90		2.446E-01	2.140E-01	3.375E-01	3.406E-02	0.725
		122.32		1.121E+00	1.781E+00	3.016E+00	3.671E-01	0.372
		144.24		4.460E-01	7.381E-01	1.217E+00	1.343E-01	0.367
		154.21		1.879E-02	4.163E-01	6.817E-01	6.923E-02	0.028
	+	269.46		4.212E-01	3.094E-01	3.983E-01	3.717E-02	1.057
		323.87	*	2.562E-01	7.560E-01	1.153E+00	2.069E-01	0.222
	+	338.28		6.936E+00	2.207E+00	2.845E+00	3.582E-01	2.438
		445.03		-2.188E+00	2.711E+00	4.158E+00	5.063E-01	-0.526
RN-219	+	271.23		5.404E-01	3.981E-01	5.096E-01	5.490E-02	1.060
		401.81	*	-4.003E-02	4.791E-01	7.900E-01	1.181E-01	-0.051
RN-220		549.76	*	7.371E+00	3.133E+01	5.193E+01	4.636E+00	0.142
RA-223		81.07		-2.452E-01	2.272E-01	2.510E-01	2.445E-02	-0.977
		83.78		1.662E-01	9.719E-02	1.678E-01	1.635E-02	0.991
		94.90		2.446E-01	2.140E-01	3.375E-01	3.406E-02	0.725

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		1.121E+00	1.781E+00	3.016E+00	3.671E-01	0.372
		144.24		4.460E-01	7.381E-01	1.217E+00	1.343E-01	0.367
		154.21		1.879E-02	4.163E-01	6.817E-01	6.923E-02	0.028
	+	269.46		4.212E-01	3.094E-01	3.983E-01	3.717E-02	1.057
		323.87	*	2.562E-01	7.560E-01	1.153E+00	2.069E-01	0.222
	+	338.28		6.936E+00	2.207E+00	2.845E+00	3.582E-01	2.438
		445.03		-2.188E+00	2.711E+00	4.158E+00	5.063E-01	-0.526
AC-227		79.80		-7.221E-02	1.587E+00	1.908E+00	4.192E-01	-0.038
		236.00		3.683E-01	2.795E-01	4.287E-01	5.369E-02	0.859
		256.20	*	7.104E-02	4.307E-01	6.903E-01	1.079E-01	0.103
		286.10		4.076E-01	1.619E+00	2.780E+00	3.775E-01	0.147
	+	299.80		4.236E+00	2.281E+00	3.088E+00	5.487E-01	1.372
		304.40		1.398E+00	2.106E+00	3.293E+00	6.157E-01	0.425
		334.20		2.430E+00	2.891E+00	4.514E+00	8.847E-01	0.538
TH-227		79.80		-7.221E-02	1.587E+00	1.908E+00	4.243E-01	-0.038
	+	94.00		1.304E+01	3.862E+00	3.669E+00	8.211E-01	3.555
		236.00		3.683E-01	2.789E-01	4.287E-01	4.881E-02	0.859
		256.20	*	7.104E-02	4.308E-01	6.903E-01	1.264E-01	0.103
		286.10		4.076E-01	1.669E+00	2.780E+00	2.792E+00	0.147
	+	299.80		4.236E+00	2.281E+00	3.088E+00	5.487E-01	1.372
		304.40		1.398E+00	2.106E+00	3.293E+00	6.157E-01	0.425
		334.20		2.430E+00	2.891E+00	4.514E+00	8.847E-01	0.538
TH-229		85.43		3.324E-01	1.507E-01	2.613E-01	2.548E-02	1.272
	+	88.47		5.846E-01	1.343E-01	1.871E-01	1.830E-02	3.125
		100.00		2.051E-02	1.676E-01	2.810E-01	2.911E-02	0.073
		193.63	*	1.141E-01	5.364E-01	8.753E-01	7.570E-02	0.130
		210.97		1.494E+00	8.611E-01	1.372E+00	1.210E-01	1.089
PA-231		283.67	*	1.627E-01	1.600E+00	2.727E+00	4.230E-01	0.060
		301.29		1.081E+00	7.396E-01	1.197E+00	1.513E-01	0.903
TH-231		81.07		-2.452E-01	2.272E-01	2.510E-01	2.445E-02	-0.977
		83.78		1.662E-01	9.719E-02	1.678E-01	1.635E-02	0.991
		94.90		2.446E-01	2.140E-01	3.375E-01	3.406E-02	0.725
		122.32		1.121E+00	1.781E+00	3.016E+00	3.671E-01	0.372
		144.24		4.460E-01	7.381E-01	1.217E+00	1.343E-01	0.367
		154.21		1.879E-02	4.163E-01	6.817E-01	6.923E-02	0.028
	+	269.46		4.212E-01	3.094E-01	3.983E-01	3.717E-02	1.057
		323.87	*	2.562E-01	7.560E-01	1.153E+00	2.069E-01	0.222
	+	338.28		6.936E+00	2.207E+00	2.845E+00	3.582E-01	2.438
		445.03		-2.188E+00	2.711E+00	4.158E+00	5.063E-01	-0.526
U-231		84.21		7.714E+00	4.221E+00	7.297E+00	7.111E-01	1.057
	+	92.29		1.289E+01	2.814E+00	4.048E+00	4.033E-01	3.184
		95.87	*	-4.314E-01	1.003E+00	1.469E+00	1.490E-01	-0.294
		108.00		-1.164E+00	1.971E+00	3.190E+00	3.450E-01	-0.365
PA-233	+	75.28		2.032E+01	4.330E+00	5.266E+00	8.434E-01	3.859
	+	86.59		8.382E+00	2.870E+00	2.755E+00	7.496E-01	3.042
	+	300.12		1.181E+00	6.265E-01	8.669E-01	1.318E-01	1.362
		311.98	*	-3.776E-03	6.657E-02	1.118E-01	1.048E-02	-0.034
		340.50		2.964E-01	7.502E-01	1.140E+00	2.732E-01	0.260
		398.62		-4.525E-02	2.453E+00	4.066E+00	1.081E+00	-0.011

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		4.025E-01	1.859E+00	3.122E+00	6.724E-01	0.129
PA-234	+	63.00		2.666E+00	1.269E+00	1.569E+00	2.555E-01	1.700
		94.67		3.195E-01	1.625E-01	2.582E-01	3.475E-02	1.237
		98.44		1.197E-01	1.085E-01	1.445E-01	8.101E-02	0.828
		99.86		6.471E-02	4.244E-01	7.124E-01	7.375E-02	0.091
		111.00		-9.652E-02	1.800E-01	2.913E-01	4.044E-02	-0.331
		131.20		2.739E-02	1.247E-01	1.861E-01	2.066E-02	0.147
		152.70		2.618E-01	3.364E-01	5.651E-01	9.889E-02	0.463
	+	186.00		5.890E+00	2.727E+00	2.822E+00	8.803E-01	2.087
		226.40		5.162E-02	4.326E-01	6.965E-01	9.345E-02	0.074
		227.20		-3.076E-01	4.804E-01	7.378E-01	6.605E-02	-0.417
		248.90		-2.604E-01	9.094E-01	1.415E+00	3.198E-01	-0.184
	+	293.70		8.012E+00	1.920E+00	1.977E+00	3.477E-01	4.052
		369.80		2.795E-01	9.280E-01	1.577E+00	3.440E-01	0.177
		568.70		5.328E-01	1.227E+00	2.062E+00	1.834E-01	0.258
		569.50		1.516E-01	3.410E-01	5.729E-01	5.094E-02	0.265
		574.00		-3.802E-01	1.788E+00	2.833E+00	2.516E-01	-0.134
		699.00		-5.834E-01	8.853E-01	1.396E+00	2.660E-01	-0.418
		706.10		-4.790E-01	1.403E+00	2.271E+00	1.012E+00	-0.211
		733.00		-2.155E-02	4.595E-01	6.671E-01	1.482E-01	-0.032
		742.81		7.771E-01	1.850E+00	3.089E+00	2.077E+00	0.252
		796.30		8.851E-01	1.206E+00	2.098E+00	5.687E-01	0.422
		805.60		-2.867E-01	1.284E+00	2.091E+00	6.418E-01	-0.137
		819.60		-7.845E-01	1.601E+00	2.488E+00	9.471E-01	-0.315
		826.30		-8.723E-01	1.179E+00	1.712E+00	7.664E-01	-0.510
		831.60		-6.225E-01	9.248E-01	1.417E+00	4.236E-01	-0.439
		876.40		-1.124E-01	1.095E+00	1.785E+00	1.835E+00	-0.063
		880.51		-4.365E-02	3.622E-01	5.925E-01	5.193E-02	-0.074
		883.24		-1.315E-01	3.917E-01	6.097E-01	4.099E-01	-0.216
		899.00		-4.357E-01	1.092E+00	1.692E+00	7.399E-01	-0.258
		925.00		-1.706E+00	1.497E+00	2.128E+00	1.862E-01	-0.802
		926.50		-6.327E-02	2.193E-01	3.491E-01	8.841E-02	-0.181
		946.00	*	-8.371E-02	4.074E-01	6.562E-01	1.235E-01	-0.128
		949.00		1.840E-01	6.382E-01	1.080E+00	9.444E-02	0.170
		980.50		-1.475E+00	1.100E+00	1.543E+00	1.346E-01	-0.956
		1394.10		-1.497E+00	1.753E+00	2.026E+00	1.319E+00	-0.739
PA-234M		766.42		3.357E+01	2.360E+01	2.918E+01	1.481E+01	1.151
		1001.03	*	9.528E+00	6.269E+00	1.167E+01	1.171E+00	0.817
U-235	+	89.95		3.795E+00	1.746E+00	1.721E+00	5.373E-01	2.206
	+	93.35		4.058E+00	1.398E+00	1.293E+00	3.683E-01	3.138
		105.00		1.186E+00	1.056E+00	1.732E+00	5.281E-01	0.685
		143.76	*	7.247E-02	2.274E-01	3.704E-01	6.790E-02	0.196
		163.35		-2.533E-01	5.003E-01	7.906E-01	1.507E-01	-0.320
	+	185.71		2.181E-01	7.692E-02	1.037E-01	8.882E-03	2.103
		205.31		1.886E-01	5.760E-01	8.426E-01	1.613E-01	0.224
NP-236		94.67		2.453E-01	1.215E-01	1.962E-01	1.978E-02	1.250
		98.44		9.046E-02	6.511E-02	1.092E-01	1.122E-02	0.828
		111.00		-7.301E-02	1.360E-01	2.203E-01	2.423E-02	-0.331
		160.31	*	2.611E-02	8.472E-02	1.401E-01	1.238E-02	0.186

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		8.216E-02	1.413E-01	2.408E-01	2.489E-02	0.341
		117.00	*	-8.713E-02	1.900E-01	3.080E-01	3.503E-02	-0.283
	+	209.75		1.294E+00	1.221E+00	1.494E+00	1.315E-01	0.867
		228.18		-1.069E-01	2.446E-01	3.804E-01	3.408E-02	-0.281
		277.60		1.352E-01	1.935E-01	3.395E-01	3.116E-02	0.398
		334.30		1.302E+00	1.616E+00	2.543E+00	2.298E-01	0.512
AM-241		59.54	*	2.044E-02	7.096E-02	1.097E-01	1.165E-02	0.186
CM-243		99.55		8.454E-02	1.454E-01	2.478E-01	2.561E-02	0.341
		103.76	*	1.007E-02	8.769E-02	1.468E-01	1.551E-02	0.069
		117.00		-8.965E-02	1.955E-01	3.169E-01	3.604E-02	-0.283
	+	209.75		1.276E+00	1.204E+00	1.472E+00	1.297E-01	0.867
		228.18		-1.080E-01	2.472E-01	3.843E-01	3.443E-02	-0.281
		277.60		1.363E-01	1.951E-01	3.422E-01	3.141E-02	0.398
AM-246		798.80		-8.070E-02	1.913E-01	3.072E-01	2.696E-02	-0.263
		1036.00		-6.853E-02	3.919E-01	6.279E-01	5.425E-02	-0.109
		1062.04		-2.975E-01	3.186E-01	4.634E-01	3.974E-02	-0.642
		1078.86	*	2.502E-01	2.004E-01	3.658E-01	3.120E-02	0.684
CM-247		278.00		6.131E-01	7.906E-01	1.392E+00	1.278E-01	0.440
		287.40		4.331E-01	1.295E+00	2.232E+00	2.051E-01	0.194
		402.60	*	1.244E-03	4.312E-02	7.166E-02	6.087E-03	0.017
CF-249		252.85		1.820E-01	9.936E-01	1.596E+00	1.453E-01	0.114
		333.44		8.690E-02	2.456E-01	3.202E-01	2.896E-02	0.271
		387.95	*	2.124E-02	4.476E-02	7.680E-02	6.507E-03	0.277
CF-251		176.60	*	-1.164E-01	1.336E-01	2.060E-01	1.743E-02	-0.565
		227.00		-1.027E-01	4.133E-01	6.507E-01	5.824E-02	-0.158
		285.00		-1.491E+00	1.867E+00	3.009E+00	2.764E-01	-0.495

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691004     *
* Acquisition date :  9-FEB-2010 14:53:04 Detector SN#    :                *
* Detector ID        : GAM17                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:09.89       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691004           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.2992E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.046E+01	3.406E+00	7.756E-01	0.000E+00
CD-109	4.356E+00	9.805E-01	1.043E+00	0.000E+00
SN-126	4.282E-01	9.637E-02	1.023E-01	0.000E+00
BA-137M	3.079E-02	6.701E-02	8.274E-02	0.000E+00
CS-137	3.255E-02	7.083E-02	8.746E-02	0.000E+00
TL-208	6.324E-01	1.196E-01	7.636E-02	0.000E+00
BI-210	1.326E+00	9.301E-01	8.982E-01	0.000E+00
PB-210	1.326E+00	9.301E-01	8.982E-01	0.000E+00
PO-210	1.326E+00	9.287E-01	8.982E-01	0.000E+00
BI-211	4.049E+00	6.117E-01	4.179E-01	0.000E+00
PB-212	1.901E+00	2.254E-01	9.313E-02	0.000E+00
PO-212	1.901E+00	2.254E-01	9.313E-02	0.000E+00
BI-214	1.262E+00	2.402E-01	1.262E-01	0.000E+00
PB-214	1.408E+00	2.247E-01	1.323E-01	0.000E+00
PO-214	1.408E+00	2.247E-01	1.323E-01	0.000E+00
PO-216	1.901E+00	2.254E-01	9.313E-02	0.000E+00
PO-218	1.408E+00	2.247E-01	1.323E-01	0.000E+00
RA-224	5.849E+00	1.656E+00	1.061E+00	0.000E+00
RA-226	1.262E+00	2.402E-01	1.262E-01	0.000E+00
AC-228	2.405E+00	4.661E-01	2.461E-01	0.000E+00
RA-228	2.405E+00	4.661E-01	2.461E-01	0.000E+00
TH-228	1.930E+00	2.288E-01	9.454E-02	0.000E+00
TH-230	1.262E+00	2.402E-01	1.262E-01	0.000E+00
TH-232	2.405E+00	4.661E-01	2.461E-01	0.000E+00
TH-234	2.287E+00	1.086E+00	1.107E+00	0.000E+00
U-234	1.262E+00	2.402E-01	1.262E-01	0.000E+00
NP-237	1.257E+00	3.804E-01	2.996E-01	0.000E+00
U-238	2.287E+00	1.086E+00	1.107E+00	0.000E+00
AM-243	3.880E-01	6.504E-02	6.410E-02	0.000E+00
ANH-511	2.296E-01	9.261E-02	5.318E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	1.739E-02	3.716E-01	6.358E-01	0.000E+00	NOT IDENT.
NA-22	-3.289E-02	6.384E-02	9.982E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.755E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.457E-02	3.373E-02	4.414E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.778E-02	6.787E-02	0.000E+00	FAIL ABUN
SC-46	-2.080E-03	5.340E-02	9.065E-02	0.000E+00	FAIL ABUN
V-48	6.751E-02	9.121E-02	1.654E-01	0.000E+00	NOT IDENT.
CR-51	-1.018E-02	3.838E-01	6.748E-01	0.000E+00	NOT IDENT.
MN-52	-2.179E-02	3.164E-01	5.330E-01	0.000E+00	NOT IDENT.
MN-54	3.527E-02	5.268E-02	9.492E-02	0.000E+00	NOT IDENT.
CO-56	4.915E-02	4.563E-02	8.621E-02	0.000E+00	NOT IDENT.
CO-57	1.348E-02	2.507E-02	4.497E-02	0.000E+00	NOT IDENT.
CO-58	1.502E-02	4.768E-02	8.439E-02	0.000E+00	NOT IDENT.
FE-59	1.462E-02	1.250E-01	2.111E-01	0.000E+00	NOT IDENT.
CO-60	-3.149E-02	5.121E-02	8.087E-02	0.000E+00	NOT IDENT.
ZN-65	-2.595E-02	1.473E-01	2.068E-01	0.000E+00	NOT IDENT.
GE-68	9.128E-01	1.697E+00	2.992E+00	0.000E+00	NOT IDENT.
AS-73	5.110E-02	2.359E-01	4.302E-01	0.000E+00	NOT IDENT.
AS-74	-5.191E-02	1.119E-01	1.789E-01	0.000E+00	NOT IDENT.
SE-75	-4.480E-02	5.401E-02	7.992E-02	0.000E+00	NOT IDENT.
BR-77	-6.137E+00	1.283E+01	1.998E+01	0.000E+00	FAIL ABUN
SR-82	-3.995E-01	5.067E-01	8.124E-01	0.000E+00	NOT IDENT.
RB-83	-4.896E-02	8.412E-02	1.294E-01	0.000E+00	NOT IDENT.
RB-84	-3.652E-02	9.062E-02	1.481E-01	0.000E+00	NOT IDENT.
KR-85	1.009E+01	8.167E+00	1.506E+01	0.000E+00	NOT IDENT.
SR-85	5.173E-02	4.188E-02	7.719E-02	0.000E+00	NOT IDENT.
RB-86	-1.744E-01	1.143E+00	1.882E+00	0.000E+00	NOT IDENT.
Y-88	3.791E-02	3.624E-02	7.498E-02	0.000E+00	NOT IDENT.
ZR-88	2.238E-02	3.379E-02	6.112E-02	0.000E+00	NOT IDENT.
Y-91	1.702E+01	2.609E+01	4.580E+01	0.000E+00	NOT IDENT.
NB-94	-2.997E-03	4.025E-02	6.964E-02	0.000E+00	NOT IDENT.
NB-95	7.776E-02	5.763E-02	9.981E-02	0.000E+00	NOT IDENT.
NB-95M	8.684E-02	1.415E-01	2.204E-01	0.000E+00	NOT IDENT.
ZR-95	8.454E-02	9.851E-02	1.810E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.554E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.349E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.519E+00	1.475E+01	2.534E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.098E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.833E-03	3.422E-02	5.714E-02	0.000E+00	NOT IDENT.
RH-102	-3.001E-02	3.434E-02	5.420E-02	0.000E+00	NOT IDENT.
RU-103	4.202E-02	4.676E-02	8.467E-02	0.000E+00	FAIL ABUN
RH-106	4.863E-01	3.962E-01	7.243E-01	0.000E+00	FAIL ABUN
RU-106	4.863E-01	3.932E-01	7.243E-01	0.000E+00	FAIL ABUN
AG-108M	-2.228E-02	3.851E-02	6.325E-02	0.000E+00	NOT IDENT.
AG-110M	5.103E-02	5.410E-02	8.661E-02	0.000E+00	NOT IDENT.
IN-111	-7.276E-01	1.280E+00	1.809E+00	0.000E+00	NOT IDENT.
IN-113M	-1.558E-02	5.002E-02	8.481E-02	0.000E+00	NOT IDENT.
SN-113	-1.558E-02	5.002E-02	8.481E-02	0.000E+00	NOT IDENT.
IN-114M	7.029E-02	2.101E-01	3.264E-01	0.000E+00	NOT IDENT.
CD-115	3.973E+00	1.327E+01	2.297E+01	0.000E+00	NOT IDENT.
SN-117M	5.256E-02	5.637E-02	1.013E-01	0.000E+00	NOT IDENT.
SB-122	-3.364E-01	2.477E+00	4.111E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.987E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.801E-02	2.946E-02	5.224E-02	0.000E+00	NOT IDENT.
I-124	-5.519E-01	8.899E-01	1.187E+00	0.000E+00	NOT IDENT.
SB-124	4.398E-02	7.003E-02	1.360E-01	0.000E+00	FAIL ABUN
SB-125	3.442E-02	1.098E-01	1.930E-01	0.000E+00	FAIL ABUN
TE-125M	7.579E+00	8.693E+00	1.584E+01	0.000E+00	NOT IDENT.
I-126	9.633E-02	2.698E-01	4.064E-01	0.000E+00	NOT IDENT.
SB-126	2.204E-02	1.971E-01	3.024E-01	0.000E+00	NOT IDENT.
SB-127	8.952E-01	1.693E+00	2.935E+00	0.000E+00	NOT IDENT.
XE-127	-2.344E-02	4.653E-02	7.660E-02	0.000E+00	NOT IDENT.
I-131	-4.439E-02	1.184E-01	2.008E-01	0.000E+00	NOT IDENT.
TE-132	-3.253E-01	7.347E-01	1.200E+00	0.000E+00	NOT IDENT.
BA-133	5.996E-03	5.121E-02	7.961E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.514E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.414E-02	6.142E-02	1.117E-01	0.000E+00	NOT IDENT.
CS-135	8.801E-02	1.977E-01	3.017E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.322E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.811E-03	1.321E-01	2.221E-01	0.000E+00	FAIL ABUN
CE-139	1.776E-03	2.959E-02	5.109E-02	0.000E+00	NOT IDENT.
BA-140	2.455E-01	3.436E-01	5.964E-01	0.000E+00	NOT IDENT.
LA-140	-7.614E-02	1.134E-01	1.688E-01	0.000E+00	FAIL ABUN
CE-141	-3.335E-02	6.344E-02	1.074E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.394E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-3.581E-02	2.095E-01	3.631E-01	0.000E+00	NOT IDENT.
PM-144	2.232E-02	4.173E-02	7.573E-02	0.000E+00	NOT IDENT.
PR-144	1.513E+00	2.828E+00	5.132E+00	0.000E+00	NOT IDENT.
PM-146	3.619E-02	4.403E-02	8.036E-02	0.000E+00	NOT IDENT.
ND-147	-2.375E-01	7.144E-01	1.172E+00	0.000E+00	FAIL ABUN
PM-149	-1.115E+01	9.411E+01	1.660E+02	0.000E+00	NOT IDENT.
EU-152	-6.347E-02	1.051E-01	1.768E-01	0.000E+00	FAIL ABUN
GD-153	-2.841E-02	7.739E-02	1.212E-01	0.000E+00	NOT IDENT.
EU-154	-2.834E-02	1.715E-01	2.796E-01	0.000E+00	NOT IDENT.
EU-155	1.183E-01	1.000E-01	1.843E-01	0.000E+00	FAIL ABUN
TB-160	3.790E-02	1.746E-01	3.043E-01	0.000E+00	FAIL ABUN
HO-166M	2.280E-02	7.919E-02	1.408E-01	0.000E+00	NOT IDENT.
TM-171	-7.233E+00	1.662E+01	2.670E+01	0.000E+00	NOT IDENT.
LU-176	-1.960E-02	2.501E-02	4.191E-02	0.000E+00	FAIL ABUN
LU-177	1.825E+00	1.688E+00	2.242E+00	0.000E+00	FAIL ABUN
LU-177M	-9.405E-02	1.990E-01	3.315E-01	0.000E+00	NOT IDENT.
HF-181	-2.202E-02	5.084E-02	8.354E-02	0.000E+00	NOT IDENT.
W-181	-5.480E-02	1.982E-01	3.211E-01	0.000E+00	NOT IDENT.
TA-182	-1.341E-01	2.848E-01	4.486E-01	0.000E+00	NOT IDENT.
RE-183	-1.531E-03	1.112E-01	1.915E-01	0.000E+00	FAIL ABUN
RE-184	4.849E-02	2.595E-01	4.378E-01	0.000E+00	NOT IDENT.
OS-185	-1.192E-03	5.479E-02	9.071E-02	0.000E+00	NOT IDENT.
RE-188	4.203E-02	1.733E-01	3.030E-01	0.000E+00	NOT IDENT.
W-188	-6.113E+00	8.423E+00	1.238E+01	0.000E+00	FAIL ABUN
IR-192	5.480E-03	3.519E-02	6.262E-02	0.000E+00	FAIL ABUN
AU-195	2.997E-01	1.999E-01	3.721E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.946E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.487E+00	6.808E+00	1.201E+01	0.000E+00	NOT IDENT.
TL-202	4.927E-02	8.162E-02	1.460E-01	0.000E+00	NOT IDENT.
HG-203	-2.436E-02	4.195E-02	7.219E-02	0.000E+00	NOT IDENT.
BI-207	-4.558E-02	7.122E-02	1.108E-01	0.000E+00	FAIL ABUN
TL-207	2.562E-01	7.408E-01	1.183E+00	0.000E+00	FAIL ABUN
PO-209	4.426E+00	9.315E+00	1.661E+01	0.000E+00	NOT IDENT.
PB-211	-2.581E-01	1.051E+00	1.764E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.393E-01	8.367E-01	0.000E+00	FAIL ABUN
PO-215	2.562E-01	7.408E-01	1.183E+00	0.000E+00	FAIL ABUN
RN-219	-4.003E-02	4.695E-01	8.073E-01	0.000E+00	FAIL ABUN
RN-220	7.371E+00	3.070E+01	5.280E+01	0.000E+00	NOT IDENT.
RA-223	2.562E-01	7.408E-01	1.183E+00	0.000E+00	FAIL ABUN
AC-227	7.104E-02	4.221E-01	7.105E-01	0.000E+00	FAIL ABUN
TH-227	7.104E-02	4.221E-01	7.105E-01	0.000E+00	FAIL ABUN
TH-229	1.141E-01	5.256E-01	9.049E-01	0.000E+00	FAIL ABUN
PA-231	1.627E-01	1.568E+00	2.802E+00	0.000E+00	NOT IDENT.
TH-231	2.562E-01	7.408E-01	1.183E+00	0.000E+00	FAIL ABUN
U-231	-4.314E-01	9.834E-01	1.535E+00	0.000E+00	FAIL ABUN
PA-233	-3.776E-03	6.524E-02	1.147E-01	0.000E+00	FAIL ABUN
PA-234	-8.371E-02	3.992E-01	6.613E-01	0.000E+00	FAIL ABUN
PA-234M	9.528E+00	6.144E+00	1.175E+01	0.000E+00	NOT IDENT.
U-235	7.247E-02	2.228E-01	3.847E-01	0.000E+00	FAIL ABUN
NP-236	2.611E-02	8.303E-02	1.453E-01	0.000E+00	NOT IDENT.
NP-239	-8.713E-02	1.862E-01	3.209E-01	0.000E+00	FAIL ABUN
AM-241	2.044E-02	6.954E-02	1.155E-01	0.000E+00	NOT IDENT.
CM-243	1.007E-02	8.594E-02	1.532E-01	0.000E+00	FAIL ABUN
AM-246	2.502E-01	1.964E-01	3.678E-01	0.000E+00	NOT IDENT.
CM-247	1.244E-03	4.226E-02	7.323E-02	0.000E+00	NOT IDENT.
CF-249	2.124E-02	4.387E-02	7.853E-02	0.000E+00	NOT IDENT.
CF-251	-1.164E-01	1.309E-01	2.133E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 16:53:38.59

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691004.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 14:53:04.
Sample ID         : G245691004           Sample quantity  : 1.29920E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:09.89  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	876	10.67*	7.783E-01	3.046E+01	3.046E+01	11.41
CD-109	88.03	366	3.72*	6.675E+00	4.259E+00	4.356E+00	22.97
SN-126	64.28	204	9.60	6.778E+00	9.053E-01	9.053E-01	47.49
	86.94	366	8.90	6.675E+00	1.780E+00	1.780E+00	46.51
	87.57	366	37.00*	6.675E+00	4.282E-01	4.282E-01	22.97
BA-137M	661.65	15	89.98*	1.603E+00	3.077E-02	3.079E-02	222.04
CS-137	661.65	15	85.12*	1.603E+00	3.252E-02	3.255E-02	222.04
TL-208	277.35	------	6.80	3.568E+00	------ Line Not Found		------
	510.84	163	21.60	2.057E+00	1.063E+00	1.063E+00	41.99
	583.14	334	84.20*	1.812E+00	6.324E-01	6.324E-01	19.29
	860.37	------	12.46	1.247E+00	------ Line Not Found		------
BI-210	46.50	117	4.05*	6.312E+00	1.325E+00	1.326E+00	71.55
PB-210	46.50	117	4.05*	6.312E+00	1.325E+00	1.326E+00	71.55
PO-210	46.50	117	4.05*	6.312E+00	1.325E+00	1.326E+00	71.44
BI-211	72.87	------	1.27	6.803E+00	------ Line Not Found		------
	351.07	527	12.94*	2.908E+00	4.049E+00	4.049E+00	15.42
PB-212	74.81	602	10.70	6.795E+00	2.393E+00	2.393E+00	19.49
	77.11	994	18.00	6.782E+00	2.353E+00	2.353E+00	13.58
	87.30	366	8.00	6.675E+00	1.980E+00	1.980E+00	25.05
	238.63	1181	44.60*	4.023E+00	1.901E+00	1.901E+00	12.10
	300.09	90	3.41	3.344E+00	2.286E+00	2.286E+00	51.98
PO-212	74.81	602	10.70	6.795E+00	2.393E+00	2.393E+00	19.49
	77.11	994	18.00	6.782E+00	2.353E+00	2.353E+00	13.58
	87.30	366	8.00	6.675E+00	1.980E+00	1.980E+00	25.05
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	1181	44.60*	4.023E+00	1.901E+00	1.901E+00	12.10
	300.09	90	3.41	3.344E+00	2.286E+00	2.286E+00	51.98
BI-214	609.31	351	46.30*	1.737E+00	1.262E+00	1.262E+00	19.43
	1120.29	96	15.10	9.773E-01	1.879E+00	1.879E+00	37.67
	1764.49	56	15.80	6.717E-01	1.532E+00	1.532E+00	37.02
PB-214	74.81	602	6.21	6.795E+00	4.124E+00	4.124E+00	18.64
	77.11	994	10.50	6.782E+00	4.034E+00	4.034E+00	15.57

Sample ID : G245691004 Acquisition date : 9-FEB-2010 14:53:04

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	366	4.67	6.675E+00	3.392E+00	3.392E+00	24.23
	241.98	319	7.49	3.986E+00	3.085E+00	3.085E+00	29.42
	295.21	376	19.20	3.390E+00	1.669E+00	1.669E+00	19.71
	351.92	527	37.20*	2.908E+00	1.408E+00	1.408E+00	16.28
PO-214	74.81	602	6.21	6.795E+00	4.124E+00	4.124E+00	18.64
	77.11	994	10.50	6.782E+00	4.034E+00	4.034E+00	15.57
	87.30	366	4.67	6.675E+00	3.392E+00	3.392E+00	24.23
	241.98	319	7.49	3.986E+00	3.085E+00	3.085E+00	29.42
	295.21	376	19.20	3.390E+00	1.669E+00	1.669E+00	19.71
	351.92	527	37.20*	2.908E+00	1.408E+00	1.408E+00	16.28
PO-216	74.81	602	10.70	6.795E+00	2.393E+00	2.393E+00	19.49
	77.11	994	18.00	6.782E+00	2.353E+00	2.353E+00	13.58
	87.30	366	8.00	6.675E+00	1.980E+00	1.980E+00	25.05
	238.63	1181	44.60*	4.023E+00	1.901E+00	1.901E+00	12.10
	300.09	90	3.41	3.344E+00	2.286E+00	2.286E+00	51.98
PO-218	74.81	602	6.21	6.795E+00	4.124E+00	4.124E+00	18.64
	77.11	994	10.50	6.782E+00	4.034E+00	4.034E+00	15.57
	87.30	366	4.67	6.675E+00	3.392E+00	3.392E+00	24.23
	241.98	319	7.49	3.986E+00	3.085E+00	3.085E+00	29.42
	295.21	376	19.20	3.390E+00	1.669E+00	1.669E+00	19.71
	351.92	527	37.20*	2.908E+00	1.408E+00	1.408E+00	16.28
RA-224	240.98	319	3.95*	3.986E+00	5.849E+00	5.849E+00	28.88
RA-226	609.31	351	46.30*	1.737E+00	1.262E+00	1.262E+00	19.43
	1120.29	96	15.10	9.773E-01	1.879E+00	1.879E+00	37.67
	1764.49	56	15.80	6.717E-01	1.532E+00	1.532E+00	37.02
AC-228	338.32	198	11.40	3.014E+00	1.661E+00	1.661E+00	50.63
	911.07	273	27.70*	1.182E+00	2.405E+00	2.405E+00	19.78
	969.11	114	16.60	1.116E+00	1.775E+00	1.775E+00	37.11
RA-228	338.32	198	11.40	3.014E+00	1.661E+00	1.661E+00	50.63
	911.07	273	27.70*	1.182E+00	2.405E+00	2.405E+00	19.78
	969.11	114	16.60	1.116E+00	1.775E+00	1.775E+00	37.11
TH-228	74.81	602	10.70	6.795E+00	2.393E+00	2.430E+00	17.14
	77.11	994	18.00	6.782E+00	2.353E+00	2.389E+00	13.58
	87.30	366	8.00	6.675E+00	1.980E+00	2.010E+00	22.97
	238.63	1181	44.60*	4.023E+00	1.901E+00	1.930E+00	12.10
	300.09	90	3.41	3.344E+00	2.286E+00	2.321E+00	78.15
TH-230	609.31	351	46.30*	1.737E+00	1.262E+00	1.262E+00	19.43
	1120.29	96	15.10	9.773E-01	1.879E+00	1.879E+00	37.67
	1764.49	56	15.80	6.717E-01	1.532E+00	1.532E+00	37.02
TH-232	338.32	198	11.40	3.014E+00	1.661E+00	1.661E+00	30.58
	911.07	273	27.70*	1.182E+00	2.405E+00	2.405E+00	19.78
	969.11	114	16.60	1.116E+00	1.775E+00	1.775E+00	37.11
TH-234	63.29	204	3.80*	6.778E+00	2.287E+00	2.287E+00	48.46
	92.38	417	5.41	6.594E+00	3.375E+00	3.375E+00	27.01
U-234	609.31	351	46.30*	1.737E+00	1.262E+00	1.262E+00	19.43
	1120.29	96	15.10	9.773E-01	1.879E+00	1.879E+00	37.67
	1764.49	56	15.80	6.717E-01	1.532E+00	1.532E+00	37.02
NP-237	86.50	366	12.60*	6.675E+00	1.257E+00	1.257E+00	30.88
	95.87	------	2.60	6.543E+00	------ Line Not Found		------

Sample ID : G245691004 Acquisition date : 9-FEB-2010 14:53:04

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-238	63.29	204	3.80*	6.778E+00	2.287E+00	2.287E+00	48.46
	92.38	417	5.41	6.594E+00	3.375E+00	3.375E+00	21.83
AM-243	74.67	602	66.00*	6.795E+00	3.880E-01	3.880E-01	17.10
	86.72	366	0.34	6.675E+00	4.715E+01	4.715E+01	22.97
	117.66	------	0.55	6.127E+00	------	Line Not Found	------
	142.18	------	0.13	5.624E+00	------	Line Not Found	------
ANH-511	511.00	163	100.00*	2.057E+00	2.296E-01	2.296E-01	41.15

Flag: "*" = Keyline

Sample ID : G245691004 Acquisition date : 9-FEB-2010 14:53:04

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.046E+01	3.046E+01	0.348E+01	11.41	
CD-109	464.00D	1.02	4.259E+00	4.356E+00	1.000E+00	22.97	
SN-126	1.00E+05Y	1.00	4.282E-01	4.282E-01	0.983E-01	22.97	
BA-137M	30.17Y	1.00	3.077E-02	3.079E-02	6.838E-02	222.04	
CS-137	30.17Y	1.00	3.252E-02	3.255E-02	7.228E-02	222.04	
TL-208	1.41E+10Y	1.00	6.324E-01	6.324E-01	1.220E-01	19.29	
BI-210	22.26Y	1.00	1.325E+00	1.326E+00	0.949E+00	71.55	
PB-210	22.26Y	1.00	1.325E+00	1.326E+00	0.949E+00	71.55	
PO-210	22.26Y	1.00	1.325E+00	1.326E+00	0.948E+00	71.44	
BI-211	7.04E+08Y	1.00	4.049E+00	4.049E+00	0.624E+00	15.42	
PB-212	1.41E+10Y	1.00	1.901E+00	1.901E+00	0.230E+00	12.10	
PO-212	1.41E+10Y	1.00	1.901E+00	1.901E+00	0.230E+00	12.10	
BI-214	1600.00Y	1.00	1.262E+00	1.262E+00	0.245E+00	19.43	
PB-214	1600.00Y	1.00	1.408E+00	1.408E+00	0.229E+00	16.28	
PO-214	1600.00Y	1.00	1.408E+00	1.408E+00	0.229E+00	16.28	
PO-216	1.41E+10Y	1.00	1.901E+00	1.901E+00	0.230E+00	12.10	
PO-218	1600.00Y	1.00	1.408E+00	1.408E+00	0.229E+00	16.28	
RA-224	1.41E+10Y	1.00	5.849E+00	5.849E+00	1.689E+00	28.88	
RA-226	1600.00Y	1.00	1.262E+00	1.262E+00	0.245E+00	19.43	
AC-228	1.41E+10Y	1.00	2.405E+00	2.405E+00	0.476E+00	19.78	
RA-228	1.41E+10Y	1.00	2.405E+00	2.405E+00	0.476E+00	19.78	
TH-228	1.91Y	1.02	1.901E+00	1.930E+00	0.234E+00	12.10	
TH-230	4.47E+09Y	1.00	1.262E+00	1.262E+00	0.245E+00	19.43	
TH-232	1.41E+10Y	1.00	2.405E+00	2.405E+00	0.476E+00	19.78	
TH-234	4.47E+09Y	1.00	2.287E+00	2.287E+00	1.108E+00	48.46	
U-234	4.47E+09Y	1.00	1.262E+00	1.262E+00	0.245E+00	19.43	
NP-237	2.14E+06Y	1.00	1.257E+00	1.257E+00	0.388E+00	30.88	
U-238	4.47E+09Y	1.00	2.287E+00	2.287E+00	1.108E+00	48.46	
AM-243	7380.00Y	1.00	3.880E-01	3.880E-01	0.664E-01	17.10	
ANH-511	1.00E+09Y	1.00	2.296E-01	2.296E-01	0.945E-01	41.15	
			---	---			
	Total Activity :		8.026E+01	8.039E+01			

Grand Total Activity : 8.026E+01 8.039E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691004 Acquisition date : 9-FEB-2010 14:53:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	89.97	235	433	1.30	179.60	163	29	3.27E-02	33.8	6.64E+00	T
0	129.23	79	293	1.48	258.15	254	7	1.10E-02	74.9	5.89E+00	T
0	185.98	196	256	1.21	371.70	368	9	2.72E-02	34.2	4.81E+00	T
0	209.18	64	262	0.99	418.11	415	9	8.94E-03	93.9	4.43E+00	T
0	270.43	72	190	1.14	540.65	536	9	1.00E-02	72.9	3.64E+00	T
0	327.79	50	143	1.68	655.43	652	9	7.00E-03	89.8	3.10E+00	T
0	463.09	54	99	1.31	926.17	920	11	7.50E-03	76.4	2.26E+00	T
0	726.72	83	60	1.18	1453.71	1447	14	1.15E-02	46.1	1.46E+00	T
0	768.42	39	89	1.24	1537.15	1531	13	5.42E-03	****	1.39E+00	
0	964.22	40	33	1.23	1929.01	1924	9	5.53E-03	62.3	1.12E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 16:53:43.16

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691004.CNF;1  *
* Acquisition date : 9-FEB-2010 14:53:04.  Detector SN#    :                *
* Detector ID      : GAM17                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:09.89         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 25-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245691004            Analyst initials: MJH1           *
* Batch Number     : 947037                Sample Quantity : 1.29920E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.046E+01	3.475E+00	7.751E-01	6.882E-02	39.300
CD-109	4.356E+00	1.000E+00	9.963E-01	9.726E-02	4.373
SN-126	4.282E-01	9.834E-02	9.778E-02	9.542E-03	4.379
BA-137M	3.079E-02	6.838E-02	8.161E-02	6.875E-03	0.377
CS-137	3.255E-02	7.228E-02	8.627E-02	7.282E-03	0.377
TL-208	6.324E-01	1.220E-01	7.516E-02	7.109E-03	8.413
BI-210	1.326E+00	9.491E-01	8.500E-01	9.221E-02	1.560
PB-210	1.326E+00	9.491E-01	8.500E-01	9.221E-02	1.560
PO-210	1.326E+00	9.476E-01	8.500E-01	8.588E-02	1.560
BI-211	4.049E+00	6.242E-01	4.080E-01	3.808E-02	9.923
PB-212	1.901E+00	2.300E-01	9.037E-02	9.111E-03	21.039
PO-212	1.901E+00	2.300E-01	9.037E-02	9.111E-03	21.039
BI-214	1.262E+00	2.451E-01	1.243E-01	1.264E-02	10.152
PB-214	1.408E+00	2.292E-01	1.291E-01	1.380E-02	10.906
PO-214	1.408E+00	2.292E-01	1.291E-01	1.380E-02	10.906
PO-216	1.901E+00	2.300E-01	9.037E-02	9.111E-03	21.039
PO-218	1.408E+00	2.292E-01	1.291E-01	1.380E-02	10.906
RA-224	5.849E+00	1.689E+00	1.029E+00	9.309E-02	5.683

Sample ID : G245691004 Acquisition date : 9-FEB-2010 14:53:04

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.262E+00	2.451E-01	1.243E-01	1.264E-02	10.152
AC-228	2.405E+00	4.757E-01	2.440E-01	2.767E-02	9.858
RA-228	2.405E+00	4.757E-01	2.440E-01	2.767E-02	9.858
TH-228	1.930E+00	2.335E-01	9.175E-02	9.249E-03	21.039
TH-230	1.262E+00	2.451E-01	1.243E-01	1.264E-02	10.152
TH-232	2.405E+00	4.757E-01	2.440E-01	2.767E-02	9.858
TH-234	2.287E+00	1.108E+00	1.052E+00	1.964E-01	2.173
U-234	1.262E+00	2.451E-01	1.243E-01	1.264E-02	10.152
NP-237	1.257E+00	3.882E-01	2.862E-01	6.533E-02	4.393
U-238	2.287E+00	1.108E+00	1.052E+00	1.964E-01	2.173
AM-243	3.880E-01	6.636E-02	6.110E-02	5.965E-03	6.351
ANH-511	2.296E-01	9.450E-02	5.224E-02	4.665E-03	4.396

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.739E-02		3.791E-01	6.239E-01	5.936E-02	0.028
NA-22	-3.289E-02		6.514E-02	9.952E-02	8.384E-03	-0.330
NA-24	-5.077E-01		4.467E-01	Half-Life too short		
AL-26	-2.457E-02		3.441E-02	4.427E-02	3.711E-03	-0.555
TI-44	4.342E-01	+	5.896E-02	6.474E-02	6.308E-03	6.708
SC-46	-2.080E-03		5.449E-02	8.985E-02	7.866E-03	-0.023
V-48	6.751E-02		9.307E-02	1.642E-01	1.432E-02	0.411
CR-51	-1.018E-02		3.916E-01	6.579E-01	6.283E-02	-0.015
MN-52	-2.179E-02		3.229E-01	5.325E-01	4.591E-02	-0.041
MN-54	3.527E-02		5.375E-02	9.398E-02	8.264E-03	0.375
CO-56	4.915E-02		4.656E-02	8.538E-02	7.505E-03	0.576
CO-57	1.348E-02		2.558E-02	4.319E-02	5.060E-03	0.312
CO-58	1.502E-02		4.865E-02	8.352E-02	7.355E-03	0.180
FE-59	1.462E-02		1.275E-01	2.100E-01	1.927E-02	0.070
CO-60	-3.149E-02		5.225E-02	8.069E-02	6.877E-03	-0.390
ZN-65	-2.595E-02		1.503E-01	2.058E-01	1.732E-02	-0.126
GE-68	9.128E-01		1.731E+00	2.975E+00	2.539E-01	0.307
AS-73	5.110E-02		2.407E-01	4.080E-01	4.082E-02	0.125
AS-74	-5.191E-02		1.142E-01	1.761E-01	1.552E-02	-0.295
SE-75	-4.480E-02		5.511E-02	7.769E-02	7.138E-03	-0.577
BR-77	-6.137E+00		1.310E+01	1.963E+01	1.755E+00	-0.313
SR-82	-3.995E-01		5.171E-01	8.034E-01	7.031E-02	-0.497
RB-83	-4.896E-02		8.584E-02	1.272E-01	1.137E-02	-0.385
RB-84	-3.652E-02		9.247E-02	1.468E-01	1.287E-02	-0.249
KR-85	1.009E+01		8.334E+00	1.479E+01	1.321E+00	0.682
SR-85	5.173E-02		4.273E-02	7.583E-02	6.775E-03	0.682
RB-86	-1.744E-01		1.166E+00	1.872E+00	1.598E-01	-0.093
Y-88	3.791E-02		3.698E-02	7.521E-02	6.272E-03	0.504
ZR-88	2.238E-02		3.448E-02	5.978E-02	5.037E-03	0.374
Y-91	1.702E+01		2.662E+01	4.563E+01	3.766E+00	0.373
NB-94	-2.997E-03		4.107E-02	6.876E-02	5.898E-03	-0.044

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	7.776E-02		5.881E-02	9.869E-02	8.620E-03	0.788
NB-95M	8.684E-02		1.444E-01	2.138E-01	2.183E-02	0.406
ZR-95	8.454E-02		1.005E-01	1.789E-01	1.715E-02	0.472
NB-97	9.592E-02		7.928E-02	Half-Life too short		
ZR-97	2.830E+00		1.198E+00	Half-Life too short		
MO-99	-1.519E+00		1.505E+01	2.504E+01	3.810E+00	-0.061
TC-99M	-7.944E+09		2.091E+10	Half-Life too short		
RH-101	-1.833E-03		3.491E-02	5.529E-02	4.807E-03	-0.033
RH-102	-3.001E-02		3.504E-02	5.318E-02	4.711E-03	-0.564
RU-103	4.202E-02		4.772E-02	8.313E-02	1.192E-02	0.506
RH-106	4.863E-01		4.043E-01	7.138E-01	9.565E-02	0.681
RU-106	4.863E-01		4.013E-01	7.138E-01	6.201E-02	0.681
AG-108M	-2.228E-02		3.929E-02	6.197E-02	5.593E-03	-0.360
AG-110M	5.103E-02		5.521E-02	8.542E-02	7.445E-03	0.597
IN-111	-7.276E-01		1.306E+00	1.756E+00	1.593E-01	-0.414
IN-113M	-1.558E-02		5.104E-02	8.295E-02	7.207E-03	-0.188
SN-113	-1.558E-02		5.104E-02	8.295E-02	7.207E-03	-0.188
IN-114M	7.029E-02		2.144E-01	3.157E-01	2.719E-02	0.223
CD-115	3.973E+00		1.354E+01	2.257E+01	2.018E+00	0.176
SN-117M	5.256E-02		5.752E-02	9.766E-02	8.778E-03	0.538
SB-122	-3.364E-01		2.528E+00	4.045E+00	3.602E-01	-0.083
I-123	3.660E+00		3.055E+00	Half-Life too short		
TE-123M	1.801E-02		3.006E-02	5.037E-02	4.534E-03	0.357
I-124	-5.519E-01		9.081E-01	1.169E+00	1.027E-01	-0.472
SB-124	4.398E-02		7.145E-02	1.362E-01	1.212E-02	0.323
SB-125	3.442E-02		1.121E-01	1.891E-01	1.668E-02	0.182
TE-125M	7.579E+00		8.870E+00	1.518E+01	1.866E+00	0.499
I-126	9.633E-02		2.753E-01	4.009E-01	3.385E-02	0.240
SB-126	2.204E-02		2.012E-01	2.987E-01	2.579E-02	0.074
SB-127	8.952E-01		1.727E+00	2.897E+00	3.275E-01	0.309
XE-127	-2.344E-02		4.748E-02	7.415E-02	6.482E-03	-0.316
I-131	-4.439E-02		1.209E-01	1.962E-01	1.811E-02	-0.226
TE-132	-3.253E-01		7.497E-01	1.164E+00	1.851E-01	-0.280
BA-133	5.996E-03		5.225E-02	7.774E-02	1.039E-02	0.077
I-133	1.529E-03		3.834E-03	Half-Life too short		
CS-134	4.414E-02		6.267E-02	1.105E-01	9.765E-03	0.399
CS-135	8.801E-02		2.017E-01	2.934E-01	3.061E-02	0.300
I-135	4.188E+09		3.736E+09	Half-Life too short		
CS-136	2.811E-03		1.348E-01	2.208E-01	1.982E-02	0.013
CE-139	1.776E-03		3.020E-02	4.930E-02	4.111E-03	0.036
BA-140	2.455E-01		3.506E-01	5.863E-01	1.948E-01	0.419
LA-140	-7.614E-02		1.157E-01	1.690E-01	1.459E-02	-0.451
CE-141	-3.335E-02		6.474E-02	1.034E-01	1.054E-02	-0.323
CE-143	7.182E-04		1.222E-04	Half-Life too short		
CE-144	-3.581E-02		2.138E-01	3.492E-01	5.924E-02	-0.103
PM-144	2.232E-02		4.258E-02	7.476E-02	6.400E-03	0.299
PR-144	1.513E+00		2.885E+00	5.066E+00	4.335E-01	0.299
PM-146	3.619E-02		4.493E-02	7.879E-02	8.552E-03	0.459

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	-2.375E-01		7.290E-01	1.152E+00	1.744E-01	-0.206
PM-149	-1.115E+01		9.604E+01	1.616E+02	2.563E+01	-0.069
EU-152	-6.347E-02		1.073E-01	1.725E-01	1.632E-02	-0.368
GD-153	-2.841E-02		7.897E-02	1.160E-01	1.186E-02	-0.245
EU-154	-2.834E-02		1.750E-01	2.787E-01	3.109E-02	-0.102
EU-155	1.183E-01		1.021E-01	1.766E-01	1.897E-02	0.670
TB-160	3.790E-02		1.782E-01	3.016E-01	2.644E-02	0.126
HO-166M	2.280E-02		8.080E-02	1.390E-01	1.196E-02	0.164
TM-171	-7.233E+00		1.696E+01	2.540E+01	2.507E+00	-0.285
LU-176	-1.960E-02		2.552E-02	4.083E-02	3.741E-03	-0.480
LU-177	1.825E+00	+	1.722E+00	2.171E+00	1.909E-01	0.841
LU-177M	-9.405E-02		2.030E-01	3.245E-01	2.780E-02	-0.290
HF-181	-2.202E-02		5.188E-02	8.198E-02	7.278E-03	-0.269
W-181	-5.480E-02		2.023E-01	3.054E-01	3.025E-02	-0.179
TA-182	-1.341E-01		2.906E-01	4.470E-01	3.708E-02	-0.300
RE-183	-1.531E-03		1.134E-01	1.847E-01	1.599E-02	-0.008
RE-184	4.849E-02		2.648E-01	4.252E-01	3.872E-02	0.114
OS-185	-1.192E-03		5.591E-02	8.944E-02	7.637E-03	-0.013
RE-188	4.203E-02		1.768E-01	2.921E-01	2.713E-02	0.144
W-188	-6.113E+00		8.595E+00	1.205E+01	1.107E+00	-0.507
IR-192	5.480E-03		3.591E-02	6.104E-02	5.584E-03	0.090
AU-195	2.997E-01		2.039E-01	3.562E-01	3.668E-02	0.842
TL-200	1.027E-04		2.523E-04	Half-Life too short		
TL-201	3.487E+00		6.947E+00	1.159E+01	9.679E-01	0.301
TL-202	4.927E-02		8.328E-02	1.431E-01	1.247E-02	0.344
HG-203	-2.436E-02		4.281E-02	7.023E-02	6.609E-03	-0.347
BI-207	-4.558E-02		7.268E-02	1.101E-01	9.443E-03	-0.414
TL-207	2.562E-01		7.560E-01	1.153E+00	2.069E-01	0.222
PO-209	4.426E+00		9.505E+00	1.646E+01	1.439E+00	0.269
PB-211	-2.581E-01		1.072E+00	1.727E+00	1.082E+00	-0.150
BI-212	1.381E+00	+	6.523E-01	8.266E-01	8.294E-02	1.671
PO-215	2.562E-01		7.560E-01	1.153E+00	2.069E-01	0.222
RN-219	-4.003E-02		4.791E-01	7.900E-01	1.181E-01	-0.051
RN-220	7.371E+00		3.133E+01	5.193E+01	4.636E+00	0.142
RA-223	2.562E-01		7.560E-01	1.153E+00	2.069E-01	0.222
AC-227	7.104E-02		4.307E-01	6.903E-01	1.079E-01	0.103
TH-227	7.104E-02		4.308E-01	6.903E-01	1.264E-01	0.103
TH-229	1.141E-01		5.364E-01	8.753E-01	7.570E-02	0.130
PA-231	1.627E-01		1.600E+00	2.727E+00	4.230E-01	0.060
TH-231	2.562E-01		7.560E-01	1.153E+00	2.069E-01	0.222
U-231	-4.314E-01		1.003E+00	1.469E+00	1.490E-01	-0.294
PA-233	-3.776E-03		6.657E-02	1.118E-01	1.048E-02	-0.034
PA-234	-8.371E-02		4.074E-01	6.562E-01	1.235E-01	-0.128
PA-234M	9.528E+00		6.269E+00	1.167E+01	1.171E+00	0.817
U-235	7.247E-02		2.274E-01	3.704E-01	6.790E-02	0.196
NP-236	2.611E-02		8.472E-02	1.401E-01	1.238E-02	0.186
NP-239	-8.713E-02		1.900E-01	3.080E-01	3.503E-02	-0.283
AM-241	2.044E-02		7.096E-02	1.097E-01	1.165E-02	0.186

Sample ID : G245691004 Acquisition date : 9-FEB-2010 14:53:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.007E-02		8.769E-02	1.468E-01	1.551E-02	0.069
AM-246	2.502E-01		2.004E-01	3.658E-01	3.120E-02	0.684
CM-247	1.244E-03		4.312E-02	7.166E-02	6.087E-03	0.017
CF-249	2.124E-02		4.476E-02	7.680E-02	6.507E-03	0.277
CF-251	-1.164E-01		1.336E-01	2.060E-01	1.743E-02	-0.565

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691004           *
* Acquisition date  :  9-FEB-2010 14:53:04 Detector SN#     :               *
* Detector ID       : GAM17                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:09.89      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691004           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.2992E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.046E+01	3.406E+00	3.880E-01	1.738E+00
CD-109	4.356E+00	9.805E-01	5.216E-01	5.002E-01
SN-126	4.282E-01	9.637E-02	5.120E-02	4.917E-02
BA-137M	3.079E-02	6.701E-02	4.139E-02	3.419E-02
CS-137	3.255E-02	7.083E-02	4.376E-02	3.614E-02
TL-208	6.324E-01	1.196E-01	3.820E-02	6.100E-02
BI-210	1.326E+00	9.301E-01	4.494E-01	4.745E-01
PB-210	1.326E+00	9.301E-01	4.494E-01	4.745E-01
PO-210	1.326E+00	9.287E-01	4.494E-01	4.738E-01
BI-211	4.049E+00	6.117E-01	2.091E-01	3.121E-01
PB-212	1.901E+00	2.254E-01	4.659E-02	1.150E-01
PO-212	1.901E+00	2.254E-01	4.659E-02	1.150E-01
BI-214	1.262E+00	2.402E-01	6.312E-02	1.226E-01
PB-214	1.408E+00	2.247E-01	6.617E-02	1.146E-01
PO-214	1.408E+00	2.247E-01	6.617E-02	1.146E-01
PO-216	1.901E+00	2.254E-01	4.659E-02	1.150E-01
PO-218	1.408E+00	2.247E-01	6.617E-02	1.146E-01
RA-224	5.849E+00	1.656E+00	5.306E-01	8.447E-01
RA-226	1.262E+00	2.402E-01	6.312E-02	1.226E-01
AC-228	2.405E+00	4.661E-01	1.231E-01	2.378E-01
RA-228	2.405E+00	4.661E-01	1.231E-01	2.378E-01
TH-228	1.930E+00	2.288E-01	4.730E-02	1.168E-01
TH-230	1.262E+00	2.402E-01	6.312E-02	1.226E-01
TH-232	2.405E+00	4.661E-01	1.231E-01	2.378E-01
TH-234	2.287E+00	1.086E+00	5.538E-01	5.541E-01
U-234	1.262E+00	2.402E-01	6.312E-02	1.226E-01
NP-237	1.257E+00	3.804E-01	1.499E-01	1.941E-01
U-238	2.287E+00	1.086E+00	5.538E-01	5.541E-01
AM-243	3.880E-01	6.504E-02	3.207E-02	3.318E-02
ANH-511	2.296E-01	9.261E-02	2.660E-02	4.725E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.739E-02	3.716E-01	3.181E-01	1.896E-01	NOT IDENT.
NA-22	-3.289E-02	6.384E-02	4.994E-02	3.257E-02	NOT IDENT.
NA-24	-5.077E+05	8.755E+05	0.000E+00	4.467E+05	SHORT HLIF
AL-26	-2.457E-02	3.373E-02	2.208E-02	1.721E-02	NOT IDENT.
TI-44	4.342E-01	5.778E-02	3.395E-02	2.948E-02	FAIL ABUN
SC-46	-2.080E-03	5.340E-02	4.535E-02	2.724E-02	FAIL ABUN
V-48	6.751E-02	9.121E-02	8.276E-02	4.653E-02	NOT IDENT.
CR-51	-1.018E-02	3.838E-01	3.376E-01	1.958E-01	NOT IDENT.
MN-52	-2.179E-02	3.164E-01	2.667E-01	1.614E-01	NOT IDENT.
MN-54	3.527E-02	5.268E-02	4.749E-02	2.688E-02	NOT IDENT.
CO-56	4.915E-02	4.563E-02	4.313E-02	2.328E-02	NOT IDENT.
CO-57	1.348E-02	2.507E-02	2.250E-02	1.279E-02	NOT IDENT.
CO-58	1.502E-02	4.768E-02	4.222E-02	2.433E-02	NOT IDENT.
FE-59	1.462E-02	1.250E-01	1.056E-01	6.376E-02	NOT IDENT.
CO-60	-3.149E-02	5.121E-02	4.046E-02	2.613E-02	NOT IDENT.
ZN-65	-2.595E-02	1.473E-01	1.035E-01	7.517E-02	NOT IDENT.
GE-68	9.128E-01	1.697E+00	1.497E+00	8.656E-01	NOT IDENT.
AS-73	5.110E-02	2.359E-01	2.152E-01	1.204E-01	NOT IDENT.
AS-74	-5.191E-02	1.119E-01	8.948E-02	5.710E-02	NOT IDENT.
SE-75	-4.480E-02	5.401E-02	3.999E-02	2.756E-02	NOT IDENT.
BR-77	-6.137E+00	1.283E+01	9.997E+00	6.548E+00	FAIL ABUN
SR-82	-3.995E-01	5.067E-01	4.064E-01	2.585E-01	NOT IDENT.
RB-83	-4.896E-02	8.412E-02	6.475E-02	4.292E-02	NOT IDENT.
RB-84	-3.652E-02	9.062E-02	7.412E-02	4.624E-02	NOT IDENT.
KR-85	1.009E+01	8.167E+00	7.532E+00	4.167E+00	NOT IDENT.
SR-85	5.173E-02	4.188E-02	3.862E-02	2.137E-02	NOT IDENT.
RB-86	-1.744E-01	1.143E+00	9.417E-01	5.831E-01	NOT IDENT.
Y-88	3.791E-02	3.624E-02	3.751E-02	1.849E-02	NOT IDENT.
ZR-88	2.238E-02	3.379E-02	3.058E-02	1.724E-02	NOT IDENT.
Y-91	1.702E+01	2.609E+01	2.292E+01	1.331E+01	NOT IDENT.
NB-94	-2.997E-03	4.025E-02	3.484E-02	2.054E-02	NOT IDENT.
NB-95	7.776E-02	5.763E-02	4.993E-02	2.940E-02	NOT IDENT.
NB-95M	8.684E-02	1.415E-01	1.103E-01	7.219E-02	NOT IDENT.
ZR-95	8.454E-02	9.851E-02	9.056E-02	5.026E-02	NOT IDENT.
NB-97	9.592E+04	1.554E+05	0.000E+00	7.928E+04	SHORT HLIF
ZR-97	2.830E+06	2.349E+06	0.000E+00	1.198E+06	SHORT HLIF
MO-99	-1.519E+00	1.475E+01	1.268E+01	7.526E+00	NOT IDENT.
TC-99M	-7.944E+15	4.098E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.833E-03	3.422E-02	2.859E-02	1.746E-02	NOT IDENT.
RH-102	-3.001E-02	3.434E-02	2.712E-02	1.752E-02	NOT IDENT.
RU-103	4.202E-02	4.676E-02	4.236E-02	2.386E-02	FAIL ABUN
RH-106	4.863E-01	3.962E-01	3.624E-01	2.022E-01	FAIL ABUN
RU-106	4.863E-01	3.932E-01	3.624E-01	2.006E-01	FAIL ABUN
AG-108M	-2.228E-02	3.851E-02	3.165E-02	1.965E-02	NOT IDENT.
AG-110M	5.103E-02	5.410E-02	4.333E-02	2.760E-02	NOT IDENT.
IN-111	-7.276E-01	1.280E+00	9.051E-01	6.531E-01	NOT IDENT.
IN-113M	-1.558E-02	5.002E-02	4.243E-02	2.552E-02	NOT IDENT.
SN-113	-1.558E-02	5.002E-02	4.243E-02	2.552E-02	NOT IDENT.
IN-114M	7.029E-02	2.101E-01	1.633E-01	1.072E-01	NOT IDENT.
CD-115	3.973E+00	1.327E+01	1.149E+01	6.769E+00	NOT IDENT.
SN-117M	5.256E-02	5.637E-02	5.067E-02	2.876E-02	NOT IDENT.
SB-122	-3.364E-01	2.477E+00	2.057E+00	1.264E+00	NOT IDENT.
I-123	3.660E+06	5.987E+06	0.000E+00	3.055E+06	SHORT HLIF
TE-123M	1.801E-02	2.946E-02	2.613E-02	1.503E-02	NOT IDENT.
I-124	-5.519E-01	8.899E-01	5.941E-01	4.540E-01	NOT IDENT.
SB-124	4.398E-02	7.003E-02	6.802E-02	3.573E-02	FAIL ABUN
SB-125	3.442E-02	1.098E-01	9.658E-02	5.604E-02	FAIL ABUN
TE-125M	7.579E+00	8.693E+00	7.923E+00	4.435E+00	NOT IDENT.
I-126	9.633E-02	2.698E-01	2.033E-01	1.376E-01	NOT IDENT.
SB-126	2.204E-02	1.971E-01	1.513E-01	1.006E-01	NOT IDENT.
SB-127	8.952E-01	1.693E+00	1.468E+00	8.636E-01	NOT IDENT.
XE-127	-2.344E-02	4.653E-02	3.832E-02	2.374E-02	NOT IDENT.
I-131	-4.439E-02	1.184E-01	1.005E-01	6.043E-02	NOT IDENT.
TE-132	-3.253E-01	7.347E-01	6.005E-01	3.749E-01	NOT IDENT.
BA-133	5.996E-03	5.121E-02	3.983E-02	2.613E-02	NOT IDENT.
I-133	1.529E+03	7.514E+03	0.000E+00	3.834E+03	SHORT HLIF
CS-134	4.414E-02	6.142E-02	5.589E-02	3.134E-02	NOT IDENT.
CS-135	8.801E-02	1.977E-01	1.510E-01	1.009E-01	NOT IDENT.
I-135	4.188E+15	7.322E+15	0.000E+00	3.736E+15	SHORT HLIF
CS-136	2.811E-03	1.321E-01	1.111E-01	6.741E-02	FAIL ABUN
CE-139	1.776E-03	2.959E-02	2.556E-02	1.510E-02	NOT IDENT.
BA-140	2.455E-01	3.436E-01	2.984E-01	1.753E-01	NOT IDENT.
LA-140	-7.614E-02	1.134E-01	8.447E-02	5.783E-02	FAIL ABUN
CE-141	-3.335E-02	6.344E-02	5.371E-02	3.237E-02	NOT IDENT.
CE-143	7.182E+02	2.394E+02	0.000E+00	1.222E+02	SHORT HLIF

CE-144	-3.581E-02	2.095E-01	1.817E-01	1.069E-01	NOT IDENT.
PM-144	2.232E-02	4.173E-02	3.789E-02	2.129E-02	NOT IDENT.
PR-144	1.513E+00	2.828E+00	2.567E+00	1.443E+00	NOT IDENT.
PM-146	3.619E-02	4.403E-02	4.021E-02	2.246E-02	NOT IDENT.
ND-147	-2.375E-01	7.144E-01	5.864E-01	3.645E-01	FAIL ABUN
PM-149	-1.115E+01	9.411E+01	8.305E+01	4.802E+01	NOT IDENT.
EU-152	-6.347E-02	1.051E-01	8.843E-02	5.364E-02	FAIL ABUN
GD-153	-2.841E-02	7.739E-02	6.065E-02	3.948E-02	NOT IDENT.
EU-154	-2.834E-02	1.715E-01	1.399E-01	8.749E-02	NOT IDENT.
EU-155	1.183E-01	1.000E-01	9.219E-02	5.104E-02	FAIL ABUN
TB-160	3.790E-02	1.746E-01	1.523E-01	8.909E-02	FAIL ABUN
HO-166M	2.280E-02	7.919E-02	7.042E-02	4.040E-02	NOT IDENT.
TM-171	-7.233E+00	1.662E+01	1.336E+01	8.479E+00	NOT IDENT.
LU-176	-1.960E-02	2.501E-02	2.097E-02	1.276E-02	FAIL ABUN
LU-177	1.825E+00	1.688E+00	1.121E+00	8.610E-01	FAIL ABUN
LU-177M	-9.405E-02	1.990E-01	1.658E-01	1.015E-01	NOT IDENT.
HF-181	-2.202E-02	5.084E-02	4.179E-02	2.594E-02	NOT IDENT.
W-181	-5.480E-02	1.982E-01	1.606E-01	1.011E-01	NOT IDENT.
TA-182	-1.341E-01	2.848E-01	2.244E-01	1.453E-01	NOT IDENT.
RE-183	-1.531E-03	1.112E-01	9.580E-02	5.671E-02	FAIL ABUN
RE-184	4.849E-02	2.595E-01	2.190E-01	1.324E-01	NOT IDENT.
OS-185	-1.192E-03	5.479E-02	4.538E-02	2.795E-02	NOT IDENT.
RE-188	4.203E-02	1.733E-01	1.516E-01	8.841E-02	NOT IDENT.
W-188	-6.113E+00	8.423E+00	6.194E+00	4.298E+00	FAIL ABUN
IR-192	5.480E-03	3.519E-02	3.133E-02	1.795E-02	FAIL ABUN
AU-195	2.997E-01	1.999E-01	1.861E-01	1.020E-01	FAIL ABUN
TL-200	1.027E+02	4.946E+02	0.000E+00	2.523E+02	SHORT HLIF
TL-201	3.487E+00	6.808E+00	6.009E+00	3.474E+00	NOT IDENT.
TL-202	4.927E-02	8.162E-02	7.305E-02	4.164E-02	NOT IDENT.
HG-203	-2.436E-02	4.195E-02	3.612E-02	2.141E-02	NOT IDENT.
BI-207	-4.558E-02	7.122E-02	5.543E-02	3.634E-02	FAIL ABUN
TL-207	2.562E-01	7.408E-01	5.916E-01	3.780E-01	FAIL ABUN
PO-209	4.426E+00	9.315E+00	8.308E+00	4.752E+00	NOT IDENT.
PB-211	-2.581E-01	1.051E+00	8.826E-01	5.361E-01	NOT IDENT.
BI-212	1.381E+00	6.393E-01	4.186E-01	3.262E-01	FAIL ABUN
PO-215	2.562E-01	7.408E-01	5.916E-01	3.780E-01	FAIL ABUN
RN-219	-4.003E-02	4.695E-01	4.039E-01	2.395E-01	FAIL ABUN
RN-220	7.371E+00	3.070E+01	2.642E+01	1.567E+01	NOT IDENT.
RA-223	2.562E-01	7.408E-01	5.916E-01	3.780E-01	FAIL ABUN
AC-227	7.104E-02	4.221E-01	3.555E-01	2.154E-01	FAIL ABUN
TH-227	7.104E-02	4.221E-01	3.555E-01	2.154E-01	FAIL ABUN
TH-229	1.141E-01	5.256E-01	4.527E-01	2.682E-01	FAIL ABUN
PA-231	1.627E-01	1.568E+00	1.402E+00	8.000E-01	NOT IDENT.
TH-231	2.562E-01	7.408E-01	5.916E-01	3.780E-01	FAIL ABUN
U-231	-4.314E-01	9.834E-01	7.680E-01	5.017E-01	FAIL ABUN
PA-233	-3.776E-03	6.524E-02	5.738E-02	3.328E-02	FAIL ABUN
PA-234	-8.371E-02	3.992E-01	3.309E-01	2.037E-01	FAIL ABUN
PA-234M	9.528E+00	6.144E+00	5.878E+00	3.135E+00	NOT IDENT.
U-235	7.247E-02	2.228E-01	1.925E-01	1.137E-01	FAIL ABUN
NP-236	2.611E-02	8.303E-02	7.270E-02	4.236E-02	NOT IDENT.
NP-239	-8.713E-02	1.862E-01	1.606E-01	9.499E-02	FAIL ABUN
AM-241	2.044E-02	6.954E-02	5.780E-02	3.548E-02	NOT IDENT.
CM-243	1.007E-02	8.594E-02	7.666E-02	4.384E-02	FAIL ABUN
AM-246	2.502E-01	1.964E-01	1.840E-01	1.002E-01	NOT IDENT.
CM-247	1.244E-03	4.226E-02	3.664E-02	2.156E-02	NOT IDENT.
CF-249	2.124E-02	4.387E-02	3.929E-02	2.238E-02	NOT IDENT.
CF-251	-1.164E-01	1.309E-01	1.067E-01	6.678E-02	NOT IDENT.

```
*******************************************************************************
*                          GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                                *
*                           CHARLESTON ,SC 29417                              *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	260.9104
46.50	260.9104
46.50	260.9104
48.70	272.6796
49.72	272.2313
51.35	314.8705
52.39	293.7828
52.97	280.6912
53.15	280.8310
53.44	303.9836
54.07	296.8563
56.28	321.7404
56.28	321.7423
57.37	0.0000
57.53	327.1050
57.53	327.1070
57.60	327.1651
57.98	363.5941
57.98	363.5941
59.32	362.2769
59.32	362.2769
59.40	362.3517
59.54	362.4831
59.72	335.4520
60.01	318.8520
61.10	375.6292
61.14	375.6667
61.30	407.0287
63.00	406.5912
63.29	406.8833
63.29	406.8833
63.58	407.1755
64.28	390.4088
65.12	397.7748
65.20	397.8516
65.20	397.8516
66.05	399.9857
66.72	426.9853
66.83	421.8262
66.91	421.9067
67.20	406.3672
67.20	406.3672
67.75	430.6756
67.85	421.7945
68.90	427.4290
68.90	427.4290
69.30	421.1122
69.67	432.6255
70.82	425.7910
70.82	425.7910
70.83	425.8008
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72.87	439.8146
72.87	439.8146
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74.81	416.2172
74.81	416.2172
74.81	416.2172
74.81	416.2172
74.81	416.2172
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75.70	417.0379
77.11	418.3245
77.11	418.3245

77.11	418.3245
77.11	418.3245
77.11	418.3245
77.11	418.3245
77.11	418.3245
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79.62	371.7455
79.80	371.8876
79.80	371.8876
80.11	437.3232
80.18	437.3896
80.30	345.1088
80.30	345.1088
80.57	345.3045
81.00	438.1462
81.07	438.2101
81.07	438.2101
81.07	438.2101
81.07	438.2101
82.60	375.4457
83.37	319.9772
83.78	320.2504
83.78	320.2504
83.78	320.2504
83.78	320.2504
84.21	320.5324
84.90	320.9841
85.43	321.3305
86.29	321.8911
86.50	322.0267
86.54	322.0517
86.59	322.0856
86.72	322.1696
86.79	322.2124
86.94	322.3106
87.30	322.5445
87.30	322.5445
87.30	322.5445
87.30	322.5445
87.30	322.5445
87.30	322.5445
87.30	322.5445
87.57	322.7176
87.88	322.9176
88.03	323.0140
88.36	323.2246
88.47	323.2961
89.95	324.2405
91.11	324.9742
92.29	325.7169
92.38	325.7740
92.38	325.7740
93.35	326.3810
94.00	326.7845
94.67	278.2572
94.67	278.2602
94.90	278.3817
94.90	278.3817
94.90	278.3817
94.90	278.3817
95.87	291.5034
95.87	291.5034
96.73	317.2418
97.43	303.5984
98.44	246.7118
98.44	246.7118
98.88	244.2816
99.55	264.3365
99.55	264.3365
99.86	275.7813
100.00	275.8514
100.10	275.9036
103.18	276.4917
103.76	253.0802
105.00	243.1875
105.31	243.3203
108.00	286.4822
109.28	243.0911

111.00	281.2402
111.00	281.2402
111.76	279.6802
112.95	286.0193
115.19	272.5894
116.30	244.0366
117.00	264.6770
117.00	264.6770
117.66	283.4037
121.11	235.2106
121.62	240.2869
121.78	240.3482
122.06	231.6575
122.32	231.7527
122.32	231.7527
122.32	231.7527
122.32	231.7527
123.07	262.3785
127.23	243.8884
129.76	280.4488
131.20	261.7307
133.02	250.5183
133.54	253.6978
135.34	259.3652
136.00	252.6294
136.25	252.7220
136.48	227.8260
140.51	262.3355
140.51	0.0000
142.18	253.8995
142.65	224.8307
143.76	234.2751
144.24	227.3598
144.24	227.3598
144.24	227.3598
144.24	227.3598
145.22	217.5567
145.44	246.9760
147.16	226.2643
152.43	206.4508
152.70	206.5268
153.22	214.8578
154.21	230.5138
154.21	230.5138
154.21	230.5138
154.21	230.5138
155.03	216.4090
156.02	241.3445
158.56	197.8516
159.00	0.0000
159.00	208.2776
160.31	216.9000
161.27	216.1372
162.32	210.2214
162.64	223.7761
163.35	229.1674
163.89	209.6112
165.85	196.6174
167.43	177.2079
171.28	195.8798
171.86	190.7793
172.10	187.6911
176.55	217.1944
176.60	217.2090
181.06	221.3551
184.41	234.6985
185.71	213.2060
186.00	213.2792
190.27	189.6974
192.34	195.5245
193.63	187.2079
197.04	195.4960
198.01	178.4109
198.60	172.0365
200.40	172.3859
201.83	192.2073
202.84	181.5520
205.31	152.0694

208.36	191.9513
208.81	190.4045
209.75	190.5992
209.75	190.5992
210.97	141.4927
215.65	175.2714
216.55	158.8887
218.09	184.5657
222.10	188.6716
223.80	177.8841
226.40	164.9839
227.00	171.7774
227.08	179.6002
227.20	189.6642
228.16	175.3314
228.18	175.3345
228.18	175.3345
231.56	0.0000
235.69	162.0352
236.00	162.0864
236.00	162.0864
238.63	145.5804
238.63	145.5804
238.63	145.5804
238.63	145.5804
239.00	145.6328
240.98	145.9163
241.98	146.0580
241.98	146.0580
241.98	146.0580
244.69	143.0381
245.39	161.8781
247.94	117.5214
248.90	151.5962
249.79	164.2734
252.40	147.5264
252.85	148.7335
252.85	148.7335
254.15	0.0000
256.20	145.7585
256.20	145.7585
260.50	167.0839
260.90	152.1604
262.80	138.5693
264.65	169.3405
268.24	146.2207
268.79	151.5172
269.46	144.6370
269.46	144.6370
269.46	144.6370
269.46	144.6370
271.23	157.0853
273.65	160.9242
276.40	143.7828
277.35	131.6185
277.60	137.7918
277.60	137.7918
278.00	131.6940
278.60	137.9116
279.20	149.4115
279.53	149.4530
280.46	152.2144
281.68	128.5966
283.67	126.1702
284.30	146.5443
285.00	144.8663
285.90	129.0666
286.10	124.6680
286.10	124.6680
287.40	122.1524
288.45	0.0000
290.67	136.3406
290.80	136.3547
291.72	113.7188
293.26	0.0000
293.70	108.2146
295.21	108.3520
295.21	108.3520

295.21	108.3520
295.96	82.0287
296.50	78.4972
297.23	78.5455
298.57	78.6342
299.80	113.0610
299.80	113.0610
300.09	113.0900
300.09	113.0900
300.09	113.0900
300.09	113.0900
300.12	113.0919
301.29	128.9641
302.84	106.1727
303.76	113.4333
303.91	113.4468
304.40	97.6902
304.40	97.6902
304.84	114.9707
306.84	121.4580
308.46	118.0131
311.98	109.3165
316.51	104.2749
318.01	105.3073
319.02	102.6666
319.41	112.6948
320.08	109.1162
323.87	97.7699
323.87	97.7699
323.87	97.7699
323.87	97.7699
325.23	109.5612
328.77	118.6524
333.44	112.7090
334.20	108.8519
334.20	108.8519
334.30	108.8609
338.28	125.4227
338.28	125.4227
338.28	125.4227
338.28	125.4227
338.32	125.4269
338.32	125.4269
338.32	125.4269
340.50	116.7661
340.57	116.7719
344.27	118.5801
345.85	120.8407
350.59	0.0000
351.07	131.0998
351.92	108.0756
351.92	108.0756
351.92	108.0756
355.39	0.0000
356.01	95.6906
364.48	91.2024
366.43	88.5051
367.43	87.6260
367.94	0.0000
369.80	87.7736
374.96	116.5118
383.85	102.9375
387.95	87.9346
388.63	88.9315
391.69	101.5747
391.69	101.5747
392.90	83.4370
398.62	100.1248
400.65	94.4769
401.10	94.5053
401.81	99.3742
402.60	98.4608
404.84	97.6403
410.95	90.2683
411.60	105.8432
413.65	99.1798
414.70	80.7596
415.30	73.0042

415.76	82.7627
417.63	0.0000
418.52	94.6156
423.70	98.8455
427.08	97.0966
427.89	90.2775
432.53	95.4637
433.93	96.5331
439.47	80.0644
439.56	80.0681
439.89	80.0854
443.98	93.1738
444.90	94.2187
445.03	94.2259
445.03	94.2259
445.03	94.2259
445.03	94.2259
453.90	52.8536
463.38	67.3969
468.07	80.4590
473.00	56.4854
475.06	88.8688
475.35	88.8849
476.78	72.7844
477.59	74.8412
477.96	71.8223
482.03	84.1601
484.57	86.3152
487.03	68.1328
490.36	0.0000
492.35	73.4403
497.08	58.2959
507.63	0.0000
510.53	0.0000
510.84	63.8992
511.00	63.9049
511.85	63.9351
511.85	63.9351
513.99	64.0099
513.99	64.0099
520.41	74.5972
520.65	74.6060
527.90	68.6587
528.96	0.0000
529.64	65.5994
529.87	0.0000
531.02	81.2778
537.32	70.0507
543.00	62.9205
546.56	0.0000
549.76	61.0391
552.65	72.7250
555.20	65.4341
563.23	69.9437
563.90	68.9078
568.70	62.7001
569.32	63.7830
569.50	64.8516
569.67	56.3513
573.80	67.1240
574.00	64.9987
574.64	67.1528
578.91	75.2018
579.30	0.0000
583.14	72.7916
585.48	72.0193
591.81	67.7296
592.07	63.4365
593.00	60.2383
595.88	70.0186
600.56	56.1434
602.52	0.0000
602.71	69.1719
602.71	69.1719
603.60	72.6612
604.41	57.1135
604.70	57.1216
609.31	55.2972

609.31	55.2972
609.31	55.2972
609.31	55.2972
610.33	55.3237
612.46	69.4980
614.37	60.8655
618.01	65.3265
621.84	46.9026
621.84	46.9026
631.29	56.9718
633.02	54.8248
633.10	54.8279
634.78	57.0654
635.90	59.2916
636.97	50.5329
645.85	54.0498
646.12	61.7781
656.30	40.7857
657.75	60.3317
657.90	0.0000
661.65	76.6585
661.65	76.6585
664.57	0.0000
666.33	62.3472
666.33	62.3472
675.00	51.4117
677.61	60.4221
685.20	49.3979
692.80	60.3752
695.00	64.9441
696.49	55.9589
696.49	55.9589
697.00	59.5837
697.49	59.5950
698.33	65.0373
698.50	69.5594
699.00	69.5726
702.63	61.5370
706.10	74.3185
706.58	0.0000
706.67	74.3365
709.31	62.6205
711.68	63.5930
713.82	70.9255
717.42	57.3737
720.50	54.7119
721.93	0.0000
722.20	56.2723
722.78	62.3708
722.78	62.3708
722.89	62.3742
722.95	56.2889
723.30	56.2979
724.18	56.3190
727.18	47.5503
733.00	41.2493
735.90	52.3117
739.58	58.8250
742.81	53.3810
744.21	57.0957
747.13	56.2418
751.79	62.8153
752.31	57.2849
753.82	64.7158
755.35	53.6543
756.15	58.2996
756.87	54.6139
763.93	44.8676
765.79	43.3524
766.42	41.8151
766.84	41.8217
776.49	69.9719
778.00	76.5487
778.57	79.3658
778.89	73.7732
783.80	42.1040
785.46	64.6016
792.07	54.4430

795.84	54.5237
796.30	50.7727
798.80	66.8208
801.93	56.5371
805.60	53.7854
810.29	43.4844
810.76	43.4922
815.85	49.2603
817.79	44.5571
818.51	49.3111
819.60	52.1775
826.30	61.8198
828.27	0.0000
831.60	73.3793
831.96	78.1542
834.83	60.1099
836.80	0.0000
846.75	30.6672
848.13	45.0654
856.28	0.0000
856.80	67.3340
860.37	43.3422
867.32	37.6584
867.82	42.4939
871.10	36.7429
873.19	45.4796
874.81	42.6014
875.33	0.0000
876.40	46.5012
879.36	41.7014
880.27	42.6852
880.51	45.5989
881.50	50.4677
883.24	50.4994
884.67	52.4681
889.25	51.5805
896.60	39.0303
898.02	38.0736
899.00	43.9464
903.28	32.6017
911.07	35.3057
911.07	35.3057
911.07	35.3057
919.63	31.4758
920.93	28.5377
925.00	51.2434
925.24	49.2761
926.50	42.3964
935.52	47.4727
937.48	52.4527
944.10	46.6190
946.00	48.6339
949.00	49.6765
962.29	49.8975
964.01	66.5690
966.15	14.9886
968.20	54.9946
969.11	50.0110
969.11	50.0110
969.11	50.0110
977.42	44.1300
980.50	68.2706
983.50	35.1735
989.30	47.3224
996.32	53.4852
1001.03	32.3422
1001.68	32.3492
1004.76	50.5957
1021.30	0.0000
1024.50	0.0000
1034.80	41.8849
1036.00	41.9009
1037.82	46.0151
1038.57	45.0033
1038.76	0.0000
1045.16	43.0459
1046.59	45.1150
1048.07	36.9299

1050.47	36.9580
1050.47	36.9580
1062.04	54.6045
1063.62	51.5381
1076.63	52.7780
1077.35	40.3692
1078.86	34.1730
1085.78	31.1323
1099.22	45.8434
1112.02	35.5605
1112.84	36.6150
1115.52	57.5835
1120.29	48.2281
1120.29	48.2281
1120.29	48.2281
1120.29	48.2281
1120.51	48.2304
1121.28	48.9408
1124.00	0.0000
1129.67	52.5659
1131.51	0.0000
1147.95	0.0000
1167.94	54.2099
1173.22	57.4857
1175.09	60.7100
1177.93	52.2324
1189.05	57.7415
1204.90	47.2549
1205.75	0.0000
1213.00	62.4321
1221.42	65.8103
1230.97	76.7999
1235.34	59.5627
1236.41	0.0000
1238.25	73.7010
1246.25	57.5676
1260.41	0.0000
1271.85	39.3697
1274.45	40.4904
1274.54	47.0585
1291.56	39.5736
1298.22	0.0000
1312.09	31.3119
1325.50	33.2681
1325.50	33.2681
1332.49	34.2524
1333.61	32.4109
1360.21	27.0353
1362.66	0.0000
1365.15	18.6678
1368.21	27.0884
1368.53	0.0000
1376.25	19.6550
1384.27	21.5700
1394.10	27.2618
1395.20	25.3894
1407.95	25.4674
1434.06	23.7305
1436.60	20.8953
1457.56	0.0000
1460.81	22.9258
1489.15	17.3086
1509.49	13.5249
1596.49	22.6556
1620.62	5.9412
1678.03	0.0000
1691.02	4.0202
1691.02	4.0202
1706.46	0.0000
1750.46	0.0000
1764.49	6.9958
1764.49	6.9958
1764.49	6.9958
1764.49	6.9958
1770.23	22.4709
1771.40	6.1299
1791.20	0.0000
1808.65	10.2917

1836.01 3.1041

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691004

Total Uranium Activity	6.8375E+00	ug/g
Total Uranium Counting Unc.	3.2327E+00	ug/g
Total Uranium Tpu	1.6493E-06	ug/g
Total Uranium Mda	1.6499E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691004         *
*   ANALYST       : MJH1                      DETECTOR   : GAM17              *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  9-FEB-2010 14:53:04.54    SAMPLE ALQT:  129.920 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.028E+01
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.508E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.742E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.815E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:24:34.14

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691005.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:09.
Sample ID         : G245691005           Sample quantity  : 1.26970E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.19  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947037                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	1	74.53*	317	379	0.89	149.20	145	13	4.40E-02	10.9	1.53E+00
2	1	76.83	554	428	0.92	153.80	145	13	7.70E-02	7.3	
3	0	87.00*	266	470	1.22	174.11	171	7	3.69E-02	15.0	
4	0	92.83*	177	673	1.52	185.77	182	12	2.46E-02	31.2	
5	0	185.69*	264	448	1.16	371.32	365	13	3.67E-02	18.1	
6	0	208.93	132	394	1.31	417.78	412	11	1.83E-02	30.4	
7	6	238.27*	1431	236	1.13	476.41	470	18	1.99E-01	3.2	2.73E+00
8	6	241.26	298	354	1.67	482.39	470	18	4.14E-02	15.6	
9	0	270.18	113	222	1.29	540.18	535	10	1.57E-02	26.5	
10	0	277.84	130	258	3.94	555.49	549	13	1.80E-02	27.3	
11	1	294.74	416	149	1.40	589.25	583	22	5.77E-02	7.2	2.41E+00
12	1	299.74*	105	157	1.40	599.25	583	22	1.46E-02	23.3	
13	0	327.05	58	155	1.47	653.83	650	8	8.04E-03	39.4	
14	0	337.94	281	184	1.23	675.60	670	11	3.90E-02	11.1	
15	0	351.51*	714	204	1.31	702.73	698	11	9.92E-02	5.5	
16	0	461.79	103	134	1.44	923.14	917	13	1.43E-02	25.1	
17	0	510.17*	155	130	1.72	1019.86	1012	14	2.15E-02	20.0	
18	0	582.57*	466	107	1.42	1164.59	1157	16	6.47E-02	6.9	
19	0	608.69*	507	106	1.32	1216.81	1211	14	7.04E-02	6.3	
20	0	727.07*	98	89	1.98	1453.48	1448	13	1.36E-02	23.0	
21	0	767.23	89	58	1.83	1533.76	1529	10	1.24E-02	19.2	
22	0	793.78	51	75	2.00	1586.85	1580	12	7.12E-03	36.6	
23	0	859.98	46	72	1.26	1719.23	1713	13	6.40E-03	40.6	
24	0	910.30*	279	67	1.57	1819.83	1813	16	3.87E-02	9.0	
25	2	963.77*	54	51	2.11	1926.76	1921	21	7.56E-03	29.1	1.40E+00
26	2	968.25*	172	44	1.99	1935.71	1921	21	2.38E-02	11.4	
27	0	1119.29*	127	133	1.80	2237.78	2229	19	1.77E-02	23.6	
28	0	1376.05	48	29	2.41	2751.36	2745	13	6.67E-03	27.3	
29	0	1407.84	21	25	1.45	2814.96	2808	14	2.96E-03	53.9	
30	0	1459.38	1589	38	2.01	2918.08	2909	16	2.21E-01	2.6	
31	0	1728.18*	14	5	1.79	3455.90	3450	10	1.97E-03	44.6	
32	0	1763.13*	92	15	1.82	3525.83	3518	16	1.27E-02	15.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:24:36

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:09
Sample ID : G245691005 Sample quantity : 126.97 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.19 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.972E+01	4.019E+00	4.810E-01	4.143E-02	82.592
NB-95	+	765.79	*	1.512E-01	5.888E-02	6.827E-02	4.764E-03	2.214
CD-109	+	88.03	*	4.112E+00	1.316E+00	1.589E+00	1.801E-01	2.588
SN-126		64.28		3.813E-01	6.870E-01	1.150E+00	1.966E-01	0.332
	+	86.94		1.680E+00	8.665E-01	6.826E-01	2.866E-01	2.462
	+	87.57	*	4.042E-01	1.293E-01	1.644E-01	1.860E-02	2.458
HG-203		70.83		-1.159E+00	1.542E+00	2.196E+00	3.357E-01	-0.528
		72.87		1.751E+00	9.090E-01	1.398E+00	2.078E-01	1.252
		82.60		3.737E-01	1.316E+00	2.089E+00	3.215E-01	0.179
	+	279.20	*	1.353E-01	7.431E-02	6.608E-02	4.459E-03	2.047
TL-208	+	277.35		1.227E+00	6.821E-01	5.857E-01	6.388E-02	2.095
	+	510.84		7.231E-01	2.986E-01	2.010E-01	2.113E-02	3.597
	+	583.14	*	6.219E-01	9.577E-02	5.943E-02	3.993E-03	10.464
	+	860.37		5.938E-01	4.858E-01	4.748E-01	4.637E-02	1.251
BI-211		72.87		8.799E+00	4.483E+00	7.025E+00	7.726E-01	1.252
	+	351.07	*	4.194E+00	5.502E-01	3.395E-01	2.475E-02	12.354
PB-212	+	74.81		2.273E+00	5.946E-01	6.726E-01	9.683E-02	3.379
	+	77.11		2.194E+00	4.014E-01	3.727E-01	4.075E-02	5.886
	+	87.30		1.869E+00	6.265E-01	7.636E-01	1.152E-01	2.448
	+	238.63	*	1.853E+00	1.843E-01	9.383E-02	7.117E-03	19.748
	+	300.09		2.091E+00	9.897E-01	1.233E+00	1.084E-01	1.696
PO-212	+	74.81		2.273E+00	5.946E-01	6.726E-01	9.683E-02	3.379
	+	77.11		2.194E+00	4.014E-01	3.727E-01	4.075E-02	5.886
	+	87.30		1.869E+00	6.265E-01	7.636E-01	1.152E-01	2.448
		115.19		-7.085E-01	3.737E+00	5.984E+00	4.281E-01	-0.118
	+	238.63	*	1.853E+00	1.843E-01	9.383E-02	7.117E-03	19.748
	+	300.09		2.091E+00	9.897E-01	1.233E+00	1.084E-01	1.696
BI-214	+	609.31	*	1.279E+00	1.892E-01	1.140E-01	8.674E-03	11.216
	+	1120.29		1.762E+00	8.485E-01	5.178E-01	5.060E-02	3.403
	+	1764.49		1.754E+00	5.398E-01	1.700E-01	1.135E-02	10.318
PB-214	+	74.81		3.916E+00	1.000E+00	1.159E+00	1.532E-01	3.379
	+	77.11		3.761E+00	7.454E-01	6.389E-01	8.515E-02	5.886
	+	87.30		3.202E+00	1.054E+00	1.308E+00	1.789E-01	2.448
	+	241.98		2.319E+00	7.468E-01	5.649E-01	4.700E-02	4.106

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.449E+00	2.471E-01	2.160E-01	1.951E-02	6.707
	+	351.92	*	1.459E+00	2.060E-01	1.183E-01	1.061E-02	12.329
PO-214	+	74.81		3.916E+00	1.000E+00	1.159E+00	1.532E-01	3.379
	+	77.11		3.761E+00	7.454E-01	6.389E-01	8.515E-02	5.886
	+	87.30		3.202E+00	1.054E+00	1.308E+00	1.789E-01	2.448
	+	241.98		2.319E+00	7.468E-01	5.649E-01	4.700E-02	4.106
	+	295.21		1.449E+00	2.471E-01	2.160E-01	1.951E-02	6.707
	+	351.92	*	1.459E+00	2.060E-01	1.183E-01	1.061E-02	12.329
PO-216	+	74.81		2.273E+00	5.946E-01	6.726E-01	9.683E-02	3.379
	+	77.11		2.194E+00	4.014E-01	3.727E-01	4.075E-02	5.886
	+	87.30		1.869E+00	6.265E-01	7.636E-01	1.152E-01	2.448
	+	238.63	*	1.853E+00	1.843E-01	9.383E-02	7.117E-03	19.748
	+	300.09		2.091E+00	9.897E-01	1.233E+00	1.084E-01	1.696
PO-218	+	74.81		3.916E+00	1.000E+00	1.159E+00	1.532E-01	3.379
	+	77.11		3.761E+00	7.454E-01	6.389E-01	8.515E-02	5.886
	+	87.30		3.202E+00	1.054E+00	1.308E+00	1.789E-01	2.448
	+	241.98		2.319E+00	7.468E-01	5.649E-01	4.700E-02	4.106
	+	295.21		1.449E+00	2.471E-01	2.160E-01	1.951E-02	6.707
	+	351.92	*	1.459E+00	2.060E-01	1.183E-01	1.061E-02	12.329
RA-224	+	240.98	*	4.398E+00	1.394E+00	1.068E+00	6.553E-02	4.119
RA-226	+	609.31	*	1.279E+00	1.892E-01	1.140E-01	8.674E-03	11.216
	+	1120.29		1.762E+00	8.485E-01	5.178E-01	5.060E-02	3.403
	+	1764.49		1.754E+00	5.398E-01	1.700E-01	1.135E-02	10.318
AC-228	+	338.32		1.818E+00	8.462E-01	3.588E-01	1.468E-01	5.067
	+	911.07	*	1.708E+00	3.740E-01	2.147E-01	2.650E-02	7.955
	+	969.11		1.866E+00	6.140E-01	3.728E-01	8.813E-02	5.006
RA-228	+	338.32		1.818E+00	8.462E-01	3.588E-01	1.468E-01	5.067
	+	911.07	*	1.708E+00	3.740E-01	2.147E-01	2.650E-02	7.955
	+	969.11		1.866E+00	6.140E-01	3.728E-01	8.813E-02	5.006
TH-228	+	74.81		2.307E+00	5.644E-01	6.829E-01	7.516E-02	3.379
	+	77.11		2.227E+00	4.075E-01	3.784E-01	4.137E-02	5.886
	+	87.30		1.898E+00	6.071E-01	7.752E-01	8.759E-02	2.448
	+	238.63	*	1.881E+00	1.871E-01	9.525E-02	7.226E-03	19.748
	+	300.09		2.123E+00	1.595E+00	1.252E+00	7.388E-01	1.696
TH-230	+	609.31	*	1.278E+00	1.892E-01	1.140E-01	8.674E-03	11.216
	+	1120.29		1.762E+00	8.485E-01	5.178E-01	5.060E-02	3.403
	+	1764.49		1.754E+00	5.397E-01	1.700E-01	1.135E-02	10.318
TH-232	+	338.32		1.818E+00	4.219E-01	3.588E-01	2.405E-02	5.067
	+	911.07	*	1.708E+00	3.740E-01	2.147E-01	2.650E-02	7.955
	+	969.11		1.866E+00	6.140E-01	3.728E-01	8.813E-02	5.006
U-234	+	609.31	*	1.278E+00	1.892E-01	1.140E-01	8.674E-03	11.216
	+	1120.29		1.762E+00	8.485E-01	5.178E-01	5.060E-02	3.403
	+	1764.49		1.754E+00	5.397E-01	1.700E-01	1.135E-02	10.318
NP-237	+	86.50	*	1.187E+00	4.518E-01	4.708E-01	1.106E-01	2.521
		95.87		-8.010E-02	1.112E+00	1.621E+00	4.051E-01	-0.049
AM-243	+	74.67	*	3.685E-01	9.004E-02	1.095E-01	1.200E-02	3.364
	+	86.72		4.451E+01	1.424E+01	1.815E+01	2.044E+00	2.453
		117.66		-1.274E-01	3.872E+00	6.276E+00	4.355E-01	-0.020
		142.18		-8.935E+00	1.939E+01	3.027E+01	1.807E+00	-0.295

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	1.562E-01	6.316E-02	4.344E-02	2.783E-03	3.596

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.098E-02	3.226E-01	5.135E-01	3.819E-02	-0.119
NA-22		1274.54	*	-1.060E-02	5.132E-02	8.378E-02	6.489E-03	-0.127
NA-24		1368.53	*	-4.154E-01	5.132E-02	Half-Life too short		
AL-26		1129.67		-7.061E-02	1.960E+00	3.212E+00	2.253E-01	-0.022
		1808.65	*	-5.900E-03	2.909E-02	4.480E-02	2.840E-03	-0.132
TI-44		67.85		1.882E-02	5.962E-02	9.999E-02	1.129E-02	0.188
		78.38	*	1.564E-01	5.200E-02	8.169E-02	8.939E-03	1.915
SC-46		889.25	*	-5.426E-02	4.122E-02	5.786E-02	5.726E-03	-0.938
	+	1120.51		3.017E-01	1.439E-01	1.563E-01	1.123E-02	1.930
V-48		944.10		-1.046E+00	9.936E-01	1.443E+00	1.398E-01	-0.725
		983.50	*	-2.408E-02	7.517E-02	1.179E-01	1.091E-02	-0.204
		1312.09		-3.350E-02	9.403E-02	1.504E-01	1.256E-02	-0.223
CR-51		320.08	*	-2.486E-02	3.635E-01	5.997E-01	4.332E-02	-0.041
MN-52		744.21		-5.600E-02	2.493E-01	4.055E-01	2.645E-02	-0.138
		848.13		-2.482E+00	7.306E+00	1.162E+01	1.030E+00	-0.214
		935.52		2.010E-01	2.997E-01	5.138E-01	5.023E-02	0.391
		1246.25		1.259E+00	8.552E+00	1.442E+01	1.050E+00	0.087
		1333.61		-3.412E-01	5.748E+00	9.468E+00	8.226E-01	-0.036
		1434.06	*	1.284E-02	2.538E-01	4.212E-01	3.559E-02	0.030
MN-54		834.83	*	-1.469E-02	4.495E-02	7.205E-02	6.155E-03	-0.204
CO-56		846.75	*	9.159E-03	4.194E-02	7.011E-02	6.191E-03	0.131
		977.42		1.257E+00	3.050E+00	5.149E+00	4.799E-01	0.244
		1037.82		-3.714E-01	3.514E-01	5.037E-01	4.529E-02	-0.737
		1175.09		2.368E-01	2.664E+00	4.490E+00	2.782E-01	0.053
		1238.25		1.041E-01	1.107E-01	1.954E-01	1.457E-02	0.533
		1360.21		2.991E-03	9.283E-01	1.537E+00	1.328E-01	0.002
		1771.40		-4.636E-02	1.879E-01	2.845E-01	1.885E-02	-0.163
CO-57		122.06	*	-7.410E-03	2.672E-02	4.278E-02	2.822E-03	-0.173
		136.48		-7.269E-02	2.150E-01	3.414E-01	2.388E-02	-0.213
CO-58		810.76	*	-6.620E-03	4.321E-02	7.023E-02	5.619E-03	-0.094
FE-59		142.65		4.673E-02	2.983E+00	4.751E+00	2.831E-01	0.010
		192.34		2.045E-01	9.978E-01	1.595E+00	1.875E-01	0.128
		1099.22	*	1.750E-03	1.154E-01	1.858E-01	1.551E-02	0.009
		1291.56		-1.295E-01	1.471E-01	2.231E-01	2.064E-02	-0.581
CO-60		1173.22		-5.091E-03	5.571E-02	9.256E-02	5.708E-03	-0.055
		1332.49	*	2.973E-03	4.467E-02	7.457E-02	6.480E-03	0.040
ZN-65		1115.52	*	1.758E-01	1.221E-01	1.967E-01	1.433E-02	0.894
GE-68		1077.35	*	9.479E-01	1.423E+00	2.431E+00	1.926E-01	0.390
AS-73		53.44	*	7.646E-02	1.611E+00	2.701E+00	3.574E-01	0.028
AS-74		595.88	*	2.734E-02	8.924E-02	1.533E-01	8.756E-03	0.178
		634.78		-2.051E-03	3.662E-01	6.130E-01	3.236E-02	-0.003
SE-75		66.05		-1.091E+01	6.652E+00	1.015E+01	1.308E+00	-1.075
		96.73		3.186E-01	9.120E-01	1.357E+00	1.921E-01	0.235

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.11		5.450E-02	1.392E-01	2.293E-01	2.246E-02	0.238
		136.00		-1.957E-02	4.031E-02	6.358E-02	3.948E-03	-0.308
		198.60		1.205E+00	1.894E+00	3.041E+00	2.154E-01	0.396
		264.65	*	-3.551E-02	4.909E-02	6.821E-02	4.351E-03	-0.521
		279.53		-2.105E-02	1.223E-01	1.775E-01	1.216E-02	-0.119
		303.91		1.111E+00	2.213E+00	3.353E+00	3.361E-01	0.331
		400.65		-1.311E-01	2.678E-01	4.237E-01	4.138E-02	-0.309
BR-77	+	87.88		8.949E+02	2.863E+02	4.043E+02	4.583E+01	2.214
		200.40		2.100E+00	1.743E+02	2.756E+02	1.589E+01	0.008
	+	239.00		2.997E+02	2.660E+01	4.098E+01	2.508E+00	7.315
		249.79		3.387E+01	6.514E+01	1.120E+02	6.955E+00	0.302
		281.68		2.645E+01	1.010E+02	1.510E+02	9.724E+00	0.175
		297.23		1.085E+02	5.648E+01	1.012E+02	6.607E+00	1.072
		303.76		8.887E+01	1.894E+02	2.865E+02	1.880E+01	0.310
		439.47		-6.637E+01	1.460E+02	2.295E+02	1.543E+01	-0.289
		484.57		-2.484E+01	2.283E+02	3.653E+02	2.393E+01	-0.068
		520.65	*	-2.970E+00	1.076E+01	1.690E+01	1.072E+00	-0.176
		574.64		-7.190E+01	2.302E+02	3.579E+02	2.119E+01	-0.201
		578.91		3.781E+00	1.009E+02	1.487E+02	8.744E+00	0.025
		585.48		2.914E+02	2.009E+02	3.303E+02	1.921E+01	0.882
		755.35		1.336E+02	1.719E+02	3.014E+02	2.036E+01	0.443
		817.79		4.947E+01	1.402E+02	2.376E+02	1.934E+01	0.208
SR-82		698.33		1.386E+01	3.513E+01	6.010E+01	3.372E+00	0.231
		776.49	*	5.789E-02	4.145E-01	6.880E-01	4.960E-02	0.084
		1395.20		-3.809E-01	1.148E+01	1.887E+01	1.616E+00	-0.020
RB-83		520.41	*	-1.587E-02	7.092E-02	1.118E-01	7.097E-03	-0.142
		529.64		-7.234E-03	1.102E-01	1.758E-01	1.104E-02	-0.041
		552.65		1.202E-02	2.033E-01	3.265E-01	1.995E-02	0.037
RB-84		881.50	*	-6.770E-03	7.742E-02	1.257E-01	1.219E-02	-0.054
KR-85		513.99	*	1.338E+00	7.775E+00	1.110E+01	7.088E-01	0.121
SR-85		513.99	*	6.862E-03	3.988E-02	5.691E-02	3.635E-03	0.121
RB-86		1076.63	*	9.399E-01	9.182E-01	1.612E+00	1.279E-01	0.583
Y-88		898.02		2.732E-02	4.489E-02	7.713E-02	7.836E-03	0.354
		1836.01	*	-2.187E-03	3.500E-02	5.573E-02	3.419E-03	-0.039
ZR-88		392.90	*	1.534E-02	3.146E-02	5.298E-02	3.601E-03	0.290
Y-91		1204.90	*	5.812E+00	2.218E+01	3.778E+01	2.509E+00	0.154
NB-94		702.63	*	-1.274E-02	3.526E-02	5.709E-02	3.250E-03	-0.223
		871.10		5.215E-03	3.500E-02	5.811E-02	5.482E-03	0.090
NB-95M		235.69	*	2.012E-01	1.455E-01	2.306E-01	1.789E-02	0.873
ZR-95		724.18		1.072E-01	1.127E-01	1.774E-01	1.265E-02	0.604
		756.15	*	4.697E-02	7.422E-02	1.287E-01	1.011E-02	0.365
NB-97		657.90	*	-1.110E-01	7.422E-02	Half-Life too short		
		1024.50		2.076E+00	7.422E-02	Half-Life too short		
ZR-97		254.15		-6.629E+00	7.422E-02	Half-Life too short		
		355.39		2.801E+00	7.422E-02	Half-Life too short		
		507.63	*	5.866E+00	7.422E-02	Half-Life too short		
		602.52		2.244E+00	7.422E-02	Half-Life too short		
		1021.30		-2.285E+00	7.422E-02	Half-Life too short		
		1147.95		-4.071E+00	7.422E-02	Half-Life too short		

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1362.66		4.617E+00	7.422E-02	Half-Life too short		
		1750.46		4.962E-02	7.422E-02	Half-Life too short		
MO-99		140.51		-3.412E+00	2.875E+01	4.567E+01	1.233E+01	-0.075
		181.06		8.234E+00	1.915E+01	2.770E+01	4.729E+00	0.297
		366.43		-6.049E+01	8.504E+01	1.332E+02	9.023E+00	-0.454
		739.58	*	1.210E+01	1.232E+01	2.175E+01	3.057E+00	0.557
		778.00		-4.078E+00	3.655E+01	5.943E+01	4.305E+00	-0.069
TC-99M		140.51	*	-5.278E+09	3.655E+01	Half-Life too short		
RH-101		127.23		-1.802E-02	3.398E-02	5.372E-02	3.433E-03	-0.336
		198.01	*	-9.835E-03	3.537E-02	5.446E-02	3.128E-03	-0.181
		325.23		2.299E-01	2.413E-01	3.757E-01	2.501E-02	0.612
RH-102		418.52		6.871E-03	2.925E-01	4.773E-01	3.231E-02	0.014
		475.06	*	1.045E-02	2.921E-02	4.842E-02	3.194E-03	0.216
		631.29		-1.753E-02	5.609E-02	9.183E-02	4.886E-03	-0.191
		697.49		6.386E-02	7.927E-02	1.393E-01	7.792E-03	0.458
	+	766.84		3.802E-01	1.481E-01	2.405E-01	1.684E-02	1.581
		1046.59		-8.149E-02	1.394E-01	2.127E-01	1.787E-02	-0.383
		1112.84		-1.289E-01	3.200E-01	4.193E-01	3.070E-02	-0.307
RU-103		497.08	*	-2.112E-02	4.064E-02	6.261E-02	8.123E-03	-0.337
		610.33		1.175E+01	2.285E+00	2.916E+00	4.469E-01	4.031
RH-106		511.85		2.950E-01	2.315E-01	4.094E-01	2.620E-02	0.721
		621.84	*	2.843E-01	3.369E-01	5.942E-01	6.869E-02	0.478
		1050.47		1.524E+00	2.583E+00	4.395E+00	3.666E-01	0.347
RU-106		511.85		2.950E-01	2.315E-01	4.094E-01	2.620E-02	0.721
		621.84	*	2.843E-01	3.357E-01	5.942E-01	3.227E-02	0.478
		1050.47		1.524E+00	2.583E+00	4.395E+00	3.666E-01	0.347
AG-108M		433.93	*	4.646E-03	3.567E-02	5.845E-02	4.191E-03	0.079
		614.37		-2.194E-02	4.270E-02	5.898E-02	3.557E-03	-0.372
		722.95		-2.377E-02	4.723E-02	6.405E-02	4.202E-03	-0.371
AG-110M		657.75	*	-3.844E-02	3.405E-02	5.167E-02	2.799E-03	-0.744
		677.61		2.738E-01	3.131E-01	5.550E-01	3.115E-02	0.493
		706.67		2.556E-02	2.228E-01	3.734E-01	2.285E-02	0.068
		763.93		9.335E-02	1.889E-01	2.857E-01	2.068E-02	0.327
		884.67		3.989E-02	5.254E-02	9.151E-02	9.173E-03	0.436
		937.48		-8.697E-02	1.304E-01	1.995E-01	2.001E-02	-0.436
		1384.27		-1.127E-01	1.720E-01	2.427E-01	2.143E-02	-0.464
IN-111		171.28		-1.237E-01	1.055E+00	1.671E+00	9.192E-02	-0.074
		245.39	*	-1.768E-01	1.212E+00	1.780E+00	1.099E-01	-0.099
IN-113M		391.69	*	-3.926E-02	4.714E-02	7.302E-02	5.207E-03	-0.538
SN-113		391.69	*	-3.926E-02	4.714E-02	7.302E-02	5.207E-03	-0.538
IN-114M		190.27	*	1.015E-02	2.120E-01	2.992E-01	1.697E-02	0.034
CD-115		260.90		2.481E+01	1.264E+02	2.138E+02	1.346E+01	0.116
		492.35		1.691E+01	3.549E+01	5.929E+01	3.861E+00	0.285
		527.90	*	1.695E+00	1.118E+01	1.815E+01	1.142E+00	0.093
SN-117M		156.02		-2.473E+00	2.458E+00	3.759E+00	2.128E-01	-0.658
		158.56	*	-7.705E-03	5.759E-02	9.159E-02	5.137E-03	-0.084
SB-122		563.90	*	-7.185E-01	2.212E+00	3.440E+00	2.069E-01	-0.209
		692.80		-1.409E+01	4.545E+01	7.392E+01	4.070E+00	-0.191
I-123		159.00	*	1.999E+00	4.545E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		528.96		-4.597E+01	4.545E+01	Half-Life too short		
TE-123M		159.00	*	9.571E-03	2.955E-02	4.794E-02	2.723E-03	0.200
I-124		602.71	*	2.303E-01	7.775E-01	1.170E+00	6.599E-02	0.197
		722.78		-2.139E+00	4.978E+00	6.817E+00	4.150E-01	-0.314
		1325.50		-1.758E+01	3.919E+01	6.174E+01	5.293E+00	-0.285
	+	1376.25		9.334E+01	5.161E+01	7.773E+01	6.689E+00	1.201
		1509.49		8.708E+00	1.685E+01	2.955E+01	2.416E+00	0.295
		1691.02		2.931E+00	3.806E+00	7.066E+00	5.082E-01	0.415
SB-124		602.71		1.333E-02	4.502E-02	6.772E-02	3.822E-03	0.197
		645.85		4.907E-01	5.642E-01	9.958E-01	5.943E-02	0.493
		709.31		2.120E+00	2.915E+00	5.094E+00	2.966E-01	0.416
		713.82		-5.697E-01	1.706E+00	2.760E+00	2.836E-01	-0.206
		722.78		-1.796E-01	4.178E-01	5.721E-01	3.632E-02	-0.314
	+	968.20		1.921E+01	4.755E+00	7.855E+00	7.404E-01	2.446
		1045.16		-6.493E-01	2.879E+00	4.548E+00	3.830E-01	-0.143
		1325.50		-1.576E+00	3.513E+00	5.535E+00	4.745E-01	-0.285
		1368.21		-1.189E+00	1.950E+00	2.542E+00	3.426E-01	-0.468
		1436.60		-5.422E-01	4.091E+00	6.620E+00	5.589E-01	-0.082
		1691.02	*	5.801E-02	7.536E-02	1.399E-01	1.063E-02	0.415
SB-125		427.89	*	-1.965E-02	9.015E-02	1.444E-01	1.005E-02	-0.136
		463.38		6.853E-01	3.392E-01	5.567E-01	4.176E-02	1.231
		600.56		-7.041E-02	1.806E-01	2.956E-01	1.949E-02	-0.238
		635.90		7.674E-02	2.865E-01	4.886E-01	3.098E-02	0.157
TE-125M		109.28	*	3.718E+00	9.922E+00	1.639E+01	1.573E+00	0.227
I-126		388.63		1.185E-01	2.146E-01	3.625E-01	2.463E-02	0.327
		666.33	*	5.888E-02	1.911E-01	3.258E-01	1.634E-02	0.181
		753.82		3.477E-01	1.522E+00	2.564E+00	1.724E-01	0.136
SB-126		223.80		-2.949E+00	4.101E+00	6.714E+00	4.020E-01	-0.439
	+	278.60		8.123E+00	4.459E+00	4.492E+00	2.883E-01	1.808
		296.50		9.286E+00	1.831E+00	3.418E+00	2.230E-01	2.717
		414.70		-2.865E-02	7.637E-02	1.214E-01	8.223E-03	-0.236
		415.30		-3.355E+00	6.365E+00	1.000E+01	6.778E-01	-0.335
		555.20		-2.354E+00	4.040E+00	6.134E+00	3.735E-01	-0.384
		573.80		-7.356E-01	1.095E+00	1.710E+00	1.013E-01	-0.430
		593.00		-6.863E-01	9.187E-01	1.461E+00	8.387E-02	-0.470
		656.30		-3.031E+00	3.445E+00	5.372E+00	2.689E-01	-0.564
		666.33		2.460E-02	7.987E-02	1.362E-01	6.830E-03	0.181
		675.00		-2.129E+00	2.025E+00	3.094E+00	1.601E-01	-0.688
		695.00		-4.183E-02	8.165E-02	1.308E-01	7.253E-03	-0.320
		697.00		6.121E-02	2.804E-01	4.739E-01	2.647E-02	0.129
		720.50	*	1.015E-01	1.539E-01	2.477E-01	1.497E-02	0.410
		856.80		-3.909E-02	5.465E-01	7.681E-01	6.972E-02	-0.051
		989.30		1.637E+00	1.354E+00	2.432E+00	2.232E-01	0.673
		1034.80		2.099E+00	9.413E+00	1.555E+01	1.333E+00	0.135
		1213.00		5.292E-01	5.597E+00	9.412E+00	6.368E-01	0.056
SB-127		61.10		-9.315E+01	8.574E+01	1.354E+02	1.903E+01	-0.688
		252.40		-7.615E-01	4.140E+00	6.866E+00	2.857E+00	-0.111
		290.80		-1.741E+01	2.485E+01	3.453E+01	3.323E+00	-0.504
		411.60		-5.606E+00	1.263E+01	1.998E+01	2.957E+00	-0.281

---- Non-Identified Nuclides ----

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		444.90		-1.170E+01	1.019E+01	1.502E+01	1.699E+00	-0.779
		473.00		5.844E-01	1.719E+00	2.844E+00	3.305E-01	0.205
		543.00		-6.700E+00	1.771E+01	2.746E+01	3.594E+00	-0.244
		603.60		7.073E+00	1.322E+01	2.030E+01	2.168E+00	0.348
		685.20	*	-3.811E-01	1.434E+00	2.341E+00	2.148E-01	-0.163
		698.50		5.304E+00	1.582E+01	2.693E+01	3.879E+00	0.197
		722.20		-8.595E+00	3.428E+01	4.799E+01	4.484E+00	-0.179
		783.80		5.455E+00	3.874E+00	6.984E+00	8.096E-01	0.781
XE-127		57.60		4.856E+00	1.014E+01	1.719E+01	2.185E+00	0.282
		145.22		5.275E-01	7.172E-01	1.187E+00	7.001E-02	0.444
		172.10		-5.172E-02	1.267E-01	1.979E-01	1.090E-02	-0.261
		202.84	*	-4.541E-02	5.034E-02	7.589E-02	4.395E-03	-0.598
		374.96		1.355E-01	2.053E-01	3.496E-01	2.372E-02	0.387
I-131		80.18		2.230E+00	5.675E+00	8.526E+00	9.394E-01	0.262
		284.30		9.381E-01	1.622E+00	2.692E+00	1.896E-01	0.348
		364.48	*	-7.084E-03	1.144E-01	1.873E-01	1.378E-02	-0.038
		636.97		1.027E+00	1.626E+00	2.840E+00	1.707E-01	0.362
		722.89		-3.812E+00	7.985E+00	1.087E+01	6.703E-01	-0.351
TE-132		49.72		7.874E+00	4.301E+01	7.262E+01	1.037E+01	0.108
		111.76		-2.392E+00	3.116E+01	5.052E+01	5.042E+00	-0.047
		116.30		-1.022E+01	2.906E+01	4.614E+01	4.461E+00	-0.222
		228.16	*	5.160E-01	7.032E-01	1.215E+00	1.758E-01	0.425
BA-133		53.15		1.382E+00	7.033E+00	1.185E+01	1.570E+00	0.117
		79.62		2.245E-01	1.614E+00	2.398E+00	3.996E-01	0.094
		81.00		-2.285E-01	1.353E-01	1.754E-01	3.031E-02	-1.303
	+	276.40		1.212E+00	6.802E-01	6.877E-01	9.109E-02	1.763
		302.84		7.217E-02	1.561E-01	2.356E-01	2.839E-02	0.306
		356.01	*	2.683E-02	4.616E-02	6.983E-02	8.425E-03	0.384
		383.85		-3.030E-01	2.984E-01	4.527E-01	5.175E-02	-0.669
I-133	+	510.53		1.621E+00	2.984E-01	Half-Life too short		
		529.87	*	-4.203E-04	2.984E-01	Half-Life too short		
		706.58		4.246E-02	2.984E-01	Half-Life too short		
		856.28		-2.383E-01	2.984E-01	Half-Life too short		
		875.33		9.826E-02	2.984E-01	Half-Life too short		
		1236.41		1.280E+00	2.984E-01	Half-Life too short		
		1298.22		1.061E-02	2.984E-01	Half-Life too short		
CS-134		475.35		5.737E-01	1.943E+00	3.204E+00	2.113E-01	0.179
		563.23		-9.293E-02	3.998E-01	6.271E-01	3.849E-02	-0.148
		569.32		1.731E-01	2.032E-01	3.451E-01	2.117E-02	0.502
		604.70		1.907E-02	3.760E-02	5.766E-02	3.260E-03	0.331
		795.84	*	6.835E-02	5.409E-02	8.787E-02	6.774E-03	0.778
		801.93		-2.215E-02	4.459E-01	7.196E-01	5.634E-02	-0.031
		1038.57		-6.044E+00	4.379E+00	6.003E+00	5.113E-01	-1.007
		1167.94		-7.301E-01	3.034E+00	4.989E+00	3.130E-01	-0.146
		1365.15		4.902E-01	1.168E+00	2.042E+00	1.842E-01	0.240
CS-135		268.24	*	3.151E-01	1.826E-01	2.949E-01	2.383E-02	1.068
I-135		288.45		8.792E+09	1.826E-01	Half-Life too short		
		417.63		-7.787E+09	1.826E-01	Half-Life too short		
		546.56		-2.863E+09	1.826E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		836.80		1.582E+10	1.826E-01	Half-Life too short		
		1038.76		-2.784E+10	1.826E-01	Half-Life too short		
		1124.00		1.193E+10	1.826E-01	Half-Life too short		
		1131.51		6.909E+09	1.826E-01	Half-Life too short		
		1260.41	*	-5.636E+09	1.826E-01	Half-Life too short		
		1457.56		1.769E+12	1.826E-01	Half-Life too short		
		1678.03		-1.156E+10	1.826E-01	Half-Life too short		
		1706.46		-1.019E+10	1.826E-01	Half-Life too short		
		1791.20		-8.957E+08	1.826E-01	Half-Life too short		
CS-136		66.91		-3.952E-01	1.023E+00	1.671E+00	2.863E-01	-0.236
	+	86.29		5.281E+00	1.763E+00	2.398E+00	3.533E-01	2.202
		153.22		9.329E-01	7.083E-01	1.192E+00	8.532E-02	0.783
		163.89		1.991E-01	1.121E+00	1.805E+00	1.266E-01	0.110
		176.55		3.809E-01	3.887E-01	6.446E-01	4.056E-02	0.591
		273.65		1.581E-01	6.369E-01	7.016E-01	5.005E-02	0.225
		340.57		9.861E-02	1.369E-01	2.090E-01	1.469E-02	0.472
		818.51		7.000E-04	7.837E-02	1.290E-01	1.054E-02	0.005
		1048.07	*	-9.123E-02	1.267E-01	1.913E-01	1.674E-02	-0.477
		1235.34		1.180E+00	7.069E-01	1.291E+00	1.394E-01	0.914
BA-137M		661.65	*	-6.753E-03	3.580E-02	5.895E-02	2.908E-03	-0.115
CS-137		661.65	*	-7.139E-03	3.784E-02	6.231E-02	3.092E-03	-0.115
CE-139		165.85	*	-1.325E-02	3.170E-02	4.963E-02	2.711E-03	-0.267
BA-140		162.64		-1.197E-01	7.921E-01	1.257E+00	7.893E-02	-0.095
		304.84		7.227E-01	1.358E+00	2.044E+00	5.615E-01	0.354
		423.70		-5.791E-01	1.851E+00	2.931E+00	9.370E-01	-0.198
		537.32	*	4.093E-02	2.697E-01	4.366E-01	1.423E-01	0.094
LA-140		328.77		6.572E-01	3.564E-01	5.769E-01	4.203E-02	1.139
		432.53		9.160E-01	2.257E+00	3.761E+00	2.734E-01	0.244
		487.03		7.791E-02	1.345E-01	2.263E-01	1.635E-02	0.344
		751.79		-8.139E-01	1.802E+00	2.872E+00	2.250E-01	-0.283
		815.85		-1.339E-01	3.451E-01	5.484E-01	5.015E-02	-0.244
		867.82		-1.064E+00	1.498E+00	2.208E+00	2.158E-01	-0.482
		919.63		3.704E+00	2.954E+00	5.224E+00	6.129E-01	0.709
		925.24		-2.761E-01	1.178E+00	1.875E+00	1.942E-01	-0.147
		1596.49	*	-5.049E-02	8.883E-02	1.313E-01	1.019E-02	-0.384
CE-141		145.44	*	4.187E-03	6.582E-02	1.060E-01	6.490E-03	0.039
CE-143		57.37		3.161E-04	6.582E-02	Half-Life too short		
		231.56		-1.668E-03	6.582E-02	Half-Life too short		
	+	293.26	*	1.397E-03	6.582E-02	Half-Life too short		
	+	350.59		3.366E-02	6.582E-02	Half-Life too short		
		490.36		-1.625E-03	6.582E-02	Half-Life too short		
		664.57		5.131E-04	6.582E-02	Half-Life too short		
		721.93		-4.510E-04	6.582E-02	Half-Life too short		
CE-144		80.11		-3.898E-01	2.675E+00	3.922E+00	4.304E-01	-0.099
		133.54	*	-1.698E-01	2.169E-01	3.361E-01	4.829E-02	-0.505
PM-144		476.78		2.202E-02	6.816E-02	1.126E-01	8.577E-03	0.195
		618.01		-4.584E-03	3.362E-02	5.588E-02	3.265E-03	-0.082
		696.49	*	-1.691E-02	3.602E-02	5.787E-02	3.229E-03	-0.292
		778.57		2.672E-01	2.427E+00	4.018E+00	2.916E-01	0.067

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PR-144		696.49	*	-1.146E+00	2.441E+00	3.922E+00	2.186E-01	-0.292
		1489.15		-1.012E+01	1.239E+01	1.760E+01	1.454E+00	-0.575
PM-146		453.90	*	1.930E-02	4.247E-02	7.103E-02	6.561E-03	0.272
		633.02		-4.100E-01	1.443E+00	2.355E+00	8.654E-01	-0.174
		735.90		-6.061E-02	1.539E-01	2.453E-01	6.870E-02	-0.247
		747.13		2.812E-02	9.660E-02	1.635E-01	2.107E-02	0.172
ND-147		91.11		1.935E-01	4.341E-01	5.433E-01	6.057E-02	0.356
		319.41		-3.663E-01	3.268E+00	5.379E+00	3.570E-01	-0.068
		439.89		1.269E+00	5.727E+00	9.446E+00	6.352E-01	0.134
		531.02	*	1.336E-01	5.852E-01	9.543E-01	1.310E-01	0.140
PM-149		285.90	*	-5.528E+01	9.803E+01	1.584E+02	2.291E+01	-0.349
EU-152		121.78		-1.080E-02	7.675E-02	1.236E-01	1.019E-02	-0.087
		244.69		4.113E-02	3.682E-01	5.496E-01	3.391E-02	0.075
		344.27	*	-4.437E-02	1.026E-01	1.589E-01	1.171E-02	-0.279
		443.98		-7.012E-01	9.677E-01	1.486E+00	9.976E-02	-0.472
		778.89		-2.546E-02	2.773E-01	4.543E-01	3.299E-02	-0.056
		867.32		1.171E-01	8.879E-01	1.391E+00	1.299E-01	0.084
	+	964.01		6.812E-01	4.016E-01	6.329E-01	5.996E-02	1.076
		1085.78		3.139E-01	4.407E-01	7.572E-01	5.895E-02	0.415
		1112.02		-2.628E-01	4.589E-01	5.872E-01	4.307E-02	-0.448
	+	1407.95		2.669E-01	2.887E-01	3.849E-01	3.282E-02	0.694
GD-153		69.67		2.650E-01	2.210E+00	3.512E+00	3.917E-01	0.075
		83.37		1.962E+01	1.872E+01	2.878E+01	3.190E+00	0.682
		97.43	*	4.097E-02	9.341E-02	1.397E-01	1.300E-02	0.293
		103.18		-4.092E-02	1.090E-01	1.751E-01	1.480E-02	-0.234
EU-154		123.07		3.252E-02	5.455E-02	9.040E-02	8.934E-03	0.360
		247.94		-1.660E-01	3.638E-01	5.977E-01	5.849E-02	-0.278
		591.81		-2.209E-02	5.931E-01	9.954E-01	9.702E-02	-0.022
		723.30		-1.641E-01	2.129E-01	2.805E-01	2.055E-02	-0.585
		756.87		6.136E-02	8.010E-01	1.333E+00	1.431E-01	0.046
		873.19		5.100E-02	3.148E-01	5.229E-01	6.728E-02	0.098
		996.32		-1.765E-01	4.168E-01	6.466E-01	1.164E-01	-0.273
		1004.76		-6.830E-02	2.408E-01	3.794E-01	4.518E-02	-0.180
		1274.45	*	-1.696E-03	1.413E-01	2.347E-01	2.500E-02	-0.007
EU-155		48.70		-1.986E+00	5.703E+00	9.435E+00	1.133E+00	-0.210
		60.01		-9.300E+00	7.719E+00	1.215E+01	1.496E+00	-0.766
	+	86.54		4.868E-01	1.558E-01	2.218E-01	2.510E-02	2.195
		105.31	*	1.135E-01	1.151E-01	1.944E-01	1.613E-02	0.584
TB-160	+	86.79		1.301E+00	4.161E-01	5.947E-01	6.700E-02	2.187
		197.04		-4.130E-01	6.035E-01	9.101E-01	5.220E-02	-0.454
		215.65		3.973E-02	7.219E-01	1.224E+00	7.239E-02	0.032
	+	298.57		3.043E-01	1.429E-01	2.209E-01	1.444E-02	1.378
		879.36	*	-6.318E-02	1.558E-01	2.455E-01	2.367E-02	-0.257
	+	962.29		1.258E+00	7.417E-01	1.160E+00	1.102E-01	1.084
		966.15		1.420E+00	3.203E-01	5.987E-01	5.658E-02	2.371
		1177.93		-7.631E-03	4.217E-01	7.049E-01	4.396E-02	-0.011
		1271.85		-1.115E-02	8.442E-01	1.403E+00	1.079E-01	-0.008
HO-166M		80.57		-2.243E-01	3.425E-01	4.885E-01	5.366E-02	-0.459
	+	184.41		1.813E-01	6.639E-02	6.948E-02	3.902E-03	2.609

---- Non-Identified Nuclides ----

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		280.46		-5.236E-02	9.595E-02	1.354E-01	8.709E-03	-0.387
		410.95		9.100E-02	2.493E-01	4.158E-01	2.819E-02	0.219
		711.68	*	1.838E-02	6.439E-02	1.092E-01	6.409E-03	0.168
		752.31		-1.195E-01	2.906E-01	4.650E-01	3.112E-02	-0.257
		810.29		-8.630E-03	6.512E-02	1.060E-01	8.448E-03	-0.081
TM-171		51.35		-1.672E+01	6.418E+01	1.064E+02	1.399E+01	-0.157
		52.39		-3.665E+00	3.241E+01	5.404E+01	7.157E+00	-0.068
		59.40		-2.189E+01	4.139E+01	6.751E+01	8.386E+00	-0.324
		66.72	*	-1.668E+01	3.697E+01	6.032E+01	6.871E+00	-0.276
LU-176	+	88.36		9.586E-01	3.067E-01	4.166E-01	4.686E-02	2.301
		201.83		-1.091E-02	2.795E-02	4.671E-02	2.700E-03	-0.234
		306.84	*	-2.257E-02	2.446E-02	3.845E-02	2.529E-03	-0.587
		401.10		-4.746E+00	7.101E+00	1.111E+01	7.544E-01	-0.427
LU-177		112.95		1.221E+00	1.699E+00	2.840E+00	2.091E-01	0.430
	+	208.36	*	3.045E+00	1.863E+00	2.123E+00	1.241E-01	1.434
LU-177M		52.97		1.057E+00	3.192E+00	5.405E+00	7.161E-01	0.195
		54.07		4.830E-01	1.640E+00	2.772E+00	3.656E-01	0.174
		61.30		-2.136E+00	2.203E+00	3.480E+00	4.210E-01	-0.614
		121.62		1.094E-01	3.878E-01	6.360E-01	4.208E-02	0.172
		147.16		-3.376E-01	6.664E-01	1.046E+00	6.121E-02	-0.323
		171.86		-1.821E-01	5.073E-01	7.945E-01	4.374E-02	-0.229
		218.09		-3.538E-01	8.452E-01	1.404E+00	8.334E-02	-0.252
	+	268.79		2.242E+00	1.198E+00	1.531E+00	9.724E-02	1.465
		319.02		4.474E-02	2.546E-01	4.259E-01	2.825E-02	0.105
		367.43		-5.103E-01	9.245E-01	1.466E+00	9.926E-02	-0.348
		413.65	*	2.019E-02	1.741E-01	2.860E-01	1.938E-02	0.071
HF-181		56.28		3.742E-01	1.675E+00	2.820E+00	3.643E-01	0.133
		57.53		2.149E-01	8.594E-01	1.447E+00	1.841E-01	0.148
		65.20		-9.761E-01	1.280E+00	2.062E+00	2.382E-01	-0.473
		133.02		-4.081E-02	7.005E-02	1.102E-01	6.845E-03	-0.370
		136.25		-2.301E-01	4.737E-01	7.471E-01	4.572E-02	-0.308
		345.85		-8.928E-02	2.160E-01	3.203E-01	2.154E-02	-0.279
		482.03	*	4.734E-03	4.168E-02	6.786E-02	4.454E-03	0.070
W-181		56.28		1.463E-01	6.553E-01	1.103E+00	1.425E-01	0.133
		57.53		8.384E-02	3.366E-01	5.668E-01	7.212E-02	0.148
		65.20	*	-3.792E-01	4.975E-01	8.011E-01	9.256E-02	-0.473
TA-182		67.75		4.342E-02	1.425E-01	2.390E-01	2.700E-02	0.182
		100.10		-1.570E-01	1.912E-01	3.012E-01	2.677E-02	-0.521
		152.43		2.331E-01	3.576E-01	5.885E-01	3.377E-02	0.396
		222.10		2.446E-01	3.465E-01	6.016E-01	3.593E-02	0.407
		1001.68		7.307E-01	2.288E+00	3.811E+00	3.438E-01	0.192
		1121.28		6.748E-01	2.126E-01	4.021E-01	2.882E-02	1.678
		1189.05		-1.877E-01	3.601E-01	5.772E-01	3.695E-02	-0.325
		1221.42	*	2.329E-01	2.475E-01	4.387E-01	3.025E-02	0.531
		1230.97		-5.045E-01	5.690E-01	8.842E-01	6.229E-02	-0.571
RE-183		57.98		1.915E-01	3.267E-01	5.556E-01	7.029E-02	0.345
		59.32		-9.081E-02	1.707E-01	2.783E-01	3.461E-02	-0.326
		67.20		-5.877E-02	2.613E-01	4.302E-01	4.881E-02	-0.137
		162.32	*	2.448E-03	1.158E-01	1.852E-01	1.024E-02	0.013

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	+	208.81		2.731E+00	1.671E+00	1.905E+00	1.114E-01	1.434
		291.72		-4.241E-01	1.089E+00	1.553E+00	1.009E-01	-0.273
RE-184		57.98		7.054E-01	1.204E+00	2.047E+00	2.590E-01	0.345
		59.32		-3.343E-01	6.283E-01	1.025E+00	1.274E-01	-0.326
		67.20		-2.165E-01	9.623E-01	1.585E+00	1.798E-01	-0.137
		161.27		-1.343E-01	3.731E-01	5.866E-01	3.257E-02	-0.229
		216.55		8.419E-02	2.618E-01	4.486E-01	2.656E-02	0.188
		252.85	*	-7.938E-02	2.203E-01	3.630E-01	2.263E-02	-0.219
		318.01		2.098E-01	4.508E-01	7.654E-01	5.074E-02	0.274
		792.07		1.978E+00	1.242E+00	2.054E+00	1.552E-01	0.963
		903.28		-8.341E-01	1.301E+00	1.680E+00	1.694E-01	-0.496
		920.93		7.905E-01	4.717E-01	8.755E-01	8.684E-02	0.903
OS-185		59.72		-1.929E-01	4.494E-01	7.361E-01	9.104E-02	-0.262
		61.14		-2.628E-01	2.419E-01	3.831E-01	4.645E-02	-0.686
		69.30		2.749E-01	3.984E-01	6.457E-01	7.217E-02	0.426
		592.07		-1.905E-01	2.414E+00	4.038E+00	2.322E-01	-0.047
		646.12	*	3.851E-02	4.775E-02	8.402E-02	4.316E-03	0.458
		717.42		-5.491E-02	8.931E-01	1.476E+00	8.828E-02	-0.037
		874.81		1.596E-01	6.190E-01	1.037E+00	9.876E-02	0.154
		880.27		-2.683E-01	8.691E-01	1.383E+00	1.336E-01	-0.194
RE-188		155.03	*	1.815E-01	1.840E-01	3.063E-01	1.740E-02	0.593
		477.96		-2.262E+00	3.127E+00	4.767E+00	3.138E-01	-0.475
		633.10		-8.644E-01	2.900E+00	4.752E+00	2.518E-01	-0.182
W-188		63.58		7.958E+01	7.323E+01	1.244E+02	1.463E+01	0.640
		227.08		1.113E+01	1.273E+01	2.223E+01	1.338E+00	0.501
		290.67	*	-4.040E+00	8.408E+00	1.189E+01	7.721E-01	-0.340
IR-192	+	295.96		1.105E+00	1.757E-01	2.915E-01	1.925E-02	3.791
		308.46		-1.053E-02	9.422E-02	1.554E-01	1.033E-02	-0.068
		316.51	*	2.661E-05	3.497E-02	5.796E-02	3.853E-03	0.000
		468.07		-4.130E-02	7.338E-02	9.727E-02	7.212E-03	-0.425
		604.41		2.579E-01	5.091E-01	7.798E-01	8.781E-02	0.331
		612.46		-9.554E-03	7.110E-01	1.038E+00	7.652E-02	-0.009
AU-195		65.12		-1.828E-01	2.307E-01	3.709E-01	4.289E-02	-0.493
		66.83		-5.402E-02	1.226E-01	2.001E-01	2.278E-02	-0.270
	+	75.70		1.937E+00	3.543E-01	5.733E-01	6.271E-02	3.378
		98.88	*	2.142E-01	2.664E-01	4.049E-01	3.674E-02	0.529
		129.76		5.364E+00	3.054E+00	5.242E+00	3.307E-01	1.023
TL-200		367.94	*	-4.718E-05	3.054E+00	Half-Life too short		
		579.30		7.674E-04	3.054E+00	Half-Life too short		
		828.27		-1.463E-03	3.054E+00	Half-Life too short		
		1205.75		1.027E-03	3.054E+00	Half-Life too short		
TL-201		68.90		3.249E+00	6.274E+00	1.057E+01	1.185E+00	0.307
		70.82		-2.998E+00	3.975E+00	5.681E+00	6.298E-01	-0.528
		80.30		-2.992E+00	6.414E+00	9.249E+00	1.015E+00	-0.323
		135.34		-1.848E+01	2.639E+01	4.121E+01	2.532E+00	-0.448
		167.43	*	4.385E+00	7.277E+00	1.192E+01	6.520E-01	0.368
TL-202		68.90		2.909E-01	5.619E-01	9.469E-01	1.061E-01	0.307
		70.82		-2.678E-01	3.550E-01	5.074E-01	5.625E-02	-0.528
		80.30		-2.673E-01	5.730E-01	8.263E-01	9.071E-02	-0.323

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		439.56	*	-1.399E-02	6.912E-02	1.106E-01	7.438E-03	-0.126
BI-207		72.80		4.261E-01	2.576E-01	4.019E-01	4.420E-02	1.060
	+	74.97		6.615E-01	1.616E-01	2.853E-01	3.123E-02	2.319
		84.90		2.196E-01	2.393E-01	3.658E-01	4.082E-02	0.600
		569.67		2.621E-02	3.162E-02	5.363E-02	3.198E-03	0.489
		1063.62	*	-2.852E-03	6.283E-02	1.009E-01	8.212E-03	-0.028
		1770.23		-7.267E-01	5.031E-01	5.459E-01	3.622E-02	-1.331
TL-207		81.07		-5.015E-01	2.908E-01	3.870E-01	4.257E-02	-1.296
		83.78		1.564E-01	1.593E-01	2.443E-01	2.712E-02	0.640
		94.90		-5.619E-01	2.692E-01	3.987E-01	3.893E-02	-1.409
		122.32		2.173E-02	1.849E+00	2.997E+00	2.212E-01	0.007
		144.24		5.576E-01	7.318E-01	1.198E+00	8.783E-02	0.465
		154.21		4.189E-01	4.220E-01	7.026E-01	4.869E-02	0.596
	+	269.46		5.249E-01	2.805E-01	3.552E-01	2.343E-02	1.478
		323.87	*	1.583E-01	6.843E-01	1.013E+00	1.706E-01	0.156
	+	338.28		7.591E+00	1.884E+00	2.556E+00	2.826E-01	2.970
		445.03		-2.652E+00	2.364E+00	3.499E+00	3.782E-01	-0.758
PO-209		260.50		2.308E+00	9.281E+00	1.574E+01	9.904E-01	0.147
		262.80		-2.615E+01	2.566E+01	4.065E+01	2.565E+00	-0.643
		896.60	*	3.646E+00	7.815E+00	1.330E+01	1.342E+00	0.274
BI-210		46.50	*	5.426E+00	9.048E+00	1.553E+01	1.523E+00	0.349
PB-210		46.50	*	5.426E+00	9.048E+00	1.553E+01	1.523E+00	0.349
PO-210		46.50	*	5.426E+00	9.045E+00	1.553E+01	1.394E+00	0.349
PB-211		404.84	*	3.748E-01	1.015E+00	1.648E+00	1.029E+00	0.227
		427.08		-7.745E-01	2.090E+00	3.222E+00	1.995E+00	-0.240
		831.96		8.358E-01	1.516E+00	2.439E+00	1.528E+00	0.343
BI-212	+	727.18	*	1.131E+00	5.273E-01	7.064E-01	5.651E-02	1.601
		785.46		1.182E+00	1.946E+00	3.278E+00	2.428E-01	0.361
		1620.62		7.651E-01	1.271E+00	2.273E+00	1.733E-01	0.337
PO-215		81.07		-5.015E-01	2.908E-01	3.870E-01	4.257E-02	-1.296
		83.78		1.564E-01	1.593E-01	2.443E-01	2.712E-02	0.640
		94.90		-5.619E-01	2.692E-01	3.987E-01	3.893E-02	-1.409
		122.32		2.173E-02	1.849E+00	2.997E+00	2.212E-01	0.007
		144.24		5.576E-01	7.318E-01	1.198E+00	8.783E-02	0.465
		154.21		4.189E-01	4.220E-01	7.026E-01	4.869E-02	0.596
	+	269.46		5.249E-01	2.805E-01	3.552E-01	2.343E-02	1.478
		323.87	*	1.583E-01	6.843E-01	1.013E+00	1.706E-01	0.156
	+	338.28		7.591E+00	1.884E+00	2.556E+00	2.826E-01	2.970
		445.03		-2.652E+00	2.364E+00	3.499E+00	3.782E-01	-0.758
RN-219	+	271.23		6.734E-01	3.618E-01	4.334E-01	3.693E-02	1.554
		401.81	*	-2.841E-01	4.427E-01	6.917E-01	9.723E-02	-0.411
RN-220		549.76	*	-3.813E+00	2.777E+01	4.393E+01	2.694E+00	-0.087
RA-223		81.07		-5.015E-01	2.908E-01	3.870E-01	4.257E-02	-1.296
		83.78		1.564E-01	1.593E-01	2.443E-01	2.712E-02	0.640
		94.90		-5.619E-01	2.692E-01	3.987E-01	3.893E-02	-1.409
		122.32		2.173E-02	1.849E+00	2.997E+00	2.212E-01	0.007
		144.24		5.576E-01	7.318E-01	1.198E+00	8.783E-02	0.465
		154.21		4.189E-01	4.220E-01	7.026E-01	4.869E-02	0.596
	+	269.46		5.249E-01	2.805E-01	3.552E-01	2.343E-02	1.478

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	1.583E-01	6.843E-01	1.013E+00	1.706E-01	0.156
	+	338.28		7.591E+00	1.884E+00	2.556E+00	2.826E-01	2.970
		445.03		-2.652E+00	2.364E+00	3.499E+00	3.782E-01	-0.758
AC-227		79.80		-3.219E-01	2.078E+00	3.045E+00	6.864E-01	-0.106
		236.00		1.056E+00	3.124E-01	5.050E-01	5.363E-02	2.090
		256.20	*	-1.604E-02	3.636E-01	6.085E-01	8.616E-02	-0.026
		286.10		-3.542E-01	1.616E+00	2.664E+00	3.173E-01	-0.133
	+	299.80		3.875E+00	1.913E+00	2.857E+00	4.732E-01	1.356
		304.40		1.136E+00	1.969E+00	2.990E+00	5.252E-01	0.380
		334.20		-1.620E+00	2.533E+00	3.457E+00	6.441E-01	-0.469
TH-227		79.80		-3.219E-01	2.078E+00	3.045E+00	6.944E-01	-0.106
	+	94.00		6.534E+00	4.332E+00	3.737E+00	8.345E-01	1.749
		236.00		1.056E+00	3.075E-01	5.050E-01	4.671E-02	2.090
		256.20	*	-1.604E-02	3.636E-01	6.085E-01	1.038E-01	-0.026
		286.10		-3.542E-01	1.654E+00	2.664E+00	2.670E+00	-0.133
	+	299.80		3.875E+00	1.913E+00	2.857E+00	4.732E-01	1.356
		304.40		1.136E+00	1.969E+00	2.990E+00	5.252E-01	0.380
		334.20		-1.620E+00	2.533E+00	3.457E+00	6.441E-01	-0.469
TH-229		85.43		2.937E-01	2.498E-01	3.834E-01	4.289E-02	0.766
	+	88.47		5.518E-01	1.765E-01	2.362E-01	2.649E-02	2.336
		100.00		-1.605E-01	1.986E-01	3.131E-01	2.787E-02	-0.513
		193.63	*	1.708E-01	5.312E-01	8.536E-01	4.868E-02	0.200
		210.97		6.489E-01	8.475E-01	1.319E+00	7.739E-02	0.492
PA-231		283.67	*	1.132E+00	1.775E+00	2.708E+00	3.809E-01	0.418
		301.29		1.375E+00	6.828E-01	1.102E+00	1.199E-01	1.248
TH-231		81.07		-5.015E-01	2.908E-01	3.870E-01	4.257E-02	-1.296
		83.78		1.564E-01	1.593E-01	2.443E-01	2.712E-02	0.640
		94.90		-5.619E-01	2.692E-01	3.987E-01	3.893E-02	-1.409
		122.32		2.173E-02	1.849E+00	2.997E+00	2.212E-01	0.007
		144.24		5.576E-01	7.318E-01	1.198E+00	8.783E-02	0.465
		154.21		4.189E-01	4.220E-01	7.026E-01	4.869E-02	0.596
	+	269.46		5.249E-01	2.805E-01	3.552E-01	2.343E-02	1.478
		323.87	*	1.583E-01	6.843E-01	1.013E+00	1.706E-01	0.156
	+	338.28		7.591E+00	1.884E+00	2.556E+00	2.826E-01	2.970
		445.03		-2.652E+00	2.364E+00	3.499E+00	3.782E-01	-0.758
U-231		84.21		6.484E+00	6.750E+00	1.035E+01	1.151E+00	0.626
	+	92.29		6.479E+00	4.095E+00	4.177E+00	4.300E-01	1.551
		95.87	*	-9.114E-02	1.265E+00	1.845E+00	1.768E-01	-0.049
		108.00		-1.763E+00	2.242E+00	3.530E+00	2.779E-01	-0.499
PA-233	+	75.28		1.930E+01	5.315E+00	8.675E+00	1.454E+00	2.225
	+	86.59		7.912E+00	3.232E+00	3.608E+00	1.002E+00	2.193
	+	300.12		1.080E+00	5.240E-01	8.063E-01	1.111E-01	1.340
		311.98	*	2.989E-02	6.502E-02	1.104E-01	7.641E-03	0.271
		340.50		5.629E-01	6.790E-01	1.027E+00	2.384E-01	0.548
		398.62		1.283E+00	2.143E+00	3.590E+00	9.369E-01	0.357
		415.76		-9.722E-01	1.703E+00	2.651E+00	5.535E-01	-0.367
PA-234		63.00		2.154E+00	2.230E+00	3.752E+00	6.564E-01	0.574
		94.67		-3.396E-01	1.958E-01	2.926E-01	3.879E-02	-1.161
		98.44		1.434E-01	1.338E-01	1.676E-01	9.365E-02	0.856

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		99.86		-3.983E-01	5.032E-01	7.942E-01	7.087E-02	-0.502
		111.00		-1.842E-02	1.969E-01	3.193E-01	3.624E-02	-0.058
		131.20		2.062E-02	1.158E-01	1.883E-01	1.180E-02	0.109
		152.70		3.929E-01	3.489E-01	5.767E-01	9.102E-02	0.681
	+	186.00		6.527E+00	3.090E+00	2.614E+00	7.979E-01	2.497
		226.40		7.792E-04	4.070E-01	6.870E-01	8.016E-02	0.001
		227.20		3.891E-01	4.315E-01	7.540E-01	4.538E-02	0.516
		248.90		5.525E-01	8.084E-01	1.386E+00	2.993E-01	0.399
	+	293.70		6.955E+00	1.518E+00	1.828E+00	2.989E-01	3.804
		369.80		-1.289E-01	8.822E-01	1.435E+00	3.030E-01	-0.090
		568.70		9.071E-01	9.997E-01	1.708E+00	1.020E-01	0.531
		569.50		2.359E-01	2.808E-01	4.767E-01	2.843E-02	0.495
		574.00		-1.055E+00	1.570E+00	2.452E+00	1.453E-01	-0.430
		699.00		3.330E-01	7.383E-01	1.264E+00	2.266E-01	0.263
		706.10		-1.560E-01	1.111E+00	1.824E+00	8.051E-01	-0.086
		733.00		1.029E-01	4.194E-01	6.203E-01	1.328E-01	0.166
		742.81		-9.385E-01	1.605E+00	2.326E+00	1.558E+00	-0.404
		796.30		8.086E-01	1.067E+00	1.627E+00	4.352E-01	0.497
		805.60		5.351E-01	1.141E+00	1.928E+00	5.869E-01	0.278
		819.60		-3.415E-01	1.347E+00	2.157E+00	8.180E-01	-0.158
		826.30		-3.955E-01	9.559E-01	1.491E+00	6.664E-01	-0.265
		831.60		1.413E-01	7.366E-01	1.226E+00	3.653E-01	0.115
		876.40		3.843E-01	9.746E-01	1.514E+00	1.558E+00	0.254
		880.51		-9.054E-02	3.147E-01	5.017E-01	4.852E-02	-0.180
		883.24		2.881E-01	3.644E-01	5.457E-01	3.676E-01	0.528
		899.00		1.321E-01	9.270E-01	1.530E+00	6.738E-01	0.086
		925.00		-2.762E-01	1.235E+00	1.968E+00	1.944E-01	-0.140
		926.50		-5.931E-04	1.755E-01	2.860E-01	7.357E-02	-0.002
		946.00	*	-8.485E-02	3.333E-01	5.289E-01	1.019E-01	-0.160
		949.00		7.340E-01	5.030E-01	9.121E-01	8.791E-02	0.805
		980.50		-1.692E-01	7.672E-01	1.217E+00	1.129E-01	-0.139
		1394.10		4.870E-01	1.263E+00	2.124E+00	1.382E+00	0.229
PA-234M	+	766.42		4.000E+01	2.535E+01	2.529E+01	1.277E+01	1.581
		1001.03	*	3.073E-01	5.156E+00	8.398E+00	8.667E-01	0.037
TH-234		63.29	*	2.173E+00	1.894E+00	3.169E+00	6.245E-01	0.686
	+	92.38		1.691E+00	1.102E+00	1.090E+00	2.063E-01	1.552
U-235		89.95		1.162E+00	1.744E+00	2.070E+00	6.532E-01	0.561
	+	93.35		2.033E+00	1.394E+00	1.272E+00	3.626E-01	1.598
		105.00		7.151E-01	1.152E+00	1.893E+00	5.627E-01	0.378
		143.76	*	1.264E-01	2.277E-01	3.689E-01	6.032E-02	0.343
		163.35		-9.845E-02	4.965E-01	7.856E-01	1.405E-01	-0.125
	+	185.71		2.417E-01	8.852E-02	9.614E-02	5.411E-03	2.515
		205.31		6.382E-02	5.563E-01	8.390E-01	1.509E-01	0.076
NP-236		94.67		-2.556E-01	1.468E-01	2.222E-01	2.179E-02	-1.151
		98.44		1.085E-01	8.157E-02	1.267E-01	1.159E-02	0.856
		111.00		-1.393E-02	1.490E-01	2.415E-01	1.824E-02	-0.058
		160.31	*	-1.188E-04	8.394E-02	1.342E-01	7.478E-03	-0.001
U-238		63.29	*	2.173E+00	1.894E+00	3.169E+00	6.245E-01	0.686
	+	92.38		1.691E+00	1.069E+00	1.090E+00	1.120E-01	1.552

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		-2.279E-03	1.734E-01	2.700E-01	2.422E-02	-0.008
		117.00	*	-5.297E-03	1.952E-01	3.165E-01	2.214E-02	-0.017
	+	209.75		2.154E+00	1.318E+00	1.521E+00	8.910E-02	1.416
		228.18		1.681E-01	2.277E-01	3.955E-01	2.383E-02	0.425
	+	277.60		5.917E-01	3.248E-01	3.376E-01	2.165E-02	1.752
		334.30		-8.965E-01	1.428E+00	1.963E+00	1.313E-01	-0.457
AM-241		59.54	*	-1.253E-01	2.395E-01	3.906E-01	5.016E-02	-0.321
CM-243		99.55		-2.346E-03	1.784E-01	2.778E-01	2.492E-02	-0.008
		103.76	*	4.955E-03	1.017E-01	1.663E-01	1.393E-02	0.030
		117.00		-5.450E-03	2.008E-01	3.256E-01	2.278E-02	-0.017
	+	209.75		2.124E+00	1.299E+00	1.500E+00	8.783E-02	1.416
		228.18		1.699E-01	2.301E-01	3.996E-01	2.408E-02	0.425
	+	277.60		5.965E-01	3.274E-01	3.404E-01	2.183E-02	1.752
AM-246		798.80		-8.730E-02	1.648E-01	2.196E-01	1.692E-02	-0.397
		1036.00		-1.161E-01	3.224E-01	5.013E-01	4.288E-02	-0.231
		1062.04		9.770E-02	2.639E-01	4.400E-01	3.593E-02	0.222
		1078.86	*	-9.634E-02	1.731E-01	2.640E-01	2.085E-02	-0.365
CM-247	+	278.00		2.454E+00	1.347E+00	1.391E+00	8.920E-02	1.765
		287.40		-4.528E-02	1.297E+00	2.158E+00	1.397E-01	-0.021
		402.60	*	-5.053E-03	3.876E-02	6.280E-02	4.264E-03	-0.080
CF-249		252.85		-2.978E-01	8.265E-01	1.362E+00	8.492E-02	-0.219
		333.44		-2.073E-01	1.937E-01	2.563E-01	1.714E-02	-0.809
		387.95	*	6.460E-02	4.120E-02	7.328E-02	4.979E-03	0.882
CF-251		176.60	*	9.088E-02	1.353E-01	2.216E-01	1.229E-02	0.410
		227.00		2.394E-01	3.844E-01	6.648E-01	4.000E-02	0.360
		285.00		2.633E-01	1.835E+00	3.080E+00	1.989E-01	0.086

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691005      *
* Acquisition date :  9-FEB-2010 15:24:09 Detector SN#    :                 *
* Detector ID        : GAM10                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:01.19       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691005           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.2697E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.972E+01	3.938E+00	4.808E-01	0.000E+00
NB-95	1.512E-01	5.770E-02	6.892E-02	0.000E+00
CD-109	4.112E+00	1.289E+00	1.655E+00	0.000E+00
SN-126	4.042E-01	1.267E-01	1.713E-01	0.000E+00
HG-203	1.353E-01	7.282E-02	6.772E-02	0.000E+00
TL-208	6.219E-01	9.386E-02	6.024E-02	0.000E+00
BI-211	4.194E+00	5.392E-01	3.467E-01	0.000E+00
PB-212	1.853E+00	1.806E-01	9.637E-02	0.000E+00
PO-212	1.853E+00	1.806E-01	9.637E-02	0.000E+00
BI-214	1.279E+00	1.854E-01	1.155E-01	0.000E+00
PB-214	1.459E+00	2.019E-01	1.209E-01	0.000E+00
PO-214	1.459E+00	2.019E-01	1.209E-01	0.000E+00
PO-216	1.853E+00	1.806E-01	9.637E-02	0.000E+00
PO-218	1.459E+00	2.019E-01	1.209E-01	0.000E+00
RA-224	4.398E+00	1.367E+00	1.096E+00	0.000E+00
RA-226	1.279E+00	1.854E-01	1.155E-01	0.000E+00
AC-228	1.708E+00	3.666E-01	2.162E-01	0.000E+00
RA-228	1.708E+00	3.666E-01	2.162E-01	0.000E+00
TH-228	1.881E+00	1.833E-01	9.784E-02	0.000E+00
TH-230	1.278E+00	1.854E-01	1.155E-01	0.000E+00
TH-232	1.708E+00	3.666E-01	2.162E-01	0.000E+00
U-234	1.278E+00	1.854E-01	1.155E-01	0.000E+00
NP-237	1.187E+00	4.428E-01	4.906E-01	0.000E+00
AM-243	3.685E-01	8.824E-02	1.144E-01	0.000E+00
ANH-511	1.562E-01	6.190E-02	4.412E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-6.098E-02		3.161E-01	5.221E-01	0.000E+00	NOT IDENT.
NA-22	-1.060E-02		5.029E-02	8.393E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	8.388E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-5.900E-03	2.851E-02	4.464E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.096E-02	8.525E-02	0.000E+00	NOT IDENT.
SC-46	-5.426E-02	4.039E-02	5.828E-02	0.000E+00	FAIL ABUN
V-48	-2.408E-02	7.367E-02	1.186E-01	0.000E+00	NOT IDENT.
CR-51	-2.486E-02	3.562E-01	6.133E-01	0.000E+00	NOT IDENT.
MN-52	1.284E-02	2.488E-01	4.212E-01	0.000E+00	NOT IDENT.
MN-54	-1.469E-02	4.405E-02	7.264E-02	0.000E+00	NOT IDENT.
CO-56	9.159E-03	4.111E-02	7.067E-02	0.000E+00	NOT IDENT.
CO-57	-7.410E-03	2.619E-02	4.437E-02	0.000E+00	NOT IDENT.
CO-58	-6.620E-03	4.234E-02	7.084E-02	0.000E+00	NOT IDENT.
FE-59	1.750E-03	1.131E-01	1.866E-01	0.000E+00	NOT IDENT.
CO-60	2.973E-03	4.377E-02	7.466E-02	0.000E+00	NOT IDENT.
ZN-65	1.758E-01	1.196E-01	1.975E-01	0.000E+00	NOT IDENT.
GE-68	9.479E-01	1.394E+00	2.442E+00	0.000E+00	NOT IDENT.
AS-73	7.646E-02	1.579E+00	2.834E+00	0.000E+00	NOT IDENT.
AS-74	2.734E-02	8.745E-02	1.553E-01	0.000E+00	NOT IDENT.
SE-75	-3.551E-02	4.810E-02	6.995E-02	0.000E+00	NOT IDENT.
BR-77	-2.970E+00	1.055E+01	1.716E+01	0.000E+00	FAIL ABUN
SR-82	5.789E-02	4.062E-01	6.944E-01	0.000E+00	NOT IDENT.
RB-83	-1.587E-02	6.950E-02	1.136E-01	0.000E+00	NOT IDENT.
RB-84	-6.770E-03	7.588E-02	1.266E-01	0.000E+00	NOT IDENT.
KR-85	1.338E+00	7.620E+00	1.127E+01	0.000E+00	NOT IDENT.
SR-85	6.862E-03	3.908E-02	5.780E-02	0.000E+00	NOT IDENT.
RB-86	9.399E-01	8.999E-01	1.619E+00	0.000E+00	NOT IDENT.
Y-88	-2.187E-03	3.430E-02	5.552E-02	0.000E+00	NOT IDENT.
ZR-88	1.534E-02	3.084E-02	5.402E-02	0.000E+00	NOT IDENT.
Y-91	5.812E+00	2.173E+01	3.788E+01	0.000E+00	NOT IDENT.
NB-94	-1.274E-02	3.455E-02	5.771E-02	0.000E+00	NOT IDENT.
NB-95M	2.012E-01	1.426E-01	2.369E-01	0.000E+00	NOT IDENT.
ZR-95	4.697E-02	7.273E-02	1.299E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.522E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.193E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.210E+01	1.207E+01	2.197E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.358E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-9.835E-03	3.467E-02	5.608E-02	0.000E+00	NOT IDENT.
RH-102	1.045E-02	2.863E-02	4.924E-02	0.000E+00	FAIL ABUN
RU-103	-2.112E-02	3.983E-02	6.362E-02	0.000E+00	NOT IDENT.
RH-106	2.843E-01	3.302E-01	6.018E-01	0.000E+00	NOT IDENT.
RU-106	2.843E-01	3.290E-01	6.018E-01	0.000E+00	NOT IDENT.
AG-108M	4.646E-03	3.496E-02	5.951E-02	0.000E+00	NOT IDENT.
AG-110M	-3.844E-02	3.337E-02	5.228E-02	0.000E+00	NOT IDENT.
IN-111	-1.768E-01	1.188E+00	1.828E+00	0.000E+00	NOT IDENT.
IN-113M	-3.926E-02	4.620E-02	7.445E-02	0.000E+00	NOT IDENT.
SN-113	-3.926E-02	4.620E-02	7.445E-02	0.000E+00	NOT IDENT.
IN-114M	1.015E-02	2.077E-01	3.083E-01	0.000E+00	NOT IDENT.
CD-115	1.695E+00	1.096E+01	1.842E+01	0.000E+00	NOT IDENT.
SN-117M	-7.705E-03	5.644E-02	9.463E-02	0.000E+00	NOT IDENT.
SB-122	-7.185E-01	2.168E+00	3.489E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.048E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	9.571E-03	2.896E-02	4.953E-02	0.000E+00	NOT IDENT.
I-124	2.303E-01	7.620E-01	1.185E+00	0.000E+00	FAIL ABUN
SB-124	5.801E-02	7.386E-02	1.395E-01	0.000E+00	FAIL ABUN
SB-125	-1.965E-02	8.835E-02	1.470E-01	0.000E+00	NOT IDENT.
TE-125M	3.718E+00	9.723E+00	1.702E+01	0.000E+00	NOT IDENT.
I-126	5.888E-02	1.873E-01	3.296E-01	0.000E+00	NOT IDENT.
SB-126	1.015E-01	1.508E-01	2.503E-01	0.000E+00	FAIL ABUN
SB-127	-3.811E-01	1.405E+00	2.367E+00	0.000E+00	NOT IDENT.
XE-127	-4.541E-02	4.933E-02	7.814E-02	0.000E+00	NOT IDENT.
I-131	-7.084E-03	1.121E-01	1.912E-01	0.000E+00	NOT IDENT.
TE-132	5.160E-01	6.891E-01	1.249E+00	0.000E+00	NOT IDENT.
BA-133	2.683E-02	4.523E-02	7.131E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.342E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.835E-02	5.300E-02	8.866E-02	0.000E+00	NOT IDENT.
CS-135	0.000E+00	1.790E-01	3.024E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.564E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.123E-02	1.241E-01	1.922E-01	0.000E+00	FAIL ABUN
BA-137M	-6.753E-03	3.508E-02	5.964E-02	0.000E+00	NOT IDENT.
CS-137	-7.139E-03	3.708E-02	6.305E-02	0.000E+00	NOT IDENT.
CE-139	-1.325E-02	3.106E-02	5.125E-02	0.000E+00	NOT IDENT.
BA-140	4.093E-02	2.643E-01	4.431E-01	0.000E+00	NOT IDENT.
LA-140	-5.049E-02	8.705E-02	1.311E-01	0.000E+00	NOT IDENT.
CE-141	4.187E-03	6.450E-02	1.097E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.624E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.698E-01	2.126E-01	3.481E-01	0.000E+00	NOT IDENT.
PM-144	-1.691E-02	3.530E-02	5.851E-02	0.000E+00	NOT IDENT.
PR-144	-1.146E+00	2.392E+00	3.965E+00	0.000E+00	NOT IDENT.
PM-146	1.930E-02	4.162E-02	7.227E-02	0.000E+00	NOT IDENT.

ND-147	1.336E-01	5.735E-01	9.688E-01	0.000E+00	NOT IDENT.
PM-149	-5.528E+01	9.607E+01	1.623E+02	0.000E+00	NOT IDENT.
EU-152	-4.437E-02	1.005E-01	1.623E-01	0.000E+00	FAIL ABUN
GD-153	4.097E-02	9.154E-02	1.453E-01	0.000E+00	NOT IDENT.
EU-154	-1.696E-03	1.384E-01	2.352E-01	0.000E+00	NOT IDENT.
EU-155	1.135E-01	1.128E-01	2.021E-01	0.000E+00	FAIL ABUN
TB-160	-6.318E-02	1.527E-01	2.473E-01	0.000E+00	FAIL ABUN
HO-166M	1.838E-02	6.310E-02	1.104E-01	0.000E+00	FAIL ABUN
TM-171	-1.668E+01	3.623E+01	6.309E+01	0.000E+00	NOT IDENT.
LU-176	-2.257E-02	2.397E-02	3.935E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.826E+00	2.185E+00	0.000E+00	FAIL ABUN
LU-177M	2.019E-02	1.706E-01	2.914E-01	0.000E+00	FAIL ABUN
HF-181	4.734E-03	4.085E-02	6.898E-02	0.000E+00	NOT IDENT.
W-181	-3.792E-01	4.876E-01	8.382E-01	0.000E+00	NOT IDENT.
TA-182	2.329E-01	2.426E-01	4.397E-01	0.000E+00	NOT IDENT.
RE-183	2.448E-03	1.135E-01	1.912E-01	0.000E+00	FAIL ABUN
RE-184	-7.938E-02	2.159E-01	3.725E-01	0.000E+00	NOT IDENT.
OS-185	3.851E-02	4.680E-02	8.504E-02	0.000E+00	NOT IDENT.
RE-188	1.815E-01	1.803E-01	3.166E-01	0.000E+00	NOT IDENT.
W-188	-4.040E+00	8.240E+00	1.218E+01	0.000E+00	NOT IDENT.
IR-192	2.661E-05	3.427E-02	5.928E-02	0.000E+00	FAIL ABUN
AU-195	2.142E-01	2.611E-01	4.211E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.487E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	4.385E+00	7.132E+00	1.231E+01	0.000E+00	NOT IDENT.
TL-202	-1.399E-02	6.774E-02	1.126E-01	0.000E+00	NOT IDENT.
BI-207	-2.852E-03	6.158E-02	1.013E-01	0.000E+00	FAIL ABUN
TL-207	1.583E-01	6.706E-01	1.036E+00	0.000E+00	FAIL ABUN
PO-209	3.646E+00	7.659E+00	1.340E+01	0.000E+00	NOT IDENT.
BI-210	5.426E+00	8.867E+00	1.632E+01	0.000E+00	NOT IDENT.
PB-210	5.426E+00	8.867E+00	1.632E+01	0.000E+00	NOT IDENT.
PO-210	5.426E+00	8.864E+00	1.632E+01	0.000E+00	NOT IDENT.
PB-211	3.748E-01	9.943E-01	1.680E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.168E-01	7.137E-01	0.000E+00	FAIL ABUN
PO-215	1.583E-01	6.706E-01	1.036E+00	0.000E+00	FAIL ABUN
RN-219	-2.841E-01	4.338E-01	7.051E-01	0.000E+00	FAIL ABUN
RN-220	-3.813E+00	2.721E+01	4.457E+01	0.000E+00	NOT IDENT.
RA-223	1.583E-01	6.706E-01	1.036E+00	0.000E+00	FAIL ABUN
AC-227	-1.604E-02	3.564E-01	6.244E-01	0.000E+00	FAIL ABUN
TH-227	-1.604E-02	3.564E-01	6.244E-01	0.000E+00	FAIL ABUN
TH-229	1.708E-01	5.205E-01	8.794E-01	0.000E+00	FAIL ABUN
PA-231	1.132E+00	1.739E+00	2.774E+00	0.000E+00	NOT IDENT.
TH-231	1.583E-01	6.706E-01	1.036E+00	0.000E+00	FAIL ABUN
U-231	-9.114E-02	1.240E+00	1.920E+00	0.000E+00	FAIL ABUN
PA-233	2.989E-02	6.372E-02	1.130E-01	0.000E+00	FAIL ABUN
PA-234	-8.485E-02	3.267E-01	5.322E-01	0.000E+00	FAIL ABUN
PA-234M	3.073E-01	5.053E+00	8.444E+00	0.000E+00	FAIL ABUN
TH-234	2.173E+00	1.856E+00	3.317E+00	0.000E+00	FAIL ABUN
U-235	1.264E-01	2.231E-01	3.817E-01	0.000E+00	FAIL ABUN
NP-236	-1.188E-04	8.226E-02	1.386E-01	0.000E+00	NOT IDENT.
U-238	2.173E+00	1.856E+00	3.317E+00	0.000E+00	FAIL ABUN
NP-239	-5.297E-03	1.913E-01	3.284E-01	0.000E+00	FAIL ABUN
AM-241	-1.253E-01	2.347E-01	4.091E-01	0.000E+00	NOT IDENT.
CM-243	4.955E-03	9.965E-02	1.729E-01	0.000E+00	FAIL ABUN
AM-246	-9.634E-02	1.697E-01	2.652E-01	0.000E+00	NOT IDENT.
CM-247	-5.053E-03	3.799E-02	6.401E-02	0.000E+00	FAIL ABUN
CF-249	6.460E-02	4.038E-02	7.473E-02	0.000E+00	NOT IDENT.
CF-251	9.088E-02	1.326E-01	2.286E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:24:35.00

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691005.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:09.
Sample ID         : G245691005           Sample quantity  : 1.26970E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.19  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1589	10.67*	1.108E+00	3.972E+01	3.972E+01	10.12
NB-95	765.79	89	99.81*	2.056E+00	1.282E-01	1.512E-01	38.95
CD-109	88.03	266	3.72*	5.253E+00	4.020E+00	4.112E+00	31.99
SN-126	64.28	------	9.60	2.419E+00	------ Line Not Found		------
	86.94	266	8.90	5.253E+00	1.680E+00	1.680E+00	51.57
	87.57	266	37.00*	5.253E+00	4.042E-01	4.042E-01	31.99
HG-203	70.83	------	4.75	3.353E+00	------ Line Not Found		------
	72.87	------	8.00	3.633E+00	------ Line Not Found		------
	82.60	------	3.55	4.818E+00	------ Line Not Found		------
	279.20	130	77.30*	4.604E+00	1.079E-01	1.353E-01	54.93
TL-208	277.35	130	6.80	4.604E+00	1.227E+00	1.227E+00	55.60
	510.84	155	21.60	2.932E+00	7.231E-01	7.231E-01	41.29
	583.14	466	84.20*	2.629E+00	6.219E-01	6.219E-01	15.40
	860.37	46	12.46	1.842E+00	5.938E-01	5.938E-01	81.80
BI-211	72.87	------	1.27	3.633E+00	------ Line Not Found		------
	351.07	714	12.94*	3.890E+00	4.194E+00	4.194E+00	13.12
PB-212	74.81	317	10.70	3.854E+00	2.273E+00	2.273E+00	26.16
	77.11	554	18.00	4.150E+00	2.194E+00	2.194E+00	18.30
	87.30	266	8.00	5.253E+00	1.869E+00	1.869E+00	33.52
	238.63	1431	44.60*	5.119E+00	1.853E+00	1.853E+00	9.94
	300.09	105	3.41	4.363E+00	2.091E+00	2.091E+00	47.33
PO-212	74.81	317	10.70	3.854E+00	2.273E+00	2.273E+00	26.16
	77.11	554	18.00	4.150E+00	2.194E+00	2.194E+00	18.30
	87.30	266	8.00	5.253E+00	1.869E+00	1.869E+00	33.52
	115.19	------	0.60	6.657E+00	------ Line Not Found		------
	238.63	1431	44.60*	5.119E+00	1.853E+00	1.853E+00	9.94
	300.09	105	3.41	4.363E+00	2.091E+00	2.091E+00	47.33
BI-214	609.31	507	46.30*	2.533E+00	1.278E+00	1.279E+00	14.80
	1120.29	127	15.10	1.416E+00	1.762E+00	1.762E+00	48.16
	1764.49	92	15.80	9.768E-01	1.754E+00	1.754E+00	30.77
PB-214	74.81	317	6.21	3.854E+00	3.916E+00	3.916E+00	25.53
	77.11	554	10.50	4.150E+00	3.761E+00	3.761E+00	19.82

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	266	4.67	5.253E+00	3.202E+00	3.202E+00	32.91
	241.98	298	7.49	5.076E+00	2.319E+00	2.319E+00	32.20
	295.21	416	19.20	4.416E+00	1.449E+00	1.449E+00	17.05
	351.92	714	37.20*	3.890E+00	1.459E+00	1.459E+00	14.12
PO-214	74.81	317	6.21	3.854E+00	3.916E+00	3.916E+00	25.53
	77.11	554	10.50	4.150E+00	3.761E+00	3.761E+00	19.82
	87.30	266	4.67	5.253E+00	3.202E+00	3.202E+00	32.91
	241.98	298	7.49	5.076E+00	2.319E+00	2.319E+00	32.20
	295.21	416	19.20	4.416E+00	1.449E+00	1.449E+00	17.05
	351.92	714	37.20*	3.890E+00	1.459E+00	1.459E+00	14.12
PO-216	74.81	317	10.70	3.854E+00	2.273E+00	2.273E+00	26.16
	77.11	554	18.00	4.150E+00	2.194E+00	2.194E+00	18.30
	87.30	266	8.00	5.253E+00	1.869E+00	1.869E+00	33.52
	238.63	1431	44.60*	5.119E+00	1.853E+00	1.853E+00	9.94
	300.09	105	3.41	4.363E+00	2.091E+00	2.091E+00	47.33
PO-218	74.81	317	6.21	3.854E+00	3.916E+00	3.916E+00	25.53
	77.11	554	10.50	4.150E+00	3.761E+00	3.761E+00	19.82
	87.30	266	4.67	5.253E+00	3.202E+00	3.202E+00	32.91
	241.98	298	7.49	5.076E+00	2.319E+00	2.319E+00	32.20
	295.21	416	19.20	4.416E+00	1.449E+00	1.449E+00	17.05
	351.92	714	37.20*	3.890E+00	1.459E+00	1.459E+00	14.12
RA-224	240.98	298	3.95*	5.076E+00	4.398E+00	4.398E+00	31.71
RA-226	609.31	507	46.30*	2.533E+00	1.278E+00	1.279E+00	14.80
	1120.29	127	15.10	1.416E+00	1.762E+00	1.762E+00	48.16
	1764.49	92	15.80	9.768E-01	1.754E+00	1.754E+00	30.77
AC-228	338.32	281	11.40	4.003E+00	1.818E+00	1.818E+00	46.55
	911.07	279	27.70*	1.741E+00	1.708E+00	1.708E+00	21.90
	969.11	172	16.60	1.637E+00	1.866E+00	1.866E+00	32.91
RA-228	338.32	281	11.40	4.003E+00	1.818E+00	1.818E+00	46.55
	911.07	279	27.70*	1.741E+00	1.708E+00	1.708E+00	21.90
	969.11	172	16.60	1.637E+00	1.866E+00	1.866E+00	32.91
TH-228	74.81	317	10.70	3.854E+00	2.273E+00	2.307E+00	24.46
	77.11	554	18.00	4.150E+00	2.194E+00	2.227E+00	18.30
	87.30	266	8.00	5.253E+00	1.869E+00	1.898E+00	31.99
	238.63	1431	44.60*	5.119E+00	1.853E+00	1.881E+00	9.94
	300.09	105	3.41	4.363E+00	2.091E+00	2.123E+00	75.14
TH-230	609.31	507	46.30*	2.533E+00	1.278E+00	1.278E+00	14.80
	1120.29	127	15.10	1.416E+00	1.762E+00	1.762E+00	48.16
	1764.49	92	15.80	9.768E-01	1.754E+00	1.754E+00	30.77
TH-232	338.32	281	11.40	4.003E+00	1.818E+00	1.818E+00	23.21
	911.07	279	27.70*	1.741E+00	1.708E+00	1.708E+00	21.90
	969.11	172	16.60	1.637E+00	1.866E+00	1.866E+00	32.91
U-234	609.31	507	46.30*	2.533E+00	1.278E+00	1.278E+00	14.80
	1120.29	127	15.10	1.416E+00	1.762E+00	1.762E+00	48.16
	1764.49	92	15.80	9.768E-01	1.754E+00	1.754E+00	30.77
NP-237	86.50	266	12.60*	5.253E+00	1.187E+00	1.187E+00	38.07
	95.87	------	2.60	5.933E+00	------	Line Not Found	------
AM-243	74.67	317	66.00*	3.854E+00	3.685E-01	3.685E-01	24.44
	86.72	266	0.34	5.253E+00	4.451E+01	4.451E+01	31.99

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	117.66	------	0.55	6.694E+00	------	Line Not Found	------
	142.18	------	0.13	6.676E+00	------	Line Not Found	------
ANH-511	511.00	155	100.00*	2.932E+00	1.562E-01	1.562E-01	40.44

Flag: "*" = Keyline

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

Total number of lines in spectrum 32
Number of unidentified lines 4
Number of lines tentatively identified by NID 28 87.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.972E+01	3.972E+01	0.402E+01	10.12	
NB-95	64.02D	1.18	1.282E-01	1.512E-01	0.589E-01	38.95	
CD-109	464.00D	1.02	4.020E+00	4.112E+00	1.316E+00	31.99	
SN-126	1.00E+05Y	1.00	4.042E-01	4.042E-01	1.293E-01	31.99	
HG-203	46.60D	1.25	1.079E-01	1.353E-01	0.743E-01	54.93	
TL-208	1.41E+10Y	1.00	6.219E-01	6.219E-01	0.958E-01	15.40	
BI-211	7.04E+08Y	1.00	4.194E+00	4.194E+00	0.550E+00	13.12	
PB-212	1.41E+10Y	1.00	1.853E+00	1.853E+00	0.184E+00	9.94	
PO-212	1.41E+10Y	1.00	1.853E+00	1.853E+00	0.184E+00	9.94	
BI-214	1600.00Y	1.00	1.278E+00	1.279E+00	0.189E+00	14.80	
PB-214	1600.00Y	1.00	1.459E+00	1.459E+00	0.206E+00	14.12	
PO-214	1600.00Y	1.00	1.459E+00	1.459E+00	0.206E+00	14.12	
PO-216	1.41E+10Y	1.00	1.853E+00	1.853E+00	0.184E+00	9.94	
PO-218	1600.00Y	1.00	1.459E+00	1.459E+00	0.206E+00	14.12	
RA-224	1.41E+10Y	1.00	4.398E+00	4.398E+00	1.394E+00	31.71	
RA-226	1600.00Y	1.00	1.278E+00	1.279E+00	0.189E+00	14.80	
AC-228	1.41E+10Y	1.00	1.708E+00	1.708E+00	0.374E+00	21.90	
RA-228	1.41E+10Y	1.00	1.708E+00	1.708E+00	0.374E+00	21.90	
TH-228	1.91Y	1.02	1.853E+00	1.881E+00	0.187E+00	9.94	
TH-230	4.47E+09Y	1.00	1.278E+00	1.278E+00	0.189E+00	14.80	
TH-232	1.41E+10Y	1.00	1.708E+00	1.708E+00	0.374E+00	21.90	
U-234	4.47E+09Y	1.00	1.278E+00	1.278E+00	0.189E+00	14.80	
NP-237	2.14E+06Y	1.00	1.187E+00	1.187E+00	0.452E+00	38.07	
AM-243	7380.00Y	1.00	3.685E-01	3.685E-01	0.900E-01	24.44	
ANH-511	1.00E+09Y	1.00	1.562E-01	1.562E-01	0.632E-01	40.44	
	Total Activity :		7.734E+01	7.751E+01			

Grand Total Activity : 7.734E+01 7.751E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.83	177	673	1.52	185.77	182	12	2.46E-02	62.4	5.73E+00	T
0	185.69	264	448	1.16	371.32	365	13	3.67E-02	36.2	5.98E+00	T
0	208.93	132	394	1.31	417.78	412	11	1.83E-02	60.9	5.58E+00	T
0	270.18	113	222	1.29	540.18	535	10	1.57E-02	53.0	4.69E+00	T
0	327.05	58	155	1.47	653.83	650	8	8.04E-03	78.8	4.10E+00	
0	461.79	103	134	1.44	923.14	917	13	1.43E-02	50.2	3.17E+00	
0	727.07	98	89	1.98	1453.48	1448	13	1.36E-02	45.9	2.16E+00	T
0	793.78	51	75	2.00	1586.85	1580	12	7.12E-03	73.1	1.99E+00	
2	963.77	54	51	2.11	1926.76	1921	21	7.56E-03	58.2	1.65E+00	T
0	1376.05	48	29	2.41	2751.36	2745	13	6.67E-03	54.6	1.16E+00	T
0	1407.84	21	25	1.45	2814.96	2808	14	2.96E-03	****	1.14E+00	T
0	1728.18	14	5	1.79	3455.90	3450	10	1.97E-03	89.2	9.87E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:24:40.43

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691005.CNF;1   *
* Acquisition date  : 9-FEB-2010 15:24:09.  Detector SN#     :               *
* Detector ID       : GAM10                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.19          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 25-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G245691005            Analyst initials: MJH1           *
* Batch Number      : 947037                Sample Quantity : 1.26970E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08.8MS Isotope      :                  *
* MSD ID           :                      MSD Isotope      :                 *
* LCS ID           : 1032-A               LCS Isotope      :                 *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.972E+01	4.019E+00	4.810E-01	4.143E-02	82.592
NB-95	1.512E-01	5.888E-02	6.827E-02	4.764E-03	2.214
CD-109	4.112E+00	1.316E+00	1.589E+00	1.801E-01	2.588
SN-126	4.042E-01	1.293E-01	1.644E-01	1.860E-02	2.458
HG-203	1.353E-01	7.431E-02	6.608E-02	4.459E-03	2.047
TL-208	6.219E-01	9.577E-02	5.943E-02	3.993E-03	10.464
BI-211	4.194E+00	5.502E-01	3.395E-01	2.475E-02	12.354
PB-212	1.853E+00	1.843E-01	9.383E-02	7.117E-03	19.748
PO-212	1.853E+00	1.843E-01	9.383E-02	7.117E-03	19.748
BI-214	1.279E+00	1.892E-01	1.140E-01	8.674E-03	11.216
PB-214	1.459E+00	2.060E-01	1.183E-01	1.061E-02	12.329
PO-214	1.459E+00	2.060E-01	1.183E-01	1.061E-02	12.329
PO-216	1.853E+00	1.843E-01	9.383E-02	7.117E-03	19.748
PO-218	1.459E+00	2.060E-01	1.183E-01	1.061E-02	12.329
RA-224	4.398E+00	1.394E+00	1.068E+00	6.553E-02	4.119
RA-226	1.279E+00	1.892E-01	1.140E-01	8.674E-03	11.216
AC-228	1.708E+00	3.740E-01	2.147E-01	2.650E-02	7.955
RA-228	1.708E+00	3.740E-01	2.147E-01	2.650E-02	7.955

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.881E+00	1.871E-01	9.525E-02	7.226E-03	19.748
TH-230	1.278E+00	1.892E-01	1.140E-01	8.674E-03	11.216
TH-232	1.708E+00	3.740E-01	2.147E-01	2.650E-02	7.955
U-234	1.278E+00	1.892E-01	1.140E-01	8.674E-03	11.216
NP-237	1.187E+00	4.518E-01	4.708E-01	1.106E-01	2.521
AM-243	3.685E-01	9.004E-02	1.095E-01	1.200E-02	3.364
ANH-511	1.562E-01	6.316E-02	4.344E-02	2.783E-03	3.596

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.098E-02		3.226E-01	5.135E-01	3.819E-02	-0.119
NA-22	-1.060E-02		5.132E-02	8.378E-02	6.489E-03	-0.127
NA-24	-4.154E-01		4.280E-01	Half-Life too short		
AL-26	-5.900E-03		2.909E-02	4.480E-02	2.840E-03	-0.132
TI-44	1.564E-01		5.200E-02	8.169E-02	8.939E-03	1.915
SC-46	-5.426E-02		4.122E-02	5.786E-02	5.726E-03	-0.938
V-48	-2.408E-02		7.517E-02	1.179E-01	1.091E-02	-0.204
CR-51	-2.486E-02		3.635E-01	5.997E-01	4.332E-02	-0.041
MN-52	1.284E-02		2.538E-01	4.212E-01	3.559E-02	0.030
MN-54	-1.469E-02		4.495E-02	7.205E-02	6.155E-03	-0.204
CO-56	9.159E-03		4.194E-02	7.011E-02	6.191E-03	0.131
CO-57	-7.410E-03		2.672E-02	4.278E-02	2.822E-03	-0.173
CO-58	-6.620E-03		4.321E-02	7.023E-02	5.619E-03	-0.094
FE-59	1.750E-03		1.154E-01	1.858E-01	1.551E-02	0.009
CO-60	2.973E-03		4.467E-02	7.457E-02	6.480E-03	0.040
ZN-65	1.758E-01		1.221E-01	1.967E-01	1.433E-02	0.894
GE-68	9.479E-01		1.423E+00	2.431E+00	1.926E-01	0.390
AS-73	7.646E-02		1.611E+00	2.701E+00	3.574E-01	0.028
AS-74	2.734E-02		8.924E-02	1.533E-01	8.756E-03	0.178
SE-75	-3.551E-02		4.909E-02	6.821E-02	4.351E-03	-0.521
BR-77	-2.970E+00		1.076E+01	1.690E+01	1.072E+00	-0.176
SR-82	5.789E-02		4.145E-01	6.880E-01	4.960E-02	0.084
RB-83	-1.587E-02		7.092E-02	1.118E-01	7.097E-03	-0.142
RB-84	-6.770E-03		7.742E-02	1.257E-01	1.219E-02	-0.054
KR-85	1.338E+00		7.775E+00	1.110E+01	7.088E-01	0.121
SR-85	6.862E-03		3.988E-02	5.691E-02	3.635E-03	0.121
RB-86	9.399E-01		9.182E-01	1.612E+00	1.279E-01	0.583
Y-88	-2.187E-03		3.500E-02	5.573E-02	3.419E-03	-0.039
ZR-88	1.534E-02		3.146E-02	5.298E-02	3.601E-03	0.290
Y-91	5.812E+00		2.218E+01	3.778E+01	2.509E+00	0.154
NB-94	-1.274E-02		3.526E-02	5.709E-02	3.250E-03	-0.223
NB-95M	2.012E-01		1.455E-01	2.306E-01	1.789E-02	0.873
ZR-95	4.697E-02		7.422E-02	1.287E-01	1.011E-02	0.365
NB-97	-1.110E-01		4.858E-02	Half-Life too short		
ZR-97	5.866E+00		1.119E+00	Half-Life too short		
MO-99	1.210E+01		1.232E+01	2.175E+01	3.057E+00	0.557

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TC-99M	-5.278E+09		2.224E+10	Half-Life too short		
RH-101	-9.835E-03		3.537E-02	5.446E-02	3.128E-03	-0.181
RH-102	1.045E-02		2.921E-02	4.842E-02	3.194E-03	0.216
RU-103	-2.112E-02		4.064E-02	6.261E-02	8.123E-03	-0.337
RH-106	2.843E-01		3.369E-01	5.942E-01	6.869E-02	0.478
RU-106	2.843E-01		3.357E-01	5.942E-01	3.227E-02	0.478
AG-108M	4.646E-03		3.567E-02	5.845E-02	4.191E-03	0.079
AG-110M	-3.844E-02		3.405E-02	5.167E-02	2.799E-03	-0.744
IN-111	-1.768E-01		1.212E+00	1.780E+00	1.099E-01	-0.099
IN-113M	-3.926E-02		4.714E-02	7.302E-02	5.207E-03	-0.538
SN-113	-3.926E-02		4.714E-02	7.302E-02	5.207E-03	-0.538
IN-114M	1.015E-02		2.120E-01	2.992E-01	1.697E-02	0.034
CD-115	1.695E+00		1.118E+01	1.815E+01	1.142E+00	0.093
SN-117M	-7.705E-03		5.759E-02	9.159E-02	5.137E-03	-0.084
SB-122	-7.185E-01		2.212E+00	3.440E+00	2.069E-01	-0.209
I-123	1.999E+00		3.086E+00	Half-Life too short		
TE-123M	9.571E-03		2.955E-02	4.794E-02	2.723E-03	0.200
I-124	2.303E-01		7.775E-01	1.170E+00	6.599E-02	0.197
SB-124	5.801E-02		7.536E-02	1.399E-01	1.063E-02	0.415
SB-125	-1.965E-02		9.015E-02	1.444E-01	1.005E-02	-0.136
TE-125M	3.718E+00		9.922E+00	1.639E+01	1.573E+00	0.227
I-126	5.888E-02		1.911E-01	3.258E-01	1.634E-02	0.181
SB-126	1.015E-01		1.539E-01	2.477E-01	1.497E-02	0.410
SB-127	-3.811E-01		1.434E+00	2.341E+00	2.148E-01	-0.163
XE-127	-4.541E-02		5.034E-02	7.589E-02	4.395E-03	-0.598
I-131	-7.084E-03		1.144E-01	1.873E-01	1.378E-02	-0.038
TE-132	5.160E-01		7.032E-01	1.215E+00	1.758E-01	0.425
BA-133	2.683E-02		4.616E-02	6.983E-02	8.425E-03	0.384
I-133	-4.203E-04		3.236E-03	Half-Life too short		
CS-134	6.835E-02		5.409E-02	8.787E-02	6.774E-03	0.778
CS-135	3.151E-01		1.826E-01	2.949E-01	2.383E-02	1.068
I-135	-5.636E+09		3.349E+09	Half-Life too short		
CS-136	-9.123E-02		1.267E-01	1.913E-01	1.674E-02	-0.477
BA-137M	-6.753E-03		3.580E-02	5.895E-02	2.908E-03	-0.115
CS-137	-7.139E-03		3.784E-02	6.231E-02	3.092E-03	-0.115
CE-139	-1.325E-02		3.170E-02	4.963E-02	2.711E-03	-0.267
BA-140	4.093E-02		2.697E-01	4.366E-01	1.423E-01	0.094
LA-140	-5.049E-02		8.883E-02	1.313E-01	1.019E-02	-0.384
CE-141	4.187E-03		6.582E-02	1.060E-01	6.490E-03	0.039
CE-143	1.397E-03	+	1.849E-04	Half-Life too short		
CE-144	-1.698E-01		2.169E-01	3.361E-01	4.829E-02	-0.505
PM-144	-1.691E-02		3.602E-02	5.787E-02	3.229E-03	-0.292
PR-144	-1.146E+00		2.441E+00	3.922E+00	2.186E-01	-0.292
PM-146	1.930E-02		4.247E-02	7.103E-02	6.561E-03	0.272
ND-147	1.336E-01		5.852E-01	9.543E-01	1.310E-01	0.140
PM-149	-5.528E+01		9.803E+01	1.584E+02	2.291E+01	-0.349
EU-152	-4.437E-02		1.026E-01	1.589E-01	1.171E-02	-0.279
GD-153	4.097E-02		9.341E-02	1.397E-01	1.300E-02	0.293

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154	-1.696E-03		1.413E-01	2.347E-01	2.500E-02	-0.007
EU-155	1.135E-01		1.151E-01	1.944E-01	1.613E-02	0.584
TB-160	-6.318E-02		1.558E-01	2.455E-01	2.367E-02	-0.257
HO-166M	1.838E-02		6.439E-02	1.092E-01	6.409E-03	0.168
TM-171	-1.668E+01		3.697E+01	6.032E+01	6.871E+00	-0.276
LU-176	-2.257E-02		2.446E-02	3.845E-02	2.529E-03	-0.587
LU-177	3.045E+00	+	1.863E+00	2.123E+00	1.241E-01	1.434
LU-177M	2.019E-02		1.741E-01	2.860E-01	1.938E-02	0.071
HF-181	4.734E-03		4.168E-02	6.786E-02	4.454E-03	0.070
W-181	-3.792E-01		4.975E-01	8.011E-01	9.256E-02	-0.473
TA-182	2.329E-01		2.475E-01	4.387E-01	3.025E-02	0.531
RE-183	2.448E-03		1.158E-01	1.852E-01	1.024E-02	0.013
RE-184	-7.938E-02		2.203E-01	3.630E-01	2.263E-02	-0.219
OS-185	3.851E-02		4.775E-02	8.402E-02	4.316E-03	0.458
RE-188	1.815E-01		1.840E-01	3.063E-01	1.740E-02	0.593
W-188	-4.040E+00		8.408E+00	1.189E+01	7.721E-01	-0.340
IR-192	2.661E-05		3.497E-02	5.796E-02	3.853E-03	0.000
AU-195	2.142E-01		2.664E-01	4.049E-01	3.674E-02	0.529
TL-200	-4.718E-05		2.289E-04	Half-Life too short		
TL-201	4.385E+00		7.277E+00	1.192E+01	6.520E-01	0.368
TL-202	-1.399E-02		6.912E-02	1.106E-01	7.438E-03	-0.126
BI-207	-2.852E-03		6.283E-02	1.009E-01	8.212E-03	-0.028
TL-207	1.583E-01		6.843E-01	1.013E+00	1.706E-01	0.156
PO-209	3.646E+00		7.815E+00	1.330E+01	1.342E+00	0.274
BI-210	5.426E+00		9.048E+00	1.553E+01	1.523E+00	0.349
PB-210	5.426E+00		9.048E+00	1.553E+01	1.523E+00	0.349
PO-210	5.426E+00		9.045E+00	1.553E+01	1.394E+00	0.349
PB-211	3.748E-01		1.015E+00	1.648E+00	1.029E+00	0.227
BI-212	1.131E+00	+	5.273E-01	7.064E-01	5.651E-02	1.601
PO-215	1.583E-01		6.843E-01	1.013E+00	1.706E-01	0.156
RN-219	-2.841E-01		4.427E-01	6.917E-01	9.723E-02	-0.411
RN-220	-3.813E+00		2.777E+01	4.393E+01	2.694E+00	-0.087
RA-223	1.583E-01		6.843E-01	1.013E+00	1.706E-01	0.156
AC-227	-1.604E-02		3.636E-01	6.085E-01	8.616E-02	-0.026
TH-227	-1.604E-02		3.636E-01	6.085E-01	1.038E-01	-0.026
TH-229	1.708E-01		5.312E-01	8.536E-01	4.868E-02	0.200
PA-231	1.132E+00		1.775E+00	2.708E+00	3.809E-01	0.418
TH-231	1.583E-01		6.843E-01	1.013E+00	1.706E-01	0.156
U-231	-9.114E-02		1.265E+00	1.845E+00	1.768E-01	-0.049
PA-233	2.989E-02		6.502E-02	1.104E-01	7.641E-03	0.271
PA-234	-8.485E-02		3.333E-01	5.289E-01	1.019E-01	-0.160
PA-234M	3.073E-01		5.156E+00	8.398E+00	8.667E-01	0.037
TH-234	2.173E+00		1.894E+00	3.169E+00	6.245E-01	0.686
U-235	1.264E-01		2.277E-01	3.689E-01	6.032E-02	0.343
NP-236	-1.188E-04		8.394E-02	1.342E-01	7.478E-03	-0.001
U-238	2.173E+00		1.894E+00	3.169E+00	6.245E-01	0.686
NP-239	-5.297E-03		1.952E-01	3.165E-01	2.214E-02	-0.017
AM-241	-1.253E-01		2.395E-01	3.906E-01	5.016E-02	-0.321

Sample ID : G245691005 Acquisition date : 9-FEB-2010 15:24:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	4.955E-03		1.017E-01	1.663E-01	1.393E-02	0.030
AM-246	-9.634E-02		1.731E-01	2.640E-01	2.085E-02	-0.365
CM-247	-5.053E-03		3.876E-02	6.280E-02	4.264E-03	-0.080
CF-249	6.460E-02		4.120E-02	7.328E-02	4.979E-03	0.882
CF-251	9.088E-02		1.353E-01	2.216E-01	1.229E-02	0.410

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691005           *
* Acquisition date  :  9-FEB-2010 15:24:09 Detector SN#    :                *
* Detector ID       : GAM10                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.19      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691005           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.2697E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.972E+01	3.938E+00	2.406E-01	2.009E+00
NB-95	1.512E-01	5.770E-02	3.448E-02	2.944E-02
CD-109	4.112E+00	1.289E+00	8.282E-01	6.578E-01
SN-126	4.042E-01	1.267E-01	8.570E-02	6.465E-02
HG-203	1.353E-01	7.282E-02	3.388E-02	3.715E-02
TL-208	6.219E-01	9.386E-02	3.014E-02	4.789E-02
BI-211	4.194E+00	5.392E-01	1.735E-01	2.751E-01
PB-212	1.853E+00	1.806E-01	4.821E-02	9.213E-02
PO-212	1.853E+00	1.806E-01	4.821E-02	9.213E-02
BI-214	1.279E+00	1.854E-01	5.777E-02	9.461E-02
PB-214	1.459E+00	2.019E-01	6.046E-02	1.030E-01
PO-214	1.459E+00	2.019E-01	6.046E-02	1.030E-01
PO-216	1.853E+00	1.806E-01	4.821E-02	9.213E-02
PO-218	1.459E+00	2.019E-01	6.046E-02	1.030E-01
RA-224	4.398E+00	1.367E+00	5.485E-01	6.972E-01
RA-226	1.279E+00	1.854E-01	5.777E-02	9.461E-02
AC-228	1.708E+00	3.666E-01	1.082E-01	1.870E-01
RA-228	1.708E+00	3.666E-01	1.082E-01	1.870E-01
TH-228	1.881E+00	1.833E-01	4.895E-02	9.354E-02
TH-230	1.278E+00	1.854E-01	5.777E-02	9.461E-02
TH-232	1.708E+00	3.666E-01	1.082E-01	1.870E-01
U-234	1.278E+00	1.854E-01	5.777E-02	9.461E-02
NP-237	1.187E+00	4.428E-01	2.455E-01	2.259E-01
AM-243	3.685E-01	8.824E-02	5.724E-02	4.502E-02
ANH-511	1.562E-01	6.190E-02	2.207E-02	3.158E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-6.098E-02	3.161E-01	2.612E-01	1.613E-01 NOT IDENT.
NA-22	-1.060E-02	5.029E-02	4.199E-02	2.566E-02 NOT IDENT.

NA-24	-4.154E+05	8.388E+05	0.000E+00	4.280E+05	SHORT HLIF
AL-26	-5.900E-03	2.851E-02	2.233E-02	1.455E-02	NOT IDENT.
TI-44	1.564E-01	5.096E-02	4.265E-02	2.600E-02	NOT IDENT.
SC-46	-5.426E-02	4.039E-02	2.916E-02	2.061E-02	FAIL ABUN
V-48	-2.408E-02	7.367E-02	5.934E-02	3.758E-02	NOT IDENT.
CR-51	-2.486E-02	3.562E-01	3.068E-01	1.817E-01	NOT IDENT.
MN-52	1.284E-02	2.488E-01	2.107E-01	1.269E-01	NOT IDENT.
MN-54	-1.469E-02	4.405E-02	3.634E-02	2.247E-02	NOT IDENT.
CO-56	9.159E-03	4.111E-02	3.536E-02	2.097E-02	NOT IDENT.
CO-57	-7.410E-03	2.619E-02	2.220E-02	1.336E-02	NOT IDENT.
CO-58	-6.620E-03	4.234E-02	3.544E-02	2.160E-02	NOT IDENT.
FE-59	1.750E-03	1.131E-01	9.334E-02	5.771E-02	NOT IDENT.
CO-60	2.973E-03	4.377E-02	3.735E-02	2.233E-02	NOT IDENT.
ZN-65	1.758E-01	1.196E-01	9.879E-02	6.104E-02	NOT IDENT.
GE-68	9.479E-01	1.394E+00	1.221E+00	7.113E-01	NOT IDENT.
AS-73	7.646E-02	1.579E+00	1.418E+00	8.056E-01	NOT IDENT.
AS-74	2.734E-02	8.745E-02	7.771E-02	4.462E-02	NOT IDENT.
SE-75	-3.551E-02	4.810E-02	3.500E-02	2.454E-02	NOT IDENT.
BR-77	-2.970E+00	1.055E+01	8.586E+00	5.382E+00	FAIL ABUN
SR-82	5.789E-02	4.062E-01	3.474E-01	2.073E-01	NOT IDENT.
RB-83	-1.587E-02	6.950E-02	5.681E-02	3.546E-02	NOT IDENT.
RB-84	-6.770E-03	7.588E-02	6.334E-02	3.871E-02	NOT IDENT.
KR-85	1.338E+00	7.620E+00	5.638E+00	3.888E+00	NOT IDENT.
SR-85	6.862E-03	3.908E-02	2.892E-02	1.994E-02	NOT IDENT.
RB-86	9.399E-01	8.999E-01	8.099E-01	4.591E-01	NOT IDENT.
Y-88	-2.187E-03	3.430E-02	2.778E-02	1.750E-02	NOT IDENT.
ZR-88	1.534E-02	3.084E-02	2.703E-02	1.573E-02	NOT IDENT.
Y-91	5.812E+00	2.173E+01	1.895E+01	1.109E+01	NOT IDENT.
NB-94	-1.274E-02	3.455E-02	2.887E-02	1.763E-02	NOT IDENT.
NB-95M	2.012E-01	1.426E-01	1.185E-01	7.275E-02	NOT IDENT.
ZR-95	4.697E-02	7.273E-02	6.501E-02	3.711E-02	NOT IDENT.
NB-97	-1.110E+05	9.522E+04	0.000E+00	4.858E+04	SHORT HLIF
ZR-97	5.866E+06	2.193E+06	0.000E+00	1.119E+06	SHORT HLIF
MO-99	1.210E+01	1.207E+01	1.099E+01	6.160E+00	NOT IDENT.
TC-99M	-5.278E+15	4.358E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-9.835E-03	3.467E-02	2.806E-02	1.769E-02	NOT IDENT.
RH-102	1.045E-02	2.863E-02	2.463E-02	1.461E-02	FAIL ABUN
RU-103	-2.112E-02	3.983E-02	3.183E-02	2.032E-02	NOT IDENT.
RH-106	2.843E-01	3.302E-01	3.011E-01	1.685E-01	NOT IDENT.
RU-106	2.843E-01	3.290E-01	3.011E-01	1.678E-01	NOT IDENT.
AG-108M	4.646E-03	3.496E-02	2.977E-02	1.783E-02	NOT IDENT.
AG-110M	-3.844E-02	3.337E-02	2.616E-02	1.702E-02	NOT IDENT.
IN-111	-1.768E-01	1.188E+00	9.144E-01	6.062E-01	NOT IDENT.
IN-113M	-3.926E-02	4.620E-02	3.725E-02	2.357E-02	NOT IDENT.
SN-113	-3.926E-02	4.620E-02	3.725E-02	2.357E-02	NOT IDENT.
IN-114M	1.015E-02	2.077E-01	1.542E-01	1.060E-01	NOT IDENT.
CD-115	1.695E+00	1.096E+01	9.217E+00	5.591E+00	NOT IDENT.
SN-117M	-7.705E-03	5.644E-02	4.734E-02	2.880E-02	NOT IDENT.
SB-122	-7.185E-01	2.168E+00	1.745E+00	1.106E+00	NOT IDENT.
I-123	1.999E+06	6.048E+06	0.000E+00	3.086E+06	SHORT HLIF
TE-123M	9.571E-03	2.896E-02	2.478E-02	1.477E-02	NOT IDENT.
I-124	2.303E-01	7.620E-01	5.929E-01	3.888E-01	FAIL ABUN
SB-124	5.801E-02	7.386E-02	6.981E-02	3.768E-02	FAIL ABUN
SB-125	-1.965E-02	8.835E-02	7.356E-02	4.508E-02	NOT IDENT.
TE-125M	3.718E+00	9.723E+00	8.516E+00	4.961E+00	NOT IDENT.
I-126	5.888E-02	1.873E-01	1.649E-01	9.556E-02	NOT IDENT.
SB-126	1.015E-01	1.508E-01	1.252E-01	7.695E-02	FAIL ABUN
SB-127	-3.811E-01	1.405E+00	1.184E+00	7.169E-01	NOT IDENT.
XE-127	-4.541E-02	4.933E-02	3.909E-02	2.517E-02	NOT IDENT.
I-131	-7.084E-03	1.121E-01	9.567E-02	5.722E-02	NOT IDENT.
TE-132	5.160E-01	6.891E-01	6.249E-01	3.516E-01	NOT IDENT.
BA-133	2.683E-02	4.523E-02	3.567E-02	2.308E-02	FAIL ABUN
I-133	-4.203E+02	6.342E+03	0.000E+00	3.236E+03	SHORT HLIF
CS-134	6.835E-02	5.300E-02	4.435E-02	2.704E-02	NOT IDENT.
CS-135	3.151E-01	1.790E-01	1.513E-01	9.132E-02	NOT IDENT.
I-135	-5.636E+15	6.564E+15	0.000E+00	3.349E+15	SHORT HLIF
CS-136	-9.123E-02	1.241E-01	9.614E-02	6.334E-02	FAIL ABUN
BA-137M	-6.753E-03	3.508E-02	2.984E-02	1.790E-02	NOT IDENT.
CS-137	-7.139E-03	3.708E-02	3.154E-02	1.892E-02	NOT IDENT.
CE-139	-1.325E-02	3.106E-02	2.564E-02	1.585E-02	NOT IDENT.
BA-140	4.093E-02	2.643E-01	2.217E-01	1.349E-01	NOT IDENT.
LA-140	-5.049E-02	8.705E-02	6.559E-02	4.442E-02	NOT IDENT.
CE-141	4.187E-03	6.450E-02	5.488E-02	3.291E-02	NOT IDENT.
CE-143	1.397E+03	3.624E+02	0.000E+00	1.849E+02	SHORT HLIF
CE-144	-1.698E-01	2.126E-01	1.742E-01	1.085E-01	NOT IDENT.
PM-144	-1.691E-02	3.530E-02	2.927E-02	1.801E-02	NOT IDENT.
PR-144	-1.146E+00	2.392E+00	1.984E+00	1.221E+00	NOT IDENT.
PM-146	1.930E-02	4.162E-02	3.616E-02	2.124E-02	NOT IDENT.

ND-147	1.336E-01	5.735E-01	4.847E-01	2.926E-01	NOT IDENT.
PM-149	-5.528E+01	9.607E+01	8.119E+01	4.902E+01	NOT IDENT.
EU-152	-4.437E-02	1.005E-01	8.122E-02	5.129E-02	FAIL ABUN
GD-153	4.097E-02	9.154E-02	7.270E-02	4.671E-02	NOT IDENT.
EU-154	-1.696E-03	1.384E-01	1.177E-01	7.063E-02	NOT IDENT.
EU-155	1.135E-01	1.128E-01	1.011E-01	5.755E-02	FAIL ABUN
TB-160	-6.318E-02	1.527E-01	1.237E-01	7.789E-02	FAIL ABUN
HO-166M	1.838E-02	6.310E-02	5.522E-02	3.219E-02	FAIL ABUN
TM-171	-1.668E+01	3.623E+01	3.156E+01	1.848E+01	NOT IDENT.
LU-176	-2.257E-02	2.397E-02	1.969E-02	1.223E-02	FAIL ABUN
LU-177	3.045E+00	1.826E+00	1.093E+00	9.315E-01	FAIL ABUN
LU-177M	2.019E-02	1.706E-01	1.458E-01	8.705E-02	FAIL ABUN
HF-181	4.734E-03	4.085E-02	3.451E-02	2.084E-02	NOT IDENT.
W-181	-3.792E-01	4.876E-01	4.193E-01	2.488E-01	NOT IDENT.
TA-182	2.329E-01	2.426E-01	2.200E-01	1.238E-01	NOT IDENT.
RE-183	2.448E-03	1.135E-01	9.568E-02	5.788E-02	FAIL ABUN
RE-184	-7.938E-02	2.159E-01	1.864E-01	1.101E-01	NOT IDENT.
OS-185	3.851E-02	4.680E-02	4.254E-02	2.388E-02	NOT IDENT.
RE-188	1.815E-01	1.803E-01	1.584E-01	9.198E-02	NOT IDENT.
W-188	-4.040E+00	8.240E+00	6.094E+00	4.204E+00	NOT IDENT.
IR-192	2.661E-05	3.427E-02	2.966E-02	1.748E-02	FAIL ABUN
AU-195	2.142E-01	2.611E-01	2.107E-01	1.332E-01	FAIL ABUN
TL-200	-4.718E+01	4.487E+02	0.000E+00	2.289E+02	SHORT HLIF
TL-201	4.385E+00	7.132E+00	6.157E+00	3.639E+00	NOT IDENT.
TL-202	-1.399E-02	6.774E-02	5.634E-02	3.456E-02	NOT IDENT.
BI-207	-2.852E-03	6.158E-02	5.070E-02	3.142E-02	FAIL ABUN
TL-207	1.583E-01	6.706E-01	5.184E-01	3.422E-01	FAIL ABUN
PO-209	3.646E+00	7.659E+00	6.702E+00	3.908E+00	NOT IDENT.
BI-210	5.426E+00	8.867E+00	8.166E+00	4.524E+00	NOT IDENT.
PB-210	5.426E+00	8.867E+00	8.166E+00	4.524E+00	NOT IDENT.
PO-210	5.426E+00	8.864E+00	8.166E+00	4.523E+00	NOT IDENT.
PB-211	3.748E-01	9.943E-01	8.406E-01	5.073E-01	NOT IDENT.
BI-212	1.131E+00	5.168E-01	3.571E-01	2.637E-01	FAIL ABUN
PO-215	1.583E-01	6.706E-01	5.184E-01	3.422E-01	FAIL ABUN
RN-219	-2.841E-01	4.338E-01	3.527E-01	2.213E-01	FAIL ABUN
RN-220	-3.813E+00	2.721E+01	2.230E+01	1.389E+01	NOT IDENT.
RA-223	1.583E-01	6.706E-01	5.184E-01	3.422E-01	FAIL ABUN
AC-227	-1.604E-02	3.564E-01	3.124E-01	1.818E-01	FAIL ABUN
TH-227	-1.604E-02	3.564E-01	3.124E-01	1.818E-01	FAIL ABUN
TH-229	1.708E-01	5.205E-01	4.399E-01	2.656E-01	FAIL ABUN
PA-231	1.132E+00	1.739E+00	1.388E+00	8.875E-01	NOT IDENT.
TH-231	1.583E-01	6.706E-01	5.184E-01	3.422E-01	FAIL ABUN
U-231	-9.114E-02	1.240E+00	9.604E-01	6.326E-01	FAIL ABUN
PA-233	2.989E-02	6.372E-02	5.652E-02	3.251E-02	FAIL ABUN
PA-234	-8.485E-02	3.267E-01	2.663E-01	1.667E-01	FAIL ABUN
PA-234M	3.073E-01	5.053E+00	4.225E+00	2.578E+00	FAIL ABUN
TH-234	2.173E+00	1.856E+00	1.659E+00	9.468E-01	FAIL ABUN
U-235	1.264E-01	2.231E-01	1.909E-01	1.138E-01	FAIL ABUN
NP-236	-1.188E-04	8.226E-02	6.936E-02	4.197E-02	NOT IDENT.
U-238	2.173E+00	1.856E+00	1.659E+00	9.468E-01	FAIL ABUN
NP-239	-5.297E-03	1.913E-01	1.643E-01	9.758E-02	FAIL ABUN
AM-241	-1.253E-01	2.347E-01	2.047E-01	1.197E-01	NOT IDENT.
CM-243	4.955E-03	9.965E-02	8.648E-02	5.084E-02	FAIL ABUN
AM-246	-9.634E-02	1.697E-01	1.327E-01	8.657E-02	NOT IDENT.
CM-247	-5.053E-03	3.799E-02	3.202E-02	1.938E-02	FAIL ABUN
CF-249	6.460E-02	4.038E-02	3.739E-02	2.060E-02	NOT IDENT.
CF-251	9.088E-02	1.326E-01	1.144E-01	6.764E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	280.4353
46.50	280.4353
46.50	280.4353
48.70	308.7673
49.72	288.4139
51.35	310.0055
52.39	322.8994
52.97	299.2169
53.15	305.8613
53.44	310.7373
54.07	314.0263
56.28	323.2427
56.28	323.2454
57.37	0.0000
57.53	323.2882
57.53	323.2895
57.60	313.0030
57.98	308.5852
57.98	308.5852
59.32	346.3800
59.32	346.3800
59.40	346.4453
59.54	346.5601
59.72	341.0393
60.01	377.1949
61.10	377.2081
61.14	377.2425
61.30	358.4182
63.00	326.5027
63.29	318.1450
63.29	318.1450
63.58	318.3539
64.28	331.2674
65.12	395.0165
65.20	395.0864
65.20	395.0864
66.05	432.2519
66.72	382.0159
66.83	385.9493
66.91	386.0168
67.20	386.2621
67.20	386.2621
67.75	366.5222
67.85	366.6017
68.90	389.6140
68.90	389.6140
69.30	376.4359
69.67	395.2823
70.82	461.8972
70.82	461.8972
70.83	461.9070
72.80	418.5993
72.87	418.6606
72.87	418.6606
74.67	414.8424
74.81	414.9612
74.81	414.9612
74.81	414.9612
74.81	414.9612
74.81	414.9612
74.81	414.9612
74.81	414.9612
74.97	415.0953
75.28	415.3568
75.70	415.7092
77.11	416.8873
77.11	416.8873

77.11	416.8873
77.11	416.8873
77.11	416.8873
77.11	416.8873
77.11	416.8873
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79.62	387.4131
79.80	408.2577
79.80	408.2577
80.11	408.5062
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80.30	423.4621
80.30	423.4621
80.57	423.6846
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81.07	498.2373
81.07	498.2373
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81.07	498.2373
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83.37	372.3450
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83.78	380.0895
83.78	380.0895
83.78	380.0895
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86.59	504.9575
86.72	537.5540
86.79	537.6196
86.94	537.7701
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87.88	504.6563
88.03	504.7947
88.36	441.9623
88.47	442.0497
89.95	443.2386
91.11	444.1627
92.29	486.4766
92.38	486.5551
92.38	486.5551
93.35	487.3886
94.00	487.9451
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94.67	488.5163
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94.90	488.7124
94.90	488.7124
94.90	488.7124
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95.87	335.1579
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98.44	280.0205
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111.00	329.0236
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117.00	293.1935
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121.11	275.9677
121.62	282.5250
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122.32	305.0581
122.32	305.0581
122.32	305.0581
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129.76	294.4226
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144.24	294.8099
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147.16	313.4700
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153.22	291.6021
154.21	294.1737
154.21	294.1737
154.21	294.1737
154.21	294.1737
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162.32	299.3572
162.64	302.8240
163.35	303.0831
163.89	290.9686
165.85	310.7205
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171.86	290.3302
172.10	294.9313
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176.60	273.7408
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184.41	257.8171
185.71	258.1856
186.00	258.2680
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192.34	269.2972
193.63	261.5677
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198.60	245.4927
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205.31	255.8753

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209.75	258.4450
210.97	261.5903
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216.55	243.4961
218.09	260.7743
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223.80	272.0697
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227.00	232.5076
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227.20	224.4720
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228.18	230.9710
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236.00	262.1871
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238.63	242.3130
238.63	242.3130
238.63	242.3130
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241.98	243.0565
241.98	243.0565
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252.85	190.2817
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256.20	186.2311
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269.46	191.1584
269.46	191.1584
271.23	191.7543
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277.35	178.3395
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277.60	178.3772
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283.67	176.6226
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295.21	177.1166

295.21	177.1166
295.96	177.2216
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297.23	177.3976
298.57	177.5849
299.80	177.7552
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300.09	177.7950
300.09	177.7950
300.09	177.7950
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303.91	142.6583
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304.40	138.1069
304.84	139.6903
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323.87	130.8029
323.87	130.8029
323.87	130.8029
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334.20	161.6014
334.30	161.6114
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338.28	141.6160
338.28	141.6160
338.28	141.6160
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338.32	141.6204
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351.92	154.8955
351.92	154.8955
355.39	0.0000
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364.48	130.1904
366.43	142.3965
367.43	145.5022
367.94	0.0000
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374.96	129.0879
383.85	140.9980
387.95	109.8441
388.63	132.2772
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391.69	155.9859
392.90	124.4759
398.62	118.7842
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401.81	154.9354
402.60	140.6395
404.84	135.6960
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413.65	117.8321
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432.53	125.4547
433.93	128.6962
439.47	118.6193
439.56	111.2777
439.89	101.8488
443.98	119.9856
444.90	130.5788
445.03	130.5901
445.03	130.5901
445.03	130.5901
445.03	130.5901
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475.06	95.3366
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476.78	97.5706
477.59	102.9771
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511.85	89.1510
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513.99	98.0007
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555.20	93.8053
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602.71	97.4661
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609.31	94.4024
609.31	94.4024
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621.84	82.0338
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666.33	89.2805
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696.49	96.1226
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722.78	83.3638
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727.18	76.1224
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742.81	90.1664
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747.13	73.8087
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755.35	64.3000
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756.87	74.0870
763.93	70.0517
765.79	74.9915
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778.89	74.7086
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911.07	56.6462
911.07	56.6462
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949.00	47.9676
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968.20	58.7535
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969.11	54.2222
969.11	54.2222
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1046.59	76.3007
1048.07	69.8813

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1063.62	68.0418
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1078.86	74.8556
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1112.84	78.5044
1115.52	56.6391
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1120.29	64.7646
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1175.09	75.2223
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1274.54	60.9974
1291.56	65.0892
1298.22	0.0000
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1325.50	45.3668
1332.49	40.6089
1333.61	41.5880
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1365.15	21.4396
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1368.53	0.0000
1376.25	31.8253
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1395.20	28.4631
1407.95	27.5636
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1596.49	24.6299
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1691.02	9.4164
1691.02	9.4164
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1750.46	0.0000
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1764.49	3.6392
1764.49	3.6392
1764.49	3.6392
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1791.20	0.0000
1808.65	11.7748

1836.01 12.9111

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691005

Total Uranium Activity	6.5227E+00	ug/g
Total Uranium Counting Unc.	5.5216E+00	ug/g
Total Uranium Tpu	2.8171E-06	ug/g
Total Uranium Mda	4.9371E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691005       *
*   ANALYST       : MJH1                      DETECTOR   : GAM10            *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 15:24:09.72    SAMPLE ALQT:  126.970 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.104E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.509E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.509E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.700E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:25:26.54

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691006.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:34.
Sample ID         : G245691006           Sample quantity  : 1.48710E+02 GRAM
Detector name     : GAM13                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.72  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947037                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.27*	181	590	1.30	92.30	88	9	2.51E-02	26.7	
2	0	63.14*	582	881	1.23	126.04	121	10	8.08E-02	11.0	
3	3	74.82	500	723	1.09	149.42	144	14	6.94E-02	10.1	1.85E+00
4	3	77.07*	870	581	1.07	153.92	144	14	1.21E-01	5.7	
5	0	83.98*	117	493	1.51	167.74	165	6	1.62E-02	32.8	
6	4	87.09	296	479	1.38	173.97	171	22	4.12E-02	12.7	3.97E+00
7	4	89.89	234	594	1.31	179.56	171	22	3.25E-02	19.4	
8	4	92.59*	810	470	1.22	184.96	171	22	1.12E-01	6.6	
9	0	129.28	86	489	0.96	258.36	253	9	1.19E-02	47.9	
10	0	143.65*	132	485	1.36	287.11	282	11	1.83E-02	34.5	
11	0	185.72*	394	472	1.34	371.27	364	13	5.47E-02	13.2	
12	0	209.13	117	276	1.00	418.10	415	8	1.62E-02	26.4	
13	5	238.72*	1118	240	1.36	477.29	473	16	1.55E-01	3.9	1.83E+00
14	5	241.74	230	301	1.56	483.33	473	16	3.19E-02	15.6	
15	0	269.86*	157	223	2.10	539.58	534	11	2.18E-02	20.6	
16	0	295.29*	408	220	1.26	590.46	586	11	5.66E-02	8.7	
17	0	299.99	73	170	0.66	599.87	597	7	1.01E-02	31.8	
18	0	328.21	53	223	1.35	656.32	651	10	7.34E-03	54.6	
19	0	338.73*	237	202	1.19	677.36	672	12	3.29E-02	14.1	
20	0	352.02*	622	348	1.39	703.95	696	16	8.64E-02	7.9	
21	0	464.06	140	162	0.78	928.10	920	15	1.95E-02	21.7	
22	0	511.14*	128	224	2.09	1022.29	1013	19	1.78E-02	32.5	
23	0	583.28*	340	114	1.22	1166.62	1160	13	4.72E-02	8.8	
24	0	609.42*	472	130	1.55	1218.92	1212	13	6.56E-02	7.0	
25	0	662.08	215	119	1.17	1324.27	1317	12	2.99E-02	11.7	
26	0	727.81*	73	72	1.21	1455.77	1451	9	1.02E-02	25.2	
27	0	768.69	22	134	0.95	1537.56	1534	12	3.08E-03	108.6	
28	0	911.68*	221	84	1.81	1823.64	1816	14	3.07E-02	11.5	
29	0	969.61*	100	106	1.50	1939.55	1935	13	1.39E-02	24.2	
30	0	1001.83*	30	50	1.75	2004.03	1998	10	4.15E-03	53.9	
31	0	1121.33	80	109	1.65	2243.13	2237	15	1.11E-02	30.3	
32	0	1461.28*	935	35	2.43	2923.35	2910	22	1.30E-01	3.7	
33	0	1765.08	79	7	2.68	3531.27	3524	14	1.10E-02	13.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:25:29

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:34
Sample ID : G245691006 Sample quantity : 148.71 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA13 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.72 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.126E+01	2.047E+00	6.794E-01	4.153E-02	31.291
CD-109	+	88.03	*	2.838E+00	7.536E-01	8.626E-01	6.806E-02	3.290
SN-126	+	64.28		2.070E+00	5.597E-01	3.756E-01	5.848E-02	5.512
	+	86.94		1.160E+00	5.611E-01	3.513E-01	1.448E-01	3.301
	+	87.57	*	2.790E-01	7.407E-02	8.466E-02	6.697E-03	3.295
BA-137M	+	661.65	*	2.995E-01	7.409E-02	6.676E-02	5.445E-03	4.486
CS-137	+	661.65	*	3.166E-01	7.834E-02	7.057E-02	5.768E-03	4.486
TL-208		277.35		2.459E-02	3.916E-01	6.490E-01	7.601E-02	0.038
	+	510.84		5.916E-01	3.902E-01	2.434E-01	2.645E-02	2.431
	+	583.14	*	4.519E-01	8.792E-02	6.089E-02	5.040E-03	7.421
		860.37		6.403E-01	3.755E-01	6.708E-01	5.656E-02	0.955
BI-210	+	46.50	*	1.548E+00	8.359E-01	7.545E-01	6.150E-02	2.051
PB-210	+	46.50	*	1.548E+00	8.359E-01	7.545E-01	6.150E-02	2.051
PO-210	+	46.50	*	1.548E+00	8.337E-01	7.545E-01	5.379E-02	2.051
BI-211		72.87		2.316E+00	2.091E+00	3.268E+00	2.858E-01	0.709
	+	351.07	*	3.471E+00	6.060E-01	3.321E-01	2.420E-02	10.452
PB-212	+	74.81		1.603E+00	3.818E-01	3.504E-01	4.458E-02	4.573
	+	77.11		1.661E+00	2.373E-01	2.095E-01	1.780E-02	7.929
	+	87.30		1.290E+00	3.661E-01	3.913E-01	4.992E-02	3.297
	+	238.63	*	1.343E+00	1.616E-01	8.887E-02	8.073E-03	15.114
	+	300.09		1.354E+00	8.722E-01	1.246E+00	1.185E-01	1.087
PO-212	+	74.81		1.603E+00	3.818E-01	3.504E-01	4.458E-02	4.573
	+	77.11		1.661E+00	2.373E-01	2.095E-01	1.780E-02	7.929
	+	87.30		1.290E+00	3.661E-01	3.913E-01	4.992E-02	3.297
		115.19		-1.080E+00	3.350E+00	5.414E+00	6.279E-01	-0.200
	+	238.63	*	1.343E+00	1.616E-01	8.887E-02	8.073E-03	15.114
	+	300.09		1.354E+00	8.722E-01	1.246E+00	1.185E-01	1.087
BI-214	+	609.31	*	1.186E+00	1.998E-01	1.258E-01	1.176E-02	9.432
	+	1120.29		1.036E+00	6.343E-01	5.402E-01	4.832E-02	1.918
	+	1764.49		1.410E+00	3.823E-01	3.605E-01	2.047E-02	3.912
PB-214	+	74.81		2.761E+00	6.388E-01	6.038E-01	6.867E-02	4.573
	+	77.11		2.847E+00	4.610E-01	3.591E-01	4.098E-02	7.929
	+	87.30		2.210E+00	6.111E-01	6.703E-01	7.410E-02	3.297
	+	241.98		1.658E+00	5.433E-01	5.355E-01	5.184E-02	3.097

Sample ID : G245691006 Acquisition date : 9-FEB-2010 15:24:34

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.331E+00	2.664E-01	2.075E-01	2.032E-02	6.415
	+	351.92	*	1.207E+00	2.200E-01	1.158E-01	1.037E-02	10.427
PO-214	+	74.81		2.761E+00	6.388E-01	6.038E-01	6.867E-02	4.573
	+	77.11		2.847E+00	4.610E-01	3.591E-01	4.098E-02	7.929
	+	87.30		2.210E+00	6.111E-01	6.703E-01	7.410E-02	3.297
	+	241.98		1.658E+00	5.433E-01	5.355E-01	5.184E-02	3.097
	+	295.21		1.331E+00	2.664E-01	2.075E-01	2.032E-02	6.415
	+	351.92	*	1.207E+00	2.200E-01	1.158E-01	1.037E-02	10.427
PO-216	+	74.81		1.603E+00	3.818E-01	3.504E-01	4.458E-02	4.573
	+	77.11		1.661E+00	2.373E-01	2.095E-01	1.780E-02	7.929
	+	87.30		1.290E+00	3.661E-01	3.913E-01	4.992E-02	3.297
	+	238.63	*	1.343E+00	1.616E-01	8.887E-02	8.073E-03	15.114
	+	300.09		1.354E+00	8.722E-01	1.246E+00	1.185E-01	1.087
PO-218	+	74.81		2.761E+00	6.388E-01	6.038E-01	6.867E-02	4.573
	+	77.11		2.847E+00	4.610E-01	3.591E-01	4.098E-02	7.929
	+	87.30		2.210E+00	6.111E-01	6.703E-01	7.410E-02	3.297
	+	241.98		1.658E+00	5.433E-01	5.355E-01	5.184E-02	3.097
	+	295.21		1.331E+00	2.664E-01	2.075E-01	2.032E-02	6.415
	+	351.92	*	1.207E+00	2.200E-01	1.158E-01	1.037E-02	10.427
RA-224	+	240.98	*	3.145E+00	1.015E+00	1.012E+00	7.987E-02	3.108
RA-226	+	609.31	*	1.186E+00	1.998E-01	1.258E-01	1.176E-02	9.432
	+	1120.29		1.036E+00	6.343E-01	5.402E-01	4.832E-02	1.918
	+	1764.49		1.410E+00	3.823E-01	3.605E-01	2.047E-02	3.912
AC-228	+	338.32		1.454E+00	7.229E-01	3.305E-01	1.353E-01	4.401
	+	911.07	*	1.319E+00	3.321E-01	2.589E-01	2.689E-02	5.096
	+	969.11		1.051E+00	5.624E-01	6.096E-01	1.392E-01	1.724
RA-228	+	338.32		1.454E+00	7.229E-01	3.305E-01	1.353E-01	4.401
	+	911.07	*	1.319E+00	3.321E-01	2.589E-01	2.689E-02	5.096
	+	969.11		1.051E+00	5.624E-01	6.096E-01	1.392E-01	1.724
TH-228	+	74.81		1.627E+00	3.570E-01	3.558E-01	3.096E-02	4.573
	+	77.11		1.686E+00	2.409E-01	2.127E-01	1.807E-02	7.929
	+	87.30		1.310E+00	3.478E-01	3.972E-01	3.148E-02	3.297
	+	238.63	*	1.364E+00	1.640E-01	9.022E-02	8.196E-03	15.114
	+	300.09		1.375E+00	1.195E+00	1.264E+00	7.477E-01	1.087
TH-230	+	609.31	*	1.186E+00	1.998E-01	1.258E-01	1.176E-02	9.432
	+	1120.29		1.036E+00	6.343E-01	5.402E-01	4.832E-02	1.918
	+	1764.49		1.410E+00	3.823E-01	3.605E-01	2.047E-02	3.912
TH-232	+	338.32		1.454E+00	4.221E-01	3.305E-01	2.301E-02	4.401
	+	911.07	*	1.319E+00	3.321E-01	2.589E-01	2.689E-02	5.096
	+	969.11		1.051E+00	5.624E-01	6.096E-01	1.392E-01	1.724
TH-234	+	63.29	*	5.230E+00	1.501E+00	9.316E-01	1.709E-01	5.614
	+	92.38		5.262E+00	1.177E+00	5.876E-01	1.058E-01	8.955
U-234	+	609.31	*	1.186E+00	1.998E-01	1.258E-01	1.176E-02	9.432
	+	1120.29		1.036E+00	6.343E-01	5.402E-01	4.832E-02	1.918
	+	1764.49		1.410E+00	3.823E-01	3.605E-01	2.047E-02	3.912
U-235	+	89.95		3.033E+00	1.500E+00	1.169E+00	3.590E-01	2.596
	+	93.35		6.326E+00	1.959E+00	7.086E-01	1.985E-01	8.927
		105.00		9.555E-01	9.638E-01	1.571E+00	4.762E-01	0.608
	+	143.76	*	5.033E-01	3.598E-01	3.158E-01	5.830E-02	1.594

Sample ID : G245691006 Acquisition date : 9-FEB-2010 15:24:34

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		163.35		6.855E-02	4.920E-01	7.679E-01	1.449E-01	0.089
	+	185.71		3.329E-01	9.162E-02	6.740E-02	5.320E-03	4.938
		205.31		3.035E-01	5.596E-01	8.539E-01	1.603E-01	0.356
NP-237	+	86.50	*	8.191E-01	2.755E-01	2.790E-01	6.171E-02	2.936
		95.87		-3.496E-01	8.736E-01	1.265E+00	3.129E-01	-0.276
U-238	+	63.29	*	5.230E+00	1.501E+00	9.316E-01	1.709E-01	5.614
	+	92.38		5.262E+00	8.281E-01	5.876E-01	4.960E-02	8.955
AM-243	+	74.67	*	2.598E-01	5.694E-02	5.679E-02	4.906E-03	4.575
	+	86.72		3.072E+01	8.157E+00	1.047E+01	8.329E-01	2.934
		117.66		-1.865E-01	3.570E+00	5.823E+00	6.969E-01	-0.032
	+	142.18		4.227E+01	2.953E+01	2.753E+01	2.917E+00	1.536
ANH-511	+	511.00	*	1.278E-01	8.361E-02	5.259E-02	3.670E-03	2.430

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.933E-02	3.506E-01	5.792E-01	4.355E-02	-0.120
NA-22		1274.54	*	-1.614E-02	5.218E-02	8.454E-02	4.772E-03	-0.191
NA-24		1368.53	*	-3.716E-01	5.218E-02	Half-Life too short		
AL-26		1129.67		-2.955E+00	2.706E+00	3.271E+00	1.939E-01	-0.903
		1808.65	*	2.068E-02	3.135E-02	5.775E-02	3.259E-03	0.358
TI-44		67.85		-2.325E-02	2.509E-02	3.913E-02	3.543E-03	-0.594
	+	78.38	*	3.065E-01	4.379E-02	5.246E-02	4.418E-03	5.843
SC-46		889.25	*	8.826E-04	4.491E-02	7.448E-02	5.640E-03	0.012
	+	1120.51		1.774E-01	1.080E-01	1.374E-01	8.259E-03	1.292
V-48		944.10		-4.807E-02	1.029E+00	1.688E+00	1.233E-01	-0.028
		983.50	*	7.971E-03	8.570E-02	1.416E-01	1.002E-02	0.056
		1312.09		-5.915E-02	8.866E-02	1.371E-01	7.774E-03	-0.431
CR-51		320.08	*	-9.328E-02	3.747E-01	6.039E-01	4.700E-02	-0.154
MN-52		744.21		1.015E-01	2.943E-01	4.850E-01	3.937E-02	0.209
		848.13		3.218E+00	8.085E+00	1.382E+01	1.076E+00	0.233
		935.52		4.125E-01	3.033E-01	5.471E-01	4.019E-02	0.754
		1246.25		4.025E+00	8.673E+00	1.493E+01	8.354E-01	0.270
		1333.61		3.301E+00	5.430E+00	9.539E+00	5.426E-01	0.346
		1434.06	*	-1.845E-01	2.598E-01	3.882E-01	2.231E-02	-0.475
MN-54		834.83	*	5.475E-03	4.458E-02	7.485E-02	5.874E-03	0.073
CO-56		846.75	*	-4.237E-02	4.811E-02	7.469E-02	5.821E-03	-0.567
		977.42		-1.548E+00	4.356E+00	5.883E+00	4.183E-01	-0.263
		1037.82		-2.312E-01	3.465E-01	5.300E-01	3.860E-02	-0.436
		1175.09		1.860E+00	2.622E+00	4.469E+00	2.458E-01	0.416
		1238.25		1.274E-01	9.368E-02	1.706E-01	1.017E-02	0.747
		1360.21		6.103E-01	1.118E+00	1.952E+00	1.114E-01	0.313
		1771.40		2.193E-01	2.709E-01	4.570E-01	2.593E-02	0.480
CO-57		122.06	*	1.355E-03	2.402E-02	3.926E-02	4.966E-03	0.035
		136.48		-4.469E-02	2.024E-01	3.246E-01	3.799E-02	-0.138
CO-58		810.76	*	-2.000E-02	4.486E-02	7.236E-02	5.764E-03	-0.276
FE-59	+	142.65		6.495E+00	4.537E+00	4.686E+00	4.941E-01	1.386
		192.34		1.935E-01	8.861E-01	1.515E+00	1.966E-01	0.128

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1099.22	*	3.655E-02	1.087E-01	1.812E-01	1.294E-02	0.202
		1291.56		5.278E-02	1.474E-01	2.519E-01	1.840E-02	0.210
CO-60		1173.22		1.511E-03	5.430E-02	8.775E-02	4.823E-03	0.017
		1332.49	*	4.783E-03	4.401E-02	7.364E-02	4.189E-03	0.065
ZN-65		1115.52	*	8.044E-03	1.183E-01	1.654E-01	1.004E-02	0.049
GE-68		1077.35	*	5.881E-02	1.500E+00	2.447E+00	1.564E-01	0.024
AS-73		53.44	*	1.815E-01	2.232E-01	3.800E-01	3.210E-02	0.478
AS-74		595.88	*	-4.764E-03	1.034E-01	1.691E-01	1.299E-02	-0.028
		634.78		-7.505E-02	4.251E-01	6.848E-01	5.457E-02	-0.110
SE-75		66.05		-3.172E-01	2.503E+00	3.788E+00	4.127E-01	-0.084
		96.73		-5.502E-01	7.247E-01	1.030E+00	1.429E-01	-0.534
		121.11		-4.990E-02	1.333E-01	2.102E-01	3.030E-02	-0.237
		136.00		-8.646E-03	3.786E-02	6.070E-02	6.856E-03	-0.142
		198.60		-2.186E-01	1.730E+00	2.855E+00	2.551E-01	-0.077
		264.65	*	-8.490E-03	4.721E-02	6.797E-02	5.324E-03	-0.125
		279.53		9.939E-02	1.103E-01	1.892E-01	1.522E-02	0.525
		303.91		5.451E-01	2.348E+00	3.434E+00	3.649E-01	0.159
		400.65		-1.011E-01	3.045E-01	4.641E-01	4.265E-02	-0.218
BR-77	+	87.88		6.177E+02	1.640E+02	2.621E+02	2.069E+01	2.357
		200.40		1.396E+02	1.557E+02	2.716E+02	2.152E+01	0.514
	+	239.00		2.173E+02	2.425E+01	3.379E+01	2.669E+00	6.431
		249.79		4.068E+00	6.274E+01	1.048E+02	8.243E+00	0.039
		281.68		-8.496E+01	9.067E+01	1.424E+02	1.092E+01	-0.597
		297.23		2.761E+02	8.586E+01	1.165E+02	8.760E+00	2.370
		303.76		1.976E+01	2.054E+02	2.975E+02	2.216E+01	0.066
		439.47		-1.229E+02	1.605E+02	2.586E+02	1.634E+01	-0.475
		484.57		1.491E+02	2.444E+02	4.228E+02	2.850E+01	0.353
		520.65	*	5.674E+00	1.159E+01	1.981E+01	1.399E+00	0.286
		574.64		-7.442E+01	2.344E+02	3.774E+02	2.835E+01	-0.197
		578.91		1.423E+01	1.069E+02	1.542E+02	1.164E+01	0.092
		585.48		1.402E+03	2.921E+02	5.132E+02	3.900E+01	2.732
		755.35		5.947E+01	1.874E+02	3.085E+02	2.498E+01	0.193
		817.79		-3.093E+01	1.642E+02	2.703E+02	2.140E+01	-0.114
SR-82		698.33		-4.303E+01	4.059E+01	6.030E+01	4.923E+00	-0.714
		776.49	*	-1.855E-01	4.823E-01	6.989E-01	5.625E-02	-0.265
		1395.20		-1.237E+00	1.128E+01	1.835E+01	1.051E+00	-0.067
RB-83		520.41	*	2.081E-02	7.781E-02	1.280E-01	9.040E-03	0.163
		529.64		4.934E-02	1.124E-01	1.915E-01	1.367E-02	0.258
		552.65		-2.608E-01	2.253E-01	3.419E-01	2.508E-02	-0.763
RB-84		881.50	*	5.880E-02	8.100E-02	1.414E-01	1.077E-02	0.416
KR-85		513.99	*	2.471E+01	9.609E+00	1.618E+01	1.134E+00	1.527
SR-85		513.99	*	1.267E-01	4.928E-02	8.299E-02	5.814E-03	1.527
RB-86		1076.63	*	1.766E-01	9.239E-01	1.527E+00	9.766E-02	0.116
Y-88		898.02		-9.617E-03	4.945E-02	8.058E-02	6.099E-03	-0.119
		1836.01	*	-3.934E-02	3.505E-02	4.494E-02	2.531E-03	-0.876
ZR-88		392.90	*	-1.459E-02	3.402E-02	5.323E-02	3.118E-03	-0.274
Y-91		1204.90	*	1.419E+01	2.005E+01	3.527E+01	1.955E+00	0.402
NB-94		702.63	*	4.062E-02	4.110E-02	7.057E-02	5.761E-03	0.576
		871.10		-6.373E-03	3.836E-02	6.277E-02	4.817E-03	-0.102

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.79	*	7.043E-02	5.665E-02	9.071E-02	7.325E-03	0.776
NB-95M		235.69	*	-3.450E-02	1.327E-01	1.926E-01	1.782E-02	-0.179
ZR-95		724.18		-2.342E-03	1.333E-01	1.848E-01	1.650E-02	-0.013
		756.15	*	5.858E-02	7.821E-02	1.329E-01	1.199E-02	0.441
NB-97		657.90	*	9.939E-03	7.821E-02	Half-Life too short		
		1024.50		4.679E+00	7.821E-02	Half-Life too short		
ZR-97		254.15		-1.392E+00	7.821E-02	Half-Life too short		
		355.39		1.830E+00	7.821E-02	Half-Life too short		
		507.63	*	6.328E-01	7.821E-02	Half-Life too short		
		602.52		4.048E+00	7.821E-02	Half-Life too short		
		1021.30		-1.552E+00	7.821E-02	Half-Life too short		
		1147.95		-2.999E-01	7.821E-02	Half-Life too short		
		1362.66		-6.171E-03	7.821E-02	Half-Life too short		
		1750.46		4.415E+00	7.821E-02	Half-Life too short		
MO-99		140.51		-2.097E+00	2.897E+01	4.095E+01	1.164E+01	-0.051
		181.06		-7.141E+00	1.959E+01	2.693E+01	4.835E+00	-0.265
		366.43		-2.020E+01	9.181E+01	1.465E+02	9.421E+00	-0.138
		739.58	*	-1.285E+00	1.375E+01	2.194E+01	3.272E+00	-0.059
		778.00		1.480E+01	3.972E+01	6.690E+01	5.383E+00	0.221
TC-99M		140.51	*	-3.246E+09	3.972E+01	Half-Life too short		
RH-101		127.23		1.642E-02	3.433E-02	5.096E-02	6.188E-03	0.322
		198.01	*	-2.078E-02	3.227E-02	5.220E-02	4.133E-03	-0.398
		325.23		1.507E-01	2.441E-01	3.650E-01	2.617E-02	0.413
RH-102		418.52		-4.424E-02	3.197E-01	5.064E-01	3.096E-02	-0.087
		475.06	*	2.724E-02	3.161E-02	5.539E-02	3.686E-03	0.492
		631.29		9.449E-04	6.296E-02	1.029E-01	8.170E-03	0.009
		697.49		2.461E-02	8.968E-02	1.478E-01	1.207E-02	0.166
		766.84		2.452E-01	1.531E-01	2.491E-01	2.011E-02	0.984
		1046.59		6.814E-02	1.257E-01	2.147E-01	1.425E-02	0.317
		1112.84		-5.815E-02	2.773E-01	4.193E-01	2.550E-02	-0.139
RU-103		497.08	*	9.129E-03	4.358E-02	7.353E-02	9.678E-03	0.124
	+	610.33		1.281E+01	2.751E+00	3.065E+00	4.988E-01	4.180
RH-106	+	511.85		6.383E-01	4.176E-01	4.616E-01	3.225E-02	1.383
		621.84	*	-3.663E-01	3.696E-01	5.558E-01	7.164E-02	-0.659
		1050.47		-1.647E-01	2.514E+00	4.073E+00	2.691E-01	-0.040
RU-106	+	511.85		6.383E-01	4.176E-01	4.616E-01	3.225E-02	1.383
		621.84	*	-3.663E-01	3.677E-01	5.558E-01	4.377E-02	-0.659
		1050.47		-1.647E-01	2.514E+00	4.073E+00	2.691E-01	-0.040
AG-108M		433.93	*	-1.746E-03	3.855E-02	6.205E-02	4.175E-03	-0.028
		614.37		-3.170E-02	5.136E-02	6.820E-02	5.586E-03	-0.465
		722.95		5.711E-03	5.815E-02	8.158E-02	6.937E-03	0.070
AG-110M		657.75	*	-1.023E-02	4.633E-02	6.354E-02	5.338E-03	-0.161
		677.61		-2.198E-02	3.842E-01	6.205E-01	5.225E-02	-0.035
		706.67		7.756E-03	2.643E-01	4.277E-01	3.597E-02	0.018
		763.93		1.899E-01	2.027E-01	3.200E-01	2.669E-02	0.593
		884.67		-3.940E-02	5.767E-02	9.016E-02	7.134E-03	-0.437
		937.48		2.590E-02	1.333E-01	2.228E-01	1.716E-02	0.116
		1384.27		-1.598E-01	2.454E-01	3.255E-01	1.980E-02	-0.491
IN-111		171.28		-8.455E-01	1.004E+00	1.533E+00	1.204E-01	-0.551

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	-5.274E-01	1.191E+00	1.699E+00	1.339E-01	-0.310
IN-113M		391.69	*	-2.824E-02	4.923E-02	7.633E-02	4.756E-03	-0.370
SN-113		391.69	*	-2.824E-02	4.923E-02	7.633E-02	4.756E-03	-0.370
IN-114M		190.27	*	1.385E-02	2.002E-01	2.820E-01	2.229E-02	0.049
CD-115		260.90		-5.126E+01	1.343E+02	2.191E+02	1.711E+01	-0.234
		492.35		3.627E+00	3.816E+01	6.401E+01	4.361E+00	0.057
		527.90	*	-4.503E+00	1.184E+01	1.914E+01	1.364E+00	-0.235
SN-117M		156.02		-1.379E+00	2.434E+00	3.811E+00	3.443E-01	-0.362
		158.56	*	1.797E-02	5.770E-02	9.353E-02	8.167E-03	0.192
SB-122		563.90	*	-1.692E-01	2.320E+00	3.807E+00	2.827E-01	-0.044
		692.80		4.167E+01	5.130E+01	8.755E+01	7.149E+00	0.476
I-123		159.00	*	1.006E+00	5.130E+01	Half-Life too short		
		528.96		5.822E+01	5.130E+01	Half-Life too short		
TE-123M		159.00	*	4.814E-03	2.983E-02	4.807E-02	4.198E-03	0.100
I-124		602.71	*	2.251E-01	9.242E-01	1.288E+00	9.960E-02	0.175
		722.78		1.449E+00	6.049E+00	8.606E+00	7.012E-01	0.168
		1325.50		-6.243E+00	3.981E+01	6.492E+01	3.689E+00	-0.096
		1376.25		5.343E+01	3.733E+01	6.917E+01	3.955E+00	0.772
		1509.49		1.487E+01	1.825E+01	3.257E+01	1.878E+00	0.457
		1691.02		-1.485E+00	4.208E+00	6.382E+00	3.655E-01	-0.233
SB-124		602.71		1.303E-02	5.351E-02	7.458E-02	5.768E-03	0.175
		645.85		-3.321E-02	5.821E-01	9.441E-01	8.118E-02	-0.035
		709.31		-8.510E-01	3.437E+00	5.451E+00	4.447E-01	-0.156
		713.82		-4.245E-01	1.962E+00	3.114E+00	3.647E-01	-0.136
		722.78		1.216E-01	5.077E-01	7.223E-01	6.027E-02	0.168
	+	968.20		1.082E+01	5.295E+00	7.729E+00	5.539E-01	1.400
		1045.16		1.065E+00	2.692E+00	4.543E+00	3.020E-01	0.234
		1325.50		-5.596E-01	3.568E+00	5.820E+00	3.306E-01	-0.096
		1368.21		2.386E-02	1.858E+00	3.073E+00	3.635E-01	0.008
		1436.60		-5.875E+00	4.393E+00	5.993E+00	3.445E-01	-0.980
		1691.02	*	-2.939E-02	8.330E-02	1.263E-01	7.868E-03	-0.233
SB-125		427.89	*	-3.300E-02	9.940E-02	1.646E-01	1.059E-02	-0.200
	+	463.38		1.251E+00	5.498E-01	6.195E-01	4.592E-02	2.019
		600.56		-6.353E-02	2.014E-01	3.232E-01	2.721E-02	-0.197
		635.90		-6.266E-02	3.204E-01	5.154E-01	4.496E-02	-0.122
TE-125M		109.28	*	4.048E-01	8.431E+00	1.387E+01	1.685E+00	0.029
I-126		388.63		6.751E-02	2.257E-01	3.692E-01	2.186E-02	0.183
		666.33	*	-1.454E-01	2.378E-01	3.111E-01	2.538E-02	-0.467
		753.82		-7.834E-01	1.732E+00	2.679E+00	2.170E-01	-0.292
SB-126		223.80		-1.444E+00	3.876E+00	6.406E+00	5.078E-01	-0.225
		278.60		3.889E+00	2.554E+00	4.472E+00	3.440E-01	0.870
	+	296.50		1.327E+01	2.523E+00	3.555E+00	2.676E-01	3.733
		414.70		-2.019E-02	8.608E-02	1.357E-01	8.243E-03	-0.149
		415.30		-2.430E-01	7.086E+00	1.131E+01	6.876E-01	-0.021
		555.20		4.504E+00	4.481E+00	7.847E+00	5.772E-01	0.574
		573.80		-6.816E-01	1.194E+00	1.890E+00	1.419E-01	-0.361
		593.00		6.688E-02	1.074E+00	1.769E+00	1.355E-01	0.038
		656.30		-2.726E+00	4.660E+00	6.146E+00	4.990E-01	-0.444
		666.33		-6.076E-02	9.939E-02	1.300E-01	1.061E-02	-0.467

---- Non-Identified Nuclides ----

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		675.00		-7.181E-01	2.459E+00	3.907E+00	3.189E-01	-0.184
		695.00		6.395E-02	9.176E-02	1.554E-01	1.269E-02	0.412
		697.00		1.727E-01	3.143E-01	5.275E-01	4.307E-02	0.327
		720.50	*	5.379E-02	1.805E-01	2.808E-01	2.288E-02	0.192
		856.80		-5.225E-01	5.816E-01	9.023E-01	6.989E-02	-0.579
		989.30		-1.028E+00	1.560E+00	2.418E+00	1.702E-01	-0.425
		1034.80		6.116E+00	9.603E+00	1.655E+01	1.113E+00	0.369
		1213.00		-2.324E+00	4.955E+00	7.968E+00	4.425E-01	-0.292
SB-127		61.10		1.038E+01	2.605E+01	4.036E+01	4.786E+00	0.257
		252.40		-3.806E+00	4.434E+00	6.584E+00	2.758E+00	-0.578
		290.80		7.248E+00	2.352E+01	3.470E+01	3.605E+00	0.209
		411.60		6.536E+00	1.447E+01	2.369E+01	3.431E+00	0.276
		444.90		-4.283E+00	1.059E+01	1.738E+01	1.931E+00	-0.246
		473.00		6.589E-02	1.840E+00	3.085E+00	3.590E-01	0.021
		543.00		1.122E+00	1.979E+01	3.241E+01	4.416E+00	0.035
		603.60		1.497E+01	1.490E+01	2.204E+01	2.628E+00	0.679
		685.20	*	-5.236E-01	1.584E+00	2.499E+00	2.762E-01	-0.209
		698.50		-2.514E+01	1.888E+01	2.691E+01	4.193E+00	-0.934
		722.20		2.395E+01	4.037E+01	5.940E+01	6.419E+00	0.403
		783.80		-1.031E+00	4.208E+00	6.926E+00	8.326E-01	-0.149
XE-127		57.60		2.090E+00	2.171E+00	3.633E+00	3.358E-01	0.575
		145.22		9.077E-01	7.673E-01	1.162E+00	1.193E-01	0.781
		172.10		-5.807E-02	1.191E-01	1.852E-01	1.455E-02	-0.313
		202.84	*	-5.865E-02	4.738E-02	7.368E-02	5.839E-03	-0.796
		374.96		-3.535E-02	2.114E-01	3.376E-01	2.108E-02	-0.105
I-131		80.18		5.076E-01	4.481E+00	5.380E+00	4.507E-01	0.094
		284.30		-1.783E-01	1.447E+00	2.372E+00	1.933E-01	-0.075
		364.48	*	2.284E-04	1.242E-01	2.008E-01	1.422E-02	0.001
		636.97		8.622E-01	1.804E+00	3.037E+00	2.582E-01	0.284
		722.89		1.130E+00	9.824E+00	1.381E+01	1.133E+00	0.082
TE-132		49.72		2.950E+00	3.891E+00	6.196E+00	6.307E-01	0.476
		111.76		-9.753E+00	2.932E+01	4.618E+01	5.962E+00	-0.211
		116.30		-4.829E+00	2.606E+01	4.231E+01	5.709E+00	-0.114
		228.16	*	-2.209E-01	6.544E-01	1.080E+00	1.658E-01	-0.204
BA-133		53.15		7.227E-01	9.428E-01	1.603E+00	1.346E-01	0.451
		79.62		-3.490E-01	1.091E+00	1.464E+00	2.207E-01	-0.238
		81.00		1.669E-03	9.643E-02	1.150E-01	1.805E-02	0.015
		276.40		2.031E-01	3.849E-01	6.494E-01	9.041E-02	0.313
		302.84		9.380E-02	1.636E-01	2.443E-01	3.070E-02	0.384
		356.01	*	-2.364E-02	5.490E-02	7.638E-02	9.170E-03	-0.310
		383.85		2.022E-01	3.239E-01	5.395E-01	5.935E-02	0.375
I-133	+	510.53		1.326E+00	3.239E-01	Half-Life too short		
		529.87	*	2.953E-03	3.239E-01	Half-Life too short		
		706.58		1.259E-02	3.239E-01	Half-Life too short		
		856.28		-1.181E+00	3.239E-01	Half-Life too short		
		875.33		-1.546E-02	3.239E-01	Half-Life too short		
		1236.41		7.867E-02	3.239E-01	Half-Life too short		
		1298.22		-1.920E-01	3.239E-01	Half-Life too short		
CS-134		475.35		1.328E+00	2.066E+00	3.580E+00	2.383E-01	0.371

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		563.23		-2.474E-02	4.001E-01	6.570E-01	4.938E-02	-0.038
		569.32		9.240E-02	2.354E-01	3.891E-01	2.959E-02	0.237
		604.70		1.905E-02	4.177E-02	6.174E-02	4.798E-03	0.309
		795.84	*	8.075E-02	5.674E-02	1.026E-01	8.267E-03	0.787
		801.93		-4.585E-01	4.999E-01	7.736E-01	6.208E-02	-0.593
		1038.57		-9.612E-01	4.206E+00	6.717E+00	4.499E-01	-0.143
		1167.94		-4.067E-01	2.990E+00	4.769E+00	2.647E-01	-0.085
		1365.15		-2.207E-02	1.316E+00	2.169E+00	1.364E-01	-0.010
CS-135		268.24	*	1.459E-01	1.746E-01	2.624E-01	2.423E-02	0.556
I-135		288.45		1.356E+10	1.746E-01	Half-Life too short		
		417.63		6.827E+09	1.746E-01	Half-Life too short		
		546.56		1.054E+10	1.746E-01	Half-Life too short		
		836.80		2.144E+09	1.746E-01	Half-Life too short		
		1038.76		-3.639E+09	1.746E-01	Half-Life too short		
		1124.00		1.130E+11	1.746E-01	Half-Life too short		
		1131.51		6.294E+08	1.746E-01	Half-Life too short		
		1260.41	*	-5.063E+09	1.746E-01	Half-Life too short		
		1457.56		3.715E+11	1.746E-01	Half-Life too short		
		1678.03		-7.249E+09	1.746E-01	Half-Life too short		
		1706.46		-9.230E+09	1.746E-01	Half-Life too short		
		1791.20		1.266E+10	1.746E-01	Half-Life too short		
CS-136		66.91		1.540E-01	4.233E-01	6.513E-01	1.024E-01	0.236
	+	86.29		3.645E+00	1.028E+00	1.514E+00	1.882E-01	2.407
		153.22		2.164E-01	6.661E-01	1.083E+00	1.116E-01	0.200
		163.89		-3.830E-01	1.143E+00	1.750E+00	1.607E-01	-0.219
		176.55		-1.504E-01	3.828E-01	5.974E-01	5.024E-02	-0.252
		273.65		-3.105E-01	5.169E-01	7.213E-01	6.029E-02	-0.430
		340.57		2.684E-01	1.545E-01	2.434E-01	1.761E-02	1.103
		818.51		-1.667E-02	9.499E-02	1.516E-01	1.201E-02	-0.110
		1048.07	*	-8.775E-02	1.251E-01	1.911E-01	1.356E-02	-0.459
		1235.34		-5.573E-01	6.333E-01	9.832E-01	9.696E-02	-0.567
CE-139		165.85	*	3.662E-03	3.001E-02	4.815E-02	3.775E-03	0.076
BA-140		162.64		1.550E-01	7.863E-01	1.231E+00	1.079E-01	0.126
		304.84		3.301E-01	1.310E+00	2.018E+00	5.588E-01	0.164
		423.70		1.871E+00	2.214E+00	3.587E+00	1.143E+00	0.522
		537.32	*	-2.455E-01	3.028E-01	4.567E-01	1.498E-01	-0.538
LA-140	+	328.77		4.002E-01	4.380E-01	5.524E-01	4.250E-02	0.725
		432.53		-2.915E+00	2.411E+00	3.610E+00	2.461E-01	-0.808
		487.03		-1.215E-01	1.469E-01	2.319E-01	1.723E-02	-0.524
		751.79		-4.211E-01	2.042E+00	3.225E+00	2.928E-01	-0.131
		815.85		7.532E-03	3.821E-01	6.385E-01	5.742E-02	0.012
		867.82		-1.188E+00	1.590E+00	2.476E+00	2.030E-01	-0.480
		919.63		-2.477E+00	3.244E+00	4.704E+00	4.565E-01	-0.527
		925.24		8.012E-01	1.229E+00	2.136E+00	1.713E-01	0.375
		1596.49	*	6.579E-02	1.040E-01	1.819E-01	1.048E-02	0.362
CE-141		145.44	*	4.675E-02	6.944E-02	1.030E-01	1.068E-02	0.454
CE-143		57.37		2.721E-04	6.944E-02	Half-Life too short		
		231.56		9.996E-04	6.944E-02	Half-Life too short		
		293.26	*	5.220E-04	6.944E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	350.59		2.786E-02	6.944E-02	Half-Life too short		
		490.36		3.448E-04	6.944E-02	Half-Life too short		
		664.57		6.530E-03	6.944E-02	Half-Life too short		
		721.93		8.490E-04	6.944E-02	Half-Life too short		
CE-144		80.11		1.642E-01	2.054E+00	2.462E+00	2.049E-01	0.067
		133.54	*	-1.135E-01	2.108E-01	3.159E-01	5.476E-02	-0.359
PM-144		476.78		-1.155E-02	7.460E-02	1.236E-01	9.498E-03	-0.093
		618.01		1.777E-02	3.590E-02	6.066E-02	4.918E-03	0.293
		696.49	*	1.593E-02	4.049E-02	6.727E-02	5.495E-03	0.237
		778.57		1.403E+00	2.628E+00	4.559E+00	3.668E-01	0.308
PR-144		696.49	*	1.080E+00	2.744E+00	4.559E+00	3.722E-01	0.237
		1489.15		1.726E+01	1.503E+01	2.764E+01	1.592E+00	0.625
PM-146		453.90	*	1.560E-02	4.665E-02	7.974E-02	7.237E-03	0.196
		633.02		7.686E-01	1.613E+00	2.679E+00	9.971E-01	0.287
		735.90		-1.615E-01	1.740E-01	2.479E-01	7.055E-02	-0.652
		747.13		-2.948E-02	1.142E-01	1.798E-01	2.469E-02	-0.164
ND-147	+	91.11		7.628E-01	3.032E-01	5.177E-01	4.669E-02	1.473
		319.41		-2.456E+00	3.398E+00	5.328E+00	3.865E-01	-0.461
		439.89		-4.011E+00	6.439E+00	1.046E+01	6.615E-01	-0.384
		531.02	*	-3.603E-02	6.309E-01	1.042E+00	1.474E-01	-0.035
PM-149		285.90	*	-1.444E+00	9.198E+01	1.516E+02	2.276E+01	-0.010
EU-152		121.78		-2.826E-02	7.210E-02	1.136E-01	1.537E-02	-0.249
		244.69		-5.785E-02	3.674E-01	5.343E-01	4.211E-02	-0.108
		344.27	*	6.311E-02	1.367E-01	1.711E-01	1.283E-02	0.369
		443.98		-3.008E-01	1.030E+00	1.703E+00	1.084E-01	-0.177
		778.89		1.340E-01	3.011E-01	5.197E-01	4.179E-02	0.258
		867.32		-6.659E-01	9.668E-01	1.516E+00	1.166E-01	-0.439
		964.01		5.822E-01	3.718E-01	6.061E-01	4.358E-02	0.961
		1085.78		-1.070E-01	4.676E-01	7.445E-01	4.706E-02	-0.144
		1112.02		-2.856E-03	3.731E-01	5.907E-01	3.597E-02	-0.005
		1407.95		-7.657E-02	2.096E-01	3.311E-01	1.899E-02	-0.231
GD-153		69.67		1.785E-01	9.991E-01	1.524E+00	1.363E-01	0.117
	+	83.37		1.925E+01	1.274E+01	1.913E+01	1.557E+00	1.006
		97.43	*	-6.931E-03	7.507E-02	1.097E-01	9.979E-03	-0.063
		103.18		-1.143E-01	9.043E-02	1.407E-01	1.390E-02	-0.812
EU-154		123.07		1.370E-02	4.924E-02	8.107E-02	1.182E-02	0.169
		247.94		8.262E-02	3.605E-01	5.875E-01	6.417E-02	0.141
		591.81		4.281E-01	6.938E-01	1.183E+00	1.298E-01	0.362
		723.30		-4.742E-03	2.415E-01	3.348E-01	3.048E-02	-0.014
		756.87		4.546E-01	8.366E-01	1.401E+00	1.626E-01	0.324
		873.19		-3.062E-02	3.462E-01	5.702E-01	6.608E-02	-0.054
		996.32		1.187E-01	5.048E-01	7.283E-01	1.241E-01	0.163
		1004.76		1.786E-01	3.227E-01	4.787E-01	5.004E-02	0.373
		1274.45	*	-4.065E-02	1.461E-01	2.374E-01	2.193E-02	-0.171
EU-155		48.70		1.570E-01	4.379E-01	6.885E-01	5.197E-02	0.228
		60.01		-5.131E-02	2.103E+00	3.215E+00	3.077E-01	-0.016
	+	86.54		3.360E-01	8.931E-02	1.425E-01	1.149E-02	2.358
		105.31	*	1.226E-01	9.567E-02	1.634E-01	1.677E-02	0.750
TB-160	+	86.79		8.976E-01	2.384E-01	3.848E-01	3.060E-02	2.333

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-5.561E-01	5.434E-01	8.632E-01	6.834E-02	-0.644
		215.65		5.982E-01	7.229E-01	1.253E+00	9.941E-02	0.477
	+	298.57		1.971E-01	1.264E-01	2.003E-01	1.503E-02	0.984
		879.36	*	6.352E-02	1.656E-01	2.823E-01	2.153E-02	0.225
		962.29		-4.045E-03	6.514E-01	9.906E-01	7.133E-02	-0.004
		966.15		9.448E-01	2.889E-01	5.137E-01	3.688E-02	1.839
		1177.93		-2.338E-01	4.396E-01	6.771E-01	3.726E-02	-0.345
		1271.85		1.985E-01	8.438E-01	1.430E+00	8.045E-02	0.139
HO-166M		80.57		2.904E-01	2.496E-01	3.178E-01	2.637E-02	0.914
	+	184.41		2.496E-01	6.872E-02	7.476E-02	5.899E-03	3.339
		280.46		-1.782E-02	8.789E-02	1.438E-01	1.104E-02	-0.124
		410.95		1.889E-01	2.918E-01	4.833E-01	2.918E-02	0.391
		711.68	*	2.409E-02	7.194E-02	1.189E-01	9.699E-03	0.203
		752.31		-1.527E-01	3.318E-01	5.132E-01	4.159E-02	-0.297
		810.29		-3.041E-02	6.710E-02	1.082E-01	8.592E-03	-0.281
TM-171		51.35		-1.059E+01	6.702E+00	1.081E+01	8.704E-01	-0.979
		52.39		6.627E-01	3.871E+00	6.480E+00	5.344E-01	0.102
		59.40		8.457E+00	1.088E+01	1.711E+01	1.641E+00	0.494
		66.72	*	4.968E+00	1.524E+01	2.344E+01	2.139E+00	0.212
LU-176	+	88.36		6.616E-01	1.757E-01	2.789E-01	2.212E-02	2.373
		201.83		-1.718E-02	2.782E-02	4.591E-02	3.637E-03	-0.374
		306.84	*	-2.153E-02	2.452E-02	3.819E-02	2.831E-03	-0.564
		401.10		-2.371E+00	7.923E+00	1.210E+01	7.185E-01	-0.196
LU-177		112.95		-1.150E-01	1.587E+00	2.522E+00	2.842E-01	-0.046
	+	208.36	*	2.496E+00	1.333E+00	1.917E+00	1.520E-01	1.302
LU-177M		52.97		3.208E-01	4.196E-01	7.136E-01	5.964E-02	0.450
		54.07		2.059E-01	2.383E-01	4.058E-01	3.477E-02	0.507
		61.30		1.089E+00	6.945E-01	1.109E+00	1.052E-01	0.982
		121.62		-1.449E-01	3.695E-01	5.823E-01	7.321E-02	-0.249
		147.16		-4.750E-02	6.911E-01	9.872E-01	9.921E-02	-0.048
		171.86		-2.275E-01	4.763E-01	7.411E-01	5.819E-02	-0.307
		218.09		-6.783E-01	8.295E-01	1.347E+00	1.068E-01	-0.504
	+	268.79		2.882E+00	1.207E+00	1.422E+00	1.104E-01	2.027
		319.02		-5.094E-02	2.617E-01	4.233E-01	3.072E-02	-0.120
		367.43		-2.831E-01	9.721E-01	1.543E+00	9.894E-02	-0.183
		413.65	*	-1.466E-01	2.069E-01	3.168E-01	1.921E-02	-0.463
HF-181		56.28		-2.693E-01	3.000E-01	4.961E-01	4.459E-02	-0.543
		57.53		1.614E-01	1.743E-01	3.036E-01	2.802E-02	0.531
		65.20		1.468E-01	4.907E-01	7.551E-01	6.965E-02	0.194
		133.02		3.655E-02	7.060E-02	1.047E-01	1.210E-02	0.349
		136.25		-6.717E-02	4.431E-01	7.128E-01	8.001E-02	-0.094
		345.85		2.600E-01	2.388E-01	3.452E-01	2.359E-02	0.753
		482.03	*	4.753E-03	4.648E-02	7.810E-02	5.247E-03	0.061
W-181		56.28		-1.053E-01	1.174E-01	1.942E-01	1.745E-02	-0.542
		57.53		6.304E-02	6.826E-02	1.189E-01	1.097E-02	0.530
		65.20	*	5.704E-02	1.907E-01	2.934E-01	2.706E-02	0.194
TA-182		67.75		-5.980E-02	5.961E-02	9.266E-02	8.395E-03	-0.645
		100.10		6.899E-02	1.518E-01	2.545E-01	2.407E-02	0.271
		152.43		-9.775E-03	3.350E-01	5.374E-01	5.080E-02	-0.018

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		222.10		8.528E-02	3.309E-01	5.616E-01	4.453E-02	0.152
	+	1001.68		2.801E+00	3.029E+00	4.770E+00	3.319E-01	0.587
	+	1121.28		4.900E-01	2.982E-01	3.805E-01	2.285E-02	1.288
		1189.05		-4.716E-01	3.548E-01	5.317E-01	2.935E-02	-0.887
		1221.42	*	9.043E-02	2.166E-01	3.725E-01	2.073E-02	0.243
		1230.97		1.037E-01	5.261E-01	8.900E-01	4.964E-02	0.117
RE-183		57.98		7.062E-02	7.271E-02	1.217E-01	1.133E-02	0.580
		59.32		3.657E-02	4.466E-02	7.033E-02	6.732E-03	0.520
		67.20		-4.496E-02	1.122E-01	1.677E-01	1.525E-02	-0.268
		162.32	*	-3.122E-02	1.171E-01	1.800E-01	1.490E-02	-0.173
	+	208.81		2.239E+00	1.196E+00	1.713E+00	1.358E-01	1.307
		291.72		-1.591E-01	9.970E-01	1.423E+00	1.078E-01	-0.112
RE-184		57.98		2.602E-01	2.679E-01	4.483E-01	4.175E-02	0.580
		59.32		1.346E-01	1.644E-01	2.589E-01	2.478E-02	0.520
		67.20		-1.656E-01	4.131E-01	6.177E-01	5.618E-02	-0.268
		161.27		-4.236E-01	3.693E-01	5.593E-01	4.701E-02	-0.757
		216.55		-4.041E-02	2.560E-01	4.282E-01	3.396E-02	-0.094
		252.85	*	-1.479E-01	2.212E-01	3.559E-01	2.794E-02	-0.416
		318.01		9.176E-02	4.529E-01	7.486E-01	5.443E-02	0.123
		792.07		-7.945E-01	1.187E+00	1.895E+00	1.517E-01	-0.419
		903.28		-4.584E-01	1.377E+00	1.947E+00	1.459E-01	-0.235
		920.93		-4.654E-01	5.074E-01	7.691E-01	5.705E-02	-0.605
OS-185		59.72		4.279E-03	1.238E-01	1.897E-01	1.820E-02	0.023
		61.14		4.286E-02	7.432E-02	1.158E-01	1.100E-02	0.370
		69.30		2.536E-02	1.669E-01	2.704E-01	2.423E-02	0.094
		592.07		1.699E+00	2.826E+00	4.821E+00	3.688E-01	0.352
		646.12	*	-7.182E-03	4.998E-02	8.055E-02	6.484E-03	-0.089
		717.42		-2.432E-01	1.075E+00	1.705E+00	1.390E-01	-0.143
		874.81		-1.515E-02	6.756E-01	1.118E+00	8.559E-02	-0.014
		880.27		5.811E-01	9.095E-01	1.578E+00	1.203E-01	0.368
RE-188		155.03	*	7.317E-02	1.780E-01	2.900E-01	2.654E-02	0.252
		477.96		-1.028E+00	3.373E+00	5.537E+00	3.699E-01	-0.186
		633.10		1.749E+00	3.227E+00	5.459E+00	4.343E-01	0.320
W-188	+	63.58		2.102E+02	5.041E+01	6.093E+01	5.685E+00	3.451
		227.08		-2.051E+00	1.188E+01	1.977E+01	1.567E+00	-0.104
		290.67	*	3.556E+00	8.090E+00	1.204E+01	9.137E-01	0.295
IR-192	+	295.96		1.015E+00	1.933E-01	2.793E-01	2.124E-02	3.634
		308.46		-6.570E-02	9.420E-02	1.482E-01	1.104E-02	-0.443
		316.51	*	1.187E-02	3.604E-02	5.888E-02	4.307E-03	0.202
		468.07		2.044E-02	7.908E-02	1.177E-01	8.691E-03	0.174
		604.41		2.978E-01	5.680E-01	8.434E-01	1.051E-01	0.353
		612.46		3.037E+00	1.101E+00	1.821E+00	1.675E-01	1.668
AU-195		65.12		8.004E-02	8.985E-02	1.408E-01	1.299E-02	0.569
		66.83		1.762E-02	5.059E-02	7.789E-02	7.102E-03	0.226
	+	75.70		8.409E-01	1.843E-01	2.951E-01	2.531E-02	2.849
		98.88	*	2.455E-01	2.072E-01	3.351E-01	3.114E-02	0.733
	+	129.76		4.307E+00	4.158E+00	4.825E+00	5.736E-01	0.893
TL-200		367.94	*	7.273E-05	4.158E+00	Half-Life too short		
		579.30		3.286E-03	4.158E+00	Half-Life too short		

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		828.27		-2.820E-03	4.158E+00	Half-Life too short		
		1205.75		2.765E-03	4.158E+00	Half-Life too short		
TL-201		68.90		7.478E-02	2.564E+00	4.329E+00	3.891E-01	0.017
		70.82		9.700E-01	1.704E+00	2.631E+00	2.333E-01	0.369
		80.30		4.459E+00	4.696E+00	5.911E+00	4.914E-01	0.754
		135.34		-8.885E+00	2.471E+01	3.939E+01	4.459E+00	-0.226
		167.43	*	-1.165E+00	6.996E+00	1.108E+01	8.680E-01	-0.105
TL-202		68.90		6.697E-03	2.296E-01	3.877E-01	3.485E-02	0.017
		70.82		8.663E-02	1.521E-01	2.349E-01	2.084E-02	0.369
		80.30		3.983E-01	4.195E-01	5.281E-01	4.390E-02	0.754
		439.56	*	-4.617E-02	7.658E-02	1.246E-01	7.871E-03	-0.371
HG-203		70.83		3.731E-01	6.599E-01	1.017E+00	1.400E-01	0.367
		72.87		4.608E-01	4.187E-01	6.502E-01	8.638E-02	0.709
	+	82.60		1.431E+00	9.596E-01	1.363E+00	1.837E-01	1.050
		279.20	*	4.679E-02	4.166E-02	7.201E-02	5.734E-03	0.650
BI-207		72.80		1.184E-01	1.214E-01	1.890E-01	1.654E-02	0.627
	+	74.97		4.664E-01	1.022E-01	1.446E-01	1.246E-02	3.226
	+	84.90		2.489E-01	1.647E-01	2.485E-01	2.002E-02	1.002
		569.67		1.441E-02	3.671E-02	6.068E-02	4.535E-03	0.237
		1063.62	*	-2.581E-02	6.929E-02	1.084E-01	7.053E-03	-0.238
		1770.23		9.009E-01	5.803E-01	1.084E+00	6.152E-02	0.831
TL-207		81.07		2.023E-03	2.130E-01	2.539E-01	2.100E-02	0.008
	+	83.78		1.641E-01	1.086E-01	1.636E-01	1.328E-02	1.003
		94.90		5.311E-01	2.146E-01	3.436E-01	3.013E-02	1.546
		122.32		4.786E-01	1.658E+00	2.732E+00	3.569E-01	0.175
	+	144.24		1.631E+00	1.141E+00	1.207E+00	1.357E-01	1.351
		154.21		2.040E-01	4.031E-01	6.591E-01	6.626E-02	0.309
	+	269.46		6.747E-01	2.829E-01	3.566E-01	2.837E-02	1.892
		323.87	*	3.862E-01	7.355E-01	1.090E+00	1.858E-01	0.354
	+	338.28		6.074E+00	1.842E+00	2.301E+00	2.581E-01	2.640
		445.03		-8.736E-01	2.438E+00	4.013E+00	4.254E-01	-0.218
PO-209		260.50		-1.379E-01	9.889E+00	1.641E+01	1.282E+00	-0.008
		262.80		-8.765E+00	2.582E+01	4.214E+01	3.287E+00	-0.208
		896.60	*	-2.650E+00	8.872E+00	1.434E+01	1.079E+00	-0.185
PB-211		404.84	*	-3.341E-01	1.104E+00	1.706E+00	1.064E+00	-0.196
		427.08		-1.609E+00	2.551E+00	3.581E+00	2.215E+00	-0.449
		831.96		-1.036E+00	1.594E+00	2.303E+00	1.441E+00	-0.450
BI-212	+	727.18	*	8.429E-01	4.324E-01	6.975E-01	6.696E-02	1.208
		785.46		5.157E-01	2.023E+00	3.444E+00	2.763E-01	0.150
		1620.62		5.213E-02	1.594E+00	2.598E+00	1.495E-01	0.020
PO-215		81.07		2.023E-03	2.130E-01	2.539E-01	2.100E-02	0.008
	+	83.78		1.641E-01	1.086E-01	1.636E-01	1.328E-02	1.003
		94.90		5.311E-01	2.146E-01	3.436E-01	3.013E-02	1.546
		122.32		4.786E-01	1.658E+00	2.732E+00	3.569E-01	0.175
	+	144.24		1.631E+00	1.141E+00	1.207E+00	1.357E-01	1.351
		154.21		2.040E-01	4.031E-01	6.591E-01	6.626E-02	0.309
	+	269.46		6.747E-01	2.829E-01	3.566E-01	2.837E-02	1.892
		323.87	*	3.862E-01	7.355E-01	1.090E+00	1.858E-01	0.354
	+	338.28		6.074E+00	1.842E+00	2.301E+00	2.581E-01	2.640

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-8.736E-01	2.438E+00	4.013E+00	4.254E-01	-0.218
RN-219	+	271.23		8.657E-01	3.660E-01	4.458E-01	4.277E-02	1.942
		401.81	*	-1.792E-01	4.888E-01	7.423E-01	1.015E-01	-0.241
RN-220		549.76	*	-1.591E+01	2.831E+01	4.494E+01	3.285E+00	-0.354
RA-223		81.07		2.023E-03	2.130E-01	2.539E-01	2.100E-02	0.008
	+	83.78		1.641E-01	1.086E-01	1.636E-01	1.328E-02	1.003
		94.90		5.311E-01	2.146E-01	3.436E-01	3.013E-02	1.546
		122.32		4.786E-01	1.658E+00	2.732E+00	3.569E-01	0.175
	+	144.24		1.631E+00	1.141E+00	1.207E+00	1.357E-01	1.351
		154.21		2.040E-01	4.031E-01	6.591E-01	6.626E-02	0.309
	+	269.46		6.747E-01	2.829E-01	3.566E-01	2.837E-02	1.892
		323.87	*	3.862E-01	7.355E-01	1.090E+00	1.858E-01	0.354
	+	338.28		6.074E+00	1.842E+00	2.301E+00	2.581E-01	2.640
		445.03		-8.736E-01	2.438E+00	4.013E+00	4.254E-01	-0.218
AC-227		79.80		-4.134E-01	1.390E+00	1.865E+00	3.990E-01	-0.222
		236.00		1.311E-01	2.527E-01	3.820E-01	4.490E-02	0.343
		256.20	*	1.308E-01	3.883E-01	6.543E-01	9.763E-02	0.200
		286.10		-8.849E-03	1.530E+00	2.523E+00	3.173E-01	-0.004
	+	299.80		2.510E+00	1.654E+00	2.598E+00	4.407E-01	0.966
		304.40		1.822E-02	2.066E+00	2.974E+00	5.329E-01	0.006
		334.20		-2.062E+00	2.920E+00	3.594E+00	6.742E-01	-0.574
TH-227		79.80		-4.134E-01	1.390E+00	1.865E+00	4.042E-01	-0.222
	+	94.00		2.033E+01	5.175E+00	4.021E+00	8.761E-01	5.057
		236.00		1.311E-01	2.526E-01	3.820E-01	4.023E-02	0.343
		256.20	*	1.308E-01	3.885E-01	6.543E-01	1.158E-01	0.200
		286.10		-8.849E-03	1.530E+00	2.523E+00	2.530E+00	-0.004
	+	299.80		2.510E+00	1.654E+00	2.598E+00	4.407E-01	0.966
		304.40		1.822E-02	2.066E+00	2.974E+00	5.329E-01	0.006
		334.20		-2.062E+00	2.920E+00	3.594E+00	6.742E-01	-0.574
TH-229	+	85.43		2.457E-01	1.626E-01	2.491E-01	1.999E-02	0.987
	+	88.47		3.809E-01	1.011E-01	1.600E-01	1.272E-02	2.380
		100.00		8.951E-02	1.582E-01	2.661E-01	2.513E-02	0.336
		193.63	*	4.021E-01	4.760E-01	8.309E-01	6.573E-02	0.484
		210.97		6.314E-01	8.092E-01	1.251E+00	9.924E-02	0.505
PA-231		283.67	*	-1.356E+00	1.530E+00	2.390E+00	3.503E-01	-0.568
	+	301.29		1.004E+00	6.497E-01	1.066E+00	1.222E-01	0.942
TH-231		81.07		2.023E-03	2.130E-01	2.539E-01	2.100E-02	0.008
	+	83.78		1.641E-01	1.086E-01	1.636E-01	1.328E-02	1.003
		94.90		5.311E-01	2.146E-01	3.436E-01	3.013E-02	1.546
		122.32		4.786E-01	1.658E+00	2.732E+00	3.569E-01	0.175
	+	144.24		1.631E+00	1.141E+00	1.207E+00	1.357E-01	1.351
		154.21		2.040E-01	4.031E-01	6.591E-01	6.626E-02	0.309
	+	269.46		6.747E-01	2.829E-01	3.566E-01	2.837E-02	1.892
		323.87	*	3.862E-01	7.355E-01	1.090E+00	1.858E-01	0.354
	+	338.28		6.074E+00	1.842E+00	2.301E+00	2.581E-01	2.640
		445.03		-8.736E-01	2.438E+00	4.013E+00	4.254E-01	-0.218
U-231	+	84.21		7.097E+00	4.697E+00	7.115E+00	5.759E-01	0.997
	+	92.29		2.016E+01	3.173E+00	4.758E+00	4.011E-01	4.238
		95.87	*	-3.978E-01	9.898E-01	1.440E+00	1.281E-01	-0.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-9.432E-01	1.896E+00	3.055E+00	3.224E-01	-0.309
PA-233	+	75.28		1.361E+01	3.447E+00	4.453E+00	6.830E-01	3.056
	+	86.59		5.461E+00	2.007E+00	2.321E+00	6.178E-01	2.353
	+	300.12		6.997E-01	4.567E-01	7.351E-01	1.048E-01	0.952
		311.98	*	1.440E-02	6.440E-02	1.067E-01	8.150E-03	0.135
		340.50		1.487E+00	8.262E-01	1.205E+00	2.806E-01	1.234
		398.62		-4.638E-01	2.366E+00	3.748E+00	9.702E-01	-0.124
		415.76		7.100E-02	1.855E+00	2.973E+00	6.144E-01	0.024
PA-234	+	63.00		6.096E+00	1.659E+00	1.787E+00	2.846E-01	3.412
		94.67		6.276E-01	1.751E-01	2.685E-01	3.352E-02	2.337
		98.44		1.010E-01	1.044E-01	1.357E-01	7.584E-02	0.744
		99.86		2.617E-01	4.030E-01	6.796E-01	6.405E-02	0.385
		111.00		-6.034E-02	1.714E-01	2.773E-01	3.847E-02	-0.218
		131.20		1.017E-01	1.136E-01	1.712E-01	2.010E-02	0.594
		152.70		-2.120E-03	3.261E-01	5.235E-01	9.142E-02	-0.004
	+	186.00		8.987E+00	3.659E+00	2.978E+00	9.238E-01	3.018
		226.40		2.484E-01	3.756E-01	6.453E-01	8.234E-02	0.385
		227.20		-1.470E-01	4.037E-01	6.664E-01	5.280E-02	-0.221
		248.90		5.536E-01	7.992E-01	1.358E+00	3.005E-01	0.408
		293.70		4.036E+00	1.120E+00	1.574E+00	2.643E-01	2.565
		369.80		3.165E-02	8.929E-01	1.445E+00	3.033E-01	0.022
		568.70		3.968E-01	1.205E+00	1.986E+00	1.483E-01	0.200
		569.50		1.279E-01	3.257E-01	5.384E-01	4.023E-02	0.237
		574.00		-1.110E+00	1.705E+00	2.682E+00	2.013E-01	-0.414
		699.00		-1.138E+00	9.103E-01	1.300E+00	2.455E-01	-0.875
		706.10		-1.304E-01	1.327E+00	2.128E+00	9.471E-01	-0.061
		733.00		2.725E-02	4.725E-01	6.598E-01	1.452E-01	0.041
		742.81		-3.388E-02	1.670E+00	2.680E+00	1.800E+00	-0.013
		796.30		1.772E+00	1.195E+00	2.014E+00	5.409E-01	0.880
		805.60		7.158E-01	1.186E+00	2.030E+00	6.184E-01	0.353
		819.60		6.696E-01	1.593E+00	2.617E+00	9.913E-01	0.256
		826.30		-3.410E-01	1.041E+00	1.677E+00	7.481E-01	-0.203
		831.60		-3.957E-01	7.654E-01	1.214E+00	3.597E-01	-0.326
		876.40		1.363E-01	1.017E+00	1.686E+00	1.732E+00	0.081
		880.51		2.415E-01	3.314E-01	5.782E-01	4.407E-02	0.418
		883.24		7.024E-02	3.401E-01	5.669E-01	3.804E-01	0.124
		899.00		4.364E-01	1.012E+00	1.698E+00	7.389E-01	0.257
		925.00		5.551E-01	1.279E+00	2.186E+00	1.617E-01	0.254
		926.50		1.926E-01	1.958E-01	3.394E-01	8.445E-02	0.567
		946.00	*	-1.712E-01	3.568E-01	5.622E-01	1.023E-01	-0.305
		949.00		-2.535E-02	5.327E-01	8.734E-01	6.354E-02	-0.029
		980.50		3.009E-01	8.900E-01	1.499E+00	1.063E-01	0.201
		1394.10		-7.282E-01	1.372E+00	1.980E+00	1.283E+00	-0.368
PA-234M		766.42		2.317E+01	1.969E+01	2.571E+01	1.302E+01	0.901
	+	1001.03	*	6.359E+00	6.883E+00	1.067E+01	9.145E-01	0.596
NP-236		94.67		4.813E-01	1.261E-01	2.041E-01	1.784E-02	2.358
		98.44		7.634E-02	6.680E-02	1.026E-01	9.472E-03	0.744
		111.00		-4.564E-02	1.296E-01	2.098E-01	2.304E-02	-0.218
		160.31	*	-4.315E-02	8.304E-02	1.299E-01	1.107E-02	-0.332

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.214E-01	1.382E-01	2.302E-01	2.160E-02	0.527
		117.00	*	6.771E-02	1.776E-01	2.944E-01	3.494E-02	0.230
	+	209.75		1.766E+00	9.431E-01	1.340E+00	1.063E-01	1.317
		228.18		-8.953E-02	2.135E-01	3.515E-01	2.785E-02	-0.255
		277.60		1.012E-01	1.880E-01	3.178E-01	2.447E-02	0.319
		334.30		-1.261E+00	1.639E+00	2.020E+00	1.420E-01	-0.624
AM-241		59.54	*	4.467E-02	6.346E-02	9.955E-02	1.012E-02	0.449
CM-243		99.55		1.249E-01	1.422E-01	2.369E-01	2.222E-02	0.527
		103.76	*	-4.289E-02	8.370E-02	1.351E-01	1.345E-02	-0.317
		117.00		6.966E-02	1.827E-01	3.029E-01	3.594E-02	0.230
	+	209.75		1.741E+00	9.297E-01	1.321E+00	1.048E-01	1.317
		228.18		-9.046E-02	2.157E-01	3.552E-01	2.814E-02	-0.255
		277.60		1.020E-01	1.896E-01	3.204E-01	2.467E-02	0.319
AM-246		798.80		-1.482E-01	1.728E-01	2.717E-01	2.169E-02	-0.546
		1036.00		-1.329E-01	3.286E-01	5.161E-01	3.466E-02	-0.257
		1062.04		-2.807E-01	2.977E-01	4.422E-01	2.882E-02	-0.635
		1078.86	*	-1.150E-02	1.723E-01	2.786E-01	1.777E-02	-0.041
CM-247		278.00		7.792E-01	7.833E-01	1.346E+00	1.036E-01	0.579
		287.40		3.477E-01	1.242E+00	2.074E+00	1.580E-01	0.168
		402.60	*	-2.072E-02	4.398E-02	6.642E-02	3.955E-03	-0.312
CF-249		252.85		-5.549E-01	8.298E-01	1.335E+00	1.048E-01	-0.416
		333.44		-7.009E-02	2.363E-01	2.742E-01	1.931E-02	-0.256
		387.95	*	2.475E-02	4.318E-02	7.177E-02	4.262E-03	0.345
CF-251		176.60	*	-4.871E-02	1.317E-01	2.058E-01	1.619E-02	-0.237
		227.00		-5.347E-02	3.566E-01	5.944E-01	4.710E-02	-0.090
		285.00		8.629E-01	1.706E+00	2.882E+00	2.202E-01	0.299

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691006      *
* Acquisition date :  9-FEB-2010 15:24:34 Detector SN#     :               *
* Detector ID        : GAM13               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.72     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691006           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.4871E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-FEB-2009 10:41:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.126E+01	2.006E+00	6.838E-01	0.000E+00
CD-109	2.838E+00	7.386E-01	9.277E-01	0.000E+00
SN-126	2.790E-01	7.259E-02	9.107E-02	0.000E+00
BA-137M	2.995E-01	7.261E-02	6.852E-02	0.000E+00
CS-137	3.166E-01	7.677E-02	7.244E-02	0.000E+00
TL-208	4.519E-01	8.617E-02	6.269E-02	0.000E+00
BI-210	1.548E+00	8.192E-01	8.229E-01	0.000E+00
PB-210	1.548E+00	8.192E-01	8.229E-01	0.000E+00
PO-210	1.548E+00	8.170E-01	8.229E-01	0.000E+00
BI-211	3.471E+00	5.938E-01	3.460E-01	0.000E+00
PB-212	1.343E+00	1.583E-01	9.345E-02	0.000E+00
PO-212	1.343E+00	1.583E-01	9.345E-02	0.000E+00
BI-214	1.186E+00	1.958E-01	1.293E-01	0.000E+00
PB-214	1.207E+00	2.156E-01	1.207E-01	0.000E+00
PO-214	1.207E+00	2.156E-01	1.207E-01	0.000E+00
PO-216	1.343E+00	1.583E-01	9.345E-02	0.000E+00
PO-218	1.207E+00	2.156E-01	1.207E-01	0.000E+00
RA-224	3.145E+00	9.947E-01	1.064E+00	0.000E+00
RA-226	1.186E+00	1.958E-01	1.293E-01	0.000E+00
AC-228	1.319E+00	3.254E-01	2.637E-01	0.000E+00
RA-228	1.319E+00	3.254E-01	2.637E-01	0.000E+00
TH-228	1.364E+00	1.608E-01	9.487E-02	0.000E+00
TH-230	1.186E+00	1.958E-01	1.293E-01	0.000E+00
TH-232	1.319E+00	3.254E-01	2.637E-01	0.000E+00
TH-234	5.230E+00	1.471E+00	1.009E+00	0.000E+00
U-234	1.186E+00	1.958E-01	1.293E-01	0.000E+00
U-235	5.033E-01	3.526E-01	3.359E-01	0.000E+00
NP-237	8.191E-01	2.700E-01	3.002E-01	0.000E+00
U-238	5.230E+00	1.471E+00	1.009E+00	0.000E+00
AM-243	2.598E-01	5.580E-02	6.131E-02	0.000E+00
ANH-511	1.278E-01	8.193E-02	5.432E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-6.933E-02	3.436E-01	5.992E-01	0.000E+00	NOT IDENT.
NA-22	-1.614E-02	5.113E-02	8.538E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.200E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.068E-02	3.073E-02	5.781E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.291E-02	5.656E-02	0.000E+00	FAIL ABUN
SC-46	8.826E-04	4.402E-02	7.589E-02	0.000E+00	FAIL ABUN
V-48	7.971E-03	8.398E-02	1.439E-01	0.000E+00	NOT IDENT.
CR-51	-9.328E-02	3.672E-01	6.307E-01	0.000E+00	NOT IDENT.
MN-52	-1.845E-01	2.546E-01	3.909E-01	0.000E+00	NOT IDENT.
MN-54	5.475E-03	4.369E-02	7.639E-02	0.000E+00	NOT IDENT.
CO-56	-4.237E-02	4.715E-02	7.620E-02	0.000E+00	NOT IDENT.
CO-57	1.355E-03	2.354E-02	4.192E-02	0.000E+00	NOT IDENT.
CO-58	-2.000E-02	4.396E-02	7.391E-02	0.000E+00	NOT IDENT.
FE-59	3.655E-02	1.065E-01	1.836E-01	0.000E+00	FAIL ABUN
CO-60	4.783E-03	4.313E-02	7.429E-02	0.000E+00	NOT IDENT.
ZN-65	8.044E-03	1.160E-01	1.676E-01	0.000E+00	NOT IDENT.
GE-68	5.881E-02	1.470E+00	2.482E+00	0.000E+00	NOT IDENT.
AS-73	1.815E-01	2.188E-01	4.132E-01	0.000E+00	NOT IDENT.
AS-74	-4.764E-03	1.013E-01	1.740E-01	0.000E+00	NOT IDENT.
SE-75	-8.490E-03	4.627E-02	7.130E-02	0.000E+00	NOT IDENT.
BR-77	5.674E+00	1.136E+01	2.045E+01	0.000E+00	FAIL ABUN
SR-82	-1.855E-01	4.726E-01	7.145E-01	0.000E+00	NOT IDENT.
RB-83	2.081E-02	7.626E-02	1.322E-01	0.000E+00	NOT IDENT.
RB-84	5.880E-02	7.938E-02	1.441E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	9.416E+00	1.671E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.829E-02	8.571E-02	0.000E+00	NOT IDENT.
RB-86	1.766E-01	9.054E-01	1.548E+00	0.000E+00	NOT IDENT.
Y-88	-3.934E-02	3.435E-02	4.497E-02	0.000E+00	NOT IDENT.
ZR-88	-1.459E-02	3.334E-02	5.533E-02	0.000E+00	NOT IDENT.
Y-91	1.419E+01	1.965E+01	3.567E+01	0.000E+00	NOT IDENT.
NB-94	4.062E-02	4.027E-02	7.233E-02	0.000E+00	NOT IDENT.
NB-95	7.043E-02	5.551E-02	9.277E-02	0.000E+00	NOT IDENT.
NB-95M	-3.450E-02	1.301E-01	2.026E-01	0.000E+00	NOT IDENT.
ZR-95	5.858E-02	7.664E-02	1.360E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.276E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.238E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.285E+00	1.347E+01	2.246E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.396E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.078E-02	3.163E-02	5.512E-02	0.000E+00	NOT IDENT.
RH-102	2.724E-02	3.098E-02	5.731E-02	0.000E+00	NOT IDENT.
RU-103	9.129E-03	4.271E-02	7.599E-02	0.000E+00	FAIL ABUN
RH-106	-3.663E-01	3.622E-01	5.714E-01	0.000E+00	FAIL ABUN
RU-106	-3.663E-01	3.603E-01	5.714E-01	0.000E+00	FAIL ABUN
AG-108M	-1.746E-03	3.778E-02	6.434E-02	0.000E+00	NOT IDENT.
AG-110M	-1.023E-02	4.540E-02	6.523E-02	0.000E+00	NOT IDENT.
IN-111	-5.274E-01	1.167E+00	1.786E+00	0.000E+00	NOT IDENT.
IN-113M	-2.824E-02	4.824E-02	7.933E-02	0.000E+00	NOT IDENT.
SN-113	-2.824E-02	4.824E-02	7.933E-02	0.000E+00	NOT IDENT.
IN-114M	1.385E-02	1.962E-01	2.981E-01	0.000E+00	NOT IDENT.
CD-115	-4.503E+00	1.161E+01	1.975E+01	0.000E+00	NOT IDENT.
SN-117M	1.797E-02	5.655E-02	9.927E-02	0.000E+00	NOT IDENT.
SB-122	-1.692E-01	2.274E+00	3.922E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.108E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.814E-03	2.923E-02	5.102E-02	0.000E+00	NOT IDENT.
I-124	2.251E-01	9.057E-01	1.325E+00	0.000E+00	NOT IDENT.
SB-124	-2.939E-02	8.164E-02	1.267E-01	0.000E+00	FAIL ABUN
SB-125	-3.300E-02	9.741E-02	1.708E-01	0.000E+00	FAIL ABUN
TE-125M	4.048E-01	8.262E+00	1.485E+01	0.000E+00	NOT IDENT.
I-126	-1.454E-01	2.331E-01	3.193E-01	0.000E+00	NOT IDENT.
SB-126	5.379E-02	1.769E-01	2.876E-01	0.000E+00	FAIL ABUN
SB-127	-5.236E-01	1.552E+00	2.563E+00	0.000E+00	NOT IDENT.
XE-127	-5.865E-02	4.643E-02	7.776E-02	0.000E+00	NOT IDENT.
I-131	2.284E-04	1.217E-01	2.091E-01	0.000E+00	NOT IDENT.
TE-132	-2.209E-01	6.414E-01	1.137E+00	0.000E+00	NOT IDENT.
BA-133	-2.364E-02	5.380E-02	7.957E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.503E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.075E-02	5.561E-02	1.048E-01	0.000E+00	NOT IDENT.
CS-135	1.459E-01	1.711E-01	2.751E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.416E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.775E-02	1.226E-01	1.939E-01	0.000E+00	FAIL ABUN
CE-139	3.662E-03	2.941E-02	5.106E-02	0.000E+00	NOT IDENT.
BA-140	-2.455E-01	2.967E-01	4.711E-01	0.000E+00	NOT IDENT.
LA-140	6.579E-02	1.020E-01	1.827E-01	0.000E+00	FAIL ABUN
CE-141	4.675E-02	6.805E-02	1.095E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	1.986E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.135E-01	2.066E-01	3.366E-01	0.000E+00	NOT IDENT.
PM-144	1.593E-02	3.968E-02	6.896E-02	0.000E+00	NOT IDENT.
PR-144	1.080E+00	2.689E+00	4.673E+00	0.000E+00	NOT IDENT.
PM-146	1.560E-02	4.571E-02	8.259E-02	0.000E+00	NOT IDENT.
ND-147	-3.603E-02	6.183E-01	1.075E+00	0.000E+00	FAIL ABUN
PM-149	-1.444E+00	9.014E+01	1.587E+02	0.000E+00	NOT IDENT.
EU-152	6.311E-02	1.340E-01	1.784E-01	0.000E+00	NOT IDENT.
GD-153	-6.931E-03	7.357E-02	1.177E-01	0.000E+00	FAIL ABUN
EU-154	-4.065E-02	1.432E-01	2.397E-01	0.000E+00	NOT IDENT.
EU-155	1.226E-01	9.376E-02	1.750E-01	0.000E+00	FAIL ABUN
TB-160	6.352E-02	1.623E-01	2.877E-01	0.000E+00	FAIL ABUN
HO-166M	2.409E-02	7.050E-02	1.218E-01	0.000E+00	FAIL ABUN
TM-171	4.968E+00	1.493E+01	2.537E+01	0.000E+00	NOT IDENT.
LU-176	-2.153E-02	2.403E-02	3.992E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.307E+00	2.022E+00	0.000E+00	FAIL ABUN
LU-177M	-1.466E-01	2.028E-01	3.288E-01	0.000E+00	FAIL ABUN
HF-181	4.753E-03	4.555E-02	8.078E-02	0.000E+00	NOT IDENT.
W-181	5.704E-02	1.868E-01	3.176E-01	0.000E+00	NOT IDENT.
TA-182	9.043E-02	2.123E-01	3.766E-01	0.000E+00	FAIL ABUN
RE-183	-3.122E-02	1.148E-01	1.910E-01	0.000E+00	FAIL ABUN
RE-184	-1.479E-01	2.167E-01	3.737E-01	0.000E+00	NOT IDENT.
OS-185	-7.182E-03	4.898E-02	8.273E-02	0.000E+00	NOT IDENT.
RE-188	7.317E-02	1.744E-01	3.079E-01	0.000E+00	NOT IDENT.
W-188	3.556E+00	7.928E+00	1.260E+01	0.000E+00	FAIL ABUN
IR-192	1.187E-02	3.532E-02	6.151E-02	0.000E+00	FAIL ABUN
AU-195	2.455E-01	2.030E-01	3.594E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.885E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.165E+00	6.856E+00	1.174E+01	0.000E+00	NOT IDENT.
TL-202	-4.617E-02	7.505E-02	1.291E-01	0.000E+00	NOT IDENT.
HG-203	4.679E-02	4.082E-02	7.545E-02	0.000E+00	FAIL ABUN
BI-207	-2.581E-02	6.790E-02	1.100E-01	0.000E+00	FAIL ABUN
TL-207	3.862E-01	7.208E-01	1.138E+00	0.000E+00	FAIL ABUN
PO-209	-2.650E+00	8.694E+00	1.461E+01	0.000E+00	NOT IDENT.
PB-211	-3.341E-01	1.082E+00	1.772E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.238E-01	7.143E-01	0.000E+00	FAIL ABUN
PO-215	3.862E-01	7.208E-01	1.138E+00	0.000E+00	FAIL ABUN
RN-219	-1.792E-01	4.790E-01	7.710E-01	0.000E+00	FAIL ABUN
RN-220	-1.591E+01	2.775E+01	4.633E+01	0.000E+00	NOT IDENT.
RA-223	3.862E-01	7.208E-01	1.138E+00	0.000E+00	FAIL ABUN
AC-227	1.308E-01	3.805E-01	6.869E-01	0.000E+00	FAIL ABUN
TH-227	1.308E-01	3.807E-01	6.869E-01	0.000E+00	FAIL ABUN
TH-229	4.021E-01	4.665E-01	8.780E-01	0.000E+00	FAIL ABUN
PA-231	-1.356E+00	1.499E+00	2.503E+00	0.000E+00	FAIL ABUN
TH-231	3.862E-01	7.208E-01	1.138E+00	0.000E+00	FAIL ABUN
U-231	-3.978E-01	9.700E-01	1.546E+00	0.000E+00	FAIL ABUN
PA-233	1.440E-02	6.312E-02	1.115E-01	0.000E+00	FAIL ABUN
PA-234	-1.712E-01	3.496E-01	5.720E-01	0.000E+00	FAIL ABUN
PA-234M	6.359E+00	6.745E+00	1.084E+01	0.000E+00	FAIL ABUN
NP-236	-4.315E-02	8.138E-02	1.378E-01	0.000E+00	NOT IDENT.
NP-239	6.771E-02	1.741E-01	3.146E-01	0.000E+00	FAIL ABUN
AM-241	4.467E-02	6.219E-02	1.080E-01	0.000E+00	NOT IDENT.
CM-243	-4.289E-02	8.203E-02	1.448E-01	0.000E+00	FAIL ABUN
AM-246	-1.150E-02	1.689E-01	2.825E-01	0.000E+00	NOT IDENT.
CM-247	-2.072E-02	4.310E-02	6.899E-02	0.000E+00	NOT IDENT.
CF-249	2.475E-02	4.232E-02	7.461E-02	0.000E+00	NOT IDENT.
CF-251	-4.871E-02	1.291E-01	2.179E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:25:27.52

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*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691006.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:34.
Sample ID         : G245691006           Sample quantity  : 1.48710E+02 GRAM
Detector name     : GAM13                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.72  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	935	10.67*	1.041E+00	2.126E+01	2.126E+01	9.63
CD-109	88.03	296	3.72*	7.248E+00	2.775E+00	2.838E+00	26.55
SN-126	64.28	582	9.60	7.391E+00	2.070E+00	2.070E+00	27.04
	86.94	296	8.90	7.248E+00	1.160E+00	1.160E+00	48.39
	87.57	296	37.00*	7.248E+00	2.790E-01	2.790E-01	26.55
BA-137M	661.65	215	89.98*	2.017E+00	2.992E-01	2.995E-01	24.74
CS-137	661.65	215	85.12*	2.017E+00	3.163E-01	3.166E-01	24.74
TL-208	277.35	------	6.80	4.225E+00	------ Line Not Found		------
	510.84	128	21.60	2.535E+00	5.916E-01	5.916E-01	65.95
	583.14	340	84.20*	2.256E+00	4.519E-01	4.519E-01	19.46
	860.37	------	12.46	1.606E+00	------ Line Not Found		------
BI-210	46.50	181	4.05*	7.295E+00	1.546E+00	1.548E+00	54.01
PB-210	46.50	181	4.05*	7.295E+00	1.546E+00	1.548E+00	54.01
PO-210	46.50	181	4.05*	7.295E+00	1.546E+00	1.548E+00	53.87
BI-211	72.87	------	1.27	7.369E+00	------ Line Not Found		------
	351.07	622	12.94*	3.496E+00	3.471E+00	3.471E+00	17.46
PB-212	74.81	500	10.70	7.358E+00	1.603E+00	1.603E+00	23.83
	77.11	870	18.00	7.343E+00	1.661E+00	1.661E+00	14.29
	87.30	296	8.00	7.248E+00	1.290E+00	1.290E+00	28.37
	238.63	1118	44.60*	4.712E+00	1.343E+00	1.343E+00	12.03
	300.09	73	3.41	3.977E+00	1.354E+00	1.354E+00	64.40
PO-212	74.81	500	10.70	7.358E+00	1.603E+00	1.603E+00	23.83
	77.11	870	18.00	7.343E+00	1.661E+00	1.661E+00	14.29
	87.30	296	8.00	7.248E+00	1.290E+00	1.290E+00	28.37
	115.19	------	0.60	6.822E+00	------ Line Not Found		------
	238.63	1118	44.60*	4.712E+00	1.343E+00	1.343E+00	12.03
	300.09	73	3.41	3.977E+00	1.354E+00	1.354E+00	64.40
BI-214	609.31	472	46.30*	2.170E+00	1.186E+00	1.186E+00	16.84
	1120.29	80	15.10	1.286E+00	1.036E+00	1.036E+00	61.22
	1764.49	79	15.80	8.985E-01	1.410E+00	1.410E+00	27.11
PB-214	74.81	500	6.21	7.358E+00	2.761E+00	2.761E+00	23.13
	77.11	870	10.50	7.343E+00	2.847E+00	2.847E+00	16.19

Sample ID : G245691006 Acquisition date : 9-FEB-2010 15:24:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	296	4.67	7.248E+00	2.210E+00	2.210E+00	27.65
	241.98	230	7.49	4.671E+00	1.658E+00	1.658E+00	32.76
	295.21	408	19.20	4.027E+00	1.331E+00	1.331E+00	20.01
	351.92	622	37.20*	3.496E+00	1.207E+00	1.207E+00	18.22
PO-214	74.81	500	6.21	7.358E+00	2.761E+00	2.761E+00	23.13
	77.11	870	10.50	7.343E+00	2.847E+00	2.847E+00	16.19
	87.30	296	4.67	7.248E+00	2.210E+00	2.210E+00	27.65
	241.98	230	7.49	4.671E+00	1.658E+00	1.658E+00	32.76
	295.21	408	19.20	4.027E+00	1.331E+00	1.331E+00	20.01
	351.92	622	37.20*	3.496E+00	1.207E+00	1.207E+00	18.22
PO-216	74.81	500	10.70	7.358E+00	1.603E+00	1.603E+00	23.83
	77.11	870	18.00	7.343E+00	1.661E+00	1.661E+00	14.29
	87.30	296	8.00	7.248E+00	1.290E+00	1.290E+00	28.37
	238.63	1118	44.60*	4.712E+00	1.343E+00	1.343E+00	12.03
	300.09	73	3.41	3.977E+00	1.354E+00	1.354E+00	64.40
PO-218	74.81	500	6.21	7.358E+00	2.761E+00	2.761E+00	23.13
	77.11	870	10.50	7.343E+00	2.847E+00	2.847E+00	16.19
	87.30	296	4.67	7.248E+00	2.210E+00	2.210E+00	27.65
	241.98	230	7.49	4.671E+00	1.658E+00	1.658E+00	32.76
	295.21	408	19.20	4.027E+00	1.331E+00	1.331E+00	20.01
	351.92	622	37.20*	3.496E+00	1.207E+00	1.207E+00	18.22
RA-224	240.98	230	3.95*	4.671E+00	3.145E+00	3.145E+00	32.28
RA-226	609.31	472	46.30*	2.170E+00	1.186E+00	1.186E+00	16.84
	1120.29	80	15.10	1.286E+00	1.036E+00	1.036E+00	61.22
	1764.49	79	15.80	8.985E-01	1.410E+00	1.410E+00	27.11
AC-228	338.32	237	11.40	3.608E+00	1.454E+00	1.454E+00	49.70
	911.07	221	27.70*	1.528E+00	1.319E+00	1.319E+00	25.17
	969.11	100	16.60	1.451E+00	1.051E+00	1.051E+00	53.53
RA-228	338.32	237	11.40	3.608E+00	1.454E+00	1.454E+00	49.70
	911.07	221	27.70*	1.528E+00	1.319E+00	1.319E+00	25.17
	969.11	100	16.60	1.451E+00	1.051E+00	1.051E+00	53.53
TH-228	74.81	500	10.70	7.358E+00	1.603E+00	1.627E+00	21.94
	77.11	870	18.00	7.343E+00	1.661E+00	1.686E+00	14.29
	87.30	296	8.00	7.248E+00	1.290E+00	1.310E+00	26.55
	238.63	1118	44.60*	4.712E+00	1.343E+00	1.364E+00	12.03
	300.09	73	3.41	3.977E+00	1.354E+00	1.375E+00	86.91
TH-230	609.31	472	46.30*	2.170E+00	1.186E+00	1.186E+00	16.84
	1120.29	80	15.10	1.286E+00	1.036E+00	1.036E+00	61.22
	1764.49	79	15.80	8.985E-01	1.410E+00	1.410E+00	27.11
TH-232	338.32	237	11.40	3.608E+00	1.454E+00	1.454E+00	29.02
	911.07	221	27.70*	1.528E+00	1.319E+00	1.319E+00	25.17
	969.11	100	16.60	1.451E+00	1.051E+00	1.051E+00	53.53
TH-234	63.29	582	3.80*	7.391E+00	5.230E+00	5.230E+00	28.71
	92.38	810	5.41	7.180E+00	5.262E+00	5.262E+00	22.37
U-234	609.31	472	46.30*	2.170E+00	1.186E+00	1.186E+00	16.84
	1120.29	80	15.10	1.286E+00	1.036E+00	1.036E+00	61.22
	1764.49	79	15.80	8.985E-01	1.410E+00	1.410E+00	27.11
U-235	89.95	234	2.70	7.215E+00	3.033E+00	3.033E+00	49.44
	93.35	810	4.50	7.180E+00	6.326E+00	6.326E+00	30.96

Sample ID : G245691006 Acquisition date : 9-FEB-2010 15:24:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	105.00	------	2.10	6.995E+00	------ Line Not Found		------
	143.76	132	10.50*	6.295E+00	5.033E-01	5.033E-01	71.49
	163.35	------	4.70	5.928E+00	------ Line Not Found		------
	185.71	394	54.00	5.530E+00	3.329E-01	3.329E-01	27.53
	205.31	------	4.70	5.207E+00	------ Line Not Found		------
NP-237	86.50	296	12.60*	7.248E+00	8.191E-01	8.191E-01	33.63
	95.87	------	2.60	7.135E+00	------ Line Not Found		------
U-238	63.29	582	3.80*	7.391E+00	5.230E+00	5.230E+00	28.71
	92.38	810	5.41	7.180E+00	5.262E+00	5.262E+00	15.74
AM-243	74.67	500	66.00*	7.358E+00	2.598E-01	2.598E-01	21.92
	86.72	296	0.34	7.248E+00	3.072E+01	3.072E+01	26.55
	117.66	------	0.55	6.778E+00	------ Line Not Found		------
	142.18	132	0.13	6.295E+00	4.227E+01	4.227E+01	69.85
ANH-511	511.00	128	100.00*	2.535E+00	1.278E-01	1.278E-01	65.42

Flag: "*" = Keyline

Sample ID : G245691006 Acquisition date : 9-FEB-2010 15:24:34

Total number of lines in spectrum 33
Number of unidentified lines 1
Number of lines tentatively identified by NID 32 96.97%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.126E+01	2.126E+01	0.205E+01	9.63	
CD-109	464.00D	1.02	2.775E+00	2.838E+00	0.754E+00	26.55	
SN-126	1.00E+05Y	1.00	2.790E-01	2.790E-01	0.741E-01	26.55	
BA-137M	30.17Y	1.00	2.992E-01	2.995E-01	0.741E-01	24.74	
CS-137	30.17Y	1.00	3.163E-01	3.166E-01	0.783E-01	24.74	
TL-208	1.41E+10Y	1.00	4.519E-01	4.519E-01	0.879E-01	19.46	
BI-210	22.26Y	1.00	1.546E+00	1.548E+00	0.836E+00	54.01	
PB-210	22.26Y	1.00	1.546E+00	1.548E+00	0.836E+00	54.01	
PO-210	22.26Y	1.00	1.546E+00	1.548E+00	0.834E+00	53.87	
BI-211	7.04E+08Y	1.00	3.471E+00	3.471E+00	0.606E+00	17.46	
PB-212	1.41E+10Y	1.00	1.343E+00	1.343E+00	0.162E+00	12.03	
PO-212	1.41E+10Y	1.00	1.343E+00	1.343E+00	0.162E+00	12.03	
BI-214	1600.00Y	1.00	1.186E+00	1.186E+00	0.200E+00	16.84	
PB-214	1600.00Y	1.00	1.207E+00	1.207E+00	0.220E+00	18.22	
PO-214	1600.00Y	1.00	1.207E+00	1.207E+00	0.220E+00	18.22	
PO-216	1.41E+10Y	1.00	1.343E+00	1.343E+00	0.162E+00	12.03	
PO-218	1600.00Y	1.00	1.207E+00	1.207E+00	0.220E+00	18.22	
RA-224	1.41E+10Y	1.00	3.145E+00	3.145E+00	1.015E+00	32.28	
RA-226	1600.00Y	1.00	1.186E+00	1.186E+00	0.200E+00	16.84	
AC-228	1.41E+10Y	1.00	1.319E+00	1.319E+00	0.332E+00	25.17	
RA-228	1.41E+10Y	1.00	1.319E+00	1.319E+00	0.332E+00	25.17	
TH-228	1.91Y	1.02	1.343E+00	1.364E+00	0.164E+00	12.03	
TH-230	4.47E+09Y	1.00	1.186E+00	1.186E+00	0.200E+00	16.84	
TH-232	1.41E+10Y	1.00	1.319E+00	1.319E+00	0.332E+00	25.17	
TH-234	4.47E+09Y	1.00	5.230E+00	5.230E+00	1.501E+00	28.71	
U-234	4.47E+09Y	1.00	1.186E+00	1.186E+00	0.200E+00	16.84	
U-235	7.04E+08Y	1.00	5.033E-01	5.033E-01	3.598E-01	71.49	
NP-237	2.14E+06Y	1.00	8.191E-01	8.191E-01	2.755E-01	33.63	
U-238	4.47E+09Y	1.00	5.230E+00	5.230E+00	1.501E+00	28.71	
AM-243	7380.00Y	1.00	2.598E-01	2.598E-01	0.569E-01	21.92	
ANH-511	1.00E+09Y	1.00	1.278E-01	1.278E-01	0.836E-01	65.42	
	Total Activity :		6.650E+01	6.659E+01			

Grand Total Activity : 6.650E+01 6.659E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691006 Acquisition date : 9-FEB-2010 15:24:34

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.98	117	493	1.51	167.74	165	6	1.62E-02	65.7	7.28E+00	T
0	129.28	86	489	0.96	258.36	253	9	1.19E-02	95.8	6.57E+00	T
0	209.13	117	276	1.00	418.10	415	8	1.62E-02	52.8	5.15E+00	T
0	269.86	157	223	2.10	539.58	534	11	2.18E-02	41.2	4.31E+00	T
0	328.21	53	223	1.35	656.32	651	10	7.34E-03	****	3.70E+00	T
0	464.06	140	162	0.78	928.10	920	15	1.95E-02	43.3	2.76E+00	T
0	727.81	73	72	1.21	1455.77	1451	9	1.02E-02	50.4	1.86E+00	T
0	768.69	22	134	0.95	1537.56	1534	12	3.08E-03	****	1.77E+00	
0	1001.83	30	50	1.75	2004.03	1998	10	4.15E-03	****	1.41E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:25:32.42

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691006.CNF;1  *
* Acquisition date : 9-FEB-2010 15:24:34.  Detector SN#    :                *
* Detector ID      : GAM13                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.72         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 25-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245691006            Analyst initials: MJH1           *
* Batch Number     : 947037                Sample Quantity : 1.48710E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-FEB-2009 10:41:22.03MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.126E+01	2.047E+00	6.794E-01	4.153E-02	31.291
CD-109	2.838E+00	7.536E-01	8.626E-01	6.806E-02	3.290
SN-126	2.790E-01	7.407E-02	8.466E-02	6.697E-03	3.295
BA-137M	2.995E-01	7.409E-02	6.676E-02	5.445E-03	4.486
CS-137	3.166E-01	7.834E-02	7.057E-02	5.768E-03	4.486
TL-208	4.519E-01	8.792E-02	6.089E-02	5.040E-03	7.421
BI-210	1.548E+00	8.359E-01	7.545E-01	6.150E-02	2.051
PB-210	1.548E+00	8.359E-01	7.545E-01	6.150E-02	2.051
PO-210	1.548E+00	8.337E-01	7.545E-01	5.379E-02	2.051
BI-211	3.471E+00	6.060E-01	3.321E-01	2.420E-02	10.452
PB-212	1.343E+00	1.616E-01	8.887E-02	8.073E-03	15.114
PO-212	1.343E+00	1.616E-01	8.887E-02	8.073E-03	15.114
BI-214	1.186E+00	1.998E-01	1.258E-01	1.176E-02	9.432
PB-214	1.207E+00	2.200E-01	1.158E-01	1.037E-02	10.427
PO-214	1.207E+00	2.200E-01	1.158E-01	1.037E-02	10.427
PO-216	1.343E+00	1.616E-01	8.887E-02	8.073E-03	15.114
PO-218	1.207E+00	2.200E-01	1.158E-01	1.037E-02	10.427
RA-224	3.145E+00	1.015E+00	1.012E+00	7.987E-02	3.108

Sample ID : G245691006 Acquisition date : 9-FEB-2010 15:24:34

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.186E+00	1.998E-01	1.258E-01	1.176E-02	9.432
AC-228	1.319E+00	3.321E-01	2.589E-01	2.689E-02	5.096
RA-228	1.319E+00	3.321E-01	2.589E-01	2.689E-02	5.096
TH-228	1.364E+00	1.640E-01	9.022E-02	8.196E-03	15.114
TH-230	1.186E+00	1.998E-01	1.258E-01	1.176E-02	9.432
TH-232	1.319E+00	3.321E-01	2.589E-01	2.689E-02	5.096
TH-234	5.230E+00	1.501E+00	9.316E-01	1.709E-01	5.614
U-234	1.186E+00	1.998E-01	1.258E-01	1.176E-02	9.432
U-235	5.033E-01	3.598E-01	3.158E-01	5.830E-02	1.594
NP-237	8.191E-01	2.755E-01	2.790E-01	6.171E-02	2.936
U-238	5.230E+00	1.501E+00	9.316E-01	1.709E-01	5.614
AM-243	2.598E-01	5.694E-02	5.679E-02	4.906E-03	4.575
ANH-511	1.278E-01	8.361E-02	5.259E-02	3.670E-03	2.430

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.933E-02		3.506E-01	5.792E-01	4.355E-02	-0.120
NA-22	-1.614E-02		5.218E-02	8.454E-02	4.772E-03	-0.191
NA-24	-3.716E-01		4.184E-01	Half-Life too short		
AL-26	2.068E-02		3.135E-02	5.775E-02	3.259E-03	0.358
TI-44	3.065E-01	+	4.379E-02	5.246E-02	4.418E-03	5.843
SC-46	8.826E-04		4.491E-02	7.448E-02	5.640E-03	0.012
V-48	7.971E-03		8.570E-02	1.416E-01	1.002E-02	0.056
CR-51	-9.328E-02		3.747E-01	6.039E-01	4.700E-02	-0.154
MN-52	-1.845E-01		2.598E-01	3.882E-01	2.231E-02	-0.475
MN-54	5.475E-03		4.458E-02	7.485E-02	5.874E-03	0.073
CO-56	-4.237E-02		4.811E-02	7.469E-02	5.821E-03	-0.567
CO-57	1.355E-03		2.402E-02	3.926E-02	4.966E-03	0.035
CO-58	-2.000E-02		4.486E-02	7.236E-02	5.764E-03	-0.276
FE-59	3.655E-02		1.087E-01	1.812E-01	1.294E-02	0.202
CO-60	4.783E-03		4.401E-02	7.364E-02	4.189E-03	0.065
ZN-65	8.044E-03		1.183E-01	1.654E-01	1.004E-02	0.049
GE-68	5.881E-02		1.500E+00	2.447E+00	1.564E-01	0.024
AS-73	1.815E-01		2.232E-01	3.800E-01	3.210E-02	0.478
AS-74	-4.764E-03		1.034E-01	1.691E-01	1.299E-02	-0.028
SE-75	-8.490E-03		4.721E-02	6.797E-02	5.324E-03	-0.125
BR-77	5.674E+00		1.159E+01	1.981E+01	1.399E+00	0.286
SR-82	-1.855E-01		4.823E-01	6.989E-01	5.625E-02	-0.265
RB-83	2.081E-02		7.781E-02	1.280E-01	9.040E-03	0.163
RB-84	5.880E-02		8.100E-02	1.414E-01	1.077E-02	0.416
KR-85	2.471E+01		9.609E+00	1.618E+01	1.134E+00	1.527
SR-85	1.267E-01		4.928E-02	8.299E-02	5.814E-03	1.527
RB-86	1.766E-01		9.239E-01	1.527E+00	9.766E-02	0.116
Y-88	-3.934E-02		3.505E-02	4.494E-02	2.531E-03	-0.876
ZR-88	-1.459E-02		3.402E-02	5.323E-02	3.118E-03	-0.274
Y-91	1.419E+01		2.005E+01	3.527E+01	1.955E+00	0.402

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	4.062E-02		4.110E-02	7.057E-02	5.761E-03	0.576
NB-95	7.043E-02		5.665E-02	9.071E-02	7.325E-03	0.776
NB-95M	-3.450E-02		1.327E-01	1.926E-01	1.782E-02	-0.179
ZR-95	5.858E-02		7.821E-02	1.329E-01	1.199E-02	0.441
NB-97	9.939E-03		6.512E-02	Half-Life too short		
ZR-97	6.328E-01		1.142E+00	Half-Life too short		
MO-99	-1.285E+00		1.375E+01	2.194E+01	3.272E+00	-0.059
TC-99M	-3.246E+09		2.243E+10	Half-Life too short		
RH-101	-2.078E-02		3.227E-02	5.220E-02	4.133E-03	-0.398
RH-102	2.724E-02		3.161E-02	5.539E-02	3.686E-03	0.492
RU-103	9.129E-03		4.358E-02	7.353E-02	9.678E-03	0.124
RH-106	-3.663E-01		3.696E-01	5.558E-01	7.164E-02	-0.659
RU-106	-3.663E-01		3.677E-01	5.558E-01	4.377E-02	-0.659
AG-108M	-1.746E-03		3.855E-02	6.205E-02	4.175E-03	-0.028
AG-110M	-1.023E-02		4.633E-02	6.354E-02	5.338E-03	-0.161
IN-111	-5.274E-01		1.191E+00	1.699E+00	1.339E-01	-0.310
IN-113M	-2.824E-02		4.923E-02	7.633E-02	4.756E-03	-0.370
SN-113	-2.824E-02		4.923E-02	7.633E-02	4.756E-03	-0.370
IN-114M	1.385E-02		2.002E-01	2.820E-01	2.229E-02	0.049
CD-115	-4.503E+00		1.184E+01	1.914E+01	1.364E+00	-0.235
SN-117M	1.797E-02		5.770E-02	9.353E-02	8.167E-03	0.192
SB-122	-1.692E-01		2.320E+00	3.807E+00	2.827E-01	-0.044
I-123	1.006E+00		3.117E+00	Half-Life too short		
TE-123M	4.814E-03		2.983E-02	4.807E-02	4.198E-03	0.100
I-124	2.251E-01		9.242E-01	1.288E+00	9.960E-02	0.175
SB-124	-2.939E-02		8.330E-02	1.263E-01	7.868E-03	-0.233
SB-125	-3.300E-02		9.940E-02	1.646E-01	1.059E-02	-0.200
TE-125M	4.048E-01		8.431E+00	1.387E+01	1.685E+00	0.029
I-126	-1.454E-01		2.378E-01	3.111E-01	2.538E-02	-0.467
SB-126	5.379E-02		1.805E-01	2.808E-01	2.288E-02	0.192
SB-127	-5.236E-01		1.584E+00	2.499E+00	2.762E-01	-0.209
XE-127	-5.865E-02		4.738E-02	7.368E-02	5.839E-03	-0.796
I-131	2.284E-04		1.242E-01	2.008E-01	1.422E-02	0.001
TE-132	-2.209E-01		6.544E-01	1.080E+00	1.658E-01	-0.204
BA-133	-2.364E-02		5.490E-02	7.638E-02	9.170E-03	-0.310
I-133	2.953E-03		3.318E-03	Half-Life too short		
CS-134	8.075E-02		5.674E-02	1.026E-01	8.267E-03	0.787
CS-135	1.459E-01		1.746E-01	2.624E-01	2.423E-02	0.556
I-135	-5.063E+09		3.273E+09	Half-Life too short		
CS-136	-8.775E-02		1.251E-01	1.911E-01	1.356E-02	-0.459
CE-139	3.662E-03		3.001E-02	4.815E-02	3.775E-03	0.076
BA-140	-2.455E-01		3.028E-01	4.567E-01	1.498E-01	-0.538
LA-140	6.579E-02		1.040E-01	1.819E-01	1.048E-02	0.362
CE-141	4.675E-02		6.944E-02	1.030E-01	1.068E-02	0.454
CE-143	5.220E-04		1.013E-04	Half-Life too short		
CE-144	-1.135E-01		2.108E-01	3.159E-01	5.476E-02	-0.359
PM-144	1.593E-02		4.049E-02	6.727E-02	5.495E-03	0.237
PR-144	1.080E+00		2.744E+00	4.559E+00	3.722E-01	0.237

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	1.560E-02		4.665E-02	7.974E-02	7.237E-03	0.196
ND-147	-3.603E-02		6.309E-01	1.042E+00	1.474E-01	-0.035
PM-149	-1.444E+00		9.198E+01	1.516E+02	2.276E+01	-0.010
EU-152	6.311E-02		1.367E-01	1.711E-01	1.283E-02	0.369
GD-153	-6.931E-03		7.507E-02	1.097E-01	9.979E-03	-0.063
EU-154	-4.065E-02		1.461E-01	2.374E-01	2.193E-02	-0.171
EU-155	1.226E-01		9.567E-02	1.634E-01	1.677E-02	0.750
TB-160	6.352E-02		1.656E-01	2.823E-01	2.153E-02	0.225
HO-166M	2.409E-02		7.194E-02	1.189E-01	9.699E-03	0.203
TM-171	4.968E+00		1.524E+01	2.344E+01	2.139E+00	0.212
LU-176	-2.153E-02		2.452E-02	3.819E-02	2.831E-03	-0.564
LU-177	2.496E+00	+	1.333E+00	1.917E+00	1.520E-01	1.302
LU-177M	-1.466E-01		2.069E-01	3.168E-01	1.921E-02	-0.463
HF-181	4.753E-03		4.648E-02	7.810E-02	5.247E-03	0.061
W-181	5.704E-02		1.907E-01	2.934E-01	2.706E-02	0.194
TA-182	9.043E-02		2.166E-01	3.725E-01	2.073E-02	0.243
RE-183	-3.122E-02		1.171E-01	1.800E-01	1.490E-02	-0.173
RE-184	-1.479E-01		2.212E-01	3.559E-01	2.794E-02	-0.416
OS-185	-7.182E-03		4.998E-02	8.055E-02	6.484E-03	-0.089
RE-188	7.317E-02		1.780E-01	2.900E-01	2.654E-02	0.252
W-188	3.556E+00		8.090E+00	1.204E+01	9.137E-01	0.295
IR-192	1.187E-02		3.604E-02	5.888E-02	4.307E-03	0.202
AU-195	2.455E-01		2.072E-01	3.351E-01	3.114E-02	0.733
TL-200	7.273E-05		2.492E-04	Half-Life too short		
TL-201	-1.165E+00		6.996E+00	1.108E+01	8.680E-01	-0.105
TL-202	-4.617E-02		7.658E-02	1.246E-01	7.871E-03	-0.371
HG-203	4.679E-02		4.166E-02	7.201E-02	5.734E-03	0.650
BI-207	-2.581E-02		6.929E-02	1.084E-01	7.053E-03	-0.238
TL-207	3.862E-01		7.355E-01	1.090E+00	1.858E-01	0.354
PO-209	-2.650E+00		8.872E+00	1.434E+01	1.079E+00	-0.185
PB-211	-3.341E-01		1.104E+00	1.706E+00	1.064E+00	-0.196
BI-212	8.429E-01	+	4.324E-01	6.975E-01	6.696E-02	1.208
PO-215	3.862E-01		7.355E-01	1.090E+00	1.858E-01	0.354
RN-219	-1.792E-01		4.888E-01	7.423E-01	1.015E-01	-0.241
RN-220	-1.591E+01		2.831E+01	4.494E+01	3.285E+00	-0.354
RA-223	3.862E-01		7.355E-01	1.090E+00	1.858E-01	0.354
AC-227	1.308E-01		3.883E-01	6.543E-01	9.763E-02	0.200
TH-227	1.308E-01		3.885E-01	6.543E-01	1.158E-01	0.200
TH-229	4.021E-01		4.760E-01	8.309E-01	6.573E-02	0.484
PA-231	-1.356E+00		1.530E+00	2.390E+00	3.503E-01	-0.568
TH-231	3.862E-01		7.355E-01	1.090E+00	1.858E-01	0.354
U-231	-3.978E-01		9.898E-01	1.440E+00	1.281E-01	-0.276
PA-233	1.440E-02		6.440E-02	1.067E-01	8.150E-03	0.135
PA-234	-1.712E-01		3.568E-01	5.622E-01	1.023E-01	-0.305
PA-234M	6.359E+00	+	6.883E+00	1.067E+01	9.145E-01	0.596
NP-236	-4.315E-02		8.304E-02	1.299E-01	1.107E-02	-0.332
NP-239	6.771E-02		1.776E-01	2.944E-01	3.494E-02	0.230
AM-241	4.467E-02		6.346E-02	9.955E-02	1.012E-02	0.449

Sample ID : G245691006 Acquisition date : 9-FEB-2010 15:24:34

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.289E-02		8.370E-02	1.351E-01	1.345E-02	-0.317
AM-246	-1.150E-02		1.723E-01	2.786E-01	1.777E-02	-0.041
CM-247	-2.072E-02		4.398E-02	6.642E-02	3.955E-03	-0.312
CF-249	2.475E-02		4.318E-02	7.177E-02	4.262E-03	0.345
CF-251	-4.871E-02		1.317E-01	2.058E-01	1.619E-02	-0.237

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691006           *
* Acquisition date  :  9-FEB-2010 15:24:34 Detector SN#     :               *
* Detector ID       : GAM13                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.72      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691006           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.4871E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-FEB-2009 10:41:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.126E+01	2.006E+00	3.421E-01	1.023E+00
CD-109	2.838E+00	7.386E-01	4.641E-01	3.768E-01
SN-126	2.790E-01	7.259E-02	4.556E-02	3.704E-02
BA-137M	2.995E-01	7.261E-02	3.428E-02	3.705E-02
CS-137	3.166E-01	7.677E-02	3.624E-02	3.917E-02
TL-208	4.519E-01	8.617E-02	3.136E-02	4.396E-02
BI-210	1.548E+00	8.192E-01	4.117E-01	4.180E-01
PB-210	1.548E+00	8.192E-01	4.117E-01	4.180E-01
PO-210	1.548E+00	8.170E-01	4.117E-01	4.168E-01
BI-211	3.471E+00	5.938E-01	1.731E-01	3.030E-01
PB-212	1.343E+00	1.583E-01	4.675E-02	8.079E-02
PO-212	1.343E+00	1.583E-01	4.675E-02	8.079E-02
BI-214	1.186E+00	1.958E-01	6.471E-02	9.988E-02
PB-214	1.207E+00	2.156E-01	6.036E-02	1.100E-01
PO-214	1.207E+00	2.156E-01	6.036E-02	1.100E-01
PO-216	1.343E+00	1.583E-01	4.675E-02	8.079E-02
PO-218	1.207E+00	2.156E-01	6.036E-02	1.100E-01
RA-224	3.145E+00	9.947E-01	5.322E-01	5.075E-01
RA-226	1.186E+00	1.958E-01	6.471E-02	9.988E-02
AC-228	1.319E+00	3.254E-01	1.319E-01	1.660E-01
RA-228	1.319E+00	3.254E-01	1.319E-01	1.660E-01
TH-228	1.364E+00	1.608E-01	4.746E-02	8.202E-02
TH-230	1.186E+00	1.958E-01	6.471E-02	9.988E-02
TH-232	1.319E+00	3.254E-01	1.319E-01	1.660E-01
TH-234	5.230E+00	1.471E+00	5.049E-01	7.507E-01
U-234	1.186E+00	1.958E-01	6.471E-02	9.988E-02
U-235	5.033E-01	3.526E-01	1.681E-01	1.799E-01
NP-237	8.191E-01	2.700E-01	1.502E-01	1.377E-01
U-238	5.230E+00	1.471E+00	5.049E-01	7.507E-01
AM-243	2.598E-01	5.580E-02	3.067E-02	2.847E-02
ANH-511	1.278E-01	8.193E-02	2.717E-02	4.180E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.933E-02	3.436E-01	2.998E-01	1.753E-01	NOT IDENT.
NA-22	-1.614E-02	5.113E-02	4.272E-02	2.609E-02	NOT IDENT.
NA-24	-3.716E+05	8.200E+05	0.000E+00	4.184E+05	SHORT HLIF
AL-26	2.068E-02	3.073E-02	2.892E-02	1.568E-02	NOT IDENT.
TI-44	3.065E-01	4.291E-02	2.830E-02	2.189E-02	FAIL ABUN
SC-46	8.826E-04	4.402E-02	3.797E-02	2.246E-02	FAIL ABUN
V-48	7.971E-03	8.398E-02	7.201E-02	4.285E-02	NOT IDENT.
CR-51	-9.328E-02	3.672E-01	3.156E-01	1.873E-01	NOT IDENT.
MN-52	-1.845E-01	2.546E-01	1.956E-01	1.299E-01	NOT IDENT.
MN-54	5.475E-03	4.369E-02	3.822E-02	2.229E-02	NOT IDENT.
CO-56	-4.237E-02	4.715E-02	3.812E-02	2.406E-02	NOT IDENT.
CO-57	1.355E-03	2.354E-02	2.097E-02	1.201E-02	NOT IDENT.
CO-58	-2.000E-02	4.396E-02	3.697E-02	2.243E-02	NOT IDENT.
FE-59	3.655E-02	1.065E-01	9.187E-02	5.433E-02	FAIL ABUN
CO-60	4.783E-03	4.313E-02	3.717E-02	2.200E-02	NOT IDENT.
ZN-65	8.044E-03	1.160E-01	8.383E-02	5.917E-02	NOT IDENT.
GE-68	5.881E-02	1.470E+00	1.242E+00	7.501E-01	NOT IDENT.
AS-73	1.815E-01	2.188E-01	2.067E-01	1.116E-01	NOT IDENT.
AS-74	-4.764E-03	1.013E-01	8.705E-02	5.170E-02	NOT IDENT.
SE-75	-8.490E-03	4.627E-02	3.567E-02	2.361E-02	NOT IDENT.
BR-77	5.674E+00	1.136E+01	1.023E+01	5.795E+00	FAIL ABUN
SR-82	-1.855E-01	4.726E-01	3.575E-01	2.411E-01	NOT IDENT.
RB-83	2.081E-02	7.626E-02	6.612E-02	3.891E-02	NOT IDENT.
RB-84	5.880E-02	7.938E-02	7.212E-02	4.050E-02	NOT IDENT.
KR-85	2.471E+01	9.416E+00	8.361E+00	4.804E+00	NOT IDENT.
SR-85	1.267E-01	4.829E-02	4.288E-02	2.464E-02	NOT IDENT.
RB-86	1.766E-01	9.054E-01	7.746E-01	4.619E-01	NOT IDENT.
Y-88	-3.934E-02	3.435E-02	2.250E-02	1.753E-02	NOT IDENT.
ZR-88	-1.459E-02	3.334E-02	2.768E-02	1.701E-02	NOT IDENT.
Y-91	1.419E+01	1.965E+01	1.785E+01	1.002E+01	NOT IDENT.
NB-94	4.062E-02	4.027E-02	3.619E-02	2.055E-02	NOT IDENT.
NB-95	7.043E-02	5.551E-02	4.641E-02	2.832E-02	NOT IDENT.
NB-95M	-3.450E-02	1.301E-01	1.014E-01	6.636E-02	NOT IDENT.
ZR-95	5.858E-02	7.664E-02	6.804E-02	3.910E-02	NOT IDENT.
NB-97	9.939E+03	1.276E+05	0.000E+00	6.512E+04	SHORT HLIF
ZR-97	6.328E+05	2.238E+06	0.000E+00	1.142E+06	SHORT HLIF
MO-99	-1.285E+00	1.347E+01	1.124E+01	6.874E+00	NOT IDENT.
TC-99M	-3.246E+15	4.396E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.078E-02	3.163E-02	2.758E-02	1.614E-02	NOT IDENT.
RH-102	2.724E-02	3.098E-02	2.867E-02	1.581E-02	NOT IDENT.
RU-103	9.129E-03	4.271E-02	3.802E-02	2.179E-02	FAIL ABUN
RH-106	-3.663E-01	3.622E-01	2.859E-01	1.848E-01	FAIL ABUN
RU-106	-3.663E-01	3.603E-01	2.859E-01	1.838E-01	FAIL ABUN
AG-108M	-1.746E-03	3.778E-02	3.219E-02	1.927E-02	NOT IDENT.
AG-110M	-1.023E-02	4.540E-02	3.264E-02	2.317E-02	NOT IDENT.
IN-111	-5.274E-01	1.167E+00	8.934E-01	5.954E-01	NOT IDENT.
IN-113M	-2.824E-02	4.824E-02	3.969E-02	2.461E-02	NOT IDENT.
SN-113	-2.824E-02	4.824E-02	3.969E-02	2.461E-02	NOT IDENT.
IN-114M	1.385E-02	1.962E-01	1.491E-01	1.001E-01	NOT IDENT.
CD-115	-4.503E+00	1.161E+01	9.881E+00	5.922E+00	NOT IDENT.
SN-117M	1.797E-02	5.655E-02	4.967E-02	2.885E-02	NOT IDENT.
SB-122	-1.692E-01	2.274E+00	1.962E+00	1.160E+00	NOT IDENT.
I-123	1.006E+06	6.108E+06	0.000E+00	3.117E+06	SHORT HLIF
TE-123M	4.814E-03	2.923E-02	2.553E-02	1.492E-02	NOT IDENT.
I-124	2.251E-01	9.057E-01	6.630E-01	4.621E-01	NOT IDENT.
SB-124	-2.939E-02	8.164E-02	6.338E-02	4.165E-02	FAIL ABUN
SB-125	-3.300E-02	9.741E-02	8.543E-02	4.970E-02	FAIL ABUN
TE-125M	4.048E-01	8.262E+00	7.428E+00	4.215E+00	NOT IDENT.
I-126	-1.454E-01	2.331E-01	1.597E-01	1.189E-01	NOT IDENT.
SB-126	5.379E-02	1.769E-01	1.439E-01	9.026E-02	FAIL ABUN
SB-127	-5.236E-01	1.552E+00	1.282E+00	7.918E-01	NOT IDENT.
XE-127	-5.865E-02	4.643E-02	3.891E-02	2.369E-02	NOT IDENT.
I-131	2.284E-04	1.217E-01	1.046E-01	6.208E-02	NOT IDENT.
TE-132	-2.209E-01	6.414E-01	5.689E-01	3.272E-01	NOT IDENT.
BA-133	-2.364E-02	5.380E-02	3.981E-02	2.745E-02	NOT IDENT.
I-133	2.953E+03	6.503E+03	0.000E+00	3.318E+03	SHORT HLIF
CS-134	8.075E-02	5.561E-02	5.243E-02	2.837E-02	NOT IDENT.
CS-135	1.459E-01	1.711E-01	1.376E-01	8.729E-02	NOT IDENT.
I-135	-5.063E+15	6.416E+15	0.000E+00	3.273E+15	SHORT HLIF
CS-136	-8.775E-02	1.226E-01	9.701E-02	6.257E-02	FAIL ABUN
CE-139	3.662E-03	2.941E-02	2.555E-02	1.501E-02	NOT IDENT.
BA-140	-2.455E-01	2.967E-01	2.357E-01	1.514E-01	NOT IDENT.
LA-140	6.579E-02	1.020E-01	9.140E-02	5.202E-02	FAIL ABUN
CE-141	4.675E-02	6.805E-02	5.480E-02	3.472E-02	NOT IDENT.

CE-143	5.220E+02	1.986E+02	0.000E+00	1.013E+02	SHORT HLIF
CE-144	-1.135E-01	2.066E-01	1.684E-01	1.054E-01	NOT IDENT.
PM-144	1.593E-02	3.968E-02	3.450E-02	2.025E-02	NOT IDENT.
PR-144	1.080E+00	2.689E+00	2.338E+00	1.372E+00	NOT IDENT.
PM-146	1.560E-02	4.571E-02	4.132E-02	2.332E-02	NOT IDENT.
ND-147	-3.603E-02	6.183E-01	5.377E-01	3.154E-01	FAIL ABUN
PM-149	-1.444E+00	9.014E+01	7.940E+01	4.599E+01	NOT IDENT.
EU-152	6.311E-02	1.340E-01	8.925E-02	6.834E-02	NOT IDENT.
GD-153	-6.931E-03	7.357E-02	5.888E-02	3.753E-02	FAIL ABUN
EU-154	-4.065E-02	1.432E-01	1.199E-01	7.307E-02	NOT IDENT.
EU-155	1.226E-01	9.376E-02	8.757E-02	4.784E-02	FAIL ABUN
TB-160	6.352E-02	1.623E-01	1.440E-01	8.282E-02	FAIL ABUN
HO-166M	2.409E-02	7.050E-02	6.095E-02	3.597E-02	FAIL ABUN
TM-171	4.968E+00	1.493E+01	1.269E+01	7.619E+00	NOT IDENT.
LU-176	-2.153E-02	2.403E-02	1.997E-02	1.226E-02	FAIL ABUN
LU-177	2.496E+00	1.307E+00	1.012E+00	6.666E-01	FAIL ABUN
LU-177M	-1.466E-01	2.028E-01	1.645E-01	1.035E-01	FAIL ABUN
HF-181	4.753E-03	4.555E-02	4.041E-02	2.324E-02	NOT IDENT.
W-181	5.704E-02	1.868E-01	1.589E-01	9.533E-02	NOT IDENT.
TA-182	9.043E-02	2.123E-01	1.884E-01	1.083E-01	FAIL ABUN
RE-183	-3.122E-02	1.148E-01	9.555E-02	5.857E-02	FAIL ABUN
RE-184	-1.479E-01	2.167E-01	1.870E-01	1.106E-01	NOT IDENT.
OS-185	-7.182E-03	4.898E-02	4.139E-02	2.499E-02	NOT IDENT.
RE-188	7.317E-02	1.744E-01	1.541E-01	8.900E-02	NOT IDENT.
W-188	3.556E+00	7.928E+00	6.306E+00	4.045E+00	FAIL ABUN
IR-192	1.187E-02	3.532E-02	3.077E-02	1.802E-02	FAIL ABUN
AU-195	2.455E-01	2.030E-01	1.798E-01	1.036E-01	FAIL ABUN
TL-200	7.273E+01	4.885E+02	0.000E+00	2.492E+02	SHORT HLIF
TL-201	-1.165E+00	6.856E+00	5.874E+00	3.498E+00	NOT IDENT.
TL-202	-4.617E-02	7.505E-02	6.460E-02	3.829E-02	NOT IDENT.
HG-203	4.679E-02	4.082E-02	3.775E-02	2.083E-02	FAIL ABUN
BI-207	-2.581E-02	6.790E-02	5.504E-02	3.464E-02	FAIL ABUN
TL-207	3.862E-01	7.208E-01	5.692E-01	3.677E-01	FAIL ABUN
PO-209	-2.650E+00	8.694E+00	7.307E+00	4.436E+00	NOT IDENT.
PB-211	-3.341E-01	1.082E+00	8.864E-01	5.518E-01	NOT IDENT.
BI-212	8.429E-01	4.238E-01	3.574E-01	2.162E-01	FAIL ABUN
PO-215	3.862E-01	7.208E-01	5.692E-01	3.677E-01	FAIL ABUN
RN-219	-1.792E-01	4.790E-01	3.858E-01	2.444E-01	FAIL ABUN
RN-220	-1.591E+01	2.775E+01	2.318E+01	1.416E+01	NOT IDENT.
RA-223	3.862E-01	7.208E-01	5.692E-01	3.677E-01	FAIL ABUN
AC-227	1.308E-01	3.805E-01	3.437E-01	1.941E-01	FAIL ABUN
TH-227	1.308E-01	3.807E-01	3.437E-01	1.942E-01	FAIL ABUN
TH-229	4.021E-01	4.665E-01	4.392E-01	2.380E-01	FAIL ABUN
PA-231	-1.356E+00	1.499E+00	1.252E+00	7.650E-01	FAIL ABUN
TH-231	3.862E-01	7.208E-01	5.692E-01	3.677E-01	FAIL ABUN
U-231	-3.978E-01	9.700E-01	7.733E-01	4.949E-01	FAIL ABUN
PA-233	1.440E-02	6.312E-02	5.579E-02	3.220E-02	FAIL ABUN
PA-234	-1.712E-01	3.496E-01	2.862E-01	1.784E-01	FAIL ABUN
PA-234M	6.359E+00	6.745E+00	5.424E+00	3.441E+00	FAIL ABUN
NP-236	-4.315E-02	8.138E-02	6.896E-02	4.152E-02	NOT IDENT.
NP-239	6.771E-02	1.741E-01	1.574E-01	8.881E-02	FAIL ABUN
AM-241	4.467E-02	6.219E-02	5.403E-02	3.173E-02	NOT IDENT.
CM-243	-4.289E-02	8.203E-02	7.243E-02	4.185E-02	FAIL ABUN
AM-246	-1.150E-02	1.689E-01	1.413E-01	8.616E-02	NOT IDENT.
CM-247	-2.072E-02	4.310E-02	3.451E-02	2.199E-02	NOT IDENT.
CF-249	2.475E-02	4.232E-02	3.733E-02	2.159E-02	NOT IDENT.
CF-251	-4.871E-02	1.291E-01	1.090E-01	6.585E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.50	359.9534
46.50	359.9534
46.50	359.9534
48.70	364.5737
49.72	357.3065
51.35	460.9958
52.39	401.8662
52.97	390.8882
53.15	394.5657
53.44	395.0129
54.07	389.1533
56.28	489.6920
56.28	489.6978
57.37	0.0000
57.53	443.5652
57.53	443.5691
57.60	442.1232
57.98	445.8613
57.98	445.8613
59.32	458.2305
59.32	458.2305
59.40	458.3631
59.54	458.5947
59.72	499.4223
60.01	499.9440
61.10	521.5986
61.14	521.6728
61.30	503.5612
63.00	496.4286
63.29	496.9268
63.29	496.9268
63.58	497.4251
64.28	515.4487
65.12	524.9165
65.20	525.0585
65.20	525.0585
66.05	505.1805
66.72	504.9687
66.83	505.1585
66.91	505.2908
67.20	556.7571
67.20	556.7571
67.75	574.1641
67.85	574.3564
68.90	551.3283
68.90	551.3283
69.30	544.6578
69.67	543.6916
70.82	545.6959
70.82	545.6959
70.83	545.7143
72.80	592.8263
72.87	592.9554
72.87	592.9554
74.67	552.3022
74.81	552.5384
74.81	552.5384
74.81	552.5384
74.81	552.5384
74.81	552.5384
74.81	552.5384
74.81	552.5384
74.97	552.8113
75.28	553.3328
75.70	554.0412
77.11	556.4028
77.11	556.4028

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77.11	556.4028
77.11	556.4028
77.11	556.4028
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79.62	542.8900
79.80	543.1752
79.80	543.1752
80.11	530.6322
80.18	530.7424
80.30	461.0664
80.30	461.0664
80.57	439.0567
81.00	532.0035
81.07	532.1122
81.07	532.1122
81.07	532.1122
81.07	532.1122
82.60	521.7952
83.37	575.0823
83.78	553.1760
83.78	553.1760
83.78	553.1760
83.78	553.1760
84.21	536.8915
84.90	469.9804
85.43	470.6744
86.29	471.7965
86.50	472.0701
86.54	472.1208
86.59	472.1866
86.72	472.3538
86.79	372.8311
86.94	372.9870
87.30	373.3548
87.30	373.3548
87.30	373.3548
87.30	373.3548
87.30	373.3548
87.30	373.3548
87.30	373.3548
87.57	373.6306
87.88	373.9465
88.03	374.0984
88.36	374.4342
88.47	374.5461
89.95	376.0393
91.11	377.2027
92.29	378.3781
92.38	378.4680
92.38	378.4680
93.35	379.4275
94.00	380.0671
94.67	380.7208
94.67	380.7267
94.90	380.9506
94.90	380.9506
94.90	380.9506
94.90	380.9506
95.87	425.6269
95.87	425.6269
96.73	429.4842
97.43	379.0211
98.44	338.9041
98.44	338.9041
98.88	339.5715
99.55	343.2762
99.55	343.2762
99.86	367.0967
100.00	364.2785
100.10	364.3709
103.18	387.8987
103.76	371.5954
105.00	330.9591
105.31	331.2030
108.00	401.3712
109.28	370.4414

111.00	389.0431
111.00	389.0431
111.76	389.7166
112.95	368.4971
115.19	376.4550
116.30	364.1216
117.00	337.1016
117.00	337.1016
117.66	349.8660
121.11	347.3341
121.62	347.7130
121.78	347.8312
122.06	336.6783
122.32	328.5974
122.32	328.5974
122.32	328.5974
122.32	328.5974
123.07	332.2248
127.23	344.5179
129.76	382.5092
131.20	323.6345
133.02	324.8169
133.54	360.3631
135.34	345.9439
136.00	337.8912
136.25	338.0562
136.48	340.3353
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140.51	0.0000
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142.65	315.3333
143.76	315.9949
144.24	316.2781
144.24	316.2781
144.24	316.2781
144.24	316.2781
145.22	316.3156
145.44	329.4290
147.16	315.8272
152.43	338.5943
152.70	345.3355
153.22	340.1694
154.21	337.4708
154.21	337.4708
154.21	337.4708
154.21	337.4708
155.03	352.2754
156.02	399.2075
158.56	347.8199
159.00	0.0000
159.00	350.3021
160.31	362.2067
161.27	372.8231
162.32	328.8981
162.64	302.3057
163.35	301.5527
163.89	329.7774
165.85	316.2890
167.43	311.5038
171.28	315.7567
171.86	303.5965
172.10	308.2467
176.55	332.1587
176.60	331.0438
181.06	324.1950
184.41	293.5325
185.71	294.1216
186.00	294.2534
190.27	279.8486
192.34	285.1065
193.63	268.0780
197.04	309.1847
198.01	307.8533
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202.84	339.4124
205.31	287.5095

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208.81	332.0569
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209.75	263.4043
210.97	275.3879
215.65	260.2996
216.55	281.5051
218.09	298.4762
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223.80	272.3422
226.40	230.9540
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227.20	256.0649
228.16	257.3096
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228.18	261.0051
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236.00	287.6859
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238.63	253.3120
238.63	253.3120
238.63	253.3120
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241.98	254.3788
241.98	254.3788
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252.85	224.4946
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260.90	243.9386
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264.65	200.6367
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268.79	188.0293
269.46	188.1714
269.46	188.1714
269.46	188.1714
269.46	188.1714
271.23	247.2574
273.65	252.6148
276.40	236.5792
277.35	249.5526
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277.60	235.9179
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279.20	204.9594
279.53	206.0138
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283.67	218.7853
284.30	192.3072
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285.90	201.5347
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286.10	201.5782
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291.72	187.6966
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293.70	199.2523
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295.21	186.8001

295.21	186.8001
295.96	186.9486
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297.23	172.0000
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300.09	207.0204
300.09	207.0204
300.12	207.0267
301.29	208.8887
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303.76	193.3154
303.91	183.6775
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304.40	180.5480
304.84	167.9967
306.84	194.9437
308.46	186.1619
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319.41	194.3690
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323.87	159.4722
323.87	159.4722
323.87	159.4722
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338.28	134.4091
338.28	134.4091
338.28	134.4091
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338.32	134.4150
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340.57	180.4386
344.27	164.8596
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351.92	164.6265
351.92	164.6265
351.92	164.6265
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367.43	165.8795
367.94	0.0000
369.80	152.2856
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383.85	145.4727
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388.63	159.1461
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391.69	172.6727
392.90	169.5667
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439.89	161.7536
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445.03	145.0526
445.03	145.0526
445.03	145.0526
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475.35	120.3391
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511.85	129.1679
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513.99	119.7716
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529.87	0.0000
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537.32	133.3007
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563.90	118.7373
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569.50	113.1929
569.67	113.2040
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574.00	129.4351
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592.07	98.6412
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602.71	116.4824
602.71	116.4824
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604.70	106.4766
609.31	115.9148

609.31	115.9148
609.31	115.9148
609.31	115.9148
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621.84	121.8733
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661.65	106.4497
664.57	0.0000
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666.33	110.2167
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696.49	102.3844
697.00	99.2121
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722.78	106.2869
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727.18	107.2419
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747.13	107.2066
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765.79	93.0374
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766.84	102.5509
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778.89	85.1532
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785.46	93.7710
792.07	116.4118

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848.13	83.0900
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898.02	85.8480
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911.07	87.2925
911.07	87.2925
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946.00	84.5504
949.00	81.6647
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966.15	63.5950
968.20	103.2087
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969.11	156.5903
969.11	156.5903
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983.50	77.7222
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1038.76	0.0000
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1048.07	79.6162

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1050.47	64.1620
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1085.78	75.4541
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1112.84	81.2438
1115.52	76.2363
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1120.29	79.9986
1120.29	79.9986
1120.29	79.9986
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1129.67	116.7321
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1147.95	0.0000
1167.94	84.0588
1173.22	84.2048
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1189.05	102.3117
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1213.00	81.5443
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1260.41	0.0000
1271.85	67.7808
1274.45	75.4787
1274.54	75.4815
1291.56	62.4269
1298.22	0.0000
1312.09	57.9785
1325.50	52.3878
1325.50	52.3878
1332.49	46.6641
1333.61	37.9268
1360.21	37.2406
1362.66	0.0000
1365.15	37.2936
1368.21	36.3432
1368.53	0.0000
1376.25	40.3651
1384.27	61.1805
1394.10	41.5591
1395.20	33.6537
1407.95	45.6952
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1436.60	50.0628
1457.56	0.0000
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1596.49	29.2314
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1691.02	21.3644
1691.02	21.3644
1706.46	0.0000
1750.46	0.0000
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1764.49	19.0161
1764.49	19.0161
1764.49	19.0161
1770.23	10.1549
1771.40	11.8509
1791.20	0.0000
1808.65	11.5236

1836.01 21.2548

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691006

Total Uranium Activity	1.5791E+01	ug/g
Total Uranium Counting Unc.	4.3802E+00	ug/g
Total Uranium Tpu	2.2348E-06	ug/g
Total Uranium Mda	1.5042E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691006       *
*   ANALYST       : MJH1                      DETECTOR   : GAM13            *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 15:24:34.05    SAMPLE ALQT:  148.710 GRAM    *
*                                                                           *
*****************************************************************************
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```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.159E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.269E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.080E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.500E+00
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VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:26:16.11

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691007.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:58.
Sample ID         : G245691007           Sample quantity  : 1.44930E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.03  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.38*	101	487	0.65	126.95	124	7	1.40E-02	38.7	
2	3	74.88	401	374	0.91	149.95	145	14	5.58E-02	8.7	1.04E+00
3	3	77.13*	657	430	0.93	154.44	145	14	9.13E-02	6.4	
4	4	87.15	302	456	1.27	174.48	165	27	4.19E-02	13.6	5.23E+00
5	4	90.01	203	325	1.06	180.21	165	27	2.83E-02	15.6	
6	4	92.70*	449	353	1.23	185.60	165	27	6.24E-02	9.1	
7	0	185.99*	267	395	1.16	372.17	367	10	3.72E-02	15.8	
8	0	208.97	130	336	0.96	418.14	415	9	1.80E-02	26.9	
9	6	238.60*	1354	166	0.98	477.39	471	19	1.88E-01	3.2	1.38E+00
10	6	241.47	312	264	1.72	483.14	471	19	4.33E-02	13.9	
11	0	269.61*	138	226	1.14	539.41	534	11	1.91E-02	23.0	
12	0	295.17*	483	223	1.11	590.52	585	11	6.70E-02	7.6	
13	0	300.20	91	174	0.74	600.60	597	9	1.27E-02	28.0	
14	0	327.87	86	170	1.27	655.92	652	10	1.19E-02	30.3	
15	0	338.54	269	221	1.34	677.28	672	13	3.73E-02	12.9	
16	0	351.89*	690	244	1.13	703.96	698	13	9.58E-02	6.1	
17	0	462.76	98	144	1.56	925.69	921	14	1.36E-02	27.7	
18	0	510.88*	137	179	1.58	1021.92	1015	16	1.91E-02	25.9	
19	0	583.20*	373	119	1.25	1166.55	1161	13	5.18E-02	8.1	
20	0	609.39*	527	138	1.17	1218.92	1213	13	7.33E-02	6.4	
21	0	661.51	66	49	1.42	1323.13	1318	9	9.11E-03	22.9	
22	0	727.17	97	77	1.02	1454.42	1449	11	1.34E-02	20.3	
23	0	782.81	7	33	1.55	1565.69	1563	6	9.39E-04	143.5	
24	0	786.30	51	57	0.74	1572.66	1568	13	7.13E-03	33.0	
25	0	795.18	68	81	1.42	1590.43	1584	15	9.49E-03	30.9	
26	0	861.33	45	75	1.36	1722.69	1719	12	6.28E-03	40.5	
27	0	911.28*	268	102	1.56	1822.56	1817	15	3.73E-02	10.7	
28	0	970.57*	84	201	1.54	1941.11	1930	17	1.17E-02	41.4	
29	0	1120.92*	86	96	1.71	2241.71	2234	12	1.19E-02	25.7	
30	0	1377.90	37	40	1.31	2755.48	2750	13	5.12E-03	38.7	
31	0	1460.90*	1133	27	1.78	2921.41	2912	18	1.57E-01	3.2	
32	0	1588.01	35	9	1.71	3175.50	3171	9	4.86E-03	22.9	
33	0	1729.52*	23	7	3.04	3458.36	3450	15	3.18E-03	34.9	
34	0	1764.36*	92	3	2.24	3527.99	3520	14	1.28E-02	12.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:26:18

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:58
Sample ID : G245691007 Sample quantity : 144.93 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.03 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.278E+01	2.473E+00	4.749E-01	4.175E-02	47.953
CD-109	+	88.03	*	3.438E+00	9.906E-01	8.999E-01	8.671E-02	3.820
SN-126	+	64.28		7.683E-01	6.045E-01	6.341E-01	9.238E-02	1.212
	+	86.94		1.405E+00	6.976E-01	3.717E-01	1.545E-01	3.779
	+	87.57	*	3.379E-01	9.736E-02	8.884E-02	8.518E-03	3.803
CS-135	+	268.24	*	4.648E-01	2.222E-01	1.924E-01	2.453E-02	2.416
BA-137M	+	661.65	*	7.853E-02	3.671E-02	5.197E-02	4.613E-03	1.511
CS-137	+	661.65	*	8.301E-02	3.881E-02	5.494E-02	4.885E-03	1.511
TL-208		277.35		2.622E-01	3.165E-01	5.257E-01	7.814E-02	0.499
	+	510.84		5.559E-01	2.967E-01	1.713E-01	2.167E-02	3.244
	+	583.14	*	4.299E-01	8.139E-02	4.950E-02	4.907E-03	8.683
	+	860.37		4.905E-01	4.004E-01	3.755E-01	3.759E-02	1.306
BI-211		72.87		-1.640E-01	2.506E+00	3.863E+00	3.140E-01	-0.042
	+	351.07	*	3.505E+00	5.717E-01	2.437E-01	2.664E-02	14.383
BI-212	+	727.18	*	9.555E-01	4.008E-01	3.337E-01	3.486E-02	2.864
	+	785.46		3.251E+00	2.168E+00	1.248E+00	1.160E-01	2.605
		1620.62		9.896E-01	1.042E+00	1.966E+00	1.670E-01	0.503
PB-212	+	74.81		1.900E+00	4.063E-01	4.282E-01	5.349E-02	4.438
	+	77.11		1.763E+00	2.716E-01	2.429E-01	2.063E-02	7.259
	+	87.30		1.563E+00	4.767E-01	4.120E-01	5.699E-02	3.793
	+	238.63	*	1.505E+00	2.022E-01	7.251E-02	8.585E-03	20.756
	+	300.09		1.567E+00	9.009E-01	9.372E-01	1.228E-01	1.672
PO-212	+	74.81		1.900E+00	4.063E-01	4.282E-01	5.349E-02	4.438
	+	77.11		1.763E+00	2.716E-01	2.429E-01	2.063E-02	7.259
	+	87.30		1.563E+00	4.767E-01	4.120E-01	5.699E-02	3.793
		115.19		-5.447E-01	2.722E+00	4.535E+00	3.784E-01	-0.120
	+	238.63	*	1.505E+00	2.022E-01	7.251E-02	8.585E-03	20.756
	+	300.09		1.567E+00	9.009E-01	9.372E-01	1.228E-01	1.672
BI-214	+	609.31	*	1.146E+00	1.910E-01	9.447E-02	9.988E-03	12.133
	+	1120.29		9.716E-01	5.098E-01	4.372E-01	4.694E-02	2.222
	+	1764.49		1.435E+00	3.652E-01	2.969E-01	2.457E-02	4.834
PB-214	+	74.81		3.274E+00	6.748E-01	7.378E-01	8.202E-02	4.438
	+	77.11		3.023E+00	5.195E-01	4.165E-01	4.752E-02	7.259
	+	87.30		2.677E+00	7.985E-01	7.058E-01	8.666E-02	3.793

Sample ID : G245691007 Acquisition date : 9-FEB-2010 15:24:58

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.080E+00	6.329E-01	4.367E-01	5.410E-02	4.763
	+	295.21		1.451E+00	2.936E-01	1.768E-01	2.360E-02	8.205
	+	351.92	*	1.219E+00	2.088E-01	8.495E-02	1.027E-02	14.353
PO-214	+	74.81		3.274E+00	6.748E-01	7.378E-01	8.202E-02	4.438
	+	77.11		3.023E+00	5.195E-01	4.165E-01	4.752E-02	7.259
	+	87.30		2.677E+00	7.985E-01	7.058E-01	8.666E-02	3.793
	+	241.98		2.080E+00	6.329E-01	4.367E-01	5.410E-02	4.763
	+	295.21		1.451E+00	2.936E-01	1.768E-01	2.360E-02	8.205
	+	351.92	*	1.219E+00	2.088E-01	8.495E-02	1.027E-02	14.353
PO-216	+	74.81		1.900E+00	4.063E-01	4.282E-01	5.349E-02	4.438
	+	77.11		1.763E+00	2.716E-01	2.429E-01	2.063E-02	7.259
	+	87.30		1.563E+00	4.767E-01	4.120E-01	5.699E-02	3.793
	+	238.63	*	1.505E+00	2.022E-01	7.251E-02	8.585E-03	20.756
	+	300.09		1.567E+00	9.009E-01	9.372E-01	1.228E-01	1.672
PO-218	+	74.81		3.274E+00	6.748E-01	7.378E-01	8.202E-02	4.438
	+	77.11		3.023E+00	5.195E-01	4.165E-01	4.752E-02	7.259
	+	87.30		2.677E+00	7.985E-01	7.058E-01	8.666E-02	3.793
	+	241.98		2.080E+00	6.329E-01	4.367E-01	5.410E-02	4.763
	+	295.21		1.451E+00	2.936E-01	1.768E-01	2.360E-02	8.205
	+	351.92	*	1.219E+00	2.088E-01	8.495E-02	1.027E-02	14.353
RA-224	+	240.98	*	3.944E+00	1.180E+00	8.253E-01	9.095E-02	4.779
RA-226	+	609.31	*	1.146E+00	1.910E-01	9.447E-02	9.988E-03	12.133
	+	1120.29		9.716E-01	5.098E-01	4.372E-01	4.694E-02	2.222
	+	1764.49		1.435E+00	3.652E-01	2.969E-01	2.457E-02	4.834
AC-228	+	338.32		1.507E+00	7.396E-01	2.744E-01	1.147E-01	5.491
	+	911.07	*	1.376E+00	3.375E-01	1.965E-01	2.334E-02	7.001
	+	969.11		7.634E-01	6.576E-01	3.595E-01	8.478E-02	2.123
RA-228	+	338.32		1.507E+00	7.396E-01	2.744E-01	1.147E-01	5.491
	+	911.07	*	1.376E+00	3.375E-01	1.965E-01	2.334E-02	7.001
	+	969.11		7.634E-01	6.576E-01	3.595E-01	8.478E-02	2.123
TH-228	+	74.81		1.929E+00	3.717E-01	4.347E-01	3.637E-02	4.438
	+	77.11		1.790E+00	2.757E-01	2.466E-01	2.095E-02	7.259
	+	87.30		1.587E+00	4.572E-01	4.183E-01	3.997E-02	3.793
	+	238.63	*	1.528E+00	2.053E-01	7.361E-02	8.715E-03	20.756
	+	300.09		1.591E+00	1.303E+00	9.515E-01	5.691E-01	1.672
TH-230	+	609.31	*	1.146E+00	1.910E-01	9.447E-02	9.988E-03	12.133
	+	1120.29		9.716E-01	5.098E-01	4.372E-01	4.693E-02	2.222
	+	1764.49		1.435E+00	3.652E-01	2.969E-01	2.457E-02	4.834
TH-232	+	338.32		1.507E+00	4.212E-01	2.744E-01	2.995E-02	5.491
	+	911.07	*	1.376E+00	3.375E-01	1.965E-01	2.334E-02	7.001
	+	969.11		7.634E-01	6.576E-01	3.595E-01	8.478E-02	2.123
TH-234	+	63.29	*	1.941E+00	1.539E+00	1.695E+00	2.956E-01	1.145
	+	92.38		3.263E+00	8.460E-01	5.834E-01	1.072E-01	5.594
U-234	+	609.31	*	1.146E+00	1.910E-01	9.447E-02	9.988E-03	12.133
	+	1120.29		9.716E-01	5.098E-01	4.372E-01	4.693E-02	2.222
	+	1764.49		1.435E+00	3.652E-01	2.969E-01	2.457E-02	4.834
NP-237	+	86.50	*	9.922E-01	3.517E-01	2.638E-01	5.988E-02	3.762
		95.87		-5.021E-01	7.570E-01	1.097E+00	2.717E-01	-0.458
U-238	+	63.29	*	1.941E+00	1.539E+00	1.695E+00	2.956E-01	1.145

Sample ID : G245691007 Acquisition date : 9-FEB-2010 15:24:58

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		3.263E+00	6.683E-01	5.834E-01	5.383E-02	5.594
AM-243	+	74.67	*	3.081E-01	5.925E-02	6.963E-02	5.764E-03	4.425
	+	86.72		3.721E+01	1.072E+01	9.868E+00	9.364E-01	3.771
		117.66		-3.330E-01	2.899E+00	4.841E+00	4.028E-01	-0.069
		142.18		-1.542E+01	1.482E+01	2.329E+01	1.986E+00	-0.662
ANH-511	+	511.00	*	1.201E-01	6.331E-02	3.702E-02	3.521E-03	3.243

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-8.553E-02	2.642E-01	4.274E-01	4.323E-02	-0.200
NA-22		1274.54	*	4.681E-03	3.476E-02	5.725E-02	4.764E-03	0.082
NA-24		1368.53	*	6.710E-02	3.476E-02	Half-Life too short		
AL-26		1129.67		-1.323E+00	1.437E+00	2.123E+00	1.779E-01	-0.623
		1808.65	*	-1.523E-02	2.126E-02	2.842E-02	2.324E-03	-0.536
TI-44		67.85		-2.576E-02	3.819E-02	5.686E-02	4.403E-03	-0.453
	+	78.38	*	3.254E-01	5.012E-02	5.948E-02	5.122E-03	5.470
SC-46		889.25	*	-5.738E-03	3.001E-02	4.918E-02	4.649E-03	-0.117
	+	1120.51		1.664E-01	8.659E-02	1.200E-01	1.014E-02	1.386
V-48		944.10		-3.648E-01	8.142E-01	1.264E+00	1.181E-01	-0.289
		983.50	*	-1.484E-02	5.925E-02	9.579E-02	8.817E-03	-0.155
		1312.09		-2.334E-02	7.055E-02	1.095E-01	9.194E-03	-0.213
CR-51		320.08	*	3.739E-02	3.178E-01	5.069E-01	5.926E-02	0.074
MN-52		744.21		-3.971E-02	2.071E-01	3.258E-01	2.991E-02	-0.122
		848.13		2.981E-01	5.646E+00	9.510E+00	8.951E-01	0.031
		935.52		2.841E-01	2.355E-01	4.265E-01	3.995E-02	0.666
		1246.25		-4.576E+00	6.242E+00	9.362E+00	7.716E-01	-0.489
		1333.61		1.524E+00	3.971E+00	6.744E+00	5.690E-01	0.226
		1434.06	*	9.449E-02	1.886E-01	3.260E-01	2.781E-02	0.290
MN-54		834.83	*	8.319E-03	3.451E-02	5.892E-02	5.534E-03	0.141
CO-56		846.75	*	8.196E-03	3.217E-02	5.512E-02	5.187E-03	0.149
		977.42		-1.494E+00	2.709E+00	3.972E+00	3.666E-01	-0.376
		1037.82		-8.662E-02	2.561E-01	4.078E-01	3.834E-02	-0.212
		1175.09		9.979E-02	2.055E+00	3.371E+00	2.712E-01	0.030
		1238.25		9.674E-02	8.276E-02	1.460E-01	1.239E-02	0.662
		1360.21		-7.805E-02	7.107E-01	1.125E+00	9.528E-02	-0.069
		1771.40		-4.302E-01	2.349E-01	2.507E-01	2.071E-02	-1.716
CO-57		122.06	*	4.066E-04	1.975E-02	3.312E-02	2.752E-03	0.012
		136.48		2.216E-02	1.669E-01	2.795E-01	2.541E-02	0.079
CO-58		810.76	*	-1.674E-02	3.095E-02	4.947E-02	4.635E-03	-0.338
FE-59		142.65		3.995E-01	2.252E+00	3.733E+00	3.187E-01	0.107
		192.34		-6.606E-01	7.899E-01	1.232E+00	1.745E-01	-0.536
		1099.22	*	9.627E-03	7.794E-02	1.295E-01	1.204E-02	0.074
		1291.56		-3.501E-02	1.090E-01	1.701E-01	1.624E-02	-0.206
CO-60		1173.22		-1.206E-02	4.219E-02	6.715E-02	5.399E-03	-0.180
		1332.49	*	-8.287E-03	3.272E-02	5.105E-02	4.306E-03	-0.162
ZN-65		1115.52	*	1.562E-02	8.008E-02	1.169E-01	9.927E-03	0.134
GE-68		1077.35	*	1.752E-01	1.003E+00	1.680E+00	1.467E-01	0.104

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	9.190E-02	6.919E-01	1.092E+00	8.328E-02	0.084
AS-74		595.88	*	-9.008E-03	7.568E-02	1.222E-01	1.134E-02	-0.074
		634.78		-5.176E-02	3.195E-01	5.116E-01	4.637E-02	-0.101
SE-75		66.05		-3.896E+00	4.421E+00	5.955E+00	5.729E-01	-0.654
		96.73		-1.020E+00	6.523E-01	8.876E-01	1.227E-01	-1.149
		121.11		-1.991E-02	1.062E-01	1.766E-01	1.939E-02	-0.113
		136.00		1.162E-02	3.114E-02	5.264E-02	4.468E-03	0.221
		198.60		-1.005E+00	1.555E+00	2.423E+00	2.598E-01	-0.415
		264.65	*	-2.305E-02	4.062E-02	5.517E-02	6.438E-03	-0.418
		279.53		-5.377E-02	9.223E-02	1.419E-01	1.736E-02	-0.379
		303.91		-1.493E+00	2.044E+00	2.691E+00	3.740E-01	-0.555
		400.65		3.914E-02	2.085E-01	3.536E-01	4.116E-02	0.111
BR-77	+	87.88		7.483E+02	2.156E+02	2.721E+02	2.619E+01	2.750
		200.40		-2.615E+01	1.362E+02	2.202E+02	2.188E+01	-0.119
	+	239.00		2.435E+02	3.084E+01	3.351E+01	3.675E+00	7.266
		249.79		-7.961E+01	5.536E+01	8.023E+01	9.028E+00	-0.992
		281.68		-1.225E+01	7.434E+01	1.175E+02	1.407E+01	-0.104
		297.23		1.056E+02	6.768E+01	8.624E+01	1.014E+01	1.225
		303.76		-1.361E+02	1.748E+02	2.294E+02	2.673E+01	-0.594
		439.47		-1.079E+01	1.131E+02	1.873E+02	1.767E+01	-0.058
		484.57		2.135E+00	1.828E+02	3.028E+02	2.881E+01	0.007
		520.65	*	-7.455E-01	8.551E+00	1.399E+01	1.329E+00	-0.053
		574.64		-4.554E+01	1.831E+02	2.936E+02	2.751E+01	-0.155
		578.91		3.157E+01	7.772E+01	1.162E+02	1.087E+01	0.272
		585.48		6.384E+02	2.078E+02	3.544E+02	3.306E+01	1.801
		755.35		2.731E+01	1.481E+02	2.408E+02	2.219E+01	0.113
		817.79		-1.052E+02	1.089E+02	1.662E+02	1.556E+01	-0.633
SR-82		698.33		-4.169E-01	2.937E+01	4.724E+01	4.263E+00	-0.009
		776.49	*	-4.472E-01	3.197E-01	4.300E-01	3.987E-02	-1.040
		1395.20		-2.358E+00	8.555E+00	1.336E+01	1.136E+00	-0.177
RB-83		520.41	*	-1.221E-02	5.556E-02	8.990E-02	8.542E-03	-0.136
		529.64		1.373E-02	8.474E-02	1.411E-01	1.339E-02	0.097
		552.65		3.901E-02	1.572E-01	2.629E-01	2.481E-02	0.148
RB-84		881.50	*	2.243E-02	5.565E-02	9.643E-02	9.111E-03	0.233
KR-85		513.99	*	1.080E+01	6.491E+00	1.072E+01	1.020E+00	1.007
SR-85		513.99	*	5.538E-02	3.329E-02	5.499E-02	5.229E-03	1.007
RB-86		1076.63	*	-1.410E-01	6.579E-01	1.059E+00	9.251E-02	-0.133
Y-88		898.02		-1.257E-03	3.149E-02	5.236E-02	4.973E-03	-0.024
		1836.01	*	1.158E-02	2.506E-02	4.520E-02	3.670E-03	0.256
ZR-88		392.90	*	-1.323E-02	2.452E-02	3.970E-02	3.672E-03	-0.333
Y-91		1204.90	*	2.735E+01	1.728E+01	3.160E+01	2.570E+00	0.866
NB-94		702.63	*	2.159E-02	2.828E-02	4.835E-02	4.370E-03	0.447
		871.10		9.921E-03	2.690E-02	4.653E-02	4.391E-03	0.213
NB-95		765.79	*	-2.132E-02	4.092E-02	6.338E-02	5.858E-03	-0.336
NB-95M		235.69	*	2.922E-02	1.103E-01	1.616E-01	1.922E-02	0.181
ZR-95		724.18		1.203E-02	8.248E-02	1.177E-01	1.157E-02	0.102
		756.15	*	5.476E-02	6.180E-02	1.063E-01	1.067E-02	0.515
NB-97		657.90	*	-1.319E-01	6.180E-02	Half-Life too short		
		1024.50		2.739E+00	6.180E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97		254.15		-2.609E+00	6.180E-02	Half-Life too short		
		355.39		1.178E+00	6.180E-02	Half-Life too short		
		507.63	*	2.315E+00	6.180E-02	Half-Life too short		
		602.52		-5.131E+00	6.180E-02	Half-Life too short		
		1021.30		-6.337E+00	6.180E-02	Half-Life too short		
		1147.95		1.326E+00	6.180E-02	Half-Life too short		
		1362.66		-2.028E+00	6.180E-02	Half-Life too short		
		1750.46		-2.404E-01	6.180E-02	Half-Life too short		
MO-99		140.51		-3.435E+00	2.165E+01	3.491E+01	9.654E+00	-0.098
		181.06		-1.784E+00	1.564E+01	2.278E+01	4.256E+00	-0.078
		366.43		3.059E+01	6.479E+01	1.124E+02	1.136E+01	0.272
		739.58	*	-7.015E+00	1.039E+01	1.551E+01	2.404E+00	-0.452
		778.00		-7.560E+00	3.184E+01	4.274E+01	3.965E+00	-0.177
TC-99M		140.51	*	-5.321E+09	3.184E+01	Half-Life too short		
RH-101		127.23		-7.676E-03	2.616E-02	4.322E-02	3.598E-03	-0.178
		198.01	*	-5.434E-03	2.852E-02	4.554E-02	4.496E-03	-0.119
		325.23		6.411E-02	1.949E-01	2.818E-01	3.163E-02	0.228
RH-102		418.52		-1.303E-01	2.292E-01	3.682E-01	3.449E-02	-0.354
		475.06	*	6.140E-03	2.467E-02	4.157E-02	3.951E-03	0.148
		631.29		-1.795E-02	4.645E-02	7.285E-02	6.620E-03	-0.246
		697.49		5.362E-03	6.724E-02	1.090E-01	9.832E-03	0.049
		766.84		9.453E-02	1.059E-01	1.816E-01	1.679E-02	0.521
		1046.59		6.822E-03	9.342E-02	1.552E-01	1.383E-02	0.044
		1112.84		-2.042E-01	1.998E-01	2.534E-01	2.154E-02	-0.806
RU-103		497.08	*	-7.162E-03	3.132E-02	5.078E-02	7.477E-03	-0.141
	+	610.33		1.238E+01	2.641E+00	2.707E+00	4.602E-01	4.574
RH-106	+	511.85		5.998E-01	3.162E-01	3.749E-01	3.565E-02	1.600
		621.84	*	-2.302E-02	2.555E-01	4.119E-01	5.644E-02	-0.056
		1050.47		-2.062E+00	1.855E+00	2.672E+00	2.375E-01	-0.772
RU-106	+	511.85		5.998E-01	3.162E-01	3.749E-01	3.565E-02	1.600
		621.84	*	-2.302E-02	2.555E-01	4.119E-01	3.767E-02	-0.056
		1050.47		-2.062E+00	1.855E+00	2.672E+00	2.375E-01	-0.772
AG-108M		433.93	*	-1.639E-02	2.746E-02	4.344E-02	4.228E-03	-0.377
		614.37		-6.148E-03	3.648E-02	5.090E-02	4.839E-03	-0.121
		722.95		-1.982E-02	3.740E-02	4.849E-02	4.574E-03	-0.409
AG-110M		657.75	*	-3.504E-02	3.557E-02	4.409E-02	4.035E-03	-0.795
		677.61		9.612E-03	2.469E-01	4.000E-01	3.671E-02	0.024
		706.67		-1.137E-01	1.898E-01	2.896E-01	2.687E-02	-0.393
		763.93		-2.087E-01	1.543E-01	2.151E-01	2.036E-02	-0.970
		884.67		-3.196E-02	3.944E-02	6.046E-02	5.867E-03	-0.529
		937.48		-1.817E-01	1.036E-01	1.426E-01	1.376E-02	-1.274
		1384.27		2.688E-02	1.469E-01	2.116E-01	1.850E-02	0.127
IN-111		171.28		1.019E-01	8.183E-01	1.354E+00	1.245E-01	0.075
		245.39	*	8.250E-02	9.682E-01	1.398E+00	1.557E-01	0.059
IN-113M		391.69	*	-2.627E-02	3.539E-02	5.646E-02	5.359E-03	-0.465
SN-113		391.69	*	-2.627E-02	3.539E-02	5.646E-02	5.359E-03	-0.465
IN-114M		190.27	*	2.800E-02	1.660E-01	2.452E-01	2.371E-02	0.114
CD-115		260.90		9.655E+00	1.139E+02	1.837E+02	2.120E+01	0.053
		492.35		-8.267E+00	2.890E+01	4.672E+01	4.445E+00	-0.177

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		527.90	*	-3.339E+00	8.784E+00	1.400E+01	1.329E+00	-0.238
SN-117M		156.02		-1.049E+00	1.841E+00	2.967E+00	2.617E-01	-0.354
		158.56	*	-3.357E-03	4.419E-02	7.280E-02	6.466E-03	-0.046
SB-122		563.90	*	8.518E-01	1.717E+00	2.914E+00	2.742E-01	0.292
		692.80		2.561E+00	4.024E+01	6.516E+01	5.866E+00	0.039
I-123		159.00	*	-7.481E-02	4.024E+01	Half-Life too short		
		528.96		7.073E+01	4.024E+01	Half-Life too short		
TE-123M		159.00	*	-3.579E-04	2.305E-02	3.806E-02	3.404E-03	-0.009
I-124		602.71	*	-4.995E-01	6.048E-01	8.327E-01	7.701E-02	-0.600
		722.78		-1.004E+00	3.781E+00	5.098E+00	4.645E-01	-0.197
		1325.50		1.117E+01	2.758E+01	4.693E+01	3.952E+00	0.238
		1376.25		8.400E+01	3.275E+01	6.161E+01	5.229E+00	1.363
		1509.49		1.887E+01	1.223E+01	2.440E+01	2.087E+00	0.773
		1691.02		1.500E+00	3.111E+00	5.583E+00	4.695E-01	0.269
SB-124		602.71		-2.892E-02	3.501E-02	4.821E-02	4.459E-03	-0.600
		645.85		-5.115E-01	4.071E-01	5.747E-01	5.453E-02	-0.890
		709.31		1.206E+00	2.464E+00	4.120E+00	3.735E-01	0.293
		713.82		1.627E-01	1.435E+00	2.329E+00	2.881E-01	0.070
		722.78		-8.422E-02	3.173E-01	4.278E-01	3.974E-02	-0.197
		968.20		1.384E+01	3.502E+00	6.564E+00	6.079E-01	2.108
		1045.16		-5.212E-01	2.086E+00	3.354E+00	2.992E-01	-0.155
		1325.50		1.001E+00	2.472E+00	4.206E+00	3.542E-01	0.238
		1368.21		2.166E-01	1.295E+00	2.142E+00	2.867E-01	0.101
		1436.60		-2.058E-01	3.016E+00	5.018E+00	4.282E-01	-0.041
		1691.02	*	2.968E-02	6.158E-02	1.105E-01	9.679E-03	0.269
SB-125		427.89	*	-2.943E-02	7.598E-02	1.235E-01	1.180E-02	-0.238
	+	463.38		7.719E-01	4.345E-01	4.762E-01	4.813E-02	1.621
		600.56		6.966E-02	1.420E-01	2.403E-01	2.368E-02	0.290
		635.90		2.995E-01	2.307E-01	4.107E-01	3.993E-02	0.729
TE-125M		109.28	*	-9.789E-01	7.302E+00	1.205E+01	1.226E+00	-0.081
I-126		388.63		4.834E-02	1.613E-01	2.760E-01	2.582E-02	0.175
		666.33	*	6.994E-02	1.688E-01	2.501E-01	2.224E-02	0.280
		753.82		-4.320E-01	1.320E+00	2.048E+00	1.887E-01	-0.211
SB-126		223.80		8.492E-01	3.364E+00	5.518E+00	5.828E-01	0.154
		278.60		8.645E-01	2.085E+00	3.406E+00	4.086E-01	0.254
	+	296.50		1.446E+01	2.784E+00	3.171E+00	3.733E-01	4.562
		414.70		1.203E-03	5.958E-02	9.981E-02	9.334E-03	0.012
		415.30		1.247E-02	4.964E+00	8.305E+00	7.768E-01	0.002
		555.20		-2.971E-01	3.145E+00	5.113E+00	4.823E-01	-0.058
		573.80		-1.193E-03	9.167E-01	1.499E+00	1.405E-01	-0.001
		593.00		4.374E-02	7.307E-01	1.198E+00	1.113E-01	0.037
		656.30		2.554E+00	3.100E+00	4.805E+00	4.284E-01	0.531
		666.33		2.923E-02	7.054E-02	1.045E-01	9.296E-03	0.280
		675.00		1.460E+00	1.543E+00	2.700E+00	2.411E-01	0.541
		695.00		2.609E-02	7.007E-02	1.162E-01	1.047E-02	0.225
		697.00		1.660E-02	2.357E-01	3.818E-01	3.443E-02	0.043
		720.50	*	3.866E-02	1.166E-01	1.870E-01	1.702E-02	0.207
		856.80		-1.453E-01	4.691E-01	6.348E-01	5.982E-02	-0.229
		989.30		-5.238E-01	9.940E-01	1.553E+00	1.426E-01	-0.337

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		1034.80		1.509E-02	6.656E+00	1.099E+01	9.859E-01	0.001
		1213.00		2.948E-01	3.824E+00	6.274E+00	5.116E-01	0.047
SB-127		61.10		3.606E+01	5.210E+01	7.725E+01	7.832E+00	0.467
		252.40		8.203E+00	4.924E+00	6.306E+00	2.691E+00	1.301
		290.80		-1.901E+01	2.144E+01	2.800E+01	3.870E+00	-0.679
		411.60		1.077E+00	1.058E+01	1.782E+01	2.875E+00	0.060
		444.90		-3.383E+00	7.884E+00	1.271E+01	1.668E+00	-0.266
		473.00		-4.508E-02	1.441E+00	2.385E+00	3.214E-01	-0.019
		543.00		-1.180E+01	1.443E+01	2.202E+01	3.285E+00	-0.536
		603.60		-1.451E+01	1.181E+01	1.434E+01	1.858E+00	-1.011
		685.20	*	-9.001E-01	1.137E+00	1.689E+00	1.969E-01	-0.533
		698.50		1.591E+00	1.291E+01	2.100E+01	3.371E+00	0.076
		722.20		9.643E-01	2.503E+01	3.526E+01	4.072E+00	0.027
	+	783.80		8.790E-01	2.524E+00	5.437E+00	7.012E-01	0.162
XE-127		57.60		-3.417E+00	5.065E+00	7.643E+00	5.525E-01	-0.447
		145.22		5.832E-02	5.693E-01	9.356E-01	8.032E-02	0.062
		172.10		-3.922E-02	9.838E-02	1.589E-01	1.464E-02	-0.247
		202.84	*	-2.222E-02	3.834E-02	6.066E-02	6.066E-03	-0.366
		374.96		1.204E-01	1.516E-01	2.671E-01	2.627E-02	0.451
I-131		80.18		1.056E+00	4.550E+00	5.694E+00	5.033E-01	0.186
		284.30		-4.352E-01	1.220E+00	1.900E+00	2.332E-01	-0.229
		364.48	*	-9.329E-02	9.139E-02	1.412E-01	1.493E-02	-0.661
		636.97		9.067E-01	1.340E+00	2.289E+00	2.177E-01	0.396
		722.89		-1.667E+00	6.080E+00	8.186E+00	7.502E-01	-0.204
TE-132		49.72		1.115E+01	1.610E+01	2.613E+01	2.730E+00	0.426
		111.76		-2.207E+00	2.270E+01	3.804E+01	4.063E+00	-0.058
		116.30		7.109E+00	2.086E+01	3.549E+01	3.774E+00	0.200
		228.16	*	1.059E-01	5.840E-01	9.533E-01	1.615E-01	0.111
BA-133		53.15		3.102E-01	2.990E+00	4.712E+00	3.610E-01	0.066
		79.62		-1.127E-01	1.124E+00	1.579E+00	2.414E-01	-0.071
		81.00		3.945E-03	9.613E-02	1.186E-01	1.899E-02	0.033
		276.40		2.550E-01	3.122E-01	5.174E-01	8.612E-02	0.493
		302.84		-1.022E-01	1.367E-01	1.792E-01	2.767E-02	-0.570
		356.01	*	1.224E-04	3.648E-02	5.444E-02	7.866E-03	0.002
		383.85		6.470E-02	2.356E-01	4.027E-01	5.332E-02	0.161
I-133	+	510.53		1.247E+00	2.356E-01	Half-Life too short		
		529.87	*	-6.625E-04	2.356E-01	Half-Life too short		
		706.58		-2.397E-01	2.356E-01	Half-Life too short		
		856.28		1.545E-01	2.356E-01	Half-Life too short		
		875.33		-7.090E-02	2.356E-01	Half-Life too short		
		1236.41		7.049E-01	2.356E-01	Half-Life too short		
		1298.22		-1.261E-01	2.356E-01	Half-Life too short		
CS-134		475.35		2.364E-01	1.585E+00	2.654E+00	2.522E-01	0.089
		563.23		7.638E-02	2.986E-01	4.984E-01	4.727E-02	0.153
		569.32		-1.764E-01	1.690E-01	2.510E-01	2.384E-02	-0.703
		604.70		-2.420E-03	3.165E-02	4.473E-02	4.141E-03	-0.054
	+	795.84	*	1.135E-01	7.085E-02	7.956E-02	7.459E-03	1.426
		801.93		-1.896E-01	3.477E-01	4.725E-01	4.430E-02	-0.401
		1038.57		-4.811E-01	3.218E+00	5.230E+00	4.682E-01	-0.092

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		1167.94		2.496E-01	2.214E+00	3.655E+00	2.955E-01	0.068
		1365.15		7.151E-02	8.727E-01	1.426E+00	1.265E-01	0.050
I-135		288.45		3.311E+10	8.727E-01	Half-Life too short		
		417.63		-2.849E+09	8.727E-01	Half-Life too short		
		546.56		6.986E+09	8.727E-01	Half-Life too short		
		836.80		1.878E+10	8.727E-01	Half-Life too short		
		1038.76		-1.722E+09	8.727E-01	Half-Life too short		
		1124.00		3.136E+10	8.727E-01	Half-Life too short		
		1131.51		-4.902E+09	8.727E-01	Half-Life too short		
		1260.41	*	-2.862E+09	8.727E-01	Half-Life too short		
		1457.56		2.620E+11	8.727E-01	Half-Life too short		
		1678.03		7.717E+08	8.727E-01	Half-Life too short		
		1706.46		8.362E+09	8.727E-01	Half-Life too short		
		1791.20		-1.925E+09	8.727E-01	Half-Life too short		
CS-136		66.91		-4.837E-01	7.004E-01	9.506E-01	1.419E-01	-0.509
	+	86.29		4.415E+00	1.340E+00	1.664E+00	2.232E-01	2.653
		153.22		4.737E-01	5.276E-01	9.028E-01	8.808E-02	0.525
		163.89		3.081E-02	9.216E-01	1.500E+00	1.502E-01	0.021
		176.55		2.700E-02	2.979E-01	4.914E-01	4.808E-02	0.055
		273.65		-1.289E-01	4.214E-01	5.852E-01	7.192E-02	-0.220
		340.57		2.495E-01	1.152E-01	1.931E-01	2.136E-02	1.292
		818.51		1.140E-02	5.911E-02	1.011E-01	9.470E-03	0.113
		1048.07	*	4.041E-02	8.429E-02	1.457E-01	1.349E-02	0.277
		1235.34		-2.092E-01	5.414E-01	8.512E-01	9.838E-02	-0.246
CE-139		165.85	*	-1.101E-02	2.479E-02	4.005E-02	3.633E-03	-0.275
BA-140		162.64		1.508E-02	6.445E-01	1.049E+00	9.929E-02	0.014
		304.84		2.119E-01	1.202E+00	1.720E+00	5.003E-01	0.123
		423.70		-1.226E-02	1.526E+00	2.548E+00	8.315E-01	-0.005
		537.32	*	1.673E-01	2.320E-01	3.897E-01	1.301E-01	0.429
LA-140	+	328.77		5.942E-01	3.664E-01	4.586E-01	5.285E-02	1.296
		432.53		5.468E-01	1.745E+00	2.940E+00	2.881E-01	0.186
		487.03		-2.403E-02	1.109E-01	1.805E-01	1.805E-02	-0.133
		751.79		-1.043E+00	1.545E+00	2.314E+00	2.331E-01	-0.451
		815.85		-1.139E-01	2.484E-01	3.993E-01	4.106E-02	-0.285
		867.82		-8.247E-01	1.335E+00	1.781E+00	1.755E-01	-0.463
		919.63		-1.484E+00	2.418E+00	3.526E+00	3.983E-01	-0.421
		925.24		-5.332E-02	8.561E-01	1.417E+00	1.402E-01	-0.038
		1596.49	*	-8.466E-02	6.980E-02	9.200E-02	7.836E-03	-0.920
CE-141		145.44	*	-7.393E-03	5.115E-02	8.317E-02	7.275E-03	-0.089
CE-143		57.37		-3.082E-04	5.115E-02	Half-Life too short		
		231.56		1.022E-04	5.115E-02	Half-Life too short		
		293.26	*	4.170E-04	5.115E-02	Half-Life too short		
	+	350.59		2.814E-02	5.115E-02	Half-Life too short		
		490.36		3.295E-04	5.115E-02	Half-Life too short		
		664.57		5.813E-04	5.115E-02	Half-Life too short		
		721.93		-3.102E-04	5.115E-02	Half-Life too short		
CE-144		80.11		4.397E-01	2.089E+00	2.610E+00	2.292E-01	0.168
		133.54	*	-2.079E-02	1.603E-01	2.658E-01	4.105E-02	-0.078
PM-144		476.78		8.866E-03	5.612E-02	9.402E-02	9.631E-03	0.094

---- Non-Identified Nuclides ----

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		618.01		9.230E-04	2.662E-02	4.341E-02	4.076E-03	0.021
		696.49	*	7.472E-03	3.025E-02	4.971E-02	4.484E-03	0.150
		778.57		4.848E-01	2.074E+00	2.981E+00	2.766E-01	0.163
PR-144		696.49	*	5.063E-01	2.050E+00	3.368E+00	3.037E-01	0.150
		1489.15		-1.681E+00	8.731E+00	1.416E+01	1.210E+00	-0.119
PM-146		453.90	*	2.020E-02	3.661E-02	6.296E-02	7.190E-03	0.321
		633.02		-1.026E+00	1.267E+00	1.817E+00	6.810E-01	-0.565
		735.90		-4.888E-02	1.360E-01	2.099E-01	6.037E-02	-0.233
		747.13		1.329E-02	7.850E-02	1.277E-01	1.838E-02	0.104
ND-147	+	91.11		7.622E-01	2.501E-01	4.153E-01	4.151E-02	1.835
		319.41		1.184E+00	2.831E+00	4.599E+00	5.222E-01	0.257
		439.89		-1.352E+00	4.631E+00	7.556E+00	7.133E-01	-0.179
		531.02	*	5.502E-02	4.521E-01	7.505E-01	1.161E-01	0.073
PM-149		285.90	*	-9.483E+01	7.946E+01	1.142E+02	2.010E+01	-0.830
EU-152		121.78		-5.144E-03	5.723E-02	9.552E-02	9.221E-03	-0.054
		244.69		5.223E-02	2.959E-01	4.302E-01	4.784E-02	0.121
		344.27	*	5.030E-03	8.023E-02	1.206E-01	1.348E-02	0.042
		443.98		2.389E-01	7.476E-01	1.272E+00	1.202E-01	0.188
		778.89		5.599E-02	2.395E-01	3.441E-01	3.192E-02	0.163
		867.32		1.266E-01	7.241E-01	1.080E+00	1.019E-01	0.117
		964.01		5.246E-01	2.971E-01	5.007E-01	4.645E-02	1.048
		1085.78		-2.933E-02	3.233E-01	5.264E-01	4.570E-02	-0.056
		1112.02		-3.398E-01	2.712E-01	3.684E-01	3.135E-02	-0.922
		1407.95		1.404E-01	1.561E-01	2.803E-01	2.387E-02	0.501
GD-153		69.67		-1.267E-01	1.260E+00	2.062E+00	1.625E-01	-0.061
		83.37		1.403E+01	1.248E+01	1.978E+01	1.803E+00	0.709
		97.43	*	-5.209E-02	6.554E-02	9.539E-02	8.474E-03	-0.546
		103.18		-3.474E-02	8.242E-02	1.368E-01	1.179E-02	-0.254
EU-154		123.07		5.994E-04	4.080E-02	6.836E-02	7.606E-03	0.009
		247.94		5.054E-03	2.874E-01	4.632E-01	6.265E-02	0.011
		591.81		-5.346E-01	5.209E-01	7.688E-01	9.365E-02	-0.695
		723.30		-8.287E-02	1.564E-01	2.028E-01	2.023E-02	-0.409
		756.87		4.202E-01	6.791E-01	1.143E+00	1.419E-01	0.368
		873.19		-1.667E-01	2.408E-01	3.746E-01	4.808E-02	-0.445
		996.32		-1.930E-01	3.395E-01	5.308E-01	9.570E-02	-0.364
		1004.76		-2.270E-01	1.963E-01	2.838E-01	3.409E-02	-0.800
		1274.45	*	3.341E-02	9.550E-02	1.611E-01	1.784E-02	0.207
EU-155		48.70		-1.853E+00	2.097E+00	3.144E+00	2.583E-01	-0.589
		60.01		2.754E+00	4.457E+00	6.604E+00	4.717E-01	0.417
	+	86.54		4.070E-01	1.174E-01	1.552E-01	1.482E-02	2.622
		105.31	*	1.160E-01	8.728E-02	1.533E-01	1.326E-02	0.757
TB-160	+	86.79		1.087E+00	3.133E-01	4.153E-01	3.944E-02	2.618
		197.04		-3.674E-02	4.813E-01	7.724E-01	7.607E-02	-0.048
		215.65		4.044E-01	6.030E-01	1.009E+00	1.044E-01	0.401
		298.57		1.006E-01	1.350E-01	1.623E-01	1.906E-02	0.619
		879.36	*	6.077E-02	1.144E-01	2.001E-01	1.890E-02	0.304
		962.29		2.048E-01	5.283E-01	7.946E-01	7.377E-02	0.258
		966.15		4.404E-01	2.369E-01	3.937E-01	3.649E-02	1.119
		1177.93		-1.322E-01	3.382E-01	5.328E-01	4.291E-02	-0.248

---- Non-Identified Nuclides ----

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		1271.85		1.528E-01	5.750E-01	9.606E-01	7.978E-02	0.159
HO-166M		80.57		8.631E-02	2.652E-01	3.340E-01	2.947E-02	0.258
		184.41		9.845E-02	3.464E-02	5.600E-02	5.330E-03	1.758
		280.46		-4.393E-02	7.195E-02	1.104E-01	1.324E-02	-0.398
		410.95		2.767E-01	2.116E-01	3.776E-01	3.525E-02	0.733
		711.68	*	8.474E-03	5.454E-02	8.883E-02	8.059E-03	0.095
		752.31		-2.167E-01	2.488E-01	3.648E-01	3.358E-02	-0.594
		810.29		-2.139E-02	4.692E-02	7.567E-02	7.074E-03	-0.283
TM-171		51.35		-1.812E+01	2.617E+01	3.959E+01	3.120E+00	-0.458
		52.39		-1.809E+00	1.314E+01	2.047E+01	1.587E+00	-0.088
		59.40		8.836E+00	2.234E+01	3.547E+01	2.519E+00	0.249
		66.72	*	6.958E+00	2.414E+01	3.479E+01	2.666E+00	0.200
LU-176	+	88.36		8.014E-01	2.309E-01	2.708E-01	2.600E-02	2.959
		201.83		8.120E-03	2.281E-02	3.780E-02	3.770E-03	0.215
		306.84	*	3.070E-02	2.029E-02	3.486E-02	4.044E-03	0.880
		401.10		-1.446E+00	5.562E+00	9.176E+00	8.525E-01	-0.158
LU-177		112.95		2.267E-01	1.245E+00	2.107E+00	1.765E-01	0.108
	+	208.36	*	2.565E+00	1.406E+00	1.729E+00	1.755E-01	1.483
LU-177M		52.97		1.101E-01	1.353E+00	2.131E+00	1.637E-01	0.052
		54.07		4.036E-02	7.270E-01	1.142E+00	8.632E-02	0.035
		61.30		8.538E-01	1.334E+00	1.975E+00	1.433E-01	0.432
		121.62		-5.559E-02	2.943E-01	4.892E-01	4.060E-02	-0.114
		147.16		-1.658E-01	5.164E-01	8.315E-01	7.170E-02	-0.199
		171.86		-1.621E-01	3.961E-01	6.394E-01	5.888E-02	-0.254
		218.09		-1.946E-02	7.043E-01	1.141E+00	1.188E-01	-0.017
	+	268.79		2.336E+00	1.110E+00	1.239E+00	1.455E-01	1.885
		319.02		7.774E-02	2.194E-01	3.552E-01	4.036E-02	0.219
		367.43		9.540E-02	7.166E-01	1.218E+00	1.228E-01	0.078
		413.65	*	-1.397E-01	1.472E-01	2.305E-01	2.154E-02	-0.606
HF-181		56.28		1.161E-01	7.781E-01	1.226E+00	8.998E-02	0.095
		57.53		-2.830E-01	4.265E-01	6.440E-01	4.659E-02	-0.439
		65.20		-1.514E-01	8.422E-01	1.190E+00	8.990E-02	-0.127
		133.02		-2.123E-02	5.095E-02	8.345E-02	6.998E-03	-0.254
		136.25		6.677E-02	3.665E-01	6.151E-01	5.185E-02	0.109
		345.85		-6.427E-02	1.635E-01	2.360E-01	2.529E-02	-0.272
		482.03	*	-3.481E-03	3.387E-02	5.565E-02	5.293E-03	-0.063
W-181		56.28		4.493E-02	3.045E-01	4.796E-01	3.520E-02	0.094
		57.53		-1.108E-01	1.670E-01	2.522E-01	1.825E-02	-0.439
		65.20	*	-5.882E-02	3.272E-01	4.625E-01	3.493E-02	-0.127
TA-182		67.75		-5.828E-02	9.129E-02	1.362E-01	1.054E-02	-0.428
		100.10		1.338E-01	1.384E-01	2.414E-01	2.112E-02	0.554
		152.43		2.974E-02	2.696E-01	4.485E-01	3.919E-02	0.066
		222.10		-2.505E-02	2.897E-01	4.676E-01	4.918E-02	-0.054
		1001.68		1.677E+00	1.824E+00	3.211E+00	2.932E-01	0.522
	+	1121.28		4.594E-01	2.391E-01	3.381E-01	2.854E-02	1.359
		1189.05		-3.420E-01	2.603E-01	3.645E-01	2.947E-02	-0.938
		1221.42	*	-4.293E-02	1.557E-01	2.463E-01	2.014E-02	-0.174
		1230.97		1.185E-01	3.976E-01	6.641E-01	5.448E-02	0.178
RE-183		57.98		-2.172E-01	1.706E-01	2.489E-01	1.792E-02	-0.872

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		59.32		2.454E-02	9.182E-02	1.450E-01	1.031E-02	0.169
		67.20		-4.562E-02	1.761E-01	2.461E-01	1.894E-02	-0.185
		162.32	*	2.250E-02	9.304E-02	1.527E-01	1.371E-02	0.147
	+	208.81		2.300E+00	1.261E+00	1.576E+00	1.601E-01	1.460
		291.72		-4.809E-01	8.901E-01	1.202E+00	1.424E-01	-0.400
RE-184		57.98		-8.001E-01	6.284E-01	9.171E-01	6.603E-02	-0.872
		59.32		9.036E-02	3.380E-01	5.338E-01	3.794E-02	0.169
		67.20		-1.680E-01	6.484E-01	9.066E-01	6.978E-02	-0.185
		161.27		-1.447E-01	2.978E-01	4.813E-01	4.307E-02	-0.301
		216.55		8.936E-02	2.196E-01	3.633E-01	3.766E-02	0.246
		252.85	*	3.171E-01	1.915E-01	3.309E-01	3.750E-02	0.958
		318.01		-4.686E-02	3.919E-01	6.156E-01	7.007E-02	-0.076
		792.07		1.219E+00	9.671E-01	1.292E+00	1.203E-01	0.944
		903.28		-2.586E-01	7.831E-01	1.265E+00	1.195E-01	-0.204
		920.93		-3.109E-01	3.571E-01	5.400E-01	5.079E-02	-0.576
OS-185		59.72		1.534E-01	2.642E-01	3.909E-01	2.781E-02	0.392
		61.14		1.005E-01	1.473E-01	2.185E-01	1.582E-02	0.460
		69.30		-4.161E-02	2.164E-01	3.691E-01	2.898E-02	-0.113
		592.07		-2.313E+00	2.111E+00	3.101E+00	2.884E-01	-0.746
		646.12	*	-4.676E-02	3.519E-02	4.937E-02	4.438E-03	-0.947
		717.42		-4.884E-01	7.503E-01	1.129E+00	1.026E-01	-0.433
		874.81		-2.556E-01	4.537E-01	7.155E-01	6.756E-02	-0.357
		880.27		3.847E-01	6.261E-01	1.103E+00	1.042E-01	0.349
RE-188		155.03	*	2.529E-02	1.371E-01	2.286E-01	2.011E-02	0.111
		477.96		-3.484E-01	2.487E+00	4.078E+00	3.878E-01	-0.085
		633.10		-2.433E+00	2.472E+00	3.657E+00	3.319E-01	-0.665
W-188	+	63.58		7.803E+01	6.062E+01	7.988E+01	5.937E+00	0.977
		227.08		-3.862E+00	1.070E+01	1.699E+01	1.810E+00	-0.227
		290.67	*	-6.336E+00	7.386E+00	9.694E+00	1.150E+00	-0.654
IR-192	+	295.96		1.107E+00	2.133E-01	2.620E-01	3.099E-02	4.223
		308.46		-1.437E-01	8.415E-02	1.153E-01	1.337E-02	-1.247
		316.51	*	1.396E-02	2.946E-02	4.804E-02	5.490E-03	0.291
		468.07		-1.901E-03	6.279E-02	9.131E-02	9.188E-03	-0.021
		604.41		-7.401E-02	4.254E-01	5.944E-01	7.988E-02	-0.125
		612.46		-4.415E-02	6.670E-01	9.425E-01	9.809E-02	-0.047
AU-195		65.12		-1.893E-02	1.519E-01	2.154E-01	1.625E-02	-0.088
		66.83		1.875E-02	7.960E-02	1.144E-01	8.776E-03	0.164
	+	75.70		9.971E-01	1.918E-01	3.510E-01	2.937E-02	2.841
		98.88	*	2.228E-01	1.747E-01	3.075E-01	2.707E-02	0.725
		129.76		1.675E+00	2.267E+00	3.887E+00	3.245E-01	0.431
TL-200		367.94	*	7.174E-05	2.267E+00	Half-Life too short		
		579.30		-1.833E-04	2.267E+00	Half-Life too short		
		828.27		-1.998E-03	2.267E+00	Half-Life too short		
		1205.75		3.396E-03	2.267E+00	Half-Life too short		
TL-201		68.90		-1.679E-01	3.483E+00	5.971E+00	4.670E-01	-0.028
		70.82		1.751E+00	2.196E+00	3.509E+00	2.796E-01	0.499
		80.30		1.341E+00	4.981E+00	6.248E+00	5.496E-01	0.215
		135.34		1.561E+01	2.017E+01	3.461E+01	2.913E+00	0.451
		167.43	*	-8.067E-01	5.739E+00	9.398E+00	8.556E-01	-0.086

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TL-202		68.90		-1.503E-02	3.119E-01	5.347E-01	4.182E-02	-0.028
		70.82		1.564E-01	1.961E-01	3.134E-01	2.497E-02	0.499
		80.30		1.198E-01	4.449E-01	5.581E-01	4.910E-02	0.215
		439.56	*	-1.071E-02	5.459E-02	8.970E-02	8.465E-03	-0.119
HG-203		70.83		6.828E-01	8.522E-01	1.357E+00	1.792E-01	0.503
		72.87		-3.263E-02	4.987E-01	7.686E-01	9.906E-02	-0.042
		82.60		9.348E-02	8.887E-01	1.356E+00	1.899E-01	0.069
		279.20	*	-1.080E-03	3.371E-02	5.375E-02	6.551E-03	-0.020
BI-207		72.80		-1.644E-02	1.461E-01	2.248E-01	1.826E-02	-0.073
	+	74.97		5.530E-01	1.064E-01	1.797E-01	1.492E-02	3.077
		84.90		4.667E-01	1.505E-01	2.659E-01	2.468E-02	1.755
		569.67		-2.123E-02	2.632E-02	4.002E-02	3.757E-03	-0.530
		1063.62	*	2.563E-02	4.208E-02	7.341E-02	6.471E-03	0.349
		1770.23		-2.137E+00	6.745E-01	5.718E-01	4.725E-02	-3.737
TL-207		81.07		8.281E-03	2.121E-01	2.616E-01	2.322E-02	0.032
		83.78		2.371E-01	9.606E-02	1.697E-01	1.554E-02	1.398
		94.90		2.685E-01	1.773E-01	2.883E-01	2.607E-02	0.931
		122.32		5.070E-01	1.344E+00	2.286E+00	2.047E-01	0.222
		144.24		3.719E-01	5.672E-01	9.558E-01	9.170E-02	0.389
		154.21		3.191E-01	3.210E-01	5.506E-01	5.298E-02	0.579
	+	269.46		5.468E-01	2.601E-01	3.029E-01	3.602E-02	1.806
		323.87	*	-5.592E-02	6.042E-01	8.410E-01	1.609E-01	-0.066
	+	338.28		6.292E+00	1.844E+00	2.106E+00	2.952E-01	2.987
		445.03		-5.930E-01	1.841E+00	2.994E+00	3.801E-01	-0.198
PO-209		260.50		2.661E+00	8.446E+00	1.378E+01	1.589E+00	0.193
		262.80		-2.360E+00	2.207E+01	3.518E+01	4.077E+00	-0.067
		896.60	*	-1.730E+00	5.619E+00	9.085E+00	8.593E-01	-0.190
BI-210		46.50	*	-9.443E-01	3.036E+00	4.698E+00	4.381E-01	-0.201
PB-210		46.50	*	-9.443E-01	3.036E+00	4.698E+00	4.381E-01	-0.201
PO-210		46.50	*	-9.443E-01	3.036E+00	4.698E+00	3.968E-01	-0.201
PB-211		404.84	*	3.933E-02	7.925E-01	1.331E+00	8.356E-01	0.030
		427.08		7.707E-02	1.677E+00	2.808E+00	1.748E+00	0.027
		831.96		-3.212E-02	1.035E+00	1.733E+00	1.088E+00	-0.019
PO-215		81.07		8.281E-03	2.121E-01	2.616E-01	2.322E-02	0.032
		83.78		2.371E-01	9.606E-02	1.697E-01	1.554E-02	1.398
		94.90		2.685E-01	1.773E-01	2.883E-01	2.607E-02	0.931
		122.32		5.070E-01	1.344E+00	2.286E+00	2.047E-01	0.222
		144.24		3.719E-01	5.672E-01	9.558E-01	9.170E-02	0.389
		154.21		3.191E-01	3.210E-01	5.506E-01	5.298E-02	0.579
	+	269.46		5.468E-01	2.601E-01	3.029E-01	3.602E-02	1.806
		323.87	*	-5.592E-02	6.042E-01	8.410E-01	1.609E-01	-0.066
	+	338.28		6.292E+00	1.844E+00	2.106E+00	2.952E-01	2.987
		445.03		-5.930E-01	1.841E+00	2.994E+00	3.801E-01	-0.198
RN-219		271.23		4.486E-01	2.423E-01	3.784E-01	4.955E-02	1.186
		401.81	*	4.355E-02	3.385E-01	5.718E-01	8.819E-02	0.076
RN-220		549.76	*	-2.005E+01	2.170E+01	3.276E+01	3.095E+00	-0.612
RA-223		81.07		8.281E-03	2.121E-01	2.616E-01	2.322E-02	0.032
		83.78		2.371E-01	9.606E-02	1.697E-01	1.554E-02	1.398
		94.90		2.685E-01	1.773E-01	2.883E-01	2.607E-02	0.931

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		5.070E-01	1.344E+00	2.286E+00	2.047E-01	0.222
		144.24		3.719E-01	5.672E-01	9.558E-01	9.170E-02	0.389
		154.21		3.191E-01	3.210E-01	5.506E-01	5.298E-02	0.579
	+	269.46		5.468E-01	2.601E-01	3.029E-01	3.602E-02	1.806
		323.87	*	-5.592E-02	6.042E-01	8.410E-01	1.609E-01	-0.066
	+	338.28		6.292E+00	1.844E+00	2.106E+00	2.952E-01	2.987
		445.03		-5.930E-01	1.841E+00	2.994E+00	3.801E-01	-0.198
AC-227		79.80		-1.099E-01	1.426E+00	2.006E+00	4.323E-01	-0.055
		236.00		1.560E-01	2.008E-01	3.024E-01	4.214E-02	0.516
		256.20	*	-3.468E-01	3.382E-01	5.037E-01	8.602E-02	-0.689
		286.10		-1.149E+00	1.295E+00	1.929E+00	3.003E-01	-0.595
	+	299.80		2.905E+00	1.719E+00	2.197E+00	4.219E-01	1.322
		304.40		-2.033E-01	1.791E+00	2.502E+00	5.011E-01	-0.081
		334.20		-1.680E-02	2.068E+00	2.893E+00	5.957E-01	-0.006
TH-227		79.80		-1.099E-01	1.426E+00	2.006E+00	4.378E-01	-0.055
	+	94.00		1.261E+01	3.610E+00	3.093E+00	6.797E-01	4.077
		236.00		1.560E-01	2.006E-01	3.024E-01	3.907E-02	0.516
		256.20	*	-3.468E-01	3.398E-01	5.037E-01	9.849E-02	-0.689
		286.10		-1.149E+00	1.727E+00	1.929E+00	1.943E+00	-0.595
	+	299.80		2.905E+00	1.719E+00	2.197E+00	4.219E-01	1.322
		304.40		-2.033E-01	1.791E+00	2.502E+00	5.011E-01	-0.081
		334.20		-1.680E-02	2.068E+00	2.893E+00	5.957E-01	-0.006
TH-229		85.43		4.904E-01	1.465E-01	2.621E-01	2.448E-02	1.871
	+	88.47		4.613E-01	1.329E-01	1.554E-01	1.491E-02	2.968
		100.00		1.363E-01	1.435E-01	2.502E-01	2.190E-02	0.545
		193.63	*	-2.195E-01	4.252E-01	6.775E-01	6.611E-02	-0.324
		210.97		7.892E-01	6.842E-01	1.057E+00	1.080E-01	0.746
PA-231		283.67	*	3.102E-01	1.224E+00	1.983E+00	3.430E-01	0.156
	+	301.29		1.162E+00	6.720E-01	8.888E-01	1.295E-01	1.307
TH-231		81.07		8.281E-03	2.121E-01	2.616E-01	2.322E-02	0.032
		83.78		2.371E-01	9.606E-02	1.697E-01	1.554E-02	1.398
		94.90		2.685E-01	1.773E-01	2.883E-01	2.607E-02	0.931
		122.32		5.070E-01	1.344E+00	2.286E+00	2.047E-01	0.222
		144.24		3.719E-01	5.672E-01	9.558E-01	9.170E-02	0.389
		154.21		3.191E-01	3.210E-01	5.506E-01	5.298E-02	0.579
	+	269.46		5.468E-01	2.601E-01	3.029E-01	3.602E-02	1.806
		323.87	*	-5.592E-02	6.042E-01	8.410E-01	1.609E-01	-0.066
	+	338.28		6.292E+00	1.844E+00	2.106E+00	2.952E-01	2.987
		445.03		-5.930E-01	1.841E+00	2.994E+00	3.801E-01	-0.198
U-231		84.21		1.212E+01	4.245E+00	7.507E+00	6.910E-01	1.614
	+	92.29		1.251E+01	2.561E+00	3.660E+00	3.379E-01	3.417
		95.87	*	-5.713E-01	8.512E-01	1.249E+00	1.121E-01	-0.458
		108.00		-4.876E-01	1.640E+00	2.691E+00	2.279E-01	-0.181
PA-233	+	75.28		1.614E+01	3.719E+00	5.294E+00	8.040E-01	3.048
	+	86.59		6.615E+00	2.541E+00	2.524E+00	6.841E-01	2.621
	+	300.12		8.098E-01	4.733E-01	6.166E-01	1.039E-01	1.313
		311.98	*	7.345E-02	5.392E-02	9.191E-02	1.074E-02	0.799
		340.50		1.322E+00	6.376E-01	9.540E-01	2.360E-01	1.386
		398.62		-3.156E-01	1.685E+00	2.790E+00	7.492E-01	-0.113

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.743E-01	1.308E+00	2.206E+00	4.821E-01	0.079
PA-234	+	63.00		2.263E+00	1.782E+00	2.360E+00	3.505E-01	0.959
		94.67		3.020E-01	1.350E-01	2.194E-01	2.788E-02	1.377
		98.44		6.037E-02	8.003E-02	1.216E-01	6.788E-02	0.496
		99.86		4.811E-01	3.592E-01	6.335E-01	5.548E-02	0.759
		111.00		-5.068E-02	1.417E-01	2.347E-01	2.802E-02	-0.216
		131.20		-1.062E-01	8.380E-02	1.317E-01	1.102E-02	-0.806
		152.70		8.802E-02	2.575E-01	4.318E-01	7.387E-02	0.204
	+	186.00		5.639E+00	2.517E+00	2.358E+00	7.425E-01	2.391
		226.40		-2.291E-01	3.424E-01	5.331E-01	7.781E-02	-0.430
		227.20		-1.244E-01	3.616E-01	5.748E-01	6.124E-02	-0.216
		248.90		-7.734E-01	6.819E-01	9.826E-01	2.313E-01	-0.787
	+	293.70		6.964E+00	1.699E+00	1.432E+00	2.735E-01	4.862
		369.80		-1.102E-02	6.788E-01	1.143E+00	2.556E-01	-0.010
		568.70		-4.695E-01	8.362E-01	1.299E+00	1.220E-01	-0.361
		569.50		-2.285E-01	2.349E-01	3.515E-01	3.300E-02	-0.650
		574.00		-7.839E-02	1.309E+00	2.131E+00	1.997E-01	-0.037
		699.00		-2.181E-01	6.180E-01	9.627E-01	1.855E-01	-0.227
		706.10		-5.425E-01	9.669E-01	1.432E+00	6.397E-01	-0.379
		733.00		8.932E-02	3.628E-01	5.501E-01	1.233E-01	0.162
		742.81		7.136E-01	1.211E+00	1.890E+00	1.272E+00	0.378
	+	796.30		2.205E+00	1.488E+00	1.540E+00	4.202E-01	1.432
		805.60		6.989E-01	7.921E-01	1.384E+00	4.271E-01	0.505
		819.60		2.324E-01	9.985E-01	1.706E+00	6.517E-01	0.136
		826.30		-3.398E-01	6.840E-01	1.069E+00	4.801E-01	-0.318
		831.60		-2.850E-01	5.510E-01	8.755E-01	2.633E-01	-0.326
		876.40		6.742E-02	6.763E-01	1.136E+00	1.168E+00	0.059
		880.51		6.837E-02	2.271E-01	3.900E-01	3.684E-02	0.175
		883.24		2.480E-03	2.256E-01	3.775E-01	2.542E-01	0.007
		899.00		-1.925E-01	6.361E-01	1.020E+00	4.476E-01	-0.189
		925.00		-2.727E-01	9.033E-01	1.457E+00	1.369E-01	-0.187
		926.50		4.809E-02	1.359E-01	2.333E-01	5.961E-02	0.206
		946.00	*	-6.127E-02	2.682E-01	4.244E-01	8.108E-02	-0.144
		949.00		-2.687E-01	3.834E-01	5.942E-01	5.542E-02	-0.452
		980.50		2.807E-01	6.256E-01	1.079E+00	9.944E-02	0.260
		1394.10		1.659E-01	9.021E-01	1.505E+00	9.794E-01	0.110
PA-234M		766.42		2.867E+00	1.114E+01	1.819E+01	9.249E+00	0.158
		1001.03	*	-4.267E-02	4.250E+00	6.961E+00	7.247E-01	-0.006
U-235	+	89.95		3.031E+00	1.336E+00	1.496E+00	4.651E-01	2.027
	+	93.35		3.923E+00	1.319E+00	1.131E+00	3.190E-01	3.468
		105.00		1.178E+00	9.123E-01	1.493E+00	4.452E-01	0.789
		143.76	*	1.404E-01	1.764E-01	2.965E-01	5.182E-02	0.474
		163.35		5.266E-02	4.011E-01	6.551E-01	1.261E-01	0.080
	+	185.71		2.089E-01	6.903E-02	8.708E-02	8.319E-03	2.398
		205.31		-1.173E-01	4.800E-01	6.866E-01	1.358E-01	-0.171
NP-236		94.67		2.308E-01	1.004E-01	1.666E-01	1.509E-02	1.385
		98.44		4.558E-02	5.502E-02	9.192E-02	8.115E-03	0.496
		111.00		-3.834E-02	1.071E-01	1.776E-01	1.492E-02	-0.216
		160.31	*	-1.976E-02	6.553E-02	1.068E-01	9.533E-03	-0.185

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.483E-01	1.214E-01	2.134E-01	1.872E-02	0.695
		117.00	*	4.892E-02	1.424E-01	2.423E-01	2.018E-02	0.202
	+	209.75		1.814E+00	9.947E-01	1.219E+00	1.241E-01	1.489
		228.18		3.373E-02	1.899E-01	3.100E-01	3.311E-02	0.109
		277.60		1.051E-01	1.520E-01	2.516E-01	3.011E-02	0.418
		334.30		-9.046E-02	1.167E+00	1.623E+00	1.788E-01	-0.056
AM-241		59.54	*	8.002E-02	1.394E-01	2.062E-01	1.618E-02	0.388
CM-243		99.55		1.526E-01	1.249E-01	2.196E-01	1.926E-02	0.695
		103.76	*	-2.514E-02	7.756E-02	1.293E-01	1.111E-02	-0.194
		117.00		5.033E-02	1.465E-01	2.493E-01	2.076E-02	0.202
	+	209.75		1.788E+00	9.806E-01	1.201E+00	1.224E-01	1.489
		228.18		3.408E-02	1.919E-01	3.133E-01	3.345E-02	0.109
		277.60		1.060E-01	1.532E-01	2.536E-01	3.036E-02	0.418
AM-246		798.80		6.433E-02	1.180E-01	1.850E-01	1.725E-02	0.348
		1036.00		7.281E-02	2.352E-01	4.005E-01	3.591E-02	0.182
		1062.04		-1.240E-01	1.943E-01	2.989E-01	2.638E-02	-0.415
		1078.86	*	1.755E-03	1.212E-01	1.996E-01	1.741E-02	0.009
CM-247		278.00		3.300E-01	6.307E-01	1.036E+00	1.241E-01	0.319
		287.40		5.960E-01	1.027E+00	1.692E+00	2.015E-01	0.352
		402.60	*	3.672E-03	3.138E-02	5.297E-02	4.925E-03	0.069
CF-249		252.85		1.190E+00	7.184E-01	1.241E+00	1.407E-01	0.958
		333.44		1.922E-02	1.730E-01	2.227E-01	2.458E-02	0.086
		387.95	*	1.399E-02	3.128E-02	5.397E-02	5.063E-03	0.259
CF-251		176.60	*	9.301E-03	1.026E-01	1.692E-01	1.578E-02	0.055
		227.00		-1.295E-01	3.212E-01	5.089E-01	5.418E-02	-0.254
		285.00		-1.938E+00	1.487E+00	2.144E+00	2.560E-01	-0.904

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691007      *
* Acquisition date :  9-FEB-2010 15:24:58 Detector SN#    :                 *
* Detector ID        : GAM16               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.03      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691007           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.4493E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.278E+01	2.424E+00	4.775E-01	0.000E+00
CD-109	3.438E+00	9.708E-01	9.626E-01	0.000E+00
SN-126	3.379E-01	9.542E-02	9.505E-02	0.000E+00
CS-135	4.648E-01	2.177E-01	2.010E-01	0.000E+00
BA-137M	7.853E-02	3.597E-02	5.322E-02	0.000E+00
CS-137	8.301E-02	3.803E-02	5.625E-02	0.000E+00
TL-208	4.299E-01	7.976E-02	5.083E-02	0.000E+00
BI-211	3.505E+00	5.602E-01	2.531E-01	0.000E+00
BI-212	9.555E-01	3.928E-01	3.409E-01	0.000E+00
PB-212	1.505E+00	1.982E-01	7.594E-02	0.000E+00
PO-212	1.505E+00	1.982E-01	7.594E-02	0.000E+00
BI-214	1.146E+00	1.872E-01	9.691E-02	0.000E+00
PB-214	1.219E+00	2.046E-01	8.822E-02	0.000E+00
PO-214	1.219E+00	2.046E-01	8.822E-02	0.000E+00
PO-216	1.505E+00	1.982E-01	7.594E-02	0.000E+00
PO-218	1.219E+00	2.046E-01	8.822E-02	0.000E+00
RA-224	3.944E+00	1.156E+00	8.642E-01	0.000E+00
RA-226	1.146E+00	1.872E-01	9.691E-02	0.000E+00
AC-228	1.376E+00	3.308E-01	1.997E-01	0.000E+00
RA-228	1.376E+00	3.308E-01	1.997E-01	0.000E+00
TH-228	1.528E+00	2.012E-01	7.709E-02	0.000E+00
TH-230	1.146E+00	1.872E-01	9.691E-02	0.000E+00
TH-232	1.376E+00	3.308E-01	1.997E-01	0.000E+00
TH-234	1.941E+00	1.508E+00	1.825E+00	0.000E+00
U-234	1.146E+00	1.872E-01	9.691E-02	0.000E+00
NP-237	9.922E-01	3.446E-01	2.823E-01	0.000E+00
U-238	1.941E+00	1.508E+00	1.825E+00	0.000E+00
AM-243	3.081E-01	5.807E-02	7.474E-02	0.000E+00
ANH-511	1.201E-01	6.204E-02	3.813E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	-8.553E-02	2.589E-01	4.408E-01	0.000E+00	NOT IDENT.
NA-22	4.681E-03	3.407E-02	5.774E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.463E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.523E-02	2.083E-02	2.842E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.912E-02	6.379E-02	0.000E+00	FAIL ABUN
SC-46	-5.738E-03	2.941E-02	5.001E-02	0.000E+00	FAIL ABUN
V-48	-1.484E-02	5.807E-02	9.719E-02	0.000E+00	NOT IDENT.
CR-51	3.739E-02	3.115E-01	5.275E-01	0.000E+00	NOT IDENT.
MN-52	9.449E-02	1.848E-01	3.278E-01	0.000E+00	NOT IDENT.
MN-54	8.319E-03	3.382E-02	6.001E-02	0.000E+00	NOT IDENT.
CO-56	8.196E-03	3.153E-02	5.612E-02	0.000E+00	NOT IDENT.
CO-57	4.066E-04	1.936E-02	3.519E-02	0.000E+00	NOT IDENT.
CO-58	-1.674E-02	3.033E-02	5.042E-02	0.000E+00	NOT IDENT.
FE-59	9.627E-03	7.638E-02	1.311E-01	0.000E+00	NOT IDENT.
CO-60	-8.287E-03	3.207E-02	5.143E-02	0.000E+00	NOT IDENT.
ZN-65	1.562E-02	7.848E-02	1.183E-01	0.000E+00	NOT IDENT.
GE-68	1.752E-01	9.833E-01	1.701E+00	0.000E+00	NOT IDENT.
AS-73	9.190E-02	6.781E-01	1.180E+00	0.000E+00	NOT IDENT.
AS-74	-9.008E-03	7.416E-02	1.254E-01	0.000E+00	NOT IDENT.
SE-75	-2.305E-02	3.981E-02	5.765E-02	0.000E+00	NOT IDENT.
BR-77	-7.455E-01	8.380E+00	1.440E+01	0.000E+00	FAIL ABUN
SR-82	-4.472E-01	3.133E-01	4.387E-01	0.000E+00	NOT IDENT.
RB-83	-1.221E-02	5.445E-02	9.255E-02	0.000E+00	NOT IDENT.
RB-84	2.243E-02	5.454E-02	9.809E-02	0.000E+00	NOT IDENT.
KR-85	1.080E+01	6.361E+00	1.104E+01	0.000E+00	NOT IDENT.
SR-85	5.538E-02	3.262E-02	5.663E-02	0.000E+00	NOT IDENT.
RB-86	-1.410E-01	6.448E-01	1.072E+00	0.000E+00	NOT IDENT.
Y-88	1.158E-02	2.456E-02	4.520E-02	0.000E+00	NOT IDENT.
ZR-88	-1.323E-02	2.403E-02	4.113E-02	0.000E+00	NOT IDENT.
Y-91	2.735E+01	1.693E+01	3.191E+01	0.000E+00	NOT IDENT.
NB-94	2.159E-02	2.772E-02	4.943E-02	0.000E+00	NOT IDENT.
NB-95	-2.132E-02	4.010E-02	6.467E-02	0.000E+00	NOT IDENT.
NB-95M	2.922E-02	1.081E-01	1.693E-01	0.000E+00	NOT IDENT.
ZR-95	5.476E-02	6.056E-02	1.085E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.029E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.648E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-7.015E+00	1.018E+01	1.584E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.287E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.434E-03	2.795E-02	4.788E-02	0.000E+00	NOT IDENT.
RH-102	6.140E-03	2.417E-02	4.288E-02	0.000E+00	NOT IDENT.
RU-103	-7.162E-03	3.069E-02	5.233E-02	0.000E+00	FAIL ABUN
RH-106	-2.302E-02	2.504E-01	4.223E-01	0.000E+00	FAIL ABUN
RU-106	-2.302E-02	2.504E-01	4.223E-01	0.000E+00	FAIL ABUN
AG-108M	-1.639E-02	2.691E-02	4.490E-02	0.000E+00	NOT IDENT.
AG-110M	-3.504E-02	3.486E-02	4.515E-02	0.000E+00	NOT IDENT.
IN-111	8.250E-02	9.488E-01	1.464E+00	0.000E+00	NOT IDENT.
IN-113M	-2.627E-02	3.468E-02	5.849E-02	0.000E+00	NOT IDENT.
SN-113	-2.627E-02	3.468E-02	5.849E-02	0.000E+00	NOT IDENT.
IN-114M	2.800E-02	1.627E-01	2.581E-01	0.000E+00	NOT IDENT.
CD-115	-3.339E+00	8.609E+00	1.441E+01	0.000E+00	NOT IDENT.
SN-117M	-3.357E-03	4.331E-02	7.692E-02	0.000E+00	NOT IDENT.
SB-122	8.518E-01	1.682E+00	2.995E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.721E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.579E-04	2.259E-02	4.021E-02	0.000E+00	NOT IDENT.
I-124	-4.995E-01	5.927E-01	8.544E-01	0.000E+00	NOT IDENT.
SB-124	2.968E-02	6.035E-02	1.107E-01	0.000E+00	NOT IDENT.
SB-125	-2.943E-02	7.446E-02	1.277E-01	0.000E+00	FAIL ABUN
TE-125M	-9.789E-01	7.156E+00	1.283E+01	0.000E+00	NOT IDENT.
I-126	6.994E-02	1.654E-01	2.560E-01	0.000E+00	NOT IDENT.
SB-126	3.866E-02	1.143E-01	1.911E-01	0.000E+00	FAIL ABUN
SB-127	-9.001E-01	1.115E+00	1.728E+00	0.000E+00	FAIL ABUN
XE-127	-2.222E-02	3.757E-02	6.375E-02	0.000E+00	NOT IDENT.
I-131	-9.329E-02	8.957E-02	1.465E-01	0.000E+00	NOT IDENT.
TE-132	1.059E-01	5.723E-01	9.994E-01	0.000E+00	NOT IDENT.
BA-133	1.224E-04	3.575E-02	5.652E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.890E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.943E-02	8.112E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	4.646E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.041E-02	8.260E-02	1.476E-01	0.000E+00	FAIL ABUN
CE-139	-1.101E-02	2.429E-02	4.228E-02	0.000E+00	NOT IDENT.
BA-140	1.673E-01	2.274E-01	4.009E-01	0.000E+00	NOT IDENT.
LA-140	-8.466E-02	6.840E-02	9.230E-02	0.000E+00	FAIL ABUN
CE-141	-7.393E-03	5.012E-02	8.803E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.680E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.079E-02	1.571E-01	2.819E-01	0.000E+00	NOT IDENT.
PM-144	7.472E-03	2.965E-02	5.084E-02	0.000E+00	NOT IDENT.

PR-144	5.063E-01	2.009E+00	3.445E+00	0.000E+00	NOT IDENT.
PM-146	2.020E-02	3.588E-02	6.501E-02	0.000E+00	NOT IDENT.
ND-147	5.502E-02	4.431E-01	7.722E-01	0.000E+00	FAIL ABUN
PM-149	-9.483E+01	7.787E+01	1.192E+02	0.000E+00	NOT IDENT.
EU-152	5.030E-03	7.863E-02	1.253E-01	0.000E+00	NOT IDENT.
GD-153	-5.209E-02	6.423E-02	1.018E-01	0.000E+00	NOT IDENT.
EU-154	3.341E-02	9.359E-02	1.625E-01	0.000E+00	NOT IDENT.
EU-155	1.160E-01	8.553E-02	1.634E-01	0.000E+00	FAIL ABUN
TB-160	6.077E-02	1.121E-01	2.036E-01	0.000E+00	FAIL ABUN
HO-166M	8.474E-03	5.345E-02	9.080E-02	0.000E+00	NOT IDENT.
TM-171	6.958E+00	2.365E+01	3.744E+01	0.000E+00	NOT IDENT.
LU-176	3.070E-02	1.988E-02	3.631E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.378E+00	1.816E+00	0.000E+00	FAIL ABUN
LU-177M	-1.397E-01	1.442E-01	2.385E-01	0.000E+00	FAIL ABUN
HF-181	-3.481E-03	3.319E-02	5.739E-02	0.000E+00	NOT IDENT.
W-181	-5.882E-02	3.207E-01	4.979E-01	0.000E+00	NOT IDENT.
TA-182	-4.293E-02	1.526E-01	2.487E-01	0.000E+00	FAIL ABUN
RE-183	2.250E-02	9.118E-02	1.613E-01	0.000E+00	FAIL ABUN
RE-184	3.171E-01	1.876E-01	3.461E-01	0.000E+00	NOT IDENT.
OS-185	-4.676E-02	3.448E-02	5.058E-02	0.000E+00	NOT IDENT.
RE-188	2.529E-02	1.344E-01	2.417E-01	0.000E+00	NOT IDENT.
W-188	-6.336E+00	7.238E+00	1.011E+01	0.000E+00	FAIL ABUN
IR-192	1.396E-02	2.887E-02	5.000E-02	0.000E+00	FAIL ABUN
AU-195	2.228E-01	1.712E-01	3.281E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.556E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-8.067E-01	5.624E+00	9.918E+00	0.000E+00	NOT IDENT.
TL-202	-1.071E-02	5.350E-02	9.270E-02	0.000E+00	NOT IDENT.
HG-203	-1.080E-03	3.304E-02	5.610E-02	0.000E+00	NOT IDENT.
BI-207	2.563E-02	4.123E-02	7.435E-02	0.000E+00	FAIL ABUN
TL-207	-5.592E-02	5.922E-01	8.749E-01	0.000E+00	FAIL ABUN
PO-209	-1.730E+00	5.507E+00	9.238E+00	0.000E+00	NOT IDENT.
BI-210	-9.443E-01	2.976E+00	5.092E+00	0.000E+00	NOT IDENT.
PB-210	-9.443E-01	2.976E+00	5.092E+00	0.000E+00	NOT IDENT.
PO-210	-9.443E-01	2.975E+00	5.092E+00	0.000E+00	NOT IDENT.
PB-211	3.933E-02	7.767E-01	1.378E+00	0.000E+00	NOT IDENT.
PO-215	-5.592E-02	5.922E-01	8.749E-01	0.000E+00	FAIL ABUN
RN-219	4.355E-02	3.317E-01	5.921E-01	0.000E+00	NOT IDENT.
RN-220	-2.005E+01	2.126E+01	3.369E+01	0.000E+00	NOT IDENT.
RA-223	-5.592E-02	5.922E-01	8.749E-01	0.000E+00	FAIL ABUN
AC-227	-3.468E-01	3.314E-01	5.267E-01	0.000E+00	FAIL ABUN
TH-227	-3.468E-01	3.330E-01	5.267E-01	0.000E+00	FAIL ABUN
TH-229	-2.195E-01	4.167E-01	7.128E-01	0.000E+00	FAIL ABUN
PA-231	3.102E-01	1.199E+00	2.069E+00	0.000E+00	FAIL ABUN
TH-231	-5.592E-02	5.922E-01	8.749E-01	0.000E+00	FAIL ABUN
U-231	-5.713E-01	8.342E-01	1.333E+00	0.000E+00	FAIL ABUN
PA-233	7.345E-02	5.284E-02	9.570E-02	0.000E+00	FAIL ABUN
PA-234	-6.127E-02	2.628E-01	4.310E-01	0.000E+00	FAIL ABUN
PA-234M	-4.267E-02	4.165E+00	7.060E+00	0.000E+00	NOT IDENT.
U-235	1.404E-01	1.728E-01	3.140E-01	0.000E+00	FAIL ABUN
NP-236	-1.976E-02	6.422E-02	1.128E-01	0.000E+00	NOT IDENT.
NP-239	4.892E-02	1.396E-01	2.577E-01	0.000E+00	FAIL ABUN
AM-241	8.002E-02	1.366E-01	2.223E-01	0.000E+00	NOT IDENT.
CM-243	-2.514E-02	7.601E-02	1.378E-01	0.000E+00	FAIL ABUN
AM-246	1.755E-03	1.187E-01	2.021E-01	0.000E+00	NOT IDENT.
CM-247	3.672E-03	3.076E-02	5.484E-02	0.000E+00	NOT IDENT.
CF-249	1.399E-02	3.065E-02	5.592E-02	0.000E+00	NOT IDENT.
CF-251	9.301E-03	1.005E-01	1.784E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:26:17.01

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691007.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:24:58.
Sample ID         : G245691007           Sample quantity  : 1.44930E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.03  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1133	10.67*	1.208E+00	2.278E+01	2.278E+01	10.86
CD-109	88.03	302	3.72*	6.251E+00	3.361E+00	3.438E+00	28.81
SN-126	64.28	101	9.60	3.545E+00	7.683E-01	7.683E-01	78.68
	86.94	302	8.90	6.251E+00	1.405E+00	1.405E+00	49.66
	87.57	302	37.00*	6.251E+00	3.379E-01	3.379E-01	28.81
CS-135	268.24	138	16.00*	4.791E+00	4.648E-01	4.648E-01	47.80
BA-137M	661.65	66	89.98*	2.406E+00	7.845E-02	7.853E-02	46.75
CS-137	661.65	66	85.12*	2.406E+00	8.293E-02	8.301E-02	46.75
TL-208	277.35	------	6.80	4.695E+00	------ Line Not Found		------
	510.84	137	21.60	2.964E+00	5.559E-01	5.559E-01	53.37
	583.14	373	84.20*	2.668E+00	4.299E-01	4.299E-01	18.93
	860.37	45	12.46	1.918E+00	4.905E-01	4.905E-01	81.63
BI-211	72.87	------	1.27	4.872E+00	------ Line Not Found		------
	351.07	690	12.94*	3.940E+00	3.505E+00	3.505E+00	16.31
BI-212	727.18	97	11.80*	2.221E+00	9.555E-01	9.555E-01	41.95
	785.46	51	1.97	2.077E+00	3.251E+00	3.251E+00	66.68
	1620.62	------	2.75	1.117E+00	------ Line Not Found		------
PB-212	74.81	401	10.70	5.113E+00	1.900E+00	1.900E+00	21.38
	77.11	657	18.00	5.365E+00	1.763E+00	1.763E+00	15.40
	87.30	302	8.00	6.251E+00	1.563E+00	1.563E+00	30.50
	238.63	1354	44.60*	5.225E+00	1.505E+00	1.505E+00	13.44
	300.09	91	3.41	4.431E+00	1.567E+00	1.567E+00	57.48
PO-212	74.81	401	10.70	5.113E+00	1.900E+00	1.900E+00	21.38
	77.11	657	18.00	5.365E+00	1.763E+00	1.763E+00	15.40
	87.30	302	8.00	6.251E+00	1.563E+00	1.563E+00	30.50
	115.19	------	0.60	7.166E+00	------ Line Not Found		------
	238.63	1354	44.60*	5.225E+00	1.505E+00	1.505E+00	13.44
	300.09	91	3.41	4.431E+00	1.567E+00	1.567E+00	57.48
BI-214	609.31	527	46.30*	2.574E+00	1.146E+00	1.146E+00	16.67
	1120.29	86	15.10	1.515E+00	9.716E-01	9.716E-01	52.47
	1764.49	92	15.80	1.056E+00	1.435E+00	1.435E+00	25.45
PB-214	74.81	401	6.21	5.113E+00	3.274E+00	3.274E+00	20.61

Sample ID : G245691007 Acquisition date : 9-FEB-2010 15:24:58

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	657	10.50	5.365E+00	3.023E+00	3.023E+00	17.18
	87.30	302	4.67	6.251E+00	2.677E+00	2.677E+00	29.83
	241.98	312	7.49	5.181E+00	2.080E+00	2.080E+00	30.43
	295.21	483	19.20	4.487E+00	1.451E+00	1.451E+00	20.24
	351.92	690	37.20*	3.940E+00	1.219E+00	1.219E+00	17.12
PO-214	74.81	401	6.21	5.113E+00	3.274E+00	3.274E+00	20.61
	77.11	657	10.50	5.365E+00	3.023E+00	3.023E+00	17.18
	87.30	302	4.67	6.251E+00	2.677E+00	2.677E+00	29.83
	241.98	312	7.49	5.181E+00	2.080E+00	2.080E+00	30.43
	295.21	483	19.20	4.487E+00	1.451E+00	1.451E+00	20.24
	351.92	690	37.20*	3.940E+00	1.219E+00	1.219E+00	17.12
PO-216	74.81	401	10.70	5.113E+00	1.900E+00	1.900E+00	21.38
	77.11	657	18.00	5.365E+00	1.763E+00	1.763E+00	15.40
	87.30	302	8.00	6.251E+00	1.563E+00	1.563E+00	30.50
	238.63	1354	44.60*	5.225E+00	1.505E+00	1.505E+00	13.44
	300.09	91	3.41	4.431E+00	1.567E+00	1.567E+00	57.48
PO-218	74.81	401	6.21	5.113E+00	3.274E+00	3.274E+00	20.61
	77.11	657	10.50	5.365E+00	3.023E+00	3.023E+00	17.18
	87.30	302	4.67	6.251E+00	2.677E+00	2.677E+00	29.83
	241.98	312	7.49	5.181E+00	2.080E+00	2.080E+00	30.43
	295.21	483	19.20	4.487E+00	1.451E+00	1.451E+00	20.24
	351.92	690	37.20*	3.940E+00	1.219E+00	1.219E+00	17.12
RA-224	240.98	312	3.95*	5.181E+00	3.944E+00	3.944E+00	29.91
RA-226	609.31	527	46.30*	2.574E+00	1.146E+00	1.146E+00	16.67
	1120.29	86	15.10	1.515E+00	9.716E-01	9.716E-01	52.47
	1764.49	92	15.80	1.056E+00	1.435E+00	1.435E+00	25.45
AC-228	338.32	269	11.40	4.055E+00	1.507E+00	1.507E+00	49.09
	911.07	268	27.70*	1.824E+00	1.376E+00	1.376E+00	24.54
	969.11	84	16.60	1.724E+00	7.634E-01	7.634E-01	86.14
RA-228	338.32	269	11.40	4.055E+00	1.507E+00	1.507E+00	49.09
	911.07	268	27.70*	1.824E+00	1.376E+00	1.376E+00	24.54
	969.11	84	16.60	1.724E+00	7.634E-01	7.634E-01	86.14
TH-228	74.81	401	10.70	5.113E+00	1.900E+00	1.929E+00	19.27
	77.11	657	18.00	5.365E+00	1.763E+00	1.790E+00	15.40
	87.30	302	8.00	6.251E+00	1.563E+00	1.587E+00	28.81
	238.63	1354	44.60*	5.225E+00	1.505E+00	1.528E+00	13.44
	300.09	91	3.41	4.431E+00	1.567E+00	1.591E+00	81.91
TH-230	609.31	527	46.30*	2.574E+00	1.146E+00	1.146E+00	16.67
	1120.29	86	15.10	1.515E+00	9.716E-01	9.716E-01	52.47
	1764.49	92	15.80	1.056E+00	1.435E+00	1.435E+00	25.45
TH-232	338.32	269	11.40	4.055E+00	1.507E+00	1.507E+00	27.96
	911.07	268	27.70*	1.824E+00	1.376E+00	1.376E+00	24.54
	969.11	84	16.60	1.724E+00	7.634E-01	7.634E-01	86.14
TH-234	63.29	101	3.80*	3.545E+00	1.941E+00	1.941E+00	79.27
	92.38	449	5.41	6.591E+00	3.263E+00	3.263E+00	25.93
U-234	609.31	527	46.30*	2.574E+00	1.146E+00	1.146E+00	16.67
	1120.29	86	15.10	1.515E+00	9.716E-01	9.716E-01	52.47
	1764.49	92	15.80	1.056E+00	1.435E+00	1.435E+00	25.45
NP-237	86.50	302	12.60*	6.251E+00	9.922E-01	9.922E-01	35.44

Sample ID : G245691007 Acquisition date : 9-FEB-2010 15:24:58

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	95.87	------	2.60	6.742E+00	------ Line Not Found		------
U-238	63.29	101	3.80*	3.545E+00	1.941E+00	1.941E+00	79.27
	92.38	449	5.41	6.591E+00	3.263E+00	3.263E+00	20.48
AM-243	74.67	401	66.00*	5.113E+00	3.081E-01	3.081E-01	19.23
	86.72	302	0.34	6.251E+00	3.721E+01	3.721E+01	28.81
	117.66	------	0.55	7.175E+00	------ Line Not Found		------
	142.18	------	0.13	6.968E+00	------ Line Not Found		------
ANH-511	511.00	137	100.00*	2.964E+00	1.201E-01	1.201E-01	52.72

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G245691007 Acquisition date : 9-FEB-2010 15:24:58

Total number of lines in spectrum 34
Number of unidentified lines 3
Number of lines tentatively identified by NID 31 91.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.278E+01	2.278E+01	0.247E+01	10.86	
CD-109	464.00D	1.02	3.361E+00	3.438E+00	0.991E+00	28.81	
SN-126	1.00E+05Y	1.00	3.379E-01	3.379E-01	0.974E-01	28.81	
CS-135	2.30E+06Y	1.00	4.648E-01	4.648E-01	2.222E-01	47.80	
BA-137M	30.17Y	1.00	7.845E-02	7.853E-02	3.671E-02	46.75	
CS-137	30.17Y	1.00	8.293E-02	8.301E-02	3.881E-02	46.75	
TL-208	1.41E+10Y	1.00	4.299E-01	4.299E-01	0.814E-01	18.93	
BI-211	7.04E+08Y	1.00	3.505E+00	3.505E+00	0.572E+00	16.31	
BI-212	1.41E+10Y	1.00	9.555E-01	9.555E-01	4.008E-01	41.95	
PB-212	1.41E+10Y	1.00	1.505E+00	1.505E+00	0.202E+00	13.44	
PO-212	1.41E+10Y	1.00	1.505E+00	1.505E+00	0.202E+00	13.44	
BI-214	1600.00Y	1.00	1.146E+00	1.146E+00	0.191E+00	16.67	
PB-214	1600.00Y	1.00	1.219E+00	1.219E+00	0.209E+00	17.12	
PO-214	1600.00Y	1.00	1.219E+00	1.219E+00	0.209E+00	17.12	
PO-216	1.41E+10Y	1.00	1.505E+00	1.505E+00	0.202E+00	13.44	
PO-218	1600.00Y	1.00	1.219E+00	1.219E+00	0.209E+00	17.12	
RA-224	1.41E+10Y	1.00	3.944E+00	3.944E+00	1.180E+00	29.91	
RA-226	1600.00Y	1.00	1.146E+00	1.146E+00	0.191E+00	16.67	
AC-228	1.41E+10Y	1.00	1.376E+00	1.376E+00	0.338E+00	24.54	
RA-228	1.41E+10Y	1.00	1.376E+00	1.376E+00	0.338E+00	24.54	
TH-228	1.91Y	1.02	1.505E+00	1.528E+00	0.205E+00	13.44	
TH-230	4.47E+09Y	1.00	1.146E+00	1.146E+00	0.191E+00	16.67	
TH-232	1.41E+10Y	1.00	1.376E+00	1.376E+00	0.338E+00	24.54	
TH-234	4.47E+09Y	1.00	1.941E+00	1.941E+00	1.539E+00	79.27	
U-234	4.47E+09Y	1.00	1.146E+00	1.146E+00	0.191E+00	16.67	
NP-237	2.14E+06Y	1.00	9.922E-01	9.922E-01	3.517E-01	35.44	
U-238	4.47E+09Y	1.00	1.941E+00	1.941E+00	1.539E+00	79.27	
AM-243	7380.00Y	1.00	3.081E-01	3.081E-01	0.593E-01	19.23	
ANH-511	1.00E+09Y	1.00	1.201E-01	1.201E-01	0.633E-01	52.72	
	Total Activity :		5.963E+01	5.973E+01			

Grand Total Activity : 5.963E+01 5.973E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691007 Acquisition date : 9-FEB-2010 15:24:58

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	90.01	203	325	1.06	180.21	165	27	2.83E-02	31.2	6.44E+00	T
0	185.99	267	395	1.16	372.17	367	10	3.72E-02	31.6	6.14E+00	T
0	208.97	130	336	0.96	418.14	415	9	1.80E-02	53.9	5.71E+00	T
0	327.87	86	170	1.27	655.92	652	10	1.19E-02	60.6	4.15E+00	T
0	462.76	98	144	1.56	925.69	921	14	1.36E-02	55.4	3.20E+00	T
0	782.81	7	33	1.55	1565.69	1563	6	9.39E-04	****	2.08E+00	T
0	795.18	68	81	1.42	1590.43	1584	15	9.49E-03	61.7	2.06E+00	T
0	1377.90	37	40	1.31	2755.48	2750	13	5.12E-03	77.4	1.27E+00	
0	1588.01	35	9	1.71	3175.50	3171	9	4.86E-03	45.8	1.13E+00	
0	1729.52	23	7	3.04	3458.36	3450	15	3.18E-03	69.7	1.07E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:26:21.33

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691007.CNF;1   *
* Acquisition date : 9-FEB-2010 15:24:58.  Detector SN#    :                 *
* Detector ID      : GAM16                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:02.03         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 25-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID        : G245691007            Analyst initials: MJH1            *
* Batch Number     : 947037                Sample Quantity : 1.44930E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.278E+01	2.473E+00	4.749E-01	4.175E-02	47.953
CD-109	3.438E+00	9.906E-01	8.999E-01	8.671E-02	3.820
SN-126	3.379E-01	9.736E-02	8.884E-02	8.518E-03	3.803
CS-135	4.648E-01	2.222E-01	1.924E-01	2.453E-02	2.416
BA-137M	7.853E-02	3.671E-02	5.197E-02	4.613E-03	1.511
CS-137	8.301E-02	3.881E-02	5.494E-02	4.885E-03	1.511
TL-208	4.299E-01	8.139E-02	4.950E-02	4.907E-03	8.683
BI-211	3.505E+00	5.717E-01	2.437E-01	2.664E-02	14.383
BI-212	9.555E-01	4.008E-01	3.337E-01	3.486E-02	2.864
PB-212	1.505E+00	2.022E-01	7.251E-02	8.585E-03	20.756
PO-212	1.505E+00	2.022E-01	7.251E-02	8.585E-03	20.756
BI-214	1.146E+00	1.910E-01	9.447E-02	9.988E-03	12.133
PB-214	1.219E+00	2.088E-01	8.495E-02	1.027E-02	14.353
PO-214	1.219E+00	2.088E-01	8.495E-02	1.027E-02	14.353
PO-216	1.505E+00	2.022E-01	7.251E-02	8.585E-03	20.756
PO-218	1.219E+00	2.088E-01	8.495E-02	1.027E-02	14.353
RA-224	3.944E+00	1.180E+00	8.253E-01	9.095E-02	4.779
RA-226	1.146E+00	1.910E-01	9.447E-02	9.988E-03	12.133

Sample ID : G245691007 Acquisition date : 9-FEB-2010 15:24:58

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.376E+00	3.375E-01	1.965E-01	2.334E-02	7.001
RA-228	1.376E+00	3.375E-01	1.965E-01	2.334E-02	7.001
TH-228	1.528E+00	2.053E-01	7.361E-02	8.715E-03	20.756
TH-230	1.146E+00	1.910E-01	9.447E-02	9.988E-03	12.133
TH-232	1.376E+00	3.375E-01	1.965E-01	2.334E-02	7.001
TH-234	1.941E+00	1.539E+00	1.695E+00	2.956E-01	1.145
U-234	1.146E+00	1.910E-01	9.447E-02	9.988E-03	12.133
NP-237	9.922E-01	3.517E-01	2.638E-01	5.988E-02	3.762
U-238	1.941E+00	1.539E+00	1.695E+00	2.956E-01	1.145
AM-243	3.081E-01	5.925E-02	6.963E-02	5.764E-03	4.425
ANH-511	1.201E-01	6.331E-02	3.702E-02	3.521E-03	3.243

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-8.553E-02		2.642E-01	4.274E-01	4.323E-02	-0.200
NA-22	4.681E-03		3.476E-02	5.725E-02	4.764E-03	0.082
NA-24	6.710E-02		2.787E-01	Half-Life too short		
AL-26	-1.523E-02		2.126E-02	2.842E-02	2.324E-03	-0.536
TI-44	3.254E-01	+	5.012E-02	5.948E-02	5.122E-03	5.470
SC-46	-5.738E-03		3.001E-02	4.918E-02	4.649E-03	-0.117
V-48	-1.484E-02		5.925E-02	9.579E-02	8.817E-03	-0.155
CR-51	3.739E-02		3.178E-01	5.069E-01	5.926E-02	0.074
MN-52	9.449E-02		1.886E-01	3.260E-01	2.781E-02	0.290
MN-54	8.319E-03		3.451E-02	5.892E-02	5.534E-03	0.141
CO-56	8.196E-03		3.217E-02	5.512E-02	5.187E-03	0.149
CO-57	4.066E-04		1.975E-02	3.312E-02	2.752E-03	0.012
CO-58	-1.674E-02		3.095E-02	4.947E-02	4.635E-03	-0.338
FE-59	9.627E-03		7.794E-02	1.295E-01	1.204E-02	0.074
CO-60	-8.287E-03		3.272E-02	5.105E-02	4.306E-03	-0.162
ZN-65	1.562E-02		8.008E-02	1.169E-01	9.927E-03	0.134
GE-68	1.752E-01		1.003E+00	1.680E+00	1.467E-01	0.104
AS-73	9.190E-02		6.919E-01	1.092E+00	8.328E-02	0.084
AS-74	-9.008E-03		7.568E-02	1.222E-01	1.134E-02	-0.074
SE-75	-2.305E-02		4.062E-02	5.517E-02	6.438E-03	-0.418
BR-77	-7.455E-01		8.551E+00	1.399E+01	1.329E+00	-0.053
SR-82	-4.472E-01		3.197E-01	4.300E-01	3.987E-02	-1.040
RB-83	-1.221E-02		5.556E-02	8.990E-02	8.542E-03	-0.136
RB-84	2.243E-02		5.565E-02	9.643E-02	9.111E-03	0.233
KR-85	1.080E+01		6.491E+00	1.072E+01	1.020E+00	1.007
SR-85	5.538E-02		3.329E-02	5.499E-02	5.229E-03	1.007
RB-86	-1.410E-01		6.579E-01	1.059E+00	9.251E-02	-0.133
Y-88	1.158E-02		2.506E-02	4.520E-02	3.670E-03	0.256
ZR-88	-1.323E-02		2.452E-02	3.970E-02	3.672E-03	-0.333
Y-91	2.735E+01		1.728E+01	3.160E+01	2.570E+00	0.866
NB-94	2.159E-02		2.828E-02	4.835E-02	4.370E-03	0.447
NB-95	-2.132E-02		4.092E-02	6.338E-02	5.858E-03	-0.336

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	2.922E-02		1.103E-01	1.616E-01	1.922E-02	0.181
ZR-95	5.476E-02		6.180E-02	1.063E-01	1.067E-02	0.515
NB-97	-1.319E-01		5.249E-02	Half-Life too short		
ZR-97	2.315E+00		8.410E-01	Half-Life too short		
MO-99	-7.015E+00		1.039E+01	1.551E+01	2.404E+00	-0.452
TC-99M	-5.321E+09		1.677E+10	Half-Life too short		
RH-101	-5.434E-03		2.852E-02	4.554E-02	4.496E-03	-0.119
RH-102	6.140E-03		2.467E-02	4.157E-02	3.951E-03	0.148
RU-103	-7.162E-03		3.132E-02	5.078E-02	7.477E-03	-0.141
RH-106	-2.302E-02		2.555E-01	4.119E-01	5.644E-02	-0.056
RU-106	-2.302E-02		2.555E-01	4.119E-01	3.767E-02	-0.056
AG-108M	-1.639E-02		2.746E-02	4.344E-02	4.228E-03	-0.377
AG-110M	-3.504E-02		3.557E-02	4.409E-02	4.035E-03	-0.795
IN-111	8.250E-02		9.682E-01	1.398E+00	1.557E-01	0.059
IN-113M	-2.627E-02		3.539E-02	5.646E-02	5.359E-03	-0.465
SN-113	-2.627E-02		3.539E-02	5.646E-02	5.359E-03	-0.465
IN-114M	2.800E-02		1.660E-01	2.452E-01	2.371E-02	0.114
CD-115	-3.339E+00		8.784E+00	1.400E+01	1.329E+00	-0.238
SN-117M	-3.357E-03		4.419E-02	7.280E-02	6.466E-03	-0.046
SB-122	8.518E-01		1.717E+00	2.914E+00	2.742E-01	0.292
I-123	-7.481E-02		2.409E+00	Half-Life too short		
TE-123M	-3.579E-04		2.305E-02	3.806E-02	3.404E-03	-0.009
I-124	-4.995E-01		6.048E-01	8.327E-01	7.701E-02	-0.600
SB-124	2.968E-02		6.158E-02	1.105E-01	9.679E-03	0.269
SB-125	-2.943E-02		7.598E-02	1.235E-01	1.180E-02	-0.238
TE-125M	-9.789E-01		7.302E+00	1.205E+01	1.226E+00	-0.081
I-126	6.994E-02		1.688E-01	2.501E-01	2.224E-02	0.280
SB-126	3.866E-02		1.166E-01	1.870E-01	1.702E-02	0.207
SB-127	-9.001E-01		1.137E+00	1.689E+00	1.969E-01	-0.533
XE-127	-2.222E-02		3.834E-02	6.066E-02	6.066E-03	-0.366
I-131	-9.329E-02		9.139E-02	1.412E-01	1.493E-02	-0.661
TE-132	1.059E-01		5.840E-01	9.533E-01	1.615E-01	0.111
BA-133	1.224E-04		3.648E-02	5.444E-02	7.866E-03	0.002
I-133	-6.625E-04		2.495E-03	Half-Life too short		
CS-134	1.135E-01	+	7.085E-02	7.956E-02	7.459E-03	1.426
I-135	-2.862E+09		2.371E+09	Half-Life too short		
CS-136	4.041E-02		8.429E-02	1.457E-01	1.349E-02	0.277
CE-139	-1.101E-02		2.479E-02	4.005E-02	3.633E-03	-0.275
BA-140	1.673E-01		2.320E-01	3.897E-01	1.301E-01	0.429
LA-140	-8.466E-02		6.980E-02	9.200E-02	7.836E-03	-0.920
CE-141	-7.393E-03		5.115E-02	8.317E-02	7.275E-03	-0.089
CE-143	4.170E-04		8.573E-05	Half-Life too short		
CE-144	-2.079E-02		1.603E-01	2.658E-01	4.105E-02	-0.078
PM-144	7.472E-03		3.025E-02	4.971E-02	4.484E-03	0.150
PR-144	5.063E-01		2.050E+00	3.368E+00	3.037E-01	0.150
PM-146	2.020E-02		3.661E-02	6.296E-02	7.190E-03	0.321
ND-147	5.502E-02		4.521E-01	7.505E-01	1.161E-01	0.073
PM-149	-9.483E+01		7.946E+01	1.142E+02	2.010E+01	-0.830

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	5.030E-03		8.023E-02	1.206E-01	1.348E-02	0.042
GD-153	-5.209E-02		6.554E-02	9.539E-02	8.474E-03	-0.546
EU-154	3.341E-02		9.550E-02	1.611E-01	1.784E-02	0.207
EU-155	1.160E-01		8.728E-02	1.533E-01	1.326E-02	0.757
TB-160	6.077E-02		1.144E-01	2.001E-01	1.890E-02	0.304
HO-166M	8.474E-03		5.454E-02	8.883E-02	8.059E-03	0.095
TM-171	6.958E+00		2.414E+01	3.479E+01	2.666E+00	0.200
LU-176	3.070E-02		2.029E-02	3.486E-02	4.044E-03	0.880
LU-177	2.565E+00	+	1.406E+00	1.729E+00	1.755E-01	1.483
LU-177M	-1.397E-01		1.472E-01	2.305E-01	2.154E-02	-0.606
HF-181	-3.481E-03		3.387E-02	5.565E-02	5.293E-03	-0.063
W-181	-5.882E-02		3.272E-01	4.625E-01	3.493E-02	-0.127
TA-182	-4.293E-02		1.557E-01	2.463E-01	2.014E-02	-0.174
RE-183	2.250E-02		9.304E-02	1.527E-01	1.371E-02	0.147
RE-184	3.171E-01		1.915E-01	3.309E-01	3.750E-02	0.958
OS-185	-4.676E-02		3.519E-02	4.937E-02	4.438E-03	-0.947
RE-188	2.529E-02		1.371E-01	2.286E-01	2.011E-02	0.111
W-188	-6.336E+00		7.386E+00	9.694E+00	1.150E+00	-0.654
IR-192	1.396E-02		2.946E-02	4.804E-02	5.490E-03	0.291
AU-195	2.228E-01		1.747E-01	3.075E-01	2.707E-02	0.725
TL-200	7.174E-05		1.814E-04	Half-Life too short		
TL-201	-8.067E-01		5.739E+00	9.398E+00	8.556E-01	-0.086
TL-202	-1.071E-02		5.459E-02	8.970E-02	8.465E-03	-0.119
HG-203	-1.080E-03		3.371E-02	5.375E-02	6.551E-03	-0.020
BI-207	2.563E-02		4.208E-02	7.341E-02	6.471E-03	0.349
TL-207	-5.592E-02		6.042E-01	8.410E-01	1.609E-01	-0.066
PO-209	-1.730E+00		5.619E+00	9.085E+00	8.593E-01	-0.190
BI-210	-9.443E-01		3.036E+00	4.698E+00	4.381E-01	-0.201
PB-210	-9.443E-01		3.036E+00	4.698E+00	4.381E-01	-0.201
PO-210	-9.443E-01		3.036E+00	4.698E+00	3.968E-01	-0.201
PB-211	3.933E-02		7.925E-01	1.331E+00	8.356E-01	0.030
PO-215	-5.592E-02		6.042E-01	8.410E-01	1.609E-01	-0.066
RN-219	4.355E-02		3.385E-01	5.718E-01	8.819E-02	0.076
RN-220	-2.005E+01		2.170E+01	3.276E+01	3.095E+00	-0.612
RA-223	-5.592E-02		6.042E-01	8.410E-01	1.609E-01	-0.066
AC-227	-3.468E-01		3.382E-01	5.037E-01	8.602E-02	-0.689
TH-227	-3.468E-01		3.398E-01	5.037E-01	9.849E-02	-0.689
TH-229	-2.195E-01		4.252E-01	6.775E-01	6.611E-02	-0.324
PA-231	3.102E-01		1.224E+00	1.983E+00	3.430E-01	0.156
TH-231	-5.592E-02		6.042E-01	8.410E-01	1.609E-01	-0.066
U-231	-5.713E-01		8.512E-01	1.249E+00	1.121E-01	-0.458
PA-233	7.345E-02		5.392E-02	9.191E-02	1.074E-02	0.799
PA-234	-6.127E-02		2.682E-01	4.244E-01	8.108E-02	-0.144
PA-234M	-4.267E-02		4.250E+00	6.961E+00	7.247E-01	-0.006
U-235	1.404E-01		1.764E-01	2.965E-01	5.182E-02	0.474
NP-236	-1.976E-02		6.553E-02	1.068E-01	9.533E-03	-0.185
NP-239	4.892E-02		1.424E-01	2.423E-01	2.018E-02	0.202
AM-241	8.002E-02		1.394E-01	2.062E-01	1.618E-02	0.388

Sample ID : G245691007 Acquisition date : 9-FEB-2010 15:24:58

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.514E-02		7.756E-02	1.293E-01	1.111E-02	-0.194
AM-246	1.755E-03		1.212E-01	1.996E-01	1.741E-02	0.009
CM-247	3.672E-03		3.138E-02	5.297E-02	4.925E-03	0.069
CF-249	1.399E-02		3.128E-02	5.397E-02	5.063E-03	0.259
CF-251	9.301E-03		1.026E-01	1.692E-01	1.578E-02	0.055

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691007           *
* Acquisition date  :  9-FEB-2010 15:24:58 Detector SN#     :               *
* Detector ID       : GAM16                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.03      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691007           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.4493E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.278E+01	2.424E+00	2.389E-01	1.237E+00
CD-109	3.438E+00	9.708E-01	4.816E-01	4.953E-01
SN-126	3.379E-01	9.542E-02	4.755E-02	4.868E-02
CS-135	4.648E-01	2.177E-01	1.005E-01	1.111E-01
BA-137M	7.853E-02	3.597E-02	2.662E-02	1.835E-02
CS-137	8.301E-02	3.803E-02	2.814E-02	1.940E-02
TL-208	4.299E-01	7.976E-02	2.543E-02	4.069E-02
BI-211	3.505E+00	5.602E-01	1.266E-01	2.858E-01
BI-212	9.555E-01	3.928E-01	1.705E-01	2.004E-01
PB-212	1.505E+00	1.982E-01	3.799E-02	1.011E-01
PO-212	1.505E+00	1.982E-01	3.799E-02	1.011E-01
BI-214	1.146E+00	1.872E-01	4.848E-02	9.551E-02
PB-214	1.219E+00	2.046E-01	4.414E-02	1.044E-01
PO-214	1.219E+00	2.046E-01	4.414E-02	1.044E-01
PO-216	1.505E+00	1.982E-01	3.799E-02	1.011E-01
PO-218	1.219E+00	2.046E-01	4.414E-02	1.044E-01
RA-224	3.944E+00	1.156E+00	4.323E-01	5.898E-01
RA-226	1.146E+00	1.872E-01	4.848E-02	9.551E-02
AC-228	1.376E+00	3.308E-01	9.991E-02	1.688E-01
RA-228	1.376E+00	3.308E-01	9.991E-02	1.688E-01
TH-228	1.528E+00	2.012E-01	3.857E-02	1.026E-01
TH-230	1.146E+00	1.872E-01	4.848E-02	9.551E-02
TH-232	1.376E+00	3.308E-01	9.991E-02	1.688E-01
TH-234	1.941E+00	1.508E+00	9.132E-01	7.693E-01
U-234	1.146E+00	1.872E-01	4.848E-02	9.551E-02
NP-237	9.922E-01	3.446E-01	1.412E-01	1.758E-01
U-238	1.941E+00	1.508E+00	9.132E-01	7.693E-01
AM-243	3.081E-01	5.807E-02	3.739E-02	2.963E-02
ANH-511	1.201E-01	6.204E-02	1.907E-02	3.165E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	-8.553E-02	2.589E-01	2.205E-01	1.321E-01	NOT IDENT.
NA-22	4.681E-03	3.407E-02	2.889E-02	1.738E-02	NOT IDENT.
NA-24	6.710E+04	5.463E+05	0.000E+00	2.787E+05	SHORT HLIF
AL-26	-1.523E-02	2.083E-02	1.422E-02	1.063E-02	NOT IDENT.
TI-44	3.254E-01	4.912E-02	3.191E-02	2.506E-02	FAIL ABUN
SC-46	-5.738E-03	2.941E-02	2.502E-02	1.501E-02	FAIL ABUN
V-48	-1.484E-02	5.807E-02	4.862E-02	2.963E-02	NOT IDENT.
CR-51	3.739E-02	3.115E-01	2.639E-01	1.589E-01	NOT IDENT.
MN-52	9.449E-02	1.848E-01	1.640E-01	9.430E-02	NOT IDENT.
MN-54	8.319E-03	3.382E-02	3.002E-02	1.726E-02	NOT IDENT.
CO-56	8.196E-03	3.153E-02	2.808E-02	1.608E-02	NOT IDENT.
CO-57	4.066E-04	1.936E-02	1.760E-02	9.877E-03	NOT IDENT.
CO-58	-1.674E-02	3.033E-02	2.522E-02	1.548E-02	NOT IDENT.
FE-59	9.627E-03	7.638E-02	6.557E-02	3.897E-02	NOT IDENT.
CO-60	-8.287E-03	3.207E-02	2.573E-02	1.636E-02	NOT IDENT.
ZN-65	1.562E-02	7.848E-02	5.916E-02	4.004E-02	NOT IDENT.
GE-68	1.752E-01	9.833E-01	8.510E-01	5.017E-01	NOT IDENT.
AS-73	9.190E-02	6.781E-01	5.903E-01	3.460E-01	NOT IDENT.
AS-74	-9.008E-03	7.416E-02	6.273E-02	3.784E-02	NOT IDENT.
SE-75	-2.305E-02	3.981E-02	2.884E-02	2.031E-02	NOT IDENT.
BR-77	-7.455E-01	8.380E+00	7.203E+00	4.276E+00	FAIL ABUN
SR-82	-4.472E-01	3.133E-01	2.195E-01	1.598E-01	NOT IDENT.
RB-83	-1.221E-02	5.445E-02	4.630E-02	2.778E-02	NOT IDENT.
RB-84	2.243E-02	5.454E-02	4.908E-02	2.782E-02	NOT IDENT.
KR-85	1.080E+01	6.361E+00	5.524E+00	3.245E+00	NOT IDENT.
SR-85	5.538E-02	3.262E-02	2.833E-02	1.664E-02	NOT IDENT.
RB-86	-1.410E-01	6.448E-01	5.363E-01	3.290E-01	NOT IDENT.
Y-88	1.158E-02	2.456E-02	2.261E-02	1.253E-02	NOT IDENT.
ZR-88	-1.323E-02	2.403E-02	2.058E-02	1.226E-02	NOT IDENT.
Y-91	2.735E+01	1.693E+01	1.596E+01	8.640E+00	NOT IDENT.
NB-94	2.159E-02	2.772E-02	2.473E-02	1.414E-02	NOT IDENT.
NB-95	-2.132E-02	4.010E-02	3.236E-02	2.046E-02	NOT IDENT.
NB-95M	2.922E-02	1.081E-01	8.469E-02	5.517E-02	NOT IDENT.
ZR-95	5.476E-02	6.056E-02	5.429E-02	3.090E-02	NOT IDENT.
NB-97	-1.319E+05	1.029E+05	0.000E+00	5.249E+04	SHORT HLIF
ZR-97	2.315E+06	1.648E+06	0.000E+00	8.410E+05	SHORT HLIF
MO-99	-7.015E+00	1.018E+01	7.923E+00	5.195E+00	NOT IDENT.
TC-99M	-5.321E+15	3.287E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.434E-03	2.795E-02	2.396E-02	1.426E-02	NOT IDENT.
RH-102	6.140E-03	2.417E-02	2.145E-02	1.233E-02	NOT IDENT.
RU-103	-7.162E-03	3.069E-02	2.618E-02	1.566E-02	FAIL ABUN
RH-106	-2.302E-02	2.504E-01	2.113E-01	1.278E-01	FAIL ABUN
RU-106	-2.302E-02	2.504E-01	2.113E-01	1.278E-01	FAIL ABUN
AG-108M	-1.639E-02	2.691E-02	2.246E-02	1.373E-02	NOT IDENT.
AG-110M	-3.504E-02	3.486E-02	2.259E-02	1.779E-02	NOT IDENT.
IN-111	8.250E-02	9.488E-01	7.322E-01	4.841E-01	NOT IDENT.
IN-113M	-2.627E-02	3.468E-02	2.926E-02	1.769E-02	NOT IDENT.
SN-113	-2.627E-02	3.468E-02	2.926E-02	1.769E-02	NOT IDENT.
IN-114M	2.800E-02	1.627E-01	1.291E-01	8.302E-02	NOT IDENT.
CD-115	-3.339E+00	8.609E+00	7.209E+00	4.392E+00	NOT IDENT.
SN-117M	-3.357E-03	4.331E-02	3.848E-02	2.210E-02	NOT IDENT.
SB-122	8.518E-01	1.682E+00	1.498E+00	8.583E-01	NOT IDENT.
I-123	-7.481E+04	4.721E+06	0.000E+00	2.409E+06	SHORT HLIF
TE-123M	-3.579E-04	2.259E-02	2.012E-02	1.152E-02	NOT IDENT.
I-124	-4.995E-01	5.927E-01	4.274E-01	3.024E-01	NOT IDENT.
SB-124	2.968E-02	6.035E-02	5.539E-02	3.079E-02	NOT IDENT.
SB-125	-2.943E-02	7.446E-02	6.390E-02	3.799E-02	FAIL ABUN
TE-125M	-9.789E-01	7.156E+00	6.418E+00	3.651E+00	NOT IDENT.
I-126	6.994E-02	1.654E-01	1.281E-01	8.440E-02	NOT IDENT.
SB-126	3.866E-02	1.143E-01	9.559E-02	5.831E-02	FAIL ABUN
SB-127	-9.001E-01	1.115E+00	8.644E-01	5.686E-01	FAIL ABUN
XE-127	-2.222E-02	3.757E-02	3.189E-02	1.917E-02	NOT IDENT.
I-131	-9.329E-02	8.957E-02	7.328E-02	4.570E-02	NOT IDENT.
TE-132	1.059E-01	5.723E-01	5.000E-01	2.920E-01	NOT IDENT.
BA-133	1.224E-04	3.575E-02	2.827E-02	1.824E-02	NOT IDENT.
I-133	-6.625E+02	4.890E+03	0.000E+00	2.495E+03	SHORT HLIF
CS-134	1.135E-01	6.943E-02	4.058E-02	3.542E-02	FAIL ABUN
I-135	-2.862E+15	4.646E+15	0.000E+00	2.371E+15	SHORT HLIF
CS-136	4.041E-02	8.260E-02	7.385E-02	4.214E-02	FAIL ABUN
CE-139	-1.101E-02	2.429E-02	2.115E-02	1.239E-02	NOT IDENT.
BA-140	1.673E-01	2.274E-01	2.006E-01	1.160E-01	NOT IDENT.
LA-140	-8.466E-02	6.840E-02	4.618E-02	3.490E-02	FAIL ABUN
CE-141	-7.393E-03	5.012E-02	4.404E-02	2.557E-02	NOT IDENT.
CE-143	4.170E+02	1.680E+02	0.000E+00	8.573E+01	SHORT HLIF
CE-144	-2.079E-02	1.571E-01	1.410E-01	8.015E-02	NOT IDENT.
PM-144	7.472E-03	2.965E-02	2.543E-02	1.513E-02	NOT IDENT.

PR-144	5.063E-01	2.009E+00	1.723E+00	1.025E+00	NOT IDENT.
PM-146	2.020E-02	3.588E-02	3.253E-02	1.831E-02	NOT IDENT.
ND-147	5.502E-02	4.431E-01	3.864E-01	2.261E-01	FAIL ABUN
PM-149	-9.483E+01	7.787E+01	5.962E+01	3.973E+01	NOT IDENT.
EU-152	5.030E-03	7.863E-02	6.271E-02	4.012E-02	NOT IDENT.
GD-153	-5.209E-02	6.423E-02	5.094E-02	3.277E-02	NOT IDENT.
EU-154	3.341E-02	9.359E-02	8.128E-02	4.775E-02	NOT IDENT.
EU-155	1.160E-01	8.553E-02	8.175E-02	4.364E-02	FAIL ABUN
TB-160	6.077E-02	1.121E-01	1.018E-01	5.720E-02	FAIL ABUN
HO-166M	8.474E-03	5.345E-02	4.542E-02	2.727E-02	NOT IDENT.
TM-171	6.958E+00	2.365E+01	1.873E+01	1.207E+01	NOT IDENT.
LU-176	3.070E-02	1.988E-02	1.817E-02	1.014E-02	FAIL ABUN
LU-177	2.565E+00	1.378E+00	9.086E-01	7.031E-01	FAIL ABUN
LU-177M	-1.397E-01	1.442E-01	1.193E-01	7.358E-02	FAIL ABUN
HF-181	-3.481E-03	3.319E-02	2.871E-02	1.693E-02	NOT IDENT.
W-181	-5.882E-02	3.207E-01	2.491E-01	1.636E-01	NOT IDENT.
TA-182	-4.293E-02	1.526E-01	1.244E-01	7.787E-02	FAIL ABUN
RE-183	2.250E-02	9.118E-02	8.070E-02	4.652E-02	FAIL ABUN
RE-184	3.171E-01	1.876E-01	1.732E-01	9.574E-02	NOT IDENT.
OS-185	-4.676E-02	3.448E-02	2.530E-02	1.759E-02	NOT IDENT.
RE-188	2.529E-02	1.344E-01	1.209E-01	6.855E-02	NOT IDENT.
W-188	-6.336E+00	7.238E+00	5.058E+00	3.693E+00	FAIL ABUN
IR-192	1.396E-02	2.887E-02	2.502E-02	1.473E-02	FAIL ABUN
AU-195	2.228E-01	1.712E-01	1.642E-01	8.735E-02	FAIL ABUN
TL-200	7.174E+01	3.556E+02	0.000E+00	1.814E+02	SHORT HLIF
TL-201	-8.067E-01	5.624E+00	4.962E+00	2.869E+00	NOT IDENT.
TL-202	-1.071E-02	5.350E-02	4.638E-02	2.729E-02	NOT IDENT.
HG-203	-1.080E-03	3.304E-02	2.807E-02	1.686E-02	NOT IDENT.
BI-207	2.563E-02	4.123E-02	3.720E-02	2.104E-02	FAIL ABUN
TL-207	-5.592E-02	5.922E-01	4.377E-01	3.021E-01	FAIL ABUN
PO-209	-1.730E+00	5.507E+00	4.622E+00	2.809E+00	NOT IDENT.
BI-210	-9.443E-01	2.976E+00	2.547E+00	1.518E+00	NOT IDENT.
PB-210	-9.443E-01	2.976E+00	2.547E+00	1.518E+00	NOT IDENT.
PO-210	-9.443E-01	2.975E+00	2.547E+00	1.518E+00	NOT IDENT.
PB-211	3.933E-02	7.767E-01	6.895E-01	3.963E-01	NOT IDENT.
PO-215	-5.592E-02	5.922E-01	4.377E-01	3.021E-01	FAIL ABUN
RN-219	4.355E-02	3.317E-01	2.962E-01	1.692E-01	NOT IDENT.
RN-220	-2.005E+01	2.126E+01	1.685E+01	1.085E+01	NOT IDENT.
RA-223	-5.592E-02	5.922E-01	4.377E-01	3.021E-01	FAIL ABUN
AC-227	-3.468E-01	3.314E-01	2.635E-01	1.691E-01	FAIL ABUN
TH-227	-3.468E-01	3.330E-01	2.635E-01	1.699E-01	FAIL ABUN
TH-229	-2.195E-01	4.167E-01	3.566E-01	2.126E-01	FAIL ABUN
PA-231	3.102E-01	1.199E+00	1.035E+00	6.120E-01	FAIL ABUN
TH-231	-5.592E-02	5.922E-01	4.377E-01	3.021E-01	FAIL ABUN
U-231	-5.713E-01	8.342E-01	6.671E-01	4.256E-01	FAIL ABUN
PA-233	7.345E-02	5.284E-02	4.788E-02	2.696E-02	FAIL ABUN
PA-234	-6.127E-02	2.628E-01	2.156E-01	1.341E-01	FAIL ABUN
PA-234M	-4.267E-02	4.165E+00	3.532E+00	2.125E+00	NOT IDENT.
U-235	1.404E-01	1.728E-01	1.571E-01	8.818E-02	FAIL ABUN
NP-236	-1.976E-02	6.422E-02	5.645E-02	3.276E-02	NOT IDENT.
NP-239	4.892E-02	1.396E-01	1.289E-01	7.120E-02	FAIL ABUN
AM-241	8.002E-02	1.366E-01	1.112E-01	6.969E-02	NOT IDENT.
CM-243	-2.514E-02	7.601E-02	6.894E-02	3.878E-02	FAIL ABUN
AM-246	1.755E-03	1.187E-01	1.011E-01	6.059E-02	NOT IDENT.
CM-247	3.672E-03	3.076E-02	2.744E-02	1.569E-02	NOT IDENT.
CF-249	1.399E-02	3.065E-02	2.798E-02	1.564E-02	NOT IDENT.
CF-251	9.301E-03	1.005E-01	8.925E-02	5.129E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	243.3235
46.50	243.3235
46.50	243.3235
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49.72	230.3262
51.35	280.3695
52.39	259.6883
52.97	257.7307
53.15	257.8657
53.44	258.0822
54.07	274.1838
56.28	267.4309
56.28	267.4326
57.37	0.0000
57.53	303.5760
57.53	303.5774
57.60	303.6346
57.98	335.5622
57.98	335.5622
59.32	307.5009
59.32	307.5009
59.40	305.1262
59.54	294.6599
59.72	294.8021
60.01	298.2918
61.10	315.5059
61.14	315.5387
61.30	315.6718
63.00	356.0977
63.29	356.3656
63.29	356.3656
63.58	356.6324
64.28	346.1468
65.12	355.1484
65.20	355.2189
65.20	355.2189
66.05	375.8510
66.72	301.8485
66.83	301.9318
66.91	356.7499
67.20	338.7404
67.20	338.7404
67.75	359.1541
67.85	359.2441
68.90	349.3329
68.90	349.3329
69.30	359.6884
69.67	357.8411
70.82	341.7452
70.82	341.7452
70.83	341.7535
72.80	397.6385
72.87	397.7034
72.87	397.7034
74.67	376.9794
74.81	377.0997
74.81	377.0997
74.81	377.0997
74.81	377.0997
74.81	377.0997
74.81	377.0997
74.81	377.0997
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75.70	377.8732
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77.11	379.0891

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77.11	379.0891
77.11	379.0891
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79.80	357.4371
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80.30	344.1336
80.30	344.1336
80.57	336.6290
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81.07	344.7163
81.07	344.7163
81.07	344.7163
81.07	344.7163
82.60	339.4127
83.37	349.0233
83.78	291.5415
83.78	291.5415
83.78	291.5415
83.78	291.5415
84.21	291.8097
84.90	292.2378
85.43	292.5661
86.29	293.0973
86.50	293.2263
86.54	293.2503
86.59	293.2813
86.72	293.3604
86.79	293.4016
86.94	293.4962
87.30	293.7162
87.30	293.7162
87.30	293.7162
87.30	293.7162
87.30	293.7162
87.30	293.7162
87.30	293.7162
87.57	293.8813
87.88	294.0704
88.03	294.1615
88.36	294.3626
88.47	294.4297
89.95	295.3236
91.11	296.0199
92.29	296.7248
92.38	296.7780
92.38	296.7780
93.35	297.3522
94.00	297.7373
94.67	243.4415
94.67	243.4443
94.90	244.8774
94.90	244.8774
94.90	244.8774
94.90	244.8774
95.87	289.1071
95.87	289.1071
96.73	326.7901
97.43	301.9572
98.44	267.6235
98.44	267.6251
98.88	264.1153
99.55	263.5625
99.55	263.5625
99.86	253.0271
100.00	270.9170
100.10	270.9711
103.18	304.8116
103.76	314.1149
105.00	268.0572
105.31	275.4106
108.00	295.7500
109.28	282.8325

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111.00	285.5143
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112.95	270.0687
115.19	272.9499
116.30	247.7747
117.00	241.6398
117.00	241.6398
117.66	260.3062
121.11	267.3670
121.62	267.5934
121.78	263.9593
122.06	262.2293
122.32	245.6555
122.32	245.6555
122.32	245.6555
122.32	245.6555
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136.48	272.0900
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140.51	0.0000
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142.65	281.3223
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144.24	267.5935
144.24	267.5935
144.24	267.5935
145.22	276.6240
145.44	276.7119
147.16	261.9920
152.43	268.8256
152.70	258.2476
153.22	248.7214
154.21	251.0109
154.21	251.0109
154.21	251.0109
154.21	251.0109
155.03	263.9620
156.02	286.7595
158.56	262.3185
159.00	0.0000
159.00	264.4327
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161.27	292.7617
162.32	258.7435
162.64	270.6639
163.35	263.0427
163.89	272.1058
165.85	282.7037
167.43	262.4930
171.28	244.9014
171.86	263.0198
172.10	263.1003
176.55	243.5562
176.60	243.5735
181.06	260.0629
184.41	258.1076
185.71	262.5726
186.00	262.6675
190.27	243.1315
192.34	266.7296
193.63	263.0443
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198.60	254.2891
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202.84	249.3329
205.31	252.1115

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208.81	235.4029
209.75	235.6512
209.75	235.6512
210.97	208.3036
215.65	198.3631
216.55	213.2673
218.09	219.9407
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223.80	210.7088
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227.20	223.1592
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228.18	212.7523
228.18	212.7523
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236.00	194.6476
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238.63	196.7849
238.63	196.7849
238.63	196.7849
239.00	196.8575
240.98	197.2541
241.98	197.4532
241.98	197.4532
241.98	197.4532
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245.39	180.2649
247.94	164.9821
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249.79	198.9928
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252.85	136.3322
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256.20	213.3695
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269.46	166.2048
269.46	166.2048
269.46	166.2048
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273.65	185.2021
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277.35	161.8329
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277.60	164.1039
278.00	167.5140
278.60	168.7230
279.20	166.5761
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286.10	170.9845
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295.21	159.8843

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297.23	156.7577
298.57	156.9374
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300.09	138.3536
300.09	138.3536
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300.12	138.3585
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319.41	133.0857
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323.87	132.4086
323.87	132.4086
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334.30	128.2468
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338.28	111.0248
338.28	111.0248
338.28	111.0248
338.32	111.0287
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338.32	111.0287
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351.92	106.8549
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367.43	113.5031
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383.85	106.6525
387.95	104.2205
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391.69	123.7424
391.69	123.7424
392.90	121.0953
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404.84	127.6441
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427.89	113.6535
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433.93	110.3266
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439.56	97.4772
439.89	100.3374
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445.03	102.5667
445.03	102.5667
445.03	102.5667
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511.00	82.9887
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511.85	83.0278
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513.99	76.0031
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529.87	0.0000
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563.90	77.2826
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569.50	96.8874
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602.71	96.8111
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609.31	87.4146

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609.31	87.4146
609.31	87.4146
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614.37	83.4595
618.01	76.2927
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621.84	70.1529
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661.65	87.0661
664.57	0.0000
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666.33	66.7228
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695.00	80.1584
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696.49	78.0425
697.00	80.2284
697.49	80.2465
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722.78	61.4004
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727.18	52.7285
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739.58	78.4059
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756.87	62.2908
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765.79	92.6632
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778.89	52.0796
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911.07	67.9728
911.07	67.9728
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969.11	73.2094
969.11	73.2094
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1078.86	51.8984
1085.78	48.0094
1099.22	52.2234
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1120.29	69.0674
1120.29	69.0674
1120.29	69.0674
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1173.22	71.8594
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1236.41	0.0000
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1260.41	0.0000
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1333.61	25.7414
1360.21	21.5977
1362.66	0.0000
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1368.21	20.5595
1368.53	0.0000
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1384.27	23.5403
1394.10	18.5157
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1691.02	11.6592
1706.46	0.0000
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1764.49	16.9120
1764.49	16.9120
1764.49	16.9120
1770.23	71.1123
1771.40	32.6012
1791.20	0.0000
1808.65	10.9490

1836.01	8.0062

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691007

Total Uranium Activity	5.8395E+00	ug/g
Total Uranium Counting Unc.	4.4868E+00	ug/g
Total Uranium Tpu	2.2892E-06	ug/g
Total Uranium Mda	2.7179E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID   : G245691007      *
*   ANALYST       : MJH1                      DETECTOR    : GAM16           *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 15:24:58.48    SAMPLE ALQT:  144.930 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.078E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.160E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 2.970E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.438E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:32:57.70

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691008.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:32:30.
Sample ID         : G245691008           Sample quantity  : 1.22130E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.62  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.21*	74	479	0.74	125.90	123	7	1.02E-02	52.0	
2	3	74.75*	472	523	1.17	148.99	144	15	6.55E-02	9.3	1.08E+00
3	3	77.03	629	419	0.96	153.55	144	15	8.73E-02	6.6	
4	4	84.22*	122	286	1.21	167.95	165	26	1.70E-02	22.6	2.89E+00
5	4	87.00*	294	432	1.38	173.51	165	26	4.09E-02	13.6	
6	4	89.91	195	403	1.39	179.33	165	26	2.70E-02	20.2	
7	4	92.63*	314	372	1.40	184.77	165	26	4.36E-02	13.4	
8	0	128.79	130	366	1.66	257.13	252	9	1.80E-02	28.1	
9	0	185.74*	173	304	1.42	371.08	367	9	2.40E-02	20.9	
10	0	209.25	99	302	1.23	418.12	413	9	1.37E-02	33.5	
11	3	238.47*	1262	207	1.12	476.60	471	16	1.75E-01	3.4	8.04E-01
12	3	241.34	269	213	1.59	482.34	471	16	3.73E-02	11.6	
13	0	270.07	138	229	1.31	539.83	535	11	1.92E-02	22.8	
14	0	295.01*	413	190	1.17	589.73	585	10	5.74E-02	8.1	
15	0	300.04	123	218	1.80	599.78	595	13	1.71E-02	26.1	
16	0	328.38	112	221	1.39	656.49	649	14	1.56E-02	29.8	
17	0	337.98*	239	190	1.22	675.70	670	10	3.32E-02	12.7	
18	0	351.73*	707	162	1.29	703.20	698	11	9.81E-02	5.2	
19	0	462.49	63	114	1.50	924.81	921	10	8.74E-03	34.0	
20	0	510.52*	183	155	2.40	1020.90	1013	19	2.55E-02	19.5	
21	0	583.01*	407	150	1.47	1165.93	1158	16	5.65E-02	8.4	
22	0	609.01*	474	89	1.44	1217.93	1211	15	6.58E-02	6.5	
23	0	726.81	106	89	1.11	1453.60	1448	12	1.47E-02	20.4	
24	0	767.26	70	66	1.25	1534.51	1529	11	9.68E-03	25.9	
25	0	860.45	64	61	1.04	1720.92	1715	11	8.87E-03	27.1	
26	0	910.86*	288	61	1.51	1821.76	1816	15	4.00E-02	8.5	
27	0	968.57*	157	67	1.98	1937.19	1933	12	2.18E-02	13.2	
28	0	1120.28	83	104	1.64	2240.62	2232	14	1.15E-02	28.5	
29	0	1460.04*	1528	27	1.93	2920.11	2911	17	2.12E-01	2.7	
30	0	1581.41	10	8	1.62	3162.80	3154	11	1.37E-03	64.9	
31	0	1619.84	21	13	1.21	3239.64	3231	12	2.96E-03	39.2	
32	0	1630.68	12	8	1.42	3261.31	3255	9	1.61E-03	54.7	
33	0	1661.22	25	6	1.90	3322.37	3316	13	3.51E-03	28.6	
34	0	1728.40	36	0	1.03	3456.69	3450	14	5.00E-03	16.7	
35	0	1763.65	97	0	2.17	3527.19	3520	17	1.35E-02	10.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:33:00

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:32:30
Sample ID : G245691008 Sample quantity : 122.13 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.62 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.869E+01	3.454E+00	3.162E-01	2.255E-02	122.358
NB-95	+	765.79	*	1.275E-01	6.666E-02	7.631E-02	5.582E-03	1.671
CD-109	+	88.03	*	4.415E+00	1.249E+00	1.234E+00	9.443E-02	3.577
SN-126	+	64.28		7.370E-01	7.736E-01	8.364E-01	1.174E-01	0.881
	+	86.94		1.804E+00	8.904E-01	5.100E-01	2.099E-01	3.537
	+	87.57	*	4.339E-01	1.228E-01	1.219E-01	9.287E-03	3.560
TL-208		277.35		4.191E-01	3.895E-01	6.807E-01	7.129E-02	0.616
	+	510.84		9.335E-01	3.774E-01	2.130E-01	2.199E-02	4.382
	+	583.14	*	5.930E-01	1.088E-01	6.005E-02	4.296E-03	9.875
	+	860.37		8.778E-01	4.815E-01	5.342E-01	4.668E-02	1.643
BI-211		72.87		2.307E+00	3.729E+00	5.763E+00	3.866E-01	0.400
	+	351.07	*	4.461E+00	5.419E-01	3.303E-01	2.077E-02	13.503
BI-212	+	727.18	*	1.323E+00	5.526E-01	5.192E-01	4.495E-02	2.548
		785.46		2.268E+00	1.914E+00	3.425E+00	2.559E-01	0.662
	+	1620.62		2.268E+00	1.786E+00	2.140E+00	1.378E-01	1.060
PB-212	+	74.81		2.952E+00	6.445E-01	5.914E-01	6.836E-02	4.991
	+	77.11		2.228E+00	3.307E-01	3.356E-01	2.323E-02	6.637
	+	87.30		2.007E+00	6.022E-01	5.652E-01	7.099E-02	3.550
	+	238.63	*	1.734E+00	1.714E-01	9.553E-02	6.784E-03	18.148
	+	300.09		2.619E+00	1.384E+00	1.154E+00	9.420E-02	2.270
PO-212	+	74.81		2.952E+00	6.445E-01	5.914E-01	6.836E-02	4.991
	+	77.11		2.228E+00	3.307E-01	3.356E-01	2.323E-02	6.637
	+	87.30		2.007E+00	6.022E-01	5.652E-01	7.099E-02	3.550
		115.19		1.927E+00	3.586E+00	6.023E+00	3.821E-01	0.320
	+	238.63	*	1.734E+00	1.714E-01	9.553E-02	6.784E-03	18.148
	+	300.09		2.619E+00	1.384E+00	1.154E+00	9.420E-02	2.270
BI-214	+	609.31	*	1.302E+00	2.002E-01	1.127E-01	9.281E-03	11.549
	+	1120.29		1.183E+00	6.823E-01	5.714E-01	5.190E-02	2.071
	+	1764.49		1.905E+00	4.030E-01	1.555E-01	9.214E-03	12.252
PB-214	+	74.81		5.086E+00	1.072E+00	1.019E+00	1.025E-01	4.991
	+	77.11		3.819E+00	6.373E-01	5.754E-01	5.923E-02	6.637
	+	87.30		3.438E+00	1.008E+00	9.683E-01	1.048E-01	3.550
	+	241.98		2.216E+00	5.408E-01	5.269E-01	4.146E-02	4.206
	+	295.21		1.537E+00	2.806E-01	2.161E-01	1.824E-02	7.114

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.552E+00	2.052E-01	1.152E-01	9.408E-03	13.473
PO-214	+	74.81		5.086E+00	1.072E+00	1.019E+00	1.025E-01	4.991
	+	77.11		3.819E+00	6.373E-01	5.754E-01	5.923E-02	6.637
	+	87.30		3.438E+00	1.008E+00	9.683E-01	1.048E-01	3.550
	+	241.98		2.216E+00	5.408E-01	5.269E-01	4.146E-02	4.206
	+	295.21		1.537E+00	2.806E-01	2.161E-01	1.824E-02	7.114
	+	351.92	*	1.552E+00	2.052E-01	1.152E-01	9.408E-03	13.473
PO-216	+	74.81		2.952E+00	6.445E-01	5.914E-01	6.836E-02	4.991
	+	77.11		2.228E+00	3.307E-01	3.356E-01	2.323E-02	6.637
	+	87.30		2.007E+00	6.022E-01	5.652E-01	7.099E-02	3.550
	+	238.63	*	1.734E+00	1.714E-01	9.553E-02	6.784E-03	18.148
	+	300.09		2.619E+00	1.384E+00	1.154E+00	9.420E-02	2.270
PO-218	+	74.81		5.086E+00	1.072E+00	1.019E+00	1.025E-01	4.991
	+	77.11		3.819E+00	6.373E-01	5.754E-01	5.923E-02	6.637
	+	87.30		3.438E+00	1.008E+00	9.683E-01	1.048E-01	3.550
	+	241.98		2.216E+00	5.408E-01	5.269E-01	4.146E-02	4.206
	+	295.21		1.537E+00	2.806E-01	2.161E-01	1.824E-02	7.114
	+	351.92	*	1.552E+00	2.052E-01	1.152E-01	9.408E-03	13.473
RA-224	+	240.98	*	4.202E+00	9.980E-01	1.087E+00	5.998E-02	3.865
RA-226	+	609.31	*	1.302E+00	2.002E-01	1.127E-01	9.281E-03	11.549
	+	1120.29		1.183E+00	6.823E-01	5.714E-01	5.190E-02	2.071
	+	1764.49		1.905E+00	4.030E-01	1.555E-01	9.214E-03	12.252
AC-228	+	338.32		1.659E+00	7.974E-01	4.327E-01	1.763E-01	3.834
	+	911.07	*	1.871E+00	3.801E-01	2.359E-01	2.590E-02	7.932
	+	969.11		1.800E+00	6.321E-01	5.783E-01	1.333E-01	3.113
RA-228	+	338.32		1.659E+00	7.974E-01	4.327E-01	1.763E-01	3.834
	+	911.07	*	1.871E+00	3.801E-01	2.359E-01	2.590E-02	7.932
	+	969.11		1.800E+00	6.321E-01	5.783E-01	1.333E-01	3.113
TH-228	+	74.81		2.997E+00	5.923E-01	6.004E-01	4.139E-02	4.991
	+	77.11		2.261E+00	3.358E-01	3.407E-01	2.359E-02	6.637
	+	87.30		2.037E+00	5.764E-01	5.738E-01	4.361E-02	3.550
	+	238.63	*	1.760E+00	1.740E-01	9.699E-02	6.887E-03	18.148
	+	300.09		2.659E+00	2.093E+00	1.171E+00	6.902E-01	2.270
TH-230	+	609.31	*	1.302E+00	2.002E-01	1.127E-01	9.281E-03	11.549
	+	1120.29		1.183E+00	6.823E-01	5.713E-01	5.190E-02	2.071
	+	1764.49		1.905E+00	4.030E-01	1.555E-01	9.214E-03	12.252
TH-232	+	338.32		1.659E+00	4.332E-01	4.327E-01	2.451E-02	3.834
	+	911.07	*	1.871E+00	3.801E-01	2.359E-01	2.590E-02	7.932
	+	969.11		1.800E+00	6.321E-01	5.783E-01	1.333E-01	3.113
TH-234	+	63.29	*	1.862E+00	1.963E+00	2.330E+00	3.966E-01	0.799
	+	92.38		2.989E+00	9.538E-01	7.982E-01	1.396E-01	3.744
U-234	+	609.31	*	1.302E+00	2.002E-01	1.127E-01	9.281E-03	11.549
	+	1120.29		1.183E+00	6.823E-01	5.713E-01	5.190E-02	2.071
	+	1764.49		1.905E+00	4.030E-01	1.555E-01	9.214E-03	12.252
NP-237	+	86.50	*	1.274E+00	4.462E-01	3.620E-01	7.952E-02	3.520
		95.87		-7.532E-02	1.002E+00	1.482E+00	3.577E-01	-0.051
U-238	+	63.29	*	1.862E+00	1.963E+00	2.330E+00	3.966E-01	0.799
	+	92.38		2.989E+00	8.271E-01	7.982E-01	5.811E-02	3.744
AM-243	+	74.67	*	4.785E-01	9.443E-02	9.617E-02	6.535E-03	4.976

Sample ID : G245691008 Acquisition date : 9-FEB-2010 15:32:30

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.72		4.778E+01	1.352E+01	1.354E+01	1.023E+00	3.528
		117.66		-3.404E+00	3.884E+00	6.116E+00	3.853E-01	-0.557
		142.18		2.022E+01	1.872E+01	3.140E+01	1.777E+00	0.644
ANH-511	+	511.00	*	2.016E-01	7.976E-02	4.603E-02	2.805E-03	4.381

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-7.274E-02	3.483E-01	5.516E-01	3.796E-02	-0.132
NA-22		1274.54	*	-4.042E-02	5.306E-02	8.075E-02	5.200E-03	-0.501
NA-24		1368.53	*	-4.291E-01	5.306E-02	Half-Life too short		
AL-26		1129.67		-1.836E+00	2.080E+00	3.196E+00	1.948E-01	-0.575
		1808.65	*	1.957E-03	3.202E-02	5.359E-02	3.075E-03	0.037
TI-44		67.85		-6.145E-02	5.292E-02	8.076E-02	5.257E-03	-0.761
	+	78.38	*	4.111E-01	6.103E-02	7.933E-02	5.549E-03	5.182
SC-46		889.25	*	-3.605E-02	4.499E-02	6.698E-02	5.551E-03	-0.538
	+	1120.51		2.026E-01	1.161E-01	1.493E-01	9.277E-03	1.357
V-48		944.10		-1.592E-01	9.968E-01	1.580E+00	1.269E-01	-0.101
		983.50	*	-1.663E-02	8.690E-02	1.214E-01	9.353E-03	-0.137
		1312.09		-7.292E-02	9.577E-02	1.439E-01	9.763E-03	-0.507
CR-51		320.08	*	2.244E-01	3.736E-01	6.403E-01	4.071E-02	0.350
MN-52		744.21		1.707E-01	2.938E-01	5.033E-01	3.595E-02	0.339
		848.13		4.650E+00	7.677E+00	1.314E+01	1.047E+00	0.354
		935.52		8.516E-02	2.847E-01	4.722E-01	3.823E-02	0.180
		1246.25		2.677E+00	8.933E+00	1.507E+01	9.285E-01	0.178
		1333.61		-1.339E+00	5.353E+00	8.488E+00	5.927E-01	-0.158
		1434.06	*	-1.065E-01	2.566E-01	3.917E-01	2.691E-02	-0.272
MN-54		834.83	*	2.789E-02	4.341E-02	7.427E-02	5.839E-03	0.376
CO-56		846.75	*	9.673E-03	4.415E-02	7.323E-02	5.826E-03	0.132
		977.42		-1.435E+00	3.456E+00	5.146E+00	3.992E-01	-0.279
		1037.82		3.495E-02	3.395E-01	5.733E-01	4.428E-02	0.061
		1175.09		-1.019E+00	2.750E+00	4.415E+00	2.434E-01	-0.231
		1238.25		3.953E-02	1.146E-01	1.933E-01	1.244E-02	0.205
		1360.21		-2.102E-01	1.063E+00	1.692E+00	1.178E-01	-0.124
		1771.40		-2.775E-02	2.345E-01	3.190E-01	1.881E-02	-0.087
CO-57		122.06	*	-8.153E-03	2.670E-02	4.314E-02	2.698E-03	-0.189
		136.48		-7.071E-02	2.179E-01	3.494E-01	2.350E-02	-0.202
CO-58		810.76	*	-2.356E-02	4.284E-02	6.629E-02	5.101E-03	-0.355
FE-59		142.65		2.740E+00	2.910E+00	4.853E+00	2.742E-01	0.565
		192.34		6.544E-01	1.012E+00	1.657E+00	1.915E-01	0.395
		1099.22	*	-1.522E-02	1.102E-01	1.813E-01	1.339E-02	-0.084
		1291.56		7.120E-02	1.452E-01	2.495E-01	2.009E-02	0.285
CO-60		1173.22		6.868E-02	5.501E-02	9.956E-02	5.473E-03	0.690
		1332.49	*	-1.238E-02	4.186E-02	6.599E-02	4.609E-03	-0.188
ZN-65		1115.52	*	-5.535E-02	1.378E-01	1.888E-01	1.187E-02	-0.293
GE-68		1077.35	*	2.135E-01	1.456E+00	2.459E+00	1.658E-01	0.087
AS-73		53.44	*	2.004E-02	8.854E-01	1.486E+00	9.594E-02	0.013
AS-74		595.88	*	5.353E-02	1.006E-01	1.744E-01	1.110E-02	0.307

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		634.78		5.190E-02	3.830E-01	6.444E-01	4.153E-02	0.081
SE-75		66.05		-5.004E+00	5.661E+00	8.189E+00	7.149E-01	-0.611
		96.73		-6.217E-01	8.600E-01	1.221E+00	1.546E-01	-0.509
		121.11		-9.961E-02	1.429E-01	2.265E-01	2.157E-02	-0.440
		136.00		-3.309E-02	4.090E-02	6.409E-02	3.784E-03	-0.516
		198.60		-1.516E+00	1.907E+00	2.865E+00	1.925E-01	-0.529
		264.65	*	-1.079E-02	4.757E-02	6.918E-02	3.921E-03	-0.156
		279.53		-5.420E-02	1.154E-01	1.885E-01	1.155E-02	-0.288
		303.91		9.960E-02	2.388E+00	3.505E+00	3.319E-01	0.028
		400.65		4.944E-02	2.698E-01	4.454E-01	3.980E-02	0.111
BR-77	+	87.88		9.623E+02	2.723E+02	3.754E+02	2.870E+01	2.563
		200.40		2.600E+01	1.677E+02	2.687E+02	1.425E+01	0.097
	+	239.00		2.809E+02	2.475E+01	4.083E+01	2.249E+00	6.880
		249.79		-1.974E+01	6.542E+01	1.086E+02	6.029E+00	-0.182
		281.68		6.885E+00	9.504E+01	1.595E+02	9.012E+00	0.043
		297.23		1.883E+02	7.501E+01	1.043E+02	5.923E+00	1.804
		303.76		2.955E+01	2.063E+02	3.051E+02	1.734E+01	0.097
		439.47		1.147E+02	1.610E+02	2.731E+02	1.573E+01	0.420
		484.57		-5.357E+01	2.424E+02	3.828E+02	2.290E+01	-0.140
		520.65	*	4.918E+00	1.099E+01	1.821E+01	1.117E+00	0.270
		574.64		-1.678E+02	2.397E+02	3.557E+02	2.245E+01	-0.472
		578.91		5.009E+01	1.038E+02	1.587E+02	1.004E+01	0.316
		585.48		9.301E+02	2.433E+02	4.458E+02	2.826E+01	2.086
		755.35		-9.634E+00	2.019E+02	3.269E+02	2.364E+01	-0.029
		817.79		-9.005E+01	1.489E+02	2.288E+02	1.768E+01	-0.394
SR-82		698.33		-2.090E+01	4.243E+01	6.512E+01	4.413E+00	-0.321
		776.49	*	-5.287E-01	4.310E-01	6.270E-01	4.639E-02	-0.843
		1395.20		-1.139E+01	1.357E+01	1.975E+01	1.368E+00	-0.577
RB-83		520.41	*	-1.885E-03	7.426E-02	1.185E-01	7.265E-03	-0.016
		529.64		-1.200E-02	1.171E-01	1.854E-01	1.143E-02	-0.065
		552.65		-1.360E-01	2.145E-01	3.446E-01	2.152E-02	-0.395
RB-84		881.50	*	3.016E-02	8.391E-02	1.403E-01	1.154E-02	0.215
KR-85		513.99	*	1.105E+01	8.270E+00	1.309E+01	7.993E-01	0.844
SR-85		513.99	*	5.666E-02	4.242E-02	6.713E-02	4.100E-03	0.844
RB-86		1076.63	*	-1.684E-02	9.242E-01	1.539E+00	1.039E-01	-0.011
Y-88		898.02		2.612E-02	4.999E-02	8.267E-02	6.945E-03	0.316
		1836.01	*	1.644E-02	3.607E-02	6.459E-02	3.636E-03	0.254
ZR-88		392.90	*	-2.563E-02	3.309E-02	5.126E-02	2.811E-03	-0.500
Y-91		1204.90	*	-2.916E+00	2.178E+01	3.558E+01	2.057E+00	-0.082
NB-94		702.63	*	8.349E-03	3.923E-02	6.578E-02	4.480E-03	0.127
		871.10		1.298E-02	4.024E-02	6.716E-02	5.471E-03	0.193
NB-95M		235.69	*	6.202E-02	1.395E-01	2.136E-01	1.558E-02	0.290
ZR-95		724.18		1.540E-01	1.282E-01	2.036E-01	1.605E-02	0.756
		756.15	*	-5.342E-02	8.757E-02	1.354E-01	1.118E-02	-0.395
NB-97		657.90	*	7.560E-02	8.757E-02	Half-Life too short		
		1024.50		8.496E+00	8.757E-02	Half-Life too short		
ZR-97		254.15		4.745E-01	8.757E-02	Half-Life too short		
		355.39		-1.896E+00	8.757E-02	Half-Life too short		
		507.63	*	6.021E+00	8.757E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		602.52		5.932E-01	8.757E-02	Half-Life too short		
		1021.30		-5.241E+00	8.757E-02	Half-Life too short		
		1147.95		-2.408E+00	8.757E-02	Half-Life too short		
		1362.66		-1.828E+00	8.757E-02	Half-Life too short		
		1750.46		2.278E+00	8.757E-02	Half-Life too short		
MO-99		140.51		-2.160E+01	2.979E+01	4.498E+01	1.211E+01	-0.480
		181.06		4.702E+00	1.914E+01	2.766E+01	4.687E+00	0.170
		366.43		5.327E+01	8.512E+01	1.454E+02	8.131E+00	0.366
		739.58	*	-1.071E-01	1.393E+01	2.290E+01	3.293E+00	-0.005
		778.00		-2.790E+01	3.534E+01	5.343E+01	3.960E+00	-0.522
TC-99M		140.51	*	-3.391E+10	3.534E+01	Half-Life too short		
RH-101		127.23		1.783E-02	3.805E-02	5.694E-02	3.455E-03	0.313
		198.01	*	-1.461E-02	3.442E-02	5.279E-02	2.793E-03	-0.277
		325.23		-1.322E-01	2.646E-01	3.696E-01	2.099E-02	-0.358
RH-102		418.52		-1.355E-01	3.052E-01	4.807E-01	2.712E-02	-0.282
		475.06	*	3.362E-02	3.053E-02	5.314E-02	3.156E-03	0.633
		631.29		1.536E-02	6.181E-02	1.048E-01	6.748E-03	0.147
		697.49		-1.737E-02	9.263E-02	1.511E-01	1.023E-02	-0.115
	+	766.84		3.207E-01	1.677E-01	2.467E-01	1.806E-02	1.300
		1046.59		1.752E-02	1.265E-01	2.141E-01	1.517E-02	0.082
		1112.84		1.914E-01	3.107E-01	4.764E-01	3.007E-02	0.402
RU-103		497.08	*	1.035E-02	4.369E-02	7.106E-02	9.065E-03	0.146
	+	610.33		1.407E+01	2.861E+00	3.119E+00	4.882E-01	4.509
RH-106	+	511.85		1.007E+00	3.984E-01	4.681E-01	2.854E-02	2.152
		621.84	*	5.908E-02	3.651E-01	6.158E-01	7.424E-02	0.096
		1050.47		2.937E-01	2.620E+00	4.422E+00	3.115E-01	0.066
RU-106	+	511.85		1.007E+00	3.984E-01	4.681E-01	2.854E-02	2.152
		621.84	*	5.908E-02	3.650E-01	6.158E-01	3.954E-02	0.096
		1050.47		2.937E-01	2.620E+00	4.422E+00	3.115E-01	0.066
AG-108M		433.93	*	1.987E-02	3.570E-02	5.903E-02	3.678E-03	0.337
		614.37		-1.787E-02	4.698E-02	6.541E-02	4.484E-03	-0.273
		722.95		1.845E-02	5.270E-02	7.816E-02	5.774E-03	0.236
AG-110M		657.75	*	1.353E-02	3.768E-02	6.426E-02	4.380E-03	0.211
		677.61		1.579E-01	3.322E-01	5.705E-01	3.950E-02	0.277
		706.67		-4.534E-02	2.448E-01	3.988E-01	2.847E-02	-0.114
		763.93		9.834E-02	2.296E-01	3.404E-01	2.583E-02	0.289
		884.67		1.982E-03	5.828E-02	9.475E-02	8.094E-03	0.021
		937.48		-1.071E-01	1.294E-01	1.911E-01	1.608E-02	-0.561
		1384.27		-3.079E-02	1.923E-01	3.077E-01	2.226E-02	-0.100
IN-111		171.28		-1.712E-01	1.036E+00	1.649E+00	8.485E-02	-0.104
		245.39	*	6.349E-01	1.135E+00	1.753E+00	9.705E-02	0.362
IN-113M		391.69	*	-3.320E-02	4.743E-02	7.384E-02	4.347E-03	-0.450
SN-113		391.69	*	-3.320E-02	4.743E-02	7.384E-02	4.347E-03	-0.450
IN-114M		190.27	*	-3.960E-03	2.192E-01	3.104E-01	1.628E-02	-0.013
CD-115		260.90		-5.970E+01	1.307E+02	2.145E+02	1.200E+01	-0.278
		492.35		-2.702E+00	3.920E+01	6.260E+01	3.767E+00	-0.043
		527.90	*	4.441E-01	1.181E+01	1.892E+01	1.165E+00	0.023
SN-117M		156.02		-6.188E-01	2.432E+00	3.882E+00	2.073E-01	-0.159
		158.56	*	-1.905E-02	5.829E-02	9.262E-02	4.892E-03	-0.206

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-122		563.90	*	4.002E-01	2.183E+00	3.715E+00	2.333E-01	0.108
		692.80		2.481E+01	5.097E+01	8.718E+01	5.869E+00	0.285
I-123		159.00	*	-5.175E+00	5.097E+01	Half-Life too short		
		528.96		-8.364E+01	5.097E+01	Half-Life too short		
TE-123M		159.00	*	-2.460E-02	3.050E-02	4.733E-02	2.536E-03	-0.520
I-124		602.71	*	4.387E-03	8.201E-01	1.193E+00	7.615E-02	0.004
		722.78		1.757E+00	5.520E+00	8.161E+00	5.690E-01	0.215
		1325.50		-2.376E+00	4.027E+01	6.552E+01	4.532E+00	-0.036
		1376.25		4.462E+01	3.872E+01	7.025E+01	4.879E+00	0.635
		1509.49		7.892E+00	1.490E+01	2.617E+01	1.761E+00	0.302
		1691.02		2.536E+00	4.595E+00	8.267E+00	5.131E-01	0.307
SB-124		602.71		2.538E-04	4.744E-02	6.903E-02	4.407E-03	0.004
		645.85		1.386E-01	5.569E-01	9.433E-01	6.732E-02	0.147
		709.31		3.464E-01	3.263E+00	5.428E+00	3.726E-01	0.064
		713.82		-2.821E-01	1.891E+00	3.084E+00	3.354E-01	-0.091
		722.78		1.473E-01	4.629E-01	6.844E-01	4.928E-02	0.215
	+	968.20		1.854E+01	5.120E+00	8.284E+00	6.492E-01	2.238
		1045.16		-8.532E-01	2.695E+00	4.375E+00	3.107E-01	-0.195
		1325.50		-2.128E-01	3.606E+00	5.868E+00	4.059E-01	-0.036
		1368.21		-8.418E-01	1.914E+00	2.936E+00	3.663E-01	-0.287
		1436.60		-2.886E+00	4.249E+00	6.224E+00	4.273E-01	-0.464
		1691.02	*	5.016E-02	9.088E-02	1.635E-01	1.091E-02	0.307
SB-125		427.89	*	-4.742E-02	9.613E-02	1.504E-01	8.939E-03	-0.315
	+	463.38		6.237E-01	4.263E-01	5.823E-01	3.980E-02	1.071
		600.56		8.947E-02	2.057E-01	3.427E-01	2.472E-02	0.261
		635.90		-3.321E-03	2.935E-01	4.883E-01	3.590E-02	-0.007
TE-125M		109.28	*	7.204E+00	9.647E+00	1.634E+01	1.409E+00	0.441
I-126		388.63		1.288E-01	2.141E-01	3.635E-01	1.997E-02	0.354
		666.33	*	9.687E-02	1.834E-01	3.168E-01	2.066E-02	0.306
		753.82		2.416E+00	1.681E+00	3.023E+00	2.182E-01	0.799
SB-126		223.80		1.102E-01	4.034E+00	6.850E+00	3.722E-01	0.016
		278.60		3.165E+00	2.587E+00	4.566E+00	2.577E-01	0.693
	+	296.50		1.533E+01	2.630E+00	3.704E+00	2.102E-01	4.138
		414.70		-1.660E-02	7.833E-02	1.256E-01	7.055E-03	-0.132
		415.30		2.796E+00	6.412E+00	1.075E+01	6.043E-01	0.260
		555.20		5.347E-02	4.146E+00	6.983E+00	4.366E-01	0.008
		573.80		-6.616E-01	1.095E+00	1.756E+00	1.108E-01	-0.377
		593.00		-4.536E-01	9.878E-01	1.597E+00	1.015E-01	-0.284
		656.30		-2.083E+00	3.623E+00	5.742E+00	3.719E-01	-0.363
		666.33		4.048E-02	7.663E-02	1.324E-01	8.633E-03	0.306
		675.00		-2.825E-01	2.128E+00	3.490E+00	2.299E-01	-0.081
		695.00		4.197E-02	9.264E-02	1.579E-01	1.066E-02	0.266
		697.00		-4.466E-02	3.230E-01	5.288E-01	3.578E-02	-0.084
		720.50	*	8.478E-02	1.808E-01	2.720E-01	1.891E-02	0.312
		856.80		5.126E-01	6.263E-01	9.639E-01	7.744E-02	0.532
		989.30		-2.235E-02	1.384E+00	2.217E+00	1.697E-01	-0.010
		1034.80		1.458E+00	9.336E+00	1.585E+01	1.143E+00	0.092
		1213.00		-9.714E-01	6.189E+00	1.010E+01	5.914E-01	-0.096
SB-127		61.10		3.592E+01	6.636E+01	1.038E+02	9.868E+00	0.346

---- Non-Identified Nuclides ----

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		252.40		-3.307E-01	4.349E+00	7.291E+00	3.027E+00	-0.045
		290.80		-2.895E+00	2.368E+01	3.444E+01	3.130E+00	-0.084
		411.60		-1.217E+01	1.352E+01	2.052E+01	2.935E+00	-0.593
		444.90		6.872E+00	1.088E+01	1.834E+01	1.979E+00	0.375
		473.00		-5.554E-01	1.806E+00	2.839E+00	3.194E-01	-0.196
		543.00		-7.265E+00	1.623E+01	2.636E+01	3.454E+00	-0.276
		603.60		-1.120E+01	1.453E+01	1.938E+01	2.151E+00	-0.578
		685.20	*	1.118E+00	1.503E+00	2.624E+00	2.624E-01	0.426
		698.50		-9.132E+00	1.904E+01	2.919E+01	4.350E+00	-0.313
		722.20		2.474E+00	3.804E+01	5.474E+01	5.447E+00	0.045
		783.80		5.079E+00	3.863E+00	6.945E+00	8.089E-01	0.731
XE-127		57.60		-2.658E+00	6.180E+00	1.032E+01	6.519E-01	-0.258
		145.22		-7.544E-02	7.340E-01	1.185E+00	6.620E-02	-0.064
		172.10		2.143E-02	1.218E-01	1.972E-01	1.015E-02	0.109
		202.84	*	2.839E-02	4.872E-02	7.959E-02	4.232E-03	0.357
		374.96		4.908E-02	2.013E-01	3.352E-01	1.863E-02	0.146
I-131		80.18		3.075E+00	6.331E+00	7.821E+00	5.607E-01	0.393
		284.30		4.163E-01	1.530E+00	2.593E+00	1.639E-01	0.161
		364.48	*	-8.930E-02	1.227E-01	1.920E-01	1.208E-02	-0.465
		636.97		-1.669E+00	1.732E+00	2.663E+00	1.885E-01	-0.627
		722.89		3.006E+00	8.891E+00	1.317E+01	9.274E-01	0.228
TE-132		49.72		-1.205E+01	1.993E+01	3.319E+01	3.087E+00	-0.363
		111.76		-5.362E+01	3.171E+01	4.725E+01	4.352E+00	-1.135
		116.30		-9.281E+00	2.795E+01	4.521E+01	4.135E+00	-0.205
		228.16	*	-9.098E-02	6.891E-01	1.160E+00	1.652E-01	-0.078
BA-133		53.15		2.409E+00	3.787E+00	6.494E+00	4.198E-01	0.371
		79.62		8.011E-01	1.549E+00	2.185E+00	3.147E-01	0.367
		81.00		6.024E-02	1.330E-01	1.636E-01	2.475E-02	0.368
		276.40		2.512E-01	3.979E-01	6.633E-01	8.552E-02	0.379
		302.84		7.219E-02	1.600E-01	2.420E-01	2.807E-02	0.298
		356.01	*	-1.783E-02	4.789E-02	6.666E-02	7.648E-03	-0.268
		383.85		-8.744E-02	2.917E-01	4.670E-01	5.007E-02	-0.187
I-133	+	510.53		2.102E+00	2.917E-01	Half-Life too short		
		529.87	*	-3.614E-04	2.917E-01	Half-Life too short		
		706.58		-8.526E-02	2.917E-01	Half-Life too short		
		856.28		4.809E-01	2.917E-01	Half-Life too short		
		875.33		-6.414E-02	2.917E-01	Half-Life too short		
		1236.41		8.217E-01	2.917E-01	Half-Life too short		
		1298.22		-2.395E-01	2.917E-01	Half-Life too short		
CS-134		475.35		2.329E+00	1.958E+00	3.433E+00	2.039E-01	0.678
		563.23		1.110E-01	3.805E-01	6.522E-01	4.167E-02	0.170
		569.32		1.553E-01	2.140E-01	3.729E-01	2.407E-02	0.416
		604.70		-3.192E-02	4.132E-02	5.521E-02	3.542E-03	-0.578
		795.84	*	9.990E-02	5.575E-02	1.023E-01	7.798E-03	0.977
		801.93		5.804E-02	4.358E-01	7.206E-01	5.517E-02	0.081
		1038.57		2.751E+00	4.172E+00	7.382E+00	5.294E-01	0.373
		1167.94		-3.760E+00	3.270E+00	4.915E+00	2.738E-01	-0.765
		1365.15		3.131E-01	1.273E+00	2.148E+00	1.598E-01	0.146
CS-135		268.24	*	3.636E-01	1.770E-01	2.938E-01	2.209E-02	1.238

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-135		288.45		-2.492E+10	1.770E-01	Half-Life too short		
		417.63		-5.765E+09	1.770E-01	Half-Life too short		
		546.56		-7.695E+09	1.770E-01	Half-Life too short		
		836.80		3.334E+10	1.770E-01	Half-Life too short		
		1038.76		1.409E+10	1.770E-01	Half-Life too short		
		1124.00		4.903E+09	1.770E-01	Half-Life too short		
		1131.51		8.840E+09	1.770E-01	Half-Life too short		
		1260.41	*	-1.482E+09	1.770E-01	Half-Life too short		
		1457.56		1.471E+12	1.770E-01	Half-Life too short		
		1678.03		-7.530E+09	1.770E-01	Half-Life too short		
		1706.46		-1.370E+08	1.770E-01	Half-Life too short		
		1791.20		9.935E+09	1.770E-01	Half-Life too short		
CS-136		66.91		-1.192E+00	9.403E-01	1.315E+00	1.888E-01	-0.906
	+	86.29		5.671E+00	1.693E+00	2.175E+00	2.641E-01	2.607
		153.22		6.375E-01	7.103E-01	1.190E+00	8.218E-02	0.536
		163.89		-7.413E-01	1.173E+00	1.785E+00	1.206E-01	-0.415
		176.55		2.303E-02	3.743E-01	6.015E-01	3.587E-02	0.038
		273.65		-7.619E-01	5.368E-01	7.108E-01	4.598E-02	-1.072
		340.57		3.179E-01	1.451E-01	2.425E-01	1.463E-02	1.311
		818.51		-1.875E-02	8.309E-02	1.327E-01	1.028E-02	-0.141
		1048.07	*	3.809E-02	1.194E-01	2.051E-01	1.541E-02	0.186
		1235.34		8.363E-01	7.429E-01	1.311E+00	1.329E-01	0.638
BA-137M		661.65	*	4.756E-03	3.951E-02	6.506E-02	4.217E-03	0.073
CS-137		661.65	*	5.027E-03	4.176E-02	6.877E-02	4.473E-03	0.073
CE-139		165.85	*	9.047E-03	3.140E-02	5.117E-02	2.622E-03	0.177
BA-140		162.64		8.740E-01	7.998E-01	1.316E+00	7.880E-02	0.664
		304.84		-9.116E-01	1.495E+00	2.052E+00	5.594E-01	-0.444
		423.70		1.460E+00	2.139E+00	3.549E+00	1.127E+00	0.411
		537.32	*	-2.247E-01	2.728E-01	4.152E-01	1.353E-01	-0.541
LA-140	+	328.77		9.638E-01	5.786E-01	5.987E-01	3.824E-02	1.610
		432.53		1.830E+00	2.202E+00	3.706E+00	2.348E-01	0.494
		487.03		7.593E-02	1.462E-01	2.444E-01	1.646E-02	0.311
		751.79		-1.407E+00	1.977E+00	3.052E+00	2.528E-01	-0.461
		815.85		-4.294E-03	3.664E-01	5.897E-01	5.194E-02	-0.007
		867.82		2.032E-01	1.709E+00	2.728E+00	2.347E-01	0.074
		919.63		-1.186E-01	3.401E+00	5.150E+00	5.314E-01	-0.023
		925.24		3.487E-01	1.295E+00	2.144E+00	1.874E-01	0.163
		1596.49	*	-2.860E-02	8.621E-02	1.369E-01	8.916E-03	-0.209
CE-141		145.44	*	-3.027E-02	6.640E-02	1.055E-01	6.142E-03	-0.287
CE-143		57.37		-3.569E-04	6.640E-02	Half-Life too short		
		231.56		-6.352E-04	6.640E-02	Half-Life too short		
		293.26	*	9.854E-04	6.640E-02	Half-Life too short		
	+	350.59		3.591E-02	6.640E-02	Half-Life too short		
		490.36		3.669E-04	6.640E-02	Half-Life too short		
		664.57		-1.401E-03	6.640E-02	Half-Life too short		
		721.93		1.770E-05	6.640E-02	Half-Life too short		
CE-144		80.11		1.461E+00	2.909E+00	3.598E+00	2.554E-01	0.406
		133.54	*	1.513E-01	2.119E-01	3.542E-01	5.042E-02	0.427
PM-144		476.78		-2.619E-02	7.337E-02	1.149E-01	8.116E-03	-0.228

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		618.01		1.872E-02	3.612E-02	6.240E-02	4.200E-03	0.300
		696.49	*	3.520E-03	4.148E-02	6.898E-02	4.667E-03	0.051
		778.57		-2.145E+00	2.338E+00	3.479E+00	2.581E-01	-0.617
PR-144		696.49	*	2.385E-01	2.811E+00	4.675E+00	3.161E-01	0.051
		1489.15		-4.423E+00	1.369E+01	2.110E+01	1.429E+00	-0.210
PM-146		453.90	*	8.743E-03	4.408E-02	7.233E-02	6.253E-03	0.121
		633.02		4.848E-01	1.554E+00	2.630E+00	9.712E-01	0.184
		735.90		-9.310E-02	1.678E-01	2.599E-01	7.324E-02	-0.358
		747.13		5.401E-02	1.045E-01	1.785E-01	2.355E-02	0.303
ND-147	+	91.11		9.573E-01	3.946E-01	5.643E-01	4.627E-02	1.696
		319.41		7.778E-01	3.387E+00	5.689E+00	3.235E-01	0.137
		439.89		5.309E+00	6.586E+00	1.123E+01	6.473E-01	0.473
		531.02	*	1.781E-01	6.218E-01	1.015E+00	1.389E-01	0.176
PM-149		285.90	*	8.305E+00	9.527E+01	1.598E+02	2.257E+01	0.052
EU-152		121.78		-4.664E-02	7.756E-02	1.236E-01	9.828E-03	-0.377
		244.69		5.286E-02	3.508E-01	5.275E-01	2.918E-02	0.100
		344.27	*	-8.715E-02	1.017E-01	1.587E-01	1.017E-02	-0.549
		443.98		2.675E-01	1.070E+00	1.762E+00	1.019E-01	0.152
		778.89		-2.548E-01	2.646E-01	3.907E-01	2.898E-02	-0.652
		867.32		3.096E-01	1.039E+00	1.637E+00	1.329E-01	0.189
		964.01		1.249E+00	3.685E-01	6.867E-01	5.405E-02	1.819
		1085.78		2.943E-01	4.525E-01	7.956E-01	5.286E-02	0.370
		1112.02		1.367E-01	4.502E-01	6.674E-01	4.219E-02	0.205
		1407.95		1.625E-01	2.068E-01	3.588E-01	2.478E-02	0.453
GD-153		69.67		3.411E+00	1.950E+00	3.136E+00	2.062E-01	1.088
	+	83.37		3.278E+01	1.501E+01	2.671E+01	1.953E+00	1.227
		97.43	*	-6.012E-02	9.110E-02	1.292E-01	8.987E-03	-0.465
		103.18		-9.277E-02	1.123E-01	1.792E-01	1.197E-02	-0.518
EU-154		123.07		1.111E-02	5.720E-02	9.006E-02	8.703E-03	0.123
		247.94		-6.707E-02	3.538E-01	5.907E-01	5.546E-02	-0.114
		591.81		-1.730E-01	6.451E-01	1.058E+00	1.070E-01	-0.163
		723.30		1.283E-02	2.313E-01	3.323E-01	2.682E-02	0.039
		756.87		-5.379E-01	9.383E-01	1.469E+00	1.620E-01	-0.366
		873.19		-1.575E-01	3.599E-01	5.601E-01	6.680E-02	-0.281
		996.32		-2.384E-01	3.854E-01	6.058E-01	1.047E-01	-0.394
		1004.76		-3.161E-01	2.415E-01	3.534E-01	3.831E-02	-0.894
		1274.45	*	-1.080E-01	1.488E-01	2.271E-01	2.213E-02	-0.475
EU-155		48.70		-7.037E-01	2.467E+00	4.109E+00	2.685E-01	-0.171
		60.01		4.258E+00	5.614E+00	8.891E+00	5.587E-01	0.479
	+	86.54		5.226E-01	1.480E-01	2.039E-01	1.558E-02	2.562
		105.31	*	1.038E-01	1.161E-01	1.980E-01	1.334E-02	0.525
TB-160	+	86.79		1.396E+00	3.951E-01	5.448E-01	4.119E-02	2.563
		197.04		-1.110E-01	5.917E-01	9.196E-01	4.860E-02	-0.121
		215.65		-9.309E-03	7.942E-01	1.255E+00	6.765E-02	-0.007
	+	298.57		3.812E-01	2.001E-01	2.029E-01	1.152E-02	1.878
		879.36	*	4.988E-02	1.661E-01	2.764E-01	2.270E-02	0.180
		962.29		6.278E-01	7.261E-01	1.153E+00	9.089E-02	0.545
		966.15		1.290E+00	3.620E-01	6.284E-01	4.936E-02	2.053
		1177.93		-5.326E-01	4.410E-01	6.538E-01	3.621E-02	-0.815

---- Non-Identified Nuclides ----

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		1271.85		-3.493E-01	8.405E-01	1.326E+00	8.488E-02	-0.263
HO-166M		80.57		1.540E-01	3.711E-01	4.562E-01	3.251E-02	0.338
	+	184.41		1.260E-01	5.295E-02	6.846E-02	3.569E-03	1.840
		280.46		-5.238E-02	9.070E-02	1.473E-01	8.322E-03	-0.356
		410.95		-5.897E-02	2.699E-01	4.333E-01	2.425E-02	-0.136
		711.68	*	4.833E-02	7.016E-02	1.215E-01	8.366E-03	0.398
		752.31		4.678E-02	3.024E-01	5.033E-01	3.627E-02	0.093
		810.29		-3.967E-02	6.356E-02	9.751E-02	7.476E-03	-0.407
TM-171		51.35		-1.102E+01	3.157E+01	5.310E+01	3.460E+00	-0.207
		52.39		6.498E+00	1.694E+01	2.882E+01	1.870E+00	0.225
		59.40		1.668E+01	2.994E+01	4.686E+01	2.939E+00	0.356
		66.72	*	-3.808E+01	3.328E+01	4.752E+01	3.075E+00	-0.801
LU-176	+	88.36		1.029E+00	2.912E-01	3.874E-01	2.952E-02	2.656
		201.83		-7.361E-03	3.003E-02	4.712E-02	2.503E-03	-0.156
		306.84	*	1.987E-02	2.621E-02	4.251E-02	2.416E-03	0.467
		401.10		-5.958E-01	7.140E+00	1.158E+01	6.413E-01	-0.051
LU-177		112.95		-8.517E-01	1.679E+00	2.672E+00	1.707E-01	-0.319
	+	208.36	*	2.418E+00	1.626E+00	2.061E+00	1.102E-01	1.173
LU-177M		52.97		1.233E+00	1.721E+00	2.959E+00	1.915E-01	0.417
		54.07		1.598E-01	9.061E-01	1.528E+00	9.835E-02	0.105
		61.30		1.260E+00	1.715E+00	2.706E+00	1.710E-01	0.466
		121.62		-2.660E-01	3.966E-01	6.300E-01	3.934E-02	-0.422
		147.16		4.492E-01	6.719E-01	1.120E+00	6.205E-02	0.401
		171.86		5.996E-02	4.895E-01	7.904E-01	4.068E-02	0.076
		218.09		-2.723E-01	9.060E-01	1.409E+00	7.611E-02	-0.193
	+	268.79		2.911E+00	1.336E+00	1.576E+00	8.853E-02	1.847
		319.02		5.530E-04	2.590E-01	4.295E-01	2.441E-02	0.001
		367.43		7.074E-01	9.157E-01	1.577E+00	8.810E-02	0.449
		413.65	*	-4.422E-02	1.868E-01	2.992E-01	1.679E-02	-0.148
HF-181		56.28		-4.042E-01	9.749E-01	1.630E+00	1.037E-01	-0.248
		57.53		-2.074E-01	5.207E-01	8.703E-01	5.502E-02	-0.238
		65.20		1.831E-02	1.091E+00	1.651E+00	1.061E-01	0.011
		133.02		5.865E-02	7.410E-02	1.127E-01	6.648E-03	0.520
		136.25		-2.326E-01	4.771E-01	7.593E-01	4.412E-02	-0.306
		345.85		-2.287E-01	2.192E-01	3.078E-01	1.739E-02	-0.743
		482.03	*	8.608E-03	4.419E-02	7.219E-02	4.310E-03	0.119
W-181		56.28		-1.579E-01	3.815E-01	6.378E-01	4.057E-02	-0.248
		57.53		-8.104E-02	2.039E-01	3.409E-01	2.155E-02	-0.238
		65.20	*	7.112E-03	4.238E-01	6.414E-01	4.121E-02	0.011
TA-182		67.75		-1.569E-01	1.261E-01	1.917E-01	1.247E-02	-0.819
		100.10		1.278E-01	1.850E-01	3.141E-01	2.141E-02	0.407
		152.43		-1.907E-01	3.559E-01	5.615E-01	3.043E-02	-0.340
		222.10		-8.682E-02	3.594E-01	5.929E-01	3.216E-02	-0.146
		1001.68		1.591E+00	2.253E+00	3.924E+00	2.958E-01	0.406
	+	1121.28		5.595E-01	3.205E-01	4.020E-01	2.494E-02	1.392
		1189.05		4.780E-02	3.864E-01	6.451E-01	3.637E-02	0.074
		1221.42	*	2.560E-02	2.693E-01	4.472E-01	2.653E-02	0.057
		1230.97		2.982E-01	6.134E-01	1.046E+00	6.296E-02	0.285
RE-183		57.98		-2.007E-01	2.066E-01	3.374E-01	2.129E-02	-0.595

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		59.32		4.375E-02	1.238E-01	1.919E-01	1.204E-02	0.228
		67.20		-3.561E-01	2.412E-01	3.387E-01	2.197E-02	-1.051
		162.32	*	7.967E-02	1.180E-01	1.909E-01	9.924E-03	0.417
	+	208.81		2.168E+00	1.457E+00	1.860E+00	9.955E-02	1.165
		291.72		-1.746E-01	1.051E+00	1.524E+00	8.638E-02	-0.115
RE-184		57.98		-7.395E-01	7.613E-01	1.243E+00	7.843E-02	-0.595
		59.32		1.611E-01	4.556E-01	7.066E-01	4.433E-02	0.228
		67.20		-1.312E+00	8.885E-01	1.247E+00	8.093E-02	-1.051
		161.27		-2.326E-01	3.760E-01	5.882E-01	3.072E-02	-0.395
		216.55		-1.672E-01	2.848E-01	4.361E-01	2.352E-02	-0.383
		252.85	*	6.941E-02	2.304E-01	3.936E-01	2.190E-02	0.176
		318.01		-7.385E-01	4.672E-01	6.989E-01	3.973E-02	-1.057
		792.07		2.342E-01	1.137E+00	1.890E+00	1.422E-01	0.124
		903.28		-9.452E-01	1.291E+00	1.807E+00	1.504E-01	-0.523
		920.93		4.673E-01	5.170E-01	9.029E-01	7.406E-02	0.518
OS-185		59.72		3.490E-01	3.273E-01	5.234E-01	3.285E-02	0.667
		61.14		1.055E-01	1.877E-01	2.942E-01	1.858E-02	0.359
		69.30		4.830E-01	3.329E-01	5.578E-01	3.660E-02	0.866
		592.07		-6.127E-01	2.626E+00	4.319E+00	2.745E-01	-0.142
		646.12	*	7.081E-03	4.755E-02	7.997E-02	5.168E-03	0.089
		717.42		-1.105E+00	1.020E+00	1.529E+00	1.060E-01	-0.722
		874.81		-3.873E-01	6.784E-01	1.040E+00	8.499E-02	-0.373
		880.27		5.368E-01	9.415E-01	1.600E+00	1.315E-01	0.335
RE-188		155.03	*	2.171E-01	1.869E-01	3.160E-01	1.694E-02	0.687
		477.96		4.682E-01	3.308E+00	5.382E+00	3.203E-01	0.087
		633.10		9.218E-01	3.116E+00	5.303E+00	3.416E-01	0.174
W-188	+	63.58		7.486E+01	7.801E+01	1.039E+02	6.625E+00	0.721
		227.08		3.144E+00	1.255E+01	2.150E+01	1.172E+00	0.146
		290.67	*	-2.163E+00	8.255E+00	1.188E+01	6.733E-01	-0.182
IR-192	+	295.96		1.172E+00	2.015E-01	3.067E-01	1.769E-02	3.823
		308.46		-3.678E-03	9.434E-02	1.564E-01	8.998E-03	-0.024
		316.51	*	-1.275E-02	3.457E-02	5.608E-02	3.205E-03	-0.227
		468.07		3.739E-02	7.558E-02	1.121E-01	7.599E-03	0.333
		604.41		-5.588E-01	5.673E-01	7.353E-01	8.573E-02	-0.760
		612.46		1.349E-01	8.434E-01	1.245E+00	1.001E-01	0.108
AU-195		65.12		8.826E-02	1.935E-01	2.985E-01	1.917E-02	0.296
		66.83		-1.218E-01	1.101E-01	1.575E-01	1.020E-02	-0.773
	+	75.70		1.549E+00	3.056E-01	4.980E-01	3.410E-02	3.110
		98.88	*	1.012E-01	2.344E-01	3.897E-01	2.680E-02	0.260
	+	129.76		7.847E+00	4.436E+00	5.319E+00	3.187E-01	1.475
TL-200		367.94	*	4.755E-04	4.436E+00	Half-Life too short		
		579.30		3.045E-03	4.436E+00	Half-Life too short		
		828.27		-2.736E-03	4.436E+00	Half-Life too short		
		1205.75		-1.196E-03	4.436E+00	Half-Life too short		
TL-201		68.90		3.478E+00	5.175E+00	8.825E+00	5.777E-01	0.394
		70.82		2.167E+00	3.225E+00	5.008E+00	3.316E-01	0.433
		80.30		3.163E+00	6.921E+00	8.533E+00	6.067E-01	0.371
		135.34		-1.958E+01	2.656E+01	4.179E+01	2.439E+00	-0.468
		167.43	*	6.378E+00	7.237E+00	1.210E+01	6.204E-01	0.527

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		3.112E-01	4.630E-01	7.895E-01	5.169E-02	0.394
		70.82		1.933E-01	2.877E-01	4.469E-01	2.959E-02	0.433
		80.30		2.823E-01	6.177E-01	7.616E-01	5.415E-02	0.371
		439.56	*	5.828E-02	7.758E-02	1.319E-01	7.598E-03	0.442
HG-203		70.83		8.348E-01	1.248E+00	1.934E+00	2.405E-01	0.432
		72.87		4.590E-01	7.434E-01	1.147E+00	1.381E-01	0.400
		82.60		3.177E-01	1.237E+00	1.875E+00	2.425E-01	0.169
		279.20	*	4.303E-03	4.262E-02	7.165E-02	4.309E-03	0.060
BI-207		72.80		9.172E-02	2.164E-01	3.321E-01	2.227E-02	0.276
	+	74.97		8.590E-01	1.695E-01	2.518E-01	1.715E-02	3.411
	+	84.90		4.239E-01	1.941E-01	3.467E-01	2.573E-02	1.223
		569.67		2.098E-02	3.376E-02	5.844E-02	3.680E-03	0.359
		1063.62	*	-2.930E-03	5.974E-02	9.933E-02	6.852E-03	-0.029
		1770.23		-1.961E-01	4.782E-01	5.810E-01	3.429E-02	-0.337
TL-207		81.07		1.290E-01	2.927E-01	3.604E-01	2.580E-02	0.358
	+	83.78		2.795E-01	1.280E-01	2.290E-01	1.681E-02	1.220
		94.90		1.757E-01	2.397E-01	3.699E-01	2.628E-02	0.475
		122.32		-3.011E-01	1.857E+00	3.019E+00	2.137E-01	-0.100
		144.24		-8.284E-02	7.335E-01	1.172E+00	8.300E-02	-0.071
		154.21		7.565E-01	4.213E-01	7.278E-01	4.854E-02	1.039
	+	269.46		6.814E-01	3.130E-01	3.804E-01	2.241E-02	1.791
		323.87	*	-6.022E-01	8.055E-01	1.094E+00	1.802E-01	-0.550
	+	338.28		6.928E+00	1.909E+00	2.663E+00	2.785E-01	2.602
		445.03		1.827E+00	2.489E+00	4.223E+00	4.334E-01	0.433
PO-209		260.50		-1.392E+00	9.464E+00	1.578E+01	8.828E-01	-0.088
		262.80		7.158E-01	2.561E+01	4.308E+01	2.413E+00	0.017
		896.60	*	-2.911E+00	9.106E+00	1.396E+01	1.165E+00	-0.209
BI-210		46.50	*	8.805E-01	3.552E+00	6.099E+00	4.595E-01	0.144
PB-210		46.50	*	8.805E-01	3.552E+00	6.099E+00	4.595E-01	0.144
PO-210		46.50	*	8.805E-01	3.552E+00	6.099E+00	3.912E-01	0.144
PB-211		404.84	*	-8.330E-01	1.178E+00	1.639E+00	1.021E+00	-0.508
		427.08		-2.171E-01	2.202E+00	3.544E+00	2.190E+00	-0.061
		831.96		-8.700E-01	1.485E+00	2.126E+00	1.330E+00	-0.409
PO-215		81.07		1.290E-01	2.927E-01	3.604E-01	2.580E-02	0.358
	+	83.78		2.795E-01	1.280E-01	2.290E-01	1.681E-02	1.220
		94.90		1.757E-01	2.397E-01	3.699E-01	2.628E-02	0.475
		122.32		-3.011E-01	1.857E+00	3.019E+00	2.137E-01	-0.100
		144.24		-8.284E-02	7.335E-01	1.172E+00	8.300E-02	-0.071
		154.21		7.565E-01	4.213E-01	7.278E-01	4.854E-02	1.039
	+	269.46		6.814E-01	3.130E-01	3.804E-01	2.241E-02	1.791
		323.87	*	-6.022E-01	8.055E-01	1.094E+00	1.802E-01	-0.550
	+	338.28		6.928E+00	1.909E+00	2.663E+00	2.785E-01	2.602
		445.03		1.827E+00	2.489E+00	4.223E+00	4.334E-01	0.433
RN-219	+	271.23		8.742E-01	4.043E-01	4.860E-01	3.878E-02	1.799
		401.81	*	2.145E-01	4.366E-01	7.334E-01	9.899E-02	0.293
RN-220		549.76	*	2.507E+01	2.723E+01	4.867E+01	3.035E+00	0.515
RA-223		81.07		1.290E-01	2.927E-01	3.604E-01	2.580E-02	0.358
	+	83.78		2.795E-01	1.280E-01	2.290E-01	1.681E-02	1.220
		94.90		1.757E-01	2.397E-01	3.699E-01	2.628E-02	0.475

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-3.011E-01	1.857E+00	3.019E+00	2.137E-01	-0.100
		144.24		-8.284E-02	7.335E-01	1.172E+00	8.300E-02	-0.071
		154.21		7.565E-01	4.213E-01	7.278E-01	4.854E-02	1.039
	+	269.46		6.814E-01	3.130E-01	3.804E-01	2.241E-02	1.791
		323.87	*	-6.022E-01	8.055E-01	1.094E+00	1.802E-01	-0.550
	+	338.28		6.928E+00	1.909E+00	2.663E+00	2.785E-01	2.602
		445.03		1.827E+00	2.489E+00	4.223E+00	4.334E-01	0.433
AC-227		79.80		1.071E+00	1.973E+00	2.777E+00	5.813E-01	0.386
		236.00		4.477E-01	2.824E-01	4.506E-01	4.635E-02	0.993
		256.20	*	1.566E-01	3.857E-01	6.604E-01	9.159E-02	0.237
		286.10		3.398E-01	1.576E+00	2.660E+00	3.057E-01	0.128
	+	299.80		4.853E+00	2.653E+00	2.770E+00	4.500E-01	1.752
		304.40		-6.264E-01	2.151E+00	3.071E+00	5.300E-01	-0.204
		334.20		1.751E+00	3.575E+00	4.000E+00	7.318E-01	0.438
TH-227		79.80		1.071E+00	1.973E+00	2.777E+00	5.891E-01	0.386
	+	94.00		1.155E+01	3.943E+00	3.925E+00	8.337E-01	2.943
		236.00		4.477E-01	2.814E-01	4.506E-01	3.994E-02	0.993
		256.20	*	1.566E-01	3.860E-01	6.604E-01	1.111E-01	0.237
		286.10		3.398E-01	1.611E+00	2.660E+00	2.664E+00	0.128
	+	299.80		4.853E+00	2.653E+00	2.770E+00	4.500E-01	1.752
		304.40		-6.264E-01	2.151E+00	3.071E+00	5.300E-01	-0.204
		334.20		1.751E+00	3.575E+00	4.000E+00	7.318E-01	0.438
TH-229	+	85.43		4.184E-01	1.916E-01	3.515E-01	2.622E-02	1.190
	+	88.47		3.792E-01	1.557E-01	2.215E-01	1.685E-02	1.712
		100.00		1.422E-01	1.921E-01	3.268E-01	2.229E-02	0.435
		193.63	*	1.207E-01	5.387E-01	8.674E-01	4.567E-02	0.139
		210.97		1.548E-01	9.069E-01	1.290E+00	6.918E-02	0.120
PA-231		283.67	*	-5.952E-02	1.601E+00	2.671E+00	3.664E-01	-0.022
	+	301.29		1.941E+00	1.033E+00	1.100E+00	1.142E-01	1.765
TH-231		81.07		1.290E-01	2.927E-01	3.604E-01	2.580E-02	0.358
	+	83.78		2.795E-01	1.280E-01	2.290E-01	1.681E-02	1.220
		94.90		1.757E-01	2.397E-01	3.699E-01	2.628E-02	0.475
		122.32		-3.011E-01	1.857E+00	3.019E+00	2.137E-01	-0.100
		144.24		-8.284E-02	7.335E-01	1.172E+00	8.300E-02	-0.071
		154.21		7.565E-01	4.213E-01	7.278E-01	4.854E-02	1.039
	+	269.46		6.814E-01	3.130E-01	3.804E-01	2.241E-02	1.791
		323.87	*	-6.022E-01	8.055E-01	1.094E+00	1.802E-01	-0.550
	+	338.28		6.928E+00	1.909E+00	2.663E+00	2.785E-01	2.602
		445.03		1.827E+00	2.489E+00	4.223E+00	4.334E-01	0.433
U-231	+	84.21		1.210E+01	5.539E+00	9.897E+00	7.295E-01	1.222
	+	92.29		1.146E+01	3.172E+00	4.642E+00	3.383E-01	2.469
		95.87	*	-8.578E-02	1.141E+00	1.688E+00	1.189E-01	-0.051
		108.00		5.687E-01	2.225E+00	3.703E+00	2.413E-01	0.154
PA-233	+	75.28		2.507E+01	5.882E+00	7.591E+00	1.094E+00	3.302
	+	86.59		8.494E+00	3.229E+00	3.325E+00	8.809E-01	2.555
	+	300.12		1.353E+00	7.291E-01	7.746E-01	1.037E-01	1.747
		311.98	*	-2.426E-02	6.162E-02	9.984E-02	6.042E-03	-0.243
		340.50		1.643E+00	7.963E-01	1.191E+00	2.731E-01	1.380
		398.62		-2.603E+00	2.340E+00	3.370E+00	8.692E-01	-0.772

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		7.558E-01	1.728E+00	2.884E+00	5.923E-01	0.262
PA-234	+	63.00		2.170E+00	2.279E+00	3.076E+00	4.420E-01	0.706
		94.67		2.898E-01	1.802E-01	2.851E-01	3.253E-02	1.016
		98.44		1.705E-02	1.001E-01	1.570E-01	8.724E-02	0.109
		99.86		2.393E-01	4.960E-01	8.260E-01	5.640E-02	0.290
		111.00		-2.116E-01	1.889E-01	2.936E-01	3.124E-02	-0.721
		131.20		2.161E-02	1.213E-01	1.785E-01	1.062E-02	0.121
		152.70		-1.086E-01	3.517E-01	5.604E-01	8.782E-02	-0.194
	+	186.00		4.535E+00	2.342E+00	2.657E+00	8.092E-01	1.706
		226.40		1.321E-02	3.942E-01	6.691E-01	7.618E-02	0.020
		227.20		-1.548E-02	4.282E-01	7.245E-01	3.949E-02	-0.021
		248.90		-2.536E-01	7.996E-01	1.323E+00	2.834E-01	-0.192
	+	293.70		7.378E+00	1.681E+00	1.914E+00	3.070E-01	3.854
		369.80		-1.172E-01	8.635E-01	1.404E+00	2.915E-01	-0.083
		568.70		2.500E-01	1.080E+00	1.824E+00	1.148E-01	0.137
		569.50		2.385E-01	2.979E-01	5.214E-01	3.282E-02	0.458
		574.00		-1.094E+00	1.559E+00	2.479E+00	1.564E-01	-0.441
		699.00		-5.572E-01	9.068E-01	1.372E+00	2.515E-01	-0.406
		706.10		-5.768E-01	1.267E+00	1.981E+00	8.773E-01	-0.291
		733.00		-2.551E-01	4.667E-01	6.155E-01	1.332E-01	-0.415
		742.81		3.290E-01	1.656E+00	2.740E+00	1.837E+00	0.120
		796.30		1.519E+00	1.130E+00	1.912E+00	5.110E-01	0.795
		805.60		-2.860E-01	1.109E+00	1.765E+00	5.363E-01	-0.162
		819.60		2.387E-01	1.364E+00	2.257E+00	8.539E-01	0.106
		826.30		3.177E-02	8.935E-01	1.461E+00	6.516E-01	0.022
		831.60		-2.591E-01	7.093E-01	1.111E+00	3.293E-01	-0.233
		876.40		-4.407E-01	1.085E+00	1.533E+00	1.575E+00	-0.288
		880.51		1.909E-01	3.374E-01	5.736E-01	4.715E-02	0.333
		883.24		1.051E-01	3.604E-01	5.876E-01	3.947E-01	0.179
		899.00		9.920E-01	1.082E+00	1.708E+00	7.458E-01	0.581
		925.00		1.408E-01	1.372E+00	2.236E+00	1.827E-01	0.063
		926.50		-1.001E-01	2.020E-01	3.075E-01	7.726E-02	-0.325
		946.00	*	-2.854E-01	3.671E-01	5.412E-01	1.001E-01	-0.527
		949.00		2.859E-01	5.309E-01	8.964E-01	7.165E-02	0.319
		980.50		-5.464E-02	7.581E-01	1.208E+00	9.337E-02	-0.045
		1394.10		2.629E-01	1.377E+00	2.281E+00	1.480E+00	0.115
PA-234M	+	766.42		3.374E+01	2.441E+01	2.577E+01	1.302E+01	1.309
		1001.03	*	3.574E+00	5.073E+00	8.830E+00	7.992E-01	0.405
U-235	+	89.95		3.806E+00	1.927E+00	2.084E+00	6.367E-01	1.826
	+	93.35		3.593E+00	1.381E+00	1.407E+00	3.886E-01	2.554
		105.00		7.582E-01	1.159E+00	1.926E+00	5.648E-01	0.394
		143.76	*	-6.875E-02	2.299E-01	3.643E-01	5.917E-02	-0.189
		163.35		2.236E-02	5.065E-01	7.963E-01	1.417E-01	0.028
	+	185.71		1.680E-01	7.060E-02	9.860E-02	5.147E-03	1.703
		205.31		3.612E-01	6.055E-01	8.825E-01	1.574E-01	0.409
NP-236		94.67		2.225E-01	1.354E-01	2.166E-01	1.542E-02	1.027
		98.44		1.287E-02	7.532E-02	1.187E-01	8.191E-03	0.108
		111.00		-1.600E-01	1.422E-01	2.221E-01	1.429E-02	-0.721
		160.31	*	-4.115E-02	8.412E-02	1.325E-01	6.948E-03	-0.311

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		6.540E-02	1.649E-01	2.738E-01	1.874E-02	0.239
		117.00	*	-1.678E-01	1.932E-01	3.043E-01	1.920E-02	-0.551
	+	209.75		1.710E+00	1.149E+00	1.474E+00	7.894E-02	1.160
		228.18		-1.196E-01	2.277E-01	3.768E-01	2.056E-02	-0.317
		277.60		2.056E-01	1.873E-01	3.291E-01	1.857E-02	0.625
		334.30		1.070E+00	2.022E+00	2.281E+00	1.293E-01	0.469
AM-241		59.54	*	1.121E-01	1.744E-01	2.739E-01	1.946E-02	0.409
CM-243		99.55		6.730E-02	1.697E-01	2.818E-01	1.928E-02	0.239
		103.76	*	-8.052E-03	1.033E-01	1.701E-01	1.133E-02	-0.047
		117.00		-1.726E-01	1.987E-01	3.131E-01	1.976E-02	-0.551
	+	209.75		1.685E+00	1.133E+00	1.453E+00	7.782E-02	1.160
		228.18		-1.208E-01	2.301E-01	3.808E-01	2.077E-02	-0.317
		277.60		2.072E-01	1.889E-01	3.318E-01	1.872E-02	0.625
AM-246		798.80		-2.564E-01	1.745E-01	2.495E-01	1.891E-02	-1.027
		1036.00		-4.230E-02	3.256E-01	5.385E-01	3.876E-02	-0.079
		1062.04		2.293E-01	2.575E-01	4.617E-01	3.193E-02	0.497
		1078.86	*	1.822E-02	1.671E-01	2.812E-01	1.891E-02	0.065
CM-247		278.00		7.718E-01	7.809E-01	1.365E+00	7.704E-02	0.565
		287.40		2.030E-01	1.265E+00	2.084E+00	1.180E-01	0.097
		402.60	*	2.983E-02	3.962E-02	6.767E-02	3.753E-03	0.441
CF-249		252.85		2.604E-01	8.645E-01	1.477E+00	8.218E-02	0.176
		333.44		1.623E-01	2.497E-01	2.875E-01	1.631E-02	0.565
		387.95	*	4.386E-02	4.123E-02	7.191E-02	3.953E-03	0.610
CF-251		176.60	*	5.905E-03	1.288E-01	2.068E-01	1.069E-02	0.029
		227.00		9.894E-02	3.767E-01	6.457E-01	3.518E-02	0.153
		285.00		6.741E-01	1.805E+00	3.072E+00	1.738E-01	0.219

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691008     *
* Acquisition date :  9-FEB-2010 15:32:30 Detector SN#    :                *
* Detector ID        : GAM12                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:01.62       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691008           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.2213E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.869E+01	3.385E+00	3.156E-01	0.000E+00
NB-95	1.275E-01	6.532E-02	7.681E-02	0.000E+00
CD-109	4.415E+00	1.224E+00	1.276E+00	0.000E+00
SN-126	4.339E-01	1.203E-01	1.260E-01	0.000E+00
TL-208	5.930E-01	1.067E-01	6.066E-02	0.000E+00
BI-211	4.461E+00	5.311E-01	3.359E-01	0.000E+00
BI-212	1.323E+00	5.415E-01	5.230E-01	0.000E+00
PB-212	1.734E+00	1.680E-01	9.760E-02	0.000E+00
PO-212	1.734E+00	1.680E-01	9.760E-02	0.000E+00
BI-214	1.302E+00	1.962E-01	1.138E-01	0.000E+00
PB-214	1.552E+00	2.011E-01	1.171E-01	0.000E+00
PO-214	1.552E+00	2.011E-01	1.171E-01	0.000E+00
PO-216	1.734E+00	1.680E-01	9.760E-02	0.000E+00
PO-218	1.552E+00	2.011E-01	1.171E-01	0.000E+00
RA-224	4.202E+00	9.781E-01	1.111E+00	0.000E+00
RA-226	1.302E+00	1.962E-01	1.138E-01	0.000E+00
AC-228	1.871E+00	3.725E-01	2.370E-01	0.000E+00
RA-228	1.871E+00	3.725E-01	2.370E-01	0.000E+00
TH-228	1.760E+00	1.705E-01	9.908E-02	0.000E+00
TH-230	1.302E+00	1.962E-01	1.138E-01	0.000E+00
TH-232	1.871E+00	3.725E-01	2.370E-01	0.000E+00
TH-234	1.862E+00	1.923E+00	2.419E+00	0.000E+00
U-234	1.302E+00	1.962E-01	1.138E-01	0.000E+00
NP-237	1.274E+00	4.373E-01	3.745E-01	0.000E+00
U-238	1.862E+00	1.923E+00	2.419E+00	0.000E+00
AM-243	4.785E-01	9.255E-02	9.967E-02	0.000E+00
ANH-511	2.016E-01	7.816E-02	4.657E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-7.274E-02	3.413E-01	5.587E-01	0.000E+00	NOT IDENT.
NA-22	-4.042E-02	5.200E-02	8.075E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.375E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.957E-03	3.138E-02	5.335E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.981E-02	8.216E-02	0.000E+00	FAIL ABUN
SC-46	-3.605E-02	4.409E-02	6.729E-02	0.000E+00	FAIL ABUN
V-48	-1.663E-02	8.516E-02	1.218E-01	0.000E+00	NOT IDENT.
CR-51	2.244E-01	3.661E-01	6.517E-01	0.000E+00	NOT IDENT.
MN-52	-1.065E-01	2.515E-01	3.911E-01	0.000E+00	NOT IDENT.
MN-54	2.789E-02	4.254E-02	7.468E-02	0.000E+00	NOT IDENT.
CO-56	9.673E-03	4.326E-02	7.362E-02	0.000E+00	NOT IDENT.
CO-57	-8.153E-03	2.617E-02	4.444E-02	0.000E+00	NOT IDENT.
CO-58	-2.356E-02	4.198E-02	6.668E-02	0.000E+00	NOT IDENT.
FE-59	-1.522E-02	1.080E-01	1.817E-01	0.000E+00	NOT IDENT.
CO-60	-1.238E-02	4.102E-02	6.596E-02	0.000E+00	NOT IDENT.
ZN-65	-5.535E-02	1.351E-01	1.891E-01	0.000E+00	NOT IDENT.
GE-68	2.135E-01	1.427E+00	2.464E+00	0.000E+00	NOT IDENT.
AS-73	2.004E-02	8.677E-01	1.546E+00	0.000E+00	NOT IDENT.
AS-74	5.353E-02	9.857E-02	1.761E-01	0.000E+00	NOT IDENT.
SE-75	-1.079E-02	4.662E-02	7.058E-02	0.000E+00	NOT IDENT.
BR-77	4.918E+00	1.077E+01	1.843E+01	0.000E+00	FAIL ABUN
SR-82	-5.287E-01	4.224E-01	6.310E-01	0.000E+00	NOT IDENT.
RB-83	-1.885E-03	7.277E-02	1.199E-01	0.000E+00	NOT IDENT.
RB-84	3.016E-02	8.223E-02	1.410E-01	0.000E+00	NOT IDENT.
KR-85	1.105E+01	8.105E+00	1.324E+01	0.000E+00	NOT IDENT.
SR-85	5.666E-02	4.157E-02	6.792E-02	0.000E+00	NOT IDENT.
RB-86	-1.684E-02	9.057E-01	1.543E+00	0.000E+00	NOT IDENT.
Y-88	1.644E-02	3.535E-02	6.428E-02	0.000E+00	NOT IDENT.
ZR-88	-2.563E-02	3.243E-02	5.204E-02	0.000E+00	NOT IDENT.
Y-91	-2.916E+00	2.135E+01	3.561E+01	0.000E+00	NOT IDENT.
NB-94	8.349E-03	3.844E-02	6.629E-02	0.000E+00	NOT IDENT.
NB-95M	6.202E-02	1.368E-01	2.182E-01	0.000E+00	NOT IDENT.
ZR-95	-5.342E-02	8.582E-02	1.363E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.046E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.210E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.071E-01	1.365E+01	2.306E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.593E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.461E-02	3.373E-02	5.405E-02	0.000E+00	NOT IDENT.
RH-102	3.362E-02	2.992E-02	5.382E-02	0.000E+00	FAIL ABUN
RU-103	1.035E-02	4.282E-02	7.193E-02	0.000E+00	FAIL ABUN
RH-106	5.908E-02	3.578E-01	6.215E-01	0.000E+00	FAIL ABUN
RU-106	5.908E-02	3.577E-01	6.215E-01	0.000E+00	FAIL ABUN
AG-108M	1.987E-02	3.499E-02	5.985E-02	0.000E+00	NOT IDENT.
AG-110M	1.353E-02	3.693E-02	6.481E-02	0.000E+00	NOT IDENT.
IN-111	6.349E-01	1.112E+00	1.791E+00	0.000E+00	NOT IDENT.
IN-113M	-3.320E-02	4.648E-02	7.497E-02	0.000E+00	NOT IDENT.
SN-113	-3.320E-02	4.648E-02	7.497E-02	0.000E+00	NOT IDENT.
IN-114M	-3.960E-03	2.148E-01	3.180E-01	0.000E+00	NOT IDENT.
CD-115	4.441E-01	1.157E+01	1.913E+01	0.000E+00	NOT IDENT.
SN-117M	-1.905E-02	5.713E-02	9.510E-02	0.000E+00	NOT IDENT.
SB-122	4.002E-01	2.139E+00	3.754E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.288E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.460E-02	2.989E-02	4.860E-02	0.000E+00	NOT IDENT.
I-124	4.387E-03	8.037E-01	1.205E+00	0.000E+00	NOT IDENT.
SB-124	5.016E-02	8.907E-02	1.629E-01	0.000E+00	FAIL ABUN
SB-125	-4.742E-02	9.420E-02	1.525E-01	0.000E+00	FAIL ABUN
TE-125M	7.204E+00	9.454E+00	1.685E+01	0.000E+00	NOT IDENT.
I-126	9.687E-02	1.797E-01	3.195E-01	0.000E+00	NOT IDENT.
SB-126	8.478E-02	1.772E-01	2.740E-01	0.000E+00	FAIL ABUN
SB-127	1.118E+00	1.473E+00	2.645E+00	0.000E+00	NOT IDENT.
XE-127	2.839E-02	4.774E-02	8.147E-02	0.000E+00	NOT IDENT.
I-131	-8.930E-02	1.203E-01	1.951E-01	0.000E+00	NOT IDENT.
TE-132	-9.098E-02	6.753E-01	1.186E+00	0.000E+00	NOT IDENT.
BA-133	-1.783E-02	4.693E-02	6.776E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.758E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.990E-02	5.464E-02	1.029E-01	0.000E+00	NOT IDENT.
CS-135	0.000E+00	1.734E-01	2.997E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.197E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.809E-02	1.170E-01	2.056E-01	0.000E+00	FAIL ABUN
BA-137M	4.756E-03	3.872E-02	6.561E-02	0.000E+00	NOT IDENT.
CS-137	5.027E-03	4.093E-02	6.936E-02	0.000E+00	NOT IDENT.
CE-139	9.047E-03	3.077E-02	5.251E-02	0.000E+00	NOT IDENT.
BA-140	-2.247E-01	2.674E-01	4.199E-01	0.000E+00	NOT IDENT.
LA-140	-2.860E-02	8.449E-02	1.365E-01	0.000E+00	FAIL ABUN
CE-141	-3.027E-02	6.508E-02	1.084E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.777E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.513E-01	2.077E-01	3.645E-01	0.000E+00	NOT IDENT.
PM-144	3.520E-03	4.065E-02	6.952E-02	0.000E+00	NOT IDENT.

PR-144	2.385E-01	2.755E+00	4.711E+00	0.000E+00	NOT IDENT.
PM-146	8.743E-03	4.320E-02	7.329E-02	0.000E+00	NOT IDENT.
ND-147	1.781E-01	6.094E-01	1.026E+00	0.000E+00	FAIL ABUN
PM-149	8.305E+00	9.336E+01	1.629E+02	0.000E+00	NOT IDENT.
EU-152	-8.715E-02	9.964E-02	1.614E-01	0.000E+00	NOT IDENT.
GD-153	-6.012E-02	8.928E-02	1.335E-01	0.000E+00	FAIL ABUN
EU-154	-1.080E-01	1.459E-01	2.271E-01	0.000E+00	NOT IDENT.
EU-155	1.038E-01	1.138E-01	2.043E-01	0.000E+00	FAIL ABUN
TB-160	4.988E-02	1.628E-01	2.777E-01	0.000E+00	FAIL ABUN
HO-166M	4.833E-02	6.876E-02	1.225E-01	0.000E+00	FAIL ABUN
TM-171	-3.808E+01	3.261E+01	4.931E+01	0.000E+00	NOT IDENT.
LU-176	1.987E-02	2.569E-02	4.330E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.593E+00	2.109E+00	0.000E+00	FAIL ABUN
LU-177M	-4.422E-02	1.831E-01	3.035E-01	0.000E+00	FAIL ABUN
HF-181	8.608E-03	4.331E-02	7.310E-02	0.000E+00	NOT IDENT.
W-181	7.112E-03	4.154E-01	6.658E-01	0.000E+00	NOT IDENT.
TA-182	2.560E-02	2.639E-01	4.474E-01	0.000E+00	FAIL ABUN
RE-183	7.967E-02	1.156E-01	1.960E-01	0.000E+00	FAIL ABUN
RE-184	6.941E-02	2.258E-01	4.018E-01	0.000E+00	NOT IDENT.
OS-185	7.081E-03	4.660E-02	8.067E-02	0.000E+00	NOT IDENT.
RE-188	2.171E-01	1.831E-01	3.246E-01	0.000E+00	NOT IDENT.
W-188	-2.163E+00	8.090E+00	1.211E+01	0.000E+00	FAIL ABUN
IR-192	-1.275E-02	3.388E-02	5.709E-02	0.000E+00	FAIL ABUN
AU-195	1.012E-01	2.297E-01	4.025E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.603E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	6.378E+00	7.092E+00	1.242E+01	0.000E+00	NOT IDENT.
TL-202	5.828E-02	7.603E-02	1.337E-01	0.000E+00	NOT IDENT.
HG-203	4.303E-03	4.177E-02	7.305E-02	0.000E+00	NOT IDENT.
BI-207	-2.930E-03	5.855E-02	9.956E-02	0.000E+00	FAIL ABUN
TL-207	-6.022E-01	7.893E-01	1.113E+00	0.000E+00	FAIL ABUN
PO-209	-2.911E+00	8.924E+00	1.402E+01	0.000E+00	NOT IDENT.
BI-210	8.805E-01	3.481E+00	6.357E+00	0.000E+00	NOT IDENT.
PB-210	8.805E-01	3.481E+00	6.357E+00	0.000E+00	NOT IDENT.
PO-210	8.805E-01	3.481E+00	6.357E+00	0.000E+00	NOT IDENT.
PB-211	-8.330E-01	1.155E+00	1.663E+00	0.000E+00	NOT IDENT.
PO-215	-6.022E-01	7.893E-01	1.113E+00	0.000E+00	FAIL ABUN
RN-219	2.145E-01	4.279E-01	7.444E-01	0.000E+00	FAIL ABUN
RN-220	2.507E+01	2.668E+01	4.920E+01	0.000E+00	NOT IDENT.
RA-223	-6.022E-01	7.893E-01	1.113E+00	0.000E+00	FAIL ABUN
AC-227	1.566E-01	3.780E-01	6.740E-01	0.000E+00	FAIL ABUN
TH-227	1.566E-01	3.783E-01	6.740E-01	0.000E+00	FAIL ABUN
TH-229	1.207E-01	5.279E-01	8.884E-01	0.000E+00	FAIL ABUN
PA-231	-5.952E-02	1.569E+00	2.722E+00	0.000E+00	FAIL ABUN
TH-231	-6.022E-01	7.893E-01	1.113E+00	0.000E+00	FAIL ABUN
U-231	-8.578E-02	1.118E+00	1.744E+00	0.000E+00	FAIL ABUN
PA-233	-2.426E-02	6.039E-02	1.017E-01	0.000E+00	FAIL ABUN
PA-234	-2.854E-01	3.597E-01	5.433E-01	0.000E+00	FAIL ABUN
PA-234M	3.574E+00	4.972E+00	8.858E+00	0.000E+00	FAIL ABUN
U-235	-6.875E-02	2.253E-01	3.745E-01	0.000E+00	FAIL ABUN
NP-236	-4.115E-02	8.244E-02	1.360E-01	0.000E+00	NOT IDENT.
NP-239	-1.678E-01	1.893E-01	3.136E-01	0.000E+00	FAIL ABUN
AM-241	1.121E-01	1.709E-01	2.846E-01	0.000E+00	NOT IDENT.
CM-243	-8.052E-03	1.012E-01	1.755E-01	0.000E+00	FAIL ABUN
AM-246	1.822E-02	1.637E-01	2.818E-01	0.000E+00	NOT IDENT.
CM-247	2.983E-02	3.883E-02	6.868E-02	0.000E+00	NOT IDENT.
CF-249	4.386E-02	4.041E-02	7.302E-02	0.000E+00	NOT IDENT.
CF-251	5.905E-03	1.262E-01	2.121E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:32:58.73

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691008.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:32:30.
Sample ID         : G245691008           Sample quantity  : 1.22130E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.62  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1528	10.67*	1.138E+00	3.869E+01	3.869E+01	8.93
NB-95	765.79	70	99.81*	1.983E+00	1.082E-01	1.275E-01	52.27
CD-109	88.03	294	3.72*	5.637E+00	4.316E+00	4.415E+00	28.29
SN-126	64.28	74	9.60	3.195E+00	7.370E-01	7.370E-01	104.97
	86.94	294	8.90	5.637E+00	1.804E+00	1.804E+00	49.36
	87.57	294	37.00*	5.637E+00	4.339E-01	4.339E-01	28.29
TL-208	277.35	------	6.80	4.505E+00	------ Line Not Found		------
	510.84	183	21.60	2.795E+00	9.335E-01	9.335E-01	40.42
	583.14	407	84.20*	2.505E+00	5.930E-01	5.930E-01	18.35
	860.37	64	12.46	1.795E+00	8.778E-01	8.778E-01	54.85
BI-211	72.87	------	1.27	4.387E+00	------ Line Not Found		------
	351.07	707	12.94*	3.763E+00	4.461E+00	4.461E+00	12.15
BI-212	727.18	106	11.80*	2.078E+00	1.323E+00	1.323E+00	41.76
	785.46	------	1.97	1.943E+00	------ Line Not Found		------
	1620.62	21	2.75	1.051E+00	2.268E+00	2.268E+00	78.74
PB-212	74.81	472	10.70	4.589E+00	2.952E+00	2.952E+00	21.84
	77.11	629	18.00	4.819E+00	2.228E+00	2.228E+00	14.85
	87.30	294	8.00	5.637E+00	2.007E+00	2.007E+00	30.01
	238.63	1262	44.60*	5.016E+00	1.734E+00	1.734E+00	9.89
	300.09	123	3.41	4.249E+00	2.619E+00	2.619E+00	52.83
PO-212	74.81	472	10.70	4.589E+00	2.952E+00	2.952E+00	21.84
	77.11	629	18.00	4.819E+00	2.228E+00	2.228E+00	14.85
	87.30	294	8.00	5.637E+00	2.007E+00	2.007E+00	30.01
	115.19	------	0.60	6.604E+00	------ Line Not Found		------
	238.63	1262	44.60*	5.016E+00	1.734E+00	1.734E+00	9.89
	300.09	123	3.41	4.249E+00	2.619E+00	2.619E+00	52.83
BI-214	609.31	474	46.30*	2.415E+00	1.302E+00	1.302E+00	15.38
	1120.29	83	15.10	1.423E+00	1.183E+00	1.183E+00	57.67
	1764.49	97	15.80	9.904E-01	1.905E+00	1.905E+00	21.15
PB-214	74.81	472	6.21	4.589E+00	5.086E+00	5.086E+00	21.08
	77.11	629	10.50	4.819E+00	3.819E+00	3.819E+00	16.69
	87.30	294	4.67	5.637E+00	3.438E+00	3.438E+00	29.33

Sample ID : G245691008 Acquisition date : 9-FEB-2010 15:32:30

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	269	7.49	4.975E+00	2.216E+00	2.216E+00	24.40
	295.21	413	19.20	4.303E+00	1.537E+00	1.537E+00	18.26
	351.92	707	37.20*	3.763E+00	1.552E+00	1.552E+00	13.22
PO-214	74.81	472	6.21	4.589E+00	5.086E+00	5.086E+00	21.08
	77.11	629	10.50	4.819E+00	3.819E+00	3.819E+00	16.69
	87.30	294	4.67	5.637E+00	3.438E+00	3.438E+00	29.33
	241.98	269	7.49	4.975E+00	2.216E+00	2.216E+00	24.40
	295.21	413	19.20	4.303E+00	1.537E+00	1.537E+00	18.26
	351.92	707	37.20*	3.763E+00	1.552E+00	1.552E+00	13.22
PO-216	74.81	472	10.70	4.589E+00	2.952E+00	2.952E+00	21.84
	77.11	629	18.00	4.819E+00	2.228E+00	2.228E+00	14.85
	87.30	294	8.00	5.637E+00	2.007E+00	2.007E+00	30.01
	238.63	1262	44.60*	5.016E+00	1.734E+00	1.734E+00	9.89
	300.09	123	3.41	4.249E+00	2.619E+00	2.619E+00	52.83
PO-218	74.81	472	6.21	4.589E+00	5.086E+00	5.086E+00	21.08
	77.11	629	10.50	4.819E+00	3.819E+00	3.819E+00	16.69
	87.30	294	4.67	5.637E+00	3.438E+00	3.438E+00	29.33
	241.98	269	7.49	4.975E+00	2.216E+00	2.216E+00	24.40
	295.21	413	19.20	4.303E+00	1.537E+00	1.537E+00	18.26
	351.92	707	37.20*	3.763E+00	1.552E+00	1.552E+00	13.22
RA-224	240.98	269	3.95*	4.975E+00	4.202E+00	4.202E+00	23.75
RA-226	609.31	474	46.30*	2.415E+00	1.302E+00	1.302E+00	15.38
	1120.29	83	15.10	1.423E+00	1.183E+00	1.183E+00	57.67
	1764.49	97	15.80	9.904E-01	1.905E+00	1.905E+00	21.15
AC-228	338.32	239	11.40	3.881E+00	1.659E+00	1.659E+00	48.06
	911.07	288	27.70*	1.707E+00	1.871E+00	1.871E+00	20.31
	969.11	157	16.60	1.617E+00	1.800E+00	1.800E+00	35.12
RA-228	338.32	239	11.40	3.881E+00	1.659E+00	1.659E+00	48.06
	911.07	288	27.70*	1.707E+00	1.871E+00	1.871E+00	20.31
	969.11	157	16.60	1.617E+00	1.800E+00	1.800E+00	35.12
TH-228	74.81	472	10.70	4.589E+00	2.952E+00	2.997E+00	19.77
	77.11	629	18.00	4.819E+00	2.228E+00	2.261E+00	14.85
	87.30	294	8.00	5.637E+00	2.007E+00	2.037E+00	28.29
	238.63	1262	44.60*	5.016E+00	1.734E+00	1.760E+00	9.89
	300.09	123	3.41	4.249E+00	2.619E+00	2.659E+00	78.72
TH-230	609.31	474	46.30*	2.415E+00	1.302E+00	1.302E+00	15.38
	1120.29	83	15.10	1.423E+00	1.183E+00	1.183E+00	57.67
	1764.49	97	15.80	9.904E-01	1.905E+00	1.905E+00	21.15
TH-232	338.32	239	11.40	3.881E+00	1.659E+00	1.659E+00	26.11
	911.07	288	27.70*	1.707E+00	1.871E+00	1.871E+00	20.31
	969.11	157	16.60	1.617E+00	1.800E+00	1.800E+00	35.12
TH-234	63.29	74	3.80*	3.195E+00	1.862E+00	1.862E+00	105.41
	92.38	314	5.41	5.970E+00	2.989E+00	2.989E+00	31.92
U-234	609.31	474	46.30*	2.415E+00	1.302E+00	1.302E+00	15.38
	1120.29	83	15.10	1.423E+00	1.183E+00	1.183E+00	57.67
	1764.49	97	15.80	9.904E-01	1.905E+00	1.905E+00	21.15
NP-237	86.50	294	12.60*	5.637E+00	1.274E+00	1.274E+00	35.02
	95.87	------	2.60	6.124E+00	------ Line Not Found		------
U-238	63.29	74	3.80*	3.195E+00	1.862E+00	1.862E+00	105.41

Sample ID : G245691008 Acquisition date : 9-FEB-2010 15:32:30

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	314	5.41	5.970E+00	2.989E+00	2.989E+00	27.67
AM-243	74.67	472	66.00*	4.589E+00	4.785E-01	4.785E-01	19.73
	86.72	294	0.34	5.637E+00	4.778E+01	4.778E+01	28.29
	117.66	------	0.55	6.624E+00	------	Line Not Found	------
	142.18	------	0.13	6.534E+00	------	Line Not Found	------
ANH-511	511.00	183	100.00*	2.795E+00	2.016E-01	2.016E-01	39.56

Flag: "*" = Keyline

Sample ID : G245691008 Acquisition date : 9-FEB-2010 15:32:30

Total number of lines in spectrum 35
Number of unidentified lines 4
Number of lines tentatively identified by NID 31 88.57%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.869E+01	3.869E+01	0.345E+01	8.93	
NB-95	64.02D	1.18	1.082E-01	1.275E-01	0.667E-01	52.27	
CD-109	464.00D	1.02	4.316E+00	4.415E+00	1.249E+00	28.29	
SN-126	1.00E+05Y	1.00	4.339E-01	4.339E-01	1.228E-01	28.29	
TL-208	1.41E+10Y	1.00	5.930E-01	5.930E-01	1.088E-01	18.35	
BI-211	7.04E+08Y	1.00	4.461E+00	4.461E+00	0.542E+00	12.15	
BI-212	1.41E+10Y	1.00	1.323E+00	1.323E+00	0.553E+00	41.76	
PB-212	1.41E+10Y	1.00	1.734E+00	1.734E+00	0.171E+00	9.89	
PO-212	1.41E+10Y	1.00	1.734E+00	1.734E+00	0.171E+00	9.89	
BI-214	1600.00Y	1.00	1.302E+00	1.302E+00	0.200E+00	15.38	
PB-214	1600.00Y	1.00	1.552E+00	1.552E+00	0.205E+00	13.22	
PO-214	1600.00Y	1.00	1.552E+00	1.552E+00	0.205E+00	13.22	
PO-216	1.41E+10Y	1.00	1.734E+00	1.734E+00	0.171E+00	9.89	
PO-218	1600.00Y	1.00	1.552E+00	1.552E+00	0.205E+00	13.22	
RA-224	1.41E+10Y	1.00	4.202E+00	4.202E+00	0.998E+00	23.75	
RA-226	1600.00Y	1.00	1.302E+00	1.302E+00	0.200E+00	15.38	
AC-228	1.41E+10Y	1.00	1.871E+00	1.871E+00	0.380E+00	20.31	
RA-228	1.41E+10Y	1.00	1.871E+00	1.871E+00	0.380E+00	20.31	
TH-228	1.91Y	1.02	1.734E+00	1.760E+00	0.174E+00	9.89	
TH-230	4.47E+09Y	1.00	1.302E+00	1.302E+00	0.200E+00	15.38	
TH-232	1.41E+10Y	1.00	1.871E+00	1.871E+00	0.380E+00	20.31	
TH-234	4.47E+09Y	1.00	1.862E+00	1.862E+00	1.963E+00	105.41	
U-234	4.47E+09Y	1.00	1.302E+00	1.302E+00	0.200E+00	15.38	
NP-237	2.14E+06Y	1.00	1.274E+00	1.274E+00	0.446E+00	35.02	
U-238	4.47E+09Y	1.00	1.862E+00	1.862E+00	1.963E+00	105.41	
AM-243	7380.00Y	1.00	4.785E-01	4.785E-01	0.944E-01	19.73	
ANH-511	1.00E+09Y	1.00	2.016E-01	2.016E-01	0.798E-01	39.56	
			---	---			
	Total Activity :		8.222E+01	8.236E+01			

Grand Total Activity : 8.222E+01 8.236E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691008 Acquisition date : 9-FEB-2010 15:32:30

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.22	122	286	1.21	167.95	165	26	1.70E-02	45.2	5.44E+00	T
4	89.91	195	403	1.39	179.33	165	26	2.70E-02	40.4	5.82E+00	T
0	128.79	130	366	1.66	257.13	252	9	1.80E-02	56.2	6.64E+00	T
0	185.74	173	304	1.42	371.08	367	9	2.40E-02	41.7	5.86E+00	T
0	209.25	99	302	1.23	418.12	413	9	1.37E-02	67.0	5.47E+00	T
0	270.07	138	229	1.31	539.83	535	11	1.92E-02	45.6	4.59E+00	T
0	328.38	112	221	1.39	656.49	649	14	1.56E-02	59.7	3.97E+00	T
0	462.49	63	114	1.50	924.81	921	10	8.74E-03	68.0	3.03E+00	T
0	1581.41	10	8	1.62	3162.80	3154	11	1.37E-03	****	1.07E+00	
0	1630.68	12	8	1.42	3261.31	3255	9	1.61E-03	****	1.05E+00	
0	1661.22	25	6	1.90	3322.37	3316	13	3.51E-03	57.2	1.03E+00	
0	1728.40	36	0	1.03	3456.69	3450	14	5.00E-03	33.3	1.00E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:33:03.16

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691008.CNF;1    *
* Acquisition date : 9-FEB-2010 15:32:30.  Detector SN#     :                 *
* Detector ID      : GAM12                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.62         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 25-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245691008            Analyst initials: MJH1             *
* Batch Number     : 947037                Sample Quantity : 1.22130E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24.5MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.869E+01	3.454E+00	3.162E-01	2.255E-02	122.358
NB-95	1.275E-01	6.666E-02	7.631E-02	5.582E-03	1.671
CD-109	4.415E+00	1.249E+00	1.234E+00	9.443E-02	3.577
SN-126	4.339E-01	1.228E-01	1.219E-01	9.287E-03	3.560
TL-208	5.930E-01	1.088E-01	6.005E-02	4.296E-03	9.875
BI-211	4.461E+00	5.419E-01	3.303E-01	2.077E-02	13.503
BI-212	1.323E+00	5.526E-01	5.192E-01	4.495E-02	2.548
PB-212	1.734E+00	1.714E-01	9.553E-02	6.784E-03	18.148
PO-212	1.734E+00	1.714E-01	9.553E-02	6.784E-03	18.148
BI-214	1.302E+00	2.002E-01	1.127E-01	9.281E-03	11.549
PB-214	1.552E+00	2.052E-01	1.152E-01	9.408E-03	13.473
PO-214	1.552E+00	2.052E-01	1.152E-01	9.408E-03	13.473
PO-216	1.734E+00	1.714E-01	9.553E-02	6.784E-03	18.148
PO-218	1.552E+00	2.052E-01	1.152E-01	9.408E-03	13.473
RA-224	4.202E+00	9.980E-01	1.087E+00	5.998E-02	3.865
RA-226	1.302E+00	2.002E-01	1.127E-01	9.281E-03	11.549
AC-228	1.871E+00	3.801E-01	2.359E-01	2.590E-02	7.932
RA-228	1.871E+00	3.801E-01	2.359E-01	2.590E-02	7.932

Sample ID : G245691008 Acquisition date : 9-FEB-2010 15:32:30

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.760E+00	1.740E-01	9.699E-02	6.887E-03	18.148
TH-230	1.302E+00	2.002E-01	1.127E-01	9.281E-03	11.549
TH-232	1.871E+00	3.801E-01	2.359E-01	2.590E-02	7.932
TH-234	1.862E+00	1.963E+00	2.330E+00	3.966E-01	0.799
U-234	1.302E+00	2.002E-01	1.127E-01	9.281E-03	11.549
NP-237	1.274E+00	4.462E-01	3.620E-01	7.952E-02	3.520
U-238	1.862E+00	1.963E+00	2.330E+00	3.966E-01	0.799
AM-243	4.785E-01	9.443E-02	9.617E-02	6.535E-03	4.976
ANH-511	2.016E-01	7.976E-02	4.603E-02	2.805E-03	4.381

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.274E-02		3.483E-01	5.516E-01	3.796E-02	-0.132
NA-22	-4.042E-02		5.306E-02	8.075E-02	5.200E-03	-0.501
NA-24	-4.291E-01		4.273E-01	Half-Life too short		
AL-26	1.957E-03		3.202E-02	5.359E-02	3.075E-03	0.037
TI-44	4.111E-01	+	6.103E-02	7.933E-02	5.549E-03	5.182
SC-46	-3.605E-02		4.499E-02	6.698E-02	5.551E-03	-0.538
V-48	-1.663E-02		8.690E-02	1.214E-01	9.353E-03	-0.137
CR-51	2.244E-01		3.736E-01	6.403E-01	4.071E-02	0.350
MN-52	-1.065E-01		2.566E-01	3.917E-01	2.691E-02	-0.272
MN-54	2.789E-02		4.341E-02	7.427E-02	5.839E-03	0.376
CO-56	9.673E-03		4.415E-02	7.323E-02	5.826E-03	0.132
CO-57	-8.153E-03		2.670E-02	4.314E-02	2.698E-03	-0.189
CO-58	-2.356E-02		4.284E-02	6.629E-02	5.101E-03	-0.355
FE-59	-1.522E-02		1.102E-01	1.813E-01	1.339E-02	-0.084
CO-60	-1.238E-02		4.186E-02	6.599E-02	4.609E-03	-0.188
ZN-65	-5.535E-02		1.378E-01	1.888E-01	1.187E-02	-0.293
GE-68	2.135E-01		1.456E+00	2.459E+00	1.658E-01	0.087
AS-73	2.004E-02		8.854E-01	1.486E+00	9.594E-02	0.013
AS-74	5.353E-02		1.006E-01	1.744E-01	1.110E-02	0.307
SE-75	-1.079E-02		4.757E-02	6.918E-02	3.921E-03	-0.156
BR-77	4.918E+00		1.099E+01	1.821E+01	1.117E+00	0.270
SR-82	-5.287E-01		4.310E-01	6.270E-01	4.639E-02	-0.843
RB-83	-1.885E-03		7.426E-02	1.185E-01	7.265E-03	-0.016
RB-84	3.016E-02		8.391E-02	1.403E-01	1.154E-02	0.215
KR-85	1.105E+01		8.270E+00	1.309E+01	7.993E-01	0.844
SR-85	5.666E-02		4.242E-02	6.713E-02	4.100E-03	0.844
RB-86	-1.684E-02		9.242E-01	1.539E+00	1.039E-01	-0.011
Y-88	1.644E-02		3.607E-02	6.459E-02	3.636E-03	0.254
ZR-88	-2.563E-02		3.309E-02	5.126E-02	2.811E-03	-0.500
Y-91	-2.916E+00		2.178E+01	3.558E+01	2.057E+00	-0.082
NB-94	8.349E-03		3.923E-02	6.578E-02	4.480E-03	0.127
NB-95M	6.202E-02		1.395E-01	2.136E-01	1.558E-02	0.290
ZR-95	-5.342E-02		8.757E-02	1.354E-01	1.118E-02	-0.395
NB-97	7.560E-02		5.337E-02	Half-Life too short		

Sample ID : G245691008 Acquisition date : 9-FEB-2010 15:32:30

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	6.021E+00		1.128E+00	Half-Life too short		
MO-99	-1.071E-01		1.393E+01	2.290E+01	3.293E+00	-0.005
TC-99M	-3.391E+10		2.343E+10	Half-Life too short		
RH-101	-1.461E-02		3.442E-02	5.279E-02	2.793E-03	-0.277
RH-102	3.362E-02		3.053E-02	5.314E-02	3.156E-03	0.633
RU-103	1.035E-02		4.369E-02	7.106E-02	9.065E-03	0.146
RH-106	5.908E-02		3.651E-01	6.158E-01	7.424E-02	0.096
RU-106	5.908E-02		3.650E-01	6.158E-01	3.954E-02	0.096
AG-108M	1.987E-02		3.570E-02	5.903E-02	3.678E-03	0.337
AG-110M	1.353E-02		3.768E-02	6.426E-02	4.380E-03	0.211
IN-111	6.349E-01		1.135E+00	1.753E+00	9.705E-02	0.362
IN-113M	-3.320E-02		4.743E-02	7.384E-02	4.347E-03	-0.450
SN-113	-3.320E-02		4.743E-02	7.384E-02	4.347E-03	-0.450
IN-114M	-3.960E-03		2.192E-01	3.104E-01	1.628E-02	-0.013
CD-115	4.441E-01		1.181E+01	1.892E+01	1.165E+00	0.023
SN-117M	-1.905E-02		5.829E-02	9.262E-02	4.892E-03	-0.206
SB-122	4.002E-01		2.183E+00	3.715E+00	2.333E-01	0.108
I-123	-5.175E+00		3.208E+00	Half-Life too short		
TE-123M	-2.460E-02		3.050E-02	4.733E-02	2.536E-03	-0.520
I-124	4.387E-03		8.201E-01	1.193E+00	7.615E-02	0.004
SB-124	5.016E-02		9.088E-02	1.635E-01	1.091E-02	0.307
SB-125	-4.742E-02		9.613E-02	1.504E-01	8.939E-03	-0.315
TE-125M	7.204E+00		9.647E+00	1.634E+01	1.409E+00	0.441
I-126	9.687E-02		1.834E-01	3.168E-01	2.066E-02	0.306
SB-126	8.478E-02		1.808E-01	2.720E-01	1.891E-02	0.312
SB-127	1.118E+00		1.503E+00	2.624E+00	2.624E-01	0.426
XE-127	2.839E-02		4.872E-02	7.959E-02	4.232E-03	0.357
I-131	-8.930E-02		1.227E-01	1.920E-01	1.208E-02	-0.465
TE-132	-9.098E-02		6.891E-01	1.160E+00	1.652E-01	-0.078
BA-133	-1.783E-02		4.789E-02	6.666E-02	7.648E-03	-0.268
I-133	-3.614E-04		3.448E-03	Half-Life too short		
CS-134	9.990E-02		5.575E-02	1.023E-01	7.798E-03	0.977
CS-135	3.636E-01		1.770E-01	2.938E-01	2.209E-02	1.238
I-135	-1.482E+09		3.672E+09	Half-Life too short		
CS-136	3.809E-02		1.194E-01	2.051E-01	1.541E-02	0.186
BA-137M	4.756E-03		3.951E-02	6.506E-02	4.217E-03	0.073
CS-137	5.027E-03		4.176E-02	6.877E-02	4.473E-03	0.073
CE-139	9.047E-03		3.140E-02	5.117E-02	2.622E-03	0.177
BA-140	-2.247E-01		2.728E-01	4.152E-01	1.353E-01	-0.541
LA-140	-2.860E-02		8.621E-02	1.369E-01	8.916E-03	-0.209
CE-141	-3.027E-02		6.640E-02	1.055E-01	6.142E-03	-0.287
CE-143	9.854E-04		1.417E-04	Half-Life too short		
CE-144	1.513E-01		2.119E-01	3.542E-01	5.042E-02	0.427
PM-144	3.520E-03		4.148E-02	6.898E-02	4.667E-03	0.051
PR-144	2.385E-01		2.811E+00	4.675E+00	3.161E-01	0.051
PM-146	8.743E-03		4.408E-02	7.233E-02	6.253E-03	0.121
ND-147	1.781E-01		6.218E-01	1.015E+00	1.389E-01	0.176
PM-149	8.305E+00		9.527E+01	1.598E+02	2.257E+01	0.052

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-8.715E-02		1.017E-01	1.587E-01	1.017E-02	-0.549
GD-153	-6.012E-02		9.110E-02	1.292E-01	8.987E-03	-0.465
EU-154	-1.080E-01		1.488E-01	2.271E-01	2.213E-02	-0.475
EU-155	1.038E-01		1.161E-01	1.980E-01	1.334E-02	0.525
TB-160	4.988E-02		1.661E-01	2.764E-01	2.270E-02	0.180
HO-166M	4.833E-02		7.016E-02	1.215E-01	8.366E-03	0.398
TM-171	-3.808E+01		3.328E+01	4.752E+01	3.075E+00	-0.801
LU-176	1.987E-02		2.621E-02	4.251E-02	2.416E-03	0.467
LU-177	2.418E+00	+	1.626E+00	2.061E+00	1.102E-01	1.173
LU-177M	-4.422E-02		1.868E-01	2.992E-01	1.679E-02	-0.148
HF-181	8.608E-03		4.419E-02	7.219E-02	4.310E-03	0.119
W-181	7.112E-03		4.238E-01	6.414E-01	4.121E-02	0.011
TA-182	2.560E-02		2.693E-01	4.472E-01	2.653E-02	0.057
RE-183	7.967E-02		1.180E-01	1.909E-01	9.924E-03	0.417
RE-184	6.941E-02		2.304E-01	3.936E-01	2.190E-02	0.176
OS-185	7.081E-03		4.755E-02	7.997E-02	5.168E-03	0.089
RE-188	2.171E-01		1.869E-01	3.160E-01	1.694E-02	0.687
W-188	-2.163E+00		8.255E+00	1.188E+01	6.733E-01	-0.182
IR-192	-1.275E-02		3.457E-02	5.608E-02	3.205E-03	-0.227
AU-195	1.012E-01		2.344E-01	3.897E-01	2.680E-02	0.260
TL-200	4.755E-04		2.349E-04	Half-Life too short		
TL-201	6.378E+00		7.237E+00	1.210E+01	6.204E-01	0.527
TL-202	5.828E-02		7.758E-02	1.319E-01	7.598E-03	0.442
HG-203	4.303E-03		4.262E-02	7.165E-02	4.309E-03	0.060
BI-207	-2.930E-03		5.974E-02	9.933E-02	6.852E-03	-0.029
TL-207	-6.022E-01		8.055E-01	1.094E+00	1.802E-01	-0.550
PO-209	-2.911E+00		9.106E+00	1.396E+01	1.165E+00	-0.209
BI-210	8.805E-01		3.552E+00	6.099E+00	4.595E-01	0.144
PB-210	8.805E-01		3.552E+00	6.099E+00	4.595E-01	0.144
PO-210	8.805E-01		3.552E+00	6.099E+00	3.912E-01	0.144
PB-211	-8.330E-01		1.178E+00	1.639E+00	1.021E+00	-0.508
PO-215	-6.022E-01		8.055E-01	1.094E+00	1.802E-01	-0.550
RN-219	2.145E-01		4.366E-01	7.334E-01	9.899E-02	0.293
RN-220	2.507E+01		2.723E+01	4.867E+01	3.035E+00	0.515
RA-223	-6.022E-01		8.055E-01	1.094E+00	1.802E-01	-0.550
AC-227	1.566E-01		3.857E-01	6.604E-01	9.159E-02	0.237
TH-227	1.566E-01		3.860E-01	6.604E-01	1.111E-01	0.237
TH-229	1.207E-01		5.387E-01	8.674E-01	4.567E-02	0.139
PA-231	-5.952E-02		1.601E+00	2.671E+00	3.664E-01	-0.022
TH-231	-6.022E-01		8.055E-01	1.094E+00	1.802E-01	-0.550
U-231	-8.578E-02		1.141E+00	1.688E+00	1.189E-01	-0.051
PA-233	-2.426E-02		6.162E-02	9.984E-02	6.042E-03	-0.243
PA-234	-2.854E-01		3.671E-01	5.412E-01	1.001E-01	-0.527
PA-234M	3.574E+00		5.073E+00	8.830E+00	7.992E-01	0.405
U-235	-6.875E-02		2.299E-01	3.643E-01	5.917E-02	-0.189
NP-236	-4.115E-02		8.412E-02	1.325E-01	6.948E-03	-0.311
NP-239	-1.678E-01		1.932E-01	3.043E-01	1.920E-02	-0.551
AM-241	1.121E-01		1.744E-01	2.739E-01	1.946E-02	0.409

Sample ID : G245691008 Acquisition date : 9-FEB-2010 15:32:30

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-8.052E-03		1.033E-01	1.701E-01	1.133E-02	-0.047
AM-246	1.822E-02		1.671E-01	2.812E-01	1.891E-02	0.065
CM-247	2.983E-02		3.962E-02	6.767E-02	3.753E-03	0.441
CF-249	4.386E-02		4.123E-02	7.191E-02	3.953E-03	0.610
CF-251	5.905E-03		1.288E-01	2.068E-01	1.069E-02	0.029

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691008           *
* Acquisition date  :  9-FEB-2010 15:32:30 Detector SN#     :               *
* Detector ID       : GAM12                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.62      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691008           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.2213E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.869E+01	3.385E+00	1.579E-01	1.727E+00
NB-95	1.275E-01	6.532E-02	3.843E-02	3.333E-02
CD-109	4.415E+00	1.224E+00	6.385E-01	6.245E-01
SN-126	4.339E-01	1.203E-01	6.306E-02	6.138E-02
TL-208	5.930E-01	1.067E-01	3.035E-02	5.441E-02
BI-211	4.461E+00	5.311E-01	1.680E-01	2.710E-01
BI-212	1.323E+00	5.415E-01	2.617E-01	2.763E-01
PB-212	1.734E+00	1.680E-01	4.883E-02	8.570E-02
PO-212	1.734E+00	1.680E-01	4.883E-02	8.570E-02
BI-214	1.302E+00	1.962E-01	5.694E-02	1.001E-01
PB-214	1.552E+00	2.011E-01	5.858E-02	1.026E-01
PO-214	1.552E+00	2.011E-01	5.858E-02	1.026E-01
PO-216	1.734E+00	1.680E-01	4.883E-02	8.570E-02
PO-218	1.552E+00	2.011E-01	5.858E-02	1.026E-01
RA-224	4.202E+00	9.781E-01	5.557E-01	4.990E-01
RA-226	1.302E+00	1.962E-01	5.694E-02	1.001E-01
AC-228	1.871E+00	3.725E-01	1.186E-01	1.900E-01
RA-228	1.871E+00	3.725E-01	1.186E-01	1.900E-01
TH-228	1.760E+00	1.705E-01	4.957E-02	8.700E-02
TH-230	1.302E+00	1.962E-01	5.694E-02	1.001E-01
TH-232	1.871E+00	3.725E-01	1.186E-01	1.900E-01
TH-234	1.862E+00	1.923E+00	1.210E+00	9.813E-01
U-234	1.302E+00	1.962E-01	5.694E-02	1.001E-01
NP-237	1.274E+00	4.373E-01	1.873E-01	2.231E-01
U-238	1.862E+00	1.923E+00	1.210E+00	9.813E-01
AM-243	4.785E-01	9.255E-02	4.986E-02	4.722E-02
ANH-511	2.016E-01	7.816E-02	2.330E-02	3.988E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-7.274E-02	3.413E-01	2.795E-01	1.741E-01	NOT IDENT.
NA-22	-4.042E-02	5.200E-02	4.040E-02	2.653E-02	NOT IDENT.
NA-24	-4.291E+05	8.375E+05	0.000E+00	4.273E+05	SHORT HLIF
AL-26	1.957E-03	3.138E-02	2.669E-02	1.601E-02	NOT IDENT.
TI-44	4.111E-01	5.981E-02	4.110E-02	3.052E-02	FAIL ABUN
SC-46	-3.605E-02	4.409E-02	3.367E-02	2.249E-02	FAIL ABUN
V-48	-1.663E-02	8.516E-02	6.095E-02	4.345E-02	NOT IDENT.
CR-51	2.244E-01	3.661E-01	3.261E-01	1.868E-01	NOT IDENT.
MN-52	-1.065E-01	2.515E-01	1.956E-01	1.283E-01	NOT IDENT.
MN-54	2.789E-02	4.254E-02	3.736E-02	2.170E-02	NOT IDENT.
CO-56	9.673E-03	4.326E-02	3.683E-02	2.207E-02	NOT IDENT.
CO-57	-8.153E-03	2.617E-02	2.223E-02	1.335E-02	NOT IDENT.
CO-58	-2.356E-02	4.198E-02	3.336E-02	2.142E-02	NOT IDENT.
FE-59	-1.522E-02	1.080E-01	9.090E-02	5.508E-02	NOT IDENT.
CO-60	-1.238E-02	4.102E-02	3.300E-02	2.093E-02	NOT IDENT.
ZN-65	-5.535E-02	1.351E-01	9.460E-02	6.891E-02	NOT IDENT.
GE-68	2.135E-01	1.427E+00	1.233E+00	7.281E-01	NOT IDENT.
AS-73	2.004E-02	8.677E-01	7.736E-01	4.427E-01	NOT IDENT.
AS-74	5.353E-02	9.857E-02	8.810E-02	5.029E-02	NOT IDENT.
SE-75	-1.079E-02	4.662E-02	3.531E-02	2.378E-02	NOT IDENT.
BR-77	4.918E+00	1.077E+01	9.218E+00	5.493E+00	FAIL ABUN
SR-82	-5.287E-01	4.224E-01	3.157E-01	2.155E-01	NOT IDENT.
RB-83	-1.885E-03	7.277E-02	5.997E-02	3.713E-02	NOT IDENT.
RB-84	3.016E-02	8.223E-02	7.052E-02	4.195E-02	NOT IDENT.
KR-85	1.105E+01	8.105E+00	6.625E+00	4.135E+00	NOT IDENT.
SR-85	5.666E-02	4.157E-02	3.398E-02	2.121E-02	NOT IDENT.
RB-86	-1.684E-02	9.057E-01	7.717E-01	4.621E-01	NOT IDENT.
Y-88	1.644E-02	3.535E-02	3.216E-02	1.804E-02	NOT IDENT.
ZR-88	-2.563E-02	3.243E-02	2.603E-02	1.655E-02	NOT IDENT.
Y-91	-2.916E+00	2.135E+01	1.781E+01	1.089E+01	NOT IDENT.
NB-94	8.349E-03	3.844E-02	3.317E-02	1.961E-02	NOT IDENT.
NB-95M	6.202E-02	1.368E-01	1.092E-01	6.977E-02	NOT IDENT.
ZR-95	-5.342E-02	8.582E-02	6.819E-02	4.378E-02	NOT IDENT.
NB-97	7.560E+04	1.046E+05	0.000E+00	5.337E+04	SHORT HLIF
ZR-97	6.021E+06	2.210E+06	0.000E+00	1.128E+06	SHORT HLIF
MO-99	-1.071E-01	1.365E+01	1.154E+01	6.963E+00	NOT IDENT.
TC-99M	-3.391E+16	4.593E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.461E-02	3.373E-02	2.704E-02	1.721E-02	NOT IDENT.
RH-102	3.362E-02	2.992E-02	2.693E-02	1.527E-02	FAIL ABUN
RU-103	1.035E-02	4.282E-02	3.599E-02	2.185E-02	FAIL ABUN
RH-106	5.908E-02	3.578E-01	3.109E-01	1.825E-01	FAIL ABUN
RU-106	5.908E-02	3.577E-01	3.109E-01	1.825E-01	FAIL ABUN
AG-108M	1.987E-02	3.499E-02	2.994E-02	1.785E-02	NOT IDENT.
AG-110M	1.353E-02	3.693E-02	3.243E-02	1.884E-02	NOT IDENT.
IN-111	6.349E-01	1.112E+00	8.958E-01	5.676E-01	NOT IDENT.
IN-113M	-3.320E-02	4.648E-02	3.751E-02	2.371E-02	NOT IDENT.
SN-113	-3.320E-02	4.648E-02	3.751E-02	2.371E-02	NOT IDENT.
IN-114M	-3.960E-03	2.148E-01	1.591E-01	1.096E-01	NOT IDENT.
CD-115	4.441E-01	1.157E+01	9.573E+00	5.905E+00	NOT IDENT.
SN-117M	-1.905E-02	5.713E-02	4.758E-02	2.915E-02	NOT IDENT.
SB-122	4.002E-01	2.139E+00	1.878E+00	1.091E+00	NOT IDENT.
I-123	-5.175E+06	6.288E+06	0.000E+00	3.208E+06	SHORT HLIF
TE-123M	-2.460E-02	2.989E-02	2.431E-02	1.525E-02	NOT IDENT.
I-124	4.387E-03	8.037E-01	6.028E-01	4.100E-01	NOT IDENT.
SB-124	5.016E-02	8.907E-02	8.150E-02	4.544E-02	FAIL ABUN
SB-125	-4.742E-02	9.420E-02	7.629E-02	4.806E-02	FAIL ABUN
TE-125M	7.204E+00	9.454E+00	8.432E+00	4.823E+00	NOT IDENT.
I-126	9.687E-02	1.797E-01	1.598E-01	9.168E-02	NOT IDENT.
SB-126	8.478E-02	1.772E-01	1.371E-01	9.042E-02	FAIL ABUN
SB-127	1.118E+00	1.473E+00	1.323E+00	7.517E-01	NOT IDENT.
XE-127	2.839E-02	4.774E-02	4.076E-02	2.436E-02	NOT IDENT.
I-131	-8.930E-02	1.203E-01	9.759E-02	6.136E-02	NOT IDENT.
TE-132	-9.098E-02	6.753E-01	5.934E-01	3.445E-01	NOT IDENT.
BA-133	-1.783E-02	4.693E-02	3.390E-02	2.394E-02	NOT IDENT.
I-133	-3.614E+02	6.758E+03	0.000E+00	3.448E+03	SHORT HLIF
CS-134	9.990E-02	5.464E-02	5.148E-02	2.788E-02	NOT IDENT.
CS-135	3.636E-01	1.734E-01	1.499E-01	8.849E-02	NOT IDENT.
I-135	-1.482E+15	7.197E+15	0.000E+00	3.672E+15	SHORT HLIF
CS-136	3.809E-02	1.170E-01	1.029E-01	5.968E-02	FAIL ABUN
BA-137M	4.756E-03	3.872E-02	3.282E-02	1.975E-02	NOT IDENT.
CS-137	5.027E-03	4.093E-02	3.470E-02	2.088E-02	NOT IDENT.
CE-139	9.047E-03	3.077E-02	2.627E-02	1.570E-02	NOT IDENT.
BA-140	-2.247E-01	2.674E-01	2.101E-01	1.364E-01	NOT IDENT.
LA-140	-2.860E-02	8.449E-02	6.829E-02	4.311E-02	FAIL ABUN
CE-141	-3.027E-02	6.508E-02	5.425E-02	3.320E-02	NOT IDENT.
CE-143	9.854E+02	2.777E+02	0.000E+00	1.417E+02	SHORT HLIF
CE-144	1.513E-01	2.077E-01	1.823E-01	1.060E-01	NOT IDENT.
PM-144	3.520E-03	4.065E-02	3.478E-02	2.074E-02	NOT IDENT.

PR-144	2.385E-01	2.755E+00	2.357E+00	1.405E+00	NOT IDENT.
PM-146	8.743E-03	4.320E-02	3.667E-02	2.204E-02	NOT IDENT.
ND-147	1.781E-01	6.094E-01	5.134E-01	3.109E-01	FAIL ABUN
PM-149	8.305E+00	9.336E+01	8.151E+01	4.763E+01	NOT IDENT.
EU-152	-8.715E-02	9.964E-02	8.076E-02	5.084E-02	NOT IDENT.
GD-153	-6.012E-02	8.928E-02	6.679E-02	4.555E-02	FAIL ABUN
EU-154	-1.080E-01	1.459E-01	1.136E-01	7.442E-02	NOT IDENT.
EU-155	1.038E-01	1.138E-01	1.022E-01	5.807E-02	FAIL ABUN
TB-160	4.988E-02	1.628E-01	1.390E-01	8.304E-02	FAIL ABUN
HO-166M	4.833E-02	6.876E-02	6.127E-02	3.508E-02	FAIL ABUN
TM-171	-3.808E+01	3.261E+01	2.467E+01	1.664E+01	NOT IDENT.
LU-176	1.987E-02	2.569E-02	2.166E-02	1.311E-02	FAIL ABUN
LU-177	2.418E+00	1.593E+00	1.055E+00	8.128E-01	FAIL ABUN
LU-177M	-4.422E-02	1.831E-01	1.519E-01	9.341E-02	FAIL ABUN
HF-181	8.608E-03	4.331E-02	3.657E-02	2.210E-02	NOT IDENT.
W-181	7.112E-03	4.154E-01	3.331E-01	2.119E-01	NOT IDENT.
TA-182	2.560E-02	2.639E-01	2.238E-01	1.346E-01	FAIL ABUN
RE-183	7.967E-02	1.156E-01	9.804E-02	5.900E-02	FAIL ABUN
RE-184	6.941E-02	2.258E-01	2.010E-01	1.152E-01	NOT IDENT.
OS-185	7.081E-03	4.660E-02	4.036E-02	2.378E-02	NOT IDENT.
RE-188	2.171E-01	1.831E-01	1.624E-01	9.344E-02	NOT IDENT.
W-188	-2.163E+00	8.090E+00	6.057E+00	4.128E+00	FAIL ABUN
IR-192	-1.275E-02	3.388E-02	2.856E-02	1.728E-02	FAIL ABUN
AU-195	1.012E-01	2.297E-01	2.014E-01	1.172E-01	FAIL ABUN
TL-200	4.755E+02	4.603E+02	0.000E+00	2.349E+02	SHORT HLIF
TL-201	6.378E+00	7.092E+00	6.213E+00	3.619E+00	NOT IDENT.
TL-202	5.828E-02	7.603E-02	6.691E-02	3.879E-02	NOT IDENT.
HG-203	4.303E-03	4.177E-02	3.655E-02	2.131E-02	NOT IDENT.
BI-207	-2.930E-03	5.855E-02	4.981E-02	2.987E-02	FAIL ABUN
TL-207	-6.022E-01	7.893E-01	5.570E-01	4.027E-01	FAIL ABUN
PO-209	-2.911E+00	8.924E+00	7.015E+00	4.553E+00	NOT IDENT.
BI-210	8.805E-01	3.481E+00	3.180E+00	1.776E+00	NOT IDENT.
PB-210	8.805E-01	3.481E+00	3.180E+00	1.776E+00	NOT IDENT.
PO-210	8.805E-01	3.481E+00	3.180E+00	1.776E+00	NOT IDENT.
PB-211	-8.330E-01	1.155E+00	8.319E-01	5.891E-01	NOT IDENT.
PO-215	-6.022E-01	7.893E-01	5.570E-01	4.027E-01	FAIL ABUN
RN-219	2.145E-01	4.279E-01	3.724E-01	2.183E-01	FAIL ABUN
RN-220	2.507E+01	2.668E+01	2.461E+01	1.361E+01	NOT IDENT.
RA-223	-6.022E-01	7.893E-01	5.570E-01	4.027E-01	FAIL ABUN
AC-227	1.566E-01	3.780E-01	3.372E-01	1.928E-01	FAIL ABUN
TH-227	1.566E-01	3.783E-01	3.372E-01	1.930E-01	FAIL ABUN
TH-229	1.207E-01	5.279E-01	4.445E-01	2.693E-01	FAIL ABUN
PA-231	-5.952E-02	1.569E+00	1.362E+00	8.005E-01	FAIL ABUN
TH-231	-6.022E-01	7.893E-01	5.570E-01	4.027E-01	FAIL ABUN
U-231	-8.578E-02	1.118E+00	8.726E-01	5.705E-01	FAIL ABUN
PA-233	-2.426E-02	6.039E-02	5.086E-02	3.081E-02	FAIL ABUN
PA-234	-2.854E-01	3.597E-01	2.718E-01	1.835E-01	FAIL ABUN
PA-234M	3.574E+00	4.972E+00	4.432E+00	2.537E+00	FAIL ABUN
U-235	-6.875E-02	2.253E-01	1.874E-01	1.150E-01	FAIL ABUN
NP-236	-4.115E-02	8.244E-02	6.806E-02	4.206E-02	NOT IDENT.
NP-239	-1.678E-01	1.893E-01	1.569E-01	9.658E-02	FAIL ABUN
AM-241	1.121E-01	1.709E-01	1.424E-01	8.722E-02	NOT IDENT.
CM-243	-8.052E-03	1.012E-01	8.782E-02	5.164E-02	FAIL ABUN
AM-246	1.822E-02	1.637E-01	1.410E-01	8.354E-02	NOT IDENT.
CM-247	2.983E-02	3.883E-02	3.436E-02	1.981E-02	NOT IDENT.
CF-249	4.386E-02	4.041E-02	3.653E-02	2.062E-02	NOT IDENT.
CF-251	5.905E-03	1.262E-01	1.061E-01	6.438E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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46.50	270.9497
46.50	270.9497
46.50	270.9497
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49.72	302.1672
51.35	298.6214
52.39	288.3979
52.97	272.4951
53.15	272.6506
53.44	295.4256
54.07	289.9354
56.28	314.6429
56.28	314.6457
57.37	0.0000
57.53	315.8377
57.53	315.8395
57.60	315.9045
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57.98	344.3767
59.32	316.2002
59.32	316.2002
59.40	308.3341
59.54	308.4612
59.72	291.4045
60.01	306.2347
61.10	337.7919
61.14	337.8311
61.30	337.9861
63.00	394.0052
63.29	394.3268
63.29	394.3268
63.58	394.6488
64.28	351.5863
65.12	352.4063
65.20	375.3554
65.20	375.3554
66.05	409.9449
66.72	418.7975
66.83	418.9253
66.91	432.5342
67.20	451.8118
67.20	451.8118
67.75	449.7699
67.85	449.8940
68.90	390.4601
68.90	390.4601
69.30	366.7508
69.67	352.6768
70.82	411.1032
70.82	411.1032
70.83	411.1147
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72.87	462.7168
72.87	462.7168
74.67	413.7978
74.81	413.9442
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74.81	413.9442
74.81	413.9442
74.81	413.9442
74.81	413.9442
74.81	413.9442
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75.70	414.8666
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77.11	416.3177
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80.18	355.1179
80.30	355.2206
80.30	355.2206
80.57	355.4492
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81.07	347.4672
81.07	347.4672
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84.90	318.5494
85.43	318.9380
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86.50	319.7168
86.54	319.7460
86.59	319.7821
86.72	319.8766
86.79	319.9265
86.94	320.0365
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87.30	320.2961
87.30	320.2961
87.30	320.2961
87.30	320.2961
87.30	320.2961
87.30	320.2961
87.57	320.4921
87.88	320.7156
88.03	320.8239
88.36	321.0611
88.47	321.1402
89.95	322.1975
91.11	323.0227
92.29	323.8548
92.38	323.9184
92.38	323.9184
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94.00	325.0513
94.67	271.5825
94.67	271.5854
94.90	271.7188
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94.90	271.7188
94.90	271.7188
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95.87	276.6230
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97.43	309.4994
98.44	285.3957
98.44	285.3972
98.88	277.8844
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99.55	284.1062
99.86	284.2874
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100.10	282.4818
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103.76	310.0949
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105.31	292.3503
108.00	310.7180
109.28	273.7932

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111.00	305.5510
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116.30	272.4142
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117.00	284.8425
117.66	287.2034
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121.62	293.3246
121.78	293.4083
122.06	286.4450
122.32	286.5769
122.32	286.5769
122.32	286.5769
122.32	286.5769
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144.24	294.1244
144.24	294.1244
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154.21	240.8684
154.21	240.8684
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163.35	256.0652
163.89	282.3252
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167.43	230.2790
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171.86	233.9091
172.10	233.9871
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176.60	235.4378
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193.63	244.1580
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198.60	249.1018
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201.83	246.6760
202.84	224.1148
205.31	227.0845

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208.81	231.5025
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209.75	223.1163
210.97	247.6905
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218.09	230.5609
222.10	230.7551
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227.08	207.3587
227.20	217.9755
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228.18	234.1192
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236.00	250.9504
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238.63	223.4306
238.63	223.4306
238.63	223.4306
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241.98	188.0023
241.98	188.0023
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247.94	183.2408
248.90	182.5231
249.79	182.6942
252.40	182.2851
252.85	173.2978
252.85	173.2978
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256.20	177.5400
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264.65	161.6243
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269.46	157.7867
269.46	157.7867
269.46	157.7867
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277.60	171.1383
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295.21	155.8529

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304.40	160.2147
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323.87	172.2939
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338.28	179.1158
338.28	179.1158
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391.69	134.1363
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445.03	96.7375
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513.99	78.1639
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569.50	77.9319
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602.71	93.3276
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609.31	77.7294
609.31	77.7294
609.31	77.7294
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614.37	92.3315
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911.07	60.8993
911.07	60.8993
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969.11	117.8402
969.11	117.8402
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983.50	49.3484
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1050.47	58.8959
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1078.86	62.2725
1085.78	52.0101
1099.22	70.2783
1112.02	70.2919
1112.84	63.7695
1115.52	96.5499
1120.29	73.7496
1120.29	73.7496
1120.29	73.7496
1120.29	73.7496
1120.51	78.6730
1121.28	68.8564
1124.00	0.0000
1129.67	83.4175
1131.51	0.0000
1147.95	0.0000
1167.94	99.9196
1173.22	59.2700
1175.09	79.7211
1177.93	89.5181
1189.05	79.0752
1204.90	72.5818
1205.75	0.0000
1213.00	96.3491
1221.42	101.5122
1230.97	87.9570
1235.34	81.1425
1236.41	0.0000
1238.25	97.0549
1246.25	69.4845
1260.41	0.0000
1271.85	59.9902
1274.45	67.0382
1274.54	67.0409
1291.56	46.2452
1298.22	0.0000
1312.09	54.5955
1325.50	41.6039
1325.50	41.6039
1332.49	36.5991
1333.61	35.5924
1360.21	31.7493
1362.66	0.0000
1365.15	25.6378
1368.21	33.8701
1368.53	0.0000
1376.25	35.9983
1384.27	38.1352
1394.10	30.9998
1395.20	44.4452
1407.95	21.7776
1434.06	29.2305
1436.60	33.4271
1457.56	0.0000
1460.81	7.2065
1489.15	27.5171
1509.49	15.9540
1596.49	22.3334
1620.62	18.7144
1678.03	0.0000
1691.02	16.1593
1691.02	16.1593
1706.46	0.0000
1750.46	0.0000
1764.49	2.8970
1764.49	2.8970
1764.49	2.8970
1764.49	2.8970
1770.23	11.8437
1771.40	10.1543
1791.20	0.0000
1808.65	12.6699

1836.01	10.7813

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691008

Total Uranium Activity	5.5072E+00	ug/g
Total Uranium Counting Unc.	5.7228E+00	ug/g
Total Uranium Tpu	2.9198E-06	ug/g
Total Uranium Mda	3.6015E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691008         *
*   ANALYST       : MJH1                      DETECTOR   : GAM12              *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  9-FEB-2010 15:32:30.39    SAMPLE ALQT:  122.130 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.123E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.557E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.140E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.007E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:33:53.10

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691009.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:32:51.
Sample ID         : G245691009           Sample quantity  : 1.44890E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.52  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.43*	3167	1677	1.00	125.98	120	10	4.40E-01	3.0	
2	2	75.05	379	1481	1.18	149.22	143	15	5.26E-02	17.7	6.77E-01
3	2	77.27	648	1267	0.97	153.65	143	15	9.00E-02	9.6	
4	0	84.27*	357	1624	1.75	167.66	165	7	4.95E-02	19.6	
5	0	87.30	224	1523	1.00	173.71	172	6	3.10E-02	28.3	
6	2	92.78*	9082	1869	1.14	184.67	180	12	1.26E+00	1.3	8.34E+00
7	2	94.75	308	1093	1.02	188.61	180	12	4.28E-02	23.8	
8	0	98.73	764	1297	1.11	196.57	193	10	1.06E-01	9.6	
9	1	111.35	131	1050	1.18	221.79	218	12	1.82E-02	42.0	3.85E+00
10	1	113.04	471	1013	1.19	225.17	218	12	6.54E-02	12.3	
11	0	143.91*	422	827	1.09	286.89	283	9	5.86E-02	13.3	
12	0	163.33*	194	838	1.16	325.72	321	11	2.70E-02	29.9	
13	0	185.86*	2257	678	1.20	370.76	366	10	3.13E-01	3.1	
14	0	204.89*	149	565	1.15	408.81	407	9	2.07E-02	30.2	
15	0	209.47*	211	461	1.29	417.95	415	9	2.93E-02	19.8	
16	3	238.74*	1657	355	1.17	476.48	471	20	2.30E-01	3.1	1.61E+00
17	3	241.84	437	492	1.77	482.69	471	20	6.06E-02	13.1	
18	0	257.86	155	443	0.96	514.71	509	11	2.15E-02	27.6	
19	0	270.13	149	326	1.42	539.24	535	9	2.07E-02	23.3	
20	0	295.29*	534	410	1.28	589.54	584	12	7.42E-02	8.8	
21	0	300.08	97	278	1.22	599.12	596	8	1.35E-02	31.3	
22	0	328.27	119	243	1.19	655.49	651	9	1.65E-02	25.6	
23	0	338.39*	378	330	1.20	675.72	670	12	5.25E-02	11.1	
24	0	351.92*	1008	349	1.35	702.78	695	15	1.40E-01	5.2	
25	0	462.43	132	234	1.61	923.72	917	13	1.83E-02	25.5	
26	0	510.70*	162	302	2.01	1020.23	1011	17	2.26E-02	28.7	
27	0	582.91*	575	293	1.63	1164.61	1156	18	7.99E-02	8.2	
28	0	609.09*	785	207	1.64	1216.96	1208	18	1.09E-01	5.7	
29	0	726.94*	168	133	2.01	1452.60	1446	13	2.33E-02	16.5	
30	0	766.49*	379	235	1.89	1531.67	1522	19	5.26E-02	11.1	
31	0	785.84*	56	202	1.92	1570.38	1564	17	7.73E-03	61.2	
32	0	794.16*	72	125	1.16	1587.01	1582	11	9.95E-03	33.0	
33	0	860.74	29	141	1.34	1720.14	1714	12	4.00E-03	84.5	
34	0	910.88*	444	133	1.98	1820.40	1813	18	6.17E-02	7.9	
35	0	938.04	17	152	1.74	1874.71	1865	16	2.43E-03	161.1	
36	1	964.38	105	103	2.32	1927.38	1916	26	1.46E-02	22.4	9.89E-01
37	1	968.40*	269	82	2.11	1935.42	1916	26	3.74E-02	9.6	
38	0	1000.52*	811	106	1.98	1999.64	1991	20	1.13E-01	4.7	

Sample ID : G245691009 Acquisition date : 9-FEB-2010 15:32:51

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1120.11*	205	100	2.15	2238.80	2232	19	2.85E-02	13.6	
40	0	1237.57	56	102	0.93	2473.67	2468	13	7.80E-03	40.1	
41	0	1377.24	36	69	1.23	2752.98	2745	16	4.96E-03	55.5	
42	0	1459.80*	2008	78	2.36	2918.09	2906	24	2.79E-01	2.5	
43	0	1728.74	44	18	1.15	3455.93	3447	15	6.05E-03	26.4	
44	0	1763.57*	158	24	1.78	3525.60	3516	19	2.19E-02	11.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:33:55

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:32:51
Sample ID : G245691009 Sample quantity : 144.89 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.52 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.575E+01	2.349E+00	3.979E-01	3.019E-02	64.725
NB-95	+	765.79	*	3.623E-01	8.686E-02	5.531E-02	5.059E-03	6.550
CD-109	+	88.03	*	2.470E+00	1.416E+00	2.138E+00	1.976E-01	1.155
SN-126	+	64.28		2.754E+01	4.389E+00	1.193E+00	1.763E-01	23.089
	+	86.94		1.009E+00	7.081E-01	7.884E-01	3.270E-01	1.280
	+	87.57	*	2.428E-01	1.392E-01	2.139E-01	1.971E-02	1.135
LU-177	+	112.95		1.144E+01	2.902E+00	3.366E+00	2.169E-01	3.399
	+	208.36	*	3.285E+00	1.314E+00	1.398E+00	7.581E-02	2.351
TL-208		277.35		3.008E-01	3.256E-01	5.467E-01	5.741E-02	0.550
	+	510.84		4.520E-01	2.636E-01	1.706E-01	1.813E-02	2.650
	+	583.14	*	4.500E-01	8.200E-02	4.655E-02	3.649E-03	9.666
	+	860.37		2.057E-01	3.483E-01	3.700E-01	4.138E-02	0.556
BI-211		72.87		2.496E+00	4.904E+00	7.362E+00	6.078E-01	0.339
	+	351.07	*	3.701E+00	4.525E-01	2.702E-01	1.735E-02	13.697
BI-212	+	727.18	*	1.102E+00	3.806E-01	3.581E-01	3.567E-02	3.077
	+	785.46		2.333E+00	2.866E+00	2.326E+00	2.198E-01	1.003
		1620.62		1.857E-01	1.004E+00	1.695E+00	1.146E-01	0.110
PB-212	+	74.81		1.856E+00	6.979E-01	8.110E-01	1.017E-01	2.288
	+	77.11		1.775E+00	3.722E-01	4.537E-01	3.846E-02	3.913
	+	87.30		1.123E+00	6.533E-01	9.859E-01	1.339E-01	1.139
	+	238.63	*	1.418E+00	1.348E-01	7.838E-02	5.599E-03	18.086
	+	300.09		1.236E+00	7.797E-01	1.044E+00	8.572E-02	1.184
PO-212	+	74.81		1.856E+00	6.979E-01	8.110E-01	1.017E-01	2.288
	+	77.11		1.775E+00	3.722E-01	4.537E-01	3.846E-02	3.913
	+	87.30		1.123E+00	6.533E-01	9.859E-01	1.339E-01	1.139
		115.19		1.111E+01	4.977E+00	7.612E+00	4.795E-01	1.459
	+	238.63	*	1.418E+00	1.348E-01	7.838E-02	5.599E-03	18.086
	+	300.09		1.236E+00	7.797E-01	1.044E+00	8.572E-02	1.184
BI-214	+	609.31	*	1.153E+00	1.668E-01	8.916E-02	7.964E-03	12.927
	+	1120.29		1.510E+00	4.353E-01	3.474E-01	3.326E-02	4.347
	+	1764.49		1.528E+00	3.542E-01	1.988E-01	1.209E-02	7.682
PB-214	+	74.81		3.198E+00	1.189E+00	1.397E+00	1.560E-01	2.288
	+	77.11		3.043E+00	6.789E-01	7.778E-01	8.865E-02	3.913
	+	87.30		1.923E+00	1.113E+00	1.689E+00	2.026E-01	1.139

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.239E+00	6.145E-01	4.711E-01	3.725E-02	4.752
	+	295.21		1.194E+00	2.341E-01	1.766E-01	1.499E-02	6.760
	+	351.92	*	1.288E+00	1.711E-01	9.417E-02	7.791E-03	13.671
PO-214	+	74.81		3.198E+00	1.189E+00	1.397E+00	1.560E-01	2.288
	+	77.11		3.043E+00	6.789E-01	7.778E-01	8.865E-02	3.913
	+	87.30		1.923E+00	1.113E+00	1.689E+00	2.026E-01	1.139
	+	241.98		2.239E+00	6.145E-01	4.711E-01	3.725E-02	4.752
	+	295.21		1.194E+00	2.341E-01	1.766E-01	1.499E-02	6.760
	+	351.92	*	1.288E+00	1.711E-01	9.417E-02	7.791E-03	13.671
PO-216	+	74.81		1.856E+00	6.979E-01	8.110E-01	1.017E-01	2.288
	+	77.11		1.775E+00	3.722E-01	4.537E-01	3.846E-02	3.913
	+	87.30		1.123E+00	6.533E-01	9.859E-01	1.339E-01	1.139
	+	238.63	*	1.418E+00	1.348E-01	7.838E-02	5.599E-03	18.086
	+	300.09		1.236E+00	7.797E-01	1.044E+00	8.572E-02	1.184
PO-218	+	74.81		3.198E+00	1.189E+00	1.397E+00	1.560E-01	2.288
	+	77.11		3.043E+00	6.789E-01	7.778E-01	8.865E-02	3.913
	+	87.30		1.923E+00	1.113E+00	1.689E+00	2.026E-01	1.139
	+	241.98		2.239E+00	6.145E-01	4.711E-01	3.725E-02	4.752
	+	295.21		1.194E+00	2.341E-01	1.766E-01	1.499E-02	6.760
	+	351.92	*	1.288E+00	1.711E-01	9.417E-02	7.791E-03	13.671
RA-224	+	240.98	*	4.245E+00	1.141E+00	8.909E-01	4.963E-02	4.765
RA-226	+	609.31	*	1.153E+00	1.668E-01	8.916E-02	7.964E-03	12.927
	+	1120.29		1.510E+00	4.353E-01	3.474E-01	3.326E-02	4.347
	+	1764.49		1.528E+00	3.542E-01	1.988E-01	1.209E-02	7.682
AC-228	+	338.32		1.541E+00	7.146E-01	3.029E-01	1.235E-01	5.087
	+	911.07	*	1.495E+00	3.075E-01	1.645E-01	2.180E-02	9.086
	+	969.11		1.590E+00	4.881E-01	3.075E-01	7.364E-02	5.170
RA-228	+	338.32		1.541E+00	7.146E-01	3.029E-01	1.235E-01	5.087
	+	911.07	*	1.495E+00	3.075E-01	1.645E-01	2.180E-02	9.086
	+	969.11		1.590E+00	4.881E-01	3.075E-01	7.364E-02	5.170
TH-228	+	74.81		1.884E+00	6.866E-01	8.234E-01	6.938E-02	2.288
	+	77.11		1.802E+00	3.779E-01	4.606E-01	3.904E-02	3.913
	+	87.30		1.140E+00	6.534E-01	1.001E+00	9.200E-02	1.139
	+	238.63	*	1.439E+00	1.369E-01	7.957E-02	5.684E-03	18.086
	+	300.09		1.255E+00	1.078E+00	1.060E+00	6.246E-01	1.184
TH-229	+	85.43		9.140E-01	3.669E-01	4.351E-01	3.933E-02	2.101
	+	88.47		3.314E-01	1.900E-01	2.920E-01	2.675E-02	1.135
	+	100.00		2.165E+00	4.486E-01	3.712E-01	2.795E-02	5.831
		193.63	*	2.595E-01	4.658E-01	7.916E-01	4.238E-02	0.328
		210.97		1.476E+00	7.727E-01	1.203E+00	6.541E-02	1.227
TH-230	+	609.31	*	1.153E+00	1.668E-01	8.916E-02	7.964E-03	12.927
	+	1120.29		1.510E+00	4.353E-01	3.474E-01	3.326E-02	4.347
	+	1764.49		1.528E+00	3.542E-01	1.988E-01	1.209E-02	7.682
U-231	+	84.21		2.643E+01	1.061E+01	1.293E+01	1.157E+00	2.044
	+	92.29		2.402E+02	2.122E+01	4.986E+00	4.245E-01	48.176
	+	95.87	*	4.924E+00	2.375E+00	2.274E+00	1.822E-01	2.165
		108.00		-2.451E+00	2.950E+00	4.126E+00	2.806E-01	-0.594
TH-232	+	338.32		1.541E+00	3.522E-01	3.029E-01	1.752E-02	5.087
	+	911.07	*	1.495E+00	3.075E-01	1.645E-01	2.180E-02	9.086

Sample ID : G245691009 Acquisition date : 9-FEB-2010 15:32:51

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	969.11		1.590E+00	4.881E-01	3.075E-01	7.364E-02	5.170
PA-234M	+	766.42		9.586E+01	5.315E+01	1.465E+01	7.445E+00	6.544
	+	1001.03	*	9.734E+01	1.397E+01	5.232E+00	5.644E-01	18.603
TH-234	+	63.29	*	6.957E+01	1.296E+01	3.235E+00	5.702E-01	21.509
	+	92.38		6.262E+01	1.139E+01	1.299E+00	2.341E-01	48.222
U-234	+	609.31	*	1.153E+00	1.668E-01	8.916E-02	7.964E-03	12.927
	+	1120.29		1.510E+00	4.353E-01	3.474E-01	3.326E-02	4.347
	+	1764.49		1.528E+00	3.542E-01	1.988E-01	1.209E-02	7.682
U-235		89.95		-1.283E+00	2.566E+00	2.872E+00	8.886E-01	-0.447
	+	93.35		7.529E+01	2.115E+01	1.546E+00	4.319E-01	48.710
		105.00		1.182E+00	1.323E+00	2.119E+00	6.236E-01	0.558
	+	143.76	*	1.266E+00	3.948E-01	3.451E-01	5.588E-02	3.670
	+	163.35		1.338E+00	8.347E-01	7.656E-01	1.364E-01	1.748
	+	185.71		1.416E+00	1.148E-01	6.561E-02	3.489E-03	21.578
	+	205.31		1.120E+00	7.050E-01	8.010E-01	1.431E-01	1.398
NP-237	+	86.50	*	7.129E-01	4.343E-01	5.605E-01	1.265E-01	1.272
	+	95.87		4.323E+00	2.312E+00	1.997E+00	4.878E-01	2.165
U-238	+	63.29	*	6.957E+01	1.296E+01	3.235E+00	5.702E-01	21.509
	+	92.38		6.262E+01	5.533E+00	1.299E+00	1.104E-01	48.222
AM-243	+	74.67	*	3.009E-01	1.096E-01	1.320E-01	1.102E-02	2.279
	+	86.72		2.673E+01	1.532E+01	2.095E+01	1.916E+00	1.276
		117.66		-4.044E+00	5.090E+00	7.065E+00	4.346E-01	-0.572
		142.18		4.871E+01	2.252E+01	3.406E+01	1.876E+00	1.430
ANH-511	+	511.00	*	9.763E-02	5.634E-02	3.685E-02	2.434E-03	2.649

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.094E-01	2.597E-01	4.373E-01	3.169E-02	0.250
NA-22		1274.54	*	-1.717E-02	3.255E-02	5.119E-02	3.483E-03	-0.335
NA-24		1368.53	*	2.933E-01	3.255E-02	Half-Life too short		
AL-26		1129.67		4.751E-01	1.437E+00	2.110E+00	1.409E-01	0.225
		1808.65	*	-1.739E-02	2.044E-02	2.880E-02	1.682E-03	-0.604
TI-44		67.85		-7.236E-02	7.086E-02	1.090E-01	8.766E-03	-0.664
	+	78.38	*	3.276E-01	6.869E-02	9.572E-02	8.184E-03	3.423
SC-46		889.25	*	-1.058E-02	2.971E-02	4.726E-02	5.271E-03	-0.224
	+	1120.51		2.586E-01	7.255E-02	9.713E-02	6.710E-03	2.663
V-48		944.10		-1.669E-01	9.006E-01	1.230E+00	1.302E-01	-0.136
		983.50	*	9.902E-03	5.441E-02	8.926E-02	8.829E-03	0.111
		1312.09		-6.636E-03	6.402E-02	1.040E-01	7.573E-03	-0.064
CR-51		320.08	*	-1.220E-01	3.074E-01	4.856E-01	3.127E-02	-0.251
MN-52		744.21		3.051E-01	2.189E-01	3.857E-01	3.402E-02	0.791
		848.13		-2.443E+00	5.167E+00	8.194E+00	8.573E-01	-0.298
		935.52		3.401E-01	2.251E-01	3.563E-01	3.822E-02	0.955
		1246.25		3.019E+00	5.865E+00	9.207E+00	5.920E-01	0.328
		1333.61		-4.821E-02	4.104E+00	6.603E+00	4.988E-01	-0.007
		1434.06	*	9.205E-02	1.668E-01	2.868E-01	2.113E-02	0.321
MN-54		834.83	*	-9.120E-03	3.088E-02	4.986E-02	5.107E-03	-0.183

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-56		846.75	*	-3.386E-02	3.092E-02	4.664E-02	4.868E-03	-0.726
		977.42		-1.866E+00	2.414E+00	3.577E+00	3.578E-01	-0.522
		1037.82		-1.783E-01	2.234E-01	3.511E-01	3.253E-02	-0.508
		1175.09		-6.976E-01	1.698E+00	2.732E+00	1.516E-01	-0.255
	+	1238.25		1.156E-01	9.290E-02	1.209E-01	8.061E-03	0.956
		1360.21		-1.678E-01	7.472E-01	1.193E+00	8.962E-02	-0.141
		1771.40		-1.755E-02	1.640E-01	2.227E-01	1.346E-02	-0.079
CO-57		122.06	*	1.043E-02	2.984E-02	4.834E-02	2.863E-03	0.216
		136.48		-4.848E-02	2.329E-01	3.686E-01	2.413E-02	-0.132
CO-58		810.76	*	-2.028E-02	3.052E-02	4.801E-02	4.739E-03	-0.422
FE-59	+	142.65		1.635E+01	4.445E+00	5.675E+00	3.123E-01	2.880
		192.34		5.914E-01	8.661E-01	1.474E+00	1.709E-01	0.401
		1099.22	*	-3.069E-02	6.806E-02	1.097E-01	9.029E-03	-0.280
		1291.56		-1.120E-02	8.560E-02	1.388E-01	1.166E-02	-0.081
CO-60		1173.22		3.566E-04	3.360E-02	5.565E-02	3.075E-03	0.006
		1332.49	*	1.418E-02	3.035E-02	5.156E-02	3.896E-03	0.275
ZN-65		1115.52	*	5.018E-02	7.933E-02	1.194E-01	8.410E-03	0.420
GE-68		1077.35	*	4.769E-01	9.203E-01	1.588E+00	1.262E-01	0.300
AS-73		53.44	*	1.571E+00	1.472E+00	2.528E+00	2.004E-01	0.622
AS-74		595.88	*	3.646E-03	7.618E-02	1.233E-01	8.858E-03	0.030
		634.78		2.268E-02	2.957E-01	4.780E-01	3.559E-02	0.047
SE-75		66.05		-6.702E+00	7.733E+00	1.119E+01	1.109E+00	-0.599
		96.73		2.215E+00	1.503E+00	1.809E+00	2.385E-01	1.224
		121.11		8.198E-02	1.602E-01	2.606E-01	2.433E-02	0.315
		136.00		-4.130E-03	4.375E-02	6.949E-02	3.957E-03	-0.059
		198.60		-6.090E-01	1.672E+00	2.726E+00	1.849E-01	-0.223
		264.65	*	4.029E-02	4.135E-02	6.534E-02	3.737E-03	0.617
		279.53		-3.169E-02	9.338E-02	1.499E-01	9.262E-03	-0.211
		303.91		7.120E-01	1.958E+00	2.828E+00	2.690E-01	0.252
		400.65		-2.554E-02	2.090E-01	3.477E-01	3.167E-02	-0.073
BR-77	+	87.88		5.385E+02	3.087E+02	4.686E+02	4.330E+01	1.149
		200.40		-1.367E+01	1.636E+02	2.525E+02	1.360E+01	-0.054
	+	239.00		2.297E+02	1.927E+01	3.012E+01	1.675E+00	7.627
		249.79		6.980E-01	5.979E+01	9.822E+01	5.506E+00	0.007
		281.68		-5.983E+01	7.787E+01	1.225E+02	6.992E+00	-0.488
		297.23		2.789E+02	7.622E+01	9.997E+01	5.739E+00	2.790
		303.76		5.562E+01	1.680E+02	2.423E+02	1.394E+01	0.230
		439.47		1.356E+01	1.181E+02	1.971E+02	1.202E+01	0.069
		484.57		-3.449E+01	1.777E+02	2.897E+02	1.859E+01	-0.119
		520.65	*	3.105E+00	8.434E+00	1.408E+01	9.395E-01	0.220
		574.64		-1.325E+02	1.997E+02	2.795E+02	1.968E+01	-0.474
		578.91		3.586E+01	8.261E+01	1.195E+02	8.452E+00	0.300
		585.48		1.306E+03	2.173E+02	3.730E+02	2.654E+01	3.500
		755.35		5.628E+01	1.358E+02	2.304E+02	2.071E+01	0.244
		817.79		1.135E+01	1.041E+02	1.726E+02	1.721E+01	0.066
SR-82		698.33		-1.340E+01	2.724E+01	4.426E+01	3.603E+00	-0.303
		776.49	*	-2.113E-01	3.279E-01	4.942E-01	4.602E-02	-0.428
		1395.20		-1.631E+00	8.318E+00	1.327E+01	9.892E-01	-0.123
RB-83		520.41	*	2.394E-02	5.547E-02	9.291E-02	6.197E-03	0.258

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		529.64		6.323E-02	8.375E-02	1.424E-01	9.591E-03	0.444
		552.65		-2.382E-02	1.629E-01	2.632E-01	1.814E-02	-0.091
RB-84		881.50	*	8.627E-02	5.921E-02	1.043E-01	1.149E-02	0.827
KR-85		513.99	*	1.286E+01	6.780E+00	1.074E+01	7.116E-01	1.197
SR-85		513.99	*	6.596E-02	3.477E-02	5.509E-02	3.650E-03	1.197
RB-86		1076.63	*	1.178E-01	5.960E-01	1.007E+00	8.020E-02	0.117
Y-88		898.02		-1.665E-02	3.280E-02	5.159E-02	5.848E-03	-0.323
		1836.01	*	-4.381E-02	2.912E-02	3.789E-02	2.158E-03	-1.156
ZR-88		392.90	*	-2.112E-02	2.463E-02	3.961E-02	2.278E-03	-0.533
Y-91		1204.90	*	6.751E+00	1.406E+01	2.393E+01	1.415E+00	0.282
NB-94		702.63	*	1.620E-02	2.702E-02	4.646E-02	3.811E-03	0.349
		871.10		-2.134E-02	2.771E-02	4.284E-02	4.646E-03	-0.498
NB-95M		235.69	*	7.862E-03	1.222E-01	1.775E-01	1.302E-02	0.044
ZR-95		724.18		1.579E-01	8.749E-02	1.404E-01	1.302E-02	1.125
		756.15	*	4.264E-02	5.999E-02	9.906E-02	9.747E-03	0.430
NB-97		657.90	*	-1.303E-01	5.999E-02	Half-Life too short		
		1024.50		5.711E+00	5.999E-02	Half-Life too short		
ZR-97		254.15		-8.320E-01	5.999E-02	Half-Life too short		
		355.39		2.406E+00	5.999E-02	Half-Life too short		
		507.63	*	4.437E+00	5.999E-02	Half-Life too short		
		602.52		1.007E-01	5.999E-02	Half-Life too short		
		1021.30		-2.237E-01	5.999E-02	Half-Life too short		
		1147.95		-8.493E-02	5.999E-02	Half-Life too short		
		1362.66		-4.240E+00	5.999E-02	Half-Life too short		
		1750.46		3.585E+00	5.999E-02	Half-Life too short		
MO-99		140.51		-8.078E+00	3.243E+01	4.527E+01	1.217E+01	-0.178
		181.06		8.945E+00	1.815E+01	2.731E+01	4.637E+00	0.328
		366.43		-2.903E+01	6.613E+01	1.092E+02	6.306E+00	-0.266
		739.58	*	1.271E+01	1.108E+01	1.914E+01	2.921E+00	0.664
		778.00		-3.177E+01	3.257E+01	4.436E+01	4.142E+00	-0.716
TC-99M		140.51	*	-1.269E+10	3.257E+01	Half-Life too short		
RH-101		127.23		-6.995E-02	3.698E-02	5.557E-02	3.210E-03	-1.259
		198.01	*	-1.357E-03	3.056E-02	5.034E-02	2.706E-03	-0.027
		325.23		4.285E-02	2.107E-01	2.995E-01	1.731E-02	0.143
RH-102		418.52		2.353E-02	2.194E-01	3.677E-01	2.185E-02	0.064
		475.06	*	3.398E-03	2.372E-02	3.943E-02	2.504E-03	0.086
		631.29		-4.215E-04	4.511E-02	7.257E-02	5.386E-03	-0.006
		697.49		2.029E-03	6.041E-02	1.011E-01	8.217E-03	0.020
	+	766.84		9.112E-01	2.185E-01	2.538E-01	2.326E-02	3.590
		1046.59		-9.501E-03	8.201E-02	1.360E-01	1.174E-02	-0.070
		1112.84		2.627E-02	1.967E-01	2.835E-01	2.013E-02	0.093
RU-103		497.08	*	-8.424E-04	3.193E-02	5.241E-02	6.805E-03	-0.016
	+	610.33		1.245E+01	2.448E+00	2.227E+00	3.570E-01	5.593
RH-106	+	511.85		4.877E-01	2.815E-01	3.348E-01	2.213E-02	1.457
		621.84	*	-1.333E-02	2.706E-01	4.349E-01	5.471E-02	-0.031
		1050.47		-9.198E-01	1.689E+00	2.713E+00	2.318E-01	-0.339
RU-106	+	511.85		4.877E-01	2.815E-01	3.348E-01	2.213E-02	1.457
		621.84	*	-1.333E-02	2.706E-01	4.349E-01	3.200E-02	-0.031
		1050.47		-9.198E-01	1.689E+00	2.713E+00	2.318E-01	-0.339

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-108M		433.93	*	-1.258E-02	2.546E-02	4.124E-02	2.695E-03	-0.305
		614.37		-3.650E-03	3.718E-02	5.131E-02	3.953E-03	-0.071
		722.95		2.204E-02	3.543E-02	5.341E-02	4.723E-03	0.413
AG-110M		657.75	*	-4.940E-02	2.823E-02	4.238E-02	3.342E-03	-1.166
		677.61		-1.800E-01	2.427E-01	3.887E-01	3.153E-02	-0.463
		706.67		-5.241E-02	1.670E-01	2.738E-01	2.330E-02	-0.191
		763.93		1.040E+00	2.222E-01	3.663E-01	3.425E-02	2.839
		884.67		-3.284E-02	4.129E-02	6.366E-02	7.188E-03	-0.516
	+	937.48		5.093E-02	1.642E-01	1.434E-01	1.570E-02	0.355
		1384.27		-5.555E-02	1.230E-01	1.569E-01	1.217E-02	-0.354
IN-111		171.28		-2.134E-01	9.992E-01	1.675E+00	8.812E-02	-0.127
		245.39	*	1.787E-01	1.050E+00	1.527E+00	8.536E-02	0.117
IN-113M		391.69	*	-3.127E-02	3.663E-02	5.900E-02	3.619E-03	-0.530
SN-113		391.69	*	-3.127E-02	3.663E-02	5.900E-02	3.619E-03	-0.530
IN-114M		190.27	*	-9.837E-02	1.847E-01	2.660E-01	1.420E-02	-0.370
CD-115		260.90		-6.553E+01	1.341E+02	1.871E+02	1.056E+01	-0.350
		492.35		1.079E+00	2.856E+01	4.709E+01	3.048E+00	0.023
		527.90	*	-1.525E+00	8.746E+00	1.416E+01	9.519E-01	-0.108
SN-117M		156.02		4.965E-01	2.241E+00	3.822E+00	2.041E-01	0.130
		158.56	*	2.073E-02	6.017E-02	9.121E-02	4.848E-03	0.227
SB-122		563.90	*	1.021E+00	1.734E+00	2.906E+00	2.025E-01	0.351
		692.80		8.274E+00	3.435E+01	5.815E+01	4.688E+00	0.142
I-123		159.00	*	1.108E+00	3.435E+01	Half-Life too short		
		528.96		1.567E+02	3.435E+01	Half-Life too short		
TE-123M		159.00	*	5.265E-03	3.132E-02	4.716E-02	2.544E-03	0.112
I-124		602.71	*	4.456E-02	6.121E-01	8.567E-01	6.195E-02	0.052
		722.78		2.281E+00	3.718E+00	5.602E+00	4.761E-01	0.407
		1325.50		5.344E+00	2.718E+01	4.519E+01	3.372E+00	0.118
	+	1376.25		3.591E+01	3.993E+01	4.687E+01	3.509E+00	0.766
		1509.49		2.057E+01	1.225E+01	2.325E+01	1.666E+00	0.885
		1691.02		2.778E-01	3.157E+00	5.267E+00	3.397E-01	0.053
SB-124		602.71		2.577E-03	3.541E-02	4.955E-02	3.584E-03	0.052
		645.85		-3.743E-01	4.441E-01	6.763E-01	5.482E-02	-0.554
		709.31		-3.810E-01	2.207E+00	3.645E+00	3.026E-01	-0.105
		713.82		-1.387E-01	1.277E+00	2.115E+00	2.508E-01	-0.066
		722.78		1.912E-01	3.118E-01	4.697E-01	4.080E-02	0.407
	+	968.20		1.637E+01	3.559E+00	5.433E+00	5.525E-01	3.013
		1045.16		3.588E-01	1.735E+00	2.944E+00	2.549E-01	0.122
		1325.50		4.786E-01	2.434E+00	4.047E+00	3.020E-01	0.118
		1368.21		3.253E-01	1.484E+00	2.198E+00	2.811E-01	0.148
		1436.60		6.110E-01	2.628E+00	4.375E+00	3.221E-01	0.140
		1691.02	*	5.495E-03	6.244E-02	1.042E-01	7.186E-03	0.053
SB-125		427.89	*	5.033E-02	7.344E-02	1.261E-01	7.877E-03	0.399
	+	463.38		7.237E-01	3.726E-01	4.449E-01	3.190E-02	1.627
		600.56		-1.902E-02	1.620E-01	2.344E-01	1.867E-02	-0.081
		635.90		3.475E-02	2.238E-01	3.633E-01	2.997E-02	0.096
TE-125M		109.28	*	7.299E+00	1.348E+01	1.975E+01	1.736E+00	0.370
I-126		388.63		2.801E-01	1.709E-01	3.046E-01	1.751E-02	0.919
		666.33	*	-1.613E-01	1.536E-01	2.431E-01	1.868E-02	-0.664

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		753.82		7.319E-01	1.181E+00	2.025E+00	1.815E-01	0.361
SB-126		223.80		-2.161E+00	3.628E+00	5.881E+00	3.233E-01	-0.367
		278.60		7.760E-01	2.121E+00	3.503E+00	1.996E-01	0.222
	+	296.50		1.191E+01	2.213E+00	2.926E+00	1.680E-01	4.069
		414.70		-1.993E-02	5.951E-02	9.770E-02	5.778E-03	-0.204
		415.30		1.340E+00	4.854E+00	8.203E+00	4.855E-01	0.163
		555.20		3.145E+00	3.195E+00	5.477E+00	3.784E-01	0.574
		573.80		-4.754E-01	9.481E-01	1.402E+00	9.862E-02	-0.339
		593.00		-2.166E-02	7.548E-01	1.220E+00	8.740E-02	-0.018
		656.30		-6.928E+00	2.775E+00	3.928E+00	2.980E-01	-1.764
		666.33		-6.740E-02	6.419E-02	1.016E-01	7.809E-03	-0.664
		675.00		4.065E-01	1.585E+00	2.691E+00	2.102E-01	0.151
		695.00		2.421E-02	6.064E-02	1.034E-01	8.371E-03	0.234
		697.00		3.906E-02	2.144E-01	3.616E-01	2.937E-02	0.108
		720.50	*	-8.008E-03	1.272E-01	1.815E-01	1.536E-02	-0.044
		856.80		1.841E-01	4.107E-01	6.023E-01	6.388E-02	0.306
		989.30		3.231E-01	9.630E-01	1.597E+00	1.562E-01	0.202
		1034.80		2.883E+00	6.370E+00	1.063E+01	9.438E-01	0.271
		1213.00		3.531E-01	3.594E+00	5.966E+00	3.587E-01	0.059
SB-127		61.10		1.065E+02	1.065E+02	1.632E+02	1.711E+01	0.653
		252.40		1.273E+00	4.447E+00	6.447E+00	2.677E+00	0.198
		290.80		-7.407E+00	2.123E+01	2.951E+01	2.693E+00	-0.251
		411.60		4.889E+00	9.918E+00	1.688E+01	2.433E+00	0.290
		444.90		2.392E+00	7.811E+00	1.315E+01	1.444E+00	0.182
		473.00		-8.186E-01	1.388E+00	2.217E+00	2.543E-01	-0.369
		543.00		4.155E+00	1.434E+01	2.374E+01	3.182E+00	0.175
		603.60		-1.112E+00	1.075E+01	1.483E+01	1.721E+00	-0.075
		685.20	*	5.134E-01	1.097E+00	1.879E+00	2.048E-01	0.273
		698.50		-4.832E+00	1.227E+01	2.002E+01	3.117E+00	-0.241
		722.20		4.016E+00	2.613E+01	3.796E+01	4.202E+00	0.106
		783.80		5.639E+00	3.757E+00	5.833E+00	7.581E-01	0.967
XE-127		57.60		1.081E+01	1.089E+01	1.781E+01	1.372E+00	0.607
	+	145.22		4.188E+00	1.139E+00	1.451E+00	7.932E-02	2.886
		172.10		7.159E-02	1.167E-01	1.999E-01	1.052E-02	0.358
		202.84	*	1.490E-02	4.915E-02	7.299E-02	3.940E-03	0.204
		374.96		-6.522E-02	1.548E-01	2.552E-01	1.472E-02	-0.256
I-131		80.18		-4.529E+00	8.139E+00	1.074E+01	9.362E-01	-0.422
		284.30		-5.002E-01	1.273E+00	2.035E+00	1.296E-01	-0.246
		364.48	*	-2.585E-02	8.870E-02	1.475E-01	9.521E-03	-0.175
		636.97		-1.091E+00	1.312E+00	1.998E+00	1.601E-01	-0.546
		722.89		3.703E+00	5.982E+00	9.016E+00	7.714E-01	0.411
TE-132		49.72		8.436E+00	3.575E+01	6.066E+01	6.195E+00	0.139
	+	111.76		5.843E+01	4.940E+01	7.724E+01	7.175E+00	0.756
		116.30		2.515E+01	3.756E+01	5.505E+01	5.001E+00	0.457
		228.16	*	-6.795E-02	6.267E-01	1.032E+00	1.472E-01	-0.066
BA-133		53.15		5.288E+00	6.368E+00	1.090E+01	8.648E-01	0.485
		79.62		-1.955E+00	2.107E+00	2.998E+00	4.566E-01	-0.652
		81.00		-5.896E-02	1.998E-01	2.295E-01	3.656E-02	-0.257
		276.40		4.156E-01	3.259E-01	5.494E-01	7.096E-02	0.756

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		302.84		1.028E-01	1.354E-01	1.995E-01	2.320E-02	0.515
		356.01	*	1.764E-02	4.078E-02	5.836E-02	6.741E-03	0.302
		383.85		-1.383E-01	2.525E-01	4.132E-01	4.482E-02	-0.335
I-133	+	510.53		1.018E+00	2.525E-01	Half-Life too short		
		529.87	*	3.515E-03	2.525E-01	Half-Life too short		
		706.58		-9.406E-02	2.525E-01	Half-Life too short		
		856.28		-5.560E-03	2.525E-01	Half-Life too short		
		875.33		-1.459E-01	2.525E-01	Half-Life too short		
	+	1236.41		8.581E-01	2.525E-01	Half-Life too short		
		1298.22		8.036E-02	2.525E-01	Half-Life too short		
CS-134		475.35		7.561E-01	1.551E+00	2.620E+00	1.665E-01	0.289
		563.23		2.447E-01	2.966E-01	5.028E-01	3.553E-02	0.487
		569.32		1.619E-01	1.688E-01	2.837E-01	2.028E-02	0.571
		604.70		-1.766E-02	3.197E-02	4.246E-02	3.087E-03	-0.416
		795.84	*	1.101E-01	4.696E-02	7.575E-02	7.327E-03	1.453
		801.93		-5.291E-01	3.428E-01	4.736E-01	4.620E-02	-1.117
		1038.57		-2.084E+00	2.806E+00	4.435E+00	3.902E-01	-0.470
		1167.94		2.291E-01	1.853E+00	3.094E+00	1.754E-01	0.074
		1365.15		-1.340E-01	9.376E-01	1.508E+00	1.200E-01	-0.089
CS-135		268.24	*	1.240E-01	1.577E-01	2.343E-01	1.771E-02	0.529
I-135		288.45		2.311E+10	1.577E-01	Half-Life too short		
		417.63		-1.104E+10	1.577E-01	Half-Life too short		
		546.56		7.312E+09	1.577E-01	Half-Life too short		
		836.80		6.560E+09	1.577E-01	Half-Life too short		
		1038.76		-6.704E+09	1.577E-01	Half-Life too short		
		1124.00		4.812E+10	1.577E-01	Half-Life too short		
		1131.51		-1.728E+09	1.577E-01	Half-Life too short		
		1260.41	*	-3.468E+09	1.577E-01	Half-Life too short		
		1457.56		1.171E+12	1.577E-01	Half-Life too short		
		1678.03		-8.241E+09	1.577E-01	Half-Life too short		
		1706.46		-1.082E+10	1.577E-01	Half-Life too short		
		1791.20		2.943E+08	1.577E-01	Half-Life too short		
CS-136		66.91		-1.156E+00	1.261E+00	1.811E+00	2.735E-01	-0.638
	+	86.29		3.173E+00	1.844E+00	2.788E+00	3.675E-01	1.138
		153.22		4.953E-01	6.526E-01	1.128E+00	7.763E-02	0.439
	+	163.89		3.037E+00	1.827E+00	1.970E+00	1.346E-01	1.542
		176.55		-2.202E-01	3.491E-01	5.763E-01	3.492E-02	-0.382
		273.65		-2.959E-01	4.577E-01	6.304E-01	4.107E-02	-0.469
		340.57		3.885E-01	1.289E-01	2.069E-01	1.273E-02	1.878
		818.51		4.959E-03	5.805E-02	9.613E-02	9.598E-03	0.052
		1048.07	*	-6.510E-02	7.769E-02	1.216E-01	1.090E-02	-0.535
		1235.34		1.017E+00	5.300E-01	8.503E-01	8.741E-02	1.196
BA-137M		661.65	*	4.090E-02	3.020E-02	5.368E-02	4.092E-03	0.762
CS-137		661.65	*	4.323E-02	3.193E-02	5.674E-02	4.336E-03	0.762
CE-139		165.85	*	8.493E-04	3.268E-02	4.879E-02	2.561E-03	0.017
BA-140	+	162.64		2.138E+00	1.285E+00	1.397E+00	8.469E-02	1.531
		304.84		-7.374E-01	1.248E+00	1.676E+00	4.571E-01	-0.440
		423.70		1.051E+00	1.565E+00	2.627E+00	8.359E-01	0.400
		537.32	*	3.343E-02	2.141E-01	3.521E-01	1.152E-01	0.095

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LA-140	+	328.77		6.007E-01	3.097E-01	4.366E-01	2.829E-02	1.376
		432.53		-3.211E-01	1.562E+00	2.569E+00	1.703E-01	-0.125
		487.03		3.265E-02	1.060E-01	1.774E-01	1.265E-02	0.184
		751.79		-2.232E-01	1.367E+00	2.246E+00	2.207E-01	-0.099
		815.85		2.050E-02	2.446E-01	4.051E-01	4.379E-02	0.051
		867.82		3.739E-01	1.235E+00	1.856E+00	2.071E-01	0.201
		919.63		-1.135E+00	2.537E+00	3.366E+00	4.252E-01	-0.337
		925.24		4.008E-01	9.113E-01	1.526E+00	1.729E-01	0.263
		1596.49	*	-3.683E-04	5.998E-02	9.956E-02	6.830E-03	-0.004
CE-141		145.44	*	3.099E-01	8.105E-02	1.274E-01	7.273E-03	2.433
CE-143		57.37		9.982E-04	8.105E-02	Half-Life too short		
		231.56		6.025E-04	8.105E-02	Half-Life too short		
		293.26	*	5.935E-04	8.105E-02	Half-Life too short		
	+	350.59		2.980E-02	8.105E-02	Half-Life too short		
		490.36		7.731E-04	8.105E-02	Half-Life too short		
		664.57		5.477E-04	8.105E-02	Half-Life too short		
		721.93		1.135E-04	8.105E-02	Half-Life too short		
CE-144		80.11		-2.231E+00	3.737E+00	4.924E+00	4.263E-01	-0.453
		133.54	*	-2.488E-01	2.386E-01	3.647E-01	5.157E-02	-0.682
PM-144		476.78		1.751E-02	5.381E-02	9.023E-02	6.695E-03	0.194
		618.01		-1.266E-03	2.924E-02	4.425E-02	3.368E-03	-0.029
		696.49	*	3.427E-03	2.765E-02	4.649E-02	3.774E-03	0.074
		778.57		-1.483E+00	2.258E+00	3.025E+00	2.828E-01	-0.490
PR-144		696.49	*	2.322E-01	1.874E+00	3.150E+00	2.557E-01	0.074
		1489.15		-4.355E+00	9.120E+00	1.392E+01	1.006E+00	-0.313
PM-146		453.90	*	2.473E-02	3.583E-02	5.978E-02	5.318E-03	0.414
		633.02		7.423E-01	1.160E+00	1.886E+00	7.000E-01	0.394
		735.90		1.600E-02	1.297E-01	2.170E-01	6.210E-02	0.074
		747.13		-1.609E-01	8.390E-02	1.192E-01	1.691E-02	-1.350
ND-147		91.11		1.262E+01	1.410E+00	1.224E+00	1.151E-01	10.315
		319.41		8.819E-01	2.672E+00	4.372E+00	2.525E-01	0.202
		439.89		-2.539E-01	4.779E+00	7.916E+00	4.830E-01	-0.032
		531.02	*	2.928E-01	4.527E-01	7.631E-01	1.065E-01	0.384
PM-149		285.90	*	-1.984E+01	8.078E+01	1.299E+02	1.837E+01	-0.153
EU-152		121.78		1.649E-02	8.690E-02	1.402E-01	1.080E-02	0.118
		244.69		2.429E-01	3.242E-01	4.848E-01	2.708E-02	0.501
		344.27	*	3.954E-02	1.099E-01	1.327E-01	8.661E-03	0.298
		443.98		2.488E-01	7.624E-01	1.285E+00	7.875E-02	0.194
		778.89		-7.503E-02	2.520E-01	3.490E-01	3.263E-02	-0.215
		867.32		7.032E-01	7.437E-01	1.135E+00	1.224E-01	0.620
	+	964.01		7.136E-01	3.274E-01	4.489E-01	4.599E-02	1.590
		1085.78		-1.799E-01	2.867E-01	4.554E-01	3.529E-02	-0.395
		1112.02		-7.864E-03	2.722E-01	4.005E-01	2.851E-02	-0.020
		1407.95		1.345E-01	1.347E-01	2.394E-01	1.778E-02	0.562
GD-153		69.67		1.789E+00	2.641E+00	3.995E+00	3.243E-01	0.448
	+	83.37		7.161E+01	2.874E+01	3.905E+01	3.469E+00	1.834
	+	97.43	*	8.958E-01	1.856E-01	2.098E-01	1.641E-02	4.269
		103.18		-5.983E-02	1.442E-01	2.054E-01	1.482E-02	-0.291
EU-154		123.07		5.204E-02	6.075E-02	9.946E-02	9.406E-03	0.523

---- Non-Identified Nuclides ----

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		247.94		4.399E-02	3.626E-01	5.257E-01	4.952E-02	0.084
		591.81		6.701E-02	5.293E-01	8.136E-01	8.654E-02	0.082
		723.30		9.192E-02	1.517E-01	2.281E-01	2.150E-02	0.403
		756.87		2.010E-01	6.767E-01	1.061E+00	1.301E-01	0.189
		873.19		9.103E-02	2.325E-01	3.902E-01	5.435E-02	0.233
		996.32		1.122E+00	4.212E-01	6.419E-01	1.174E-01	1.748
		1004.76		3.586E-01	2.120E-01	3.324E-01	4.087E-02	1.079
		1274.45	*	-3.615E-02	8.967E-02	1.424E-01	1.422E-02	-0.254
EU-155		48.70		2.338E+00	4.511E+00	7.712E+00	5.850E-01	0.303
		60.01		8.081E+00	9.112E+00	1.399E+01	1.067E+00	0.578
	+	86.54		2.924E-01	1.676E-01	2.542E-01	2.342E-02	1.150
		105.31	*	1.053E-01	1.312E-01	2.167E-01	1.549E-02	0.486
TB-160	+	86.79		7.812E-01	4.478E-01	6.745E-01	6.171E-02	1.158
		197.04		1.205E-01	5.084E-01	8.551E-01	4.592E-02	0.141
		215.65		9.029E-02	7.292E-01	1.127E+00	6.154E-02	0.080
		298.57		1.997E-01	1.468E-01	1.689E-01	9.698E-03	1.183
		879.36	*	6.090E-02	1.152E-01	1.946E-01	2.137E-02	0.313
		962.29		8.918E-01	4.509E-01	7.908E-01	8.124E-02	1.128
		966.15		1.351E+00	2.520E-01	4.328E-01	4.417E-02	3.122
		1177.93		-1.820E-01	2.694E-01	4.247E-01	2.371E-02	-0.429
		1271.85		2.324E-01	5.160E-01	8.768E-01	5.925E-02	0.265
HO-166M		80.57		-1.779E-01	5.514E-01	6.334E-01	5.503E-02	-0.281
	+	184.41		1.062E+00	8.607E-02	1.065E-01	5.661E-03	9.965
		280.46		-1.074E-01	7.391E-02	1.127E-01	6.425E-03	-0.954
		410.95		2.683E-01	1.991E-01	3.506E-01	2.064E-02	0.765
		711.68	*	1.005E-02	4.745E-02	8.004E-02	6.672E-03	0.126
		752.31		7.376E-02	2.168E-01	3.666E-01	3.278E-02	0.201
		810.29		-3.246E-02	4.600E-02	7.213E-02	7.102E-03	-0.450
TM-171		51.35		-3.449E+01	5.573E+01	9.240E+01	7.323E+00	-0.373
		52.39		-4.893E+00	2.831E+01	4.746E+01	3.770E+00	-0.103
		59.40		5.049E+01	4.917E+01	7.578E+01	5.753E+00	0.666
		66.72	*	-3.188E+01	4.511E+01	6.573E+01	5.255E+00	-0.485
LU-176	+	88.36		5.758E-01	3.301E-01	5.032E-01	4.620E-02	1.144
		201.83		-3.098E-04	2.990E-02	4.385E-02	2.365E-03	-0.007
		306.84	*	-1.754E-02	2.126E-02	3.305E-02	1.903E-03	-0.531
		401.10		-1.069E+00	5.441E+00	9.021E+00	5.244E-01	-0.119
LU-177M		52.97		1.484E+00	2.895E+00	4.925E+00	3.910E-01	0.301
		54.07		8.891E-01	1.512E+00	2.573E+00	2.034E-01	0.346
		61.30		4.094E+00	2.758E+00	4.271E+00	3.300E-01	0.959
		121.62		7.363E-02	4.455E-01	7.183E-01	4.261E-02	0.103
		147.16		-6.576E-01	7.760E-01	1.051E+00	5.719E-02	-0.626
		171.86		-2.884E-02	4.760E-01	8.009E-01	4.216E-02	-0.036
		218.09		2.755E-01	7.797E-01	1.307E+00	7.151E-02	0.211
	+	268.79		1.907E+00	8.957E-01	1.231E+00	6.981E-02	1.549
		319.02		-3.208E-03	2.098E-01	3.378E-01	1.950E-02	-0.009
		367.43		-2.181E-01	6.991E-01	1.161E+00	6.703E-02	-0.188
		413.65	*	-1.374E-01	1.442E-01	2.297E-01	1.357E-02	-0.598
HF-181		56.28		-1.884E+00	1.660E+00	2.703E+00	2.105E-01	-0.697
		57.53		6.549E-01	9.190E-01	1.495E+00	1.153E-01	0.438

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		65.20		1.167E+01	1.972E+00	3.009E+00	2.387E-01	3.878
		133.02		3.011E-02	7.579E-02	1.222E-01	6.915E-03	0.246
		136.25		-3.027E-02	5.083E-01	8.081E-01	4.525E-02	-0.037
		345.85		2.012E-02	1.851E-01	2.601E-01	1.505E-02	0.077
		482.03	*	-2.183E-02	3.344E-02	5.313E-02	3.401E-03	-0.411
W-181		56.28		-7.363E-01	6.495E-01	1.058E+00	8.239E-02	-0.696
		57.53		2.556E-01	3.599E-01	5.854E-01	4.514E-02	0.437
		65.20	*	4.533E+00	7.661E-01	1.169E+00	9.273E-02	3.878
TA-182		67.75		-8.563E-02	1.665E-01	2.600E-01	2.090E-02	-0.329
	+	100.10		2.087E+00	4.324E-01	4.398E-01	3.306E-02	4.744
		152.43		-2.131E-01	3.630E-01	5.627E-01	3.027E-02	-0.379
		222.10		-3.849E-02	3.108E-01	5.126E-01	2.813E-02	-0.075
	+	1001.68		4.288E+01	5.769E+00	7.220E+00	6.892E-01	5.939
	+	1121.28		7.143E-01	2.004E-01	2.646E-01	1.823E-02	2.700
		1189.05		-1.454E-01	2.285E-01	3.609E-01	2.064E-02	-0.403
		1221.42	*	-1.252E-01	1.445E-01	2.239E-01	1.369E-02	-0.559
		1230.97		-1.963E-01	4.243E-01	5.698E-01	3.554E-02	-0.344
RE-183		57.98		6.262E-01	3.750E-01	5.867E-01	4.507E-02	1.067
		59.32		2.016E-01	2.024E-01	3.118E-01	2.369E-02	0.647
		67.20		-3.298E-01	3.217E-01	4.634E-01	3.714E-02	-0.712
	+	162.32	*	3.124E-01	1.875E-01	2.013E-01	1.062E-02	1.552
	+	208.81		2.945E+00	1.178E+00	1.581E+00	8.580E-02	1.863
		291.72		-8.564E-02	9.129E-01	1.288E+00	7.382E-02	-0.066
RE-184		57.98		2.307E+00	1.381E+00	2.162E+00	1.661E-01	1.067
		59.32		7.423E-01	7.451E-01	1.148E+00	8.720E-02	0.647
		67.20		-1.214E+00	1.185E+00	1.707E+00	1.368E-01	-0.712
		161.27		-1.507E-01	3.987E-01	5.874E-01	3.106E-02	-0.257
		216.55		5.455E-02	2.387E-01	3.990E-01	2.180E-02	0.137
		252.85	*	1.029E-01	2.321E-01	3.415E-01	1.918E-02	0.301
		318.01		1.747E-01	3.617E-01	5.962E-01	3.441E-02	0.293
		792.07		1.694E+00	1.404E+00	1.503E+00	1.437E-01	1.127
		903.28		7.286E-02	9.226E-01	1.300E+00	1.459E-01	0.056
		920.93		-1.145E-01	3.897E-01	5.717E-01	6.264E-02	-0.200
OS-185		59.72		4.258E-01	5.442E-01	8.337E-01	6.341E-02	0.511
		61.14		3.204E-01	3.010E-01	4.627E-01	3.570E-02	0.692
		69.30		1.818E-01	4.695E-01	7.057E-01	5.717E-02	0.258
		592.07		9.274E-01	2.077E+00	3.361E+00	2.406E-01	0.276
		646.12	*	-2.975E-02	3.776E-02	5.773E-02	4.341E-03	-0.515
		717.42		8.359E-02	6.895E-01	1.157E+00	9.740E-02	0.072
		874.81		-5.008E-01	4.895E-01	7.414E-01	8.087E-02	-0.676
		880.27		3.600E-01	6.624E-01	1.118E+00	1.230E-01	0.322
RE-188		155.03	*	-3.267E-03	1.701E-01	2.885E-01	1.544E-02	-0.011
		477.96		2.154E+00	2.457E+00	4.226E+00	2.693E-01	0.510
		633.10		1.959E+00	2.260E+00	3.820E+00	2.840E-01	0.513
W-188	+	63.58		2.797E+03	2.766E+02	2.576E+02	2.024E+01	10.859
		227.08		5.676E+00	1.136E+01	1.910E+01	1.052E+00	0.297
		290.67	*	-2.389E+00	7.317E+00	1.019E+01	5.836E-01	-0.234
IR-192	+	295.96		9.107E-01	1.695E-01	2.281E-01	1.330E-02	3.993
		308.46		8.869E-03	8.086E-02	1.313E-01	7.649E-03	0.068

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		316.51	*	4.226E-03	2.781E-02	4.516E-02	2.619E-03	0.094
		468.07		1.065E-02	6.047E-02	8.774E-02	6.252E-03	0.121
		604.41		-1.260E-01	4.205E-01	5.702E-01	6.929E-02	-0.221
		612.46		1.977E+00	7.475E-01	1.195E+00	1.048E-01	1.654
AU-195		65.12		2.478E+00	3.758E-01	5.628E-01	4.462E-02	4.403
		66.83		-1.422E-01	1.504E-01	2.173E-01	1.738E-02	-0.654
	+	75.70		9.739E-01	3.547E-01	5.091E-01	4.275E-02	1.913
	+	98.88	*	2.608E+00	5.405E-01	6.302E-01	4.822E-02	4.139
		129.76		5.894E+00	3.264E+00	5.447E+00	3.117E-01	1.082
TL-200		367.94	*	-1.601E-04	3.264E+00	Half-Life too short		
		579.30		2.690E-03	3.264E+00	Half-Life too short		
		828.27		8.446E-06	3.264E+00	Half-Life too short		
		1205.75		1.248E-03	3.264E+00	Half-Life too short		
TL-201		68.90		-3.040E-01	7.210E+00	1.141E+01	9.227E-01	-0.027
		70.82		3.777E+00	4.362E+00	6.616E+00	5.402E-01	0.571
		80.30		-4.084E+00	1.028E+01	1.177E+01	1.020E+00	-0.347
		135.34		-1.762E+00	2.874E+01	4.571E+01	2.567E+00	-0.039
		167.43	*	-8.638E-02	7.673E+00	1.143E+01	6.000E-01	-0.008
TL-202		68.90		-2.720E-02	6.450E-01	1.021E+00	8.255E-02	-0.027
		70.82		3.370E-01	3.892E-01	5.902E-01	4.819E-02	0.571
		80.30		-3.645E-01	9.171E-01	1.050E+00	9.105E-02	-0.347
		439.56	*	4.993E-03	5.666E-02	9.449E-02	5.761E-03	0.053
HG-203		70.83		1.467E+00	1.692E+00	2.555E+00	3.404E-01	0.574
		72.87		4.966E-01	9.772E-01	1.465E+00	1.900E-01	0.339
		82.60		3.531E+00	1.877E+00	2.793E+00	3.875E-01	1.264
		279.20	*	-2.690E-03	3.493E-02	5.670E-02	3.438E-03	-0.047
BI-207		72.80		1.204E-01	2.860E-01	4.285E-01	3.537E-02	0.281
	+	74.97		5.401E-01	1.967E-01	2.700E-01	2.257E-02	2.000
	+	84.90		9.261E-01	3.717E-01	4.976E-01	4.477E-02	1.861
		569.67		2.918E-02	2.632E-02	4.453E-02	3.120E-03	0.655
		1063.62	*	-4.943E-03	4.132E-02	6.698E-02	5.529E-03	-0.074
		1770.23		5.869E-02	3.381E-01	4.906E-01	2.968E-02	0.120
TL-207		81.07		-1.245E-01	4.404E-01	5.066E-01	4.418E-02	-0.246
	+	83.78		6.106E-01	2.451E-01	3.369E-01	3.003E-02	1.813
	+	94.90		1.004E+00	4.841E-01	7.805E-01	6.353E-02	1.286
		122.32		8.870E-01	2.067E+00	3.355E+00	2.278E-01	0.264
	+	144.24		4.104E+00	1.130E+00	1.479E+00	1.032E-01	2.776
		154.21		3.866E-01	3.921E-01	6.806E-01	4.529E-02	0.568
	+	269.46		4.463E-01	2.098E-01	2.930E-01	1.741E-02	1.523
		323.87	*	2.434E-01	6.134E-01	8.820E-01	1.456E-01	0.276
	+	338.28		6.435E+00	1.576E+00	1.993E+00	2.097E-01	3.229
		445.03		2.521E-02	1.813E+00	3.010E+00	3.149E-01	0.008
PO-209		260.50		6.258E-02	9.994E+00	1.434E+01	8.092E-01	0.004
		262.80		9.131E+00	2.681E+01	3.912E+01	2.211E+00	0.233
		896.60	*	1.817E+00	5.608E+00	9.363E+00	1.056E+00	0.194
BI-210		46.50	*	-2.933E+00	6.831E+00	1.131E+01	8.747E-01	-0.259
PB-210		46.50	*	-2.933E+00	6.831E+00	1.131E+01	8.747E-01	-0.259
PO-210		46.50	*	-2.933E+00	6.830E+00	1.131E+01	7.520E-01	-0.259
PB-211		404.84	*	-7.131E-02	7.808E-01	1.298E+00	8.092E-01	-0.055

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.08		1.861E+00	1.983E+00	2.834E+00	1.753E+00	0.657
		831.96		3.070E-01	9.769E-01	1.606E+00	1.010E+00	0.191
PO-215		81.07		-1.245E-01	4.404E-01	5.066E-01	4.418E-02	-0.246
	+	83.78		6.106E-01	2.451E-01	3.369E-01	3.003E-02	1.813
	+	94.90		1.004E+00	4.841E-01	7.805E-01	6.353E-02	1.286
		122.32		8.870E-01	2.067E+00	3.355E+00	2.278E-01	0.264
	+	144.24		4.104E+00	1.130E+00	1.479E+00	1.032E-01	2.776
		154.21		3.866E-01	3.921E-01	6.806E-01	4.529E-02	0.568
	+	269.46		4.463E-01	2.098E-01	2.930E-01	1.741E-02	1.523
		323.87	*	2.434E-01	6.134E-01	8.820E-01	1.456E-01	0.276
	+	338.28		6.435E+00	1.576E+00	1.993E+00	2.097E-01	3.229
		445.03		2.521E-02	1.813E+00	3.010E+00	3.149E-01	0.008
RN-219	+	271.23		5.726E-01	2.710E-01	3.855E-01	3.091E-02	1.485
		401.81	*	-9.844E-02	3.367E-01	5.555E-01	7.562E-02	-0.177
RN-220		549.76	*	-1.573E+01	2.165E+01	3.380E+01	2.322E+00	-0.465
RA-223		81.07		-1.245E-01	4.404E-01	5.066E-01	4.418E-02	-0.246
	+	83.78		6.106E-01	2.451E-01	3.369E-01	3.003E-02	1.813
	+	94.90		1.004E+00	4.841E-01	7.805E-01	6.353E-02	1.286
		122.32		8.870E-01	2.067E+00	3.355E+00	2.278E-01	0.264
	+	144.24		4.104E+00	1.130E+00	1.479E+00	1.032E-01	2.776
		154.21		3.866E-01	3.921E-01	6.806E-01	4.529E-02	0.568
	+	269.46		4.463E-01	2.098E-01	2.930E-01	1.741E-02	1.523
		323.87	*	2.434E-01	6.134E-01	8.820E-01	1.456E-01	0.276
	+	338.28		6.435E+00	1.576E+00	1.993E+00	2.097E-01	3.229
		445.03		2.521E-02	1.813E+00	3.010E+00	3.149E-01	0.008
AC-227		79.80		-2.248E+00	2.927E+00	3.787E+00	8.146E-01	-0.594
		236.00		4.723E-01	2.384E-01	3.671E-01	3.787E-02	1.287
		256.20	*	2.636E-01	3.971E-01	5.871E-01	8.155E-02	0.449
		286.10		-3.717E-01	1.339E+00	2.150E+00	2.476E-01	-0.173
	+	299.80		2.290E+00	1.480E+00	2.179E+00	3.544E-01	1.051
		304.40		-4.376E-01	1.815E+00	2.524E+00	4.362E-01	-0.173
		334.20		1.281E+00	2.286E+00	3.083E+00	5.651E-01	0.416
TH-227		79.80		-2.248E+00	2.928E+00	3.787E+00	8.250E-01	-0.594
	+	94.00		8.029E+00	4.192E+00	1.110E+01	2.402E+00	0.723
		236.00		4.723E-01	2.372E-01	3.671E-01	3.267E-02	1.287
		256.20	*	2.636E-01	3.979E-01	5.871E-01	9.888E-02	0.449
		286.10		-3.717E-01	1.389E+00	2.150E+00	2.153E+00	-0.173
	+	299.80		2.290E+00	1.480E+00	2.179E+00	3.544E-01	1.051
		304.40		-4.376E-01	1.815E+00	2.524E+00	4.362E-01	-0.173
		334.20		1.281E+00	2.286E+00	3.083E+00	5.651E-01	0.416
PA-231		283.67	*	-9.863E-02	1.300E+00	2.107E+00	2.896E-01	-0.047
	+	301.29		9.162E-01	5.810E-01	8.929E-01	9.308E-02	1.026
TH-231		81.07		-1.245E-01	4.404E-01	5.066E-01	4.418E-02	-0.246
	+	83.78		6.106E-01	2.451E-01	3.369E-01	3.003E-02	1.813
	+	94.90		1.004E+00	4.841E-01	7.805E-01	6.353E-02	1.286
		122.32		8.870E-01	2.067E+00	3.355E+00	2.278E-01	0.264
	+	144.24		4.104E+00	1.130E+00	1.479E+00	1.032E-01	2.776
		154.21		3.866E-01	3.921E-01	6.806E-01	4.529E-02	0.568
	+	269.46		4.463E-01	2.098E-01	2.930E-01	1.741E-02	1.523

---- Non-Identified Nuclides ----

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		323.87	*	2.434E-01	6.134E-01	8.820E-01	1.456E-01	0.276
	+	338.28		6.435E+00	1.576E+00	1.993E+00	2.097E-01	3.229
		445.03		2.521E-02	1.813E+00	3.010E+00	3.149E-01	0.008
PA-233	+	75.28		1.576E+01	6.080E+00	7.911E+00	1.203E+00	1.992
	+	86.59		4.752E+00	2.980E+00	4.124E+00	1.113E+00	1.152
	+	300.12		6.386E-01	4.085E-01	6.049E-01	8.114E-02	1.056
		311.98	*	-4.248E-03	5.356E-02	8.613E-02	5.276E-03	-0.049
		340.50		2.088E+00	7.839E-01	1.025E+00	2.353E-01	2.038
		398.62		8.805E-01	1.709E+00	2.898E+00	7.494E-01	0.304
		415.76		-6.842E-03	1.280E+00	2.134E+00	4.401E-01	-0.003
PA-234	+	63.00		8.110E+01	1.317E+01	7.715E+00	1.163E+00	10.512
	+	94.67		7.159E-01	3.512E-01	6.570E-01	7.946E-02	1.090
	+	98.44		1.057E+00	6.223E-01	2.569E-01	1.430E-01	4.113
	+	99.86		5.478E+00	1.135E+00	1.229E+00	9.273E-02	4.457
	+	111.00		3.619E-01	3.066E-01	4.328E-01	4.643E-02	0.836
		131.20		1.524E-01	1.229E-01	2.025E-01	1.153E-02	0.752
		152.70		-2.481E-02	3.478E-01	5.483E-01	8.585E-02	-0.045
	+	186.00		3.822E+01	1.188E+01	4.196E+00	1.278E+00	9.110
		226.40		2.272E-01	3.560E-01	5.998E-01	6.848E-02	0.379
		227.20		1.192E-01	3.851E-01	6.433E-01	3.545E-02	0.185
		248.90		-1.522E-01	7.860E-01	1.183E+00	2.536E-01	-0.129
		293.70		4.762E+00	1.085E+00	1.372E+00	2.202E-01	3.472
		369.80		1.502E-02	6.634E-01	1.118E+00	2.327E-01	0.013
		568.70		6.724E-01	8.518E-01	1.421E+00	9.946E-02	0.473
		569.50		2.629E-01	2.338E-01	3.958E-01	2.773E-02	0.664
		574.00		-5.569E-01	1.355E+00	2.016E+00	1.419E-01	-0.276
		699.00		1.432E-02	5.773E-01	9.653E-01	1.822E-01	0.015
		706.10		-1.072E-01	8.413E-01	1.392E+00	6.197E-01	-0.077
		733.00		-1.785E-01	3.659E-01	5.001E-01	1.111E-01	-0.357
		742.81		1.881E+00	1.799E+00	2.275E+00	1.530E+00	0.827
		796.30		2.106E+00	1.047E+00	1.450E+00	3.972E-01	1.452
		805.60		7.264E-01	7.897E-01	1.323E+00	4.102E-01	0.549
		819.60		-2.510E-01	9.639E-01	1.552E+00	5.953E-01	-0.162
		826.30		1.184E-01	6.335E-01	1.051E+00	4.737E-01	0.113
		831.60		1.078E-01	4.993E-01	8.303E-01	2.519E-01	0.130
		876.40		-2.029E-01	7.209E-01	1.107E+00	1.141E+00	-0.183
		880.51		2.193E-01	2.363E-01	4.069E-01	4.478E-02	0.539
		883.24		1.575E-01	2.555E-01	3.967E-01	2.681E-01	0.397
		899.00		-6.624E-01	7.281E-01	1.012E+00	4.485E-01	-0.655
		925.00		4.848E-01	9.457E-01	1.591E+00	1.734E-01	0.305
		926.50		6.965E-02	1.415E-01	2.362E-01	6.172E-02	0.295
		946.00	*	1.778E-01	2.753E-01	4.314E-01	8.510E-02	0.412
		949.00		3.099E-01	3.652E-01	6.243E-01	6.557E-02	0.496
		980.50		3.223E-01	5.619E-01	9.469E-01	9.418E-02	0.340
		1394.10		-3.503E-01	9.346E-01	1.419E+00	9.214E-01	-0.247
NP-236	+	94.67		5.430E-01	2.619E-01	5.007E-01	4.091E-02	1.084
	+	98.44		7.989E-01	1.655E-01	1.942E-01	1.496E-02	4.113
	+	111.00		2.738E-01	2.307E-01	3.273E-01	2.153E-02	0.836
		160.31	*	4.384E-03	8.735E-02	1.309E-01	6.933E-03	0.033

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		1.826E+00	3.784E-01	4.270E-01	3.235E-02	4.276
		117.00	*	1.138E-01	2.521E-01	3.672E-01	2.273E-02	0.310
	+	209.75		2.323E+00	9.288E-01	1.264E+00	6.867E-02	1.837
		228.18		-2.264E-02	2.036E-01	3.353E-01	1.850E-02	-0.068
		277.60		1.392E-01	1.564E-01	2.631E-01	1.499E-02	0.529
		334.30		7.261E-01	1.289E+00	1.747E+00	1.010E-01	0.416
AM-241		59.54	*	3.081E-01	2.854E-01	4.401E-01	3.650E-02	0.700
CM-243	+	99.55		1.879E+00	3.894E-01	4.394E-01	3.329E-02	4.276
		103.76	*	-1.399E-02	1.328E-01	1.913E-01	1.369E-02	-0.073
		117.00		1.171E-01	2.594E-01	3.778E-01	2.339E-02	0.310
	+	209.75		2.290E+00	9.156E-01	1.246E+00	6.769E-02	1.837
		228.18		-2.288E-02	2.057E-01	3.388E-01	1.869E-02	-0.068
		277.60		1.404E-01	1.577E-01	2.652E-01	1.511E-02	0.529
AM-246		798.80		-2.395E-03	1.243E-01	1.760E-01	1.700E-02	-0.014
		1036.00		1.528E-02	2.090E-01	3.517E-01	3.113E-02	0.043
		1062.04		7.558E-03	1.778E-01	2.914E-01	2.415E-02	0.026
		1078.86	*	5.558E-02	1.058E-01	1.826E-01	1.444E-02	0.304
CM-247		278.00		5.369E-01	6.456E-01	1.084E+00	6.176E-02	0.495
		287.40		2.259E-01	1.065E+00	1.745E+00	9.982E-02	0.129
		402.60	*	-5.330E-04	2.990E-02	4.996E-02	2.910E-03	-0.011
CF-249		252.85		3.859E-01	8.708E-01	1.281E+00	7.196E-02	0.301
		333.44		1.219E-01	2.139E-01	2.285E-01	1.321E-02	0.533
		387.95	*	4.826E-02	3.320E-02	5.883E-02	3.382E-03	0.820
CF-251		176.60	*	-7.790E-02	1.201E-01	1.982E-01	1.047E-02	-0.393
		227.00		1.790E-01	3.412E-01	5.738E-01	3.162E-02	0.312
		285.00		-6.918E-01	1.512E+00	2.410E+00	1.377E-01	-0.287

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691009      *
* Acquisition date :  9-FEB-2010 15:32:51 Detector SN#    :                 *
* Detector ID        : GAM18               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.52      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691009           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.4489E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.575E+01	2.302E+00	4.000E-01	0.000E+00
NB-95	3.623E-01	8.512E-02	5.644E-02	0.000E+00
CD-109	2.470E+00	1.388E+00	2.287E+00	0.000E+00
SN-126	2.428E-01	1.364E-01	2.289E-01	0.000E+00
LU-177	3.285E+00	1.288E+00	1.468E+00	0.000E+00
TL-208	4.500E-01	8.036E-02	4.780E-02	0.000E+00
BI-211	3.701E+00	4.434E-01	2.806E-01	0.000E+00
BI-212	1.102E+00	3.730E-01	3.659E-01	0.000E+00
PB-212	1.418E+00	1.321E-01	8.208E-02	0.000E+00
PO-212	1.418E+00	1.321E-01	8.208E-02	0.000E+00
BI-214	1.153E+00	1.634E-01	9.145E-02	0.000E+00
PB-214	1.288E+00	1.677E-01	9.779E-02	0.000E+00
PO-214	1.288E+00	1.677E-01	9.779E-02	0.000E+00
PO-216	1.418E+00	1.321E-01	8.208E-02	0.000E+00
PO-218	1.288E+00	1.677E-01	9.779E-02	0.000E+00
RA-224	4.245E+00	1.118E+00	9.328E-01	0.000E+00
RA-226	1.153E+00	1.634E-01	9.145E-02	0.000E+00
AC-228	1.495E+00	3.013E-01	1.672E-01	0.000E+00
RA-228	1.495E+00	3.013E-01	1.672E-01	0.000E+00
TH-228	1.439E+00	1.341E-01	8.333E-02	0.000E+00
TH-229	2.595E-01	4.565E-01	8.327E-01	0.000E+00
TH-230	1.153E+00	1.634E-01	9.145E-02	0.000E+00
U-231	4.924E+00	2.327E+00	2.428E+00	0.000E+00
TH-232	1.495E+00	3.013E-01	1.672E-01	0.000E+00
PA-234M	9.734E+01	1.369E+01	5.306E+00	0.000E+00
TH-234	6.957E+01	1.270E+01	3.484E+00	0.000E+00
U-234	1.153E+00	1.634E-01	9.145E-02	0.000E+00
U-235	1.266E+00	3.869E-01	3.653E-01	0.000E+00
NP-237	7.129E-01	4.256E-01	5.998E-01	0.000E+00
U-238	6.957E+01	1.270E+01	3.484E+00	0.000E+00
AM-243	3.009E-01	1.074E-01	1.417E-01	0.000E+00
ANH-511	9.763E-02	5.522E-02	3.795E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	1.094E-01	2.545E-01	4.511E-01	0.000E+00	NOT IDENT.
NA-22	-1.717E-02	3.190E-02	5.163E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.554E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.739E-02	2.003E-02	2.881E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.732E-02	1.026E-01	0.000E+00	FAIL ABUN
SC-46	-1.058E-02	2.911E-02	4.806E-02	0.000E+00	FAIL ABUN
V-48	9.902E-03	5.332E-02	9.056E-02	0.000E+00	NOT IDENT.
CR-51	-1.220E-01	3.013E-01	5.054E-01	0.000E+00	NOT IDENT.
MN-52	9.205E-02	1.635E-01	2.884E-01	0.000E+00	NOT IDENT.
MN-54	-9.120E-03	3.026E-02	5.078E-02	0.000E+00	NOT IDENT.
CO-56	-3.386E-02	3.030E-02	4.748E-02	0.000E+00	FAIL ABUN
CO-57	1.043E-02	2.924E-02	5.136E-02	0.000E+00	NOT IDENT.
CO-58	-2.028E-02	2.991E-02	4.893E-02	0.000E+00	NOT IDENT.
FE-59	-3.069E-02	6.670E-02	1.110E-01	0.000E+00	FAIL ABUN
CO-60	1.418E-02	2.975E-02	5.195E-02	0.000E+00	NOT IDENT.
ZN-65	5.018E-02	7.774E-02	1.208E-01	0.000E+00	NOT IDENT.
GE-68	4.769E-01	9.019E-01	1.608E+00	0.000E+00	NOT IDENT.
AS-73	1.571E+00	1.442E+00	2.732E+00	0.000E+00	NOT IDENT.
AS-74	3.646E-03	7.465E-02	1.265E-01	0.000E+00	NOT IDENT.
SE-75	4.029E-02	4.052E-02	6.828E-02	0.000E+00	NOT IDENT.
BR-77	3.105E+00	8.266E+00	1.450E+01	0.000E+00	FAIL ABUN
SR-82	-2.113E-01	3.213E-01	5.041E-01	0.000E+00	NOT IDENT.
RB-83	2.394E-02	5.436E-02	9.565E-02	0.000E+00	NOT IDENT.
RB-84	8.627E-02	5.802E-02	1.061E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.644E+00	1.106E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.408E-02	5.673E-02	0.000E+00	NOT IDENT.
RB-86	1.178E-01	5.841E-01	1.020E+00	0.000E+00	NOT IDENT.
Y-88	-4.381E-02	2.854E-02	3.788E-02	0.000E+00	NOT IDENT.
ZR-88	-2.112E-02	2.414E-02	4.103E-02	0.000E+00	NOT IDENT.
Y-91	6.751E+00	1.378E+01	2.417E+01	0.000E+00	NOT IDENT.
NB-94	1.620E-02	2.648E-02	4.750E-02	0.000E+00	NOT IDENT.
NB-95M	7.862E-03	1.198E-01	1.859E-01	0.000E+00	NOT IDENT.
ZR-95	4.264E-02	5.879E-02	1.011E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.998E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.698E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.271E+01	1.086E+01	1.955E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.994E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.357E-03	2.995E-02	5.293E-02	0.000E+00	NOT IDENT.
RH-102	3.398E-03	2.325E-02	4.067E-02	0.000E+00	FAIL ABUN
RU-103	-8.424E-04	3.129E-02	5.401E-02	0.000E+00	FAIL ABUN
RH-106	-1.333E-02	2.652E-01	4.459E-01	0.000E+00	FAIL ABUN
RU-106	-1.333E-02	2.652E-01	4.459E-01	0.000E+00	FAIL ABUN
AG-108M	-1.258E-02	2.495E-02	4.263E-02	0.000E+00	NOT IDENT.
AG-110M	-4.940E-02	2.766E-02	4.340E-02	0.000E+00	FAIL ABUN
IN-111	1.787E-01	1.029E+00	1.599E+00	0.000E+00	NOT IDENT.
IN-113M	-3.127E-02	3.590E-02	6.112E-02	0.000E+00	NOT IDENT.
SN-113	-3.127E-02	3.590E-02	6.112E-02	0.000E+00	NOT IDENT.
IN-114M	-9.837E-02	1.810E-01	2.799E-01	0.000E+00	NOT IDENT.
CD-115	-1.525E+00	8.571E+00	1.457E+01	0.000E+00	NOT IDENT.
SN-117M	2.073E-02	5.897E-02	9.636E-02	0.000E+00	NOT IDENT.
SB-122	1.021E+00	1.699E+00	2.986E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.459E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	5.265E-03	3.069E-02	4.982E-02	0.000E+00	NOT IDENT.
I-124	4.456E-02	5.999E-01	8.790E-01	0.000E+00	FAIL ABUN
SB-124	5.495E-03	6.120E-02	1.044E-01	0.000E+00	FAIL ABUN
SB-125	5.033E-02	7.197E-02	1.303E-01	0.000E+00	FAIL ABUN
TE-125M	7.299E+00	1.321E+01	2.103E+01	0.000E+00	NOT IDENT.
I-126	-1.613E-01	1.505E-01	2.488E-01	0.000E+00	NOT IDENT.
SB-126	-8.008E-03	1.246E-01	1.855E-01	0.000E+00	FAIL ABUN
SB-127	5.134E-01	1.075E+00	1.923E+00	0.000E+00	NOT IDENT.
XE-127	1.490E-02	4.816E-02	7.671E-02	0.000E+00	FAIL ABUN
I-131	-2.585E-02	8.693E-02	1.530E-01	0.000E+00	NOT IDENT.
TE-132	-6.795E-02	6.142E-01	1.082E+00	0.000E+00	FAIL ABUN
BA-133	1.764E-02	3.996E-02	6.059E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.821E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.602E-02	7.723E-02	0.000E+00	NOT IDENT.
CS-135	1.240E-01	1.545E-01	2.448E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.097E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.510E-02	7.613E-02	1.232E-01	0.000E+00	FAIL ABUN
BA-137M	4.090E-02	2.960E-02	5.496E-02	0.000E+00	NOT IDENT.
CS-137	4.323E-02	3.129E-02	5.809E-02	0.000E+00	NOT IDENT.
CE-139	8.493E-04	3.203E-02	5.150E-02	0.000E+00	NOT IDENT.
BA-140	3.343E-02	2.098E-01	3.622E-01	0.000E+00	FAIL ABUN

LA-140	-3.683E-04	5.878E-02	9.987E-02	0.000E+00	FAIL ABUN
CE-141	0.000E+00	7.943E-02	1.349E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.924E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.488E-01	2.338E-01	3.867E-01	0.000E+00	NOT IDENT.
PM-144	3.427E-03	2.710E-02	4.754E-02	0.000E+00	NOT IDENT.
PR-144	2.322E-01	1.836E+00	3.222E+00	0.000E+00	NOT IDENT.
PM-146	2.473E-02	3.511E-02	6.173E-02	0.000E+00	NOT IDENT.
ND-147	2.928E-01	4.436E-01	7.852E-01	0.000E+00	NOT IDENT.
PM-149	-1.984E+01	7.916E+01	1.355E+02	0.000E+00	NOT IDENT.
EU-152	3.954E-02	1.077E-01	1.379E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.819E-01	2.240E-01	0.000E+00	FAIL ABUN
EU-154	-3.615E-02	8.788E-02	1.436E-01	0.000E+00	NOT IDENT.
EU-155	1.053E-01	1.286E-01	2.309E-01	0.000E+00	FAIL ABUN
TB-160	6.090E-02	1.129E-01	1.979E-01	0.000E+00	FAIL ABUN
HO-166M	1.005E-02	4.650E-02	8.182E-02	0.000E+00	FAIL ABUN
TM-171	-3.188E+01	4.421E+01	7.071E+01	0.000E+00	NOT IDENT.
LU-176	-1.754E-02	2.084E-02	3.442E-02	0.000E+00	FAIL ABUN
LU-177M	-1.374E-01	1.413E-01	2.377E-01	0.000E+00	FAIL ABUN
HF-181	-2.183E-02	3.278E-02	5.478E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	7.508E-01	1.258E+00	0.000E+00	NOT IDENT.
TA-182	-1.252E-01	1.416E-01	2.260E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.837E-01	2.125E-01	0.000E+00	FAIL ABUN
RE-184	1.029E-01	2.274E-01	3.572E-01	0.000E+00	NOT IDENT.
OS-185	-2.975E-02	3.700E-02	5.913E-02	0.000E+00	NOT IDENT.
RE-188	-3.267E-03	1.667E-01	3.050E-01	0.000E+00	NOT IDENT.
W-188	-2.389E+00	7.171E+00	1.063E+01	0.000E+00	FAIL ABUN
IR-192	4.226E-03	2.726E-02	4.701E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	5.297E-01	6.725E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.550E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-8.638E-02	7.519E+00	1.206E+01	0.000E+00	NOT IDENT.
TL-202	4.993E-03	5.553E-02	9.764E-02	0.000E+00	NOT IDENT.
HG-203	-2.690E-03	3.423E-02	5.918E-02	0.000E+00	NOT IDENT.
BI-207	-4.943E-03	4.049E-02	6.783E-02	0.000E+00	FAIL ABUN
TL-207	2.434E-01	6.011E-01	9.176E-01	0.000E+00	FAIL ABUN
PO-209	1.817E+00	5.496E+00	9.520E+00	0.000E+00	NOT IDENT.
BI-210	-2.933E+00	6.694E+00	1.225E+01	0.000E+00	NOT IDENT.
PB-210	-2.933E+00	6.694E+00	1.225E+01	0.000E+00	NOT IDENT.
PO-210	-2.933E+00	6.693E+00	1.225E+01	0.000E+00	NOT IDENT.
PB-211	-7.131E-02	7.652E-01	1.344E+00	0.000E+00	NOT IDENT.
PO-215	2.434E-01	6.011E-01	9.176E-01	0.000E+00	FAIL ABUN
RN-219	-9.844E-02	3.300E-01	5.751E-01	0.000E+00	FAIL ABUN
RN-220	-1.573E+01	2.122E+01	3.475E+01	0.000E+00	NOT IDENT.
RA-223	2.434E-01	6.011E-01	9.176E-01	0.000E+00	FAIL ABUN
AC-227	2.636E-01	3.891E-01	6.139E-01	0.000E+00	FAIL ABUN
TH-227	2.636E-01	3.899E-01	6.139E-01	0.000E+00	FAIL ABUN
PA-231	-9.863E-02	1.274E+00	2.198E+00	0.000E+00	FAIL ABUN
TH-231	2.434E-01	6.011E-01	9.176E-01	0.000E+00	FAIL ABUN
PA-233	-4.248E-03	5.249E-02	8.968E-02	0.000E+00	FAIL ABUN
PA-234	1.778E-01	2.698E-01	4.381E-01	0.000E+00	FAIL ABUN
NP-236	4.384E-03	8.560E-02	1.382E-01	0.000E+00	FAIL ABUN
NP-239	1.138E-01	2.471E-01	3.905E-01	0.000E+00	FAIL ABUN
AM-241	3.081E-01	2.797E-01	4.745E-01	0.000E+00	NOT IDENT.
CM-243	-1.399E-02	1.301E-01	2.040E-01	0.000E+00	FAIL ABUN
AM-246	5.558E-02	1.037E-01	1.848E-01	0.000E+00	NOT IDENT.
CM-247	-5.330E-04	2.930E-02	5.173E-02	0.000E+00	NOT IDENT.
CF-249	4.826E-02	3.253E-02	6.096E-02	0.000E+00	NOT IDENT.
CF-251	-7.790E-02	1.177E-01	2.089E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:33:54.02

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691009.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:32:51.
Sample ID         : G245691009           Sample quantity  : 1.44890E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.52  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2008	10.67*	1.894E+00	2.575E+01	2.575E+01	9.12
NB-95	765.79	379	99.81*	3.202E+00	3.073E-01	3.623E-01	23.98
CD-109	88.03	224	3.72*	6.447E+00	2.415E+00	2.470E+00	57.33
SN-126	64.28	3167	9.60	3.103E+00	2.754E+01	2.754E+01	15.94
	86.94	224	8.90	6.447E+00	1.009E+00	1.009E+00	70.16
	87.57	224	37.00*	6.447E+00	2.428E-01	2.428E-01	57.33
LU-177	112.95	471	6.40	8.002E+00	2.382E+00	1.144E+01	25.37
	208.36	211	11.00*	7.255E+00	6.841E-01	3.285E+00	39.99
TL-208	277.35	------	6.80	6.258E+00	------ Line Not Found		------
	510.84	162	21.60	4.311E+00	4.520E-01	4.520E-01	58.31
	583.14	575	84.20*	3.935E+00	4.500E-01	4.500E-01	18.22
	860.37	29	12.46	2.914E+00	2.057E-01	2.057E-01	169.34
BI-211	72.87	------	1.27	4.622E+00	------ Line Not Found		------
	351.07	1008	12.94*	5.451E+00	3.701E+00	3.701E+00	12.22
BI-212	727.18	168	11.80*	3.338E+00	1.102E+00	1.102E+00	34.53
	785.46	56	1.97	3.138E+00	2.333E+00	2.333E+00	122.82
	1620.62	------	2.75	1.770E+00	------ Line Not Found		------
PB-212	74.81	379	10.70	4.944E+00	1.856E+00	1.856E+00	37.60
	77.11	648	18.00	5.255E+00	1.775E+00	1.775E+00	20.97
	87.30	224	8.00	6.447E+00	1.123E+00	1.123E+00	58.19
	238.63	1657	44.60*	6.792E+00	1.418E+00	1.418E+00	9.51
	300.09	97	3.41	5.985E+00	1.236E+00	1.236E+00	63.09
PO-212	74.81	379	10.70	4.944E+00	1.856E+00	1.856E+00	37.60
	77.11	648	18.00	5.255E+00	1.775E+00	1.775E+00	20.97
	87.30	224	8.00	6.447E+00	1.123E+00	1.123E+00	58.19
	115.19	------	0.60	8.058E+00	------ Line Not Found		------
	238.63	1657	44.60*	6.792E+00	1.418E+00	1.418E+00	9.51
	300.09	97	3.41	5.985E+00	1.236E+00	1.236E+00	63.09
BI-214	609.31	785	46.30*	3.813E+00	1.153E+00	1.153E+00	14.47
	1120.29	205	15.10	2.334E+00	1.510E+00	1.510E+00	28.82
	1764.49	158	15.80	1.695E+00	1.528E+00	1.528E+00	23.18
PB-214	74.81	379	6.21	4.944E+00	3.198E+00	3.198E+00	37.17

Sample ID : G245691009 Acquisition date : 9-FEB-2010 15:32:51

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	648	10.50	5.255E+00	3.043E+00	3.043E+00	22.31
	87.30	224	4.67	6.447E+00	1.923E+00	1.923E+00	57.84
	241.98	437	7.49	6.746E+00	2.239E+00	2.239E+00	27.45
	295.21	534	19.20	6.040E+00	1.194E+00	1.194E+00	19.61
	351.92	1008	37.20*	5.451E+00	1.287E+00	1.288E+00	13.29
PO-214	74.81	379	6.21	4.944E+00	3.198E+00	3.198E+00	37.17
	77.11	648	10.50	5.255E+00	3.043E+00	3.043E+00	22.31
	87.30	224	4.67	6.447E+00	1.923E+00	1.923E+00	57.84
	241.98	437	7.49	6.746E+00	2.239E+00	2.239E+00	27.45
	295.21	534	19.20	6.040E+00	1.194E+00	1.194E+00	19.61
	351.92	1008	37.20*	5.451E+00	1.287E+00	1.288E+00	13.29
PO-216	74.81	379	10.70	4.944E+00	1.856E+00	1.856E+00	37.60
	77.11	648	18.00	5.255E+00	1.775E+00	1.775E+00	20.97
	87.30	224	8.00	6.447E+00	1.123E+00	1.123E+00	58.19
	238.63	1657	44.60*	6.792E+00	1.418E+00	1.418E+00	9.51
	300.09	97	3.41	5.985E+00	1.236E+00	1.236E+00	63.09
PO-218	74.81	379	6.21	4.944E+00	3.198E+00	3.198E+00	37.17
	77.11	648	10.50	5.255E+00	3.043E+00	3.043E+00	22.31
	87.30	224	4.67	6.447E+00	1.923E+00	1.923E+00	57.84
	241.98	437	7.49	6.746E+00	2.239E+00	2.239E+00	27.45
	295.21	534	19.20	6.040E+00	1.194E+00	1.194E+00	19.61
	351.92	1008	37.20*	5.451E+00	1.287E+00	1.288E+00	13.29
RA-224	240.98	437	3.95*	6.746E+00	4.245E+00	4.245E+00	26.87
RA-226	609.31	785	46.30*	3.813E+00	1.153E+00	1.153E+00	14.47
	1120.29	205	15.10	2.334E+00	1.510E+00	1.510E+00	28.82
	1764.49	158	15.80	1.695E+00	1.528E+00	1.528E+00	23.18
AC-228	338.32	378	11.40	5.580E+00	1.541E+00	1.541E+00	46.37
	911.07	444	27.70*	2.780E+00	1.495E+00	1.495E+00	20.57
	969.11	269	16.60	2.640E+00	1.590E+00	1.590E+00	30.70
RA-228	338.32	378	11.40	5.580E+00	1.541E+00	1.541E+00	46.37
	911.07	444	27.70*	2.780E+00	1.495E+00	1.495E+00	20.57
	969.11	269	16.60	2.640E+00	1.590E+00	1.590E+00	30.70
TH-228	74.81	379	10.70	4.944E+00	1.856E+00	1.884E+00	36.44
	77.11	648	18.00	5.255E+00	1.775E+00	1.802E+00	20.97
	87.30	224	8.00	6.447E+00	1.123E+00	1.140E+00	57.33
	238.63	1657	44.60*	6.792E+00	1.418E+00	1.439E+00	9.51
	300.09	97	3.41	5.985E+00	1.236E+00	1.255E+00	85.94
TH-229	85.43	357	16.50	6.127E+00	9.140E-01	9.140E-01	40.14
	88.47	224	27.10	6.447E+00	3.314E-01	3.314E-01	57.33
	100.00	764	12.40	7.372E+00	2.165E+00	2.165E+00	20.72
	193.63	------	4.59*	7.519E+00	------	Line Not Found	------
	210.97	------	3.26	7.230E+00	------	Line Not Found	------
TH-230	609.31	785	46.30*	3.813E+00	1.153E+00	1.153E+00	14.47
	1120.29	205	15.10	2.334E+00	1.510E+00	1.510E+00	28.82
	1764.49	158	15.80	1.695E+00	1.528E+00	1.528E+00	23.18
U-231	84.21	357	7.00	6.127E+00	2.155E+00	2.643E+01	40.14
	92.29	9082	17.30	6.945E+00	1.958E+01	2.402E+02	8.84
	95.87	308	28.00*	7.099E+00	4.014E-01	4.924E+00	48.23
	108.00	------	13.10	7.835E+00	------	Line Not Found	------

Sample ID : G245691009 Acquisition date : 9-FEB-2010 15:32:51

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-232	338.32	378	11.40	5.580E+00	1.541E+00	1.541E+00	22.85
	911.07	444	27.70*	2.780E+00	1.495E+00	1.495E+00	20.57
	969.11	269	16.60	2.640E+00	1.590E+00	1.590E+00	30.70
PA-234M	766.42	379	0.32	3.202E+00	9.586E+01	9.586E+01	55.45
	1001.03	811	0.84*	2.568E+00	9.734E+01	9.734E+01	14.35
TH-234	63.29	3167	3.80*	3.103E+00	6.957E+01	6.957E+01	18.63
	92.38	9082	5.41	6.945E+00	6.262E+01	6.262E+01	18.19
U-234	609.31	785	46.30*	3.813E+00	1.153E+00	1.153E+00	14.47
	1120.29	205	15.10	2.334E+00	1.510E+00	1.510E+00	28.82
	1764.49	158	15.80	1.695E+00	1.528E+00	1.528E+00	23.18
U-235	89.95	------	2.70	6.701E+00	------ Line Not Found		------
	93.35	9082	4.50	6.945E+00	7.529E+01	7.529E+01	28.09
	105.00	------	2.10	7.709E+00	------ Line Not Found		------
	143.76	422	10.50*	8.221E+00	1.266E+00	1.266E+00	31.17
	163.35	194	4.70	8.005E+00	1.338E+00	1.338E+00	62.37
	185.71	2257	54.00	7.650E+00	1.416E+00	1.416E+00	8.11
	205.31	149	4.70	7.330E+00	1.120E+00	1.120E+00	62.96
NP-237	86.50	224	12.60*	6.447E+00	7.129E-01	7.129E-01	60.93
	95.87	308	2.60	7.099E+00	4.323E+00	4.323E+00	53.47
U-238	63.29	3167	3.80*	3.103E+00	6.957E+01	6.957E+01	18.63
	92.38	9082	5.41	6.945E+00	6.262E+01	6.262E+01	8.84
AM-243	74.67	379	66.00*	4.944E+00	3.009E-01	3.009E-01	36.42
	86.72	224	0.34	6.447E+00	2.673E+01	2.673E+01	57.33
	117.66	------	0.55	8.112E+00	------ Line Not Found		------
	142.18	------	0.13	8.232E+00	------ Line Not Found		------
ANH-511	511.00	162	100.00*	4.311E+00	9.763E-02	9.763E-02	57.71

Flag: "*" = Keyline

Sample ID : G245691009 Acquisition date : 9-FEB-2010 15:32:51

Total number of lines in spectrum 44
Number of unidentified lines 3
Number of lines tentatively identified by NID 41 93.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.575E+01	2.575E+01	0.235E+01	9.12	
NB-95	64.02D	1.18	3.073E-01	3.623E-01	0.869E-01	23.98	
CD-109	464.00D	1.02	2.415E+00	2.470E+00	1.416E+00	57.33	
SN-126	1.00E+05Y	1.00	2.428E-01	2.428E-01	1.392E-01	57.33	
LU-177	6.71D	4.80	6.841E-01	3.285E+00	1.314E+00	39.99	
TL-208	1.41E+10Y	1.00	4.500E-01	4.500E-01	0.820E-01	18.22	
BI-211	7.04E+08Y	1.00	3.701E+00	3.701E+00	0.452E+00	12.22	
BI-212	1.41E+10Y	1.00	1.102E+00	1.102E+00	0.381E+00	34.53	
PB-212	1.41E+10Y	1.00	1.418E+00	1.418E+00	0.135E+00	9.51	
PO-212	1.41E+10Y	1.00	1.418E+00	1.418E+00	0.135E+00	9.51	
BI-214	1600.00Y	1.00	1.153E+00	1.153E+00	0.167E+00	14.47	
PB-214	1600.00Y	1.00	1.287E+00	1.288E+00	0.171E+00	13.29	
PO-214	1600.00Y	1.00	1.287E+00	1.288E+00	0.171E+00	13.29	
PO-216	1.41E+10Y	1.00	1.418E+00	1.418E+00	0.135E+00	9.51	
PO-218	1600.00Y	1.00	1.287E+00	1.288E+00	0.171E+00	13.29	
RA-224	1.41E+10Y	1.00	4.245E+00	4.245E+00	1.141E+00	26.87	
RA-226	1600.00Y	1.00	1.153E+00	1.153E+00	0.167E+00	14.47	
AC-228	1.41E+10Y	1.00	1.495E+00	1.495E+00	0.307E+00	20.57	
RA-228	1.41E+10Y	1.00	1.495E+00	1.495E+00	0.307E+00	20.57	
TH-228	1.91Y	1.02	1.418E+00	1.439E+00	0.137E+00	9.51	
TH-229	7340.00Y	1.00	3.314E-01	3.314E-01	1.900E-01	57.33	K
TH-230	4.47E+09Y	1.00	1.153E+00	1.153E+00	0.167E+00	14.47	
U-231	4.20D	12.3	4.014E-01	4.924E+00	2.375E+00	48.23	
TH-232	1.41E+10Y	1.00	1.495E+00	1.495E+00	0.307E+00	20.57	
PA-234M	4.47E+09Y	1.00	9.734E+01	9.734E+01	1.397E+01	14.35	
TH-234	4.47E+09Y	1.00	6.957E+01	6.957E+01	1.296E+01	18.63	
U-234	4.47E+09Y	1.00	1.153E+00	1.153E+00	0.167E+00	14.47	
U-235	7.04E+08Y	1.00	1.266E+00	1.266E+00	0.395E+00	31.17	
NP-237	2.14E+06Y	1.00	7.129E-01	7.129E-01	4.343E-01	60.93	
U-238	4.47E+09Y	1.00	6.957E+01	6.957E+01	1.296E+01	18.63	
AM-243	7380.00Y	1.00	3.009E-01	3.009E-01	1.096E-01	36.42	
ANH-511	1.00E+09Y	1.00	9.763E-02	9.763E-02	5.634E-02	57.71	
	Total Activity :		2.971E+02	3.044E+02			

Grand Total Activity : 2.971E+02 3.044E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691009 Acquisition date : 9-FEB-2010 15:32:51

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	111.35	131	1050	1.18	221.79	218	12	1.82E-02	84.0	7.95E+00	T
0	257.86	155	443	0.96	514.71	509	11	2.15E-02	55.1	6.52E+00	
0	270.13	149	326	1.42	539.24	535	9	2.07E-02	46.6	6.35E+00	T
0	328.27	119	243	1.19	655.49	651	9	1.65E-02	51.1	5.68E+00	T
0	462.43	132	234	1.61	923.72	917	13	1.83E-02	51.0	4.60E+00	T
0	794.16	72	125	1.16	1587.01	1582	11	9.95E-03	66.1	3.11E+00	
0	938.04	17	152	1.74	1874.71	1865	16	2.43E-03	****	2.71E+00	T
1	964.38	105	103	2.32	1927.38	1916	26	1.46E-02	44.7	2.65E+00	T
0	1237.57	56	102	0.93	2473.67	2468	13	7.80E-03	80.1	2.15E+00	T
0	1377.24	36	69	1.23	2752.98	2745	16	4.96E-03	****	1.98E+00	T
0	1728.74	44	18	1.15	3455.93	3447	15	6.05E-03	52.8	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:33:58.59

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691009.CNF;1   *
* Acquisition date  : 9-FEB-2010 15:32:51.  Detector SN#     :                *
* Detector ID       : GAM18                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.52          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 25-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245691009            Analyst initials: MJH1            *
* Batch Number      : 947037                Sample Quantity : 1.44890E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                  *
* MSD ID           :                      MSD Isotope      :                  *
* LCS ID           : 1032-A               LCS Isotope      :                  *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.575E+01	2.349E+00	3.979E-01	3.019E-02	64.725
NB-95	3.623E-01	8.686E-02	5.531E-02	5.059E-03	6.550
CD-109	2.470E+00	1.416E+00	2.138E+00	1.976E-01	1.155
SN-126	2.428E-01	1.392E-01	2.139E-01	1.971E-02	1.135
LU-177	3.285E+00	1.314E+00	1.398E+00	7.581E-02	2.351
TL-208	4.500E-01	8.200E-02	4.655E-02	3.649E-03	9.666
BI-211	3.701E+00	4.525E-01	2.702E-01	1.735E-02	13.697
BI-212	1.102E+00	3.806E-01	3.581E-01	3.567E-02	3.077
PB-212	1.418E+00	1.348E-01	7.838E-02	5.599E-03	18.086
PO-212	1.418E+00	1.348E-01	7.838E-02	5.599E-03	18.086
BI-214	1.153E+00	1.668E-01	8.916E-02	7.964E-03	12.927
PB-214	1.288E+00	1.711E-01	9.417E-02	7.791E-03	13.671
PO-214	1.288E+00	1.711E-01	9.417E-02	7.791E-03	13.671
PO-216	1.418E+00	1.348E-01	7.838E-02	5.599E-03	18.086
PO-218	1.288E+00	1.711E-01	9.417E-02	7.791E-03	13.671
RA-224	4.245E+00	1.141E+00	8.909E-01	4.963E-02	4.765
RA-226	1.153E+00	1.668E-01	8.916E-02	7.964E-03	12.927
AC-228	1.495E+00	3.075E-01	1.645E-01	2.180E-02	9.086

Sample ID : G245691009 Acquisition date : 9-FEB-2010 15:32:51

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.495E+00	3.075E-01	1.645E-01	2.180E-02	9.086
TH-228	1.439E+00	1.369E-01	7.957E-02	5.684E-03	18.086
TH-229	3.314E-01	1.900E-01	7.916E-01	4.238E-02	0.419
TH-230	1.153E+00	1.668E-01	8.916E-02	7.964E-03	12.927
U-231	4.924E+00	2.375E+00	2.274E+00	1.822E-01	2.165
TH-232	1.495E+00	3.075E-01	1.645E-01	2.180E-02	9.086
PA-234M	9.734E+01	1.397E+01	5.232E+00	5.644E-01	18.603
TH-234	6.957E+01	1.296E+01	3.235E+00	5.702E-01	21.509
U-234	1.153E+00	1.668E-01	8.916E-02	7.964E-03	12.927
U-235	1.266E+00	3.948E-01	3.451E-01	5.588E-02	3.670
NP-237	7.129E-01	4.343E-01	5.605E-01	1.265E-01	1.272
U-238	6.957E+01	1.296E+01	3.235E+00	5.702E-01	21.509
AM-243	3.009E-01	1.096E-01	1.320E-01	1.102E-02	2.279
ANH-511	9.763E-02	5.634E-02	3.685E-02	2.434E-03	2.649

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.094E-01		2.597E-01	4.373E-01	3.169E-02	0.250
NA-22	-1.717E-02		3.255E-02	5.119E-02	3.483E-03	-0.335
NA-24	2.933E-01		3.344E-01	Half-Life too short		
AL-26	-1.739E-02		2.044E-02	2.880E-02	1.682E-03	-0.604
TI-44	3.276E-01	+	6.869E-02	9.572E-02	8.184E-03	3.423
SC-46	-1.058E-02		2.971E-02	4.726E-02	5.271E-03	-0.224
V-48	9.902E-03		5.441E-02	8.926E-02	8.829E-03	0.111
CR-51	-1.220E-01		3.074E-01	4.856E-01	3.127E-02	-0.251
MN-52	9.205E-02		1.668E-01	2.868E-01	2.113E-02	0.321
MN-54	-9.120E-03		3.088E-02	4.986E-02	5.107E-03	-0.183
CO-56	-3.386E-02		3.092E-02	4.664E-02	4.868E-03	-0.726
CO-57	1.043E-02		2.984E-02	4.834E-02	2.863E-03	0.216
CO-58	-2.028E-02		3.052E-02	4.801E-02	4.739E-03	-0.422
FE-59	-3.069E-02		6.806E-02	1.097E-01	9.029E-03	-0.280
CO-60	1.418E-02		3.035E-02	5.156E-02	3.896E-03	0.275
ZN-65	5.018E-02		7.933E-02	1.194E-01	8.410E-03	0.420
GE-68	4.769E-01		9.203E-01	1.588E+00	1.262E-01	0.300
AS-73	1.571E+00		1.472E+00	2.528E+00	2.004E-01	0.622
AS-74	3.646E-03		7.618E-02	1.233E-01	8.858E-03	0.030
SE-75	4.029E-02		4.135E-02	6.534E-02	3.737E-03	0.617
BR-77	3.105E+00		8.434E+00	1.408E+01	9.395E-01	0.220
SR-82	-2.113E-01		3.279E-01	4.942E-01	4.602E-02	-0.428
RB-83	2.394E-02		5.547E-02	9.291E-02	6.197E-03	0.258
RB-84	8.627E-02		5.921E-02	1.043E-01	1.149E-02	0.827
KR-85	1.286E+01		6.780E+00	1.074E+01	7.116E-01	1.197
SR-85	6.596E-02		3.477E-02	5.509E-02	3.650E-03	1.197
RB-86	1.178E-01		5.960E-01	1.007E+00	8.020E-02	0.117
Y-88	-4.381E-02		2.912E-02	3.789E-02	2.158E-03	-1.156
ZR-88	-2.112E-02		2.463E-02	3.961E-02	2.278E-03	-0.533

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	6.751E+00		1.406E+01	2.393E+01	1.415E+00	0.282
NB-94	1.620E-02		2.702E-02	4.646E-02	3.811E-03	0.349
NB-95M	7.862E-03		1.222E-01	1.775E-01	1.302E-02	0.044
ZR-95	4.264E-02		5.999E-02	9.906E-02	9.747E-03	0.430
NB-97	-1.303E-01		4.081E-02	Half-Life too short		
ZR-97	4.437E+00		8.665E-01	Half-Life too short		
MO-99	1.271E+01		1.108E+01	1.914E+01	2.921E+00	0.664
TC-99M	-1.269E+10		2.548E+10	Half-Life too short		
RH-101	-1.357E-03		3.056E-02	5.034E-02	2.706E-03	-0.027
RH-102	3.398E-03		2.372E-02	3.943E-02	2.504E-03	0.086
RU-103	-8.424E-04		3.193E-02	5.241E-02	6.805E-03	-0.016
RH-106	-1.333E-02		2.706E-01	4.349E-01	5.471E-02	-0.031
RU-106	-1.333E-02		2.706E-01	4.349E-01	3.200E-02	-0.031
AG-108M	-1.258E-02		2.546E-02	4.124E-02	2.695E-03	-0.305
AG-110M	-4.940E-02		2.823E-02	4.238E-02	3.342E-03	-1.166
IN-111	1.787E-01		1.050E+00	1.527E+00	8.536E-02	0.117
IN-113M	-3.127E-02		3.663E-02	5.900E-02	3.619E-03	-0.530
SN-113	-3.127E-02		3.663E-02	5.900E-02	3.619E-03	-0.530
IN-114M	-9.837E-02		1.847E-01	2.660E-01	1.420E-02	-0.370
CD-115	-1.525E+00		8.746E+00	1.416E+01	9.519E-01	-0.108
SN-117M	2.073E-02		6.017E-02	9.121E-02	4.848E-03	0.227
SB-122	1.021E+00		1.734E+00	2.906E+00	2.025E-01	0.351
I-123	1.108E+00		3.296E+00	Half-Life too short		
TE-123M	5.265E-03		3.132E-02	4.716E-02	2.544E-03	0.112
I-124	4.456E-02		6.121E-01	8.567E-01	6.195E-02	0.052
SB-124	5.495E-03		6.244E-02	1.042E-01	7.186E-03	0.053
SB-125	5.033E-02		7.344E-02	1.261E-01	7.877E-03	0.399
TE-125M	7.299E+00		1.348E+01	1.975E+01	1.736E+00	0.370
I-126	-1.613E-01		1.536E-01	2.431E-01	1.868E-02	-0.664
SB-126	-8.008E-03		1.272E-01	1.815E-01	1.536E-02	-0.044
SB-127	5.134E-01		1.097E+00	1.879E+00	2.048E-01	0.273
XE-127	1.490E-02		4.915E-02	7.299E-02	3.940E-03	0.204
I-131	-2.585E-02		8.870E-02	1.475E-01	9.521E-03	-0.175
TE-132	-6.795E-02		6.267E-01	1.032E+00	1.472E-01	-0.066
BA-133	1.764E-02		4.078E-02	5.836E-02	6.741E-03	0.302
I-133	3.515E-03		2.460E-03	Half-Life too short		
CS-134	1.101E-01		4.696E-02	7.575E-02	7.327E-03	1.453
CS-135	1.240E-01		1.577E-01	2.343E-01	1.771E-02	0.529
I-135	-3.468E+09		2.090E+09	Half-Life too short		
CS-136	-6.510E-02		7.769E-02	1.216E-01	1.090E-02	-0.535
BA-137M	4.090E-02		3.020E-02	5.368E-02	4.092E-03	0.762
CS-137	4.323E-02		3.193E-02	5.674E-02	4.336E-03	0.762
CE-139	8.493E-04		3.268E-02	4.879E-02	2.561E-03	0.017
BA-140	3.343E-02		2.141E-01	3.521E-01	1.152E-01	0.095
LA-140	-3.683E-04		5.998E-02	9.956E-02	6.830E-03	-0.004
CE-141	3.099E-01		8.105E-02	1.274E-01	7.273E-03	2.433
CE-143	5.935E-04		9.817E-05	Half-Life too short		
CE-144	-2.488E-01		2.386E-01	3.647E-01	5.157E-02	-0.682

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144	3.427E-03		2.765E-02	4.649E-02	3.774E-03	0.074
PR-144	2.322E-01		1.874E+00	3.150E+00	2.557E-01	0.074
PM-146	2.473E-02		3.583E-02	5.978E-02	5.318E-03	0.414
ND-147	2.928E-01		4.527E-01	7.631E-01	1.065E-01	0.384
PM-149	-1.984E+01		8.078E+01	1.299E+02	1.837E+01	-0.153
EU-152	3.954E-02		1.099E-01	1.327E-01	8.661E-03	0.298
GD-153	8.958E-01	+	1.856E-01	2.098E-01	1.641E-02	4.269
EU-154	-3.615E-02		8.967E-02	1.424E-01	1.422E-02	-0.254
EU-155	1.053E-01		1.312E-01	2.167E-01	1.549E-02	0.486
TB-160	6.090E-02		1.152E-01	1.946E-01	2.137E-02	0.313
HO-166M	1.005E-02		4.745E-02	8.004E-02	6.672E-03	0.126
TM-171	-3.188E+01		4.511E+01	6.573E+01	5.255E+00	-0.485
LU-176	-1.754E-02		2.126E-02	3.305E-02	1.903E-03	-0.531
LU-177M	-1.374E-01		1.442E-01	2.297E-01	1.357E-02	-0.598
HF-181	-2.183E-02		3.344E-02	5.313E-02	3.401E-03	-0.411
W-181	4.533E+00		7.661E-01	1.169E+00	9.273E-02	3.878
TA-182	-1.252E-01		1.445E-01	2.239E-01	1.369E-02	-0.559
RE-183	3.124E-01	+	1.875E-01	2.013E-01	1.062E-02	1.552
RE-184	1.029E-01		2.321E-01	3.415E-01	1.918E-02	0.301
OS-185	-2.975E-02		3.776E-02	5.773E-02	4.341E-03	-0.515
RE-188	-3.267E-03		1.701E-01	2.885E-01	1.544E-02	-0.011
W-188	-2.389E+00		7.317E+00	1.019E+01	5.836E-01	-0.234
IR-192	4.226E-03		2.781E-02	4.516E-02	2.619E-03	0.094
AU-195	2.608E+00	+	5.405E-01	6.302E-01	4.822E-02	4.139
TL-200	-1.601E-04		1.811E-04	Half-Life too short		
TL-201	-8.638E-02		7.673E+00	1.143E+01	6.000E-01	-0.008
TL-202	4.993E-03		5.666E-02	9.449E-02	5.761E-03	0.053
HG-203	-2.690E-03		3.493E-02	5.670E-02	3.438E-03	-0.047
BI-207	-4.943E-03		4.132E-02	6.698E-02	5.529E-03	-0.074
TL-207	2.434E-01		6.134E-01	8.820E-01	1.456E-01	0.276
PO-209	1.817E+00		5.608E+00	9.363E+00	1.056E+00	0.194
BI-210	-2.933E+00		6.831E+00	1.131E+01	8.747E-01	-0.259
PB-210	-2.933E+00		6.831E+00	1.131E+01	8.747E-01	-0.259
PO-210	-2.933E+00		6.830E+00	1.131E+01	7.520E-01	-0.259
PB-211	-7.131E-02		7.808E-01	1.298E+00	8.092E-01	-0.055
PO-215	2.434E-01		6.134E-01	8.820E-01	1.456E-01	0.276
RN-219	-9.844E-02		3.367E-01	5.555E-01	7.562E-02	-0.177
RN-220	-1.573E+01		2.165E+01	3.380E+01	2.322E+00	-0.465
RA-223	2.434E-01		6.134E-01	8.820E-01	1.456E-01	0.276
AC-227	2.636E-01		3.971E-01	5.871E-01	8.155E-02	0.449
TH-227	2.636E-01		3.979E-01	5.871E-01	9.888E-02	0.449
PA-231	-9.863E-02		1.300E+00	2.107E+00	2.896E-01	-0.047
TH-231	2.434E-01		6.134E-01	8.820E-01	1.456E-01	0.276
PA-233	-4.248E-03		5.356E-02	8.613E-02	5.276E-03	-0.049
PA-234	1.778E-01		2.753E-01	4.314E-01	8.510E-02	0.412
NP-236	4.384E-03		8.735E-02	1.309E-01	6.933E-03	0.033
NP-239	1.138E-01		2.521E-01	3.672E-01	2.273E-02	0.310
AM-241	3.081E-01		2.854E-01	4.401E-01	3.650E-02	0.700

Sample ID : G245691009 Acquisition date : 9-FEB-2010 15:32:51

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.399E-02		1.328E-01	1.913E-01	1.369E-02	-0.073
AM-246	5.558E-02		1.058E-01	1.826E-01	1.444E-02	0.304
CM-247	-5.330E-04		2.990E-02	4.996E-02	2.910E-03	-0.011
CF-249	4.826E-02		3.320E-02	5.883E-02	3.382E-03	0.820
CF-251	-7.790E-02		1.201E-01	1.982E-01	1.047E-02	-0.393

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691009           *
* Acquisition date :  9-FEB-2010 15:32:51 Detector SN#    :                 *
* Detector ID       : GAM18               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.52     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691009           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.4489E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.575E+01	2.302E+00	2.001E-01	1.174E+00
NB-95	3.623E-01	8.512E-02	2.824E-02	4.343E-02
CD-109	2.470E+00	1.388E+00	1.144E+00	7.079E-01
SN-126	2.428E-01	1.364E-01	1.145E-01	6.958E-02
LU-177	3.285E+00	1.288E+00	7.345E-01	6.569E-01
TL-208	4.500E-01	8.036E-02	2.391E-02	4.100E-02
BI-211	3.701E+00	4.434E-01	1.404E-01	2.262E-01
BI-212	1.102E+00	3.730E-01	1.831E-01	1.903E-01
PB-212	1.418E+00	1.321E-01	4.107E-02	6.742E-02
PO-212	1.418E+00	1.321E-01	4.107E-02	6.742E-02
BI-214	1.153E+00	1.634E-01	4.575E-02	8.338E-02
PB-214	1.288E+00	1.677E-01	4.893E-02	8.557E-02
PO-214	1.288E+00	1.677E-01	4.893E-02	8.557E-02
PO-216	1.418E+00	1.321E-01	4.107E-02	6.742E-02
PO-218	1.288E+00	1.677E-01	4.893E-02	8.557E-02
RA-224	4.245E+00	1.118E+00	4.667E-01	5.703E-01
RA-226	1.153E+00	1.634E-01	4.575E-02	8.338E-02
AC-228	1.495E+00	3.013E-01	8.365E-02	1.537E-01
RA-228	1.495E+00	3.013E-01	8.365E-02	1.537E-01
TH-228	1.439E+00	1.341E-01	4.169E-02	6.844E-02
TH-229	2.595E-01	4.565E-01	4.166E-01	2.329E-01
TH-230	1.153E+00	1.634E-01	4.575E-02	8.338E-02
U-231	4.924E+00	2.327E+00	1.215E+00	1.187E+00
TH-232	1.495E+00	3.013E-01	8.365E-02	1.537E-01
PA-234M	9.734E+01	1.369E+01	2.655E+00	6.985E+00
TH-234	6.957E+01	1.270E+01	1.743E+00	6.481E+00
U-234	1.153E+00	1.634E-01	4.575E-02	8.338E-02
U-235	1.266E+00	3.869E-01	1.828E-01	1.974E-01
NP-237	7.129E-01	4.256E-01	3.001E-01	2.172E-01
U-238	6.957E+01	1.270E+01	1.743E+00	6.481E+00
AM-243	3.009E-01	1.074E-01	7.089E-02	5.480E-02
ANH-511	9.763E-02	5.522E-02	1.899E-02	2.817E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.094E-01	2.545E-01	2.257E-01	1.299E-01	NOT IDENT.
NA-22	-1.717E-02	3.190E-02	2.583E-02	1.627E-02	NOT IDENT.
NA-24	2.933E+05	6.554E+05	0.000E+00	3.344E+05	SHORT HLIF
AL-26	-1.739E-02	2.003E-02	1.441E-02	1.022E-02	NOT IDENT.
TI-44	3.276E-01	6.732E-02	5.135E-02	3.434E-02	FAIL ABUN
SC-46	-1.058E-02	2.911E-02	2.405E-02	1.485E-02	FAIL ABUN
V-48	9.902E-03	5.332E-02	4.531E-02	2.720E-02	NOT IDENT.
CR-51	-1.220E-01	3.013E-01	2.528E-01	1.537E-01	NOT IDENT.
MN-52	9.205E-02	1.635E-01	1.443E-01	8.340E-02	NOT IDENT.
MN-54	-9.120E-03	3.026E-02	2.540E-02	1.544E-02	NOT IDENT.
CO-56	-3.386E-02	3.030E-02	2.375E-02	1.546E-02	FAIL ABUN
CO-57	1.043E-02	2.924E-02	2.569E-02	1.492E-02	NOT IDENT.
CO-58	-2.028E-02	2.991E-02	2.448E-02	1.526E-02	NOT IDENT.
FE-59	-3.069E-02	6.670E-02	5.554E-02	3.403E-02	FAIL ABUN
CO-60	1.418E-02	2.975E-02	2.599E-02	1.518E-02	NOT IDENT.
ZN-65	5.018E-02	7.774E-02	6.043E-02	3.967E-02	NOT IDENT.
GE-68	4.769E-01	9.019E-01	8.044E-01	4.601E-01	NOT IDENT.
AS-73	1.571E+00	1.442E+00	1.367E+00	7.359E-01	NOT IDENT.
AS-74	3.646E-03	7.465E-02	6.330E-02	3.809E-02	NOT IDENT.
SE-75	4.029E-02	4.052E-02	3.416E-02	2.068E-02	NOT IDENT.
BR-77	3.105E+00	8.266E+00	7.253E+00	4.217E+00	FAIL ABUN
SR-82	-2.113E-01	3.213E-01	2.522E-01	1.639E-01	NOT IDENT.
RB-83	2.394E-02	5.436E-02	4.785E-02	2.774E-02	NOT IDENT.
RB-84	8.627E-02	5.802E-02	5.307E-02	2.960E-02	NOT IDENT.
KR-85	1.286E+01	6.644E+00	5.533E+00	3.390E+00	NOT IDENT.
SR-85	6.596E-02	3.408E-02	2.838E-02	1.739E-02	NOT IDENT.
RB-86	1.178E-01	5.841E-01	5.103E-01	2.980E-01	NOT IDENT.
Y-88	-4.381E-02	2.854E-02	1.895E-02	1.456E-02	NOT IDENT.
ZR-88	-2.112E-02	2.414E-02	2.053E-02	1.232E-02	NOT IDENT.
Y-91	6.751E+00	1.378E+01	1.209E+01	7.032E+00	NOT IDENT.
NB-94	1.620E-02	2.648E-02	2.376E-02	1.351E-02	NOT IDENT.
NB-95M	7.862E-03	1.198E-01	9.300E-02	6.112E-02	NOT IDENT.
ZR-95	4.264E-02	5.879E-02	5.059E-02	2.999E-02	NOT IDENT.
NB-97	-1.303E+05	7.998E+04	0.000E+00	4.081E+04	SHORT HLIF
ZR-97	4.437E+06	1.698E+06	0.000E+00	8.665E+05	SHORT HLIF
MO-99	1.271E+01	1.086E+01	9.781E+00	5.539E+00	NOT IDENT.
TC-99M	-1.269E+16	4.994E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.357E-03	2.995E-02	2.648E-02	1.528E-02	NOT IDENT.
RH-102	3.398E-03	2.325E-02	2.035E-02	1.186E-02	FAIL ABUN
RU-103	-8.424E-04	3.129E-02	2.702E-02	1.596E-02	FAIL ABUN
RH-106	-1.333E-02	2.652E-01	2.231E-01	1.353E-01	FAIL ABUN
RU-106	-1.333E-02	2.652E-01	2.231E-01	1.353E-01	FAIL ABUN
AG-108M	-1.258E-02	2.495E-02	2.133E-02	1.273E-02	NOT IDENT.
AG-110M	-4.940E-02	2.766E-02	2.171E-02	1.411E-02	FAIL ABUN
IN-111	1.787E-01	1.029E+00	7.998E-01	5.250E-01	NOT IDENT.
IN-113M	-3.127E-02	3.590E-02	3.058E-02	1.832E-02	NOT IDENT.
SN-113	-3.127E-02	3.590E-02	3.058E-02	1.832E-02	NOT IDENT.
IN-114M	-9.837E-02	1.810E-01	1.400E-01	9.236E-02	NOT IDENT.
CD-115	-1.525E+00	8.571E+00	7.292E+00	4.373E+00	NOT IDENT.
SN-117M	2.073E-02	5.897E-02	4.821E-02	3.008E-02	NOT IDENT.
SB-122	1.021E+00	1.699E+00	1.494E+00	8.670E-01	NOT IDENT.
I-123	1.108E+06	6.459E+06	0.000E+00	3.296E+06	SHORT HLIF
TE-123M	5.265E-03	3.069E-02	2.492E-02	1.566E-02	NOT IDENT.
I-124	4.456E-02	5.999E-01	4.397E-01	3.060E-01	FAIL ABUN
SB-124	5.495E-03	6.120E-02	5.221E-02	3.122E-02	FAIL ABUN
SB-125	5.033E-02	7.197E-02	6.521E-02	3.672E-02	FAIL ABUN
TE-125M	7.299E+00	1.321E+01	1.052E+01	6.741E+00	NOT IDENT.
I-126	-1.613E-01	1.505E-01	1.245E-01	7.680E-02	NOT IDENT.
SB-126	-8.008E-03	1.246E-01	9.278E-02	6.359E-02	FAIL ABUN
SB-127	5.134E-01	1.075E+00	9.619E-01	5.487E-01	NOT IDENT.
XE-127	1.490E-02	4.816E-02	3.838E-02	2.457E-02	FAIL ABUN
I-131	-2.585E-02	8.693E-02	7.656E-02	4.435E-02	NOT IDENT.
TE-132	-6.795E-02	6.142E-01	5.413E-01	3.134E-01	FAIL ABUN
BA-133	1.764E-02	3.996E-02	3.031E-02	2.039E-02	NOT IDENT.
I-133	3.515E+03	4.821E+03	0.000E+00	2.460E+03	SHORT HLIF
CS-134	1.101E-01	4.602E-02	3.864E-02	2.348E-02	NOT IDENT.
CS-135	1.240E-01	1.545E-01	1.225E-01	7.883E-02	NOT IDENT.
I-135	-3.468E+15	4.097E+15	0.000E+00	2.090E+15	SHORT HLIF
CS-136	-6.510E-02	7.613E-02	6.165E-02	3.884E-02	FAIL ABUN
BA-137M	4.090E-02	2.960E-02	2.749E-02	1.510E-02	NOT IDENT.
CS-137	4.323E-02	3.129E-02	2.906E-02	1.596E-02	NOT IDENT.
CE-139	8.493E-04	3.203E-02	2.576E-02	1.634E-02	NOT IDENT.
BA-140	3.343E-02	2.098E-01	1.812E-01	1.071E-01	FAIL ABUN

LA-140	-3.683E-04	5.878E-02	4.997E-02	2.999E-02	FAIL ABUN
CE-141	3.099E-01	7.943E-02	6.747E-02	4.053E-02	NOT IDENT.
CE-143	5.935E+02	1.924E+02	0.000E+00	9.817E+01	SHORT HLIF
CE-144	-2.488E-01	2.338E-01	1.935E-01	1.193E-01	NOT IDENT.
PM-144	3.427E-03	2.710E-02	2.379E-02	1.383E-02	NOT IDENT.
PR-144	2.322E-01	1.836E+00	1.612E+00	9.369E-01	NOT IDENT.
PM-146	2.473E-02	3.511E-02	3.088E-02	1.791E-02	NOT IDENT.
ND-147	2.928E-01	4.436E-01	3.928E-01	2.263E-01	NOT IDENT.
PM-149	-1.984E+01	7.916E+01	6.778E+01	4.039E+01	NOT IDENT.
EU-152	3.954E-02	1.077E-01	6.898E-02	5.494E-02	FAIL ABUN
GD-153	8.958E-01	1.819E-01	1.121E-01	9.281E-02	FAIL ABUN
EU-154	-3.615E-02	8.788E-02	7.185E-02	4.483E-02	NOT IDENT.
EU-155	1.053E-01	1.286E-01	1.155E-01	6.561E-02	FAIL ABUN
TB-160	6.090E-02	1.129E-01	9.902E-02	5.761E-02	FAIL ABUN
HO-166M	1.005E-02	4.650E-02	4.093E-02	2.373E-02	FAIL ABUN
TM-171	-3.188E+01	4.421E+01	3.538E+01	2.255E+01	NOT IDENT.
LU-176	-1.754E-02	2.084E-02	1.722E-02	1.063E-02	FAIL ABUN
LU-177M	-1.374E-01	1.413E-01	1.189E-01	7.208E-02	FAIL ABUN
HF-181	-2.183E-02	3.278E-02	2.741E-02	1.672E-02	NOT IDENT.
W-181	4.533E+00	7.508E-01	6.296E-01	3.831E-01	NOT IDENT.
TA-182	-1.252E-01	1.416E-01	1.131E-01	7.225E-02	FAIL ABUN
RE-183	3.124E-01	1.837E-01	1.063E-01	9.374E-02	FAIL ABUN
RE-184	1.029E-01	2.274E-01	1.787E-01	1.160E-01	NOT IDENT.
OS-185	-2.975E-02	3.700E-02	2.958E-02	1.888E-02	NOT IDENT.
RE-188	-3.267E-03	1.667E-01	1.526E-01	8.507E-02	NOT IDENT.
W-188	-2.389E+00	7.171E+00	5.316E+00	3.659E+00	FAIL ABUN
IR-192	4.226E-03	2.726E-02	2.352E-02	1.391E-02	FAIL ABUN
AU-195	2.608E+00	5.297E-01	3.364E-01	2.703E-01	FAIL ABUN
TL-200	-1.601E+02	3.550E+02	0.000E+00	1.811E+02	SHORT HLIF
TL-201	-8.638E-02	7.519E+00	6.034E+00	3.836E+00	NOT IDENT.
TL-202	4.993E-03	5.553E-02	4.885E-02	2.833E-02	NOT IDENT.
HG-203	-2.690E-03	3.423E-02	2.961E-02	1.747E-02	NOT IDENT.
BI-207	-4.943E-03	4.049E-02	3.394E-02	2.066E-02	FAIL ABUN
TL-207	2.434E-01	6.011E-01	4.591E-01	3.067E-01	FAIL ABUN
PO-209	1.817E+00	5.496E+00	4.763E+00	2.804E+00	NOT IDENT.
BI-210	-2.933E+00	6.694E+00	6.130E+00	3.415E+00	NOT IDENT.
PB-210	-2.933E+00	6.694E+00	6.130E+00	3.415E+00	NOT IDENT.
PO-210	-2.933E+00	6.693E+00	6.130E+00	3.415E+00	NOT IDENT.
PB-211	-7.131E-02	7.652E-01	6.722E-01	3.904E-01	NOT IDENT.
PO-215	2.434E-01	6.011E-01	4.591E-01	3.067E-01	FAIL ABUN
RN-219	-9.844E-02	3.300E-01	2.877E-01	1.684E-01	FAIL ABUN
RN-220	-1.573E+01	2.122E+01	1.738E+01	1.082E+01	NOT IDENT.
RA-223	2.434E-01	6.011E-01	4.591E-01	3.067E-01	FAIL ABUN
AC-227	2.636E-01	3.891E-01	3.072E-01	1.985E-01	FAIL ABUN
TH-227	2.636E-01	3.899E-01	3.072E-01	1.989E-01	FAIL ABUN
PA-231	-9.863E-02	1.274E+00	1.100E+00	6.500E-01	FAIL ABUN
TH-231	2.434E-01	6.011E-01	4.591E-01	3.067E-01	FAIL ABUN
PA-233	-4.248E-03	5.249E-02	4.487E-02	2.678E-02	FAIL ABUN
PA-234	1.778E-01	2.698E-01	2.192E-01	1.376E-01	FAIL ABUN
NP-236	4.384E-03	8.560E-02	6.916E-02	4.367E-02	FAIL ABUN
NP-239	1.138E-01	2.471E-01	1.954E-01	1.261E-01	FAIL ABUN
AM-241	3.081E-01	2.797E-01	2.374E-01	1.427E-01	NOT IDENT.
CM-243	-1.399E-02	1.301E-01	1.020E-01	6.639E-02	FAIL ABUN
AM-246	5.558E-02	1.037E-01	9.247E-02	5.288E-02	NOT IDENT.
CM-247	-5.330E-04	2.930E-02	2.588E-02	1.495E-02	NOT IDENT.
CF-249	4.826E-02	3.253E-02	3.050E-02	1.660E-02	NOT IDENT.
CF-251	-7.790E-02	1.177E-01	1.045E-01	6.005E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	683.1386
46.50	683.1386
46.50	683.1386
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49.72	701.1553
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52.39	780.1929
52.97	764.6522
53.15	749.7089
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54.07	792.4968
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56.28	948.1430
57.37	0.0000
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57.53	899.9333
57.60	882.3947
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57.98	844.6998
59.32	935.2765
59.32	935.2765
59.40	935.5397
59.54	935.9998
59.72	968.7418
60.01	969.7252
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61.14	1047.9926
61.30	1048.5702
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63.29	987.7665
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65.20	967.0073
66.05	1008.2659
66.72	1009.0270
66.83	1036.5962
66.91	1036.8613
67.20	1056.4686
67.20	1056.4686
67.75	1038.5186
67.85	1092.8663
68.90	1073.4628
68.90	1073.4628
69.30	1049.1337
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70.82	1106.3302
70.83	1106.3651
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72.87	1230.0525
72.87	1230.0525
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74.81	1250.4683
74.81	1250.4683
74.81	1250.4683
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77.11	1258.9803

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77.11	1258.9803
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79.80	1332.3210
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80.30	1327.2524
80.30	1327.2524
80.57	1328.2710
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81.07	1339.1123
81.07	1339.1123
81.07	1339.1123
81.07	1339.1123
82.60	1289.3126
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83.78	1343.2197
83.78	1343.2197
83.78	1343.2197
83.78	1343.2197
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84.90	1386.6093
85.43	1388.6052
86.29	1391.8340
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86.59	1392.9546
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86.79	1393.6901
86.94	1394.2573
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87.30	1781.7490
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87.88	1769.2681
88.03	1769.9773
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88.47	1857.4332
89.95	1950.3945
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92.38	1624.7830
92.38	1624.7830
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94.67	951.4114
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94.90	951.9595
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100.10	810.3167
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109.28	877.5821

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111.00	883.6635
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117.00	711.4838
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122.32	703.0112
122.32	703.0112
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144.24	611.9654
144.24	611.9654
145.22	579.7046
145.44	579.9404
147.16	651.0005
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152.70	639.9583
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154.21	588.1796
154.21	588.1796
154.21	588.1796
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156.02	610.2521
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162.64	570.8996
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163.89	572.0898
165.85	575.0190
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171.28	588.0496
171.86	581.3747
172.10	543.6656
176.55	557.5142
176.60	557.5563
181.06	523.1453
184.41	570.0125
185.71	506.3816
186.00	506.6036
190.27	499.2545
192.34	471.3407
193.63	479.6986
197.04	488.6363
198.01	490.2552
198.60	502.8891
200.40	506.3819
201.83	501.6151
202.84	496.2762
205.31	523.8045

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208.81	373.7835
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209.75	418.5658
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216.55	441.3184
218.09	448.9858
222.10	439.7181
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227.20	416.2529
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228.18	435.3648
228.18	435.3648
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236.00	430.0070
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238.63	388.5906
238.63	388.5906
238.63	388.5906
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241.98	390.1936
241.98	390.1936
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252.85	338.8480
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260.90	366.4764
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264.65	309.4371
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268.79	340.2007
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269.46	337.1639
269.46	337.1639
269.46	337.1639
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277.35	323.5400
277.60	323.6257
277.60	323.6257
278.00	321.6931
278.60	328.1364
279.20	331.4658
279.53	337.8193
280.46	367.3008
281.68	335.4871
283.67	302.7972
284.30	309.2698
285.00	321.0065
285.90	322.3623
286.10	322.4281
286.10	322.4281
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290.80	331.6199
291.72	320.1472
293.26	0.0000
293.70	315.7451
295.21	289.1887
295.21	289.1887

295.21	289.1887
295.96	289.4142
296.50	279.4164
297.23	279.6259
298.57	280.0166
299.80	302.4609
299.80	302.4609
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300.09	312.7506
300.09	312.7506
300.09	312.7506
300.12	312.7596
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303.76	264.4498
303.91	264.4877
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304.40	295.3502
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306.84	302.7128
308.46	267.8528
311.98	264.4980
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319.02	244.6908
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323.87	243.6738
323.87	243.6738
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334.20	241.6925
334.30	241.7160
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338.28	255.8528
338.28	255.8528
338.28	255.8528
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338.32	255.8634
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351.92	251.2642
351.92	251.2642
351.92	251.2642
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367.94	0.0000
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374.96	227.0119
383.85	260.8834
387.95	211.0842
388.63	208.4375
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391.69	256.1236
392.90	242.4971
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401.10	235.7452
401.81	239.6089
402.60	229.4989
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413.65	249.4209
414.70	216.6582
415.30	195.0859

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427.08	174.0577
427.89	188.4432
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433.93	197.9210
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439.56	204.5263
439.89	208.4201
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444.90	186.0641
445.03	192.8320
445.03	192.8320
445.03	192.8320
445.03	192.8320
453.90	180.0809
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468.07	184.6595
473.00	206.6265
475.06	188.2045
475.35	181.3451
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477.59	179.6561
477.96	165.8795
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484.57	170.6143
487.03	159.9761
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492.35	167.5427
497.08	170.0851
507.63	0.0000
510.53	0.0000
510.84	173.6839
511.00	173.7017
511.85	186.9365
511.85	186.9365
513.99	182.1401
513.99	182.1401
520.41	162.5859
520.65	162.6133
527.90	169.5056
528.96	0.0000
529.64	150.2730
529.87	0.0000
531.02	154.4985
537.32	172.5896
543.00	183.5190
546.56	0.0000
549.76	187.4075
552.65	173.2217
555.20	143.3671
563.23	161.8267
563.90	170.2466
568.70	164.4629
569.32	162.4283
569.50	159.2994
569.67	159.3180
573.80	197.0169
574.00	194.4126
574.64	199.7458
578.91	172.1500
579.30	0.0000
583.14	163.7793
585.48	146.3712
591.81	155.3264
592.07	147.5322
593.00	160.4817
595.88	157.5607
600.56	163.1720
602.52	0.0000
602.71	149.6353
602.71	149.6353
603.60	158.6218
604.41	164.0472
604.70	178.3407
609.31	170.5873

609.31	170.5873
609.31	170.5873
609.31	170.5873
610.33	170.6882
612.46	170.1774
614.37	179.3294
618.01	177.9027
621.84	168.5607
621.84	168.5607
631.29	154.2482
633.02	138.0846
633.10	131.5668
634.78	153.4580
635.90	150.2839
636.97	174.3477
645.85	188.3350
646.12	187.2692
656.30	211.9756
657.75	193.7730
657.90	0.0000
661.65	155.5287
661.65	155.5287
664.57	0.0000
666.33	203.8872
666.33	203.8872
675.00	147.3610
677.61	160.5544
685.20	143.4883
692.80	148.7261
695.00	146.0850
696.49	161.1905
696.49	161.1905
697.00	158.4203
697.49	157.5239
698.33	172.5973
698.50	172.6123
699.00	167.0271
702.63	153.2337
706.10	163.8613
706.58	0.0000
706.67	164.8529
709.31	156.5808
711.68	141.6565
713.82	144.6453
717.42	135.4357
720.50	138.2169
721.93	0.0000
722.20	138.3325
722.78	125.3506
722.78	125.3506
722.89	125.3560
722.95	125.3586
723.30	131.8962
724.18	133.5818
727.18	137.0420
733.00	166.8848
735.90	165.3447
739.58	167.5552
742.81	163.9828
744.21	153.5352
747.13	207.5669
751.79	142.5379
752.31	131.9773
753.82	131.1081
755.35	137.9581
756.15	130.8687
756.87	140.3097
763.93	159.4152
765.79	155.1237
766.42	155.1693
766.84	155.1986
776.49	155.5119
778.00	168.1973
778.57	162.1820
778.89	147.1557
783.80	145.8142
785.46	142.5719
792.07	117.7686

795.84	114.6006
796.30	109.5673
798.80	126.5677
801.93	146.6899
805.60	102.6945
810.29	130.6169
810.76	129.6567
815.85	109.1182
817.79	113.1859
818.51	115.2070
819.60	119.2383
826.30	110.6229
828.27	0.0000
831.60	126.8631
831.96	123.8865
834.83	153.0498
836.80	0.0000
846.75	133.7333
848.13	116.7104
856.28	0.0000
856.80	105.6033
860.37	124.4039
867.32	95.6419
867.82	111.0995
871.10	129.0335
873.19	102.7076
874.81	139.4110
875.33	0.0000
876.40	126.2655
879.36	113.1680
880.27	120.3503
880.51	110.1621
881.50	101.0242
883.24	106.2026
884.67	134.8762
889.25	106.4692
896.60	96.5225
898.02	119.1837
899.00	128.4816
903.28	114.7316
911.07	110.5223
911.07	110.5223
911.07	110.5223
919.63	110.1629
920.93	113.3817
925.00	102.8329
925.24	103.8818
926.50	102.8954
935.52	82.2536
937.48	90.8179
944.10	129.1816
946.00	111.7209
949.00	102.7652
962.29	106.4577
964.01	106.5296
966.15	106.6180
968.20	106.7002
969.11	125.0071
969.11	125.0071
969.11	125.0071
977.42	116.8126
980.50	89.1594
983.50	94.5734
989.30	90.5218
996.32	84.2012
1001.03	87.7122
1001.68	87.7323
1004.76	95.4851
1021.30	0.0000
1024.50	0.0000
1034.80	76.8936
1036.00	83.5840
1037.82	100.3648
1038.57	101.3207
1038.76	0.0000
1045.16	83.8602
1046.59	91.3623
1048.07	101.6705

1050.47	101.7579
1050.47	101.7579
1062.04	95.6143
1063.62	101.2952
1076.63	96.1088
1077.35	87.6481
1078.86	88.6397
1085.78	98.3052
1099.22	105.4097
1112.02	108.3079
1112.84	103.5162
1115.52	105.2820
1120.29	103.2991
1120.29	103.2991
1120.29	103.2991
1120.29	103.2991
1120.51	103.3066
1121.28	103.3330
1124.00	0.0000
1129.67	92.3526
1131.51	0.0000
1147.95	0.0000
1167.94	102.0300
1173.22	106.0994
1175.09	114.9298
1177.93	116.0117
1189.05	116.4268
1204.90	105.2162
1205.75	0.0000
1213.00	119.2908
1221.42	125.5339
1230.97	131.8589
1235.34	105.9793
1236.41	0.0000
1238.25	120.2319
1246.25	93.4369
1260.41	0.0000
1271.85	74.2916
1274.45	87.4096
1274.54	91.4316
1291.56	69.6810
1298.22	0.0000
1312.09	82.2995
1325.50	69.3613
1325.50	69.3613
1332.49	63.3710
1333.61	61.3456
1360.21	59.7559
1362.66	0.0000
1365.15	58.8091
1368.21	53.0073
1368.53	0.0000
1376.25	59.7702
1384.27	45.3827
1394.10	59.2902
1395.20	56.1866
1407.95	42.8103
1434.06	37.8595
1436.60	39.9907
1457.56	0.0000
1460.81	44.4888
1489.15	48.0259
1509.49	35.6749
1596.49	38.3887
1620.62	43.4441
1678.03	0.0000
1691.02	36.3270
1691.02	36.3270
1706.46	0.0000
1750.46	0.0000
1764.49	19.5269
1764.49	19.5269
1764.49	19.5269
1764.49	19.5269
1770.23	19.5520
1771.40	19.5573
1791.20	0.0000
1808.65	27.2274

1836.01	47.6813

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691009

Total Uranium Activity	2.0756E+02	ug/g
Total Uranium Counting Unc.	3.7791E+01	ug/g
Total Uranium Tpu	1.9281E-05	ug/g
Total Uranium Mda	5.1856E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691009       *
*   ANALYST       : MJH1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 15:32:51.88    SAMPLE ALQT:  144.890 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.702E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.946E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.249E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.086E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:34:44.95

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691010.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:12.
Sample ID         : G245691010           Sample quantity  : 1.36290E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.61  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.03*	56	661	0.78	125.92	124	10	7.75E-03	88.3	
2	2	74.86	496	716	1.62	149.56	142	19	6.88E-02	11.8	2.30E+00
3	2	77.20	708	545	1.29	154.24	142	19	9.84E-02	7.2	
4	1	87.22	281	468	1.22	174.27	171	21	3.91E-02	13.6	3.60E+00
5	1	90.05	246	525	1.46	179.92	171	21	3.41E-02	18.1	
6	1	92.96*	245	462	1.49	185.73	171	21	3.41E-02	18.8	
7	0	185.94*	180	361	1.62	371.56	366	11	2.50E-02	22.5	
8	0	209.27	131	307	1.63	418.17	414	9	1.82E-02	25.7	
9	3	238.60*	1336	242	1.32	476.80	468	20	1.86E-01	3.5	1.11E+00
10	3	241.49	275	276	1.71	482.57	468	20	3.82E-02	16.7	
11	0	269.73	148	231	1.33	539.01	533	12	2.06E-02	22.1	
12	0	277.41	78	224	1.13	554.38	549	11	1.08E-02	39.5	
13	0	294.95	453	235	1.53	589.43	582	13	6.29E-02	8.4	
14	0	300.04	111	165	1.19	599.61	595	10	1.54E-02	23.7	
15	0	327.56	37	157	1.31	654.61	652	8	5.13E-03	60.6	
16	0	338.10	229	253	1.56	675.67	670	11	3.18E-02	15.0	
17	0	351.80*	701	189	1.21	703.06	696	14	9.74E-02	5.7	
18	0	408.89	41	115	1.69	817.18	814	9	5.69E-03	50.3	
19	0	511.02*	171	141	1.91	1021.35	1014	18	2.38E-02	20.4	
20	0	569.22*	177	150	2.25	1137.70	1129	21	2.46E-02	19.3	
21	0	583.22*	457	112	1.55	1165.70	1158	15	6.34E-02	7.0	
22	0	609.38*	485	123	1.61	1217.98	1212	15	6.74E-02	6.9	
23	0	727.57	88	96	1.18	1454.30	1449	11	1.23E-02	24.2	
24	0	795.36	36	74	0.70	1589.87	1584	11	5.00E-03	49.2	
25	0	861.91	60	60	1.51	1722.94	1717	14	8.32E-03	31.9	
26	0	911.71	296	75	1.74	1822.54	1816	17	4.11E-02	8.8	
27	0	965.02	70	72	1.94	1929.15	1921	13	9.65E-03	27.8	
28	0	969.18*	151	47	1.13	1937.49	1933	10	2.10E-02	12.0	
29	0	1120.60	110	64	1.83	2240.35	2232	16	1.53E-02	18.9	
30	0	1461.28*	1276	23	1.86	2921.91	2912	18	1.77E-01	2.9	
31	5	1582.11	36	1	2.95	3163.70	3158	35	5.04E-03	18.7	2.23E+00
32	5	1584.69	12	1	1.42	3168.87	3158	35	1.72E-03	41.1	
33	5	1588.98	33	5	3.24	3177.46	3158	35	4.54E-03	30.7	
34	0	1764.86*	90	20	1.31	3529.45	3521	16	1.25E-02	15.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:34:47

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691010.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:12
Sample ID : G245691010 Sample quantity : 136.29 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.61 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.819E+01	2.678E+00	4.789E-01	3.567E-02	58.869
CD-109	+	88.03	*	3.495E+00	9.984E-01	1.323E+00	1.185E-01	2.642
SN-126	+	64.28		4.465E-01	7.910E-01	7.929E-01	1.158E-01	0.563
	+	86.94		1.428E+00	7.072E-01	6.015E-01	2.491E-01	2.374
	+	87.57	*	3.435E-01	9.813E-02	1.306E-01	1.165E-02	2.631
CS-135	+	268.24	*	5.541E-01	2.485E-01	2.384E-01	1.819E-02	2.325
TL-208	+	277.35		6.980E-01	5.569E-01	5.756E-01	6.074E-02	1.213
	+	510.84		7.690E-01	3.239E-01	2.159E-01	2.205E-02	3.562
	+	583.14	*	5.848E-01	9.077E-02	5.129E-02	3.488E-03	11.403
		860.37		4.495E-01	3.758E-01	5.883E-01	5.268E-02	0.764
BI-211		72.87		1.345E+01	3.486E+00	6.029E+00	4.724E-01	2.232
	+	351.07	*	3.939E+00	5.132E-01	3.065E-01	1.957E-02	12.853
PB-212	+	74.81		2.514E+00	6.681E-01	5.503E-01	6.748E-02	4.569
	+	77.11		2.042E+00	3.387E-01	3.132E-01	2.530E-02	6.519
	+	87.30		1.589E+00	4.809E-01	6.668E-01	8.924E-02	2.383
	+	238.63	*	1.645E+00	1.642E-01	9.622E-02	6.945E-03	17.094
	+	300.09		2.096E+00	1.010E+00	1.055E+00	8.712E-02	1.987
PO-212	+	74.81		2.514E+00	6.681E-01	5.503E-01	6.748E-02	4.569
	+	77.11		2.042E+00	3.387E-01	3.132E-01	2.530E-02	6.519
	+	87.30		1.589E+00	4.809E-01	6.668E-01	8.924E-02	2.383
		115.19		1.787E+00	3.573E+00	5.931E+00	3.776E-01	0.301
	+	238.63	*	1.645E+00	1.642E-01	9.622E-02	6.945E-03	17.094
	+	300.09		2.096E+00	1.010E+00	1.055E+00	8.712E-02	1.987
BI-214	+	609.31	*	1.171E+00	1.862E-01	9.832E-02	7.731E-03	11.914
	+	1120.29		1.378E+00	5.349E-01	4.752E-01	4.347E-02	2.900
	+	1764.49		1.528E+00	4.910E-01	3.093E-01	1.875E-02	4.940
PB-214	+	74.81		4.332E+00	1.124E+00	9.482E-01	1.030E-01	4.569
	+	77.11		3.500E+00	6.389E-01	5.368E-01	5.961E-02	6.519
	+	87.30		2.722E+00	8.053E-01	1.142E+00	1.344E-01	2.383
	+	241.98		2.033E+00	6.994E-01	5.590E-01	4.458E-02	3.637
	+	295.21		1.505E+00	2.838E-01	1.869E-01	1.595E-02	8.053
	+	351.92	*	1.370E+00	1.923E-01	1.068E-01	8.807E-03	12.828
PO-214	+	74.81		4.332E+00	1.124E+00	9.482E-01	1.030E-01	4.569
	+	77.11		3.500E+00	6.389E-01	5.368E-01	5.961E-02	6.519

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		2.722E+00	8.053E-01	1.142E+00	1.344E-01	2.383
	+	241.98		2.033E+00	6.994E-01	5.590E-01	4.458E-02	3.637
	+	295.21		1.505E+00	2.838E-01	1.869E-01	1.595E-02	8.053
	+	351.92	*	1.370E+00	1.923E-01	1.068E-01	8.807E-03	12.828
PO-216	+	74.81		2.514E+00	6.681E-01	5.503E-01	6.748E-02	4.569
	+	77.11		2.042E+00	3.387E-01	3.132E-01	2.530E-02	6.519
	+	87.30		1.589E+00	4.809E-01	6.668E-01	8.924E-02	2.383
	+	238.63	*	1.645E+00	1.642E-01	9.622E-02	6.945E-03	17.094
	+	300.09		2.096E+00	1.010E+00	1.055E+00	8.712E-02	1.987
PO-218	+	74.81		4.332E+00	1.124E+00	9.482E-01	1.030E-01	4.569
	+	77.11		3.500E+00	6.389E-01	5.368E-01	5.961E-02	6.519
	+	87.30		2.722E+00	8.053E-01	1.142E+00	1.344E-01	2.383
	+	241.98		2.033E+00	6.994E-01	5.590E-01	4.458E-02	3.637
	+	295.21		1.505E+00	2.838E-01	1.869E-01	1.595E-02	8.053
	+	351.92	*	1.370E+00	1.923E-01	1.068E-01	8.807E-03	12.828
RA-224	+	240.98	*	3.855E+00	1.308E+00	1.094E+00	6.201E-02	3.523
RA-226	+	609.31	*	1.171E+00	1.862E-01	9.832E-02	7.731E-03	11.914
	+	1120.29		1.378E+00	5.349E-01	4.752E-01	4.347E-02	2.900
	+	1764.49		1.528E+00	4.910E-01	3.093E-01	1.875E-02	4.940
AC-228	+	338.32		1.416E+00	7.169E-01	3.654E-01	1.489E-01	3.877
	+	911.07	*	1.688E+00	3.528E-01	2.185E-01	2.472E-02	7.723
	+	969.11		1.516E+00	5.057E-01	3.673E-01	8.514E-02	4.127
RA-228	+	338.32		1.416E+00	7.169E-01	3.654E-01	1.489E-01	3.877
	+	911.07	*	1.688E+00	3.528E-01	2.185E-01	2.472E-02	7.723
	+	969.11		1.516E+00	5.057E-01	3.673E-01	8.514E-02	4.127
TH-228	+	74.81		2.553E+00	6.356E-01	5.587E-01	4.479E-02	4.569
	+	77.11		2.073E+00	3.438E-01	3.179E-01	2.568E-02	6.519
	+	87.30		1.613E+00	4.608E-01	6.769E-01	6.021E-02	2.383
	+	238.63	*	1.670E+00	1.667E-01	9.768E-02	7.051E-03	17.094
	+	300.09		2.128E+00	1.610E+00	1.071E+00	6.311E-01	1.987
TH-230	+	609.31	*	1.171E+00	1.862E-01	9.832E-02	7.731E-03	11.914
	+	1120.29		1.378E+00	5.349E-01	4.752E-01	4.347E-02	2.900
	+	1764.49		1.528E+00	4.910E-01	3.093E-01	1.874E-02	4.940
TH-232	+	338.32		1.416E+00	4.328E-01	3.654E-01	2.112E-02	3.877
	+	911.07	*	1.688E+00	3.528E-01	2.185E-01	2.472E-02	7.723
	+	969.11		1.516E+00	5.057E-01	3.673E-01	8.514E-02	4.127
TH-234	+	63.29	*	1.128E+00	2.001E+00	2.007E+00	3.512E-01	0.562
	+	92.38		1.954E+00	8.132E-01	8.589E-01	1.542E-01	2.275
U-234	+	609.31	*	1.171E+00	1.862E-01	9.832E-02	7.731E-03	11.914
	+	1120.29		1.378E+00	5.349E-01	4.752E-01	4.347E-02	2.900
	+	1764.49		1.528E+00	4.910E-01	3.093E-01	1.874E-02	4.940
NP-237	+	86.50	*	1.009E+00	3.555E-01	4.081E-01	9.158E-02	2.472
		95.87		5.455E-01	1.088E+00	1.586E+00	3.871E-01	0.344
U-238	+	63.29	*	1.128E+00	2.001E+00	2.007E+00	3.512E-01	0.562
	+	92.38		1.954E+00	7.515E-01	8.589E-01	7.173E-02	2.275
AM-243	+	74.67	*	4.076E-01	1.014E-01	8.947E-02	7.096E-03	4.556
	+	86.72		3.783E+01	1.081E+01	1.527E+01	1.350E+00	2.478
		117.66		-5.291E-01	3.831E+00	6.205E+00	3.855E-01	-0.085
		142.18		1.042E+01	1.767E+01	2.930E+01	1.631E+00	0.356

Sample ID : G245691010 Acquisition date : 9-FEB-2010 15:33:12

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	1.661E-01	6.858E-02	4.665E-02	2.753E-03	3.561

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	7.657E-03	3.084E-01	5.113E-01	3.471E-02	0.015
NA-22		1274.54	*	5.763E-03	4.209E-02	7.082E-02	4.724E-03	0.081
NA-24		1368.53	*	-3.869E-01	4.209E-02	Half-Life too short		
AL-26		1129.67		-1.742E+00	1.785E+00	2.652E+00	1.636E-01	-0.657
		1808.65	*	1.274E-02	2.644E-02	4.729E-02	2.761E-03	0.269
TI-44		67.85		-7.366E-02	7.836E-02	7.571E-02	5.780E-03	-0.973
	+	78.38	*	3.767E-01	6.250E-02	8.337E-02	6.805E-03	4.519
SC-46		889.25	*	9.117E-03	4.264E-02	7.008E-02	6.090E-03	0.130
	+	1120.51		2.360E-01	9.025E-02	1.207E-01	7.615E-03	1.954
V-48		944.10		-2.853E-01	9.387E-01	1.466E+00	1.235E-01	-0.195
		983.50	*	2.067E-02	7.188E-02	1.186E-01	9.539E-03	0.174
		1312.09		-2.477E-02	6.900E-02	1.093E-01	7.779E-03	-0.227
CR-51		320.08	*	6.401E-02	3.646E-01	6.169E-01	3.992E-02	0.104
MN-52		744.21		1.370E-01	2.235E-01	3.827E-01	2.602E-02	0.358
		848.13		4.523E+00	6.645E+00	1.140E+01	9.268E-01	0.397
		935.52		1.452E-01	2.826E-01	4.743E-01	4.032E-02	0.306
		1246.25		-2.709E+00	7.008E+00	1.124E+01	7.105E-01	-0.241
		1333.61		-4.983E+00	5.037E+00	7.361E+00	5.424E-01	-0.677
		1434.06	*	3.042E-02	2.261E-01	3.797E-01	2.739E-02	0.080
MN-54		834.83	*	1.563E-02	3.796E-02	6.350E-02	5.051E-03	0.246
CO-56		846.75	*	-6.785E-03	4.087E-02	6.511E-02	5.282E-03	-0.104
		977.42		-9.004E-01	2.810E+00	4.356E+00	3.530E-01	-0.207
		1037.82		-1.157E-01	3.226E-01	5.244E-01	4.172E-02	-0.221
		1175.09		1.241E+00	2.110E+00	3.694E+00	2.032E-01	0.336
		1238.25		1.158E-01	9.386E-02	1.688E-01	1.109E-02	0.686
		1360.21		-3.718E-01	9.568E-01	1.507E+00	1.105E-01	-0.247
		1771.40		9.416E-02	2.307E-01	3.601E-01	2.170E-02	0.262
CO-57		122.06	*	-1.015E-03	2.539E-02	4.127E-02	2.463E-03	-0.025
		136.48		-1.399E-01	2.117E-01	3.342E-01	2.206E-02	-0.419
CO-58		810.76	*	-3.373E-02	3.987E-02	5.943E-02	4.554E-03	-0.568
FE-59		142.65		2.203E+00	2.705E+00	4.522E+00	2.514E-01	0.487
		192.34		-3.975E-01	1.044E+00	1.591E+00	1.848E-01	-0.250
		1099.22	*	2.388E-02	8.692E-02	1.489E-01	1.117E-02	0.160
		1291.56		8.951E-02	1.178E-01	2.097E-01	1.736E-02	0.427
CO-60		1173.22		1.448E-02	4.428E-02	7.583E-02	4.155E-03	0.191
		1332.49	*	-2.666E-02	3.937E-02	6.015E-02	4.433E-03	-0.443
ZN-65		1115.52	*	-6.163E-03	9.980E-02	1.427E-01	9.122E-03	-0.043
GE-68		1077.35	*	7.878E-01	1.271E+00	2.234E+00	1.546E-01	0.353
AS-73		53.44	*	3.476E-01	7.783E-01	1.306E+00	9.657E-02	0.266
AS-74		595.88	*	8.814E-02	9.437E-02	1.646E-01	9.750E-03	0.536
		634.78		-9.824E-02	3.422E-01	5.470E-01	3.215E-02	-0.180
SE-75		66.05		-6.301E-01	5.564E+00	8.001E+00	7.681E-01	-0.079
		96.73		5.817E-01	8.724E-01	1.279E+00	1.682E-01	0.455

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.11		6.672E-02	1.370E-01	2.271E-01	2.127E-02	0.294
		136.00		-2.947E-02	3.952E-02	6.215E-02	3.579E-03	-0.474
		198.60		-1.668E+00	1.926E+00	2.915E+00	1.990E-01	-0.572
		264.65	*	-2.138E-02	4.902E-02	6.995E-02	4.067E-03	-0.306
		279.53		4.948E-02	1.190E-01	1.794E-01	1.123E-02	0.276
		303.91		-7.586E-01	2.287E+00	3.263E+00	3.116E-01	-0.232
		400.65		2.196E-01	2.502E-01	4.363E-01	3.918E-02	0.503
BR-77	+	87.88		7.620E+02	2.177E+02	3.697E+02	3.308E+01	2.061
		200.40		-1.196E+02	1.741E+02	2.715E+02	1.477E+01	-0.440
	+	239.00		2.665E+02	2.378E+01	3.853E+01	2.180E+00	6.918
		249.79		-6.036E+01	6.852E+01	1.042E+02	5.941E+00	-0.579
		281.68		-2.991E+01	9.704E+01	1.371E+02	7.943E+00	-0.218
		297.23		3.471E+02	8.752E+01	1.225E+02	7.124E+00	2.832
		303.76		-6.096E+01	1.967E+02	2.812E+02	1.636E+01	-0.217
		439.47		1.780E+02	1.462E+02	2.596E+02	1.491E+01	0.686
		484.57		7.119E+01	2.269E+02	3.831E+02	2.244E+01	0.186
		520.65	*	9.365E-01	1.072E+01	1.733E+01	1.025E+00	0.054
		574.64		-4.900E+01	2.603E+02	3.145E+02	1.866E+01	-0.156
		578.91		2.442E+01	1.146E+02	1.327E+02	7.872E+00	0.184
		585.48		1.626E+03	2.683E+02	5.040E+02	2.989E+01	3.225
		755.35		1.387E+02	1.622E+02	2.822E+02	1.957E+01	0.491
		817.79		1.459E+01	1.339E+02	2.189E+02	1.693E+01	0.067
SR-82		698.33		-9.545E+00	3.524E+01	5.630E+01	3.517E+00	-0.170
		776.49	*	-3.827E-01	4.188E-01	6.282E-01	4.524E-02	-0.609
		1395.20		2.913E+00	9.115E+00	1.575E+01	1.147E+00	0.185
RB-83		520.41	*	1.669E-02	7.233E-02	1.147E-01	6.780E-03	0.146
		529.64		-3.623E-02	1.017E-01	1.632E-01	9.664E-03	-0.222
		552.65		-1.218E-01	1.926E-01	3.018E-01	1.791E-02	-0.404
RB-84		881.50	*	-4.604E-02	6.618E-02	9.881E-02	8.481E-03	-0.466
KR-85		513.99	*	1.311E+01	8.114E+00	1.316E+01	7.771E-01	0.996
SR-85		513.99	*	6.722E-02	4.162E-02	6.750E-02	3.986E-03	0.996
RB-86		1076.63	*	5.176E-01	8.024E-01	1.413E+00	9.793E-02	0.366
Y-88		898.02		-4.816E-05	4.476E-02	7.219E-02	6.390E-03	-0.001
		1836.01	*	-7.909E-03	3.507E-02	5.474E-02	3.125E-03	-0.144
ZR-88		392.90	*	2.145E-03	3.005E-02	5.028E-02	2.800E-03	0.043
Y-91		1204.90	*	-5.274E+00	1.838E+01	2.986E+01	1.743E+00	-0.177
NB-94		702.63	*	2.214E-03	3.362E-02	5.509E-02	3.470E-03	0.040
		871.10		1.714E-02	3.297E-02	5.586E-02	4.715E-03	0.307
NB-95		765.79	*	-1.713E-02	4.403E-02	6.934E-02	4.900E-03	-0.247
NB-95M		235.69	*	4.000E-01	1.646E-01	2.554E-01	1.892E-02	1.566
ZR-95		724.18		-1.087E-02	1.157E-01	1.612E-01	1.211E-02	-0.067
		756.15	*	2.788E-02	6.876E-02	1.156E-01	9.252E-03	0.241
NB-97		657.90	*	-9.697E-02	6.876E-02	Half-Life too short		
		1024.50		-6.260E+00	6.876E-02	Half-Life too short		
ZR-97		254.15		-2.447E+00	6.876E-02	Half-Life too short		
		355.39		3.776E+00	6.876E-02	Half-Life too short		
		507.63	*	3.798E+00	6.876E-02	Half-Life too short		
		602.52		-2.138E+00	6.876E-02	Half-Life too short		
		1021.30		6.470E+00	6.876E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1147.95		-4.650E+00	6.876E-02	Half-Life too short		
		1362.66		2.782E+00	6.876E-02	Half-Life too short		
		1750.46		-6.977E+00	6.876E-02	Half-Life too short		
MO-99		140.51		-7.781E+00	2.674E+01	4.275E+01	1.150E+01	-0.182
		181.06		1.008E+00	2.011E+01	2.839E+01	4.821E+00	0.036
		366.43		2.829E-01	8.108E+01	1.355E+02	7.710E+00	0.002
		739.58	*	4.796E+00	1.161E+01	1.951E+01	2.770E+00	0.246
		778.00		-4.727E+00	3.626E+01	5.823E+01	4.204E+00	-0.081
TC-99M		140.51	*	-1.223E+10	3.626E+01	Half-Life too short		
RH-101		127.23		3.132E-02	3.285E-02	5.525E-02	3.224E-03	0.567
		198.01	*	-1.513E-02	3.523E-02	5.448E-02	2.955E-03	-0.278
		325.23		2.976E-02	2.510E-01	3.694E-01	2.144E-02	0.081
RH-102		418.52		-2.858E-02	2.769E-01	4.575E-01	2.595E-02	-0.062
		475.06	*	1.645E-03	2.733E-02	4.544E-02	2.652E-03	0.036
		631.29		2.223E-02	5.187E-02	8.782E-02	5.166E-03	0.253
		697.49		-1.134E-02	7.984E-02	1.288E-01	8.036E-03	-0.088
		766.84		-9.737E-02	1.158E-01	1.759E-01	1.245E-02	-0.554
		1046.59		-5.293E-02	1.203E-01	1.941E-01	1.420E-02	-0.273
		1112.84		8.881E-02	2.524E-01	3.795E-01	2.437E-02	0.234
RU-103		497.08	*	-1.623E-02	3.842E-02	6.147E-02	7.796E-03	-0.264
	+	610.33		1.266E+01	2.624E+00	2.925E+00	4.523E-01	4.326
RH-106	+	511.85		8.298E-01	3.426E-01	4.489E-01	2.649E-02	1.849
		621.84	*	1.566E-02	3.172E-01	5.218E-01	6.150E-02	0.030
		1050.47		-8.221E-01	2.421E+00	3.942E+00	2.866E-01	-0.209
RU-106	+	511.85		8.298E-01	3.426E-01	4.489E-01	2.649E-02	1.849
		621.84	*	1.566E-02	3.172E-01	5.218E-01	3.077E-02	0.030
		1050.47		-8.221E-01	2.421E+00	3.942E+00	2.866E-01	-0.209
AG-108M		433.93	*	-1.817E-02	3.358E-02	5.390E-02	3.357E-03	-0.337
		614.37		-1.785E-02	4.298E-02	5.817E-02	3.717E-03	-0.307
		722.95		-4.840E-02	5.101E-02	6.393E-02	4.462E-03	-0.757
AG-110M		657.75	*	-3.452E-02	3.622E-02	5.475E-02	3.397E-03	-0.631
		677.61		-2.952E-01	3.067E-01	4.596E-01	2.918E-02	-0.642
		706.67		-5.527E-02	2.149E-01	3.434E-01	2.289E-02	-0.161
		763.93		-1.457E-01	1.676E-01	2.522E-01	1.851E-02	-0.578
		884.67		1.315E-02	5.140E-02	8.487E-02	7.557E-03	0.155
		937.48		-2.640E-02	1.195E-01	1.884E-01	1.658E-02	-0.140
		1384.27		-1.117E-01	1.712E-01	2.614E-01	1.983E-02	-0.427
IN-111		171.28		1.333E-01	1.025E+00	1.663E+00	8.732E-02	0.080
		245.39	*	1.156E+00	1.200E+00	1.783E+00	1.014E-01	0.648
IN-113M		391.69	*	1.075E-02	4.387E-02	7.413E-02	4.423E-03	0.145
SN-113		391.69	*	1.075E-02	4.387E-02	7.413E-02	4.423E-03	0.145
IN-114M		190.27	*	-6.584E-02	2.143E-01	2.955E-01	1.588E-02	-0.223
CD-115		260.90		2.083E+00	1.383E+02	2.208E+02	1.268E+01	0.009
		492.35		-2.969E+00	3.588E+01	5.841E+01	3.430E+00	-0.051
		527.90	*	5.451E-01	1.030E+01	1.706E+01	1.010E+00	0.032
SN-117M		156.02		1.595E+00	2.412E+00	4.000E+00	2.144E-01	0.399
		158.56	*	1.041E-02	5.803E-02	9.454E-02	5.032E-03	0.110
SB-122		563.90	*	2.322E-01	2.386E+00	3.433E+00	2.038E-01	0.068
		692.80		1.542E+01	4.442E+01	7.437E+01	4.598E+00	0.207

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-123		159.00	*	9.434E-01	4.442E+01	Half-Life too short		
		528.96		2.522E+01	4.442E+01	Half-Life too short		
TE-123M		159.00	*	4.481E-03	2.993E-02	4.871E-02	2.631E-03	0.092
I-124		602.71	*	-2.864E-01	7.354E-01	9.999E-01	5.918E-02	-0.286
		722.78		-5.307E+00	5.342E+00	6.652E+00	4.350E-01	-0.798
		1325.50		3.199E+01	3.245E+01	5.946E+01	4.330E+00	0.538
		1376.25		4.174E+01	3.027E+01	5.701E+01	4.170E+00	0.732
		1509.49		8.549E+00	1.542E+01	2.718E+01	1.912E+00	0.315
		1691.02		-5.779E-01	3.579E+00	5.679E+00	3.633E-01	-0.102
SB-124		602.71		-1.656E-02	4.254E-02	5.784E-02	3.425E-03	-0.286
		645.85		-2.543E-01	5.110E-01	8.030E-01	5.295E-02	-0.317
		709.31		1.596E+00	2.750E+00	4.684E+00	2.987E-01	0.341
		713.82		-8.210E-01	1.701E+00	2.662E+00	2.817E-01	-0.308
		722.78		-4.449E-01	4.480E-01	5.578E-01	3.783E-02	-0.798
	+	968.20		1.561E+01	3.958E+00	7.293E+00	5.976E-01	2.140
		1045.16		-2.240E-01	2.543E+00	4.230E+00	3.103E-01	-0.053
		1325.50		2.865E+00	2.906E+00	5.325E+00	3.878E-01	0.538
		1368.21		-7.507E-01	1.705E+00	2.662E+00	3.377E-01	-0.282
		1436.60		1.634E+00	3.431E+00	6.024E+00	4.342E-01	0.271
		1691.02	*	-1.143E-02	7.078E-02	1.123E-01	7.693E-03	-0.102
SB-125		427.89	*	-1.094E-02	9.042E-02	1.491E-01	8.878E-03	-0.073
		463.38		5.306E-01	3.003E-01	5.418E-01	3.669E-02	0.979
		600.56		5.468E-02	1.723E-01	2.891E-01	1.970E-02	0.189
		635.90		7.594E-02	2.556E-01	4.285E-01	2.938E-02	0.177
TE-125M		109.28	*	-1.694E+00	9.676E+00	1.568E+01	1.386E+00	-0.108
I-126		388.63		-1.359E-01	2.086E-01	3.349E-01	1.869E-02	-0.406
		666.33	*	2.108E-02	1.942E-01	3.198E-01	1.879E-02	0.066
		753.82		1.579E+00	1.384E+00	2.462E+00	1.703E-01	0.641
SB-126		223.80		-8.223E-01	4.321E+00	6.866E+00	3.832E-01	-0.120
	+	278.60		4.623E+00	3.666E+00	4.340E+00	2.512E-01	1.065
		296.50		1.350E+01	2.452E+00	3.635E+00	2.113E-01	3.714
		414.70		-1.234E-02	8.425E-02	1.202E-01	6.797E-03	-0.103
		415.30		-4.609E-01	6.751E+00	1.016E+01	5.748E-01	-0.045
		555.20		-1.392E+00	3.897E+00	6.243E+00	3.705E-01	-0.223
		573.80		3.034E-01	1.094E+00	1.606E+00	9.529E-02	0.189
		593.00		2.495E-01	9.510E-01	1.590E+00	9.425E-02	0.157
		656.30		2.064E+00	3.382E+00	5.779E+00	3.372E-01	0.357
		666.33		8.808E-03	8.117E-02	1.337E-01	7.854E-03	0.066
		675.00		-6.134E-01	1.974E+00	3.142E+00	1.877E-01	-0.195
		695.00		3.596E-02	7.902E-02	1.333E-01	8.273E-03	0.270
		697.00		-2.469E-02	2.767E-01	4.482E-01	2.793E-02	-0.055
		720.50	*	-8.667E-02	1.578E-01	2.293E-01	1.493E-02	-0.378
		856.80		2.285E-04	5.449E-01	7.595E-01	6.264E-02	0.000
		989.30		1.369E+00	1.233E+00	2.189E+00	1.747E-01	0.626
		1034.80		4.785E+00	8.766E+00	1.537E+01	1.147E+00	0.311
		1213.00		4.916E+00	4.790E+00	8.579E+00	5.090E-01	0.573
SB-127		61.10		1.475E+01	6.285E+01	9.190E+01	9.509E+00	0.160
		252.40		2.161E+00	4.537E+00	7.283E+00	3.025E+00	0.297
		290.80		-5.203E+00	2.415E+01	3.487E+01	3.200E+00	-0.149

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		411.60		6.707E+00	1.357E+01	2.039E+01	2.919E+00	0.329
		444.90		-3.837E+00	9.619E+00	1.554E+01	1.674E+00	-0.247
		473.00		-3.398E-01	1.578E+00	2.573E+00	2.882E-01	-0.132
		543.00		-9.794E+00	1.585E+01	2.480E+01	3.217E+00	-0.395
		603.60		1.485E+00	1.204E+01	1.734E+01	1.878E+00	0.086
		685.20	*	-1.048E+00	1.349E+00	2.051E+00	1.974E-01	-0.511
		698.50		-5.046E+00	1.573E+01	2.500E+01	3.667E+00	-0.202
		722.20		-3.774E+01	3.674E+01	4.538E+01	4.379E+00	-0.832
		783.80		9.102E-01	3.786E+00	6.259E+00	7.225E-01	0.145
XE-127		57.60		-7.865E-01	5.918E+00	9.723E+00	7.284E-01	-0.081
		145.22		4.400E-02	7.161E-01	1.137E+00	6.278E-02	0.039
		172.10		1.463E-02	1.211E-01	1.965E-01	1.033E-02	0.074
		202.84	*	3.299E-02	5.058E-02	8.079E-02	4.407E-03	0.408
		374.96		-1.146E-01	1.921E-01	3.093E-01	1.748E-02	-0.371
I-131		80.18		-9.786E-01	5.323E+00	7.600E+00	6.345E-01	-0.129
		284.30		-4.988E-01	1.476E+00	2.378E+00	1.533E-01	-0.210
		364.48	*	-3.441E-02	1.088E-01	1.783E-01	1.139E-02	-0.193
		636.97		-2.340E-02	1.436E+00	2.347E+00	1.540E-01	-0.010
		722.89		-8.301E+00	8.606E+00	1.076E+01	7.116E-01	-0.771
TE-132		49.72		-8.490E+00	1.789E+01	2.905E+01	2.829E+00	-0.292
		111.76		1.238E+01	3.035E+01	5.021E+01	4.688E+00	0.247
		116.30		-1.752E+01	2.820E+01	4.476E+01	4.086E+00	-0.392
		228.16	*	3.490E-02	7.411E-01	1.190E+00	1.700E-01	0.029
BA-133		53.15		1.209E+00	3.368E+00	5.635E+00	4.162E-01	0.215
		79.62		2.987E+00	1.599E+00	2.379E+00	3.572E-01	1.256
		81.00		-1.830E-01	1.206E-01	1.573E-01	2.475E-02	-1.163
	+	276.40		6.898E-01	5.528E-01	6.885E-01	8.921E-02	1.002
		302.84		-1.743E-02	1.588E-01	2.305E-01	2.689E-02	-0.076
		356.01	*	1.834E-02	4.347E-02	6.544E-02	7.542E-03	0.280
		383.85		-7.156E-02	3.016E-01	4.960E-01	5.342E-02	-0.144
I-133	+	510.53		1.733E+00	3.016E-01	Half-Life too short		
		529.87	*	-1.925E-03	3.016E-01	Half-Life too short		
		706.58		-9.755E-02	3.016E-01	Half-Life too short		
		856.28		-3.131E-01	3.016E-01	Half-Life too short		
		875.33		6.450E-02	3.016E-01	Half-Life too short		
		1236.41		1.081E+00	3.016E-01	Half-Life too short		
		1298.22		-1.979E-01	3.016E-01	Half-Life too short		
CS-134		475.35		3.361E-01	1.777E+00	2.980E+00	1.740E-01	0.113
		563.23		-6.654E-03	4.129E-01	5.874E-01	3.557E-02	-0.011
	+	569.32		1.231E+00	4.813E-01	5.097E-01	3.111E-02	2.415
		604.70		-2.441E-02	3.679E-02	4.840E-02	2.879E-03	-0.504
	+	795.84	*	6.654E-02	6.569E-02	9.013E-02	6.777E-03	0.738
		801.93		-3.638E-01	4.639E-01	6.524E-01	4.946E-02	-0.558
		1038.57		2.731E-02	3.977E+00	6.672E+00	4.948E-01	0.004
		1167.94		2.800E-01	2.495E+00	4.199E+00	2.337E-01	0.067
		1365.15		8.566E-01	1.208E+00	2.159E+00	1.682E-01	0.397
I-135		288.45		2.960E+10	1.208E+00	Half-Life too short		
		417.63		1.364E+09	1.208E+00	Half-Life too short		
		546.56		1.581E+09	1.208E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		836.80		-4.930E+09	1.208E+00	Half-Life too short		
		1038.76		4.767E+08	1.208E+00	Half-Life too short		
		1124.00		5.828E+10	1.208E+00	Half-Life too short		
		1131.51		7.570E+09	1.208E+00	Half-Life too short		
		1260.41	*	-5.977E+09	1.208E+00	Half-Life too short		
		1457.56		2.441E+11	1.208E+00	Half-Life too short		
		1678.03		1.365E+09	1.208E+00	Half-Life too short		
		1706.46		-9.824E+09	1.208E+00	Half-Life too short		
		1791.20		-7.906E+09	1.208E+00	Half-Life too short		
CS-136		66.91		-4.952E-01	9.742E-01	1.274E+00	1.897E-01	-0.389
	+	86.29		4.490E+00	1.352E+00	2.200E+00	2.854E-01	2.041
		153.22		3.082E-01	7.016E-01	1.154E+00	7.972E-02	0.267
		163.89		2.776E-02	1.083E+00	1.752E+00	1.195E-01	0.016
		176.55		-2.276E-02	3.813E-01	6.136E-01	3.720E-02	-0.037
		273.65		-7.827E-03	7.199E-01	7.114E-01	4.692E-02	-0.011
		340.57		3.975E-01	1.528E-01	2.555E-01	1.570E-02	1.556
		818.51		1.861E-02	7.382E-02	1.223E-01	9.476E-03	0.152
		1048.07	*	1.080E-02	1.084E-01	1.831E-01	1.415E-02	0.059
		1235.34		4.850E-02	6.294E-01	1.052E+00	1.075E-01	0.046
BA-137M		661.65	*	-1.330E-02	3.738E-02	5.948E-02	3.464E-03	-0.224
CS-137		661.65	*	-1.406E-02	3.952E-02	6.288E-02	3.677E-03	-0.224
CE-139		165.85	*	-5.219E-03	2.953E-02	4.735E-02	2.472E-03	-0.110
BA-140		162.64		8.523E-02	7.645E-01	1.242E+00	7.514E-02	0.069
		304.84		-3.658E-01	1.422E+00	2.037E+00	5.560E-01	-0.180
		423.70		-6.884E-01	1.930E+00	3.070E+00	9.750E-01	-0.224
		537.32	*	6.972E-02	2.550E-01	4.268E-01	1.389E-01	0.163
LA-140	+	328.77		2.831E-01	3.438E-01	5.425E-01	3.524E-02	0.522
		432.53		-1.063E+00	2.073E+00	3.332E+00	2.111E-01	-0.319
		487.03		-3.447E-02	1.386E-01	2.255E-01	1.493E-02	-0.153
		751.79		-1.193E+00	1.630E+00	2.467E+00	1.977E-01	-0.484
		815.85		-8.648E-02	3.128E-01	4.933E-01	4.342E-02	-0.175
		867.82		9.789E-03	1.470E+00	2.049E+00	1.817E-01	0.005
		919.63		1.592E+00	3.231E+00	4.781E+00	5.097E-01	0.333
		925.24		-6.838E-01	1.209E+00	1.840E+00	1.680E-01	-0.372
		1596.49	*	7.258E-02	8.061E-02	1.371E-01	9.275E-03	0.529
CE-141		145.44	*	7.984E-03	6.485E-02	1.033E-01	5.946E-03	0.077
CE-143		57.37		-2.803E-04	6.485E-02	Half-Life too short		
		231.56		1.418E-03	6.485E-02	Half-Life too short		
		293.26	*	1.061E-03	6.485E-02	Half-Life too short		
	+	350.59		3.172E-02	6.485E-02	Half-Life too short		
		490.36		-1.475E-03	6.485E-02	Half-Life too short		
		664.57		1.512E-03	6.485E-02	Half-Life too short		
		721.93		-8.288E-04	6.485E-02	Half-Life too short		
CE-144		80.11		-1.403E-01	2.452E+00	3.520E+00	2.917E-01	-0.040
		133.54	*	8.009E-02	2.073E-01	3.413E-01	4.835E-02	0.235
PM-144		476.78		1.195E-02	6.379E-02	1.069E-01	7.462E-03	0.112
		618.01		3.670E-03	3.358E-02	5.245E-02	3.275E-03	0.070
		696.49	*	-1.219E-02	3.543E-02	5.626E-02	3.505E-03	-0.217
		778.57		3.793E-01	2.334E+00	3.840E+00	2.777E-01	0.099

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144		696.49	*	-8.259E-01	2.401E+00	3.813E+00	2.374E-01	-0.217
		1489.15		9.641E-01	9.473E+00	1.588E+01	1.125E+00	0.061
PM-146		453.90	*	2.945E-02	4.352E-02	7.505E-02	6.463E-03	0.392
		633.02		1.083E-01	1.333E+00	2.196E+00	8.088E-01	0.049
		735.90		2.047E-03	1.387E-01	2.260E-01	6.346E-02	0.009
		747.13		1.532E-02	8.360E-02	1.382E-01	1.799E-02	0.111
ND-147	+	91.11		1.009E+00	3.771E-01	5.507E-01	5.086E-02	1.832
		319.41		1.476E+00	3.237E+00	5.553E+00	3.228E-01	0.266
		439.89		4.601E+00	5.875E+00	1.020E+01	5.862E-01	0.451
		531.02	*	-3.147E-01	5.484E-01	8.632E-01	1.172E-01	-0.365
PM-149		285.90	*	-2.070E+01	8.977E+01	1.493E+02	2.117E+01	-0.139
EU-152		121.78		3.584E-03	7.359E-02	1.200E-01	9.290E-03	0.030
		244.69		5.562E-01	3.739E-01	5.719E-01	3.250E-02	0.973
		344.27	*	-1.673E-01	1.316E-01	1.454E-01	9.462E-03	-1.151
		443.98		-8.257E-01	9.486E-01	1.484E+00	8.540E-02	-0.557
		778.89		6.420E-02	2.673E-01	4.426E-01	3.201E-02	0.145
		867.32		1.656E-01	8.578E-01	1.229E+00	1.031E-01	0.135
	+	964.01		8.026E-01	4.511E-01	6.209E-01	5.114E-02	1.293
		1085.78		-1.491E-01	3.913E-01	6.322E-01	4.302E-02	-0.236
		1112.02		9.874E-02	3.454E-01	5.347E-01	3.440E-02	0.185
		1407.95		3.672E-02	1.685E-01	2.861E-01	2.078E-02	0.128
GD-153		69.67		-2.106E+00	2.786E+00	2.734E+00	2.104E-01	-0.770
		83.37		-2.848E+00	2.110E+01	2.531E+01	2.162E+00	-0.113
		97.43	*	6.566E-02	8.947E-02	1.318E-01	1.025E-02	0.498
		103.18		-4.305E-02	1.074E-01	1.727E-01	1.251E-02	-0.249
EU-154		123.07		-1.575E-02	5.259E-02	8.453E-02	8.020E-03	-0.186
		247.94		-2.982E-01	3.887E-01	5.709E-01	5.411E-02	-0.522
		591.81		-2.160E-02	6.223E-01	1.019E+00	1.004E-01	-0.021
		723.30		-1.650E-01	2.136E-01	2.741E-01	2.111E-02	-0.602
		756.87		2.041E-01	7.564E-01	1.257E+00	1.363E-01	0.162
		873.19		1.724E-01	2.827E-01	4.825E-01	5.857E-02	0.357
		996.32		-7.656E-02	3.538E-01	5.546E-01	9.665E-02	-0.138
		1004.76		-1.029E-01	2.063E-01	3.307E-01	3.656E-02	-0.311
		1274.45	*	-5.839E-03	1.188E-01	1.962E-01	1.942E-02	-0.030
EU-155		48.70		4.429E-01	2.204E+00	3.673E+00	2.576E-01	0.121
		60.01		1.951E+00	5.394E+00	7.937E+00	5.971E-01	0.246
	+	86.54		4.138E-01	1.183E-01	2.010E-01	1.790E-02	2.059
		105.31	*	3.912E-03	1.124E-01	1.838E-01	1.322E-02	0.021
TB-160	+	86.79		1.106E+00	3.158E-01	5.314E-01	4.701E-02	2.080
		197.04		-2.197E-02	5.848E-01	9.393E-01	5.089E-02	-0.023
		215.65		-2.504E-01	7.768E-01	1.228E+00	6.795E-02	-0.204
	+	298.57		3.051E-01	1.459E-01	1.979E-01	1.151E-02	1.542
		879.36	*	-4.092E-02	1.244E-01	1.935E-01	1.655E-02	-0.211
		962.29		1.214E+00	5.958E-01	1.011E+00	8.343E-02	1.201
	+	966.15		5.513E-01	3.099E-01	4.988E-01	4.098E-02	1.105
		1177.93		-1.730E-01	3.607E-01	5.765E-01	3.190E-02	-0.300
		1271.85		-3.486E-02	6.796E-01	1.123E+00	7.440E-02	-0.031
HO-166M		80.57		-3.839E-01	3.211E-01	4.363E-01	3.630E-02	-0.880
		184.41		1.051E-01	4.167E-02	6.563E-02	3.501E-03	1.601

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		2.289E-03	8.729E-02	1.283E-01	7.433E-03	0.018
		410.95		1.754E-01	2.776E-01	4.217E-01	2.380E-02	0.416
		711.68	*	-2.765E-02	6.167E-02	9.683E-02	6.202E-03	-0.286
		752.31		1.128E-01	2.537E-01	4.285E-01	2.956E-02	0.263
		810.29		-2.523E-02	5.742E-02	8.914E-02	6.804E-03	-0.283
TM-171		51.35		-2.188E+01	2.844E+01	4.562E+01	3.327E+00	-0.480
		52.39		2.382E+00	1.450E+01	2.410E+01	1.772E+00	0.099
		59.40		3.197E+01	2.788E+01	4.243E+01	3.192E+00	0.753
		66.72	*	-1.783E+01	3.285E+01	4.633E+01	3.522E+00	-0.385
LU-176	+	88.36		8.148E-01	2.327E-01	4.073E-01	3.627E-02	2.001
		201.83		1.035E-02	2.964E-02	4.835E-02	2.635E-03	0.214
		306.84	*	-8.931E-03	2.600E-02	4.178E-02	2.430E-03	-0.214
		401.10		6.465E+00	6.550E+00	1.150E+01	6.444E-01	0.562
LU-177		112.95		2.363E-02	1.671E+00	2.726E+00	1.775E-01	0.009
	+	208.36	*	2.874E+00	1.483E+00	2.098E+00	1.152E-01	1.370
LU-177M		52.97		4.079E-01	1.519E+00	2.534E+00	1.870E-01	0.161
		54.07		-2.202E-02	7.976E-01	1.316E+00	9.763E-02	-0.017
		61.30		1.396E-01	1.637E+00	2.377E+00	1.789E-01	0.059
		121.62		6.945E-02	3.794E-01	6.220E-01	3.719E-02	0.112
		147.16		-6.502E-01	6.665E-01	1.036E+00	5.688E-02	-0.627
		171.86		1.670E-01	4.818E-01	7.893E-01	4.146E-02	0.212
		218.09		-1.697E-01	8.938E-01	1.421E+00	7.886E-02	-0.119
	+	268.79		2.785E+00	1.241E+00	1.565E+00	9.022E-02	1.780
		319.02		1.065E-01	2.542E-01	4.352E-01	2.529E-02	0.245
		367.43		-5.487E-02	8.830E-01	1.469E+00	8.356E-02	-0.037
		413.65	*	-2.182E-02	1.978E-01	2.832E-01	1.601E-02	-0.077
HF-181		56.28		-6.329E-01	9.037E-01	1.453E+00	1.085E-01	-0.435
		57.53		-8.577E-02	4.973E-01	8.160E-01	6.112E-02	-0.105
		65.20		9.720E-01	1.110E+00	1.658E+00	1.255E-01	0.586
		133.02		4.875E-03	6.748E-02	1.099E-01	6.290E-03	0.044
		136.25		-3.130E-01	4.622E-01	7.293E-01	4.131E-02	-0.429
		345.85		3.158E-02	2.025E-01	2.985E-01	1.720E-02	0.106
		482.03	*	5.306E-03	4.168E-02	6.955E-02	4.070E-03	0.076
W-181		56.28		-2.910E-01	3.553E-01	5.687E-01	4.247E-02	-0.512
		57.53		-3.381E-02	1.948E-01	3.195E-01	2.393E-02	-0.106
		65.20	*	3.776E-01	4.314E-01	6.442E-01	4.875E-02	0.586
TA-182		67.75		-1.093E-01	1.552E-01	1.807E-01	1.379E-02	-0.605
		100.10		7.184E-02	1.785E-01	2.959E-01	2.224E-02	0.243
		152.43		2.431E-01	3.504E-01	5.822E-01	3.151E-02	0.418
		222.10		2.277E-01	3.585E-01	5.911E-01	3.293E-02	0.385
		1001.68		7.432E-01	2.084E+00	3.471E+00	2.723E-01	0.214
	+	1121.28		6.516E-01	2.492E-01	3.334E-01	2.099E-02	1.955
		1189.05		-1.085E-01	2.994E-01	4.831E-01	2.734E-02	-0.225
		1221.42	*	8.086E-02	1.978E-01	3.395E-01	2.047E-02	0.238
		1230.97		3.059E-02	4.803E-01	8.028E-01	4.930E-02	0.038
RE-183		57.98		4.830E-02	1.996E-01	3.211E-01	2.408E-02	0.150
		59.32		8.146E-02	1.167E-01	1.743E-01	1.311E-02	0.467
		67.20		-1.319E-01	2.485E-01	3.251E-01	2.476E-02	-0.406
		162.32	*	5.074E-02	1.124E-01	1.849E-01	9.743E-03	0.274

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		2.576E+00	1.329E+00	1.894E+00	1.040E-01	1.360
		291.72		1.611E-01	1.081E+00	1.599E+00	9.291E-02	0.101
RE-184		57.98		1.780E-01	7.353E-01	1.183E+00	8.870E-02	0.150
		59.32		2.999E-01	4.296E-01	6.417E-01	4.826E-02	0.467
		67.20		-4.856E-01	9.151E-01	1.197E+00	9.118E-02	-0.406
		161.27		-6.715E-02	3.628E-01	5.822E-01	3.076E-02	-0.115
		216.55		-8.101E-02	2.774E-01	4.390E-01	2.432E-02	-0.185
		252.85	*	-5.409E-02	2.425E-01	3.828E-01	2.188E-02	-0.141
		318.01		2.720E-01	4.292E-01	7.430E-01	4.318E-02	0.366
		792.07		1.958E-01	1.138E+00	1.626E+00	1.203E-01	0.120
		903.28		3.998E-01	1.046E+00	1.701E+00	1.492E-01	0.235
		920.93		1.399E-01	4.954E-01	7.738E-01	6.676E-02	0.181
OS-185		59.72		3.824E-01	3.082E-01	4.704E-01	3.539E-02	0.813
		61.14		4.521E-02	1.779E-01	2.603E-01	1.959E-02	0.174
		69.30		-1.112E-01	4.744E-01	4.852E-01	3.727E-02	-0.229
		592.07		5.609E-02	2.551E+00	4.196E+00	2.487E-01	0.013
		646.12	*	-1.297E-02	4.309E-02	6.884E-02	4.031E-03	-0.188
		717.42		7.981E-01	9.138E-01	1.587E+00	1.027E-01	0.503
		874.81		3.298E-01	5.484E-01	9.371E-01	7.957E-02	0.352
		880.27		-6.956E-01	7.105E-01	1.018E+00	8.722E-02	-0.683
RE-188		155.03	*	5.855E-02	1.805E-01	2.958E-01	1.590E-02	0.198
		477.96		8.421E-02	2.928E+00	4.856E+00	2.838E-01	0.017
		633.10		1.848E-01	2.691E+00	4.430E+00	2.605E-01	0.042
W-188	+	63.58		4.535E+01	8.015E+01	9.157E+01	6.906E+00	0.495
		227.08		4.647E-02	1.358E+01	2.177E+01	1.219E+00	0.002
		290.67	*	-3.906E-01	8.224E+00	1.201E+01	6.977E-01	-0.033
IR-192	+	295.96		1.148E+00	2.046E-01	2.876E-01	1.698E-02	3.992
		308.46		6.803E-02	9.810E-02	1.700E-01	9.999E-03	0.400
		316.51	*	-1.014E-02	3.298E-02	5.443E-02	3.180E-03	-0.186
		468.07		2.383E-03	6.610E-02	1.097E-01	7.358E-03	0.022
		604.41		-2.183E-01	4.871E-01	6.565E-01	7.491E-02	-0.332
		612.46		2.266E+00	8.775E-01	1.495E+00	1.145E-01	1.516
AU-195		65.12		1.782E-01	2.000E-01	2.988E-01	2.261E-02	0.597
		66.83		-6.096E-02	1.085E-01	1.529E-01	1.163E-02	-0.399
	+	75.70		1.319E+00	3.282E-01	4.862E-01	3.885E-02	2.714
		98.88	*	1.497E-01	2.586E-01	3.783E-01	2.887E-02	0.396
		129.76		2.311E+00	2.948E+00	4.926E+00	2.849E-01	0.469
TL-200		367.94	*	-5.050E-05	2.948E+00	Half-Life too short		
		579.30		3.030E-03	2.948E+00	Half-Life too short		
		828.27		-2.648E-03	2.948E+00	Half-Life too short		
		1205.75		-1.719E-03	2.948E+00	Half-Life too short		
TL-201		68.90		-1.343E+00	7.713E+00	7.927E+00	6.078E-01	-0.169
		70.82		1.208E+00	3.376E+00	4.611E+00	3.570E-01	0.262
		80.30		-2.333E+00	5.794E+00	8.190E+00	6.798E-01	-0.285
		135.34		-2.180E+01	2.595E+01	4.067E+01	2.310E+00	-0.536
		167.43	*	-3.094E+00	7.037E+00	1.115E+01	5.825E-01	-0.278
TL-202		68.90		-1.201E-01	6.900E-01	7.091E-01	5.437E-02	-0.169
		70.82		1.078E-01	3.012E-01	4.114E-01	3.185E-02	0.262
		80.30		-2.082E-01	5.171E-01	7.309E-01	6.066E-02	-0.285

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	8.232E-02	7.005E-02	1.241E-01	7.128E-03	0.663
HG-203		70.83		5.346E-01	1.214E+00	1.781E+00	2.327E-01	0.300
		72.87		2.677E+00	7.437E-01	1.200E+00	1.524E-01	2.232
		82.60		-4.326E-01	1.815E+00	1.846E+00	2.520E-01	-0.234
		279.20	*	4.139E-02	4.524E-02	7.020E-02	4.317E-03	0.590
BI-207		72.80		6.931E-01	2.226E-01	3.477E-01	2.723E-02	1.993
	+	74.97		7.317E-01	1.820E-01	2.469E-01	1.962E-02	2.963
		84.90		3.301E-01	2.277E-01	3.419E-01	2.966E-02	0.966
	+	569.67		1.918E-01	7.495E-02	7.817E-02	4.640E-03	2.454
		1063.62	*	2.016E-02	5.293E-02	9.222E-02	6.549E-03	0.219
		1770.23		1.949E-01	4.592E-01	7.193E-01	4.339E-02	0.271
TL-207		81.07		-4.052E-01	2.605E-01	3.470E-01	2.901E-02	-1.168
		83.78		-3.993E-02	1.787E-01	2.132E-01	1.829E-02	-0.187
		94.90		7.046E-01	2.743E-01	4.288E-01	3.452E-02	1.643
		122.32		9.415E-02	1.748E+00	2.851E+00	1.948E-01	0.033
		144.24		-5.821E-02	7.053E-01	1.114E+00	7.825E-02	-0.052
		154.21		-1.526E-02	4.237E-01	6.850E-01	4.572E-02	-0.022
	+	269.46		6.519E-01	2.908E-01	3.633E-01	2.191E-02	1.794
		323.87	*	6.090E-02	7.431E-01	1.091E+00	1.802E-01	0.056
	+	338.28		5.915E+00	1.881E+00	2.554E+00	2.687E-01	2.316
		445.03		2.186E-01	2.170E+00	3.624E+00	3.713E-01	0.060
PO-209		260.50		-2.018E+00	1.029E+01	1.625E+01	9.331E-01	-0.124
		262.80		-1.871E+01	3.039E+01	4.285E+01	2.464E+00	-0.437
		896.60	*	5.707E+00	7.671E+00	1.318E+01	1.158E+00	0.433
BI-210		46.50	*	-1.108E+00	3.172E+00	5.114E+00	3.898E-01	-0.217
PB-210		46.50	*	-1.108E+00	3.172E+00	5.114E+00	3.898E-01	-0.217
PO-210		46.50	*	-1.108E+00	3.172E+00	5.114E+00	3.333E-01	-0.217
PB-211		404.84	*	-2.359E-01	1.098E+00	1.545E+00	9.631E-01	-0.153
		427.08		-3.823E-01	2.013E+00	3.282E+00	2.028E+00	-0.117
		831.96		-2.408E-02	1.301E+00	2.060E+00	1.289E+00	-0.012
BI-212	+	727.18	*	9.710E-01	4.764E-01	6.921E-01	5.762E-02	1.403
		785.46		2.120E+00	1.773E+00	3.141E+00	2.297E-01	0.675
		1620.62		6.717E-01	1.194E+00	2.122E+00	1.417E-01	0.317
PO-215		81.07		-4.052E-01	2.605E-01	3.470E-01	2.901E-02	-1.168
		83.78		-3.993E-02	1.787E-01	2.132E-01	1.829E-02	-0.187
		94.90		7.046E-01	2.743E-01	4.288E-01	3.452E-02	1.643
		122.32		9.415E-02	1.748E+00	2.851E+00	1.948E-01	0.033
		144.24		-5.821E-02	7.053E-01	1.114E+00	7.825E-02	-0.052
		154.21		-1.526E-02	4.237E-01	6.850E-01	4.572E-02	-0.022
	+	269.46		6.519E-01	2.908E-01	3.633E-01	2.191E-02	1.794
		323.87	*	6.090E-02	7.431E-01	1.091E+00	1.802E-01	0.056
	+	338.28		5.915E+00	1.881E+00	2.554E+00	2.687E-01	2.316
		445.03		2.186E-01	2.170E+00	3.624E+00	3.713E-01	0.060
RN-219		271.23		5.042E-01	4.003E-01	4.539E-01	3.670E-02	1.111
		401.81	*	3.023E-01	4.104E-01	7.084E-01	9.580E-02	0.427
RN-220		549.76	*	1.250E+01	2.479E+01	4.231E+01	2.511E+00	0.295
RA-223		81.07		-4.052E-01	2.605E-01	3.470E-01	2.901E-02	-1.168
		83.78		-3.993E-02	1.787E-01	2.132E-01	1.829E-02	-0.187
		94.90		7.046E-01	2.743E-01	4.288E-01	3.452E-02	1.643

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		9.415E-02	1.748E+00	2.851E+00	1.948E-01	0.033
		144.24		-5.821E-02	7.053E-01	1.114E+00	7.825E-02	-0.052
		154.21		-1.526E-02	4.237E-01	6.850E-01	4.572E-02	-0.022
	+	269.46		6.519E-01	2.908E-01	3.633E-01	2.191E-02	1.794
		323.87	*	6.090E-02	7.431E-01	1.091E+00	1.802E-01	0.056
	+	338.28		5.915E+00	1.881E+00	2.554E+00	2.687E-01	2.316
		445.03		2.186E-01	2.170E+00	3.624E+00	3.713E-01	0.060
AC-227		79.80		2.040E+00	1.950E+00	2.856E+00	6.102E-01	0.714
		236.00		1.754E+00	3.764E-01	5.713E-01	5.922E-02	3.070
		256.20	*	-9.208E-02	4.103E-01	6.472E-01	9.016E-02	-0.142
		286.10		-2.655E-01	1.494E+00	2.492E+00	2.881E-01	-0.107
	+	299.80		3.884E+00	1.949E+00	2.650E+00	4.318E-01	1.466
		304.40		-5.930E-01	2.047E+00	2.928E+00	5.066E-01	-0.203
		334.20		-6.971E-01	3.085E+00	3.853E+00	7.063E-01	-0.181
TH-227		79.80		2.040E+00	1.951E+00	2.856E+00	6.181E-01	0.714
	+	94.00		7.550E+00	3.273E+00	3.865E+00	8.348E-01	1.954
		236.00		1.754E+00	3.651E-01	5.713E-01	5.118E-02	3.070
		256.20	*	-9.208E-02	4.104E-01	6.472E-01	1.092E-01	-0.142
		286.10		-2.655E-01	1.517E+00	2.492E+00	2.496E+00	-0.107
	+	299.80		3.884E+00	1.949E+00	2.650E+00	4.318E-01	1.466
		304.40		-5.930E-01	2.047E+00	2.928E+00	5.066E-01	-0.203
		334.20		-6.971E-01	3.085E+00	3.853E+00	7.063E-01	-0.181
TH-229		85.43		5.704E-01	2.357E-01	3.604E-01	3.144E-02	1.583
	+	88.47		4.690E-01	1.340E-01	2.334E-01	2.075E-02	2.010
		100.00		7.663E-02	1.853E-01	3.073E-01	2.313E-02	0.249
		193.63	*	2.991E-02	5.408E-01	8.723E-01	4.707E-02	0.034
		210.97		1.766E+00	9.533E-01	1.463E+00	8.058E-02	1.207
PA-231		283.67	*	-7.345E-01	1.646E+00	2.410E+00	3.321E-01	-0.305
	+	301.29		1.554E+00	7.551E-01	1.038E+00	1.086E-01	1.496
TH-231		81.07		-4.052E-01	2.605E-01	3.470E-01	2.901E-02	-1.168
		83.78		-3.993E-02	1.787E-01	2.132E-01	1.829E-02	-0.187
		94.90		7.046E-01	2.743E-01	4.288E-01	3.452E-02	1.643
		122.32		9.415E-02	1.748E+00	2.851E+00	1.948E-01	0.033
		144.24		-5.821E-02	7.053E-01	1.114E+00	7.825E-02	-0.052
		154.21		-1.526E-02	4.237E-01	6.850E-01	4.572E-02	-0.022
	+	269.46		6.519E-01	2.908E-01	3.633E-01	2.191E-02	1.794
		323.87	*	6.090E-02	7.431E-01	1.091E+00	1.802E-01	0.056
	+	338.28		5.915E+00	1.881E+00	2.554E+00	2.687E-01	2.316
		445.03		2.186E-01	2.170E+00	3.624E+00	3.713E-01	0.060
U-231		84.21		-3.878E-02	6.943E+00	9.258E+00	7.975E-01	-0.004
	+	92.29		7.495E+00	2.883E+00	4.130E+00	3.454E-01	1.815
		95.87	*	6.213E-01	1.231E+00	1.806E+00	1.435E-01	0.344
		108.00		1.174E-01	2.142E+00	3.502E+00	2.402E-01	0.034
PA-233	+	75.28		2.135E+01	5.963E+00	7.553E+00	1.132E+00	2.827
	+	86.59		6.725E+00	2.571E+00	3.260E+00	8.765E-01	2.063
	+	300.12		1.083E+00	5.341E-01	7.332E-01	9.857E-02	1.477
		311.98	*	6.255E-02	6.377E-02	1.119E-01	6.911E-03	0.559
		340.50		2.123E+00	8.851E-01	1.264E+00	2.902E-01	1.680
		398.62		-5.832E-01	2.030E+00	3.314E+00	8.553E-01	-0.176

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		5.337E-01	1.676E+00	2.686E+00	5.519E-01	0.199
PA-234	+	63.00		1.315E+00	2.330E+00	2.706E+00	4.038E-01	0.486
		94.67		5.714E-01	2.094E-01	3.181E-01	3.827E-02	1.796
		98.44		4.806E-02	1.102E-01	1.555E-01	8.653E-02	0.309
		99.86		1.870E-01	4.858E-01	7.785E-01	5.868E-02	0.240
		111.00		4.257E-02	1.909E-01	3.138E-01	3.379E-02	0.136
		131.20		2.466E-02	1.102E-01	1.805E-01	1.039E-02	0.137
		152.70		1.708E-01	3.424E-01	5.633E-01	8.826E-02	0.303
	+	186.00		4.210E+00	2.287E+00	2.465E+00	7.512E-01	1.708
		226.40		-1.216E-01	4.298E-01	6.793E-01	7.784E-02	-0.179
		227.20		-6.729E-02	4.604E-01	7.327E-01	4.102E-02	-0.092
		248.90		-1.124E+00	8.872E-01	1.269E+00	2.724E-01	-0.886
	+	293.70		7.224E+00	1.681E+00	1.818E+00	2.925E-01	3.973
		369.80		6.434E-01	8.259E-01	1.422E+00	2.956E-01	0.453
	+	568.70		6.242E+00	2.439E+00	2.603E+00	1.545E-01	2.398
	+	569.50		1.702E+00	6.653E-01	7.001E-01	4.155E-02	2.432
		574.00		2.860E-01	1.558E+00	2.264E+00	1.344E-01	0.126
		699.00		-2.534E-01	7.282E-01	1.154E+00	2.092E-01	-0.220
		706.10		-1.372E-01	1.042E+00	1.678E+00	7.417E-01	-0.082
		733.00		4.444E-02	4.003E-01	5.591E-01	1.203E-01	0.079
		742.81		9.239E-01	1.487E+00	2.323E+00	1.557E+00	0.398
	+	796.30		1.293E+00	1.319E+00	1.741E+00	4.649E-01	0.743
		805.60		1.138E+00	1.060E+00	1.779E+00	5.404E-01	0.639
		819.60		-1.269E-01	1.260E+00	2.020E+00	7.643E-01	-0.063
		826.30		-7.183E-02	8.631E-01	1.386E+00	6.182E-01	-0.052
		831.60		-1.489E-02	6.479E-01	1.046E+00	3.102E-01	-0.014
		876.40		-3.861E-01	8.745E-01	1.193E+00	1.226E+00	-0.324
		880.51		-2.504E-01	2.542E-01	3.635E-01	3.115E-02	-0.689
		883.24		-1.517E-01	3.028E-01	4.359E-01	2.930E-01	-0.348
		899.00		-2.256E-01	9.238E-01	1.449E+00	6.340E-01	-0.156
		925.00		-6.326E-01	1.260E+00	1.931E+00	1.660E-01	-0.328
		926.50		1.140E-02	1.856E-01	3.005E-01	7.592E-02	0.038
		946.00	*	1.786E-01	3.106E-01	5.235E-01	9.773E-02	0.341
		949.00		-3.309E-02	4.535E-01	7.243E-01	6.070E-02	-0.046
		980.50		0.000E+00	7.214E-01	1.159E+00	9.350E-02	0.000
		1394.10		3.770E-01	9.807E-01	1.661E+00	1.079E+00	0.227
PA-234M		766.42		-7.068E+00	1.227E+01	1.817E+01	9.177E+00	-0.389
		1001.03	*	-1.345E+00	4.837E+00	7.650E+00	7.121E-01	-0.176
U-235	+	89.95		4.010E+00	1.907E+00	2.016E+00	6.223E-01	1.989
	+	93.35		2.349E+00	1.099E+00	1.247E+00	3.479E-01	1.884
		105.00		6.726E-02	1.082E+00	1.771E+00	5.214E-01	0.038
		143.76	*	2.627E-02	2.165E-01	3.448E-01	5.590E-02	0.076
		163.35		1.079E-01	4.757E-01	7.756E-01	1.382E-01	0.139
	+	185.71		1.559E-01	7.060E-02	9.124E-02	4.875E-03	1.709
		205.31		-1.258E-01	6.274E-01	8.686E-01	1.553E-01	-0.145
NP-236		94.67		4.355E-01	1.542E-01	2.415E-01	1.951E-02	1.804
		98.44		3.636E-02	8.084E-02	1.176E-01	9.022E-03	0.309
		111.00		3.220E-02	1.444E-01	2.374E-01	1.577E-02	0.136
		160.31	*	-1.386E-02	8.171E-02	1.312E-01	6.951E-03	-0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		3.090E-02	1.627E-01	2.588E-01	1.959E-02	0.119
		117.00	*	-1.285E-01	1.943E-01	3.081E-01	1.927E-02	-0.417
	+	209.75		2.032E+00	1.049E+00	1.507E+00	8.285E-02	1.348
		228.18		1.333E-02	2.409E-01	3.869E-01	2.168E-02	0.034
	+	277.60		3.366E-01	2.669E-01	3.211E-01	1.858E-02	1.048
		334.30		-3.605E-01	1.748E+00	2.189E+00	1.268E-01	-0.165
AM-241		59.54	*	1.926E-01	1.623E-01	2.471E-01	2.034E-02	0.779
CM-243		99.55		3.179E-02	1.675E-01	2.663E-01	2.015E-02	0.119
		103.76	*	2.865E-02	9.829E-02	1.622E-01	1.167E-02	0.177
		117.00		-1.322E-01	1.999E-01	3.170E-01	1.982E-02	-0.417
	+	209.75		2.003E+00	1.034E+00	1.485E+00	8.167E-02	1.348
		228.18		1.347E-02	2.434E-01	3.909E-01	2.191E-02	0.034
	+	277.60		3.394E-01	2.691E-01	3.237E-01	1.873E-02	1.048
AM-246		798.80		-4.744E-03	1.616E-01	2.253E-01	1.687E-02	-0.021
		1036.00		1.860E-02	3.073E-01	5.178E-01	3.857E-02	0.036
		1062.04		-9.475E-02	2.379E-01	3.850E-01	2.742E-02	-0.246
		1078.86	*	1.134E-01	1.464E-01	2.600E-01	1.794E-02	0.436
CM-247	+	278.00		1.396E+00	1.107E+00	1.322E+00	7.650E-02	1.056
		287.40		6.858E-01	1.305E+00	2.065E+00	1.199E-01	0.332
		402.60	*	2.028E-02	3.718E-02	6.231E-02	3.495E-03	0.325
CF-249		252.85		-2.029E-01	9.099E-01	1.436E+00	8.209E-02	-0.141
		333.44		-1.187E-01	2.621E-01	2.864E-01	1.659E-02	-0.415
		387.95	*	-4.882E-03	4.014E-02	6.646E-02	3.712E-03	-0.073
CF-251		176.60	*	-3.477E-02	1.325E-01	2.114E-01	1.117E-02	-0.165
		227.00		8.307E-03	4.078E-01	6.539E-01	3.660E-02	0.013
		285.00		-4.849E-01	1.680E+00	2.787E+00	1.617E-01	-0.174

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691010      *
* Acquisition date :  9-FEB-2010 15:33:12 Detector SN#    :                 *
* Detector ID       : GAM19               Sensitivity     : 5.000          *
* Geometry          : CAN                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.61     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691010           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.3629E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.819E+01	2.625E+00	4.802E-01	0.000E+00
CD-109	3.495E+00	9.785E-01	1.397E+00	0.000E+00
SN-126	3.435E-01	9.617E-02	1.380E-01	0.000E+00
CS-135	5.541E-01	2.436E-01	2.468E-01	0.000E+00
TL-208	5.848E-01	8.896E-02	5.234E-02	0.000E+00
BI-211	3.939E+00	5.029E-01	3.158E-01	0.000E+00
PB-212	1.645E+00	1.610E-01	9.984E-02	0.000E+00
PO-212	1.645E+00	1.610E-01	9.984E-02	0.000E+00
BI-214	1.171E+00	1.825E-01	1.003E-01	0.000E+00
PB-214	1.370E+00	1.885E-01	1.101E-01	0.000E+00
PO-214	1.370E+00	1.885E-01	1.101E-01	0.000E+00
PO-216	1.645E+00	1.610E-01	9.984E-02	0.000E+00
PO-218	1.370E+00	1.885E-01	1.101E-01	0.000E+00
RA-224	3.855E+00	1.282E+00	1.135E+00	0.000E+00
RA-226	1.171E+00	1.825E-01	1.003E-01	0.000E+00
AC-228	1.688E+00	3.457E-01	2.211E-01	0.000E+00
RA-228	1.688E+00	3.457E-01	2.211E-01	0.000E+00
TH-228	1.670E+00	1.634E-01	1.014E-01	0.000E+00
TH-230	1.171E+00	1.825E-01	1.003E-01	0.000E+00
TH-232	1.688E+00	3.457E-01	2.211E-01	0.000E+00
TH-234	1.128E+00	1.961E+00	2.133E+00	0.000E+00
U-234	1.171E+00	1.825E-01	1.003E-01	0.000E+00
NP-237	1.009E+00	3.484E-01	4.312E-01	0.000E+00
U-238	1.128E+00	1.961E+00	2.133E+00	0.000E+00
AM-243	4.076E-01	9.937E-02	9.479E-02	0.000E+00
ANH-511	1.661E-01	6.720E-02	4.773E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	7.657E-03		3.022E-01	5.238E-01	0.000E+00	NOT IDENT.

NA-22	5.763E-03	4.125E-02	7.119E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.220E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.274E-02	2.591E-02	4.721E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.125E-02	8.825E-02	0.000E+00	FAIL ABUN
SC-46	9.117E-03	4.179E-02	7.095E-02	0.000E+00	FAIL ABUN
V-48	2.067E-02	7.044E-02	1.199E-01	0.000E+00	NOT IDENT.
CR-51	6.401E-02	3.573E-01	6.367E-01	0.000E+00	NOT IDENT.
MN-52	3.042E-02	2.215E-01	3.808E-01	0.000E+00	NOT IDENT.
MN-54	1.563E-02	3.720E-02	6.436E-02	0.000E+00	NOT IDENT.
CO-56	-6.785E-03	4.005E-02	6.597E-02	0.000E+00	NOT IDENT.
CO-57	-1.015E-03	2.489E-02	4.334E-02	0.000E+00	NOT IDENT.
CO-58	-3.373E-02	3.907E-02	6.027E-02	0.000E+00	NOT IDENT.
FE-59	2.388E-02	8.519E-02	1.501E-01	0.000E+00	NOT IDENT.
CO-60	-2.666E-02	3.858E-02	6.042E-02	0.000E+00	NOT IDENT.
ZN-65	-6.163E-03	9.780E-02	1.438E-01	0.000E+00	NOT IDENT.
GE-68	7.878E-01	1.246E+00	2.253E+00	0.000E+00	NOT IDENT.
AS-73	3.476E-01	7.627E-01	1.392E+00	0.000E+00	NOT IDENT.
AS-74	8.814E-02	9.248E-02	1.679E-01	0.000E+00	NOT IDENT.
SE-75	-2.138E-02	4.804E-02	7.244E-02	0.000E+00	NOT IDENT.
BR-77	9.365E-01	1.050E+01	1.772E+01	0.000E+00	FAIL ABUN
SR-82	-3.827E-01	4.105E-01	6.377E-01	0.000E+00	NOT IDENT.
RB-83	1.669E-02	7.089E-02	1.173E-01	0.000E+00	NOT IDENT.
RB-84	-4.604E-02	6.486E-02	1.000E-01	0.000E+00	NOT IDENT.
KR-85	1.311E+01	7.952E+00	1.346E+01	0.000E+00	NOT IDENT.
SR-85	6.722E-02	4.078E-02	6.905E-02	0.000E+00	NOT IDENT.
RB-86	5.176E-01	7.864E-01	1.426E+00	0.000E+00	NOT IDENT.
Y-88	-7.909E-03	3.437E-02	5.463E-02	0.000E+00	NOT IDENT.
ZR-88	2.145E-03	2.945E-02	5.169E-02	0.000E+00	NOT IDENT.
Y-91	-5.274E+00	1.801E+01	3.005E+01	0.000E+00	NOT IDENT.
NB-94	2.214E-03	3.295E-02	5.602E-02	0.000E+00	NOT IDENT.
NB-95	-1.713E-02	4.315E-02	7.040E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.613E-01	2.651E-01	0.000E+00	NOT IDENT.
ZR-95	2.788E-02	6.739E-02	1.174E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.022E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.990E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.796E+00	1.138E+01	1.982E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.120E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.513E-02	3.452E-02	5.673E-02	0.000E+00	NOT IDENT.
RH-102	1.645E-03	2.678E-02	4.655E-02	0.000E+00	NOT IDENT.
RU-103	-1.623E-02	3.765E-02	6.292E-02	0.000E+00	FAIL ABUN
RH-106	1.566E-02	3.109E-01	5.319E-01	0.000E+00	FAIL ABUN
RU-106	1.566E-02	3.109E-01	5.319E-01	0.000E+00	FAIL ABUN
AG-108M	-1.817E-02	3.291E-02	5.531E-02	0.000E+00	NOT IDENT.
AG-110M	-3.452E-02	3.549E-02	5.574E-02	0.000E+00	NOT IDENT.
IN-111	1.156E+00	1.176E+00	1.850E+00	0.000E+00	NOT IDENT.
IN-113M	1.075E-02	4.300E-02	7.622E-02	0.000E+00	NOT IDENT.
SN-113	1.075E-02	4.300E-02	7.622E-02	0.000E+00	NOT IDENT.
IN-114M	-6.584E-02	2.100E-01	3.079E-01	0.000E+00	NOT IDENT.
CD-115	5.451E-01	1.010E+01	1.744E+01	0.000E+00	NOT IDENT.
SN-117M	1.041E-02	5.687E-02	9.884E-02	0.000E+00	NOT IDENT.
SB-122	2.322E-01	2.338E+00	3.506E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.176E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.481E-03	2.934E-02	5.092E-02	0.000E+00	NOT IDENT.
I-124	-2.864E-01	7.207E-01	1.020E+00	0.000E+00	NOT IDENT.
SB-124	-1.143E-02	6.936E-02	1.123E-01	0.000E+00	FAIL ABUN
SB-125	-1.094E-02	8.861E-02	1.531E-01	0.000E+00	NOT IDENT.
TE-125M	-1.694E+00	9.482E+00	1.650E+01	0.000E+00	NOT IDENT.
I-126	2.108E-02	1.903E-01	3.256E-01	0.000E+00	NOT IDENT.
SB-126	-8.667E-02	1.546E-01	2.331E-01	0.000E+00	FAIL ABUN
SB-127	-1.048E+00	1.322E+00	2.087E+00	0.000E+00	NOT IDENT.
XE-127	3.299E-02	4.957E-02	8.408E-02	0.000E+00	NOT IDENT.
I-131	-3.441E-02	1.066E-01	1.836E-01	0.000E+00	NOT IDENT.
TE-132	3.490E-02	7.263E-01	1.236E+00	0.000E+00	NOT IDENT.
BA-133	1.834E-02	4.260E-02	6.740E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.865E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.654E-02	6.437E-02	9.144E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	5.780E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.080E-02	1.062E-01	1.848E-01	0.000E+00	FAIL ABUN
BA-137M	-1.330E-02	3.663E-02	6.056E-02	0.000E+00	NOT IDENT.
CS-137	-1.406E-02	3.873E-02	6.402E-02	0.000E+00	NOT IDENT.
CE-139	-5.219E-03	2.894E-02	4.946E-02	0.000E+00	NOT IDENT.
BA-140	6.972E-02	2.499E-01	4.362E-01	0.000E+00	NOT IDENT.
LA-140	7.258E-02	7.900E-02	1.372E-01	0.000E+00	FAIL ABUN
CE-141	7.984E-03	6.355E-02	1.081E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.925E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	8.009E-02	2.032E-01	3.579E-01	0.000E+00	NOT IDENT.
PM-144	-1.219E-02	3.473E-02	5.722E-02	0.000E+00	NOT IDENT.
PR-144	-8.259E-01	2.353E+00	3.878E+00	0.000E+00	NOT IDENT.

PM-146	2.945E-02	4.265E-02	7.696E-02	0.000E+00	NOT IDENT.
ND-147	-3.147E-01	5.374E-01	8.825E-01	0.000E+00	FAIL ABUN
PM-149	-2.070E+01	8.798E+01	1.544E+02	0.000E+00	NOT IDENT.
EU-152	-1.673E-01	1.290E-01	1.498E-01	0.000E+00	FAIL ABUN
GD-153	6.566E-02	8.768E-02	1.390E-01	0.000E+00	NOT IDENT.
EU-154	-5.839E-03	1.164E-01	1.973E-01	0.000E+00	NOT IDENT.
EU-155	3.912E-03	1.102E-01	1.936E-01	0.000E+00	FAIL ABUN
TB-160	-4.092E-02	1.219E-01	1.959E-01	0.000E+00	FAIL ABUN
HO-166M	-2.765E-02	6.044E-02	9.844E-02	0.000E+00	NOT IDENT.
TM-171	-1.783E+01	3.219E+01	4.918E+01	0.000E+00	NOT IDENT.
LU-176	-8.931E-03	2.548E-02	4.316E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.453E+00	2.182E+00	0.000E+00	FAIL ABUN
LU-177M	-2.182E-02	1.939E-01	2.908E-01	0.000E+00	FAIL ABUN
HF-181	5.306E-03	4.085E-02	7.124E-02	0.000E+00	NOT IDENT.
W-181	3.776E-01	4.227E-01	6.842E-01	0.000E+00	NOT IDENT.
TA-182	8.086E-02	1.938E-01	3.416E-01	0.000E+00	FAIL ABUN
RE-183	5.074E-02	1.101E-01	1.933E-01	0.000E+00	FAIL ABUN
RE-184	-5.409E-02	2.377E-01	3.968E-01	0.000E+00	NOT IDENT.
OS-185	-1.297E-02	4.223E-02	7.011E-02	0.000E+00	NOT IDENT.
RE-188	5.855E-02	1.769E-01	3.094E-01	0.000E+00	NOT IDENT.
W-188	-3.906E-01	8.060E+00	1.242E+01	0.000E+00	FAIL ABUN
IR-192	-1.014E-02	3.232E-02	5.619E-02	0.000E+00	FAIL ABUN
AU-195	1.497E-01	2.534E-01	3.989E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.437E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.094E+00	6.896E+00	1.164E+01	0.000E+00	NOT IDENT.
TL-202	8.232E-02	6.865E-02	1.273E-01	0.000E+00	NOT IDENT.
HG-203	4.139E-02	4.433E-02	7.264E-02	0.000E+00	NOT IDENT.
BI-207	2.016E-02	5.187E-02	9.304E-02	0.000E+00	FAIL ABUN
TL-207	6.090E-02	7.283E-01	1.126E+00	0.000E+00	FAIL ABUN
PO-209	5.707E+00	7.518E+00	1.334E+01	0.000E+00	NOT IDENT.
BI-210	-1.108E+00	3.109E+00	5.463E+00	0.000E+00	NOT IDENT.
PB-210	-1.108E+00	3.109E+00	5.463E+00	0.000E+00	NOT IDENT.
PO-210	-1.108E+00	3.108E+00	5.463E+00	0.000E+00	NOT IDENT.
PB-211	-2.359E-01	1.076E+00	1.588E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.669E-01	7.034E-01	0.000E+00	FAIL ABUN
PO-215	6.090E-02	7.283E-01	1.126E+00	0.000E+00	FAIL ABUN
RN-219	3.023E-01	4.022E-01	7.280E-01	0.000E+00	NOT IDENT.
RN-220	1.250E+01	2.429E+01	4.323E+01	0.000E+00	NOT IDENT.
RA-223	6.090E-02	7.283E-01	1.126E+00	0.000E+00	FAIL ABUN
AC-227	-9.208E-02	4.021E-01	6.707E-01	0.000E+00	FAIL ABUN
TH-227	-9.208E-02	4.022E-01	6.707E-01	0.000E+00	FAIL ABUN
TH-229	2.991E-02	5.300E-01	9.086E-01	0.000E+00	FAIL ABUN
PA-231	-7.345E-01	1.613E+00	2.493E+00	0.000E+00	FAIL ABUN
TH-231	6.090E-02	7.283E-01	1.126E+00	0.000E+00	FAIL ABUN
U-231	6.213E-01	1.207E+00	1.905E+00	0.000E+00	FAIL ABUN
PA-233	6.255E-02	6.249E-02	1.156E-01	0.000E+00	FAIL ABUN
PA-234	1.786E-01	3.044E-01	5.294E-01	0.000E+00	FAIL ABUN
PA-234M	-1.345E+00	4.740E+00	7.727E+00	0.000E+00	NOT IDENT.
U-235	2.627E-02	2.122E-01	3.611E-01	0.000E+00	FAIL ABUN
NP-236	-1.386E-02	8.007E-02	1.371E-01	0.000E+00	NOT IDENT.
NP-239	-1.285E-01	1.904E-01	3.239E-01	0.000E+00	FAIL ABUN
AM-241	1.926E-01	1.590E-01	2.628E-01	0.000E+00	NOT IDENT.
CM-243	2.865E-02	9.632E-02	1.709E-01	0.000E+00	FAIL ABUN
AM-246	1.134E-01	1.434E-01	2.622E-01	0.000E+00	NOT IDENT.
CM-247	2.028E-02	3.644E-02	6.404E-02	0.000E+00	FAIL ABUN
CF-249	-4.882E-03	3.934E-02	6.835E-02	0.000E+00	NOT IDENT.
CF-251	-3.477E-02	1.298E-01	2.205E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:34:45.86

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691010.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:12.
Sample ID         : G245691010           Sample quantity  : 1.36290E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.61  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1276	10.67*	1.168E+00	2.819E+01	2.819E+01	9.50
CD-109	88.03	281	3.72*	6.093E+00	3.417E+00	3.495E+00	28.56
SN-126	64.28	56	9.60	3.587E+00	4.465E-01	4.465E-01	177.18
	86.94	281	8.90	6.093E+00	1.428E+00	1.428E+00	49.52
	87.57	281	37.00*	6.093E+00	3.435E-01	3.435E-01	28.56
CS-135	268.24	148	16.00*	4.603E+00	5.541E-01	5.541E-01	44.85
TL-208	277.35	78	6.80	4.511E+00	6.980E-01	6.980E-01	79.79
	510.84	171	21.60	2.841E+00	7.690E-01	7.690E-01	42.12
	583.14	457	84.20*	2.555E+00	5.848E-01	5.848E-01	15.52
	860.37	------	12.46	1.837E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	4.857E+00	------	Line Not Found	------
	351.07	701	12.94*	3.788E+00	3.939E+00	3.939E+00	13.03
PB-212	74.81	496	10.70	5.073E+00	2.514E+00	2.514E+00	26.57
	77.11	708	18.00	5.308E+00	2.042E+00	2.042E+00	16.59
	87.30	281	8.00	6.093E+00	1.589E+00	1.589E+00	30.26
	238.63	1336	44.60*	5.016E+00	1.645E+00	1.645E+00	9.99
	300.09	111	3.41	4.261E+00	2.096E+00	2.096E+00	48.17
PO-212	74.81	496	10.70	5.073E+00	2.514E+00	2.514E+00	26.57
	77.11	708	18.00	5.308E+00	2.042E+00	2.042E+00	16.59
	87.30	281	8.00	6.093E+00	1.589E+00	1.589E+00	30.26
	115.19	------	0.60	6.866E+00	------	Line Not Found	------
	238.63	1336	44.60*	5.016E+00	1.645E+00	1.645E+00	9.99
	300.09	111	3.41	4.261E+00	2.096E+00	2.096E+00	48.17
BI-214	609.31	485	46.30*	2.464E+00	1.171E+00	1.171E+00	15.89
	1120.29	110	15.10	1.455E+00	1.378E+00	1.378E+00	38.82
	1764.49	90	15.80	1.029E+00	1.528E+00	1.528E+00	32.13
PB-214	74.81	496	6.21	5.073E+00	4.332E+00	4.332E+00	25.96
	77.11	708	10.50	5.308E+00	3.500E+00	3.500E+00	18.25
	87.30	281	4.67	6.093E+00	2.722E+00	2.722E+00	29.59
	241.98	275	7.49	4.975E+00	2.033E+00	2.033E+00	34.40
	295.21	453	19.20	4.315E+00	1.505E+00	1.505E+00	18.86
	351.92	701	37.20*	3.788E+00	1.370E+00	1.370E+00	14.03

Sample ID : G245691010 Acquisition date : 9-FEB-2010 15:33:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	74.81	496	6.21	5.073E+00	4.332E+00	4.332E+00	25.96
	77.11	708	10.50	5.308E+00	3.500E+00	3.500E+00	18.25
	87.30	281	4.67	6.093E+00	2.722E+00	2.722E+00	29.59
	241.98	275	7.49	4.975E+00	2.033E+00	2.033E+00	34.40
	295.21	453	19.20	4.315E+00	1.505E+00	1.505E+00	18.86
	351.92	701	37.20*	3.788E+00	1.370E+00	1.370E+00	14.03
PO-216	74.81	496	10.70	5.073E+00	2.514E+00	2.514E+00	26.57
	77.11	708	18.00	5.308E+00	2.042E+00	2.042E+00	16.59
	87.30	281	8.00	6.093E+00	1.589E+00	1.589E+00	30.26
	238.63	1336	44.60*	5.016E+00	1.645E+00	1.645E+00	9.99
	300.09	111	3.41	4.261E+00	2.096E+00	2.096E+00	48.17
PO-218	74.81	496	6.21	5.073E+00	4.332E+00	4.332E+00	25.96
	77.11	708	10.50	5.308E+00	3.500E+00	3.500E+00	18.25
	87.30	281	4.67	6.093E+00	2.722E+00	2.722E+00	29.59
	241.98	275	7.49	4.975E+00	2.033E+00	2.033E+00	34.40
	295.21	453	19.20	4.315E+00	1.505E+00	1.505E+00	18.86
	351.92	701	37.20*	3.788E+00	1.370E+00	1.370E+00	14.03
RA-224	240.98	275	3.95*	4.975E+00	3.855E+00	3.855E+00	33.94
RA-226	609.31	485	46.30*	2.464E+00	1.171E+00	1.171E+00	15.89
	1120.29	110	15.10	1.455E+00	1.378E+00	1.378E+00	38.82
	1764.49	90	15.80	1.029E+00	1.528E+00	1.528E+00	32.13
AC-228	338.32	229	11.40	3.902E+00	1.416E+00	1.416E+00	50.62
	911.07	296	27.70*	1.745E+00	1.688E+00	1.688E+00	20.90
	969.11	151	16.60	1.653E+00	1.516E+00	1.516E+00	33.37
RA-228	338.32	229	11.40	3.902E+00	1.416E+00	1.416E+00	50.62
	911.07	296	27.70*	1.745E+00	1.688E+00	1.688E+00	20.90
	969.11	151	16.60	1.653E+00	1.516E+00	1.516E+00	33.37
TH-228	74.81	496	10.70	5.073E+00	2.514E+00	2.553E+00	24.90
	77.11	708	18.00	5.308E+00	2.042E+00	2.073E+00	16.59
	87.30	281	8.00	6.093E+00	1.589E+00	1.613E+00	28.56
	238.63	1336	44.60*	5.016E+00	1.645E+00	1.670E+00	9.99
	300.09	111	3.41	4.261E+00	2.096E+00	2.128E+00	75.67
TH-230	609.31	485	46.30*	2.464E+00	1.171E+00	1.171E+00	15.89
	1120.29	110	15.10	1.455E+00	1.378E+00	1.378E+00	38.82
	1764.49	90	15.80	1.029E+00	1.528E+00	1.528E+00	32.13
TH-232	338.32	229	11.40	3.902E+00	1.416E+00	1.416E+00	30.56
	911.07	296	27.70*	1.745E+00	1.688E+00	1.688E+00	20.90
	969.11	151	16.60	1.653E+00	1.516E+00	1.516E+00	33.37
TH-234	63.29	56	3.80*	3.587E+00	1.128E+00	1.128E+00	177.44
	92.38	245	5.41	6.396E+00	1.954E+00	1.954E+00	41.62
U-234	609.31	485	46.30*	2.464E+00	1.171E+00	1.171E+00	15.89
	1120.29	110	15.10	1.455E+00	1.378E+00	1.378E+00	38.82
	1764.49	90	15.80	1.029E+00	1.528E+00	1.528E+00	32.13
NP-237	86.50	281	12.60*	6.093E+00	1.009E+00	1.009E+00	35.24
	95.87	------	2.60	6.515E+00	------ Line Not Found		------
U-238	63.29	56	3.80*	3.587E+00	1.128E+00	1.128E+00	177.44
	92.38	245	5.41	6.396E+00	1.954E+00	1.954E+00	38.46
AM-243	74.67	496	66.00*	5.073E+00	4.076E-01	4.076E-01	24.88
	86.72	281	0.34	6.093E+00	3.783E+01	3.783E+01	28.56

Sample ID : G245691010 Acquisition date : 9-FEB-2010 15:33:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	117.66	------	0.55	6.871E+00	------	Line Not Found	------
	142.18	------	0.13	6.659E+00	------	Line Not Found	------
ANH-511	511.00	171	100.00*	2.841E+00	1.661E-01	1.661E-01	41.28

Flag: "*" = Keyline

Sample ID : G245691010 Acquisition date : 9-FEB-2010 15:33:12

Total number of lines in spectrum 34
Number of unidentified lines 5
Number of lines tentatively identified by NID 29 85.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.819E+01	2.819E+01	0.268E+01	9.50	
CD-109	464.00D	1.02	3.417E+00	3.495E+00	0.998E+00	28.56	
SN-126	1.00E+05Y	1.00	3.435E-01	3.435E-01	0.981E-01	28.56	
CS-135	2.30E+06Y	1.00	5.541E-01	5.541E-01	2.485E-01	44.85	
TL-208	1.41E+10Y	1.00	5.848E-01	5.848E-01	0.908E-01	15.52	
BI-211	7.04E+08Y	1.00	3.939E+00	3.939E+00	0.513E+00	13.03	
PB-212	1.41E+10Y	1.00	1.645E+00	1.645E+00	0.164E+00	9.99	
PO-212	1.41E+10Y	1.00	1.645E+00	1.645E+00	0.164E+00	9.99	
BI-214	1600.00Y	1.00	1.171E+00	1.171E+00	0.186E+00	15.89	
PB-214	1600.00Y	1.00	1.370E+00	1.370E+00	0.192E+00	14.03	
PO-214	1600.00Y	1.00	1.370E+00	1.370E+00	0.192E+00	14.03	
PO-216	1.41E+10Y	1.00	1.645E+00	1.645E+00	0.164E+00	9.99	
PO-218	1600.00Y	1.00	1.370E+00	1.370E+00	0.192E+00	14.03	
RA-224	1.41E+10Y	1.00	3.855E+00	3.855E+00	1.308E+00	33.94	
RA-226	1600.00Y	1.00	1.171E+00	1.171E+00	0.186E+00	15.89	
AC-228	1.41E+10Y	1.00	1.688E+00	1.688E+00	0.353E+00	20.90	
RA-228	1.41E+10Y	1.00	1.688E+00	1.688E+00	0.353E+00	20.90	
TH-228	1.91Y	1.02	1.645E+00	1.670E+00	0.167E+00	9.99	
TH-230	4.47E+09Y	1.00	1.171E+00	1.171E+00	0.186E+00	15.89	
TH-232	1.41E+10Y	1.00	1.688E+00	1.688E+00	0.353E+00	20.90	
TH-234	4.47E+09Y	1.00	1.128E+00	1.128E+00	2.001E+00	177.44	
U-234	4.47E+09Y	1.00	1.171E+00	1.171E+00	0.186E+00	15.89	
NP-237	2.14E+06Y	1.00	1.009E+00	1.009E+00	0.355E+00	35.24	
U-238	4.47E+09Y	1.00	1.128E+00	1.128E+00	2.001E+00	177.44	
AM-243	7380.00Y	1.00	4.076E-01	4.076E-01	1.014E-01	24.88	
ANH-511	1.00E+09Y	1.00	1.661E-01	1.661E-01	0.686E-01	41.28	
	Total Activity :		6.516E+01	6.527E+01			

Grand Total Activity : 6.516E+01 6.527E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691010 Acquisition date : 9-FEB-2010 15:33:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	90.05	246	525	1.46	179.92	171	21	3.41E-02	36.2	6.25E+00	T
0	185.94	180	361	1.62	371.56	366	11	2.50E-02	45.0	5.88E+00	T
0	209.27	131	307	1.63	418.17	414	9	1.82E-02	51.3	5.47E+00	T
0	327.56	37	157	1.31	654.61	652	8	5.13E-03	****	3.99E+00	T
0	408.89	41	115	1.69	817.18	814	9	5.69E-03	****	3.38E+00	
0	569.22	177	150	2.25	1137.70	1129	21	2.46E-02	38.6	2.61E+00	T
0	727.57	88	96	1.18	1454.30	1449	11	1.23E-02	48.4	2.12E+00	T
0	795.36	36	74	0.70	1589.87	1584	11	5.00E-03	98.4	1.97E+00	T
0	861.91	60	60	1.51	1722.94	1717	14	8.32E-03	63.8	1.83E+00	
0	965.02	70	72	1.94	1929.15	1921	13	9.65E-03	55.6	1.66E+00	T
5	1582.11	36	1	2.95	3163.70	3158	35	5.04E-03	37.4	1.10E+00	
5	1584.69	12	1	1.42	3168.87	3158	35	1.72E-03	82.1	1.10E+00	
5	1588.98	33	5	3.24	3177.46	3158	35	4.54E-03	61.4	1.10E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:34:50.37

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691010.CNF;1  *
* Acquisition date : 9-FEB-2010 15:33:12.  Detector SN#    :                *
* Detector ID      : GAM19                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.61         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 25-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245691010            Analyst initials: MJH1           *
* Batch Number     : 947037                Sample Quantity : 1.36290E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.819E+01	2.678E+00	4.789E-01	3.567E-02	58.869
CD-109	3.495E+00	9.984E-01	1.323E+00	1.185E-01	2.642
SN-126	3.435E-01	9.813E-02	1.306E-01	1.165E-02	2.631
CS-135	5.541E-01	2.485E-01	2.384E-01	1.819E-02	2.325
TL-208	5.848E-01	9.077E-02	5.129E-02	3.488E-03	11.403
BI-211	3.939E+00	5.132E-01	3.065E-01	1.957E-02	12.853
PB-212	1.645E+00	1.642E-01	9.622E-02	6.945E-03	17.094
PO-212	1.645E+00	1.642E-01	9.622E-02	6.945E-03	17.094
BI-214	1.171E+00	1.862E-01	9.832E-02	7.731E-03	11.914
PB-214	1.370E+00	1.923E-01	1.068E-01	8.807E-03	12.828
PO-214	1.370E+00	1.923E-01	1.068E-01	8.807E-03	12.828
PO-216	1.645E+00	1.642E-01	9.622E-02	6.945E-03	17.094
PO-218	1.370E+00	1.923E-01	1.068E-01	8.807E-03	12.828
RA-224	3.855E+00	1.308E+00	1.094E+00	6.201E-02	3.523
RA-226	1.171E+00	1.862E-01	9.832E-02	7.731E-03	11.914
AC-228	1.688E+00	3.528E-01	2.185E-01	2.472E-02	7.723
RA-228	1.688E+00	3.528E-01	2.185E-01	2.472E-02	7.723
TH-228	1.670E+00	1.667E-01	9.768E-02	7.051E-03	17.094

Sample ID : G245691010 Acquisition date : 9-FEB-2010 15:33:12

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.171E+00	1.862E-01	9.832E-02	7.731E-03	11.914
TH-232	1.688E+00	3.528E-01	2.185E-01	2.472E-02	7.723
TH-234	1.128E+00	2.001E+00	2.007E+00	3.512E-01	0.562
U-234	1.171E+00	1.862E-01	9.832E-02	7.731E-03	11.914
NP-237	1.009E+00	3.555E-01	4.081E-01	9.158E-02	2.472
U-238	1.128E+00	2.001E+00	2.007E+00	3.512E-01	0.562
AM-243	4.076E-01	1.014E-01	8.947E-02	7.096E-03	4.556
ANH-511	1.661E-01	6.858E-02	4.665E-02	2.753E-03	3.561

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.657E-03		3.084E-01	5.113E-01	3.471E-02	0.015
NA-22	5.763E-03		4.209E-02	7.082E-02	4.724E-03	0.081
NA-24	-3.869E-01		3.684E-01	Half-Life too short		
AL-26	1.274E-02		2.644E-02	4.729E-02	2.761E-03	0.269
TI-44	3.767E-01	+	6.250E-02	8.337E-02	6.805E-03	4.519
SC-46	9.117E-03		4.264E-02	7.008E-02	6.090E-03	0.130
V-48	2.067E-02		7.188E-02	1.186E-01	9.539E-03	0.174
CR-51	6.401E-02		3.646E-01	6.169E-01	3.992E-02	0.104
MN-52	3.042E-02		2.261E-01	3.797E-01	2.739E-02	0.080
MN-54	1.563E-02		3.796E-02	6.350E-02	5.051E-03	0.246
CO-56	-6.785E-03		4.087E-02	6.511E-02	5.282E-03	-0.104
CO-57	-1.015E-03		2.539E-02	4.127E-02	2.463E-03	-0.025
CO-58	-3.373E-02		3.987E-02	5.943E-02	4.554E-03	-0.568
FE-59	2.388E-02		8.692E-02	1.489E-01	1.117E-02	0.160
CO-60	-2.666E-02		3.937E-02	6.015E-02	4.433E-03	-0.443
ZN-65	-6.163E-03		9.980E-02	1.427E-01	9.122E-03	-0.043
GE-68	7.878E-01		1.271E+00	2.234E+00	1.546E-01	0.353
AS-73	3.476E-01		7.783E-01	1.306E+00	9.657E-02	0.266
AS-74	8.814E-02		9.437E-02	1.646E-01	9.750E-03	0.536
SE-75	-2.138E-02		4.902E-02	6.995E-02	4.067E-03	-0.306
BR-77	9.365E-01		1.072E+01	1.733E+01	1.025E+00	0.054
SR-82	-3.827E-01		4.188E-01	6.282E-01	4.524E-02	-0.609
RB-83	1.669E-02		7.233E-02	1.147E-01	6.780E-03	0.146
RB-84	-4.604E-02		6.618E-02	9.881E-02	8.481E-03	-0.466
KR-85	1.311E+01		8.114E+00	1.316E+01	7.771E-01	0.996
SR-85	6.722E-02		4.162E-02	6.750E-02	3.986E-03	0.996
RB-86	5.176E-01		8.024E-01	1.413E+00	9.793E-02	0.366
Y-88	-7.909E-03		3.507E-02	5.474E-02	3.125E-03	-0.144
ZR-88	2.145E-03		3.005E-02	5.028E-02	2.800E-03	0.043
Y-91	-5.274E+00		1.838E+01	2.986E+01	1.743E+00	-0.177
NB-94	2.214E-03		3.362E-02	5.509E-02	3.470E-03	0.040
NB-95	-1.713E-02		4.403E-02	6.934E-02	4.900E-03	-0.247
NB-95M	4.000E-01		1.646E-01	2.554E-01	1.892E-02	1.566
ZR-95	2.788E-02		6.876E-02	1.156E-01	9.252E-03	0.241
NB-97	-9.697E-02		5.213E-02	Half-Life too short		

Sample ID : G245691010 Acquisition date : 9-FEB-2010 15:33:12

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	3.798E+00		1.016E+00	Half-Life too short		
MO-99	4.796E+00		1.161E+01	1.951E+01	2.770E+00	0.246
TC-99M	-1.223E+10		2.102E+10	Half-Life too short		
RH-101	-1.513E-02		3.523E-02	5.448E-02	2.955E-03	-0.278
RH-102	1.645E-03		2.733E-02	4.544E-02	2.652E-03	0.036
RU-103	-1.623E-02		3.842E-02	6.147E-02	7.796E-03	-0.264
RH-106	1.566E-02		3.172E-01	5.218E-01	6.150E-02	0.030
RU-106	1.566E-02		3.172E-01	5.218E-01	3.077E-02	0.030
AG-108M	-1.817E-02		3.358E-02	5.390E-02	3.357E-03	-0.337
AG-110M	-3.452E-02		3.622E-02	5.475E-02	3.397E-03	-0.631
IN-111	1.156E+00		1.200E+00	1.783E+00	1.014E-01	0.648
IN-113M	1.075E-02		4.387E-02	7.413E-02	4.423E-03	0.145
SN-113	1.075E-02		4.387E-02	7.413E-02	4.423E-03	0.145
IN-114M	-6.584E-02		2.143E-01	2.955E-01	1.588E-02	-0.223
CD-115	5.451E-01		1.030E+01	1.706E+01	1.010E+00	0.032
SN-117M	1.041E-02		5.803E-02	9.454E-02	5.032E-03	0.110
SB-122	2.322E-01		2.386E+00	3.433E+00	2.038E-01	0.068
I-123	9.434E-01		3.151E+00	Half-Life too short		
TE-123M	4.481E-03		2.993E-02	4.871E-02	2.631E-03	0.092
I-124	-2.864E-01		7.354E-01	9.999E-01	5.918E-02	-0.286
SB-124	-1.143E-02		7.078E-02	1.123E-01	7.693E-03	-0.102
SB-125	-1.094E-02		9.042E-02	1.491E-01	8.878E-03	-0.073
TE-125M	-1.694E+00		9.676E+00	1.568E+01	1.386E+00	-0.108
I-126	2.108E-02		1.942E-01	3.198E-01	1.879E-02	0.066
SB-126	-8.667E-02		1.578E-01	2.293E-01	1.493E-02	-0.378
SB-127	-1.048E+00		1.349E+00	2.051E+00	1.974E-01	-0.511
XE-127	3.299E-02		5.058E-02	8.079E-02	4.407E-03	0.408
I-131	-3.441E-02		1.088E-01	1.783E-01	1.139E-02	-0.193
TE-132	3.490E-02		7.411E-01	1.190E+00	1.700E-01	0.029
BA-133	1.834E-02		4.347E-02	6.544E-02	7.542E-03	0.280
I-133	-1.925E-03		2.992E-03	Half-Life too short		
CS-134	6.654E-02	+	6.569E-02	9.013E-02	6.777E-03	0.738
I-135	-5.977E+09		2.949E+09	Half-Life too short		
CS-136	1.080E-02		1.084E-01	1.831E-01	1.415E-02	0.059
BA-137M	-1.330E-02		3.738E-02	5.948E-02	3.464E-03	-0.224
CS-137	-1.406E-02		3.952E-02	6.288E-02	3.677E-03	-0.224
CE-139	-5.219E-03		2.953E-02	4.735E-02	2.472E-03	-0.110
BA-140	6.972E-02		2.550E-01	4.268E-01	1.389E-01	0.163
LA-140	7.258E-02		8.061E-02	1.371E-01	9.275E-03	0.529
CE-141	7.984E-03		6.485E-02	1.033E-01	5.946E-03	0.077
CE-143	1.061E-03		1.492E-04	Half-Life too short		
CE-144	8.009E-02		2.073E-01	3.413E-01	4.835E-02	0.235
PM-144	-1.219E-02		3.543E-02	5.626E-02	3.505E-03	-0.217
PR-144	-8.259E-01		2.401E+00	3.813E+00	2.374E-01	-0.217
PM-146	2.945E-02		4.352E-02	7.505E-02	6.463E-03	0.392
ND-147	-3.147E-01		5.484E-01	8.632E-01	1.172E-01	-0.365
PM-149	-2.070E+01		8.977E+01	1.493E+02	2.117E+01	-0.139
EU-152	-1.673E-01		1.316E-01	1.454E-01	9.462E-03	-1.151

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	6.566E-02		8.947E-02	1.318E-01	1.025E-02	0.498
EU-154	-5.839E-03		1.188E-01	1.962E-01	1.942E-02	-0.030
EU-155	3.912E-03		1.124E-01	1.838E-01	1.322E-02	0.021
TB-160	-4.092E-02		1.244E-01	1.935E-01	1.655E-02	-0.211
HO-166M	-2.765E-02		6.167E-02	9.683E-02	6.202E-03	-0.286
TM-171	-1.783E+01		3.285E+01	4.633E+01	3.522E+00	-0.385
LU-176	-8.931E-03		2.600E-02	4.178E-02	2.430E-03	-0.214
LU-177	2.874E+00	+	1.483E+00	2.098E+00	1.152E-01	1.370
LU-177M	-2.182E-02		1.978E-01	2.832E-01	1.601E-02	-0.077
HF-181	5.306E-03		4.168E-02	6.955E-02	4.070E-03	0.076
W-181	3.776E-01		4.314E-01	6.442E-01	4.875E-02	0.586
TA-182	8.086E-02		1.978E-01	3.395E-01	2.047E-02	0.238
RE-183	5.074E-02		1.124E-01	1.849E-01	9.743E-03	0.274
RE-184	-5.409E-02		2.425E-01	3.828E-01	2.188E-02	-0.141
OS-185	-1.297E-02		4.309E-02	6.884E-02	4.031E-03	-0.188
RE-188	5.855E-02		1.805E-01	2.958E-01	1.590E-02	0.198
W-188	-3.906E-01		8.224E+00	1.201E+01	6.977E-01	-0.033
IR-192	-1.014E-02		3.298E-02	5.443E-02	3.180E-03	-0.186
AU-195	1.497E-01		2.586E-01	3.783E-01	2.887E-02	0.396
TL-200	-5.050E-05		2.264E-04	Half-Life too short		
TL-201	-3.094E+00		7.037E+00	1.115E+01	5.825E-01	-0.278
TL-202	8.232E-02		7.005E-02	1.241E-01	7.128E-03	0.663
HG-203	4.139E-02		4.524E-02	7.020E-02	4.317E-03	0.590
BI-207	2.016E-02		5.293E-02	9.222E-02	6.549E-03	0.219
TL-207	6.090E-02		7.431E-01	1.091E+00	1.802E-01	0.056
PO-209	5.707E+00		7.671E+00	1.318E+01	1.158E+00	0.433
BI-210	-1.108E+00		3.172E+00	5.114E+00	3.898E-01	-0.217
PB-210	-1.108E+00		3.172E+00	5.114E+00	3.898E-01	-0.217
PO-210	-1.108E+00		3.172E+00	5.114E+00	3.333E-01	-0.217
PB-211	-2.359E-01		1.098E+00	1.545E+00	9.631E-01	-0.153
BI-212	9.710E-01	+	4.764E-01	6.921E-01	5.762E-02	1.403
PO-215	6.090E-02		7.431E-01	1.091E+00	1.802E-01	0.056
RN-219	3.023E-01		4.104E-01	7.084E-01	9.580E-02	0.427
RN-220	1.250E+01		2.479E+01	4.231E+01	2.511E+00	0.295
RA-223	6.090E-02		7.431E-01	1.091E+00	1.802E-01	0.056
AC-227	-9.208E-02		4.103E-01	6.472E-01	9.016E-02	-0.142
TH-227	-9.208E-02		4.104E-01	6.472E-01	1.092E-01	-0.142
TH-229	2.991E-02		5.408E-01	8.723E-01	4.707E-02	0.034
PA-231	-7.345E-01		1.646E+00	2.410E+00	3.321E-01	-0.305
TH-231	6.090E-02		7.431E-01	1.091E+00	1.802E-01	0.056
U-231	6.213E-01		1.231E+00	1.806E+00	1.435E-01	0.344
PA-233	6.255E-02		6.377E-02	1.119E-01	6.911E-03	0.559
PA-234	1.786E-01		3.106E-01	5.235E-01	9.773E-02	0.341
PA-234M	-1.345E+00		4.837E+00	7.650E+00	7.121E-01	-0.176
U-235	2.627E-02		2.165E-01	3.448E-01	5.590E-02	0.076
NP-236	-1.386E-02		8.171E-02	1.312E-01	6.951E-03	-0.106
NP-239	-1.285E-01		1.943E-01	3.081E-01	1.927E-02	-0.417
AM-241	1.926E-01		1.623E-01	2.471E-01	2.034E-02	0.779

Sample ID : G245691010 Acquisition date : 9-FEB-2010 15:33:12

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.865E-02		9.829E-02	1.622E-01	1.167E-02	0.177
AM-246	1.134E-01		1.464E-01	2.600E-01	1.794E-02	0.436
CM-247	2.028E-02		3.718E-02	6.231E-02	3.495E-03	0.325
CF-249	-4.882E-03		4.014E-02	6.646E-02	3.712E-03	-0.073
CF-251	-3.477E-02		1.325E-01	2.114E-01	1.117E-02	-0.165

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691010           *
* Acquisition date :  9-FEB-2010 15:33:12 Detector SN#    :                 *
* Detector ID       : GAM19               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.61     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691010           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.3629E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.819E+01	2.625E+00	2.402E-01	1.339E+00
CD-109	3.495E+00	9.785E-01	6.992E-01	4.992E-01
SN-126	3.435E-01	9.617E-02	6.902E-02	4.907E-02
CS-135	5.541E-01	2.436E-01	1.235E-01	1.243E-01
TL-208	5.848E-01	8.896E-02	2.618E-02	4.539E-02
BI-211	3.939E+00	5.029E-01	1.580E-01	2.566E-01
PB-212	1.645E+00	1.610E-01	4.995E-02	8.212E-02
PO-212	1.645E+00	1.610E-01	4.995E-02	8.212E-02
BI-214	1.171E+00	1.825E-01	5.016E-02	9.309E-02
PB-214	1.370E+00	1.885E-01	5.506E-02	9.615E-02
PO-214	1.370E+00	1.885E-01	5.506E-02	9.615E-02
PO-216	1.645E+00	1.610E-01	4.995E-02	8.212E-02
PO-218	1.370E+00	1.885E-01	5.506E-02	9.615E-02
RA-224	3.855E+00	1.282E+00	5.680E-01	6.542E-01
RA-226	1.171E+00	1.825E-01	5.016E-02	9.309E-02
AC-228	1.688E+00	3.457E-01	1.106E-01	1.764E-01
RA-228	1.688E+00	3.457E-01	1.106E-01	1.764E-01
TH-228	1.670E+00	1.634E-01	5.071E-02	8.337E-02
TH-230	1.171E+00	1.825E-01	5.016E-02	9.309E-02
TH-232	1.688E+00	3.457E-01	1.106E-01	1.764E-01
TH-234	1.128E+00	1.961E+00	1.067E+00	1.001E+00
U-234	1.171E+00	1.825E-01	5.016E-02	9.309E-02
NP-237	1.009E+00	3.484E-01	2.158E-01	1.777E-01
U-238	1.128E+00	1.961E+00	1.067E+00	1.001E+00
AM-243	4.076E-01	9.937E-02	4.742E-02	5.070E-02
ANH-511	1.661E-01	6.720E-02	2.388E-02	3.429E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	7.657E-03	3.022E-01	2.620E-01	1.542E-01 NOT IDENT.

NA-22	5.763E-03	4.125E-02	3.562E-02	2.105E-02	NOT IDENT.
NA-24	-3.869E+05	7.220E+05	0.000E+00	3.684E+05	SHORT HLIF
AL-26	1.274E-02	2.591E-02	2.362E-02	1.322E-02	NOT IDENT.
TI-44	3.767E-01	6.125E-02	4.415E-02	3.125E-02	FAIL ABUN
SC-46	9.117E-03	4.179E-02	3.549E-02	2.132E-02	FAIL ABUN
V-48	2.067E-02	7.044E-02	5.997E-02	3.594E-02	NOT IDENT.
CR-51	6.401E-02	3.573E-01	3.185E-01	1.823E-01	NOT IDENT.
MN-52	3.042E-02	2.215E-01	1.905E-01	1.130E-01	NOT IDENT.
MN-54	1.563E-02	3.720E-02	3.220E-02	1.898E-02	NOT IDENT.
CO-56	-6.785E-03	4.005E-02	3.301E-02	2.043E-02	NOT IDENT.
CO-57	-1.015E-03	2.489E-02	2.168E-02	1.270E-02	NOT IDENT.
CO-58	-3.373E-02	3.907E-02	3.015E-02	1.993E-02	NOT IDENT.
FE-59	2.388E-02	8.519E-02	7.508E-02	4.346E-02	NOT IDENT.
CO-60	-2.666E-02	3.858E-02	3.023E-02	1.969E-02	NOT IDENT.
ZN-65	-6.163E-03	9.780E-02	7.194E-02	4.990E-02	NOT IDENT.
GE-68	7.878E-01	1.246E+00	1.127E+00	6.355E-01	NOT IDENT.
AS-73	3.476E-01	7.627E-01	6.962E-01	3.891E-01	NOT IDENT.
AS-74	8.814E-02	9.248E-02	8.400E-02	4.718E-02	NOT IDENT.
SE-75	-2.138E-02	4.804E-02	3.624E-02	2.451E-02	NOT IDENT.
BR-77	9.365E-01	1.050E+01	8.867E+00	5.359E+00	FAIL ABUN
SR-82	-3.827E-01	4.105E-01	3.190E-01	2.094E-01	NOT IDENT.
RB-83	1.669E-02	7.089E-02	5.868E-02	3.617E-02	NOT IDENT.
RB-84	-4.604E-02	6.486E-02	5.005E-02	3.309E-02	NOT IDENT.
KR-85	1.311E+01	7.952E+00	6.736E+00	4.057E+00	NOT IDENT.
SR-85	6.722E-02	4.078E-02	3.455E-02	2.081E-02	NOT IDENT.
RB-86	5.176E-01	7.864E-01	7.132E-01	4.012E-01	NOT IDENT.
Y-88	-7.909E-03	3.437E-02	2.733E-02	1.753E-02	NOT IDENT.
ZR-88	2.145E-03	2.945E-02	2.586E-02	1.502E-02	NOT IDENT.
Y-91	-5.274E+00	1.801E+01	1.503E+01	9.189E+00	NOT IDENT.
NB-94	2.214E-03	3.295E-02	2.803E-02	1.681E-02	NOT IDENT.
NB-95	-1.713E-02	4.315E-02	3.522E-02	2.201E-02	NOT IDENT.
NB-95M	4.000E-01	1.613E-01	1.326E-01	8.231E-02	NOT IDENT.
ZR-95	2.788E-02	6.739E-02	5.872E-02	3.438E-02	NOT IDENT.
NB-97	-9.697E+04	1.022E+05	0.000E+00	5.213E+04	SHORT HLIF
ZR-97	3.798E+06	1.990E+06	0.000E+00	1.016E+06	SHORT HLIF
MO-99	4.796E+00	1.138E+01	9.914E+00	5.805E+00	NOT IDENT.
TC-99M	-1.223E+16	4.120E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.513E-02	3.452E-02	2.838E-02	1.761E-02	NOT IDENT.
RH-102	1.645E-03	2.678E-02	2.329E-02	1.367E-02	NOT IDENT.
RU-103	-1.623E-02	3.765E-02	3.148E-02	1.921E-02	FAIL ABUN
RH-106	1.566E-02	3.109E-01	2.661E-01	1.586E-01	FAIL ABUN
RU-106	1.566E-02	3.109E-01	2.661E-01	1.586E-01	FAIL ABUN
AG-108M	-1.817E-02	3.291E-02	2.767E-02	1.679E-02	NOT IDENT.
AG-110M	-3.452E-02	3.549E-02	2.789E-02	1.811E-02	NOT IDENT.
IN-111	1.156E+00	1.176E+00	9.254E-01	6.000E-01	NOT IDENT.
IN-113M	1.075E-02	4.300E-02	3.813E-02	2.194E-02	NOT IDENT.
SN-113	1.075E-02	4.300E-02	3.813E-02	2.194E-02	NOT IDENT.
IN-114M	-6.584E-02	2.100E-01	1.541E-01	1.071E-01	NOT IDENT.
CD-115	5.451E-01	1.010E+01	8.725E+00	5.151E+00	NOT IDENT.
SN-117M	1.041E-02	5.687E-02	4.945E-02	2.902E-02	NOT IDENT.
SB-122	2.322E-01	2.338E+00	1.754E+00	1.193E+00	NOT IDENT.
I-123	9.434E+05	6.176E+06	0.000E+00	3.151E+06	SHORT HLIF
TE-123M	4.481E-03	2.934E-02	2.547E-02	1.497E-02	NOT IDENT.
I-124	-2.864E-01	7.207E-01	5.102E-01	3.677E-01	NOT IDENT.
SB-124	-1.143E-02	6.936E-02	5.618E-02	3.539E-02	FAIL ABUN
SB-125	-1.094E-02	8.861E-02	7.658E-02	4.521E-02	NOT IDENT.
TE-125M	-1.694E+00	9.482E+00	8.257E+00	4.838E+00	NOT IDENT.
I-126	2.108E-02	1.903E-01	1.629E-01	9.712E-02	NOT IDENT.
SB-126	-8.667E-02	1.546E-01	1.166E-01	7.889E-02	FAIL ABUN
SB-127	-1.048E+00	1.322E+00	1.044E+00	6.744E-01	NOT IDENT.
XE-127	3.299E-02	4.957E-02	4.206E-02	2.529E-02	NOT IDENT.
I-131	-3.441E-02	1.066E-01	9.185E-02	5.440E-02	NOT IDENT.
TE-132	3.490E-02	7.263E-01	6.181E-01	3.706E-01	NOT IDENT.
BA-133	1.834E-02	4.260E-02	3.372E-02	2.174E-02	FAIL ABUN
I-133	-1.925E+03	5.865E+03	0.000E+00	2.992E+03	SHORT HLIF
CS-134	6.654E-02	6.437E-02	4.575E-02	3.284E-02	FAIL ABUN
I-135	-5.977E+15	5.780E+15	0.000E+00	2.949E+15	SHORT HLIF
CS-136	1.080E-02	1.062E-01	9.245E-02	5.418E-02	FAIL ABUN
BA-137M	-1.330E-02	3.663E-02	3.030E-02	1.869E-02	NOT IDENT.
CS-137	-1.406E-02	3.873E-02	3.203E-02	1.976E-02	NOT IDENT.
CE-139	-5.219E-03	2.894E-02	2.475E-02	1.477E-02	NOT IDENT.
BA-140	6.972E-02	2.499E-01	2.182E-01	1.275E-01	NOT IDENT.
LA-140	7.258E-02	7.900E-02	6.865E-02	4.031E-02	FAIL ABUN
CE-141	7.984E-03	6.355E-02	5.409E-02	3.243E-02	NOT IDENT.
CE-143	1.061E+03	2.925E+02	0.000E+00	1.492E+02	SHORT HLIF
CE-144	8.009E-02	2.032E-01	1.791E-01	1.036E-01	NOT IDENT.
PM-144	-1.219E-02	3.473E-02	2.863E-02	1.772E-02	NOT IDENT.
PR-144	-8.259E-01	2.353E+00	1.940E+00	1.201E+00	NOT IDENT.

PM-146	2.945E-02	4.265E-02	3.850E-02	2.176E-02	NOT IDENT.
ND-147	-3.147E-01	5.374E-01	4.415E-01	2.742E-01	FAIL ABUN
PM-149	-2.070E+01	8.798E+01	7.727E+01	4.489E+01	NOT IDENT.
EU-152	-1.673E-01	1.290E-01	7.496E-02	6.581E-02	FAIL ABUN
GD-153	6.566E-02	8.768E-02	6.956E-02	4.473E-02	NOT IDENT.
EU-154	-5.839E-03	1.164E-01	9.870E-02	5.938E-02	NOT IDENT.
EU-155	3.912E-03	1.102E-01	9.685E-02	5.622E-02	FAIL ABUN
TB-160	-4.092E-02	1.219E-01	9.802E-02	6.219E-02	FAIL ABUN
HO-166M	-2.765E-02	6.044E-02	4.925E-02	3.084E-02	NOT IDENT.
TM-171	-1.783E+01	3.219E+01	2.461E+01	1.643E+01	NOT IDENT.
LU-176	-8.931E-03	2.548E-02	2.159E-02	1.300E-02	FAIL ABUN
LU-177	2.874E+00	1.453E+00	1.092E+00	7.416E-01	FAIL ABUN
LU-177M	-2.182E-02	1.939E-01	1.455E-01	9.892E-02	FAIL ABUN
HF-181	5.306E-03	4.085E-02	3.564E-02	2.084E-02	NOT IDENT.
W-181	3.776E-01	4.227E-01	3.423E-01	2.157E-01	NOT IDENT.
TA-182	8.086E-02	1.938E-01	1.709E-01	9.889E-02	FAIL ABUN
RE-183	5.074E-02	1.101E-01	9.669E-02	5.618E-02	FAIL ABUN
RE-184	-5.409E-02	2.377E-01	1.985E-01	1.213E-01	NOT IDENT.
OS-185	-1.297E-02	4.223E-02	3.508E-02	2.155E-02	NOT IDENT.
RE-188	5.855E-02	1.769E-01	1.548E-01	9.026E-02	NOT IDENT.
W-188	-3.906E-01	8.060E+00	6.214E+00	4.112E+00	FAIL ABUN
IR-192	-1.014E-02	3.232E-02	2.811E-02	1.649E-02	FAIL ABUN
AU-195	1.497E-01	2.534E-01	1.995E-01	1.293E-01	FAIL ABUN
TL-200	-5.050E+01	4.437E+02	0.000E+00	2.264E+02	SHORT HLIF
TL-201	-3.094E+00	6.896E+00	5.825E+00	3.518E+00	NOT IDENT.
TL-202	8.232E-02	6.865E-02	6.371E-02	3.503E-02	NOT IDENT.
HG-203	4.139E-02	4.433E-02	3.634E-02	2.262E-02	NOT IDENT.
BI-207	2.016E-02	5.187E-02	4.655E-02	2.646E-02	FAIL ABUN
TL-207	6.090E-02	7.283E-01	5.632E-01	3.716E-01	FAIL ABUN
PO-209	5.707E+00	7.518E+00	6.672E+00	3.836E+00	NOT IDENT.
BI-210	-1.108E+00	3.109E+00	2.733E+00	1.586E+00	NOT IDENT.
PB-210	-1.108E+00	3.109E+00	2.733E+00	1.586E+00	NOT IDENT.
PO-210	-1.108E+00	3.108E+00	2.733E+00	1.586E+00	NOT IDENT.
PB-211	-2.359E-01	1.076E+00	7.944E-01	5.488E-01	NOT IDENT.
BI-212	9.710E-01	4.669E-01	3.519E-01	2.382E-01	FAIL ABUN
PO-215	6.090E-02	7.283E-01	5.632E-01	3.716E-01	FAIL ABUN
RN-219	3.023E-01	4.022E-01	3.642E-01	2.052E-01	NOT IDENT.
RN-220	1.250E+01	2.429E+01	2.163E+01	1.239E+01	NOT IDENT.
RA-223	6.090E-02	7.283E-01	5.632E-01	3.716E-01	FAIL ABUN
AC-227	-9.208E-02	4.021E-01	3.356E-01	2.051E-01	FAIL ABUN
TH-227	-9.208E-02	4.022E-01	3.356E-01	2.052E-01	FAIL ABUN
TH-229	2.991E-02	5.300E-01	4.546E-01	2.704E-01	FAIL ABUN
PA-231	-7.345E-01	1.613E+00	1.247E+00	8.232E-01	FAIL ABUN
TH-231	6.090E-02	7.283E-01	5.632E-01	3.716E-01	FAIL ABUN
U-231	6.213E-01	1.207E+00	9.533E-01	6.157E-01	FAIL ABUN
PA-233	6.255E-02	6.249E-02	5.783E-02	3.188E-02	FAIL ABUN
PA-234	1.786E-01	3.044E-01	2.648E-01	1.553E-01	FAIL ABUN
PA-234M	-1.345E+00	4.740E+00	3.866E+00	2.418E+00	NOT IDENT.
U-235	2.627E-02	2.122E-01	1.806E-01	1.082E-01	FAIL ABUN
NP-236	-1.386E-02	8.007E-02	6.861E-02	4.085E-02	NOT IDENT.
NP-239	-1.285E-01	1.904E-01	1.620E-01	9.716E-02	FAIL ABUN
AM-241	1.926E-01	1.590E-01	1.315E-01	8.114E-02	NOT IDENT.
CM-243	2.865E-02	9.632E-02	8.549E-02	4.914E-02	FAIL ABUN
AM-246	1.134E-01	1.434E-01	1.312E-01	7.318E-02	NOT IDENT.
CM-247	2.028E-02	3.644E-02	3.204E-02	1.859E-02	FAIL ABUN
CF-249	-4.882E-03	3.934E-02	3.419E-02	2.007E-02	NOT IDENT.
CF-251	-3.477E-02	1.298E-01	1.103E-01	6.624E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	352.7703
46.50	352.7703
46.50	352.7703
48.70	356.6337
49.72	379.5052
51.35	390.9821
52.39	359.1565
52.97	370.1666
53.15	370.2430
53.44	366.4456
54.07	378.4727
56.28	424.6188
56.28	431.5009
57.37	0.0000
57.53	436.0287
57.53	436.0300
57.60	436.0621
57.98	423.1590
57.98	423.1590
59.32	402.3557
59.32	402.3557
59.40	375.5640
59.54	375.6206
59.72	375.6925
60.01	437.3909
61.10	461.6083
61.14	461.6270
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63.00	465.6919
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63.29	465.8314
63.58	453.2910
64.28	500.6039
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65.20	546.1194
65.20	546.1194
66.05	556.1227
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66.83	574.0504
66.91	572.5063
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67.20	572.6711
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68.90	565.6686
69.30	565.8918
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83.78	592.3869
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86.50	589.4739
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86.72	589.5872
86.79	589.6205
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88.03	532.0756
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88.47	532.2759
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92.38	534.0303
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94.67	425.5858
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94.90	404.4652
94.90	404.4652
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98.44	377.8212
98.88	359.9559
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99.55	377.6876
99.86	369.5934
100.00	368.4650
100.10	368.4952
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103.76	368.5288
105.00	382.2400
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108.00	392.3889
109.28	398.9535

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111.00	378.8243
111.76	362.5150
112.95	377.3071
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116.30	372.0169
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117.00	372.2059
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122.06	332.9749
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122.32	327.8322
122.32	327.8322
123.07	349.8735
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136.25	354.0850
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144.24	345.3718
144.24	345.3718
144.24	345.3718
145.22	336.0772
145.44	332.9524
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152.43	335.4800
152.70	349.3391
153.22	359.0115
154.21	374.1101
154.21	374.1101
154.21	374.1101
154.21	374.1101
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163.35	309.9260
163.89	316.4399
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167.43	312.8164
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171.86	284.6235
172.10	297.5522
176.55	315.5419
176.60	326.3205
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184.41	313.2590
185.71	314.9977
186.00	315.0487
190.27	314.2666
192.34	330.2618
193.63	319.6200
197.04	313.6685
198.01	314.9185
198.60	325.9180
200.40	330.5925
201.83	292.6241
202.84	288.4096
205.31	323.7839

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208.81	315.6021
209.75	292.9492
209.75	292.9492
210.97	298.3986
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216.55	288.2396
218.09	285.1604
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226.40	287.4377
227.00	277.5703
227.08	277.5818
227.20	283.1270
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228.18	276.6228
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236.00	302.1007
236.00	302.1007
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238.63	282.4615
238.63	282.4615
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241.98	263.7497
241.98	263.7497
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245.39	196.3417
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248.90	253.6483
249.79	234.7488
252.40	202.5741
252.85	227.2429
252.85	227.2429
254.15	0.0000
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256.20	241.0434
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260.90	219.0834
262.80	227.8887
264.65	214.5727
268.24	189.3640
268.79	197.4275
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277.60	190.1382
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279.20	188.7589
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281.68	179.8897
283.67	194.5234
284.30	193.7109
285.00	192.5572
285.90	195.3555
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286.10	195.3739
287.40	179.2443
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290.67	198.7841
290.80	206.3823
291.72	212.5350
293.26	0.0000
293.70	200.5540
295.21	145.9492
295.21	145.9492

295.21	145.9492
295.96	145.9941
296.50	146.0273
297.23	146.0723
298.57	146.1523
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299.80	143.1802
300.09	143.1974
300.09	143.1974
300.09	143.1974
300.09	143.1974
300.12	143.1993
301.29	184.4196
302.84	187.5855
303.76	183.0786
303.91	183.0908
304.40	181.6014
304.40	181.6014
304.84	186.2118
306.84	200.6205
308.46	177.0078
311.98	158.8909
316.51	167.4591
318.01	150.0667
319.02	163.0206
319.41	159.3608
320.08	166.7732
323.87	173.7899
323.87	173.7899
323.87	173.7899
323.87	173.7899
325.23	178.4982
328.77	182.1336
333.44	213.0280
334.20	196.8764
334.20	196.8764
334.30	196.8842
338.28	160.8412
338.28	160.8412
338.28	160.8412
338.28	160.8412
338.32	160.8433
338.32	160.8433
338.32	160.8433
340.50	162.5244
340.57	162.5287
344.27	195.3062
345.85	138.0376
350.59	0.0000
351.07	137.9966
351.92	138.0400
351.92	138.0400
351.92	138.0400
355.39	0.0000
356.01	116.7648
364.48	136.8037
366.43	134.0887
367.43	141.6399
367.94	0.0000
369.80	122.0464
374.96	148.6072
383.85	150.0213
387.95	149.2919
388.63	162.5581
391.69	135.2949
391.69	135.2949
392.90	135.3508
398.62	137.5146
400.65	120.5275
401.10	119.5970
401.81	127.2215
402.60	127.6779
404.84	150.4804
410.95	130.1570
411.60	123.8348
413.65	133.4512
414.70	130.3205
415.30	130.8013

415.76	118.0459
417.63	0.0000
418.52	125.0769
423.70	127.2040
427.08	124.4728
427.89	125.4638
432.53	134.2869
433.93	140.1062
439.47	106.7101
439.56	106.7142
439.89	112.4940
443.98	132.8604
444.90	122.3057
445.03	108.8273
445.03	108.8273
445.03	108.8273
445.03	108.8273
453.90	109.1349
463.38	116.2412
468.07	117.3798
473.00	102.9851
475.06	99.1624
475.35	96.2543
476.78	99.2147
477.59	104.1030
477.96	102.1686
482.03	105.2183
484.57	102.3750
487.03	115.1350
490.36	0.0000
492.35	98.7056
497.08	101.7821
507.63	0.0000
510.53	0.0000
510.84	107.1099
511.00	107.1146
511.85	107.1405
511.85	107.1405
513.99	99.9956
513.99	99.9956
520.41	97.3083
520.65	99.6423
527.90	88.8772
528.96	0.0000
529.64	98.8013
529.87	0.0000
531.02	102.7939
537.32	92.0873
543.00	97.1937
546.56	0.0000
549.76	81.4795
552.65	100.4378
555.20	97.5239
563.23	99.7363
563.90	98.0909
568.70	82.9048
569.32	82.9189
569.50	82.9230
569.67	82.9271
573.80	78.3525
574.00	78.3563
574.64	87.5406
578.91	80.1289
579.30	0.0000
583.14	74.2042
585.48	70.2375
591.81	94.4773
592.07	94.4842
593.00	93.5018
595.88	87.5374
600.56	89.6605
602.52	0.0000
602.71	97.4384
602.71	97.4384
603.60	82.3386
604.41	95.8025
604.70	102.5329
609.31	76.7403

609.31	76.7403
609.31	76.7403
609.31	76.7403
610.33	76.7607
612.46	82.5280
614.37	96.0507
618.01	83.4910
621.84	87.1191
621.84	87.1191
631.29	72.0990
633.02	78.2257
633.10	78.2276
634.78	82.3250
635.90	72.1822
636.97	73.2199
645.85	93.7677
646.12	89.6973
656.30	79.7063
657.75	106.3131
657.90	0.0000
661.65	102.3242
661.65	102.3242
664.57	0.0000
666.33	100.3926
666.33	100.3926
675.00	85.2067
677.61	93.4794
685.20	88.5048
692.80	83.5115
695.00	83.5560
696.49	97.0018
696.49	97.0018
697.00	93.9171
697.49	97.0247
698.33	98.0754
698.50	98.0801
699.00	96.0266
702.63	86.8075
706.10	86.8793
706.58	0.0000
706.67	94.1326
709.31	74.5242
711.68	90.1011
713.82	93.2542
717.42	71.5555
720.50	93.4014
721.93	0.0000
722.20	107.2815
722.78	107.2941
722.78	107.2941
722.89	107.2966
722.95	107.2991
723.30	105.5760
724.18	102.1361
727.18	60.2854
733.00	57.2438
735.90	65.6147
739.58	68.7973
742.81	65.7178
744.21	58.4350
747.13	60.5630
751.79	76.3060
752.31	59.5884
753.82	53.3346
755.35	60.6749
756.15	65.9177
756.87	69.0680
763.93	96.4293
765.79	97.5183
766.42	101.7269
766.84	112.2246
776.49	100.9055
778.00	83.0638
778.57	73.6111
778.89	71.5129
783.80	80.0115
785.46	62.1373
792.07	73.8298

795.84	73.8914
796.30	75.6577
798.80	73.9375
801.93	89.8435
805.60	57.1219
810.29	68.8276
810.76	79.4257
815.85	64.6695
817.79	63.6357
818.51	61.5245
819.60	68.9657
826.30	73.3142
828.27	0.0000
831.60	75.5242
831.96	76.5949
834.83	71.3184
836.80	0.0000
846.75	72.5654
848.13	54.4390
856.28	0.0000
856.80	67.7262
860.37	73.1280
867.32	48.2267
867.82	51.8038
871.10	51.4816
873.19	48.2849
874.81	47.2270
875.33	0.0000
876.40	57.9801
879.36	51.5684
880.27	60.1740
880.51	59.1035
881.50	61.2639
883.24	65.5869
884.67	62.3797
889.25	68.8969
896.60	56.0612
898.02	71.1756
899.00	76.5833
903.28	61.1754
911.07	68.1172
911.07	68.1172
911.07	68.1172
919.63	54.1541
920.93	59.5842
925.00	72.6433
925.24	72.6466
926.50	65.0728
935.52	69.5344
937.48	72.8216
944.10	67.4734
946.00	55.5235
949.00	62.0919
962.29	47.3250
964.01	71.0112
966.15	21.8584
968.20	21.8672
969.11	61.9681
969.11	61.9681
969.11	61.9681
977.42	54.7632
980.50	54.7961
983.50	54.8267
989.30	41.7137
996.32	56.0589
1001.03	60.5081
1001.68	49.5132
1004.76	65.1382
1021.30	0.0000
1024.50	0.0000
1034.80	52.5840
1036.00	62.7456
1037.82	69.2291
1038.57	63.6992
1038.76	0.0000
1045.16	65.6236
1046.59	72.1125
1048.07	60.1097

1050.47	71.2382
1050.47	71.2382
1062.04	70.4583
1063.62	52.8600
1076.63	54.8396
1077.35	55.7764
1078.86	54.8636
1085.78	62.3790
1099.22	53.1940
1112.02	58.9241
1112.84	57.7291
1115.52	64.1741
1120.29	66.5018
1120.29	66.5018
1120.29	66.5018
1120.29	66.5018
1120.51	66.5047
1121.28	66.5134
1124.00	0.0000
1129.67	78.8047
1131.51	0.0000
1147.95	0.0000
1167.94	64.2093
1173.22	60.4870
1175.09	51.9967
1177.93	71.8840
1189.05	68.2266
1204.90	70.3054
1205.75	0.0000
1213.00	61.8368
1221.42	68.5898
1230.97	76.3314
1235.34	92.6149
1236.41	0.0000
1238.25	73.5535
1246.25	64.0857
1260.41	0.0000
1271.85	48.9808
1274.45	50.9211
1274.54	48.0408
1291.56	37.5718
1298.22	0.0000
1312.09	35.7594
1325.50	27.1170
1325.50	27.1170
1332.49	46.5352
1333.61	48.4823
1360.21	36.0229
1362.66	0.0000
1365.15	27.2811
1368.21	36.0666
1368.53	0.0000
1376.25	26.3507
1384.27	44.9462
1394.10	18.5926
1395.20	20.5522
1407.95	27.4554
1434.06	26.5759
1436.60	21.6625
1457.56	0.0000
1460.81	21.7386
1489.15	15.8737
1509.49	23.8789
1596.49	12.0830
1620.62	17.1729
1678.03	0.0000
1691.02	16.3125
1691.02	16.3125
1706.46	0.0000
1750.46	0.0000
1764.49	15.4370
1764.49	15.4370
1764.49	15.4370
1764.49	15.4370
1770.23	10.5929
1771.40	10.5942
1791.20	0.0000
1808.65	9.3131

1836.01 17.6502

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691010

Total Uranium Activity	3.3676E+00	ug/g
Total Uranium Counting Unc.	5.8358E+00	ug/g
Total Uranium Tpu	2.9774E-06	ug/g
Total Uranium Mda	3.1754E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691010       *
*   ANALYST       : MJH1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 15:33:12.42    SAMPLE ALQT:  136.290 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.422E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.465E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.777E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.837E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:36:20.89

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691011.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:35.
Sample ID         : G245691011           Sample quantity  : 1.34150E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:33.74  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.62*	91	552	0.99	127.23	123	8	1.26E-02	47.4	
2	7	73.49	122	669	2.00	146.94	143	16	1.69E-02	40.4	3.79E+00
3	7	75.01	571	555	1.09	149.96	143	16	7.93E-02	8.3	
4	7	77.22*	892	437	1.08	154.37	143	16	1.24E-01	5.2	
5	3	84.14*	94	577	1.22	168.20	164	29	1.30E-02	41.4	1.94E+00
6	3	87.39	373	514	1.23	174.69	164	29	5.18E-02	11.0	
7	3	90.08	176	319	0.80	180.06	164	29	2.44E-02	17.2	
8	3	93.02*	322	441	1.30	185.93	164	29	4.47E-02	14.2	
9	0	128.46	134	579	1.28	256.70	251	12	1.86E-02	36.8	
10	0	186.37*	291	483	1.63	372.37	366	14	4.04E-02	17.5	
11	0	209.47	153	338	1.07	418.50	414	10	2.12E-02	24.1	
12	5	238.68*	1506	251	1.09	476.85	472	17	2.09E-01	3.2	2.62E+00
13	5	241.50	371	335	1.94	482.49	472	17	5.15E-02	14.7	
14	0	269.85	209	279	1.59	539.12	532	13	2.90E-02	17.9	
15	0	295.30	432	210	1.23	589.96	585	10	6.00E-02	7.9	
16	0	299.89	113	148	1.13	599.12	595	8	1.57E-02	21.0	
17	0	327.92	118	262	1.33	655.13	647	14	1.65E-02	30.4	
18	0	338.50*	277	256	1.24	676.26	671	12	3.85E-02	13.2	
19	0	352.08*	778	191	1.19	703.40	698	12	1.08E-01	5.1	
20	0	462.88	127	99	1.81	924.80	919	12	1.76E-02	18.0	
21	0	511.42*	150	168	1.79	1021.79	1016	15	2.08E-02	23.1	
22	0	583.57*	493	135	1.25	1166.00	1160	13	6.85E-02	6.7	
23	0	609.59*	560	144	1.50	1218.01	1211	16	7.78E-02	6.4	
24	0	727.43	133	87	1.75	1453.59	1447	13	1.84E-02	16.9	
25	0	768.38	83	61	3.40	1535.46	1530	11	1.15E-02	21.3	
26	0	795.69	79	73	1.51	1590.07	1584	14	1.10E-02	25.6	
27	0	861.12	69	72	1.58	1720.91	1715	12	9.53E-03	27.6	
28	0	911.73*	361	59	1.64	1822.13	1817	12	5.01E-02	6.9	
29	0	940.52	68	159	14.80	1879.72	1863	35	9.41E-03	59.1	
30	1	965.13	44	63	1.84	1928.94	1925	21	6.05E-03	31.0	1.41E+00
31	1	969.52*	187	54	1.62	1937.73	1925	21	2.60E-02	10.7	
32	0	1121.37	137	94	1.69	2241.51	2235	15	1.91E-02	18.0	
33	0	1239.40	48	93	1.56	2477.69	2470	12	6.72E-03	42.4	
34	0	1377.97	55	18	1.08	2755.04	2746	14	7.63E-03	21.1	
35	0	1461.47	1707	30	1.97	2922.21	2914	19	2.37E-01	2.5	
36	0	1630.68	26	3	0.84	3261.04	3255	11	3.54E-03	23.4	
37	0	1729.79	34	0	2.00	3459.56	3453	12	4.72E-03	17.1	
38	0	1765.22*	98	7	1.57	3530.53	3525	13	1.36E-02	11.9	

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:36:23

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691011.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:35
Sample ID : G245691011 Sample quantity : 134.15 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:33.74 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.574E+01	3.605E+00	5.246E-01	4.575E-02	68.132
CD-109	+	88.03	*	4.137E+00	9.896E-01	1.030E+00	9.735E-02	4.018
SN-126	+	64.28		5.666E-01	5.433E-01	6.108E-01	8.843E-02	0.928
	+	86.94		1.690E+00	7.943E-01	4.236E-01	1.758E-01	3.990
	+	87.57	*	4.066E-01	9.726E-02	1.015E-01	9.544E-03	4.007
TL-208		277.35		9.748E-02	3.538E-01	5.974E-01	7.944E-02	0.163
	+	510.84		6.482E-01	3.098E-01	2.143E-01	2.679E-02	3.025
	+	583.14	*	6.083E-01	1.029E-01	5.349E-02	5.499E-03	11.373
	+	860.37		7.887E-01	4.426E-01	4.438E-01	4.704E-02	1.777
BI-211	+	72.87		4.543E+00	3.686E+00	3.882E+00	3.066E-01	1.170
	+	351.07	*	4.238E+00	5.925E-01	3.176E-01	3.043E-02	13.340
PB-212	+	74.81		2.463E+00	5.080E-01	4.466E-01	5.511E-02	5.515
	+	77.11		2.215E+00	2.960E-01	2.570E-01	2.125E-02	8.622
	+	87.30		1.880E+00	4.875E-01	4.701E-01	6.443E-02	4.000
	+	238.63	*	1.800E+00	2.229E-01	8.640E-02	9.188E-03	20.832
	+	300.09		2.077E+00	9.028E-01	1.036E+00	1.185E-01	2.004
PO-212	+	74.81		2.463E+00	5.080E-01	4.466E-01	5.511E-02	5.515
	+	77.11		2.215E+00	2.960E-01	2.570E-01	2.125E-02	8.622
	+	87.30		1.880E+00	4.875E-01	4.701E-01	6.443E-02	4.000
		115.19		-8.486E-02	3.245E+00	5.220E+00	4.384E-01	-0.016
	+	238.63	*	1.800E+00	2.229E-01	8.640E-02	9.188E-03	20.832
	+	300.09		2.077E+00	9.028E-01	1.036E+00	1.185E-01	2.004
BI-214	+	609.31	*	1.300E+00	2.214E-01	1.038E-01	1.155E-02	12.527
	+	1120.29		1.634E+00	6.145E-01	4.316E-01	4.669E-02	3.786
	+	1764.49		1.578E+00	3.978E-01	2.183E-01	1.793E-02	7.228
PB-214	+	74.81		4.244E+00	8.412E-01	7.694E-01	8.424E-02	5.515
	+	77.11		3.798E+00	5.841E-01	4.405E-01	4.954E-02	8.622
	+	87.30		3.221E+00	8.096E-01	8.054E-01	9.774E-02	4.000
	+	241.98		2.659E+00	8.352E-01	5.201E-01	5.817E-02	5.112
	+	295.21		1.394E+00	2.741E-01	1.970E-01	2.299E-02	7.078
	+	351.92	*	1.474E+00	2.200E-01	1.006E-01	1.096E-02	14.658
PO-214	+	74.81		4.244E+00	8.412E-01	7.694E-01	8.424E-02	5.515
	+	77.11		3.798E+00	5.841E-01	4.405E-01	4.954E-02	8.622
	+	87.30		3.221E+00	8.096E-01	8.054E-01	9.774E-02	4.000

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.659E+00	8.352E-01	5.201E-01	5.817E-02	5.112
	+	295.21		1.394E+00	2.741E-01	1.970E-01	2.299E-02	7.078
	+	351.92	*	1.474E+00	2.200E-01	1.006E-01	1.096E-02	14.658
PO-216	+	74.81		2.463E+00	5.080E-01	4.466E-01	5.511E-02	5.515
	+	77.11		2.215E+00	2.960E-01	2.570E-01	2.125E-02	8.622
	+	87.30		1.880E+00	4.875E-01	4.701E-01	6.443E-02	4.000
	+	238.63	*	1.800E+00	2.229E-01	8.640E-02	9.188E-03	20.832
	+	300.09		2.077E+00	9.028E-01	1.036E+00	1.185E-01	2.004
PO-218	+	74.81		4.244E+00	8.412E-01	7.694E-01	8.424E-02	5.515
	+	77.11		3.798E+00	5.841E-01	4.405E-01	4.954E-02	8.622
	+	87.30		3.221E+00	8.096E-01	8.054E-01	9.774E-02	4.000
	+	241.98		2.659E+00	8.352E-01	5.201E-01	5.817E-02	5.112
	+	295.21		1.394E+00	2.741E-01	1.970E-01	2.299E-02	7.078
	+	351.92	*	1.474E+00	2.200E-01	1.006E-01	1.096E-02	14.658
RA-224	+	240.98	*	5.042E+00	1.558E+00	9.831E-01	9.502E-02	5.129
RA-226	+	609.31	*	1.300E+00	2.214E-01	1.038E-01	1.155E-02	12.527
	+	1120.29		1.634E+00	6.145E-01	4.316E-01	4.669E-02	3.786
	+	1764.49		1.578E+00	3.978E-01	2.183E-01	1.793E-02	7.228
AC-228	+	338.32		1.667E+00	8.187E-01	3.429E-01	1.420E-01	4.861
	+	911.07	*	1.961E+00	3.608E-01	2.289E-01	2.804E-02	8.568
	+	969.11		1.791E+00	5.721E-01	3.587E-01	8.511E-02	4.993
RA-228	+	338.32		1.667E+00	8.187E-01	3.429E-01	1.420E-01	4.861
	+	911.07	*	1.961E+00	3.608E-01	2.289E-01	2.804E-02	8.568
	+	969.11		1.791E+00	5.721E-01	3.587E-01	8.511E-02	4.993
TH-228	+	74.81		2.500E+00	4.606E-01	4.533E-01	3.690E-02	5.515
	+	77.11		2.249E+00	3.005E-01	2.609E-01	2.158E-02	8.622
	+	87.30		1.909E+00	4.567E-01	4.773E-01	4.473E-02	4.000
	+	238.63	*	1.827E+00	2.263E-01	8.772E-02	9.328E-03	20.832
	+	300.09		2.109E+00	1.534E+00	1.052E+00	6.257E-01	2.004
TH-230	+	609.31	*	1.300E+00	2.214E-01	1.038E-01	1.155E-02	12.527
	+	1120.29		1.634E+00	6.145E-01	4.316E-01	4.669E-02	3.786
	+	1764.49		1.578E+00	3.978E-01	2.183E-01	1.793E-02	7.228
TH-232	+	338.32		1.667E+00	4.668E-01	3.429E-01	3.213E-02	4.861
	+	911.07	*	1.961E+00	3.608E-01	2.289E-01	2.804E-02	8.568
	+	969.11		1.791E+00	5.721E-01	3.587E-01	8.511E-02	4.993
TH-234	+	63.29	*	1.431E+00	1.380E+00	1.607E+00	2.793E-01	0.891
	+	92.38		2.318E+00	7.818E-01	6.769E-01	1.241E-01	3.424
U-234	+	609.31	*	1.300E+00	2.214E-01	1.038E-01	1.155E-02	12.527
	+	1120.29		1.634E+00	6.145E-01	4.316E-01	4.669E-02	3.786
	+	1764.49		1.578E+00	3.978E-01	2.183E-01	1.793E-02	7.228
NP-237	+	86.50	*	1.194E+00	3.772E-01	3.001E-01	6.789E-02	3.978
		95.87		-7.254E-01	9.686E-01	1.323E+00	3.275E-01	-0.548
U-238	+	63.29	*	1.431E+00	1.380E+00	1.607E+00	2.793E-01	0.891
	+	92.38		2.318E+00	6.895E-01	6.769E-01	6.187E-02	3.424
AM-243	+	74.67	*	3.993E-01	7.342E-02	7.255E-02	5.840E-03	5.504
	+	86.72		4.477E+01	1.071E+01	1.124E+01	1.045E+00	3.984
		117.66		-2.962E+00	3.475E+00	5.368E+00	4.494E-01	-0.552
		142.18		-4.758E+00	1.670E+01	2.633E+01	2.223E+00	-0.181
ANH-511	+	511.00	*	1.400E-01	6.590E-02	4.630E-02	4.314E-03	3.024

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.436E-02	2.972E-01	4.793E-01	4.659E-02	-0.051
NA-22		1274.54	*	-6.009E-03	4.455E-02	7.084E-02	5.868E-03	-0.085
NA-24		1368.53	*	4.620E-01	4.455E-02	Half-Life too short		
AL-26		1129.67		-2.839E-01	1.842E+00	2.774E+00	2.350E-01	-0.102
		1808.65	*	-2.325E-02	2.377E-02	2.947E-02	2.393E-03	-0.789
TI-44		67.85		-4.182E-03	3.831E-02	5.960E-02	4.484E-03	-0.070
	+	78.38	*	4.088E-01	5.462E-02	7.101E-02	5.960E-03	5.757
SC-46		889.25	*	-3.039E-02	3.606E-02	5.461E-02	5.444E-03	-0.556
	+	1120.51		2.798E-01	1.036E-01	1.335E-01	1.142E-02	2.096
V-48		944.10		-6.907E-01	8.394E-01	1.268E+00	1.237E-01	-0.545
		983.50	*	-1.475E-02	6.762E-02	1.087E-01	1.039E-02	-0.136
		1312.09		-7.542E-02	8.521E-02	1.233E-01	1.029E-02	-0.612
CR-51		320.08	*	1.327E-01	3.418E-01	5.604E-01	5.619E-02	0.237
MN-52		744.21		-1.450E-02	2.272E-01	3.777E-01	3.837E-02	-0.038
		848.13		-3.060E-01	6.206E+00	1.024E+01	1.032E+00	-0.030
		935.52		1.772E-01	2.638E-01	4.565E-01	4.471E-02	0.388
		1246.25		-4.486E+00	7.985E+00	1.186E+01	9.740E-01	-0.378
		1333.61		3.895E+00	4.931E+00	8.621E+00	7.223E-01	0.452
		1434.06	*	1.297E-01	2.021E-01	3.654E-01	3.092E-02	0.355
MN-54		834.83	*	1.092E-02	3.621E-02	6.143E-02	6.205E-03	0.178
CO-56		846.75	*	-1.527E-02	3.625E-02	5.781E-02	5.827E-03	-0.264
		977.42		3.522E+00	3.129E+00	5.220E+00	5.007E-01	0.675
		1037.82		-1.422E-01	2.897E-01	4.502E-01	4.344E-02	-0.316
		1175.09		1.692E+00	2.273E+00	3.911E+00	3.146E-01	0.433
	+	1238.25		1.615E-01	1.375E-01	1.783E-01	1.508E-02	0.906
		1360.21		3.283E-01	8.405E-01	1.472E+00	1.237E-01	0.223
		1771.40		-2.154E-02	1.757E-01	2.371E-01	1.945E-02	-0.091
CO-57		122.06	*	2.102E-02	2.379E-02	3.953E-02	3.299E-03	0.532
		136.48		-3.030E-02	1.979E-01	3.145E-01	2.848E-02	-0.096
CO-58		810.76	*	-1.226E-03	3.440E-02	5.700E-02	5.788E-03	-0.022
FE-59		142.65		-9.982E-01	2.589E+00	4.068E+00	3.436E-01	-0.245
		192.34		2.017E-01	9.580E-01	1.451E+00	1.992E-01	0.139
		1099.22	*	1.857E-02	8.715E-02	1.447E-01	1.365E-02	0.128
		1291.56		6.690E-02	1.131E-01	1.937E-01	1.842E-02	0.345
CO-60		1173.22		-1.077E-02	4.647E-02	7.382E-02	5.935E-03	-0.146
		1332.49	*	2.709E-02	3.732E-02	6.495E-02	5.441E-03	0.417
ZN-65		1115.52	*	-7.508E-02	1.051E-01	1.340E-01	1.153E-02	-0.560
GE-68		1077.35	*	-1.681E-01	1.265E+00	2.038E+00	1.818E-01	-0.082
AS-73		53.44	*	-6.098E-02	5.445E-01	8.934E-01	6.632E-02	-0.068
AS-74		595.88	*	-1.347E-02	8.508E-02	1.344E-01	1.316E-02	-0.100
		634.78		-9.816E-02	3.214E-01	5.296E-01	5.268E-02	-0.185
SE-75		66.05		-2.932E+00	4.128E+00	5.850E+00	5.534E-01	-0.501
		96.73		-9.625E-01	7.861E-01	1.047E+00	1.446E-01	-0.919
		121.11		1.107E-02	1.295E-01	2.089E-01	2.300E-02	0.053
		136.00		-7.885E-03	3.702E-02	5.867E-02	4.957E-03	-0.134
		198.60		1.159E+00	1.660E+00	2.876E+00	2.895E-01	0.403
		264.65	*	-3.482E-02	4.705E-02	6.559E-02	6.494E-03	-0.531
		279.53		2.807E-02	1.015E-01	1.716E-01	1.756E-02	0.164
		303.91		-1.407E-01	2.046E+00	2.973E+00	3.678E-01	-0.047

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		1.270E-01	2.477E-01	4.176E-01	4.583E-02	0.304
BR-77	+	87.88		9.020E+02	2.158E+02	3.180E+02	3.003E+01	2.837
		200.40		4.243E+01	1.493E+02	2.554E+02	2.349E+01	0.166
	+	239.00		2.917E+02	3.367E+01	3.900E+01	3.762E+00	7.480
		249.79		3.300E+00	5.888E+01	9.898E+01	9.648E+00	0.033
		281.68		-1.534E+01	8.402E+01	1.388E+02	1.380E+01	-0.111
		297.23		2.828E+02	8.479E+01	1.153E+02	1.134E+01	2.453
		303.76		-1.885E+01	1.756E+02	2.543E+02	2.488E+01	-0.074
		439.47		5.458E+01	1.293E+02	2.169E+02	1.905E+01	0.252
		484.57		3.314E+00	2.133E+02	3.462E+02	3.163E+01	0.010
		520.65	*	6.447E-01	1.028E+01	1.668E+01	1.564E+00	0.039
		574.64		7.550E+00	2.032E+02	3.270E+02	3.167E+01	0.023
		578.91		1.043E+01	9.721E+01	1.375E+02	1.335E+01	0.076
		585.48		1.924E+03	3.234E+02	5.325E+02	5.187E+01	3.613
		755.35		1.080E+02	1.629E+02	2.845E+02	2.891E+01	0.380
		817.79		2.163E+01	1.195E+02	2.017E+02	2.043E+01	0.107
SR-82		698.33		-8.404E+00	3.152E+01	5.183E+01	5.240E+00	-0.162
		776.49	*	-6.711E-02	3.609E-01	5.926E-01	6.022E-02	-0.113
		1395.20		-9.027E+00	9.460E+00	1.376E+01	1.161E+00	-0.656
RB-83		520.41	*	2.154E-02	6.607E-02	1.092E-01	1.024E-02	0.197
		529.64		8.868E-02	9.582E-02	1.651E-01	1.558E-02	0.537
		552.65		-8.524E-02	1.957E-01	3.039E-01	2.909E-02	-0.280
RB-84		881.50	*	1.217E-02	6.361E-02	1.070E-01	1.069E-02	0.114
KR-85		513.99	*	1.209E+01	8.447E+00	1.324E+01	1.237E+00	0.913
SR-85		513.99	*	6.201E-02	4.332E-02	6.793E-02	6.343E-03	0.913
RB-86		1076.63	*	-8.073E-01	8.268E-01	1.223E+00	1.092E-01	-0.660
Y-88		898.02		-2.877E-02	4.025E-02	6.225E-02	6.212E-03	-0.462
		1836.01	*	1.449E-02	2.782E-02	5.038E-02	4.065E-03	0.288
ZR-88		392.90	*	-4.266E-03	2.745E-02	4.455E-02	3.726E-03	-0.096
Y-91		1204.90	*	-1.658E+01	1.938E+01	2.894E+01	2.350E+00	-0.573
NB-94		702.63	*	-1.646E-02	2.976E-02	4.770E-02	4.826E-03	-0.345
		871.10		-1.113E-02	3.060E-02	4.887E-02	4.898E-03	-0.228
NB-95		765.79	*	4.093E-02	4.315E-02	6.860E-02	6.972E-03	0.597
NB-95M		235.69	*	6.940E-02	1.284E-01	1.957E-01	2.102E-02	0.355
ZR-95		724.18		6.783E-03	8.758E-02	1.287E-01	1.388E-02	0.053
		756.15	*	4.429E-02	6.983E-02	1.216E-01	1.327E-02	0.364
NB-97		657.90	*	9.242E-02	6.983E-02	Half-Life too short		
		1024.50		2.790E-01	6.983E-02	Half-Life too short		
ZR-97		254.15		-1.758E+00	6.983E-02	Half-Life too short		
		355.39		1.418E+00	6.983E-02	Half-Life too short		
		507.63	*	-4.285E-01	6.983E-02	Half-Life too short		
		602.52		1.280E+00	6.983E-02	Half-Life too short		
		1021.30		4.290E+00	6.983E-02	Half-Life too short		
		1147.95		-1.882E-01	6.983E-02	Half-Life too short		
		1362.66		-5.234E+00	6.983E-02	Half-Life too short		
		1750.46		3.245E+00	6.983E-02	Half-Life too short		
MO-99		140.51		-9.014E+00	2.540E+01	3.954E+01	1.093E+01	-0.228
		181.06		2.763E-01	1.882E+01	2.644E+01	4.875E+00	0.010
		366.43		-2.097E+01	7.698E+01	1.245E+02	1.107E+01	-0.168

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	-2.191E+00	1.150E+01	1.895E+01	3.052E+00	-0.116
		778.00		-2.404E+01	3.234E+01	5.048E+01	5.130E+00	-0.476
TC-99M		140.51	*	-1.418E+10	3.234E+01	Half-Life too short		
RH-101	+	127.23		7.625E-02	5.655E-02	5.035E-02	4.200E-03	1.514
		198.01	*	9.618E-03	3.029E-02	5.188E-02	4.756E-03	0.185
		325.23		9.288E-02	2.324E-01	3.481E-01	3.324E-02	0.267
RH-102		418.52		1.678E-01	2.658E-01	4.517E-01	3.886E-02	0.372
		475.06	*	-6.832E-03	2.600E-02	4.134E-02	3.748E-03	-0.165
		631.29		-4.481E-03	5.376E-02	8.516E-02	8.460E-03	-0.053
		697.49		-3.169E-02	7.244E-02	1.176E-01	1.189E-02	-0.269
		766.84		1.891E-01	1.178E-01	1.950E-01	1.982E-02	0.969
		1046.59		9.692E-02	1.101E-01	1.936E-01	1.772E-02	0.501
		1112.84		-1.054E-01	2.317E-01	3.503E-01	3.021E-02	-0.301
RU-103		497.08	*	3.314E-02	3.663E-02	6.286E-02	9.139E-03	0.527
	+	610.33		1.405E+01	3.037E+00	2.945E+00	5.111E-01	4.770
RH-106	+	511.85		6.993E-01	3.292E-01	4.365E-01	4.069E-02	1.602
		621.84	*	1.377E-01	3.048E-01	5.040E-01	7.165E-02	0.273
		1050.47		-5.853E-01	2.280E+00	3.636E+00	3.319E-01	-0.161
RU-106	+	511.85		6.993E-01	3.292E-01	4.365E-01	4.069E-02	1.602
		621.84	*	1.377E-01	3.045E-01	5.040E-01	4.989E-02	0.273
		1050.47		-5.853E-01	2.280E+00	3.636E+00	3.319E-01	-0.161
AG-108M		433.93	*	1.652E-03	2.983E-02	4.886E-02	4.434E-03	0.034
		614.37		-4.176E-03	4.222E-02	5.814E-02	5.910E-03	-0.072
		722.95		4.341E-03	3.868E-02	5.708E-02	5.954E-03	0.076
AG-110M		657.75	*	3.517E-02	3.280E-02	5.890E-02	6.034E-03	0.597
		677.61		1.121E-01	2.788E-01	4.820E-01	4.956E-02	0.232
		706.67		3.510E-02	1.861E-01	3.163E-01	3.266E-02	0.111
		763.93		-3.001E-02	1.684E-01	2.392E-01	2.480E-02	-0.125
		884.67		-6.841E-03	4.521E-02	7.272E-02	7.435E-03	-0.094
		937.48		-3.568E-02	1.061E-01	1.693E-01	1.704E-02	-0.211
		1384.27		-1.338E-01	1.559E-01	1.983E-01	1.721E-02	-0.675
IN-111		171.28		-5.453E-01	9.707E-01	1.495E+00	1.316E-01	-0.365
		245.39	*	3.389E-01	1.035E+00	1.563E+00	1.517E-01	0.217
IN-113M		391.69	*	-6.787E-03	3.943E-02	6.394E-02	5.516E-03	-0.106
SN-113		391.69	*	-6.787E-03	3.943E-02	6.394E-02	5.516E-03	-0.106
IN-114M		190.27	*	1.144E-01	1.747E-01	2.710E-01	2.456E-02	0.422
CD-115		260.90		1.367E+02	1.262E+02	2.203E+02	2.167E+01	0.621
		492.35		-1.027E+00	3.264E+01	5.273E+01	4.846E+00	-0.019
		527.90	*	1.513E+00	1.014E+01	1.654E+01	1.559E+00	0.091
SN-117M		156.02		-9.944E-01	2.272E+00	3.545E+00	3.048E-01	-0.280
		158.56	*	4.184E-02	5.378E-02	8.734E-02	7.538E-03	0.479
SB-122		563.90	*	3.678E+00	1.989E+00	3.582E+00	3.450E-01	1.027
		692.80		3.705E+01	4.189E+01	7.426E+01	7.501E+00	0.499
I-123		159.00	*	3.807E+00	4.189E+01	Half-Life too short		
		528.96		2.361E+02	4.189E+01	Half-Life too short		
TE-123M		159.00	*	1.807E-02	2.755E-02	4.454E-02	3.869E-03	0.406
I-124		602.71	*	2.867E-02	7.342E-01	1.028E+00	1.010E-01	0.028
		722.78		2.944E-01	4.049E+00	5.948E+00	6.032E-01	0.050
		1325.50		1.132E+01	3.077E+01	5.173E+01	4.328E+00	0.219

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1376.25		6.183E+01	2.910E+01	5.791E+01	4.878E+00	1.068
		1509.49		1.622E+01	1.385E+01	2.634E+01	2.233E+00	0.616
		1691.02		-2.264E+00	2.962E+00	4.061E+00	3.387E-01	-0.558
SB-124		602.71		1.658E-03	4.246E-02	5.948E-02	5.841E-03	0.028
		645.85		1.594E-01	4.756E-01	8.195E-01	8.551E-02	0.195
		709.31		-1.910E-01	2.555E+00	4.258E+00	4.311E-01	-0.045
		713.82		1.421E+00	1.580E+00	2.795E+00	3.680E-01	0.508
		722.78		2.469E-02	3.395E-01	4.987E-01	5.137E-02	0.050
	+	968.20		1.844E+01	4.326E+00	7.141E+00	6.884E-01	2.582
		1045.16		-3.817E-01	2.482E+00	4.001E+00	3.667E-01	-0.095
		1325.50		1.014E+00	2.755E+00	4.633E+00	3.875E-01	0.219
		1368.21		9.544E-01	1.381E+00	2.439E+00	3.255E-01	0.391
		1436.60		5.397E-01	3.313E+00	5.672E+00	4.801E-01	0.095
		1691.02	*	-4.478E-02	5.859E-02	8.032E-02	6.980E-03	-0.558
SB-125		427.89	*	1.947E-02	8.452E-02	1.401E-01	1.240E-02	0.139
	+	463.38		1.073E+00	4.004E-01	5.288E-01	5.092E-02	2.028
		600.56		-6.137E-02	1.779E-01	2.770E-01	2.873E-02	-0.222
		635.90		-1.681E-01	2.432E-01	3.876E-01	4.093E-02	-0.434
TE-125M		109.28	*	-4.972E-01	8.484E+00	1.365E+01	1.396E+00	-0.036
I-126		388.63		-1.016E-01	1.878E-01	2.971E-01	2.502E-02	-0.342
		666.33	*	3.717E-02	1.672E-01	2.856E-01	2.869E-02	0.130
		753.82		4.103E-01	1.377E+00	2.351E+00	2.389E-01	0.175
SB-126		223.80		-3.645E-01	3.801E+00	6.378E+00	6.049E-01	-0.057
		278.60		2.628E+00	2.332E+00	4.067E+00	4.048E-01	0.646
	+	296.50		1.391E+01	2.592E+00	3.574E+00	3.519E-01	3.891
		414.70		-9.966E-03	6.827E-02	1.105E-01	9.471E-03	-0.090
		415.30		1.843E+00	5.695E+00	9.508E+00	8.152E-01	0.194
		555.20		1.946E-01	3.811E+00	6.153E+00	5.897E-01	0.032
		573.80		-3.709E-01	1.010E+00	1.573E+00	1.523E-01	-0.236
		593.00		-3.470E-01	8.589E-01	1.327E+00	1.297E-01	-0.262
		656.30		2.441E+00	3.177E+00	5.611E+00	5.622E-01	0.435
		666.33		1.553E-02	6.989E-02	1.194E-01	1.199E-02	0.130
		675.00		8.380E-01	1.909E+00	3.304E+00	3.326E-01	0.254
		695.00		8.682E-03	7.533E-02	1.274E-01	1.287E-02	0.068
		697.00		-1.553E-01	2.589E-01	4.151E-01	4.196E-02	-0.374
		720.50	*	-8.195E-02	1.461E-01	2.098E-01	2.127E-02	-0.391
		856.80		-1.272E-01	4.772E-01	6.616E-01	6.654E-02	-0.192
		989.30		3.394E-01	1.214E+00	2.041E+00	1.945E-01	0.166
		1034.80		-1.405E+00	8.146E+00	1.310E+01	1.210E+00	-0.107
		1213.00		-2.860E+00	5.123E+00	7.907E+00	6.436E-01	-0.362
SB-127		61.10		3.259E+01	4.646E+01	7.028E+01	7.081E+00	0.464
		252.40		-5.348E-01	3.829E+00	6.361E+00	2.690E+00	-0.084
		290.80		-8.420E+00	2.216E+01	3.154E+01	3.839E+00	-0.267
		411.60		1.213E+00	1.122E+01	1.849E+01	2.900E+00	0.066
		444.90		-2.522E+00	9.041E+00	1.443E+01	1.830E+00	-0.175
		473.00		-1.184E-01	1.470E+00	2.371E+00	3.121E-01	-0.050
		543.00		-4.390E+00	1.612E+01	2.539E+01	3.797E+00	-0.173
		603.60		8.589E-01	1.233E+01	1.734E+01	2.318E+00	0.050
		685.20	*	3.925E-01	1.176E+00	2.025E+00	2.539E-01	0.194

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		-3.947E+00	1.410E+01	2.314E+01	3.861E+00	-0.171
		722.20		4.395E+00	2.802E+01	4.156E+01	5.146E+00	0.106
		783.80		2.333E+00	3.431E+00	5.981E+00	8.097E-01	0.390
XE-127		57.60		-4.228E+00	4.204E+00	6.647E+00	4.749E-01	-0.636
		145.22		1.305E-01	6.702E-01	1.079E+00	9.141E-02	0.121
		172.10		-5.148E-02	1.150E-01	1.783E-01	1.571E-02	-0.289
		202.84	*	-5.094E-02	4.222E-02	6.746E-02	6.226E-03	-0.755
		374.96		-5.676E-03	1.846E-01	3.029E-01	2.641E-02	-0.019
I-131		80.18		-3.085E+00	5.482E+00	6.037E+00	5.209E-01	-0.511
		284.30		-5.011E-01	1.392E+00	2.276E+00	2.349E-01	-0.220
		364.48	*	7.650E-02	1.065E-01	1.825E-01	1.712E-02	0.419
		636.97		-1.417E+00	1.391E+00	2.149E+00	2.229E-01	-0.659
		722.89		6.415E-01	6.525E+00	9.614E+00	9.796E-01	0.067
TE-132		49.72		-5.061E+00	1.156E+01	1.876E+01	1.925E+00	-0.270
		111.76		-1.311E+01	2.824E+01	4.413E+01	4.735E+00	-0.297
		116.30		-1.224E+01	2.525E+01	3.975E+01	4.245E+00	-0.308
		228.16	*	-4.912E-01	6.610E-01	1.070E+00	1.738E-01	-0.459
BA-133		53.15		-5.116E-01	2.347E+00	3.835E+00	2.858E-01	-0.133
		79.62		-2.434E+00	1.674E+00	1.685E+00	2.555E-01	-1.444
		81.00		3.349E-02	1.135E-01	1.328E-01	2.111E-02	0.252
		276.40		2.596E-01	3.611E-01	6.004E-01	9.170E-02	0.432
		302.84		-5.268E-02	1.418E-01	2.009E-01	2.828E-02	-0.262
		356.01	*	9.375E-03	4.270E-02	6.294E-02	8.502E-03	0.149
		383.85		5.088E-02	2.728E-01	4.532E-01	5.684E-02	0.112
I-133	+	510.53		1.461E+00	2.728E-01	Half-Life too short		
		529.87	*	5.399E-03	2.728E-01	Half-Life too short		
		706.58		6.839E-02	2.728E-01	Half-Life too short		
		856.28		-2.537E-01	2.728E-01	Half-Life too short		
		875.33		-2.116E-02	2.728E-01	Half-Life too short		
		1236.41		6.005E-01	2.728E-01	Half-Life too short		
		1298.22		4.343E-01	2.728E-01	Half-Life too short		
CS-134		475.35		-8.237E-01	1.740E+00	2.721E+00	2.467E-01	-0.303
		563.23		4.103E-01	3.485E-01	6.050E-01	5.869E-02	0.678
		569.32		-3.698E-02	1.889E-01	2.985E-01	2.915E-02	-0.124
		604.70		1.963E-03	3.573E-02	5.013E-02	4.935E-03	0.039
	+	795.84	*	1.395E-01	7.293E-02	9.304E-02	9.493E-03	1.499
		801.93		-4.525E-01	4.097E-01	5.018E-01	5.112E-02	-0.902
		1038.57		1.292E+00	3.529E+00	5.973E+00	5.502E-01	0.216
		1167.94		1.013E+00	2.538E+00	4.255E+00	3.444E-01	0.238
		1365.15		-3.318E-01	1.034E+00	1.663E+00	1.466E-01	-0.199
CS-135		268.24	*	3.278E-01	1.602E-01	2.835E-01	3.142E-02	1.156
I-135		288.45		7.465E+09	1.602E-01	Half-Life too short		
		417.63		1.721E+10	1.602E-01	Half-Life too short		
		546.56		-3.548E+09	1.602E-01	Half-Life too short		
		836.80		9.729E+09	1.602E-01	Half-Life too short		
		1038.76		8.397E+09	1.602E-01	Half-Life too short		
		1124.00		5.443E+10	1.602E-01	Half-Life too short		
		1131.51		5.141E+08	1.602E-01	Half-Life too short		
		1260.41	*	-1.006E+08	1.602E-01	Half-Life too short		

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		1.508E+11	1.602E-01	Half-Life too short		
		1678.03		-7.199E+08	1.602E-01	Half-Life too short		
		1706.46		8.049E+09	1.602E-01	Half-Life too short		
		1791.20		-2.607E+09	1.602E-01	Half-Life too short		
CS-136		66.91		-1.407E-01	6.816E-01	9.899E-01	1.467E-01	-0.142
	+	86.29		5.314E+00	1.369E+00	1.843E+00	2.448E-01	2.884
		153.22		8.135E-01	6.461E-01	1.076E+00	1.031E-01	0.756
		163.89		1.136E+00	1.007E+00	1.672E+00	1.626E-01	0.680
		176.55		7.283E-02	3.581E-01	5.719E-01	5.352E-02	0.127
		273.65		6.471E-02	4.661E-01	6.913E-01	7.205E-02	0.094
		340.57		3.529E-01	1.495E-01	2.428E-01	2.323E-02	1.454
		818.51		5.239E-02	6.369E-02	1.132E-01	1.147E-02	0.463
		1048.07	*	-1.295E-02	1.073E-01	1.734E-01	1.646E-02	-0.075
		1235.34		-8.729E-02	6.689E-01	9.171E-01	1.058E-01	-0.095
BA-137M		661.65	*	-4.475E-02	3.413E-02	5.149E-02	5.167E-03	-0.869
CS-137		661.65	*	-4.730E-02	3.608E-02	5.443E-02	5.470E-03	-0.869
CE-139		165.85	*	-6.885E-03	2.889E-02	4.534E-02	3.958E-03	-0.152
BA-140		162.64		-1.659E-01	7.181E-01	1.128E+00	1.036E-01	-0.147
		304.84		2.597E-01	1.217E+00	1.898E+00	5.390E-01	0.137
		423.70		-7.678E-01	1.797E+00	2.822E+00	9.152E-01	-0.272
		537.32	*	2.471E-03	2.351E-01	3.792E-01	1.265E-01	0.007
LA-140	+	328.77		8.808E-01	5.431E-01	5.429E-01	5.398E-02	1.622
		432.53		2.494E-01	1.862E+00	3.066E+00	2.802E-01	0.081
		487.03		-7.171E-02	1.324E-01	2.058E-01	1.987E-02	-0.348
		751.79		-2.585E+00	1.674E+00	2.408E+00	2.638E-01	-1.073
		815.85		-2.958E-02	2.787E-01	4.586E-01	5.039E-02	-0.065
		867.82		5.470E-01	1.426E+00	2.235E+00	2.330E-01	0.245
		919.63		7.473E-01	2.719E+00	4.477E+00	5.227E-01	0.167
		925.24		-7.156E-01	1.073E+00	1.653E+00	1.706E-01	-0.433
		1596.49	*	-8.825E-03	7.190E-02	1.171E-01	9.884E-03	-0.075
CE-141		145.44	*	3.231E-02	5.976E-02	9.744E-02	8.413E-03	0.332
CE-143		57.37		-7.204E-04	5.976E-02	Half-Life too short		
		231.56		1.267E-03	5.976E-02	Half-Life too short		
		293.26	*	4.955E-04	5.976E-02	Half-Life too short		
	+	350.59		3.413E-02	5.976E-02	Half-Life too short		
		490.36		1.833E-03	5.976E-02	Half-Life too short		
		664.57		8.571E-04	5.976E-02	Half-Life too short		
		721.93		3.184E-04	5.976E-02	Half-Life too short		
CE-144		80.11		-1.529E+00	2.514E+00	2.759E+00	2.363E-01	-0.554
		133.54	*	-1.935E-01	2.210E-01	2.960E-01	4.567E-02	-0.654
PM-144		476.78		-4.130E-02	6.343E-02	9.776E-02	9.628E-03	-0.422
		618.01		-2.155E-02	3.304E-02	4.778E-02	4.822E-03	-0.451
		696.49	*	-9.519E-03	3.262E-02	5.356E-02	5.415E-03	-0.178
		778.57		-1.846E+00	2.143E+00	3.303E+00	3.357E-01	-0.559
PR-144		696.49	*	-6.451E-01	2.210E+00	3.630E+00	3.669E-01	-0.178
		1489.15		5.496E+00	1.015E+01	1.819E+01	1.542E+00	0.302
PM-146		453.90	*	-1.007E-03	4.023E-02	6.535E-02	7.158E-03	-0.015
		633.02		1.268E+00	1.399E+00	2.265E+00	8.539E-01	0.560
		735.90		3.425E-02	1.443E-01	2.449E-01	7.127E-02	0.140

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		747.13		2.479E-02	8.529E-02	1.455E-01	2.188E-02	0.170
ND-147	+	91.11		6.493E-01	2.332E-01	4.455E-01	4.407E-02	1.458
		319.41		6.463E-01	2.982E+00	5.002E+00	4.813E-01	0.129
		439.89		9.433E-01	5.269E+00	8.697E+00	7.645E-01	0.108
		531.02	*	1.465E-01	5.255E-01	8.650E-01	1.336E-01	0.169
PM-149		285.90	*	-2.097E+01	8.369E+01	1.375E+02	2.241E+01	-0.153
EU-152		121.78		5.173E-02	6.899E-02	1.140E-01	1.105E-02	0.454
		244.69		1.374E-01	3.173E-01	4.824E-01	4.680E-02	0.285
		344.27	*	2.934E-02	1.043E-01	1.545E-01	1.508E-02	0.190
		443.98		1.363E-01	8.704E-01	1.434E+00	1.265E-01	0.095
		778.89		-2.150E-01	2.456E-01	3.778E-01	3.839E-02	-0.569
		867.32		3.767E-01	8.905E-01	1.344E+00	1.348E-01	0.280
	+	964.01		4.793E-01	3.009E-01	5.814E-01	5.617E-02	0.824
		1085.78		1.979E-02	4.053E-01	6.636E-01	5.875E-02	0.030
		1112.02		4.706E-02	3.079E-01	5.080E-01	4.384E-02	0.093
		1407.95		1.047E-01	1.878E-01	3.318E-01	2.803E-02	0.316
GD-153		69.67		-1.292E-02	1.484E+00	2.171E+00	1.661E-01	-0.006
	+	83.37		1.836E+01	1.530E+01	2.218E+01	1.977E+00	0.828
		97.43	*	4.457E-03	7.755E-02	1.119E-01	9.925E-03	0.040
		103.18		-5.589E-02	9.522E-02	1.501E-01	1.298E-02	-0.372
EU-154		123.07		3.672E-02	5.449E-02	8.064E-02	8.992E-03	0.455
		247.94		-1.412E-01	3.308E-01	5.238E-01	6.459E-02	-0.270
		591.81		5.059E-01	5.527E-01	9.480E-01	1.189E-01	0.534
		723.30		-1.715E-04	1.642E-01	2.390E-01	2.611E-02	-0.001
		756.87		1.104E+00	7.481E-01	1.358E+00	1.784E-01	0.813
		873.19		-1.600E-01	2.576E-01	3.985E-01	5.285E-02	-0.401
		996.32		1.158E-01	3.658E-01	6.153E-01	1.120E-01	0.188
		1004.76		-5.631E-03	2.138E-01	3.496E-01	4.284E-02	-0.016
		1274.45	*	5.251E-02	1.180E-01	1.985E-01	2.193E-02	0.265
EU-155		48.70		-7.381E-01	1.408E+00	2.279E+00	1.824E-01	-0.324
		60.01		1.881E+00	3.963E+00	5.952E+00	4.223E-01	0.316
	+	86.54		4.897E-01	1.173E-01	1.719E-01	1.609E-02	2.849
		105.31	*	1.109E-01	9.958E-02	1.671E-01	1.452E-02	0.664
TB-160	+	86.79		1.308E+00	3.130E-01	4.633E-01	4.314E-02	2.824
		197.04		6.523E-03	5.158E-01	8.739E-01	7.999E-02	0.007
		215.65		6.057E-01	6.945E-01	1.175E+00	1.103E-01	0.515
	+	298.57		3.024E-01	1.302E-01	1.960E-01	1.926E-02	1.543
		879.36	*	1.909E-02	1.228E-01	2.060E-01	2.060E-02	0.093
		962.29		8.920E-01	5.534E-01	9.219E-01	8.915E-02	0.968
	+	966.15		3.292E-01	2.066E-01	4.137E-01	3.992E-02	0.796
		1177.93		3.171E-02	3.582E-01	5.851E-01	4.712E-02	0.054
		1271.85		3.877E-01	7.304E-01	1.236E+00	1.022E-01	0.314
HO-166M		80.57		-4.442E-01	3.471E-01	3.617E-01	3.115E-02	-1.228
		184.41		4.701E-02	3.791E-02	6.103E-02	5.481E-03	0.770
		280.46		-7.466E-02	8.094E-02	1.284E-01	1.277E-02	-0.582
		410.95		2.196E-01	2.258E-01	3.904E-01	3.332E-02	0.563
		711.68	*	-1.622E-02	6.025E-02	9.900E-02	1.003E-02	-0.164
		752.31		-2.177E-01	2.554E-01	3.954E-01	4.018E-02	-0.551
		810.29		-1.374E-02	5.315E-02	8.632E-02	8.750E-03	-0.159

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-4.316E+00	1.873E+01	3.066E+01	2.342E+00	-0.141
		52.39		-1.824E+00	1.018E+01	1.666E+01	1.254E+00	-0.109
		59.40		1.890E+01	2.022E+01	3.102E+01	2.195E+00	0.609
		66.72	*	-6.086E+00	2.460E+01	3.567E+01	2.658E+00	-0.171
LU-176	+	88.36		9.643E-01	2.307E-01	3.416E-01	3.221E-02	2.823
		201.83		-2.383E-02	2.600E-02	4.222E-02	3.891E-03	-0.564
		306.84	*	4.512E-03	2.231E-02	3.746E-02	3.654E-03	0.120
		401.10		3.193E+00	6.507E+00	1.096E+01	9.255E-01	0.291
LU-177		112.95		-2.099E-01	1.523E+00	2.414E+00	2.035E-01	-0.087
	+	208.36	*	3.253E+00	1.594E+00	1.947E+00	1.811E-01	1.670
LU-177M		52.97		-2.237E-01	1.060E+00	1.733E+00	1.294E-01	-0.129
		54.07		2.931E-01	5.621E-01	9.431E-01	6.950E-02	0.311
		61.30		7.036E-01	1.206E+00	1.817E+00	1.300E-01	0.387
		121.62		7.993E-02	3.597E-01	5.832E-01	4.864E-02	0.137
		147.16		-2.982E-02	6.282E-01	9.999E-01	8.492E-02	-0.030
		171.86		-1.847E-01	4.642E-01	7.212E-01	6.353E-02	-0.256
		218.09		-7.081E-01	7.718E-01	1.246E+00	1.173E-01	-0.568
	+	268.79		3.809E+00	1.415E+00	1.542E+00	1.526E-01	2.470
		319.02		4.254E-05	2.298E-01	3.809E-01	3.666E-02	0.000
		367.43		-6.411E-01	8.171E-01	1.273E+00	1.129E-01	-0.504
		413.65	*	-2.747E-01	1.695E-01	2.446E-01	2.093E-02	-1.123
HF-181		56.28		1.635E-01	6.404E-01	1.065E+00	7.681E-02	0.154
		57.53		-3.512E-01	3.537E-01	5.595E-01	3.999E-02	-0.628
		65.20		-2.947E-01	8.125E-01	1.173E+00	8.632E-02	-0.251
		133.02		-4.524E-02	7.131E-02	9.783E-02	8.187E-03	-0.462
		136.25		-8.561E-02	4.331E-01	6.868E-01	5.762E-02	-0.125
		345.85		-9.724E-02	2.003E-01	2.958E-01	2.737E-02	-0.329
		482.03	*	4.041E-03	3.960E-02	6.470E-02	5.899E-03	0.062
W-181		56.28		6.396E-02	2.506E-01	4.166E-01	3.005E-02	0.154
		57.53		-1.375E-01	1.385E-01	2.191E-01	1.566E-02	-0.628
		65.20	*	-1.145E-01	3.157E-01	4.558E-01	3.354E-02	-0.251
TA-182		67.75		-3.807E-02	9.867E-02	1.422E-01	1.069E-02	-0.268
		100.10		6.162E-02	1.612E-01	2.621E-01	2.295E-02	0.235
		152.43		1.681E-01	3.306E-01	5.373E-01	4.596E-02	0.313
		222.10		-9.292E-02	3.172E-01	5.278E-01	4.996E-02	-0.176
		1001.68		2.295E-01	2.206E+00	3.471E+00	3.281E-01	0.066
	+	1121.28		7.727E-01	2.861E-01	3.707E-01	3.168E-02	2.085
		1189.05		1.514E-01	2.948E-01	4.990E-01	4.033E-02	0.303
		1221.42	*	-9.374E-02	2.075E-01	3.228E-01	2.634E-02	-0.290
		1230.97		4.259E-03	5.375E-01	8.178E-01	6.691E-02	0.005
RE-183		57.98		-2.243E-01	1.422E-01	2.191E-01	1.562E-02	-1.024
		59.32		7.073E-02	8.288E-02	1.267E-01	8.972E-03	0.558
		67.20		-2.027E-02	1.750E-01	2.553E-01	1.910E-02	-0.079
		162.32	*	-5.637E-02	1.056E-01	1.635E-01	1.419E-02	-0.345
	+	208.81		2.916E+00	1.429E+00	1.760E+00	1.638E-01	1.656
		291.72		-4.783E-01	9.776E-01	1.380E+00	1.363E-01	-0.347
RE-184		57.98		-8.263E-01	5.238E-01	8.073E-01	5.755E-02	-1.024
		59.32		2.604E-01	3.051E-01	4.666E-01	3.303E-02	0.558
		67.20		-7.465E-02	6.445E-01	9.401E-01	7.033E-02	-0.079

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		-2.614E-01	3.440E-01	5.264E-01	4.561E-02	-0.497
		216.55		1.711E-01	2.414E-01	4.181E-01	3.930E-02	0.409
		252.85	*	-4.479E-02	2.007E-01	3.324E-01	3.248E-02	-0.135
		318.01		-1.512E-01	4.019E-01	6.515E-01	6.278E-02	-0.232
		792.07		-1.419E-02	1.022E+00	1.476E+00	1.498E-01	-0.010
		903.28		-2.926E-02	1.004E+00	1.654E+00	1.641E-01	-0.018
		920.93		-6.221E-02	4.243E-01	6.900E-01	6.801E-02	-0.090
OS-185		59.72		2.835E-01	2.262E-01	3.511E-01	2.487E-02	0.808
		61.14		9.238E-02	1.313E-01	1.989E-01	1.421E-02	0.464
		69.30		-2.296E-03	2.656E-01	3.886E-01	2.963E-02	-0.006
		592.07		9.870E-01	2.273E+00	3.773E+00	3.686E-01	0.262
		646.12	*	1.856E-02	4.002E-02	6.955E-02	6.946E-03	0.267
		717.42		2.539E-01	8.468E-01	1.448E+00	1.468E-01	0.175
		874.81		-1.779E-01	5.041E-01	8.045E-01	8.054E-02	-0.221
		880.27		1.250E-01	6.989E-01	1.174E+00	1.174E-01	0.106
RE-188		155.03	*	-5.865E-02	1.732E-01	2.715E-01	2.331E-02	-0.216
		477.96		5.002E-01	2.824E+00	4.642E+00	4.218E-01	0.108
		633.10		2.609E+00	2.674E+00	4.591E+00	4.563E-01	0.568
W-188	+	63.58		5.755E+01	5.472E+01	7.092E+01	5.154E+00	0.811
		227.08		-2.290E+00	1.198E+01	2.001E+01	1.906E+00	-0.114
		290.67	*	-2.572E+00	7.645E+00	1.092E+01	1.080E+00	-0.236
IR-192	+	295.96		1.064E+00	1.986E-01	2.770E-01	2.744E-02	3.839
		308.46		4.095E-03	8.709E-02	1.450E-01	1.418E-02	0.028
		316.51	*	-2.576E-02	3.134E-02	4.934E-02	4.772E-03	-0.522
		468.07		-3.102E-02	6.633E-02	8.935E-02	8.585E-03	-0.347
		604.41		-9.402E-02	4.942E-01	6.747E-01	9.342E-02	-0.139
		612.46		2.235E+00	8.932E-01	1.467E+00	1.614E-01	1.523
AU-195	+	65.12		1.987E-01	1.889E-01	2.137E-01	1.571E-02	0.930
		66.83		-1.892E-02	8.165E-02	1.185E-01	8.838E-03	-0.160
	+	75.70		1.292E+00	2.376E-01	4.023E-01	3.275E-02	3.212
		98.88	*	2.539E-01	2.262E-01	3.424E-01	3.015E-02	0.741
	+	129.76		6.721E+00	4.985E+00	4.938E+00	4.124E-01	1.361
TL-200		367.94	*	-5.214E-04	4.985E+00	Half-Life too short		
		579.30		7.318E-05	4.985E+00	Half-Life too short		
		828.27		3.723E-04	4.985E+00	Half-Life too short		
		1205.75		-2.081E-03	4.985E+00	Half-Life too short		
TL-201		68.90		1.999E+00	4.246E+00	6.337E+00	4.813E-01	0.315
		70.82		1.147E+00	2.444E+00	3.643E+00	2.818E-01	0.315
		80.30		-9.163E+00	6.448E+00	6.633E+00	5.695E-01	-1.381
		135.34		-2.563E+00	2.373E+01	3.779E+01	3.168E+00	-0.068
		167.43	*	1.217E+00	6.668E+00	1.067E+01	9.332E-01	0.114
TL-202		68.90		1.788E-01	3.798E-01	5.669E-01	4.305E-02	0.315
		70.82		1.023E-01	2.181E-01	3.250E-01	2.514E-02	0.315
		80.30		-8.177E-01	5.754E-01	5.919E-01	5.082E-02	-1.381
		439.56	*	2.545E-02	6.206E-02	1.040E-01	9.141E-03	0.245
HG-203		70.83		4.483E-01	9.451E-01	1.407E+00	1.838E-01	0.319
	+	72.87		9.040E-01	7.390E-01	9.061E-01	1.155E-01	0.998
		82.60		8.028E-01	1.095E+00	1.633E+00	2.265E-01	0.492
		279.20	*	3.063E-02	3.811E-02	6.577E-02	6.689E-03	0.466

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207	+	72.80		2.649E-01	2.149E-01	2.620E-01	2.067E-02	1.011
	+	74.97		7.167E-01	1.318E-01	1.981E-01	1.600E-02	3.618
	+	84.90		2.375E-01	1.979E-01	2.833E-01	2.575E-02	0.838
		569.67		4.191E-03	2.896E-02	4.702E-02	4.543E-03	0.089
		1063.62	*	3.674E-03	5.127E-02	8.426E-02	7.608E-03	0.044
		1770.23		-3.194E-02	3.123E-01	4.230E-01	3.470E-02	-0.076
TL-207		81.07		6.994E-02	2.502E-01	2.927E-01	2.536E-02	0.239
	+	83.78		1.566E-01	1.305E-01	1.898E-01	1.701E-02	0.825
		94.90		5.885E-01	2.276E-01	3.597E-01	3.235E-02	1.636
		122.32		1.807E+00	1.710E+00	2.735E+00	2.458E-01	0.661
		144.24		-6.321E-02	6.572E-01	1.046E+00	9.935E-02	-0.060
		154.21		1.184E-01	3.923E-01	6.321E-01	5.966E-02	0.187
	+	269.46		8.917E-01	3.317E-01	3.741E-01	3.762E-02	2.383
		323.87	*	-1.404E-02	6.797E-01	9.876E-01	1.796E-01	-0.014
	+	338.28		6.960E+00	2.043E+00	2.480E+00	3.187E-01	2.806
		445.03		-6.776E-01	2.088E+00	3.320E+00	4.063E-01	-0.204
PO-209		260.50		1.107E+01	9.205E+00	1.613E+01	1.586E+00	0.686
		262.80		-7.834E+00	2.748E+01	4.195E+01	4.133E+00	-0.187
		896.60	*	-6.717E+00	7.138E+00	1.072E+01	1.067E+00	-0.626
BI-210		46.50	*	-2.101E-01	2.014E+00	3.307E+00	3.067E-01	-0.064
PB-210		46.50	*	-2.101E-01	2.014E+00	3.307E+00	3.067E-01	-0.064
PO-210		46.50	*	-2.101E-01	2.014E+00	3.307E+00	2.775E-01	-0.064
PB-211		404.84	*	-1.068E-01	9.134E-01	1.481E+00	9.278E-01	-0.072
		427.08		5.824E-02	1.902E+00	3.112E+00	1.934E+00	0.019
		831.96		-2.159E-01	1.203E+00	1.904E+00	1.197E+00	-0.113
BI-212	+	727.18	*	1.397E+00	4.992E-01	6.806E-01	7.724E-02	2.053
		785.46		1.737E+00	1.706E+00	3.035E+00	3.083E-01	0.572
		1620.62		1.068E+00	1.197E+00	2.215E+00	1.865E-01	0.482
PO-215		81.07		6.994E-02	2.502E-01	2.927E-01	2.536E-02	0.239
	+	83.78		1.566E-01	1.305E-01	1.898E-01	1.701E-02	0.825
		94.90		5.885E-01	2.276E-01	3.597E-01	3.235E-02	1.636
		122.32		1.807E+00	1.710E+00	2.735E+00	2.458E-01	0.661
		144.24		-6.321E-02	6.572E-01	1.046E+00	9.935E-02	-0.060
		154.21		1.184E-01	3.923E-01	6.321E-01	5.966E-02	0.187
	+	269.46		8.917E-01	3.317E-01	3.741E-01	3.762E-02	2.383
		323.87	*	-1.404E-02	6.797E-01	9.876E-01	1.796E-01	-0.014
	+	338.28		6.960E+00	2.043E+00	2.480E+00	3.187E-01	2.806
		445.03		-6.776E-01	2.088E+00	3.320E+00	4.063E-01	-0.204
RN-219	+	271.23		1.144E+00	4.300E-01	4.554E-01	5.197E-02	2.512
		401.81	*	3.278E-02	4.113E-01	6.768E-01	1.010E-01	0.048
RN-220		549.76	*	-9.880E+00	2.564E+01	3.999E+01	3.821E+00	-0.247
RA-223		81.07		6.994E-02	2.502E-01	2.927E-01	2.536E-02	0.239
	+	83.78		1.566E-01	1.305E-01	1.898E-01	1.701E-02	0.825
		94.90		5.885E-01	2.276E-01	3.597E-01	3.235E-02	1.636
		122.32		1.807E+00	1.710E+00	2.735E+00	2.458E-01	0.661
		144.24		-6.321E-02	6.572E-01	1.046E+00	9.935E-02	-0.060
		154.21		1.184E-01	3.923E-01	6.321E-01	5.966E-02	0.187
	+	269.46		8.917E-01	3.317E-01	3.741E-01	3.762E-02	2.383
		323.87	*	-1.404E-02	6.797E-01	9.876E-01	1.796E-01	-0.014

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		6.960E+00	2.043E+00	2.480E+00	3.187E-01	2.806
		445.03		-6.776E-01	2.088E+00	3.320E+00	4.063E-01	-0.204
AC-227		79.80		-1.492E+00	1.961E+00	2.100E+00	4.508E-01	-0.710
		236.00		3.523E-01	2.518E-01	3.943E-01	5.111E-02	0.893
		256.20	*	-3.216E-01	3.465E-01	5.474E-01	8.780E-02	-0.588
		286.10		-4.920E-01	1.408E+00	2.301E+00	3.241E-01	-0.214
	+	299.80		3.850E+00	1.758E+00	2.526E+00	4.574E-01	1.524
		304.40		1.791E-01	1.851E+00	2.723E+00	5.176E-01	0.066
		334.20		-3.028E-01	2.489E+00	3.329E+00	6.585E-01	-0.091
TH-227		79.80		-1.492E+00	1.962E+00	2.100E+00	4.566E-01	-0.710
	+	94.00		8.957E+00	3.211E+00	3.552E+00	7.796E-01	2.522
		236.00		3.523E-01	2.511E-01	3.943E-01	4.679E-02	0.893
		256.20	*	-3.216E-01	3.479E-01	5.474E-01	1.021E-01	-0.588
		286.10		-4.920E-01	1.491E+00	2.301E+00	2.312E+00	-0.214
	+	299.80		3.850E+00	1.758E+00	2.526E+00	4.574E-01	1.524
		304.40		1.791E-01	1.851E+00	2.723E+00	5.176E-01	0.066
		334.20		-3.028E-01	2.489E+00	3.329E+00	6.585E-01	-0.091
TH-229	+	85.43		2.344E-01	1.953E-01	2.888E-01	2.643E-02	0.812
	+	88.47		5.551E-01	1.328E-01	1.959E-01	1.846E-02	2.833
		100.00		8.306E-02	1.680E-01	2.742E-01	2.403E-02	0.303
		193.63	*	1.359E-01	4.705E-01	7.813E-01	7.116E-02	0.174
		210.97		1.403E+00	7.923E-01	1.275E+00	1.190E-01	1.101
PA-231		283.67	*	-4.772E-01	1.399E+00	2.287E+00	3.652E-01	-0.209
	+	301.29		1.540E+00	6.765E-01	9.444E-01	1.238E-01	1.631
TH-231		81.07		6.994E-02	2.502E-01	2.927E-01	2.536E-02	0.239
	+	83.78		1.566E-01	1.305E-01	1.898E-01	1.701E-02	0.825
		94.90		5.885E-01	2.276E-01	3.597E-01	3.235E-02	1.636
		122.32		1.807E+00	1.710E+00	2.735E+00	2.458E-01	0.661
		144.24		-6.321E-02	6.572E-01	1.046E+00	9.935E-02	-0.060
		154.21		1.184E-01	3.923E-01	6.321E-01	5.966E-02	0.187
	+	269.46		8.917E-01	3.317E-01	3.741E-01	3.762E-02	2.383
		323.87	*	-1.404E-02	6.797E-01	9.876E-01	1.796E-01	-0.014
	+	338.28		6.960E+00	2.043E+00	2.480E+00	3.187E-01	2.806
		445.03		-6.776E-01	2.088E+00	3.320E+00	4.063E-01	-0.204
U-231	+	84.21		6.778E+00	5.647E+00	8.109E+00	7.305E-01	0.836
	+	92.29		8.892E+00	2.645E+00	3.629E+00	3.319E-01	2.450
		95.87	*	-8.262E-01	1.087E+00	1.507E+00	1.348E-01	-0.548
		108.00		-1.337E+00	1.934E+00	3.030E+00	2.582E-01	-0.441
PA-233	+	75.28		2.091E+01	4.674E+00	5.939E+00	8.947E-01	3.521
	+	86.59		7.959E+00	2.777E+00	2.801E+00	7.574E-01	2.842
	+	300.12		1.073E+00	4.801E-01	7.011E-01	1.094E-01	1.531
		311.98	*	2.223E-02	5.892E-02	9.969E-02	9.891E-03	0.223
		340.50		1.959E+00	8.575E-01	1.210E+00	2.917E-01	1.619
		398.62		9.026E-02	1.989E+00	3.268E+00	8.682E-01	0.028
		415.76		7.778E-01	1.520E+00	2.553E+00	5.498E-01	0.305
PA-234	+	63.00		1.669E+00	1.601E+00	2.112E+00	3.121E-01	0.790
		94.67		4.040E-01	1.642E-01	2.739E-01	3.471E-02	1.475
		98.44		1.731E-01	1.310E-01	1.401E-01	7.818E-02	1.236
		99.86		3.420E-01	4.251E-01	7.011E-01	6.146E-02	0.488

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-4.647E-02	1.689E-01	2.691E-01	3.223E-02	-0.173
		131.20		8.358E-02	1.136E-01	1.681E-01	1.405E-02	0.497
		152.70		2.492E-01	3.214E-01	5.240E-01	8.915E-02	0.476
	+	186.00		6.607E+00	3.100E+00	2.475E+00	7.751E-01	2.670
		226.40		3.369E-02	3.794E-01	6.411E-01	8.849E-02	0.053
		227.20		-1.655E-01	4.074E-01	6.739E-01	6.418E-02	-0.246
		248.90		-8.637E-02	7.210E-01	1.202E+00	2.748E-01	-0.072
		293.70		4.792E+00	1.198E+00	1.567E+00	2.813E-01	3.058
		369.80		1.218E-01	7.587E-01	1.260E+00	2.755E-01	0.097
		568.70		-5.929E-01	9.627E-01	1.468E+00	1.417E-01	-0.404
		569.50		-4.120E-02	2.620E-01	4.155E-01	4.014E-02	-0.099
		574.00		-3.473E-01	1.461E+00	2.300E+00	2.227E-01	-0.151
		699.00		6.532E-02	6.512E-01	1.100E+00	2.178E-01	0.059
		706.10		-1.036E-02	9.084E-01	1.521E+00	6.831E-01	-0.007
		733.00		-2.305E-01	4.268E-01	5.801E-01	1.325E-01	-0.397
		742.81		2.435E-01	1.307E+00	2.197E+00	1.482E+00	0.111
	+	796.30		2.710E+00	1.578E+00	1.784E+00	4.920E-01	1.519
		805.60		1.041E+00	9.666E-01	1.653E+00	5.141E-01	0.630
		819.60		-7.151E-02	1.074E+00	1.773E+00	6.808E-01	-0.040
		826.30		5.625E-02	7.469E-01	1.247E+00	5.620E-01	0.045
		831.60		-1.141E-01	6.234E-01	9.912E-01	3.004E-01	-0.115
		876.40		2.664E-01	7.547E-01	1.206E+00	1.241E+00	0.221
		880.51		4.301E-02	2.524E-01	4.238E-01	4.236E-02	0.101
		883.24		1.208E-01	2.694E-01	4.374E-01	2.949E-01	0.276
		899.00		-2.988E-01	8.267E-01	1.308E+00	5.756E-01	-0.228
		925.00		-7.911E-01	1.108E+00	1.699E+00	1.672E-01	-0.466
		926.50		-9.025E-02	1.604E-01	2.471E-01	6.353E-02	-0.365
		946.00	*	-2.054E-01	2.856E-01	4.335E-01	8.371E-02	-0.474
		949.00		-1.288E-01	5.234E-01	7.231E-01	7.040E-02	-0.178
		980.50		3.386E-01	7.188E-01	1.228E+00	1.175E-01	0.276
		1394.10		-7.802E-01	1.160E+00	1.579E+00	1.028E+00	-0.494
PA-234M		766.42		2.073E+01	1.571E+01	1.986E+01	1.013E+01	1.044
		1001.03	*	1.824E-02	4.995E+00	7.793E+00	8.336E-01	0.002
U-235	+	89.95		2.581E+00	1.198E+00	1.658E+00	5.149E-01	1.557
	+	93.35		2.787E+00	1.113E+00	1.150E+00	3.239E-01	2.424
		105.00		1.108E+00	1.025E+00	1.638E+00	4.886E-01	0.676
		143.76	*	-5.005E-02	2.042E-01	3.226E-01	5.622E-02	-0.155
		163.35		2.772E-01	4.496E-01	7.289E-01	1.393E-01	0.380
	+	185.71		2.447E-01	8.828E-02	9.142E-02	8.228E-03	2.676
		205.31		3.218E-01	5.115E-01	7.851E-01	1.521E-01	0.410
NP-236		94.67		3.094E-01	1.216E-01	2.080E-01	1.874E-02	1.487
		98.44		1.308E-01	6.781E-02	1.059E-01	9.342E-03	1.236
		111.00		-3.515E-02	1.277E-01	2.036E-01	1.723E-02	-0.173
		160.31	*	-9.829E-02	7.956E-02	1.173E-01	1.015E-02	-0.838
NP-239		99.55		1.602E-01	1.423E-01	2.370E-01	2.081E-02	0.676
		117.00	*	-8.362E-02	1.733E-01	2.728E-01	2.286E-02	-0.306
	+	209.75		2.300E+00	1.127E+00	1.395E+00	1.300E-01	1.648
		228.18		-1.479E-01	2.130E-01	3.474E-01	3.312E-02	-0.426
		277.60		1.989E-02	1.731E-01	2.903E-01	2.888E-02	0.069

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-1.582E-01	1.411E+00	1.889E+00	1.781E-01	-0.084
AM-241		59.54	*	1.271E-01	1.183E-01	1.823E-01	1.427E-02	0.697
CM-243		99.55		1.648E-01	1.465E-01	2.439E-01	2.141E-02	0.676
		103.76	*	5.733E-02	8.502E-02	1.410E-01	1.217E-02	0.407
		117.00		-8.603E-02	1.783E-01	2.807E-01	2.352E-02	-0.306
	+	209.75		2.267E+00	1.111E+00	1.375E+00	1.281E-01	1.648
		228.18		-1.495E-01	2.153E-01	3.510E-01	3.347E-02	-0.426
		277.60		2.005E-02	1.745E-01	2.927E-01	2.911E-02	0.069
AM-246		798.80		1.051E-01	1.203E-01	1.938E-01	1.966E-02	0.542
		1036.00		-1.285E-01	2.854E-01	4.460E-01	4.116E-02	-0.288
		1062.04		-1.356E-01	2.201E-01	3.374E-01	3.051E-02	-0.402
		1078.86	*	1.077E-01	1.467E-01	2.537E-01	2.261E-02	0.424
CM-247		278.00		4.187E-01	7.097E-01	1.214E+00	1.208E-01	0.345
		287.40		4.978E-01	1.142E+00	1.943E+00	1.925E-01	0.256
		402.60	*	-3.522E-03	3.625E-02	5.902E-02	4.991E-03	-0.060
CF-249		252.85		-1.681E-01	7.528E-01	1.247E+00	1.219E-01	-0.135
		333.44		9.910E-03	2.330E-01	2.462E-01	2.324E-02	0.040
		387.95	*	-4.341E-03	3.624E-02	5.901E-02	4.979E-03	-0.074
CF-251		176.60	*	2.136E-02	1.231E-01	1.964E-01	1.743E-02	0.109
		227.00		-6.201E-02	3.598E-01	6.013E-01	5.725E-02	-0.103
		285.00		-4.945E-01	1.615E+00	2.648E+00	2.628E-01	-0.187

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691011      *
* Acquisition date :  9-FEB-2010 15:33:35 Detector SN#    :                 *
* Detector ID        : GAM20              Sensitivity     : 5.000          *
* Geometry           : CAN                Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:33.74     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691011           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.3415E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.574E+01	3.533E+00	5.256E-01	0.000E+00
CD-109	4.137E+00	9.698E-01	1.084E+00	0.000E+00
SN-126	4.066E-01	9.531E-02	1.069E-01	0.000E+00
TL-208	6.083E-01	1.008E-01	5.450E-02	0.000E+00
BI-211	4.238E+00	5.806E-01	3.266E-01	0.000E+00
PB-212	1.800E+00	2.184E-01	8.945E-02	0.000E+00
PO-212	1.800E+00	2.184E-01	8.945E-02	0.000E+00
BI-214	1.300E+00	2.170E-01	1.057E-01	0.000E+00
PB-214	1.474E+00	2.156E-01	1.034E-01	0.000E+00
PO-214	1.474E+00	2.156E-01	1.034E-01	0.000E+00
PO-216	1.800E+00	2.184E-01	8.945E-02	0.000E+00
PO-218	1.474E+00	2.156E-01	1.034E-01	0.000E+00
RA-224	5.042E+00	1.527E+00	1.018E+00	0.000E+00
RA-226	1.300E+00	2.170E-01	1.057E-01	0.000E+00
AC-228	1.961E+00	3.536E-01	2.313E-01	0.000E+00
RA-228	1.961E+00	3.536E-01	2.313E-01	0.000E+00
TH-228	1.827E+00	2.218E-01	9.081E-02	0.000E+00
TH-230	1.300E+00	2.170E-01	1.057E-01	0.000E+00
TH-232	1.961E+00	3.536E-01	2.313E-01	0.000E+00
TH-234	1.431E+00	1.352E+00	1.702E+00	0.000E+00
U-234	1.300E+00	2.170E-01	1.057E-01	0.000E+00
NP-237	1.194E+00	3.696E-01	3.161E-01	0.000E+00
U-238	1.431E+00	1.352E+00	1.702E+00	0.000E+00
AM-243	3.993E-01	7.195E-02	7.662E-02	0.000E+00
ANH-511	1.400E-01	6.458E-02	4.729E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.436E-02	2.913E-01	4.902E-01	0.000E+00	NOT IDENT.
NA-22	-6.009E-03	4.366E-02	7.116E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	6.205E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.325E-02	2.330E-02	2.941E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.353E-02	7.493E-02	0.000E+00	FAIL ABUN
SC-46	-3.039E-02	3.534E-02	5.522E-02	0.000E+00	FAIL ABUN
V-48	-1.475E-02	6.627E-02	1.097E-01	0.000E+00	NOT IDENT.
CR-51	1.327E-01	3.350E-01	5.772E-01	0.000E+00	NOT IDENT.
MN-52	1.297E-01	1.981E-01	3.663E-01	0.000E+00	NOT IDENT.
MN-54	1.092E-02	3.549E-02	6.219E-02	0.000E+00	NOT IDENT.
CO-56	-1.527E-02	3.553E-02	5.851E-02	0.000E+00	FAIL ABUN
CO-57	2.102E-02	2.331E-02	4.140E-02	0.000E+00	NOT IDENT.
CO-58	-1.226E-03	3.372E-02	5.774E-02	0.000E+00	NOT IDENT.
FE-59	1.857E-02	8.541E-02	1.458E-01	0.000E+00	NOT IDENT.
CO-60	2.709E-02	3.657E-02	6.519E-02	0.000E+00	NOT IDENT.
ZN-65	-7.508E-02	1.030E-01	1.349E-01	0.000E+00	NOT IDENT.
GE-68	-1.681E-01	1.239E+00	2.053E+00	0.000E+00	NOT IDENT.
AS-73	-6.098E-02	5.336E-01	9.488E-01	0.000E+00	NOT IDENT.
AS-74	-1.347E-02	8.338E-02	1.369E-01	0.000E+00	NOT IDENT.
SE-75	-3.482E-02	4.611E-02	6.778E-02	0.000E+00	NOT IDENT.
BR-77	6.447E-01	1.008E+01	1.703E+01	0.000E+00	FAIL ABUN
SR-82	-6.711E-02	3.537E-01	6.007E-01	0.000E+00	NOT IDENT.
RB-83	2.154E-02	6.474E-02	1.115E-01	0.000E+00	NOT IDENT.
RB-84	1.217E-02	6.234E-02	1.082E-01	0.000E+00	NOT IDENT.
KR-85	1.209E+01	8.278E+00	1.353E+01	0.000E+00	NOT IDENT.
SR-85	6.201E-02	4.246E-02	6.938E-02	0.000E+00	NOT IDENT.
RB-86	-8.073E-01	8.102E-01	1.233E+00	0.000E+00	NOT IDENT.
Y-88	1.449E-02	2.726E-02	5.026E-02	0.000E+00	NOT IDENT.
ZR-88	-4.266E-03	2.690E-02	4.572E-02	0.000E+00	NOT IDENT.
Y-91	-1.658E+01	1.899E+01	2.910E+01	0.000E+00	NOT IDENT.
NB-94	-1.646E-02	2.916E-02	4.845E-02	0.000E+00	NOT IDENT.
NB-95	4.093E-02	4.229E-02	6.956E-02	0.000E+00	NOT IDENT.
NB-95M	6.940E-02	1.258E-01	2.026E-01	0.000E+00	NOT IDENT.
ZR-95	4.429E-02	6.843E-02	1.233E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.168E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.907E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.191E+00	1.127E+01	1.922E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.919E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.618E-03	2.969E-02	5.389E-02	0.000E+00	FAIL ABUN
RH-102	-6.832E-03	2.548E-02	4.228E-02	0.000E+00	NOT IDENT.
RU-103	3.314E-02	3.590E-02	6.424E-02	0.000E+00	FAIL ABUN
RH-106	1.377E-01	2.988E-01	5.130E-01	0.000E+00	FAIL ABUN
RU-106	1.377E-01	2.984E-01	5.130E-01	0.000E+00	FAIL ABUN
AG-108M	1.652E-03	2.924E-02	5.005E-02	0.000E+00	NOT IDENT.
AG-110M	3.517E-02	3.215E-02	5.988E-02	0.000E+00	NOT IDENT.
IN-111	3.389E-01	1.014E+00	1.617E+00	0.000E+00	NOT IDENT.
IN-113M	-6.787E-03	3.864E-02	6.562E-02	0.000E+00	NOT IDENT.
SN-113	-6.787E-03	3.864E-02	6.562E-02	0.000E+00	NOT IDENT.
IN-114M	1.144E-01	1.712E-01	2.816E-01	0.000E+00	NOT IDENT.
CD-115	1.513E+00	9.936E+00	1.689E+01	0.000E+00	NOT IDENT.
SN-117M	4.184E-02	5.271E-02	9.106E-02	0.000E+00	NOT IDENT.
SB-122	0.000E+00	1.950E+00	3.652E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.688E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.807E-02	2.700E-02	4.643E-02	0.000E+00	NOT IDENT.
I-124	2.867E-02	7.195E-01	1.047E+00	0.000E+00	NOT IDENT.
SB-124	-4.478E-02	5.742E-02	8.026E-02	0.000E+00	FAIL ABUN
SB-125	1.947E-02	8.283E-02	1.436E-01	0.000E+00	FAIL ABUN
TE-125M	-4.972E-01	8.315E+00	1.433E+01	0.000E+00	NOT IDENT.
I-126	3.717E-02	1.639E-01	2.903E-01	0.000E+00	NOT IDENT.
SB-126	-8.195E-02	1.432E-01	2.129E-01	0.000E+00	FAIL ABUN
SB-127	3.925E-01	1.153E+00	2.057E+00	0.000E+00	NOT IDENT.
XE-127	-5.094E-02	4.138E-02	7.003E-02	0.000E+00	NOT IDENT.
I-131	7.650E-02	1.044E-01	1.876E-01	0.000E+00	NOT IDENT.
TE-132	-4.912E-01	6.478E-01	1.108E+00	0.000E+00	NOT IDENT.
BA-133	9.375E-03	4.185E-02	6.470E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.563E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.147E-02	9.427E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.570E-01	2.929E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.084E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.295E-02	1.052E-01	1.748E-01	0.000E+00	FAIL ABUN
BA-137M	-4.475E-02	3.344E-02	5.235E-02	0.000E+00	NOT IDENT.
CS-137	-4.730E-02	3.535E-02	5.533E-02	0.000E+00	NOT IDENT.
CE-139	-6.885E-03	2.832E-02	4.724E-02	0.000E+00	NOT IDENT.
BA-140	2.471E-03	2.304E-01	3.869E-01	0.000E+00	NOT IDENT.
LA-140	-8.825E-03	7.046E-02	1.171E-01	0.000E+00	FAIL ABUN
CE-141	3.231E-02	5.856E-02	1.017E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.868E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.935E-01	2.166E-01	3.095E-01	0.000E+00	NOT IDENT.
PM-144	-9.519E-03	3.197E-02	5.440E-02	0.000E+00	NOT IDENT.
PR-144	-6.451E-01	2.166E+00	3.687E+00	0.000E+00	NOT IDENT.

PM-146	-1.007E-03	3.943E-02	6.689E-02	0.000E+00	NOT IDENT.
ND-147	1.465E-01	5.150E-01	8.829E-01	0.000E+00	FAIL ABUN
PM-149	-2.097E+01	8.201E+01	1.419E+02	0.000E+00	NOT IDENT.
EU-152	2.934E-02	1.022E-01	1.589E-01	0.000E+00	FAIL ABUN
GD-153	4.457E-03	7.600E-02	1.177E-01	0.000E+00	FAIL ABUN
EU-154	5.251E-02	1.156E-01	1.994E-01	0.000E+00	NOT IDENT.
EU-155	1.109E-01	9.759E-02	1.754E-01	0.000E+00	FAIL ABUN
TB-160	1.909E-02	1.204E-01	2.084E-01	0.000E+00	FAIL ABUN
HO-166M	-1.622E-02	5.905E-02	1.005E-01	0.000E+00	NOT IDENT.
TM-171	-6.086E+00	2.410E+01	3.774E+01	0.000E+00	NOT IDENT.
LU-176	4.512E-03	2.187E-02	3.861E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.562E+00	2.021E+00	0.000E+00	FAIL ABUN
LU-177M	-2.747E-01	1.661E-01	2.508E-01	0.000E+00	FAIL ABUN
HF-181	4.041E-03	3.881E-02	6.615E-02	0.000E+00	NOT IDENT.
W-181	-1.145E-01	3.094E-01	4.824E-01	0.000E+00	NOT IDENT.
TA-182	-9.374E-02	2.034E-01	3.245E-01	0.000E+00	FAIL ABUN
RE-183	-5.637E-02	1.035E-01	1.704E-01	0.000E+00	FAIL ABUN
RE-184	-4.479E-02	1.966E-01	3.437E-01	0.000E+00	NOT IDENT.
OS-185	1.856E-02	3.922E-02	7.074E-02	0.000E+00	NOT IDENT.
RE-188	-5.865E-02	1.697E-01	2.832E-01	0.000E+00	NOT IDENT.
W-188	-2.572E+00	7.492E+00	1.127E+01	0.000E+00	FAIL ABUN
IR-192	-2.576E-02	3.071E-02	5.083E-02	0.000E+00	FAIL ABUN
AU-195	2.539E-01	2.216E-01	3.599E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.162E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.217E+00	6.535E+00	1.111E+01	0.000E+00	NOT IDENT.
TL-202	2.545E-02	6.082E-02	1.066E-01	0.000E+00	NOT IDENT.
HG-203	3.063E-02	3.735E-02	6.790E-02	0.000E+00	FAIL ABUN
BI-207	3.674E-03	5.025E-02	8.492E-02	0.000E+00	FAIL ABUN
TL-207	-1.404E-02	6.661E-01	1.017E+00	0.000E+00	FAIL ABUN
PO-209	-6.717E+00	6.995E+00	1.084E+01	0.000E+00	NOT IDENT.
BI-210	-2.101E-01	1.974E+00	3.520E+00	0.000E+00	NOT IDENT.
PB-210	-2.101E-01	1.974E+00	3.520E+00	0.000E+00	NOT IDENT.
PO-210	-2.101E-01	1.974E+00	3.520E+00	0.000E+00	NOT IDENT.
PB-211	-1.068E-01	8.951E-01	1.519E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.893E-01	6.907E-01	0.000E+00	FAIL ABUN
PO-215	-1.404E-02	6.661E-01	1.017E+00	0.000E+00	FAIL ABUN
RN-219	3.278E-02	4.030E-01	6.943E-01	0.000E+00	FAIL ABUN
RN-220	-9.880E+00	2.513E+01	4.079E+01	0.000E+00	NOT IDENT.
RA-223	-1.404E-02	6.661E-01	1.017E+00	0.000E+00	FAIL ABUN
AC-227	-3.216E-01	3.396E-01	5.660E-01	0.000E+00	FAIL ABUN
TH-227	-3.216E-01	3.409E-01	5.660E-01	0.000E+00	FAIL ABUN
TH-229	1.359E-01	4.611E-01	8.118E-01	0.000E+00	FAIL ABUN
PA-231	-4.772E-01	1.371E+00	2.361E+00	0.000E+00	FAIL ABUN
TH-231	-1.404E-02	6.661E-01	1.017E+00	0.000E+00	FAIL ABUN
U-231	-8.262E-01	1.065E+00	1.585E+00	0.000E+00	FAIL ABUN
PA-233	2.223E-02	5.774E-02	1.027E-01	0.000E+00	FAIL ABUN
PA-234	-2.054E-01	2.799E-01	4.379E-01	0.000E+00	FAIL ABUN
PA-234M	1.824E-02	4.895E+00	7.863E+00	0.000E+00	NOT IDENT.
U-235	-5.005E-02	2.001E-01	3.369E-01	0.000E+00	FAIL ABUN
NP-236	-9.829E-02	7.797E-02	1.223E-01	0.000E+00	NOT IDENT.
NP-239	-8.362E-02	1.698E-01	2.860E-01	0.000E+00	FAIL ABUN
AM-241	1.271E-01	1.159E-01	1.933E-01	0.000E+00	NOT IDENT.
CM-243	5.733E-02	8.332E-02	1.481E-01	0.000E+00	FAIL ABUN
AM-246	1.077E-01	1.437E-01	2.557E-01	0.000E+00	NOT IDENT.
CM-247	-3.522E-03	3.552E-02	6.054E-02	0.000E+00	NOT IDENT.
CF-249	-4.341E-03	3.551E-02	6.057E-02	0.000E+00	NOT IDENT.
CF-251	2.136E-02	1.207E-01	2.044E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:36:21.83

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691011.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:35.
Sample ID         : G245691011           Sample quantity  : 1.34150E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:33.74  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1707	10.67*	1.253E+00	3.574E+01	3.574E+01	10.09
CD-109	88.03	373	3.72*	6.944E+00	4.044E+00	4.137E+00	23.92
SN-126	64.28	91	9.60	4.684E+00	5.666E-01	5.666E-01	95.89
	86.94	373	8.90	6.944E+00	1.690E+00	1.690E+00	46.99
	87.57	373	37.00*	6.944E+00	4.066E-01	4.066E-01	23.92
TL-208	277.35	------	6.80	4.722E+00	------ Line Not Found		------
	510.84	150	21.60	2.990E+00	6.482E-01	6.482E-01	47.80
	583.14	493	84.20*	2.695E+00	6.083E-01	6.083E-01	16.92
	860.37	69	12.46	1.953E+00	7.887E-01	7.887E-01	56.11
BI-211	72.87	122	1.27	5.910E+00	4.543E+00	4.543E+00	81.14
	351.07	778	12.94*	3.968E+00	4.238E+00	4.238E+00	13.98
PB-212	74.81	571	10.70	6.060E+00	2.463E+00	2.463E+00	20.63
	77.11	892	18.00	6.261E+00	2.215E+00	2.215E+00	13.36
	87.30	373	8.00	6.944E+00	1.880E+00	1.880E+00	25.93
	238.63	1506	44.60*	5.248E+00	1.800E+00	1.800E+00	12.38
	300.09	113	3.41	4.463E+00	2.077E+00	2.077E+00	43.46
PO-212	74.81	571	10.70	6.060E+00	2.463E+00	2.463E+00	20.63
	77.11	892	18.00	6.261E+00	2.215E+00	2.215E+00	13.36
	87.30	373	8.00	6.944E+00	1.880E+00	1.880E+00	25.93
	115.19	------	0.60	7.430E+00	------ Line Not Found		------
	238.63	1506	44.60*	5.248E+00	1.800E+00	1.800E+00	12.38
	300.09	113	3.41	4.463E+00	2.077E+00	2.077E+00	43.46
BI-214	609.31	560	46.30*	2.602E+00	1.300E+00	1.300E+00	17.03
	1120.29	137	15.10	1.556E+00	1.634E+00	1.634E+00	37.61
	1764.49	98	15.80	1.100E+00	1.578E+00	1.578E+00	25.22
PB-214	74.81	571	6.21	6.060E+00	4.244E+00	4.244E+00	19.82
	77.11	892	10.50	6.261E+00	3.798E+00	3.798E+00	15.38
	87.30	373	4.67	6.944E+00	3.221E+00	3.221E+00	25.13
	241.98	371	7.49	5.206E+00	2.659E+00	2.659E+00	31.41
	295.21	432	19.20	4.513E+00	1.394E+00	1.394E+00	19.66
	351.92	778	37.20*	3.968E+00	1.474E+00	1.474E+00	14.92
PO-214	74.81	571	6.21	6.060E+00	4.244E+00	4.244E+00	19.82

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	892	10.50	6.261E+00	3.798E+00	3.798E+00	15.38
	87.30	373	4.67	6.944E+00	3.221E+00	3.221E+00	25.13
	241.98	371	7.49	5.206E+00	2.659E+00	2.659E+00	31.41
	295.21	432	19.20	4.513E+00	1.394E+00	1.394E+00	19.66
	351.92	778	37.20*	3.968E+00	1.474E+00	1.474E+00	14.92
PO-216	74.81	571	10.70	6.060E+00	2.463E+00	2.463E+00	20.63
	77.11	892	18.00	6.261E+00	2.215E+00	2.215E+00	13.36
	87.30	373	8.00	6.944E+00	1.880E+00	1.880E+00	25.93
	238.63	1506	44.60*	5.248E+00	1.800E+00	1.800E+00	12.38
	300.09	113	3.41	4.463E+00	2.077E+00	2.077E+00	43.46
PO-218	74.81	571	6.21	6.060E+00	4.244E+00	4.244E+00	19.82
	77.11	892	10.50	6.261E+00	3.798E+00	3.798E+00	15.38
	87.30	373	4.67	6.944E+00	3.221E+00	3.221E+00	25.13
	241.98	371	7.49	5.206E+00	2.659E+00	2.659E+00	31.41
	295.21	432	19.20	4.513E+00	1.394E+00	1.394E+00	19.66
	351.92	778	37.20*	3.968E+00	1.474E+00	1.474E+00	14.92
RA-224	240.98	371	3.95*	5.206E+00	5.042E+00	5.042E+00	30.91
RA-226	609.31	560	46.30*	2.602E+00	1.300E+00	1.300E+00	17.03
	1120.29	137	15.10	1.556E+00	1.634E+00	1.634E+00	37.61
	1764.49	98	15.80	1.100E+00	1.578E+00	1.578E+00	25.22
AC-228	338.32	277	11.40	4.085E+00	1.667E+00	1.667E+00	49.12
	911.07	361	27.70*	1.859E+00	1.961E+00	1.961E+00	18.40
	969.11	187	16.60	1.764E+00	1.791E+00	1.791E+00	31.95
RA-228	338.32	277	11.40	4.085E+00	1.667E+00	1.667E+00	49.12
	911.07	361	27.70*	1.859E+00	1.961E+00	1.961E+00	18.40
	969.11	187	16.60	1.764E+00	1.791E+00	1.791E+00	31.95
TH-228	74.81	571	10.70	6.060E+00	2.463E+00	2.500E+00	18.42
	77.11	892	18.00	6.261E+00	2.215E+00	2.249E+00	13.36
	87.30	373	8.00	6.944E+00	1.880E+00	1.909E+00	23.92
	238.63	1506	44.60*	5.248E+00	1.800E+00	1.827E+00	12.38
	300.09	113	3.41	4.463E+00	2.077E+00	2.109E+00	72.76
TH-230	609.31	560	46.30*	2.602E+00	1.300E+00	1.300E+00	17.03
	1120.29	137	15.10	1.556E+00	1.634E+00	1.634E+00	37.61
	1764.49	98	15.80	1.100E+00	1.578E+00	1.578E+00	25.22
TH-232	338.32	277	11.40	4.085E+00	1.667E+00	1.667E+00	28.01
	911.07	361	27.70*	1.859E+00	1.961E+00	1.961E+00	18.40
	969.11	187	16.60	1.764E+00	1.791E+00	1.791E+00	31.95
TH-234	63.29	91	3.80*	4.684E+00	1.431E+00	1.431E+00	96.38
	92.38	322	5.41	7.175E+00	2.318E+00	2.318E+00	33.73
U-234	609.31	560	46.30*	2.602E+00	1.300E+00	1.300E+00	17.03
	1120.29	137	15.10	1.556E+00	1.634E+00	1.634E+00	37.61
	1764.49	98	15.80	1.100E+00	1.578E+00	1.578E+00	25.22
NP-237	86.50	373	12.60*	6.944E+00	1.194E+00	1.194E+00	31.59
	95.87	------	2.60	7.260E+00	------ Line Not Found		------
U-238	63.29	91	3.80*	4.684E+00	1.431E+00	1.431E+00	96.38
	92.38	322	5.41	7.175E+00	2.318E+00	2.318E+00	29.75
AM-243	74.67	571	66.00*	6.060E+00	3.993E-01	3.993E-01	18.39
	86.72	373	0.34	6.944E+00	4.477E+01	4.477E+01	23.92
	117.66	------	0.55	7.416E+00	------ Line Not Found		------

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	7.067E+00	------	Line Not Found	------
ANH-511	511.00	150	100.00*	2.990E+00	1.400E-01	1.400E-01	47.07

Flag: "*" = Keyline

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

Total number of lines in spectrum 38
Number of unidentified lines 5
Number of lines tentatively identified by NID 33 86.84%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.574E+01	3.574E+01	0.361E+01	10.09	
CD-109	464.00D	1.02	4.044E+00	4.137E+00	0.990E+00	23.92	
SN-126	1.00E+05Y	1.00	4.066E-01	4.066E-01	0.973E-01	23.92	
TL-208	1.41E+10Y	1.00	6.083E-01	6.083E-01	1.029E-01	16.92	
BI-211	7.04E+08Y	1.00	4.238E+00	4.238E+00	0.592E+00	13.98	
PB-212	1.41E+10Y	1.00	1.800E+00	1.800E+00	0.223E+00	12.38	
PO-212	1.41E+10Y	1.00	1.800E+00	1.800E+00	0.223E+00	12.38	
BI-214	1600.00Y	1.00	1.300E+00	1.300E+00	0.221E+00	17.03	
PB-214	1600.00Y	1.00	1.474E+00	1.474E+00	0.220E+00	14.92	
PO-214	1600.00Y	1.00	1.474E+00	1.474E+00	0.220E+00	14.92	
PO-216	1.41E+10Y	1.00	1.800E+00	1.800E+00	0.223E+00	12.38	
PO-218	1600.00Y	1.00	1.474E+00	1.474E+00	0.220E+00	14.92	
RA-224	1.41E+10Y	1.00	5.042E+00	5.042E+00	1.558E+00	30.91	
RA-226	1600.00Y	1.00	1.300E+00	1.300E+00	0.221E+00	17.03	
AC-228	1.41E+10Y	1.00	1.961E+00	1.961E+00	0.361E+00	18.40	
RA-228	1.41E+10Y	1.00	1.961E+00	1.961E+00	0.361E+00	18.40	
TH-228	1.91Y	1.02	1.800E+00	1.827E+00	0.226E+00	12.38	
TH-230	4.47E+09Y	1.00	1.300E+00	1.300E+00	0.221E+00	17.03	
TH-232	1.41E+10Y	1.00	1.961E+00	1.961E+00	0.361E+00	18.40	
TH-234	4.47E+09Y	1.00	1.431E+00	1.431E+00	1.380E+00	96.38	
U-234	4.47E+09Y	1.00	1.300E+00	1.300E+00	0.221E+00	17.03	
NP-237	2.14E+06Y	1.00	1.194E+00	1.194E+00	0.377E+00	31.59	
U-238	4.47E+09Y	1.00	1.431E+00	1.431E+00	1.380E+00	96.38	
AM-243	7380.00Y	1.00	3.993E-01	3.993E-01	0.734E-01	18.39	
ANH-511	1.00E+09Y	1.00	1.400E-01	1.400E-01	0.659E-01	47.07	
	Total Activity :		7.738E+01	7.750E+01			

Grand Total Activity : 7.738E+01 7.750E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	84.14	94	577	1.22	168.20	164	29	1.30E-02	82.8	6.77E+00	T
3	90.08	176	319	0.80	180.06	164	29	2.44E-02	34.5	7.07E+00	T
0	128.46	134	579	1.28	256.70	251	12	1.86E-02	73.7	7.30E+00	T
0	186.37	291	483	1.63	372.37	366	14	4.04E-02	34.9	6.17E+00	T
0	209.47	153	338	1.07	418.50	414	10	2.12E-02	48.1	5.73E+00	T
0	269.85	209	279	1.59	539.12	532	13	2.90E-02	35.8	4.81E+00	T
0	327.92	118	262	1.33	655.13	647	14	1.65E-02	60.9	4.18E+00	T
0	462.88	127	99	1.81	924.80	919	12	1.76E-02	36.1	3.23E+00	T
0	727.43	133	87	1.75	1453.59	1447	13	1.84E-02	33.9	2.25E+00	T
0	768.38	83	61	3.40	1535.46	1530	11	1.15E-02	42.6	2.15E+00	
0	795.69	79	73	1.51	1590.07	1584	14	1.10E-02	51.3	2.09E+00	T
0	940.52	68	159	14.80	1879.72	1863	35	9.41E-03	****	1.81E+00	
1	965.13	44	63	1.84	1928.94	1925	21	6.05E-03	62.0	1.77E+00	T
0	1239.40	48	93	1.56	2477.69	2470	12	6.72E-03	84.8	1.43E+00	T
0	1377.97	55	18	1.08	2755.04	2746	14	7.63E-03	42.2	1.31E+00	
0	1630.68	26	3	0.84	3261.04	3255	11	3.54E-03	46.8	1.16E+00	
0	1729.79	34	0	2.00	3459.56	3453	12	4.72E-03	34.3	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:36:26.28

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691011.CNF;1  *
* Acquisition date  : 9-FEB-2010 15:33:35.  Detector SN#     :               *
* Detector ID       : GAM20                 Sensitivity      : 5.00000      *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:33.74          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date       : 25-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G245691011            Analyst initials: MJH1           *
* Batch Number      : 947037                Sample Quantity : 1.34150E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.574E+01	3.605E+00	5.246E-01	4.575E-02	68.132
CD-109	4.137E+00	9.896E-01	1.030E+00	9.735E-02	4.018
SN-126	4.066E-01	9.726E-02	1.015E-01	9.544E-03	4.007
TL-208	6.083E-01	1.029E-01	5.349E-02	5.499E-03	11.373
BI-211	4.238E+00	5.925E-01	3.176E-01	3.043E-02	13.340
PB-212	1.800E+00	2.229E-01	8.640E-02	9.188E-03	20.832
PO-212	1.800E+00	2.229E-01	8.640E-02	9.188E-03	20.832
BI-214	1.300E+00	2.214E-01	1.038E-01	1.155E-02	12.527
PB-214	1.474E+00	2.200E-01	1.006E-01	1.096E-02	14.658
PO-214	1.474E+00	2.200E-01	1.006E-01	1.096E-02	14.658
PO-216	1.800E+00	2.229E-01	8.640E-02	9.188E-03	20.832
PO-218	1.474E+00	2.200E-01	1.006E-01	1.096E-02	14.658
RA-224	5.042E+00	1.558E+00	9.831E-01	9.502E-02	5.129
RA-226	1.300E+00	2.214E-01	1.038E-01	1.155E-02	12.527
AC-228	1.961E+00	3.608E-01	2.289E-01	2.804E-02	8.568
RA-228	1.961E+00	3.608E-01	2.289E-01	2.804E-02	8.568
TH-228	1.827E+00	2.263E-01	8.772E-02	9.328E-03	20.832
TH-230	1.300E+00	2.214E-01	1.038E-01	1.155E-02	12.527

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.961E+00	3.608E-01	2.289E-01	2.804E-02	8.568
TH-234	1.431E+00	1.380E+00	1.607E+00	2.793E-01	0.891
U-234	1.300E+00	2.214E-01	1.038E-01	1.155E-02	12.527
NP-237	1.194E+00	3.772E-01	3.001E-01	6.789E-02	3.978
U-238	1.431E+00	1.380E+00	1.607E+00	2.793E-01	0.891
AM-243	3.993E-01	7.342E-02	7.255E-02	5.840E-03	5.504
ANH-511	1.400E-01	6.590E-02	4.630E-02	4.314E-03	3.024

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.436E-02		2.972E-01	4.793E-01	4.659E-02	-0.051
NA-22	-6.009E-03		4.455E-02	7.084E-02	5.868E-03	-0.085
NA-24	4.620E-01		3.166E-01	Half-Life too short		
AL-26	-2.325E-02		2.377E-02	2.947E-02	2.393E-03	-0.789
TI-44	4.088E-01	+	5.462E-02	7.101E-02	5.960E-03	5.757
SC-46	-3.039E-02		3.606E-02	5.461E-02	5.444E-03	-0.556
V-48	-1.475E-02		6.762E-02	1.087E-01	1.039E-02	-0.136
CR-51	1.327E-01		3.418E-01	5.604E-01	5.619E-02	0.237
MN-52	1.297E-01		2.021E-01	3.654E-01	3.092E-02	0.355
MN-54	1.092E-02		3.621E-02	6.143E-02	6.205E-03	0.178
CO-56	-1.527E-02		3.625E-02	5.781E-02	5.827E-03	-0.264
CO-57	2.102E-02		2.379E-02	3.953E-02	3.299E-03	0.532
CO-58	-1.226E-03		3.440E-02	5.700E-02	5.788E-03	-0.022
FE-59	1.857E-02		8.715E-02	1.447E-01	1.365E-02	0.128
CO-60	2.709E-02		3.732E-02	6.495E-02	5.441E-03	0.417
ZN-65	-7.508E-02		1.051E-01	1.340E-01	1.153E-02	-0.560
GE-68	-1.681E-01		1.265E+00	2.038E+00	1.818E-01	-0.082
AS-73	-6.098E-02		5.445E-01	8.934E-01	6.632E-02	-0.068
AS-74	-1.347E-02		8.508E-02	1.344E-01	1.316E-02	-0.100
SE-75	-3.482E-02		4.705E-02	6.559E-02	6.494E-03	-0.531
BR-77	6.447E-01		1.028E+01	1.668E+01	1.564E+00	0.039
SR-82	-6.711E-02		3.609E-01	5.926E-01	6.022E-02	-0.113
RB-83	2.154E-02		6.607E-02	1.092E-01	1.024E-02	0.197
RB-84	1.217E-02		6.361E-02	1.070E-01	1.069E-02	0.114
KR-85	1.209E+01		8.447E+00	1.324E+01	1.237E+00	0.913
SR-85	6.201E-02		4.332E-02	6.793E-02	6.343E-03	0.913
RB-86	-8.073E-01		8.268E-01	1.223E+00	1.092E-01	-0.660
Y-88	1.449E-02		2.782E-02	5.038E-02	4.065E-03	0.288
ZR-88	-4.266E-03		2.745E-02	4.455E-02	3.726E-03	-0.096
Y-91	-1.658E+01		1.938E+01	2.894E+01	2.350E+00	-0.573
NB-94	-1.646E-02		2.976E-02	4.770E-02	4.826E-03	-0.345
NB-95	4.093E-02		4.315E-02	6.860E-02	6.972E-03	0.597
NB-95M	6.940E-02		1.284E-01	1.957E-01	2.102E-02	0.355
ZR-95	4.429E-02		6.983E-02	1.216E-01	1.327E-02	0.364
NB-97	9.242E-02		4.678E-02	Half-Life too short		
ZR-97	-4.285E-01		9.729E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-2.191E+00		1.150E+01	1.895E+01	3.052E+00	-0.116
TC-99M	-1.418E+10		1.999E+10	Half-Life too short		
RH-101	9.618E-03		3.029E-02	5.188E-02	4.756E-03	0.185
RH-102	-6.832E-03		2.600E-02	4.134E-02	3.748E-03	-0.165
RU-103	3.314E-02		3.663E-02	6.286E-02	9.139E-03	0.527
RH-106	1.377E-01		3.048E-01	5.040E-01	7.165E-02	0.273
RU-106	1.377E-01		3.045E-01	5.040E-01	4.989E-02	0.273
AG-108M	1.652E-03		2.983E-02	4.886E-02	4.434E-03	0.034
AG-110M	3.517E-02		3.280E-02	5.890E-02	6.034E-03	0.597
IN-111	3.389E-01		1.035E+00	1.563E+00	1.517E-01	0.217
IN-113M	-6.787E-03		3.943E-02	6.394E-02	5.516E-03	-0.106
SN-113	-6.787E-03		3.943E-02	6.394E-02	5.516E-03	-0.106
IN-114M	1.144E-01		1.747E-01	2.710E-01	2.456E-02	0.422
CD-115	1.513E+00		1.014E+01	1.654E+01	1.559E+00	0.091
SN-117M	4.184E-02		5.378E-02	8.734E-02	7.538E-03	0.479
SB-122	3.678E+00		1.989E+00	3.582E+00	3.450E-01	1.027
I-123	3.807E+00		2.902E+00	Half-Life too short		
TE-123M	1.807E-02		2.755E-02	4.454E-02	3.869E-03	0.406
I-124	2.867E-02		7.342E-01	1.028E+00	1.010E-01	0.028
SB-124	-4.478E-02		5.859E-02	8.032E-02	6.980E-03	-0.558
SB-125	1.947E-02		8.452E-02	1.401E-01	1.240E-02	0.139
TE-125M	-4.972E-01		8.484E+00	1.365E+01	1.396E+00	-0.036
I-126	3.717E-02		1.672E-01	2.856E-01	2.869E-02	0.130
SB-126	-8.195E-02		1.461E-01	2.098E-01	2.127E-02	-0.391
SB-127	3.925E-01		1.176E+00	2.025E+00	2.539E-01	0.194
XE-127	-5.094E-02		4.222E-02	6.746E-02	6.226E-03	-0.755
I-131	7.650E-02		1.065E-01	1.825E-01	1.712E-02	0.419
TE-132	-4.912E-01		6.610E-01	1.070E+00	1.738E-01	-0.459
BA-133	9.375E-03		4.270E-02	6.294E-02	8.502E-03	0.149
I-133	5.399E-03		2.838E-03	Half-Life too short		
CS-134	1.395E-01	+	7.293E-02	9.304E-02	9.493E-03	1.499
CS-135	3.278E-01		1.602E-01	2.835E-01	3.142E-02	1.156
I-135	-1.006E+08		3.104E+09	Half-Life too short		
CS-136	-1.295E-02		1.073E-01	1.734E-01	1.646E-02	-0.075
BA-137M	-4.475E-02		3.413E-02	5.149E-02	5.167E-03	-0.869
CS-137	-4.730E-02		3.608E-02	5.443E-02	5.470E-03	-0.869
CE-139	-6.885E-03		2.889E-02	4.534E-02	3.958E-03	-0.152
BA-140	2.471E-03		2.351E-01	3.792E-01	1.265E-01	0.007
LA-140	-8.825E-03		7.190E-02	1.171E-01	9.884E-03	-0.075
CE-141	3.231E-02		5.976E-02	9.744E-02	8.413E-03	0.332
CE-143	4.955E-04		9.532E-05	Half-Life too short		
CE-144	-1.935E-01		2.210E-01	2.960E-01	4.567E-02	-0.654
PM-144	-9.519E-03		3.262E-02	5.356E-02	5.415E-03	-0.178
PR-144	-6.451E-01		2.210E+00	3.630E+00	3.669E-01	-0.178
PM-146	-1.007E-03		4.023E-02	6.535E-02	7.158E-03	-0.015
ND-147	1.465E-01		5.255E-01	8.650E-01	1.336E-01	0.169
PM-149	-2.097E+01		8.369E+01	1.375E+02	2.241E+01	-0.153
EU-152	2.934E-02		1.043E-01	1.545E-01	1.508E-02	0.190

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	4.457E-03		7.755E-02	1.119E-01	9.925E-03	0.040
EU-154	5.251E-02		1.180E-01	1.985E-01	2.193E-02	0.265
EU-155	1.109E-01		9.958E-02	1.671E-01	1.452E-02	0.664
TB-160	1.909E-02		1.228E-01	2.060E-01	2.060E-02	0.093
HO-166M	-1.622E-02		6.025E-02	9.900E-02	1.003E-02	-0.164
TM-171	-6.086E+00		2.460E+01	3.567E+01	2.658E+00	-0.171
LU-176	4.512E-03		2.231E-02	3.746E-02	3.654E-03	0.120
LU-177	3.253E+00	+	1.594E+00	1.947E+00	1.811E-01	1.670
LU-177M	-2.747E-01		1.695E-01	2.446E-01	2.093E-02	-1.123
HF-181	4.041E-03		3.960E-02	6.470E-02	5.899E-03	0.062
W-181	-1.145E-01		3.157E-01	4.558E-01	3.354E-02	-0.251
TA-182	-9.374E-02		2.075E-01	3.228E-01	2.634E-02	-0.290
RE-183	-5.637E-02		1.056E-01	1.635E-01	1.419E-02	-0.345
RE-184	-4.479E-02		2.007E-01	3.324E-01	3.248E-02	-0.135
OS-185	1.856E-02		4.002E-02	6.955E-02	6.946E-03	0.267
RE-188	-5.865E-02		1.732E-01	2.715E-01	2.331E-02	-0.216
W-188	-2.572E+00		7.645E+00	1.092E+01	1.080E+00	-0.236
IR-192	-2.576E-02		3.134E-02	4.934E-02	4.772E-03	-0.522
AU-195	2.539E-01		2.262E-01	3.424E-01	3.015E-02	0.741
TL-200	-5.214E-04		2.124E-04	Half-Life too short		
TL-201	1.217E+00		6.668E+00	1.067E+01	9.332E-01	0.114
TL-202	2.545E-02		6.206E-02	1.040E-01	9.141E-03	0.245
HG-203	3.063E-02		3.811E-02	6.577E-02	6.689E-03	0.466
BI-207	3.674E-03		5.127E-02	8.426E-02	7.608E-03	0.044
TL-207	-1.404E-02		6.797E-01	9.876E-01	1.796E-01	-0.014
PO-209	-6.717E+00		7.138E+00	1.072E+01	1.067E+00	-0.626
BI-210	-2.101E-01		2.014E+00	3.307E+00	3.067E-01	-0.064
PB-210	-2.101E-01		2.014E+00	3.307E+00	3.067E-01	-0.064
PO-210	-2.101E-01		2.014E+00	3.307E+00	2.775E-01	-0.064
PB-211	-1.068E-01		9.134E-01	1.481E+00	9.278E-01	-0.072
BI-212	1.397E+00	+	4.992E-01	6.806E-01	7.724E-02	2.053
PO-215	-1.404E-02		6.797E-01	9.876E-01	1.796E-01	-0.014
RN-219	3.278E-02		4.113E-01	6.768E-01	1.010E-01	0.048
RN-220	-9.880E+00		2.564E+01	3.999E+01	3.821E+00	-0.247
RA-223	-1.404E-02		6.797E-01	9.876E-01	1.796E-01	-0.014
AC-227	-3.216E-01		3.465E-01	5.474E-01	8.780E-02	-0.588
TH-227	-3.216E-01		3.479E-01	5.474E-01	1.021E-01	-0.588
TH-229	1.359E-01		4.705E-01	7.813E-01	7.116E-02	0.174
PA-231	-4.772E-01		1.399E+00	2.287E+00	3.652E-01	-0.209
TH-231	-1.404E-02		6.797E-01	9.876E-01	1.796E-01	-0.014
U-231	-8.262E-01		1.087E+00	1.507E+00	1.348E-01	-0.548
PA-233	2.223E-02		5.892E-02	9.969E-02	9.891E-03	0.223
PA-234	-2.054E-01		2.856E-01	4.335E-01	8.371E-02	-0.474
PA-234M	1.824E-02		4.995E+00	7.793E+00	8.336E-01	0.002
U-235	-5.005E-02		2.042E-01	3.226E-01	5.622E-02	-0.155
NP-236	-9.829E-02		7.956E-02	1.173E-01	1.015E-02	-0.838
NP-239	-8.362E-02		1.733E-01	2.728E-01	2.286E-02	-0.306
AM-241	1.271E-01		1.183E-01	1.823E-01	1.427E-02	0.697

Sample ID : G245691011 Acquisition date : 9-FEB-2010 15:33:35

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.733E-02		8.502E-02	1.410E-01	1.217E-02	0.407
AM-246	1.077E-01		1.467E-01	2.537E-01	2.261E-02	0.424
CM-247	-3.522E-03		3.625E-02	5.902E-02	4.991E-03	-0.060
CF-249	-4.341E-03		3.624E-02	5.901E-02	4.979E-03	-0.074
CF-251	2.136E-02		1.231E-01	1.964E-01	1.743E-02	0.109

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691011           *
* Acquisition date :  9-FEB-2010 15:33:35 Detector SN#    :                 *
* Detector ID       : GAM20               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:33.74     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691011           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.3415E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.574E+01	3.533E+00	2.630E-01	1.803E+00
CD-109	4.137E+00	9.698E-01	5.424E-01	4.948E-01
SN-126	4.066E-01	9.531E-02	5.347E-02	4.863E-02
TL-208	6.083E-01	1.008E-01	2.727E-02	5.145E-02
BI-211	4.238E+00	5.806E-01	1.634E-01	2.962E-01
PB-212	1.800E+00	2.184E-01	4.475E-02	1.114E-01
PO-212	1.800E+00	2.184E-01	4.475E-02	1.114E-01
BI-214	1.300E+00	2.170E-01	5.288E-02	1.107E-01
PB-214	1.474E+00	2.156E-01	5.173E-02	1.100E-01
PO-214	1.474E+00	2.156E-01	5.173E-02	1.100E-01
PO-216	1.800E+00	2.184E-01	4.475E-02	1.114E-01
PO-218	1.474E+00	2.156E-01	5.173E-02	1.100E-01
RA-224	5.042E+00	1.527E+00	5.091E-01	7.791E-01
RA-226	1.300E+00	2.170E-01	5.288E-02	1.107E-01
AC-228	1.961E+00	3.536E-01	1.157E-01	1.804E-01
RA-228	1.961E+00	3.536E-01	1.157E-01	1.804E-01
TH-228	1.827E+00	2.218E-01	4.543E-02	1.131E-01
TH-230	1.300E+00	2.170E-01	5.288E-02	1.107E-01
TH-232	1.961E+00	3.536E-01	1.157E-01	1.804E-01
TH-234	1.431E+00	1.352E+00	8.516E-01	6.898E-01
U-234	1.300E+00	2.170E-01	5.288E-02	1.107E-01
NP-237	1.194E+00	3.696E-01	1.581E-01	1.886E-01
U-238	1.431E+00	1.352E+00	8.516E-01	6.898E-01
AM-243	3.993E-01	7.195E-02	3.833E-02	3.671E-02
ANH-511	1.400E-01	6.458E-02	2.366E-02	3.295E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-2.436E-02	2.913E-01	2.452E-01	1.486E-01 NOT IDENT.
NA-22	-6.009E-03	4.366E-02	3.560E-02	2.228E-02 NOT IDENT.

NA-24	4.620E+05	6.205E+05	0.000E+00	3.166E+05	SHORT HLIF
AL-26	-2.325E-02	2.330E-02	1.471E-02	1.189E-02	NOT IDENT.
TI-44	4.088E-01	5.353E-02	3.749E-02	2.731E-02	FAIL ABUN
SC-46	-3.039E-02	3.534E-02	2.763E-02	1.803E-02	FAIL ABUN
V-48	-1.475E-02	6.627E-02	5.489E-02	3.381E-02	NOT IDENT.
CR-51	1.327E-01	3.350E-01	2.888E-01	1.709E-01	NOT IDENT.
MN-52	1.297E-01	1.981E-01	1.832E-01	1.011E-01	NOT IDENT.
MN-54	1.092E-02	3.549E-02	3.111E-02	1.811E-02	NOT IDENT.
CO-56	-1.527E-02	3.553E-02	2.927E-02	1.813E-02	FAIL ABUN
CO-57	2.102E-02	2.331E-02	2.071E-02	1.189E-02	NOT IDENT.
CO-58	-1.226E-03	3.372E-02	2.889E-02	1.720E-02	NOT IDENT.
FE-59	1.857E-02	8.541E-02	7.294E-02	4.357E-02	NOT IDENT.
CO-60	2.709E-02	3.657E-02	3.261E-02	1.866E-02	NOT IDENT.
ZN-65	-7.508E-02	1.030E-01	6.750E-02	5.256E-02	NOT IDENT.
GE-68	-1.681E-01	1.239E+00	1.027E+00	6.323E-01	NOT IDENT.
AS-73	-6.098E-02	5.336E-01	4.747E-01	2.722E-01	NOT IDENT.
AS-74	-1.347E-02	8.338E-02	6.850E-02	4.254E-02	NOT IDENT.
SE-75	-3.482E-02	4.611E-02	3.391E-02	2.352E-02	NOT IDENT.
BR-77	6.447E-01	1.008E+01	8.518E+00	5.141E+00	FAIL ABUN
SR-82	-6.711E-02	3.537E-01	3.006E-01	1.805E-01	NOT IDENT.
RB-83	2.154E-02	6.474E-02	5.579E-02	3.303E-02	NOT IDENT.
RB-84	1.217E-02	6.234E-02	5.412E-02	3.180E-02	NOT IDENT.
KR-85	1.209E+01	8.278E+00	6.767E+00	4.223E+00	NOT IDENT.
SR-85	6.201E-02	4.246E-02	3.471E-02	2.166E-02	NOT IDENT.
RB-86	-8.073E-01	8.102E-01	6.168E-01	4.134E-01	NOT IDENT.
Y-88	1.449E-02	2.726E-02	2.515E-02	1.391E-02	NOT IDENT.
ZR-88	-4.266E-03	2.690E-02	2.287E-02	1.372E-02	NOT IDENT.
Y-91	-1.658E+01	1.899E+01	1.456E+01	9.690E+00	NOT IDENT.
NB-94	-1.646E-02	2.916E-02	2.424E-02	1.488E-02	NOT IDENT.
NB-95	4.093E-02	4.229E-02	3.480E-02	2.158E-02	NOT IDENT.
NB-95M	6.940E-02	1.258E-01	1.014E-01	6.418E-02	NOT IDENT.
ZR-95	4.429E-02	6.843E-02	6.171E-02	3.491E-02	NOT IDENT.
NB-97	9.242E+04	9.168E+04	0.000E+00	4.678E+04	SHORT HLIF
ZR-97	-4.285E+05	1.907E+06	0.000E+00	9.729E+05	SHORT HLIF
MO-99	-2.191E+00	1.127E+01	9.617E+00	5.751E+00	NOT IDENT.
TC-99M	-1.418E+16	3.919E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.618E-03	2.969E-02	2.696E-02	1.515E-02	FAIL ABUN
RH-102	-6.832E-03	2.548E-02	2.115E-02	1.300E-02	NOT IDENT.
RU-103	3.314E-02	3.590E-02	3.214E-02	1.832E-02	FAIL ABUN
RH-106	1.377E-01	2.988E-01	2.567E-01	1.524E-01	FAIL ABUN
RU-106	1.377E-01	2.984E-01	2.567E-01	1.523E-01	FAIL ABUN
AG-108M	1.652E-03	2.924E-02	2.504E-02	1.492E-02	NOT IDENT.
AG-110M	3.517E-02	3.215E-02	2.996E-02	1.640E-02	NOT IDENT.
IN-111	3.389E-01	1.014E+00	8.090E-01	5.173E-01	NOT IDENT.
IN-113M	-6.787E-03	3.864E-02	3.283E-02	1.972E-02	NOT IDENT.
SN-113	-6.787E-03	3.864E-02	3.283E-02	1.972E-02	NOT IDENT.
IN-114M	1.144E-01	1.712E-01	1.409E-01	8.733E-02	NOT IDENT.
CD-115	1.513E+00	9.936E+00	8.449E+00	5.069E+00	NOT IDENT.
SN-117M	4.184E-02	5.271E-02	4.556E-02	2.689E-02	NOT IDENT.
SB-122	3.678E+00	1.950E+00	1.827E+00	9.947E-01	NOT IDENT.
I-123	3.807E+06	5.688E+06	0.000E+00	2.902E+06	SHORT HLIF
TE-123M	1.807E-02	2.700E-02	2.323E-02	1.378E-02	NOT IDENT.
I-124	2.867E-02	7.195E-01	5.239E-01	3.671E-01	NOT IDENT.
SB-124	-4.478E-02	5.742E-02	4.015E-02	2.930E-02	FAIL ABUN
SB-125	1.947E-02	8.283E-02	7.183E-02	4.226E-02	FAIL ABUN
TE-125M	-4.972E-01	8.315E+00	7.168E+00	4.242E+00	NOT IDENT.
I-126	3.717E-02	1.639E-01	1.452E-01	8.362E-02	NOT IDENT.
SB-126	-8.195E-02	1.432E-01	1.065E-01	7.304E-02	FAIL ABUN
SB-127	3.925E-01	1.153E+00	1.029E+00	5.881E-01	NOT IDENT.
XE-127	-5.094E-02	4.138E-02	3.504E-02	2.111E-02	NOT IDENT.
I-131	7.650E-02	1.044E-01	9.385E-02	5.324E-02	NOT IDENT.
TE-132	-4.912E-01	6.478E-01	5.546E-01	3.305E-01	NOT IDENT.
BA-133	9.375E-03	4.185E-02	3.237E-02	2.135E-02	NOT IDENT.
I-133	5.399E+03	5.563E+03	0.000E+00	2.838E+03	SHORT HLIF
CS-134	1.395E-01	7.147E-02	4.716E-02	3.646E-02	FAIL ABUN
CS-135	3.278E-01	1.570E-01	1.466E-01	8.011E-02	NOT IDENT.
I-135	-1.006E+14	6.084E+15	0.000E+00	3.104E+15	SHORT HLIF
CS-136	-1.295E-02	1.052E-01	8.747E-02	5.365E-02	FAIL ABUN
BA-137M	-4.475E-02	3.344E-02	2.619E-02	1.706E-02	NOT IDENT.
CS-137	-4.730E-02	3.535E-02	2.768E-02	1.804E-02	NOT IDENT.
CE-139	-6.885E-03	2.832E-02	2.363E-02	1.445E-02	NOT IDENT.
BA-140	2.471E-03	2.304E-01	1.936E-01	1.176E-01	NOT IDENT.
LA-140	-8.825E-03	7.046E-02	5.859E-02	3.595E-02	FAIL ABUN
CE-141	3.231E-02	5.856E-02	5.090E-02	2.988E-02	NOT IDENT.
CE-143	4.955E+02	1.868E+02	0.000E+00	9.532E+01	SHORT HLIF
CE-144	-1.935E-01	2.166E-01	1.548E-01	1.105E-01	NOT IDENT.
PM-144	-9.519E-03	3.197E-02	2.722E-02	1.631E-02	NOT IDENT.
PR-144	-6.451E-01	2.166E+00	1.844E+00	1.105E+00	NOT IDENT.

PM-146	-1.007E-03	3.943E-02	3.347E-02	2.012E-02	NOT IDENT.
ND-147	1.465E-01	5.150E-01	4.417E-01	2.627E-01	FAIL ABUN
PM-149	-2.097E+01	8.201E+01	7.100E+01	4.184E+01	NOT IDENT.
EU-152	2.934E-02	1.022E-01	7.951E-02	5.216E-02	FAIL ABUN
GD-153	4.457E-03	7.600E-02	5.886E-02	3.877E-02	FAIL ABUN
EU-154	5.251E-02	1.156E-01	9.974E-02	5.898E-02	NOT IDENT.
EU-155	1.109E-01	9.759E-02	8.775E-02	4.979E-02	FAIL ABUN
TB-160	1.909E-02	1.204E-01	1.043E-01	6.142E-02	FAIL ABUN
HO-166M	-1.622E-02	5.905E-02	5.029E-02	3.013E-02	NOT IDENT.
TM-171	-6.086E+00	2.410E+01	1.888E+01	1.230E+01	NOT IDENT.
LU-176	4.512E-03	2.187E-02	1.932E-02	1.116E-02	FAIL ABUN
LU-177	3.253E+00	1.562E+00	1.011E+00	7.972E-01	FAIL ABUN
LU-177M	-2.747E-01	1.661E-01	1.255E-01	8.475E-02	FAIL ABUN
HF-181	4.041E-03	3.881E-02	3.309E-02	1.980E-02	NOT IDENT.
W-181	-1.145E-01	3.094E-01	2.413E-01	1.578E-01	NOT IDENT.
TA-182	-9.374E-02	2.034E-01	1.624E-01	1.038E-01	FAIL ABUN
RE-183	-5.637E-02	1.035E-01	8.525E-02	5.282E-02	FAIL ABUN
RE-184	-4.479E-02	1.966E-01	1.720E-01	1.003E-01	NOT IDENT.
OS-185	1.856E-02	3.922E-02	3.539E-02	2.001E-02	NOT IDENT.
RE-188	-5.865E-02	1.697E-01	1.417E-01	8.658E-02	NOT IDENT.
W-188	-2.572E+00	7.492E+00	5.636E+00	3.823E+00	FAIL ABUN
IR-192	-2.576E-02	3.071E-02	2.543E-02	1.567E-02	FAIL ABUN
AU-195	2.539E-01	2.216E-01	1.801E-01	1.131E-01	FAIL ABUN
TL-200	-5.214E+02	4.162E+02	0.000E+00	2.124E+02	SHORT HLIF
TL-201	1.217E+00	6.535E+00	5.558E+00	3.334E+00	NOT IDENT.
TL-202	2.545E-02	6.082E-02	5.331E-02	3.103E-02	NOT IDENT.
HG-203	3.063E-02	3.735E-02	3.397E-02	1.906E-02	FAIL ABUN
BI-207	3.674E-03	5.025E-02	4.249E-02	2.564E-02	FAIL ABUN
TL-207	-1.404E-02	6.661E-01	5.088E-01	3.399E-01	FAIL ABUN
PO-209	-6.717E+00	6.995E+00	5.425E+00	3.569E+00	NOT IDENT.
BI-210	-2.101E-01	1.974E+00	1.761E+00	1.007E+00	NOT IDENT.
PB-210	-2.101E-01	1.974E+00	1.761E+00	1.007E+00	NOT IDENT.
PO-210	-2.101E-01	1.974E+00	1.761E+00	1.007E+00	NOT IDENT.
PB-211	-1.068E-01	8.951E-01	7.600E-01	4.567E-01	NOT IDENT.
BI-212	1.397E+00	4.893E-01	3.456E-01	2.496E-01	FAIL ABUN
PO-215	-1.404E-02	6.661E-01	5.088E-01	3.399E-01	FAIL ABUN
RN-219	3.278E-02	4.030E-01	3.473E-01	2.056E-01	FAIL ABUN
RN-220	-9.880E+00	2.513E+01	2.041E+01	1.282E+01	NOT IDENT.
RA-223	-1.404E-02	6.661E-01	5.088E-01	3.399E-01	FAIL ABUN
AC-227	-3.216E-01	3.396E-01	2.831E-01	1.733E-01	FAIL ABUN
TH-227	-3.216E-01	3.409E-01	2.831E-01	1.739E-01	FAIL ABUN
TH-229	1.359E-01	4.611E-01	4.061E-01	2.353E-01	FAIL ABUN
PA-231	-4.772E-01	1.371E+00	1.181E+00	6.993E-01	FAIL ABUN
TH-231	-1.404E-02	6.661E-01	5.088E-01	3.399E-01	FAIL ABUN
U-231	-8.262E-01	1.065E+00	7.929E-01	5.434E-01	FAIL ABUN
PA-233	2.223E-02	5.774E-02	5.139E-02	2.946E-02	FAIL ABUN
PA-234	-2.054E-01	2.799E-01	2.191E-01	1.428E-01	FAIL ABUN
PA-234M	1.824E-02	4.895E+00	3.934E+00	2.497E+00	NOT IDENT.
U-235	-5.005E-02	2.001E-01	1.685E-01	1.021E-01	FAIL ABUN
NP-236	-9.829E-02	7.797E-02	6.119E-02	3.978E-02	NOT IDENT.
NP-239	-8.362E-02	1.698E-01	1.431E-01	8.665E-02	FAIL ABUN
AM-241	1.271E-01	1.159E-01	9.669E-02	5.915E-02	NOT IDENT.
CM-243	5.733E-02	8.332E-02	7.407E-02	4.251E-02	FAIL ABUN
AM-246	1.077E-01	1.437E-01	1.279E-01	7.334E-02	NOT IDENT.
CM-247	-3.522E-03	3.552E-02	3.029E-02	1.812E-02	NOT IDENT.
CF-249	-4.341E-03	3.551E-02	3.030E-02	1.812E-02	NOT IDENT.
CF-251	2.136E-02	1.207E-01	1.023E-01	6.156E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	324.8222
46.50	324.8222
46.50	324.8222
48.70	340.0314
49.72	338.7996
51.35	334.0451
52.39	351.4872
52.97	355.8405
53.15	355.9680
53.44	352.2281
54.07	332.9111
56.28	359.1534
56.28	359.1553
57.37	0.0000
57.53	406.7595
57.53	406.7606
57.60	406.8136
57.98	444.9311
57.98	444.9311
59.32	350.2582
59.32	350.2582
59.40	350.3100
59.54	350.4019
59.72	350.5198
60.01	404.6632
61.10	412.9878
61.14	413.0172
61.30	425.1574
63.00	473.1890
63.29	473.4352
63.29	473.4352
63.58	473.6813
64.28	463.7018
65.12	473.4683
65.20	473.5351
65.20	473.5351
66.05	469.6971
66.72	468.7289
66.83	471.8529
66.91	471.9193
67.20	472.1566
67.20	472.1566
67.75	492.3603
67.85	497.3080
68.90	479.6281
68.90	479.6281
69.30	507.3809
69.67	507.7010
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70.82	496.4636
70.83	496.4710
72.80	518.0241
72.87	490.4932
72.87	490.4932
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74.81	492.0508
74.81	492.0508
74.81	492.0508
74.81	492.0508
74.81	492.0508
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74.81	492.0508
74.97	492.1777
75.28	492.4243
75.70	492.7563
77.11	493.8696
77.11	493.8696

77.11	493.8696
77.11	493.8696
77.11	493.8696
77.11	493.8696
77.11	493.8696
78.38	502.5955
79.62	594.9902
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81.07	459.6703
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87.88	402.6866
88.03	402.7747
88.36	402.9685
88.47	403.0331
89.95	403.9006
91.11	404.5742
92.29	405.2557
92.38	405.3086
92.38	405.3086
93.35	405.8647
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94.67	406.6147
94.67	406.6186
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94.90	331.2090
94.90	331.2090
94.90	331.2090
95.87	417.3484
95.87	417.3484
96.73	413.0797
97.43	337.1423
98.44	272.3160
98.44	272.3160
98.88	312.3152
99.55	311.5360
99.55	311.5360
99.86	319.1132
100.00	328.7494
100.10	328.7950
103.18	360.0663
103.76	304.7404
105.00	322.3738
105.31	323.5754
108.00	379.5403
109.28	342.4701

111.00	344.2975
111.00	344.2975
111.76	353.2704
112.95	333.2405
115.19	323.3184
116.30	327.0203
117.00	322.9510
117.00	322.9510
117.66	330.8286
121.11	324.5583
121.62	322.5677
121.78	297.4751
122.06	294.2926
122.32	283.6582
122.32	283.6582
122.32	283.6582
122.32	283.6582
123.07	300.6700
127.23	312.5924
129.76	326.1971
131.20	321.7565
133.02	350.6729
133.54	344.2241
135.34	308.8163
136.00	319.0475
136.25	320.2471
136.48	320.3291
140.51	328.4471
140.51	0.0000
142.18	334.6382
142.65	321.3685
143.76	327.3564
144.24	318.5524
144.24	318.5524
144.24	318.5524
144.24	318.5524
145.22	308.7791
145.44	308.8519
147.16	328.5416
152.43	316.7717
152.70	311.2003
153.22	293.2509
154.21	326.4170
154.21	326.4170
154.21	326.4170
154.21	326.4170
155.03	353.9136
156.02	347.4562
158.56	282.3200
159.00	0.0000
159.00	279.0269
160.31	340.9739
161.27	319.6114
162.32	310.8006
162.64	299.4701
163.35	274.5142
163.89	255.2055
165.85	303.8507
167.43	276.7563
171.28	291.6125
171.86	289.4655
172.10	289.5319
176.55	280.3221
176.60	280.3369
181.06	294.8732
184.41	305.2266
185.71	272.4691
186.00	272.5402
190.27	233.6442
192.34	263.6855
193.63	262.1695
197.04	286.7160
198.01	278.9872
198.60	270.2654
200.40	265.3616
201.83	293.2315
202.84	293.4858
205.31	239.5579

208.36	278.7700
208.81	269.9365
209.75	270.1484
209.75	270.1484
210.97	239.2614
215.65	226.0060
216.55	232.9838
218.09	264.7979
222.10	253.0045
223.80	259.6821
226.40	254.7785
227.00	257.6198
227.08	257.6350
227.20	265.8263
228.16	272.3808
228.18	269.6616
228.18	269.6616
231.56	0.0000
235.69	257.1766
236.00	263.0830
236.00	263.0830
238.63	241.6448
238.63	241.6448
238.63	241.6448
238.63	241.6448
239.00	241.7133
240.98	242.0779
241.98	242.2592
241.98	242.2592
241.98	242.2592
244.69	185.3763
245.39	184.0012
247.94	200.1521
248.90	190.9387
249.79	186.4499
252.40	185.8827
252.85	182.2436
252.85	182.2436
254.15	0.0000
256.20	211.4373
256.20	211.4373
260.50	185.1171
260.90	187.9633
262.80	214.9301
264.65	214.9629
268.24	193.6235
268.79	193.6961
269.46	193.7877
269.46	193.7877
269.46	193.7877
269.46	193.7877
271.23	229.4589
273.65	201.3042
276.40	195.6665
277.35	206.1479
277.60	215.5995
277.60	215.5995
278.00	199.6493
278.60	182.7719
279.20	182.8459
279.53	193.2573
280.46	220.7372
281.68	191.6537
283.67	183.4025
284.30	189.1571
285.00	185.4607
285.90	177.0531
286.10	183.7044
286.10	183.7044
287.40	172.4912
288.45	0.0000
290.67	186.9264
290.80	186.9444
291.72	194.6625
293.26	0.0000
293.70	165.9828
295.21	172.2450
295.21	172.2450

295.21	172.2450
295.96	163.9427
296.50	164.0005
297.23	164.0792
298.57	164.2236
299.80	154.4171
299.80	154.4171
300.09	146.8008
300.09	146.8008
300.09	146.8008
300.09	146.8008
300.12	146.8031
301.29	156.0979
302.84	162.3824
303.76	151.7484
303.91	151.7629
304.40	151.8113
304.40	151.8113
304.84	153.3887
306.84	152.6265
308.46	155.6669
311.98	151.2002
316.51	165.1553
318.01	153.7086
319.02	145.0996
319.41	144.1664
320.08	138.2817
323.87	155.2393
323.87	155.2393
323.87	155.2393
323.87	155.2393
325.23	156.9223
328.77	160.3793
333.44	144.4387
334.20	152.3152
334.20	152.3152
334.30	152.3247
338.28	150.7314
338.28	150.7314
338.28	150.7314
338.28	150.7314
338.32	150.7361
338.32	150.7361
338.32	150.7361
340.50	147.4028
340.57	147.4097
344.27	149.3049
345.85	169.1078
350.59	0.0000
351.07	157.7930
351.92	130.2437
351.92	130.2437
351.92	130.2437
355.39	0.0000
356.01	121.8484
364.48	118.2664
366.43	129.3414
367.43	136.3833
367.94	0.0000
369.80	118.6223
374.96	132.9614
383.85	120.5548
387.95	125.8602
388.63	134.9712
391.69	119.0533
391.69	119.0533
392.90	120.1403
398.62	131.6484
400.65	128.7480
401.10	130.8070
401.81	145.0576
402.60	143.0891
404.84	143.2591
410.95	110.0814
411.60	121.3351
413.65	156.1680
414.70	117.4461
415.30	110.3318

415.76	108.3145
417.63	0.0000
418.52	107.4449
423.70	124.1461
427.08	113.0548
427.89	107.9608
432.53	103.0609
433.93	106.2266
439.47	96.1787
439.56	96.1830
439.89	101.3705
443.98	101.5769
444.90	109.9190
445.03	109.9255
445.03	109.9255
445.03	109.9255
445.03	109.9255
453.90	106.2365
463.38	98.3532
468.07	98.9921
473.00	90.3947
475.06	96.7954
475.35	104.1739
476.78	112.6671
477.59	101.1226
477.96	95.8724
482.03	98.1668
484.57	97.2250
487.03	112.1479
490.36	0.0000
492.35	89.0898
497.08	76.5275
507.63	0.0000
510.53	0.0000
510.84	113.3658
511.00	113.3731
511.85	113.4167
511.85	113.4167
513.99	116.5230
513.99	116.5230
520.41	92.3671
520.65	99.8938
527.90	87.2812
528.96	0.0000
529.64	73.3291
529.87	0.0000
531.02	86.3208
537.32	84.3913
543.00	98.6981
546.56	0.0000
549.76	102.2445
552.65	103.4569
555.20	90.4849
563.23	79.8504
563.90	66.7430
568.70	104.1498
569.32	97.5991
569.50	97.6045
569.67	89.9352
573.80	99.9756
574.00	99.9839
574.64	93.4149
578.91	98.6426
579.30	0.0000
583.14	87.1223
585.48	77.7111
591.81	64.1862
592.07	71.9408
593.00	86.3599
595.88	86.4598
600.56	107.7219
602.52	0.0000
602.71	96.0319
602.71	96.0319
603.60	90.7267
604.41	99.6543
604.70	92.5463
609.31	92.4910

609.31	92.4910
609.31	92.4910
609.31	92.4910
610.33	92.5290
612.46	87.4727
614.37	92.8992
618.01	100.9515
621.84	77.2670
621.84	77.2670
631.29	86.5381
633.02	67.4762
633.10	67.4780
634.78	83.7272
635.90	87.3663
636.97	91.0060
645.85	82.2688
646.12	78.6611
656.30	78.0530
657.75	72.6465
657.90	0.0000
661.65	110.0344
661.65	110.0344
664.57	0.0000
666.33	83.8085
666.33	83.8085
675.00	81.3320
677.61	72.2611
685.20	65.1220
692.80	77.2550
695.00	92.0435
696.49	93.9341
696.49	93.9341
697.00	101.3176
697.49	95.8090
698.33	90.3079
698.50	90.3126
699.00	82.9556
702.63	85.8297
706.10	74.8479
706.58	0.0000
706.67	75.7859
709.31	82.3315
711.68	96.2889
713.82	73.1965
717.42	77.9256
720.50	86.2352
721.93	0.0000
722.20	63.4969
722.78	63.5103
722.78	63.5103
722.89	63.5120
722.95	63.5136
723.30	66.6206
724.18	66.6398
727.18	77.2593
733.00	93.2690
735.90	78.4219
739.58	85.9984
742.81	75.7991
744.21	78.6434
747.13	71.2240
751.79	100.4327
752.31	85.4303
753.82	72.3229
755.35	73.3002
756.15	75.1992
756.87	59.2332
763.93	76.9653
765.79	66.0112
766.42	59.7368
766.84	69.1779
776.49	78.5460
778.00	83.3186
778.57	83.3336
778.89	82.3951
783.80	69.2466
785.46	68.3350
792.07	71.3342

795.84	53.3271
796.30	53.3354
798.80	39.7156
801.93	76.3301
805.60	53.4939
810.29	66.0099
810.76	60.2791
815.85	57.5010
817.79	57.5361
818.51	46.0395
819.60	57.5684
826.30	61.5359
828.27	0.0000
831.60	77.0469
831.96	76.0915
834.83	76.1590
836.80	0.0000
846.75	68.6998
848.13	62.9196
856.28	0.0000
856.80	63.0862
860.37	68.9841
867.32	58.4194
867.82	58.4282
871.10	60.4349
873.19	58.5220
874.81	55.6223
875.33	0.0000
876.40	45.8858
879.36	52.7673
880.27	54.7354
880.51	54.7395
881.50	55.7336
883.24	47.9365
884.67	56.7652
889.25	67.6220
896.60	74.6437
898.02	68.7781
899.00	65.8501
903.28	73.8043
911.07	82.1920
911.07	82.1920
911.07	82.1920
919.63	58.2261
920.93	61.3249
925.00	67.3376
925.24	67.3426
926.50	61.4218
935.52	67.5401
937.48	67.5767
944.10	67.7045
946.00	67.7394
949.00	73.1149
962.29	51.7045
964.01	68.4151
966.15	65.1158
968.20	65.1539
969.11	65.1698
969.11	65.1698
969.11	65.1698
977.42	48.8098
980.50	57.3284
983.50	61.4021
989.30	56.4580
996.32	62.6267
1001.03	67.7623
1001.68	66.7622
1004.76	67.8310
1021.30	0.0000
1024.50	0.0000
1034.80	55.1074
1036.00	62.2703
1037.82	60.2561
1038.57	49.0336
1038.76	0.0000
1045.16	66.5139
1046.59	49.1344
1048.07	64.5166

1050.47	65.5813
1050.47	65.5813
1062.04	65.7750
1063.62	60.6623
1076.63	80.4642
1077.35	67.0662
1078.86	58.8341
1085.78	65.1410
1099.22	57.0625
1112.02	62.4492
1112.84	74.0278
1115.52	81.6036
1120.29	60.8398
1120.29	60.8398
1120.29	60.8398
1120.29	60.8398
1120.51	60.4950
1121.28	60.5064
1124.00	0.0000
1129.67	71.8686
1131.51	0.0000
1147.95	0.0000
1167.94	66.4699
1173.22	77.1205
1175.09	62.3562
1177.93	67.6875
1189.05	59.3824
1204.90	88.3415
1205.75	0.0000
1213.00	97.0385
1221.42	90.8188
1230.97	89.6796
1235.34	83.9635
1236.41	0.0000
1238.25	86.8773
1246.25	83.5731
1260.41	0.0000
1271.85	52.9573
1274.45	47.5814
1274.54	59.4768
1291.56	37.9924
1298.22	0.0000
1312.09	61.0613
1325.50	30.6209
1325.50	30.6209
1332.49	31.7612
1333.61	32.8652
1360.21	22.9533
1362.66	0.0000
1365.15	30.3292
1368.21	17.6578
1368.53	0.0000
1376.25	20.2669
1384.27	35.9880
1394.10	35.1379
1395.20	35.1457
1407.95	36.1658
1434.06	20.5113
1436.60	22.3867
1457.56	0.0000
1460.81	29.0587
1489.15	17.9107
1509.49	17.0361
1596.49	21.1702
1620.62	17.3994
1678.03	0.0000
1691.02	15.6647
1691.02	15.6647
1706.46	0.0000
1750.46	0.0000
1764.49	8.5006
1764.49	8.5006
1764.49	8.5006
1764.49	8.5006
1770.23	6.8072
1771.40	8.5107
1791.20	0.0000
1808.65	14.9890

1836.01 9.0348

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691011

Total Uranium Activity	4.2353E+00	ug/g
Total Uranium Counting Unc.	4.0232E+00	ug/g
Total Uranium Tpu	2.0527E-06	ug/g
Total Uranium Mda	2.5346E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691011       *
*   ANALYST       : MJH1                      DETECTOR   : GAM20            *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 15:33:35.10    SAMPLE ALQT:  134.150 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.122E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.633E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.969E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.930E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:35:33.13

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691012.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:57.
Sample ID         : G245691012           Sample quantity  : 1.37640E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.17*	171	423	1.15	126.33	122	8	2.37E-02	22.7	
2	3	74.73*	383	568	1.42	149.47	145	14	5.32E-02	12.8	2.69E+00
3	3	76.94	567	438	1.13	153.87	145	14	7.88E-02	7.7	
4	0	83.80	123	386	1.28	167.60	165	7	1.70E-02	28.0	
5	3	87.05*	197	288	1.25	174.10	171	20	2.74E-02	15.0	2.91E+00
6	3	89.83	100	334	1.01	179.66	171	20	1.39E-02	30.6	
7	3	92.53*	612	375	1.23	185.05	171	20	8.49E-02	6.9	
8	0	128.78	67	275	0.85	257.56	255	7	9.29E-03	42.8	
9	0	185.58*	341	360	1.42	371.16	366	11	4.74E-02	12.4	
10	0	208.92	108	227	0.81	417.85	414	8	1.50E-02	26.0	
11	2	238.33*	1117	206	1.28	476.67	469	20	1.55E-01	3.8	4.48E+00
12	2	241.40	288	274	1.73	482.81	469	20	4.00E-02	13.0	
13	0	269.55	61	237	1.03	539.10	534	11	8.43E-03	50.7	
14	2	294.80*	414	144	1.69	589.60	583	23	5.75E-02	7.4	2.35E+00
15	2	299.37	125	152	1.84	598.74	583	23	1.73E-02	21.6	
16	0	327.63	73	117	1.57	655.26	652	8	1.01E-02	28.2	
17	0	338.00	161	230	1.42	676.01	670	14	2.23E-02	21.9	
18	0	351.51*	694	184	1.36	703.03	696	15	9.64E-02	5.7	
19	0	462.73*	76	89	1.53	925.46	921	10	1.06E-02	26.5	
20	0	510.32*	77	151	1.28	1020.64	1014	13	1.07E-02	39.1	
21	0	582.63*	317	107	1.41	1165.27	1157	16	4.41E-02	9.3	
22	0	608.67*	419	106	1.57	1217.34	1211	13	5.83E-02	7.2	
23	0	726.69	112	64	1.92	1453.38	1447	14	1.55E-02	18.1	
24	0	785.32	48	42	2.26	1570.65	1565	13	6.71E-03	31.2	
25	0	860.93	52	56	1.86	1721.85	1715	17	7.19E-03	38.5	
26	0	910.37*	213	43	2.12	1820.75	1814	18	2.96E-02	10.3	
27	0	967.44	141	81	1.80	1934.88	1925	18	1.96E-02	17.1	
28	0	1119.91	79	86	2.18	2239.82	2228	18	1.10E-02	29.6	
29	0	1459.41*	767	33	2.41	2918.83	2909	18	1.07E-01	4.0	
30	0	1763.37*	60	23	3.25	3526.74	3519	13	8.35E-03	21.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 17:35:35

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691012.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:57
Sample ID : G245691012 Sample quantity : 137.64 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.75 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.966E+01	2.163E+00	6.669E-01	4.989E-02	29.484
CD-109	+	88.03	*	2.836E+00	8.958E-01	1.354E+00	1.322E-01	2.094
SN-126	+	64.28		1.885E+00	9.009E-01	1.011E+00	1.539E-01	1.864
	+	86.94		1.159E+00	5.947E-01	5.522E-01	2.297E-01	2.098
	+	87.57	*	2.787E-01	8.804E-02	1.339E-01	1.303E-02	2.081
CS-135	+	268.24	*	2.445E-01	2.489E-01	2.571E-01	1.964E-02	0.951
TL-208		277.35		2.773E-01	4.150E-01	6.832E-01	7.218E-02	0.406
	+	510.84		3.807E-01	3.001E-01	2.354E-01	2.391E-02	1.618
	+	583.14	*	4.514E-01	8.905E-02	5.829E-02	3.785E-03	7.743
	+	860.37		7.045E-01	5.461E-01	4.506E-01	4.073E-02	1.563
BI-211		72.87		1.051E+01	4.285E+00	6.694E+00	5.905E-01	1.571
	+	351.07	*	4.249E+00	5.614E-01	3.294E-01	2.146E-02	12.900
BI-212	+	727.18	*	1.374E+00	5.096E-01	4.957E-01	3.935E-02	2.772
	+	785.46		3.819E+00	2.401E+00	3.016E+00	2.126E-01	1.266
		1620.62		7.552E-01	1.395E+00	2.500E+00	1.696E-01	0.302
PB-212	+	74.81		2.412E+00	6.901E-01	6.452E-01	8.323E-02	3.738
	+	77.11		2.003E+00	3.587E-01	3.615E-01	3.253E-02	5.540
	+	87.30		1.289E+00	4.271E-01	6.216E-01	8.663E-02	2.074
	+	238.63	*	1.472E+00	1.530E-01	9.813E-02	7.055E-03	15.005
	+	300.09		2.557E+00	1.125E+00	1.167E+00	9.695E-02	2.190
PO-212	+	74.81		2.412E+00	6.901E-01	6.452E-01	8.323E-02	3.738
	+	77.11		2.003E+00	3.587E-01	3.615E-01	3.253E-02	5.540
	+	87.30		1.289E+00	4.271E-01	6.216E-01	8.663E-02	2.074
		115.19		-2.609E+00	3.872E+00	6.213E+00	3.964E-01	-0.420
	+	238.63	*	1.472E+00	1.530E-01	9.813E-02	7.055E-03	15.005
	+	300.09		2.557E+00	1.125E+00	1.167E+00	9.695E-02	2.190
BI-214	+	609.31	*	1.126E+00	1.822E-01	1.166E-01	8.764E-03	9.661
	+	1120.29		1.136E+00	6.814E-01	4.873E-01	4.528E-02	2.331
	+	1764.49		1.187E+00	5.085E-01	3.382E-01	2.103E-02	3.510
PB-214	+	74.81		4.156E+00	1.165E+00	1.112E+00	1.287E-01	3.738
	+	77.11		3.433E+00	6.683E-01	6.197E-01	7.306E-02	5.540
	+	87.30		2.208E+00	7.180E-01	1.065E+00	1.320E-01	2.074
	+	241.98		2.285E+00	6.212E-01	5.910E-01	4.700E-02	3.866
	+	295.21		1.489E+00	2.543E-01	2.044E-01	1.753E-02	7.281

Sample ID : G245691012 Acquisition date : 9-FEB-2010 15:33:57

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.478E+00	2.100E-01	1.148E-01	9.584E-03	12.873
PO-214	+	74.81		4.156E+00	1.165E+00	1.112E+00	1.287E-01	3.738
	+	77.11		3.433E+00	6.683E-01	6.197E-01	7.306E-02	5.540
	+	87.30		2.208E+00	7.180E-01	1.065E+00	1.320E-01	2.074
	+	241.98		2.285E+00	6.212E-01	5.910E-01	4.700E-02	3.866
	+	295.21		1.489E+00	2.543E-01	2.044E-01	1.753E-02	7.281
	+	351.92	*	1.478E+00	2.100E-01	1.148E-01	9.584E-03	12.873
PO-216	+	74.81		2.412E+00	6.901E-01	6.452E-01	8.323E-02	3.738
	+	77.11		2.003E+00	3.587E-01	3.615E-01	3.253E-02	5.540
	+	87.30		1.289E+00	4.271E-01	6.216E-01	8.663E-02	2.074
	+	238.63	*	1.472E+00	1.530E-01	9.813E-02	7.055E-03	15.005
	+	300.09		2.557E+00	1.125E+00	1.167E+00	9.695E-02	2.190
PO-218	+	74.81		4.156E+00	1.165E+00	1.112E+00	1.287E-01	3.738
	+	77.11		3.433E+00	6.683E-01	6.197E-01	7.306E-02	5.540
	+	87.30		2.208E+00	7.180E-01	1.065E+00	1.320E-01	2.074
	+	241.98		2.285E+00	6.212E-01	5.910E-01	4.700E-02	3.866
	+	295.21		1.489E+00	2.543E-01	2.044E-01	1.753E-02	7.281
	+	351.92	*	1.478E+00	2.100E-01	1.148E-01	9.584E-03	12.873
RA-224	+	240.98	*	4.333E+00	1.153E+00	1.117E+00	6.293E-02	3.880
RA-226	+	609.31	*	1.126E+00	1.822E-01	1.166E-01	8.764E-03	9.661
	+	1120.29		1.136E+00	6.814E-01	4.873E-01	4.528E-02	2.331
	+	1764.49		1.187E+00	5.085E-01	3.382E-01	2.103E-02	3.510
TH-228	+	74.81		2.449E+00	6.627E-01	6.550E-01	5.871E-02	3.738
	+	77.11		2.033E+00	3.642E-01	3.670E-01	3.302E-02	5.540
	+	87.30		1.309E+00	4.134E-01	6.311E-01	6.126E-02	2.074
	+	238.63	*	1.495E+00	1.553E-01	9.962E-02	7.162E-03	15.005
	+	300.09		2.596E+00	1.897E+00	1.185E+00	6.986E-01	2.190
TH-230	+	609.31	*	1.126E+00	1.822E-01	1.166E-01	8.764E-03	9.661
	+	1120.29		1.136E+00	6.814E-01	4.873E-01	4.528E-02	2.331
	+	1764.49		1.187E+00	5.085E-01	3.382E-01	2.103E-02	3.510
TH-234	+	63.29	*	4.762E+00	2.322E+00	2.713E+00	4.888E-01	1.756
	+	92.38		5.528E+00	1.265E+00	8.663E-01	1.580E-01	6.381
U-234	+	609.31	*	1.126E+00	1.822E-01	1.166E-01	8.764E-03	9.661
	+	1120.29		1.136E+00	6.814E-01	4.873E-01	4.528E-02	2.331
	+	1764.49		1.187E+00	5.085E-01	3.382E-01	2.103E-02	3.510
NP-237	+	86.50	*	8.185E-01	3.088E-01	3.925E-01	8.939E-02	2.085
		95.87		-5.712E-01	1.213E+00	1.715E+00	4.210E-01	-0.333
U-238	+	63.29	*	4.762E+00	2.322E+00	2.713E+00	4.888E-01	1.756
	+	92.38		5.528E+00	9.105E-01	8.663E-01	7.741E-02	6.381
AM-243	+	74.67	*	3.910E-01	1.057E-01	1.050E-01	9.331E-03	3.724
	+	86.72		3.069E+01	9.695E+00	1.467E+01	1.417E+00	2.092
		117.66		1.945E-01	4.061E+00	6.699E+00	4.148E-01	0.029
		142.18		5.816E+00	1.951E+01	3.173E+01	1.728E+00	0.183
ANH-511	+	511.00	*	8.224E-02	6.447E-02	5.086E-02	2.954E-03	1.617

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.762E-01	3.460E-01	5.889E-01	4.002E-02	0.299

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-3.063E-03	4.827E-02	7.812E-02	5.247E-03	-0.039
NA-24		1368.53	*	1.806E-01	4.827E-02	Half-Life too short		
AL-26		1129.67		2.644E-01	1.848E+00	3.075E+00	1.959E-01	0.086
		1808.65	*	-6.741E-03	2.626E-02	4.072E-02	2.447E-03	-0.166
TI-44		67.85		-5.722E-02	5.989E-02	8.905E-02	7.755E-03	-0.643
	+	78.38	*	3.696E-01	6.620E-02	8.983E-02	8.143E-03	4.114
SC-46		889.25	*	-1.325E-02	4.453E-02	7.228E-02	6.458E-03	-0.183
	+	1120.51		1.945E-01	1.160E-01	1.366E-01	8.898E-03	1.424
V-48		944.10		2.948E-01	9.066E-01	1.552E+00	1.352E-01	0.190
		983.50	*	-2.699E-03	6.935E-02	1.144E-01	9.517E-03	-0.024
		1312.09		-8.537E-02	8.206E-02	1.142E-01	8.125E-03	-0.748
CR-51		320.08	*	1.855E-01	3.866E-01	6.640E-01	4.354E-02	0.279
MN-52		744.21		6.885E-02	2.616E-01	4.305E-01	2.741E-02	0.160
		848.13		2.223E+00	6.955E+00	1.194E+01	9.745E-01	0.186
		935.52		1.218E-01	2.450E-01	4.264E-01	3.749E-02	0.286
		1246.25		6.409E-02	7.278E+00	1.187E+01	7.596E-01	0.005
		1333.61		1.193E+00	4.789E+00	8.054E+00	5.912E-01	0.148
		1434.06	*	4.459E-02	2.181E-01	3.649E-01	2.640E-02	0.122
MN-54		834.83	*	-1.345E-03	3.766E-02	6.278E-02	4.971E-03	-0.021
CO-56		846.75	*	-1.819E-03	3.865E-02	6.430E-02	5.231E-03	-0.028
		977.42		-9.072E-01	3.231E+00	5.212E+00	4.370E-01	-0.174
		1037.82		-3.412E-01	3.038E-01	4.351E-01	3.567E-02	-0.784
		1175.09		-1.039E-01	2.376E+00	3.876E+00	2.194E-01	-0.027
		1238.25		1.844E-01	9.857E-02	1.836E-01	1.221E-02	1.005
		1360.21		4.720E-01	1.015E+00	1.752E+00	1.283E-01	0.269
		1771.40		-3.065E-01	2.636E-01	3.385E-01	2.094E-02	-0.905
CO-57		122.06	*	-1.932E-02	2.783E-02	4.453E-02	2.625E-03	-0.434
		136.48		-7.306E-02	2.307E-01	3.735E-01	2.429E-02	-0.196
CO-58		810.76	*	-4.649E-03	3.898E-02	6.459E-02	4.853E-03	-0.072
FE-59		142.65		1.615E+00	3.000E+00	4.921E+00	2.676E-01	0.328
		192.34		2.358E-01	1.022E+00	1.614E+00	1.867E-01	0.146
		1099.22	*	-3.277E-02	8.794E-02	1.387E-01	1.068E-02	-0.236
		1291.56		-1.202E-01	1.198E-01	1.679E-01	1.393E-02	-0.716
CO-60		1173.22		1.302E-03	4.833E-02	7.939E-02	4.479E-03	0.016
		1332.49	*	-1.116E-02	3.730E-02	5.795E-02	4.254E-03	-0.193
ZN-65		1115.52	*	1.210E-01	1.051E-01	1.709E-01	1.129E-02	0.708
GE-68		1077.35	*	-1.295E+00	1.354E+00	2.007E+00	1.437E-01	-0.645
AS-73		53.44	*	-3.232E-01	1.186E+00	1.973E+00	1.742E-01	-0.164
AS-74		595.88	*	-1.091E-02	9.575E-02	1.545E-01	8.518E-03	-0.071
		634.78		-2.571E-01	3.970E-01	5.689E-01	3.011E-02	-0.452
SE-75		66.05		-2.040E-01	6.537E+00	9.613E+00	1.009E+00	-0.021
		96.73		8.890E-02	9.796E-01	1.431E+00	1.919E-01	0.062
		121.11		6.505E-03	1.467E-01	2.417E-01	2.254E-02	0.027
		136.00		-1.395E-02	4.345E-02	7.034E-02	3.972E-03	-0.198
		198.60		1.397E+00	1.900E+00	3.166E+00	2.138E-01	0.441
		264.65	*	-1.566E-03	5.374E-02	7.469E-02	4.348E-03	-0.021
		279.53		-5.733E-02	1.146E-01	1.888E-01	1.187E-02	-0.304
		303.91		1.850E-01	2.314E+00	3.407E+00	3.269E-01	0.054
		400.65		-6.063E-02	2.786E-01	4.566E-01	4.155E-02	-0.133

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		6.184E+02	1.953E+02	3.787E+02	3.695E+01	1.633
		200.40		8.707E+01	1.799E+02	2.967E+02	1.587E+01	0.293
	+	239.00		2.386E+02	2.237E+01	3.736E+01	2.100E+00	6.388
		249.79		1.896E+01	7.378E+01	1.198E+02	6.808E+00	0.158
		281.68		-9.511E+01	9.498E+01	1.522E+02	8.871E+00	-0.625
		297.23		2.859E+02	6.426E+01	1.225E+02	7.197E+00	2.333
		303.76		1.289E+01	1.987E+02	2.923E+02	1.721E+01	0.044
		439.47		1.814E+01	1.526E+02	2.542E+02	1.487E+01	0.071
		484.57		-1.528E+01	2.443E+02	4.003E+02	2.340E+01	-0.038
		520.65	*	-4.963E+00	1.035E+01	1.630E+01	9.434E-01	-0.305
		574.64		-5.235E+01	2.283E+02	3.290E+02	1.847E+01	-0.159
		578.91		1.396E+02	1.055E+02	1.687E+02	9.437E+00	0.827
		585.48		5.544E+02	2.134E+02	3.704E+02	2.061E+01	1.497
		755.35		3.335E+01	1.758E+02	2.874E+02	1.882E+01	0.116
		817.79		-1.106E+01	1.308E+02	2.173E+02	1.654E+01	-0.051
SR-82		698.33		1.695E+01	3.744E+01	6.260E+01	3.536E+00	0.271
		776.49	*	-4.101E-01	3.696E-01	5.558E-01	3.834E-02	-0.738
		1395.20		8.234E+00	1.184E+01	2.095E+01	1.526E+00	0.393
RB-83		520.41	*	-3.251E-02	6.779E-02	1.068E-01	6.181E-03	-0.305
		529.64		-1.703E-01	1.076E-01	1.522E-01	8.776E-03	-1.119
		552.65		-1.070E-01	2.087E-01	3.271E-01	1.864E-02	-0.327
RB-84		881.50	*	7.110E-03	7.834E-02	1.316E-01	1.156E-02	0.054
KR-85		513.99	*	6.812E+00	7.991E+00	1.231E+01	7.142E-01	0.553
SR-85		513.99	*	3.494E-02	4.099E-02	6.312E-02	3.663E-03	0.553
RB-86		1076.63	*	-4.025E-01	8.336E-01	1.305E+00	9.350E-02	-0.309
Y-88		898.02		8.352E-03	4.251E-02	7.206E-02	6.589E-03	0.116
		1836.01	*	1.142E-02	3.509E-02	6.160E-02	3.627E-03	0.185
ZR-88		392.90	*	1.129E-02	3.338E-02	5.655E-02	3.265E-03	0.200
Y-91		1204.90	*	-1.896E+01	1.902E+01	2.780E+01	1.658E+00	-0.682
NB-94		702.63	*	-8.023E-03	3.615E-02	5.721E-02	3.269E-03	-0.140
		871.10		2.054E-02	3.497E-02	6.031E-02	5.180E-03	0.341
NB-95		765.79	*	6.439E-02	4.676E-02	8.243E-02	5.539E-03	0.781
NB-95M		235.69	*	4.549E-01	1.708E-01	2.689E-01	1.984E-02	1.691
ZR-95		724.18		3.200E-01	1.229E-01	2.134E-01	1.508E-02	1.500
		756.15	*	-2.823E-02	7.669E-02	1.189E-01	9.123E-03	-0.237
NB-97		657.90	*	-2.387E-01	7.669E-02	Half-Life too short		
		1024.50		5.512E-01	7.669E-02	Half-Life too short		
ZR-97		254.15		-2.613E+00	7.669E-02	Half-Life too short		
		355.39		4.120E+00	7.669E-02	Half-Life too short		
		507.63	*	5.936E+00	7.669E-02	Half-Life too short		
		602.52		-3.962E+00	7.669E-02	Half-Life too short		
		1021.30		4.732E+00	7.669E-02	Half-Life too short		
		1147.95		2.364E+00	7.669E-02	Half-Life too short		
		1362.66		2.022E+00	7.669E-02	Half-Life too short		
		1750.46		-1.754E+00	7.669E-02	Half-Life too short		
MO-99		140.51		-2.166E+01	3.013E+01	4.643E+01	1.248E+01	-0.467
		181.06		-4.028E-02	2.011E+01	2.853E+01	4.836E+00	-0.001
		366.43		-4.739E+01	9.112E+01	1.473E+02	8.631E+00	-0.322
		739.58	*	1.094E+01	1.259E+01	2.166E+01	3.032E+00	0.505

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-2.114E+01	3.830E+01	5.397E+01	3.737E+00	-0.392
TC-99M		140.51	*	-3.408E+10	3.830E+01	Half-Life too short		
RH-101		127.23		3.801E-02	3.825E-02	5.786E-02	3.323E-03	0.657
		198.01	*	9.479E-03	3.519E-02	5.757E-02	3.069E-03	0.165
		325.23		2.130E-02	2.679E-01	3.931E-01	2.322E-02	0.054
RH-102		418.52		-2.337E-01	3.160E-01	4.993E-01	2.909E-02	-0.468
		475.06	*	2.822E-02	3.146E-02	5.480E-02	3.208E-03	0.515
		631.29		-5.019E-02	5.735E-02	8.577E-02	4.559E-03	-0.585
		697.49		1.555E-02	8.328E-02	1.365E-01	7.691E-03	0.114
		766.84		2.204E-01	1.137E-01	2.098E-01	1.413E-02	1.051
		1046.59		-4.133E-02	1.154E-01	1.831E-01	1.387E-02	-0.226
		1112.84		-1.793E-01	2.739E-01	3.479E-01	2.308E-02	-0.515
RU-103		497.08	*	-5.691E-03	3.949E-02	6.416E-02	8.123E-03	-0.089
		610.33		1.104E+01	2.236E+00	2.954E+00	4.515E-01	3.736
RH-106		511.85		4.056E-01	2.311E-01	4.146E-01	2.407E-02	0.978
		621.84	*	-1.105E-01	3.359E-01	5.301E-01	6.113E-02	-0.208
		1050.47		1.869E+00	2.307E+00	4.107E+00	3.089E-01	0.455
RU-106		511.85		4.056E-01	2.311E-01	4.146E-01	2.407E-02	0.978
		621.84	*	-1.105E-01	3.357E-01	5.301E-01	2.848E-02	-0.208
		1050.47		1.869E+00	2.307E+00	4.107E+00	3.089E-01	0.455
AG-108M		433.93	*	-6.870E-03	3.332E-02	5.435E-02	3.446E-03	-0.126
		614.37		-1.112E-03	4.577E-02	6.407E-02	3.806E-03	-0.017
		722.95		3.179E-02	5.181E-02	7.708E-02	5.012E-03	0.412
AG-110M		657.75	*	-1.042E-01	5.331E-02	7.524E-02	4.181E-03	-1.385
		677.61		1.824E-01	3.251E-01	5.505E-01	3.151E-02	0.331
		706.67		5.796E-02	2.203E-01	3.632E-01	2.225E-02	0.160
		763.93		-7.056E-02	1.856E-01	2.854E-01	1.998E-02	-0.247
		884.67		3.250E-02	5.684E-02	9.901E-02	9.027E-03	0.328
		937.48		-9.451E-02	1.111E-01	1.680E-01	1.526E-02	-0.563
		1384.27		2.007E-01	1.607E-01	3.039E-01	2.305E-02	0.660
IN-111		171.28		-9.422E-01	1.068E+00	1.669E+00	8.561E-02	-0.565
		245.39	*	-1.794E-01	1.337E+00	1.852E+00	1.048E-01	-0.097
IN-113M		391.69	*	3.077E-02	4.779E-02	8.231E-02	5.070E-03	0.374
SN-113		391.69	*	3.077E-02	4.779E-02	8.231E-02	5.070E-03	0.374
IN-114M		190.27	*	-5.985E-02	2.173E-01	3.024E-01	1.594E-02	-0.198
CD-115		260.90		-3.608E+01	1.429E+02	2.255E+02	1.295E+01	-0.160
		492.35		-2.235E+01	3.494E+01	5.442E+01	3.177E+00	-0.411
		527.90	*	-4.236E+00	1.094E+01	1.736E+01	1.002E+00	-0.244
SN-117M		156.02		-5.553E-01	2.413E+00	3.900E+00	2.041E-01	-0.142
		158.56	*	1.690E-02	5.790E-02	9.552E-02	4.964E-03	0.177
SB-122		563.90	*	-5.595E-01	2.227E+00	3.567E+00	2.018E-01	-0.157
		692.80		-3.928E-02	4.738E+01	7.649E+01	4.257E+00	-0.001
I-123		159.00	*	1.479E+00	4.738E+01	Half-Life too short		
		528.96		-5.891E+02	4.738E+01	Half-Life too short		
TE-123M		159.00	*	7.023E-03	3.007E-02	4.949E-02	2.612E-03	0.142
I-124		602.71	*	-3.038E-01	8.040E-01	1.081E+00	5.924E-02	-0.281
		722.78		2.394E+00	5.373E+00	7.857E+00	4.735E-01	0.305
		1325.50		-2.523E+01	3.261E+01	4.665E+01	3.389E+00	-0.541
		1376.25		4.005E+01	3.355E+01	6.184E+01	4.519E+00	0.648

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1509.49		1.419E+01	1.582E+01	2.894E+01	2.052E+00	0.490
		1691.02		-5.720E-01	3.266E+00	5.216E+00	3.405E-01	-0.110
SB-124		602.71		-1.757E-02	4.650E-02	6.252E-02	3.428E-03	-0.281
		645.85		-1.635E-01	5.048E-01	7.940E-01	4.793E-02	-0.206
		709.31		-5.608E-01	3.113E+00	4.944E+00	2.876E-01	-0.113
		713.82		-9.687E-01	1.934E+00	2.985E+00	3.063E-01	-0.324
		722.78		2.007E-01	4.505E-01	6.588E-01	4.143E-02	0.305
	+	968.20		1.657E+01	5.853E+00	6.950E+00	5.893E-01	2.384
		1045.16		-2.312E+00	2.552E+00	3.798E+00	2.883E-01	-0.609
		1325.50		-2.259E+00	2.920E+00	4.178E+00	3.034E-01	-0.541
		1368.21		5.498E-01	1.703E+00	2.893E+00	3.668E-01	0.190
		1436.60		-6.368E-01	3.557E+00	5.572E+00	4.029E-01	-0.114
		1691.02	*	-1.131E-02	6.460E-02	1.031E-01	7.191E-03	-0.110
SB-125		427.89	*	4.054E-03	1.015E-01	1.685E-01	1.025E-02	0.024
	+	463.38		7.358E-01	3.925E-01	5.815E-01	3.962E-02	1.265
		600.56		-5.544E-02	1.868E-01	2.880E-01	1.856E-02	-0.193
		635.90		-2.173E-02	2.758E-01	4.443E-01	2.825E-02	-0.049
TE-125M		109.28	*	-3.260E+00	1.028E+01	1.676E+01	1.495E+00	-0.195
I-126		388.63		6.082E-02	2.121E-01	3.587E-01	2.075E-02	0.170
		666.33	*	-1.004E+00	2.621E-01	2.971E-01	1.538E-02	-3.378
		753.82		4.238E-01	1.543E+00	2.542E+00	1.658E-01	0.167
SB-126		223.80		-6.401E-01	4.326E+00	6.913E+00	3.818E-01	-0.093
		278.60		8.125E-01	2.563E+00	4.383E+00	2.550E-01	0.185
		296.50		1.200E+01	1.954E+00	3.697E+00	2.171E-01	3.245
		414.70		5.319E-02	8.225E-02	1.414E-01	8.232E-03	0.376
		415.30		4.902E+00	6.841E+00	1.181E+01	6.874E-01	0.415
		555.20		-2.853E+00	4.029E+00	6.191E+00	3.521E-01	-0.461
		573.80		-8.074E-01	1.111E+00	1.582E+00	8.885E-02	-0.510
		593.00		1.297E-01	9.774E-01	1.609E+00	8.895E-02	0.081
		656.30		-2.482E+01	5.450E+00	5.873E+00	3.023E-01	-4.225
		666.33		-4.194E-01	1.095E-01	1.242E-01	6.426E-03	-3.378
		675.00		-1.950E+00	2.210E+00	3.297E+00	1.748E-01	-0.592
		695.00		1.486E-02	8.643E-02	1.415E-01	7.919E-03	0.105
		697.00		2.820E-02	2.941E-01	4.783E-01	2.692E-02	0.059
		720.50	*	-8.704E-03	1.777E-01	2.451E-01	1.468E-02	-0.036
		856.80		1.834E-01	6.301E-01	9.363E-01	7.790E-02	0.196
		989.30		5.873E-02	1.197E+00	1.993E+00	1.646E-01	0.029
		1034.80		-1.222E+00	8.977E+00	1.461E+01	1.129E+00	-0.084
		1213.00		4.671E+00	4.780E+00	8.515E+00	5.151E-01	0.549
SB-127		61.10		7.830E+01	8.146E+01	1.249E+02	1.401E+01	0.627
		252.40		-1.547E+00	4.923E+00	7.690E+00	3.194E+00	-0.201
		290.80		-1.273E+01	2.484E+01	3.506E+01	3.228E+00	-0.363
		411.60		-7.889E-01	1.384E+01	2.288E+01	3.292E+00	-0.034
		444.90		-2.195E-02	1.009E+01	1.667E+01	1.805E+00	-0.001
		473.00		-1.373E+00	1.881E+00	2.937E+00	3.293E-01	-0.467
		543.00		2.787E+00	1.691E+01	2.801E+01	3.609E+00	0.099
		603.60		4.575E-01	1.355E+01	1.911E+01	2.026E+00	0.024
		685.20	*	-3.353E-01	1.412E+00	2.231E+00	2.060E-01	-0.150
		698.50		1.151E+01	1.648E+01	2.797E+01	4.034E+00	0.412

Sample ID : G245691012 Acquisition date : 9-FEB-2010 15:33:57

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.20		-2.407E+01	3.902E+01	4.997E+01	4.652E+00	-0.482
		783.80		3.950E+00	4.332E+00	6.890E+00	7.837E-01	0.573
XE-127		57.60		7.287E+00	8.602E+00	1.368E+01	1.198E+00	0.533
		145.22		3.870E-01	7.362E-01	1.228E+00	6.623E-02	0.315
		172.10		-1.289E-01	1.270E-01	1.972E-01	1.013E-02	-0.654
		202.84	*	-2.344E-03	5.276E-02	8.209E-02	4.407E-03	-0.029
		374.96		-2.125E-02	2.024E-01	3.350E-01	1.954E-02	-0.063
I-131		80.18		5.896E+00	7.633E+00	8.581E+00	7.913E-01	0.687
		284.30		-8.584E-02	1.551E+00	2.606E+00	1.689E-01	-0.033
		364.48	*	6.032E-02	1.188E-01	2.039E-01	1.332E-02	0.296
		636.97		2.070E-01	1.571E+00	2.578E+00	1.556E-01	0.080
		722.89		4.832E+00	8.712E+00	1.288E+01	7.867E-01	0.375
TE-132		49.72		-3.300E+00	3.009E+01	5.043E+01	5.389E+00	-0.065
		111.76		-4.712E+00	3.272E+01	5.367E+01	5.035E+00	-0.088
		116.30		-8.407E+00	3.024E+01	4.928E+01	4.499E+00	-0.171
		228.16	*	-2.355E-01	7.521E-01	1.190E+00	1.699E-01	-0.198
BA-133		53.15		-5.756E-01	5.118E+00	8.566E+00	7.556E-01	-0.067
		79.62		2.453E+00	2.192E+00	2.496E+00	3.875E-01	0.983
		81.00		1.056E-01	1.615E-01	1.794E-01	2.908E-02	0.589
		276.40		5.380E-01	4.288E-01	6.971E-01	9.040E-02	0.772
		302.84		-1.069E-01	1.630E-01	2.259E-01	2.643E-02	-0.473
		356.01	*	4.376E-02	4.708E-02	7.340E-02	8.516E-03	0.596
		383.85		-7.002E-02	3.038E-01	4.980E-01	5.415E-02	-0.141
I-133	+	510.53		8.581E-01	3.038E-01	Half-Life too short		
		529.87	*	-8.860E-03	3.038E-01	Half-Life too short		
		706.58		1.271E-01	3.038E-01	Half-Life too short		
		856.28		2.283E-01	3.038E-01	Half-Life too short		
		875.33		1.097E-02	3.038E-01	Half-Life too short		
		1236.41		1.319E+00	3.038E-01	Half-Life too short		
		1298.22		-4.142E-02	3.038E-01	Half-Life too short		
CS-134		475.35		1.788E+00	2.071E+00	3.600E+00	2.107E-01	0.497
		563.23		-2.224E-02	3.860E-01	6.276E-01	3.629E-02	-0.035
		569.32		-4.952E-02	2.042E-01	3.185E-01	1.851E-02	-0.155
		604.70		2.995E-02	3.961E-02	6.017E-02	3.312E-03	0.498
		795.84	*	6.003E-02	4.799E-02	8.785E-02	6.416E-03	0.683
		801.93		-2.735E-01	3.952E-01	6.140E-01	4.538E-02	-0.446
		1038.57		-3.019E+00	3.823E+00	5.749E+00	4.413E-01	-0.525
		1167.94		-5.368E-01	2.612E+00	4.193E+00	2.404E-01	-0.128
		1365.15		4.980E-01	1.322E+00	2.222E+00	1.728E-01	0.224
I-135		288.45		-9.578E+09	1.322E+00	Half-Life too short		
		417.63		7.141E+08	1.322E+00	Half-Life too short		
		546.56		2.613E+09	1.322E+00	Half-Life too short		
		836.80		2.496E+10	1.322E+00	Half-Life too short		
		1038.76		-1.383E+10	1.322E+00	Half-Life too short		
		1124.00		2.934E+10	1.322E+00	Half-Life too short		
		1131.51		3.583E+08	1.322E+00	Half-Life too short		
		1260.41	*	1.721E+09	1.322E+00	Half-Life too short		
		1457.56		8.946E+11	1.322E+00	Half-Life too short		
		1678.03		6.934E+09	1.322E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1706.46		-1.291E+10	1.322E+00	Half-Life too short		
		1791.20		3.567E+08	1.322E+00	Half-Life too short		
CS-136		66.91		-2.494E-01	1.060E+00	1.543E+00	2.388E-01	-0.162
	+	86.29		3.643E+00	1.202E+00	2.229E+00	3.019E-01	1.634
		153.22		4.558E-01	7.249E-01	1.192E+00	8.113E-02	0.382
		163.89		5.208E-01	1.155E+00	1.915E+00	1.287E-01	0.272
		176.55		5.864E-01	3.931E-01	6.752E-01	4.025E-02	0.869
		273.65		-5.901E-01	6.063E-01	7.836E-01	5.183E-02	-0.753
		340.57		8.077E-02	1.412E-01	2.143E-01	1.343E-02	0.377
		818.51		4.601E-02	7.256E-02	1.283E-01	9.791E-03	0.359
		1048.07	*	5.349E-02	1.080E-01	1.870E-01	1.490E-02	0.286
		1235.34		8.463E-01	6.891E-01	1.222E+00	1.256E-01	0.692
BA-137M		661.65	*	2.676E-01	5.600E-02	1.103E-01	5.634E-03	2.426
CS-137		661.65	*	2.829E-01	5.922E-02	1.166E-01	5.988E-03	2.426
CE-139		165.85	*	6.077E-03	3.279E-02	5.324E-02	2.715E-03	0.114
BA-140		162.64		6.791E-02	8.071E-01	1.319E+00	7.842E-02	0.051
		304.84		5.772E-01	1.403E+00	2.106E+00	5.750E-01	0.274
		423.70		1.998E-01	2.102E+00	3.500E+00	1.113E+00	0.057
		537.32	*	-1.762E-01	2.806E-01	4.274E-01	1.389E-01	-0.412
LA-140	+	328.77		6.077E-01	3.446E-01	5.707E-01	3.763E-02	1.065
		432.53		-5.974E-01	2.144E+00	3.481E+00	2.245E-01	-0.172
		487.03		1.376E-01	1.410E-01	2.475E-01	1.635E-02	0.556
		751.79		8.645E-01	1.817E+00	3.045E+00	2.336E-01	0.284
		815.85		-7.376E-02	3.059E-01	5.001E-01	4.347E-02	-0.147
		867.82		-4.970E-01	1.538E+00	2.104E+00	1.891E-01	-0.236
		919.63		1.555E+00	3.115E+00	4.932E+00	5.376E-01	0.315
		925.24		-5.363E-01	1.205E+00	1.900E+00	1.788E-01	-0.282
		1596.49	*	-1.387E-01	8.530E-02	9.922E-02	6.807E-03	-1.398
CE-141		145.44	*	1.040E-02	6.733E-02	1.108E-01	6.246E-03	0.094
CE-143		57.37		6.288E-04	6.733E-02	Half-Life too short		
		231.56		1.127E-03	6.733E-02	Half-Life too short		
		293.26	*	1.132E-03	6.733E-02	Half-Life too short		
	+	350.59		3.422E-02	6.733E-02	Half-Life too short		
		490.36		-3.744E-04	6.733E-02	Half-Life too short		
		664.57		-9.895E-03	6.733E-02	Half-Life too short		
		721.93		-8.956E-04	6.733E-02	Half-Life too short		
CE-144		80.11		2.842E+00	3.510E+00	3.955E+00	3.626E-01	0.718
		133.54	*	7.182E-02	2.530E-01	3.688E-01	5.208E-02	0.195
PM-144		476.78		1.177E-03	7.332E-02	1.209E-01	8.446E-03	0.010
		618.01		-8.830E-03	3.399E-02	5.405E-02	3.118E-03	-0.163
		696.49	*	8.965E-04	3.800E-02	6.146E-02	3.457E-03	0.015
		778.57		-5.786E-01	2.570E+00	3.614E+00	2.507E-01	-0.160
PR-144		696.49	*	6.075E-02	2.575E+00	4.165E+00	2.341E-01	0.015
		1489.15		2.166E+00	1.255E+01	2.080E+01	1.484E+00	0.104
PM-146		453.90	*	2.153E-02	4.636E-02	7.879E-02	6.824E-03	0.273
		633.02		-9.165E-01	1.563E+00	2.195E+00	8.066E-01	-0.418
		735.90		1.860E-02	1.598E-01	2.596E-01	7.263E-02	0.072
		747.13		3.945E-02	9.977E-02	1.658E-01	2.123E-02	0.238
ND-147	+	91.11		4.712E-01	2.919E-01	6.971E-01	6.853E-02	0.676

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		319.41		3.319E+00	3.382E+00	5.953E+00	3.517E-01	0.557
		439.89		1.141E+00	6.118E+00	1.024E+01	5.993E-01	0.111
		531.02	*	-5.970E-01	5.793E-01	8.599E-01	1.161E-01	-0.694
PM-149		285.90	*	5.591E+01	9.762E+01	1.683E+02	2.389E+01	0.332
EU-152		121.78		-5.605E-02	8.082E-02	1.292E-01	9.935E-03	-0.434
		244.69		1.106E-01	4.112E-01	5.856E-01	3.312E-02	0.189
		344.27	*	-1.075E-02	1.395E-01	1.583E-01	1.049E-02	-0.068
		443.98		-3.285E-01	9.953E-01	1.608E+00	9.411E-02	-0.204
		778.89		-5.124E-02	2.979E-01	4.220E-01	2.928E-02	-0.121
		867.32		-5.406E-01	9.251E-01	1.212E+00	1.032E-01	-0.446
		964.01		4.400E-01	3.776E-01	6.024E-01	5.133E-02	0.730
		1085.78		-2.809E-01	4.344E-01	6.682E-01	4.702E-02	-0.420
		1112.02		-1.700E-01	3.820E-01	5.027E-01	3.341E-02	-0.338
		1407.95		1.053E-01	1.970E-01	3.415E-01	2.484E-02	0.308
GD-153		69.67		6.165E-01	2.163E+00	3.220E+00	2.813E-01	0.191
	+	83.37		3.208E+01	1.821E+01	2.883E+01	2.706E+00	1.113
		97.43	*	1.291E-01	9.795E-02	1.507E-01	1.231E-02	0.857
		103.18		-1.492E-01	1.178E-01	1.830E-01	1.368E-02	-0.815
EU-154		123.07		1.777E-03	5.583E-02	9.191E-02	8.676E-03	0.019
		247.94		-1.657E-01	4.375E-01	6.312E-01	5.975E-02	-0.262
		591.81		2.059E-02	6.323E-01	1.033E+00	9.933E-02	0.020
		723.30		2.601E-01	2.158E-01	3.401E-01	2.473E-02	0.765
		756.87		-1.232E-01	8.021E-01	1.269E+00	1.345E-01	-0.097
		873.19		1.758E-01	3.109E-01	5.434E-01	6.657E-02	0.323
		996.32		-1.678E-01	4.156E-01	6.609E-01	1.160E-01	-0.254
		1004.76		-3.833E-01	2.512E-01	3.501E-01	3.938E-02	-1.095
		1274.45	*	-1.476E-02	1.342E-01	2.161E-01	2.145E-02	-0.068
EU-155		48.70		-3.832E+00	3.829E+00	6.187E+00	4.991E-01	-0.619
		60.01		4.487E+00	6.912E+00	1.040E+01	9.037E-01	0.431
	+	86.54		3.357E-01	1.061E-01	2.034E-01	1.977E-02	1.650
		105.31	*	8.137E-02	1.176E-01	1.988E-01	1.466E-02	0.409
TB-160	+	86.79		8.970E-01	2.833E-01	5.389E-01	5.207E-02	1.665
		197.04		-3.269E-01	6.021E-01	9.505E-01	5.060E-02	-0.344
		215.65		7.357E-01	7.793E-01	1.310E+00	7.156E-02	0.562
	+	298.57		3.721E-01	1.623E-01	2.263E-01	1.330E-02	1.644
		879.36	*	-6.327E-02	1.560E-01	2.508E-01	2.193E-02	-0.252
		962.29		7.424E-01	6.599E-01	1.058E+00	9.038E-02	0.701
	+	966.15		1.277E+00	4.510E-01	5.605E-01	4.764E-02	2.278
		1177.93		-1.773E-01	4.050E-01	6.361E-01	3.619E-02	-0.279
		1271.85		-6.514E-01	7.903E-01	1.154E+00	7.702E-02	-0.564
HO-166M		80.57		3.112E-01	4.466E-01	4.994E-01	4.592E-02	0.623
	+	184.41		2.351E-01	5.973E-02	8.076E-02	4.221E-03	2.912
		280.46		-1.224E-01	8.867E-02	1.392E-01	8.106E-03	-0.880
		410.95		6.427E-02	2.785E-01	4.678E-01	2.720E-02	0.137
		711.68	*	-1.176E-02	6.935E-02	1.102E-01	6.451E-03	-0.107
		752.31		1.103E-01	2.902E-01	4.824E-01	3.135E-02	0.229
		810.29		-1.253E-02	5.813E-02	9.544E-02	7.139E-03	-0.131
TM-171		51.35		3.110E+01	4.521E+01	7.777E+01	6.760E+00	0.400
		52.39		1.310E+01	2.287E+01	3.918E+01	3.442E+00	0.334

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.40		4.145E+01	3.768E+01	5.778E+01	5.020E+00	0.717
		66.72	*	-2.940E+00	3.826E+01	5.613E+01	4.881E+00	-0.052
LU-176	+	88.36		6.611E-01	2.088E-01	4.080E-01	3.955E-02	1.620
		201.83		-2.892E-03	3.157E-02	5.082E-02	2.724E-03	-0.057
		306.84	*	9.523E-03	2.588E-02	4.202E-02	2.476E-03	0.227
		401.10		2.494E-01	7.238E+00	1.204E+01	6.976E-01	0.021
LU-177		112.95		1.724E+00	1.761E+00	3.000E+00	1.967E-01	0.575
	+	208.36	*	2.534E+00	1.323E+00	2.053E+00	1.111E-01	1.234
LU-177M		52.97		5.602E-01	2.301E+00	3.901E+00	3.439E-01	0.144
		54.07		-4.212E-01	1.215E+00	2.015E+00	1.781E-01	-0.209
		61.30		2.572E+00	2.138E+00	3.308E+00	2.873E-01	0.777
		121.62		-1.734E-01	4.102E-01	6.635E-01	3.922E-02	-0.261
		147.16		-8.142E-01	7.103E-01	1.107E+00	5.939E-02	-0.735
		171.86		-5.290E-01	5.113E-01	7.928E-01	4.070E-02	-0.667
		218.09		-8.912E-01	9.014E-01	1.381E+00	7.569E-02	-0.646
	+	268.79		1.229E+00	1.249E+00	1.500E+00	8.670E-02	0.819
		319.02		2.432E-01	2.638E-01	4.631E-01	2.735E-02	0.525
		367.43		-3.558E-01	9.653E-01	1.575E+00	9.222E-02	-0.226
		413.65	*	-2.035E-01	2.025E-01	3.157E-01	1.837E-02	-0.645
HF-181		56.28		-9.528E-01	1.295E+00	2.112E+00	1.860E-01	-0.451
		57.53		5.112E-01	7.266E-01	1.150E+00	1.007E-01	0.445
		65.20		1.362E+00	1.329E+00	2.037E+00	1.769E-01	0.668
		133.02		-6.639E-03	8.166E-02	1.169E-01	6.562E-03	-0.057
		136.25		-1.201E-01	5.022E-01	8.155E-01	4.526E-02	-0.147
		345.85		2.330E-01	2.310E-01	3.266E-01	1.927E-02	0.713
		482.03	*	-3.813E-02	4.592E-02	7.106E-02	4.156E-03	-0.537
W-181		56.28		-3.720E-01	5.067E-01	8.265E-01	7.278E-02	-0.450
		57.53		1.999E-01	2.846E-01	4.502E-01	3.945E-02	0.444
		65.20	*	5.290E-01	5.165E-01	7.913E-01	6.874E-02	0.668
TA-182		67.75		-1.336E-01	1.432E-01	2.132E-01	1.856E-02	-0.627
		100.10		5.508E-02	1.969E-01	3.288E-01	2.573E-02	0.168
		152.43		4.320E-01	3.692E-01	6.188E-01	3.270E-02	0.698
		222.10		-7.544E-02	3.645E-01	5.810E-01	3.202E-02	-0.130
		1001.68		1.897E+00	2.319E+00	4.089E+00	3.320E-01	0.464
	+	1121.28		5.371E-01	3.203E-01	3.650E-01	2.373E-02	1.472
		1189.05		-1.035E-02	3.015E-01	4.917E-01	2.853E-02	-0.021
		1221.42	*	-1.799E-02	1.915E-01	3.100E-01	1.903E-02	-0.058
		1230.97		-3.407E-01	5.545E-01	8.573E-01	5.348E-02	-0.397
RE-183		57.98		3.313E-01	2.939E-01	4.514E-01	3.948E-02	0.734
		59.32		1.691E-01	1.552E-01	2.379E-01	2.067E-02	0.711
		67.20		-8.350E-02	2.708E-01	3.930E-01	3.419E-02	-0.212
		162.32	*	-2.195E-02	1.177E-01	1.903E-01	9.787E-03	-0.115
	+	208.81		2.271E+00	1.186E+00	1.838E+00	9.952E-02	1.235
		291.72		5.835E-01	1.122E+00	1.701E+00	9.969E-02	0.343
RE-184		57.98		1.221E+00	1.083E+00	1.663E+00	1.454E-01	0.734
		59.32		6.225E-01	5.713E-01	8.757E-01	7.610E-02	0.711
		67.20		-3.075E-01	9.975E-01	1.447E+00	1.259E-01	-0.212
		161.27		5.292E-03	3.818E-01	6.225E-01	3.211E-02	0.009
		216.55		-1.399E-02	2.799E-01	4.501E-01	2.462E-02	-0.031

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.85	*	-7.631E-02	2.577E-01	4.062E-01	2.316E-02	-0.188
		318.01		-6.435E-03	4.538E-01	7.607E-01	4.492E-02	-0.008
		792.07		1.308E+00	1.208E+00	1.951E+00	1.398E-01	0.670
		903.28		-3.962E-01	1.213E+00	1.661E+00	1.506E-01	-0.239
		920.93		-2.079E-01	5.001E-01	7.573E-01	6.754E-02	-0.275
OS-185		59.72		2.953E-01	4.149E-01	6.263E-01	5.439E-02	0.472
		61.14		1.949E-01	2.326E-01	3.555E-01	3.088E-02	0.548
		69.30		-2.703E-02	3.731E-01	5.768E-01	5.035E-02	-0.047
		592.07		-6.211E-01	2.664E+00	4.256E+00	2.355E-01	-0.146
		646.12	*	-9.844E-03	4.158E-02	6.590E-02	3.439E-03	-0.149
		717.42		-1.513E-01	1.012E+00	1.611E+00	9.570E-02	-0.094
		874.81		1.043E-01	6.279E-01	1.062E+00	9.198E-02	0.098
		880.27		-3.194E-01	8.598E-01	1.386E+00	1.214E-01	-0.230
RE-188		155.03	*	-3.508E-02	1.843E-01	2.985E-01	1.566E-02	-0.118
		477.96		1.554E+00	3.321E+00	5.638E+00	3.299E-01	0.276
		633.10		-1.796E+00	3.092E+00	4.454E+00	2.363E-01	-0.403
W-188	+	63.58		1.915E+02	8.832E+01	1.253E+02	1.089E+01	1.527
		227.08		4.103E+00	1.359E+01	2.218E+01	1.230E+00	0.185
		290.67	*	-4.332E+00	8.553E+00	1.209E+01	7.078E-01	-0.358
IR-192	+	295.96		1.135E+00	1.809E-01	2.952E-01	1.759E-02	3.846
		308.46		-1.389E-02	9.461E-02	1.576E-01	9.394E-03	-0.088
		316.51	*	-3.083E-02	3.502E-02	5.585E-02	3.313E-03	-0.552
		468.07		6.566E-02	7.962E-02	1.225E-01	8.252E-03	0.536
		604.41		2.389E-01	5.251E-01	7.746E-01	8.664E-02	0.308
		612.46		9.126E-01	7.948E-01	1.255E+00	9.150E-02	0.727
AU-195		65.12		2.767E-01	2.407E-01	3.702E-01	3.216E-02	0.747
		66.83		-1.013E-02	1.263E-01	1.853E-01	1.611E-02	-0.055
	+	75.70		1.266E+00	3.422E-01	5.386E-01	4.810E-02	2.350
		98.88	*	2.923E-01	2.597E-01	4.314E-01	3.442E-02	0.678
	+	129.76		3.770E+00	3.236E+00	5.208E+00	2.960E-01	0.724
TL-200		367.94	*	-1.044E-04	3.236E+00	Half-Life too short		
		579.30		1.040E-02	3.236E+00	Half-Life too short		
		828.27		2.486E-03	3.236E+00	Half-Life too short		
		1205.75		-1.958E-03	3.236E+00	Half-Life too short		
TL-201		68.90		-1.351E+00	6.065E+00	9.318E+00	8.128E-01	-0.145
		70.82		1.271E+00	3.521E+00	5.254E+00	4.604E-01	0.242
		80.30		6.250E+00	8.342E+00	9.363E+00	8.593E-01	0.668
		135.34		3.788E-01	2.816E+01	4.619E+01	2.572E+00	0.008
		167.43	*	1.122E+00	7.678E+00	1.244E+01	6.349E-01	0.090
TL-202		68.90		-1.209E-01	5.425E-01	8.335E-01	7.271E-02	-0.145
		70.82		1.134E-01	3.141E-01	4.687E-01	4.107E-02	0.242
		80.30		5.577E-01	7.444E-01	8.355E-01	7.668E-02	0.668
		439.56	*	6.949E-03	7.319E-02	1.218E-01	7.124E-03	0.057
HG-203		70.83		4.910E-01	1.360E+00	2.028E+00	2.778E-01	0.242
		72.87		2.092E+00	8.781E-01	1.332E+00	1.776E-01	1.571
	+	82.60		2.386E+00	1.378E+00	2.152E+00	3.057E-01	1.109
		279.20	*	-7.781E-03	4.269E-02	7.139E-02	4.410E-03	-0.109
BI-207		72.80		5.604E-01	2.480E-01	3.862E-01	3.406E-02	1.451
	+	74.97		7.019E-01	1.898E-01	2.740E-01	2.438E-02	2.562

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	84.90		4.149E-01	2.355E-01	3.820E-01	3.631E-02	1.086
		569.67		-8.574E-03	3.177E-02	4.944E-02	2.785E-03	-0.173
		1063.62	*	-5.775E-03	5.307E-02	8.649E-02	6.354E-03	-0.067
		1770.23		-1.591E+00	6.737E-01	6.668E-01	4.128E-02	-2.385
TL-207		81.07		2.384E-01	3.551E-01	3.963E-01	3.657E-02	0.602
	+	83.78		2.736E-01	1.553E-01	2.415E-01	2.275E-02	1.133
		94.90		6.824E-01	3.093E-01	4.835E-01	4.125E-02	1.411
		122.32		-8.977E-01	1.907E+00	3.078E+00	2.083E-01	-0.292
		144.24		7.031E-01	7.522E-01	1.249E+00	8.650E-02	0.563
		154.21		3.299E-02	4.283E-01	7.010E-01	4.608E-02	0.047
	+	269.46		2.877E-01	2.925E-01	3.550E-01	2.146E-02	0.810
		323.87	*	-8.475E-01	8.127E-01	1.073E+00	1.776E-01	-0.790
	+	338.28		4.517E+00	2.036E+00	2.315E+00	2.451E-01	1.952
		445.03		-6.881E-02	2.333E+00	3.847E+00	3.962E-01	-0.018
PO-209		260.50		-4.074E+00	1.052E+01	1.647E+01	9.456E-01	-0.247
		262.80		-1.724E+00	2.990E+01	4.594E+01	2.642E+00	-0.038
		896.60	*	4.169E+00	7.708E+00	1.345E+01	1.221E+00	0.310
BI-210		46.50	*	2.126E+00	5.802E+00	9.830E+00	7.654E-01	0.216
PB-210		46.50	*	2.126E+00	5.802E+00	9.830E+00	7.654E-01	0.216
PO-210		46.50	*	2.126E+00	5.801E+00	9.830E+00	6.595E-01	0.216
PB-211		404.84	*	-5.169E-01	1.120E+00	1.733E+00	1.081E+00	-0.298
		427.08		7.267E-01	2.270E+00	3.758E+00	2.323E+00	0.193
		831.96		2.065E-01	1.195E+00	2.018E+00	1.263E+00	0.102
PO-215		81.07		2.384E-01	3.551E-01	3.963E-01	3.657E-02	0.602
	+	83.78		2.736E-01	1.553E-01	2.415E-01	2.275E-02	1.133
		94.90		6.824E-01	3.093E-01	4.835E-01	4.125E-02	1.411
		122.32		-8.977E-01	1.907E+00	3.078E+00	2.083E-01	-0.292
		144.24		7.031E-01	7.522E-01	1.249E+00	8.650E-02	0.563
		154.21		3.299E-02	4.283E-01	7.010E-01	4.608E-02	0.047
	+	269.46		2.877E-01	2.925E-01	3.550E-01	2.146E-02	0.810
		323.87	*	-8.475E-01	8.127E-01	1.073E+00	1.776E-01	-0.790
	+	338.28		4.517E+00	2.036E+00	2.315E+00	2.451E-01	1.952
		445.03		-6.881E-02	2.333E+00	3.847E+00	3.962E-01	-0.018
RN-219		271.23		1.830E-01	3.109E-01	4.497E-01	3.641E-02	0.407
		401.81	*	-1.738E-01	4.569E-01	7.409E-01	1.008E-01	-0.235
RN-220		549.76	*	2.755E+01	2.860E+01	4.992E+01	2.849E+00	0.552
RA-223		81.07		2.384E-01	3.551E-01	3.963E-01	3.657E-02	0.602
	+	83.78		2.736E-01	1.553E-01	2.415E-01	2.275E-02	1.133
		94.90		6.824E-01	3.093E-01	4.835E-01	4.125E-02	1.411
		122.32		-8.977E-01	1.907E+00	3.078E+00	2.083E-01	-0.292
		144.24		7.031E-01	7.522E-01	1.249E+00	8.650E-02	0.563
		154.21		3.299E-02	4.283E-01	7.010E-01	4.608E-02	0.047
	+	269.46		2.877E-01	2.925E-01	3.550E-01	2.146E-02	0.810
		323.87	*	-8.475E-01	8.127E-01	1.073E+00	1.776E-01	-0.790
	+	338.28		4.517E+00	2.036E+00	2.315E+00	2.451E-01	1.952
		445.03		-6.881E-02	2.333E+00	3.847E+00	3.962E-01	-0.018
AC-227		79.80		2.789E+00	2.794E+00	3.130E+00	6.797E-01	0.891
		236.00		1.976E+00	3.963E-01	6.037E-01	6.245E-02	3.274
		256.20	*	2.711E-01	4.180E-01	6.887E-01	9.592E-02	0.394

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		286.10		1.415E+00	1.607E+00	2.804E+00	3.248E-01	0.505
	+	299.80		4.738E+00	2.189E+00	2.845E+00	4.641E-01	1.666
		304.40		8.519E-01	2.033E+00	3.064E+00	5.309E-01	0.278
		334.20		3.773E-01	2.961E+00	4.114E+00	7.557E-01	0.092
TH-227		79.80		2.789E+00	2.796E+00	3.130E+00	6.883E-01	0.891
	+	94.00		2.136E+01	5.535E+00	4.993E+00	1.088E+00	4.278
		236.00		1.976E+00	3.827E-01	6.037E-01	5.393E-02	3.274
		256.20	*	2.711E-01	4.188E-01	6.887E-01	1.162E-01	0.394
		286.10		1.415E+00	2.136E+00	2.804E+00	2.809E+00	0.505
	+	299.80		4.738E+00	2.189E+00	2.845E+00	4.641E-01	1.666
		304.40		8.519E-01	2.033E+00	3.064E+00	5.309E-01	0.278
		334.20		3.773E-01	2.961E+00	4.114E+00	7.557E-01	0.092
AC-228	+	338.32		1.082E+00	6.475E-01	5.540E-01	2.259E-01	1.953
	+	911.07	*	1.376E+00	3.245E-01	4.633E-01	5.345E-02	2.971
		969.11		1.273E+00	4.659E-01	6.772E-01	1.577E-01	1.880
RA-228	+	338.32		1.082E+00	6.475E-01	5.540E-01	2.259E-01	1.953
	+	911.07	*	1.376E+00	3.245E-01	4.633E-01	5.345E-02	2.971
		969.11		1.273E+00	4.659E-01	6.772E-01	1.577E-01	1.880
TH-229		85.43		8.034E-01	3.207E-01	3.892E-01	3.716E-02	2.065
	+	88.47		1.866E-01	1.154E-01	2.331E-01	2.254E-02	0.800
		100.00		7.954E-02	2.052E-01	3.439E-01	2.696E-02	0.231
		193.63	*	-2.340E-01	5.420E-01	8.605E-01	4.558E-02	-0.272
		210.97		3.288E-01	9.638E-01	1.385E+00	7.519E-02	0.237
PA-231		283.67	*	6.155E-02	1.603E+00	2.706E+00	3.733E-01	0.023
		301.29		1.235E+00	6.679E-01	1.080E+00	1.134E-01	1.144
TH-231		81.07		2.384E-01	3.551E-01	3.963E-01	3.657E-02	0.602
	+	83.78		2.736E-01	1.553E-01	2.415E-01	2.275E-02	1.133
		94.90		6.824E-01	3.093E-01	4.835E-01	4.125E-02	1.411
		122.32		-8.977E-01	1.907E+00	3.078E+00	2.083E-01	-0.292
		144.24		7.031E-01	7.522E-01	1.249E+00	8.650E-02	0.563
		154.21		3.299E-02	4.283E-01	7.010E-01	4.608E-02	0.047
	+	269.46		2.877E-01	2.925E-01	3.550E-01	2.146E-02	0.810
		323.87	*	-8.475E-01	8.127E-01	1.073E+00	1.776E-01	-0.790
	+	338.28		4.517E+00	2.036E+00	2.315E+00	2.451E-01	1.952
		445.03		-6.881E-02	2.333E+00	3.847E+00	3.962E-01	-0.018
U-231	+	84.21		1.184E+01	6.722E+00	1.045E+01	9.880E-01	1.133
	+	92.29		2.121E+01	3.493E+00	5.412E+00	4.844E-01	3.918
		95.87	*	-6.506E-01	1.374E+00	1.953E+00	1.638E-01	-0.333
		108.00		-1.301E-01	2.270E+00	3.740E+00	2.613E-01	-0.035
TH-232	+	338.32		1.082E+00	4.782E-01	5.540E-01	3.272E-02	1.953
	+	911.07	*	1.376E+00	3.245E-01	4.633E-01	5.345E-02	2.971
		969.11		1.273E+00	4.659E-01	6.772E-01	1.577E-01	1.880
PA-233	+	75.28		2.048E+01	6.119E+00	8.447E+00	1.310E+00	2.425
	+	86.59		5.457E+00	2.212E+00	3.299E+00	8.963E-01	1.654
	+	300.12		1.321E+00	5.981E-01	7.914E-01	1.066E-01	1.669
		311.98	*	3.619E-02	6.299E-02	1.089E-01	6.811E-03	0.332
		340.50		5.377E-01	7.016E-01	1.063E+00	2.445E-01	0.506
		398.62		-9.420E-01	2.304E+00	3.714E+00	9.601E-01	-0.254
		415.76		1.718E+00	1.821E+00	3.130E+00	6.445E-01	0.549

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-234	+	63.00		5.551E+00	2.659E+00	3.680E+00	5.717E-01	1.509
		94.67		7.646E-01	2.426E-01	3.694E-01	4.568E-02	2.070
		98.44		1.547E-01	1.387E-01	1.767E-01	9.843E-02	0.875
		99.86		2.777E-01	5.227E-01	8.799E-01	6.913E-02	0.316
		111.00		3.409E-02	2.031E-01	3.369E-01	3.644E-02	0.101
		131.20		1.217E-02	1.291E-01	1.866E-01	1.054E-02	0.065
		152.70		4.150E-01	3.606E-01	5.956E-01	9.306E-02	0.697
	+	186.00		8.465E+00	3.328E+00	2.958E+00	9.007E-01	2.862
		226.40		1.898E-01	4.304E-01	7.060E-01	8.071E-02	0.269
		227.20		1.314E-01	4.588E-01	7.480E-01	4.148E-02	0.176
		248.90		5.914E-02	9.036E-01	1.453E+00	3.117E-01	0.041
	+	293.70		7.145E+00	1.562E+00	1.842E+00	2.966E-01	3.879
		369.80		4.908E-01	8.943E-01	1.528E+00	3.184E-01	0.321
		568.70		1.009E-01	1.036E+00	1.663E+00	9.374E-02	0.061
		569.50		-7.245E-02	2.822E-01	4.396E-01	2.477E-02	-0.165
		574.00		-4.803E-01	1.537E+00	2.287E+00	1.284E-01	-0.210
		699.00		-6.705E-02	7.831E-01	1.255E+00	2.250E-01	-0.053
		706.10		5.685E-01	1.142E+00	1.874E+00	8.269E-01	0.303
		733.00		3.745E-02	4.597E-01	6.440E-01	1.376E-01	0.058
		742.81		4.354E-01	1.509E+00	2.444E+00	1.637E+00	0.178
		796.30		5.090E-01	9.320E-01	1.614E+00	4.299E-01	0.315
		805.60		8.643E-01	1.008E+00	1.755E+00	5.322E-01	0.492
		819.60		5.812E-01	1.184E+00	2.039E+00	7.711E-01	0.285
		826.30		-1.953E-01	8.059E-01	1.310E+00	5.840E-01	-0.149
		831.60		-1.359E-01	6.185E-01	1.012E+00	2.998E-01	-0.134
		876.40		-1.855E-01	9.144E-01	1.463E+00	1.505E+00	-0.127
		880.51		-1.008E-01	3.097E-01	5.014E-01	4.396E-02	-0.201
		883.24		1.452E-01	3.392E-01	5.615E-01	3.776E-01	0.259
		899.00		4.013E-01	8.752E-01	1.488E+00	6.521E-01	0.270
		925.00		7.834E-02	1.211E+00	2.009E+00	1.784E-01	0.039
		926.50		9.382E-03	1.865E-01	3.091E-01	7.840E-02	0.030
		946.00	*	-1.685E-01	3.248E-01	5.104E-01	9.595E-02	-0.330
		949.00		2.434E-01	4.753E-01	8.246E-01	7.147E-02	0.295
		980.50		4.177E-01	7.545E-01	1.315E+00	1.098E-01	0.318
		1394.10		1.179E+00	1.390E+00	2.156E+00	1.400E+00	0.547
PA-234M		766.42		1.847E+01	1.554E+01	2.216E+01	1.118E+01	0.833
		1001.03	*	4.902E+00	5.282E+00	9.376E+00	8.946E-01	0.523
U-235	+	89.95		1.873E+00	1.284E+00	2.137E+00	6.641E-01	0.877
	+	93.35		6.646E+00	2.083E+00	1.656E+00	4.648E-01	4.014
		105.00		6.551E-01	1.190E+00	1.960E+00	5.778E-01	0.334
		143.76	*	2.413E-01	2.382E-01	3.924E-01	6.346E-02	0.615
		163.35		-5.943E-02	5.122E-01	8.303E-01	1.476E-01	-0.072
	+	185.71		3.135E-01	7.964E-02	1.094E-01	5.729E-03	2.865
		205.31		-1.432E-01	6.296E-01	8.750E-01	1.562E-01	-0.164
NP-236		94.67		5.854E-01	1.769E-01	2.807E-01	2.405E-02	2.086
		98.44		1.170E-01	8.268E-02	1.336E-01	1.074E-02	0.876
		111.00		2.578E-02	1.536E-01	2.549E-01	1.713E-02	0.101
		160.31	*	-3.153E-02	8.450E-02	1.356E-01	7.013E-03	-0.233
NP-239		99.55		1.559E-01	1.751E-01	2.979E-01	2.352E-02	0.523

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.00	*	-6.593E-02	2.040E-01	3.318E-01	2.071E-02	-0.199
	+	209.75		1.791E+00	9.352E-01	1.452E+00	7.870E-02	1.234
		228.18		-7.695E-02	2.441E-01	3.867E-01	2.147E-02	-0.199
		277.60		1.019E-02	2.034E-01	3.252E-01	1.891E-02	0.031
		334.30		2.589E-01	1.680E+00	2.339E+00	1.382E-01	0.111
AM-241		59.54	*	2.272E-01	2.179E-01	3.332E-01	3.100E-02	0.682
CM-243		99.55		1.605E-01	1.802E-01	3.066E-01	2.420E-02	0.523
		103.76	*	1.922E-02	1.069E-01	1.761E-01	1.305E-02	0.109
		117.00		-6.783E-02	2.099E-01	3.413E-01	2.130E-02	-0.199
	+	209.75		1.766E+00	9.219E-01	1.431E+00	7.758E-02	1.234
		228.18		-7.775E-02	2.467E-01	3.907E-01	2.169E-02	-0.199
		277.60		1.027E-02	2.051E-01	3.279E-01	1.906E-02	0.031
AM-246		798.80		-2.591E-01	1.448E-01	2.019E-01	1.470E-02	-1.283
		1036.00		-3.082E-01	3.112E-01	4.584E-01	3.534E-02	-0.672
		1062.04		2.335E-01	2.089E-01	3.848E-01	2.835E-02	0.607
		1078.86	*	5.404E-02	1.523E-01	2.593E-01	1.850E-02	0.208
CM-247		278.00		2.406E-01	7.887E-01	1.348E+00	7.839E-02	0.178
		287.40		2.703E-01	1.336E+00	2.151E+00	1.258E-01	0.126
		402.60	*	8.391E-03	4.072E-02	6.839E-02	3.964E-03	0.123
CF-249		252.85		-2.863E-01	9.667E-01	1.524E+00	8.691E-02	-0.188
		333.44		1.403E-01	2.526E-01	3.089E-01	1.825E-02	0.454
		387.95	*	1.205E-03	4.115E-02	6.855E-02	3.966E-03	0.018
CF-251		176.60	*	1.989E-01	1.351E-01	2.321E-01	1.199E-02	0.857
		227.00		1.471E-01	4.071E-01	6.660E-01	3.692E-02	0.221
		285.00		6.385E-01	1.839E+00	3.149E+00	1.839E-01	0.203

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691012      *
* Acquisition date :  9-FEB-2010 15:33:57 Detector SN#    :                 *
* Detector ID        : GAM23              Sensitivity     : 5.000          *
* Geometry           : CAN                Energy tolerance: 1.500          *
* Elapsed live time:     0 02:00:00.00    Abundance limit : 75.000         *
* Elapsed real time:     0 02:00:01.75    Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691012           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.3764E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.966E+01	2.120E+00	6.690E-01	0.000E+00
CD-109	2.836E+00	8.778E-01	1.434E+00	0.000E+00
SN-126	2.787E-01	8.628E-02	1.418E-01	0.000E+00
CS-135	2.445E-01	2.439E-01	2.666E-01	0.000E+00
TL-208	4.514E-01	8.727E-02	5.955E-02	0.000E+00
BI-211	4.249E+00	5.502E-01	3.398E-01	0.000E+00
BI-212	1.374E+00	4.994E-01	5.042E-01	0.000E+00
PB-212	1.472E+00	1.499E-01	1.020E-01	0.000E+00
PO-212	1.472E+00	1.499E-01	1.020E-01	0.000E+00
BI-214	1.126E+00	1.786E-01	1.190E-01	0.000E+00
PB-214	1.478E+00	2.058E-01	1.184E-01	0.000E+00
PO-214	1.478E+00	2.058E-01	1.184E-01	0.000E+00
PO-216	1.472E+00	1.499E-01	1.020E-01	0.000E+00
PO-218	1.478E+00	2.058E-01	1.184E-01	0.000E+00
RA-224	4.333E+00	1.130E+00	1.160E+00	0.000E+00
RA-226	1.126E+00	1.786E-01	1.190E-01	0.000E+00
TH-228	1.495E+00	1.522E-01	1.035E-01	0.000E+00
TH-230	1.126E+00	1.786E-01	1.190E-01	0.000E+00
TH-234	4.762E+00	2.275E+00	2.889E+00	0.000E+00
U-234	1.126E+00	1.786E-01	1.190E-01	0.000E+00
NP-237	8.185E-01	3.026E-01	4.156E-01	0.000E+00
U-238	4.762E+00	2.275E+00	2.889E+00	0.000E+00
AM-243	3.910E-01	1.036E-01	1.115E-01	0.000E+00
ANH-511	8.224E-02	6.318E-02	5.209E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.762E-01	3.391E-01	6.039E-01	0.000E+00	NOT IDENT.
NA-22	-3.063E-03	4.730E-02	7.858E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.363E+05	0.000E+00	0.000E+00	SHORT HLIF

AL-26	-6.741E-03	2.573E-02	4.067E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.488E-02	9.529E-02	0.000E+00	FAIL ABUN
SC-46	-1.325E-02	4.364E-02	7.323E-02	0.000E+00	FAIL ABUN
V-48	-2.699E-03	6.796E-02	1.157E-01	0.000E+00	NOT IDENT.
CR-51	1.855E-01	3.788E-01	6.862E-01	0.000E+00	NOT IDENT.
MN-52	4.459E-02	2.138E-01	3.662E-01	0.000E+00	NOT IDENT.
MN-54	-1.345E-03	3.691E-02	6.368E-02	0.000E+00	NOT IDENT.
CO-56	-1.819E-03	3.788E-02	6.520E-02	0.000E+00	NOT IDENT.
CO-57	-1.932E-02	2.728E-02	4.685E-02	0.000E+00	NOT IDENT.
CO-58	-4.649E-03	3.821E-02	6.556E-02	0.000E+00	NOT IDENT.
FE-59	-3.277E-02	8.618E-02	1.399E-01	0.000E+00	NOT IDENT.
CO-60	-1.116E-02	3.656E-02	5.823E-02	0.000E+00	NOT IDENT.
ZN-65	1.210E-01	1.030E-01	1.723E-01	0.000E+00	NOT IDENT.
GE-68	-1.295E+00	1.327E+00	2.026E+00	0.000E+00	NOT IDENT.
AS-73	-3.232E-01	1.162E+00	2.107E+00	0.000E+00	NOT IDENT.
AS-74	-1.091E-02	9.383E-02	1.577E-01	0.000E+00	NOT IDENT.
SE-75	-1.566E-03	5.267E-02	7.747E-02	0.000E+00	NOT IDENT.
BR-77	-4.963E+00	1.014E+01	1.669E+01	0.000E+00	FAIL ABUN
SR-82	-4.101E-01	3.622E-01	5.645E-01	0.000E+00	NOT IDENT.
RB-83	-3.251E-02	6.644E-02	1.093E-01	0.000E+00	NOT IDENT.
RB-84	7.110E-03	7.678E-02	1.333E-01	0.000E+00	NOT IDENT.
KR-85	6.812E+00	7.831E+00	1.260E+01	0.000E+00	NOT IDENT.
SR-85	3.494E-02	4.017E-02	6.464E-02	0.000E+00	NOT IDENT.
RB-86	-4.025E-01	8.169E-01	1.317E+00	0.000E+00	NOT IDENT.
Y-88	1.142E-02	3.439E-02	6.150E-02	0.000E+00	NOT IDENT.
ZR-88	1.129E-02	3.271E-02	5.821E-02	0.000E+00	NOT IDENT.
Y-91	-1.896E+01	1.864E+01	2.799E+01	0.000E+00	NOT IDENT.
NB-94	-8.023E-03	3.542E-02	5.823E-02	0.000E+00	NOT IDENT.
NB-95	6.439E-02	4.582E-02	8.375E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.674E-01	2.795E-01	0.000E+00	NOT IDENT.
ZR-95	-2.823E-02	7.515E-02	1.208E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.531E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.507E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.094E+01	1.234E+01	2.203E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.658E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.479E-03	3.448E-02	6.003E-02	0.000E+00	NOT IDENT.
RH-102	2.822E-02	3.083E-02	5.620E-02	0.000E+00	NOT IDENT.
RU-103	-5.691E-03	3.870E-02	6.575E-02	0.000E+00	NOT IDENT.
RH-106	-1.105E-01	3.292E-01	5.408E-01	0.000E+00	NOT IDENT.
RU-106	-1.105E-01	3.290E-01	5.408E-01	0.000E+00	NOT IDENT.
AG-108M	-6.870E-03	3.265E-02	5.584E-02	0.000E+00	NOT IDENT.
AG-110M	-1.042E-01	5.225E-02	7.667E-02	0.000E+00	NOT IDENT.
IN-111	-1.794E-01	1.310E+00	1.923E+00	0.000E+00	NOT IDENT.
IN-113M	3.077E-02	4.683E-02	8.473E-02	0.000E+00	NOT IDENT.
SN-113	3.077E-02	4.683E-02	8.473E-02	0.000E+00	NOT IDENT.
IN-114M	-5.985E-02	2.129E-01	3.156E-01	0.000E+00	NOT IDENT.
CD-115	-4.236E+00	1.072E+01	1.777E+01	0.000E+00	NOT IDENT.
SN-117M	1.690E-02	5.674E-02	1.000E-01	0.000E+00	NOT IDENT.
SB-122	-5.595E-01	2.183E+00	3.646E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.209E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	7.023E-03	2.947E-02	5.182E-02	0.000E+00	NOT IDENT.
I-124	-3.038E-01	7.880E-01	1.103E+00	0.000E+00	NOT IDENT.
SB-124	-1.131E-02	6.330E-02	1.031E-01	0.000E+00	FAIL ABUN
SB-125	4.054E-03	9.949E-02	1.731E-01	0.000E+00	FAIL ABUN
TE-125M	-3.260E+00	1.007E+01	1.767E+01	0.000E+00	NOT IDENT.
I-126	-1.004E+00	2.569E-01	3.027E-01	0.000E+00	NOT IDENT.
SB-126	-8.704E-03	1.741E-01	2.494E-01	0.000E+00	NOT IDENT.
SB-127	-3.353E-01	1.384E+00	2.272E+00	0.000E+00	NOT IDENT.
XE-127	-2.344E-03	5.171E-02	8.557E-02	0.000E+00	NOT IDENT.
I-131	6.032E-02	1.164E-01	2.102E-01	0.000E+00	NOT IDENT.
TE-132	-2.355E-01	7.371E-01	1.238E+00	0.000E+00	NOT IDENT.
BA-133	4.376E-02	4.614E-02	7.569E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.205E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.003E-02	4.703E-02	8.919E-02	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.792E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.349E-02	1.058E-01	1.888E-01	0.000E+00	FAIL ABUN
BA-137M	0.000E+00	5.488E-02	1.124E-01	0.000E+00	NOT IDENT.
CS-137	0.000E+00	5.803E-02	1.188E-01	0.000E+00	NOT IDENT.
CE-139	6.077E-03	3.214E-02	5.571E-02	0.000E+00	NOT IDENT.
BA-140	-1.762E-01	2.750E-01	4.372E-01	0.000E+00	NOT IDENT.
LA-140	-1.387E-01	8.359E-02	9.934E-02	0.000E+00	FAIL ABUN
CE-141	1.040E-02	6.599E-02	1.162E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.070E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	7.182E-02	2.479E-01	3.874E-01	0.000E+00	NOT IDENT.
PM-144	8.965E-04	3.724E-02	6.256E-02	0.000E+00	NOT IDENT.
PR-144	6.075E-02	2.524E+00	4.240E+00	0.000E+00	NOT IDENT.
PM-146	2.153E-02	4.543E-02	8.088E-02	0.000E+00	NOT IDENT.
ND-147	-5.970E-01	5.677E-01	8.800E-01	0.000E+00	FAIL ABUN

PM-149	5.591E+01	9.567E+01	1.743E+02	0.000E+00	NOT IDENT.
EU-152	-1.075E-02	1.367E-01	1.634E-01	0.000E+00	NOT IDENT.
GD-153	1.291E-01	9.599E-02	1.592E-01	0.000E+00	FAIL ABUN
EU-154	-1.476E-02	1.315E-01	2.173E-01	0.000E+00	NOT IDENT.
EU-155	8.137E-02	1.152E-01	2.097E-01	0.000E+00	FAIL ABUN
TB-160	-6.327E-02	1.529E-01	2.541E-01	0.000E+00	FAIL ABUN
HO-166M	-1.176E-02	6.796E-02	1.122E-01	0.000E+00	FAIL ABUN
TM-171	-2.940E+00	3.750E+01	5.972E+01	0.000E+00	NOT IDENT.
LU-176	9.523E-03	2.536E-02	4.346E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.296E+00	2.139E+00	0.000E+00	FAIL ABUN
LU-177M	-2.035E-01	1.984E-01	3.246E-01	0.000E+00	FAIL ABUN
HF-181	-3.813E-02	4.501E-02	7.286E-02	0.000E+00	NOT IDENT.
W-181	5.290E-01	5.061E-01	8.422E-01	0.000E+00	NOT IDENT.
TA-182	-1.799E-02	1.877E-01	3.120E-01	0.000E+00	FAIL ABUN
RE-183	-2.195E-02	1.153E-01	1.992E-01	0.000E+00	FAIL ABUN
RE-184	-7.631E-02	2.525E-01	4.217E-01	0.000E+00	NOT IDENT.
OS-185	-9.844E-03	4.075E-02	6.718E-02	0.000E+00	NOT IDENT.
RE-188	-3.508E-02	1.806E-01	3.127E-01	0.000E+00	NOT IDENT.
W-188	-4.332E+00	8.382E+00	1.251E+01	0.000E+00	FAIL ABUN
IR-192	-3.083E-02	3.432E-02	5.772E-02	0.000E+00	FAIL ABUN
AU-195	2.923E-01	2.545E-01	4.556E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.848E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.122E+00	7.525E+00	1.301E+01	0.000E+00	NOT IDENT.
TL-202	6.949E-03	7.173E-02	1.251E-01	0.000E+00	NOT IDENT.
HG-203	-7.781E-03	4.184E-02	7.397E-02	0.000E+00	FAIL ABUN
BI-207	-5.775E-03	5.201E-02	8.731E-02	0.000E+00	FAIL ABUN
TL-207	-8.475E-01	7.964E-01	1.108E+00	0.000E+00	FAIL ABUN
PO-209	4.169E+00	7.554E+00	1.362E+01	0.000E+00	NOT IDENT.
BI-210	2.126E+00	5.686E+00	1.053E+01	0.000E+00	NOT IDENT.
PB-210	2.126E+00	5.686E+00	1.053E+01	0.000E+00	NOT IDENT.
PO-210	2.126E+00	5.685E+00	1.053E+01	0.000E+00	NOT IDENT.
PB-211	-5.169E-01	1.098E+00	1.783E+00	0.000E+00	NOT IDENT.
PO-215	-8.475E-01	7.964E-01	1.108E+00	0.000E+00	FAIL ABUN
RN-219	-1.738E-01	4.477E-01	7.623E-01	0.000E+00	NOT IDENT.
RN-220	2.755E+01	2.803E+01	5.105E+01	0.000E+00	NOT IDENT.
RA-223	-8.475E-01	7.964E-01	1.108E+00	0.000E+00	FAIL ABUN
AC-227	2.711E-01	4.097E-01	7.148E-01	0.000E+00	FAIL ABUN
TH-227	2.711E-01	4.104E-01	7.148E-01	0.000E+00	FAIL ABUN
AC-228	0.000E+00	3.180E-01	4.691E-01	0.000E+00	FAIL ABUN
RA-228	0.000E+00	3.180E-01	4.691E-01	0.000E+00	FAIL ABUN
TH-229	-2.340E-01	5.312E-01	8.977E-01	0.000E+00	FAIL ABUN
PA-231	6.155E-02	1.571E+00	2.803E+00	0.000E+00	NOT IDENT.
TH-231	-8.475E-01	7.964E-01	1.108E+00	0.000E+00	FAIL ABUN
U-231	-6.506E-01	1.347E+00	2.064E+00	0.000E+00	FAIL ABUN
TH-232	0.000E+00	3.180E-01	4.691E-01	0.000E+00	FAIL ABUN
PA-233	3.619E-02	6.173E-02	1.126E-01	0.000E+00	FAIL ABUN
PA-234	-1.685E-01	3.183E-01	5.164E-01	0.000E+00	FAIL ABUN
PA-234M	4.902E+00	5.177E+00	9.476E+00	0.000E+00	NOT IDENT.
U-235	2.413E-01	2.335E-01	4.116E-01	0.000E+00	FAIL ABUN
NP-236	-3.153E-02	8.281E-02	1.420E-01	0.000E+00	NOT IDENT.
NP-239	-6.593E-02	2.000E-01	3.494E-01	0.000E+00	FAIL ABUN
AM-241	2.272E-01	2.135E-01	3.552E-01	0.000E+00	NOT IDENT.
CM-243	1.922E-02	1.048E-01	1.859E-01	0.000E+00	FAIL ABUN
AM-246	5.404E-02	1.492E-01	2.617E-01	0.000E+00	NOT IDENT.
CM-247	8.391E-03	3.990E-02	7.037E-02	0.000E+00	NOT IDENT.
CF-249	1.205E-03	4.032E-02	7.058E-02	0.000E+00	NOT IDENT.
CF-251	1.989E-01	1.324E-01	2.425E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:35:34.01

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691012.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 15:33:57.
Sample ID         : G245691012           Sample quantity  : 1.37640E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	767	10.67*	9.974E-01	1.966E+01	1.966E+01	11.00
CD-109	88.03	197	3.72*	5.213E+00	2.772E+00	2.836E+00	31.59
SN-126	64.28	171	9.60	2.572E+00	1.885E+00	1.885E+00	47.79
	86.94	197	8.90	5.213E+00	1.159E+00	1.159E+00	51.32
	87.57	197	37.00*	5.213E+00	2.787E-01	2.787E-01	31.59
CS-135	268.24	61	16.00*	4.231E+00	2.445E-01	2.445E-01	101.78
TL-208	277.35	------	6.80	4.140E+00	------ Line Not Found		------
	510.84	77	21.60	2.546E+00	3.807E-01	3.807E-01	78.83
	583.14	317	84.20*	2.278E+00	4.514E-01	4.514E-01	19.73
	860.37	52	12.46	1.608E+00	7.045E-01	7.045E-01	77.52
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	694	12.94*	3.441E+00	4.249E+00	4.249E+00	13.21
BI-212	727.18	112	11.80*	1.877E+00	1.374E+00	1.374E+00	37.08
	785.46	48	1.97	1.750E+00	3.819E+00	3.819E+00	62.86
	1620.62	------	2.75	9.223E-01	------ Line Not Found		------
PB-212	74.81	383	10.70	4.047E+00	2.412E+00	2.412E+00	28.61
	77.11	567	18.00	4.291E+00	2.003E+00	2.003E+00	17.91
	87.30	197	8.00	5.213E+00	1.289E+00	1.289E+00	33.13
	238.63	1117	44.60*	4.638E+00	1.472E+00	1.472E+00	10.39
	300.09	125	3.41	3.903E+00	2.557E+00	2.557E+00	44.01
PO-212	74.81	383	10.70	4.047E+00	2.412E+00	2.412E+00	28.61
	77.11	567	18.00	4.291E+00	2.003E+00	2.003E+00	17.91
	87.30	197	8.00	5.213E+00	1.289E+00	1.289E+00	33.13
	115.19	------	0.60	6.293E+00	------ Line Not Found		------
	238.63	1117	44.60*	4.638E+00	1.472E+00	1.472E+00	10.39
	300.09	125	3.41	3.903E+00	2.557E+00	2.557E+00	44.01
BI-214	609.31	419	46.30*	2.194E+00	1.126E+00	1.126E+00	16.18
	1120.29	79	15.10	1.258E+00	1.136E+00	1.136E+00	59.99
	1764.49	60	15.80	8.743E-01	1.187E+00	1.187E+00	42.83
PB-214	74.81	383	6.21	4.047E+00	4.156E+00	4.156E+00	28.04
	77.11	567	10.50	4.291E+00	3.433E+00	3.433E+00	19.47
	87.30	197	4.67	5.213E+00	2.208E+00	2.208E+00	32.51

Sample ID : G245691012 Acquisition date : 9-FEB-2010 15:33:57

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	288	7.49	4.595E+00	2.285E+00	2.285E+00	27.19
	295.21	414	19.20	3.950E+00	1.489E+00	1.489E+00	17.08
	351.92	694	37.20*	3.441E+00	1.478E+00	1.478E+00	14.21
PO-214	74.81	383	6.21	4.047E+00	4.156E+00	4.156E+00	28.04
	77.11	567	10.50	4.291E+00	3.433E+00	3.433E+00	19.47
	87.30	197	4.67	5.213E+00	2.208E+00	2.208E+00	32.51
	241.98	288	7.49	4.595E+00	2.285E+00	2.285E+00	27.19
	295.21	414	19.20	3.950E+00	1.489E+00	1.489E+00	17.08
	351.92	694	37.20*	3.441E+00	1.478E+00	1.478E+00	14.21
PO-216	74.81	383	10.70	4.047E+00	2.412E+00	2.412E+00	28.61
	77.11	567	18.00	4.291E+00	2.003E+00	2.003E+00	17.91
	87.30	197	8.00	5.213E+00	1.289E+00	1.289E+00	33.13
	238.63	1117	44.60*	4.638E+00	1.472E+00	1.472E+00	10.39
	300.09	125	3.41	3.903E+00	2.557E+00	2.557E+00	44.01
PO-218	74.81	383	6.21	4.047E+00	4.156E+00	4.156E+00	28.04
	77.11	567	10.50	4.291E+00	3.433E+00	3.433E+00	19.47
	87.30	197	4.67	5.213E+00	2.208E+00	2.208E+00	32.51
	241.98	288	7.49	4.595E+00	2.285E+00	2.285E+00	27.19
	295.21	414	19.20	3.950E+00	1.489E+00	1.489E+00	17.08
	351.92	694	37.20*	3.441E+00	1.478E+00	1.478E+00	14.21
RA-224	240.98	288	3.95*	4.595E+00	4.333E+00	4.333E+00	26.60
RA-226	609.31	419	46.30*	2.194E+00	1.126E+00	1.126E+00	16.18
	1120.29	79	15.10	1.258E+00	1.136E+00	1.136E+00	59.99
	1764.49	60	15.80	8.743E-01	1.187E+00	1.187E+00	42.83
TH-228	74.81	383	10.70	4.047E+00	2.412E+00	2.449E+00	27.06
	77.11	567	18.00	4.291E+00	2.003E+00	2.033E+00	17.91
	87.30	197	8.00	5.213E+00	1.289E+00	1.309E+00	31.59
	238.63	1117	44.60*	4.638E+00	1.472E+00	1.495E+00	10.39
	300.09	125	3.41	3.903E+00	2.557E+00	2.596E+00	73.09
TH-230	609.31	419	46.30*	2.194E+00	1.126E+00	1.126E+00	16.18
	1120.29	79	15.10	1.258E+00	1.136E+00	1.136E+00	59.99
	1764.49	60	15.80	8.743E-01	1.187E+00	1.187E+00	42.83
TH-234	63.29	171	3.80*	2.572E+00	4.762E+00	4.762E+00	48.76
	92.38	612	5.41	5.578E+00	5.528E+00	5.528E+00	22.89
U-234	609.31	419	46.30*	2.194E+00	1.126E+00	1.126E+00	16.18
	1120.29	79	15.10	1.258E+00	1.136E+00	1.136E+00	59.99
	1764.49	60	15.80	8.743E-01	1.187E+00	1.187E+00	42.83
NP-237	86.50	197	12.60*	5.213E+00	8.185E-01	8.185E-01	37.73
	95.87	------	2.60	5.757E+00	------ Line Not Found		------
U-238	63.29	171	3.80*	2.572E+00	4.762E+00	4.762E+00	48.76
	92.38	612	5.41	5.578E+00	5.528E+00	5.528E+00	16.47
AM-243	74.67	383	66.00*	4.047E+00	3.910E-01	3.910E-01	27.04
	86.72	197	0.34	5.213E+00	3.069E+01	3.069E+01	31.59
	117.66	------	0.55	6.314E+00	------ Line Not Found		------
	142.18	------	0.13	6.209E+00	------ Line Not Found		------
ANH-511	511.00	77	100.00*	2.546E+00	8.224E-02	8.224E-02	78.39

Flag: "*" = Keyline

Sample ID : G245691012 Acquisition date : 9-FEB-2010 15:33:57

Total number of lines in spectrum 30
Number of unidentified lines 0
Number of lines tentatively identified by NID 30 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.966E+01	1.966E+01	0.216E+01	11.00	
CD-109	464.00D	1.02	2.772E+00	2.836E+00	0.896E+00	31.59	
SN-126	1.00E+05Y	1.00	2.787E-01	2.787E-01	0.880E-01	31.59	
CS-135	2.30E+06Y	1.00	2.445E-01	2.445E-01	2.489E-01	101.78	
TL-208	1.41E+10Y	1.00	4.514E-01	4.514E-01	0.890E-01	19.73	
BI-211	7.04E+08Y	1.00	4.249E+00	4.249E+00	0.561E+00	13.21	
BI-212	1.41E+10Y	1.00	1.374E+00	1.374E+00	0.510E+00	37.08	
PB-212	1.41E+10Y	1.00	1.472E+00	1.472E+00	0.153E+00	10.39	
PO-212	1.41E+10Y	1.00	1.472E+00	1.472E+00	0.153E+00	10.39	
BI-214	1600.00Y	1.00	1.126E+00	1.126E+00	0.182E+00	16.18	
PB-214	1600.00Y	1.00	1.478E+00	1.478E+00	0.210E+00	14.21	
PO-214	1600.00Y	1.00	1.478E+00	1.478E+00	0.210E+00	14.21	
PO-216	1.41E+10Y	1.00	1.472E+00	1.472E+00	0.153E+00	10.39	
PO-218	1600.00Y	1.00	1.478E+00	1.478E+00	0.210E+00	14.21	
RA-224	1.41E+10Y	1.00	4.333E+00	4.333E+00	1.153E+00	26.60	
RA-226	1600.00Y	1.00	1.126E+00	1.126E+00	0.182E+00	16.18	
TH-228	1.91Y	1.02	1.472E+00	1.495E+00	0.155E+00	10.39	
TH-230	4.47E+09Y	1.00	1.126E+00	1.126E+00	0.182E+00	16.18	
TH-234	4.47E+09Y	1.00	4.762E+00	4.762E+00	2.322E+00	48.76	
U-234	4.47E+09Y	1.00	1.126E+00	1.126E+00	0.182E+00	16.18	
NP-237	2.14E+06Y	1.00	8.185E-01	8.185E-01	3.088E-01	37.73	
U-238	4.47E+09Y	1.00	4.762E+00	4.762E+00	2.322E+00	48.76	
AM-243	7380.00Y	1.00	3.910E-01	3.910E-01	1.057E-01	27.04	
ANH-511	1.00E+09Y	1.00	8.224E-02	8.224E-02	6.447E-02	78.39	
	Total Activity :		5.901E+01	5.910E+01			

Grand Total Activity : 5.901E+01 5.910E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691012 Acquisition date : 9-FEB-2010 15:33:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.80	123	386	1.28	167.60	165	7	1.70E-02	56.0	4.95E+00	T
3	89.83	100	334	1.01	179.66	171	20	1.39E-02	61.1	5.41E+00	T
0	128.78	67	275	0.85	257.56	255	7	9.29E-03	85.6	6.32E+00	T
0	185.58	341	360	1.42	371.16	366	11	4.74E-02	24.9	5.49E+00	T
0	208.92	108	227	0.81	417.85	414	8	1.50E-02	51.9	5.09E+00	T
0	327.63	73	117	1.57	655.26	652	8	1.01E-02	56.3	3.64E+00	T
0	338.00	161	230	1.42	676.01	670	14	2.23E-02	43.8	3.55E+00	T
0	462.73	76	89	1.53	925.46	921	10	1.06E-02	52.9	2.76E+00	T
0	910.37	213	43	2.12	1820.75	1814	18	2.96E-02	20.6	1.53E+00	T
0	967.44	141	81	1.80	1934.88	1925	18	1.96E-02	34.3	1.44E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 17:35:38.41

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691012.CNF;1 *
* Acquisition date  : 9-FEB-2010 15:33:57.  Detector SN#    :               *
* Detector ID       : GAM23                 Sensitivity     : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.75          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00  Nuclide Library : SOLID         *
* Sample ID         : G245691012            Analyst initials: MJH1          *
* Batch Number      : 947037                Sample Quantity : 1.37640E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.966E+01	2.163E+00	6.669E-01	4.989E-02	29.484
CD-109	2.836E+00	8.958E-01	1.354E+00	1.322E-01	2.094
SN-126	2.787E-01	8.804E-02	1.339E-01	1.303E-02	2.081
CS-135	2.445E-01	2.489E-01	2.571E-01	1.964E-02	0.951
TL-208	4.514E-01	8.905E-02	5.829E-02	3.785E-03	7.743
BI-211	4.249E+00	5.614E-01	3.294E-01	2.146E-02	12.900
BI-212	1.374E+00	5.096E-01	4.957E-01	3.935E-02	2.772
PB-212	1.472E+00	1.530E-01	9.813E-02	7.055E-03	15.005
PO-212	1.472E+00	1.530E-01	9.813E-02	7.055E-03	15.005
BI-214	1.126E+00	1.822E-01	1.166E-01	8.764E-03	9.661
PB-214	1.478E+00	2.100E-01	1.148E-01	9.584E-03	12.873
PO-214	1.478E+00	2.100E-01	1.148E-01	9.584E-03	12.873
PO-216	1.472E+00	1.530E-01	9.813E-02	7.055E-03	15.005
PO-218	1.478E+00	2.100E-01	1.148E-01	9.584E-03	12.873
RA-224	4.333E+00	1.153E+00	1.117E+00	6.293E-02	3.880
RA-226	1.126E+00	1.822E-01	1.166E-01	8.764E-03	9.661
TH-228	1.495E+00	1.553E-01	9.962E-02	7.162E-03	15.005
TH-230	1.126E+00	1.822E-01	1.166E-01	8.764E-03	9.661

Sample ID : G245691012 Acquisition date : 9-FEB-2010 15:33:57

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	4.762E+00	2.322E+00	2.713E+00	4.888E-01	1.756
U-234	1.126E+00	1.822E-01	1.166E-01	8.764E-03	9.661
NP-237	8.185E-01	3.088E-01	3.925E-01	8.939E-02	2.085
U-238	4.762E+00	2.322E+00	2.713E+00	4.888E-01	1.756
AM-243	3.910E-01	1.057E-01	1.050E-01	9.331E-03	3.724
ANH-511	8.224E-02	6.447E-02	5.086E-02	2.954E-03	1.617

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.762E-01		3.460E-01	5.889E-01	4.002E-02	0.299
NA-22	-3.063E-03		4.827E-02	7.812E-02	5.247E-03	-0.039
NA-24	1.806E-01		3.757E-01	Half-Life too short		
AL-26	-6.741E-03		2.626E-02	4.072E-02	2.447E-03	-0.166
TI-44	3.696E-01	+	6.620E-02	8.983E-02	8.143E-03	4.114
SC-46	-1.325E-02		4.453E-02	7.228E-02	6.458E-03	-0.183
V-48	-2.699E-03		6.935E-02	1.144E-01	9.517E-03	-0.024
CR-51	1.855E-01		3.866E-01	6.640E-01	4.354E-02	0.279
MN-52	4.459E-02		2.181E-01	3.649E-01	2.640E-02	0.122
MN-54	-1.345E-03		3.766E-02	6.278E-02	4.971E-03	-0.021
CO-56	-1.819E-03		3.865E-02	6.430E-02	5.231E-03	-0.028
CO-57	-1.932E-02		2.783E-02	4.453E-02	2.625E-03	-0.434
CO-58	-4.649E-03		3.898E-02	6.459E-02	4.853E-03	-0.072
FE-59	-3.277E-02		8.794E-02	1.387E-01	1.068E-02	-0.236
CO-60	-1.116E-02		3.730E-02	5.795E-02	4.254E-03	-0.193
ZN-65	1.210E-01		1.051E-01	1.709E-01	1.129E-02	0.708
GE-68	-1.295E+00		1.354E+00	2.007E+00	1.437E-01	-0.645
AS-73	-3.232E-01		1.186E+00	1.973E+00	1.742E-01	-0.164
AS-74	-1.091E-02		9.575E-02	1.545E-01	8.518E-03	-0.071
SE-75	-1.566E-03		5.374E-02	7.469E-02	4.348E-03	-0.021
BR-77	-4.963E+00		1.035E+01	1.630E+01	9.434E-01	-0.305
SR-82	-4.101E-01		3.696E-01	5.558E-01	3.834E-02	-0.738
RB-83	-3.251E-02		6.779E-02	1.068E-01	6.181E-03	-0.305
RB-84	7.110E-03		7.834E-02	1.316E-01	1.156E-02	0.054
KR-85	6.812E+00		7.991E+00	1.231E+01	7.142E-01	0.553
SR-85	3.494E-02		4.099E-02	6.312E-02	3.663E-03	0.553
RB-86	-4.025E-01		8.336E-01	1.305E+00	9.350E-02	-0.309
Y-88	1.142E-02		3.509E-02	6.160E-02	3.627E-03	0.185
ZR-88	1.129E-02		3.338E-02	5.655E-02	3.265E-03	0.200
Y-91	-1.896E+01		1.902E+01	2.780E+01	1.658E+00	-0.682
NB-94	-8.023E-03		3.615E-02	5.721E-02	3.269E-03	-0.140
NB-95	6.439E-02		4.676E-02	8.243E-02	5.539E-03	0.781
NB-95M	4.549E-01		1.708E-01	2.689E-01	1.984E-02	1.691
ZR-95	-2.823E-02		7.669E-02	1.189E-01	9.123E-03	-0.237
NB-97	-2.387E-01		7.813E-02	Half-Life too short		
ZR-97	5.936E+00		1.279E+00	Half-Life too short		
MO-99	1.094E+01		1.259E+01	2.166E+01	3.032E+00	0.505

Sample ID : G245691012 Acquisition date : 9-FEB-2010 15:33:57

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TC-99M	-3.408E+10		2.376E+10	Half-Life too short		
RH-101	9.479E-03		3.519E-02	5.757E-02	3.069E-03	0.165
RH-102	2.822E-02		3.146E-02	5.480E-02	3.208E-03	0.515
RU-103	-5.691E-03		3.949E-02	6.416E-02	8.123E-03	-0.089
RH-106	-1.105E-01		3.359E-01	5.301E-01	6.113E-02	-0.208
RU-106	-1.105E-01		3.357E-01	5.301E-01	2.848E-02	-0.208
AG-108M	-6.870E-03		3.332E-02	5.435E-02	3.446E-03	-0.126
AG-110M	-1.042E-01		5.331E-02	7.524E-02	4.181E-03	-1.385
IN-111	-1.794E-01		1.337E+00	1.852E+00	1.048E-01	-0.097
IN-113M	3.077E-02		4.779E-02	8.231E-02	5.070E-03	0.374
SN-113	3.077E-02		4.779E-02	8.231E-02	5.070E-03	0.374
IN-114M	-5.985E-02		2.173E-01	3.024E-01	1.594E-02	-0.198
CD-115	-4.236E+00		1.094E+01	1.736E+01	1.002E+00	-0.244
SN-117M	1.690E-02		5.790E-02	9.552E-02	4.964E-03	0.177
SB-122	-5.595E-01		2.227E+00	3.567E+00	2.018E-01	-0.157
I-123	1.479E+00		3.168E+00	Half-Life too short		
TE-123M	7.023E-03		3.007E-02	4.949E-02	2.612E-03	0.142
I-124	-3.038E-01		8.040E-01	1.081E+00	5.924E-02	-0.281
SB-124	-1.131E-02		6.460E-02	1.031E-01	7.191E-03	-0.110
SB-125	4.054E-03		1.015E-01	1.685E-01	1.025E-02	0.024
TE-125M	-3.260E+00		1.028E+01	1.676E+01	1.495E+00	-0.195
I-126	-1.004E+00		2.621E-01	2.971E-01	1.538E-02	-3.378
SB-126	-8.704E-03		1.777E-01	2.451E-01	1.468E-02	-0.036
SB-127	-3.353E-01		1.412E+00	2.231E+00	2.060E-01	-0.150
XE-127	-2.344E-03		5.276E-02	8.209E-02	4.407E-03	-0.029
I-131	6.032E-02		1.188E-01	2.039E-01	1.332E-02	0.296
TE-132	-2.355E-01		7.521E-01	1.190E+00	1.699E-01	-0.198
BA-133	4.376E-02		4.708E-02	7.340E-02	8.516E-03	0.596
I-133	-8.860E-03		3.166E-03	Half-Life too short		
CS-134	6.003E-02		4.799E-02	8.785E-02	6.416E-03	0.683
I-135	1.721E+09		2.955E+09	Half-Life too short		
CS-136	5.349E-02		1.080E-01	1.870E-01	1.490E-02	0.286
BA-137M	2.676E-01		5.600E-02	1.103E-01	5.634E-03	2.426
CS-137	2.829E-01		5.922E-02	1.166E-01	5.988E-03	2.426
CE-139	6.077E-03		3.279E-02	5.324E-02	2.715E-03	0.114
BA-140	-1.762E-01		2.806E-01	4.274E-01	1.389E-01	-0.412
LA-140	-1.387E-01		8.530E-02	9.922E-02	6.807E-03	-1.398
CE-141	1.040E-02		6.733E-02	1.108E-01	6.246E-03	0.094
CE-143	1.132E-03		1.566E-04	Half-Life too short		
CE-144	7.182E-02		2.530E-01	3.688E-01	5.208E-02	0.195
PM-144	8.965E-04		3.800E-02	6.146E-02	3.457E-03	0.015
PR-144	6.075E-02		2.575E+00	4.165E+00	2.341E-01	0.015
PM-146	2.153E-02		4.636E-02	7.879E-02	6.824E-03	0.273
ND-147	-5.970E-01		5.793E-01	8.599E-01	1.161E-01	-0.694
PM-149	5.591E+01		9.762E+01	1.683E+02	2.389E+01	0.332
EU-152	-1.075E-02		1.395E-01	1.583E-01	1.049E-02	-0.068
GD-153	1.291E-01		9.795E-02	1.507E-01	1.231E-02	0.857
EU-154	-1.476E-02		1.342E-01	2.161E-01	2.145E-02	-0.068

Sample ID : G245691012 Acquisition date : 9-FEB-2010 15:33:57

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	8.137E-02		1.176E-01	1.988E-01	1.466E-02	0.409
TB-160	-6.327E-02		1.560E-01	2.508E-01	2.193E-02	-0.252
HO-166M	-1.176E-02		6.935E-02	1.102E-01	6.451E-03	-0.107
TM-171	-2.940E+00		3.826E+01	5.613E+01	4.881E+00	-0.052
LU-176	9.523E-03		2.588E-02	4.202E-02	2.476E-03	0.227
LU-177	2.534E+00	+	1.323E+00	2.053E+00	1.111E-01	1.234
LU-177M	-2.035E-01		2.025E-01	3.157E-01	1.837E-02	-0.645
HF-181	-3.813E-02		4.592E-02	7.106E-02	4.156E-03	-0.537
W-181	5.290E-01		5.165E-01	7.913E-01	6.874E-02	0.668
TA-182	-1.799E-02		1.915E-01	3.100E-01	1.903E-02	-0.058
RE-183	-2.195E-02		1.177E-01	1.903E-01	9.787E-03	-0.115
RE-184	-7.631E-02		2.577E-01	4.062E-01	2.316E-02	-0.188
OS-185	-9.844E-03		4.158E-02	6.590E-02	3.439E-03	-0.149
RE-188	-3.508E-02		1.843E-01	2.985E-01	1.566E-02	-0.118
W-188	-4.332E+00		8.553E+00	1.209E+01	7.078E-01	-0.358
IR-192	-3.083E-02		3.502E-02	5.585E-02	3.313E-03	-0.552
AU-195	2.923E-01		2.597E-01	4.314E-01	3.442E-02	0.678
TL-200	-1.044E-04		2.473E-04	Half-Life too short		
TL-201	1.122E+00		7.678E+00	1.244E+01	6.349E-01	0.090
TL-202	6.949E-03		7.319E-02	1.218E-01	7.124E-03	0.057
HG-203	-7.781E-03		4.269E-02	7.139E-02	4.410E-03	-0.109
BI-207	-5.775E-03		5.307E-02	8.649E-02	6.354E-03	-0.067
TL-207	-8.475E-01		8.127E-01	1.073E+00	1.776E-01	-0.790
PO-209	4.169E+00		7.708E+00	1.345E+01	1.221E+00	0.310
BI-210	2.126E+00		5.802E+00	9.830E+00	7.654E-01	0.216
PB-210	2.126E+00		5.802E+00	9.830E+00	7.654E-01	0.216
PO-210	2.126E+00		5.801E+00	9.830E+00	6.595E-01	0.216
PB-211	-5.169E-01		1.120E+00	1.733E+00	1.081E+00	-0.298
PO-215	-8.475E-01		8.127E-01	1.073E+00	1.776E-01	-0.790
RN-219	-1.738E-01		4.569E-01	7.409E-01	1.008E-01	-0.235
RN-220	2.755E+01		2.860E+01	4.992E+01	2.849E+00	0.552
RA-223	-8.475E-01		8.127E-01	1.073E+00	1.776E-01	-0.790
AC-227	2.711E-01		4.180E-01	6.887E-01	9.592E-02	0.394
TH-227	2.711E-01		4.188E-01	6.887E-01	1.162E-01	0.394
AC-228	1.376E+00	+	3.245E-01	4.633E-01	5.345E-02	2.971
RA-228	1.376E+00	+	3.245E-01	4.633E-01	5.345E-02	2.971
TH-229	-2.340E-01		5.420E-01	8.605E-01	4.558E-02	-0.272
PA-231	6.155E-02		1.603E+00	2.706E+00	3.733E-01	0.023
TH-231	-8.475E-01		8.127E-01	1.073E+00	1.776E-01	-0.790
U-231	-6.506E-01		1.374E+00	1.953E+00	1.638E-01	-0.333
TH-232	1.376E+00	+	3.245E-01	4.633E-01	5.345E-02	2.971
PA-233	3.619E-02		6.299E-02	1.089E-01	6.811E-03	0.332
PA-234	-1.685E-01		3.248E-01	5.104E-01	9.595E-02	-0.330
PA-234M	4.902E+00		5.282E+00	9.376E+00	8.946E-01	0.523
U-235	2.413E-01		2.382E-01	3.924E-01	6.346E-02	0.615
NP-236	-3.153E-02		8.450E-02	1.356E-01	7.013E-03	-0.233
NP-239	-6.593E-02		2.040E-01	3.318E-01	2.071E-02	-0.199
AM-241	2.272E-01		2.179E-01	3.332E-01	3.100E-02	0.682

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.922E-02		1.069E-01	1.761E-01	1.305E-02	0.109
AM-246	5.404E-02		1.523E-01	2.593E-01	1.850E-02	0.208
CM-247	8.391E-03		4.072E-02	6.839E-02	3.964E-03	0.123
CF-249	1.205E-03		4.115E-02	6.855E-02	3.966E-03	0.018
CF-251	1.989E-01		1.351E-01	2.321E-01	1.199E-02	0.857

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691012           *
* Acquisition date  :  9-FEB-2010 15:33:57 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:     0 02:00:01.75     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691012           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.3764E+02 GRAM *
* Recovery          :     1.00000          Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :     0.000            MSD Isotope     :                 *
* LCS DPM          :     0.000            LCS Isotope     :                 *
* LCSD DPM         :     0.000            LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.966E+01	2.120E+00	3.347E-01	1.082E+00
CD-109	2.836E+00	8.778E-01	7.172E-01	4.479E-01
SN-126	2.787E-01	8.628E-02	7.093E-02	4.402E-02
CS-135	2.445E-01	2.439E-01	1.334E-01	1.244E-01
TL-208	4.514E-01	8.727E-02	2.979E-02	4.452E-02
BI-211	4.249E+00	5.502E-01	1.700E-01	2.807E-01
BI-212	1.374E+00	4.994E-01	2.523E-01	2.548E-01
PB-212	1.472E+00	1.499E-01	5.102E-02	7.650E-02
PO-212	1.472E+00	1.499E-01	5.102E-02	7.650E-02
BI-214	1.126E+00	1.786E-01	5.953E-02	9.111E-02
PB-214	1.478E+00	2.058E-01	5.925E-02	1.050E-01
PO-214	1.478E+00	2.058E-01	5.925E-02	1.050E-01
PO-216	1.472E+00	1.499E-01	5.102E-02	7.650E-02
PO-218	1.478E+00	2.058E-01	5.925E-02	1.050E-01
RA-224	4.333E+00	1.130E+00	5.805E-01	5.763E-01
RA-226	1.126E+00	1.786E-01	5.953E-02	9.111E-02
TH-228	1.495E+00	1.522E-01	5.179E-02	7.766E-02
TH-230	1.126E+00	1.786E-01	5.952E-02	9.111E-02
TH-234	4.762E+00	2.275E+00	1.445E+00	1.161E+00
U-234	1.126E+00	1.786E-01	5.952E-02	9.111E-02
NP-237	8.185E-01	3.026E-01	2.079E-01	1.544E-01
U-238	4.762E+00	2.275E+00	1.445E+00	1.161E+00
AM-243	3.910E-01	1.036E-01	5.577E-02	5.287E-02
ANH-511	8.224E-02	6.318E-02	2.606E-02	3.223E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.762E-01	3.391E-01	3.021E-01	1.730E-01	NOT IDENT.
NA-22	-3.063E-03	4.730E-02	3.931E-02	2.413E-02	NOT IDENT.
NA-24	1.806E+05	7.363E+05	0.000E+00	3.757E+05	SHORT HLIF

AL-26	-6.741E-03	2.573E-02	2.035E-02	1.313E-02	NOT IDENT.
TI-44	3.696E-01	6.488E-02	4.767E-02	3.310E-02	FAIL ABUN
SC-46	-1.325E-02	4.364E-02	3.664E-02	2.227E-02	FAIL ABUN
V-48	-2.699E-03	6.796E-02	5.786E-02	3.467E-02	NOT IDENT.
CR-51	1.855E-01	3.788E-01	3.433E-01	1.933E-01	NOT IDENT.
MN-52	4.459E-02	2.138E-01	1.832E-01	1.091E-01	NOT IDENT.
MN-54	-1.345E-03	3.691E-02	3.186E-02	1.883E-02	NOT IDENT.
CO-56	-1.819E-03	3.788E-02	3.262E-02	1.933E-02	NOT IDENT.
CO-57	-1.932E-02	2.728E-02	2.344E-02	1.392E-02	NOT IDENT.
CO-58	-4.649E-03	3.821E-02	3.280E-02	1.949E-02	NOT IDENT.
FE-59	-3.277E-02	8.618E-02	6.998E-02	4.397E-02	NOT IDENT.
CO-60	-1.116E-02	3.656E-02	2.913E-02	1.865E-02	NOT IDENT.
ZN-65	1.210E-01	1.030E-01	8.622E-02	5.255E-02	NOT IDENT.
GE-68	-1.295E+00	1.327E+00	1.013E+00	6.768E-01	NOT IDENT.
AS-73	-3.232E-01	1.162E+00	1.054E+00	5.931E-01	NOT IDENT.
AS-74	-1.091E-02	9.383E-02	7.890E-02	4.787E-02	NOT IDENT.
SE-75	-1.566E-03	5.267E-02	3.876E-02	2.687E-02	NOT IDENT.
BR-77	-4.963E+00	1.014E+01	8.348E+00	5.174E+00	FAIL ABUN
SR-82	-4.101E-01	3.622E-01	2.824E-01	1.848E-01	NOT IDENT.
RB-83	-3.251E-02	6.644E-02	5.469E-02	3.390E-02	NOT IDENT.
RB-84	7.110E-03	7.678E-02	6.671E-02	3.917E-02	NOT IDENT.
KR-85	6.812E+00	7.831E+00	6.305E+00	3.996E+00	NOT IDENT.
SR-85	3.494E-02	4.017E-02	3.234E-02	2.049E-02	NOT IDENT.
RB-86	-4.025E-01	8.169E-01	6.587E-01	4.168E-01	NOT IDENT.
Y-88	1.142E-02	3.439E-02	3.077E-02	1.755E-02	NOT IDENT.
ZR-88	1.129E-02	3.271E-02	2.912E-02	1.669E-02	NOT IDENT.
Y-91	-1.896E+01	1.864E+01	1.400E+01	9.510E+00	NOT IDENT.
NB-94	-8.023E-03	3.542E-02	2.913E-02	1.807E-02	NOT IDENT.
NB-95	6.439E-02	4.582E-02	4.190E-02	2.338E-02	NOT IDENT.
NB-95M	4.549E-01	1.674E-01	1.399E-01	8.542E-02	NOT IDENT.
ZR-95	-2.823E-02	7.515E-02	6.046E-02	3.834E-02	NOT IDENT.
NB-97	-2.387E+05	1.531E+05	0.000E+00	7.813E+04	SHORT HLIF
ZR-97	5.936E+06	2.507E+06	0.000E+00	1.279E+06	SHORT HLIF
MO-99	1.094E+01	1.234E+01	1.102E+01	6.294E+00	NOT IDENT.
TC-99M	-3.408E+16	4.658E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.479E-03	3.448E-02	3.003E-02	1.759E-02	NOT IDENT.
RH-102	2.822E-02	3.083E-02	2.812E-02	1.573E-02	NOT IDENT.
RU-103	-5.691E-03	3.870E-02	3.289E-02	1.975E-02	NOT IDENT.
RH-106	-1.105E-01	3.292E-01	2.706E-01	1.679E-01	NOT IDENT.
RU-106	-1.105E-01	3.290E-01	2.706E-01	1.678E-01	NOT IDENT.
AG-108M	-6.870E-03	3.265E-02	2.794E-02	1.666E-02	NOT IDENT.
AG-110M	-1.042E-01	5.225E-02	3.836E-02	2.666E-02	NOT IDENT.
IN-111	-1.794E-01	1.310E+00	9.622E-01	6.684E-01	NOT IDENT.
IN-113M	3.077E-02	4.683E-02	4.239E-02	2.389E-02	NOT IDENT.
SN-113	3.077E-02	4.683E-02	4.239E-02	2.389E-02	NOT IDENT.
IN-114M	-5.985E-02	2.129E-01	1.579E-01	1.086E-01	NOT IDENT.
CD-115	-4.236E+00	1.072E+01	8.890E+00	5.470E+00	NOT IDENT.
SN-117M	1.690E-02	5.674E-02	5.004E-02	2.895E-02	NOT IDENT.
SB-122	-5.595E-01	2.183E+00	1.824E+00	1.114E+00	NOT IDENT.
I-123	1.479E+06	6.209E+06	0.000E+00	3.168E+06	SHORT HLIF
TE-123M	7.023E-03	2.947E-02	2.593E-02	1.504E-02	NOT IDENT.
I-124	-3.038E-01	7.880E-01	5.521E-01	4.020E-01	NOT IDENT.
SB-124	-1.131E-02	6.330E-02	5.160E-02	3.230E-02	FAIL ABUN
SB-125	4.054E-03	9.949E-02	8.662E-02	5.076E-02	FAIL ABUN
TE-125M	-3.260E+00	1.007E+01	8.841E+00	5.139E+00	NOT IDENT.
I-126	-1.004E+00	2.569E-01	1.514E-01	1.311E-01	NOT IDENT.
SB-126	-8.704E-03	1.741E-01	1.248E-01	8.885E-02	NOT IDENT.
SB-127	-3.353E-01	1.384E+00	1.137E+00	7.061E-01	NOT IDENT.
XE-127	-2.344E-03	5.171E-02	4.281E-02	2.638E-02	NOT IDENT.
I-131	6.032E-02	1.164E-01	1.052E-01	5.941E-02	NOT IDENT.
TE-132	-2.355E-01	7.371E-01	6.194E-01	3.761E-01	NOT IDENT.
BA-133	4.376E-02	4.614E-02	3.787E-02	2.354E-02	NOT IDENT.
I-133	-8.860E+03	6.205E+03	0.000E+00	3.166E+03	SHORT HLIF
CS-134	6.003E-02	4.703E-02	4.462E-02	2.400E-02	NOT IDENT.
I-135	1.721E+15	5.792E+15	0.000E+00	2.955E+15	SHORT HLIF
CS-136	5.349E-02	1.058E-01	9.446E-02	5.399E-02	FAIL ABUN
BA-137M	2.676E-01	5.488E-02	5.622E-02	2.800E-02	NOT IDENT.
CS-137	2.829E-01	5.803E-02	5.943E-02	2.961E-02	NOT IDENT.
CE-139	6.077E-03	3.214E-02	2.787E-02	1.640E-02	NOT IDENT.
BA-140	-1.762E-01	2.750E-01	2.187E-01	1.403E-01	NOT IDENT.
LA-140	-1.387E-01	8.359E-02	4.970E-02	4.265E-02	FAIL ABUN
CE-141	1.040E-02	6.599E-02	5.812E-02	3.367E-02	NOT IDENT.
CE-143	1.132E+03	3.070E+02	0.000E+00	1.566E+02	SHORT HLIF
CE-144	7.182E-02	2.479E-01	1.938E-01	1.265E-01	NOT IDENT.
PM-144	8.965E-04	3.724E-02	3.130E-02	1.900E-02	NOT IDENT.
PR-144	6.075E-02	2.524E+00	2.121E+00	1.288E+00	NOT IDENT.
PM-146	2.153E-02	4.543E-02	4.046E-02	2.318E-02	NOT IDENT.
ND-147	-5.970E-01	5.677E-01	4.403E-01	2.896E-01	FAIL ABUN

PM-149	5.591E+01	9.567E+01	8.721E+01	4.881E+01	NOT IDENT.
EU-152	-1.075E-02	1.367E-01	8.172E-02	6.975E-02	NOT IDENT.
GD-153	1.291E-01	9.599E-02	7.966E-02	4.897E-02	FAIL ABUN
EU-154	-1.476E-02	1.315E-01	1.087E-01	6.709E-02	NOT IDENT.
EU-155	8.137E-02	1.152E-01	1.049E-01	5.878E-02	FAIL ABUN
TB-160	-6.327E-02	1.529E-01	1.271E-01	7.800E-02	FAIL ABUN
HO-166M	-1.176E-02	6.796E-02	5.611E-02	3.467E-02	FAIL ABUN
TM-171	-2.940E+00	3.750E+01	2.988E+01	1.913E+01	NOT IDENT.
LU-176	9.523E-03	2.536E-02	2.174E-02	1.294E-02	FAIL ABUN
LU-177	2.534E+00	1.296E+00	1.070E+00	6.615E-01	FAIL ABUN
LU-177M	-2.035E-01	1.984E-01	1.624E-01	1.012E-01	FAIL ABUN
HF-181	-3.813E-02	4.501E-02	3.645E-02	2.296E-02	NOT IDENT.
W-181	5.290E-01	5.061E-01	4.213E-01	2.582E-01	NOT IDENT.
TA-182	-1.799E-02	1.877E-01	1.561E-01	9.576E-02	FAIL ABUN
RE-183	-2.195E-02	1.153E-01	9.963E-02	5.884E-02	FAIL ABUN
RE-184	-7.631E-02	2.525E-01	2.110E-01	1.288E-01	NOT IDENT.
OS-185	-9.844E-03	4.075E-02	3.361E-02	2.079E-02	NOT IDENT.
RE-188	-3.508E-02	1.806E-01	1.564E-01	9.216E-02	NOT IDENT.
W-188	-4.332E+00	8.382E+00	6.260E+00	4.276E+00	FAIL ABUN
IR-192	-3.083E-02	3.432E-02	2.888E-02	1.751E-02	FAIL ABUN
AU-195	2.923E-01	2.545E-01	2.280E-01	1.298E-01	FAIL ABUN
TL-200	-1.044E+02	4.848E+02	0.000E+00	2.473E+02	SHORT HLIF
TL-201	1.122E+00	7.525E+00	6.511E+00	3.839E+00	NOT IDENT.
TL-202	6.949E-03	7.173E-02	6.257E-02	3.660E-02	NOT IDENT.
HG-203	-7.781E-03	4.184E-02	3.701E-02	2.135E-02	FAIL ABUN
BI-207	-5.775E-03	5.201E-02	4.368E-02	2.653E-02	FAIL ABUN
TL-207	-8.475E-01	7.964E-01	5.545E-01	4.063E-01	FAIL ABUN
PO-209	4.169E+00	7.554E+00	6.814E+00	3.854E+00	NOT IDENT.
BI-210	2.126E+00	5.686E+00	5.266E+00	2.901E+00	NOT IDENT.
PB-210	2.126E+00	5.686E+00	5.266E+00	2.901E+00	NOT IDENT.
PO-210	2.126E+00	5.685E+00	5.266E+00	2.901E+00	NOT IDENT.
PB-211	-5.169E-01	1.098E+00	8.922E-01	5.602E-01	NOT IDENT.
PO-215	-8.475E-01	7.964E-01	5.545E-01	4.063E-01	FAIL ABUN
RN-219	-1.738E-01	4.477E-01	3.814E-01	2.284E-01	NOT IDENT.
RN-220	2.755E+01	2.803E+01	2.554E+01	1.430E+01	NOT IDENT.
RA-223	-8.475E-01	7.964E-01	5.545E-01	4.063E-01	FAIL ABUN
AC-227	2.711E-01	4.097E-01	3.576E-01	2.090E-01	FAIL ABUN
TH-227	2.711E-01	4.104E-01	3.576E-01	2.094E-01	FAIL ABUN
AC-228	1.376E+00	3.180E-01	2.347E-01	1.622E-01	FAIL ABUN
RA-228	1.376E+00	3.180E-01	2.347E-01	1.622E-01	FAIL ABUN
TH-229	-2.340E-01	5.312E-01	4.491E-01	2.710E-01	FAIL ABUN
PA-231	6.155E-02	1.571E+00	1.402E+00	8.013E-01	NOT IDENT.
TH-231	-8.475E-01	7.964E-01	5.545E-01	4.063E-01	FAIL ABUN
U-231	-6.506E-01	1.347E+00	1.033E+00	6.870E-01	FAIL ABUN
TH-232	1.376E+00	3.180E-01	2.347E-01	1.622E-01	FAIL ABUN
PA-233	3.619E-02	6.173E-02	5.635E-02	3.149E-02	FAIL ABUN
PA-234	-1.685E-01	3.183E-01	2.584E-01	1.624E-01	FAIL ABUN
PA-234M	4.902E+00	5.177E+00	4.741E+00	2.641E+00	NOT IDENT.
U-235	2.413E-01	2.335E-01	2.059E-01	1.191E-01	FAIL ABUN
NP-236	-3.153E-02	8.281E-02	7.102E-02	4.225E-02	NOT IDENT.
NP-239	-6.593E-02	2.000E-01	1.748E-01	1.020E-01	FAIL ABUN
AM-241	2.272E-01	2.135E-01	1.777E-01	1.090E-01	NOT IDENT.
CM-243	1.922E-02	1.048E-01	9.298E-02	5.346E-02	FAIL ABUN
AM-246	5.404E-02	1.492E-01	1.309E-01	7.613E-02	NOT IDENT.
CM-247	8.391E-03	3.990E-02	3.520E-02	2.036E-02	NOT IDENT.
CF-249	1.205E-03	4.032E-02	3.531E-02	2.057E-02	NOT IDENT.
CF-251	1.989E-01	1.324E-01	1.213E-01	6.754E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	308.9727
46.50	308.9727
46.50	308.9727
48.70	356.4576
49.72	337.1104
51.35	308.9077
52.39	316.7614
52.97	320.7281
53.15	337.2785
53.44	346.5880
54.07	356.1090
56.28	378.5418
56.28	378.5434
57.37	0.0000
57.53	326.5274
57.53	326.5281
57.60	320.4255
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57.98	313.9878
59.32	319.0904
59.32	319.0904
59.40	319.1306
59.54	319.2012
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60.01	334.2266
61.10	371.8313
61.14	385.1877
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63.00	412.2935
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63.29	442.9462
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65.12	435.2286
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65.20	435.2803
66.05	441.8031
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66.83	446.7955
66.91	457.3098
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67.20	461.9893
67.75	487.5488
67.85	487.6204
68.90	460.8878
68.90	460.8878
69.30	459.9045
69.67	441.1454
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77.11	488.9505

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83.78	512.3860
83.78	512.3860
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86.94	406.9523
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88.47	421.5794
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92.29	423.5611
92.38	423.6079
92.38	423.6079
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94.67	427.8758
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94.90	434.1965
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98.44	347.7711
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99.55	368.3591
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100.00	377.3244
100.10	377.3702
103.18	410.9910
103.76	361.3214
105.00	357.9031
105.31	351.1608
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109.28	392.1122

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111.00	373.1060
111.76	381.3146
112.95	337.2914
115.19	380.7305
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117.00	352.6477
117.00	352.6477
117.66	338.9746
121.11	338.1905
121.62	357.3322
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122.32	359.5839
122.32	359.5839
122.32	359.5839
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127.23	319.6067
129.76	351.1994
131.20	353.1054
133.02	361.8043
133.54	345.8273
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136.25	364.5483
136.48	371.7180
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142.65	348.4057
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144.24	332.5935
144.24	332.5935
144.24	332.5935
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145.44	347.2580
147.16	388.7207
152.43	301.1436
152.70	301.2151
153.22	318.8384
154.21	342.7914
154.21	342.7914
154.21	342.7914
154.21	342.7914
155.03	344.0706
156.02	335.0893
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159.00	309.0806
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161.27	324.1854
162.32	327.5843
162.64	321.4519
163.35	334.0966
163.89	314.5273
165.85	316.0884
167.43	307.1356
171.28	316.4726
171.86	321.8500
172.10	321.9135
176.55	262.2414
176.60	262.2509
181.06	286.3500
184.41	300.6183
185.71	290.5699
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192.34	270.6691
193.63	298.7276
197.04	309.0919
198.01	286.9187
198.60	268.9036
200.40	287.4318
201.83	306.9892
202.84	296.0558
205.31	291.6915

208.36	286.9672
208.81	267.7084
209.75	289.1909
209.75	289.1909
210.97	304.9512
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216.55	255.1397
218.09	273.8157
222.10	249.6235
223.80	254.2647
226.40	238.3917
227.00	236.3123
227.08	238.5037
227.20	238.5237
228.16	258.2966
228.18	258.3002
228.18	258.3002
231.56	0.0000
235.69	276.9224
236.00	264.7090
236.00	264.7090
238.63	255.7344
238.63	255.7344
238.63	255.7344
238.63	255.7344
239.00	255.7966
240.98	256.1325
241.98	256.3014
241.98	256.3014
241.98	256.3014
244.69	232.7338
245.39	234.6041
247.94	235.5811
248.90	219.8896
249.79	214.4876
252.40	229.2442
252.85	224.8794
252.85	224.8794
254.15	0.0000
256.20	198.7147
256.20	198.7147
260.50	214.8368
260.90	208.2121
262.80	200.0173
264.65	192.8496
268.24	189.6976
268.79	191.5525
269.46	194.7650
269.46	194.7650
269.46	194.7650
269.46	194.7650
271.23	220.5262
273.65	267.5343
276.40	190.1283
277.35	201.3231
277.60	221.6010
277.60	221.6010
278.00	210.6286
278.60	201.6984
279.20	211.6807
279.53	219.8293
280.46	228.9659
281.68	218.3081
283.67	191.4703
284.30	187.9287
285.00	185.2933
285.90	180.8716
286.10	170.9421
286.10	170.9421
287.40	178.7674
288.45	0.0000
290.67	191.9573
290.80	191.9702
291.72	189.0488
293.26	0.0000
293.70	148.9913
295.21	149.1195
295.21	149.1195

295.21	149.1195
295.96	149.1855
296.50	149.2316
297.23	149.2937
298.57	149.4078
299.80	149.5139
299.80	149.5139
300.09	149.5379
300.09	149.5379
300.09	149.5379
300.09	149.5379
300.12	149.5399
301.29	150.5524
302.84	176.5606
303.76	153.8097
303.91	153.8220
304.40	141.6778
304.40	141.6778
304.84	143.2356
306.84	147.5934
308.46	153.9111
311.98	137.6898
316.51	170.2420
318.01	153.8064
319.02	139.1460
319.41	137.3321
320.08	153.0576
323.87	189.4073
323.87	189.4073
323.87	189.4073
323.87	189.4073
325.23	172.5938
328.77	176.0121
333.44	154.7811
334.20	172.8061
334.20	172.8061
334.30	172.8152
338.28	150.8328
338.28	150.8328
338.28	150.8328
338.28	150.8328
338.32	150.8348
338.32	150.8348
338.32	150.8348
340.50	146.0374
340.57	146.0412
344.27	136.9844
345.85	105.1584
350.59	0.0000
351.07	134.0293
351.92	134.0869
351.92	134.0869
351.92	134.0869
355.39	0.0000
356.01	106.4907
364.48	122.6732
366.43	150.1863
367.43	146.4799
367.94	0.0000
369.80	124.8908
374.96	129.9510
383.85	126.7039
387.95	127.9085
388.63	125.0849
391.69	126.2234
391.69	126.2234
392.90	133.9502
398.62	147.7437
400.65	143.0833
401.10	137.3512
401.81	150.8480
402.60	139.3696
404.84	165.4933
410.95	149.5583
411.60	150.5690
413.65	168.0995
414.70	122.7522
415.30	120.8527

415.76	114.1094
417.63	0.0000
418.52	144.2673
423.70	129.0775
427.08	118.5822
427.89	127.3764
432.53	114.9737
433.93	109.1945
439.47	111.4172
439.56	111.4214
439.89	108.5055
443.98	112.6163
444.90	104.8240
445.03	104.8305
445.03	104.8305
445.03	104.8305
445.03	104.8305
453.90	104.2493
463.38	116.8513
468.07	93.9957
473.00	125.9179
475.06	94.2706
475.35	96.2671
476.78	109.2333
477.59	99.3372
477.96	100.3453
482.03	117.4325
484.57	101.6153
487.03	79.7793
490.36	0.0000
492.35	87.9474
497.08	84.1107
507.63	0.0000
510.53	0.0000
510.84	104.0391
511.00	104.0454
511.85	77.2216
511.85	77.2216
513.99	85.6869
513.99	85.6869
520.41	85.9027
520.65	85.9110
527.90	86.1538
528.96	0.0000
529.64	104.4686
529.87	0.0000
531.02	97.4203
537.32	98.6719
543.00	79.5158
546.56	0.0000
549.76	80.7416
552.65	93.1062
555.20	88.0744
563.23	93.4727
563.90	95.5521
568.70	78.2228
569.32	82.3594
569.50	82.3652
569.67	82.3691
573.80	87.6500
574.00	77.3438
574.64	78.0988
578.91	74.0375
579.30	0.0000
583.14	77.6001
585.48	67.3105
591.81	76.8039
592.07	85.1150
593.00	79.9514
595.88	84.1898
600.56	86.7594
602.52	0.0000
602.71	92.0340
602.71	92.0340
603.60	83.3789
604.41	78.1897
604.70	78.1970
609.31	87.0260

609.31	87.0260
609.31	87.0260
609.31	87.0260
610.33	83.5742
612.46	66.2124
614.37	81.9498
618.01	84.8463
621.84	81.8105
621.84	81.8105
631.29	85.2339
633.02	76.8603
633.10	76.8621
634.78	79.0137
635.90	70.6117
636.97	67.4750
645.85	70.8489
646.12	65.5677
656.30	254.6719
657.75	192.1578
657.90	0.0000
661.65	74.4109
661.65	74.4109
664.57	0.0000
666.33	204.4125
666.33	204.4125
675.00	90.7504
677.61	65.1818
685.20	70.6970
692.80	78.3859
695.00	81.6647
696.49	82.7788
696.49	82.7788
697.00	80.6415
697.49	78.5035
698.33	77.4475
698.50	70.9983
699.00	83.9205
702.63	81.8614
706.10	70.0892
706.58	0.0000
706.67	71.1804
709.31	84.1928
711.68	85.3358
713.82	94.0390
717.42	81.1597
720.50	72.2103
721.93	0.0000
722.20	90.3107
722.78	70.4542
722.78	70.4542
722.89	70.4574
722.95	70.4590
723.30	63.2395
724.18	56.0273
727.18	74.8926
733.00	67.0520
735.90	66.3866
739.58	56.6541
742.81	65.4346
744.21	66.5534
747.13	64.4290
751.79	60.1442
752.31	61.2473
753.82	61.2760
755.35	62.3980
756.15	72.2681
756.87	64.6177
763.93	81.2157
765.79	58.2004
766.42	58.2107
766.84	50.5292
776.49	70.6852
778.00	67.5021
778.57	59.8362
778.89	59.8415
783.80	58.3506
785.46	67.1885
792.07	60.0721

795.84	53.5431
796.30	60.9364
798.80	86.8513
801.93	61.9606
805.60	46.2870
810.29	57.4729
810.76	57.4804
815.85	51.9930
817.79	52.9504
818.51	45.5278
819.60	43.6829
826.30	54.9392
828.27	0.0000
831.60	59.6836
831.96	55.0268
834.83	63.4719
836.80	0.0000
846.75	53.3795
848.13	53.4004
856.28	0.0000
856.80	72.4423
860.37	50.7590
867.32	53.2763
867.82	50.0539
871.10	45.2500
873.19	49.0483
874.81	56.6199
875.33	0.0000
876.40	60.4193
879.36	68.0259
880.27	66.1534
880.51	65.2125
881.50	62.3933
883.24	59.5842
884.67	59.6072
889.25	68.2061
896.60	48.4070
898.02	51.2732
899.00	48.4371
903.28	60.3095
911.07	51.4490
911.07	51.4490
911.07	51.4490
919.63	44.4017
920.93	58.4583
925.00	47.8099
925.24	56.4192
926.50	51.6555
935.52	42.1873
937.48	58.5154
944.10	46.1230
946.00	61.5273
949.00	50.0291
962.29	57.9187
964.01	62.9097
966.15	60.8736
968.20	60.9044
969.11	51.3870
969.11	51.3870
969.11	51.3870
977.42	59.1062
980.50	43.6359
983.50	44.6392
989.30	40.8157
996.32	65.2225
1001.03	49.7040
1001.68	50.6860
1004.76	81.9390
1021.30	0.0000
1024.50	0.0000
1034.80	47.1621
1036.00	57.9845
1037.82	53.0947
1038.57	51.1367
1038.76	0.0000
1045.16	57.1268
1046.59	49.2635
1048.07	40.4094

1050.47	37.4743
1050.47	37.4743
1062.04	27.6878
1063.62	47.4824
1076.63	54.5703
1077.35	62.5181
1078.86	47.6484
1085.78	59.6558
1099.22	45.8765
1112.02	54.8683
1112.84	58.3094
1115.52	41.1830
1120.29	53.2531
1120.29	53.2531
1120.29	53.2531
1120.29	53.2531
1120.51	53.2553
1121.28	48.1094
1124.00	0.0000
1129.67	54.2241
1131.51	0.0000
1147.95	0.0000
1167.94	54.6812
1173.22	55.7587
1175.09	54.7668
1177.93	65.9627
1189.05	47.8109
1204.90	62.2609
1205.75	0.0000
1213.00	43.9641
1221.42	51.2126
1230.97	82.1029
1235.34	64.7150
1236.41	0.0000
1238.25	49.3359
1246.25	43.2407
1260.41	0.0000
1271.85	52.7826
1274.45	47.6322
1274.54	47.6340
1291.56	41.5625
1298.22	0.0000
1312.09	41.7334
1325.50	31.3831
1325.50	31.3831
1332.49	28.2843
1333.61	24.0987
1360.21	23.1709
1362.66	0.0000
1365.15	24.2466
1368.21	21.0970
1368.53	0.0000
1376.25	24.2990
1384.27	15.8716
1394.10	15.9009
1395.20	22.2664
1407.95	24.4450
1434.06	17.0885
1436.60	20.3019
1457.56	0.0000
1460.81	31.2797
1489.15	19.4194
1509.49	15.1587
1596.49	29.2106
1620.62	17.9768
1678.03	0.0000
1691.02	10.5300
1691.02	10.5300
1706.46	0.0000
1750.46	0.0000
1764.49	13.5610
1764.49	13.5610
1764.49	13.5610
1764.49	13.5610
1770.23	44.5978
1771.40	23.2726
1791.20	0.0000
1808.65	9.7538

1836.01	10.7744

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691012

Total Uranium Activity	1.4279E+01	ug/g
Total Uranium Counting Unc.	6.7703E+00	ug/g
Total Uranium Tpu	3.4542E-06	ug/g
Total Uranium Mda	4.3005E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691012       *
*   ANALYST       : MJH1                      DETECTOR   : GAM23            *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 15:33:57.35    SAMPLE ALQT:  137.640 GRAM    *
*                                                                           *
*****************************************************************************


          GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.034E+00
          GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.177E+00
          GROSS GAMMA MDA     (pCi/GRAM  )  : 2.860E+00
          GROSS GAMMA DLC     (pCi/GRAM  )  : 1.387E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:37:58.53

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691013.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:37:24.
Sample ID         : G245691013           Sample quantity  : 1.27760E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.85  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947037                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.37*	108	549	1.17	125.86	121	8	1.49E-02	39.6	
2	3	75.01	366	516	0.96	149.14	145	14	5.09E-02	11.0	9.54E-01
3	3	77.32	667	403	0.91	153.77	145	14	9.26E-02	6.0	
4	0	87.33	209	544	1.23	173.77	171	7	2.90E-02	19.8	
5	0	93.67*	202	875	1.50	186.45	180	10	2.80E-02	29.3	
6	0	129.06	100	425	1.10	257.20	254	8	1.38E-02	37.1	
7	0	186.20*	265	560	1.29	371.43	365	12	3.68E-02	19.3	
8	0	209.75*	60	433	0.95	418.51	413	9	8.38E-03	64.2	
9	3	238.72*	1843	222	1.21	476.44	469	19	2.56E-01	2.7	1.15E+00
10	3	241.65	432	317	1.77	482.31	469	19	6.00E-02	11.9	
11	0	270.66	138	314	1.87	540.31	535	11	1.92E-02	26.5	
12	0	277.84	95	312	2.02	554.65	548	12	1.32E-02	38.8	
13	0	295.22*	563	293	1.32	589.41	583	12	7.82E-02	7.5	
14	0	300.29	147	294	1.37	599.55	595	12	2.04E-02	24.8	
15	0	328.17	146	227	1.79	655.28	650	11	2.02E-02	21.7	
16	0	338.34*	386	261	1.26	675.61	670	11	5.37E-02	9.7	
17	0	351.93*	951	315	1.25	702.79	696	13	1.32E-01	5.1	
18	0	409.59	42	136	1.05	818.06	814	7	5.80E-03	48.9	
19	0	462.84	121	152	1.74	924.55	919	12	1.68E-02	22.4	
20	0	510.73*	178	264	2.19	1020.30	1012	16	2.48E-02	24.6	
21	0	583.08*	599	169	1.67	1164.95	1158	13	8.32E-02	6.2	
22	0	609.15*	697	181	1.37	1217.07	1210	15	9.68E-02	5.8	
23	0	727.01*	156	104	1.35	1452.75	1448	13	2.17E-02	16.0	
24	0	768.33	77	117	3.03	1535.35	1529	11	1.07E-02	29.6	
25	0	860.50	117	82	1.25	1719.66	1713	14	1.62E-02	19.0	
26	0	910.94*	412	111	2.08	1820.52	1813	16	5.73E-02	7.7	
27	0	933.50*	65	127	1.06	1865.63	1856	17	9.08E-03	41.9	
28	1	964.53	121	96	2.32	1927.69	1917	26	1.67E-02	20.1	6.49E-01
29	1	968.60*	269	74	2.10	1935.81	1917	26	3.74E-02	9.5	
30	0	1119.92*	217	112	2.30	2238.42	2231	17	3.01E-02	13.2	
31	0	1459.94*	2541	67	2.40	2918.36	2906	22	3.53E-01	2.2	
32	0	1505.30	12	16	0.79	3009.09	3000	11	1.69E-03	70.5	
33	0	1587.57	31	32	2.21	3173.61	3166	14	4.35E-03	42.0	
34	0	1729.34	30	34	2.14	3457.14	3446	15	4.13E-03	46.5	
35	0	1763.46*	146	5	2.68	3525.37	3516	16	2.03E-02	9.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 19:38:01

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691013.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:37:24
Sample ID : G245691013 Sample quantity : 127.76 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.85 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.695E+01	3.225E+00	4.605E-01	3.495E-02	80.244
CD-109	+	88.03	*	2.612E+00	1.059E+00	1.472E+00	1.360E-01	1.775
SN-126	+	64.28		1.064E+00	8.575E-01	8.760E-01	1.295E-01	1.214
	+	86.94		1.067E+00	6.113E-01	5.465E-01	2.267E-01	1.953
	+	87.57	*	2.567E-01	1.041E-01	1.351E-01	1.245E-02	1.900
HG-203		70.83		1.471E-01	1.249E+00	1.865E+00	2.484E-01	0.079
		72.87		1.746E-01	7.061E-01	1.057E+00	1.371E-01	0.165
		82.60		4.090E-01	1.137E+00	1.803E+00	2.501E-01	0.227
	+	279.20	*	7.237E-02	5.628E-02	5.350E-02	3.244E-03	1.353
TL-208	+	277.35		6.554E-01	5.128E-01	4.864E-01	5.108E-02	1.348
	+	510.84		5.631E-01	2.830E-01	1.806E-01	1.920E-02	3.118
	+	583.14	*	5.316E-01	7.783E-02	4.963E-02	3.891E-03	10.710
	+	860.37		9.433E-01	3.745E-01	3.629E-01	4.059E-02	2.600
BI-211		72.87		8.765E-01	3.543E+00	5.305E+00	4.380E-01	0.165
	+	351.07	*	3.962E+00	4.790E-01	2.764E-01	1.774E-02	14.335
PB-212	+	74.81		2.037E+00	5.149E-01	5.695E-01	7.138E-02	3.577
	+	77.11		2.067E+00	3.045E-01	3.186E-01	2.701E-02	6.488
	+	87.30		1.187E+00	4.959E-01	6.272E-01	8.519E-02	1.893
	+	238.63	*	1.787E+00	1.610E-01	7.815E-02	5.583E-03	22.871
	+	300.09		2.120E+00	1.066E+00	9.836E-01	8.077E-02	2.156
PO-212	+	74.81		2.037E+00	5.149E-01	5.695E-01	7.138E-02	3.577
	+	77.11		2.067E+00	3.045E-01	3.186E-01	2.701E-02	6.488
	+	87.30		1.187E+00	4.959E-01	6.272E-01	8.519E-02	1.893
		115.19		4.203E+00	3.266E+00	5.509E+00	3.470E-01	0.763
	+	238.63	*	1.787E+00	1.610E-01	7.815E-02	5.583E-03	22.871
	+	300.09		2.120E+00	1.066E+00	9.836E-01	8.077E-02	2.156
BI-214	+	609.31	*	1.161E+00	1.696E-01	9.589E-02	8.566E-03	12.103
	+	1120.29		1.809E+00	5.082E-01	4.405E-01	4.218E-02	4.106
	+	1764.49		1.601E+00	3.133E-01	2.040E-01	1.240E-02	7.850
PB-214	+	74.81		3.510E+00	8.643E-01	9.813E-01	1.096E-01	3.577
	+	77.11		3.544E+00	5.876E-01	5.462E-01	6.225E-02	6.488
	+	87.30		2.034E+00	8.397E-01	1.074E+00	1.289E-01	1.893
	+	241.98		2.509E+00	6.272E-01	4.698E-01	3.714E-02	5.342
	+	295.21		1.426E+00	2.463E-01	1.706E-01	1.447E-02	8.359

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.378E+00	1.815E-01	9.632E-02	7.968E-03	14.308
PO-214	+	74.81		3.510E+00	8.643E-01	9.813E-01	1.096E-01	3.577
	+	77.11		3.544E+00	5.876E-01	5.462E-01	6.225E-02	6.488
	+	87.30		2.034E+00	8.397E-01	1.074E+00	1.289E-01	1.893
	+	241.98		2.509E+00	6.272E-01	4.698E-01	3.714E-02	5.342
	+	295.21		1.426E+00	2.463E-01	1.706E-01	1.447E-02	8.359
	+	351.92	*	1.378E+00	1.815E-01	9.632E-02	7.968E-03	14.308
PO-216	+	74.81		2.037E+00	5.149E-01	5.695E-01	7.138E-02	3.577
	+	77.11		2.067E+00	3.045E-01	3.186E-01	2.701E-02	6.488
	+	87.30		1.187E+00	4.959E-01	6.272E-01	8.519E-02	1.893
	+	238.63	*	1.787E+00	1.610E-01	7.815E-02	5.583E-03	22.871
	+	300.09		2.120E+00	1.066E+00	9.836E-01	8.077E-02	2.156
PO-218	+	74.81		3.510E+00	8.643E-01	9.813E-01	1.096E-01	3.577
	+	77.11		3.544E+00	5.876E-01	5.462E-01	6.225E-02	6.488
	+	87.30		2.034E+00	8.397E-01	1.074E+00	1.289E-01	1.893
	+	241.98		2.509E+00	6.272E-01	4.698E-01	3.714E-02	5.342
	+	295.21		1.426E+00	2.463E-01	1.706E-01	1.447E-02	8.359
	+	351.92	*	1.378E+00	1.815E-01	9.632E-02	7.968E-03	14.308
RA-224	+	240.98	*	4.758E+00	1.159E+00	8.882E-01	4.948E-02	5.357
RA-226	+	609.31	*	1.161E+00	1.696E-01	9.589E-02	8.566E-03	12.103
	+	1120.29		1.809E+00	5.082E-01	4.405E-01	4.218E-02	4.106
	+	1764.49		1.601E+00	3.133E-01	2.040E-01	1.240E-02	7.850
AC-228	+	338.32		1.785E+00	8.058E-01	3.133E-01	1.277E-01	5.695
	+	911.07	*	1.574E+00	3.197E-01	1.874E-01	2.483E-02	8.395
	+	969.11		1.805E+00	5.515E-01	2.969E-01	7.109E-02	6.079
RA-228	+	338.32		1.785E+00	8.058E-01	3.133E-01	1.277E-01	5.695
	+	911.07	*	1.574E+00	3.197E-01	1.874E-01	2.483E-02	8.395
	+	969.11		1.805E+00	5.515E-01	2.969E-01	7.109E-02	6.079
TH-228	+	74.81		2.068E+00	4.863E-01	5.782E-01	4.873E-02	3.577
	+	77.11		2.099E+00	3.091E-01	3.235E-01	2.742E-02	6.488
	+	87.30		1.205E+00	4.889E-01	6.368E-01	5.853E-02	1.893
	+	238.63	*	1.815E+00	1.635E-01	7.934E-02	5.668E-03	22.871
	+	300.09		2.153E+00	1.658E+00	9.987E-01	5.885E-01	2.156
TH-230	+	609.31	*	1.161E+00	1.696E-01	9.589E-02	8.566E-03	12.103
	+	1120.29		1.809E+00	5.082E-01	4.405E-01	4.218E-02	4.106
	+	1764.49		1.601E+00	3.133E-01	2.040E-01	1.240E-02	7.850
TH-232	+	338.32		1.785E+00	3.616E-01	3.133E-01	1.813E-02	5.695
	+	911.07	*	1.574E+00	3.197E-01	1.874E-01	2.483E-02	8.395
	+	969.11		1.805E+00	5.515E-01	2.969E-01	7.109E-02	6.079
TH-234	+	63.29	*	2.688E+00	2.182E+00	2.389E+00	4.211E-01	1.125
	+	92.38		1.563E+00	9.567E-01	8.062E-01	1.453E-01	1.939
U-234	+	609.31	*	1.161E+00	1.696E-01	9.589E-02	8.566E-03	12.103
	+	1120.29		1.809E+00	5.082E-01	4.405E-01	4.218E-02	4.106
	+	1764.49		1.601E+00	3.133E-01	2.040E-01	1.240E-02	7.850
NP-237	+	86.50	*	7.538E-01	3.430E-01	3.925E-01	8.856E-02	1.921
		95.87		4.297E-02	9.649E-01	1.407E+00	3.437E-01	0.031
U-238	+	63.29	*	2.688E+00	2.182E+00	2.389E+00	4.211E-01	1.125
	+	92.38		1.563E+00	9.239E-01	8.062E-01	6.852E-02	1.939
AM-243	+	74.67	*	3.303E-01	7.756E-02	9.270E-02	7.735E-03	3.563

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.72		2.827E+01	1.146E+01	1.452E+01	1.328E+00	1.946
		117.66		-2.060E+00	3.565E+00	5.596E+00	3.442E-01	-0.368
		142.18		-1.133E+01	1.644E+01	2.512E+01	1.384E+00	-0.451
ANH-511	+	511.00	*	1.216E-01	6.027E-02	3.903E-02	2.577E-03	3.117

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-5.581E-02	2.731E-01	4.452E-01	3.226E-02	-0.125
NA-22		1274.54	*	1.438E-02	4.023E-02	6.769E-02	4.606E-03	0.212
NA-24		1368.53	*	-3.063E-01	4.023E-02	Half-Life too short		
AL-26		1129.67		-7.969E-01	1.650E+00	2.403E+00	1.605E-01	-0.332
		1808.65	*	-2.501E-03	2.360E-02	3.810E-02	2.225E-03	-0.066
TI-44		67.85		-4.312E-02	5.036E-02	8.060E-02	6.482E-03	-0.535
	+	78.38	*	3.815E-01	5.619E-02	8.255E-02	7.058E-03	4.621
SC-46		889.25	*	-3.421E-02	3.250E-02	4.840E-02	5.399E-03	-0.707
	+	1120.51		3.099E-01	8.463E-02	1.188E-01	8.207E-03	2.609
V-48		944.10		-9.113E-01	8.203E-01	1.216E+00	1.287E-01	-0.750
		983.50	*	-1.938E-02	6.283E-02	9.932E-02	9.824E-03	-0.195
		1312.09		3.865E-02	7.104E-02	1.213E-01	8.835E-03	0.319
CR-51		320.08	*	-8.046E-02	3.184E-01	5.060E-01	3.258E-02	-0.159
MN-52		744.21		-1.674E-01	1.999E-01	3.128E-01	2.759E-02	-0.535
		848.13		1.622E+00	5.863E+00	9.801E+00	1.025E+00	0.166
		935.52		4.373E-01	2.704E-01	4.284E-01	4.595E-02	1.021
		1246.25		3.469E+00	6.765E+00	1.149E+01	7.386E-01	0.302
		1333.61		-5.048E+00	4.569E+00	6.569E+00	4.962E-01	-0.768
		1434.06	*	-1.751E-02	1.943E-01	3.122E-01	2.301E-02	-0.056
MN-54		834.83	*	-1.527E-02	3.428E-02	5.478E-02	5.611E-03	-0.279
CO-56		846.75	*	2.032E-03	3.327E-02	5.485E-02	5.726E-03	0.037
		977.42		1.911E+00	2.565E+00	4.202E+00	4.203E-01	0.455
		1037.82		2.781E-01	2.654E-01	4.727E-01	4.379E-02	0.588
		1175.09		1.601E+00	2.062E+00	3.569E+00	1.981E-01	0.448
		1238.25		1.442E-01	8.219E-02	1.473E-01	9.816E-03	0.979
		1360.21		2.010E-01	7.828E-01	1.311E+00	9.849E-02	0.153
		1771.40		-1.236E+00	3.159E-01	2.888E-01	1.745E-02	-4.281
CO-57		122.06	*	3.898E-03	2.263E-02	3.657E-02	2.166E-03	0.107
		136.48		7.079E-02	1.942E-01	3.137E-01	2.053E-02	0.226
CO-58		810.76	*	-3.261E-02	3.306E-02	5.048E-02	4.983E-03	-0.646
FE-59		142.65		1.713E-01	2.518E+00	3.973E+00	2.186E-01	0.043
		192.34		5.468E-01	8.457E-01	1.400E+00	1.623E-01	0.391
		1099.22	*	3.166E-03	7.811E-02	1.304E-01	1.074E-02	0.024
		1291.56		-1.111E-01	1.138E-01	1.719E-01	1.445E-02	-0.647
CO-60		1173.22		2.527E-02	4.145E-02	7.110E-02	3.929E-03	0.355
		1332.49	*	-2.192E-02	3.428E-02	5.278E-02	3.988E-03	-0.415
ZN-65		1115.52	*	8.595E-02	9.741E-02	1.488E-01	1.048E-02	0.578
GE-68		1077.35	*	-3.655E-02	1.031E+00	1.716E+00	1.364E-01	-0.021
AS-73		53.44	*	1.322E-01	1.063E+00	1.796E+00	1.424E-01	0.074
AS-74		595.88	*	-5.950E-02	7.637E-02	1.166E-01	8.379E-03	-0.510

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		634.78		1.097E-02	3.033E-01	4.891E-01	3.641E-02	0.022
SE-75		66.05		-5.549E+00	5.906E+00	8.398E+00	8.318E-01	-0.661
		96.73		-8.392E-01	8.259E-01	1.128E+00	1.488E-01	-0.744
		121.11		2.570E-02	1.200E-01	1.944E-01	1.815E-02	0.132
		136.00		2.997E-02	3.650E-02	5.999E-02	3.416E-03	0.500
		198.60		7.109E-02	1.619E+00	2.661E+00	1.806E-01	0.027
		264.65	*	-2.119E-02	4.104E-02	6.024E-02	3.445E-03	-0.352
		279.53		7.144E-02	1.033E-01	1.536E-01	9.490E-03	0.465
		303.91		1.358E+00	1.980E+00	2.925E+00	2.783E-01	0.464
		400.65		1.048E-02	2.067E-01	3.466E-01	3.158E-02	0.030
BR-77	+	87.88		5.839E+02	2.368E+02	3.392E+02	3.134E+01	1.722
		200.40		1.340E+02	1.484E+02	2.552E+02	1.375E+01	0.525
	+	239.00		2.970E+02	2.321E+01	3.537E+01	1.967E+00	8.398
		249.79		-5.564E+01	5.894E+01	9.257E+01	5.189E+00	-0.601
		281.68		-5.696E+01	8.944E+01	1.218E+02	6.948E+00	-0.468
		297.23		3.542E+02	8.288E+01	1.138E+02	6.534E+00	3.112
		303.76		1.191E+02	1.742E+02	2.576E+02	1.482E+01	0.462
		439.47		1.078E+02	1.221E+02	2.118E+02	1.291E+01	0.509
		484.57		-1.099E+02	1.934E+02	3.076E+02	1.974E+01	-0.357
		520.65	*	4.480E+00	8.969E+00	1.511E+01	1.008E+00	0.296
		574.64		6.953E+01	1.912E+02	3.089E+02	2.175E+01	0.225
		578.91		1.910E+00	9.278E+01	1.301E+02	9.201E+00	0.015
		585.48		1.637E+03	2.486E+02	4.326E+02	3.078E+01	3.784
		755.35		-3.037E+01	1.488E+02	2.437E+02	2.190E+01	-0.125
		817.79		3.670E+01	1.113E+02	1.874E+02	1.868E+01	0.196
SR-82		698.33		3.235E+00	2.870E+01	4.824E+01	3.927E+00	0.067
		776.49	*	-1.030E-01	3.344E-01	5.425E-01	5.052E-02	-0.190
		1395.20		-5.258E+00	9.503E+00	1.459E+01	1.087E+00	-0.360
RB-83		520.41	*	3.354E-02	5.765E-02	9.756E-02	6.507E-03	0.344
		529.64		1.957E-02	8.667E-02	1.436E-01	9.672E-03	0.136
		552.65		-7.724E-02	1.623E-01	2.562E-01	1.766E-02	-0.301
RB-84		881.50	*	1.766E-02	5.779E-02	9.659E-02	1.065E-02	0.183
KR-85		513.99	*	1.996E+01	7.336E+00	1.215E+01	8.049E-01	1.643
SR-85		513.99	*	1.025E-01	3.766E-02	6.237E-02	4.132E-03	1.643
RB-86		1076.63	*	3.880E-02	6.512E-01	1.091E+00	8.685E-02	0.036
Y-88		898.02		-1.719E-04	3.687E-02	6.018E-02	6.822E-03	-0.003
		1836.01	*	-1.794E-02	2.992E-02	4.490E-02	2.558E-03	-0.400
ZR-88		392.90	*	7.250E-03	2.481E-02	4.217E-02	2.425E-03	0.172
Y-91		1204.90	*	2.362E+00	1.793E+01	2.982E+01	1.763E+00	0.079
NB-94		702.63	*	6.803E-03	2.714E-02	4.597E-02	3.771E-03	0.148
		871.10		2.506E-02	2.913E-02	5.034E-02	5.459E-03	0.498
NB-95		765.79	*	5.718E-02	4.495E-02	7.024E-02	6.425E-03	0.814
NB-95M		235.69	*	1.104E-01	1.193E-01	1.807E-01	1.326E-02	0.611
ZR-95		724.18		1.603E-01	9.411E-02	1.511E-01	1.402E-02	1.060
		756.15	*	-2.007E-02	6.168E-02	1.002E-01	9.861E-03	-0.200
NB-97		657.90	*	6.410E-02	6.168E-02	Half-Life too short		
		1024.50		7.056E+00	6.168E-02	Half-Life too short		
ZR-97		254.15		2.001E+00	6.168E-02	Half-Life too short		
		355.39		2.579E+00	6.168E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		507.63	*	6.022E+00	6.168E-02	Half-Life too short		
		602.52		2.356E+00	6.168E-02	Half-Life too short		
		1021.30		-1.640E+00	6.168E-02	Half-Life too short		
		1147.95		-5.701E+00	6.168E-02	Half-Life too short		
		1362.66		-6.288E+00	6.168E-02	Half-Life too short		
		1750.46		-1.357E+00	6.168E-02	Half-Life too short		
MO-99		140.51		-2.581E+01	2.623E+01	3.825E+01	1.029E+01	-0.675
		181.06		-5.124E+00	1.757E+01	2.562E+01	4.349E+00	-0.200
		366.43		1.213E+00	7.036E+01	1.186E+02	6.852E+00	0.010
		739.58	*	9.704E+00	9.549E+00	1.671E+01	2.550E+00	0.581
		778.00		-6.322E+00	3.039E+01	4.961E+01	4.632E+00	-0.127
TC-99M		140.51	*	-5.037E+10	3.039E+01	Half-Life too short		
RH-101		127.23		3.214E-02	3.183E-02	4.771E-02	2.756E-03	0.674
		198.01	*	-1.672E-02	2.965E-02	4.766E-02	2.562E-03	-0.351
		325.23		3.878E-02	2.183E-01	3.103E-01	1.793E-02	0.125
RH-102		418.52		4.213E-02	2.313E-01	3.893E-01	2.313E-02	0.108
		475.06	*	9.733E-03	2.447E-02	4.124E-02	2.620E-03	0.236
		631.29		-3.463E-02	4.757E-02	7.273E-02	5.398E-03	-0.476
		697.49		-1.117E-03	6.540E-02	1.091E-01	8.872E-03	-0.010
	+	766.84		2.100E-01	1.260E-01	1.835E-01	1.681E-02	1.145
		1046.59		-7.188E-02	9.810E-02	1.555E-01	1.341E-02	-0.462
		1112.84		-1.669E-02	2.375E-01	3.357E-01	2.383E-02	-0.050
RU-103		497.08	*	-1.378E-02	3.193E-02	5.099E-02	6.620E-03	-0.270
	+	610.33		1.256E+01	2.483E+00	2.460E+00	3.944E-01	5.105
RH-106	+	511.85		6.077E-01	3.011E-01	3.885E-01	2.568E-02	1.564
		621.84	*	8.669E-02	2.753E-01	4.524E-01	5.691E-02	0.192
		1050.47		1.095E+00	1.979E+00	3.425E+00	2.927E-01	0.320
RU-106	+	511.85		6.077E-01	3.011E-01	3.885E-01	2.568E-02	1.564
		621.84	*	8.669E-02	2.752E-01	4.524E-01	3.329E-02	0.192
		1050.47		1.095E+00	1.979E+00	3.425E+00	2.927E-01	0.320
AG-108M		433.93	*	-2.037E-02	2.665E-02	4.238E-02	2.769E-03	-0.481
		614.37		2.975E-02	3.481E-02	5.220E-02	4.023E-03	0.570
		722.95		-9.535E-03	3.825E-02	5.359E-02	4.739E-03	-0.178
AG-110M		657.75	*	2.049E-02	2.731E-02	4.781E-02	3.771E-03	0.429
		677.61		2.370E-01	2.523E-01	4.445E-01	3.605E-02	0.533
		706.67		6.174E-02	1.592E-01	2.720E-01	2.314E-02	0.227
		763.93		9.244E-02	1.592E-01	2.381E-01	2.227E-02	0.388
		884.67		3.391E-02	3.926E-02	6.805E-02	7.685E-03	0.498
		937.48		5.937E-02	1.103E-01	1.618E-01	1.772E-02	0.367
		1384.27		-1.043E-01	1.440E-01	2.178E-01	1.689E-02	-0.479
IN-111		171.28		-4.733E-01	8.744E-01	1.445E+00	7.601E-02	-0.328
		245.39	*	4.434E-01	9.882E-01	1.465E+00	8.186E-02	0.303
IN-113M		391.69	*	2.741E-02	3.604E-02	6.258E-02	3.839E-03	0.438
SN-113		391.69	*	2.741E-02	3.604E-02	6.258E-02	3.839E-03	0.438
IN-114M		190.27	*	-5.891E-02	1.787E-01	2.590E-01	1.383E-02	-0.227
CD-115		260.90		5.889E+01	1.157E+02	1.935E+02	1.093E+01	0.304
		492.35		2.093E+01	3.178E+01	5.416E+01	3.506E+00	0.386
		527.90	*	7.203E+00	9.099E+00	1.558E+01	1.047E+00	0.462
SN-117M		156.02		-1.629E+00	1.997E+00	3.292E+00	1.758E-01	-0.495

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	3.128E-02	4.670E-02	8.089E-02	4.299E-03	0.387
SB-122		563.90	*	1.220E+00	1.753E+00	2.969E+00	2.069E-01	0.411
		692.80		2.707E+01	3.894E+01	6.745E+01	5.438E+00	0.401
I-123		159.00	*	1.233E+00	3.894E+01	Half-Life too short		
		528.96		3.793E+00	3.894E+01	Half-Life too short		
TE-123M		159.00	*	5.255E-03	2.433E-02	4.152E-02	2.240E-03	0.127
I-124		602.71	*	-1.382E-01	6.954E-01	9.511E-01	6.877E-02	-0.145
		722.78		-1.132E+00	4.068E+00	5.683E+00	4.829E-01	-0.199
		1325.50		1.625E+01	3.255E+01	5.533E+01	4.129E+00	0.294
		1376.25		3.831E+01	2.775E+01	5.010E+01	3.752E+00	0.765
		1509.49		1.953E+01	1.348E+01	2.336E+01	1.673E+00	0.836
		1691.02		2.585E+00	2.976E+00	5.472E+00	3.529E-01	0.472
SB-124		602.71		-7.885E-03	3.969E-02	5.428E-02	3.926E-03	-0.145
		645.85		1.198E-01	3.921E-01	6.437E-01	5.218E-02	0.186
		709.31		-1.714E+00	2.201E+00	3.480E+00	2.889E-01	-0.493
		713.82		-9.776E-02	1.364E+00	2.264E+00	2.684E-01	-0.043
		722.78		-9.363E-02	3.366E-01	4.702E-01	4.085E-02	-0.199
	+	968.20		1.860E+01	4.005E+00	6.371E+00	6.478E-01	2.920
		1045.16		-2.565E+00	2.127E+00	3.238E+00	2.803E-01	-0.792
		1325.50		1.436E+00	2.876E+00	4.890E+00	3.649E-01	0.294
		1368.21		-6.066E-01	1.525E+00	2.387E+00	3.053E-01	-0.254
		1436.60		-1.908E+00	2.967E+00	4.443E+00	3.271E-01	-0.429
		1691.02	*	5.045E-02	5.808E-02	1.068E-01	7.367E-03	0.472
SB-125		427.89	*	3.218E-02	7.383E-02	1.257E-01	7.853E-03	0.256
	+	463.38		7.537E-01	3.418E-01	4.495E-01	3.222E-02	1.677
		600.56		-1.076E-01	1.623E-01	2.409E-01	1.919E-02	-0.447
		635.90		-9.801E-02	2.327E-01	3.635E-01	2.998E-02	-0.270
TE-125M		109.28	*	1.026E+01	8.974E+00	1.505E+01	1.323E+00	0.682
I-126		388.63		2.729E-02	1.635E-01	2.765E-01	1.589E-02	0.099
		666.33	*	2.020E-01	1.575E-01	2.808E-01	2.159E-02	0.719
		753.82		8.542E-01	1.296E+00	2.229E+00	1.998E-01	0.383
SB-126		223.80		1.302E-01	3.542E+00	5.872E+00	3.227E-01	0.022
	+	278.60		4.362E+00	3.391E+00	3.666E+00	2.089E-01	1.190
	+	296.50		1.429E+01	2.301E+00	3.269E+00	1.876E-01	4.372
		414.70		-7.781E-03	6.483E-02	1.014E-01	5.996E-03	-0.077
		415.30		1.984E+00	5.199E+00	8.627E+00	5.106E-01	0.230
		555.20		1.844E+00	3.183E+00	5.372E+00	3.711E-01	0.343
		573.80		5.672E-02	9.090E-01	1.481E+00	1.042E-01	0.038
		593.00		-3.970E-01	7.535E-01	1.175E+00	8.420E-02	-0.338
		656.30		3.263E-01	2.643E+00	4.470E+00	3.391E-01	0.073
		666.33		8.443E-02	6.585E-02	1.174E-01	9.023E-03	0.719
		675.00		2.528E-01	1.703E+00	2.876E+00	2.246E-01	0.088
		695.00		4.187E-02	6.721E-02	1.160E-01	9.388E-03	0.361
		697.00		-9.376E-02	2.328E-01	3.799E-01	3.086E-02	-0.247
		720.50	*	-2.833E-02	1.328E-01	1.949E-01	1.650E-02	-0.145
		856.80		4.676E-01	4.594E-01	7.063E-01	7.491E-02	0.662
		989.30		2.195E-01	1.147E+00	1.881E+00	1.840E-01	0.117
		1034.80		2.812E+00	7.729E+00	1.279E+01	1.136E+00	0.220
		1213.00		-1.845E+00	4.392E+00	7.061E+00	4.245E-01	-0.261

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-127		61.10		3.518E+00	7.169E+01	1.077E+02	1.133E+01	0.033
		252.40		1.270E+00	3.802E+00	6.270E+00	2.604E+00	0.203
		290.80		-1.277E+01	2.045E+01	2.770E+01	2.537E+00	-0.461
		411.60		4.341E+00	1.180E+01	1.755E+01	2.534E+00	0.247
		444.90		-1.502E+00	7.793E+00	1.278E+01	1.407E+00	-0.118
		473.00		4.900E-01	1.399E+00	2.353E+00	2.705E-01	0.208
		543.00		-1.135E+00	1.431E+01	2.322E+01	3.118E+00	-0.049
		603.60		-9.881E-02	1.165E+01	1.620E+01	1.884E+00	-0.006
		685.20	*	-6.529E-02	1.106E+00	1.843E+00	2.013E-01	-0.035
		698.50		1.332E+00	1.301E+01	2.184E+01	3.405E+00	0.061
		722.20		-6.931E+00	2.766E+01	3.874E+01	4.298E+00	-0.179
		783.80		4.608E+00	3.406E+00	5.968E+00	7.770E-01	0.772
XE-127		57.60		1.780E+00	7.353E+00	1.242E+01	9.575E-01	0.143
		145.22		5.673E-01	6.411E-01	1.051E+00	5.746E-02	0.540
		172.10		-7.961E-02	1.009E-01	1.650E-01	8.686E-03	-0.482
		202.84	*	-3.082E-02	4.129E-02	6.689E-02	3.611E-03	-0.461
		374.96		-4.318E-03	1.641E-01	2.756E-01	1.589E-02	-0.016
I-131		80.18		1.622E+00	4.997E+00	7.463E+00	6.506E-01	0.217
		284.30		5.072E-01	1.350E+00	2.160E+00	1.376E-01	0.235
		364.48	*	3.376E-02	9.381E-02	1.608E-01	1.038E-02	0.210
		636.97		4.514E-01	1.277E+00	2.104E+00	1.686E-01	0.215
		722.89		-1.688E+00	6.504E+00	9.103E+00	7.789E-01	-0.185
TE-132		49.72		-7.580E+00	2.778E+01	4.640E+01	4.750E+00	-0.163
		111.76		-1.346E+01	2.870E+01	4.542E+01	4.231E+00	-0.296
		116.30		2.012E+01	2.662E+01	4.400E+01	4.010E+00	0.457
		228.16	*	-1.164E-01	6.194E-01	1.016E+00	1.450E-01	-0.115
BA-133		53.15		-1.180E-01	4.616E+00	7.759E+00	6.157E-01	-0.015
		79.62		-1.248E-01	1.416E+00	2.079E+00	3.166E-01	-0.060
		81.00		-4.265E-02	1.081E-01	1.560E-01	2.486E-02	-0.273
	+	276.40		6.477E-01	5.091E-01	5.461E-01	7.054E-02	1.186
		302.84		4.891E-02	1.403E-01	2.028E-01	2.359E-02	0.241
		356.01	*	-1.980E-04	4.199E-02	5.839E-02	6.746E-03	-0.003
		383.85		-4.290E-02	2.354E-01	3.913E-01	4.245E-02	-0.110
I-133	+	510.53		1.359E+00	2.354E-01	Half-Life too short		
		529.87	*	3.404E-04	2.354E-01	Half-Life too short		
		706.58		1.466E-01	2.354E-01	Half-Life too short		
		856.28		4.311E-01	2.354E-01	Half-Life too short		
		875.33		3.674E-02	2.354E-01	Half-Life too short		
		1236.41		1.231E+00	2.354E-01	Half-Life too short		
		1298.22		5.133E-02	2.354E-01	Half-Life too short		
CS-134		475.35		1.052E+00	1.589E+00	2.715E+00	1.725E-01	0.388
		563.23		2.734E-01	2.928E-01	5.024E-01	3.550E-02	0.544
		569.32		-7.412E-03	1.685E-01	2.682E-01	1.918E-02	-0.028
		604.70		-6.199E-03	3.324E-02	4.547E-02	3.306E-03	-0.136
		795.84	*	7.660E-02	4.302E-02	7.525E-02	7.278E-03	1.018
		801.93		-2.380E-01	3.474E-01	5.429E-01	5.297E-02	-0.438
		1038.57		3.385E+00	3.343E+00	5.940E+00	5.227E-01	0.570
		1167.94		-2.497E+00	2.298E+00	3.531E+00	2.002E-01	-0.707
		1365.15		2.260E-01	1.011E+00	1.686E+00	1.341E-01	0.134

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-135		268.24	*	1.612E-01	1.573E-01	2.379E-01	1.798E-02	0.678
I-135		288.45		4.017E+08	1.573E-01	Half-Life too short		
		417.63		8.617E+09	1.573E-01	Half-Life too short		
		546.56		8.411E+09	1.573E-01	Half-Life too short		
		836.80		1.974E+10	1.573E-01	Half-Life too short		
		1038.76		2.696E+10	1.573E-01	Half-Life too short		
		1124.00		5.145E+10	1.573E-01	Half-Life too short		
		1131.51		-6.588E+09	1.573E-01	Half-Life too short		
		1260.41	*	1.323E+08	1.573E-01	Half-Life too short		
		1457.56		2.032E+12	1.573E-01	Half-Life too short		
		1678.03		3.556E+09	1.573E-01	Half-Life too short		
		1706.46		-1.571E+10	1.573E-01	Half-Life too short		
		1791.20		-3.516E+08	1.573E-01	Half-Life too short		
CS-136		66.91		-6.895E-01	9.477E-01	1.357E+00	2.050E-01	-0.508
	+	86.29		3.371E+00	1.404E+00	1.906E+00	2.512E-01	1.769
		153.22		4.844E-01	5.835E-01	1.016E+00	6.990E-02	0.477
		163.89		-1.665E-01	9.317E-01	1.546E+00	1.056E-01	-0.108
		176.55		6.563E-02	3.277E-01	5.552E-01	3.364E-02	0.118
		273.65		-1.540E-01	6.020E-01	5.997E-01	3.907E-02	-0.257
		340.57		5.158E-01	1.426E-01	2.347E-01	1.444E-02	2.197
		818.51		3.217E-02	5.975E-02	1.020E-01	1.019E-02	0.315
		1048.07	*	6.547E-02	9.210E-02	1.610E-01	1.443E-02	0.407
		1235.34		7.079E-01	5.425E-01	9.497E-01	9.764E-02	0.745
BA-137M		661.65	*	-1.979E-02	2.948E-02	4.747E-02	3.618E-03	-0.417
CS-137		661.65	*	-2.092E-02	3.116E-02	5.018E-02	3.834E-03	-0.417
CE-139		165.85	*	-2.377E-03	2.512E-02	4.229E-02	2.220E-03	-0.056
BA-140		162.64		6.394E-03	6.471E-01	1.081E+00	6.555E-02	0.006
		304.84		2.411E-01	1.247E+00	1.783E+00	4.864E-01	0.135
		423.70		-5.459E-01	1.542E+00	2.502E+00	7.961E-01	-0.218
		537.32	*	-3.310E-02	2.007E-01	3.236E-01	1.058E-01	-0.102
LA-140	+	328.77		8.400E-01	3.691E-01	4.817E-01	3.121E-02	1.744
		432.53		1.398E-01	1.644E+00	2.746E+00	1.821E-01	0.051
		487.03		-5.490E-02	1.163E-01	1.863E-01	1.329E-02	-0.295
		751.79		1.518E+00	1.532E+00	2.675E+00	2.628E-01	0.567
		815.85		-1.603E-01	2.692E-01	4.238E-01	4.580E-02	-0.378
		867.82		-1.196E+00	1.435E+00	1.831E+00	2.043E-01	-0.653
		919.63		-1.877E+00	2.549E+00	3.554E+00	4.489E-01	-0.528
		925.24		1.140E+00	1.103E+00	1.696E+00	1.921E-01	0.672
		1596.49	*	-3.816E-03	6.412E-02	9.781E-02	6.711E-03	-0.039
CE-141		145.44	*	5.151E-02	5.820E-02	9.540E-02	5.446E-03	0.540
CE-143		57.37		-4.580E-06	5.820E-02	Half-Life too short		
		231.56		-2.459E-04	5.820E-02	Half-Life too short		
		293.26	*	7.994E-04	5.820E-02	Half-Life too short		
	+	350.59		3.332E-02	5.820E-02	Half-Life too short		
		490.36		1.898E-03	5.820E-02	Half-Life too short		
		664.57		5.773E-04	5.820E-02	Half-Life too short		
		721.93		-3.595E-04	5.820E-02	Half-Life too short		
CE-144		80.11		6.684E-01	2.276E+00	3.396E+00	2.940E-01	0.197
		133.54	*	1.494E-02	2.165E-01	3.082E-01	4.358E-02	0.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144		476.78		3.732E-02	5.607E-02	9.577E-02	7.107E-03	0.390
		618.01		-1.092E-02	2.781E-02	4.237E-02	3.225E-03	-0.258
		696.49	*	-1.517E-02	3.011E-02	4.885E-02	3.966E-03	-0.311
		778.57		9.671E-03	1.991E+00	3.294E+00	3.079E-01	0.003
PR-144		696.49	*	-1.028E+00	2.041E+00	3.310E+00	2.686E-01	-0.311
		1489.15		-5.393E+00	8.939E+00	1.326E+01	9.579E-01	-0.407
PM-146		453.90	*	2.049E-02	3.539E-02	6.039E-02	5.372E-03	0.339
		633.02		5.319E-01	1.189E+00	1.944E+00	7.214E-01	0.274
		735.90		7.877E-04	1.256E-01	1.993E-01	5.706E-02	0.004
		747.13		-3.488E-02	7.782E-02	1.253E-01	1.778E-02	-0.278
ND-147		91.11		2.973E-01	4.003E-01	4.810E-01	4.524E-02	0.618
		319.41		-2.254E-01	2.810E+00	4.508E+00	2.604E-01	-0.050
		439.89		4.206E+00	4.836E+00	8.387E+00	5.117E-01	0.502
		531.02	*	-2.172E-01	4.634E-01	7.335E-01	1.023E-01	-0.296
PM-149		285.90	*	3.052E+01	8.372E+01	1.382E+02	1.954E+01	0.221
EU-152		121.78		1.688E-02	6.554E-02	1.063E-01	8.192E-03	0.159
		244.69		-1.850E-03	3.115E-01	4.492E-01	2.509E-02	-0.004
		344.27	*	2.578E-03	9.831E-02	1.375E-01	8.972E-03	0.019
		443.98		-5.164E-01	7.741E-01	1.235E+00	7.570E-02	-0.418
		778.89		2.361E-02	2.312E-01	3.848E-01	3.598E-02	0.061
		867.32		-4.117E-01	7.958E-01	1.053E+00	1.135E-01	-0.391
	+	964.01		9.304E-01	3.854E-01	5.371E-01	5.501E-02	1.732
		1085.78		3.131E-02	3.388E-01	5.684E-01	4.404E-02	0.055
		1112.02		-2.172E-02	3.365E-01	4.759E-01	3.388E-02	-0.046
		1407.95		6.943E-02	1.564E-01	2.650E-01	1.968E-02	0.262
GD-153		69.67		3.101E-01	1.755E+00	2.928E+00	2.376E-01	0.106
		83.37		6.341E+00	1.630E+01	2.418E+01	2.148E+00	0.262
		97.43	*	-8.665E-02	8.513E-02	1.169E-01	9.141E-03	-0.741
		103.18		-1.099E-01	1.021E-01	1.582E-01	1.141E-02	-0.695
EU-154		123.07		-2.593E-02	4.651E-02	7.272E-02	6.877E-03	-0.357
		247.94		7.115E-02	3.152E-01	5.057E-01	4.763E-02	0.141
		591.81		-1.741E-01	5.000E-01	7.900E-01	8.403E-02	-0.220
		723.30		4.162E-02	1.592E-01	2.336E-01	2.202E-02	0.178
		756.87		-7.851E-02	6.538E-01	1.076E+00	1.319E-01	-0.073
		873.19		2.428E-01	2.525E-01	4.374E-01	6.093E-02	0.555
		996.32		-3.089E-01	3.574E-01	5.361E-01	9.803E-02	-0.576
		1004.76		-5.767E-02	2.083E-01	3.301E-01	4.059E-02	-0.175
		1274.45	*	3.033E-02	1.128E-01	1.886E-01	1.884E-02	0.161
EU-155		48.70		-3.987E-01	3.477E+00	5.849E+00	4.437E-01	-0.068
		60.01		-7.502E-01	6.211E+00	9.269E+00	7.073E-01	-0.081
	+	86.54		3.092E-01	1.255E-01	1.778E-01	1.638E-02	1.739
		105.31	*	8.572E-02	1.029E-01	1.715E-01	1.226E-02	0.500
TB-160	+	86.79		8.268E-01	3.353E-01	4.808E-01	4.399E-02	1.719
		197.04		-6.359E-02	4.846E-01	8.055E-01	4.326E-02	-0.079
		215.65		2.842E-01	6.514E-01	1.099E+00	5.997E-02	0.259
		298.57		2.141E-01	1.502E-01	1.759E-01	1.010E-02	1.217
		879.36	*	-4.324E-02	1.185E-01	1.886E-01	2.072E-02	-0.229
		962.29		1.270E+00	5.099E-01	9.082E-01	9.330E-02	1.398
		966.15		1.709E+00	2.972E-01	5.031E-01	5.134E-02	3.398

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1177.93		-1.018E-01	3.327E-01	5.399E-01	3.014E-02	-0.189
		1271.85		2.505E-01	6.440E-01	1.087E+00	7.344E-02	0.231
HO-166M		80.57		2.902E-02	2.930E-01	4.334E-01	3.765E-02	0.067
		184.41		1.009E-01	3.580E-02	5.857E-02	3.112E-03	1.723
		280.46		6.470E-03	7.902E-02	1.132E-01	6.455E-03	0.057
	+	410.95		2.205E-01	2.159E-01	3.607E-01	2.123E-02	0.611
		711.68	*	6.247E-04	4.716E-02	7.870E-02	6.560E-03	0.008
		752.31		2.825E-01	2.445E-01	4.304E-01	3.848E-02	0.656
		810.29		-5.360E-02	5.011E-02	7.599E-02	7.482E-03	-0.705
TM-171		51.35		-8.907E+00	4.086E+01	6.829E+01	5.412E+00	-0.130
		52.39		-1.542E+01	2.112E+01	3.455E+01	2.745E+00	-0.446
		59.40		-5.080E+00	3.417E+01	5.096E+01	3.869E+00	-0.100
		66.72	*	-2.358E+01	3.410E+01	4.916E+01	3.930E+00	-0.480
LU-176	+	88.36		6.089E-01	2.469E-01	3.519E-01	3.231E-02	1.730
		201.83		-1.267E-02	2.520E-02	4.125E-02	2.224E-03	-0.307
		306.84	*	2.310E-02	2.370E-02	3.568E-02	2.054E-03	0.647
		401.10		5.935E-01	5.357E+00	9.012E+00	5.238E-01	0.066
LU-177		112.95		-2.214E+00	1.578E+00	2.395E+00	1.543E-01	-0.924
	+	208.36	*	1.078E+00	1.385E+00	1.730E+00	9.385E-02	0.623
LU-177M		52.97		-5.515E-01	2.111E+00	3.518E+00	2.793E-01	-0.157
		54.07		-6.315E-02	1.095E+00	1.836E+00	1.452E-01	-0.034
		61.30		2.665E-01	1.814E+00	2.738E+00	2.115E-01	0.097
		121.62		1.012E-01	3.369E-01	5.475E-01	3.247E-02	0.185
		147.16		-2.850E-01	6.053E-01	9.401E-01	5.115E-02	-0.303
		171.86		-3.830E-01	4.064E-01	6.604E-01	3.476E-02	-0.580
		218.09		-3.316E-02	7.449E-01	1.233E+00	6.746E-02	-0.027
		268.79		1.390E+00	8.125E-01	1.268E+00	7.191E-02	1.096
		319.02		2.345E-02	2.161E-01	3.501E-01	2.021E-02	0.067
		367.43		-2.284E-01	7.363E-01	1.221E+00	7.052E-02	-0.187
		413.65	*	1.744E-02	1.603E-01	2.344E-01	1.384E-02	0.074
HF-181		56.28		2.353E-01	1.181E+00	1.994E+00	1.553E-01	0.118
		57.53		6.266E-02	6.207E-01	1.044E+00	8.049E-02	0.060
		65.20		3.615E-02	1.151E+00	1.719E+00	1.363E-01	0.021
		133.02		-2.900E-02	7.121E-02	9.884E-02	5.591E-03	-0.293
		136.25		2.423E-01	4.268E-01	6.949E-01	3.891E-02	0.349
		345.85		-5.713E-02	1.971E-01	2.691E-01	1.557E-02	-0.212
		482.03	*	1.654E-03	3.483E-02	5.757E-02	3.685E-03	0.029
W-181		56.28		9.181E-02	4.615E-01	7.795E-01	6.073E-02	0.118
		57.53		2.420E-02	2.428E-01	4.084E-01	3.149E-02	0.059
		65.20	*	1.403E-02	4.466E-01	6.671E-01	5.291E-02	0.021
TA-182		67.75		-7.198E-02	1.192E-01	1.926E-01	1.548E-02	-0.374
		100.10		2.681E-01	1.712E-01	2.923E-01	2.197E-02	0.917
		152.43		3.628E-01	3.157E-01	5.207E-01	2.801E-02	0.697
		222.10		4.486E-02	3.026E-01	5.041E-01	2.767E-02	0.089
		1001.68		2.321E+00	2.033E+00	3.471E+00	3.314E-01	0.669
	+	1121.28		8.557E-01	2.337E-01	3.228E-01	2.224E-02	2.651
		1189.05		-1.920E-01	2.725E-01	4.293E-01	2.455E-02	-0.447
		1221.42	*	7.079E-02	1.846E-01	3.111E-01	1.903E-02	0.228
		1230.97		-8.354E-01	4.578E-01	6.669E-01	4.159E-02	-1.253

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-183		57.98		3.020E-02	2.510E-01	4.036E-01	3.100E-02	0.075
		59.32		-2.168E-02	1.409E-01	2.100E-01	1.596E-02	-0.103
		67.20		-1.717E-01	2.251E-01	3.447E-01	2.763E-02	-0.498
		162.32	*	-1.482E-02	9.444E-02	1.569E-01	8.283E-03	-0.094
	+	208.81		9.582E-01	1.232E+00	1.547E+00	8.395E-02	0.619
		291.72		-7.635E-01	8.756E-01	1.165E+00	6.673E-02	-0.656
RE-184		57.98		1.112E-01	9.244E-01	1.486E+00	1.142E-01	0.075
		59.32		-7.978E-02	5.183E-01	7.728E-01	5.872E-02	-0.103
		67.20		-6.322E-01	8.286E-01	1.269E+00	1.017E-01	-0.498
		161.27		-1.917E-01	3.015E-01	4.987E-01	2.637E-02	-0.384
		216.55		1.744E-01	2.270E-01	3.874E-01	2.116E-02	0.450
		252.85	*	-5.368E-02	1.996E-01	3.235E-01	1.817E-02	-0.166
		318.01		-2.816E-01	3.787E-01	5.854E-01	3.379E-02	-0.481
		792.07		7.345E-01	9.091E-01	1.565E+00	1.496E-01	0.469
		903.28		-3.253E-01	1.056E+00	1.431E+00	1.606E-01	-0.227
		920.93		-2.182E-01	3.911E-01	5.935E-01	6.503E-02	-0.368
OS-185		59.72		-2.983E-02	3.726E-01	5.574E-01	4.239E-02	-0.054
		61.14		1.299E-02	1.998E-01	3.004E-01	2.318E-02	0.043
		69.30		8.206E-02	3.131E-01	5.239E-01	4.244E-02	0.157
		592.07		-5.613E-01	2.025E+00	3.216E+00	2.302E-01	-0.175
		646.12	*	8.325E-03	3.374E-02	5.515E-02	4.148E-03	0.151
		717.42		4.133E-01	7.423E-01	1.277E+00	1.075E-01	0.324
		874.81		5.790E-02	5.005E-01	8.259E-01	9.009E-02	0.070
		880.27		1.191E-01	6.347E-01	1.053E+00	1.158E-01	0.113
RE-188		155.03	*	2.546E-02	1.505E-01	2.568E-01	1.374E-02	0.099
		477.96		-4.454E-01	2.605E+00	4.255E+00	2.711E-01	-0.105
		633.10		1.543E+00	2.353E+00	3.946E+00	2.934E-01	0.391
W-188	+	63.58		1.081E+02	8.611E+01	1.057E+02	8.308E+00	1.023
		227.08		-4.358E+00	1.127E+01	1.835E+01	1.011E+00	-0.237
		290.67	*	-3.818E+00	6.953E+00	9.488E+00	5.434E-01	-0.402
IR-192	+	295.96		1.088E+00	1.756E-01	2.524E-01	1.472E-02	4.313
		308.46		-4.825E-02	8.333E-02	1.306E-01	7.609E-03	-0.369
		316.51	*	-1.216E-03	2.846E-02	4.577E-02	2.654E-03	-0.027
		468.07		-1.300E-02	5.802E-02	8.147E-02	5.806E-03	-0.160
		604.41		-1.002E-01	4.492E-01	6.124E-01	7.441E-02	-0.164
		612.46		2.445E+00	7.679E-01	1.273E+00	1.116E-01	1.921
AU-195		65.12		2.217E-02	2.076E-01	3.111E-01	2.466E-02	0.071
		66.83		-8.220E-02	1.129E-01	1.624E-01	1.299E-02	-0.506
	+	75.70		1.069E+00	2.511E-01	4.401E-01	3.696E-02	2.430
		98.88	*	8.150E-02	2.178E-01	3.589E-01	2.746E-02	0.227
	+	129.76		4.643E+00	3.454E+00	4.714E+00	2.697E-01	0.985
TL-200		367.94	*	8.687E-06	3.454E+00	Half-Life too short		
		579.30		3.177E-03	3.454E+00	Half-Life too short		
		828.27		3.995E-03	3.454E+00	Half-Life too short		
		1205.75		3.092E-04	3.454E+00	Half-Life too short		
TL-201		68.90		-7.565E-01	5.196E+00	8.587E+00	6.942E-01	-0.088
		70.82		3.767E-01	3.296E+00	4.919E+00	4.016E-01	0.077
		80.30		6.853E-01	5.578E+00	8.260E+00	7.161E-01	0.083
		135.34		1.254E+01	2.426E+01	3.944E+01	2.215E+00	0.318

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		167.43	*	-7.433E-01	6.070E+00	1.020E+01	5.356E-01	-0.073
TL-202		68.90		-6.669E-02	4.581E-01	7.569E-01	6.119E-02	-0.088
		70.82		3.311E-02	2.897E-01	4.324E-01	3.530E-02	0.077
		80.30		6.026E-02	4.905E-01	7.263E-01	6.297E-02	0.083
		439.56	*	5.045E-02	5.747E-02	9.969E-02	6.078E-03	0.506
BI-207		72.80		1.954E-02	2.061E-01	3.067E-01	2.532E-02	0.064
	+	74.97		5.928E-01	1.392E-01	2.229E-01	1.864E-02	2.659
		84.90		1.624E-01	2.026E-01	3.049E-01	2.744E-02	0.533
		569.67		-4.427E-03	2.655E-02	4.195E-02	2.940E-03	-0.106
		1063.62	*	2.582E-03	4.840E-02	7.949E-02	6.562E-03	0.032
		1770.23		-2.698E-01	4.205E-01	4.988E-01	3.017E-02	-0.541
TL-207		81.07		-9.457E-02	2.380E-01	3.441E-01	3.001E-02	-0.275
		83.78		1.333E-02	1.397E-01	2.047E-01	1.825E-02	0.065
	+	94.90		7.551E-01	4.463E-01	3.936E-01	3.203E-02	1.919
		122.32		3.782E-01	1.568E+00	2.540E+00	1.725E-01	0.149
		144.24		3.273E-01	6.438E-01	1.032E+00	7.203E-02	0.317
		154.21		1.846E-01	3.467E-01	5.983E-01	3.981E-02	0.309
	+	269.46		4.706E-01	2.506E-01	3.078E-01	1.828E-02	1.529
		323.87	*	2.099E-01	6.241E-01	8.966E-01	1.480E-01	0.234
	+	338.28		7.452E+00	1.646E+00	2.232E+00	2.349E-01	3.338
		445.03		-2.402E-01	1.777E+00	2.925E+00	3.061E-01	-0.082
PO-209		260.50		4.822E+00	8.190E+00	1.375E+01	7.760E-01	0.351
		262.80		-1.452E+01	2.273E+01	3.606E+01	2.038E+00	-0.403
		896.60	*	4.113E+00	6.355E+00	1.082E+01	1.221E+00	0.380
BI-210		46.50	*	1.576E+00	5.548E+00	9.280E+00	7.180E-01	0.170
PB-210		46.50	*	1.576E+00	5.548E+00	9.280E+00	7.180E-01	0.170
PO-210		46.50	*	1.576E+00	5.548E+00	9.280E+00	6.172E-01	0.170
PB-211		404.84	*	-7.320E-02	8.717E-01	1.258E+00	7.842E-01	-0.058
		427.08		9.532E-01	1.751E+00	2.828E+00	1.749E+00	0.337
		831.96		-2.255E-01	1.110E+00	1.787E+00	1.124E+00	-0.126
BI-212	+	727.18	*	1.164E+00	3.894E-01	5.596E-01	5.573E-02	2.081
		785.46		1.399E+00	1.647E+00	2.800E+00	2.647E-01	0.500
		1620.62		3.099E-01	1.061E+00	1.815E+00	1.227E-01	0.171
PO-215		81.07		-9.457E-02	2.380E-01	3.441E-01	3.001E-02	-0.275
		83.78		1.333E-02	1.397E-01	2.047E-01	1.825E-02	0.065
	+	94.90		7.551E-01	4.463E-01	3.936E-01	3.203E-02	1.919
		122.32		3.782E-01	1.568E+00	2.540E+00	1.725E-01	0.149
		144.24		3.273E-01	6.438E-01	1.032E+00	7.203E-02	0.317
		154.21		1.846E-01	3.467E-01	5.983E-01	3.981E-02	0.309
	+	269.46		4.706E-01	2.506E-01	3.078E-01	1.828E-02	1.529
		323.87	*	2.099E-01	6.241E-01	8.966E-01	1.480E-01	0.234
	+	338.28		7.452E+00	1.646E+00	2.232E+00	2.349E-01	3.338
		445.03		-2.402E-01	1.777E+00	2.925E+00	3.061E-01	-0.082
RN-219	+	271.23		6.038E-01	3.231E-01	3.858E-01	3.093E-02	1.565
		401.81	*	1.387E-01	3.310E-01	5.643E-01	7.682E-02	0.246
RN-220		549.76	*	-1.014E+01	2.220E+01	3.515E+01	2.415E+00	-0.289
RA-223		81.07		-9.457E-02	2.380E-01	3.441E-01	3.001E-02	-0.275
		83.78		1.333E-02	1.397E-01	2.047E-01	1.825E-02	0.065
	+	94.90		7.551E-01	4.463E-01	3.936E-01	3.203E-02	1.919

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		3.782E-01	1.568E+00	2.540E+00	1.725E-01	0.149
		144.24		3.273E-01	6.438E-01	1.032E+00	7.203E-02	0.317
		154.21		1.846E-01	3.467E-01	5.983E-01	3.981E-02	0.309
	+	269.46		4.706E-01	2.506E-01	3.078E-01	1.828E-02	1.529
		323.87	*	2.099E-01	6.241E-01	8.966E-01	1.480E-01	0.234
	+	338.28		7.452E+00	1.646E+00	2.232E+00	2.349E-01	3.338
		445.03		-2.402E-01	1.777E+00	2.925E+00	3.061E-01	-0.082
AC-227		79.80		2.736E-01	1.759E+00	2.608E+00	5.611E-01	0.105
		236.00		6.983E-01	2.443E-01	3.856E-01	3.978E-02	1.811
		256.20	*	-2.659E-01	3.345E-01	5.257E-01	7.301E-02	-0.506
		286.10		4.332E-01	1.349E+00	2.223E+00	2.561E-01	0.195
	+	299.80		3.930E+00	2.051E+00	2.300E+00	3.742E-01	1.708
		304.40		6.384E-01	1.820E+00	2.628E+00	4.542E-01	0.243
		334.20		-4.176E-01	2.567E+00	2.958E+00	5.422E-01	-0.141
TH-227		79.80		2.736E-01	1.759E+00	2.608E+00	5.682E-01	0.105
	+	94.00		6.041E+00	3.769E+00	3.832E+00	8.292E-01	1.577
		236.00		6.983E-01	2.415E-01	3.856E-01	3.431E-02	1.811
		256.20	*	-2.659E-01	3.355E-01	5.257E-01	8.853E-02	-0.506
		286.10		4.332E-01	1.416E+00	2.223E+00	2.227E+00	0.195
	+	299.80		3.930E+00	2.051E+00	2.300E+00	3.742E-01	1.708
		304.40		6.384E-01	1.820E+00	2.628E+00	4.542E-01	0.243
		334.20		-4.176E-01	2.567E+00	2.958E+00	5.422E-01	-0.141
TH-229		85.43		1.768E-01	2.017E-01	3.042E-01	2.750E-02	0.581
	+	88.47		3.505E-01	1.421E-01	2.020E-01	1.851E-02	1.735
		100.00		2.755E-01	1.775E-01	3.029E-01	2.281E-02	0.909
		193.63	*	2.470E-01	4.360E-01	7.436E-01	3.982E-02	0.332
	+	210.97		7.495E-01	9.635E-01	1.180E+00	6.414E-02	0.635
PA-231		283.67	*	-1.778E-01	1.440E+00	2.149E+00	2.953E-01	-0.083
	+	301.29		1.572E+00	7.964E-01	9.072E-01	9.456E-02	1.733
TH-231		81.07		-9.457E-02	2.380E-01	3.441E-01	3.001E-02	-0.275
		83.78		1.333E-02	1.397E-01	2.047E-01	1.825E-02	0.065
	+	94.90		7.551E-01	4.463E-01	3.936E-01	3.203E-02	1.919
		122.32		3.782E-01	1.568E+00	2.540E+00	1.725E-01	0.149
		144.24		3.273E-01	6.438E-01	1.032E+00	7.203E-02	0.317
		154.21		1.846E-01	3.467E-01	5.983E-01	3.981E-02	0.309
	+	269.46		4.706E-01	2.506E-01	3.078E-01	1.828E-02	1.529
		323.87	*	2.099E-01	6.241E-01	8.966E-01	1.480E-01	0.234
	+	338.28		7.452E+00	1.646E+00	2.232E+00	2.349E-01	3.338
		445.03		-2.402E-01	1.777E+00	2.925E+00	3.061E-01	-0.082
U-231		84.21		2.226E+00	6.001E+00	8.893E+00	7.955E-01	0.250
	+	92.29		6.082E+00	3.595E+00	4.074E+00	3.468E-01	1.493
		95.87	*	4.964E-02	1.115E+00	1.625E+00	1.302E-01	0.031
		108.00		-6.327E-01	2.048E+00	3.273E+00	2.226E-01	-0.193
PA-233	+	75.28		1.730E+01	4.618E+00	6.597E+00	1.004E+00	2.622
	+	86.59		5.026E+00	2.405E+00	2.900E+00	7.827E-01	1.733
	+	300.12		1.096E+00	5.627E-01	6.371E-01	8.546E-02	1.720
		311.98	*	-2.609E-02	5.387E-02	8.469E-02	5.188E-03	-0.308
		340.50		2.724E+00	9.228E-01	1.158E+00	2.659E-01	2.353
		398.62		-1.079E+00	1.682E+00	2.681E+00	6.933E-01	-0.402

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		5.581E-01	1.347E+00	2.287E+00	4.716E-01	0.244
PA-234	+	63.00		3.133E+00	2.527E+00	3.160E+00	4.763E-01	0.992
	+	94.67		5.387E-01	3.220E-01	2.986E-01	3.611E-02	1.804
		98.44		-1.179E-02	8.874E-02	1.433E-01	7.972E-02	-0.082
		99.86		6.886E-01	4.492E-01	7.663E-01	5.781E-02	0.899
		111.00		3.110E-02	1.755E-01	2.852E-01	3.059E-02	0.109
		131.20		5.666E-02	1.126E-01	1.641E-01	9.338E-03	0.345
		152.70		3.816E-01	3.078E-01	5.012E-01	7.847E-02	0.761
	+	186.00		5.099E+00	2.509E+00	2.333E+00	7.107E-01	2.186
		226.40		2.270E-03	3.519E-01	5.821E-01	6.646E-02	0.004
		227.20		-1.118E-01	3.781E-01	6.179E-01	3.406E-02	-0.181
		248.90		3.280E-01	7.033E-01	1.173E+00	2.514E-01	0.280
		293.70		5.938E+00	1.227E+00	1.474E+00	2.368E-01	4.028
		369.80		-5.206E-01	7.037E-01	1.127E+00	2.347E-01	-0.462
		568.70		-2.195E-01	8.584E-01	1.349E+00	9.441E-02	-0.163
		569.50		-3.929E-02	2.356E-01	3.723E-01	2.608E-02	-0.106
		574.00		2.673E-01	1.289E+00	2.119E+00	1.491E-01	0.126
		699.00		6.477E-02	5.962E-01	1.002E+00	1.890E-01	0.065
		706.10		2.934E-01	8.170E-01	1.376E+00	6.127E-01	0.213
		733.00		-2.165E-01	3.507E-01	4.671E-01	1.037E-01	-0.463
		742.81		-3.337E-01	1.130E+00	1.803E+00	1.212E+00	-0.185
		796.30		1.305E+00	8.908E-01	1.434E+00	3.928E-01	0.910
		805.60		7.147E-01	8.725E-01	1.467E+00	4.547E-01	0.487
		819.60		-3.862E-02	1.032E+00	1.695E+00	6.503E-01	-0.023
		826.30		-3.193E-01	7.345E-01	1.150E+00	5.181E-01	-0.278
		831.60		-1.342E-01	5.593E-01	9.034E-01	2.740E-01	-0.149
		876.40		-3.469E-01	8.039E-01	1.138E+00	1.172E+00	-0.305
		880.51		5.915E-02	2.305E-01	3.841E-01	4.226E-02	0.154
		883.24		1.552E-01	2.537E-01	3.967E-01	2.681E-01	0.391
		899.00		-5.911E-01	8.000E-01	1.167E+00	5.172E-01	-0.507
		925.00		1.524E+00	1.097E+00	1.743E+00	1.899E-01	0.874
		926.50		1.067E-01	1.791E-01	2.621E-01	6.848E-02	0.407
		946.00	*	1.300E-01	2.723E-01	4.552E-01	8.979E-02	0.286
		949.00		3.457E-01	4.157E-01	7.097E-01	7.454E-02	0.487
		980.50		-4.393E-01	6.400E-01	9.793E-01	9.741E-02	-0.449
		1394.10		-4.549E-01	1.064E+00	1.590E+00	1.033E+00	-0.286
PA-234M		766.42		2.125E+01	1.595E+01	1.912E+01	9.718E+00	1.111
		1001.03	*	6.202E+00	4.579E+00	7.882E+00	8.503E-01	0.787
U-235		89.95		-1.572E+00	1.715E+00	1.785E+00	5.521E-01	-0.881
	+	93.35		1.879E+00	1.219E+00	1.270E+00	3.550E-01	1.479
		105.00		6.069E-01	1.020E+00	1.665E+00	4.900E-01	0.364
		143.76	*	1.223E-01	1.969E-01	3.158E-01	5.114E-02	0.387
		163.35		6.859E-02	4.046E-01	6.794E-01	1.211E-01	0.101
	+	185.71		1.888E-01	7.366E-02	8.602E-02	4.575E-03	2.195
		205.31		-1.414E-01	5.196E-01	7.441E-01	1.329E-01	-0.190
NP-236	+	94.67		4.086E-01	2.415E-01	2.268E-01	1.853E-02	1.802
		98.44		-8.971E-03	6.690E-02	1.083E-01	8.339E-03	-0.083
		111.00		2.352E-02	1.327E-01	2.157E-01	1.419E-02	0.109
		160.31	*	-5.721E-02	6.779E-02	1.113E-01	5.894E-03	-0.514

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.000E-01	1.495E-01	2.539E-01	1.924E-02	0.788
		117.00	*	5.012E-02	1.765E-01	2.871E-01	1.777E-02	0.175
	+	209.75		7.550E-01	9.706E-01	1.242E+00	6.745E-02	0.608
		228.18		-3.793E-02	1.975E-01	3.240E-01	1.787E-02	-0.117
	+	277.60		3.161E-01	2.458E-01	2.711E-01	1.544E-02	1.166
		334.30		-2.470E-01	1.454E+00	1.675E+00	9.685E-02	-0.147
AM-241		59.54	*	-2.762E-02	1.980E-01	2.954E-01	2.450E-02	-0.093
CM-243		99.55		2.059E-01	1.539E-01	2.612E-01	1.979E-02	0.788
		103.76	*	-7.302E-02	9.320E-02	1.463E-01	1.047E-02	-0.499
		117.00		5.157E-02	1.815E-01	2.954E-01	1.828E-02	0.175
	+	209.75		7.443E-01	9.568E-01	1.224E+00	6.650E-02	0.608
		228.18		-3.833E-02	1.996E-01	3.274E-01	1.806E-02	-0.117
	+	277.60		3.187E-01	2.478E-01	2.733E-01	1.557E-02	1.166
AM-246		798.80		-2.872E-01	1.293E-01	1.780E-01	1.720E-02	-1.613
		1036.00		8.223E-02	2.533E-01	4.332E-01	3.835E-02	0.190
		1062.04		-7.817E-02	2.141E-01	3.421E-01	2.836E-02	-0.228
		1078.86	*	2.459E-02	1.194E-01	2.019E-01	1.597E-02	0.122
CM-247	+	278.00		1.311E+00	1.019E+00	1.115E+00	6.351E-02	1.176
		287.40		1.636E+00	1.066E+00	1.846E+00	1.056E-01	0.886
		402.60	*	2.989E-02	3.072E-02	5.255E-02	3.061E-03	0.569
CF-249		252.85		-2.013E-01	7.485E-01	1.213E+00	6.815E-02	-0.166
		333.44		1.643E-01	2.024E-01	2.253E-01	1.303E-02	0.729
		387.95	*	-3.026E-02	3.236E-02	5.162E-02	2.967E-03	-0.586
CF-251		176.60	*	2.100E-02	1.123E-01	1.901E-01	1.004E-02	0.110
		227.00		-1.251E-01	3.380E-01	5.507E-01	3.035E-02	-0.227
		285.00		7.004E-01	1.536E+00	2.548E+00	1.456E-01	0.275

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691013      *
* Acquisition date :  9-FEB-2010 17:37:24 Detector SN#    :                 *
* Detector ID       : GAM18                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.85      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691013           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.2776E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.695E+01	3.161E+00	4.605E-01	0.000E+00
CD-109	2.612E+00	1.038E+00	1.535E+00	0.000E+00
SN-126	2.567E-01	1.020E-01	1.409E-01	0.000E+00
HG-203	7.237E-02	5.516E-02	5.487E-02	0.000E+00
TL-208	5.316E-01	7.628E-02	5.034E-02	0.000E+00
BI-211	3.962E+00	4.695E-01	2.825E-01	0.000E+00
PB-212	1.787E+00	1.578E-01	8.034E-02	0.000E+00
PO-212	1.787E+00	1.578E-01	8.034E-02	0.000E+00
BI-214	1.161E+00	1.663E-01	9.719E-02	0.000E+00
PB-214	1.378E+00	1.779E-01	9.844E-02	0.000E+00
PO-214	1.378E+00	1.779E-01	9.844E-02	0.000E+00
PO-216	1.787E+00	1.578E-01	8.034E-02	0.000E+00
PO-218	1.378E+00	1.779E-01	9.844E-02	0.000E+00
RA-224	4.758E+00	1.136E+00	9.130E-01	0.000E+00
RA-226	1.161E+00	1.663E-01	9.719E-02	0.000E+00
AC-228	1.574E+00	3.133E-01	1.888E-01	0.000E+00
RA-228	1.574E+00	3.133E-01	1.888E-01	0.000E+00
TH-228	1.815E+00	1.602E-01	8.157E-02	0.000E+00
TH-230	1.161E+00	1.663E-01	9.719E-02	0.000E+00
TH-232	1.574E+00	3.133E-01	1.888E-01	0.000E+00
TH-234	2.688E+00	2.138E+00	2.504E+00	0.000E+00
U-234	1.161E+00	1.663E-01	9.719E-02	0.000E+00
NP-237	7.538E-01	3.362E-01	4.095E-01	0.000E+00
U-238	2.688E+00	2.138E+00	2.504E+00	0.000E+00
AM-243	3.303E-01	7.601E-02	9.693E-02	0.000E+00
ANH-511	1.216E-01	5.907E-02	3.966E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-5.581E-02		2.676E-01	4.529E-01	0.000E+00	NOT IDENT.

NA-22	1.438E-02	3.943E-02	6.784E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.151E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.501E-03	2.313E-02	3.797E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.506E-02	8.625E-02	0.000E+00	FAIL ABUN
SC-46	-3.421E-02	3.185E-02	4.878E-02	0.000E+00	FAIL ABUN
V-48	-1.938E-02	6.157E-02	9.993E-02	0.000E+00	NOT IDENT.
CR-51	-8.046E-02	3.120E-01	5.179E-01	0.000E+00	NOT IDENT.
MN-52	-1.751E-02	1.904E-01	3.123E-01	0.000E+00	NOT IDENT.
MN-54	-1.527E-02	3.359E-02	5.525E-02	0.000E+00	NOT IDENT.
CO-56	2.032E-03	3.261E-02	5.532E-02	0.000E+00	NOT IDENT.
CO-57	3.898E-03	2.217E-02	3.796E-02	0.000E+00	NOT IDENT.
CO-58	-3.261E-02	3.240E-02	5.094E-02	0.000E+00	NOT IDENT.
FE-59	3.166E-03	7.655E-02	1.310E-01	0.000E+00	NOT IDENT.
CO-60	-2.192E-02	3.360E-02	5.285E-02	0.000E+00	NOT IDENT.
ZN-65	8.595E-02	9.546E-02	1.494E-01	0.000E+00	NOT IDENT.
GE-68	-3.655E-02	1.011E+00	1.725E+00	0.000E+00	NOT IDENT.
AS-73	1.322E-01	1.042E+00	1.887E+00	0.000E+00	NOT IDENT.
AS-74	-5.950E-02	7.484E-02	1.182E-01	0.000E+00	NOT IDENT.
SE-75	-2.119E-02	4.022E-02	6.184E-02	0.000E+00	NOT IDENT.
BR-77	4.480E+00	8.790E+00	1.535E+01	0.000E+00	FAIL ABUN
SR-82	-1.030E-01	3.277E-01	5.478E-01	0.000E+00	NOT IDENT.
RB-83	3.354E-02	5.650E-02	9.913E-02	0.000E+00	NOT IDENT.
RB-84	1.766E-02	5.664E-02	9.735E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.189E+00	1.235E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.691E-02	6.339E-02	0.000E+00	NOT IDENT.
RB-86	3.880E-02	6.382E-01	1.096E+00	0.000E+00	NOT IDENT.
Y-88	-1.794E-02	2.932E-02	4.474E-02	0.000E+00	NOT IDENT.
ZR-88	7.250E-03	2.432E-02	4.303E-02	0.000E+00	NOT IDENT.
Y-91	2.362E+00	1.757E+01	2.991E+01	0.000E+00	NOT IDENT.
NB-94	6.803E-03	2.660E-02	4.649E-02	0.000E+00	NOT IDENT.
NB-95	5.718E-02	4.405E-02	7.094E-02	0.000E+00	NOT IDENT.
NB-95M	1.104E-01	1.170E-01	1.858E-01	0.000E+00	NOT IDENT.
ZR-95	-2.007E-02	6.045E-02	1.012E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.374E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.940E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	9.704E+00	9.358E+00	1.689E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.040E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.672E-02	2.905E-02	4.913E-02	0.000E+00	NOT IDENT.
RH-102	9.733E-03	2.398E-02	4.196E-02	0.000E+00	FAIL ABUN
RU-103	-1.378E-02	3.129E-02	5.184E-02	0.000E+00	FAIL ABUN
RH-106	8.669E-02	2.698E-01	4.584E-01	0.000E+00	FAIL ABUN
RU-106	8.669E-02	2.697E-01	4.584E-01	0.000E+00	FAIL ABUN
AG-108M	-2.037E-02	2.612E-02	4.318E-02	0.000E+00	NOT IDENT.
AG-110M	2.049E-02	2.677E-02	4.841E-02	0.000E+00	NOT IDENT.
IN-111	4.434E-01	9.684E-01	1.505E+00	0.000E+00	NOT IDENT.
IN-113M	2.741E-02	3.532E-02	6.386E-02	0.000E+00	NOT IDENT.
SN-113	2.741E-02	3.532E-02	6.386E-02	0.000E+00	NOT IDENT.
IN-114M	-5.891E-02	1.751E-01	2.672E-01	0.000E+00	NOT IDENT.
CD-115	7.203E+00	8.917E+00	1.582E+01	0.000E+00	NOT IDENT.
SN-117M	3.128E-02	4.576E-02	8.366E-02	0.000E+00	NOT IDENT.
SB-122	1.220E+00	1.718E+00	3.012E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.596E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	5.255E-03	2.384E-02	4.293E-02	0.000E+00	NOT IDENT.
I-124	-1.382E-01	6.815E-01	9.642E-01	0.000E+00	NOT IDENT.
SB-124	5.045E-02	5.692E-02	1.065E-01	0.000E+00	FAIL ABUN
SB-125	3.218E-02	7.235E-02	1.281E-01	0.000E+00	FAIL ABUN
TE-125M	1.026E+01	8.795E+00	1.565E+01	0.000E+00	NOT IDENT.
I-126	2.020E-01	1.544E-01	2.842E-01	0.000E+00	NOT IDENT.
SB-126	-2.833E-02	1.302E-01	1.970E-01	0.000E+00	FAIL ABUN
SB-127	-6.529E-02	1.084E+00	1.865E+00	0.000E+00	NOT IDENT.
XE-127	-3.082E-02	4.046E-02	6.893E-02	0.000E+00	NOT IDENT.
I-131	3.376E-02	9.193E-02	1.643E-01	0.000E+00	NOT IDENT.
TE-132	-1.164E-01	6.070E-01	1.045E+00	0.000E+00	NOT IDENT.
BA-133	-1.980E-04	4.115E-02	5.967E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.364E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.216E-02	7.596E-02	0.000E+00	NOT IDENT.
CS-135	1.612E-01	1.542E-01	2.441E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.239E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.547E-02	9.026E-02	1.618E-01	0.000E+00	FAIL ABUN
BA-137M	-1.979E-02	2.889E-02	4.805E-02	0.000E+00	NOT IDENT.
CS-137	-2.092E-02	3.054E-02	5.080E-02	0.000E+00	NOT IDENT.
CE-139	-2.377E-03	2.461E-02	4.371E-02	0.000E+00	NOT IDENT.
BA-140	-3.310E-02	1.966E-01	3.286E-01	0.000E+00	NOT IDENT.
LA-140	-3.816E-03	6.284E-02	9.767E-02	0.000E+00	FAIL ABUN
CE-141	5.151E-02	5.703E-02	9.879E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.272E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.494E-02	2.122E-01	3.196E-01	0.000E+00	NOT IDENT.
PM-144	-1.517E-02	2.951E-02	4.941E-02	0.000E+00	NOT IDENT.

PR-144	-1.028E+00	2.000E+00	3.348E+00	0.000E+00	NOT IDENT.
PM-146	2.049E-02	3.468E-02	6.148E-02	0.000E+00	NOT IDENT.
ND-147	-2.172E-01	4.542E-01	7.451E-01	0.000E+00	NOT IDENT.
PM-149	3.052E+01	8.205E+01	1.416E+02	0.000E+00	NOT IDENT.
EU-152	2.578E-03	9.634E-02	1.406E-01	0.000E+00	FAIL ABUN
GD-153	-8.665E-02	8.343E-02	1.218E-01	0.000E+00	NOT IDENT.
EU-154	3.033E-02	1.105E-01	1.890E-01	0.000E+00	NOT IDENT.
EU-155	8.572E-02	1.008E-01	1.785E-01	0.000E+00	FAIL ABUN
TB-160	-4.324E-02	1.162E-01	1.901E-01	0.000E+00	FAIL ABUN
HO-166M	6.247E-04	4.622E-02	7.958E-02	0.000E+00	FAIL ABUN
TM-171	-2.358E+01	3.342E+01	5.148E+01	0.000E+00	NOT IDENT.
LU-176	2.310E-02	2.323E-02	3.655E-02	0.000E+00	FAIL ABUN
LU-177	1.078E+00	1.358E+00	1.782E+00	0.000E+00	FAIL ABUN
LU-177M	1.744E-02	1.571E-01	2.390E-01	0.000E+00	NOT IDENT.
HF-181	1.654E-03	3.414E-02	5.856E-02	0.000E+00	NOT IDENT.
W-181	1.403E-02	4.377E-01	6.989E-01	0.000E+00	NOT IDENT.
TA-182	7.079E-02	1.809E-01	3.119E-01	0.000E+00	FAIL ABUN
RE-183	-1.482E-02	9.255E-02	1.622E-01	0.000E+00	FAIL ABUN
RE-184	-5.368E-02	1.956E-01	3.323E-01	0.000E+00	NOT IDENT.
OS-185	8.325E-03	3.307E-02	5.585E-02	0.000E+00	NOT IDENT.
RE-188	2.546E-02	1.475E-01	2.657E-01	0.000E+00	NOT IDENT.
W-188	-3.818E+00	6.814E+00	9.725E+00	0.000E+00	FAIL ABUN
IR-192	-1.216E-03	2.789E-02	4.685E-02	0.000E+00	FAIL ABUN
AU-195	8.150E-02	2.134E-01	3.738E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.934E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-7.433E-01	5.948E+00	1.054E+01	0.000E+00	NOT IDENT.
TL-202	5.045E-02	5.632E-02	1.016E-01	0.000E+00	NOT IDENT.
BI-207	2.582E-03	4.743E-02	7.988E-02	0.000E+00	FAIL ABUN
TL-207	2.099E-01	6.116E-01	9.176E-01	0.000E+00	FAIL ABUN
PO-209	4.113E+00	6.228E+00	1.091E+01	0.000E+00	NOT IDENT.
BI-210	1.576E+00	5.437E+00	9.769E+00	0.000E+00	NOT IDENT.
PB-210	1.576E+00	5.437E+00	9.769E+00	0.000E+00	NOT IDENT.
PO-210	1.576E+00	5.437E+00	9.769E+00	0.000E+00	NOT IDENT.
PB-211	-7.320E-02	8.543E-01	1.283E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.816E-01	5.656E-01	0.000E+00	FAIL ABUN
PO-215	2.099E-01	6.116E-01	9.176E-01	0.000E+00	FAIL ABUN
RN-219	1.387E-01	3.244E-01	5.756E-01	0.000E+00	FAIL ABUN
RN-220	-1.014E+01	2.176E+01	3.568E+01	0.000E+00	NOT IDENT.
RA-223	2.099E-01	6.116E-01	9.176E-01	0.000E+00	FAIL ABUN
AC-227	-2.659E-01	3.278E-01	5.398E-01	0.000E+00	FAIL ABUN
TH-227	-2.659E-01	3.288E-01	5.398E-01	0.000E+00	FAIL ABUN
TH-229	2.470E-01	4.273E-01	7.668E-01	0.000E+00	FAIL ABUN
PA-231	-1.778E-01	1.411E+00	2.203E+00	0.000E+00	FAIL ABUN
TH-231	2.099E-01	6.116E-01	9.176E-01	0.000E+00	FAIL ABUN
U-231	4.964E-02	1.092E+00	1.693E+00	0.000E+00	FAIL ABUN
PA-233	-2.609E-02	5.279E-02	8.672E-02	0.000E+00	FAIL ABUN
PA-234	1.300E-01	2.669E-01	4.582E-01	0.000E+00	FAIL ABUN
PA-234M	6.202E+00	4.488E+00	7.929E+00	0.000E+00	NOT IDENT.
U-235	1.223E-01	1.929E-01	3.270E-01	0.000E+00	FAIL ABUN
NP-236	-5.721E-02	6.643E-02	1.150E-01	0.000E+00	FAIL ABUN
NP-239	5.012E-02	1.729E-01	2.983E-01	0.000E+00	FAIL ABUN
AM-241	-2.762E-02	1.940E-01	3.099E-01	0.000E+00	NOT IDENT.
CM-243	-7.302E-02	9.134E-02	1.523E-01	0.000E+00	FAIL ABUN
AM-246	2.459E-02	1.170E-01	2.029E-01	0.000E+00	NOT IDENT.
CM-247	2.989E-02	3.010E-02	5.360E-02	0.000E+00	FAIL ABUN
CF-249	-3.026E-02	3.171E-02	5.268E-02	0.000E+00	NOT IDENT.
CF-251	2.100E-02	1.100E-01	1.963E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:37:59.39

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691013.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:37:24.
Sample ID         : G245691013           Sample quantity  : 1.27760E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.85  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2541	10.67*	1.894E+00	3.695E+01	3.695E+01	8.73
CD-109	88.03	209	3.72*	6.450E+00	2.553E+00	2.612E+00	40.56
SN-126	64.28	108	9.60	3.093E+00	1.064E+00	1.064E+00	80.60
	86.94	209	8.90	6.450E+00	1.067E+00	1.067E+00	57.28
	87.57	209	37.00*	6.450E+00	2.567E-01	2.567E-01	40.56
HG-203	70.83	------	4.75	4.309E+00	------ Line Not Found		------
	72.87	------	8.00	4.622E+00	------ Line Not Found		------
	82.60	------	3.55	5.935E+00	------ Line Not Found		------
	279.20	95	77.30*	6.252E+00	5.766E-02	7.237E-02	77.77
TL-208	277.35	95	6.80	6.252E+00	6.554E-01	6.554E-01	78.25
	510.84	178	21.60	4.310E+00	5.631E-01	5.631E-01	50.25
	583.14	599	84.20*	3.934E+00	5.316E-01	5.316E-01	14.64
	860.37	117	12.46	2.915E+00	9.433E-01	9.433E-01	39.70
BI-211	72.87	------	1.27	4.622E+00	------ Line Not Found		------
	351.07	951	12.94*	5.451E+00	3.962E+00	3.962E+00	12.09
PB-212	74.81	366	10.70	4.938E+00	2.037E+00	2.037E+00	25.27
	77.11	667	18.00	5.263E+00	2.067E+00	2.067E+00	14.73
	87.30	209	8.00	6.450E+00	1.187E+00	1.187E+00	41.77
	238.63	1843	44.60*	6.792E+00	1.787E+00	1.787E+00	9.01
	300.09	147	3.41	5.982E+00	2.120E+00	2.120E+00	50.26
PO-212	74.81	366	10.70	4.938E+00	2.037E+00	2.037E+00	25.27
	77.11	667	18.00	5.263E+00	2.067E+00	2.067E+00	14.73
	87.30	209	8.00	6.450E+00	1.187E+00	1.187E+00	41.77
	115.19	------	0.60	8.058E+00	------ Line Not Found		------
	238.63	1843	44.60*	6.792E+00	1.787E+00	1.787E+00	9.01
	300.09	147	3.41	5.982E+00	2.120E+00	2.120E+00	50.26
BI-214	609.31	697	46.30*	3.812E+00	1.161E+00	1.161E+00	14.62
	1120.29	217	15.10	2.335E+00	1.809E+00	1.809E+00	28.10
	1764.49	146	15.80	1.695E+00	1.601E+00	1.601E+00	19.57
PB-214	74.81	366	6.21	4.938E+00	3.510E+00	3.510E+00	24.62
	77.11	667	10.50	5.263E+00	3.544E+00	3.544E+00	16.58
	87.30	209	4.67	6.450E+00	2.034E+00	2.034E+00	41.28

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	432	7.49	6.748E+00	2.509E+00	2.509E+00	25.00
	295.21	563	19.20	6.041E+00	1.426E+00	1.426E+00	17.27
	351.92	951	37.20*	5.451E+00	1.378E+00	1.378E+00	13.17
PO-214	74.81	366	6.21	4.938E+00	3.510E+00	3.510E+00	24.62
	77.11	667	10.50	5.263E+00	3.544E+00	3.544E+00	16.58
	87.30	209	4.67	6.450E+00	2.034E+00	2.034E+00	41.28
	241.98	432	7.49	6.748E+00	2.509E+00	2.509E+00	25.00
	295.21	563	19.20	6.041E+00	1.426E+00	1.426E+00	17.27
	351.92	951	37.20*	5.451E+00	1.378E+00	1.378E+00	13.17
PO-216	74.81	366	10.70	4.938E+00	2.037E+00	2.037E+00	25.27
	77.11	667	18.00	5.263E+00	2.067E+00	2.067E+00	14.73
	87.30	209	8.00	6.450E+00	1.187E+00	1.187E+00	41.77
	238.63	1843	44.60*	6.792E+00	1.787E+00	1.787E+00	9.01
	300.09	147	3.41	5.982E+00	2.120E+00	2.120E+00	50.26
PO-218	74.81	366	6.21	4.938E+00	3.510E+00	3.510E+00	24.62
	77.11	667	10.50	5.263E+00	3.544E+00	3.544E+00	16.58
	87.30	209	4.67	6.450E+00	2.034E+00	2.034E+00	41.28
	241.98	432	7.49	6.748E+00	2.509E+00	2.509E+00	25.00
	295.21	563	19.20	6.041E+00	1.426E+00	1.426E+00	17.27
	351.92	951	37.20*	5.451E+00	1.378E+00	1.378E+00	13.17
RA-224	240.98	432	3.95*	6.748E+00	4.758E+00	4.758E+00	24.36
RA-226	609.31	697	46.30*	3.812E+00	1.161E+00	1.161E+00	14.62
	1120.29	217	15.10	2.335E+00	1.809E+00	1.809E+00	28.10
	1764.49	146	15.80	1.695E+00	1.601E+00	1.601E+00	19.57
AC-228	338.32	386	11.40	5.580E+00	1.785E+00	1.785E+00	45.15
	911.07	412	27.70*	2.780E+00	1.574E+00	1.574E+00	20.31
	969.11	269	16.60	2.640E+00	1.805E+00	1.805E+00	30.56
RA-228	338.32	386	11.40	5.580E+00	1.785E+00	1.785E+00	45.15
	911.07	412	27.70*	2.780E+00	1.574E+00	1.574E+00	20.31
	969.11	269	16.60	2.640E+00	1.805E+00	1.805E+00	30.56
TH-228	74.81	366	10.70	4.938E+00	2.037E+00	2.068E+00	23.51
	77.11	667	18.00	5.263E+00	2.067E+00	2.099E+00	14.73
	87.30	209	8.00	6.450E+00	1.187E+00	1.205E+00	40.56
	238.63	1843	44.60*	6.792E+00	1.787E+00	1.815E+00	9.01
	300.09	147	3.41	5.982E+00	2.120E+00	2.153E+00	77.02
TH-230	609.31	697	46.30*	3.812E+00	1.161E+00	1.161E+00	14.62
	1120.29	217	15.10	2.335E+00	1.809E+00	1.809E+00	28.10
	1764.49	146	15.80	1.695E+00	1.601E+00	1.601E+00	19.57
TH-232	338.32	386	11.40	5.580E+00	1.785E+00	1.785E+00	20.27
	911.07	412	27.70*	2.780E+00	1.574E+00	1.574E+00	20.31
	969.11	269	16.60	2.640E+00	1.805E+00	1.805E+00	30.56
TH-234	63.29	108	3.80*	3.093E+00	2.688E+00	2.688E+00	81.17
	92.38	202	5.41	7.016E+00	1.563E+00	1.563E+00	61.20
U-234	609.31	697	46.30*	3.812E+00	1.161E+00	1.161E+00	14.62
	1120.29	217	15.10	2.335E+00	1.809E+00	1.809E+00	28.10
	1764.49	146	15.80	1.695E+00	1.601E+00	1.601E+00	19.57
NP-237	86.50	209	12.60*	6.450E+00	7.538E-01	7.538E-01	45.50
	95.87	------	2.60	7.180E+00	------ Line Not Found		------
U-238	63.29	108	3.80*	3.093E+00	2.688E+00	2.688E+00	81.17

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	202	5.41	7.016E+00	1.563E+00	1.563E+00	59.10
AM-243	74.67	366	66.00*	4.938E+00	3.303E-01	3.303E-01	23.48
	86.72	209	0.34	6.450E+00	2.827E+01	2.827E+01	40.56
	117.66	------	0.55	8.112E+00	------	Line Not Found	------
	142.18	------	0.13	8.232E+00	------	Line Not Found	------
ANH-511	511.00	178	100.00*	4.310E+00	1.216E-01	1.216E-01	49.55

Flag: "*" = Keyline

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

Total number of lines in spectrum 35
Number of unidentified lines 4
Number of lines tentatively identified by NID 31 88.57%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.695E+01	3.695E+01	0.323E+01	8.73	
CD-109	464.00D	1.02	2.553E+00	2.612E+00	1.059E+00	40.56	
SN-126	1.00E+05Y	1.00	2.567E-01	2.567E-01	1.041E-01	40.56	
HG-203	46.60D	1.26	5.766E-02	7.237E-02	5.628E-02	77.77	
TL-208	1.41E+10Y	1.00	5.316E-01	5.316E-01	0.778E-01	14.64	
BI-211	7.04E+08Y	1.00	3.962E+00	3.962E+00	0.479E+00	12.09	
PB-212	1.41E+10Y	1.00	1.787E+00	1.787E+00	0.161E+00	9.01	
PO-212	1.41E+10Y	1.00	1.787E+00	1.787E+00	0.161E+00	9.01	
BI-214	1600.00Y	1.00	1.161E+00	1.161E+00	0.170E+00	14.62	
PB-214	1600.00Y	1.00	1.378E+00	1.378E+00	0.181E+00	13.17	
PO-214	1600.00Y	1.00	1.378E+00	1.378E+00	0.181E+00	13.17	
PO-216	1.41E+10Y	1.00	1.787E+00	1.787E+00	0.161E+00	9.01	
PO-218	1600.00Y	1.00	1.378E+00	1.378E+00	0.181E+00	13.17	
RA-224	1.41E+10Y	1.00	4.758E+00	4.758E+00	1.159E+00	24.36	
RA-226	1600.00Y	1.00	1.161E+00	1.161E+00	0.170E+00	14.62	
AC-228	1.41E+10Y	1.00	1.574E+00	1.574E+00	0.320E+00	20.31	
RA-228	1.41E+10Y	1.00	1.574E+00	1.574E+00	0.320E+00	20.31	
TH-228	1.91Y	1.02	1.787E+00	1.815E+00	0.164E+00	9.01	
TH-230	4.47E+09Y	1.00	1.161E+00	1.161E+00	0.170E+00	14.62	
TH-232	1.41E+10Y	1.00	1.574E+00	1.574E+00	0.320E+00	20.31	
TH-234	4.47E+09Y	1.00	2.688E+00	2.688E+00	2.182E+00	81.17	
U-234	4.47E+09Y	1.00	1.161E+00	1.161E+00	0.170E+00	14.62	
NP-237	2.14E+06Y	1.00	7.538E-01	7.538E-01	3.430E-01	45.50	
U-238	4.47E+09Y	1.00	2.688E+00	2.688E+00	2.182E+00	81.17	
AM-243	7380.00Y	1.00	3.303E-01	3.303E-01	0.776E-01	23.48	
ANH-511	1.00E+09Y	1.00	1.216E-01	1.216E-01	0.603E-01	49.55	
	Total Activity :		7.630E+01	7.640E+01			

Grand Total Activity : 7.630E+01 7.640E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.06	100	425	1.10	257.20	254	8	1.38E-02	74.2	8.25E+00	T
0	186.20	265	560	1.29	371.43	365	12	3.68E-02	38.6	7.64E+00	T
0	209.75	60	433	0.95	418.51	413	9	8.38E-03	****	7.25E+00	T
0	270.66	138	314	1.87	540.31	535	11	1.92E-02	52.9	6.34E+00	T
0	328.17	146	227	1.79	655.28	650	11	2.02E-02	43.5	5.68E+00	T
0	409.59	42	136	1.05	818.06	814	7	5.80E-03	97.7	4.97E+00	T
0	462.84	121	152	1.74	924.55	919	12	1.68E-02	44.8	4.60E+00	T
0	727.01	156	104	1.35	1452.75	1448	13	2.17E-02	31.9	3.34E+00	T
0	768.33	77	117	3.03	1535.35	1529	11	1.07E-02	59.3	3.20E+00	T
0	933.50	65	127	1.06	1865.63	1856	17	9.08E-03	83.7	2.72E+00	
1	964.53	121	96	2.32	1927.69	1917	26	1.67E-02	40.1	2.65E+00	T
0	1505.30	12	16	0.79	3009.09	3000	11	1.69E-03	****	1.85E+00	
0	1587.57	31	32	2.21	3173.61	3166	14	4.35E-03	84.1	1.79E+00	
0	1729.34	30	34	2.14	3457.14	3446	15	4.13E-03	92.9	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:38:03.98

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691013.CNF;1 *
* Acquisition date  : 9-FEB-2010 17:37:24.  Detector SN#     :             *
* Detector ID       : GAM18                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.85          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245691013            Analyst initials: MJH1         *
* Batch Number      : 947037                Sample Quantity : 1.27760E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.695E+01	3.225E+00	4.605E-01	3.495E-02	80.244
CD-109	2.612E+00	1.059E+00	1.472E+00	1.360E-01	1.775
SN-126	2.567E-01	1.041E-01	1.351E-01	1.245E-02	1.900
HG-203	7.237E-02	5.628E-02	5.350E-02	3.244E-03	1.353
TL-208	5.316E-01	7.783E-02	4.963E-02	3.891E-03	10.710
BI-211	3.962E+00	4.790E-01	2.764E-01	1.774E-02	14.335
PB-212	1.787E+00	1.610E-01	7.815E-02	5.583E-03	22.871
PO-212	1.787E+00	1.610E-01	7.815E-02	5.583E-03	22.871
BI-214	1.161E+00	1.696E-01	9.589E-02	8.566E-03	12.103
PB-214	1.378E+00	1.815E-01	9.632E-02	7.968E-03	14.308
PO-214	1.378E+00	1.815E-01	9.632E-02	7.968E-03	14.308
PO-216	1.787E+00	1.610E-01	7.815E-02	5.583E-03	22.871
PO-218	1.378E+00	1.815E-01	9.632E-02	7.968E-03	14.308
RA-224	4.758E+00	1.159E+00	8.882E-01	4.948E-02	5.357
RA-226	1.161E+00	1.696E-01	9.589E-02	8.566E-03	12.103
AC-228	1.574E+00	3.197E-01	1.874E-01	2.483E-02	8.395
RA-228	1.574E+00	3.197E-01	1.874E-01	2.483E-02	8.395
TH-228	1.815E+00	1.635E-01	7.934E-02	5.668E-03	22.871

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.161E+00	1.696E-01	9.589E-02	8.566E-03	12.103
TH-232	1.574E+00	3.197E-01	1.874E-01	2.483E-02	8.395
TH-234	2.688E+00	2.182E+00	2.389E+00	4.211E-01	1.125
U-234	1.161E+00	1.696E-01	9.589E-02	8.566E-03	12.103
NP-237	7.538E-01	3.430E-01	3.925E-01	8.856E-02	1.921
U-238	2.688E+00	2.182E+00	2.389E+00	4.211E-01	1.125
AM-243	3.303E-01	7.756E-02	9.270E-02	7.735E-03	3.563
ANH-511	1.216E-01	6.027E-02	3.903E-02	2.577E-03	3.117

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-5.581E-02		2.731E-01	4.452E-01	3.226E-02	-0.125
NA-22	1.438E-02		4.023E-02	6.769E-02	4.606E-03	0.212
NA-24	-3.063E-01		3.649E-01	Half-Life too short		
AL-26	-2.501E-03		2.360E-02	3.810E-02	2.225E-03	-0.066
TI-44	3.815E-01	+	5.619E-02	8.255E-02	7.058E-03	4.621
SC-46	-3.421E-02		3.250E-02	4.840E-02	5.399E-03	-0.707
V-48	-1.938E-02		6.283E-02	9.932E-02	9.824E-03	-0.195
CR-51	-8.046E-02		3.184E-01	5.060E-01	3.258E-02	-0.159
MN-52	-1.751E-02		1.943E-01	3.122E-01	2.301E-02	-0.056
MN-54	-1.527E-02		3.428E-02	5.478E-02	5.611E-03	-0.279
CO-56	2.032E-03		3.327E-02	5.485E-02	5.726E-03	0.037
CO-57	3.898E-03		2.263E-02	3.657E-02	2.166E-03	0.107
CO-58	-3.261E-02		3.306E-02	5.048E-02	4.983E-03	-0.646
FE-59	3.166E-03		7.811E-02	1.304E-01	1.074E-02	0.024
CO-60	-2.192E-02		3.428E-02	5.278E-02	3.988E-03	-0.415
ZN-65	8.595E-02		9.741E-02	1.488E-01	1.048E-02	0.578
GE-68	-3.655E-02		1.031E+00	1.716E+00	1.364E-01	-0.021
AS-73	1.322E-01		1.063E+00	1.796E+00	1.424E-01	0.074
AS-74	-5.950E-02		7.637E-02	1.166E-01	8.379E-03	-0.510
SE-75	-2.119E-02		4.104E-02	6.024E-02	3.445E-03	-0.352
BR-77	4.480E+00		8.969E+00	1.511E+01	1.008E+00	0.296
SR-82	-1.030E-01		3.344E-01	5.425E-01	5.052E-02	-0.190
RB-83	3.354E-02		5.765E-02	9.756E-02	6.507E-03	0.344
RB-84	1.766E-02		5.779E-02	9.659E-02	1.065E-02	0.183
KR-85	1.996E+01		7.336E+00	1.215E+01	8.049E-01	1.643
SR-85	1.025E-01		3.766E-02	6.237E-02	4.132E-03	1.643
RB-86	3.880E-02		6.512E-01	1.091E+00	8.685E-02	0.036
Y-88	-1.794E-02		2.992E-02	4.490E-02	2.558E-03	-0.400
ZR-88	7.250E-03		2.481E-02	4.217E-02	2.425E-03	0.172
Y-91	2.362E+00		1.793E+01	2.982E+01	1.763E+00	0.079
NB-94	6.803E-03		2.714E-02	4.597E-02	3.771E-03	0.148
NB-95	5.718E-02		4.495E-02	7.024E-02	6.425E-03	0.814
NB-95M	1.104E-01		1.193E-01	1.807E-01	1.326E-02	0.611
ZR-95	-2.007E-02		6.168E-02	1.002E-01	9.861E-03	-0.200
NB-97	6.410E-02		4.273E-02	Half-Life too short		

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	6.022E+00		9.899E-01	Half-Life too short		
MO-99	9.704E+00		9.549E+00	1.671E+01	2.550E+00	0.581
TC-99M	-5.037E+10		2.571E+10	Half-Life too short		
RH-101	-1.672E-02		2.965E-02	4.766E-02	2.562E-03	-0.351
RH-102	9.733E-03		2.447E-02	4.124E-02	2.620E-03	0.236
RU-103	-1.378E-02		3.193E-02	5.099E-02	6.620E-03	-0.270
RH-106	8.669E-02		2.753E-01	4.524E-01	5.691E-02	0.192
RU-106	8.669E-02		2.752E-01	4.524E-01	3.329E-02	0.192
AG-108M	-2.037E-02		2.665E-02	4.238E-02	2.769E-03	-0.481
AG-110M	2.049E-02		2.731E-02	4.781E-02	3.771E-03	0.429
IN-111	4.434E-01		9.882E-01	1.465E+00	8.186E-02	0.303
IN-113M	2.741E-02		3.604E-02	6.258E-02	3.839E-03	0.438
SN-113	2.741E-02		3.604E-02	6.258E-02	3.839E-03	0.438
IN-114M	-5.891E-02		1.787E-01	2.590E-01	1.383E-02	-0.227
CD-115	7.203E+00		9.099E+00	1.558E+01	1.047E+00	0.462
SN-117M	3.128E-02		4.670E-02	8.089E-02	4.299E-03	0.387
SB-122	1.220E+00		1.753E+00	2.969E+00	2.069E-01	0.411
I-123	1.233E+00		2.855E+00	Half-Life too short		
TE-123M	5.255E-03		2.433E-02	4.152E-02	2.240E-03	0.127
I-124	-1.382E-01		6.954E-01	9.511E-01	6.877E-02	-0.145
SB-124	5.045E-02		5.808E-02	1.068E-01	7.367E-03	0.472
SB-125	3.218E-02		7.383E-02	1.257E-01	7.853E-03	0.256
TE-125M	1.026E+01		8.974E+00	1.505E+01	1.323E+00	0.682
I-126	2.020E-01		1.575E-01	2.808E-01	2.159E-02	0.719
SB-126	-2.833E-02		1.328E-01	1.949E-01	1.650E-02	-0.145
SB-127	-6.529E-02		1.106E+00	1.843E+00	2.013E-01	-0.035
XE-127	-3.082E-02		4.129E-02	6.689E-02	3.611E-03	-0.461
I-131	3.376E-02		9.381E-02	1.608E-01	1.038E-02	0.210
TE-132	-1.164E-01		6.194E-01	1.016E+00	1.450E-01	-0.115
BA-133	-1.980E-04		4.199E-02	5.839E-02	6.746E-03	-0.003
I-133	3.404E-04		2.737E-03	Half-Life too short		
CS-134	7.660E-02		4.302E-02	7.525E-02	7.278E-03	1.018
CS-135	1.612E-01		1.573E-01	2.379E-01	1.798E-02	0.678
I-135	1.323E+08		3.183E+09	Half-Life too short		
CS-136	6.547E-02		9.210E-02	1.610E-01	1.443E-02	0.407
BA-137M	-1.979E-02		2.948E-02	4.747E-02	3.618E-03	-0.417
CS-137	-2.092E-02		3.116E-02	5.018E-02	3.834E-03	-0.417
CE-139	-2.377E-03		2.512E-02	4.229E-02	2.220E-03	-0.056
BA-140	-3.310E-02		2.007E-01	3.236E-01	1.058E-01	-0.102
LA-140	-3.816E-03		6.412E-02	9.781E-02	6.711E-03	-0.039
CE-141	5.151E-02		5.820E-02	9.540E-02	5.446E-03	0.540
CE-143	7.994E-04		1.159E-04	Half-Life too short		
CE-144	1.494E-02		2.165E-01	3.082E-01	4.358E-02	0.048
PM-144	-1.517E-02		3.011E-02	4.885E-02	3.966E-03	-0.311
PR-144	-1.028E+00		2.041E+00	3.310E+00	2.686E-01	-0.311
PM-146	2.049E-02		3.539E-02	6.039E-02	5.372E-03	0.339
ND-147	-2.172E-01		4.634E-01	7.335E-01	1.023E-01	-0.296
PM-149	3.052E+01		8.372E+01	1.382E+02	1.954E+01	0.221

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	2.578E-03		9.831E-02	1.375E-01	8.972E-03	0.019
GD-153	-8.665E-02		8.513E-02	1.169E-01	9.141E-03	-0.741
EU-154	3.033E-02		1.128E-01	1.886E-01	1.884E-02	0.161
EU-155	8.572E-02		1.029E-01	1.715E-01	1.226E-02	0.500
TB-160	-4.324E-02		1.185E-01	1.886E-01	2.072E-02	-0.229
HO-166M	6.247E-04		4.716E-02	7.870E-02	6.560E-03	0.008
TM-171	-2.358E+01		3.410E+01	4.916E+01	3.930E+00	-0.480
LU-176	2.310E-02		2.370E-02	3.568E-02	2.054E-03	0.647
LU-177	1.078E+00	+	1.385E+00	1.730E+00	9.385E-02	0.623
LU-177M	1.744E-02		1.603E-01	2.344E-01	1.384E-02	0.074
HF-181	1.654E-03		3.483E-02	5.757E-02	3.685E-03	0.029
W-181	1.403E-02		4.466E-01	6.671E-01	5.291E-02	0.021
TA-182	7.079E-02		1.846E-01	3.111E-01	1.903E-02	0.228
RE-183	-1.482E-02		9.444E-02	1.569E-01	8.283E-03	-0.094
RE-184	-5.368E-02		1.996E-01	3.235E-01	1.817E-02	-0.166
OS-185	8.325E-03		3.374E-02	5.515E-02	4.148E-03	0.151
RE-188	2.546E-02		1.505E-01	2.568E-01	1.374E-02	0.099
W-188	-3.818E+00		6.953E+00	9.488E+00	5.434E-01	-0.402
IR-192	-1.216E-03		2.846E-02	4.577E-02	2.654E-03	-0.027
AU-195	8.150E-02		2.178E-01	3.589E-01	2.746E-02	0.227
TL-200	8.687E-06		2.007E-04	Half-Life too short		
TL-201	-7.433E-01		6.070E+00	1.020E+01	5.356E-01	-0.073
TL-202	5.045E-02		5.747E-02	9.969E-02	6.078E-03	0.506
BI-207	2.582E-03		4.840E-02	7.949E-02	6.562E-03	0.032
TL-207	2.099E-01		6.241E-01	8.966E-01	1.480E-01	0.234
PO-209	4.113E+00		6.355E+00	1.082E+01	1.221E+00	0.380
BI-210	1.576E+00		5.548E+00	9.280E+00	7.180E-01	0.170
PB-210	1.576E+00		5.548E+00	9.280E+00	7.180E-01	0.170
PO-210	1.576E+00		5.548E+00	9.280E+00	6.172E-01	0.170
PB-211	-7.320E-02		8.717E-01	1.258E+00	7.842E-01	-0.058
BI-212	1.164E+00	+	3.894E-01	5.596E-01	5.573E-02	2.081
PO-215	2.099E-01		6.241E-01	8.966E-01	1.480E-01	0.234
RN-219	1.387E-01		3.310E-01	5.643E-01	7.682E-02	0.246
RN-220	-1.014E+01		2.220E+01	3.515E+01	2.415E+00	-0.289
RA-223	2.099E-01		6.241E-01	8.966E-01	1.480E-01	0.234
AC-227	-2.659E-01		3.345E-01	5.257E-01	7.301E-02	-0.506
TH-227	-2.659E-01		3.355E-01	5.257E-01	8.853E-02	-0.506
TH-229	2.470E-01		4.360E-01	7.436E-01	3.982E-02	0.332
PA-231	-1.778E-01		1.440E+00	2.149E+00	2.953E-01	-0.083
TH-231	2.099E-01		6.241E-01	8.966E-01	1.480E-01	0.234
U-231	4.964E-02		1.115E+00	1.625E+00	1.302E-01	0.031
PA-233	-2.609E-02		5.387E-02	8.469E-02	5.188E-03	-0.308
PA-234	1.300E-01		2.723E-01	4.552E-01	8.979E-02	0.286
PA-234M	6.202E+00		4.579E+00	7.882E+00	8.503E-01	0.787
U-235	1.223E-01		1.969E-01	3.158E-01	5.114E-02	0.387
NP-236	-5.721E-02		6.779E-02	1.113E-01	5.894E-03	-0.514
NP-239	5.012E-02		1.765E-01	2.871E-01	1.777E-02	0.175
AM-241	-2.762E-02		1.980E-01	2.954E-01	2.450E-02	-0.093

Sample ID : G245691013 Acquisition date : 9-FEB-2010 17:37:24

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-7.302E-02		9.320E-02	1.463E-01	1.047E-02	-0.499
AM-246	2.459E-02		1.194E-01	2.019E-01	1.597E-02	0.122
CM-247	2.989E-02		3.072E-02	5.255E-02	3.061E-03	0.569
CF-249	-3.026E-02		3.236E-02	5.162E-02	2.967E-03	-0.586
CF-251	2.100E-02		1.123E-01	1.901E-01	1.004E-02	0.110

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691013           *
* Acquisition date  :  9-FEB-2010 17:37:24 Detector SN#     :               *
* Detector ID       : GAM18                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.85      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691013           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.2776E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.695E+01	3.161E+00	2.304E-01	1.613E+00
CD-109	2.612E+00	1.038E+00	7.680E-01	5.297E-01
SN-126	2.567E-01	1.020E-01	7.051E-02	5.206E-02
HG-203	7.237E-02	5.516E-02	2.745E-02	2.814E-02
TL-208	5.316E-01	7.628E-02	2.519E-02	3.892E-02
BI-211	3.962E+00	4.695E-01	1.413E-01	2.395E-01
PB-212	1.787E+00	1.578E-01	4.019E-02	8.052E-02
PO-212	1.787E+00	1.578E-01	4.019E-02	8.052E-02
BI-214	1.161E+00	1.663E-01	4.863E-02	8.482E-02
PB-214	1.378E+00	1.779E-01	4.925E-02	9.075E-02
PO-214	1.378E+00	1.779E-01	4.925E-02	9.075E-02
PO-216	1.787E+00	1.578E-01	4.019E-02	8.052E-02
PO-218	1.378E+00	1.779E-01	4.925E-02	9.075E-02
RA-224	4.758E+00	1.136E+00	4.568E-01	5.795E-01
RA-226	1.161E+00	1.663E-01	4.863E-02	8.482E-02
AC-228	1.574E+00	3.133E-01	9.446E-02	1.598E-01
RA-228	1.574E+00	3.133E-01	9.446E-02	1.598E-01
TH-228	1.815E+00	1.602E-01	4.081E-02	8.175E-02
TH-230	1.161E+00	1.663E-01	4.863E-02	8.482E-02
TH-232	1.574E+00	3.133E-01	9.446E-02	1.598E-01
TH-234	2.688E+00	2.138E+00	1.253E+00	1.091E+00
U-234	1.161E+00	1.663E-01	4.863E-02	8.482E-02
NP-237	7.538E-01	3.362E-01	2.049E-01	1.715E-01
U-238	2.688E+00	2.138E+00	1.253E+00	1.091E+00
AM-243	3.303E-01	7.601E-02	4.849E-02	3.878E-02
ANH-511	1.216E-01	5.907E-02	1.984E-02	3.014E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-5.581E-02	2.676E-01	2.266E-01	1.365E-01 NOT IDENT.

NA-22	1.438E-02	3.943E-02	3.394E-02	2.012E-02	NOT IDENT.
NA-24	-3.063E+05	7.151E+05	0.000E+00	3.649E+05	SHORT HLIF
AL-26	-2.501E-03	2.313E-02	1.900E-02	1.180E-02	NOT IDENT.
TI-44	3.815E-01	5.506E-02	4.315E-02	2.809E-02	FAIL ABUN
SC-46	-3.421E-02	3.185E-02	2.440E-02	1.625E-02	FAIL ABUN
V-48	-1.938E-02	6.157E-02	4.999E-02	3.142E-02	NOT IDENT.
CR-51	-8.046E-02	3.120E-01	2.591E-01	1.592E-01	NOT IDENT.
MN-52	-1.751E-02	1.904E-01	1.562E-01	9.715E-02	NOT IDENT.
MN-54	-1.527E-02	3.359E-02	2.764E-02	1.714E-02	NOT IDENT.
CO-56	2.032E-03	3.261E-02	2.767E-02	1.664E-02	NOT IDENT.
CO-57	3.898E-03	2.217E-02	1.899E-02	1.131E-02	NOT IDENT.
CO-58	-3.261E-02	3.240E-02	2.549E-02	1.653E-02	NOT IDENT.
FE-59	3.166E-03	7.655E-02	6.554E-02	3.906E-02	NOT IDENT.
CO-60	-2.192E-02	3.360E-02	2.644E-02	1.714E-02	NOT IDENT.
ZN-65	8.595E-02	9.546E-02	7.474E-02	4.871E-02	NOT IDENT.
GE-68	-3.655E-02	1.011E+00	8.628E-01	5.157E-01	NOT IDENT.
AS-73	1.322E-01	1.042E+00	9.440E-01	5.315E-01	NOT IDENT.
AS-74	-5.950E-02	7.484E-02	5.916E-02	3.819E-02	NOT IDENT.
SE-75	-2.119E-02	4.022E-02	3.094E-02	2.052E-02	NOT IDENT.
BR-77	4.480E+00	8.790E+00	7.682E+00	4.485E+00	FAIL ABUN
SR-82	-1.030E-01	3.277E-01	2.741E-01	1.672E-01	NOT IDENT.
RB-83	3.354E-02	5.650E-02	4.959E-02	2.883E-02	NOT IDENT.
RB-84	1.766E-02	5.664E-02	4.870E-02	2.890E-02	NOT IDENT.
KR-85	1.996E+01	7.189E+00	6.177E+00	3.668E+00	NOT IDENT.
SR-85	1.025E-01	3.691E-02	3.171E-02	1.883E-02	NOT IDENT.
RB-86	3.880E-02	6.382E-01	5.484E-01	3.256E-01	NOT IDENT.
Y-88	-1.794E-02	2.932E-02	2.238E-02	1.496E-02	NOT IDENT.
ZR-88	7.250E-03	2.432E-02	2.153E-02	1.241E-02	NOT IDENT.
Y-91	2.362E+00	1.757E+01	1.496E+01	8.963E+00	NOT IDENT.
NB-94	6.803E-03	2.660E-02	2.326E-02	1.357E-02	NOT IDENT.
NB-95	5.718E-02	4.405E-02	3.549E-02	2.247E-02	NOT IDENT.
NB-95M	1.104E-01	1.170E-01	9.297E-02	5.967E-02	NOT IDENT.
ZR-95	-2.007E-02	6.045E-02	5.065E-02	3.084E-02	NOT IDENT.
NB-97	6.410E+04	8.374E+04	0.000E+00	4.273E+04	SHORT HLIF
ZR-97	6.022E+06	1.940E+06	0.000E+00	9.899E+05	SHORT HLIF
MO-99	9.704E+00	9.358E+00	8.450E+00	4.774E+00	NOT IDENT.
TC-99M	-5.037E+16	5.040E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.672E-02	2.905E-02	2.458E-02	1.482E-02	NOT IDENT.
RH-102	9.733E-03	2.398E-02	2.099E-02	1.223E-02	FAIL ABUN
RU-103	-1.378E-02	3.129E-02	2.594E-02	1.597E-02	FAIL ABUN
RH-106	8.669E-02	2.698E-01	2.293E-01	1.377E-01	FAIL ABUN
RU-106	8.669E-02	2.697E-01	2.293E-01	1.376E-01	FAIL ABUN
AG-108M	-2.037E-02	2.612E-02	2.160E-02	1.333E-02	NOT IDENT.
AG-110M	2.049E-02	2.677E-02	2.422E-02	1.366E-02	NOT IDENT.
IN-111	4.434E-01	9.684E-01	7.531E-01	4.941E-01	NOT IDENT.
IN-113M	2.741E-02	3.532E-02	3.195E-02	1.802E-02	NOT IDENT.
SN-113	2.741E-02	3.532E-02	3.195E-02	1.802E-02	NOT IDENT.
IN-114M	-5.891E-02	1.751E-01	1.337E-01	8.934E-02	NOT IDENT.
CD-115	7.203E+00	8.917E+00	7.917E+00	4.550E+00	NOT IDENT.
SN-117M	3.128E-02	4.576E-02	4.185E-02	2.335E-02	NOT IDENT.
SB-122	1.220E+00	1.718E+00	1.507E+00	8.767E-01	NOT IDENT.
I-123	1.233E+06	5.596E+06	0.000E+00	2.855E+06	SHORT HLIF
TE-123M	5.255E-03	2.384E-02	2.148E-02	1.216E-02	NOT IDENT.
I-124	-1.382E-01	6.815E-01	4.824E-01	3.477E-01	NOT IDENT.
SB-124	5.045E-02	5.692E-02	5.330E-02	2.904E-02	FAIL ABUN
SB-125	3.218E-02	7.235E-02	6.408E-02	3.691E-02	FAIL ABUN
TE-125M	1.026E+01	8.795E+00	7.827E+00	4.487E+00	NOT IDENT.
I-126	2.020E-01	1.544E-01	1.422E-01	7.877E-02	NOT IDENT.
SB-126	-2.833E-02	1.302E-01	9.858E-02	6.642E-02	FAIL ABUN
SB-127	-6.529E-02	1.084E+00	9.329E-01	5.529E-01	NOT IDENT.
XE-127	-3.082E-02	4.046E-02	3.449E-02	2.064E-02	NOT IDENT.
I-131	3.376E-02	9.193E-02	8.218E-02	4.690E-02	NOT IDENT.
TE-132	-1.164E-01	6.070E-01	5.228E-01	3.097E-01	NOT IDENT.
BA-133	-1.980E-04	4.115E-02	2.985E-02	2.100E-02	FAIL ABUN
I-133	3.404E+02	5.364E+03	0.000E+00	2.737E+03	SHORT HLIF
CS-134	7.660E-02	4.216E-02	3.800E-02	2.151E-02	NOT IDENT.
CS-135	1.612E-01	1.542E-01	1.221E-01	7.867E-02	NOT IDENT.
I-135	1.323E+14	6.239E+15	0.000E+00	3.183E+15	SHORT HLIF
CS-136	6.547E-02	9.026E-02	8.095E-02	4.605E-02	FAIL ABUN
BA-137M	-1.979E-02	2.889E-02	2.404E-02	1.474E-02	NOT IDENT.
CS-137	-2.092E-02	3.054E-02	2.541E-02	1.558E-02	NOT IDENT.
CE-139	-2.377E-03	2.461E-02	2.187E-02	1.256E-02	NOT IDENT.
BA-140	-3.310E-02	1.966E-01	1.644E-01	1.003E-01	NOT IDENT.
LA-140	-3.816E-03	6.284E-02	4.887E-02	3.206E-02	FAIL ABUN
CE-141	5.151E-02	5.703E-02	4.943E-02	2.910E-02	NOT IDENT.
CE-143	7.994E+02	2.272E+02	0.000E+00	1.159E+02	SHORT HLIF
CE-144	1.494E-02	2.122E-01	1.599E-01	1.083E-01	NOT IDENT.
PM-144	-1.517E-02	2.951E-02	2.472E-02	1.506E-02	NOT IDENT.

PR-144	-1.028E+00	2.000E+00	1.675E+00	1.020E+00	NOT IDENT.
PM-146	2.049E-02	3.468E-02	3.076E-02	1.769E-02	NOT IDENT.
ND-147	-2.172E-01	4.542E-01	3.728E-01	2.317E-01	NOT IDENT.
PM-149	3.052E+01	8.205E+01	7.087E+01	4.186E+01	NOT IDENT.
EU-152	2.578E-03	9.634E-02	7.032E-02	4.915E-02	FAIL ABUN
GD-153	-8.665E-02	8.343E-02	6.093E-02	4.257E-02	NOT IDENT.
EU-154	3.033E-02	1.105E-01	9.458E-02	5.640E-02	NOT IDENT.
EU-155	8.572E-02	1.008E-01	8.929E-02	5.143E-02	FAIL ABUN
TB-160	-4.324E-02	1.162E-01	9.511E-02	5.926E-02	FAIL ABUN
HO-166M	6.247E-04	4.622E-02	3.981E-02	2.358E-02	FAIL ABUN
TM-171	-2.358E+01	3.342E+01	2.576E+01	1.705E+01	NOT IDENT.
LU-176	2.310E-02	2.323E-02	1.828E-02	1.185E-02	FAIL ABUN
LU-177	1.078E+00	1.358E+00	8.916E-01	6.926E-01	FAIL ABUN
LU-177M	1.744E-02	1.571E-01	1.196E-01	8.013E-02	NOT IDENT.
HF-181	1.654E-03	3.414E-02	2.930E-02	1.742E-02	NOT IDENT.
W-181	1.403E-02	4.377E-01	3.496E-01	2.233E-01	NOT IDENT.
TA-182	7.079E-02	1.809E-01	1.561E-01	9.230E-02	FAIL ABUN
RE-183	-1.482E-02	9.255E-02	8.116E-02	4.722E-02	FAIL ABUN
RE-184	-5.368E-02	1.956E-01	1.662E-01	9.979E-02	NOT IDENT.
OS-185	8.325E-03	3.307E-02	2.794E-02	1.687E-02	NOT IDENT.
RE-188	2.546E-02	1.475E-01	1.329E-01	7.526E-02	NOT IDENT.
W-188	-3.818E+00	6.814E+00	4.865E+00	3.477E+00	FAIL ABUN
IR-192	-1.216E-03	2.789E-02	2.344E-02	1.423E-02	FAIL ABUN
AU-195	8.150E-02	2.134E-01	1.870E-01	1.089E-01	FAIL ABUN
TL-200	8.687E+00	3.934E+02	0.000E+00	2.007E+02	SHORT HLIF
TL-201	-7.433E-01	5.948E+00	5.275E+00	3.035E+00	NOT IDENT.
TL-202	5.045E-02	5.632E-02	5.081E-02	2.873E-02	NOT IDENT.
BI-207	2.582E-03	4.743E-02	3.996E-02	2.420E-02	FAIL ABUN
TL-207	2.099E-01	6.116E-01	4.590E-01	3.120E-01	FAIL ABUN
PO-209	4.113E+00	6.228E+00	5.456E+00	3.177E+00	NOT IDENT.
BI-210	1.576E+00	5.437E+00	4.887E+00	2.774E+00	NOT IDENT.
PB-210	1.576E+00	5.437E+00	4.887E+00	2.774E+00	NOT IDENT.
PO-210	1.576E+00	5.437E+00	4.887E+00	2.774E+00	NOT IDENT.
PB-211	-7.320E-02	8.543E-01	6.418E-01	4.359E-01	NOT IDENT.
BI-212	1.164E+00	3.816E-01	2.830E-01	1.947E-01	FAIL ABUN
PO-215	2.099E-01	6.116E-01	4.590E-01	3.120E-01	FAIL ABUN
RN-219	1.387E-01	3.244E-01	2.880E-01	1.655E-01	FAIL ABUN
RN-220	-1.014E+01	2.176E+01	1.785E+01	1.110E+01	NOT IDENT.
RA-223	2.099E-01	6.116E-01	4.590E-01	3.120E-01	FAIL ABUN
AC-227	-2.659E-01	3.278E-01	2.701E-01	1.673E-01	FAIL ABUN
TH-227	-2.659E-01	3.288E-01	2.701E-01	1.677E-01	FAIL ABUN
TH-229	2.470E-01	4.273E-01	3.836E-01	2.180E-01	FAIL ABUN
PA-231	-1.778E-01	1.411E+00	1.102E+00	7.200E-01	FAIL ABUN
TH-231	2.099E-01	6.116E-01	4.590E-01	3.120E-01	FAIL ABUN
U-231	4.964E-02	1.092E+00	8.471E-01	5.573E-01	FAIL ABUN
PA-233	-2.609E-02	5.279E-02	4.339E-02	2.694E-02	FAIL ABUN
PA-234	1.300E-01	2.669E-01	2.293E-01	1.362E-01	FAIL ABUN
PA-234M	6.202E+00	4.488E+00	3.967E+00	2.290E+00	NOT IDENT.
U-235	1.223E-01	1.929E-01	1.636E-01	9.843E-02	FAIL ABUN
NP-236	-5.721E-02	6.643E-02	5.755E-02	3.389E-02	FAIL ABUN
NP-239	5.012E-02	1.729E-01	1.492E-01	8.823E-02	FAIL ABUN
AM-241	-2.762E-02	1.940E-01	1.550E-01	9.900E-02	NOT IDENT.
CM-243	-7.302E-02	9.134E-02	7.618E-02	4.660E-02	FAIL ABUN
AM-246	2.459E-02	1.170E-01	1.015E-01	5.970E-02	NOT IDENT.
CM-247	2.989E-02	3.010E-02	2.682E-02	1.536E-02	FAIL ABUN
CF-249	-3.026E-02	3.171E-02	2.635E-02	1.618E-02	NOT IDENT.
CF-251	2.100E-02	1.100E-01	9.820E-02	5.613E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	321.6334
46.50	321.6334
46.50	321.6334
48.70	322.7679
49.72	328.5824
51.35	320.7618
52.39	352.9012
52.97	331.8645
53.15	322.0837
53.44	318.7959
54.07	335.0764
56.28	349.7964
56.28	349.8003
57.37	0.0000
57.53	358.7877
57.53	358.7897
57.60	353.3279
57.98	361.2203
57.98	361.2203
59.32	372.7147
59.32	372.7147
59.40	372.8196
59.54	373.0029
59.72	367.6466
60.01	368.0198
61.10	375.0338
61.14	375.0858
61.30	375.2925
63.00	389.2545
63.29	418.8809
63.29	418.8809
63.58	419.2885
64.28	398.9734
65.12	417.1699
65.20	417.2800
65.20	417.2800
66.05	454.1481
66.72	442.2544
66.83	445.2782
66.91	445.3921
67.20	444.9496
67.20	444.9496
67.75	446.1188
67.85	462.5434
68.90	461.2085
68.90	461.2085
69.30	450.2472
69.67	462.3340
70.82	487.1913
70.82	487.1913
70.83	487.2067
72.80	501.8355
72.87	501.9431
72.87	501.9431
74.67	479.2433
74.81	479.4440
74.81	479.4440
74.81	479.4440
74.81	479.4440
74.81	479.4440
74.81	479.4440
74.81	479.4440
74.97	479.6720
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80.11	445.6577
80.18	445.7466
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83.37	466.2819
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83.78	487.8960
83.78	487.8960
84.21	465.8575
84.90	441.0565
85.43	455.3052
86.29	530.6557
86.50	530.9548
86.54	531.0108
86.59	531.0829
86.72	520.6418
86.79	520.7360
86.94	520.9480
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87.30	560.6732
87.30	560.6732
87.30	560.6732
87.30	560.6732
87.30	560.6732
87.30	560.6732
87.57	561.0756
87.88	651.6754
88.03	651.9366
88.36	652.5048
88.47	652.6942
89.95	655.2346
91.11	580.4333
92.29	486.7054
92.38	486.8187
92.38	486.8187
93.35	488.0217
94.00	349.6041
94.67	323.8470
94.67	323.8518
94.90	324.0383
94.90	324.0383
94.90	324.0383
94.90	324.0383
95.87	366.7874
95.87	366.7874
96.73	412.7423
97.43	413.4519
98.44	391.0141
98.44	391.0141
98.88	376.8202
99.55	336.6581
99.55	336.6581
99.86	332.7251
100.00	332.8383
100.10	332.9208
103.18	412.3589
103.76	398.1368
105.00	355.8669
105.31	351.8854
108.00	408.4570
109.28	354.0276

111.00	372.5774
111.00	372.5774
111.76	387.1893
112.95	422.7167
115.19	313.1759
116.30	342.1721
117.00	341.5992
117.00	341.5992
117.66	370.4085
121.11	305.0791
121.62	311.9958
121.78	312.0998
122.06	315.5806
122.32	315.7499
122.32	315.7499
122.32	315.7499
122.32	315.7499
123.07	339.3815
127.23	315.0464
129.76	392.0355
131.20	376.3525
133.02	402.9879
133.54	371.3239
135.34	351.1658
136.00	340.3029
136.25	348.3830
136.48	353.0630
140.51	383.1270
140.51	0.0000
142.18	383.1760
142.65	359.4691
143.76	347.5851
144.24	360.5199
144.24	360.5199
144.24	360.5199
144.24	360.5199
145.22	350.8133
145.44	350.9560
147.16	387.8301
152.43	346.0438
152.70	340.3785
153.22	362.2753
154.21	365.5304
154.21	365.5304
154.21	365.5304
154.21	365.5304
155.03	376.5860
156.02	400.9726
158.56	325.0042
159.00	0.0000
159.00	344.6896
160.31	370.2562
161.27	362.8708
162.32	337.7359
162.64	330.8016
163.35	327.6321
163.89	343.9668
165.85	341.5069
167.43	341.4966
171.28	345.4340
171.86	352.0747
172.10	347.6931
176.55	359.2465
176.60	359.2737
181.06	383.9330
184.41	371.1709
185.71	355.1128
186.00	355.2685
190.27	359.5821
192.34	324.6954
193.63	323.8432
197.04	353.5813
198.01	364.4042
198.60	347.7924
200.40	330.7817
201.83	371.1120
202.84	376.3680
205.31	355.2761

208.36	378.1273
208.81	351.8523
209.75	290.2463
209.75	290.2463
210.97	338.1662
215.65	317.5978
216.55	294.8546
218.09	327.3252
222.10	317.4124
223.80	317.1432
226.40	318.2126
227.00	332.1350
227.08	332.1687
227.20	326.3579
228.16	320.8906
228.18	320.8981
228.18	320.8981
231.56	0.0000
235.69	312.8990
236.00	305.1153
236.00	305.1153
238.63	300.3647
238.63	300.3647
238.63	300.3647
238.63	300.3647
239.00	300.5010
240.98	301.2339
241.98	301.6037
241.98	301.6037
241.98	301.6037
244.69	271.6410
245.39	233.4895
247.94	252.0827
248.90	251.9422
249.79	285.3694
252.40	247.9538
252.85	267.2462
252.85	267.2462
254.15	0.0000
256.20	288.5497
256.20	288.5497
260.50	239.1165
260.90	242.2816
262.80	263.2162
264.65	265.8160
268.24	259.5081
268.79	258.0266
269.46	263.1523
269.46	263.1523
269.46	263.1523
269.46	263.1523
271.23	263.6758
273.65	264.3867
276.40	229.2801
277.35	229.5199
277.60	229.5806
277.60	229.5806
278.00	229.6820
278.60	215.9885
279.20	226.1033
279.53	226.1830
280.46	224.7506
281.68	248.3855
283.67	247.8065
284.30	232.8479
285.00	238.4022
285.90	241.7717
286.10	241.8211
286.10	241.8211
287.40	206.5169
288.45	0.0000
290.67	237.3179
290.80	237.3523
291.72	242.6379
293.26	0.0000
293.70	194.1748
295.21	209.7041
295.21	209.7041

295.21	209.7041
295.96	224.2537
296.50	224.3798
297.23	224.5480
298.57	224.8618
299.80	225.1465
299.80	225.1465
300.09	215.8659
300.09	215.8659
300.09	215.8659
300.09	215.8659
300.12	215.8721
301.29	216.1294
302.84	228.4052
303.76	203.0292
303.91	203.0583
304.40	220.2322
304.40	220.2322
304.84	222.0410
306.84	191.6824
308.46	234.6390
311.98	216.1143
316.51	196.5659
318.01	219.5718
319.02	199.2173
319.41	205.7918
320.08	215.6795
323.87	196.6796
323.87	196.6796
323.87	196.6796
323.87	196.6796
325.23	221.3353
328.77	222.0888
333.44	158.0867
334.20	205.0724
334.20	205.0724
334.30	205.0924
338.28	212.8430
338.28	212.8430
338.28	212.8430
338.28	212.8430
338.32	212.8519
338.32	212.8519
338.32	212.8519
340.50	217.4842
340.57	217.4992
344.27	214.6953
345.85	225.6668
350.59	0.0000
351.07	204.2024
351.92	204.3615
351.92	204.3615
351.92	204.3615
355.39	0.0000
356.01	191.8868
364.48	173.4586
366.43	180.9961
367.43	189.3067
367.94	0.0000
369.80	199.6812
374.96	190.5441
383.85	171.7789
387.95	199.1013
388.63	171.5459
391.69	163.6602
391.69	163.6602
392.90	171.2289
398.62	182.2642
400.65	176.0432
401.10	172.3829
401.81	166.8871
402.60	159.6334
404.84	182.2507
410.95	173.7514
411.60	178.5402
413.65	164.7119
414.70	173.0911
415.30	161.2626

415.76	163.1019
417.63	0.0000
418.52	162.5098
423.70	167.9123
427.08	149.3282
427.89	151.3256
432.53	150.9081
433.93	174.0175
439.47	146.9039
439.56	146.9133
439.89	146.9506
443.98	166.6688
444.90	147.5016
445.03	146.5523
445.03	146.5523
445.03	146.5523
445.03	146.5523
453.90	144.6038
463.38	130.2930
468.07	137.2690
473.00	143.6546
475.06	150.7607
475.35	143.8934
476.78	143.0512
477.59	164.8493
477.96	162.9174
482.03	146.5493
484.57	155.7351
487.03	161.9633
490.36	0.0000
492.35	141.6134
497.08	138.0691
507.63	0.0000
510.53	0.0000
510.84	151.4685
511.00	151.4841
511.85	159.9907
511.85	159.9907
513.99	146.7240
513.99	146.7240
520.41	133.1172
520.65	133.1396
527.90	119.4708
528.96	0.0000
529.64	132.8945
529.87	0.0000
531.02	142.2205
537.32	121.2237
543.00	143.3098
546.56	0.0000
549.76	150.1331
552.65	138.9923
555.20	114.2781
563.23	119.0209
563.90	126.3794
568.70	144.5597
569.32	139.3740
569.50	144.6271
569.67	144.6440
573.80	149.2075
574.00	145.0213
574.64	141.3406
578.91	166.8801
579.30	0.0000
583.14	144.7598
585.48	114.6281
591.81	128.5093
592.07	125.3433
593.00	130.7235
595.88	132.0103
600.56	151.8194
602.52	0.0000
602.71	149.6353
602.71	149.6353
603.60	137.2346
604.41	142.6497
604.70	142.6725
609.31	153.4213

609.31	153.4213
609.31	153.4213
609.31	153.4213
610.33	146.7131
612.46	121.8112
614.37	109.3910
618.01	138.9678
621.84	129.6621
621.84	129.6621
631.29	144.4719
633.02	118.5135
633.10	113.0822
634.78	125.1608
635.90	135.0377
636.97	111.1466
645.85	100.7373
646.12	104.0385
656.30	117.4583
657.75	107.4476
657.90	0.0000
661.65	147.2461
661.65	147.2461
664.57	0.0000
666.33	125.4691
666.33	125.4691
675.00	132.5322
677.61	108.5830
685.20	117.3995
692.80	133.7599
695.00	133.9112
696.49	159.3162
696.49	159.3162
697.00	153.7333
697.49	144.3969
698.33	138.8283
698.50	138.8403
699.00	136.9998
702.63	125.0311
706.10	110.1826
706.58	0.0000
706.67	106.4479
709.31	130.1696
711.68	111.4364
713.82	127.6282
717.42	114.5994
720.50	128.0539
721.93	0.0000
722.20	122.0581
722.78	125.3506
722.78	125.3506
722.89	125.3560
722.95	125.3586
723.30	117.2411
724.18	120.5494
727.18	107.6759
733.00	121.0733
735.90	111.2492
739.58	90.9586
742.81	116.9936
744.21	128.5857
747.13	129.7293
751.79	117.4975
752.31	115.6006
753.82	120.5037
755.35	132.1697
756.15	134.1500
756.87	124.5410
763.93	121.2220
765.79	131.3011
766.42	121.3645
766.84	126.3760
776.49	133.4908
778.00	127.7325
778.57	124.8411
778.89	124.8594
783.80	120.2548
785.46	126.2180
792.07	132.4896

795.84	102.2417
796.30	103.2462
798.80	175.2260
801.93	116.3267
805.60	100.7196
810.29	125.6693
810.76	122.7285
815.85	111.1022
817.79	92.3359
818.51	87.3984
819.60	104.3335
826.30	121.5855
828.27	0.0000
831.60	130.8587
831.96	135.8755
834.83	149.0485
836.80	0.0000
846.75	105.5789
848.13	103.6308
856.28	0.0000
856.80	93.4849
860.37	93.0500
867.32	102.5977
867.82	120.0136
871.10	88.3930
873.19	84.4033
874.81	99.7247
875.33	0.0000
876.40	109.9731
879.36	105.0117
880.27	89.7528
880.51	89.7617
881.50	89.7993
883.24	80.6732
884.67	74.5906
889.25	107.4930
896.60	91.3883
898.02	109.9367
899.00	125.3980
903.28	121.7920
911.07	111.5552
911.07	111.5552
911.07	111.5552
919.63	103.6479
920.93	102.9486
925.00	67.6650
925.24	78.3566
926.50	92.6504
935.52	89.4060
937.48	93.0548
944.10	125.5933
946.00	101.5962
949.00	103.8138
962.29	92.7552
964.01	92.8179
966.15	92.8949
968.20	92.9665
969.11	90.5849
969.11	90.5849
969.11	90.5849
977.42	78.8774
980.50	107.2036
983.50	104.1370
989.30	101.1714
996.32	135.6067
1001.03	98.4089
1001.68	104.8508
1004.76	130.6799
1021.30	0.0000
1024.50	0.0000
1034.80	88.8066
1036.00	91.9424
1037.82	82.7080
1038.57	85.5184
1038.76	0.0000
1045.16	117.4043
1046.59	110.0077
1048.07	87.6791

1050.47	92.4223
1050.47	92.4223
1062.04	115.2996
1063.62	105.9848
1076.63	90.4554
1077.35	93.3028
1078.86	92.4116
1085.78	96.4148
1099.22	100.6616
1112.02	120.1772
1112.84	120.2124
1115.52	120.3223
1120.29	129.1239
1120.29	129.1239
1120.29	129.1239
1120.29	129.1239
1120.51	129.1333
1121.28	127.2527
1124.00	0.0000
1129.67	119.5546
1131.51	0.0000
1147.95	0.0000
1167.94	140.8986
1173.22	115.8333
1175.09	112.0079
1177.93	130.6350
1189.05	129.1456
1204.90	139.6327
1205.75	0.0000
1213.00	145.9095
1221.42	136.4069
1230.97	186.3870
1235.34	128.0687
1236.41	0.0000
1238.25	122.2192
1246.25	113.5587
1260.41	0.0000
1271.85	91.3586
1274.45	97.4567
1274.54	95.4506
1291.56	106.0364
1298.22	0.0000
1312.09	70.1070
1325.50	71.4014
1325.50	71.4014
1332.49	75.6363
1333.61	69.5250
1360.21	46.3623
1362.66	0.0000
1365.15	49.5234
1368.21	61.9566
1368.53	0.0000
1376.25	53.8191
1384.27	69.5003
1394.10	59.2902
1395.20	60.3486
1407.95	51.1636
1434.06	45.2211
1436.60	47.3573
1457.56	0.0000
1460.81	46.3425
1489.15	37.3535
1509.49	25.0350
1596.49	29.4313
1620.62	36.6861
1678.03	0.0000
1691.02	18.6544
1691.02	18.6544
1706.46	0.0000
1750.46	0.0000
1764.49	15.9766
1764.49	15.9766
1764.49	15.9766
1764.49	15.9766
1770.23	28.4392
1771.40	120.0110
1791.20	0.0000
1808.65	23.1937

1836.01 33.4784

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691013

Total Uranium Activity	8.0523E+00	ug/g
Total Uranium Counting Unc.	6.3613E+00	ug/g
Total Uranium Tpu	3.2456E-06	ug/g
Total Uranium Mda	3.7271E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID   : G245691013      *
*   ANALYST       : MJH1                      DETECTOR    : GAM18           *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 17:37:24.94    SAMPLE ALQT:  127.760 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.033E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.449E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.608E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.266E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:27:43.03

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691014.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:27:05.
Sample ID         : G245691014           Sample quantity  : 1.30090E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:09.61  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.47*	144	440	0.97	92.58	89	9	2.00E-02	28.7	
2	0	63.20*	320	690	0.83	126.04	121	10	4.44E-02	16.7	
3	4	74.85*	568	411	1.05	149.35	143	18	7.88E-02	7.0	1.57E+00
4	4	77.15*	852	389	0.92	153.95	143	18	1.18E-01	5.1	
5	3	83.98*	148	405	1.21	167.61	164	28	2.05E-02	23.8	2.20E+00
6	3	87.23	322	382	1.17	174.12	164	28	4.47E-02	11.3	
7	3	89.84	176	310	0.93	179.33	164	28	2.44E-02	17.8	
8	3	92.65*	526	342	1.24	184.96	164	28	7.30E-02	7.8	
9	0	128.84	81	229	0.85	257.36	254	7	1.12E-02	33.1	
10	0	185.92*	234	314	1.16	371.58	367	11	3.25E-02	16.6	
11	0	208.99	148	276	0.95	417.72	412	12	2.06E-02	23.8	
12	0	238.50*	833	276	1.06	476.76	473	8	1.16E-01	5.0	
13	0	241.61	166	176	1.23	483.00	481	7	2.30E-02	15.9	
14	0	269.67	123	129	1.06	539.14	533	11	1.71E-02	20.0	
15	0	295.18*	337	180	1.19	590.18	585	12	4.68E-02	9.8	
16	0	299.85	62	163	1.04	599.53	596	10	8.63E-03	40.4	
17	0	327.48	112	117	0.96	654.80	649	12	1.55E-02	21.6	
18	0	338.03*	139	108	1.26	675.91	671	9	1.93E-02	16.2	
19	0	351.62*	516	164	1.22	703.10	696	13	7.17E-02	6.9	
20	0	510.77*	106	144	2.03	1021.57	1014	19	1.47E-02	31.3	
21	0	582.73*	237	69	1.43	1165.56	1158	12	3.29E-02	9.7	
22	0	608.98*	325	104	1.43	1218.09	1211	13	4.51E-02	8.7	
23	0	661.24*	43	47	1.45	1322.66	1319	9	5.93E-03	33.3	
24	0	726.35	89	38	2.42	1452.96	1447	15	1.23E-02	18.5	
25	0	910.57*	175	51	1.54	1821.65	1816	13	2.43E-02	11.4	
26	0	968.86*	107	37	1.95	1938.30	1933	13	1.48E-02	16.0	
27	0	1119.65	73	59	1.59	2240.10	2231	18	1.02E-02	27.1	
28	0	1459.58*	698	13	2.01	2920.53	2911	18	9.69E-02	4.0	
29	0	1763.02*	63	7	2.46	3527.97	3521	14	8.77E-03	15.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 19:27:45

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691014.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:27:05
Sample ID : G245691014 Sample quantity : 130.09 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:09.61 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.425E+01	2.901E+00	7.167E-01	6.363E-02	33.839
CD-109	+	88.03	*	3.825E+00	9.449E-01	9.736E-01	9.505E-02	3.928
SN-126	+	64.28		1.419E+00	5.244E-01	4.056E-01	6.475E-02	3.499
	+	86.94		1.563E+00	7.406E-01	3.965E-01	1.650E-01	3.942
	+	87.57	*	3.759E-01	9.286E-02	9.555E-02	9.324E-03	3.934
CS-135	+	268.24	*	6.095E-01	2.517E-01	2.513E-01	2.622E-02	2.426
BA-137M	+	661.65	*	8.541E-02	5.734E-02	7.277E-02	6.130E-03	1.174
CS-137	+	661.65	*	9.028E-02	6.062E-02	7.693E-02	6.493E-03	1.174
TL-208		277.35		3.581E-01	3.975E-01	7.014E-01	8.930E-02	0.511
	+	510.84		6.855E-01	4.368E-01	2.414E-01	2.949E-02	2.839
	+	583.14	*	4.485E-01	9.676E-02	7.004E-02	6.625E-03	6.404
		860.37		7.223E-01	3.800E-01	7.261E-01	6.832E-02	0.995
BI-210	+	46.50	*	1.629E+00	9.514E-01	7.965E-01	8.641E-02	2.045
PB-210	+	46.50	*	1.629E+00	9.514E-01	7.965E-01	8.641E-02	2.045
PO-210	+	46.50	*	1.629E+00	9.492E-01	7.965E-01	8.047E-02	2.045
BI-211		72.87		2.677E+00	1.881E+00	3.291E+00	3.218E-01	0.813
	+	351.07	*	3.957E+00	6.580E-01	3.519E-01	3.284E-02	11.246
PB-212	+	74.81		2.253E+00	4.398E-01	3.552E-01	4.801E-02	6.342
	+	77.11		2.013E+00	2.852E-01	2.121E-01	2.068E-02	9.490
	+	87.30		1.738E+00	4.633E-01	4.415E-01	6.169E-02	3.937
	+	238.63	*	1.340E+00	1.903E-01	1.088E-01	1.097E-02	12.315
	+	300.09		1.573E+00	1.284E+00	1.229E+00	1.338E-01	1.280
PO-212	+	74.81		2.253E+00	4.398E-01	3.552E-01	4.801E-02	6.342
	+	77.11		2.013E+00	2.852E-01	2.121E-01	2.068E-02	9.490
	+	87.30		1.738E+00	4.633E-01	4.415E-01	6.169E-02	3.937
		115.19		-6.196E-01	3.273E+00	5.377E+00	6.054E-01	-0.115
	+	238.63	*	1.340E+00	1.903E-01	1.088E-01	1.097E-02	12.315
	+	300.09		1.573E+00	1.284E+00	1.229E+00	1.338E-01	1.280
BI-214	+	609.31	*	1.165E+00	2.347E-01	1.312E-01	1.335E-02	8.875
	+	1120.29		1.433E+00	7.924E-01	5.431E-01	5.806E-02	2.639
	+	1764.49		1.716E+00	5.618E-01	3.345E-01	2.829E-02	5.128
PB-214	+	74.81		3.882E+00	7.248E-01	6.121E-01	7.500E-02	6.342
	+	77.11		3.451E+00	5.552E-01	3.636E-01	4.499E-02	9.490
	+	87.30		2.978E+00	7.707E-01	7.564E-01	9.406E-02	3.937

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		1.601E+00	5.363E-01	5.504E-01	5.860E-02	2.909
	+	295.21		1.495E+00	3.358E-01	2.148E-01	2.386E-02	6.961
	+	351.92	*	1.377E+00	2.399E-01	1.227E-01	1.311E-02	11.218
PO-214	+	74.81		3.882E+00	7.248E-01	6.121E-01	7.500E-02	6.342
	+	77.11		3.451E+00	5.552E-01	3.636E-01	4.499E-02	9.490
	+	87.30		2.978E+00	7.707E-01	7.564E-01	9.406E-02	3.937
	+	241.98		1.601E+00	5.363E-01	5.504E-01	5.860E-02	2.909
	+	295.21		1.495E+00	3.358E-01	2.148E-01	2.386E-02	6.961
	+	351.92	*	1.377E+00	2.399E-01	1.227E-01	1.311E-02	11.218
PO-216	+	74.81		2.253E+00	4.398E-01	3.552E-01	4.801E-02	6.342
	+	77.11		2.013E+00	2.852E-01	2.121E-01	2.068E-02	9.490
	+	87.30		1.738E+00	4.633E-01	4.415E-01	6.169E-02	3.937
	+	238.63	*	1.340E+00	1.903E-01	1.088E-01	1.097E-02	12.315
	+	300.09		1.573E+00	1.284E+00	1.229E+00	1.338E-01	1.280
PO-218	+	74.81		3.882E+00	7.248E-01	6.121E-01	7.500E-02	6.342
	+	77.11		3.451E+00	5.552E-01	3.636E-01	4.499E-02	9.490
	+	87.30		2.978E+00	7.707E-01	7.564E-01	9.406E-02	3.937
	+	241.98		1.601E+00	5.363E-01	5.504E-01	5.860E-02	2.909
	+	295.21		1.495E+00	3.358E-01	2.148E-01	2.386E-02	6.961
	+	351.92	*	1.377E+00	2.399E-01	1.227E-01	1.311E-02	11.218
RA-224	+	240.98	*	3.036E+00	1.003E+00	1.367E+00	1.236E-01	2.222
RA-226	+	609.31	*	1.165E+00	2.347E-01	1.312E-01	1.335E-02	8.875
	+	1120.29		1.433E+00	7.924E-01	5.431E-01	5.806E-02	2.639
	+	1764.49		1.716E+00	5.618E-01	3.345E-01	2.829E-02	5.128
AC-228	+	338.32		1.168E+00	6.137E-01	4.085E-01	1.689E-01	2.860
	+	911.07	*	1.545E+00	3.937E-01	2.928E-01	3.322E-02	5.275
	+	969.11		1.665E+00	6.601E-01	5.177E-01	1.210E-01	3.216
RA-228	+	338.32		1.168E+00	6.137E-01	4.085E-01	1.689E-01	2.860
	+	911.07	*	1.545E+00	3.937E-01	2.928E-01	3.322E-02	5.275
	+	969.11		1.665E+00	6.601E-01	5.177E-01	1.210E-01	3.216
TH-228	+	74.81		2.287E+00	3.929E-01	3.607E-01	3.544E-02	6.342
	+	77.11		2.044E+00	2.896E-01	2.154E-01	2.099E-02	9.490
	+	87.30		1.765E+00	4.360E-01	4.483E-01	4.374E-02	3.937
	+	238.63	*	1.361E+00	1.932E-01	1.105E-01	1.114E-02	12.315
	+	300.09		1.597E+00	1.602E+00	1.247E+00	7.405E-01	1.280
TH-230	+	609.31	*	1.165E+00	2.347E-01	1.312E-01	1.335E-02	8.875
	+	1120.29		1.433E+00	7.924E-01	5.431E-01	5.806E-02	2.639
	+	1764.49		1.716E+00	5.618E-01	3.345E-01	2.829E-02	5.128
TH-232	+	338.32		1.168E+00	3.929E-01	4.085E-01	3.681E-02	2.860
	+	911.07	*	1.545E+00	3.937E-01	2.928E-01	3.322E-02	5.275
	+	969.11		1.665E+00	6.601E-01	5.177E-01	1.210E-01	3.216
TH-234	+	63.29	*	3.585E+00	1.369E+00	9.836E-01	1.836E-01	3.645
	+	92.38		4.250E+00	1.036E+00	6.636E-01	1.245E-01	6.405
U-234	+	609.31	*	1.165E+00	2.347E-01	1.312E-01	1.335E-02	8.875
	+	1120.29		1.433E+00	7.924E-01	5.431E-01	5.806E-02	2.639
	+	1764.49		1.716E+00	5.618E-01	3.345E-01	2.829E-02	5.128
NP-237	+	86.50	*	1.104E+00	3.553E-01	2.797E-01	6.383E-02	3.947
		95.87		3.412E-01	8.576E-01	1.308E+00	3.298E-01	0.261
U-238	+	63.29	*	3.585E+00	1.369E+00	9.836E-01	1.836E-01	3.645

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		4.250E+00	7.857E-01	6.636E-01	6.614E-02	6.405
AM-243	+	74.67	*	3.652E-01	6.260E-02	5.758E-02	5.621E-03	6.344
	+	86.72		4.139E+01	1.023E+01	1.049E+01	1.024E+00	3.944
		117.66		-2.318E+00	3.597E+00	5.762E+00	6.579E-01	-0.402
		142.18		4.558E-01	1.811E+01	2.975E+01	3.068E+00	0.015
ANH-511	+	511.00	*	1.481E-01	9.354E-02	5.217E-02	4.659E-03	2.838

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.212E-01	3.699E-01	6.226E-01	5.924E-02	0.195
NA-22		1274.54	*	1.925E-02	5.638E-02	9.562E-02	8.056E-03	0.201
NA-24		1368.53	*	-2.936E-01	5.638E-02	Half-Life too short		
AL-26		1129.67		2.667E+00	2.392E+00	4.297E+00	3.590E-01	0.621
		1808.65	*	3.071E-02	2.335E-02	5.397E-02	4.523E-03	0.569
TI-44		67.85		1.837E-03	2.554E-02	4.151E-02	4.088E-03	0.044
	+	78.38	*	3.715E-01	5.263E-02	6.085E-02	5.929E-03	6.105
SC-46		889.25	*	-3.692E-02	4.987E-02	7.561E-02	6.619E-03	-0.488
	+	1120.51		2.456E-01	1.348E-01	1.604E-01	1.346E-02	1.531
V-48		944.10		-4.088E-01	1.119E+00	1.766E+00	1.545E-01	-0.231
		983.50	*	-5.212E-02	9.253E-02	1.420E-01	1.238E-02	-0.367
		1312.09		1.783E-02	1.099E-01	1.878E-01	1.594E-02	0.095
CR-51		320.08	*	2.253E-01	3.585E-01	6.277E-01	5.995E-02	0.359
MN-52		744.21		1.681E-01	3.051E-01	5.360E-01	4.659E-02	0.314
		848.13		9.858E-01	8.951E+00	1.503E+01	1.321E+00	0.066
		935.52		-2.050E-02	3.137E-01	5.134E-01	4.493E-02	-0.040
		1246.25		2.181E+00	9.608E+00	1.586E+01	1.325E+00	0.137
		1333.61		5.853E+00	6.529E+00	1.210E+01	1.031E+00	0.484
		1434.06	*	-6.662E-02	2.600E-01	4.128E-01	3.559E-02	-0.161
MN-54		834.83	*	3.496E-02	5.097E-02	8.954E-02	7.873E-03	0.390
CO-56		846.75	*	9.679E-03	4.741E-02	8.043E-02	7.070E-03	0.120
		977.42		1.082E+00	3.881E+00	6.409E+00	5.594E-01	0.169
		1037.82		-1.558E-01	3.522E-01	5.410E-01	4.920E-02	-0.288
		1175.09		-3.696E-01	2.710E+00	4.311E+00	3.524E-01	-0.086
		1238.25		2.099E-01	1.315E-01	2.388E-01	2.052E-02	0.879
		1360.21		5.773E-01	1.263E+00	2.240E+00	1.917E-01	0.258
		1771.40		-1.036E-01	2.951E-01	4.434E-01	3.745E-02	-0.234
CO-57		122.06	*	-2.464E-03	2.363E-02	3.888E-02	4.555E-03	-0.063
		136.48		-1.751E-01	2.021E-01	3.163E-01	3.561E-02	-0.554
CO-58		810.76	*	-2.466E-02	4.431E-02	6.914E-02	6.088E-03	-0.357
FE-59		142.65		2.032E+00	2.892E+00	4.787E+00	4.920E-01	0.424
		192.34		1.543E+00	9.895E-01	1.695E+00	2.277E-01	0.911
		1099.22	*	3.806E-02	1.243E-01	2.088E-01	1.916E-02	0.182
		1291.56		-4.910E-02	1.575E-01	2.415E-01	2.327E-02	-0.203
CO-60		1173.22		1.049E-02	5.471E-02	9.054E-02	7.396E-03	0.116
		1332.49	*	3.836E-02	5.000E-02	9.146E-02	7.795E-03	0.419
ZN-65		1115.52	*	2.787E-02	1.242E-01	1.808E-01	1.522E-02	0.154
GE-68		1077.35	*	-1.180E+00	1.564E+00	2.303E+00	1.966E-01	-0.512

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	1.093E-01	2.332E-01	3.982E-01	3.984E-02	0.274
AS-74		595.88	*	4.583E-03	1.015E-01	1.645E-01	1.449E-02	0.028
		634.78		-6.111E-02	4.735E-01	7.508E-01	6.466E-02	-0.081
SE-75		66.05		2.438E+00	2.674E+00	4.227E+00	4.861E-01	0.577
		96.73		-4.223E-01	7.143E-01	1.031E+00	1.513E-01	-0.410
		121.11		-2.357E-02	1.285E-01	2.105E-01	2.881E-02	-0.112
		136.00		-4.128E-02	3.823E-02	5.905E-02	6.386E-03	-0.699
		198.60		-5.753E-01	1.823E+00	2.836E+00	2.732E-01	-0.203
		264.65	*	2.688E-02	5.038E-02	7.436E-02	6.832E-03	0.362
		279.53		-3.638E-02	1.129E-01	1.880E-01	1.783E-02	-0.194
		303.91		-7.957E-01	2.417E+00	3.495E+00	4.156E-01	-0.228
		400.65		2.143E-01	2.991E-01	5.187E-01	5.710E-02	0.413
BR-77	+	87.88		8.533E+02	2.108E+02	3.056E+02	2.982E+01	2.792
		200.40		9.616E+00	1.715E+02	2.771E+02	2.416E+01	0.035
	+	239.00		2.222E+02	2.995E+01	4.189E+01	3.784E+00	5.304
		249.79		-3.949E+01	6.621E+01	1.003E+02	9.119E+00	-0.394
		281.68		7.468E+00	9.206E+01	1.568E+02	1.440E+01	0.048
		297.23		5.919E+01	9.797E+01	1.152E+02	1.057E+01	0.514
		303.76		-7.377E+01	2.122E+02	3.064E+02	2.809E+01	-0.241
		439.47		4.594E+01	1.696E+02	2.854E+02	2.487E+01	0.161
		484.57		2.303E+02	2.565E+02	4.518E+02	4.014E+01	0.510
		520.65	*	-6.662E+00	1.277E+01	1.979E+01	1.769E+00	-0.337
		574.64		-2.180E+02	2.842E+02	4.082E+02	3.624E+01	-0.534
		578.91		4.165E+01	1.169E+02	1.727E+02	1.532E+01	0.241
		585.48		2.377E+02	2.480E+02	3.873E+02	3.426E+01	0.614
		755.35		7.991E+01	2.030E+02	3.526E+02	3.073E+01	0.227
		817.79		-9.029E+01	1.656E+02	2.593E+02	2.279E+01	-0.348
SR-82		698.33		-1.680E+01	4.499E+01	7.356E+01	6.299E+00	-0.228
		776.49	*	-1.818E-01	4.456E-01	7.138E-01	6.247E-02	-0.255
		1395.20		-1.907E+00	1.120E+01	1.811E+01	1.556E+00	-0.105
RB-83		520.41	*	-3.762E-02	8.222E-02	1.283E-01	1.147E-02	-0.293
		529.64		4.238E-02	1.190E-01	2.000E-01	1.788E-02	0.212
		552.65		-9.038E-02	2.150E-01	3.332E-01	2.973E-02	-0.271
RB-84		881.50	*	-5.143E-02	8.286E-02	1.270E-01	1.113E-02	-0.405
KR-85		513.99	*	6.771E+00	8.032E+00	1.396E+01	1.247E+00	0.485
SR-85		513.99	*	3.476E-02	4.123E-02	7.166E-02	6.402E-03	0.485
RB-86		1076.63	*	-5.857E-01	9.430E-01	1.410E+00	1.203E-01	-0.416
Y-88		898.02		-2.176E-02	5.612E-02	8.870E-02	7.791E-03	-0.245
		1836.01	*	-5.247E-03	3.906E-02	6.139E-02	5.119E-03	-0.085
ZR-88		392.90	*	-1.733E-02	3.289E-02	5.239E-02	4.414E-03	-0.331
Y-91		1204.90	*	1.076E+01	2.489E+01	4.200E+01	3.467E+00	0.256
NB-94		702.63	*	3.252E-02	4.343E-02	7.724E-02	6.626E-03	0.421
		871.10		-5.458E-03	4.022E-02	6.565E-02	5.761E-03	-0.083
NB-95		765.79	*	3.704E-02	5.550E-02	9.772E-02	8.535E-03	0.379
NB-95M		235.69	*	-5.208E-02	1.434E-01	1.973E-01	2.014E-02	-0.264
ZR-95		724.18		9.902E-02	1.331E-01	2.113E-01	1.983E-02	0.469
		756.15	*	5.565E-02	8.272E-02	1.472E-01	1.410E-02	0.378
NB-97		657.90	*	-7.401E-02	8.272E-02	Half-Life too short		
		1024.50		-7.786E+00	8.272E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97		254.15		2.812E+00	8.272E-02	Half-Life too short		
		355.39		-5.366E-01	8.272E-02	Half-Life too short		
		507.63	*	3.340E+00	8.272E-02	Half-Life too short		
		602.52		-8.429E+00	8.272E-02	Half-Life too short		
		1021.30		2.836E+00	8.272E-02	Half-Life too short		
		1147.95		-5.232E+00	8.272E-02	Half-Life too short		
		1362.66		7.962E+00	8.272E-02	Half-Life too short		
		1750.46		-2.680E+00	8.272E-02	Half-Life too short		
MO-99		140.51		-2.163E+01	2.868E+01	4.379E+01	1.240E+01	-0.494
		181.06		-3.902E+00	2.073E+01	2.954E+01	5.387E+00	-0.132
		366.43		-6.173E+00	9.134E+01	1.517E+02	1.327E+01	-0.041
		739.58	*	-8.351E+00	1.559E+01	2.482E+01	3.778E+00	-0.336
		778.00		-6.067E+00	4.140E+01	6.821E+01	5.971E+00	-0.089
TC-99M		140.51	*	-4.147E+10	4.140E+01	Half-Life too short		
RH-101		127.23		1.427E-02	3.290E-02	4.988E-02	5.673E-03	0.286
		198.01	*	-1.032E-02	3.296E-02	5.126E-02	4.457E-03	-0.201
		325.23		4.057E-02	2.428E-01	3.655E-01	3.322E-02	0.111
RH-102		418.52		-2.047E-01	3.267E-01	5.137E-01	4.417E-02	-0.398
		475.06	*	8.921E-03	3.323E-02	5.571E-02	4.935E-03	0.160
		631.29		-5.652E-03	6.793E-02	1.082E-01	9.340E-03	-0.052
		697.49		-4.362E-02	1.027E-01	1.673E-01	1.432E-02	-0.261
		766.84		7.693E-02	1.421E-01	2.477E-01	2.164E-02	0.311
		1046.59		-2.768E-02	1.548E-01	2.479E-01	2.136E-02	-0.112
		1112.84		2.721E-01	2.877E-01	4.695E-01	3.953E-02	0.580
RU-103		497.08	*	-1.068E-02	4.854E-02	7.783E-02	1.116E-02	-0.137
	+	610.33		1.260E+01	3.043E+00	3.534E+00	5.920E-01	3.565
RH-106	+	511.85		7.397E-01	4.673E-01	5.066E-01	4.525E-02	1.460
		621.84	*	-3.553E-01	3.765E-01	5.378E-01	7.207E-02	-0.661
		1050.47		1.245E+00	3.087E+00	5.258E+00	4.525E-01	0.237
RU-106	+	511.85		7.397E-01	4.673E-01	5.066E-01	4.525E-02	1.460
		621.84	*	-3.553E-01	3.747E-01	5.378E-01	4.672E-02	-0.661
		1050.47		1.245E+00	3.087E+00	5.258E+00	4.525E-01	0.237
AG-108M		433.93	*	-4.122E-03	3.702E-02	6.056E-02	5.466E-03	-0.068
		614.37		-2.481E-02	5.748E-02	7.625E-02	6.910E-03	-0.325
		722.95		-1.849E-02	5.692E-02	7.978E-02	7.161E-03	-0.232
AG-110M		657.75	*	-7.607E-03	4.662E-02	6.345E-02	5.530E-03	-0.120
		677.61		3.227E-01	3.791E-01	6.564E-01	5.733E-02	0.492
		706.67		-2.580E-01	2.659E-01	4.088E-01	3.609E-02	-0.631
		763.93		5.582E-04	2.152E-01	3.603E-01	3.233E-02	0.002
		884.67		4.584E-02	6.140E-02	1.094E-01	9.879E-03	0.419
		937.48		-3.053E-02	1.341E-01	2.153E-01	1.950E-02	-0.142
		1384.27		3.873E-02	1.506E-01	2.635E-01	2.326E-02	0.147
IN-111		171.28		-3.160E-01	1.061E+00	1.696E+00	1.424E-01	-0.186
		245.39	*	3.054E-01	1.154E+00	1.673E+00	1.517E-01	0.183
IN-113M		391.69	*	1.003E-02	4.772E-02	8.050E-02	6.995E-03	0.125
SN-113		391.69	*	1.003E-02	4.772E-02	8.050E-02	6.995E-03	0.125
IN-114M		190.27	*	-1.116E-01	2.126E-01	2.941E-01	2.533E-02	-0.380
CD-115		260.90		-7.655E+01	1.436E+02	2.187E+02	1.998E+01	-0.350
		492.35		-7.190E+00	4.370E+01	7.046E+01	6.272E+00	-0.102

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		527.90	*	1.185E+01	1.343E+01	2.346E+01	2.097E+00	0.505
SN-117M		156.02		-2.185E+00	2.397E+00	3.726E+00	3.430E-01	-0.587
		158.56	*	-1.036E-02	5.688E-02	9.196E-02	8.266E-03	-0.113
SB-122		563.90	*	5.198E-01	2.607E+00	4.297E+00	3.826E-01	0.121
		692.80		-4.284E+00	5.367E+01	8.987E+01	7.679E+00	-0.048
I-123		159.00	*	3.057E+00	5.367E+01	Half-Life too short		
		528.96		5.411E+02	5.367E+01	Half-Life too short		
TE-123M		159.00	*	1.314E-02	2.885E-02	4.811E-02	4.330E-03	0.273
I-124		602.71	*	-5.481E-01	9.848E-01	1.286E+00	1.129E-01	-0.426
		722.78		-2.076E+00	5.964E+00	8.325E+00	7.191E-01	-0.249
		1325.50		-1.670E+01	4.708E+01	7.541E+01	6.418E+00	-0.221
		1376.25		6.067E+01	3.815E+01	7.568E+01	6.489E+00	0.802
		1509.49		2.454E+01	2.083E+01	4.012E+01	3.470E+00	0.612
		1691.02		1.230E+00	4.922E+00	8.497E+00	7.268E-01	0.145
SB-124		602.71		-3.132E-02	5.627E-02	7.347E-02	6.452E-03	-0.426
		645.85		-3.472E-04	6.219E-01	9.969E-01	9.034E-02	0.000
		709.31		2.876E+00	3.558E+00	6.197E+00	5.329E-01	0.464
		713.82		3.307E-01	2.076E+00	3.540E+00	4.260E-01	0.093
		722.78		-1.720E-01	4.940E-01	6.896E-01	6.085E-02	-0.249
	+	968.20		1.716E+01	5.696E+00	8.767E+00	7.659E-01	1.958
		1045.16		1.271E+00	3.137E+00	5.358E+00	4.618E-01	0.237
		1325.50		-1.477E+00	4.165E+00	6.672E+00	5.678E-01	-0.221
		1368.21		-9.320E-01	1.955E+00	3.003E+00	4.036E-01	-0.310
		1436.60		7.152E-01	4.168E+00	7.144E+00	6.161E-01	0.100
		1691.02	*	2.403E-02	9.617E-02	1.660E-01	1.477E-02	0.145
SB-125		427.89	*	3.492E-02	1.029E-01	1.743E-01	1.538E-02	0.200
		463.38		5.595E-01	3.386E-01	6.144E-01	5.825E-02	0.911
		600.56		1.690E-01	2.203E-01	3.783E-01	3.562E-02	0.447
		635.90		1.155E-01	3.490E-01	5.777E-01	5.374E-02	0.200
TE-125M		109.28	*	-3.123E+00	7.909E+00	1.288E+01	1.583E+00	-0.242
I-126		388.63		7.958E-02	2.209E-01	3.765E-01	3.186E-02	0.211
		666.33	*	-3.184E-03	2.611E-01	3.634E-01	3.068E-02	-0.009
		753.82		5.638E-01	1.737E+00	3.000E+00	2.614E-01	0.188
SB-126		223.80		-2.732E+00	4.368E+00	6.715E+00	5.994E-01	-0.407
		278.60		2.005E+00	2.590E+00	4.562E+00	4.188E-01	0.439
	+	296.50		1.498E+01	3.231E+00	4.056E+00	3.724E-01	3.693
		414.70		3.304E-02	8.122E-02	1.385E-01	1.188E-02	0.238
		415.30		3.976E-01	6.792E+00	1.129E+01	9.687E-01	0.035
		555.20		-1.026E+00	4.115E+00	6.488E+00	5.788E-01	-0.158
		573.80		-2.105E-02	1.313E+00	2.121E+00	1.884E-01	-0.010
		593.00		-1.059E+00	9.702E-01	1.352E+00	1.192E-01	-0.783
		656.30		1.585E+00	4.628E+00	6.775E+00	5.735E-01	0.234
		666.33		-1.331E-03	1.091E-01	1.519E-01	1.282E-02	-0.009
		675.00		1.921E-01	2.448E+00	3.943E+00	3.343E-01	0.049
		695.00		4.172E-02	9.578E-02	1.672E-01	1.430E-02	0.250
		697.00		-1.017E-01	3.596E-01	5.926E-01	5.072E-02	-0.172
		720.50	*	5.663E-02	2.023E-01	3.067E-01	2.647E-02	0.185
		856.80		-6.473E-01	6.284E-01	9.316E-01	8.185E-02	-0.695
		989.30		4.130E-01	1.602E+00	2.704E+00	2.357E-01	0.153

---- Non-Identified Nuclides ----

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		1034.80		-3.051E+00	1.028E+01	1.616E+01	1.396E+00	-0.189
		1213.00		-4.554E+00	6.219E+00	9.188E+00	7.602E-01	-0.496
SB-127		61.10		-4.405E+00	2.721E+01	4.141E+01	5.095E+00	-0.106
		252.40		-1.660E+00	4.473E+00	6.823E+00	2.875E+00	-0.243
		290.80		-3.104E+01	2.545E+01	3.367E+01	3.917E+00	-0.922
		411.60		-9.812E+00	1.401E+01	2.185E+01	3.433E+00	-0.449
		444.90		1.278E+01	1.095E+01	1.953E+01	2.469E+00	0.654
		473.00		-7.838E-01	1.947E+00	3.080E+00	4.019E-01	-0.255
		543.00		1.643E+01	1.992E+01	3.452E+01	5.043E+00	0.476
		603.60		-9.128E+00	1.685E+01	2.200E+01	2.782E+00	-0.415
		685.20	*	-2.405E-01	1.586E+00	2.487E+00	2.819E-01	-0.097
		698.50		1.278E+00	1.997E+01	3.382E+01	5.346E+00	0.038
		722.20		1.045E+01	3.848E+01	5.841E+01	6.545E+00	0.179
		783.80		3.042E+00	4.529E+00	8.003E+00	1.004E+00	0.380
XE-127		57.60		2.471E+00	2.191E+00	3.856E+00	3.872E-01	0.641
		145.22		3.606E-01	7.371E-01	1.209E+00	1.219E-01	0.298
		172.10		1.365E-01	1.204E-01	2.063E-01	1.734E-02	0.661
		202.84	*	2.087E-02	5.015E-02	7.881E-02	6.890E-03	0.265
		374.96		1.143E-01	2.103E-01	3.636E-01	3.145E-02	0.314
I-131		80.18		3.303E-01	4.346E+00	5.272E+00	5.161E-01	0.063
		284.30		-1.510E+00	1.515E+00	2.399E+00	2.305E-01	-0.629
		364.48	*	-2.751E-02	1.263E-01	2.076E-01	1.917E-02	-0.133
		636.97		3.117E-01	1.999E+00	3.256E+00	2.957E-01	0.096
		722.89		-2.924E+00	9.565E+00	1.343E+01	1.168E+00	-0.218
TE-132		49.72		-4.252E+00	4.345E+00	6.326E+00	7.610E-01	-0.672
		111.76		6.352E+00	2.621E+01	4.399E+01	5.670E+00	0.144
		116.30		7.720E+00	2.553E+01	4.287E+01	5.632E+00	0.180
		228.16	*	1.995E-01	7.014E-01	1.140E+00	1.815E-01	0.175
BA-133		53.15		5.547E-01	9.823E-01	1.682E+00	1.683E-01	0.330
		79.62		-3.277E-01	1.230E+00	1.453E+00	2.308E-01	-0.225
		81.00		-3.236E-02	9.535E-02	1.118E-01	1.846E-02	-0.289
		276.40		3.212E-01	3.991E-01	7.002E-01	1.035E-01	0.459
		302.84		4.187E-02	1.625E-01	2.473E-01	3.376E-02	0.169
		356.01	*	6.416E-03	5.571E-02	8.283E-02	1.107E-02	0.077
		383.85		-2.633E-01	3.086E-01	4.755E-01	5.965E-02	-0.554
I-133	+	510.53		1.645E+00	3.086E-01	Half-Life too short		
		529.87	*	-6.900E-04	3.086E-01	Half-Life too short		
		706.58		-5.754E-01	3.086E-01	Half-Life too short		
		856.28		-1.398E+00	3.086E-01	Half-Life too short		
		875.33		-6.166E-02	3.086E-01	Half-Life too short		
		1236.41		1.929E+00	3.086E-01	Half-Life too short		
		1298.22		5.937E-02	3.086E-01	Half-Life too short		
CS-134		475.35		1.637E+00	2.125E+00	3.703E+00	3.280E-01	0.442
		563.23		2.195E-01	4.322E-01	7.312E-01	6.570E-02	0.300
		569.32		1.788E-02	2.495E-01	4.064E-01	3.660E-02	0.044
		604.70		-3.544E-02	4.877E-02	6.210E-02	5.461E-03	-0.571
		795.84	*	8.487E-02	6.097E-02	1.128E-01	9.967E-03	0.752
		801.93		-2.864E-01	5.099E-01	8.002E-01	7.063E-02	-0.358
		1038.57		-3.063E+00	4.539E+00	6.745E+00	5.823E-01	-0.454

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1167.94		-4.341E+00	3.276E+00	4.409E+00	3.613E-01	-0.984
		1365.15		-2.234E-01	1.439E+00	2.348E+00	2.104E-01	-0.095
I-135		288.45		9.351E+09	1.439E+00	Half-Life too short		
		417.63		-1.639E+10	1.439E+00	Half-Life too short		
		546.56		-1.417E+10	1.439E+00	Half-Life too short		
		836.80		1.513E+10	1.439E+00	Half-Life too short		
		1038.76		-1.800E+10	1.439E+00	Half-Life too short		
		1124.00		-4.357E+10	1.439E+00	Half-Life too short		
		1131.51		5.140E+09	1.439E+00	Half-Life too short		
		1260.41	*	-5.810E+09	1.439E+00	Half-Life too short		
		1457.56		1.200E+12	1.439E+00	Half-Life too short		
		1678.03		-1.985E+10	1.439E+00	Half-Life too short		
		1706.46		-1.150E+10	1.439E+00	Half-Life too short		
		1791.20		2.398E+09	1.439E+00	Half-Life too short		
CS-136		66.91		-1.469E-01	4.560E-01	6.854E-01	1.108E-01	-0.214
	+	86.29		4.934E+00	1.306E+00	1.665E+00	2.270E-01	2.964
		153.22		6.971E-01	6.912E-01	1.177E+00	1.221E-01	0.592
		163.89		-2.537E-01	1.074E+00	1.728E+00	1.653E-01	-0.147
		176.55		-6.759E-02	3.881E-01	6.237E-01	5.592E-02	-0.108
		273.65		-2.915E-02	5.455E-01	7.611E-01	7.389E-02	-0.038
		340.57		8.443E-02	1.427E-01	2.216E-01	2.046E-02	0.381
		818.51		-3.037E-02	8.996E-02	1.444E-01	1.270E-02	-0.210
		1048.07	*	-7.169E-02	1.470E-01	2.268E-01	2.037E-02	-0.316
		1235.34		2.199E-01	9.247E-01	1.460E+00	1.699E-01	0.151
CE-139		165.85	*	-2.821E-02	2.964E-02	4.560E-02	3.803E-03	-0.619
BA-140		162.64		4.293E-01	7.616E-01	1.275E+00	1.164E-01	0.337
		304.84		5.948E-02	1.446E+00	2.162E+00	6.096E-01	0.028
		423.70		-8.460E-01	2.262E+00	3.552E+00	1.152E+00	-0.238
		537.32	*	-1.980E-01	3.101E-01	4.617E-01	1.534E-01	-0.429
LA-140	+	328.77		1.160E+00	5.127E-01	6.205E-01	5.914E-02	1.870
		432.53		-1.602E-01	2.319E+00	3.806E+00	3.462E-01	-0.042
		487.03		-1.326E-01	1.566E-01	2.358E-01	2.218E-02	-0.562
		751.79		-3.229E-01	2.020E+00	3.334E+00	3.207E-01	-0.097
		815.85		8.566E-02	3.689E-01	6.300E-01	6.151E-02	0.136
		867.82		6.569E-01	1.625E+00	2.814E+00	2.596E-01	0.233
		919.63		-3.533E+00	3.381E+00	4.832E+00	5.196E-01	-0.731
		925.24		1.224E+00	1.416E+00	2.545E+00	2.363E-01	0.481
		1596.49	*	-6.736E-02	1.082E-01	1.577E-01	1.361E-02	-0.427
CE-141		145.44	*	-9.617E-03	6.594E-02	1.073E-01	1.095E-02	-0.090
CE-143		57.37		3.703E-04	6.594E-02	Half-Life too short		
		231.56		-5.782E-04	6.594E-02	Half-Life too short		
		293.26	*	6.350E-04	6.594E-02	Half-Life too short		
	+	350.59		3.316E-02	6.594E-02	Half-Life too short		
		490.36		2.477E-03	6.594E-02	Half-Life too short		
		664.57		7.830E-04	6.594E-02	Half-Life too short		
		721.93		6.870E-04	6.594E-02	Half-Life too short		
CE-144		80.11		1.505E-01	1.980E+00	2.402E+00	2.339E-01	0.063
		133.54	*	1.217E-01	2.021E-01	3.404E-01	5.773E-02	0.358
PM-144		476.78		2.863E-02	7.709E-02	1.302E-01	1.257E-02	0.220

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		618.01		1.110E-02	3.929E-02	6.490E-02	5.805E-03	0.171
		696.49	*	-3.655E-03	4.469E-02	7.483E-02	6.406E-03	-0.049
		778.57		1.665E-01	2.662E+00	4.479E+00	3.922E-01	0.037
PR-144		696.49	*	-2.477E-01	3.028E+00	5.071E+00	4.340E-01	-0.049
		1489.15		2.005E+00	1.378E+01	2.348E+01	2.030E+00	0.085
PM-146		453.90	*	-2.729E-02	4.521E-02	7.011E-02	7.610E-03	-0.389
		633.02		5.479E-01	1.768E+00	2.905E+00	1.086E+00	0.189
		735.90		-7.005E-02	1.877E-01	3.027E-01	8.662E-02	-0.231
		747.13		-6.401E-02	1.142E-01	1.808E-01	2.547E-02	-0.354
ND-147	+	91.11		7.146E-01	2.649E-01	4.666E-01	4.914E-02	1.531
		319.41		1.578E-01	3.302E+00	5.575E+00	5.084E-01	0.028
		439.89		1.371E+00	6.783E+00	1.136E+01	9.901E-01	0.121
		531.02	*	-5.504E-01	6.752E-01	1.006E+00	1.522E-01	-0.547
PM-149		285.90	*	2.039E+00	9.184E+01	1.558E+02	2.471E+01	0.013
EU-152		121.78		-2.715E-02	6.966E-02	1.129E-01	1.432E-02	-0.240
		244.69		-1.705E-01	3.645E-01	4.925E-01	4.464E-02	-0.346
		344.27	*	-6.389E-02	1.044E-01	1.610E-01	1.523E-02	-0.397
		443.98		4.892E-01	1.106E+00	1.884E+00	1.646E-01	0.260
		778.89		1.941E-02	3.040E-01	5.116E-01	4.479E-02	0.038
		867.32		2.033E-01	9.781E-01	1.659E+00	1.456E-01	0.123
		964.01		5.600E-01	4.300E-01	7.112E-01	6.216E-02	0.787
		1085.78		-1.287E-01	4.873E-01	7.674E-01	6.531E-02	-0.168
		1112.02		2.694E-01	4.281E-01	6.648E-01	5.599E-02	0.405
		1407.95		2.839E-01	2.413E-01	4.607E-01	3.963E-02	0.616
GD-153		69.67		6.956E-02	1.003E+00	1.534E+00	1.506E-01	0.045
	+	83.37		3.015E+01	1.464E+01	2.033E+01	1.980E+00	1.483
		97.43	*	-2.577E-02	7.395E-02	1.086E-01	1.110E-02	-0.237
		103.18		-5.160E-02	9.496E-02	1.543E-01	1.626E-02	-0.334
EU-154		123.07		3.057E-03	4.921E-02	8.157E-02	1.126E-02	0.037
		247.94		1.790E-01	3.416E-01	5.630E-01	6.659E-02	0.318
		591.81		-6.184E-01	6.596E-01	9.418E-01	1.113E-01	-0.657
		723.30		-2.130E-02	2.426E-01	3.513E-01	3.353E-02	-0.061
		756.87		2.982E-01	8.744E-01	1.513E+00	1.823E-01	0.197
		873.19		3.128E-02	3.428E-01	5.742E-01	7.093E-02	0.054
		996.32		-5.910E-01	4.982E-01	6.871E-01	1.224E-01	-0.860
		1004.76		-1.548E-01	3.089E-01	4.799E-01	5.612E-02	-0.323
		1274.45	*	3.552E-02	1.604E-01	2.679E-01	2.989E-02	0.133
EU-155		48.70		-5.749E-01	4.781E-01	6.867E-01	6.898E-02	-0.837
		60.01		-1.331E+00	2.247E+00	3.333E+00	3.353E-01	-0.400
	+	86.54		4.527E-01	1.120E-01	1.582E-01	1.555E-02	2.863
		105.31	*	8.822E-02	9.939E-02	1.708E-01	1.835E-02	0.517
TB-160	+	86.79		1.211E+00	2.990E-01	4.277E-01	4.172E-02	2.831
		197.04		-4.245E-01	5.733E-01	8.682E-01	7.540E-02	-0.489
		215.65		-3.418E-02	7.748E-01	1.239E+00	1.098E-01	-0.028
	+	298.57		2.291E-01	1.865E-01	2.211E-01	2.029E-02	1.036
		879.36	*	7.525E-02	1.551E-01	2.712E-01	2.378E-02	0.277
		962.29		3.771E-01	8.015E-01	1.264E+00	1.105E-01	0.298
		966.15		4.480E-01	3.813E-01	6.054E-01	5.290E-02	0.740
		1177.93		-8.748E-02	4.508E-01	7.122E-01	5.827E-02	-0.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		-1.196E-01	9.210E-01	1.455E+00	1.223E-01	-0.082
HO-166M		80.57		-6.418E-02	2.621E-01	3.101E-01	3.021E-02	-0.207
		184.41		8.235E-02	4.554E-02	7.201E-02	6.156E-03	1.144
		280.46		-5.650E-02	8.910E-02	1.455E-01	1.336E-02	-0.388
		410.95		-1.338E-02	2.697E-01	4.451E-01	3.806E-02	-0.030
		711.68	*	-1.801E-03	8.014E-02	1.346E-01	1.159E-02	-0.013
		752.31		4.636E-02	3.254E-01	5.527E-01	4.814E-02	0.084
		810.29		-4.875E-02	6.776E-02	1.036E-01	9.104E-03	-0.470
TM-171		51.35		1.484E-01	7.382E+00	1.211E+01	1.212E+00	0.012
		52.39		5.887E+00	4.107E+00	7.191E+00	7.195E-01	0.819
		59.40		-2.389E+00	1.167E+01	1.766E+01	1.779E+00	-0.135
		66.72	*	2.007E+00	1.590E+01	2.442E+01	2.411E+00	0.082
LU-176	+	88.36		8.915E-01	2.202E-01	3.155E-01	3.084E-02	2.826
		201.83		7.961E-03	2.907E-02	4.751E-02	4.149E-03	0.168
		306.84	*	1.654E-03	2.512E-02	4.255E-02	3.898E-03	0.039
		401.10		4.314E+00	7.820E+00	1.344E+01	1.141E+00	0.321
LU-177		112.95		-8.719E-01	1.472E+00	2.370E+00	2.635E-01	-0.368
	+	208.36	*	4.250E+00	2.060E+00	2.195E+00	1.931E-01	1.936
LU-177M		52.97		3.078E-01	4.422E-01	7.604E-01	7.608E-02	0.405
		54.07		4.564E-02	2.480E-01	4.194E-01	4.197E-02	0.109
		61.30		3.018E-01	6.914E-01	1.080E+00	1.081E-01	0.280
		121.62		-1.281E-01	3.576E-01	5.808E-01	6.783E-02	-0.221
		147.16		-1.895E-01	6.607E-01	1.067E+00	1.059E-01	-0.178
		171.86		3.719E-01	4.794E-01	8.094E-01	6.802E-02	0.459
		218.09		-4.985E-01	9.024E-01	1.397E+00	1.240E-01	-0.357
	+	268.79		3.064E+00	1.256E+00	1.540E+00	1.411E-01	1.990
		319.02		-9.909E-02	2.633E-01	4.318E-01	3.938E-02	-0.229
		367.43		1.727E-01	9.565E-01	1.616E+00	1.413E-01	0.107
		413.65	*	2.971E-02	1.891E-01	3.168E-01	2.714E-02	0.094
HF-181		56.28		-2.048E-01	3.097E-01	5.148E-01	5.160E-02	-0.398
		57.53		1.961E-01	1.831E-01	3.219E-01	3.232E-02	0.609
		65.20		2.499E-01	5.148E-01	8.028E-01	7.951E-02	0.311
		133.02		5.891E-02	6.751E-02	1.104E-01	1.212E-02	0.534
		136.25		-4.715E-01	4.471E-01	6.918E-01	7.436E-02	-0.682
		345.85		1.122E-01	2.120E-01	3.289E-01	2.944E-02	0.341
		482.03	*	7.460E-03	4.734E-02	7.862E-02	6.980E-03	0.095
W-181		56.28		-7.968E-02	1.211E-01	2.013E-01	2.018E-02	-0.396
		57.53		7.658E-02	7.163E-02	1.259E-01	1.264E-02	0.608
		65.20	*	9.700E-02	1.998E-01	3.116E-01	3.086E-02	0.311
TA-182		67.75		1.161E-02	6.449E-02	9.920E-02	9.771E-03	0.117
		100.10		-1.098E-02	1.545E-01	2.571E-01	2.665E-02	-0.043
		152.43		2.971E-02	3.510E-01	5.761E-01	5.477E-02	0.052
		222.10		3.828E-01	3.724E-01	6.286E-01	5.602E-02	0.609
		1001.68		3.424E+00	2.839E+00	5.161E+00	4.490E-01	0.663
		1121.28		6.333E-01	2.330E-01	4.266E-01	3.578E-02	1.485
		1189.05		1.320E-01	4.176E-01	6.972E-01	5.726E-02	0.189
		1221.42	*	-4.137E-02	2.431E-01	3.843E-01	3.188E-02	-0.108
		1230.97		-4.599E-01	5.990E-01	8.773E-01	7.298E-02	-0.524
RE-183		57.98		1.087E-01	7.719E-02	1.306E-01	1.312E-02	0.832

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		-7.783E-03	4.794E-02	7.268E-02	7.323E-03	-0.107
		67.20		-1.224E-02	1.172E-01	1.781E-01	1.756E-02	-0.069
		162.32	*	9.569E-02	1.105E-01	1.875E-01	1.623E-02	0.510
	+	208.81		3.781E+00	1.833E+00	1.978E+00	1.740E-01	1.912
		291.72		6.722E-02	1.018E+00	1.530E+00	1.405E-01	0.044
RE-184		57.98		4.003E-01	2.843E-01	4.808E-01	4.832E-02	0.832
		59.32		-2.864E-02	1.764E-01	2.674E-01	2.694E-02	-0.107
		67.20		-4.505E-02	4.314E-01	6.556E-01	6.464E-02	-0.069
		161.27		-1.337E-01	3.718E-01	5.950E-01	5.207E-02	-0.225
		216.55		2.474E-02	2.756E-01	4.442E-01	3.939E-02	0.056
		252.85	*	-1.828E-01	2.423E-01	3.632E-01	3.307E-02	-0.503
		318.01		-3.704E-01	4.635E-01	7.370E-01	6.724E-02	-0.503
		792.07		2.024E-01	1.272E+00	2.153E+00	1.888E-01	0.094
		903.28		-3.071E-01	1.361E+00	2.062E+00	1.804E-01	-0.149
		920.93		-5.699E-01	5.459E-01	7.822E-01	6.845E-02	-0.729
OS-185		59.72		-4.104E-02	1.301E-01	1.956E-01	1.970E-02	-0.210
		61.14		-1.014E-02	7.613E-02	1.160E-01	1.162E-02	-0.087
		69.30		-3.327E-02	1.824E-01	2.757E-01	2.709E-02	-0.121
		592.07		-2.269E+00	2.681E+00	3.890E+00	3.432E-01	-0.583
		646.12	*	-8.261E-03	5.372E-02	8.476E-02	7.237E-03	-0.097
		717.42		2.157E-01	1.130E+00	1.931E+00	1.665E-01	0.112
		874.81		-6.214E-02	6.593E-01	1.080E+00	9.477E-02	-0.058
		880.27		4.821E-01	8.726E-01	1.536E+00	1.346E-01	0.314
RE-188		155.03	*	7.489E-02	1.784E-01	2.970E-01	2.760E-02	0.252
		477.96		2.396E+00	3.450E+00	5.976E+00	5.298E-01	0.401
		633.10		8.280E-01	3.529E+00	5.796E+00	4.997E-01	0.143
W-188	+	63.58		1.443E+02	5.016E+01	5.639E+01	5.608E+00	2.558
		227.08		4.821E+00	1.250E+01	2.047E+01	1.832E+00	0.236
		290.67	*	-1.061E+01	8.614E+00	1.143E+01	1.050E+00	-0.929
IR-192	+	295.96		1.141E+00	2.465E-01	3.301E-01	3.050E-02	3.457
		308.46		4.485E-02	9.599E-02	1.665E-01	1.532E-02	0.269
		316.51	*	-1.726E-02	3.647E-02	5.949E-02	5.443E-03	-0.290
		468.07		-4.242E-02	7.588E-02	1.185E-01	1.119E-02	-0.358
		604.41		-5.305E-01	6.588E-01	8.251E-01	1.083E-01	-0.643
		612.46		-1.090E-02	9.695E-01	1.360E+00	1.361E-01	-0.008
AU-195		65.12		7.130E-02	9.336E-02	1.470E-01	1.456E-02	0.485
		66.83		-2.041E-02	5.423E-02	8.137E-02	8.029E-03	-0.251
	+	75.70		1.182E+00	2.027E-01	3.344E-01	3.262E-02	3.537
		98.88	*	1.360E-01	1.916E-01	3.285E-01	3.384E-02	0.414
	+	129.76		5.156E+00	3.463E+00	4.904E+00	5.494E-01	1.051
TL-200		367.94	*	-1.104E-04	3.463E+00	Half-Life too short		
		579.30		3.152E-03	3.463E+00	Half-Life too short		
		828.27		-2.330E-03	3.463E+00	Half-Life too short		
		1205.75		2.677E-03	3.463E+00	Half-Life too short		
TL-201		68.90		-1.859E+00	2.832E+00	4.463E+00	4.387E-01	-0.417
		70.82		-2.560E-01	1.767E+00	2.673E+00	2.620E-01	-0.096
		80.30		3.709E-01	4.820E+00	5.846E+00	5.694E-01	0.063
		135.34		-2.268E+01	2.521E+01	3.942E+01	4.262E+00	-0.575
		167.43	*	5.499E+00	6.917E+00	1.171E+01	9.778E-01	0.470

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		-1.641E-01	2.499E-01	3.939E-01	3.872E-02	-0.417
		70.82		-2.253E-02	1.555E-01	2.352E-01	2.306E-02	-0.096
		80.30		3.265E-02	4.244E-01	5.147E-01	5.013E-02	0.063
		439.56	*	2.280E-02	8.009E-02	1.349E-01	1.176E-02	0.169
HG-203		70.83		-9.834E-02	6.709E-01	1.015E+00	1.460E-01	-0.097
		72.87		5.333E-01	3.786E-01	6.557E-01	9.170E-02	0.813
	+	82.60		2.244E+00	1.116E+00	1.393E+00	2.016E-01	1.611
		279.20	*	1.976E-03	4.317E-02	7.341E-02	6.909E-03	0.027
BI-207		72.80		1.304E-01	1.084E-01	1.890E-01	1.849E-02	0.690
	+	74.97		6.556E-01	1.124E-01	1.658E-01	1.618E-02	3.954
	+	84.90		3.898E-01	1.893E-01	2.573E-01	2.507E-02	1.515
		569.67		1.429E-02	3.873E-02	6.465E-02	5.749E-03	0.221
		1063.62	*	-8.726E-02	7.503E-02	1.060E-01	9.085E-03	-0.823
		1770.23		-1.215E+00	7.894E-01	8.954E-01	7.563E-02	-1.357
TL-207		81.07		-7.457E-02	2.103E-01	2.466E-01	2.402E-02	-0.302
	+	83.78		2.570E-01	1.248E-01	1.760E-01	1.715E-02	1.460
		94.90		4.526E-01	2.097E-01	3.418E-01	3.450E-02	1.324
		122.32		-6.570E-02	1.640E+00	2.706E+00	3.294E-01	-0.024
		144.24		3.942E-01	7.374E-01	1.212E+00	1.338E-01	0.325
		154.21		2.942E-01	4.148E-01	6.985E-01	7.094E-02	0.421
	+	269.46		7.171E-01	2.942E-01	3.693E-01	3.446E-02	1.942
		323.87	*	9.929E-02	6.989E-01	1.050E+00	1.884E-01	0.095
	+	338.28		4.878E+00	1.696E+00	2.506E+00	3.154E-01	1.947
		445.03		2.946E+00	2.502E+00	4.467E+00	5.438E-01	0.660
PO-209		260.50		-8.074E-02	1.001E+01	1.586E+01	1.449E+00	-0.005
		262.80		7.332E+00	2.761E+01	4.455E+01	4.073E+00	0.165
		896.60	*	1.320E+00	9.888E+00	1.657E+01	1.449E+00	0.080
PB-211		404.84	*	-3.545E-01	1.058E+00	1.672E+00	1.048E+00	-0.212
		427.08		1.689E+00	2.535E+00	4.023E+00	2.500E+00	0.420
		831.96		-3.148E-01	1.684E+00	2.735E+00	1.715E+00	-0.115
BI-212	+	727.18	*	1.477E+00	5.647E-01	7.753E-01	7.779E-02	1.905
		785.46		1.191E+00	2.156E+00	3.780E+00	3.312E-01	0.315
		1620.62		1.071E+00	1.469E+00	2.744E+00	2.364E-01	0.390
PO-215		81.07		-7.457E-02	2.103E-01	2.466E-01	2.402E-02	-0.302
	+	83.78		2.570E-01	1.248E-01	1.760E-01	1.715E-02	1.460
		94.90		4.526E-01	2.097E-01	3.418E-01	3.450E-02	1.324
		122.32		-6.570E-02	1.640E+00	2.706E+00	3.294E-01	-0.024
		144.24		3.942E-01	7.374E-01	1.212E+00	1.338E-01	0.325
		154.21		2.942E-01	4.148E-01	6.985E-01	7.094E-02	0.421
	+	269.46		7.171E-01	2.942E-01	3.693E-01	3.446E-02	1.942
		323.87	*	9.929E-02	6.989E-01	1.050E+00	1.884E-01	0.095
	+	338.28		4.878E+00	1.696E+00	2.506E+00	3.154E-01	1.947
		445.03		2.946E+00	2.502E+00	4.467E+00	5.438E-01	0.660
RN-219		271.23		4.586E-01	2.897E-01	4.558E-01	4.910E-02	1.006
		401.81	*	-1.719E-01	4.883E-01	7.892E-01	1.180E-01	-0.218
RN-220		549.76	*	3.798E+01	2.803E+01	5.114E+01	4.565E+00	0.743
RA-223		81.07		-7.457E-02	2.103E-01	2.466E-01	2.402E-02	-0.302
	+	83.78		2.570E-01	1.248E-01	1.760E-01	1.715E-02	1.460
		94.90		4.526E-01	2.097E-01	3.418E-01	3.450E-02	1.324

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-6.570E-02	1.640E+00	2.706E+00	3.294E-01	-0.024
		144.24		3.942E-01	7.374E-01	1.212E+00	1.338E-01	0.325
		154.21		2.942E-01	4.148E-01	6.985E-01	7.094E-02	0.421
	+	269.46		7.171E-01	2.942E-01	3.693E-01	3.446E-02	1.942
		323.87	*	9.929E-02	6.989E-01	1.050E+00	1.884E-01	0.095
	+	338.28		4.878E+00	1.696E+00	2.506E+00	3.154E-01	1.947
		445.03		2.946E+00	2.502E+00	4.467E+00	5.438E-01	0.660
AC-227		79.80		-4.740E-01	1.565E+00	1.841E+00	4.046E-01	-0.257
		236.00		1.268E-01	2.750E-01	4.028E-01	5.045E-02	0.315
		256.20	*	1.213E-01	4.112E-01	6.645E-01	1.039E-01	0.182
		286.10		4.969E-01	1.461E+00	2.524E+00	3.427E-01	0.197
	+	299.80		2.915E+00	2.414E+00	2.922E+00	5.192E-01	0.998
		304.40		-2.260E-01	2.141E+00	3.159E+00	5.906E-01	-0.072
		334.20		1.686E-01	2.447E+00	3.643E+00	7.140E-01	0.046
TH-227		79.80		-4.740E-01	1.565E+00	1.841E+00	4.096E-01	-0.257
	+	94.00		1.642E+01	4.473E+00	3.747E+00	8.387E-01	4.383
		236.00		1.268E-01	2.750E-01	4.028E-01	4.586E-02	0.315
		256.20	*	1.213E-01	4.114E-01	6.645E-01	1.216E-01	0.182
		286.10		4.969E-01	1.542E+00	2.524E+00	2.534E+00	0.197
	+	299.80		2.915E+00	2.414E+00	2.922E+00	5.192E-01	0.998
		304.40		-2.260E-01	2.141E+00	3.159E+00	5.906E-01	-0.072
		334.20		1.686E-01	2.447E+00	3.643E+00	7.140E-01	0.046
TH-229	+	85.43		3.848E-01	1.869E-01	2.555E-01	2.490E-02	1.506
	+	88.47		5.132E-01	1.268E-01	1.800E-01	1.761E-02	2.851
		100.00		4.304E-02	1.582E-01	2.670E-01	2.766E-02	0.161
		193.63	*	4.789E-01	5.329E-01	8.984E-01	7.770E-02	0.533
		210.97		6.551E-01	9.014E-01	1.353E+00	1.193E-01	0.484
PA-231		283.67	*	-8.914E-01	1.517E+00	2.468E+00	3.828E-01	-0.361
	+	301.29		1.166E+00	9.544E-01	1.156E+00	1.461E-01	1.009
TH-231		81.07		-7.457E-02	2.103E-01	2.466E-01	2.402E-02	-0.302
	+	83.78		2.570E-01	1.248E-01	1.760E-01	1.715E-02	1.460
		94.90		4.526E-01	2.097E-01	3.418E-01	3.450E-02	1.324
		122.32		-6.570E-02	1.640E+00	2.706E+00	3.294E-01	-0.024
		144.24		3.942E-01	7.374E-01	1.212E+00	1.338E-01	0.325
		154.21		2.942E-01	4.148E-01	6.985E-01	7.094E-02	0.421
	+	269.46		7.171E-01	2.942E-01	3.693E-01	3.446E-02	1.942
		323.87	*	9.929E-02	6.989E-01	1.050E+00	1.884E-01	0.095
	+	338.28		4.878E+00	1.696E+00	2.506E+00	3.154E-01	1.947
		445.03		2.946E+00	2.502E+00	4.467E+00	5.438E-01	0.660
U-231	+	84.21		1.127E+01	5.474E+00	7.630E+00	7.435E-01	1.477
	+	92.29		1.652E+01	3.053E+00	4.309E+00	4.293E-01	3.833
		95.87	*	3.938E-01	9.855E-01	1.510E+00	1.531E-01	0.261
		108.00		-2.514E+00	1.891E+00	2.921E+00	3.159E-01	-0.861
PA-233	+	75.28		1.913E+01	4.081E+00	5.030E+00	8.056E-01	3.803
	+	86.59		7.359E+00	2.607E+00	2.578E+00	7.012E-01	2.855
	+	300.12		8.126E-01	6.687E-01	8.085E-01	1.229E-01	1.005
		311.98	*	-4.280E-02	6.802E-02	1.099E-01	1.031E-02	-0.389
		340.50		5.150E-01	7.044E-01	1.092E+00	2.617E-01	0.472
		398.62		4.525E-01	2.441E+00	4.098E+00	1.089E+00	0.110

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-5.067E-02	1.797E+00	2.968E+00	6.392E-01	-0.017
PA-234	+	63.00		4.179E+00	1.550E+00	1.643E+00	2.676E-01	2.544
		94.67		4.633E-01	1.636E-01	2.606E-01	3.507E-02	1.778
		98.44		6.352E-02	8.801E-02	1.332E-01	7.467E-02	0.477
		99.86		1.139E-01	4.004E-01	6.760E-01	6.998E-02	0.169
		111.00		-5.038E-02	1.577E-01	2.576E-01	3.576E-02	-0.196
		131.20		-1.384E-02	1.164E-01	1.703E-01	1.891E-02	-0.081
		152.70		9.690E-02	3.422E-01	5.661E-01	9.907E-02	0.171
	+	186.00		7.020E+00	3.198E+00	2.940E+00	9.174E-01	2.388
		226.40		2.242E-02	3.990E-01	6.401E-01	8.589E-02	0.035
		227.20		8.293E-02	4.289E-01	6.940E-01	6.213E-02	0.119
		248.90		4.212E-03	7.744E-01	1.231E+00	2.782E-01	0.003
	+	293.70		7.176E+00	1.886E+00	1.888E+00	3.320E-01	3.802
		369.80		1.823E-01	9.087E-01	1.536E+00	3.350E-01	0.119
		568.70		-4.567E-01	1.266E+00	1.983E+00	1.764E-01	-0.230
		569.50		7.490E-02	3.443E-01	5.678E-01	5.049E-02	0.132
		574.00		1.698E-02	1.849E+00	2.994E+00	2.659E-01	0.006
		699.00		3.327E-01	9.481E-01	1.637E+00	3.119E-01	0.203
		706.10		-8.986E-01	1.361E+00	2.061E+00	9.188E-01	-0.436
		733.00		2.701E-01	4.983E-01	7.766E-01	1.725E-01	0.348
		742.81		1.042E+00	1.864E+00	3.050E+00	2.050E+00	0.342
		796.30		1.231E+00	1.231E+00	2.150E+00	5.825E-01	0.573
		805.60		6.695E-02	1.195E+00	2.004E+00	6.150E-01	0.033
		819.60		9.338E-03	1.511E+00	2.518E+00	9.585E-01	0.004
		826.30		-7.618E-01	1.125E+00	1.657E+00	7.421E-01	-0.460
		831.60		9.098E-03	8.606E-01	1.433E+00	4.284E-01	0.006
		876.40		-2.037E-01	9.636E-01	1.518E+00	1.561E+00	-0.134
		880.51		2.122E-01	3.156E-01	5.621E-01	4.927E-02	0.377
		883.24		-3.488E-01	4.279E-01	5.270E-01	3.544E-01	-0.662
		899.00		-4.961E-01	1.146E+00	1.768E+00	7.734E-01	-0.281
		925.00		1.296E+00	1.466E+00	2.639E+00	2.310E-01	0.491
		926.50		3.569E-02	2.216E-01	3.717E-01	9.413E-02	0.096
		946.00	*	2.297E-01	3.845E-01	6.695E-01	1.260E-01	0.343
		949.00		2.140E-01	5.708E-01	9.769E-01	8.545E-02	0.219
		980.50		4.154E-01	9.269E-01	1.597E+00	1.393E-01	0.260
		1394.10		7.248E-01	1.234E+00	2.121E+00	1.381E+00	0.342
PA-234M		766.42		5.911E+00	1.533E+01	2.594E+01	1.317E+01	0.228
		1001.03	*	7.304E+00	6.269E+00	1.138E+01	1.142E+00	0.642
U-235	+	89.95		2.827E+00	1.337E+00	1.636E+00	5.108E-01	1.728
	+	93.35		5.110E+00	1.658E+00	1.339E+00	3.814E-01	3.816
		105.00		8.776E-01	1.005E+00	1.674E+00	5.103E-01	0.524
		143.76	*	1.462E-01	2.276E-01	3.741E-01	6.858E-02	0.391
		163.35		9.702E-02	4.686E-01	7.710E-01	1.469E-01	0.126
	+	185.71		2.600E-01	8.912E-02	1.096E-01	9.382E-03	2.373
		205.31		-2.908E-02	5.942E-01	8.465E-01	1.621E-01	-0.034
NP-236		94.67		3.543E-01	1.202E-01	1.980E-01	1.995E-02	1.790
		98.44		4.801E-02	6.104E-02	1.007E-01	1.035E-02	0.477
		111.00		-3.811E-02	1.192E-01	1.948E-01	2.143E-02	-0.196
		160.31	*	3.254E-02	8.094E-02	1.346E-01	1.189E-02	0.242

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		9.341E-02	1.326E-01	2.273E-01	2.350E-02	0.411
		117.00	*	-5.299E-02	1.766E-01	2.882E-01	3.279E-02	-0.184
	+	209.75		2.980E+00	1.445E+00	1.561E+00	1.375E-01	1.909
		228.18		6.270E-02	2.239E-01	3.641E-01	3.262E-02	0.172
		277.60		1.633E-01	1.895E-01	3.349E-01	3.074E-02	0.487
		334.30		5.824E-02	1.384E+00	2.055E+00	1.857E-01	0.028
AM-241		59.54	*	-1.898E-02	6.804E-02	1.025E-01	1.089E-02	-0.185
CM-243		99.55		9.612E-02	1.364E-01	2.339E-01	2.418E-02	0.411
		103.76	*	2.401E-02	8.693E-02	1.465E-01	1.548E-02	0.164
		117.00		-5.452E-02	1.817E-01	2.965E-01	3.373E-02	-0.184
	+	209.75		2.938E+00	1.424E+00	1.539E+00	1.356E-01	1.909
		228.18		6.335E-02	2.262E-01	3.679E-01	3.296E-02	0.172
		277.60		1.646E-01	1.910E-01	3.377E-01	3.099E-02	0.487
AM-246		798.80		-2.756E-01	1.847E-01	2.612E-01	2.293E-02	-1.055
		1036.00		1.957E-03	3.357E-01	5.493E-01	4.746E-02	0.004
		1062.04		1.047E-01	3.197E-01	5.392E-01	4.625E-02	0.194
		1078.86	*	-5.880E-02	1.721E-01	2.683E-01	2.288E-02	-0.219
CM-247		278.00		6.258E-01	7.999E-01	1.408E+00	1.293E-01	0.444
		287.40		9.370E-01	1.213E+00	2.144E+00	1.969E-01	0.437
		402.60	*	-4.401E-03	4.223E-02	6.952E-02	5.906E-03	-0.063
CF-249		252.85		-6.856E-01	9.089E-01	1.362E+00	1.240E-01	-0.503
		333.44		-4.323E-02	2.164E-01	2.633E-01	2.381E-02	-0.164
		387.95	*	2.716E-02	4.192E-02	7.289E-02	6.176E-03	0.373
CF-251		176.60	*	-2.252E-02	1.331E-01	2.140E-01	1.810E-02	-0.105
		227.00		1.872E-01	3.713E-01	6.124E-01	5.481E-02	0.306
		285.00		-1.867E+00	1.740E+00	2.735E+00	2.512E-01	-0.683

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691014     *
* Acquisition date :  9-FEB-2010 17:27:05 Detector SN#     :               *
* Detector ID        : GAM17               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:09.61     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245691014           Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.3009E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.425E+01	2.843E+00	7.172E-01	0.000E+00
CD-109	3.825E+00	9.260E-01	1.019E+00	0.000E+00
SN-126	3.759E-01	9.100E-02	1.000E-01	0.000E+00
CS-135	6.095E-01	2.466E-01	2.585E-01	0.000E+00
BA-137M	8.541E-02	5.619E-02	7.378E-02	0.000E+00
CS-137	9.028E-02	5.940E-02	7.799E-02	0.000E+00
TL-208	4.485E-01	9.483E-02	7.116E-02	0.000E+00
BI-210	1.629E+00	9.324E-01	8.419E-01	0.000E+00
PB-210	1.629E+00	9.324E-01	8.419E-01	0.000E+00
PO-210	1.629E+00	9.302E-01	8.419E-01	0.000E+00
BI-211	3.957E+00	6.448E-01	3.605E-01	0.000E+00
PB-212	1.340E+00	1.865E-01	1.121E-01	0.000E+00
PO-212	1.340E+00	1.865E-01	1.121E-01	0.000E+00
BI-214	1.165E+00	2.300E-01	1.332E-01	0.000E+00
PB-214	1.377E+00	2.351E-01	1.257E-01	0.000E+00
PO-214	1.377E+00	2.351E-01	1.257E-01	0.000E+00
PO-216	1.340E+00	1.865E-01	1.121E-01	0.000E+00
PO-218	1.377E+00	2.351E-01	1.257E-01	0.000E+00
RA-224	3.036E+00	9.825E-01	1.408E+00	0.000E+00
RA-226	1.165E+00	2.300E-01	1.332E-01	0.000E+00
AC-228	1.545E+00	3.858E-01	2.954E-01	0.000E+00
RA-228	1.545E+00	3.858E-01	2.954E-01	0.000E+00
TH-228	1.361E+00	1.894E-01	1.139E-01	0.000E+00
TH-230	1.165E+00	2.300E-01	1.332E-01	0.000E+00
TH-232	1.545E+00	3.858E-01	2.954E-01	0.000E+00
TH-234	3.585E+00	1.342E+00	1.035E+00	0.000E+00
U-234	1.165E+00	2.300E-01	1.332E-01	0.000E+00
NP-237	1.104E+00	3.482E-01	2.928E-01	0.000E+00
U-238	3.585E+00	1.342E+00	1.035E+00	0.000E+00
AM-243	3.652E-01	6.135E-02	6.042E-02	0.000E+00
ANH-511	1.481E-01	9.167E-02	5.312E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	1.212E-01	3.625E-01	6.346E-01	0.000E+00	NOT IDENT.
NA-22	1.925E-02	5.526E-02	9.591E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.624E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.071E-02	2.289E-02	5.381E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.158E-02	6.381E-02	0.000E+00	FAIL ABUN
SC-46	-3.692E-02	4.887E-02	7.629E-02	0.000E+00	FAIL ABUN
V-48	-5.212E-02	9.068E-02	1.430E-01	0.000E+00	NOT IDENT.
CR-51	2.253E-01	3.513E-01	6.440E-01	0.000E+00	NOT IDENT.
MN-52	-6.662E-02	2.548E-01	4.132E-01	0.000E+00	NOT IDENT.
MN-54	3.496E-02	4.995E-02	9.044E-02	0.000E+00	NOT IDENT.
CO-56	9.679E-03	4.646E-02	8.122E-02	0.000E+00	NOT IDENT.
CO-57	-2.464E-03	2.316E-02	4.049E-02	0.000E+00	NOT IDENT.
CO-58	-2.466E-02	4.342E-02	6.986E-02	0.000E+00	NOT IDENT.
FE-59	3.806E-02	1.218E-01	2.100E-01	0.000E+00	NOT IDENT.
CO-60	3.836E-02	4.900E-02	9.166E-02	0.000E+00	NOT IDENT.
ZN-65	2.787E-02	1.217E-01	1.818E-01	0.000E+00	NOT IDENT.
GE-68	-1.180E+00	1.533E+00	2.317E+00	0.000E+00	NOT IDENT.
AS-73	1.093E-01	2.286E-01	4.201E-01	0.000E+00	NOT IDENT.
AS-74	4.583E-03	9.946E-02	1.671E-01	0.000E+00	NOT IDENT.
SE-75	2.688E-02	4.938E-02	7.652E-02	0.000E+00	NOT IDENT.
BR-77	-6.662E+00	1.251E+01	2.015E+01	0.000E+00	FAIL ABUN
SR-82	-1.818E-01	4.367E-01	7.218E-01	0.000E+00	NOT IDENT.
RB-83	-3.762E-02	8.058E-02	1.306E-01	0.000E+00	NOT IDENT.
RB-84	-5.143E-02	8.120E-02	1.282E-01	0.000E+00	NOT IDENT.
KR-85	6.771E+00	7.872E+00	1.421E+01	0.000E+00	NOT IDENT.
SR-85	3.476E-02	4.041E-02	7.295E-02	0.000E+00	NOT IDENT.
RB-86	-5.857E-01	9.242E-01	1.418E+00	0.000E+00	NOT IDENT.
Y-88	-5.247E-03	3.828E-02	6.119E-02	0.000E+00	NOT IDENT.
ZR-88	-1.733E-02	3.223E-02	5.357E-02	0.000E+00	NOT IDENT.
Y-91	1.076E+01	2.439E+01	4.217E+01	0.000E+00	NOT IDENT.
NB-94	3.252E-02	4.256E-02	7.824E-02	0.000E+00	NOT IDENT.
NB-95	3.704E-02	5.439E-02	9.884E-02	0.000E+00	NOT IDENT.
NB-95M	-5.208E-02	1.405E-01	2.034E-01	0.000E+00	NOT IDENT.
ZR-95	5.565E-02	8.106E-02	1.489E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.478E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.466E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-8.351E+00	1.527E+01	2.512E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.403E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.032E-02	3.230E-02	5.299E-02	0.000E+00	NOT IDENT.
RH-102	8.921E-03	3.257E-02	5.679E-02	0.000E+00	NOT IDENT.
RU-103	-1.068E-02	4.757E-02	7.928E-02	0.000E+00	FAIL ABUN
RH-106	-3.553E-01	3.689E-01	5.458E-01	0.000E+00	FAIL ABUN
RU-106	-3.553E-01	3.672E-01	5.458E-01	0.000E+00	FAIL ABUN
AG-108M	-4.122E-03	3.628E-02	6.182E-02	0.000E+00	NOT IDENT.
AG-110M	-7.607E-03	4.569E-02	6.434E-02	0.000E+00	NOT IDENT.
IN-111	3.054E-01	1.131E+00	1.723E+00	0.000E+00	NOT IDENT.
IN-113M	1.003E-02	4.677E-02	8.232E-02	0.000E+00	NOT IDENT.
SN-113	1.003E-02	4.677E-02	8.232E-02	0.000E+00	NOT IDENT.
IN-114M	-1.116E-01	2.084E-01	3.042E-01	0.000E+00	NOT IDENT.
CD-115	1.185E+01	1.316E+01	2.387E+01	0.000E+00	NOT IDENT.
SN-117M	-1.036E-02	5.575E-02	9.539E-02	0.000E+00	NOT IDENT.
SB-122	5.198E-01	2.555E+00	4.368E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.578E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.314E-02	2.828E-02	4.990E-02	0.000E+00	NOT IDENT.
I-124	-5.481E-01	9.651E-01	1.306E+00	0.000E+00	NOT IDENT.
SB-124	2.403E-02	9.424E-02	1.657E-01	0.000E+00	FAIL ABUN
SB-125	3.492E-02	1.008E-01	1.780E-01	0.000E+00	NOT IDENT.
TE-125M	-3.123E+00	7.751E+00	1.344E+01	0.000E+00	NOT IDENT.
I-126	-3.184E-03	2.559E-01	3.684E-01	0.000E+00	NOT IDENT.
SB-126	5.663E-02	1.983E-01	3.105E-01	0.000E+00	FAIL ABUN
SB-127	-2.405E-01	1.555E+00	2.520E+00	0.000E+00	NOT IDENT.
XE-127	2.087E-02	4.915E-02	8.144E-02	0.000E+00	NOT IDENT.
I-131	-2.751E-02	1.238E-01	2.125E-01	0.000E+00	NOT IDENT.
TE-132	1.995E-01	6.873E-01	1.176E+00	0.000E+00	NOT IDENT.
BA-133	6.416E-03	5.460E-02	8.483E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.561E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.487E-02	5.975E-02	1.140E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.736E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.169E-02	1.441E-01	2.283E-01	0.000E+00	FAIL ABUN
CE-139	-2.821E-02	2.905E-02	4.727E-02	0.000E+00	NOT IDENT.
BA-140	-1.980E-01	3.039E-01	4.698E-01	0.000E+00	NOT IDENT.
LA-140	-6.736E-02	1.060E-01	1.576E-01	0.000E+00	FAIL ABUN
CE-141	-9.617E-03	6.462E-02	1.115E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.273E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	1.217E-01	1.981E-01	3.540E-01	0.000E+00	NOT IDENT.
PM-144	-3.655E-03	4.379E-02	7.581E-02	0.000E+00	NOT IDENT.
PR-144	-2.477E-01	2.968E+00	5.137E+00	0.000E+00	NOT IDENT.
PM-146	-2.729E-02	4.431E-02	7.153E-02	0.000E+00	NOT IDENT.
ND-147	-5.504E-01	6.617E-01	1.023E+00	0.000E+00	FAIL ABUN
PM-149	2.039E+00	9.000E+01	1.601E+02	0.000E+00	NOT IDENT.
EU-152	-6.389E-02	1.023E-01	1.650E-01	0.000E+00	NOT IDENT.
GD-153	-2.577E-02	7.247E-02	1.135E-01	0.000E+00	FAIL ABUN
EU-154	3.552E-02	1.572E-01	2.687E-01	0.000E+00	NOT IDENT.
EU-155	8.822E-02	9.741E-02	1.783E-01	0.000E+00	FAIL ABUN
TB-160	7.525E-02	1.520E-01	2.737E-01	0.000E+00	FAIL ABUN
HO-166M	-1.801E-03	7.854E-02	1.363E-01	0.000E+00	NOT IDENT.
TM-171	2.007E+00	1.559E+01	2.567E+01	0.000E+00	NOT IDENT.
LU-176	1.654E-03	2.462E-02	4.368E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.019E+00	2.268E+00	0.000E+00	FAIL ABUN
LU-177M	2.971E-02	1.853E-01	3.237E-01	0.000E+00	FAIL ABUN
HF-181	7.460E-03	4.640E-02	8.013E-02	0.000E+00	NOT IDENT.
W-181	9.700E-02	1.959E-01	3.277E-01	0.000E+00	NOT IDENT.
TA-182	-4.137E-02	2.383E-01	3.857E-01	0.000E+00	NOT IDENT.
RE-183	9.569E-02	1.083E-01	1.944E-01	0.000E+00	FAIL ABUN
RE-184	-1.828E-01	2.375E-01	3.740E-01	0.000E+00	NOT IDENT.
OS-185	-8.261E-03	5.264E-02	8.598E-02	0.000E+00	NOT IDENT.
RE-188	7.489E-02	1.748E-01	3.082E-01	0.000E+00	NOT IDENT.
W-188	-1.061E+01	8.442E+00	1.174E+01	0.000E+00	FAIL ABUN
IR-192	-1.726E-02	3.574E-02	6.104E-02	0.000E+00	FAIL ABUN
AU-195	1.360E-01	1.878E-01	3.433E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.180E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.499E+00	6.779E+00	1.214E+01	0.000E+00	NOT IDENT.
TL-202	2.280E-02	7.849E-02	1.377E-01	0.000E+00	NOT IDENT.
HG-203	1.976E-03	4.231E-02	7.547E-02	0.000E+00	FAIL ABUN
BI-207	-8.726E-02	7.353E-02	1.066E-01	0.000E+00	FAIL ABUN
TL-207	9.929E-02	6.849E-01	1.077E+00	0.000E+00	FAIL ABUN
PO-209	1.320E+00	9.691E+00	1.672E+01	0.000E+00	NOT IDENT.
PB-211	-3.545E-01	1.037E+00	1.709E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.534E-01	7.848E-01	0.000E+00	FAIL ABUN
PO-215	9.929E-02	6.849E-01	1.077E+00	0.000E+00	FAIL ABUN
RN-219	-1.719E-01	4.785E-01	8.066E-01	0.000E+00	NOT IDENT.
RN-220	3.798E+01	2.747E+01	5.200E+01	0.000E+00	NOT IDENT.
RA-223	9.929E-02	6.849E-01	1.077E+00	0.000E+00	FAIL ABUN
AC-227	1.213E-01	4.030E-01	6.841E-01	0.000E+00	FAIL ABUN
TH-227	1.213E-01	4.032E-01	6.841E-01	0.000E+00	FAIL ABUN
TH-229	4.789E-01	5.222E-01	9.290E-01	0.000E+00	FAIL ABUN
PA-231	-8.914E-01	1.487E+00	2.537E+00	0.000E+00	FAIL ABUN
TH-231	9.929E-02	6.849E-01	1.077E+00	0.000E+00	FAIL ABUN
U-231	3.938E-01	9.657E-01	1.578E+00	0.000E+00	FAIL ABUN
PA-233	-4.280E-02	6.666E-02	1.128E-01	0.000E+00	FAIL ABUN
PA-234	2.297E-01	3.768E-01	6.748E-01	0.000E+00	FAIL ABUN
PA-234M	7.304E+00	6.143E+00	1.146E+01	0.000E+00	NOT IDENT.
U-235	1.462E-01	2.230E-01	3.886E-01	0.000E+00	FAIL ABUN
NP-236	3.254E-02	7.932E-02	1.396E-01	0.000E+00	NOT IDENT.
NP-239	-5.299E-02	1.730E-01	3.004E-01	0.000E+00	FAIL ABUN
AM-241	-1.898E-02	6.668E-02	1.080E-01	0.000E+00	NOT IDENT.
CM-243	2.401E-02	8.519E-02	1.529E-01	0.000E+00	FAIL ABUN
AM-246	-5.880E-02	1.687E-01	2.698E-01	0.000E+00	NOT IDENT.
CM-247	-4.401E-03	4.139E-02	7.106E-02	0.000E+00	NOT IDENT.
CF-249	2.716E-02	4.108E-02	7.455E-02	0.000E+00	NOT IDENT.
CF-251	-2.252E-02	1.304E-01	2.216E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:27:44.08

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691014.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:27:05.
Sample ID         : G245691014           Sample quantity  : 1.30090E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:09.61  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	698	10.67*	7.783E-01	2.425E+01	2.425E+01	11.96
CD-109	88.03	322	3.72*	6.675E+00	3.739E+00	3.825E+00	24.70
SN-126	64.28	320	9.60	6.776E+00	1.419E+00	1.419E+00	36.95
	86.94	322	8.90	6.675E+00	1.563E+00	1.563E+00	47.40
	87.57	322	37.00*	6.675E+00	3.759E-01	3.759E-01	24.70
CS-135	268.24	123	16.00*	3.651E+00	6.095E-01	6.095E-01	41.29
BA-137M	661.65	43	89.98*	1.604E+00	8.533E-02	8.541E-02	67.14
CS-137	661.65	43	85.12*	1.604E+00	9.020E-02	9.028E-02	67.14
TL-208	277.35	------	6.80	3.568E+00	------ Line Not Found		------
	510.84	106	21.60	2.057E+00	6.855E-01	6.855E-01	63.72
	583.14	237	84.20*	1.812E+00	4.485E-01	4.485E-01	21.57
	860.37	------	12.46	1.247E+00	------ Line Not Found		------
BI-210	46.50	144	4.05*	6.311E+00	1.627E+00	1.629E+00	58.40
PB-210	46.50	144	4.05*	6.311E+00	1.627E+00	1.629E+00	58.40
PO-210	46.50	144	4.05*	6.311E+00	1.627E+00	1.629E+00	58.26
BI-211	72.87	------	1.27	6.803E+00	------ Line Not Found		------
	351.07	516	12.94*	2.910E+00	3.957E+00	3.957E+00	16.63
PB-212	74.81	568	10.70	6.795E+00	2.253E+00	2.253E+00	19.52
	77.11	852	18.00	6.782E+00	2.013E+00	2.013E+00	14.17
	87.30	322	8.00	6.675E+00	1.738E+00	1.738E+00	26.65
	238.63	833	44.60*	4.023E+00	1.340E+00	1.340E+00	14.20
	300.09	62	3.41	3.343E+00	1.573E+00	1.573E+00	81.61
PO-212	74.81	568	10.70	6.795E+00	2.253E+00	2.253E+00	19.52
	77.11	852	18.00	6.782E+00	2.013E+00	2.013E+00	14.17
	87.30	322	8.00	6.675E+00	1.738E+00	1.738E+00	26.65
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	833	44.60*	4.023E+00	1.340E+00	1.340E+00	14.20
	300.09	62	3.41	3.343E+00	1.573E+00	1.573E+00	81.61
BI-214	609.31	325	46.30*	1.737E+00	1.165E+00	1.165E+00	20.15
	1120.29	73	15.10	9.774E-01	1.433E+00	1.433E+00	55.29
	1764.49	63	15.80	6.718E-01	1.716E+00	1.716E+00	32.75
PB-214	74.81	568	6.21	6.795E+00	3.882E+00	3.882E+00	18.67

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	852	10.50	6.782E+00	3.451E+00	3.451E+00	16.09
	87.30	322	4.67	6.675E+00	2.978E+00	2.978E+00	25.88
	241.98	166	7.49	3.983E+00	1.601E+00	1.601E+00	33.50
	295.21	337	19.20	3.387E+00	1.495E+00	1.495E+00	22.46
	351.92	516	37.20*	2.910E+00	1.377E+00	1.377E+00	17.43
PO-214	74.81	568	6.21	6.795E+00	3.882E+00	3.882E+00	18.67
	77.11	852	10.50	6.782E+00	3.451E+00	3.451E+00	16.09
	87.30	322	4.67	6.675E+00	2.978E+00	2.978E+00	25.88
	241.98	166	7.49	3.983E+00	1.601E+00	1.601E+00	33.50
	295.21	337	19.20	3.387E+00	1.495E+00	1.495E+00	22.46
	351.92	516	37.20*	2.910E+00	1.377E+00	1.377E+00	17.43
PO-216	74.81	568	10.70	6.795E+00	2.253E+00	2.253E+00	19.52
	77.11	852	18.00	6.782E+00	2.013E+00	2.013E+00	14.17
	87.30	322	8.00	6.675E+00	1.738E+00	1.738E+00	26.65
	238.63	833	44.60*	4.023E+00	1.340E+00	1.340E+00	14.20
	300.09	62	3.41	3.343E+00	1.573E+00	1.573E+00	81.61
PO-218	74.81	568	6.21	6.795E+00	3.882E+00	3.882E+00	18.67
	77.11	852	10.50	6.782E+00	3.451E+00	3.451E+00	16.09
	87.30	322	4.67	6.675E+00	2.978E+00	2.978E+00	25.88
	241.98	166	7.49	3.983E+00	1.601E+00	1.601E+00	33.50
	295.21	337	19.20	3.387E+00	1.495E+00	1.495E+00	22.46
	351.92	516	37.20*	2.910E+00	1.377E+00	1.377E+00	17.43
RA-224	240.98	166	3.95*	3.983E+00	3.036E+00	3.036E+00	33.02
RA-226	609.31	325	46.30*	1.737E+00	1.165E+00	1.165E+00	20.15
	1120.29	73	15.10	9.774E-01	1.433E+00	1.433E+00	55.29
	1764.49	63	15.80	6.718E-01	1.716E+00	1.716E+00	32.75
AC-228	338.32	139	11.40	3.013E+00	1.168E+00	1.168E+00	52.53
	911.07	175	27.70*	1.182E+00	1.545E+00	1.545E+00	25.48
	969.11	107	16.60	1.115E+00	1.665E+00	1.665E+00	39.65
RA-228	338.32	139	11.40	3.013E+00	1.168E+00	1.168E+00	52.53
	911.07	175	27.70*	1.182E+00	1.545E+00	1.545E+00	25.48
	969.11	107	16.60	1.115E+00	1.665E+00	1.665E+00	39.65
TH-228	74.81	568	10.70	6.795E+00	2.253E+00	2.287E+00	17.18
	77.11	852	18.00	6.782E+00	2.013E+00	2.044E+00	14.17
	87.30	322	8.00	6.675E+00	1.738E+00	1.765E+00	24.70
	238.63	833	44.60*	4.023E+00	1.340E+00	1.361E+00	14.20
	300.09	62	3.41	3.343E+00	1.573E+00	1.597E+00	100.33
TH-230	609.31	325	46.30*	1.737E+00	1.165E+00	1.165E+00	20.15
	1120.29	73	15.10	9.774E-01	1.433E+00	1.433E+00	55.29
	1764.49	63	15.80	6.718E-01	1.716E+00	1.716E+00	32.75
TH-232	338.32	139	11.40	3.013E+00	1.168E+00	1.168E+00	33.63
	911.07	175	27.70*	1.182E+00	1.545E+00	1.545E+00	25.48
	969.11	107	16.60	1.115E+00	1.665E+00	1.665E+00	39.65
TH-234	63.29	320	3.80*	6.776E+00	3.585E+00	3.585E+00	38.19
	92.38	526	5.41	6.596E+00	4.250E+00	4.250E+00	24.38
U-234	609.31	325	46.30*	1.737E+00	1.165E+00	1.165E+00	20.15
	1120.29	73	15.10	9.774E-01	1.433E+00	1.433E+00	55.29
	1764.49	63	15.80	6.718E-01	1.716E+00	1.716E+00	32.75
NP-237	86.50	322	12.60*	6.675E+00	1.104E+00	1.104E+00	32.19

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	95.87	------	2.60	6.543E+00	------ Line Not Found		------
U-238	63.29	320	3.80*	6.776E+00	3.585E+00	3.585E+00	38.19
	92.38	526	5.41	6.596E+00	4.250E+00	4.250E+00	18.49
AM-243	74.67	568	66.00*	6.795E+00	3.652E-01	3.652E-01	17.14
	86.72	322	0.34	6.675E+00	4.139E+01	4.139E+01	24.70
	117.66	------	0.55	6.127E+00	------ Line Not Found		------
	142.18	------	0.13	5.624E+00	------ Line Not Found		------
ANH-511	511.00	106	100.00*	2.057E+00	1.481E-01	1.481E-01	63.18

Flag: "*" = Keyline

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

Total number of lines in spectrum 29
Number of unidentified lines 0
Number of lines tentatively identified by NID 29 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.425E+01	2.425E+01	0.290E+01	11.96	
CD-109	464.00D	1.02	3.739E+00	3.825E+00	0.945E+00	24.70	
SN-126	1.00E+05Y	1.00	3.759E-01	3.759E-01	0.929E-01	24.70	
CS-135	2.30E+06Y	1.00	6.095E-01	6.095E-01	2.517E-01	41.29	
BA-137M	30.17Y	1.00	8.533E-02	8.541E-02	5.734E-02	67.14	
CS-137	30.17Y	1.00	9.020E-02	9.028E-02	6.062E-02	67.14	
TL-208	1.41E+10Y	1.00	4.485E-01	4.485E-01	0.968E-01	21.57	
BI-210	22.26Y	1.00	1.627E+00	1.629E+00	0.951E+00	58.40	
PB-210	22.26Y	1.00	1.627E+00	1.629E+00	0.951E+00	58.40	
PO-210	22.26Y	1.00	1.627E+00	1.629E+00	0.949E+00	58.26	
BI-211	7.04E+08Y	1.00	3.957E+00	3.957E+00	0.658E+00	16.63	
PB-212	1.41E+10Y	1.00	1.340E+00	1.340E+00	0.190E+00	14.20	
PO-212	1.41E+10Y	1.00	1.340E+00	1.340E+00	0.190E+00	14.20	
BI-214	1600.00Y	1.00	1.165E+00	1.165E+00	0.235E+00	20.15	
PB-214	1600.00Y	1.00	1.377E+00	1.377E+00	0.240E+00	17.43	
PO-214	1600.00Y	1.00	1.377E+00	1.377E+00	0.240E+00	17.43	
PO-216	1.41E+10Y	1.00	1.340E+00	1.340E+00	0.190E+00	14.20	
PO-218	1600.00Y	1.00	1.377E+00	1.377E+00	0.240E+00	17.43	
RA-224	1.41E+10Y	1.00	3.036E+00	3.036E+00	1.003E+00	33.02	
RA-226	1600.00Y	1.00	1.165E+00	1.165E+00	0.235E+00	20.15	
AC-228	1.41E+10Y	1.00	1.545E+00	1.545E+00	0.394E+00	25.48	
RA-228	1.41E+10Y	1.00	1.545E+00	1.545E+00	0.394E+00	25.48	
TH-228	1.91Y	1.02	1.340E+00	1.361E+00	0.193E+00	14.20	
TH-230	4.47E+09Y	1.00	1.165E+00	1.165E+00	0.235E+00	20.15	
TH-232	1.41E+10Y	1.00	1.545E+00	1.545E+00	0.394E+00	25.48	
TH-234	4.47E+09Y	1.00	3.585E+00	3.585E+00	1.369E+00	38.19	
U-234	4.47E+09Y	1.00	1.165E+00	1.165E+00	0.235E+00	20.15	
NP-237	2.14E+06Y	1.00	1.104E+00	1.104E+00	0.355E+00	32.19	
U-238	4.47E+09Y	1.00	3.585E+00	3.585E+00	1.369E+00	38.19	
AM-243	7380.00Y	1.00	3.652E-01	3.652E-01	0.626E-01	17.14	
ANH-511	1.00E+09Y	1.00	1.481E-01	1.481E-01	0.935E-01	63.18	
	Total Activity :		6.905E+01	6.916E+01			

Grand Total Activity : 6.905E+01 6.916E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	83.98	148	405	1.21	167.61	164	28	2.05E-02	47.6	6.72E+00	T
3	89.84	176	310	0.93	179.33	164	28	2.44E-02	35.6	6.64E+00	T
0	128.84	81	229	0.85	257.36	254	7	1.12E-02	66.2	5.90E+00	T
0	185.92	234	314	1.16	371.58	367	11	3.25E-02	33.2	4.81E+00	T
0	208.99	148	276	0.95	417.72	412	12	2.06E-02	47.7	4.44E+00	T
0	327.48	112	117	0.96	654.80	649	12	1.55E-02	43.1	3.10E+00	T
0	726.35	89	38	2.42	1452.96	1447	15	1.23E-02	36.9	1.47E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:27:48.80

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245691014.CNF;1    *
* Acquisition date : 9-FEB-2010 17:27:05.  Detector SN#    :                  *
* Detector ID      : GAM17                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:09.61         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 25-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245691014            Analyst initials: MJH1             *
* Batch Number     : 947037                Sample Quantity : 1.30090E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.425E+01	2.901E+00	7.167E-01	6.363E-02	33.839
CD-109	3.825E+00	9.449E-01	9.736E-01	9.505E-02	3.928
SN-126	3.759E-01	9.286E-02	9.555E-02	9.324E-03	3.934
CS-135	6.095E-01	2.517E-01	2.513E-01	2.622E-02	2.426
BA-137M	8.541E-02	5.734E-02	7.277E-02	6.130E-03	1.174
CS-137	9.028E-02	6.062E-02	7.693E-02	6.493E-03	1.174
TL-208	4.485E-01	9.676E-02	7.004E-02	6.625E-03	6.404
BI-210	1.629E+00	9.514E-01	7.965E-01	8.641E-02	2.045
PB-210	1.629E+00	9.514E-01	7.965E-01	8.641E-02	2.045
PO-210	1.629E+00	9.492E-01	7.965E-01	8.047E-02	2.045
BI-211	3.957E+00	6.580E-01	3.519E-01	3.284E-02	11.246
PB-212	1.340E+00	1.903E-01	1.088E-01	1.097E-02	12.315
PO-212	1.340E+00	1.903E-01	1.088E-01	1.097E-02	12.315
BI-214	1.165E+00	2.347E-01	1.312E-01	1.335E-02	8.875
PB-214	1.377E+00	2.399E-01	1.227E-01	1.311E-02	11.218
PO-214	1.377E+00	2.399E-01	1.227E-01	1.311E-02	11.218
PO-216	1.340E+00	1.903E-01	1.088E-01	1.097E-02	12.315
PO-218	1.377E+00	2.399E-01	1.227E-01	1.311E-02	11.218

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	3.036E+00	1.003E+00	1.367E+00	1.236E-01	2.222
RA-226	1.165E+00	2.347E-01	1.312E-01	1.335E-02	8.875
AC-228	1.545E+00	3.937E-01	2.928E-01	3.322E-02	5.275
RA-228	1.545E+00	3.937E-01	2.928E-01	3.322E-02	5.275
TH-228	1.361E+00	1.932E-01	1.105E-01	1.114E-02	12.315
TH-230	1.165E+00	2.347E-01	1.312E-01	1.335E-02	8.875
TH-232	1.545E+00	3.937E-01	2.928E-01	3.322E-02	5.275
TH-234	3.585E+00	1.369E+00	9.836E-01	1.836E-01	3.645
U-234	1.165E+00	2.347E-01	1.312E-01	1.335E-02	8.875
NP-237	1.104E+00	3.553E-01	2.797E-01	6.383E-02	3.947
U-238	3.585E+00	1.369E+00	9.836E-01	1.836E-01	3.645
AM-243	3.652E-01	6.260E-02	5.758E-02	5.621E-03	6.344
ANH-511	1.481E-01	9.354E-02	5.217E-02	4.659E-03	2.838

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.212E-01		3.699E-01	6.226E-01	5.924E-02	0.195
NA-22	1.925E-02		5.638E-02	9.562E-02	8.056E-03	0.201
NA-24	-2.936E-01		4.400E-01	Half-Life too short		
AL-26	3.071E-02		2.335E-02	5.397E-02	4.523E-03	0.569
TI-44	3.715E-01	+	5.263E-02	6.085E-02	5.929E-03	6.105
SC-46	-3.692E-02		4.987E-02	7.561E-02	6.619E-03	-0.488
V-48	-5.212E-02		9.253E-02	1.420E-01	1.238E-02	-0.367
CR-51	2.253E-01		3.585E-01	6.277E-01	5.995E-02	0.359
MN-52	-6.662E-02		2.600E-01	4.128E-01	3.559E-02	-0.161
MN-54	3.496E-02		5.097E-02	8.954E-02	7.873E-03	0.390
CO-56	9.679E-03		4.741E-02	8.043E-02	7.070E-03	0.120
CO-57	-2.464E-03		2.363E-02	3.888E-02	4.555E-03	-0.063
CO-58	-2.466E-02		4.431E-02	6.914E-02	6.088E-03	-0.357
FE-59	3.806E-02		1.243E-01	2.088E-01	1.916E-02	0.182
CO-60	3.836E-02		5.000E-02	9.146E-02	7.795E-03	0.419
ZN-65	2.787E-02		1.242E-01	1.808E-01	1.522E-02	0.154
GE-68	-1.180E+00		1.564E+00	2.303E+00	1.966E-01	-0.512
AS-73	1.093E-01		2.332E-01	3.982E-01	3.984E-02	0.274
AS-74	4.583E-03		1.015E-01	1.645E-01	1.449E-02	0.028
SE-75	2.688E-02		5.038E-02	7.436E-02	6.832E-03	0.362
BR-77	-6.662E+00		1.277E+01	1.979E+01	1.769E+00	-0.337
SR-82	-1.818E-01		4.456E-01	7.138E-01	6.247E-02	-0.255
RB-83	-3.762E-02		8.222E-02	1.283E-01	1.147E-02	-0.293
RB-84	-5.143E-02		8.286E-02	1.270E-01	1.113E-02	-0.405
KR-85	6.771E+00		8.032E+00	1.396E+01	1.247E+00	0.485
SR-85	3.476E-02		4.123E-02	7.166E-02	6.402E-03	0.485
RB-86	-5.857E-01		9.430E-01	1.410E+00	1.203E-01	-0.416
Y-88	-5.247E-03		3.906E-02	6.139E-02	5.119E-03	-0.085
ZR-88	-1.733E-02		3.289E-02	5.239E-02	4.414E-03	-0.331
Y-91	1.076E+01		2.489E+01	4.200E+01	3.467E+00	0.256

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	3.252E-02		4.343E-02	7.724E-02	6.626E-03	0.421
NB-95	3.704E-02		5.550E-02	9.772E-02	8.535E-03	0.379
NB-95M	-5.208E-02		1.434E-01	1.973E-01	2.014E-02	-0.264
ZR-95	5.565E-02		8.272E-02	1.472E-01	1.410E-02	0.378
NB-97	-7.401E-02		7.543E-02	Half-Life too short		
ZR-97	3.340E+00		1.258E+00	Half-Life too short		
MO-99	-8.351E+00		1.559E+01	2.482E+01	3.778E+00	-0.336
TC-99M	-4.147E+10		2.756E+10	Half-Life too short		
RH-101	-1.032E-02		3.296E-02	5.126E-02	4.457E-03	-0.201
RH-102	8.921E-03		3.323E-02	5.571E-02	4.935E-03	0.160
RU-103	-1.068E-02		4.854E-02	7.783E-02	1.116E-02	-0.137
RH-106	-3.553E-01		3.765E-01	5.378E-01	7.207E-02	-0.661
RU-106	-3.553E-01		3.747E-01	5.378E-01	4.672E-02	-0.661
AG-108M	-4.122E-03		3.702E-02	6.056E-02	5.466E-03	-0.068
AG-110M	-7.607E-03		4.662E-02	6.345E-02	5.530E-03	-0.120
IN-111	3.054E-01		1.154E+00	1.673E+00	1.517E-01	0.183
IN-113M	1.003E-02		4.772E-02	8.050E-02	6.995E-03	0.125
SN-113	1.003E-02		4.772E-02	8.050E-02	6.995E-03	0.125
IN-114M	-1.116E-01		2.126E-01	2.941E-01	2.533E-02	-0.380
CD-115	1.185E+01		1.343E+01	2.346E+01	2.097E+00	0.505
SN-117M	-1.036E-02		5.688E-02	9.196E-02	8.266E-03	-0.113
SB-122	5.198E-01		2.607E+00	4.297E+00	3.826E-01	0.121
I-123	3.057E+00		3.356E+00	Half-Life too short		
TE-123M	1.314E-02		2.885E-02	4.811E-02	4.330E-03	0.273
I-124	-5.481E-01		9.848E-01	1.286E+00	1.129E-01	-0.426
SB-124	2.403E-02		9.617E-02	1.660E-01	1.477E-02	0.145
SB-125	3.492E-02		1.029E-01	1.743E-01	1.538E-02	0.200
TE-125M	-3.123E+00		7.909E+00	1.288E+01	1.583E+00	-0.242
I-126	-3.184E-03		2.611E-01	3.634E-01	3.068E-02	-0.009
SB-126	5.663E-02		2.023E-01	3.067E-01	2.647E-02	0.185
SB-127	-2.405E-01		1.586E+00	2.487E+00	2.819E-01	-0.097
XE-127	2.087E-02		5.015E-02	7.881E-02	6.890E-03	0.265
I-131	-2.751E-02		1.263E-01	2.076E-01	1.917E-02	-0.133
TE-132	1.995E-01		7.014E-01	1.140E+00	1.815E-01	0.175
BA-133	6.416E-03		5.571E-02	8.283E-02	1.107E-02	0.077
I-133	-6.900E-04		3.857E-03	Half-Life too short		
CS-134	8.487E-02		6.097E-02	1.128E-01	9.967E-03	0.752
I-135	-5.810E+09		4.967E+09	Half-Life too short		
CS-136	-7.169E-02		1.470E-01	2.268E-01	2.037E-02	-0.316
CE-139	-2.821E-02		2.964E-02	4.560E-02	3.803E-03	-0.619
BA-140	-1.980E-01		3.101E-01	4.617E-01	1.534E-01	-0.429
LA-140	-6.736E-02		1.082E-01	1.577E-01	1.361E-02	-0.427
CE-141	-9.617E-03		6.594E-02	1.073E-01	1.095E-02	-0.090
CE-143	6.350E-04		1.160E-04	Half-Life too short		
CE-144	1.217E-01		2.021E-01	3.404E-01	5.773E-02	0.358
PM-144	-3.655E-03		4.469E-02	7.483E-02	6.406E-03	-0.049
PR-144	-2.477E-01		3.028E+00	5.071E+00	4.340E-01	-0.049
PM-146	-2.729E-02		4.521E-02	7.011E-02	7.610E-03	-0.389

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	-5.504E-01		6.752E-01	1.006E+00	1.522E-01	-0.547
PM-149	2.039E+00		9.184E+01	1.558E+02	2.471E+01	0.013
EU-152	-6.389E-02		1.044E-01	1.610E-01	1.523E-02	-0.397
GD-153	-2.577E-02		7.395E-02	1.086E-01	1.110E-02	-0.237
EU-154	3.552E-02		1.604E-01	2.679E-01	2.989E-02	0.133
EU-155	8.822E-02		9.939E-02	1.708E-01	1.835E-02	0.517
TB-160	7.525E-02		1.551E-01	2.712E-01	2.378E-02	0.277
HO-166M	-1.801E-03		8.014E-02	1.346E-01	1.159E-02	-0.013
TM-171	2.007E+00		1.590E+01	2.442E+01	2.411E+00	0.082
LU-176	1.654E-03		2.512E-02	4.255E-02	3.898E-03	0.039
LU-177	4.250E+00	+	2.060E+00	2.195E+00	1.931E-01	1.936
LU-177M	2.971E-02		1.891E-01	3.168E-01	2.714E-02	0.094
HF-181	7.460E-03		4.734E-02	7.862E-02	6.980E-03	0.095
W-181	9.700E-02		1.998E-01	3.116E-01	3.086E-02	0.311
TA-182	-4.137E-02		2.431E-01	3.843E-01	3.188E-02	-0.108
RE-183	9.569E-02		1.105E-01	1.875E-01	1.623E-02	0.510
RE-184	-1.828E-01		2.423E-01	3.632E-01	3.307E-02	-0.503
OS-185	-8.261E-03		5.372E-02	8.476E-02	7.237E-03	-0.097
RE-188	7.489E-02		1.784E-01	2.970E-01	2.760E-02	0.252
W-188	-1.061E+01		8.614E+00	1.143E+01	1.050E+00	-0.929
IR-192	-1.726E-02		3.647E-02	5.949E-02	5.443E-03	-0.290
AU-195	1.360E-01		1.916E-01	3.285E-01	3.384E-02	0.414
TL-200	-1.104E-04		2.643E-04	Half-Life too short		
TL-201	5.499E+00		6.917E+00	1.171E+01	9.778E-01	0.470
TL-202	2.280E-02		8.009E-02	1.349E-01	1.176E-02	0.169
HG-203	1.976E-03		4.317E-02	7.341E-02	6.909E-03	0.027
BI-207	-8.726E-02		7.503E-02	1.060E-01	9.085E-03	-0.823
TL-207	9.929E-02		6.989E-01	1.050E+00	1.884E-01	0.095
PO-209	1.320E+00		9.888E+00	1.657E+01	1.449E+00	0.080
PB-211	-3.545E-01		1.058E+00	1.672E+00	1.048E+00	-0.212
BI-212	1.477E+00	+	5.647E-01	7.753E-01	7.779E-02	1.905
PO-215	9.929E-02		6.989E-01	1.050E+00	1.884E-01	0.095
RN-219	-1.719E-01		4.883E-01	7.892E-01	1.180E-01	-0.218
RN-220	3.798E+01		2.803E+01	5.114E+01	4.565E+00	0.743
RA-223	9.929E-02		6.989E-01	1.050E+00	1.884E-01	0.095
AC-227	1.213E-01		4.112E-01	6.645E-01	1.039E-01	0.182
TH-227	1.213E-01		4.114E-01	6.645E-01	1.216E-01	0.182
TH-229	4.789E-01		5.329E-01	8.984E-01	7.770E-02	0.533
PA-231	-8.914E-01		1.517E+00	2.468E+00	3.828E-01	-0.361
TH-231	9.929E-02		6.989E-01	1.050E+00	1.884E-01	0.095
U-231	3.938E-01		9.855E-01	1.510E+00	1.531E-01	0.261
PA-233	-4.280E-02		6.802E-02	1.099E-01	1.031E-02	-0.389
PA-234	2.297E-01		3.845E-01	6.695E-01	1.260E-01	0.343
PA-234M	7.304E+00		6.269E+00	1.138E+01	1.142E+00	0.642
U-235	1.462E-01		2.276E-01	3.741E-01	6.858E-02	0.391
NP-236	3.254E-02		8.094E-02	1.346E-01	1.189E-02	0.242
NP-239	-5.299E-02		1.766E-01	2.882E-01	3.279E-02	-0.184
AM-241	-1.898E-02		6.804E-02	1.025E-01	1.089E-02	-0.185

Sample ID : G245691014 Acquisition date : 9-FEB-2010 17:27:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.401E-02		8.693E-02	1.465E-01	1.548E-02	0.164
AM-246	-5.880E-02		1.721E-01	2.683E-01	2.288E-02	-0.219
CM-247	-4.401E-03		4.223E-02	6.952E-02	5.906E-03	-0.063
CF-249	2.716E-02		4.192E-02	7.289E-02	6.176E-03	0.373
CF-251	-2.252E-02		1.331E-01	2.140E-01	1.810E-02	-0.105

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245691014           *
* Acquisition date  :  9-FEB-2010 17:27:05 Detector SN#     :               *
* Detector ID       : GAM17                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:09.61      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245691014           Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.3009E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.425E+01	2.843E+00	3.588E-01	1.451E+00
CD-109	3.825E+00	9.260E-01	5.099E-01	4.724E-01
SN-126	3.759E-01	9.100E-02	5.004E-02	4.643E-02
CS-135	6.095E-01	2.466E-01	1.293E-01	1.258E-01
BA-137M	8.541E-02	5.619E-02	3.691E-02	2.867E-02
CS-137	9.028E-02	5.940E-02	3.902E-02	3.031E-02
TL-208	4.485E-01	9.483E-02	3.560E-02	4.838E-02
BI-210	1.629E+00	9.324E-01	4.212E-01	4.757E-01
PB-210	1.629E+00	9.324E-01	4.212E-01	4.757E-01
PO-210	1.629E+00	9.302E-01	4.212E-01	4.746E-01
BI-211	3.957E+00	6.448E-01	1.803E-01	3.290E-01
PB-212	1.340E+00	1.865E-01	5.611E-02	9.516E-02
PO-212	1.340E+00	1.865E-01	5.611E-02	9.516E-02
BI-214	1.165E+00	2.300E-01	6.666E-02	1.174E-01
PB-214	1.377E+00	2.351E-01	6.288E-02	1.199E-01
PO-214	1.377E+00	2.351E-01	6.288E-02	1.199E-01
PO-216	1.340E+00	1.865E-01	5.611E-02	9.516E-02
PO-218	1.377E+00	2.351E-01	6.288E-02	1.199E-01
RA-224	3.036E+00	9.825E-01	7.046E-01	5.013E-01
RA-226	1.165E+00	2.300E-01	6.666E-02	1.174E-01
AC-228	1.545E+00	3.858E-01	1.478E-01	1.968E-01
RA-228	1.545E+00	3.858E-01	1.478E-01	1.968E-01
TH-228	1.361E+00	1.894E-01	5.697E-02	9.661E-02
TH-230	1.165E+00	2.300E-01	6.665E-02	1.173E-01
TH-232	1.545E+00	3.858E-01	1.478E-01	1.968E-01
TH-234	3.585E+00	1.342E+00	5.177E-01	6.845E-01
U-234	1.165E+00	2.300E-01	6.665E-02	1.173E-01
NP-237	1.104E+00	3.482E-01	1.465E-01	1.776E-01
U-238	3.585E+00	1.342E+00	5.177E-01	6.845E-01
AM-243	3.652E-01	6.135E-02	3.023E-02	3.130E-02
ANH-511	1.481E-01	9.167E-02	2.657E-02	4.677E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.212E-01	3.625E-01	3.175E-01	1.849E-01	NOT IDENT.
NA-22	1.925E-02	5.526E-02	4.798E-02	2.819E-02	NOT IDENT.
NA-24	-2.936E+05	8.624E+05	0.000E+00	4.400E+05	SHORT HLIF
AL-26	3.071E-02	2.289E-02	2.692E-02	1.168E-02	NOT IDENT.
TI-44	3.715E-01	5.158E-02	3.192E-02	2.632E-02	FAIL ABUN
SC-46	-3.692E-02	4.887E-02	3.817E-02	2.493E-02	FAIL ABUN
V-48	-5.212E-02	9.068E-02	7.154E-02	4.627E-02	NOT IDENT.
CR-51	2.253E-01	3.513E-01	3.222E-01	1.792E-01	NOT IDENT.
MN-52	-6.662E-02	2.548E-01	2.067E-01	1.300E-01	NOT IDENT.
MN-54	3.496E-02	4.995E-02	4.525E-02	2.548E-02	NOT IDENT.
CO-56	9.679E-03	4.646E-02	4.063E-02	2.370E-02	NOT IDENT.
CO-57	-2.464E-03	2.316E-02	2.026E-02	1.182E-02	NOT IDENT.
CO-58	-2.466E-02	4.342E-02	3.495E-02	2.215E-02	NOT IDENT.
FE-59	3.806E-02	1.218E-01	1.050E-01	6.215E-02	NOT IDENT.
CO-60	3.836E-02	4.900E-02	4.586E-02	2.500E-02	NOT IDENT.
ZN-65	2.787E-02	1.217E-01	9.093E-02	6.211E-02	NOT IDENT.
GE-68	-1.180E+00	1.533E+00	1.159E+00	7.822E-01	NOT IDENT.
AS-73	1.093E-01	2.286E-01	2.102E-01	1.166E-01	NOT IDENT.
AS-74	4.583E-03	9.946E-02	8.358E-02	5.074E-02	NOT IDENT.
SE-75	2.688E-02	4.938E-02	3.828E-02	2.519E-02	NOT IDENT.
BR-77	-6.662E+00	1.251E+01	1.008E+01	6.385E+00	FAIL ABUN
SR-82	-1.818E-01	4.367E-01	3.611E-01	2.228E-01	NOT IDENT.
RB-83	-3.762E-02	8.058E-02	6.535E-02	4.111E-02	NOT IDENT.
RB-84	-5.143E-02	8.120E-02	6.413E-02	4.143E-02	NOT IDENT.
KR-85	6.771E+00	7.872E+00	7.110E+00	4.016E+00	NOT IDENT.
SR-85	3.476E-02	4.041E-02	3.650E-02	2.062E-02	NOT IDENT.
RB-86	-5.857E-01	9.242E-01	7.093E-01	4.715E-01	NOT IDENT.
Y-88	-5.247E-03	3.828E-02	3.062E-02	1.953E-02	NOT IDENT.
ZR-88	-1.733E-02	3.223E-02	2.680E-02	1.645E-02	NOT IDENT.
Y-91	1.076E+01	2.439E+01	2.110E+01	1.244E+01	NOT IDENT.
NB-94	3.252E-02	4.256E-02	3.914E-02	2.171E-02	NOT IDENT.
NB-95	3.704E-02	5.439E-02	4.945E-02	2.775E-02	NOT IDENT.
NB-95M	-5.208E-02	1.405E-01	1.017E-01	7.169E-02	NOT IDENT.
ZR-95	5.565E-02	8.106E-02	7.448E-02	4.136E-02	NOT IDENT.
NB-97	-7.401E+04	1.478E+05	0.000E+00	7.543E+04	SHORT HLIF
ZR-97	3.340E+06	2.466E+06	0.000E+00	1.258E+06	SHORT HLIF
MO-99	-8.351E+00	1.527E+01	1.257E+01	7.793E+00	NOT IDENT.
TC-99M	-4.147E+16	5.403E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.032E-02	3.230E-02	2.651E-02	1.648E-02	NOT IDENT.
RH-102	8.921E-03	3.257E-02	2.841E-02	1.662E-02	NOT IDENT.
RU-103	-1.068E-02	4.757E-02	3.966E-02	2.427E-02	FAIL ABUN
RH-106	-3.553E-01	3.689E-01	2.731E-01	1.882E-01	FAIL ABUN
RU-106	-3.553E-01	3.672E-01	2.731E-01	1.874E-01	FAIL ABUN
AG-108M	-4.122E-03	3.628E-02	3.093E-02	1.851E-02	NOT IDENT.
AG-110M	-7.607E-03	4.569E-02	3.219E-02	2.331E-02	NOT IDENT.
IN-111	3.054E-01	1.131E+00	8.620E-01	5.770E-01	NOT IDENT.
IN-113M	1.003E-02	4.677E-02	4.118E-02	2.386E-02	NOT IDENT.
SN-113	1.003E-02	4.677E-02	4.118E-02	2.386E-02	NOT IDENT.
IN-114M	-1.116E-01	2.084E-01	1.522E-01	1.063E-01	NOT IDENT.
CD-115	1.185E+01	1.316E+01	1.194E+01	6.716E+00	NOT IDENT.
SN-117M	-1.036E-02	5.575E-02	4.772E-02	2.844E-02	NOT IDENT.
SB-122	5.198E-01	2.555E+00	2.185E+00	1.303E+00	NOT IDENT.
I-123	3.057E+06	6.578E+06	0.000E+00	3.356E+06	SHORT HLIF
TE-123M	1.314E-02	2.828E-02	2.496E-02	1.443E-02	NOT IDENT.
I-124	-5.481E-01	9.651E-01	6.532E-01	4.924E-01	NOT IDENT.
SB-124	2.403E-02	9.424E-02	8.291E-02	4.808E-02	FAIL ABUN
SB-125	3.492E-02	1.008E-01	8.906E-02	5.145E-02	NOT IDENT.
TE-125M	-3.123E+00	7.751E+00	6.724E+00	3.955E+00	NOT IDENT.
I-126	-3.184E-03	2.559E-01	1.843E-01	1.305E-01	NOT IDENT.
SB-126	5.663E-02	1.983E-01	1.553E-01	1.012E-01	FAIL ABUN
SB-127	-2.405E-01	1.555E+00	1.261E+00	7.932E-01	NOT IDENT.
XE-127	2.087E-02	4.915E-02	4.074E-02	2.508E-02	NOT IDENT.
I-131	-2.751E-02	1.238E-01	1.063E-01	6.317E-02	NOT IDENT.
TE-132	1.995E-01	6.873E-01	5.883E-01	3.507E-01	NOT IDENT.
BA-133	6.416E-03	5.460E-02	4.244E-02	2.786E-02	NOT IDENT.
I-133	-6.900E+02	7.561E+03	0.000E+00	3.857E+03	SHORT HLIF
CS-134	8.487E-02	5.975E-02	5.704E-02	3.049E-02	NOT IDENT.
I-135	-5.810E+15	9.736E+15	0.000E+00	4.967E+15	SHORT HLIF
CS-136	-7.169E-02	1.441E-01	1.142E-01	7.352E-02	FAIL ABUN
CE-139	-2.821E-02	2.905E-02	2.365E-02	1.482E-02	NOT IDENT.
BA-140	-1.980E-01	3.039E-01	2.350E-01	1.550E-01	NOT IDENT.
LA-140	-6.736E-02	1.060E-01	7.885E-02	5.409E-02	FAIL ABUN
CE-141	-9.617E-03	6.462E-02	5.578E-02	3.297E-02	NOT IDENT.
CE-143	6.350E+02	2.273E+02	0.000E+00	1.160E+02	SHORT HLIF

CE-144	1.217E-01	1.981E-01	1.771E-01	1.011E-01	NOT IDENT.
PM-144	-3.655E-03	4.379E-02	3.793E-02	2.234E-02	NOT IDENT.
PR-144	-2.477E-01	2.968E+00	2.570E+00	1.514E+00	NOT IDENT.
PM-146	-2.729E-02	4.431E-02	3.578E-02	2.261E-02	NOT IDENT.
ND-147	-5.504E-01	6.617E-01	5.120E-01	3.376E-01	FAIL ABUN
PM-149	2.039E+00	9.000E+01	8.009E+01	4.592E+01	NOT IDENT.
EU-152	-6.389E-02	1.023E-01	8.255E-02	5.222E-02	NOT IDENT.
GD-153	-2.577E-02	7.247E-02	5.678E-02	3.698E-02	FAIL ABUN
EU-154	3.552E-02	1.572E-01	1.344E-01	8.018E-02	NOT IDENT.
EU-155	8.822E-02	9.741E-02	8.921E-02	4.970E-02	FAIL ABUN
TB-160	7.525E-02	1.520E-01	1.369E-01	7.754E-02	FAIL ABUN
HO-166M	-1.801E-03	7.854E-02	6.821E-02	4.007E-02	NOT IDENT.
TM-171	2.007E+00	1.559E+01	1.284E+01	7.952E+00	NOT IDENT.
LU-176	1.654E-03	2.462E-02	2.185E-02	1.256E-02	FAIL ABUN
LU-177	4.250E+00	2.019E+00	1.134E+00	1.030E+00	FAIL ABUN
LU-177M	2.971E-02	1.853E-01	1.619E-01	9.455E-02	FAIL ABUN
HF-181	7.460E-03	4.640E-02	4.009E-02	2.367E-02	NOT IDENT.
W-181	9.700E-02	1.959E-01	1.640E-01	9.992E-02	NOT IDENT.
TA-182	-4.137E-02	2.383E-01	1.930E-01	1.216E-01	NOT IDENT.
RE-183	9.569E-02	1.083E-01	9.726E-02	5.527E-02	FAIL ABUN
RE-184	-1.828E-01	2.375E-01	1.871E-01	1.212E-01	NOT IDENT.
OS-185	-8.261E-03	5.264E-02	4.301E-02	2.686E-02	NOT IDENT.
RE-188	7.489E-02	1.748E-01	1.542E-01	8.921E-02	NOT IDENT.
W-188	-1.061E+01	8.442E+00	5.874E+00	4.307E+00	FAIL ABUN
IR-192	-1.726E-02	3.574E-02	3.054E-02	1.823E-02	FAIL ABUN
AU-195	1.360E-01	1.878E-01	1.717E-01	9.580E-02	FAIL ABUN
TL-200	-1.104E+02	5.180E+02	0.000E+00	2.643E+02	SHORT HLIF
TL-201	5.499E+00	6.779E+00	6.071E+00	3.458E+00	NOT IDENT.
TL-202	2.280E-02	7.849E-02	6.889E-02	4.005E-02	NOT IDENT.
HG-203	1.976E-03	4.231E-02	3.776E-02	2.159E-02	FAIL ABUN
BI-207	-8.726E-02	7.353E-02	5.334E-02	3.752E-02	FAIL ABUN
TL-207	9.929E-02	6.849E-01	5.389E-01	3.494E-01	FAIL ABUN
PO-209	1.320E+00	9.691E+00	8.366E+00	4.944E+00	NOT IDENT.
PB-211	-3.545E-01	1.037E+00	8.551E-01	5.292E-01	NOT IDENT.
BI-212	1.477E+00	5.534E-01	3.927E-01	2.824E-01	FAIL ABUN
PO-215	9.929E-02	6.849E-01	5.389E-01	3.494E-01	FAIL ABUN
RN-219	-1.719E-01	4.785E-01	4.035E-01	2.442E-01	NOT IDENT.
RN-220	3.798E+01	2.747E+01	2.602E+01	1.401E+01	NOT IDENT.
RA-223	9.929E-02	6.849E-01	5.389E-01	3.494E-01	FAIL ABUN
AC-227	1.213E-01	4.030E-01	3.423E-01	2.056E-01	FAIL ABUN
TH-227	1.213E-01	4.032E-01	3.423E-01	2.057E-01	FAIL ABUN
TH-229	4.789E-01	5.222E-01	4.648E-01	2.664E-01	FAIL ABUN
PA-231	-8.914E-01	1.487E+00	1.269E+00	7.586E-01	FAIL ABUN
TH-231	9.929E-02	6.849E-01	5.389E-01	3.494E-01	FAIL ABUN
U-231	3.938E-01	9.657E-01	7.897E-01	4.927E-01	FAIL ABUN
PA-233	-4.280E-02	6.666E-02	5.643E-02	3.401E-02	FAIL ABUN
PA-234	2.297E-01	3.768E-01	3.376E-01	1.923E-01	FAIL ABUN
PA-234M	7.304E+00	6.143E+00	5.731E+00	3.134E+00	NOT IDENT.
U-235	1.462E-01	2.230E-01	1.944E-01	1.138E-01	FAIL ABUN
NP-236	3.254E-02	7.932E-02	6.982E-02	4.047E-02	NOT IDENT.
NP-239	-5.299E-02	1.730E-01	1.503E-01	8.828E-02	FAIL ABUN
AM-241	-1.898E-02	6.668E-02	5.402E-02	3.402E-02	NOT IDENT.
CM-243	2.401E-02	8.519E-02	7.651E-02	4.347E-02	FAIL ABUN
AM-246	-5.880E-02	1.687E-01	1.350E-01	8.606E-02	NOT IDENT.
CM-247	-4.401E-03	4.139E-02	3.555E-02	2.112E-02	NOT IDENT.
CF-249	2.716E-02	4.108E-02	3.730E-02	2.096E-02	NOT IDENT.
CF-251	-2.252E-02	1.304E-01	1.109E-01	6.655E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	229.7010
46.50	229.7010
46.50	229.7010
48.70	283.9889
49.72	288.6156
51.35	281.6107
52.39	242.9846
52.97	270.5151
53.15	270.6498
53.44	276.8118
54.07	281.5456
56.28	325.1631
56.28	325.1651
57.37	0.0000
57.53	298.7731
57.53	298.7749
57.60	298.8280
57.98	283.6550
57.98	283.6550
59.32	346.7508
59.32	346.7508
59.40	346.8223
59.54	346.9481
59.72	347.1086
60.01	365.5133
61.10	367.8307
61.14	367.8674
61.30	348.5102
63.00	356.0938
63.29	356.3496
63.29	356.3496
63.58	356.6055
64.28	387.7886
65.12	368.8934
65.20	368.9647
65.20	368.9647
66.05	346.0403
66.72	363.7282
66.83	396.7802
66.91	396.8560
67.20	391.8541
67.20	391.8541
67.75	365.9421
67.85	369.9951
68.90	404.8211
68.90	404.8211
69.30	385.8427
69.67	362.2907
70.82	388.5343
70.82	388.5343
70.83	388.5432
72.80	368.9062
72.87	368.9630
72.87	368.9630
74.67	370.4539
74.81	370.5676
74.81	370.5676
74.81	370.5676
74.81	370.5676
74.81	370.5676
74.81	370.5676
74.81	370.5676
74.97	370.7002
75.28	370.9529
75.70	371.2982
77.11	372.4438
77.11	372.4438

77.11	372.4438
77.11	372.4438
77.11	372.4438
77.11	372.4438
77.11	372.4438
78.38	373.4671
79.62	366.3185
79.80	366.4586
79.80	366.4586
80.11	342.2530
80.18	342.3049
80.30	342.3914
80.30	342.3914
80.57	367.0560
81.00	367.3897
81.07	367.4432
81.07	367.4432
81.07	367.4432
81.07	367.4432
82.60	368.6195
83.37	306.3030
83.78	306.5645
83.78	306.5645
83.78	306.5645
83.78	306.5645
84.21	306.8345
84.90	307.2668
85.43	307.5984
86.29	308.1350
86.50	308.2649
86.54	308.2888
86.59	308.3213
86.72	308.4016
86.79	308.4426
86.94	308.5366
87.30	308.7605
87.30	308.7605
87.30	308.7605
87.30	308.7605
87.30	308.7605
87.30	308.7605
87.30	308.7605
87.57	308.9263
87.88	309.1177
88.03	309.2100
88.36	309.4116
88.47	309.4800
89.95	310.3840
91.11	311.0864
92.29	311.7974
92.38	311.8521
92.38	311.8521
93.35	312.4331
94.00	312.8193
94.67	234.9106
94.67	234.9131
94.90	235.0157
94.90	235.0157
94.90	235.0157
94.90	235.0157
95.87	255.0655
95.87	255.0655
96.73	275.1300
97.43	267.0541
98.44	232.0668
98.44	232.0668
98.88	235.8257
99.55	229.5306
99.55	229.5306
99.86	242.8382
100.00	242.8999
100.10	257.0706
103.18	269.8634
103.76	245.4973
105.00	238.4377
105.31	238.5680
108.00	268.3383
109.28	219.1648

111.00	214.0497
111.00	214.0497
111.76	206.6366
112.95	235.9418
115.19	230.0577
116.30	207.2374
117.00	226.8660
117.00	226.8660
117.66	239.7285
121.11	218.6190
121.62	223.6817
121.78	223.7388
122.06	211.1309
122.32	211.2177
122.32	211.2177
122.32	211.2177
122.32	211.2177
123.07	215.3853
127.23	201.0231
129.76	241.8686
131.20	234.9628
133.02	202.8005
133.54	208.9276
135.34	229.4385
136.00	232.6587
136.25	232.7440
136.48	225.8276
140.51	253.2894
140.51	0.0000
142.18	241.8091
142.65	219.7896
143.76	225.1868
144.24	229.3807
144.24	229.3807
144.24	229.3807
144.24	229.3807
145.22	217.5567
145.44	247.9882
147.16	231.3375
152.43	227.9135
152.70	229.0199
153.22	206.6727
154.21	214.1217
154.21	214.1217
154.21	214.1217
154.21	214.1217
155.03	216.4090
156.02	246.4795
158.56	215.3697
159.00	0.0000
159.00	194.8736
160.31	196.2429
161.27	223.3762
162.32	181.2253
162.64	188.5521
163.35	189.7631
163.89	200.2721
165.85	208.0607
167.43	161.5719
171.28	200.0697
171.86	165.6216
172.10	161.4772
176.55	203.4879
176.60	203.5017
181.06	211.4959
184.41	210.7496
185.71	176.9610
186.00	177.0217
190.27	200.9506
192.34	150.4034
193.63	171.0693
197.04	177.1345
198.01	162.1918
198.60	166.6265
200.40	174.5542
201.83	169.4031
202.84	166.9844
205.31	170.0561

208.36	177.1859
208.81	177.2732
209.75	177.4545
209.75	177.4545
210.97	177.6885
215.65	166.4527
216.55	163.3022
218.09	179.0398
222.10	150.9373
223.80	180.1077
226.40	141.5740
227.00	127.1599
227.08	131.6325
227.20	139.4590
228.16	136.2448
228.18	136.2472
228.18	136.2472
231.56	0.0000
235.69	175.5381
236.00	175.5936
236.00	175.5936
238.63	211.5993
238.63	211.5993
238.63	211.5993
238.63	211.5993
239.00	257.3976
240.98	257.8986
241.98	149.4547
241.98	149.4547
241.98	149.4547
244.69	134.5240
245.39	110.7587
247.94	100.2121
248.90	107.1432
249.79	119.7827
252.40	122.3669
252.85	138.4366
252.85	138.4366
254.15	0.0000
256.20	130.8384
256.20	130.8384
260.50	123.2964
260.90	136.0222
262.80	115.4744
264.65	107.5729
268.24	120.6901
268.79	120.7494
269.46	120.8213
269.46	120.8213
269.46	120.8213
269.46	120.8213
271.23	109.9597
273.65	136.4357
276.40	137.6457
277.35	130.7410
277.60	129.0153
277.60	129.0153
278.00	135.2059
278.60	127.3706
279.20	141.5014
279.53	141.5408
280.46	146.9353
281.68	118.0270
283.67	123.5233
284.30	132.4196
285.00	130.7330
285.90	108.7342
286.10	99.9113
286.10	99.9113
287.40	100.0233
288.45	0.0000
290.67	143.4417
290.80	143.4565
291.72	110.8758
293.26	0.0000
293.70	112.4863
295.21	108.3520
295.21	108.3520

295.21	108.3520
295.96	108.4206
296.50	108.4688
297.23	157.0911
298.57	157.2683
299.80	105.9053
299.80	105.9053
300.09	108.7954
300.09	108.7954
300.09	108.7954
300.09	108.7954
300.12	108.7973
301.29	107.4701
302.84	109.0422
303.76	119.1767
303.91	119.1909
304.40	113.4931
304.40	113.4931
304.84	107.7850
306.84	106.1633
308.46	95.4915
311.98	122.8682
316.51	116.9692
318.01	116.2012
319.02	107.2094
319.41	95.4270
320.08	81.8372
323.87	86.0959
323.87	86.0959
323.87	86.0959
323.87	86.0959
325.23	93.4922
328.77	92.2852
333.44	93.1074
334.20	88.2583
334.20	88.2583
334.30	88.2656
338.28	109.1916
338.28	109.1916
338.28	109.1916
338.28	109.1916
338.32	109.1952
338.32	109.1952
338.32	109.1952
340.50	96.0734
340.57	96.0781
344.27	105.8751
345.85	78.6525
350.59	0.0000
351.07	97.7662
351.92	97.8271
351.92	97.8271
351.92	97.8271
355.39	0.0000
356.01	109.1471
364.48	95.9036
366.43	87.5636
367.43	84.7993
367.94	0.0000
369.80	85.8860
374.96	79.5690
383.85	89.5938
387.95	74.5532
388.63	82.2378
391.69	82.4097
391.69	82.4097
392.90	91.1093
398.62	96.2738
400.65	88.6926
401.10	91.6123
401.81	107.0926
402.60	96.5302
404.84	94.7401
410.95	89.2977
411.60	100.0170
413.65	78.7604
414.70	73.9485
415.30	78.8445

415.76	80.8153
417.63	0.0000
418.52	94.6156
423.70	87.1015
427.08	71.5965
427.89	75.5584
432.53	78.7329
433.93	80.7726
439.47	77.0990
439.56	77.1026
439.89	79.0967
443.98	74.3408
444.90	56.5312
445.03	56.5356
445.03	56.5356
445.03	56.5356
445.03	56.5356
453.90	69.8067
463.38	67.1963
468.07	81.4647
473.00	75.6500
475.06	67.6615
475.35	58.5832
476.78	66.7191
477.59	67.7616
477.96	59.6833
482.03	63.8806
484.57	51.7891
487.03	76.2680
490.36	0.0000
492.35	71.4003
497.08	74.6597
507.63	0.0000
510.53	0.0000
510.84	63.8992
511.00	63.9049
511.85	63.9351
511.85	63.9351
513.99	64.0099
513.99	64.0099
520.41	72.5250
520.65	72.5336
527.90	56.1753
528.96	0.0000
529.64	55.1868
529.87	0.0000
531.02	73.9836
537.32	69.0051
543.00	52.4338
546.56	0.0000
549.76	36.8340
552.65	55.8612
555.20	48.5479
563.23	59.3462
563.90	65.7274
568.70	76.5154
569.32	71.2243
569.50	69.1042
569.67	66.9836
573.80	69.2549
574.00	67.1298
574.64	79.1825
578.91	56.4013
579.30	0.0000
583.14	63.3715
585.48	63.4456
591.81	54.8287
592.07	53.7598
593.00	53.7842
595.88	50.6288
600.56	58.3028
602.52	0.0000
602.71	77.8184
602.71	77.8184
603.60	76.1213
604.41	81.3435
604.70	81.3550
609.31	61.8028

609.31	61.8028
609.31	61.8028
609.31	61.8028
610.33	76.3684
612.46	66.0231
614.37	76.5166
618.01	56.6163
621.84	62.1733
621.84	62.1733
631.29	58.0674
633.02	55.9213
633.10	55.9244
634.78	65.8447
635.90	57.0956
636.97	58.2227
645.85	55.1529
646.12	58.4685
656.30	49.6521
657.75	51.4594
657.90	0.0000
661.65	61.1046
661.65	61.1046
664.57	0.0000
666.33	58.7845
666.33	58.7845
675.00	51.4117
677.61	43.6382
685.20	46.0299
692.80	58.5730
695.00	55.9241
696.49	69.4974
696.49	69.4974
697.00	75.8338
697.49	78.5570
698.33	75.8769
698.50	67.7527
699.00	67.7655
702.63	58.8221
706.10	69.7869
706.58	0.0000
706.67	75.2431
709.31	49.9149
711.68	66.3184
713.82	58.1953
717.42	56.4630
720.50	53.1921
721.93	0.0000
722.20	45.6262
722.78	57.8071
722.78	57.8071
722.89	57.8102
722.95	59.3315
723.30	59.3411
724.18	54.7969
727.18	53.0369
733.00	42.7770
735.90	58.7359
739.58	64.3398
742.81	48.7792
744.21	48.8076
747.13	59.0078
751.79	48.9590
752.31	47.1215
753.82	44.3766
755.35	44.4035
756.15	39.7918
756.87	40.7290
763.93	64.0524
765.79	58.5257
766.42	65.0457
766.84	62.2678
776.49	49.4468
778.00	47.6095
778.57	43.8846
778.89	42.9565
783.80	44.9109
785.46	45.8765
792.07	55.3816

795.84	43.2429
796.30	47.9520
798.80	73.4087
801.93	51.8257
805.60	44.3494
810.29	46.3203
810.76	43.4922
815.85	35.9979
817.79	47.4011
818.51	45.5180
819.60	43.6394
826.30	57.0645
828.27	0.0000
831.60	59.0847
831.96	61.9515
834.83	53.4311
836.80	0.0000
846.75	40.2507
848.13	47.9419
856.28	0.0000
856.80	63.4863
860.37	31.7843
867.32	36.6928
867.82	33.8020
871.10	38.6768
873.19	34.8354
874.81	34.8557
875.33	0.0000
876.40	35.8447
879.36	29.0940
880.27	29.1035
880.51	28.1355
881.50	42.7034
883.24	50.4994
884.67	34.0071
889.25	49.6341
896.60	45.8606
898.02	48.8123
899.00	48.8293
903.28	47.6800
911.07	50.9971
911.07	50.9971
911.07	50.9971
919.63	46.2301
920.93	46.2507
925.00	31.5344
925.24	31.5367
926.50	39.4385
935.52	40.5496
937.48	40.5766
944.10	42.6515
946.00	35.7311
949.00	38.7477
962.29	49.8975
964.01	41.6056
966.15	74.9432
968.20	84.9917
969.11	51.0112
969.11	51.0112
969.11	51.0112
977.42	37.8894
980.50	35.1393
983.50	46.2280
989.30	36.2470
996.32	55.5035
1001.03	36.3850
1001.68	38.4147
1004.76	57.6791
1021.30	0.0000
1024.50	0.0000
1034.80	33.7122
1036.00	29.6372
1037.82	33.7444
1038.57	37.8437
1038.76	0.0000
1045.16	34.8467
1046.59	45.1150
1048.07	48.2140

1050.47	39.0112
1050.47	39.0112
1062.04	43.2715
1063.62	59.7842
1076.63	38.2899
1077.35	43.4745
1078.86	37.2797
1085.78	37.3588
1099.22	41.6758
1112.02	29.6338
1112.84	24.4100
1115.52	36.6440
1120.29	35.6469
1120.29	35.6469
1120.29	35.6469
1120.29	35.6469
1120.51	35.6485
1121.28	29.7140
1124.00	0.0000
1129.67	37.8475
1131.51	0.0000
1147.95	0.0000
1167.94	55.2729
1173.22	36.1947
1175.09	38.3432
1177.93	41.5727
1189.05	44.9101
1204.90	42.9590
1205.75	0.0000
1213.00	54.8972
1221.42	44.2332
1230.97	53.0028
1235.34	59.5627
1236.41	0.0000
1238.25	48.7727
1246.25	40.1887
1260.41	0.0000
1271.85	34.9953
1274.45	30.6414
1274.54	28.4540
1291.56	32.9780
1298.22	0.0000
1312.09	33.1538
1325.50	33.2681
1325.50	33.2681
1332.49	21.2920
1333.61	20.3726
1360.21	20.5095
1362.66	0.0000
1365.15	20.5346
1368.21	20.5498
1368.53	0.0000
1376.25	13.1034
1384.27	11.2539
1394.10	9.4006
1395.20	15.0456
1407.95	16.0350
1434.06	16.1367
1436.60	14.2468
1457.56	0.0000
1460.81	19.6507
1489.15	13.4622
1509.49	12.5588
1596.49	19.7005
1620.62	8.9117
1678.03	0.0000
1691.02	10.0505
1691.02	10.0505
1706.46	0.0000
1750.46	0.0000
1764.49	6.9958
1764.49	6.9958
1764.49	6.9958
1764.49	6.9958
1770.23	28.5993
1771.40	12.2598
1791.20	0.0000
1808.65	0.0000

1836.01 8.2777

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245691014

Total Uranium Activity	1.0734E+01	ug/g
Total Uranium Counting Unc.	3.9929E+00	ug/g
Total Uranium Tpu	2.0372E-06	ug/g
Total Uranium Mda	1.5428E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G245691014       *
*   ANALYST       : MJH1                      DETECTOR   : GAM17            *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 17:27:05.19    SAMPLE ALQT:  130.090 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.591E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.167E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.117E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.510E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:29:13.13

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028548.CNF;1
Sample date       : 1-FEB-2010 00:00:00. Acquisition date : 9-FEB-2010 17:28:19.
Sample ID         : G1202028548          Sample quantity  : 1.48710E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:24.91  0.3%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 947037                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	186.47*	17	51	1.42	372.79	367	11	2.30E-03	95.2	
2	0	239.55*	12	57	0.90	478.91	473	12	1.70E-03	134.6	
3	0	353.08*	6	20	1.27	705.91	699	8	8.05E-04	159.5	
4	0	511.15*	5	23	2.96	1022.00	1016	14	6.49E-04	335.9	
5	0	609.72*	12	6	1.15	1219.13	1214	12	1.70E-03	62.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 19:29:15

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028548.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 1-FEB-2010 00:00:00 Acquisition date : 9-FEB-2010 17:28:19
Sample ID : G1202028548 Sample quantity : 148.71 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:24.91 0.3%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	+	240.98	*	1.786E-01	4.811E-01	3.079E-01	2.736E-02	0.580
ANH-511	+	511.00	*	5.797E-03	3.895E-02	2.443E-02	2.342E-03	0.237

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.779E-02	1.144E-01	1.672E-01	1.638E-02	-0.405
NA-22		1274.54	*	-2.060E-02	2.299E-02	2.540E-02	2.083E-03	-0.811
NA-24		1368.53	*	6.658E-05	2.299E-02	Half-Life too short		
AL-26		1129.67		8.788E-02	8.018E-01	1.347E+00	1.134E-01	0.065
		1808.65	*	-4.097E-04	1.776E-02	2.852E-02	2.360E-03	-0.014
K-40		1460.81	*	2.684E-01	2.610E-01	5.291E-01	4.517E-02	0.507
TI-44		67.85		2.736E-04	4.620E-03	7.677E-03	6.226E-04	0.036
		78.38	*	4.487E-03	4.775E-03	8.572E-03	7.465E-04	0.523
SC-46		889.25	*	1.244E-03	2.019E-02	3.417E-02	3.039E-03	0.036
		1120.51		1.134E-02	2.046E-02	3.842E-02	3.246E-03	0.295
V-48		944.10		1.143E-02	3.601E-01	6.023E-01	5.280E-02	0.019
		983.50	*	-1.165E-02	2.967E-02	4.438E-02	3.882E-03	-0.263
		1312.09		3.561E-02	4.149E-02	7.952E-02	6.479E-03	0.448
CR-51		320.08	*	1.438E-02	1.307E-01	2.151E-01	2.000E-02	0.067
MN-52		744.21		-3.442E-02	6.670E-02	9.554E-02	1.015E-02	-0.360
		848.13		-9.750E-01	1.910E+00	2.893E+00	2.752E-01	-0.337
		935.52		2.295E-02	5.788E-02	1.048E-01	9.185E-03	0.219
		1246.25		-1.171E+00	1.851E+00	2.474E+00	2.033E-01	-0.473
		1333.61		4.527E-01	1.685E+00	2.978E+00	2.417E-01	0.152
		1434.06	*	-5.056E-02	6.428E-02	7.725E-02	6.379E-03	-0.654
MN-54		834.83	*	2.762E-03	1.806E-02	3.131E-02	3.035E-03	0.088
CO-56		846.75	*	3.912E-03	2.223E-02	3.849E-02	3.668E-03	0.102
		977.42		7.635E-01	1.439E+00	2.671E+00	2.338E-01	0.286
		1037.82		1.909E-02	1.690E-01	2.851E-01	2.603E-02	0.067
		1175.09		-5.505E-01	1.086E+00	1.534E+00	1.264E-01	-0.359
		1238.25		8.268E-03	3.741E-02	6.399E-02	5.429E-03	0.129
		1360.21		2.470E-01	5.258E-01	9.926E-01	8.101E-02	0.249

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1771.40		1.162E-01	1.455E-01	3.060E-01	2.543E-02	0.380
CO-57		122.06	*	1.219E-06	5.800E-03	9.160E-03	1.052E-03	0.000
		136.48		1.834E-02	5.735E-02	9.395E-02	1.041E-02	0.195
CO-58		810.76	*	3.642E-03	1.801E-02	3.164E-02	3.167E-03	0.115
FE-59		142.65		7.473E-01	7.525E-01	1.320E+00	1.333E-01	0.566
		192.34		-4.593E-04	2.547E-01	4.300E-01	5.732E-02	-0.001
		1099.22	*	-6.623E-04	3.621E-02	5.623E-02	5.189E-03	-0.012
		1291.56		-2.262E-03	4.234E-02	6.650E-02	6.248E-03	-0.034
CO-60		1173.22		1.069E-02	2.171E-02	3.973E-02	3.274E-03	0.269
		1332.49	*	2.136E-02	2.539E-02	5.017E-02	4.072E-03	0.426
ZN-65		1115.52	*	-3.414E-02	3.875E-02	4.400E-02	3.730E-03	-0.776
GE-68		1077.35	*	7.480E-02	5.891E-01	9.989E-01	8.574E-02	0.075
AS-73		53.44	*	-6.506E-03	5.126E-02	8.439E-02	6.834E-03	-0.077
AS-74		595.88	*	-1.749E-02	3.927E-02	5.923E-02	6.216E-03	-0.295
		634.78		5.692E-02	1.290E-01	2.304E-01	2.497E-02	0.247
SE-75		66.05		4.091E-02	4.299E-01	7.194E-01	7.160E-02	0.057
		96.73		1.184E-01	1.441E-01	2.570E-01	3.709E-02	0.461
		121.11		-3.474E-02	3.565E-02	4.724E-02	6.370E-03	-0.735
		136.00		7.131E-03	1.036E-02	1.782E-02	1.894E-03	0.400
		198.60		6.720E-01	5.857E-01	1.099E+00	1.043E-01	0.612
		264.65	*	-8.928E-03	1.445E-02	2.135E-02	1.917E-03	-0.418
		279.53		5.000E-03	3.985E-02	6.643E-02	6.130E-03	0.075
		303.91		-4.536E-01	8.369E-01	1.247E+00	1.458E-01	-0.364
		400.65		-6.243E-02	1.128E-01	1.594E-01	1.706E-02	-0.392
BR-77		87.88		2.764E+00	4.364E+00	7.652E+00	7.192E-01	0.361
		200.40		-7.109E+00	8.907E+00	1.361E+01	1.166E+00	-0.522
	+	239.00		3.941E-01	1.062E+00	1.009E+00	8.960E-02	0.390
		249.79		1.396E-01	4.044E+00	6.716E+00	5.989E-01	0.021
		281.68		-7.280E-01	5.230E+00	8.382E+00	7.477E-01	-0.087
		297.23		-7.273E-01	3.311E+00	4.598E+00	4.103E-01	-0.158
		303.76		-5.635E+00	1.155E+01	1.739E+01	1.550E+00	-0.324
		439.47		-1.102E+01	9.060E+00	1.153E+01	9.976E-01	-0.956
		484.57		7.983E+00	1.668E+01	3.008E+01	2.785E+00	0.265
		520.65	*	-9.873E-02	7.502E-01	1.217E+00	1.181E-01	-0.081
		574.64		7.678E-01	1.662E+01	2.763E+01	2.843E+00	0.028
		578.91		-8.533E+00	6.742E+00	8.050E+00	8.318E-01	-1.060
		585.48		3.173E+00	1.338E+01	2.290E+01	2.381E+00	0.139
		755.35		-4.267E+00	1.280E+01	1.877E+01	1.978E+00	-0.227
		817.79		-5.713E+00	1.147E+01	1.730E+01	1.714E+00	-0.330
SR-82		698.33		-1.629E+00	1.695E+01	2.693E+01	2.939E+00	-0.060
		776.49	*	-5.776E-02	1.705E-01	2.502E-01	2.590E-02	-0.231
		1395.20		-6.538E-01	6.226E+00	1.011E+01	8.305E-01	-0.065
RB-83		520.41	*	3.032E-03	2.958E-02	5.017E-02	4.866E-03	0.060
		529.64		-7.795E-03	4.687E-02	7.539E-02	7.393E-03	-0.103
		552.65		-1.703E-02	1.006E-01	1.615E-01	1.625E-02	-0.105
RB-84		881.50	*	9.152E-03	2.968E-02	5.315E-02	4.793E-03	0.172
KR-85		513.99	*	4.082E+00	4.475E+00	7.615E+00	7.327E-01	0.536
SR-85		513.99	*	1.957E-02	2.145E-02	3.651E-02	3.513E-03	0.536
RB-86		1076.63	*	4.921E-02	2.783E-01	4.797E-01	4.118E-02	0.103

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88		898.02		-1.271E-02	2.041E-02	2.873E-02	2.525E-03	-0.442
		1836.01	*	-1.062E-02	2.738E-02	3.768E-02	3.111E-03	-0.282
ZR-88		392.90	*	-8.056E-03	1.218E-02	1.662E-02	1.324E-03	-0.485
Y-91		1204.90	*	5.753E+00	8.098E+00	1.550E+01	1.277E+00	0.371
NB-94		702.63	*	-5.301E-03	2.203E-02	3.414E-02	3.718E-03	-0.155
		871.10		1.533E-03	1.442E-02	2.483E-02	2.279E-03	0.062
NB-95		765.79	*	-7.859E-04	1.520E-02	2.398E-02	2.506E-03	-0.033
NB-95M		235.69	*	1.826E-03	3.998E-02	6.003E-02	6.049E-03	0.030
ZR-95		724.18		-1.482E-02	4.917E-02	7.437E-02	8.458E-03	-0.199
		756.15	*	-1.511E-02	3.207E-02	4.485E-02	5.050E-03	-0.337
NB-97		657.90	*	7.199E-05	3.207E-02	Half-Life too short		
		1024.50		4.241E-03	3.207E-02	Half-Life too short		
ZR-97		254.15		-4.441E-03	3.207E-02	Half-Life too short		
		355.39		-2.701E-04	3.207E-02	Half-Life too short		
		507.63	*	5.870E-04	3.207E-02	Half-Life too short		
		602.52		-2.222E-03	3.207E-02	Half-Life too short		
		1021.30		9.174E-03	3.207E-02	Half-Life too short		
		1147.95		8.184E-04	3.207E-02	Half-Life too short		
		1362.66		-3.224E-03	3.207E-02	Half-Life too short		
		1750.46		4.877E-03	3.207E-02	Half-Life too short		
MO-99		140.51		-2.051E-01	1.830E+00	2.594E+00	7.328E-01	-0.079
		181.06		-5.985E-01	1.076E+00	1.476E+00	2.680E-01	-0.405
		366.43		-4.118E+00	7.632E+00	1.100E+01	9.224E-01	-0.374
		739.58	*	-5.624E-01	1.237E+00	1.767E+00	2.903E-01	-0.318
		778.00		2.184E+00	3.222E+00	6.002E+00	6.205E-01	0.364
TC-99M		140.51	*	-3.208E+01	3.222E+00	Half-Life too short		
RH-101		127.23		-9.130E-04	8.871E-03	1.376E-02	1.536E-03	-0.066
		198.01	*	1.527E-02	1.153E-02	2.186E-02	1.867E-03	0.698
		325.23		1.130E-02	8.768E-02	1.446E-01	1.275E-02	0.078
RH-102		418.52		-3.287E-02	9.659E-02	1.524E-01	1.273E-02	-0.216
		475.06	*	5.503E-03	1.148E-02	2.096E-02	1.915E-03	0.263
		631.29		1.018E-02	2.364E-02	4.239E-02	4.582E-03	0.240
		697.49		7.521E-03	4.459E-02	7.437E-02	8.117E-03	0.101
		766.84		-3.913E-02	4.486E-02	5.158E-02	5.385E-03	-0.759
		1046.59		-2.264E-02	4.999E-02	6.997E-02	6.057E-03	-0.324
		1112.84		1.276E-02	8.673E-02	1.485E-01	1.259E-02	0.086
RU-103		497.08	*	1.028E-02	1.888E-02	3.404E-02	4.991E-03	0.302
	+	610.33		3.795E-01	4.801E-01	7.368E-01	1.312E-01	0.515
RH-106	+	511.85		2.861E-02	1.922E-01	2.810E-01	2.697E-02	0.102
		621.84	*	-1.146E-01	1.969E-01	2.675E-01	3.960E-02	-0.429
		1050.47		2.536E-01	8.336E-01	1.512E+00	1.308E-01	0.168
RU-106	+	511.85		2.861E-02	1.922E-01	2.810E-01	2.697E-02	0.102
		621.84	*	-1.146E-01	1.966E-01	2.675E-01	2.869E-02	-0.429
		1050.47		2.536E-01	8.336E-01	1.512E+00	1.308E-01	0.168
AG-108M		433.93	*	-4.130E-03	1.492E-02	2.413E-02	2.152E-03	-0.171
		614.37		-2.006E-02	2.445E-02	2.705E-02	2.959E-03	-0.742
		722.95		-1.461E-02	2.332E-02	3.245E-02	3.585E-03	-0.450
CD-109		88.03	*	7.408E-02	1.280E-01	2.231E-01	2.099E-02	0.332
AG-110M		657.75	*	1.342E-02	2.015E-02	3.643E-02	4.086E-03	0.368

---- Non-Identified Nuclides ----

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		677.61		-1.440E-01	1.865E-01	2.559E-01	2.863E-02	-0.563
		706.67		-2.122E-02	1.228E-01	1.919E-01	2.123E-02	-0.111
		763.93		3.079E-02	6.173E-02	1.130E-01	1.205E-02	0.273
		884.67		-1.329E-02	2.265E-02	3.169E-02	2.926E-03	-0.419
		937.48		-6.843E-03	5.458E-02	8.791E-02	7.976E-03	-0.078
		1384.27		4.737E-02	9.918E-02	1.854E-01	1.567E-02	0.255
IN-111		171.28		2.003E-02	5.834E-02	1.034E-01	8.479E-03	0.194
		245.39	*	6.324E-02	7.782E-02	1.419E-01	1.264E-02	0.446
IN-113M		391.69	*	-1.229E-02	1.838E-02	2.516E-02	2.072E-03	-0.489
SN-113		391.69	*	-1.229E-02	1.838E-02	2.516E-02	2.072E-03	-0.489
IN-114M		190.27	*	1.984E-02	4.888E-02	7.962E-02	6.727E-03	0.249
CD-115		260.90		3.418E-03	6.136E+00	1.011E+01	9.036E-01	0.000
		492.35		-1.176E+00	2.449E+00	3.754E+00	3.513E-01	-0.313
		527.90	*	-2.020E-01	7.014E-01	1.101E+00	1.078E-01	-0.183
SN-117M		156.02		5.694E-01	4.651E-01	8.928E-01	8.058E-02	0.638
		158.56	*	-6.713E-03	1.116E-02	1.774E-02	1.562E-03	-0.378
SB-122		563.90	*	-1.960E-02	1.498E-01	2.394E-01	2.437E-02	-0.082
		692.80		6.034E-02	4.652E+00	7.551E+00	8.259E-01	0.008
I-123		159.00	*	-4.441E-04	4.652E+00	Half-Life too short		
		528.96		1.514E-02	4.652E+00	Half-Life too short		
TE-123M		159.00	*	-6.928E-03	7.868E-03	1.205E-02	1.062E-03	-0.575
I-124		602.71	*	-3.590E-02	1.188E-01	1.838E-01	1.941E-02	-0.195
		722.78		-5.025E-01	8.490E-01	1.194E+00	1.287E-01	-0.421
		1325.50		4.657E+00	6.204E+00	1.245E+01	1.012E+00	0.374
		1376.25		1.537E+00	6.207E+00	1.103E+01	9.028E-01	0.139
		1509.49		-2.091E+00	2.929E+00	3.405E+00	2.834E-01	-0.614
		1691.02		3.429E-01	4.857E-01	1.127E+00	9.417E-02	0.304
SB-124		602.71		-5.593E-03	1.850E-02	2.864E-02	3.024E-03	-0.195
		645.85		-7.967E-02	2.141E-01	3.172E-01	3.596E-02	-0.251
		709.31		3.566E-03	1.560E+00	2.521E+00	2.737E-01	0.001
		713.82		-3.548E-01	8.064E-01	1.169E+00	1.602E-01	-0.304
		722.78		-1.135E-01	1.917E-01	2.696E-01	2.946E-02	-0.421
		968.20		3.375E-01	1.083E+00	1.925E+00	1.686E-01	0.175
		1045.16		1.044E-01	9.885E-01	1.676E+00	1.452E-01	0.062
		1325.50		1.123E+00	1.496E+00	3.003E+00	2.441E-01	0.374
		1368.21		4.748E-01	9.405E-01	1.784E+00	2.354E-01	0.266
		1436.60		7.024E-01	1.614E+00	3.112E+00	2.571E-01	0.226
		1691.02	*	1.826E-02	2.587E-02	6.004E-02	5.227E-03	0.304
SB-125		427.89	*	1.656E-02	3.749E-02	6.796E-02	5.882E-03	0.244
		463.38		8.512E-02	1.205E-01	2.245E-01	2.162E-02	0.379
		600.56		4.074E-02	9.539E-02	1.677E-01	1.856E-02	0.243
		635.90		2.297E-02	1.425E-01	2.400E-01	2.738E-02	0.096
TE-125M		109.28	*	6.730E-01	1.905E+00	3.195E+00	3.837E-01	0.211
I-126		388.63		2.515E-02	5.786E-02	9.965E-02	7.980E-03	0.252
		666.33	*	-3.634E-02	6.410E-02	9.060E-02	9.995E-03	-0.401
		753.82		-5.672E-02	5.432E-01	8.504E-01	8.974E-02	-0.067
SB-126		223.80		2.601E-01	1.024E+00	1.758E+00	1.544E-01	0.148
		278.60		-2.997E-01	6.960E-01	1.072E+00	9.564E-02	-0.279
		296.50		1.648E-01	3.834E-01	5.935E-01	5.297E-02	0.278

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		414.70		-6.351E-03	2.007E-02	3.217E-02	2.668E-03	-0.197
		415.30		-1.872E+00	1.682E+00	2.235E+00	1.856E-01	-0.837
		555.20		8.263E-01	1.634E+00	2.904E+00	2.930E-01	0.284
		573.80		-1.400E-01	4.041E-01	6.263E-01	6.439E-02	-0.224
		593.00		-6.918E-02	3.198E-01	5.027E-01	5.263E-02	-0.138
		656.30		8.505E-01	1.368E+00	2.460E+00	2.707E-01	0.346
		666.33		-1.496E-02	2.640E-02	3.731E-02	4.116E-03	-0.401
		675.00		3.121E-01	7.410E-01	1.302E+00	1.433E-01	0.240
		695.00		4.346E-03	3.165E-02	5.252E-02	5.739E-03	0.083
		697.00		1.247E-03	1.067E-01	1.729E-01	1.888E-02	0.007
		720.50	*	1.952E-02	5.693E-02	9.792E-02	1.057E-02	0.199
		856.80		-1.721E-01	1.875E-01	2.516E-01	2.363E-02	-0.684
		989.30		1.095E-01	3.937E-01	7.006E-01	6.126E-02	0.156
		1034.80		3.244E+00	3.482E+00	6.855E+00	5.950E-01	0.473
		1213.00		-3.885E-01	1.583E+00	2.386E+00	1.965E-01	-0.163
SN-126		64.28		-2.251E-02	4.500E-02	6.882E-02	1.020E-02	-0.327
		86.94		7.563E-03	5.548E-02	9.138E-02	3.793E-02	0.083
		87.57	*	5.823E-03	1.318E-02	2.257E-02	2.116E-03	0.258
SB-127		61.10		-1.349E+00	1.530E+00	2.209E+00	1.955E-01	-0.610
		252.40		1.507E-01	4.750E-01	8.134E-01	3.392E-01	0.185
		290.80		-1.362E+00	2.653E+00	3.993E+00	3.923E-01	-0.341
		411.60		1.277E+00	1.709E+00	3.049E+00	4.392E-01	0.419
		444.90		2.386E-01	1.297E+00	2.257E+00	2.528E-01	0.106
		473.00		-2.203E-02	2.652E-01	4.172E-01	4.950E-02	-0.053
		543.00		-2.643E+00	2.278E+00	2.656E+00	3.743E-01	-0.995
		603.60		-6.899E-01	2.125E+00	2.993E+00	3.791E-01	-0.230
		685.20	*	-1.007E-01	2.122E-01	3.041E-01	3.626E-02	-0.331
		698.50		-3.574E-01	2.839E+00	4.484E+00	7.251E-01	-0.080
		722.20		-1.040E+00	5.300E+00	8.201E+00	9.459E-01	-0.127
		783.80		4.867E-02	6.240E-01	1.015E+00	1.252E-01	0.048
XE-127		57.60		-2.319E-01	3.917E-01	5.959E-01	4.692E-02	-0.389
		145.22		-6.348E-03	2.045E-01	3.171E-01	3.141E-02	-0.020
		172.10		1.293E-02	2.897E-02	5.197E-02	4.267E-03	0.249
		202.84	*	-9.529E-05	1.406E-02	2.362E-02	2.030E-03	-0.004
		374.96		1.114E-02	6.199E-02	1.027E-01	8.476E-03	0.108
I-131		80.18		-3.203E-01	3.157E-01	4.181E-01	3.699E-02	-0.766
		284.30		-7.199E-02	3.194E-01	5.039E-01	4.699E-02	-0.143
		364.48	*	-1.088E-02	2.724E-02	4.014E-02	3.555E-03	-0.271
		636.97		1.820E-01	4.357E-01	7.719E-01	8.656E-02	0.236
		722.89		-1.393E+00	2.268E+00	3.169E+00	3.419E-01	-0.440
TE-132		49.72		2.863E-02	2.257E-01	3.853E-01	3.545E-02	0.074
		111.76		-1.242E+00	1.818E+00	2.577E+00	2.940E-01	-0.482
		116.30		2.290E-01	1.746E+00	2.822E+00	3.303E-01	0.081
		228.16	*	-9.235E-03	6.310E-02	1.032E-01	1.536E-02	-0.089
BA-133		53.15		1.914E-02	2.174E-01	3.679E-01	2.986E-02	0.052
		79.62		-1.067E-01	1.672E-01	2.440E-01	3.739E-02	-0.437
		81.00		-1.647E-02	1.288E-02	1.588E-02	2.545E-03	-1.037
		276.40		3.830E-02	1.521E-01	2.543E-01	3.720E-02	0.151
		302.84		2.019E-02	5.754E-02	9.821E-02	1.324E-02	0.206

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		356.01	*	1.027E-02	1.953E-02	3.114E-02	4.092E-03	0.330
		383.85		-5.236E-02	1.191E-01	1.715E-01	2.101E-02	-0.305
I-133	+	510.53		3.561E-04	1.191E-01	Half-Life too short		
		529.87	*	1.727E-07	1.191E-01	Half-Life too short		
		706.58		-2.578E-04	1.191E-01	Half-Life too short		
		856.28		-1.282E-03	1.191E-01	Half-Life too short		
		875.33		2.477E-04	1.191E-01	Half-Life too short		
		1236.41		-6.155E-04	1.191E-01	Half-Life too short		
		1298.22		-3.824E-04	1.191E-01	Half-Life too short		
CS-134		475.35		2.505E-01	7.553E-01	1.345E+00	1.230E-01	0.186
		563.23		-1.022E-01	1.369E-01	1.811E-01	1.855E-02	-0.564
		569.32		9.014E-02	1.081E-01	2.009E-01	2.076E-02	0.449
		604.70		2.522E-03	1.700E-02	2.548E-02	2.700E-03	0.099
		795.84	*	-1.538E-02	2.552E-02	3.471E-02	3.543E-03	-0.443
		801.93		2.355E-03	2.494E-01	4.133E-01	4.187E-02	0.006
		1038.57		-6.368E-01	2.245E+00	3.446E+00	2.989E-01	-0.185
		1167.94		-1.039E+00	1.388E+00	1.803E+00	1.490E-01	-0.576
		1365.15		-4.763E-01	7.489E-01	1.013E+00	8.689E-02	-0.470
CS-135		268.24	*	-1.162E-02	5.971E-02	9.551E-02	9.781E-03	-0.122
I-135		288.45		3.070E+02	5.971E-02	Half-Life too short		
		417.63		6.575E+02	5.971E-02	Half-Life too short		
		546.56		6.230E+02	5.971E-02	Half-Life too short		
		836.80		4.020E+02	5.971E-02	Half-Life too short		
		1038.76		-2.605E+02	5.971E-02	Half-Life too short		
		1124.00		-1.627E+03	5.971E-02	Half-Life too short		
		1131.51		2.034E+01	5.971E-02	Half-Life too short		
		1260.41	*	1.756E+01	5.971E-02	Half-Life too short		
		1457.56		6.227E+02	5.971E-02	Half-Life too short		
		1678.03		-6.940E+02	5.971E-02	Half-Life too short		
		1706.46		-1.575E+03	5.971E-02	Half-Life too short		
		1791.20		-1.356E+03	5.971E-02	Half-Life too short		
CS-136		66.91		-5.380E-03	5.143E-02	8.349E-02	1.263E-02	-0.064
		86.29		-4.073E-02	1.231E-01	1.903E-01	2.530E-02	-0.214
		153.22		-1.305E-01	1.272E-01	1.904E-01	1.945E-02	-0.685
		163.89		6.203E-03	2.336E-01	4.002E-01	3.754E-02	0.016
		176.55		6.244E-02	7.103E-02	1.333E-01	1.171E-02	0.469
		273.65		-8.647E-02	1.167E-01	1.696E-01	1.607E-02	-0.510
		340.57		-1.459E-02	3.988E-02	6.062E-02	5.420E-03	-0.241
		818.51		-8.062E-03	2.721E-02	4.281E-02	4.238E-03	-0.188
		1048.07	*	-2.015E-02	3.228E-02	4.121E-02	3.714E-03	-0.489
		1235.34		1.716E-02	1.489E-01	2.499E-01	2.889E-02	0.069
BA-137M		661.65	*	1.013E-02	1.795E-02	3.240E-02	3.578E-03	0.313
CS-137		661.65	*	1.071E-02	1.897E-02	3.424E-02	3.786E-03	0.313
CE-139		165.85	*	-7.753E-03	9.252E-03	1.434E-02	1.166E-03	-0.541
BA-140		162.64		1.439E-01	1.559E-01	2.914E-01	2.607E-02	0.494
		304.84		-2.601E-02	3.852E-01	6.200E-01	1.743E-01	-0.042
		423.70		-4.401E-01	4.946E-01	6.446E-01	2.086E-01	-0.683
		537.32	*	-3.385E-02	9.367E-02	1.430E-01	4.789E-02	-0.237
LA-140		328.77		-2.040E-02	8.139E-02	1.259E-01	1.167E-02	-0.162

---- Non-Identified Nuclides ----

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		432.53		-1.205E-01	6.401E-01	1.050E+00	9.422E-02	-0.115
		487.03		2.339E-02	5.136E-02	9.160E-02	8.964E-03	0.255
		751.79		1.951E-01	6.533E-01	1.117E+00	1.266E-01	0.175
		815.85		4.570E-02	1.132E-01	2.066E-01	2.232E-02	0.221
		867.82		1.841E-01	3.517E-01	6.796E-01	6.562E-02	0.271
		919.63		-3.805E-01	1.045E+00	1.587E+00	1.708E-01	-0.240
		925.24		1.486E-01	4.321E-01	7.724E-01	7.181E-02	0.192
		1596.49	*	1.254E-02	4.045E-02	7.283E-02	6.090E-03	0.172
CE-141		145.44	*	-4.810E-03	1.786E-02	2.677E-02	2.684E-03	-0.180
CE-143		57.37		-2.016E+00	3.035E+00	4.552E+00	4.340E-01	-0.443
		231.56		-6.184E+00	3.685E+01	5.997E+01	1.903E+01	-0.103
		293.26	*	5.214E-01	1.965E+00	3.322E+00	7.211E-01	0.157
		350.59		5.413E+00	3.561E+01	5.306E+01	1.650E+01	0.102
		490.36		-2.375E+01	5.721E+01	8.819E+01	2.811E+01	-0.269
		664.57		5.032E-01	2.529E+01	4.128E+01	1.368E+01	0.012
		721.93		-1.458E+00	3.083E+01	4.923E+01	1.476E+01	-0.030
CE-144		80.11		-2.379E-01	2.500E-01	3.370E-01	2.974E-02	-0.706
		133.54	*	-5.736E-02	5.468E-02	6.906E-02	1.163E-02	-0.831
PM-144		476.78		-1.091E-02	2.661E-02	4.090E-02	4.057E-03	-0.267
		618.01		6.315E-03	1.725E-02	3.005E-02	3.272E-03	0.210
		696.49	*	-3.859E-03	1.930E-02	3.000E-02	3.277E-03	-0.129
		778.57		4.493E-01	1.077E+00	1.902E+00	1.965E-01	0.236
PR-144		696.49	*	-2.606E-01	1.304E+00	2.026E+00	2.213E-01	-0.129
		1489.15		-7.383E-01	8.654E+00	1.402E+01	1.165E+00	-0.053
PM-146		453.90	*	-7.126E-03	2.042E-02	3.245E-02	3.541E-03	-0.220
		633.02		-3.978E-01	7.277E-01	1.022E+00	3.879E-01	-0.389
		735.90		5.658E-02	8.736E-02	1.558E-01	4.564E-02	0.363
		747.13		7.110E-03	5.875E-02	9.650E-02	1.480E-02	0.074
ND-147		91.11		-4.239E-02	3.349E-02	4.173E-02	4.256E-03	-1.016
		319.41		1.641E-01	9.225E-01	1.534E+00	1.358E-01	0.107
		439.89		-2.048E+00	1.619E+00	2.042E+00	1.768E-01	-1.003
		531.02	*	-3.972E-03	1.750E-01	2.894E-01	4.535E-02	-0.014
PM-149		285.90	*	7.607E-01	4.660E+00	7.800E+00	1.224E+00	0.098
EU-152		121.78		-8.986E-03	1.759E-02	2.531E-02	3.157E-03	-0.355
		244.69		-3.888E-02	1.352E-01	1.906E-01	1.696E-02	-0.204
		344.27	*	-1.942E-02	4.444E-02	6.643E-02	6.092E-03	-0.292
		443.98		1.176E-01	4.086E-01	7.219E-01	6.291E-02	0.163
		778.89		-1.681E-02	1.416E-01	2.201E-01	2.273E-02	-0.076
		867.32		-2.911E-02	3.252E-01	5.301E-01	4.896E-02	-0.055
		964.01		5.685E-02	1.485E-01	2.652E-01	2.324E-02	0.214
		1085.78		-5.411E-02	1.690E-01	2.468E-01	2.113E-02	-0.219
		1112.02		-1.887E-02	1.249E-01	1.935E-01	1.641E-02	-0.098
		1407.95		-5.564E-02	1.339E-01	2.008E-01	1.652E-02	-0.277
GD-153		69.67		-2.415E-02	1.754E-01	2.830E-01	2.320E-02	-0.085
		83.37		7.750E-01	2.693E+00	4.050E+00	3.667E-01	0.191
		97.43	*	-4.118E-03	1.681E-02	2.610E-02	2.578E-03	-0.158
		103.18		7.007E-03	2.057E-02	3.467E-02	3.540E-03	0.202
EU-154		123.07		-2.574E-03	1.234E-02	1.878E-02	2.557E-03	-0.137
		247.94		3.430E-03	1.403E-01	2.329E-01	2.724E-02	0.015

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		591.81		-5.419E-02	3.062E-01	4.856E-01	6.355E-02	-0.112
		723.30		-6.285E-02	1.008E-01	1.411E-01	1.624E-02	-0.446
		756.87		1.757E-01	3.137E-01	5.806E-01	7.789E-02	0.303
		873.19		-4.292E-02	1.472E-01	2.285E-01	2.884E-02	-0.188
		996.32		4.655E-02	1.616E-01	2.877E-01	5.128E-02	0.162
		1004.76		-1.069E-01	1.074E-01	1.238E-01	1.451E-02	-0.864
		1274.45	*	-5.929E-02	6.415E-02	6.908E-02	7.591E-03	-0.858
EU-155		48.70		-9.095E-03	1.010E-01	1.677E-01	1.419E-02	-0.054
		60.01		7.653E-02	3.822E-01	6.525E-01	5.096E-02	0.117
		86.54		-1.947E-03	1.601E-02	2.553E-02	2.393E-03	-0.076
		105.31	*	-3.392E-03	2.190E-02	3.409E-02	3.555E-03	-0.099
TB-160		86.79		2.049E-03	4.055E-02	6.615E-02	6.161E-03	0.031
		197.04		9.562E-02	1.795E-01	3.192E-01	2.723E-02	0.300
		215.65		-5.618E-02	2.370E-01	3.851E-01	3.357E-02	-0.146
		298.57		-2.832E-02	3.579E-02	4.986E-02	4.449E-03	-0.568
		879.36	*	4.300E-03	6.341E-02	1.077E-01	9.751E-03	0.040
		962.29		-3.968E-01	3.120E-01	4.542E-01	3.980E-02	-0.874
		966.15		-8.064E-03	9.060E-02	1.470E-01	1.288E-02	-0.055
		1177.93		-6.394E-02	1.794E-01	2.672E-01	2.202E-02	-0.239
		1271.85		-1.610E-02	2.812E-01	4.433E-01	3.633E-02	-0.036
HO-166M		80.57		-3.370E-02	3.239E-02	4.255E-02	3.768E-03	-0.792
		184.41		3.187E-03	1.259E-02	1.944E-02	1.628E-03	0.164
		280.46		8.814E-04	3.219E-02	5.292E-02	4.720E-03	0.017
		410.95		3.964E-02	1.148E-01	1.923E-01	1.584E-02	0.206
		711.68	*	1.521E-02	3.345E-02	5.880E-02	6.376E-03	0.259
		752.31		4.413E-02	1.478E-01	2.527E-01	2.670E-02	0.175
		810.29		-1.109E-02	2.911E-02	4.479E-02	4.477E-03	-0.248
TM-171		51.35		2.452E-02	1.722E+00	2.892E+00	2.383E-01	0.008
		52.39		2.768E-01	9.001E-01	1.566E+00	1.279E-01	0.177
		59.40		1.165E+00	2.036E+00	3.640E+00	2.839E-01	0.320
		66.72	*	-4.679E-01	2.555E+00	4.097E+00	3.301E-01	-0.114
LU-176		88.36		1.978E-02	2.931E-02	5.178E-02	4.880E-03	0.382
		201.83		-8.573E-04	9.445E-03	1.572E-02	1.349E-03	-0.055
		306.84	*	-2.470E-04	1.114E-02	1.804E-02	1.607E-03	-0.014
		401.10		2.848E-01	2.989E+00	4.818E+00	3.898E-01	0.059
LU-177		112.95		6.470E-02	2.079E-01	3.446E-01	3.733E-02	0.188
		208.36	*	-9.103E-03	1.570E-01	2.614E-01	2.261E-02	-0.035
LU-177M		52.97		1.543E-02	9.567E-02	1.634E-01	1.328E-02	0.094
		54.07		1.973E-02	5.276E-02	9.237E-02	7.445E-03	0.214
		61.30		-4.978E-02	1.167E-01	1.814E-01	1.424E-02	-0.274
		121.62		-8.076E-02	9.165E-02	1.224E-01	1.401E-02	-0.660
		147.16		-2.387E-02	1.988E-01	3.039E-01	2.965E-02	-0.079
		171.86		1.269E-01	1.212E-01	2.325E-01	1.908E-02	0.546
		218.09		5.673E-02	2.780E-01	4.764E-01	4.163E-02	0.119
		268.79		1.483E-01	2.886E-01	5.060E-01	4.522E-02	0.293
		319.02		4.094E-02	1.055E-01	1.807E-01	1.600E-02	0.227
		367.43		1.396E-01	3.627E-01	6.197E-01	5.187E-02	0.225
		413.65	*	-1.373E-03	7.202E-02	1.133E-01	9.381E-03	-0.012
HF-181		56.28		-2.880E-02	5.454E-02	8.347E-02	6.626E-03	-0.345

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		57.53		-2.044E-02	3.332E-02	5.050E-02	3.978E-03	-0.405
		65.20		-6.510E-02	8.172E-02	1.193E-01	9.536E-03	-0.546
		133.02		-4.836E-03	1.516E-02	2.252E-02	2.428E-03	-0.215
		136.25		4.672E-02	1.162E-01	1.924E-01	2.032E-02	0.243
		345.85		3.271E-02	7.630E-02	1.306E-01	1.129E-02	0.250
		482.03	*	-4.947E-03	1.584E-02	2.490E-02	2.297E-03	-0.199
W-181		56.28		-1.211E-02	2.284E-02	3.495E-02	2.774E-03	-0.346
		57.53		-8.576E-03	1.397E-02	2.116E-02	1.667E-03	-0.405
		65.20	*	-2.708E-02	3.399E-02	4.962E-02	3.966E-03	-0.546
TA-182		67.75		-1.455E-03	1.092E-02	1.767E-02	1.432E-03	-0.082
		100.10		2.682E-02	3.507E-02	6.225E-02	6.243E-03	0.431
		152.43		1.913E-02	8.842E-02	1.419E-01	1.324E-02	0.135
		222.10		1.385E-02	1.125E-01	1.906E-01	1.672E-02	0.073
		1001.68		-1.130E-01	7.313E-01	1.144E+00	9.986E-02	-0.099
		1121.28		4.142E-02	5.523E-02	1.087E-01	9.181E-03	0.381
		1189.05		7.831E-02	1.337E-01	2.511E-01	2.069E-02	0.312
		1221.42	*	-6.634E-02	9.882E-02	1.303E-01	1.072E-02	-0.509
		1230.97		-4.498E-02	1.674E-01	2.438E-01	2.006E-02	-0.185
RE-183		57.98		4.106E-03	1.317E-02	2.288E-02	1.798E-03	0.179
		59.32		4.510E-03	7.882E-03	1.409E-02	1.100E-03	0.320
		67.20		2.772E-03	1.815E-02	3.058E-02	2.471E-03	0.091
		162.32	*	2.498E-02	2.981E-02	5.539E-02	4.687E-03	0.451
		208.81		6.964E-02	2.597E-01	4.509E-01	3.902E-02	0.154
		291.72		1.841E-01	3.310E-01	5.827E-01	5.202E-02	0.316
RE-184		57.98		1.570E-02	5.036E-02	8.749E-02	6.875E-03	0.179
		59.32		1.723E-02	3.012E-02	5.384E-02	4.201E-03	0.320
		67.20		1.060E-02	6.939E-02	1.169E-01	9.445E-03	0.091
		161.27		-1.739E-02	9.841E-02	1.650E-01	1.412E-02	-0.105
		216.55		2.651E-02	8.587E-02	1.490E-01	1.300E-02	0.178
		252.85	*	-2.224E-02	7.563E-02	1.193E-01	1.064E-02	-0.187
		318.01		3.150E-02	1.771E-01	2.949E-01	2.613E-02	0.107
		792.07		-9.836E-02	4.705E-01	7.102E-01	7.241E-02	-0.138
		903.28		5.842E-01	4.415E-01	9.495E-01	8.310E-02	0.615
		920.93		6.493E-02	2.058E-01	3.695E-01	3.237E-02	0.176
OS-185		59.72		1.249E-02	2.184E-02	3.903E-02	3.045E-03	0.320
		61.14		-1.136E-02	1.315E-02	1.908E-02	1.496E-03	-0.595
		69.30		-4.148E-03	3.024E-02	4.881E-02	3.993E-03	-0.085
		592.07		3.112E-01	1.061E+00	1.853E+00	1.938E-01	0.168
		646.12	*	-4.740E-05	1.721E-02	2.804E-02	3.063E-03	-0.002
		717.42		-8.579E-02	4.586E-01	7.092E-01	7.666E-02	-0.121
		874.81		1.624E-01	2.580E-01	4.947E-01	4.513E-02	0.328
		880.27		-1.145E-01	3.661E-01	5.646E-01	5.102E-02	-0.203
RE-188		155.03	*	-2.390E-04	4.373E-02	7.497E-02	6.830E-03	-0.003
		477.96		-3.265E-01	1.047E+00	1.634E+00	1.499E-01	-0.200
		633.10		-7.988E-01	1.347E+00	1.911E+00	2.068E-01	-0.418
W-188		63.58		2.165E+00	4.386E+00	7.724E+00	6.124E-01	0.280
		227.08		-1.549E+00	4.252E+00	6.763E+00	5.956E-01	-0.229
		290.67	*	-1.497E+00	2.709E+00	4.047E+00	3.613E-01	-0.370
IR-192		295.96		4.173E-03	4.280E-02	6.400E-02	5.750E-03	0.065

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		308.46		-9.021E-03	4.223E-02	6.657E-02	5.953E-03	-0.136
		316.51	*	-4.707E-03	1.401E-02	2.150E-02	1.911E-03	-0.219
		468.07		-2.741E-03	2.566E-02	4.225E-02	4.071E-03	-0.065
		604.41		5.412E-02	2.218E-01	3.402E-01	4.895E-02	0.159
		612.46		1.450E-01	3.102E-01	5.068E-01	5.933E-02	0.286
AU-195		65.12		-1.249E-02	1.592E-02	2.330E-02	1.862E-03	-0.536
		66.83		-1.494E-03	8.332E-03	1.336E-02	1.078E-03	-0.112
		75.70		-7.298E-03	2.415E-02	3.501E-02	2.989E-03	-0.208
		98.88	*	-1.292E-02	4.807E-02	7.420E-02	7.390E-03	-0.174
		129.76		1.722E-01	7.936E-01	1.284E+00	1.412E-01	0.134
TL-200		367.94	*	2.707E-06	7.936E-01	Half-Life too short		
		579.30		-4.073E-05	7.936E-01	Half-Life too short		
		828.27		-1.962E-05	7.936E-01	Half-Life too short		
		1205.75		-4.031E-06	7.936E-01	Half-Life too short		
TL-201		68.90		5.673E-02	1.146E-01	2.013E-01	1.643E-02	0.282
		70.82		-2.809E-02	7.260E-02	1.129E-01	9.324E-03	-0.249
		80.30		-1.434E-01	1.356E-01	1.762E-01	1.557E-02	-0.813
		135.34		9.860E-01	1.526E+00	2.624E+00	2.787E-01	0.376
		167.43	*	8.650E-01	5.088E-01	1.005E+00	8.188E-02	0.860
TL-202		68.90		1.522E-02	3.073E-02	5.400E-02	4.407E-03	0.282
		70.82		-7.514E-03	1.942E-02	3.020E-02	2.494E-03	-0.249
		80.30		-3.835E-02	3.629E-02	4.715E-02	4.166E-03	-0.813
		439.56	*	-2.395E-02	1.968E-02	2.505E-02	2.167E-03	-0.956
HG-203		70.83		-4.225E-02	1.101E-01	1.711E-01	2.289E-02	-0.247
		72.87		2.344E-02	6.856E-02	1.172E-01	1.528E-02	0.200
		82.60		2.260E-02	1.444E-01	2.400E-01	3.356E-02	0.094
		279.20	*	-2.813E-03	1.453E-02	2.316E-02	2.119E-03	-0.121
BI-207		72.80		8.143E-03	2.215E-02	3.799E-02	3.178E-03	0.214
		74.97		-5.143E-03	1.398E-02	2.017E-02	1.713E-03	-0.255
		84.90		-9.793E-03	3.739E-02	5.277E-02	4.838E-03	-0.186
		569.67		9.263E-03	1.749E-02	3.117E-02	3.192E-03	0.297
		1063.62	*	-2.303E-02	2.732E-02	3.371E-02	2.905E-03	-0.683
		1770.23		3.073E-01	3.304E-01	7.053E-01	5.861E-02	0.436
TL-207		81.07		-3.644E-02	2.807E-02	3.513E-02	3.123E-03	-1.037
		83.78		1.895E-02	2.307E-02	3.685E-02	3.348E-03	0.514
		94.90		-1.203E-02	3.999E-02	6.132E-02	5.975E-03	-0.196
		122.32		-2.043E-01	4.424E-01	6.454E-01	7.714E-02	-0.317
		144.24		3.933E-02	2.232E-01	3.555E-01	3.867E-02	0.111
		154.21		-8.913E-02	1.090E-01	1.686E-01	1.685E-02	-0.529
		269.46		4.528E-02	7.099E-02	1.260E-01	1.148E-02	0.359
		323.87	*	-2.938E-03	2.650E-01	4.276E-01	7.614E-02	-0.007
		338.28		1.409E-01	4.382E-01	7.376E-01	9.132E-02	0.191
		445.03		2.233E-01	9.641E-01	1.689E+00	2.055E-01	0.132
TL-208		277.35		-2.195E-02	1.618E-01	2.579E-01	3.236E-02	-0.085
	+	510.84		2.684E-02	1.803E-01	2.764E-01	3.511E-02	0.097
		583.14	*	-9.895E-03	2.199E-02	3.464E-02	3.774E-03	-0.286
		860.37		6.675E-02	1.293E-01	2.419E-01	2.401E-02	0.276
PO-209		260.50		-1.359E+00	3.389E+00	5.243E+00	4.686E-01	-0.259
		262.80		-1.401E-02	9.249E+00	1.522E+01	1.361E+00	-0.001

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		896.60	*	-1.834E+00	4.334E+00	6.580E+00	5.772E-01	-0.279
BI-210		46.50	*	3.003E-02	1.441E-01	2.182E-01	2.081E-02	0.138
PB-210		46.50	*	3.003E-02	1.441E-01	2.182E-01	2.081E-02	0.138
PO-210		46.50	*	3.003E-02	1.441E-01	2.182E-01	1.894E-02	0.138
BI-211		72.87		1.296E-01	3.789E-01	6.478E-01	5.422E-02	0.200
		351.07	*	4.685E-02	1.023E-01	1.713E-01	1.546E-02	0.273
PB-211		404.84	*	-4.613E-01	5.186E-01	5.342E-01	3.344E-01	-0.863
		427.08		4.243E-01	8.882E-01	1.550E+00	9.631E-01	0.274
		831.96		-5.696E-02	5.426E-01	8.872E-01	5.574E-01	-0.064
BI-212		727.18	*	6.806E-02	1.634E-01	2.839E-01	3.376E-02	0.240
		785.46		5.188E-01	9.608E-01	1.711E+00	1.756E-01	0.303
		1620.62		1.956E-01	8.641E-01	1.522E+00	1.273E-01	0.129
PB-212		74.81		-1.766E-02	4.807E-02	6.930E-02	8.747E-03	-0.255
		77.11		-2.608E-02	2.876E-02	4.052E-02	3.495E-03	-0.644
		87.30		1.631E-03	6.402E-02	1.041E-01	1.425E-02	0.016
	+	238.63	*	1.582E-02	4.261E-02	4.085E-02	4.062E-03	0.387
		300.09		-1.275E-01	2.615E-01	3.888E-01	4.151E-02	-0.328
PO-212		74.81		-1.766E-02	4.807E-02	6.930E-02	8.747E-03	-0.255
		77.11		-2.608E-02	2.876E-02	4.052E-02	3.495E-03	-0.644
		87.30		1.631E-03	6.402E-02	1.041E-01	1.425E-02	0.016
		115.19		-3.871E-01	9.429E-01	1.407E+00	1.546E-01	-0.275
	+	238.63	*	1.582E-02	4.261E-02	4.085E-02	4.062E-03	0.387
		300.09		-1.275E-01	2.615E-01	3.888E-01	4.151E-02	-0.328
BI-214	+	609.31	*	3.933E-02	4.948E-02	7.440E-02	8.791E-03	0.529
		1120.29		6.983E-02	1.261E-01	2.365E-01	2.540E-02	0.295
		1764.49		-7.495E-02	1.690E-01	2.674E-01	2.223E-02	-0.280
PB-214		74.81		-3.043E-02	8.281E-02	1.194E-01	1.345E-02	-0.255
		77.11		-4.471E-02	4.941E-02	6.947E-02	7.995E-03	-0.644
		87.30		2.794E-03	1.097E-01	1.782E-01	2.160E-02	0.016
		241.98		-6.697E-02	1.540E-01	2.066E-01	2.171E-02	-0.324
		295.21		-6.992E-03	6.070E-02	8.823E-02	9.614E-03	-0.079
	+	351.92	*	1.318E-02	4.206E-02	5.864E-02	6.109E-03	0.225
PO-214		74.81		-3.043E-02	8.281E-02	1.194E-01	1.345E-02	-0.255
		77.11		-4.471E-02	4.941E-02	6.947E-02	7.995E-03	-0.644
		87.30		2.794E-03	1.097E-01	1.782E-01	2.160E-02	0.016
		241.98		-6.697E-02	1.540E-01	2.066E-01	2.171E-02	-0.324
		295.21		-6.992E-03	6.070E-02	8.823E-02	9.614E-03	-0.079
	+	351.92	*	1.318E-02	4.206E-02	5.864E-02	6.109E-03	0.225
PO-215		81.07		-3.644E-02	2.807E-02	3.513E-02	3.123E-03	-1.037
		83.78		1.895E-02	2.307E-02	3.685E-02	3.348E-03	0.514
		94.90		-1.203E-02	3.999E-02	6.132E-02	5.975E-03	-0.196
		122.32		-2.043E-01	4.424E-01	6.454E-01	7.714E-02	-0.317
		144.24		3.933E-02	2.232E-01	3.555E-01	3.867E-02	0.111
		154.21		-8.913E-02	1.090E-01	1.686E-01	1.685E-02	-0.529
		269.46		4.528E-02	7.099E-02	1.260E-01	1.148E-02	0.359
		323.87	*	-2.938E-03	2.650E-01	4.276E-01	7.614E-02	-0.007
		338.28		1.409E-01	4.382E-01	7.376E-01	9.132E-02	0.191
		445.03		2.233E-01	9.641E-01	1.689E+00	2.055E-01	0.132
PO-216		74.81		-1.766E-02	4.807E-02	6.930E-02	8.747E-03	-0.255

---- Non-Identified Nuclides ----

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		77.11		-2.608E-02	2.876E-02	4.052E-02	3.495E-03	-0.644
		87.30		1.631E-03	6.402E-02	1.041E-01	1.425E-02	0.016
	+	238.63	*	1.582E-02	4.261E-02	4.085E-02	4.062E-03	0.387
		300.09		-1.275E-01	2.615E-01	3.888E-01	4.151E-02	-0.328
PO-218		74.81		-3.043E-02	8.281E-02	1.194E-01	1.345E-02	-0.255
		77.11		-4.471E-02	4.941E-02	6.947E-02	7.995E-03	-0.644
		87.30		2.794E-03	1.097E-01	1.782E-01	2.160E-02	0.016
		241.98		-6.697E-02	1.540E-01	2.066E-01	2.171E-02	-0.324
		295.21		-6.992E-03	6.070E-02	8.823E-02	9.614E-03	-0.079
	+	351.92	*	1.318E-02	4.206E-02	5.864E-02	6.109E-03	0.225
RN-219		271.23		1.106E-01	8.771E-02	1.665E-01	1.761E-02	0.664
		401.81	*	1.304E-01	1.670E-01	3.024E-01	4.456E-02	0.431
RN-220		549.76	*	-6.138E+00	1.277E+01	1.914E+01	1.920E+00	-0.321
RA-223		81.07		-3.644E-02	2.807E-02	3.513E-02	3.123E-03	-1.037
		83.78		1.895E-02	2.307E-02	3.685E-02	3.348E-03	0.514
		94.90		-1.203E-02	3.999E-02	6.132E-02	5.975E-03	-0.196
		122.32		-2.043E-01	4.424E-01	6.454E-01	7.714E-02	-0.317
		144.24		3.933E-02	2.232E-01	3.555E-01	3.867E-02	0.111
		154.21		-8.913E-02	1.090E-01	1.686E-01	1.685E-02	-0.529
		269.46		4.528E-02	7.099E-02	1.260E-01	1.148E-02	0.359
		323.87	*	-2.938E-03	2.650E-01	4.276E-01	7.614E-02	-0.007
		338.28		1.409E-01	4.382E-01	7.376E-01	9.132E-02	0.191
		445.03		2.233E-01	9.641E-01	1.689E+00	2.055E-01	0.132
RA-226	+	609.31	*	3.933E-02	4.948E-02	7.440E-02	8.791E-03	0.529
		1120.29		6.983E-02	1.261E-01	2.365E-01	2.540E-02	0.295
		1764.49		-7.495E-02	1.690E-01	2.674E-01	2.223E-02	-0.280
AC-227		79.80		-1.395E-01	2.042E-01	2.914E-01	6.288E-02	-0.479
		236.00		1.061E-02	7.786E-02	1.188E-01	1.475E-02	0.089
		256.20	*	9.336E-03	1.266E-01	2.113E-01	3.280E-02	0.044
		286.10		9.453E-02	5.785E-01	9.684E-01	1.298E-01	0.098
		299.80		-4.800E-01	5.170E-01	6.950E-01	1.226E-01	-0.691
		304.40		-2.850E-01	7.827E-01	1.201E+00	2.230E-01	-0.237
		334.20		1.529E-01	1.083E+00	1.779E+00	3.464E-01	0.086
TH-227		79.80		-1.395E-01	2.043E-01	2.914E-01	6.368E-02	-0.479
		94.00		-4.421E-01	3.877E-01	4.747E-01	1.055E-01	-0.931
		236.00		1.061E-02	7.786E-02	1.188E-01	1.338E-02	0.089
		256.20	*	9.336E-03	1.266E-01	2.113E-01	3.848E-02	0.044
		286.10		9.453E-02	5.861E-01	9.684E-01	9.723E-01	0.098
		299.80		-4.800E-01	5.170E-01	6.950E-01	1.226E-01	-0.691
		304.40		-2.850E-01	7.827E-01	1.201E+00	2.230E-01	-0.237
		334.20		1.529E-01	1.083E+00	1.779E+00	3.464E-01	0.086
AC-228		338.32		3.433E-02	1.059E-01	1.769E-01	7.303E-02	0.194
		911.07	*	-3.799E-03	6.064E-02	9.945E-02	1.129E-02	-0.038
		969.11		5.480E-02	1.050E-01	1.951E-01	4.564E-02	0.281
RA-228		338.32		3.433E-02	1.059E-01	1.769E-01	7.303E-02	0.194
		911.07	*	-3.799E-03	6.064E-02	9.945E-02	1.129E-02	-0.038
		969.11		5.480E-02	1.050E-01	1.951E-01	4.564E-02	0.281
TH-228		74.81		-1.782E-02	4.846E-02	6.991E-02	5.982E-03	-0.255
		77.11		-2.631E-02	2.901E-02	4.088E-02	3.526E-03	-0.644

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		87.30		1.645E-03	6.458E-02	1.050E-01	9.816E-03	0.016
	+	238.63	*	1.595E-02	4.299E-02	4.120E-02	4.097E-03	0.387
		300.09		-1.286E-01	2.743E-01	3.922E-01	2.327E-01	-0.328
TH-229		85.43		-2.885E-02	3.678E-02	4.763E-02	4.386E-03	-0.606
		88.47		1.064E-02	1.678E-02	2.951E-02	2.782E-03	0.361
		100.00		2.998E-02	3.795E-02	6.755E-02	6.770E-03	0.444
		193.63	*	6.880E-02	1.490E-01	2.656E-01	2.255E-02	0.259
		210.97		-9.559E-02	2.367E-01	3.763E-01	3.264E-02	-0.254
TH-230	+	609.31	*	3.933E-02	4.948E-02	7.440E-02	8.791E-03	0.529
		1120.29		6.983E-02	1.261E-01	2.365E-01	2.540E-02	0.295
		1764.49		-7.495E-02	1.690E-01	2.674E-01	2.223E-02	-0.280
PA-231		283.67	*	-2.266E-01	5.904E-01	9.080E-01	1.395E-01	-0.250
		301.29		8.529E-02	2.074E-01	3.582E-01	4.462E-02	0.238
TH-231		81.07		-3.644E-02	2.807E-02	3.513E-02	3.123E-03	-1.037
		83.78		1.895E-02	2.307E-02	3.685E-02	3.348E-03	0.514
		94.90		-1.203E-02	3.999E-02	6.132E-02	5.975E-03	-0.196
		122.32		-2.043E-01	4.424E-01	6.454E-01	7.714E-02	-0.317
		144.24		3.933E-02	2.232E-01	3.555E-01	3.867E-02	0.111
		154.21		-8.913E-02	1.090E-01	1.686E-01	1.685E-02	-0.529
		269.46		4.528E-02	7.099E-02	1.260E-01	1.148E-02	0.359
		323.87	*	-2.938E-03	2.650E-01	4.276E-01	7.614E-02	-0.007
		338.28		1.409E-01	4.382E-01	7.376E-01	9.132E-02	0.191
		445.03		2.233E-01	9.641E-01	1.689E+00	2.055E-01	0.132
U-231		84.21		2.723E-01	3.407E-01	5.417E-01	4.938E-02	0.503
		92.29		2.913E-02	1.269E-01	2.027E-01	1.948E-02	0.144
		95.87	*	6.021E-04	6.976E-02	1.124E-01	1.101E-02	0.005
		108.00		-8.976E-02	1.790E-01	2.472E-01	2.597E-02	-0.363
TH-232		338.32		3.433E-02	1.050E-01	1.769E-01	1.542E-02	0.194
		911.07	*	-3.799E-03	6.064E-02	9.945E-02	1.129E-02	-0.038
		969.11		5.480E-02	1.050E-01	1.951E-01	4.564E-02	0.281
PA-233		75.28		-2.243E-01	4.185E-01	5.890E-01	9.004E-02	-0.381
		86.59		-2.351E-02	2.621E-01	4.196E-01	1.135E-01	-0.056
		300.12		-6.520E-02	1.354E-01	2.013E-01	3.029E-02	-0.324
		311.98	*	-1.908E-02	3.092E-02	4.580E-02	4.180E-03	-0.417
		340.50		-8.429E-02	2.678E-01	4.092E-01	9.765E-02	-0.206
		398.62		-1.964E-01	9.190E-01	1.394E+00	3.689E-01	-0.141
		415.76		-6.574E-01	6.200E-01	8.001E-01	1.714E-01	-0.822
PA-234		63.00		1.452E-01	1.303E-01	2.447E-01	3.699E-02	0.593
		94.67		-2.831E-02	3.038E-02	4.142E-02	5.468E-03	-0.683
		98.44		-1.011E-03	1.935E-02	3.083E-02	1.726E-02	-0.033
		99.86		3.335E-02	1.022E-01	1.712E-01	1.714E-02	0.195
		111.00		-1.180E-02	4.169E-02	6.332E-02	8.644E-03	-0.186
		131.20		1.362E-02	2.939E-02	4.909E-02	5.353E-03	0.277
		152.70		-6.357E-02	9.953E-02	1.379E-01	2.400E-02	-0.461
	+	186.00		3.853E-01	7.432E-01	7.765E-01	2.419E-01	0.496
		226.40		-1.526E-02	1.469E-01	2.419E-01	3.222E-02	-0.063
		227.20		-5.344E-02	1.534E-01	2.445E-01	2.154E-02	-0.219
		248.90		-6.269E-02	3.217E-01	5.184E-01	1.168E-01	-0.121
		293.70		9.389E-02	2.577E-01	4.404E-01	7.688E-02	0.213

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		369.80		1.762E-01	3.720E-01	6.393E-01	1.385E-01	0.276
		568.70		5.048E-01	5.437E-01	1.024E+00	1.047E-01	0.493
		569.50		8.652E-02	1.560E-01	2.788E-01	2.854E-02	0.310
		574.00		1.150E-01	7.547E-01	1.278E+00	1.315E-01	0.090
		699.00		-1.502E-01	4.343E-01	6.559E-01	1.326E-01	-0.229
		706.10		-2.811E-01	6.674E-01	9.754E-01	4.397E-01	-0.288
		733.00		-6.495E-02	2.265E-01	3.428E-01	7.914E-02	-0.189
		742.81		-3.903E-01	8.268E-01	1.120E+00	7.560E-01	-0.349
		796.30		-2.974E-01	5.058E-01	6.817E-01	1.880E-01	-0.436
		805.60		-4.552E-02	5.155E-01	8.531E-01	2.652E-01	-0.053
		819.60		-6.345E-02	6.335E-01	1.042E+00	3.996E-01	-0.061
		826.30		-1.390E-01	4.233E-01	6.521E-01	2.934E-01	-0.213
		831.60		-4.106E-02	2.936E-01	4.773E-01	1.441E-01	-0.086
		876.40		5.967E-02	4.163E-01	7.118E-01	7.321E-01	0.084
		880.51		-5.186E-02	1.367E-01	2.064E-01	1.865E-02	-0.251
		883.24		5.852E-02	1.321E-01	2.354E-01	1.583E-01	0.249
		899.00		-5.727E-02	4.103E-01	6.600E-01	2.887E-01	-0.087
		925.00		2.901E-01	6.185E-01	1.135E+00	9.944E-02	0.256
		926.50		6.506E-03	9.318E-02	1.574E-01	3.988E-02	0.041
		946.00	*	6.974E-03	1.600E-01	2.683E-01	5.052E-02	0.026
		949.00		5.245E-02	2.059E-01	3.640E-01	3.191E-02	0.144
		980.50		2.988E-01	4.040E-01	7.727E-01	6.762E-02	0.387
		1394.10		1.332E-01	7.584E-01	1.317E+00	8.563E-01	0.101
PA-234M		766.42		-3.269E+00	4.884E+00	5.689E+00	2.906E+00	-0.575
		1001.03	*	-5.130E-01	1.640E+00	2.393E+00	2.408E-01	-0.214
TH-234		63.29	*	8.909E-02	1.129E-01	2.049E-01	3.619E-02	0.435
		92.38		1.259E-02	9.591E-02	1.513E-01	2.810E-02	0.083
U-234	+	609.31	*	3.933E-02	4.948E-02	7.440E-02	8.791E-03	0.529
		1120.29		6.983E-02	1.261E-01	2.365E-01	2.540E-02	0.295
		1764.49		-7.495E-02	1.690E-01	2.674E-01	2.223E-02	-0.280
U-235		89.95		-7.966E-02	1.664E-01	2.459E-01	7.650E-02	-0.324
		93.35		-2.858E-02	1.145E-01	1.702E-01	4.828E-02	-0.168
		105.00		-5.877E-02	2.063E-01	3.121E-01	9.480E-02	-0.188
		143.76	*	-1.307E-02	7.430E-02	1.132E-01	2.065E-02	-0.115
		163.35		9.171E-02	1.401E-01	2.542E-01	4.820E-02	0.361
	+	185.71		1.427E-02	2.719E-02	2.872E-02	2.411E-03	0.497
		205.31		9.410E-02	1.688E-01	2.998E-01	5.720E-02	0.314
NP-236		94.67		-2.150E-02	2.296E-02	3.140E-02	3.056E-03	-0.685
		98.44		-7.683E-04	1.462E-02	2.330E-02	2.315E-03	-0.033
		111.00		-8.929E-03	3.152E-02	4.790E-02	5.126E-03	-0.186
		160.31	*	6.667E-04	2.129E-02	3.657E-02	3.161E-03	0.018
NP-237		86.50	*	-5.744E-03	3.902E-02	6.197E-02	1.402E-02	-0.093
		95.87		1.525E-03	1.767E-01	2.847E-01	7.137E-02	0.005
U-238		63.29	*	8.909E-02	1.129E-01	2.049E-01	3.619E-02	0.435
		92.38		1.259E-02	9.589E-02	1.513E-01	1.454E-02	0.083
NP-239		99.55		5.984E-04	3.327E-02	5.352E-02	5.350E-03	0.011
		117.00	*	-3.222E-02	5.137E-02	7.379E-02	8.201E-03	-0.437
		209.75		-2.431E-02	2.234E-01	3.694E-01	3.200E-02	-0.066
		228.18		-1.197E-02	8.030E-02	1.313E-01	1.157E-02	-0.091

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		-2.201E-02	7.791E-02	1.218E-01	1.086E-02	-0.181
		334.30		1.177E-01	6.062E-01	1.003E+00	8.782E-02	0.117
AM-241		59.54	*	6.850E-03	1.198E-02	2.140E-02	1.816E-03	0.320
AM-243		74.67	*	-1.723E-03	7.694E-03	1.132E-02	9.594E-04	-0.152
		86.72		-1.212E-02	1.489E+00	2.411E+00	2.244E-01	-0.005
		117.66		-1.951E-01	9.922E-01	1.526E+00	1.703E-01	-0.128
		142.18		-3.548E-01	6.002E+00	9.292E+00	9.418E-01	-0.038
CM-243		99.55		6.155E-04	3.422E-02	5.505E-02	5.503E-03	0.011
		103.76	*	-3.144E-03	1.946E-02	3.030E-02	3.104E-03	-0.104
		117.00		-3.313E-02	5.283E-02	7.588E-02	8.433E-03	-0.437
		209.75		-2.396E-02	2.202E-01	3.640E-01	3.153E-02	-0.066
		228.18		-1.209E-02	8.110E-02	1.326E-01	1.169E-02	-0.091
		277.60		-2.218E-02	7.852E-02	1.227E-01	1.095E-02	-0.181
AM-246		798.80		-1.011E-02	8.587E-02	1.336E-01	1.353E-02	-0.076
		1036.00		-2.006E-03	1.852E-01	3.040E-01	2.638E-02	-0.007
		1062.04		-2.878E-02	1.056E-01	1.591E-01	1.372E-02	-0.181
		1078.86	*	4.672E-02	6.286E-02	1.239E-01	1.063E-02	0.377
CM-247		278.00		-1.254E-01	3.196E-01	4.914E-01	4.383E-02	-0.255
		287.40		3.458E-01	4.533E-01	8.222E-01	7.340E-02	0.421
		402.60	*	1.296E-02	1.455E-02	2.699E-02	2.190E-03	0.480
CF-249		252.85		-8.567E-02	2.913E-01	4.593E-01	4.100E-02	-0.187
		333.44		5.279E-02	7.962E-02	1.395E-01	1.222E-02	0.378
		387.95	*	-1.023E-03	1.631E-02	2.561E-02	2.054E-03	-0.040
CF-251		176.60	*	2.940E-02	3.417E-02	6.403E-02	5.297E-03	0.459
		227.00		-5.096E-02	1.358E-01	2.156E-01	1.899E-02	-0.236
		285.00		5.686E-02	6.194E-01	1.028E+00	9.171E-02	0.055

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028548     *
* Acquisition date :  9-FEB-2010 17:28:19 Detector SN#    :                 *
* Detector ID        : GAM21                Sensitivity     : 5.000         *
* Geometry           : CAN                  Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:24.91       Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  1-FEB-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202028548          Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.4871E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
RA-224	1.786E-01	4.715E-01	3.237E-01	0.000E+00
ANH-511	5.797E-03	3.817E-02	2.523E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.779E-02	1.122E-01	1.730E-01	0.000E+00	NOT IDENT.
NA-22	-2.060E-02	2.253E-02	2.565E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.742E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-4.097E-04	1.740E-02	2.854E-02	0.000E+00	NOT IDENT.
K-40	2.684E-01	2.558E-01	5.325E-01	0.000E+00	NOT IDENT.
TI-44	4.487E-03	4.680E-03	9.244E-03	0.000E+00	NOT IDENT.
SC-46	1.244E-03	1.979E-02	3.482E-02	0.000E+00	NOT IDENT.
V-48	-1.165E-02	2.908E-02	4.511E-02	0.000E+00	NOT IDENT.
CR-51	1.438E-02	1.281E-01	2.247E-01	0.000E+00	NOT IDENT.
MN-52	-5.056E-02	6.299E-02	7.779E-02	0.000E+00	NOT IDENT.
MN-54	2.762E-03	1.770E-02	3.195E-02	0.000E+00	NOT IDENT.
CO-56	3.912E-03	2.178E-02	3.926E-02	0.000E+00	NOT IDENT.
CO-57	1.219E-06	5.684E-03	9.781E-03	0.000E+00	NOT IDENT.
CO-58	3.642E-03	1.765E-02	3.232E-02	0.000E+00	NOT IDENT.
FE-59	-6.623E-04	3.549E-02	5.700E-02	0.000E+00	NOT IDENT.
CO-60	2.136E-02	2.488E-02	5.061E-02	0.000E+00	NOT IDENT.
ZN-65	-3.414E-02	3.797E-02	4.459E-02	0.000E+00	NOT IDENT.
GE-68	7.480E-02	5.773E-01	1.013E+00	0.000E+00	NOT IDENT.
AS-73	-6.506E-03	5.024E-02	9.176E-02	0.000E+00	NOT IDENT.
AS-74	-1.749E-02	3.849E-02	6.094E-02	0.000E+00	NOT IDENT.
SE-75	-8.928E-03	1.416E-02	2.239E-02	0.000E+00	NOT IDENT.
BR-77	-9.873E-02	7.352E-01	1.257E+00	0.000E+00	FAIL ABUN
SR-82	-5.776E-02	1.671E-01	2.558E-01	0.000E+00	NOT IDENT.
RB-83	3.032E-03	2.899E-02	5.179E-02	0.000E+00	NOT IDENT.
RB-84	9.152E-03	2.909E-02	5.418E-02	0.000E+00	NOT IDENT.

KR-85	4.082E+00	4.385E+00	7.863E+00	0.000E+00	NOT IDENT.
SR-85	1.957E-02	2.102E-02	3.770E-02	0.000E+00	NOT IDENT.
RB-86	4.921E-02	2.728E-01	4.865E-01	0.000E+00	NOT IDENT.
Y-88	-1.062E-02	2.683E-02	3.771E-02	0.000E+00	NOT IDENT.
ZR-88	-8.056E-03	1.194E-02	1.727E-02	0.000E+00	NOT IDENT.
Y-91	5.753E+00	7.936E+00	1.568E+01	0.000E+00	NOT IDENT.
NB-94	-5.301E-03	2.159E-02	3.499E-02	0.000E+00	NOT IDENT.
NB-95	-7.859E-04	1.490E-02	2.452E-02	0.000E+00	NOT IDENT.
NB-95M	1.826E-03	3.918E-02	6.314E-02	0.000E+00	NOT IDENT.
ZR-95	-1.511E-02	3.143E-02	4.589E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.043E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.001E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-5.624E-01	1.213E+00	1.809E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.804E+08	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.527E-02	1.130E-02	2.309E-02	0.000E+00	NOT IDENT.
RH-102	5.503E-03	1.125E-02	2.169E-02	0.000E+00	NOT IDENT.
RU-103	1.028E-02	1.851E-02	3.518E-02	0.000E+00	FAIL ABUN
RH-106	-1.146E-01	1.930E-01	2.749E-01	0.000E+00	FAIL ABUN
RU-106	-1.146E-01	1.926E-01	2.749E-01	0.000E+00	FAIL ABUN
AG-108M	-4.130E-03	1.462E-02	2.502E-02	0.000E+00	NOT IDENT.
CD-109	7.408E-02	1.254E-01	2.400E-01	0.000E+00	NOT IDENT.
AG-110M	1.342E-02	1.975E-02	3.740E-02	0.000E+00	NOT IDENT.
IN-111	6.324E-02	7.626E-02	1.492E-01	0.000E+00	NOT IDENT.
IN-113M	-1.229E-02	1.802E-02	2.615E-02	0.000E+00	NOT IDENT.
SN-113	-1.229E-02	1.802E-02	2.615E-02	0.000E+00	NOT IDENT.
IN-114M	1.984E-02	4.790E-02	8.416E-02	0.000E+00	NOT IDENT.
CD-115	-2.020E-01	6.874E-01	1.137E+00	0.000E+00	NOT IDENT.
SN-117M	-6.713E-03	1.093E-02	1.883E-02	0.000E+00	NOT IDENT.
SB-122	-1.960E-02	1.468E-01	2.467E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.943E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-6.928E-03	7.710E-03	1.279E-02	0.000E+00	NOT IDENT.
I-124	-3.590E-02	1.164E-01	1.891E-01	0.000E+00	NOT IDENT.
SB-124	1.826E-02	2.536E-02	6.021E-02	0.000E+00	NOT IDENT.
SB-125	1.656E-02	3.674E-02	7.048E-02	0.000E+00	NOT IDENT.
TE-125M	6.730E-01	1.867E+00	3.419E+00	0.000E+00	NOT IDENT.
I-126	-3.634E-02	6.282E-02	9.298E-02	0.000E+00	NOT IDENT.
SB-126	1.952E-02	5.579E-02	1.003E-01	0.000E+00	NOT IDENT.
SN-126	5.823E-03	1.292E-02	2.428E-02	0.000E+00	NOT IDENT.
SB-127	-1.007E-01	2.080E-01	3.119E-01	0.000E+00	NOT IDENT.
XE-127	-9.529E-05	1.378E-02	2.493E-02	0.000E+00	NOT IDENT.
I-131	-1.088E-02	2.670E-02	4.179E-02	0.000E+00	NOT IDENT.
TE-132	-9.235E-03	6.183E-02	1.086E-01	0.000E+00	NOT IDENT.
BA-133	1.027E-02	1.914E-02	3.244E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.609E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.538E-02	2.501E-02	3.546E-02	0.000E+00	NOT IDENT.
CS-135	-1.162E-02	5.851E-02	1.002E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.219E+08	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.015E-02	3.164E-02	4.182E-02	0.000E+00	NOT IDENT.
BA-137M	1.013E-02	1.759E-02	3.325E-02	0.000E+00	NOT IDENT.
CS-137	1.071E-02	1.859E-02	3.515E-02	0.000E+00	NOT IDENT.
CE-139	-7.753E-03	9.067E-03	1.521E-02	0.000E+00	NOT IDENT.
BA-140	-3.385E-02	9.179E-02	1.475E-01	0.000E+00	NOT IDENT.
LA-140	1.254E-02	3.964E-02	7.314E-02	0.000E+00	NOT IDENT.
CE-141	-4.810E-03	1.750E-02	2.847E-02	0.000E+00	NOT IDENT.
CE-143	5.214E-01	1.926E+00	3.476E+00	0.000E+00	NOT IDENT.
CE-144	-5.736E-02	5.358E-02	7.359E-02	0.000E+00	NOT IDENT.
PM-144	-3.859E-03	1.892E-02	3.076E-02	0.000E+00	NOT IDENT.
PR-144	-2.606E-01	1.278E+00	2.077E+00	0.000E+00	NOT IDENT.
PM-146	-7.126E-03	2.001E-02	3.362E-02	0.000E+00	NOT IDENT.
ND-147	-3.972E-03	1.715E-01	2.986E-01	0.000E+00	NOT IDENT.
PM-149	7.607E-01	4.566E+00	8.168E+00	0.000E+00	NOT IDENT.
EU-152	-1.942E-02	4.355E-02	6.925E-02	0.000E+00	NOT IDENT.
GD-153	-4.118E-03	1.648E-02	2.800E-02	0.000E+00	NOT IDENT.
EU-154	-5.929E-02	6.287E-02	6.976E-02	0.000E+00	NOT IDENT.
EU-155	-3.392E-03	2.146E-02	3.652E-02	0.000E+00	NOT IDENT.
TB-160	4.300E-03	6.214E-02	1.098E-01	0.000E+00	NOT IDENT.
HO-166M	1.521E-02	3.279E-02	6.025E-02	0.000E+00	NOT IDENT.
TM-171	-4.679E-01	2.504E+00	4.433E+00	0.000E+00	NOT IDENT.
LU-176	-2.470E-04	1.092E-02	1.886E-02	0.000E+00	NOT IDENT.
LU-177	-9.103E-03	1.539E-01	2.758E-01	0.000E+00	NOT IDENT.
LU-177M	-1.373E-03	7.058E-02	1.176E-01	0.000E+00	NOT IDENT.
HF-181	-4.947E-03	1.552E-02	2.575E-02	0.000E+00	NOT IDENT.
W-181	-2.708E-02	3.331E-02	5.372E-02	0.000E+00	NOT IDENT.
TA-182	-6.634E-02	9.684E-02	1.317E-01	0.000E+00	NOT IDENT.
RE-183	2.498E-02	2.922E-02	5.877E-02	0.000E+00	NOT IDENT.
RE-184	-2.224E-02	7.411E-02	1.252E-01	0.000E+00	NOT IDENT.
OS-185	-4.740E-05	1.687E-02	2.879E-02	0.000E+00	NOT IDENT.
RE-188	-2.390E-04	4.285E-02	7.962E-02	0.000E+00	NOT IDENT.

W-188	-1.497E+00	2.654E+00	4.236E+00	0.000E+00	NOT IDENT.
IR-192	-4.707E-03	1.373E-02	2.246E-02	0.000E+00	NOT IDENT.
AU-195	-1.292E-02	4.711E-02	7.960E-02	0.000E+00	NOT IDENT.
TL-200	0.000E+00	3.190E+00	0.000E+00	0.000E+00	SHORT HLIF
TL-201	8.650E-01	4.986E-01	1.066E+00	0.000E+00	NOT IDENT.
TL-202	-2.395E-02	1.929E-02	2.596E-02	0.000E+00	NOT IDENT.
HG-203	-2.813E-03	1.424E-02	2.426E-02	0.000E+00	NOT IDENT.
BI-207	-2.303E-02	2.677E-02	3.420E-02	0.000E+00	NOT IDENT.
TL-207	-2.938E-03	2.597E-01	4.464E-01	0.000E+00	NOT IDENT.
TL-208	-9.895E-03	2.155E-02	3.567E-02	0.000E+00	FAIL ABUN
PO-209	-1.834E+00	4.248E+00	6.704E+00	0.000E+00	NOT IDENT.
BI-210	3.003E-02	1.413E-01	2.380E-01	0.000E+00	NOT IDENT.
PB-210	3.003E-02	1.413E-01	2.380E-01	0.000E+00	NOT IDENT.
PO-210	3.003E-02	1.412E-01	2.380E-01	0.000E+00	NOT IDENT.
BI-211	4.685E-02	1.002E-01	1.785E-01	0.000E+00	NOT IDENT.
PB-211	-4.613E-01	5.082E-01	5.549E-01	0.000E+00	NOT IDENT.
BI-212	6.806E-02	1.601E-01	2.908E-01	0.000E+00	NOT IDENT.
PB-212	1.582E-02	4.176E-02	4.295E-02	0.000E+00	FAIL ABUN
PO-212	1.582E-02	4.176E-02	4.295E-02	0.000E+00	FAIL ABUN
BI-214	3.933E-02	4.849E-02	7.651E-02	0.000E+00	FAIL ABUN
PB-214	1.318E-02	4.122E-02	6.110E-02	0.000E+00	FAIL ABUN
PO-214	1.318E-02	4.122E-02	6.110E-02	0.000E+00	FAIL ABUN
PO-215	-2.938E-03	2.597E-01	4.464E-01	0.000E+00	NOT IDENT.
PO-216	1.582E-02	4.176E-02	4.295E-02	0.000E+00	FAIL ABUN
PO-218	1.318E-02	4.122E-02	6.110E-02	0.000E+00	FAIL ABUN
RN-219	1.304E-01	1.636E-01	3.142E-01	0.000E+00	NOT IDENT.
RN-220	-6.138E+00	1.252E+01	1.974E+01	0.000E+00	NOT IDENT.
RA-223	-2.938E-03	2.597E-01	4.464E-01	0.000E+00	NOT IDENT.
RA-226	3.933E-02	4.849E-02	7.651E-02	0.000E+00	FAIL ABUN
AC-227	9.336E-03	1.241E-01	2.218E-01	0.000E+00	NOT IDENT.
TH-227	9.336E-03	1.241E-01	2.218E-01	0.000E+00	NOT IDENT.
AC-228	-3.799E-03	5.943E-02	1.013E-01	0.000E+00	NOT IDENT.
RA-228	-3.799E-03	5.943E-02	1.013E-01	0.000E+00	NOT IDENT.
TH-228	1.595E-02	4.213E-02	4.333E-02	0.000E+00	FAIL ABUN
TH-229	6.880E-02	1.461E-01	2.806E-01	0.000E+00	NOT IDENT.
TH-230	3.933E-02	4.849E-02	7.651E-02	0.000E+00	FAIL ABUN
PA-231	-2.266E-01	5.786E-01	9.510E-01	0.000E+00	NOT IDENT.
TH-231	-2.938E-03	2.597E-01	4.464E-01	0.000E+00	NOT IDENT.
U-231	6.021E-04	6.837E-02	1.207E-01	0.000E+00	NOT IDENT.
TH-232	-3.799E-03	5.943E-02	1.013E-01	0.000E+00	NOT IDENT.
PA-233	-1.908E-02	3.030E-02	4.786E-02	0.000E+00	NOT IDENT.
PA-234	6.974E-03	1.568E-01	2.730E-01	0.000E+00	FAIL ABUN
PA-234M	-5.130E-01	1.607E+00	2.431E+00	0.000E+00	NOT IDENT.
TH-234	8.909E-02	1.107E-01	2.220E-01	0.000E+00	NOT IDENT.
U-234	3.933E-02	4.849E-02	7.651E-02	0.000E+00	FAIL ABUN
U-235	-1.307E-02	7.281E-02	1.205E-01	0.000E+00	FAIL ABUN
NP-236	6.667E-04	2.086E-02	3.881E-02	0.000E+00	NOT IDENT.
NP-237	-5.744E-03	3.824E-02	6.667E-02	0.000E+00	NOT IDENT.
U-238	8.909E-02	1.107E-01	2.220E-01	0.000E+00	NOT IDENT.
NP-239	-3.222E-02	5.035E-02	7.886E-02	0.000E+00	NOT IDENT.
AM-241	6.850E-03	1.174E-02	2.322E-02	0.000E+00	NOT IDENT.
AM-243	-1.723E-03	7.540E-03	1.222E-02	0.000E+00	NOT IDENT.
CM-243	-3.144E-03	1.907E-02	3.247E-02	0.000E+00	NOT IDENT.
AM-246	4.672E-02	6.160E-02	1.257E-01	0.000E+00	NOT IDENT.
CM-247	1.296E-02	1.426E-02	2.804E-02	0.000E+00	NOT IDENT.
CF-249	-1.023E-03	1.599E-02	2.662E-02	0.000E+00	NOT IDENT.
CF-251	2.940E-02	3.349E-02	6.779E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:29:13.98

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028548.CNF;1
Sample date      : 1-FEB-2010 00:00:00. Acquisition date : 9-FEB-2010 17:28:19.
Sample ID        : G1202028548          Sample quantity  : 1.48710E+02 GRAM
Detector name    : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:24.91  0.3%
Energy tolerance : 1.50000 keV          Analyst Initials : MJH1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 947037               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-224	240.98	12	3.95*	4.369E+00	1.786E-01	1.786E-01	269.40
ANH-511	511.00	5	100.00*	2.036E+00	5.797E-03	5.797E-03	671.89

Flag: "*" = Keyline

Sample ID : G1202028548 Acquisition date : 9-FEB-2010 17:28:19

Total number of lines in spectrum	5	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	5	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RA-224	1.41E+10Y	1.00	1.786E-01	1.786E-01	4.811E-01	269.40	
ANH-511	1.00E+09Y	1.00	5.797E-03	5.797E-03	38.95E-03	671.89	
			---	---			
Total Activity :			1.844E-01	1.844E-01			
Grand Total Activity :			1.844E-01	1.844E-01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202028548 Acquisition date : 9-FEB-2010 17:28:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	186.47	17	51	1.42	372.79	367	11	2.30E-03	****	5.43E+00	T
0	353.08	6	20	1.27	705.91	699	8	8.05E-04	****	2.99E+00	T
0	609.72	12	6	1.15	1219.13	1214	12	1.70E-03	****	1.70E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 19:29:18.49

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028548.CNF;1  *
* Acquisition date : 9-FEB-2010 17:28:19.  Detector SN#    :                 *
* Detector ID      : GAM21                 Sensitivity     : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:24.91         Half life ratio : 8.00000         *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 1-FEB-2010 00:00:00.  Nuclide Library : SOLID           *
* Sample ID        : G1202028548           Analyst initials: MJH1            *
* Batch Number     : 947037                Sample Quantity : 1.48710E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	1.786E-01	4.811E-01	3.079E-01	2.736E-02	0.580
ANH-511	5.797E-03	3.895E-02	2.443E-02	2.342E-03	0.237

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.779E-02		1.144E-01	1.672E-01	1.638E-02	-0.405
NA-22	-2.060E-02		2.299E-02	2.540E-02	2.083E-03	-0.811
NA-24	6.658E-05		1.909E-04	Half-Life too short		
AL-26	-4.097E-04		1.776E-02	2.852E-02	2.360E-03	-0.014
K-40	2.684E-01		2.610E-01	5.291E-01	4.517E-02	0.507
TI-44	4.487E-03		4.775E-03	8.572E-03	7.465E-04	0.523
SC-46	1.244E-03		2.019E-02	3.417E-02	3.039E-03	0.036
V-48	-1.165E-02		2.967E-02	4.438E-02	3.882E-03	-0.263
CR-51	1.438E-02		1.307E-01	2.151E-01	2.000E-02	0.067
MN-52	-5.056E-02		6.428E-02	7.725E-02	6.379E-03	-0.654

Sample ID : G1202028548 Acquisition date : 9-FEB-2010 17:28:19

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MN-54	2.762E-03		1.806E-02	3.131E-02	3.035E-03	0.088
CO-56	3.912E-03		2.223E-02	3.849E-02	3.668E-03	0.102
CO-57	1.219E-06		5.800E-03	9.160E-03	1.052E-03	0.000
CO-58	3.642E-03		1.801E-02	3.164E-02	3.167E-03	0.115
FE-59	-6.623E-04		3.621E-02	5.623E-02	5.189E-03	-0.012
CO-60	2.136E-02		2.539E-02	5.017E-02	4.072E-03	0.426
ZN-65	-3.414E-02		3.875E-02	4.400E-02	3.730E-03	-0.776
GE-68	7.480E-02		5.891E-01	9.989E-01	8.574E-02	0.075
AS-73	-6.506E-03		5.126E-02	8.439E-02	6.834E-03	-0.077
AS-74	-1.749E-02		3.927E-02	5.923E-02	6.216E-03	-0.295
SE-75	-8.928E-03		1.445E-02	2.135E-02	1.917E-03	-0.418
BR-77	-9.873E-02		7.502E-01	1.217E+00	1.181E-01	-0.081
SR-82	-5.776E-02		1.705E-01	2.502E-01	2.590E-02	-0.231
RB-83	3.032E-03		2.958E-02	5.017E-02	4.866E-03	0.060
RB-84	9.152E-03		2.968E-02	5.315E-02	4.793E-03	0.172
KR-85	4.082E+00		4.475E+00	7.615E+00	7.327E-01	0.536
SR-85	1.957E-02		2.145E-02	3.651E-02	3.513E-03	0.536
RB-86	4.921E-02		2.783E-01	4.797E-01	4.118E-02	0.103
Y-88	-1.062E-02		2.738E-02	3.768E-02	3.111E-03	-0.282
ZR-88	-8.056E-03		1.218E-02	1.662E-02	1.324E-03	-0.485
Y-91	5.753E+00		8.098E+00	1.550E+01	1.277E+00	0.371
NB-94	-5.301E-03		2.203E-02	3.414E-02	3.718E-03	-0.155
NB-95	-7.859E-04		1.520E-02	2.398E-02	2.506E-03	-0.033
NB-95M	1.826E-03		3.998E-02	6.003E-02	6.049E-03	0.030
ZR-95	-1.511E-02		3.207E-02	4.485E-02	5.050E-03	-0.337
NB-97	7.199E-05		5.321E-05	Half-Life too short		
ZR-97	5.870E-04		1.021E-03	Half-Life too short		
MO-99	-5.624E-01		1.237E+00	1.767E+00	2.903E-01	-0.318
TC-99M	-3.208E+01		1.431E+02	Half-Life too short		
RH-101	1.527E-02		1.153E-02	2.186E-02	1.867E-03	0.698
RH-102	5.503E-03		1.148E-02	2.096E-02	1.915E-03	0.263
RU-103	1.028E-02		1.888E-02	3.404E-02	4.991E-03	0.302
RH-106	-1.146E-01		1.969E-01	2.675E-01	3.960E-02	-0.429
RU-106	-1.146E-01		1.966E-01	2.675E-01	2.869E-02	-0.429
AG-108M	-4.130E-03		1.492E-02	2.413E-02	2.152E-03	-0.171
CD-109	7.408E-02		1.280E-01	2.231E-01	2.099E-02	0.332
AG-110M	1.342E-02		2.015E-02	3.643E-02	4.086E-03	0.368
IN-111	6.324E-02		7.782E-02	1.419E-01	1.264E-02	0.446
IN-113M	-1.229E-02		1.838E-02	2.516E-02	2.072E-03	-0.489
SN-113	-1.229E-02		1.838E-02	2.516E-02	2.072E-03	-0.489
IN-114M	1.984E-02		4.888E-02	7.962E-02	6.727E-03	0.249
CD-115	-2.020E-01		7.014E-01	1.101E+00	1.078E-01	-0.183
SN-117M	-6.713E-03		1.116E-02	1.774E-02	1.562E-03	-0.378
SB-122	-1.960E-02		1.498E-01	2.394E-01	2.437E-02	-0.082
I-123	-4.441E-04		2.522E-04	Half-Life too short		
TE-123M	-6.928E-03		7.868E-03	1.205E-02	1.062E-03	-0.575
I-124	-3.590E-02		1.188E-01	1.838E-01	1.941E-02	-0.195
SB-124	1.826E-02		2.587E-02	6.004E-02	5.227E-03	0.304

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125	1.656E-02		3.749E-02	6.796E-02	5.882E-03	0.244
TE-125M	6.730E-01		1.905E+00	3.195E+00	3.837E-01	0.211
I-126	-3.634E-02		6.410E-02	9.060E-02	9.995E-03	-0.401
SB-126	1.952E-02		5.693E-02	9.792E-02	1.057E-02	0.199
SN-126	5.823E-03		1.318E-02	2.257E-02	2.116E-03	0.258
SB-127	-1.007E-01		2.122E-01	3.041E-01	3.626E-02	-0.331
XE-127	-9.529E-05		1.406E-02	2.362E-02	2.030E-03	-0.004
I-131	-1.088E-02		2.724E-02	4.014E-02	3.555E-03	-0.271
TE-132	-9.235E-03		6.310E-02	1.032E-01	1.536E-02	-0.089
BA-133	1.027E-02		1.953E-02	3.114E-02	4.092E-03	0.330
I-133	1.727E-07		8.210E-06	Half-Life too short		
CS-134	-1.538E-02		2.552E-02	3.471E-02	3.543E-03	-0.443
CS-135	-1.162E-02		5.971E-02	9.551E-02	9.781E-03	-0.122
I-135	1.756E+01		1.642E+02	Half-Life too short		
CS-136	-2.015E-02		3.228E-02	4.121E-02	3.714E-03	-0.489
BA-137M	1.013E-02		1.795E-02	3.240E-02	3.578E-03	0.313
CS-137	1.071E-02		1.897E-02	3.424E-02	3.786E-03	0.313
CE-139	-7.753E-03		9.252E-03	1.434E-02	1.166E-03	-0.541
BA-140	-3.385E-02		9.367E-02	1.430E-01	4.789E-02	-0.237
LA-140	1.254E-02		4.045E-02	7.283E-02	6.090E-03	0.172
CE-141	-4.810E-03		1.786E-02	2.677E-02	2.684E-03	-0.180
CE-143	5.214E-01		1.965E+00	3.322E+00	7.211E-01	0.157
CE-144	-5.736E-02		5.468E-02	6.906E-02	1.163E-02	-0.831
PM-144	-3.859E-03		1.930E-02	3.000E-02	3.277E-03	-0.129
PR-144	-2.606E-01		1.304E+00	2.026E+00	2.213E-01	-0.129
PM-146	-7.126E-03		2.042E-02	3.245E-02	3.541E-03	-0.220
ND-147	-3.972E-03		1.750E-01	2.894E-01	4.535E-02	-0.014
PM-149	7.607E-01		4.660E+00	7.800E+00	1.224E+00	0.098
EU-152	-1.942E-02		4.444E-02	6.643E-02	6.092E-03	-0.292
GD-153	-4.118E-03		1.681E-02	2.610E-02	2.578E-03	-0.158
EU-154	-5.929E-02		6.415E-02	6.908E-02	7.591E-03	-0.858
EU-155	-3.392E-03		2.190E-02	3.409E-02	3.555E-03	-0.099
TB-160	4.300E-03		6.341E-02	1.077E-01	9.751E-03	0.040
HO-166M	1.521E-02		3.345E-02	5.880E-02	6.376E-03	0.259
TM-171	-4.679E-01		2.555E+00	4.097E+00	3.301E-01	-0.114
LU-176	-2.470E-04		1.114E-02	1.804E-02	1.607E-03	-0.014
LU-177	-9.103E-03		1.570E-01	2.614E-01	2.261E-02	-0.035
LU-177M	-1.373E-03		7.202E-02	1.133E-01	9.381E-03	-0.012
HF-181	-4.947E-03		1.584E-02	2.490E-02	2.297E-03	-0.199
W-181	-2.708E-02		3.399E-02	4.962E-02	3.966E-03	-0.546
TA-182	-6.634E-02		9.882E-02	1.303E-01	1.072E-02	-0.509
RE-183	2.498E-02		2.981E-02	5.539E-02	4.687E-03	0.451
RE-184	-2.224E-02		7.563E-02	1.193E-01	1.064E-02	-0.187
OS-185	-4.740E-05		1.721E-02	2.804E-02	3.063E-03	-0.002
RE-188	-2.390E-04		4.373E-02	7.497E-02	6.830E-03	-0.003
W-188	-1.497E+00		2.709E+00	4.047E+00	3.613E-01	-0.370
IR-192	-4.707E-03		1.401E-02	2.150E-02	1.911E-03	-0.219
AU-195	-1.292E-02		4.807E-02	7.420E-02	7.390E-03	-0.174

Sample ID : G1202028548 Acquisition date : 9-FEB-2010 17:28:19

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-200	2.707E-06		1.628E-06	Half-Life too short		
TL-201	8.650E-01		5.088E-01	1.005E+00	8.188E-02	0.860
TL-202	-2.395E-02		1.968E-02	2.505E-02	2.167E-03	-0.956
HG-203	-2.813E-03		1.453E-02	2.316E-02	2.119E-03	-0.121
BI-207	-2.303E-02		2.732E-02	3.371E-02	2.905E-03	-0.683
TL-207	-2.938E-03		2.650E-01	4.276E-01	7.614E-02	-0.007
TL-208	-9.895E-03		2.199E-02	3.464E-02	3.774E-03	-0.286
PO-209	-1.834E+00		4.334E+00	6.580E+00	5.772E-01	-0.279
BI-210	3.003E-02		1.441E-01	2.182E-01	2.081E-02	0.138
PB-210	3.003E-02		1.441E-01	2.182E-01	2.081E-02	0.138
PO-210	3.003E-02		1.441E-01	2.182E-01	1.894E-02	0.138
BI-211	4.685E-02		1.023E-01	1.713E-01	1.546E-02	0.273
PB-211	-4.613E-01		5.186E-01	5.342E-01	3.344E-01	-0.863
BI-212	6.806E-02		1.634E-01	2.839E-01	3.376E-02	0.240
PB-212	1.582E-02	+	4.261E-02	4.085E-02	4.062E-03	0.387
PO-212	1.582E-02	+	4.261E-02	4.085E-02	4.062E-03	0.387
BI-214	3.933E-02	+	4.948E-02	7.440E-02	8.791E-03	0.529
PB-214	1.318E-02	+	4.206E-02	5.864E-02	6.109E-03	0.225
PO-214	1.318E-02	+	4.206E-02	5.864E-02	6.109E-03	0.225
PO-215	-2.938E-03		2.650E-01	4.276E-01	7.614E-02	-0.007
PO-216	1.582E-02	+	4.261E-02	4.085E-02	4.062E-03	0.387
PO-218	1.318E-02	+	4.206E-02	5.864E-02	6.109E-03	0.225
RN-219	1.304E-01		1.670E-01	3.024E-01	4.456E-02	0.431
RN-220	-6.138E+00		1.277E+01	1.914E+01	1.920E+00	-0.321
RA-223	-2.938E-03		2.650E-01	4.276E-01	7.614E-02	-0.007
RA-226	3.933E-02	+	4.948E-02	7.440E-02	8.791E-03	0.529
AC-227	9.336E-03		1.266E-01	2.113E-01	3.280E-02	0.044
TH-227	9.336E-03		1.266E-01	2.113E-01	3.848E-02	0.044
AC-228	-3.799E-03		6.064E-02	9.945E-02	1.129E-02	-0.038
RA-228	-3.799E-03		6.064E-02	9.945E-02	1.129E-02	-0.038
TH-228	1.595E-02	+	4.299E-02	4.120E-02	4.097E-03	0.387
TH-229	6.880E-02		1.490E-01	2.656E-01	2.255E-02	0.259
TH-230	3.933E-02	+	4.948E-02	7.440E-02	8.791E-03	0.529
PA-231	-2.266E-01		5.904E-01	9.080E-01	1.395E-01	-0.250
TH-231	-2.938E-03		2.650E-01	4.276E-01	7.614E-02	-0.007
U-231	6.021E-04		6.976E-02	1.124E-01	1.101E-02	0.005
TH-232	-3.799E-03		6.064E-02	9.945E-02	1.129E-02	-0.038
PA-233	-1.908E-02		3.092E-02	4.580E-02	4.180E-03	-0.417
PA-234	6.974E-03		1.600E-01	2.683E-01	5.052E-02	0.026
PA-234M	-5.130E-01		1.640E+00	2.393E+00	2.408E-01	-0.214
TH-234	8.909E-02		1.129E-01	2.049E-01	3.619E-02	0.435
U-234	3.933E-02	+	4.948E-02	7.440E-02	8.791E-03	0.529
U-235	-1.307E-02		7.430E-02	1.132E-01	2.065E-02	-0.115
NP-236	6.667E-04		2.129E-02	3.657E-02	3.161E-03	0.018
NP-237	-5.744E-03		3.902E-02	6.197E-02	1.402E-02	-0.093
U-238	8.909E-02		1.129E-01	2.049E-01	3.619E-02	0.435
NP-239	-3.222E-02		5.137E-02	7.379E-02	8.201E-03	-0.437
AM-241	6.850E-03		1.198E-02	2.140E-02	1.816E-03	0.320

Sample ID : G1202028548 Acquisition date : 9-FEB-2010 17:28:19

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	-1.723E-03		7.694E-03	1.132E-02	9.594E-04	-0.152
CM-243	-3.144E-03		1.946E-02	3.030E-02	3.104E-03	-0.104
AM-246	4.672E-02		6.286E-02	1.239E-01	1.063E-02	0.377
CM-247	1.296E-02		1.455E-02	2.699E-02	2.190E-03	0.480
CF-249	-1.023E-03		1.631E-02	2.561E-02	2.054E-03	-0.040
CF-251	2.940E-02		3.417E-02	6.403E-02	5.297E-03	0.459

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202028548           *
* Acquisition date :  9-FEB-2010 17:28:19 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:24.91     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  1-FEB-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202028548          Analyst initials: MJH1            *
* Batch Number     : 947037               Sample Quantity : 1.4871E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
RA-224	1.786E-01	4.715E-01	1.619E-01	2.405E-01
ANH-511	5.797E-03	3.817E-02	1.262E-02	1.947E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.779E-02	1.122E-01	8.655E-02	5.722E-02	NOT IDENT.
NA-22	-2.060E-02	2.253E-02	1.283E-02	1.149E-02	NOT IDENT.
NA-24	6.658E+01	3.742E+02	0.000E+00	1.909E+02	SHORT HLIF
AL-26	-4.097E-04	1.740E-02	1.428E-02	8.880E-03	NOT IDENT.
K-40	2.684E-01	2.558E-01	2.664E-01	1.305E-01	NOT IDENT.
TI-44	4.487E-03	4.680E-03	4.625E-03	2.388E-03	NOT IDENT.
SC-46	1.244E-03	1.979E-02	1.742E-02	1.010E-02	NOT IDENT.
V-48	-1.165E-02	2.908E-02	2.257E-02	1.484E-02	NOT IDENT.
CR-51	1.438E-02	1.281E-01	1.124E-01	6.534E-02	NOT IDENT.
MN-52	-5.056E-02	6.299E-02	3.892E-02	3.214E-02	NOT IDENT.
MN-54	2.762E-03	1.770E-02	1.599E-02	9.031E-03	NOT IDENT.
CO-56	3.912E-03	2.178E-02	1.964E-02	1.111E-02	NOT IDENT.
CO-57	1.219E-06	5.684E-03	4.893E-03	2.900E-03	NOT IDENT.
CO-58	3.642E-03	1.765E-02	1.617E-02	9.003E-03	NOT IDENT.
FE-59	-6.623E-04	3.549E-02	2.852E-02	1.811E-02	NOT IDENT.
CO-60	2.136E-02	2.488E-02	2.532E-02	1.269E-02	NOT IDENT.
ZN-65	-3.414E-02	3.797E-02	2.231E-02	1.937E-02	NOT IDENT.
GE-68	7.480E-02	5.773E-01	5.068E-01	2.946E-01	NOT IDENT.
AS-73	-6.506E-03	5.024E-02	4.590E-02	2.563E-02	NOT IDENT.
AS-74	-1.749E-02	3.849E-02	3.049E-02	1.964E-02	NOT IDENT.
SE-75	-8.928E-03	1.416E-02	1.120E-02	7.223E-03	NOT IDENT.
BR-77	-9.873E-02	7.352E-01	6.288E-01	3.751E-01	FAIL ABUN
SR-82	-5.776E-02	1.671E-01	1.280E-01	8.526E-02	NOT IDENT.
RB-83	3.032E-03	2.899E-02	2.591E-02	1.479E-02	NOT IDENT.
RB-84	9.152E-03	2.909E-02	2.710E-02	1.484E-02	NOT IDENT.

KR-85	4.082E+00	4.385E+00	3.934E+00	2.237E+00	NOT IDENT.
SR-85	1.957E-02	2.102E-02	1.886E-02	1.073E-02	NOT IDENT.
RB-86	4.921E-02	2.728E-01	2.434E-01	1.392E-01	NOT IDENT.
Y-88	-1.062E-02	2.683E-02	1.887E-02	1.369E-02	NOT IDENT.
ZR-88	-8.056E-03	1.194E-02	8.640E-03	6.092E-03	NOT IDENT.
Y-91	5.753E+00	7.936E+00	7.845E+00	4.049E+00	NOT IDENT.
NB-94	-5.301E-03	2.159E-02	1.751E-02	1.101E-02	NOT IDENT.
NB-95	-7.859E-04	1.490E-02	1.227E-02	7.600E-03	NOT IDENT.
NB-95M	1.826E-03	3.918E-02	3.159E-02	1.999E-02	NOT IDENT.
ZR-95	-1.511E-02	3.143E-02	2.296E-02	1.603E-02	NOT IDENT.
NB-97	7.199E+01	1.043E+02	0.000E+00	5.321E+01	SHORT HLIF
ZR-97	5.870E+02	2.001E+03	0.000E+00	1.021E+03	SHORT HLIF
MO-99	-5.624E-01	1.213E+00	9.049E-01	6.187E-01	NOT IDENT.
TC-99M	-3.208E+07	2.804E+08	0.000E+00	1.431E+08	SHORT HLIF
RH-101	1.527E-02	1.130E-02	1.155E-02	5.766E-03	NOT IDENT.
RH-102	5.503E-03	1.125E-02	1.085E-02	5.738E-03	NOT IDENT.
RU-103	1.028E-02	1.851E-02	1.760E-02	9.441E-03	FAIL ABUN
RH-106	-1.146E-01	1.930E-01	1.375E-01	9.845E-02	FAIL ABUN
RU-106	-1.146E-01	1.926E-01	1.375E-01	9.828E-02	FAIL ABUN
AG-108M	-4.130E-03	1.462E-02	1.252E-02	7.461E-03	NOT IDENT.
CD-109	7.408E-02	1.254E-01	1.201E-01	6.398E-02	NOT IDENT.
AG-110M	1.342E-02	1.975E-02	1.871E-02	1.007E-02	NOT IDENT.
IN-111	6.324E-02	7.626E-02	7.462E-02	3.891E-02	NOT IDENT.
IN-113M	-1.229E-02	1.802E-02	1.308E-02	9.192E-03	NOT IDENT.
SN-113	-1.229E-02	1.802E-02	1.308E-02	9.192E-03	NOT IDENT.
IN-114M	1.984E-02	4.790E-02	4.210E-02	2.444E-02	NOT IDENT.
CD-115	-2.020E-01	6.874E-01	5.687E-01	3.507E-01	NOT IDENT.
SN-117M	-6.713E-03	1.093E-02	9.422E-03	5.578E-03	NOT IDENT.
SB-122	-1.960E-02	1.468E-01	1.234E-01	7.490E-02	NOT IDENT.
I-123	-4.441E+02	4.943E+02	0.000E+00	2.522E+02	SHORT HLIF
TE-123M	-6.928E-03	7.710E-03	6.398E-03	3.934E-03	NOT IDENT.
I-124	-3.590E-02	1.164E-01	9.462E-02	5.938E-02	NOT IDENT.
SB-124	1.826E-02	2.536E-02	3.012E-02	1.294E-02	NOT IDENT.
SB-125	1.656E-02	3.674E-02	3.526E-02	1.875E-02	NOT IDENT.
TE-125M	6.730E-01	1.867E+00	1.711E+00	9.527E-01	NOT IDENT.
I-126	-3.634E-02	6.282E-02	4.652E-02	3.205E-02	NOT IDENT.
SB-126	1.952E-02	5.579E-02	5.018E-02	2.847E-02	NOT IDENT.
SN-126	5.823E-03	1.292E-02	1.215E-02	6.592E-03	NOT IDENT.
SB-127	-1.007E-01	2.080E-01	1.560E-01	1.061E-01	NOT IDENT.
XE-127	-9.529E-05	1.378E-02	1.247E-02	7.029E-03	NOT IDENT.
I-131	-1.088E-02	2.670E-02	2.091E-02	1.362E-02	NOT IDENT.
TE-132	-9.235E-03	6.183E-02	5.435E-02	3.155E-02	NOT IDENT.
BA-133	1.027E-02	1.914E-02	1.623E-02	9.767E-03	NOT IDENT.
I-133	1.727E-01	1.609E+01	0.000E+00	8.210E+00	SHORT HLIF
CS-134	-1.538E-02	2.501E-02	1.774E-02	1.276E-02	NOT IDENT.
CS-135	-1.162E-02	5.851E-02	5.011E-02	2.985E-02	NOT IDENT.
I-135	1.756E+07	3.219E+08	0.000E+00	1.642E+08	SHORT HLIF
CS-136	-2.015E-02	3.164E-02	2.092E-02	1.614E-02	NOT IDENT.
BA-137M	1.013E-02	1.759E-02	1.664E-02	8.973E-03	NOT IDENT.
CS-137	1.071E-02	1.859E-02	1.758E-02	9.485E-03	NOT IDENT.
CE-139	-7.753E-03	9.067E-03	7.609E-03	4.626E-03	NOT IDENT.
BA-140	-3.385E-02	9.179E-02	7.380E-02	4.683E-02	NOT IDENT.
LA-140	1.254E-02	3.964E-02	3.659E-02	2.023E-02	NOT IDENT.
CE-141	-4.810E-03	1.750E-02	1.425E-02	8.928E-03	NOT IDENT.
CE-143	5.214E-01	1.926E+00	1.739E+00	9.826E-01	NOT IDENT.
CE-144	-5.736E-02	5.358E-02	3.682E-02	2.734E-02	NOT IDENT.
PM-144	-3.859E-03	1.892E-02	1.539E-02	9.651E-03	NOT IDENT.
PR-144	-2.606E-01	1.278E+00	1.039E+00	6.518E-01	NOT IDENT.
PM-146	-7.126E-03	2.001E-02	1.682E-02	1.021E-02	NOT IDENT.
ND-147	-3.972E-03	1.715E-01	1.494E-01	8.749E-02	NOT IDENT.
PM-149	7.607E-01	4.566E+00	4.086E+00	2.330E+00	NOT IDENT.
EU-152	-1.942E-02	4.355E-02	3.465E-02	2.222E-02	NOT IDENT.
GD-153	-4.118E-03	1.648E-02	1.401E-02	8.407E-03	NOT IDENT.
EU-154	-5.929E-02	6.287E-02	3.490E-02	3.208E-02	NOT IDENT.
EU-155	-3.392E-03	2.146E-02	1.827E-02	1.095E-02	NOT IDENT.
TB-160	4.300E-03	6.214E-02	5.494E-02	3.170E-02	NOT IDENT.
HO-166M	1.521E-02	3.279E-02	3.014E-02	1.673E-02	NOT IDENT.
TM-171	-4.679E-01	2.504E+00	2.218E+00	1.278E+00	NOT IDENT.
LU-176	-2.470E-04	1.092E-02	9.436E-03	5.570E-03	NOT IDENT.
LU-177	-9.103E-03	1.539E-01	1.380E-01	7.851E-02	NOT IDENT.
LU-177M	-1.373E-03	7.058E-02	5.885E-02	3.601E-02	NOT IDENT.
HF-181	-4.947E-03	1.552E-02	1.288E-02	7.918E-03	NOT IDENT.
W-181	-2.708E-02	3.331E-02	2.688E-02	1.700E-02	NOT IDENT.
TA-182	-6.634E-02	9.684E-02	6.588E-02	4.941E-02	NOT IDENT.
RE-183	2.498E-02	2.922E-02	2.940E-02	1.491E-02	NOT IDENT.
RE-184	-2.224E-02	7.411E-02	6.265E-02	3.781E-02	NOT IDENT.
OS-185	-4.740E-05	1.687E-02	1.440E-02	8.605E-03	NOT IDENT.
RE-188	-2.390E-04	4.285E-02	3.983E-02	2.186E-02	NOT IDENT.

W-188	-1.497E+00	2.654E+00	2.119E+00	1.354E+00	NOT IDENT.
IR-192	-4.707E-03	1.373E-02	1.124E-02	7.003E-03	NOT IDENT.
AU-195	-1.292E-02	4.711E-02	3.982E-02	2.403E-02	NOT IDENT.
TL-200	2.707E+00	3.190E+00	0.000E+00	1.628E+00	SHORT HLIF
TL-201	8.650E-01	4.986E-01	5.332E-01	2.544E-01	NOT IDENT.
TL-202	-2.395E-02	1.929E-02	1.299E-02	9.840E-03	NOT IDENT.
HG-203	-2.813E-03	1.424E-02	1.214E-02	7.266E-03	NOT IDENT.
BI-207	-2.303E-02	2.677E-02	1.711E-02	1.366E-02	NOT IDENT.
TL-207	-2.938E-03	2.597E-01	2.233E-01	1.325E-01	NOT IDENT.
TL-208	-9.895E-03	2.155E-02	1.784E-02	1.100E-02	FAIL ABUN
PO-209	-1.834E+00	4.248E+00	3.354E+00	2.167E+00	NOT IDENT.
BI-210	3.003E-02	1.413E-01	1.191E-01	7.207E-02	NOT IDENT.
PB-210	3.003E-02	1.413E-01	1.191E-01	7.207E-02	NOT IDENT.
PO-210	3.003E-02	1.412E-01	1.191E-01	7.206E-02	NOT IDENT.
BI-211	4.685E-02	1.002E-01	8.932E-02	5.113E-02	NOT IDENT.
PB-211	-4.613E-01	5.082E-01	2.776E-01	2.593E-01	NOT IDENT.
BI-212	6.806E-02	1.601E-01	1.455E-01	8.168E-02	NOT IDENT.
PB-212	1.582E-02	4.176E-02	2.149E-02	2.131E-02	FAIL ABUN
PO-212	1.582E-02	4.176E-02	2.149E-02	2.131E-02	FAIL ABUN
BI-214	3.933E-02	4.849E-02	3.828E-02	2.474E-02	FAIL ABUN
PB-214	1.318E-02	4.122E-02	3.057E-02	2.103E-02	FAIL ABUN
PO-214	1.318E-02	4.122E-02	3.057E-02	2.103E-02	FAIL ABUN
PO-215	-2.938E-03	2.597E-01	2.233E-01	1.325E-01	NOT IDENT.
PO-216	1.582E-02	4.176E-02	2.149E-02	2.131E-02	FAIL ABUN
PO-218	1.318E-02	4.122E-02	3.057E-02	2.103E-02	FAIL ABUN
RN-219	1.304E-01	1.636E-01	1.572E-01	8.348E-02	NOT IDENT.
RN-220	-6.138E+00	1.252E+01	9.875E+00	6.386E+00	NOT IDENT.
RA-223	-2.938E-03	2.597E-01	2.233E-01	1.325E-01	NOT IDENT.
RA-226	3.933E-02	4.849E-02	3.828E-02	2.474E-02	FAIL ABUN
AC-227	9.336E-03	1.241E-01	1.110E-01	6.332E-02	NOT IDENT.
TH-227	9.336E-03	1.241E-01	1.110E-01	6.332E-02	NOT IDENT.
AC-228	-3.799E-03	5.943E-02	5.067E-02	3.032E-02	NOT IDENT.
RA-228	-3.799E-03	5.943E-02	5.067E-02	3.032E-02	NOT IDENT.
TH-228	1.595E-02	4.213E-02	2.168E-02	2.149E-02	FAIL ABUN
TH-229	6.880E-02	1.461E-01	1.404E-01	7.452E-02	NOT IDENT.
TH-230	3.933E-02	4.849E-02	3.828E-02	2.474E-02	FAIL ABUN
PA-231	-2.266E-01	5.786E-01	4.758E-01	2.952E-01	NOT IDENT.
TH-231	-2.938E-03	2.597E-01	2.233E-01	1.325E-01	NOT IDENT.
U-231	6.021E-04	6.837E-02	6.036E-02	3.488E-02	NOT IDENT.
TH-232	-3.799E-03	5.943E-02	5.067E-02	3.032E-02	NOT IDENT.
PA-233	-1.908E-02	3.030E-02	2.394E-02	1.546E-02	NOT IDENT.
PA-234	6.974E-03	1.568E-01	1.366E-01	8.001E-02	FAIL ABUN
PA-234M	-5.130E-01	1.607E+00	1.216E+00	8.199E-01	NOT IDENT.
TH-234	8.909E-02	1.107E-01	1.111E-01	5.647E-02	NOT IDENT.
U-234	3.933E-02	4.849E-02	3.828E-02	2.474E-02	FAIL ABUN
U-235	-1.307E-02	7.281E-02	6.027E-02	3.715E-02	FAIL ABUN
NP-236	6.667E-04	2.086E-02	1.941E-02	1.064E-02	NOT IDENT.
NP-237	-5.744E-03	3.824E-02	3.336E-02	1.951E-02	NOT IDENT.
U-238	8.909E-02	1.107E-01	1.111E-01	5.647E-02	NOT IDENT.
NP-239	-3.222E-02	5.035E-02	3.945E-02	2.569E-02	NOT IDENT.
AM-241	6.850E-03	1.174E-02	1.162E-02	5.988E-03	NOT IDENT.
AM-243	-1.723E-03	7.540E-03	6.114E-03	3.847E-03	NOT IDENT.
CM-243	-3.144E-03	1.907E-02	1.625E-02	9.732E-03	NOT IDENT.
AM-246	4.672E-02	6.160E-02	6.287E-02	3.143E-02	NOT IDENT.
CM-247	1.296E-02	1.426E-02	1.403E-02	7.276E-03	NOT IDENT.
CF-249	-1.023E-03	1.599E-02	1.332E-02	8.157E-03	NOT IDENT.
CF-251	2.940E-02	3.349E-02	3.392E-02	1.709E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	18.0332
46.50	18.0332
46.50	18.0332
48.70	25.5266
49.72	23.8219
51.35	29.5493
52.39	24.1265
52.97	26.0526
53.15	26.0743
53.44	30.7716
54.07	23.3792
56.28	24.5567
56.28	24.5570
57.37	28.4711
57.53	28.4909
57.53	28.4912
57.60	28.4996
57.98	19.9826
57.98	19.9826
59.32	20.0979
59.32	20.0979
59.40	20.1047
59.54	20.1167
59.72	20.1320
60.01	22.0764
61.10	32.7841
61.14	32.7895
61.30	27.0211
63.00	15.5488
63.29	18.4860
63.29	18.4860
63.58	22.4040
64.28	28.3283
65.12	32.3436
65.20	32.3540
65.20	32.3540
66.05	22.6254
66.72	22.6845
66.83	22.6945
66.91	22.7015
67.20	22.7270
67.20	22.7270
67.75	26.7361
67.85	23.7748
68.90	20.8866
68.90	20.8866
69.30	26.8949
69.67	26.9326
70.82	31.0558
70.82	31.0558
70.83	31.0570
72.80	28.2557
72.87	28.2628
72.87	28.2628
74.67	27.4309
74.81	29.4777
74.81	29.4777
74.81	29.4777
74.81	29.4777
74.81	29.4777
74.81	29.4777
74.81	29.4777
74.97	29.4945
75.28	32.5815
75.70	27.5315
77.11	34.8412
77.11	34.8412

77.11	34.8412
77.11	34.8412
77.11	34.8412
77.11	34.8412
77.11	34.8412
78.38	13.3805
79.62	27.9082
79.80	25.8568
79.80	25.8568
80.11	25.8841
80.18	25.8902
80.30	24.8646
80.30	24.8646
80.57	25.9243
81.00	31.1540
81.07	31.1613
81.07	31.1613
81.07	31.1613
81.07	31.1613
82.60	25.0565
83.37	26.1663
83.78	19.9134
83.78	19.9134
83.78	19.9134
83.78	19.9134
84.21	18.8918
84.90	35.7647
85.43	40.0407
86.29	32.7549
86.50	31.7196
86.54	31.7237
86.59	31.7287
86.72	31.7418
86.79	30.6904
86.94	29.6466
87.30	32.8604
87.30	32.8604
87.30	32.8604
87.30	32.8604
87.30	32.8604
87.30	32.8604
87.30	32.8604
87.57	26.5230
87.88	23.3631
88.03	23.3742
88.36	21.2712
88.47	21.2785
89.95	27.7898
91.11	33.2528
92.29	18.3010
92.38	19.3829
92.38	19.3829
93.35	21.5996
94.00	30.2986
94.67	33.6113
94.67	33.6118
94.90	26.0398
94.90	26.0398
94.90	26.0398
94.90	26.0398
95.87	25.0266
95.87	25.0266
96.73	19.6356
97.43	32.7926
98.44	28.5034
98.44	28.5035
98.88	31.8327
99.55	27.4946
99.55	27.4946
99.86	26.4183
100.00	19.8215
100.10	19.8274
103.18	19.9996
103.76	23.3706
105.00	22.3338
105.31	23.4704
108.00	28.1452
109.28	22.5932

111.00	27.2353
111.00	27.2353
111.76	32.9748
112.95	27.3739
115.19	35.5618
116.30	26.4592
117.00	36.8777
117.00	36.8777
117.66	31.1670
121.11	37.2559
121.62	31.4738
121.78	26.8214
122.06	22.1720
122.32	29.1920
122.32	29.1920
122.32	29.1920
122.32	29.1920
123.07	24.5660
127.23	33.0812
129.76	32.0889
131.20	27.4259
133.02	27.5399
133.54	34.7654
135.34	20.4625
136.00	22.9034
136.25	26.5345
136.48	26.5483
140.51	36.5245
140.51	0.0000
142.18	43.9882
142.65	26.9085
143.76	47.8151
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144.24	38.0457
144.24	38.0457
145.22	40.5848
145.44	40.6035
147.16	35.8115
152.43	23.7193
152.70	36.2230
153.22	38.3450
154.21	37.5865
154.21	37.5865
154.21	37.5865
154.21	37.5865
155.03	30.1190
156.02	21.7957
158.56	35.3867
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159.00	38.7900
160.31	27.0537
161.27	32.1866
162.32	24.6133
162.64	24.6286
163.35	27.2135
163.89	34.9036
165.85	45.2886
167.43	19.7125
171.28	24.1710
171.86	15.5552
172.10	22.4784
176.55	18.3036
176.60	18.3054
181.06	31.6315
184.41	26.5152
185.71	26.5750
186.00	26.5884
190.27	20.0878
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193.63	23.3443
197.04	31.6038
198.01	26.2279
198.60	25.3477
200.40	44.4895
201.83	33.6720
202.84	34.6385
205.31	27.4545

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208.81	23.0059
209.75	26.7264
209.75	26.7264
210.97	32.3176
215.65	32.5522
216.55	27.0087
218.09	28.0057
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223.80	31.0714
226.40	34.0265
227.00	34.0565
227.08	34.0605
227.20	34.0664
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228.18	32.2202
228.18	32.2202
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236.00	24.4388
236.00	24.4388
238.63	22.1250
238.63	22.1250
238.63	22.1250
238.63	22.1250
239.00	22.1364
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241.98	34.7930
241.98	34.7930
241.98	34.7930
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245.39	20.3918
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248.90	32.1984
249.79	30.2835
252.40	20.5869
252.85	23.5422
252.85	23.5422
254.15	0.0000
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256.20	20.6915
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262.80	21.8653
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268.24	29.0248
268.79	23.0360
269.46	23.0557
269.46	23.0557
269.46	23.0557
269.46	23.0557
271.23	16.0745
273.65	30.2319
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277.60	29.3688
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286.10	21.4892
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290.80	28.8140
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293.26	22.7059
293.70	23.7506
295.21	24.8271
295.21	24.8271

295.21	24.8271
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297.23	19.7016
298.57	23.8867
299.80	27.0410
299.80	27.0410
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300.09	21.8481
300.09	21.8481
300.09	21.8481
300.12	21.8489
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308.46	31.5125
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319.41	21.2667
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323.87	21.3708
323.87	21.3708
323.87	21.3708
325.23	20.3321
328.77	22.5586
333.44	23.7505
334.20	28.0916
334.20	28.0916
334.30	27.0142
338.28	23.8723
338.28	23.8723
338.28	23.8723
338.28	23.8723
338.32	23.8732
338.32	23.8732
338.32	23.8732
340.50	28.2783
340.57	29.3681
344.27	27.2970
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351.92	16.5070
351.92	16.5070
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366.43	23.4456
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367.94	0.0000
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388.63	12.5440
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391.69	20.5847
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398.62	18.4141
400.65	21.9073
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401.81	10.3879
402.60	9.2404
404.84	25.4621
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415.30	20.1510

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439.56	20.5742
439.89	21.4750
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477.59	13.8359
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511.85	17.9846
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513.99	18.2021
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529.87	0.0000
531.02	13.4360
537.32	14.4598
543.00	16.4532
546.56	0.0000
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568.70	11.8191
569.32	12.8092
569.50	15.7671
569.67	15.7690
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585.48	14.9382
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602.71	17.1183
603.60	18.8074
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604.70	11.2923
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609.31	12.1340
609.31	12.1340
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614.37	21.0990
618.01	13.2166
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621.84	17.3242
631.29	7.1750
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633.10	15.3918
634.78	8.2175
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636.97	9.2568
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646.12	8.2737
656.30	12.4856
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657.90	0.0000
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661.65	9.3936
664.57	11.5005
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666.33	14.6520
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677.61	21.0681
685.20	12.6954
692.80	13.8125
695.00	14.8934
696.49	15.9705
696.49	15.9705
697.00	14.9100
697.49	14.9143
698.33	17.0527
698.50	17.0542
699.00	19.1915
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713.82	13.9744
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721.93	14.0359
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722.78	17.2827
722.78	17.2827
722.89	17.2839
722.95	17.2847
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724.18	16.2149
727.18	11.9101
733.00	16.2918
735.90	9.7902
739.58	13.0792
742.81	15.2852
744.21	17.4814
747.13	15.3198
751.79	9.8723
752.31	9.8751
753.82	10.9808
755.35	10.9897
756.15	10.9943
756.87	4.3994
763.93	4.4154
765.79	6.6295
766.42	9.9473
766.84	11.0550
776.49	12.2206
778.00	5.5589
778.57	6.6727
778.89	11.1230
783.80	11.1505
785.46	8.9280
792.07	10.0772

795.84	14.5829
796.30	14.5865
798.80	14.6044
801.93	10.8015
805.60	10.8211
810.29	10.8457
810.76	8.1363
815.85	7.2502
817.79	13.6066
818.51	10.8891
819.60	9.9870
826.30	10.9301
828.27	0.0000
831.60	9.1316
831.96	8.2198
834.83	9.1455
836.80	0.0000
846.75	11.9561
848.13	16.5656
856.28	0.0000
856.80	16.6324
860.37	5.5534
867.32	5.5711
867.82	2.7862
871.10	5.5808
873.19	9.3103
874.81	4.6586
875.33	0.0000
876.40	7.4590
879.36	7.4691
880.27	9.3401
880.51	9.3413
881.50	6.5418
883.24	4.6764
884.67	9.3589
889.25	9.3782
896.60	13.1725
898.02	11.2978
899.00	8.4771
903.28	1.8874
911.07	7.5754
911.07	7.5754
911.07	7.5754
919.63	10.4554
920.93	5.7062
925.00	6.6690
925.24	7.6225
926.50	8.5799
935.52	6.6992
937.48	8.6205
944.10	8.6449
946.00	8.6517
949.00	5.7753
962.29	12.5833
964.01	8.7177
966.15	9.6948
968.20	6.7922
969.11	4.8534
969.11	4.8534
969.11	4.8534
977.42	5.8441
980.50	5.8516
983.50	10.7411
989.30	4.8939
996.32	4.9078
1001.03	4.9172
1001.68	4.9185
1004.76	7.8793
1021.30	0.0000
1024.50	0.0000
1034.80	4.9836
1036.00	10.9688
1037.82	8.9811
1038.57	10.9801
1038.76	0.0000
1045.16	5.0037
1046.59	7.0092
1048.07	7.0133

1050.47	3.0085
1050.47	3.0085
1062.04	7.0509
1063.62	11.0870
1076.63	5.0645
1077.35	6.0788
1078.86	3.0412
1085.78	6.0981
1099.22	3.0645
1112.02	5.1316
1112.84	4.1064
1115.52	9.2487
1120.29	4.1176
1120.29	4.1176
1120.29	4.1176
1120.29	4.1176
1120.51	4.1180
1121.28	3.0894
1124.00	0.0000
1129.67	6.1975
1131.51	0.0000
1147.95	0.0000
1167.94	12.5648
1173.22	5.2451
1175.09	8.3977
1177.93	8.4059
1189.05	4.2191
1204.90	4.2422
1205.75	0.0000
1213.00	8.5078
1221.42	11.7315
1230.97	5.3496
1235.34	4.2859
1236.41	0.0000
1238.25	6.4351
1246.25	11.8288
1260.41	0.0000
1271.85	4.3377
1274.45	9.7682
1274.54	9.7682
1291.56	3.2739
1298.22	0.0000
1312.09	5.4922
1325.50	2.7577
1325.50	2.7577
1332.49	4.6063
1333.61	9.2155
1360.21	3.7166
1362.66	0.0000
1365.15	8.3749
1368.21	3.7256
1368.53	0.0000
1376.25	5.6021
1384.27	4.6798
1394.10	5.6321
1395.20	7.5120
1407.95	10.3680
1434.06	7.5983
1436.60	1.9010
1457.56	0.0000
1460.81	3.8286
1489.15	6.7542
1509.49	5.8223
1596.49	3.9738
1620.62	3.9990
1678.03	0.0000
1691.02	0.0000
1691.02	0.0000
1706.46	0.0000
1750.46	0.0000
1764.49	4.1452
1764.49	4.1452
1764.49	4.1452
1764.49	4.1452
1770.23	1.0377
1771.40	1.0380
1791.20	0.0000
1808.65	2.0945

1836.01 5.2696

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202028548

Total Uranium Activity	2.5900E-01	ug/g
Total Uranium Counting Unc.	3.3102E-01	ug/g
Total Uranium Tpu	1.6889E-07	ug/g
Total Uranium Mda	3.3158E-01	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 947037                    SAMPLE ID   : G1202028548       *
*   ANALYST       : MJH1                      DETECTOR    : GAM21             *
*   SAMPLE DATE   :  1-FEB-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  9-FEB-2010 17:28:19.87    SAMPLE ALQT:  148.710 GRAM      *
*                                                                             *
*******************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 4.367E-02
GROSS GAMMA ERROR   (pCi/GRAM  )  : 6.366E-02
GROSS GAMMA MDA     (pCi/GRAM  )  : 1.126E-01
GROSS GAMMA DLC     (pCi/GRAM  )  : 5.010E-02
```

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 15:05:23.49

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028549.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:44:16.
Sample ID         : G1202028549          Sample quantity  : 1.48150E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.08  0.0%
Energy tolerance : 1.55000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.03*	185	480	0.75	126.22	122	9	2.57E-02	22.8	
2	2	74.55*	332	401	1.05	149.23	144	15	4.61E-02	11.1	5.50E-01
3	2	76.82	475	394	0.93	153.78	144	15	6.60E-02	8.1	
4	5	84.24*	130	418	1.60	168.60	165	27	1.80E-02	28.8	2.00E+00
5	5	86.80*	300	398	1.36	173.72	165	27	4.17E-02	12.9	
6	5	89.62	180	376	1.26	179.35	165	27	2.50E-02	20.6	
7	5	92.43*	657	348	1.38	184.96	165	27	9.13E-02	6.6	
8	0	185.26*	389	356	1.02	370.46	364	11	5.40E-02	11.0	
9	0	208.88	127	273	1.10	417.66	414	9	1.77E-02	25.0	
10	6	238.25*	1234	182	1.19	476.37	469	20	1.71E-01	3.4	1.86E+00
11	6	241.27	325	270	1.81	482.41	469	20	4.51E-02	13.5	
12	0	269.76	137	172	2.01	539.33	535	9	1.90E-02	19.3	
13	2	294.81	446	135	1.24	589.39	584	20	6.20E-02	6.4	9.78E-01
14	2	299.69*	78	161	1.54	599.16	584	20	1.08E-02	32.4	
15	0	327.38	65	178	1.09	654.50	650	10	9.06E-03	40.2	
16	0	337.85	213	193	1.30	675.43	671	11	2.95E-02	14.4	
17	0	351.55*	689	233	1.15	702.80	697	13	9.56E-02	6.0	
18	0	408.67	64	152	1.06	816.98	811	12	8.84E-03	40.8	
19	0	462.64	64	114	1.05	924.84	920	9	8.89E-03	32.8	
20	0	510.13*	66	157	1.69	1019.78	1013	14	9.20E-03	47.6	
21	0	582.48*	397	102	1.47	1164.41	1157	14	5.51E-02	7.5	
22	0	608.68*	495	117	1.27	1216.78	1211	12	6.88E-02	6.4	
23	0	660.92	236	67	1.65	1321.21	1316	10	3.27E-02	9.2	
24	0	726.74*	122	61	1.96	1452.82	1446	15	1.69E-02	17.0	
25	0	794.02	33	83	1.57	1587.32	1581	12	4.59E-03	58.0	
26	0	860.02	54	71	0.80	1719.29	1713	15	7.53E-03	36.5	
27	0	910.31*	266	53	1.51	1819.86	1815	14	3.70E-02	8.5	
28	1	963.82*	58	55	1.92	1926.86	1917	24	8.10E-03	29.5	1.03E+00
29	1	967.91*	133	48	1.62	1935.05	1917	24	1.85E-02	13.6	
30	0	1000.70	27	43	1.88	2000.61	1996	10	3.73E-03	49.4	
31	0	1119.20*	71	76	1.37	2237.60	2230	16	9.85E-03	30.3	
32	0	1376.38	26	20	1.56	2752.03	2747	11	3.68E-03	37.6	
33	0	1459.27	978	46	2.24	2917.85	2910	20	1.36E-01	3.6	
34	0	1587.11	49	12	1.46	3173.61	3168	14	6.85E-03	20.0	
35	0	1763.01*	101	12	2.48	3525.60	3517	18	1.40E-02	13.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 10-FEB-2010 15:05:26

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028549.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:44:16
Sample ID : G1202028549 Sample quantity : 148.15 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.08 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.55 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.096E+01	2.357E+00	4.775E-01	4.112E-02	43.894
CD-109	+	88.03	*	3.995E+00	1.126E+00	1.075E+00	1.219E-01	3.717
SN-126	+	64.28		2.180E+00	1.064E+00	9.287E-01	1.588E-01	2.347
	+	86.94		1.632E+00	8.047E-01	4.469E-01	1.877E-01	3.652
	+	87.57	*	3.926E-01	1.106E-01	1.064E-01	1.204E-02	3.690
CS-135	+	268.24	*	4.609E-01	1.820E-01	2.155E-01	1.742E-02	2.138
BA-137M	+	661.65	*	2.817E-01	5.378E-02	4.871E-02	2.403E-03	5.783
CS-137	+	661.65	*	2.978E-01	5.687E-02	5.149E-02	2.555E-03	5.783
TL-208		277.35		5.389E-01	3.299E-01	5.827E-01	6.355E-02	0.925
	+	510.84		2.650E-01	2.537E-01	1.804E-01	1.897E-02	1.469
	+	583.14	*	4.539E-01	7.479E-02	4.589E-02	3.084E-03	9.890
	+	860.37		5.984E-01	4.412E-01	3.543E-01	3.460E-02	1.689
BI-211		72.87		5.087E+00	3.721E+00	5.774E+00	6.350E-01	0.881
	+	351.07	*	3.466E+00	4.885E-01	2.604E-01	1.899E-02	13.310
PB-212	+	74.81		2.040E+00	5.414E-01	5.751E-01	8.279E-02	3.548
	+	77.11		1.613E+00	3.153E-01	3.187E-01	3.484E-02	5.060
	+	87.30		1.816E+00	5.429E-01	4.943E-01	7.458E-02	3.674
	+	238.63	*	1.370E+00	1.400E-01	7.560E-02	5.735E-03	18.117
	+	300.09		1.330E+00	8.685E-01	1.069E+00	9.396E-02	1.244
PO-212	+	74.81		2.040E+00	5.414E-01	5.751E-01	8.279E-02	3.548
	+	77.11		1.613E+00	3.153E-01	3.187E-01	3.484E-02	5.060
	+	87.30		1.816E+00	5.429E-01	4.943E-01	7.458E-02	3.674
		115.19		-1.289E+00	3.273E+00	5.196E+00	3.718E-01	-0.248
	+	238.63	*	1.370E+00	1.400E-01	7.560E-02	5.735E-03	18.117
	+	300.09		1.330E+00	8.685E-01	1.069E+00	9.396E-02	1.244
BI-214	+	609.31	*	1.070E+00	1.594E-01	8.699E-02	6.620E-03	12.299
	+	1120.29		8.400E-01	5.154E-01	4.126E-01	4.032E-02	2.036
	+	1764.49		1.657E+00	4.692E-01	2.060E-01	1.376E-02	8.041
PB-214	+	74.81		3.515E+00	9.111E-01	9.910E-01	1.310E-01	3.548
	+	77.11		2.764E+00	5.801E-01	5.463E-01	7.280E-02	5.060
	+	87.30		3.111E+00	9.088E-01	8.467E-01	1.158E-01	3.674
	+	241.98		2.164E+00	6.110E-01	4.551E-01	3.787E-02	4.754
	+	295.21		1.333E+00	2.084E-01	1.837E-01	1.659E-02	7.260
	+	351.92	*	1.206E+00	1.812E-01	9.078E-02	8.141E-03	13.282

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		3.515E+00	9.111E-01	9.910E-01	1.310E-01	3.548
	+	77.11		2.764E+00	5.801E-01	5.463E-01	7.280E-02	5.060
	+	87.30		3.111E+00	9.088E-01	8.467E-01	1.158E-01	3.674
	+	241.98		2.164E+00	6.110E-01	4.551E-01	3.787E-02	4.754
	+	295.21		1.333E+00	2.084E-01	1.837E-01	1.659E-02	7.260
	+	351.92	*	1.206E+00	1.812E-01	9.078E-02	8.141E-03	13.282
PO-216	+	74.81		2.040E+00	5.414E-01	5.751E-01	8.279E-02	3.548
	+	77.11		1.613E+00	3.153E-01	3.187E-01	3.484E-02	5.060
	+	87.30		1.816E+00	5.429E-01	4.943E-01	7.458E-02	3.674
	+	238.63	*	1.370E+00	1.400E-01	7.560E-02	5.735E-03	18.117
	+	300.09		1.330E+00	8.685E-01	1.069E+00	9.396E-02	1.244
PO-218	+	74.81		3.515E+00	9.111E-01	9.910E-01	1.310E-01	3.548
	+	77.11		2.764E+00	5.801E-01	5.463E-01	7.280E-02	5.060
	+	87.30		3.111E+00	9.088E-01	8.467E-01	1.158E-01	3.674
	+	241.98		2.164E+00	6.110E-01	4.551E-01	3.787E-02	4.754
	+	295.21		1.333E+00	2.084E-01	1.837E-01	1.659E-02	7.260
	+	351.92	*	1.206E+00	1.812E-01	9.078E-02	8.141E-03	13.282
RA-224	+	240.98	*	4.103E+00	1.135E+00	8.602E-01	5.280E-02	4.770
RA-226	+	609.31	*	1.070E+00	1.594E-01	8.699E-02	6.620E-03	12.299
	+	1120.29		8.400E-01	5.154E-01	4.126E-01	4.032E-02	2.036
	+	1764.49		1.657E+00	4.692E-01	2.060E-01	1.376E-02	8.041
AC-228	+	338.32		1.181E+00	5.904E-01	3.241E-01	1.326E-01	3.643
	+	911.07	*	1.399E+00	2.930E-01	1.701E-01	2.099E-02	8.226
	+	969.11		1.242E+00	4.482E-01	3.296E-01	7.793E-02	3.768
RA-228	+	338.32		1.181E+00	5.904E-01	3.241E-01	1.326E-01	3.643
	+	911.07	*	1.399E+00	2.930E-01	1.701E-01	2.099E-02	8.226
	+	969.11		1.242E+00	4.482E-01	3.296E-01	7.793E-02	3.768
TH-228	+	74.81		2.071E+00	5.150E-01	5.839E-01	6.427E-02	3.548
	+	77.11		1.637E+00	3.201E-01	3.236E-01	3.538E-02	5.060
	+	87.30		1.844E+00	5.195E-01	5.018E-01	5.670E-02	3.674
	+	238.63	*	1.391E+00	1.421E-01	7.676E-02	5.823E-03	18.117
	+	300.09		1.350E+00	1.183E+00	1.086E+00	6.406E-01	1.244
TH-230	+	609.31	*	1.070E+00	1.594E-01	8.699E-02	6.619E-03	12.299
	+	1120.29		8.400E-01	5.154E-01	4.126E-01	4.032E-02	2.036
	+	1764.49		1.657E+00	4.692E-01	2.060E-01	1.376E-02	8.041
TH-232	+	338.32		1.181E+00	3.487E-01	3.241E-01	2.173E-02	3.643
	+	911.07	*	1.399E+00	2.930E-01	1.701E-01	2.099E-02	8.226
	+	969.11		1.242E+00	4.482E-01	3.296E-01	7.793E-02	3.768
TH-234	+	63.29	*	5.506E+00	2.741E+00	2.479E+00	4.886E-01	2.221
	+	92.38		5.399E+00	1.247E+00	6.807E-01	1.288E-01	7.932
U-234	+	609.31	*	1.070E+00	1.594E-01	8.699E-02	6.619E-03	12.299
	+	1120.29		8.400E-01	5.154E-01	4.126E-01	4.032E-02	2.036
	+	1764.49		1.657E+00	4.692E-01	2.060E-01	1.376E-02	8.041
NP-237	+	86.50	*	1.153E+00	4.027E-01	3.180E-01	7.474E-02	3.626
		95.87		-7.231E-01	9.606E-01	1.324E+00	3.307E-01	-0.546
U-238	+	63.29	*	5.506E+00	2.741E+00	2.479E+00	4.886E-01	2.221
	+	92.38		5.399E+00	9.049E-01	6.807E-01	6.994E-02	7.932
AM-243	+	74.67	*	3.308E-01	8.215E-02	9.367E-02	1.026E-02	3.531
	+	86.72		4.324E+01	1.218E+01	1.188E+01	1.338E+00	3.639

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		-1.696E+00	3.340E+00	5.298E+00	3.676E-01	-0.320
		142.18		1.008E+01	1.615E+01	2.634E+01	1.572E+00	0.382
ANH-511	+	511.00	*	5.725E-02	5.459E-02	3.899E-02	2.498E-03	1.468

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-5.328E-02	2.797E-01	4.452E-01	3.311E-02	-0.120
NA-22		1274.54	*	-3.918E-02	4.080E-02	6.110E-02	4.733E-03	-0.641
NA-24		1368.53	*	-7.539E-01	4.080E-02	Half-Life too short		
AL-26		1129.67		-3.526E-01	1.410E+00	2.312E+00	1.622E-01	-0.153
		1808.65	*	1.634E-02	2.693E-02	4.869E-02	3.087E-03	0.336
TI-44		67.85		-1.464E-02	5.408E-02	8.468E-02	9.559E-03	-0.173
		78.38	*	1.210E-01	4.279E-02	6.745E-02	7.381E-03	1.794
SC-46		889.25	*	-1.078E-02	3.404E-02	5.389E-02	5.333E-03	-0.200
	+	1120.51		1.439E-01	8.781E-02	1.052E-01	7.554E-03	1.369
V-48		944.10		-2.384E-01	7.708E-01	1.214E+00	1.176E-01	-0.196
		983.50	*	-7.005E-03	6.020E-02	9.643E-02	8.917E-03	-0.073
		1312.09		-2.218E-02	6.266E-02	9.916E-02	8.280E-03	-0.224
CR-51		320.08	*	-2.842E-01	3.108E-01	4.862E-01	3.511E-02	-0.584
MN-52		744.21		9.336E-02	2.099E-01	3.599E-01	2.348E-02	0.259
		848.13		1.920E+00	5.867E+00	9.912E+00	8.786E-01	0.194
		935.52		1.814E-01	2.238E-01	3.912E-01	3.825E-02	0.464
		1246.25		-2.861E+00	6.264E+00	9.970E+00	7.262E-01	-0.287
		1333.61		-1.719E+00	3.961E+00	6.163E+00	5.354E-01	-0.279
		1434.06	*	4.276E-02	1.856E-01	3.169E-01	2.678E-02	0.135
MN-54		834.83	*	-1.852E-02	3.430E-02	5.376E-02	4.593E-03	-0.345
CO-56		846.75	*	2.475E-02	3.305E-02	5.783E-02	5.107E-03	0.428
		977.42		7.821E-01	2.533E+00	4.240E+00	3.952E-01	0.184
		1037.82		-9.996E-02	2.755E-01	4.275E-01	3.844E-02	-0.234
		1175.09		3.647E-01	1.971E+00	3.354E+00	2.077E-01	0.109
		1238.25		1.479E-01	8.827E-02	1.630E-01	1.215E-02	0.908
		1360.21		6.161E-01	8.962E-01	1.603E+00	1.385E-01	0.384
		1771.40		-1.127E-01	1.912E-01	2.675E-01	1.772E-02	-0.422
CO-57		122.06	*	4.582E-03	2.278E-02	3.723E-02	2.456E-03	0.123
		136.48		-1.466E-02	1.842E-01	2.959E-01	2.069E-02	-0.050
CO-58		810.76	*	-9.148E-03	3.171E-02	5.074E-02	4.059E-03	-0.180
FE-59		142.65		2.106E+00	2.490E+00	4.094E+00	2.440E-01	0.514
		192.34		-2.260E-01	8.156E-01	1.273E+00	1.497E-01	-0.178
		1099.22	*	3.059E-02	7.576E-02	1.272E-01	1.062E-02	0.241
		1291.56		2.541E-02	1.086E-01	1.848E-01	1.710E-02	0.137
CO-60		1173.22		4.640E-03	4.076E-02	6.882E-02	4.244E-03	0.067
		1332.49	*	-3.881E-03	2.992E-02	4.871E-02	4.233E-03	-0.080
ZN-65		1115.52	*	-8.271E-03	1.008E-01	1.379E-01	1.004E-02	-0.060
GE-68		1077.35	*	4.154E-01	1.025E+00	1.725E+00	1.367E-01	0.241
AS-73		53.44	*	1.103E+00	1.317E+00	2.263E+00	2.995E-01	0.488
AS-74		595.88	*	1.107E-02	7.538E-02	1.281E-01	7.319E-03	0.086
		634.78		-4.541E-02	3.150E-01	5.221E-01	2.756E-02	-0.087

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		-3.119E+00	6.061E+00	8.779E+00	1.131E+00	-0.355
		96.73		-1.261E-01	7.486E-01	1.085E+00	1.535E-01	-0.116
		121.11		1.112E-02	1.218E-01	1.982E-01	1.941E-02	0.056
		136.00		-2.022E-02	3.500E-02	5.497E-02	3.414E-03	-0.368
		198.60		1.054E+00	1.688E+00	2.709E+00	1.919E-01	0.389
		264.65	*	3.070E-03	4.110E-02	6.058E-02	3.864E-03	0.051
		279.53		-6.538E-02	9.459E-02	1.524E-01	1.044E-02	-0.429
		303.91		1.304E+00	1.955E+00	2.991E+00	2.998E-01	0.436
		400.65		1.709E-02	2.269E-01	3.724E-01	3.637E-02	0.046
BR-77	+	87.88		8.944E+02	2.520E+02	3.272E+02	3.710E+01	2.733
		200.40		7.757E+01	1.543E+02	2.494E+02	1.438E+01	0.311
	+	239.00		2.279E+02	2.093E+01	3.339E+01	2.044E+00	6.826
		249.79		1.204E+01	5.689E+01	9.648E+01	5.992E+00	0.125
		281.68		-4.840E+00	7.690E+01	1.279E+02	8.233E+00	-0.038
		297.23		7.125E+01	4.810E+01	8.509E+01	5.556E+00	0.837
		303.76		9.346E+01	1.736E+02	2.636E+02	1.730E+01	0.355
		439.47		6.909E+01	1.329E+02	2.231E+02	1.500E+01	0.310
		484.57		-1.759E+02	2.020E+02	3.030E+02	1.985E+01	-0.581
		520.65	*	-5.884E+00	9.148E+00	1.389E+01	8.810E-01	-0.424
		574.64		-1.281E+02	1.892E+02	2.840E+02	1.681E+01	-0.451
		578.91		5.592E+01	8.428E+01	1.316E+02	7.738E+00	0.425
		585.48		1.995E+02	1.592E+02	2.609E+02	1.518E+01	0.765
		755.35		-1.045E+01	1.517E+02	2.497E+02	1.687E+01	-0.042
		817.79		7.907E+00	1.204E+02	1.992E+02	1.622E+01	0.040
SR-82		698.33		-1.258E+01	2.946E+01	4.742E+01	2.660E+00	-0.265
		776.49	*	-6.734E-02	3.237E-01	5.211E-01	3.757E-02	-0.129
		1395.20		8.232E-01	8.754E+00	1.466E+01	1.255E+00	0.056
RB-83		520.41	*	-3.964E-02	5.827E-02	8.812E-02	5.592E-03	-0.450
		529.64		5.223E-02	9.158E-02	1.533E-01	9.633E-03	0.341
		552.65		2.801E-02	1.679E-01	2.721E-01	1.662E-02	0.103
RB-84		881.50	*	2.820E-03	6.030E-02	9.910E-02	9.609E-03	0.028
KR-85		513.99	*	1.173E+00	6.548E+00	9.354E+00	5.975E-01	0.125
SR-85		513.99	*	6.022E-03	3.362E-02	4.802E-02	3.068E-03	0.125
RB-86		1076.63	*	1.796E-01	6.435E-01	1.069E+00	8.483E-02	0.168
Y-88		898.02		-3.298E-02	3.533E-02	5.184E-02	5.267E-03	-0.636
		1836.01	*	1.476E-02	2.809E-02	5.038E-02	3.091E-03	0.293
ZR-88		392.90	*	-6.810E-03	2.637E-02	4.242E-02	2.883E-03	-0.161
Y-91		1204.90	*	1.505E+01	1.668E+01	2.992E+01	1.987E+00	0.503
NB-94		702.63	*	3.148E-02	2.846E-02	5.109E-02	2.908E-03	0.616
		871.10		-3.050E-03	2.732E-02	4.422E-02	4.171E-03	-0.069
NB-95		765.79	*	5.610E-02	3.921E-02	7.093E-02	4.950E-03	0.791
NB-95M		235.69	*	2.469E-01	1.228E-01	1.996E-01	1.548E-02	1.237
ZR-95		724.18		1.253E-01	9.204E-02	1.506E-01	1.074E-02	0.832
		756.15	*	-1.946E-02	6.198E-02	9.985E-02	7.843E-03	-0.195
NB-97		657.90	*	1.243E-01	6.198E-02	Half-Life too short		
		1024.50		-4.122E-01	6.198E-02	Half-Life too short		
ZR-97		254.15		7.332E-01	6.198E-02	Half-Life too short		
		355.39		-1.265E+00	6.198E-02	Half-Life too short		
		507.63	*	4.638E+00	6.198E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		602.52		-1.431E+00	6.198E-02	Half-Life too short		
		1021.30		5.188E+00	6.198E-02	Half-Life too short		
		1147.95		-5.467E+00	6.198E-02	Half-Life too short		
		1362.66		5.860E+00	6.198E-02	Half-Life too short		
		1750.46		6.609E-01	6.198E-02	Half-Life too short		
MO-99		140.51		-2.146E+01	2.564E+01	3.846E+01	1.038E+01	-0.558
		181.06		9.607E+00	1.733E+01	2.519E+01	4.299E+00	0.381
		366.43		-4.503E-02	7.359E+01	1.209E+02	8.186E+00	0.000
		739.58	*	3.746E-01	1.021E+01	1.697E+01	2.385E+00	0.022
		778.00		-6.841E+00	2.946E+01	4.727E+01	3.424E+00	-0.145
TC-99M		140.51	*	-4.239E+10	2.946E+01	Half-Life too short		
RH-101		127.23		1.458E-02	2.848E-02	4.701E-02	3.005E-03	0.310
		198.01	*	2.122E-02	3.036E-02	4.890E-02	2.809E-03	0.434
		325.23		4.995E-02	2.158E-01	3.192E-01	2.125E-02	0.156
RH-102		418.52		1.771E-02	2.417E-01	3.957E-01	2.679E-02	0.045
		475.06	*	4.833E-03	2.488E-02	4.077E-02	2.689E-03	0.119
		631.29		1.126E-02	4.541E-02	7.749E-02	4.122E-03	0.145
		697.49		-2.945E-02	6.735E-02	1.084E-01	6.064E-03	-0.272
		766.84		1.831E-01	1.021E-01	1.876E-01	1.313E-02	0.976
		1046.59		-6.229E-02	9.731E-02	1.469E-01	1.234E-02	-0.424
		1112.84		2.245E-02	2.371E-01	3.324E-01	2.433E-02	0.068
RU-103		497.08	*	2.464E-03	3.528E-02	5.711E-02	7.410E-03	0.043
		610.33		1.033E+01	2.017E+00	2.563E+00	3.928E-01	4.029
RH-106		511.85		4.460E-03	1.932E-01	3.238E-01	2.073E-02	0.014
		621.84	*	2.803E-01	2.565E-01	4.617E-01	5.337E-02	0.607
		1050.47		3.188E-01	1.945E+00	3.195E+00	2.665E-01	0.100
RU-106		511.85		4.460E-03	1.932E-01	3.238E-01	2.073E-02	0.014
		621.84	*	2.803E-01	2.549E-01	4.617E-01	2.507E-02	0.607
		1050.47		3.188E-01	1.945E+00	3.195E+00	2.665E-01	0.100
AG-108M		433.93	*	1.715E-02	2.980E-02	5.019E-02	3.599E-03	0.342
		614.37		3.547E-02	3.307E-02	5.382E-02	3.246E-03	0.659
		722.95		1.107E-03	3.726E-02	5.389E-02	3.535E-03	0.021
AG-110M		657.75	*	2.392E-02	3.544E-02	5.495E-02	2.977E-03	0.435
		677.61		-3.614E-02	2.556E-01	4.214E-01	2.366E-02	-0.086
		706.67		-1.049E-01	1.792E-01	2.842E-01	1.739E-02	-0.369
		763.93		-1.812E-01	1.601E-01	2.419E-01	1.751E-02	-0.749
		884.67		-1.680E-02	4.173E-02	6.541E-02	6.556E-03	-0.257
		937.48		-1.310E-01	1.034E-01	1.460E-01	1.465E-02	-0.897
		1384.27		5.536E-02	1.483E-01	2.464E-01	2.176E-02	0.225
IN-111		171.28		-2.521E-01	8.987E-01	1.413E+00	7.770E-02	-0.178
		245.39	*	2.433E-02	9.549E-01	1.418E+00	8.754E-02	0.017
IN-113M		391.69	*	5.442E-04	3.765E-02	6.165E-02	4.396E-03	0.009
SN-113		391.69	*	5.442E-04	3.765E-02	6.165E-02	4.396E-03	0.009
IN-114M		190.27	*	-8.068E-03	1.622E-01	2.436E-01	1.382E-02	-0.033
CD-115		260.90		1.103E+01	1.076E+02	1.812E+02	1.141E+01	0.061
		492.35		1.731E+00	3.225E+01	5.219E+01	3.399E+00	0.033
		527.90	*	3.452E+00	9.844E+00	1.622E+01	1.021E+00	0.213
SN-117M		156.02		-2.278E+00	2.002E+00	3.031E+00	1.716E-01	-0.752
		158.56	*	8.067E-03	4.774E-02	7.697E-02	4.317E-03	0.105

---- Non-Identified Nuclides ----

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SB-122		563.90	*	1.101E+00	1.757E+00	2.950E+00	1.774E-01	0.373
		692.80		1.202E+01	4.071E+01	6.918E+01	3.809E+00	0.174
I-123		159.00	*	1.214E+00	4.071E+01	Half-Life too short		
		528.96		3.034E+02	4.071E+01	Half-Life too short		
TE-123M		159.00	*	5.141E-03	2.492E-02	4.023E-02	2.285E-03	0.128
I-124		602.71	*	-1.650E-01	5.931E-01	8.413E-01	4.746E-02	-0.196
		722.78		-8.814E-02	3.956E+00	5.685E+00	3.461E-01	-0.016
		1325.50		-1.994E+01	2.931E+01	4.420E+01	3.789E+00	-0.451
	+	1376.25		4.481E+01	3.390E+01	5.395E+01	4.643E+00	0.830
		1509.49		1.429E+01	1.421E+01	2.641E+01	2.159E+00	0.541
		1691.02		2.679E-01	2.840E+00	4.716E+00	3.392E-01	0.057
SB-124		602.71		-9.409E-03	3.383E-02	4.798E-02	2.708E-03	-0.196
		645.85		-1.398E-02	4.216E-01	7.036E-01	4.198E-02	-0.020
		709.31		-8.225E-01	2.272E+00	3.663E+00	2.133E-01	-0.225
		713.82		1.983E-01	1.313E+00	2.208E+00	2.269E-01	0.090
		722.78		-7.287E-03	3.271E-01	4.700E-01	2.984E-02	-0.016
	+	968.20		1.280E+01	3.693E+00	6.360E+00	5.995E-01	2.013
		1045.16		-6.467E-01	2.055E+00	3.197E+00	2.693E-01	-0.202
		1325.50		-1.760E+00	2.588E+00	3.903E+00	3.346E-01	-0.451
		1368.21		-1.498E+00	1.594E+00	2.105E+00	2.837E-01	-0.712
		1436.60		2.768E-01	2.936E+00	4.910E+00	4.145E-01	0.056
		1691.02	*	5.225E-03	5.538E-02	9.197E-02	6.987E-03	0.057
SB-125		427.89	*	-2.745E-02	7.768E-02	1.232E-01	8.578E-03	-0.223
	+	463.38		4.999E-01	3.303E-01	4.667E-01	3.501E-02	1.071
		600.56		1.498E-02	1.396E-01	2.365E-01	1.559E-02	0.063
		635.90		-2.998E-02	2.368E-01	3.930E-01	2.492E-02	-0.076
TE-125M		109.28	*	4.545E+00	8.312E+00	1.382E+01	1.327E+00	0.329
I-126		388.63		1.106E-01	1.752E-01	2.978E-01	2.023E-02	0.372
		666.33	*	-1.219E-01	1.785E-01	2.392E-01	1.200E-02	-0.510
		753.82		1.702E+00	1.224E+00	2.246E+00	1.510E-01	0.758
SB-126		223.80		-2.337E+00	3.293E+00	5.382E+00	3.223E-01	-0.434
		278.60		1.822E+00	2.143E+00	3.713E+00	2.383E-01	0.491
		296.50		7.867E+00	1.563E+00	2.921E+00	1.906E-01	2.693
		414.70		2.455E-02	6.795E-02	1.055E-01	7.146E-03	0.233
		415.30		2.221E+00	5.451E+00	8.833E+00	5.984E-01	0.251
		555.20		1.305E+00	3.365E+00	5.552E+00	3.380E-01	0.235
		573.80		-2.497E-01	8.877E-01	1.427E+00	8.459E-02	-0.175
		593.00		-1.328E-01	7.642E-01	1.269E+00	7.288E-02	-0.105
		656.30		7.332E-01	3.193E+00	4.758E+00	2.381E-01	0.154
		666.33		-5.097E-02	7.463E-02	1.000E-01	5.016E-03	-0.510
		675.00		5.405E-01	1.666E+00	2.849E+00	1.474E-01	0.190
		695.00		3.565E-02	6.907E-02	1.192E-01	6.611E-03	0.299
		697.00		-8.119E-02	2.392E-01	3.881E-01	2.167E-02	-0.209
		720.50	*	7.284E-02	1.286E-01	1.981E-01	1.197E-02	0.368
		856.80		1.159E-01	4.633E-01	6.787E-01	6.161E-02	0.171
		989.30		-2.676E-01	1.124E+00	1.777E+00	1.631E-01	-0.151
		1034.80		4.743E-01	8.310E+00	1.350E+01	1.157E+00	0.035
		1213.00		-1.309E+00	4.016E+00	6.508E+00	4.403E-01	-0.201
SB-127		61.10		2.237E+01	8.160E+01	1.235E+02	1.738E+01	0.181

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		252.40		-1.774E+00	3.793E+00	6.101E+00	2.539E+00	-0.291
		290.80		-6.345E+00	2.012E+01	2.877E+01	2.778E+00	-0.221
		411.60		1.289E+00	1.135E+01	1.639E+01	2.429E+00	0.079
		444.90		-2.211E+00	8.765E+00	1.397E+01	1.583E+00	-0.158
		473.00		1.534E-02	1.480E+00	2.394E+00	2.788E-01	0.006
		543.00		2.357E+00	1.475E+01	2.391E+01	3.135E+00	0.099
		603.60		-7.063E+00	1.067E+01	1.445E+01	1.547E+00	-0.489
		685.20	*	-1.518E-01	1.141E+00	1.880E+00	1.731E-01	-0.081
		698.50		-7.258E+00	1.358E+01	2.163E+01	3.121E+00	-0.336
		722.20		2.808E+00	2.715E+01	3.962E+01	3.716E+00	0.071
		783.80		1.200E+00	3.408E+00	5.771E+00	6.705E-01	0.208
XE-127		57.60		4.059E+00	8.379E+00	1.422E+01	1.808E+00	0.285
		145.22		3.508E-01	5.973E-01	9.838E-01	5.802E-02	0.357
		172.10		-1.774E-02	1.039E-01	1.642E-01	9.041E-03	-0.108
		202.84	*	-2.052E-02	4.027E-02	6.697E-02	3.878E-03	-0.306
		374.96		-4.018E-02	1.672E-01	2.701E-01	1.832E-02	-0.149
I-131		80.18		2.752E+00	6.034E+00	7.286E+00	8.029E-01	0.378
		284.30		-1.624E-01	1.249E+00	2.069E+00	1.457E-01	-0.079
		364.48	*	-3.738E-02	9.967E-02	1.599E-01	1.176E-02	-0.234
		636.97		-3.951E-01	1.365E+00	2.236E+00	1.344E-01	-0.177
		722.89		7.232E-02	6.333E+00	9.138E+00	5.637E-01	0.008
TE-132		49.72		-1.980E+01	3.689E+01	6.035E+01	8.631E+00	-0.328
		111.76		1.790E+01	2.774E+01	4.620E+01	4.623E+00	0.387
		116.30		-6.419E+00	2.517E+01	4.014E+01	3.892E+00	-0.160
		228.16	*	6.780E-02	5.742E-01	9.737E-01	1.410E-01	0.070
BA-133		53.15		4.976E+00	5.769E+00	9.920E+00	1.314E+00	0.502
		79.62		6.276E-01	1.481E+00	2.042E+00	3.403E-01	0.307
		81.00		3.880E-02	1.247E-01	1.490E-01	2.575E-02	0.260
		276.40		5.550E-01	3.266E-01	5.734E-01	7.594E-02	0.968
		302.84		8.425E-02	1.326E-01	2.023E-01	2.438E-02	0.416
		356.01	*	-2.328E-02	4.051E-02	5.536E-02	6.679E-03	-0.420
		383.85		-1.687E-01	2.491E-01	3.884E-01	4.440E-02	-0.434
I-133	+	510.53		6.422E-01	2.491E-01	Half-Life too short		
		529.87	*	2.812E-03	2.491E-01	Half-Life too short		
		706.58		-2.118E-01	2.491E-01	Half-Life too short		
		856.28		-1.726E-02	2.491E-01	Half-Life too short		
		875.33		-1.631E-02	2.491E-01	Half-Life too short		
		1236.41		1.165E+00	2.491E-01	Half-Life too short		
		1298.22		1.267E-01	2.491E-01	Half-Life too short		
CS-134		475.35		-3.357E-02	1.655E+00	2.669E+00	1.760E-01	-0.013
		563.23		1.429E-01	2.995E-01	4.969E-01	3.049E-02	0.288
		569.32		-5.951E-04	1.618E-01	2.580E-01	1.582E-02	-0.002
		604.70		-1.132E-02	2.844E-02	3.972E-02	2.246E-03	-0.285
		795.84	*	2.841E-02	4.823E-02	7.336E-02	5.656E-03	0.387
		801.93		1.092E-01	3.569E-01	5.916E-01	4.633E-02	0.185
		1038.57		-3.249E+00	3.499E+00	5.062E+00	4.311E-01	-0.642
		1167.94		-8.023E-01	2.135E+00	3.451E+00	2.165E-01	-0.233
		1365.15		-4.810E-01	1.050E+00	1.626E+00	1.467E-01	-0.296
I-135		288.45		-1.597E+09	1.050E+00	Half-Life too short		

---- Non-Identified Nuclides ----

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		417.63		3.490E+08	1.050E+00	Half-Life too short		
		546.56		-6.706E+09	1.050E+00	Half-Life too short		
		836.80		2.944E+10	1.050E+00	Half-Life too short		
		1038.76		-1.997E+10	1.050E+00	Half-Life too short		
		1124.00		-1.444E+10	1.050E+00	Half-Life too short		
		1131.51		5.702E+08	1.050E+00	Half-Life too short		
		1260.41	*	4.071E+09	1.050E+00	Half-Life too short		
		1457.56		1.213E+12	1.050E+00	Half-Life too short		
		1678.03		-1.975E+09	1.050E+00	Half-Life too short		
		1706.46		1.835E+10	1.050E+00	Half-Life too short		
		1791.20		-1.368E+10	1.050E+00	Half-Life too short		
CS-136		66.91		2.981E-01	9.530E-01	1.438E+00	2.463E-01	0.207
	+	86.29		5.157E+00	1.534E+00	2.009E+00	2.960E-01	2.567
		153.22		9.963E-01	5.845E-01	9.979E-01	7.144E-02	0.998
		163.89		2.146E-01	9.677E-01	1.561E+00	1.095E-01	0.138
		176.55		-2.482E-01	3.278E-01	5.020E-01	3.158E-02	-0.495
		273.65		-8.061E-01	4.555E-01	5.844E-01	4.169E-02	-1.379
		340.57		1.351E-02	1.201E-01	1.755E-01	1.234E-02	0.077
		818.51		-7.610E-03	6.522E-02	1.062E-01	8.669E-03	-0.072
		1048.07	*	-3.836E-02	9.208E-02	1.429E-01	1.251E-02	-0.268
		1235.34		8.306E-01	5.886E-01	1.066E+00	1.151E-01	0.779
CE-139		165.85	*	-5.996E-03	2.652E-02	4.189E-02	2.288E-03	-0.143
BA-140		162.64		3.137E-01	6.788E-01	1.106E+00	6.947E-02	0.284
		304.84		-2.368E-02	1.163E+00	1.789E+00	4.912E-01	-0.013
		423.70		-1.408E+00	1.671E+00	2.456E+00	7.852E-01	-0.573
		537.32	*	5.958E-02	2.148E-01	3.508E-01	1.143E-01	0.170
LA-140	+	328.77		4.508E-01	3.635E-01	4.442E-01	3.236E-02	1.015
		432.53		3.392E+00	1.830E+00	3.302E+00	2.401E-01	1.027
		487.03		1.090E-01	1.101E-01	1.910E-01	1.380E-02	0.571
		751.79		4.313E-02	1.483E+00	2.460E+00	1.927E-01	0.018
		815.85		2.229E-01	2.808E-01	4.929E-01	4.509E-02	0.452
		867.82		-1.546E-01	1.208E+00	1.763E+00	1.723E-01	-0.088
		919.63		-1.164E+00	2.408E+00	3.602E+00	4.227E-01	-0.323
		925.24		6.867E-01	1.019E+00	1.762E+00	1.825E-01	0.390
		1596.49	*	3.556E-02	8.071E-02	1.351E-01	1.048E-02	0.263
CE-141		145.44	*	-1.500E-02	5.591E-02	8.879E-02	5.434E-03	-0.169
CE-143		57.37		7.213E-04	5.591E-02	Half-Life too short		
		231.56		8.151E-04	5.591E-02	Half-Life too short		
	+	293.26	*	1.350E-03	5.591E-02	Half-Life too short		
	+	350.59		2.922E-02	5.591E-02	Half-Life too short		
		490.36		-2.615E-03	5.591E-02	Half-Life too short		
		664.57		-4.031E-04	5.591E-02	Half-Life too short		
		721.93		1.872E-04	5.591E-02	Half-Life too short		
CE-144		80.11		1.255E+00	2.751E+00	3.323E+00	3.646E-01	0.378
		133.54	*	-9.352E-02	1.806E-01	2.841E-01	4.082E-02	-0.329
PM-144		476.78		-4.160E-03	5.867E-02	9.426E-02	7.177E-03	-0.044
		618.01		-2.666E-02	2.625E-02	4.050E-02	2.366E-03	-0.658
		696.49	*	3.281E-03	3.024E-02	5.073E-02	2.831E-03	0.065
		778.57		-1.018E+00	1.934E+00	3.017E+00	2.190E-01	-0.338

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PR-144		696.49	*	2.223E-01	2.049E+00	3.438E+00	1.917E-01	0.065
		1489.15		-3.921E+00	9.559E+00	1.457E+01	1.203E+00	-0.269
PM-146		453.90	*	-6.859E-03	3.685E-02	5.890E-02	5.440E-03	-0.116
		633.02		1.737E-01	1.174E+00	1.985E+00	7.294E-01	0.088
		735.90		2.576E-02	1.183E-01	1.995E-01	5.588E-02	0.129
		747.13		1.406E-03	7.763E-02	1.287E-01	1.659E-02	0.011
ND-147	+	91.11		2.737E+00	4.691E-01	5.692E-01	6.346E-02	4.809
		319.41		-1.654E+00	2.751E+00	4.394E+00	2.916E-01	-0.376
		439.89		6.799E+00	5.099E+00	8.982E+00	6.040E-01	0.757
		531.02	*	-9.441E-02	4.925E-01	7.771E-01	1.067E-01	-0.121
PM-149		285.90	*	5.391E+01	7.904E+01	1.357E+02	1.963E+01	0.397
EU-152		121.78		2.082E-02	6.526E-02	1.072E-01	8.832E-03	0.194
		244.69		7.039E-02	2.834E-01	4.272E-01	2.636E-02	0.165
		344.27	*	5.068E-02	8.931E-02	1.417E-01	1.044E-02	0.358
		443.98		-1.725E-01	8.527E-01	1.364E+00	9.157E-02	-0.126
		778.89		-6.471E-02	2.156E-01	3.462E-01	2.514E-02	-0.187
		867.32		-2.059E-01	7.767E-01	1.057E+00	9.871E-02	-0.195
	+	964.01		6.249E-01	3.730E-01	5.152E-01	4.881E-02	1.213
		1085.78		5.984E-02	3.417E-01	5.604E-01	4.362E-02	0.107
		1112.02		2.907E-01	3.121E-01	4.898E-01	3.592E-02	0.593
		1407.95		2.721E-01	1.936E-01	3.633E-01	3.098E-02	0.749
GD-153		69.67		4.665E-01	1.981E+00	2.975E+00	3.317E-01	0.157
	+	83.37		3.130E+01	1.835E+01	2.419E+01	2.681E+00	1.294
		97.43	*	5.007E-02	7.876E-02	1.189E-01	1.107E-02	0.421
		103.18		-7.726E-03	9.114E-02	1.482E-01	1.253E-02	-0.052
EU-154		123.07		-1.520E-02	4.636E-02	7.399E-02	7.312E-03	-0.205
		247.94		-1.208E-01	3.034E-01	4.822E-01	4.719E-02	-0.250
		591.81		-2.950E-03	5.011E-01	8.429E-01	8.216E-02	-0.003
		723.30		2.759E-02	1.576E-01	2.318E-01	1.698E-02	0.119
		756.87		-4.872E-01	6.707E-01	1.038E+00	1.114E-01	-0.469
		873.19		5.040E-02	2.444E-01	4.083E-01	5.254E-02	0.123
		996.32		-1.122E-01	3.851E-01	5.150E-01	9.268E-02	-0.218
		1004.76		-2.483E-02	2.087E-01	2.862E-01	3.409E-02	-0.087
		1274.45	*	-8.649E-02	1.120E-01	1.710E-01	1.822E-02	-0.506
EU-155		48.70		-5.883E-02	4.764E+00	7.991E+00	9.599E-01	-0.007
		60.01		5.132E-01	6.989E+00	1.049E+01	1.292E+00	0.049
	+	86.54		4.729E-01	1.334E-01	1.825E-01	2.065E-02	2.592
		105.31	*	3.151E-02	9.638E-02	1.593E-01	1.321E-02	0.198
TB-160	+	86.79		1.265E+00	3.563E-01	4.837E-01	5.450E-02	2.614
		197.04		-1.276E-01	5.264E-01	8.126E-01	4.660E-02	-0.157
		215.65		2.301E-01	6.218E-01	1.068E+00	6.313E-02	0.215
	+	298.57		1.938E-01	1.260E-01	1.678E-01	1.097E-02	1.154
		879.36	*	1.130E-02	1.181E-01	1.951E-01	1.881E-02	0.058
	+	962.29		1.155E+00	6.896E-01	9.181E-01	8.716E-02	1.258
		966.15		1.257E+00	2.699E-01	5.077E-01	4.798E-02	2.477
		1177.93		-3.878E-02	3.204E-01	5.306E-01	3.309E-02	-0.073
		1271.85		8.140E-02	6.415E-01	1.081E+00	8.313E-02	0.075
HO-166M		80.57		1.262E-01	3.495E-01	4.192E-01	4.605E-02	0.301
	+	184.41		2.286E-01	5.194E-02	6.751E-02	3.791E-03	3.386

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		280.46		-7.546E-02	7.232E-02	1.140E-01	7.333E-03	-0.662
		410.95		1.617E-01	2.330E-01	3.531E-01	2.395E-02	0.458
		711.68	*	2.780E-02	4.869E-02	8.464E-02	4.967E-03	0.328
		752.31		2.071E-01	2.352E-01	4.161E-01	2.785E-02	0.498
		810.29		-3.859E-02	4.883E-02	7.408E-02	5.902E-03	-0.521
TM-171		51.35		-3.054E+01	5.334E+01	8.707E+01	1.145E+01	-0.351
		52.39		2.785E+01	2.616E+01	4.520E+01	5.987E+00	0.616
		59.40		3.188E+00	3.874E+01	5.819E+01	7.229E+00	0.055
		66.72	*	3.193E+00	3.453E+01	5.163E+01	5.882E+00	0.062
LU-176	+	88.36		5.332E-01	2.277E-01	3.282E-01	3.691E-02	1.625
		201.83		-2.402E-02	2.465E-02	4.021E-02	2.324E-03	-0.597
		306.84	*	-2.822E-03	2.079E-02	3.426E-02	2.254E-03	-0.082
		401.10		4.232E+00	5.799E+00	9.891E+00	6.717E-01	0.428
LU-177		112.95		6.010E-01	1.517E+00	2.504E+00	1.843E-01	0.240
	+	208.36	*	2.551E+00	1.283E+00	1.709E+00	9.984E-02	1.493
LU-177M		52.97		2.830E+00	2.639E+00	4.558E+00	6.038E-01	0.621
		54.07		1.599E-01	1.337E+00	2.246E+00	2.962E-01	0.071
		61.30		5.004E-01	2.103E+00	3.168E+00	3.832E-01	0.158
		121.62		7.839E-02	3.349E-01	5.481E-01	3.627E-02	0.143
		147.16		-3.927E-01	5.643E-01	8.771E-01	5.134E-02	-0.448
		171.86		-1.382E-01	4.215E-01	6.609E-01	3.638E-02	-0.209
		218.09		6.106E-03	7.296E-01	1.234E+00	7.326E-02	0.005
	+	268.79		2.317E+00	9.077E-01	1.293E+00	8.215E-02	1.792
		319.02		-1.858E-01	2.147E-01	3.371E-01	2.236E-02	-0.551
		367.43		-2.626E-01	7.705E-01	1.238E+00	8.385E-02	-0.212
		413.65	*	-2.197E-02	1.653E-01	2.329E-01	1.578E-02	-0.094
HF-181		56.28		-1.053E+00	1.386E+00	2.235E+00	2.888E-01	-0.471
		57.53		3.857E-01	7.031E-01	1.196E+00	1.521E-01	0.323
		65.20		-1.563E-02	1.184E+00	1.763E+00	2.037E-01	-0.009
		133.02		-3.496E-02	5.791E-02	9.093E-02	5.647E-03	-0.384
		136.25		-1.949E-01	4.089E-01	6.452E-01	3.949E-02	-0.302
		345.85		-1.034E-01	1.921E-01	2.657E-01	1.787E-02	-0.389
		482.03	*	1.114E-02	3.629E-02	5.991E-02	3.932E-03	0.186
W-181		56.28		-4.118E-01	5.418E-01	8.737E-01	1.129E-01	-0.471
		57.53		1.506E-01	2.751E-01	4.678E-01	5.952E-02	0.322
		65.20	*	-6.068E-03	4.595E-01	6.841E-01	7.905E-02	-0.009
TA-182		67.75		-3.092E-02	1.295E-01	2.032E-01	2.295E-02	-0.152
		100.10		8.375E-02	1.587E-01	2.647E-01	2.352E-02	0.316
		152.43		4.543E-01	2.998E-01	5.096E-01	2.924E-02	0.892
		222.10		3.937E-02	2.840E-01	4.827E-01	2.882E-02	0.082
	+	1001.68		2.253E+00	2.238E+00	3.523E+00	3.178E-01	0.640
		1121.28		3.092E-01	1.606E-01	2.729E-01	1.956E-02	1.133
		1189.05		3.201E-02	2.505E-01	4.241E-01	2.715E-02	0.075
		1221.42	*	2.329E-01	1.792E-01	3.286E-01	2.266E-02	0.709
		1230.97		-5.085E-01	4.465E-01	6.719E-01	4.733E-02	-0.757
RE-183		57.98		1.746E-01	2.839E-01	4.632E-01	5.860E-02	0.377
		59.32		1.273E-02	1.599E-01	2.401E-01	2.986E-02	0.053
		67.20		1.228E-01	2.421E-01	3.686E-01	4.182E-02	0.333
		162.32	*	5.698E-02	9.726E-02	1.594E-01	8.817E-03	0.357

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		2.268E+00	1.140E+00	1.536E+00	8.982E-02	1.476
		291.72		1.998E-01	8.561E-01	1.275E+00	8.288E-02	0.157
RE-184		57.98		6.431E-01	1.045E+00	1.706E+00	2.158E-01	0.377
		59.32		4.685E-02	5.883E-01	8.835E-01	1.099E-01	0.053
		67.20		4.519E-01	8.914E-01	1.357E+00	1.539E-01	0.333
		161.27		3.573E-02	3.240E-01	5.204E-01	2.889E-02	0.069
		216.55		1.468E-01	2.220E-01	3.854E-01	2.282E-02	0.381
		252.85	*	-2.654E-02	1.924E-01	3.208E-01	2.000E-02	-0.083
		318.01		7.824E-02	3.621E-01	6.075E-01	4.027E-02	0.129
		792.07		2.730E-01	1.158E+00	1.694E+00	1.280E-01	0.161
		903.28		1.112E-01	8.603E-01	1.344E+00	1.354E-01	0.083
		920.93		-3.116E-02	3.761E-01	6.080E-01	6.030E-02	-0.051
OS-185		59.72		3.438E-02	4.203E-01	6.312E-01	7.806E-02	0.054
		61.14		6.760E-02	2.272E-01	3.442E-01	4.173E-02	0.196
		69.30		1.787E-01	3.538E-01	5.374E-01	6.007E-02	0.333
		592.07		1.170E-01	2.058E+00	3.477E+00	2.000E-01	0.034
		646.12	*	-4.626E-04	3.526E-02	5.893E-02	3.027E-03	-0.008
		717.42		1.256E-01	7.351E-01	1.238E+00	7.404E-02	0.101
		874.81		6.105E-02	4.817E-01	7.985E-01	7.607E-02	0.076
		880.27		1.218E-02	6.601E-01	1.082E+00	1.046E-01	0.011
RE-188		155.03	*	-1.223E-01	1.529E-01	2.360E-01	1.341E-02	-0.518
		477.96		-1.682E+00	2.768E+00	4.268E+00	2.810E-01	-0.394
		633.10		3.209E-01	2.369E+00	4.008E+00	2.124E-01	0.080
W-188	+	63.58		2.216E+02	1.046E+02	1.185E+02	1.394E+01	1.869
		227.08		2.951E+00	1.033E+01	1.764E+01	1.062E+00	0.167
		290.67	*	-1.248E+00	6.774E+00	9.787E+00	6.354E-01	-0.128
IR-192	+	295.96		1.018E+00	1.462E-01	2.502E-01	1.652E-02	4.068
		308.46		5.293E-02	7.767E-02	1.337E-01	8.884E-03	0.396
		316.51	*	3.152E-03	2.814E-02	4.694E-02	3.120E-03	0.067
		468.07		1.677E-02	6.125E-02	9.369E-02	6.947E-03	0.179
		604.41		-1.532E-01	3.851E-01	5.376E-01	6.054E-02	-0.285
		612.46		-9.597E-02	6.332E-01	9.107E-01	6.715E-02	-0.105
AU-195		65.12		6.811E-04	2.133E-01	3.179E-01	3.676E-02	0.002
		66.83		2.977E-02	1.137E-01	1.713E-01	1.950E-02	0.174
	+	75.70		1.424E+00	2.784E-01	4.677E-01	5.116E-02	3.044
		98.88	*	2.873E-01	2.052E-01	3.513E-01	3.188E-02	0.818
		129.76		3.674E+00	2.569E+00	4.371E+00	2.758E-01	0.840
TL-200		367.94	*	-2.550E-05	2.569E+00	Half-Life too short		
		579.30		3.940E-03	2.569E+00	Half-Life too short		
		828.27		4.919E-03	2.569E+00	Half-Life too short		
		1205.75		1.115E-03	2.569E+00	Half-Life too short		
TL-201		68.90		-1.256E+00	5.597E+00	8.777E+00	9.835E-01	-0.143
		70.82		-3.439E-01	3.309E+00	4.888E+00	5.418E-01	-0.070
		80.30		2.880E+00	6.676E+00	8.048E+00	8.834E-01	0.358
		135.34		-1.131E+01	2.314E+01	3.651E+01	2.243E+00	-0.310
		167.43	*	-2.851E-01	6.332E+00	1.008E+01	5.513E-01	-0.028
TL-202		68.90		-1.106E-01	4.930E-01	7.730E-01	8.663E-02	-0.143
		70.82		-3.020E-02	2.906E-01	4.293E-01	4.759E-02	-0.070
		80.30		2.531E-01	5.865E-01	7.071E-01	7.762E-02	0.358

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	5.687E-02	6.140E-02	1.056E-01	7.103E-03	0.538
HG-203		70.83		-1.206E-01	1.253E+00	1.852E+00	2.831E-01	-0.065
		72.87		1.014E+00	7.484E-01	1.151E+00	1.710E-01	0.881
		82.60		4.175E-01	1.164E+00	1.743E+00	2.681E-01	0.240
		279.20	*	8.175E-04	3.464E-02	5.788E-02	3.906E-03	0.014
BI-207		72.80		2.303E-01	2.145E-01	3.305E-01	3.636E-02	0.697
	+	74.97		5.937E-01	1.475E-01	2.353E-01	2.575E-02	2.524
	+	84.90		4.046E-01	2.373E-01	3.239E-01	3.614E-02	1.249
		569.67		5.331E-03	2.564E-02	4.161E-02	2.481E-03	0.128
		1063.62	*	-4.554E-04	4.564E-02	7.350E-02	5.983E-03	-0.006
		1770.23		-1.145E-01	4.013E-01	4.976E-01	3.302E-02	-0.230
TL-207		81.07		7.942E-02	2.747E-01	3.278E-01	3.605E-02	0.242
	+	83.78		2.668E-01	1.565E-01	2.061E-01	2.288E-02	1.295
		94.90		1.525E-01	2.167E-01	3.285E-01	3.208E-02	0.464
		122.32		8.889E-01	1.560E+00	2.586E+00	1.909E-01	0.344
		144.24		1.566E-01	6.263E-01	1.006E+00	7.374E-02	0.156
		154.21		1.327E-01	3.514E-01	5.721E-01	3.965E-02	0.232
	+	269.46		5.422E-01	2.126E-01	3.131E-01	2.066E-02	1.732
		323.87	*	3.341E-01	6.157E-01	9.297E-01	1.565E-01	0.359
	+	338.28		4.931E+00	1.519E+00	2.025E+00	2.238E-01	2.435
		445.03		-4.178E-01	2.003E+00	3.202E+00	3.461E-01	-0.130
PO-209		260.50		2.323E+00	7.670E+00	1.305E+01	8.210E-01	0.178
		262.80		-9.049E+00	2.160E+01	3.538E+01	2.233E+00	-0.256
		896.60	*	-5.014E+00	6.484E+00	9.737E+00	9.821E-01	-0.515
BI-210		46.50	*	-1.354E+00	7.681E+00	1.282E+01	1.257E+00	-0.106
PB-210		46.50	*	-1.354E+00	7.681E+00	1.282E+01	1.257E+00	-0.106
PO-210		46.50	*	-1.354E+00	7.681E+00	1.282E+01	1.151E+00	-0.106
PB-211		404.84	*	2.089E-02	9.541E-01	1.366E+00	8.532E-01	0.015
		427.08		1.775E-02	1.740E+00	2.833E+00	1.754E+00	0.006
		831.96		-3.481E-01	1.105E+00	1.730E+00	1.084E+00	-0.201
BI-212	+	727.18	*	1.209E+00	4.218E-01	5.811E-01	4.648E-02	2.080
		785.46		1.324E+00	1.639E+00	2.863E+00	2.121E-01	0.462
		1620.62		6.766E-01	1.123E+00	2.004E+00	1.528E-01	0.338
PO-215		81.07		7.942E-02	2.747E-01	3.278E-01	3.605E-02	0.242
	+	83.78		2.668E-01	1.565E-01	2.061E-01	2.288E-02	1.295
		94.90		1.525E-01	2.167E-01	3.285E-01	3.208E-02	0.464
		122.32		8.889E-01	1.560E+00	2.586E+00	1.909E-01	0.344
		144.24		1.566E-01	6.263E-01	1.006E+00	7.374E-02	0.156
		154.21		1.327E-01	3.514E-01	5.721E-01	3.965E-02	0.232
	+	269.46		5.422E-01	2.126E-01	3.131E-01	2.066E-02	1.732
		323.87	*	3.341E-01	6.157E-01	9.297E-01	1.565E-01	0.359
	+	338.28		4.931E+00	1.519E+00	2.025E+00	2.238E-01	2.435
		445.03		-4.178E-01	2.003E+00	3.202E+00	3.461E-01	-0.130
RN-219	+	271.23		6.957E-01	2.753E-01	3.754E-01	3.199E-02	1.853
		401.81	*	1.962E-01	3.712E-01	6.052E-01	8.507E-02	0.324
RN-220		549.76	*	-4.660E+00	2.257E+01	3.547E+01	2.175E+00	-0.131
RA-223		81.07		7.942E-02	2.747E-01	3.278E-01	3.605E-02	0.242
	+	83.78		2.668E-01	1.565E-01	2.061E-01	2.288E-02	1.295
		94.90		1.525E-01	2.167E-01	3.285E-01	3.208E-02	0.464

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		8.889E-01	1.560E+00	2.586E+00	1.909E-01	0.344
		144.24		1.566E-01	6.263E-01	1.006E+00	7.374E-02	0.156
		154.21		1.327E-01	3.514E-01	5.721E-01	3.965E-02	0.232
	+	269.46		5.422E-01	2.126E-01	3.131E-01	2.066E-02	1.732
		323.87	*	3.341E-01	6.157E-01	9.297E-01	1.565E-01	0.359
	+	338.28		4.931E+00	1.519E+00	2.025E+00	2.238E-01	2.435
		445.03		-4.178E-01	2.003E+00	3.202E+00	3.461E-01	-0.130
AC-227		79.80		9.745E-01	2.145E+00	2.580E+00	5.818E-01	0.378
		236.00		9.118E-01	2.594E-01	4.215E-01	4.476E-02	2.163
		256.20	*	2.786E-02	3.108E-01	5.234E-01	7.411E-02	0.053
		286.10		6.328E-01	1.300E+00	2.217E+00	2.640E-01	0.285
	+	299.80		2.465E+00	1.646E+00	2.169E+00	3.593E-01	1.136
		304.40		3.336E-01	1.792E+00	2.651E+00	4.658E-01	0.126
		334.20		3.606E-01	2.134E+00	3.135E+00	5.842E-01	0.115
TH-227		79.80		9.745E-01	2.145E+00	2.580E+00	5.886E-01	0.378
		94.00		9.678E+00	2.891E+00	3.631E+00	8.110E-01	2.665
		236.00		9.118E-01	2.550E-01	4.215E-01	3.899E-02	2.163
		256.20	*	2.786E-02	3.108E-01	5.234E-01	8.932E-02	0.053
		286.10		6.328E-01	1.445E+00	2.217E+00	2.222E+00	0.285
	+	299.80		2.465E+00	1.646E+00	2.169E+00	3.593E-01	1.136
		304.40		3.336E-01	1.792E+00	2.651E+00	4.658E-01	0.126
		334.20		3.606E-01	2.134E+00	3.135E+00	5.842E-01	0.115
TH-229	+	85.43		3.994E-01	2.342E-01	3.346E-01	3.743E-02	1.194
	+	88.47		3.069E-01	1.311E-01	1.868E-01	2.096E-02	1.643
		100.00		1.020E-01	1.653E-01	2.767E-01	2.463E-02	0.369
		193.63	*	-7.044E-02	4.380E-01	6.877E-01	3.922E-02	-0.102
		210.97		1.439E-01	6.807E-01	1.031E+00	6.050E-02	0.140
PA-231		283.67	*	-1.252E+00	1.292E+00	2.025E+00	2.848E-01	-0.618
		301.29		3.153E-01	5.485E-01	8.320E-01	9.058E-02	0.379
TH-231		81.07		7.942E-02	2.747E-01	3.278E-01	3.605E-02	0.242
	+	83.78		2.668E-01	1.565E-01	2.061E-01	2.288E-02	1.295
		94.90		1.525E-01	2.167E-01	3.285E-01	3.208E-02	0.464
		122.32		8.889E-01	1.560E+00	2.586E+00	1.909E-01	0.344
		144.24		1.566E-01	6.263E-01	1.006E+00	7.374E-02	0.156
		154.21		1.327E-01	3.514E-01	5.721E-01	3.965E-02	0.232
	+	269.46		5.422E-01	2.126E-01	3.131E-01	2.066E-02	1.732
		323.87	*	3.341E-01	6.157E-01	9.297E-01	1.565E-01	0.359
	+	338.28		4.931E+00	1.519E+00	2.025E+00	2.238E-01	2.435
		445.03		-4.178E-01	2.003E+00	3.202E+00	3.461E-01	-0.130
U-231	+	84.21		1.172E+01	6.875E+00	9.071E+00	1.009E+00	1.292
	+	92.29		2.102E+01	3.524E+00	4.677E+00	4.815E-01	4.495
		95.87	*	-8.361E-01	1.094E+00	1.530E+00	1.467E-01	-0.546
		108.00		-1.320E+00	1.890E+00	2.986E+00	2.350E-01	-0.442
PA-233	+	75.28		1.733E+01	4.833E+00	7.128E+00	1.195E+00	2.431
	+	86.59		7.687E+00	2.916E+00	2.960E+00	8.222E-01	2.597
	+	300.12		6.871E-01	4.546E-01	6.075E-01	8.368E-02	1.131
		311.98	*	-1.397E-02	5.138E-02	8.385E-02	5.802E-03	-0.167
		340.50		1.244E-01	5.824E-01	8.563E-01	1.988E-01	0.145
		398.62		-8.134E-01	1.809E+00	2.850E+00	7.437E-01	-0.285

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-3.208E-02	1.396E+00	2.272E+00	4.744E-01	-0.014
PA-234	+	63.00		6.418E+00	3.141E+00	3.595E+00	6.289E-01	1.785
		94.67		2.130E-01	1.582E-01	2.442E-01	3.237E-02	0.872
		98.44		1.033E-01	1.044E-01	1.428E-01	7.978E-02	0.724
		99.86		3.100E-01	4.212E-01	7.075E-01	6.313E-02	0.438
		111.00		-6.147E-02	1.709E-01	2.739E-01	3.109E-02	-0.224
		131.20		-6.208E-02	9.570E-02	1.502E-01	9.410E-03	-0.413
		152.70		5.058E-01	2.973E-01	4.934E-01	7.787E-02	1.025
	+	186.00		8.228E+00	3.097E+00	2.427E+00	7.409E-01	3.390
		226.40		-1.071E-01	3.246E-01	5.395E-01	6.295E-02	-0.199
		227.20		1.111E-01	3.461E-01	5.923E-01	3.564E-02	0.188
		248.90		1.043E-02	6.692E-01	1.125E+00	2.430E-01	0.009
	+	293.70		6.400E+00	1.327E+00	1.573E+00	2.572E-01	4.068
		369.80		-8.012E-03	7.232E-01	1.187E+00	2.506E-01	-0.007
		568.70		-5.378E-01	8.533E-01	1.287E+00	7.687E-02	-0.418
		569.50		2.393E-02	2.257E-01	3.633E-01	2.167E-02	0.066
		574.00		-5.274E-01	1.253E+00	1.992E+00	1.180E-01	-0.265
		699.00		-4.783E-01	6.295E-01	9.773E-01	1.752E-01	-0.489
		706.10		-1.234E-01	8.852E-01	1.453E+00	6.412E-01	-0.085
		733.00		-1.876E-01	3.445E-01	4.570E-01	9.781E-02	-0.410
		742.81		1.481E-01	1.193E+00	1.990E+00	1.333E+00	0.074
		796.30		-1.081E-02	9.376E-01	1.338E+00	3.579E-01	-0.008
		805.60		-1.152E-01	8.315E-01	1.351E+00	4.113E-01	-0.085
		819.60		-4.802E-01	1.062E+00	1.646E+00	6.243E-01	-0.292
		826.30		-5.849E-01	7.425E-01	1.049E+00	4.690E-01	-0.557
		831.60		-1.446E-01	5.529E-01	8.850E-01	2.637E-01	-0.163
		876.40		-7.309E-02	7.035E-01	1.133E+00	1.166E+00	-0.065
		880.51		-6.642E-03	2.374E-01	3.873E-01	3.746E-02	-0.017
		883.24		1.001E-01	2.463E-01	4.037E-01	2.720E-01	0.248
		899.00		-3.376E-01	6.872E-01	1.037E+00	4.565E-01	-0.326
		925.00		4.915E-01	1.059E+00	1.800E+00	1.778E-01	0.273
		926.50		1.778E-01	1.623E-01	2.806E-01	7.218E-02	0.634
		946.00	*	-2.415E-01	2.614E-01	3.763E-01	7.250E-02	-0.642
		949.00		2.454E-01	3.735E-01	6.465E-01	6.231E-02	0.380
		980.50		-5.605E-01	6.389E-01	9.342E-01	8.673E-02	-0.600
		1394.10		-8.438E-01	1.112E+00	1.383E+00	8.999E-01	-0.610
PA-234M		766.42		1.741E+01	1.378E+01	1.949E+01	9.839E+00	0.893
	+	1001.03	*	5.112E+00	5.083E+00	7.799E+00	8.049E-01	0.655
U-235	+	89.95		3.081E+00	1.601E+00	1.774E+00	5.597E-01	1.736
	+	93.35		6.491E+00	2.044E+00	1.357E+00	3.867E-01	4.785
		105.00		7.087E-01	9.549E-01	1.567E+00	4.659E-01	0.452
		143.76	*	4.837E-02	1.978E-01	3.175E-01	5.192E-02	0.152
		163.35		1.718E-01	4.294E-01	6.961E-01	1.245E-01	0.247
	+	185.71		3.047E-01	6.926E-02	9.072E-02	5.106E-03	3.359
		205.31		-5.242E-02	4.917E-01	7.325E-01	1.318E-01	-0.072
NP-236		94.67		1.652E-01	1.193E-01	1.857E-01	1.821E-02	0.890
		98.44		7.809E-02	6.611E-02	1.079E-01	9.871E-03	0.724
		111.00		-4.650E-02	1.292E-01	2.072E-01	1.565E-02	-0.224
		160.31	*	-1.823E-02	7.095E-02	1.121E-01	6.248E-03	-0.163

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.337E-01	1.419E-01	2.399E-01	2.152E-02	0.557
		117.00	*	-6.735E-02	1.681E-01	2.680E-01	1.875E-02	-0.251
	+	209.75		1.787E+00	8.983E-01	1.195E+00	6.999E-02	1.495
		228.18		2.304E-02	1.830E-01	3.105E-01	1.872E-02	0.074
		277.60		2.205E-01	1.568E-01	2.775E-01	1.779E-02	0.795
		334.30		1.735E-01	1.207E+00	1.771E+00	1.185E-01	0.098
AM-241		59.54	*	1.948E-02	2.241E-01	3.366E-01	4.323E-02	0.058
CM-243		99.55		1.376E-01	1.460E-01	2.468E-01	2.214E-02	0.557
		103.76	*	3.260E-02	8.481E-02	1.406E-01	1.178E-02	0.232
		117.00		-6.929E-02	1.729E-01	2.758E-01	1.929E-02	-0.251
	+	209.75		1.761E+00	8.855E-01	1.178E+00	6.899E-02	1.495
		228.18		2.329E-02	1.850E-01	3.138E-01	1.891E-02	0.074
		277.60		2.223E-01	1.581E-01	2.797E-01	1.794E-02	0.795
AM-246		798.80		1.929E-02	1.347E-01	1.958E-01	1.509E-02	0.099
		1036.00		5.036E-02	2.712E-01	4.464E-01	3.819E-02	0.113
		1062.04		9.937E-05	1.996E-01	3.218E-01	2.628E-02	0.000
		1078.86	*	-1.094E-02	1.154E-01	1.837E-01	1.451E-02	-0.060
CM-247		278.00		8.195E-01	6.442E-01	1.135E+00	7.280E-02	0.722
		287.40		5.069E-01	1.035E+00	1.766E+00	1.143E-01	0.287
		402.60	*	2.883E-02	3.693E-02	5.627E-02	3.821E-03	0.512
CF-249		252.85		-9.953E-02	7.217E-01	1.203E+00	7.501E-02	-0.083
		333.44		9.347E-02	1.688E-01	2.396E-01	1.602E-02	0.390
		387.95	*	2.738E-02	3.425E-02	5.874E-02	3.991E-03	0.466
CF-251		176.60	*	-1.030E-01	1.132E-01	1.721E-01	9.543E-03	-0.598
		227.00		1.373E-01	3.075E-01	5.290E-01	3.182E-02	0.260
		285.00		2.261E-01	1.456E+00	2.447E+00	1.580E-01	0.092

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028549    *
* Acquisition date :  9-FEB-2010 17:44:16 Detector SN#     :               *
* Detector ID        : GAM10                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.550        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:01.08      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 25-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202028549          Analyst initials: MJH1          *
* Batch Number       : 947037               Sample Quantity : 1.4815E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.096E+01	2.310E+00	4.805E-01	0.000E+00
CD-109	3.995E+00	1.103E+00	1.155E+00	0.000E+00
SN-126	3.926E-01	1.084E-01	1.144E-01	0.000E+00
CS-135	4.609E-01	1.784E-01	2.259E-01	0.000E+00
BA-137M	2.817E-01	5.270E-02	4.998E-02	0.000E+00
CS-137	2.978E-01	5.573E-02	5.283E-02	0.000E+00
TL-208	4.539E-01	7.330E-02	4.723E-02	0.000E+00
BI-211	3.466E+00	4.787E-01	2.713E-01	0.000E+00
PB-212	1.370E+00	1.372E-01	7.945E-02	0.000E+00
PO-212	1.370E+00	1.372E-01	7.945E-02	0.000E+00
BI-214	1.070E+00	1.562E-01	8.943E-02	0.000E+00
PB-214	1.206E+00	1.776E-01	9.455E-02	0.000E+00
PO-214	1.206E+00	1.776E-01	9.455E-02	0.000E+00
PO-216	1.370E+00	1.372E-01	7.945E-02	0.000E+00
PO-218	1.206E+00	1.776E-01	9.455E-02	0.000E+00
RA-224	4.103E+00	1.113E+00	9.038E-01	0.000E+00
RA-226	1.070E+00	1.562E-01	8.943E-02	0.000E+00
AC-228	1.399E+00	2.872E-01	1.732E-01	0.000E+00
RA-228	1.399E+00	2.872E-01	1.732E-01	0.000E+00
TH-228	1.391E+00	1.393E-01	8.067E-02	0.000E+00
TH-230	1.070E+00	1.562E-01	8.943E-02	0.000E+00
TH-232	1.399E+00	2.872E-01	1.732E-01	0.000E+00
TH-234	5.506E+00	2.686E+00	2.683E+00	0.000E+00
U-234	1.070E+00	1.562E-01	8.943E-02	0.000E+00
NP-237	1.153E+00	3.946E-01	3.419E-01	0.000E+00
U-238	5.506E+00	2.686E+00	2.683E+00	0.000E+00
AM-243	3.308E-01	8.051E-02	1.010E-01	0.000E+00
ANH-511	5.725E-02	5.350E-02	4.025E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-5.328E-02	2.741E-01	4.604E-01	0.000E+00	NOT IDENT.
NA-22	-3.918E-02	3.999E-02	6.170E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.487E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.634E-02	2.639E-02	4.873E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.194E-02	7.267E-02	0.000E+00	NOT IDENT.
SC-46	-1.078E-02	3.336E-02	5.490E-02	0.000E+00	FAIL ABUN
V-48	-7.005E-03	5.900E-02	9.799E-02	0.000E+00	NOT IDENT.
CR-51	-2.842E-01	3.046E-01	5.075E-01	0.000E+00	NOT IDENT.
MN-52	4.276E-02	1.819E-01	3.190E-01	0.000E+00	NOT IDENT.
MN-54	-1.852E-02	3.361E-02	5.485E-02	0.000E+00	NOT IDENT.
CO-56	2.475E-02	3.239E-02	5.899E-02	0.000E+00	NOT IDENT.
CO-57	4.582E-03	2.233E-02	3.972E-02	0.000E+00	NOT IDENT.
CO-58	-9.148E-03	3.108E-02	5.180E-02	0.000E+00	NOT IDENT.
FE-59	3.059E-02	7.424E-02	1.289E-01	0.000E+00	NOT IDENT.
CO-60	-3.881E-03	2.932E-02	4.913E-02	0.000E+00	NOT IDENT.
ZN-65	-8.271E-03	9.882E-02	1.397E-01	0.000E+00	NOT IDENT.
GE-68	4.154E-01	1.005E+00	1.749E+00	0.000E+00	NOT IDENT.
AS-73	1.103E+00	1.291E+00	2.459E+00	0.000E+00	NOT IDENT.
AS-74	1.107E-02	7.387E-02	1.318E-01	0.000E+00	NOT IDENT.
SE-75	3.070E-03	4.028E-02	6.351E-02	0.000E+00	NOT IDENT.
BR-77	-5.884E+00	8.965E+00	1.433E+01	0.000E+00	FAIL ABUN
SR-82	-6.734E-02	3.172E-01	5.326E-01	0.000E+00	NOT IDENT.
RB-83	-3.964E-02	5.710E-02	9.094E-02	0.000E+00	NOT IDENT.
RB-84	2.820E-03	5.909E-02	1.010E-01	0.000E+00	NOT IDENT.
KR-85	1.173E+00	6.417E+00	9.656E+00	0.000E+00	NOT IDENT.
SR-85	6.022E-03	3.294E-02	4.957E-02	0.000E+00	NOT IDENT.
RB-86	1.796E-01	6.306E-01	1.084E+00	0.000E+00	NOT IDENT.
Y-88	1.476E-02	2.753E-02	5.041E-02	0.000E+00	NOT IDENT.
ZR-88	-6.810E-03	2.585E-02	4.406E-02	0.000E+00	NOT IDENT.
Y-91	1.505E+01	1.635E+01	3.025E+01	0.000E+00	NOT IDENT.
NB-94	3.148E-02	2.789E-02	5.234E-02	0.000E+00	NOT IDENT.
NB-95	5.610E-02	3.842E-02	7.252E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.204E-01	2.098E-01	0.000E+00	NOT IDENT.
ZR-95	-1.946E-02	6.074E-02	1.021E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.124E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.027E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.746E-01	1.000E+01	1.736E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.981E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.122E-02	2.976E-02	5.161E-02	0.000E+00	NOT IDENT.
RH-102	4.833E-03	2.438E-02	4.217E-02	0.000E+00	NOT IDENT.
RU-103	2.464E-03	3.457E-02	5.900E-02	0.000E+00	NOT IDENT.
RH-106	2.803E-01	2.513E-01	4.744E-01	0.000E+00	NOT IDENT.
RU-106	2.803E-01	2.498E-01	4.744E-01	0.000E+00	NOT IDENT.
AG-108M	1.715E-02	2.920E-02	5.201E-02	0.000E+00	NOT IDENT.
AG-110M	2.392E-02	3.473E-02	5.639E-02	0.000E+00	NOT IDENT.
IN-111	2.433E-02	9.358E-01	1.489E+00	0.000E+00	NOT IDENT.
IN-113M	5.442E-04	3.689E-02	6.404E-02	0.000E+00	NOT IDENT.
SN-113	5.442E-04	3.689E-02	6.404E-02	0.000E+00	NOT IDENT.
IN-114M	-8.068E-03	1.590E-01	2.574E-01	0.000E+00	NOT IDENT.
CD-115	3.452E+00	9.647E+00	1.673E+01	0.000E+00	NOT IDENT.
SN-117M	8.067E-03	4.679E-02	8.165E-02	0.000E+00	NOT IDENT.
SB-122	1.101E+00	1.722E+00	3.038E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.767E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	5.141E-03	2.442E-02	4.267E-02	0.000E+00	NOT IDENT.
I-124	-1.650E-01	5.812E-01	8.651E-01	0.000E+00	FAIL ABUN
SB-124	5.225E-03	5.427E-02	9.221E-02	0.000E+00	FAIL ABUN
SB-125	-2.745E-02	7.613E-02	1.277E-01	0.000E+00	FAIL ABUN
TE-125M	4.545E+00	8.146E+00	1.478E+01	0.000E+00	NOT IDENT.
I-126	-1.219E-01	1.750E-01	2.454E-01	0.000E+00	NOT IDENT.
SB-126	7.284E-02	1.260E-01	2.028E-01	0.000E+00	NOT IDENT.
SB-127	-1.518E-01	1.118E+00	1.927E+00	0.000E+00	NOT IDENT.
XE-127	-2.052E-02	3.946E-02	7.064E-02	0.000E+00	NOT IDENT.
I-131	-3.738E-02	9.768E-02	1.664E-01	0.000E+00	NOT IDENT.
TE-132	6.780E-02	5.627E-01	1.024E+00	0.000E+00	NOT IDENT.
BA-133	-2.328E-02	3.970E-02	5.764E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.634E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.841E-02	4.727E-02	7.494E-02	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.558E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.836E-02	9.024E-02	1.450E-01	0.000E+00	FAIL ABUN
CE-139	-5.996E-03	2.599E-02	4.438E-02	0.000E+00	NOT IDENT.
BA-140	5.958E-02	2.105E-01	3.617E-01	0.000E+00	NOT IDENT.
LA-140	3.556E-02	7.909E-02	1.356E-01	0.000E+00	FAIL ABUN
CE-141	-1.500E-02	5.479E-02	9.436E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.387E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.352E-02	1.770E-01	3.025E-01	0.000E+00	NOT IDENT.
PM-144	3.281E-03	2.964E-02	5.199E-02	0.000E+00	NOT IDENT.
PR-144	2.223E-01	2.008E+00	3.523E+00	0.000E+00	NOT IDENT.

PM-146	-6.859E-03	3.612E-02	6.098E-02	0.000E+00	NOT IDENT.
ND-147	-9.441E-02	4.827E-01	8.015E-01	0.000E+00	FAIL ABUN
PM-149	5.391E+01	7.746E+01	1.421E+02	0.000E+00	NOT IDENT.
EU-152	5.068E-02	8.752E-02	1.477E-01	0.000E+00	FAIL ABUN
GD-153	5.007E-02	7.719E-02	1.275E-01	0.000E+00	FAIL ABUN
EU-154	-8.649E-02	1.098E-01	1.727E-01	0.000E+00	NOT IDENT.
EU-155	3.151E-02	9.446E-02	1.705E-01	0.000E+00	FAIL ABUN
TB-160	1.130E-02	1.158E-01	1.988E-01	0.000E+00	FAIL ABUN
HO-166M	2.780E-02	4.772E-02	8.669E-02	0.000E+00	FAIL ABUN
TM-171	3.193E+00	3.384E+01	5.582E+01	0.000E+00	NOT IDENT.
LU-176	-2.822E-03	2.037E-02	3.580E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.257E+00	1.801E+00	0.000E+00	FAIL ABUN
LU-177M	-2.197E-02	1.620E-01	2.416E-01	0.000E+00	FAIL ABUN
HF-181	1.114E-02	3.556E-02	6.193E-02	0.000E+00	NOT IDENT.
W-181	-6.068E-03	4.503E-01	7.401E-01	0.000E+00	NOT IDENT.
TA-182	2.329E-01	1.756E-01	3.321E-01	0.000E+00	FAIL ABUN
RE-183	5.698E-02	9.532E-02	1.690E-01	0.000E+00	FAIL ABUN
RE-184	-2.654E-02	1.886E-01	3.367E-01	0.000E+00	NOT IDENT.
OS-185	-4.626E-04	3.456E-02	6.050E-02	0.000E+00	NOT IDENT.
RE-188	-1.223E-01	1.499E-01	2.504E-01	0.000E+00	NOT IDENT.
W-188	-1.248E+00	6.638E+00	1.024E+01	0.000E+00	FAIL ABUN
IR-192	3.152E-03	2.758E-02	4.900E-02	0.000E+00	FAIL ABUN
AU-195	2.873E-01	2.011E-01	3.766E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.086E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.851E-01	6.205E+00	1.068E+01	0.000E+00	NOT IDENT.
TL-202	5.687E-02	6.017E-02	1.095E-01	0.000E+00	NOT IDENT.
HG-203	8.175E-04	3.394E-02	6.061E-02	0.000E+00	NOT IDENT.
BI-207	-4.554E-04	4.473E-02	7.454E-02	0.000E+00	FAIL ABUN
TL-207	3.341E-01	6.034E-01	9.701E-01	0.000E+00	FAIL ABUN
PO-209	-5.014E+00	6.354E+00	9.917E+00	0.000E+00	NOT IDENT.
BI-210	-1.354E+00	7.527E+00	1.397E+01	0.000E+00	NOT IDENT.
PB-210	-1.354E+00	7.527E+00	1.397E+01	0.000E+00	NOT IDENT.
PO-210	-1.354E+00	7.527E+00	1.397E+01	0.000E+00	NOT IDENT.
PB-211	2.089E-02	9.350E-01	1.419E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.134E-01	5.948E-01	0.000E+00	FAIL ABUN
PO-215	3.341E-01	6.034E-01	9.701E-01	0.000E+00	FAIL ABUN
RN-219	1.962E-01	3.638E-01	6.284E-01	0.000E+00	FAIL ABUN
RN-220	-4.660E+00	2.212E+01	3.655E+01	0.000E+00	NOT IDENT.
RA-223	3.341E-01	6.034E-01	9.701E-01	0.000E+00	FAIL ABUN
AC-227	2.786E-02	3.046E-01	5.492E-01	0.000E+00	FAIL ABUN
TH-227	2.786E-02	3.046E-01	5.492E-01	0.000E+00	FAIL ABUN
TH-229	-7.044E-02	4.292E-01	7.262E-01	0.000E+00	FAIL ABUN
PA-231	-1.252E+00	1.267E+00	2.120E+00	0.000E+00	NOT IDENT.
TH-231	3.341E-01	6.034E-01	9.701E-01	0.000E+00	FAIL ABUN
U-231	-8.361E-01	1.072E+00	1.641E+00	0.000E+00	FAIL ABUN
PA-233	-1.397E-02	5.035E-02	8.757E-02	0.000E+00	FAIL ABUN
PA-234	-2.415E-01	2.562E-01	3.827E-01	0.000E+00	FAIL ABUN
PA-234M	5.112E+00	4.981E+00	7.922E+00	0.000E+00	FAIL ABUN
U-235	4.837E-02	1.938E-01	3.376E-01	0.000E+00	FAIL ABUN
NP-236	-1.823E-02	6.953E-02	1.189E-01	0.000E+00	NOT IDENT.
NP-239	-6.735E-02	1.647E-01	2.863E-01	0.000E+00	FAIL ABUN
AM-241	1.948E-02	2.196E-01	3.649E-01	0.000E+00	NOT IDENT.
CM-243	3.260E-02	8.311E-02	1.505E-01	0.000E+00	FAIL ABUN
AM-246	-1.094E-02	1.130E-01	1.862E-01	0.000E+00	NOT IDENT.
CM-247	2.883E-02	3.619E-02	5.842E-02	0.000E+00	NOT IDENT.
CF-249	2.738E-02	3.356E-02	6.104E-02	0.000E+00	NOT IDENT.
CF-251	-1.030E-01	1.110E-01	1.821E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 15:05:24.49

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028549.CNF;1
Sample date       : 25-JAN-2010 12:00:00 Acquisition date : 9-FEB-2010 17:44:16.
Sample ID         : G1202028549          Sample quantity  : 1.48150E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.08  0.0%
Energy tolerance : 1.55000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	978	10.67*	1.108E+00	2.096E+01	2.096E+01	11.25
CD-109	88.03	300	3.72*	5.235E+00	3.905E+00	3.995E+00	28.18
SN-126	64.28	185	9.60	2.241E+00	2.180E+00	2.180E+00	48.83
	86.94	300	8.90	5.235E+00	1.632E+00	1.632E+00	49.30
	87.57	300	37.00*	5.235E+00	3.926E-01	3.926E-01	28.18
CS-135	268.24	137	16.00*	4.700E+00	4.609E-01	4.609E-01	39.49
BA-137M	661.65	236	89.98*	2.357E+00	2.814E-01	2.817E-01	19.09
CS-137	661.65	236	85.12*	2.357E+00	2.975E-01	2.978E-01	19.10
TL-208	277.35	------	6.80	4.610E+00	------ Line Not Found		------
	510.84	66	21.60	2.933E+00	2.650E-01	2.650E-01	95.72
	583.14	397	84.20*	2.630E+00	4.539E-01	4.539E-01	16.48
	860.37	54	12.46	1.842E+00	5.984E-01	5.984E-01	73.73
BI-211	72.87	------	1.27	3.633E+00	------ Line Not Found		------
	351.07	689	12.94*	3.890E+00	3.466E+00	3.466E+00	14.09
PB-212	74.81	332	10.70	3.856E+00	2.040E+00	2.040E+00	26.54
	77.11	475	18.00	4.148E+00	1.613E+00	1.613E+00	19.55
	87.30	300	8.00	5.235E+00	1.816E+00	1.816E+00	29.90
	238.63	1234	44.60*	5.119E+00	1.370E+00	1.370E+00	10.22
	300.09	78	3.41	4.364E+00	1.330E+00	1.330E+00	65.30
PO-212	74.81	332	10.70	3.856E+00	2.040E+00	2.040E+00	26.54
	77.11	475	18.00	4.148E+00	1.613E+00	1.613E+00	19.55
	87.30	300	8.00	5.235E+00	1.816E+00	1.816E+00	29.90
	115.19	------	0.60	6.657E+00	------ Line Not Found		------
	238.63	1234	44.60*	5.119E+00	1.370E+00	1.370E+00	10.22
	300.09	78	3.41	4.364E+00	1.330E+00	1.330E+00	65.30
BI-214	609.31	495	46.30*	2.533E+00	1.070E+00	1.070E+00	14.90
	1120.29	71	15.10	1.416E+00	8.400E-01	8.400E-01	61.36
	1764.49	101	15.80	9.768E-01	1.657E+00	1.657E+00	28.32
PB-214	74.81	332	6.21	3.856E+00	3.515E+00	3.515E+00	25.92
	77.11	475	10.50	4.148E+00	2.764E+00	2.764E+00	20.98
	87.30	300	4.67	5.235E+00	3.111E+00	3.111E+00	29.21
	241.98	325	7.49	5.076E+00	2.164E+00	2.164E+00	28.24

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	446	19.20	4.415E+00	1.333E+00	1.333E+00	15.63
	351.92	689	37.20*	3.890E+00	1.206E+00	1.206E+00	15.03
PO-214	74.81	332	6.21	3.856E+00	3.515E+00	3.515E+00	25.92
	77.11	475	10.50	4.148E+00	2.764E+00	2.764E+00	20.98
	87.30	300	4.67	5.235E+00	3.111E+00	3.111E+00	29.21
	241.98	325	7.49	5.076E+00	2.164E+00	2.164E+00	28.24
	295.21	446	19.20	4.415E+00	1.333E+00	1.333E+00	15.63
	351.92	689	37.20*	3.890E+00	1.206E+00	1.206E+00	15.03
PO-216	74.81	332	10.70	3.856E+00	2.040E+00	2.040E+00	26.54
	77.11	475	18.00	4.148E+00	1.613E+00	1.613E+00	19.55
	87.30	300	8.00	5.235E+00	1.816E+00	1.816E+00	29.90
	238.63	1234	44.60*	5.119E+00	1.370E+00	1.370E+00	10.22
	300.09	78	3.41	4.364E+00	1.330E+00	1.330E+00	65.30
PO-218	74.81	332	6.21	3.856E+00	3.515E+00	3.515E+00	25.92
	77.11	475	10.50	4.148E+00	2.764E+00	2.764E+00	20.98
	87.30	300	4.67	5.235E+00	3.111E+00	3.111E+00	29.21
	241.98	325	7.49	5.076E+00	2.164E+00	2.164E+00	28.24
	295.21	446	19.20	4.415E+00	1.333E+00	1.333E+00	15.63
	351.92	689	37.20*	3.890E+00	1.206E+00	1.206E+00	15.03
RA-224	240.98	325	3.95*	5.076E+00	4.103E+00	4.103E+00	27.67
RA-226	609.31	495	46.30*	2.533E+00	1.070E+00	1.070E+00	14.90
	1120.29	71	15.10	1.416E+00	8.400E-01	8.400E-01	61.36
	1764.49	101	15.80	9.768E-01	1.657E+00	1.657E+00	28.32
AC-228	338.32	213	11.40	4.004E+00	1.181E+00	1.181E+00	50.00
	911.07	266	27.70*	1.741E+00	1.399E+00	1.399E+00	20.94
	969.11	133	16.60	1.638E+00	1.242E+00	1.242E+00	36.09
RA-228	338.32	213	11.40	4.004E+00	1.181E+00	1.181E+00	50.00
	911.07	266	27.70*	1.741E+00	1.399E+00	1.399E+00	20.94
	969.11	133	16.60	1.638E+00	1.242E+00	1.242E+00	36.09
TH-228	74.81	332	10.70	3.856E+00	2.040E+00	2.071E+00	24.86
	77.11	475	18.00	4.148E+00	1.613E+00	1.637E+00	19.55
	87.30	300	8.00	5.235E+00	1.816E+00	1.844E+00	28.18
	238.63	1234	44.60*	5.119E+00	1.370E+00	1.391E+00	10.22
	300.09	78	3.41	4.364E+00	1.330E+00	1.350E+00	87.58
TH-230	609.31	495	46.30*	2.533E+00	1.070E+00	1.070E+00	14.90
	1120.29	71	15.10	1.416E+00	8.400E-01	8.400E-01	61.36
	1764.49	101	15.80	9.768E-01	1.657E+00	1.657E+00	28.32
TH-232	338.32	213	11.40	4.004E+00	1.181E+00	1.181E+00	29.52
	911.07	266	27.70*	1.741E+00	1.399E+00	1.399E+00	20.94
	969.11	133	16.60	1.638E+00	1.242E+00	1.242E+00	36.09
TH-234	63.29	185	3.80*	2.241E+00	5.506E+00	5.506E+00	49.78
	92.38	657	5.41	5.700E+00	5.399E+00	5.399E+00	23.10
U-234	609.31	495	46.30*	2.533E+00	1.070E+00	1.070E+00	14.90
	1120.29	71	15.10	1.416E+00	8.400E-01	8.400E-01	61.36
	1764.49	101	15.80	9.768E-01	1.657E+00	1.657E+00	28.32
NP-237	86.50	300	12.60*	5.235E+00	1.153E+00	1.153E+00	34.92
	95.87	------	2.60	5.933E+00	------ Line Not Found		------
U-238	63.29	185	3.80*	2.241E+00	5.506E+00	5.506E+00	49.78
	92.38	657	5.41	5.700E+00	5.399E+00	5.399E+00	16.76

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	332	66.00*	3.856E+00	3.308E-01	3.308E-01	24.84
	86.72	300	0.34	5.235E+00	4.324E+01	4.324E+01	28.18
	117.66	------	0.55	6.694E+00	------	Line Not Found	------
	142.18	------	0.13	6.676E+00	------	Line Not Found	------
ANH-511	511.00	66	100.00*	2.933E+00	5.725E-02	5.725E-02	95.36

Flag: "*" = Keyline

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

Total number of lines in spectrum 35
Number of unidentified lines 3
Number of lines tentatively identified by NID 32 91.43%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.096E+01	2.096E+01	0.236E+01	11.25	
CD-109	464.00D	1.02	3.905E+00	3.995E+00	1.126E+00	28.18	
SN-126	1.00E+05Y	1.00	3.926E-01	3.926E-01	1.106E-01	28.18	
CS-135	2.30E+06Y	1.00	4.609E-01	4.609E-01	1.820E-01	39.49	
BA-137M	30.17Y	1.00	2.814E-01	2.817E-01	0.538E-01	19.09	
CS-137	30.17Y	1.00	2.975E-01	2.978E-01	0.569E-01	19.10	
TL-208	1.41E+10Y	1.00	4.539E-01	4.539E-01	0.748E-01	16.48	
BI-211	7.04E+08Y	1.00	3.466E+00	3.466E+00	0.488E+00	14.09	
PB-212	1.41E+10Y	1.00	1.370E+00	1.370E+00	0.140E+00	10.22	
PO-212	1.41E+10Y	1.00	1.370E+00	1.370E+00	0.140E+00	10.22	
BI-214	1600.00Y	1.00	1.070E+00	1.070E+00	0.159E+00	14.90	
PB-214	1600.00Y	1.00	1.206E+00	1.206E+00	0.181E+00	15.03	
PO-214	1600.00Y	1.00	1.206E+00	1.206E+00	0.181E+00	15.03	
PO-216	1.41E+10Y	1.00	1.370E+00	1.370E+00	0.140E+00	10.22	
PO-218	1600.00Y	1.00	1.206E+00	1.206E+00	0.181E+00	15.03	
RA-224	1.41E+10Y	1.00	4.103E+00	4.103E+00	1.135E+00	27.67	
RA-226	1600.00Y	1.00	1.070E+00	1.070E+00	0.159E+00	14.90	
AC-228	1.41E+10Y	1.00	1.399E+00	1.399E+00	0.293E+00	20.94	
RA-228	1.41E+10Y	1.00	1.399E+00	1.399E+00	0.293E+00	20.94	
TH-228	1.91Y	1.02	1.370E+00	1.391E+00	0.142E+00	10.22	
TH-230	4.47E+09Y	1.00	1.070E+00	1.070E+00	0.159E+00	14.90	
TH-232	1.41E+10Y	1.00	1.399E+00	1.399E+00	0.293E+00	20.94	
TH-234	4.47E+09Y	1.00	5.506E+00	5.506E+00	2.741E+00	49.78	
U-234	4.47E+09Y	1.00	1.070E+00	1.070E+00	0.159E+00	14.90	
NP-237	2.14E+06Y	1.00	1.153E+00	1.153E+00	0.403E+00	34.92	
U-238	4.47E+09Y	1.00	5.506E+00	5.506E+00	2.741E+00	49.78	
AM-243	7380.00Y	1.00	3.308E-01	3.308E-01	0.821E-01	24.84	
ANH-511	1.00E+09Y	1.00	5.725E-02	5.725E-02	5.459E-02	95.36	
	Total Activity :		6.445E+01	6.456E+01			

Grand Total Activity : 6.445E+01 6.456E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	84.24	130	418	1.60	168.60	165	27	1.80E-02	57.6	4.99E+00	T
5	89.62	180	376	1.26	179.35	165	27	2.50E-02	41.3	5.48E+00	T
0	185.26	389	356	1.02	370.46	364	11	5.40E-02	22.0	5.99E+00	T
0	208.88	127	273	1.10	417.66	414	9	1.77E-02	49.9	5.58E+00	T
0	327.38	65	178	1.09	654.50	650	10	9.06E-03	80.3	4.10E+00	T
0	408.67	64	152	1.06	816.98	811	12	8.84E-03	81.6	3.48E+00	
0	462.64	64	114	1.05	924.84	920	9	8.89E-03	65.6	3.17E+00	T
0	726.74	122	61	1.96	1452.82	1446	15	1.69E-02	34.0	2.16E+00	T
0	794.02	33	83	1.57	1587.32	1581	12	4.59E-03	****	1.99E+00	
1	963.82	58	55	1.92	1926.86	1917	24	8.10E-03	58.9	1.64E+00	T
0	1000.70	27	43	1.88	2000.61	1996	10	3.73E-03	98.9	1.58E+00	T
0	1376.38	26	20	1.56	2752.03	2747	11	3.68E-03	75.2	1.16E+00	T
0	1587.11	49	12	1.46	3173.61	3168	14	6.85E-03	40.1	1.04E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 10-FEB-2010 15:05:32.93

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028549.CNF;1   *
* Acquisition date : 9-FEB-2010 17:44:16.  Detector SN#    :                  *
* Detector ID      : GAM10                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.55000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.08         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 25-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202028549           Analyst initials: MJH1             *
* Batch Number     : 947037                Sample Quantity : 1.48150E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08.8MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.096E+01	2.357E+00	4.775E-01	4.112E-02	43.894
CD-109	3.995E+00	1.126E+00	1.075E+00	1.219E-01	3.717
SN-126	3.926E-01	1.106E-01	1.064E-01	1.204E-02	3.690
CS-135	4.609E-01	1.820E-01	2.155E-01	1.742E-02	2.138
BA-137M	2.817E-01	5.378E-02	4.871E-02	2.403E-03	5.783
CS-137	2.978E-01	5.687E-02	5.149E-02	2.555E-03	5.783
TL-208	4.539E-01	7.479E-02	4.589E-02	3.084E-03	9.890
BI-211	3.466E+00	4.885E-01	2.604E-01	1.899E-02	13.310
PB-212	1.370E+00	1.400E-01	7.560E-02	5.735E-03	18.117
PO-212	1.370E+00	1.400E-01	7.560E-02	5.735E-03	18.117
BI-214	1.070E+00	1.594E-01	8.699E-02	6.620E-03	12.299
PB-214	1.206E+00	1.812E-01	9.078E-02	8.141E-03	13.282
PO-214	1.206E+00	1.812E-01	9.078E-02	8.141E-03	13.282
PO-216	1.370E+00	1.400E-01	7.560E-02	5.735E-03	18.117
PO-218	1.206E+00	1.812E-01	9.078E-02	8.141E-03	13.282
RA-224	4.103E+00	1.135E+00	8.602E-01	5.280E-02	4.770
RA-226	1.070E+00	1.594E-01	8.699E-02	6.620E-03	12.299
AC-228	1.399E+00	2.930E-01	1.701E-01	2.099E-02	8.226

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.399E+00	2.930E-01	1.701E-01	2.099E-02	8.226
TH-228	1.391E+00	1.421E-01	7.676E-02	5.823E-03	18.117
TH-230	1.070E+00	1.594E-01	8.699E-02	6.619E-03	12.299
TH-232	1.399E+00	2.930E-01	1.701E-01	2.099E-02	8.226
TH-234	5.506E+00	2.741E+00	2.479E+00	4.886E-01	2.221
U-234	1.070E+00	1.594E-01	8.699E-02	6.619E-03	12.299
NP-237	1.153E+00	4.027E-01	3.180E-01	7.474E-02	3.626
U-238	5.506E+00	2.741E+00	2.479E+00	4.886E-01	2.221
AM-243	3.308E-01	8.215E-02	9.367E-02	1.026E-02	3.531
ANH-511	5.725E-02	5.459E-02	3.899E-02	2.498E-03	1.468

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-5.328E-02		2.797E-01	4.452E-01	3.311E-02	-0.120
NA-22	-3.918E-02		4.080E-02	6.110E-02	4.733E-03	-0.641
NA-24	-7.539E-01		3.820E-01	Half-Life too short		
AL-26	1.634E-02		2.693E-02	4.869E-02	3.087E-03	0.336
TI-44	1.210E-01		4.279E-02	6.745E-02	7.381E-03	1.794
SC-46	-1.078E-02		3.404E-02	5.389E-02	5.333E-03	-0.200
V-48	-7.005E-03		6.020E-02	9.643E-02	8.917E-03	-0.073
CR-51	-2.842E-01		3.108E-01	4.862E-01	3.511E-02	-0.584
MN-52	4.276E-02		1.856E-01	3.169E-01	2.678E-02	0.135
MN-54	-1.852E-02		3.430E-02	5.376E-02	4.593E-03	-0.345
CO-56	2.475E-02		3.305E-02	5.783E-02	5.107E-03	0.428
CO-57	4.582E-03		2.278E-02	3.723E-02	2.456E-03	0.123
CO-58	-9.148E-03		3.171E-02	5.074E-02	4.059E-03	-0.180
FE-59	3.059E-02		7.576E-02	1.272E-01	1.062E-02	0.241
CO-60	-3.881E-03		2.992E-02	4.871E-02	4.233E-03	-0.080
ZN-65	-8.271E-03		1.008E-01	1.379E-01	1.004E-02	-0.060
GE-68	4.154E-01		1.025E+00	1.725E+00	1.367E-01	0.241
AS-73	1.103E+00		1.317E+00	2.263E+00	2.995E-01	0.488
AS-74	1.107E-02		7.538E-02	1.281E-01	7.319E-03	0.086
SE-75	3.070E-03		4.110E-02	6.058E-02	3.864E-03	0.051
BR-77	-5.884E+00		9.148E+00	1.389E+01	8.810E-01	-0.424
SR-82	-6.734E-02		3.237E-01	5.211E-01	3.757E-02	-0.129
RB-83	-3.964E-02		5.827E-02	8.812E-02	5.592E-03	-0.450
RB-84	2.820E-03		6.030E-02	9.910E-02	9.609E-03	0.028
KR-85	1.173E+00		6.548E+00	9.354E+00	5.975E-01	0.125
SR-85	6.022E-03		3.362E-02	4.802E-02	3.068E-03	0.125
RB-86	1.796E-01		6.435E-01	1.069E+00	8.483E-02	0.168
Y-88	1.476E-02		2.809E-02	5.038E-02	3.091E-03	0.293
ZR-88	-6.810E-03		2.637E-02	4.242E-02	2.883E-03	-0.161
Y-91	1.505E+01		1.668E+01	2.992E+01	1.987E+00	0.503
NB-94	3.148E-02		2.846E-02	5.109E-02	2.908E-03	0.616
NB-95	5.610E-02		3.921E-02	7.093E-02	4.950E-03	0.791
NB-95M	2.469E-01		1.228E-01	1.996E-01	1.548E-02	1.237

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	-1.946E-02		6.198E-02	9.985E-02	7.843E-03	-0.195
NB-97	1.243E-01		5.736E-02	Half-Life too short		
ZR-97	4.638E+00		1.034E+00	Half-Life too short		
MO-99	3.746E-01		1.021E+01	1.697E+01	2.385E+00	0.022
TC-99M	-4.239E+10		2.541E+10	Half-Life too short		
RH-101	2.122E-02		3.036E-02	4.890E-02	2.809E-03	0.434
RH-102	4.833E-03		2.488E-02	4.077E-02	2.689E-03	0.119
RU-103	2.464E-03		3.528E-02	5.711E-02	7.410E-03	0.043
RH-106	2.803E-01		2.565E-01	4.617E-01	5.337E-02	0.607
RU-106	2.803E-01		2.549E-01	4.617E-01	2.507E-02	0.607
AG-108M	1.715E-02		2.980E-02	5.019E-02	3.599E-03	0.342
AG-110M	2.392E-02		3.544E-02	5.495E-02	2.977E-03	0.435
IN-111	2.433E-02		9.549E-01	1.418E+00	8.754E-02	0.017
IN-113M	5.442E-04		3.765E-02	6.165E-02	4.396E-03	0.009
SN-113	5.442E-04		3.765E-02	6.165E-02	4.396E-03	0.009
IN-114M	-8.068E-03		1.622E-01	2.436E-01	1.382E-02	-0.033
CD-115	3.452E+00		9.844E+00	1.622E+01	1.021E+00	0.213
SN-117M	8.067E-03		4.774E-02	7.697E-02	4.317E-03	0.105
SB-122	1.101E+00		1.757E+00	2.950E+00	1.774E-01	0.373
I-123	1.214E+00		2.942E+00	Half-Life too short		
TE-123M	5.141E-03		2.492E-02	4.023E-02	2.285E-03	0.128
I-124	-1.650E-01		5.931E-01	8.413E-01	4.746E-02	-0.196
SB-124	5.225E-03		5.538E-02	9.197E-02	6.987E-03	0.057
SB-125	-2.745E-02		7.768E-02	1.232E-01	8.578E-03	-0.223
TE-125M	4.545E+00		8.312E+00	1.382E+01	1.327E+00	0.329
I-126	-1.219E-01		1.785E-01	2.392E-01	1.200E-02	-0.510
SB-126	7.284E-02		1.286E-01	1.981E-01	1.197E-02	0.368
SB-127	-1.518E-01		1.141E+00	1.880E+00	1.731E-01	-0.081
XE-127	-2.052E-02		4.027E-02	6.697E-02	3.878E-03	-0.306
I-131	-3.738E-02		9.967E-02	1.599E-01	1.176E-02	-0.234
TE-132	6.780E-02		5.742E-01	9.737E-01	1.410E-01	0.070
BA-133	-2.328E-02		4.051E-02	5.536E-02	6.679E-03	-0.420
I-133	2.812E-03		2.875E-03	Half-Life too short		
CS-134	2.841E-02		4.823E-02	7.336E-02	5.656E-03	0.387
I-135	4.071E+09		3.346E+09	Half-Life too short		
CS-136	-3.836E-02		9.208E-02	1.429E-01	1.251E-02	-0.268
CE-139	-5.996E-03		2.652E-02	4.189E-02	2.288E-03	-0.143
BA-140	5.958E-02		2.148E-01	3.508E-01	1.143E-01	0.170
LA-140	3.556E-02		8.071E-02	1.351E-01	1.048E-02	0.263
CE-141	-1.500E-02		5.591E-02	8.879E-02	5.434E-03	-0.169
CE-143	1.350E-03	+	1.728E-04	Half-Life too short		
CE-144	-9.352E-02		1.806E-01	2.841E-01	4.082E-02	-0.329
PM-144	3.281E-03		3.024E-02	5.073E-02	2.831E-03	0.065
PR-144	2.223E-01		2.049E+00	3.438E+00	1.917E-01	0.065
PM-146	-6.859E-03		3.685E-02	5.890E-02	5.440E-03	-0.116
ND-147	-9.441E-02		4.925E-01	7.771E-01	1.067E-01	-0.121
PM-149	5.391E+01		7.904E+01	1.357E+02	1.963E+01	0.397
EU-152	5.068E-02		8.931E-02	1.417E-01	1.044E-02	0.358

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	5.007E-02		7.876E-02	1.189E-01	1.107E-02	0.421
EU-154	-8.649E-02		1.120E-01	1.710E-01	1.822E-02	-0.506
EU-155	3.151E-02		9.638E-02	1.593E-01	1.321E-02	0.198
TB-160	1.130E-02		1.181E-01	1.951E-01	1.881E-02	0.058
HO-166M	2.780E-02		4.869E-02	8.464E-02	4.967E-03	0.328
TM-171	3.193E+00		3.453E+01	5.163E+01	5.882E+00	0.062
LU-176	-2.822E-03		2.079E-02	3.426E-02	2.254E-03	-0.082
LU-177	2.551E+00	+	1.283E+00	1.709E+00	9.984E-02	1.493
LU-177M	-2.197E-02		1.653E-01	2.329E-01	1.578E-02	-0.094
HF-181	1.114E-02		3.629E-02	5.991E-02	3.932E-03	0.186
W-181	-6.068E-03		4.595E-01	6.841E-01	7.905E-02	-0.009
TA-182	2.329E-01		1.792E-01	3.286E-01	2.266E-02	0.709
RE-183	5.698E-02		9.726E-02	1.594E-01	8.817E-03	0.357
RE-184	-2.654E-02		1.924E-01	3.208E-01	2.000E-02	-0.083
OS-185	-4.626E-04		3.526E-02	5.893E-02	3.027E-03	-0.008
RE-188	-1.223E-01		1.529E-01	2.360E-01	1.341E-02	-0.518
W-188	-1.248E+00		6.774E+00	9.787E+00	6.354E-01	-0.128
IR-192	3.152E-03		2.814E-02	4.694E-02	3.120E-03	0.067
AU-195	2.873E-01		2.052E-01	3.513E-01	3.188E-02	0.818
TL-200	-2.550E-05		2.085E-04	Half-Life too short		
TL-201	-2.851E-01		6.332E+00	1.008E+01	5.513E-01	-0.028
TL-202	5.687E-02		6.140E-02	1.056E-01	7.103E-03	0.538
HG-203	8.175E-04		3.464E-02	5.788E-02	3.906E-03	0.014
BI-207	-4.554E-04		4.564E-02	7.350E-02	5.983E-03	-0.006
TL-207	3.341E-01		6.157E-01	9.297E-01	1.565E-01	0.359
PO-209	-5.014E+00		6.484E+00	9.737E+00	9.821E-01	-0.515
BI-210	-1.354E+00		7.681E+00	1.282E+01	1.257E+00	-0.106
PB-210	-1.354E+00		7.681E+00	1.282E+01	1.257E+00	-0.106
PO-210	-1.354E+00		7.681E+00	1.282E+01	1.151E+00	-0.106
PB-211	2.089E-02		9.541E-01	1.366E+00	8.532E-01	0.015
BI-212	1.209E+00	+	4.218E-01	5.811E-01	4.648E-02	2.080
PO-215	3.341E-01		6.157E-01	9.297E-01	1.565E-01	0.359
RN-219	1.962E-01		3.712E-01	6.052E-01	8.507E-02	0.324
RN-220	-4.660E+00		2.257E+01	3.547E+01	2.175E+00	-0.131
RA-223	3.341E-01		6.157E-01	9.297E-01	1.565E-01	0.359
AC-227	2.786E-02		3.108E-01	5.234E-01	7.411E-02	0.053
TH-227	2.786E-02		3.108E-01	5.234E-01	8.932E-02	0.053
TH-229	-7.044E-02		4.380E-01	6.877E-01	3.922E-02	-0.102
PA-231	-1.252E+00		1.292E+00	2.025E+00	2.848E-01	-0.618
TH-231	3.341E-01		6.157E-01	9.297E-01	1.565E-01	0.359
U-231	-8.361E-01		1.094E+00	1.530E+00	1.467E-01	-0.546
PA-233	-1.397E-02		5.138E-02	8.385E-02	5.802E-03	-0.167
PA-234	-2.415E-01		2.614E-01	3.763E-01	7.250E-02	-0.642
PA-234M	5.112E+00	+	5.083E+00	7.799E+00	8.049E-01	0.655
U-235	4.837E-02		1.978E-01	3.175E-01	5.192E-02	0.152
NP-236	-1.823E-02		7.095E-02	1.121E-01	6.248E-03	-0.163
NP-239	-6.735E-02		1.681E-01	2.680E-01	1.875E-02	-0.251
AM-241	1.948E-02		2.241E-01	3.366E-01	4.323E-02	0.058

Sample ID : G1202028549 Acquisition date : 9-FEB-2010 17:44:16

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.260E-02		8.481E-02	1.406E-01	1.178E-02	0.232
AM-246	-1.094E-02		1.154E-01	1.837E-01	1.451E-02	-0.060
CM-247	2.883E-02		3.693E-02	5.627E-02	3.821E-03	0.512
CF-249	2.738E-02		3.425E-02	5.874E-02	3.991E-03	0.466
CF-251	-1.030E-01		1.132E-01	1.721E-01	9.543E-03	-0.598

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202028549          *
* Acquisition date  :  9-FEB-2010 17:44:16 Detector SN#    :               *
* Detector ID       : GAM10                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.550          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.08      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 25-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202028549          Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.4815E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.096E+01	2.310E+00	2.404E-01	1.179E+00
CD-109	3.995E+00	1.103E+00	5.780E-01	5.629E-01
SN-126	3.926E-01	1.084E-01	5.722E-02	5.532E-02
CS-135	4.609E-01	1.784E-01	1.130E-01	9.100E-02
BA-137M	2.817E-01	5.270E-02	2.501E-02	2.689E-02
CS-137	2.978E-01	5.573E-02	2.643E-02	2.844E-02
TL-208	4.539E-01	7.330E-02	2.363E-02	3.740E-02
BI-211	3.466E+00	4.787E-01	1.357E-01	2.442E-01
PB-212	1.370E+00	1.372E-01	3.975E-02	6.998E-02
PO-212	1.370E+00	1.372E-01	3.975E-02	6.998E-02
BI-214	1.070E+00	1.562E-01	4.474E-02	7.971E-02
PB-214	1.206E+00	1.776E-01	4.730E-02	9.060E-02
PO-214	1.206E+00	1.776E-01	4.730E-02	9.060E-02
PO-216	1.370E+00	1.372E-01	3.975E-02	6.998E-02
PO-218	1.206E+00	1.776E-01	4.730E-02	9.060E-02
RA-224	4.103E+00	1.113E+00	4.522E-01	5.677E-01
RA-226	1.070E+00	1.562E-01	4.474E-02	7.971E-02
AC-228	1.399E+00	2.872E-01	8.664E-02	1.465E-01
RA-228	1.399E+00	2.872E-01	8.664E-02	1.465E-01
TH-228	1.391E+00	1.393E-01	4.036E-02	7.105E-02
TH-230	1.070E+00	1.562E-01	4.474E-02	7.971E-02
TH-232	1.399E+00	2.872E-01	8.664E-02	1.465E-01
TH-234	5.506E+00	2.686E+00	1.342E+00	1.370E+00
U-234	1.070E+00	1.562E-01	4.474E-02	7.971E-02
NP-237	1.153E+00	3.946E-01	1.710E-01	2.013E-01
U-238	5.506E+00	2.686E+00	1.342E+00	1.370E+00
AM-243	3.308E-01	8.051E-02	5.054E-02	4.107E-02
ANH-511	5.725E-02	5.350E-02	2.014E-02	2.730E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-5.328E-02	2.741E-01	2.303E-01	1.398E-01	NOT IDENT.
NA-22	-3.918E-02	3.999E-02	3.087E-02	2.040E-02	NOT IDENT.
NA-24	-7.539E+05	7.487E+05	0.000E+00	3.820E+05	SHORT HLIF
AL-26	1.634E-02	2.639E-02	2.438E-02	1.346E-02	NOT IDENT.
TI-44	1.210E-01	4.194E-02	3.636E-02	2.140E-02	NOT IDENT.
SC-46	-1.078E-02	3.336E-02	2.747E-02	1.702E-02	FAIL ABUN
V-48	-7.005E-03	5.900E-02	4.902E-02	3.010E-02	NOT IDENT.
CR-51	-2.842E-01	3.046E-01	2.539E-01	1.554E-01	NOT IDENT.
MN-52	4.276E-02	1.819E-01	1.596E-01	9.281E-02	NOT IDENT.
MN-54	-1.852E-02	3.361E-02	2.744E-02	1.715E-02	NOT IDENT.
CO-56	2.475E-02	3.239E-02	2.951E-02	1.652E-02	NOT IDENT.
CO-57	4.582E-03	2.233E-02	1.987E-02	1.139E-02	NOT IDENT.
CO-58	-9.148E-03	3.108E-02	2.592E-02	1.586E-02	NOT IDENT.
FE-59	3.059E-02	7.424E-02	6.449E-02	3.788E-02	NOT IDENT.
CO-60	-3.881E-03	2.932E-02	2.458E-02	1.496E-02	NOT IDENT.
ZN-65	-8.271E-03	9.882E-02	6.989E-02	5.042E-02	NOT IDENT.
GE-68	4.154E-01	1.005E+00	8.752E-01	5.126E-01	NOT IDENT.
AS-73	1.103E+00	1.291E+00	1.230E+00	6.585E-01	NOT IDENT.
AS-74	1.107E-02	7.387E-02	6.593E-02	3.769E-02	NOT IDENT.
SE-75	3.070E-03	4.028E-02	3.178E-02	2.055E-02	NOT IDENT.
BR-77	-5.884E+00	8.965E+00	7.169E+00	4.574E+00	FAIL ABUN
SR-82	-6.734E-02	3.172E-01	2.665E-01	1.619E-01	NOT IDENT.
RB-83	-3.964E-02	5.710E-02	4.550E-02	2.913E-02	NOT IDENT.
RB-84	2.820E-03	5.909E-02	5.052E-02	3.015E-02	NOT IDENT.
KR-85	1.173E+00	6.417E+00	4.831E+00	3.274E+00	NOT IDENT.
SR-85	6.022E-03	3.294E-02	2.480E-02	1.681E-02	NOT IDENT.
RB-86	1.796E-01	6.306E-01	5.424E-01	3.217E-01	NOT IDENT.
Y-88	1.476E-02	2.753E-02	2.522E-02	1.405E-02	NOT IDENT.
ZR-88	-6.810E-03	2.585E-02	2.204E-02	1.319E-02	NOT IDENT.
Y-91	1.505E+01	1.635E+01	1.514E+01	8.342E+00	NOT IDENT.
NB-94	3.148E-02	2.789E-02	2.619E-02	1.423E-02	NOT IDENT.
NB-95	5.610E-02	3.842E-02	3.628E-02	1.960E-02	NOT IDENT.
NB-95M	2.469E-01	1.204E-01	1.050E-01	6.142E-02	NOT IDENT.
ZR-95	-1.946E-02	6.074E-02	5.109E-02	3.099E-02	NOT IDENT.
NB-97	1.243E+05	1.124E+05	0.000E+00	5.736E+04	SHORT HLIF
ZR-97	4.638E+06	2.027E+06	0.000E+00	1.034E+06	SHORT HLIF
MO-99	3.746E-01	1.000E+01	8.687E+00	5.104E+00	NOT IDENT.
TC-99M	-4.239E+16	4.981E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.122E-02	2.976E-02	2.582E-02	1.518E-02	NOT IDENT.
RH-102	4.833E-03	2.438E-02	2.110E-02	1.244E-02	NOT IDENT.
RU-103	2.464E-03	3.457E-02	2.952E-02	1.764E-02	NOT IDENT.
RH-106	2.803E-01	2.513E-01	2.374E-01	1.282E-01	NOT IDENT.
RU-106	2.803E-01	2.498E-01	2.374E-01	1.274E-01	NOT IDENT.
AG-108M	1.715E-02	2.920E-02	2.602E-02	1.490E-02	NOT IDENT.
AG-110M	2.392E-02	3.473E-02	2.821E-02	1.772E-02	NOT IDENT.
IN-111	2.433E-02	9.358E-01	7.449E-01	4.774E-01	NOT IDENT.
IN-113M	5.442E-04	3.689E-02	3.204E-02	1.882E-02	NOT IDENT.
SN-113	5.442E-04	3.689E-02	3.204E-02	1.882E-02	NOT IDENT.
IN-114M	-8.068E-03	1.590E-01	1.288E-01	8.112E-02	NOT IDENT.
CD-115	3.452E+00	9.647E+00	8.370E+00	4.922E+00	NOT IDENT.
SN-117M	8.067E-03	4.679E-02	4.085E-02	2.387E-02	NOT IDENT.
SB-122	1.101E+00	1.722E+00	1.520E+00	8.786E-01	NOT IDENT.
I-123	1.214E+06	5.767E+06	0.000E+00	2.942E+06	SHORT HLIF
TE-123M	5.141E-03	2.442E-02	2.135E-02	1.246E-02	NOT IDENT.
I-124	-1.650E-01	5.812E-01	4.328E-01	2.965E-01	FAIL ABUN
SB-124	5.225E-03	5.427E-02	4.613E-02	2.769E-02	FAIL ABUN
SB-125	-2.745E-02	7.613E-02	6.389E-02	3.884E-02	FAIL ABUN
TE-125M	4.545E+00	8.146E+00	7.395E+00	4.156E+00	NOT IDENT.
I-126	-1.219E-01	1.750E-01	1.228E-01	8.927E-02	NOT IDENT.
SB-126	7.284E-02	1.260E-01	1.015E-01	6.429E-02	NOT IDENT.
SB-127	-1.518E-01	1.118E+00	9.640E-01	5.703E-01	NOT IDENT.
XE-127	-2.052E-02	3.946E-02	3.534E-02	2.013E-02	NOT IDENT.
I-131	-3.738E-02	9.768E-02	8.325E-02	4.984E-02	NOT IDENT.
TE-132	6.780E-02	5.627E-01	5.125E-01	2.871E-01	NOT IDENT.
BA-133	-2.328E-02	3.970E-02	2.884E-02	2.025E-02	NOT IDENT.
I-133	2.812E+03	5.634E+03	0.000E+00	2.875E+03	SHORT HLIF
CS-134	2.841E-02	4.727E-02	3.749E-02	2.412E-02	NOT IDENT.
I-135	4.071E+15	6.558E+15	0.000E+00	3.346E+15	SHORT HLIF
CS-136	-3.836E-02	9.024E-02	7.254E-02	4.604E-02	FAIL ABUN
CE-139	-5.996E-03	2.599E-02	2.220E-02	1.326E-02	NOT IDENT.
BA-140	5.958E-02	2.105E-01	1.810E-01	1.074E-01	NOT IDENT.
LA-140	3.556E-02	7.909E-02	6.786E-02	4.035E-02	FAIL ABUN
CE-141	-1.500E-02	5.479E-02	4.721E-02	2.795E-02	NOT IDENT.
CE-143	1.350E+03	3.387E+02	0.000E+00	1.728E+02	SHORT HLIF
CE-144	-9.352E-02	1.770E-01	1.513E-01	9.032E-02	NOT IDENT.
PM-144	3.281E-03	2.964E-02	2.601E-02	1.512E-02	NOT IDENT.
PR-144	2.223E-01	2.008E+00	1.763E+00	1.025E+00	NOT IDENT.

PM-146	-6.859E-03	3.612E-02	3.051E-02	1.843E-02	NOT IDENT.
ND-147	-9.441E-02	4.827E-01	4.010E-01	2.463E-01	FAIL ABUN
PM-149	5.391E+01	7.746E+01	7.107E+01	3.952E+01	NOT IDENT.
EU-152	5.068E-02	8.752E-02	7.389E-02	4.465E-02	FAIL ABUN
GD-153	5.007E-02	7.719E-02	6.379E-02	3.938E-02	FAIL ABUN
EU-154	-8.649E-02	1.098E-01	8.641E-02	5.601E-02	NOT IDENT.
EU-155	3.151E-02	9.446E-02	8.529E-02	4.819E-02	FAIL ABUN
TB-160	1.130E-02	1.158E-01	9.946E-02	5.907E-02	FAIL ABUN
HO-166M	2.780E-02	4.772E-02	4.337E-02	2.435E-02	FAIL ABUN
TM-171	3.193E+00	3.384E+01	2.793E+01	1.727E+01	NOT IDENT.
LU-176	-2.822E-03	2.037E-02	1.791E-02	1.040E-02	FAIL ABUN
LU-177	2.551E+00	1.257E+00	9.011E-01	6.413E-01	FAIL ABUN
LU-177M	-2.197E-02	1.620E-01	1.209E-01	8.265E-02	FAIL ABUN
HF-181	1.114E-02	3.556E-02	3.099E-02	1.815E-02	NOT IDENT.
W-181	-6.068E-03	4.503E-01	3.702E-01	2.297E-01	NOT IDENT.
TA-182	2.329E-01	1.756E-01	1.662E-01	8.959E-02	FAIL ABUN
RE-183	5.698E-02	9.532E-02	8.455E-02	4.863E-02	FAIL ABUN
RE-184	-2.654E-02	1.886E-01	1.684E-01	9.621E-02	NOT IDENT.
OS-185	-4.626E-04	3.456E-02	3.027E-02	1.763E-02	NOT IDENT.
RE-188	-1.223E-01	1.499E-01	1.253E-01	7.647E-02	NOT IDENT.
W-188	-1.248E+00	6.638E+00	5.122E+00	3.387E+00	FAIL ABUN
IR-192	3.152E-03	2.758E-02	2.452E-02	1.407E-02	FAIL ABUN
AU-195	2.873E-01	2.011E-01	1.884E-01	1.026E-01	FAIL ABUN
TL-200	-2.550E+01	4.086E+02	0.000E+00	2.085E+02	SHORT HLIF
TL-201	-2.851E-01	6.205E+00	5.343E+00	3.166E+00	NOT IDENT.
TL-202	5.687E-02	6.017E-02	5.476E-02	3.070E-02	NOT IDENT.
HG-203	8.175E-04	3.394E-02	3.032E-02	1.732E-02	NOT IDENT.
BI-207	-4.554E-04	4.473E-02	3.729E-02	2.282E-02	FAIL ABUN
TL-207	3.341E-01	6.034E-01	4.853E-01	3.079E-01	FAIL ABUN
PO-209	-5.014E+00	6.354E+00	4.961E+00	3.242E+00	NOT IDENT.
BI-210	-1.354E+00	7.527E+00	6.988E+00	3.840E+00	NOT IDENT.
PB-210	-1.354E+00	7.527E+00	6.988E+00	3.840E+00	NOT IDENT.
PO-210	-1.354E+00	7.527E+00	6.988E+00	3.840E+00	NOT IDENT.
PB-211	2.089E-02	9.350E-01	7.097E-01	4.771E-01	NOT IDENT.
BI-212	1.209E+00	4.134E-01	2.976E-01	2.109E-01	FAIL ABUN
PO-215	3.341E-01	6.034E-01	4.853E-01	3.079E-01	FAIL ABUN
RN-219	1.962E-01	3.638E-01	3.144E-01	1.856E-01	FAIL ABUN
RN-220	-4.660E+00	2.212E+01	1.829E+01	1.128E+01	NOT IDENT.
RA-223	3.341E-01	6.034E-01	4.853E-01	3.079E-01	FAIL ABUN
AC-227	2.786E-02	3.046E-01	2.748E-01	1.554E-01	FAIL ABUN
TH-227	2.786E-02	3.046E-01	2.748E-01	1.554E-01	FAIL ABUN
TH-229	-7.044E-02	4.292E-01	3.633E-01	2.190E-01	FAIL ABUN
PA-231	-1.252E+00	1.267E+00	1.060E+00	6.462E-01	NOT IDENT.
TH-231	3.341E-01	6.034E-01	4.853E-01	3.079E-01	FAIL ABUN
U-231	-8.361E-01	1.072E+00	8.212E-01	5.469E-01	FAIL ABUN
PA-233	-1.397E-02	5.035E-02	4.381E-02	2.569E-02	FAIL ABUN
PA-234	-2.415E-01	2.562E-01	1.915E-01	1.307E-01	FAIL ABUN
PA-234M	5.112E+00	4.981E+00	3.963E+00	2.541E+00	FAIL ABUN
U-235	4.837E-02	1.938E-01	1.689E-01	9.888E-02	FAIL ABUN
NP-236	-1.823E-02	6.953E-02	5.948E-02	3.548E-02	NOT IDENT.
NP-239	-6.735E-02	1.647E-01	1.432E-01	8.404E-02	FAIL ABUN
AM-241	1.948E-02	2.196E-01	1.825E-01	1.120E-01	NOT IDENT.
CM-243	3.260E-02	8.311E-02	7.531E-02	4.240E-02	FAIL ABUN
AM-246	-1.094E-02	1.130E-01	9.317E-02	5.768E-02	NOT IDENT.
CM-247	2.883E-02	3.619E-02	2.923E-02	1.847E-02	NOT IDENT.
CF-249	2.738E-02	3.356E-02	3.054E-02	1.712E-02	NOT IDENT.
CF-251	-1.030E-01	1.110E-01	9.110E-02	5.662E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	295.0508
46.50	295.0508
46.50	295.0508
48.70	285.7936
49.72	293.0212
51.35	297.9755
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52.97	254.6131
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53.44	259.5680
54.07	287.9351
56.28	322.3058
56.28	322.3084
57.37	0.0000
57.53	284.7568
57.53	284.7579
57.60	289.5043
57.98	287.8875
57.98	287.8875
59.32	318.5374
59.32	318.5374
59.40	318.5975
59.54	318.7031
59.72	314.5875
60.01	314.8018
61.10	334.0851
61.14	334.1155
61.30	334.2392
63.00	331.2623
63.29	331.4804
63.29	331.4804
63.58	331.6981
64.28	335.0860
65.12	351.4978
65.20	351.5599
65.20	351.5599
66.05	376.6630
66.72	351.3010
66.83	345.6262
66.91	345.6866
67.20	343.0238
67.20	343.0238
67.75	390.1874
67.85	390.2720
68.90	388.8425
68.90	388.8425
69.30	361.9576
69.67	378.1844
70.82	403.7970
70.82	403.7970
70.83	403.8055
72.80	418.5993
72.87	418.6606
72.87	418.6606
74.67	412.8902
74.81	413.0085
74.81	413.0085
74.81	413.0085
74.81	413.0085
74.81	413.0085
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74.81	413.0085
74.97	413.1419
75.28	413.4022
75.70	413.7529
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77.11	414.9255

77.11	414.9255
77.11	414.9255
77.11	414.9255
77.11	414.9255
77.11	414.9255
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79.62	362.7685
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79.80	355.0067
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80.18	355.2704
80.30	355.3528
80.30	355.3528
80.57	355.5396
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81.07	349.9524
81.07	349.9524
81.07	349.9524
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83.78	312.0212
83.78	312.0212
84.21	312.2735
84.90	312.6792
85.43	312.9890
86.29	313.4889
86.50	313.6119
86.54	313.6342
86.59	313.6630
86.72	313.7397
86.79	313.7780
86.94	313.8658
87.30	314.0750
87.30	314.0750
87.30	314.0750
87.30	314.0750
87.30	314.0750
87.30	314.0750
87.30	314.0750
87.57	314.2300
87.88	314.4088
88.03	314.4951
88.36	314.6852
88.47	314.7474
89.95	315.5939
91.11	316.2519
92.29	316.9163
92.38	316.9674
92.38	316.9674
93.35	317.5104
94.00	317.8729
94.67	285.8096
94.67	285.8124
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94.90	296.5734
94.90	296.5734
94.90	296.5734
95.87	344.2986
95.87	344.2986
96.73	305.1422
97.43	296.3417
98.44	287.6713
98.44	287.6713
98.88	279.7195
99.55	290.2561
99.55	290.2561
99.86	291.4304
100.00	291.4999
100.10	291.5507
103.18	288.9308
103.76	283.0315
105.00	280.5110
105.31	300.2581
108.00	334.7218
109.28	298.0211

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111.00	343.6006
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115.19	323.8286
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117.00	304.7531
117.00	304.7531
117.66	302.9531
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121.78	285.7668
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122.32	281.7550
122.32	281.7550
122.32	281.7550
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136.25	316.5255
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140.51	0.0000
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144.24	307.9125
144.24	307.9125
144.24	307.9125
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145.44	319.3334
147.16	310.1819
152.43	265.9326
152.70	258.2964
153.22	255.1518
154.21	293.0678
154.21	293.0678
154.21	293.0678
154.21	293.0678
155.03	322.1532
156.02	318.1162
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162.64	284.9451
163.35	293.0176
163.89	290.9686
165.85	291.6510
167.43	278.7124
171.28	268.6845
171.86	272.2552
172.10	264.4211
176.55	288.4914
176.60	296.4579
181.06	261.9952
184.41	246.3585
185.71	258.1856
186.00	258.2680
190.27	247.7092
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193.63	252.3086
197.04	288.0694
198.01	255.8051
198.60	267.5987
200.40	264.6047
201.83	307.3178
202.84	293.6157
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208.36	276.4146
208.81	254.8484
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209.75	217.4893
210.97	240.3802
215.65	236.1757
216.55	230.1660
218.09	254.5442
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223.80	237.1660
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227.20	208.3101
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228.18	215.6927
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236.00	236.1132
236.00	236.1132
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238.63	214.1793
238.63	214.1793
238.63	214.1793
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241.98	214.8365
241.98	214.8365
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249.79	188.8501
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252.85	193.0394
252.85	193.0394
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256.20	182.5433
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262.80	182.6615
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268.79	181.9188
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269.46	169.7113
269.46	169.7113
269.46	169.7113
271.23	173.3260
273.65	254.5269
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277.60	177.4384
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279.53	214.3936
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284.30	170.8613
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285.90	155.0137
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286.10	166.3831
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290.80	173.0818
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293.26	0.0000
293.70	164.3520
295.21	174.2599
295.21	174.2599

295.21	174.2599
295.96	174.3632
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297.23	174.5364
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299.80	174.8882
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300.09	182.0009
300.09	182.0009
300.09	182.0009
300.12	182.0038
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304.84	166.2980
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323.87	138.5888
323.87	138.5888
323.87	138.5888
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334.20	145.9119
334.30	145.9210
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338.28	157.3511
338.28	157.3511
338.28	157.3511
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338.32	157.3560
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340.57	160.7596
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351.92	124.1150
351.92	124.1150
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367.43	134.4641
367.94	0.0000
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374.96	130.0964
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388.63	117.0145
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391.69	123.3614
392.90	130.5977
398.62	133.1203
400.65	133.2909
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401.81	120.7822
402.60	119.9029
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413.65	114.1111
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415.30	107.6055

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427.08	110.4576
427.89	114.6829
432.53	86.7728
433.93	115.0941
439.47	111.2712
439.56	100.7798
439.89	91.3489
443.98	118.9331
444.90	115.8360
445.03	115.8461
445.03	115.8461
445.03	115.8461
445.03	115.8461
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473.00	101.6478
475.06	96.4078
475.35	102.8511
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507.63	0.0000
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511.00	93.9175
511.85	101.3874
511.85	101.3874
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513.99	94.5007
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520.65	95.4855
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529.87	0.0000
531.02	92.6825
537.32	76.3742
543.00	86.5812
546.56	0.0000
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555.20	75.9376
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563.90	72.8969
568.70	94.4231
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569.50	79.8403
569.67	79.8468
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574.00	92.1572
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579.30	0.0000
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592.07	80.0164
593.00	83.6895
595.88	81.9800
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602.52	0.0000
602.71	80.7141
602.71	80.7141
603.60	91.4136
604.41	79.2547
604.70	79.2653
609.31	74.8498

609.31	74.8498
609.31	74.8498
609.31	74.8498
610.33	90.1661
612.46	85.6634
614.37	59.7108
618.01	92.9343
621.84	59.9124
621.84	59.9124
631.29	74.0488
633.02	77.8107
633.10	77.8148
634.78	88.0698
635.90	86.2589
636.97	88.1556
645.85	77.3201
646.12	74.5332
656.30	73.3036
657.75	79.5920
657.90	0.0000
661.65	76.5984
661.65	76.5984
664.57	0.0000
666.33	90.8468
666.33	90.8468
675.00	69.8014
677.61	74.5987
685.20	71.9940
692.80	86.4744
695.00	79.8964
696.49	84.7021
696.49	84.7021
697.00	92.3371
697.49	92.3537
698.33	89.5295
698.50	93.3464
699.00	96.2237
702.63	65.8347
706.10	80.2594
706.58	0.0000
706.67	87.9233
709.31	75.5804
711.68	60.3299
713.82	64.2160
717.42	66.2289
720.50	56.0597
721.93	0.0000
722.20	64.1113
722.78	65.7291
722.78	65.7291
722.89	65.7325
722.95	65.7341
723.30	65.7441
724.18	65.7658
727.18	56.8509
733.00	67.6057
735.90	58.0151
739.58	68.7500
742.81	70.7758
744.21	65.9647
747.13	67.9817
751.79	70.0506
752.31	59.3603
753.82	48.6841
755.35	75.0167
756.15	76.0157
756.87	79.9360
763.93	113.3860
765.79	71.4049
766.42	73.3795
766.84	71.4334
776.49	64.8205
778.00	62.8922
778.57	66.8379
778.89	63.8955
783.80	76.8174
785.46	71.9378
792.07	95.4937

795.84	70.8968
796.30	77.5033
798.80	62.7210
801.93	62.4632
805.60	61.5535
810.29	65.6375
810.76	57.6913
815.85	51.8185
817.79	60.8302
818.51	62.8416
819.60	62.8662
826.30	67.0180
828.27	0.0000
831.60	70.1521
831.96	73.1675
834.83	83.2756
836.80	0.0000
846.75	48.3633
848.13	54.4351
856.28	0.0000
856.80	57.2961
860.37	47.5818
867.32	52.4323
867.82	47.8495
871.10	48.7746
873.19	47.7929
874.81	48.8367
875.33	0.0000
876.40	52.9356
879.36	51.9699
880.27	53.0055
880.51	53.0093
881.50	54.0468
883.24	45.9163
884.67	56.1467
889.25	58.2789
896.60	63.5485
898.02	62.5533
899.00	52.3161
903.28	48.7953
911.07	48.4068
911.07	48.4068
911.07	48.4068
919.63	53.9383
920.93	49.5984
925.00	51.7346
925.24	48.6340
926.50	43.4776
935.52	46.7205
937.48	75.8391
944.10	54.1392
946.00	60.4228
949.00	42.7537
962.29	48.1708
964.01	48.1978
966.15	48.2304
968.20	54.2071
969.11	57.7205
969.11	57.7205
969.11	57.7205
977.42	46.2978
980.50	58.9805
983.50	48.4943
989.30	53.8625
996.32	58.2133
1001.03	47.6982
1001.68	53.0078
1004.76	49.5207
1021.30	0.0000
1024.50	0.0000
1034.80	54.6133
1036.00	50.3483
1037.82	53.5913
1038.57	61.1080
1038.76	0.0000
1045.16	47.2635
1046.59	49.4343
1048.07	47.3043

1050.47	44.1110
1050.47	44.1110
1062.04	48.5793
1063.62	48.6013
1076.63	39.0287
1077.35	39.0375
1078.86	42.3097
1085.78	44.5675
1099.22	40.3748
1112.02	40.1561
1112.84	54.7705
1115.52	67.6015
1120.29	55.9830
1120.29	55.9830
1120.29	55.9830
1120.29	55.9830
1120.51	53.0605
1121.28	47.5820
1124.00	0.0000
1129.67	52.2790
1131.51	0.0000
1147.95	0.0000
1167.94	57.4666
1173.22	53.8369
1175.09	54.7915
1177.93	59.4818
1189.05	48.4728
1204.90	50.5503
1205.75	0.0000
1213.00	60.9772
1221.42	50.7700
1230.97	86.7104
1235.34	67.9395
1236.41	0.0000
1238.25	64.2121
1246.25	55.8287
1260.41	0.0000
1271.85	45.7168
1274.45	56.2320
1274.54	60.0443
1291.56	39.2450
1298.22	0.0000
1312.09	31.7485
1325.50	35.7143
1325.50	35.7143
1332.49	26.1057
1333.61	29.0149
1360.21	25.3081
1362.66	0.0000
1365.15	30.2104
1368.21	33.9391
1368.53	0.0000
1376.25	28.3357
1384.27	25.8446
1394.10	29.4373
1395.20	21.5927
1407.95	27.5636
1434.06	17.8264
1436.60	18.8276
1457.56	0.0000
1460.81	22.9176
1489.15	20.0545
1509.49	17.1231
1596.49	18.4724
1620.62	15.4712
1678.03	0.0000
1691.02	9.4164
1691.02	9.4164
1706.46	0.0000
1750.46	0.0000
1764.49	7.2785
1764.49	7.2785
1764.49	7.2785
1764.49	7.2785
1770.23	10.9298
1771.40	14.8801
1791.20	0.0000
1808.65	9.6339

1836.01	8.6074

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202028549

Total Uranium Activity	1.6403E+01	ug/g
Total Uranium Counting Unc.	7.9912E+00	ug/g
Total Uranium Tpu	4.0771E-06	ug/g
Total Uranium Mda	3.9941E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G1202028549      *
*   ANALYST       : MJH1                      DETECTOR   : GAM10            *
*   SAMPLE DATE   : 25-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 17:44:16.82    SAMPLE ALQT:  148.150 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.372E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.196E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.076E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.490E+00
```

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 18:46:17.24

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028550.CNF;1
Sample date       : 1-FEB-2010 00:00:00. Acquisition date : 9-FEB-2010 17:44:57.
Sample ID         : G1202028550          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.50  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.51	3014	1111	1.25	118.89	112	14	8.37E-01	3.0	
2	2	74.86	225	307	1.54	149.56	146	15	6.24E-02	14.4	2.52E+00
3	2	77.12	276	427	1.62	154.07	146	15	7.66E-02	16.1	
4	0	88.09	1459	602	1.40	176.00	170	12	4.05E-01	4.3	
5	0	92.78*	99	275	1.36	185.38	182	9	2.75E-02	33.5	
6	0	122.22	284	357	1.24	244.21	238	13	7.90E-02	14.9	
7	0	185.73*	78	252	1.28	371.13	367	9	2.17E-02	39.2	
8	0	208.95	106	238	1.53	417.54	413	9	2.94E-02	28.0	
9	0	238.40*	425	391	1.22	476.39	469	12	1.18E-01	10.6	
10	0	338.37	81	162	1.56	676.21	672	9	2.24E-02	30.7	
11	0	351.73*	221	195	1.42	702.92	697	12	6.14E-02	14.4	
12	0	510.79*	56	213	1.84	1020.88	1012	17	1.56E-02	63.8	
13	0	583.64*	150	160	2.14	1166.52	1161	18	4.17E-02	22.0	
14	0	609.51*	127	111	1.67	1218.25	1211	11	3.52E-02	18.6	
15	0	661.74	2243	145	1.59	1322.68	1316	16	6.23E-01	2.4	
16	0	912.01	99	124	1.43	1823.15	1817	13	2.75E-02	25.5	
17	0	969.47*	60	82	1.32	1938.06	1934	10	1.66E-02	31.5	
18	0	1173.66	1859	86	1.84	2346.49	2339	15	5.16E-01	2.6	
19	0	1332.93	1741	5	1.94	2665.10	2654	22	4.83E-01	2.4	
20	0	1765.18*	35	3	1.91	3530.08	3523	14	9.77E-03	21.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-FEB-2010 18:46:19

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028550.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MJH1
Sample date : 1-FEB-2010 00:00:00 Acquisition date : 9-FEB-2010 17:44:57
Sample ID : G1202028550 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.50 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.394E-01	7.288E-02	6.324E-02	3.774E-03	3.785
		136.48		1.302E-01	3.292E-01	5.436E-01	3.588E-02	0.239
CO-60	+	1173.22		6.444E+00	4.837E-01	1.151E-01	6.307E-03	55.986
	+	1332.49	*	6.714E+00	5.920E-01	7.896E-02	5.819E-03	85.029
CD-109	+	88.03	*	3.123E+01	3.864E+00	2.178E+00	1.951E-01	14.333
SN-126		64.28		-5.334E-01	8.826E-01	1.238E+00	1.807E-01	-0.431
	+	86.94		1.288E+01	5.449E+00	9.081E-01	3.760E-01	14.186
	+	87.57	*	3.099E+00	3.835E-01	2.171E-01	1.937E-02	14.272
BA-137M	+	661.65	*	5.234E+00	3.968E-01	1.098E-01	6.392E-03	47.685
CS-137	+	661.65	*	5.533E+00	4.205E-01	1.160E-01	6.785E-03	47.685
TL-208		277.35		3.162E-01	6.543E-01	1.124E+00	1.186E-01	0.281
	+	510.84		4.407E-01	5.641E-01	4.135E-01	4.222E-02	1.066
	+	583.14	*	3.375E-01	1.501E-01	1.051E-01	7.145E-03	3.212
		860.37		9.942E-01	6.197E-01	1.103E+00	9.877E-02	0.901
BI-211		72.87		3.863E+00	5.274E+00	7.853E+00	6.153E-01	0.492
	+	351.07	*	2.176E+00	6.419E-01	6.041E-01	3.857E-02	3.602
PB-212	+	74.81		1.998E+00	6.245E-01	8.373E-01	1.027E-01	2.386
	+	77.11		1.396E+00	4.638E-01	4.914E-01	3.970E-02	2.841
	+	87.30		1.433E+01	2.280E+00	1.007E+00	1.347E-01	14.236
	+	238.63	*	9.169E-01	2.057E-01	1.977E-01	1.427E-02	4.637
		300.09		2.695E-02	1.441E+00	2.423E+00	2.001E-01	0.011
PO-212	+	74.81		1.998E+00	6.245E-01	8.373E-01	1.027E-01	2.386
	+	77.11		1.396E+00	4.638E-01	4.914E-01	3.970E-02	2.841
	+	87.30		1.433E+01	2.280E+00	1.007E+00	1.347E-01	14.236
		115.19		-1.684E+00	5.703E+00	8.842E+00	5.630E-01	-0.190
	+	238.63	*	9.169E-01	2.057E-01	1.977E-01	1.427E-02	4.637
		300.09		2.695E-02	1.441E+00	2.423E+00	2.001E-01	0.011
BI-214	+	609.31	*	5.371E-01	2.044E-01	2.121E-01	1.668E-02	2.532
		1120.29		3.632E-01	5.566E-01	9.722E-01	8.894E-02	0.374
	+	1764.49		1.045E+00	4.477E-01	3.132E-01	1.898E-02	3.336
PO-216	+	74.81		1.998E+00	6.245E-01	8.373E-01	1.027E-01	2.386
	+	77.11		1.396E+00	4.638E-01	4.914E-01	3.970E-02	2.841
	+	87.30		1.433E+01	2.280E+00	1.007E+00	1.347E-01	14.236
	+	238.63	*	9.169E-01	2.057E-01	1.977E-01	1.427E-02	4.637

Sample ID : G1202028550 Acquisition date : 9-FEB-2010 17:44:57

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		300.09		2.695E-02	1.441E+00	2.423E+00	2.001E-01	0.011
RA-226	+	609.31	*	5.371E-01	2.044E-01	2.121E-01	1.668E-02	2.532
		1120.29		3.632E-01	5.566E-01	9.722E-01	8.894E-02	0.374
	+	1764.49		1.045E+00	4.477E-01	3.132E-01	1.898E-02	3.336
AC-228	+	338.32		8.761E-01	6.456E-01	6.743E-01	2.749E-01	1.299
	+	911.07	*	9.877E-01	5.159E-01	5.252E-01	5.941E-02	1.881
	+	969.11		1.050E+00	7.045E-01	8.892E-01	2.061E-01	1.181
RA-228	+	338.32		8.761E-01	6.456E-01	6.743E-01	2.749E-01	1.299
	+	911.07	*	9.877E-01	5.159E-01	5.252E-01	5.941E-02	1.881
	+	969.11		1.050E+00	7.045E-01	8.892E-01	2.061E-01	1.181
TH-228	+	74.81		2.015E+00	6.015E-01	8.446E-01	6.772E-02	2.386
	+	77.11		1.408E+00	4.679E-01	4.957E-01	4.004E-02	2.841
	+	87.30		1.446E+01	1.789E+00	1.015E+00	9.032E-02	14.236
	+	238.63	*	9.249E-01	2.075E-01	1.995E-01	1.440E-02	4.637
		300.09		2.718E-02	1.454E+00	2.444E+00	1.441E+00	0.011
TH-230	+	609.31	*	5.371E-01	2.044E-01	2.121E-01	1.668E-02	2.532
		1120.29		3.632E-01	5.566E-01	9.722E-01	8.894E-02	0.374
	+	1764.49		1.045E+00	4.477E-01	3.132E-01	1.898E-02	3.336
TH-232	+	338.32		8.761E-01	5.402E-01	6.743E-01	3.898E-02	1.299
	+	911.07	*	9.877E-01	5.159E-01	5.252E-01	5.941E-02	1.881
	+	969.11		1.050E+00	7.045E-01	8.892E-01	2.061E-01	1.181
U-234	+	609.31	*	5.371E-01	2.044E-01	2.121E-01	1.668E-02	2.532
		1120.29		3.632E-01	5.566E-01	9.722E-01	8.894E-02	0.374
	+	1764.49		1.045E+00	4.477E-01	3.132E-01	1.898E-02	3.336
AM-241	+	59.54	*	1.322E+01	1.344E+00	4.946E-01	4.072E-02	26.722
AM-243	+	74.67	*	3.239E-01	9.661E-02	1.361E-01	1.080E-02	2.379
	+	86.72		3.412E+02	4.223E+01	2.398E+01	2.120E+00	14.228
		117.66		2.897E+00	6.601E+00	9.667E+00	6.006E-01	0.300
		142.18		5.712E+00	2.800E+01	4.581E+01	2.550E+00	0.125
ANH-511	+	511.00	*	9.520E-02	1.216E-01	8.934E-02	5.272E-03	1.066

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.295E-01	6.151E-01	1.006E+00	6.830E-02	-0.129
NA-22		1274.54	*	1.469E-02	4.924E-02	8.521E-02	5.684E-03	0.172
NA-24		1368.53	*	4.147E-04	4.924E-02	Half-Life too short		
AL-26		1129.67		-1.063E+00	2.899E+00	4.685E+00	2.890E-01	-0.227
		1808.65	*	-1.707E-02	4.219E-02	6.190E-02	3.614E-03	-0.276
K-40		1460.81	*	5.971E-01	5.680E-01	1.085E+00	8.078E-02	0.551
TI-44		67.85		2.965E-02	7.011E-02	1.170E-01	8.935E-03	0.253
	+	78.38	*	2.576E-01	8.557E-02	1.066E-01	8.702E-03	2.416
SC-46		889.25	*	-7.034E-02	8.778E-02	1.329E-01	1.155E-02	-0.529
		1120.51		6.864E-02	9.008E-02	1.586E-01	1.000E-02	0.433
V-48		944.10		2.971E-01	1.712E+00	2.787E+00	2.348E-01	0.107
		983.50	*	9.007E-02	1.275E-01	2.149E-01	1.728E-02	0.419
		1312.09		4.499E-02	7.562E-02	1.357E-01	9.657E-03	0.332
CR-51		320.08	*	-5.383E-01	5.631E-01	8.970E-01	5.805E-02	-0.600

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MN-52		744.21		6.897E-03	2.072E-01	3.379E-01	2.297E-02	0.020
		848.13		-2.207E+00	6.413E+00	1.009E+01	8.202E-01	-0.219
		935.52		2.835E-01	2.975E-01	5.061E-01	4.303E-02	0.560
		1246.25		3.994E+00	3.244E+00	6.301E+00	3.983E-01	0.634
	+	1333.61		3.911E+02	3.449E+01	4.328E+01	3.189E+00	9.036
		1434.06	*	9.644E-03	1.281E-01	2.144E-01	1.546E-02	0.045
MN-54		834.83	*	7.404E-03	7.795E-02	1.270E-01	1.010E-02	0.058
CO-56		846.75	*	-7.267E-03	7.667E-02	1.231E-01	9.984E-03	-0.059
		977.42		-6.314E-01	6.738E+00	1.044E+01	8.460E-01	-0.060
		1037.82		-2.432E-01	6.183E-01	1.007E+00	8.008E-02	-0.242
	+	1175.09		3.043E+02	2.284E+01	3.277E+01	1.803E+00	9.287
		1238.25		9.419E-02	9.128E-02	1.695E-01	1.113E-02	0.556
		1360.21		3.212E-01	9.335E-01	1.650E+00	1.211E-01	0.195
		1771.40		-2.089E-01	3.137E-01	3.125E-01	1.883E-02	-0.668
CO-58		810.76	*	-4.955E-02	7.791E-02	1.200E-01	9.193E-03	-0.413
FE-59		142.65		6.331E-01	3.906E+00	6.379E+00	3.546E-01	0.099
		192.34		-9.706E-01	1.420E+00	2.203E+00	2.559E-01	-0.441
		1099.22	*	-3.282E-02	1.689E-01	2.784E-01	2.089E-02	-0.118
		1291.56		-2.024E-02	1.280E-01	2.073E-01	1.716E-02	-0.098
ZN-65		1115.52	*	-1.288E-02	1.742E-01	2.896E-01	1.852E-02	-0.044
GE-68		1077.35	*	-4.662E-01	2.507E+00	4.138E+00	2.863E-01	-0.113
AS-73		53.44	*	4.475E-01	2.036E+00	2.977E+00	2.202E-01	0.150
AS-74		595.88	*	1.596E-02	1.302E-01	2.156E-01	1.277E-02	0.074
		634.78		1.034E-01	5.163E-01	8.575E-01	5.040E-02	0.121
SE-75		66.05		-2.753E+00	7.677E+00	1.152E+01	1.106E+00	-0.239
		96.73		-5.525E-01	1.196E+00	1.659E+00	2.183E-01	-0.333
	+	121.11		1.261E+00	3.944E-01	4.526E-01	4.239E-02	2.786
		136.00		2.978E-03	6.128E-02	9.971E-02	5.742E-03	0.030
		198.60		2.365E+00	2.888E+00	4.798E+00	3.275E-01	0.493
		264.65	*	-9.221E-02	7.468E-02	1.186E-01	6.895E-03	-0.778
		279.53		-4.783E-02	1.879E-01	3.128E-01	1.959E-02	-0.153
		303.91		-2.924E+00	3.566E+00	5.737E+00	5.479E-01	-0.510
		400.65		2.580E-01	4.427E-01	7.599E-01	6.823E-02	0.339
BR-77	+	87.88		1.054E+03	1.304E+02	1.455E+02	1.302E+01	7.242
		200.40		7.788E+00	4.317E+01	6.998E+01	3.807E+00	0.111
	+	239.00		2.278E+01	5.009E+00	6.846E+00	3.873E-01	3.328
		249.79		-1.193E+00	1.863E+01	2.966E+01	1.692E+00	-0.040
		281.68		-4.121E+00	2.508E+01	4.176E+01	2.420E+00	-0.099
		297.23		1.713E+01	1.566E+01	2.741E+01	1.594E+00	0.625
		303.76		-5.110E+01	4.971E+01	7.932E+01	4.613E+00	-0.644
		439.47		6.237E+00	4.311E+01	7.214E+01	4.142E+00	0.086
		484.57		3.202E+01	7.155E+01	1.213E+02	7.106E+00	0.264
		520.65	*	-1.134E+00	3.128E+00	5.042E+00	2.981E-01	-0.225
		574.64		-3.063E+01	5.760E+01	9.103E+01	5.402E+00	-0.336
		578.91		5.143E+00	2.659E+01	3.858E+01	2.289E+00	0.133
		585.48		1.365E+02	5.364E+01	9.943E+01	5.897E+00	1.373
		755.35		8.631E+00	4.832E+01	7.962E+01	5.523E+00	0.108
		817.79		-1.265E+01	4.517E+01	7.163E+01	5.538E+00	-0.177
SR-82		698.33		-6.716E+00	5.052E+01	8.156E+01	5.095E+00	-0.082

---- Non-Identified Nuclides ----

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		776.49	*	-4.542E-01	6.075E-01	9.250E-01	6.660E-02	-0.491
		1395.20		8.799E+00	9.456E+00	1.836E+01	1.337E+00	0.479
RB-83		520.41	*	-2.668E-02	1.256E-01	2.045E-01	1.209E-02	-0.130
		529.64		3.077E-04	2.017E-01	3.327E-01	1.970E-02	0.001
		552.65		-1.081E-01	3.630E-01	5.858E-01	3.476E-02	-0.185
RB-84		881.50	*	4.094E-02	1.374E-01	2.266E-01	1.945E-02	0.181
KR-85		513.99	*	1.226E+01	1.524E+01	2.322E+01	1.371E+00	0.528
SR-85		513.99	*	5.877E-02	7.305E-02	1.113E-01	6.574E-03	0.528
RB-86		1076.63	*	-1.923E-01	1.283E+00	2.124E+00	1.472E-01	-0.091
Y-88		898.02		-8.254E-02	9.393E-02	1.412E-01	1.250E-02	-0.584
		1836.01	*	-6.666E-03	4.035E-02	6.280E-02	3.585E-03	-0.106
ZR-88		392.90	*	1.089E-02	5.420E-02	9.128E-02	5.083E-03	0.119
Y-91		1204.90	*	1.346E+01	1.869E+01	3.394E+01	1.982E+00	0.397
NB-94		702.63	*	5.481E-02	5.870E-02	1.023E-01	6.441E-03	0.536
		871.10		3.741E-02	7.458E-02	1.249E-01	1.054E-02	0.300
NB-95		765.79	*	4.154E-02	7.578E-02	1.278E-01	9.032E-03	0.325
NB-95M		235.69	*	2.547E-01	2.295E-01	3.415E-01	2.530E-02	0.746
ZR-95		724.18		7.614E-04	1.634E-01	2.662E-01	1.999E-02	0.003
		756.15	*	1.831E-02	1.252E-01	2.058E-01	1.648E-02	0.089
NB-97		657.90	*	1.182E-03	1.252E-01	Half-Life too short		
		1024.50		-1.620E-02	1.252E-01	Half-Life too short		
ZR-97		254.15		-3.677E-03	1.252E-01	Half-Life too short		
		355.39		-1.113E-02	1.252E-01	Half-Life too short		
		507.63	*	3.796E-03	1.252E-01	Half-Life too short		
		602.52		1.024E-04	1.252E-01	Half-Life too short		
		1021.30		-1.197E-02	1.252E-01	Half-Life too short		
		1147.95		-1.340E-03	1.252E-01	Half-Life too short		
		1362.66		1.489E-04	1.252E-01	Half-Life too short		
		1750.46		5.612E-03	1.252E-01	Half-Life too short		
MO-99		140.51		8.440E-01	8.534E+00	1.390E+01	3.739E+00	0.061
		181.06		5.465E+00	6.136E+00	9.044E+00	1.536E+00	0.604
		366.43		-6.152E+00	3.014E+01	4.977E+01	2.833E+00	-0.124
		739.58	*	-1.783E+00	4.412E+00	6.937E+00	9.853E-01	-0.257
		778.00		-4.984E+00	1.233E+01	1.931E+01	1.395E+00	-0.258
TC-99M		140.51	*	1.291E+02	1.233E+01	Half-Life too short		
RH-101		127.23		-1.040E-02	5.665E-02	7.968E-02	4.649E-03	-0.131
		198.01	*	4.018E-02	5.559E-02	9.200E-02	4.991E-03	0.437
		325.23		2.434E-01	3.944E-01	6.800E-01	3.947E-02	0.358
RH-102		418.52		-4.070E-01	5.757E-01	9.210E-01	5.223E-02	-0.442
		475.06	*	2.778E-02	6.218E-02	1.053E-01	6.148E-03	0.264
		631.29		-3.499E-02	1.054E-01	1.685E-01	9.915E-03	-0.208
		697.49		-1.771E-02	1.326E-01	2.140E-01	1.335E-02	-0.083
		766.84		8.584E-02	2.132E-01	3.557E-01	2.518E-02	0.241
		1046.59		-1.309E-01	2.277E-01	3.644E-01	2.667E-02	-0.359
		1112.84		-3.498E-01	4.487E-01	7.050E-01	4.527E-02	-0.496
RU-103		497.08	*	-1.570E-02	6.849E-02	1.115E-01	1.414E-02	-0.141
	+	610.33		5.182E+00	2.089E+00	2.967E+00	4.587E-01	1.746
RH-106	+	511.85		4.698E-01	6.001E-01	6.265E-01	3.698E-02	0.750
		621.84	*	-6.985E-02	5.945E-01	9.659E-01	1.138E-01	-0.072

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		1050.47		-3.745E+00	4.612E+00	7.235E+00	5.259E-01	-0.518
RU-106	+	511.85		4.698E-01	6.001E-01	6.265E-01	3.698E-02	0.750
		621.84	*	-6.985E-02	5.944E-01	9.659E-01	5.696E-02	-0.072
		1050.47		-3.745E+00	4.612E+00	7.235E+00	5.259E-01	-0.518
AG-108M		433.93	*	-1.345E-02	6.505E-02	1.068E-01	6.652E-03	-0.126
		614.37		6.084E-02	7.644E-02	1.171E-01	7.485E-03	0.519
		722.95		-6.314E-02	8.038E-02	1.232E-01	8.596E-03	-0.513
AG-110M		657.75	*	1.732E-01	8.128E-02	1.354E-01	8.400E-03	1.279
		677.61		1.131E-01	5.550E-01	9.202E-01	5.842E-02	0.123
		706.67		-2.549E-01	3.715E-01	5.725E-01	3.816E-02	-0.445
		763.93		-1.549E-01	3.267E-01	5.125E-01	3.762E-02	-0.302
		884.67		2.603E-02	1.114E-01	1.828E-01	1.628E-02	0.142
		937.48		-1.427E-01	2.928E-01	4.560E-01	4.013E-02	-0.313
		1384.27		5.303E-02	1.655E-01	2.904E-01	2.203E-02	0.183
IN-111		171.28		-1.097E-01	3.348E-01	5.319E-01	2.792E-02	-0.206
		245.39	*	-7.138E-01	4.313E-01	6.313E-01	3.589E-02	-1.131
IN-113M		391.69	*	2.914E-02	8.113E-02	1.377E-01	8.216E-03	0.212
SN-113		391.69	*	2.914E-02	8.113E-02	1.377E-01	8.216E-03	0.212
IN-114M		190.27	*	3.966E-02	3.023E-01	4.287E-01	2.304E-02	0.093
CD-115		260.90		2.861E+01	3.263E+01	5.433E+01	3.120E+00	0.526
		492.35		-1.070E+00	9.630E+00	1.582E+01	9.289E-01	-0.068
		527.90	*	3.750E-01	3.015E+00	5.008E+00	2.965E-01	0.075
SN-117M		156.02		1.646E+00	2.531E+00	4.216E+00	2.260E-01	0.390
		158.56	*	-1.481E-02	6.184E-02	9.890E-02	5.264E-03	-0.150
SB-122		563.90	*	-1.462E+00	8.186E-01	1.185E+00	7.032E-02	-1.234
		692.80		9.671E+00	1.555E+01	2.649E+01	1.638E+00	0.365
I-123		159.00	*	-7.948E-04	1.555E+01	Half-Life too short		
		528.96		1.067E-01	1.555E+01	Half-Life too short		
TE-123M		159.00	*	-1.254E-02	4.236E-02	6.754E-02	3.647E-03	-0.186
I-124		602.71	*	-2.026E-01	4.846E-01	6.593E-01	3.902E-02	-0.307
		722.78		-2.452E+00	2.895E+00	4.412E+00	2.885E-01	-0.556
		1325.50		-3.079E+00	1.659E+01	2.260E+01	1.646E+00	-0.136
		1376.25		2.003E-01	1.296E+01	2.149E+01	1.572E+00	0.009
		1509.49		-1.046E+00	5.587E+00	8.805E+00	6.194E-01	-0.119
		1691.02		-1.013E+00	1.710E+00	2.382E+00	1.524E-01	-0.425
SB-124		602.71		-3.160E-02	7.559E-02	1.028E-01	6.089E-03	-0.307
		645.85		-2.858E-01	8.558E-01	1.365E+00	8.998E-02	-0.209
		709.31		2.628E+00	4.675E+00	7.936E+00	5.061E-01	0.331
		713.82		-2.043E+00	2.948E+00	4.539E+00	4.803E-01	-0.450
		722.78		-5.545E-01	6.547E-01	9.977E-01	6.767E-02	-0.556
	+	968.20		1.004E+01	6.376E+00	9.906E+00	8.118E-01	1.014
		1045.16		1.033E+00	4.461E+00	7.609E+00	5.581E-01	0.136
		1325.50		-7.435E-01	4.007E+00	5.458E+00	3.974E-01	-0.136
		1368.21		1.102E+00	1.822E+00	3.327E+00	4.221E-01	0.331
		1436.60		1.097E+00	4.204E+00	7.266E+00	5.237E-01	0.151
		1691.02	*	-5.405E-02	9.122E-02	1.270E-01	8.701E-03	-0.425
SB-125		427.89	*	3.014E-02	1.866E-01	3.126E-01	1.861E-02	0.096
		463.38		4.500E-01	6.252E-01	1.070E+00	7.243E-02	0.421
		600.56		2.458E-02	3.146E-01	5.190E-01	3.536E-02	0.047

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		635.90		1.350E-01	4.920E-01	8.217E-01	5.634E-02	0.164
TE-125M		109.28	*	-2.491E+00	1.249E+01	2.019E+01	1.782E+00	-0.123
I-126		388.63		-5.157E-03	2.776E-01	4.624E-01	2.580E-02	-0.011
		666.33	*	-3.354E-02	2.583E-01	3.596E-01	2.113E-02	-0.093
		753.82		1.403E-01	1.922E+00	3.143E+00	2.174E-01	0.045
SB-126		223.80		-9.186E-01	5.073E+00	8.061E+00	4.499E-01	-0.114
		278.60		2.800E+00	3.034E+00	5.304E+00	3.070E-01	0.528
		296.50		2.350E+00	1.892E+00	3.324E+00	1.932E-01	0.707
		414.70		4.535E-02	1.035E-01	1.761E-01	9.961E-03	0.258
		415.30		5.919E+00	8.443E+00	1.455E+01	8.233E-01	0.407
		555.20		1.548E+00	5.381E+00	9.019E+00	5.353E-01	0.172
		573.80		-8.339E-01	1.311E+00	2.056E+00	1.220E-01	-0.406
		593.00		-5.433E-01	1.403E+00	1.915E+00	1.135E-01	-0.284
		656.30		-5.387E-01	5.300E+00	7.419E+00	4.329E-01	-0.073
		666.33		-1.381E-02	1.064E-01	1.481E-01	8.702E-03	-0.093
		675.00		6.156E-02	2.580E+00	4.222E+00	2.523E-01	0.015
		695.00		-7.292E-02	9.924E-02	1.526E-01	9.473E-03	-0.478
		697.00		-6.671E-02	3.322E-01	5.334E-01	3.324E-02	-0.125
		720.50	*	-4.585E-02	1.886E-01	3.015E-01	1.963E-02	-0.152
		856.80		-6.901E-01	7.256E-01	1.086E+00	8.958E-02	-0.635
		989.30		1.128E-01	2.108E+00	3.397E+00	2.711E-01	0.033
		1034.80		-2.432E+00	1.285E+01	2.125E+01	1.586E+00	-0.114
		1213.00		1.145E+00	3.407E+00	5.923E+00	3.514E-01	0.193
SB-127		61.10		1.207E+03	1.186E+02	1.227E+02	1.051E+01	9.832
		252.40		3.344E-01	2.517E+00	4.041E+00	1.662E+00	0.083
		290.80		-2.825E+01	1.321E+01	1.991E+01	1.415E+00	-1.419
		411.60		-4.819E+00	7.450E+00	1.193E+01	1.561E+00	-0.404
		444.90		-2.823E+00	5.882E+00	9.478E+00	8.606E-01	-0.298
		473.00		6.086E-01	1.143E+00	1.942E+00	1.861E-01	0.313
		543.00		7.815E-01	1.017E+01	1.683E+01	1.953E+00	0.046
		603.60		4.695E-01	7.312E+00	1.045E+01	9.561E-01	0.045
		685.20	*	-6.091E-01	7.917E-01	1.212E+00	9.302E-02	-0.503
		698.50		-7.023E-01	8.523E+00	1.381E+01	1.861E+00	-0.051
		722.20		-1.884E+01	1.823E+01	2.731E+01	2.105E+00	-0.690
		783.80		1.102E+00	2.095E+00	3.535E+00	3.528E-01	0.312
XE-127		57.60		2.337E+02	2.564E+01	3.495E+01	2.618E+00	6.686
		145.22		-2.784E-01	9.925E-01	1.581E+00	8.725E-02	-0.176
		172.10		-2.513E-02	1.682E-01	2.695E-01	1.416E-02	-0.093
		202.84	*	-4.992E-02	7.723E-02	1.102E-01	6.013E-03	-0.453
		374.96		1.557E-01	3.388E-01	5.783E-01	3.269E-02	0.269
I-131		80.18		4.407E-01	4.761E+00	6.881E+00	5.718E-01	0.064
		284.30		-1.983E-01	1.541E+00	2.578E+00	1.649E-01	-0.077
		364.48	*	-6.114E-02	1.171E-01	1.898E-01	1.203E-02	-0.322
		636.97		5.619E-01	1.580E+00	2.655E+00	1.729E-01	0.212
		722.89		-6.286E+00	7.787E+00	1.191E+01	7.818E-01	-0.528
TE-132		49.72		7.819E+00	1.048E+01	1.766E+01	1.431E+00	0.443
		111.76		4.786E+00	1.116E+01	1.854E+01	1.412E+00	0.258
		116.30		6.844E+00	1.217E+01	1.795E+01	1.321E+00	0.381
		228.16	*	-4.330E-02	3.171E-01	5.046E-01	6.676E-02	-0.086

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BA-133		53.15		3.306E+00	9.187E+00	1.350E+01	9.971E-01	0.245
		79.62		1.469E+00	2.356E+00	3.474E+00	5.217E-01	0.423
		81.00		-7.629E-02	1.919E-01	2.509E-01	3.947E-02	-0.304
		276.40		2.653E-01	6.547E-01	1.120E+00	1.452E-01	0.237
		302.84		-1.597E-01	2.533E-01	4.117E-01	4.803E-02	-0.388
		356.01	*	2.362E-03	8.582E-02	1.251E-01	1.441E-02	0.019
		383.85		4.759E-01	5.838E-01	1.009E+00	1.087E-01	0.471
I-133	+	510.53		5.805E-03	5.838E-01	Half-Life too short		
		529.87	*	-9.194E-07	5.838E-01	Half-Life too short		
		706.58		-3.103E-03	5.838E-01	Half-Life too short		
		856.28		-5.279E-03	5.838E-01	Half-Life too short		
		875.33		-1.419E-04	5.838E-01	Half-Life too short		
		1236.41		4.607E-03	5.838E-01	Half-Life too short		
		1298.22		-2.693E-04	5.838E-01	Half-Life too short		
CS-134		475.35		2.527E+00	4.028E+00	6.885E+00	4.019E-01	0.367
		563.23		-9.959E-01	7.179E-01	1.071E+00	6.485E-02	-0.930
		569.32		6.564E-01	4.007E-01	7.258E-01	4.431E-02	0.904
		604.70		3.921E-03	6.472E-02	9.248E-02	5.501E-03	0.042
		795.84	*	6.648E-02	9.243E-02	1.574E-01	1.184E-02	0.422
		801.93		-2.327E-01	7.878E-01	1.251E+00	9.485E-02	-0.186
		1038.57		-1.707E+00	8.042E+00	1.327E+01	9.845E-01	-0.129
		1167.94		-1.960E-02	4.625E+00	6.641E+00	3.697E-01	-0.003
		1365.15		-1.166E+00	1.369E+00	1.868E+00	1.455E-01	-0.624
CS-135		268.24	*	2.068E-01	2.745E-01	4.767E-01	3.638E-02	0.434
I-135		288.45		-1.602E+03	2.745E-01	Half-Life too short		
		417.63		2.528E+01	2.745E-01	Half-Life too short		
		546.56		-5.277E+02	2.745E-01	Half-Life too short		
		836.80		4.681E+03	2.745E-01	Half-Life too short		
		1038.76		-9.177E+02	2.745E-01	Half-Life too short		
		1124.00		-7.206E+03	2.745E-01	Half-Life too short		
		1131.51		-2.102E+02	2.745E-01	Half-Life too short		
		1260.41	*	-3.403E+02	2.745E-01	Half-Life too short		
		1457.56		-2.566E+03	2.745E-01	Half-Life too short		
		1678.03		1.618E+01	2.745E-01	Half-Life too short		
		1706.46		6.858E+01	2.745E-01	Half-Life too short		
		1791.20		-4.217E+02	2.745E-01	Half-Life too short		
CS-136		66.91		4.230E-01	8.478E-01	1.416E+00	2.109E-01	0.299
		86.29		1.910E+01	3.109E+00	3.526E+00	4.573E-01	5.416
		153.22		-2.724E-01	7.362E-01	1.171E+00	8.081E-02	-0.233
		163.89		6.403E-01	1.185E+00	1.963E+00	1.337E-01	0.326
		176.55		5.389E-02	4.266E-01	6.922E-01	4.191E-02	0.078
		273.65		-7.204E-01	5.847E-01	9.305E-01	6.131E-02	-0.774
		340.57		-6.087E-02	1.935E-01	2.760E-01	1.694E-02	-0.221
		818.51		-2.010E-02	1.159E-01	1.853E-01	1.435E-02	-0.108
		1048.07	*	-1.378E-01	1.507E-01	2.335E-01	1.804E-02	-0.590
		1235.34		5.577E-02	4.565E-01	7.702E-01	7.868E-02	0.072
CE-139		165.85	*	3.729E-02	4.557E-02	7.636E-02	3.986E-03	0.488
BA-140		162.64		-6.288E-01	8.348E-01	1.300E+00	7.864E-02	-0.484
		304.84		-1.581E+00	1.605E+00	2.465E+00	6.728E-01	-0.642

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		423.70		2.672E-01	2.722E+00	4.544E+00	1.443E+00	0.059
		537.32	*	-8.031E-02	3.530E-01	5.716E-01	1.860E-01	-0.140
LA-140		328.77		2.707E-01	3.681E-01	6.383E-01	4.146E-02	0.424
		432.53		3.776E-01	2.903E+00	4.856E+00	3.076E-01	0.078
		487.03		1.702E-01	1.991E-01	3.444E-01	2.280E-02	0.494
		751.79		-3.897E-01	2.205E+00	3.533E+00	2.832E-01	-0.110
		815.85		4.664E-01	4.791E-01	8.289E-01	7.296E-02	0.563
		867.82		-1.414E+00	2.162E+00	3.310E+00	2.934E-01	-0.427
		919.63		-5.265E+00	5.045E+00	6.895E+00	7.351E-01	-0.764
		925.24		1.617E+00	1.929E+00	3.279E+00	2.995E-01	0.493
		1596.49	*	-3.774E-04	7.598E-02	1.246E-01	8.428E-03	-0.003
CE-141		145.44	*	-3.450E-02	8.903E-02	1.411E-01	8.125E-03	-0.245
CE-143		57.37		1.204E+03	1.758E+02	2.425E+02	2.232E+01	4.967
		231.56		9.643E+01	2.056E+02	2.931E+02	9.082E+01	0.329
		293.26	*	2.325E+01	1.085E+01	1.791E+01	3.693E+00	1.298
	+	350.59		6.857E+02	2.873E+02	2.819E+02	8.581E+01	2.433
		490.36		-1.241E+02	2.341E+02	3.699E+02	1.148E+02	-0.335
		664.57		2.614E+03	8.565E+02	4.545E+02	1.444E+02	5.752
		721.93		-9.271E+01	1.074E+02	1.579E+02	4.536E+01	-0.587
CE-144		80.11		4.470E-01	3.749E+00	5.426E+00	4.496E-01	0.082
		133.54	*	-4.599E-01	3.304E-01	4.924E-01	6.975E-02	-0.934
PM-144		476.78		6.522E-02	1.382E-01	2.345E-01	1.636E-02	0.278
		618.01		-4.071E-02	5.784E-02	9.006E-02	5.621E-03	-0.452
		696.49	*	-3.025E-02	6.175E-02	9.691E-02	6.035E-03	-0.312
		778.57		-3.296E+00	4.125E+00	6.226E+00	4.500E-01	-0.529
PR-144		696.49	*	-2.043E+00	4.170E+00	6.545E+00	4.075E-01	-0.312
		1489.15		-5.982E+00	1.549E+01	2.364E+01	1.676E+00	-0.253
PM-146		453.90	*	-8.257E-02	9.764E-02	1.546E-01	1.332E-02	-0.534
		633.02		8.164E-02	2.578E+00	4.232E+00	1.559E+00	0.019
		735.90		6.966E-02	2.618E-01	4.342E-01	1.219E-01	0.160
		747.13		1.123E-01	1.697E-01	2.892E-01	3.765E-02	0.388
ND-147		91.11		7.622E-01	4.102E-01	4.871E-01	4.498E-02	1.565
		319.41		-2.338E+00	3.938E+00	6.405E+00	3.723E-01	-0.365
		439.89		3.169E+00	7.531E+00	1.279E+01	7.347E-01	0.248
		531.02	*	2.913E-01	7.514E-01	1.266E+00	1.719E-01	0.230
PM-149		285.90	*	8.644E+00	2.166E+01	3.706E+01	5.246E+00	0.233
EU-152	+	121.78		7.056E-01	2.176E-01	2.569E-01	1.988E-02	2.747
		244.69		-1.088E+00	6.439E-01	9.419E-01	5.352E-02	-1.155
		344.27	*	1.601E-01	2.226E-01	3.226E-01	2.100E-02	0.496
		443.98		-9.243E-01	1.839E+00	2.963E+00	1.705E-01	-0.312
		778.89		-3.492E-01	4.746E-01	7.200E-01	5.206E-02	-0.485
		867.32		-1.239E+00	1.827E+00	2.793E+00	2.344E-01	-0.444
		964.01		-8.299E-02	7.622E-01	1.044E+00	8.598E-02	-0.080
		1085.78		-2.701E-01	8.196E-01	1.337E+00	9.100E-02	-0.202
		1112.02		-3.399E-01	6.459E-01	1.037E+00	6.672E-02	-0.328
		1407.95		-1.341E-01	1.988E-01	2.824E-01	2.051E-02	-0.475
GD-153		69.67		2.477E-01	2.673E+00	4.088E+00	3.146E-01	0.061
		83.37		1.107E+01	3.176E+01	3.934E+01	3.361E+00	0.281
		97.43	*	1.328E-01	1.213E-01	1.850E-01	1.439E-02	0.718

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		103.18		-2.352E-03	1.523E-01	2.486E-01	1.800E-02	-0.009
EU-154	+	123.07		4.951E-01	1.551E-01	1.802E-01	1.709E-02	2.748
		247.94		-2.369E-01	6.586E-01	1.032E+00	9.785E-02	-0.229
		591.81		-6.342E-01	1.340E+00	1.811E+00	1.784E-01	-0.350
		723.30		-1.748E-01	3.348E-01	5.241E-01	4.037E-02	-0.334
		756.87		-4.204E-01	1.499E+00	2.382E+00	2.582E-01	-0.176
		873.19		1.684E-01	6.653E-01	1.094E+00	1.328E-01	0.154
		996.32		-1.105E+00	8.634E-01	1.208E+00	2.106E-01	-0.915
		1004.76		-2.501E-01	4.521E-01	7.283E-01	8.050E-02	-0.343
		1274.45	*	6.229E-02	1.353E-01	2.393E-01	2.368E-02	0.260
EU-155		48.70		4.292E+00	4.928E+00	8.340E+00	5.849E-01	0.515
	+	60.01		4.288E+02	4.120E+01	3.833E+01	2.883E+00	11.189
		86.54		2.909E+00	3.614E-01	4.814E-01	4.288E-02	6.042
		105.31	*	3.101E-02	1.532E-01	2.525E-01	1.816E-02	0.123
TB-160	+	86.79		9.375E+00	1.160E+00	1.273E+00	1.126E-01	7.364
		197.04		3.585E-01	9.006E-01	1.474E+00	7.989E-02	0.243
		215.65		-1.607E-01	1.258E+00	2.007E+00	1.111E-01	-0.080
		298.57		-2.252E-01	2.075E-01	3.326E-01	1.934E-02	-0.677
		879.36	*	-3.369E-02	2.874E-01	4.597E-01	3.933E-02	-0.073
		962.29		3.227E-01	1.152E+00	1.837E+00	1.516E-01	0.176
		966.15		1.350E-01	5.003E-01	7.099E-01	5.832E-02	0.190
		1177.93		1.516E+00	7.339E-01	1.276E+00	7.057E-02	1.189
		1271.85		-4.780E-01	7.666E-01	1.152E+00	7.632E-02	-0.415
HO-166M		80.57		-2.757E-01	4.975E-01	6.964E-01	5.794E-02	-0.396
	+	184.41		8.886E-02	6.979E-02	9.808E-02	5.232E-03	0.906
		280.46		-5.143E-02	1.500E-01	2.487E-01	1.441E-02	-0.207
		410.95		-1.279E-01	4.682E-01	7.678E-01	4.332E-02	-0.167
		711.68	*	7.881E-02	1.138E-01	1.947E-01	1.247E-02	0.405
		752.31		-1.643E-01	4.998E-01	7.904E-01	5.453E-02	-0.208
		810.29		-8.893E-03	1.216E-01	1.958E-01	1.495E-02	-0.045
TM-171		51.35		-3.243E+01	6.746E+01	1.100E+02	8.025E+00	-0.295
		52.39		-1.416E+01	3.831E+01	5.795E+01	4.261E+00	-0.244
	+	59.40		2.247E+03	2.159E+02	2.101E+02	1.580E+01	10.696
		66.72	*	-4.810E-01	4.487E+01	7.135E+01	5.424E+00	-0.007
LU-176	+	88.36		7.349E+00	9.095E-01	1.008E+00	8.975E-02	7.293
		201.83		-4.534E-02	4.883E-02	7.494E-02	4.084E-03	-0.605
		306.84	*	-3.937E-02	4.288E-02	6.857E-02	3.989E-03	-0.574
		401.10		3.758E+00	1.214E+01	2.056E+01	1.152E+00	0.183
LU-177		112.95		1.368E-01	1.251E+00	2.050E+00	1.335E-01	0.067
	+	208.36	*	2.097E+00	1.181E+00	1.693E+00	9.293E-02	1.239
LU-177M		52.97		1.048E+00	4.039E+00	5.915E+00	4.364E-01	0.177
		54.07		1.452E+00	2.140E+00	3.177E+00	2.356E-01	0.457
		61.30		8.464E+01	7.758E+00	9.245E+00	6.956E-01	9.155
	+	121.62		3.524E+00	1.073E+00	1.281E+00	7.657E-02	2.751
		147.16		2.601E-01	9.972E-01	1.635E+00	8.974E-02	0.159
		171.86		-2.125E-01	7.518E-01	1.197E+00	6.288E-02	-0.178
		218.09		-2.810E-01	1.473E+00	2.341E+00	1.299E-01	-0.120
		268.79		1.842E+00	1.362E+00	2.417E+00	1.394E-01	0.762
		319.02		-2.140E-01	4.442E-01	7.268E-01	4.224E-02	-0.294

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		367.43		-1.178E-01	1.588E+00	2.641E+00	1.502E-01	-0.045
		413.65	*	1.105E-02	3.321E-01	5.535E-01	3.129E-02	0.020
HF-181		56.28		4.527E+00	2.280E+00	3.490E+00	2.607E-01	1.297
		57.53		1.796E+01	2.067E+00	2.891E+00	2.166E-01	6.212
		65.20		-5.048E-01	1.476E+00	2.097E+00	1.587E-01	-0.241
		133.02		-1.387E-01	9.568E-02	1.448E-01	8.285E-03	-0.958
		136.25		-2.310E-03	6.667E-01	1.082E+00	6.130E-02	-0.002
		345.85		3.485E-01	3.769E-01	5.821E-01	3.354E-02	0.599
		482.03	*	-7.295E-02	7.755E-02	1.211E-01	7.084E-03	-0.603
W-181		56.28		1.602E+00	9.624E-01	1.463E+00	1.092E-01	1.095
		57.53		7.506E+00	8.652E-01	1.211E+00	9.072E-02	6.198
		65.20	*	-2.100E-01	6.140E-01	8.722E-01	6.601E-02	-0.241
TA-182		67.75		3.926E-02	1.622E-01	2.692E-01	2.054E-02	0.146
		100.10		1.734E-01	2.491E-01	4.191E-01	3.150E-02	0.414
		152.43		-2.010E-01	5.134E-01	8.163E-01	4.417E-02	-0.246
		222.10		1.859E-01	5.998E-01	9.754E-01	5.434E-02	0.191
		1001.68		8.877E-01	4.206E+00	7.163E+00	5.619E-01	0.124
		1121.28		3.481E-02	2.541E-01	4.288E-01	2.700E-02	0.081
		1189.05		1.297E-01	4.170E-01	7.165E-01	4.054E-02	0.181
		1221.42	*	-1.400E-01	2.168E-01	3.307E-01	1.994E-02	-0.423
		1230.97		-2.184E-01	5.442E-01	8.617E-01	5.292E-02	-0.253
RE-183		57.98		1.328E+01	1.191E+00	1.391E+00	1.043E-01	9.547
	+	59.32		8.696E+00	8.355E-01	8.176E-01	6.149E-02	10.637
		67.20		1.366E-01	2.846E-01	4.760E-01	3.625E-02	0.287
		162.32	*	-1.091E-01	1.614E-01	2.524E-01	1.330E-02	-0.432
	+	208.81		3.427E+00	1.931E+00	2.763E+00	1.517E-01	1.240
		291.72		-3.425E+00	1.724E+00	2.635E+00	1.531E-01	-1.300
RE-184		57.98		5.078E+01	4.553E+00	5.319E+00	3.988E-01	9.547
	+	59.32		3.323E+01	3.193E+00	3.124E+00	2.350E-01	10.637
		67.20		5.222E-01	1.088E+00	1.820E+00	1.386E-01	0.287
		161.27		-2.600E-01	5.338E-01	8.424E-01	4.451E-02	-0.309
		216.55		-1.292E-01	4.685E-01	7.421E-01	4.111E-02	-0.174
		252.85	*	8.555E-02	4.162E-01	6.716E-01	3.838E-02	0.127
		318.01		-2.810E-01	7.567E-01	1.245E+00	7.237E-02	-0.226
		792.07		2.736E-01	1.888E+00	3.096E+00	2.290E-01	0.088
		903.28		2.033E-02	2.332E+00	3.762E+00	3.299E-01	0.005
		920.93		-6.346E-01	1.044E+00	1.603E+00	1.383E-01	-0.396
OS-185	+	59.72		2.411E+01	2.316E+00	2.204E+00	1.658E-01	10.938
		61.14		1.012E+01	9.084E-01	1.043E+00	7.845E-02	9.703
		69.30		-2.222E-02	4.470E-01	7.094E-01	5.449E-02	-0.031
		592.07		-2.473E+00	5.220E+00	7.059E+00	4.184E-01	-0.350
		646.12	*	-1.591E-02	7.333E-02	1.180E-01	6.909E-03	-0.135
		717.42		4.434E-01	1.590E+00	2.644E+00	1.712E-01	0.168
		874.81		6.678E-02	1.223E+00	1.984E+00	1.684E-01	0.034
		880.27		1.882E-01	1.652E+00	2.689E+00	2.304E-01	0.070
RE-188		155.03	*	8.870E-02	2.488E-01	4.092E-01	2.199E-02	0.217
		477.96		-2.202E+00	5.974E+00	9.684E+00	5.659E-01	-0.227
		633.10		7.118E-02	4.893E+00	8.021E+00	4.716E-01	0.009
W-188		63.58		-7.314E+01	8.582E+01	1.191E+02	8.979E+00	-0.614

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		227.08		-1.073E+01	2.167E+01	3.388E+01	1.897E+00	-0.317
		290.67	*	-2.357E+01	1.328E+01	2.050E+01	1.190E+00	-1.150
IR-192		295.96		2.231E-01	1.958E-01	3.429E-01	2.025E-02	0.651
		308.46		-8.838E-02	1.588E-01	2.591E-01	1.524E-02	-0.341
		316.51	*	-2.988E-02	5.781E-02	9.445E-02	5.518E-03	-0.316
		468.07		-6.496E-02	1.345E-01	2.171E-01	1.455E-02	-0.299
		604.41		5.893E-02	8.369E-01	1.197E+00	1.366E-01	0.049
		612.46		2.331E+00	1.339E+00	2.194E+00	1.680E-01	1.062
AU-195		65.12		-9.783E-02	2.881E-01	4.093E-01	3.097E-02	-0.239
		66.83		6.298E-02	1.393E-01	2.328E-01	1.770E-02	0.271
	+	75.70		1.023E+00	3.052E-01	5.740E-01	4.587E-02	1.782
		98.88	*	9.522E-02	3.502E-01	5.367E-01	4.096E-02	0.177
		129.76		2.534E+00	4.272E+00	7.120E+00	4.118E-01	0.356
TL-200		367.94	*	-3.246E-06	4.272E+00	Half-Life too short		
		579.30		1.127E-05	4.272E+00	Half-Life too short		
		828.27		1.474E-04	4.272E+00	Half-Life too short		
		1205.75		2.552E-05	4.272E+00	Half-Life too short		
TL-201		68.90		7.782E-02	1.767E+00	2.814E+00	2.158E-01	0.028
		70.82		3.099E-01	1.068E+00	1.562E+00	1.209E-01	0.198
		80.30		9.806E-02	2.095E+00	3.021E+00	2.508E-01	0.032
		135.34		6.539E-02	9.622E+00	1.563E+01	8.878E-01	0.004
		167.43	*	5.073E-01	2.549E+00	4.156E+00	2.172E-01	0.122
TL-202		68.90		2.090E-02	4.747E-01	7.560E-01	5.797E-02	0.028
		70.82		8.303E-02	2.860E-01	4.184E-01	3.239E-02	0.198
		80.30		2.628E-02	5.614E-01	8.096E-01	6.720E-02	0.032
		439.56	*	1.357E-02	9.384E-02	1.570E-01	9.018E-03	0.086
HG-203		70.83		-2.908E-01	1.657E+00	2.369E+00	3.096E-01	-0.123
		72.87		6.986E-01	9.563E-01	1.420E+00	1.804E-01	0.492
		82.60		1.726E+00	2.481E+00	2.711E+00	3.702E-01	0.637
		279.20	*	2.195E-02	6.576E-02	1.123E-01	6.907E-03	0.195
BI-207		72.80		1.585E-01	3.079E-01	4.544E-01	3.559E-02	0.349
	+	74.97		5.812E-01	1.734E-01	3.053E-01	2.427E-02	1.904
		84.90		3.774E-01	3.634E-01	5.439E-01	4.718E-02	0.694
		569.67		8.353E-02	6.269E-02	1.120E-01	6.648E-03	0.746
		1063.62	*	-3.666E-02	1.146E-01	1.887E-01	1.340E-02	-0.194
		1770.23		-2.385E-01	6.293E-01	7.399E-01	4.463E-02	-0.322
TL-207		81.07		-1.653E-01	4.235E-01	5.546E-01	4.635E-02	-0.298
		83.78		6.253E-02	2.736E-01	3.365E-01	2.886E-02	0.186
		94.90		-7.352E-02	3.705E-01	5.248E-01	4.225E-02	-0.140
	+	122.32		1.682E+01	5.152E+00	6.151E+00	4.201E-01	2.734
		144.24		-7.119E-02	1.084E+00	1.743E+00	1.224E-01	-0.041
		154.21		2.807E-02	6.169E-01	1.001E+00	6.679E-02	0.028
		269.46		4.321E-01	3.322E-01	5.880E-01	3.547E-02	0.735
		323.87	*	-6.569E-01	1.218E+00	1.981E+00	3.272E-01	-0.332
	+	338.28		3.658E+00	2.279E+00	3.325E+00	3.498E-01	1.100
		445.03		-2.600E+00	4.352E+00	6.957E+00	7.128E-01	-0.374
PO-209		260.50		2.026E+01	1.728E+01	2.918E+01	1.676E+00	0.694
		262.80		-2.789E+01	4.878E+01	7.538E+01	4.334E+00	-0.370
		896.60	*	-6.937E+00	1.700E+01	2.657E+01	2.336E+00	-0.261

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-210		46.50	*	-7.093E+00	6.741E+00	1.078E+01	8.216E-01	-0.658
PB-210		46.50	*	-7.093E+00	6.741E+00	1.078E+01	8.216E-01	-0.658
PO-210		46.50	*	-7.093E+00	6.735E+00	1.078E+01	7.025E-01	-0.658
PB-211		404.84	*	2.244E-02	1.748E+00	2.911E+00	1.814E+00	0.008
		427.08		-4.489E-01	4.160E+00	6.858E+00	4.238E+00	-0.065
		831.96		-5.821E+00	4.528E+00	3.625E+00	2.268E+00	-1.606
BI-212		727.18	*	6.294E-01	5.561E-01	9.727E-01	8.097E-02	0.647
		785.46		3.096E+00	3.363E+00	5.820E+00	4.257E-01	0.532
		1620.62		6.858E-01	1.537E+00	2.748E+00	1.835E-01	0.250
PB-214	+	74.81		3.442E+00	1.058E+00	1.773E+00	1.925E-01	1.942
	+	77.11		2.393E+00	8.157E-01	1.075E+00	1.194E-01	2.225
	+	87.30		2.455E+01	3.579E+00	3.388E+00	3.987E-01	7.247
		241.98		1.213E+00	7.440E-01	1.129E+00	9.007E-02	1.074
		295.21		3.416E-01	2.736E-01	4.793E-01	4.090E-02	0.713
	+	351.92	*	7.571E-01	2.268E-01	3.082E-01	2.541E-02	2.457
PO-214	+	74.81		3.442E+00	1.058E+00	1.773E+00	1.925E-01	1.942
	+	77.11		2.393E+00	8.157E-01	1.075E+00	1.194E-01	2.225
	+	87.30		2.455E+01	3.579E+00	3.388E+00	3.987E-01	7.247
		241.98		1.213E+00	7.440E-01	1.129E+00	9.007E-02	1.074
		295.21		3.416E-01	2.736E-01	4.793E-01	4.090E-02	0.713
	+	351.92	*	7.571E-01	2.268E-01	3.082E-01	2.541E-02	2.457
PO-215		81.07		-1.653E-01	4.235E-01	5.546E-01	4.635E-02	-0.298
		83.78		6.253E-02	2.736E-01	3.365E-01	2.886E-02	0.186
		94.90		-7.352E-02	3.705E-01	5.248E-01	4.225E-02	-0.140
	+	122.32		1.682E+01	5.152E+00	6.151E+00	4.201E-01	2.734
		144.24		-7.119E-02	1.084E+00	1.743E+00	1.224E-01	-0.041
		154.21		2.807E-02	6.169E-01	1.001E+00	6.679E-02	0.028
		269.46		4.321E-01	3.322E-01	5.880E-01	3.547E-02	0.735
		323.87	*	-6.569E-01	1.218E+00	1.981E+00	3.272E-01	-0.332
	+	338.28		3.658E+00	2.279E+00	3.325E+00	3.498E-01	1.100
		445.03		-2.600E+00	4.352E+00	6.957E+00	7.128E-01	-0.374
PO-218	+	74.81		3.442E+00	1.058E+00	1.773E+00	1.925E-01	1.942
	+	77.11		2.393E+00	8.157E-01	1.075E+00	1.194E-01	2.225
	+	87.30		2.455E+01	3.579E+00	3.388E+00	3.987E-01	7.247
		241.98		1.213E+00	7.440E-01	1.129E+00	9.007E-02	1.074
		295.21		3.416E-01	2.736E-01	4.793E-01	4.090E-02	0.713
	+	351.92	*	7.571E-01	2.268E-01	3.082E-01	2.541E-02	2.457
RN-219		271.23		6.552E-01	4.372E-01	7.757E-01	6.272E-02	0.845
		401.81	*	-1.259E-01	7.534E-01	1.243E+00	1.681E-01	-0.101
RN-220		549.76	*	-8.558E+00	5.018E+01	8.170E+01	4.848E+00	-0.105
RA-223		81.07		-1.653E-01	4.235E-01	5.546E-01	4.635E-02	-0.298
		83.78		6.253E-02	2.736E-01	3.365E-01	2.886E-02	0.186
		94.90		-7.352E-02	3.705E-01	5.248E-01	4.225E-02	-0.140
	+	122.32		1.682E+01	5.152E+00	6.151E+00	4.201E-01	2.734
		144.24		-7.119E-02	1.084E+00	1.743E+00	1.224E-01	-0.041
		154.21		2.807E-02	6.169E-01	1.001E+00	6.679E-02	0.028
		269.46		4.321E-01	3.322E-01	5.880E-01	3.547E-02	0.735
		323.87	*	-6.569E-01	1.218E+00	1.981E+00	3.272E-01	-0.332
	+	338.28		3.658E+00	2.279E+00	3.325E+00	3.498E-01	1.100

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-2.600E+00	4.352E+00	6.957E+00	7.128E-01	-0.374
RA-224		240.98	*	5.862E+00	1.585E+00	2.581E+00	1.462E-01	2.271
AC-227		79.80		1.052E+00	2.962E+00	4.322E+00	9.233E-01	0.243
		236.00		1.151E+00	4.906E-01	7.570E-01	7.847E-02	1.521
		256.20	*	-4.051E-01	6.911E-01	1.065E+00	1.484E-01	-0.380
		286.10		8.850E-01	2.684E+00	4.582E+00	5.298E-01	0.193
		299.80		-2.128E-02	2.665E+00	4.477E+00	7.293E-01	-0.005
		304.40		-2.996E+00	3.274E+00	5.183E+00	8.967E-01	-0.578
		334.20		4.914E-01	4.501E+00	6.612E+00	1.212E+00	0.074
TH-227		79.80		1.052E+00	2.962E+00	4.322E+00	9.353E-01	0.243
	+	94.00		5.338E+00	3.756E+00	4.726E+00	1.021E+00	1.129
		236.00		1.151E+00	4.869E-01	7.570E-01	6.781E-02	1.521
		256.20	*	-4.051E-01	6.922E-01	1.065E+00	1.798E-01	-0.380
		286.10		8.850E-01	2.825E+00	4.582E+00	4.590E+00	0.193
		299.80		-2.128E-02	2.665E+00	4.477E+00	7.293E-01	-0.005
		304.40		-2.996E+00	3.274E+00	5.183E+00	8.967E-01	-0.578
		334.20		4.914E-01	4.501E+00	6.612E+00	1.212E+00	0.074
TH-229		85.43		1.180E+00	3.924E-01	6.109E-01	5.329E-02	1.931
	+	88.47		4.231E+00	5.235E-01	5.773E-01	5.132E-02	7.329
		100.00		1.870E-01	2.688E-01	4.522E-01	3.402E-02	0.414
		193.63	*	-1.549E-01	8.321E-01	1.327E+00	7.160E-02	-0.117
		210.97		1.669E+00	1.523E+00	2.271E+00	1.250E-01	0.735
PA-231		283.67	*	-1.272E+00	2.759E+00	4.520E+00	6.229E-01	-0.281
		301.29		1.238E+00	1.006E+00	1.768E+00	1.849E-01	0.700
TH-231		81.07		-1.653E-01	4.235E-01	5.546E-01	4.635E-02	-0.298
		83.78		6.253E-02	2.736E-01	3.365E-01	2.886E-02	0.186
		94.90		-7.352E-02	3.705E-01	5.248E-01	4.225E-02	-0.140
	+	122.32		1.682E+01	5.152E+00	6.151E+00	4.201E-01	2.734
		144.24		-7.119E-02	1.084E+00	1.743E+00	1.224E-01	-0.041
		154.21		2.807E-02	6.169E-01	1.001E+00	6.679E-02	0.028
		269.46		4.321E-01	3.322E-01	5.880E-01	3.547E-02	0.735
		323.87	*	-6.569E-01	1.218E+00	1.981E+00	3.272E-01	-0.332
	+	338.28		3.658E+00	2.279E+00	3.325E+00	3.498E-01	1.100
		445.03		-2.600E+00	4.352E+00	6.957E+00	7.128E-01	-0.374
U-231		84.21		3.235E-01	3.717E+00	4.999E+00	4.307E-01	0.065
	+	92.29		1.834E+00	1.237E+00	1.766E+00	1.477E-01	1.038
		95.87	*	-5.101E-01	5.971E-01	8.074E-01	6.413E-02	-0.632
		108.00		-9.968E-01	1.039E+00	1.616E+00	1.108E-01	-0.617
PA-233	+	75.28		1.697E+01	5.500E+00	9.257E+00	1.388E+00	1.833
		86.59		4.884E+01	1.377E+01	7.925E+00	2.131E+00	6.163
		300.12		1.598E-02	7.446E-01	1.252E+00	1.684E-01	0.013
		311.98	*	7.532E-02	1.147E-01	1.984E-01	1.225E-02	0.380
		340.50		-3.323E-01	1.320E+00	1.888E+00	4.335E-01	-0.176
		398.62		-2.190E+00	3.851E+00	6.142E+00	1.585E+00	-0.356
		415.76		1.426E+00	3.245E+00	5.500E+00	1.130E+00	0.259
PA-234		63.00		-2.125E+00	2.727E+00	3.779E+00	5.641E-01	-0.562
		94.67		1.659E-01	2.622E-01	3.886E-01	4.676E-02	0.427
		98.44		8.972E-02	1.516E-01	2.236E-01	1.245E-01	0.401
		99.86		4.782E-01	6.794E-01	1.143E+00	8.619E-02	0.418

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		9.132E-02	2.710E-01	4.485E-01	4.829E-02	0.204
		131.20		6.312E-02	1.627E-01	2.689E-01	1.548E-02	0.235
		152.70		-1.121E-01	5.097E-01	8.164E-01	1.279E-01	-0.137
	+	186.00		3.199E+00	2.689E+00	3.557E+00	1.084E+00	0.899
		226.40		-1.954E-01	7.163E-01	1.132E+00	1.297E-01	-0.173
		227.20		-2.947E-01	7.774E-01	1.223E+00	6.845E-02	-0.241
		248.90		-9.760E-02	1.468E+00	2.337E+00	5.016E-01	-0.042
		293.70		3.370E+00	1.365E+00	2.325E+00	3.741E-01	1.449
		369.80		-1.734E-01	1.584E+00	2.629E+00	5.465E-01	-0.066
		568.70		3.713E+00	2.037E+00	3.721E+00	2.209E-01	0.998
		569.50		8.711E-01	5.548E-01	1.003E+00	5.951E-02	0.869
		574.00		-1.750E+00	2.689E+00	4.213E+00	2.500E-01	-0.415
		699.00		-2.776E-01	1.295E+00	2.076E+00	3.764E-01	-0.134
		706.10		-1.570E+00	2.021E+00	2.895E+00	1.280E+00	-0.542
		733.00		-8.990E-01	7.213E-01	1.006E+00	2.163E-01	-0.894
		742.81		1.186E+00	2.727E+00	4.389E+00	2.941E+00	0.270
		796.30		1.383E+00	1.830E+00	3.068E+00	8.192E-01	0.451
		805.60		-4.605E-01	1.993E+00	3.163E+00	9.608E-01	-0.146
		819.60		2.609E-01	2.654E+00	4.327E+00	1.637E+00	0.060
		826.30		3.563E-01	1.855E+00	3.033E+00	1.352E+00	0.118
		831.60		-2.739E+00	1.614E+00	1.925E+00	5.706E-01	-1.423
		876.40		-1.727E+00	2.569E+00	2.780E+00	2.858E+00	-0.621
		880.51		1.732E-01	6.198E-01	1.021E+00	8.751E-02	0.170
		883.24		1.342E-01	6.683E-01	1.084E+00	7.289E-01	0.124
		899.00		-1.652E+00	2.103E+00	2.990E+00	1.308E+00	-0.552
		925.00		2.063E+00	2.812E+00	4.753E+00	4.084E-01	0.434
		926.50		4.670E-01	4.279E-01	7.153E-01	1.807E-01	0.653
		946.00	*	1.074E-01	7.674E-01	1.246E+00	2.326E-01	0.086
		949.00		-9.371E-01	1.151E+00	1.743E+00	1.461E-01	-0.538
		980.50		-9.389E-01	1.755E+00	2.703E+00	2.181E-01	-0.347
		1394.10		1.507E+00	1.540E+00	2.437E+00	1.582E+00	0.618
PA-234M		766.42		7.692E+00	2.274E+01	3.726E+01	1.882E+01	0.206
		1001.03	*	4.859E+00	9.718E+00	1.685E+01	1.569E+00	0.288
TH-234		63.29	*	-2.025E+00	2.318E+00	3.179E+00	5.562E-01	-0.637
	+	92.38		1.381E+00	9.573E-01	1.323E+00	2.376E-01	1.044
U-235		89.95		2.647E+01	8.672E+00	4.705E+00	1.453E+00	5.625
	+	93.35		1.661E+00	1.205E+00	1.523E+00	4.251E-01	1.090
		105.00		4.205E-01	1.519E+00	2.504E+00	7.372E-01	0.168
		143.76	*	6.613E-02	3.365E-01	5.473E-01	8.873E-02	0.121
		163.35		-1.788E-01	7.428E-01	1.186E+00	2.113E-01	-0.151
	+	185.71		1.185E-01	9.305E-02	1.314E-01	7.019E-03	0.902
		205.31		8.605E-01	9.637E-01	1.414E+00	2.528E-01	0.609
NP-236		94.67		1.276E-01	1.986E-01	2.950E-01	2.383E-02	0.432
		98.44		6.783E-02	1.084E-01	1.691E-01	1.298E-02	0.401
		111.00		6.908E-02	2.049E-01	3.392E-01	2.254E-02	0.204
		160.31	*	-4.815E-02	1.222E-01	1.937E-01	1.026E-02	-0.249
NP-237		86.50	*	6.936E+00	1.672E+00	1.167E+00	2.618E-01	5.944
		95.87		-1.294E+00	1.544E+00	2.048E+00	4.999E-01	-0.632
U-238		63.29	*	-2.025E+00	2.318E+00	3.179E+00	5.562E-01	-0.637

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		1.381E+00	9.318E-01	1.323E+00	1.105E-01	1.044
NP-239		99.55		9.296E-02	2.294E-01	3.815E-01	2.887E-02	0.244
		117.00	*	2.890E-01	3.256E-01	4.894E-01	3.061E-02	0.590
	+	209.75		2.880E+00	1.623E+00	2.339E+00	1.286E-01	1.231
		228.18		-5.210E-02	4.046E-01	6.442E-01	3.610E-02	-0.081
		277.60		1.716E-01	3.164E-01	5.451E-01	3.155E-02	0.315
		334.30		2.664E-01	2.550E+00	3.745E+00	2.168E-01	0.071
CM-243		99.55		9.562E-02	2.360E-01	3.924E-01	2.969E-02	0.244
		103.76	*	8.257E-02	1.408E-01	2.359E-01	1.696E-02	0.350
		117.00		2.972E-01	3.348E-01	5.033E-01	3.147E-02	0.590
	+	209.75		2.838E+00	1.599E+00	2.305E+00	1.267E-01	1.231
		228.18		-5.262E-02	4.087E-01	6.506E-01	3.646E-02	-0.081
		277.60		1.729E-01	3.189E-01	5.493E-01	3.179E-02	0.315
AM-246		798.80		6.455E-02	2.840E-01	4.681E-01	3.504E-02	0.138
		1036.00		-7.575E-02	6.309E-01	1.049E+00	7.811E-02	-0.072
		1062.04		-1.716E-01	4.847E-01	7.909E-01	5.633E-02	-0.217
		1078.86	*	-6.070E-02	2.904E-01	4.784E-01	3.301E-02	-0.127
CM-247		278.00		9.656E-01	1.316E+00	2.284E+00	1.322E-01	0.423
		287.40		-5.429E-01	2.225E+00	3.702E+00	2.149E-01	-0.147
		402.60	*	-1.183E-02	6.773E-02	1.117E-01	6.265E-03	-0.106
CF-249		252.85		3.295E-01	1.603E+00	2.587E+00	1.478E-01	0.127
		333.44		6.669E-02	3.318E-01	4.907E-01	2.842E-02	0.136
		387.95	*	1.223E-02	7.592E-02	1.276E-01	7.127E-03	0.096
CF-251		176.60	*	4.375E-02	2.055E-01	3.348E-01	1.769E-02	0.131
		227.00		-3.503E-01	6.928E-01	1.083E+00	6.061E-02	-0.324
		285.00		8.174E-01	3.081E+00	5.248E+00	3.044E-01	0.156

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028550    *
* Acquisition date :  9-FEB-2010 17:44:57 Detector SN#    :                *
* Detector ID        : GAM19               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 01:00:01.50      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  1-FEB-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202028550         Analyst initials: MJH1          *
* Batch Number       : 947037              Sample Quantity : 1.5544E+02 GRAM *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.394E-01	7.143E-02	6.811E-02	0.000E+00
CO-60	6.714E+00	5.802E-01	7.984E-02	0.000E+00
CD-109	3.123E+01	3.787E+00	2.365E+00	0.000E+00
SN-126	3.099E+00	3.758E-01	2.357E-01	0.000E+00
BA-137M	5.234E+00	3.889E-01	1.132E-01	0.000E+00
CS-137	5.533E+00	4.121E-01	1.196E-01	0.000E+00
TL-208	3.375E-01	1.471E-01	1.087E-01	0.000E+00
BI-211	2.176E+00	6.291E-01	6.334E-01	0.000E+00
PB-212	9.169E-01	2.016E-01	2.094E-01	0.000E+00
PO-212	9.169E-01	2.016E-01	2.094E-01	0.000E+00
BI-214	5.371E-01	2.003E-01	2.191E-01	0.000E+00
PO-216	9.169E-01	2.016E-01	2.094E-01	0.000E+00
RA-226	5.371E-01	2.003E-01	2.191E-01	0.000E+00
AC-228	9.877E-01	5.056E-01	5.367E-01	0.000E+00
RA-228	9.877E-01	5.056E-01	5.367E-01	0.000E+00
TH-228	9.249E-01	2.034E-01	2.112E-01	0.000E+00
TH-230	5.371E-01	2.003E-01	2.191E-01	0.000E+00
TH-232	9.877E-01	5.056E-01	5.367E-01	0.000E+00
U-234	5.371E-01	2.003E-01	2.191E-01	0.000E+00
AM-241	1.322E+01	1.318E+00	5.421E-01	0.000E+00
AM-243	3.239E-01	9.468E-02	1.484E-01	0.000E+00
ANH-511	9.520E-02	1.192E-01	9.274E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.295E-01	6.028E-01	1.046E+00	0.000E+00	NOT IDENT.
NA-22	1.469E-02	4.825E-02	8.627E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.707E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.707E-02	4.135E-02	6.205E-02	0.000E+00	NOT IDENT.
K-40	5.971E-01	5.567E-01	1.094E+00	0.000E+00	NOT IDENT.

TI-44	0.000E+00	8.386E-02	1.161E-01	0.000E+00	FAIL ABUN
SC-46	-7.034E-02	8.603E-02	1.359E-01	0.000E+00	NOT IDENT.
V-48	9.007E-02	1.249E-01	2.191E-01	0.000E+00	NOT IDENT.
CR-51	-5.383E-01	5.518E-01	9.427E-01	0.000E+00	NOT IDENT.
MN-52	9.644E-03	1.255E-01	2.163E-01	0.000E+00	FAIL ABUN
MN-54	7.404E-03	7.639E-02	1.301E-01	0.000E+00	NOT IDENT.
CO-56	-7.267E-03	7.514E-02	1.260E-01	0.000E+00	FAIL ABUN
CO-58	-4.955E-02	7.636E-02	1.230E-01	0.000E+00	NOT IDENT.
FE-59	-3.282E-02	1.655E-01	2.830E-01	0.000E+00	NOT IDENT.
ZN-65	-1.288E-02	1.708E-01	2.943E-01	0.000E+00	NOT IDENT.
GE-68	-4.662E-01	2.457E+00	4.209E+00	0.000E+00	NOT IDENT.
AS-73	4.475E-01	1.995E+00	3.272E+00	0.000E+00	NOT IDENT.
AS-74	1.596E-02	1.276E-01	2.229E-01	0.000E+00	NOT IDENT.
SE-75	-9.221E-02	7.318E-02	1.252E-01	0.000E+00	FAIL ABUN
BR-77	-1.134E+00	3.065E+00	5.231E+00	0.000E+00	FAIL ABUN
SR-82	-4.542E-01	5.954E-01	9.494E-01	0.000E+00	NOT IDENT.
RB-83	-2.668E-02	1.231E-01	2.122E-01	0.000E+00	NOT IDENT.
RB-84	4.094E-02	1.346E-01	2.318E-01	0.000E+00	NOT IDENT.
KR-85	1.226E+01	1.493E+01	2.411E+01	0.000E+00	NOT IDENT.
SR-85	5.877E-02	7.159E-02	1.156E-01	0.000E+00	NOT IDENT.
RB-86	-1.923E-01	1.258E+00	2.161E+00	0.000E+00	NOT IDENT.
Y-88	-6.666E-03	3.955E-02	6.292E-02	0.000E+00	NOT IDENT.
ZR-88	1.089E-02	5.312E-02	9.542E-02	0.000E+00	NOT IDENT.
Y-91	1.346E+01	1.832E+01	3.442E+01	0.000E+00	NOT IDENT.
NB-94	5.481E-02	5.752E-02	1.052E-01	0.000E+00	NOT IDENT.
NB-95	4.154E-02	7.427E-02	1.312E-01	0.000E+00	NOT IDENT.
NB-95M	2.547E-01	2.249E-01	3.617E-01	0.000E+00	NOT IDENT.
ZR-95	1.831E-02	1.227E-01	2.114E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	4.327E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	6.659E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.783E+00	4.324E+00	7.130E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.279E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.018E-02	5.448E-02	9.790E-02	0.000E+00	NOT IDENT.
RH-102	2.778E-02	6.094E-02	1.095E-01	0.000E+00	NOT IDENT.
RU-103	-1.570E-02	6.712E-02	1.159E-01	0.000E+00	FAIL ABUN
RH-106	-6.985E-02	5.826E-01	9.975E-01	0.000E+00	FAIL ABUN
RU-106	-6.985E-02	5.825E-01	9.975E-01	0.000E+00	FAIL ABUN
AG-108M	-1.345E-02	6.375E-02	1.114E-01	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	7.966E-02	1.396E-01	0.000E+00	NOT IDENT.
IN-111	-7.138E-01	4.227E-01	6.680E-01	0.000E+00	NOT IDENT.
IN-113M	2.914E-02	7.951E-02	1.440E-01	0.000E+00	NOT IDENT.
SN-113	2.914E-02	7.951E-02	1.440E-01	0.000E+00	NOT IDENT.
IN-114M	3.966E-02	2.963E-01	4.566E-01	0.000E+00	NOT IDENT.
CD-115	3.750E-01	2.954E+00	5.195E+00	0.000E+00	NOT IDENT.
SN-117M	-1.481E-02	6.060E-02	1.058E-01	0.000E+00	NOT IDENT.
SB-122	-1.462E+00	8.022E-01	1.226E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.631E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.254E-02	4.151E-02	7.226E-02	0.000E+00	NOT IDENT.
I-124	-2.026E-01	4.749E-01	6.814E-01	0.000E+00	NOT IDENT.
SB-124	-5.405E-02	8.939E-02	1.276E-01	0.000E+00	FAIL ABUN
SB-125	3.014E-02	1.828E-01	3.260E-01	0.000E+00	NOT IDENT.
TE-125M	-2.491E+00	1.224E+01	2.181E+01	0.000E+00	NOT IDENT.
I-126	-3.354E-02	2.531E-01	3.707E-01	0.000E+00	NOT IDENT.
SB-126	-4.585E-02	1.848E-01	3.100E-01	0.000E+00	NOT IDENT.
SB-127	-6.091E-01	7.759E-01	1.248E+00	0.000E+00	NOT IDENT.
XE-127	-4.992E-02	7.568E-02	1.172E-01	0.000E+00	NOT IDENT.
I-131	-6.114E-02	1.148E-01	1.988E-01	0.000E+00	NOT IDENT.
TE-132	-4.330E-02	3.108E-01	5.349E-01	0.000E+00	NOT IDENT.
BA-133	2.362E-03	8.410E-02	1.311E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.137E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.648E-02	9.058E-02	1.615E-01	0.000E+00	NOT IDENT.
CS-135	2.068E-01	2.690E-01	5.033E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.118E+08	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.378E-01	1.477E-01	2.377E-01	0.000E+00	NOT IDENT.
CE-139	3.729E-02	4.466E-02	8.161E-02	0.000E+00	NOT IDENT.
BA-140	-8.031E-02	3.459E-01	5.926E-01	0.000E+00	NOT IDENT.
LA-140	-3.774E-04	7.446E-02	1.253E-01	0.000E+00	NOT IDENT.
CE-141	-3.450E-02	8.725E-02	1.513E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.063E+01	1.886E+01	0.000E+00	FAIL ABUN
CE-144	-4.599E-01	3.238E-01	5.291E-01	0.000E+00	NOT IDENT.
PM-144	-3.025E-02	6.052E-02	9.976E-02	0.000E+00	NOT IDENT.
PR-144	-2.043E+00	4.087E+00	6.738E+00	0.000E+00	NOT IDENT.
PM-146	-8.257E-02	9.569E-02	1.610E-01	0.000E+00	NOT IDENT.
ND-147	2.913E-01	7.364E-01	1.313E+00	0.000E+00	NOT IDENT.
PM-149	8.644E+00	2.123E+01	3.906E+01	0.000E+00	NOT IDENT.
EU-152	1.601E-01	2.181E-01	3.384E-01	0.000E+00	FAIL ABUN
GD-153	1.328E-01	1.189E-01	2.004E-01	0.000E+00	NOT IDENT.
EU-154	6.229E-02	1.326E-01	2.422E-01	0.000E+00	FAIL ABUN

EU-155	3.101E-02	1.501E-01	2.729E-01	0.000E+00	FAIL ABUN
TB-160	-3.369E-02	2.817E-01	4.703E-01	0.000E+00	FAIL ABUN
HO-166M	7.881E-02	1.115E-01	2.003E-01	0.000E+00	FAIL ABUN
TM-171	-4.810E-01	4.397E+01	7.799E+01	0.000E+00	FAIL ABUN
LU-176	-3.937E-02	4.202E-02	7.214E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.158E+00	1.799E+00	0.000E+00	FAIL ABUN
LU-177M	1.105E-02	3.255E-01	5.778E-01	0.000E+00	FAIL ABUN
HF-181	-7.295E-02	7.600E-02	1.259E-01	0.000E+00	NOT IDENT.
W-181	-2.100E-01	6.017E-01	9.539E-01	0.000E+00	NOT IDENT.
TA-182	-1.400E-01	2.124E-01	3.352E-01	0.000E+00	NOT IDENT.
RE-183	-1.091E-01	1.582E-01	2.699E-01	0.000E+00	FAIL ABUN
RE-184	8.555E-02	4.078E-01	7.101E-01	0.000E+00	FAIL ABUN
OS-185	-1.591E-02	7.187E-02	1.217E-01	0.000E+00	FAIL ABUN
RE-188	8.870E-02	2.438E-01	4.381E-01	0.000E+00	NOT IDENT.
W-188	-2.357E+01	1.301E+01	2.160E+01	0.000E+00	NOT IDENT.
IR-192	-2.988E-02	5.665E-02	9.929E-02	0.000E+00	NOT IDENT.
AU-195	9.522E-02	3.432E-01	5.811E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.400E+01	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.073E-01	2.498E+00	4.441E+00	0.000E+00	NOT IDENT.
TL-202	1.357E-02	9.196E-02	1.637E-01	0.000E+00	NOT IDENT.
HG-203	2.195E-02	6.445E-02	1.185E-01	0.000E+00	NOT IDENT.
BI-207	-3.666E-02	1.123E-01	1.920E-01	0.000E+00	FAIL ABUN
TL-207	-6.569E-01	1.193E+00	2.081E+00	0.000E+00	FAIL ABUN
PO-209	-6.937E+00	1.666E+01	2.716E+01	0.000E+00	NOT IDENT.
BI-210	-7.093E+00	6.606E+00	1.188E+01	0.000E+00	NOT IDENT.
PB-210	-7.093E+00	6.606E+00	1.188E+01	0.000E+00	NOT IDENT.
PO-210	-7.093E+00	6.601E+00	1.188E+01	0.000E+00	NOT IDENT.
PB-211	2.244E-02	1.713E+00	3.041E+00	0.000E+00	NOT IDENT.
BI-212	6.294E-01	5.450E-01	1.000E+00	0.000E+00	NOT IDENT.
PB-214	0.000E+00	2.222E-01	3.231E-01	0.000E+00	FAIL ABUN
PO-214	0.000E+00	2.222E-01	3.231E-01	0.000E+00	FAIL ABUN
PO-215	-6.569E-01	1.193E+00	2.081E+00	0.000E+00	FAIL ABUN
PO-218	0.000E+00	2.222E-01	3.231E-01	0.000E+00	FAIL ABUN
RN-219	-1.259E-01	7.384E-01	1.298E+00	0.000E+00	NOT IDENT.
RN-220	-8.558E+00	4.918E+01	8.465E+01	0.000E+00	NOT IDENT.
RA-223	-6.569E-01	1.193E+00	2.081E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	1.553E+00	2.732E+00	0.000E+00	NOT IDENT.
AC-227	-4.051E-01	6.773E-01	1.126E+00	0.000E+00	NOT IDENT.
TH-227	-4.051E-01	6.783E-01	1.126E+00	0.000E+00	FAIL ABUN
TH-229	-1.549E-01	8.154E-01	1.413E+00	0.000E+00	FAIL ABUN
PA-231	-1.272E+00	2.704E+00	4.765E+00	0.000E+00	NOT IDENT.
TH-231	-6.569E-01	1.193E+00	2.081E+00	0.000E+00	FAIL ABUN
U-231	-5.101E-01	5.851E-01	8.748E-01	0.000E+00	FAIL ABUN
PA-233	7.532E-02	1.124E-01	2.087E-01	0.000E+00	FAIL ABUN
PA-234	1.074E-01	7.521E-01	1.272E+00	0.000E+00	FAIL ABUN
PA-234M	4.859E+00	9.524E+00	1.717E+01	0.000E+00	NOT IDENT.
TH-234	-2.025E+00	2.271E+00	3.479E+00	0.000E+00	FAIL ABUN
U-235	6.613E-02	3.298E-01	5.870E-01	0.000E+00	FAIL ABUN
NP-236	-4.815E-02	1.197E-01	2.072E-01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	1.639E+00	1.267E+00	0.000E+00	NOT IDENT.
U-238	-2.025E+00	2.271E+00	3.479E+00	0.000E+00	FAIL ABUN
NP-239	2.890E-01	3.191E-01	5.277E-01	0.000E+00	FAIL ABUN
CM-243	8.257E-02	1.380E-01	2.550E-01	0.000E+00	FAIL ABUN
AM-246	-6.070E-02	2.846E-01	4.866E-01	0.000E+00	NOT IDENT.
CM-247	-1.183E-02	6.638E-02	1.167E-01	0.000E+00	NOT IDENT.
CF-249	1.223E-02	7.440E-02	1.334E-01	0.000E+00	NOT IDENT.
CF-251	4.375E-02	2.014E-01	3.573E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 18:46:18.18

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028550.CNF;1
Sample date       : 1-FEB-2010 00:00:00. Acquisition date : 9-FEB-2010 17:44:57.
Sample ID         : G1202028550          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.50  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MJH1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 947037               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	284	85.51*	6.863E+00	2.341E-01	2.394E-01	30.45
	136.48	------	10.60	6.738E+00	------ Line Not Found		------
CO-60	1173.22	1859	100.00	1.398E+00	6.424E+00	6.444E+00	7.51
	1332.49	1741	100.00*	1.256E+00	6.693E+00	6.714E+00	8.82
CD-109	88.03	1459	3.72*	6.145E+00	3.082E+01	3.123E+01	12.38
SN-126	64.28	------	9.60	3.765E+00	------ Line Not Found		------
	86.94	1459	8.90	6.145E+00	1.288E+01	1.288E+01	42.30
	87.57	1459	37.00*	6.145E+00	3.099E+00	3.099E+00	12.38
BA-137M	661.65	2243	89.98*	2.301E+00	5.231E+00	5.234E+00	7.58
CS-137	661.65	2243	85.12*	2.301E+00	5.530E+00	5.533E+00	7.60
TL-208	277.35	------	6.80	4.511E+00	------ Line Not Found		------
	510.84	56	21.60	2.842E+00	4.407E-01	4.407E-01	127.99
	583.14	150	84.20*	2.553E+00	3.375E-01	3.375E-01	44.47
	860.37	------	12.46	1.837E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	4.857E+00	------ Line Not Found		------
	351.07	221	12.94*	3.788E+00	2.176E+00	2.176E+00	29.49
PB-212	74.81	225	10.70	5.073E+00	1.998E+00	1.998E+00	31.26
	77.11	276	18.00	5.300E+00	1.396E+00	1.396E+00	33.22
	87.30	1459	8.00	6.145E+00	1.433E+01	1.433E+01	15.91
	238.63	425	44.60*	5.019E+00	9.169E-01	9.169E-01	22.44
	300.09	------	3.41	4.261E+00	------ Line Not Found		------
PO-212	74.81	225	10.70	5.073E+00	1.998E+00	1.998E+00	31.26
	77.11	276	18.00	5.300E+00	1.396E+00	1.396E+00	33.22
	87.30	1459	8.00	6.145E+00	1.433E+01	1.433E+01	15.91
	115.19	------	0.60	6.866E+00	------ Line Not Found		------
	238.63	425	44.60*	5.019E+00	9.169E-01	9.169E-01	22.44
	300.09	------	3.41	4.261E+00	------ Line Not Found		------
BI-214	609.31	127	46.30*	2.464E+00	5.371E-01	5.371E-01	38.06
	1120.29	------	15.10	1.456E+00	------ Line Not Found		------
	1764.49	35	15.80	1.029E+00	1.045E+00	1.045E+00	42.85
PO-216	74.81	225	10.70	5.073E+00	1.998E+00	1.998E+00	31.26
	77.11	276	18.00	5.300E+00	1.396E+00	1.396E+00	33.22

Sample ID : G1202028550 Acquisition date : 9-FEB-2010 17:44:57

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	1459	8.00	6.145E+00	1.433E+01	1.433E+01	15.91
	238.63	425	44.60*	5.019E+00	9.169E-01	9.169E-01	22.44
	300.09	------	3.41	4.261E+00	------ Line Not Found		------
RA-226	609.31	127	46.30*	2.464E+00	5.371E-01	5.371E-01	38.06
	1120.29	------	15.10	1.456E+00	------ Line Not Found		------
	1764.49	35	15.80	1.029E+00	1.045E+00	1.045E+00	42.85
AC-228	338.32	81	11.40	3.899E+00	8.761E-01	8.761E-01	73.69
	911.07	99	27.70*	1.745E+00	9.877E-01	9.877E-01	52.23
	969.11	60	16.60	1.653E+00	1.050E+00	1.050E+00	67.09
RA-228	338.32	81	11.40	3.899E+00	8.761E-01	8.761E-01	73.69
	911.07	99	27.70*	1.745E+00	9.877E-01	9.877E-01	52.23
	969.11	60	16.60	1.653E+00	1.050E+00	1.050E+00	67.09
TH-228	74.81	225	10.70	5.073E+00	1.998E+00	2.015E+00	29.85
	77.11	276	18.00	5.300E+00	1.396E+00	1.408E+00	33.22
	87.30	1459	8.00	6.145E+00	1.433E+01	1.446E+01	12.38
	238.63	425	44.60*	5.019E+00	9.169E-01	9.249E-01	22.44
	300.09	------	3.41	4.261E+00	------ Line Not Found		------
TH-230	609.31	127	46.30*	2.464E+00	5.371E-01	5.371E-01	38.06
	1120.29	------	15.10	1.456E+00	------ Line Not Found		------
	1764.49	35	15.80	1.029E+00	1.045E+00	1.045E+00	42.85
TH-232	338.32	81	11.40	3.899E+00	8.761E-01	8.761E-01	61.66
	911.07	99	27.70*	1.745E+00	9.877E-01	9.877E-01	52.23
	969.11	60	16.60	1.653E+00	1.050E+00	1.050E+00	67.09
U-234	609.31	127	46.30*	2.464E+00	5.371E-01	5.371E-01	38.06
	1120.29	------	15.10	1.456E+00	------ Line Not Found		------
	1764.49	35	15.80	1.029E+00	1.045E+00	1.045E+00	42.85
AM-241	59.54	3014	35.90*	3.068E+00	1.322E+01	1.322E+01	10.17
AM-243	74.67	225	66.00*	5.073E+00	3.239E-01	3.239E-01	29.83
	86.72	1459	0.34	6.145E+00	3.412E+02	3.412E+02	12.38
	117.66	------	0.55	6.871E+00	------ Line Not Found		------
	142.18	------	0.13	6.659E+00	------ Line Not Found		------
ANH-511	511.00	56	100.00*	2.842E+00	9.520E-02	9.520E-02	127.72

Flag: "*" = Keyline

Sample ID : G1202028550 Acquisition date : 9-FEB-2010 17:44:57

Total number of lines in spectrum 20
Number of unidentified lines 0
Number of lines tentatively identified by NID 20 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	2.341E-01	2.394E-01	0.729E-01	30.45	
CO-60	5.27Y	1.00	6.693E+00	6.714E+00	0.592E+00	8.82	
CD-109	464.00D	1.01	3.082E+01	3.123E+01	0.386E+01	12.38	
SN-126	1.00E+05Y	1.00	3.099E+00	3.099E+00	0.383E+00	12.38	
BA-137M	30.17Y	1.00	5.231E+00	5.234E+00	0.397E+00	7.58	
CS-137	30.17Y	1.00	5.530E+00	5.533E+00	0.421E+00	7.60	
TL-208	1.41E+10Y	1.00	3.375E-01	3.375E-01	1.501E-01	44.47	
BI-211	7.04E+08Y	1.00	2.176E+00	2.176E+00	0.642E+00	29.49	
PB-212	1.41E+10Y	1.00	9.169E-01	9.169E-01	2.057E-01	22.44	
PO-212	1.41E+10Y	1.00	9.169E-01	9.169E-01	2.057E-01	22.44	
BI-214	1600.00Y	1.00	5.371E-01	5.371E-01	2.044E-01	38.06	
PO-216	1.41E+10Y	1.00	9.169E-01	9.169E-01	2.057E-01	22.44	
RA-226	1600.00Y	1.00	5.371E-01	5.371E-01	2.044E-01	38.06	
AC-228	1.41E+10Y	1.00	9.877E-01	9.877E-01	5.159E-01	52.23	
RA-228	1.41E+10Y	1.00	9.877E-01	9.877E-01	5.159E-01	52.23	
TH-228	1.91Y	1.01	9.169E-01	9.249E-01	2.075E-01	22.44	
TH-230	4.47E+09Y	1.00	5.371E-01	5.371E-01	2.044E-01	38.06	
TH-232	1.41E+10Y	1.00	9.877E-01	9.877E-01	5.159E-01	52.23	
U-234	4.47E+09Y	1.00	5.371E-01	5.371E-01	2.044E-01	38.06	
AM-241	432.20Y	1.00	1.322E+01	1.322E+01	0.134E+01	10.17	
AM-243	7380.00Y	1.00	3.239E-01	3.239E-01	0.966E-01	29.83	
ANH-511	1.00E+09Y	1.00	9.520E-02	9.520E-02	12.16E-02	127.72	
	Total Activity :		7.653E+01	7.698E+01			

Grand Total Activity : 7.653E+01 7.698E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202028550 Acquisition date : 9-FEB-2010 17:44:57

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.78	99	275	1.36	185.38	182	9	2.75E-02	66.9	6.39E+00	T
0	185.73	78	252	1.28	371.13	367	9	2.17E-02	78.4	5.89E+00	T
0	208.95	106	238	1.53	417.54	413	9	2.94E-02	56.1	5.48E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-FEB-2010 18:46:23.30

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202028550.CNF;1  *
* Acquisition date  : 9-FEB-2010 17:44:57.  Detector SN#     :            *
* Detector ID       : GAM19                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 01:00:01.50          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 1-FEB-2010 00:00:00.  Nuclide Library : SOLID       *
* Sample ID         : G1202028550           Analyst initials: MJH1        *
* Batch Number      : 947037                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.394E-01	7.288E-02	6.324E-02	3.774E-03	3.785
CO-60	6.714E+00	5.920E-01	7.896E-02	5.819E-03	85.029
CD-109	3.123E+01	3.864E+00	2.178E+00	1.951E-01	14.333
SN-126	3.099E+00	3.835E-01	2.171E-01	1.937E-02	14.272
BA-137M	5.234E+00	3.968E-01	1.098E-01	6.392E-03	47.685
CS-137	5.533E+00	4.205E-01	1.160E-01	6.785E-03	47.685
TL-208	3.375E-01	1.501E-01	1.051E-01	7.145E-03	3.212
BI-211	2.176E+00	6.419E-01	6.041E-01	3.857E-02	3.602
PB-212	9.169E-01	2.057E-01	1.977E-01	1.427E-02	4.637
PO-212	9.169E-01	2.057E-01	1.977E-01	1.427E-02	4.637
BI-214	5.371E-01	2.044E-01	2.121E-01	1.668E-02	2.532
PO-216	9.169E-01	2.057E-01	1.977E-01	1.427E-02	4.637
RA-226	5.371E-01	2.044E-01	2.121E-01	1.668E-02	2.532
AC-228	9.877E-01	5.159E-01	5.252E-01	5.941E-02	1.881
RA-228	9.877E-01	5.159E-01	5.252E-01	5.941E-02	1.881
TH-228	9.249E-01	2.075E-01	1.995E-01	1.440E-02	4.637
TH-230	5.371E-01	2.044E-01	2.121E-01	1.668E-02	2.532
TH-232	9.877E-01	5.159E-01	5.252E-01	5.941E-02	1.881

Sample ID : G1202028550 Acquisition date : 9-FEB-2010 17:44:57

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-234	5.371E-01	2.044E-01	2.121E-01	1.668E-02	2.532
AM-241	1.322E+01	1.344E+00	4.946E-01	4.072E-02	26.722
AM-243	3.239E-01	9.661E-02	1.361E-01	1.080E-02	2.379
ANH-511	9.520E-02	1.216E-01	8.934E-02	5.272E-03	1.066

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.295E-01		6.151E-01	1.006E+00	6.830E-02	-0.129
NA-22	1.469E-02		4.924E-02	8.521E-02	5.684E-03	0.172
NA-24	4.147E-04		3.422E-04	Half-Life too short		
AL-26	-1.707E-02		4.219E-02	6.190E-02	3.614E-03	-0.276
K-40	5.971E-01		5.680E-01	1.085E+00	8.078E-02	0.551
TI-44	2.576E-01	+	8.557E-02	1.066E-01	8.702E-03	2.416
SC-46	-7.034E-02		8.778E-02	1.329E-01	1.155E-02	-0.529
V-48	9.007E-02		1.275E-01	2.149E-01	1.728E-02	0.419
CR-51	-5.383E-01		5.631E-01	8.970E-01	5.805E-02	-0.600
MN-52	9.644E-03		1.281E-01	2.144E-01	1.546E-02	0.045
MN-54	7.404E-03		7.795E-02	1.270E-01	1.010E-02	0.058
CO-56	-7.267E-03		7.667E-02	1.231E-01	9.984E-03	-0.059
CO-58	-4.955E-02		7.791E-02	1.200E-01	9.193E-03	-0.413
FE-59	-3.282E-02		1.689E-01	2.784E-01	2.089E-02	-0.118
ZN-65	-1.288E-02		1.742E-01	2.896E-01	1.852E-02	-0.044
GE-68	-4.662E-01		2.507E+00	4.138E+00	2.863E-01	-0.113
AS-73	4.475E-01		2.036E+00	2.977E+00	2.202E-01	0.150
AS-74	1.596E-02		1.302E-01	2.156E-01	1.277E-02	0.074
SE-75	-9.221E-02		7.468E-02	1.186E-01	6.895E-03	-0.778
BR-77	-1.134E+00		3.128E+00	5.042E+00	2.981E-01	-0.225
SR-82	-4.542E-01		6.075E-01	9.250E-01	6.660E-02	-0.491
RB-83	-2.668E-02		1.256E-01	2.045E-01	1.209E-02	-0.130
RB-84	4.094E-02		1.374E-01	2.266E-01	1.945E-02	0.181
KR-85	1.226E+01		1.524E+01	2.322E+01	1.371E+00	0.528
SR-85	5.877E-02		7.305E-02	1.113E-01	6.574E-03	0.528
RB-86	-1.923E-01		1.283E+00	2.124E+00	1.472E-01	-0.091
Y-88	-6.666E-03		4.035E-02	6.280E-02	3.585E-03	-0.106
ZR-88	1.089E-02		5.420E-02	9.128E-02	5.083E-03	0.119
Y-91	1.346E+01		1.869E+01	3.394E+01	1.982E+00	0.397
NB-94	5.481E-02		5.870E-02	1.023E-01	6.441E-03	0.536
NB-95	4.154E-02		7.578E-02	1.278E-01	9.032E-03	0.325
NB-95M	2.547E-01		2.295E-01	3.415E-01	2.530E-02	0.746
ZR-95	1.831E-02		1.252E-01	2.058E-01	1.648E-02	0.089
NB-97	1.182E-03		2.208E-04	Half-Life too short		
ZR-97	3.796E-03		3.397E-03	Half-Life too short		
MO-99	-1.783E+00		4.412E+00	6.937E+00	9.853E-01	-0.257
TC-99M	1.291E+02		6.527E+02	Half-Life too short		
RH-101	4.018E-02		5.559E-02	9.200E-02	4.991E-03	0.437
RH-102	2.778E-02		6.218E-02	1.053E-01	6.148E-03	0.264

Sample ID : G1202028550 Acquisition date : 9-FEB-2010 17:44:57

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-103	-1.570E-02		6.849E-02	1.115E-01	1.414E-02	-0.141
RH-106	-6.985E-02		5.945E-01	9.659E-01	1.138E-01	-0.072
RU-106	-6.985E-02		5.944E-01	9.659E-01	5.696E-02	-0.072
AG-108M	-1.345E-02		6.505E-02	1.068E-01	6.652E-03	-0.126
AG-110M	1.732E-01		8.128E-02	1.354E-01	8.400E-03	1.279
IN-111	-7.138E-01		4.313E-01	6.313E-01	3.589E-02	-1.131
IN-113M	2.914E-02		8.113E-02	1.377E-01	8.216E-03	0.212
SN-113	2.914E-02		8.113E-02	1.377E-01	8.216E-03	0.212
IN-114M	3.966E-02		3.023E-01	4.287E-01	2.304E-02	0.093
CD-115	3.750E-01		3.015E+00	5.008E+00	2.965E-01	0.075
SN-117M	-1.481E-02		6.184E-02	9.890E-02	5.264E-03	-0.150
SB-122	-1.462E+00		8.186E-01	1.185E+00	7.032E-02	-1.234
I-123	-7.948E-04		1.342E-03	Half-Life too short		
TE-123M	-1.254E-02		4.236E-02	6.754E-02	3.647E-03	-0.186
I-124	-2.026E-01		4.846E-01	6.593E-01	3.902E-02	-0.307
SB-124	-5.405E-02		9.122E-02	1.270E-01	8.701E-03	-0.425
SB-125	3.014E-02		1.866E-01	3.126E-01	1.861E-02	0.096
TE-125M	-2.491E+00		1.249E+01	2.019E+01	1.782E+00	-0.123
I-126	-3.354E-02		2.583E-01	3.596E-01	2.113E-02	-0.093
SB-126	-4.585E-02		1.886E-01	3.015E-01	1.963E-02	-0.152
SB-127	-6.091E-01		7.917E-01	1.212E+00	9.302E-02	-0.503
XE-127	-4.992E-02		7.723E-02	1.102E-01	6.013E-03	-0.453
I-131	-6.114E-02		1.171E-01	1.898E-01	1.203E-02	-0.322
TE-132	-4.330E-02		3.171E-01	5.046E-01	6.676E-02	-0.086
BA-133	2.362E-03		8.582E-02	1.251E-01	1.441E-02	0.019
I-133	-9.194E-07		3.641E-05	Half-Life too short		
CS-134	6.648E-02		9.243E-02	1.574E-01	1.184E-02	0.422
CS-135	2.068E-01		2.745E-01	4.767E-01	3.638E-02	0.434
I-135	-3.403E+02		3.122E+02	Half-Life too short		
CS-136	-1.378E-01		1.507E-01	2.335E-01	1.804E-02	-0.590
CE-139	3.729E-02		4.557E-02	7.636E-02	3.986E-03	0.488
BA-140	-8.031E-02		3.530E-01	5.716E-01	1.860E-01	-0.140
LA-140	-3.774E-04		7.598E-02	1.246E-01	8.428E-03	-0.003
CE-141	-3.450E-02		8.903E-02	1.411E-01	8.125E-03	-0.245
CE-143	2.325E+01		1.085E+01	1.791E+01	3.693E+00	1.298
CE-144	-4.599E-01		3.304E-01	4.924E-01	6.975E-02	-0.934
PM-144	-3.025E-02		6.175E-02	9.691E-02	6.035E-03	-0.312
PR-144	-2.043E+00		4.170E+00	6.545E+00	4.075E-01	-0.312
PM-146	-8.257E-02		9.764E-02	1.546E-01	1.332E-02	-0.534
ND-147	2.913E-01		7.514E-01	1.266E+00	1.719E-01	0.230
PM-149	8.644E+00		2.166E+01	3.706E+01	5.246E+00	0.233
EU-152	1.601E-01		2.226E-01	3.226E-01	2.100E-02	0.496
GD-153	1.328E-01		1.213E-01	1.850E-01	1.439E-02	0.718
EU-154	6.229E-02		1.353E-01	2.393E-01	2.368E-02	0.260
EU-155	3.101E-02		1.532E-01	2.525E-01	1.816E-02	0.123
TB-160	-3.369E-02		2.874E-01	4.597E-01	3.933E-02	-0.073
HO-166M	7.881E-02		1.138E-01	1.947E-01	1.247E-02	0.405
TM-171	-4.810E-01		4.487E+01	7.135E+01	5.424E+00	-0.007

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-176	-3.937E-02		4.288E-02	6.857E-02	3.989E-03	-0.574
LU-177	2.097E+00	+	1.181E+00	1.693E+00	9.293E-02	1.239
LU-177M	1.105E-02		3.321E-01	5.535E-01	3.129E-02	0.020
HF-181	-7.295E-02		7.755E-02	1.211E-01	7.084E-03	-0.603
W-181	-2.100E-01		6.140E-01	8.722E-01	6.601E-02	-0.241
TA-182	-1.400E-01		2.168E-01	3.307E-01	1.994E-02	-0.423
RE-183	-1.091E-01		1.614E-01	2.524E-01	1.330E-02	-0.432
RE-184	8.555E-02		4.162E-01	6.716E-01	3.838E-02	0.127
OS-185	-1.591E-02		7.333E-02	1.180E-01	6.909E-03	-0.135
RE-188	8.870E-02		2.488E-01	4.092E-01	2.199E-02	0.217
W-188	-2.357E+01		1.328E+01	2.050E+01	1.190E+00	-1.150
IR-192	-2.988E-02		5.781E-02	9.445E-02	5.518E-03	-0.316
AU-195	9.522E-02		3.502E-01	5.367E-01	4.096E-02	0.177
TL-200	-3.246E-06		7.141E-06	Half-Life too short		
TL-201	5.073E-01		2.549E+00	4.156E+00	2.172E-01	0.122
TL-202	1.357E-02		9.384E-02	1.570E-01	9.018E-03	0.086
HG-203	2.195E-02		6.576E-02	1.123E-01	6.907E-03	0.195
BI-207	-3.666E-02		1.146E-01	1.887E-01	1.340E-02	-0.194
TL-207	-6.569E-01		1.218E+00	1.981E+00	3.272E-01	-0.332
PO-209	-6.937E+00		1.700E+01	2.657E+01	2.336E+00	-0.261
BI-210	-7.093E+00		6.741E+00	1.078E+01	8.216E-01	-0.658
PB-210	-7.093E+00		6.741E+00	1.078E+01	8.216E-01	-0.658
PO-210	-7.093E+00		6.735E+00	1.078E+01	7.025E-01	-0.658
PB-211	2.244E-02		1.748E+00	2.911E+00	1.814E+00	0.008
BI-212	6.294E-01		5.561E-01	9.727E-01	8.097E-02	0.647
PB-214	7.571E-01	+	2.268E-01	3.082E-01	2.541E-02	2.457
PO-214	7.571E-01	+	2.268E-01	3.082E-01	2.541E-02	2.457
PO-215	-6.569E-01		1.218E+00	1.981E+00	3.272E-01	-0.332
PO-218	7.571E-01	+	2.268E-01	3.082E-01	2.541E-02	2.457
RN-219	-1.259E-01		7.534E-01	1.243E+00	1.681E-01	-0.101
RN-220	-8.558E+00		5.018E+01	8.170E+01	4.848E+00	-0.105
RA-223	-6.569E-01		1.218E+00	1.981E+00	3.272E-01	-0.332
RA-224	5.862E+00		1.585E+00	2.581E+00	1.462E-01	2.271
AC-227	-4.051E-01		6.911E-01	1.065E+00	1.484E-01	-0.380
TH-227	-4.051E-01		6.922E-01	1.065E+00	1.798E-01	-0.380
TH-229	-1.549E-01		8.321E-01	1.327E+00	7.160E-02	-0.117
PA-231	-1.272E+00		2.759E+00	4.520E+00	6.229E-01	-0.281
TH-231	-6.569E-01		1.218E+00	1.981E+00	3.272E-01	-0.332
U-231	-5.101E-01		5.971E-01	8.074E-01	6.413E-02	-0.632
PA-233	7.532E-02		1.147E-01	1.984E-01	1.225E-02	0.380
PA-234	1.074E-01		7.674E-01	1.246E+00	2.326E-01	0.086
PA-234M	4.859E+00		9.718E+00	1.685E+01	1.569E+00	0.288
TH-234	-2.025E+00		2.318E+00	3.179E+00	5.562E-01	-0.637
U-235	6.613E-02		3.365E-01	5.473E-01	8.873E-02	0.121
NP-236	-4.815E-02		1.222E-01	1.937E-01	1.026E-02	-0.249
NP-237	6.936E+00		1.672E+00	1.167E+00	2.618E-01	5.944
U-238	-2.025E+00		2.318E+00	3.179E+00	5.562E-01	-0.637
NP-239	2.890E-01		3.256E-01	4.894E-01	3.061E-02	0.590

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	8.257E-02		1.408E-01	2.359E-01	1.696E-02	0.350
AM-246	-6.070E-02		2.904E-01	4.784E-01	3.301E-02	-0.127
CM-247	-1.183E-02		6.773E-02	1.117E-01	6.265E-03	-0.106
CF-249	1.223E-02		7.592E-02	1.276E-01	7.127E-03	0.096
CF-251	4.375E-02		2.055E-01	3.348E-01	1.769E-02	0.131

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202028550          *
* Acquisition date  :  9-FEB-2010 17:44:57 Detector SN#     :               *
* Detector ID       : GAM19                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.50      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  1-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202028550          Analyst initials: MJH1           *
* Batch Number      : 947037               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.394E-01	7.143E-02	3.408E-02	3.644E-02
CO-60	6.714E+00	5.802E-01	3.995E-02	2.960E-01
CD-109	3.123E+01	3.787E+00	1.183E+00	1.932E+00
SN-126	3.099E+00	3.758E-01	1.179E-01	1.917E-01
BA-137M	5.234E+00	3.889E-01	5.661E-02	1.984E-01
CS-137	5.533E+00	4.121E-01	5.984E-02	2.103E-01
TL-208	3.375E-01	1.471E-01	5.437E-02	7.504E-02
BI-211	2.176E+00	6.291E-01	3.169E-01	3.210E-01
PB-212	9.169E-01	2.016E-01	1.048E-01	1.029E-01
PO-212	9.169E-01	2.016E-01	1.048E-01	1.029E-01
BI-214	5.371E-01	2.003E-01	1.096E-01	1.022E-01
PO-216	9.169E-01	2.016E-01	1.048E-01	1.029E-01
RA-226	5.371E-01	2.003E-01	1.096E-01	1.022E-01
AC-228	9.877E-01	5.056E-01	2.685E-01	2.579E-01
RA-228	9.877E-01	5.056E-01	2.685E-01	2.579E-01
TH-228	9.249E-01	2.034E-01	1.057E-01	1.038E-01
TH-230	5.371E-01	2.003E-01	1.096E-01	1.022E-01
TH-232	9.877E-01	5.056E-01	2.685E-01	2.579E-01
U-234	5.371E-01	2.003E-01	1.096E-01	1.022E-01
AM-241	1.322E+01	1.318E+00	2.712E-01	6.722E-01
AM-243	3.239E-01	9.468E-02	7.424E-02	4.830E-02
ANH-511	9.520E-02	1.192E-01	4.640E-02	6.079E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.295E-01	6.028E-01	5.235E-01	3.076E-01	NOT IDENT.
NA-22	1.469E-02	4.825E-02	4.316E-02	2.462E-02	NOT IDENT.
NA-24	4.147E+02	6.707E+02	0.000E+00	3.422E+02	SHORT HLIF
AL-26	-1.707E-02	4.135E-02	3.104E-02	2.110E-02	NOT IDENT.
K-40	5.971E-01	5.567E-01	5.473E-01	2.840E-01	NOT IDENT.

TI-44	2.576E-01	8.386E-02	5.807E-02	4.278E-02	FAIL ABUN
SC-46	-7.034E-02	8.603E-02	6.800E-02	4.389E-02	NOT IDENT.
V-48	9.007E-02	1.249E-01	1.096E-01	6.374E-02	NOT IDENT.
CR-51	-5.383E-01	5.518E-01	4.716E-01	2.816E-01	NOT IDENT.
MN-52	9.644E-03	1.255E-01	1.082E-01	6.405E-02	FAIL ABUN
MN-54	7.404E-03	7.639E-02	6.508E-02	3.898E-02	NOT IDENT.
CO-56	-7.267E-03	7.514E-02	6.304E-02	3.833E-02	FAIL ABUN
CO-58	-4.955E-02	7.636E-02	6.153E-02	3.896E-02	NOT IDENT.
FE-59	-3.282E-02	1.655E-01	1.416E-01	8.446E-02	NOT IDENT.
ZN-65	-1.288E-02	1.708E-01	1.472E-01	8.712E-02	NOT IDENT.
GE-68	-4.662E-01	2.457E+00	2.106E+00	1.254E+00	NOT IDENT.
AS-73	4.475E-01	1.995E+00	1.637E+00	1.018E+00	NOT IDENT.
AS-74	1.596E-02	1.276E-01	1.115E-01	6.511E-02	NOT IDENT.
SE-75	-9.221E-02	7.318E-02	6.266E-02	3.734E-02	FAIL ABUN
BR-77	-1.134E+00	3.065E+00	2.617E+00	1.564E+00	FAIL ABUN
SR-82	-4.542E-01	5.954E-01	4.750E-01	3.038E-01	NOT IDENT.
RB-83	-2.668E-02	1.231E-01	1.062E-01	6.282E-02	NOT IDENT.
RB-84	4.094E-02	1.346E-01	1.159E-01	6.870E-02	NOT IDENT.
KR-85	1.226E+01	1.493E+01	1.206E+01	7.619E+00	NOT IDENT.
SR-85	5.877E-02	7.159E-02	5.781E-02	3.652E-02	NOT IDENT.
RB-86	-1.923E-01	1.258E+00	1.081E+00	6.417E-01	NOT IDENT.
Y-88	-6.666E-03	3.955E-02	3.148E-02	2.018E-02	NOT IDENT.
ZR-88	1.089E-02	5.312E-02	4.774E-02	2.710E-02	NOT IDENT.
Y-91	1.346E+01	1.832E+01	1.722E+01	9.346E+00	NOT IDENT.
NB-94	5.481E-02	5.752E-02	5.266E-02	2.935E-02	NOT IDENT.
NB-95	4.154E-02	7.427E-02	6.566E-02	3.789E-02	NOT IDENT.
NB-95M	2.547E-01	2.249E-01	1.810E-01	1.147E-01	NOT IDENT.
ZR-95	1.831E-02	1.227E-01	1.058E-01	6.262E-02	NOT IDENT.
NB-97	1.182E+03	4.327E+02	0.000E+00	2.208E+02	SHORT HLIF
ZR-97	3.796E+03	6.659E+03	0.000E+00	3.397E+03	SHORT HLIF
MO-99	-1.783E+00	4.324E+00	3.567E+00	2.206E+00	NOT IDENT.
TC-99M	1.291E+08	1.279E+09	0.000E+00	6.527E+08	SHORT HLIF
RH-101	4.018E-02	5.448E-02	4.898E-02	2.780E-02	NOT IDENT.
RH-102	2.778E-02	6.094E-02	5.481E-02	3.109E-02	NOT IDENT.
RU-103	-1.570E-02	6.712E-02	5.797E-02	3.425E-02	FAIL ABUN
RH-106	-6.985E-02	5.826E-01	4.990E-01	2.972E-01	FAIL ABUN
RU-106	-6.985E-02	5.825E-01	4.990E-01	2.972E-01	FAIL ABUN
AG-108M	-1.345E-02	6.375E-02	5.571E-02	3.252E-02	NOT IDENT.
AG-110M	1.732E-01	7.966E-02	6.983E-02	4.064E-02	NOT IDENT.
IN-111	-7.138E-01	4.227E-01	3.342E-01	2.157E-01	NOT IDENT.
IN-113M	2.914E-02	7.951E-02	7.202E-02	4.056E-02	NOT IDENT.
SN-113	2.914E-02	7.951E-02	7.202E-02	4.056E-02	NOT IDENT.
IN-114M	3.966E-02	2.963E-01	2.284E-01	1.512E-01	NOT IDENT.
CD-115	3.750E-01	2.954E+00	2.599E+00	1.507E+00	NOT IDENT.
SN-117M	-1.481E-02	6.060E-02	5.294E-02	3.092E-02	NOT IDENT.
SB-122	-1.462E+00	8.022E-01	6.136E-01	4.093E-01	NOT IDENT.
I-123	-7.948E+02	2.631E+03	0.000E+00	1.342E+03	SHORT HLIF
TE-123M	-1.254E-02	4.151E-02	3.615E-02	2.118E-02	NOT IDENT.
I-124	-2.026E-01	4.749E-01	3.409E-01	2.423E-01	NOT IDENT.
SB-124	-5.405E-02	8.939E-02	6.384E-02	4.561E-02	FAIL ABUN
SB-125	3.014E-02	1.828E-01	1.631E-01	9.328E-02	NOT IDENT.
TE-125M	-2.491E+00	1.224E+01	1.091E+01	6.247E+00	NOT IDENT.
I-126	-3.354E-02	2.531E-01	1.854E-01	1.291E-01	NOT IDENT.
SB-126	-4.585E-02	1.848E-01	1.551E-01	9.430E-02	NOT IDENT.
SB-127	-6.091E-01	7.759E-01	6.243E-01	3.958E-01	NOT IDENT.
XE-127	-4.992E-02	7.568E-02	5.863E-02	3.861E-02	NOT IDENT.
I-131	-6.114E-02	1.148E-01	9.947E-02	5.855E-02	NOT IDENT.
TE-132	-4.330E-02	3.108E-01	2.676E-01	1.586E-01	NOT IDENT.
BA-133	2.362E-03	8.410E-02	6.557E-02	4.291E-02	NOT IDENT.
I-133	-9.194E-01	7.137E+01	0.000E+00	3.641E+01	SHORT HLIF
CS-134	6.648E-02	9.058E-02	8.078E-02	4.621E-02	NOT IDENT.
CS-135	2.068E-01	2.690E-01	2.518E-01	1.372E-01	NOT IDENT.
I-135	-3.403E+08	6.118E+08	0.000E+00	3.122E+08	SHORT HLIF
CS-136	-1.378E-01	1.477E-01	1.189E-01	7.535E-02	NOT IDENT.
CE-139	3.729E-02	4.466E-02	4.083E-02	2.278E-02	NOT IDENT.
BA-140	-8.031E-02	3.459E-01	2.965E-01	1.765E-01	NOT IDENT.
LA-140	-3.774E-04	7.446E-02	6.270E-02	3.799E-02	NOT IDENT.
CE-141	-3.450E-02	8.725E-02	7.570E-02	4.452E-02	NOT IDENT.
CE-143	2.325E+01	1.063E+01	9.437E+00	5.426E+00	FAIL ABUN
CE-144	-4.599E-01	3.238E-01	2.647E-01	1.652E-01	NOT IDENT.
PM-144	-3.025E-02	6.052E-02	4.991E-02	3.088E-02	NOT IDENT.
PR-144	-2.043E+00	4.087E+00	3.371E+00	2.085E+00	NOT IDENT.
PM-146	-8.257E-02	9.569E-02	8.055E-02	4.882E-02	NOT IDENT.
ND-147	2.913E-01	7.364E-01	6.570E-01	3.757E-01	NOT IDENT.
PM-149	8.644E+00	2.123E+01	1.954E+01	1.083E+01	NOT IDENT.
EU-152	1.601E-01	2.181E-01	1.693E-01	1.113E-01	FAIL ABUN
GD-153	1.328E-01	1.189E-01	1.003E-01	6.064E-02	NOT IDENT.
EU-154	6.229E-02	1.326E-01	1.212E-01	6.764E-02	FAIL ABUN

EU-155	3.101E-02	1.501E-01	1.365E-01	7.661E-02	FAIL ABUN
TB-160	-3.369E-02	2.817E-01	2.353E-01	1.437E-01	FAIL ABUN
HO-166M	7.881E-02	1.115E-01	1.002E-01	5.690E-02	FAIL ABUN
TM-171	-4.810E-01	4.397E+01	3.902E+01	2.243E+01	FAIL ABUN
LU-176	-3.937E-02	4.202E-02	3.609E-02	2.144E-02	FAIL ABUN
LU-177	2.097E+00	1.158E+00	8.999E-01	5.907E-01	FAIL ABUN
LU-177M	1.105E-02	3.255E-01	2.890E-01	1.661E-01	FAIL ABUN
HF-181	-7.295E-02	7.600E-02	6.297E-02	3.877E-02	NOT IDENT.
W-181	-2.100E-01	6.017E-01	4.772E-01	3.070E-01	NOT IDENT.
TA-182	-1.400E-01	2.124E-01	1.677E-01	1.084E-01	NOT IDENT.
RE-183	-1.091E-01	1.582E-01	1.350E-01	8.072E-02	FAIL ABUN
RE-184	8.555E-02	4.078E-01	3.553E-01	2.081E-01	FAIL ABUN
OS-185	-1.591E-02	7.187E-02	6.089E-02	3.667E-02	FAIL ABUN
RE-188	8.870E-02	2.438E-01	2.192E-01	1.244E-01	NOT IDENT.
W-188	-2.357E+01	1.301E+01	1.080E+01	6.640E+00	NOT IDENT.
IR-192	-2.988E-02	5.665E-02	4.967E-02	2.890E-02	NOT IDENT.
AU-195	9.522E-02	3.432E-01	2.907E-01	1.751E-01	FAIL ABUN
TL-200	-3.246E+00	1.400E+01	0.000E+00	7.141E+00	SHORT HLIF
TL-201	5.073E-01	2.498E+00	2.222E+00	1.274E+00	NOT IDENT.
TL-202	1.357E-02	9.196E-02	8.188E-02	4.692E-02	NOT IDENT.
HG-203	2.195E-02	6.445E-02	5.927E-02	3.288E-02	NOT IDENT.
BI-207	-3.666E-02	1.123E-01	9.607E-02	5.731E-02	FAIL ABUN
TL-207	-6.569E-01	1.193E+00	1.041E+00	6.088E-01	FAIL ABUN
PO-209	-6.937E+00	1.666E+01	1.359E+01	8.501E+00	NOT IDENT.
BI-210	-7.093E+00	6.606E+00	5.946E+00	3.371E+00	NOT IDENT.
PB-210	-7.093E+00	6.606E+00	5.946E+00	3.371E+00	NOT IDENT.
PO-210	-7.093E+00	6.601E+00	5.946E+00	3.368E+00	NOT IDENT.
PB-211	2.244E-02	1.713E+00	1.521E+00	8.738E-01	NOT IDENT.
BI-212	6.294E-01	5.450E-01	5.004E-01	2.781E-01	NOT IDENT.
PB-214	7.571E-01	2.222E-01	1.616E-01	1.134E-01	FAIL ABUN
PO-214	7.571E-01	2.222E-01	1.616E-01	1.134E-01	FAIL ABUN
PO-215	-6.569E-01	1.193E+00	1.041E+00	6.088E-01	FAIL ABUN
PO-218	7.571E-01	2.222E-01	1.616E-01	1.134E-01	FAIL ABUN
RN-219	-1.259E-01	7.384E-01	6.496E-01	3.767E-01	NOT IDENT.
RN-220	-8.558E+00	4.918E+01	4.235E+01	2.509E+01	NOT IDENT.
RA-223	-6.569E-01	1.193E+00	1.041E+00	6.088E-01	FAIL ABUN
RA-224	5.862E+00	1.553E+00	1.367E+00	7.925E-01	NOT IDENT.
AC-227	-4.051E-01	6.773E-01	5.633E-01	3.456E-01	NOT IDENT.
TH-227	-4.051E-01	6.783E-01	5.633E-01	3.461E-01	FAIL ABUN
TH-229	-1.549E-01	8.154E-01	7.068E-01	4.160E-01	FAIL ABUN
PA-231	-1.272E+00	2.704E+00	2.384E+00	1.380E+00	NOT IDENT.
TH-231	-6.569E-01	1.193E+00	1.041E+00	6.088E-01	FAIL ABUN
U-231	-5.101E-01	5.851E-01	4.376E-01	2.985E-01	FAIL ABUN
PA-233	7.532E-02	1.124E-01	1.044E-01	5.735E-02	FAIL ABUN
PA-234	1.074E-01	7.521E-01	6.363E-01	3.837E-01	FAIL ABUN
PA-234M	4.859E+00	9.524E+00	8.592E+00	4.859E+00	NOT IDENT.
TH-234	-2.025E+00	2.271E+00	1.741E+00	1.159E+00	FAIL ABUN
U-235	6.613E-02	3.298E-01	2.937E-01	1.683E-01	FAIL ABUN
NP-236	-4.815E-02	1.197E-01	1.037E-01	6.108E-02	NOT IDENT.
NP-237	6.936E+00	1.639E+00	6.340E-01	8.362E-01	NOT IDENT.
U-238	-2.025E+00	2.271E+00	1.741E+00	1.159E+00	FAIL ABUN
NP-239	2.890E-01	3.191E-01	2.640E-01	1.628E-01	FAIL ABUN
CM-243	8.257E-02	1.380E-01	1.276E-01	7.042E-02	FAIL ABUN
AM-246	-6.070E-02	2.846E-01	2.435E-01	1.452E-01	NOT IDENT.
CM-247	-1.183E-02	6.638E-02	5.838E-02	3.387E-02	NOT IDENT.
CF-249	1.223E-02	7.440E-02	6.676E-02	3.796E-02	NOT IDENT.
CF-251	4.375E-02	2.014E-01	1.788E-01	1.027E-01	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	575.3168
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46.50	575.3168
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52.97	698.8118
53.15	698.9561
53.44	719.5660
54.07	696.5467
56.28	710.8434
56.28	739.1542
57.37	807.7425
57.53	807.8834
57.53	807.8857
57.60	807.9453
57.98	588.8775
57.98	588.8775
59.32	589.7273
59.32	589.7273
59.40	589.7775
59.54	589.8664
59.72	589.9794
60.01	590.1619
61.10	384.1466
61.14	384.1622
61.30	384.2267
63.00	424.5082
63.29	424.6354
63.29	424.6354
63.58	426.3471
64.28	423.4812
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65.20	415.9398
65.20	415.9398
66.05	419.7403
66.72	416.8046
66.83	394.5602
66.91	391.6103
67.20	391.7230
67.20	391.7230
67.75	400.8893
67.85	389.9872
68.90	416.5688
68.90	416.5688
69.30	416.7332
69.67	411.9490
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70.82	394.3151
70.83	424.6519
72.80	422.2566
72.87	415.8873
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74.81	408.6381
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77.11	435.6092
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80.30	436.4748
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81.07	461.3545
81.07	461.3545
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83.78	446.9828
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83.78	446.9828
84.21	456.5796
84.90	468.9844
85.43	474.0541
86.29	467.9316
86.50	472.8746
86.54	472.8907
86.59	472.9120
86.72	472.9655
86.79	472.9922
86.94	477.9148
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87.30	478.0624
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88.03	478.3613
88.36	478.4963
88.47	478.5414
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91.11	325.1587
92.29	325.4797
92.38	325.5042
92.38	325.5042
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94.67	273.9403
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94.90	298.4562
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98.44	243.9754
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99.55	255.7869
99.86	242.5457
100.00	243.5963
100.10	243.6163
103.18	260.6236
103.76	238.1579
105.00	238.3862
105.31	237.4160
108.00	271.8915
109.28	253.5984

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111.00	244.6359
111.76	243.7423
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115.19	279.2685
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117.00	230.5810
117.00	230.5810
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121.62	261.0958
121.78	261.1255
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122.32	261.2250
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144.24	276.7199
144.24	276.7199
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145.44	292.7867
147.16	263.4778
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152.70	267.5789
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154.21	256.1379
154.21	256.1379
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162.64	265.9968
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163.89	230.9156
165.85	230.1123
167.43	236.7549
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171.86	251.3279
172.10	243.8425
176.55	248.7719
176.60	245.5481
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185.71	255.4620
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192.34	267.2514
193.63	251.1300
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202.84	282.5831
205.31	222.2733

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208.81	272.8643
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209.75	256.1113
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226.40	259.7995
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227.08	272.0523
227.20	267.6435
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228.18	257.8124
228.18	257.8124
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236.00	245.2347
236.00	245.2347
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238.63	387.8840
238.63	387.8840
238.63	387.8840
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241.98	256.6213
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249.79	223.5703
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252.85	220.5263
252.85	220.5263
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269.46	212.9243
269.46	212.9243
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295.21	253.5868

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338.28	178.1625
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391.69	160.8401
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513.99	129.5025
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609.31	116.1202
609.31	116.1202
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666.33	88.7826
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696.49	100.0976
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752.31	85.7236
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766.84	105.9316
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884.67	100.0227
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911.07	127.9450
911.07	127.9450
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969.11	118.1039
969.11	118.1039
977.42	103.4416
980.50	112.8801
983.50	93.2053
989.30	103.1866
996.32	117.6138
1001.03	83.4278
1001.68	91.6911
1004.76	100.9184
1021.30	0.0000
1024.50	0.0000
1034.80	86.7175
1036.00	88.5820
1037.82	92.3055
1038.57	88.6250
1038.76	0.0000
1045.16	72.0935
1046.59	85.9803
1048.07	86.9278

1050.47	91.5919
1050.47	91.5919
1062.04	93.6354
1063.62	97.3737
1076.63	85.5125
1077.35	84.5942
1078.86	84.6201
1085.78	87.5168
1099.22	86.7902
1112.02	94.4656
1112.84	95.4133
1115.52	88.9079
1120.29	73.9950
1120.29	73.9950
1120.29	73.9950
1120.29	73.9950
1120.51	72.1248
1121.28	81.5023
1124.00	0.0000
1129.67	64.7324
1131.51	0.0000
1147.95	0.0000
1167.94	55.0366
1173.22	51.0359
1175.09	40.5169
1177.93	51.8862
1189.05	40.7464
1204.90	20.9016
1205.75	0.0000
1213.00	22.8320
1221.42	36.2002
1230.97	38.1657
1235.34	30.5534
1236.41	0.0000
1238.25	22.9258
1246.25	12.4345
1260.41	0.0000
1271.85	26.8914
1274.45	18.2547
1274.54	20.1771
1291.56	22.1577
1298.22	0.0000
1312.09	18.3630
1325.50	19.9227
1325.50	19.9227
1332.49	19.3896
1333.61	19.3929
1360.21	9.7359
1362.66	0.0000
1365.15	18.5122
1368.21	10.7225
1368.53	0.0000
1376.25	19.5190
1384.27	10.7480
1394.10	4.8928
1395.20	6.8507
1407.95	16.6694
1434.06	13.7801
1436.60	12.8006
1457.56	0.0000
1460.81	15.8099
1489.15	16.8658
1509.49	10.9445
1596.49	13.0899
1620.62	9.0916
1678.03	0.0000
1691.02	12.2344
1691.02	12.2344
1706.46	0.0000
1750.46	0.0000
1764.49	5.1457
1764.49	5.1457
1764.49	5.1457
1764.49	5.1457
1770.23	8.8274
1771.40	10.5942
1791.20	0.0000
1808.65	11.3827

1836.01	8.3060

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202028550

Total Uranium Activity	-5.9943E+00	ug/g
Total Uranium Counting Unc.	6.7592E+00	ug/g
Total Uranium Tpu	3.4486E-06	ug/g
Total Uranium Mda	5.1802E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 947037                    SAMPLE ID  : G1202028550      *
*   ANALYST       : MJH1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   :  1-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE:  9-FEB-2010 17:44:57.42    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.664E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.637E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.474E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.189E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 948402 Product: Tritium Date: 2/17/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Lindsey Pare

Secondary Review Performed By: [illegible] 2/17/10

LANL 2/25/10

Tritium Que Sheet

95 / 03-FEB-10

Batch #: 948402 **Analyst:** KXK2 **First Client Due Date** 25-FEB-10 **Internal Due Date:** 14-FEB-10

Spike Isotope: Hydrogen-3 **Spike Code:** ——— **Expiration Date:** ——— **Vol:** ———

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 2/11/10 **Initials:** KKJ **Pipet ID:** 2970968 **Witness:** gr 2/10/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Dist Vol (mL)
245691001-1	RE15-10-7883	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	60-2	1		413.90	285.59	128.31
245691002-1	RE15-10-7884	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	60-3	2		433.96	408.79	25.17
245691003-1	RE15-10-7932	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	60-4	3		468.87	426.20	42.67
245691004-1	RE15-10-7931	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	7-2	4		355.21	294.82	60.39
245691005-1	RE15-10-7938	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	60-5	5		412.01	397.59	14.42
245691006-1	RE15-10-7933	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	7-3	6		291.57	231.51	60.06
245691007-1	RE15-10-7939	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	7-4	7		178.15	135.75	42.40
245691008-1	RE15-10-7936	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	35-1	8		394.60	380.39	14.21
245691009-1	RE15-10-7935	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	35-2	9		259.33	198.13	61.20
245691010-1	RE15-10-7934	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	35-3	10		496.01	448.39	47.62
245691011-1	RE15-10-7940	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	35-4	11		409.41	389.76	19.65
245691012-1	RE15-10-7937	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	7-5	12		263.23	200.84	62.39
245691013-1	RE15-10-8056	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	35-5	13		371.18	358.19	12.99
245691014-1	RE15-10-8057	SAMPLE		.25 pCi/mL	SOIL	LANL010	25-JAN-10	10	7-6	14		273.64	192.37	81.27
1202031682-1	MB for batch 948402	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	7-7	15		20.00	0	20.00
1202031683-1	RE15-10-7883(245691001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	25-JAN-10	10	7-8	1		413.90	285.59	128.31
1202031684-1	LCS for batch 948402	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	35-6	16		20.00	0	20.00

17

KKJ 2/11/10

Bkg Rack #: 60-1 / 7-1

Comments:

Bkg prepared with dead water? Yes No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Ecoscint Ultra)*

Data Reviewed By: Alpha Pane 2/17/10

GEL Laboratories LLC, Radiochemistry Division

DATE	2/8/2010	INITIALS	KXK2		BATCH NUMBER	948402

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
245691001	413.90	0.310	128.31	285.59	10	
245691002	433.96	0.058	25.17	408.79	10	
245691003	468.87	0.091	42.67	426.20	10	
245691004	355.21	0.170	60.39	294.82	10	
245691005	412.01	0.035	14.42	397.59	10	
245691006	291.57	0.206	60.06	231.51	10	
245691007	178.15	0.238	42.40	135.75	10	
245691008	394.60	0.036	14.21	380.39	10	
245691009	259.33	0.236	61.20	198.13	10	
245691010	496.01	0.096	47.62	448.39	10	
245691011	409.41	0.048	19.65	389.76	10	
245691012	263.23	0.237	62.39	200.84	10	
245691013	371.18	0.035	12.99	358.19	10	
245691014	273.64	0.297	81.27	192.37	10	
MB	20.00	1.000	20.00	0.00	10	
DUP	413.90	0.310	128.31	285.59	10	
LCS	20.00	1.000	20.00	0.00	10	

Tritium Solid

Filename :	H3VAC.XLS	Spike S/N :	N/A	LCS S/N :	0134-K
File type :	Excel	Spike Exp Date :	N/A	LCS Exp Date :	3/27/2010
Version # :	1.2.6	Spike Activity (dpm/ml):	N/A	LCS Activity (dpm/ml):	2468.20
		Spike Volume Added:	N/A	LCS Volume Added:	0.10
Batch :	948402				
Analyst :	KXK2				
Prep Date :	2/11/2010				
				Procedure Code :	LSC_VH3S
H-3 Abundance :	1	Pipet, 0.1 ml Stdev : +/-	0.000701 ml	Parmname :	Tritium
Method Uncertainty :	0.0691	Pipet, 0.5 ml Stdev : +/-	0.002564 ml	Required MDC :	250 pCi/L
Geometry:	10mL DW/13mL Ecoscint Ultra	Pipet, 1.0 ml Stdev : +/-	0.005480 ml	Halflife of Tritium :	12.32 years
		Pipet, 5.0 ml Stdev : +/-	0.025729 ml		

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	245691001.1	413.90	0.1283	0.0100	2.5729E-05	285.59	31.00%	1	1/25/2010 12:00
2	245691002.1	433.96	0.0252	0.0100	2.5729E-05	408.79	5.80%	2	1/25/2010 12:00
3	245691003.1	468.87	0.0427	0.0100	2.5729E-05	426.20	9.10%	3	1/25/2010 12:00
4	245691004.1	355.21	0.0604	0.0100	2.5729E-05	294.82	17.00%	4	1/25/2010 12:00
5	245691005.1	412.01	0.0144	0.0100	2.5729E-05	397.59	3.50%	5	1/25/2010 12:00
6	245691006.1	291.57	0.0601	0.0100	2.5729E-05	231.51	20.60%	6	1/25/2010 12:00
7	245691007.1	178.15	0.0424	0.0100	2.5729E-05	135.75	23.80%	7	1/25/2010 12:00
8	245691008.1	394.60	0.0142	0.0100	2.5729E-05	380.39	3.60%	8	1/25/2010 12:00
9	245691009.1	259.33	0.0612	0.0100	2.5729E-05	198.13	23.60%	9	1/25/2010 12:00
10	245691010.1	496.01	0.0476	0.0100	2.5729E-05	448.39	9.60%	10	1/25/2010 12:00
11	245691011.1	409.41	0.0197	0.0100	2.5729E-05	389.76	4.80%	11	1/25/2010 12:00
12	245691012.1	263.23	0.0624	0.0100	2.5729E-05	200.84	23.70%	12	1/25/2010 12:00
13	245691013.1	371.18	0.0130	0.0100	2.5729E-05	358.19	3.50%	13	1/25/2010 12:00
14	245691014.1	273.64	0.0813	0.0100	2.5729E-05	192.37	29.70%	14	1/25/2010 12:00
15	1202031682.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	15	2/11/2010 0:00
16	1202031683.1	413.90	0.1283	0.0100	2.5729E-05	285.59	31.00%	1	1/25/2010 12:00
17	1202031684.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	16	2/11/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	60-2	95	119	3.38	2.75	95	2/16/2010 17:43	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1833	0.00792	60-1	2/16/2010 16:05
2	60-3	95	118.1	3.52	2.75	95	2/16/2010 19:21	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1840	0.00792	60-1	2/16/2010 16:05
3	60-4	95	119	3.61	2.75	95	2/16/2010 20:59	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1833	0.00792	60-1	2/16/2010 16:05
4	7-2	95	111	5.12	3.67	95	2/14/2010 20:01	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2360	0.00792	7-1	2/14/2010 18:23
5	60-5	95	118.1	3.22	2.75	95	2/16/2010 22:37	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1840	0.00792	60-1	2/16/2010 16:05
6	7-3	95	110.6	4.63	3.67	95	2/14/2010 21:39	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2361	0.00792	7-1	2/14/2010 18:23
7	7-4	95	109	4.47	3.67	95	2/14/2010 23:17	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2371	0.00792	7-1	2/14/2010 18:23
8	35-1	15	103.4	31.27	3.67	95	2/15/2010 8:39	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2390	0.00792	7-1	2/14/2010 18:23
9	35-2	15	102.9	76.07	3.67	95	2/15/2010 8:55	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2391	0.00792	7-1	2/14/2010 18:23
10	35-3	15	102.9	8.13	3.67	95	2/15/2010 9:11	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2391	0.00792	7-1	2/14/2010 18:23
11	35-4	15	103.5	7.87	3.67	95	2/15/2010 9:28	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2390	0.00792	7-1	2/14/2010 18:23
12	7-5	95	111	4.64	3.67	95	2/15/2010 0:55	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2360	0.00792	7-1	2/14/2010 18:23
13	35-5	15	103.5	25.27	3.67	95	2/15/2010 9:44	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2390	0.00792	7-1	2/14/2010 18:23
14	7-6	95	110.4	4.14	3.67	95	2/15/2010 2:33	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2364	0.00792	7-1	2/14/2010 18:23
15	7-7	95	108.8	3.49	3.67	95	2/15/2010 4:11	0.999	LSCBROWN	9/9/2009	9/30/2010	0.2372	0.00792	7-1	2/14/2010 18:23
16	7-8	95	111	4.26	3.67	95	2/15/2010 5:49	0.997	LSCBROWN	9/9/2009	9/30/2010	0.2360	0.00792	7-1	2/14/2010 18:23
17	35-6	15	102.6	33.53	3.67	95	2/15/2010 10:00	0.999	LSCBROWN	9/9/2009	9/30/2010	0.2391	0.00792	7-1	2/14/2010 18:23

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202031683.1

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	138.2393	97.5982	250	202.9830	**155.3448**	0.403	0.630	0.254	62.6361	63.5637		SAMPLE				
2	137.7251	97.2351	250	202.2280	**189.1596**	0.334	0.770	0.257	63.1117	64.4721		SAMPLE				
3	138.2422	97.6002	250	202.9873	**212.0624**	0.301	0.860	0.259	63.8017	65.4889		SAMPLE				
4	123.9963	87.5425	250	181.1309	**277.6097**	0.210	1.450	0.304	58.2370	61.3628		SAMPLE				
5	137.7280	97.2371	250	202.2322	**115.4635**	0.533	0.470	0.251	61.5846	62.1074		SAMPLE				
6	123.9375	87.5009	250	181.0449	**183.7095**	0.308	0.960	0.296	56.5637	57.9928		SAMPLE				
7	123.4438	87.1524	250	180.3238	**152.4815**	0.366	0.800	0.293	55.7927	56.7945		SAMPLE				
8	234.5050	165.5625	250	368.9435	**5218.9514**	0.054	27.600	1.457	275.5368	456.1177		SAMPLE				
9	234.4190	165.5018	250	368.8083	**13685.2744**	0.032	72.400	2.261	427.2912	1044.5400		SAMPLE				
10	234.4194	165.5021	250	368.8089	**843.0446**	0.171	4.460	0.762	144.0343	155.5424		SAMPLE				
11	234.5251	165.5768	250	368.9752	**794.2565**	0.179	4.200	0.751	141.9321	152.3312		SAMPLE				
12	124.0002	87.5452	250	181.1366	**185.7171**	0.305	0.970	0.296	56.6264	58.0849		SAMPLE				
13	234.5255	165.5770	250	368.9759	**4084.7551**	0.061	21.600	1.313	248.2518	377.5782		SAMPLE				
14	123.8241	87.4209	250	180.8793	**89.8589**	0.610	0.470	0.287	54.8185	55.1746		SAMPLE				
15	123.0847	86.8988	250	179.7992	**-34.2085**	1.525	-0.180	0.275	52.1743	52.1745		MB				
16	124.0041	87.5480	250	181.1423	**112.9655**	0.490	0.590	0.289	55.3183	55.8750	245691001.1	DUP	0.0%	0.1774		
17	233.7806	165.0511	250	367.8039	**5628.8592**	0.051	29.860	1.508	284.2644	484.2505		LCS			5559.0122	101.3%

ID = TEST EQUP: 16 FEB 2010 16:08
USER: 2 COMMAND: ARBEN
PRESET TIME : 95.00

DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	3	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISP	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	60-1	95.00	118.8	2.75	12.73	34.74	3.49	0.41	97.54
2	60-2	95.00	119.0	3.38	11.42	35.64	3.44	0.42	195.58
3	60-3	95.00	118.1	3.52	11.19	36.03	3.43	0.39	293.62
4	60-4	95.00	119.0	3.61	11.08	36.38	3.41	0.47	391.66
5	60-5	95.00	118.1	3.22	11.75	35.92	3.43	0.47	489.74

Sample Count Start Time:	16 Feb 2010 16:05:31		
Data Capture Date	16 Feb 2010 17:40:35		
User Filename	S02021660-1A.XLS		
	U02021660-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	60-1	95.00
H#, Total Counts:	118.8	3344	
Win1: Tritium - Start, End, Counts:	10	230	261
Win2: - Start, End, Counts:	0	990	3344

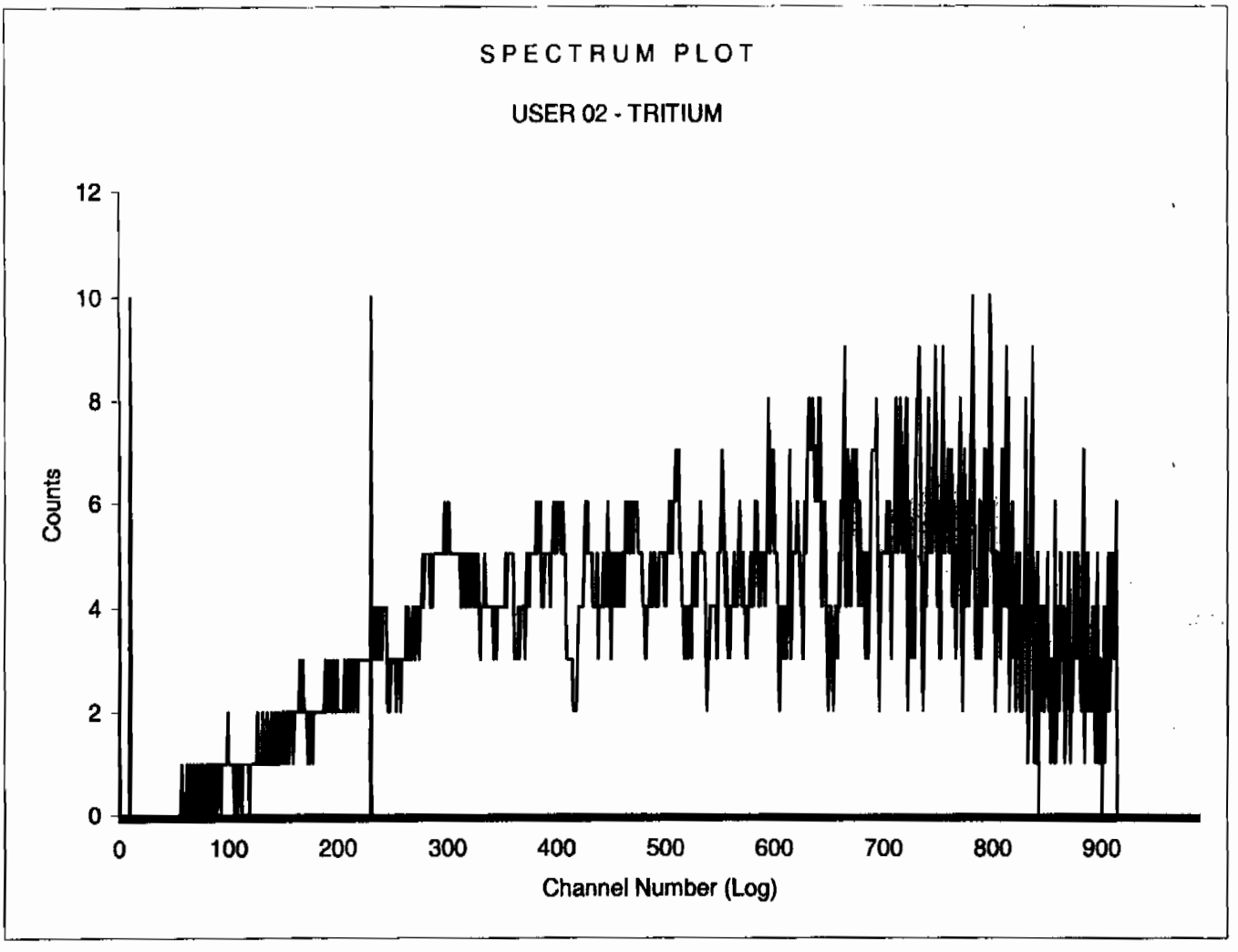

Sample Count Start Time:	16 Feb 2010 17:43:34		
Data Capture Date	16 Feb 2010 19:18:38		
User Filename	S02021660-2A.XLS		
	U02021660-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	60-2	95.00
H#, Total Counts:	119.0	3434	
Win1: Tritium - Start, End, Counts:	10	230	321
Win2: - Start, End, Counts:	0	990	3434

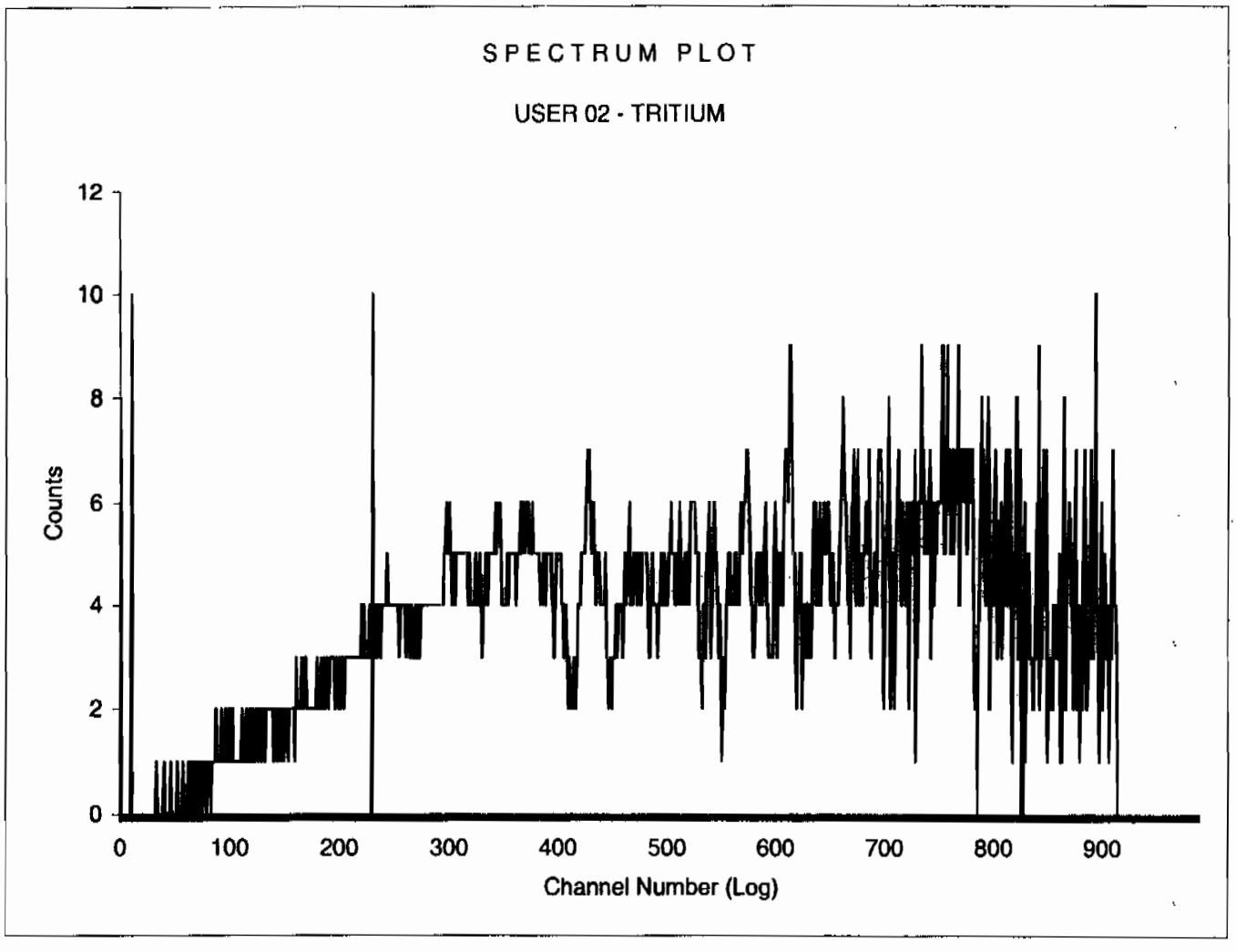

Sample Count Start Time:	16 Feb 2010 19:21:36		
Data Capture Date	16 Feb 2010 20:56:41		
User Filename	S02021660-3A.XLS		
	U02021660-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	60-3	95.00
H#, Total Counts:	118.1	3487	
Win1: Tritium - Start, End, Counts:	10	230	334
Win2: - Start, End, Counts:	0	990	3487

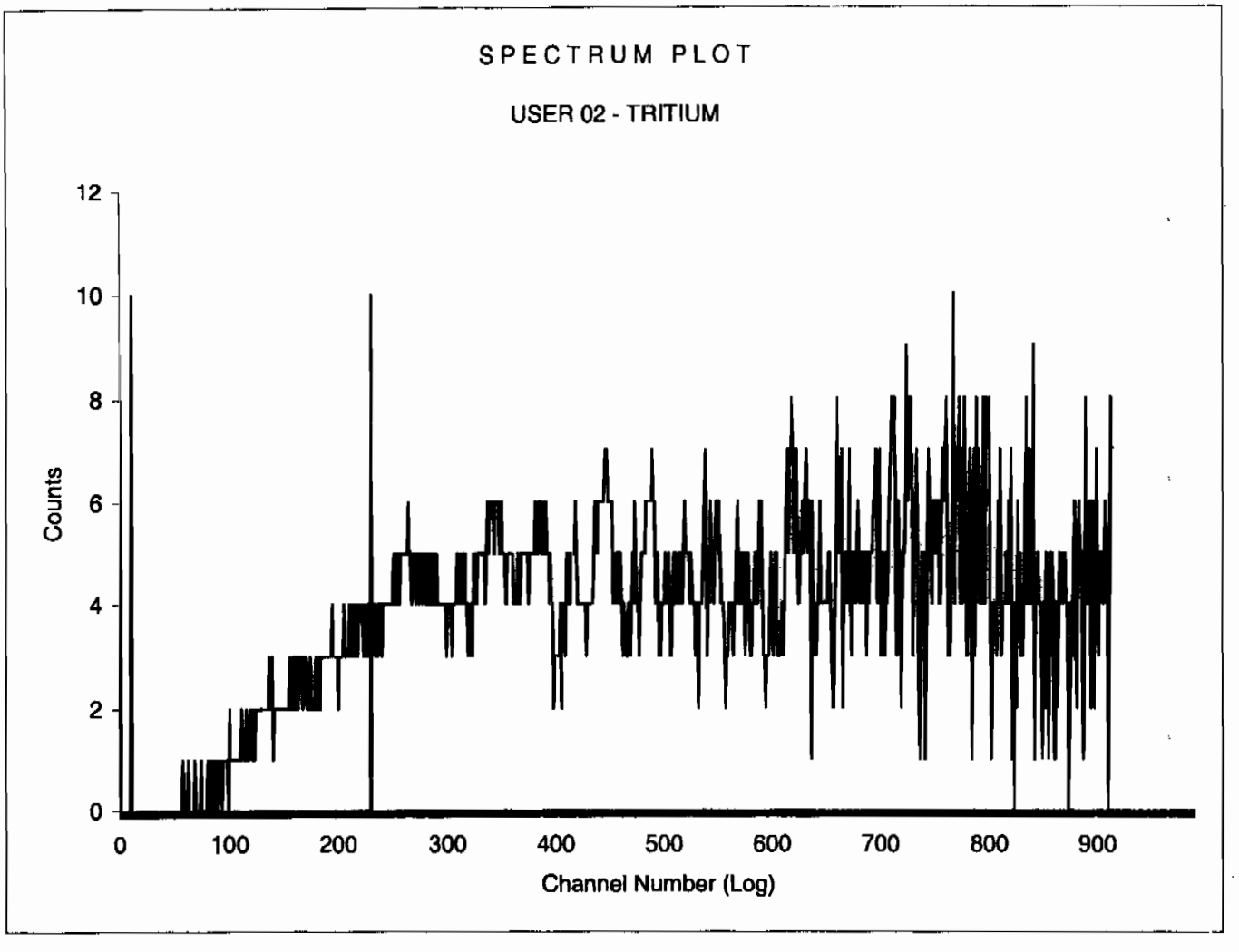

Sample Count Start Time:	16 Feb 2010 20:59:40		
Data Capture Date	16 Feb 2010 22:34:45		
User Filename	S02021660-4A.XLS		
	U02021660-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	60-4	95.00
H#, Total Counts:	119.0	3504	
Win1: Tritium - Start, End, Counts:	10	230	343
Win2: - Start, End, Counts:	0	990	3504

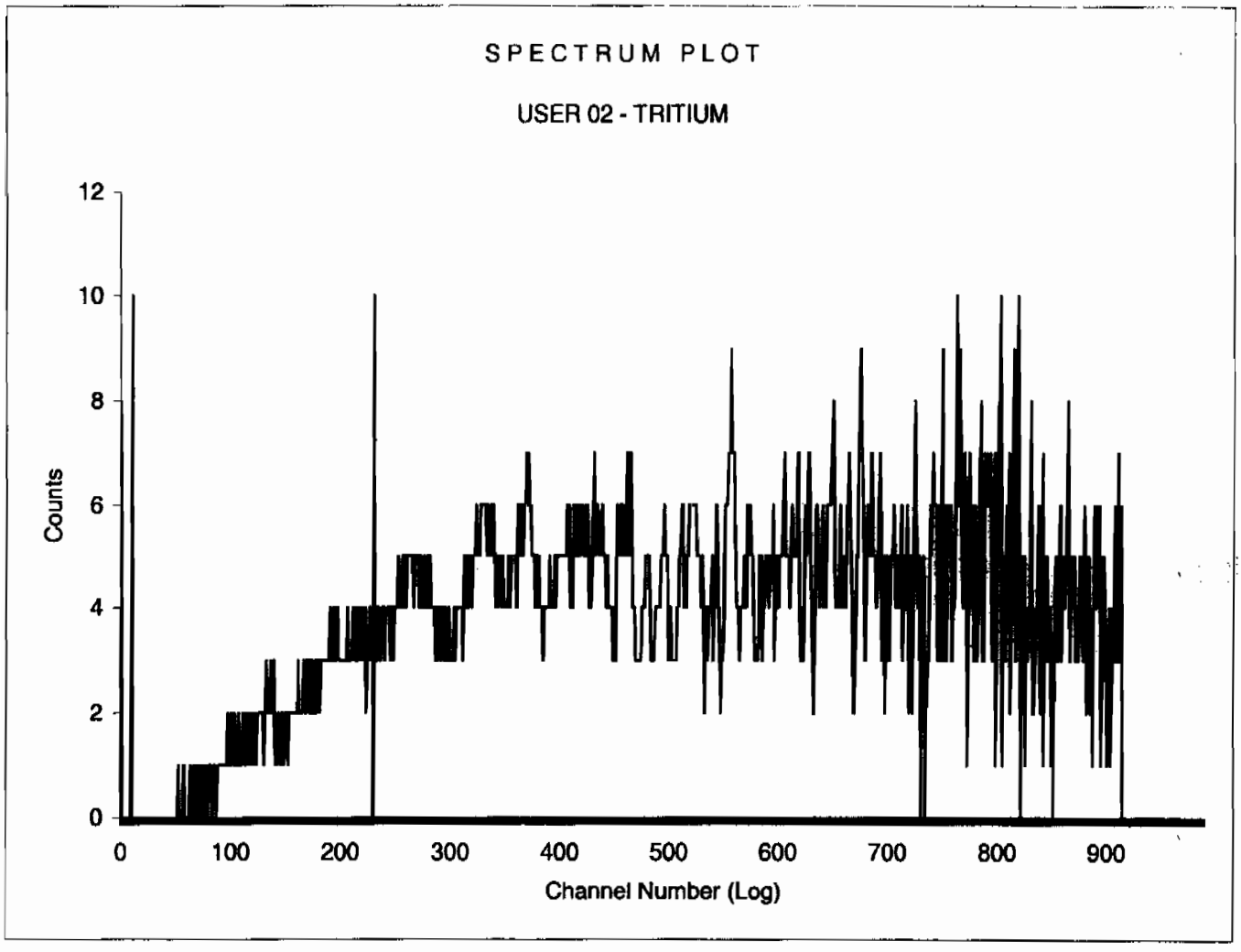

Sample Count Start Time:	16 Feb 2010 22:37:43		
Data Capture Date	17 Feb 2010 00:12:49		
User Filename	S02021760-5A.XLS		
	U02021660-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	60-5	95.00
H#, Total Counts:	118.1	3473	
Win1: Tritium - Start, End, Counts:	10	230	306
Win2: - Start, End, Counts:	0	990	3473

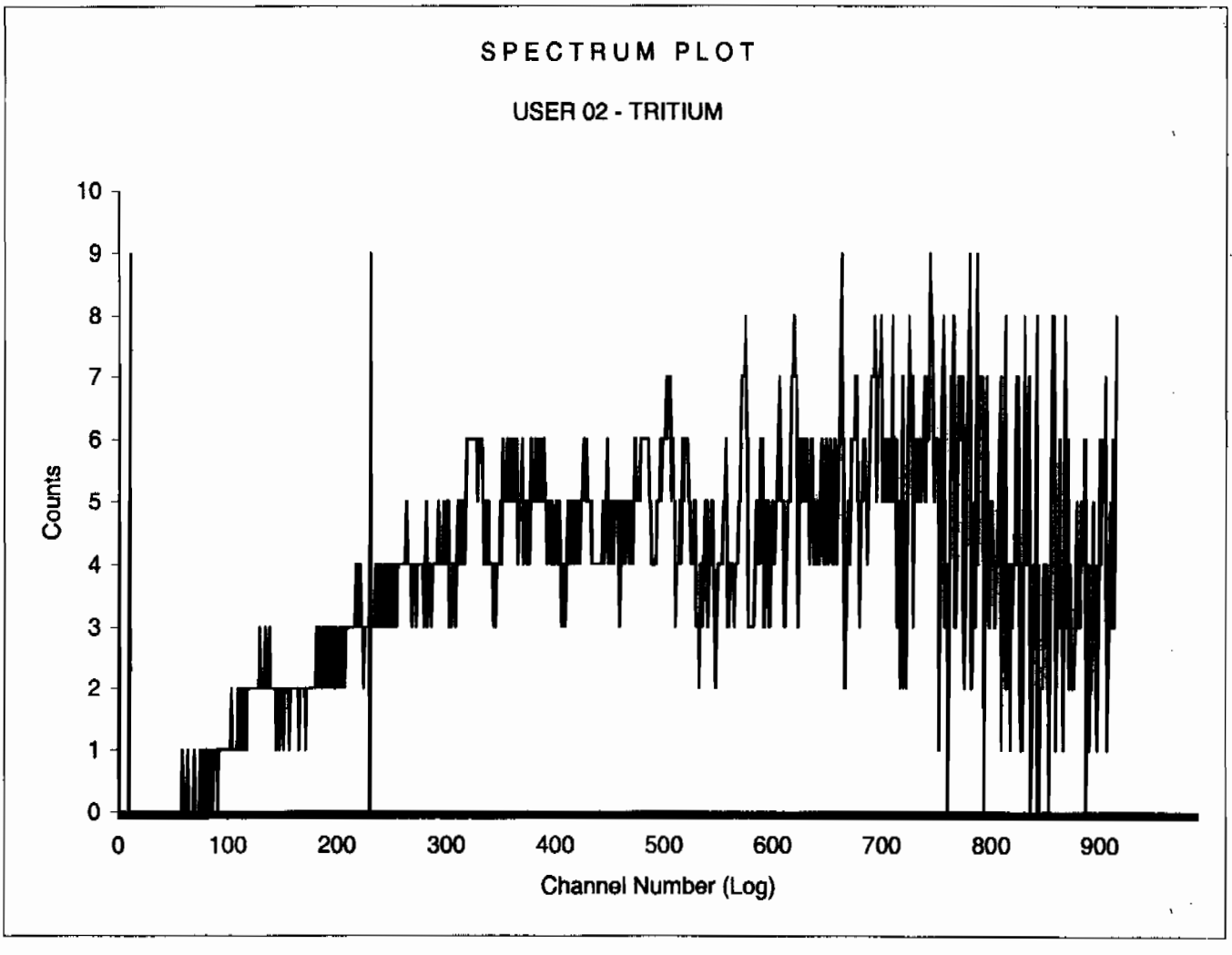

ID: TRITIUM 14 FEB 2010 18:29

USER: 7 COMMENT: BROWN

PRESET TIME : 95.00

DATA CALC :	CPM	H# :	YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC# :	NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC :	NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX:	YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 0.0 - 240.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

	SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
Bkg	1	7-1	95.00	110.7	3.67	11.05	37.88	3.34	0.53	97.56
4	2	7-2	95.00	111.0	5.12	9.21	39.36	3.28	0.36	195.56
6	3	7-3	95.00	110.8	4.63	9.72	40.42	3.23	0.40	293.59
7	4	7-4	95.00	109.0	4.47	9.89	41.51	3.19	0.39	391.60
12	5	7-5	95.00	111.0	4.64	9.68	39.22	3.28	0.36	489.61
14	6	7-6	95.00	110.4	4.14	10.25	37.95	3.34	0.34	587.59
15	7	7-7	95.00	108.8	3.49	11.19	39.43	3.27	0.31	685.57
16	8	7-8	95.00	111.0	4.26	10.10	39.68	3.26	0.31	783.54

INSTRUMENT CALIBRATION: Mini 15 FEB 2010 07:38
Calibration successful

Sample Count Start Time:	14 Feb 2010 18:23:21		
Data Capture Date	14 Feb 2010 19:58:45		
User Filename	S07021407-1A.XLS		
	U07021407-1A.XLS		
Spectrum Type	Log Counts		
User Number	07		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	7-1	95.00
H#, Total Counts:	110.7	3654	
Win1: Tritium - Start, End, Counts:	0	240	349
Win2: - Start, End, Counts:	0	990	3654

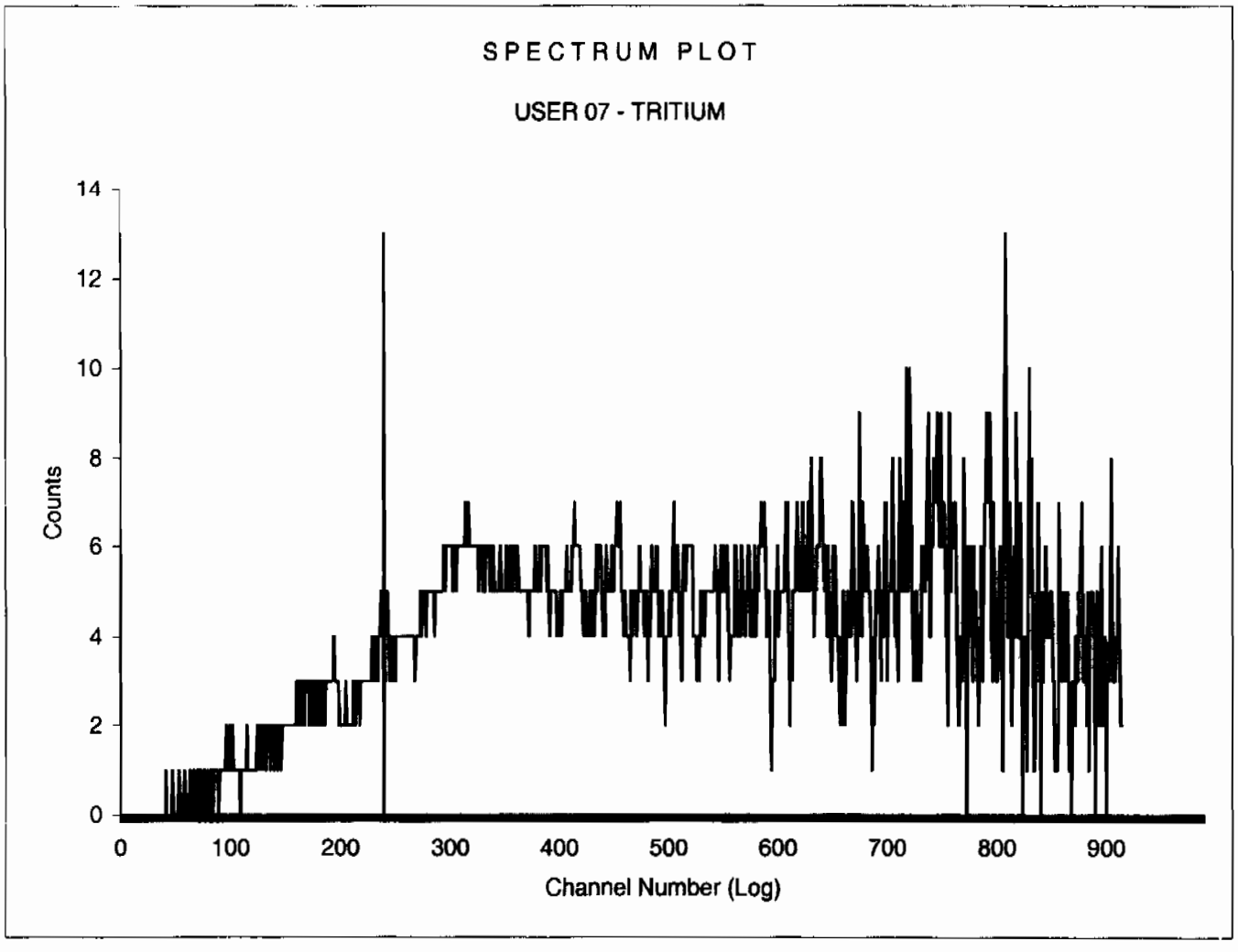

Sample Count Start Time:	14 Feb 2010 20:01:21		
Data Capture Date	14 Feb 2010 21:36:45		
User Filename	S07021407-2A.XLS		
	U07021407-1A.XLS		
Spectrum Type	Log Counts		
User Number	07		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	7-2	95.00
H#, Total Counts:	111.0	3799	
Win1: Tritium - Start, End, Counts:	0	240	486
Win2: - Start, End, Counts:	0	990	3799

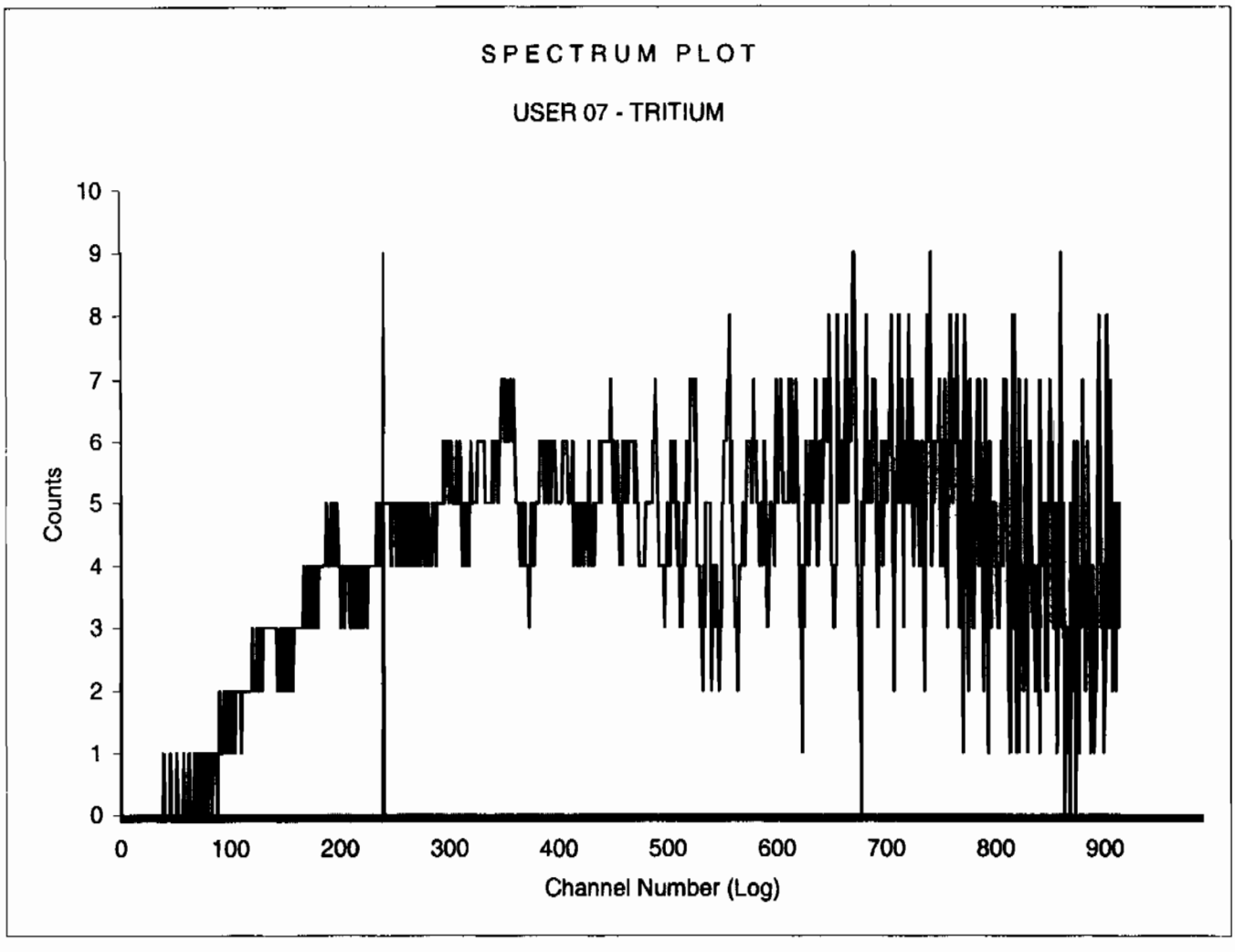

Sample Count Start Time:	14 Feb 2010 21:39:22		
Data Capture Date	14 Feb 2010 23:14:46		
User Filename	S07021407-3A.XLS		
	U07021407-1A.XLS		
Spectrum Type	Log Counts		
User Number	07		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	7-3	95.00
H#, Total Counts:	110.8	3887	
Win1: Tritium - Start, End, Counts:	0	240	440
Win2: - Start, End, Counts:	0	990	3887

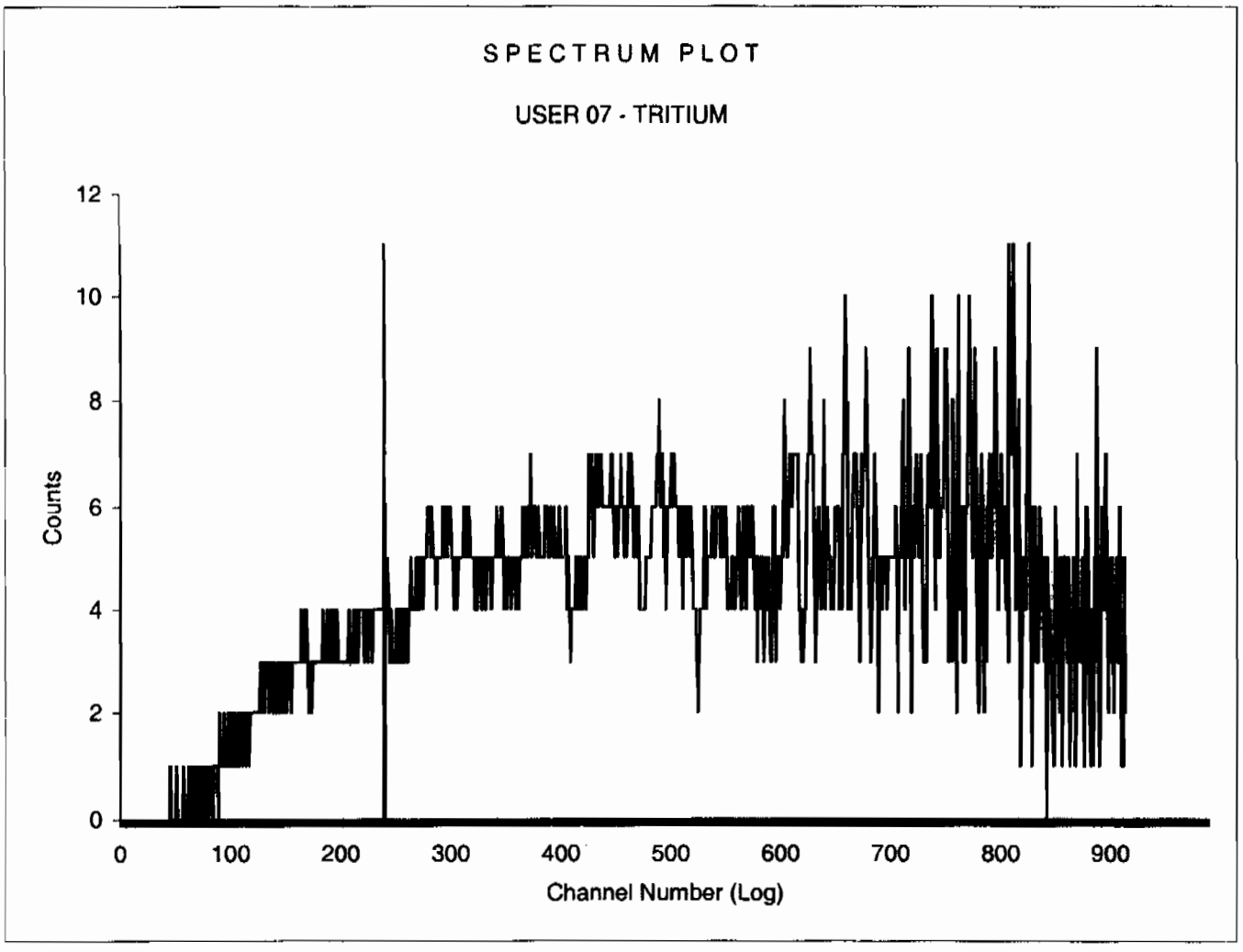

Sample Count Start Time:	14 Feb 2010 23:17:23		
Data Capture Date	15 Feb 2010 00:52:48		
User Filename	S07021507-4A.XLS		
	U07021407-1A.XLS		
Spectrum Type	Log Counts		
User Number	07		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	7-4	95.00
H#, Total Counts:	109.0	3994	
Win1: Tritium - Start, End, Counts:	0	240	425
Win2: - Start, End, Counts:	0	990	3994

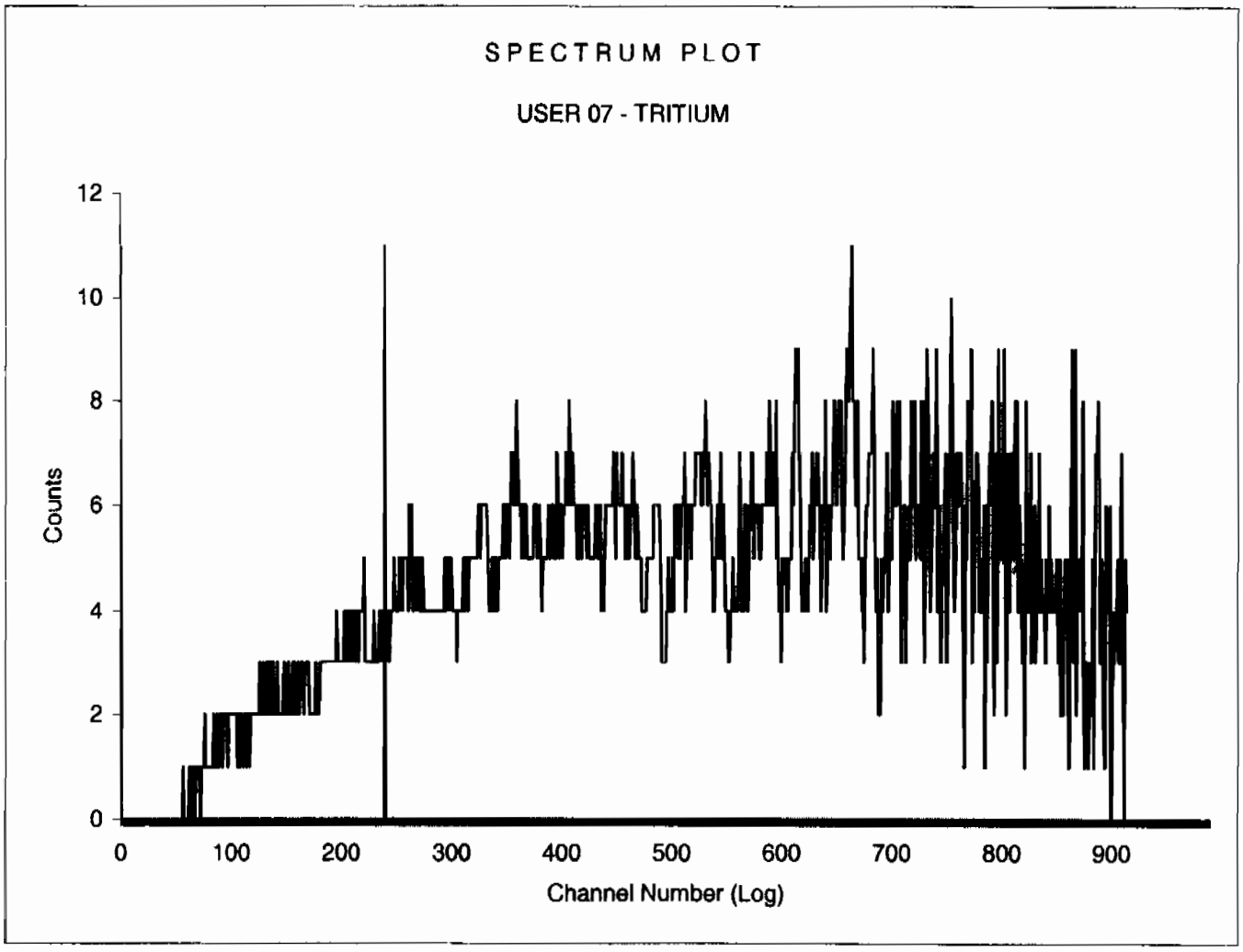

Sample Count Start Time:	15 Feb 2010 00:55:24		
Data Capture Date	15 Feb 2010 02:30:48		
User Filename	S07021507-5A.XLS		
	U07021407-1A.XLS		
Spectrum Type	Log Counts		
User Number	07		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	7-5	95.00
H#, Total Counts:	111.0	3780	
Win1: Tritium - Start, End, Counts:	0	240	441
Win2: - Start, End, Counts:	0	990	3780

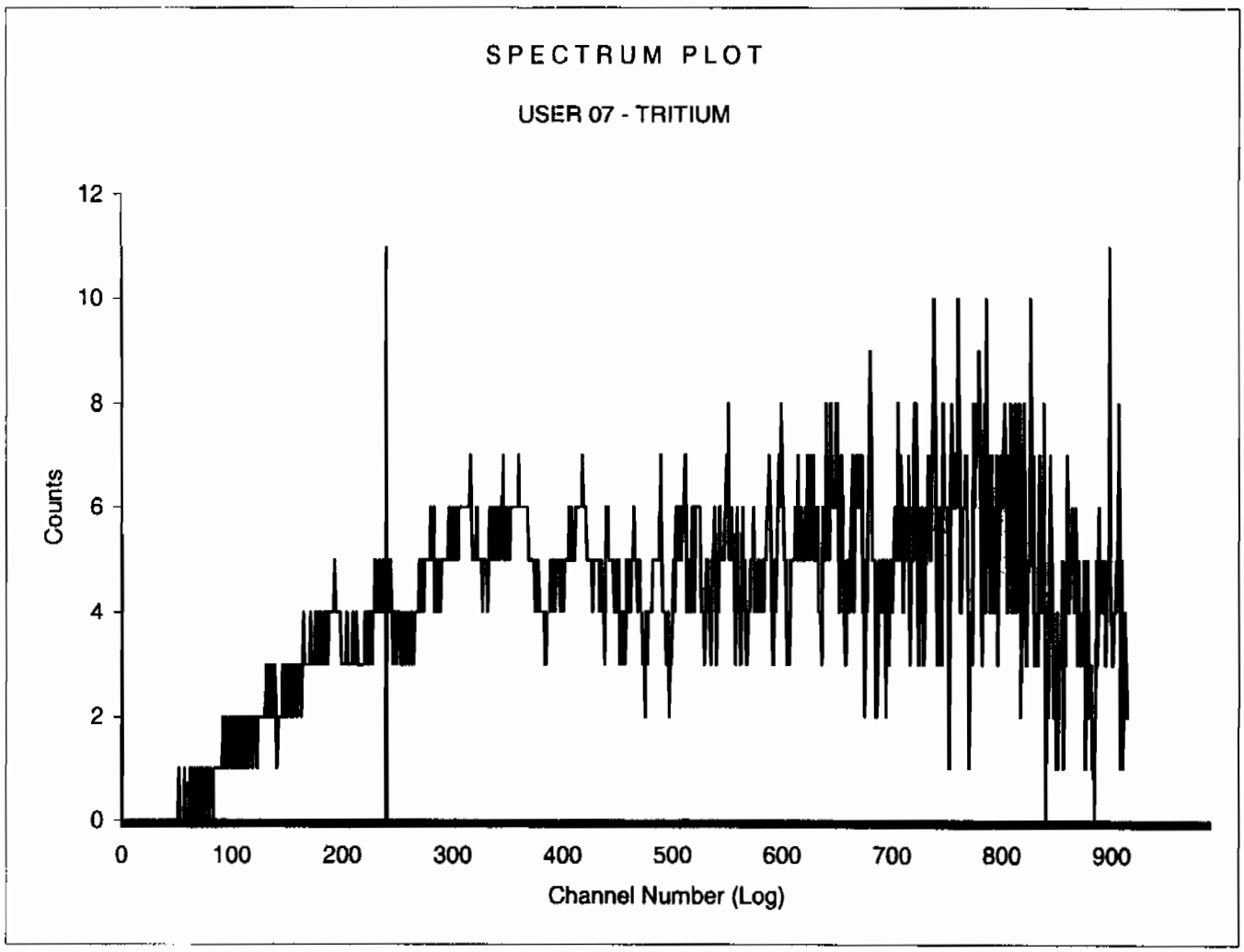

Sample Count Start Time:	15 Feb 2010 02:33:22		
Data Capture Date	15 Feb 2010 04:08:47		
User Filename	S07021507-6A.XLS		
	U07021407-1A.XLS		
Spectrum Type	Log Counts		
User Number	07		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	7-6	95.00
H#, Total Counts:	110.4	3656	
Win1: Tritium - Start, End, Counts:	0	240	393
Win2: - Start, End, Counts:	0	990	3656

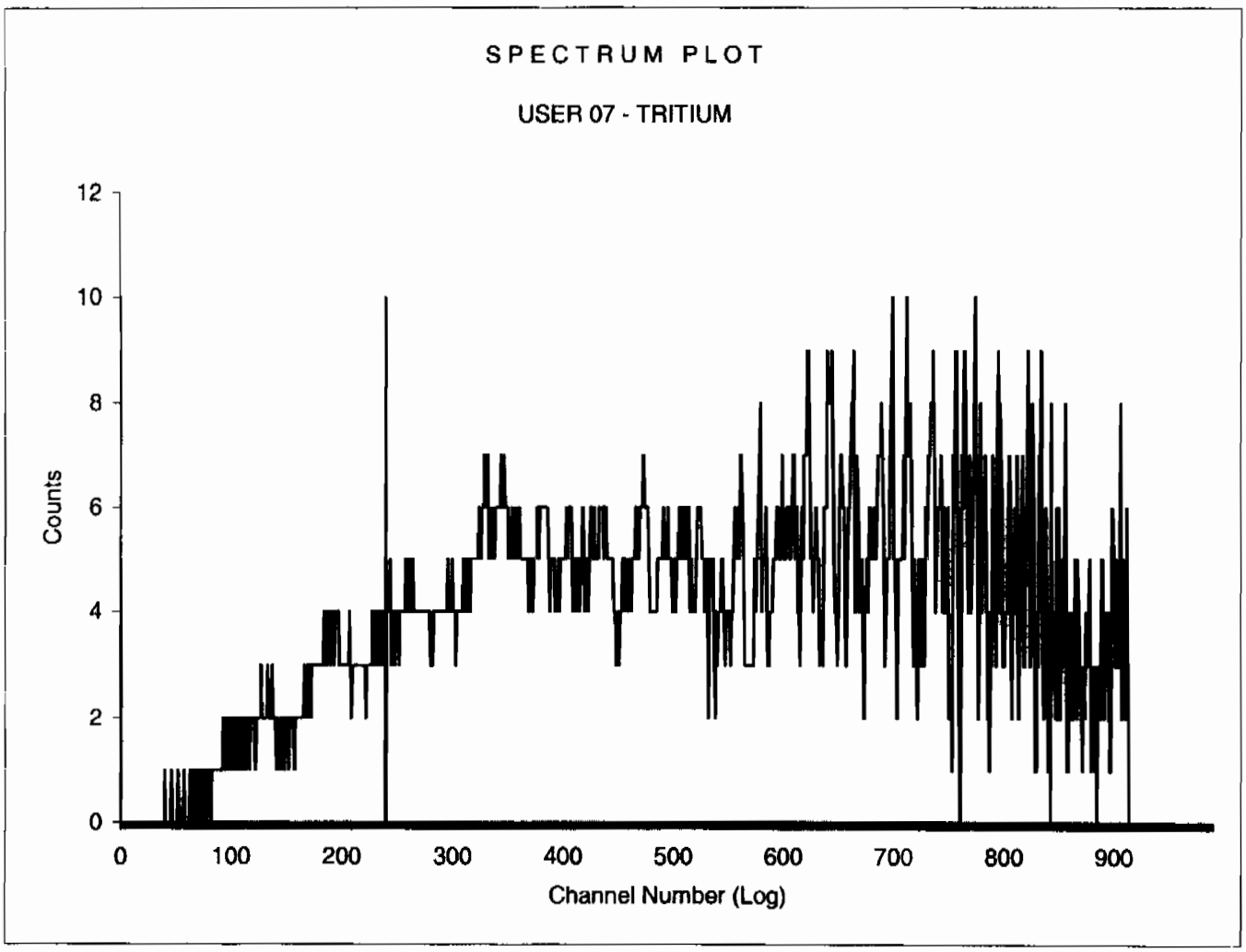

Sample Count Start Time:	15 Feb 2010 04:11:21		
Data Capture Date	15 Feb 2010 05:46:46		
User Filename	S07021507-7A.XLS		
	U07021407-1A.XLS		
Spectrum Type	Log Counts		
User Number	07		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	7-7	95.00
H#, Total Counts:	108.8	3804	
Win1: Tritium - Start, End, Counts:	0	240	332
Win2: - Start, End, Counts:	0	990	3804

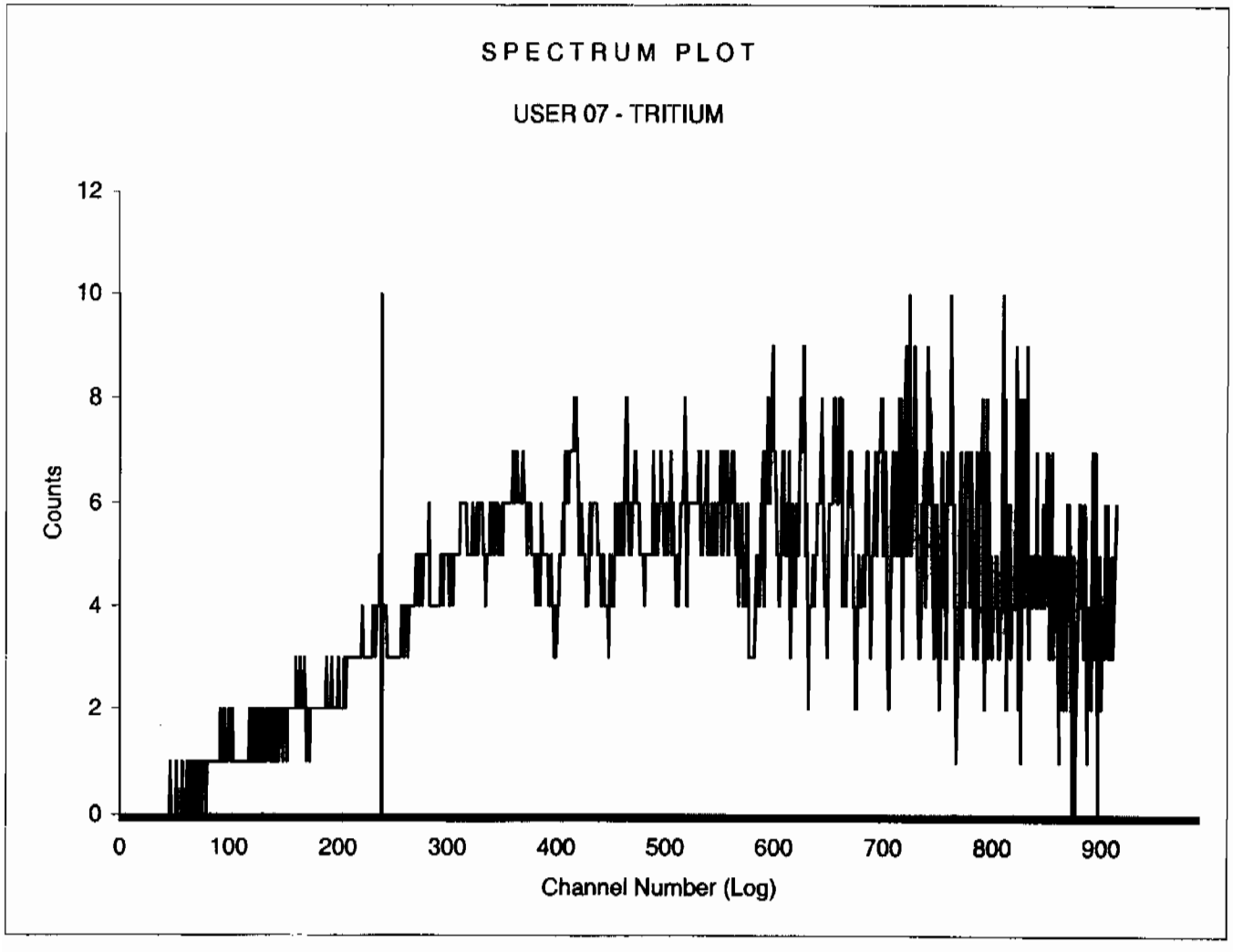

Sample Count Start Time:	15 Feb 2010 05:49:19		
Data Capture Date	15 Feb 2010 07:24:44		
User Filename	S07021507-8A.XLS		
	U07021407-1A.XLS		
Spectrum Type	Log Counts		
User Number	07		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	7-8	95.00
H#, Total Counts:	111.0	3812	
Win1: Tritium - Start, End, Counts:	0	240	405
Win2: - Start, End, Counts:	0	990	3812

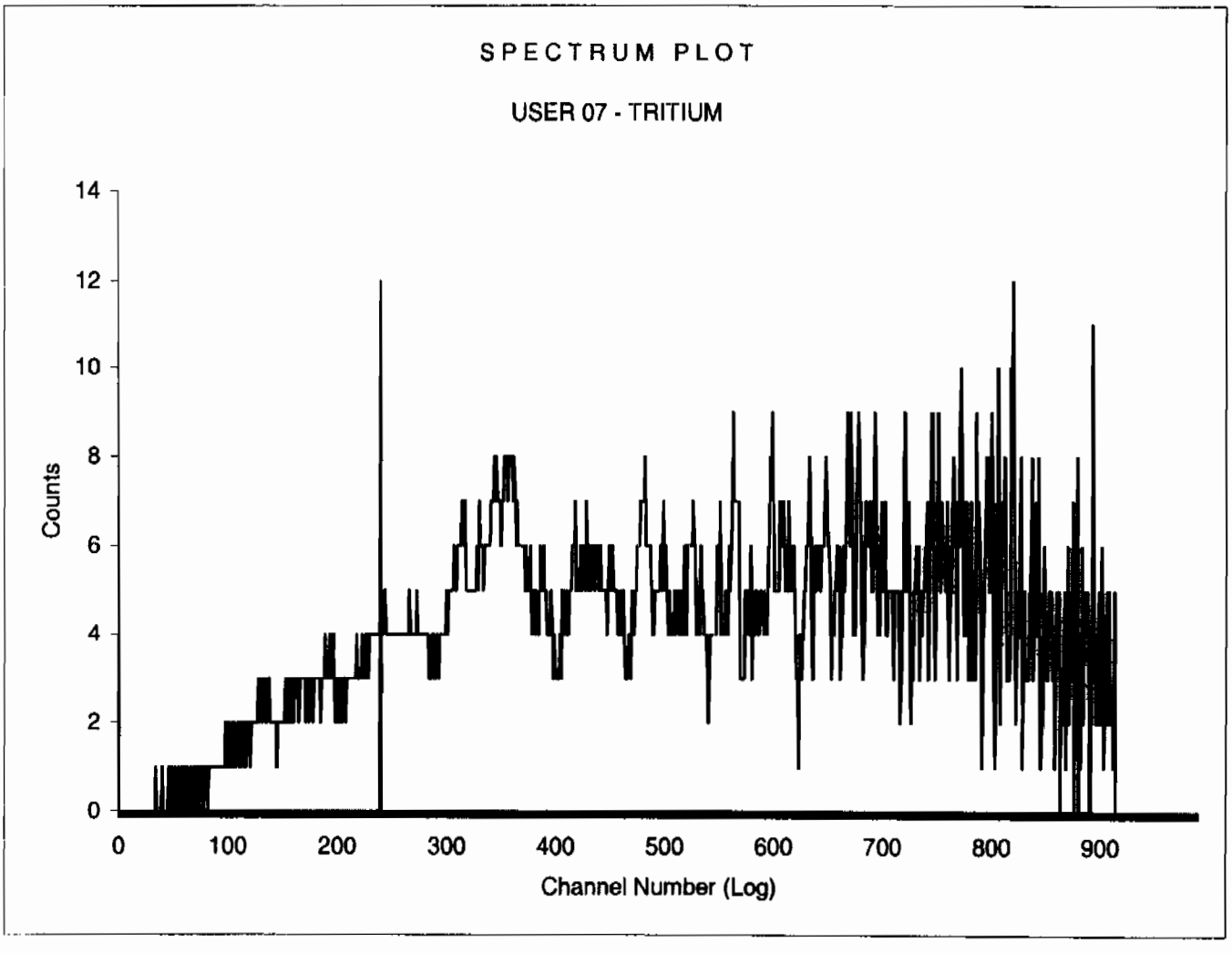

ID: TRITIUM 15 FEB 2010 08:47

USER: 6 COMMENT: BROWN

PRESET TIME : 15.00

DATA CALC	:	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK	:	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE	:	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:		LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL	:	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 0.0 - 240.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	LUMEX %	ELAPSED TIME
8	1 35-1	15.00	103.4	**31.27**	9.24	0.26	15.79
9	2 35-2	15.00	102.9	**76.07**	5.92	0.13	32.04
10	3 35-3	15.00	102.9	**8.13**	18.18	0.34	48.30
11	4 35-4	15.00	103.5	**7.87**	18.49	0.38	64.55
13	5 35-5	15.00	103.5	**25.27**	10.29	0.25	80.81
17	6 35-6	15.00	102.6	**33.53**	8.93	0.21	97.07

Sample Count Start Time:	15 Feb 2010 08:39:19		
Data Capture Date	15 Feb 2010 08:54:37		
User Filename	S06021535-1A.XLS		
	U06021535-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	35-1	15.00
H#, Total Counts:	103.4	1089	
Win1: Tritium - Start, End, Counts:	0	240	469
Win2: - Start, End, Counts:	0	990	1089

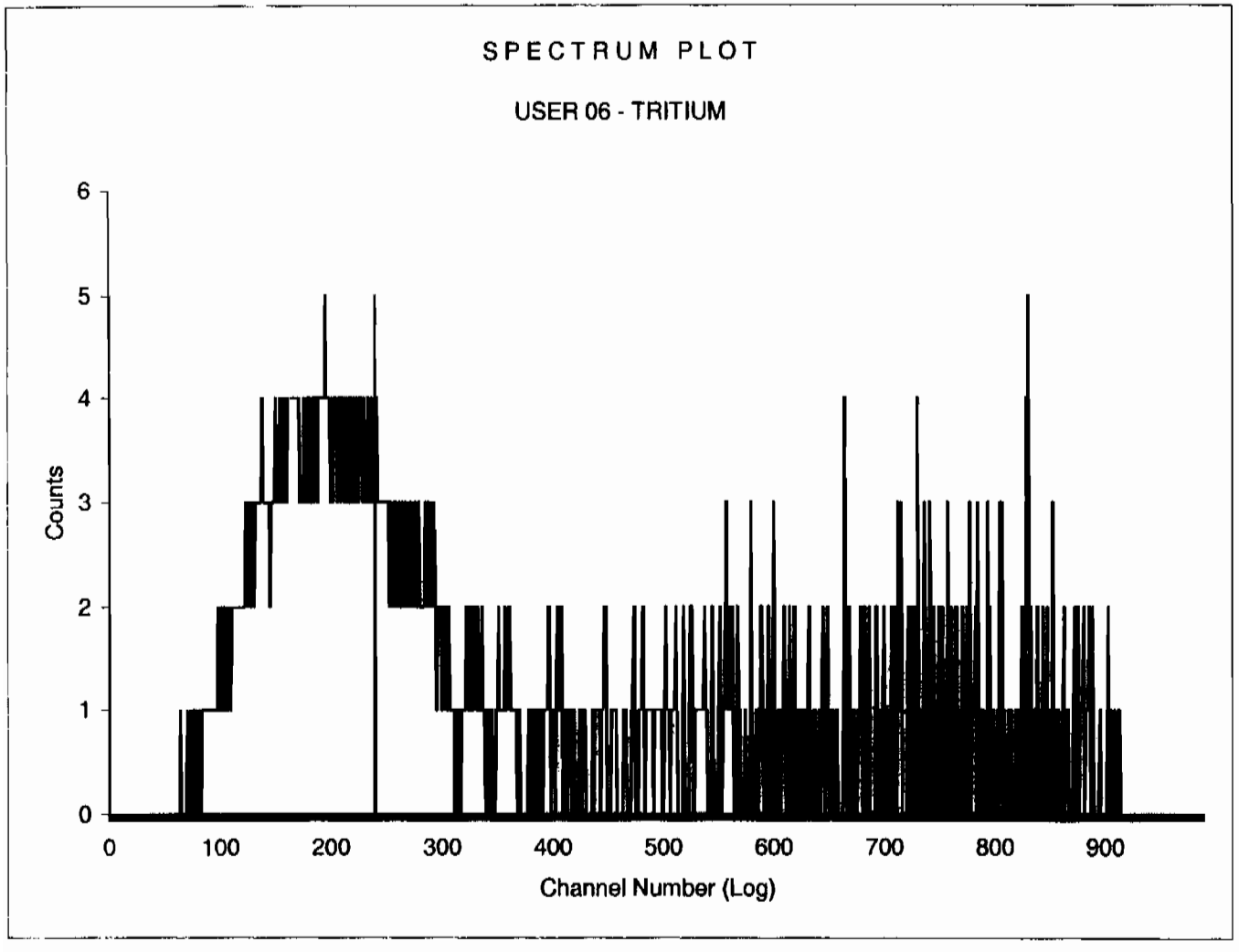

Sample Count Start Time:	15 Feb 2010 08:55:34		
Data Capture Date	15 Feb 2010 09:10:53		
User Filename	S06021535-2A.XLS		
	U06021535-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	35-2	15.00
H#, Total Counts:	102.9	2035	
Win1: Tritium - Start, End, Counts:	0	240	1141
Win2: - Start, End, Counts:	0	990	2035

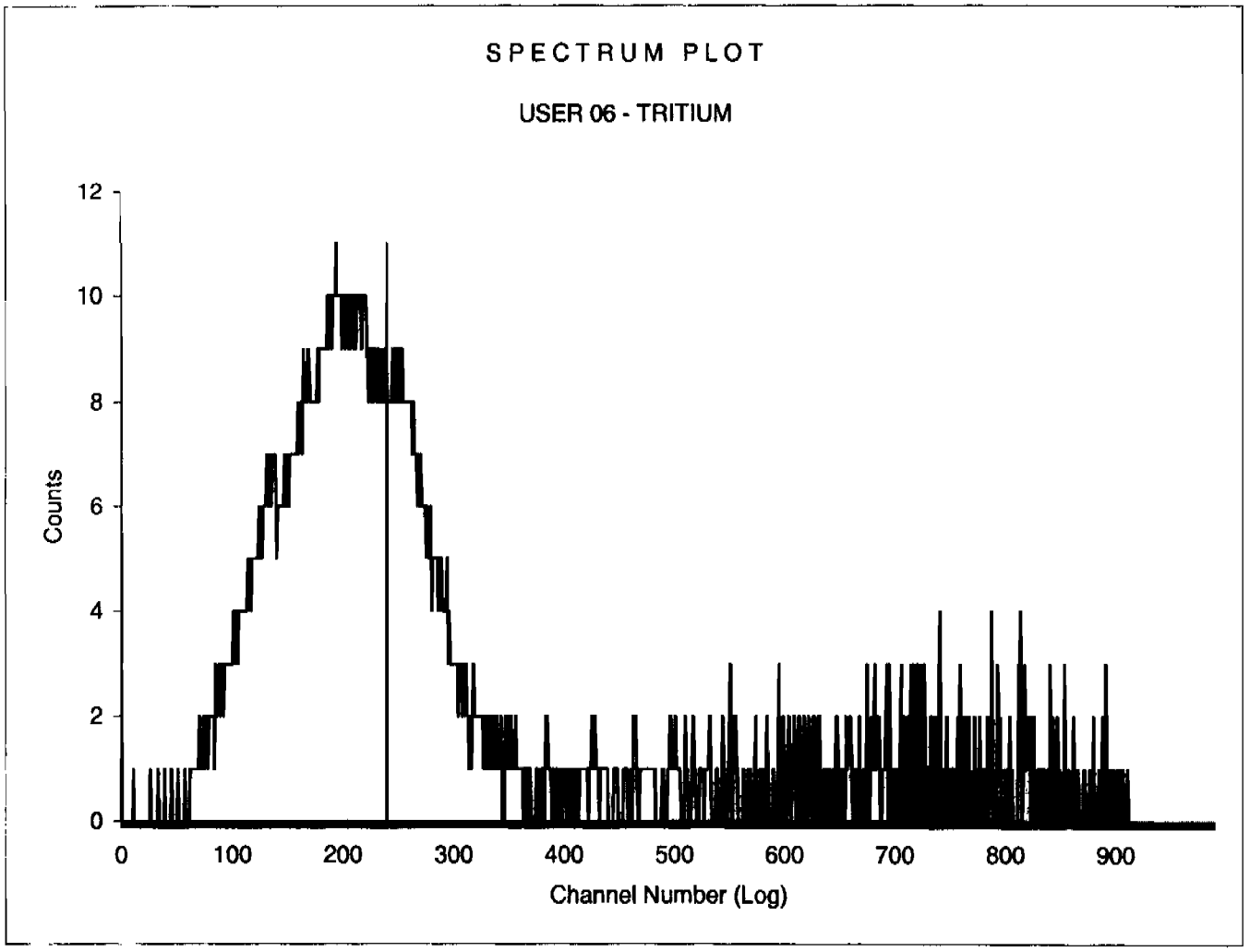

Sample Count Start Time:	15 Feb 2010 09:11:50		
Data Capture Date	15 Feb 2010 09:27:06		
User Filename	S06021535-3A.XLS		
	U06021535-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	35-3	15.00
H#, Total Counts:	102.9	708	
Win1: Tritium - Start, End, Counts:	0	240	122
Win2: - Start, End, Counts:	0	990	708

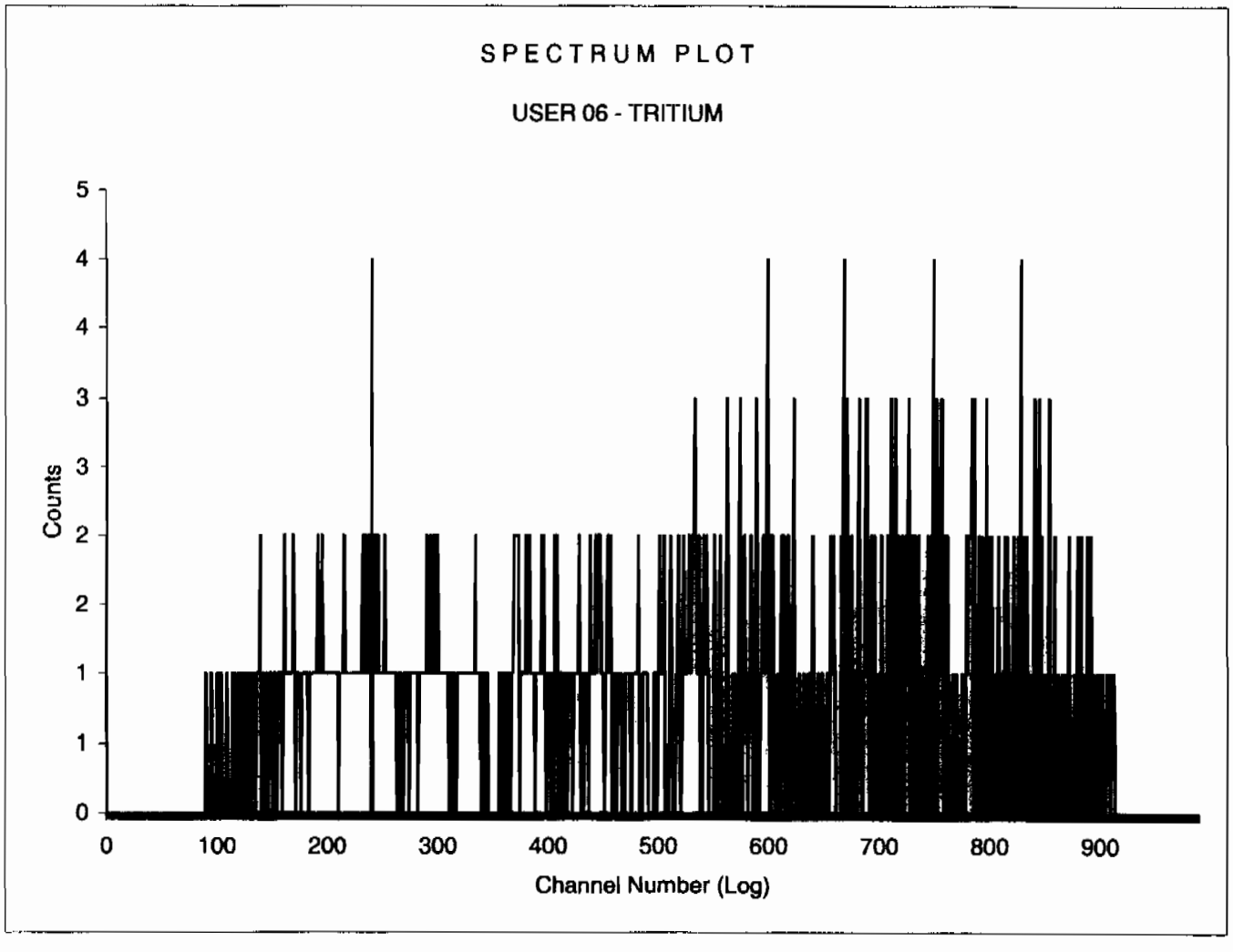

Sample Count Start Time:	15 Feb 2010 09:28:05		
Data Capture Date	15 Feb 2010 09:43:17		
User Filename	S06021535-4A.XLS		
	U06021535-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	35-4	15.00
H#, Total Counts:	103.5	655	
Win1: Tritium - Start, End, Counts:	0	240	118
Win2: - Start, End, Counts:	0	990	655

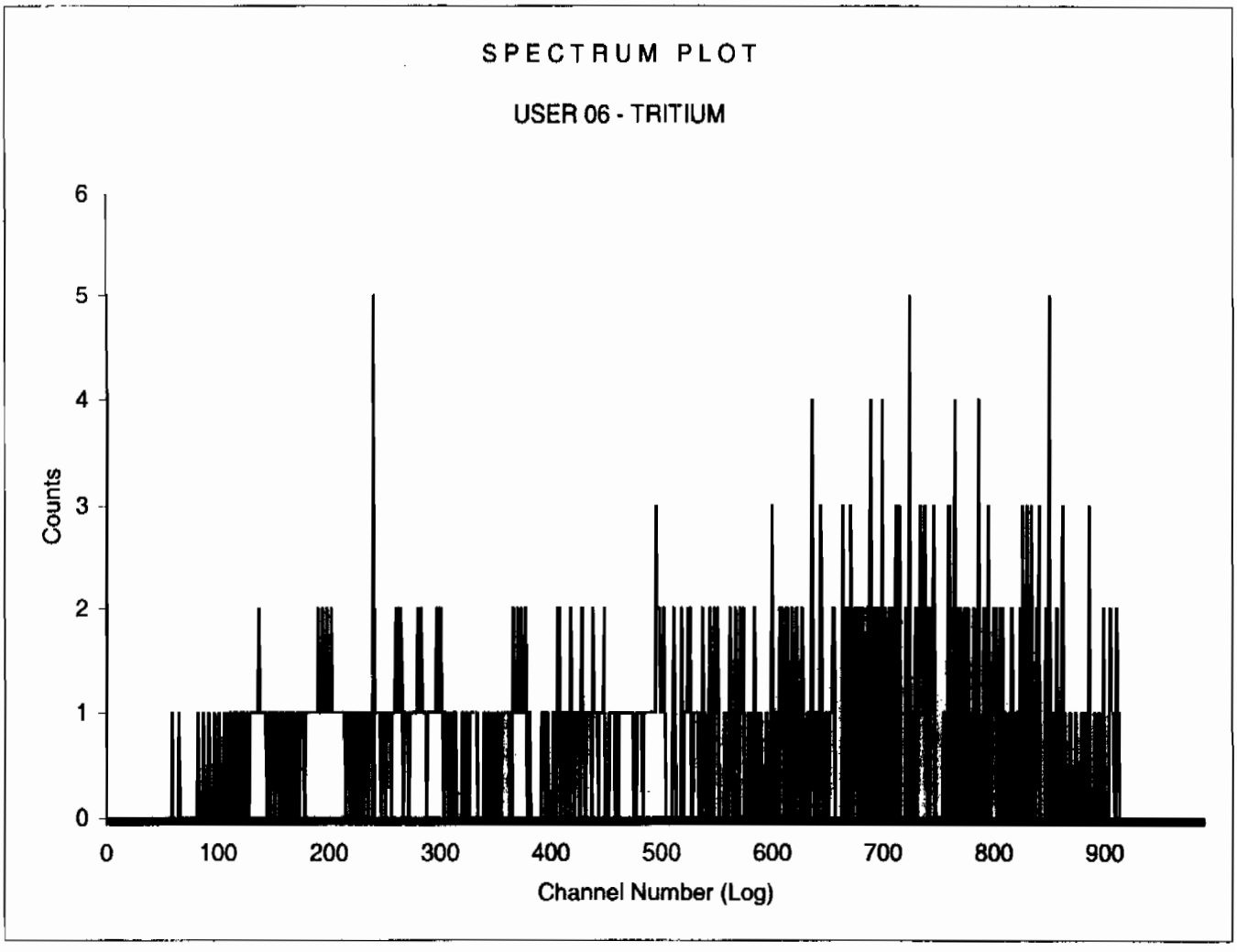

Sample Count Start Time:	15 Feb 2010 09:44:21		
Data Capture Date	15 Feb 2010 09:59:33		
User Filename	S06021535-5A.XLS		
	U06021535-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	35-5	15.00
H#, Total Counts:	103.5	1014	
Win1: Tritium - Start, End, Counts:	0	240	379
Win2: - Start, End, Counts:	0	990	1014

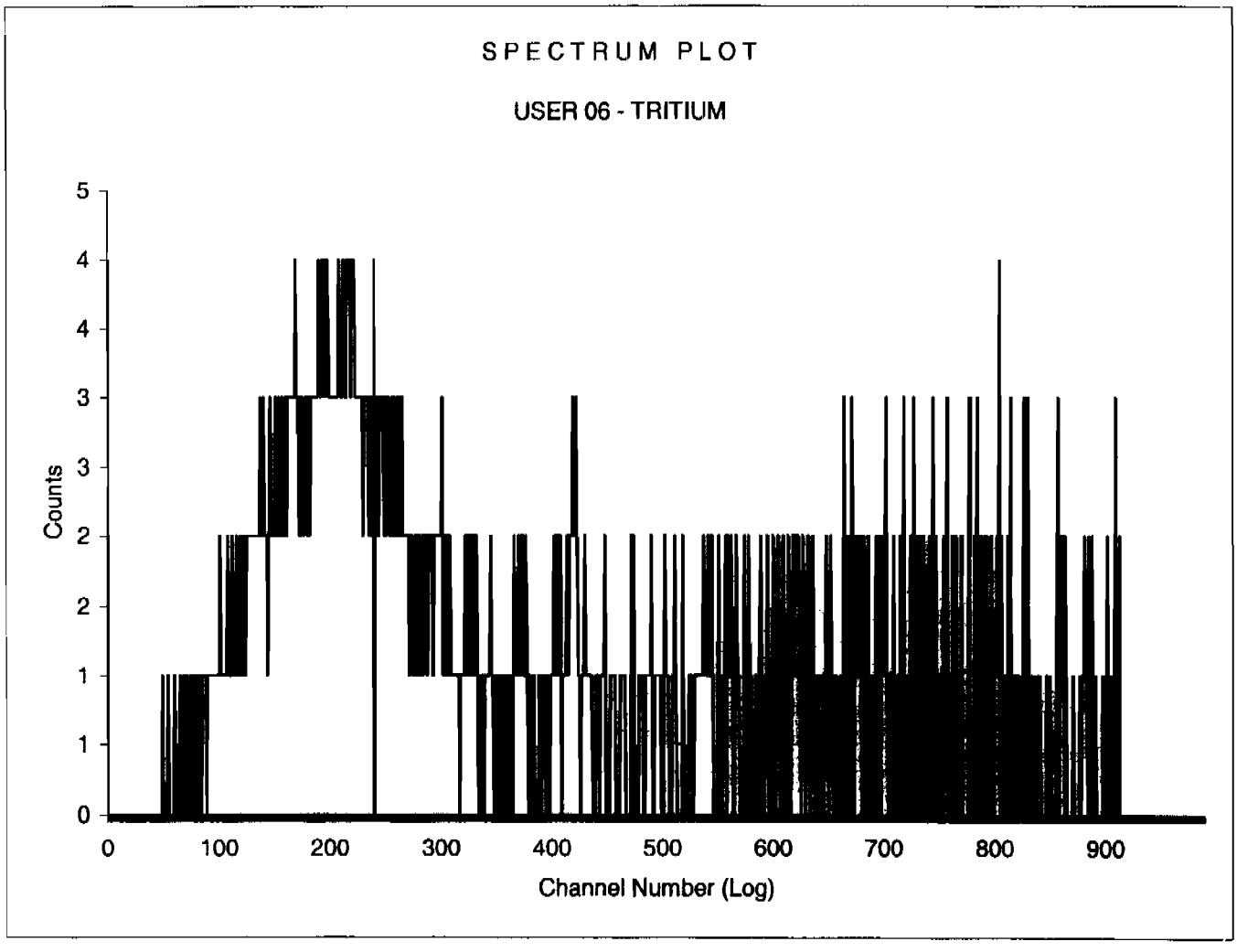

Sample Count Start Time:	15 Feb 2010 10:00:36		
Data Capture Date	15 Feb 2010 10:15:48		
User Filename	S06021535-6A.XLS		
	U06021535-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	35-6	15.00
H#, Total Counts:	102.6	1225	
Win1: Tritium - Start, End, Counts:	0	240	503
Win2: - Start, End, Counts:	0	990	1225

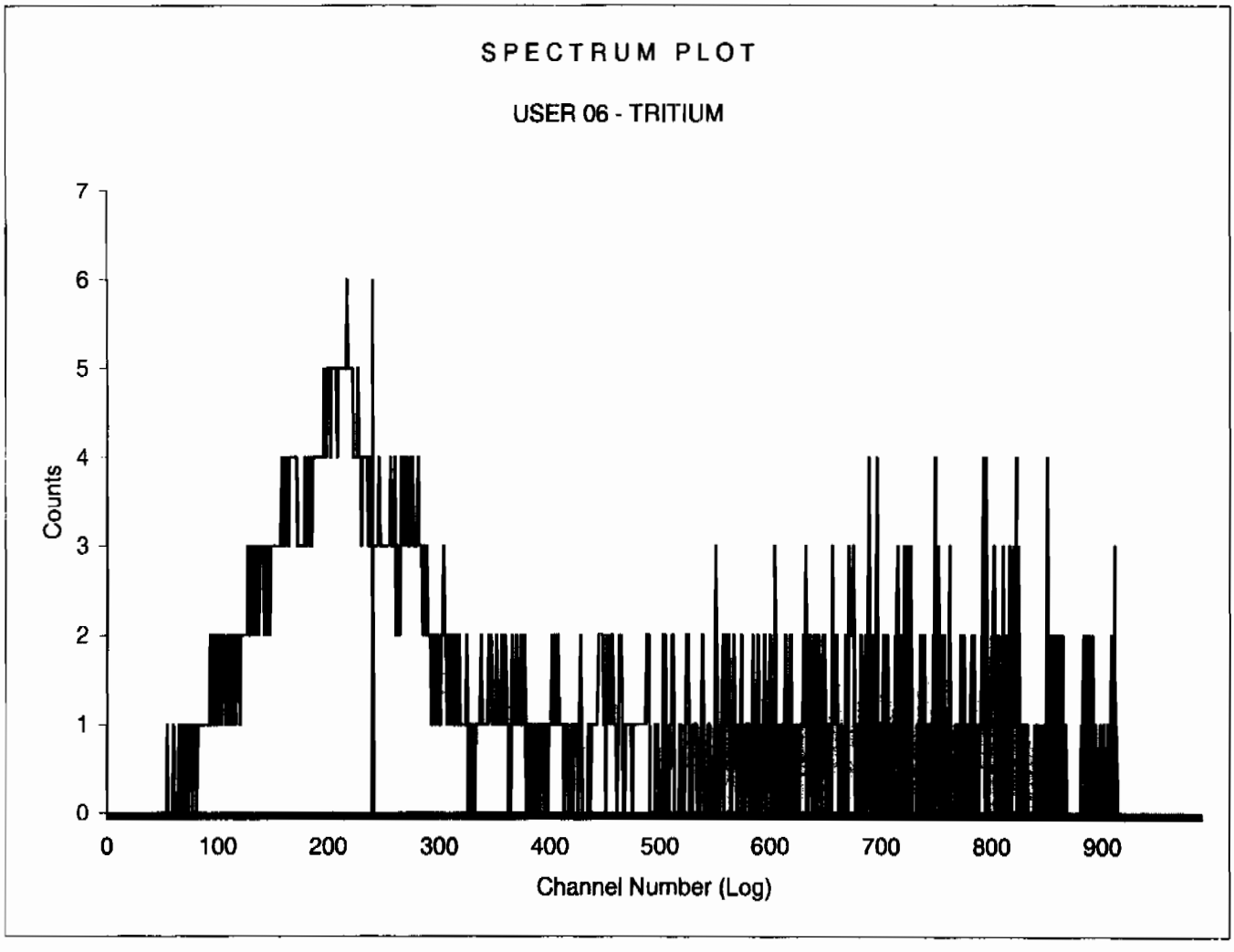

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313195 through 0.333195

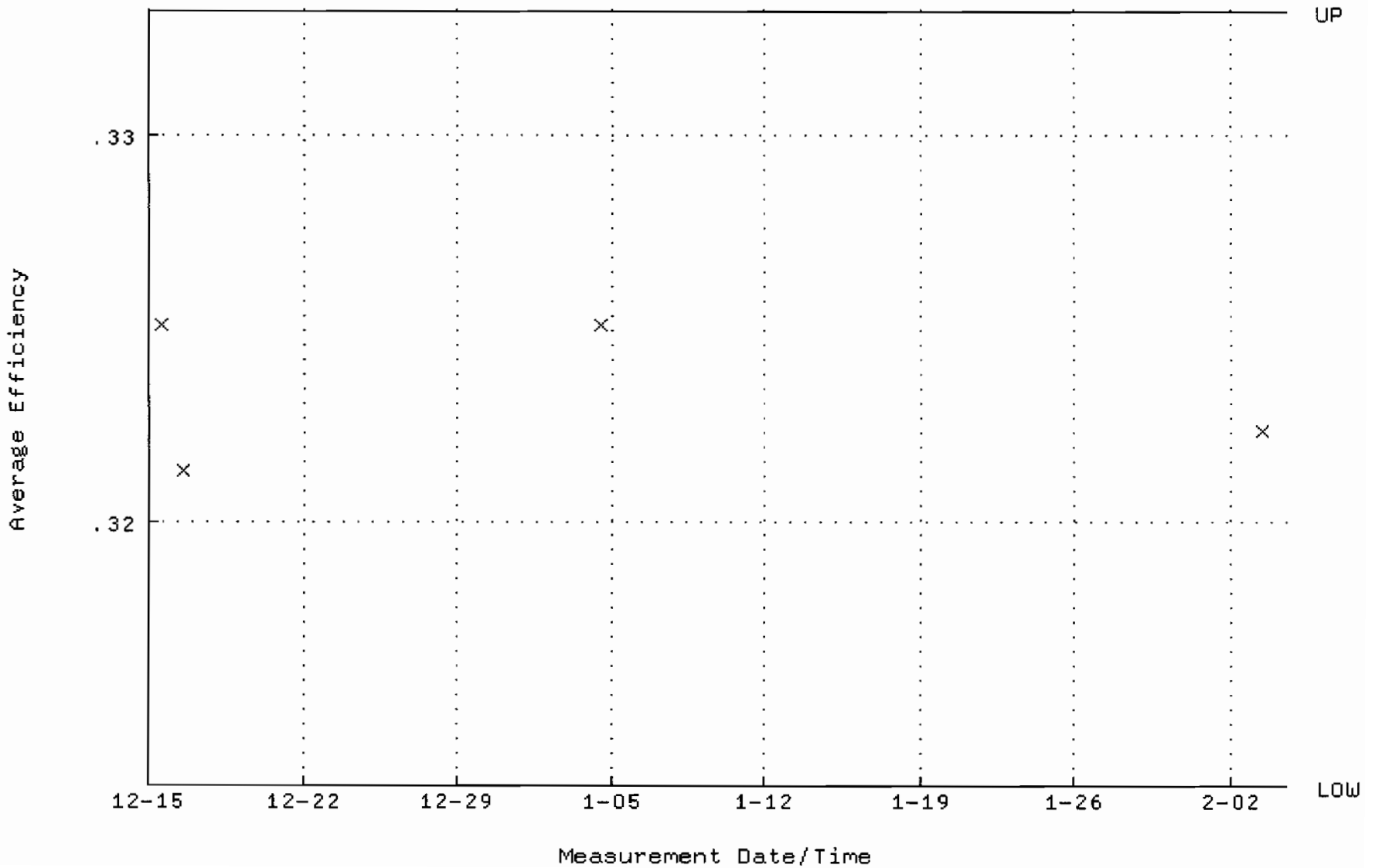

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1884 through 96.3662

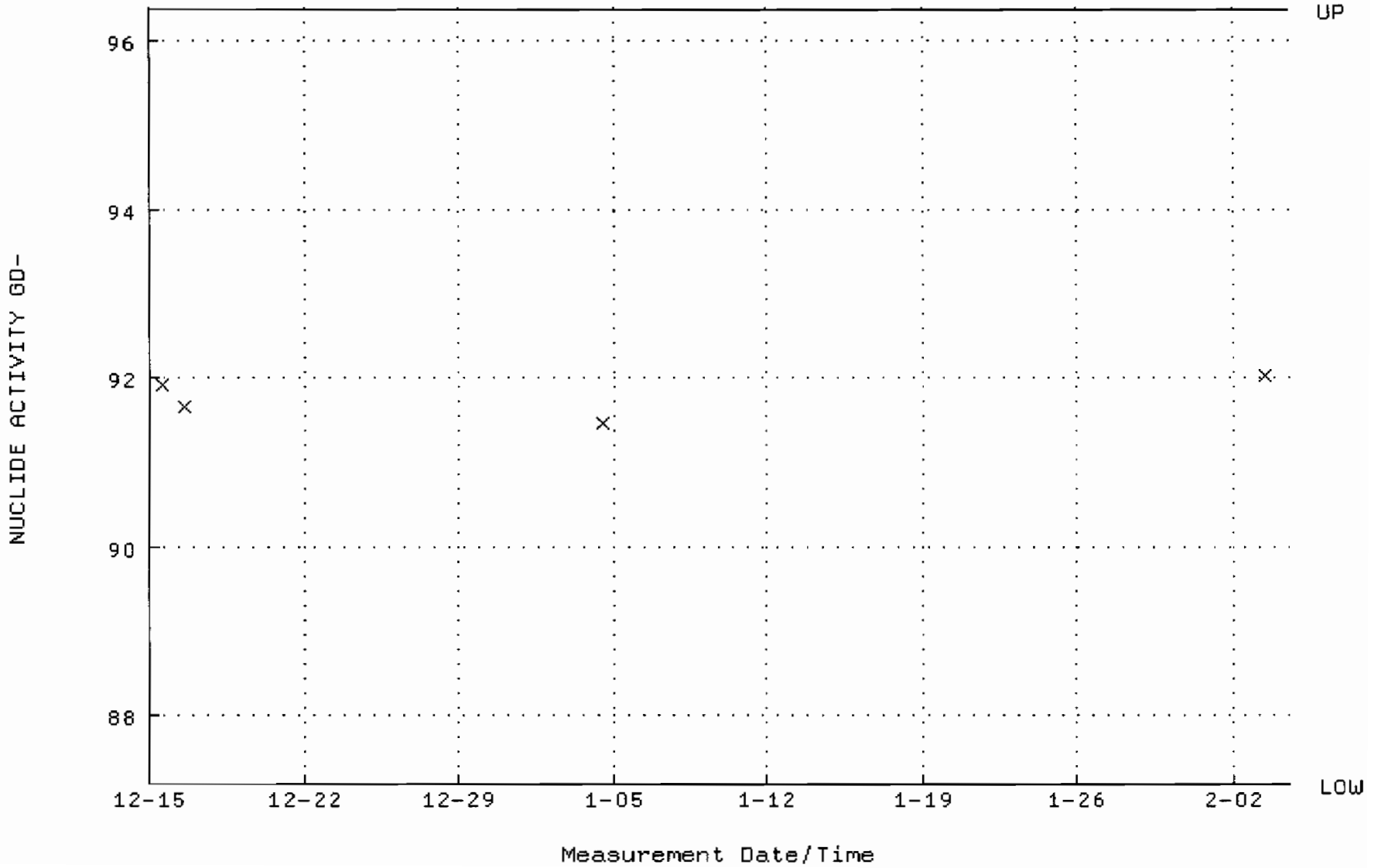

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

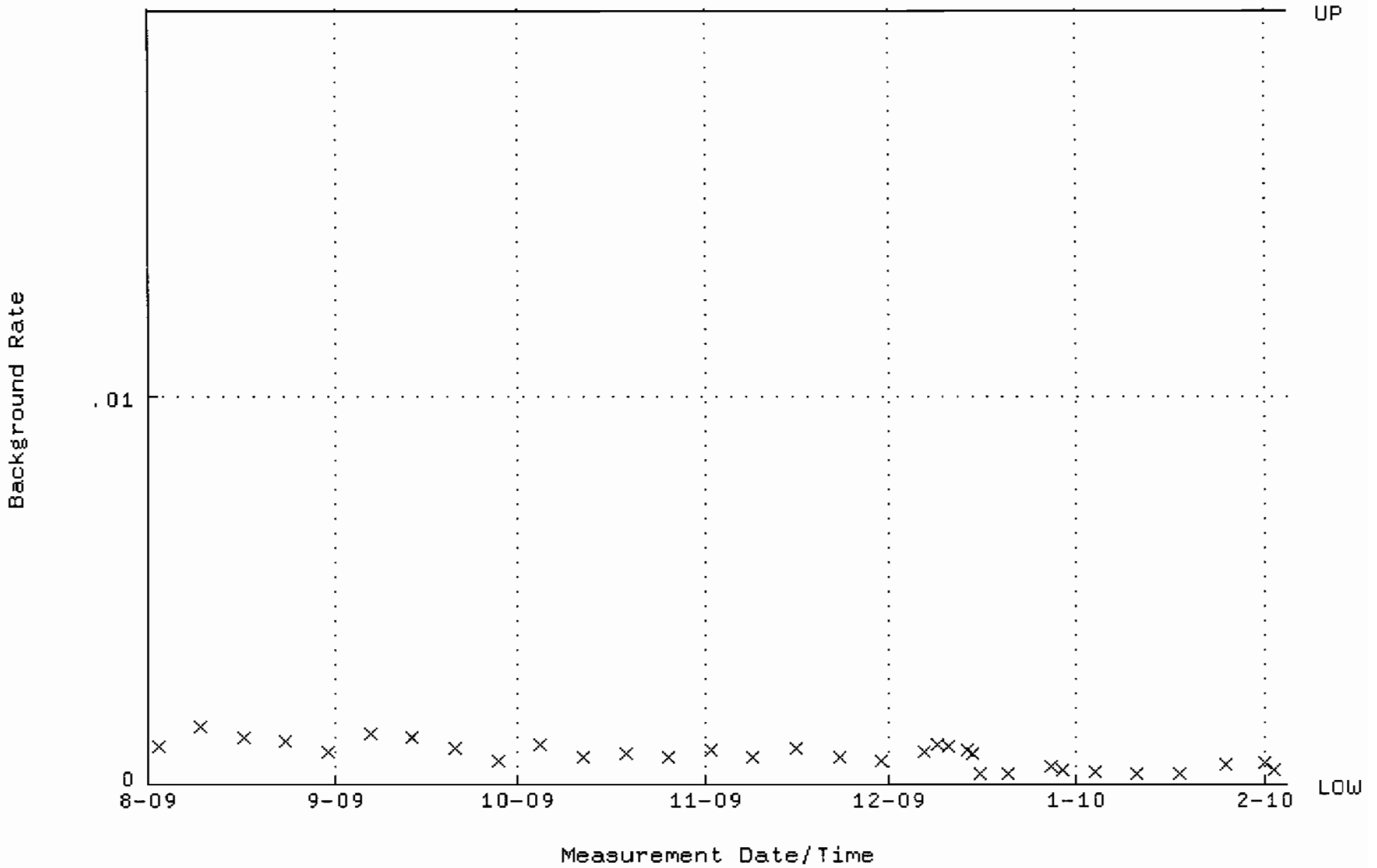

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.283765 through 0.303765

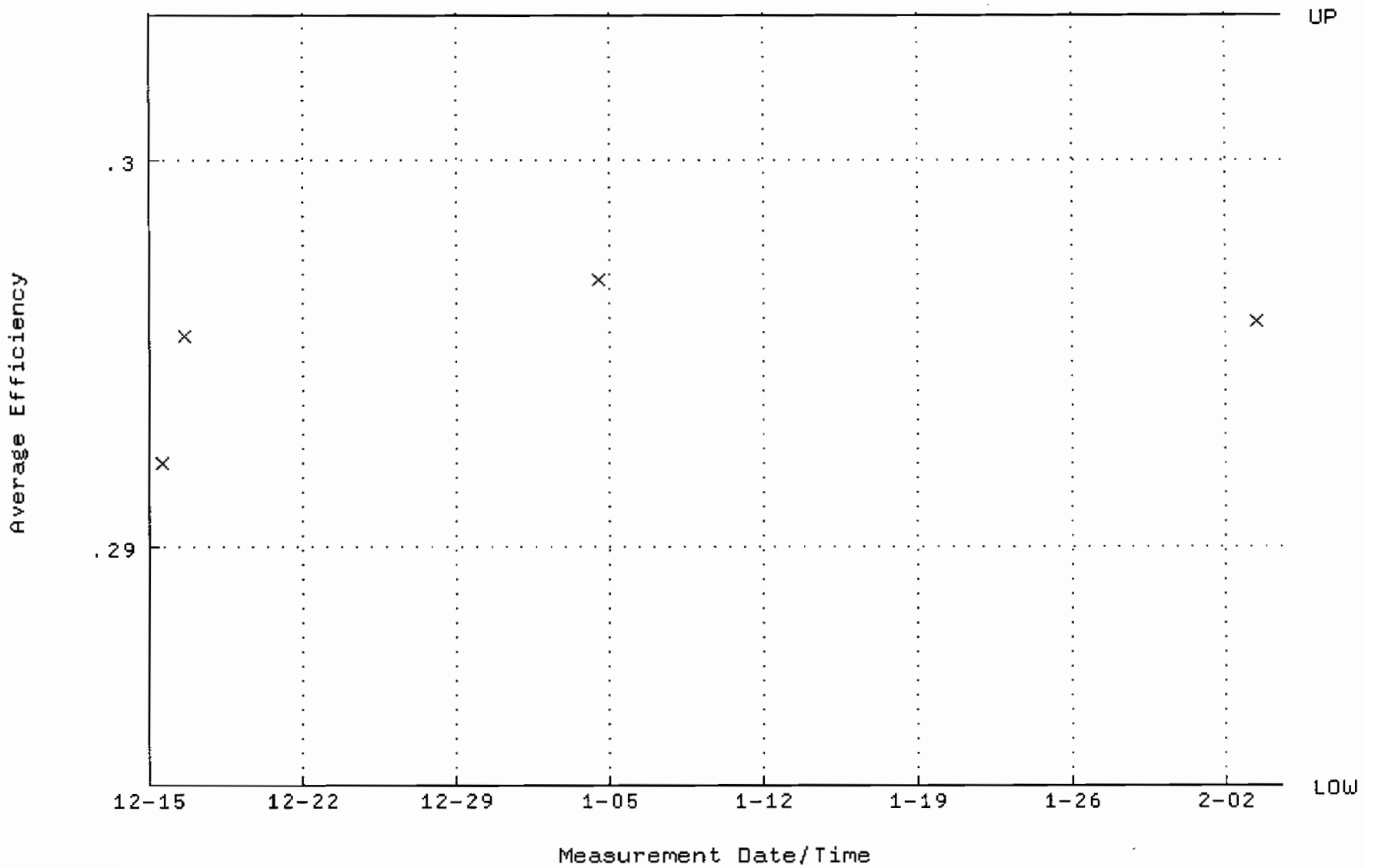

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8037 through 93.7305

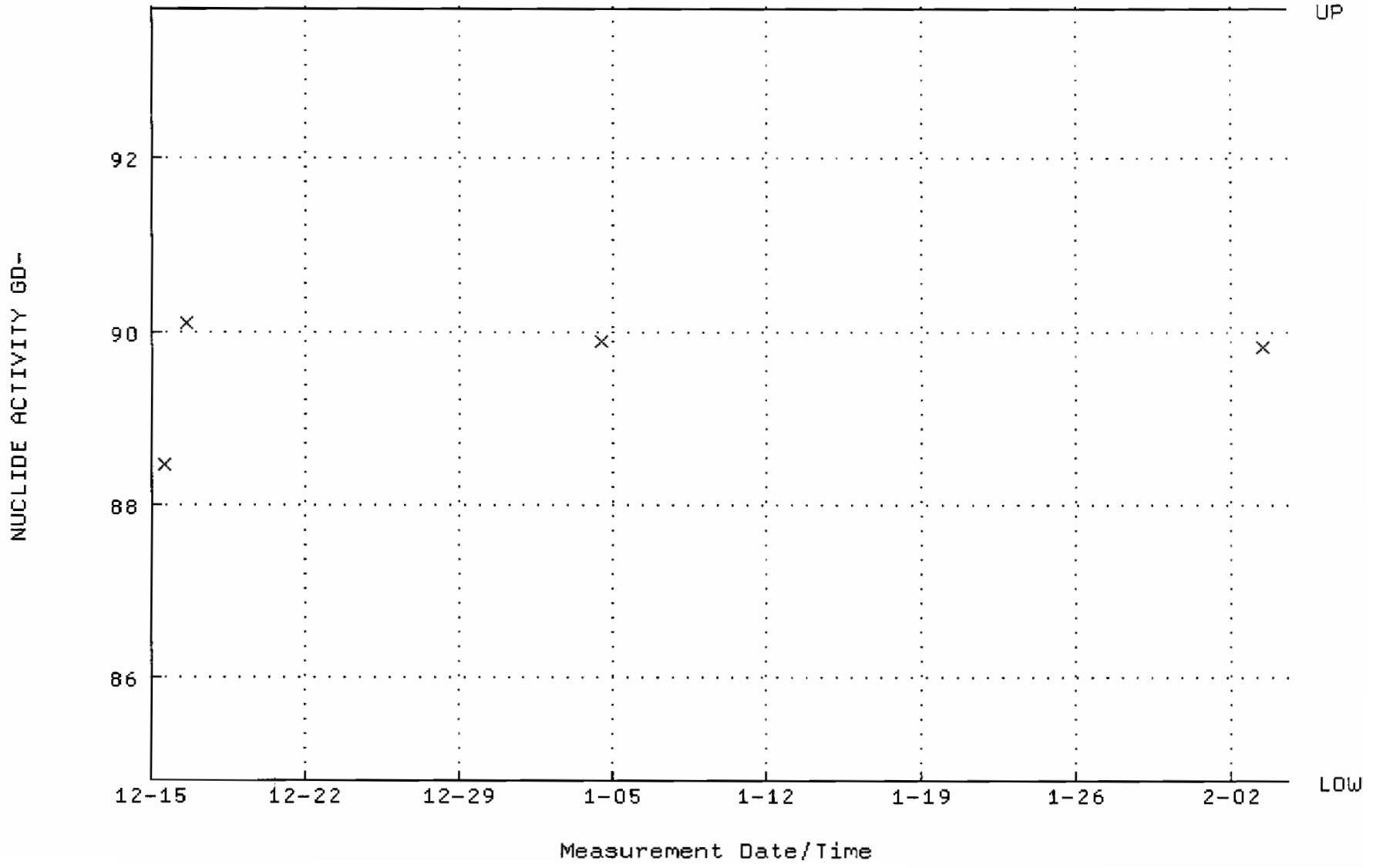

QA filename : DKA100:[ENV_ALPHA.QA.B]B002.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

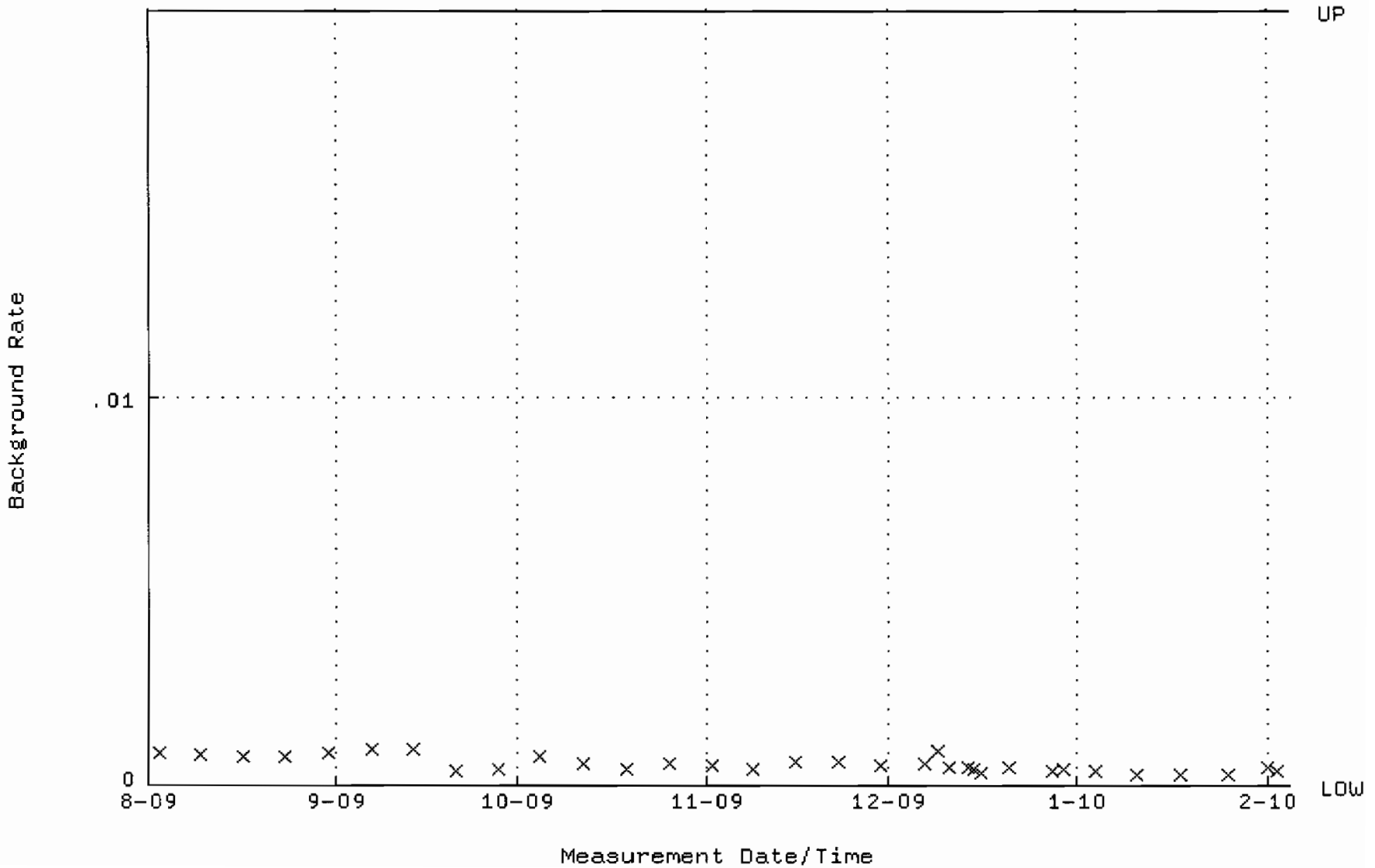

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.299193 through 0.319193

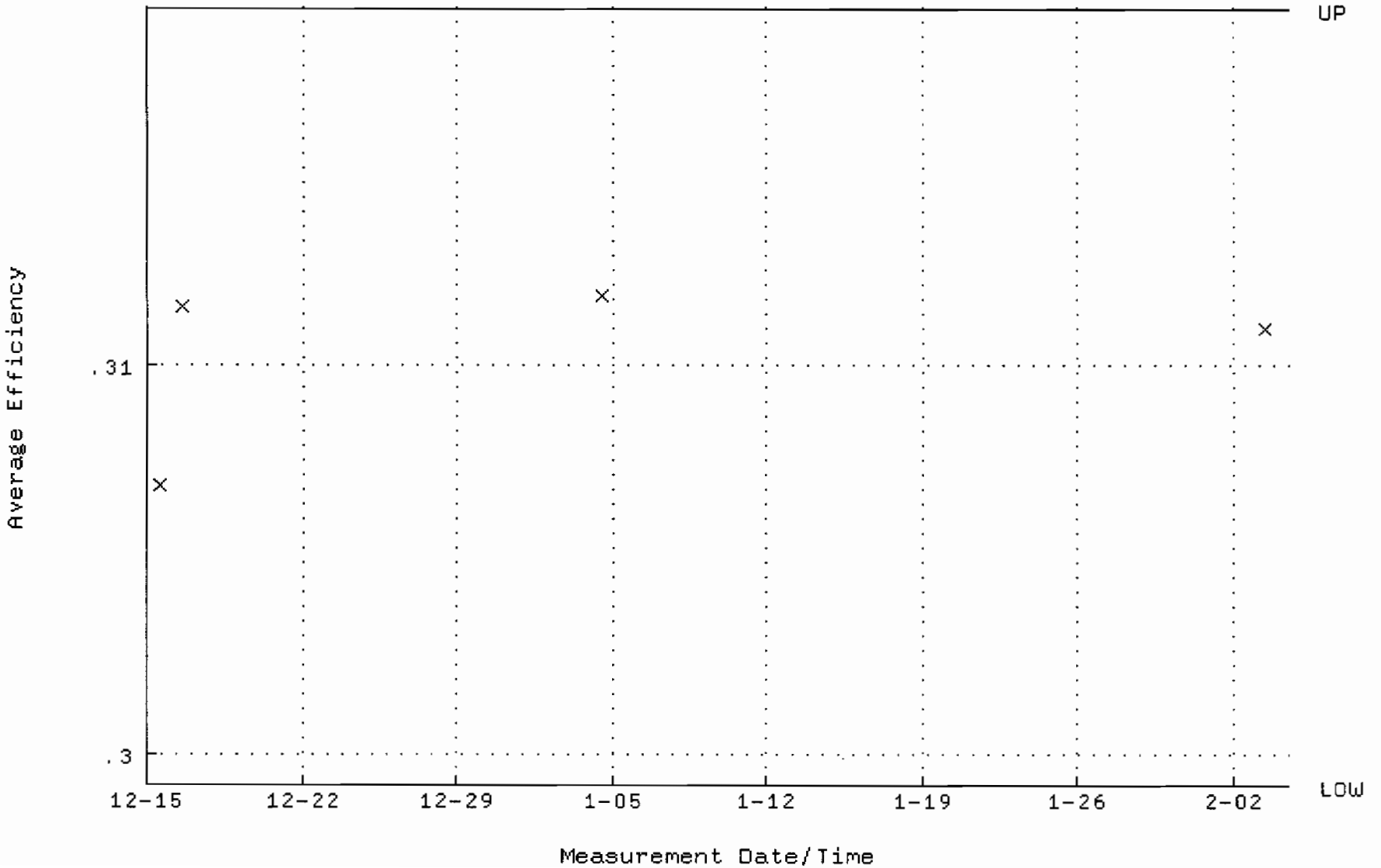

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8745 through 94.9139

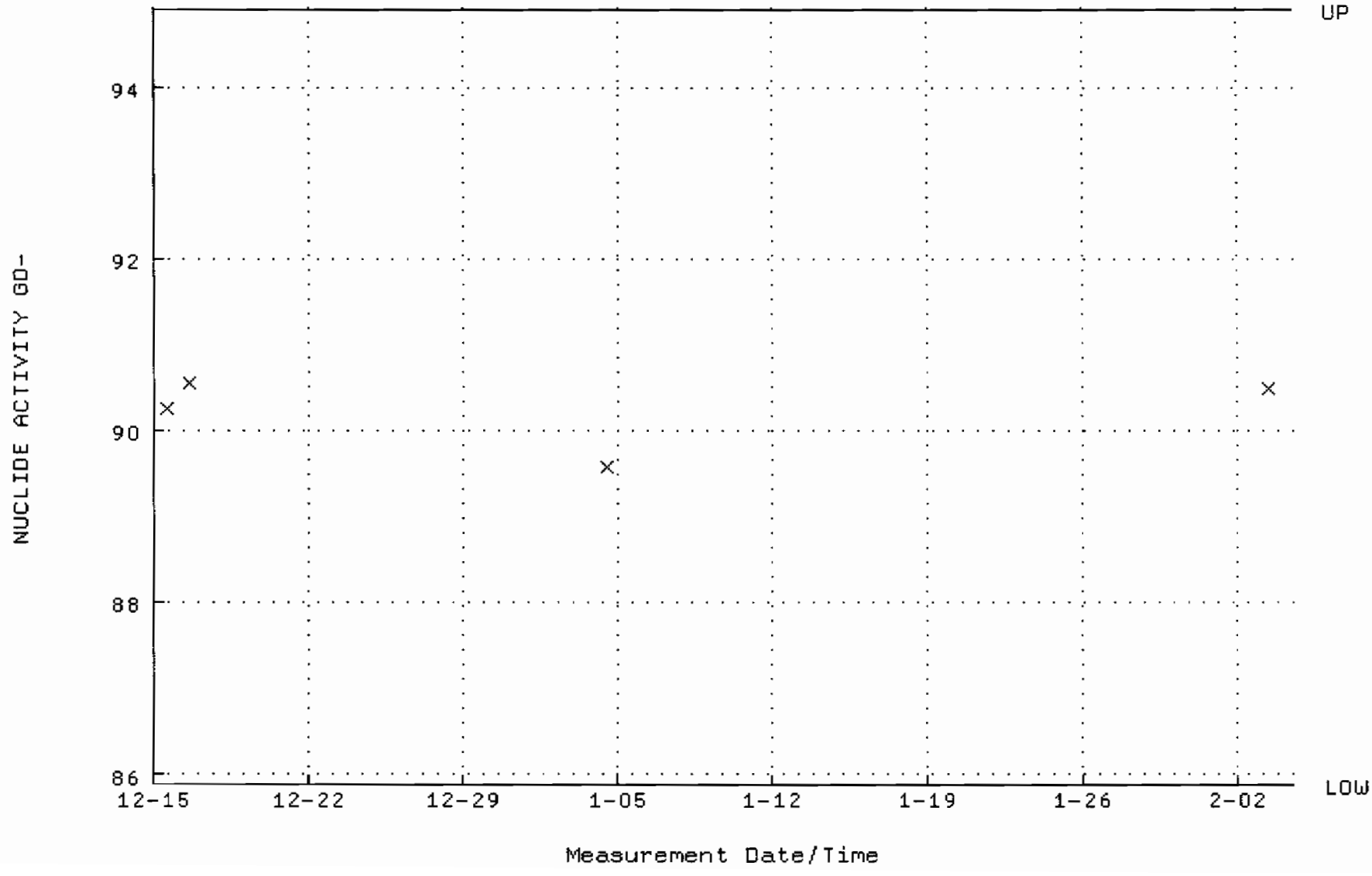

QA filename : DKA100:[ENV_ALPHA.QA.B]B003.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

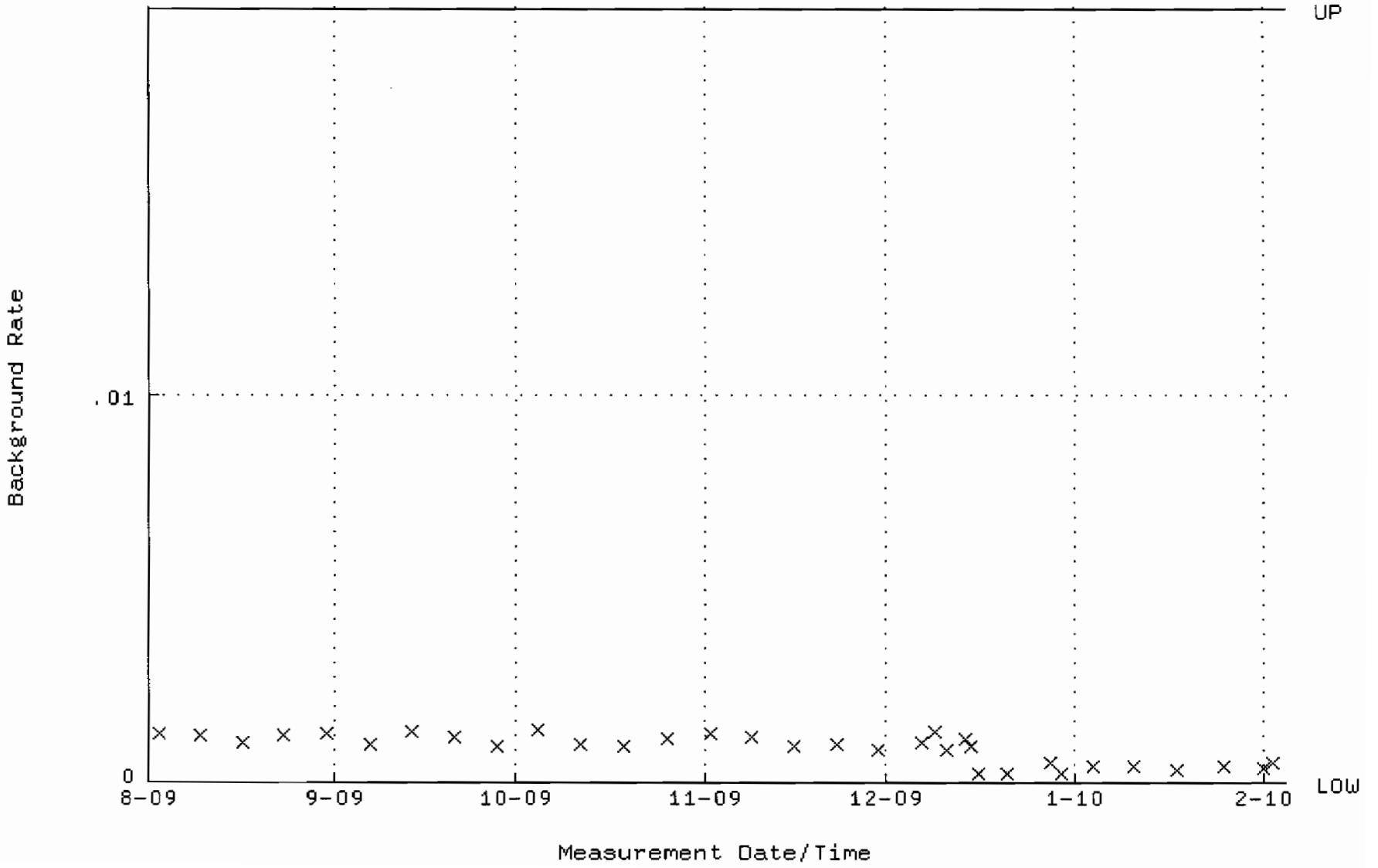

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310305 through 0.330305

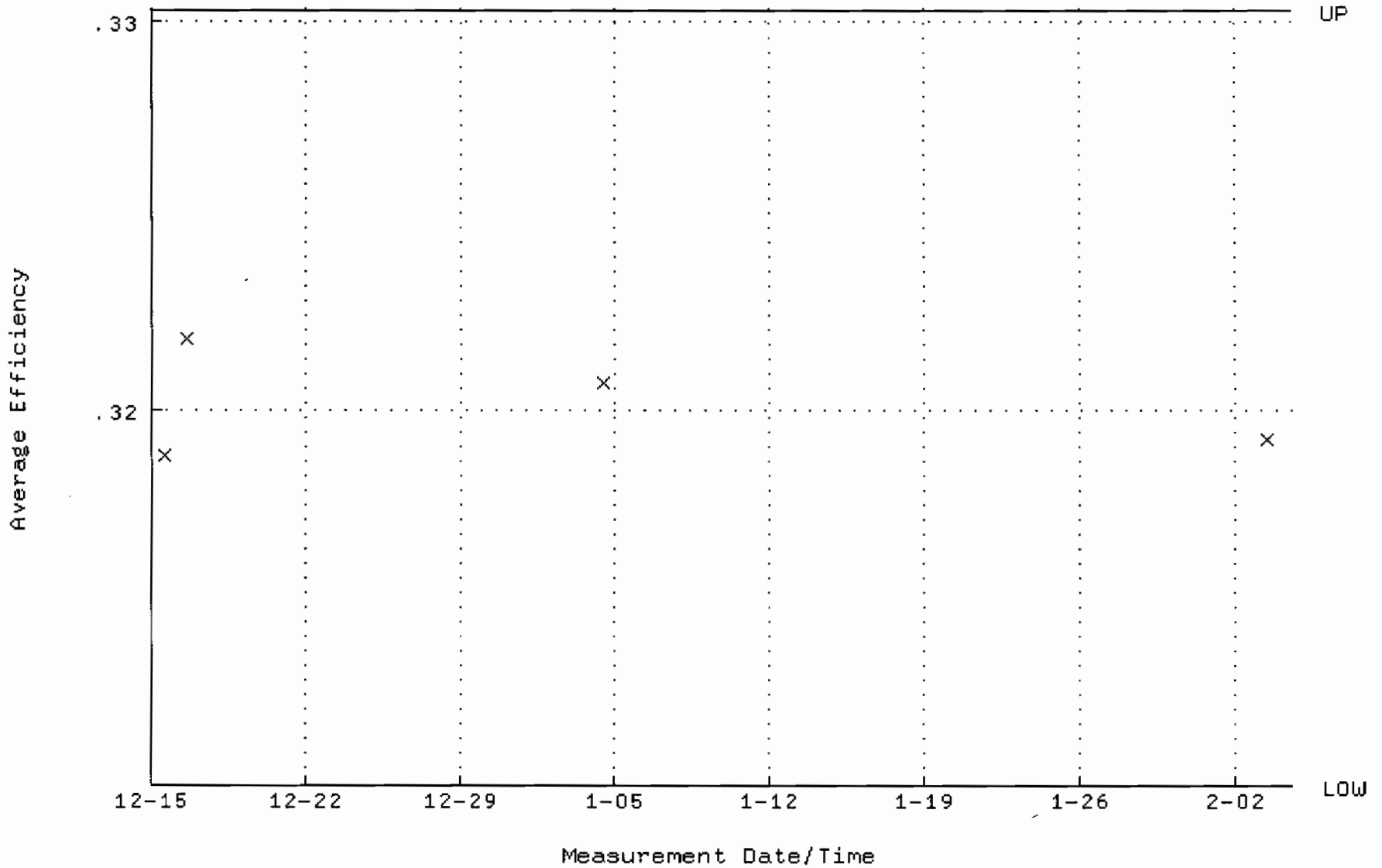

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 89.0042 through 98.3730

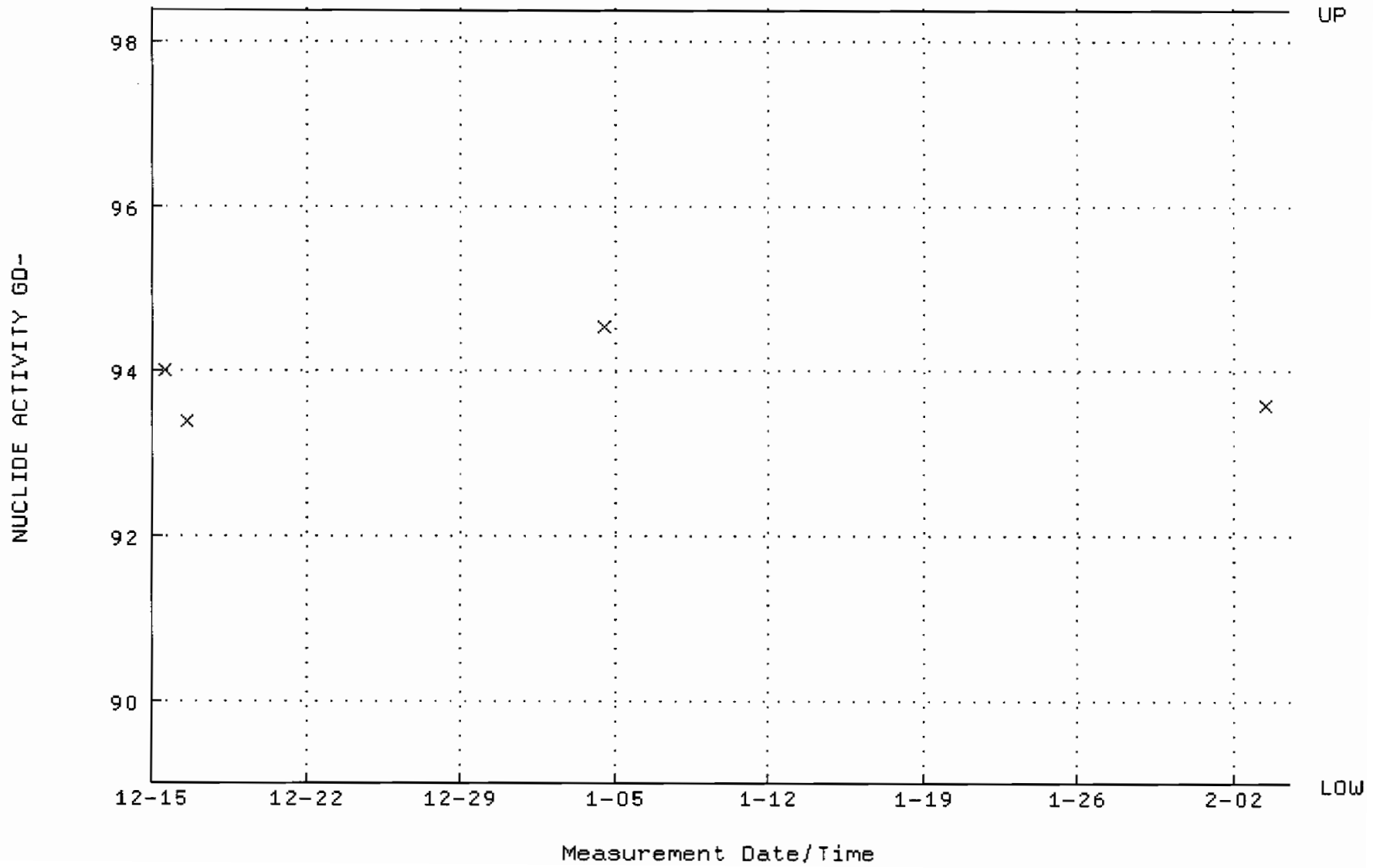

QA filename : DKA100:[ENV_ALPHA.QA.B]B005.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

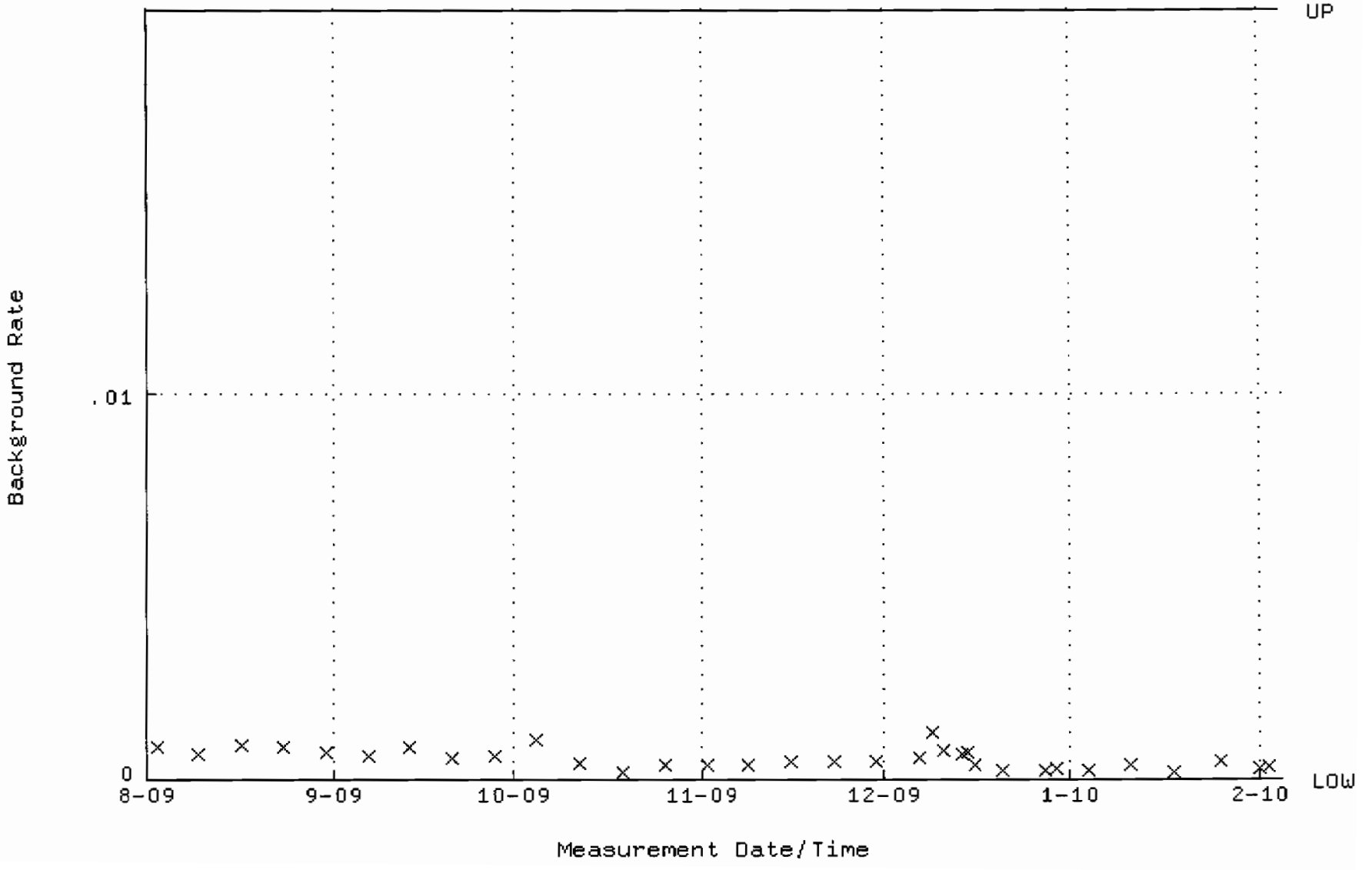

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295821 through 0.315821

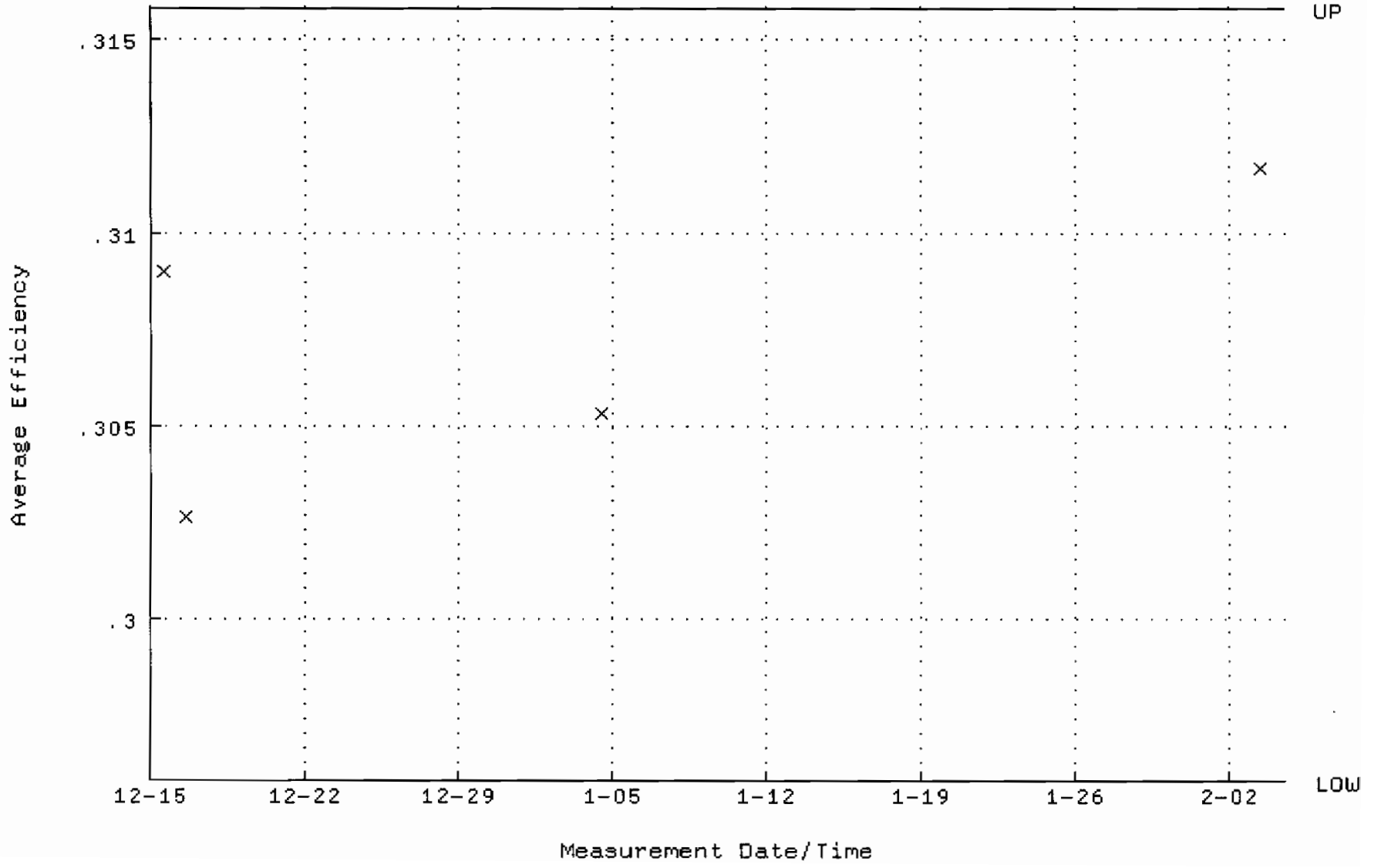

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.3237 through 95.4105

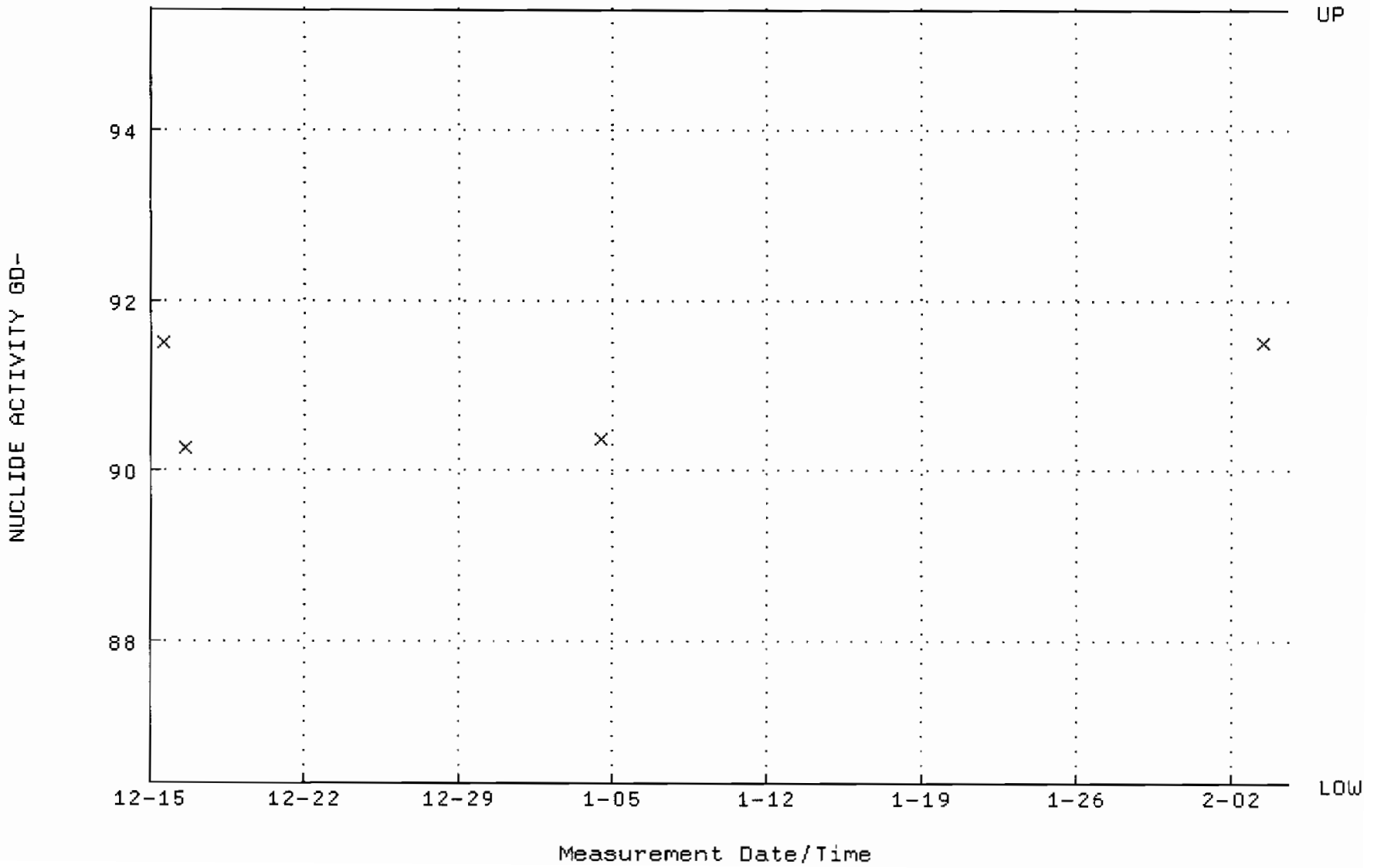

QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

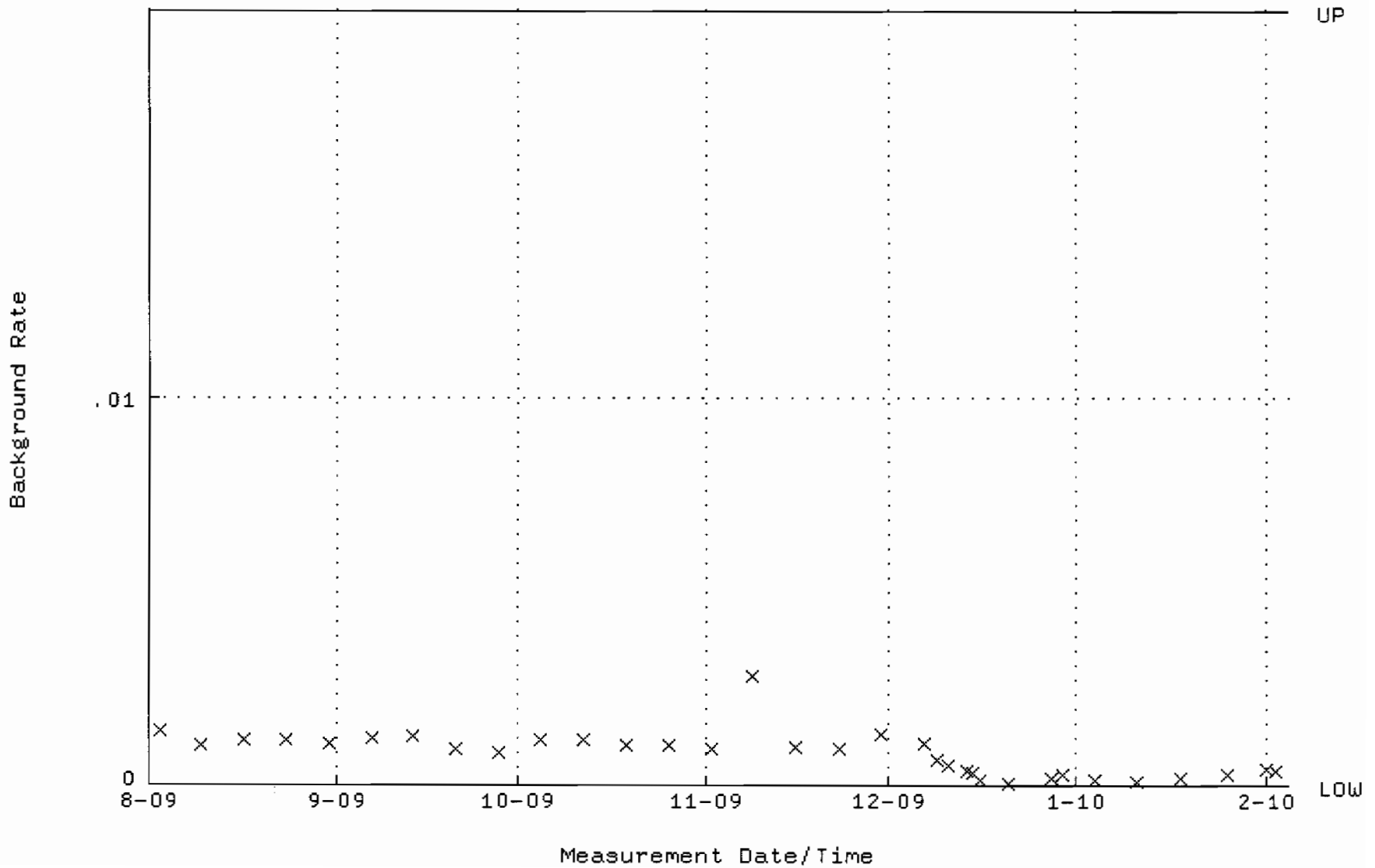

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.290108 through 0.310108

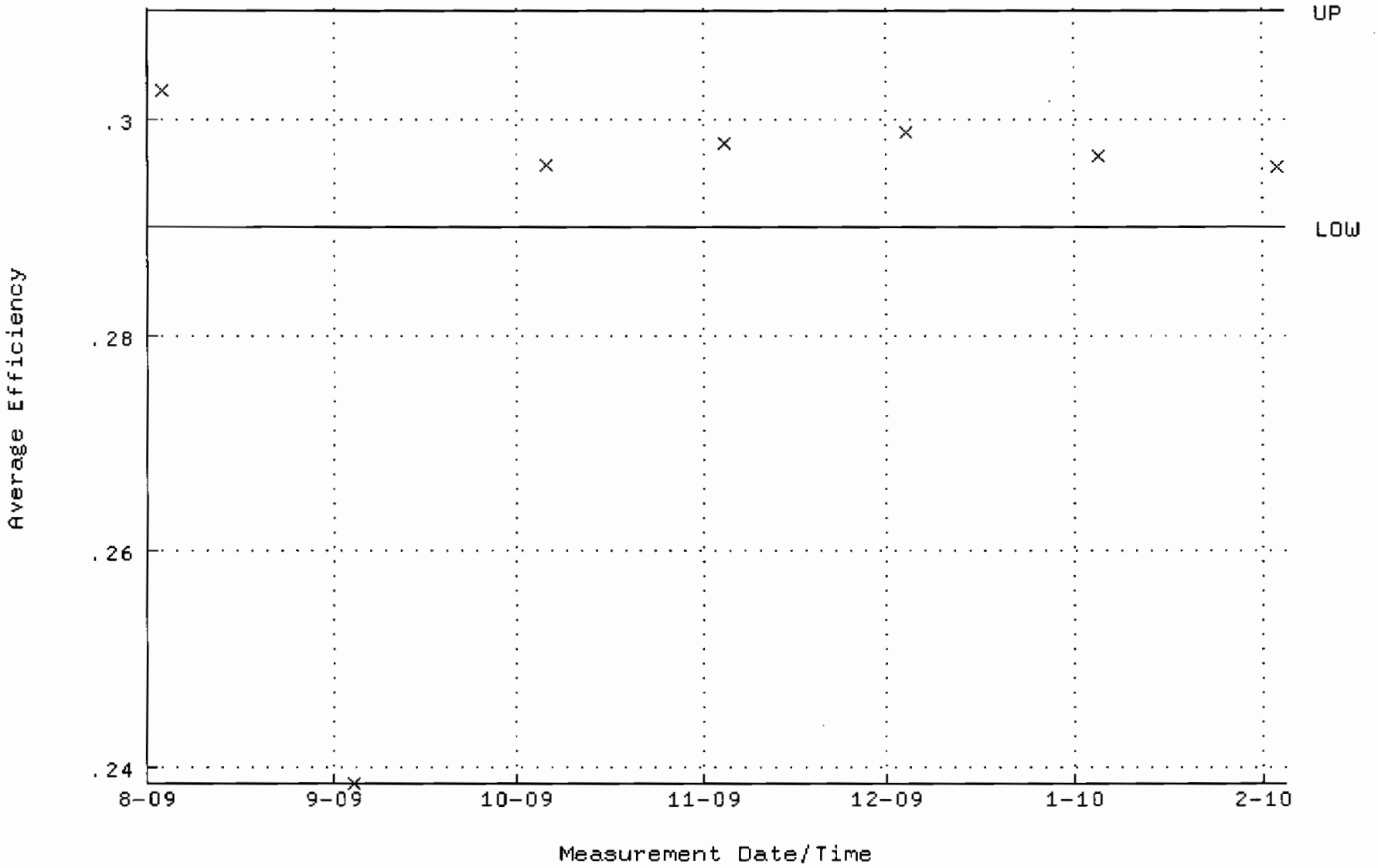

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.0687 through 96.2339

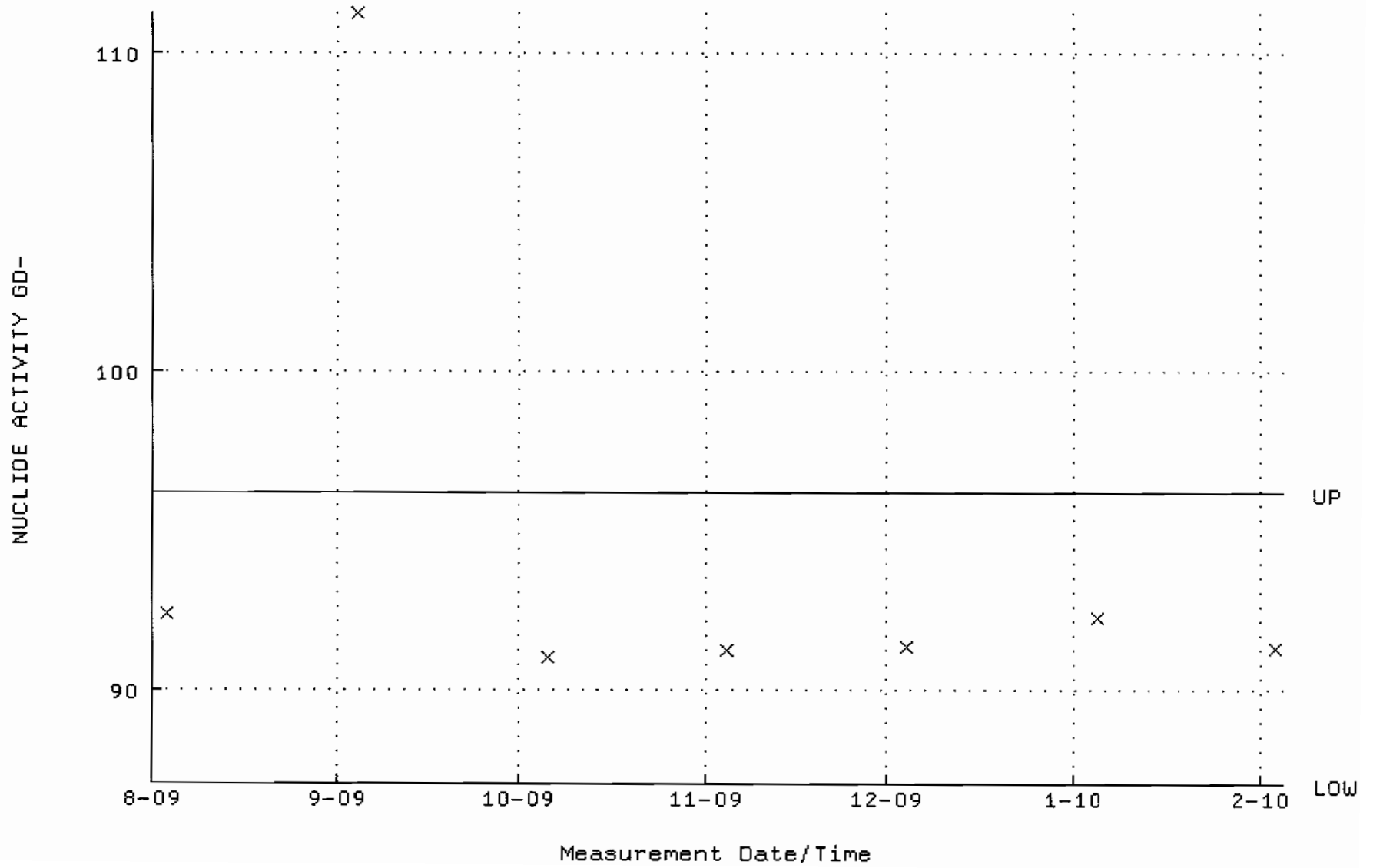

QA filename : DKA100:[ENV_ALPHA.QA.B]B007.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

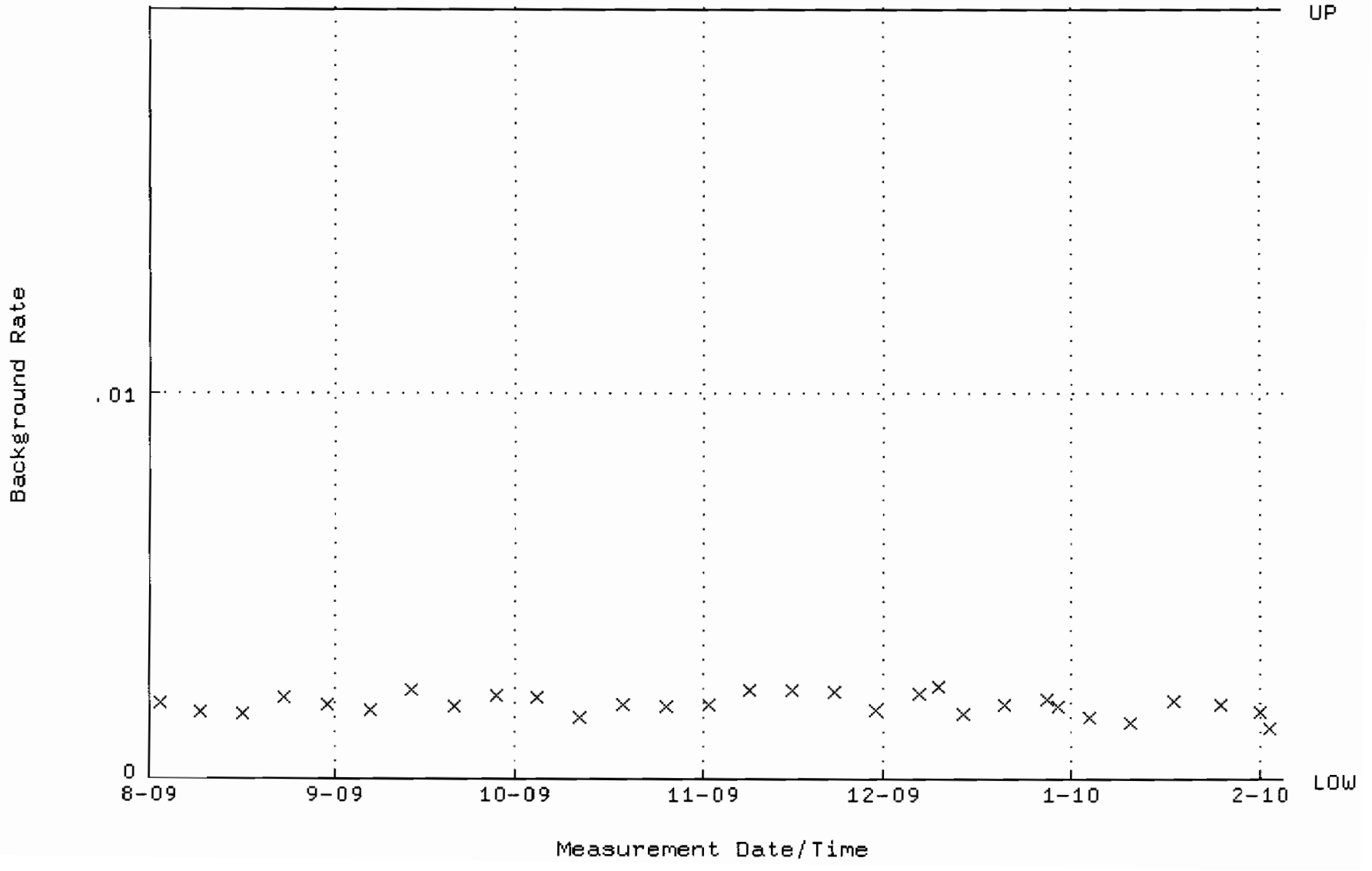

QA filename : DKA100:[ENV_ALPHA.QA.W]W008.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.309318 through 0.329318

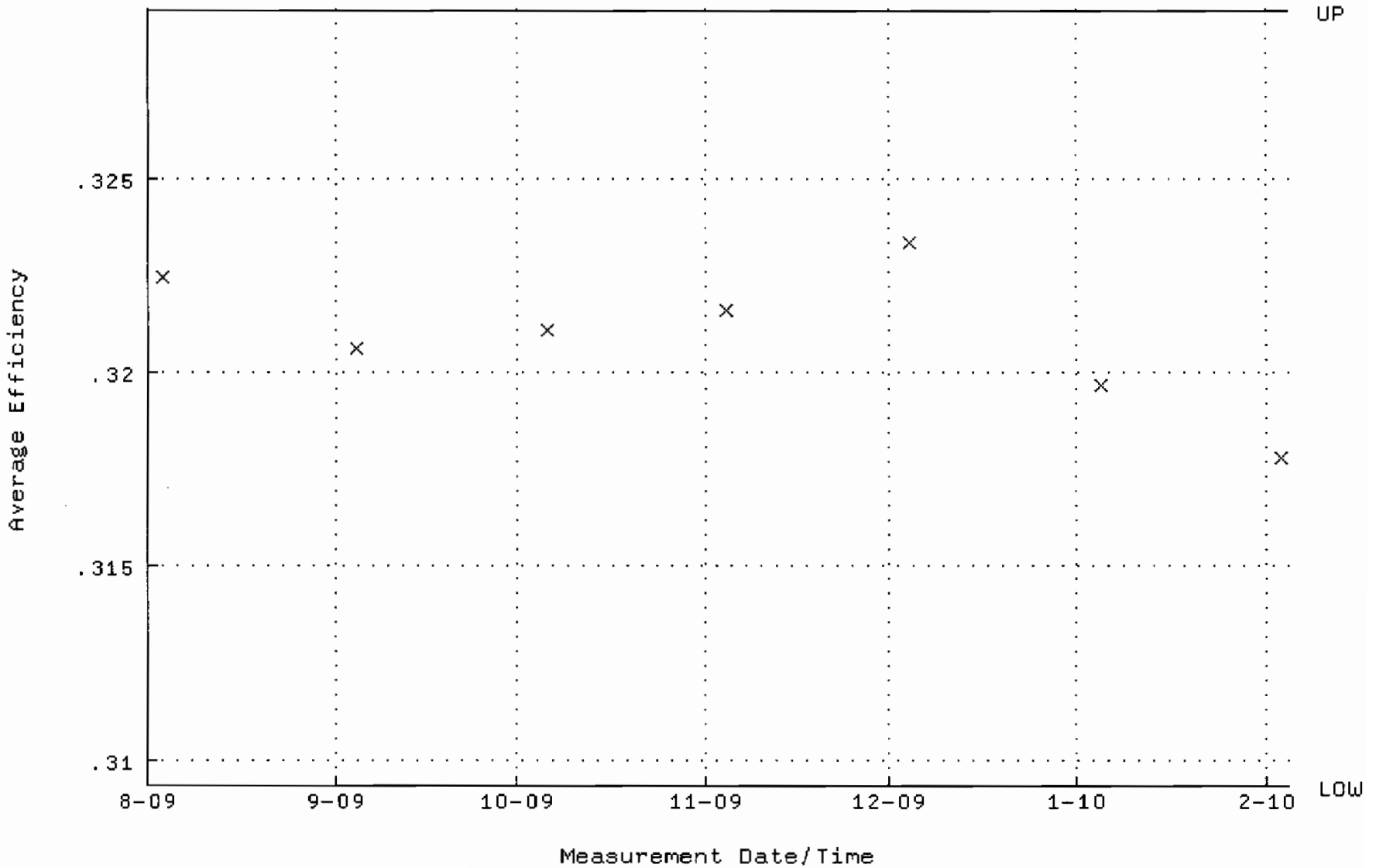

QA filename : DKA100:[ENV_ALPHA.QA.W]W008.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.8346 through 97.0804

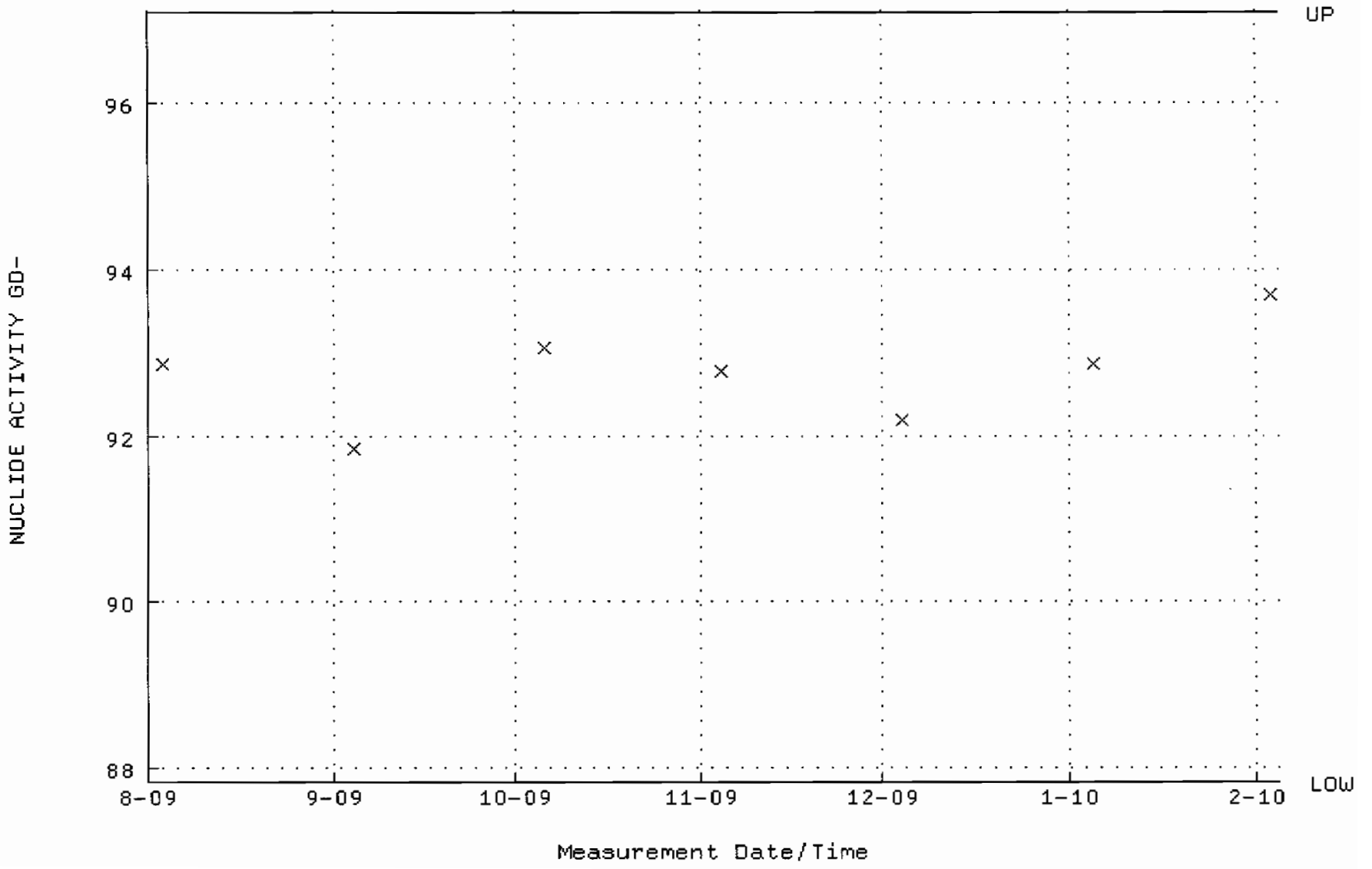

QA filename : DKA100:[ENV_ALPHA.QA.B]B008.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

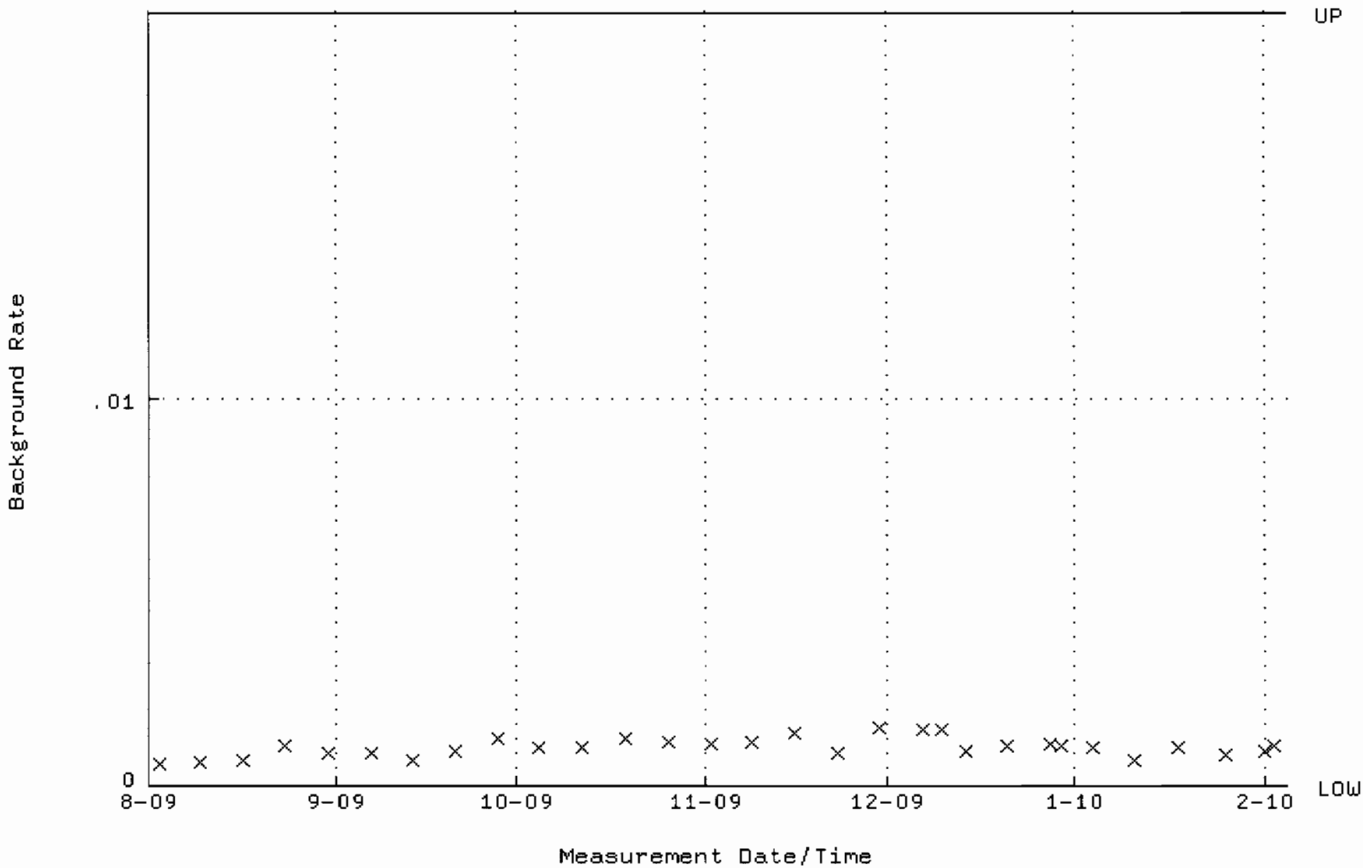

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.303169 through 0.323169

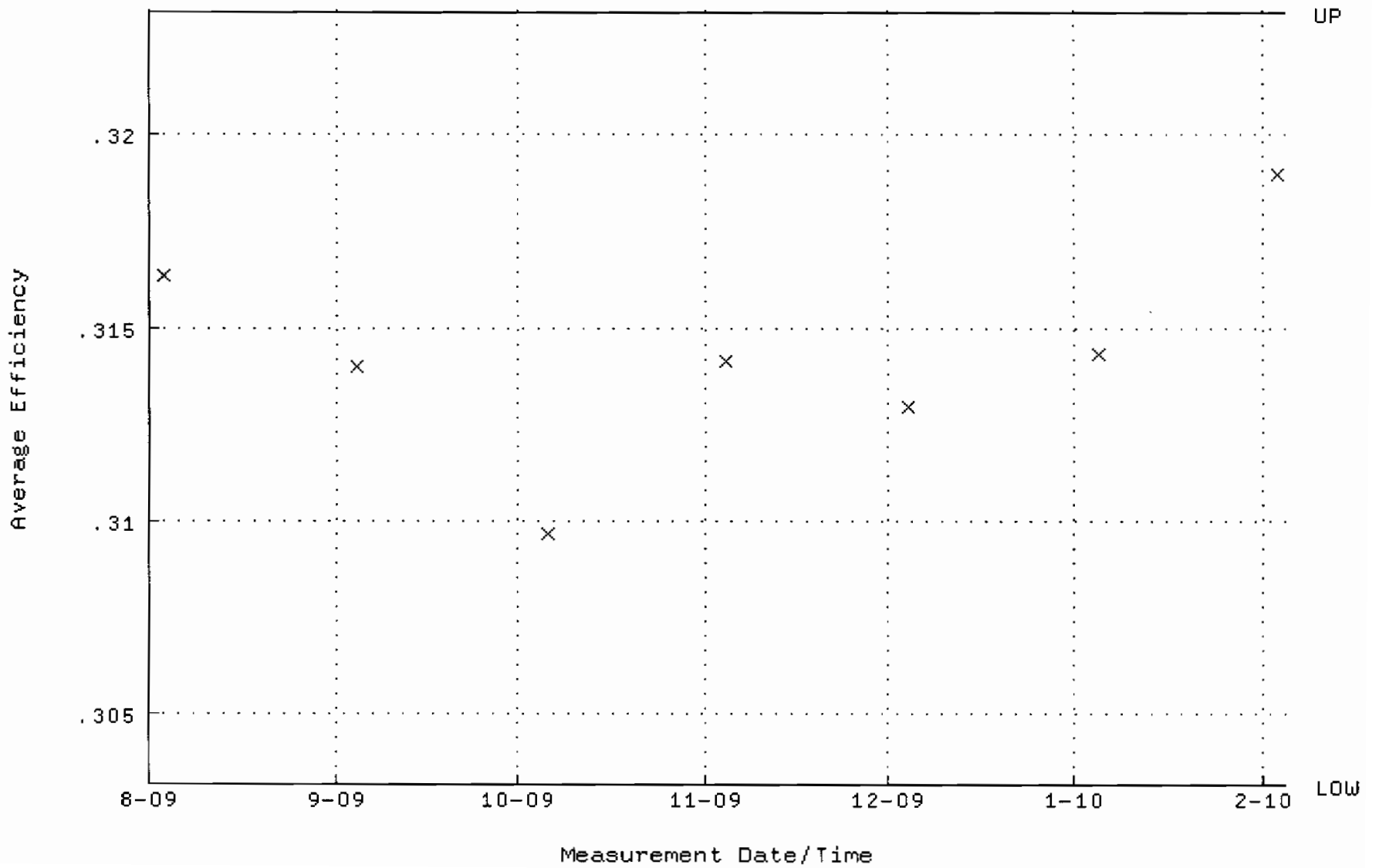

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.3273 through 94.3091

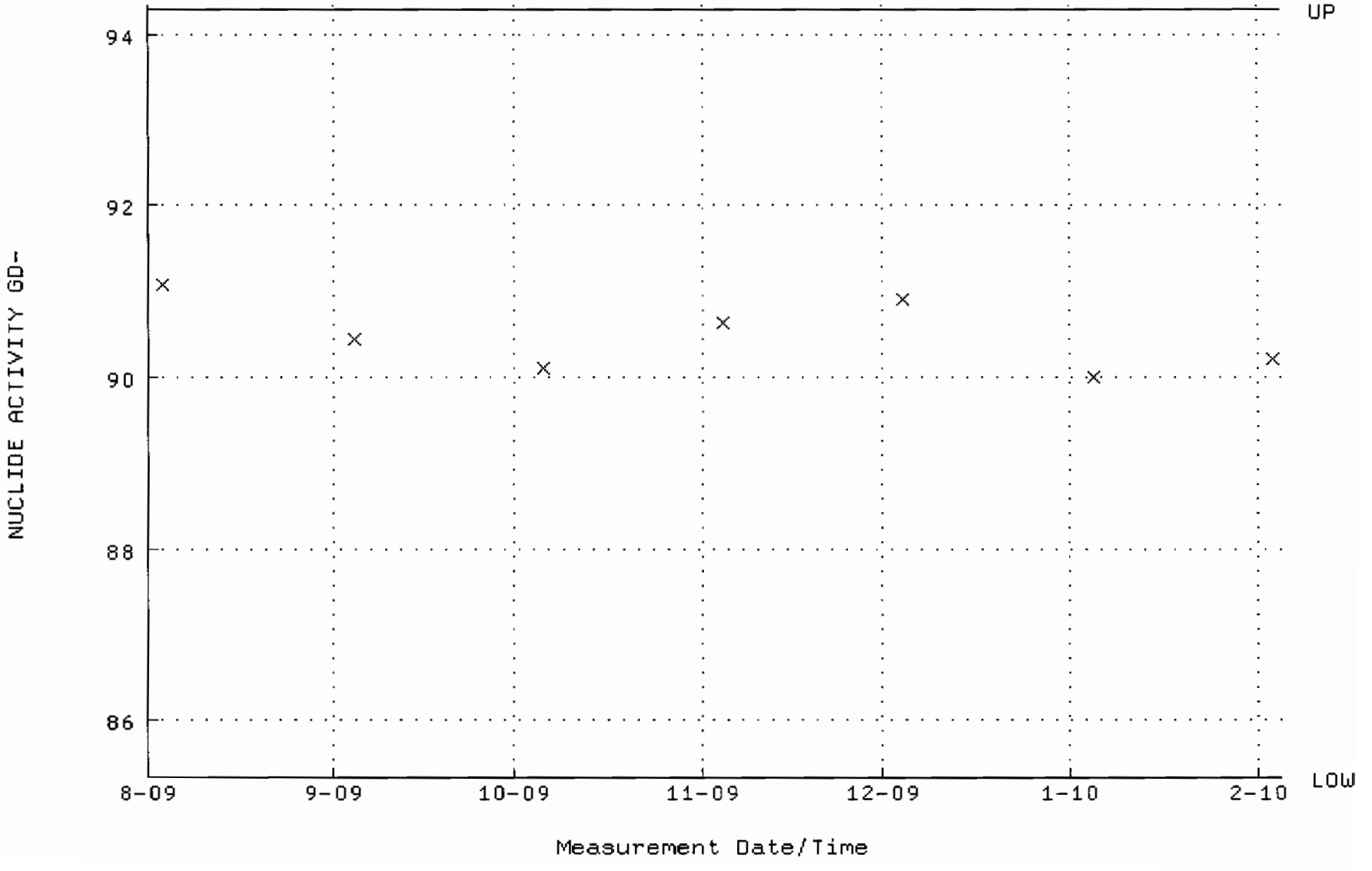

QA filename : DKA100:[ENV_ALPHA.QA.B]B010.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

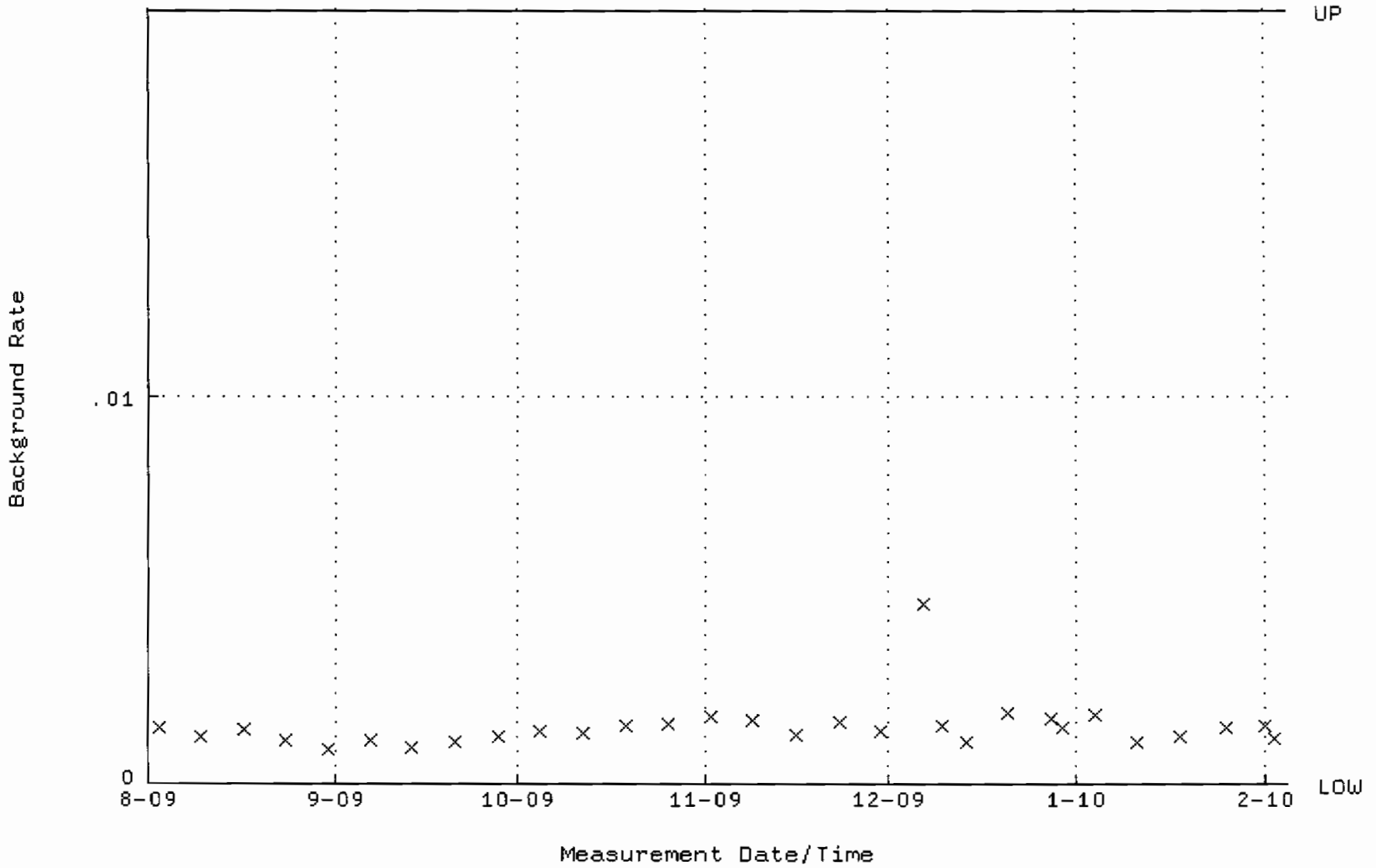

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.287129 through 0.307129

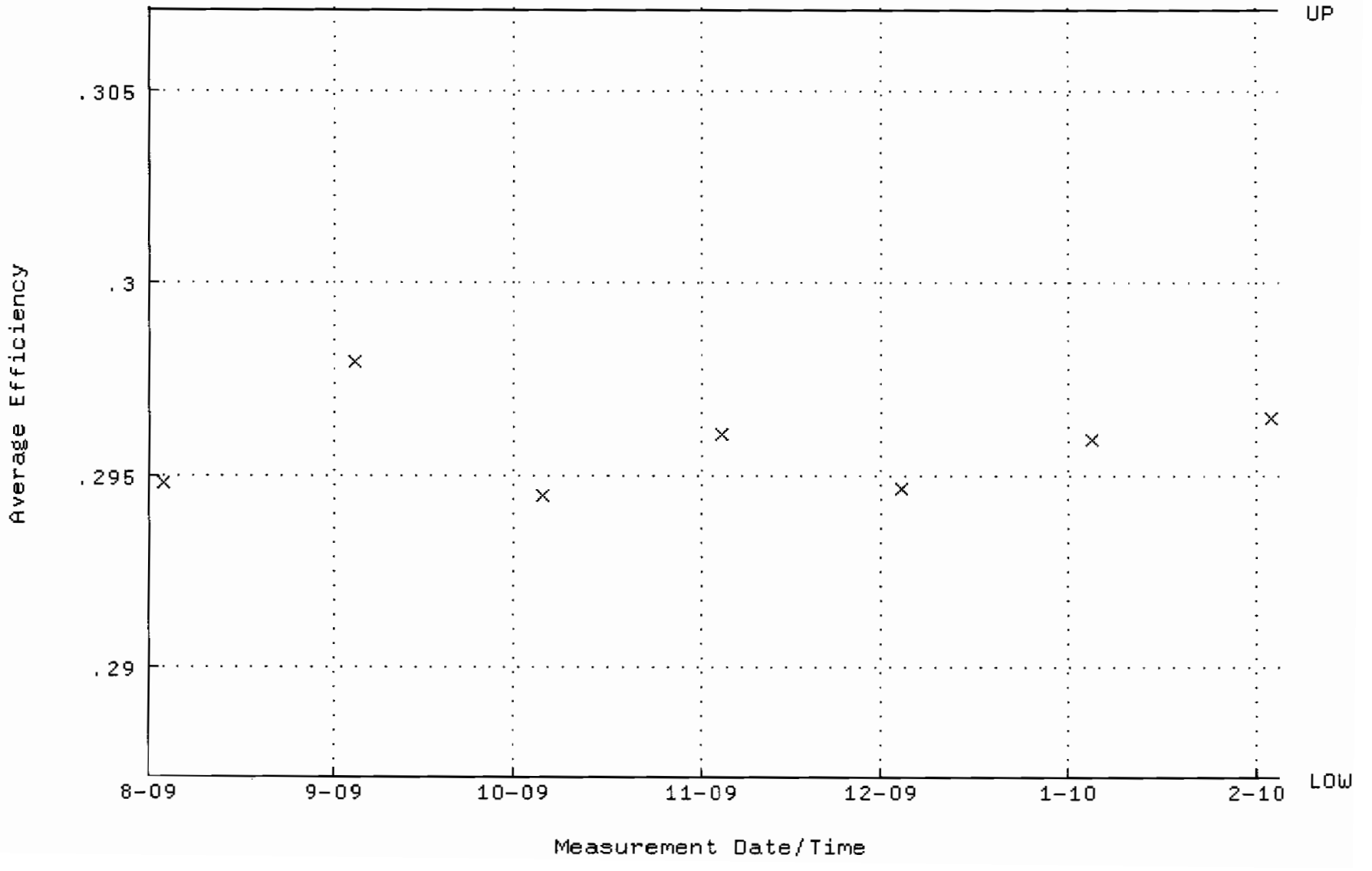

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 90.7092 through 100.258

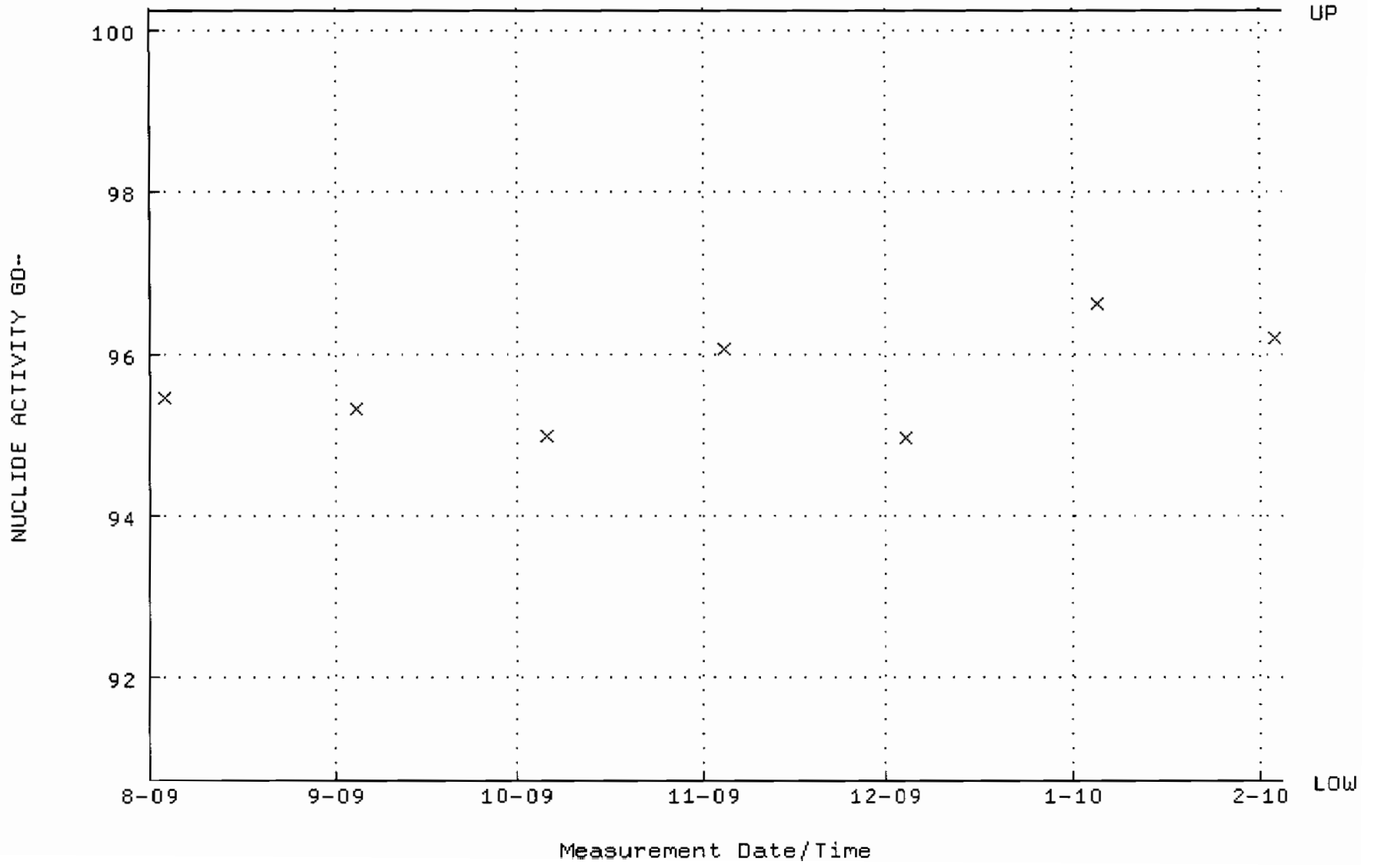

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

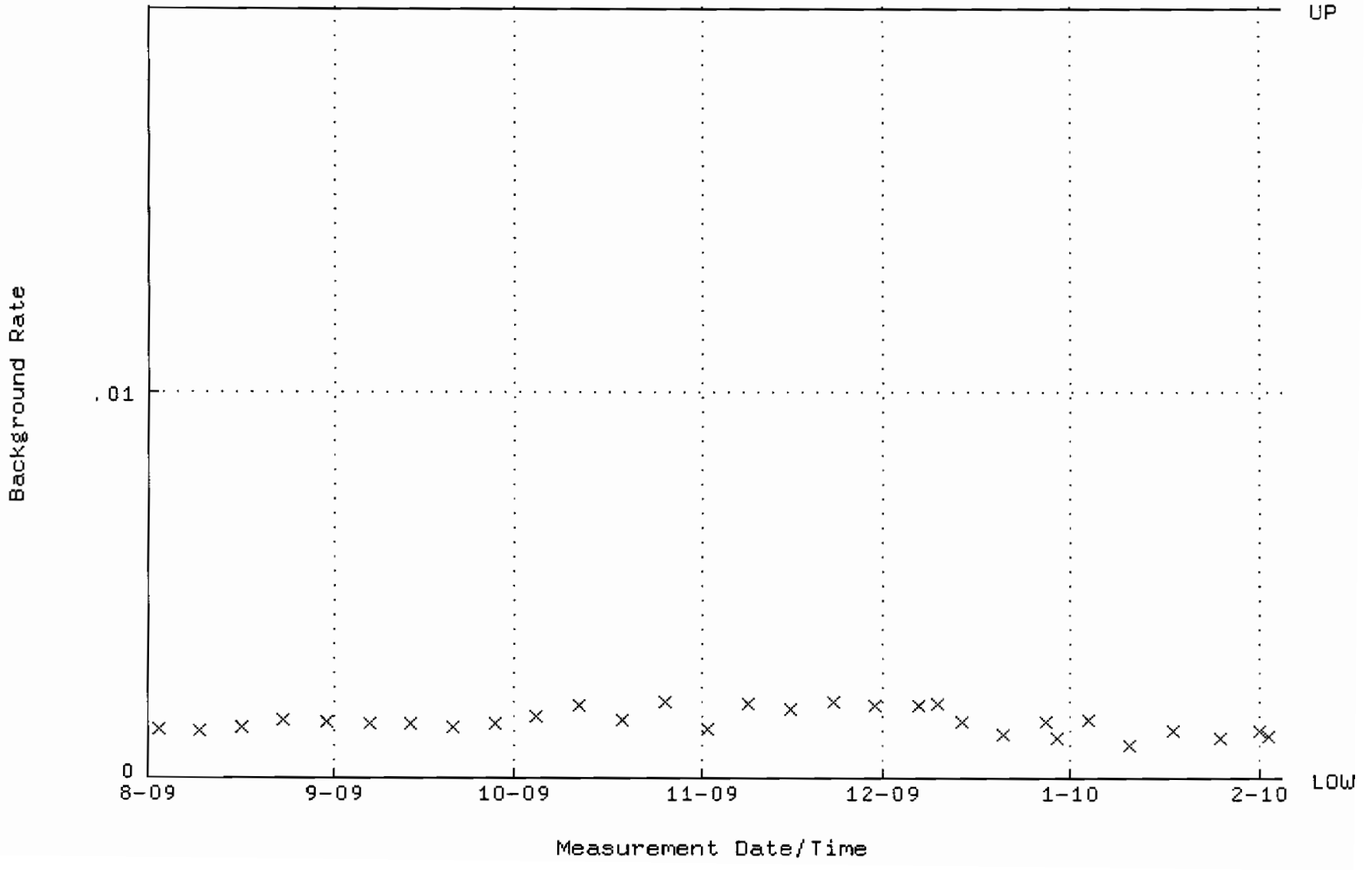

QA filename : DKA100:[ENV_ALPHA.QA.W]W012.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.285730 through 0.305730

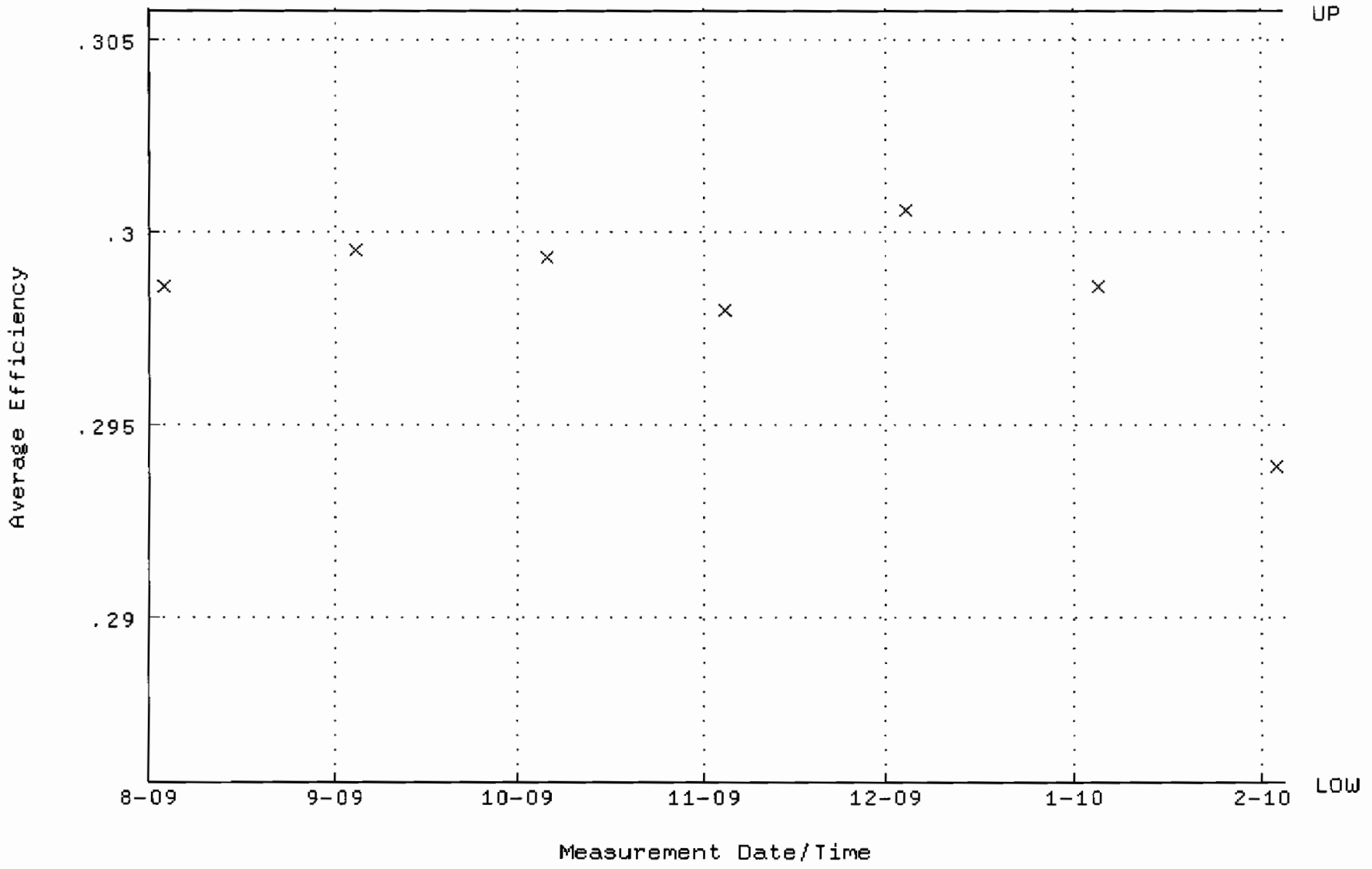

QA filename : DKA100:[ENV_ALPHA.QA.W]W012.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 88.0678 through 97.3382

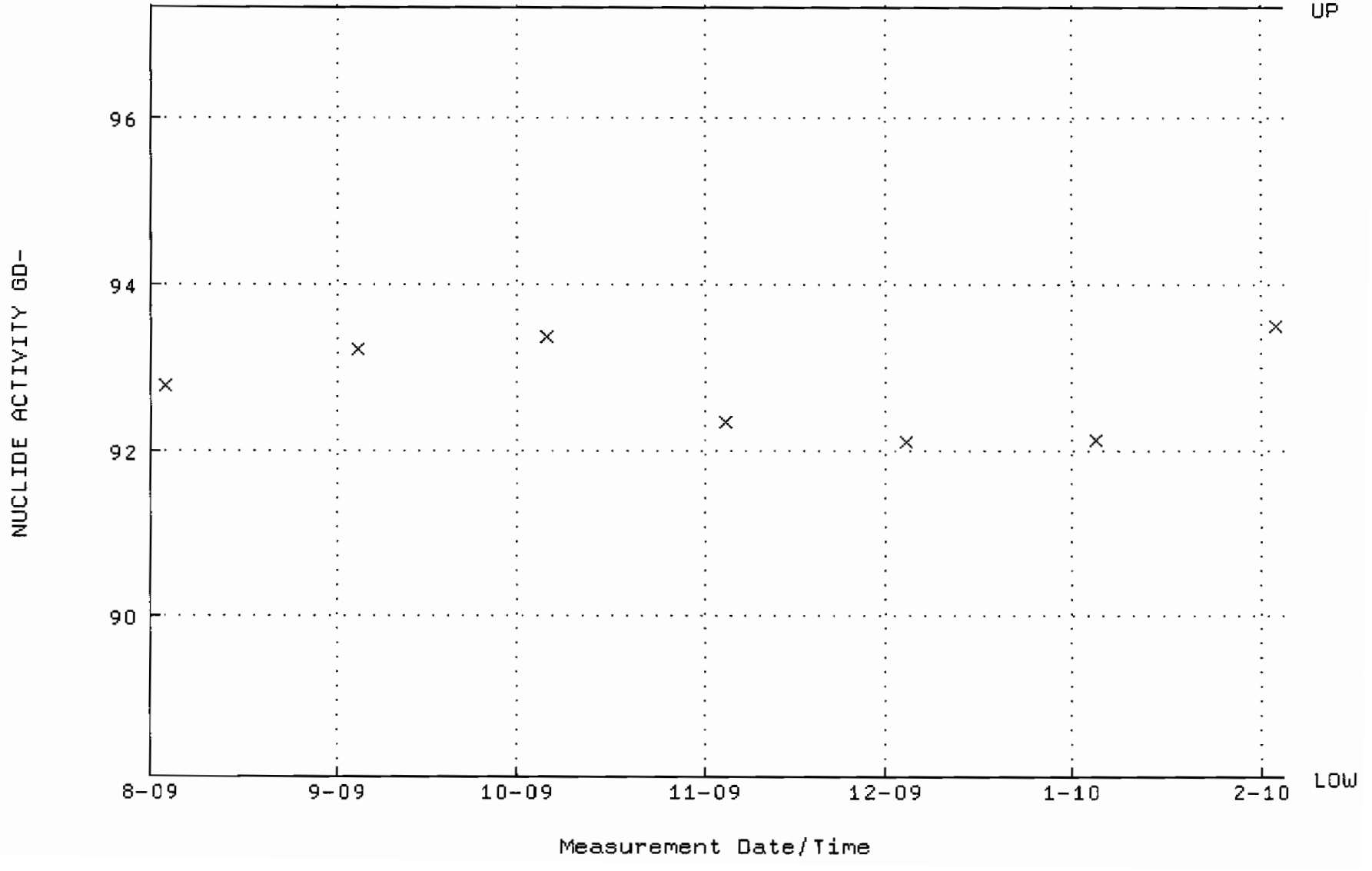

QA filename : DKA100:[ENV_ALPHA.QA.B]B012.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

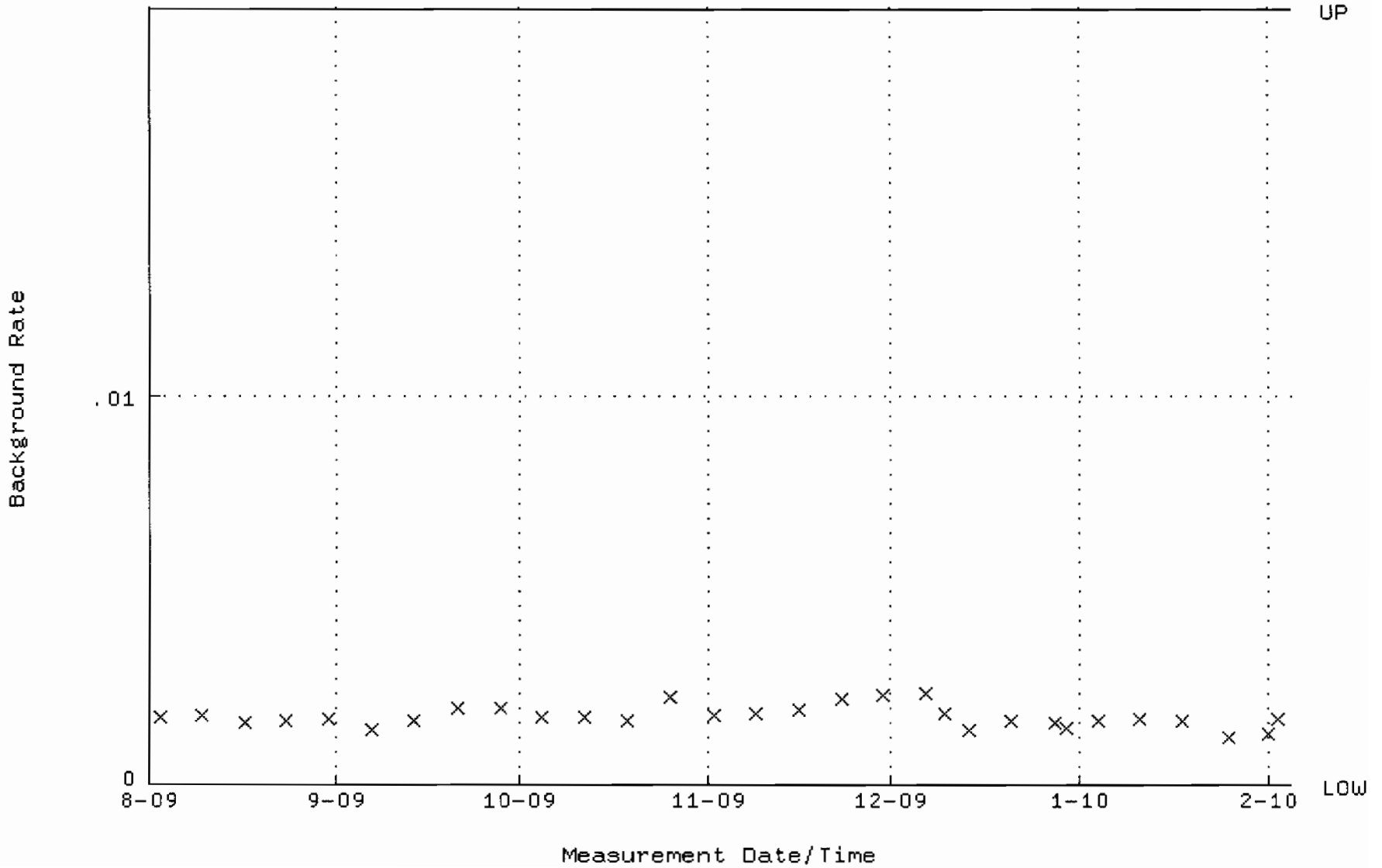

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335973 through 0.355973

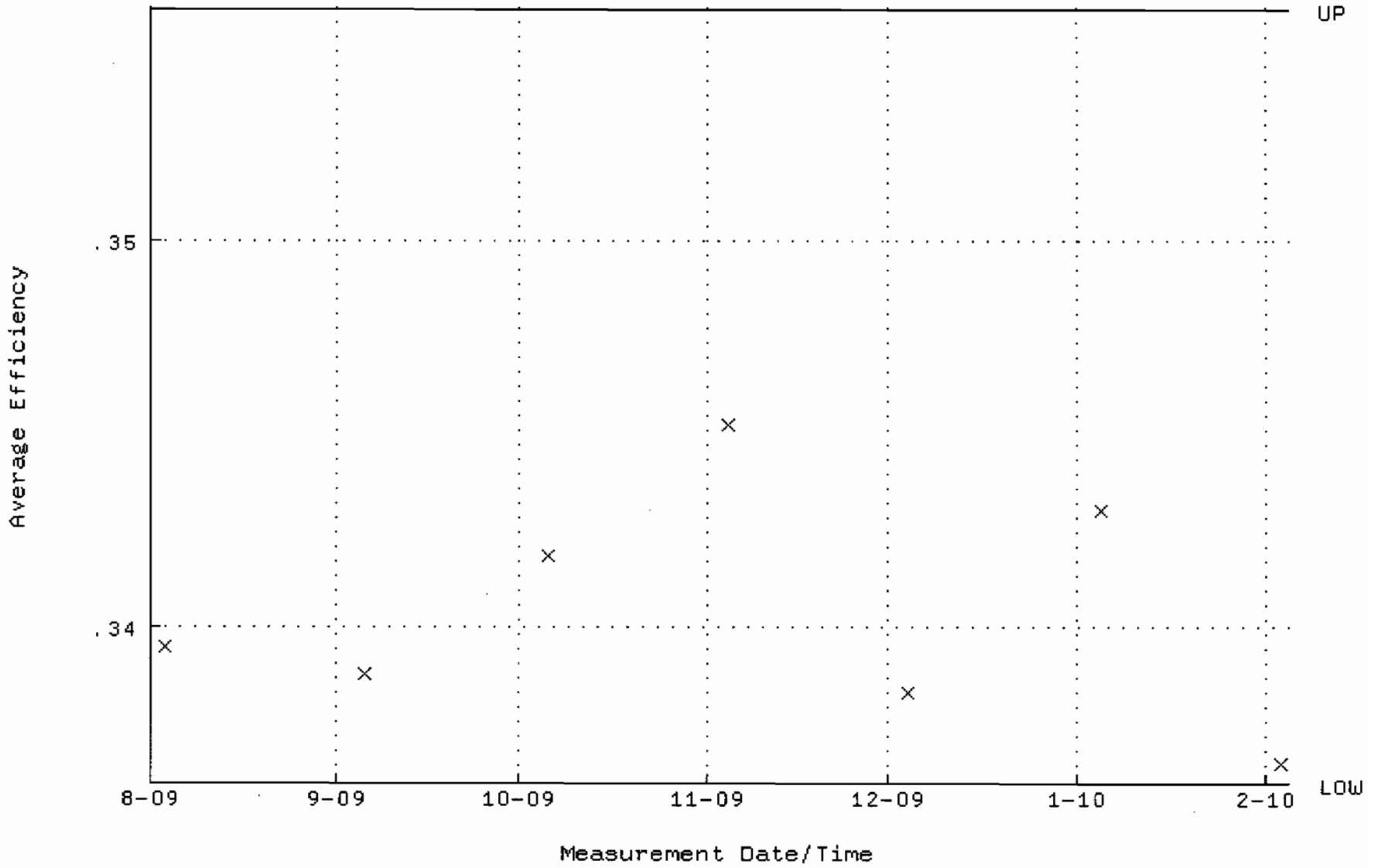

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.2440 through 93.1118

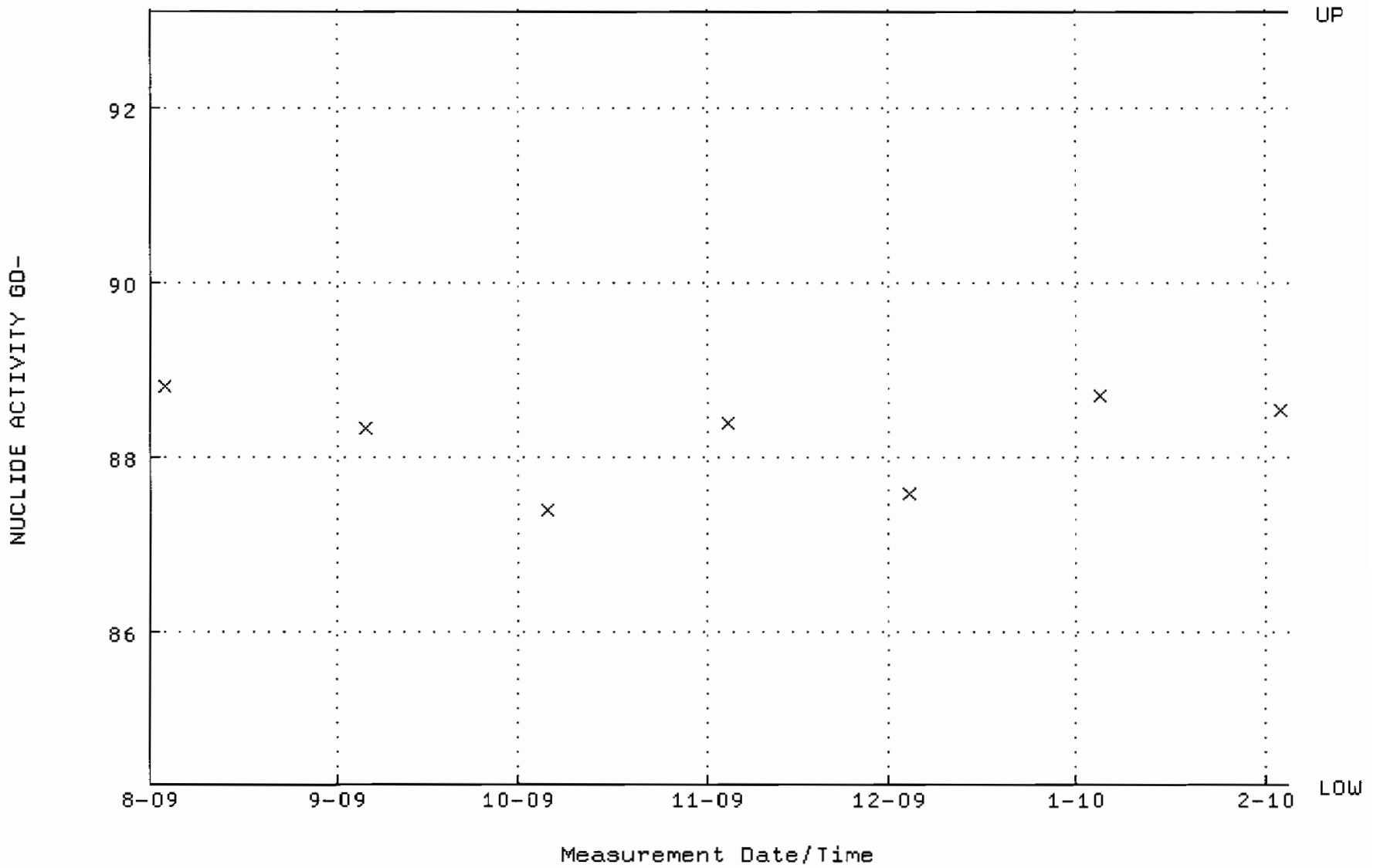

QA filename : DKA100:[ENV_ALPHA.QA.B]B043.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

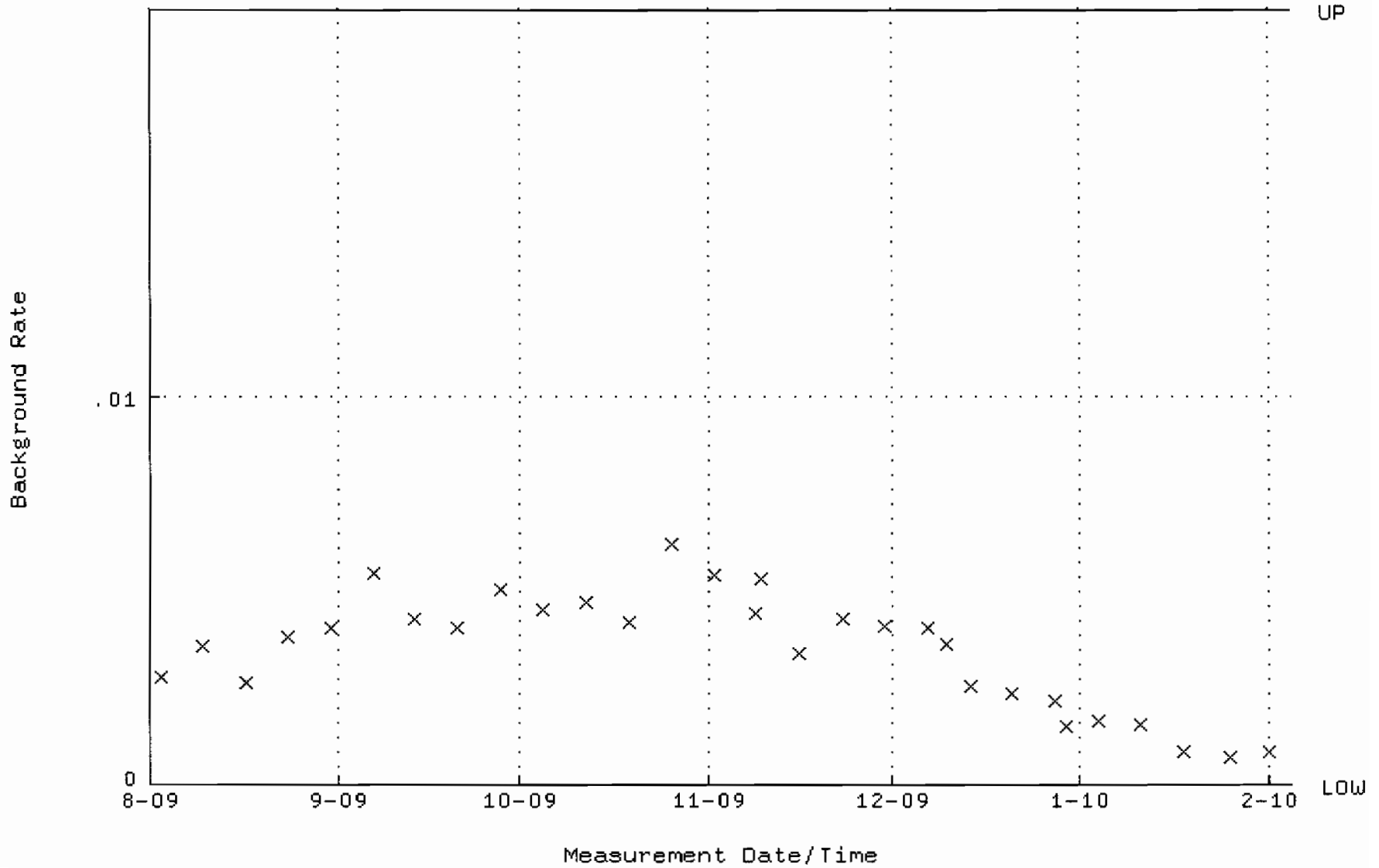

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335557 through 0.360677

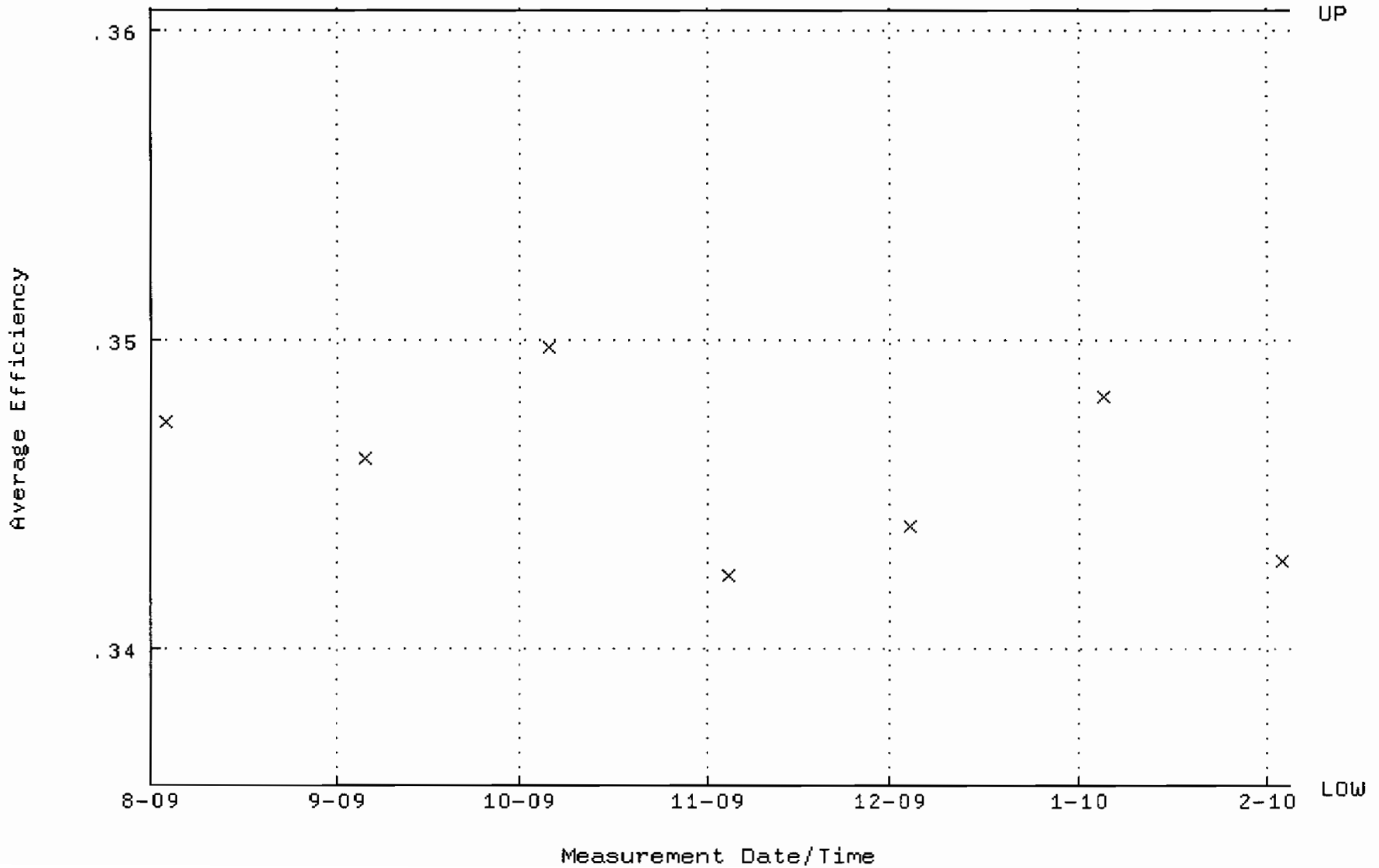

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8425 through 89.6949

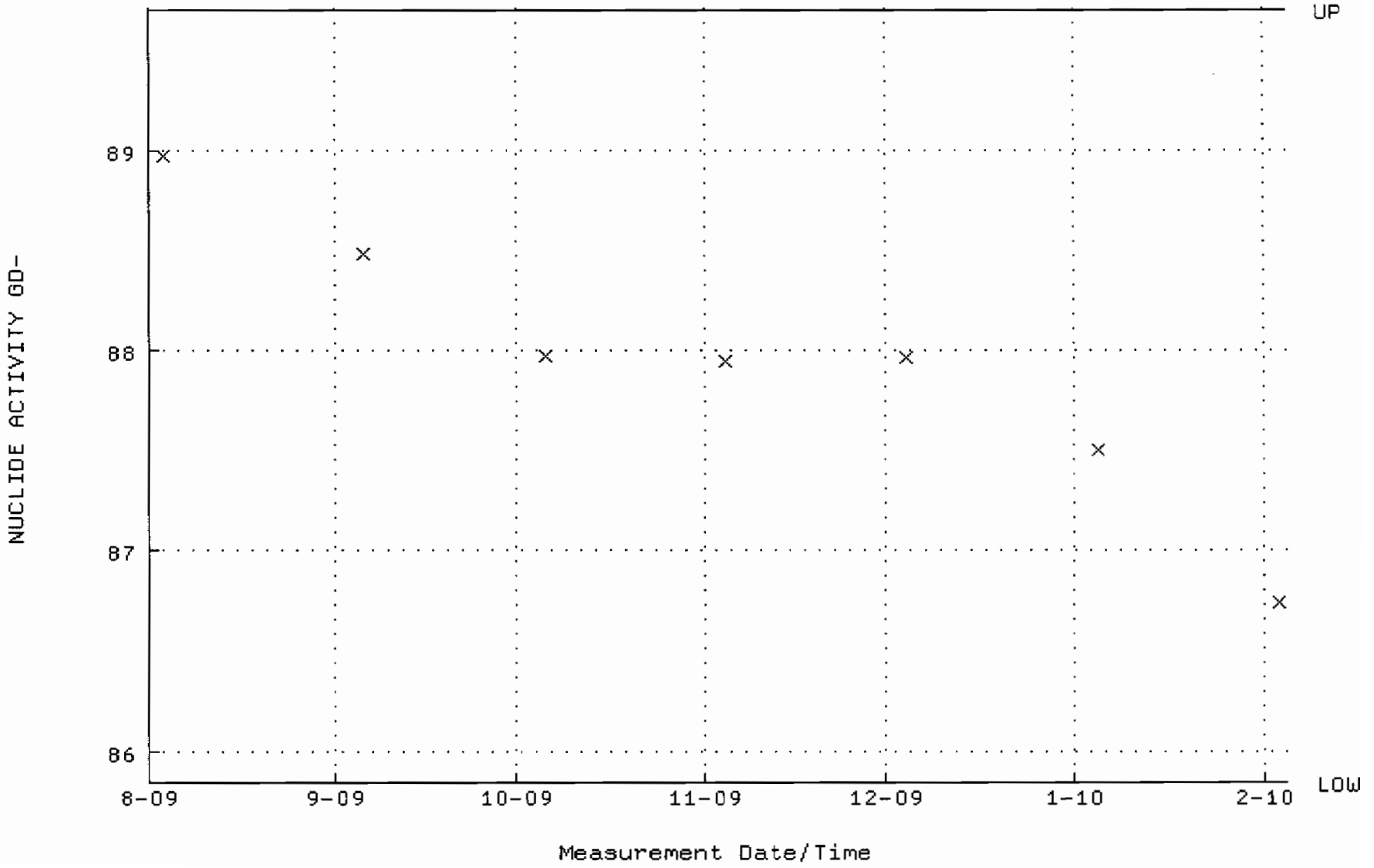

QA filename : DKA100:[ENV_ALPHA.QA.B]B044.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

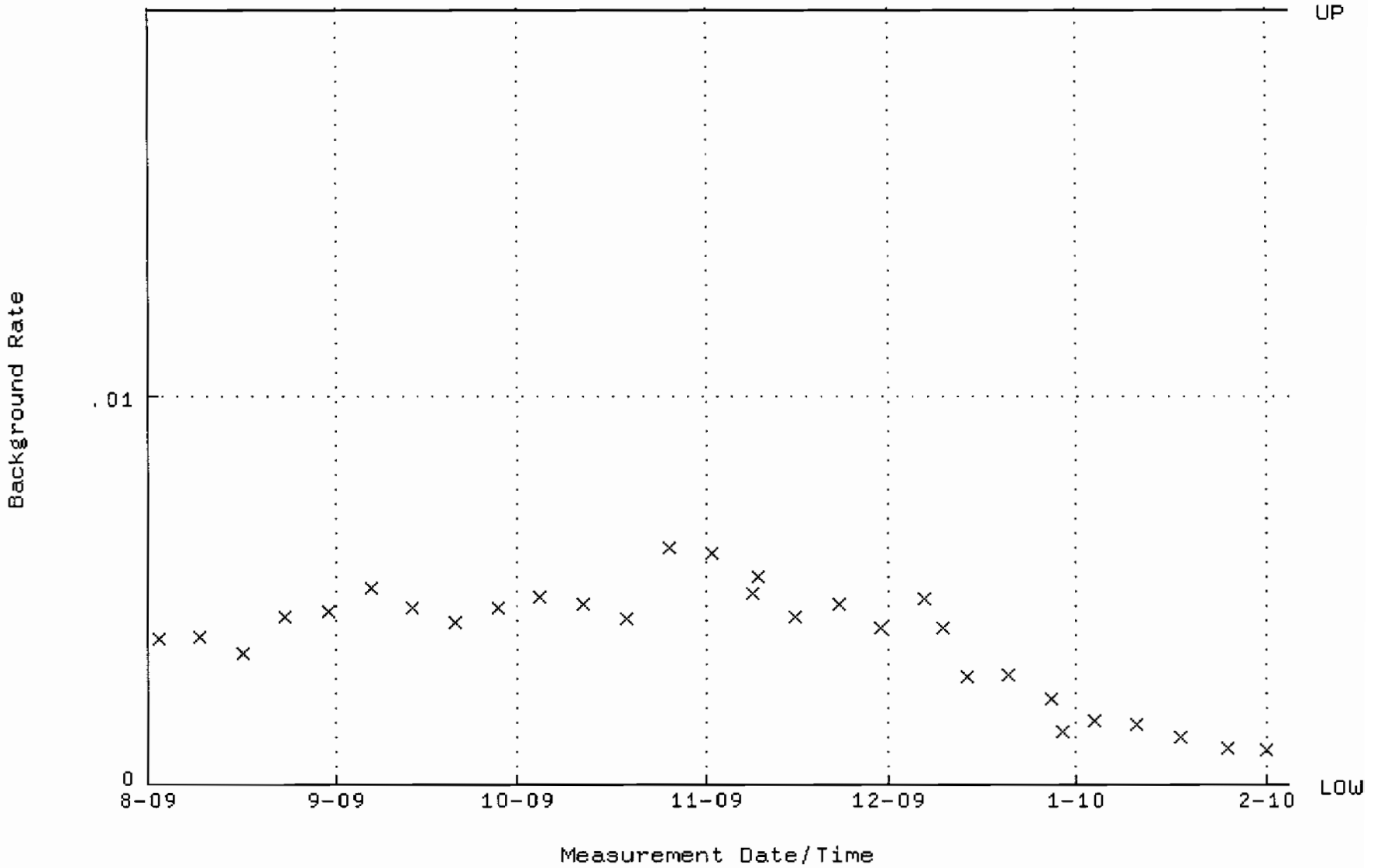

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.332472 through 0.352472

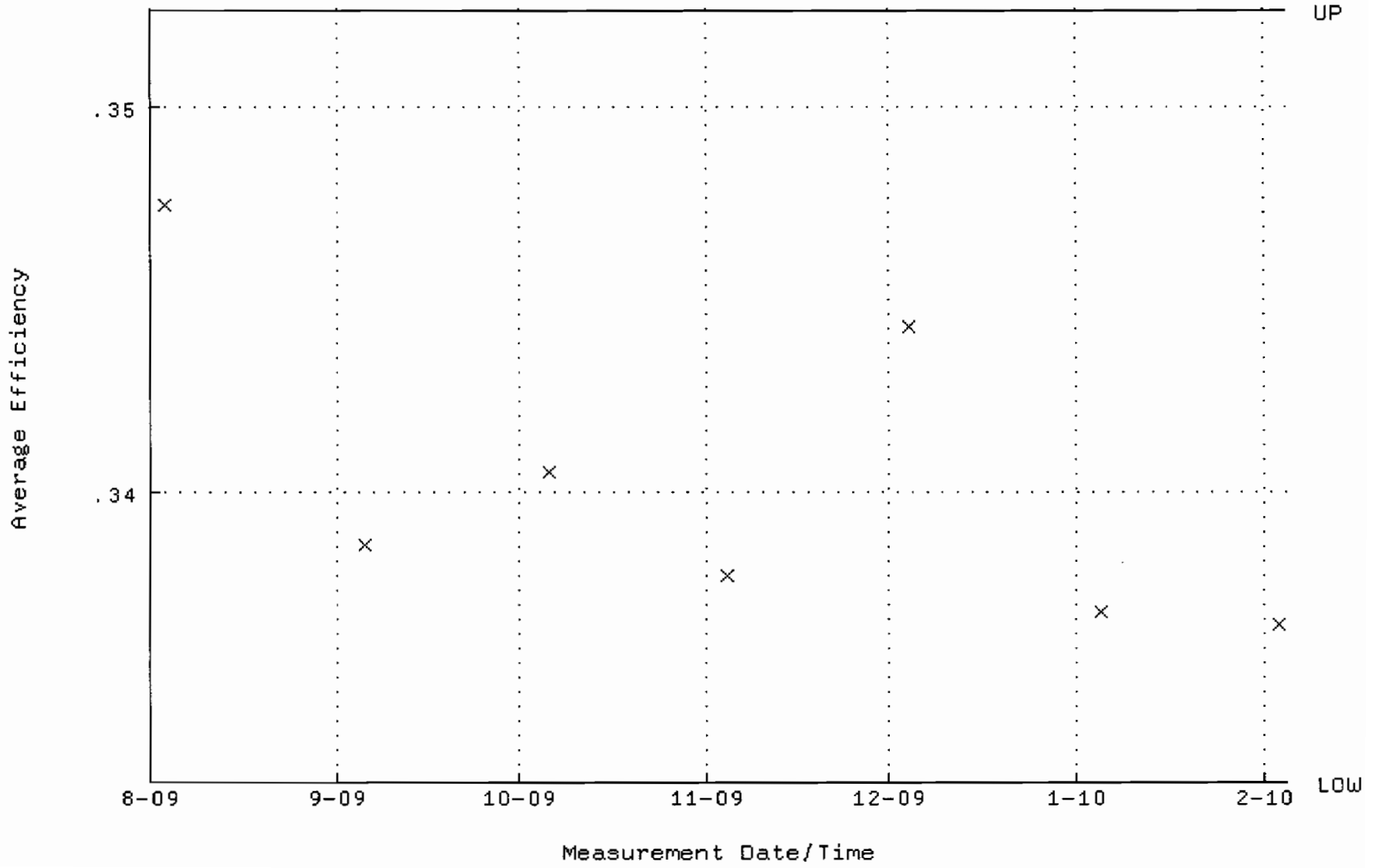

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 80.4622 through 88.9320

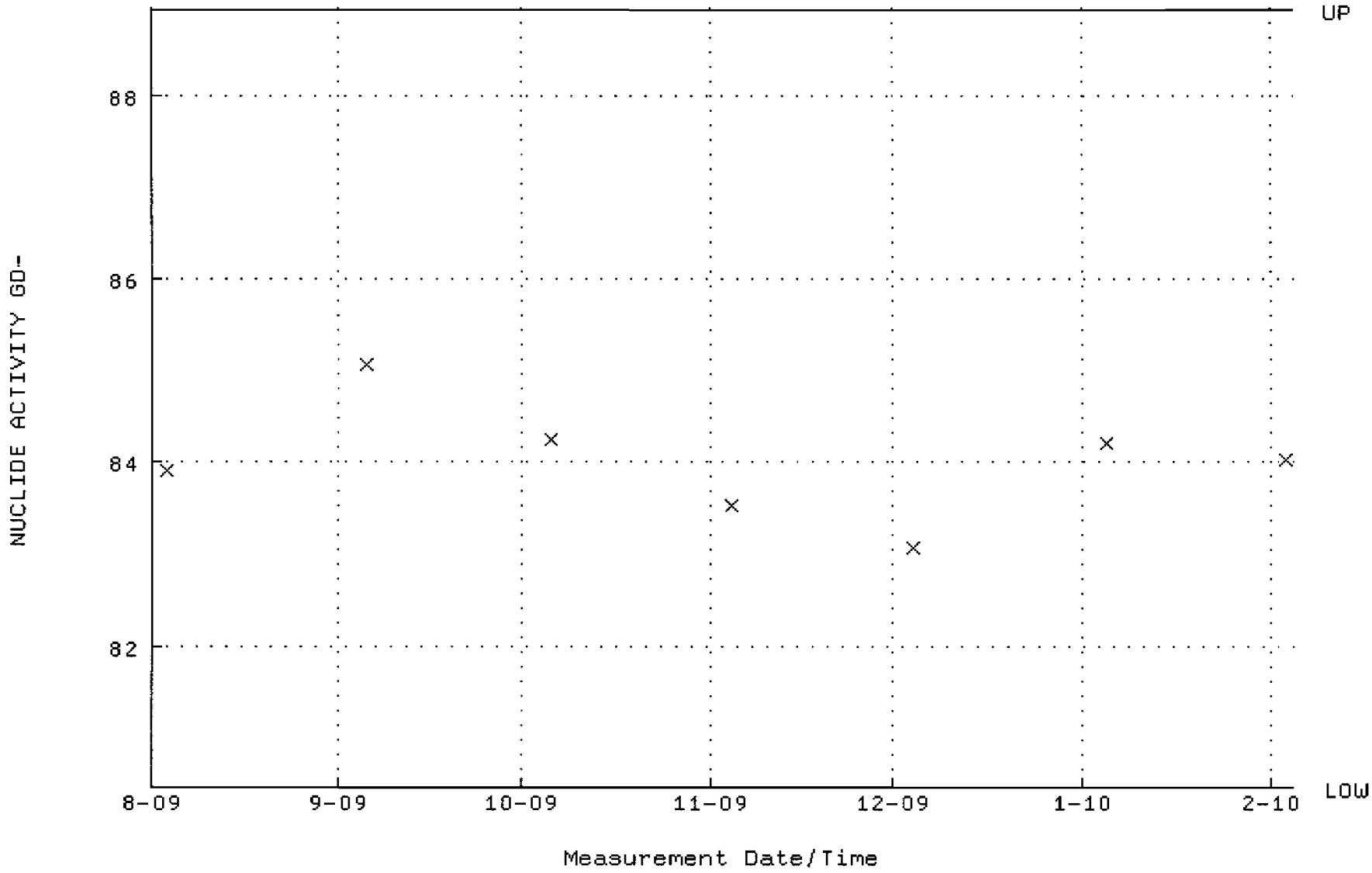

QA filename : DKA100:[ENV_ALPHA.QA.B]B045.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

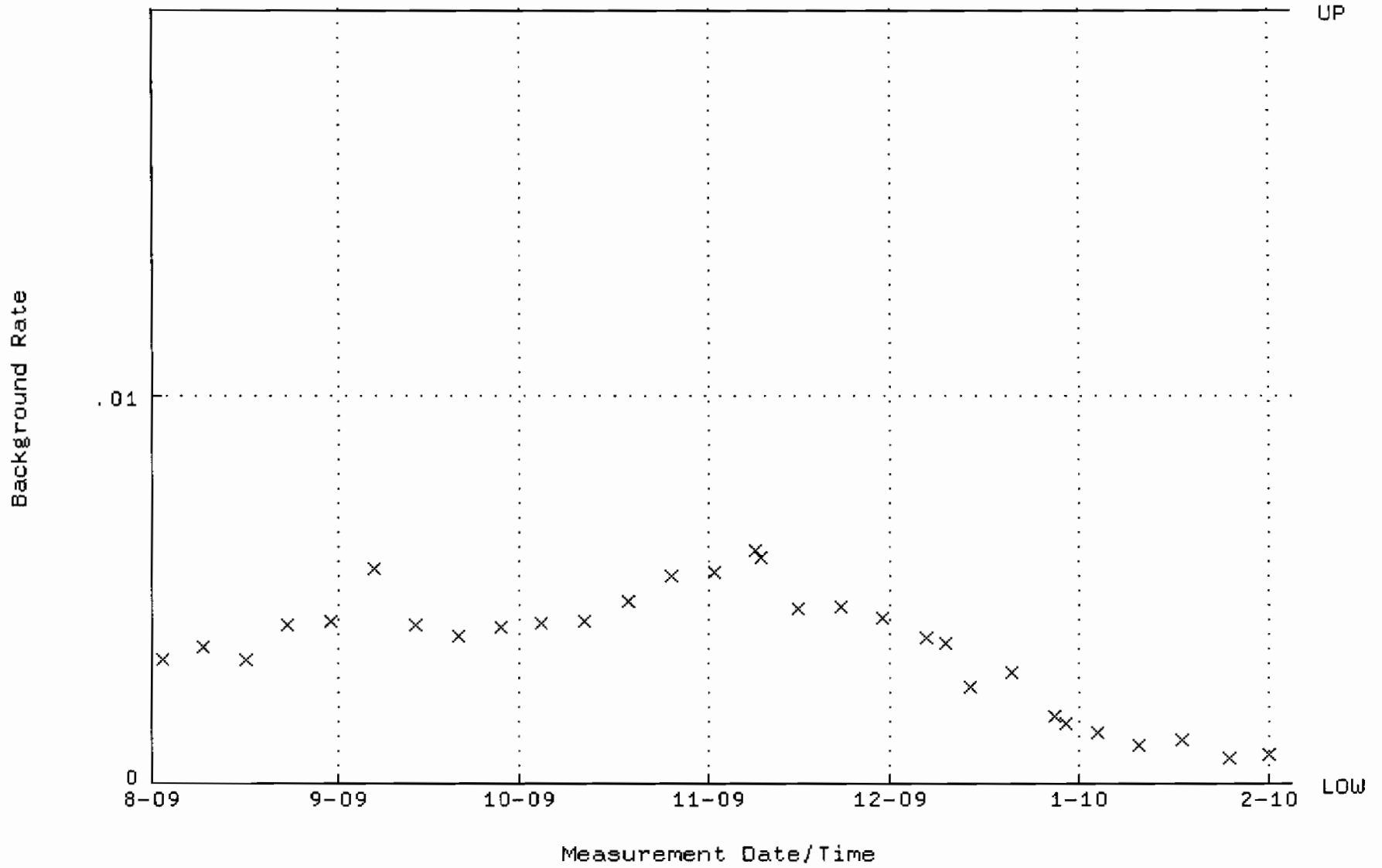

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.333927 through 0.353927

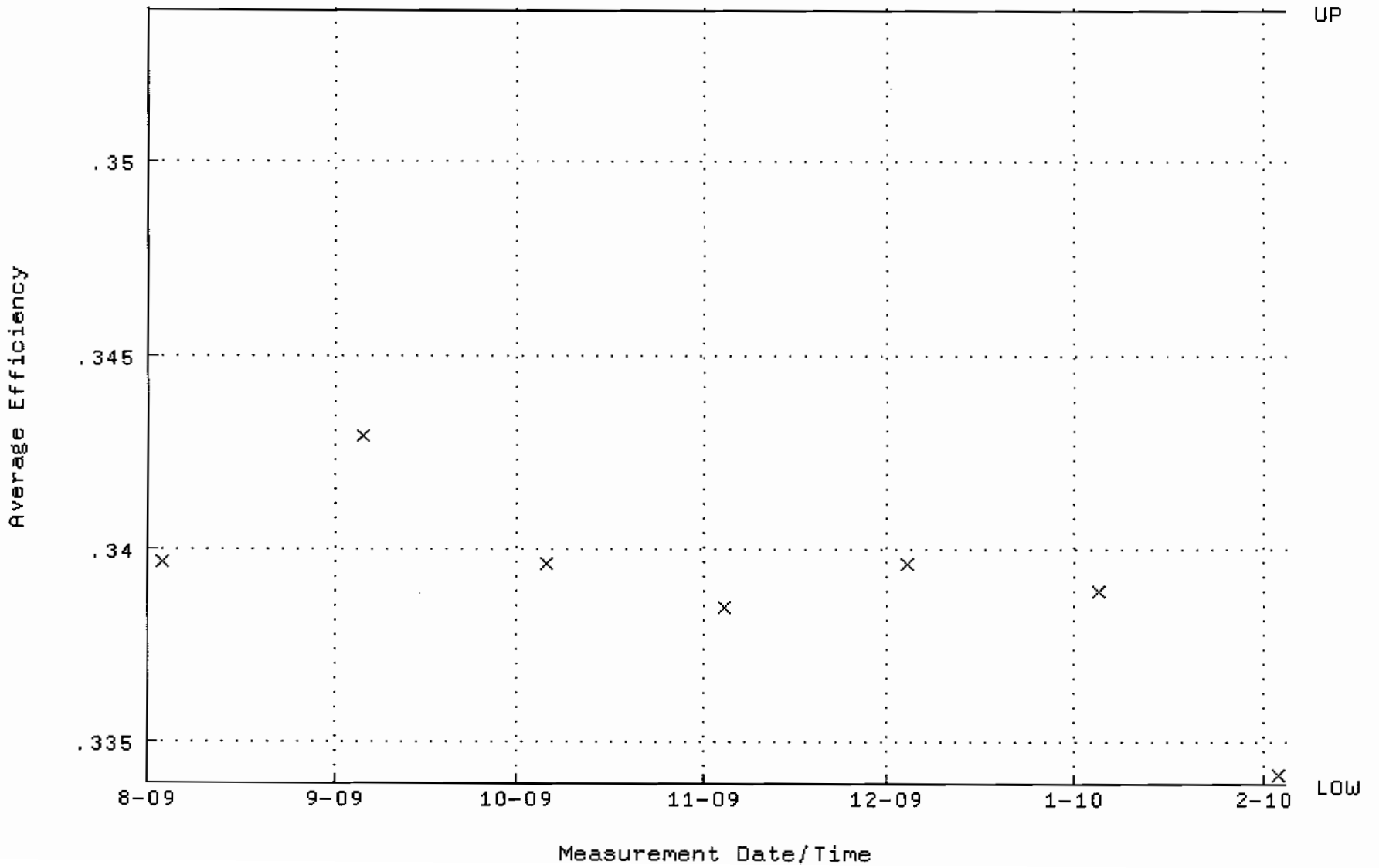

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.7568 through 90.3628

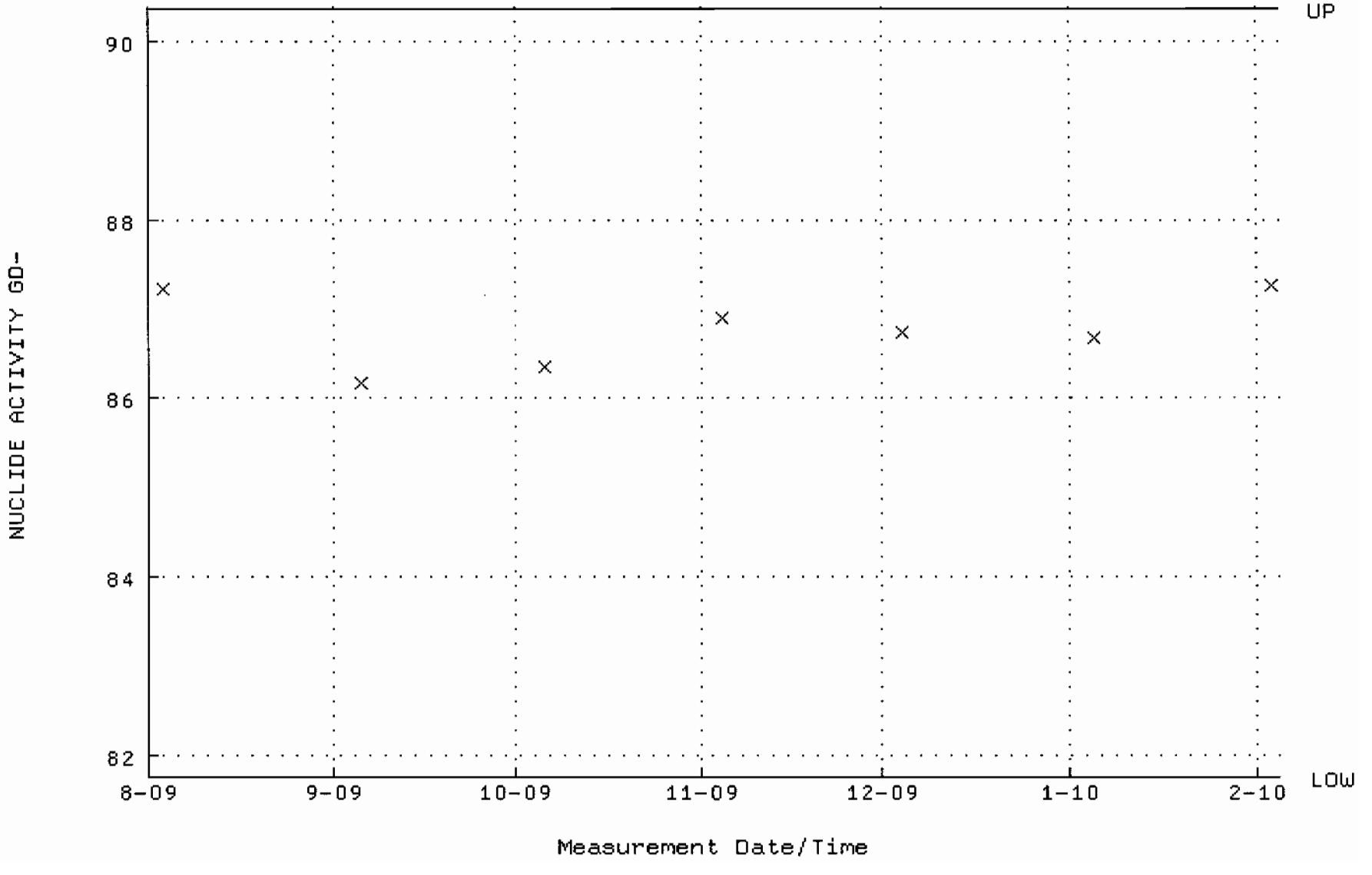

QA filename : DKA100:[ENV_ALPHA.QA.B]B046.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

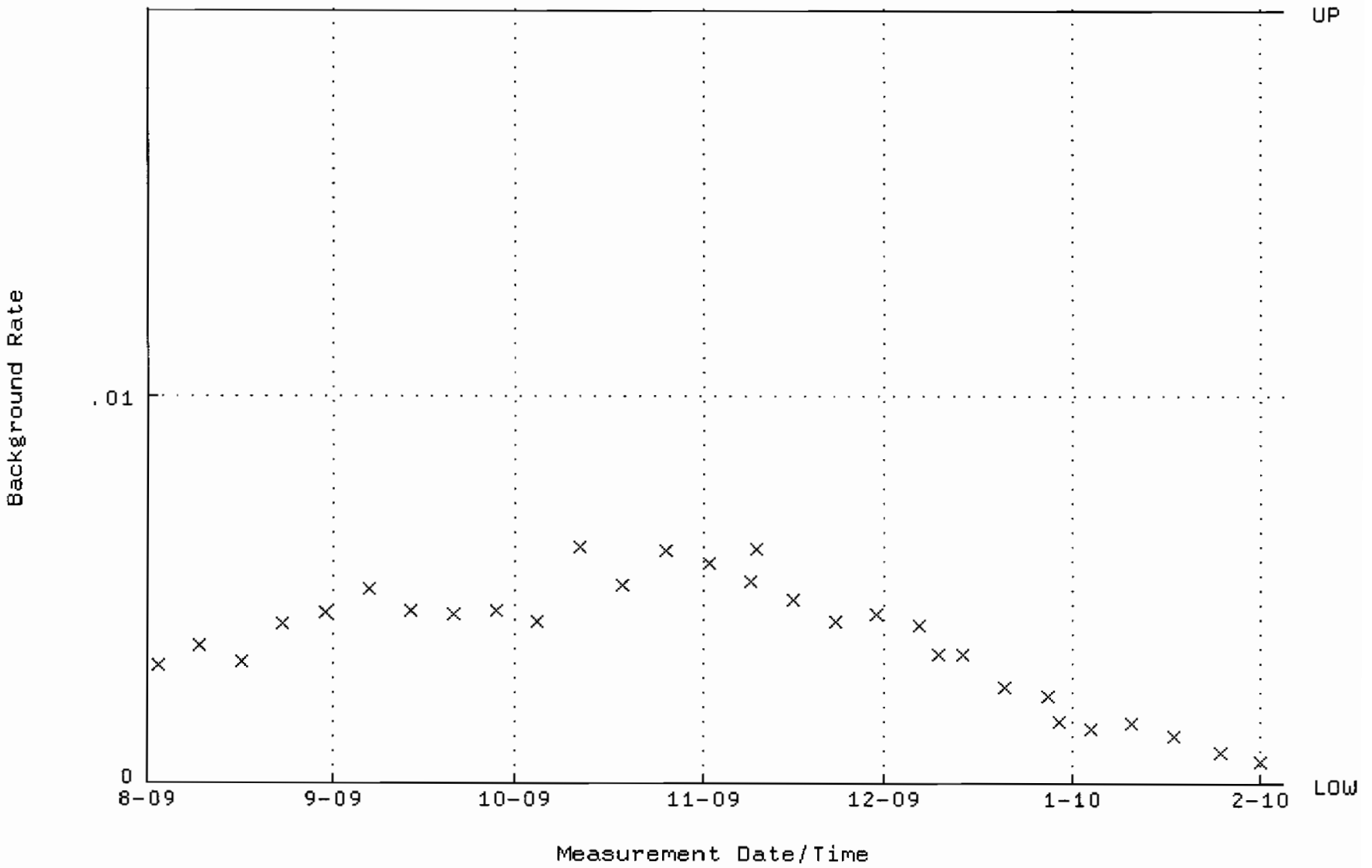

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.336276 through 0.364038

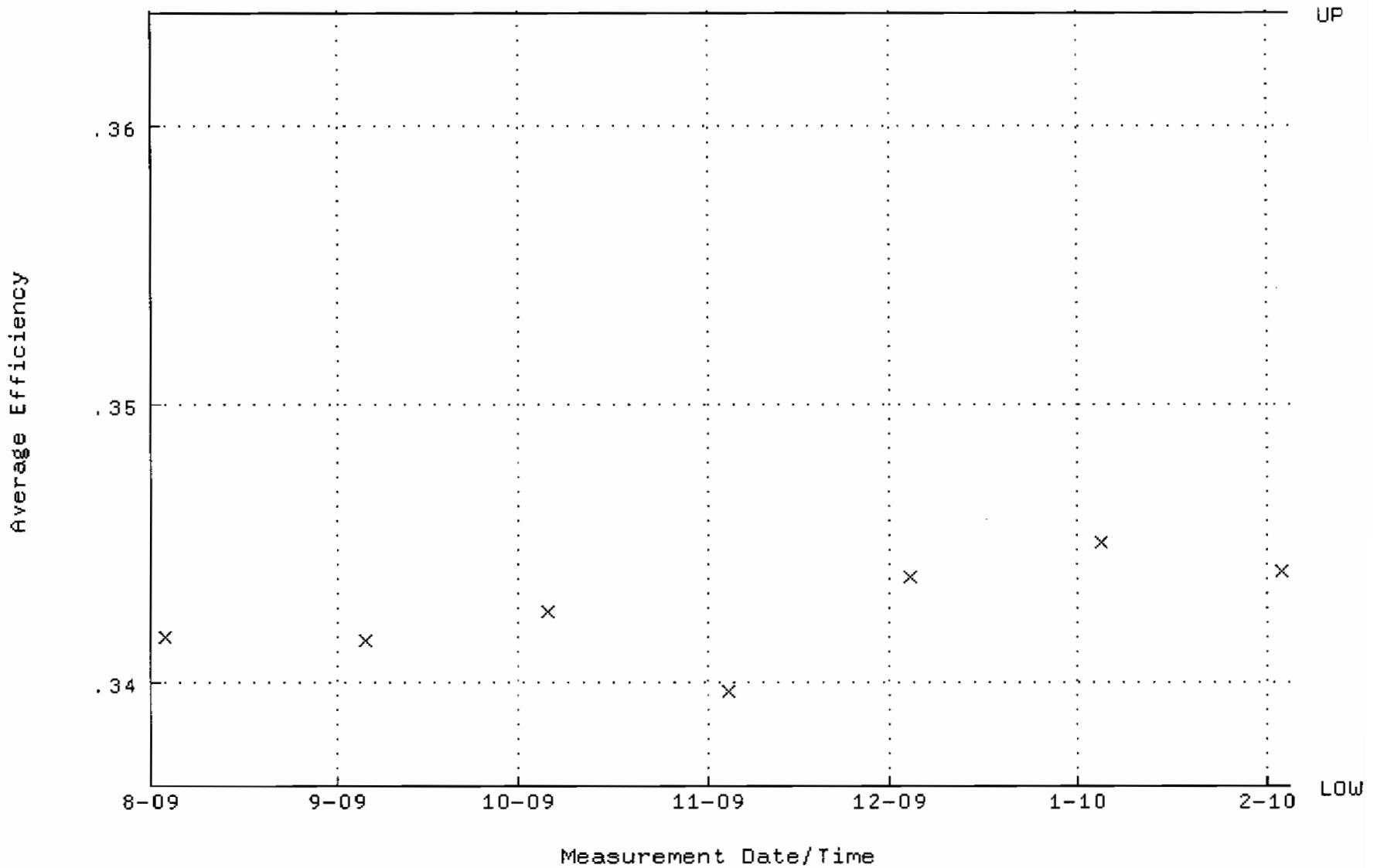

QA filename : DKA100:[ENV_ALPHA.QA.W]W047.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1403 through 89.8631

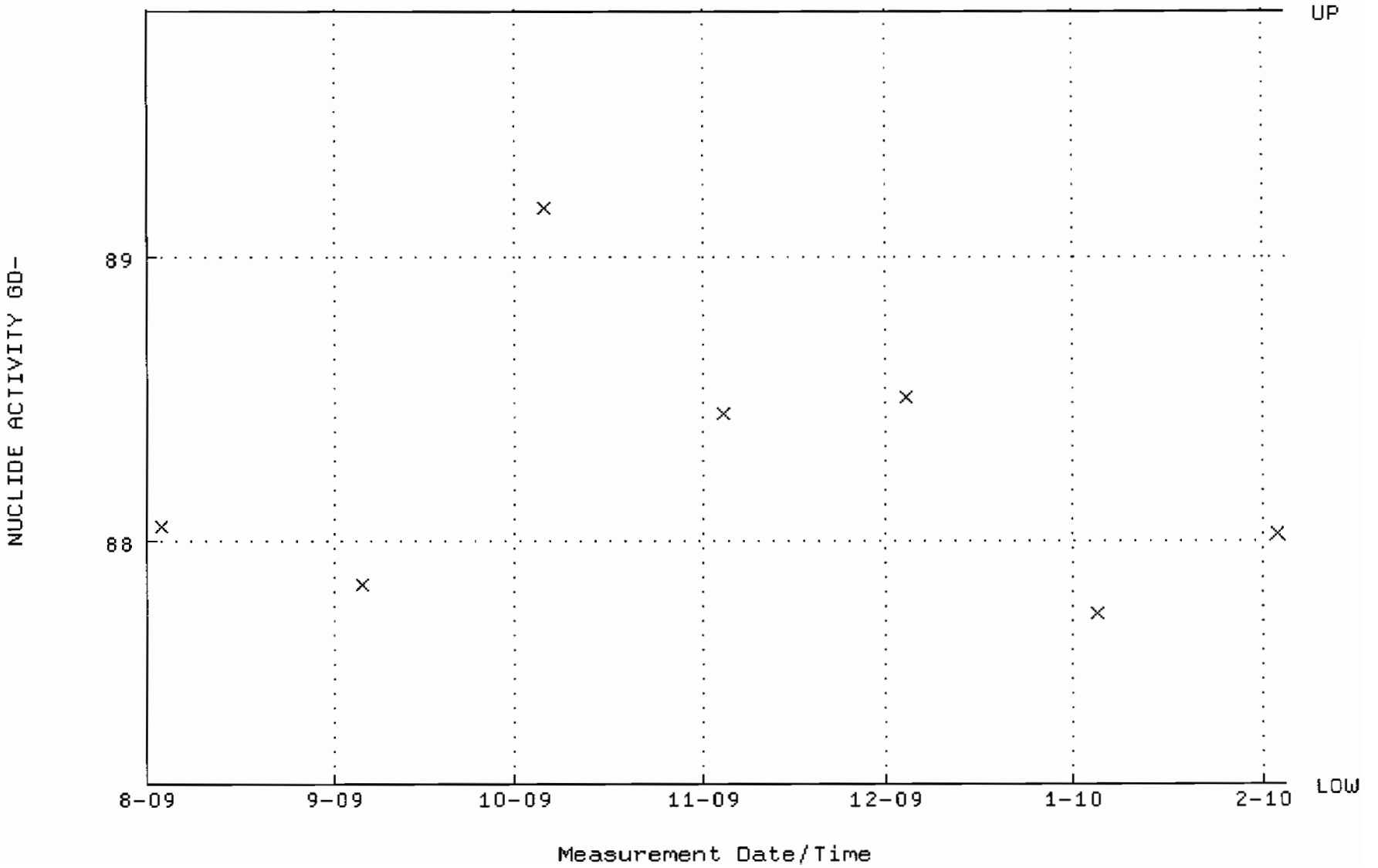

QA filename : DKA100:[ENV_ALPHA.QA.B]B047.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

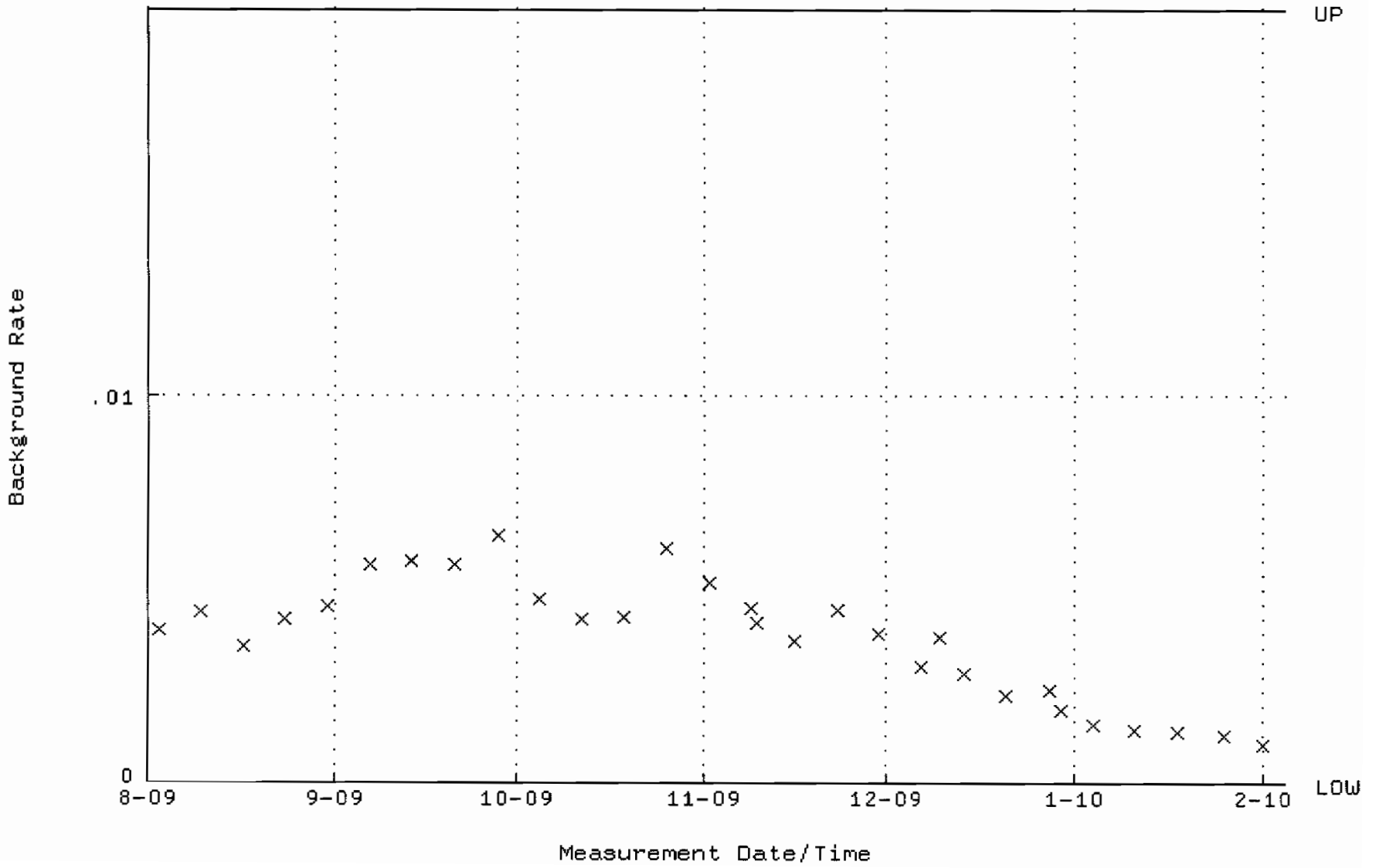

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

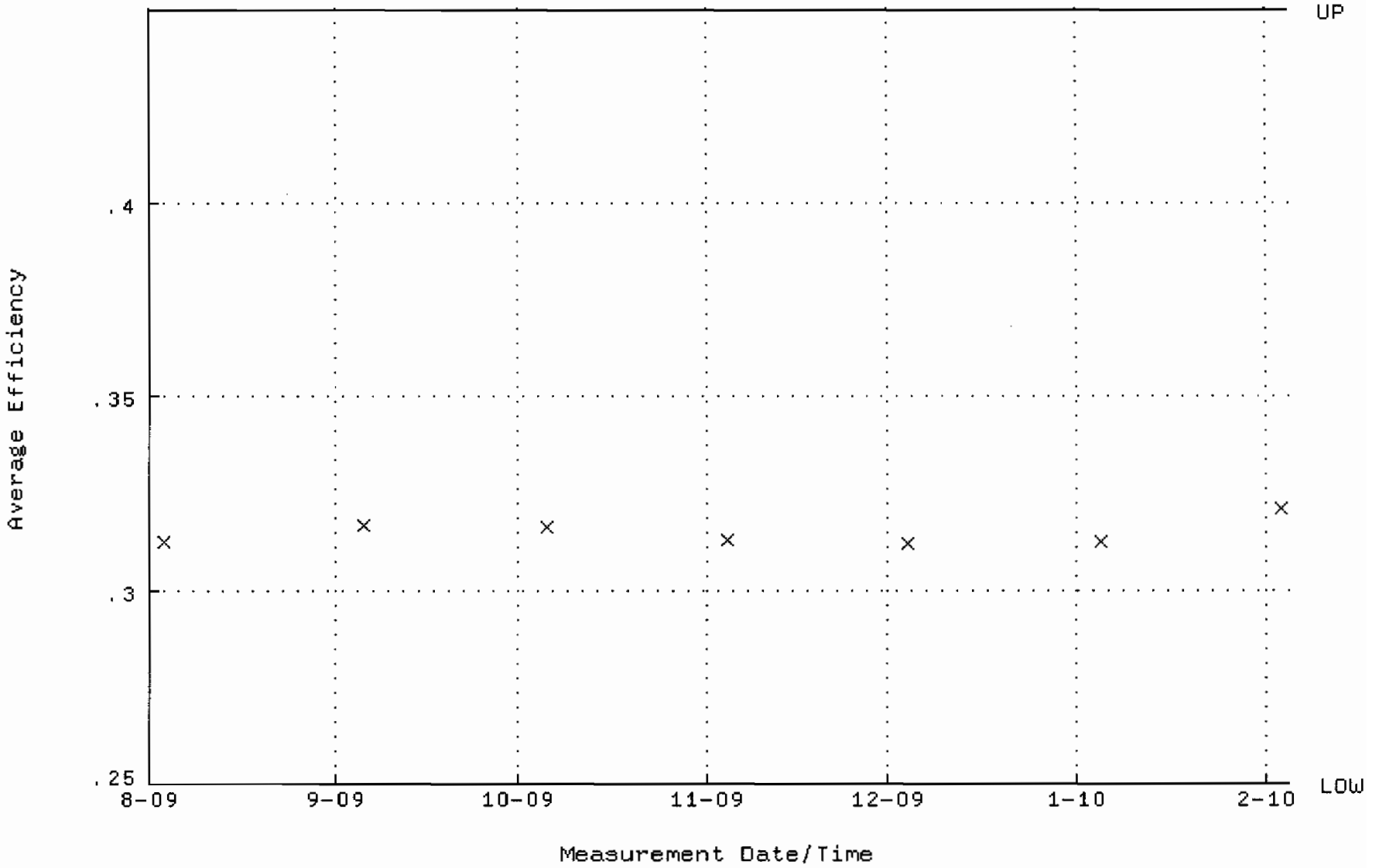

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

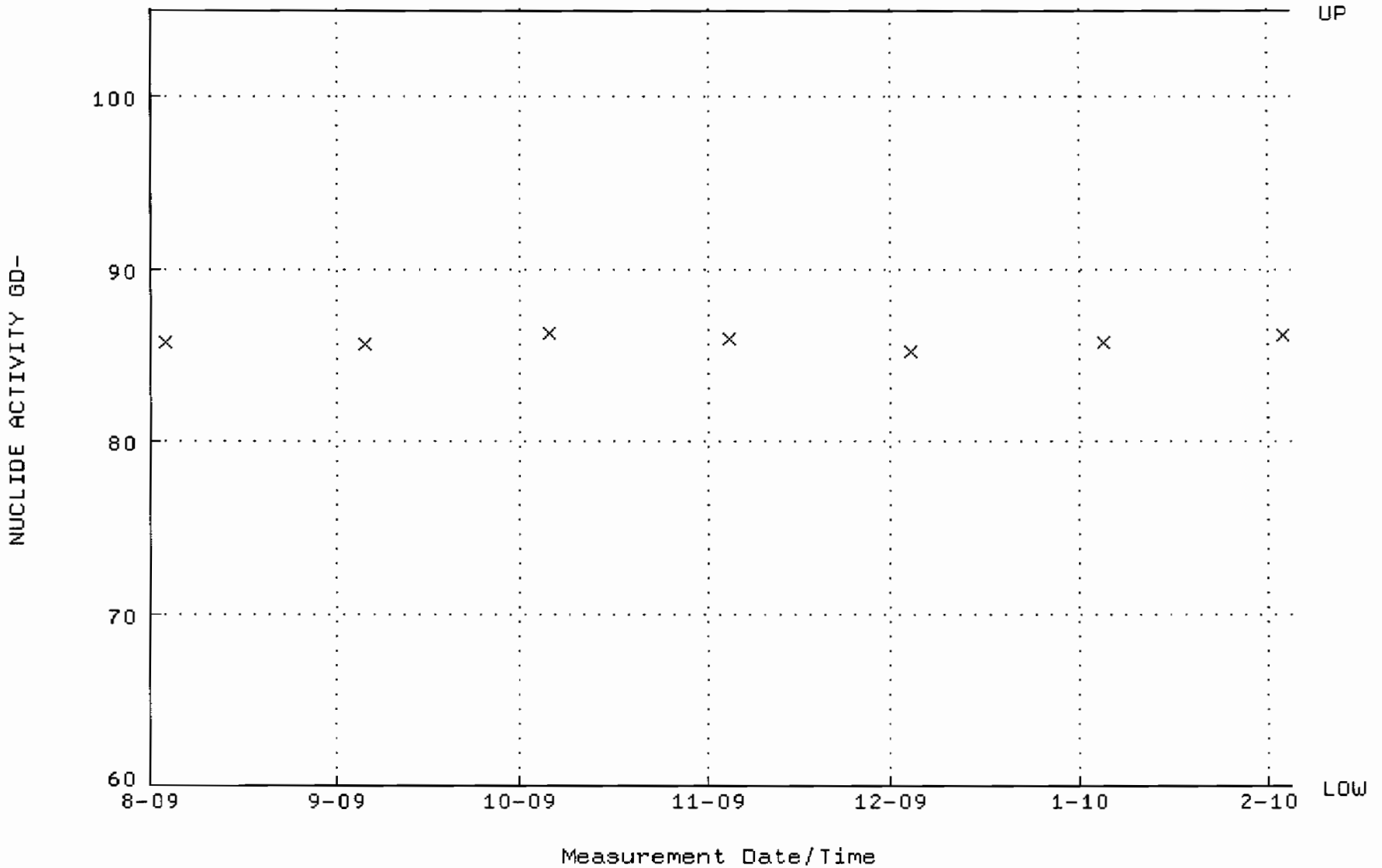

QA filename : DKA100:[ENV_ALPHA.QA.B]B048.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

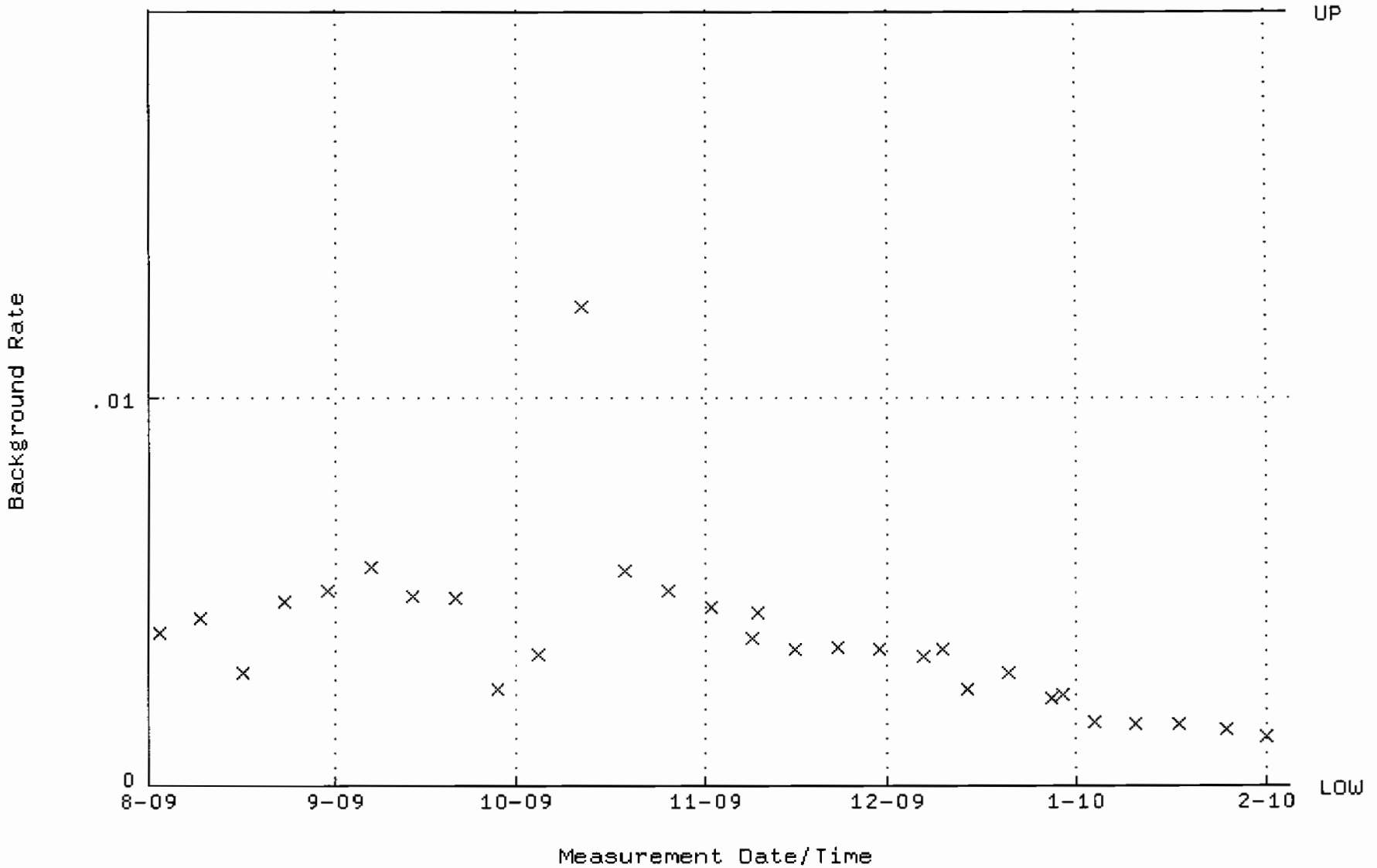

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.309161 through 0.329161

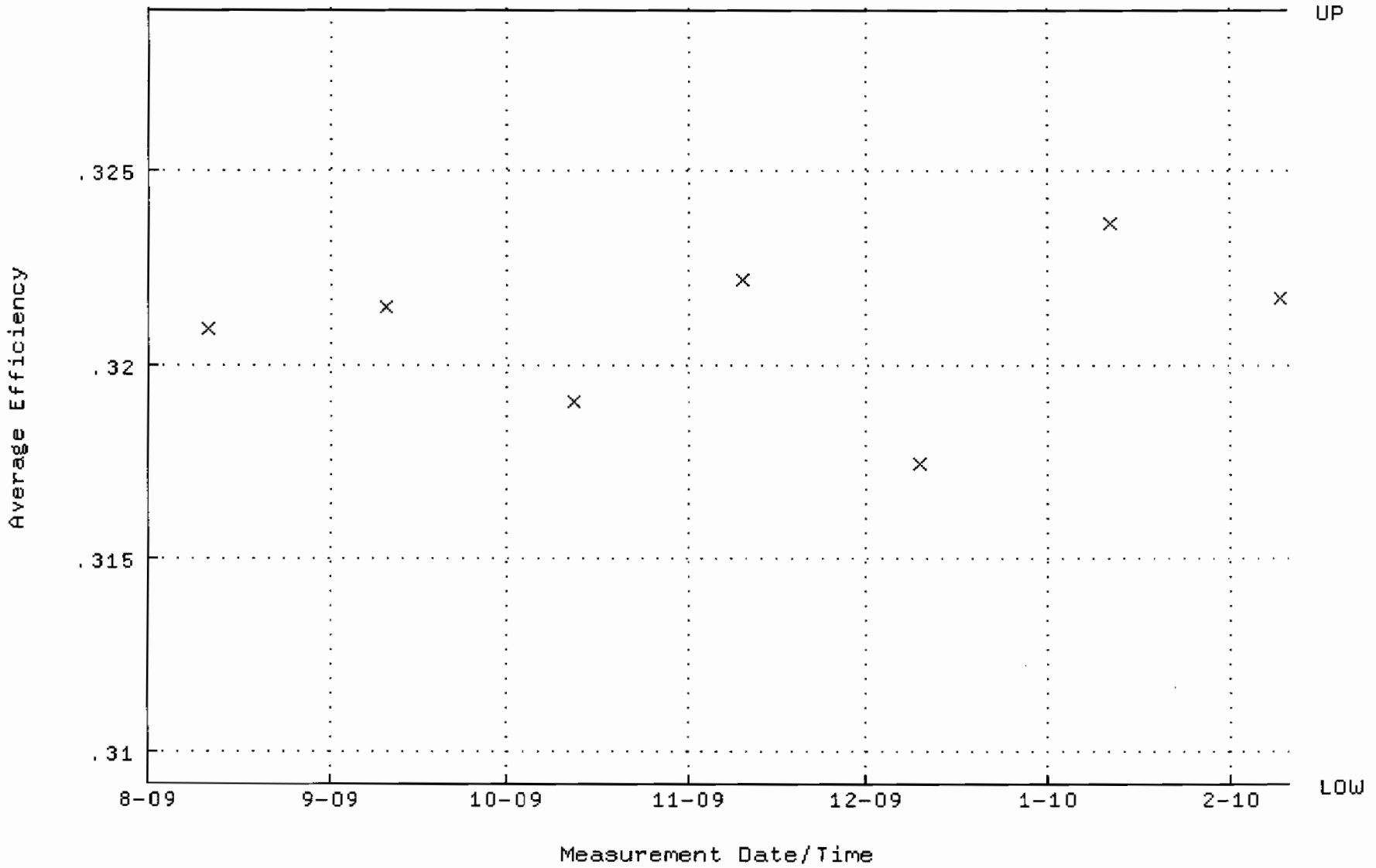

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7769 through 95.9113

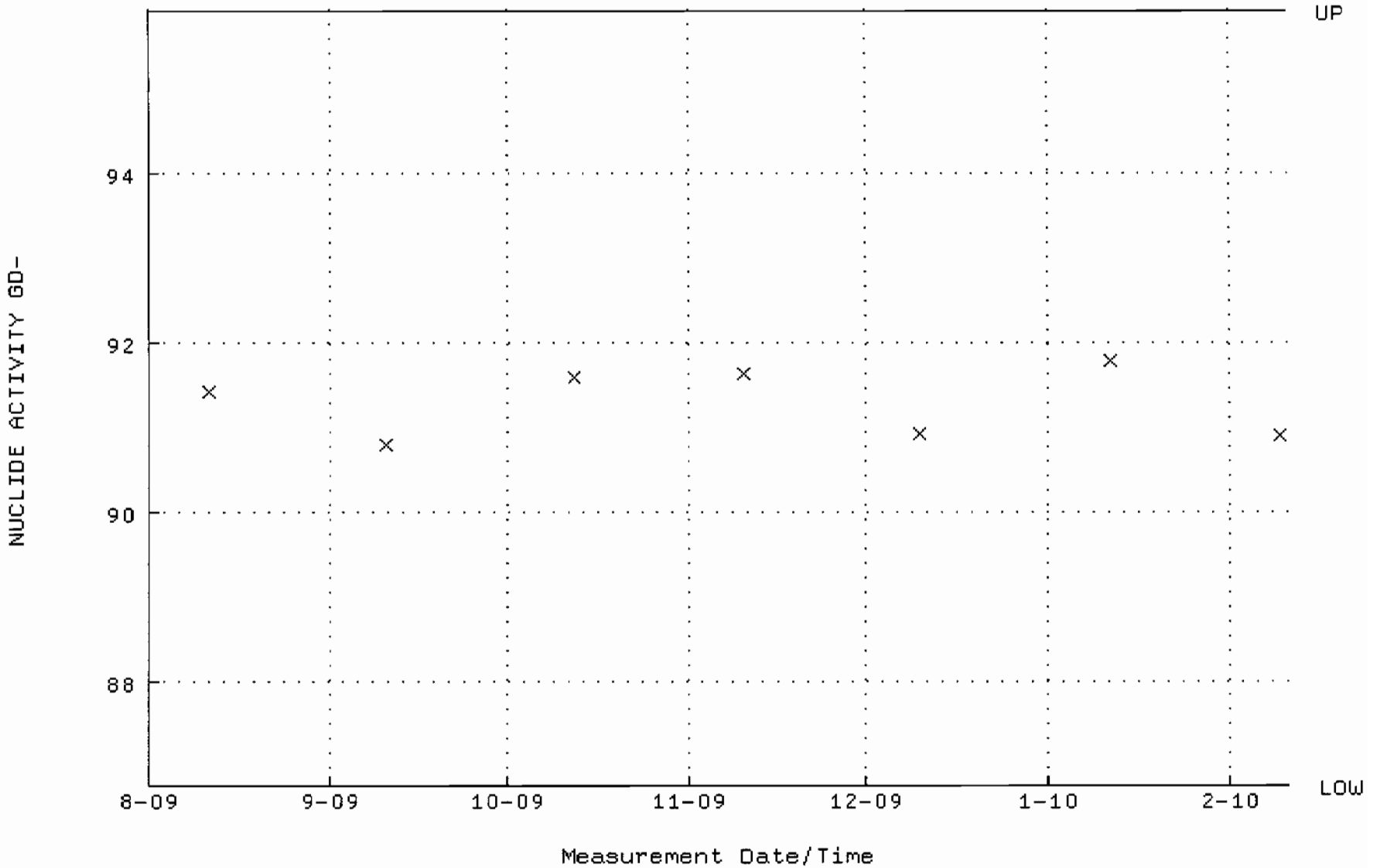

QA filename : DKA100:[ENV_ALPHA.QA.B]B071.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

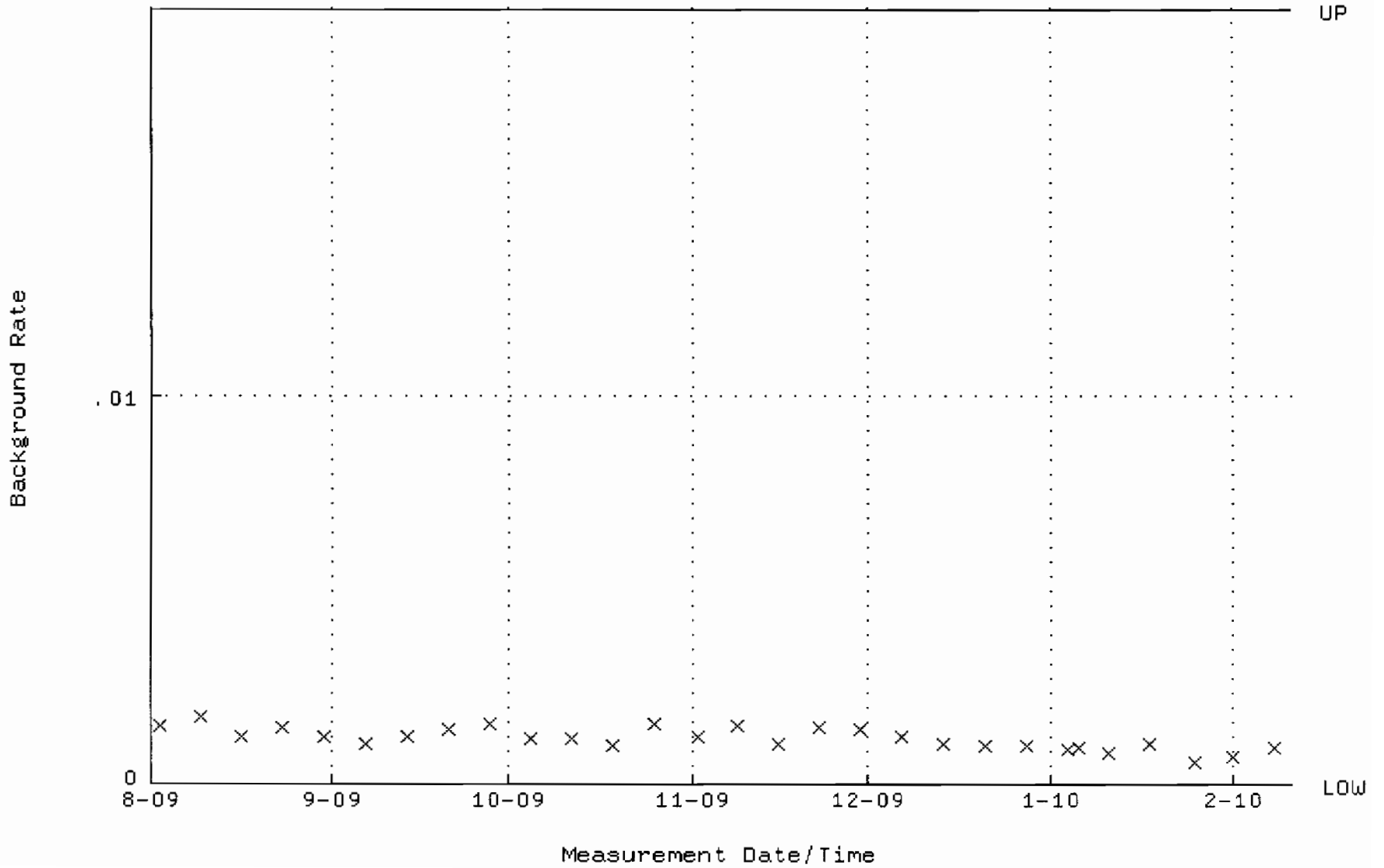

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313761 through 0.333761

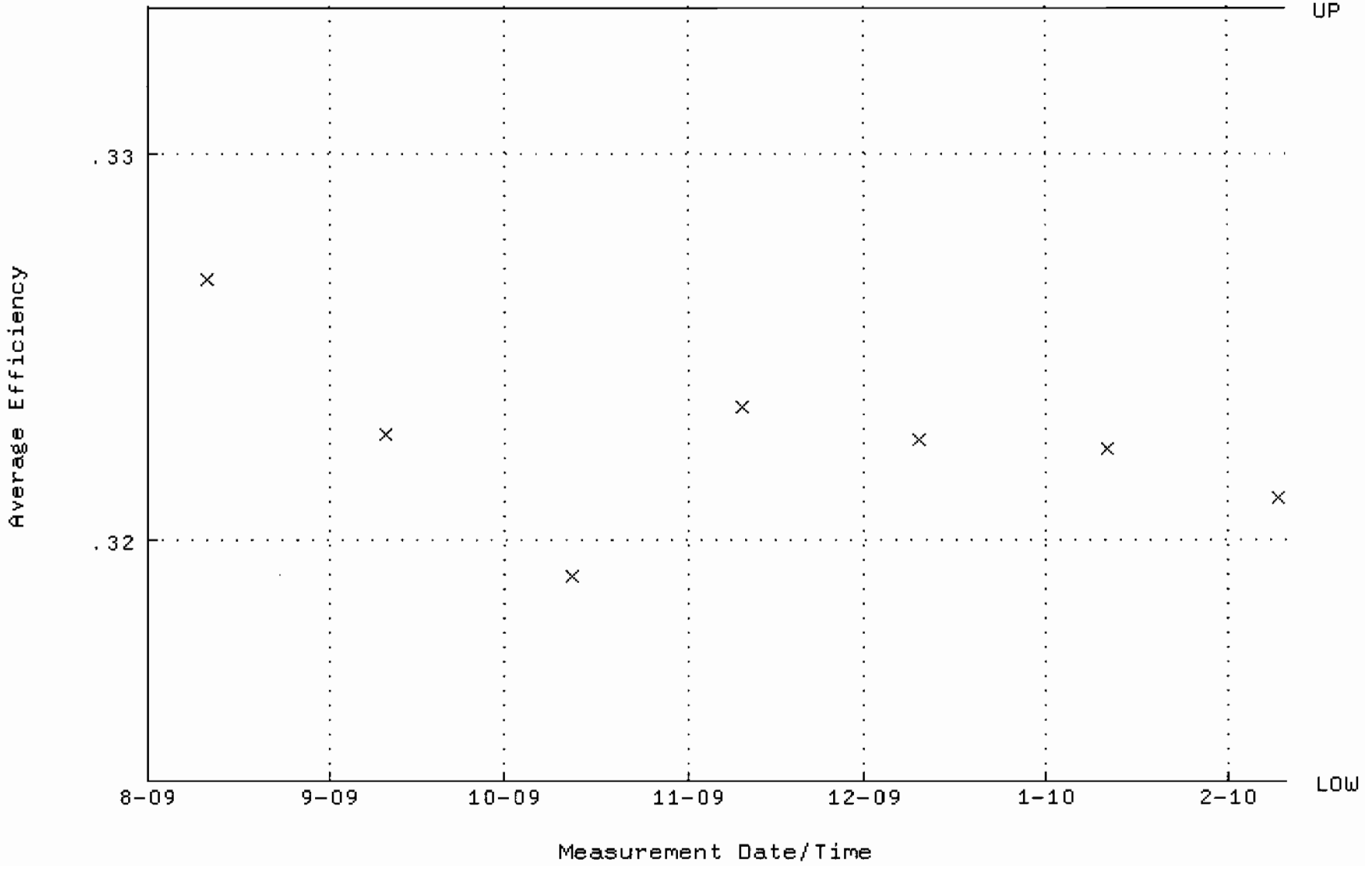

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.3348 through 96.5280

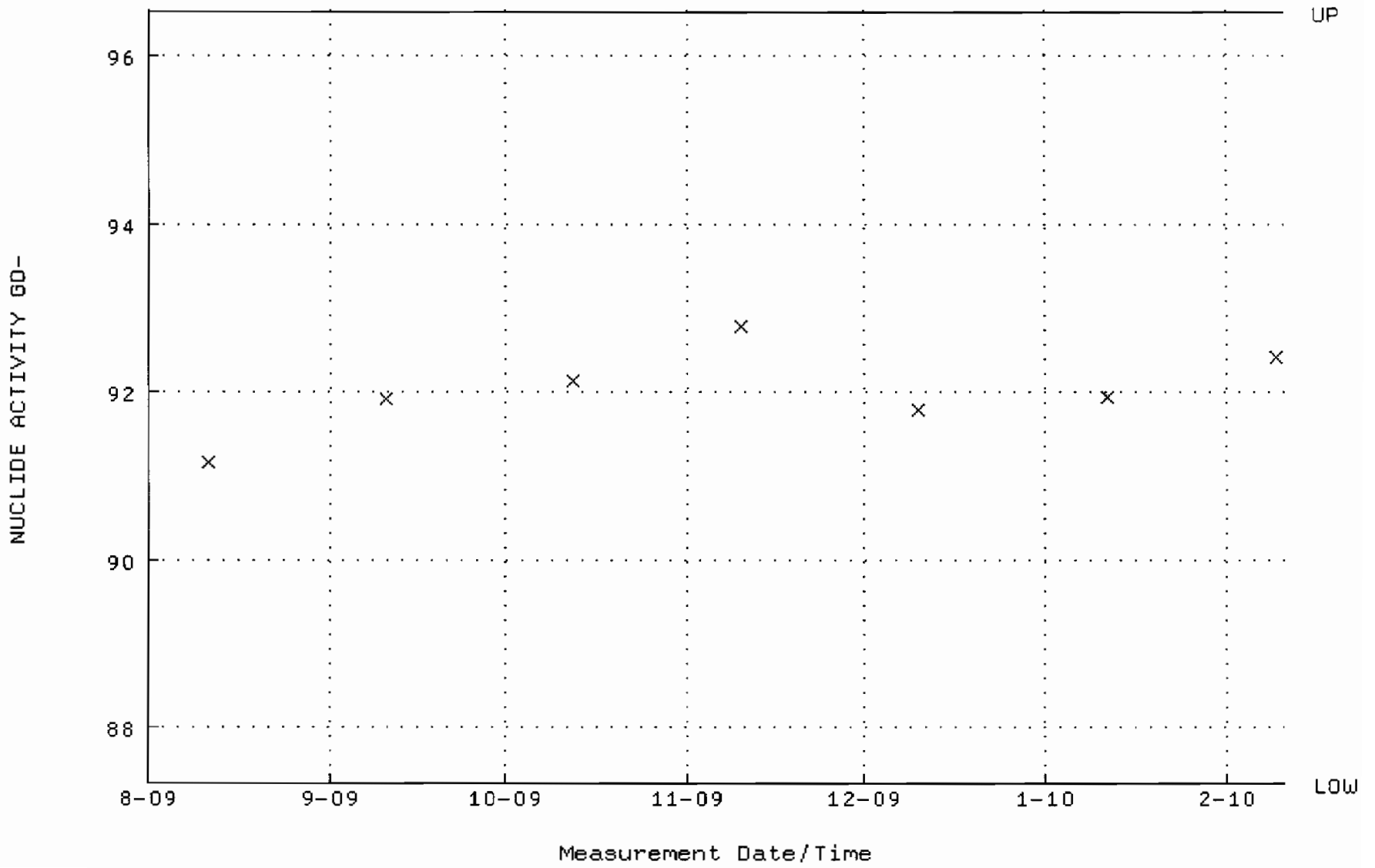

QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

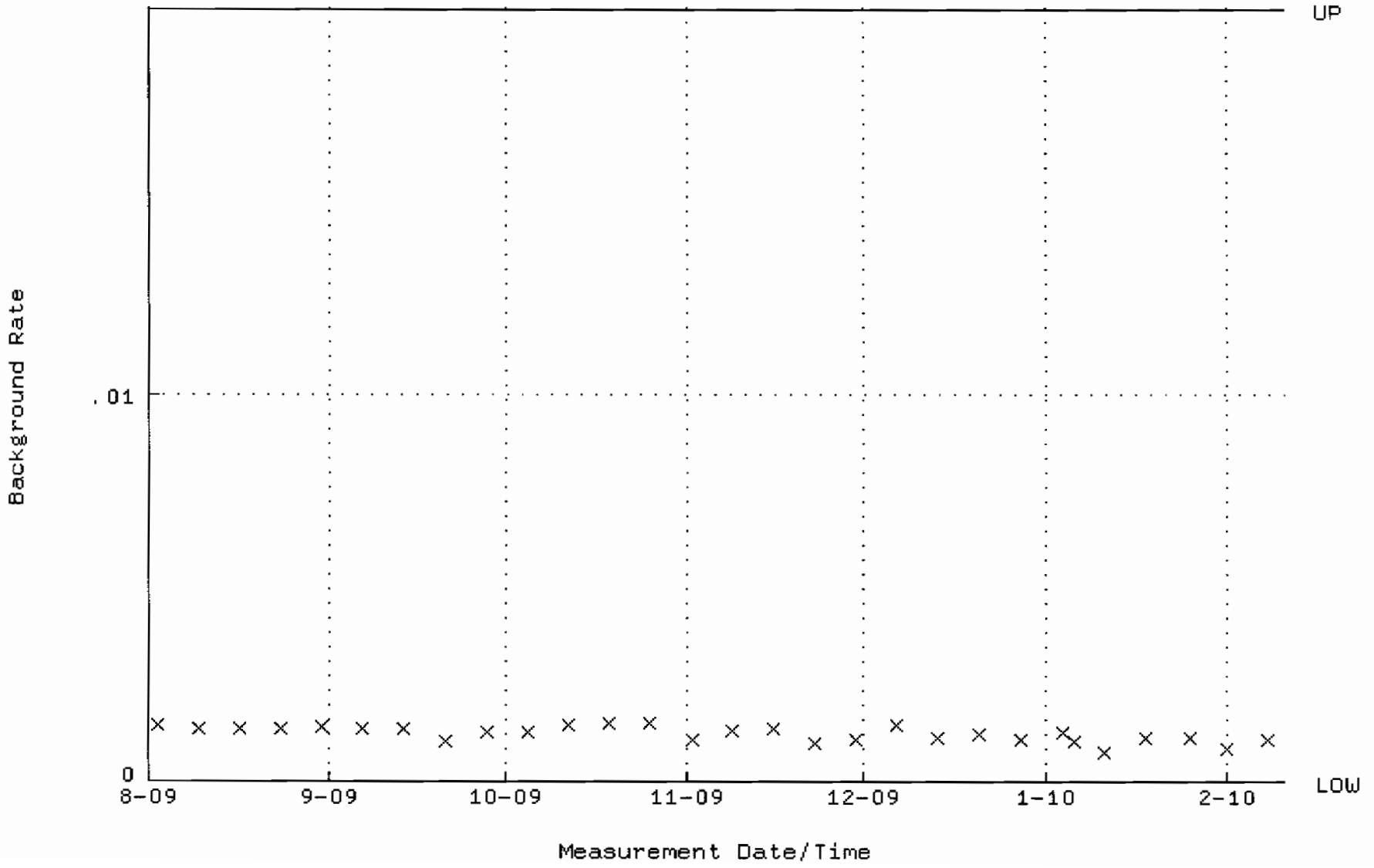

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.323184 through 0.343184

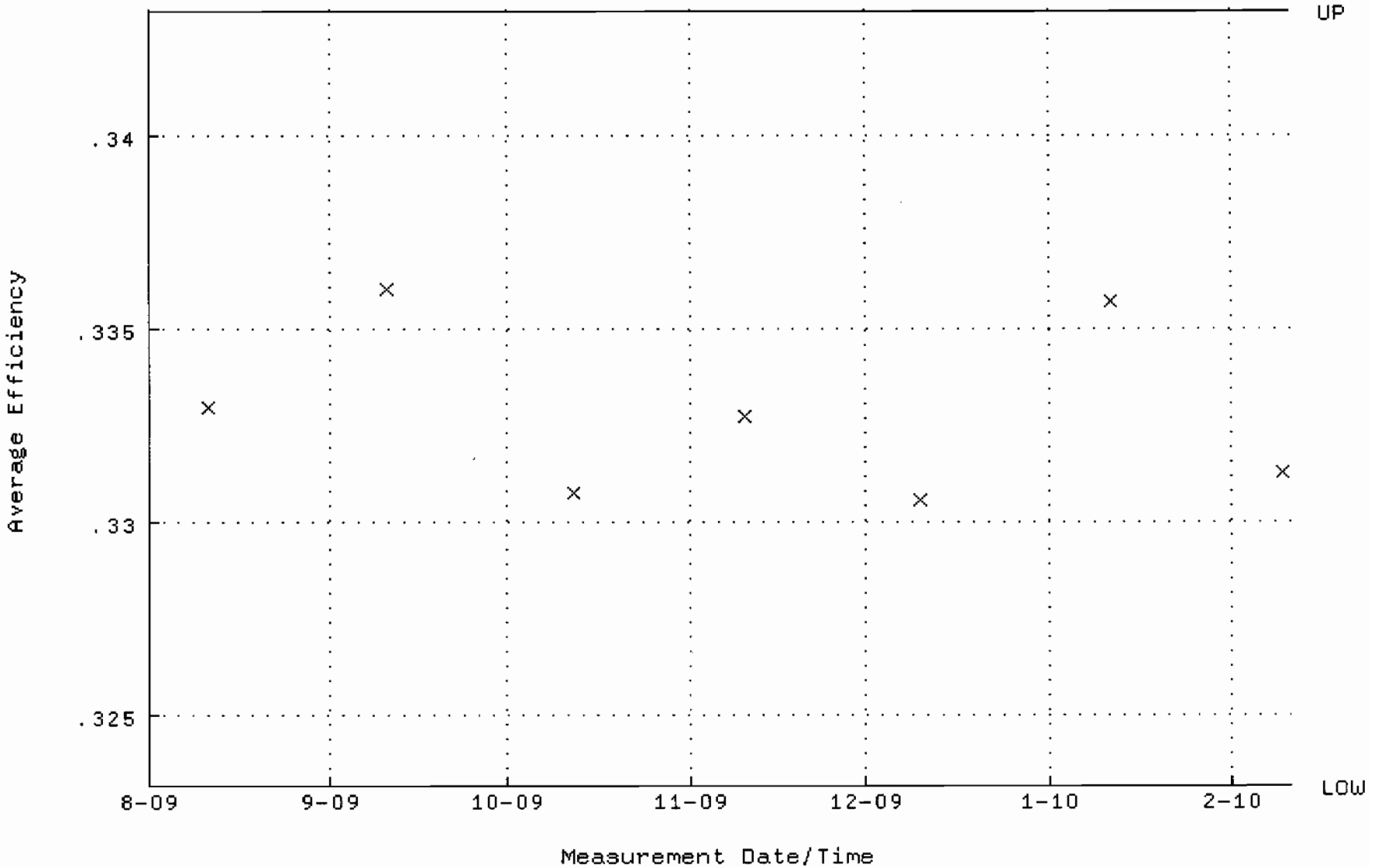

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.6734 through 95.7970

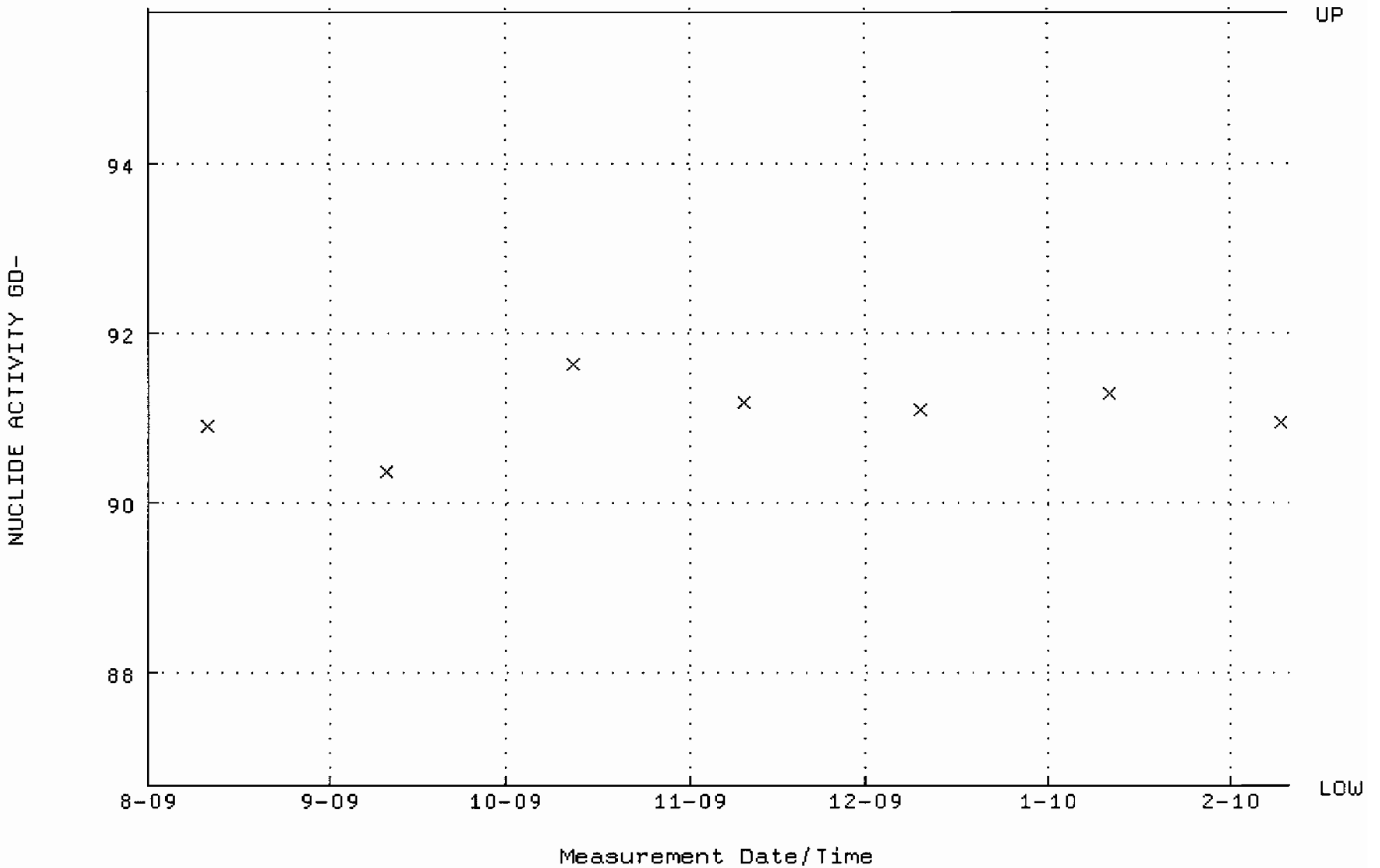

QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

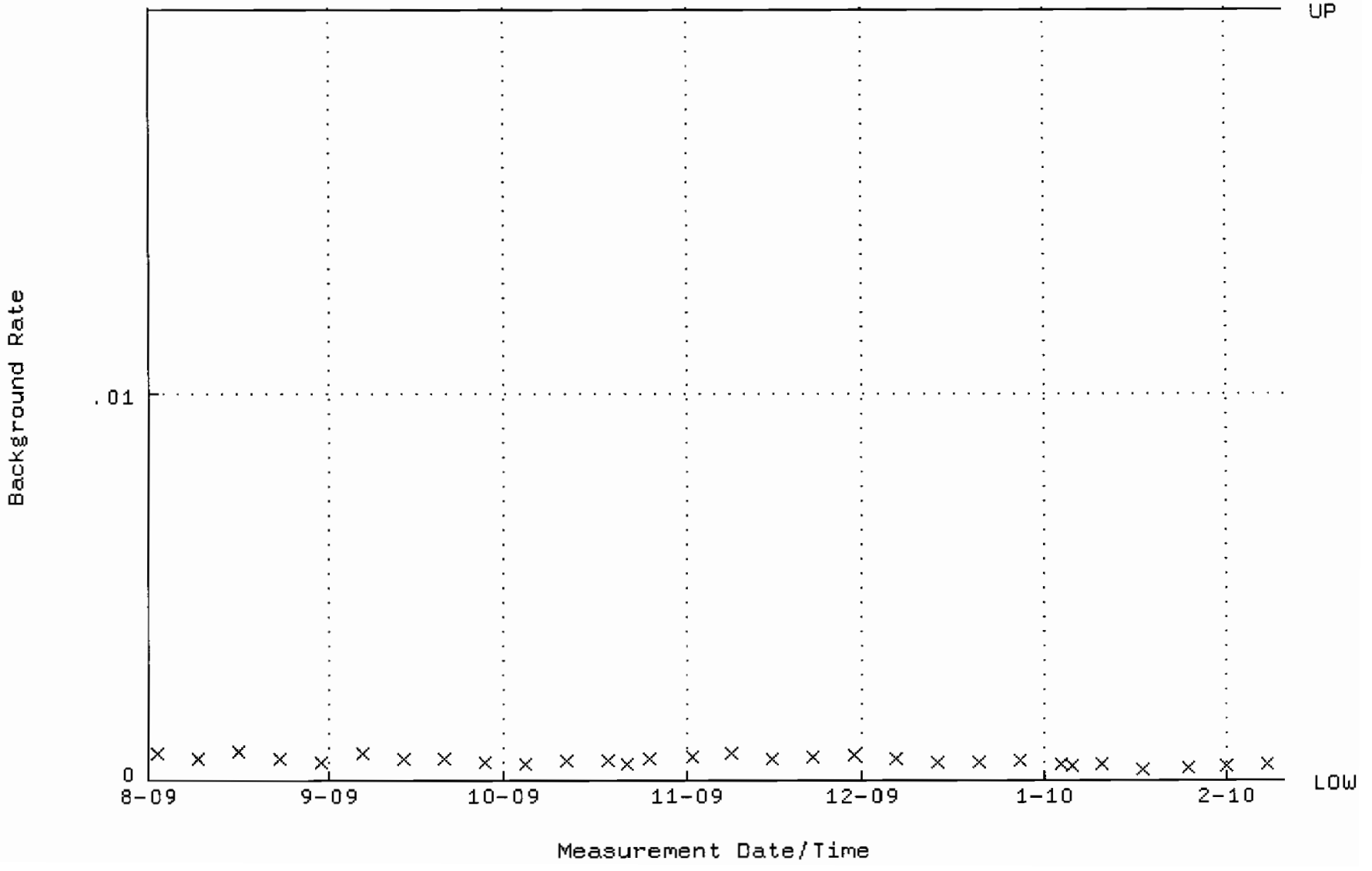

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.305830 through 0.325830

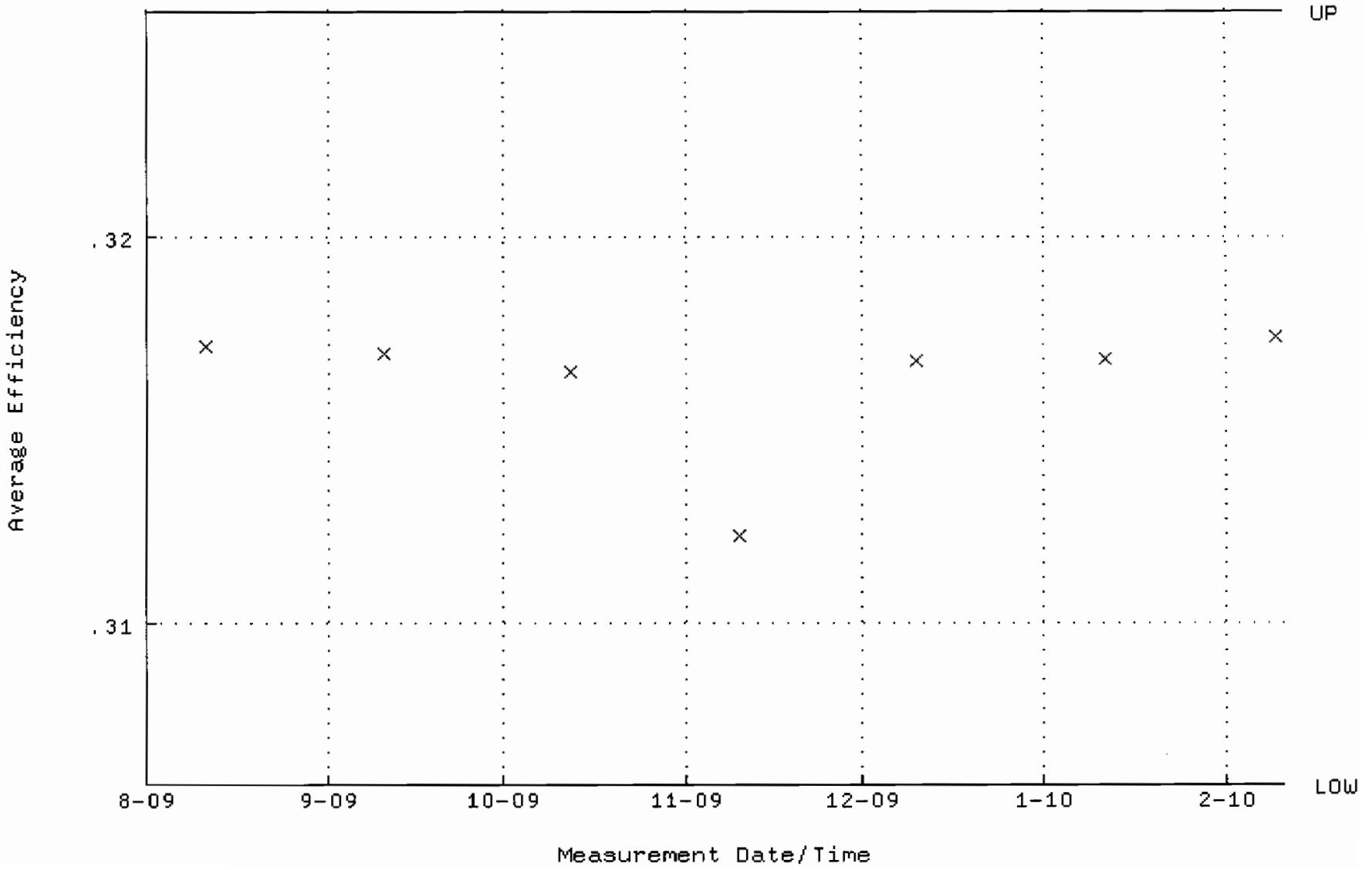

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0289 through 95.0845

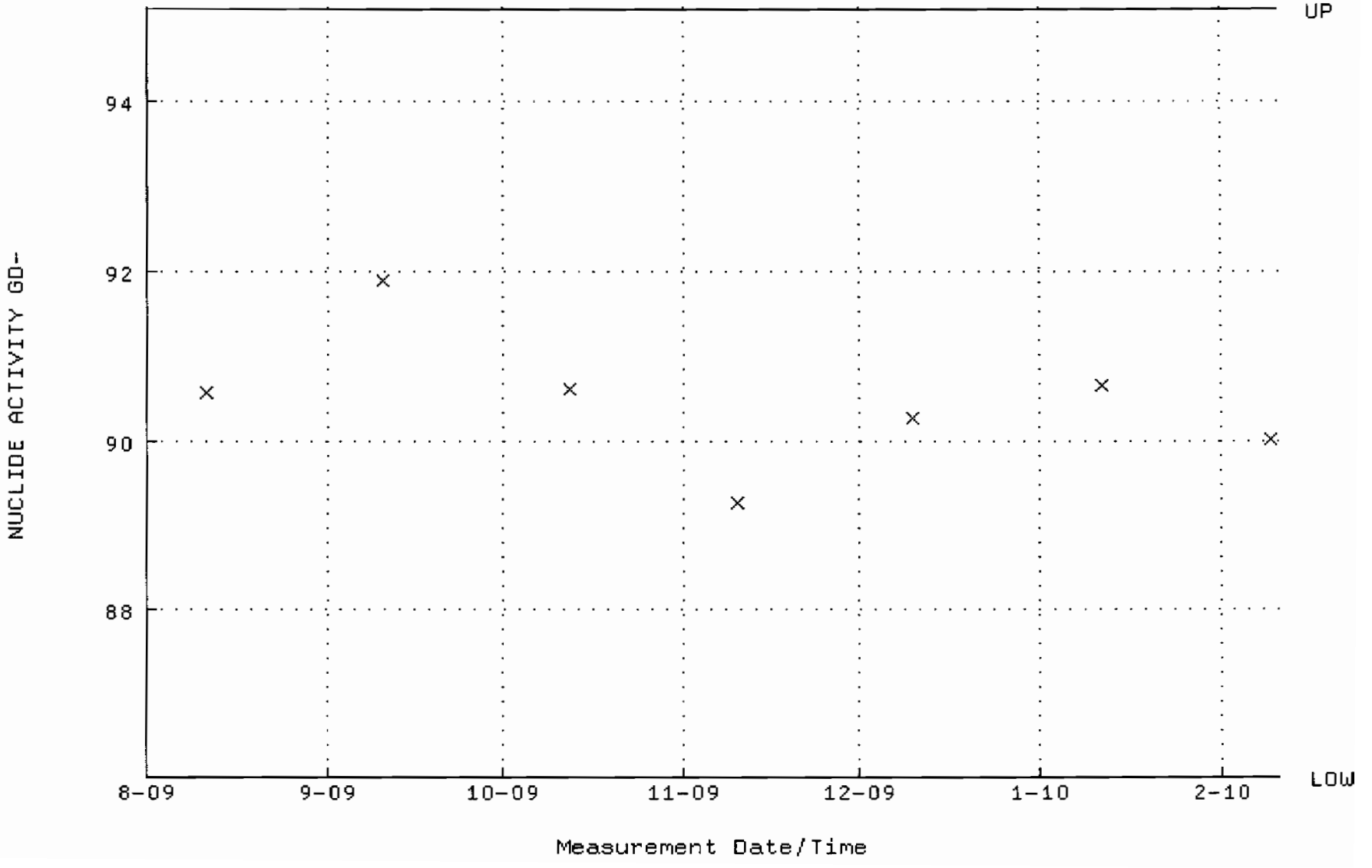

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

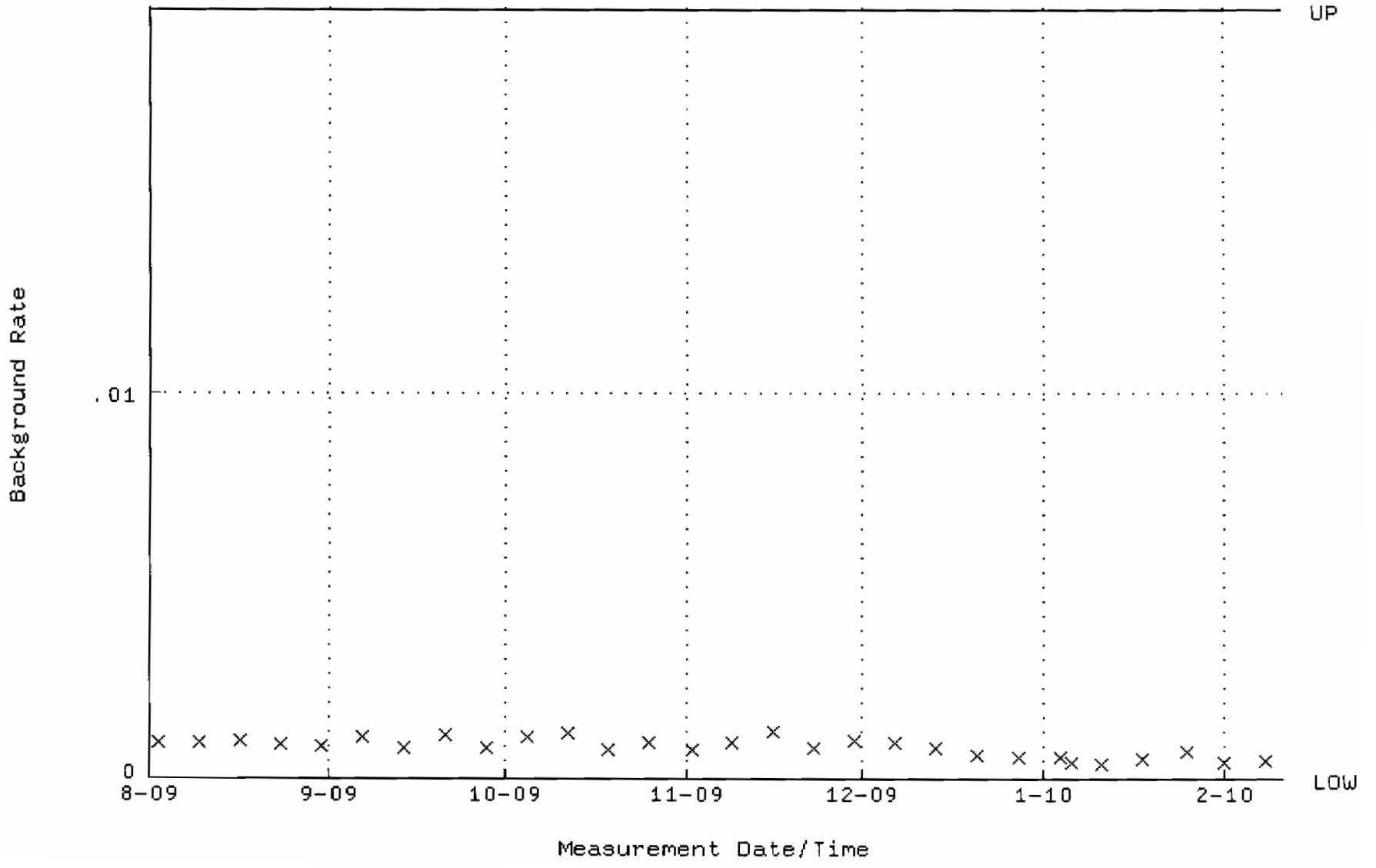

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.292134 through 0.312134

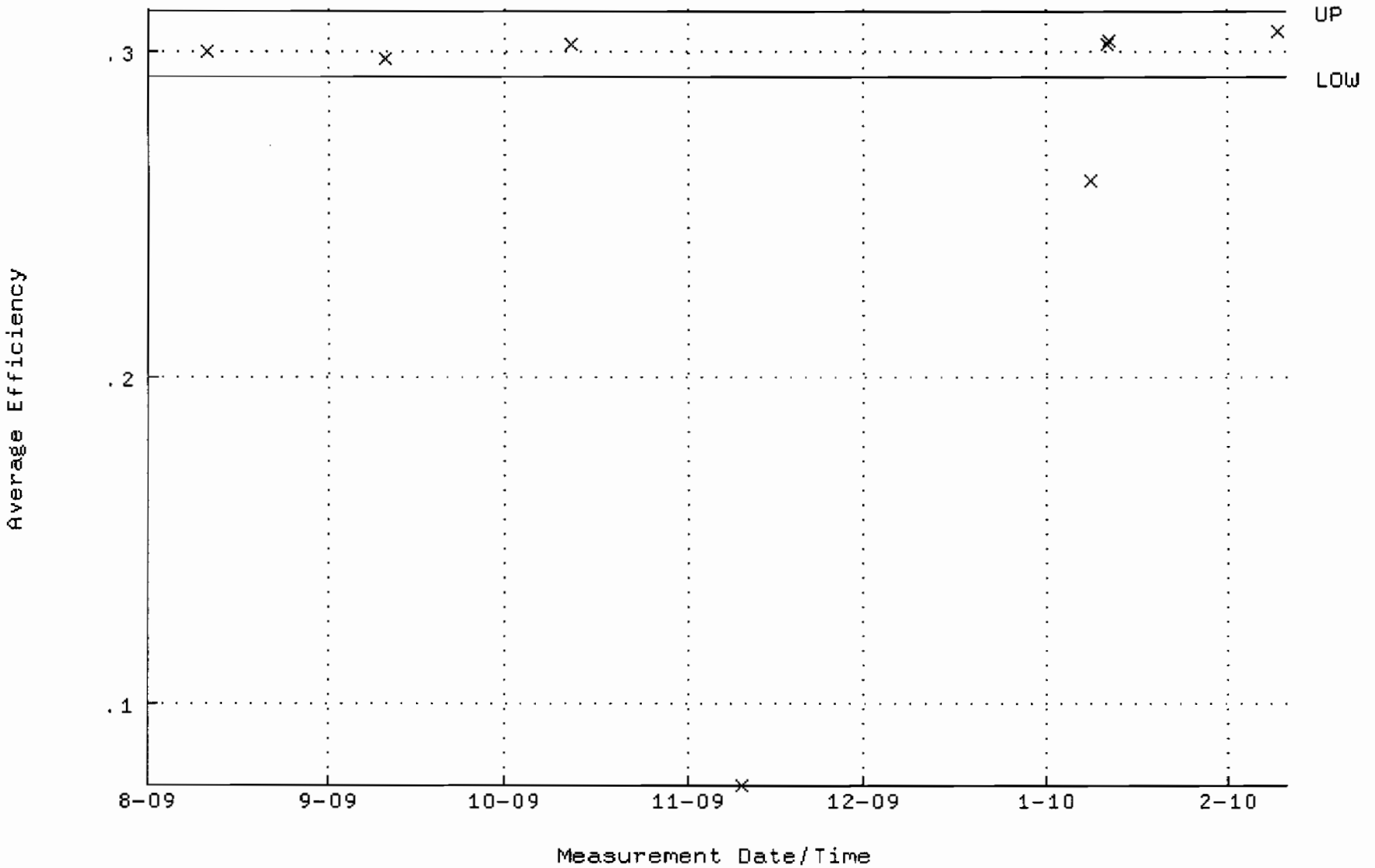

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 91.1212 through 100.713

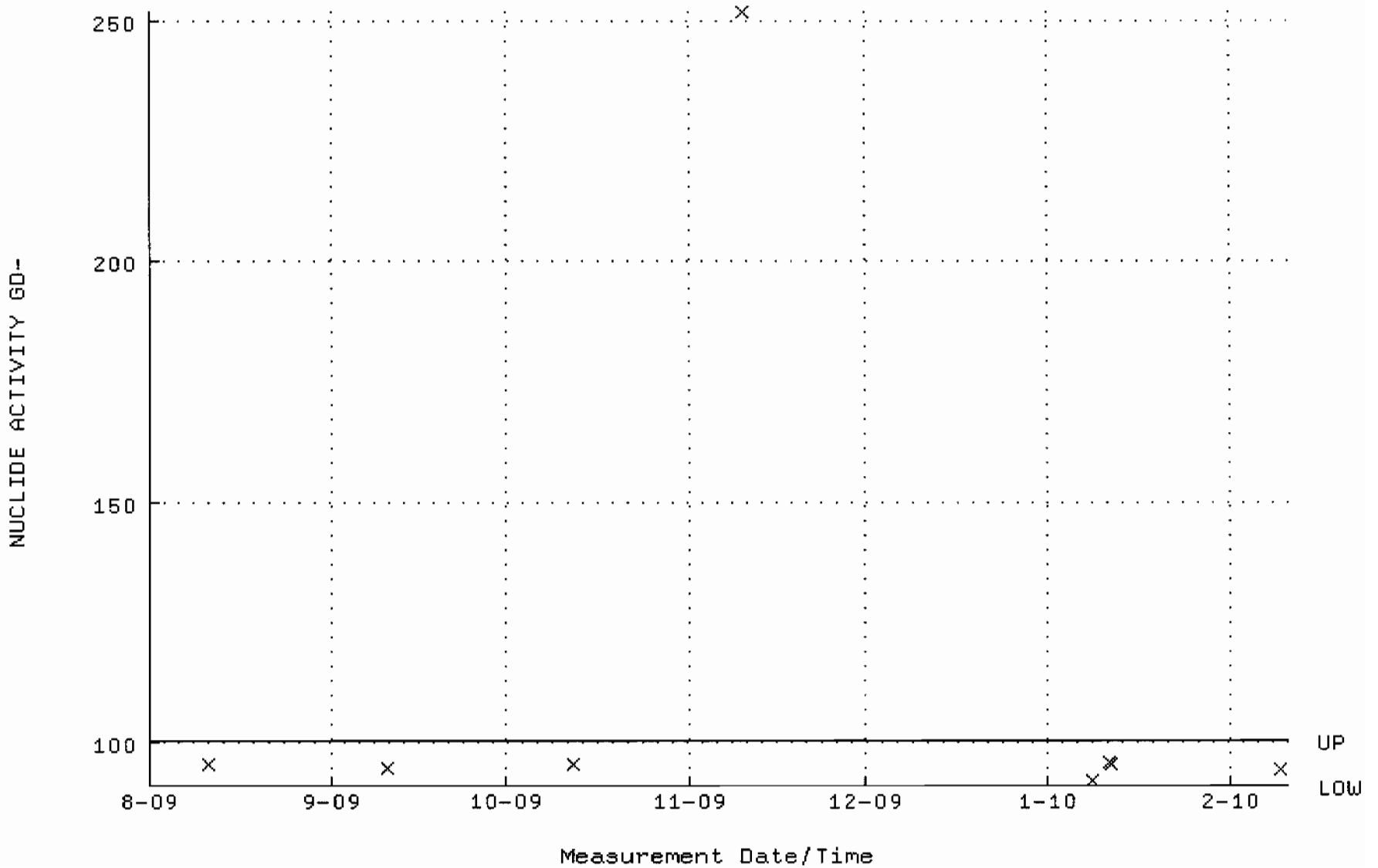

QA filename : DKA100:[ENV_ALPHA.QA.B]B075.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

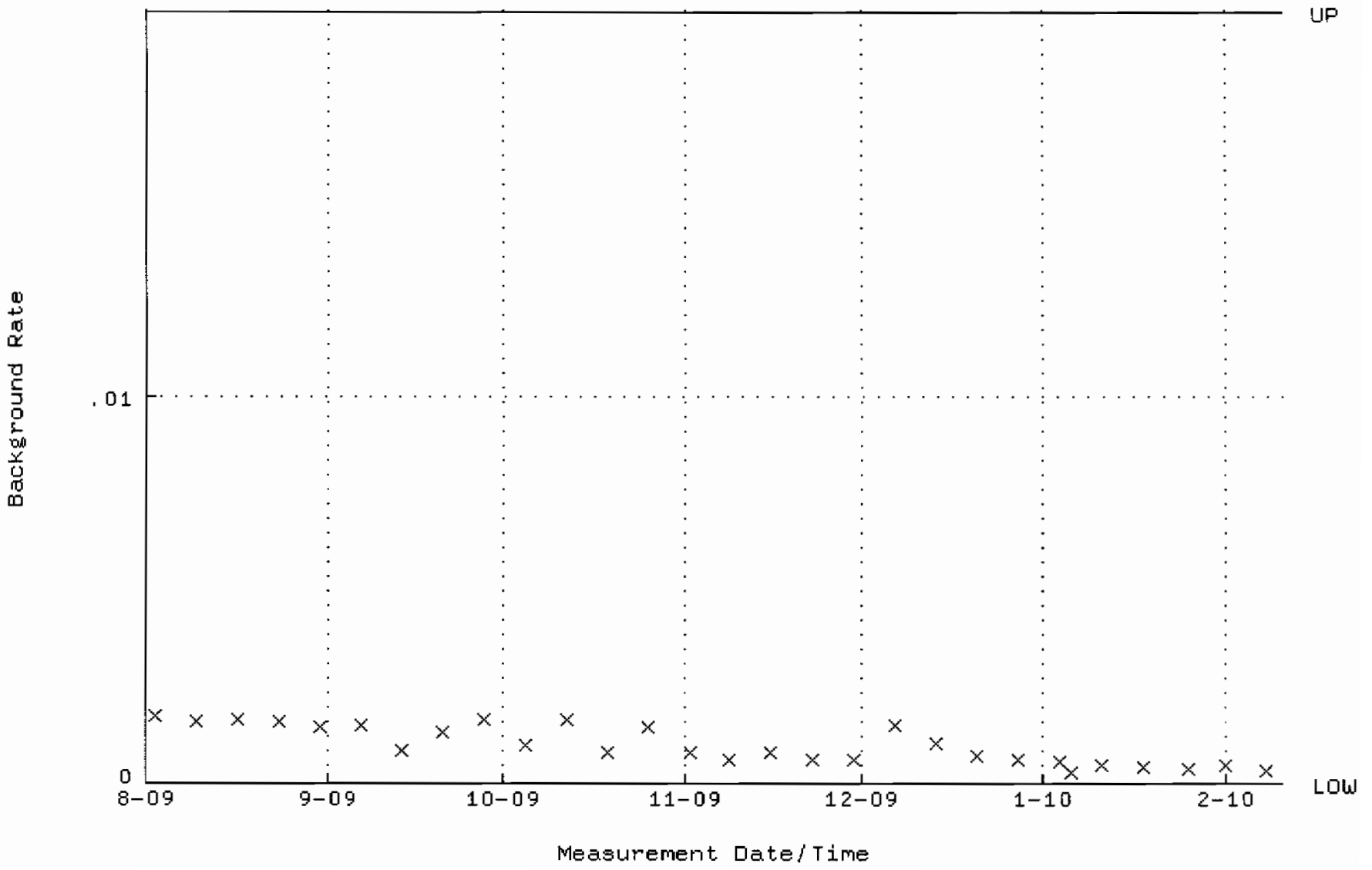

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295613 through 0.315613

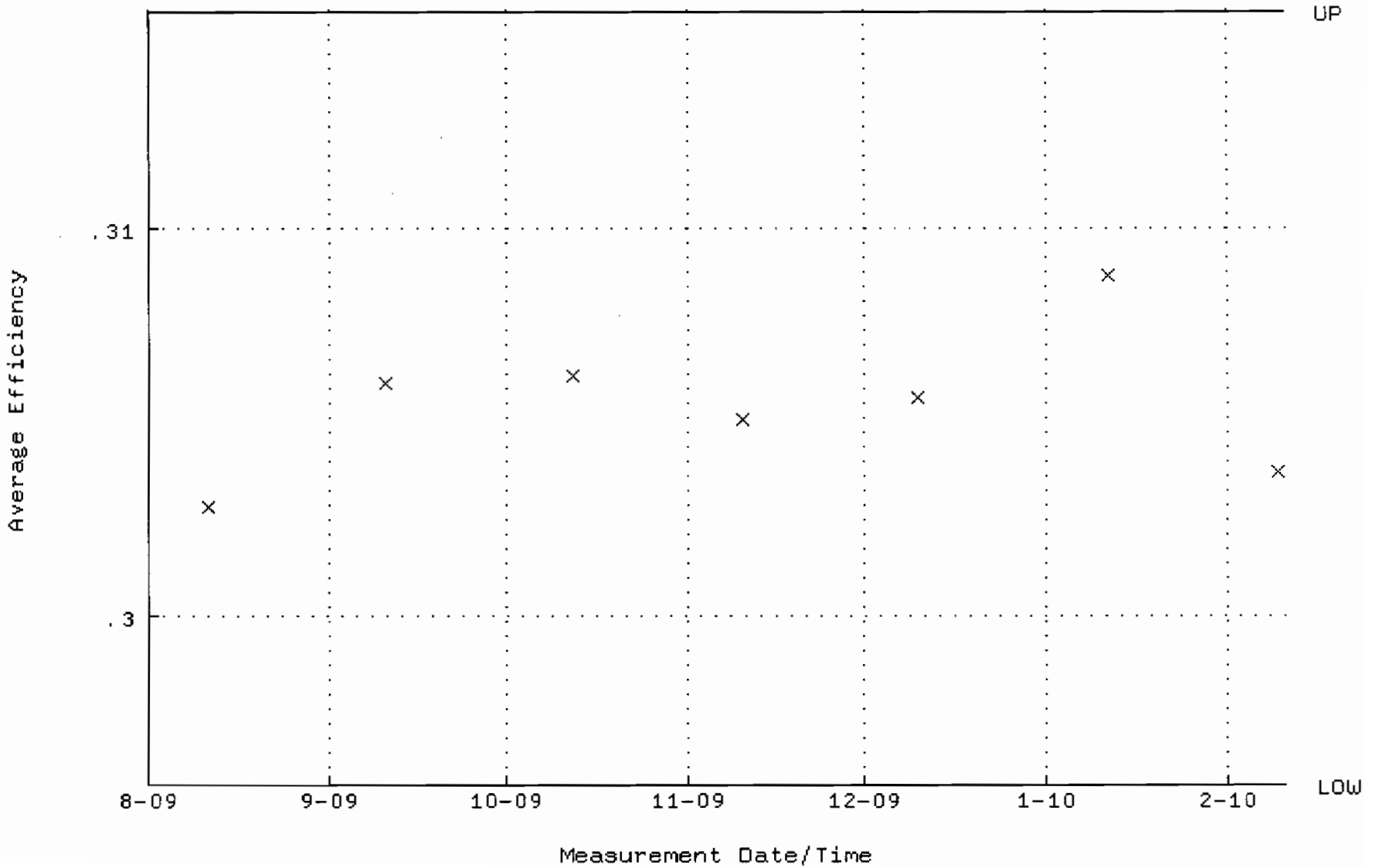

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9031 through 97.1561

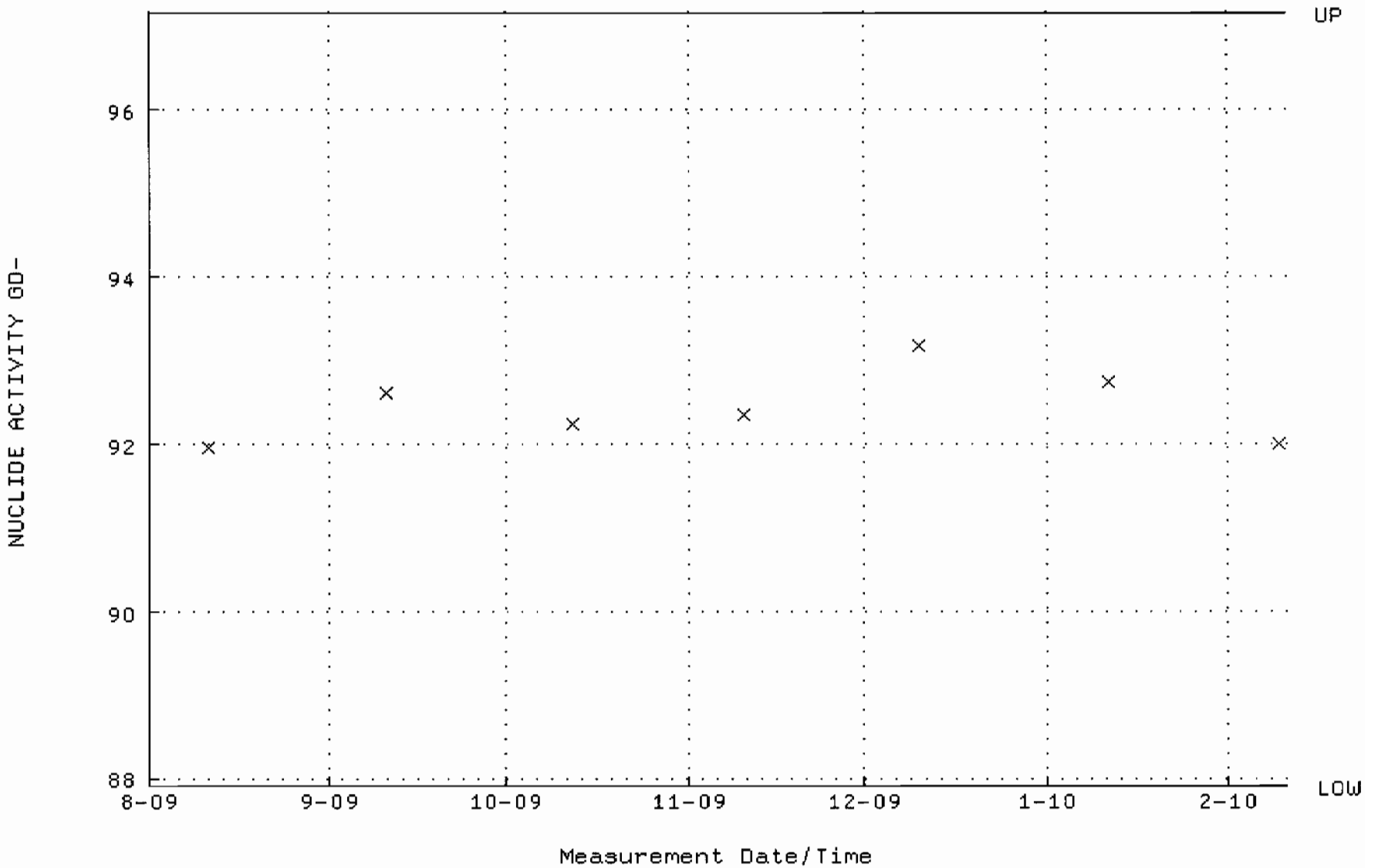

QA filename : DKA100:[ENV_ALPHA.QA.B]B076.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

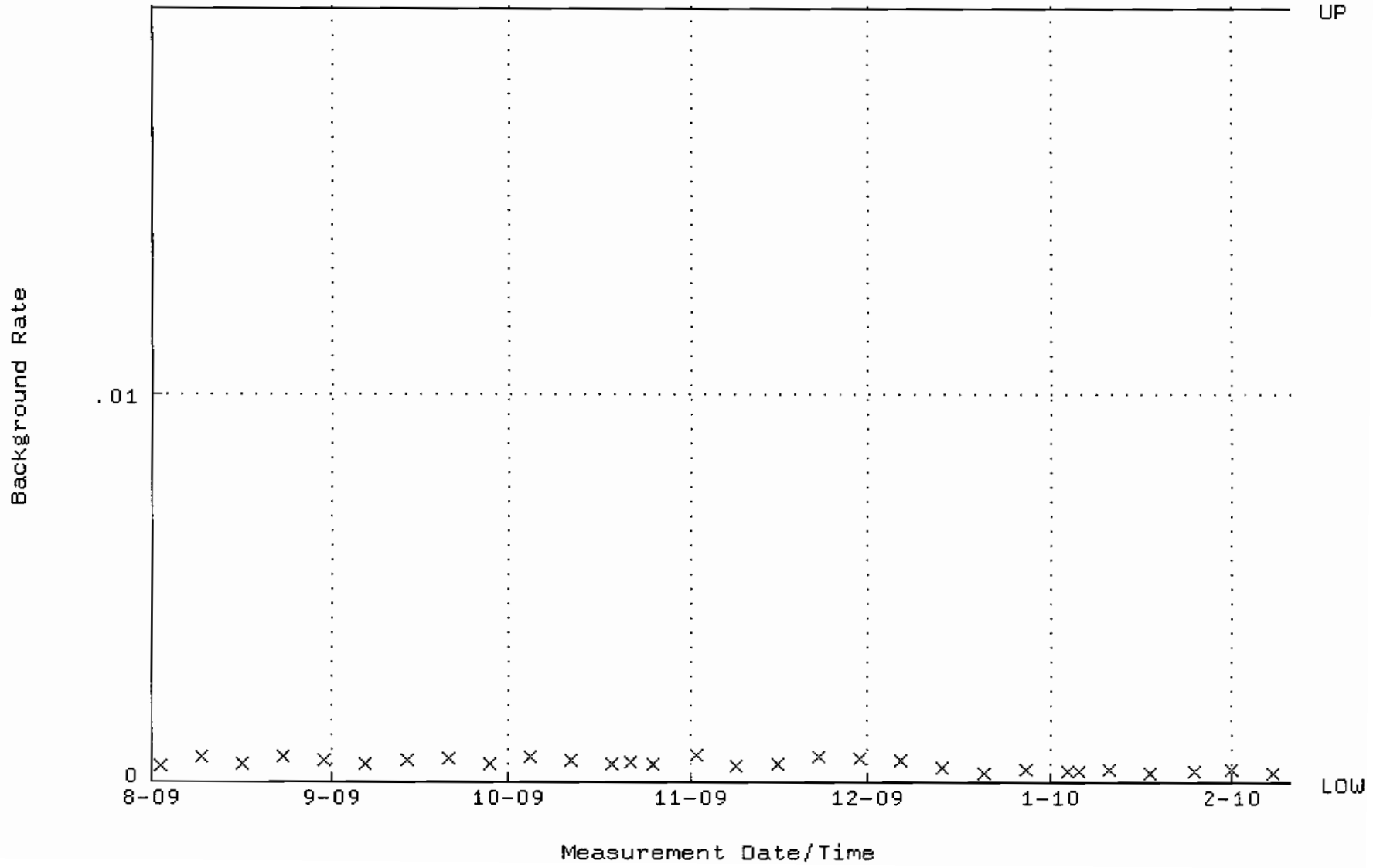

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

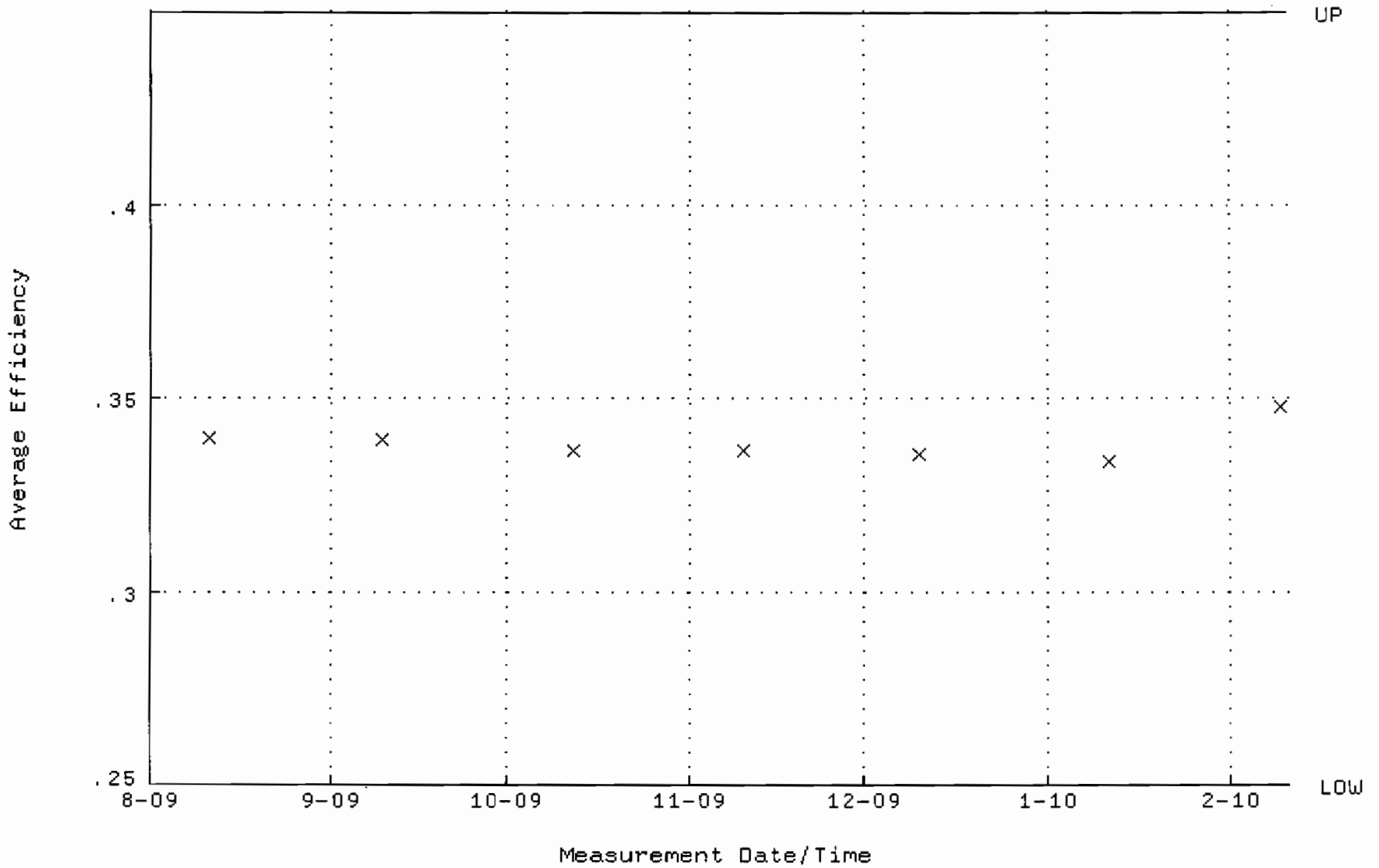

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

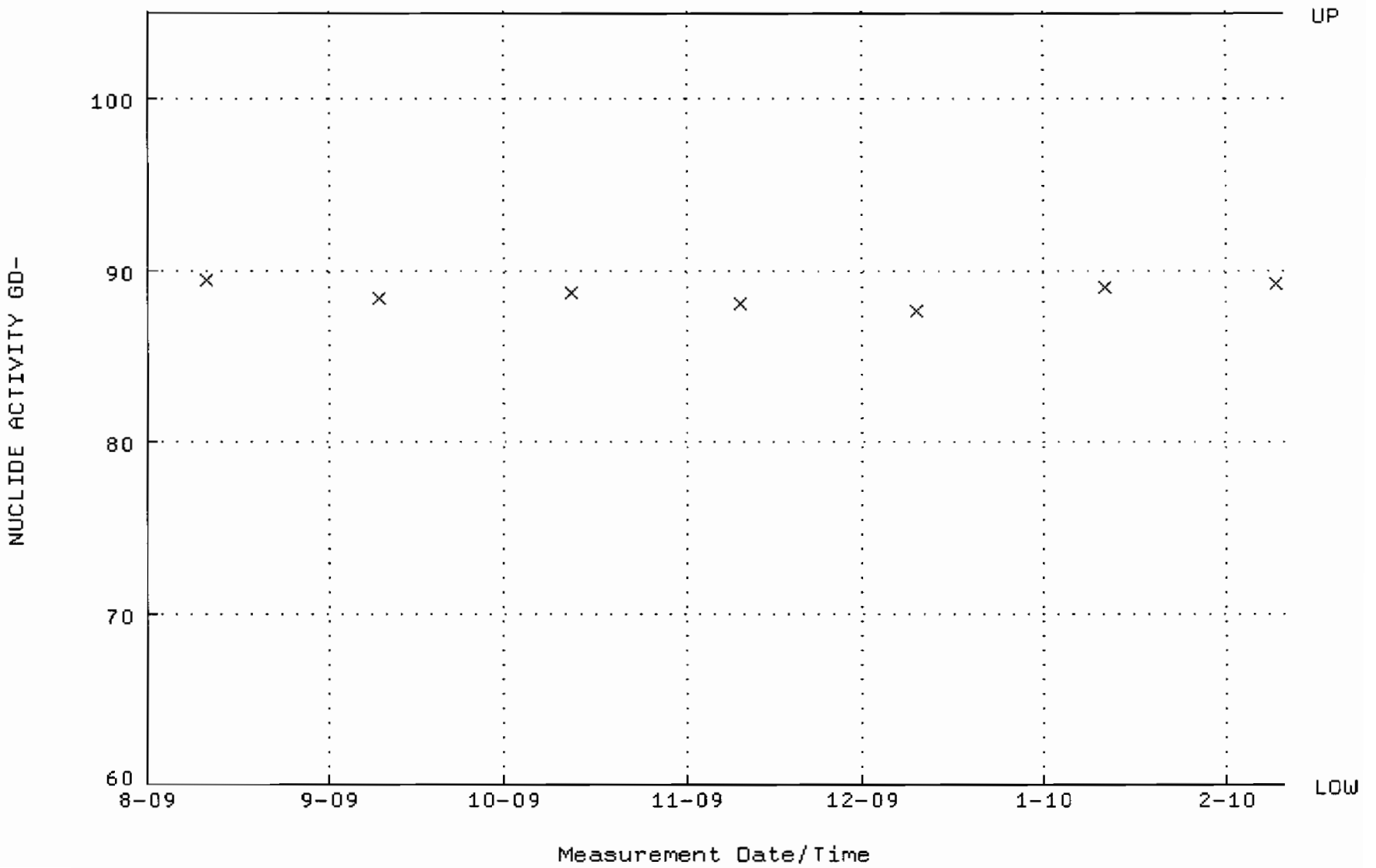

QA filename : DKA100:[ENV_ALPHA.QA.B]B083.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

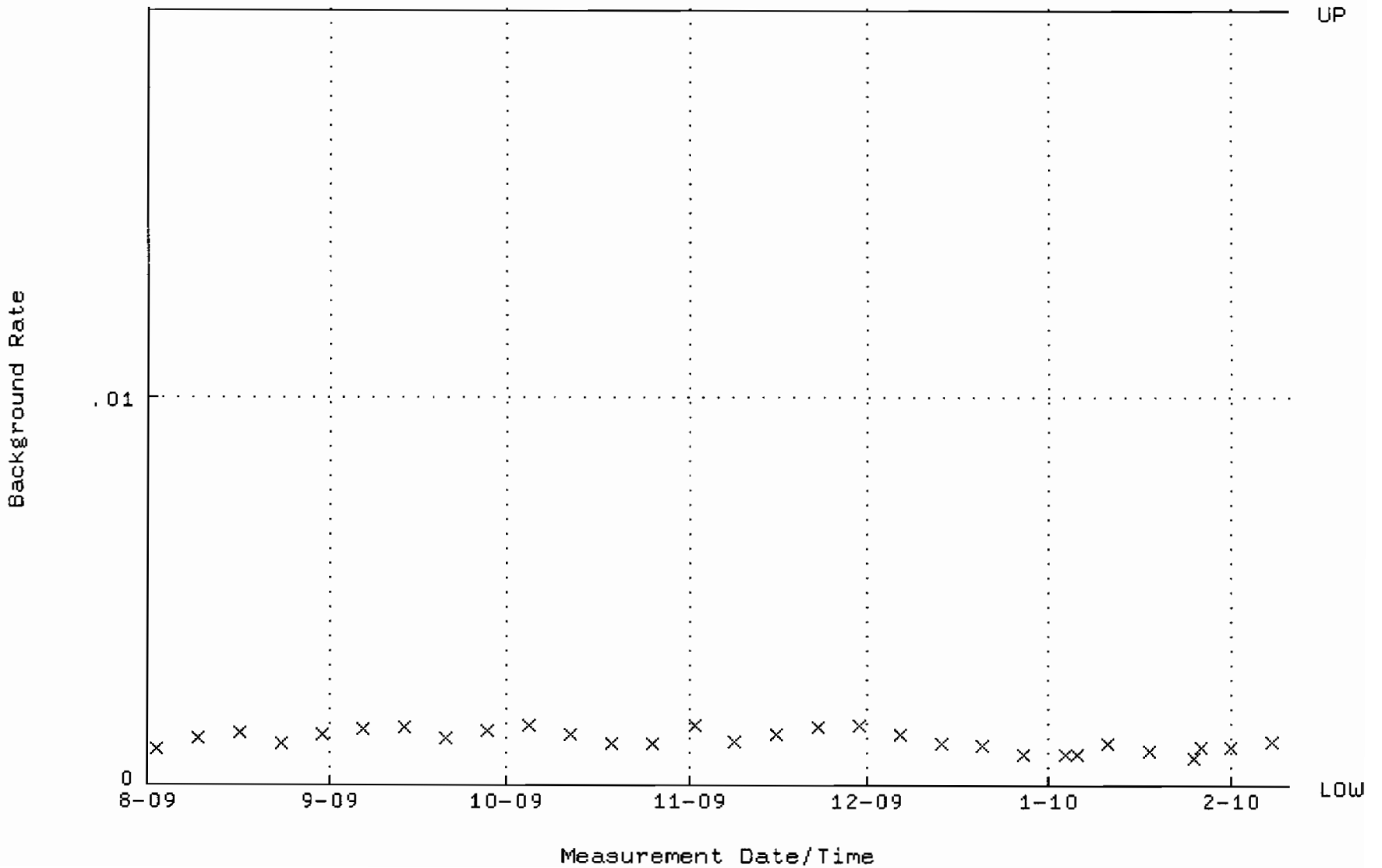

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.330740 through 0.350740

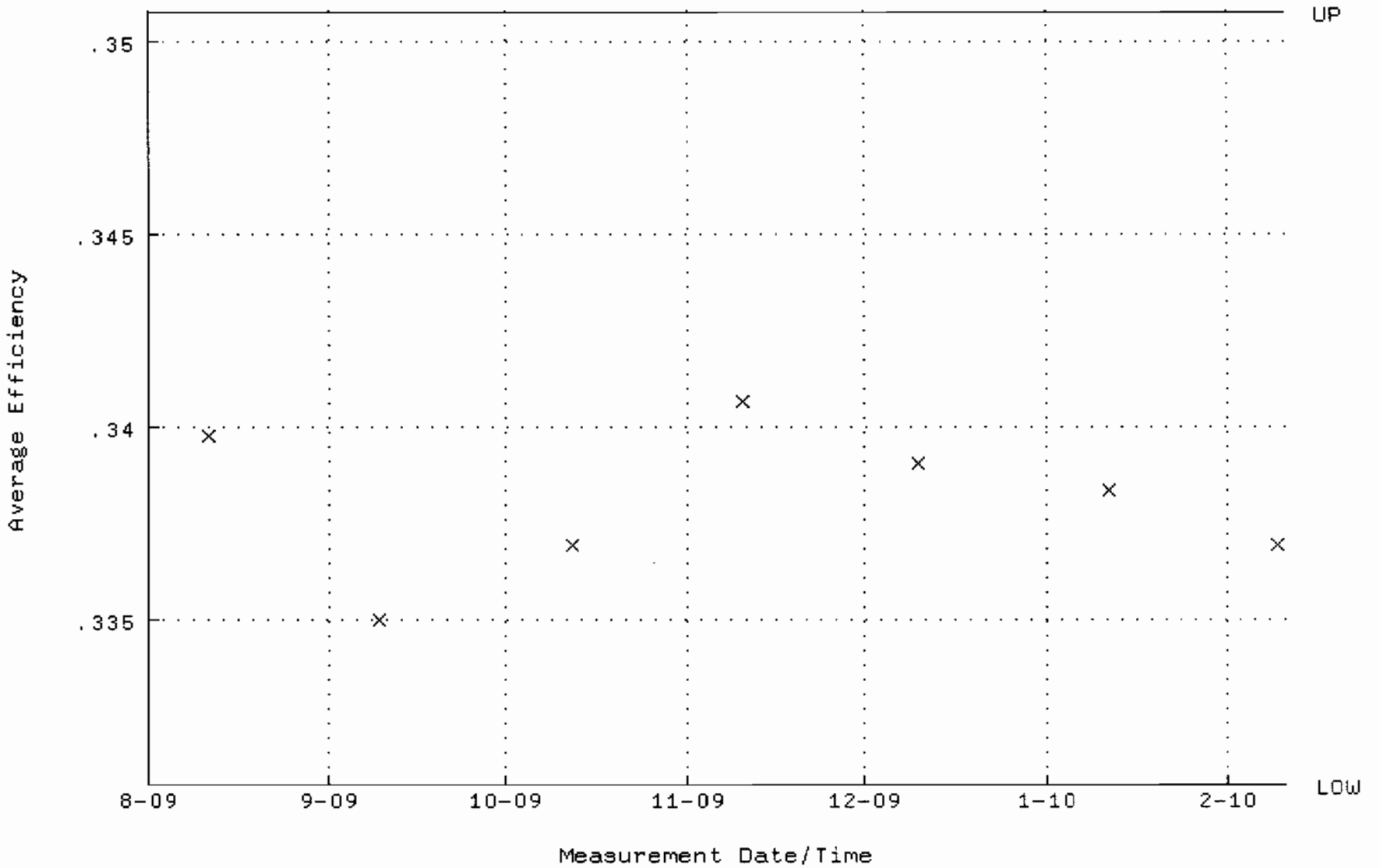

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0569 through 95.1155

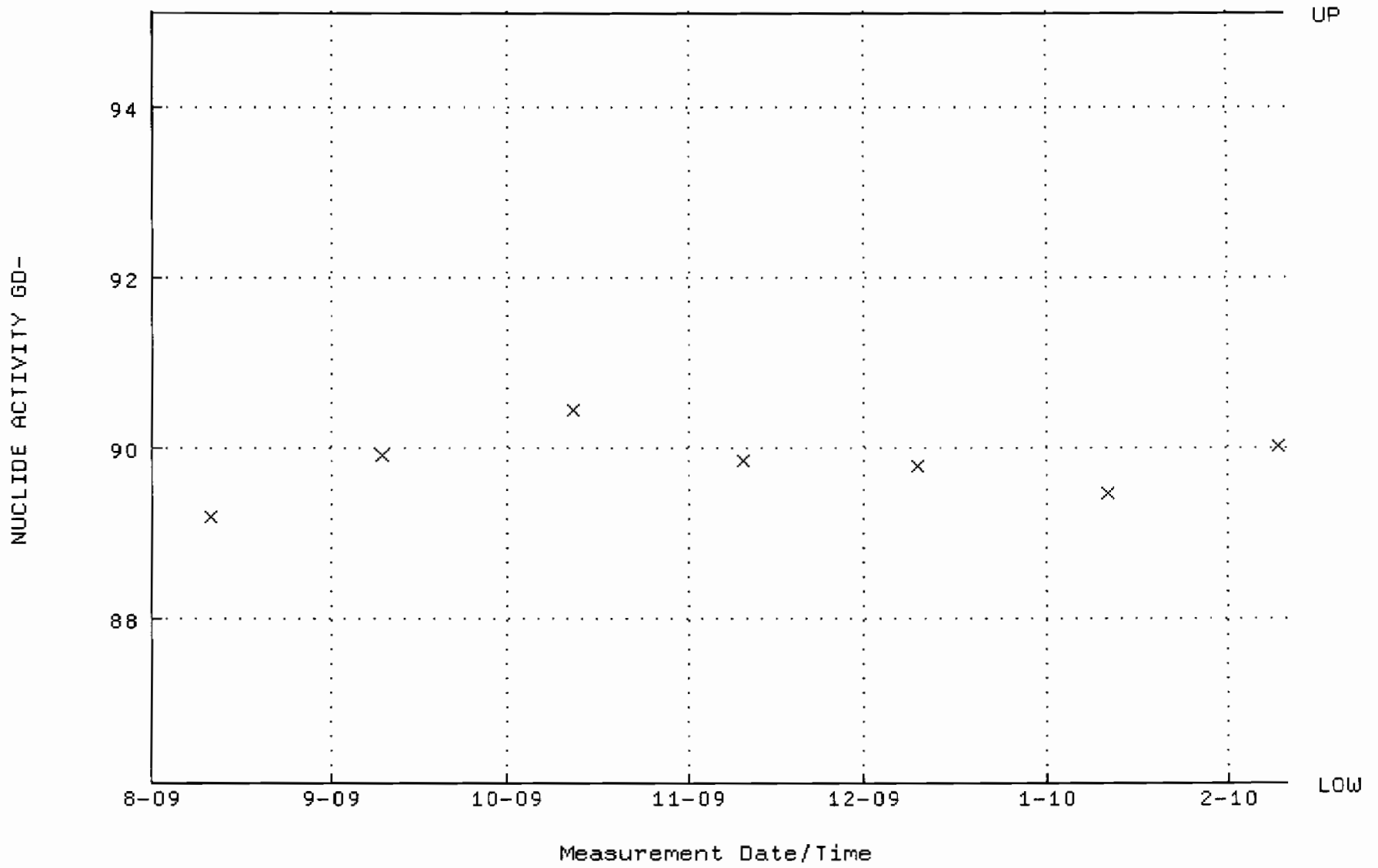

QA filename : DKA100:[ENV_ALPHA.QA.B]B084.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

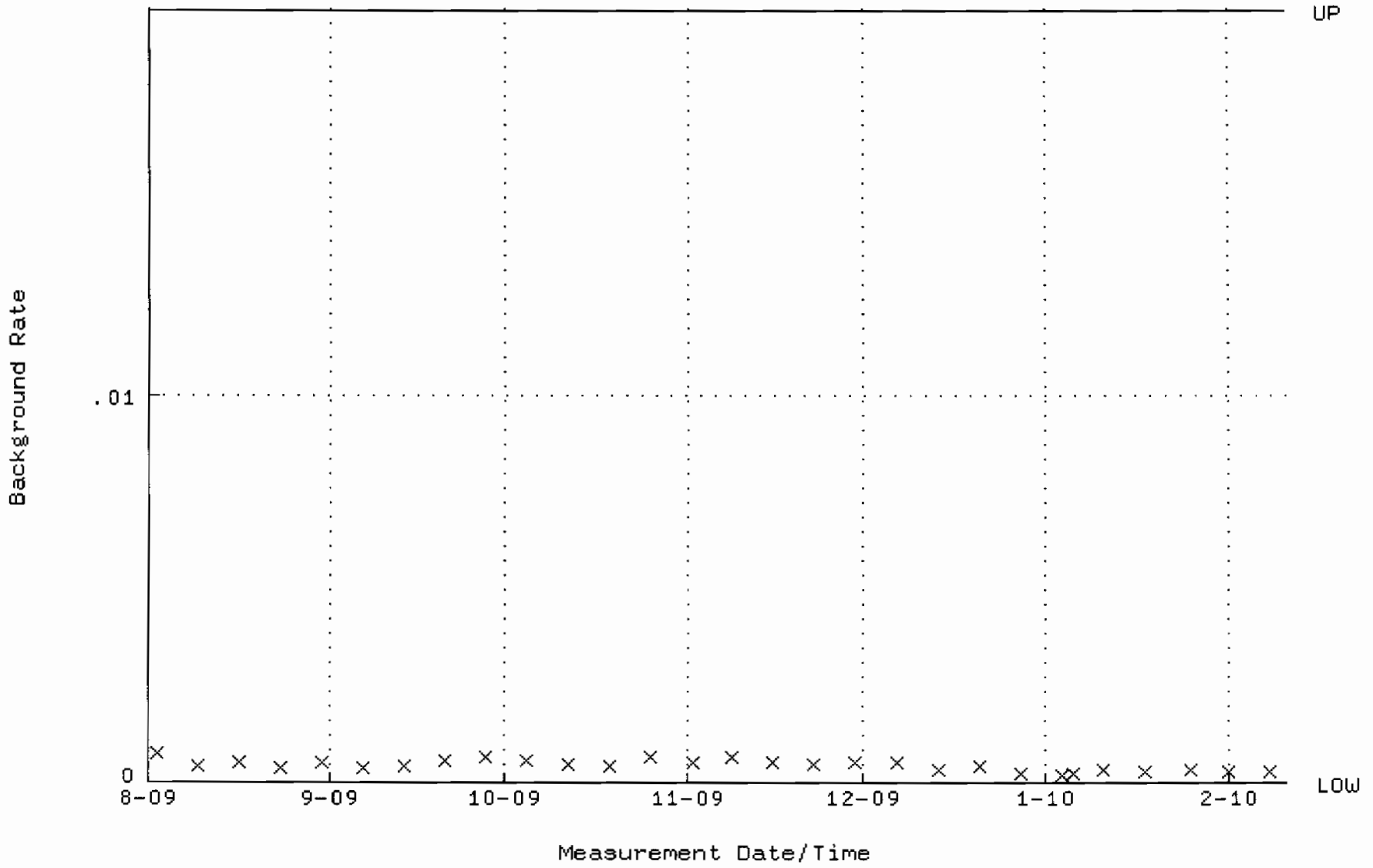

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313884 through 0.337714

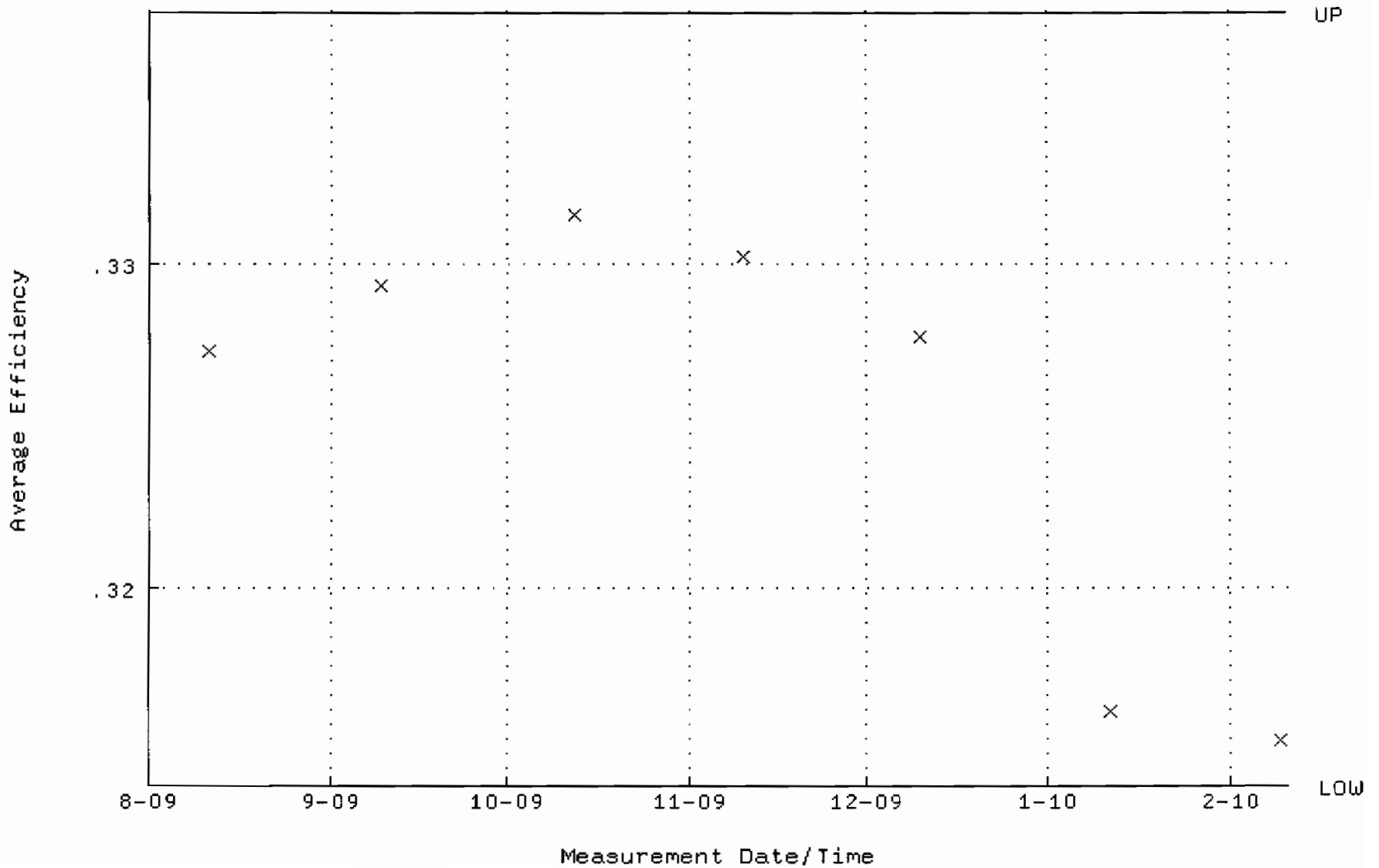

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4059 through 93.3969

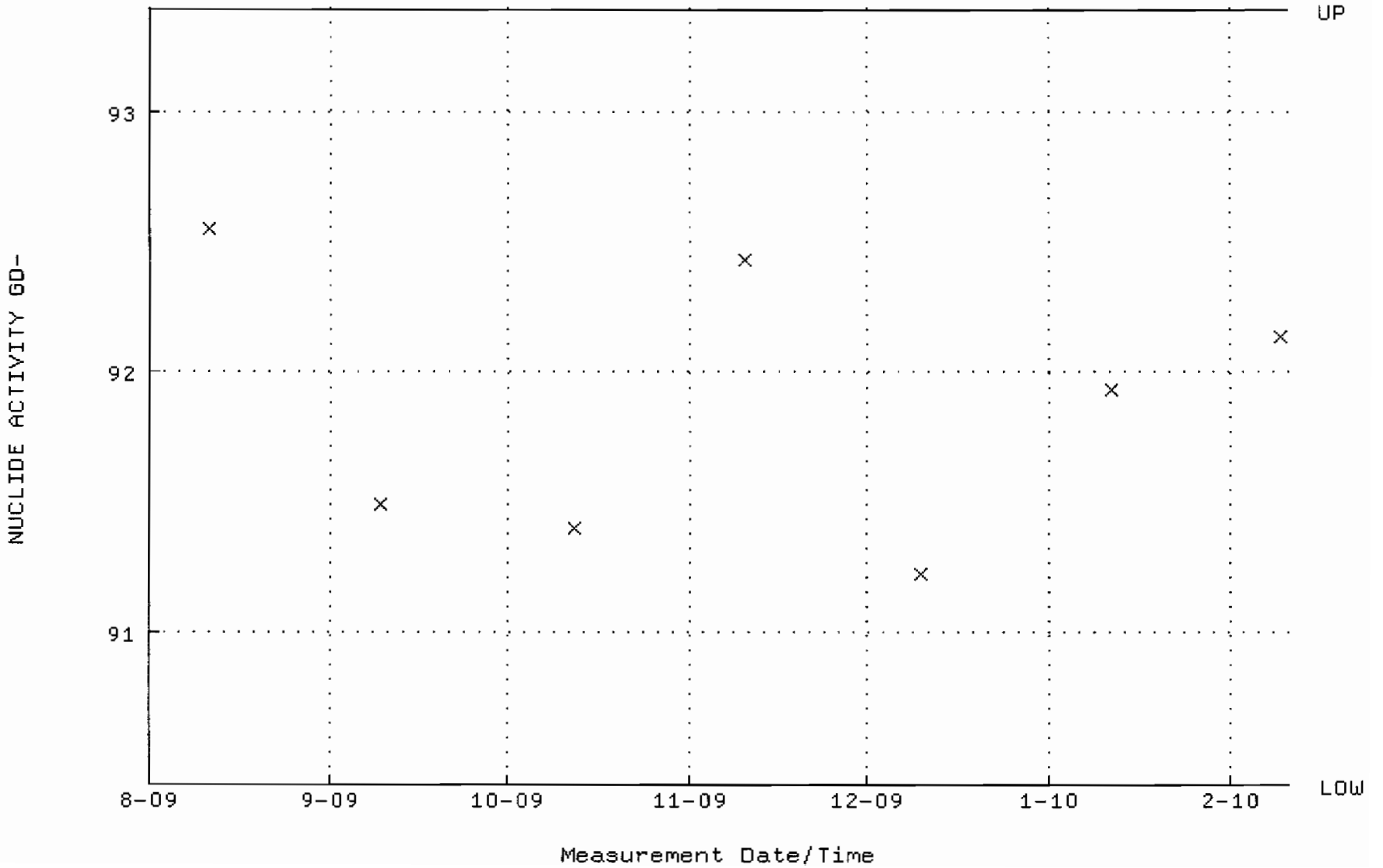

QA filename : DKA100:[ENV_ALPHA.QA.B]B085.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

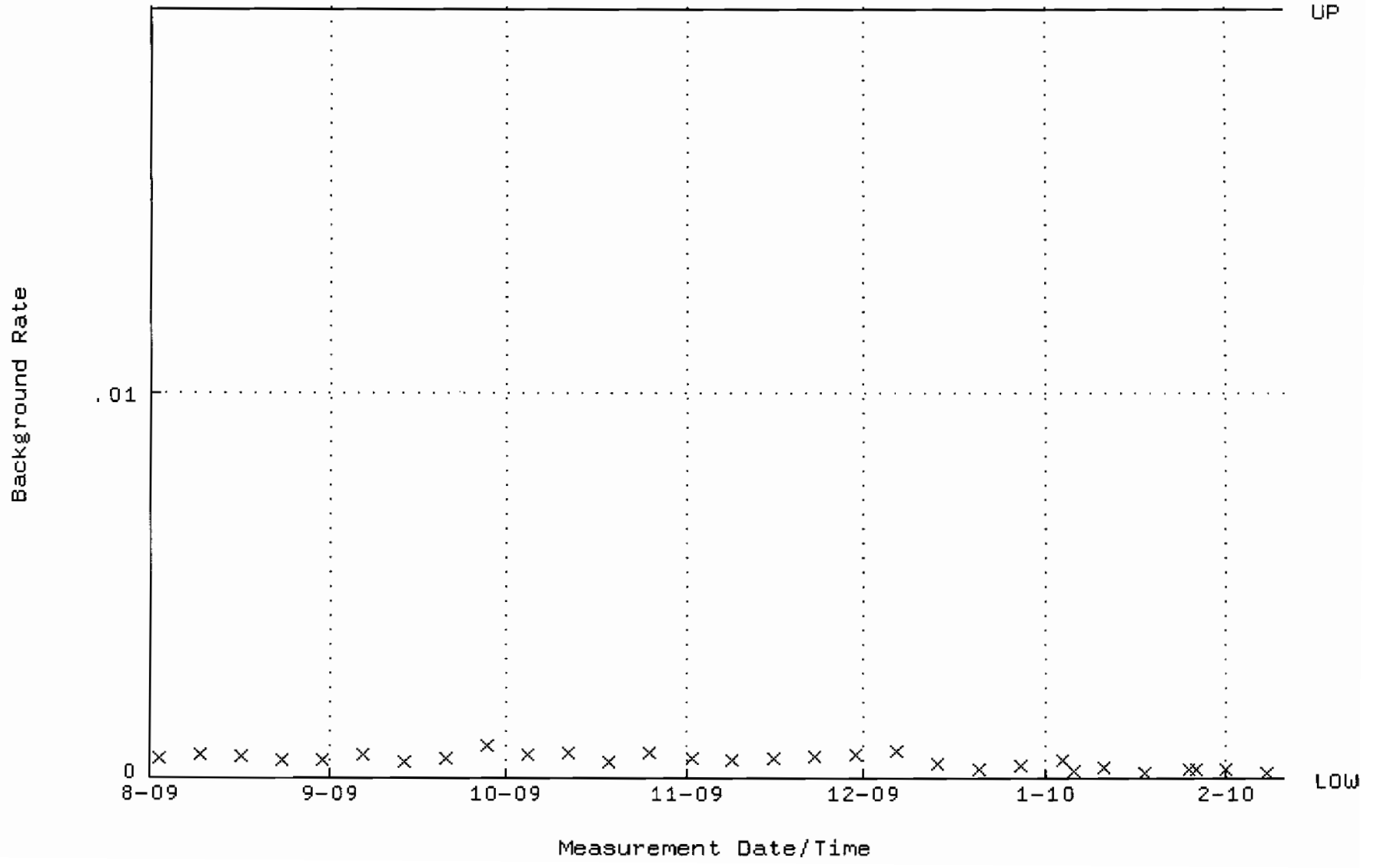

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.289508 through 0.309508

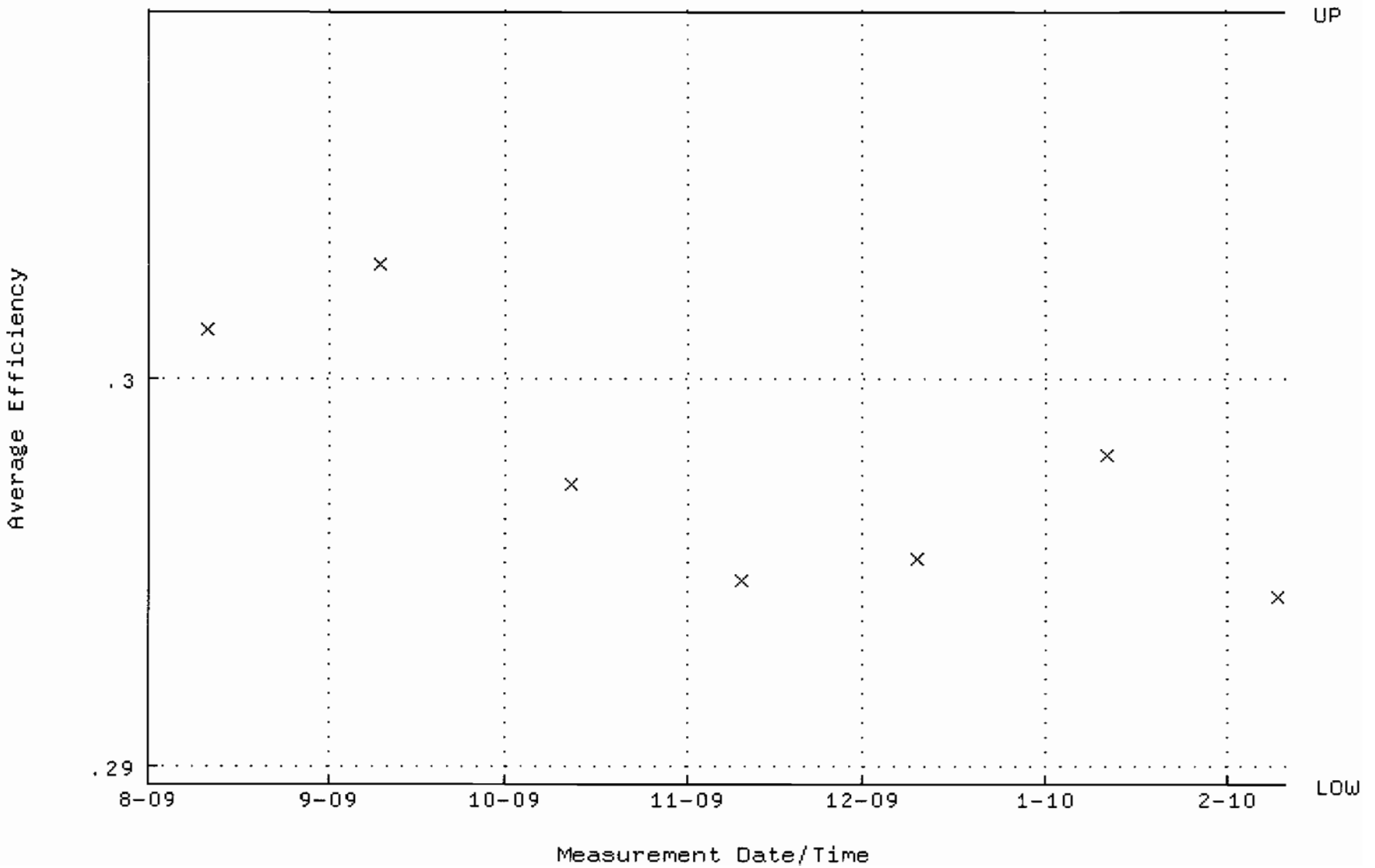

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.7898 through 97.0308

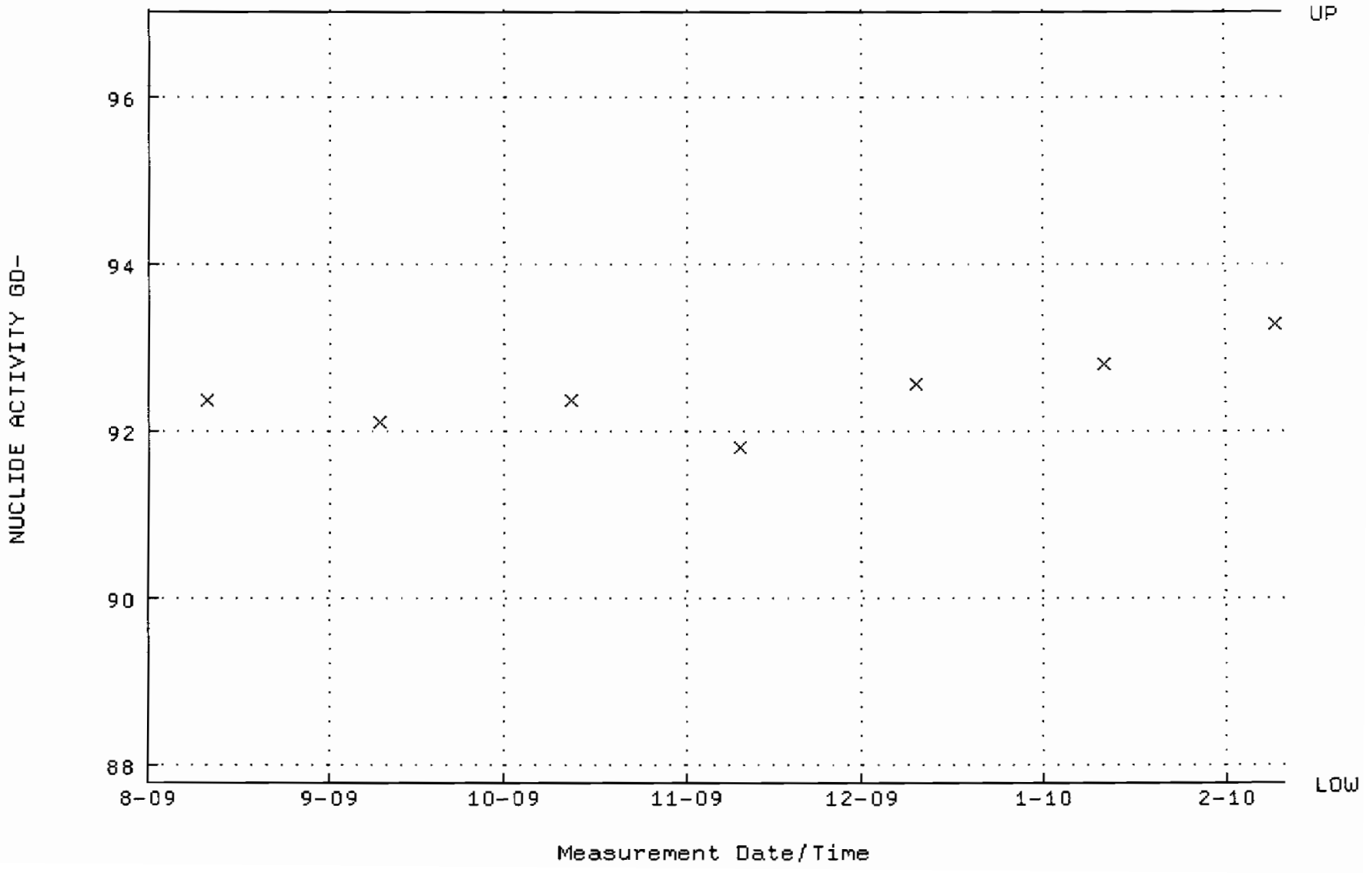

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

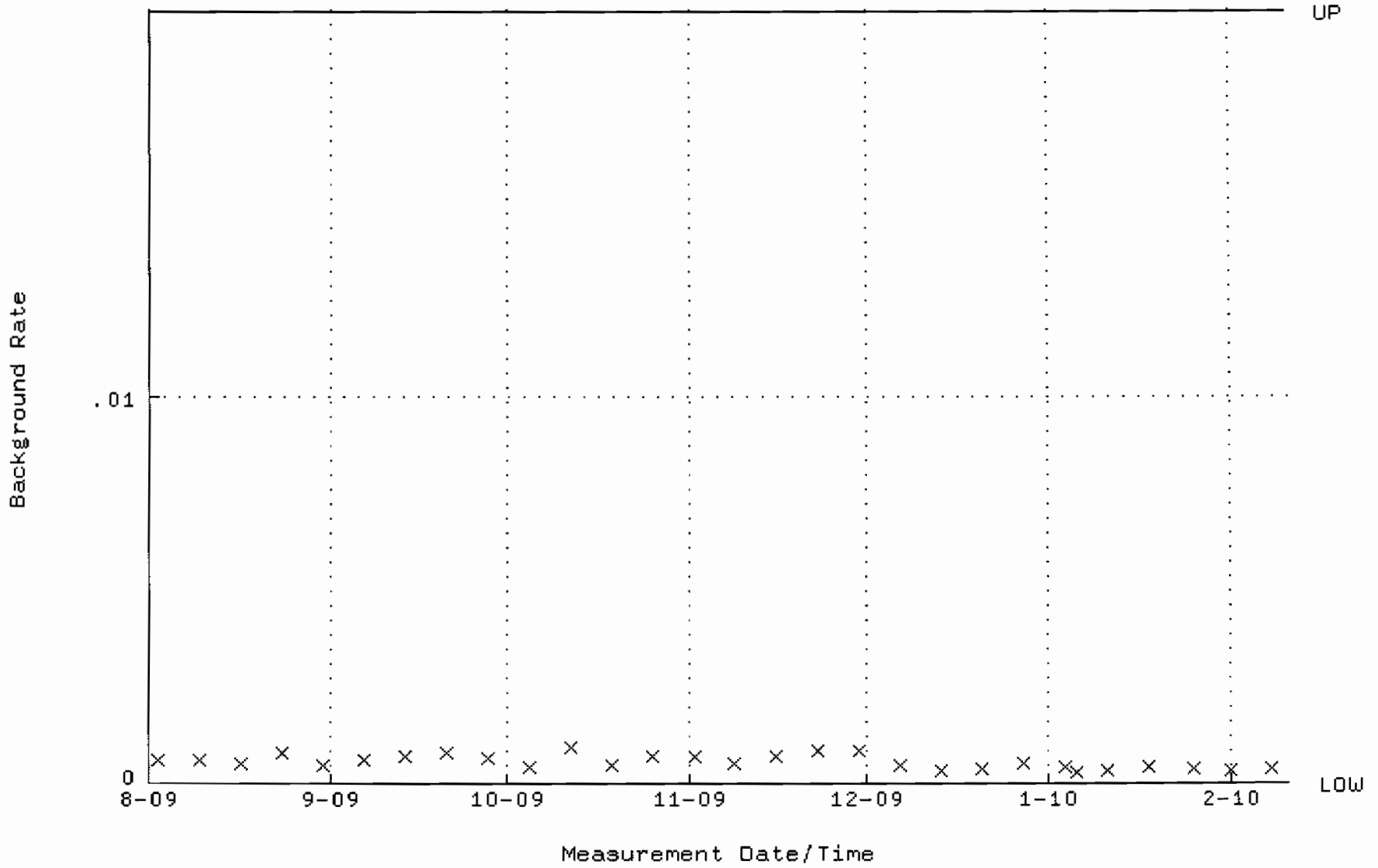

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.300530 through 0.320530

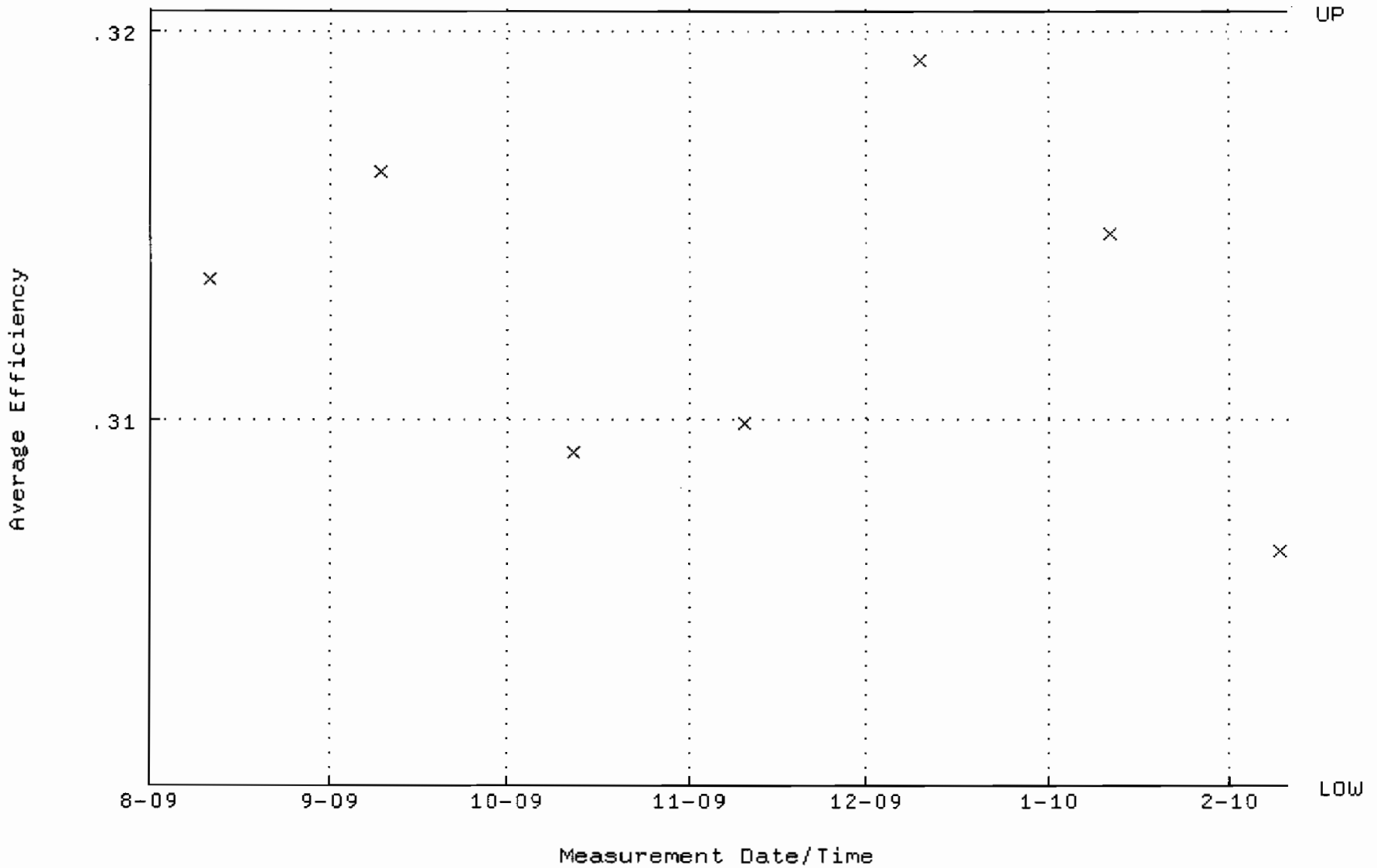

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1845 through 96.3619

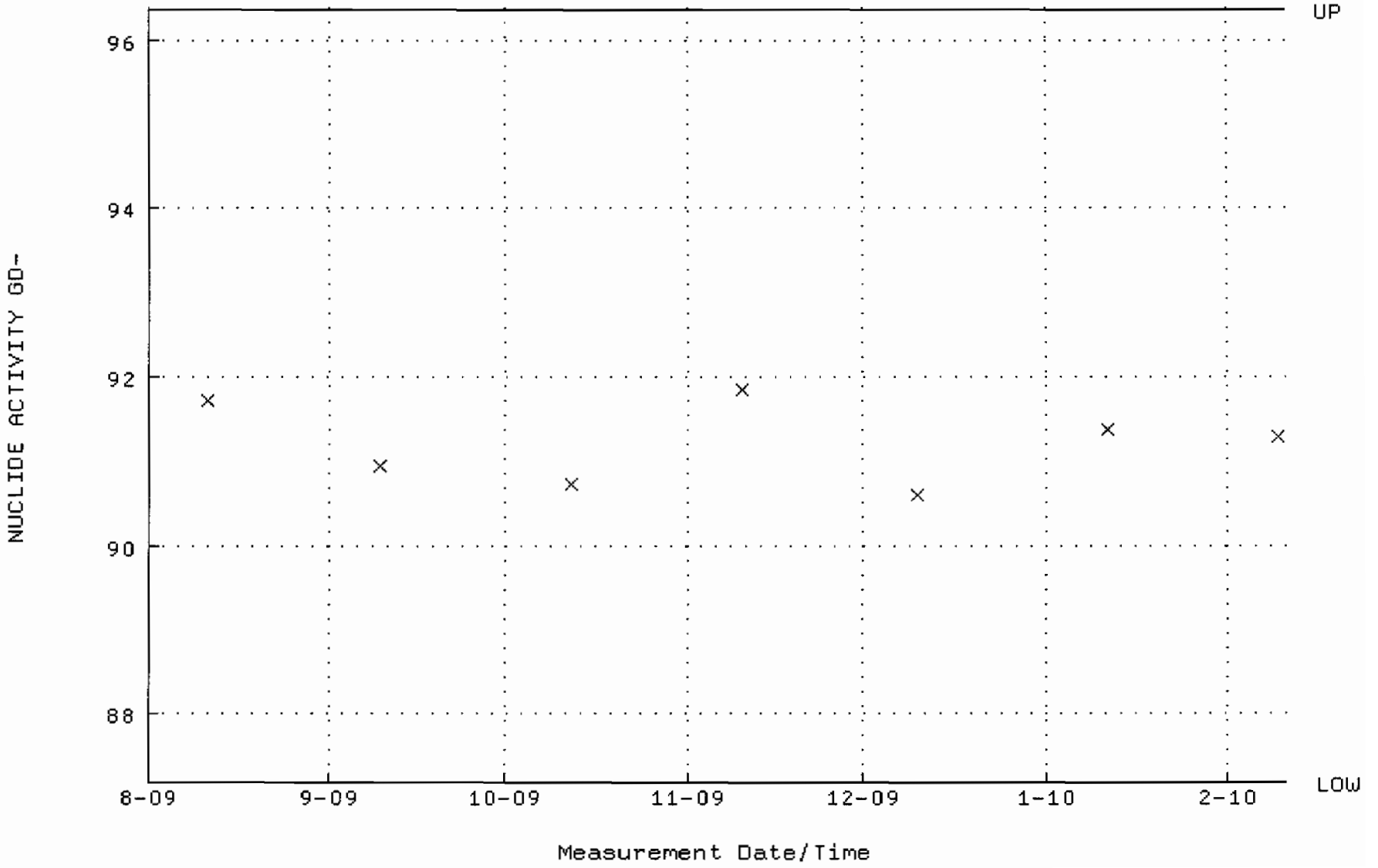

QA filename : DKA100:[ENV_ALPHA.QA.B]B087.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

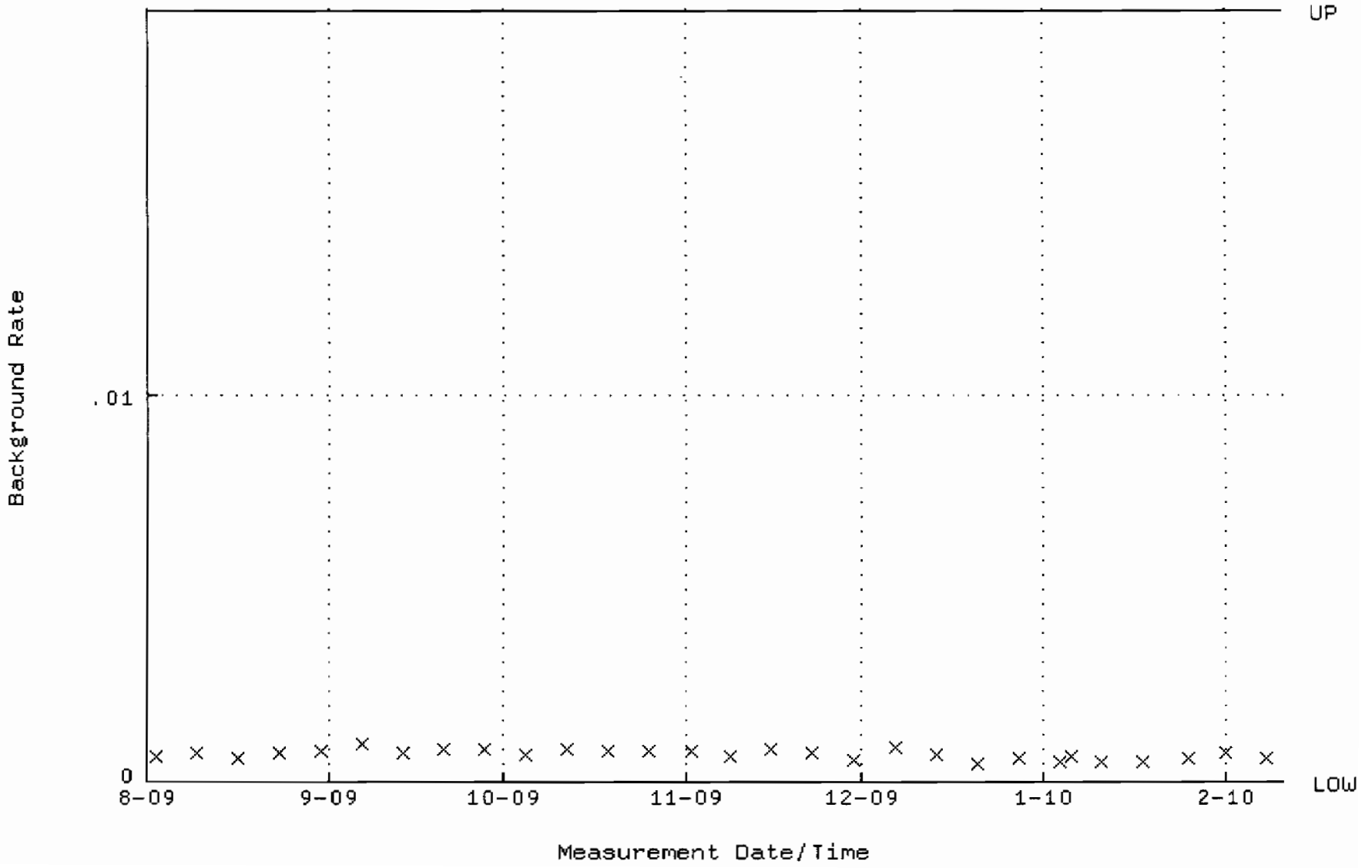

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:40:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242598 through 0.262598

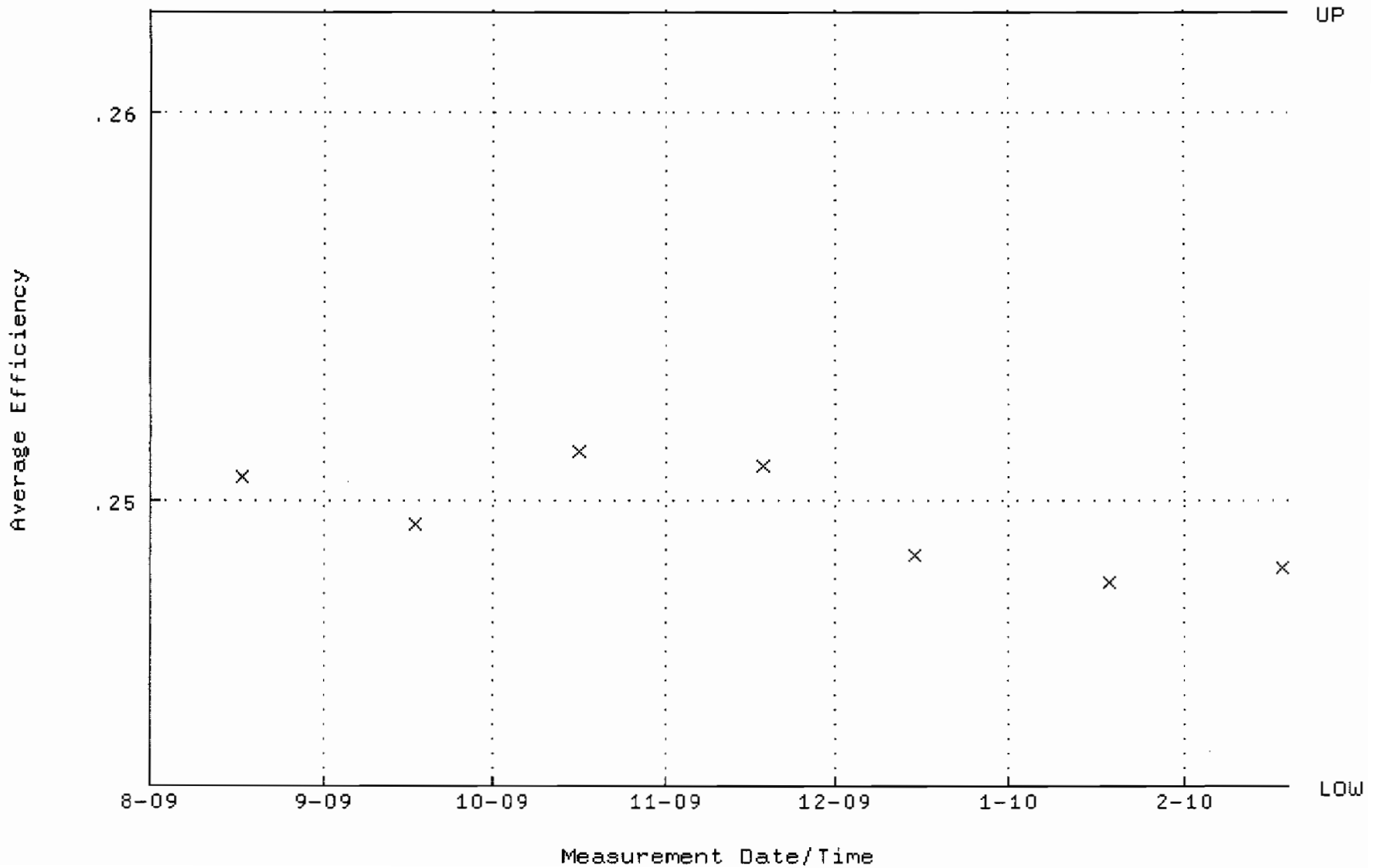

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:40:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5172 through 96.7296

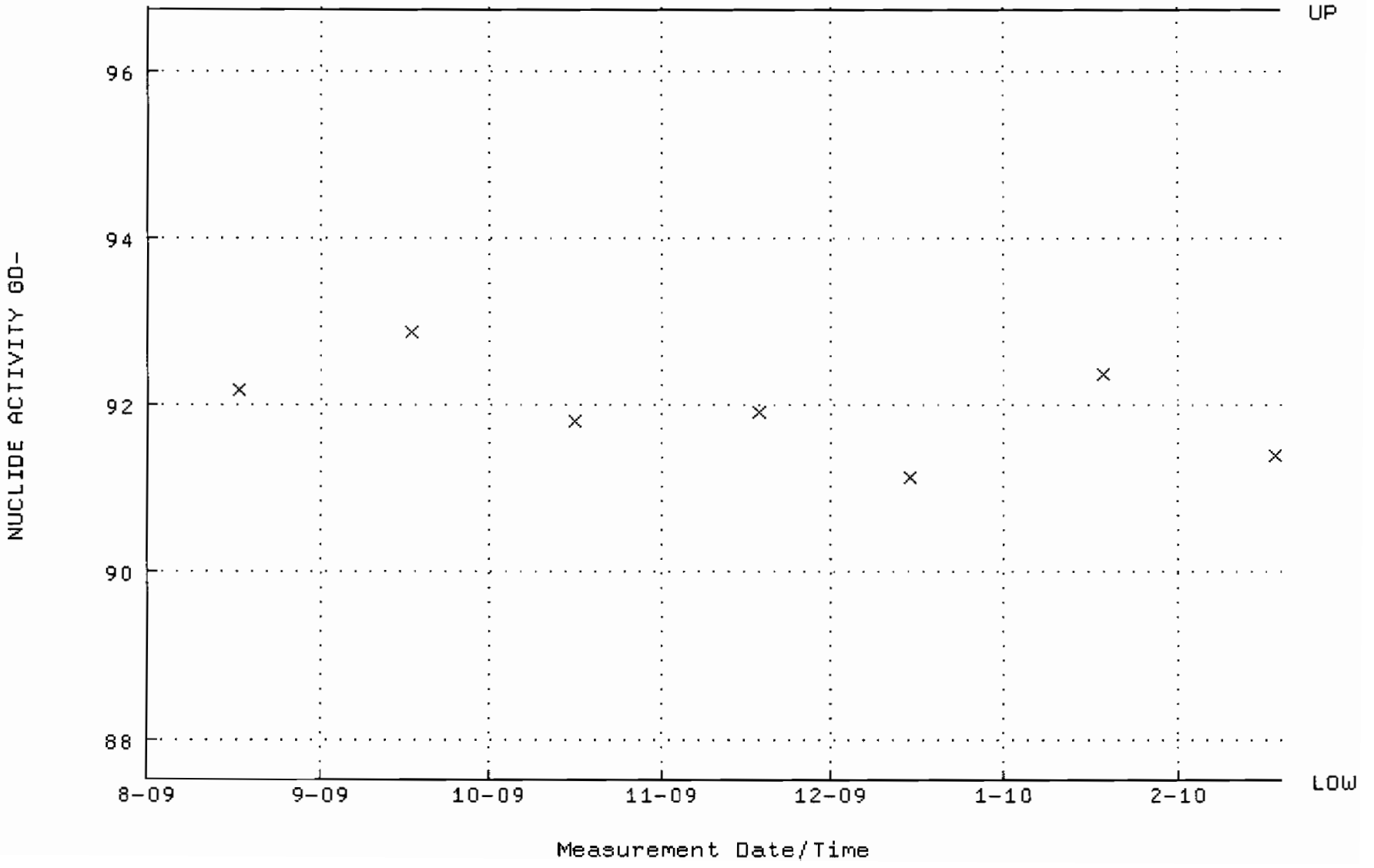

QA filename : DKA100:[ENV_ALPHA.QA.B]B113.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:11:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

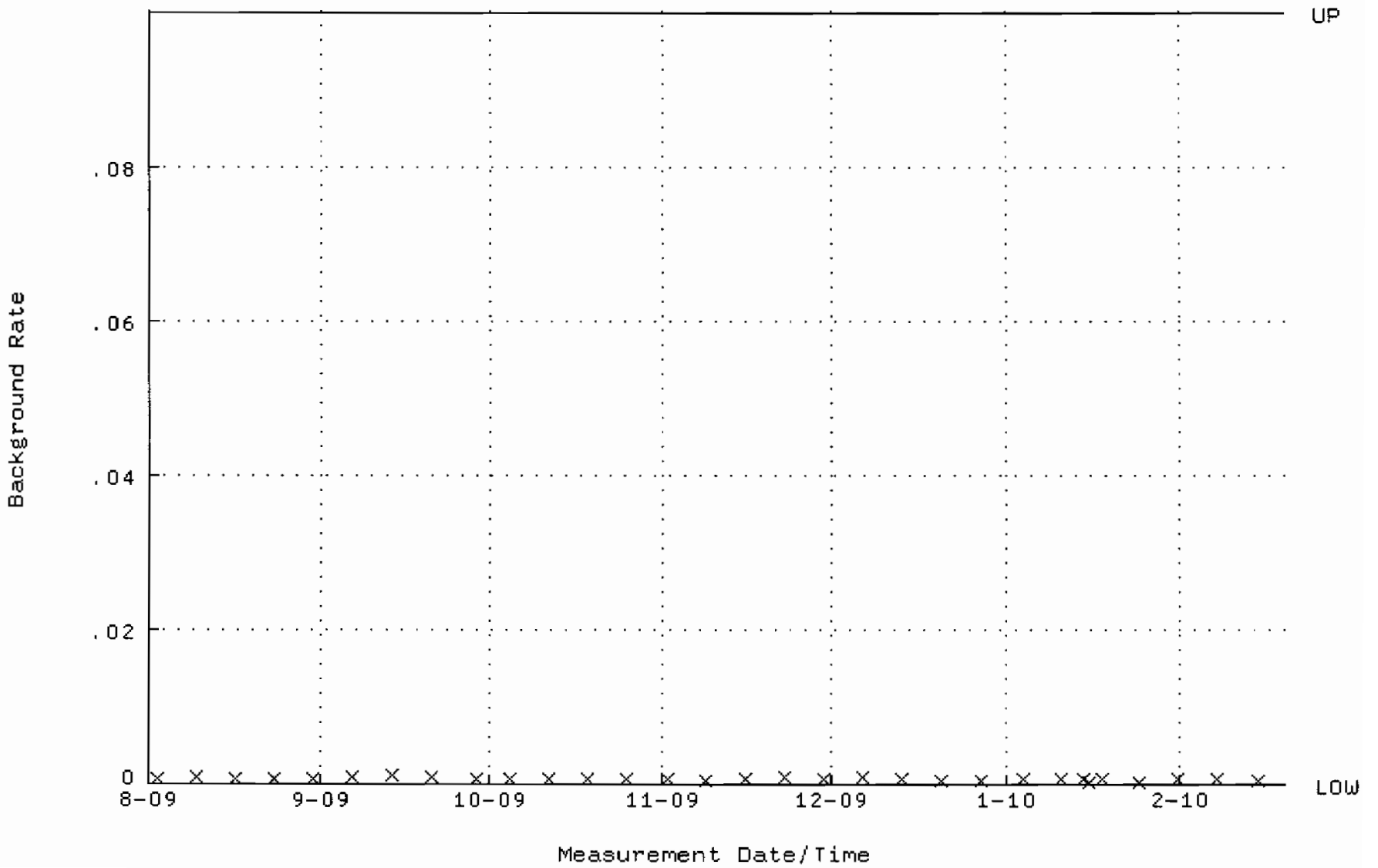

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:40:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.245499 through 0.265499

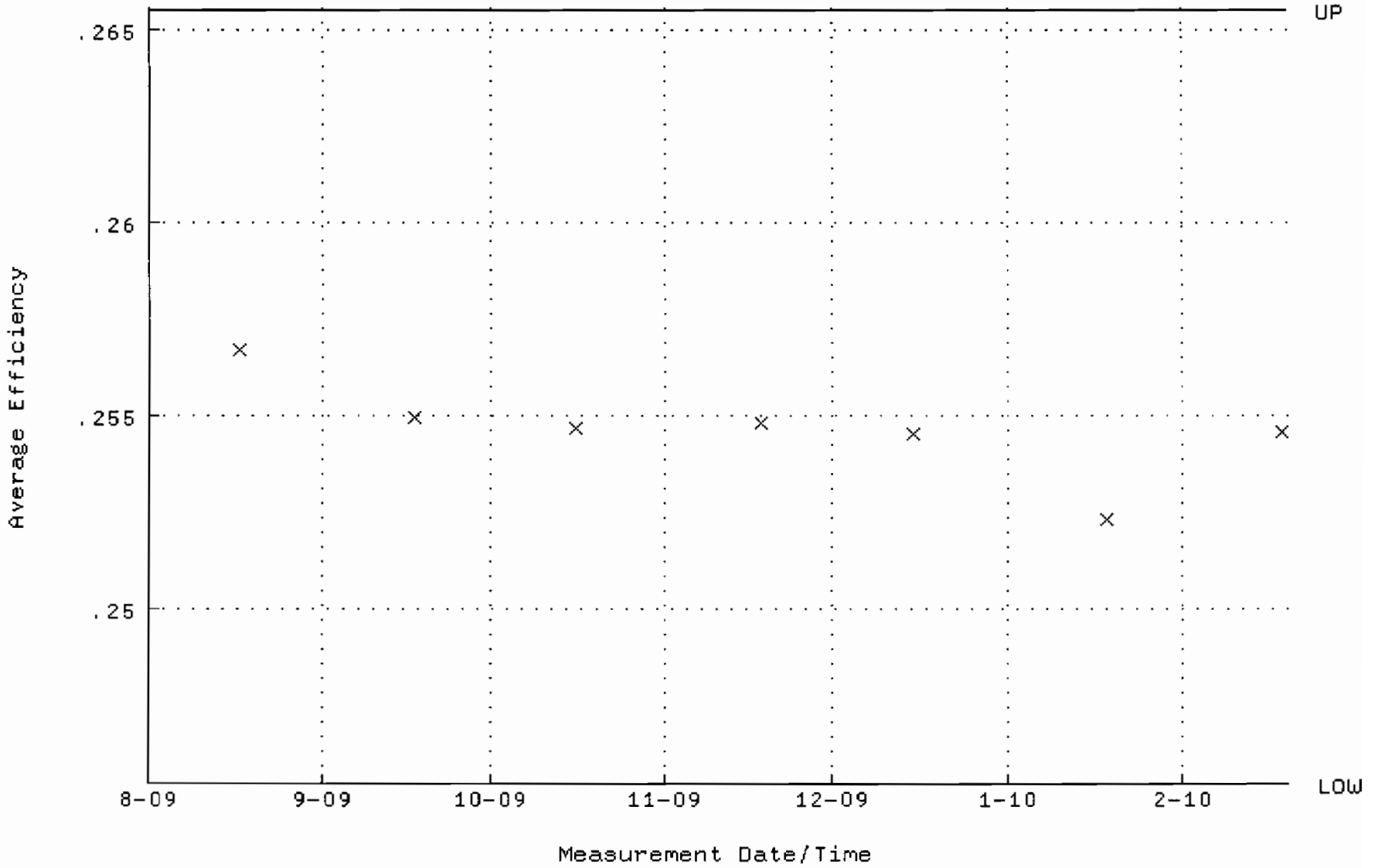

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:40:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.8108 through 97.0540

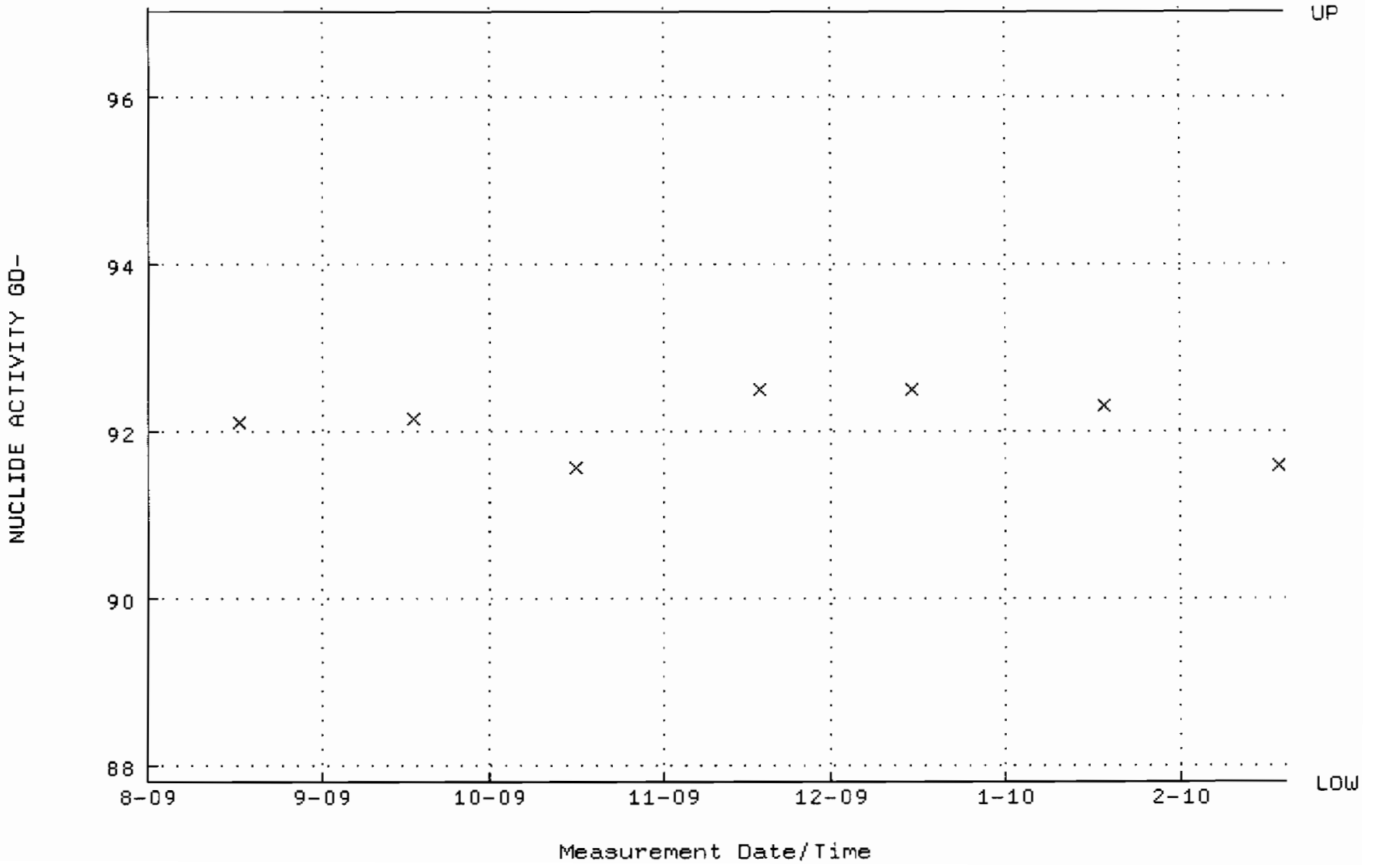

QA filename : DKA100:[ENV_ALPHA.QA.B]B114.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

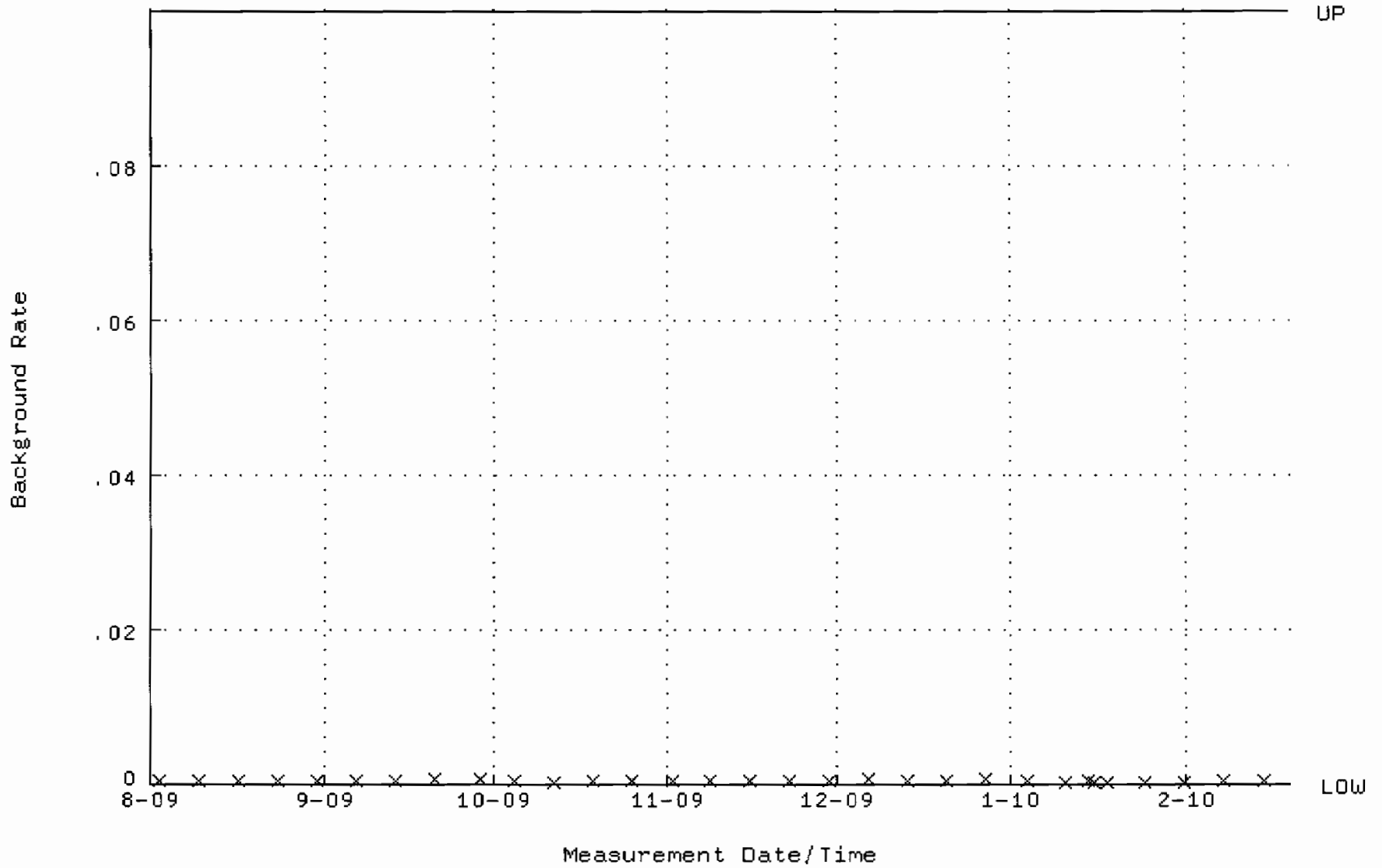

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.248404 through 0.268404

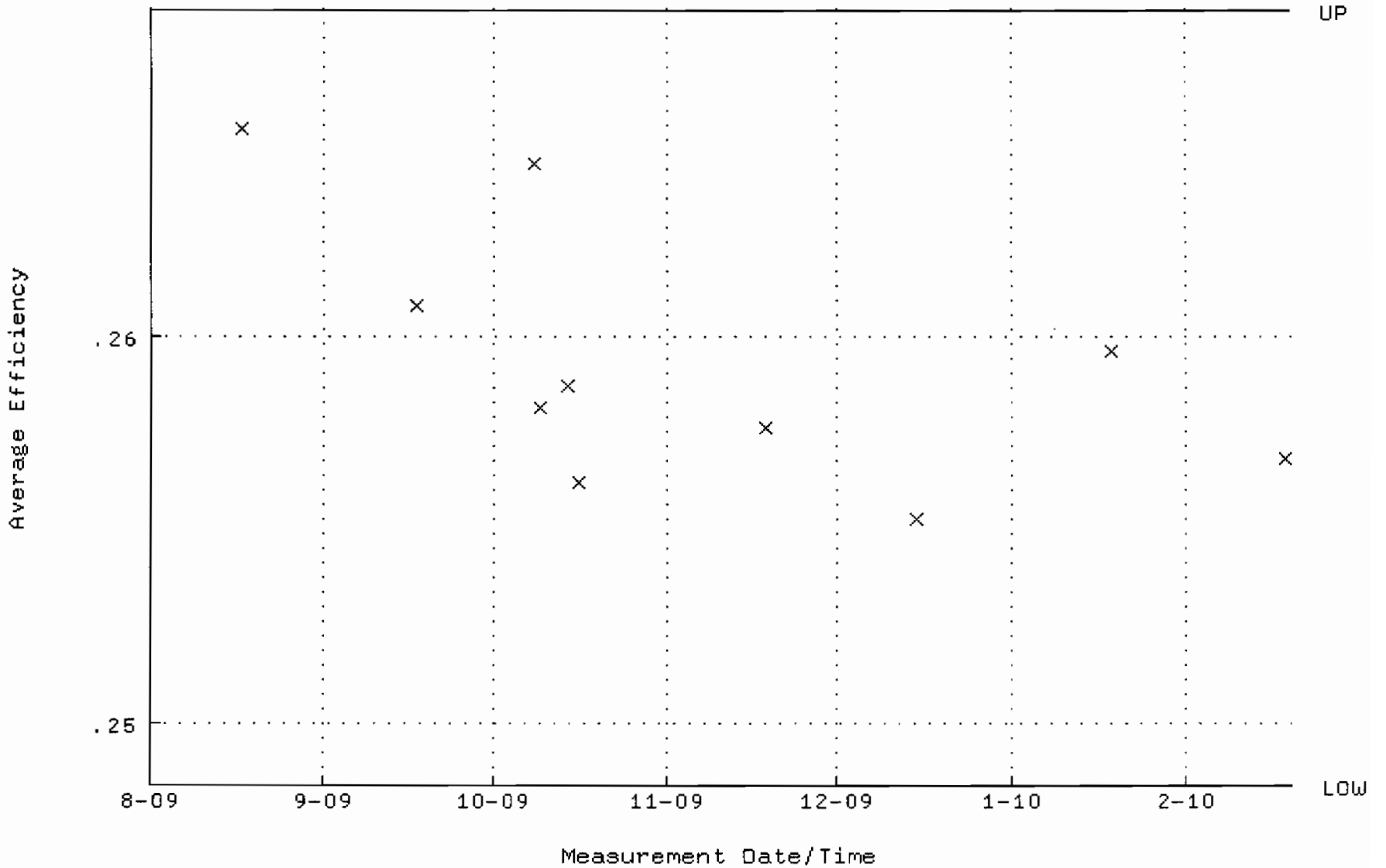

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5661 through 94.5731

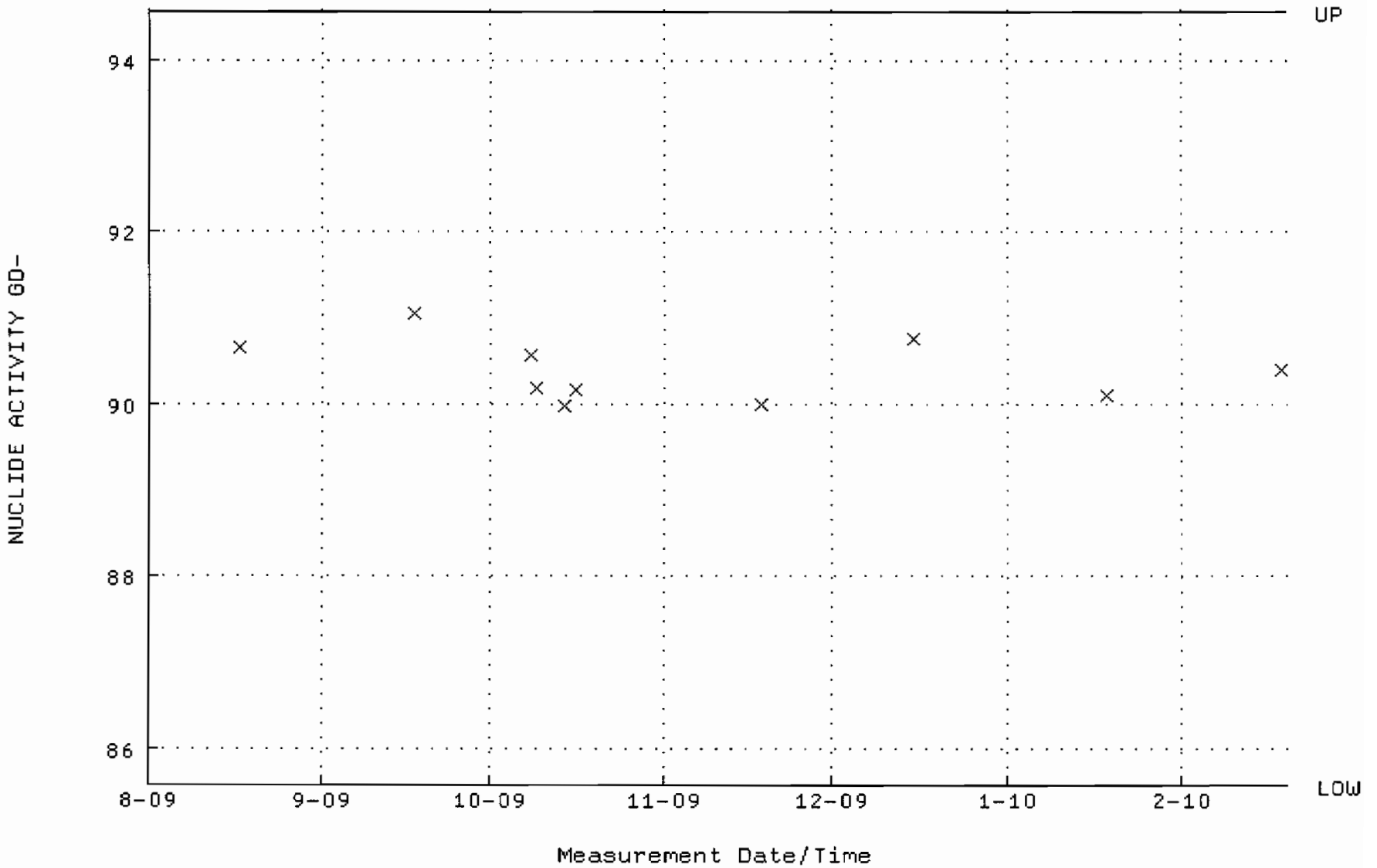

QA filename : DKA100:[ENV_ALPHA.QA.B]B115.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:05 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

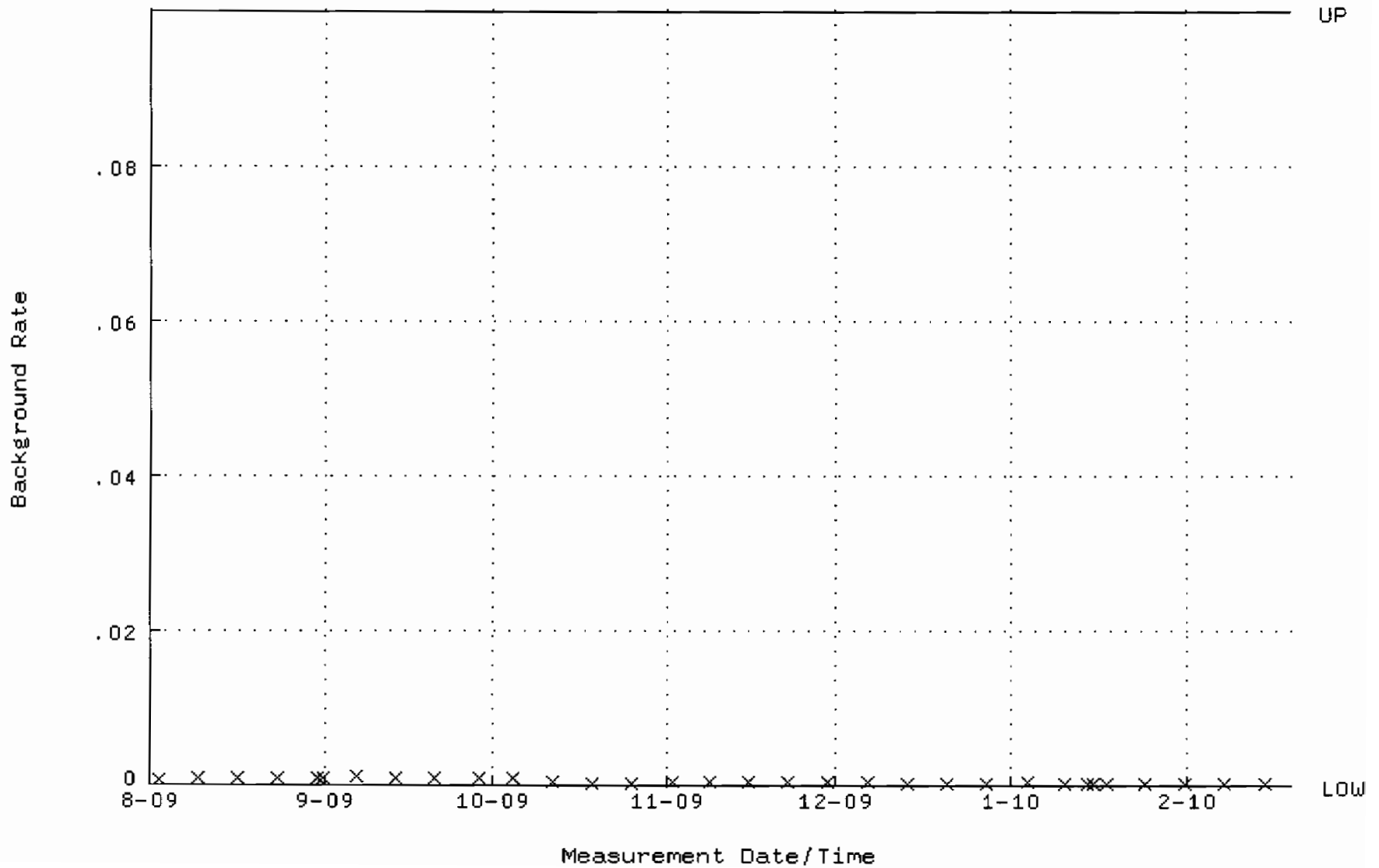

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 06:21:52 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.252093 through 0.260243

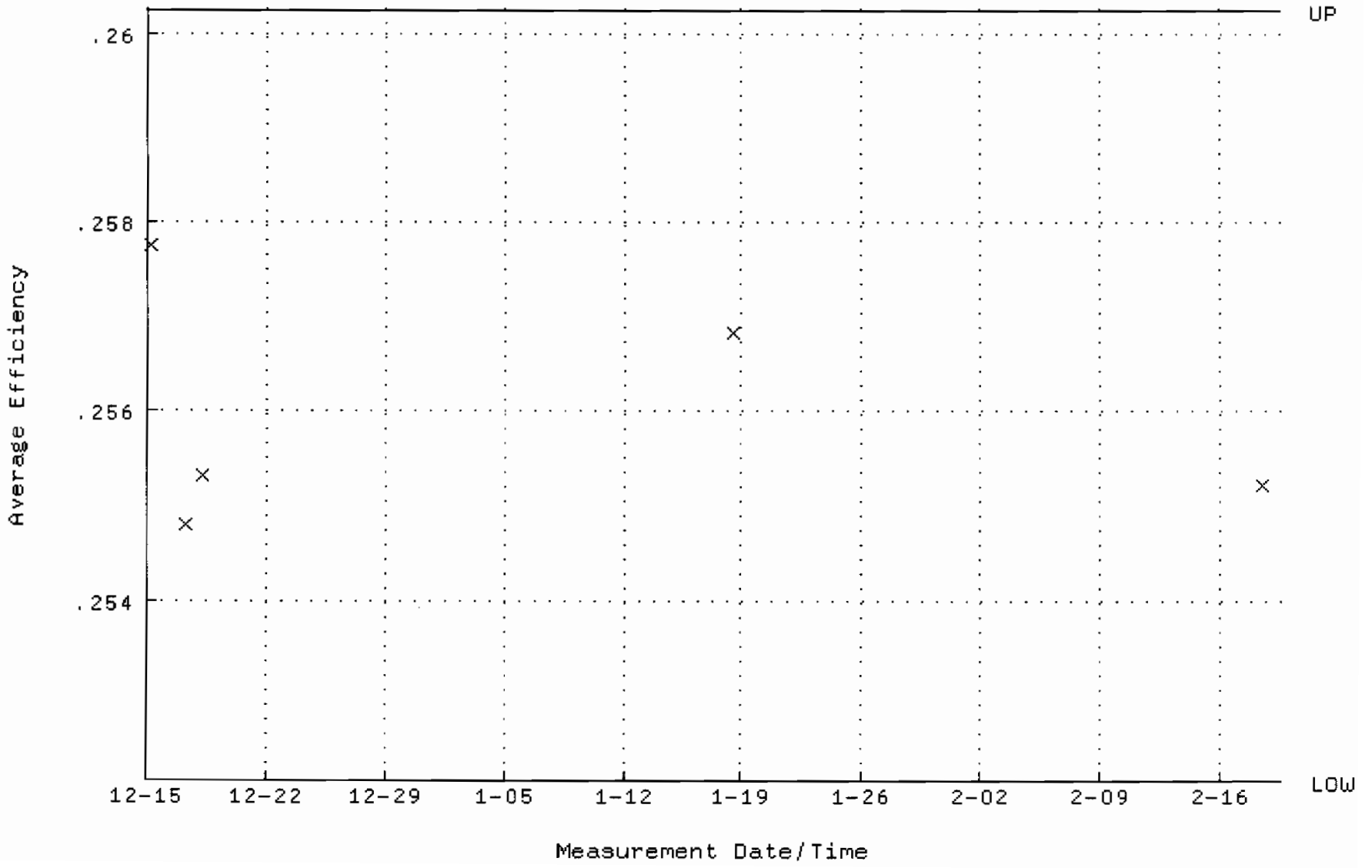

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 06:21:52 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4107 through 94.2781

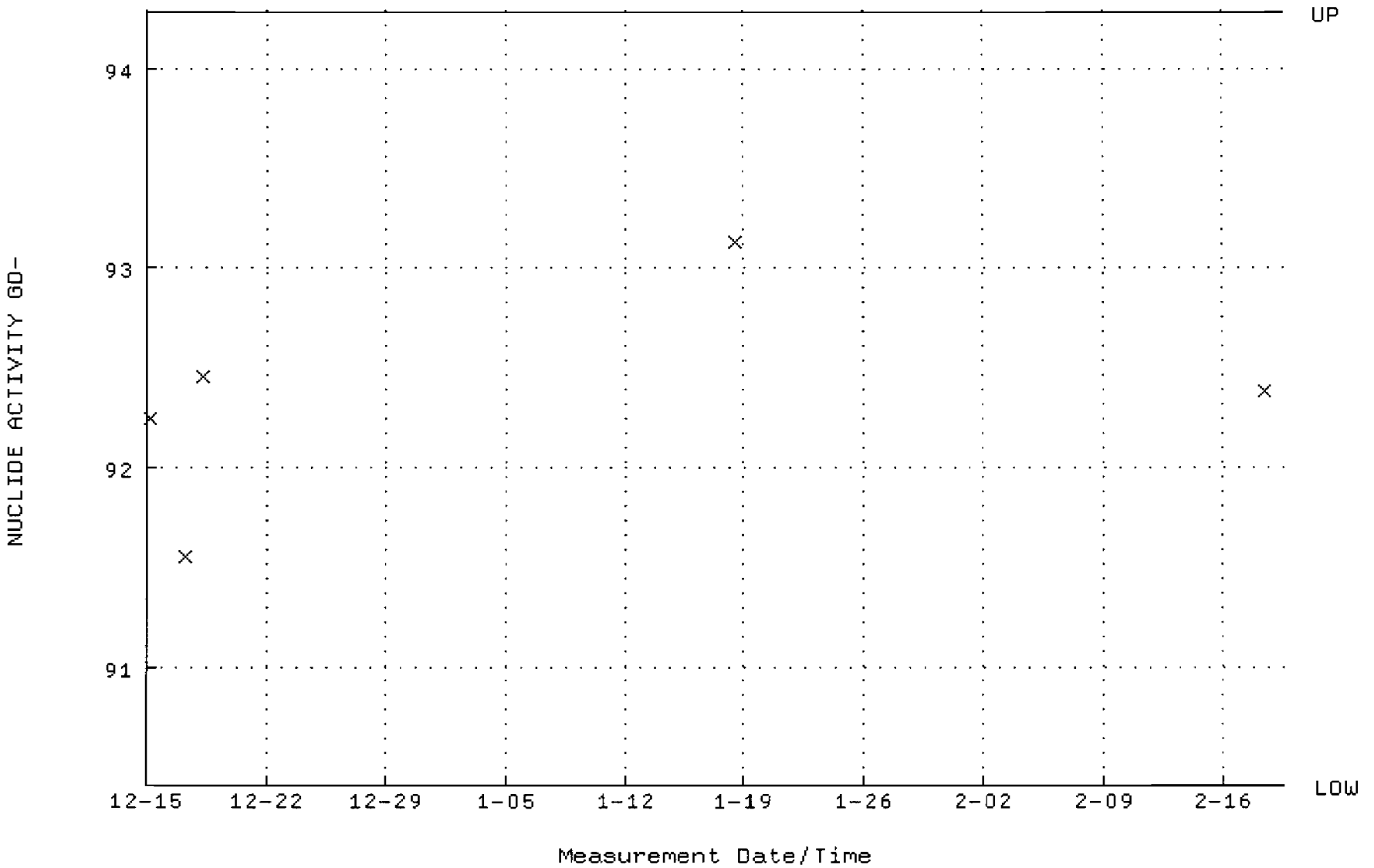

QA filename : DKA100:[ENV_ALPHA.QA.B]B119.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 3-AUG-2009 15:38:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

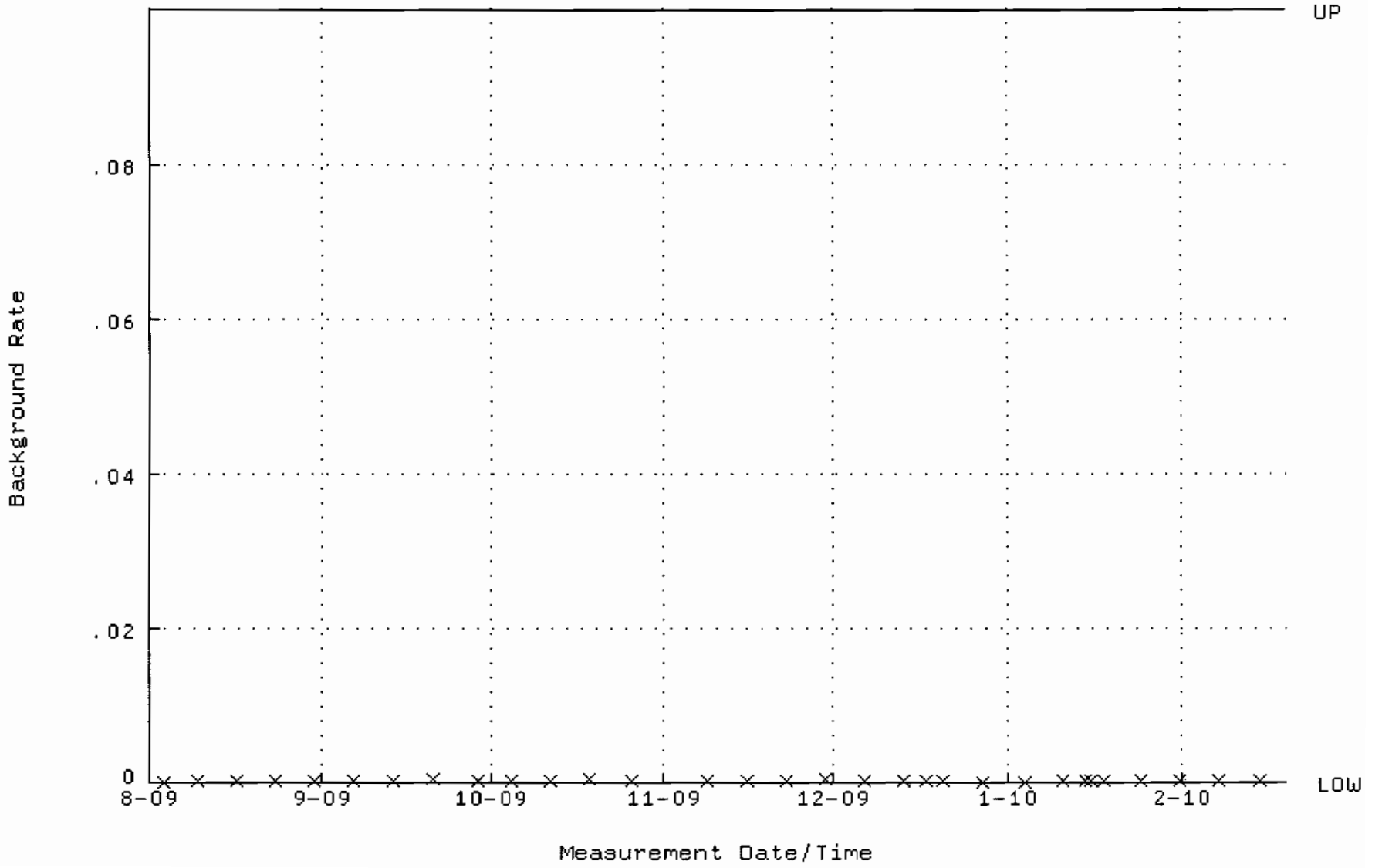

QA filename : DKA100:[ENV_ALPHA.QA.W]W162.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 23-JUL-2009 08:07:02 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.363287 through 0.383287

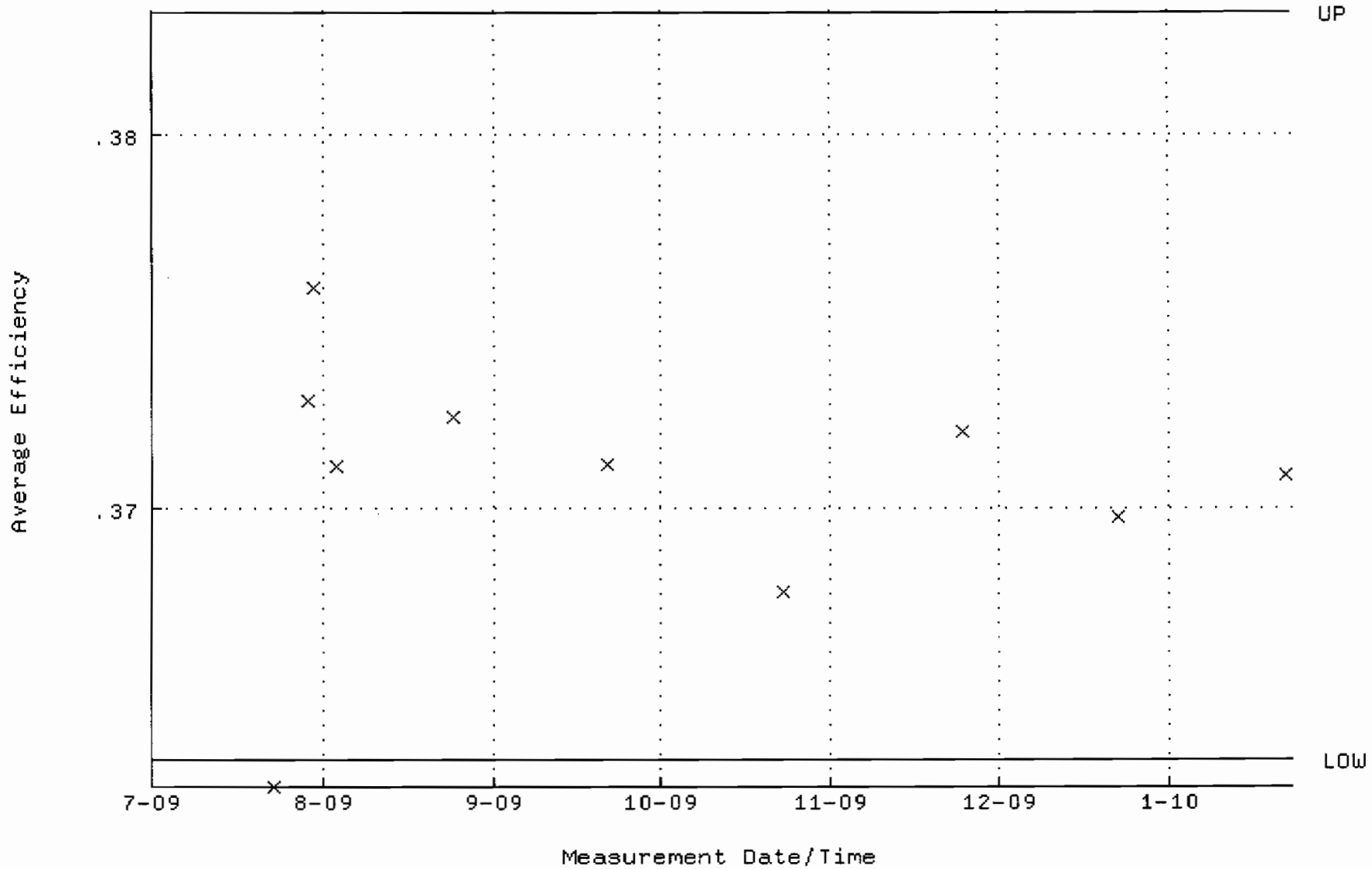

QA filename : DKA100:[ENV_ALPHA.QA.W]W162.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 23-JUL-2009 08:07:02 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 85.8969 through 94.9387

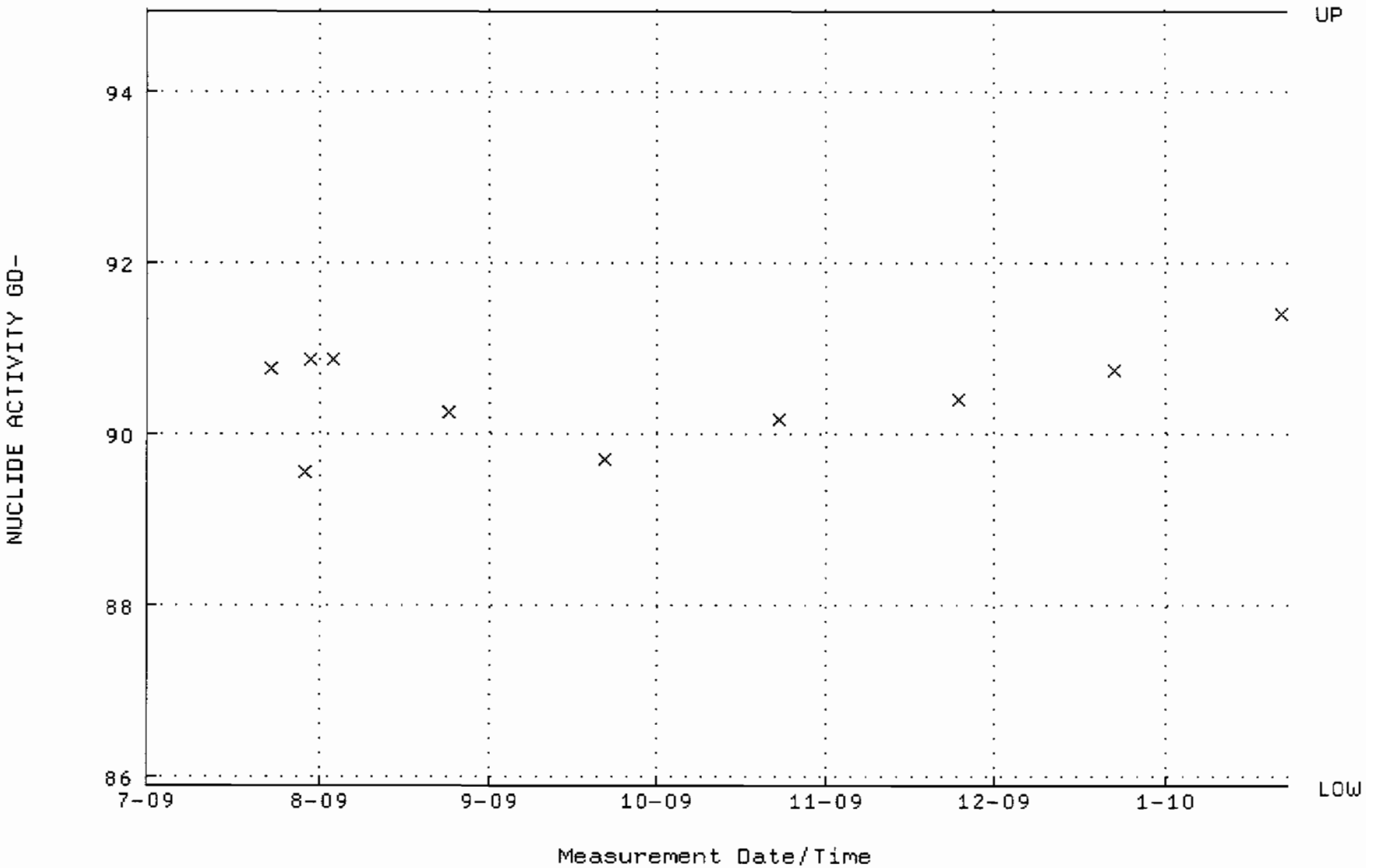

QA filename : DKA100:[ENV_ALPHA.QA.B]B162.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:59:33 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

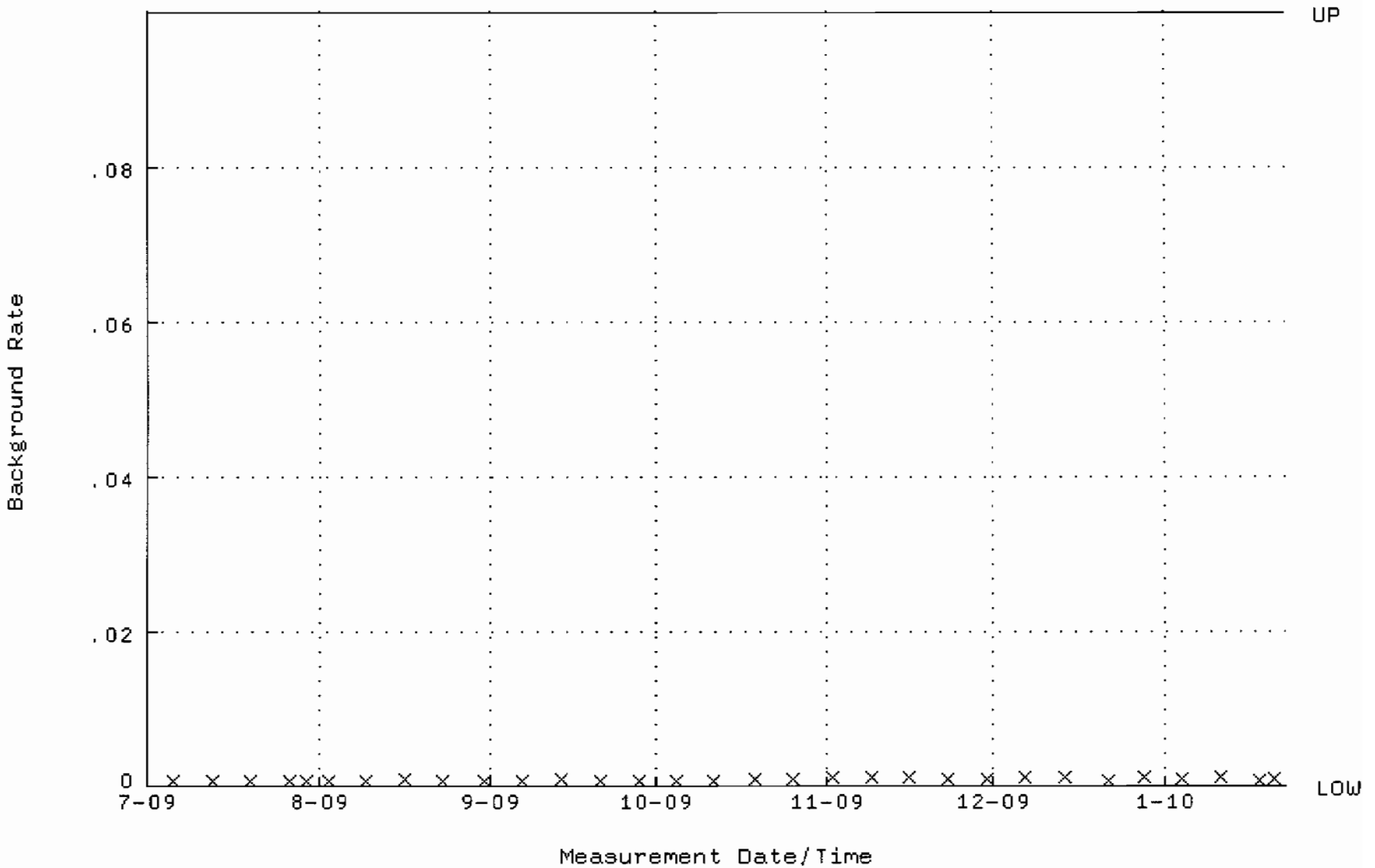

QA filename : DKA100:[ENV_ALPHA.QA.W]W166.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 23-JUL-2009 08:07:19 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.385564 through 0.404504

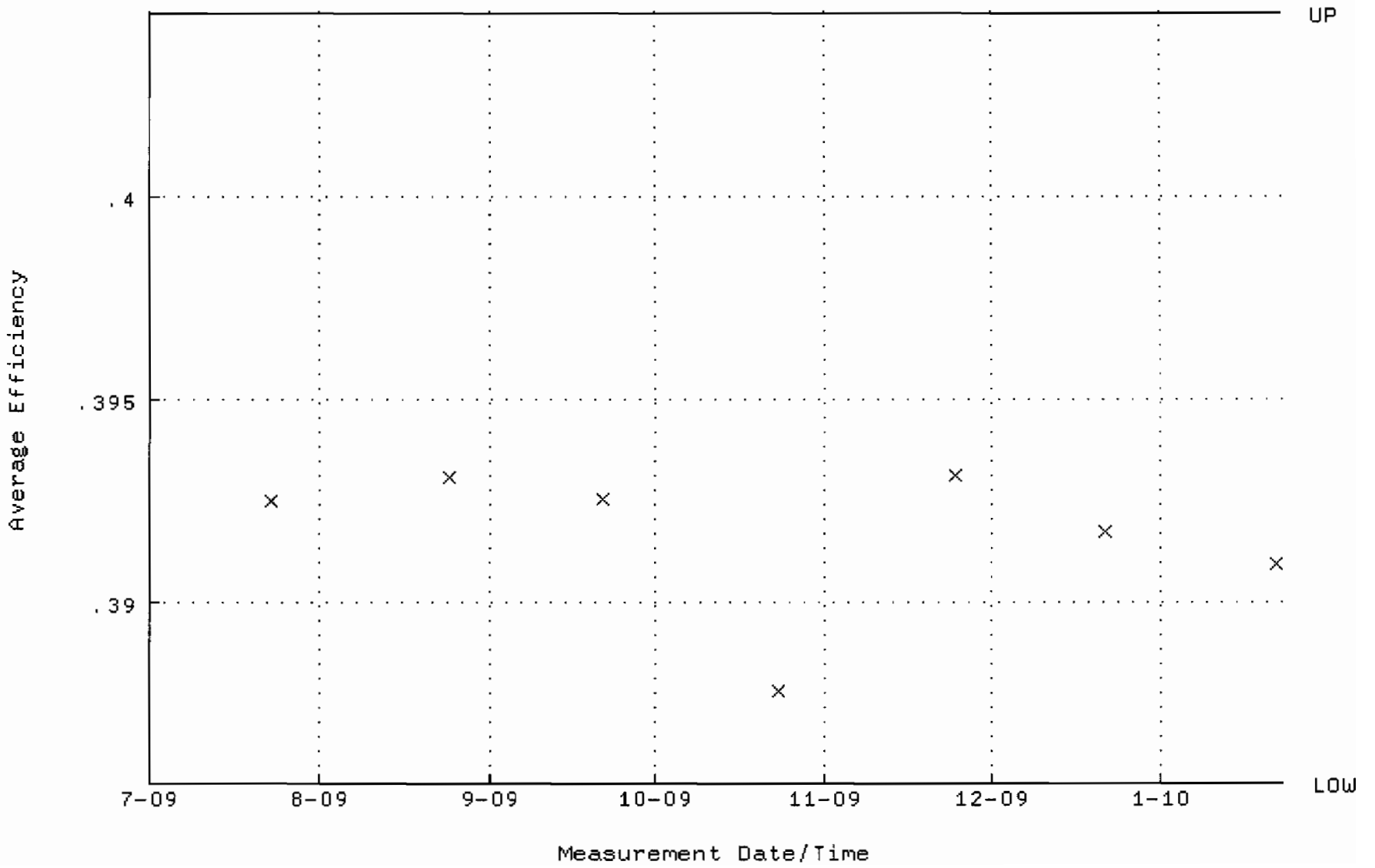

QA filename : DKA100:[ENV_ALPHA.QA.W]W166.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 23-JUL-2009 08:07:19 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 88.1264 through 91.2442

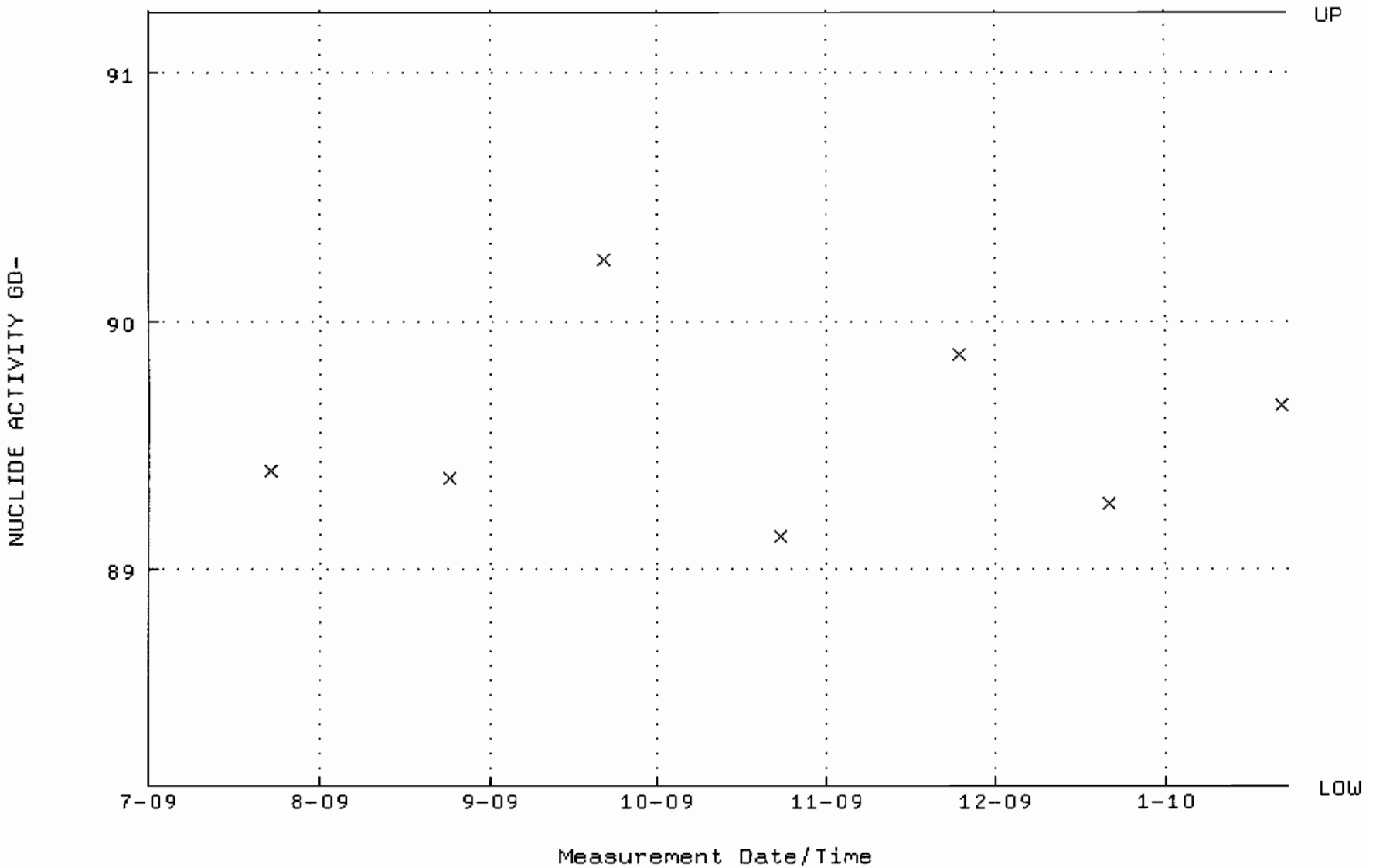

QA filename : DKA100:[ENV_ALPHA.QA.B]B166.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:59:54 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

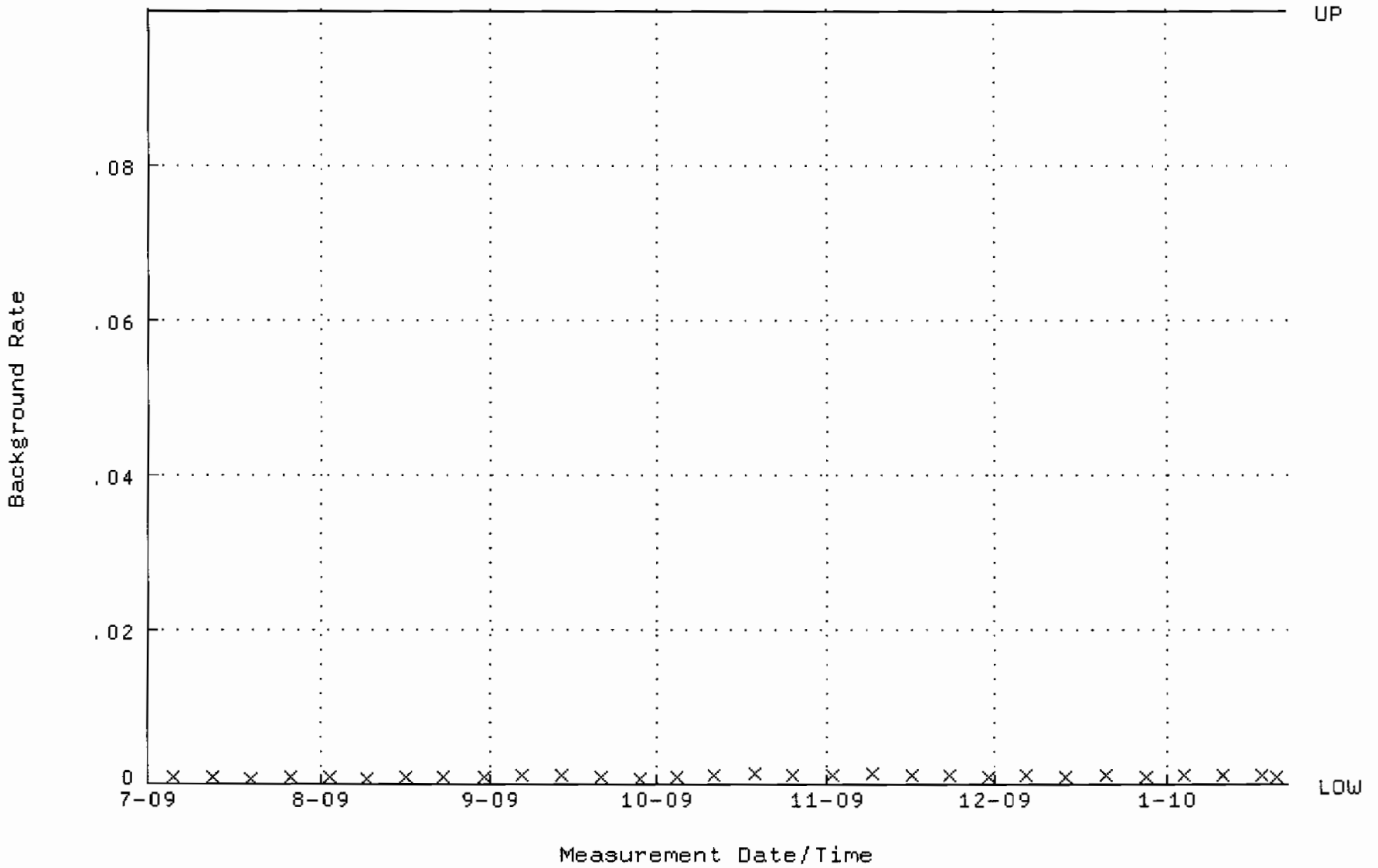

QA filename : DKA100:[ENV_ALPHA.QA.W]W169.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 23-JUL-2009 08:07:32 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.368144 through 0.388144

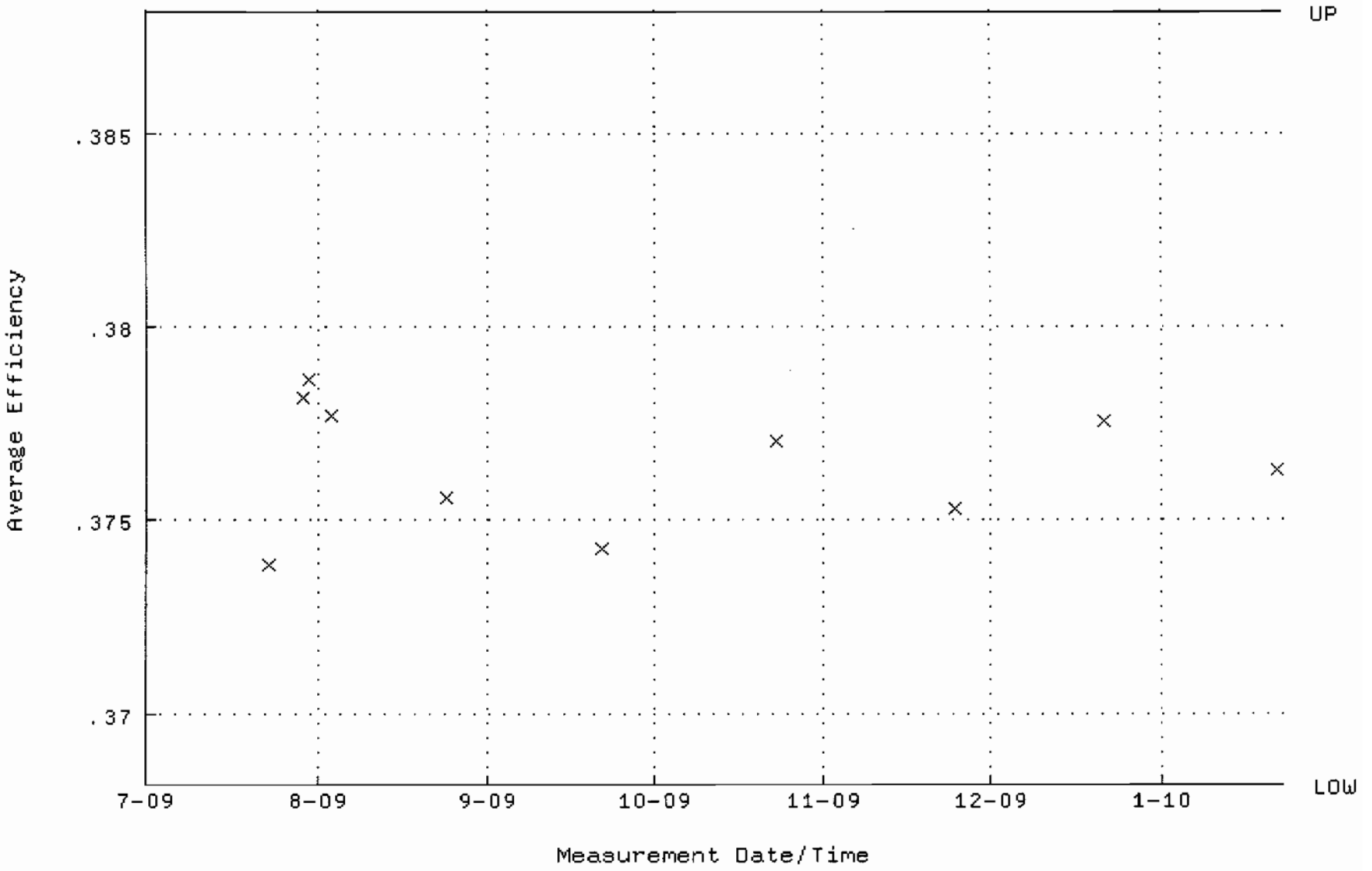

QA filename : DKA100:[ENV_ALPHA.QA.W]W169.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 23-JUL-2009 08:07:32 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 87.7141 through 96.9471

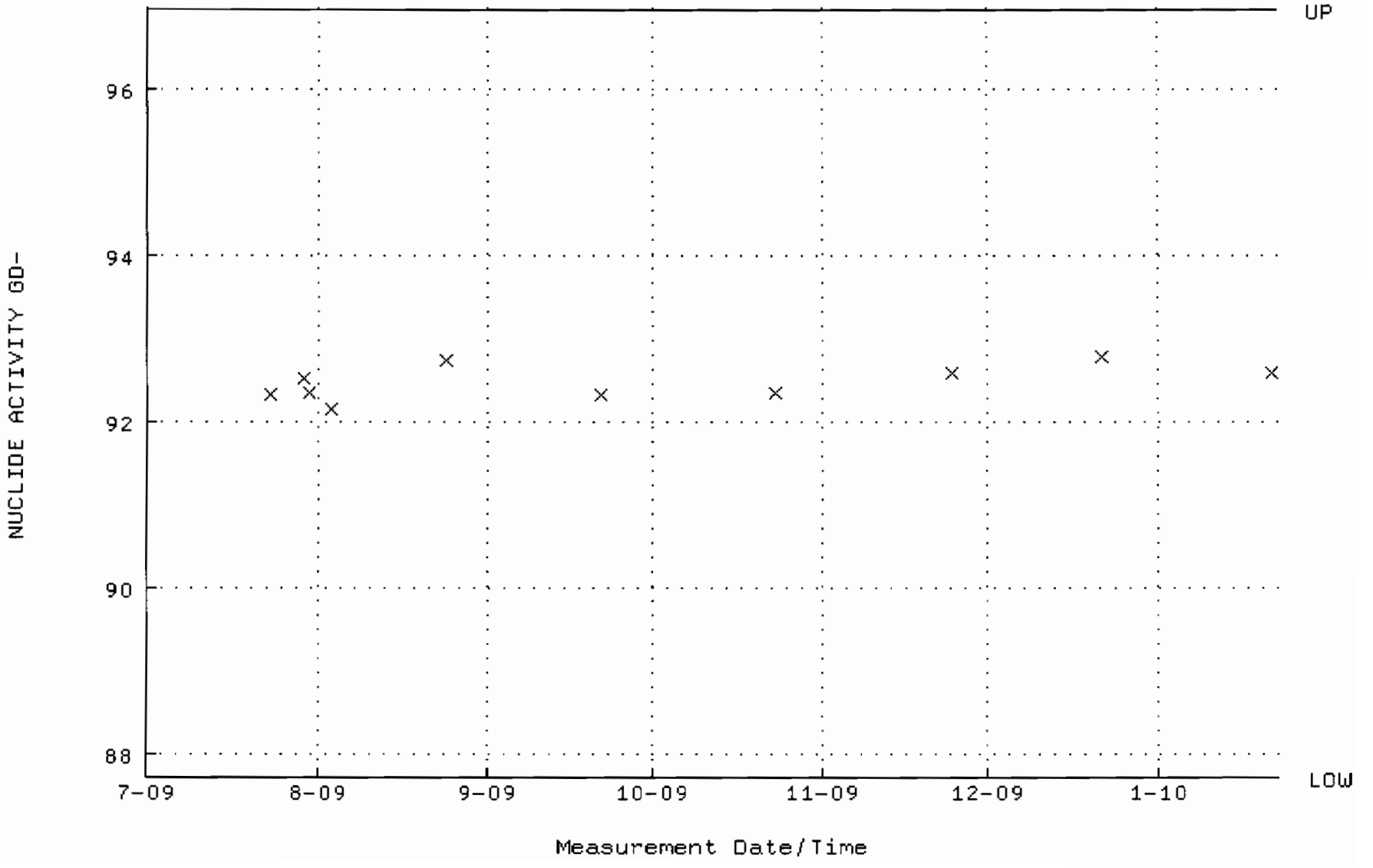

QA filename : DKA100:[ENV_ALPHA.QA.B]B169.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:00:09 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

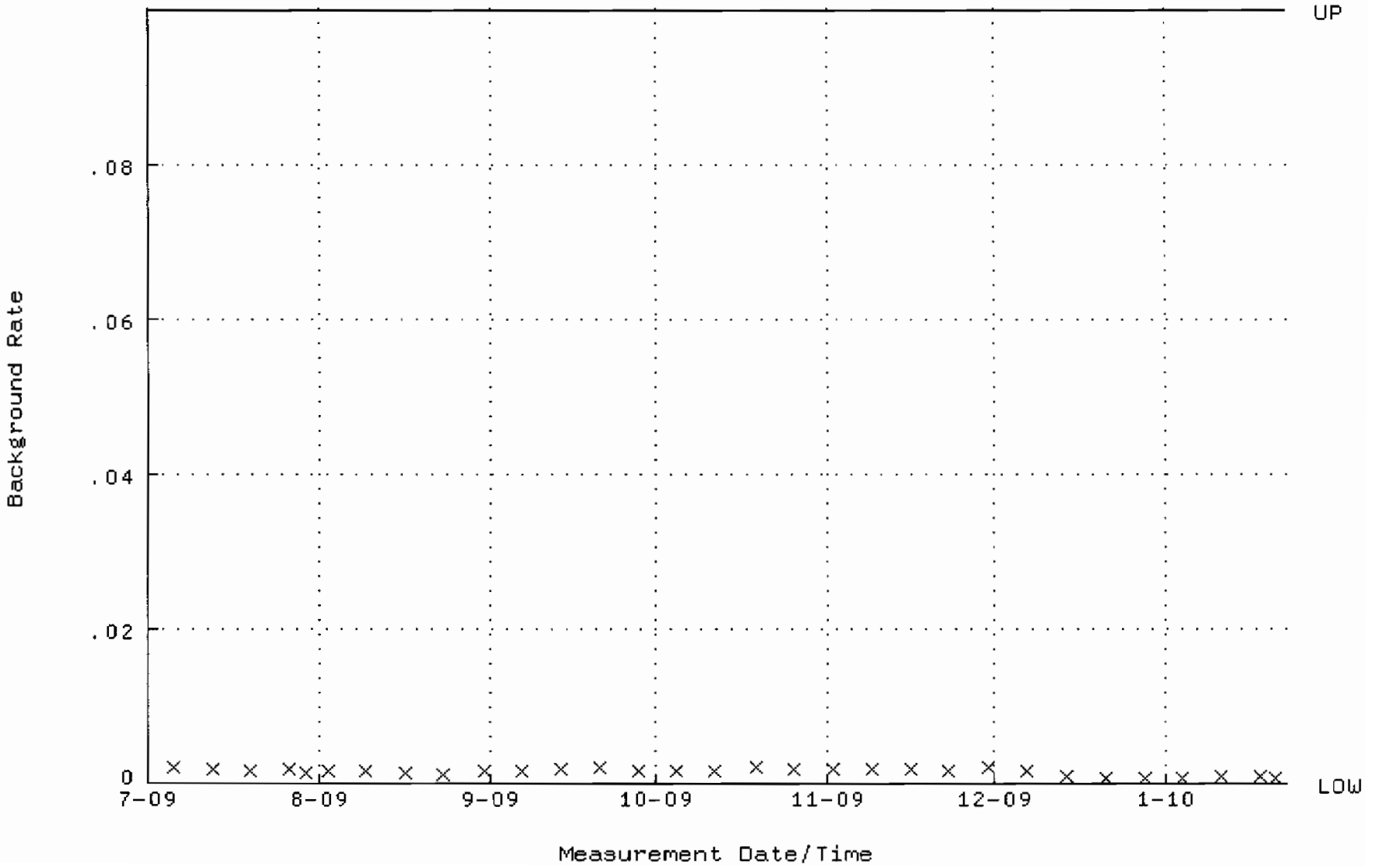

QA filename : DKA100:[ENV_ALPHA.QA.W]W170.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 23-JUL-2009 08:07:36 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.360563 through 0.380563

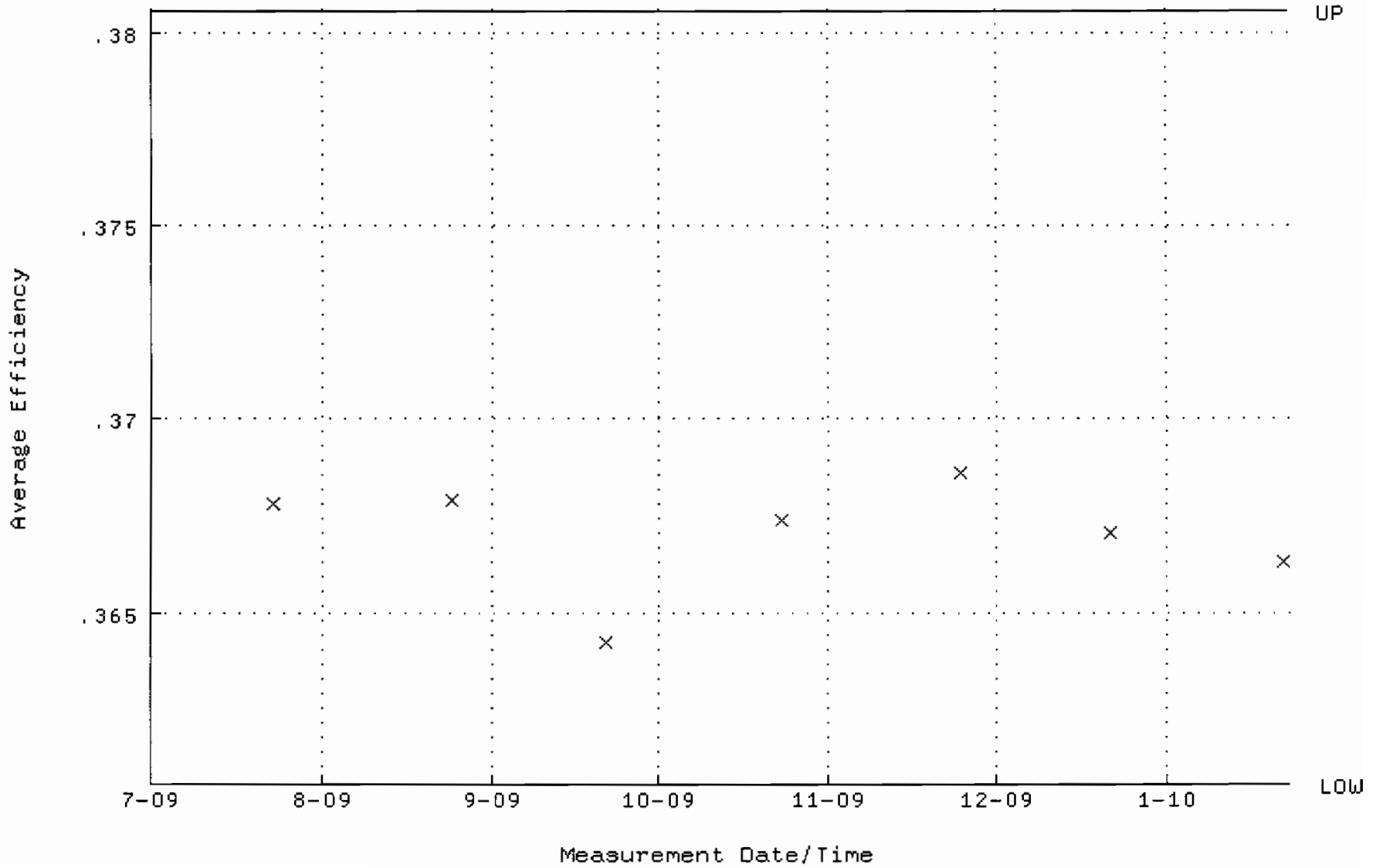

QA filename : DKA100:[ENV_ALPHA.QA.W]W170.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 23-JUL-2009 08:07:36 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 89.5841 through 99.0139

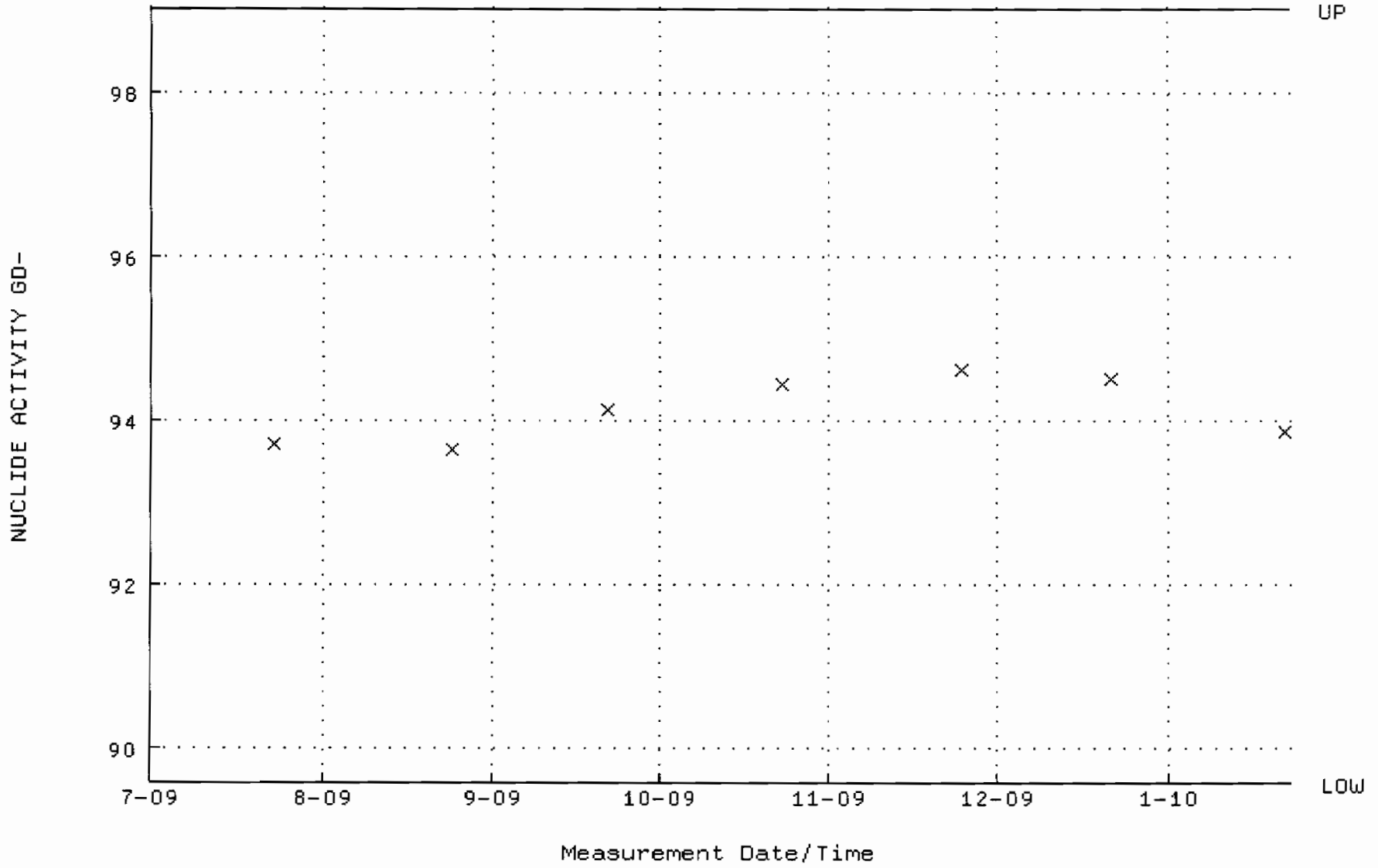

QA filename : DKA100:[ENV_ALPHA.QA.B]B170.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:00:14 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

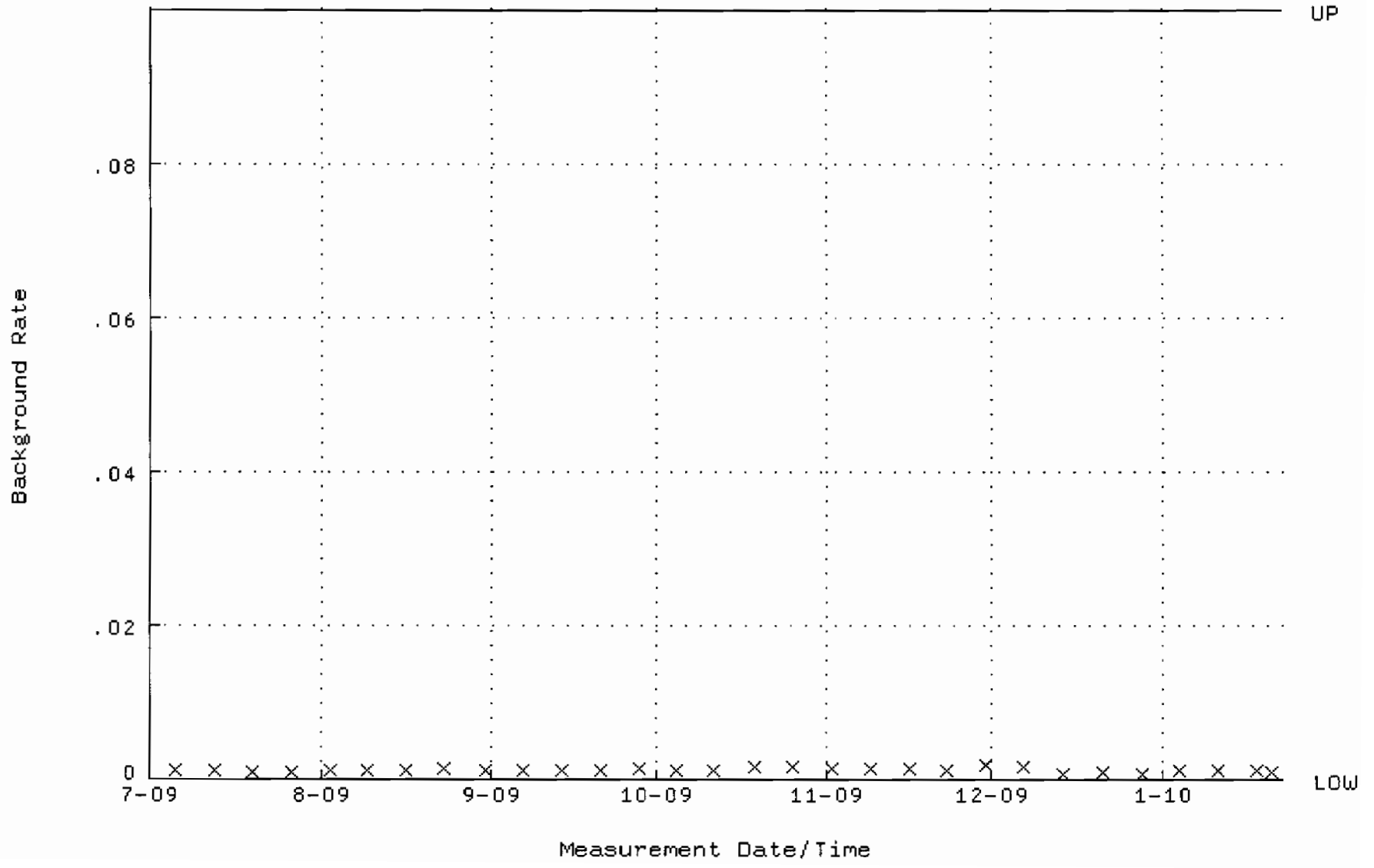

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 23-JUL-2009 08:07:41 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.375364 through 0.395364

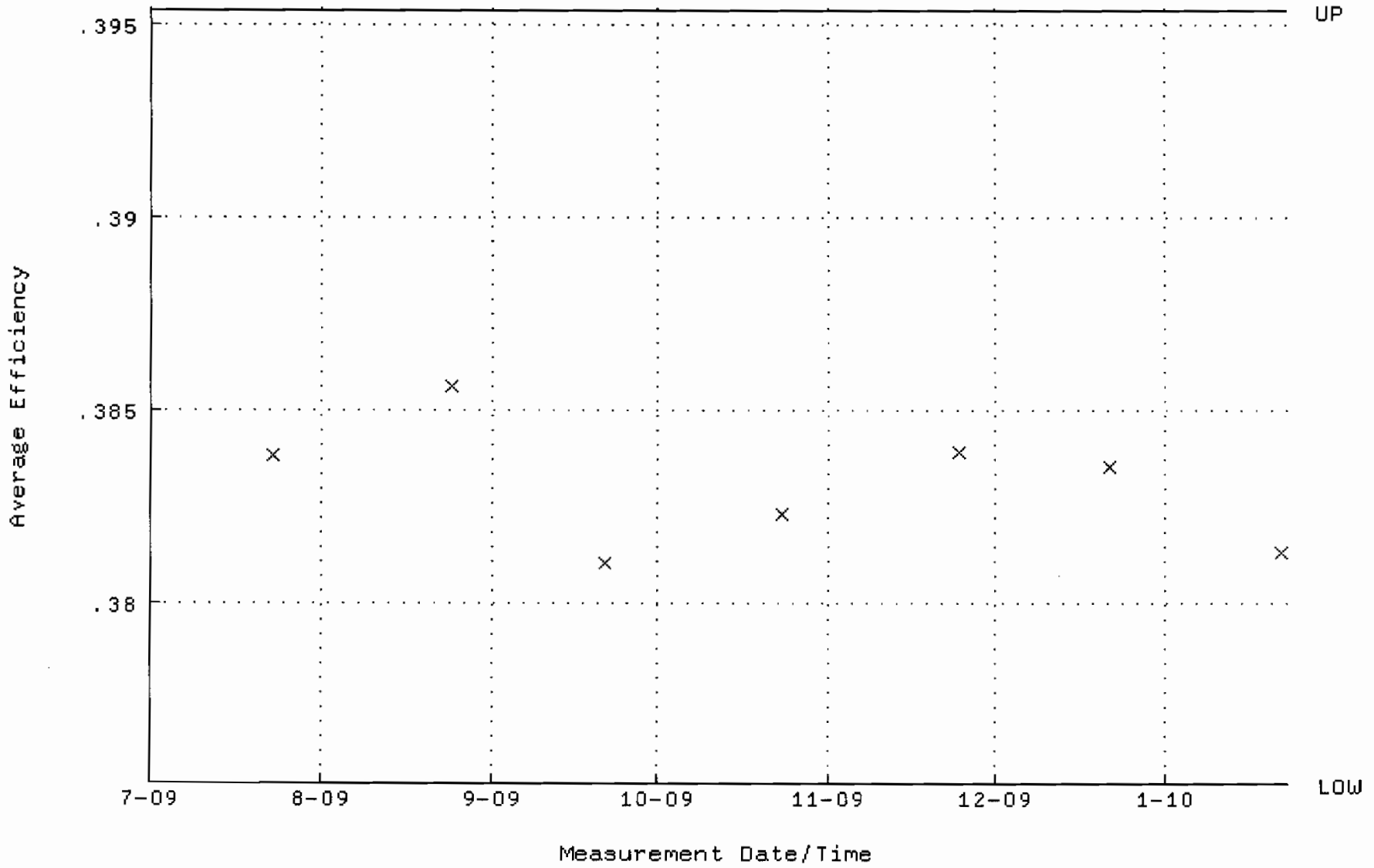

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 23-JUL-2009 08:07:41 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 84.7539 through 93.6753

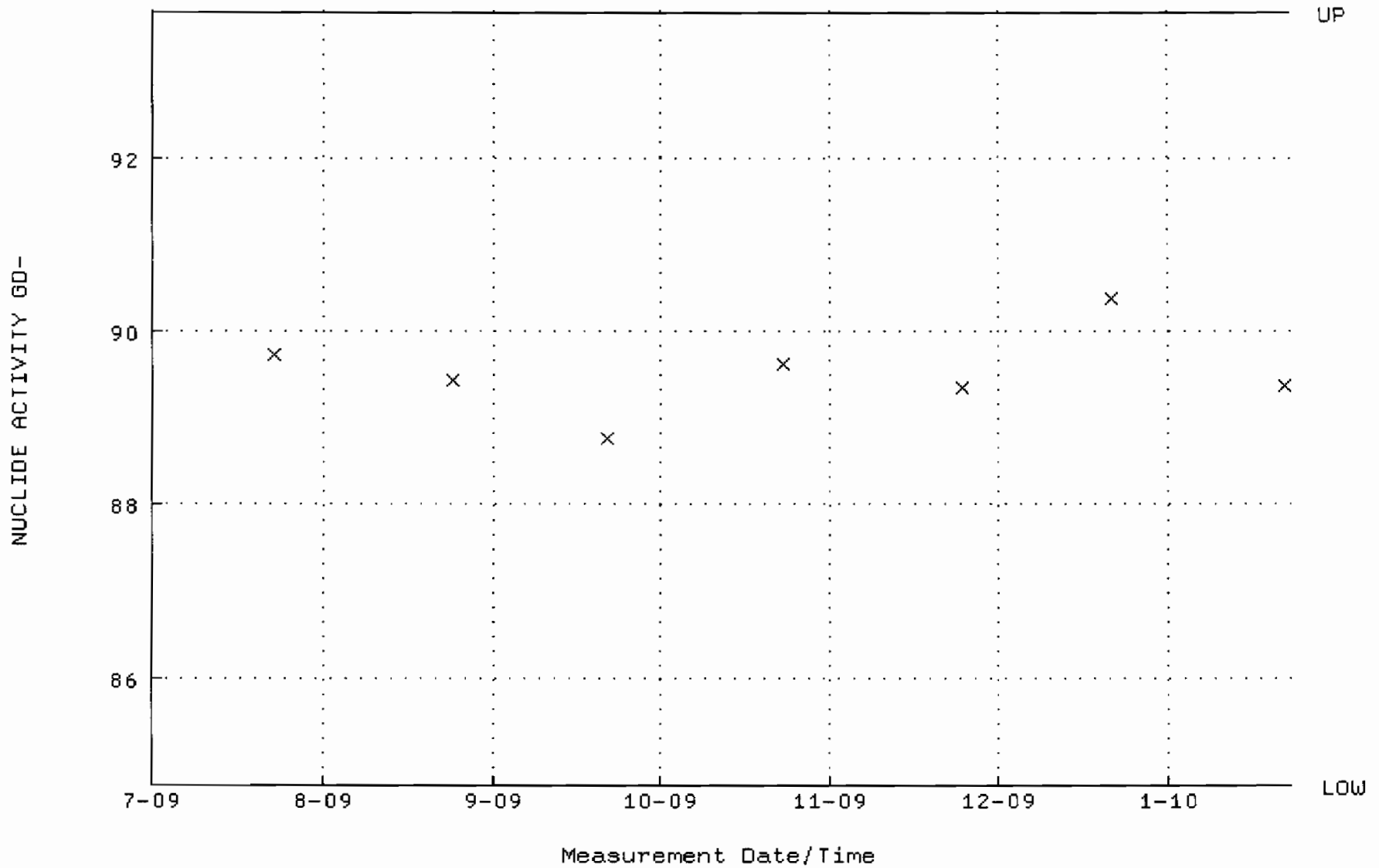

QA filename : DKA100:[ENV_ALPHA.QA.B]B171.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:00:19 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

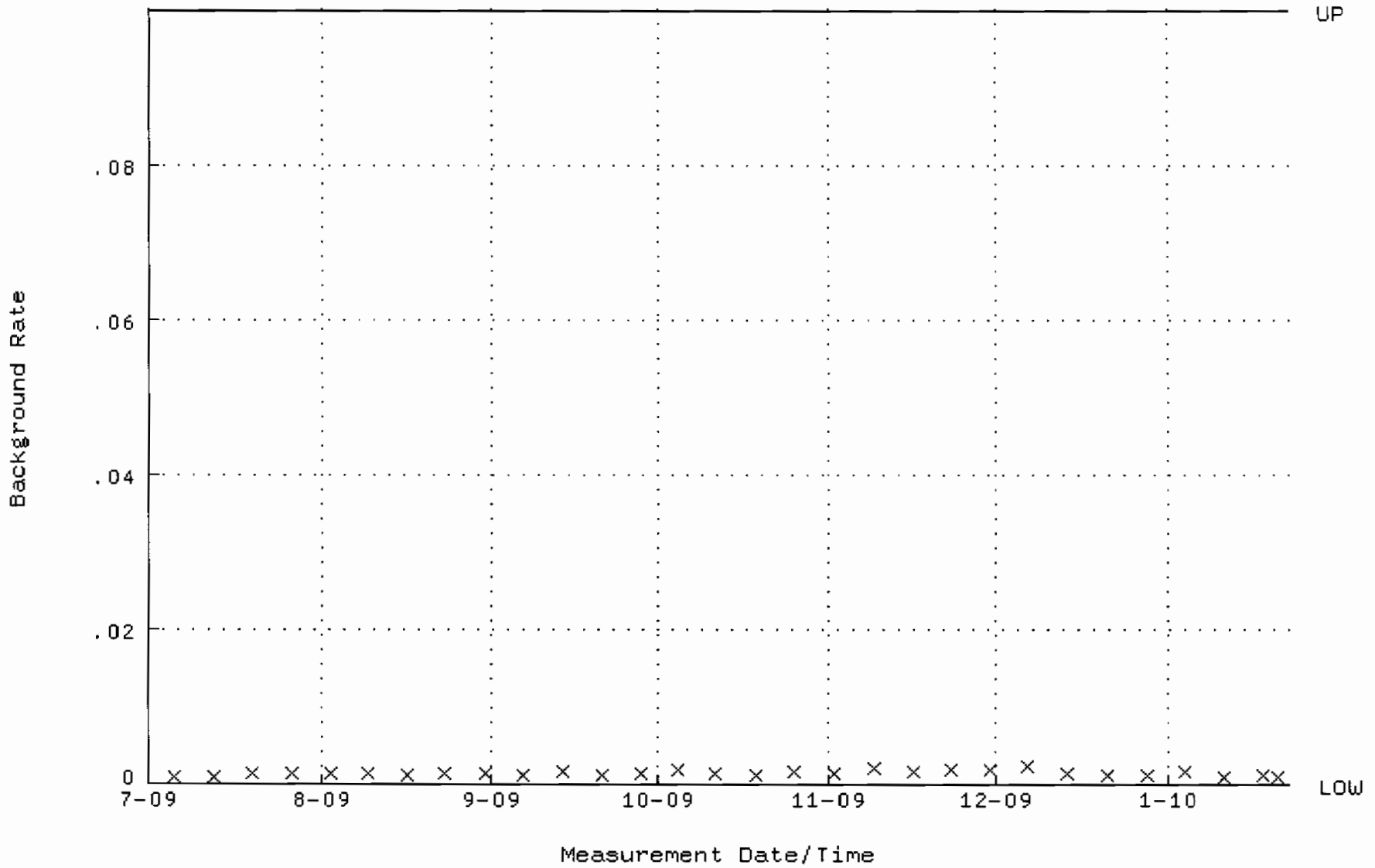

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 23-JUL-2009 08:07:46 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.373575 through 0.393575

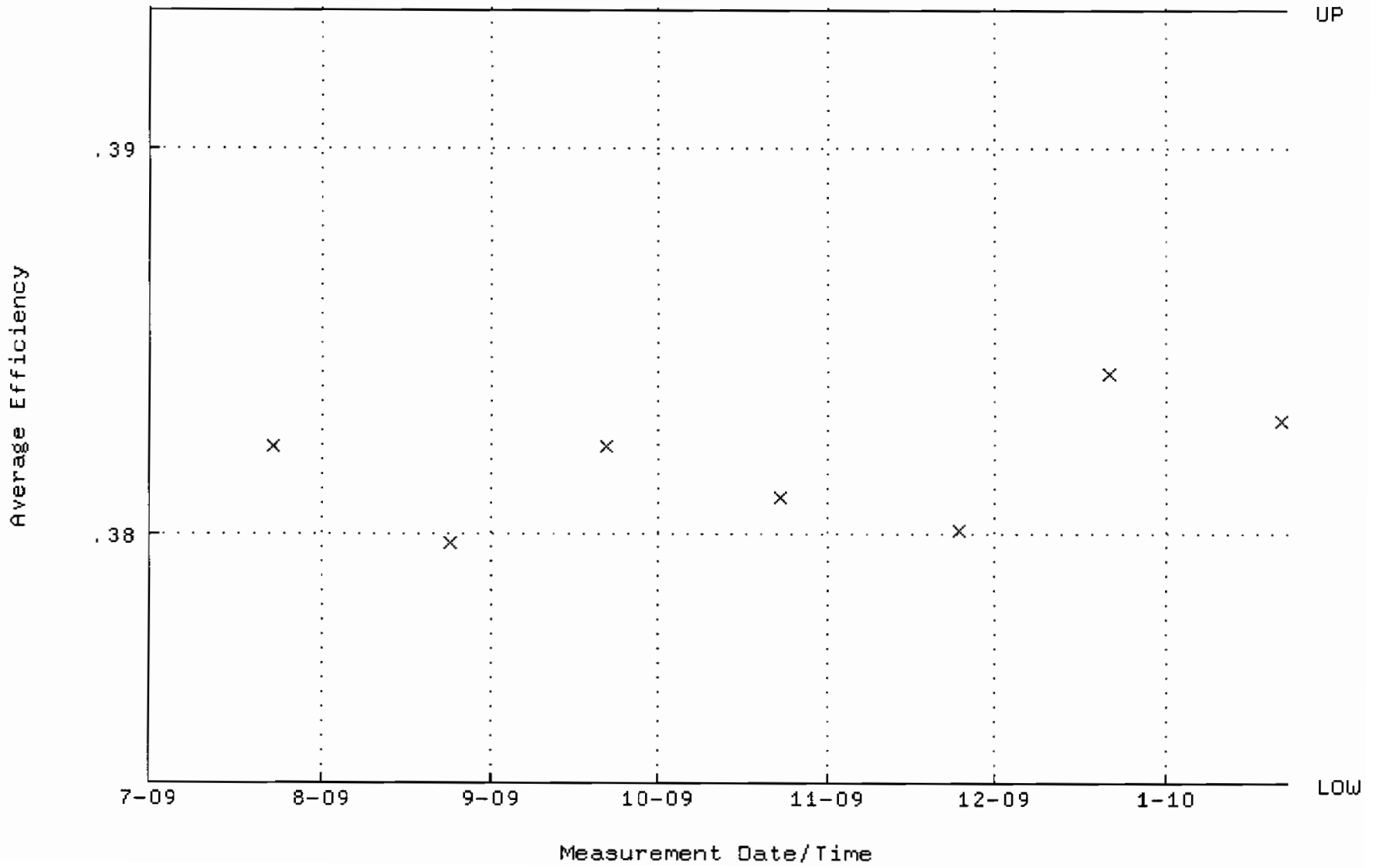

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 23-JUL-2009 08:07:46 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 86.5089 through 95.6151

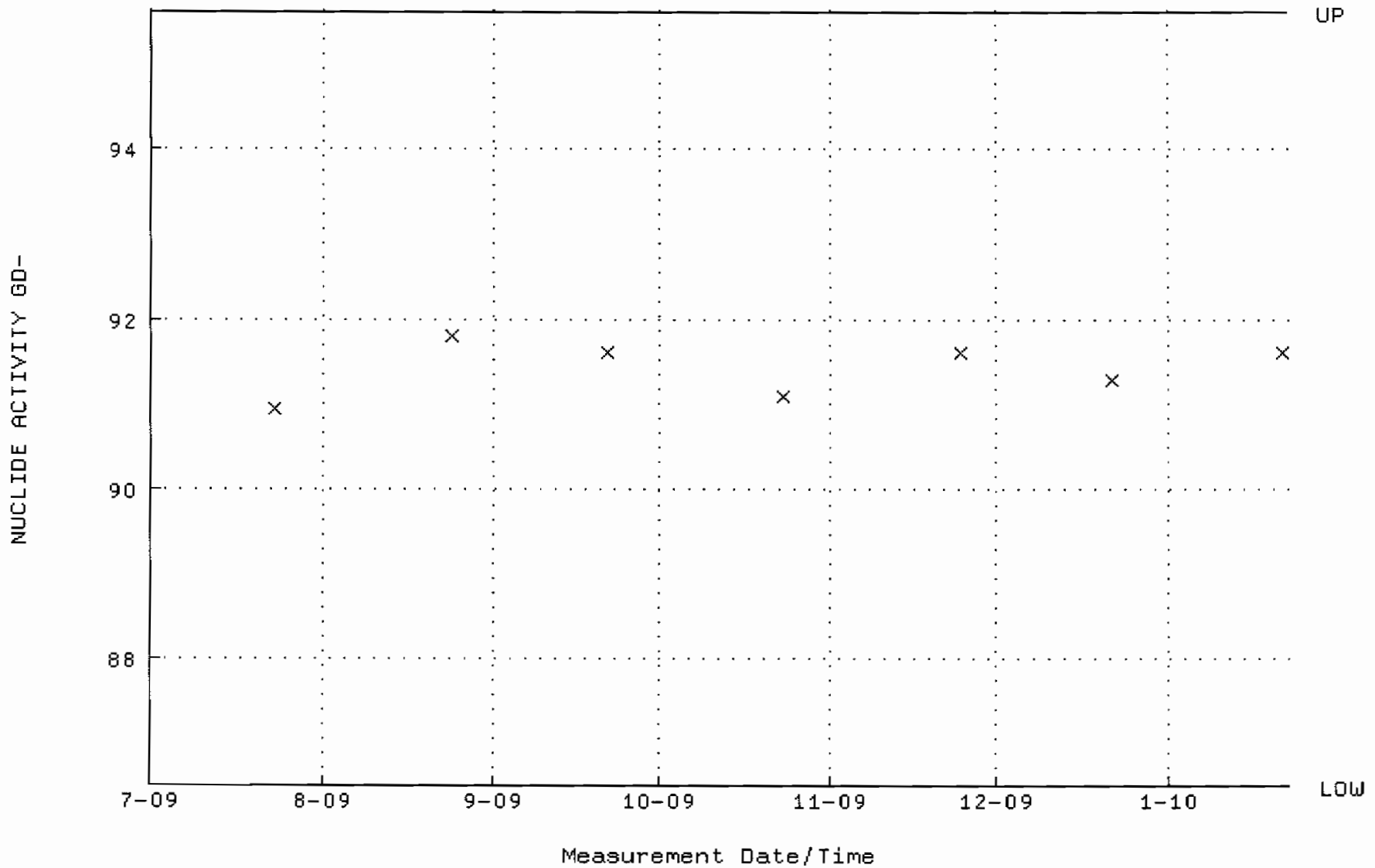

QA filename : DKA100:[ENV_ALPHA.QA.B]B172.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:00:24 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

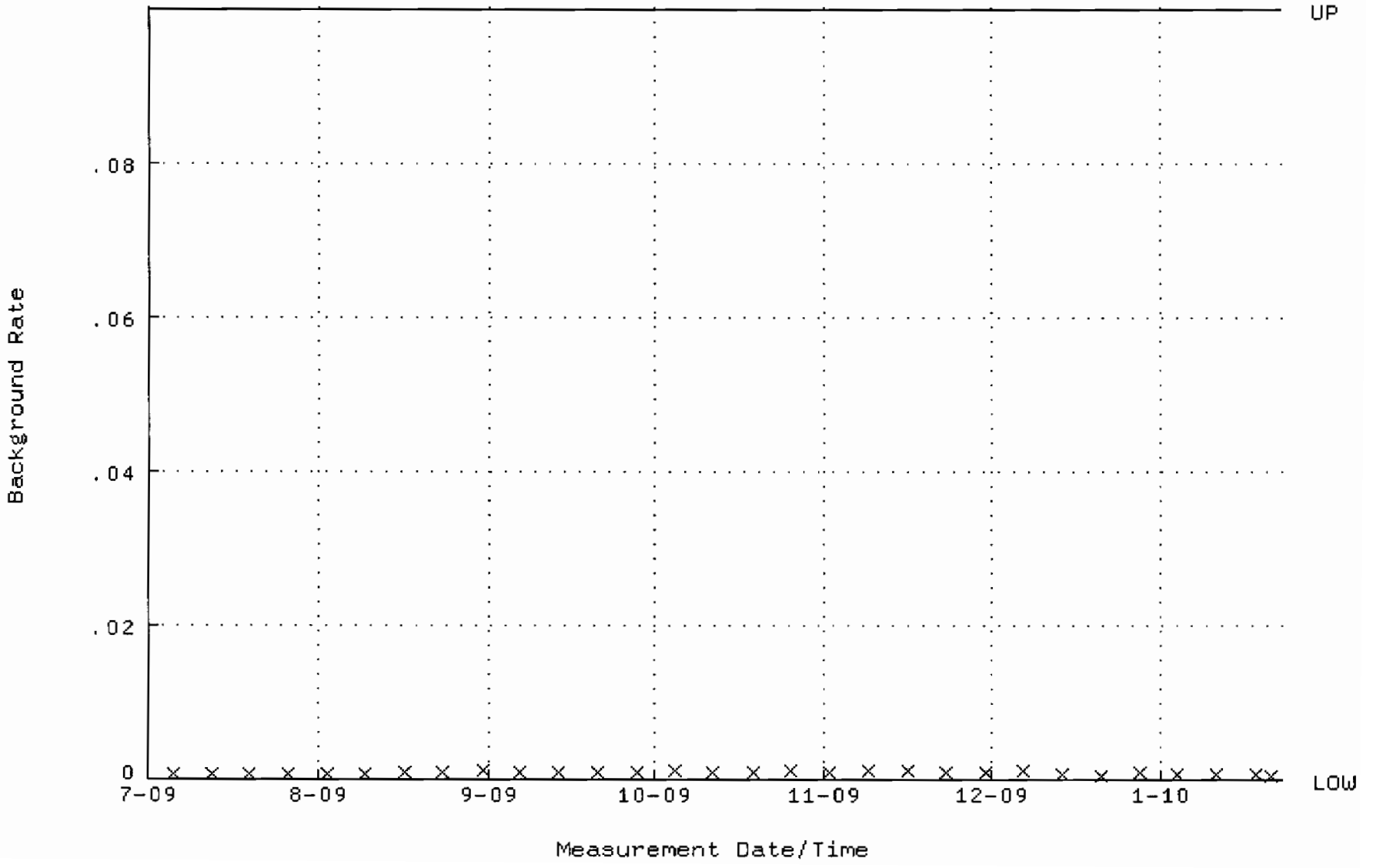

QA filename : DKA100:[ENV_ALPHA.QA.W]W216.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.372749 through 0.398591

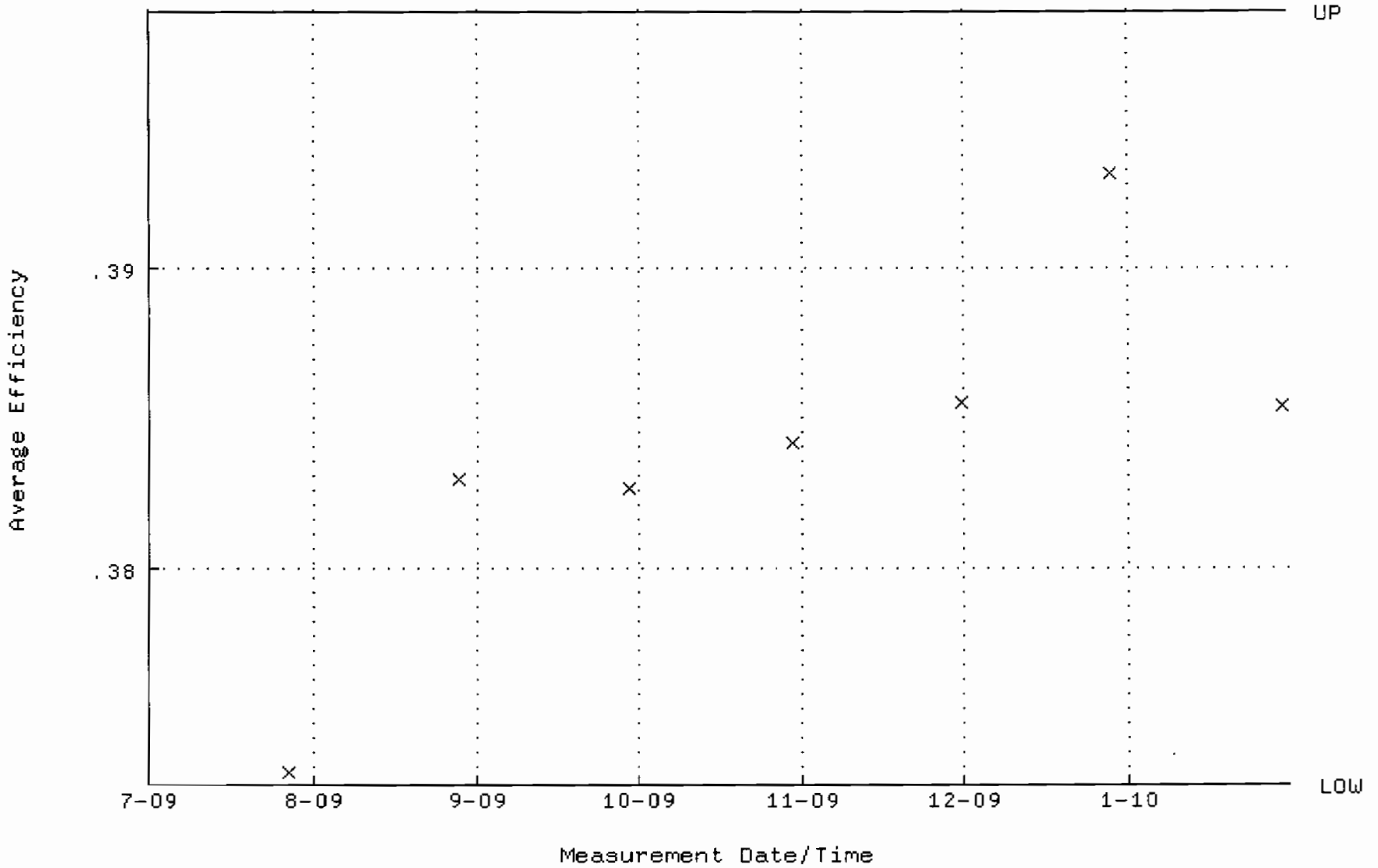

QA filename : DKA100:[ENV_ALPHA.QA.W]W216.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.1955 through 90.1147

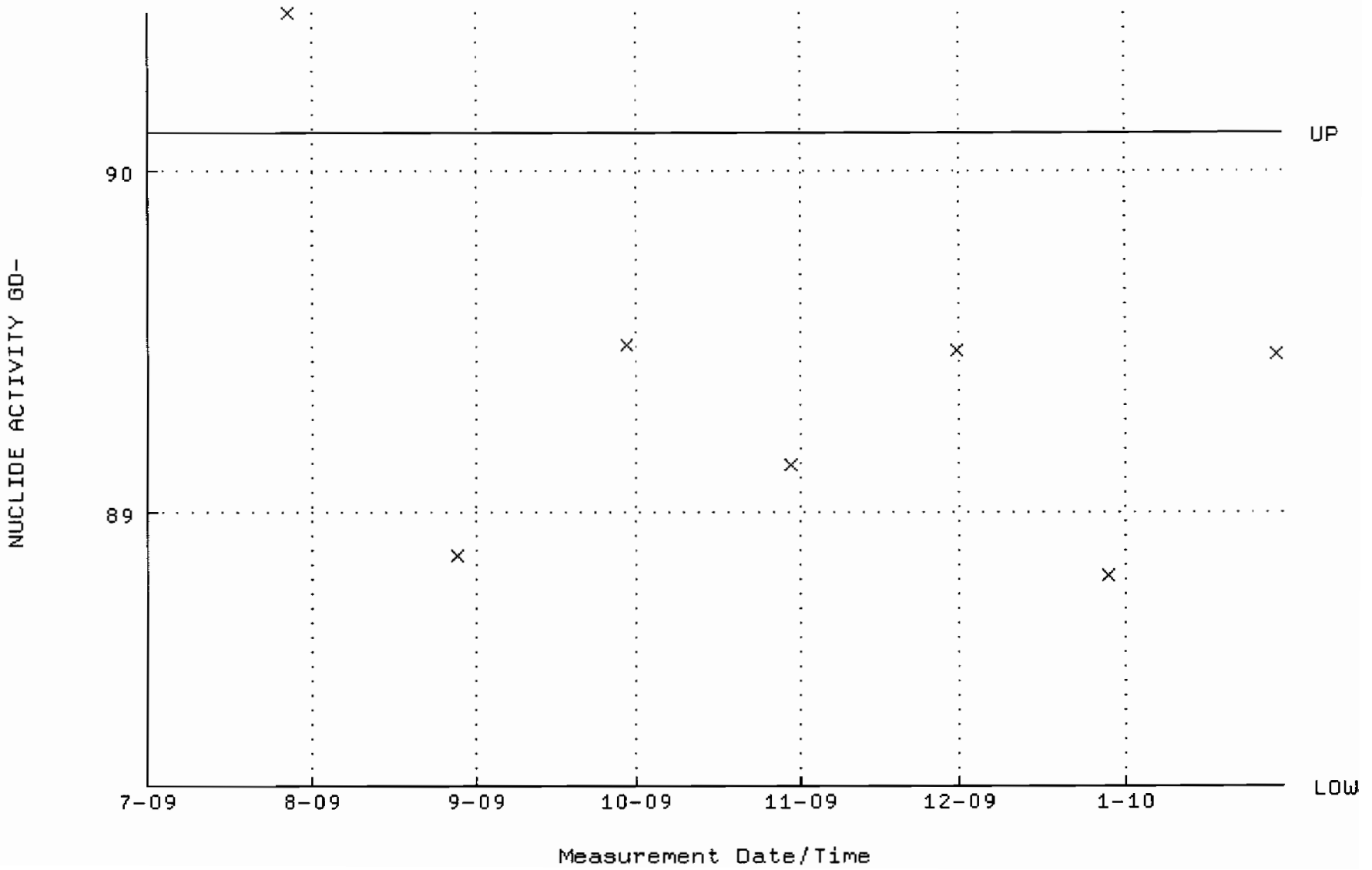

QA filename : DKA100:[ENV_ALPHA.QA.B]B216.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:52 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

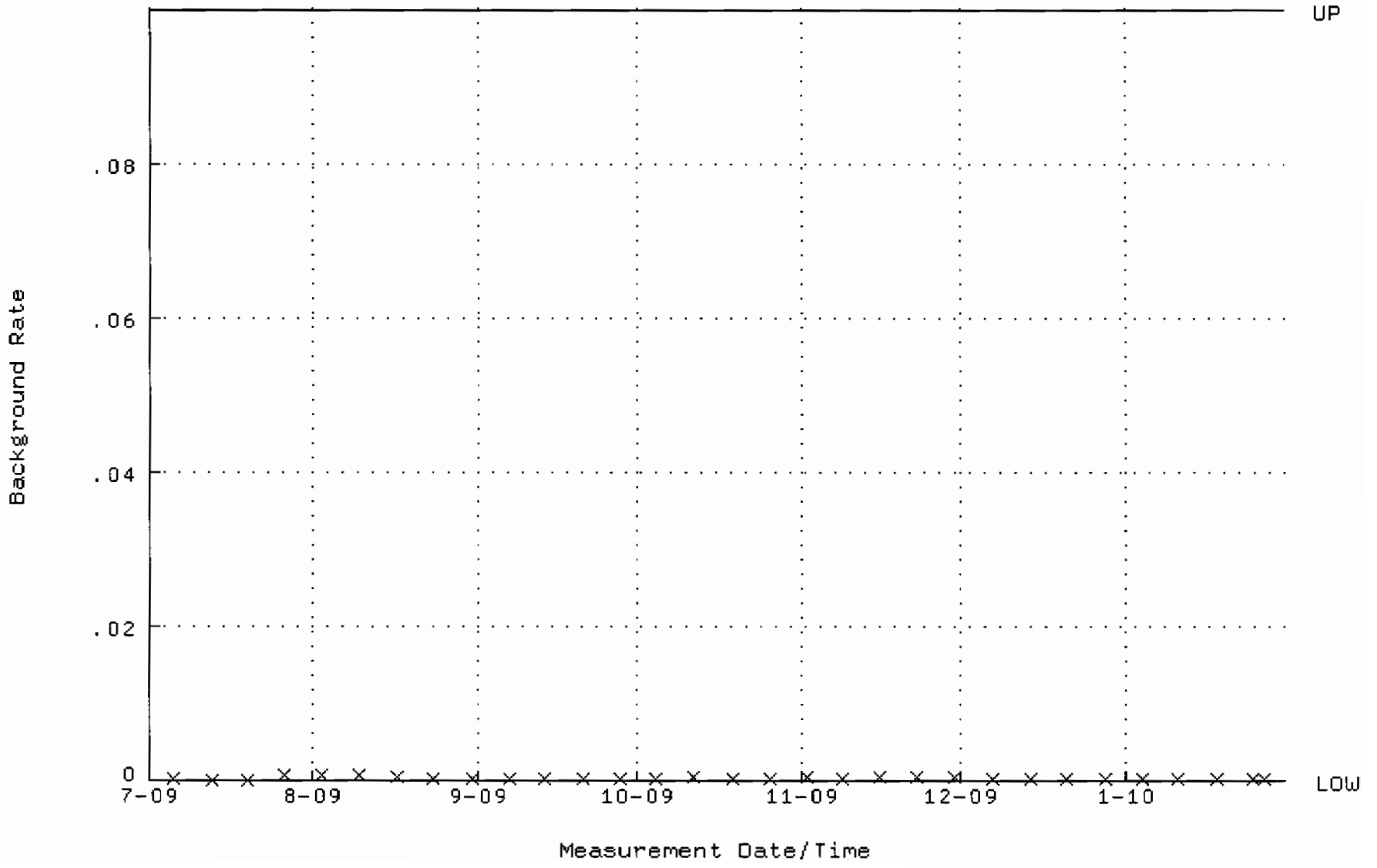

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.354934 through 0.374934

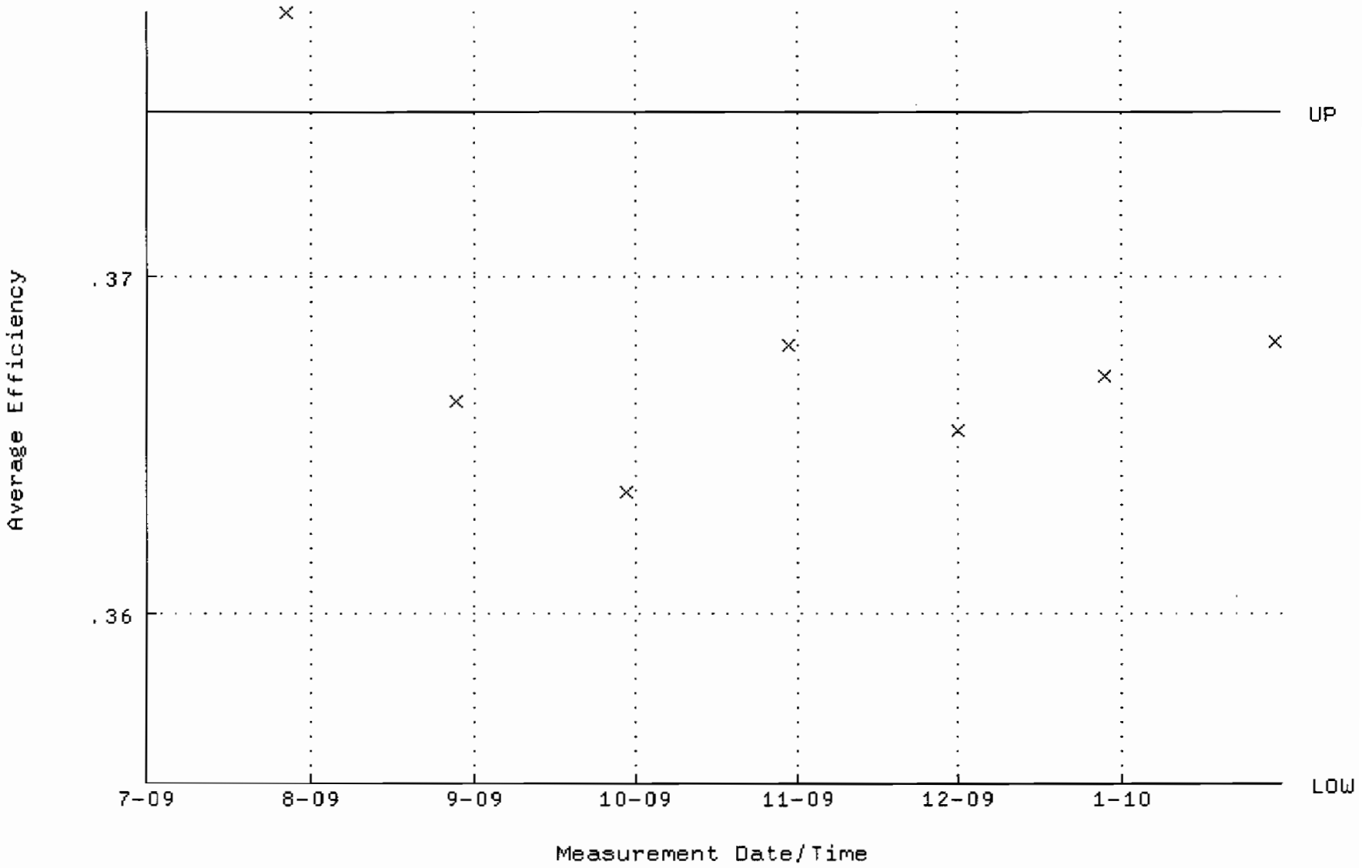

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.3174 through 97.6140

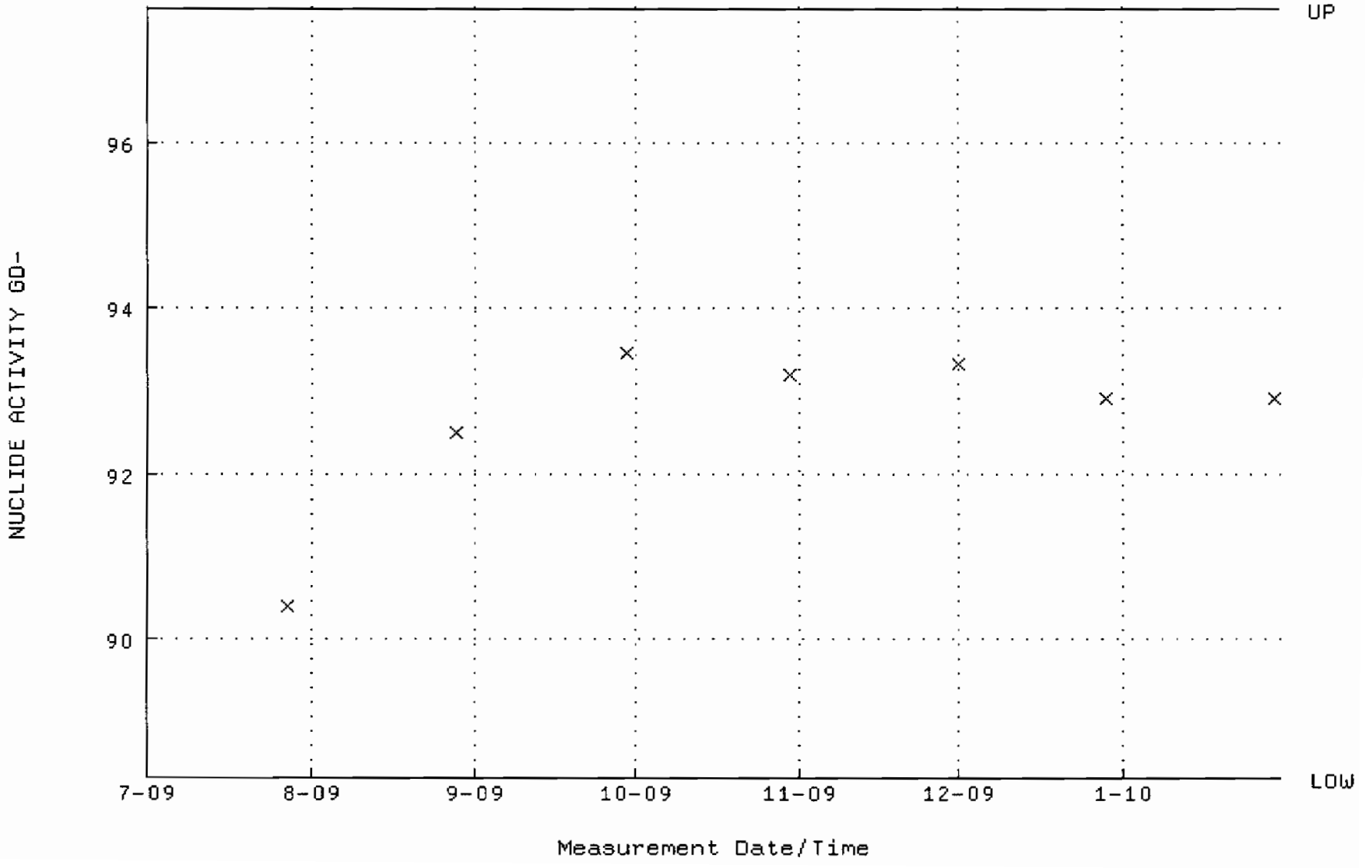

QA filename : DKA100:[ENV_ALPHA.QA.B]B217.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:56 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

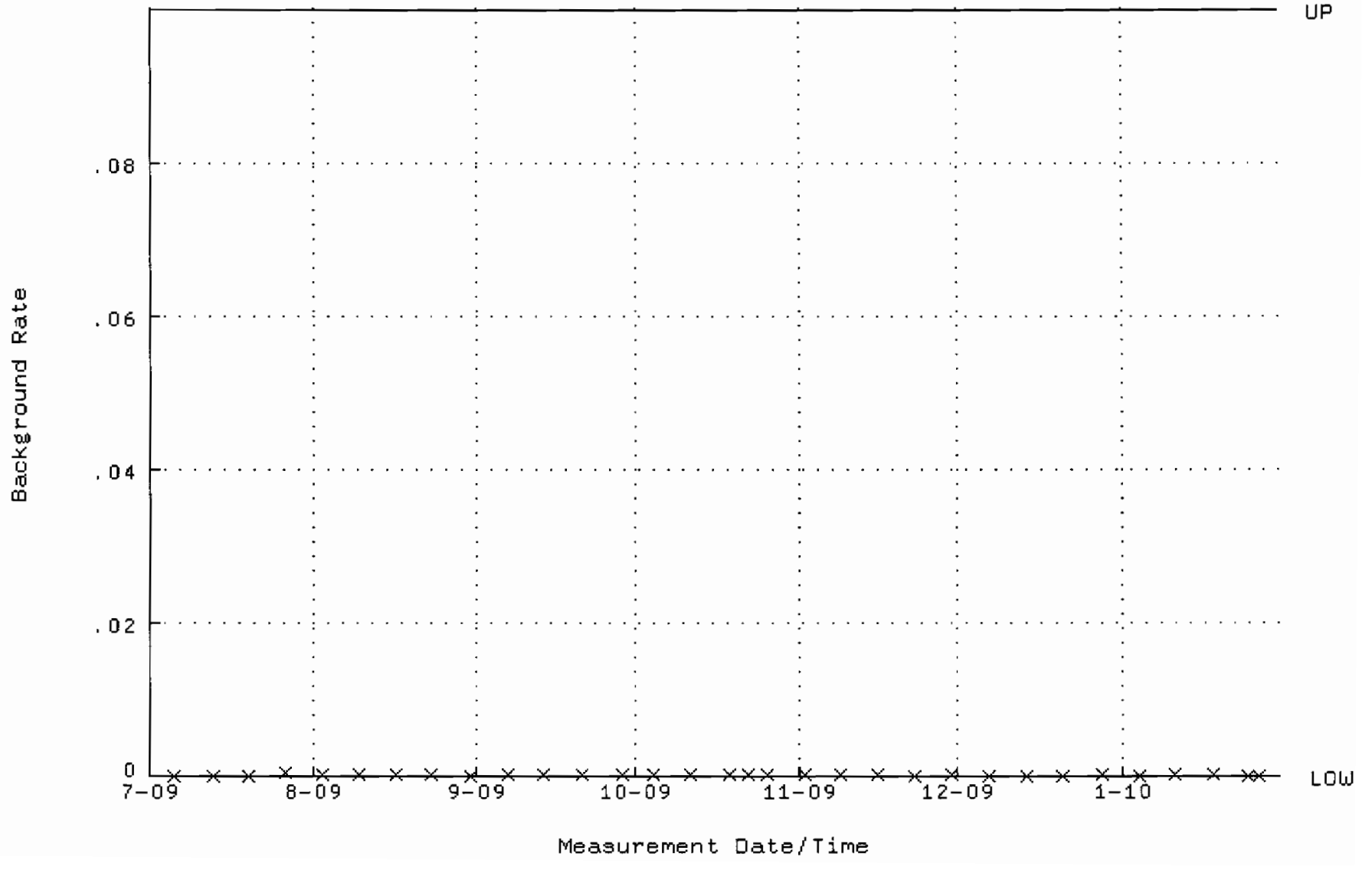

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362380 through 0.382380

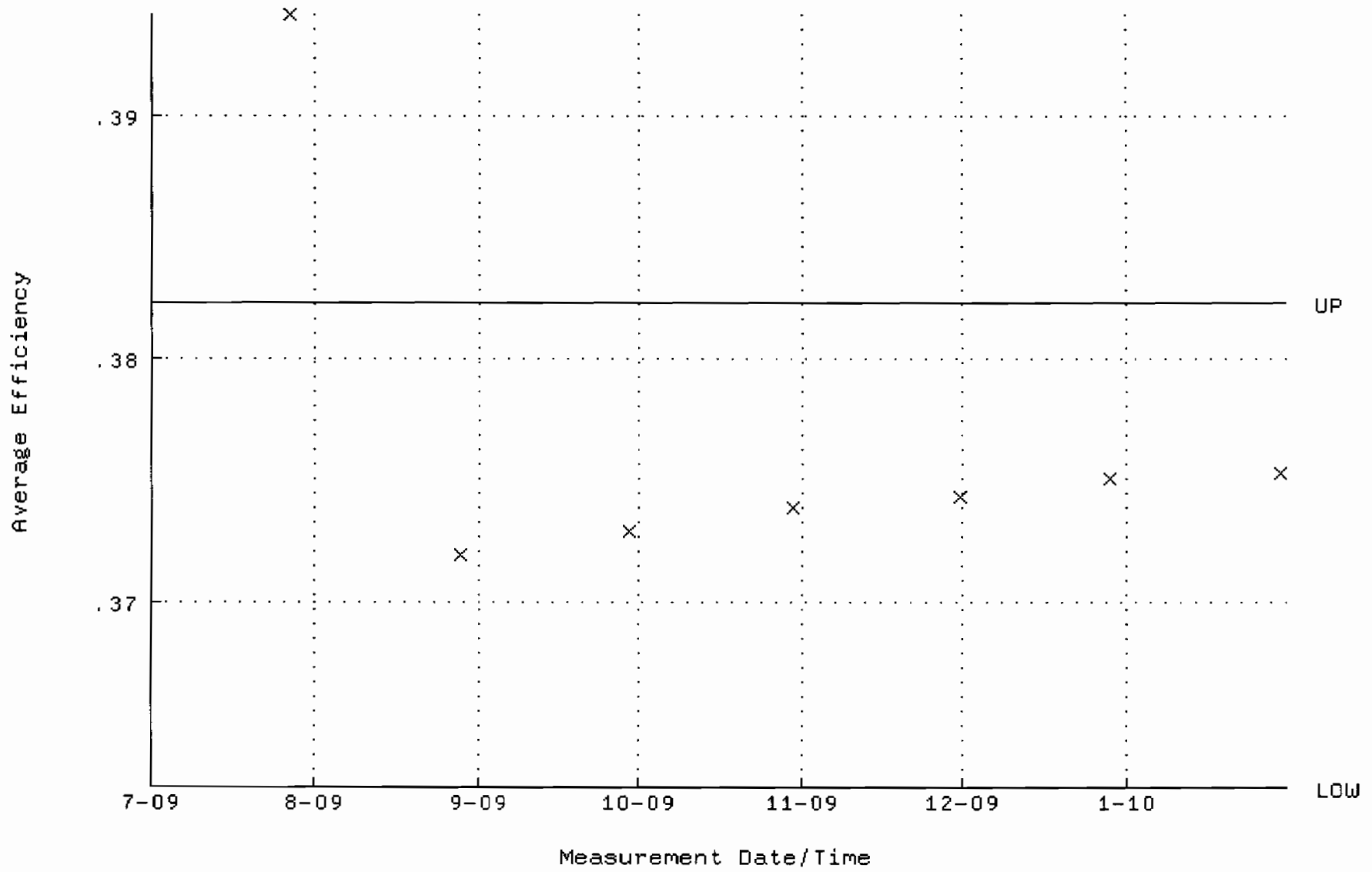

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.3892 through 98.7986

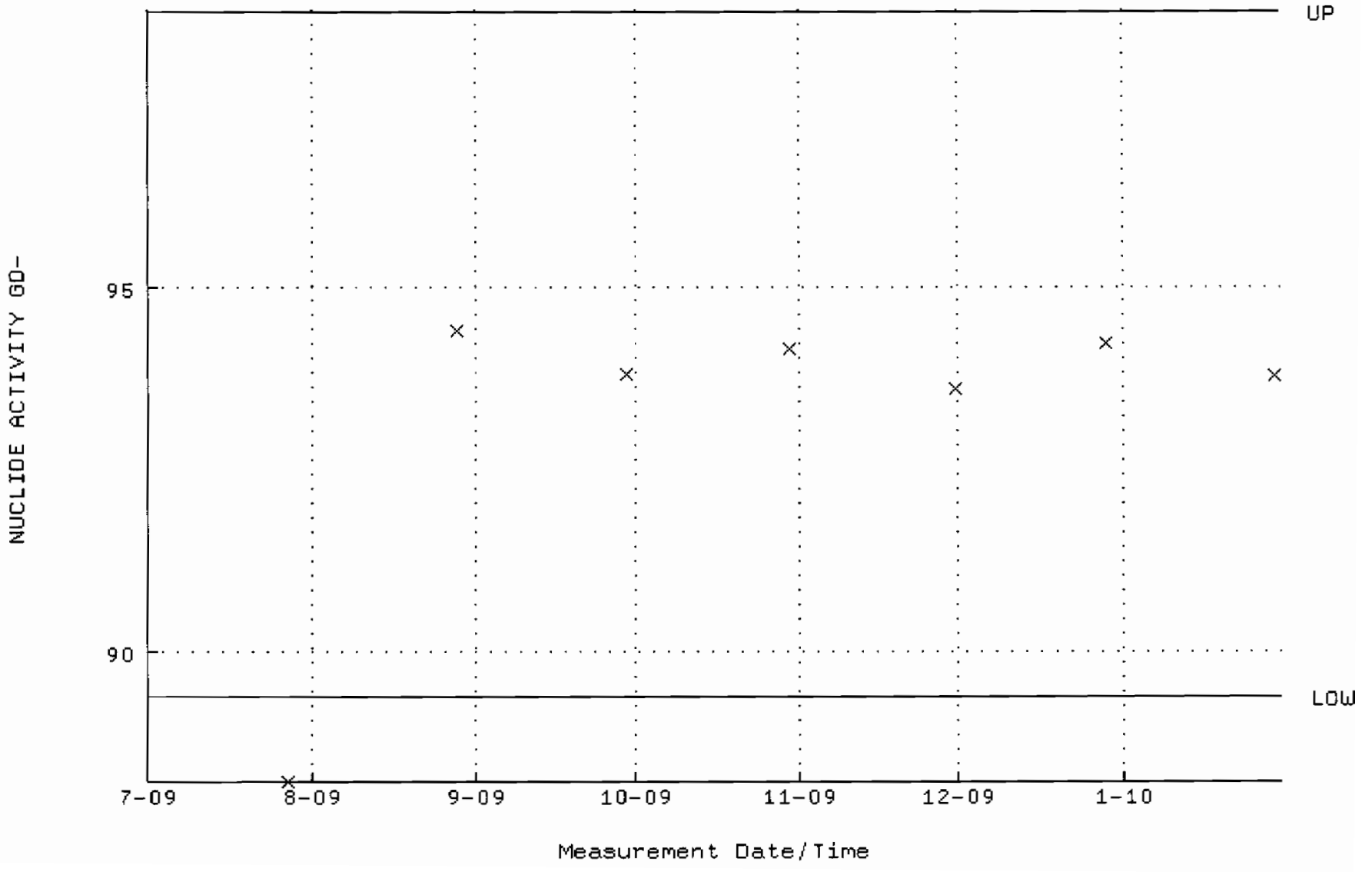

QA filename : OKA100:[ENV_ALPHA.QA.B]B218.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

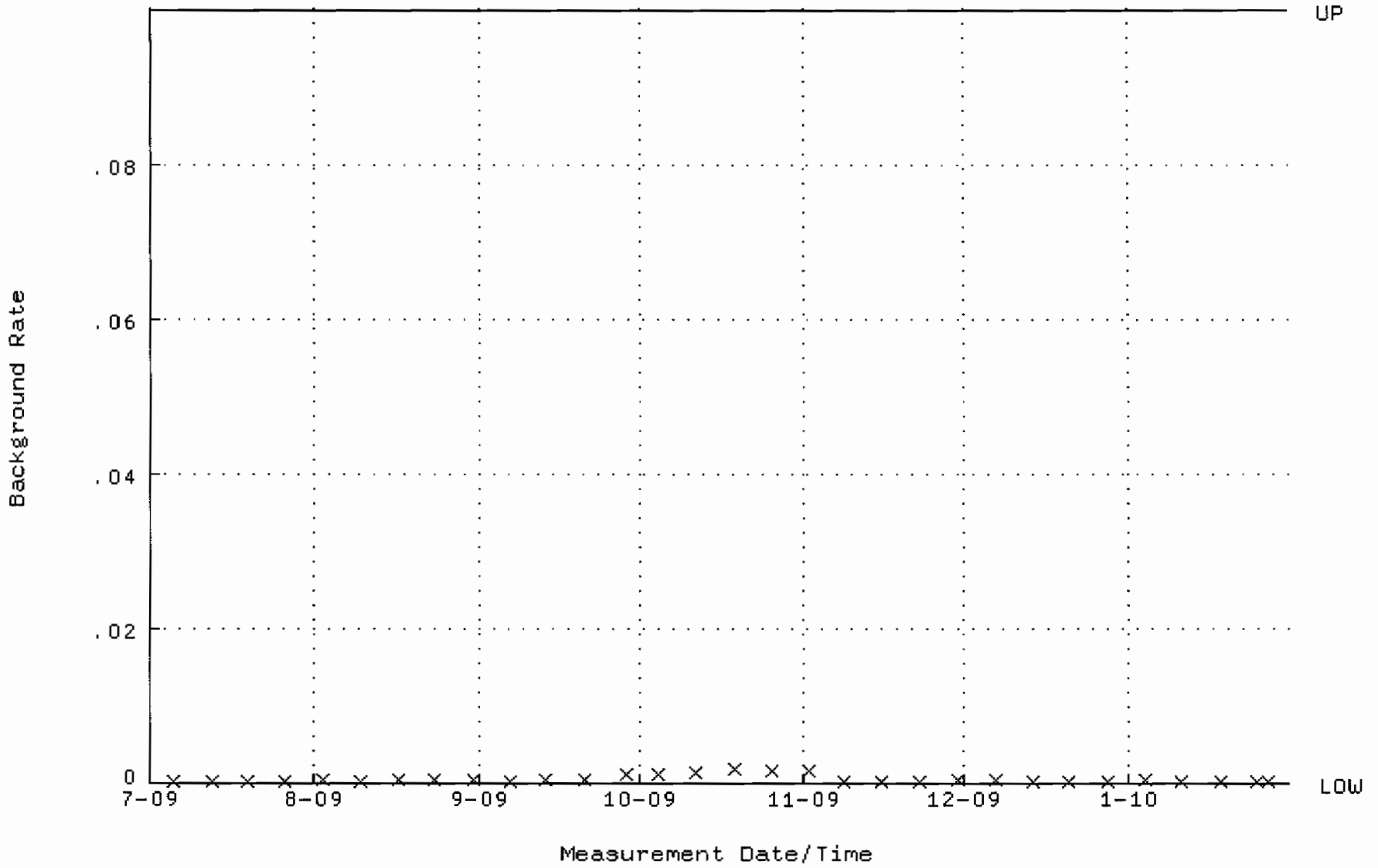

QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.375667 through 0.395667

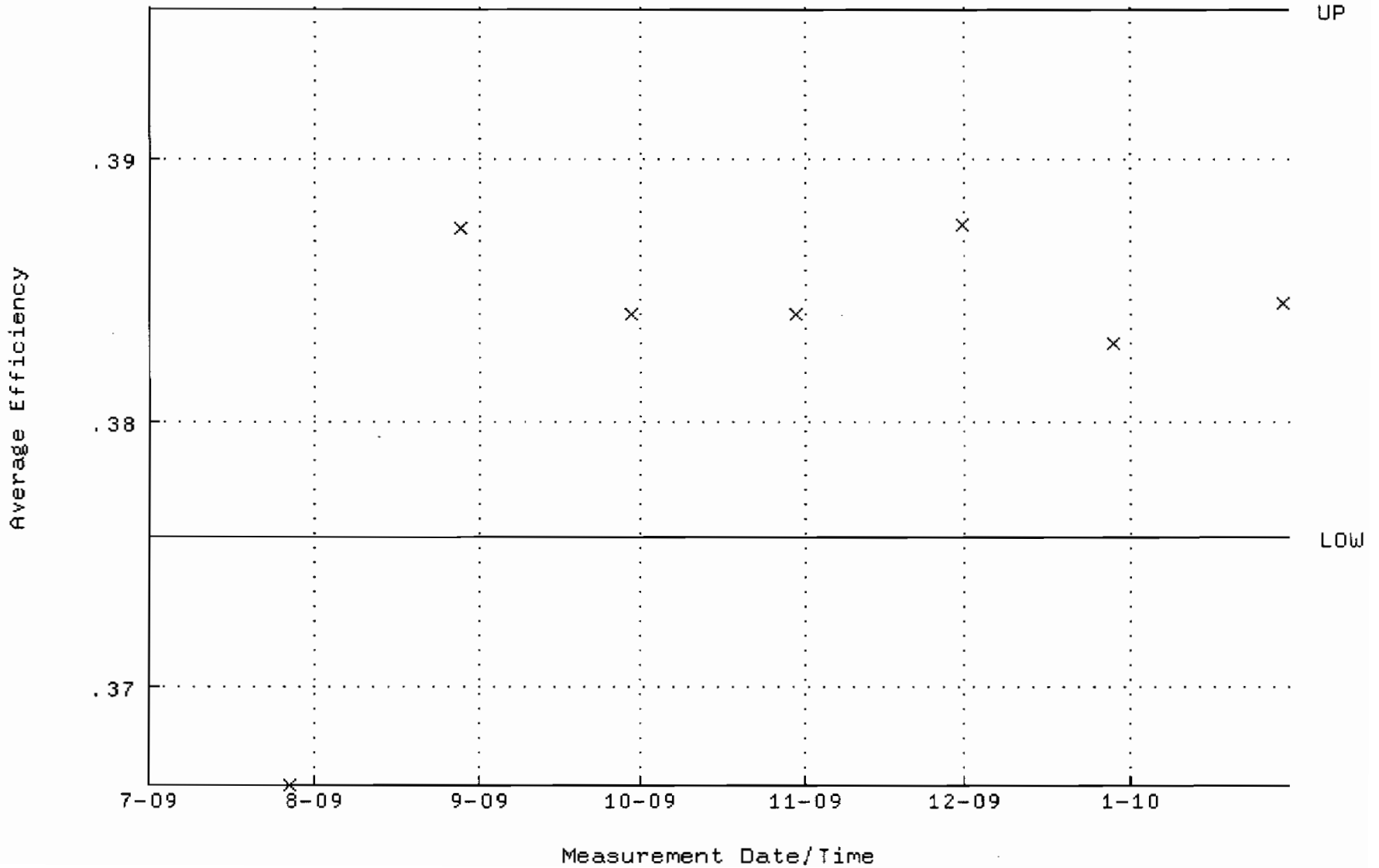

QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.5518 through 93.4520

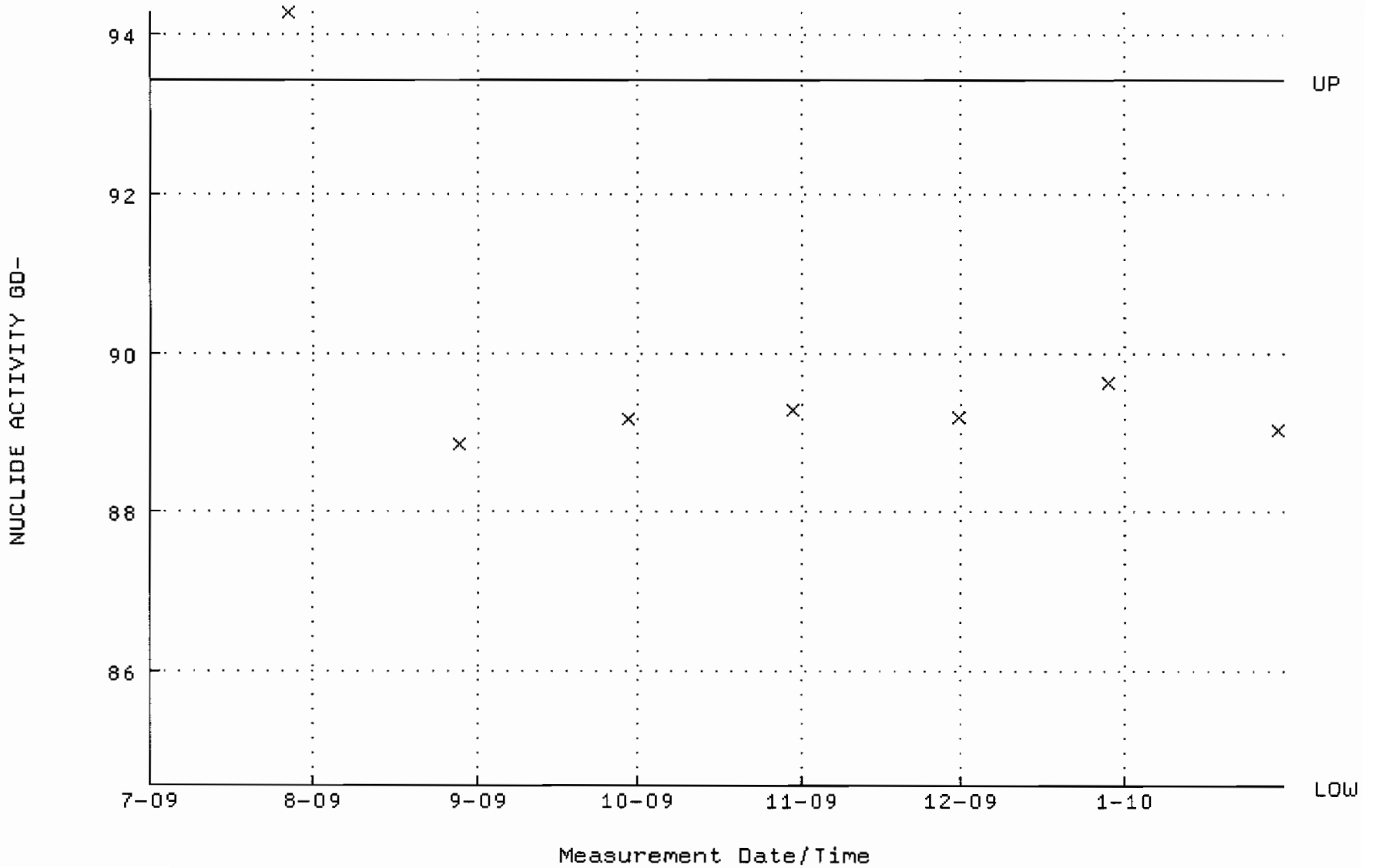

QA filename : DKA100:[ENV_ALPHA.QA.B]B219.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

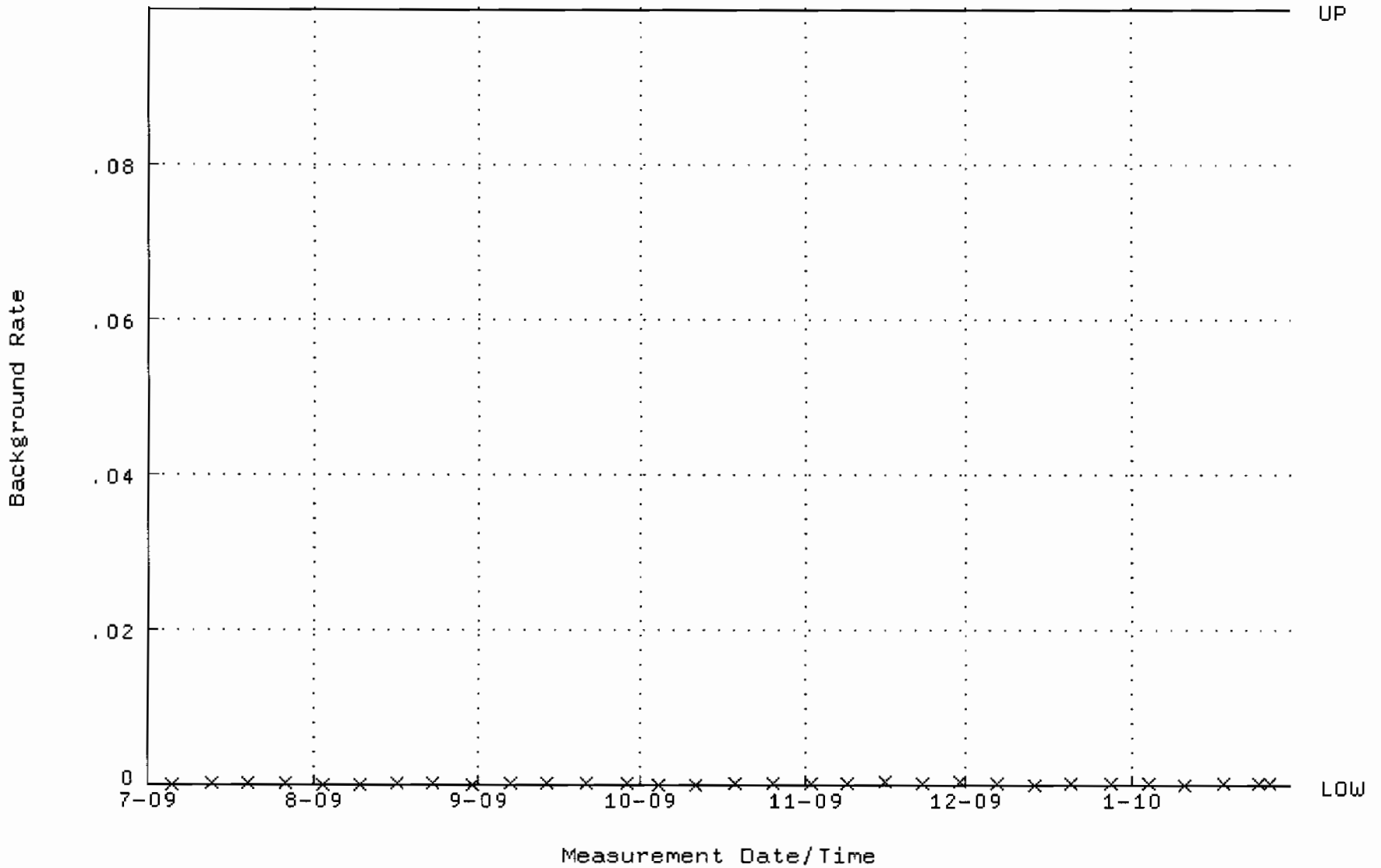

QA filename : DKA100:[ENV_ALPHA.QA.W]W220.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:23 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.359644 through 0.379644

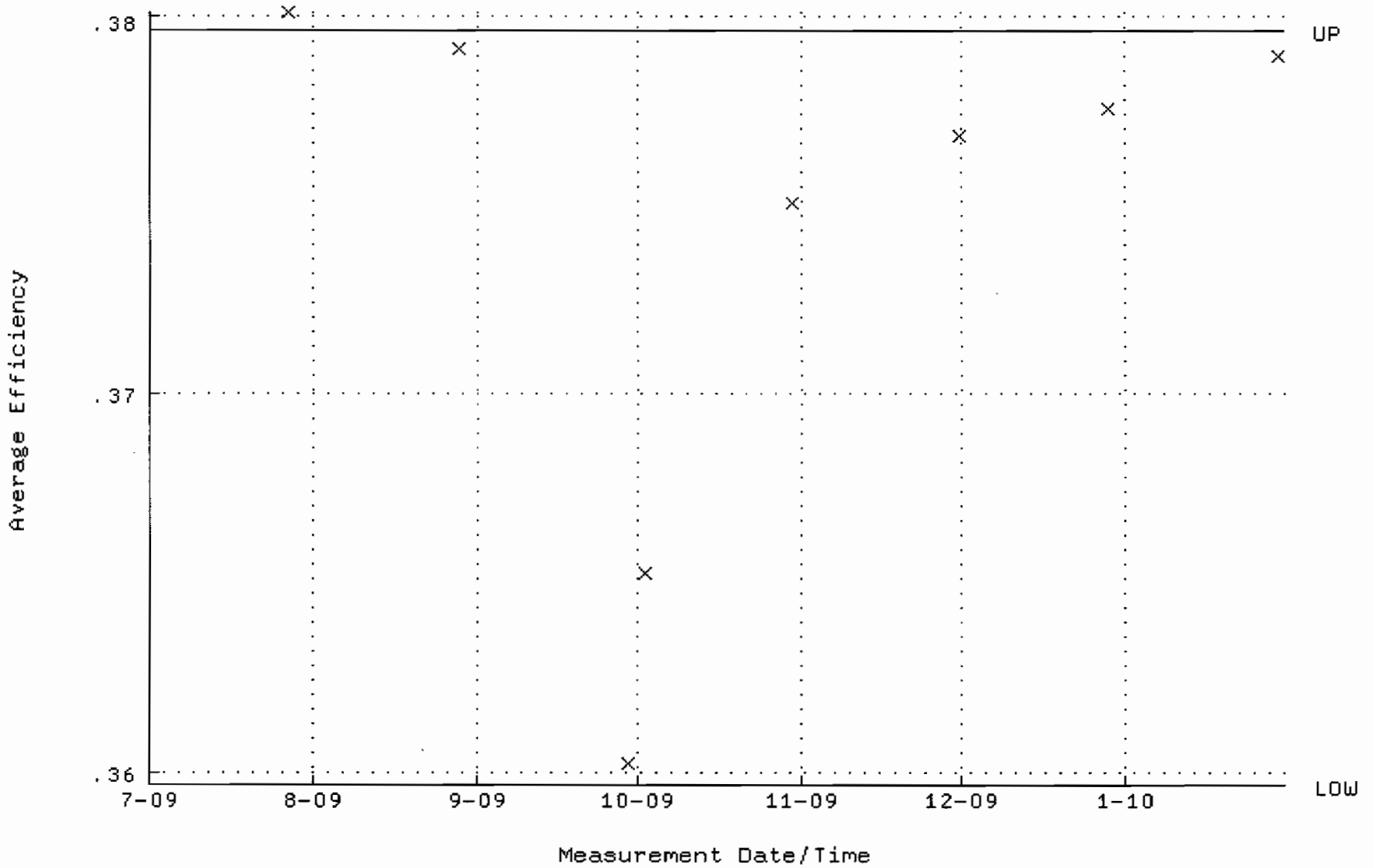

QA filename : DKA100:[ENV_ALPHA.QA.W]W220.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:23 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.2863 through 97.5795

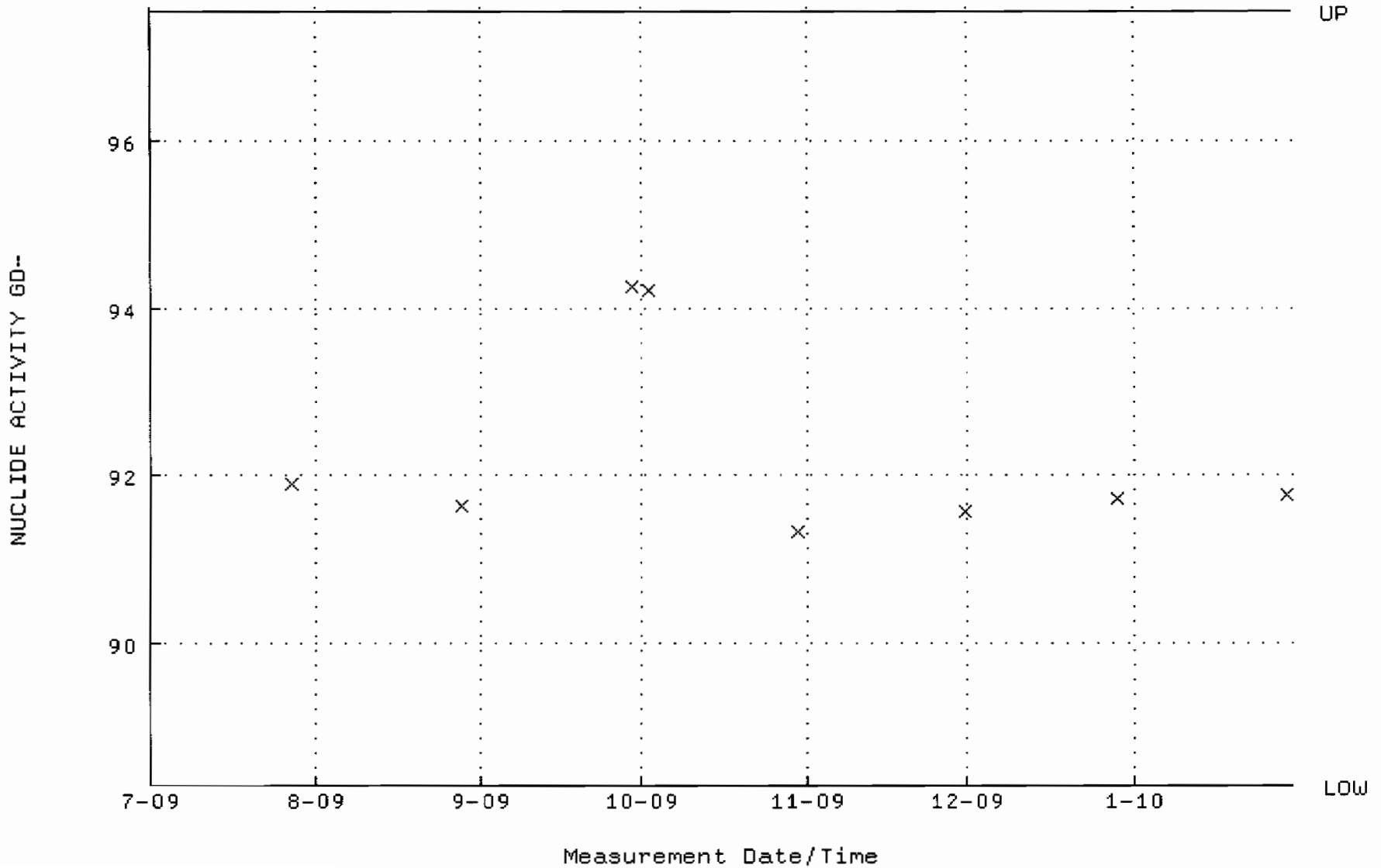

QA filename : DKA100:[ENV_ALPHA.QA.B]B220.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

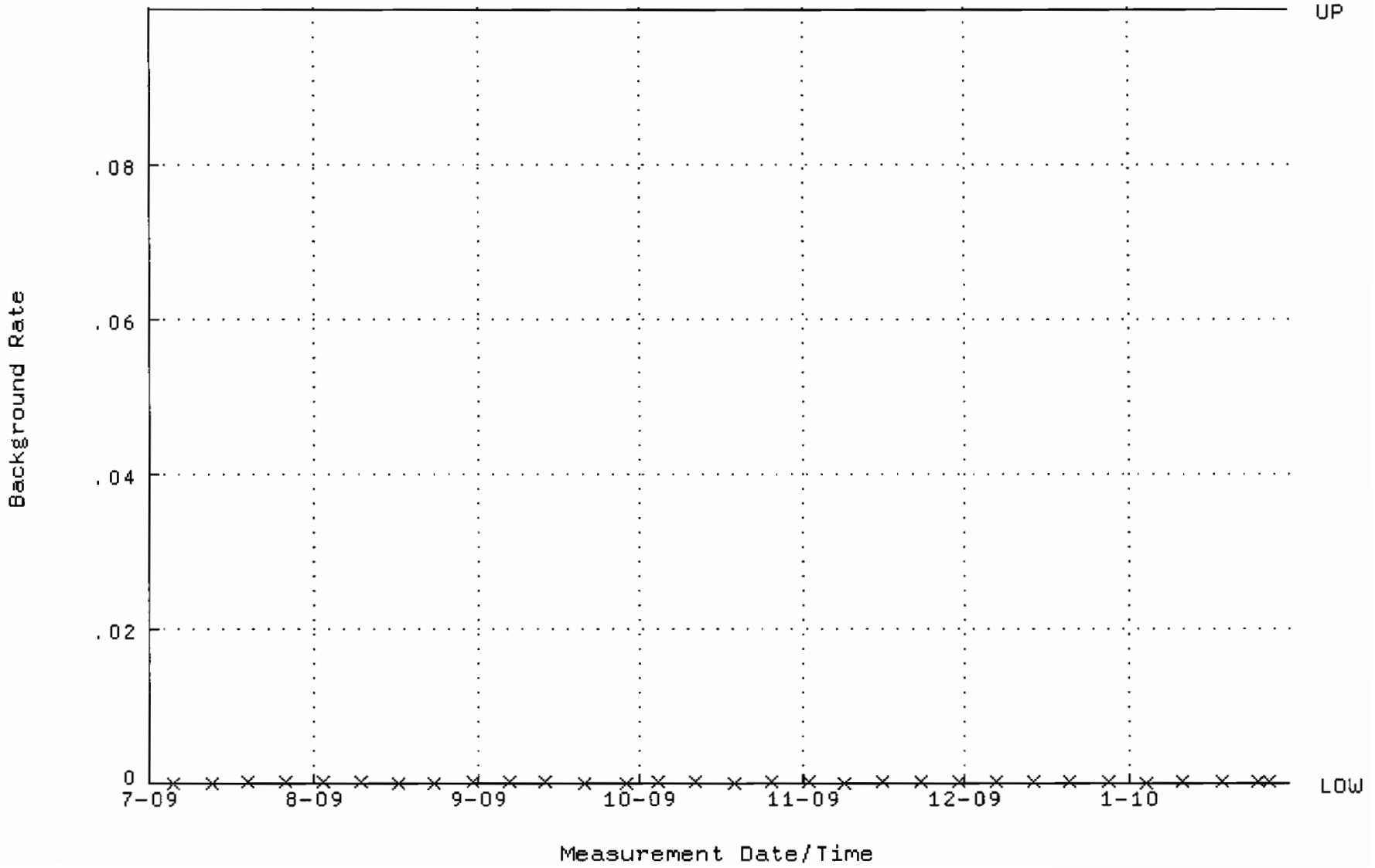

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:35 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.378748 through 0.398748

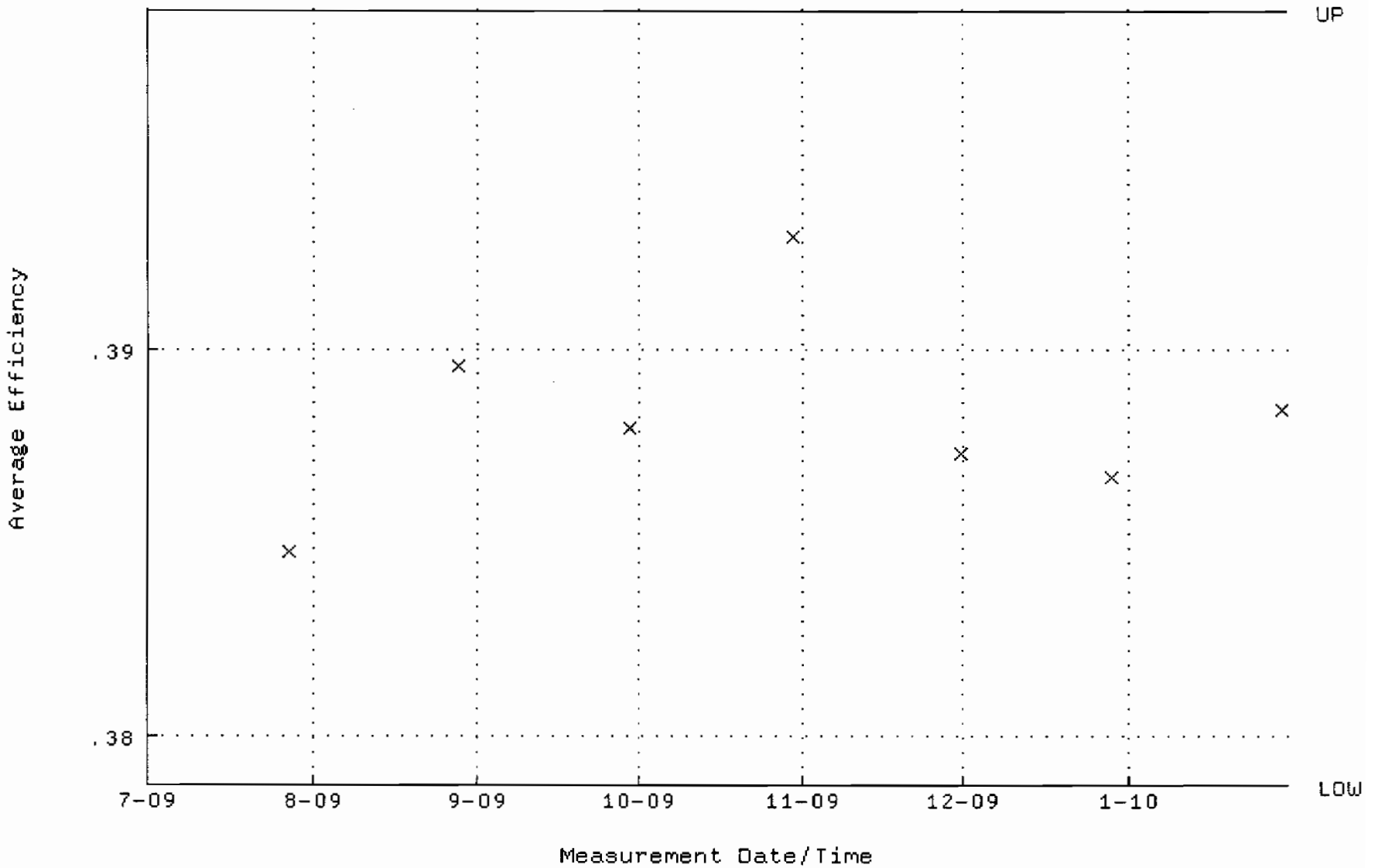

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:35 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 85.6783 through 94.6971

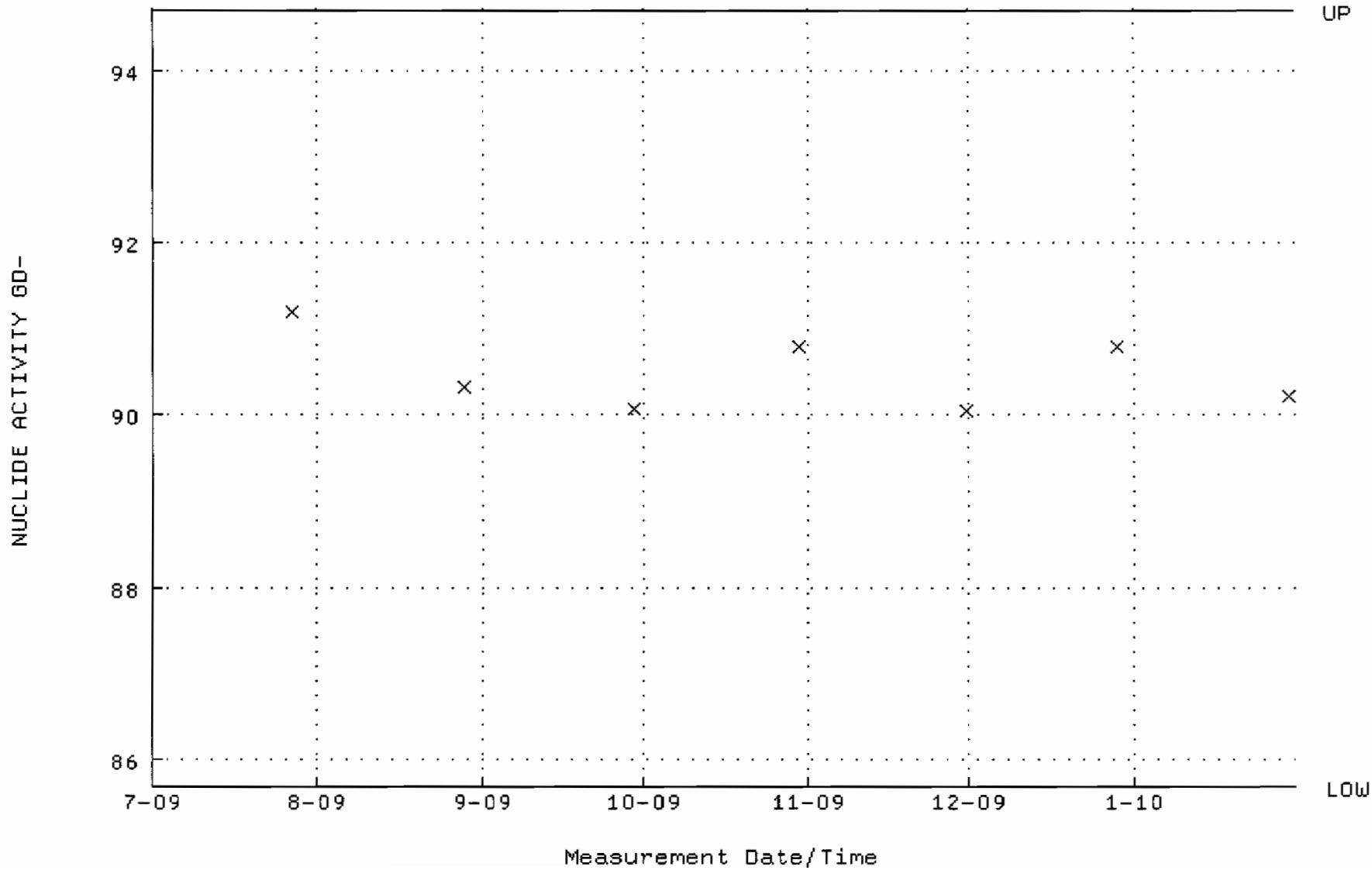

QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

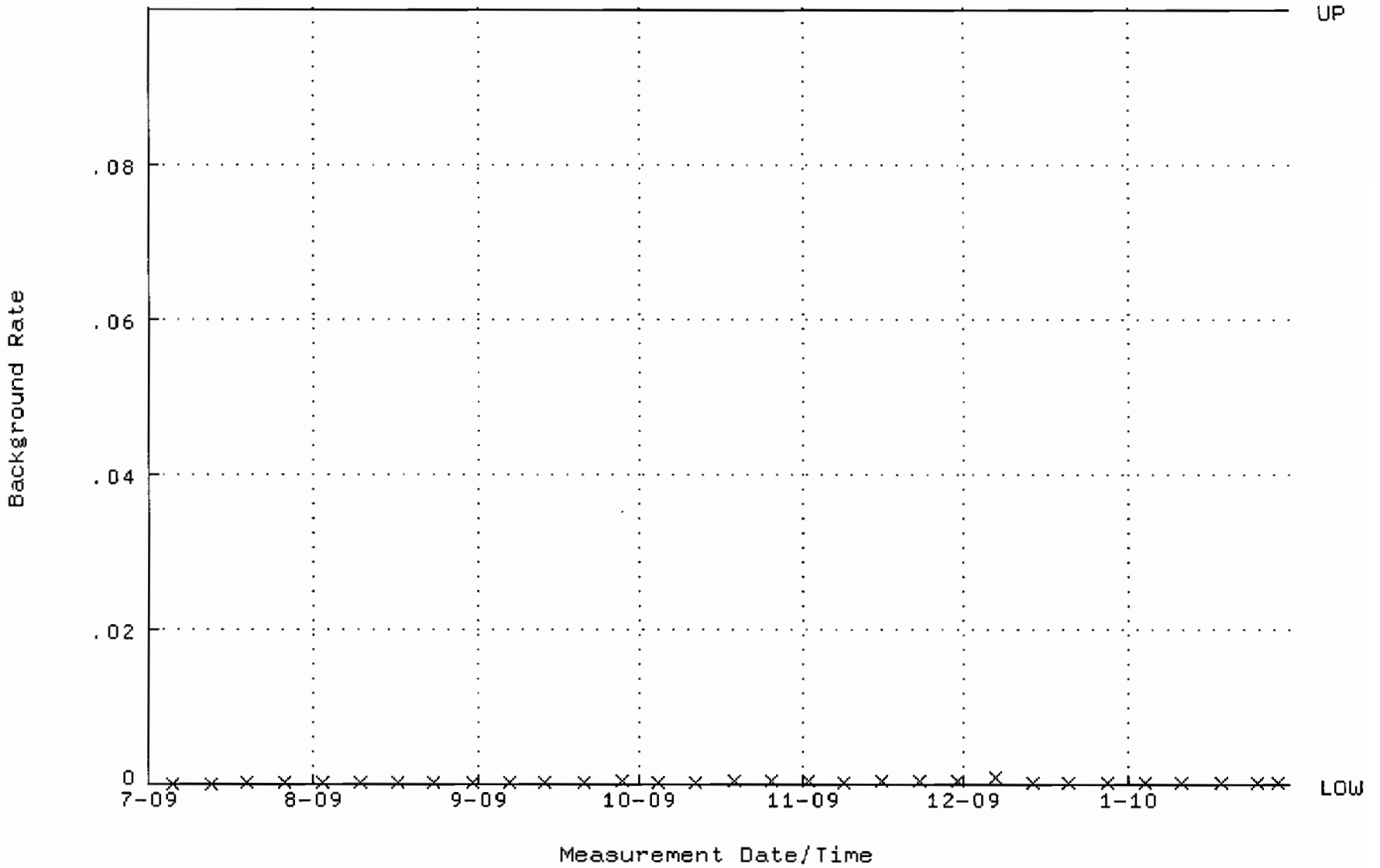

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:42 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.364210 through 0.384210

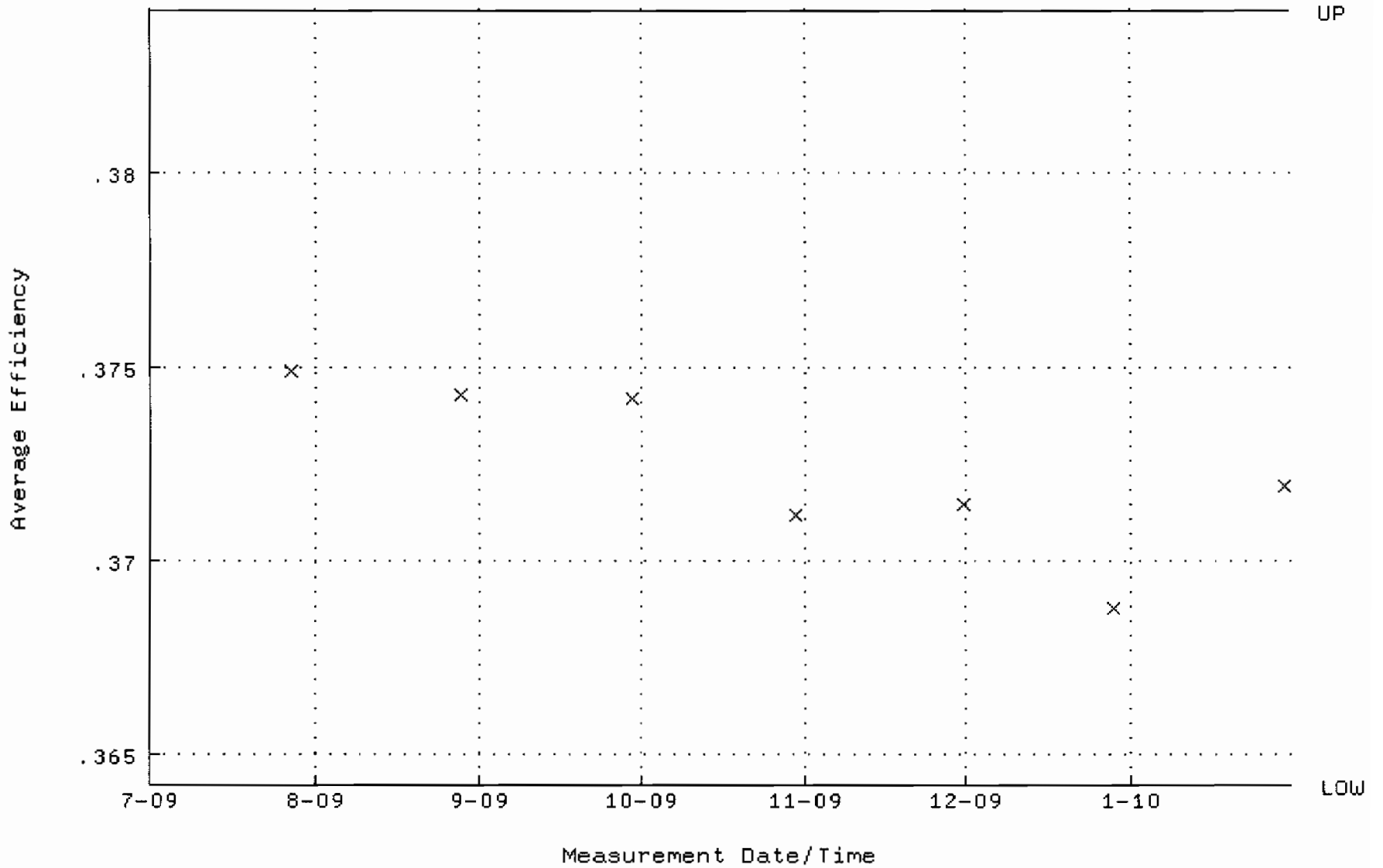

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:42 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.1819 through 93.0431

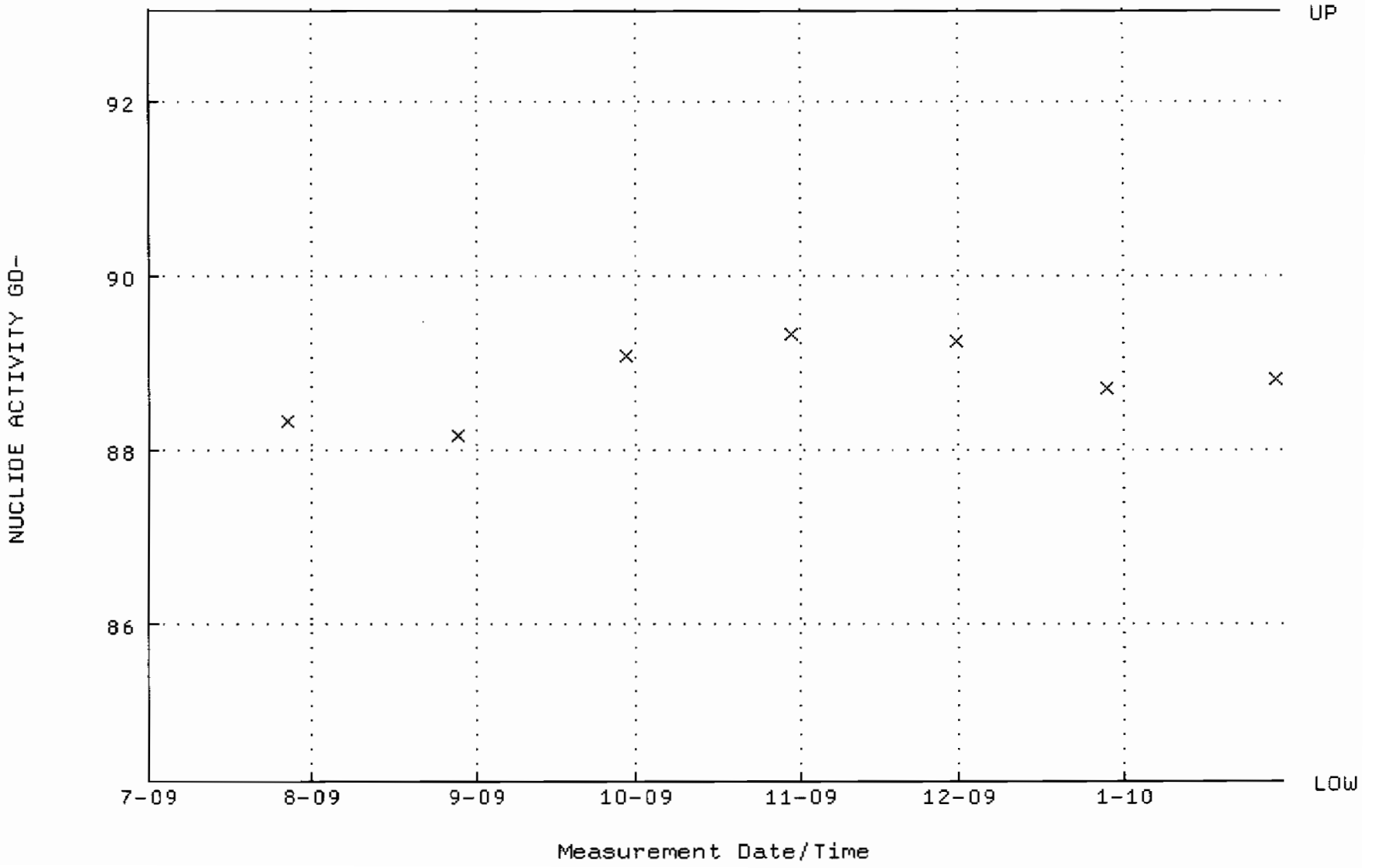

QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

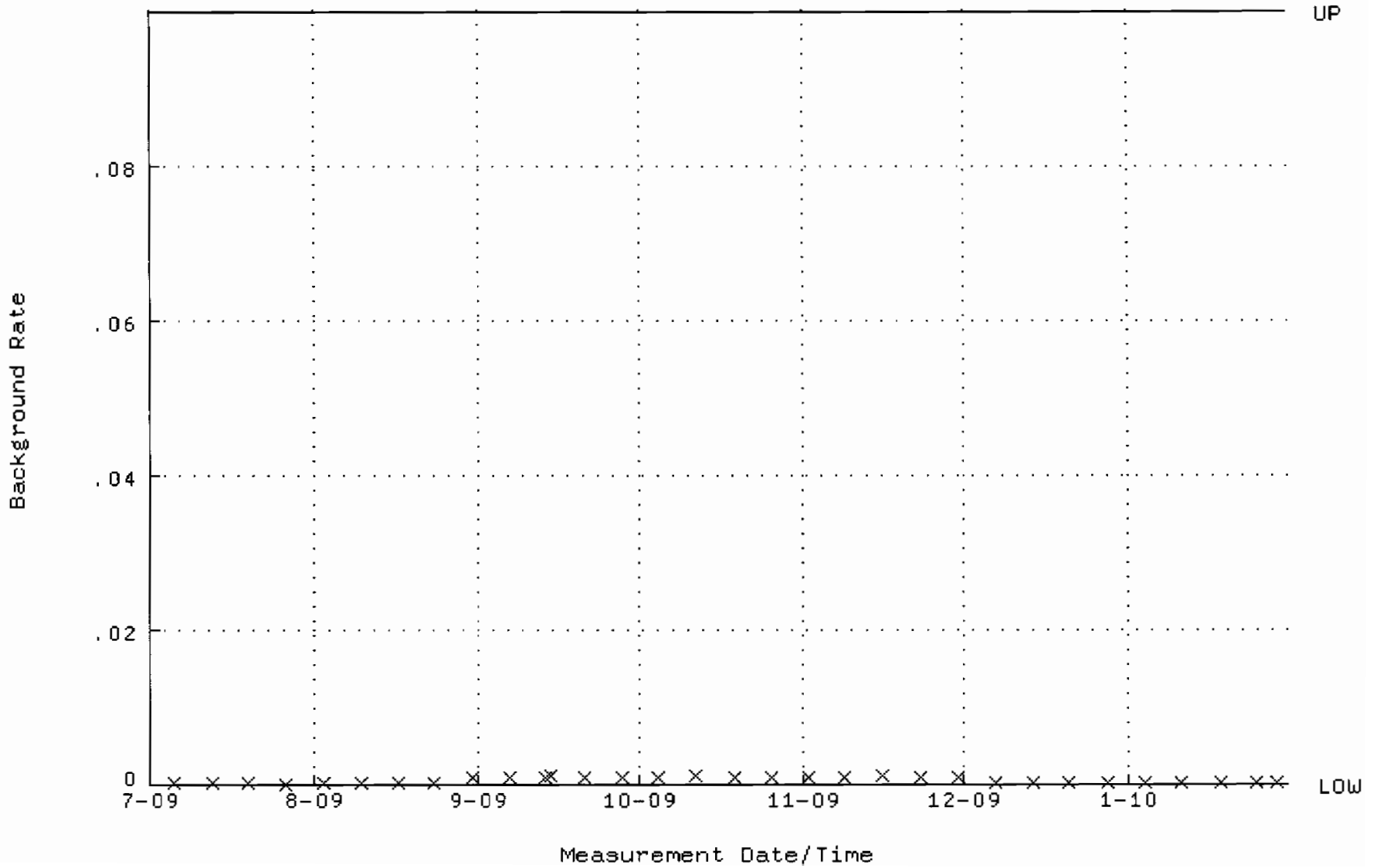

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.372001 through 0.392001

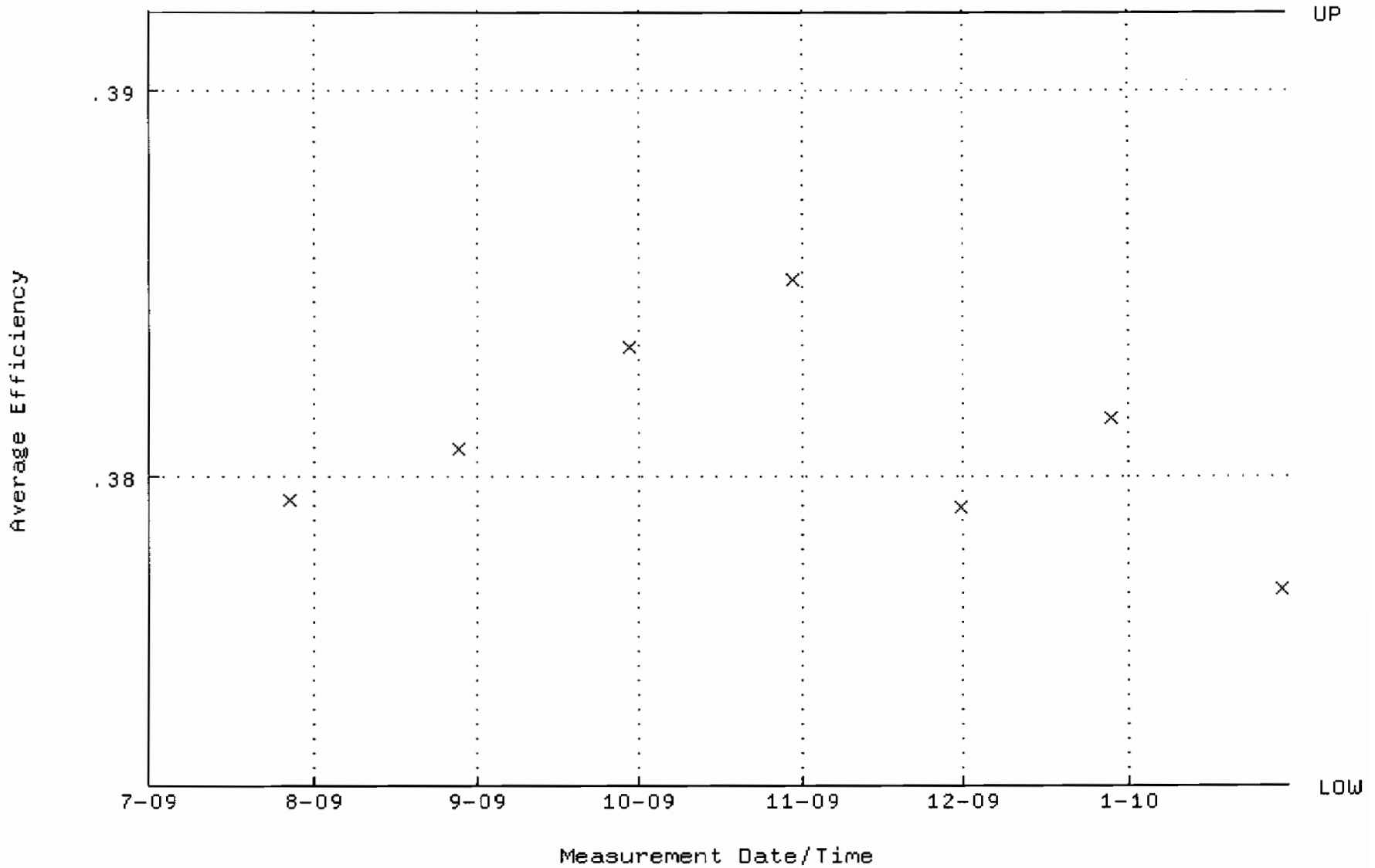

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.9652 through 91.6984

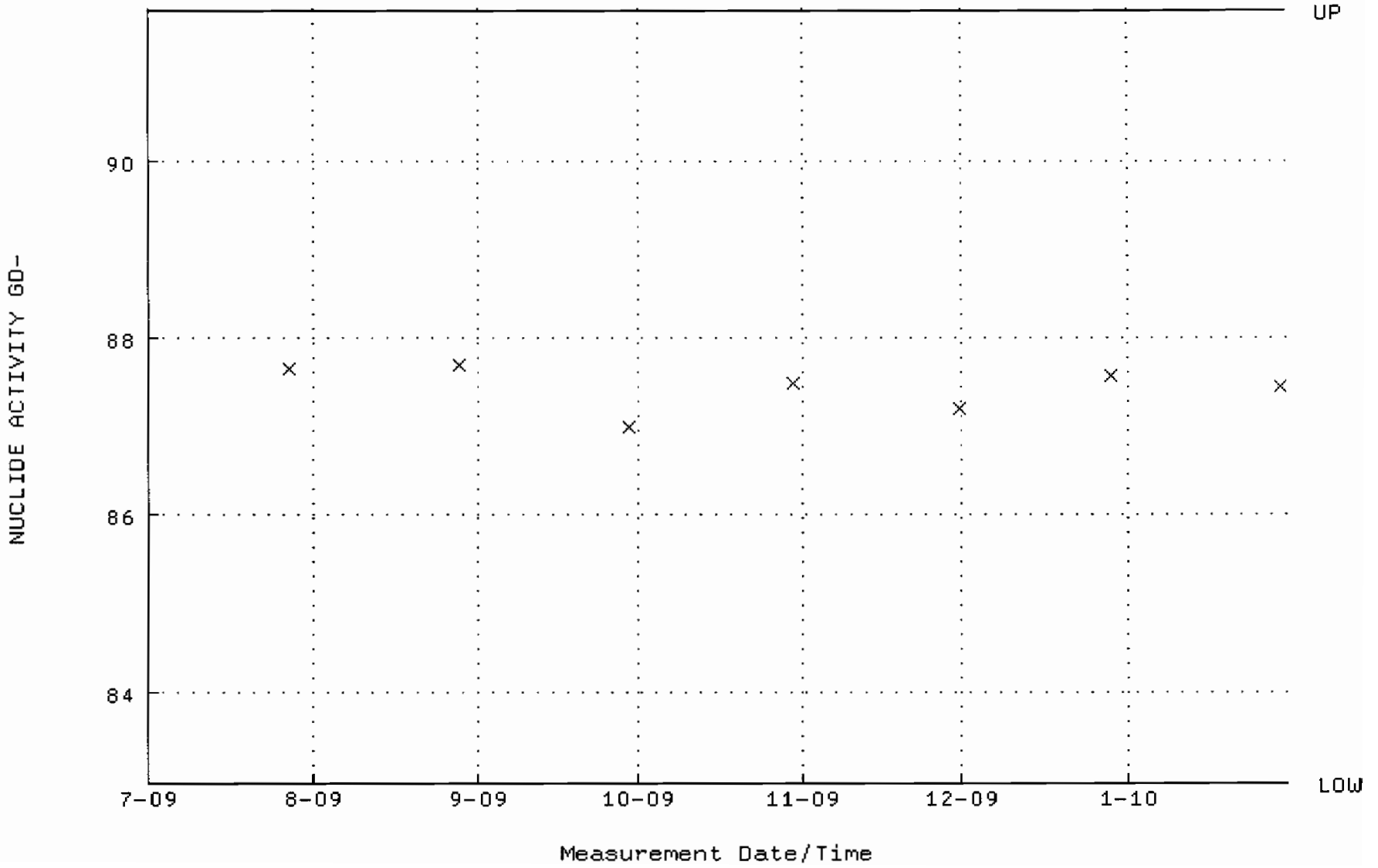

QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

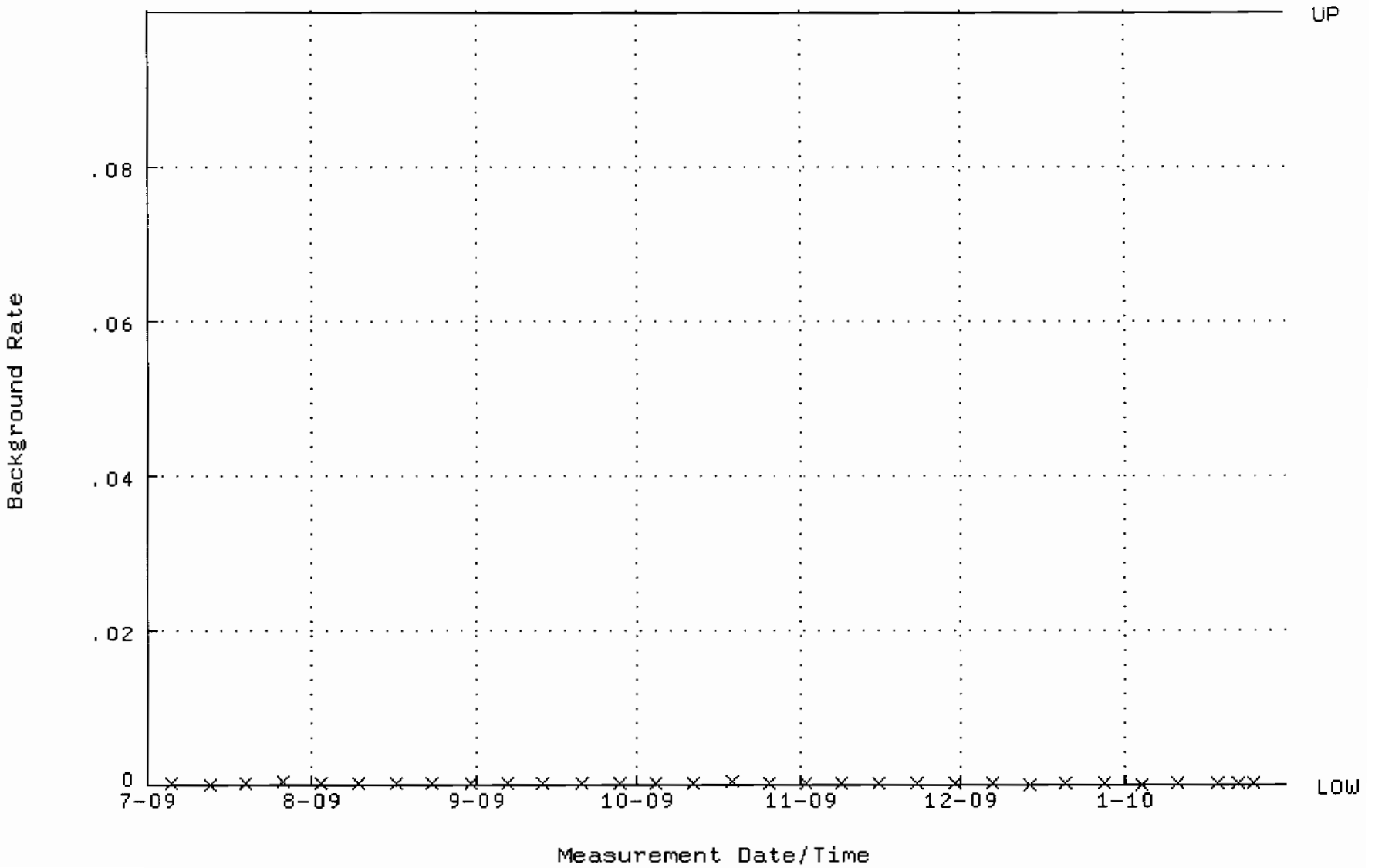

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.372763 through 0.392763

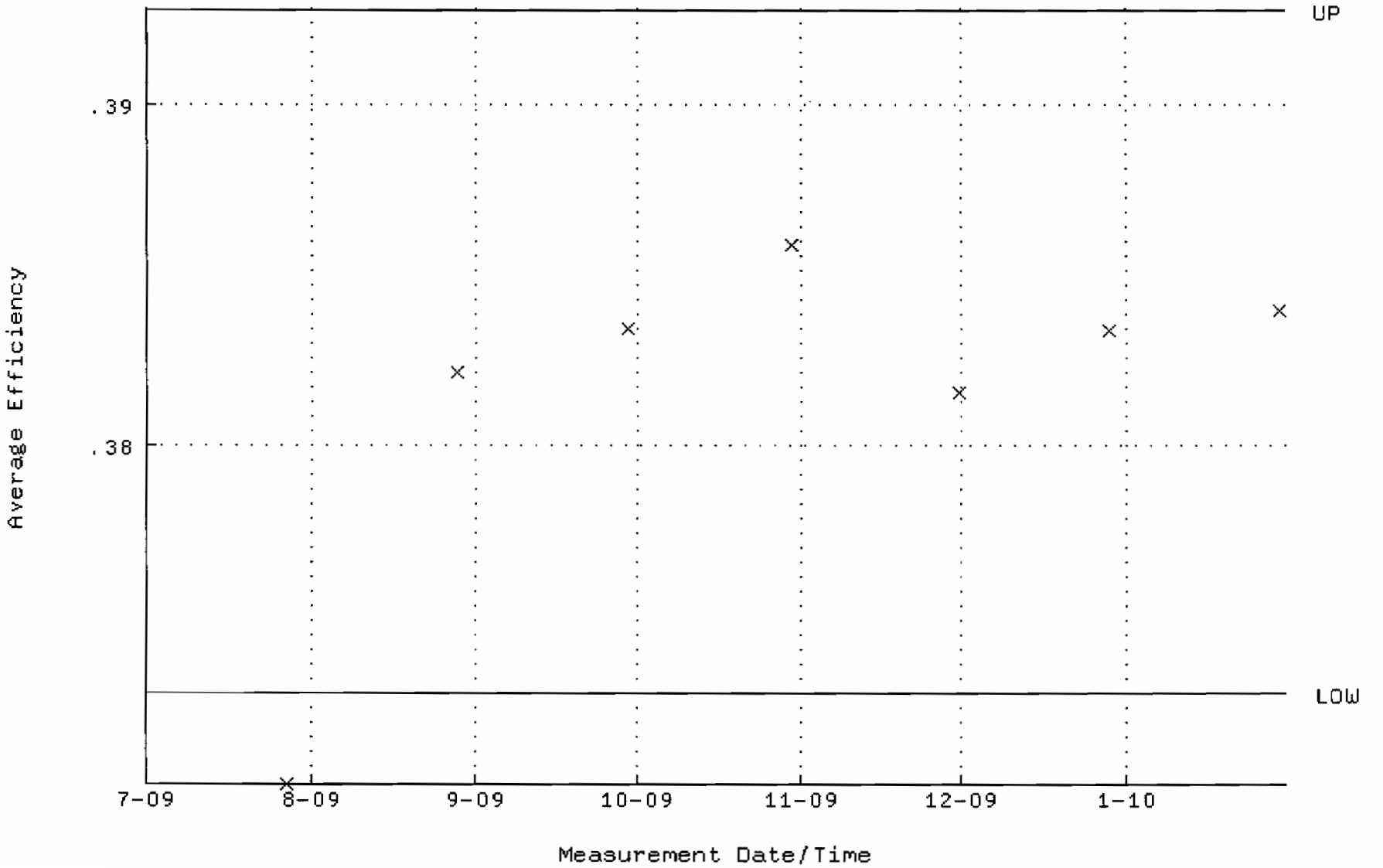

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 80.7996 through 89.3048

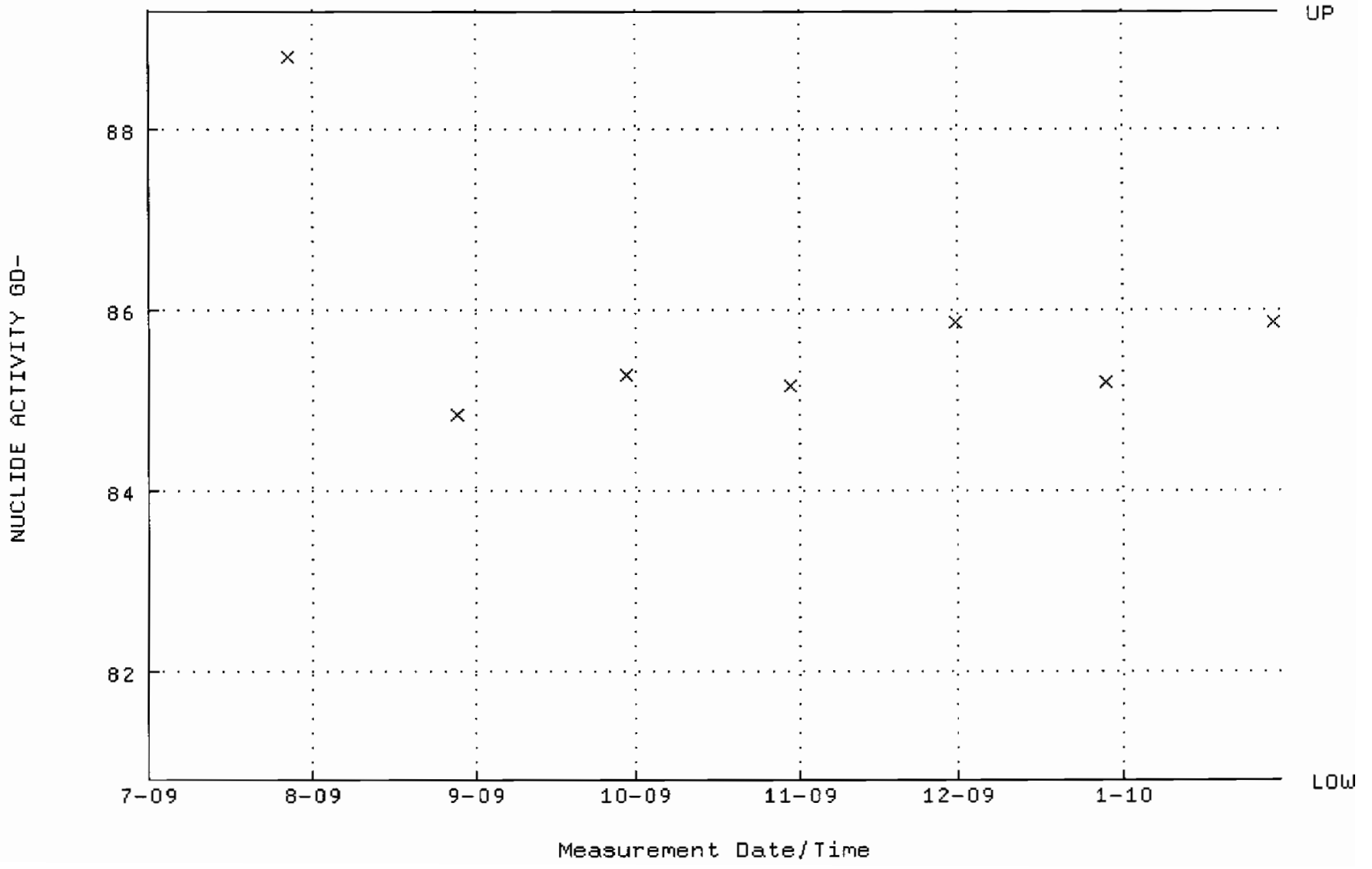

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:15 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

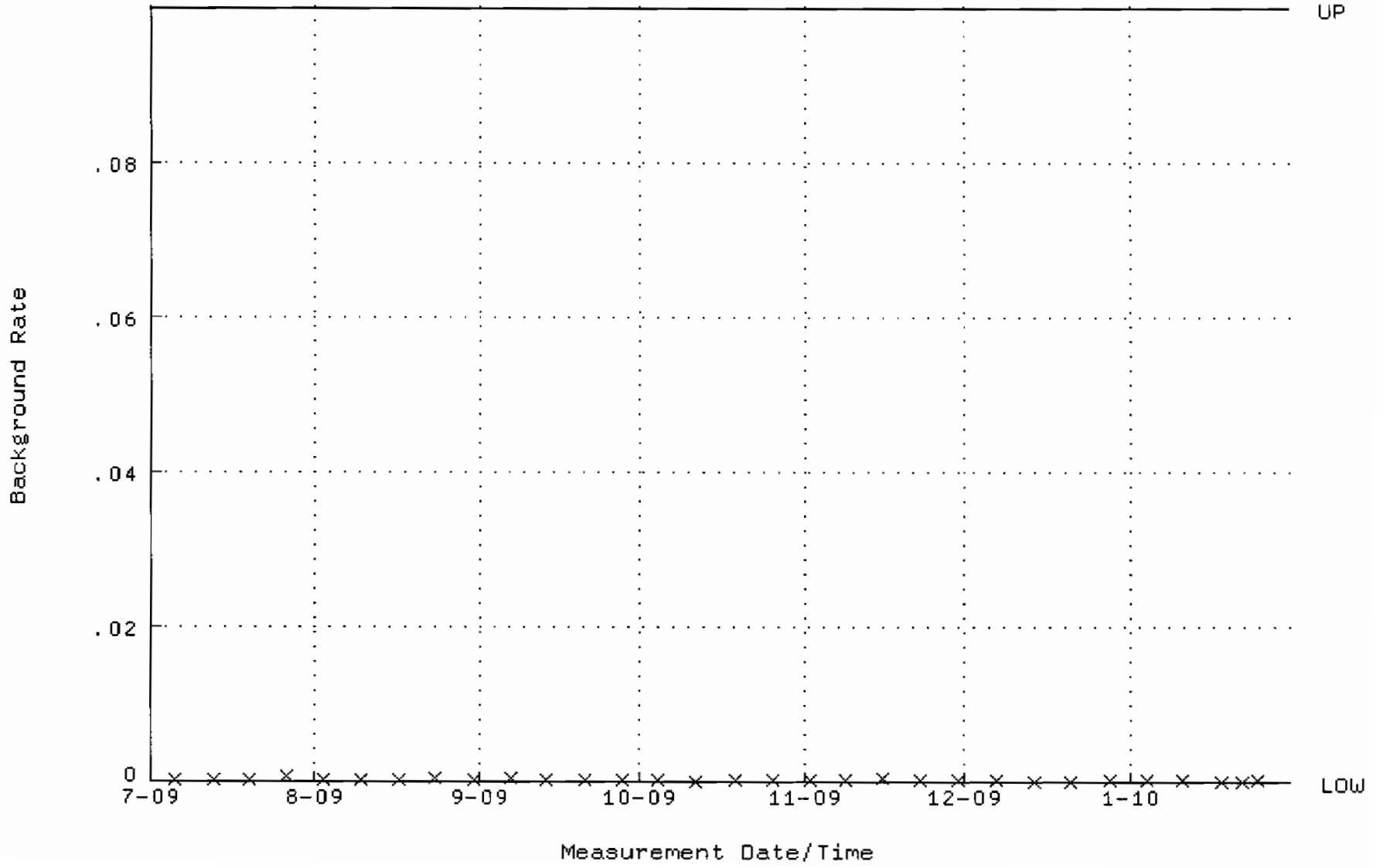

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.364314 through 0.384314

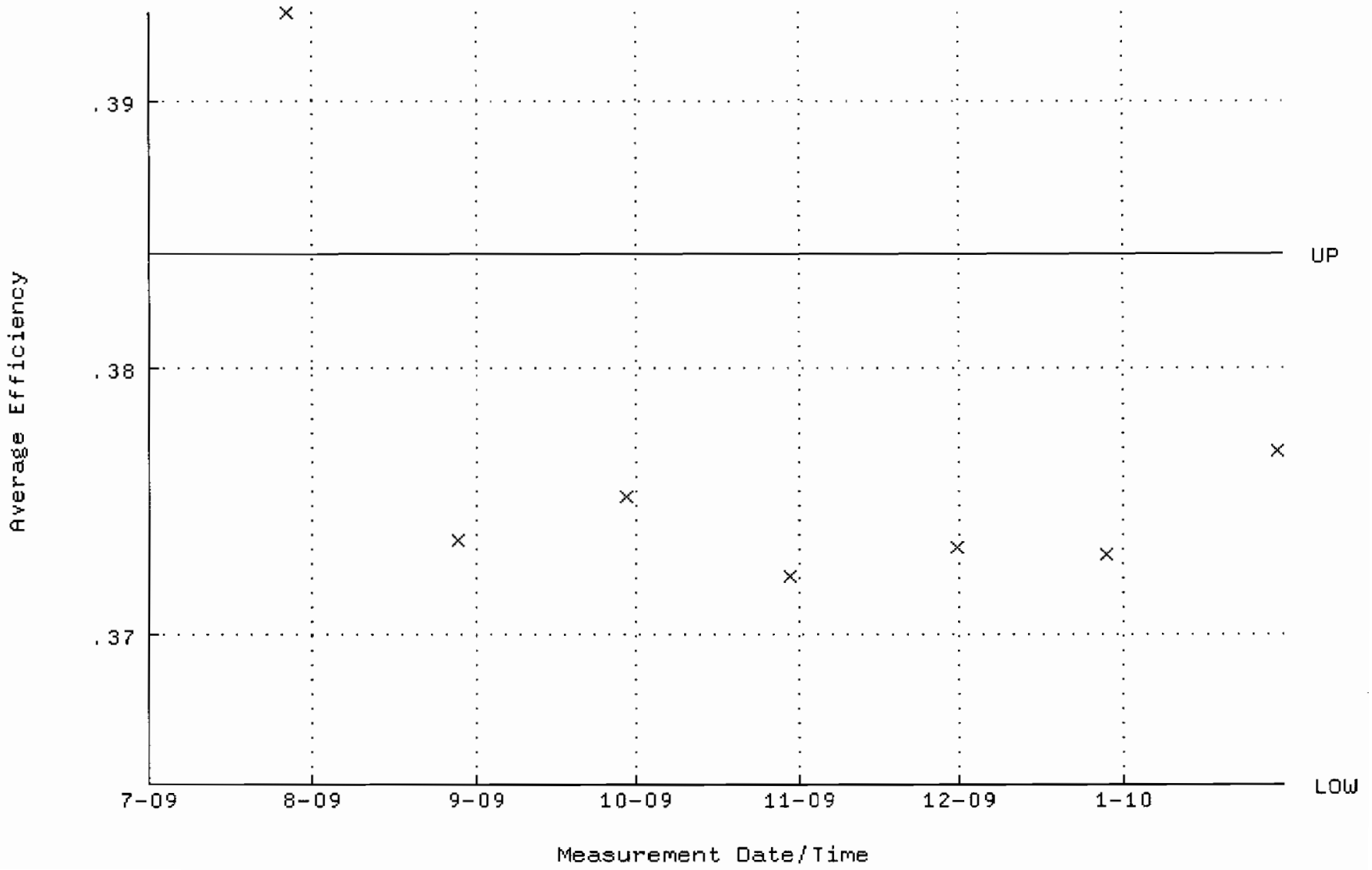

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7416 through 92.5566

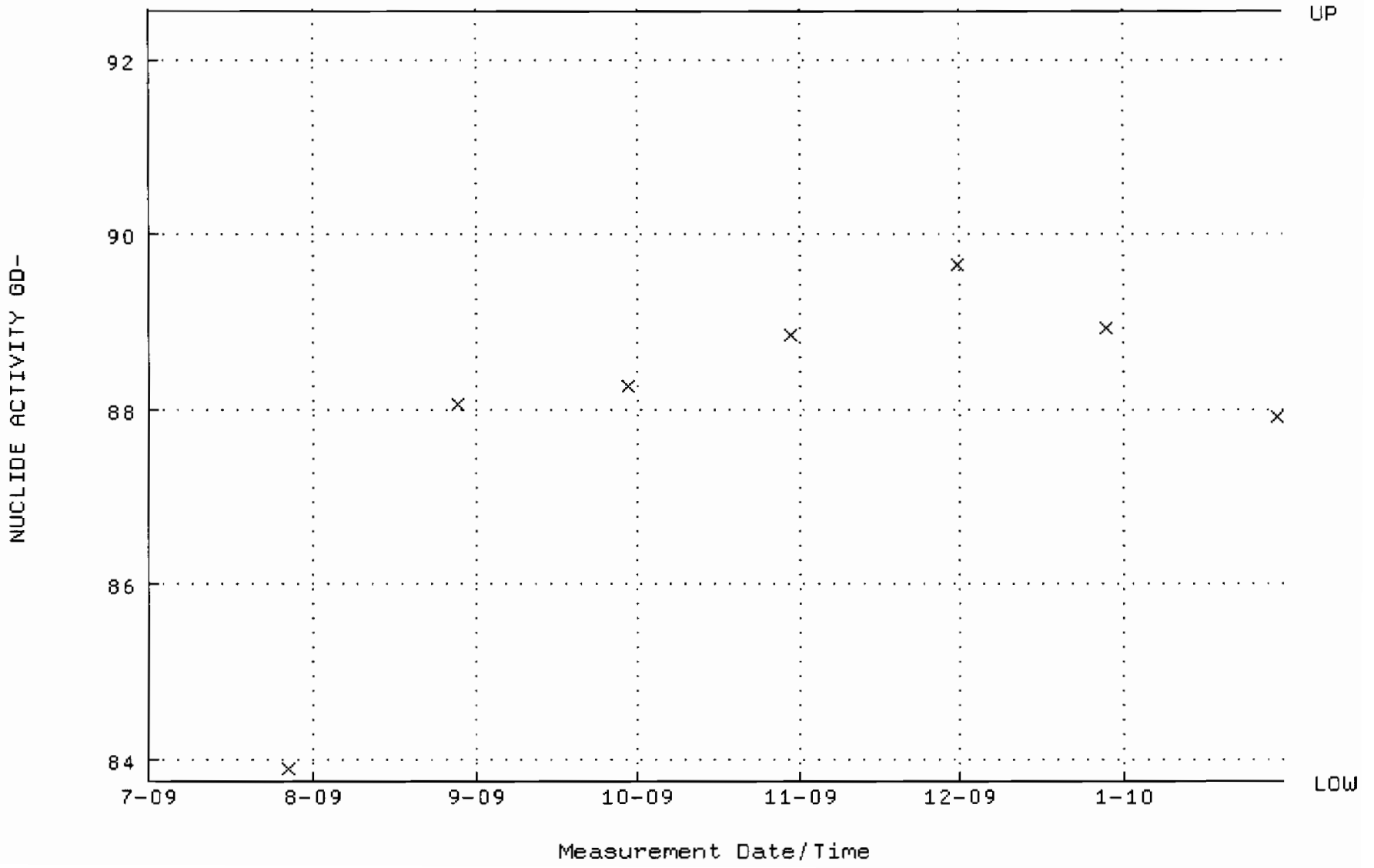

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

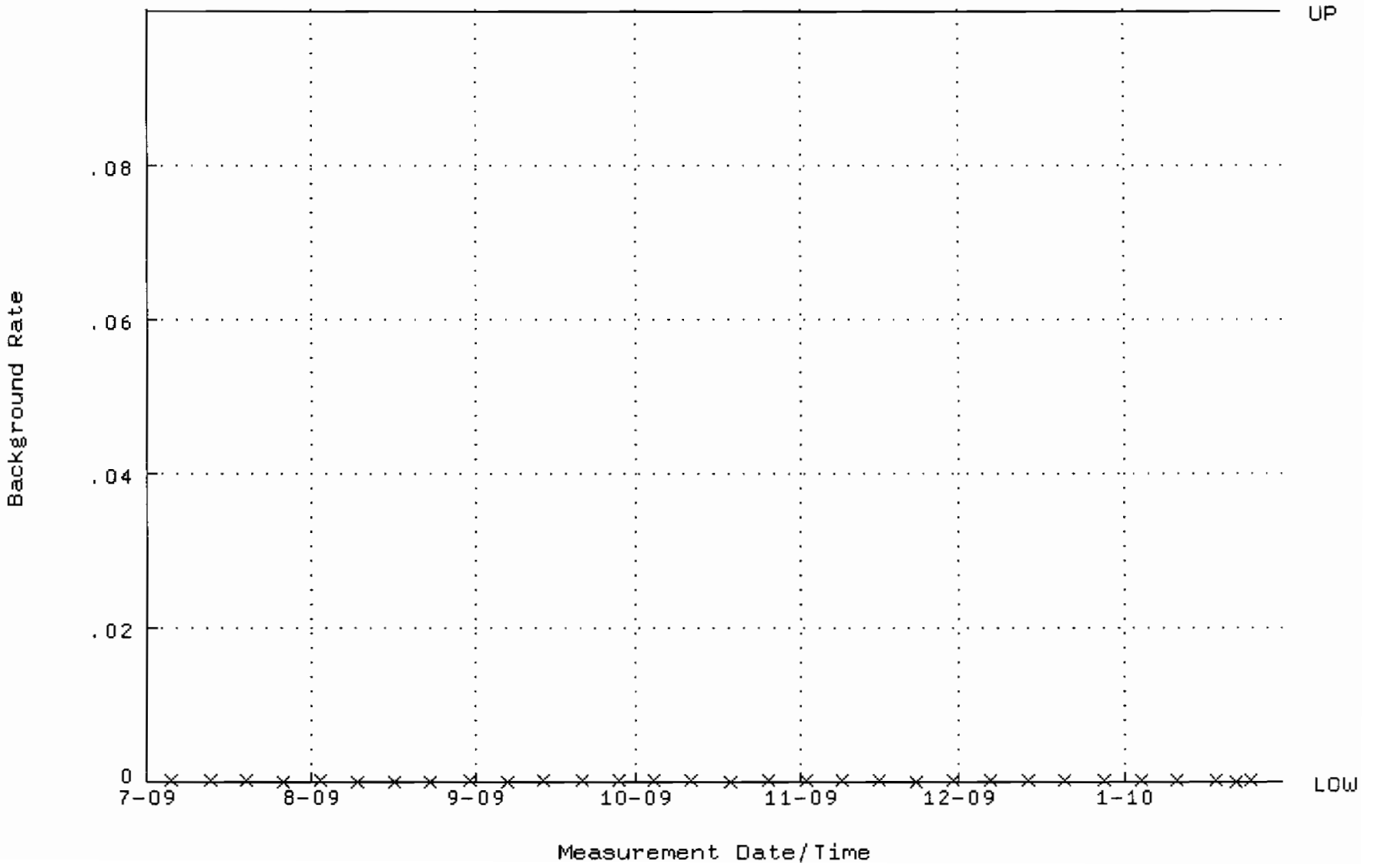

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.378766 through 0.398766

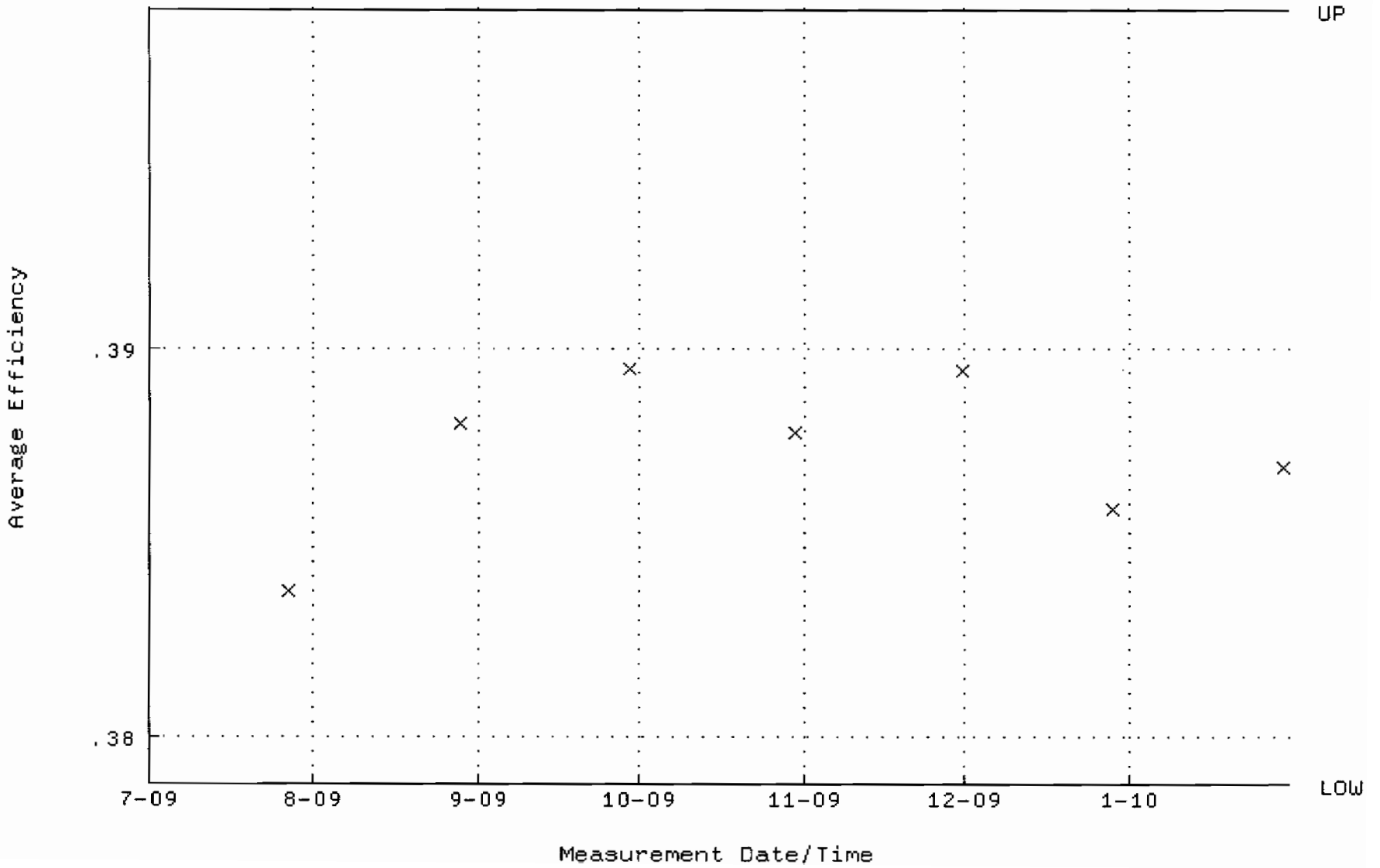

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 81.8490 through 90.4646

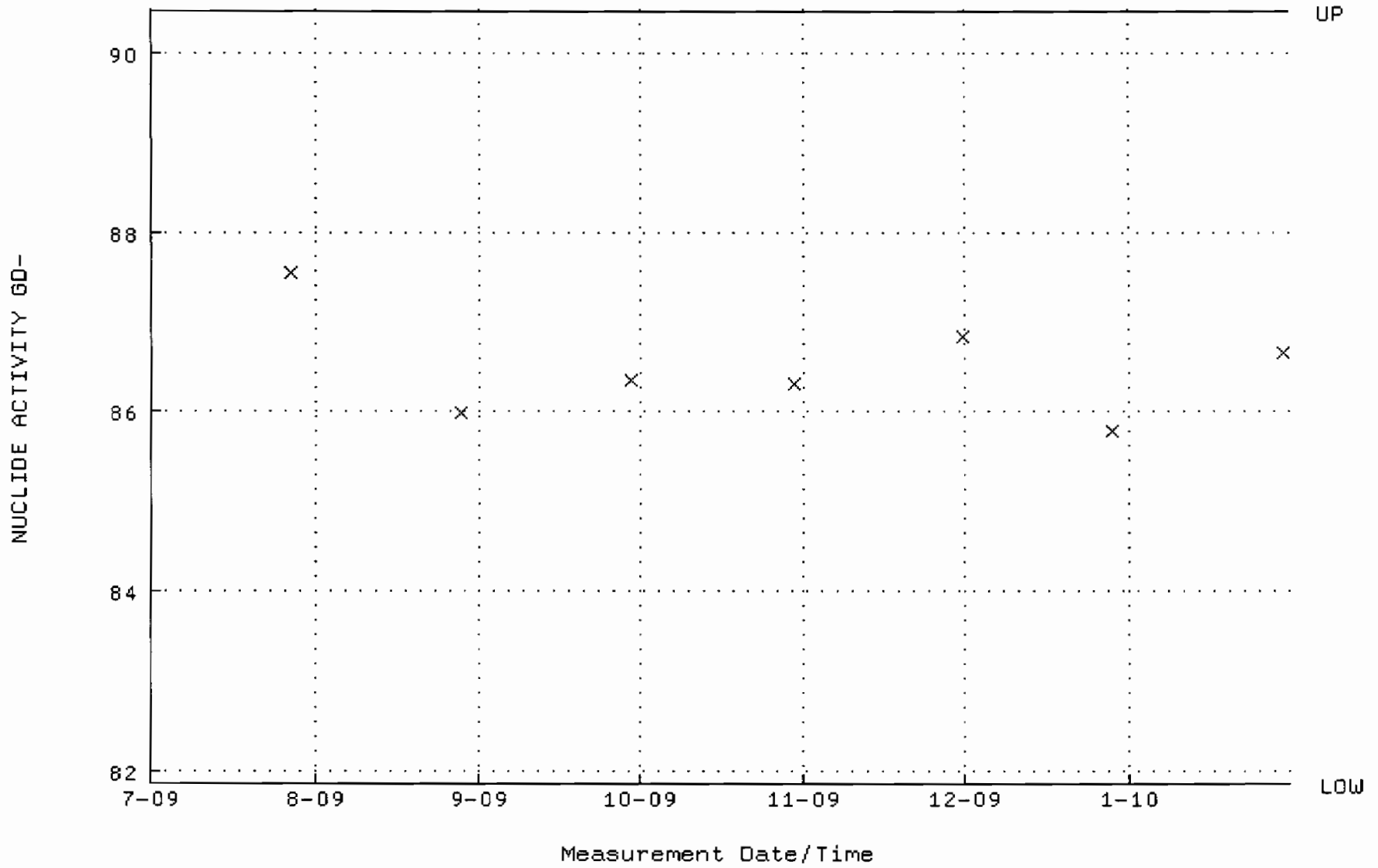

QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

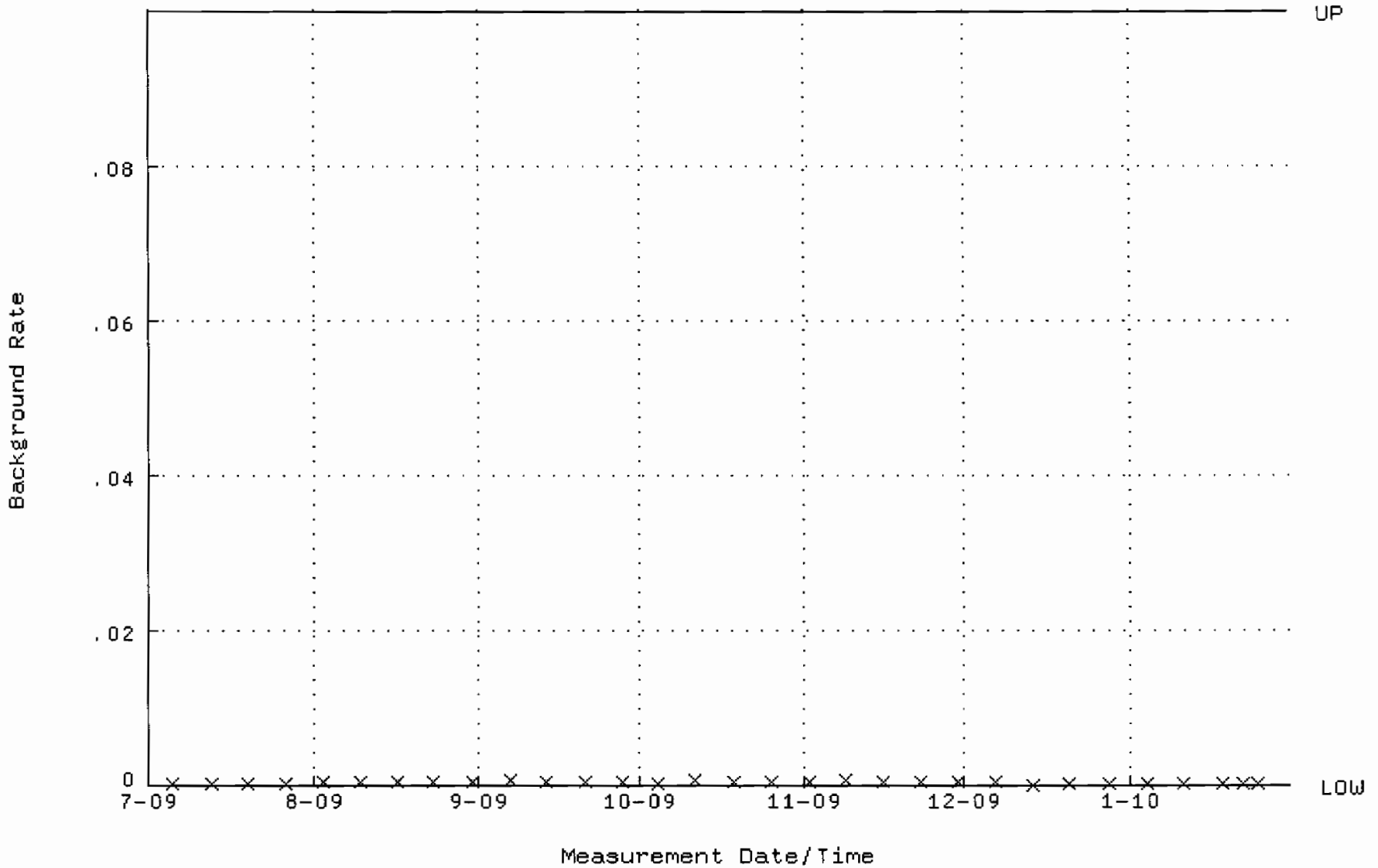

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:14 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.390000 through 0.410000

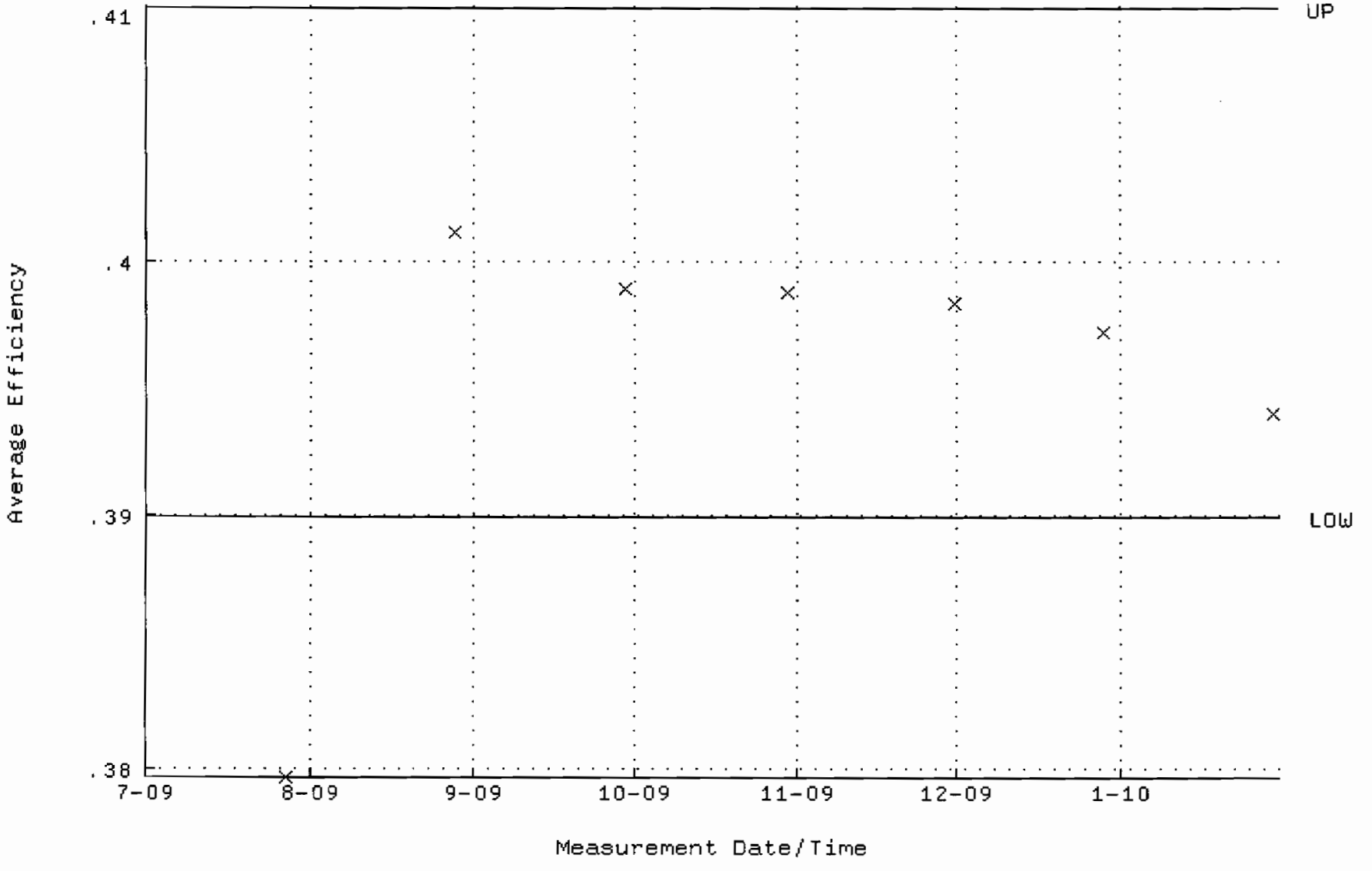

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:14 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.5642 through 87.9394

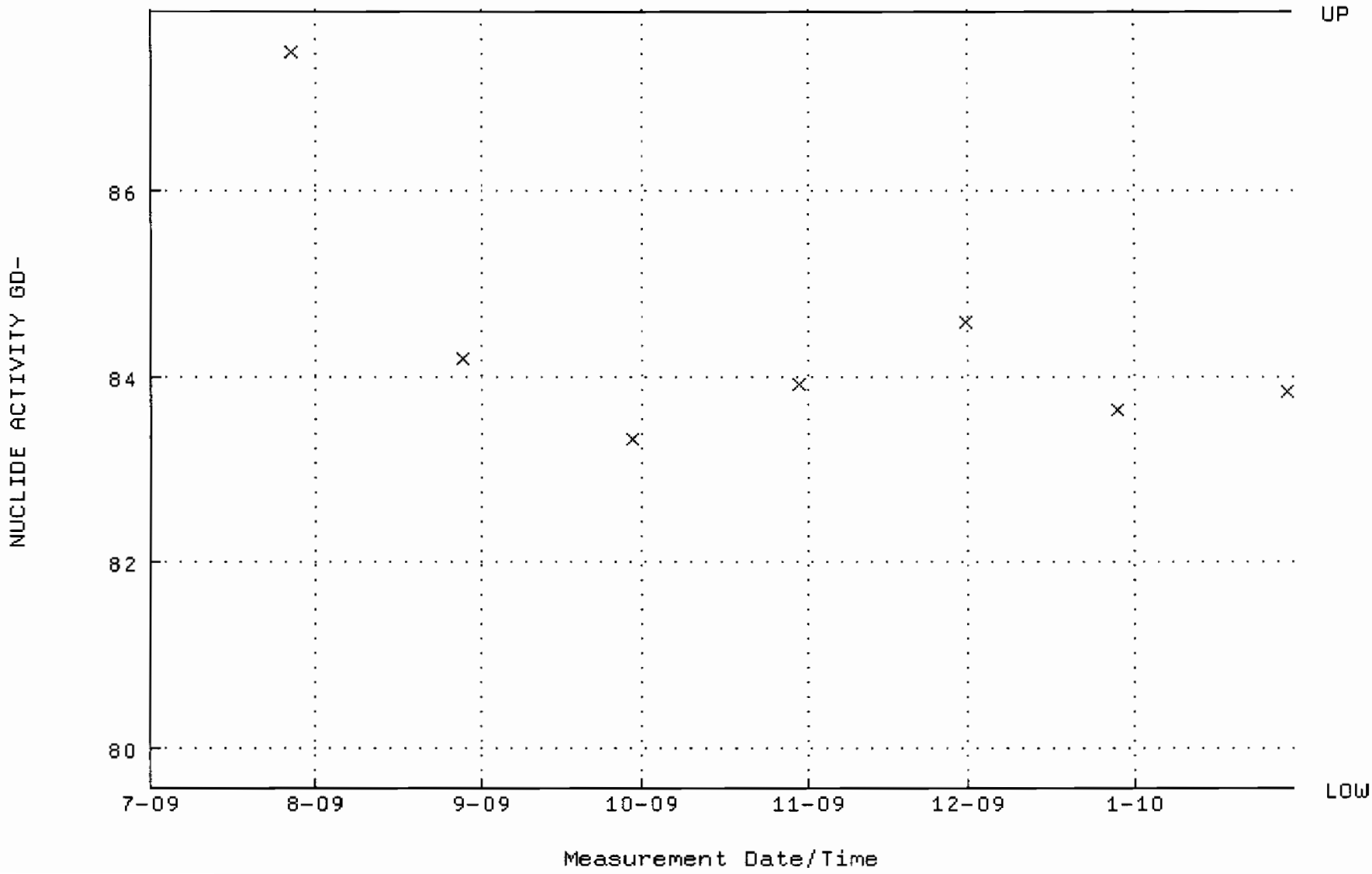

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

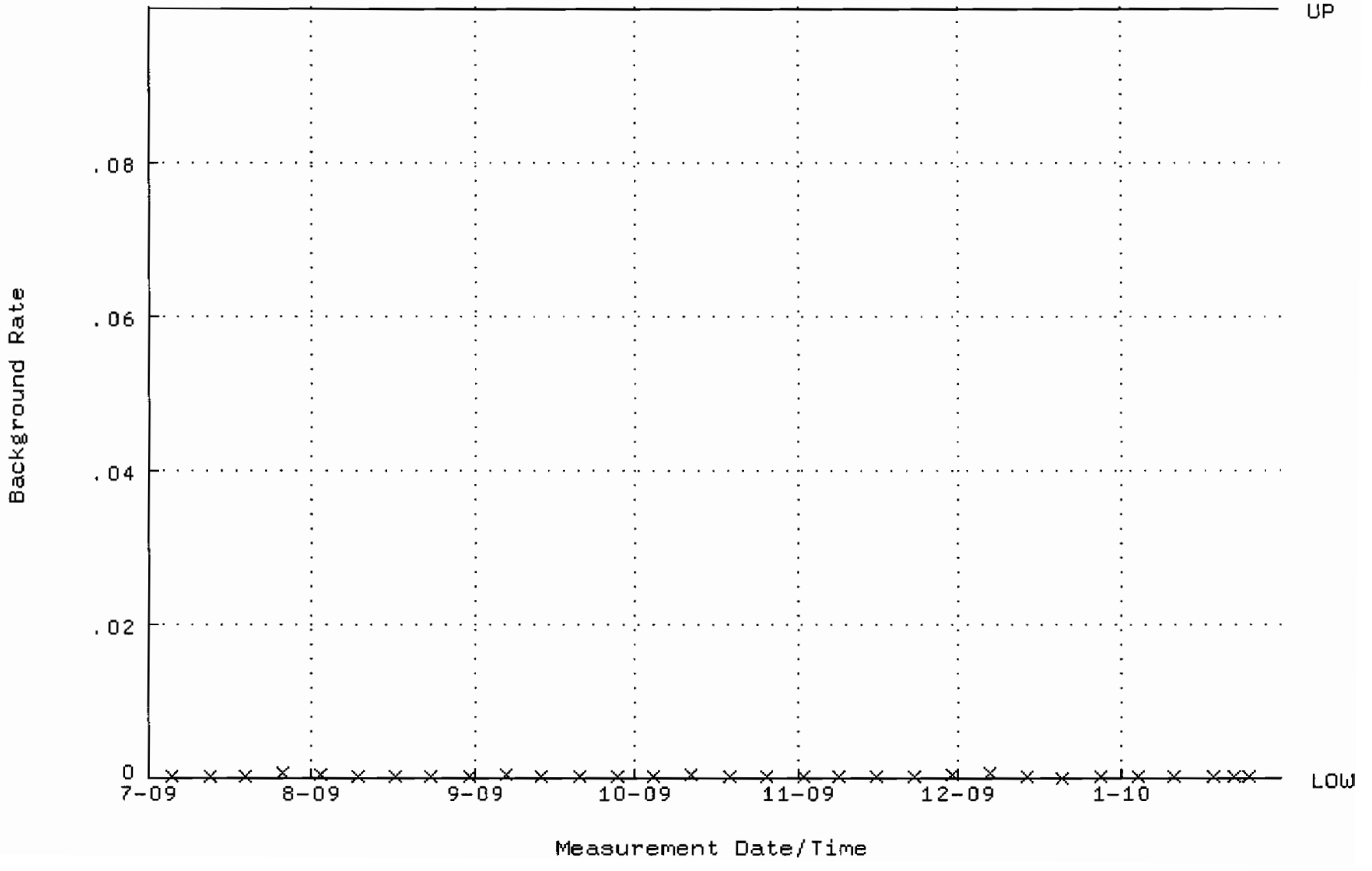

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.386660 through 0.406660

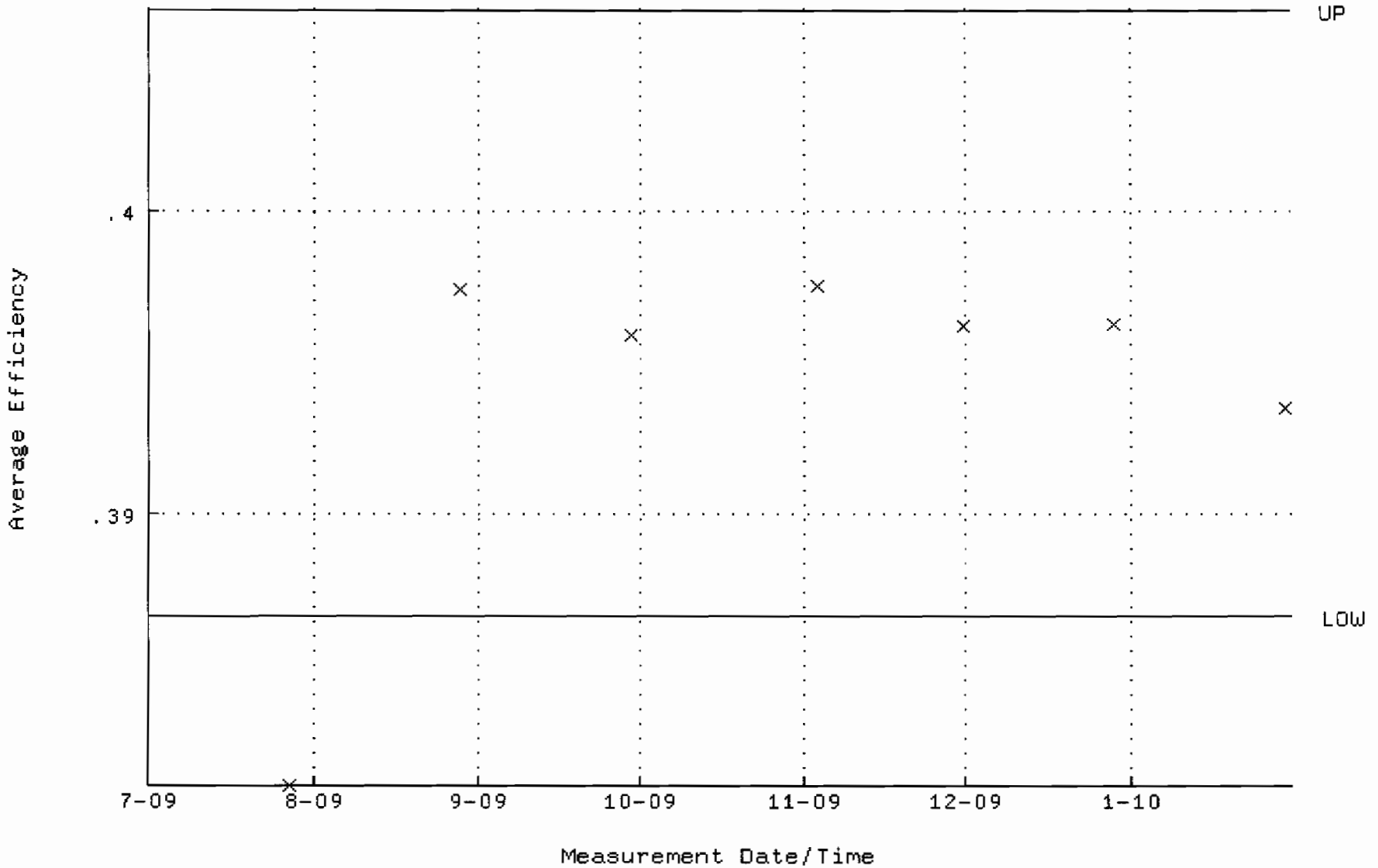

QA filename : DKA100:[ENV_ALPHA.QA.W]W238.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 80.1146 through 88.5478

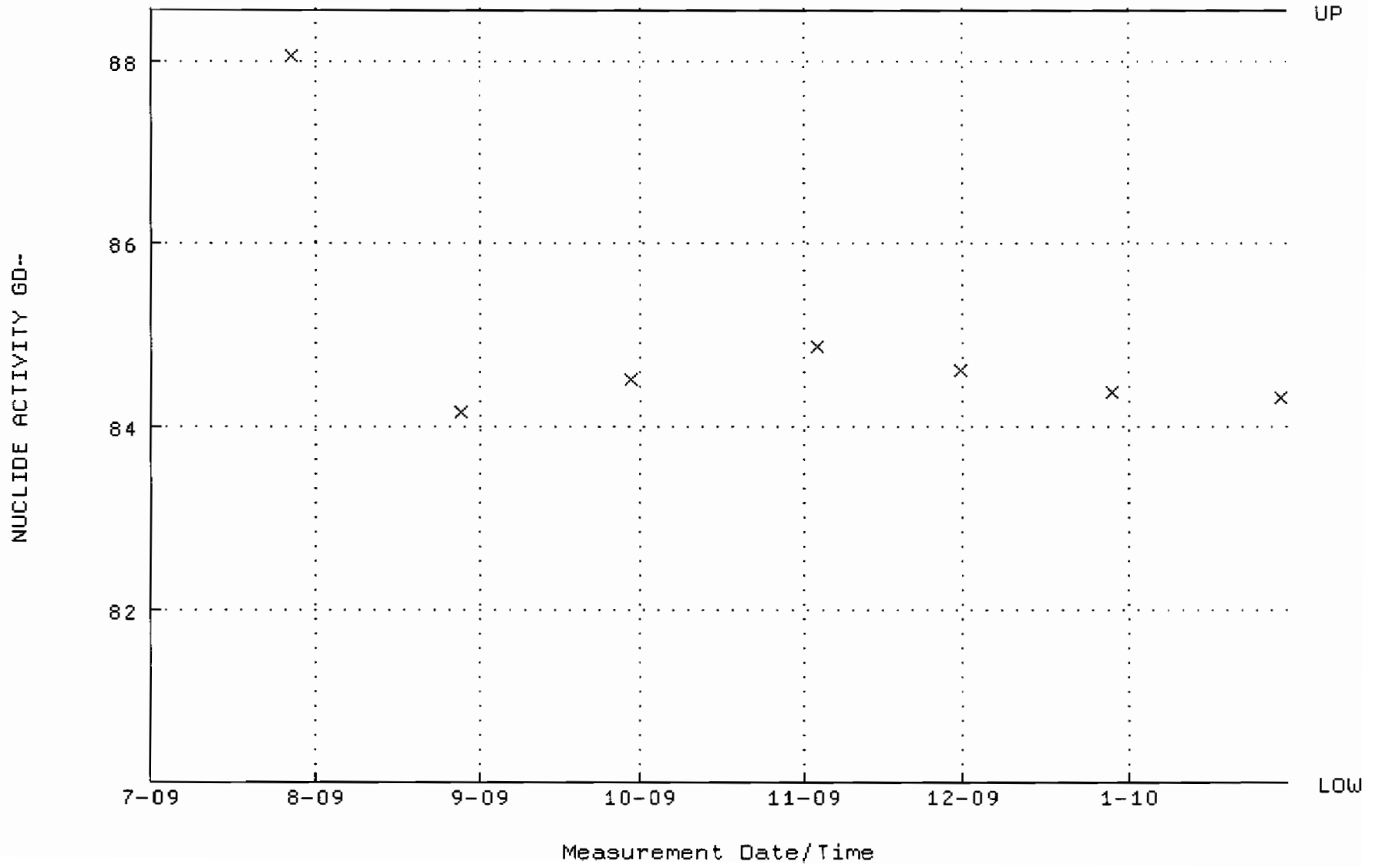

QA filename : DKA100:[ENV_ALPHA.QA.B]B238.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:34 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

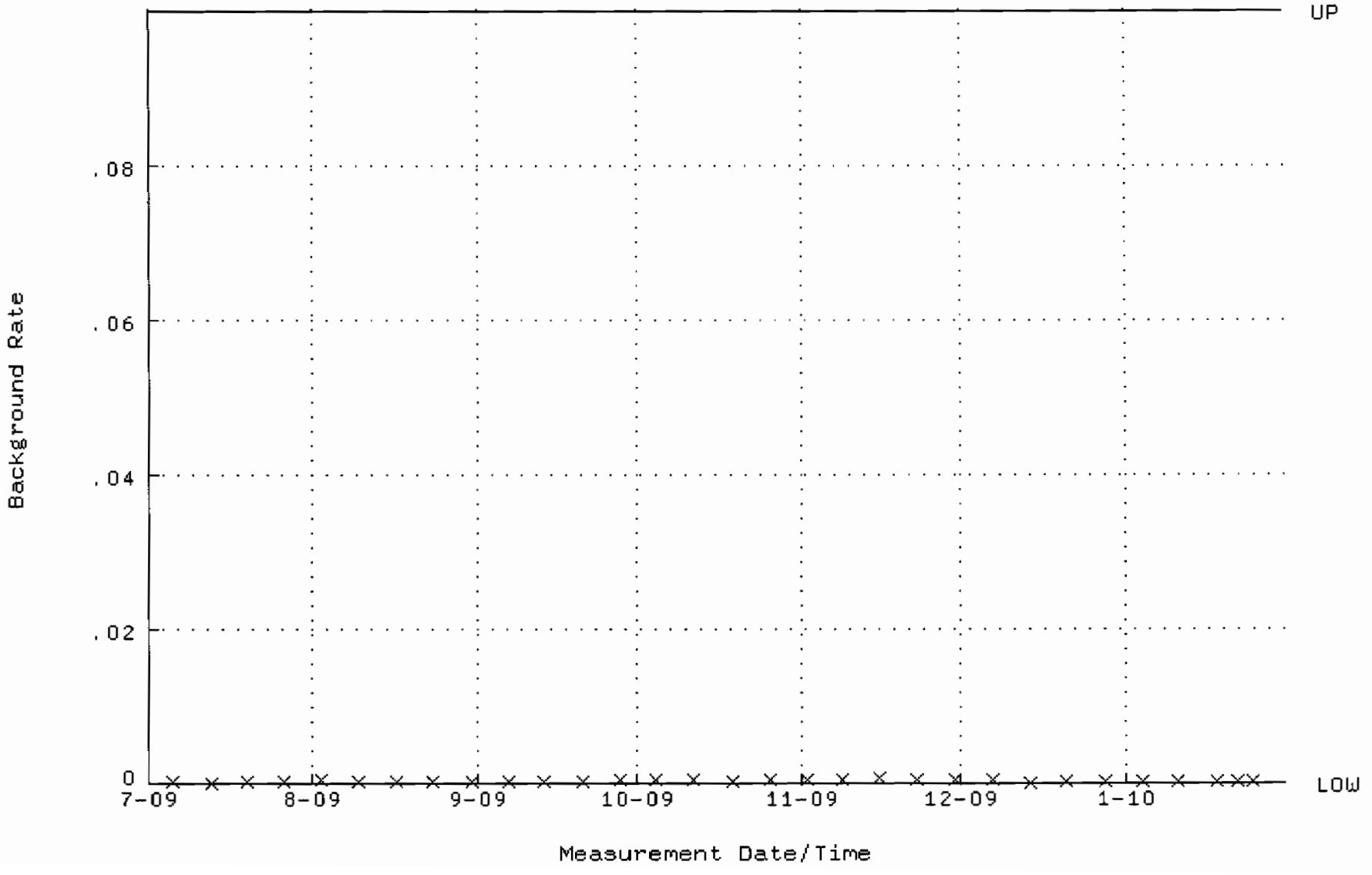

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:26 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.369142 through 0.389142

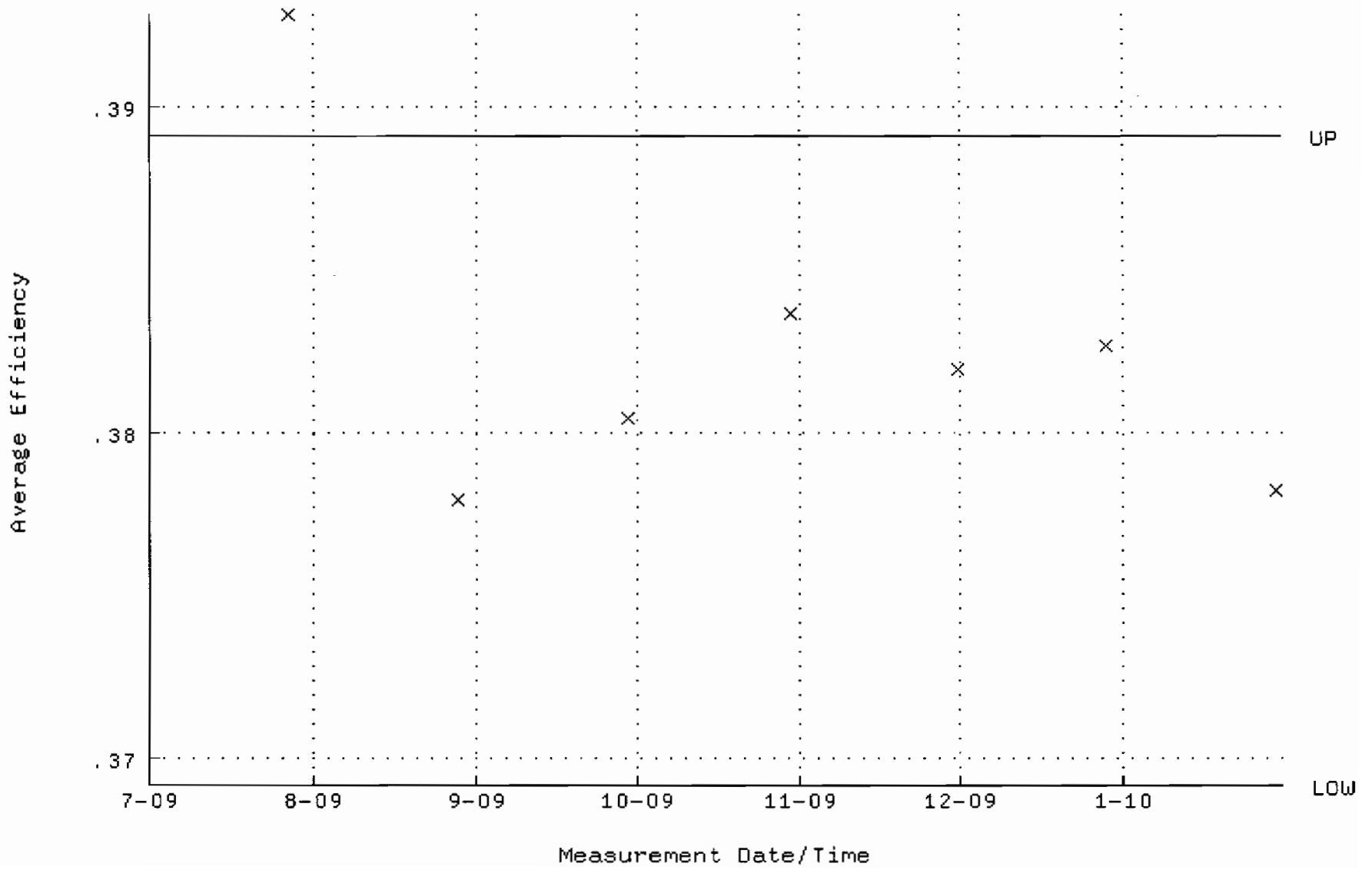

QA filename : DKA100:[ENV_ALPHA.QA.W]W239.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:26 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.6848 through 92.4938

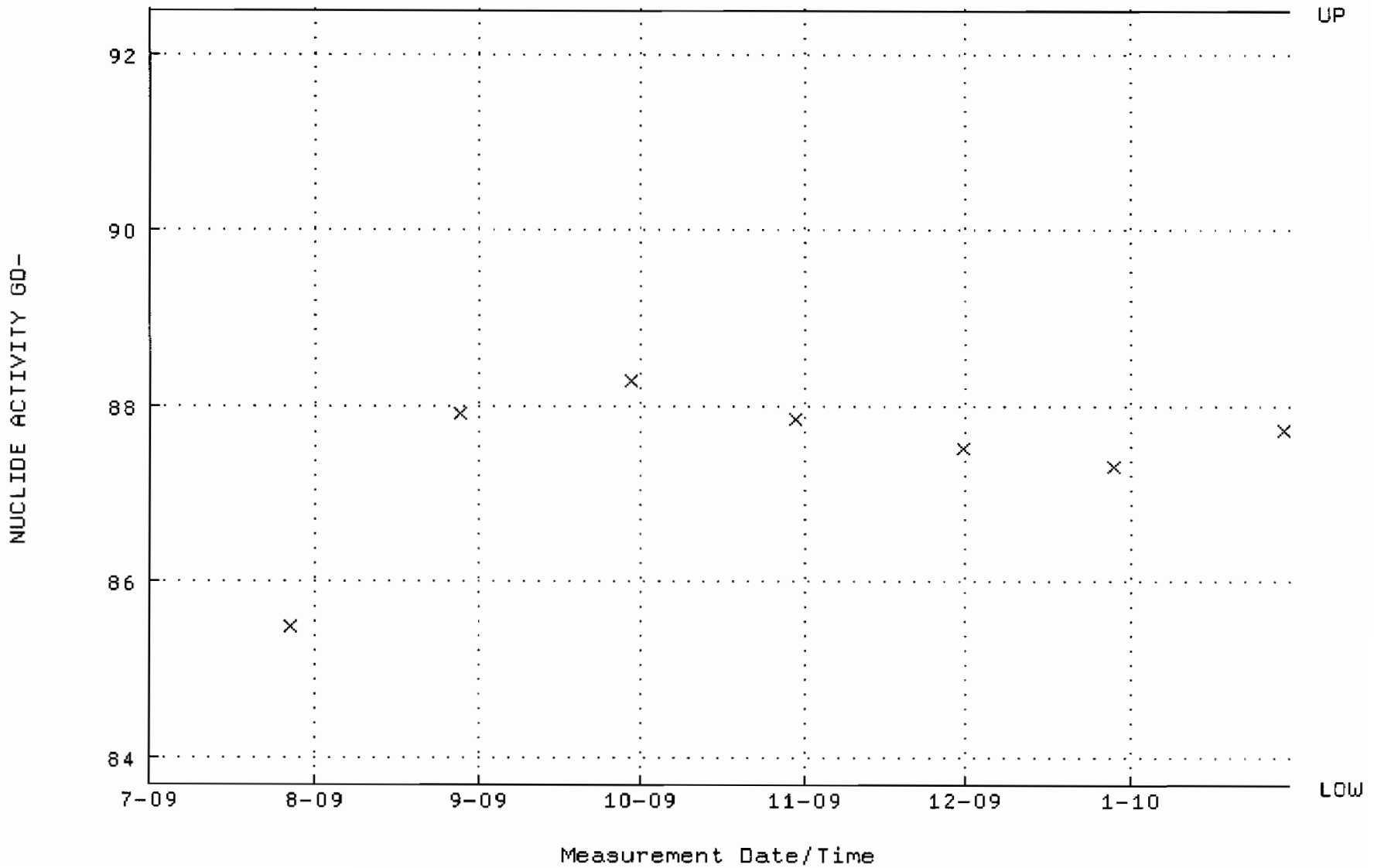

QA filename : DKA100:[ENV_ALPHA.QA.B]B239.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:39 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

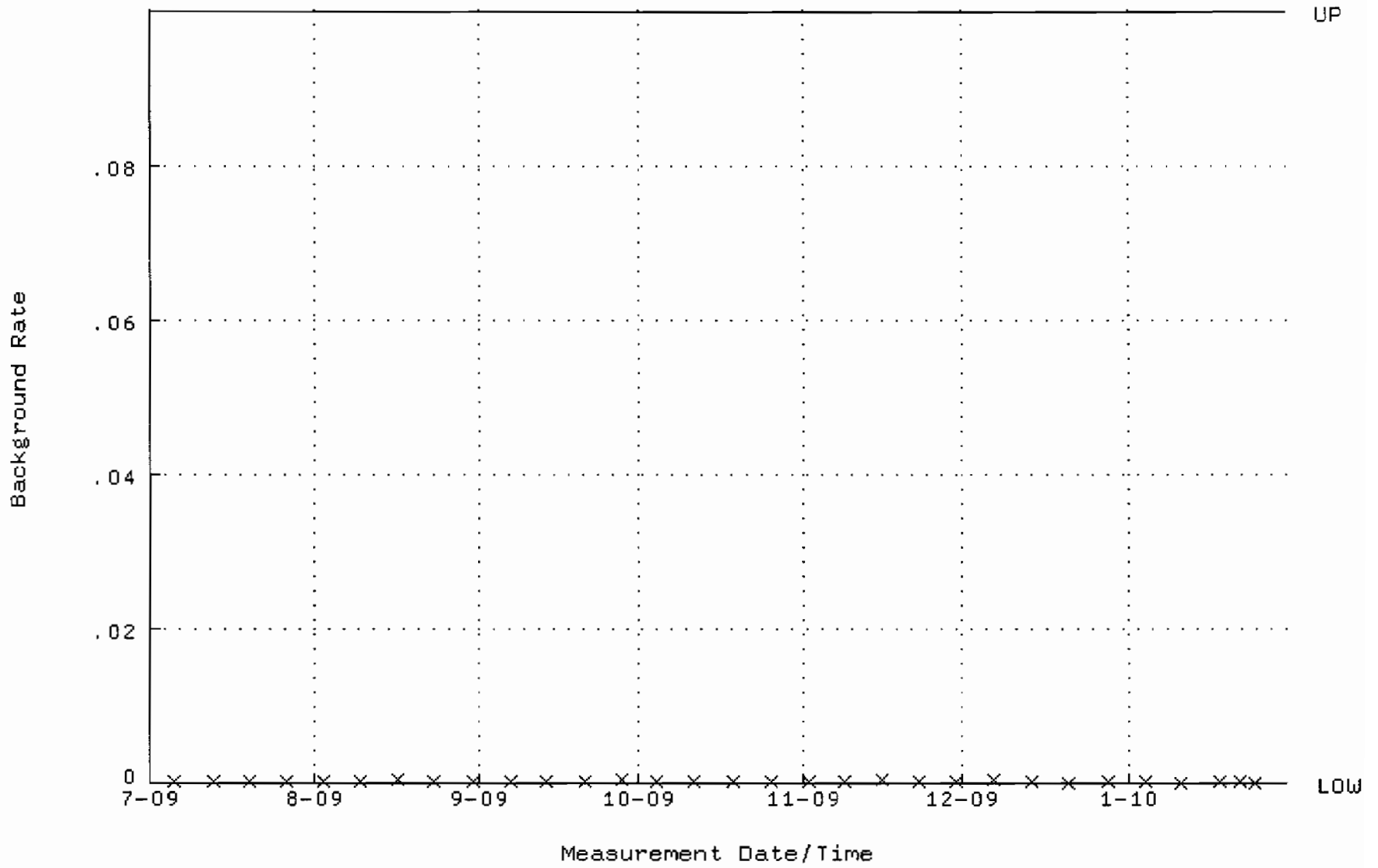

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:32 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362523 through 0.382523

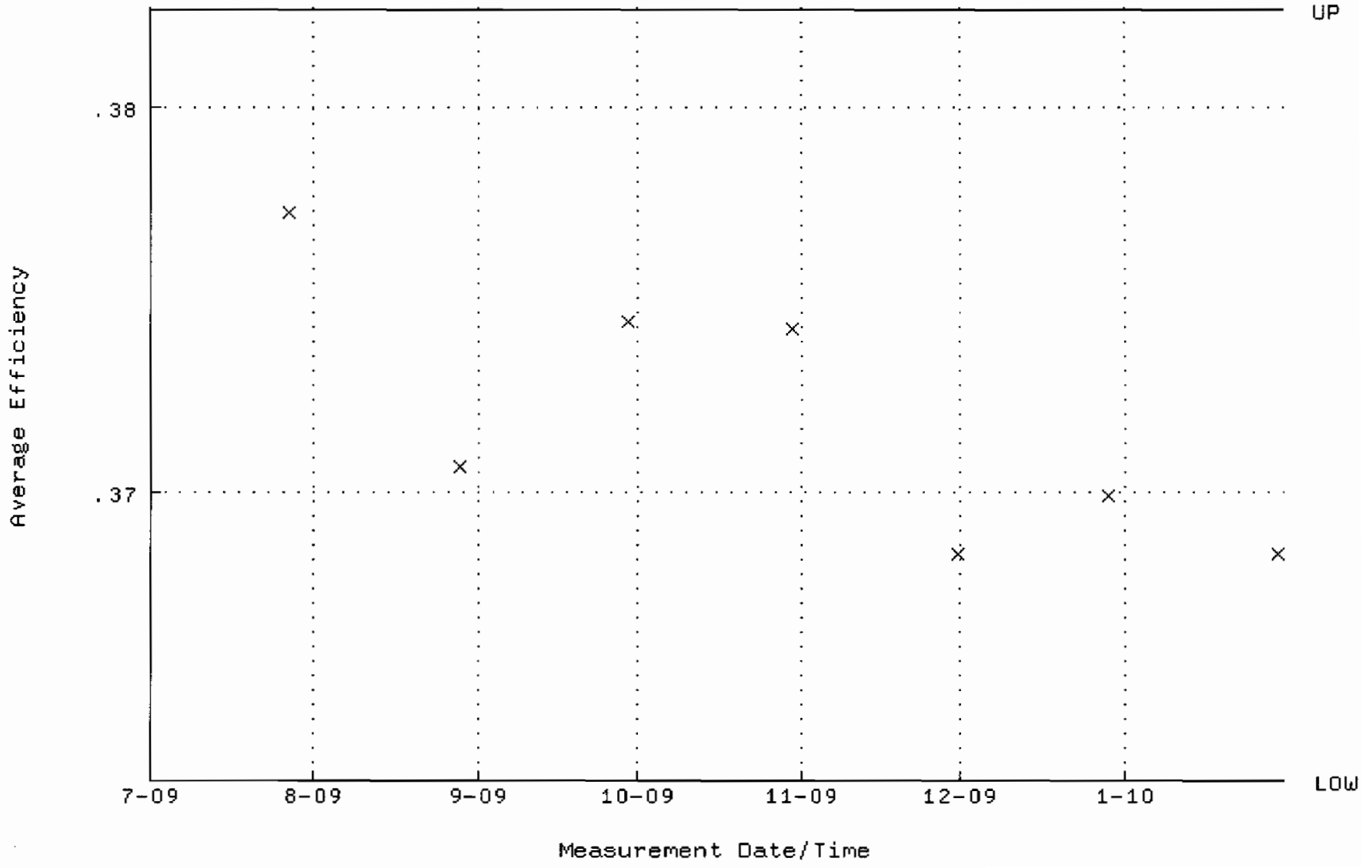

QA filename : DKA100:[ENV_ALPHA.QA.W]W240.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:32 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.3638 through 92.1390

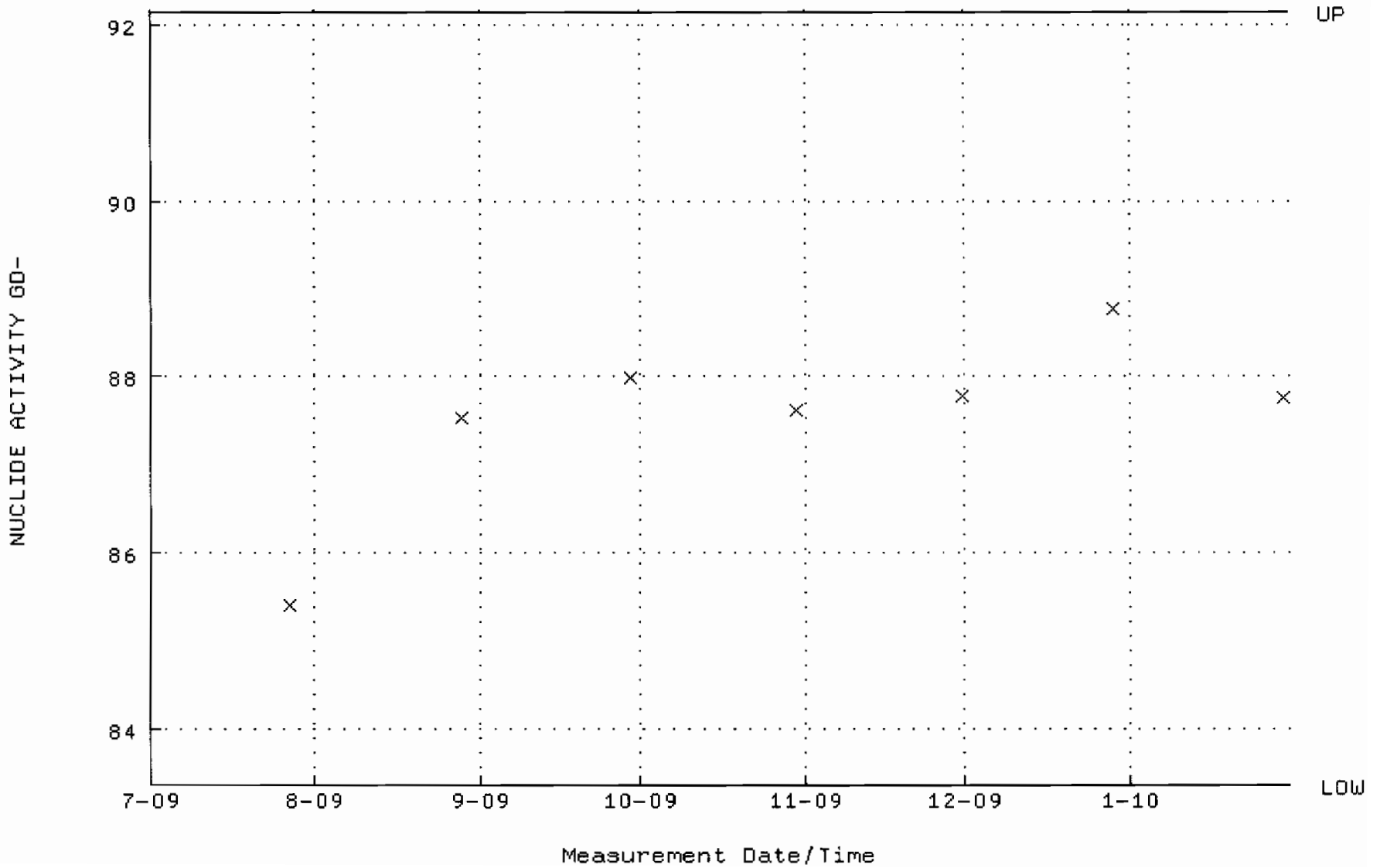

QA filename : DKA100:[ENV_ALPHA.QA.B]B240.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

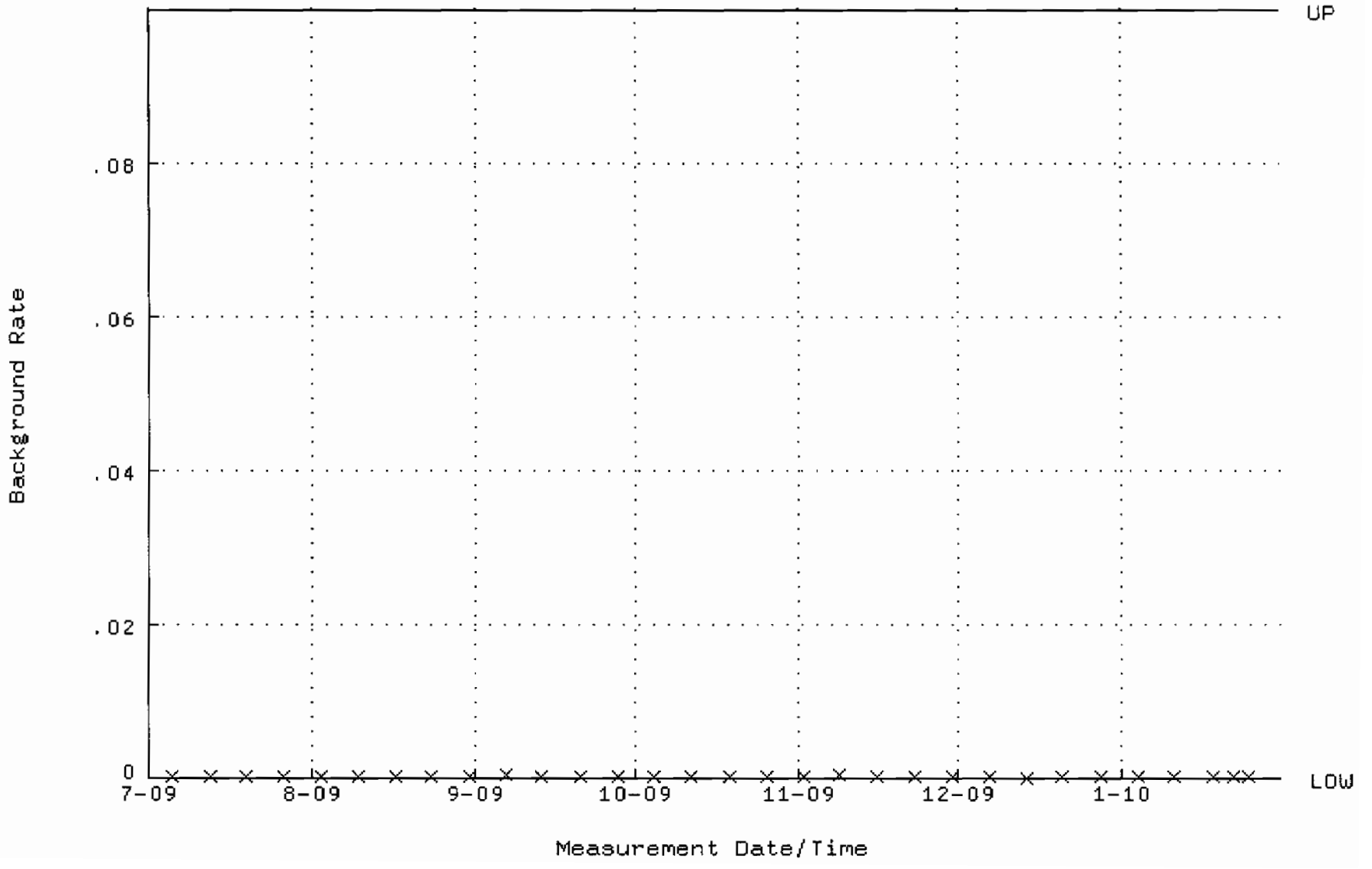

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:38 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.369174 through 0.389174

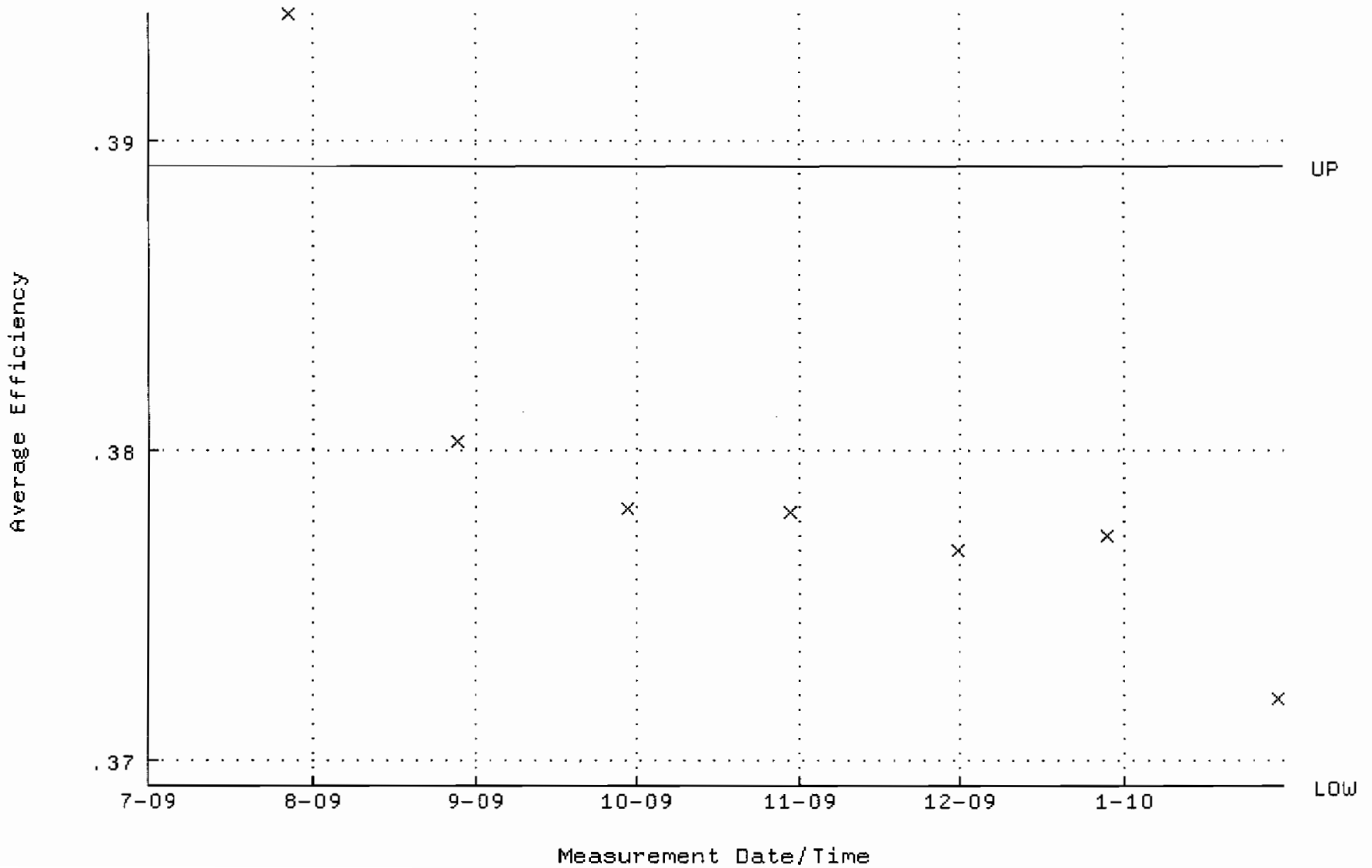

QA filename : DKA100:[ENV_ALPHA.QA.W]W241.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:38 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7197 through 92.5323

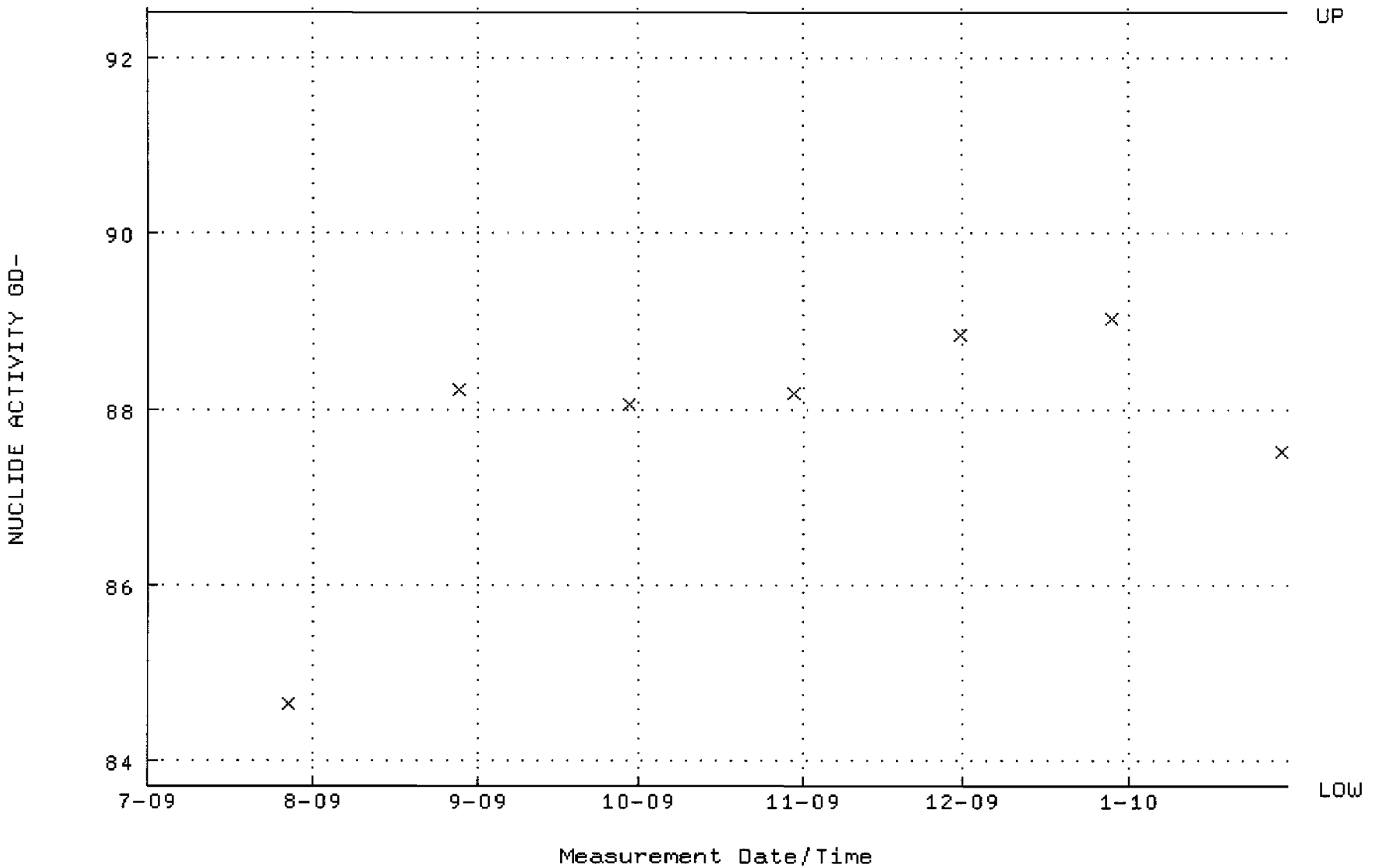

QA filename : DKA100:[ENV_ALPHA.QA.B]B241.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

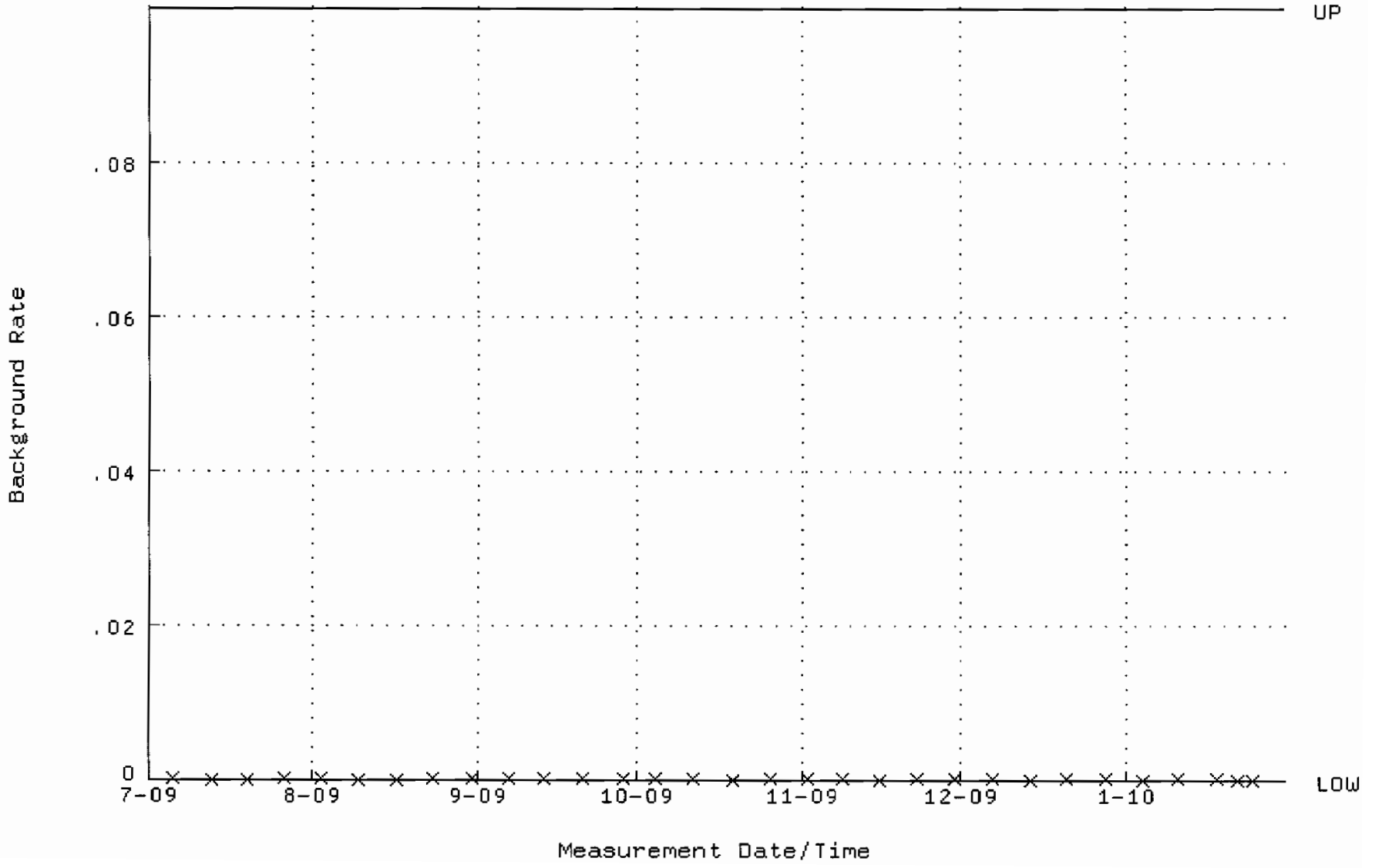

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:45 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.374815 through 0.394815

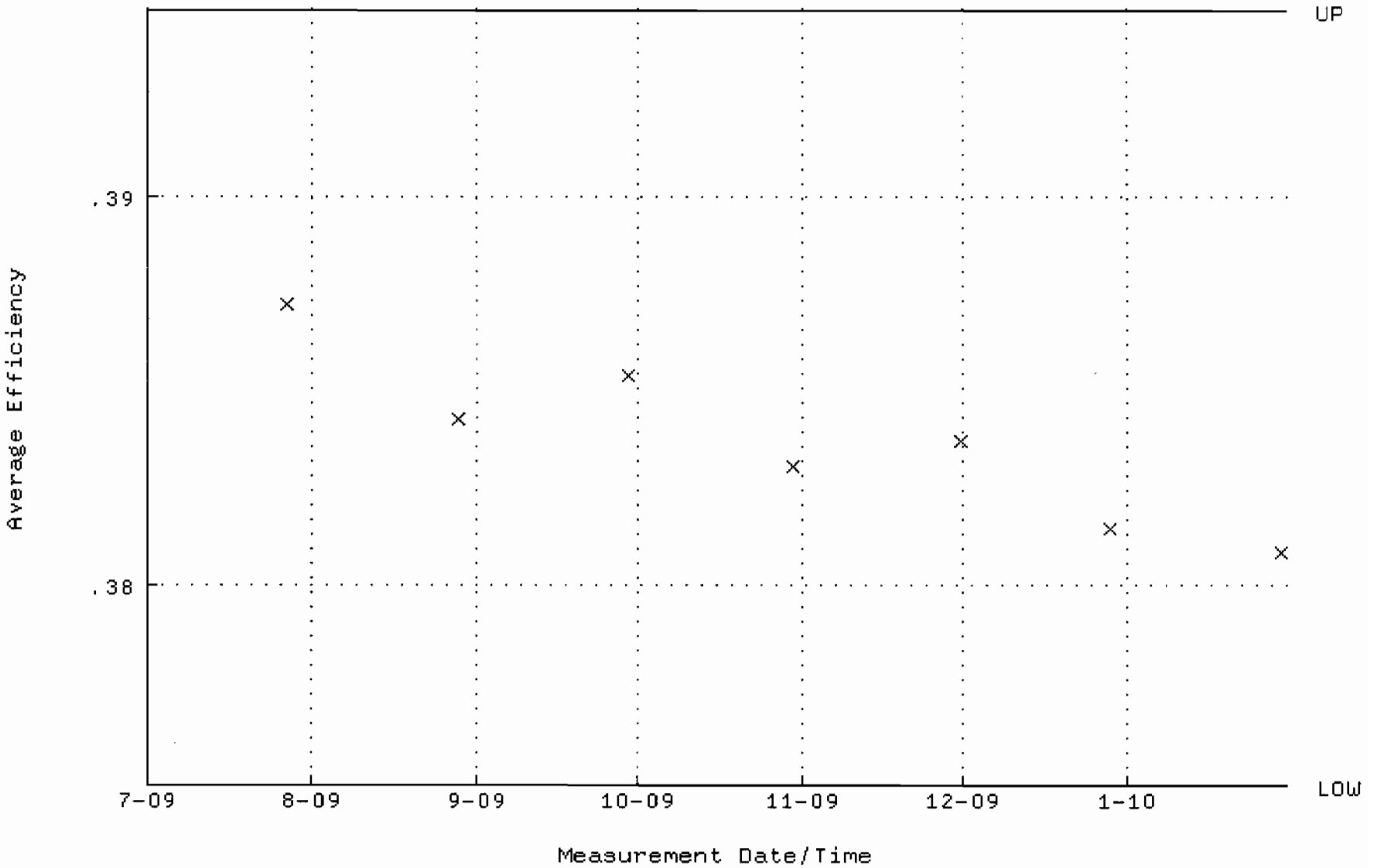

QA filename : DKA100:[ENV_ALPHA.QA.W]W242.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:45 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.9949 through 92.8365

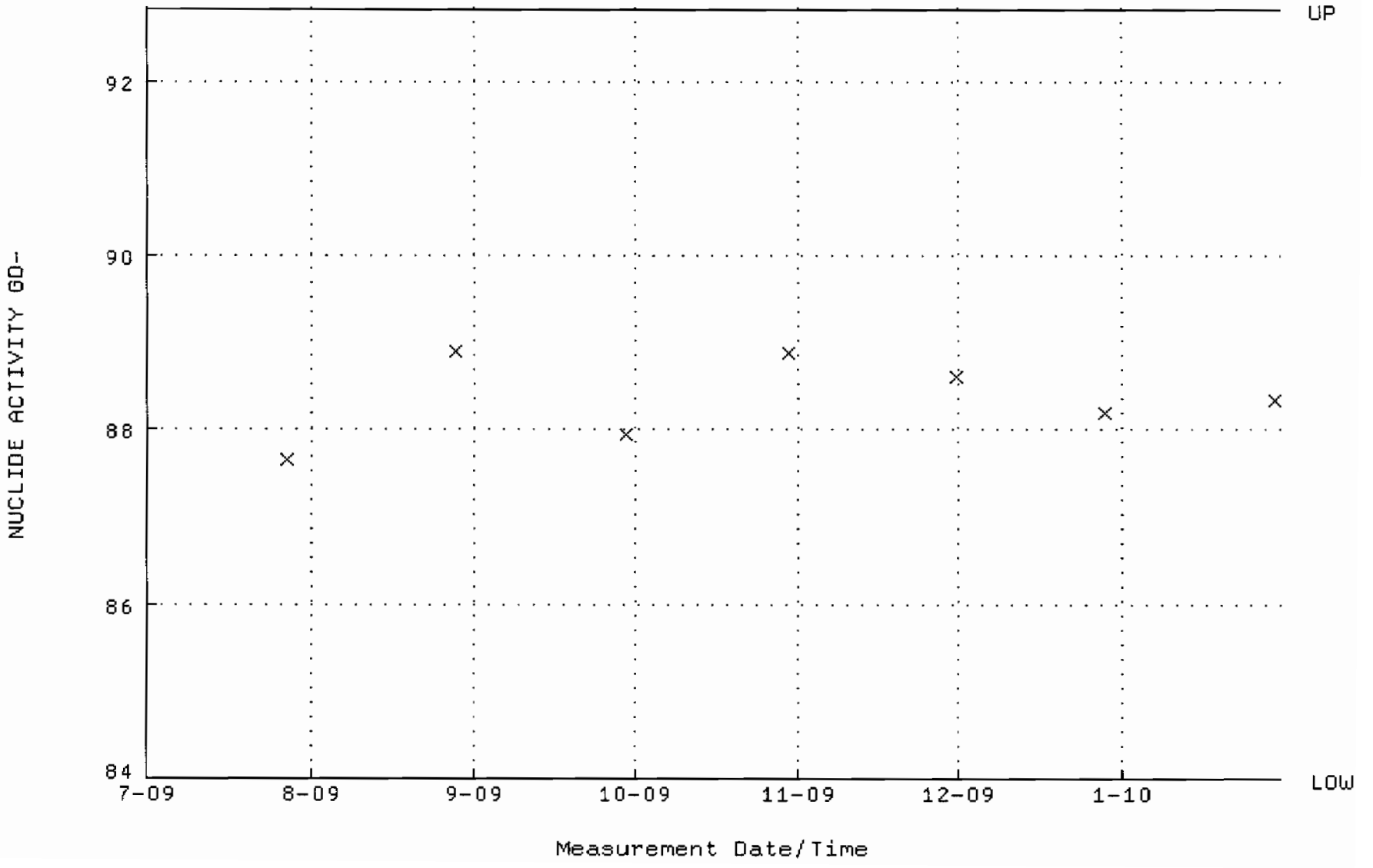

QA filename : DKA100:[ENV_ALPHA.QA.B]B242.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:53 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

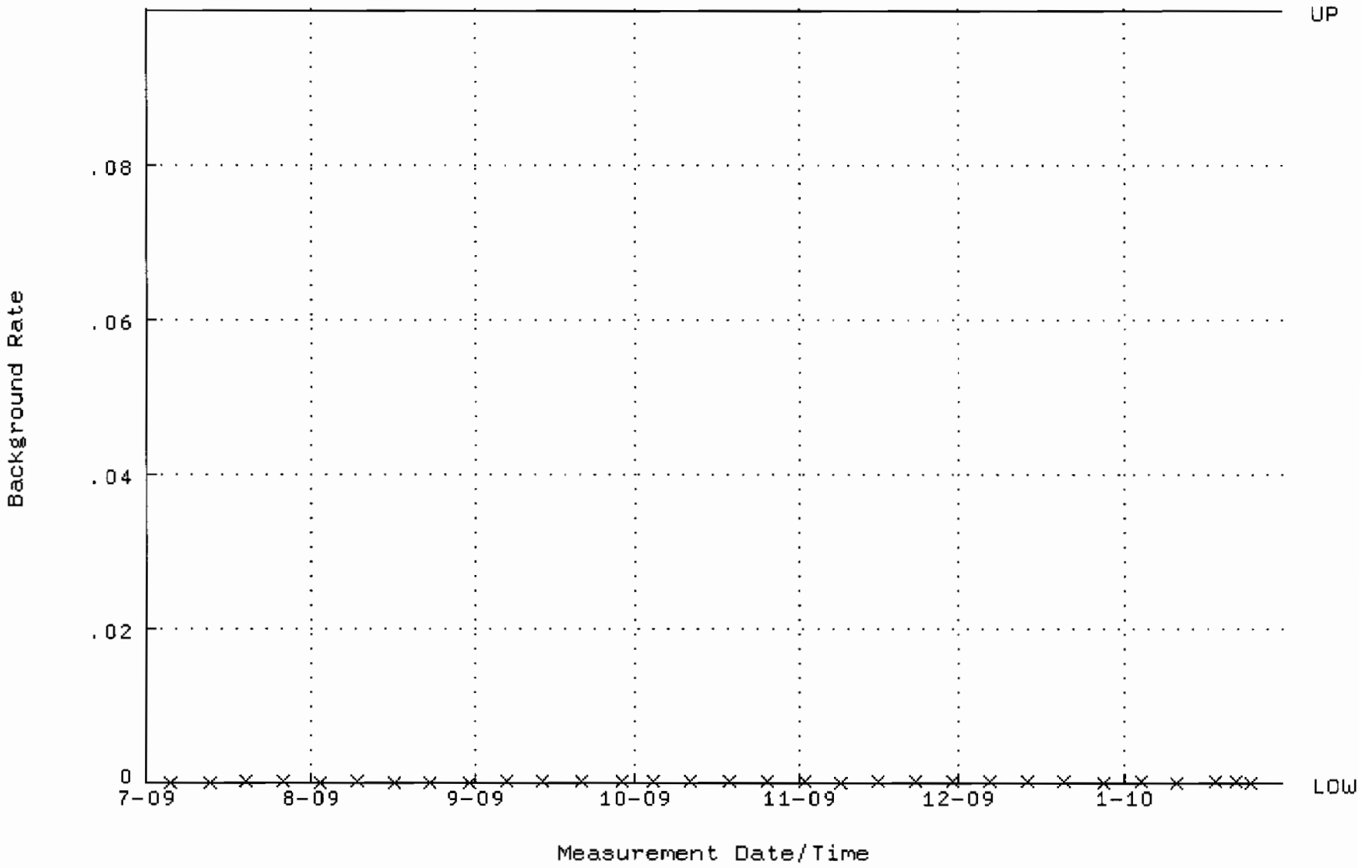

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:36:50 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

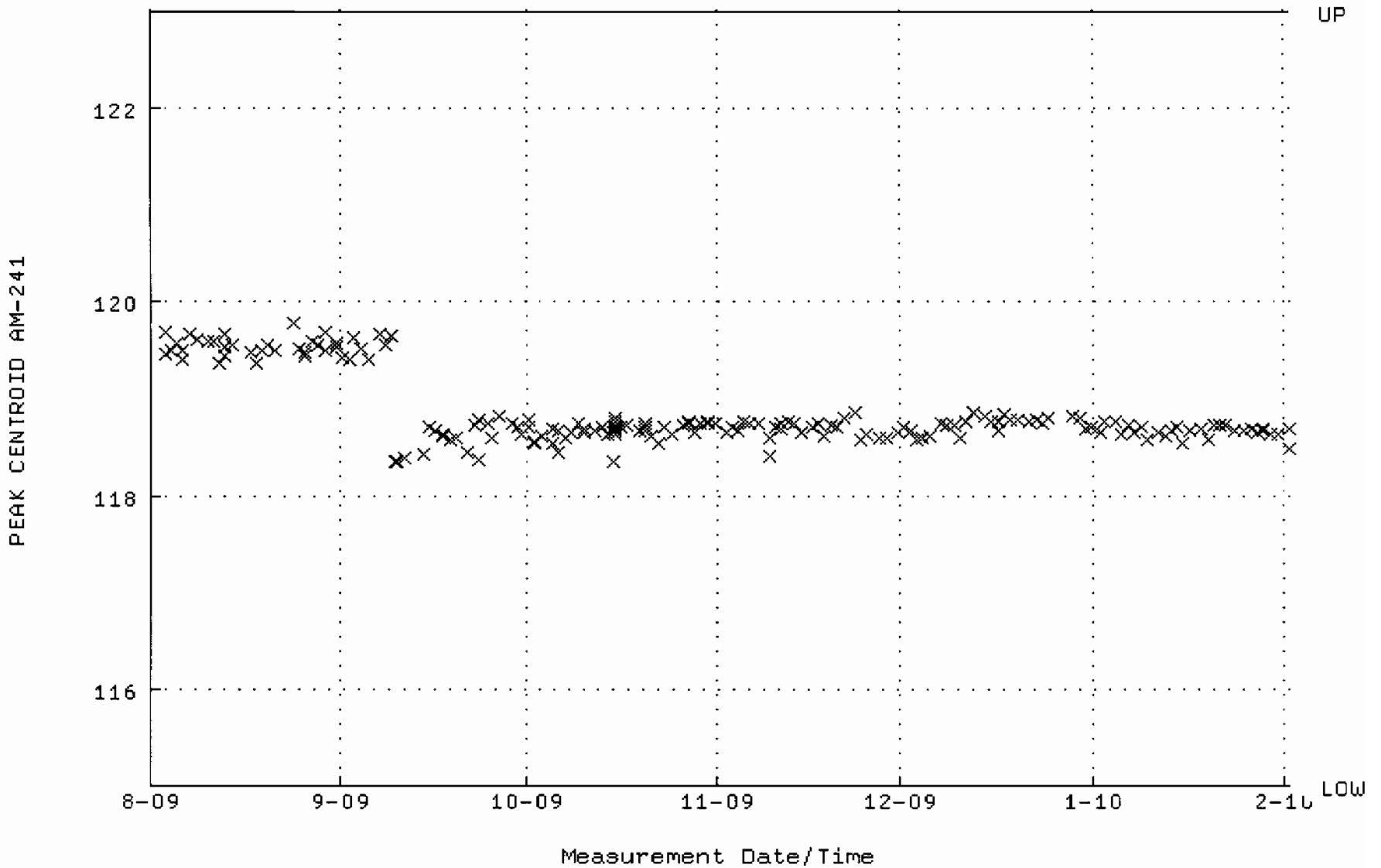

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:43 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

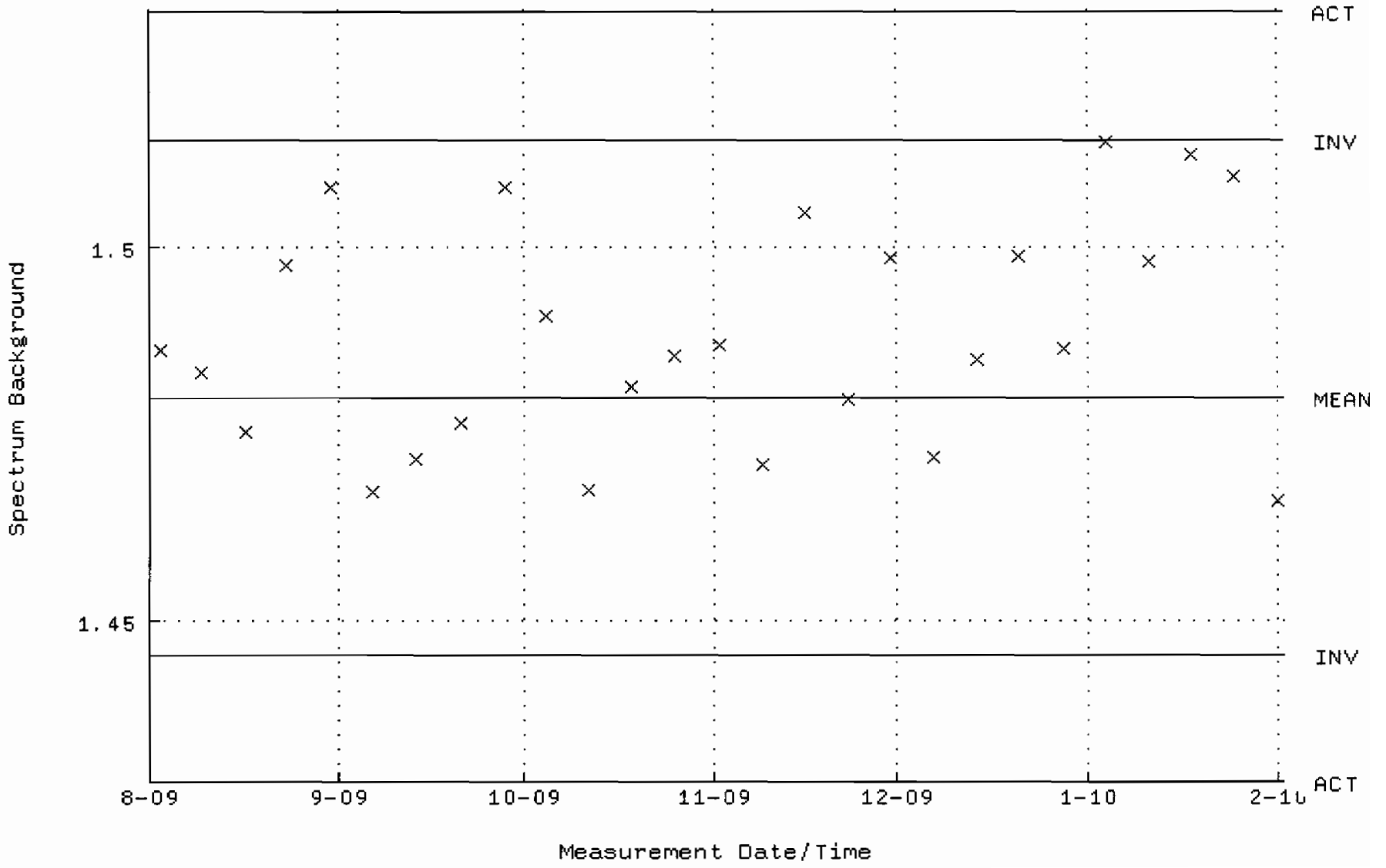

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

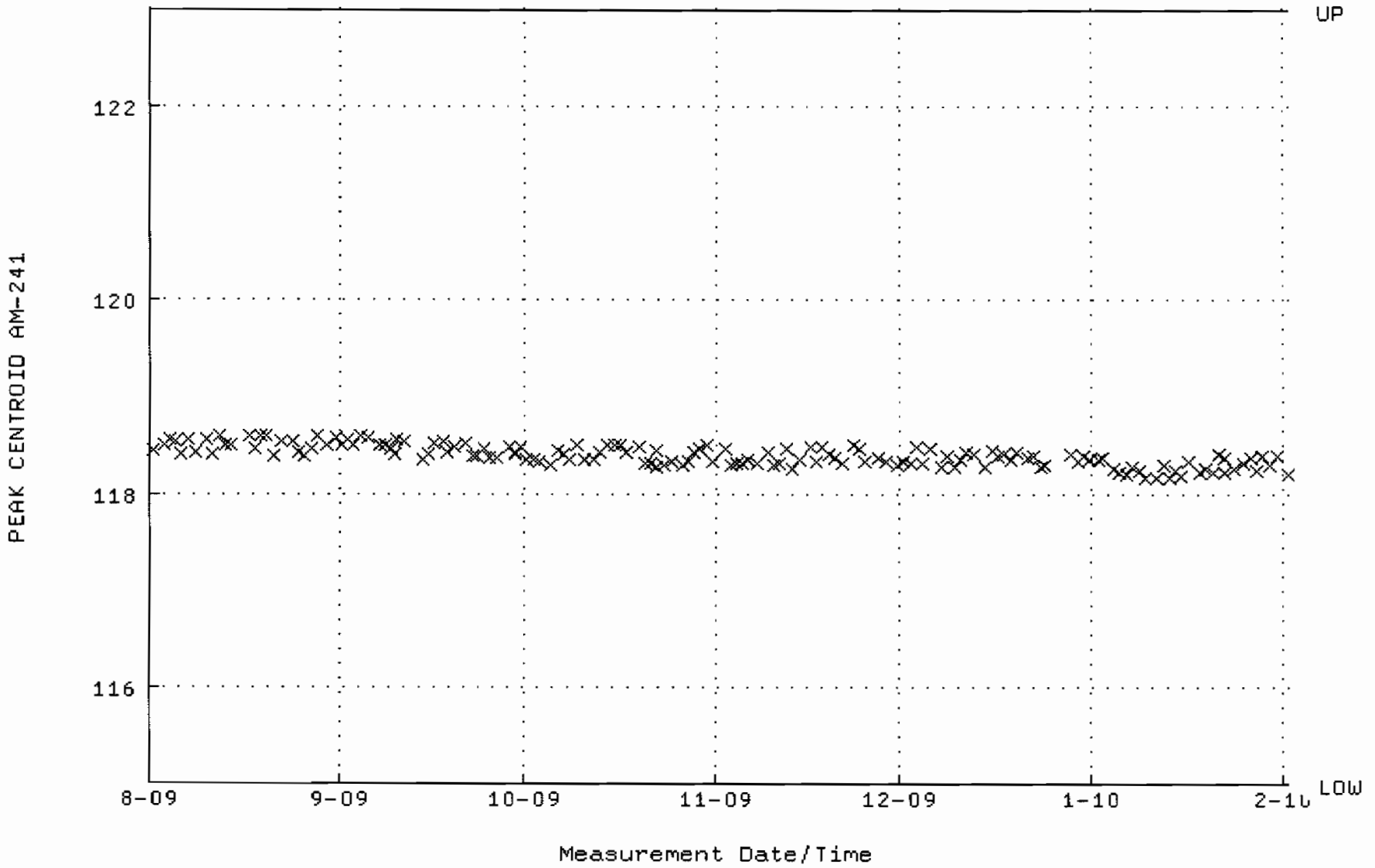

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

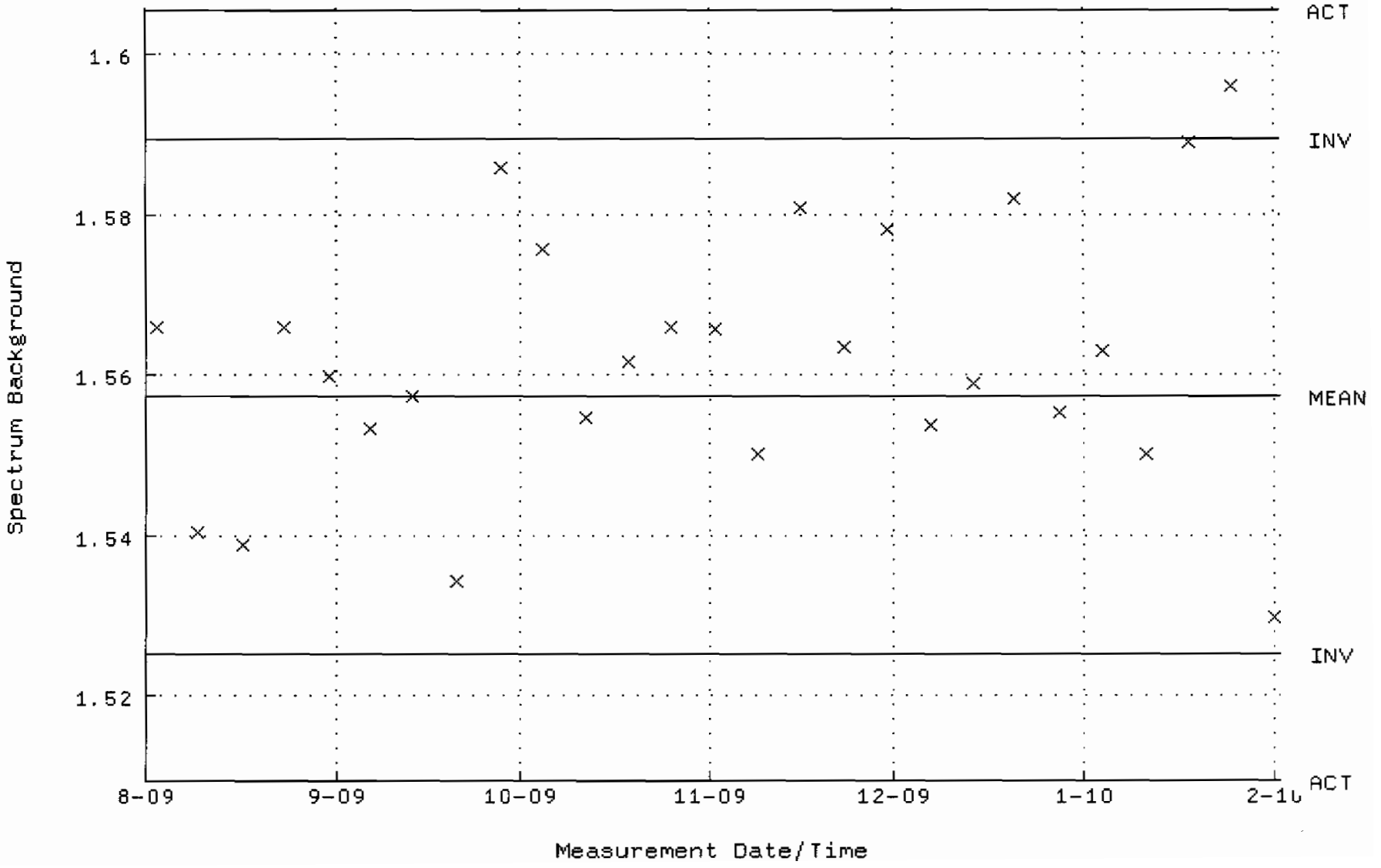

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM13_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:34:18 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

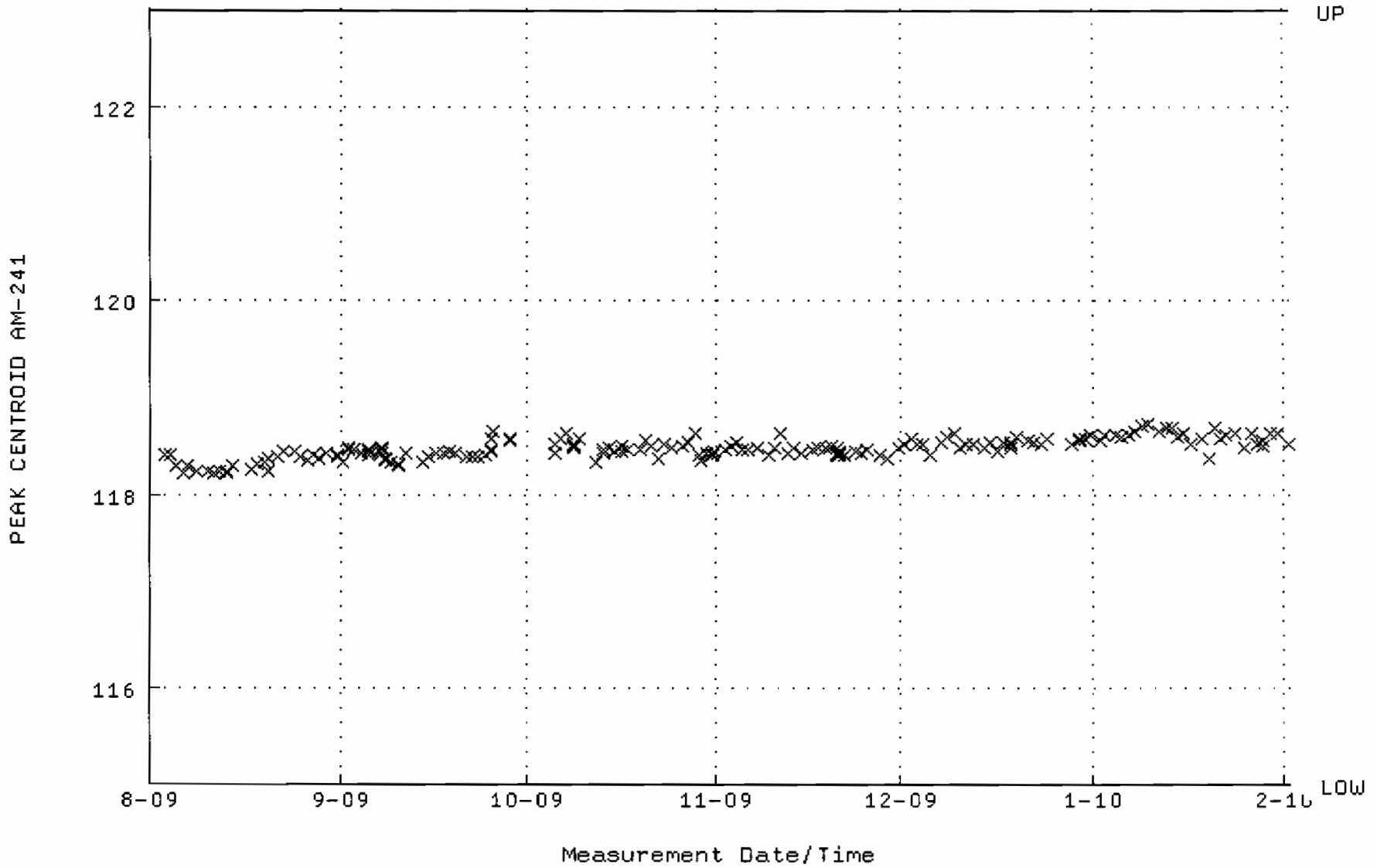

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM13.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:20 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.27712 +- 1.999120E-02 (0.61 %)

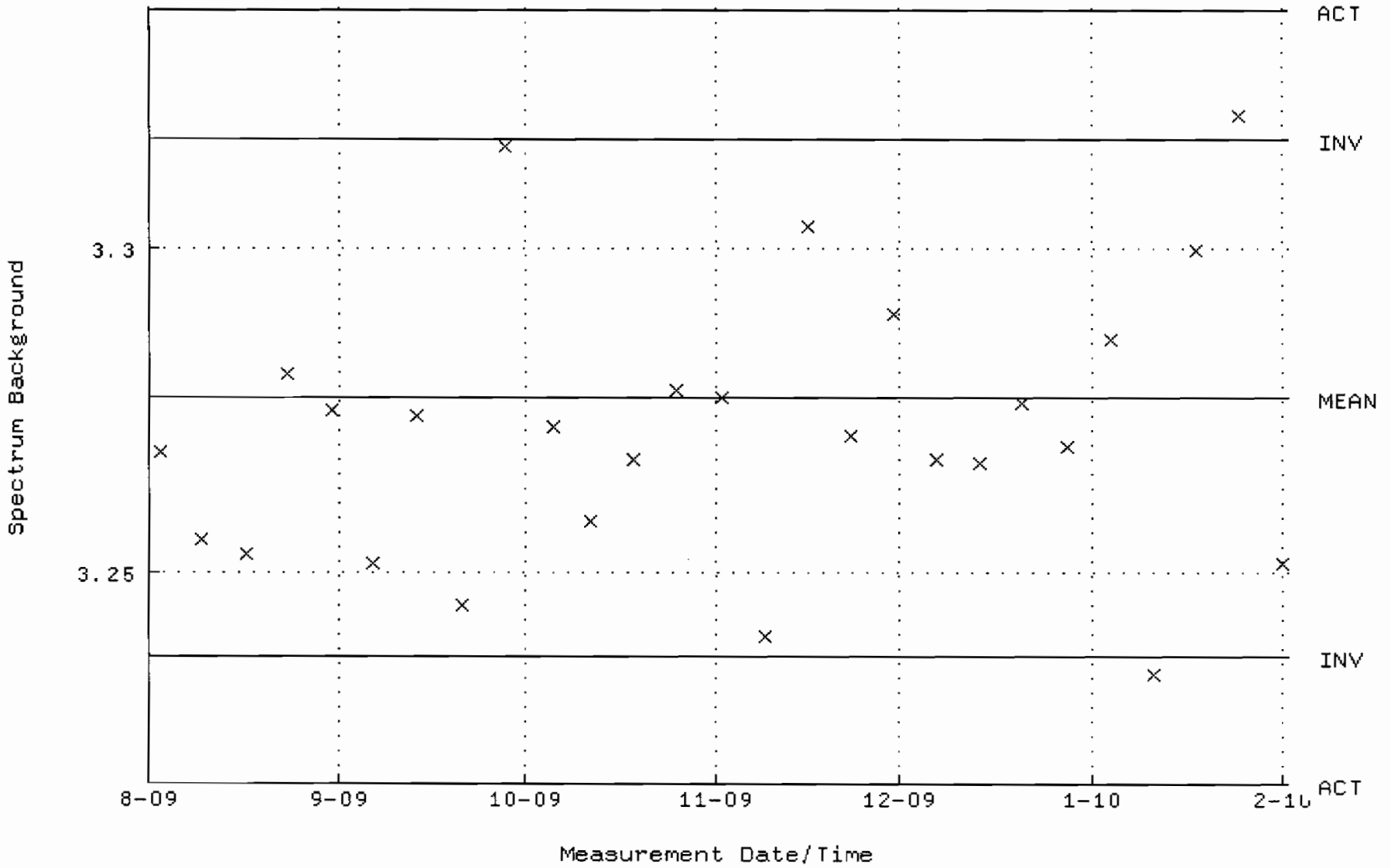

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:30 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

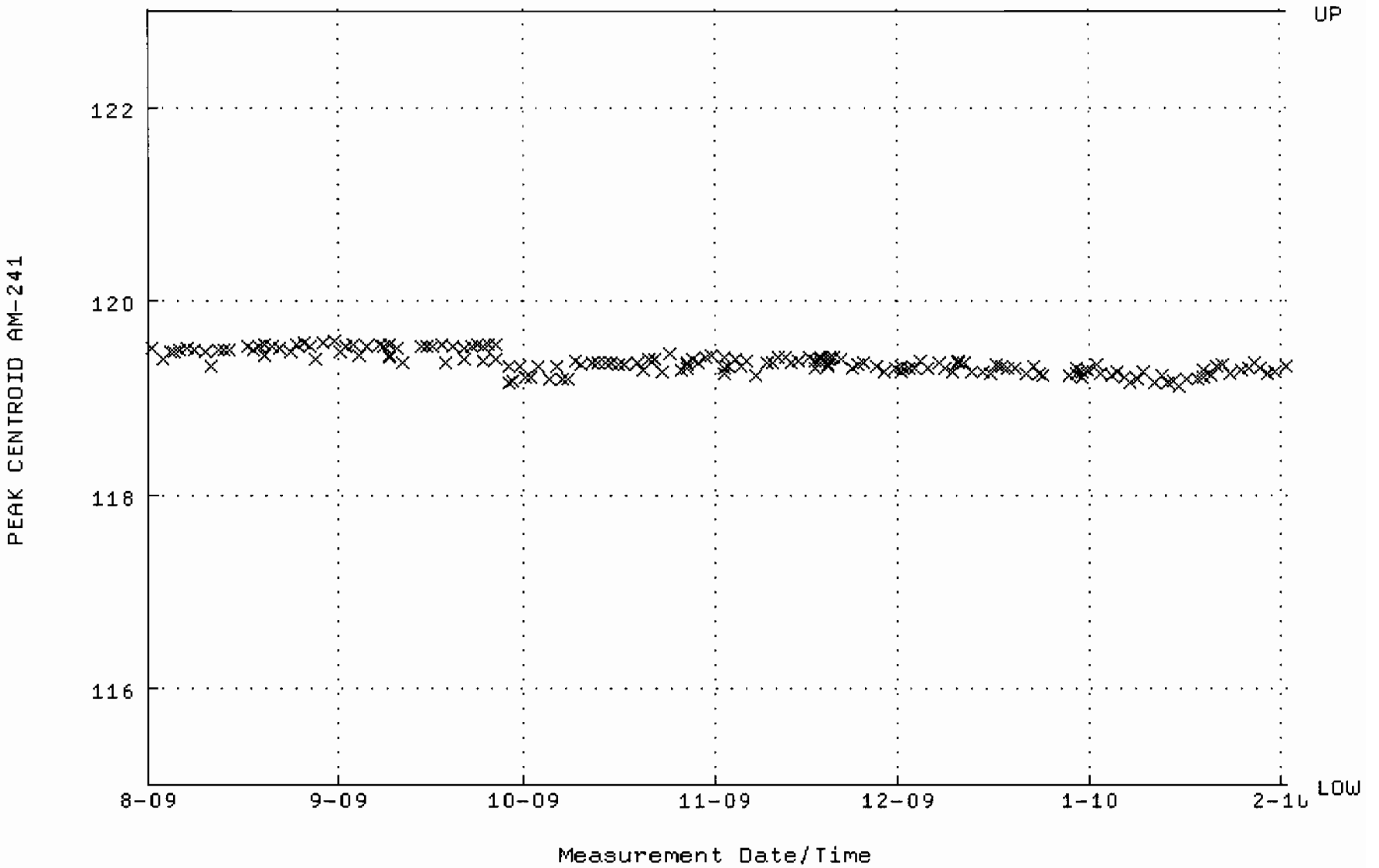

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:58 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

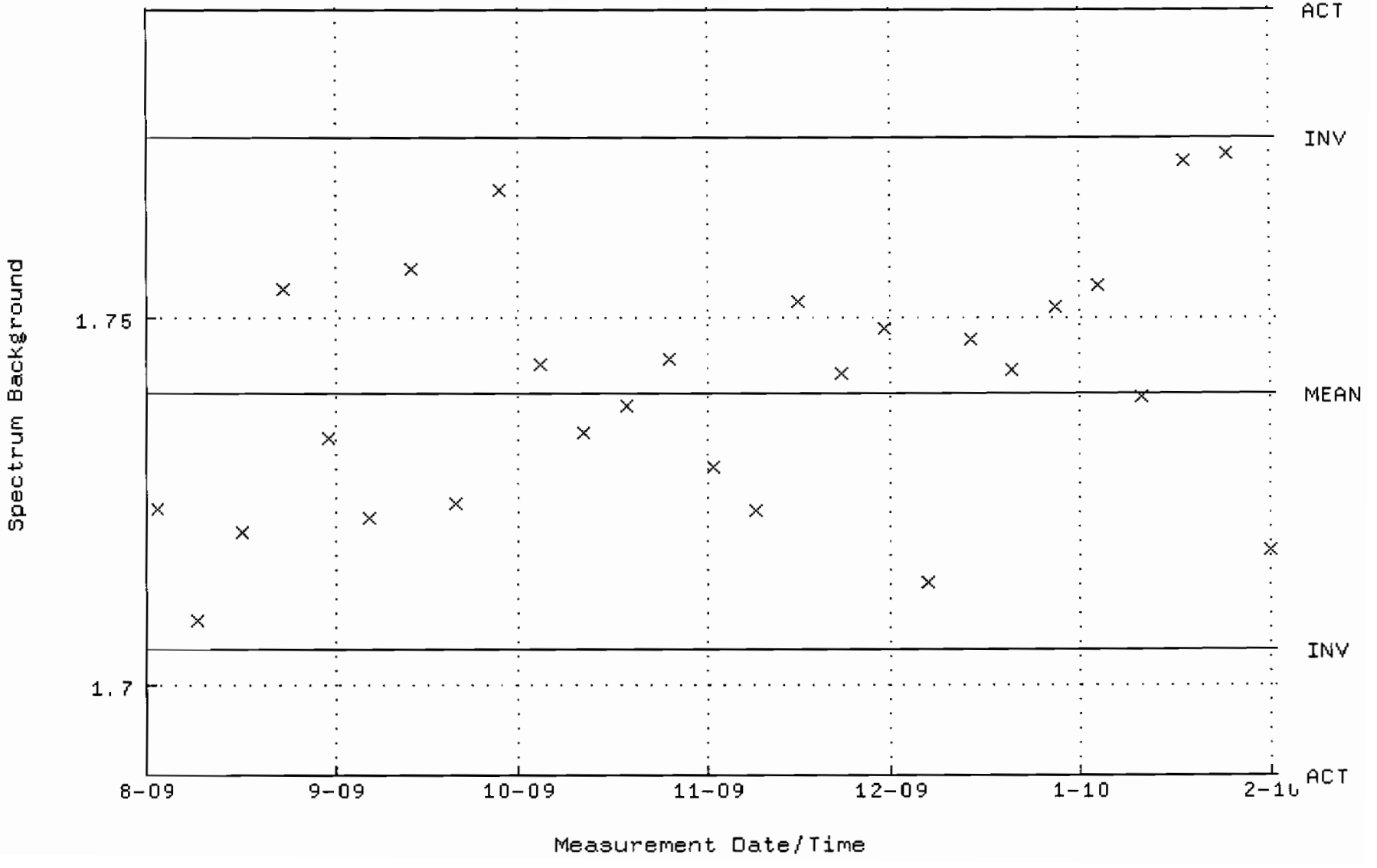

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:55:06 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

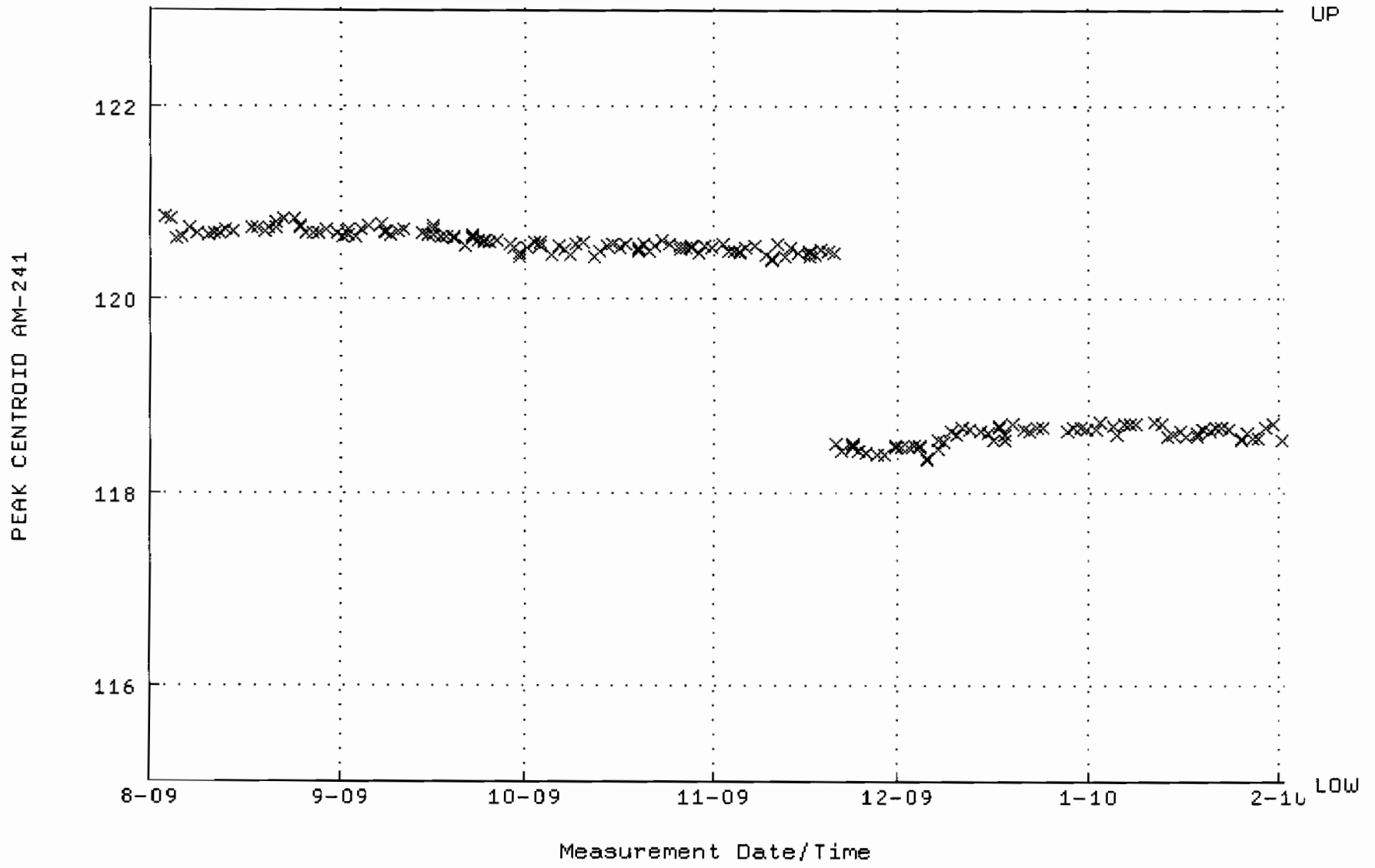

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:10 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

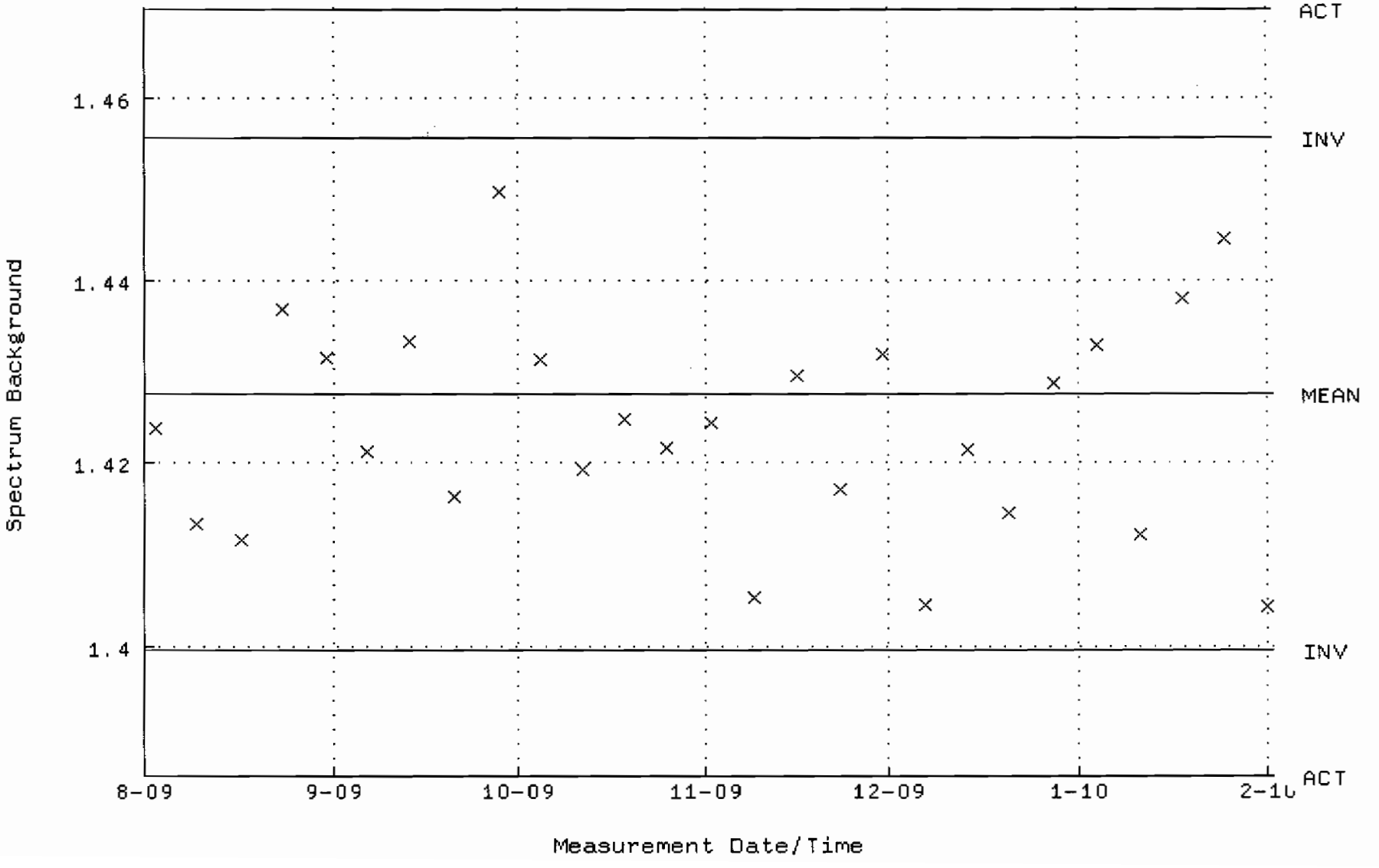

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

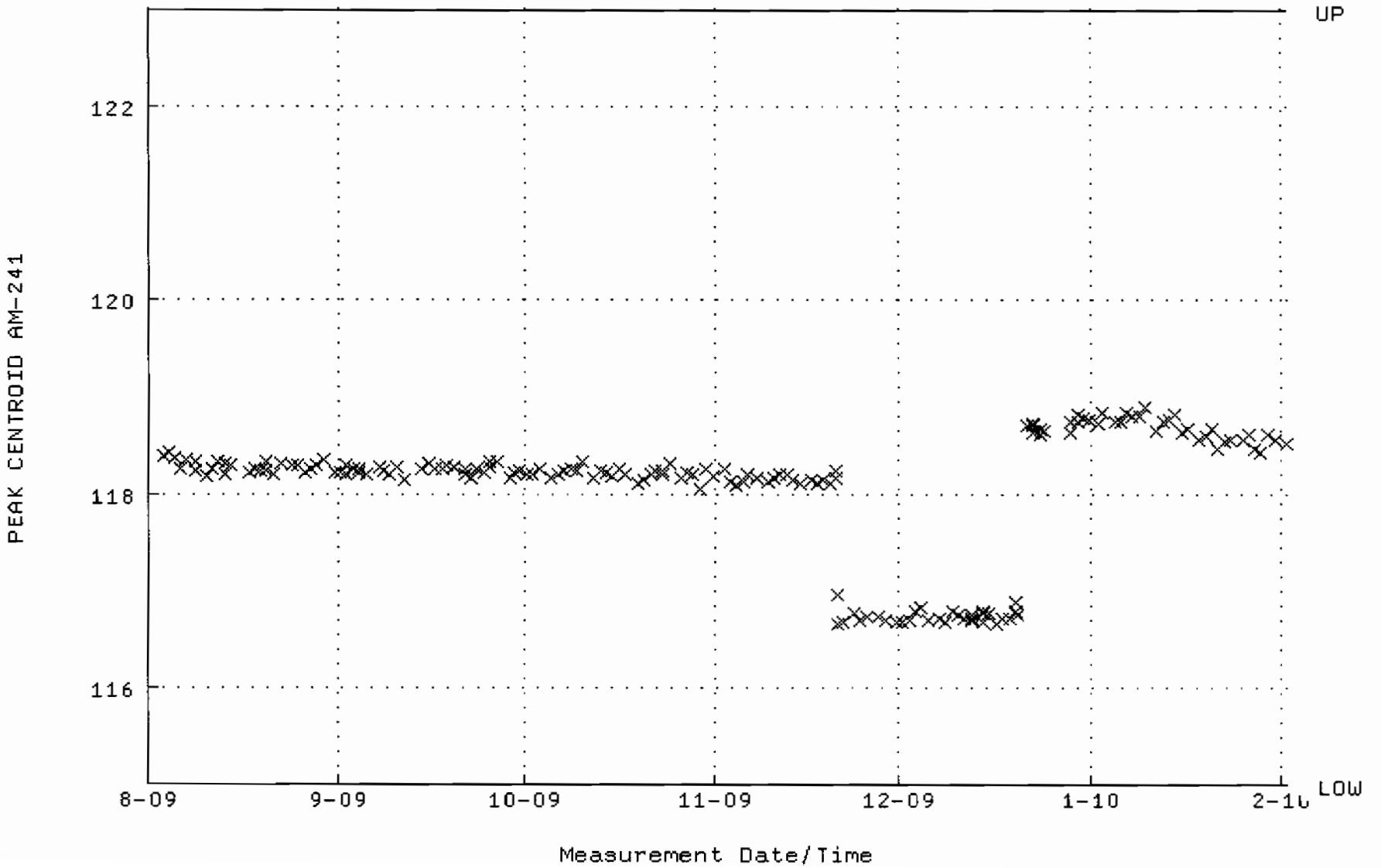

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

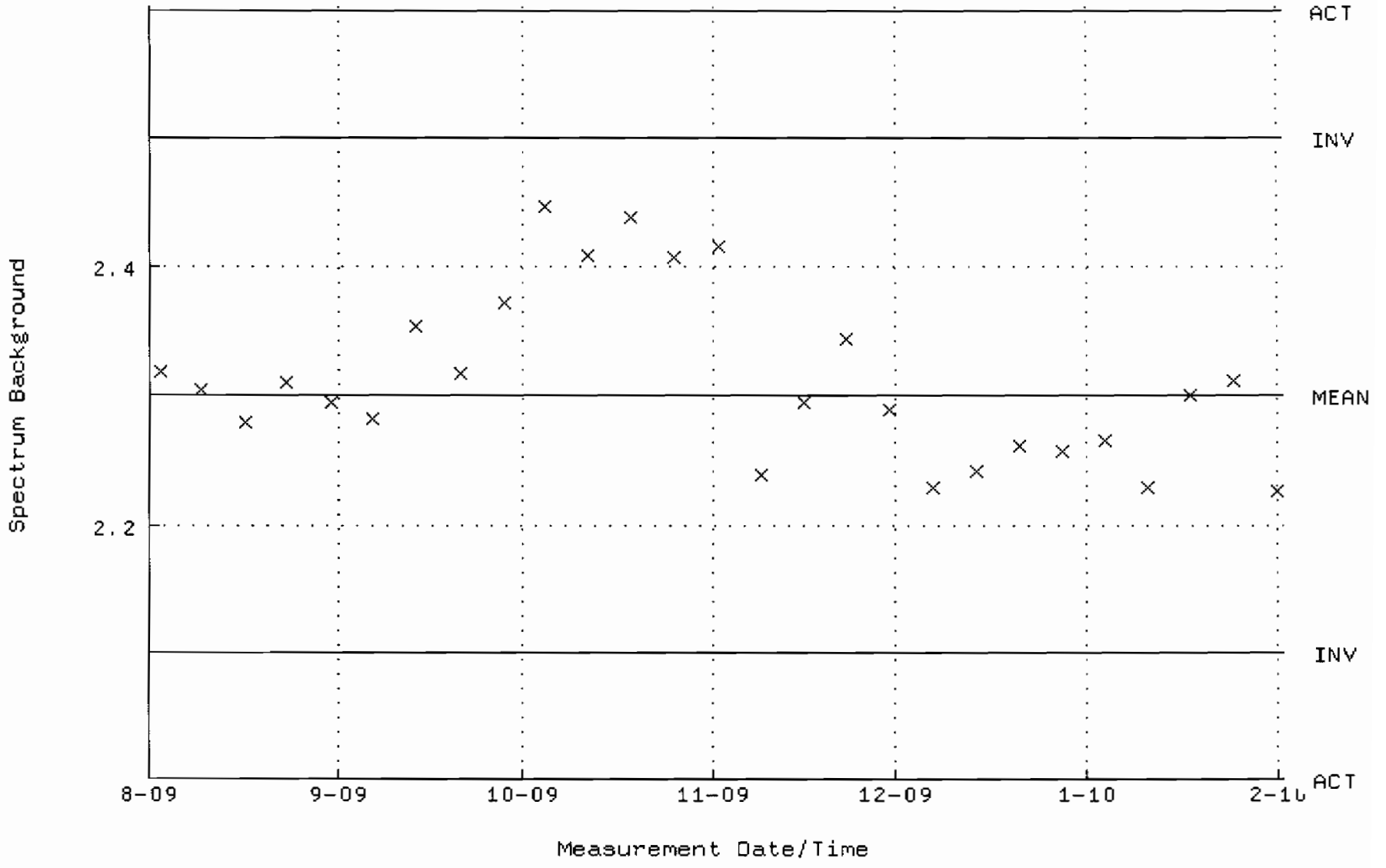

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:08:04 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

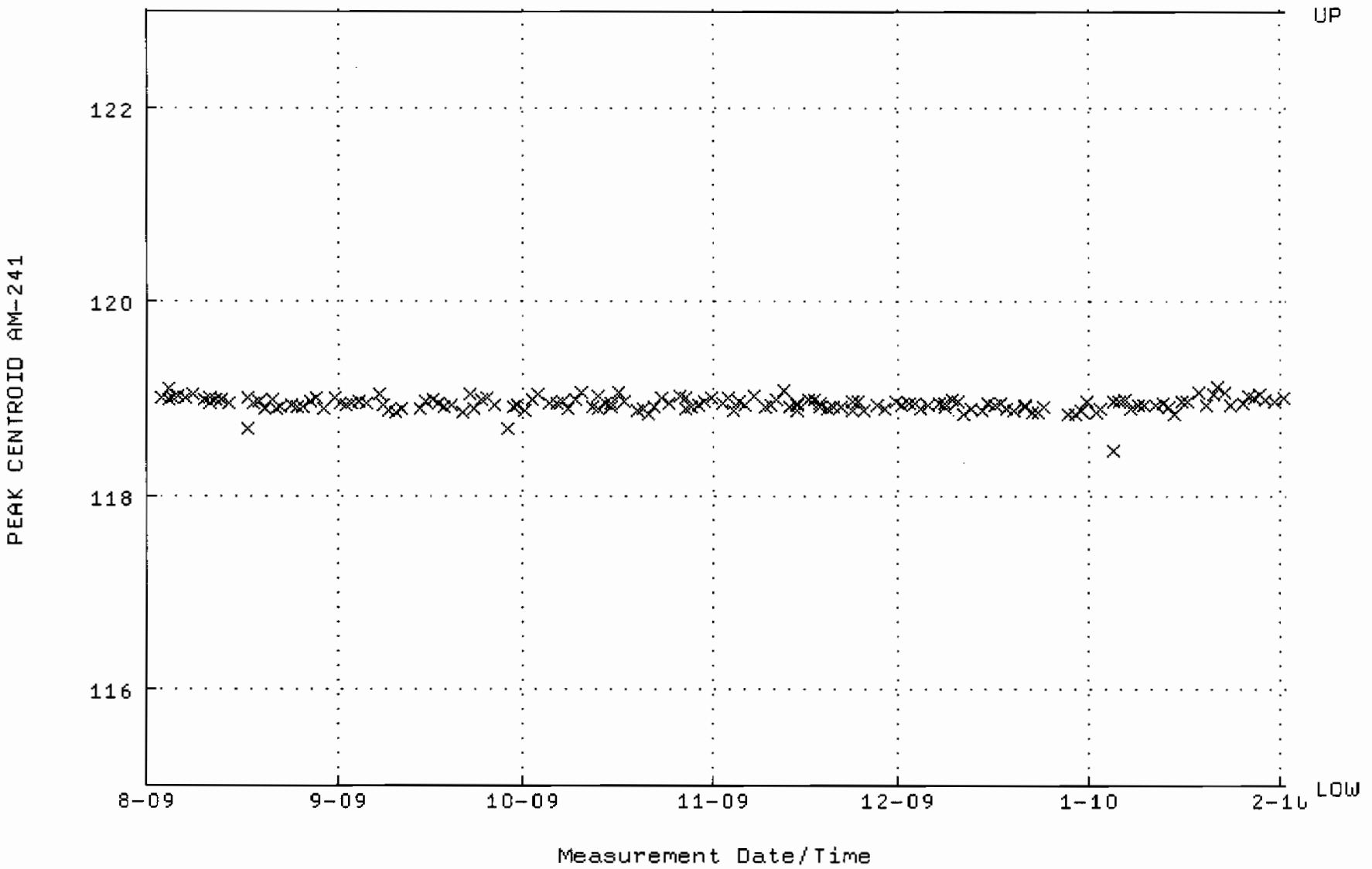

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

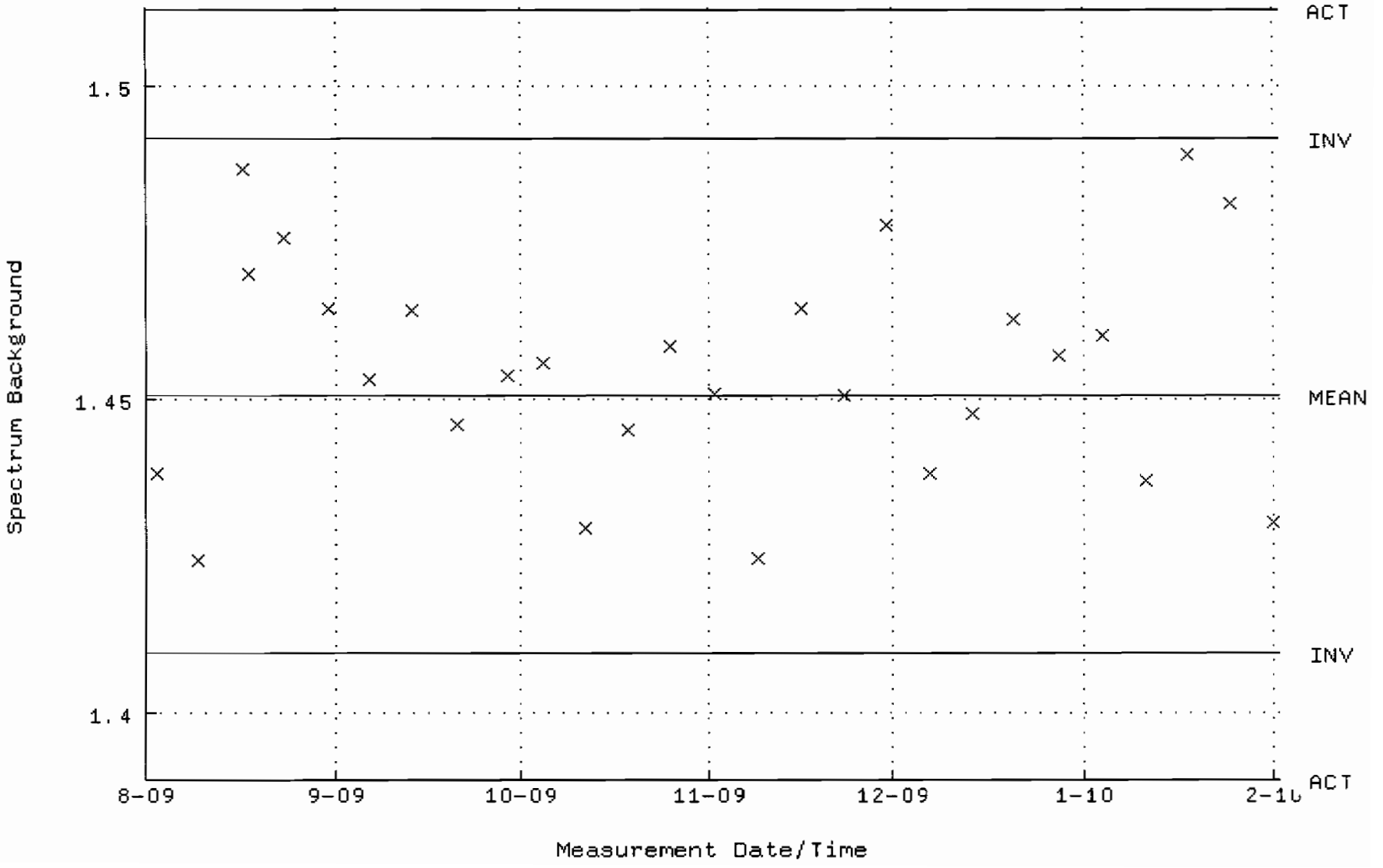

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:19:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

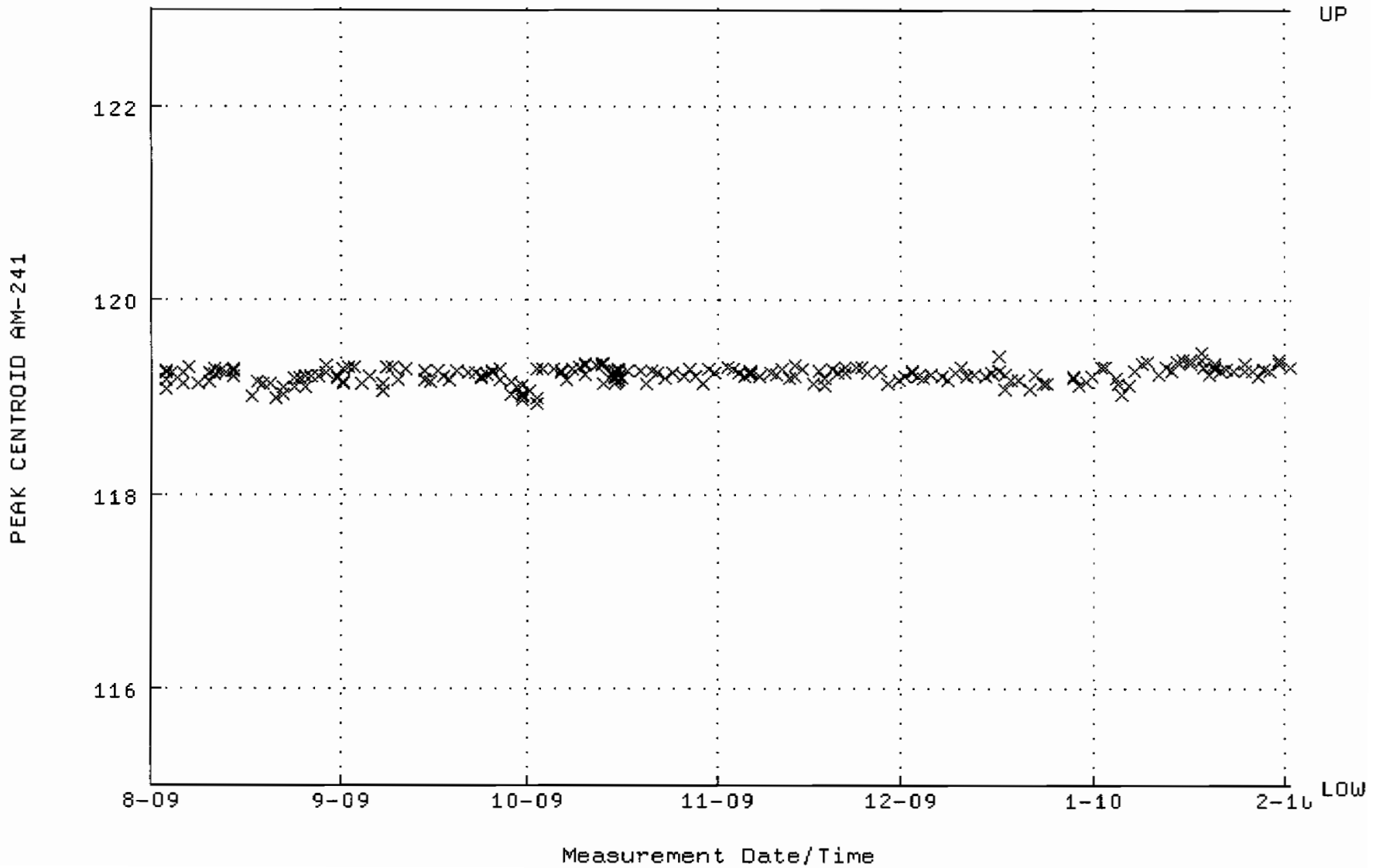

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

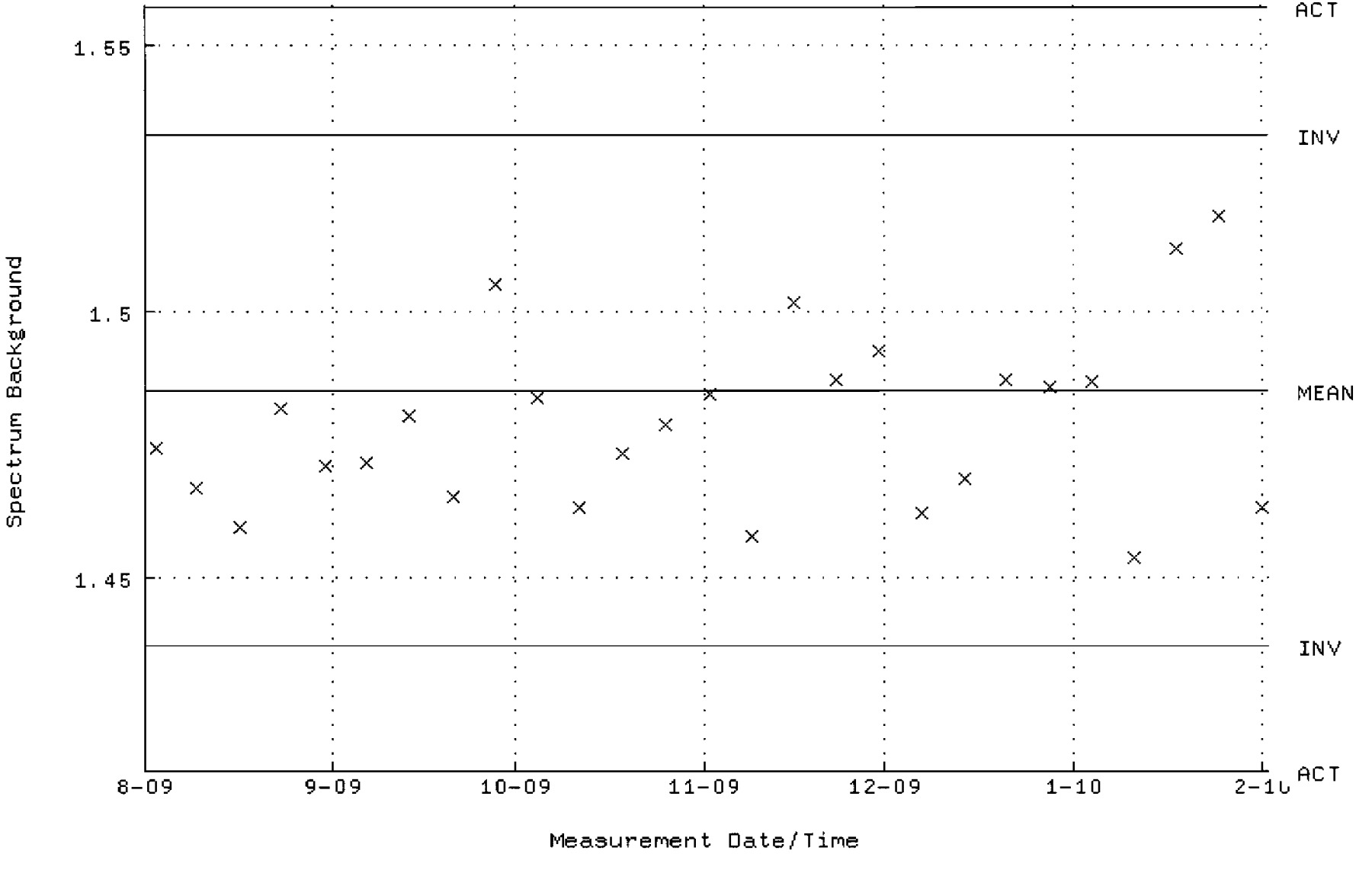

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRO-241 (PEAK CENTROID AM-241)
Start/End Dates : 17-NOV-2009 15:50:12 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

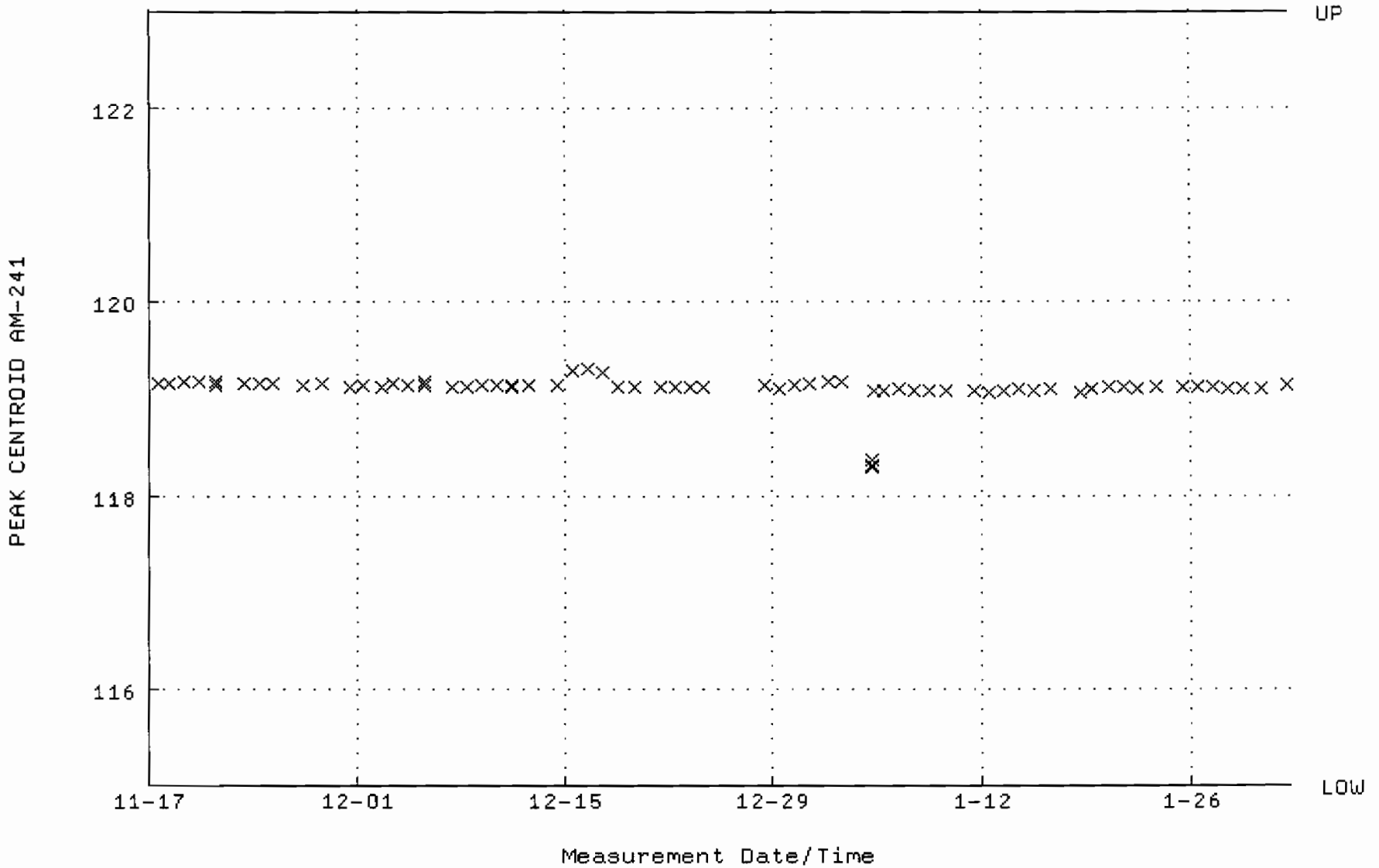

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 22-NOV-2009 17:05:16 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.03312 +- 8.784250E-03 (0.85 %)

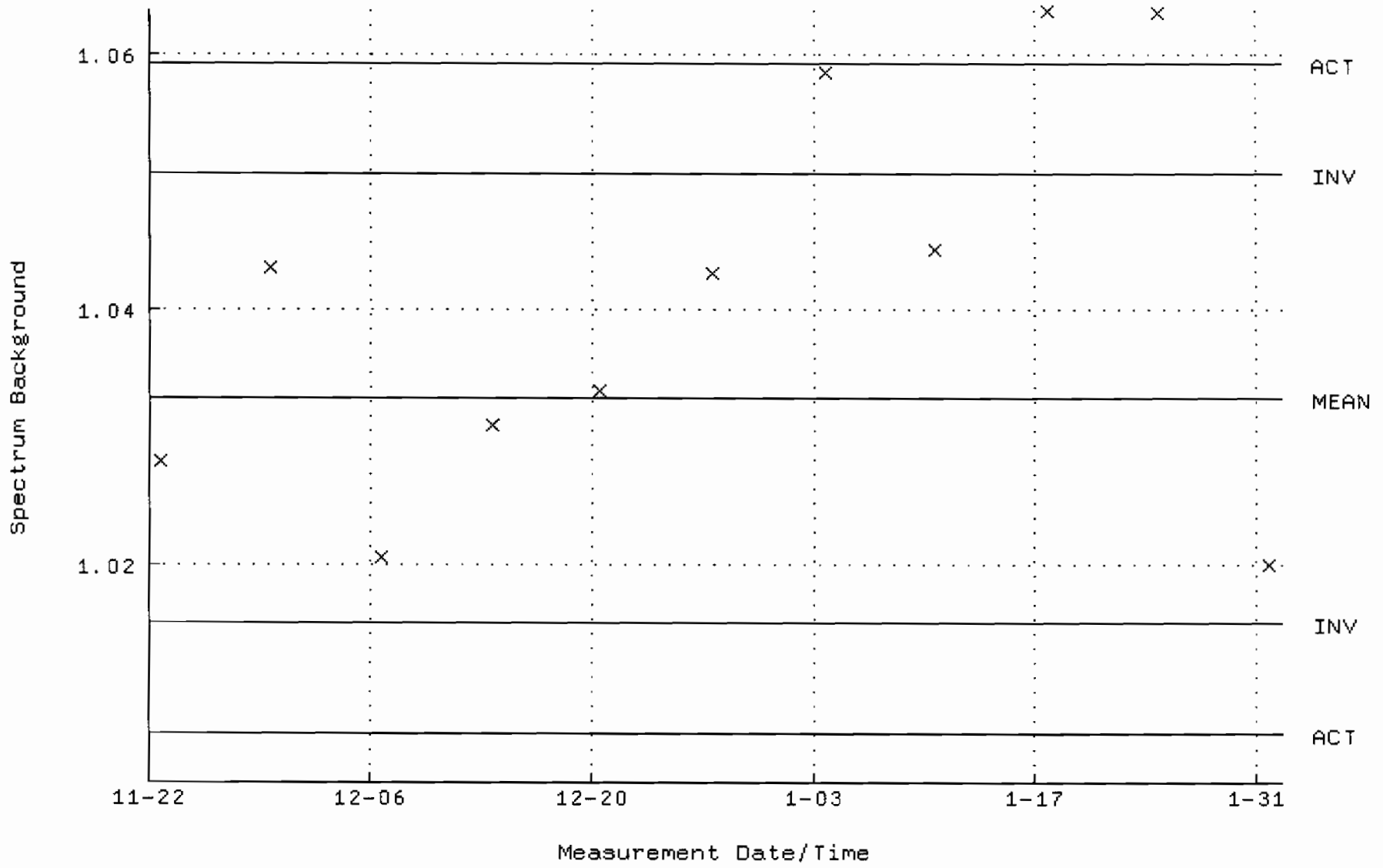

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

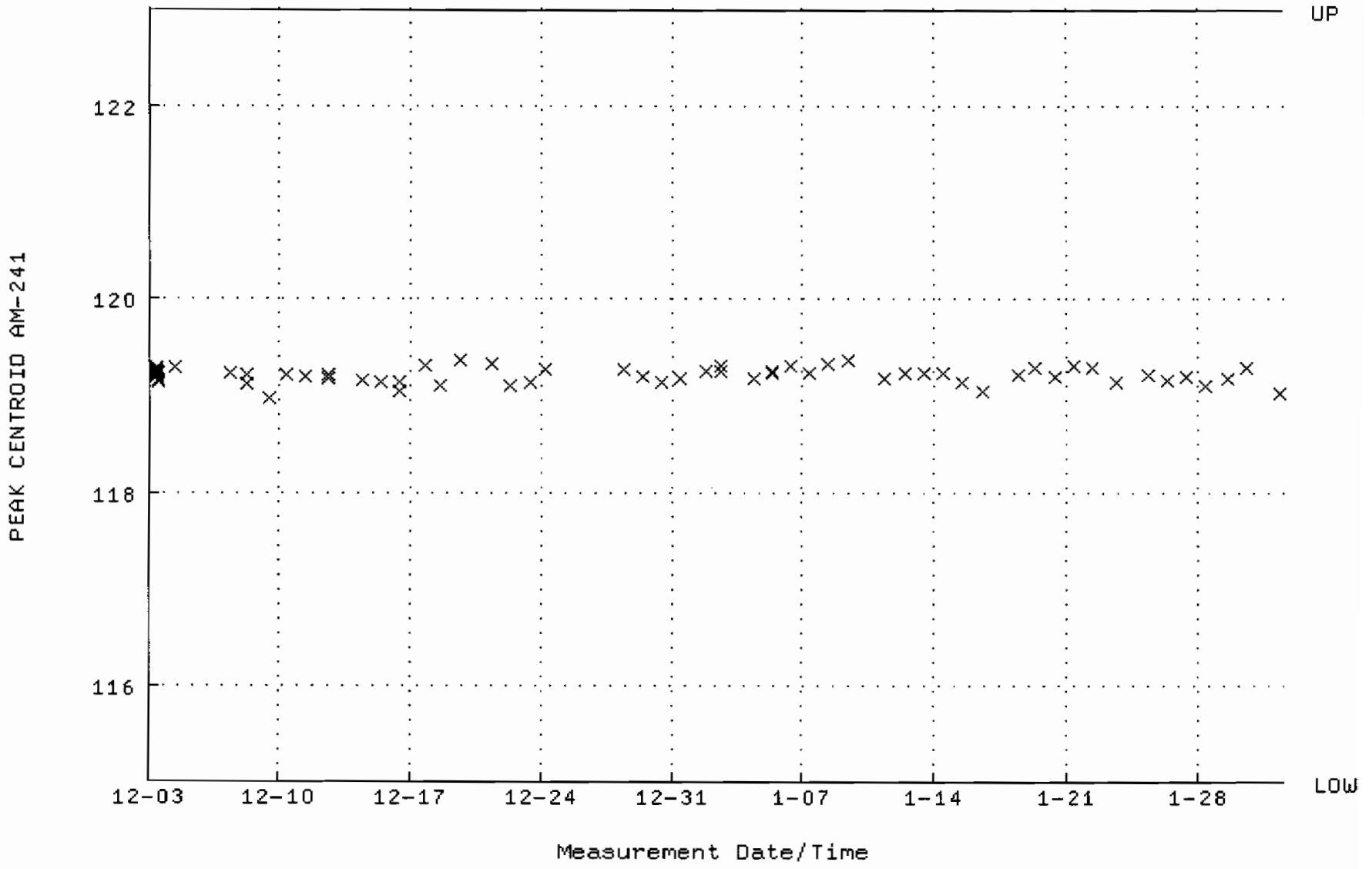

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

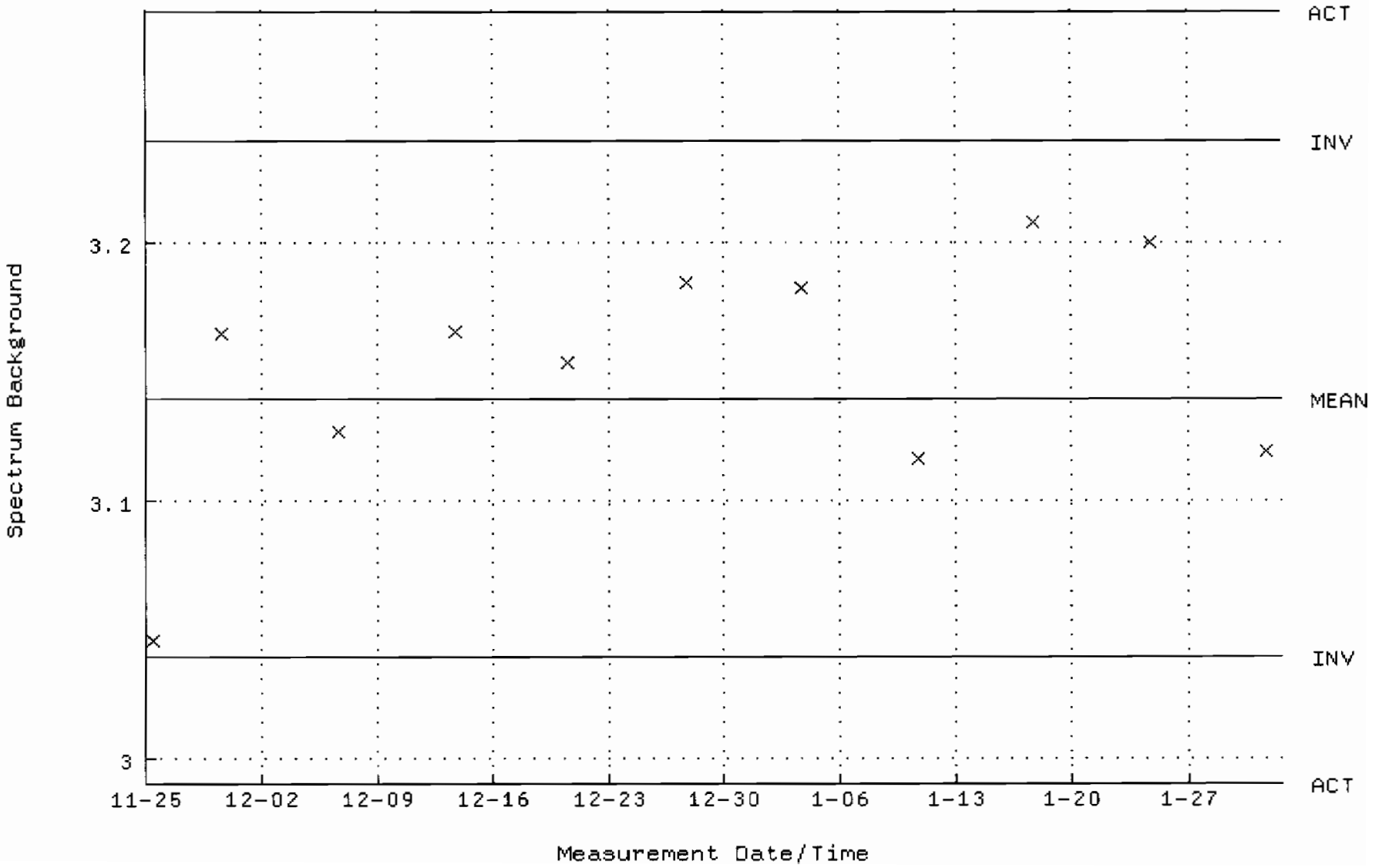

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

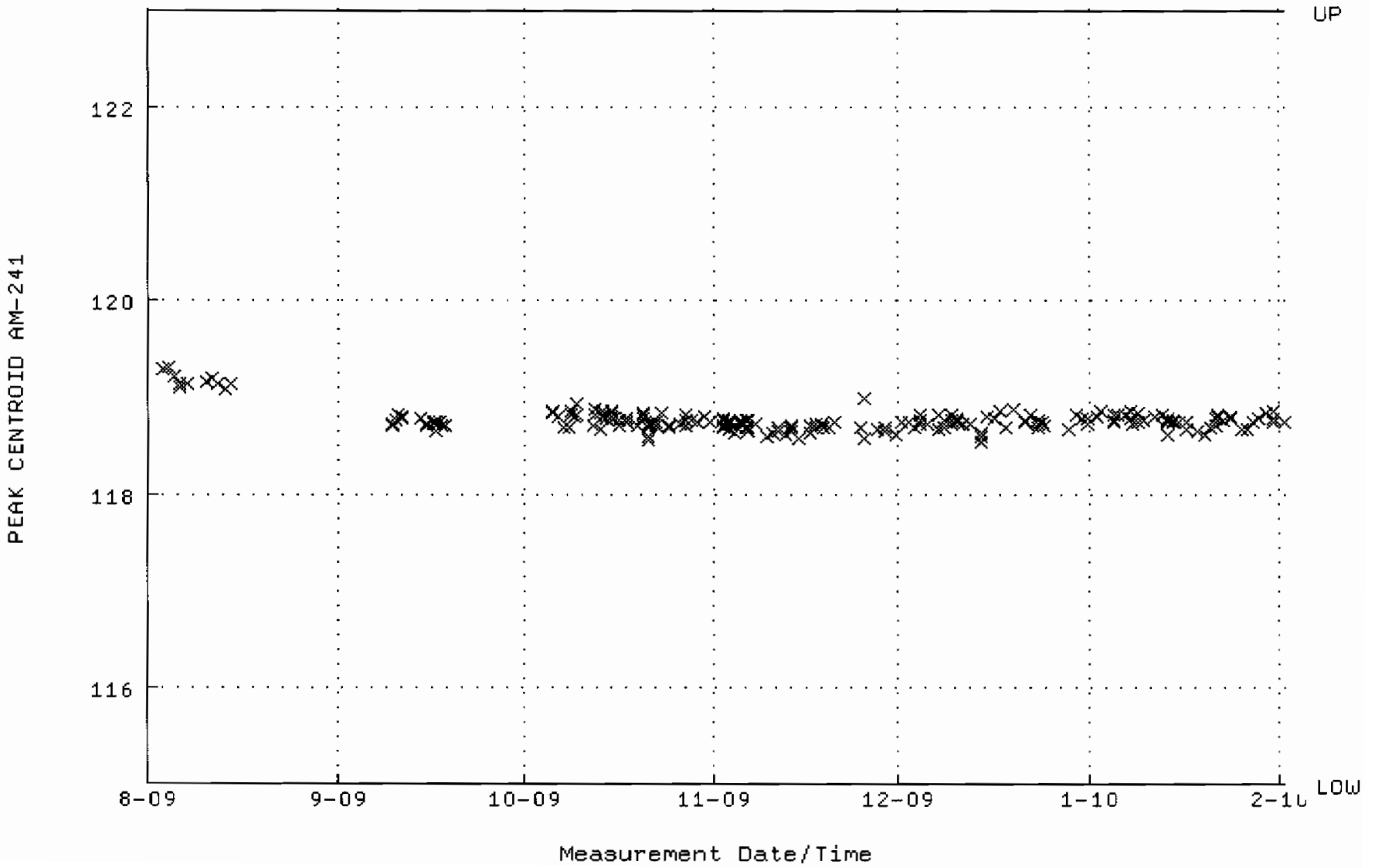

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

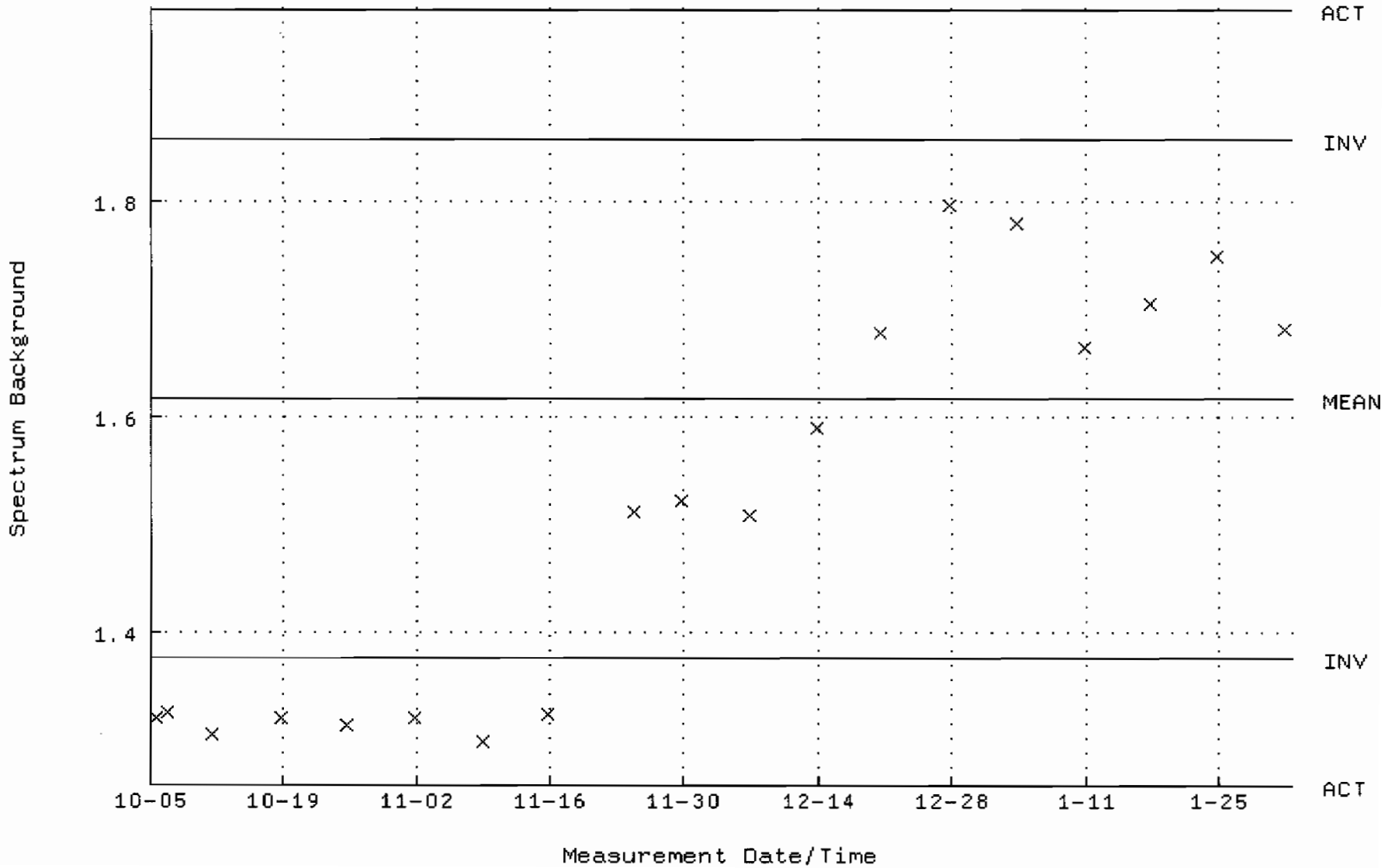

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:11:17 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

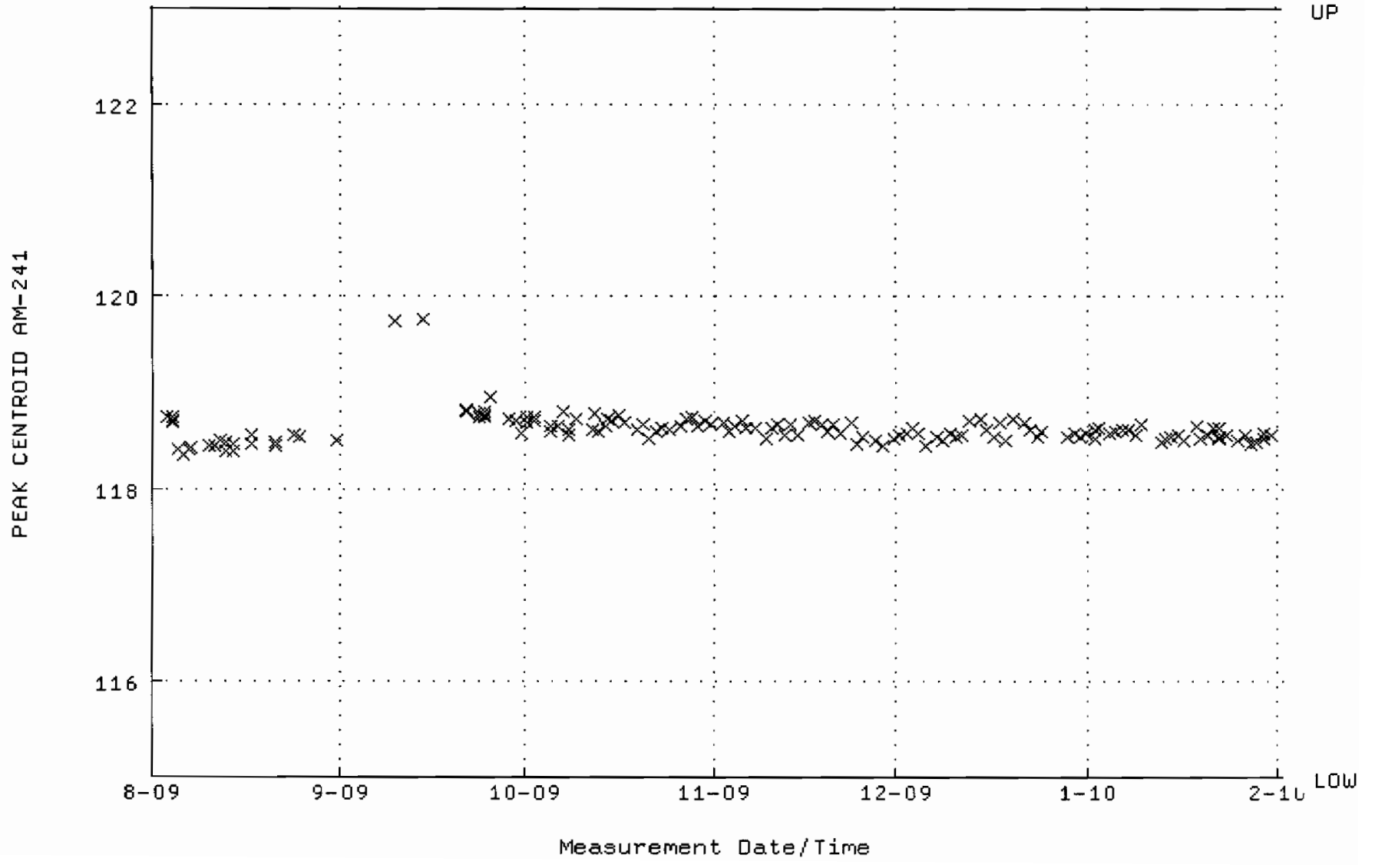

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:26:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)

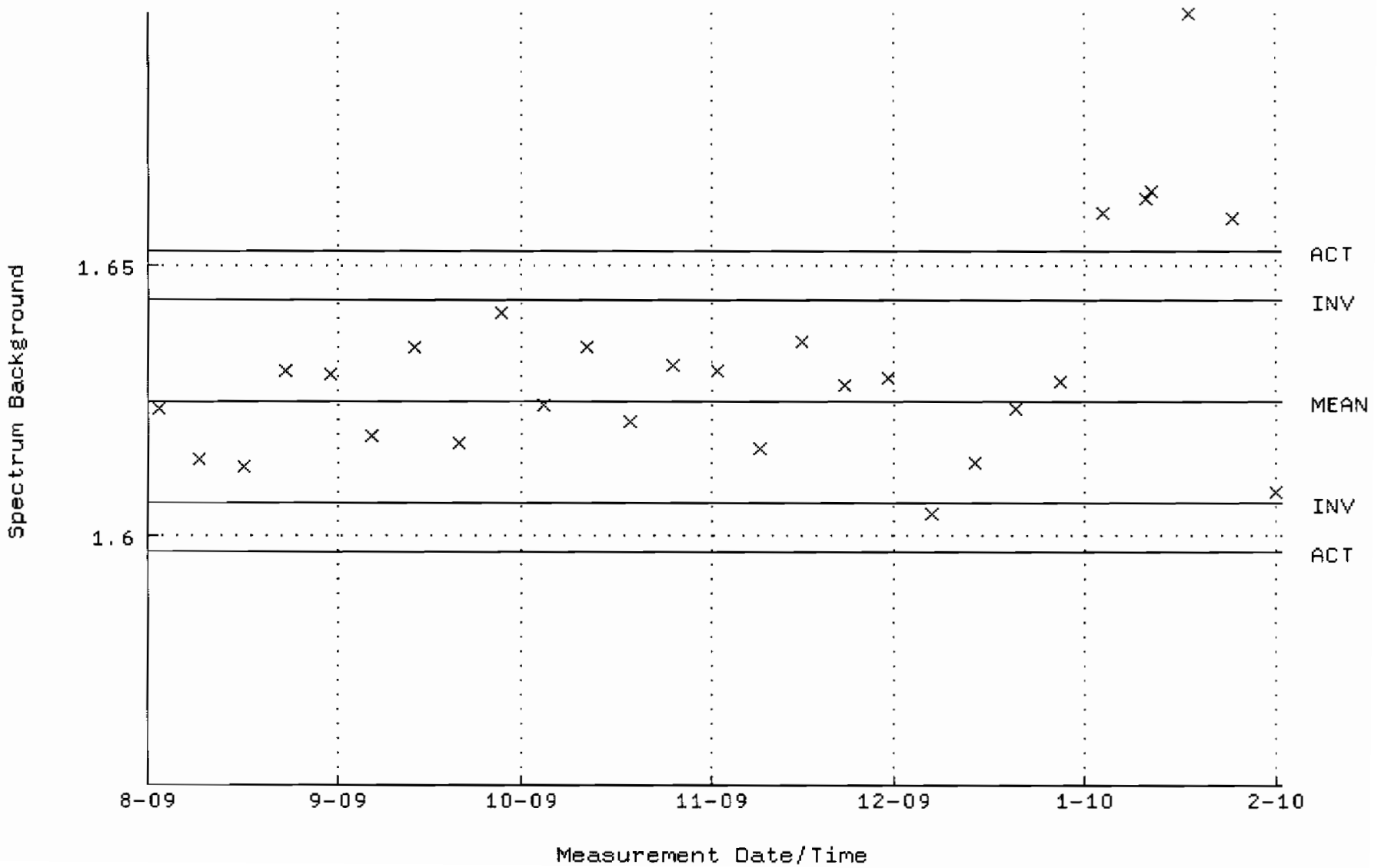

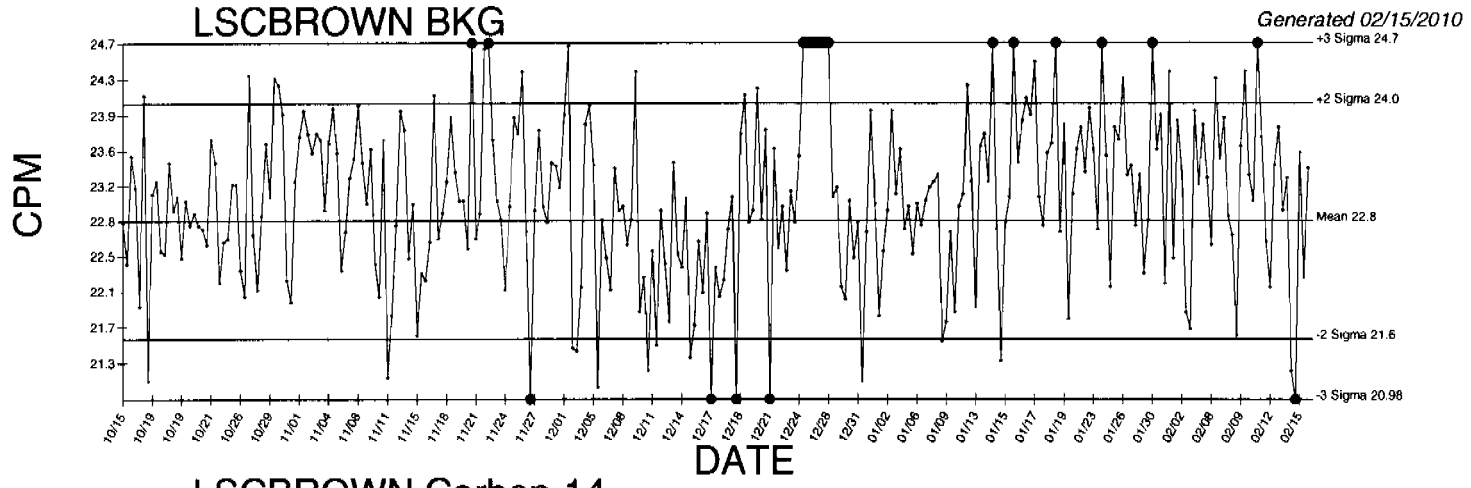

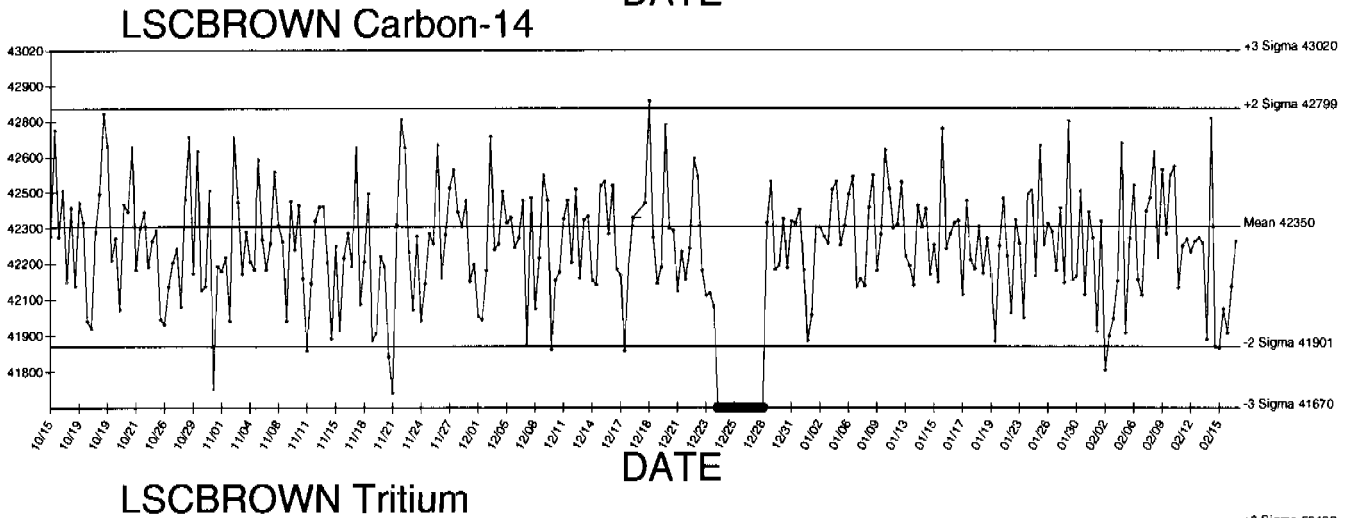

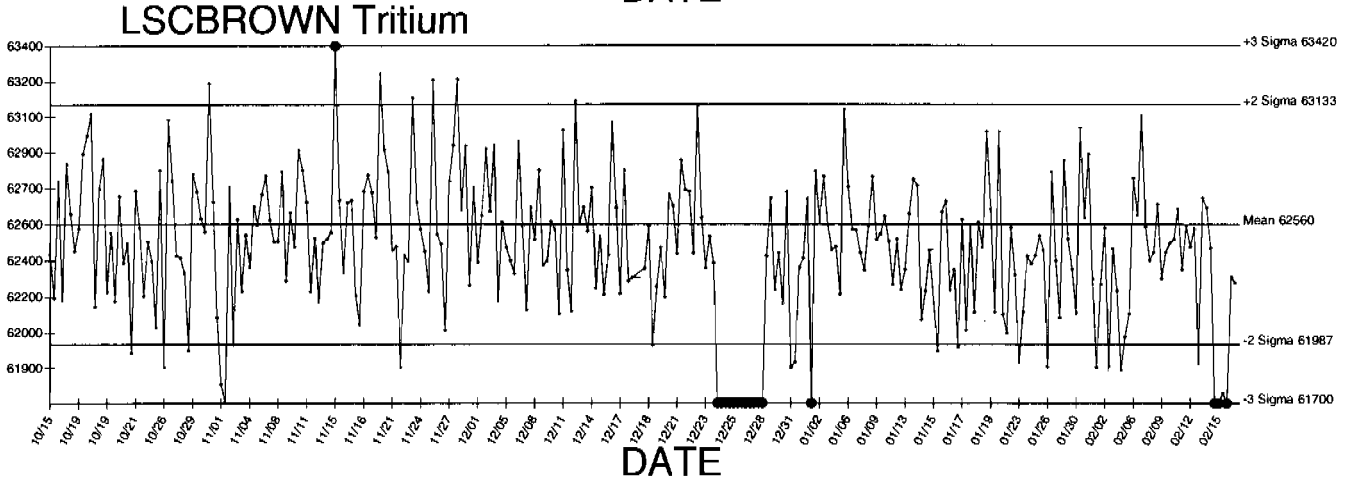

● Denotes Outlier

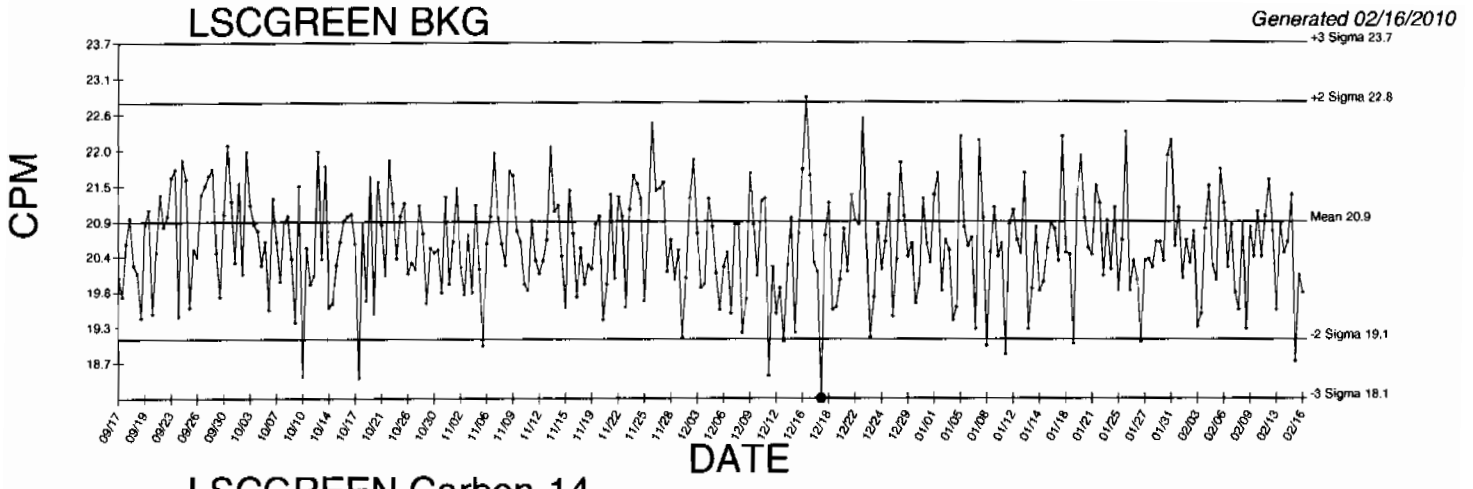

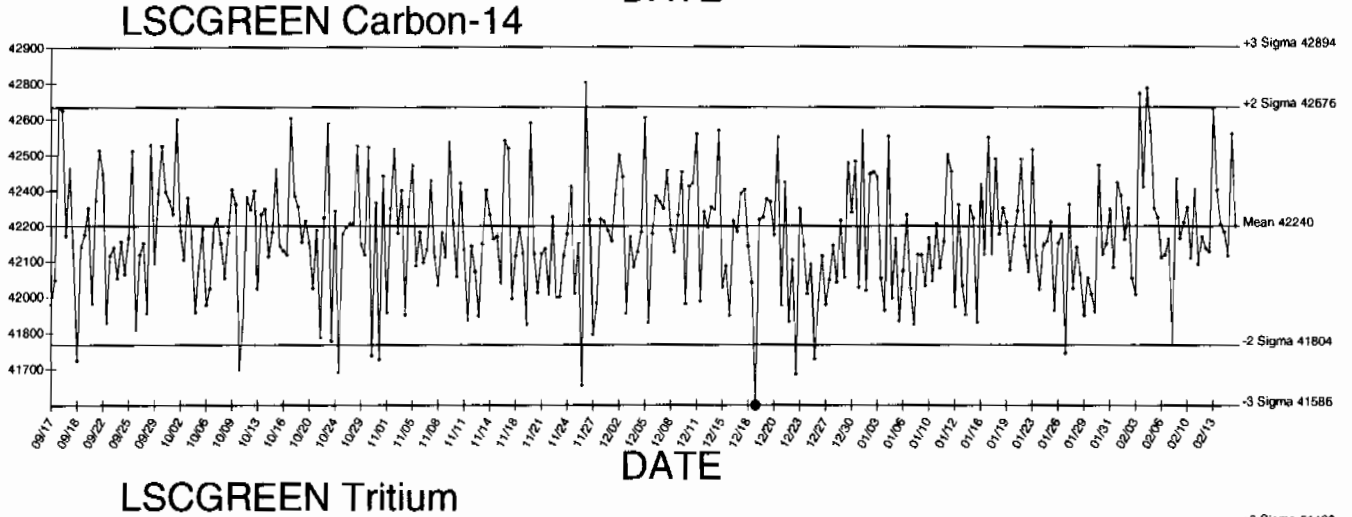

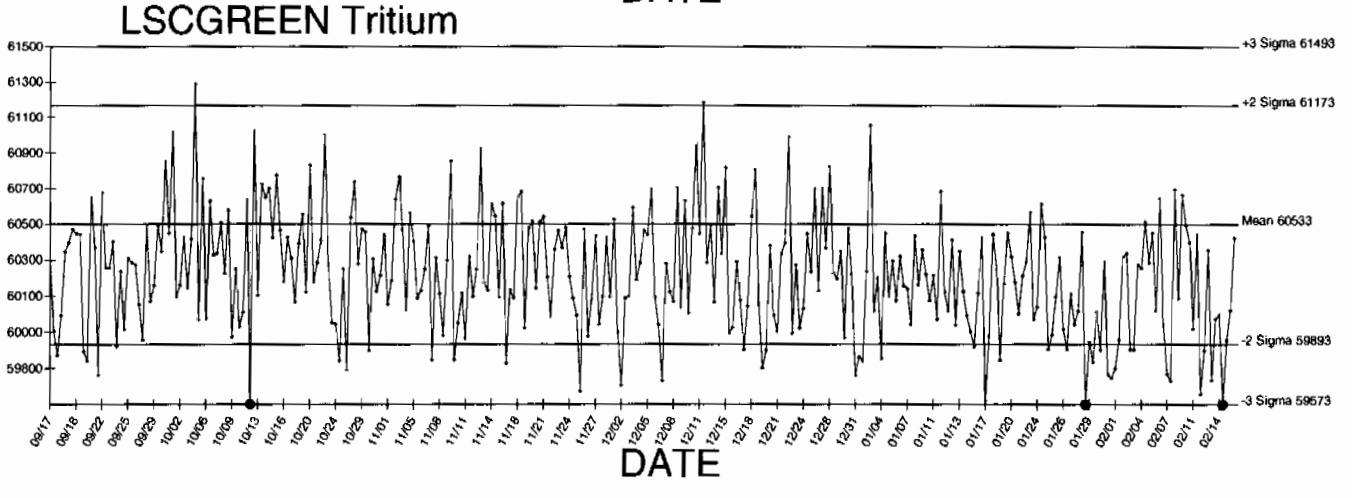

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-023-061a

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

[illegible] 4/9/09
Amanda L. [illegible] 4/9/09

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837

www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR. 1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR. 3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER. JAR.-1
	Mixed Gamma N2	907.6	pCi/L	- VER.-JAR.3
	Mixed Gamma N3	898.9	pCi/L	- VER. JAR.-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Reid 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI
Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-1~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking — SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 (SMO USE)
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI
Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (SMO USE)
Data Entered (mm/dd/yy)
Entered by

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized soil materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

	Name	Signature	Init	Company/Organization/Phone
Sample Team Members	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590
Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Gridean 5/15/09
Rob Robin 007509

Eckert & Ziegler
Analytics

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Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S'-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

1375

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/7/01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

RC-5-08-1192 094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**$(1.105 \pm 0.002)\ g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: $(0.092 \pm 0.018)\ Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y = |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}·{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10
1/12/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 947037**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245667001	SAMPLE	MJH1	GAM10	09-FEB-10 13:16	DONE CAN		16-MAR-09 00:00
245667002	SAMPLE	MJH1	GAM12	09-FEB-10 13:17	DONE CAN		10-FEB-09 00:00
245667003	SAMPLE	MJH1	GAM16	09-FEB-10 13:17	DONE CAN		16-NOV-09 00:00
245667004	SAMPLE	MJH1	GAM13	09-FEB-10 13:19	DONE CAN		02-FEB-09 00:00
245667005	SAMPLE	MJH1	GAM23	09-FEB-10 13:21	DONE CAN		02-JUN-09 00:00
245667006	SAMPLE	MJH1	GAM20	09-FEB-10 13:24	DONE CAN		26-AUG-09 00:00
245691001	SAMPLE	MJH1	GAM19	09-FEB-10 13:25	DONE CAN		12-MAR-09 00:00
245691003	SAMPLE	MJH1	GAM25	09-FEB-10 14:46	DONE CAN		07-OCT-09 00:00
245691004	SAMPLE	MJH1	GAM17	09-FEB-10 14:53	DONE CAN		06-JAN-10 00:00
245691002	SAMPLE	MJH1	GAM22	09-FEB-10 15:21	DONE CAN		02-DEC-09 00:00
245691005	SAMPLE	MJH1	GAM10	09-FEB-10 15:24	DONE CAN		16-MAR-09 00:00
245691006	SAMPLE	MJH1	GAM13	09-FEB-10 15:24	DONE CAN		02-FEB-09 00:00
245691007	SAMPLE	MJH1	GAM16	09-FEB-10 15:24	DONE CAN		16-NOV-09 00:00
245691008	SAMPLE	MJH1	GAM12	09-FEB-10 15:32	DONE CAN		10-FEB-09 00:00
245691009	SAMPLE	MJH1	GAM18	09-FEB-10 15:32	DONE CAN		23-APR-09 00:00
245691010	SAMPLE	MJH1	GAM19	09-FEB-10 15:33	DONE CAN		12-MAR-09 00:00
245691011	SAMPLE	MJH1	GAM20	09-FEB-10 15:33	DONE CAN		26-AUG-09 00:00
245691012	SAMPLE	MJH1	GAM23	09-FEB-10 15:33	DONE CAN		02-JUN-09 00:00
245691014	SAMPLE	MJH1	GAM17	09-FEB-10 17:27	DONE CAN		06-JAN-10 00:00
1202028548	MB	MJH1	GAM21	09-FEB-10 17:28	DONE CAN		28-JUL-09 00:00
245691013	SAMPLE	MJH1	GAM18	09-FEB-10 17:37	DONE CAN		23-APR-09 00:00
1202028549	DUP	MJH1	GAM10	09-FEB-10 17:44	DONE CAN		16-MAR-09 00:00
1202028550	LCS	MJH1	GAM19	09-FEB-10 17:44	DONE CAN		12-MAR-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 947354**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245667001	SAMPLE	CXM2	1088	10-FEB-10 16:27	DONE		
245667002	SAMPLE	CXM2	1211	10-FEB-10 18:13	DONE		
245667003	SAMPLE	CXM2	1212	10-FEB-10 18:13	DONE		
245667004	SAMPLE	CXM2	1213	10-FEB-10 18:13	DONE		
245667005	SAMPLE	CXM2	1214	10-FEB-10 18:13	DONE		
245667006	SAMPLE	CXM2	1215	10-FEB-10 18:13	DONE		
245691001	SAMPLE	CXM2	1216	10-FEB-10 18:13	DONE		
245691002	SAMPLE	CXM2	1217	10-FEB-10 18:13	DONE		
245691003	SAMPLE	CXM2	1218	10-FEB-10 18:14	DONE		
245691004	SAMPLE	CXM2	1219	10-FEB-10 18:14	DONE		
245691005	SAMPLE	CXM2	1220	10-FEB-10 18:14	DONE		
245691006	SAMPLE	CXM2	1231	10-FEB-10 18:14	DONE		
245691007	SAMPLE	CXM2	1232	10-FEB-10 18:14	DONE		
245691008	SAMPLE	CXM2	1233	10-FEB-10 18:14	DONE		
245691009	SAMPLE	CXM2	1234	10-FEB-10 18:14	DONE		
245691010	SAMPLE	CXM2	1235	10-FEB-10 18:14	DONE		
245691011	SAMPLE	CXM2	1236	10-FEB-10 18:14	DONE		
245691012	SAMPLE	CXM2	1237	10-FEB-10 18:14	DONE		
245691013	SAMPLE	CXM2	1238	10-FEB-10 18:14	DONE		
245691014	SAMPLE	CXM2	1239	10-FEB-10 18:14	DONE		
1202029343	MB	CXM2	1240	10-FEB-10 18:14	DONE		
1202029344	DUP	CXM2	1241	10-FEB-10 18:14	DONE		
1202029345	LCS	CXM2	1242	10-FEB-10 18:14	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 947356**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245667001	SAMPLE	CXM2	1037	10-FEB-10 16:27	DUSE		
245667002	SAMPLE	CXM2	1038	10-FEB-10 16:27	DONE		
245667003	SAMPLE	CXM2	1039	10-FEB-10 16:27	DONE		
245667004	SAMPLE	CXM2	1040	10-FEB-10 16:27	DONE		
245667005	SAMPLE	CXM2	1041	10-FEB-10 16:27	DONE		
245667006	SAMPLE	CXM2	1042	10-FEB-10 16:27	DONE		
245691001	SAMPLE	CXM2	1043	10-FEB-10 16:27	DONE		
245691002	SAMPLE	CXM2	1044	10-FEB-10 16:27	DONE		
245691003	SAMPLE	CXM2	1045	10-FEB-10 16:27	DONE		
245691004	SAMPLE	CXM2	1046	10-FEB-10 16:27	DONE		
245691005	SAMPLE	CXM2	1047	10-FEB-10 16:27	DONE		
245691006	SAMPLE	CXM2	1048	10-FEB-10 16:27	DONE		
245691007	SAMPLE	CXM2	1071	10-FEB-10 16:27	DONE		
245691008	SAMPLE	CXM2	1072	10-FEB-10 16:27	DONE		
245691009	SAMPLE	CXM2	1073	10-FEB-10 16:27	DONE		
245691010	SAMPLE	CXM2	1074	10-FEB-10 16:27	DONE		
245691011	SAMPLE	CXM2	1075	10-FEB-10 16:27	DONE		
245691012	SAMPLE	CXM2	1076	10-FEB-10 16:27	DONE		
245691013	SAMPLE	CXM2	1083	10-FEB-10 16:27	DONE		
245691014	SAMPLE	CXM2	1084	10-FEB-10 16:27	DONE		
1202029347	MB	CXM2	1085	10-FEB-10 16:27	DONE		
1202029348	DUP	CXM2	1086	10-FEB-10 16:27	DONE		
1202029349	LCS	CXM2	1087	10-FEB-10 16:27	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 947357**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245691013	SAMPLE	CXM2	1166	09-FEB-10 11:26	DONE		
245691014	SAMPLE	CXM2	1169	09-FEB-10 11:26	DONE		
1202029350	MB	CXM2	1170	09-FEB-10 11:26	DONE		
1202029351	DUP	CXM2	1171	09-FEB-10 11:26	DONE		
1202029352	LCS	CXM2	1172	09-FEB-10 11:26	DONE		
245667001	SAMPLE	CXM2	1139	10-FEB-10 10:40	DONE		
245667002	SAMPLE	CXM2	1140	10-FEB-10 10:40	DONE		
245667003	SAMPLE	CXM2	1145	10-FEB-10 10:40	DONE		
245667004	SAMPLE	CXM2	1146	10-FEB-10 10:40	DONE		
245667005	SAMPLE	CXM2	1147	10-FEB-10 10:40	DONE		
245667006	SAMPLE	CXM2	1148	10-FEB-10 10:40	DONE		
245691001	SAMPLE	CXM2	1001	10-FEB-10 10:43	DONE		
245691002	SAMPLE	CXM2	1002	10-FEB-10 10:43	DONE		
245691003	SAMPLE	CXM2	1003	10-FEB-10 10:43	DONE		
245691004	SAMPLE	CXM2	1004	10-FEB-10 10:43	DUSE		
245691005	SAMPLE	CXM2	1005	10-FEB-10 10:43	DONE		
245691006	SAMPLE	CXM2	1006	10-FEB-10 10:43	DONE		
245691007	SAMPLE	CXM2	1007	10-FEB-10 10:43	DONE		
245691008	SAMPLE	CXM2	1008	10-FEB-10 10:43	DONE		
245691009	SAMPLE	CXM2	1009	10-FEB-10 10:43	DUSE		
245691010	SAMPLE	CXM2	1010	10-FEB-10 10:43	DONE		
245691011	SAMPLE	CXM2	1011	10-FEB-10 10:43	DONE		
245691012	SAMPLE	CXM2	1012	10-FEB-10 10:43	DONE		
245691004	SAMPLE	CXM2	1162	11-FEB-10 15:06	DONE		

Instrument Run Log

Instrument Type: LSC **Batch ID: 948402**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245691004	SAMPLE	KXK2	LSCBROWN	14-FEB-10 20:01	DONE		
245691006	SAMPLE	KXK2	LSCBROWN	14-FEB-10 21:39	DONE		
245691007	SAMPLE	KXK2	LSCBROWN	14-FEB-10 23:17	DONE		
245691012	SAMPLE	KXK2	LSCBROWN	15-FEB-10 00:55	DONE		
245691014	SAMPLE	KXK2	LSCBROWN	15-FEB-10 02:33	DONE		
1202031682	MB	KXK2	LSCBROWN	15-FEB-10 04:11	DONE		
1202031683	DUP	KXK2	LSCBROWN	15-FEB-10 05:49	DONE		
245691008	SAMPLE	KXK2	LSCBROWN	15-FEB-10 08:39	DONE		
245691009	SAMPLE	KXK2	LSCBROWN	15-FEB-10 08:55	DONE		
245691010	SAMPLE	KXK2	LSCBROWN	15-FEB-10 09:11	DONE		
245691011	SAMPLE	KXK2	LSCBROWN	15-FEB-10 09:28	DONE		
245691013	SAMPLE	KXK2	LSCBROWN	15-FEB-10 09:44	DONE		
1202031684	LCS	KXK2	LSCBROWN	15-FEB-10 10:00	DONE		
245691001	SAMPLE	KXK2	LSCGREEN	16-FEB-10 17:43	DONE		
245691002	SAMPLE	KXK2	LSCGREEN	16-FEB-10 19:21	DONE		
245691003	SAMPLE	KXK2	LSCGREEN	16-FEB-10 20:59	DONE		
245691005	SAMPLE	KXK2	LSCGREEN	16-FEB-10 22:37	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 952128**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245691009	SAMPLE	CXM2	1113	18-FEB-10 18:41	DONE		
1202040645	MB	CXM2	1114	18-FEB-10 18:41	DONE		
1202040646	DUP	CXM2	1115	18-FEB-10 18:41	DONE		
1202040647	LCS	CXM2	1119	18-FEB-10 18:41	DONE		

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1433
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/27/2010
TURNAROUND/REPORT DUE: 2/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:6850	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:7470A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	SW-846:9012A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Final Page of REQUEST NUMBER 10-1433

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1433

REQUEST NUMBER: 10-1433

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7884	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7932	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7931	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7938	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7933	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7939	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7936	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7935	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7934	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7940	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7937	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8056	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8057	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8080	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8080	1	POLY	SW-846:6850	Ice	W
RE15-10-8080	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8079	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8079	1	POLY	SW-846:6850	Ice	W
RE15-10-8079	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8077	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8077	1	POLY	SW-846:6850	Ice	W
RE15-10-8077	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		1/27/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7883 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610711	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist sandy brown clay

FD: RE15-10-8057

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-66 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 52 dpm
Beta/Gamma ≤ 2120 dpm

HF negative

PID Ambient/Reading 0.0/0.0 ppm

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R Marin	1/25/10 16:55	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1655
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7884 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	TUFF 1	
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	15-610711		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	✓	FIELD PREP:	NA	
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	✓
BOTTOM DEPTH:	0	3.8	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	y	
1		H3	500 ML POLY	Ice	y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-66, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 91 dpm
Beta/Gamma ≤ 2410 dpm

PID Ambient 0.4 / Reading 4.7 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jack Marin	1/25/10 16:55	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1655
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7931 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1342	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610735	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown clayey silt, roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-82, mesa top S of fire rd

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 39 **dpm**
Beta/Gamma ≤ 2370 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jack Marin	1655	(Signature) Sherri Sherwood	1655
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7932 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1406	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610735	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff, few small rocks

SAMPLE COMMENTS: Hit tuff at 3.5'

LOCATION DESC: 8b - 82 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 39 dpm
Beta/Gamma ≤ 2490 dpm

PID Ambient 0.2 / Reading 1.3 ppm

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) A. Gouvras

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jack Marin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7933 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	Alluh
TIME COLLECTED (HH:MM)		1339	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610736	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty clay, some roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-81, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 39 **dpm**
Beta/Gamma ≤ 2440 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jan R. Marin	1/25/10 16:56	(Printed Name) (Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7934 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1428	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610736	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	RM 1/25/10 ~~3.10~~ 3.9	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-10-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brownish grey tuff

SAMPLE COMMENTS: Hit tuff at 1.0 ft

LOCATION DESC: 8b-81 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 85 **dpm**
Beta/Gamma = 2880 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) A. Gournas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Joseph Marin	1/25/10 1656	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7935 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1347	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610737	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty clay, small rocks, moist

(FR: RE15-10-8079)

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-78, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha = 104 **dpm**
Beta/Gamma = 4540 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) A. Gomas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jon R. Marin	1656	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7936 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610737	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FD RE15-10-8056

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-78, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 72 **dpm**
Beta/Gamma = 2710 **dpm**

PID Ambient 0.0 / Reading 0.0 = ppm 0.0/0.0

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** A. Gaumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jon R. Marin	16:56	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7937 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610738	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-80 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 85 **dpm**
Beta/Gamma ≤ 2330 **dpm**

PID Ambient 0.1 / Reading 0.2 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) [signature]	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) [signature]	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7938 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1525	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610738	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FR RE15-10-8080

SAMPLE COMMENTS: Hit tuff at 2.9'

LOCATION DESC: 8b-80 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm
Beta/Gamma = 2060 dpm

PID Ambient 0.0 / Reading 1.9 ppm

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R. Marin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1650
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7939 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	All h
TIME COLLECTED (HH:MM)		1522	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610739	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist brown silty sand, some clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-79 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 1596 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jan R. Marin	16:56	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7940 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1600	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610739	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-79 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 7940 dpm

PID Ambient Reading 0.2 / 0.2 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) T L McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARCH (Signature) Jack Marcin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8056 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610737	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	2.9	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER 7am 1/25/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-~~8056~~ 7936 RG 1/25/10

Gray tuff

SAMPLE COMMENTS:

LOCATION DESC: 8b-78

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 72 dpm
Beta/Gamma ≤ 2710 dpm

PID Ambient Reading 0.0 / 0.0 ppm 0.0 / 0.0

COLLECTED BY (PRINT) REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherry Sherwood	1/25/10
(Signature) Jan R. Marin	16:56	(Signature) Sherry Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8057 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610711	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-~~7833~~ 7883 JRM 1/26/10
moist brown sandy clay

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-66 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 52 dpm
Beta/Gamma ≤ 2120 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10 16:57	(Printed Name) Sherri Sherwood	1/25/10 1657
(Signature) Jack R Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8079 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1450	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610737	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7935

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = _____ **dpm** TJM 1/25/10

Beta/Gamma = _____ **dpm**

PID Ambient Reading = **ppm** TJM 1/25/10

COLLECTED BY (PRINT) ThMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jon R. Marin	16:57	(Signature) Sherri Sherwood	1657
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8080 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		15:35	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610738	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7938

SAMPLE COMMENTS: Rinsate

LOCATION DESC:
8b-80

FIELD SCREENING/MEASUREMENT RESULTS:

JRM 1/25/10
Alpha = ____ **dpm**
Beta/Gamma = ____ **dpm**

JRM 1/25/10
PID Ambient Reading = ppm

COLLECTED BY (PRINT) J. MARIN

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jan R. Marin	MARIN 1/25/10 16:57	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1657
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7883
7884
7931
7932
7933
7934
7935
7936
7937
7938
7939

RE15-10-7940
8056
8057

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8080 FR
8079 FR

Reason:

Print Last Name MARIN Signature Jen R. Marin Date 1/25/10

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7883	ARS Sample ID:	ARS2-10-00023-001
Sample Collection Date:	01/25/10 14:45	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 16:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.44	32.43	36.09	32.90		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	49.89	16.45	17.69	17.55		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	19.62	7.19	1.50	7.21		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.79	0.10	0.79		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.14	0.15	0.06	0.15		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.33	0.43	0.11	0.43		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	0.69	0.41	0.18	0.41		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.16	0.90	0.26	0.90		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.10	0.86	0.28	0.86		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.30	3.64	1.41	3.84		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.21	0.24	0.10	0.24		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.50

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-7884

Sample Collection Date: 01/25/10 15:00

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-002

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.95	25.78	31.78	26.03		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	42.70	15.72	18.25	16.57		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	23.70	8.15	1.61	8.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.60	0.11	10.60		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.16	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	13.74	0.07	13.74		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.35	0.24	0.14	0.24		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	2.30	0.63	0.17	0.64		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.73	0.40	0.57	0.40		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.93	0.87	0.16	0.87		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	4.36	3.03	1.22	3.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.08	0.14	0.06	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.52

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7931	ARS Sample ID:	ARS2-10-00023-003
Sample Collection Date:	01/25/10 13:42	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.20	26.91	30.56	27.22		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	47.72	17.26	19.68	18.22		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-1.19	-30.61	4.37	-30.61		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.29	8.10	10.29		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.10	0.12	0.08	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.00	0.03	0.06	0.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.28	0.32	0.12	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.21	0.47	0.15	0.47		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	1.08	0.76	0.27	0.76		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.43	0.80	0.31	0.80		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.51	2.64	1.21	2.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.03	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 1.43

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARSZ-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7932	ARS Sample ID:	ARSZ-10-00023-004
Sample Collection Date:	01/25/10 14:06	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	15.13	22.44	38.20	22.51		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	43.35	18.72	18.71	16.59		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-2.70	-28.07	4.29	-28.07		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.08	0.13	0.11	0.13		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.23	0.20	0.08	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.24	0.20	0.07	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	11.12	0.12	11.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.61	0.49	0.09	0.49		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.96	0.68	0.62	0.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	2.18	0.97	0.17	0.96		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.90	3.24	1.43	3.31		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.39	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 1.01

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-7933
Sample Collection Date: 01/25/10 13:39
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-005
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	75.13	40.22	36.09	41.26		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	58.76	17.74	17.69	19.15		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.05	0.09	0.07	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	15.44	5.66	1.18	5.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	7.71	0.08	7.71		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.14	0.13	0.05	0.13		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	8.01	0.09	8.01		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	0.97	0.35	0.10	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.97	0.50	0.21	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.92	0.70	0.29	0.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.44	3.80	1.34	4.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.04	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.33

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7934	ARS Sample ID:	ARS2-10-00023-006
Sample Collection Date:	01/25/10 14:28	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	-2.35	9.58	31.78	9.58		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	45.35	15.44	18.25	16.41		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	24.86	8.16	1.59	8.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.38	0.11	10.38		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.15	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.34	0.32	0.12	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.24	0.50	0.17	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.44	0.86	0.28	0.86		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.77	0.58	0.21	0.58		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	3.71	3.36	1.38	3.49		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.05	0.18	0.09	0.18		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.98

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE18-10-7935	ARS Sample ID:	ARS2-10-00023-007
Sample Collection Date:	01/25/10 13:47	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.69	31.52	30.56	32.05		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	141.19	28.34	19.68	30.67		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	0.43	4.80	2.88	4.80		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.03	0.08	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.14	0.12	0.06	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.01	0.04	0.05	0.04		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	0.65	0.10	0.65		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.36	0.42	0.11	0.43		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.29	0.45	0.37	0.45		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	2.36	1.28	0.43	1.28		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	41.91	6.65	1.77	11.05		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.83	0.65	0.23	0.65		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.48

Matthew J. Eden

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-7936
Sample Collection Date: 01/25/10 14:26
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-008
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.91	27.32	38.20	27.55		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	39.59	15.87	18.71	16.31		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-1.94	-30.91	3.71	-30.91		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	11.53	0.12	11.53		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.10	0.11	0.08	0.11		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	15.08	0.07	15.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	11.99	0.13	11.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.37	0.52	0.16	0.52		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.72	1.07	0.31	1.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.04	0.45	0.29	0.45		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.36	3.67	1.46	3.87		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.45	0.46	0.17	0.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.38

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7937	ARS Sample ID:	ARS2-10-00023-009
Sample Collection Date:	01/25/10 14:57	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TMI	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	50.41	33.85	36.09	34.40		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	42.67	15.79	17.69	16.64		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.16	0.21	0.10	0.21		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.44	-6.08	2.30	-6.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.29	0.10	10.29		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.12	0.18	0.08	0.18		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.07	0.11	0.06	0.11		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	1.94	0.98	0.23	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.28	0.62	0.27	0.62		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.09	0.69	0.38	0.69		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	4.21	2.20	0.98	2.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	34.62	7.38	2.36	10.82		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	1.17	0.93	0.33	0.93		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.63

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RS15-10-7938

Sample Collection Date: 01/25/10 15:10

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-010

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.40	31.49	31.78	32.05		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	54.09	17.17	18.23	18.40		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	24.77	8.28	1.59	8.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.40	0.11	10.40		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.03	0.08	0.07	0.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	54.99	0.12	54.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.29	0.50	0.17	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	2.55	0.96	0.28	0.96		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.44	0.98	0.29	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	0.66	1.84	0.96	1.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.01	0.09	0.08	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.57

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7939	ARS Sample ID:	ARS2-10-00023-011
Sample Collection Date:	01/25/10 15:22	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.37	25.20	30.56	25.43		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	61.21	18.52	19.58	19.97		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.10	-6.00	2.94	-6.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.06	0.01	0.09	0.01		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.06	0.08	0.07	0.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.10	0.12	0.06	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.37	0.28	0.10	0.28		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.14	0.48	0.19	0.48		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	2.06	0.78	0.24	0.78		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.73	1.39	0.46	1.39		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	13.79	5.54	1.92	5.57		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.26	0.32	0.14	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.19

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7940	ARS Sample ID:	ARS2-10-00023-012
Sample Collection Date:	01/25/10 16:00	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.50	28.77	38.20	29.06		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	44.37	16.15	18.71	17.04		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	26.35	8.47	1.57	8.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.25	0.10	10.25		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	33.64	0.08	33.64		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.00	0.03	0.06	0.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.18	0.25	0.12	0.25		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.72	0.54	0.15	0.55		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.36	0.59	0.32	0.59		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.81	0.51	0.19	0.51		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	4.08	3.73	1.44	3.83		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.33	0.35	0.14	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.46

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023

Client Sample ID: RE15-10-8056

Sample Collection Date: 01/25/10 14:26

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00023-013

Date Received: 01/26/10 00:00

Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	70.21	39.02	36.09	39.96		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	45.44	16.39	17.69	17.30		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	29.01	10.74	2.74	10.77		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	11.83	0.12	11.82		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.53	0.35	0.09	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	15.46	0.07	15.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	1.18	0.63	0.14	0.63		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.68	0.61	0.21	0.62		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.57	0.81	0.32	0.81		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.48	0.85	0.38	0.85		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	0.60	2.94	1.58	2.94		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.31	0.42	0.18	0.42		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.32

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-8057
Sample Collection Date: 01/25/10 14:45
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-014
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	39.18	28.78	31.78	29.17		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	43.67	15.98	16.25	16.85		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.78	-15.99	3.11	-15.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.50	0.11	10.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.23	0.20	0.07	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.61	0.50	0.12	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.16	0.46	0.15	0.47		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.52	0.81	0.28	0.81		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.82	0.84	0.18	0.84		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.20	3.50	1.31	3.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.01	0.09	0.08	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 3.76

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1433 VALIDATION DATE: 03/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the water MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data was not included in the data package. No sample data were qualified.
2. It should be noted that sample RE15-10-8077 was listed on the COC and the Analytical Request form but the analysis was cancelled.

Reviewed by: Mary Donivan Level: I Date: 03/05/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 03/04/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1952

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7883

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688001

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate Isotope Ratio						1	10-FEB-10 21:40	per0210042a
14797-73-0	Perchlorate-101	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate-O(18)			6.74	ug/kg		1	10-FEB-10 21:40	per0210042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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03/04/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7884

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688002

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:04	per0210045a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate-O(18)			5.19	ug/kg		1	10-FEB-10 22:04	per0210045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7932

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688003

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:12	per0210046a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate-O(18)			5.44	ug/kg		1	10-FEB-10 22:12	per0210046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7931

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688004

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:20	per0210047a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate-O(18)			5.90	ug/kg		1	10-FEB-10 22:20	per0210047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7938

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688005

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:53	per0210051a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate-O(18)			5.09	ug/kg		1	10-FEB-10 22:53	per0210051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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03/04/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7933

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688006

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:01	per0210052a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate-O(18)			6.22	ug/kg		1	10-FEB-10 23:01	per0210052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7939

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688007

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:09	per0210053a
14797-73-0	Perchlorate-101	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate-O(18)			6.41	ug/kg		1	10-FEB-10 23:09	per0210053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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03/04/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7936

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688008

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:17	per0210054a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate-O(18)			4.95	ug/kg		1	10-FEB-10 23:17	per0210054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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03/04/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7935

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688009

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:25	per0210055a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate-O(18)			6.16	ug/kg		1	10-FEB-10 23:25	per0210055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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03/04/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7934

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688010

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	2.43	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate Isotope Ratio			3.22			1	10-FEB-10 23:33	per0210056a
14797-73-0	Perchlorate-101	.554	2.21	2.32	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate-O(18)			5.53	ug/kg		1	10-FEB-10 23:33	per0210056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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03/04/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7940

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688011

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 95.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.810	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate Isotope Ratio			2.94			1	10-FEB-10 23:41	per0210057a
14797-73-0	Perchlorate-101	.525	2.1	0.849	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate-O(18)			5.36	ug/kg		1	10-FEB-10 23:41	per0210057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

KAL
03/04/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7937

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688012

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:49	per0210058a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate-O(18)			6.05	ug/kg		1	10-FEB-10 23:49	per0210058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8056

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688013

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:57	per0210059a
14797-73-0	Perchlorate-101	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate-O(18)			5.00	ug/kg		1	10-FEB-10 23:57	per0210059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8057

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688014

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 70

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate Isotope Ratio						1	11-FEB-10 00:05	per0210060a
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate-O(18)			6.74	ug/kg		1	11-FEB-10 00:05	per0210060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8080

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690001

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate Isotope Ratio						1	31-JAN-10 20:57	per0131069a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate-O(18)			0.478	ug/L		1	31-JAN-10 20:57	per0131069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8079

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:04	per0131070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate-O(18)			0.504	ug/L		1	31-JAN-10 21:04	per0131070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1433 VALIDATION DATE: 03/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the water MB, Na was detected. The associated sample results were detects ≤5X the MB concentration and, thus, were qualified U,I4. In the soil MB, Al, Sb, Ba, Fe, Mn, and Zn were detected. The Sb results for all samples <u>except</u> RE15-10-7936 and -7935 were detects ≤5X the MB concentration and, thus, were qualified U,I4. The Sb result for sample -7935 and the Zn results for samples -7933, -7939, and -8057 were detects >5X but ≤50X the MB concentrations and, thus, were qualified J,I4a. All other associated sample results were either NDs or detects >50X the MB concentrations and, based on professional judgment, were not qualified.
2. In the water ICB/CCB, Na and Tl was detected. The Na results were detects ≤5X the greatest ICB/CCB concentration and, thus, were qualified U,I4b. All other associated sample results were NDs and, thus, were not qualified. In the soil ICB/CCB, Pb was detected. All associated sample results were detects >5X the greatest ICB/CCB concentration and, thus, were not qualified.
3. In the FR blanks, samples -8080 and -8079, associated with all field samples, Al, Ba, Ca, Cr, Fe, Mg, Mn, K, U, and V were detected. All associated sample results were detects >5X the FR blank concentrations and, thus, were not qualified.
4. The soil MS %Rs for Fe, Mn, and Se were < the laboratory LAL but ≥10%, and the soil MS %Rs for Al, Mg, and K were > the laboratory UAL. However, the associated parent sample concentrations for Al, Fe, and Mn were >4X the spike concentrations. Thus, no sample data were qualified as result, based on professional judgment. The associated Se results were NDs and, thus, were qualified UJ,I6a. All other associated sample results were detects and, thus, were qualified J+,I6b.

DATA VALIDATION COVER SHEET

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Data Validation Cover Sheet

Los Alamos NATIONAL LABORATORY

5. For the soil duplicate, the RPD values for Ba, Ca, and Pb were >35%, and both the parent sample and duplicate results were ≥5X the PQL. All associated sample results were detects and, thus, were qualified J,I10a.
6. It should be noted that the parent samples for the water CVAA matrix QC analyses and the soil matrix QC analyses were performed on LANL samples from other RNs, and the parent sample raw data were not included in the data package. No sample data were qualified.
7. It should be noted that sample RE15-10-8077 was listed on the COC and the Analytical Request form but the analyses were cancelled.

Reviewed by: Mary Donivan Level: I Date: 03/05/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 03/04/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688001 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7883 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 69

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		5870000	ug/Kg	*	9750	28700	28700	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-36-0	Antimony	U,I4	1580	ug/Kg		473	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-38-2	Arsenic		1.56	mg/kg		0.281	1.41	1.41	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-39-3	Barium	J,I10a	77600	ug/Kg	*	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-41-7	Beryllium		0.549	mg/kg		0.0281	0.141	0.141	2	MS	SKJ	02/24/10 12:31	100224-4	948035
7440-43-9	Cadmium		717	ug/Kg	U	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-70-2	Calcium	J,I10a	1290000	ug/Kg	*N	11500	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-47-3	Chromium		12700	ug/Kg		215	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-48-4	Cobalt		6090	ug/Kg	*	215	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-50-8	Copper		10100	ug/Kg	*	424	1410	1410	1	P	HSC	02/19/10 18:06	021910A-2	954751
7439-89-6	Iron		10500000	ug/Kg		11500	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-92-1	Lead	J,I10a	14300	ug/Kg	*	358	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-95-4	Magnesium	J+,I6b	1140000	ug/Kg	*N	12200	43000	43000	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-96-5	Manganese		406000	ug/Kg	*	287	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-97-6	Mercury		17.8	ug/kg		5.53	16.3	16.3	1	AV	JXL1	02/16/10 10:45	021610S2-5	947654
7440-02-0	Nickel		4.82	mg/kg		0.141	0.562	0.562	2	MS	SKJ	02/24/10 12:31	100224-4	948035
7440-09-7	Potassium	J+,I6b	1190000	ug/Kg	*N	9180	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7782-49-2	Selenium	UJ,I6a	1.41	mg/kg	U*N	0.703	1.41	1.41	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-22-4	Silver		717	ug/Kg	U	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-23-5	Sodium		53800	ug/Kg		10000	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-28-0	Thallium		0.229	mg/kg	J	0.0844	0.281	0.281	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-61-1	Uranium		7.58	mg/kg		0.0186	0.0562	0.0562	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-62-2	Vanadium		17600	ug/Kg		141	707	707	1	P	HSC	02/19/10 18:06	021910A-2	954751
7440-66-6	Zinc		29800	ug/Kg		473	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.535	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.506	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.516	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.513	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688002 BASIS: Dry Weight DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7884 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4780000	ug/Kg	*	6930	20400	20400	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-36-0	Antimony U,I4	458	ug/Kg	J	336	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-38-2	Arsenic	1.16	mg/kg		0.198	0.992	0.992	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-39-3	Barium J,I10a	46200	ug/Kg	*	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-41-7	Beryllium	0.427	mg/kg		0.0198	0.0992	0.0992	2	MS	SKJ	02/24/10 12:44	100224-4	948035
7440-43-9	Cadmium	509	ug/Kg	U	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-70-2	Calcium J,I10a	700000	ug/Kg	*N	8150	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-47-3	Chromium	11100	ug/Kg		153	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-48-4	Cobalt	3490	ug/Kg	*	153	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-50-8	Copper	3450	ug/Kg	*	317	1060	1060	1	P	HSC	02/19/10 18:31	021910A-2	954751
7439-89-6	Iron	11100000	ug/Kg		8150	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-92-1	Lead J,I10a	5710	ug/Kg	*	255	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-95-4	Magnesium J+,I6b	679000	ug/Kg	*N	8660	30600	30600	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-96-5	Manganese	272000	ug/Kg	*	204	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-97-6	Mercury	16.3	ug/kg		4.01	11.8	11.8	1	AV	JXL1	02/16/10 10:55	021610S2-5	947654
7440-02-0	Nickel	5.16	mg/kg		0.0992	0.397	0.397	2	MS	SKJ	02/24/10 12:44	100224-4	948035
7440-09-7	Potassium J+,I6b	651000	ug/Kg	*N	6520	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7782-49-2	Selenium UJ,I6a	0.992	mg/kg	U*N	0.496	0.992	0.992	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-22-4	Silver	509	ug/Kg	U	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-23-5	Sodium	180000	ug/Kg		7130	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-28-0	Thallium	0.0649	mg/kg	J	0.0595	0.198	0.198	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-61-1	Uranium	0.598	mg/kg		0.0131	0.0397	0.0397	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-62-2	Vanadium	5730	ug/Kg		106	528	528	1	P	HSC	02/19/10 18:31	021910A-2	954751
7440-66-6	Zinc	51200	ug/Kg		336	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.54	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.521	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.535	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688003 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7932 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 90.8

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		6700000	ug/Kg	*	7410	21800	21800	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-36-0	Antimony	U,I4	868	ug/Kg	J	360	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-38-2	Arsenic		1.26	mg/kg		0.193	0.963	0.963	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-39-3	Barium	J,I10a	77700	ug/Kg	*	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-41-7	Beryllium		0.734	mg/kg		0.0193	0.0963	0.0963	2	MS	SKJ	02/24/10 12:46	100224-4	948035
7440-43-9	Cadmium		545	ug/Kg	U	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-70-2	Calcium	J,I10a	1800000	ug/Kg	*N	8720	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-47-3	Chromium		18400	ug/Kg		164	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-48-4	Cobalt		3520	ug/Kg	*	164	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-50-8	Copper		4150	ug/Kg	*	277	922	922	1	P	HSC	02/19/10 18:35	021910A-2	954751
7439-89-6	Iron		12100000	ug/Kg		8720	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-92-1	Lead	J,I10a	5670	ug/Kg	*	273	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-95-4	Magnesium	J+,I6b	1040000	ug/Kg	*N	9270	32700	32700	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-96-5	Manganese		327000	ug/Kg	*	218	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-97-6	Mercury		16.9	ug/kg		4.34	12.8	12.8	1	AV	JXL1	02/16/10 10:57	021610S2-5	947654
7440-02-0	Nickel		5.42	mg/kg		0.0963	0.385	0.385	2	MS	SKJ	02/24/10 12:46	100224-4	948035
7440-09-7	Potassium	J+,I6b	841000	ug/Kg	*N	6980	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7782-49-2	Selenium	UJ,I6a	0.963	mg/kg	U*N	0.481	0.963	0.963	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-22-4	Silver		545	ug/Kg	U	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-23-5	Sodium		203000	ug/Kg		7630	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-28-0	Thallium		0.0724	mg/kg	J	0.0578	0.193	0.193	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-61-1	Uranium		0.938	mg/kg		0.0127	0.0385	0.0385	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-62-2	Vanadium		7970	ug/Kg		92.2	461	461	1	P	HSC	02/19/10 18:35	021910A-2	954751
7440-66-6	Zinc		28500	ug/Kg		360	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.518	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.505	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.572	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.597	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688004 BASIS: Dry Weight DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7931 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9650000	ug/Kg	*	8200	24100	24100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-36-0	Antimony U,I4	959	ug/Kg	J	398	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-38-2	Arsenic	1.67	mg/kg		0.23	1.15	1.15	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-39-3	Barium J,I10a	105000	ug/Kg	*	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-41-7	Beryllium	0.614	mg/kg		0.023	0.115	0.115	2	MS	SKJ	02/24/10 12:48	100224-4	948035
7440-43-9	Cadmium	603	ug/Kg	U	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-70-2	Calcium J,I10a	1590000	ug/Kg	*N	9650	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-47-3	Chromium	19900	ug/Kg		181	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-48-4	Cobalt	3390	ug/Kg	*	181	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-50-8	Copper	7780	ug/Kg	*	362	1210	1210	1	P	HSC	02/19/10 18:39	021910A-2	954751
7439-89-6	Iron	11100000	ug/Kg		9650	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-92-1	Lead J,I10a	9730	ug/Kg	*	301	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-95-4	Magnesium J+,I6b	1420000	ug/Kg	*N	10200	36200	36200	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-96-5	Manganese	321000	ug/Kg	*	241	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-97-6	Mercury	17.3	ug/kg		4.23	12.5	12.5	1	AV	JXL1	02/16/10 10:59	021610S2-5	947654
7440-02-0	Nickel	5.76	mg/kg		0.115	0.46	0.46	2	MS	SKJ	02/24/10 12:48	100224-4	948035
7440-09-7	Potassium J+,I6b	1190000	ug/Kg	*N	7720	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7782-49-2	Selenium UJ,I6a	1.15	mg/kg	U*N	0.575	1.15	1.15	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-22-4	Silver	603	ug/Kg	U	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-23-5	Sodium	76000	ug/Kg		8440	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-28-0	Thallium	0.108	mg/kg	J	0.069	0.23	0.23	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-61-1	Uranium	2.26	mg/kg		0.0152	0.046	0.046	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-62-2	Vanadium	13000	ug/Kg		121	603	603	1	P	HSC	02/19/10 18:39	021910A-2	954751
7440-66-6	Zinc	25900	ug/Kg		398	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.581	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.524	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.5	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688005 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7938 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1910000	ug/Kg	*	6980	20500	20500	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-36-0	Antimony U,I4	410	ug/Kg	J	339	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-38-2	Arsenic	0.672	mg/kg	J	0.193	0.966	0.966	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-39-3	Barium J,I10a	35000	ug/Kg	*	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-41-7	Beryllium	0.358	mg/kg		0.0193	0.0966	0.0966	2	MS	SKJ	02/24/10 12:50	100224-4	948035
7440-43-9	Cadmium	513	ug/Kg	U	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-70-2	Calcium J,I10a	396000	ug/Kg	*N	8210	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-47-3	Chromium	41300	ug/Kg		154	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-48-4	Cobalt	1310	ug/Kg	*	154	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-50-8	Copper	2730	ug/Kg	*	310	1030	1030	1	P	HSC	02/19/10 18:42	021910A-2	954751
7439-89-6	Iron	8030000	ug/Kg		8210	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-92-1	Lead J,I10a	3020	ug/Kg	*	257	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-95-4	Magnesium J+,I6b	352000	ug/Kg	*N	8730	30800	30800	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-96-5	Manganese	223000	ug/Kg	*	205	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-97-6	Mercury	14.9	ug/kg		4.11	12.1	12.1	1	AV	JXL1	02/16/10 11:05	021610S2-5	947654
7440-02-0	Nickel	5.53	mg/kg		0.0966	0.386	0.386	2	MS	SKJ	02/24/10 12:50	100224-4	948035
7440-09-7	Potassium J+,I6b	320000	ug/Kg	*N	6570	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7782-49-2	Selenium UJ,I6a	0.966	mg/kg	U*N	0.483	0.966	0.966	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-22-4	Silver	513	ug/Kg	U	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-23-5	Sodium	126000	ug/Kg		7190	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-28-0	Thallium	0.193	mg/kg	U	0.0579	0.193	0.193	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-61-1	Uranium	0.593	mg/kg		0.0127	0.0386	0.0386	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-62-2	Vanadium	4020	ug/Kg		103	517	517	1	P	HSC	02/19/10 18:42	021910A-2	954751
7440-66-6	Zinc	41300	ug/Kg		339	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.515	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.505	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.537	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.501	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688006 BASIS: Dry Weight DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7933 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3570000	ug/Kg	*	7660	22500	22500	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-36-0	Antimony U,I4	627	ug/Kg	J	372	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-38-2	Arsenic	1.59	mg/kg		0.229	1.15	1.15	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-39-3	Barium J,I10a	39900	ug/Kg	*	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-41-7	Beryllium	0.520	mg/kg		0.0229	0.115	0.115	2	MS	SKJ	02/24/10 12:56	100224-4	948035
7440-43-9	Cadmium	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-70-2	Calcium J,I10a	642000	ug/Kg	*N	9010	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-47-3	Chromium	5380	ug/Kg		169	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-48-4	Cobalt	2720	ug/Kg	*	169	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-50-8	Copper	10400	ug/Kg	*	354	1180	1180	1	P	HSC	02/19/10 18:46	021910A-2	954751
7439-89-6	Iron	6280000	ug/Kg		9010	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-92-1	Lead J,I10a	6900	ug/Kg	*	282	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-95-4	Magnesium J+,I6b	651000	ug/Kg	*N	9580	33800	33800	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-96-5	Manganese	177000	ug/Kg	*	225	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-97-6	Mercury	9.04	ug/kg	J	4.6	13.5	13.5	1	AV	JXL1	02/16/10 11:07	021610S2-5	947654
7440-02-0	Nickel	4.99	mg/kg		0.115	0.459	0.459	2	MS	SKJ	02/24/10 12:56	100224-4	948035
7440-09-7	Potassium J+,I6b	691000	ug/Kg	*N	7210	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7782-49-2	Selenium UJ,I6a	1.15	mg/kg	U*N	0.574	1.15	1.15	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-22-4	Silver	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-23-5	Sodium	26300	ug/Kg	J	7890	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-28-0	Thallium	0.132	mg/kg	J	0.0688	0.229	0.229	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-61-1	Uranium	13.8	mg/kg		0.0151	0.0459	0.0459	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-62-2	Vanadium	19400	ug/Kg		118	590	590	1	P	HSC	02/19/10 18:46	021910A-2	954751
7440-66-6	Zinc J,I4a	13100	ug/Kg		372	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.559	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.559	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.549	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.534	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688007 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7939 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6600000	ug/Kg	*	8410	24700	24700	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-36-0	Antimony U,I4	884	ug/Kg	J	408	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-38-2	Arsenic	3.28	mg/kg		0.246	1.23	1.23	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-39-3	Barium J,I10a	82600	ug/Kg	*	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-41-7	Beryllium	1.12	mg/kg		0.0246	0.123	0.123	2	MS	SKJ	02/24/10 12:58	100224-4	948035
7440-43-9	Cadmium	618	ug/Kg	U	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-70-2	Calcium J,I10a	1050000	ug/Kg	*N	9890	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-47-3	Chromium	21100	ug/Kg		185	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-48-4	Cobalt	5780	ug/Kg	*	185	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-50-8	Copper	23100	ug/Kg	*	363	1210	1210	1	P	HSC	02/19/10 18:50	021910A-2	954751
7439-89-6	Iron	8380000	ug/Kg		9890	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-92-1	Lead J,I10a	12700	ug/Kg	*	309	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-95-4	Magnesium J+,I6b	1230000	ug/Kg	*N	10500	37100	37100	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-96-5	Manganese	295000	ug/Kg	*	247	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-97-6	Mercury	30.5	ug/kg		5.14	15.1	15.1	1	AV	JXL1	02/16/10 11:09	021610S2-5	947654
7440-02-0	Nickel	12	mg/kg		0.123	0.493	0.493	2	MS	SKJ	02/24/10 12:58	100224-4	948035
7440-09-7	Potassium J+,I6b	1160000	ug/Kg	*N	7910	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7782-49-2	Selenium UJ,I6a	1.23	mg/kg	U*N	0.616	1.23	1.23	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-22-4	Silver	618	ug/Kg	U	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-23-5	Sodium	85800	ug/Kg		8650	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-28-0	Thallium	0.313	mg/kg		0.0739	0.246	0.246	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-61-1	Uranium	16.5	mg/kg		0.0163	0.0493	0.0493	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-62-2	Vanadium	24700	ug/Kg		121	605	605	1	P	HSC	02/19/10 18:50	021910A-2	954751
7440-66-6	Zinc J,I4a	18000	ug/Kg		408	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.521	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.531	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.533	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.543	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688008 BASIS: Dry Weight DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7936 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1370000	ug/Kg	*	7060	20800	20800	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-36-0	Antimony	1040	ug/Kg	U	343	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-38-2	Arsenic	0.469	mg/kg	J	0.182	0.911	0.911	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-39-3	Barium J,I10a	26200	ug/Kg	*	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-41-7	Beryllium	0.279	mg/kg		0.0182	0.0911	0.0911	2	MS	SKJ	02/24/10 12:59	100224-4	948035
7440-43-9	Cadmium	519	ug/Kg	U	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-70-2	Calcium J,I10a	778000	ug/Kg	*N	8300	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-47-3	Chromium	14100	ug/Kg		156	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-48-4	Cobalt	946	ug/Kg	*	156	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-50-8	Copper	6480	ug/Kg	*	308	1030	1030	1	P	HSC	02/19/10 18:53	021910A-2	954751
7439-89-6	Iron	7710000	ug/Kg		8300	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-92-1	Lead J,I10a	6000	ug/Kg	*	260	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-95-4	Magnesium J+,I6b	323000	ug/Kg	*N	8820	31100	31100	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-96-5	Manganese	234000	ug/Kg	*	208	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-97-6	Mercury	18.8	ug/kg		3.91	11.5	11.5	1	AV	JXL1	02/16/10 11:11	021610S2-5	947654
7440-02-0	Nickel	3.79	mg/kg		0.0911	0.364	0.364	2	MS	SKJ	02/24/10 12:59	100224-4	948035
7440-09-7	Potassium J+,I6b	359000	ug/Kg	*N	6640	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7782-49-2	Selenium UJ,I6a	0.911	mg/kg	U*N	0.455	0.911	0.911	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-22-4	Silver	519	ug/Kg	U	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-23-5	Sodium	137000	ug/Kg		7270	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-28-0	Thallium	0.182	mg/kg	U	0.0546	0.182	0.182	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-61-1	Uranium	1.85	mg/kg		0.012	0.0364	0.0364	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-62-2	Vanadium	6320	ug/Kg		103	513	513	1	P	HSC	02/19/10 18:53	021910A-2	954751
7440-66-6	Zinc	46700	ug/Kg		343	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.542	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.57	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.506	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688009 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7935 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 76

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		11400000	ug/Kg	*	8610	25300	25300	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-36-0	Antimony	J,I4a	2520	ug/Kg		418	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-38-2	Arsenic		2.88	mg/kg		0.237	1.18	1.18	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-39-3	Barium	J,I10a	101000	ug/Kg	*	127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-41-7	Beryllium		2.47	mg/kg		0.0237	0.118	0.118	2	MS	SKJ	02/24/10 13:01	100224-4	948035
7440-43-9	Cadmium		633	ug/Kg	U	127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-70-2	Calcium	J,I10a	2220000	ug/Kg	*N	10100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-47-3	Chromium		25200	ug/Kg		190	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-48-4	Cobalt		4850	ug/Kg	*	190	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-50-8	Copper		552000	ug/Kg	*	390	1300	1300	1	P	HSC	02/19/10 19:04	021910A-2	954751
7439-89-6	Iron		13700000	ug/Kg		10100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-92-1	Lead	J,I10a	123000	ug/Kg	*	317	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-95-4	Magnesium	J+,I6b	1840000	ug/Kg	*N	10800	38000	38000	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-96-5	Manganese		226000	ug/Kg	*	253	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-97-6	Mercury		17.9	ug/kg		4.98	14.7	14.7	1	AV	JXL1	02/16/10 11:13	021610S2-5	947654
7440-02-0	Nickel		8.31	mg/kg		0.118	0.473	0.473	2	MS	SKJ	02/24/10 13:01	100224-4	948035
7440-09-7	Potassium	J+,I6b	1480000	ug/Kg	*N	8100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7782-49-2	Selenium	UJ,I6a	1.18	mg/kg	U*N	0.592	1.18	1.18	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-22-4	Silver		1680	ug/Kg		127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-23-5	Sodium		90500	ug/Kg		8860	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-28-0	Thallium		0.162	mg/kg	J	0.071	0.237	0.237	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-61-1	Uranium		141	mg/kg		0.156	0.473	0.473	20	MS	PRB	02/24/10 12:38	100224-3	948035
7440-62-2	Vanadium		22700	ug/Kg		130	651	651	1	P	HSC	02/19/10 19:04	021910A-2	954751
7440-66-6	Zinc		52900	ug/Kg		418	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.536	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.517	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.553	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688010 BASIS: Dry Weight DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7934 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8850000	ug/Kg	*	7290	21500	21500	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-36-0	Antimony U,I4	894	ug/Kg	J	354	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-38-2	Arsenic	2.18	mg/kg		0.21	1.05	1.05	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-39-3	Barium J,I10a	123000	ug/Kg	*	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-41-7	Beryllium	0.699	mg/kg		0.021	0.105	0.105	2	MS	SKJ	02/24/10 13:03	100224-4	948035
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-70-2	Calcium J,I10a	2620000	ug/Kg	*N	8580	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-47-3	Chromium	28300	ug/Kg		161	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-48-4	Cobalt	4420	ug/Kg	*	161	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-50-8	Copper	5240	ug/Kg	*	321	1070	1070	1	P	HSC	02/19/10 19:08	021910A-2	954751
7439-89-6	Iron	13000000	ug/Kg		8580	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-92-1	Lead J,I10a	8720	ug/Kg	*	268	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-95-4	Magnesium J+,I6b	1740000	ug/Kg	*N	9120	32200	32200	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-96-5	Manganese	291000	ug/Kg	*	215	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-97-6	Mercury	15.8	ug/kg		3.98	11.7	11.7	1	AV	JXL1	02/16/10 11:15	021610S2-5	947654
7440-02-0	Nickel	7.26	mg/kg		0.105	0.419	0.419	2	MS	SKJ	02/24/10 13:03	100224-4	948035
7440-09-7	Potassium J+,I6b	1220000	ug/Kg	*N	6870	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7782-49-2	Selenium UJ,I6a	1.05	mg/kg	U*N	0.524	1.05	1.05	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-22-4	Silver	536	ug/Kg	U	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-23-5	Sodium	325000	ug/Kg		7510	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-28-0	Thallium	0.141	mg/kg	J	0.0629	0.21	0.21	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-61-1	Uranium	1.18	mg/kg		0.0138	0.0419	0.0419	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-62-2	Vanadium	14900	ug/Kg		107	534	534	1	P	HSC	02/19/10 19:08	021910A-2	954751
7440-66-6	Zinc	28400	ug/Kg		354	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.568	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.516	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.528	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.518	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688011 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7940 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 95.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3920000	ug/Kg	*	6850	20100	20100	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-36-0	Antimony U,I4	927	ug/Kg	J	332	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-38-2	Arsenic	1.45	mg/kg		0.201	1	1	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-39-3	Barium J,I10a	55200	ug/Kg	*	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-41-7	Beryllium	0.706	mg/kg		0.0201	0.1	0.1	2	MS	SKJ	02/24/10 13:09	100224-4	948035
7440-43-9	Cadmium	503	ug/Kg	U	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-70-2	Calcium J,I10a	3040000	ug/Kg	*N	8050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-47-3	Chromium	27700	ug/Kg		151	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-48-4	Cobalt	1120	ug/Kg	*	151	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-50-8	Copper	2910	ug/Kg	*	315	1050	1050	1	P	HSC	02/19/10 19:12	021910A-2	954751
7439-89-6	Iron	7420000	ug/Kg		8050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-92-1	Lead J,I10a	4870	ug/Kg	*	252	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-95-4	Magnesium J+,I6b	832000	ug/Kg	*N	8560	30200	30200	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-96-5	Manganese	252000	ug/Kg	*	201	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-97-6	Mercury	27	ug/kg		3.9	11.5	11.5	1	AV	JXL1	02/16/10 11:17	021610S2-5	947654
7440-02-0	Nickel	7.31	mg/kg		0.1	0.402	0.402	2	MS	SKJ	02/24/10 13:09	100224-4	948035
7440-09-7	Potassium J+,I6b	471000	ug/Kg	*N	6440	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7782-49-2	Selenium UJ,I6a	1	mg/kg	U*N	0.502	1	1	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-22-4	Silver	503	ug/Kg	U	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-23-5	Sodium	292000	ug/Kg		7050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-28-0	Thallium	0.0914	mg/kg	J	0.0603	0.201	0.201	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-61-1	Uranium	0.888	mg/kg		0.0133	0.0402	0.0402	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-62-2	Vanadium	7590	ug/Kg		105	525	525	1	P	HSC	02/19/10 19:12	021910A-2	954751
7440-66-6	Zinc	22500	ug/Kg		332	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.55	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.522	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.523	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.5	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688012 BASIS: Dry Weight DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-7937 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 76

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		9710000	ug/Kg	*	8890	26100	26100	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-36-0	Antimony	U,I4	1090	ug/Kg	J	431	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-38-2	Arsenic		2.93	mg/kg		0.262	1.31	1.31	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-39-3	Barium	J,I10a	186000	ug/Kg	*	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-41-7	Beryllium		1.05	mg/kg		0.0262	0.131	0.131	2	MS	SKJ	02/24/10 13:11	100224-4	948035
7440-43-9	Cadmium		653	ug/Kg	U	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-70-2	Calcium	J,I10a	2860000	ug/Kg	*N	10500	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-47-3	Chromium		16700	ug/Kg		196	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-48-4	Cobalt		9400	ug/Kg	*	196	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-50-8	Copper		33000	ug/Kg	*	391	1300	1300	1	P	HSC	02/19/10 19:15	021910A-2	954751
7439-89-6	Iron		12700000	ug/Kg		10500	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-92-1	Lead	J,I10a	30500	ug/Kg	*	327	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-95-4	Magnesium	J+,I6b	2080000	ug/Kg	*N	11100	39200	39200	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-96-5	Manganese		738000	ug/Kg	*	261	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-97-6	Mercury		31.4	ug/kg		4.93	14.5	14.5	1	AV	JXL1	02/16/10 11:19	021610S2-5	947654
7440-02-0	Nickel		9.3	mg/kg		0.131	0.524	0.524	2	MS	SKJ	02/24/10 13:11	100224-4	948035
7440-09-7	Potassium	J+,I6b	1770000	ug/Kg	*N	8360	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7782-49-2	Selenium	UJ,I6a	1.31	mg/kg	U*N	0.655	1.31	1.31	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-22-4	Silver		653	ug/Kg	U	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-23-5	Sodium		71800	ug/Kg		9150	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-28-0	Thallium		0.208	mg/kg	J	0.0786	0.262	0.262	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-61-1	Uranium		27.7	mg/kg		0.0864	0.262	0.262	10	MS	PRB	02/24/10 12:41	100224-3	948035
7440-62-2	Vanadium		19000	ug/Kg		130	652	652	1	P	HSC	02/19/10 19:15	021910A-2	954751
7440-66-6	Zinc		35800	ug/Kg		431	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.543	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.502	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.501	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688013 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-8056 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2200000	ug/Kg	*	6750	19900	19900	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-36-0	Antimony U,I4	446	ug/Kg	J	328	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-38-2	Arsenic	0.478	mg/kg	J	0.196	0.98	0.98	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-39-3	Barium J,I10a	31500	ug/Kg	*	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-41-7	Beryllium	0.318	mg/kg		0.0196	0.098	0.098	2	MS	SKJ	02/24/10 13:13	100224-4	948035
7440-43-9	Cadmium	497	ug/Kg	U	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-70-2	Calcium J,I10a	998000	ug/Kg	*N	7950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-47-3	Chromium	15500	ug/Kg		149	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-48-4	Cobalt	1220	ug/Kg	*	149	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-50-8	Copper	3940	ug/Kg	*	280	933	933	1	P	HSC	02/19/10 19:19	021910A-2	954751
7439-89-6	Iron	8720000	ug/Kg		7950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-92-1	Lead J,I10a	10200	ug/Kg	*	248	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-95-4	Magnesium J+,I6b	438000	ug/Kg	*N	8440	29800	29800	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-96-5	Manganese	214000	ug/Kg	*	199	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-97-6	Mercury	17.3	ug/kg		3.93	11.6	11.6	1	AV	JXL1	02/16/10 11:21	021610S2-5	947654
7440-02-0	Nickel	4.27	mg/kg		0.098	0.392	0.392	2	MS	SKJ	02/24/10 13:13	100224-4	948035
7440-09-7	Potassium J+,I6b	440000	ug/Kg	*N	6360	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7782-49-2	Selenium UJ,I6a	0.980	mg/kg	U*N	0.49	0.98	0.98	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-22-4	Silver	497	ug/Kg	U	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-23-5	Sodium	136000	ug/Kg		6950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-28-0	Thallium	0.196	mg/kg	U	0.0588	0.196	0.196	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-61-1	Uranium	39	mg/kg		0.0647	0.196	0.196	10	MS	PRB	02/24/10 12:44	100224-3	948035
7440-62-2	Vanadium	3200	ug/Kg		93.3	466	466	1	P	HSC	02/19/10 19:19	021910A-2	954751
7440-66-6	Zinc	41900	ug/Kg		328	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.538	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.522	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.529	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.556	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245688014 BASIS: Dry Weight DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8057 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: SOIL %SOLIDS: 70

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		4900000	ug/Kg	*	9690	28500	28500	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-36-0	Antimony	U,I4	515	ug/Kg	J	470	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-38-2	Arsenic		1.48	mg/kg		0.24	1.2	1.2	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-39-3	Barium	J,I10a	61000	ug/Kg	*	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-41-7	Beryllium		0.549	mg/kg		0.024	0.12	0.12	2	MS	SKJ	02/24/10 13:14	100224-4	948035
7440-43-9	Cadmium		712	ug/Kg	U	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-70-2	Calcium	J,I10a	935000	ug/Kg	*N	11400	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-47-3	Chromium		9030	ug/Kg		214	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-48-4	Cobalt		4260	ug/Kg	*	214	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-50-8	Copper		11000	ug/Kg	*	339	1130	1130	1	P	HSC	02/19/10 19:23	021910A-2	954751
7439-89-6	Iron		7770000	ug/Kg		11400	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-92-1	Lead	J,I10a	10500	ug/Kg	*	356	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-95-4	Magnesium	J+,I6b	928000	ug/Kg	*N	12100	42700	42700	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-96-5	Manganese		282000	ug/Kg	*	285	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-97-6	Mercury		10.2	ug/kg	J	5.02	14.8	14.8	1	AV	JXL1	02/16/10 11:23	021610S2-5	947654
7440-02-0	Nickel		4.75	mg/kg		0.12	0.48	0.48	2	MS	SKJ	02/24/10 13:14	100224-4	948035
7440-09-7	Potassium	J+,I6b	1020000	ug/Kg	*N	9120	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7782-49-2	Selenium	UJ,I6a	1.2	mg/kg	U*N	0.601	1.2	1.2	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-22-4	Silver		712	ug/Kg	U	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-23-5	Sodium		49000	ug/Kg		9970	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-28-0	Thallium		0.113	mg/kg	J	0.0721	0.24	0.24	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-61-1	Uranium		6.15	mg/kg		0.0159	0.048	0.048	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-62-2	Vanadium		18200	ug/Kg		113	565	565	1	P	HSC	02/19/10 19:23	021910A-2	954751
7440-66-6	Zinc	J,I4a	20900	ug/Kg		470	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.579	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.593	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.63	g	50	mL	02/18/10	BCD1

KAL
03/04/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245690001 **BASIS:** As Received **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-8080 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/18/10 08:51	100217-2	948041
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/18/10 08:51	100217-2	948041
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7439-95-4	Magnesium	106	ug/L	J	85	300	300	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-96-5	Manganese	1.11	ug/L	J	1	5	5	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:09	021510W1-7	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-09-7	Potassium	128	ug/L	J	50	150	150	1	P	HSC	02/12/10 17:10	021210-1	948038
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-23-5	Sodium U,I4	255	ug/L	J	100	300	300	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/18/10 19:57	100218-6	948041
7440-62-2	Vanadium	1.06	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/12/10 17:10	021210-1	948038

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948038	948036	SW846 3005A	50	mL	50	mL	02/07/10	BCD1
948041	948039	SW846 3005A	50	mL	50	mL	02/07/10	BCD1

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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433-1 CONTRACT: LANL01004 METHOD TYPE: SW846

SAMPLE ID: 245690002 BASIS: As Received DATE COLLECTED 25-JAN-10

CLIENT ID: RE15-10-8079 LEVEL: Low DATE RECEIVED 28-JAN-10

MATRIX: WATER %SOLIDS: 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	118	ug/L	J	68	200	200	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/18/10 09:16	100217-2	948041
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-39-3	Barium	1.88	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/18/10 09:16	100217-2	948041
7440-70-2	Calcium	90.3	ug/L	J	50	200	200	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-47-3	Chromium	1.49	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-89-6	Iron	75.5	ug/L	J	30	100	100	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-96-5	Manganese	5.97	ug/L		1	5	5	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:11	021510W1-7	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-09-7	Potassium	199	ug/L		50	150	150	1	P	HSC	02/12/10 17:38	021210-1	948038
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-23-5	Sodium U,I4	268	ug/L	J	100	300	300	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7440-61-1	Uranium	0.154	ug/L	J	0.05	0.2	0.2	1	MS	BAJ	02/18/10 20:06	100218-6	948041
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/12/10 17:38	021210-1	948038

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948038	948036	SW846 3005A	50	mL	50	mL	02/07/10	BCD1
948041	948039	SW846 3005A	50	mL	50	mL	02/07/10	BCD1

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DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1433 VALIDATION DATE: 03/04/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☒ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the water MB, total cyanide was detected. The associated sample results were detects ≤5X the MB concentration and, thus, were qualified U,I4.
2. In the water ICB/CCB, total cyanide was detected. The associated sample results were detects ≤5X the greatest ICB/CCB concentration and, thus, were qualified U,I4b.
3. It should be noted that the parent samples for water matrix QC analyses and soil matrix QC analyses for Batch # 947312 were LANL samples from other RNs. No sample data were qualified as a result.
4. It should be noted that sample RE15-10-8077 was listed on the COC and the Analytical Request form but the analysis was cancelled.

Reviewed by: Mary Donivan Level: I Date: 03/05/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 03/04/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7931	Project:	LANL01004
Sample ID:	245688004	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	17.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.2	269	ug/kg	1	AXC2 02/08/10	1430	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7938	Project:	LANL01004
Sample ID:	245688005	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	3.57%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 02/08/10	1431	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7933	Project:	LANL01004
Sample ID:	245688006	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	20.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2 02/08/10	1432	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7939	Project:	LANL01004
Sample ID:	245688007	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	23.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	81.2	298	ug/kg	1	AXC2 02/08/10	1433	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7936	Project:	LANL01004
Sample ID:	245688008	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	3.67%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2 02/08/10	1433	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7935	Project:	LANL01004
Sample ID:	245688009	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	23.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.4	303	ug/kg	1	AXC2 02/08/10	1434	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7934	Project:	LANL01004
Sample ID:	245688010	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	9.67%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2 02/08/10	1435	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7940	Project:	LANL01004
Sample ID:	245688011	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	4.85%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.8	235	ug/kg	1	AXC2 02/08/10	1343	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7937	Project:	LANL01004
Sample ID:	245688012	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	23.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	85.8	315	ug/kg	1	AXC2 02/08/10	1346	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-8056	Project:	LANL01004
Sample ID:	245688013	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	3.56%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.1	254	ug/kg	1	AXC2 02/08/10	1353	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

KAL
03/04/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-8057	Project:	LANL01004
Sample ID:	245688014	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	29.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	93.1	342	ug/kg	1	AXC2	02/08/10	1354	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

KAL
03/04/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7883	Project:	LANL01004
Sample ID:	245688001	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	31.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	98.7	363	ug/kg	1	AXC2 02/08/10	1424	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

KAL
03/04/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7884	Project:	LANL01004
Sample ID:	245688002	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	5.82%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.1	250	ug/kg	1	AXC2 02/08/10	1424	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

KAL
03/04/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7932	Project:	LANL01004
Sample ID:	245688003	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	9.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2 02/08/10	1425	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

KAL
03/04/10

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 9, 2010

Client SDG: 10-1433-1

Client Sample ID: RE15-10-8080
Sample ID: 245690001
Matrix: W
Collect Date: 25-JAN-10 12:00
Receive Date: 28-JAN-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	J	2.79	U,I4	1.66	5.00	ug/L	1	AXC2 02/05/10	1112	947324	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

KAL
03/04/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 9, 2010

Client SDG: 10-1433-1

Client Sample ID:	RE15-10-8079	Project:	LANL01004
Sample ID:	245690002	Client ID:	LANL010
Matrix:	W		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	J	2.65	U,I4	1.66	5.00	ug/L	1	AXC2 02/05/10	1104	947324	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

KAL
03/04/10

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1433

REQUEST NUMBER: 10-1433

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245688, 245690

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7884	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7932	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7931	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7938	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7933	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7939	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7936	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7935	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7934	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7940	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7937	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8056	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8057	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8080	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8080	1	POLY	SW-846:6850	Ice	W
RE15-10-8080	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8079	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8079	1	POLY	SW-846:6850	Ice	W
RE15-10-8079	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8077	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8077	1	POLY	SW-846:6850	Ice	W
RE15-10-8077	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		1/27/10	1400	Patricia Dovce-Dent	P. Dent	1-28-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time Remarks:

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1433
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/27/2010
TURNAROUND/REPORT DUE: 2/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846 6020	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:6850	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:7470A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	SW-846:9012A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	[illegible]	[illegible]	[illegible]	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-6077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Final Page of REQUEST NUMBER 10-1433

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 01, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 245688 245690
SDG: 10-1433

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 28, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1433
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245688 and 245690
SDG: 10-1433

Table of Contents

Case Narrative **1**

Chain of Custody and Supporting Documentation **5**

Data Review Qualifier Flag Definition Sheet **17**

LC/MS/MS Perchlorate Analysis **19**
Sample Data Summary 24
Quality Control Summary 39
Sample Data 65
Standards Data 94
Quality Control 113
Miscellaneous Data 122

LC/MS/MS Perchlorate Analysis **128**
Sample Data Summary 133
Quality Control Summary 136
Sample Data 164
Standards Data 169
Quality Control 193
Miscellaneous Data 198

Metals Analysis **206**
Case Narrative 207
Sample Data Summary 214
Quality Control Summary 229
Standards 286
Raw Data 299
Miscellaneous 728

Metals Analysis **767**
Case Narrative 768
Sample Data Summary 774
Quality Control Summary 777
Standards 824
Raw Data 836
Miscellaneous 1108

General Chemistry Analysis **1147**
Case Narrative 1148
Sample Data Summary 1153

Quality Control Summary 1169
Instrument QC Data Summary 1172
Cyanide, Total 1174
Miscellaneous 1190

General Chemistry Analysis 1192
Case Narrative 1193
Sample Data Summary 1198
Quality Control Summary 1202
Instrument QC Data Summary 1205
Cyanide, Total 1207

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245688 and 245690
SDG # : 10-1433

February 01, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 28, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab did not received any containers for sample RE15-10-8077. Los Alamos was notified and we were instructed cancel the analysis. Please see attached e-mail. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245688001	RE15-10-7883
245688002	RE15-10-7884
245688003	RE15-10-7932
245688004	RE15-10-7931
245688005	RE15-10-7938
245688006	RE15-10-7933
245688007	RE15-10-7939
245688008	RE15-10-7936
245688009	RE15-10-7935
245688010	RE15-10-7934
245688011	RE15-10-7940
245688012	RE15-10-7937
245688013	RE15-10-8056
245688014	RE15-10-8057
245690001	RE15-10-8080
245690002	RE15-10-8079

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 01 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1433

REQUEST NUMBER: 10-1433

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245688, 245690

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7884	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7932	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7931	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7938	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7933	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7939	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7936	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7935	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7934	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7940	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7937	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8056	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8057	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8080	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8080	1	POLY	SW-846:6850	Ice	W
RE15-10-8080	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8079	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8079	1	POLY	SW-846:6850	Ice	W
RE15-10-8079	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8077	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8077	1	POLY	SW-846:6850	Ice	W
RE15-10-8077	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		1/27/10	1400	Patricia Dover-Dent	P. Dover-Dent	1-28-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1433
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/27/2010
TURNAROUND/REPORT DUE: 2/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:6850	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
		1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	
	SW-846:7470A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	SW-846:9012A	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	
		1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1433

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8077	W	1/25/2010	
		1	RE15-10-8079	W	1/25/2010	
		1	RE15-10-8080	W	1/25/2010	

Final Page of REQUEST NUMBER 10-1433

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1433**
Received By: Patricia Dover-Dent	**Date Received: January 28, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **0-3** **12-14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **RE15-10-8077 the lab did not receive any container.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7165 0C	**7209 7849 7198 3C**
7209 7849 7132 1C	**7209 7849 7268 3C**
7209 7849 7187 1C	**7209 7849 7110 12C**
7209 7849 7257 1C	**7209 7849 7095 13C**
7209 7849 7143 2C	**7209 7849 7121 13C**
7209 7849 7154 2C	**7209 7849 7100 14C**
7209 7849 7176 2C	
7209 7849 7202 2C	

PM (or PMA) review: Initials ____18____ Date ____1/29/10____

Subject: Re: Sample Receipt for 1/28/10
From: Keith Grene <kgreene@lanl.gov>
Date: Fri, 29 Jan 2010 10:02:08 -0700
To: Dionne Francis <Dionne.Francis@gel.com>

cancel 8077 was never collected

At 09:36 AM 1/29/2010, you wrote:

> Keith,
>
> RN 10-1433: the lab did not receive any container for sample RE15-10-8077.
>
> RN 10-1447: the Gross A/B containers were preserved prior to analysis.
>
> Thanks,
> Dionne
>
> --
> Dionne Francis
> Project Manager Assistant
> GEL Laboratories, LLC
> 2040 Savage Road
> Charleston, SC (USA) 29407
> Direct: 843.769.7376 Ext. 4432
> Main: 843.556.8171
> Fax: 843.766.1178
> E-mail: daf@gel.com
> Web: www.gel.com
>
> Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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3 of 3
MPS# 0263 7209 7849 7165
Mstr# 7209 7849 7143 0201

THU - 28JAN A1
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Part # 156148-434 NRIT V3.01-02

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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2 of 2
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Mstr# 7209 7849 7121 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

29407
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CHS

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Part # 156148-434 NRIT V3.01-02

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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°VALERIE DAVIS
GENERAL ENGINEERING LAB
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JOYLENE VALDEZ
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SHIP DATE: 27JAN10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2449

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LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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1 of 3

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Part # 156[illegible]-10-434 NART V3.04-0[illegible]

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR1A015AGWK0

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2 of 3

MPS# 0263 7209 7849 7154

Matr# 7209 7849 7143 0201

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PRIORITY OVERNIGHT

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Part # 156[illegible]-10-434 NART V3.04-0[illegible]

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR1A015AGWK0

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TRK# 0201 7209 7849 7176

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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR1A015AGWG0

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TRK# 0201 7209 7849 7202

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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR1A015AGWG0

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2 of 2
MPS# 0263 7209 7849 7198
Mstr# 7209 7849 7187 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 35.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 7849 7268
Mstr# 7209 7849 7257 0201

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JOYLENE VALDEZ
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UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

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TRK# 0201 7209 7849 7110

THU - 28JAN A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 3
MPS# 0263 7209 7849 7095
Mstr# 7209 7849 7084 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

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LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

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UNITED STATES US

CAD: 0014176/CAFE2449

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1 of 2
TRK# 0201 7209 7849 7121
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PRIORITY OVERNIGHT

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Part # 156118-434 NAR V3 04-6

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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3 of 3
MPS# 0263 7209 7849 7100
Mstr# 7209 7849 7084 0201

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1433

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	947148
Prep Batch Number:	947147

Sample Analysis

Sample ID	Client ID
245688001	RE15-10-7883
245688002	RE15-10-7884
245688003	RE15-10-7932
245688004	RE15-10-7931
245688005	RE15-10-7938
245688006	RE15-10-7933
245688007	RE15-10-7939
245688008	RE15-10-7936
245688009	RE15-10-7935
245688010	RE15-10-7934
245688011	RE15-10-7940
245688012	RE15-10-7937
245688013	RE15-10-8056
245688014	RE15-10-8057

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1202028871	Interference Check Sample (ICS)
1202028867	Method Blank (MB)
1202028868	Laboratory Control Sample (LCS)
1202028869	245688001(RE15-10-7883) Matrix Spike (MS)
1202028870	245688001(RE15-10-7883) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

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QC Sample Designation
Sample 245688001 (RE15-10-7883) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

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Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K Maier **Date:** 02/17/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7883

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688001

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate Isotope Ratio						1	10-FEB-10 21:40	per0210042a
14797-73-0	Perchlorate-101	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate-O(18)			6.74	ug/kg		1	10-FEB-10 21:40	per0210042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7884

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688002

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:04	per0210045a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate-O(18)			5.19	ug/kg		1	10-FEB-10 22:04	per0210045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7932

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688003

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:12	per0210046a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate-O(18)			5.44	ug/kg		1	10-FEB-10 22:12	per0210046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7931

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688004

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:20	per0210047a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate-O(18)			5.90	ug/kg		1	10-FEB-10 22:20	per0210047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7938

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688005

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:53	per0210051a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate-O(18)			5.09	ug/kg		1	10-FEB-10 22:53	per0210051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7933

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688006

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:01	per0210052a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate-O(18)			6.22	ug/kg		1	10-FEB-10 23:01	per0210052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7939

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688007

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:09	per0210053a
14797-73-0	Perchlorate-101	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate-O(18)			6.41	ug/kg		1	10-FEB-10 23:09	per0210053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7936

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688008

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:17	per0210054a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate-O(18)			4.95	ug/kg		1	10-FEB-10 23:17	per0210054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7935

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688009

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:25	per0210055a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate-O(18)			6.16	ug/kg		1	10-FEB-10 23:25	per0210055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7934

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688010

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	2.43	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate Isotope Ratio			3.22			1	10-FEB-10 23:33	per0210056a
14797-73-0	Perchlorate-101	.554	2.21	2.32	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate-O(18)			5.53	ug/kg		1	10-FEB-10 23:33	per0210056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7940

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688011

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 95.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.810	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate Isotope Ratio			2.94			1	10-FEB-10 23:41	per0210057a
14797-73-0	Perchlorate-101	.525	2.1	0.849	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate-O(18)			5.36	ug/kg		1	10-FEB-10 23:41	per0210057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7937

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688012

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:49	per0210058a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate-O(18)			6.05	ug/kg		1	10-FEB-10 23:49	per0210058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8056

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688013

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:57	per0210059a
14797-73-0	Perchlorate-101	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate-O(18)			5.00	ug/kg		1	10-FEB-10 23:57	per0210059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8057

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688014

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 70

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate Isotope Ratio						1	11-FEB-10 00:05	per0210060a
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate-O(18)			6.74	ug/kg		1	11-FEB-10 00:05	per0210060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1433

Extract Batch Code: 947147

Date Filtered: 06–FEB–10

Matrix: SOIL

Sample ID: 1202028868

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.05	ug/kg	103		70 – 130
Perchlorate Isotope Ratio		3.29				–
Perchlorate–101	2.00	1.93	ug/kg	96.4		70 – 130
Perchlorate–O(18)		4.65	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1433

Extract Batch Code: 947147

Date Filtered: 06–FEB–10

Matrix: SOIL

Sample ID: 1202028871

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.11	ug/kg	105		70 – 130
Perchlorate Isotope Ratio		3.32				
Perchlorate–101	2.00	1.96	ug/kg	97.8		70 – 130
Perchlorate–O(18)		4.85	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210040a
Date: 10-Feb-2010
Time: 21:24:30
ID: 1202028871
Vial: 2:1,C

|LANL|947148|50120|ICS|11|

CWW
02-12-10

Perchlorate

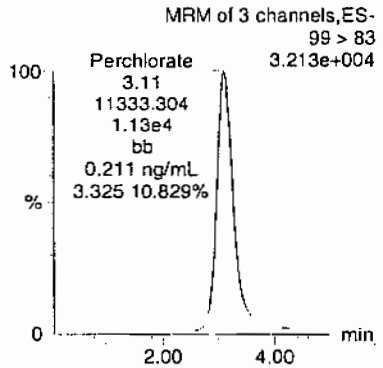

Perchlorate

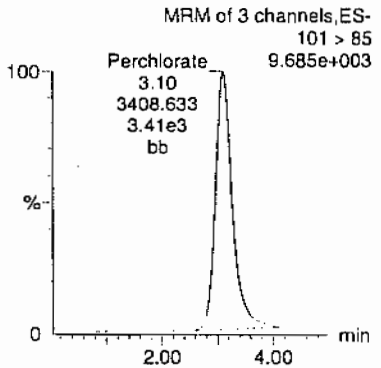

Perchlorate-101

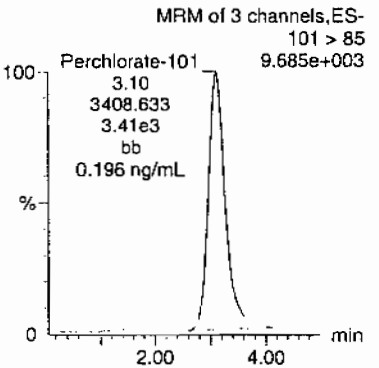

Perchlorate-O(18)

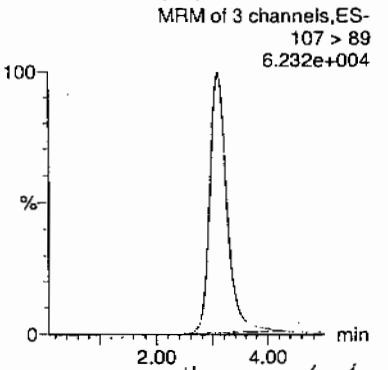

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028871	Perchlorate	99 > 83	3.11	11333.304	11333.304	bb			0.2110	105.48	5.48	1055.7...	3.32
1202028871	Perchlorate-101	101 > 85	3.10	3408.633	3408.633	bb			0.1957	97.83	-2.17	710.970	
1202028871	Perchlorate-O(18)	107 > 89	3.09	22231.824	22231.824	bb			0.4846	96.91	-3.09	2293.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1433

Extract Batch Code: 947147

Date Extracted: 06–FEB–10

GEL MS/PS ID: 1202028869

Client ID: RE15–10–7883

GEL MSD/PSD ID: 1202028870

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.90	0.140	ug/kg	2.97	97.6	2.99	98.2	.59	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.17		3.42		0		–
Perchlorate–101	2.90	0.179	ug/kg	2.89	93.5	2.69	86.6	7.1	30	75 – 125
Perchlorate–O(18)	0	6.74	ug/kg	6.68		6.92		3.54		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	10–FEB–10	per0210001a	IPB001
Perchlorate–101	0.00	0	NA	10–FEB–10	per0210001a	IPB001
Perchlorate	0.00	0	NA	10–FEB–10	per0210002a	IPB001
Perchlorate–101	0.00	0	NA	10–FEB–10	per0210002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021010a.mdb 11 Feb 2010 11:00:00
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021010a.cdb 11 Feb 2010 11:01:28

Name: per0210001a
Date: 10-Feb-2010
Time: 16:10:34
ID: IPB001
Vial: 1:1,A

CWJ 02-12-10

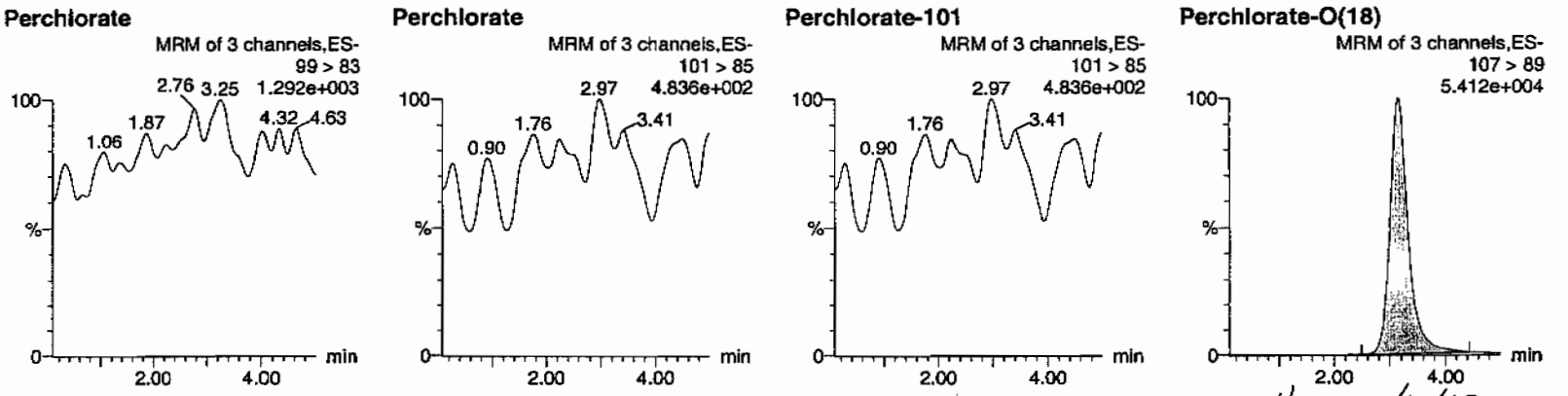

Hmc 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.15	20380.336	20380.336	bb			0.4442	88.84	-11.16	1191.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210002a
Date: 10-Feb-2010
Time: 16:18:47
ID: IPB001
Vial: 1:1,A

EWO
02-12-10

Perchlorate

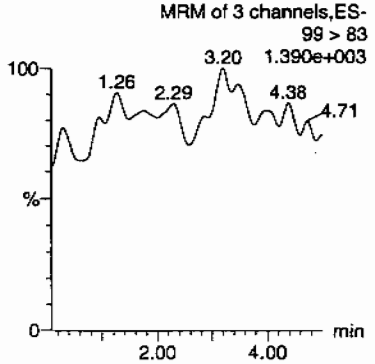

Perchlorate

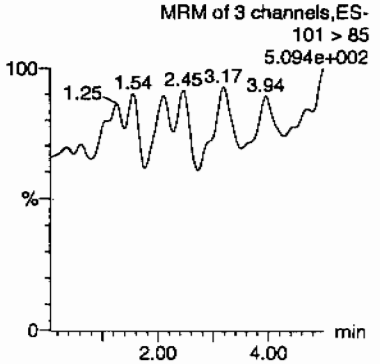

Perchlorate-101

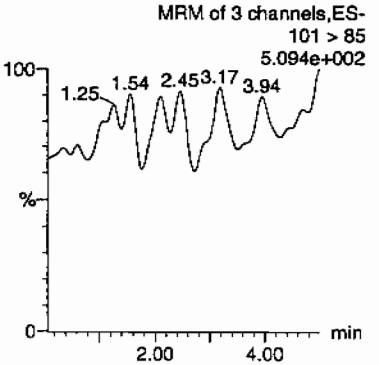

Perchlorate-O(18)

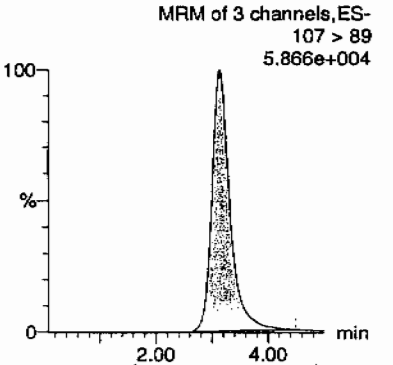

Hmc 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.14	21752.732	21752.732	bb			0.4741	94.83	-5.17	4519.8...	

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	10–FEB–10	per0210008a	IPB002
Perchlorate–101	0.00	0	NA	10–FEB–10	per0210008a	IPB002
Perchlorate	0.00	0	NA	10–FEB–10	per0210010a	IPB003
Perchlorate–101	0.00	0	NA	10–FEB–10	per0210010a	IPB003
Perchlorate	0.00	0	NA	10–FEB–10	per0210023a	IPB004
Perchlorate–101	0.00	0	NA	10–FEB–10	per0210023a	IPB004
Perchlorate	0.00	0	NA	10–FEB–10	per0210036a	IPB005
Perchlorate–101	0.00	0	NA	10–FEB–10	per0210036a	IPB005
Perchlorate	0.00	0	NA	10–FEB–10	per0210049a	IPB006
Perchlorate–101	0.00	0	NA	10–FEB–10	per0210049a	IPB006
Perchlorate	0.00	0	NA	11–FEB–10	per0210062a	IPB007
Perchlorate–101	0.00	0	NA	11–FEB–10	per0210062a	IPB007

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210008a
Date: 10-Feb-2010
Time: 17:06:55
ID: IPB002
Vial: 1:1,A

aw
02-12-10

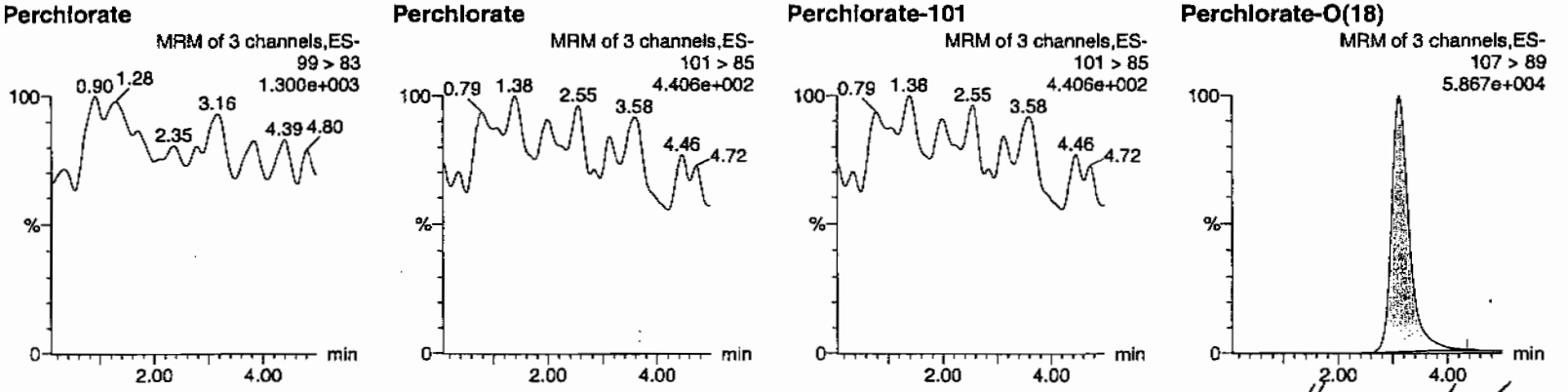

Hmc 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.12	21790.453	21790.453	bb			0.4750	94.99	-5.01	2832.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210010a
Date: 10-Feb-2010
Time: 17:23:00
ID: IPB003
Vial: 1:1,A

cwj
02-11-10

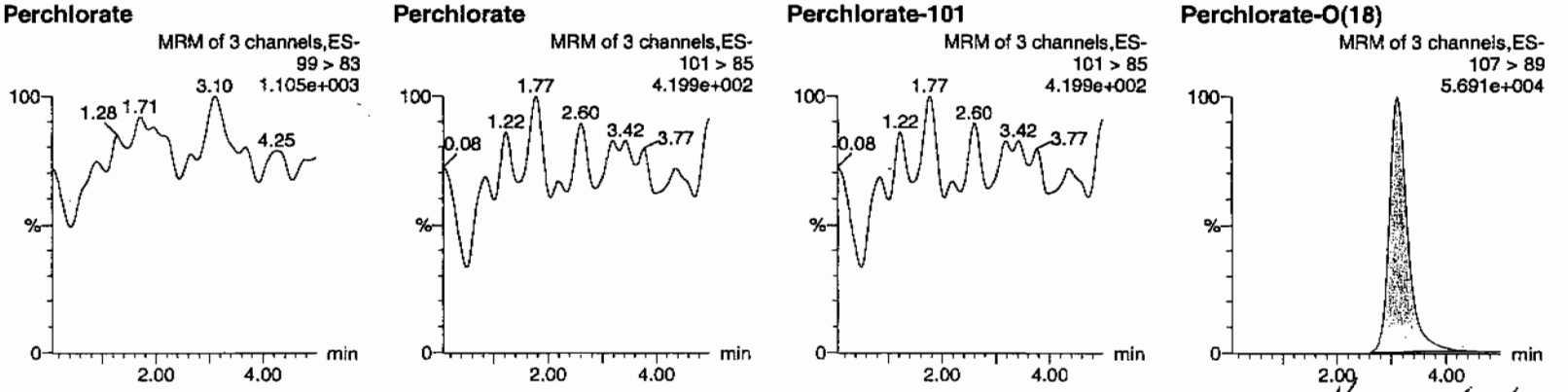

hmm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.11	21484.490	21484.490	bb			0.4683	93.66	-6.34	602.767	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210023a
Date: 10-Feb-2010
Time: 19:07:33
ID: IPB004
Vial: 1:1,A

CWW
02-12-10

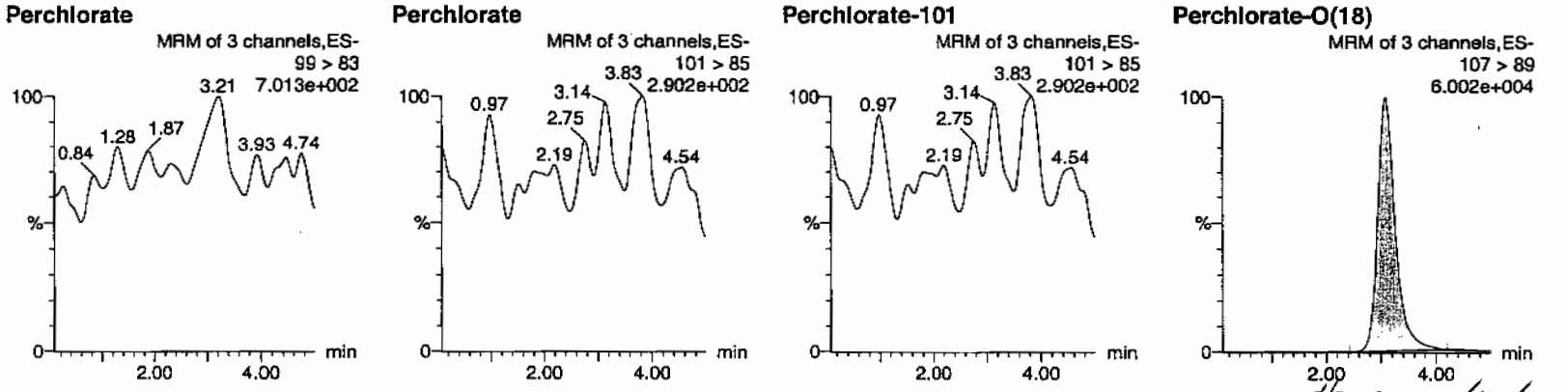

HM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.09	21936.963	21936.963	bb			0.4781	95.63	-4.37	3299.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210036a
Date: 10-Feb-2010
Time: 20:52:09
ID: IPB005
Vial: 1:1,A

CWW
02-12-10

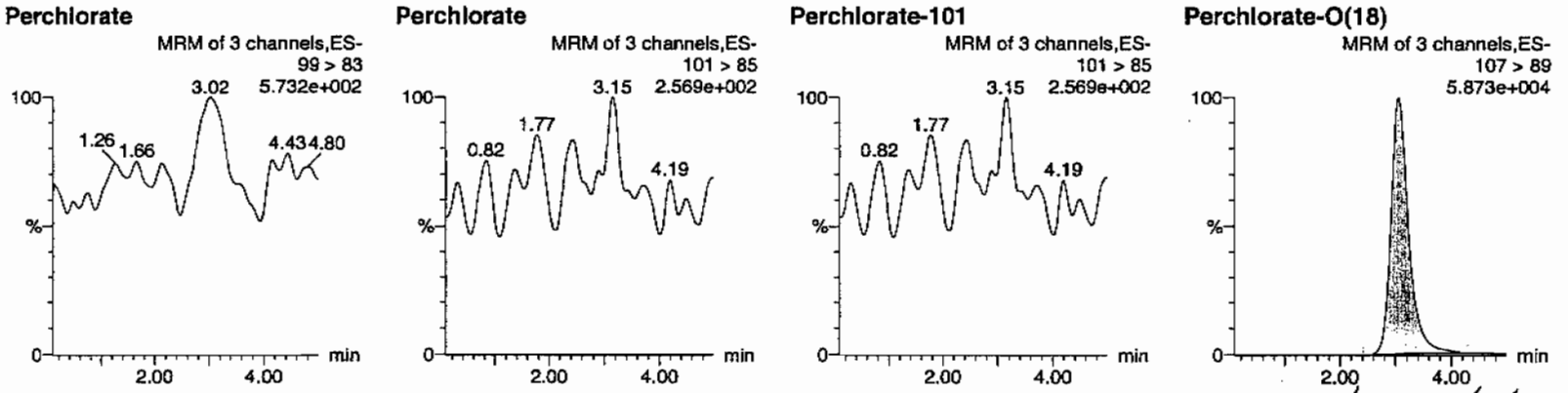

Hrne 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.06	21389.258	21389.258	bb			0.4662	93.24	-6.76	1799.3...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210049a
Date: 10-Feb-2010
Time: 22:37:02
ID: IPB006
Vial: 1:1,A

CWW
02-12-10

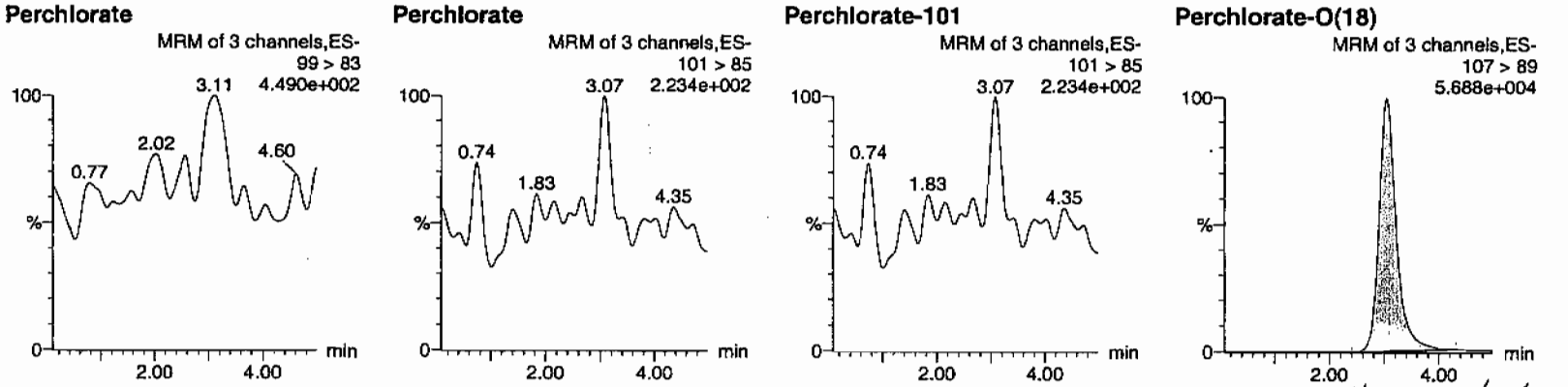

HM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	3.04	20742.789	20742.789	bb			0.4521	90.42	-9.58	2621.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

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Date: 11-Feb-2010
Time: 00:21:55
ID: IPB007
Vial: 1:1,A

CWW 02-12-10

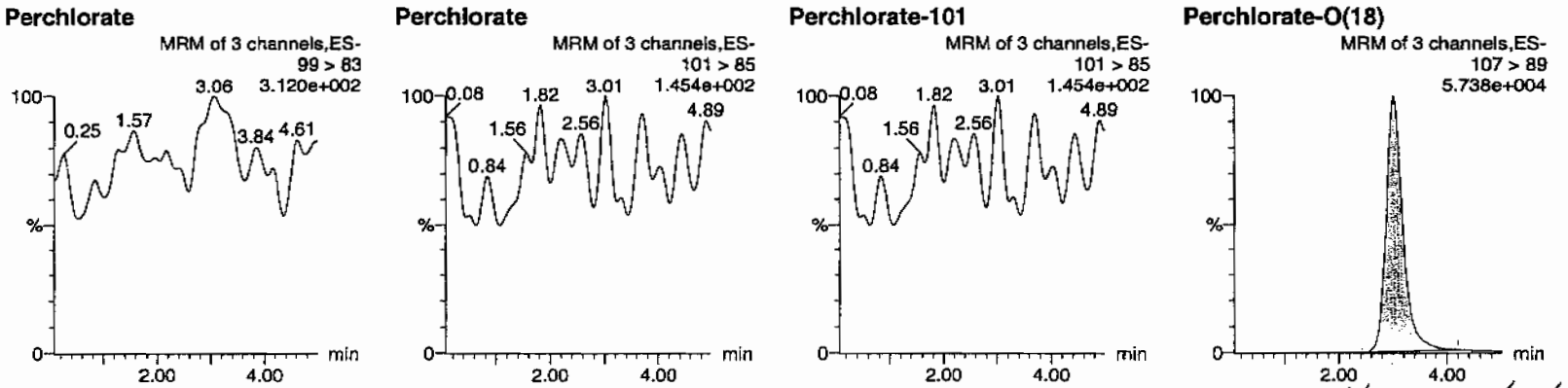

Hnm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	3.01	20455.217	20455.217	bb			0.4459	89.17	-10.83	353.988	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

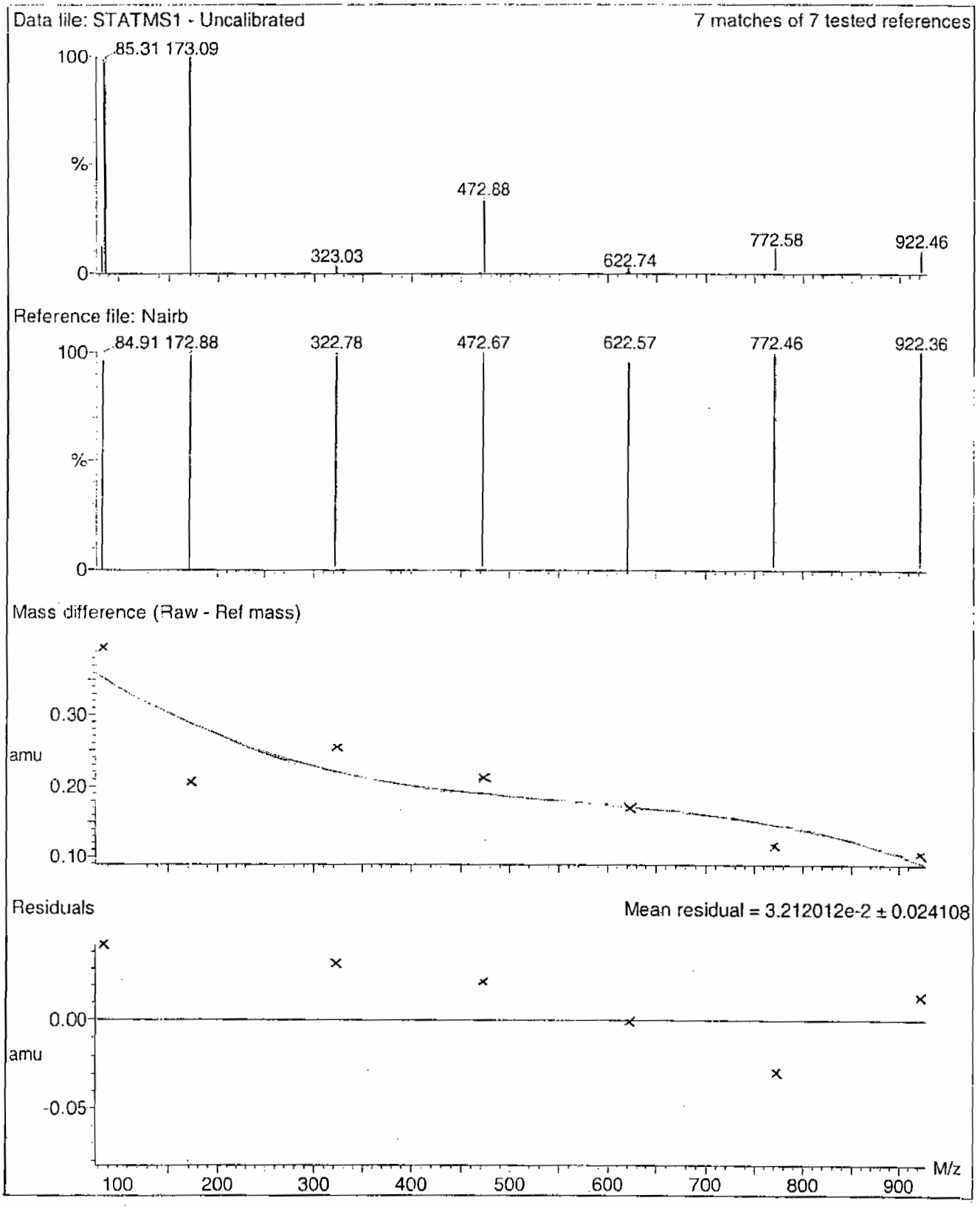

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

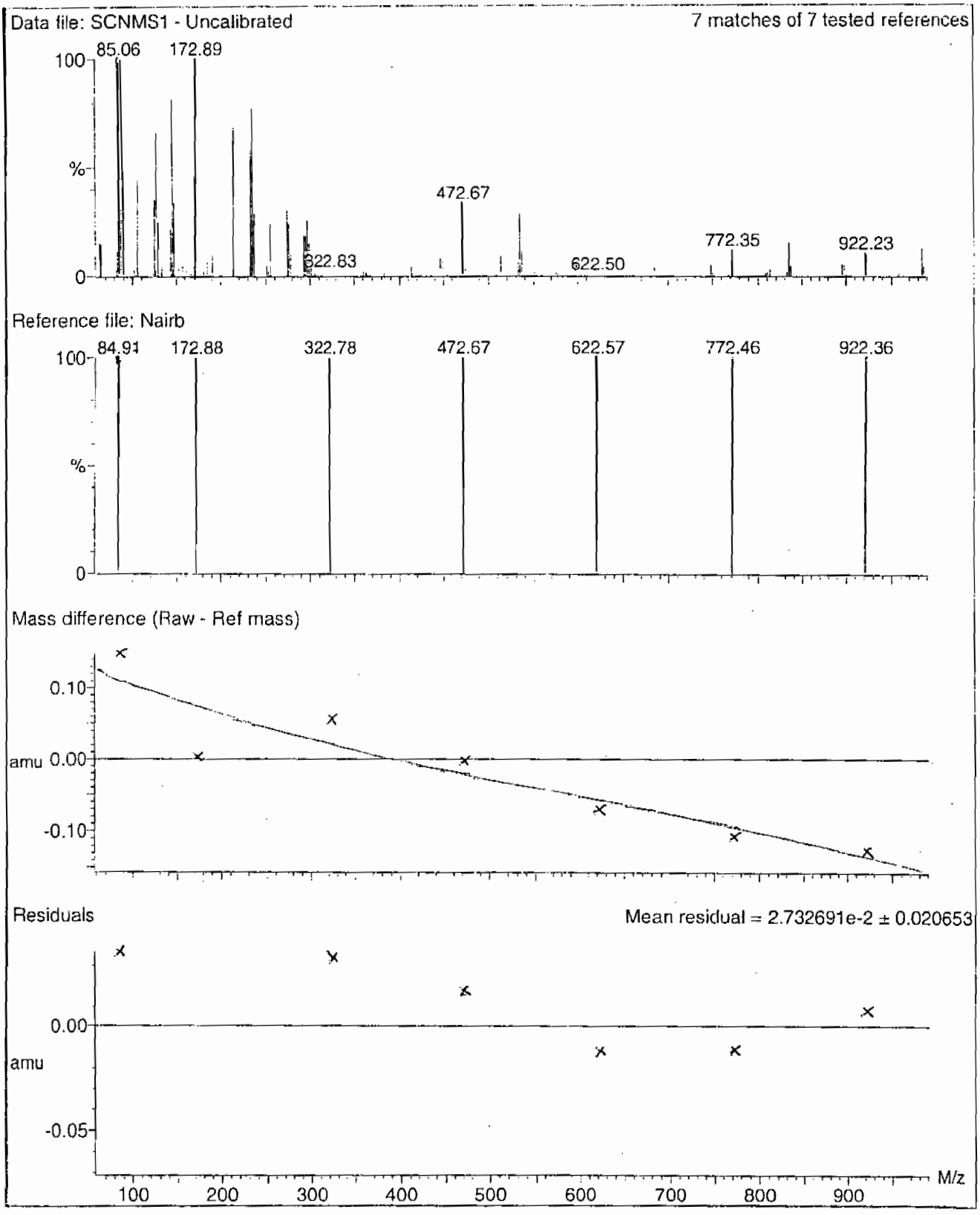

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

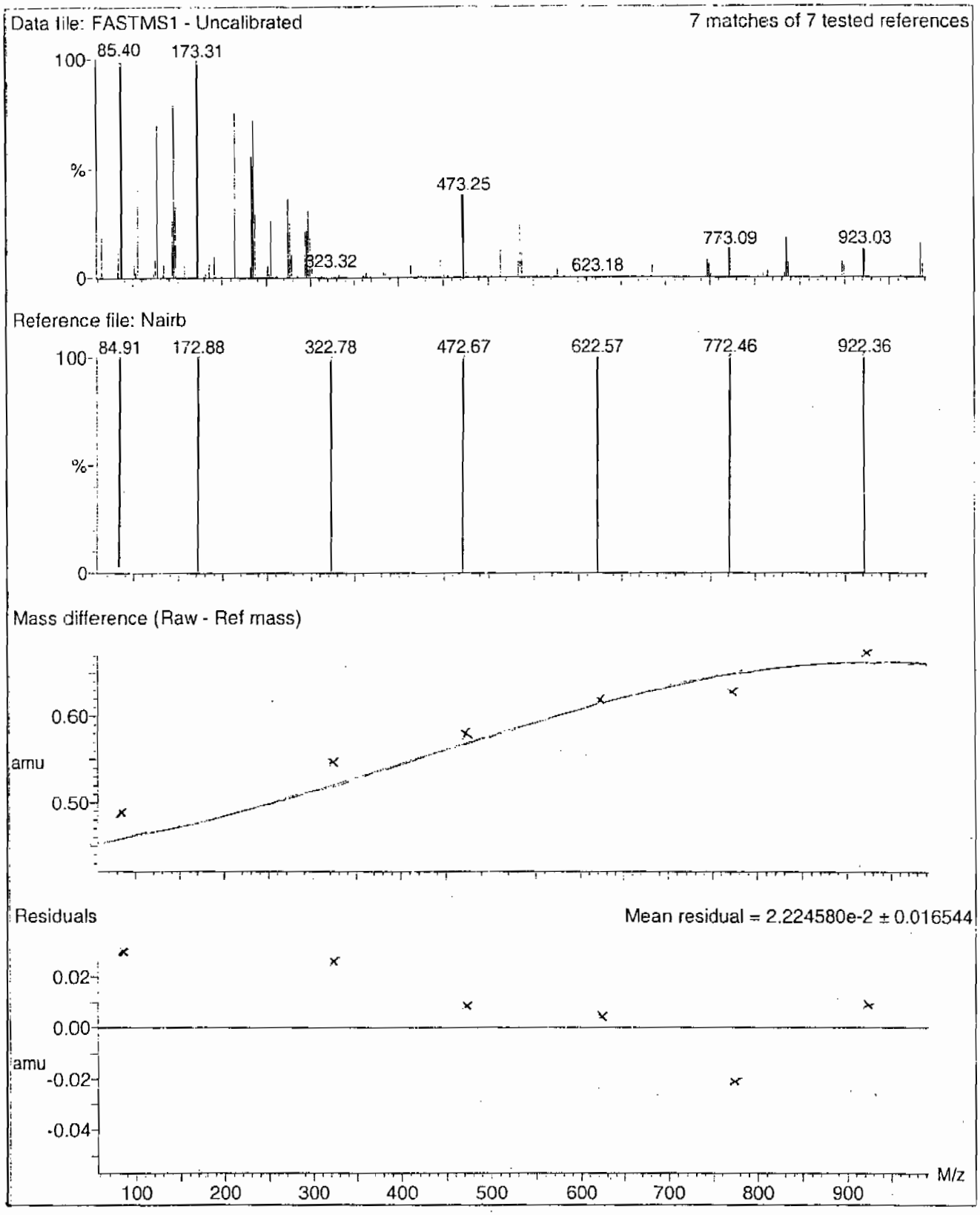

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

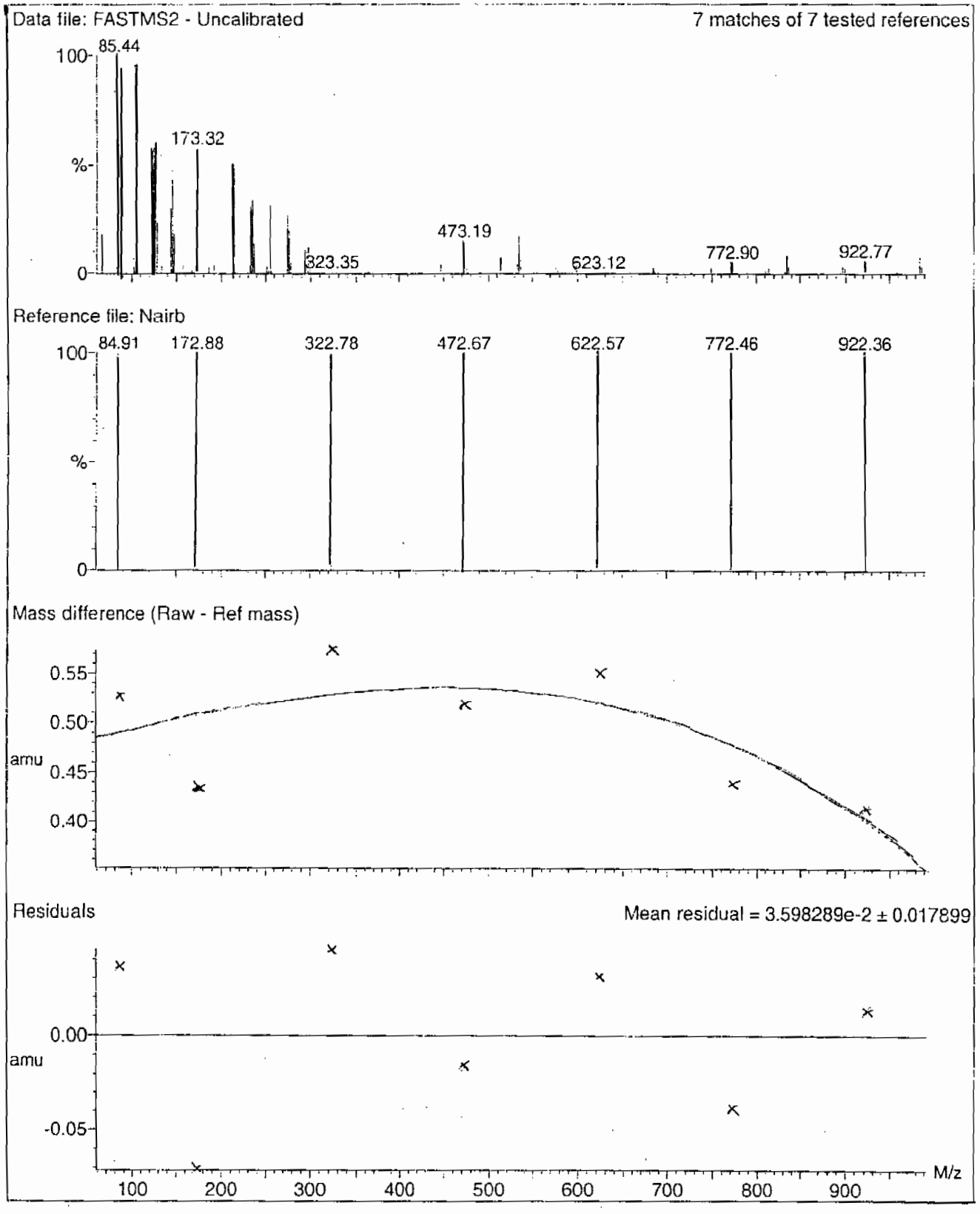

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

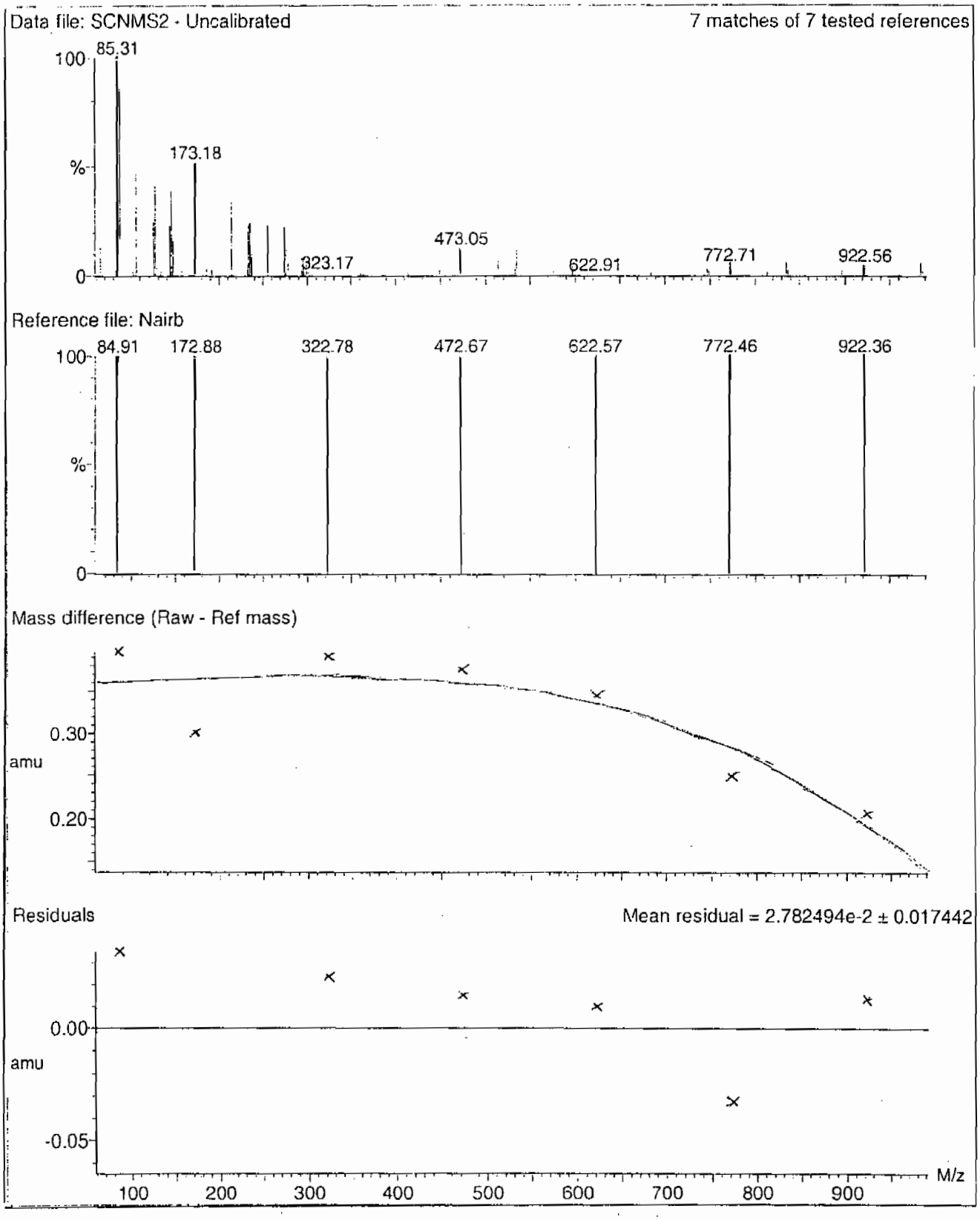

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

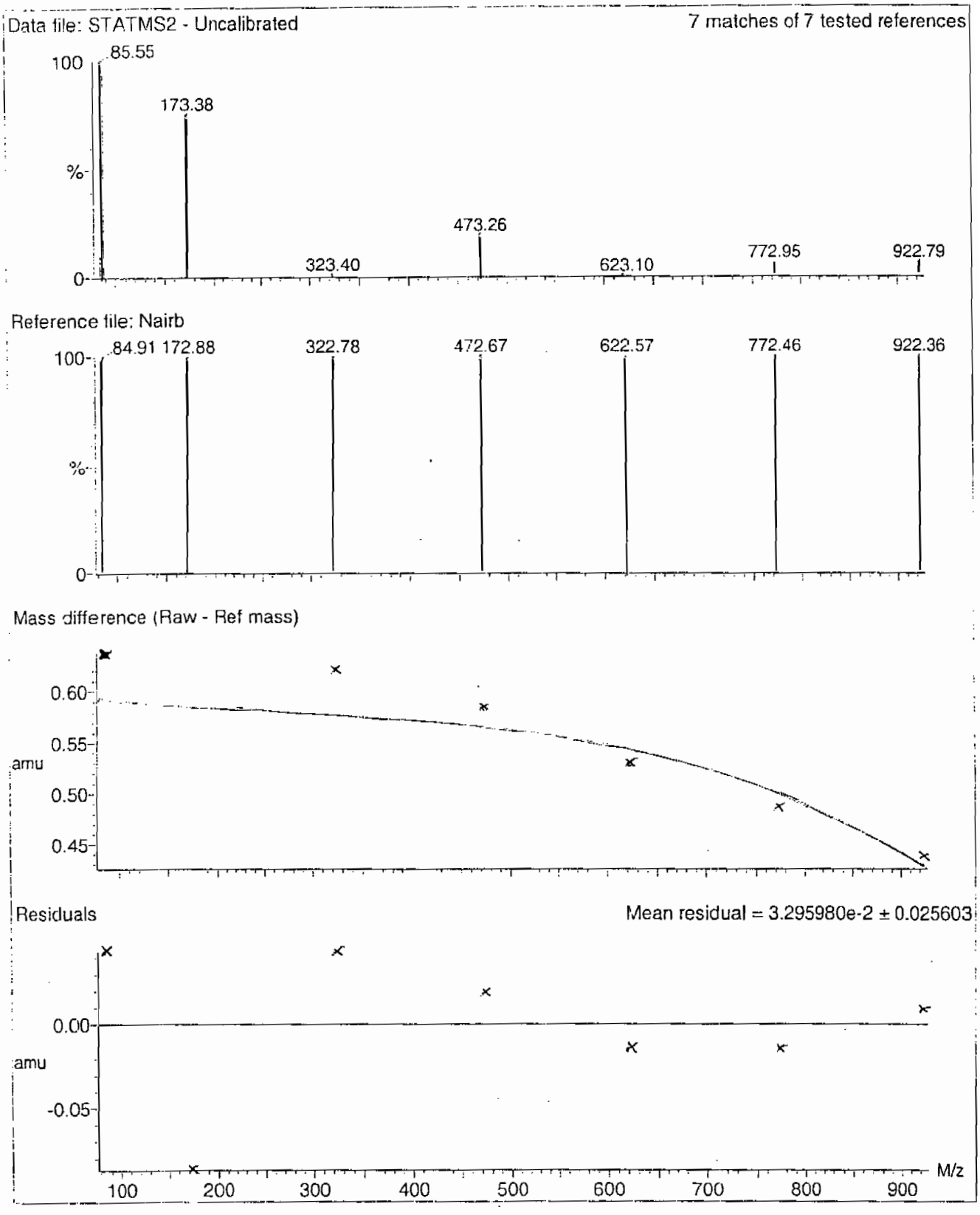

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Wednesday, February 10, 2010 14:19:34 Eastern Standard Time

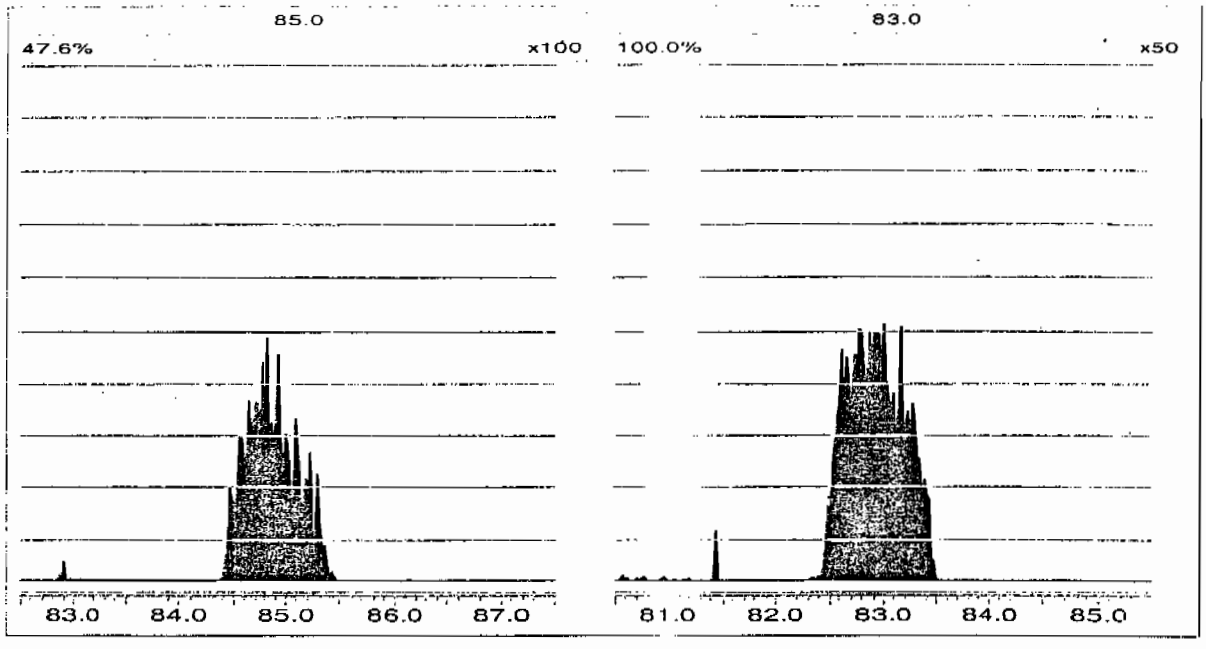

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1433

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0210006a**	**10–FEB–10**	**22910.4**				
Lower Area Limit			**11455.2**				
Upper Area Limit			**45820.8**				
1202028867	per0210038a	10–FEB–10 21:08	21819.6	3.07	3.0728	1.001	
1202028868	per0210039a	10–FEB–10 21:16	21315.1	3.06	3.0728	1.004	
1202028871	per0210040a	10–FEB–10 21:24	22231.8	3.09	3.11007	1.006	
245688001	per0210042a	10–FEB–10 21:40	21319.1	3.06	3.06048	1	
1202028869	per0210043a	10–FEB–10 21:48	21125.5	3.06	3.07283	1.004	
1202028870	per0210044a	10–FEB–10 21:56	21886.7	3.05	3.06052	1.003	
245688002	per0210045a	10–FEB–10 22:04	22446.1	3.06	3.0728	1.004	
245688003	per0210046a	10–FEB–10 22:12	22646.8	3.05	3.04802	.999	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1433

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0210006a**	**10–FEB–10**	**22910.4**				
Lower Area Limit			**11455.2**				
Upper Area Limit			**45820.8**				
245688004	per0210047a	10–FEB–10 22:20	22434.6	3.05	3.06048	1.003	
245688005	per0210051a	10–FEB–10 22:53	22505.2	3.04	3.03553	.999	
245688006	per0210052a	10–FEB–10 23:01	22662.6	3.05	3.06048	1.003	
245688007	per0210053a	10–FEB–10 23:09	22399.4	3.04	3.04802	1.003	
245688008	per0210054a	10–FEB–10 23:17	21879.9	3.04	3.04803	1.003	
245688009	per0210055a	10–FEB–10 23:25	21581.6	3.02	3.03553	1.005	
245688010	per0210056a	10–FEB–10 23:33	22908.4	3.04	3.04803	1.003	
245688011	per0210057a	10–FEB–10 23:41	23379.7	3.02	3.03555	1.005	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1433

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0210006a**	**10–FEB–10**	**22910.4**				
Lower Area Limit			**11455.2**				
Upper Area Limit			**45820.8**				
245688012	per0210058a	10–FEB–10 23:49	21138.3	3.02	3.03557	1.005	
245688013	per0210059a	10–FEB–10 23:57	22136.3	3.01	3.03558	1.008	
245688014	per0210060a	11–FEB–10 00:05	21717.6	3.02	3.048	1.009	

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SAMPLE
DATA

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7883

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688001

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate Isotope Ratio						1	10-FEB-10 21:40	per0210042a
14797-73-0	Perchlorate-101	.725	2.9	0.725	ug/kg	U	1	10-FEB-10 21:40	per0210042a
	Perchlorate-O(18)			6.74	ug/kg		1	10-FEB-10 21:40	per0210042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210042a
Date: 10-Feb-2010
Time: 21:40:33
ID: 245688001
Vial: 2:1,E

|LDNL|947MB|50120|1|

CWW
02-12-10

Perchlorate

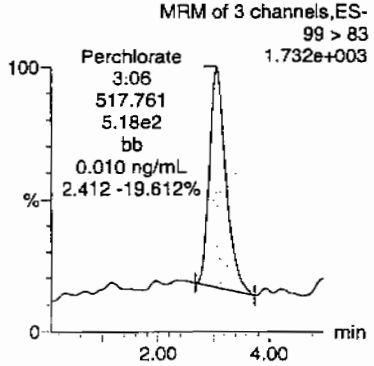

Perchlorate

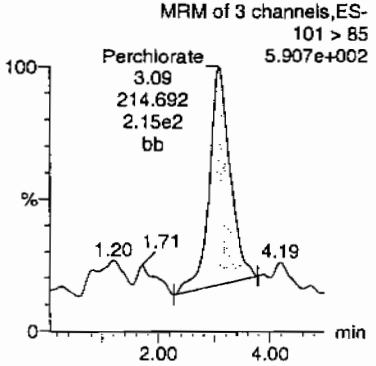

Perchlorate-101

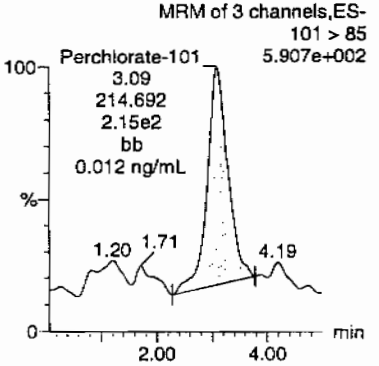

Perchlorate-O(18)

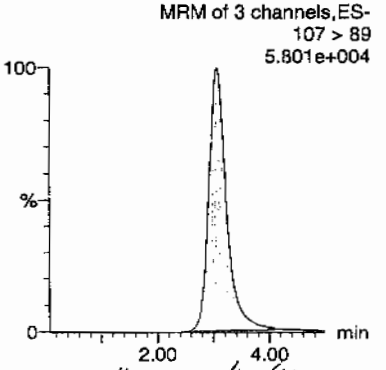

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec.	%Dev.	S/N	Ion Ratio
245688001	Perchlorate	99 > 83	3.06	517.761	517.761	bb			0.0096			64.285	2.41
245688001	Perchlorate-101	101 > 85	3.09	214.692	214.692	bb			0.0123			27.826	
245688001	Perchlorate-O(18)	107 > 89	3.06	21319.111	21319.111	bb			0.4647	92.94	-7.06	3001.6...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7884

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688002

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 94.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:04	per0210045a
14797-73-0	Perchlorate-101	.531	2.12	0.531	ug/kg	U	1	10-FEB-10 22:04	per0210045a
	Perchlorate-O(18)			5.19	ug/kg		1	10-FEB-10 22:04	per0210045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210045a
Date: 10-Feb-2010
Time: 22:04:38
ID: 245688002
Vial: 2:2,B

| LANL | 947148 | 30620 | 1 |

WW
02-12-10

Perchlorate

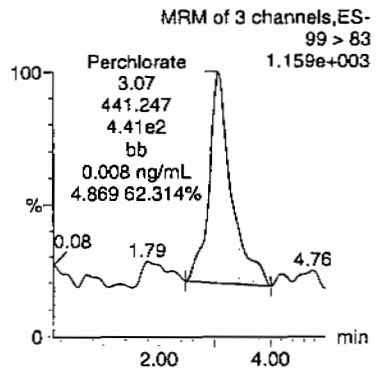

Perchlorate

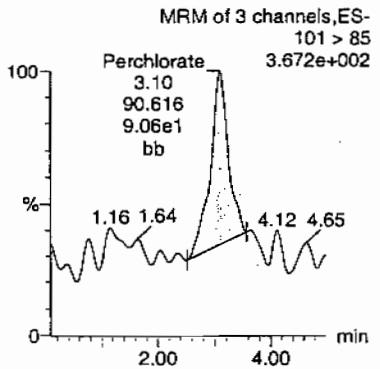

Perchlorate-101

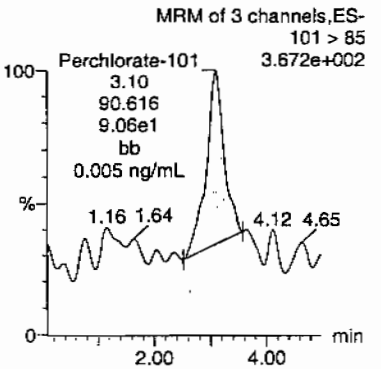

Perchlorate-O(18)

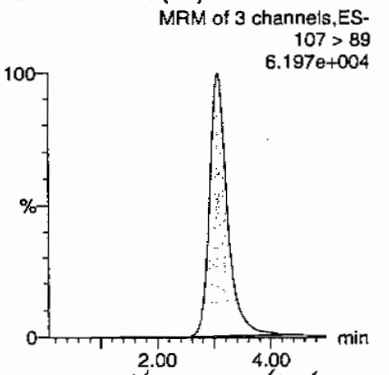

HMW 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688002	Perchlorate	99 > 83	3.07	441.247	441.247	bb			0.0082			61.169	4.87
245688002	Perchlorate-101	101 > 85	3.10	90.616	90.616	bb			0.0052			20.628	
245688002	Perchlorate-O(18)	107 > 89	3.06	22446.082	22446.082	bb			0.4892	97.85	-2.15	805.047	

OKAY
<0.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7932

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688003

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:12	per0210046a
14797-73-0	Perchlorate-101	.551	2.2	0.551	ug/kg	U	1	10-FEB-10 22:12	per0210046a
	Perchlorate-O(18)			5.44	ug/kg		1	10-FEB-10 22:12	per0210046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210046a
Date: 10-Feb-2010
Time: 22:12:40
ID: 245688003
Vial: 2:2,C

|LANL|947143|SOLID|1|

CWW 02-12-10

Perchlorate

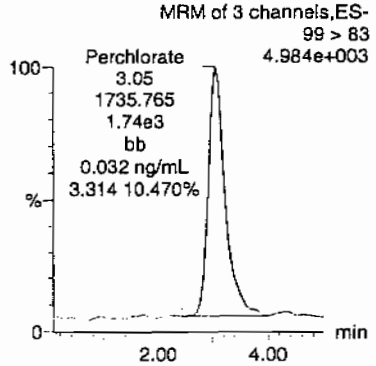

Perchlorate

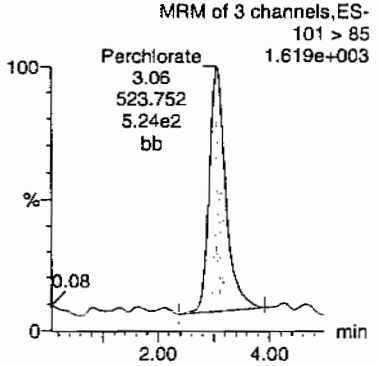

Perchlorate-101

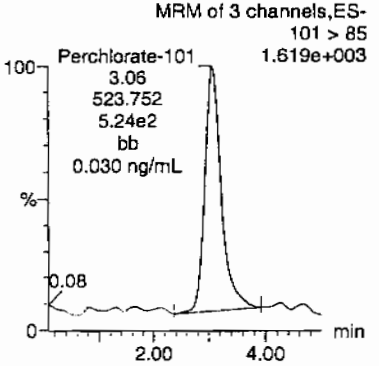

Perchlorate-O(18)

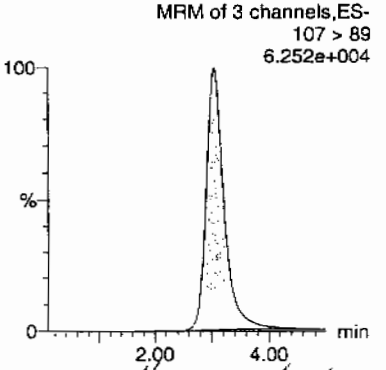

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688003	Perchlorate	99 > 83	3.05	1735.765	1735.765	bb			0.0323			193.501	3.31
245688003	Perchlorate-101	101 > 85	3.06	523.752	523.752	bb			0.0301			97.015	
245688003	Perchlorate-O(18)	107 > 89	3.05	22646.762	22646.762	bb			0.4936	98.72	-1.28	1145.1...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7931

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688004

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:20	per0210047a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	10-FEB-10 22:20	per0210047a
	Perchlorate-O(18)			5.90	ug/kg		1	10-FEB-10 22:20	per0210047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210047a
Date: 10-Feb-2010
Time: 22:20:42
ID: 245688004
Vial: 2:2,D

LAJNL | 947148 | 50020 | 11

GWO 02-12-10

Perchlorate

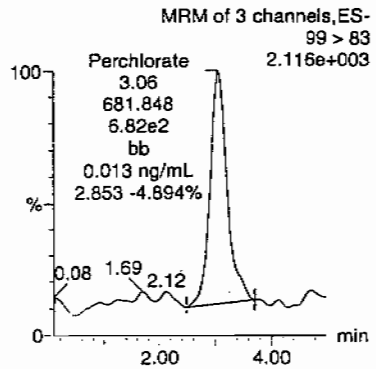

Perchlorate

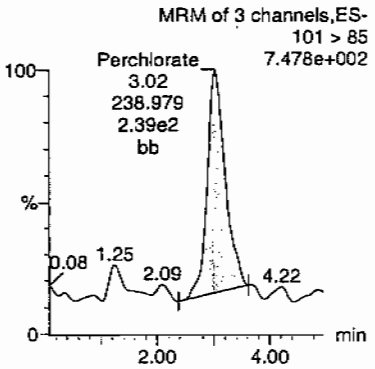

Perchlorate-101

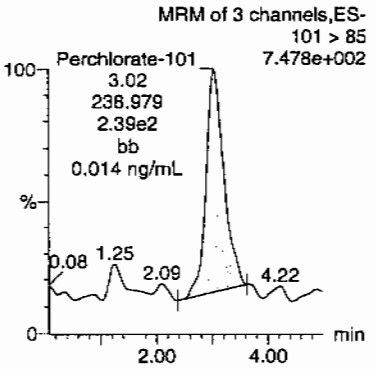

Perchlorate-O(18)

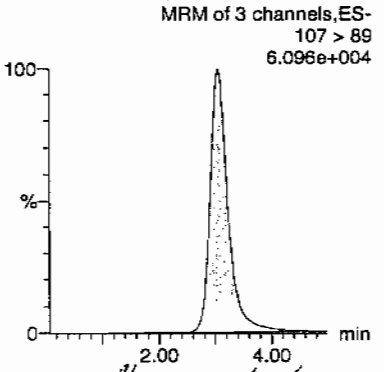

HMW 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688004	Perchlorate	99 > 83	3.06	681.848	681.848	bb			0.0127			70.792	2.85
245688004	Perchlorate-101	101 > 85	3.02	238.979	238.979	bb			0.0137			40.233	
245688004	Perchlorate-O(18)	107 > 89	3.05	22434.617	22434.617	bb			0.4890	97.80	-2.20	5299.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7938

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688005

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate Isotope Ratio						1	10-FEB-10 22:53	per0210051a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	10-FEB-10 22:53	per0210051a
	Perchlorate-O(18)			5.09	ug/kg		1	10-FEB-10 22:53	per0210051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210051a
Date: 10-Feb-2010
Time: 22:53:05
ID: 245688005
Vial: 2:2,E

|LANL|947148|5020|1|

02-12-10

Perchlorate

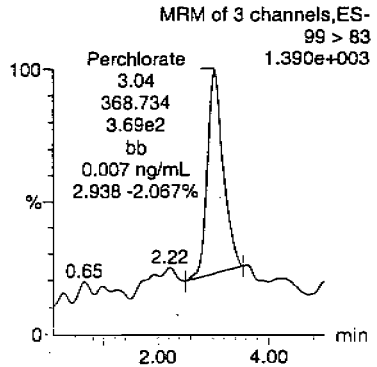

Perchlorate

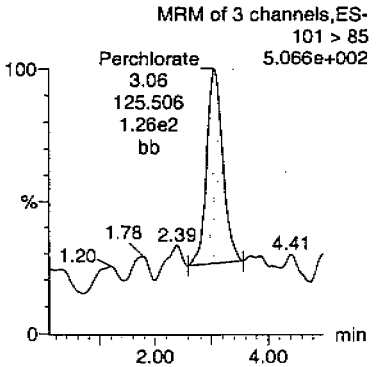

Perchlorate-101

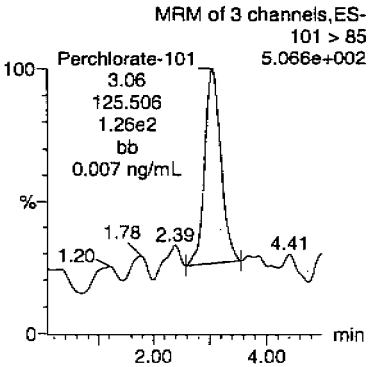

Perchlorate-O(18)

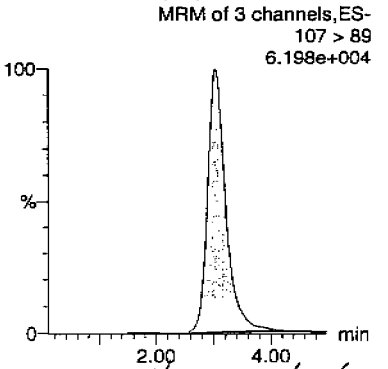

02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688005	Perchlorate	99 > 83	3.04	368.734	368.734	bb			0.0069			95.359	2.94
245688005	Perchlorate-101	101 > 85	3.06	125.506	125.506	bb			0.0072			17.526	
245688005	Perchlorate-O(18)	107 > 89	3.04	22505.156	22505.156	bb			0.4905	98.11	-1.89	3635.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7933

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688006

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:01	per0210052a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	10-FEB-10 23:01	per0210052a
	Perchlorate-O(18)			6.22	ug/kg		1	10-FEB-10 23:01	per0210052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210052a
Date: 10-Feb-2010
Time: 23:01:18
ID: 245688006
Vial: 2:2,F

|LANL|947143|50620|11

CWJ 02-12-10

Perchlorate

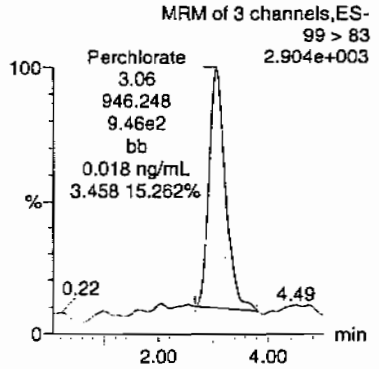

Perchlorate

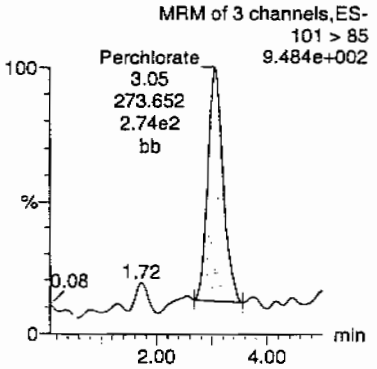

Perchlorate-101

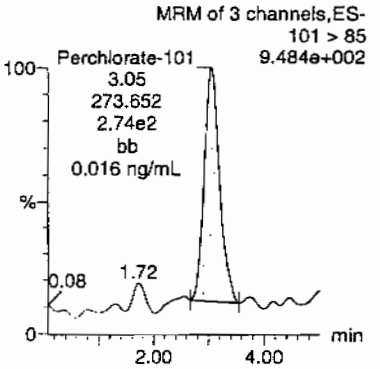

Perchlorate-O(18)

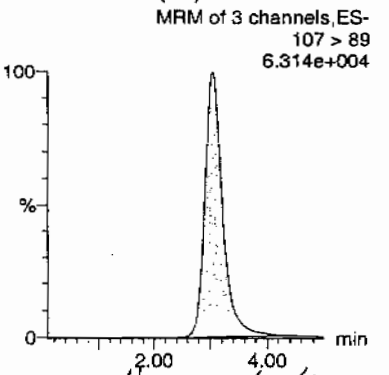

Amm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688006	Perchlorate	99 > 83	3.06	946.248	946.248	bb			0.0176			87.965	3.46
245688006	Perchlorate-101	101 > 85	3.05	273.652	273.652	bb			0.0157			33.099	
245688006	Perchlorate-O(18)	107 > 89	3.05	22662.586	22662.586	bb			0.4940	98.79	-1.21	1696.0...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7939

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688007

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:09	per0210053a
14797-73-0	Perchlorate-101	.657	2.63	0.657	ug/kg	U	1	10-FEB-10 23:09	per0210053a
	Perchlorate-O(18)			6.41	ug/kg		1	10-FEB-10 23:09	per0210053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210053a
Date: 10-Feb-2010
Time: 23:09:19
ID: 245688007
Vial: 2:3,A

|LAIJL|947148|SOLID|1|

CWO
02-12-10

Perchlorate

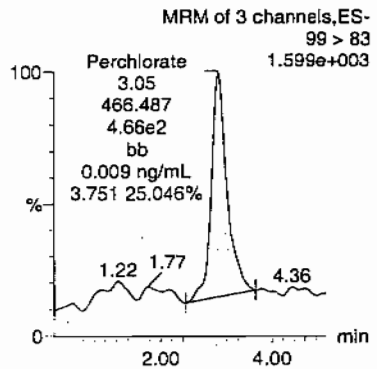

Perchlorate

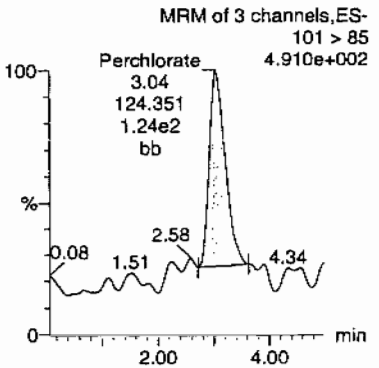

Perchlorate-101

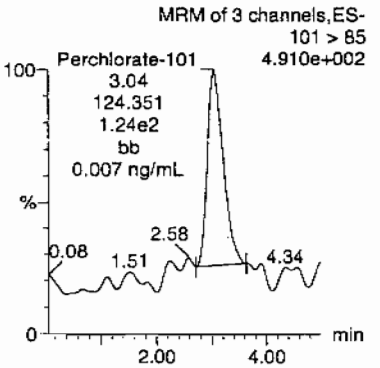

Perchlorate-O(18)

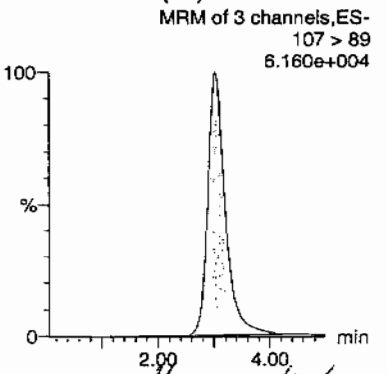

MM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688007	Perchlorate	99 > 83	3.05	466.487	466.487	bb			0.0087			25.175	3.75
245688007	Perchlorate-101	101 > 85	3.04	124.351	124.351	bb			0.0071			38.543	
245688007	Perchlorate-O(18)	107 > 89	3.04	22399.412	22399.412	bb			0.4882	97.65	-2.35	1465.5...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7936

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688008

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:17	per0210054a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	10-FEB-10 23:17	per0210054a
	Perchlorate-O(18)			4.95	ug/kg		1	10-FEB-10 23:17	per0210054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210054a
Date: 10-Feb-2010
Time: 23:17:23
ID: 245688008
Vial: 2:3,B

|LANL|947148|SOLID|1|

CWW 02-12-10

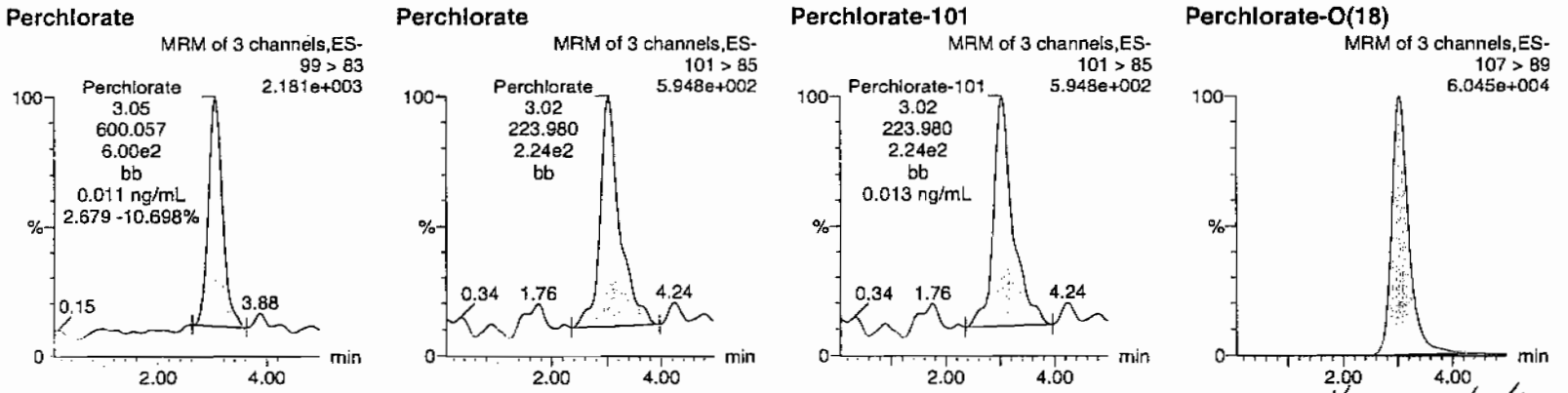

HMW 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688008	Perchlorate	99 > 83	3.05	600.057	600.057	bb			0.0112			98.462	2.68
245688008	Perchlorate-101	101 > 85	3.02	223.980	223.980	bb			0.0129			65.257	
245688008	Perchlorate-O(18)	107 > 89	3.04	21879.936	21879.936	bb			0.4769	95.38	-4.62	5606.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7935

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688009

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:25	per0210055a
14797-73-0	Perchlorate-101	.655	2.62	0.655	ug/kg	U	1	10-FEB-10 23:25	per0210055a
	Perchlorate-O(18)			6.16	ug/kg		1	10-FEB-10 23:25	per0210055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210055a
Date: 10-Feb-2010
Time: 23:25:25
ID: 245688009
Vial: 2:3,C

LAJL | 947148 | 50120 | 1 |

CWW 02-12-10

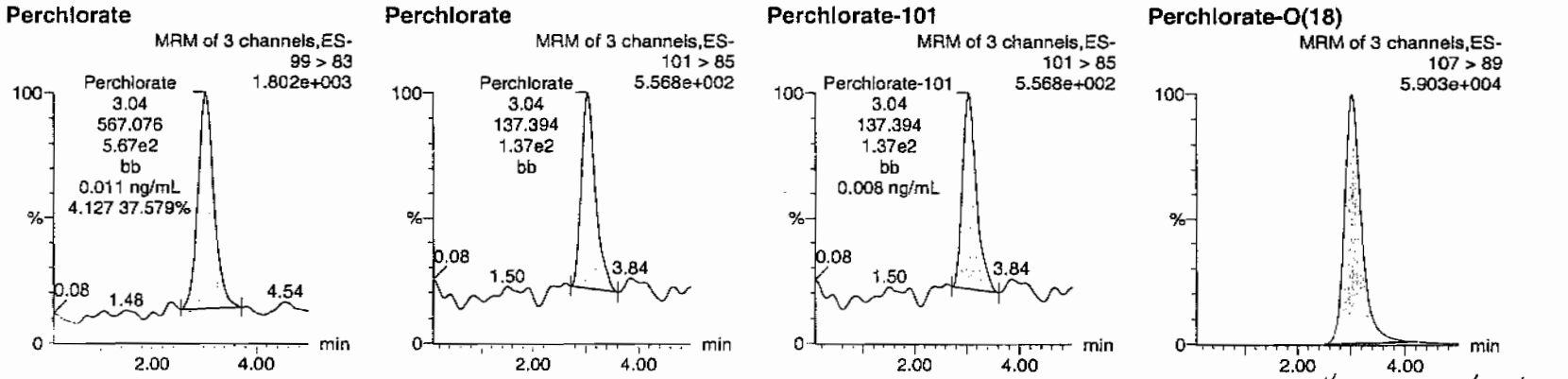

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688009	Perchlorate	99 > 83	3.04	567.076	567.076	bb			0.0106			49.308	4.13
245688009	Perchlorate-101	101 > 85	3.04	137.394	137.394	bb			0.0079			16.695	
245688009	Perchlorate-O(18)	107 > 89	3.02	21581.623	21581.623	bb			0.4704	94.08	-5.92	1111.9...	

OKAY
LO.0500

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7934

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688010

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.21	2.43	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate Isotope Ratio			3.22			1	10-FEB-10 23:33	per0210056a
14797-73-0	Perchlorate-101	.554	2.21	2.32	ug/kg		1	10-FEB-10 23:33	per0210056a
	Perchlorate-O(18)			5.53	ug/kg		1	10-FEB-10 23:33	per0210056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210056a
Date: 10-Feb-2010
Time: 23:33:28
ID: 245688010
Vial: 2:3,D

|LANL|947148|SDZD|11

WJ
02-12-10

Perchlorate

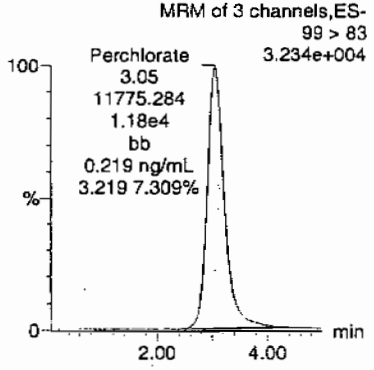

Perchlorate

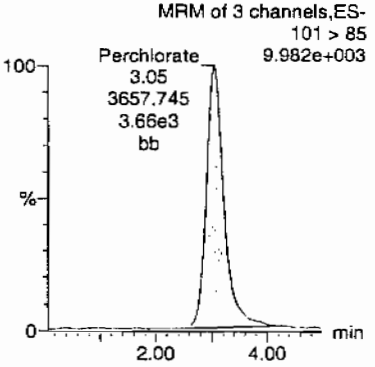

Perchlorate-101

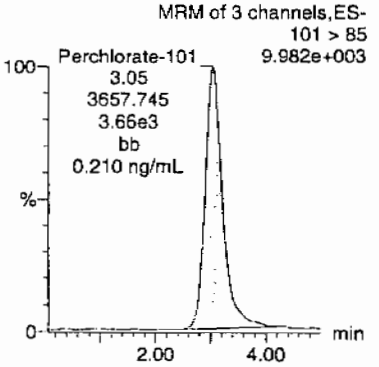

Perchlorate-O(18)

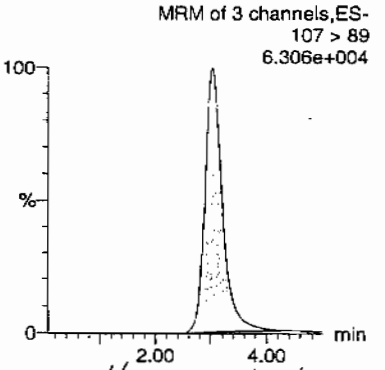

Hmm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688010	Perchlorate	99 > 83	3.05	11775.284	11775.284	bb			0.2192			1132.2...	3.22
245688010	Perchlorate-101	101 > 85	3.05	3657.745	3657.745	bb			0.2100			828.571	
245688010	Perchlorate-O(18)	107 > 89	3.04	22908.422	22908.422	bb			0.4993	99.86	-0.14	2561.9...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7940

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688011

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 95.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.525	2.1	0.810	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate Isotope Ratio			2.94			1	10-FEB-10 23:41	per0210057a
14797-73-0	Perchlorate-101	.525	2.1	0.849	ug/kg	J	1	10-FEB-10 23:41	per0210057a
	Perchlorate-O(18)			5.36	ug/kg		1	10-FEB-10 23:41	per0210057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210057a
Date: 10-Feb-2010
Time: 23:41:29
ID: 245688011
Vial: 2:3,E

LAVL | 947148 | 50120 | 1 |

GWJ 02-12-10

Perchlorate

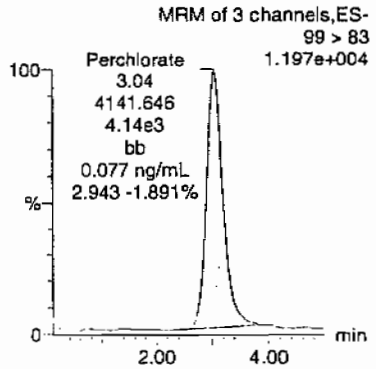

Perchlorate

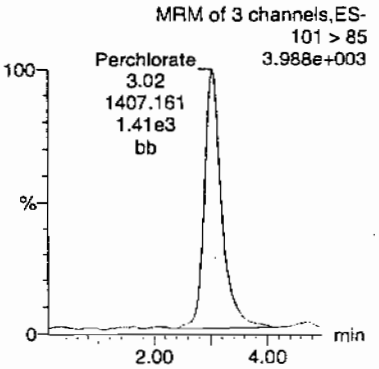

Perchlorate-101

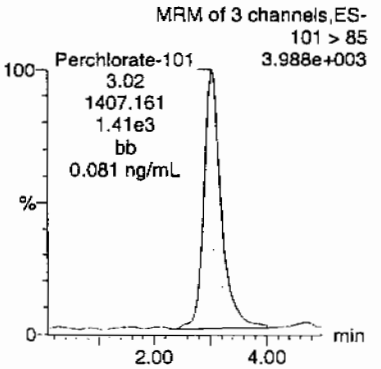

Perchlorate-O(18)

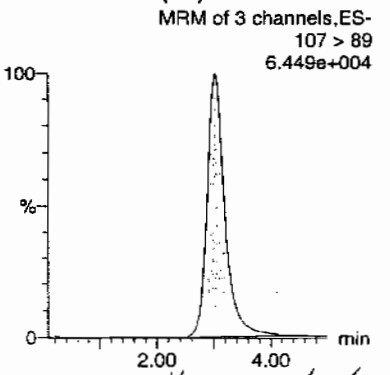

HJM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688011	Perchlorate	99 > 83	3.04	4141.646	4141.646	bb			0.0771			541.945	2.94
245688011	Perchlorate-101	101 > 85	3.02	1407.161	1407.161	bb			0.0808			170.874	
245688011	Perchlorate-O(18)	107 > 89	3.02	23379.744	23379.744	bb			0.5096	101.92	1.92	2285.1...	

$$\frac{4141.646 \mid 10 \mid 100}{53724.1 \mid \mid 95.15} = 0.810$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7937

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688012

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:49	per0210058a
14797-73-0	Perchlorate-101	.656	2.62	0.656	ug/kg	U	1	10-FEB-10 23:49	per0210058a
	Perchlorate-O(18)			6.05	ug/kg		1	10-FEB-10 23:49	per0210058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210058a
Date: 10-Feb-2010
Time: 23:49:31
ID: 245688012
Vial: 2:3,F

|LANL|947148|90120|11|

CWW 02-12-10

Perchlorate

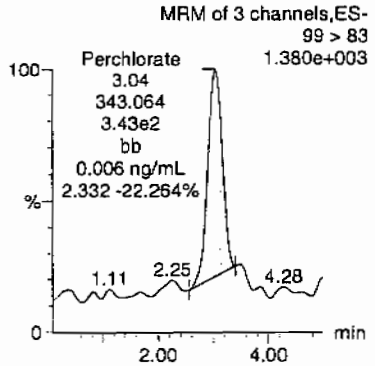

Perchlorate

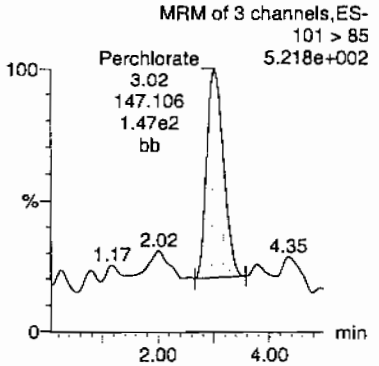

Perchlorate-101

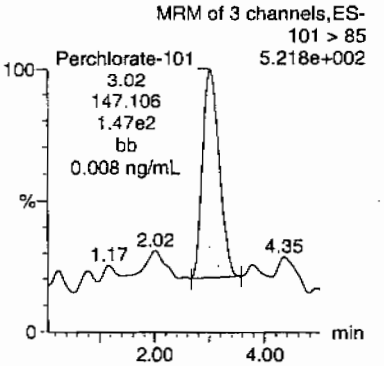

Perchlorate-O(18)

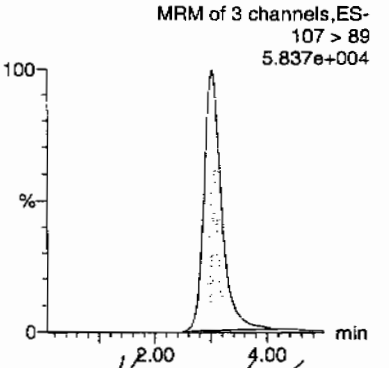

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688012	Perchlorate	99 > 83	3.04	343.064	343.064	bb			0.0064			35.393	2.33
245688012	Perchlorate-101	101 > 85	3.02	147.106	147.106	bb			0.0084			18.546	
245688012	Perchlorate-O(18)	107 > 89	3.02	21138.285	21138.285	bb			0.4607	92.15	-7.85	1036.3...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8056

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688013

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate Isotope Ratio						1	10-FEB-10 23:57	per0210059a
14797-73-0	Perchlorate-101	.518	2.07	0.518	ug/kg	U	1	10-FEB-10 23:57	per0210059a
	Perchlorate-O(18)			5.00	ug/kg		1	10-FEB-10 23:57	per0210059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210059a
Date: 10-Feb-2010
Time: 23:57:32
ID: 245688013
Vial: 2:4,A

|LANL|947143|50120|1|

CWW
02-12-10

Perchlorate

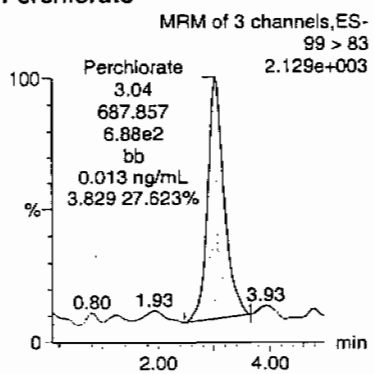

Perchlorate

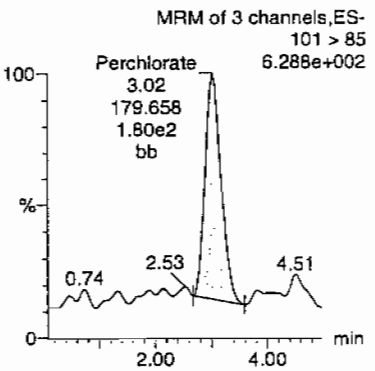

Perchlorate-101

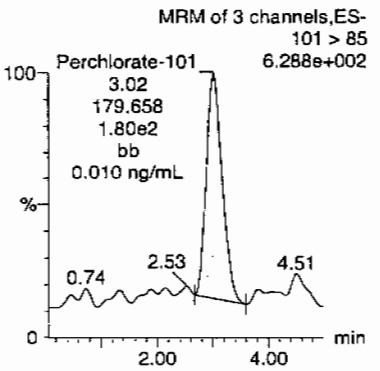

Perchlorate-O(18)

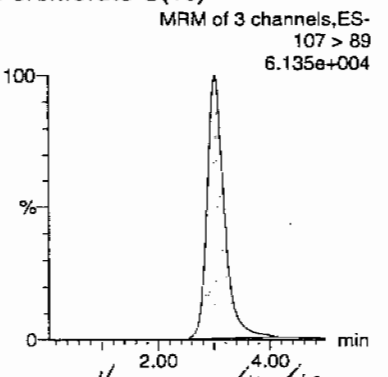

HWM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688013	Perchlorate	99 > 83	3.04	687.857	687.857	bb			0.0128			39.719	3.83
245688013	Perchlorate-101	101 > 85	3.02	179.658	179.658	bb			0.0103			12.637	
245688013	Perchlorate-O(18)	107 > 89	3.01	22136.283	22136.283	bb			0.4825	96.50	-3.50	2702.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8057

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 245688014

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 70

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate Isotope Ratio						1	11-FEB-10 00:05	per0210060a
14797-73-0	Perchlorate-101	.712	2.85	0.712	ug/kg	U	1	11-FEB-10 00:05	per0210060a
	Perchlorate-O(18)			6.74	ug/kg		1	11-FEB-10 00:05	per0210060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210060a
Date: 11-Feb-2010
Time: 00:05:36
ID: 245688014
Vial: 2:4,B

|LANL|947143|SOLZO|1|

CW 02-12-10

Perchlorate

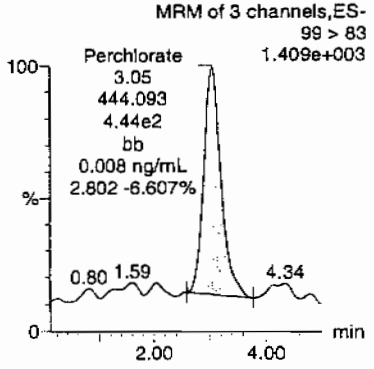

Perchlorate

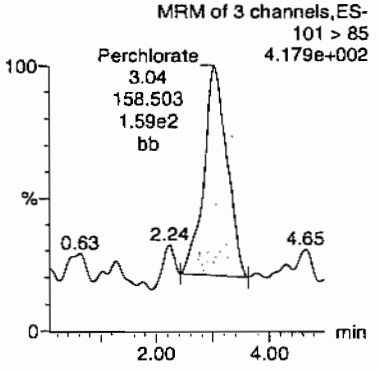

Perchlorate-101

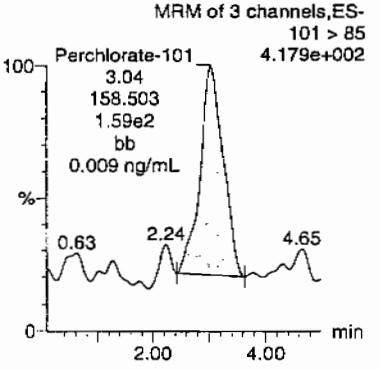

Perchlorate-O(18)

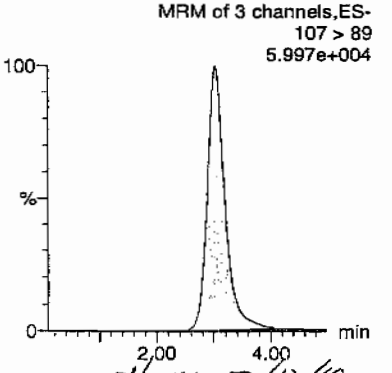

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245688014	Perchlorate	99 > 83	3.05	444.093	444.093	bb			0.0083			34.852	2.80
245688014	Perchlorate-101	101 > 85	3.04	158.503	158.503	bb			0.0091			10.803	
245688014	Perchlorate-O(18)	107 > 89	3.02	21717.648	21717.648	bb			0.4734	94.67	-5.33	1693.0...	

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1433

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 10–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 53724.06

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1433

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 10–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 17421.06

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per021010a.mdb 11 Feb 2010 11:00:00
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per021010a.cdb 11 Feb 2010 11:01:28

Compound name: Perchlorate
Response Factor: 53724.1
RRF SD: 1687.83, % Relative SD: 3.14166
Response type: External Std, Area
Curve type: RF

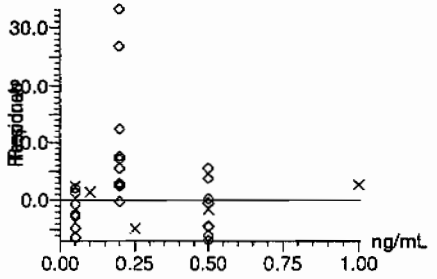

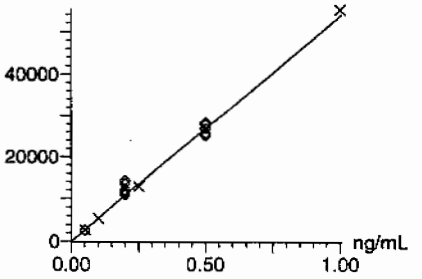

CWJ
02-12-10

Compound name: Perchlorate-101
Response Factor: 17421.1
RRF SD: 498.485, % Relative SD: 2.86139
Response type: External Std, Area
Curve type: RF

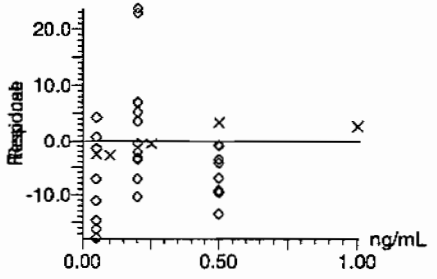

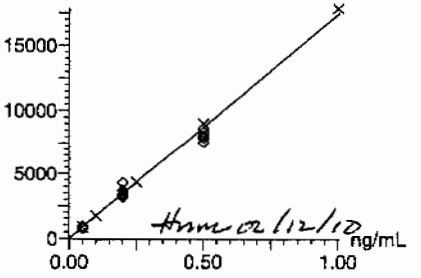

Hmm 02/12/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 45879.1
RRF SD: 538.911, % Relative SD: 1.17463
Response type: External Std, Area
Curve type: RF

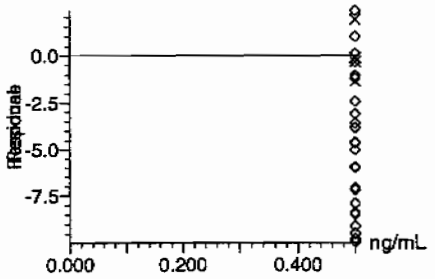

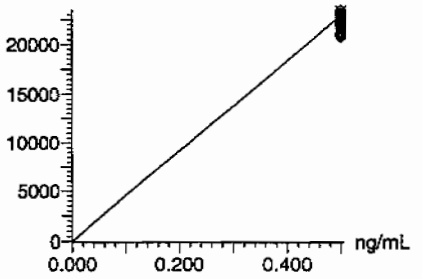

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.47	10–FEB–10 17:14	per0210009a
Perchlorate Isotope Ratio		3.28		10–FEB–10 17:14	per0210009a
Perchlorate–101	.5	.5	99.28	10–FEB–10 17:14	per0210009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210009a
Date: 10-Feb-2010
Time: 17:14:57
ID: WCL100128-06ICV
Vial: 1:2,A

Pass
CWW
02-12-10

Perchlorate

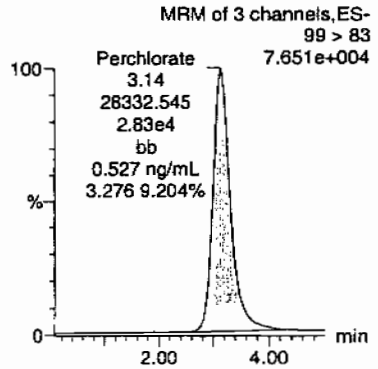

Perchlorate

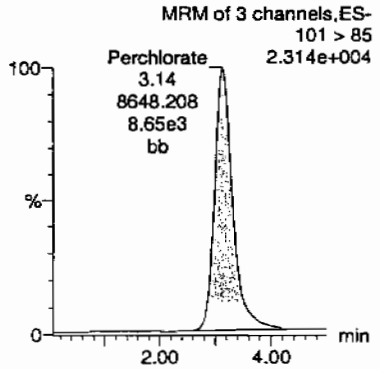

Perchlorate-101

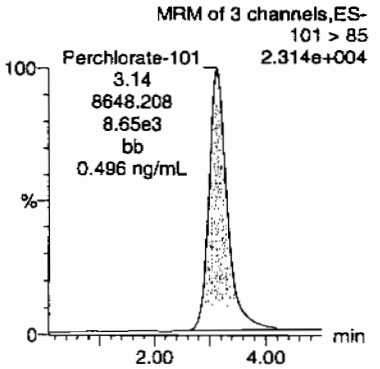

Perchlorate-O(18)

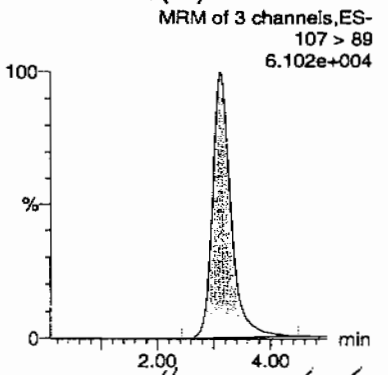

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	3.14	28332.545	28332.545	bb			0.5274	105.47	5.47	2177.6...	3.28
WCL100128-06ICV	Perchlorate-101	101 > 85	3.14	8648.208	8648.208	bb			0.4964	99.28	-0.72	903.296	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	3.12	22706.332	22706.332	bb			0.4949	98.98	-1.02	2076.4...	

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.49	10–FEB–10 18:59	per0210022a
Perchlorate Isotope Ratio		3.18		10–FEB–10 18:59	per0210022a
Perchlorate–101	.5	.48	96.44	10–FEB–10 18:59	per0210022a
Perchlorate	.5	.52	103.75	10–FEB–10 20:44	per0210035a
Perchlorate Isotope Ratio		3.23		10–FEB–10 20:44	per0210035a
Perchlorate–101	.5	.49	98.98	10–FEB–10 20:44	per0210035a
Perchlorate	.5	.5	100.2	10–FEB–10 22:28	per0210048a
Perchlorate Isotope Ratio		3.23		10–FEB–10 22:28	per0210048a
Perchlorate–101	.5	.48	95.75	10–FEB–10 22:28	per0210048a
Perchlorate	.5	.48	95.64	11–FEB–10 00:13	per0210061a
Perchlorate Isotope Ratio		3.18		11–FEB–10 00:13	per0210061a
Perchlorate–101	.5	.46	92.89	11–FEB–10 00:13	per0210061a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210022a
Date: 10-Feb-2010
Time: 18:59:30
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-12-10

Perchlorate

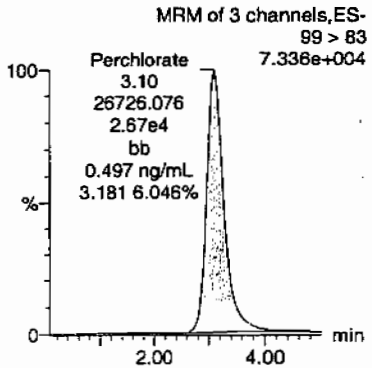

Perchlorate

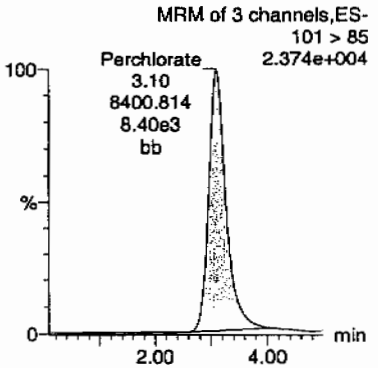

Perchlorate-101

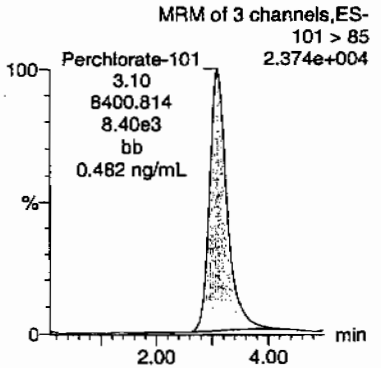

Perchlorate-O(18)

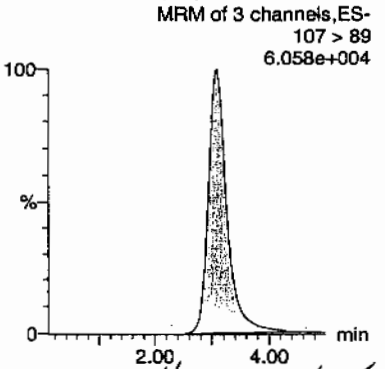

Hmm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	3.10	26726.076	26726.076	bb			0.4975	99.49	-0.51	620.949	3.18
WCL100128-06CCV	Perchlorate-101	101 > 85	3.10	8400.814	8400.814	bb			0.4822	96.44	-3.56	194.969	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	3.09	22664.828	22664.828	bb			0.4940	98.80	-1.20	2047.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210035a
Date: 10-Feb-2010
Time: 20:44:06
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-12-10

Perchlorate

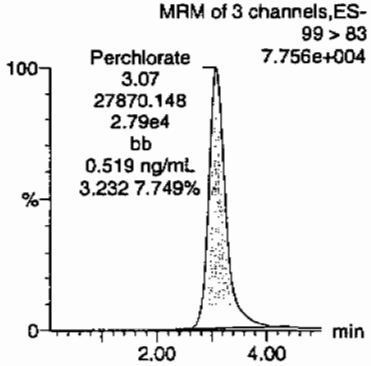

Perchlorate

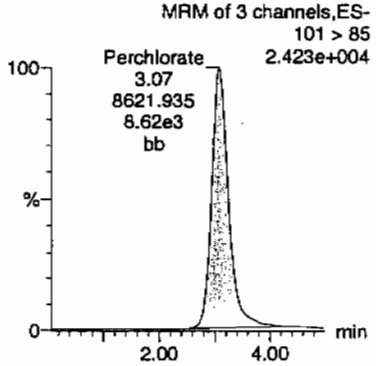

Perchlorate-101

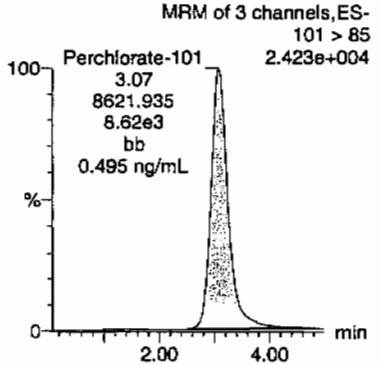

Perchlorate-O(18)

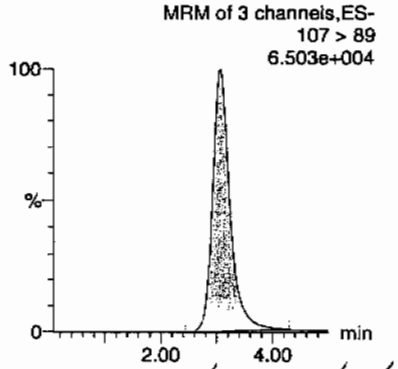

HMW 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	rS/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	3.07	27870.148	27870.148	bb			0.5188	103.75	3.75	3243.6...	3.23
WCL100128-06CCV	Perchlorate-101	101 > 85	3.07	8621.935	8621.935	bb			0.4949	98.98	-1.02	1297.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	3.06	23169.701	23169.701	bb			0.5050	101.00	1.00	2372.9...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210048a
Date: 10-Feb-2010
Time: 22:28:44
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-12-10

Perchlorate

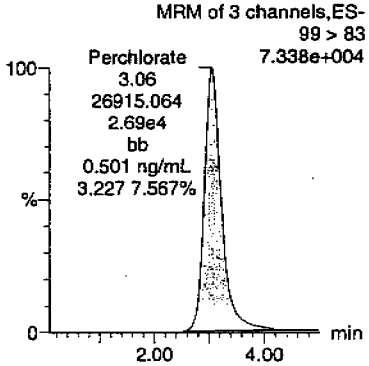

Perchlorate

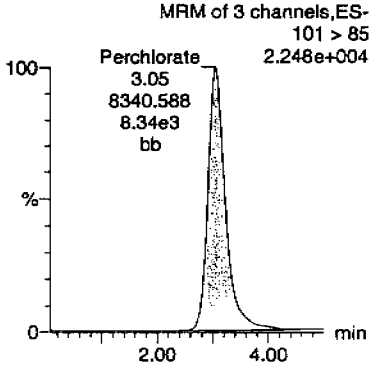

Perchlorate-101

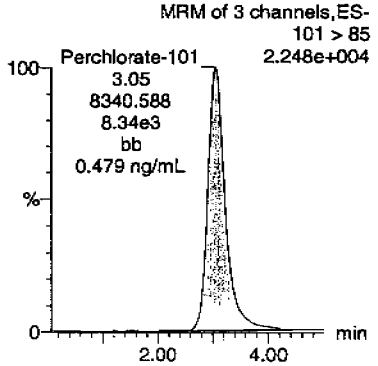

Perchlorate-O(18)

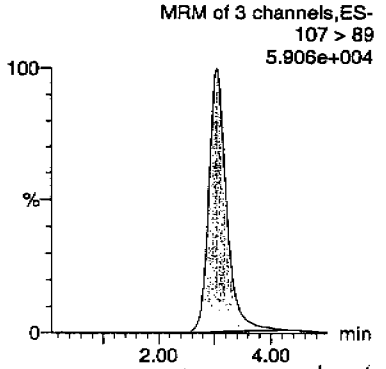

Hmm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	3.06	26915.064	26915.064	bb			0.5010	100.20	0.20	2066.6...	3.23
WCL100128-06CCV	Perchlorate-101	101 > 85	3.05	8340.588	8340.588	bb			0.4788	95.75	-4.25	1197.1...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	3.05	21560.695	21560.695	bb			0.4699	93.99	-6.01	3542.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210061a
Date: 11-Feb-2010
Time: 00:13:38
ID: WCL100128-06CCV
Vial: 1:2,A

PWD
ANO
02-12-10

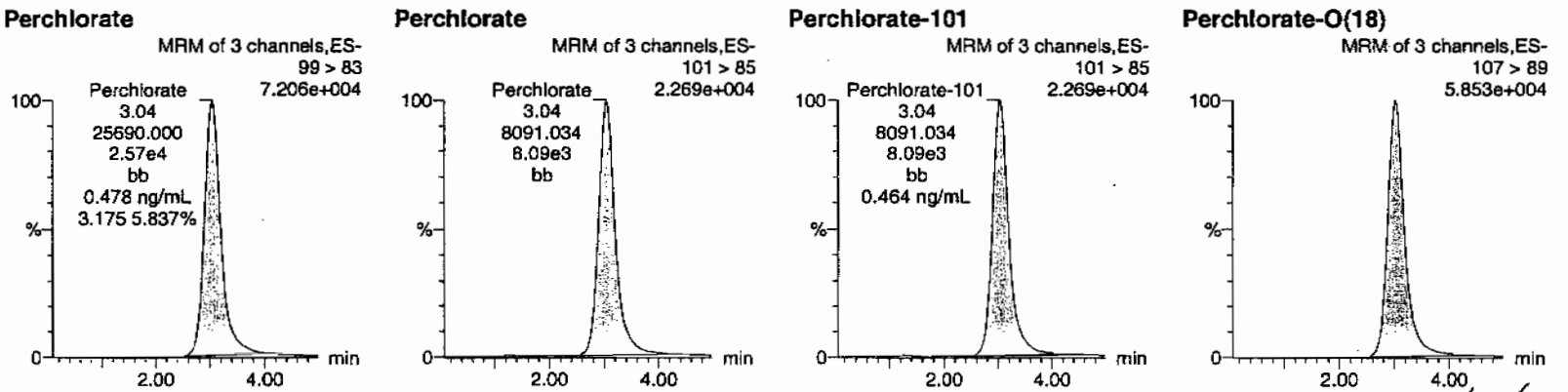

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	3.04	25690.000	25690.000	bb			0.4782	95.64	-4.36	1151.4...	3.18
WCL100128-06CCV	Perchlorate-101	101 > 85	3.04	8091.034	8091.034	bb			0.4644	92.89	-7.11	872.620	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	3.02	20993.113	20993.113	bb			0.4576	91.52	-8.48	1280.0...	

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.23	10–FEB–10 17:31	per0210011a
Perchlorate Isotope Ratio		2.88		10–FEB–10 17:31	per0210011a
Perchlorate–101	.05	.05	104.27	10–FEB–10 17:31	per0210011a
Perchlorate	.05	.05	101.19	10–FEB–10 19:15	per0210024a
Perchlorate Isotope Ratio		3.1		10–FEB–10 19:15	per0210024a
Perchlorate–101	.05	.05	100.82	10–FEB–10 19:15	per0210024a
Perchlorate	.05	.05	99.29	10–FEB–10 21:00	per0210037a
Perchlorate Isotope Ratio		3.3		10–FEB–10 21:00	per0210037a
Perchlorate–101	.05	.05	92.76	10–FEB–10 21:00	per0210037a
Perchlorate	.05	.05	102.06	10–FEB–10 22:45	per0210050a
Perchlorate Isotope Ratio		3.19		10–FEB–10 22:45	per0210050a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	98.65	10–FEB–10 22:45	per0210050a
Perchlorate	.05	.05	95.32	11–FEB–10 00:29	per0210063a
Perchlorate Isotope Ratio		3.31		11–FEB–10 00:29	per0210063a
Perchlorate–101	.05	.04	88.92	11–FEB–10 00:29	per0210063a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210011a
Date: 10-Feb-2010
Time: 17:31:02
ID: WCL100128-07CRI
Vial: 1:2,B

CWO
02-12-10

Perchlorate

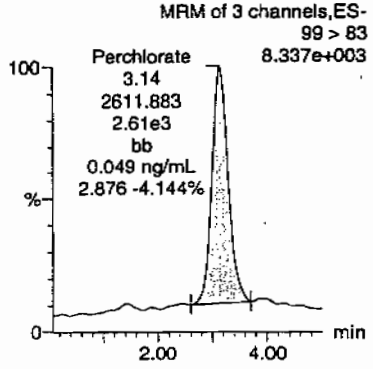

Perchlorate

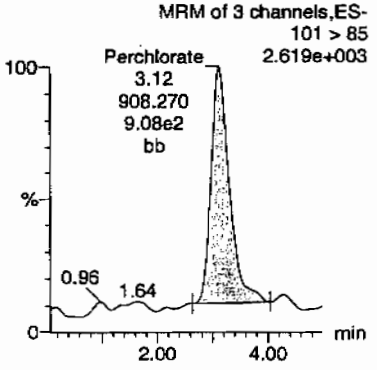

Perchlorate-101

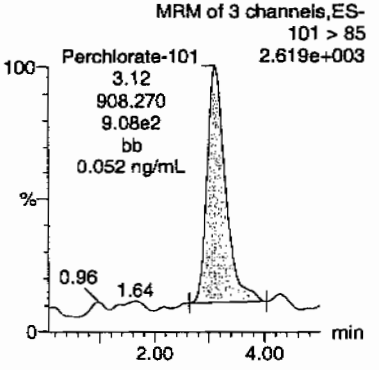

Perchlorate-O(18)

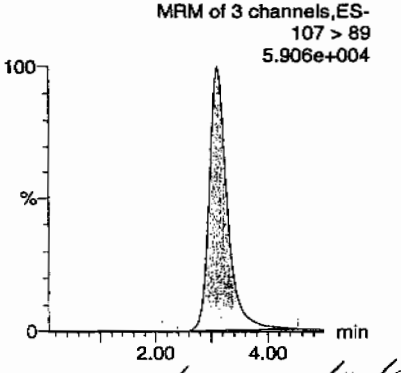

HMM 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.14	2611.883	2611.883	bb			0.0486	97.23	-2.77	154.089	2.88
WCL100128-07CRI	Perchlorate-101	101 > 85	3.12	908.270	908.270	bb			0.0521	104.27	4.27	79.164	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.11	22062.371	22062.371	bb			0.4809	96.18	-3.82	3185.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210024a
Date: 10-Feb-2010
Time: 19:15:35
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
ow
02-12-10

Perchlorate

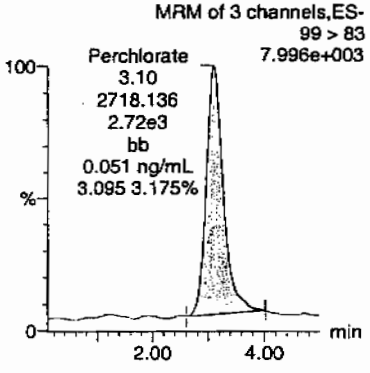

Perchlorate

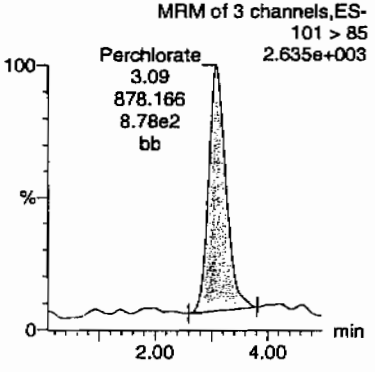

Perchlorate-101

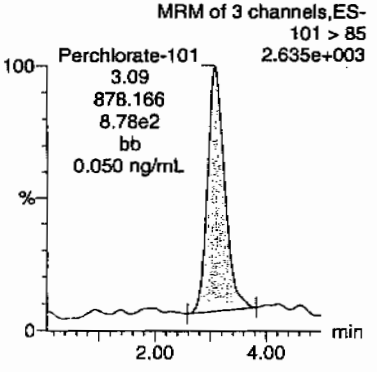

Perchlorate-O(18)

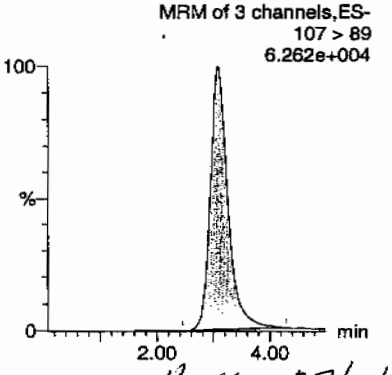

Hmc 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.10	2718.136	2718.136	bb			0.0506	101.19	1.19	198.559	3.10
WCL100128-07CRI	Perchlorate-101	101 > 85	3.09	878.166	878.166	bb			0.0504	100.82	0.82	159.042	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.07	22697.199	22697.199	bb			0.4947	98.94	-1.06	1319.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210037a
Date: 10-Feb-2010
Time: 21:00:11
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
ano
02-12-10

Perchlorate

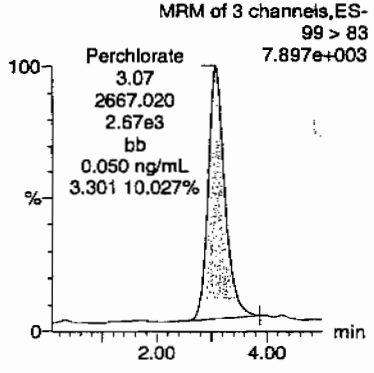

Perchlorate

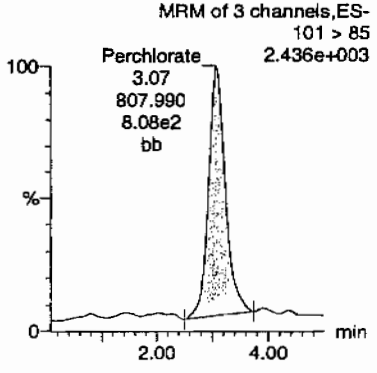

Perchlorate-101

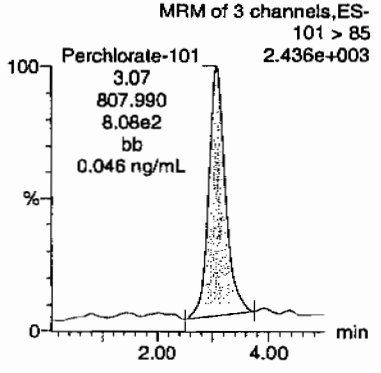

Perchlorate-O(18)

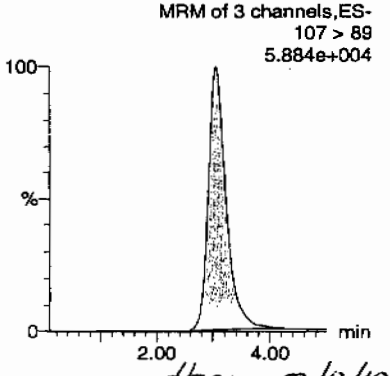

Hmm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.07	2667.020	2667.020	bb			0.0496	99.29	-0.71	154.068	3.30
WCL100128-07CRI	Perchlorate-101	101 > 85	3.07	807.990	807.990	bb			0.0464	92.76	-7.24	86.733	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.06	21287.656	21287.656	bb			0.4640	92.80	-7.20	4311.4...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210050a
Date: 10-Feb-2010
Time: 22:45:03
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
ano
02-12-10

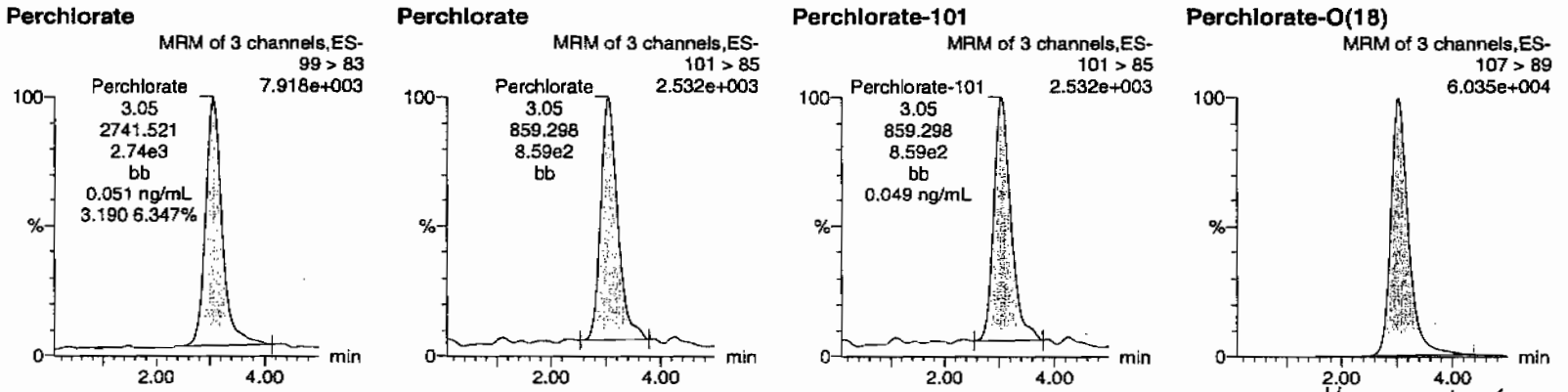

Hmm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.05	2741.521	2741.521	bb			0.0510	102.06	2.06	545.206	3.19
WCL100128-07CRI	Perchlorate-101	101 > 85	3.05	859.298	859.298	bb			0.0493	98.65	-1.35	176.126	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.04	22111.738	22111.738	bb			0.4820	96.39	-3.61	4340.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210063a
Date: 11-Feb-2010
Time: 00:29:58
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02-12-10

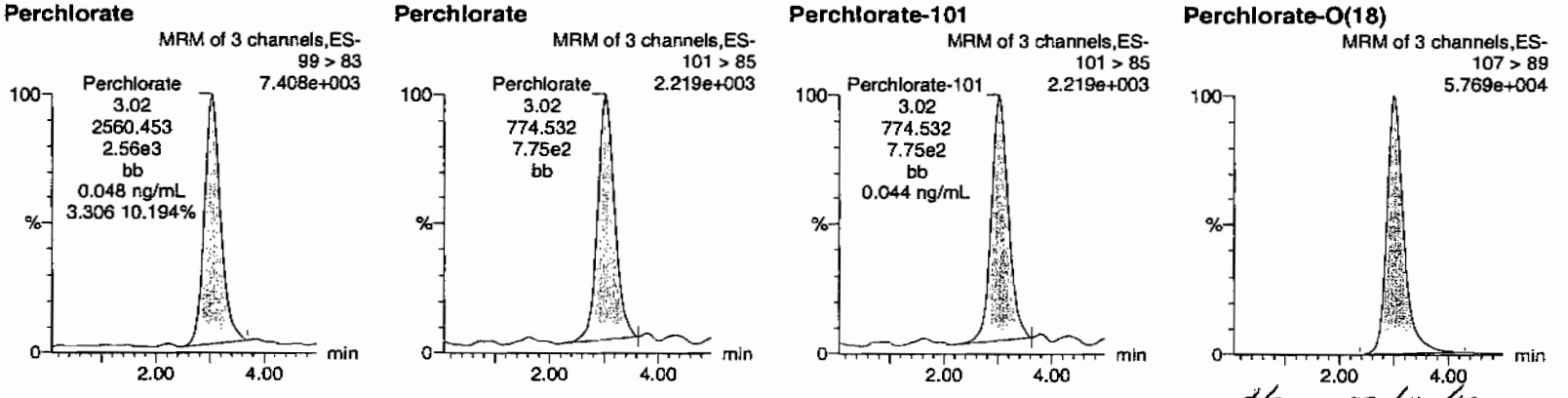

Hmm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	3.02	2560.453	2560.453	bb			0.0477	95.32	-4.68	375.153	3.31
WCL100128-07CRI	Perchlorate-101	101 > 85	3.02	774.532	774.532	bb			0.0445	88.92	-11.08	83.221	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	3.01	20765.645	20765.645	bb			0.4526	90.52	-9.48	2805.1...	

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 06-FEB-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 1202028867

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	10-FEB-10 21:08	per0210038a
	Perchlorate Isotope Ratio						1	10-FEB-10 21:08	per0210038a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	10-FEB-10 21:08	per0210038a
	Perchlorate-O(18)			4.76	ug/kg		1	10-FEB-10 21:08	per0210038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210038a
Date: 10-Feb-2010
Time: 21:08:15
ID: 1202028867
Vial: 2:1,A

|LANL|947148|SOLID|MB|1|

CWJ
02-12-10

Perchlorate

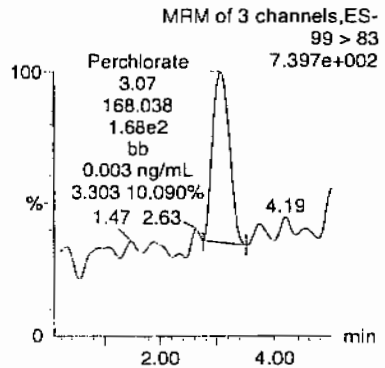

Perchlorate

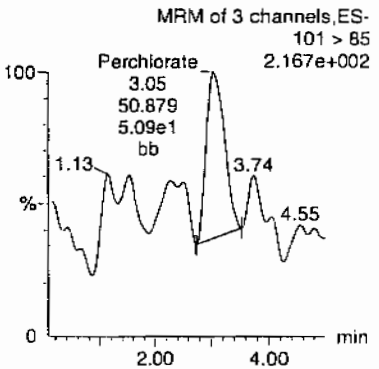

Perchlorate-101

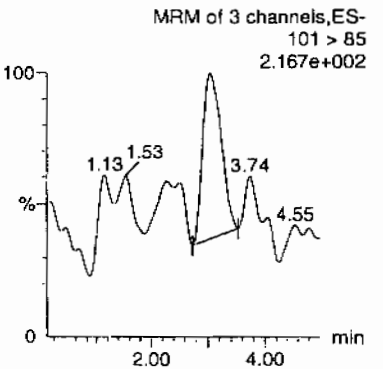

Perchlorate-O(18)

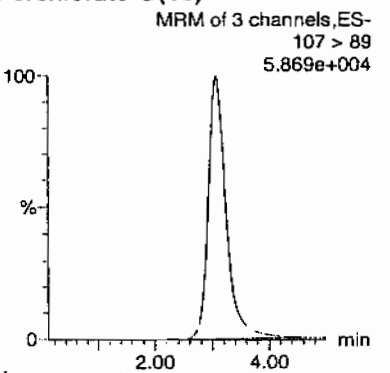

HMK 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028867	Perchlorate	99 > 83	3.07	168.038	168.038	bb			0.0031			10.513	3.30
1202028867	Perchlorate-101	101 > 85	3.05	50.879	50.879	bb			0.0029			12.402	
1202028867	Perchlorate-O(18)	107 > 89	3.07	21819.559	21819.559	bb			0.4756	95.12	-4.88	1062.2...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 06-FEB-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 1202028868

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.05	ug/kg		1	10-FEB-10 21:16	per0210039a
	Perchlorate Isotope Ratio			3.29			1	10-FEB-10 21:16	per0210039a
14797-73-0	Perchlorate-101	.5	2	1.93	ug/kg	J	1	10-FEB-10 21:16	per0210039a
	Perchlorate-O(18)			4.65	ug/kg		1	10-FEB-10 21:16	per0210039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210039a
Date: 10-Feb-2010
Time: 21:16:28
ID: 1202028868
Vial: 2:1,B

|LANL|947148|50120|LCS|1|

02-12-10

Perchlorate

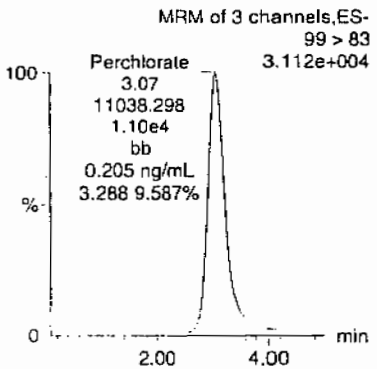

Perchlorate

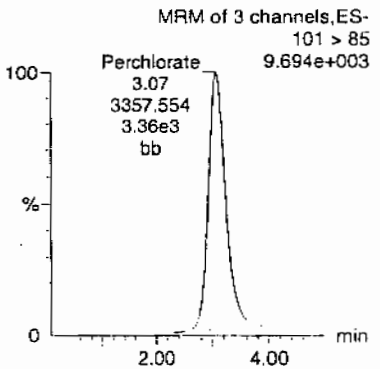

Perchlorate-101

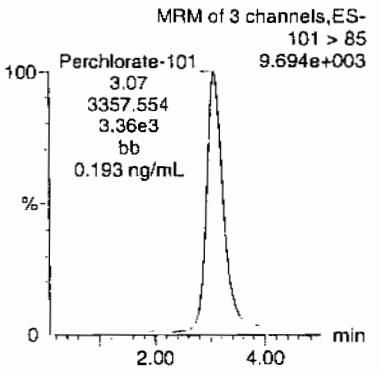

Perchlorate-O(18)

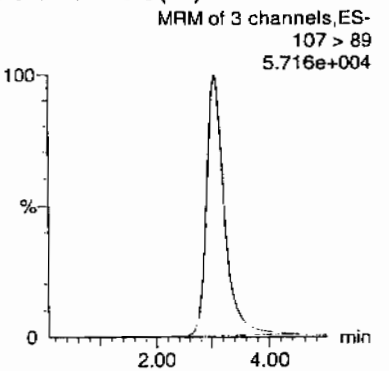

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028868	Perchlorate	99 > 83	3.07	11038.298	11038.298	bb			0.2055	102.73	2.73	408.107	3.29
1202028868	Perchlorate-101	101 > 85	3.07	3357.554	3357.554	bb			0.1927	96.36	-3.64	542.606	
1202028868	Perchlorate-O(18)	107 > 89	3.06	21315.061	21315.061	bb			0.4646	92.92	-7.08	720.781	

$\frac{11038.298}{53724.1} = 0.2055$ HMW 02/12/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7883MS

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 1202028869

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	2.97	ug/kg		1	10-FEB-10 21:48	per0210043a
	Perchlorate Isotope Ratio			3.17			1	10-FEB-10 21:48	per0210043a
14797-73-0	Perchlorate-101	.725	2.9	2.89	ug/kg	J	1	10-FEB-10 21:48	per0210043a
	Perchlorate-O(18)			6.68	ug/kg		1	10-FEB-10 21:48	per0210043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210043a
Date: 10-Feb-2010
Time: 21:48:34
ID: 1202028869
Vial: 2:1,F

LANL | 947148 | 5020 | MS | 1 |

WW 02-12-10

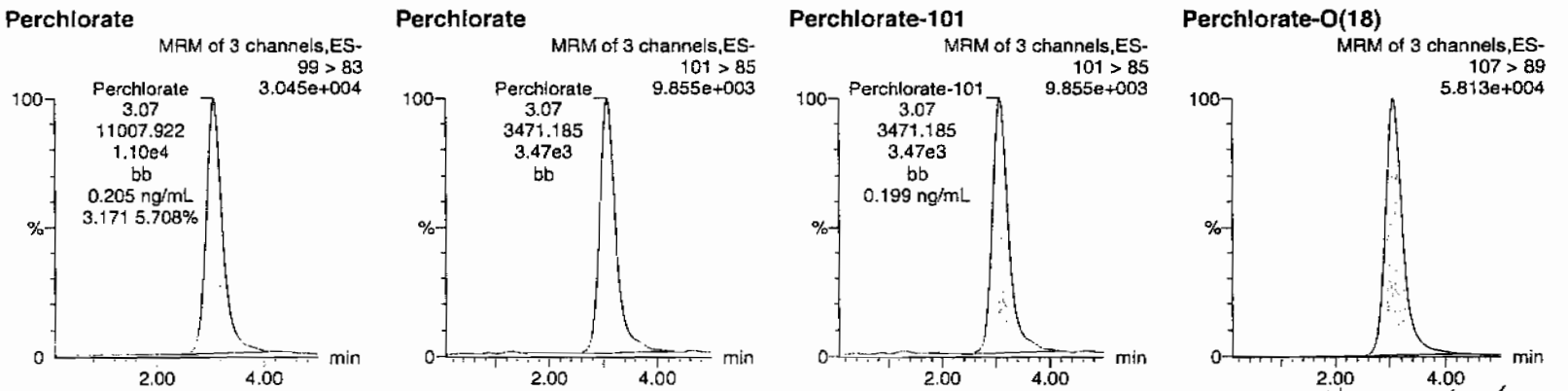

Hmm 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028869	Perchlorate	99 > 83	3.07	11007.922	11007.922	bb			0.2049	102.45	2.45	692.509	3.17
1202028869	Perchlorate-101	101 > 85	3.07	3471.185	3471.185	bb			0.1993	99.63	-0.37	485.844	
1202028869	Perchlorate-O(18)	107 > 89	3.06	21125.531	21125.531	bb			0.4605	92.09	-7.91	1850.3...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 947147

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7883MSD

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433

GEL Sample ID: 1202028870

Date Filtered: 06-FEB-10

Injection Volume (uL): 20

%Solids: 69

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.725	2.9	2.99	ug/kg		1	10-FEB-10 21:56	per0210044a
	Perchlorate Isotope Ratio			3.42			1	10-FEB-10 21:56	per0210044a
14797-73-0	Perchlorate-101	.725	2.9	2.69	ug/kg	J	1	10-FEB-10 21:56	per0210044a
	Perchlorate-O(18)			6.92	ug/kg		1	10-FEB-10 21:56	per0210044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per021010a.qld

Last Altered: Thursday, February 11, 2010 11:01:30 AM Eastern Standard Time
Printed: Thursday, February 11, 2010 11:13:00 AM Eastern Standard Time

Name: per0210044a
Date: 10-Feb-2010
Time: 21:56:35
ID: 1202028870
Vial: 2:2,A

|LANL|947148|5020|MSD|1|

02-12-10

Perchlorate

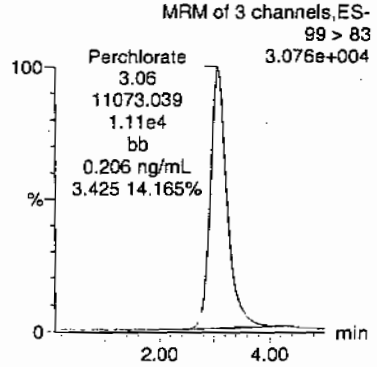

Perchlorate

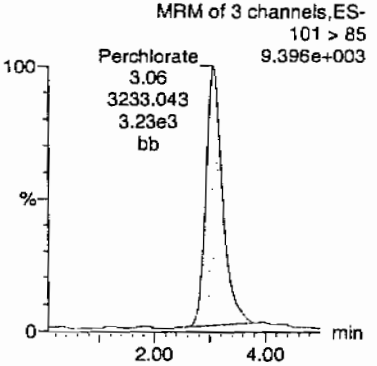

Perchlorate-101

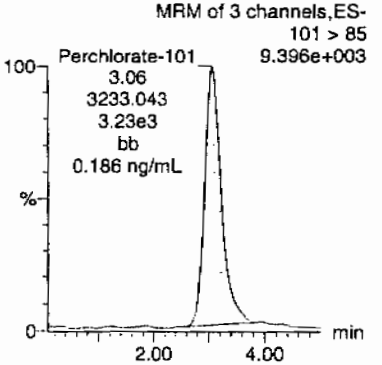

Perchlorate-O(18)

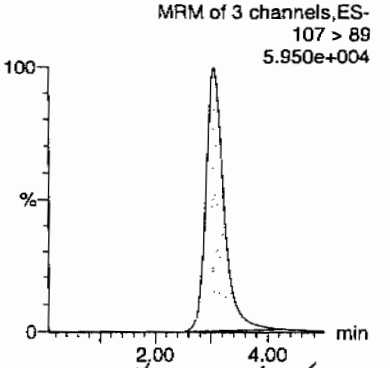

Hmw 02/12/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028870	Perchlorate	99 > 83	3.06	11073.039	11073.039	bb			0.2061	103.05	3.05	2331.5...	3.42
1202028870	Perchlorate-101	101 > 85	3.06	3233.043	3233.043	bb			0.1856	92.79	-7.21	223.417	
1202028870	Perchlorate-O(18)	107 > 89	3.05	21886.688	21886.688	bb			0.4771	95.41	-4.59	2698.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 947147 Verified by:
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202028867 MB	06-FEB-2010 13:24:00	2	20	10
1202028868 LCS	06-FEB-2010 13:24:00	2	20	10
245661001	06-FEB-2010 13:24:00	2	20	10
245688001	06-FEB-2010 13:24:00	2	20	10
1202028869 MS (245688001)	06-FEB-2010 13:24:00	2	20	10
1202028870 MSD (245688001)	06-FEB-2010 13:24:00	2	20	10
245688002	06-FEB-2010 13:24:00	2	20	10
245688003	06-FEB-2010 13:24:00	2	20	10
245688004	06-FEB-2010 13:24:00	2	20	10
245688005	06-FEB-2010 13:24:00	2	20	10
245688006	06-FEB-2010 13:24:00	2	20	10
245688007	06-FEB-2010 13:24:00	2	20	10
245688008	06-FEB-2010 13:24:00	2	20	10
245688009	06-FEB-2010 13:24:00	2	20	10
245688010	06-FEB-2010 13:24:00	2	20	10
245688011	06-FEB-2010 13:24:00	2	20	10
245688012	06-FEB-2010 13:24:00	2	20	10
245688013	06-FEB-2010 13:24:00	2	20	10
245688014	06-FEB-2010 13:24:00	2	20	10
1202028871 ICS	06-FEB-2010 13:24:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
ICS	1202028871	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL	Desalting cartridges used: 090812-1-Ba & 091230-1-H
LCS	1202028868	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL	
MS	1202028869	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL	
MSD	1202028870	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL	

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/10/10
Extr. Injection Volume: 20uL
Sequence Number: per021010a
Initial Calibration Date: 02/10/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: Hmc
Date: 02/12/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0210001a	IPB001	CWW	2/10/2010 16:10			1		USE	B
per0210002a	IPB001	CWW	2/10/2010 16:18			1		USE	B
per0210003a	WCLICAL-01	CWW	2/10/2010 16:26			1		USE	I
per0210004a	WCLICAL-02	CWW	2/10/2010 16:34			1		USE	I
per0210005a	WCLICAL-03	CWW	2/10/2010 16:42			1		USE	I
per0210006a	WCLICAL-04	CWW	2/10/2010 16:50			1		USE	I
per0210007a	WCLICAL-05	CWW	2/10/2010 16:58			1		USE	I
per0210008a	IPB002	CWW	2/10/2010 17:06			1		USE	B
per0210009a	WCLICV	CWW	2/10/2010 17:14			1		USE	C
per0210010a	IPB003	CWW	2/10/2010 17:23			1		USE	B
per0210011a	WCLCRI	CWW	2/10/2010 17:31			1		USE	C
per0210012a	1202028749	CWW	2/10/2010 17:39	947112	10-1392	1	LANL	USE	S
per0210013a	1202028750	CWW	2/10/2010 17:47	947112	10-1392	1	LANL	USE	S
per0210014a	1202028753	CWW	2/10/2010 17:55	947112	10-1392	1	LANL	USE	S
per0210015a	245394001	CWW	2/10/2010 18:03	947112	10-1392	1	LANL	USE	S
per0210016a	1202028751	CWW	2/10/2010 18:11	947112	10-1392	1	LANL	USE	S
per0210017a	1202028752	CWW	2/10/2010 18:19	947112	10-1392	1	LANL	USE	S
per0210018a	245394002	CWW	2/10/2010 18:27	947112	10-1392	1	LANL	USE	S
per0210019a	245394003	CWW	2/10/2010 18:35	947112	10-1392	1	LANL	USE	S
per0210020a	245394004	CWW	2/10/2010 18:43	947112	10-1392	1	LANL	USE	S
per0210021a	245394005	CWW	2/10/2010 18:51	947112	10-1392	1	LANL	USE	S
per0210022a	WCLCCV	CWW	2/10/2010 18:59			1		USE	C
per0210023a	IPB004	CWW	2/10/2010 19:07			1		USE	B
per0210024a	WCLCRI	CWW	2/10/2010 19:15			1		USE	C
per0210025a	245394006	CWW	2/10/2010 19:23	947112	10-1392	1	LANL	USE	S
per0210026a	245394007	CWW	2/10/2010 19:31	947112	10-1392	1	LANL	USE	S
per0210027a	245394008	CWW	2/10/2010 19:39	947112	10-1392	1	LANL	USE	S
per0210028a	245394009	CWW	2/10/2010 19:47	947112	10-1392	1	LANL	USE	S
per0210029a	245394010	CWW	2/10/2010 19:55	947112	10-1392	1	LANL	USE	S

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per0210030a	245394011	CWW	2/10/2010 20:03	947112	10-1392	1	LANL	USE	S
per0210031a	245394012	CWW	2/10/2010 20:11	947112	10-1392	1	LANL	USE	S
per0210032a	245394013	CWW	2/10/2010 20:19	947112	10-1392	1	LANL	USE	S
per0210033a	245394014	CWW	2/10/2010 20:27	947112	10-1392	1	LANL	USE	S
per0210034a	245394015	CWW	2/10/2010 20:36	947112	10-1392	1	LANL	USE	S
per0210035a	WCLCCV	CWW	2/10/2010 20:44			1		USE	C
per0210036a	IPB005	CWW	2/10/2010 20:52			1		USE	B
per0210037a	WCLCRI	CWW	2/10/2010 21:00			1		USE	C
per0210038a	1202028867	CWW	2/10/2010 21:08	947148	VARIOUS	1	LANL	USE	S
per0210039a	1202028868	CWW	2/10/2010 21:16	947148	VARIOUS	1	LANL	USE	S
per0210040a	1202028871	CWW	2/10/2010 21:24	947148	VARIOUS	1	LANL	USE	S
per0210041a	245661001	CWW	2/10/2010 21:32	947148	10-1435	1	LANL	USE	S
per0210042a	245688001	CWW	2/10/2010 21:40	947148	10-1433	1	LANL	USE	S
per0210043a	1202028869	CWW	2/10/2010 21:48	947148	10-1433	1	LANL	USE	S
per0210044a	1202028870	CWW	2/10/2010 21:56	947148	10-1433	1	LANL	USE	S
per0210045a	245688002	CWW	2/10/2010 22:04	947148	10-1433	1	LANL	USE	S
per0210046a	245688003	CWW	2/10/2010 22:12	947148	10-1433	1	LANL	USE	S
per0210047a	245688004	CWW	2/10/2010 22:20	947148	10-1433	1	LANL	USE	S
per0210048a	WCLCCV	CWW	2/10/2010 22:28			1		USE	C
per0210049a	IPB006	CWW	2/10/2010 22:37			1		USE	B
per0210050a	WCLCRI	CWW	2/10/2010 22:45			1		USE	C
per0210051a	245688005	CWW	2/10/2010 22:53	947148	10-1433	1	LANL	USE	S
per0210052a	245688006	CWW	2/10/2010 23:01	947148	10-1433	1	LANL	USE	S
per0210053a	245688007	CWW	2/10/2010 23:09	947148	10-1433	1	LANL	USE	S
per0210054a	245688008	CWW	2/10/2010 23:17	947148	10-1433	1	LANL	USE	S
per0210055a	245688009	CWW	2/10/2010 23:25	947148	10-1433	1	LANL	USE	S
per0210056a	245688010	CWW	2/10/2010 23:33	947148	10-1433	1	LANL	USE	S
per0210057a	245688011	CWW	2/10/2010 23:41	947148	10-1433	1	LANL	USE	S
per0210058a	245688012	CWW	2/10/2010 23:49	947148	10-1433	1	LANL	USE	S
per0210059a	245688013	CWW	2/10/2010 23:57	947148	10-1433	1	LANL	USE	S
per0210060a	245688014	CWW	2/11/2010 0:05	947148	10-1433	1	LANL	USE	S
per0210061a	WCLCCV	CWW	2/11/2010 0:13			1		USE	C
per0210062a	IPB007	CWW	2/11/2010 0:21			1		USE	B
per0210063a	WCLCRI	CWW	2/11/2010 0:29			1		USE	C
per0210064a	1202028862	CWW	2/11/2010 0:37	947145	10-1417	1	LANL	USE	S
per0210065a	1202028863	CWW	2/11/2010 0:46	947145	10-1417	1	LANL	USE	S
per0210066a	1202028866	CWW	2/11/2010 0:54	947145	10-1417	1	LANL	USE	S

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per0210067a	245612001	CWW	2/11/2010 1:02	947145	10-1417	1	LANL	USE	S
per0210068a	1202028864	CWW	2/11/2010 1:10	947145	10-1417	1	LANL	USE	S
per0210069a	1202028865	CWW	2/11/2010 1:18	947145	10-1417	1	LANL	USE	S
per0210070a	245612002	CWW	2/11/2010 1:26	947145	10-1417	1	LANL	USE	S
per0210071a	WCLCCV	CWW	2/11/2010 1:34			1		USE	C
per0210072a	IPB008	CWW	2/11/2010 1:42			1		USE	B
per0210073a	WCLCRI	CWW	2/11/2010 1:50			1		USE	C
per0210074a	245612003	CWW	2/11/2010 1:58	947145	10-1417	1	LANL	USE	S
per0210075a	245612004	CWW	2/11/2010 2:07	947145	10-1417	1	LANL	USE	S
per0210076a	245612005	CWW	2/11/2010 2:15	947145	10-1417	1	LANL	USE	S
per0210077a	245612006	CWW	2/11/2010 2:23	947145	10-1417	1	LANL	USE	S
per0210078a	245612007	CWW	2/11/2010 2:31	947145	10-1417	1	LANL	USE	S
per0210079a	245612008	CWW	2/11/2010 2:39	947145	10-1417	1	LANL	USE	S
per0210080a	245612009	CWW	2/11/2010 2:47	947145	10-1417	1	LANL	USE	S
per0210081a	WCLCCV	CWW	2/11/2010 2:55			1		USE	C
per0210082a	IPB009	CWW	2/11/2010 3:03			1		USE	B
per0210083a	WCLCRI	CWW	2/11/2010 3:11			1		USE	C
per0210084a	245612010	CWW	2/11/2010 3:20	947145	10-1417	1	LANL	USE	S
per0210085a	245612011	CWW	2/11/2010 3:28	947145	10-1417	1	LANL	USE	S
per0210086a	245612012	CWW	2/11/2010 3:36	947145	10-1417	1	LANL	USE	S
per0210087a	245612013	CWW	2/11/2010 3:45	947145	10-1417	1	LANL	USE	S
per0210088a	245612014	CWW	2/11/2010 3:53	947145	10-1417	1	LANL	USE	S
per0210089a	245612015	CWW	2/11/2010 4:01	947145	10-1417	1	LANL	USE	S
per0210090a	245612016	CWW	2/11/2010 4:09	947145	10-1417	1	LANL	USE	S
per0210091a	WCLCCV	CWW	2/11/2010 4:17			1		USE	C
per0210092a	IPB010	CWW	2/11/2010 4:26			1		USE	B
per0210093a	WCLCRI	CWW	2/11/2010 4:34			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1433-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	947199
Prep Batch Number:	947198

Sample Analysis

Sample ID	Client ID
245690001	RE15-10-8080
245690002	RE15-10-8079
1202028966	Interference Check Sample (ICS)
1202028960	Method Blank (MB)
1202028961	Laboratory Control Sample (LCS)
1202028962	245614001(RE46-10-11838) Matrix Spike (MS)
1202028963	245614001(RE46-10-11838) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245614001 (RE46-10-11838) from SDG 10-1417-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather Mauer **Date:** 02/06/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8080

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690001

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate Isotope Ratio						1	31-JAN-10 20:57	per0131069a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate-O(18)			0.478	ug/L		1	31-JAN-10 20:57	per0131069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8079

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:04	per0131070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate-O(18)			0.504	ug/L		1	31-JAN-10 21:04	per0131070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1433-1

Extract Batch Code: 947198

Date Filtered: 30-JAN-10

Matrix: WATER

Sample ID: 1202028961

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.199	ug/L	99.4		85 – 115
Perchlorate Isotope Ratio		3.1				–
Perchlorate-101	0.200	.191	ug/L	95.3		85 – 115
Perchlorate-O(18)		.455	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEI

GEL Job No. (SDG): 10–1433–1

Extract Batch Code: 947198

Date Filtered: 30–JAN–10

Matrix: SURFACE WATE

Sample ID: 1202028966

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.2	ug/L	100		70 – 130
Perchlorate Isotope Ratio		3.04				
Perchlorate–101	0.200	.196	ug/L	98		70 – 130
Perchlorate–O(18)		.475	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131048a
Date: 31-Jan-2010
Time: 18:17:55
ID: 1202028966
Vial: 2:1,C

|LANL|947199|LIQ|ICS|1|

WW
02-01-10

Perchlorate

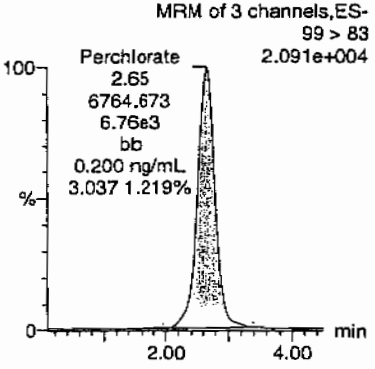

Perchlorate

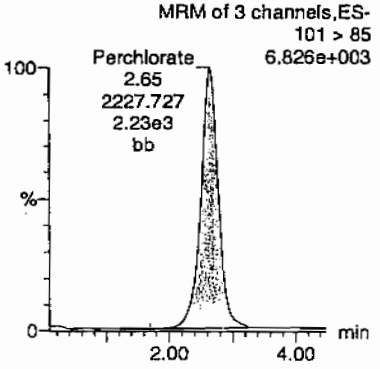

Perchlorate-101

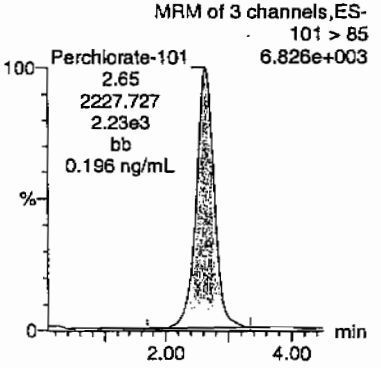

Perchlorate-O(18)

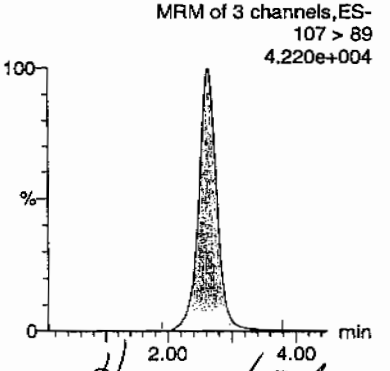

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028966	Perchlorate	99 > 83	2.65	6764.673	6764.673	bb			0.2000	100.01	0.01	722.076	3.04
1202028966	Perchlorate-101	101 > 85	2.65	2227.727	2227.727	bb			0.1960	97.99	-2.01	600.092	
1202028966	Perchlorate-O(18)	107 > 89	2.64	13812.098	13812.098	bb			0.4749	94.98	-5.02	4165.3...	

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1433–1

Extract Batch Code: 947198

Date Extracted: 30–JAN–10

GEL MS/PS ID: 1202028962

Client ID: RE46–10–11838

GEL MSD/PSD ID: 1202028963

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00266	ug/L	0.204	101	.196	96.5	4.16	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.07		2.95		0		–
Perchlorate–101	0.200	0.00	ug/L	0.198	98.9	.198	98.8	.103	30	75 – 125
Perchlorate–O(18)	0	0.438	ug/L	0.475		.484		1.83		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	31–JAN–10	per0131001a	IPB001
Perchlorate–101	0.00	0	NA	31–JAN–10	per0131001a	IPB001
Perchlorate	0.00	0	NA	31–JAN–10	per0131002a	IPB001
Perchlorate–101	0.00	0	NA	31–JAN–10	per0131002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per013110a.mdb 01 Feb 2010 10:44:50
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per013110a.cdb 01 Feb 2010 10:45:05

Name: per0131001a
Date: 31-Jan-2010
Time: 12:23:18
ID: IPB001
Vial: 1:1,A

02-01-10

Perchlorate

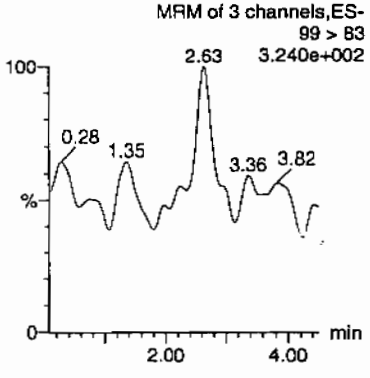

Perchlorate

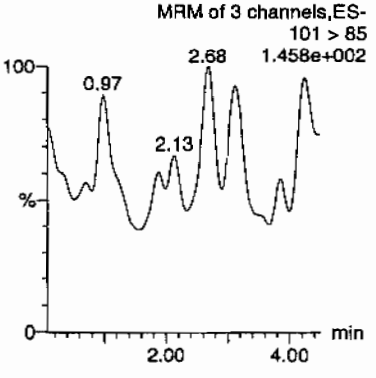

Perchlorate-101

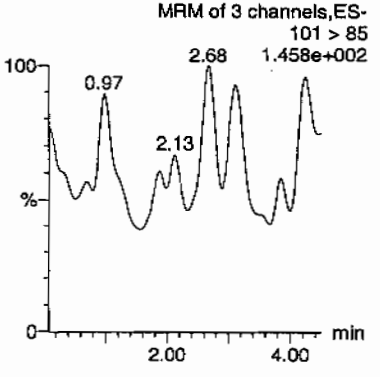

Perchlorate-O(18)

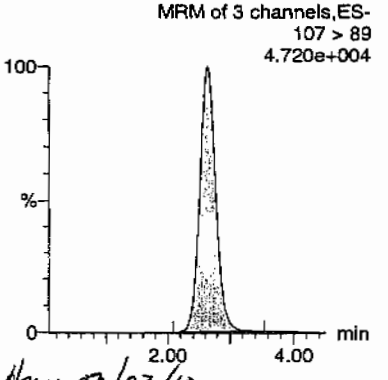

Hmc 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.64	14142.885	14142.885	bb			0.4863	97.26	-2.74	1262.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131002a
Date: 31-Jan-2010
Time: 12:30:50
ID: IPB001
Vial: 1:1,A

aw
02-01-10

Perchlorate

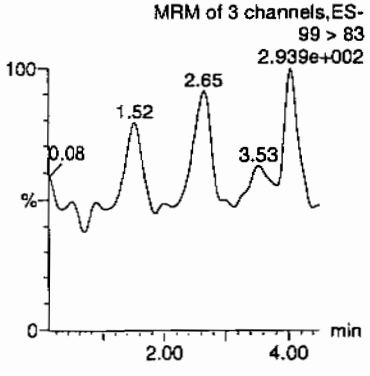

Perchlorate

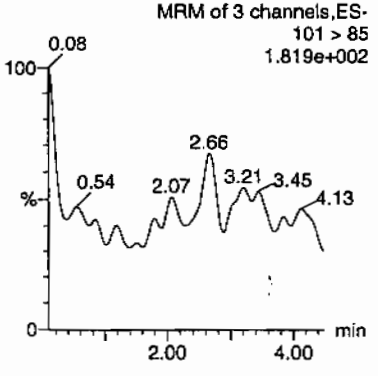

Perchlorate-101

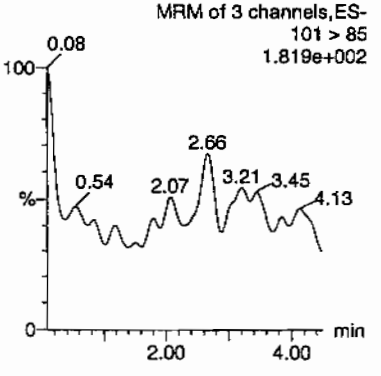

Perchlorate-O(18)

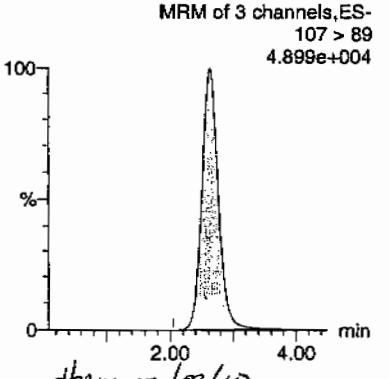

HMW 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.64	14670.820	14670.820	bb			0.5044	100.89	0.89	7699.2...	

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	31-JAN-10	per0131008a	IPB002
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131008a	IPB002
Perchlorate	0.00	0	NA	31-JAN-10	per0131010a	IPB003
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131010a	IPB003
Perchlorate	0.00	0	NA	31-JAN-10	per0131022a	IPB004
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131022a	IPB004
Perchlorate	0.00	0	NA	31-JAN-10	per0131033a	IPB005
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131033a	IPB005
Perchlorate	0.00	0	NA	31-JAN-10	per0131044a	IPB006
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131044a	IPB006
Perchlorate	0.00	0	NA	31-JAN-10	per0131055a	IPB007
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131055a	IPB007
Perchlorate	0.00	0	NA	31-JAN-10	per0131066a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131066a	IPB008
Perchlorate	0.00	0	NA	31-JAN-10	per0131075a	IPB009
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131075a	IPB009
Perchlorate	0.00	0	NA	31-JAN-10	per0131078a	IPB010
Perchlorate-101	0.00	0	NA	31-JAN-10	per0131078a	IPB010

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131008a
Date: 31-Jan-2010
Time: 13:15:57
ID: IPB002
Vial: 1:1,A

CWW
02-01-10

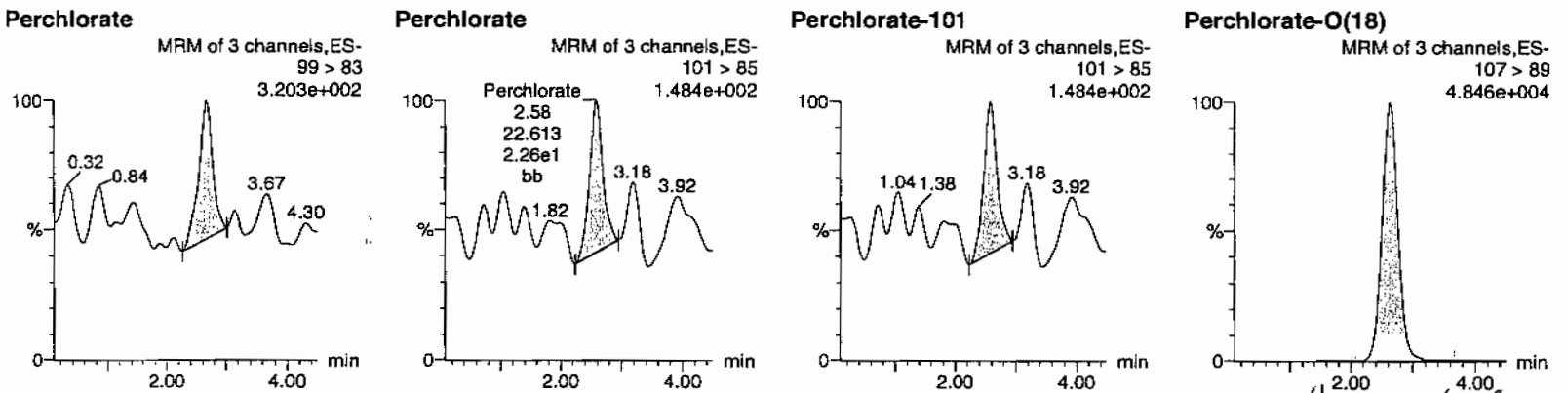

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	2.66	48.090	48.090	bb			0.0014			8.037	2.13
IPB002	Perchlorate-101	101 > 85	2.58	22.613	22.613	bb			0.0020			5.380	
IPB002	Perchlorate-O(18)	107 > 89	2.63	14490.285	14490.285	bb			0.4982	99.65	-0.35	1594.1...	

okay
WCOD

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131010a
Date: 31-Jan-2010
Time: 13:31:01
ID: IPB003
Vial: 1:1,A

02-01-10

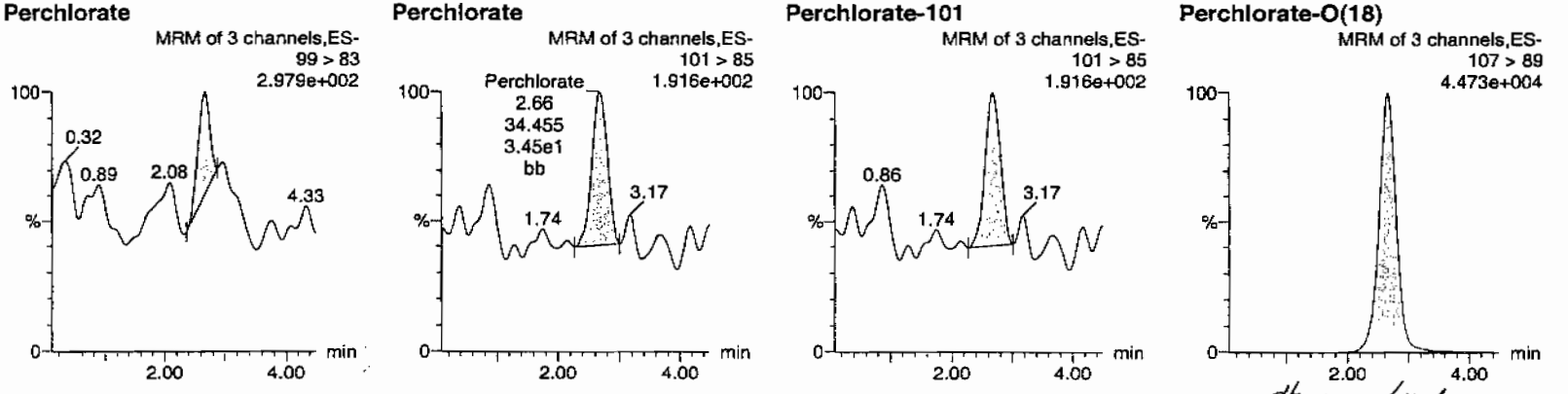

HMM 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	2.66	27.957	27.957	bb			0.0008			6.487	0.81
IPB003	Perchlorate-101	101 > 85	2.66	34.455	34.455	bb			0.0030			10.133	
IPB003	Perchlorate-O(18)	107 > 89	2.65	14485.047	14485.047	bb			0.4981	99.61	-0.39	3915.2...	

0.0004
LO.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131022a
Date: 31-Jan-2010
Time: 15:01:35
ID: IPB004
Vial: 1:1,A

CWW
02-01-10

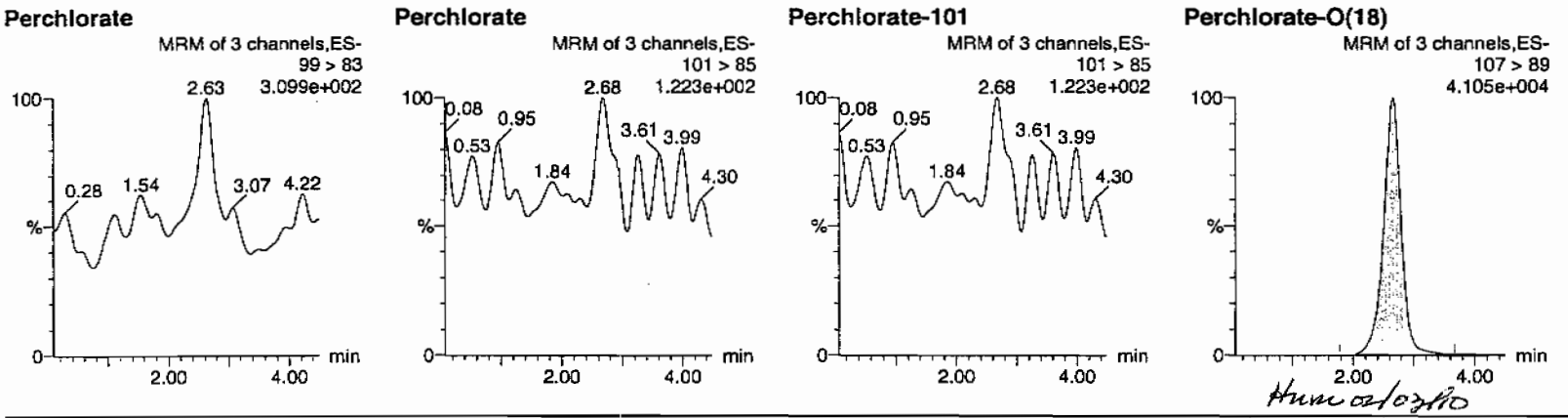

Hum 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.65	13877.979	13877.979	bb			0.4772	95.44	-4.56	576.575	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131033a
Date: 31-Jan-2010
Time: 16:24:34
ID: IPB005
Vial: 1:1,A

CW
02-01-10

Perchlorate

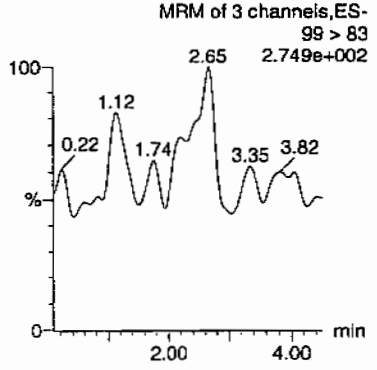

Perchlorate

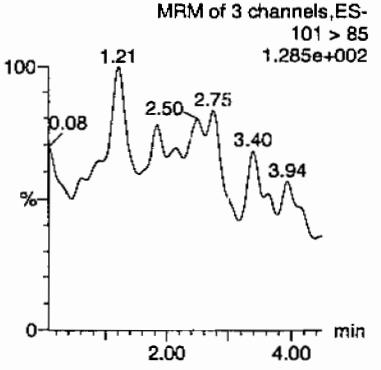

Perchlorate-101

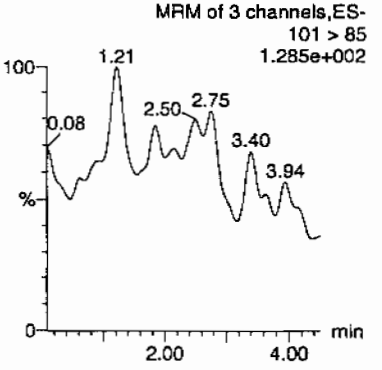

Perchlorate-O(18)

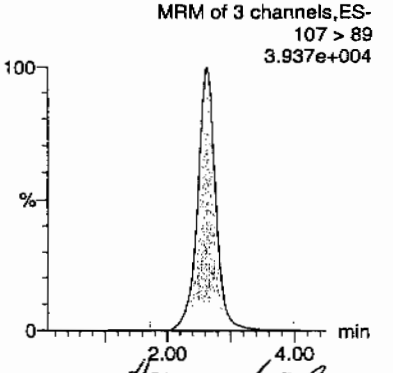

Annualozho

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.63	13136.926	13136.926	bb			0.4517	90.34	-9.66	4624.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131044a
Date: 31-Jan-2010
Time: 17:47:37
ID: IPB006
Vial: 1:1,A

Cw
02-01-10

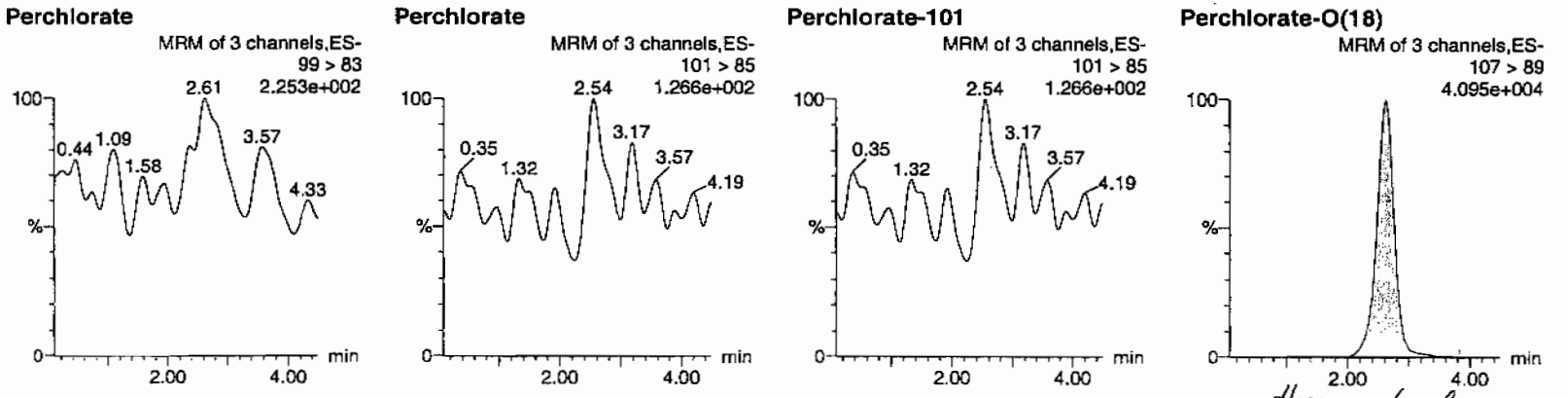

Hmw 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	2.61	13693.361	13693.361	bb			0.4708	94.17	-5.83	3955.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131055a
Date: 31-Jan-2010
Time: 19:10:53
ID: IPB007
Vial: 1:1,A

02-01-10

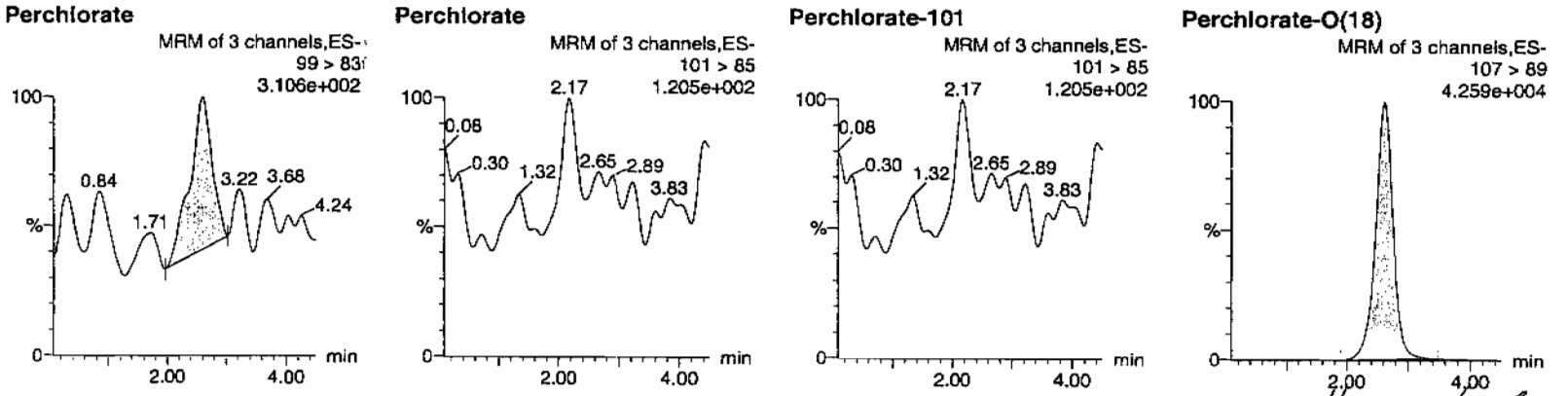

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	2.59	81.753	81.753	bb			0.0024			4.141	0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	2.61	13936.795	13936.795	bb			0.4792	95.84	-4.16	4415.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131066a
Date: 31-Jan-2010
Time: 20:34:13
ID: IPB008
Vial: 1:1,A

GWO
02-01-10

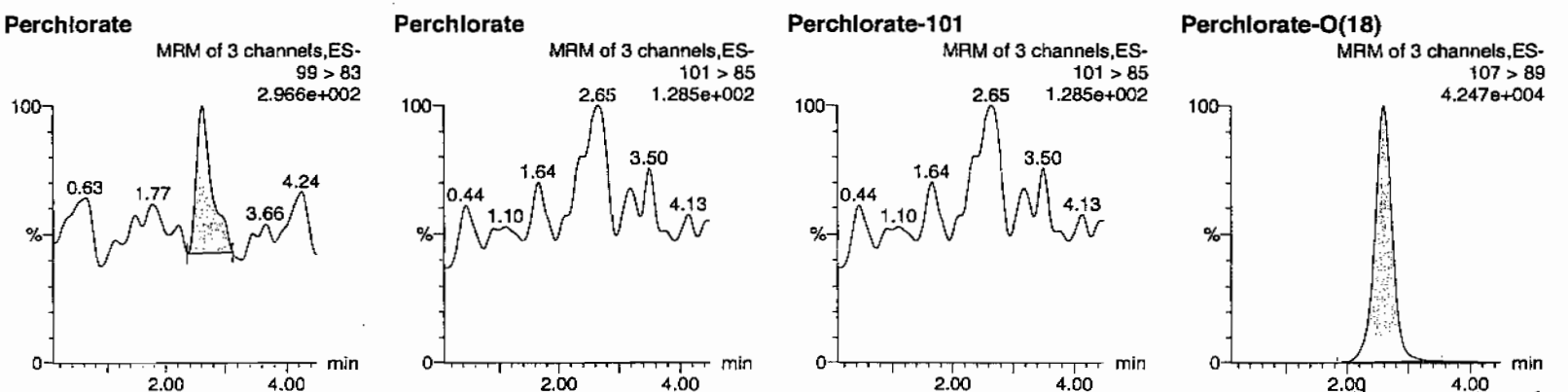

HMW 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	2.61	52.781	52.781	bb			0.0016			11.563	0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	2.60	14030.887	14030.887	bb			0.4824	96.49	-3.51	3435.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131075a
Date: 31-Jan-2010
Time: 21:42:14
ID: IPB009
Vial: 1:1,A

CWW
02-01-10

Perchlorate

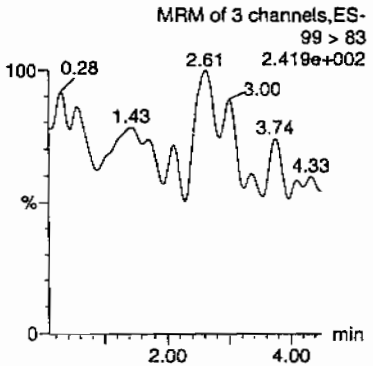

Perchlorate

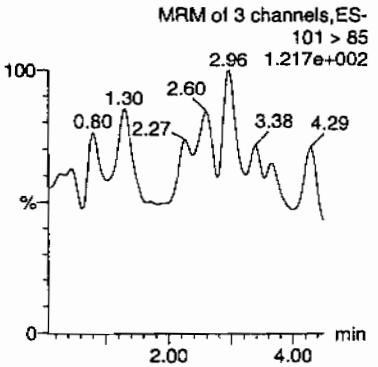

Perchlorate-101

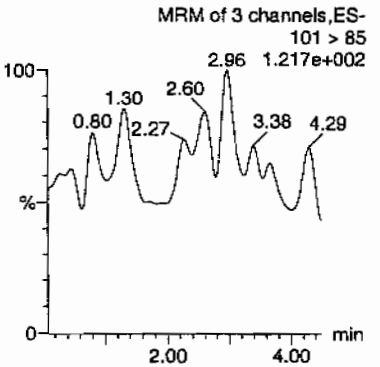

Perchlorate-O(18)

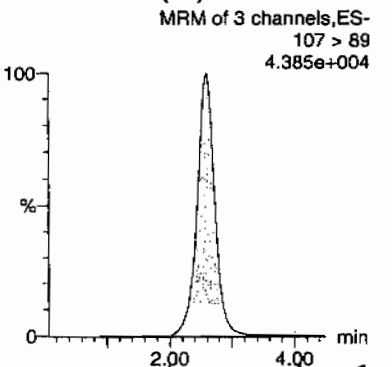

Hum 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	2.59	14440.522	14440.522	bb			0.4965	99.31	-0.69	3410.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131078a
Date: 31-Jan-2010
Time: 22:05:33
ID: IPB010
Vial: 1:1,A

CWJ
02-01-10

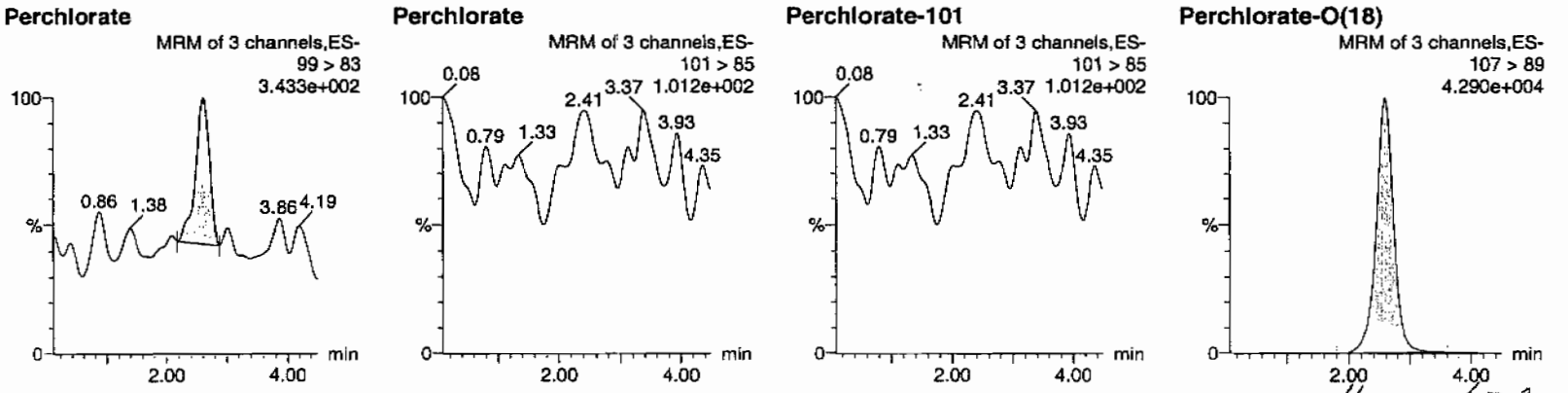

HMW 1/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83	2.61	54.315	54.315	bb			0.0016			12.130	0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	2.60	14165.403	14165.403	bb			0.4871	97.41	-2.59	1328.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

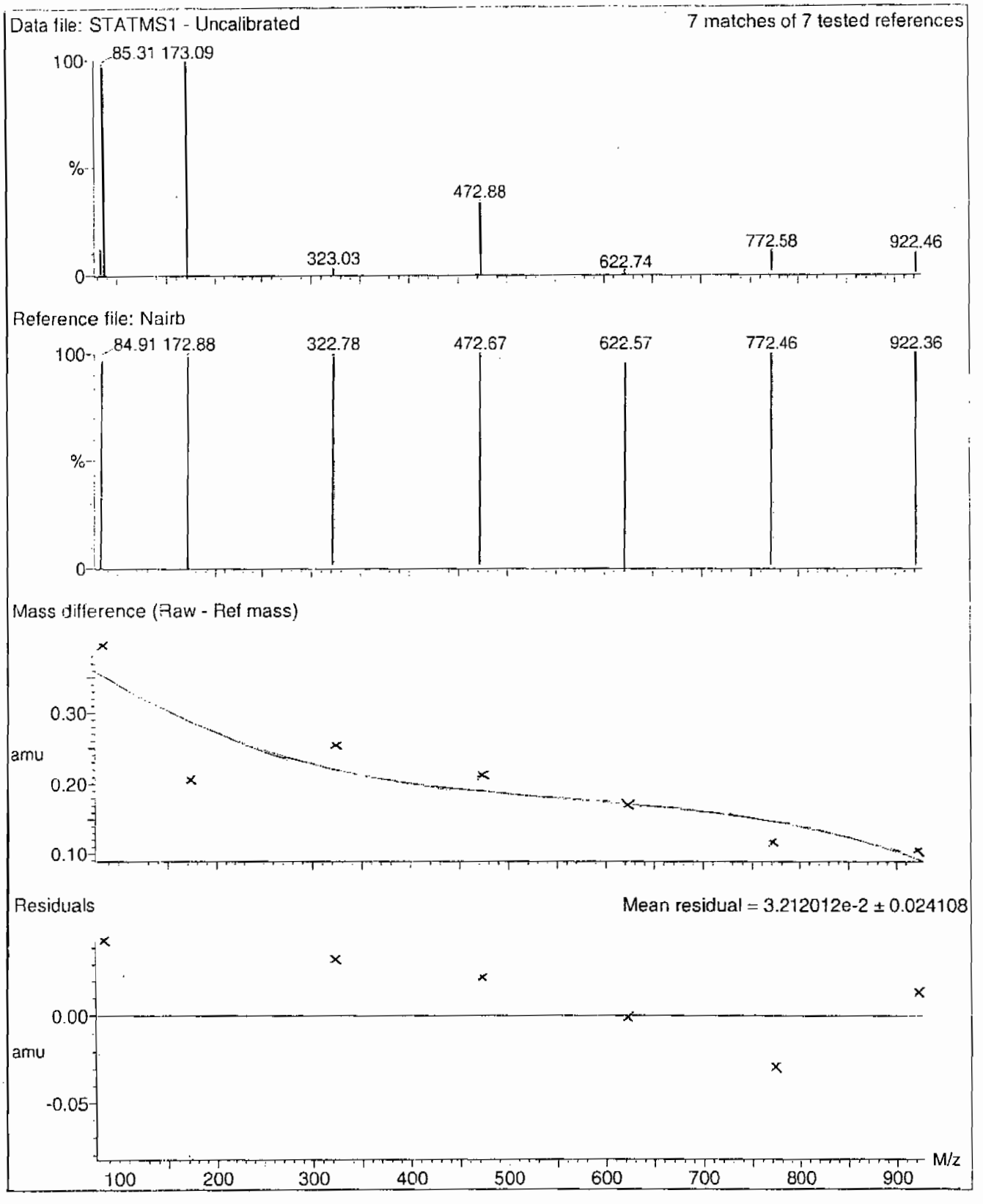

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

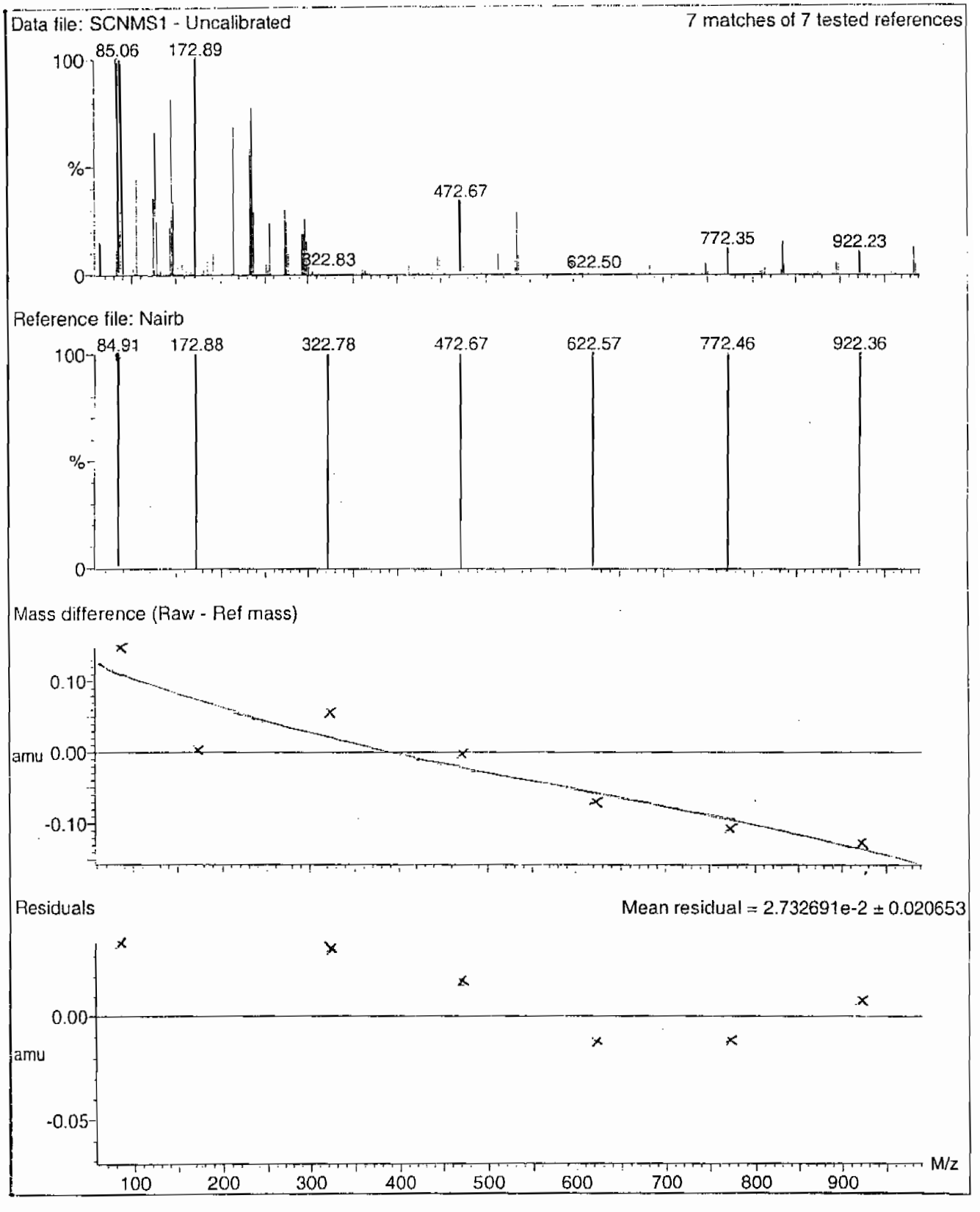

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

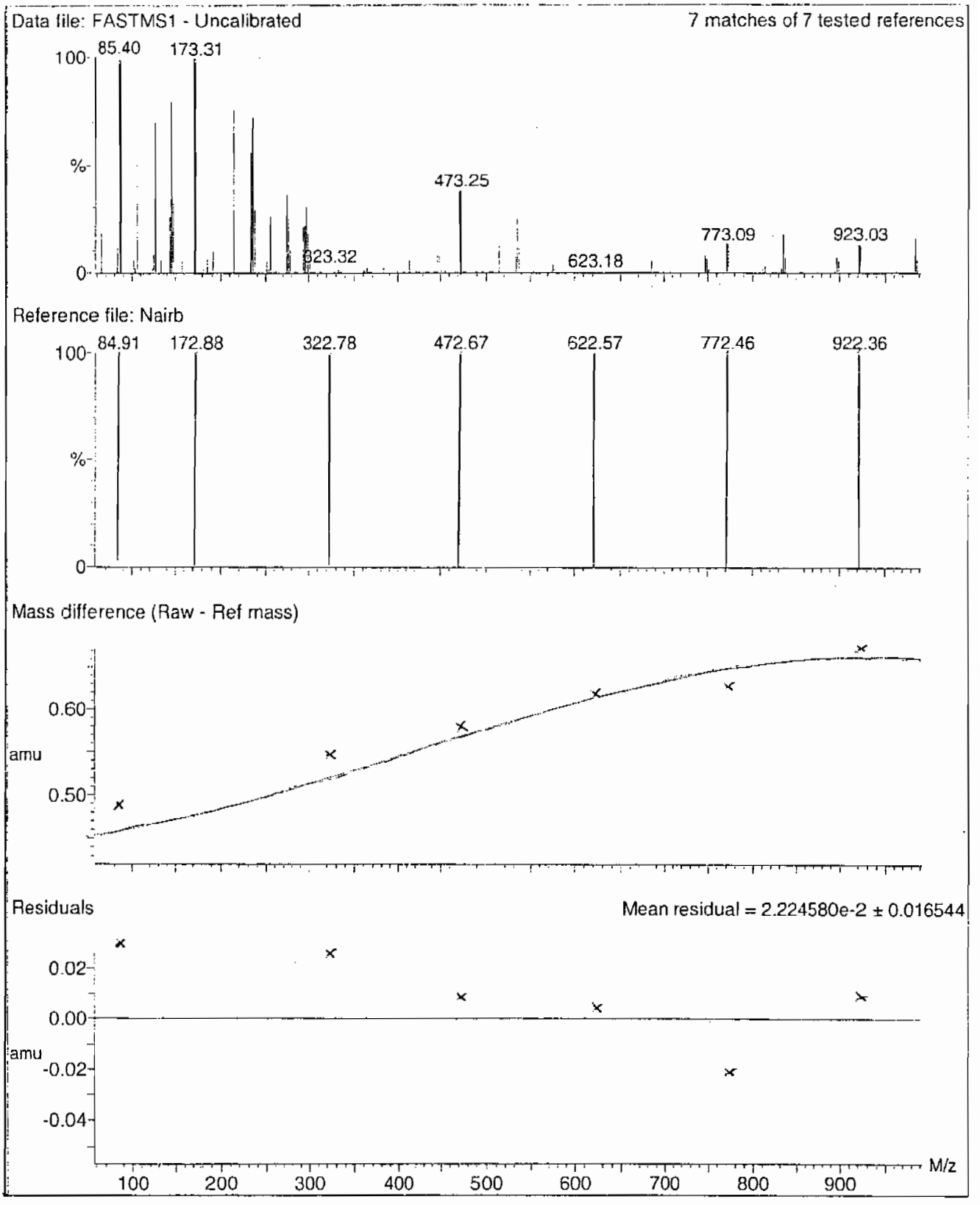

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

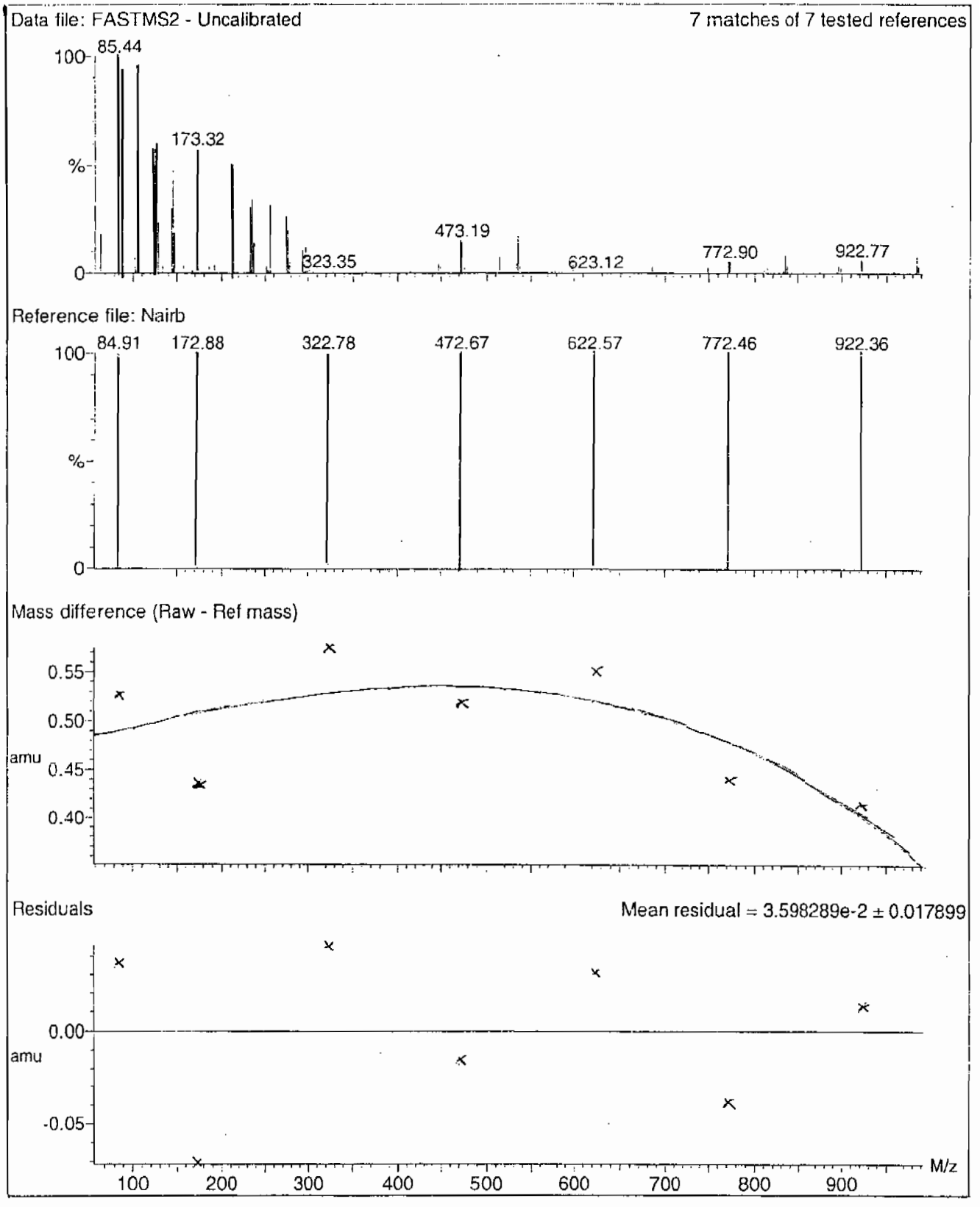

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

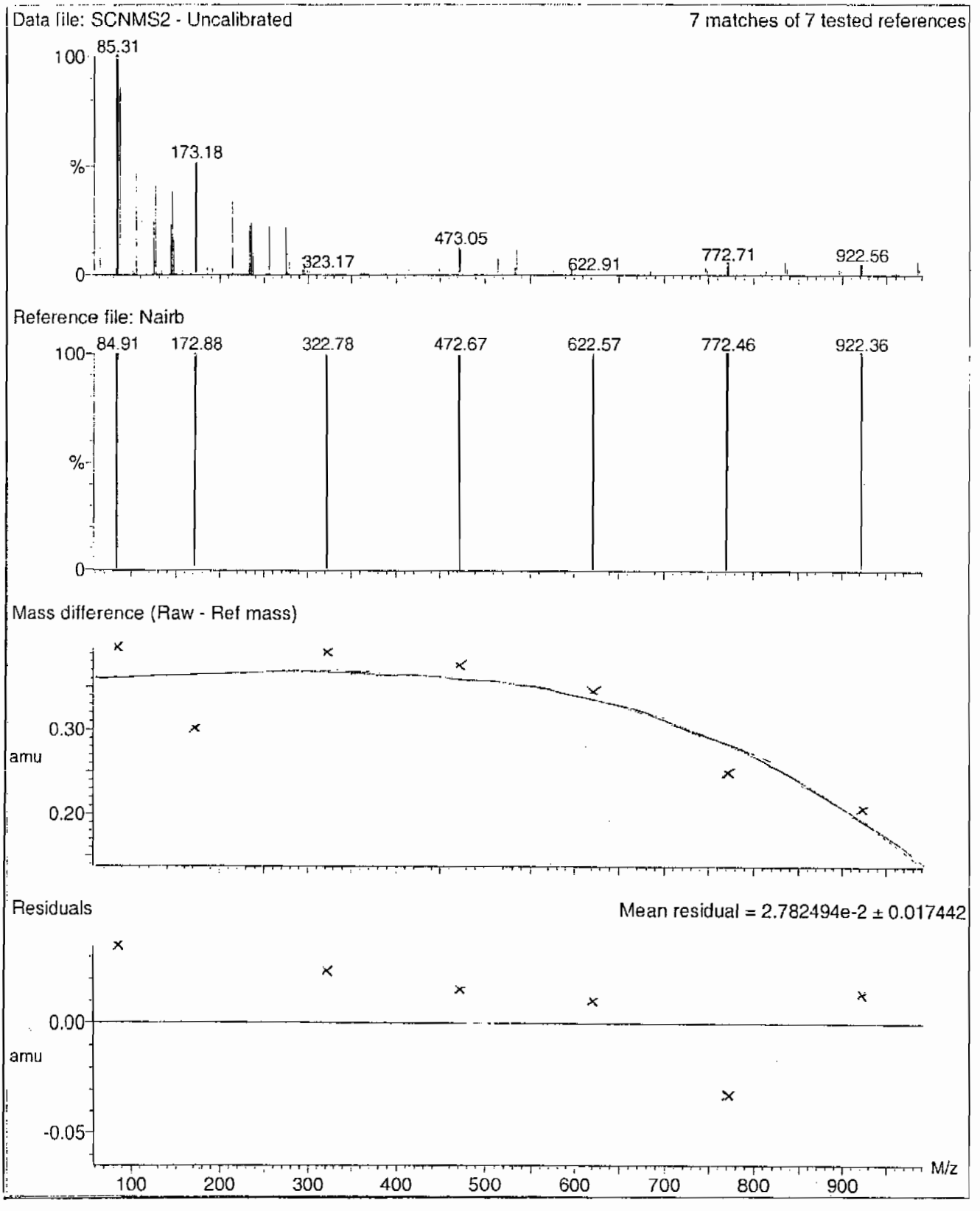

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

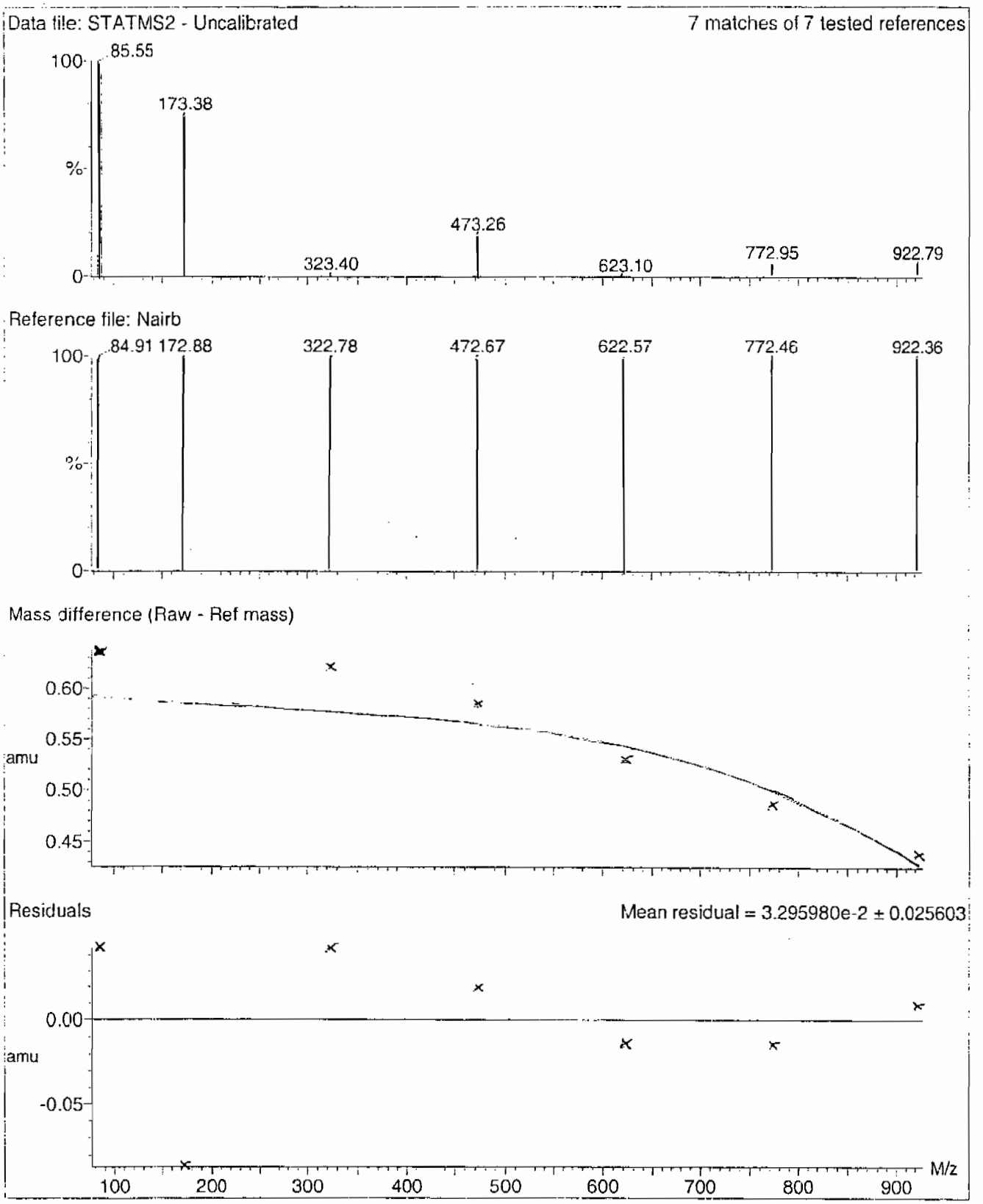

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, January 31, 2010 11:10:18 Eastern Standard Time

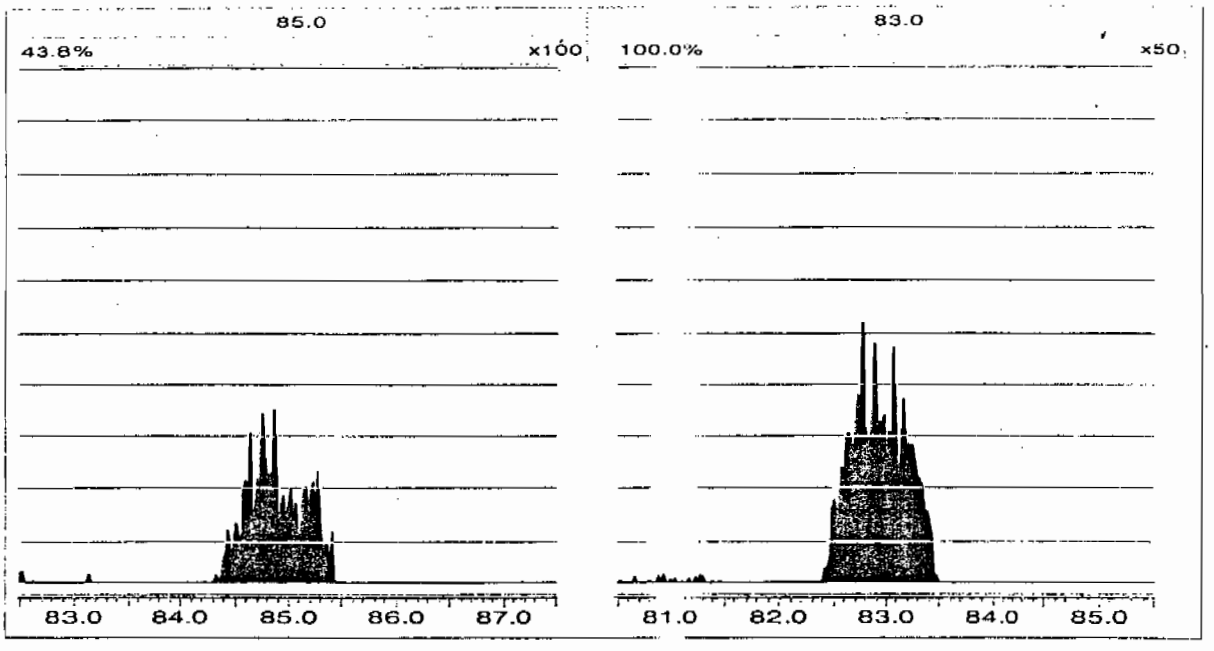

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1433-1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0131006a**	**31-JAN-10**	**14758**				
Lower Area Limit			**7379**				
Upper Area Limit			**29516**				
1202028960	per0131046a	31-JAN-10 18:02	13448.4	2.63	2.65055	1.008	
1202028961	per0131047a	31-JAN-10 18:10	13238.3	2.61	2.62565	1.006	
1202028966	per0131048a	31-JAN-10 18:17	13812.1	2.64	2.65053	1.004	
245690001	per0131069a	31-JAN-10 20:57	13897.2	2.6	2.61328	1.005	
245690002	per0131070a	31-JAN-10 21:04	14661.7	2.6	2.62563	1.01	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8080

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690001

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate Isotope Ratio						1	31-JAN-10 20:57	per0131069a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 20:57	per0131069a
	Perchlorate-O(18)			0.478	ug/L		1	31-JAN-10 20:57	per0131069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131069a
Date: 31-Jan-2010
Time: 20:57:00
ID: 245690001
Vial: 2:3,F

|LANL|94799|LCQ|1|

CWW 02-01-10

Perchlorate

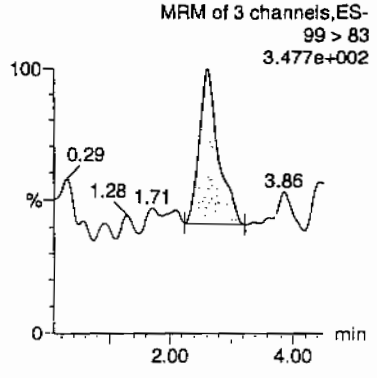

Perchlorate

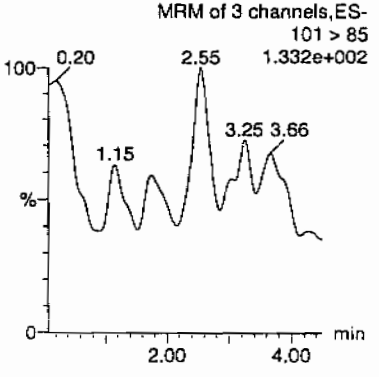

Perchlorate-101

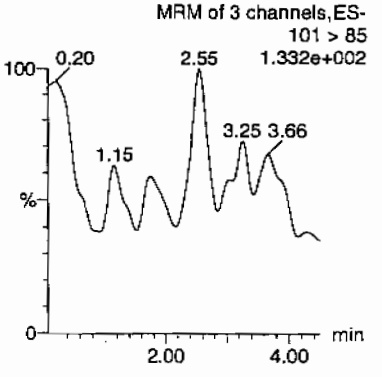

Perchlorate-O(18)

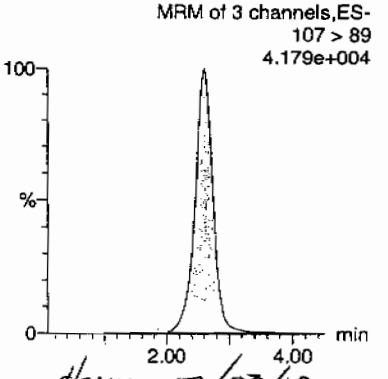

tnm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245690001	Perchlorate	99 > 83	2.61	74.521	74.521	bb			0.0022			14.997	0.00
245690001	Perchlorate-101	101 > 85											
245690001	Perchlorate-O(18)	107 > 89	2.60	13897.172	13897.172	bb			0.4778	95.57	-4.43	6687.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8079

Date Received: 28-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 245690002

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate Isotope Ratio						1	31-JAN-10 21:04	per0131070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 21:04	per0131070a
	Perchlorate-O(18)			0.504	ug/L		1	31-JAN-10 21:04	per0131070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131070a
Date: 31-Jan-2010
Time: 21:04:31
ID: 245690002
Vial: 2:4,A

|LANL|947199|LZQ|11

CJW
02-01-10

Perchlorate

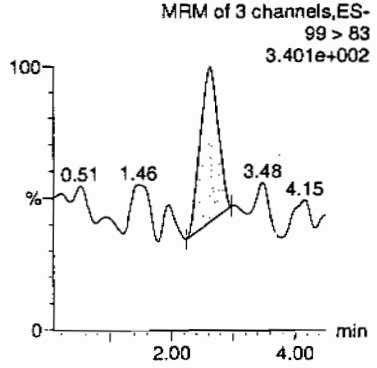

Perchlorate

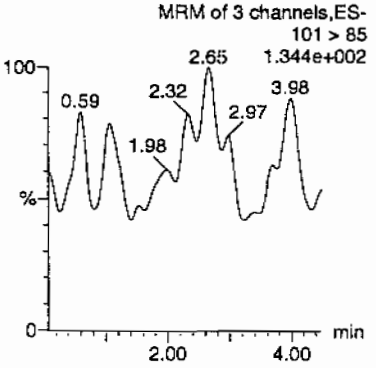

Perchlorate-101

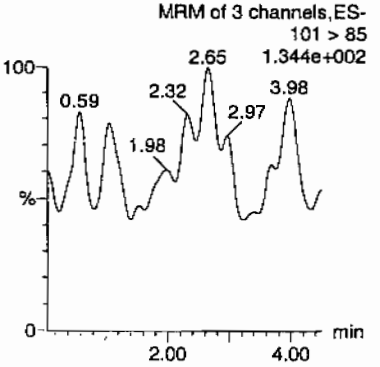

Perchlorate-O(18)

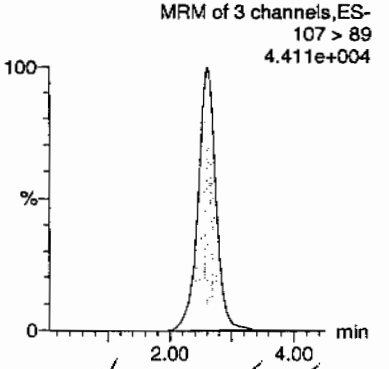

HMM 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245690002	Perchlorate	99 > 83	2.63	69.280	69.280	bb			0.0020			10.889	0.00
245690002	Perchlorate-101	101 > 85											
245690002	Perchlorate-O(18)	107 > 89	2.60	14661.725	14661.725	bb			0.5041	100.83	0.83	3446.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1433-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 31-JAN-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 33819.9

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1433-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 31-JAN-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 11367

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per013110a.mdb 01 Feb 2010 10:44:50
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per013110a.cdb 01 Feb 2010 10:45:05

Compound name: Perchlorate
Response Factor: 33819.9
RRF SD: 737.507, % Relative SD: 2.18069
Response type: External Std, Area
Curve type: RF

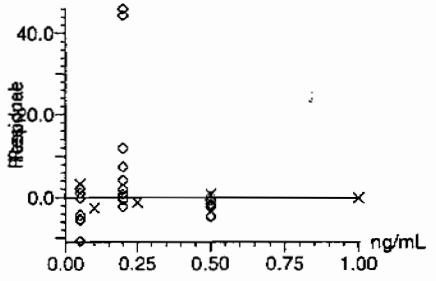

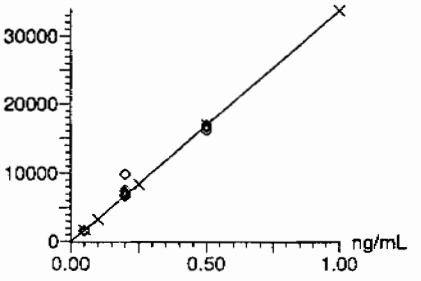

CWW
02-01-10

Compound name: Perchlorate-101
Response Factor: 11367
RRF SD: 542.649, % Relative SD: 4.7739
Response type: External Std, Area
Curve type: RF

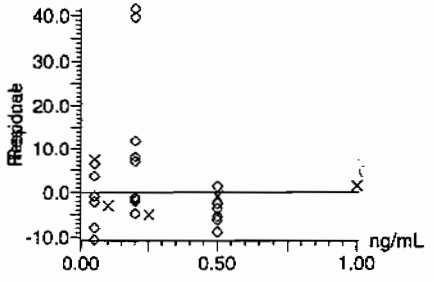

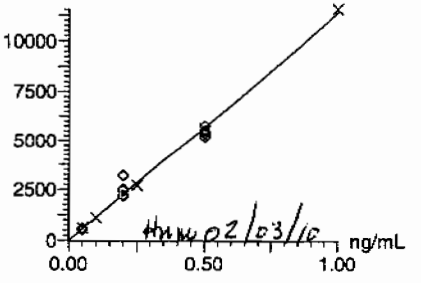

HMW 02/03/10

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Quantify Calibration Report **MassLynx 4.0 SP4**

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 29083
RRF SD: 471.184, % Relative SD: 1.62014
Response type: External Std, Area
Curve type: RF

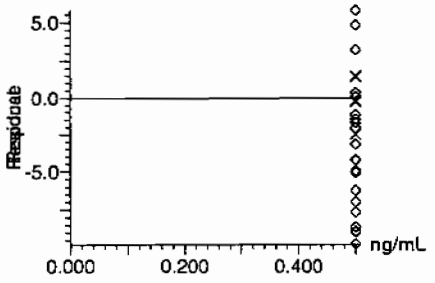

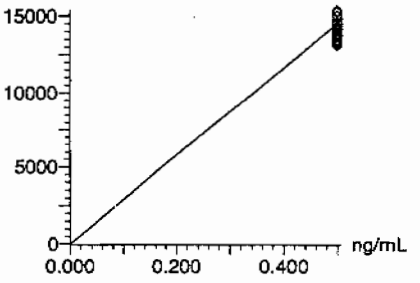

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.34	31-JAN-10 13:23	per0131009a
Perchlorate Isotope Ratio		2.89		31-JAN-10 13:23	per0131009a
Perchlorate-101	.5	.51	101.28	31-JAN-10 13:23	per0131009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131009a
Date: 31-Jan-2010
Time: 13:23:29
ID: WCL100128-06ICV
Vial: 1:2,A

Pass
and
02-01-10

Perchlorate

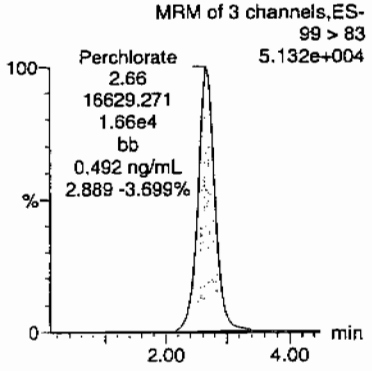

Perchlorate

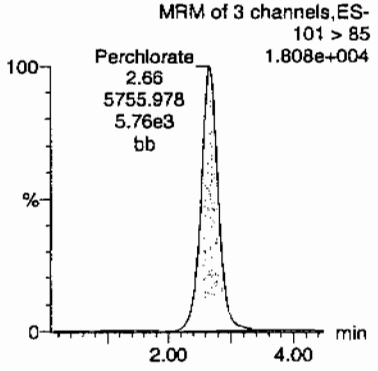

Perchlorate-101

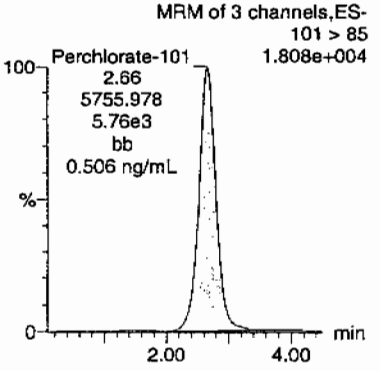

Perchlorate-O(18)

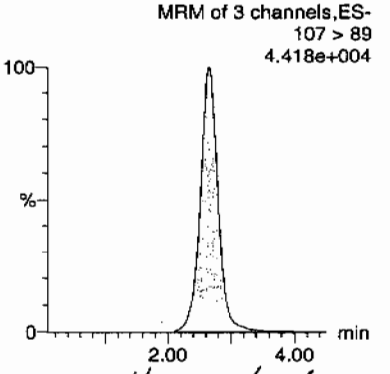

HMH 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	2.66	16629.271	16629.271	bb			0.4917	98.34	-1.66	1435.3...	2.89
WCL100128-06ICV	Perchlorate-101	101 > 85	2.66	5755.978	5755.978	bb			0.5064	101.28	1.28	591.471	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	2.66	14373.936	14373.936	bb			0.4942	98.85	-1.15	3087.1...	

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	95.54	31-JAN-10 14:54	per0131021a
Perchlorate Isotope Ratio		2.92		31-JAN-10 14:54	per0131021a
Perchlorate-101	.5	.49	97.46	31-JAN-10 14:54	per0131021a
Perchlorate	.5	.48	95.21	31-JAN-10 16:17	per0131032a
Perchlorate Isotope Ratio		3.02		31-JAN-10 16:17	per0131032a
Perchlorate-101	.5	.47	93.93	31-JAN-10 16:17	per0131032a
Perchlorate	.5	.48	95.2	31-JAN-10 17:40	per0131043a
Perchlorate Isotope Ratio		2.94		31-JAN-10 17:40	per0131043a
Perchlorate-101	.5	.48	96.44	31-JAN-10 17:40	per0131043a
Perchlorate	.5	.5	99.25	31-JAN-10 19:03	per0131054a
Perchlorate Isotope Ratio		3.14		31-JAN-10 19:03	per0131054a
Perchlorate-101	.5	.47	93.9	31-JAN-10 19:03	per0131054a
Perchlorate	.5	.5	100.12	31-JAN-10 20:26	per0131065a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.15		31–JAN–10 20:26	per0131065a
Perchlorate–101	.5	.47	94.61	31–JAN–10 20:26	per0131065a
Perchlorate	.5	.49	97.71	31–JAN–10 21:57	per0131077a
Perchlorate Isotope Ratio		3.19		31–JAN–10 21:57	per0131077a
Perchlorate–101	.5	.46	91.15	31–JAN–10 21:57	per0131077a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131021a
Date: 31-Jan-2010
Time: 14:54:02
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-01-10

Perchlorate

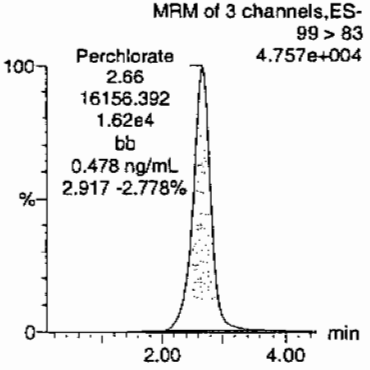

Perchlorate

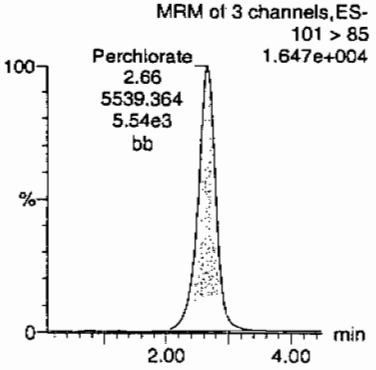

Perchlorate-101

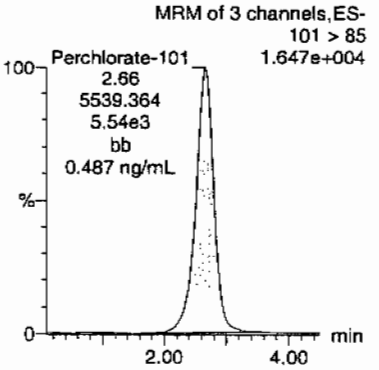

Perchlorate-O(18)

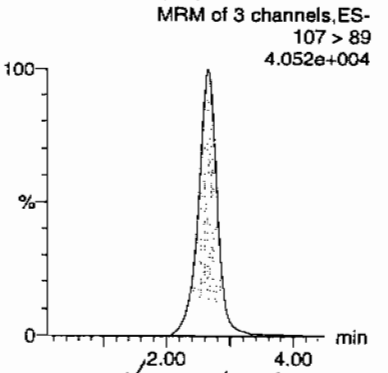

Hmw 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.66	16156.392	16156.392	bb			0.4777	95.54	-4.46	559.772	2.92
WCL100128-06CCV	Perchlorate-101	101 > 85	2.66	5539.364	5539.364	bb			0.4873	97.46	-2.54	691.093	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.65	13809.432	13809.432	bb			0.4748	94.97	-5.03	2631.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131032a
Date: 31-Jan-2010
Time: 16:17:01
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-01-10

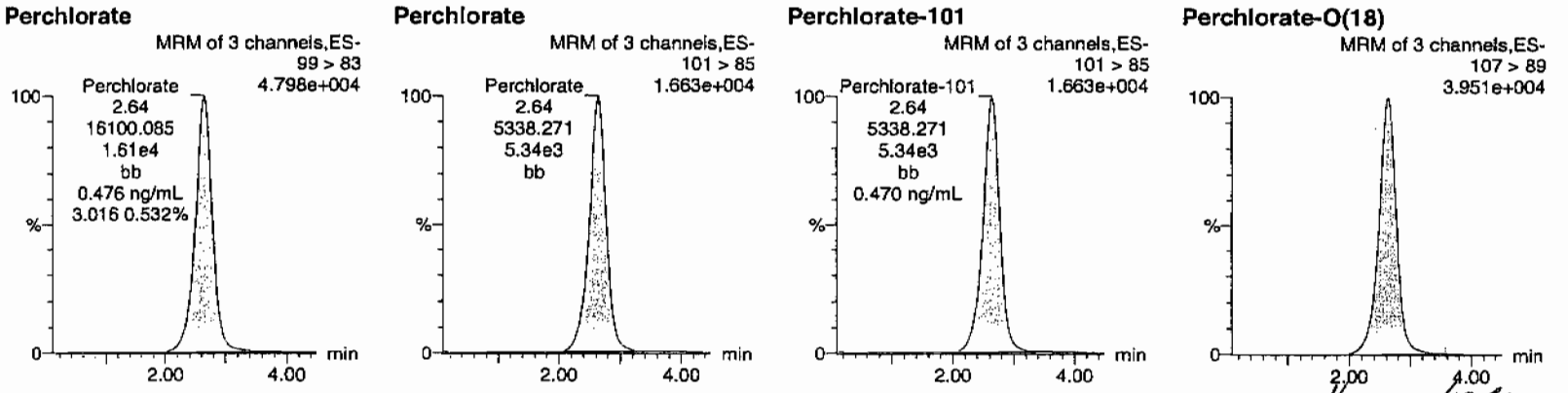

HMW 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.64	16100.085	16100.085	bb			0.4761	95.21	-4.79	1980.2...	3.02
WCL100128-06CCV	Perchlorate-101	101 > 85	2.64	5338.271	5338.271	bb			0.4696	93.93	-6.07	931.388	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.63	13123.846	13123.846	bb			0.4513	90.25	-9.75	686.121	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131043a
Date: 31-Jan-2010
Time: 17:40:03
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-01-10

Perchlorate

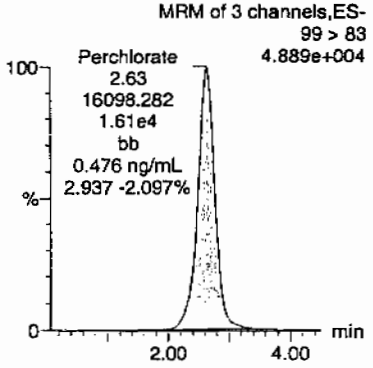

Perchlorate

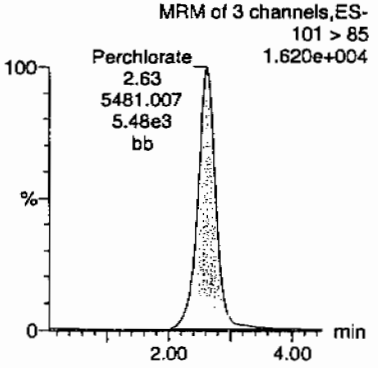

Perchlorate-101

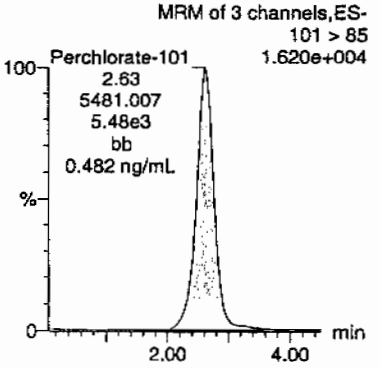

Perchlorate-O(18)

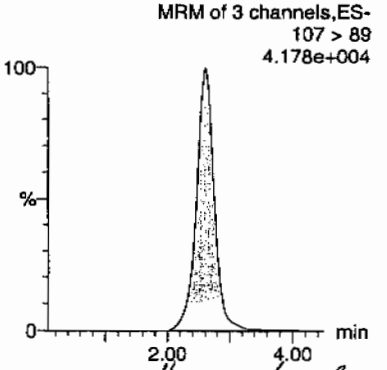

tmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.63	16098.282	16098.282	bb			0.4760	95.20	-4.80	1056.1...	2.94
WCL100128-06CCV	Perchlorate-101	101 > 85	2.63	5481.007	5481.007	bb			0.4822	96.44	-3.56	523.363	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.61	13816.302	13816.302	bb			0.4751	95.01	-4.99	10733....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131054a
Date: 31-Jan-2010
Time: 19:03:06
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-01-10

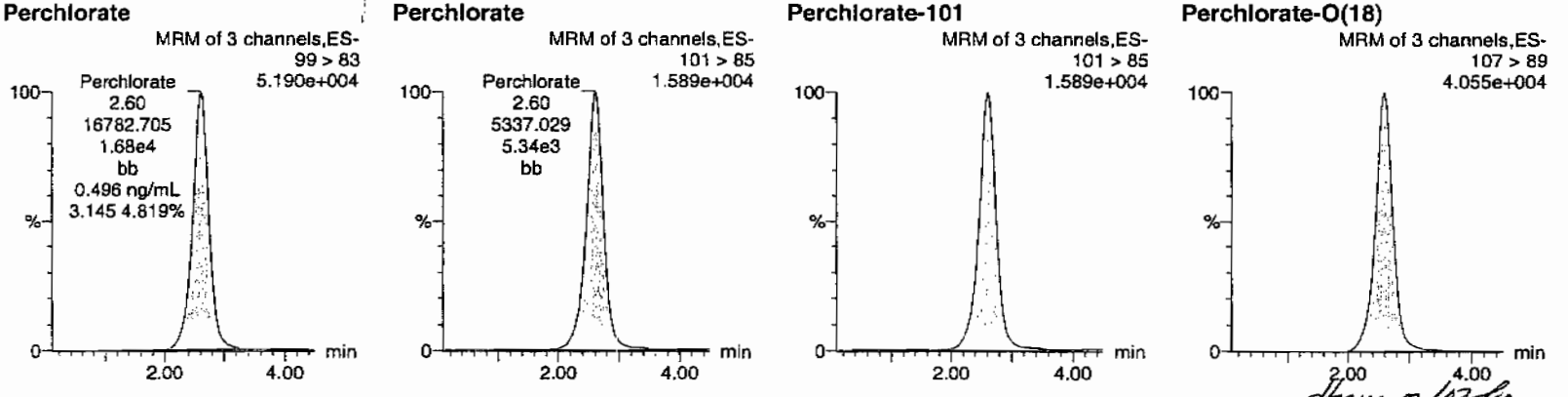

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.60	16782.705	16782.705	bb			0.4962	99.25	-0.75	363.629	3.14
WCL100128-06CCV	Perchlorate-101	101 > 85	2.60	5337.029	5337.029	bb			0.4695	93.90	-6.10	1594.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13526.200	13526.200	bb			0.4651	93.02	-6.98	3181.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131065a
Date: 31-Jan-2010
Time: 20:26:26
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-01-10

Perchlorate

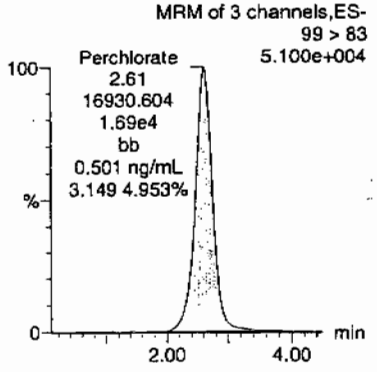

Perchlorate

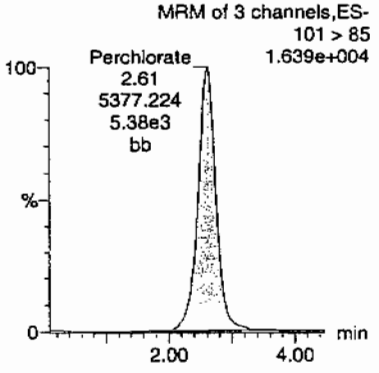

Perchlorate-101

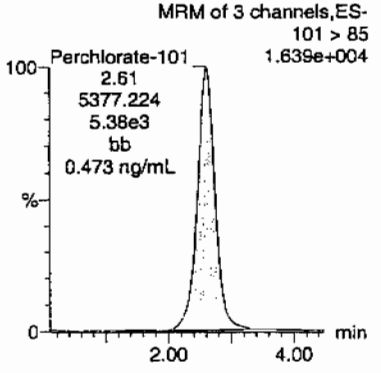

Perchlorate-O(18)

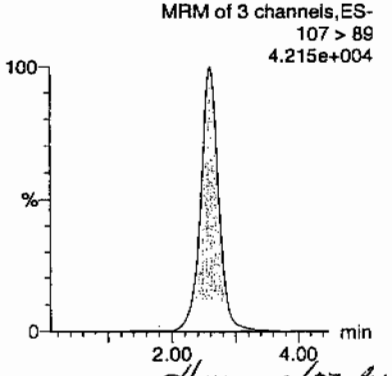

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.61	16930.604	16930.604	bb			0.5006	100.12	0.12	2310.5...	3.15
WCL100128-06CCV	Perchlorate-101	101 > 85	2.61	5377.224	5377.224	bb			0.4731	94.61	-5.39	916.330	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13933.124	13933.124	bb			0.4791	95.82	-4.18	5137.3...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131077a
Date: 31-Jan-2010
Time: 21:57:45
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-01-10

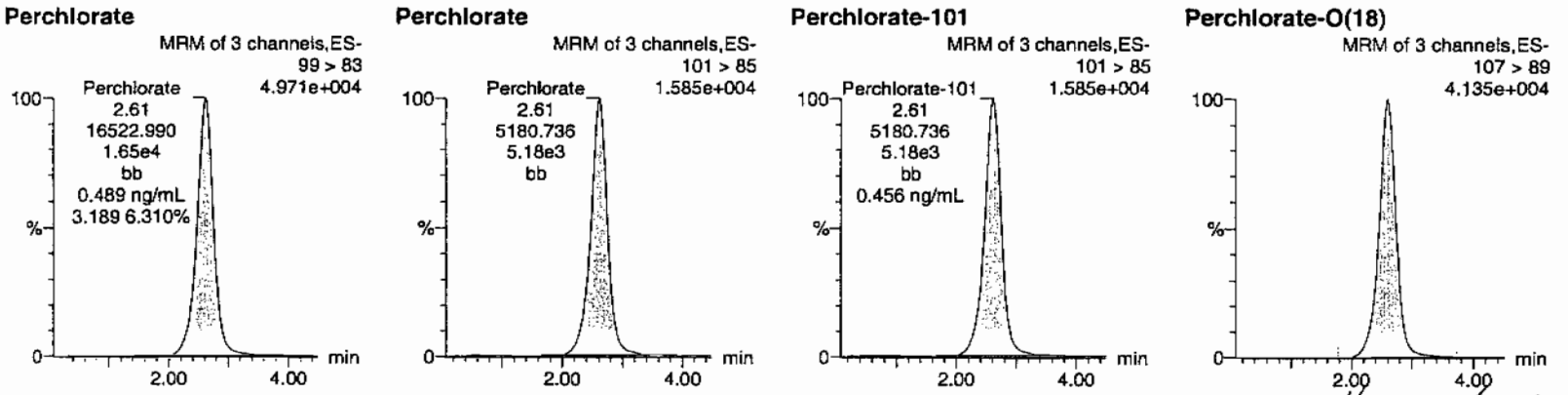

HMM 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	2.61	16522.990	16522.990	bb			0.4886	97.71	-2.29	1711.4...	3.19
WCL100128-06CCV	Perchlorate-101	101 > 85	2.61	5180.736	5180.736	bb			0.4558	91.15	-8.85	1110.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	2.60	13635.730	13635.730	bb			0.4689	93.77	-6.23	6209.2...	

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1433-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.8	31-JAN-10 13:38	per0131011a
Perchlorate Isotope Ratio		2.79		31-JAN-10 13:38	per0131011a
Perchlorate-101	.05	.05	106.42	31-JAN-10 13:38	per0131011a
Perchlorate	.05	.05	101.06	31-JAN-10 15:09	per0131023a
Perchlorate Isotope Ratio		3.03		31-JAN-10 15:09	per0131023a
Perchlorate-101	.05	.05	99.13	31-JAN-10 15:09	per0131023a
Perchlorate	.05	.05	94.76	31-JAN-10 16:32	per0131034a
Perchlorate Isotope Ratio		3.06		31-JAN-10 16:32	per0131034a
Perchlorate-101	.05	.05	92.11	31-JAN-10 16:32	per0131034a
Perchlorate	.05	.04	89.19	31-JAN-10 17:55	per0131045a
Perchlorate Isotope Ratio		2.97		31-JAN-10 17:55	per0131045a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1433–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.04	89.43	31–JAN–10 17:55	per0131045a
Perchlorate	.05	.05	95.73	31–JAN–10 19:18	per0131056a
Perchlorate Isotope Ratio		2.68		31–JAN–10 19:18	per0131056a
Perchlorate–101	.05	.05	106.32	31–JAN–10 19:18	per0131056a
Perchlorate	.05	.05	102.23	31–JAN–10 20:41	per0131067a
Perchlorate Isotope Ratio		2.94		31–JAN–10 20:41	per0131067a
Perchlorate–101	.05	.05	103.57	31–JAN–10 20:41	per0131067a
Perchlorate	.05	.05	94.46	31–JAN–10 22:13	per0131079a
Perchlorate Isotope Ratio		2.87		31–JAN–10 22:13	per0131079a
Perchlorate–101	.05	.05	97.88	31–JAN–10 22:13	per0131079a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131011a
Date: 31-Jan-2010
Time: 13:38:34
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02.01.10

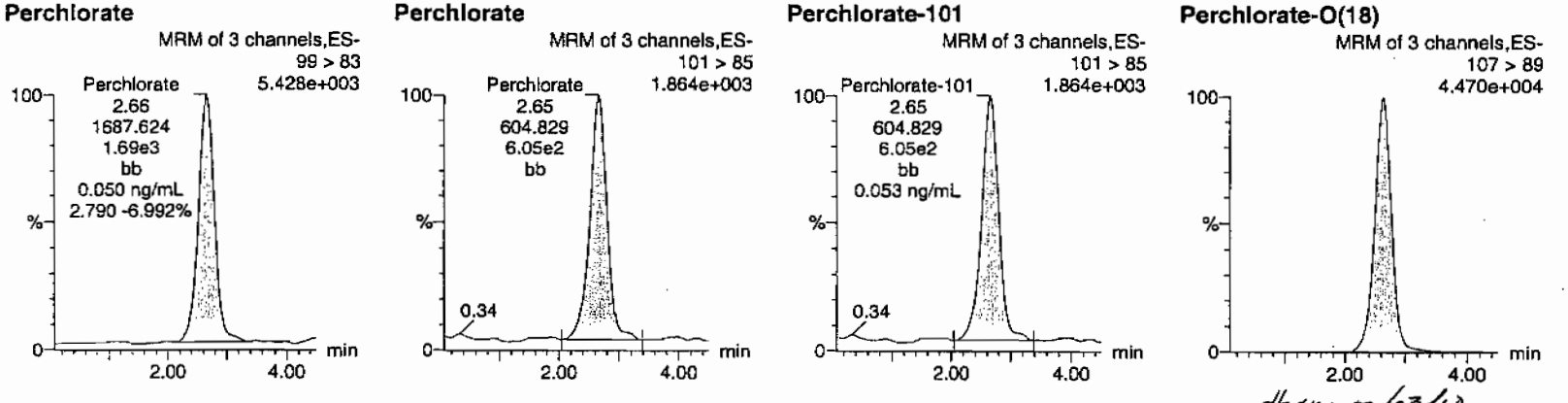

Hrnu 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.66	1687.624	1687.624	bb			0.0499	99.80	-0.20	385.644	2.79
WCL100128-07CRI	Perchlorate-101	101 > 85	2.65	604.829	604.829	bb			0.0532	106.42	6.42	201.132	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.64	14329.497	14329.497	bb			0.4927	98.54	-1.46	4076.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131023a
Date: 31-Jan-2010
Time: 15:09:07
ID: WCL100128-07CRI
Vial: 1:2,B

Pwso
aw
02-01-10

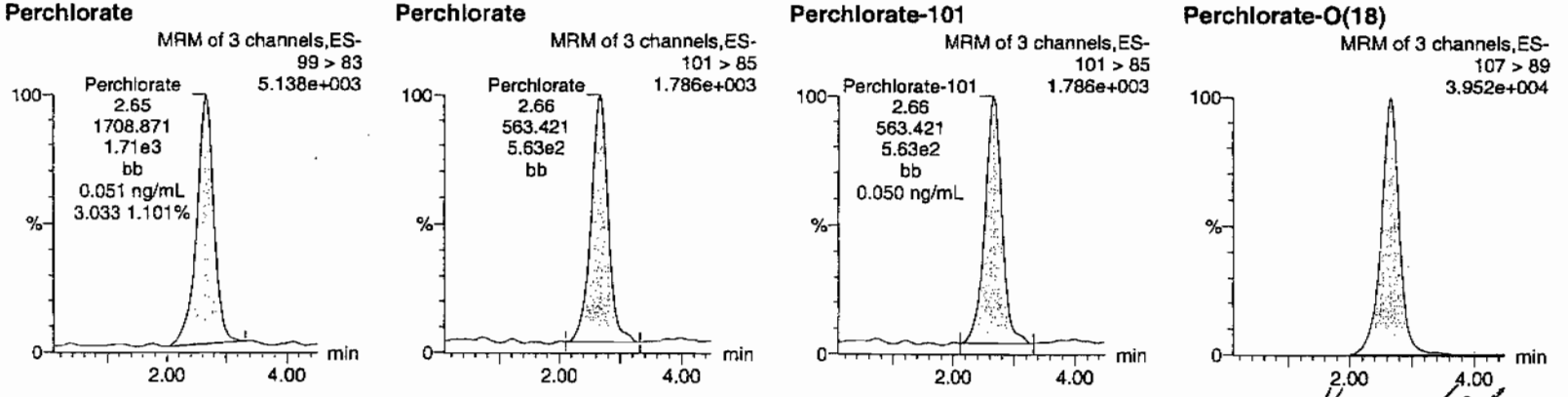

Hmw 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.65	1708.871	1708.871	bb			0.0505	101.06	1.06	90.206	3.03
WCL100128-07CRI	Perchlorate-101	101 > 85	2.66	563.421	563.421	bb			0.0496	99.13	-0.87	234.947	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.65	13430.074	13430.074	bb			0.4618	92.36	-7.64	1794.5...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131034a
Date: 31-Jan-2010
Time: 16:32:06
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02-01-10

Perchlorate

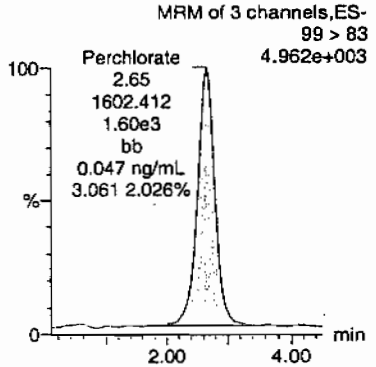

Perchlorate

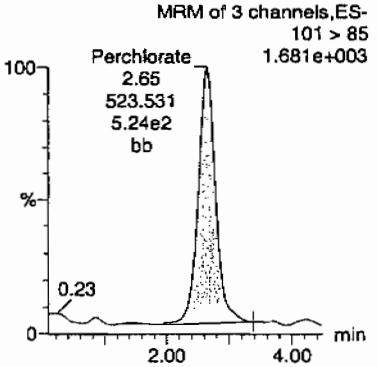

Perchlorate-101

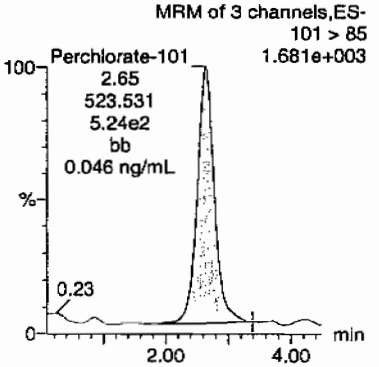

Perchlorate-O(18)

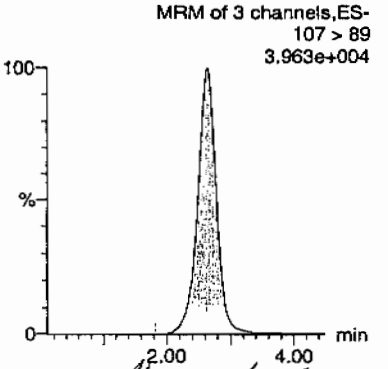

Hmc 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.65	1602.412	1602.412	bb			0.0474	94.76	-5.24	128.941	3.06
WCL100128-07CRI	Perchlorate-101	101 > 85	2.65	523.531	523.531	bb			0.0461	92.11	-7.89	148.998	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.64	13291.097	13291.097	bb			0.4570	91.40	-8.60	3554.0...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131045a
Date: 31-Jan-2010
Time: 17:55:09
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-01-10

Perchlorate

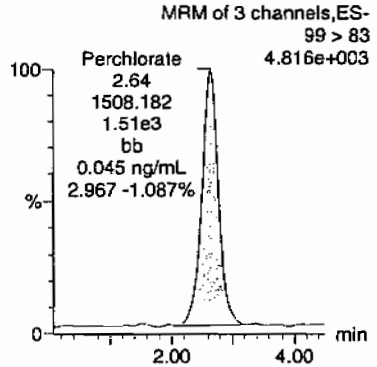

Perchlorate

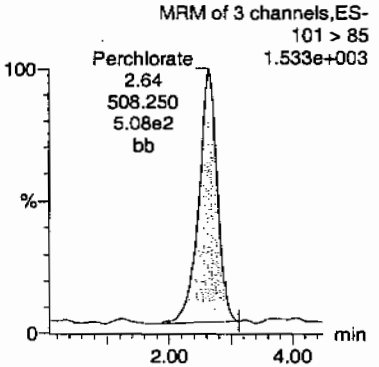

Perchlorate-101

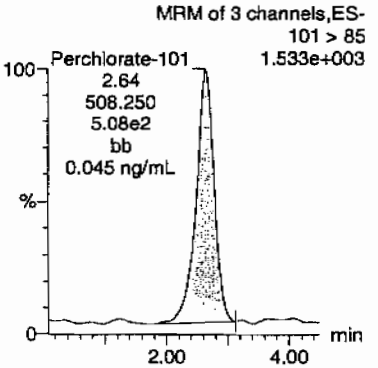

Perchlorate-O(18)

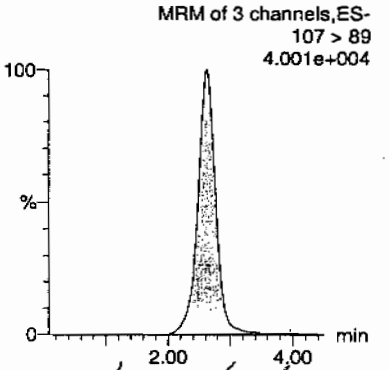

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.64	1508.182	1508.182	bb			0.0446	89.19	-10.81	257.659	2.97
WCL100128-07CRI	Perchlorate-101	101 > 85	2.64	508.250	508.250	bb			0.0447	89.43	-10.57	61.987	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.63	13246.691	13246.691	bb			0.4555	91.10	-8.90	5001.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Pass
CWW
02-01-10

Name: per0131056a
Date: 31-Jan-2010
Time: 19:18:25
ID: WCL100128-07CRI
Vial: 1:2,B

Perchlorate

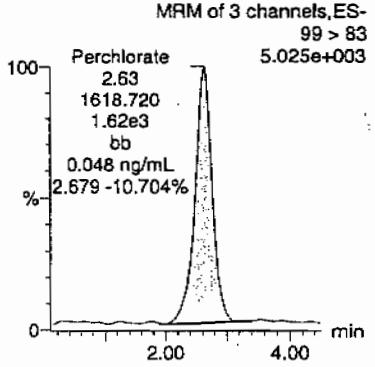

Perchlorate

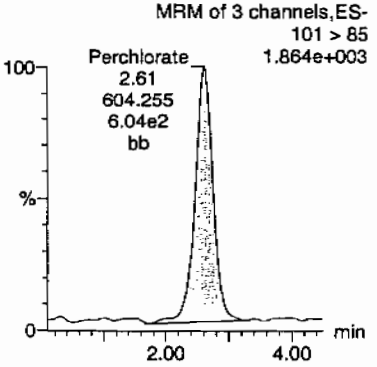

Perchlorate-101

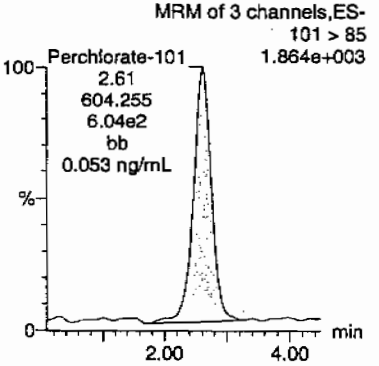

Perchlorate-O(18)

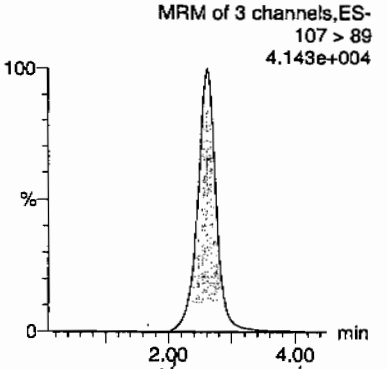

HMM 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.63	1618.720	1618.720	bb			0.0479	95.73	-4.27	296.151	2.68
WCL100128-07CRI	Perchlorate-101	101 > 85	2.61	604.255	604.255	bb			0.0532	106.32	6.32	17.440	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.61	13919.873	13919.873	bb			0.4786	95.73	-4.27	10057....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131067a
Date: 31-Jan-2010
Time: 20:41:45
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aus
02-01-10

Perchlorate

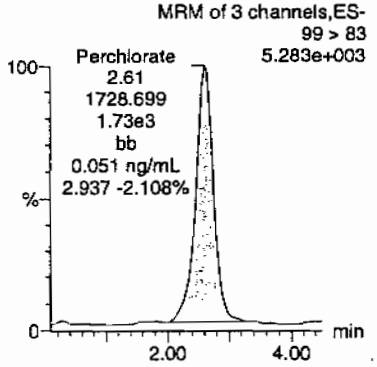

Perchlorate

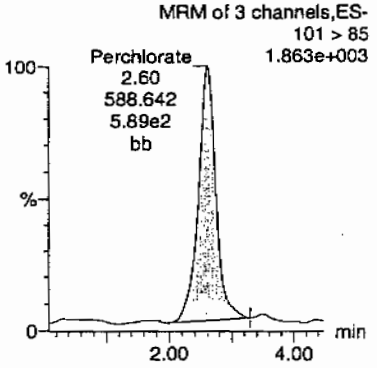

Perchlorate-101

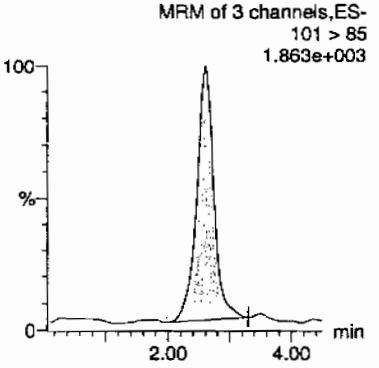

Perchlorate-O(18)

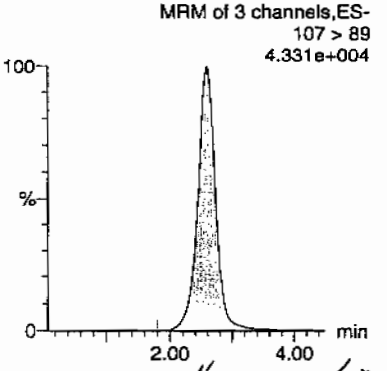

Hrme 02/02/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.61	1728.699	1728.699	bb			0.0511	102.23	2.23	392.527	2.94
WCL100128-07CRI	Perchlorate-101	101 > 85	2.60	588.642	588.642	bb			0.0518	103.57	3.57	130.060	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.59	14243.858	14243.858	bb			0.4898	97.95	-2.05	5194.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131079a
Date: 31-Jan-2010
Time: 22:13:05
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
CWD
02-01-10

Perchlorate

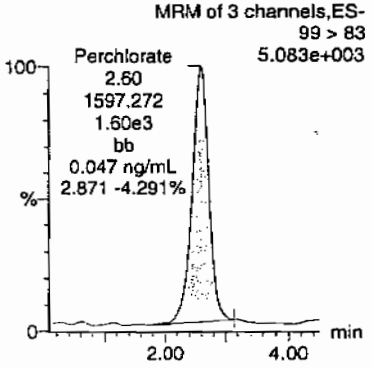

Perchlorate

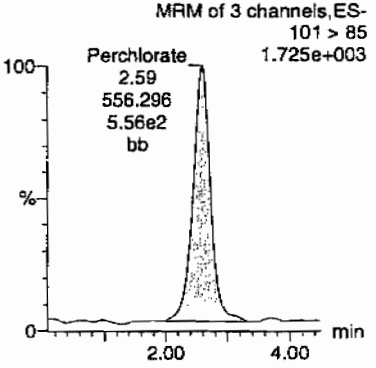

Perchlorate-101

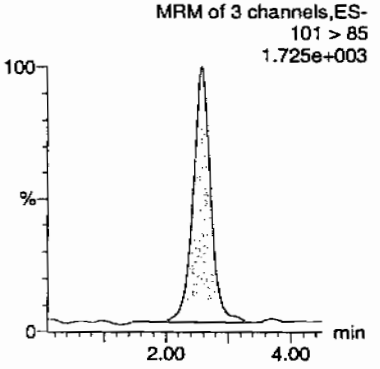

Perchlorate-O(18)

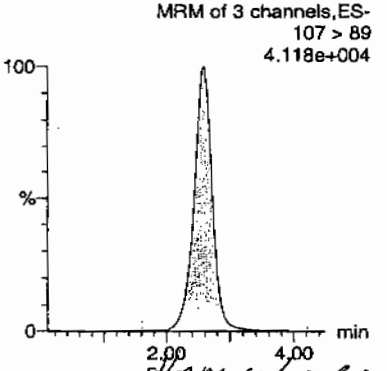

HMW 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	2.60	1597.272	1597.272	bb			0.0472	94.46	-5.54	190.554	2.87
WCL100128-07CRI	Perchlorate-101	101 > 85	2.59	556.296	556.296	bb			0.0489	97.88	-2.12	73.002	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	2.58	13796.101	13796.101	bb			0.4744	94.87	-5.13	8492.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 30-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 1202028960

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	31-JAN-10 18:02	per0131046a
	Perchlorate Isotope Ratio						1	31-JAN-10 18:02	per0131046a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	31-JAN-10 18:02	per0131046a
	Perchlorate-O(18)			0.462	ug/L		1	31-JAN-10 18:02	per0131046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131046a
Date: 31-Jan-2010
Time: 18:02:41
ID: 1202028960
Vial: 2:1,A

|LANL|947199|LIQ ~~SOIL~~|MB|1|
GWO 02-01-10

GWO 02-01-10

Perchlorate
MRM of 3 channels,ES-
99 > 83
2.723e+002

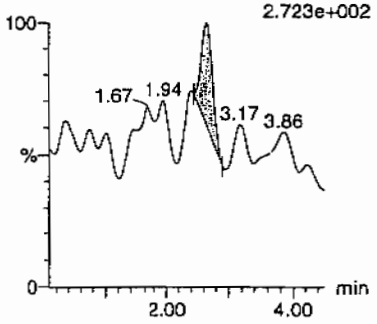

Perchlorate
MRM of 3 channels,ES-
101 > 85
1.398e+002

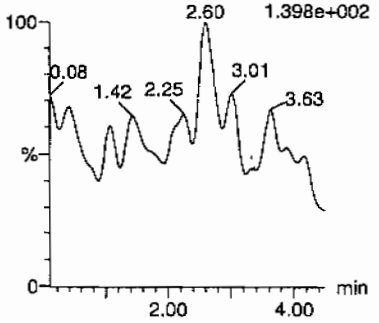

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
1.398e+002

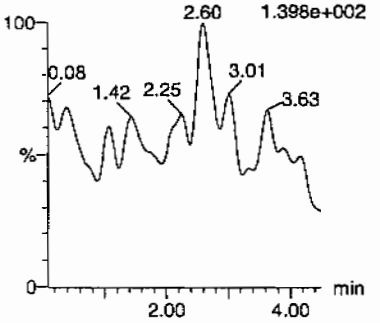

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
4.000e+004

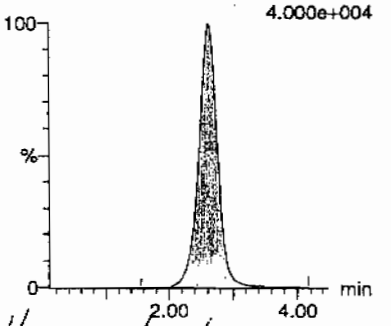

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028960	Perchlorate	99 > 83	2.65	22.511	22.511	bb			0.0007			8.744	0.00
1202028960	Perchlorate-101	101 > 85											
1202028960	Perchlorate-O(18)	107 > 89	2.63	13448.378	13448.378	bb			0.4624	92.48	-7.52	3729.0...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 947198

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 30-JAN-10

GEL Job No (SDG): 10-1433-1

GEL Sample ID: 1202028961

Date Filtered: 30-JAN-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.199	ug/L	J	1	31-JAN-10 18:10	per0131047a
	Perchlorate Isotope Ratio			3.1			1	31-JAN-10 18:10	per0131047a
14797-73-0	Perchlorate-101	.05	.2	0.191	ug/L	J	1	31-JAN-10 18:10	per0131047a
	Perchlorate-O(18)			0.455	ug/L		1	31-JAN-10 18:10	per0131047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131047a
Date: 31-Jan-2010
Time: 18:10:24
ID: 1202028961
Vial: 2:1,B

|LANC|947199|L22|LC5|1|

02-01-10

Perchlorate

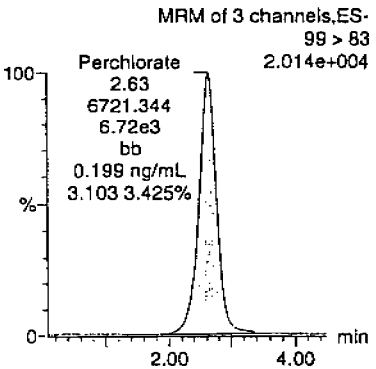

Perchlorate

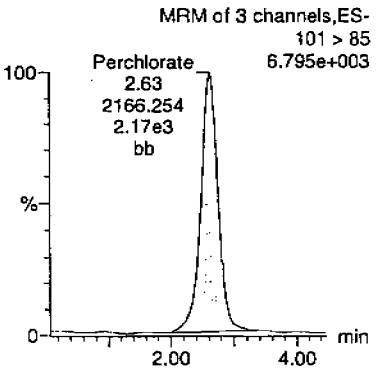

Perchlorate-101

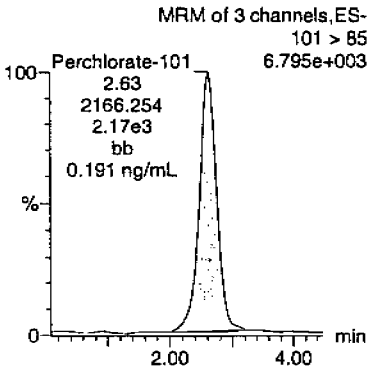

Perchlorate-O(18)

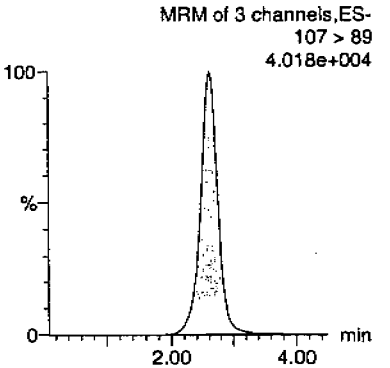

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028961	Perchlorate	99 > 83	2.63	6721.344	6721.344	bb			0.1987	99.37	-0.63	1459.2...	3.10
1202028961	Perchlorate-101	101 > 85	2.63	2166.254	2166.254	bb			0.1906	95.29	-4.71	575.994	
1202028961	Perchlorate-O(18)	107 > 89	2.61	13238.314	13238.314	bb			0.4552	91.04	-8.96	2651.3...	

$\frac{6721.344}{33819.9} = 0.1987$

Hnw 02/03/10

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 947198 **Verified by:**
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202028960 MB	30-JAN-2010 12:08:58	10	10	1
1202028961 LCS	30-JAN-2010 12:08:58	10	10	1
245601001	30-JAN-2010 12:08:58	10	10	1
245614001	30-JAN-2010 12:08:58	10	10	1
1202028962 MS (245614001)	30-JAN-2010 12:08:58	10	10	1
1202028963 MSD (245614001)	30-JAN-2010 12:08:58	10	10	1
245614002	30-JAN-2010 12:08:58	10	10	1
245618007	30-JAN-2010 12:08:58	10	10	1
245619001	30-JAN-2010 12:08:58	10	10	1
245625001	30-JAN-2010 12:08:58	10	10	1
245676002	30-JAN-2010 12:08:58	10	10	1
1202028964 MS (245676002)	30-JAN-2010 12:08:58	10	10	1
1202028965 MSD (245676002)	30-JAN-2010 12:08:58	10	10	1
245676005	30-JAN-2010 12:08:58	10	10	1
245681001	30-JAN-2010 12:08:58	10	10	1
245681002	30-JAN-2010 12:08:58	10	10	1
245690001	30-JAN-2010 12:08:58	10	10	1
245690002	30-JAN-2010 12:08:58	10	10	1
245777001	30-JAN-2010 12:08:58	10	10	1
245777005	30-JAN-2010 12:08:58	10	10	1
245807001	30-JAN-2010 12:08:58	10	10	1
245807002	30-JAN-2010 12:08:58	10	10	1
1202028966 ICS	30-JAN-2010 12:08:58	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202028966	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
LCS	1202028961	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
MS	1202028962	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
MS	1202028964	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
MSD	1202028963	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
MSD	1202028965	10 ug/L ICV/CCV Second Source	UCL091230-01.2	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1236492	10	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL

Comments:
Desalting cartridges used: 090406-1-Ba & 091130-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 01/31/10
Extr. Injection Volume: 20uL
Sequence Number: per013110a
Initial Calibration Date: 01/31/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1246195
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: Hmc
Date 02/03/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0131001a	IPB001	CWW	1/31/2010 12:23			1		USE	B
per0131002a	IPB001	CWW	1/31/2010 12:30			1		USE	B
per0131003a	WCLICAL-01	CWW	1/31/2010 12:38			1		USE	I
per0131004a	WCLICAL-02	CWW	1/31/2010 12:45			1		USE	I
per0131005a	WCLICAL-03	CWW	1/31/2010 12:53			1		USE	I
per0131006a	WCLICAL-04	CWW	1/31/2010 13:00			1		USE	I
per0131007a	WCLICAL-05	CWW	1/31/2010 13:08			1		USE	I
per0131008a	IPB002	CWW	1/31/2010 13:15			1		USE	B
per0131009a	WCLICV	CWW	1/31/2010 13:23			1		USE	C
per0131010a	IPB003	CWW	1/31/2010 13:31			1		USE	B
per0131011a	WCLCRI	CWW	1/31/2010 13:38			1		USE	C
per0131012a	1202023105	CWW	1/31/2010 13:46	944723	VARIOUS	1	LANL	USE	S
per0131013a	1202023106	CWW	1/31/2010 13:53	944723	VARIOUS	1	LANL	USE	S
per0131014a	1202023109	CWW	1/31/2010 14:01	944723	VARIOUS	1	LANL	USE	S
per0131015a	244921001	CWW	1/31/2010 14:08	944723	10-1288	1	LANL	USE	S
per0131016a	244921002	CWW	1/31/2010 14:16	944723	10-1288	1	LANL	USE	S
per0131017a	244921003	CWW	1/31/2010 14:23	944723	10-1288	1	LANL	USE	S
per0131018a	244921004	CWW	1/31/2010 14:31	944723	10-1288	1	LANL	USE	S
per0131019a	244921005	CWW	1/31/2010 14:38	944723	10-1288	1	LANL	USE	S
per0131020a	244921006	CWW	1/31/2010 14:46	944723	10-1288	1	LANL	USE	S
per0131021a	WCLCCV	CWW	1/31/2010 14:54			1	LANL	USE	C
per0131022a	IPB004	CWW	1/31/2010 15:01			1	LANL	USE	B
per0131023a	WCLCRI	CWW	1/31/2010 15:09			1	LANL	USE	C
per0131024a	244921007	CWW	1/31/2010 15:16	944723	10-1288	1	LANL	USE	S
per0131025a	244921008	CWW	1/31/2010 15:24	944723	10-1288	1	LANL	USE	S
per0131026a	244921009	CWW	1/31/2010 15:31	944723	10-1288	1	LANL	USE	S
per0131027a	244921010	CWW	1/31/2010 15:39	944723	10-1288	1	LANL	USE	S
per0131028a	245134001	CWW	1/31/2010 15:46	944723	10-1300	1	LANL	USE	S
per0131029a	1202023107	CWW	1/31/2010 15:54	944723	10-1300	1	LANL	USE	S

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per0131030a	1202023108	CWW	1/31/2010 16:01	944723	10-1300	1	LANL	USE	S
per0131031a	245134002	CWW	1/31/2010 16:09	944723	10-1300	1	LANL	USE	S
per0131032a	WCLCCV	CWW	1/31/2010 16:17			1	LANL	USE	C
per0131033a	IPB005	CWW	1/31/2010 16:24			1	LANL	USE	B
per0131034a	WCLCRI	CWW	1/31/2010 16:32			1	LANL	USE	C
per0131035a	245134003	CWW	1/31/2010 16:39	944723	10-1300	1	LANL	USE	S
per0131036a	245134004	CWW	1/31/2010 16:47	944723	10-1300	1	LANL	USE	S
per0131037a	245134005	CWW	1/31/2010 16:54	944723	10-1300	1	LANL	USE	S
per0131038a	245134006	CWW	1/31/2010 17:02	944723	10-1300	1	LANL	USE	S
per0131039a	245134007	CWW	1/31/2010 17:09	944723	10-1300	1	LANL	USE	S
per0131040a	245134008	CWW	1/31/2010 17:17	944723	10-1300	1	LANL	USE	S
per0131041a	245134009	CWW	1/31/2010 17:24	944723	10-1300	1	LANL	USE	S
per0131042a	245134010	CWW	1/31/2010 17:32	944723	10-1300	1	LANL	USE	S
per0131043a	WCLCCV	CWW	1/31/2010 17:40			1	LANL	USE	C
per0131044a	IPB006	CWW	1/31/2010 17:47			1	LANL	USE	B
per0131045a	WCLCRI	CWW	1/31/2010 17:55			1	LANL	USE	C
per0131046a	1202028960	CWW	1/31/2010 18:02	947199	VARIOUS	1	LANL	USE	S
per0131047a	1202028961	CWW	1/31/2010 18:10	947199	VARIOUS	1	LANL	USE	S
per0131048a	1202028966	CWW	1/31/2010 18:17	947199	VARIOUS	1	LANL	USE	S
per0131049a	245601001	CWW	1/31/2010 18:25	947199	10-1409	1	LANL	USE	S
per0131050a	245614001	CWW	1/31/2010 18:32	947199	10-1417-1	1	LANL	USE	S
per0131051a	1202028962	CWW	1/31/2010 18:40	947199	10-1417-1	1	LANL	USE	S
per0131052a	1202028963	CWW	1/31/2010 18:48	947199	10-1417-1	1	LANL	USE	S
per0131053a	245614002	CWW	1/31/2010 18:55	947199	10-1417-1	1	LANL	USE	S
per0131054a	WCLCCV	CWW	1/31/2010 19:03			1	LANL	USE	C
per0131055a	IPB007	CWW	1/31/2010 19:10			1	LANL	USE	B
per0131056a	WCLCRI	CWW	1/31/2010 19:18			1	LANL	USE	C
per0131057a	245618007	CWW	1/31/2010 19:25	947199	10-1422	1	LANL	USE	S
per0131058a	245619001	CWW	1/31/2010 19:33	947199	10-1423	1	LANL	USE	S
per0131059a	245625001	CWW	1/31/2010 19:41	947199	10-1425	1	LANL	USE	S
per0131060a	245676002	CWW	1/31/2010 19:48	947199	10-1446	1	LANL	USE	S
per0131061a	1202028964	CWW	1/31/2010 19:56	947199	10-1446	1	LANL	USE	S
per0131062a	1202028965	CWW	1/31/2010 20:03	947199	10-1446	1	LANL	USE	S
per0131063a	245676005	CWW	1/31/2010 20:11	947199	10-1446	1	LANL	USE	S
per0131064a	245681001	CWW	1/31/2010 20:18	947199	10-1450	1	LANL	USE	S
per0131065a	WCLCCV	CWW	1/31/2010 20:26			1	LANL	USE	C
per0131066a	IPB008	CWW	1/31/2010 20:34			1	LANL	USE	B

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per0131067a	WCLCRI	CWW	1/31/2010 20:41			1	LANL	USE	C
per0131068a	245681002	CWW	1/31/2010 20:49	947199	10-1450	1	LANL	USE	S
per0131069a	245690001	CWW	1/31/2010 20:57	947199	10-1433-1	1	LANL	USE	S
per0131070a	245690002	CWW	1/31/2010 21:04	947199	10-1433-1	1	LANL	USE	S
per0131071a	245777001	CWW	1/31/2010 21:12	947199	10-1458	1	LANL	DUSE-DL	S
per0131072a	245777005	CWW	1/31/2010 21:19	947199	10-1458	1	LANL	DUSE-DL	S
per0131073a	245807001	CWW	1/31/2010 21:27	947199	10-1474-1	1	LANL	DUSE-RA	S
per0131074a	245807002	CWW	1/31/2010 21:34	947199	10-1474-1	1	LANL	USE	S
per0131075a	IPB009	CWW	1/31/2010 21:42			1		USE	B
per0131076a	1262643 Suppr	CWW	1/31/2010 21:50	Screen	Inhouse	1	GEL	DUSE	S
per0131077a	WCLCCV	CWW	1/31/2010 21:57			1		USE	C
per0131078a	IPB010	CWW	1/31/2010 22:05			1		USE	B
per0131079a	WCLCRI	CWW	1/31/2010 22:13			1		USE	C

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131051a
Date: 31-Jan-2010
Time: 18:40:29
ID: 1202028962
Vial: 2:1,F

| LANL | 947191 | L2W | MS | 1 |

CWW 02-01-10

Perchlorate

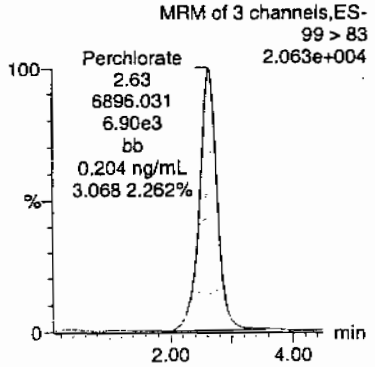

Perchlorate

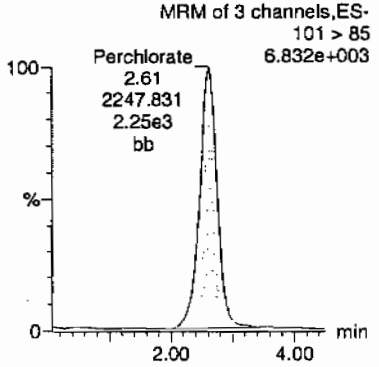

Perchlorate-101

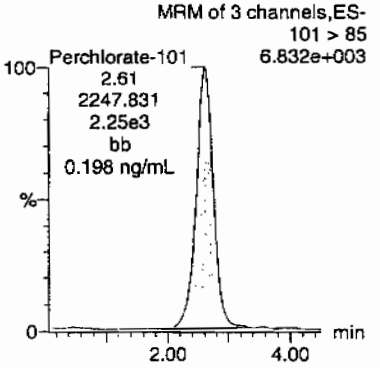

Perchlorate-O(18)

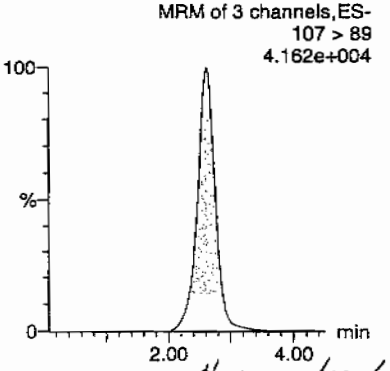

Hmm 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028962	Perchlorate	99 > 83	2.63	6896.031	6896.031	bb			0.2039	101.95	1.95	499.072	3.07
1202028962	Perchlorate-101	101 > 85	2.61	2247.831	2247.831	bb			0.1978	98.88	-1.12	1131.5...	
1202028962	Perchlorate-O(18)	107 > 89	2.61	13826.360	13826.360	bb			0.4754	95.08	-4.92	4176.2...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per013110a.qld

Last Altered: Monday, February 01, 2010 10:45:07 AM Eastern Standard Time
Printed: Monday, February 01, 2010 10:58:37 AM Eastern Standard Time

Name: per0131052a
Date: 31-Jan-2010
Time: 18:48:01
ID: 1202028963
Vial: 2:2,A

|LANL|947199|LCQ|MSD|1|

WW
02-01-10

Perchlorate

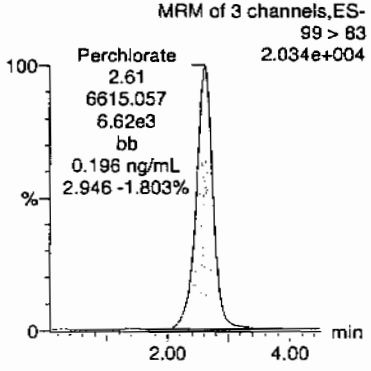

Perchlorate

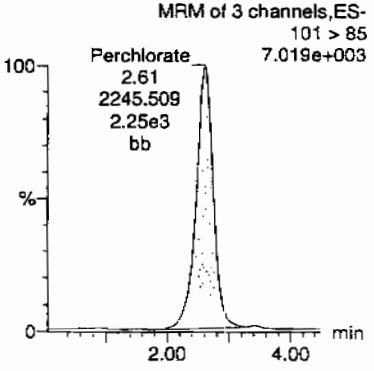

Perchlorate-101

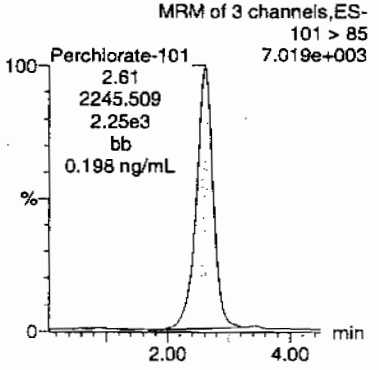

Perchlorate-O(18)

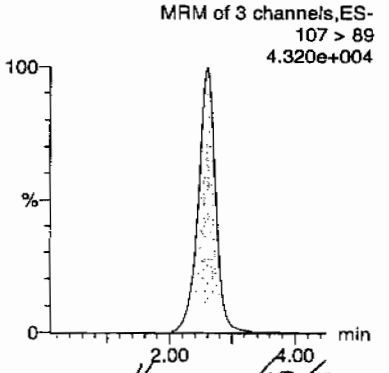

HWM 02/03/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202028963	Perchlorate	99 > 83	2.61	6615.057	6615.057	bb			0.1956	97.80	-2.20	747.719	2.95
1202028963	Perchlorate-101	101 > 85	2.61	2245.509	2245.509	bb			0.1975	98.77	-1.23	234.767	
1202028963	Perchlorate-O(18)	107 > 89	2.60	14081.118	14081.118	bb			0.4842	96.83	-3.17	1719.1...	

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1433

Sample Analysis

Sample ID	Client ID
245688001	RE15-10-7883
245688002	RE15-10-7884
245688003	RE15-10-7932
245688004	RE15-10-7931
245688005	RE15-10-7938
245688006	RE15-10-7933
245688007	RE15-10-7939
245688008	RE15-10-7936
245688009	RE15-10-7935
245688010	RE15-10-7934
245688011	RE15-10-7940
245688012	RE15-10-7937
245688013	RE15-10-8056
245688014	RE15-10-8057
1202030846	Method Blank (MB) **ICP**
1202046765	Method Blank (MB) **ICP**
1202030851	Laboratory Control Sample (LCS)
1202046766	Laboratory Control Sample (LCS)
1202030848	245688001(RE15-10-7883L) Serial Dilution (SD)
1202030847	245688001(RE15-10-7883D) Sample Duplicate (DUP)

1202030849	245688001(RE15-10-7883S) Matrix Spike (MS)
1202030850	245688001(RE15-10-7883SD) Matrix Spike Duplicate (MSD)
1202030852	Method Blank (MB) **ICP-MS**
1202030857	Laboratory Control Sample (LCS)
1202030854	245688001(RE15-10-7883L) Serial Dilution (SD)
1202030853	245688001(RE15-10-7883D) Sample Duplicate (DUP)
1202030855	245688001(RE15-10-7883S) Matrix Spike (MS)
1202030856	245688001(RE15-10-7883SD) Matrix Spike Duplicate (MSD)
1202029993	Method Blank (MB) **CVAA**
1202029994	Laboratory Control Sample (LCS)
1202029997	245688001(RE15-10-7883L) Serial Dilution (SD)
1202029995	245688001(RE15-10-7883D) Sample Duplicate (DUP)
1202029996	245688001(RE15-10-7883S) Matrix Spike (MS)
1202029998	245688001(RE15-10-7883SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	948032, 954751, 948035 and 947654
Prep Batch :	948031, 954750, 948033 and 947653
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of mercury, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 245688001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of magnesium, potassium and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of calcium and selenium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of calcium and selenium, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes did not meet these requirements with the exception of aluminum, barium, calcium, cobalt, copper, lead, magnesium, manganese and potassium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples 245688009, 245688012 and 245688013 required dilutions for uranium in order to bring over range concentrations within the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 791250, 794447 and 795211. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parsons **Date:** 2/24/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688001 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7883 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 69

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5870000	ug/Kg	*	9750	28700	28700	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-36-0	Antimony	1580	ug/Kg		473	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-38-2	Arsenic	1.56	mg/kg		0.281	1.41	1.41	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-39-3	Barium	77600	ug/Kg	*	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-41-7	Beryllium	0.549	mg/kg		0.0281	0.141	0.141	2	MS	SKJ	02/24/10 12:31	100224-4	948035
7440-43-9	Cadmium	717	ug/Kg	U	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-70-2	Calcium	1290000	ug/Kg	*N	11500	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-47-3	Chromium	12700	ug/Kg		215	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-48-4	Cobalt	6090	ug/Kg	*	215	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-50-8	Copper	10100	ug/Kg	*	424	1410	1410	1	P	HSC	02/19/10 18:06	021910A-2	954751
7439-89-6	Iron	10500000	ug/Kg		11500	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-92-1	Lead	14300	ug/Kg	*	358	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-95-4	Magnesium	1140000	ug/Kg	*N	12200	43000	43000	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-96-5	Manganese	406000	ug/Kg	*	287	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032
7439-97-6	Mercury	17.8	ug/kg		5.53	16.3	16.3	1	AV	JXL1	02/16/10 10:45	021610S2-5	947654
7440-02-0	Nickel	4.82	mg/kg		0.141	0.562	0.562	2	MS	SKJ	02/24/10 12:31	100224-4	948035
7440-09-7	Potassium	1190000	ug/Kg	*N	9180	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7782-49-2	Selenium	1.41	mg/kg	U*N	0.703	1.41	1.41	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-22-4	Silver	717	ug/Kg	U	143	717	717	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-23-5	Sodium	53800	ug/Kg		10000	35800	35800	1	P	HSC	02/12/10 11:12	021210-1	948032
7440-28-0	Thallium	0.229	mg/kg	J	0.0844	0.281	0.281	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-61-1	Uranium	7.58	mg/kg		0.0186	0.0562	0.0562	2	MS	PRB	02/24/10 11:32	100224-3	948035
7440-62-2	Vanadium	17600	ug/Kg		141	707	707	1	P	HSC	02/19/10 18:06	021910A-2	954751
7440-66-6	Zinc	29800	ug/Kg		473	1430	1430	1	P	HSC	02/12/10 11:12	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.535	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.506	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.516	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.513	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688002 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7884 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 94.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4780000	ug/Kg	*	6930	20400	20400	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-36-0	Antimony	458	ug/Kg	J	336	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-38-2	Arsenic	1.16	mg/kg		0.198	0.992	0.992	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-39-3	Barium	46200	ug/Kg	*	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-41-7	Beryllium	0.427	mg/kg		0.0198	0.0992	0.0992	2	MS	SKJ	02/24/10 12:44	100224-4	948035
7440-43-9	Cadmium	509	ug/Kg	U	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-70-2	Calcium	700000	ug/Kg	*N	8150	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-47-3	Chromium	11100	ug/Kg		153	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-48-4	Cobalt	3490	ug/Kg	*	153	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-50-8	Copper	3450	ug/Kg	*	317	1060	1060	1	P	HSC	02/19/10 18:31	021910A-2	954751
7439-89-6	Iron	11100000	ug/Kg		8150	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-92-1	Lead	5710	ug/Kg	*	255	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-95-4	Magnesium	679000	ug/Kg	*N	8660	30600	30600	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-96-5	Manganese	272000	ug/Kg	*	204	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032
7439-97-6	Mercury	16.3	ug/kg		4.01	11.8	11.8	1	AV	JXL1	02/16/10 10:55	021610S2-5	947654
7440-02-0	Nickel	5.16	mg/kg		0.0992	0.397	0.397	2	MS	SKJ	02/24/10 12:44	100224-4	948035
7440-09-7	Potassium	651000	ug/Kg	*N	6520	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7782-49-2	Selenium	0.992	mg/kg	U*N	0.496	0.992	0.992	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-22-4	Silver	509	ug/Kg	U	102	509	509	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-23-5	Sodium	180000	ug/Kg		7130	25500	25500	1	P	HSC	02/12/10 11:30	021210-1	948032
7440-28-0	Thallium	0.0649	mg/kg	J	0.0595	0.198	0.198	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-61-1	Uranium	0.598	mg/kg		0.0131	0.0397	0.0397	2	MS	PRB	02/24/10 11:46	100224-3	948035
7440-62-2	Vanadium	5730	ug/Kg		106	528	528	1	P	HSC	02/19/10 18:31	021910A-2	954751
7440-66-6	Zinc	51200	ug/Kg		336	1020	1020	1	P	HSC	02/12/10 11:30	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.54	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.521	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.535	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688003 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: REJ5-10-7932 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 90.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6700000	ug/Kg	*	7410	21800	21800	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-36-0	Antimony	868	ug/Kg	J	360	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-38-2	Arsenic	1.26	mg/kg		0.193	0.963	0.963	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-39-3	Barium	77700	ug/Kg	*	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-41-7	Beryllium	0.734	mg/kg		0.0193	0.0963	0.0963	2	MS	SKJ	02/24/10 12:46	100224-4	948035
7440-43-9	Cadmium	545	ug/Kg	U	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-70-2	Calcium	1800000	ug/Kg	*N	8720	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-47-3	Chromium	18400	ug/Kg		164	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-48-4	Cobalt	3520	ug/Kg	*	164	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-50-8	Copper	4150	ug/Kg	*	277	922	922	1	P	HSC	02/19/10 18:35	021910A-2	954751
7439-89-6	Iron	12100000	ug/Kg		8720	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-92-1	Lead	5670	ug/Kg	*	273	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-95-4	Magnesium	1040000	ug/Kg	*N	9270	32700	32700	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-96-5	Manganese	327000	ug/Kg	*	218	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032
7439-97-6	Mercury	16.9	ug/kg		4.34	12.8	12.8	1	AV	JXL1	02/16/10 10:57	021610S2-5	947654
7440-02-0	Nickel	5.42	mg/kg		0.0963	0.385	0.385	2	MS	SKJ	02/24/10 12:46	100224-4	948035
7440-09-7	Potassium	841000	ug/Kg	*N	6980	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7782-49-2	Selenium	0.963	mg/kg	U*N	0.481	0.963	0.963	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-22-4	Silver	545	ug/Kg	U	109	545	545	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-23-5	Sodium	203000	ug/Kg		7630	27300	27300	1	P	HSC	02/12/10 11:34	021210-1	948032
7440-28-0	Thallium	0.0724	mg/kg	J	0.0578	0.193	0.193	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-61-1	Uranium	0.938	mg/kg		0.0127	0.0385	0.0385	2	MS	PRB	02/24/10 11:49	100224-3	948035
7440-62-2	Vanadium	7970	ug/Kg		92.2	461	461	1	P	HSC	02/19/10 18:35	021910A-2	954751
7440-66-6	Zinc	28500	ug/Kg		360	1090	1090	1	P	HSC	02/12/10 11:34	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.518	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.505	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.572	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.597	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688004 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7931 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9650000	ug/Kg	*	8200	24100	24100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-36-0	Antimony	959	ug/Kg	J	398	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-38-2	Arsenic	1.67	mg/kg		0.23	1.15	1.15	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-39-3	Barium	105000	ug/Kg	*	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-41-7	Beryllium	0.614	mg/kg		0.023	0.115	0.115	2	MS	SKJ	02/24/10 12:48	100224-4	948035
7440-43-9	Cadmium	603	ug/Kg	U	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-70-2	Calcium	1590000	ug/Kg	*N	9650	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-47-3	Chromium	19900	ug/Kg		181	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-48-4	Cobalt	3390	ug/Kg	*	181	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-50-8	Copper	7780	ug/Kg	*	362	1210	1210	1	P	HSC	02/19/10 18:39	021910A-2	954751
7439-89-6	Iron	11100000	ug/Kg		9650	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-92-1	Lead	9730	ug/Kg	*	301	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-95-4	Magnesium	1420000	ug/Kg	*N	10200	36200	36200	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-96-5	Manganese	321000	ug/Kg	*	241	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032
7439-97-6	Mercury	17.3	ug/kg		4.23	12.5	12.5	1	AV	JXL1	02/16/10 10:59	021610S2-5	947654
7440-02-0	Nickel	5.76	mg/kg		0.115	0.46	0.46	2	MS	SKJ	02/24/10 12:48	100224-4	948035
7440-09-7	Potassium	1190000	ug/Kg	*N	7720	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7782-49-2	Selenium	1.15	mg/kg	U*N	0.575	1.15	1.15	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-22-4	Silver	603	ug/Kg	U	121	603	603	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-23-5	Sodium	76000	ug/Kg		8440	30100	30100	1	P	HSC	02/12/10 11:38	021210-1	948032
7440-28-0	Thallium	0.108	mg/kg	J	0.069	0.23	0.23	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-61-1	Uranium	2.26	mg/kg		0.0152	0.046	0.046	2	MS	PRB	02/24/10 11:51	100224-3	948035
7440-62-2	Vanadium	13000	ug/Kg		121	603	603	1	P	HSC	02/19/10 18:39	021910A-2	954751
7440-66-6	Zinc	25900	ug/Kg		398	1210	1210	1	P	HSC	02/12/10 11:38	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.581	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.524	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.5	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688005 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7938 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1910000	ug/Kg	*	6980	20500	20500	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-36-0	Antimony	410	ug/Kg	J	339	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-38-2	Arsenic	0.672	mg/kg	J	0.193	0.966	0.966	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-39-3	Barium	35000	ug/Kg	*	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-41-7	Beryllium	0.358	mg/kg		0.0193	0.0966	0.0966	2	MS	SKJ	02/24/10 12:50	100224-4	948035
7440-43-9	Cadmium	513	ug/Kg	U	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-70-2	Calcium	396000	ug/Kg	*N	8210	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-47-3	Chromium	41300	ug/Kg		154	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-48-4	Cobalt	1310	ug/Kg	*	154	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-50-8	Copper	2730	ug/Kg	*	310	1030	1030	1	P	HSC	02/19/10 18:42	021910A-2	954751
7439-89-6	Iron	8030000	ug/Kg		8210	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-92-1	Lead	3020	ug/Kg	*	257	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-95-4	Magnesium	352000	ug/Kg	*N	8730	30800	30800	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-96-5	Manganese	223000	ug/Kg	*	205	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032
7439-97-6	Mercury	14.9	ug/kg		4.11	12.1	12.1	1	AV	JXL1	02/16/10 11:05	021610S2-5	947654
7440-02-0	Nickel	5.53	mg/kg		0.0966	0.386	0.386	2	MS	SKJ	02/24/10 12:50	100224-4	948035
7440-09-7	Potassium	320000	ug/Kg	*N	6570	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7782-49-2	Selenium	0.966	mg/kg	U*N	0.483	0.966	0.966	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-22-4	Silver	513	ug/Kg	U	103	513	513	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-23-5	Sodium	126000	ug/Kg		7190	25700	25700	1	P	HSC	02/12/10 11:49	021210-1	948032
7440-28-0	Thallium	0.193	mg/kg	U	0.0579	0.193	0.193	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-61-1	Uranium	0.593	mg/kg		0.0127	0.0386	0.0386	2	MS	PRB	02/24/10 11:59	100224-3	948035
7440-62-2	Vanadium	4020	ug/Kg		103	517	517	1	P	HSC	02/19/10 18:42	021910A-2	954751
7440-66-6	Zinc	41300	ug/Kg		339	1030	1030	1	P	HSC	02/12/10 11:49	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.515	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.505	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.537	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.501	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688006 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7933 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3570000	ug/Kg	*	7660	22500	22500	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-36-0	Antimony	627	ug/Kg	J	372	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-38-2	Arsenic	1.59	mg/kg		0.229	1.15	1.15	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-39-3	Barium	39900	ug/Kg	*	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-41-7	Beryllium	0.520	mg/kg		0.0229	0.115	0.115	2	MS	SKJ	02/24/10 12:56	100224-4	948035
7440-43-9	Cadmium	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-70-2	Calcium	642000	ug/Kg	*N	9010	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-47-3	Chromium	5380	ug/Kg		169	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-48-4	Cobalt	2720	ug/Kg	*	169	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-50-8	Copper	10400	ug/Kg	*	354	1180	1180	1	P	HSC	02/19/10 18:46	021910A-2	954751
7439-89-6	Iron	6280000	ug/Kg		9010	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-92-1	Lead	6900	ug/Kg	*	282	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-95-4	Magnesium	651000	ug/Kg	*N	9580	33800	33800	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-96-5	Manganese	177000	ug/Kg	*	225	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032
7439-97-6	Mercury	9.04	ug/kg	J	4.6	13.5	13.5	1	AV	JXL1	02/16/10 11:07	021610S2-5	947654
7440-02-0	Nickel	4.99	mg/kg		0.115	0.459	0.459	2	MS	SKJ	02/24/10 12:56	100224-4	948035
7440-09-7	Potassium	691000	ug/Kg	*N	7210	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7782-49-2	Selenium	1.15	mg/kg	U*N	0.574	1.15	1.15	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-22-4	Silver	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-23-5	Sodium	26300	ug/Kg	J	7890	28200	28200	1	P	HSC	02/12/10 11:52	021210-1	948032
7440-28-0	Thallium	0.132	mg/kg	J	0.0688	0.229	0.229	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-61-1	Uranium	13.8	mg/kg		0.0151	0.0459	0.0459	2	MS	PRB	02/24/10 12:02	100224-3	948035
7440-62-2	Vanadium	19400	ug/Kg		118	590	590	1	P	HSC	02/19/10 18:46	021910A-2	954751
7440-66-6	Zinc	13100	ug/Kg		372	1130	1130	1	P	HSC	02/12/10 11:52	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.559	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.559	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.549	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.534	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688007 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7939 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6600000	ug/Kg	*	8410	24700	24700	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-36-0	Antimony	884	ug/Kg	J	408	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-38-2	Arsenic	3.28	mg/kg		0.246	1.23	1.23	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-39-3	Barium	82600	ug/Kg	*	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-41-7	Beryllium	1.12	mg/kg		0.0246	0.123	0.123	2	MS	SKJ	02/24/10 12:58	100224-4	948035
7440-43-9	Cadmium	618	ug/Kg	U	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-70-2	Calcium	1050000	ug/Kg	*N	9890	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-47-3	Chromium	21100	ug/Kg		185	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-48-4	Cobalt	5780	ug/Kg	*	185	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-50-8	Copper	23100	ug/Kg	*	363	1210	1210	1	P	HSC	02/19/10 18:50	021910A-2	954751
7439-89-6	Iron	8380000	ug/Kg		9890	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-92-1	Lead	12700	ug/Kg	*	309	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-95-4	Magnesium	1230000	ug/Kg	*N	10500	37100	37100	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-96-5	Manganese	295000	ug/Kg	*	247	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032
7439-97-6	Mercury	30.5	ug/kg		5.14	15.1	15.1	1	AV	JXL1	02/16/10 11:09	021610S2-5	947654
7440-02-0	Nickel	12	mg/kg		0.123	0.493	0.493	2	MS	SKJ	02/24/10 12:58	100224-4	948035
7440-09-7	Potassium	1160000	ug/Kg	*N	7910	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7782-49-2	Selenium	1.23	mg/kg	U*N	0.616	1.23	1.23	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-22-4	Silver	618	ug/Kg	U	124	618	618	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-23-5	Sodium	85800	ug/Kg		8650	30900	30900	1	P	HSC	02/12/10 11:56	021210-1	948032
7440-28-0	Thallium	0.313	mg/kg		0.0739	0.246	0.246	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-61-1	Uranium	16.5	mg/kg		0.0163	0.0493	0.0493	2	MS	PRB	02/24/10 12:05	100224-3	948035
7440-62-2	Vanadium	24700	ug/Kg		121	605	605	1	P	HSC	02/19/10 18:50	021910A-2	954751
7440-66-6	Zinc	18000	ug/Kg		408	1240	1240	1	P	HSC	02/12/10 11:56	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.521	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.531	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.533	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.543	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688008 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7936 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1370000	ug/Kg	*	7060	20800	20800	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-36-0	Antimony	1040	ug/Kg	U	343	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-38-2	Arsenic	0.469	mg/kg	J	0.182	0.911	0.911	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-39-3	Barium	26200	ug/Kg	*	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-41-7	Beryllium	0.279	mg/kg		0.0182	0.0911	0.0911	2	MS	SKJ	02/24/10 12:59	100224-4	948035
7440-43-9	Cadmium	519	ug/Kg	U	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-70-2	Calcium	778000	ug/Kg	*N	8300	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-47-3	Chromium	14100	ug/Kg		156	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-48-4	Cobalt	946	ug/Kg	*	156	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-50-8	Copper	6480	ug/Kg	*	308	1030	1030	1	P	HSC	02/19/10 18:53	021910A-2	954751
7439-89-6	Iron	7710000	ug/Kg		8300	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-92-1	Lead	6000	ug/Kg	*	260	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-95-4	Magnesium	323000	ug/Kg	*N	8820	31100	31100	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-96-5	Manganese	234000	ug/Kg	*	208	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032
7439-97-6	Mercury	18.8	ug/kg		3.91	11.5	11.5	1	AV	JXL1	02/16/10 11:11	021610S2-5	947654
7440-02-0	Nickel	3.79	mg/kg		0.0911	0.364	0.364	2	MS	SKJ	02/24/10 12:59	100224-4	948035
7440-09-7	Potassium	359000	ug/Kg	*N	6640	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7782-49-2	Selenium	0.911	mg/kg	U*N	0.455	0.911	0.911	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-22-4	Silver	519	ug/Kg	U	104	519	519	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-23-5	Sodium	137000	ug/Kg		7270	26000	26000	1	P	HSC	02/12/10 12:00	021210-1	948032
7440-28-0	Thallium	0.182	mg/kg	U	0.0546	0.182	0.182	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-61-1	Uranium	1.85	mg/kg		0.012	0.0364	0.0364	2	MS	PRB	02/24/10 12:08	100224-3	948035
7440-62-2	Vanadium	6320	ug/Kg		103	513	513	1	P	HSC	02/19/10 18:53	021910A-2	954751
7440-66-6	Zinc	46700	ug/Kg		343	1040	1040	1	P	HSC	02/12/10 12:00	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.542	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.57	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.506	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688009 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7935 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11400000	ug/Kg	*	8610	25300	25300	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-36-0	Antimony	2520	ug/Kg		418	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-38-2	Arsenic	2.88	mg/kg		0.237	1.18	1.18	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-39-3	Barium	101000	ug/Kg	*	127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-41-7	Beryllium	2.47	mg/kg		0.0237	0.118	0.118	2	MS	SKJ	02/24/10 13:01	100224-4	948035
7440-43-9	Cadmium	633	ug/Kg	U	127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-70-2	Calcium	2220000	ug/Kg	*N	10100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-47-3	Chromium	25200	ug/Kg		190	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-48-4	Cobalt	4850	ug/Kg	*	190	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-50-8	Copper	552000	ug/Kg	*	390	1300	1300	1	P	HSC	02/19/10 19:04	021910A-2	954751
7439-89-6	Iron	13700000	ug/Kg		10100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-92-1	Lead	123000	ug/Kg	*	317	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-95-4	Magnesium	1840000	ug/Kg	*N	10800	38000	38000	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-96-5	Manganese	226000	ug/Kg	*	253	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032
7439-97-6	Mercury	17.9	ug/kg		4.98	14.7	14.7	1	AV	JXL1	02/16/10 11:13	021610S2-5	947654
7440-02-0	Nickel	8.31	mg/kg		0.118	0.473	0.473	2	MS	SKJ	02/24/10 13:01	100224-4	948035
7440-09-7	Potassium	1480000	ug/Kg	*N	8100	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7782-49-2	Selenium	1.18	mg/kg	U*N	0.592	1.18	1.18	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-22-4	Silver	1680	ug/Kg		127	633	633	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-23-5	Sodium	90500	ug/Kg		8860	31700	31700	1	P	HSC	02/12/10 12:03	021210-1	948032
7440-28-0	Thallium	0.162	mg/kg	J	0.071	0.237	0.237	2	MS	PRB	02/24/10 12:10	100224-3	948035
7440-61-1	Uranium	141	mg/kg		0.156	0.473	0.473	20	MS	PRB	02/24/10 12:38	100224-3	948035
7440-62-2	Vanadium	22700	ug/Kg		130	651	651	1	P	HSC	02/19/10 19:04	021910A-2	954751
7440-66-6	Zinc	52900	ug/Kg		418	1270	1270	1	P	HSC	02/12/10 12:03	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.536	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.517	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.553	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688010 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7934 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8850000	ug/Kg	*	7290	21500	21500	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-36-0	Antimony	894	ug/Kg	J	354	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-38-2	Arsenic	2.18	mg/kg		0.21	1.05	1.05	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-39-3	Barium	123000	ug/Kg	*	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-41-7	Beryllium	0.699	mg/kg		0.021	0.105	0.105	2	MS	SKJ	02/24/10 13:03	100224-4	948035
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-70-2	Calcium	2620000	ug/Kg	*N	8580	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-47-3	Chromium	28300	ug/Kg		161	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-48-4	Cobalt	4420	ug/Kg	*	161	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-50-8	Copper	5240	ug/Kg	*	321	1070	1070	1	P	HSC	02/19/10 19:08	021910A-2	954751
7439-89-6	Iron	13000000	ug/Kg		8580	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-92-1	Lead	8720	ug/Kg	*	268	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-95-4	Magnesium	1740000	ug/Kg	*N	9120	32200	32200	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-96-5	Manganese	291000	ug/Kg	*	215	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032
7439-97-6	Mercury	15.8	ug/kg		3.98	11.7	11.7	1	AV	JXL1	02/16/10 11:15	021610S2-5	947654
7440-02-0	Nickel	7.26	mg/kg		0.105	0.419	0.419	2	MS	SKJ	02/24/10 13:03	100224-4	948035
7440-09-7	Potassium	1220000	ug/Kg	*N	6870	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7782-49-2	Selenium	1.05	mg/kg	U*N	0.524	1.05	1.05	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-22-4	Silver	536	ug/Kg	U	107	536	536	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-23-5	Sodium	325000	ug/Kg		7510	26800	26800	1	P	HSC	02/12/10 12:07	021210-1	948032
7440-28-0	Thallium	0.141	mg/kg	J	0.0629	0.21	0.21	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-61-1	Uranium	1.18	mg/kg		0.0138	0.0419	0.0419	2	MS	PRB	02/24/10 12:13	100224-3	948035
7440-62-2	Vanadium	14900	ug/Kg		107	534	534	1	P	HSC	02/19/10 19:08	021910A-2	954751
7440-66-6	Zinc	28400	ug/Kg		354	1070	1070	1	P	HSC	02/12/10 12:07	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.568	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.516	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.528	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.518	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688011 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7940 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 95.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3920000	ug/Kg	*	6850	20100	20100	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-36-0	Antimony	927	ug/Kg	J	332	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-38-2	Arsenic	1.45	mg/kg		0.201	1	1	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-39-3	Barium	55200	ug/Kg	*	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-41-7	Beryllium	0.706	mg/kg		0.0201	0.1	0.1	2	MS	SKJ	02/24/10 13:09	100224-4	948035
7440-43-9	Cadmium	503	ug/Kg	U	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-70-2	Calcium	3040000	ug/Kg	*N	8050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-47-3	Chromium	27700	ug/Kg		151	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-48-4	Cobalt	1120	ug/Kg	*	151	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-50-8	Copper	2910	ug/Kg	*	315	1050	1050	1	P	HSC	02/19/10 19:12	021910A-2	954751
7439-89-6	Iron	7420000	ug/Kg		8050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-92-1	Lead	4870	ug/Kg	*	252	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-95-4	Magnesium	832000	ug/Kg	*N	8560	30200	30200	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-96-5	Manganese	252000	ug/Kg	*	201	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032
7439-97-6	Mercury	27	ug/kg		3.9	11.5	11.5	1	AV	JXL1	02/16/10 11:17	021610S2-5	947654
7440-02-0	Nickel	7.31	mg/kg		0.1	0.402	0.402	2	MS	SKJ	02/24/10 13:09	100224-4	948035
7440-09-7	Potassium	471000	ug/Kg	*N	6440	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7782-49-2	Selenium	1	mg/kg	U*N	0.502	1	1	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-22-4	Silver	503	ug/Kg	U	101	503	503	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-23-5	Sodium	292000	ug/Kg		7050	25200	25200	1	P	HSC	02/12/10 12:11	021210-1	948032
7440-28-0	Thallium	0.0914	mg/kg	J	0.0603	0.201	0.201	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-61-1	Uranium	0.888	mg/kg		0.0133	0.0402	0.0402	2	MS	PRB	02/24/10 12:16	100224-3	948035
7440-62-2	Vanadium	7590	ug/Kg		105	525	525	1	P	HSC	02/19/10 19:12	021910A-2	954751
7440-66-6	Zinc	22500	ug/Kg		332	1010	1010	1	P	HSC	02/12/10 12:11	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.55	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.522	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.523	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.5	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688012 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-7937 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9710000	ug/Kg	*	8890	26100	26100	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-36-0	Antimony	1090	ug/Kg	J	431	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-38-2	Arsenic	2.93	mg/kg		0.262	1.31	1.31	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-39-3	Barium	186000	ug/Kg	*	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-41-7	Beryllium	1.05	mg/kg		0.0262	0.131	0.131	2	MS	SKJ	02/24/10 13:11	100224-4	948035
7440-43-9	Cadmium	653	ug/Kg	U	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-70-2	Calcium	2860000	ug/Kg	*N	10500	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-47-3	Chromium	16700	ug/Kg		196	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-48-4	Cobalt	9400	ug/Kg	*	196	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-50-8	Copper	33000	ug/Kg	*	391	1300	1300	1	P	HSC	02/19/10 19:15	021910A-2	954751
7439-89-6	Iron	12700000	ug/Kg		10500	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-92-1	Lead	30500	ug/Kg	*	327	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-95-4	Magnesium	2080000	ug/Kg	*N	11100	39200	39200	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-96-5	Manganese	738000	ug/Kg	*	261	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032
7439-97-6	Mercury	31.4	ug/kg		4.93	14.5	14.5	1	AV	JXL1	02/16/10 11:19	021610S2-5	947654
7440-02-0	Nickel	9.3	mg/kg		0.131	0.524	0.524	2	MS	SKJ	02/24/10 13:11	100224-4	948035
7440-09-7	Potassium	1770000	ug/Kg	*N	8360	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7782-49-2	Selenium	1.31	mg/kg	U*N	0.655	1.31	1.31	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-22-4	Silver	653	ug/Kg	U	131	653	653	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-23-5	Sodium	71800	ug/Kg		9150	32700	32700	1	P	HSC	02/12/10 12:14	021210-1	948032
7440-28-0	Thallium	0.208	mg/kg	J	0.0786	0.262	0.262	2	MS	PRB	02/24/10 12:19	100224-3	948035
7440-61-1	Uranium	27.7	mg/kg		0.0864	0.262	0.262	10	MS	PRB	02/24/10 12:41	100224-3	948035
7440-62-2	Vanadium	19000	ug/Kg		130	652	652	1	P	HSC	02/19/10 19:15	021910A-2	954751
7440-66-6	Zinc	35800	ug/Kg		431	1310	1310	1	P	HSC	02/12/10 12:14	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.543	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.502	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.501	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.503	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688013 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-8056 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2200000	ug/Kg	*	6750	19900	19900	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-36-0	Antimony	446	ug/Kg	J	328	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-38-2	Arsenic	0.478	mg/kg	J	0.196	0.98	0.98	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-39-3	Barium	31500	ug/Kg	*	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-41-7	Beryllium	0.318	mg/kg		0.0196	0.098	0.098	2	MS	SKJ	02/24/10 13:13	100224-4	948035
7440-43-9	Cadmium	497	ug/Kg	U	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-70-2	Calcium	998000	ug/Kg	*N	7950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-47-3	Chromium	15500	ug/Kg		149	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-48-4	Cobalt	1220	ug/Kg	*	149	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-50-8	Copper	3940	ug/Kg	*	280	933	933	1	P	HSC	02/19/10 19:19	021910A-2	954751
7439-89-6	Iron	8720000	ug/Kg		7950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-92-1	Lead	10200	ug/Kg	*	248	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-95-4	Magnesium	438000	ug/Kg	*N	8440	29800	29800	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-96-5	Manganese	214000	ug/Kg	*	199	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032
7439-97-6	Mercury	17.3	ug/kg		3.93	11.6	11.6	1	AV	JXL1	02/16/10 11:21	021610S2-5	947654
7440-02-0	Nickel	4.27	mg/kg		0.098	0.392	0.392	2	MS	SKJ	02/24/10 13:13	100224-4	948035
7440-09-7	Potassium	440000	ug/Kg	*N	6360	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7782-49-2	Selenium	0.980	mg/kg	U*N	0.49	0.98	0.98	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-22-4	Silver	497	ug/Kg	U	99.3	497	497	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-23-5	Sodium	136000	ug/Kg		6950	24800	24800	1	P	HSC	02/12/10 12:18	021210-1	948032
7440-28-0	Thallium	0.196	mg/kg	U	0.0588	0.196	0.196	2	MS	PRB	02/24/10 12:21	100224-3	948035
7440-61-1	Uranium	39	mg/kg		0.0647	0.196	0.196	10	MS	PRB	02/24/10 12:44	100224-3	948035
7440-62-2	Vanadium	3200	ug/Kg		93.3	466	466	1	P	HSC	02/19/10 19:19	021910A-2	954751
7440-66-6	Zinc	41900	ug/Kg		328	993	993	1	P	HSC	02/12/10 12:18	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.538	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.522	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.529	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.556	g	50	mL	02/18/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245688014 **BASIS:** Dry Weight **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-8057 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: SOIL **%SOLIDS:** 70

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4900000	ug/Kg	*	9690	28500	28500	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-36-0	Antimony	515	ug/Kg	J	470	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-38-2	Arsenic	1.48	mg/kg		0.24	1.2	1.2	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-39-3	Barium	61000	ug/Kg	*	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-41-7	Beryllium	0.549	mg/kg		0.024	0.12	0.12	2	MS	SKJ	02/24/10 13:14	100224-4	948035
7440-43-9	Cadmium	712	ug/Kg	U	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-70-2	Calcium	935000	ug/Kg	*N	11400	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-47-3	Chromium	9030	ug/Kg		214	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-48-4	Cobalt	4260	ug/Kg	*	214	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-50-8	Copper	11000	ug/Kg	*	339	1130	1130	1	P	HSC	02/19/10 19:23	021910A-2	954751
7439-89-6	Iron	7770000	ug/Kg		11400	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-92-1	Lead	10500	ug/Kg	*	356	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-95-4	Magnesium	928000	ug/Kg	*N	12100	42700	42700	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-96-5	Manganese	282000	ug/Kg	*	285	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032
7439-97-6	Mercury	10.2	ug/kg	J	5.02	14.8	14.8	1	AV	JXL1	02/16/10 11:23	021610S2-5	947654
7440-02-0	Nickel	4.75	mg/kg		0.12	0.48	0.48	2	MS	SKJ	02/24/10 13:14	100224-4	948035
7440-09-7	Potassium	1020000	ug/Kg	*N	9120	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7782-49-2	Selenium	1.2	mg/kg	U*N	0.601	1.2	1.2	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-22-4	Silver	712	ug/Kg	U	142	712	712	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-23-5	Sodium	49000	ug/Kg		9970	35600	35600	1	P	HSC	02/12/10 12:22	021210-1	948032
7440-28-0	Thallium	0.113	mg/kg	J	0.0721	0.24	0.24	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-61-1	Uranium	6.15	mg/kg		0.0159	0.048	0.048	2	MS	PRB	02/24/10 12:24	100224-3	948035
7440-62-2	Vanadium	18200	ug/Kg		113	565	565	1	P	HSC	02/19/10 19:23	021910A-2	954751
7440-66-6	Zinc	20900	ug/Kg		470	1420	1420	1	P	HSC	02/12/10 12:22	021210-1	948032

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947654	947653	SW846 7471A Prep	0.579	g	30	mL	02/15/10	TXB3
948032	948031	SW846 3050B	0.5	g	50	mL	02/08/10	BXA1
948035	948033	SW846 3050B	0.593	g	50	mL	02/23/10	BXA1
954751	954750	SW846 3050B	0.63	g	50	mL	02/18/10	BCD1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Antimony	492	ug/L	500	ug/L	98.3	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Barium	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Cadmium	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Calcium	4760	ug/L	5000	ug/L	95.2	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Chromium	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Iron	4950	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Lead	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Magnesium	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Potassium	2460	ug/L	2500	ug/L	98.4	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Silver	254	ug/L	250	ug/L	101.7	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Sodium	2410	ug/L	2500	ug/L	96.5	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Zinc	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	12-FEB-10 05:38	021210-1
	Mercury	5.1	ug/L	5	ug/L	102.1	90.0 - 110.0	AV	16-FEB-10 10:31	021610S2-5
	Copper	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-2
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	19-FEB-10 16:40	021910A-2
	Arsenic	47.8	ug/L	50	ug/L	95.6	90.0 - 110.0	MS	24-FEB-10 11:08	100224-3
	Selenium	51.2	ug/L	50	ug/L	102.3	90.0 - 110.0	MS	24-FEB-10 11:08	100224-3
	Thallium	49.2	ug/L	50	ug/L	98.3	90.0 - 110.0	MS	24-FEB-10 11:08	100224-3
	Uranium	53.2	ug/L	50	ug/L	106.4	90.0 - 110.0	MS	24-FEB-10 11:08	100224-3
	Beryllium	50.7	ug/L	50	ug/L	101.3	90.0 - 110.0	MS	24-FEB-10 12:11	100224-4
	Nickel	52.5	ug/L	50	ug/L	104.9	90.0 - 110.0	MS	24-FEB-10 12:11	100224-4
CCV01										
	Aluminum	4870	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Antimony	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Cadmium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Calcium	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	12-FEB-10 06:01	021210-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Cobalt	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Lead	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Magnesium	4990	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Manganese	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Silver	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Sodium	9670	ug/L	10000	ug/L	96.7	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Zinc	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	12-FEB-10 06:01	021210-1
	Mercury	4.8	ug/L	5	ug/L	96.1	80.0 - 120.0	AV	16-FEB-10 10:37	021610S2-5
	Copper	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	19-FEB-10 17:03	021910A-2
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	19-FEB-10 17:03	021910A-2
	Arsenic	47.1	ug/L	50	ug/L	94.2	90.0 - 110.0	MS	24-FEB-10 11:21	100224-3
	Selenium	49.2	ug/L	50	ug/L	98.4	90.0 - 110.0	MS	24-FEB-10 11:21	100224-3
	Thallium	48	ug/L	50	ug/L	96.1	90.0 - 110.0	MS	24-FEB-10 11:21	100224-3
	Uranium	52.9	ug/L	50	ug/L	105.8	90.0 - 110.0	MS	24-FEB-10 11:21	100224-3
	Beryllium	52	ug/L	50	ug/L	104	90.0 - 110.0	MS	24-FEB-10 12:20	100224-4
	Nickel	51.9	ug/L	50	ug/L	103.8	90.0 - 110.0	MS	24-FEB-10 12:20	100224-4
CCV02										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Antimony	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Cadmium	495	ug/L	500	ug/L	99	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Calcium	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Chromium	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Cobalt	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Lead	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 06:28	021210-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	12-FEB-10 06:28	021210-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	12–FEB–10 06:28	021210–1
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	12–FEB–10 06:28	021210–1
	Silver	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12–FEB–10 06:28	021210–1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 – 110.0	P	12–FEB–10 06:28	021210–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	12–FEB–10 06:28	021210–1
	Mercury	4.78	ug/L	5	ug/L	95.5	80.0 – 120.0	AV	16–FEB–10 11:01	021610S2–5
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–FEB–10 17:21	021910A–2
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19–FEB–10 17:21	021910A–2
	Arsenic	46.9	ug/L	50	ug/L	93.9	90.0 – 110.0	MS	24–FEB–10 11:54	100224–3
	Selenium	47.2	ug/L	50	ug/L	94.4	90.0 – 110.0	MS	24–FEB–10 11:54	100224–3
	Thallium	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	24–FEB–10 11:54	100224–3
	Uranium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	24–FEB–10 11:54	100224–3
	Beryllium	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	24–FEB–10 12:28	100224–4
	Nickel	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	24–FEB–10 12:28	100224–4
CCV03										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Antimony	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Barium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Cadmium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Calcium	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Chromium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Lead	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Magnesium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Manganese	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Sodium	9810	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	12–FEB–10 07:10	021210–1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12–FEB–10 07:10	021210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Mercury	4.9	ug/L	5	ug/L	98.1	80.0 – 120.0	AV	16–FEB–10 11:25	021610S2–5
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–FEB–10 17:52	021910A–2
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–FEB–10 17:52	021910A–2
	Arsenic	47.5	ug/L	50	ug/L	95.1	90.0 – 110.0	MS	24–FEB–10 12:27	100224–3
	Selenium	48.1	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	24–FEB–10 12:27	100224–3
	Thallium	48.2	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	24–FEB–10 12:27	100224–3
	Uranium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	24–FEB–10 12:27	100224–3
	Beryllium	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	24–FEB–10 12:41	100224–4
	Nickel	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	24–FEB–10 12:41	100224–4
CCV04										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Antimony	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Chromium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Cobalt	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Iron	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Lead	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Manganese	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Silver	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	12–FEB–10 07:50	021210–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–FEB–10 18:24	021910A–2
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–FEB–10 18:24	021910A–2
	Arsenic	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	24–FEB–10 12:49	100224–3
	Selenium	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	24–FEB–10 12:49	100224–3
	Thallium	48.2	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	24–FEB–10 12:49	100224–3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Uranium	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	24-FEB-10 12:49	100224-3
	Beryllium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	24-FEB-10 12:52	100224-4
	Nickel	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	24-FEB-10 12:52	100224-4
CCV05										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Antimony	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Barium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Cadmium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Calcium	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Iron	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Lead	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Magnesium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Manganese	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Potassium	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	12-FEB-10 08:22	021210-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 18:57	021910A-2
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-2
	Beryllium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	24-FEB-10 13:05	100224-4
	Nickel	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	24-FEB-10 13:05	100224-4
CCV06										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Antimony	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Cadmium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Calcium	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	12-FEB-10 08:54	021210-1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	12-FEB-10 08:54	021210-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Iron	5140	ug/L	5000	ug/L	102.8	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Lead	505	ug/L	500	ug/L	101	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Magnesium	5220	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Manganese	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Potassium	5140	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Silver	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Zinc	500	ug/L	500	ug/L	100	90.0 - 110.0	P	12-FEB-10 08:54	021210-1
	Copper	480	ug/L	500	ug/L	96	90.0 - 110.0	P	19-FEB-10 19:26	021910A-2
	Vanadium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	19-FEB-10 19:26	021910A-2
	Beryllium	52	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	24-FEB-10 13:16	100224-4
	Nickel	52.3	ug/L	50	ug/L	104.6	90.0 - 110.0	MS	24-FEB-10 13:16	100224-4
CCV07										
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Antimony	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Barium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Calcium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Iron	5000	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Lead	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Magnesium	5120	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Potassium	5070	ug/L	5000	ug/L	101.3	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Silver	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 09:30	021210-1
	Zinc	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	12-FEB-10 09:30	021210-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV08										
	Aluminum	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Antimony	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Barium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Cadmium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Calcium	4710	ug/L	5000	ug/L	94.1	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Chromium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Iron	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Lead	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Manganese	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Silver	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
	Zinc	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12–FEB–10 10:18	021210–1
CCV09										
	Aluminum	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Antimony	475	ug/L	500	ug/L	95	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Barium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Cadmium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Calcium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Cobalt	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Lead	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Magnesium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Manganese	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Potassium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Silver	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
	Sodium	9750	ug/L	10000	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 10:58	021210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	12–FEB–10 10:58	021210–1
CCV10										
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Antimony	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Barium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Cadmium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Calcium	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Lead	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Magnesium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Manganese	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
	Zinc	485	ug/L	500	ug/L	97	90.0 – 110.0	P	12–FEB–10 11:41	021210–1
CCV11										
	Aluminum	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Antimony	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Cadmium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Lead	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Potassium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	12–FEB–10 12:25	021210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1433

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Sodium	9930	ug/L	10000	ug/L	99.3	90.0 – 110.0	P	12–FEB–10 12:25	021210–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	12–FEB–10 12:25	021210–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,ICPMS4,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.267	ug/L	.2	ug/L	133.5	70.0 - 130.0	AV	16-FEB-10 10:35	021610S2-5
	Thallium	1.11	ug/L	1	ug/L	110.5	70.0 - 130.0	MS	24-FEB-10 11:13	100224-3
	Arsenic	5.22	ug/L	5	ug/L	104.4	70.0 - 130.0	MS	24-FEB-10 11:13	100224-3
	Uranium	.241	ug/L	.2	ug/L	120.5	70.0 - 130.0	MS	24-FEB-10 11:13	100224-3
	Selenium	5.03	ug/L	5	ug/L	100.6	70.0 - 130.0	MS	24-FEB-10 11:13	100224-3
	Nickel	2.24	ug/L	2	ug/L	112.1	70.0 - 130.0	MS	24-FEB-10 12:15	100224-4
	Beryllium	.506	ug/L	.5	ug/L	101.2	70.0 - 130.0	MS	24-FEB-10 12:15	100224-4
PQL01										
	Iron	124	ug/L	100	ug/L	123.8	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Lead	11.5	ug/L	10	ug/L	114.9	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Magnesium	315	ug/L	300	ug/L	105.1	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Manganese	10.1	ug/L	10	ug/L	101	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Potassium	178	ug/L	150	ug/L	119	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Silver	5.01	ug/L	5	ug/L	100.2	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Sodium	308	ug/L	300	ug/L	102.6	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Antimony	8.09	ug/L	10	ug/L	80.9	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Aluminum	209	ug/L	200	ug/L	104.5	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Barium	4.84	ug/L	5	ug/L	96.7	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Cadmium	4.72	ug/L	5	ug/L	94.4	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Chromium	5.23	ug/L	5	ug/L	104.5	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Cobalt	4.83	ug/L	5	ug/L	96.6	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Zinc	10.4	ug/L	10	ug/L	103.5	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Calcium	196	ug/L	200	ug/L	98	70.0 - 130.0	P	12-FEB-10 05:45	021210-1
	Copper	10.1	ug/L	10	ug/L	100.7	70.0 - 130.0	P	19-FEB-10 16:47	021910A-2
	Vanadium	5.03	ug/L	5	ug/L	100.5	70.0 - 130.0	P	19-FEB-10 16:47	021910A-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1433

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result µg/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–FEB–10 05:41	021210–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 05:41	021210–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 05:41	021210–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 05:41	021210–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 05:41	021210–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 05:41	021210–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 05:41	021210–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 05:41	021210–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–FEB–10 05:41	021210–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–FEB–10 05:41	021210–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–FEB–10 05:41	021210–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–FEB–10 05:41	021210–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 05:41	021210–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–FEB–10 05:41	021210–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 05:41	021210–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 10:33	021610S2–5
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 16:44	021910A–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	24–FEB–10 11:11	100224–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	24–FEB–10 11:11	100224–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	24–FEB–10 11:11	100224–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	24–FEB–10 11:11	100224–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	24–FEB–10 12:13	100224–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	24–FEB–10 12:13	100224–4
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–FEB–10 06:05	021210–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 06:05	021210–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 06:05	021210–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 06:05	021210–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 06:05	021210–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 06:05	021210–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1433

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 06:05	021210–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 06:05	021210–1
	Lead	8.14	+/–10	J	2.5	10.0	SOL	P	12–FEB–10 06:05	021210–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–FEB–10 06:05	021210–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–FEB–10 06:05	021210–1
	Potassium	64.16	+/–250	J	64.0	250	SOL	P	12–FEB–10 06:05	021210–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 06:05	021210–1
	Sodium	83.89	+/–250	J	70.0	250	SOL	P	12–FEB–10 06:05	021210–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 06:05	021210–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 10:39	021610S2–5
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:07	021910A–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	24–FEB–10 11:24	100224–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	24–FEB–10 11:24	100224–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	24–FEB–10 11:24	100224–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	24–FEB–10 11:24	100224–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	24–FEB–10 12:22	100224–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	24–FEB–10 12:22	100224–4
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–FEB–10 06:31	021210–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 06:31	021210–1
	Barium	1.27	+/–5	J	1.0	5.0	SOL	P	12–FEB–10 06:31	021210–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 06:31	021210–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 06:31	021210–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 06:31	021210–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 06:31	021210–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 06:31	021210–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–FEB–10 06:31	021210–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–FEB–10 06:31	021210–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–FEB–10 06:31	021210–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–FEB–10 06:31	021210–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1433

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 06:31	021210–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–FEB–10 06:31	021210–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 06:31	021210–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 11:03	021610S2–5
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:25	021910A–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	24–FEB–10 11:57	100224–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	24–FEB–10 11:57	100224–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	24–FEB–10 11:57	100224–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	24–FEB–10 11:57	100224–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	24–FEB–10 12:29	100224–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	24–FEB–10 12:29	100224–4
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–FEB–10 07:14	021210–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 07:14	021210–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 07:14	021210–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 07:14	021210–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 07:14	021210–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 07:14	021210–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 07:14	021210–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 07:14	021210–1
	Lead	3.28	+/–10	J	2.5	10.0	SOL	P	12–FEB–10 07:14	021210–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–FEB–10 07:14	021210–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–FEB–10 07:14	021210–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–FEB–10 07:14	021210–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 07:14	021210–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–FEB–10 07:14	021210–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 07:14	021210–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	16–FEB–10 11:27	021610S2–5
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:55	021910A–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	24-FEB-10 12:30	100224-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	24-FEB-10 12:30	100224-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	24-FEB-10 12:30	100224-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	24-FEB-10 12:30	100224-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	24-FEB-10 12:43	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 12:43	100224-4
CCB04										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 07:53	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 07:53	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 07:53	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 07:53	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 07:53	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 07:53	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 07:53	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 07:53	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 07:53	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 07:53	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 07:53	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 18:28	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	24-FEB-10 12:52	100224-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	24-FEB-10 12:52	100224-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	24-FEB-10 12:52	100224-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	24-FEB-10 12:52	100224-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	24-FEB-10 12:54	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 12:54	100224-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 08:26	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 08:26	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 08:26	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 08:26	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 08:26	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 08:26	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 08:26	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 08:26	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:26	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 08:26	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 08:26	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 19:01	021910A-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	24-FEB-10 13:07	100224-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	24-FEB-10 13:07	100224-4
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 08:58	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 08:58	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 08:58	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 08:58	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 08:58	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 08:58	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 08:58	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 08:58	021210-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1433

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–FEB–10 08:58	021210–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 08:58	021210–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–FEB–10 08:58	021210–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 08:58	021210–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 19:30	021910A–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	24–FEB–10 13:18	100224–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	24–FEB–10 13:18	100224–4
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–FEB–10 09:33	021210–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 09:33	021210–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 09:33	021210–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 09:33	021210–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 09:33	021210–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 09:33	021210–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 09:33	021210–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 09:33	021210–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–FEB–10 09:33	021210–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–FEB–10 09:33	021210–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–FEB–10 09:33	021210–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–FEB–10 09:33	021210–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 09:33	021210–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–FEB–10 09:33	021210–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 09:33	021210–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–FEB–10 10:22	021210–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 10:22	021210–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 10:22	021210–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 10:22	021210–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 10:22	021210–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 10:22	021210–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 10:22	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 10:22	021210-1
	Lead	3.01	+/-10	J	2.5	10.0	SOL	P	12-FEB-10 10:22	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 10:22	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 10:22	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 10:22	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 10:22	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 10:22	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 10:22	021210-1
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 11:02	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 11:02	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 11:02	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 11:02	021210-1
	Lead	2.63	+/-10	J	2.5	10.0	SOL	P	12-FEB-10 11:02	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 11:02	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 11:02	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 11:02	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:02	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 11:02	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 11:02	021210-1
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 11:45	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 11:45	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 11:45	021210-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 11:45	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 11:45	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 11:45	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 11:45	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 11:45	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 11:45	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 11:45	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 11:45	021210-1
CCB11										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 12:29	021210-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 12:29	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 12:29	021210-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 12:29	021210-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	12-FEB-10 12:29	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	12-FEB-10 12:29	021210-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	12-FEB-10 12:29	021210-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	12-FEB-10 12:29	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 12:29	021210-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	12-FEB-10 12:29	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 12:29	021210-1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1433

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202029993								
	Mercury	3.9	ug/kg	+/-11.5	U	AV	3.9	11.5
1202030846								
	Zinc	446	ug/Kg	+/-963	J	P	318	963
	Aluminum	7030	ug/Kg	+/-19300	J	P	6550	19300
	Antimony	397	ug/Kg	+/-963	J	P	318	963
	Chromium	145	ug/Kg	+/-482	U	P	145	482
	Iron	13800	ug/Kg	+/-24100	J	P	7710	24100
	Magnesium	8190	ug/Kg	+/-28900	U	P	8190	28900
	Potassium	6170	ug/Kg	+/-24100	U	P	6170	24100
	Sodium	6740	ug/Kg	+/-24100	U	P	6740	24100
	Silver	96.3	ug/Kg	+/-482	U	P	96.3	482
	Manganese	318	ug/Kg	+/-963	J	P	193	963
	Lead	241	ug/Kg	+/-963	U	P	241	963
	Cobalt	145	ug/Kg	+/-482	U	P	145	482
	Calcium	7710	ug/Kg	+/-24100	U	P	7710	24100
	Cadmium	96.3	ug/Kg	+/-482	U	P	96.3	482
	Barium	108	ug/Kg	+/-482	J	P	96.3	482
1202030852								
	Arsenic	0.191	mg/kg	+/-0.954	U	MS	0.191	0.954
	Beryllium	0.0191	mg/kg	+/-0.0954	U	MS	0.0191	0.0954
	Nickel	0.0954	mg/kg	+/-0.382	U	MS	0.0954	0.382
	Selenium	0.477	mg/kg	+/-0.954	U	MS	0.477	0.954
	Thallium	0.0573	mg/kg	+/-0.191	U	MS	0.0573	0.191
	Uranium	0.0126	mg/kg	+/-0.0382	U	MS	0.0126	0.0382
1202046765								
	Copper	282	ug/Kg	+/-940	U	P	282	940
	Vanadium	94	ug/Kg	+/-470	U	P	94	470

METALS
-4-
Interference Check Sample

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	499000	ug/L	500000	ug/L	99.8	80.0 - 120.0	12-FEB-10 05:48	021210-1
	Antimony	-8.39	ug/L					12-FEB-10 05:48	021210-1
	Barium	7.52	ug/L					12-FEB-10 05:48	021210-1
	Cadmium	-6.21	ug/L					12-FEB-10 05:48	021210-1
	Calcium	474000	ug/L	500000	ug/L	94.8	80.0 - 120.0	12-FEB-10 05:48	021210-1
	Chromium	-0.79	ug/L					12-FEB-10 05:48	021210-1
	Cobalt	1.9	ug/L					12-FEB-10 05:48	021210-1
	Iron	187000	ug/L	200000	ug/L	93.4	80.0 - 120.0	12-FEB-10 05:48	021210-1
	Lead	12.2	ug/L					12-FEB-10 05:48	021210-1
	Magnesium	481000	ug/L	500000	ug/L	96.2	80.0 - 120.0	12-FEB-10 05:48	021210-1
	Manganese	7.82	ug/L					12-FEB-10 05:48	021210-1
	Potassium	-14.5	ug/L					12-FEB-10 05:48	021210-1
	Silver	-6.78	ug/L					12-FEB-10 05:48	021210-1
	Sodium	33.2	ug/L					12-FEB-10 05:48	021210-1
	Zinc	-8.78	ug/L					12-FEB-10 05:48	021210-1
ICSAB01									
	Aluminum	493000	ug/L	500000	ug/L	98.6	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Antimony	500	ug/L	500	ug/L	100	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Barium	491	ug/L	500	ug/L	98.3	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Cadmium	450	ug/L	500	ug/L	89.9	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Chromium	478	ug/L	500	ug/L	95.5	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Cobalt	427	ug/L	500	ug/L	85.4	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Iron	184000	ug/L	200000	ug/L	91.9	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Lead	477	ug/L	500	ug/L	95.4	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Magnesium	474000	ug/L	500000	ug/L	94.8	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Manganese	474	ug/L	500	ug/L	94.8	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Potassium	4970	ug/L	5000	ug/L	99.4	80.0 - 120.0	12-FEB-10 05:51	021210-1
	Silver	251	ug/L	250	ug/L	100	80.0 - 120.0	12-FEB-10 05:51	021210-1

METALS
-4-
Interference Check Sample

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Sodium	4920	ug/L	5000	ug/L	98.4	80.0 – 120.0	12-FEB-10 05:51	021210-1
	Zinc	454	ug/L	500	ug/L	90.8	80.0 – 120.0	12-FEB-10 05:51	021210-1

METALS
-4-
Interference Check Sample

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Copper	-2.01	ug/L					19-FEB-10 16:51	021910A-2
	Vanadium	-3.3	ug/L					19-FEB-10 16:51	021910A-2
ICSAB01									
	Copper	543	ug/L	500	ug/L	109	80.0 - 120.0	19-FEB-10 16:54	021910A-2
	Vanadium	520	ug/L	500	ug/L	104	80.0 - 120.0	19-FEB-10 16:54	021910A-2

METALS
-4-
Interference Check Sample

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	1.06	ug/L					24-FEB-10 11:16	100224-3
	Selenium	-0.733	ug/L					24-FEB-10 11:16	100224-3
	Thallium	0.063	ug/L					24-FEB-10 11:16	100224-3
	Uranium	0.003	ug/L					24-FEB-10 11:16	100224-3
ICSAB01									
	Arsenic	21.6	ug/L	20	ug/L	108	80.0 - 120.0	24-FEB-10 11:19	100224-3
	Selenium	20.6	ug/L	20	ug/L	103	80.0 - 120.0	24-FEB-10 11:19	100224-3
	Thallium	19.8	ug/L	20	ug/L	99	80.0 - 120.0	24-FEB-10 11:19	100224-3
	Uranium	22.5	ug/L	20	ug/L	112	80.0 - 120.0	24-FEB-10 11:19	100224-3

METALS
-4-
Interference Check Sample

SDG No: 10-1433

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.109	ug/L					24-FEB-10 12:16	100224-4
	Nickel	5.55	ug/L					24-FEB-10 12:16	100224-4
ICSAB01									
	Beryllium	19.0	ug/L	20	ug/L	95.2	80.0 - 120.0	24-FEB-10 12:18	100224-4
	Nickel	23.9	ug/L	23.31	ug/L	103	80.0 - 120.0	24-FEB-10 12:18	100224-4

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 69

Sample ID: 245688001 **Spike ID:** 1202029996

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	170		17.8		159	96.1		AV

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 69

Sample ID: 245688001 **Spike ID:** 1202029998

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	163		17.8		151	96.1		AV

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 69

Sample ID: 245688001 **Spike ID:** 1202030849

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/Kg	75-125	72800		1580		67200	106		P
Barium	ug/Kg	75-125	143000		77600		67200	97.6		P
Cadmium	ug/Kg	75-125	69700		143	U	67200	104		P
Calcium	ug/Kg	75-125	1970000		1290000		672000	101		P
Chromium	ug/Kg	75-125	91400		12700		67200	117		P
Aluminum	ug/Kg		9730000		5870000		672000	575	N/A	P
Cobalt	ug/Kg	75-125	74400		6090		67200	102		P
Copper	ug/Kg	75-125	80200		10100		69100	102		P
Iron	ug/Kg		10900000		10500000		672000	53.2	N/A	P
Lead	ug/Kg	75-125	85800		14300		67200	107		P
Magnesium	ug/Kg	75-125	2030000		1140000		672000	133	N	P
Manganese	ug/Kg		383000		406000		67200	-34.8	N/A	P
Potassium	ug/Kg	75-125	2150000		1190000		672000	142	N	P
Silver	ug/Kg	75-125	70700		143	U	67200	105		P
Sodium	ug/Kg	75-125	747000		53800		672000	103		P
Vanadium	ug/Kg	75-125	86400		17600		69100	99.5		P
Zinc	ug/Kg	75-125	106000		29800		67200	113		P

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 69

Sample ID: 245688001 **Spike ID:** 1202030850

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		8460000		5870000		649000	399	N/A	P
Antimony	ug/Kg	75-125	69600		1580		64900	105		P
Barium	ug/Kg	75-125	132000		77600		64900	83.9		P
Cadmium	ug/Kg	75-125	66100		143	U	64900	102		P
Calcium	ug/Kg	75-125	1580000		1290000		649000	44.5	N	P
Chromium	ug/Kg	75-125	79700		12700		64900	103		P
Cobalt	ug/Kg	75-125	70400		6090		64900	99.1		P
Copper	ug/Kg	75-125	83900		10100		72000	103		P
Iron	ug/Kg		10400000		10500000		649000	-17.4	N/A	P
Lead	ug/Kg	75-125	77300		14300		64900	97.1		P
Magnesium	ug/Kg	75-125	1830000		1140000		649000	107		P
Manganese	ug/Kg		384000		406000		64900	-33.1	N/A	P
Potassium	ug/Kg	75-125	1910000		1190000		649000	110		P
Silver	ug/Kg	75-125	67700		143	U	64900	104		P
Sodium	ug/Kg	75-125	730000		53800		649000	104		P
Vanadium	ug/Kg	75-125	92300		17600		72000	104		P
Zinc	ug/Kg	75-125	92200		29800		64900	96.2		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 69

Sample ID: 245688001 **Spike ID:** 1202030855

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	9.82		1.56		10	82.4		MS
Beryllium	mg/kg	75-125	5.75		0.549		6.26	83		MS
Nickel	mg/kg	75-125	10.5		4.82		6.26	90.2		MS
Selenium	mg/kg	75-125	1.57		0.703	U	2.51	56.4	N	MS
Thallium	mg/kg	75-125	11.1		0.229	J	12.5	86.7		MS
Uranium	mg/kg	75-125	13.6		7.58		6.26	95.6		MS

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 69

Sample ID: 245688001 **Spike ID:** 1202030856

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	11.6		1.56		11.5	87.4		MS
Beryllium	mg/kg	75-125	6.56		0.549		7.2	83.5		MS
Nickel	mg/kg	75-125	11.4		4.82		7.2	91.7		MS
Selenium	mg/kg	75-125	2.09		0.703	U	2.88	67.2	N	MS
Thallium	mg/kg	75-125	13.4		0.229	J	14.4	91.7		MS
Uranium	mg/kg	75-125	15		7.58		7.2	103		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7883D

Sample ID: 245688001 **Duplicate ID:** 1202029995 **Percent Solids for Dup:** 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-15.4	17.8		15.7		12.8		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1433

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7883SD

Sample ID: 1202029996 **Duplicate ID:** 1202029998 **Percent Solids for Dup:** 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	170		163		4.4		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7883D

Sample ID: 245688001 **Duplicate ID:** 1202030847 **Percent Solids for Dup:** 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	5870000		4640000		23.3	*	P
Antimony	ug/Kg	+/-1360	1580		450	U	123		P
Barium	ug/Kg	+/-20%	77600		53400		37	*	P
Cadmium	ug/Kg		143	U	136	U			P
Calcium	ug/Kg	+/-20%	1290000		865000		39.4	*	P
Chromium	ug/Kg	+/-20%	12700		11900		5.95		P
Cobalt	ug/Kg	+/-20%	6090		4290		34.8	*	P
Copper	ug/Kg	+/-20%	10100		7740		26.4	*	P
Iron	ug/Kg	+/-20%	10500000		9170000		13.9		P
Lead	ug/Kg	+/-20%	14300		9880		36.2	*	P
Magnesium	ug/Kg	+/-20%	1140000		873000		26.5	*	P
Manganese	ug/Kg	+/-20%	406000		295000		31.7	*	P
Potassium	ug/Kg	+/-20%	1190000		963000		21.1	*	P
Silver	ug/Kg		143	U	136	U			P
Sodium	ug/Kg	+/-34100	53800		44700		18.4		P
Vanadium	ug/Kg	+/-20%	17600		17200		2.05		P
Zinc	ug/Kg	+/-20%	29800		27600		7.53		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1433

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7883SD

Sample ID: 1202030849 **Duplicate ID:** 1202030850 **Percent Solids for Dup:** 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	9730000		8460000		14		P
Antimony	ug/Kg	+/-20	72800		69600		4.49		P
Barium	ug/Kg	+/-20	143000		132000		8.1		P
Cadmium	ug/Kg	+/-20	69700		66100		5.38		P
Calcium	ug/Kg	+/-20	1970000		1580000		21.9	*	P
Chromium	ug/Kg	+/-20	91400		79700		13.7		P
Cobalt	ug/Kg	+/-20	74400		70400		5.5		P
Copper	ug/Kg	+/-20	80200		83900		4.51		P
Iron	ug/Kg	+/-20	10900000		10400000		4.41		P
Lead	ug/Kg	+/-20	85800		77300		10.5		P
Magnesium	ug/Kg	+/-20	2030000		1830000		10.2		P
Manganese	ug/Kg	+/-20	383000		384000		.49		P
Potassium	ug/Kg	+/-20	2150000		1910000		11.9		P
Silver	ug/Kg	+/-20	70700		67700		4.41		P
Sodium	ug/Kg	+/-20	747000		730000		2.22		P
Vanadium	ug/Kg	+/-20	86400		92300		6.62		P
Zinc	ug/Kg	+/-20	106000		92200		13.5		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1433

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7883D

Sample ID: 245688001 **Duplicate ID:** 1202030853 **Percent Solids for Dup:** 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.41	1.56		1.61		2.84		MS
Beryllium	mg/kg	+/–.141	0.549		0.589		6.92		MS
Nickel	mg/kg	+/–20%	4.82		4.93		2.36		MS
Selenium	mg/kg		0.703	U	0.704	U			MS
Thallium	mg/kg	+/–.282	0.229	J	0.148	J	43.1		MS
Uranium	mg/kg	+/–20%	7.58		8.53		11.8		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1433

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7883SD

Sample ID: 1202030855 **Duplicate ID:** 1202030856 **Percent Solids for Dup:** 69

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	9.82		11.6		16.8		MS
Beryllium	mg/kg	+/–20	5.75		6.56		13.2		MS
Nickel	mg/kg	+/–20	10.5		11.4		8.65		MS
Selenium	mg/kg	+/–20	1.57		2.09		28.5	*	MS
Thallium	mg/kg	+/–20	11.1		13.4		19.1		MS
Uranium	mg/kg	+/–20	13.6		15		10		MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1433

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202029994								
	Mercury	ug/kg	5150	5650		110	71.6-128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1433

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030851								
	Antimony	ug/Kg	173000	195000		113	71–130	P
	Barium	ug/Kg	198000	223000		113	80–120	P
	Aluminum	ug/Kg	10500000	12100000		115	56–144	P
	Cadmium	ug/Kg	60700	66100		109	81–120	P
	Calcium	ug/Kg	9870000	11000000		111	83–117	P
	Chromium	ug/Kg	236000	276000		117	80–120	P
	Cobalt	ug/Kg	91200	105000		115	81–120	P
	Iron	ug/Kg	18000000	23300000		129	51–149	P
	Lead	ug/Kg	86000	98100		114	79–121	P
	Magnesium	ug/Kg	4000000	4670000		117	79–122	P
	Manganese	ug/Kg	558000	624000		112	81–119	P
	Potassium	ug/Kg	4300000	5040000		117	74–127	P
	Silver	ug/Kg	30100	34900		116	66–134	P
	Sodium	ug/Kg	1020000	1150000		112	74–127	P
	Zinc	ug/Kg	594000	676000		114	80–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1433

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030857								
	Arsenic	mg/kg	104	99.3		95.4	78–123	MS
	Beryllium	mg/kg	77.6	84.4		109	84–116	MS
	Nickel	mg/kg	134	148		111	78–123	MS
	Selenium	mg/kg	286	262		91.7	77–123	MS
	Thallium	mg/kg	121	123		102	78–122	MS
	Uranium	mg/kg	2.13	2.12		99.7	73–127	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1433

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202046766								
	Copper	ug/Kg	174000	198000		114	81-118	P
	Vanadium	ug/Kg	115000	133000		116	79-121	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245688001 **Serial Dilution ID:** 1202029997

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.219		.34	U	100			AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245688001 **Serial Dilution ID:** 1202030848

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	40900		42900		4.89		10	P
Antimony	11.1		27.2	J	145			P
Barium	541		545		.739		10	P
Cadmium	1	U	5	U				P
Calcium	8990		9350		4		10	P
Chromium	88.5		88.5		0		10	P
Cobalt	42.5		41.5		2.47			P
Copper	71.4		68		4.76			P
Iron	73500		77000		4.76		10	P
Lead	99.4		113		13.2			P
Magnesium	7950		8350		5.03		10	P
Manganese	2830		2920		3.18		10	P
Potassium	8300		8550		3.01		10	P
Silver	1	U	5	U				P
Sodium	375		351	J	6.4			P
Vanadium	125		124		1.2		10	P
Zinc	208		200		3.85		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1433 **Client ID** RE15-10-7883L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245688001 **Serial Dilution ID:** 1202030854

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	5.56		6.75	J	21.4			MS
Beryllium	1.95		2.23	J	14.4			MS
Nickel	17.1		18.8		9.65			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.815	J	1.5	U	100			MS
Uranium	27		26.9		.37		10	MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948031						
1202030846	MB for batch 948031	MB	S	08-FEB-10	.519g	50mL	
1202030851	LCS for batch 948031	LCS	S	08-FEB-10	.509g	50mL	
1202030849	RE15-10-7883S	MS	S	08-FEB-10	.54g	50mL	
1202030850	RE15-10-7883SD	MSD	S	08-FEB-10	.559g	50mL	
1202030847	RE15-10-7883D	DUP	S	08-FEB-10	.532g	50mL	
245688001	RE15-10-7883	SAMPLE	S	08-FEB-10	.506g	50mL	
245688002	RE15-10-7884	SAMPLE	S	08-FEB-10	.521g	50mL	
245688003	RE15-10-7932	SAMPLE	S	08-FEB-10	.505g	50mL	
245688004	RE15-10-7931	SAMPLE	S	08-FEB-10	.5g	50mL	
245688005	RE15-10-7938	SAMPLE	S	08-FEB-10	.505g	50mL	
245688006	RE15-10-7933	SAMPLE	S	08-FEB-10	.559g	50mL	
245688007	RE15-10-7939	SAMPLE	S	08-FEB-10	.531g	50mL	
245688008	RE15-10-7936	SAMPLE	S	08-FEB-10	.5g	50mL	
245688009	RE15-10-7935	SAMPLE	S	08-FEB-10	.517g	50mL	
245688010	RE15-10-7934	SAMPLE	S	08-FEB-10	.516g	50mL	
245688011	RE15-10-7940	SAMPLE	S	08-FEB-10	.522g	50mL	
245688012	RE15-10-7937	SAMPLE	S	08-FEB-10	.502g	50mL	
245688013	RE15-10-8056	SAMPLE	S	08-FEB-10	.522g	50mL	
245688014	RE15-10-8057	SAMPLE	S	08-FEB-10	.5g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	954750						
1202046765	MB for batch 954750	MB	S	18-FEB-10	.532g	50mL	
1202046766	LCS for batch 954750	LCS	S	18-FEB-10	.503g	50mL	
1202030849	RE15-10-7883S	MS	S	18-FEB-10	.525g	50mL	
1202030850	RE15-10-7883SD	MSD	S	18-FEB-10	.504g	50mL	
1202030847	RE15-10-7883D	DUP	S	18-FEB-10	.516g	50mL	
245688001	RE15-10-7883	SAMPLE	S	18-FEB-10	.513g	50mL	
245688002	RE15-10-7884	SAMPLE	S	18-FEB-10	.503g	50mL	
245688003	RE15-10-7932	SAMPLE	S	18-FEB-10	.597g	50mL	
245688004	RE15-10-7931	SAMPLE	S	18-FEB-10	.5g	50mL	
245688005	RE15-10-7938	SAMPLE	S	18-FEB-10	.501g	50mL	
245688006	RE15-10-7933	SAMPLE	S	18-FEB-10	.534g	50mL	
245688007	RE15-10-7939	SAMPLE	S	18-FEB-10	.543g	50mL	
245688008	RE15-10-7936	SAMPLE	S	18-FEB-10	.506g	50mL	
245688009	RE15-10-7935	SAMPLE	S	18-FEB-10	.503g	50mL	
245688010	RE15-10-7934	SAMPLE	S	18-FEB-10	.518g	50mL	
245688011	RE15-10-7940	SAMPLE	S	18-FEB-10	.5g	50mL	
245688012	RE15-10-7937	SAMPLE	S	18-FEB-10	.503g	50mL	
245688013	RE15-10-8056	SAMPLE	S	18-FEB-10	.556g	50mL	
245688014	RE15-10-8057	SAMPLE	S	18-FEB-10	.63g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948033						
1202030852	MB for batch 948033	MB	S	23-FEB-10	.524g	50mL	
1202030857	LCS for batch 948033	LCS	S	23-FEB-10	.546g	50mL	
1202030855	RE15-10-7883S	MS	S	23-FEB-10	.579g	50mL	
1202030856	RE15-10-7883SD	MSD	S	23-FEB-10	.504g	50mL	
1202030853	RE15-10-7883D	DUP	S	23-FEB-10	.515g	50mL	
245688001	RE15-10-7883	SAMPLE	S	23-FEB-10	.516g	50mL	
245688002	RE15-10-7884	SAMPLE	S	23-FEB-10	.535g	50mL	
245688003	RE15-10-7932	SAMPLE	S	23-FEB-10	.572g	50mL	
245688004	RE15-10-7931	SAMPLE	S	23-FEB-10	.524g	50mL	
245688005	RE15-10-7938	SAMPLE	S	23-FEB-10	.537g	50mL	
245688006	RE15-10-7933	SAMPLE	S	23-FEB-10	.549g	50mL	
245688007	RE15-10-7939	SAMPLE	S	23-FEB-10	.533g	50mL	
245688008	RE15-10-7936	SAMPLE	S	23-FEB-10	.57g	50mL	
245688009	RE15-10-7935	SAMPLE	S	23-FEB-10	.553g	50mL	
245688010	RE15-10-7934	SAMPLE	S	23-FEB-10	.528g	50mL	
245688011	RE15-10-7940	SAMPLE	S	23-FEB-10	.523g	50mL	
245688012	RE15-10-7937	SAMPLE	S	23-FEB-10	.501g	50mL	
245688013	RE15-10-8056	SAMPLE	S	23-FEB-10	.529g	50mL	
245688014	RE15-10-8057	SAMPLE	S	23-FEB-10	.593g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1433 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	947653						
1202029993	MB for batch 947653	MB	S	15–FEB–10	.523g	30mL	
1202029994	LCS for batch 947653	LCS	S	15–FEB–10	.204g	30mL	
1202029996	RE15–10–7883S	MS	S	15–FEB–10	.548g	30mL	
1202029998	RE15–10–7883SD	MSD	S	15–FEB–10	.576g	30mL	
1202029995	RE15–10–7883D	DUP	S	15–FEB–10	.566g	30mL	
245688001	RE15–10–7883	SAMPLE	S	15–FEB–10	.535g	30mL	
245688002	RE15–10–7884	SAMPLE	S	15–FEB–10	.54g	30mL	
245688003	RE15–10–7932	SAMPLE	S	15–FEB–10	.518g	30mL	
245688004	RE15–10–7931	SAMPLE	S	15–FEB–10	.581g	30mL	
245688005	RE15–10–7938	SAMPLE	S	15–FEB–10	.515g	30mL	
245688006	RE15–10–7933	SAMPLE	S	15–FEB–10	.559g	30mL	
245688007	RE15–10–7939	SAMPLE	S	15–FEB–10	.521g	30mL	
245688008	RE15–10–7936	SAMPLE	S	15–FEB–10	.542g	30mL	
245688009	RE15–10–7935	SAMPLE	S	15–FEB–10	.536g	30mL	
245688010	RE15–10–7934	SAMPLE	S	15–FEB–10	.568g	30mL	
245688011	RE15–10–7940	SAMPLE	S	15–FEB–10	.55g	30mL	
245688012	RE15–10–7937	SAMPLE	S	15–FEB–10	.543g	30mL	
245688013	RE15–10–8056	SAMPLE	S	15–FEB–10	.538g	30mL	
245688014	RE15–10–8057	SAMPLE	S	15–FEB–10	.579g	30mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 16-FEB-10 **End Date:** 16-FEB-10

Client Sdg: 10-1433
Method AV
Data File: 021610S2-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:19															X									
S0.2	1	10:21															X									
S0.5	1	10:23															X									
S2.0	1	10:25															X									
S5.0	1	10:27															X									
S10	1	10:29															X									
ICV01	1	10:31															X									
ICB01	1	10:33															X									
CRDL01	1	10:35															X									
CCV01	1	10:37															X									
CCB01	1	10:39															X									
1202029993	1	10:41															X									
1202029994	10	10:43															X									
245688001	1	10:45															X									
1202029995	1	10:47															X									
1202029996	1	10:49															X									
1202029998	1	10:51															X									
1202029997	5	10:53															X									
245688002	1	10:55															X									
245688003	1	10:57															X									
245688004	1	10:59															X									
CCV02	1	11:01															X									
CCB02	1	11:03															X									
245688005	1	11:05															X									
245688006	1	11:07															X									
245688007	1	11:09															X									
245688008	1	11:11															X									
245688009	1	11:13															X									
245688010	1	11:15															X									
245688011	1	11:17															X									
245688012	1	11:19															X									
245688013	1	11:21															X									
245688014	1	11:23															X									
CCV03	1	11:25															X									
CCB03	1	11:27															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 24-FEB-10 **End Date:** 24-FEB-10

Client Sdg: 10-1433
Method MS
Data File: 100224-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:00			X															X			X	X		
S10	1	11:02			X															X			X	X		
S100	1	11:05			X															X			X	X		
ICV01	1	11:08			X															X			X	X		
ICB01	1	11:11			X															X			X	X		
CRDL01	1	11:13			X															X			X	X		
ICSA01	1	11:16			X															X			X	X		
ICSAB01	1	11:19			X															X			X	X		
CCV01	1	11:21			X															X			X	X		
CCB01	1	11:24			X															X			X	X		
1202030852	2	11:27			X															X			X	X		
ZZZZZZ	40	11:29																								
245688001	2	11:32			X															X			X	X		
1202030853	2	11:35			X															X			X	X		
1202030855	2	11:38			X															X			X	X		
1202030856	2	11:40			X															X			X	X		
1202030854	10	11:43			X															X			X	X		
245688002	2	11:46			X															X			X	X		
245688003	2	11:49			X															X			X	X		
245688004	2	11:51			X															X			X	X		
CCV02	1	11:54			X															X			X	X		
CCB02	1	11:57			X															X			X	X		
245688005	2	11:59			X															X			X	X		
245688006	2	12:02			X															X			X	X		
245688007	2	12:05			X															X			X	X		
245688008	2	12:08			X															X			X	X		
245688009	2	12:10			X															X			X			
245688010	2	12:13			X															X			X	X		
245688011	2	12:16			X															X			X	X		
245688012	2	12:19			X															X			X			
245688013	2	12:21			X															X			X			
245688014	2	12:24			X															X			X	X		
CCV03	1	12:27			X															X			X	X		
CCB03	1	12:30			X															X			X	X		
ZZZZZZ	10	12:34																								
245688009	20	12:38																						X		
245688012	10	12:41																						X		
245688013	10	12:44																						X		
1202030857	40	12:47			X															X			X	X		
CCV04	1	12:49			X															X			X	X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCB04	1	12:52			X															X			X	X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 24-FEB-10 **End Date:** 24-FEB-10

Client Sdg: 10-1433
Method MS
Data File: 100224-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	12:05					X											X								
S10	1	12:07					X											X								
S100	1	12:09					X											X								
ICV01	1	12:11					X											X								
ICB01	1	12:13					X											X								
CRDL01	1	12:15					X											X								
ICSA01	1	12:16					X											X								
ICSAB01	1	12:18					X											X								
CCV01	1	12:20					X											X								
CCB01	1	12:22					X											X								
1202030852	2	12:24					X											X								
1202030857	40	12:26					X											X								
CCV02	1	12:28					X											X								
CCB02	1	12:29					X											X								
245688001	2	12:31					X											X								
1202030853	2	12:33					X											X								
1202030855	2	12:35					X											X								
1202030856	2	12:37					X											X								
1202030854	10	12:39					X											X								
CCV03	1	12:41					X											X								
CCB03	1	12:43					X											X								
245688002	2	12:44					X											X								
245688003	2	12:46					X											X								
245688004	2	12:48					X											X								
245688005	2	12:50					X											X								
CCV04	1	12:52					X											X								
CCB04	1	12:54					X											X								
245688006	2	12:56					X											X								
245688007	2	12:58					X											X								
245688008	2	12:59					X											X								
245688009	2	13:01					X											X								
245688010	2	13:03					X											X								
CCV05	1	13:05					X											X								
CCB05	1	13:07					X											X								
245688011	2	13:09					X											X								
245688012	2	13:11					X											X								
245688013	2	13:13					X											X								
245688014	2	13:14					X											X								
CCV06	1	13:16					X											X								
CCB06	1	13:18					X											X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 12–FEB–10 **End Date:** 12–FEB–10

Client Sdg: 10–1433
Method P
Data File: 021210–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	05:22	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
S0.1	1	05:25		X		X		X		X	X			X		X			X		X					X
S0.5	1	05:28	X	X		X		X	X	X	X			X	X	X			X		X					X
SCAL	1	05:32	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
S10	1	05:35	X						X				X		X							X				
ICV01	1	05:38	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ICB01	1	05:41	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
PQL01	1	05:45	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ICSA01	1	05:48	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ICSAB01	1	05:51	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
LR01	1	05:54	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
LR02	1	05:57	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCV01	1	06:01	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB01	1	06:05	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
LR03	1	06:24	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCV02	1	06:28	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB02	1	06:31	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	06:43																								
ZZZZZZ	1	06:46																								
ZZZZZZ	1	06:50																								
ZZZZZZ	1	06:54																								
ZZZZZZ	1	06:57																								
ZZZZZZ	1	07:00																								
ZZZZZZ	5	07:04																								
ZZZZZZ	1	07:07																								
CCV03	1	07:10	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB03	1	07:14	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	07:21																								
ZZZZZZ	1	07:25																								
ZZZZZZ	1	07:28																								
ZZZZZZ	1	07:31																								
ZZZZZZ	1	07:35																								
ZZZZZZ	1	07:39																								
ZZZZZZ	5	07:42																								
ZZZZZZ	1	07:46																								
CCV04	1	07:50	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB04	1	07:53	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	07:57																								
ZZZZZZ	1	08:01																								
ZZZZZZ	1	08:04																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	08:08																								
ZZZZZZ	1	08:12																								
ZZZZZZ	1	08:15																								
ZZZZZZ	5	08:19																								
CCV05	1	08:22	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB05	1	08:26	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	08:29																								
ZZZZZZ	1	08:33																								
ZZZZZZ	1	08:36																								
ZZZZZZ	1	08:40																								
ZZZZZZ	1	08:44																								
ZZZZZZ	1	08:47																								
ZZZZZZ	1	08:51																								
CCV06	1	08:54	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB06	1	08:58	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	09:01																								
ZZZZZZ	1	09:05																								
ZZZZZZ	1	09:09																								
ZZZZZZ	1	09:12																								
ZZZZZZ	1	09:16																								
ZZZZZZ	1	09:19																								
ZZZZZZ	1	09:23																								
ZZZZZZ	1	09:26																								
CCV07	1	09:30	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB07	1	09:33	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	09:54																								
ZZZZZZ	1	09:58																								
ZZZZZZ	1	10:00																								
ZZZZZZ	1	10:04																								
ZZZZZZ	1	10:07																								
ZZZZZZ	1	10:11																								
ZZZZZZ	5	10:15																								
CCV08	1	10:18	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB08	1	10:22	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
ZZZZZZ	1	10:25																								
ZZZZZZ	1	10:29																								
ZZZZZZ	1	10:32																								
ZZZZZZ	1	10:36																								
ZZZZZZ	1	10:40																								
ZZZZZZ	1	10:43																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	10:47																								
ZZZZZZ	1	10:51																								
ZZZZZZ	1	10:54																								
CCV09	1	10:58	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB09	1	11:02	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030846	1	11:05	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030851	1	11:09	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688001	1	11:12	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030847	1	11:16	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030849	1	11:19	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030850	1	11:23	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
1202030848	5	11:27	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688002	1	11:30	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688003	1	11:34	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688004	1	11:38	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCV10	1	11:41	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB10	1	11:45	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688005	1	11:49	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688006	1	11:52	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688007	1	11:56	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688008	1	12:00	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688009	1	12:03	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688010	1	12:07	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688011	1	12:11	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688012	1	12:14	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688013	1	12:18	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
245688014	1	12:22	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCV11	1	12:25	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X
CCB11	1	12:29	X	X		X		X	X	X	X		X	X	X	X			X		X	X				X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 19–FEB–10 **End Date:** 19–FEB–10

Client Sdg: 10–1433
Method P
Data File: 021910A–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:24										X													X	
S0.1	1	16:28										X													X	
S0.5	1	16:30										X													X	
SCAL	1	16:34										X													X	
S10	1	16:38																								
ICV01	1	16:40										X													X	
ICB01	1	16:44										X													X	
PQL01	1	16:47										X													X	
ICSA01	1	16:51										X													X	
ICSAB01	1	16:54										X													X	
LR01	1	16:56										X													X	
LR02	1	16:59										X													X	
CCV01	1	17:03										X													X	
CCB01	1	17:07										X													X	
LR03	1	17:18										X													X	
CCV02	1	17:21										X													X	
CCB02	1	17:25										X													X	
ZZZZZZ	1	17:30																								
ZZZZZZ	1	17:34																								
ZZZZZZ	1	17:37																								
ZZZZZZ	1	17:41																								
ZZZZZZ	1	17:44																								
ZZZZZZ	1	17:48																								
CCV03	1	17:52										X													X	
CCB03	1	17:55										X													X	
1202046765	1	17:59										X													X	
1202046766	1	18:03										X													X	
245688001	1	18:06										X													X	
1202030847	1	18:09										X													X	
1202030849	1	18:13										X													X	
1202030850	1	18:17										X													X	
1202030848	5	18:20										X													X	
CCV04	1	18:24										X													X	
CCB04	1	18:28										X													X	
245688002	1	18:31										X													X	
245688003	1	18:35										X													X	
245688004	1	18:39										X													X	
245688005	1	18:42										X													X	
245688006	1	18:46										X													X	
245688007	1	18:50										X													X	

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
245688008	1	18:53									X													X	
CCV05	1	18:57									X													X	
CCB05	1	19:01									X													X	
245688009	1	19:04									X													X	
245688010	1	19:08									X													X	
245688011	1	19:12									X													X	
245688012	1	19:15									X													X	
245688013	1	19:19									X													X	
245688014	1	19:23									X													X	
CCV06	1	19:26									X													X	
CCB06	1	19:30									X													X	

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1433

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1433

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1433

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–1433
Effective Dates: 01–FEB–10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	–0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	–0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	–0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1433

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1433

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1433

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

Raw Data

Spectra

Method: Hg_ReAlign
Result: 022410

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

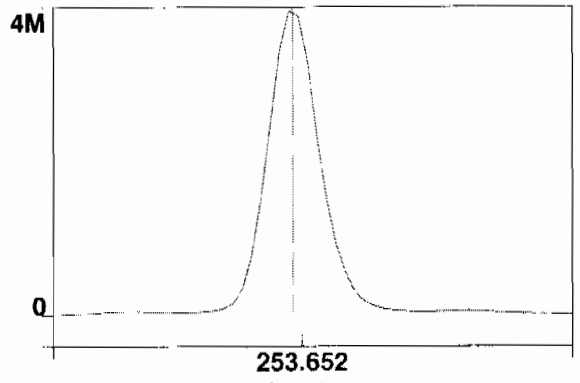

Intensity: 4181632.9 cps
Conc:

1

2/12/2010 05:16:49 Hg ReAlign... Actual peak offset (nm): -0.001
Drift (nm): -0.000 Slit adjustment: 2

Analysis Begun

Start Time: 2/12/2010 05:22:11 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021210.sif
Batch ID:
Results Data Set: 021210
Results Library: c:\pe\optima1\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/11/2010 15:12:15**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/12/2010 05:22:13**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time

1	Sc RADIAL	56723.5	56723.5	0.000 %	05:22:48
1	Al 396.153Radial†	-23.4	-23.6	[0.00] µg/L	05:22:48
1	Ca 317.933Radial†	192.2	194.1	[0.00] µg/L	05:23:08
1	Fe 238.204 Radial†	14.7	14.9	[0.00] µg/L	05:23:08
1	K 766.490 Radial†	215.7	217.8	[0.00] µg/L	05:22:48
1	Mg 279.077 IEC†	11.2	11.3	[0.00] µg/L	05:23:08
1	Na 589.592 Radial†	521.4	526.5	[0.00] µg/L	05:22:48
1	Sr 421.552†	26.2	26.5	[0.00] µg/L	05:22:48
1	Sc 361.383	1958361.3	1958361.3	0.0000 %	05:24:10
1	Y 371.029	1346222.5	1346222.5	0.0000 %	05:24:10
1	Ag 328.068†	-581.9	-589.9	[0.00] µg/L	05:24:16
1	As 188.979†	3.3	3.4	[0.00] µg/L	05:24:36
1	B 249.677†	295.5	299.5	[0.00] µg/L	05:24:36
1	Ba 233.527†	-21.0	-21.3	[0.00] µg/L	05:24:36
1	Be 313.107†	-3568.0	-3617.1	[0.00] µg/L	05:24:16
1	Cd 226.502†	-152.1	-154.2	[0.00] µg/L	05:24:36
1	Co 228.616†	-11.3	-11.4	[0.00] µg/L	05:24:36
1	Cr 267.716†	-56.0	-56.8	[0.00] µg/L	05:24:16
1	Cu 324.752†	2495.8	2530.2	[0.00] µg/L	05:24:16
1	Mn 257.610†	-267.7	-271.3	[0.00] µg/L	05:24:36
1	Mo 202.031†	-5.4	-5.5	[0.00] µg/L	05:24:36
1	Ni 231.604†	307.9	312.1	[0.00] µg/L	05:24:36
1	P 214.914†	24.9	25.2	[0.00] µg/L	05:24:36
1	Pb 220.353†	90.3	91.6	[0.00] µg/L	05:24:36
1	S 181.975 Axial†	19.2	19.4	[0.00] µg/L	05:24:36
1	Sb 206.836†	28.9	29.3	[0.00] µg/L	05:24:36
1	Se 196.026†	20.9	21.2	[0.00] µg/L	05:24:36
1	SiO2†	1300.0	1317.9	[0.00] µg/L	05:24:16
1	Si 251.611†	290.5	294.5	[0.00] µg/L	05:24:36
1	Sn 189.927†	-4.0	-4.1	[0.00] µg/L	05:24:36
1	Ti 334.940†	76.5	77.6	[0.00] µg/L	05:24:16
1	Tl 190.801†	-22.3	-22.6	[0.00] µg/L	05:24:36
1	U 409.014†	-117.0	-118.6	[0.00] µg/L	05:24:16
1	V 292.402†	-26.1	-26.5	[0.00] µg/L	05:24:16
1	Zn 213.857†	462.5	468.8	[0.00] µg/L	05:24:36
2	Sc RADIAL	57982.3	57982.3	0.000 %	05:23:14
2	Al 396.153Radial†	-35.3	-34.9	[0.00] µg/L	05:23:14
2	Ca 317.933Radial†	180.3	178.1	[0.00] µg/L	05:23:34
2	Fe 238.204 Radial†	12.8	12.6	[0.00] µg/L	05:23:34
2	K 766.490 Radial†	143.3	141.6	[0.00] µg/L	05:23:14
2	Mg 279.077 IEC†	11.8	11.6	[0.00] µg/L	05:23:34
2	Na 589.592 Radial†	466.0	460.3	[0.00] µg/L	05:23:14
2	Sr 421.552†	15.0	14.8	[0.00] µg/L	05:23:14
2	Sc 361.383	1999421.5	1999421.5	0.0000 %	05:24:42
2	Y 371.029	1373345.7	1373345.7	0.0000 %	05:24:42
2	Ag 328.068†	-571.7	-567.7	[0.00] µg/L	05:24:48
2	As 188.979†	3.1	3.0	[0.00] µg/L	05:25:09
2	B 249.677†	295.2	293.2	[0.00] µg/L	05:25:09
2	Ba 233.527†	-33.2	-33.0	[0.00] µg/L	05:25:09
2	Be 313.107†	-3597.1	-3571.7	[0.00] µg/L	05:24:48
2	Cd 226.502†	-140.7	-139.7	[0.00] µg/L	05:25:09
2	Co 228.616†	-15.2	-15.1	[0.00] µg/L	05:25:09
2	Cr 267.716†	-47.4	-47.1	[0.00] µg/L	05:24:48
2	Cu 324.752†	2419.3	2402.2	[0.00] µg/L	05:24:48
2	Mn 257.610†	-264.0	-262.1	[0.00] µg/L	05:25:09
2	Mo 202.031†	-3.5	-3.4	[0.00] µg/L	05:25:09
2	Ni 231.604†	302.0	299.9	[0.00] µg/L	05:25:09
2	P 214.914†	32.2	32.0	[0.00] µg/L	05:25:09
2	Pb 220.353†	86.6	86.0	[0.00] µg/L	05:25:09
2	S 181.975 Axial†	13.9	13.8	[0.00] µg/L	05:25:09
2	Sb 206.836†	20.4	20.3	[0.00] µg/L	05:25:09
2	Se 196.026†	18.6	18.5	[0.00] µg/L	05:25:09
2	SiO2†	1279.3	1270.2	[0.00] µg/L	05:24:48
2	Si 251.611†	295.9	293.8	[0.00] µg/L	05:25:09
2	Sn 189.927†	4.6	4.6	[0.00] µg/L	05:25:09
2	Ti 334.940†	154.0	152.9	[0.00] µg/L	05:24:48
2	Tl 190.801†	-27.6	-27.4	[0.00] µg/L	05:25:09
2	U 409.014†	-89.8	-89.2	[0.00] µg/L	05:24:48
2	V 292.402†	-71.8	-71.3	[0.00] µg/L	05:24:48
2	Zn 213.857†	462.7	459.4	[0.00] µg/L	05:25:09
3	Sc RADIAL	57118.2	57118.2	0.000 %	05:23:40

3	Al 396.153Radial†	-14.1	-14.1	[0.00]	µg/L	05:23:40
3	Ca 317.933Radial†	187.9	188.4	[0.00]	µg/L	05:24:00
3	Fe 238.204 Radial†	13.6	13.6	[0.00]	µg/L	05:24:00
3	K 766.490 Radial†	139.7	140.1	[0.00]	µg/L	05:23:40
3	Mg 279.077 IEC†	9.5	9.6	[0.00]	µg/L	05:24:00
3	Na 589.592 Radial†	553.1	554.6	[0.00]	µg/L	05:23:40
3	Sr 421.552†	34.9	35.0	[0.00]	µg/L	05:23:40
3	Sc 361.383	1998132.9	1998132.9	0.0000	%	05:25:15
3	Y 371.029	1373625.1	1373625.1	0.0000	%	05:25:15
3	Ag 328.068†	-528.9	-525.5	[0.00]	µg/L	05:25:20
3	As 188.979†	-0.9	-0.9	[0.00]	µg/L	05:25:41
3	B 249.677†	291.9	290.1	[0.00]	µg/L	05:25:41
3	Ba 233.527†	-24.0	-23.9	[0.00]	µg/L	05:25:41
3	Be 313.107†	-3635.7	-3612.4	[0.00]	µg/L	05:25:20
3	Cd 226.502†	-145.5	-144.6	[0.00]	µg/L	05:25:41
3	Co 228.616†	-0.1	-0.1	[0.00]	µg/L	05:25:41
3	Cr 267.716†	-42.1	-41.8	[0.00]	µg/L	05:25:20
3	Cu 324.752†	2415.6	2400.1	[0.00]	µg/L	05:25:20
3	Mn 257.610†	-262.2	-260.5	[0.00]	µg/L	05:25:41
3	Mo 202.031†	-5.6	-5.6	[0.00]	µg/L	05:25:41
3	Ni 231.604†	297.4	295.4	[0.00]	µg/L	05:25:41
3	P 214.914†	22.8	22.6	[0.00]	µg/L	05:25:41
3	Pb 220.353†	83.7	83.1	[0.00]	µg/L	05:25:41
3	S 181.975 Axial†	19.2	19.1	[0.00]	µg/L	05:25:41
3	Sb 206.836†	21.6	21.4	[0.00]	µg/L	05:25:41
3	Se 196.026†	15.5	15.4	[0.00]	µg/L	05:25:41
3	SiO2†	1293.0	1284.7	[0.00]	µg/L	05:25:20
3	Si 251.611†	298.9	297.0	[0.00]	µg/L	05:25:41
3	Sn 189.927†	0.4	0.4	[0.00]	µg/L	05:25:41
3	Ti 334.940†	56.0	55.6	[0.00]	µg/L	05:25:20
3	Tl 190.801†	-21.4	-21.2	[0.00]	µg/L	05:25:41
3	U 409.014†	-60.0	-59.6	[0.00]	µg/L	05:25:20
3	V 292.402†	-39.5	-39.3	[0.00]	µg/L	05:25:20
3	Zn 213.857†	466.9	463.9	[0.00]	µg/L	05:25:41

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1985305.2	23343.02	1.18%	0.0000	%
Sc RADIAL	57274.7	643.83	1.12%	0.000	%
Y 371.029	1364397.7	15740.88	1.15%	0.0000	%
Ag 328.068†	-561.1	32.71	5.83%	[0.00]	µg/L
Al 396.153Radial†	-24.2	10.39	42.90%	[0.00]	µg/L
As 188.979†	1.8	2.40	131.15%	[0.00]	µg/L
B 249.677†	294.2	4.84	1.64%	[0.00]	µg/L
Ba 233.527†	-26.0	6.14	23.60%	[0.00]	µg/L
Be 313.107†	-3600.4	24.97	0.69%	[0.00]	µg/L
Ca 317.933Radial†	186.9	8.09	4.33%	[0.00]	µg/L
Cd 226.502†	-146.2	7.37	5.04%	[0.00]	µg/L
Co 228.616†	-8.9	7.80	87.97%	[0.00]	µg/L
Cr 267.716†	-48.6	7.59	15.62%	[0.00]	µg/L
Cu 324.752†	2444.2	74.48	3.05%	[0.00]	µg/L
Fe 238.204 Radial†	13.7	1.13	8.28%	[0.00]	µg/L
K 766.490 Radial†	166.5	44.45	26.70%	[0.00]	µg/L
Mg 279.077 IEC†	10.8	1.12	10.35%	[0.00]	µg/L
Mn 257.610†	-264.7	5.83	2.20%	[0.00]	µg/L
Mo 202.031†	-4.8	1.22	25.19%	[0.00]	µg/L
Na 589.592 Radial†	513.8	48.41	9.42%	[0.00]	µg/L
Ni 231.604†	302.5	8.65	2.86%	[0.00]	µg/L
P 214.914†	26.6	4.82	18.10%	[0.00]	µg/L
Pb 220.353†	86.9	4.30	4.95%	[0.00]	µg/L
S 181.975 Axial†	17.4	3.18	18.21%	[0.00]	µg/L
Sb 206.836†	23.7	4.91	20.74%	[0.00]	µg/L
Se 196.026†	18.4	2.92	15.92%	[0.00]	µg/L
SiO2†	1290.9	24.41	1.89%	[0.00]	µg/L
Si 251.611†	295.1	1.68	0.57%	[0.00]	µg/L
Sn 189.927†	0.3	4.34	>999.9%	[0.00]	µg/L
Sr 421.552†	25.4	10.15	39.91%	[0.00]	µg/L
Ti 334.940†	95.4	51.02	53.51%	[0.00]	µg/L
Tl 190.801†	-23.7	3.24	13.65%	[0.00]	µg/L

U 409.014†	-89.1	29.49	33.10%	[0.00] µg/L
V 292.402†	-45.7	23.08	50.51%	[0.00] µg/L
Zn 213.857†	464.0	4.71	1.02%	[0.00] µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/12/2010 05:25:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57870.0	57870.0	101	%	05:26:25
1	K 766.490 Radial†	1655.0	1471.5	[1000]	µg/L	05:26:25
1	Sr 421.552†	10538.5	10404.7	[100]	µg/L	05:26:25
1	Sc 361.383	1968443.4	1968443.4	99.151	%	05:26:47
1	Y 371.029	1353350.5	1353350.5	99.190	%	05:26:47
1	Ag 328.068†	12706.9	13376.8	[100]	µg/L	05:26:52
1	As 188.979†	56.5	55.1	[100]	µg/L	05:27:13
1	B 249.677†	2705.7	2434.6	[100]	µg/L	05:26:52
1	Ba 233.527†	4084.4	4145.5	[100]	µg/L	05:26:52
1	Be 313.107†	159880.7	164850.6	[100]	µg/L	05:26:47
1	Cd 226.502†	3796.2	3974.9	[100]	µg/L	05:26:52
1	Co 228.616†	2174.3	2201.8	[100]	µg/L	05:27:13
1	Cr 267.716†	4878.6	4968.9	[100]	µg/L	05:26:52
1	Cu 324.752†	18183.5	15895.0	[100]	µg/L	05:26:52
1	Mn 257.610†	31239.6	31771.9	[100]	µg/L	05:26:52
1	Mo 202.031†	1022.1	1035.7	[100]	µg/L	05:27:13
1	Ni 231.604†	2319.7	2037.1	[100]	µg/L	05:26:52
1	P 214.914†	281.1	256.9	[500]	µg/L	05:27:13
1	Pb 220.353†	508.0	425.4	[100]	µg/L	05:27:13
1	S 181.975 Axial†	62.9	46.0	[200]	µg/L	05:27:13
1	Sb 206.836†	133.8	111.3	[100]	µg/L	05:27:13
1	Se 196.026†	82.6	65.0	[100]	µg/L	05:27:13
1	SiO2†	6531.8	5296.8	[1069.5]	µg/L	05:26:52
1	Si 251.611†	6778.2	6541.2	[500]	µg/L	05:26:52
1	Sn 189.927†	241.8	243.6	[100]	µg/L	05:27:13
1	Ti 334.940†	43415.9	43692.4	[100]	µg/L	05:26:52
1	Tl 190.801†	50.9	75.1	[100]	µg/L	05:27:13
1	U 409.014†	1097.2	1195.7	[100]	µg/L	05:26:52
1	V 292.402†	10035.9	10167.6	[100]	µg/L	05:26:52
1	Zn 213.857†	4859.1	4436.7	[100]	µg/L	05:26:52
2	Sc RADIAL	58303.6	58303.6	102	%	05:26:31
2	K 766.490 Radial†	1653.9	1458.2	[1000]	µg/L	05:26:31
2	Sr 421.552†	10363.1	10154.8	[100]	µg/L	05:26:31
2	Sc 361.383	1991540.9	1991540.9	100.31	%	05:27:19
2	Y 371.029	1368396.0	1368396.0	100.29	%	05:27:19
2	Ag 328.068†	12874.6	13395.3	[100]	µg/L	05:27:25
2	As 188.979†	59.1	57.1	[100]	µg/L	05:27:45
2	B 249.677†	2688.0	2385.3	[100]	µg/L	05:27:25
2	Ba 233.527†	4160.2	4173.2	[100]	µg/L	05:27:25
2	Be 313.107†	159894.4	162994.1	[100]	µg/L	05:27:19
2	Cd 226.502†	3865.6	3999.6	[100]	µg/L	05:27:25
2	Co 228.616†	2191.5	2193.5	[100]	µg/L	05:27:45
2	Cr 267.716†	4983.7	5016.6	[100]	µg/L	05:27:25
2	Cu 324.752†	18345.4	15843.8	[100]	µg/L	05:27:25
2	Mn 257.610†	31639.8	31805.4	[100]	µg/L	05:27:25
2	Mo 202.031†	1046.0	1047.5	[100]	µg/L	05:27:45
2	Ni 231.604†	2329.1	2019.4	[100]	µg/L	05:27:25
2	P 214.914†	287.0	259.4	[500]	µg/L	05:27:45
2	Pb 220.353†	515.8	427.3	[100]	µg/L	05:27:45
2	S 181.975 Axial†	66.5	48.8	[200]	µg/L	05:27:45
2	Sb 206.836†	135.6	111.5	[100]	µg/L	05:27:45
2	Se 196.026†	82.7	64.1	[100]	µg/L	05:27:45
2	SiO2†	6666.7	5354.9	[1069.5]	µg/L	05:27:25
2	Si 251.611†	6804.3	6487.9	[500]	µg/L	05:27:25
2	Sn 189.927†	245.3	244.2	[100]	µg/L	05:27:45
2	Ti 334.940†	43888.7	43655.9	[100]	µg/L	05:27:25
2	Tl 190.801†	50.7	74.3	[100]	µg/L	05:27:45
2	U 409.014†	1073.6	1159.4	[100]	µg/L	05:27:25
2	V 292.402†	10121.6	10135.6	[100]	µg/L	05:27:25

2	Zn 213.857†	4879.5	4400.2	[100]	µg/L	05:27:25
3	Sc RADIAL	57902.6	57902.6	101	%	05:26:36
3	K 766.490 Radial†	1640.7	1456.4	[1000]	µg/L	05:26:36
3	Sr 421.552†	10328.5	10191.1	[100]	µg/L	05:26:36
3	Sc 361.383	1984635.2	1984635.2	99.966	%	05:27:52
3	Y 371.029	1365123.0	1365123.0	100.05	%	05:27:52
3	Ag 328.068†	13051.5	13616.9	[100]	µg/L	05:27:57
3	As 188.979†	55.2	53.4	[100]	µg/L	05:28:18
3	B 249.677†	2692.8	2399.5	[100]	µg/L	05:27:57
3	Ba 233.527†	4185.3	4212.7	[100]	µg/L	05:27:57
3	Be 313.107†	157311.5	160965.0	[100]	µg/L	05:27:52
3	Cd 226.502†	3881.0	4028.5	[100]	µg/L	05:27:57
3	Co 228.616†	2187.9	2197.5	[100]	µg/L	05:28:18
3	Cr 267.716†	5013.2	5063.4	[100]	µg/L	05:27:57
3	Cu 324.752†	18448.3	16010.3	[100]	µg/L	05:27:57
3	Mn 257.610†	31876.5	32151.9	[100]	µg/L	05:27:57
3	Mo 202.031†	1047.6	1052.8	[100]	µg/L	05:28:18
3	Ni 231.604†	2348.1	2046.4	[100]	µg/L	05:27:57
3	P 214.914†	287.0	260.5	[500]	µg/L	05:28:18
3	Pb 220.353†	503.9	417.2	[100]	µg/L	05:28:18
3	S 181.975 Axial†	66.5	49.1	[200]	µg/L	05:28:18
3	Sb 206.836†	133.8	110.1	[100]	µg/L	05:28:18
3	Se 196.026†	87.1	68.8	[100]	µg/L	05:28:18
3	SiO2†	6642.3	5353.6	[1069.5]	µg/L	05:27:57
3	Si 251.611†	6864.3	6571.6	[500]	µg/L	05:27:57
3	Sn 189.927†	244.0	243.8	[100]	µg/L	05:28:18
3	Ti 334.940†	44173.6	44093.2	[100]	µg/L	05:27:57
3	Tl 190.801†	55.1	78.8	[100]	µg/L	05:28:18
3	U 409.014†	1235.7	1325.2	[100]	µg/L	05:27:57
3	V 292.402†	10181.9	10231.1	[100]	µg/L	05:27:57
3	Zn 213.857†	4961.1	4498.7	[100]	µg/L	05:27:57

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1981539.8	11855.78	0.60%	99.810	%
Sc RADIAL	58025.4	241.45	0.42%	101	%
Y 371.029	1362289.8	7912.76	0.58%	99.846	%
Ag 328.068†	13463.0	133.63	0.99%	[100]	µg/L
As 188.979†	55.2	1.85	3.36%	[100]	µg/L
B 249.677†	2406.5	25.39	1.06%	[100]	µg/L
Ba 233.527†	4177.1	33.81	0.81%	[100]	µg/L
Be 313.107†	162936.6	1943.44	1.19%	[100]	µg/L
Cd 226.502†	4001.0	26.82	0.67%	[100]	µg/L
Co 228.616†	2197.6	4.11	0.19%	[100]	µg/L
Cr 267.716†	5016.3	47.25	0.94%	[100]	µg/L
Cu 324.752†	15916.4	85.31	0.54%	[100]	µg/L
K 766.490 Radial†	1462.0	8.21	0.56%	[1000]	µg/L
Mn 257.610†	31909.7	210.44	0.66%	[100]	µg/L
Mo 202.031†	1045.3	8.75	0.84%	[100]	µg/L
Ni 231.604†	2034.3	13.73	0.67%	[100]	µg/L
P 214.914†	258.9	1.87	0.72%	[500]	µg/L
Pb 220.353†	423.3	5.38	1.27%	[100]	µg/L
S 181.975 Axial†	48.0	1.72	3.58%	[200]	µg/L
Sb 206.836†	111.0	0.74	0.67%	[100]	µg/L
Se 196.026†	65.9	2.49	3.77%	[100]	µg/L
SiO2†	5335.1	33.16	0.62%	[1069.5]	µg/L
Si 251.611†	6533.6	42.33	0.65%	[500]	µg/L
Sn 189.927†	243.8	0.32	0.13%	[100]	µg/L
Sr 421.552†	10250.2	135.02	1.32%	[100]	µg/L
Ti 334.940†	43813.8	242.59	0.55%	[100]	µg/L
Tl 190.801†	76.1	2.40	3.16%	[100]	µg/L
U 409.014†	1226.8	87.16	7.10%	[100]	µg/L
V 292.402†	10178.1	48.57	0.48%	[100]	µg/L
Zn 213.857†	4445.2	49.79	1.12%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/12/2010 05:28:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59218.0	59218.0	103	%	05:29:00
1	Al 396.153Radial†	6836.5	6636.4	[5000]	µg/L	05:29:20
1	Ca 317.933Radial†	5684.9	5311.5	[5000]	µg/L	05:29:20
1	K 766.490 Radial†	7388.4	6979.4	[5000]	µg/L	05:29:00
1	Mg 279.077 IEC†	565.6	536.2	[5000]	µg/L	05:29:20
1	Sr 421.552†	50129.6	48459.1	[500]	µg/L	05:29:00
1	Sc 361.383	1984473.3	1984473.3	99.958	%	05:30:24
1	Y 371.029	1359344.1	1359344.1	99.630	%	05:30:24
1	Ag 328.068†	63710.1	64297.9	[500]	µg/L	05:30:29
1	As 188.979†	274.4	272.7	[500]	µg/L	05:30:50
1	B 249.677†	12223.4	11934.3	[500]	µg/L	05:30:29
1	Ba 233.527†	20078.2	20112.6	[500]	µg/L	05:30:29
1	Be 313.107†	790447.9	794379.7	[500]	µg/L	05:30:24
1	Cd 226.502†	19014.5	19168.7	[500]	µg/L	05:30:29
1	Co 228.616†	10727.8	10741.2	[500]	µg/L	05:30:29
1	Cr 267.716†	23912.7	23971.3	[500]	µg/L	05:30:29
1	Cu 324.752†	77167.5	74755.7	[500]	µg/L	05:30:29
1	Mn 257.610†	152717.1	153045.8	[500]	µg/L	05:30:24
1	Mo 202.031†	5026.1	5033.0	[500]	µg/L	05:30:50
1	Ni 231.604†	9958.3	9660.0	[500]	µg/L	05:30:29
1	P 214.914†	1285.5	1259.4	[2500]	µg/L	05:30:50
1	Pb 220.353†	2102.3	2016.2	[500]	µg/L	05:30:50
1	S 181.975 Axial†	262.0	244.7	[1000]	µg/L	05:30:50
1	Sb 206.836†	556.9	533.5	[500]	µg/L	05:30:50
1	Se 196.026†	365.2	347.0	[500]	µg/L	05:30:50
1	SiO2†	27110.7	25831.2	[5347.5]	µg/L	05:30:29
1	Si 251.611†	31832.2	31550.5	[2500]	µg/L	05:30:29
1	Sn 189.927†	1186.2	1186.4	[500]	µg/L	05:30:50
1	Ti 334.940†	212112.7	212106.3	[500]	µg/L	05:30:24
1	Tl 190.801†	357.4	381.3	[500]	µg/L	05:30:50
1	U 409.014†	5800.4	5891.9	[500]	µg/L	05:30:29
1	V 292.402†	48839.4	48905.5	[500]	µg/L	05:30:29
1	Zn 213.857†	21632.2	21177.2	[500]	µg/L	05:30:29
2	Sc RADIAL	59153.8	59153.8	103	%	05:29:26
2	Al 396.153Radial†	6815.1	6622.9	[5000]	µg/L	05:29:46
2	Ca 317.933Radial†	5686.3	5318.7	[5000]	µg/L	05:29:46
2	K 766.490 Radial†	7381.7	6980.7	[5000]	µg/L	05:29:26
2	Mg 279.077 IEC†	562.7	534.0	[5000]	µg/L	05:29:46
2	Sr 421.552†	50479.4	48850.4	[500]	µg/L	05:29:26
2	Sc 361.383	1975685.3	1975685.3	99.515	%	05:30:57
2	Y 371.029	1353100.7	1353100.7	99.172	%	05:30:57
2	Ag 328.068†	63735.0	64606.4	[500]	µg/L	05:31:03
2	As 188.979†	275.0	274.6	[500]	µg/L	05:31:23
2	B 249.677†	12196.0	11961.2	[500]	µg/L	05:31:03
2	Ba 233.527†	20038.9	20162.5	[500]	µg/L	05:31:03
2	Be 313.107†	792591.3	800050.9	[500]	µg/L	05:30:57
2	Cd 226.502†	19109.7	19349.0	[500]	µg/L	05:31:03
2	Co 228.616†	10758.6	10819.8	[500]	µg/L	05:31:03
2	Cr 267.716†	23989.6	24154.9	[500]	µg/L	05:31:03
2	Cu 324.752†	77167.1	75098.6	[500]	µg/L	05:31:03
2	Mn 257.610†	153167.6	154178.0	[500]	µg/L	05:30:57
2	Mo 202.031†	5007.9	5037.2	[500]	µg/L	05:31:23
2	Ni 231.604†	10046.3	9792.8	[500]	µg/L	05:31:03
2	P 214.914†	1289.9	1269.6	[2500]	µg/L	05:31:23
2	Pb 220.353†	2101.4	2024.8	[500]	µg/L	05:31:23
2	S 181.975 Axial†	256.1	239.9	[1000]	µg/L	05:31:23
2	Sb 206.836†	556.7	535.7	[500]	µg/L	05:31:23
2	Se 196.026†	362.6	346.0	[500]	µg/L	05:31:23
2	SiO2†	27076.6	25917.5	[5347.5]	µg/L	05:31:03

2	Si 251.611†	31863.2	31723.3	[2500]	µg/L	05:31:03
2	Sn 189.927†	1177.8	1183.2	[500]	µg/L	05:31:23
2	Ti 334.940†	212543.4	213482.9	[500]	µg/L	05:30:57
2	Tl 190.801†	355.0	380.5	[500]	µg/L	05:31:23
2	U 409.014†	5894.8	6012.6	[500]	µg/L	05:31:03
2	V 292.402†	48934.8	49218.7	[500]	µg/L	05:31:03
2	Zn 213.857†	21679.0	21320.5	[500]	µg/L	05:31:03
3	Sc RADIAL	59543.1	59543.1	104	%	05:29:52
3	Al 396.153Radial†	6953.9	6713.2	[5000]	µg/L	05:30:12
3	Ca 317.933Radial†	5795.5	5387.8	[5000]	µg/L	05:30:12
3	K 766.490 Radial†	7339.7	6893.5	[5000]	µg/L	05:29:52
3	Mg 279.077 IEC†	576.5	543.7	[5000]	µg/L	05:30:12
3	Sr 421.552†	49461.2	47551.5	[500]	µg/L	05:29:52
3	Sc 361.383	1988578.7	1988578.7	100.16	%	05:31:30
3	Y 371.029	1361919.9	1361919.9	99.818	%	05:31:30
3	Ag 328.068†	59560.1	60023.1	[500]	µg/L	05:31:36
3	As 188.979†	239.6	237.4	[500]	µg/L	05:31:57
3	B 249.677†	11370.8	11057.8	[500]	µg/L	05:31:36
3	Ba 233.527†	18311.8	18307.7	[500]	µg/L	05:31:36
3	Be 313.107†	760026.1	762375.3	[500]	µg/L	05:31:30
3	Cd 226.502†	17254.3	17372.1	[500]	µg/L	05:31:36
3	Co 228.616†	9715.7	9708.6	[500]	µg/L	05:31:36
3	Cr 267.716†	21210.1	21223.8	[500]	µg/L	05:31:36
3	Cu 324.752†	70652.8	68092.3	[500]	µg/L	05:31:36
3	Mn 257.610†	147112.8	147135.3	[500]	µg/L	05:31:30
3	Mo 202.031†	4246.4	4244.2	[500]	µg/L	05:31:57
3	Ni 231.604†	9066.0	8748.6	[500]	µg/L	05:31:36
3	P 214.914†	1115.8	1087.3	[2500]	µg/L	05:31:57
3	Pb 220.353†	1851.6	1761.6	[500]	µg/L	05:31:57
3	S 181.975 Axial†	232.6	214.8	[1000]	µg/L	05:31:57
3	Sb 206.836†	495.7	471.2	[500]	µg/L	05:31:57
3	Se 196.026†	327.2	308.3	[500]	µg/L	05:31:57
3	SiO2†	25097.0	23764.8	[5347.5]	µg/L	05:31:36
3	Si 251.611†	29366.1	29022.7	[2500]	µg/L	05:31:36
3	Sn 189.927†	980.8	978.9	[500]	µg/L	05:31:57
3	Ti 334.940†	203259.6	202829.7	[500]	µg/L	05:31:30
3	Tl 190.801†	319.5	342.8	[500]	µg/L	05:31:57
3	U 409.014†	5234.2	5314.7	[500]	µg/L	05:31:36
3	V 292.402†	44213.4	44186.3	[500]	µg/L	05:31:36
3	Zn 213.857†	19698.8	19202.4	[500]	µg/L	05:31:36

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1982912.4	6586.86	0.33%	99.879	%
Sc RADIAL	59305.0	208.71	0.35%	104	%
Y 371.029	1358121.6	4534.91	0.33%	99.540	%
Ag 328.068†	62975.8	2561.74	4.07%	[500]	µg/L
Al 396.153Radial†	6657.5	48.73	0.73%	[5000]	µg/L
As 188.979†	261.5	20.95	8.01%	[500]	µg/L
B 249.677†	11651.1	513.98	4.41%	[500]	µg/L
Ba 233.527†	19527.6	1056.78	5.41%	[500]	µg/L
Be 313.107†	785602.0	20313.74	2.59%	[500]	µg/L
Ca 317.933Radial†	5339.4	42.15	0.79%	[5000]	µg/L
Cd 226.502†	18629.9	1093.04	5.87%	[500]	µg/L
Co 228.616†	10423.2	620.11	5.95%	[500]	µg/L
Cr 267.716†	23116.7	1641.87	7.10%	[500]	µg/L
Cu 324.752†	72648.9	3949.82	5.44%	[500]	µg/L
K 766.490 Radial†	6951.2	49.95	0.72%	[5000]	µg/L
Mg 279.077 IEC†	538.0	5.06	0.94%	[5000]	µg/L
Mn 257.610†	151453.0	3781.91	2.50%	[500]	µg/L
Mo 202.031†	4771.5	456.61	9.57%	[500]	µg/L
Ni 231.604†	9400.4	568.43	6.05%	[500]	µg/L
P 214.914†	1205.4	102.41	8.50%	[2500]	µg/L
Pb 220.353†	1934.2	149.53	7.73%	[500]	µg/L
S 181.975 Axial†	233.1	16.03	6.88%	[1000]	µg/L
Sb 206.836†	513.5	36.60	7.13%	[500]	µg/L
Se 196.026†	333.8	22.05	6.60%	[500]	µg/L
SiO2†	25171.2	1218.72	4.84%	[5347.5]	µg/L
Si 251.611†	30765.5	1511.78	4.91%	[2500]	µg/L

Sn 189.927†	1116.2	118.89	10.65%	[500]	µg/L
Sr 421.552†	48287.0	666.35	1.38%	[500]	µg/L
Ti 334.940†	209473.0	5794.28	2.77%	[500]	µg/L
Tl 190.801†	368.2	22.03	5.98%	[500]	µg/L
U 409.014†	5739.7	373.01	6.50%	[500]	µg/L
V 292.402†	47436.8	2819.43	5.94%	[500]	µg/L
Zn 213.857†	20566.7	1183.71	5.76%	[500]	µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/12/2010 05:32:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57645.9	57645.9	101	%	05:32:40
1	Al 396.153Radial†	14275.4	14207.7	[10000]	µg/L	05:32:40
1	Ca 317.933Radial†	11718.0	11455.7	[10000]	µg/L	05:33:00
1	Fe 238.204 Radial†	1299.7	1277.7	[10000]	µg/L	05:33:00
1	K 766.490 Radial†	14871.7	14609.4	[10000]	µg/L	05:32:40
1	Mg 279.077 IEC†	1176.6	1158.2	[10000]	µg/L	05:33:00
1	Na 589.592 Radial†	32612.4	31888.6	[10000]	µg/L	05:32:40
1	Sr 421.552†	102443.6	101758.4	[1000]	µg/L	05:32:40
1	Sc 361.383	1958958.3	1958958.3	98.673	%	05:34:04
1	Y 371.029	1340764.6	1340764.6	98.268	%	05:34:04
1	Ag 328.068†	133624.0	135982.2	[1000]	µg/L	05:34:09
1	As 188.979†	574.6	580.5	[1000]	µg/L	05:34:30
1	B 249.677†	25046.1	25088.7	[1000]	µg/L	05:34:09
1	Ba 233.527†	41511.0	42095.3	[1000]	µg/L	05:34:09
1	Be 313.107†	1613256.3	1638554.1	[1000]	µg/L	05:34:04
1	Cd 226.502†	39255.6	39929.8	[1000]	µg/L	05:34:09
1	Co 228.616†	22065.2	22370.8	[1000]	µg/L	05:34:09
1	Cr 267.716†	49667.7	50384.3	[1000]	µg/L	05:34:09
1	Cu 324.752†	157980.7	157661.2	[1000]	µg/L	05:34:09
1	Mn 257.610†	313821.5	318306.9	[1000]	µg/L	05:34:09
1	Mo 202.031†	10459.6	10605.2	[1000]	µg/L	05:34:30
1	Ni 231.604†	20146.4	20114.9	[1000]	µg/L	05:34:09
1	P 214.914†	2633.8	2642.6	[5000]	µg/L	05:34:30
1	Pb 220.353†	4237.3	4207.4	[1000]	µg/L	05:34:30
1	S 181.975 Axial†	515.2	504.7	[2000]	µg/L	05:34:30
1	Sb 206.836†	1157.2	1149.1	[1000]	µg/L	05:34:30
1	Se 196.026†	741.2	732.9	[1000]	µg/L	05:34:30
1	SiO2†	54798.0	54244.1	[10695]	µg/L	05:34:09
1	Si 251.611†	65636.4	66224.1	[5000]	µg/L	05:34:09
1	Sn 189.927†	2447.4	2480.0	[1000]	µg/L	05:34:30
1	Ti 334.940†	437069.8	442852.8	[1000]	µg/L	05:34:04
1	Tl 190.801†	755.6	789.5	[1000]	µg/L	05:34:30
1	U 409.014†	11903.0	12152.2	[1000]	µg/L	05:34:09
1	V 292.402†	101932.2	103348.8	[1000]	µg/L	05:34:09
1	Zn 213.857†	43937.9	44064.8	[1000]	µg/L	05:34:09
2	Sc RADIAL	57696.9	57696.9	101	%	05:33:05
2	Al 396.153Radial†	14605.6	14523.0	[10000]	µg/L	05:33:05
2	Ca 317.933Radial†	11714.2	11441.6	[10000]	µg/L	05:33:26
2	Fe 238.204 Radial†	1304.4	1281.2	[10000]	µg/L	05:33:26
2	K 766.490 Radial†	15107.6	14830.5	[10000]	µg/L	05:33:05
2	Mg 279.077 IEC†	1181.9	1162.4	[10000]	µg/L	05:33:26
2	Na 589.592 Radial†	33220.1	32463.2	[10000]	µg/L	05:33:05
2	Sr 421.552†	104719.6	103927.9	[1000]	µg/L	05:33:05
2	Sc 361.383	1956702.8	1956702.8	98.559	%	05:34:37
2	Y 371.029	1338905.4	1338905.4	98.132	%	05:34:37
2	Ag 328.068†	132601.0	135100.4	[1000]	µg/L	05:34:43
2	As 188.979†	570.7	577.3	[1000]	µg/L	05:35:03
2	B 249.677†	24763.8	24831.5	[1000]	µg/L	05:34:43
2	Ba 233.527†	41109.8	41736.7	[1000]	µg/L	05:34:43
2	Be 313.107†	1616969.6	1644206.3	[1000]	µg/L	05:34:37
2	Cd 226.502†	38856.1	39570.3	[1000]	µg/L	05:34:43
2	Co 228.616†	21849.9	22178.2	[1000]	µg/L	05:34:43
2	Cr 267.716†	49231.9	50000.1	[1000]	µg/L	05:34:43
2	Cu 324.752†	156692.3	156538.6	[1000]	µg/L	05:34:43
2	Mn 257.610†	311220.0	316034.0	[1000]	µg/L	05:34:43
2	Mo 202.031†	10409.0	10566.0	[1000]	µg/L	05:35:03
2	Ni 231.604†	19935.1	19924.0	[1000]	µg/L	05:34:43
2	P 214.914†	2624.4	2636.2	[5000]	µg/L	05:35:03
2	Pb 220.353†	4229.2	4204.1	[1000]	µg/L	05:35:03

2	S 181.975 Axial†	514.8	504.9	[2000]	µg/L	05:35:03
2	Sb 206.836†	1158.4	1151.6	[1000]	µg/L	05:35:03
2	Se 196.026†	746.1	738.7	[1000]	µg/L	05:35:03
2	SiO2†	54279.0	53781.5	[10695]	µg/L	05:34:43
2	Si 251.611†	65110.4	65767.1	[5000]	µg/L	05:34:43
2	Sn 189.927†	2437.9	2473.2	[1000]	µg/L	05:35:03
2	Ti 334.940†	437762.7	444066.5	[1000]	µg/L	05:34:37
2	Tl 190.801†	753.5	788.2	[1000]	µg/L	05:35:03
2	U 409.014†	11903.5	12166.6	[1000]	µg/L	05:34:43
2	V 292.402†	100976.9	102498.6	[1000]	µg/L	05:34:43
2	Zn 213.857†	43526.6	43698.9	[1000]	µg/L	05:34:43
3	Sc RADIAL	58071.7	58071.7	101	%	05:33:31
3	Al 396.153Radial†	14383.6	14210.4	[10000]	µg/L	05:33:31
3	Ca 317.933Radial†	11703.2	11355.7	[10000]	µg/L	05:33:52
3	Fe 238.204 Radial†	1295.0	1263.6	[10000]	µg/L	05:33:52
3	K 766.490 Radial†	14983.3	14611.2	[10000]	µg/L	05:33:31
3	Mg 279.077 IEC†	1178.7	1151.7	[10000]	µg/L	05:33:52
3	Na 589.592 Radial†	32789.5	31825.7	[10000]	µg/L	05:33:31
3	Sr 421.552†	103304.1	101860.9	[1000]	µg/L	05:33:31
3	Sc 361.383	1974725.8	1974725.8	99.467	%	05:35:10
3	Y 371.029	1351879.1	1351879.1	99.082	%	05:35:10
3	Ag 328.068†	127230.4	128473.1	[1000]	µg/L	05:35:16
3	As 188.979†	489.0	489.8	[1000]	µg/L	05:35:36
3	B 249.677†	23742.7	23575.7	[1000]	µg/L	05:35:16
3	Ba 233.527†	38639.9	38873.0	[1000]	µg/L	05:35:16
3	Be 313.107†	1561080.0	1573043.7	[1000]	µg/L	05:35:10
3	Cd 226.502†	36563.2	36905.3	[1000]	µg/L	05:35:16
3	Co 228.616†	20313.3	20431.0	[1000]	µg/L	05:35:16
3	Cr 267.716†	44790.0	45078.5	[1000]	µg/L	05:35:16
3	Cu 324.752†	146050.9	144389.2	[1000]	µg/L	05:35:16
3	Mn 257.610†	289615.1	291431.4	[1000]	µg/L	05:35:16
3	Mo 202.031†	8758.1	8809.9	[1000]	µg/L	05:35:36
3	Ni 231.604†	18663.5	18461.0	[1000]	µg/L	05:35:16
3	P 214.914†	2258.1	2243.6	[5000]	µg/L	05:35:36
3	Pb 220.353†	3714.4	3647.4	[1000]	µg/L	05:35:36
3	S 181.975 Axial†	459.1	444.1	[2000]	µg/L	05:35:36
3	Sb 206.836†	996.5	978.2	[1000]	µg/L	05:35:36
3	Se 196.026†	654.8	640.0	[1000]	µg/L	05:35:36
3	SiO2†	51564.3	50549.7	[10695]	µg/L	05:35:16
3	Si 251.611†	61706.4	61741.9	[5000]	µg/L	05:35:16
3	Sn 189.927†	2022.6	2033.1	[1000]	µg/L	05:35:36
3	Ti 334.940†	420544.4	422702.1	[1000]	µg/L	05:35:10
3	Tl 190.801†	682.4	709.8	[1000]	µg/L	05:35:36
3	U 409.014†	10859.0	11006.3	[1000]	µg/L	05:35:16
3	V 292.402†	93367.5	93913.4	[1000]	µg/L	05:35:16
3	Zn 213.857†	40641.6	40395.3	[1000]	µg/L	05:35:16

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1963462.3	9819.44	0.50%	98.900	%
Sc RADIAL	57804.8	232.50	0.40%	101	%
Y 371.029	1343849.7	7015.51	0.52%	98.494	%
Ag 328.068†	133185.2	4104.56	3.08%	[1000]	µg/L
Al 396.153Radial†	14313.7	181.25	1.27%	[10000]	µg/L
As 188.979†	549.2	51.47	9.37%	[1000]	µg/L
B 249.677†	24498.6	809.60	3.30%	[1000]	µg/L
Ba 233.527†	40901.7	1766.06	4.32%	[1000]	µg/L
Be 313.107†	1618601.4	39555.15	2.44%	[1000]	µg/L
Ca 317.933Radial†	11417.6	54.09	0.47%	[10000]	µg/L
Cd 226.502†	38801.8	1652.22	4.26%	[1000]	µg/L
Co 228.616†	21660.0	1068.66	4.93%	[1000]	µg/L
Cr 267.716†	48487.6	2958.61	6.10%	[1000]	µg/L
Cu 324.752†	152863.0	7360.00	4.81%	[1000]	µg/L
Fe 238.204 Radial†	1274.1	9.32	0.73%	[10000]	µg/L
K 766.490 Radial†	14683.7	127.15	0.87%	[10000]	µg/L
Mg 279.077 IEC†	1157.5	5.41	0.47%	[10000]	µg/L
Mn 257.610†	308590.8	14903.85	4.83%	[1000]	µg/L
Mo 202.031†	9993.7	1025.38	10.26%	[1000]	µg/L
Na 589.592 Radial†	32059.2	351.33	1.10%	[10000]	µg/L

Ni 231.604†	19499.9	904.83	4.64%	[1000]	µg/L
P 214.914†	2507.5	228.57	9.12%	[5000]	µg/L
Pb 220.353†	4019.6	322.34	8.02%	[1000]	µg/L
S 181.975 Axial†	484.5	35.03	7.23%	[2000]	µg/L
Sb 206.836†	1093.0	99.43	9.10%	[1000]	µg/L
Se 196.026†	703.8	55.38	7.87%	[1000]	µg/L
SiO2†	52858.4	2012.78	3.81%	[10695]	µg/L
Si 251.611†	64577.7	2466.47	3.82%	[5000]	µg/L
Sn 189.927†	2328.8	256.06	11.00%	[1000]	µg/L
Sr 421.552†	102515.7	1224.03	1.19%	[1000]	µg/L
Ti 334.940†	436540.5	11999.71	2.75%	[1000]	µg/L
Tl 190.801†	762.5	45.64	5.99%	[1000]	µg/L
U 409.014†	11775.0	665.79	5.65%	[1000]	µg/L
V 292.402†	99920.3	5219.46	5.22%	[1000]	µg/L
Zn 213.857†	42719.7	2021.25	4.73%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/12/2010 05:35:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57424.3	57424.3	100	%	05:36:18
1	Al 396.153Radial†	72203.4	72039.5	[50000]	µg/L	05:36:18
1	Ca 317.933Radial†	58084.6	57746.3	[50000]	µg/L	05:36:18
1	Fe 238.204 Radial†	2542.9	2522.6	[20000]	µg/L	05:36:38
1	Mg 279.077 IEC†	5660.9	5635.3	[50000]	µg/L	05:36:38
1	Na 589.592 Radial†	65134.7	64451.2	[20000]	µg/L	05:36:18
1	Sc 361.383	1947213.5	1947213.5	98.081	%	05:37:42
1	Y 371.029	1328671.1	1328671.1	97.382	%	05:37:42
2	Sc RADIAL	57300.1	57300.1	100	%	05:36:44
2	Al 396.153Radial†	72025.4	72017.6	[50000]	µg/L	05:36:44
2	Ca 317.933Radial†	57998.0	57785.4	[50000]	µg/L	05:36:44
2	Fe 238.204 Radial†	2552.6	2537.7	[20000]	µg/L	05:37:04
2	Mg 279.077 IEC†	5670.0	5656.6	[50000]	µg/L	05:37:04
2	Na 589.592 Radial†	65058.4	64515.7	[20000]	µg/L	05:36:44
2	Sc 361.383	1961916.6	1961916.6	98.822	%	05:37:50
2	Y 371.029	1337422.1	1337422.1	98.023	%	05:37:50
3	Sc RADIAL	57713.9	57713.9	101	%	05:37:10
3	Al 396.153Radial†	71981.8	71458.1	[50000]	µg/L	05:37:10
3	Ca 317.933Radial†	58082.9	57454.0	[50000]	µg/L	05:37:10
3	Fe 238.204 Radial†	2555.4	2522.2	[20000]	µg/L	05:37:30
3	Mg 279.077 IEC†	5691.5	5637.3	[50000]	µg/L	05:37:30
3	Na 589.592 Radial†	64982.7	63974.3	[20000]	µg/L	05:37:10
3	Sc 361.383	1952791.8	1952791.8	98.362	%	05:37:58
3	Y 371.029	1332050.3	1332050.3	97.629	%	05:37:58

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1953974.0	7422.51	0.38%	98.422	%
Sc RADIAL	57479.5	212.35	0.37%	100	%
Y 371.029	1332714.5	4413.15	0.33%	97.678	%
Al 396.153Radial†	71838.4	329.51	0.46%	[50000]	µg/L
Ca 317.933Radial†	57661.9	181.13	0.31%	[50000]	µg/L
Fe 238.204 Radial†	2527.5	8.86	0.35%	[20000]	µg/L
Mg 279.077 IEC†	5643.1	11.75	0.21%	[50000]	µg/L
Na 589.592 Radial†	64313.7	295.72	0.46%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	131.8	0.00000	0.999759	
Al 396.153Radial	3	Lin Thru 0	0.0	1.436	0.00000	0.999974	
As 188.979	3	Lin Thru 0	0.0	0.5440	0.00000	0.999817	
B 249.677	3	Lin Thru 0	0.0	24.26	0.00000	0.999807	
Ba 233.527	3	Lin Thru 0	0.0	40.54	0.00000	0.999832	
Be 313.107	3	Lin Thru 0	0.0	1609	0.00000	0.999931	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.152	0.00000	0.999973	
Cd 226.502	3	Lin Thru 0	0.0	38.51	0.00000	0.999867	
Co 228.616	3	Lin Thru 0	0.0	21.50	0.00000	0.999884	
Cr 267.716	3	Lin Thru 0	0.0	48.05	0.00000	0.999818	
Cu 324.752	3	Lin Thru 0	0.0	151.4	0.00000	0.999791	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1266	0.00000	0.999995	
K 766.490 Radial	3	Lin Thru 0	0.0	1.453	0.00000	0.999770	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1129	0.00000	0.999977	
Mn 257.610	3	Lin Thru 0	0.0	307.5	0.00000	0.999967	
Mo 202.031	3	Lin Thru 0	0.0	9.908	0.00000	0.999824	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.214	0.00000	0.999999	

Ni 231.604	3	Lin Thru 0	0.0	19.37	0.00000	0.999886
P 214.914	3	Lin Thru 0	0.0	0.4978	0.00000	0.999874
Pb 220.353	3	Lin Thru 0	0.0	3.991	0.00000	0.999871
S 181.975 Axial	3	Lin Thru 0	0.0	0.2404	0.00000	0.999885
Sb 206.836	3	Lin Thru 0	0.0	1.080	0.00000	0.999701
Se 196.026	3	Lin Thru 0	0.0	0.6963	0.00000	0.999774
SiO2	3	Lin Thru 0	0.0	4.896	0.00000	0.999815
Si 251.611	3	Lin Thru 0	0.0	12.80	0.00000	0.999818
Sn 189.927	3	Lin Thru 0	0.0	2.311	0.00000	0.999850
Sr 421.552	3	Lin Thru 0	0.0	101.3	0.00000	0.999727
Ti 334.940	3	Lin Thru 0	0.0	433.1	0.00000	0.999868
Tl 190.801	3	Lin Thru 0	0.0	0.7573	0.00000	0.999906
U 409.014	3	Lin Thru 0	0.0	11.72	0.00000	0.999941
V 292.402	3	Lin Thru 0	0.0	98.93	0.00000	0.999790
Zn 213.857	3	Lin Thru 0	0.0	42.42	0.00000	0.999880

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/12/2010 05:38:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57149.8	57149.8	99.8	%			05:38:39
1	Al 396.153Radial†	7055.0	7094.7	4930.7	µg/L	4930.7	ppb	05:38:39
1	Ca 317.933Radial†	5722.4	5548.0	4816.1	µg/L	4816.1	ppb	05:39:00
1	Fe 238.204 Radial†	641.0	628.7	4977.2	µg/L	4977.2	ppb	05:39:00
1	K 766.490 Radial†	3666.1	3507.6	2414.4	µg/L	2414.4	ppb	05:38:39
1	Mg 279.077 IEC†	588.2	578.6	5128.0	µg/L	5128.0	ppb	05:39:00
1	Na 589.592 Radial†	8298.7	7803.0	2428.0	µg/L	2428.0	ppb	05:38:39
1	Sr 421.552†	52286.9	52375.8	516.85	µg/L	516.85	ppb	05:38:39
1	Sc 361.383	1965129.6	1965129.6	98.984	%			05:40:04
1	Y 371.029	1347696.3	1347696.3	98.776	%			05:40:04
1	Ag 328.068†	32756.3	33653.7	259.06	µg/L	259.06	ppb	05:40:09
1	As 188.979†	266.5	267.4	490.51	µg/L	490.51	ppb	05:40:30
1	B 249.677†	12527.3	12361.7	507.79	µg/L	507.79	ppb	05:40:09
1	Ba 233.527†	20076.9	20309.1	501.85	µg/L	501.85	ppb	05:40:09
1	Be 313.107†	409479.9	417284.3	259.11	µg/L	259.11	ppb	05:40:04
1	Cd 226.502†	18794.7	19133.8	496.85	µg/L	496.85	ppb	05:40:09
1	Co 228.616†	10762.2	10881.6	505.56	µg/L	505.56	ppb	05:40:09
1	Cr 267.716†	23222.1	23509.1	489.54	µg/L	489.54	ppb	05:40:09
1	Cu 324.752†	77647.9	76000.9	502.64	µg/L	502.64	ppb	05:40:09
1	Mn 257.610†	155356.3	157216.0	511.65	µg/L	511.65	ppb	05:40:04
1	Mo 202.031†	5424.4	5485.0	553.78	µg/L	553.78	ppb	05:40:30
1	Ni 231.604†	9916.7	9716.0	501.12	µg/L	501.12	ppb	05:40:09
1	P 214.914†	1282.0	1268.6	2501.1	µg/L	2501.1	ppb	05:40:30
1	Pb 220.353†	2087.4	2021.9	506.89	µg/L	506.89	ppb	05:40:30
1	S 181.975 Axial†	621.6	610.6	2539.3	µg/L	2539.3	ppb	05:40:30
1	Sb 206.836†	580.7	563.0	524.40	µg/L	524.40	ppb	05:40:30
1	Se 196.026†	1794.1	1794.2	2584.4	µg/L	2584.4	ppb	05:40:30
1	SiO2†	51564.1	50802.6	10376	µg/L	10376	ppb	05:40:09
1	Si 251.611†	61464.3	61800.3	4829.7	µg/L	4829.7	ppb	05:40:09
1	Sn 189.927†	1272.4	1285.2	556.29	µg/L	556.29	ppb	05:40:30
1	Ti 334.940†	212367.5	214452.5	494.87	µg/L	494.87	ppb	05:40:04
1	Tl 190.801†	370.8	398.4	531.97	µg/L	531.97	ppb	05:40:30
1	U 409.014†	5625.8	5772.7	491.56	µg/L	491.56	ppb	05:40:09
1	V 292.402†	49442.8	49996.2	511.84	µg/L	511.84	ppb	05:40:09
1	Zn 213.857†	21852.0	21612.3	505.95	µg/L	505.95	ppb	05:40:09
2	Sc RADIAL	57628.3	57628.3	101	%			05:39:05
2	Al 396.153Radial†	7010.0	6991.2	4858.8	µg/L	4858.8	ppb	05:39:05
2	Ca 317.933Radial†	5669.6	5447.9	4729.1	µg/L	4729.1	ppb	05:39:26
2	Fe 238.204 Radial†	638.3	620.7	4914.4	µg/L	4914.4	ppb	05:39:26
2	K 766.490 Radial†	3774.5	3584.9	2467.5	µg/L	2467.5	ppb	05:39:05
2	Mg 279.077 IEC†	581.1	566.7	5022.9	µg/L	5022.9	ppb	05:39:26
2	Na 589.592 Radial†	8261.6	7697.1	2395.1	µg/L	2395.1	ppb	05:39:05
2	Sr 421.552†	52214.9	51869.0	511.85	µg/L	511.85	ppb	05:39:05
2	Sc 361.383	1968678.4	1968678.4	99.163	%			05:40:37
2	Y 371.029	1349955.2	1349955.2	98.941	%			05:40:37
2	Ag 328.068†	32753.9	33591.6	258.58	µg/L	258.58	ppb	05:40:43
2	As 188.979†	261.4	261.8	480.22	µg/L	480.22	ppb	05:41:03
2	B 249.677†	12563.0	12374.8	508.36	µg/L	508.36	ppb	05:40:43
2	Ba 233.527†	20127.4	20323.4	502.20	µg/L	502.20	ppb	05:40:43
2	Be 313.107†	407159.6	414198.7	257.19	µg/L	257.19	ppb	05:40:37
2	Cd 226.502†	18871.8	19177.4	497.99	µg/L	497.99	ppb	05:40:43
2	Co 228.616†	10773.2	10873.0	505.17	µg/L	505.17	ppb	05:40:43
2	Cr 267.716†	23237.0	23481.8	488.98	µg/L	488.98	ppb	05:40:43
2	Cu 324.752†	77850.1	76063.5	503.04	µg/L	503.04	ppb	05:40:43
2	Mn 257.610†	154662.4	156233.3	508.45	µg/L	508.45	ppb	05:40:37
2	Mo 202.031†	5388.9	5439.2	549.16	µg/L	549.16	ppb	05:41:03
2	Ni 231.604†	9889.7	9670.7	498.78	µg/L	498.78	ppb	05:40:43
2	P 214.914†	1285.8	1270.0	2503.9	µg/L	2503.9	ppb	05:41:03
2	Pb 220.353†	2082.7	2013.4	504.73	µg/L	504.73	ppb	05:41:03

2	S 181.975 Axial†	617.8	605.6	2518.9 µg/L	2518.9 ppb	05:41:03
2	Sb 206.836†	568.6	549.7	512.01 µg/L	512.01 ppb	05:41:03
2	Se 196.026†	1793.0	1789.8	2578.2 µg/L	2578.2 ppb	05:41:03
2	SiO2†	51722.0	50867.9	10390 µg/L	10390 ppb	05:40:43
2	Si 251.611†	61570.3	61795.2	4829.3 µg/L	4829.3 ppb	05:40:43
2	Sn 189.927†	1268.1	1278.6	553.41 µg/L	553.41 ppb	05:41:03
2	Ti 334.940†	211357.2	213046.9	491.63 µg/L	491.63 ppb	05:40:37
2	Tl 190.801†	368.9	395.8	528.51 µg/L	528.51 ppb	05:41:03
2	U 409.014†	5682.5	5819.7	495.57 µg/L	495.57 ppb	05:40:43
2	V 292.402†	49516.8	49980.7	511.65 µg/L	511.65 ppb	05:40:43
2	Zn 213.857†	21901.4	21622.4	506.21 µg/L	506.21 ppb	05:40:43
3	Sc RADIAL	57514.7	57514.7	100 %		05:39:32
3	Al 396.153Radial†	7015.8	7010.8	4874.2 µg/L	4874.2 ppb	05:39:32
3	Ca 317.933Radial†	5671.8	5461.3	4740.7 µg/L	4740.7 ppb	05:39:52
3	Fe 238.204 Radial†	641.3	624.9	4946.4 µg/L	4946.4 ppb	05:39:52
3	K 766.490 Radial†	3813.0	3630.6	2499.0 µg/L	2499.0 ppb	05:39:32
3	Mg 279.077 IEC†	591.1	577.8	5119.2 µg/L	5119.2 ppb	05:39:52
3	Na 589.592 Radial†	8302.4	7754.0	2412.8 µg/L	2412.8 ppb	05:39:32
3	Sr 421.552†	52461.9	52217.6	515.29 µg/L	515.29 ppb	05:39:32
3	Sc 361.383	1981717.3	1981717.3	99.819 %		05:41:10
3	Y 371.029	1359109.7	1359109.7	99.612 %		05:41:10
3	Ag 328.068†	31262.1	31879.7	245.31 µg/L	245.31 ppb	05:41:16
3	As 188.979†	231.5	230.1	422.01 µg/L	422.01 ppb	05:41:37
3	B 249.677†	11926.1	11653.4	478.53 µg/L	478.53 ppb	05:41:16
3	Ba 233.527†	18829.4	18889.5	466.76 µg/L	466.76 ppb	05:41:16
3	Be 313.107†	392081.7	396392.0	246.14 µg/L	246.14 ppb	05:41:10
3	Cd 226.502†	17486.3	17664.2	458.65 µg/L	458.65 ppb	05:41:16
3	Co 228.616†	9973.9	10000.8	464.57 µg/L	464.57 ppb	05:41:16
3	Cr 267.716†	21104.2	21190.9	441.28 µg/L	441.28 ppb	05:41:16
3	Cu 324.752†	72324.8	70011.5	463.08 µg/L	463.08 ppb	05:41:16
3	Mn 257.610†	148991.3	149525.7	486.64 µg/L	486.64 ppb	05:41:10
3	Mo 202.031†	4566.8	4579.9	462.43 µg/L	462.43 ppb	05:41:37
3	Ni 231.604†	9197.7	8911.8	459.64 µg/L	459.64 ppb	05:41:16
3	P 214.914†	1112.7	1088.1	2141.2 µg/L	2141.2 ppb	05:41:37
3	Pb 220.353†	1832.8	1749.2	438.41 µg/L	438.41 ppb	05:41:37
3	S 181.975 Axial†	550.5	534.1	2221.3 µg/L	2221.3 ppb	05:41:37
3	Sb 206.836†	493.6	470.8	438.10 µg/L	438.10 ppb	05:41:37
3	Se 196.026†	1578.6	1563.1	2252.6 µg/L	2252.6 ppb	05:41:37
3	SiO2†	48632.1	47429.2	9687.3 µg/L	9687.3 ppb	05:41:16
3	Si 251.611†	58037.4	57847.4	4520.8 µg/L	4520.8 ppb	05:41:16
3	Sn 189.927†	1061.2	1062.8	460.04 µg/L	460.04 ppb	05:41:37
3	Ti 334.940†	202744.1	203015.8	468.46 µg/L	468.46 ppb	05:41:10
3	Tl 190.801†	340.6	364.9	487.56 µg/L	487.56 ppb	05:41:37
3	U 409.014†	5144.3	5242.8	446.35 µg/L	446.35 ppb	05:41:16
3	V 292.402†	45627.5	45755.8	468.12 µg/L	468.12 ppb	05:41:16
3	Zn 213.857†	20328.7	19901.5	465.87 µg/L	465.87 ppb	05:41:16

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1971841.8	99.322	%	0.4400				0.44%
Sc RADIAL	57430.9	100	%	0.4				0.44%
Y 371.029	1352253.7	99.110	%	0.4430				0.45%
Ag 328.068†	33041.7	254.32	µg/L	7.804	254.32	ppb	7.804	3.07%
QC value within limits for Ag 328.068 Recovery = 101.73%								
Al 396.153Radial†	7032.2	4887.9	µg/L	37.89	4887.9	ppb	37.89	0.78%
QC value within limits for Al 396.153Radial Recovery = 97.76%								
As 188.979†	253.1	464.25	µg/L	36.936	464.25	ppb	36.936	7.96%
QC value within limits for As 188.979 Recovery = 92.85%								
B 249.677†	12130.0	498.23	µg/L	17.061	498.23	ppb	17.061	3.42%
QC value within limits for B 249.677 Recovery = 99.65%								
Ba 233.527†	19840.7	490.27	µg/L	20.363	490.27	ppb	20.363	4.15%
QC value within limits for Ba 233.527 Recovery = 98.05%								
Be 313.107†	409291.7	254.15	µg/L	7.002	254.15	ppb	7.002	2.76%
QC value within limits for Be 313.107 Recovery = 101.66%								
Ca 317.933Radial†	5485.7	4762.0	µg/L	47.20	4762.0	ppb	47.20	0.99%
QC value within limits for Ca 317.933Radial Recovery = 95.24%								
Cd 226.502†	18658.5	484.50	µg/L	22.393	484.50	ppb	22.393	4.62%
QC value within limits for Cd 226.502 Recovery = 96.90%								
Co 228.616†	10585.1	491.77	µg/L	23.552	491.77	ppb	23.552	4.79%

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   QC value within limits for Co 228.616  Recovery = 98.35%
Cr 267.716†            22727.3      473.27 µg/L        27.705      473.27 ppb        27.705   5.85%
   QC value within limits for Cr 267.716  Recovery = 94.65%
Cu 324.752†            74025.3      489.59 µg/L        22.958      489.59 ppb        22.958   4.69%
   QC value within limits for Cu 324.752  Recovery = 97.92%
Fe 238.204 Radial†       624.8      4946.0 µg/L         31.42      4946.0 ppb         31.42   0.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.92%
K 766.490 Radial†       3574.4      2460.3 µg/L         42.77      2460.3 ppb         42.77   1.74%
   QC value within limits for K 766.490 Radial  Recovery = 98.41%
Mg 279.077 IEC†          574.4      5090.0 µg/L         58.34      5090.0 ppb         58.34   1.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.80%
Mn 257.610†           154325.0      502.25 µg/L        13.610      502.25 ppb        13.610   2.71%
   QC value within limits for Mn 257.610  Recovery = 100.45%
Mo 202.031†            5168.0      521.79 µg/L        51.460      521.79 ppb        51.460   9.86%
   QC value within limits for Mo 202.031  Recovery = 104.36%
Na 589.592 Radial†      7751.4      2411.9 µg/L         16.50      2411.9 ppb         16.50   0.68%
   QC value within limits for Na 589.592 Radial  Recovery = 96.48%
Ni 231.604†            9432.9      486.51 µg/L        23.298      486.51 ppb        23.298   4.79%
   QC value within limits for Ni 231.604  Recovery = 97.30%
P 214.914†             1208.9      2382.1 µg/L        208.62      2382.1 ppb        208.62   8.76%
   QC value within limits for P 214.914  Recovery = 95.28%
Pb 220.353†            1928.1      483.35 µg/L        38.929      483.35 ppb        38.929   8.05%
   QC value within limits for Pb 220.353  Recovery = 96.67%
S 181.975 Axial†         583.4      2426.5 µg/L        178.03      2426.5 ppb        178.03   7.34%
   QC value within limits for S 181.975 Axial  Recovery = 97.06%
Sb 206.836†              527.9      491.50 µg/L        46.662      491.50 ppb        46.662   9.49%
   QC value within limits for Sb 206.836  Recovery = 98.30%
Se 196.026†            1715.7      2471.7 µg/L        189.83      2471.7 ppb        189.83   7.68%
   QC value within limits for Se 196.026  Recovery = 98.87%
SiO2†                 49699.9       10151 µg/L         401.7       10151 ppb         401.7   3.96%
   QC value within limits for SiO2  Recovery = 94.91%
Si 251.611†           60481.0      4726.6 µg/L        178.24      4726.6 ppb        178.24   3.77%
   QC value within limits for Si 251.611  Recovery = 94.53%
Sn 189.927†            1208.9      523.24 µg/L        54.756      523.24 ppb        54.756  10.46%
   QC value within limits for Sn 189.927  Recovery = 104.65%
Sr 421.552†           52154.1      514.66 µg/L         2.558      514.66 ppb         2.558   0.50%
   QC value within limits for Sr 421.552  Recovery = 102.93%
Ti 334.940†          210171.7      484.99 µg/L        14.404      484.99 ppb        14.404   2.97%
   QC value within limits for Ti 334.940  Recovery = 97.00%
Tl 190.801†              386.4      516.01 µg/L        24.704      516.01 ppb        24.704   4.79%
   QC value within limits for Tl 190.801  Recovery = 103.20%
U 409.014†             5611.7      477.83 µg/L        27.334      477.83 ppb        27.334   5.72%
   QC value within limits for U 409.014  Recovery = 95.57%
V 292.402†            48577.5      497.20 µg/L        25.189      497.20 ppb        25.189   5.07%
   QC value within limits for V 292.402  Recovery = 99.44%
Zn 213.857†           21045.4      492.67 µg/L        23.216      492.67 ppb        23.216   4.71%
   QC value within limits for Zn 213.857  Recovery = 98.53%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/12/2010 05:41:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55581.4	55581.4	97.0	%			05:42:19
1	Al 396.153Radial†	6.6	31.1	21.628	µg/L	21.628	ppb	05:42:19
1	Ca 317.933Radial†	197.6	16.8	14.558	µg/L	14.558	ppb	05:42:40
1	Fe 238.204 Radial†	16.2	3.0	24.019	µg/L	24.019	ppb	05:42:40
1	K 766.490 Radial†	233.9	74.6	51.325	µg/L	51.325	ppb	05:42:19
1	Mg 279.077 IEC†	11.9	1.4	12.605	µg/L	12.605	ppb	05:42:40
1	Na 589.592 Radial†	556.9	60.0	18.682	µg/L	18.682	ppb	05:42:19
1	Sr 421.552†	73.6	50.4	0.4971	µg/L	0.4971	ppb	05:42:19
1	Sc 361.383	1945565.0	1945565.0	97.998	%			05:43:41
1	Y 371.029	1338606.8	1338606.8	98.110	%			05:43:41
1	Ag 328.068†	-509.2	41.4	0.3154	µg/L	0.3154	ppb	05:43:47
1	As 188.979†	-0.1	-1.9	-3.5051	µg/L	-3.5051	ppb	05:44:08
1	B 249.677†	357.8	70.9	2.9108	µg/L	2.9108	ppb	05:44:08
1	Ba 233.527†	-8.5	17.4	0.4288	µg/L	0.4288	ppb	05:44:08
1	Be 313.107†	-3256.8	277.0	0.1720	µg/L	0.1720	ppb	05:43:47
1	Cd 226.502†	-125.3	18.4	0.4749	µg/L	0.4749	ppb	05:44:08
1	Co 228.616†	3.5	12.5	0.5803	µg/L	0.5803	ppb	05:44:08
1	Cr 267.716†	-30.6	17.3	0.3602	µg/L	0.3602	ppb	05:44:08
1	Cu 324.752†	2516.6	123.8	0.8213	µg/L	0.8213	ppb	05:43:47
1	Mn 257.610†	-125.1	137.0	0.4481	µg/L	0.4481	ppb	05:44:08
1	Mo 202.031†	-1.3	3.5	0.3576	µg/L	0.3576	ppb	05:44:08
1	Ni 231.604†	313.2	17.1	0.8828	µg/L	0.8828	ppb	05:44:08
1	P 214.914†	25.6	-0.5	-1.1165	µg/L	-1.1165	ppb	05:44:08
1	Pb 220.353†	91.7	6.6	1.6572	µg/L	1.6572	ppb	05:44:08
1	S 181.975 Axial†	13.3	-3.9	-16.030	µg/L	-16.030	ppb	05:44:08
1	Sb 206.836†	17.5	-5.8	-5.3826	µg/L	-5.3826	ppb	05:44:08
1	Se 196.026†	19.3	1.3	1.9188	µg/L	1.9188	ppb	05:44:08
1	SiO2†	1287.7	23.1	4.7081	µg/L	4.7081	ppb	05:43:47
1	Si 251.611†	366.7	79.1	6.1801	µg/L	6.1801	ppb	05:44:08
1	Sn 189.927†	0.5	0.3	0.1093	µg/L	0.1093	ppb	05:44:08
1	Ti 334.940†	218.7	127.8	0.2944	µg/L	0.2944	ppb	05:43:47
1	Tl 190.801†	-25.9	-2.7	-3.5728	µg/L	-3.5728	ppb	05:44:08
1	U 409.014†	-71.6	16.0	1.3618	µg/L	1.3618	ppb	05:43:47
1	V 292.402†	-49.5	-4.8	-0.0412	µg/L	-0.0412	ppb	05:43:47
1	Zn 213.857†	505.4	51.7	1.2121	µg/L	1.2121	ppb	05:44:08
2	Sc RADIAL	56491.2	56491.2	98.6	%			05:42:45
2	Al 396.153Radial†	-1.6	22.6	15.743	µg/L	15.743	ppb	05:42:45
2	Ca 317.933Radial†	191.7	7.5	6.4905	µg/L	6.4905	ppb	05:43:06
2	Fe 238.204 Radial†	17.4	3.9	31.149	µg/L	31.149	ppb	05:43:06
2	K 766.490 Radial†	232.7	69.4	47.751	µg/L	47.751	ppb	05:42:45
2	Mg 279.077 IEC†	13.7	3.1	27.134	µg/L	27.134	ppb	05:43:06
2	Na 589.592 Radial†	507.3	0.6	0.1816	µg/L	0.1816	ppb	05:42:45
2	Sr 421.552†	5.1	-20.2	-0.1997	µg/L	-0.1997	ppb	05:42:45
2	Sc 361.383	1959098.7	1959098.7	98.680	%			05:44:14
2	Y 371.029	1347538.0	1347538.0	98.764	%			05:44:14
2	Ag 328.068†	-464.6	90.3	0.6859	µg/L	0.6859	ppb	05:44:19
2	As 188.979†	0.3	-1.5	-2.7898	µg/L	-2.7898	ppb	05:44:40
2	B 249.677†	354.3	64.8	2.6557	µg/L	2.6557	ppb	05:44:40
2	Ba 233.527†	-14.9	10.9	0.2692	µg/L	0.2692	ppb	05:44:40
2	Be 313.107†	-3156.1	402.0	0.2497	µg/L	0.2497	ppb	05:44:19
2	Cd 226.502†	-131.7	12.7	0.3271	µg/L	0.3271	ppb	05:44:40
2	Co 228.616†	11.9	20.9	0.9742	µg/L	0.9742	ppb	05:44:40
2	Cr 267.716†	-37.9	10.1	0.2106	µg/L	0.2106	ppb	05:44:40
2	Cu 324.752†	2510.9	100.4	0.6671	µg/L	0.6671	ppb	05:44:19
2	Mn 257.610†	-174.4	88.0	0.2891	µg/L	0.2891	ppb	05:44:40
2	Mo 202.031†	5.1	10.0	1.0154	µg/L	1.0154	ppb	05:44:40
2	Ni 231.604†	320.9	22.7	1.1709	µg/L	1.1709	ppb	05:44:40
2	P 214.914†	21.4	-4.9	-10.007	µg/L	-10.007	ppb	05:44:40
2	Pb 220.353†	100.6	15.1	3.7729	µg/L	3.7729	ppb	05:44:40

2	S 181.975 Axial†	16.8	-0.4	-1.8507 µg/L	-1.8507 ppb		05:44:40
2	Sb 206.836†	23.3	-0.0	-0.0242 µg/L	-0.0242 ppb		05:44:40
2	Se 196.026†	19.6	1.5	2.1879 µg/L	2.1879 ppb		05:44:40
2	SiO2†	1329.3	56.2	11.473 µg/L	11.473 ppb		05:44:19
2	Si 251.611†	352.2	61.9	4.8340 µg/L	4.8340 ppb		05:44:40
2	Sn 189.927†	4.4	4.1	1.7806 µg/L	1.7806 ppb		05:44:40
2	Ti 334.940†	179.0	86.1	0.1967 µg/L	0.1967 ppb		05:44:19
2	Tl 190.801†	-26.4	-3.0	-3.9597 µg/L	-3.9597 ppb		05:44:40
2	U 409.014†	-38.7	49.9	4.2553 µg/L	4.2553 ppb		05:44:19
2	V 292.402†	-61.6	-16.7	-0.1528 µg/L	-0.1528 ppb		05:44:19
2	Zn 213.857†	495.5	38.1	0.8883 µg/L	0.8883 ppb		05:44:40
3	Sc RADIAL	56426.5	56426.5	98.5 %			05:43:11
3	Al 396.153Radial†	-17.0	7.0	4.8684 µg/L	4.8684 ppb		05:43:11
3	Ca 317.933Radial†	183.7	-0.4	-0.3717 µg/L	-0.3717 ppb		05:43:31
3	Fe 238.204 Radial†	14.3	0.8	6.1045 µg/L	6.1045 ppb		05:43:31
3	K 766.490 Radial†	234.2	71.2	49.030 µg/L	49.030 ppb		05:43:11
3	Mg 279.077 IEC†	11.1	0.4	3.8084 µg/L	3.8084 ppb		05:43:31
3	Na 589.592 Radial†	563.6	58.3	18.129 µg/L	18.129 ppb		05:43:11
3	Sr 421.552†	64.4	40.0	0.3944 µg/L	0.3944 ppb		05:43:11
3	Sc 361.383	1977070.4	1977070.4	99.585 %			05:44:46
3	Y 371.029	1360459.0	1360459.0	99.711 %			05:44:46
3	Ag 328.068†	-488.2	70.8	0.5384 µg/L	0.5384 ppb		05:44:51
3	As 188.979†	-2.7	-4.5	-8.2764 µg/L	-8.2764 ppb		05:45:12
3	B 249.677†	348.9	56.1	2.3079 µg/L	2.3079 ppb		05:45:12
3	Ba 233.527†	-23.8	2.2	0.0538 µg/L	0.0538 ppb		05:45:12
3	Be 313.107†	-3169.0	418.2	0.2597 µg/L	0.2597 ppb		05:44:51
3	Cd 226.502†	-137.3	8.3	0.2160 µg/L	0.2160 ppb		05:45:12
3	Co 228.616†	1.8	10.7	0.4973 µg/L	0.4973 ppb		05:45:12
3	Cr 267.716†	-44.3	4.0	0.0839 µg/L	0.0839 ppb		05:45:12
3	Cu 324.752†	2540.8	107.2	0.7088 µg/L	0.7088 ppb		05:44:51
3	Mn 257.610†	-220.5	43.3	0.1414 µg/L	0.1414 ppb		05:45:12
3	Mo 202.031†	-2.2	2.6	0.2625 µg/L	0.2625 ppb		05:45:12
3	Ni 231.604†	306.1	4.9	0.2517 µg/L	0.2517 ppb		05:45:12
3	P 214.914†	24.1	-2.4	-4.9291 µg/L	-4.9291 ppb		05:45:12
3	Pb 220.353†	90.7	4.2	1.0492 µg/L	1.0492 ppb		05:45:12
3	S 181.975 Axial†	19.0	1.6	6.7885 µg/L	6.7885 ppb		05:45:12
3	Sb 206.836†	28.4	4.9	4.4993 µg/L	4.4993 ppb		05:45:12
3	Se 196.026†	12.9	-5.4	-7.7849 µg/L	-7.7849 ppb		05:45:12
3	SiO2†	1299.3	13.8	2.8231 µg/L	2.8231 ppb		05:44:51
3	Si 251.611†	339.9	46.2	3.6125 µg/L	3.6125 ppb		05:45:12
3	Sn 189.927†	0.4	0.1	0.0617 µg/L	0.0617 ppb		05:45:12
3	Ti 334.940†	246.4	152.0	0.3507 µg/L	0.3507 ppb		05:44:51
3	Tl 190.801†	-25.2	-1.5	-2.0290 µg/L	-2.0290 ppb		05:45:12
3	U 409.014†	-62.5	26.4	2.2516 µg/L	2.2516 ppb		05:44:51
3	V 292.402†	-33.0	12.5	0.1318 µg/L	0.1318 ppb		05:44:51
3	Zn 213.857†	488.2	26.2	0.6142 µg/L	0.6142 ppb		05:45:12

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1960578.0	98.754	%	0.7961				0.81%
Sc RADIAL	56166.4	98.1	%	0.89				0.90%
Y 371.029	1348867.9	98.862	%	0.8052				0.81%
Ag 328.068†	67.5	0.5133	µg/L	0.18655	0.5133	ppb	0.18655	36.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.2	14.080	µg/L	8.5028	14.080	ppb	8.5028	60.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-4.8571	µg/L	2.98272	-4.8571	ppb	2.98272	61.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	63.9	2.6248	µg/L	0.30260	2.6248	ppb	0.30260	11.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.2	0.2506	µg/L	0.18823	0.2506	ppb	0.18823	75.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	365.7	0.2272	µg/L	0.04800	0.2272	ppb	0.04800	21.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.9	6.8922	µg/L	7.47284	6.8922	ppb	7.47284	108.42%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.1	0.3394	µg/L	0.12988	0.3394	ppb	0.12988	38.27%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	14.7	0.6839	µg/L	0.25479	0.6839	ppb	0.25479	37.25%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.5      0.2182 µg/L       0.13830      0.2182 ppb        0.13830  63.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               110.5      0.7324 µg/L       0.07973      0.7324 ppb        0.07973  10.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6      20.424 µg/L       12.9033      20.424 ppb        12.9033  63.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          71.7      49.369 µg/L        1.8107      49.369 ppb         1.8107   3.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.6      14.516 µg/L       11.7794      14.516 ppb        11.7794  81.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                89.4      0.2929 µg/L       0.15339      0.2929 ppb        0.15339  52.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.4      0.5452 µg/L       0.40998      0.5452 ppb        0.40998  75.20%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         39.6      12.331 µg/L       10.5253      12.331 ppb        10.5253  85.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.9      0.7685 µg/L       0.47011      0.7685 ppb        0.47011  61.17%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.6     -5.3509 µg/L       4.46027     -5.3509 ppb        4.46027  83.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.6      2.1598 µg/L       1.42972      2.1598 ppb        1.42972  66.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.9     -3.6974 µg/L      11.52086     -3.6974 ppb       11.52086 311.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.3     -0.3025 µg/L       4.94681     -0.3025 ppb        4.94681 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.9     -1.2261 µg/L       5.68172     -1.2261 ppb        5.68172 463.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      31.0      6.3347 µg/L       4.54856      6.3347 ppb        4.54856  71.80%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                62.4      4.8755 µg/L       1.28429      4.8755 ppb        1.28429  26.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.5      0.6506 µg/L       0.97898      0.6506 ppb        0.97898 150.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                23.4      0.2306 µg/L       0.37622      0.2306 ppb        0.37622 163.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               122.0      0.2806 µg/L       0.07793      0.2806 ppb        0.07793  27.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.4     -3.1872 µg/L       1.02151     -3.1872 ppb        1.02151  32.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 30.8      2.6229 µg/L       1.48203      2.6229 ppb        1.48203  56.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -3.0     -0.0207 µg/L       0.14339     -0.0207 ppb        0.14339 691.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                38.7      0.9048 µg/L       0.29930      0.9048 ppb        0.29930  33.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/12/2010 05:45:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55699.3	55699.3	97.2	%			05:45:54
1	Al 396.153Radial†	285.7	318.0	221.35	µg/L	221.35	ppb	05:45:54
1	Ca 317.933Radial†	401.2	225.7	195.94	µg/L	195.94	ppb	05:46:14
1	Fe 238.204 Radial†	29.2	16.4	129.47	µg/L	129.47	ppb	05:46:14
1	K 766.490 Radial†	404.7	249.6	171.83	µg/L	171.83	ppb	05:45:54
1	Mg 279.077 IEC†	45.5	36.0	318.58	µg/L	318.58	ppb	05:46:14
1	Na 589.592 Radial†	1479.9	1008.0	313.66	µg/L	313.66	ppb	05:45:54
1	Sr 421.552†	566.1	556.7	5.4939	µg/L	5.4939	ppb	05:45:54
1	Sc 361.383	1940844.0	1940844.0	97.760	%			05:47:16
1	Y 371.029	1334790.5	1334790.5	97.830	%			05:47:16
1	Ag 328.068†	99.9	663.2	5.0743	µg/L	5.0743	ppb	05:47:22
1	As 188.979†	17.2	15.8	28.940	µg/L	28.940	ppb	05:47:42
1	B 249.677†	1449.3	1188.3	48.926	µg/L	48.926	ppb	05:47:22
1	Ba 233.527†	179.4	209.6	5.1784	µg/L	5.1784	ppb	05:47:42
1	Be 313.107†	4289.8	7988.4	4.9620	µg/L	4.9620	ppb	05:47:22
1	Cd 226.502†	49.3	196.6	5.0969	µg/L	5.0969	ppb	05:47:42
1	Co 228.616†	107.2	118.5	5.5108	µg/L	5.5108	ppb	05:47:42
1	Cr 267.716†	181.6	234.3	4.8794	µg/L	4.8794	ppb	05:47:22
1	Cu 324.752†	4047.9	1696.4	11.222	µg/L	11.222	ppb	05:47:22
1	Mn 257.610†	2783.3	3111.8	10.123	µg/L	10.123	ppb	05:47:22
1	Mo 202.031†	90.1	97.0	9.7959	µg/L	9.7959	ppb	05:47:42
1	Ni 231.604†	404.0	110.8	5.7140	µg/L	5.7140	ppb	05:47:42
1	P 214.914†	105.0	80.8	161.23	µg/L	161.23	ppb	05:47:42
1	Pb 220.353†	132.3	48.5	12.099	µg/L	12.099	ppb	05:47:42
1	S 181.975 Axial†	40.0	23.5	97.645	µg/L	97.645	ppb	05:47:42
1	Sb 206.836†	31.5	8.5	7.9858	µg/L	7.9858	ppb	05:47:42
1	Se 196.026†	40.6	23.1	33.261	µg/L	33.261	ppb	05:47:42
1	SiO2†	2318.7	1080.9	220.77	µg/L	220.77	ppb	05:47:22
1	Si 251.611†	1538.1	1278.3	99.897	µg/L	99.897	ppb	05:47:42
1	Sn 189.927†	25.1	25.4	10.996	µg/L	10.996	ppb	05:47:42
1	Ti 334.940†	2252.1	2208.3	5.0772	µg/L	5.0772	ppb	05:47:22
1	Tl 190.801†	-7.2	16.3	21.719	µg/L	21.719	ppb	05:47:42
1	U 409.014†	558.8	660.7	56.342	µg/L	56.342	ppb	05:47:22
1	V 292.402†	436.3	492.0	5.1339	µg/L	5.1339	ppb	05:47:22
1	Zn 213.857†	904.7	461.3	10.808	µg/L	10.808	ppb	05:47:42
2	Sc RADIAL	55845.6	55845.6	97.5	%			05:46:20
2	Al 396.153Radial†	261.5	292.4	203.43	µg/L	203.43	ppb	05:46:20
2	Ca 317.933Radial†	408.1	231.6	201.07	µg/L	201.07	ppb	05:46:40
2	Fe 238.204 Radial†	27.2	14.2	112.09	µg/L	112.09	ppb	05:46:40
2	K 766.490 Radial†	464.4	309.8	213.24	µg/L	213.24	ppb	05:46:20
2	Mg 279.077 IEC†	45.8	36.1	319.64	µg/L	319.64	ppb	05:46:40
2	Na 589.592 Radial†	1473.2	997.1	310.27	µg/L	310.27	ppb	05:46:20
2	Sr 421.552†	533.9	522.1	5.1521	µg/L	5.1521	ppb	05:46:20
2	Sc 361.383	1944217.0	1944217.0	97.930	%			05:47:48
2	Y 371.029	1336532.6	1336532.6	97.958	%			05:47:48
2	Ag 328.068†	123.2	686.9	5.2515	µg/L	5.2515	ppb	05:47:54
2	As 188.979†	15.0	13.5	24.737	µg/L	24.737	ppb	05:48:14
2	B 249.677†	1472.3	1209.1	49.796	µg/L	49.796	ppb	05:47:54
2	Ba 233.527†	174.6	204.3	5.0483	µg/L	5.0483	ppb	05:48:14
2	Be 313.107†	4316.0	8007.6	4.9740	µg/L	4.9740	ppb	05:47:54
2	Cd 226.502†	38.8	185.8	4.8189	µg/L	4.8189	ppb	05:48:14
2	Co 228.616†	92.7	103.5	4.8145	µg/L	4.8145	ppb	05:48:14
2	Cr 267.716†	207.9	260.9	5.4322	µg/L	5.4322	ppb	05:47:54
2	Cu 324.752†	4041.4	1682.6	11.128	µg/L	11.128	ppb	05:47:54
2	Mn 257.610†	2840.6	3165.3	10.294	µg/L	10.294	ppb	05:47:54
2	Mo 202.031†	100.4	107.3	10.838	µg/L	10.838	ppb	05:48:14
2	Ni 231.604†	403.8	109.8	5.6665	µg/L	5.6665	ppb	05:48:14
2	P 214.914†	104.0	79.6	158.90	µg/L	158.90	ppb	05:48:14
2	Pb 220.353†	136.8	52.8	13.185	µg/L	13.185	ppb	05:48:14

2	S 181.975 Axial†	39.6	23.0	95.837 µg/L	95.837 ppb	05:48:14
2	Sb 206.836†	31.3	8.2	7.7261 µg/L	7.7261 ppb	05:48:14
2	Se 196.026†	39.5	21.9	31.486 µg/L	31.486 ppb	05:48:14
2	SiO2†	2270.5	1027.6	209.88 µg/L	209.88 ppb	05:47:54
2	Si 251.611†	1534.4	1271.8	99.390 µg/L	99.390 ppb	05:48:14
2	Sn 189.927†	29.8	30.2	13.082 µg/L	13.082 ppb	05:48:14
2	Ti 334.940†	2216.0	2167.4	4.9829 µg/L	4.9829 ppb	05:47:54
2	Tl 190.801†	-7.1	16.5	21.895 µg/L	21.895 ppb	05:48:14
2	U 409.014†	650.3	753.2	64.237 µg/L	64.237 ppb	05:47:54
2	V 292.402†	413.0	467.5	4.9010 µg/L	4.9010 ppb	05:47:54
2	Zn 213.857†	900.7	455.7	10.677 µg/L	10.677 ppb	05:48:14
3	Sc RADIAL	56103.7	56103.7	98.0 %		05:46:46
3	Al 396.153Radial†	260.8	290.5	202.15 µg/L	202.15 ppb	05:46:46
3	Ca 317.933Radial†	398.5	220.0	190.93 µg/L	190.93 ppb	05:47:06
3	Fe 238.204 Radial†	29.5	16.4	129.82 µg/L	129.82 ppb	05:47:06
3	K 766.490 Radial†	377.1	218.4	150.34 µg/L	150.34 ppb	05:46:46
3	Mg 279.077 IEC†	44.7	34.8	308.05 µg/L	308.05 ppb	05:47:06
3	Na 589.592 Radial†	1445.0	961.4	299.16 µg/L	299.16 ppb	05:46:46
3	Sr 421.552†	555.2	541.4	5.3424 µg/L	5.3424 ppb	05:46:46
3	Sc 361.383	1916683.9	1916683.9	96.544 %		05:48:20
3	Y 371.029	1318176.9	1318176.9	96.612 %		05:48:20
3	Ag 328.068†	51.3	614.2	4.6983 µg/L	4.6983 ppb	05:48:26
3	As 188.979†	15.9	14.6	26.832 µg/L	26.832 ppb	05:48:47
3	B 249.677†	1463.4	1221.6	50.299 µg/L	50.299 ppb	05:48:26
3	Ba 233.527†	142.2	173.3	4.2825 µg/L	4.2825 ppb	05:48:47
3	Be 313.107†	3955.3	7697.3	4.7812 µg/L	4.7812 ppb	05:48:26
3	Cd 226.502†	16.8	163.6	4.2402 µg/L	4.2402 ppb	05:48:47
3	Co 228.616†	77.9	89.5	4.1620 µg/L	4.1620 ppb	05:48:47
3	Cr 267.716†	201.8	257.6	5.3635 µg/L	5.3635 ppb	05:48:26
3	Cu 324.752†	3980.7	1679.1	11.107 µg/L	11.107 ppb	05:48:26
3	Mn 257.610†	2680.1	3040.7	9.8919 µg/L	9.8919 ppb	05:48:26
3	Mo 202.031†	85.2	93.1	9.3995 µg/L	9.3995 ppb	05:48:47
3	Ni 231.604†	398.9	110.7	5.7119 µg/L	5.7119 ppb	05:48:47
3	P 214.914†	92.2	68.9	137.23 µg/L	137.23 ppb	05:48:47
3	Pb 220.353†	119.5	36.9	9.1946 µg/L	9.1946 ppb	05:48:47
3	S 181.975 Axial†	40.0	24.0	99.918 µg/L	99.918 ppb	05:48:47
3	Sb 206.836†	31.7	9.2	8.5561 µg/L	8.5561 ppb	05:48:47
3	Se 196.026†	29.1	11.8	17.006 µg/L	17.006 ppb	05:48:47
3	SiO2†	2308.2	1099.9	224.66 µg/L	224.66 ppb	05:48:26
3	Si 251.611†	1398.3	1153.3	90.129 µg/L	90.129 ppb	05:48:47
3	Sn 189.927†	18.1	18.4	7.9971 µg/L	7.9971 ppb	05:48:47
3	Ti 334.940†	2131.6	2112.5	4.8569 µg/L	4.8569 ppb	05:48:26
3	Tl 190.801†	-9.7	13.7	18.290 µg/L	18.290 ppb	05:48:47
3	U 409.014†	541.3	649.7	55.408 µg/L	55.408 ppb	05:48:26
3	V 292.402†	373.3	432.4	4.5283 µg/L	4.5283 ppb	05:48:26
3	Zn 213.857†	842.9	409.1	9.5770 µg/L	9.5770 ppb	05:48:47

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1933914.9	97.411	%	0.7564				0.78%
Sc RADIAL	55882.9	97.6	%	0.36				0.37%
Y 371.029	1329833.3	97.467	%	0.7426				0.76%
Ag 328.068†	654.8	5.0080	µg/L	0.28249	5.0080	ppb	0.28249	5.64%
QC value within limits for Ag 328.068 Recovery = 100.16%								
Al 396.153Radial†	300.3	208.98	µg/L	10.733	208.98	ppb	10.733	5.14%
QC value within limits for Al 396.153Radial Recovery = 104.49%								
As 188.979†	14.6	26.836	µg/L	2.1014	26.836	ppb	2.1014	7.83%
QC value within limits for As 188.979 Recovery = 89.45%								
B 249.677†	1206.3	49.673	µg/L	0.6946	49.673	ppb	0.6946	1.40%
QC value within limits for B 249.677 Recovery = 99.35%								
Ba 233.527†	195.7	4.8364	µg/L	0.48405	4.8364	ppb	0.48405	10.01%
QC value within limits for Ba 233.527 Recovery = 96.73%								
Be 313.107†	7897.8	4.9057	µg/L	0.10801	4.9057	ppb	0.10801	2.20%
QC value within limits for Be 313.107 Recovery = 98.11%								
Ca 317.933Radial†	225.8	195.98	µg/L	5.071	195.98	ppb	5.071	2.59%
QC value within limits for Ca 317.933Radial Recovery = 97.99%								
Cd 226.502†	182.0	4.7186	µg/L	0.43707	4.7186	ppb	0.43707	9.26%
QC value within limits for Cd 226.502 Recovery = 94.37%								
Co 228.616†	103.9	4.8291	µg/L	0.67454	4.8291	ppb	0.67454	13.97%

QC value within limits for Co 228.616 Recovery = 96.58%

Cr 267.716†	250.9	5.2250 µg/L	0.30128	5.2250 ppb	0.30128	5.77%
QC value within limits for Cr 267.716 Recovery = 104.50%						
Cu 324.752†	1686.0	11.153 µg/L	0.0611	11.153 ppb	0.0611	0.55%
QC value within limits for Cu 324.752 Recovery = 111.53%						
Fe 238.204 Radial†	15.7	123.79 µg/L	10.135	123.79 ppb	10.135	8.19%
QC value within limits for Fe 238.204 Radial Recovery = 123.79%						
K 766.490 Radial†	259.3	178.47 µg/L	31.972	178.47 ppb	31.972	17.91%
QC value within limits for K 766.490 Radial Recovery = 118.98%						
Mg 279.077 IEC†	35.6	315.43 µg/L	6.407	315.43 ppb	6.407	2.03%
QC value within limits for Mg 279.077 IEC Recovery = 105.14%						
Mn 257.610†	3105.9	10.103 µg/L	0.2018	10.103 ppb	0.2018	2.00%
QC value within limits for Mn 257.610 Recovery = 101.03%						
Mo 202.031†	99.1	10.011 µg/L	0.7429	10.011 ppb	0.7429	7.42%
QC value within limits for Mo 202.031 Recovery = 100.11%						
Na 589.592 Radial†	988.9	307.70 µg/L	7.586	307.70 ppb	7.586	2.47%
QC value within limits for Na 589.592 Radial Recovery = 102.57%						
Ni 231.604†	110.4	5.6975 µg/L	0.02682	5.6975 ppb	0.02682	0.47%
QC value within limits for Ni 231.604 Recovery = 113.95%						
P 214.914†	76.4	152.45 µg/L	13.236	152.45 ppb	13.236	8.68%
QC value within limits for P 214.914 Recovery = 101.64%						
Pb 220.353†	46.0	11.493 µg/L	2.0632	11.493 ppb	2.0632	17.95%
QC value within limits for Pb 220.353 Recovery = 114.93%						
S 181.975 Axial†	23.5	97.800 µg/L	2.0447	97.800 ppb	2.0447	2.09%
QC value within limits for S 181.975 Axial Recovery = 97.80%						
Sb 206.836†	8.6	8.0893 µg/L	0.42455	8.0893 ppb	0.42455	5.25%
QC value within limits for Sb 206.836 Recovery = 80.89%						
Se 196.026†	19.0	27.251 µg/L	8.9169	27.251 ppb	8.9169	32.72%
QC value within limits for Se 196.026 Recovery = 90.84%						
SiO2†	1069.5	218.43 µg/L	7.663	218.43 ppb	7.663	3.51%
QC value within limits for SiO2 Recovery = 102.55%						
Si 251.611†	1234.4	96.472 µg/L	5.4992	96.472 ppb	5.4992	5.70%
QC value within limits for Si 251.611 Recovery = 96.47%						
Sn 189.927†	24.6	10.691 µg/L	2.5558	10.691 ppb	2.5558	23.91%
QC value within limits for Sn 189.927 Recovery = 106.91%						
Sr 421.552†	540.1	5.3295 µg/L	0.17127	5.3295 ppb	0.17127	3.21%
QC value within limits for Sr 421.552 Recovery = 106.59%						
Ti 334.940†	2162.8	4.9723 µg/L	0.11055	4.9723 ppb	0.11055	2.22%
QC value within limits for Ti 334.940 Recovery = 99.45%						
Tl 190.801†	15.5	20.635 µg/L	2.0326	20.635 ppb	2.0326	9.85%
QC value within limits for Tl 190.801 Recovery = 103.17%						
U 409.014†	687.9	58.662 µg/L	4.8501	58.662 ppb	4.8501	8.27%
QC value within limits for U 409.014 Recovery = 117.32%						
V 292.402†	464.0	4.8544 µg/L	0.30549	4.8544 ppb	0.30549	6.29%
QC value within limits for V 292.402 Recovery = 97.09%						
Zn 213.857†	442.0	10.354 µg/L	0.6761	10.354 ppb	0.6761	6.53%
QC value within limits for Zn 213.857 Recovery = 103.54%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/12/2010 05:48:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54750.1	54750.1	95.6	%			05:49:37
1	Al 396.153Radial†	679062.4	710398.2	494860	µg/L	494860	ppb	05:49:32
1	Ca 317.933Radial†	516985.7	540637.0	469310	µg/L	469310	ppb	05:49:32
1	Fe 238.204 Radial†	22504.3	23528.3	185870	µg/L	185870	ppb	05:49:37
1	K 766.490 Radial†	196.3	38.8	26.730	µg/L	26.730	ppb	05:49:37
1	Mg 279.077 IEC†	51808.3	54186.4	479660	µg/L	479660	ppb	05:49:37
1	Na 589.592 Radial†	569.8	82.3	25.600	µg/L	25.600	ppb	05:49:37
1	Sr 421.552†	364.1	355.5	3.5078	µg/L	3.5078	ppb	05:49:37
1	Sc 361.383	1824257.7	1824257.7	91.888	%			05:50:10
1	Y 371.029	1247120.8	1247120.8	91.404	%			05:50:10
1	Ag 328.068†	-2730.5	-2410.6	-6.7417	µg/L	-6.7417	ppb	05:50:15
1	As 188.979†	-11.6	-14.4	-40.092	µg/L	-40.092	ppb	05:50:36
1	B 249.677†	776.5	550.8	-74.285	µg/L	-74.285	ppb	05:50:15
1	Ba 233.527†	266.4	315.9	7.7495	µg/L	7.7495	ppb	05:50:36
1	Be 313.107†	-3891.7	-634.9	-0.4049	µg/L	-0.4049	ppb	05:50:15
1	Cd 226.502†	410.8	593.2	-5.6035	µg/L	-5.6035	ppb	05:50:36
1	Co 228.616†	26.5	37.7	1.6847	µg/L	1.6847	ppb	05:50:36
1	Cr 267.716†	-77.5	-35.8	-0.7590	µg/L	-0.7590	ppb	05:50:36
1	Cu 324.752†	-1432.4	-4003.0	-0.6019	µg/L	-0.6019	ppb	05:50:15
1	Mn 257.610†	352.3	648.0	7.6337	µg/L	7.6337	ppb	05:50:15
1	Mo 202.031†	-111.8	-116.8	-4.7237	µg/L	-4.7237	ppb	05:50:36
1	Ni 231.604†	166.1	-121.7	-3.8689	µg/L	-3.8689	ppb	05:50:36
1	P 214.914†	111.2	94.4	183.52	µg/L	183.52	ppb	05:50:36
1	Pb 220.353†	45.5	-37.4	10.779	µg/L	10.779	ppb	05:50:36
1	S 181.975 Axial†	46.3	32.9	136.84	µg/L	136.84	ppb	05:50:36
1	Sb 206.836†	46.1	26.5	-16.442	µg/L	-16.442	ppb	05:50:36
1	Se 196.026†	16.4	-0.5	-50.517	µg/L	-50.517	ppb	05:50:36
1	SiO2†	1086.2	-108.8	-22.229	µg/L	-22.229	ppb	05:50:36
1	Si 251.611†	419.8	161.8	12.643	µg/L	12.643	ppb	05:50:36
1	Sn 189.927†	-61.8	-67.6	5.2090	µg/L	5.2090	ppb	05:50:36
1	Ti 334.940†	10893.0	11759.3	-3.2462	µg/L	-3.2462	ppb	05:50:15
1	Tl 190.801†	-40.5	-20.3	-6.4656	µg/L	-6.4656	ppb	05:50:36
1	U 409.014†	20.2	111.1	-44.985	µg/L	-44.985	ppb	05:50:15
1	V 292.402†	-2203.0	-2351.8	-1.9769	µg/L	-1.9769	ppb	05:50:15
1	Zn 213.857†	1489.4	1156.9	-8.6944	µg/L	-8.6944	ppb	05:50:36
2	Sc RADIAL	54491.2	54491.2	95.1	%			05:49:49
2	Al 396.153Radial†	683503.1	718441.2	500460	µg/L	500460	ppb	05:49:43
2	Ca 317.933Radial†	520454.0	546852.4	474700	µg/L	474700	ppb	05:49:43
2	Fe 238.204 Radial†	22637.9	23780.5	187860	µg/L	187860	ppb	05:49:49
2	K 766.490 Radial†	91.8	-70.0	-48.162	µg/L	-48.162	ppb	05:49:49
2	Mg 279.077 IEC†	52022.1	54668.6	483930	µg/L	483930	ppb	05:49:49
2	Na 589.592 Radial†	598.8	115.6	35.970	µg/L	35.970	ppb	05:49:49
2	Sr 421.552†	391.1	385.6	3.8056	µg/L	3.8056	ppb	05:49:49
2	Sc 361.383	1829816.2	1829816.2	92.168	%			05:50:42
2	Y 371.029	1252476.2	1252476.2	91.797	%			05:50:42
2	Ag 328.068†	-2803.7	-2480.9	-7.1486	µg/L	-7.1486	ppb	05:50:48
2	As 188.979†	-12.4	-15.2	-41.776	µg/L	-41.776	ppb	05:51:09
2	B 249.677†	790.5	563.4	-74.805	µg/L	-74.805	ppb	05:50:48
2	Ba 233.527†	247.9	295.0	7.2328	µg/L	7.2328	ppb	05:51:09
2	Be 313.107†	-4061.7	-806.5	-0.5118	µg/L	-0.5118	ppb	05:50:48
2	Cd 226.502†	381.8	560.4	-6.6808	µg/L	-6.6808	ppb	05:51:09
2	Co 228.616†	34.5	46.3	2.0857	µg/L	2.0857	ppb	05:51:09
2	Cr 267.716†	-93.6	-53.0	-1.1186	µg/L	-1.1186	ppb	05:51:09
2	Cu 324.752†	-1514.9	-4087.9	-0.8850	µg/L	-0.8850	ppb	05:50:48
2	Mn 257.610†	385.8	683.3	7.8425	µg/L	7.8425	ppb	05:50:48
2	Mo 202.031†	-109.0	-113.4	-4.3081	µg/L	-4.3081	ppb	05:51:09
2	Ni 231.604†	163.2	-125.4	-4.0356	µg/L	-4.0356	ppb	05:51:09
2	P 214.914†	94.4	75.8	146.22	µg/L	146.22	ppb	05:51:09
2	Pb 220.353†	52.5	-30.0	12.884	µg/L	12.884	ppb	05:51:09

2	S 181.975 Axial†	37.9	23.7	98.669 µg/L	98.669 ppb	05:51:09
2	Sb 206.836†	63.9	45.7	0.8152 µg/L	0.8152 ppb	05:51:09
2	Se 196.026†	3.0	-15.1	-71.359 µg/L	-71.359 ppb	05:51:09
2	SiO2†	1084.9	-113.9	-23.257 µg/L	-23.257 ppb	05:51:09
2	Si 251.611†	419.5	160.1	12.509 µg/L	12.509 ppb	05:51:09
2	Sn 189.927†	-68.7	-74.9	2.3074 µg/L	2.3074 ppb	05:51:09
2	Ti 334.940†	11261.1	12122.6	-2.6582 µg/L	-2.6582 ppb	05:50:48
2	Tl 190.801†	-36.3	-15.6	-0.0596 µg/L	-0.0596 ppb	05:51:09
2	U 409.014†	-32.2	54.1	-50.452 µg/L	-50.452 ppb	05:50:48
2	V 292.402†	-2192.8	-2333.4	-1.5601 µg/L	-1.5601 ppb	05:50:48
2	Zn 213.857†	1495.5	1158.5	-8.9903 µg/L	-8.9903 ppb	05:51:09
3	Sc RADIAL	54775.9	54775.9	95.6 %		05:50:00
3	Al 396.153Radial†	688347.4	719772.1	501390 µg/L	501390 ppb	05:49:54
3	Ca 317.933Radial†	526353.8	550177.7	477590 µg/L	477590 ppb	05:49:54
3	Fe 238.204 Radial†	22572.9	23588.9	186350 µg/L	186350 ppb	05:50:00
3	K 766.490 Radial†	128.4	-32.2	-22.169 µg/L	-22.169 ppb	05:50:00
3	Mg 279.077 IEC†	51872.2	54227.6	480020 µg/L	480020 ppb	05:50:00
3	Na 589.592 Radial†	608.3	122.2	38.037 µg/L	38.037 ppb	05:50:00
3	Sr 421.552†	373.7	365.3	3.6051 µg/L	3.6051 ppb	05:50:00
3	Sc 361.383	1825090.1	1825090.1	91.930 %		05:51:15
3	Y 371.029	1247573.6	1247573.6	91.438 %		05:51:15
3	Ag 328.068†	-2700.1	-2376.1	-6.4439 µg/L	-6.4439 ppb	05:51:20
3	As 188.979†	-6.7	-9.2	-30.833 µg/L	-30.833 ppb	05:51:41
3	B 249.677†	820.0	597.8	-72.597 µg/L	-72.597 ppb	05:51:20
3	Ba 233.527†	260.3	309.2	7.5845 µg/L	7.5845 ppb	05:51:41
3	Be 313.107†	-4084.8	-843.0	-0.5343 µg/L	-0.5343 ppb	05:51:20
3	Cd 226.502†	387.0	567.1	-6.3365 µg/L	-6.3365 ppb	05:51:41
3	Co 228.616†	31.2	42.8	1.9234 µg/L	1.9234 ppb	05:51:41
3	Cr 267.716†	-65.8	-23.0	-0.4935 µg/L	-0.4935 ppb	05:51:41
3	Cu 324.752†	-1527.7	-4106.0	-1.2149 µg/L	-1.2149 ppb	05:51:20
3	Mn 257.610†	438.4	741.5	7.9869 µg/L	7.9869 ppb	05:51:20
3	Mo 202.031†	-121.4	-127.2	-5.7618 µg/L	-5.7618 ppb	05:51:41
3	Ni 231.604†	158.7	-129.9	-4.2847 µg/L	-4.2847 ppb	05:51:41
3	P 214.914†	109.7	92.7	181.67 µg/L	181.67 ppb	05:51:41
3	Pb 220.353†	51.6	-30.8	12.787 µg/L	12.787 ppb	05:51:41
3	S 181.975 Axial†	36.6	22.4	93.278 µg/L	93.278 ppb	05:51:41
3	Sb 206.836†	53.8	34.8	-9.5328 µg/L	-9.5328 ppb	05:51:41
3	Se 196.026†	19.2	2.5	-47.437 µg/L	-47.437 ppb	05:51:41
3	SiO2†	1099.9	-94.5	-19.298 µg/L	-19.298 ppb	05:51:41
3	Si 251.611†	442.3	186.1	14.543 µg/L	14.543 ppb	05:51:41
3	Sn 189.927†	-61.6	-67.4	5.2434 µg/L	5.2434 ppb	05:51:41
3	Ti 334.940†	10979.1	11847.6	-2.9387 µg/L	-2.9387 ppb	05:51:20
3	Tl 190.801†	-36.3	-15.7	-0.6279 µg/L	-0.6279 ppb	05:51:41
3	U 409.014†	19.0	109.8	-45.665 µg/L	-45.665 ppb	05:51:20
3	V 292.402†	-2121.7	-2262.3	-1.0236 µg/L	-1.0236 ppb	05:51:20
3	Zn 213.857†	1493.1	1160.1	-8.6576 µg/L	-8.6576 ppb	05:51:41

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1826388.0	91.995	%	0.1510				0.16%
Sc RADIAL	54672.4	95.5	%	0.27				0.29%
Y 371.029	1249056.9	91.546	%	0.2177				0.24%
Ag 328.068†	-2422.5	-6.7781	µg/L	0.35374	-6.7781	ppb	0.35374	5.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	716203.8	498900	µg/L	3532.9	498900	ppb	3532.9	0.71%
QC value within limits for Al 396.153Radial Recovery = 99.78%								
As 188.979†	-12.9	-37.567	µg/L	5.8920	-37.567	ppb	5.8920	15.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	570.6	-73.895	µg/L	1.1541	-73.895	ppb	1.1541	1.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	306.7	7.5223	µg/L	0.26391	7.5223	ppb	0.26391	3.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-761.5	-0.4837	µg/L	0.06916	-0.4837	ppb	0.06916	14.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	545889.0	473870	µg/L	4203.8	473870	ppb	4203.8	0.89%
QC value within limits for Ca 317.933Radial Recovery = 94.77%								
Cd 226.502†	573.6	-6.2069	µg/L	0.55025	-6.2069	ppb	0.55025	8.87%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	42.3	1.8980	µg/L	0.20171	1.8980	ppb	0.20171	10.63%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -37.3     -0.7904 µg/L       0.31375     -0.7904 ppb        0.31375  39.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -4065.6     -0.9006 µg/L       0.30682     -0.9006 ppb        0.30682  34.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     23632.6      186700 µg/L        1040.2      186700 ppb         1040.2   0.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.35%
K 766.490 Radial†        -21.1     -14.533 µg/L       38.0255     -14.533 ppb        38.0255 261.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        54360.9      481200 µg/L        2366.0      481200 ppb         2366.0   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.24%
Mn 257.610†              690.9      7.8210 µg/L       0.17758      7.8210 ppb        0.17758   2.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -119.1     -4.9312 µg/L       0.74875     -4.9312 ppb        0.74875  15.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       106.7      33.203 µg/L        6.6646      33.203 ppb         6.6646  20.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -125.7     -4.0631 µg/L       0.20924     -4.0631 ppb        0.20924   5.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                87.6      170.47 µg/L        21.018      170.47 ppb         21.018  12.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -32.7      12.150 µg/L        1.1885      12.150 ppb         1.1885   9.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          26.4      109.60 µg/L        23.749      109.60 ppb         23.749  21.67%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               35.7     -8.3865 µg/L       8.68543     -8.3865 ppb        8.68543 103.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.4     -56.438 µg/L       13.0138     -56.438 ppb        13.0138  23.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -105.7     -21.595 µg/L        2.0545     -21.595 ppb         2.0545   9.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              169.3      13.232 µg/L        1.1377      13.232 ppb         1.1377   8.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -69.9      4.2533 µg/L       1.68524      4.2533 ppb        1.68524  39.62%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              368.8      3.6395 µg/L       0.15184      3.6395 ppb        0.15184   4.17%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            11909.8     -2.9477 µg/L       0.29412     -2.9477 ppb        0.29412   9.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -17.2     -2.3843 µg/L       3.54583     -2.3843 ppb        3.54583 148.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                91.7     -47.034 µg/L        2.9793     -47.034 ppb         2.9793   6.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2315.8     -1.5202 µg/L       0.47789     -1.5202 ppb        0.47789  31.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1158.5     -8.7808 µg/L       0.18238     -8.7808 ppb        0.18238   2.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/12/2010 05:51:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55347.4	55347.4	96.6	%			05:52:30
1	Al 396.153Radial†	684289.2	708141.0	493280	µg/L	493280	ppb	05:52:24
1	Ca 317.933Radial†	522005.6	539995.5	468750	µg/L	468750	ppb	05:52:24
1	Fe 238.204 Radial†	22624.8	23398.9	184860	µg/L	184860	ppb	05:52:30
1	K 766.490 Radial†	7197.8	7281.9	5012.3	µg/L	5012.3	ppb	05:52:30
1	Mg 279.077 IEC†	52185.6	53991.9	477950	µg/L	477950	ppb	05:52:30
1	Na 589.592 Radial†	15856.0	15894.3	4945.8	µg/L	4945.8	ppb	05:52:30
1	Sr 421.552†	49057.7	50740.5	500.71	µg/L	500.71	ppb	05:52:30
1	Sc 361.383	1832670.4	1832670.4	92.312	%			05:53:03
1	Y 371.029	1253605.8	1253605.8	91.880	%			05:53:03
1	Ag 328.068†	28091.6	30992.3	250.00	µg/L	250.00	ppb	05:53:09
1	As 188.979†	247.9	266.7	475.66	µg/L	475.66	ppb	05:53:30
1	B 249.677†	12125.2	12840.8	433.65	µg/L	433.65	ppb	05:53:09
1	Ba 233.527†	18273.6	19821.6	489.77	µg/L	489.77	ppb	05:53:09
1	Be 313.107†	347014.1	379515.7	235.63	µg/L	235.63	ppb	05:53:03
1	Cd 226.502†	16509.5	18030.6	447.80	µg/L	447.80	ppb	05:53:09
1	Co 228.616†	8488.8	9204.6	427.46	µg/L	427.46	ppb	05:53:30
1	Cr 267.716†	21030.5	22830.6	475.41	µg/L	475.41	ppb	05:53:09
1	Cu 324.752†	71801.2	75337.0	523.26	µg/L	523.26	ppb	05:53:09
1	Mn 257.610†	132554.6	143859.2	473.22	µg/L	473.22	ppb	05:53:09
1	Mo 202.031†	4462.1	4838.6	495.38	µg/L	495.38	ppb	05:53:30
1	Ni 231.604†	7827.0	8176.3	424.05	µg/L	424.05	ppb	05:53:30
1	P 214.914†	1271.5	1350.8	2660.0	µg/L	2660.0	ppb	05:53:30
1	Pb 220.353†	1763.4	1823.4	477.00	µg/L	477.00	ppb	05:53:30
1	S 181.975 Axial†	612.3	645.8	2686.1	µg/L	2686.1	ppb	05:53:30
1	Sb 206.836†	557.5	580.3	499.14	µg/L	499.14	ppb	05:53:30
1	Se 196.026†	1545.5	1655.9	2327.3	µg/L	2327.3	ppb	05:53:30
1	SiO2†	49446.3	52273.5	10677	µg/L	10677	ppb	05:53:09
1	Si 251.611†	59548.0	64212.4	5018.2	µg/L	5018.2	ppb	05:53:09
1	Sn 189.927†	1006.6	1090.1	506.17	µg/L	506.17	ppb	05:53:30
1	Ti 334.940†	207203.1	224364.8	487.82	µg/L	487.82	ppb	05:53:09
1	Tl 190.801†	275.9	322.6	451.48	µg/L	451.48	ppb	05:53:30
1	U 409.014†	5134.5	5651.3	427.89	µg/L	427.89	ppb	05:53:09
1	V 292.402†	43403.1	47063.7	502.83	µg/L	502.83	ppb	05:53:09
1	Zn 213.857†	19663.6	20837.3	452.67	µg/L	452.67	ppb	05:53:09
2	Sc RADIAL	56026.5	56026.5	97.8	%			05:52:41
2	Al 396.153Radial†	690901.0	706317.5	492010	µg/L	492010	ppb	05:52:36
2	Ca 317.933Radial†	529725.3	541339.9	469920	µg/L	469920	ppb	05:52:36
2	Fe 238.204 Radial†	22523.1	23011.1	181800	µg/L	181800	ppb	05:52:41
2	K 766.490 Radial†	7145.8	7138.5	4913.6	µg/L	4913.6	ppb	05:52:41
2	Mg 279.077 IEC†	51781.8	52924.5	468500	µg/L	468500	ppb	05:52:41
2	Na 589.592 Radial†	15797.2	15635.4	4865.2	µg/L	4865.2	ppb	05:52:41
2	Sr 421.552†	48750.9	49811.6	491.55	µg/L	491.55	ppb	05:52:41
2	Sc 361.383	1838106.6	1838106.6	92.586	%			05:53:36
2	Y 371.029	1258621.1	1258621.1	92.247	%			05:53:36
2	Ag 328.068†	28225.4	31046.8	250.23	µg/L	250.23	ppb	05:53:42
2	As 188.979†	243.3	260.9	464.79	µg/L	464.79	ppb	05:54:02
2	B 249.677†	12191.8	12873.9	436.62	µg/L	436.62	ppb	05:53:42
2	Ba 233.527†	18359.9	19856.2	490.63	µg/L	490.63	ppb	05:53:42
2	Be 313.107†	352259.4	384069.3	238.46	µg/L	238.46	ppb	05:53:36
2	Cd 226.502†	16638.6	18117.3	450.39	µg/L	450.39	ppb	05:53:42
2	Co 228.616†	8486.7	9175.2	426.09	µg/L	426.09	ppb	05:54:02
2	Cr 267.716†	21210.4	22957.5	478.05	µg/L	478.05	ppb	05:53:42
2	Cu 324.752†	71934.9	75251.4	522.27	µg/L	522.27	ppb	05:53:42
2	Mn 257.610†	132953.9	143865.8	473.22	µg/L	473.22	ppb	05:53:42
2	Mo 202.031†	4452.1	4813.5	492.73	µg/L	492.73	ppb	05:54:02
2	Ni 231.604†	7816.1	8139.5	422.11	µg/L	422.11	ppb	05:54:02
2	P 214.914†	1269.1	1344.1	2648.7	µg/L	2648.7	ppb	05:54:02
2	Pb 220.353†	1766.9	1821.5	476.57	µg/L	476.57	ppb	05:54:02

2	S 181.975 Axial†	605.0	636.0	2645.2 µg/L	2645.2 ppb	05:54:02
2	Sb 206.836†	557.1	578.0	496.86 µg/L	496.86 ppb	05:54:02
2	Se 196.026†	1544.2	1649.5	2317.8 µg/L	2317.8 ppb	05:54:02
2	SiO2†	49665.6	52352.0	10693 µg/L	10693 ppb	05:53:42
2	Si 251.611†	59855.3	64353.5	5029.3 µg/L	5029.3 ppb	05:53:42
2	Sn 189.927†	1008.6	1089.1	504.93 µg/L	504.93 ppb	05:54:02
2	Ti 334.940†	207497.2	224018.6	487.78 µg/L	487.78 ppb	05:53:42
2	Tl 190.801†	277.1	323.0	451.40 µg/L	451.40 ppb	05:54:02
2	U 409.014†	5194.9	5700.0	432.41 µg/L	432.41 ppb	05:53:42
2	V 292.402†	43643.2	47183.9	503.67 µg/L	503.67 ppb	05:53:42
2	Zn 213.857†	19726.0	20841.7	453.47 µg/L	453.47 ppb	05:53:42
3	Sc RADIAL	55798.1	55798.1	97.4 %		05:52:52
3	Al 396.153Radial†	689755.7	708032.7	493200 µg/L	493200 ppb	05:52:47
3	Ca 317.933Radial†	527305.9	541073.0	469690 µg/L	469690 ppb	05:52:47
3	Fe 238.204 Radial†	22793.6	23383.0	184730 µg/L	184730 ppb	05:52:52
3	K 766.490 Radial†	7217.6	7242.1	4984.8 µg/L	4984.8 ppb	05:52:52
3	Mg 279.077 IEC†	52404.8	53780.8	476080 µg/L	476080 ppb	05:52:52
3	Na 589.592 Radial†	15981.4	15890.6	4944.6 µg/L	4944.6 ppb	05:52:52
3	Sr 421.552†	49363.6	50644.5	499.76 µg/L	499.76 ppb	05:52:52
3	Sc 361.383	1843625.0	1843625.0	92.864 %		05:54:09
3	Y 371.029	1260865.1	1260865.1	92.412 %		05:54:09
3	Ag 328.068†	28435.0	31181.2	251.45 µg/L	251.45 ppb	05:54:15
3	As 188.979†	238.0	254.4	453.04 µg/L	453.04 ppb	05:54:35
3	B 249.677†	12254.6	12902.1	436.25 µg/L	436.25 ppb	05:54:15
3	Ba 233.527†	18522.6	19972.0	493.49 µg/L	493.49 ppb	05:54:15
3	Be 313.107†	352691.0	383395.2	238.04 µg/L	238.04 ppb	05:54:09
3	Cd 226.502†	16710.6	18140.9	450.67 µg/L	450.67 ppb	05:54:15
3	Co 228.616†	8527.7	9191.9	426.86 µg/L	426.86 ppb	05:54:35
3	Cr 267.716†	21332.7	23020.7	479.36 µg/L	479.36 ppb	05:54:15
3	Cu 324.752†	72605.1	75740.5	525.90 µg/L	525.90 ppb	05:54:15
3	Mn 257.610†	134006.3	144569.1	475.59 µg/L	475.59 ppb	05:54:15
3	Mo 202.031†	4475.0	4823.8	493.88 µg/L	493.88 ppb	05:54:35
3	Ni 231.604†	7851.4	8152.2	422.81 µg/L	422.81 ppb	05:54:35
3	P 214.914†	1259.9	1330.1	2618.1 µg/L	2618.1 ppb	05:54:35
3	Pb 220.353†	1773.4	1822.8	476.85 µg/L	476.85 ppb	05:54:35
3	S 181.975 Axial†	608.4	637.7	2652.2 µg/L	2652.2 ppb	05:54:35
3	Sb 206.836†	565.6	585.4	503.71 µg/L	503.71 ppb	05:54:35
3	Se 196.026†	1556.0	1657.2	2330.2 µg/L	2330.2 ppb	05:54:35
3	SiO2†	49987.4	52537.9	10731 µg/L	10731 ppb	05:54:15
3	Si 251.611†	60303.6	64642.8	5051.9 µg/L	5051.9 ppb	05:54:15
3	Sn 189.927†	993.6	1069.7	497.10 µg/L	497.10 ppb	05:54:35
3	Ti 334.940†	209247.5	225232.6	489.98 µg/L	489.98 ppb	05:54:15
3	Tl 190.801†	274.0	318.7	446.31 µg/L	446.31 ppb	05:54:35
3	U 409.014†	5248.2	5740.6	435.47 µg/L	435.47 ppb	05:54:15
3	V 292.402†	43956.8	47380.5	506.02 µg/L	506.02 ppb	05:54:15
3	Zn 213.857†	19903.5	20969.0	455.89 µg/L	455.89 ppb	05:54:15

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1838134.0	92.587	%	0.2759				0.30%
Sc RADIAL	55724.0	97.3	%	0.60				0.62%
Y 371.029	1257697.3	92.180	%	0.2724				0.30%
Ag 328.068†	31073.4	250.56	µg/L	0.778	250.56	ppb	0.778	0.31%
QC value within limits for Ag 328.068 Recovery = 100.22%								
Al 396.153Radial†	707497.1	492830	µg/L	712.6	492830	ppb	712.6	0.14%
QC value within limits for Al 396.153Radial Recovery = 98.57%								
As 188.979†	260.7	464.50	µg/L	11.310	464.50	ppb	11.310	2.43%
QC value within limits for As 188.979 Recovery = 92.90%								
B 249.677†	12872.3	435.51	µg/L	1.618	435.51	ppb	1.618	0.37%
QC value within limits for B 249.677 Recovery = 87.10%								
Ba 233.527†	19883.3	491.30	µg/L	1.947	491.30	ppb	1.947	0.40%
QC value within limits for Ba 233.527 Recovery = 98.26%								
Be 313.107†	382326.8	237.38	µg/L	1.527	237.38	ppb	1.527	0.64%
QC value within limits for Be 313.107 Recovery = 94.95%								
Ca 317.933Radial†	540802.8	469450	µg/L	617.9	469450	ppb	617.9	0.13%
QC value within limits for Ca 317.933Radial Recovery = 93.89%								
Cd 226.502†	18096.3	449.62	µg/L	1.586	449.62	ppb	1.586	0.35%
QC value within limits for Cd 226.502 Recovery = 89.92%								
Co 228.616†	9190.6	426.81	µg/L	0.687	426.81	ppb	0.687	0.16%

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   QC value within limits for Co 228.616  Recovery = 85.36%
Cr 267.716†            22936.3      477.61 µg/L        2.015      477.61 ppb         2.015   0.42%
   QC value within limits for Cr 267.716  Recovery = 95.52%
Cu 324.752†            75443.0      523.81 µg/L        1.881      523.81 ppb         1.881   0.36%
   QC value within limits for Cu 324.752  Recovery = 104.76%
Fe 238.204 Radial†     23264.4      183800 µg/L       1733.4      183800 ppb        1733.4   0.94%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.90%
K 766.490 Radial†       7220.8      4970.2 µg/L        50.95      4970.2 ppb         50.95   1.03%
   QC value within limits for K 766.490 Radial  Recovery = 99.40%
Mg 279.077 IEC†        53565.8      474170 µg/L       5003.9      474170 ppb        5003.9   1.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.83%
Mn 257.610†           144098.0      474.01 µg/L        1.369      474.01 ppb         1.369   0.29%
   QC value within limits for Mn 257.610  Recovery = 94.80%
Mo 202.031†             4825.3      494.00 µg/L        1.329      494.00 ppb         1.329   0.27%
   QC value within limits for Mo 202.031  Recovery = 98.80%
Na 589.592 Radial†     15806.8      4918.5 µg/L        46.19      4918.5 ppb         46.19   0.94%
   QC value within limits for Na 589.592 Radial  Recovery = 98.37%
Ni 231.604†             8156.0      422.99 µg/L        0.982      422.99 ppb         0.982   0.23%
   QC value within limits for Ni 231.604  Recovery = 84.60%
P 214.914†              1341.6      2642.2 µg/L        21.66      2642.2 ppb         21.66   0.82%
   QC value within limits for P 214.914  Recovery = 105.69%
Pb 220.353†             1822.6      476.81 µg/L        0.221      476.81 ppb         0.221   0.05%
   QC value within limits for Pb 220.353  Recovery = 95.36%
S 181.975 Axial†         639.8      2661.2 µg/L        21.90      2661.2 ppb         21.90   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 106.45%
Sb 206.836†              581.3      499.90 µg/L        3.487      499.90 ppb         3.487   0.70%
   QC value within limits for Sb 206.836  Recovery = 99.98%
Se 196.026†             1654.2      2325.1 µg/L         6.49      2325.1 ppb          6.49   0.28%
   QC value within limits for Se 196.026  Recovery = 93.00%
SiO2†                  52387.8       10700 µg/L         27.7       10700 ppb          27.7   0.26%
   QC value within limits for SiO2  Recovery = 100.05%
Si 251.611†            64402.9      5033.1 µg/L        17.14      5033.1 ppb         17.14   0.34%
   QC value within limits for Si 251.611  Recovery = 100.66%
Sn 189.927†             1083.0      502.73 µg/L        4.919      502.73 ppb         4.919   0.98%
   QC value within limits for Sn 189.927  Recovery = 100.55%
Sr 421.552†            50398.9      497.34 µg/L        5.041      497.34 ppb         5.041   1.01%
   QC value within limits for Sr 421.552  Recovery = 99.47%
Ti 334.940†           224538.7      488.53 µg/L        1.261      488.53 ppb         1.261   0.26%
   QC value within limits for Ti 334.940  Recovery = 97.71%
Tl 190.801†              321.5      449.73 µg/L        2.962      449.73 ppb         2.962   0.66%
   QC value within limits for Tl 190.801  Recovery = 89.95%
U 409.014†              5697.3      431.92 µg/L        3.816      431.92 ppb         3.816   0.88%
   QC value within limits for U 409.014  Recovery = 86.38%
V 292.402†             47209.4      504.18 µg/L        1.655      504.18 ppb         1.655   0.33%
   QC value within limits for V 292.402  Recovery = 100.84%
Zn 213.857†            20882.6      454.01 µg/L        1.676      454.01 ppb         1.676   0.37%
   QC value within limits for Zn 213.857  Recovery = 90.80%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/12/2010 05:54:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54633.8	54633.8	95.4	%			05:55:24
1	Al 396.153Radial†	685252.6	718400.4	500430	µg/L	500430	ppb	05:55:19
1	Ca 317.933Radial†	524038.2	549182.2	476730	µg/L	476730	ppb	05:55:19
1	Fe 238.204 Radial†	55335.1	57996.2	458170	µg/L	458170	ppb	05:55:24
1	K 766.490 Radial†	104.7	-56.8	-39.068	µg/L	-39.068	ppb	05:55:24
1	Mg 279.077 IEC†	52117.8	54626.2	483260	µg/L	483260	ppb	05:55:24
1	Na 589.592 Radial†	1480230.8	1551268.0	482700	µg/L	482700	ppb	05:55:19
1	Sr 421.552†	560.2	561.9	5.5448	µg/L	5.5448	ppb	05:55:24
1	Sc 361.383	1819946.9	1819946.9	91.671	%			05:55:59
1	Y 371.029	1236477.1	1236477.1	90.624	%			05:55:59
1	Ag 328.068†	-5203.4	-5115.1	-10.418	µg/L	-10.418	ppb	05:56:04
1	As 188.979†	-23.8	-27.8	-49.222	µg/L	-49.222	ppb	05:56:25
1	B 249.677†	1525.6	1370.0	-182.59	µg/L	-182.59	ppb	05:56:04
1	Ba 233.527†	559.2	636.0	15.561	µg/L	15.561	ppb	05:56:25
1	Be 313.107†	-11534.1	-8981.7	-5.5944	µg/L	-5.5944	ppb	05:56:04
1	Cd 226.502†	1110.6	1357.6	-16.525	µg/L	-16.525	ppb	05:56:04
1	Co 228.616†	201.5	228.7	10.542	µg/L	10.542	ppb	05:56:25
1	Cr 267.716†	95.4	152.7	3.1329	µg/L	3.1329	ppb	05:56:25
1	Cu 324.752†	-9107.0	-12378.6	-18.069	µg/L	-18.069	ppb	05:56:04
1	Mn 257.610†	-6542.3	-6872.0	19.241	µg/L	19.241	ppb	05:55:59
1	Mo 202.031†	-207.8	-221.8	-4.9744	µg/L	-4.9744	ppb	05:56:25
1	Ni 231.604†	88.7	-205.7	-4.6765	µg/L	-4.6765	ppb	05:56:25
1	P 214.914†	290.5	290.2	363.43	µg/L	363.43	ppb	05:56:25
1	Pb 220.353†	185.5	115.4	25.033	µg/L	25.033	ppb	05:56:25
1	S 181.975 Axial†	23.9	8.7	36.059	µg/L	36.059	ppb	05:56:25
1	Sb 206.836†	62.1	44.0	-1.0911	µg/L	-1.0911	ppb	05:56:25
1	Se 196.026†	-133.5	-164.0	453.51	µg/L	453.51	ppb	05:56:25
1	SiO2†	1010.9	-188.2	-38.439	µg/L	-38.439	ppb	05:56:25
1	Si 251.611†	-323.5	-648.0	-50.639	µg/L	-50.639	ppb	05:56:25
1	Sn 189.927†	-47.0	-51.5	-16.491	µg/L	-16.491	ppb	05:56:25
1	Ti 334.940†	13899.0	15066.5	4.2016	µg/L	4.2016	ppb	05:56:04
1	Tl 190.801†	-44.5	-24.8	42.336	µg/L	42.336	ppb	05:56:25
1	U 409.014†	145261.4	158548.8	13435	µg/L	13435	ppb	05:56:04
1	V 292.402†	-6379.3	-6913.3	-2.0617	µg/L	-2.0617	ppb	05:56:04
1	Zn 213.857†	2872.4	2669.3	13.914	µg/L	13.914	ppb	05:56:25
2	Sc RADIAL	54361.8	54361.8	94.9	%			05:55:36
2	Al 396.153Radial†	686817.6	723643.5	504090	µg/L	504090	ppb	05:55:31
2	Ca 317.933Radial†	526431.9	554452.7	481300	µg/L	481300	ppb	05:55:31
2	Fe 238.204 Radial†	55016.4	57950.7	457810	µg/L	457810	ppb	05:55:36
2	K 766.490 Radial†	95.3	-66.1	-45.519	µg/L	-45.519	ppb	05:55:36
2	Mg 279.077 IEC†	51748.3	54510.3	482240	µg/L	482240	ppb	05:55:36
2	Na 589.592 Radial†	1485964.1	1565072.3	487000	µg/L	487000	ppb	05:55:31
2	Sr 421.552†	540.4	543.9	5.3673	µg/L	5.3673	ppb	05:55:36
2	Sc 361.383	1805718.4	1805718.4	90.954	%			05:56:31
2	Y 371.029	1228018.1	1228018.1	90.004	%			05:56:31
2	Ag 328.068†	-5059.6	-5001.8	-9.5908	µg/L	-9.5908	ppb	05:56:37
2	As 188.979†	-21.4	-25.4	-45.117	µg/L	-45.117	ppb	05:56:58
2	B 249.677†	1526.6	1384.2	-181.82	µg/L	-181.82	ppb	05:56:37
2	Ba 233.527†	571.3	654.2	16.007	µg/L	16.007	ppb	05:56:58
2	Be 313.107†	-11496.9	-9039.9	-5.6307	µg/L	-5.6307	ppb	05:56:37
2	Cd 226.502†	1135.9	1395.1	-15.513	µg/L	-15.513	ppb	05:56:37
2	Co 228.616†	195.5	223.8	10.317	µg/L	10.317	ppb	05:56:58
2	Cr 267.716†	44.5	97.4	1.9827	µg/L	1.9827	ppb	05:56:58
2	Cu 324.752†	-9165.2	-12520.9	-19.059	µg/L	-19.059	ppb	05:56:37
2	Mn 257.610†	-6757.1	-7164.4	18.284	µg/L	18.284	ppb	05:56:31
2	Mo 202.031†	-214.0	-230.4	-5.8598	µg/L	-5.8598	ppb	05:56:58
2	Ni 231.604†	73.3	-221.9	-5.5184	µg/L	-5.5184	ppb	05:56:58
2	P 214.914†	294.3	297.0	378.47	µg/L	378.47	ppb	05:56:58
2	Pb 220.353†	155.8	84.4	17.405	µg/L	17.405	ppb	05:56:58

2	S 181.975 Axial†	31.0	16.6	69.085 µg/L	69.085 ppb	05:56:58
2	Sb 206.836†	40.3	20.7	-23.137 µg/L	-23.137 ppb	05:56:58
2	Se 196.026†	-150.6	-183.9	423.61 µg/L	423.61 ppb	05:56:58
2	SiO2†	993.3	-198.9	-40.621 µg/L	-40.621 ppb	05:56:58
2	Si 251.611†	-270.5	-592.5	-46.302 µg/L	-46.302 ppb	05:56:58
2	Sn 189.927†	-46.8	-51.7	-16.688 µg/L	-16.688 ppb	05:56:58
2	Ti 334.940†	13913.7	15202.1	4.6691 µg/L	4.6691 ppb	05:56:37
2	Tl 190.801†	-51.3	-32.7	31.741 µg/L	31.741 ppb	05:56:58
2	U 409.014†	144913.4	159414.9	13509 µg/L	13509 ppb	05:56:37
2	V 292.402†	-6475.8	-7074.2	-3.6633 µg/L	-3.6633 ppb	05:56:37
2	Zn 213.857†	2884.1	2706.9	14.882 µg/L	14.882 ppb	05:56:58
3	Sc RADIAL	54446.2	54446.2	95.1 %		05:55:48
3	Al 396.153Radial†	683090.5	718601.1	500570 µg/L	500570 ppb	05:55:42
3	Ca 317.933Radial†	524069.5	551107.9	478400 µg/L	478400 ppb	05:55:42
3	Fe 238.204 Radial†	55016.9	57861.3	457100 µg/L	457100 ppb	05:55:48
3	K 766.490 Radial†	107.6	-53.3	-36.694 µg/L	-36.694 ppb	05:55:48
3	Mg 279.077 IEC†	51742.1	54419.3	481430 µg/L	481430 ppb	05:55:48
3	Na 589.592 Radial†	1476745.7	1552948.6	483220 µg/L	483220 ppb	05:55:42
3	Sr 421.552†	540.1	542.7	5.3557 µg/L	5.3557 ppb	05:55:48
3	Sc 361.383	1800549.5	1800549.5	90.694 %		05:57:04
3	Y 371.029	1223975.7	1223975.7	89.708 %		05:57:04
3	Ag 328.068†	-5051.8	-5009.1	-9.7004 µg/L	-9.7004 ppb	05:57:10
3	As 188.979†	-22.7	-26.9	-47.744 µg/L	-47.744 ppb	05:57:30
3	B 249.677†	1475.9	1333.1	-183.56 µg/L	-183.56 ppb	05:57:10
3	Ba 233.527†	575.3	660.4	16.157 µg/L	16.157 ppb	05:57:30
3	Be 313.107†	-11477.1	-9054.4	-5.6402 µg/L	-5.6402 ppb	05:57:10
3	Cd 226.502†	1123.5	1384.9	-15.697 µg/L	-15.697 ppb	05:57:10
3	Co 228.616†	205.0	234.9	10.828 µg/L	10.828 ppb	05:57:30
3	Cr 267.716†	49.1	102.7	2.0919 µg/L	2.0919 ppb	05:57:30
3	Cu 324.752†	-9223.2	-12613.8	-19.771 µg/L	-19.771 ppb	05:57:10
3	Mn 257.610†	-6639.9	-7056.6	18.573 µg/L	18.573 ppb	05:57:04
3	Mo 202.031†	-197.2	-212.5	-4.0813 µg/L	-4.0813 ppb	05:57:30
3	Ni 231.604†	64.0	-231.9	-6.0446 µg/L	-6.0446 ppb	05:57:30
3	P 214.914†	294.2	297.8	379.67 µg/L	379.67 ppb	05:57:30
3	Pb 220.353†	162.6	92.4	19.138 µg/L	19.138 ppb	05:57:30
3	S 181.975 Axial†	28.1	13.6	56.517 µg/L	56.517 ppb	05:57:30
3	Sb 206.836†	56.9	39.1	-5.8092 µg/L	-5.8092 ppb	05:57:30
3	Se 196.026†	-161.6	-196.6	404.95 µg/L	404.95 ppb	05:57:30
3	SiO2†	1025.1	-160.6	-32.807 µg/L	-32.807 ppb	05:57:30
3	Si 251.611†	-324.1	-652.4	-50.989 µg/L	-50.989 ppb	05:57:30
3	Sn 189.927†	-46.8	-51.9	-16.749 µg/L	-16.749 ppb	05:57:30
3	Ti 334.940†	14345.5	15722.2	5.8871 µg/L	5.8871 ppb	05:57:10
3	Tl 190.801†	-40.8	-21.3	46.815 µg/L	46.815 ppb	05:57:30
3	U 409.014†	145552.5	160576.8	13608 µg/L	13608 ppb	05:57:10
3	V 292.402†	-6585.6	-7215.7	-5.0594 µg/L	-5.0594 ppb	05:57:10
3	Zn 213.857†	2872.9	2703.6	14.886 µg/L	14.886 ppb	05:57:30

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1808738.3	91.106	%	0.5060				0.56%
Sc RADIAL	54480.6	95.1	%	0.24				0.26%
Y 371.029	1229490.3	90.112	%	0.4676				0.52%
Ag 328.068†	-5042.0	-9.9029	µg/L	0.44900	-9.9029	ppb	0.44900	4.53%
Al 396.153Radial†	720215.0	501700	µg/L	2069.5	501700	ppb	2069.5	0.41%
QC value within limits for Al 396.153Radial Recovery = 100.34%								
As 188.979†	-26.7	-47.361	µg/L	2.0793	-47.361	ppb	2.0793	4.39%
B 249.677†	1362.4	-182.66	µg/L	0.872	-182.66	ppb	0.872	0.48%
Ba 233.527†	650.2	15.908	µg/L	0.3102	15.908	ppb	0.3102	1.95%
Be 313.107†	-9025.3	-5.6218	µg/L	0.02416	-5.6218	ppb	0.02416	0.43%
Ca 317.933Radial†	551580.9	478810	µg/L	2315.0	478810	ppb	2315.0	0.48%
QC value within limits for Ca 317.933Radial Recovery = 95.76%								
Cd 226.502†	1379.2	-15.912	µg/L	0.5393	-15.912	ppb	0.5393	3.39%
Co 228.616†	229.1	10.562	µg/L	0.2560	10.562	ppb	0.2560	2.42%
Cr 267.716†	117.6	2.4025	µg/L	0.63488	2.4025	ppb	0.63488	26.43%
Cu 324.752†	-12504.4	-18.966	µg/L	0.8545	-18.966	ppb	0.8545	4.51%
Fe 238.204 Radial†	57936.0	457690	µg/L	542.0	457690	ppb	542.0	0.12%
QC value within limits for Fe 238.204 Radial Recovery = 91.54%								
K 766.490 Radial†	-58.7	-40.427	µg/L	4.5669	-40.427	ppb	4.5669	11.30%
Mg 279.077 IEC†	54518.6	482310	µg/L	917.9	482310	ppb	917.9	0.19%

QC value within limits for Mg 279.077 IEC Recovery = 96.46%

Mn 257.610†	-7031.0	18.699 µg/L	0.4911	18.699 ppb	0.4911	2.63%
Mo 202.031†	-221.6	-4.9718 µg/L	0.88924	-4.9718 ppb	0.88924	17.89%
Na 589.592 Radial†	1556429.6	484310 µg/L	2343.6	484310 ppb	2343.6	0.48%

QC value within limits for Na 589.592 Radial Recovery = 96.86%

Ni 231.604†	-219.8	-5.4131 µg/L	0.69010	-5.4131 ppb	0.69010	12.75%
P 214.914†	295.0	373.86 µg/L	9.046	373.86 ppb	9.046	2.42%
Pb 220.353†	97.4	20.525 µg/L	3.9988	20.525 ppb	3.9988	19.48%
S 181.975 Axial†	13.0	53.887 µg/L	16.6695	53.887 ppb	16.6695	30.93%
Sb 206.836†	34.6	-10.012 µg/L	11.6083	-10.012 ppb	11.6083	115.94%
Se 196.026†	-181.5	427.35 µg/L	24.496	427.35 ppb	24.496	5.73%
SiO2†	-182.6	-37.289 µg/L	4.0317	-37.289 ppb	4.0317	10.81%
Si 251.611†	-631.0	-49.310 µg/L	2.6106	-49.310 ppb	2.6106	5.29%
Sn 189.927†	-51.7	-16.643 µg/L	0.1350	-16.643 ppb	0.1350	0.81%
Sr 421.552†	549.5	5.4226 µg/L	0.10600	5.4226 ppb	0.10600	1.95%
Ti 334.940†	15330.3	4.9193 µg/L	0.87018	4.9193 ppb	0.87018	17.69%
Tl 190.801†	-26.2	40.297 µg/L	7.7409	40.297 ppb	7.7409	19.21%
U 409.014†	159513.5	13517 µg/L	86.9	13517 ppb	86.9	0.64%

QC value within limits for U 409.014 Recovery = 90.11%

V 292.402†	-7067.7	-3.5948 µg/L	1.50003	-3.5948 ppb	1.50003	41.73%
Zn 213.857†	2693.3	14.561 µg/L	0.5597	14.561 ppb	0.5597	3.84%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/12/2010 05:57:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56261.5	56261.5	98.2	%			05:58:23
1	Al 396.153Radial†	390.7	422.0	89.472	µg/L	89.472	ppb	05:58:23
1	Ca 317.933Radial†	343.0	162.3	140.87	µg/L	140.87	ppb	05:58:43
1	Fe 238.204 Radial†	9.7	-3.8	167.88	µg/L	167.88	ppb	05:58:43
1	K 766.490 Radial†	440821.2	448593.0	308770	µg/L	308770	ppb	05:58:17
1	Mg 279.077 IEC†	5.4	-5.3	120.14	µg/L	120.14	ppb	05:58:43
1	Na 589.592 Radial†	1308.9	818.7	254.76	µg/L	254.76	ppb	05:58:23
1	Sr 421.552†	1013997.2	1032231.7	10186	µg/L	10186	ppb	05:58:17
1	Sc 361.383	2007217.4	2007217.4	101.10	%			06:00:14
1	Y 371.029	1368056.3	1368056.3	100.27	%			06:00:14
1	Ag 328.068†	-7472.8	-6830.2	13.333	µg/L	13.333	ppb	06:00:19
1	As 188.979†	5333.2	5273.2	9673.2	µg/L	9673.2	ppb	06:00:19
1	B 249.677†	118928.1	117335.6	4875.2	µg/L	4875.2	ppb	06:00:14
1	Ba 233.527†	571831.7	565615.2	13969	µg/L	13969	ppb	06:00:14
1	Be 313.107†	4634839.1	4587842.4	2847.1	µg/L	2847.1	ppb	06:00:03
1	Cd 226.502†	369651.8	365762.6	9508.5	µg/L	9508.5	ppb	06:00:14
1	Co 228.616†	202797.9	200592.9	9317.9	µg/L	9317.9	ppb	06:00:14
1	Cr 267.716†	1159564.7	1146954.6	23874	µg/L	23874	ppb	06:00:14
1	Cu 324.752†	3027603.0	2992107.4	19761	µg/L	19761	ppb	06:00:14
1	Mn 257.610†	2927187.8	2895497.3	9414.8	µg/L	9414.8	ppb	06:00:14
1	Mo 202.031†	99702.9	98619.3	9953.6	µg/L	9953.6	ppb	06:00:14
1	Ni 231.604†	186677.2	184336.8	9506.5	µg/L	9506.5	ppb	06:00:14
1	P 214.914†	7691.2	7580.6	13296	µg/L	13296	ppb	06:00:19
1	Pb 220.353†	99690.8	98515.6	24678	µg/L	24678	ppb	06:00:14
1	S 181.975 Axial†	12761.9	12605.2	52426	µg/L	52426	ppb	06:00:19
1	Sb 206.836†	11461.4	11312.6	10367	µg/L	10367	ppb	06:00:19
1	Se 196.026†	6884.6	6791.0	9753.3	µg/L	9753.3	ppb	06:00:19
1	SiO2†	484144.6	477568.4	97542	µg/L	97542	ppb	06:00:14
1	Si 251.611†	589090.1	582364.1	45512	µg/L	45512	ppb	06:00:14
1	Sn 189.927†	24252.1	23987.0	10382	µg/L	10382	ppb	06:00:19
1	Ti 334.940†	4303321.3	4256247.9	9828.3	µg/L	9828.3	ppb	06:00:03
1	Tl 190.801†	7205.8	7150.9	9535.6	µg/L	9535.6	ppb	06:00:19
1	U 409.014†	801.1	881.5	75.205	µg/L	75.205	ppb	06:00:14
1	V 292.402†	987974.2	977234.5	10010	µg/L	10010	ppb	06:00:14
1	Zn 213.857†	609432.5	602315.5	14125	µg/L	14125	ppb	06:00:14
2	Sc RADIAL	57061.3	57061.3	99.6	%			05:58:55
2	Al 396.153Radial†	394.4	420.1	91.255	µg/L	91.255	ppb	05:58:55
2	Ca 317.933Radial†	323.6	138.0	119.78	µg/L	119.78	ppb	05:59:15
2	Fe 238.204 Radial†	6.0	-7.6	134.87	µg/L	134.87	ppb	05:59:15
2	K 766.490 Radial†	440184.7	441664.3	304000	µg/L	304000	ppb	05:58:49
2	Mg 279.077 IEC†	3.2	-7.6	97.765	µg/L	97.765	ppb	05:59:15
2	Na 589.592 Radial†	1251.5	742.3	230.99	µg/L	230.99	ppb	05:58:55
2	Sr 421.552†	1012329.0	1016089.4	10027	µg/L	10027	ppb	05:58:49
2	Sc 361.383	2000586.8	2000586.8	100.77	%			06:00:38
2	Y 371.029	1364552.4	1364552.4	100.01	%			06:00:38
2	Ag 328.068†	-7257.3	-6640.8	13.739	µg/L	13.739	ppb	06:00:44
2	As 188.979†	5228.1	5186.4	9513.9	µg/L	9513.9	ppb	06:00:44
2	B 249.677†	117555.2	116363.0	4834.3	µg/L	4834.3	ppb	06:00:38
2	Ba 233.527†	562425.9	558155.8	13785	µg/L	13785	ppb	06:00:38
2	Be 313.107†	4600868.2	4569324.7	2835.6	µg/L	2835.6	ppb	06:00:28
2	Cd 226.502†	363377.8	360748.3	9378.1	µg/L	9378.1	ppb	06:00:38
2	Co 228.616†	199206.0	197693.2	9183.0	µg/L	9183.0	ppb	06:00:38
2	Cr 267.716†	1131639.3	1123043.8	23377	µg/L	23377	ppb	06:00:38
2	Cu 324.752†	2970008.5	2944877.9	19449	µg/L	19449	ppb	06:00:38
2	Mn 257.610†	2866712.4	2845079.6	9250.9	µg/L	9250.9	ppb	06:00:38
2	Mo 202.031†	97881.0	97138.2	9804.1	µg/L	9804.1	ppb	06:00:38
2	Ni 231.604†	183147.2	181445.8	9357.4	µg/L	9357.4	ppb	06:00:38
2	P 214.914†	7431.9	7348.5	12857	µg/L	12857	ppb	06:00:44
2	Pb 220.353†	98285.1	97447.4	24410	µg/L	24410	ppb	06:00:38

2	S 181.975 Axial†	12497.6	12384.7	51509 µg/L	51509 ppb	06:00:44
2	Sb 206.836†	11101.4	10993.0	10074 µg/L	10074 ppb	06:00:44
2	Se 196.026†	6732.3	6662.5	9568.6 µg/L	9568.6 ppb	06:00:44
2	SiO2†	477403.5	472465.9	96500 µg/L	96500 ppb	06:00:38
2	Si 251.611†	581232.8	576498.0	45054 µg/L	45054 ppb	06:00:38
2	Sn 189.927†	23231.0	23053.2	9977.5 µg/L	9977.5 ppb	06:00:44
2	Ti 334.940†	4271642.5	4238918.1	9788.3 µg/L	9788.3 ppb	06:00:28
2	Tl 190.801†	7090.7	7060.3	9415.4 µg/L	9415.4 ppb	06:00:44
2	U 409.014†	744.1	827.5	70.607 µg/L	70.607 ppb	06:00:38
2	V 292.402†	969147.1	961790.0	9851.1 µg/L	9851.1 ppb	06:00:38
2	Zn 213.857†	598685.9	593648.7	13922 µg/L	13922 ppb	06:00:38
3	Sc RADIAL	56814.2	56814.2	99.2 %		05:59:26
3	Al 396.153Radial†	427.9	455.6	142.43 µg/L	142.43 ppb	05:59:26
3	Ca 317.933Radial†	339.1	155.0	134.56 µg/L	134.56 ppb	05:59:47
3	Fe 238.204 Radial†	7.9	-5.7	124.29 µg/L	124.29 ppb	05:59:47
3	K 766.490 Radial†	443384.2	446811.4	307550 µg/L	307550 ppb	05:59:21
3	Mg 279.077 IEC†	4.2	-6.6	85.091 µg/L	85.091 ppb	05:59:47
3	Na 589.592 Radial†	1243.6	739.9	230.23 µg/L	230.23 ppb	05:59:26
3	Sr 421.552†	1022103.9	1030362.8	10168 µg/L	10168 ppb	05:59:21
3	Sc 361.383	2013123.0	2013123.0	101.40 %		06:01:03
3	Y 371.029	1372223.9	1372223.9	100.57 %		06:01:03
3	Ag 328.068†	-6176.9	-5530.5	13.525 µg/L	13.525 ppb	06:01:09
3	As 188.979†	4632.5	4566.7	8377.4 µg/L	8377.4 ppb	06:01:09
3	B 249.677†	107443.5	105664.6	4387.5 µg/L	4387.5 ppb	06:01:03
3	Ba 233.527†	498911.1	492043.1	12152 µg/L	12152 ppb	06:01:03
3	Be 313.107†	4260914.3	4205636.5	2609.9 µg/L	2609.9 ppb	06:00:53
3	Cd 226.502†	320598.3	316314.3	8222.9 µg/L	8222.9 ppb	06:01:03
3	Co 228.616†	173907.3	171513.1	7965.9 µg/L	7965.9 ppb	06:01:03
3	Cr 267.716†	963566.7	950300.5	19781 µg/L	19781 ppb	06:01:03
3	Cu 324.752†	2598045.3	2559700.7	16906 µg/L	16906 ppb	06:01:03
3	Mn 257.610†	2507511.4	2473126.8	8041.5 µg/L	8041.5 ppb	06:01:03
3	Mo 202.031†	85538.8	84361.6	8514.6 µg/L	8514.6 ppb	06:01:03
3	Ni 231.604†	159984.0	157470.8	8121.0 µg/L	8121.0 ppb	06:01:03
3	P 214.914†	6413.9	6298.7	10994 µg/L	10994 ppb	06:01:09
3	Pb 220.353†	88331.4	87023.9	21799 µg/L	21799 ppb	06:01:03
3	S 181.975 Axial†	11117.0	10945.9	45525 µg/L	45525 ppb	06:01:09
3	Sb 206.836†	9709.4	9551.6	8759.1 µg/L	8759.1 ppb	06:01:09
3	Se 196.026†	5941.0	5840.6	8388.1 µg/L	8388.1 ppb	06:01:09
3	SiO2†	429862.5	422631.6	86321 µg/L	86321 ppb	06:01:03
3	Si 251.611†	523050.7	515528.0	40289 µg/L	40289 ppb	06:01:03
3	Sn 189.927†	19810.4	19536.3	8455.4 µg/L	8455.4 ppb	06:01:09
3	Ti 334.940†	3953747.2	3899018.1	9003.4 µg/L	9003.4 ppb	06:00:53
3	Tl 190.801†	6548.5	6481.7	8643.7 µg/L	8643.7 ppb	06:01:09
3	U 409.014†	688.0	767.6	65.494 µg/L	65.494 ppb	06:01:03
3	V 292.402†	843827.1	832212.6	8523.1 µg/L	8523.1 ppb	06:01:03
3	Zn 213.857†	526188.5	518453.5	12159 µg/L	12159 ppb	06:01:03

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2006975.7	101.09	%	0.316				0.31%
Sc RADIAL	56712.3	99.0	%	0.71				0.72%
Y 371.029	1368277.5	100.28	%	0.281				0.28%
Ag 328.068†	-6333.9	13.532	µg/L	0.2027	13.532	ppb	0.2027	1.50%
Al 396.153Radial†	432.6	107.72	µg/L	30.075	107.72	ppb	30.075	27.92%
As 188.979†	5008.7	9188.2	µg/L	706.63	9188.2	ppb	706.63	7.69%
QC value within limits for As 188.979 Recovery = 91.88%								
B 249.677†	113121.0	4699.0	µg/L	270.52	4699.0	ppb	270.52	5.76%
QC value within limits for B 249.677 Recovery = 93.98%								
Ba 233.527†	538604.7	13302	µg/L	1000.3	13302	ppb	1000.3	7.52%
QC value less than the lower limit for Ba 233.527 Recovery = 88.68%								
Be 313.107†	4454267.9	2764.2	µg/L	133.75	2764.2	ppb	133.75	4.84%
QC value within limits for Be 313.107 Recovery = 92.14%								
Ca 317.933Radial†	151.8	131.74	µg/L	10.828	131.74	ppb	10.828	8.22%
Cd 226.502†	347608.4	9036.5	µg/L	707.60	9036.5	ppb	707.60	7.83%
QC value within limits for Cd 226.502 Recovery = 90.37%								
Co 228.616†	189933.1	8822.3	µg/L	744.73	8822.3	ppb	744.73	8.44%
QC value less than the lower limit for Co 228.616 Recovery = 88.22%								
Cr 267.716†	1073433.0	22344	µg/L	2233.5	22344	ppb	2233.5	10.00%
QC value less than the lower limit for Cr 267.716 Recovery = 89.38%								

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Cu 324.752†          2832228.7       18705 µg/L        1566.6       18705 ppb        1566.6   8.37%
   QC value within limits for Cu 324.752  Recovery = 93.53%
Fe 238.204 Radial†        -5.7       142.34 µg/L        22.737      142.34 ppb        22.737  15.97%
K 766.490 Radial†     445689.6      306780 µg/L        2476.6      306780 ppb        2476.6   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 102.26%
Mg 279.077 IEC†           -6.5       101.00 µg/L        17.746      101.00 ppb        17.746  17.57%
Mn 257.610†          2737901.2       8902.4 µg/L        750.08      8902.4 ppb        750.08   8.43%
   QC value less than the lower limit for Mn 257.610  Recovery = 89.02%
Mo 202.031†            93373.0       9424.1 µg/L        791.20      9424.1 ppb        791.20   8.40%
   QC value within limits for Mo 202.031  Recovery = 94.24%
Na 589.592 Radial†       767.0       238.66 µg/L        13.947      238.66 ppb        13.947   5.84%
Ni 231.604†           174417.8       8995.0 µg/L        760.55      8995.0 ppb        760.55   8.46%
   QC value less than the lower limit for Ni 231.604  Recovery = 89.95%
P 214.914†              7075.9       12382 µg/L        1222.3       12382 ppb        1222.3   9.87%
   QC value less than the lower limit for P 214.914  Recovery = 82.55%
Pb 220.353†            94329.0       23629 µg/L        1590.3       23629 ppb        1590.3   6.73%
   QC value within limits for Pb 220.353  Recovery = 94.52%
S 181.975 Axial†       11978.6       49820 µg/L        3747.8       49820 ppb        3747.8   7.52%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†            10619.0       9733.4 µg/L        856.31      9733.4 ppb        856.31   8.80%
   QC value within limits for Sb 206.836  Recovery = 97.33%
Se 196.026†             6431.4       9236.7 µg/L        740.64      9236.7 ppb        740.64   8.02%
   QC value within limits for Se 196.026  Recovery = 92.37%
SiO2†                 457555.3       93454 µg/L        6199.3       93454 ppb        6199.3   6.63%
   QC value less than the lower limit for SiO2  Recovery = 87.34%
Si 251.611†           558130.0       43618 µg/L        2892.4       43618 ppb        2892.4   6.63%
   QC value less than the lower limit for Si 251.611  Recovery = 87.24%
Sn 189.927†            22192.2       9604.8 µg/L       1015.76      9604.8 ppb       1015.76  10.58%
   QC value within limits for Sn 189.927  Recovery = 96.05%
Sr 421.552†          1026228.0       10127 µg/L          87.1       10127 ppb          87.1   0.86%
   QC value within limits for Sr 421.552  Recovery = 101.27%
Ti 334.940†          4131394.7       9540.0 µg/L        465.13      9540.0 ppb        465.13   4.88%
   QC value within limits for Ti 334.940  Recovery = 95.40%
Tl 190.801†             6897.6       9198.2 µg/L        483.99      9198.2 ppb        483.99   5.26%
   QC value within limits for Tl 190.801  Recovery = 91.98%
U 409.014†               825.5       70.436 µg/L        4.8576      70.436 ppb        4.8576   6.90%
V 292.402†            923745.7       9461.2 µg/L        816.29      9461.2 ppb        816.29   8.63%
   QC value within limits for V 292.402  Recovery = 94.61%
Zn 213.857†           571472.6       13402 µg/L        1081.4       13402 ppb        1081.4   8.07%
   QC value less than the lower limit for Zn 213.857  Recovery = 89.35%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 06:01:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58591.4	58591.4	102	%			06:01:56
1	Al 396.153Radial†	7163.6	7026.8	4884.4	µg/L	4884.4	ppb	06:01:56
1	Ca 317.933Radial†	5879.8	5560.8	4827.1	µg/L	4827.1	ppb	06:02:16
1	Fe 238.204 Radial†	649.3	621.0	4916.8	µg/L	4916.8	ppb	06:02:16
1	K 766.490 Radial†	7708.4	7368.6	5072.0	µg/L	5072.0	ppb	06:01:56
1	Mg 279.077 IEC†	590.1	566.1	5016.0	µg/L	5016.0	ppb	06:02:16
1	Na 589.592 Radial†	32374.2	31132.9	9687.5	µg/L	9687.5	ppb	06:01:56
1	Sr 421.552†	50798.7	49631.6	489.77	µg/L	489.77	ppb	06:01:56
1	Sc 361.383	2014753.0	2014753.0	101.48	%			06:03:20
1	Y 371.029	1379901.4	1379901.4	101.14	%			06:03:20
1	Ag 328.068†	63932.5	63559.2	485.93	µg/L	485.93	ppb	06:03:25
1	As 188.979†	285.1	279.1	512.04	µg/L	512.04	ppb	06:03:46
1	B 249.677†	12519.1	12041.9	494.65	µg/L	494.65	ppb	06:03:25
1	Ba 233.527†	20214.8	19945.4	492.85	µg/L	492.85	ppb	06:03:25
1	Be 313.107†	796416.9	788376.8	489.71	µg/L	489.71	ppb	06:03:20
1	Cd 226.502†	19288.5	19152.8	497.35	µg/L	497.35	ppb	06:03:25
1	Co 228.616†	10829.8	10680.4	496.18	µg/L	496.18	ppb	06:03:25
1	Cr 267.716†	24241.9	23936.1	498.42	µg/L	498.42	ppb	06:03:25
1	Cu 324.752†	77871.5	74289.2	491.32	µg/L	491.32	ppb	06:03:25
1	Mn 257.610†	154416.0	152423.7	496.06	µg/L	496.06	ppb	06:03:20
1	Mo 202.031†	5088.7	5019.2	506.77	µg/L	506.77	ppb	06:03:46
1	Ni 231.604†	10083.5	9633.7	496.87	µg/L	496.87	ppb	06:03:25
1	P 214.914†	1306.9	1261.1	2486.7	µg/L	2486.7	ppb	06:03:46
1	Pb 220.353†	2182.0	2063.2	517.13	µg/L	517.13	ppb	06:03:46
1	S 181.975 Axial†	268.0	246.7	1026.0	µg/L	1026.0	ppb	06:03:46
1	Sb 206.836†	575.1	543.1	505.04	µg/L	505.04	ppb	06:03:46
1	Se 196.026†	375.8	352.0	513.14	µg/L	513.14	ppb	06:03:46
1	SiO2†	27474.1	25781.6	5265.8	µg/L	5265.8	ppb	06:03:25
1	Si 251.611†	32279.4	31512.5	2462.7	µg/L	2462.7	ppb	06:03:25
1	Sn 189.927†	1195.1	1177.3	509.59	µg/L	509.59	ppb	06:03:46
1	Ti 334.940†	213343.7	210130.1	484.90	µg/L	484.90	ppb	06:03:20
1	Tl 190.801†	362.0	380.4	508.17	µg/L	508.17	ppb	06:03:46
1	U 409.014†	5766.7	5771.5	491.46	µg/L	491.46	ppb	06:03:25
1	V 292.402†	49205.2	48531.7	496.69	µg/L	496.69	ppb	06:03:25
1	Zn 213.857†	21952.5	21167.6	495.51	µg/L	495.51	ppb	06:03:25
2	Sc RADIAL	58893.2	58893.2	103	%			06:02:22
2	Al 396.153Radial†	7170.0	6997.2	4863.9	µg/L	4863.9	ppb	06:02:22
2	Ca 317.933Radial†	5840.3	5492.9	4768.2	µg/L	4768.2	ppb	06:02:42
2	Fe 238.204 Radial†	645.6	614.2	4862.6	µg/L	4862.6	ppb	06:02:42
2	K 766.490 Radial†	7719.8	7341.2	5053.1	µg/L	5053.1	ppb	06:02:22
2	Mg 279.077 IEC†	583.3	556.5	4931.0	µg/L	4931.0	ppb	06:02:42
2	Na 589.592 Radial†	32477.5	31071.1	9668.2	µg/L	9668.2	ppb	06:02:22
2	Sr 421.552†	51118.7	49688.5	490.33	µg/L	490.33	ppb	06:02:22
2	Sc 361.383	2020265.1	2020265.1	101.76	%			06:03:53
2	Y 371.029	1383120.7	1383120.7	101.37	%			06:03:53
2	Ag 328.068†	63879.6	63335.3	484.22	µg/L	484.22	ppb	06:03:59
2	As 188.979†	280.6	273.9	502.49	µg/L	502.49	ppb	06:04:19
2	B 249.677†	12490.4	11980.0	492.12	µg/L	492.12	ppb	06:03:59
2	Ba 233.527†	20257.7	19933.2	492.55	µg/L	492.55	ppb	06:03:59
2	Be 313.107†	795082.9	784924.7	487.56	µg/L	487.56	ppb	06:03:53
2	Cd 226.502†	19296.6	19108.9	496.21	µg/L	496.21	ppb	06:03:59
2	Co 228.616†	10825.3	10646.9	494.62	µg/L	494.62	ppb	06:03:59
2	Cr 267.716†	24198.7	23828.5	496.18	µg/L	496.18	ppb	06:03:59
2	Cu 324.752†	77998.1	74204.2	490.76	µg/L	490.76	ppb	06:03:59
2	Mn 257.610†	154103.5	151701.5	493.71	µg/L	493.71	ppb	06:03:53
2	Mo 202.031†	5049.7	4967.2	501.52	µg/L	501.52	ppb	06:04:19
2	Ni 231.604†	10080.2	9603.3	495.31	µg/L	495.31	ppb	06:03:59
2	P 214.914†	1279.5	1230.7	2425.6	µg/L	2425.6	ppb	06:04:19
2	Pb 220.353†	2157.0	2032.7	509.48	µg/L	509.48	ppb	06:04:19

2	S 181.975 Axial†	261.0	239.0	994.16 µg/L	994.16 ppb	06:04:19
2	Sb 206.836†	569.5	535.9	498.40 µg/L	498.40 ppb	06:04:19
2	Se 196.026†	377.9	353.0	514.53 µg/L	514.53 ppb	06:04:19
2	SiO2†	27429.4	25663.8	5241.8 µg/L	5241.8 ppb	06:03:59
2	Si 251.611†	32340.0	31485.3	2460.6 µg/L	2460.6 ppb	06:03:59
2	Sn 189.927†	1192.0	1171.0	506.87 µg/L	506.87 ppb	06:04:19
2	Ti 334.940†	213174.5	209390.3	483.20 µg/L	483.20 ppb	06:03:53
2	Tl 190.801†	357.9	375.4	501.50 µg/L	501.50 ppb	06:04:19
2	U 409.014†	5751.5	5741.1	488.88 µg/L	488.88 ppb	06:03:59
2	V 292.402†	49313.4	48505.7	496.37 µg/L	496.37 ppb	06:03:59
2	Zn 213.857†	21967.2	21123.0	494.48 µg/L	494.48 ppb	06:03:59
3	Sc RADIAL	58261.6	58261.6	102 %		06:02:48
3	Al 396.153Radial†	7068.5	6973.0	4848.7 µg/L	4848.7 ppb	06:02:48
3	Ca 317.933Radial†	5812.9	5527.5	4798.3 µg/L	4798.3 ppb	06:03:08
3	Fe 238.204 Radial†	646.9	622.2	4925.4 µg/L	4925.4 ppb	06:03:08
3	K 766.490 Radial†	7595.4	7300.2	5024.9 µg/L	5024.9 ppb	06:02:48
3	Mg 279.077 IEC†	586.7	566.0	5013.9 µg/L	5013.9 ppb	06:03:08
3	Na 589.592 Radial†	32073.8	31016.7	9651.3 µg/L	9651.3 ppb	06:02:48
3	Sr 421.552†	50357.7	49479.2	488.27 µg/L	488.27 ppb	06:02:48
3	Sc 361.383	2030040.3	2030040.3	102.25 %		06:04:26
3	Y 371.029	1390321.5	1390321.5	101.90 %		06:04:26
3	Ag 328.068†	61253.1	60464.4	462.18 µg/L	462.18 ppb	06:04:32
3	As 188.979†	247.7	240.4	441.09 µg/L	441.09 ppb	06:04:53
3	B 249.677†	11942.9	11385.4	467.51 µg/L	467.51 ppb	06:04:32
3	Ba 233.527†	19022.7	18629.5	460.32 µg/L	460.32 ppb	06:04:32
3	Be 313.107†	771177.3	757783.6	470.71 µg/L	470.71 ppb	06:04:26
3	Cd 226.502†	18006.9	17756.2	461.04 µg/L	461.04 ppb	06:04:32
3	Co 228.616†	10084.2	9870.8	458.50 µg/L	458.50 ppb	06:04:32
3	Cr 267.716†	22056.0	21618.5	450.17 µg/L	450.17 ppb	06:04:32
3	Cu 324.752†	72740.4	68693.3	454.37 µg/L	454.37 ppb	06:04:32
3	Mn 257.610†	149582.1	146550.5	476.97 µg/L	476.97 ppb	06:04:26
3	Mo 202.031†	4281.4	4191.9	423.28 µg/L	423.28 ppb	06:04:53
3	Ni 231.604†	9378.0	8868.9	457.43 µg/L	457.43 ppb	06:04:32
3	P 214.914†	1122.9	1071.5	2108.3 µg/L	2108.3 ppb	06:04:53
3	Pb 220.353†	1902.2	1773.4	444.37 µg/L	444.37 ppb	06:04:53
3	S 181.975 Axial†	236.9	214.3	891.13 µg/L	891.13 ppb	06:04:53
3	Sb 206.836†	502.8	468.0	434.73 µg/L	434.73 ppb	06:04:53
3	Se 196.026†	336.7	311.0	454.24 µg/L	454.24 ppb	06:04:53
3	SiO2†	25928.0	24065.7	4915.3 µg/L	4915.3 ppb	06:04:32
3	Si 251.611†	30496.5	29529.4	2307.7 µg/L	2307.7 ppb	06:04:32
3	Sn 189.927†	994.4	972.2	420.82 µg/L	420.82 ppb	06:04:53
3	Ti 334.940†	205958.6	201324.7	464.57 µg/L	464.57 ppb	06:04:26
3	Tl 190.801†	327.2	343.8	459.56 µg/L	459.56 ppb	06:04:53
3	U 409.014†	5278.0	5250.8	447.03 µg/L	447.03 ppb	06:04:32
3	V 292.402†	45550.2	44592.1	456.07 µg/L	456.07 ppb	06:04:32
3	Zn 213.857†	20409.6	19495.8	456.33 µg/L	456.33 ppb	06:04:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2021686.1	101.83	%	0.390				0.38%
Sc RADIAL	58582.1	102	%	0.6				0.54%
Y 371.029	1384447.8	101.47	%	0.391				0.39%
Ag 328.068†	62452.9	477.44	µg/L	13.247	477.44	ppb	13.247	2.77%
QC value within limits for Ag 328.068 Recovery = 95.49%								
Al 396.153Radial†	6999.0	4865.7	µg/L	17.94	4865.7	ppb	17.94	0.37%
QC value within limits for Al 396.153Radial Recovery = 97.31%								
As 188.979†	264.5	485.21	µg/L	38.506	485.21	ppb	38.506	7.94%
QC value within limits for As 188.979 Recovery = 97.04%								
B 249.677†	11802.4	484.76	µg/L	14.996	484.76	ppb	14.996	3.09%
QC value within limits for B 249.677 Recovery = 96.95%								
Ba 233.527†	19502.7	481.91	µg/L	18.694	481.91	ppb	18.694	3.88%
QC value within limits for Ba 233.527 Recovery = 96.38%								
Be 313.107†	777028.4	482.66	µg/L	10.408	482.66	ppb	10.408	2.16%
QC value within limits for Be 313.107 Recovery = 96.53%								
Ca 317.933Radial†	5527.1	4797.9	µg/L	29.47	4797.9	ppb	29.47	0.61%
QC value within limits for Ca 317.933Radial Recovery = 95.96%								
Cd 226.502†	18672.6	484.87	µg/L	20.643	484.87	ppb	20.643	4.26%
QC value within limits for Cd 226.502 Recovery = 96.97%								
Co 228.616†	10399.4	483.10	µg/L	21.321	483.10	ppb	21.321	4.41%

```
   QC value within limits for Co 228.616  Recovery = 96.62%
Cr 267.716†            23127.7      481.59 µg/L        27.236      481.59 ppb         27.236   5.66%
   QC value within limits for Cr 267.716  Recovery = 96.32%
Cu 324.752†            72395.6      478.82 µg/L        21.175      478.82 ppb         21.175   4.42%
   QC value within limits for Cu 324.752  Recovery = 95.76%
Fe 238.204 Radial†       619.2     4901.6 µg/L         34.00      4901.6 ppb          34.00   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.03%
K 766.490 Radial†       7336.7      5050.0 µg/L         23.70      5050.0 ppb          23.70   0.47%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†          562.8      4987.0 µg/L         48.49      4987.0 ppb          48.49   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.74%
Mn 257.610†           150225.2      488.91 µg/L        10.413      488.91 ppb         10.413   2.13%
   QC value within limits for Mn 257.610  Recovery = 97.78%
Mo 202.031†             4726.1      477.19 µg/L        46.763      477.19 ppb         46.763   9.80%
   QC value within limits for Mo 202.031  Recovery = 95.44%
Na 589.592 Radial†     31073.6      9669.0 µg/L         18.09      9669.0 ppb          18.09   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 96.69%
Ni 231.604†             9368.6      483.20 µg/L        22.333      483.20 ppb         22.333   4.62%
   QC value within limits for Ni 231.604  Recovery = 96.64%
P 214.914†              1187.8      2340.2 µg/L        203.14      2340.2 ppb         203.14   8.68%
   QC value within limits for P 214.914  Recovery = 93.61%
Pb 220.353†             1956.4      490.32 µg/L        39.980      490.32 ppb         39.980   8.15%
   QC value within limits for Pb 220.353  Recovery = 98.06%
S 181.975 Axial†         233.3      970.42 µg/L        70.492      970.42 ppb         70.492   7.26%
   QC value within limits for S 181.975 Axial  Recovery = 97.04%
Sb 206.836†              515.7      479.39 µg/L        38.819      479.39 ppb         38.819   8.10%
   QC value within limits for Sb 206.836  Recovery = 95.88%
Se 196.026†              338.7      493.97 µg/L        34.416      493.97 ppb         34.416   6.97%
   QC value within limits for Se 196.026  Recovery = 98.79%
SiO2†                  25170.4      5141.0 µg/L        195.77      5141.0 ppb         195.77   3.81%
   QC value within limits for SiO2  Recovery = 96.14%
Si 251.611†            30842.4      2410.3 µg/L         88.87      2410.3 ppb          88.87   3.69%
   QC value within limits for Si 251.611  Recovery = 96.41%
Sn 189.927†             1106.9      479.09 µg/L        50.484      479.09 ppb         50.484  10.54%
   QC value within limits for Sn 189.927  Recovery = 95.82%
Sr 421.552†            49599.8      489.46 µg/L         1.068      489.46 ppb          1.068   0.22%
   QC value within limits for Sr 421.552  Recovery = 97.89%
Ti 334.940†           206948.3      477.56 µg/L        11.280      477.56 ppb         11.280   2.36%
   QC value within limits for Ti 334.940  Recovery = 95.51%
Tl 190.801†              366.5      489.74 µg/L        26.352      489.74 ppb         26.352   5.38%
   QC value within limits for Tl 190.801  Recovery = 97.95%
U 409.014†              5587.8      475.79 µg/L        24.939      475.79 ppb         24.939   5.24%
   QC value within limits for U 409.014  Recovery = 95.16%
V 292.402†             47209.8      483.05 µg/L        23.361      483.05 ppb         23.361   4.84%
   QC value within limits for V 292.402  Recovery = 96.61%
Zn 213.857†            20595.5      482.11 µg/L        22.326      482.11 ppb         22.326   4.63%
   QC value within limits for Zn 213.857  Recovery = 96.42%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 06:05:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56996.9	56996.9	99.5	%			06:05:35
1	Al 396.153Radial†	44.6	69.1	48.091	µg/L	48.091	ppb	06:05:35
1	Ca 317.933Radial†	235.3	49.6	43.015	µg/L	43.015	ppb	06:05:56
1	Fe 238.204 Radial†	21.2	7.6	60.285	µg/L	60.285	ppb	06:05:56
1	K 766.490 Radial†	296.4	131.3	90.373	µg/L	90.373	ppb	06:05:35
1	Mg 279.077 IEC†	18.4	7.6	67.658	µg/L	67.658	ppb	06:05:56
1	Na 589.592 Radial†	828.9	319.1	99.303	µg/L	99.303	ppb	06:05:35
1	Sr 421.552†	91.9	66.9	0.6602	µg/L	0.6602	ppb	06:05:35
1	Sc 361.383	1997421.7	1997421.7	100.61	%			06:06:58
1	Y 371.029	1372275.4	1372275.4	100.58	%			06:06:58
1	Ag 328.068†	-425.2	138.4	1.0571	µg/L	1.0571	ppb	06:07:03
1	As 188.979†	4.7	2.9	5.2454	µg/L	5.2454	ppb	06:07:24
1	B 249.677†	434.1	137.2	5.6266	µg/L	5.6266	ppb	06:07:24
1	Ba 233.527†	-2.4	23.7	0.5844	µg/L	0.5844	ppb	06:07:24
1	Be 313.107†	-3419.2	201.9	0.1252	µg/L	0.1252	ppb	06:07:03
1	Cd 226.502†	-128.4	18.5	0.4748	µg/L	0.4748	ppb	06:07:24
1	Co 228.616†	2.6	11.5	0.5325	µg/L	0.5325	ppb	06:07:24
1	Cr 267.716†	-2.9	45.6	0.9499	µg/L	0.9499	ppb	06:07:03
1	Cu 324.752†	2906.4	444.6	2.9449	µg/L	2.9449	ppb	06:07:03
1	Mn 257.610†	-123.3	142.1	0.4675	µg/L	0.4675	ppb	06:07:24
1	Mo 202.031†	2.6	7.4	0.7500	µg/L	0.7500	ppb	06:07:24
1	Ni 231.604†	319.1	14.6	0.7563	µg/L	0.7563	ppb	06:07:24
1	P 214.914†	26.4	-0.4	-1.1386	µg/L	-1.1386	ppb	06:07:24
1	Pb 220.353†	125.5	37.8	9.4794	µg/L	9.4794	ppb	06:07:24
1	S 181.975 Axial†	16.3	-1.3	-5.3432	µg/L	-5.3432	ppb	06:07:24
1	Sb 206.836†	21.9	-1.9	-1.7616	µg/L	-1.7616	ppb	06:07:24
1	Se 196.026†	11.8	-6.7	-9.4690	µg/L	-9.4690	ppb	06:07:24
1	SiO2†	1383.6	84.2	17.208	µg/L	17.208	ppb	06:07:03
1	Si 251.611†	384.8	87.4	6.8307	µg/L	6.8307	ppb	06:07:24
1	Sn 189.927†	5.2	4.9	2.1122	µg/L	2.1122	ppb	06:07:24
1	Ti 334.940†	334.5	237.2	0.5430	µg/L	0.5430	ppb	06:07:03
1	Tl 190.801†	-25.3	-1.4	-1.8708	µg/L	-1.8708	ppb	06:07:24
1	U 409.014†	-126.6	-36.7	-3.1395	µg/L	-3.1395	ppb	06:07:03
1	V 292.402†	-1.0	44.7	0.4637	µg/L	0.4637	ppb	06:07:03
1	Zn 213.857†	561.7	94.3	2.2082	µg/L	2.2082	ppb	06:07:24
2	Sc RADIAL	58022.4	58022.4	101	%			06:06:01
2	Al 396.153Radial†	22.7	46.6	32.468	µg/L	32.468	ppb	06:06:01
2	Ca 317.933Radial†	223.6	33.9	29.395	µg/L	29.395	ppb	06:06:22
2	Fe 238.204 Radial†	20.2	6.2	49.208	µg/L	49.208	ppb	06:06:22
2	K 766.490 Radial†	290.7	120.5	82.927	µg/L	82.927	ppb	06:06:01
2	Mg 279.077 IEC†	15.3	4.3	38.074	µg/L	38.074	ppb	06:06:22
2	Na 589.592 Radial†	805.7	281.5	87.607	µg/L	87.607	ppb	06:06:01
2	Sr 421.552†	55.4	29.3	0.2892	µg/L	0.2892	ppb	06:06:01
2	Sc 361.383	1992563.4	1992563.4	100.37	%			06:07:30
2	Y 371.029	1368928.0	1368928.0	100.33	%			06:07:30
2	Ag 328.068†	-526.2	36.8	0.2842	µg/L	0.2842	ppb	06:07:35
2	As 188.979†	0.4	-1.5	-2.7073	µg/L	-2.7073	ppb	06:07:56
2	B 249.677†	431.7	135.9	5.5789	µg/L	5.5789	ppb	06:07:56
2	Ba 233.527†	-2.0	24.1	0.5942	µg/L	0.5942	ppb	06:07:56
2	Be 313.107†	-3322.8	289.7	0.1798	µg/L	0.1798	ppb	06:07:35
2	Cd 226.502†	-120.8	25.8	0.6672	µg/L	0.6672	ppb	06:07:56
2	Co 228.616†	12.7	21.5	1.0015	µg/L	1.0015	ppb	06:07:56
2	Cr 267.716†	2.3	50.8	1.0574	µg/L	1.0574	ppb	06:07:35
2	Cu 324.752†	2821.8	367.3	2.4330	µg/L	2.4330	ppb	06:07:35
2	Mn 257.610†	-115.3	149.8	0.4921	µg/L	0.4921	ppb	06:07:56
2	Mo 202.031†	7.0	11.8	1.1906	µg/L	1.1906	ppb	06:07:56
2	Ni 231.604†	332.1	28.4	1.4652	µg/L	1.4652	ppb	06:07:56
2	P 214.914†	21.9	-4.8	-9.8397	µg/L	-9.8397	ppb	06:07:56
2	Pb 220.353†	116.9	29.6	7.4079	µg/L	7.4079	ppb	06:07:56

2	S 181.975 Axial†	14.9	-2.5	-10.596 µg/L	-10.596 ppb	06:07:56
2	Sb 206.836†	25.7	1.9	1.7880 µg/L	1.7880 ppb	06:07:56
2	Se 196.026†	24.2	5.8	8.3609 µg/L	8.3609 ppb	06:07:56
2	SiO2†	1367.9	72.0	14.696 µg/L	14.696 ppb	06:07:35
2	Si 251.611†	394.1	97.5	7.6233 µg/L	7.6233 ppb	06:07:56
2	Sn 189.927†	10.7	10.4	4.4847 µg/L	4.4847 ppb	06:07:56
2	Ti 334.940†	321.7	225.2	0.5175 µg/L	0.5175 ppb	06:07:35
2	Tl 190.801†	-22.7	1.1	1.4276 µg/L	1.4276 ppb	06:07:56
2	U 409.014†	-83.9	5.5	0.4645 µg/L	0.4645 ppb	06:07:35
2	V 292.402†	-19.4	26.4	0.2845 µg/L	0.2845 ppb	06:07:35
2	Zn 213.857†	547.1	81.1	1.8959 µg/L	1.8959 ppb	06:07:56
3	Sc RADIAL	57203.1	57203.1	99.9 %		06:06:27
3	Al 396.153Radial†	29.8	54.1	37.662 µg/L	37.662 ppb	06:06:27
3	Ca 317.933Radial†	218.0	31.4	27.218 µg/L	27.218 ppb	06:06:47
3	Fe 238.204 Radial†	19.1	5.4	42.624 µg/L	42.624 ppb	06:06:47
3	K 766.490 Radial†	194.1	27.9	19.181 µg/L	19.181 ppb	06:06:27
3	Mg 279.077 IEC†	20.1	9.2	81.881 µg/L	81.881 ppb	06:06:47
3	Na 589.592 Radial†	721.0	208.1	64.743 µg/L	64.743 ppb	06:06:27
3	Sr 421.552†	77.1	51.8	0.5110 µg/L	0.5110 ppb	06:06:27
3	Sc 361.383	1988910.1	1988910.1	100.18 %		06:08:02
3	Y 371.029	1366723.4	1366723.4	100.17 %		06:08:02
3	Ag 328.068†	-400.8	161.0	1.2254 µg/L	1.2254 ppb	06:08:07
3	As 188.979†	-2.4	-4.2	-7.6980 µg/L	-7.6980 ppb	06:08:28
3	B 249.677†	415.2	120.2	4.9335 µg/L	4.9335 ppb	06:08:28
3	Ba 233.527†	1.7	27.7	0.6844 µg/L	0.6844 ppb	06:08:28
3	Be 313.107†	-3469.3	137.4	0.0852 µg/L	0.0852 ppb	06:08:07
3	Cd 226.502†	-117.5	28.9	0.7462 µg/L	0.7462 ppb	06:08:28
3	Co 228.616†	-0.2	8.6	0.4017 µg/L	0.4017 ppb	06:08:28
3	Cr 267.716†	5.8	54.3	1.1301 µg/L	1.1301 ppb	06:08:07
3	Cu 324.752†	2860.1	410.7	2.7185 µg/L	2.7185 ppb	06:08:07
3	Mn 257.610†	-138.6	126.3	0.4130 µg/L	0.4130 ppb	06:08:28
3	Mo 202.031†	4.3	9.1	0.9188 µg/L	0.9188 ppb	06:08:28
3	Ni 231.604†	318.9	15.8	0.8158 µg/L	0.8158 ppb	06:08:28
3	P 214.914†	18.4	-8.3	-16.903 µg/L	-16.903 ppb	06:08:28
3	Pb 220.353†	117.3	30.2	7.5459 µg/L	7.5459 ppb	06:08:28
3	S 181.975 Axial†	20.3	2.8	11.807 µg/L	11.807 ppb	06:08:28
3	Sb 206.836†	31.8	8.1	7.5021 µg/L	7.5021 ppb	06:08:28
3	Se 196.026†	12.6	-5.8	-8.2985 µg/L	-8.2985 ppb	06:08:28
3	SiO2†	1371.5	78.1	15.944 µg/L	15.944 ppb	06:08:07
3	Si 251.611†	378.0	82.3	6.4281 µg/L	6.4281 ppb	06:08:28
3	Sn 189.927†	5.2	4.9	2.1092 µg/L	2.1092 ppb	06:08:28
3	Ti 334.940†	309.9	214.0	0.4881 µg/L	0.4881 ppb	06:08:07
3	Tl 190.801†	-25.4	-1.6	-2.1533 µg/L	-2.1533 ppb	06:08:28
3	U 409.014†	0.6	89.7	7.6430 µg/L	7.6430 ppb	06:08:07
3	V 292.402†	-31.4	14.3	0.1673 µg/L	0.1673 ppb	06:08:07
3	Zn 213.857†	553.6	88.6	2.0737 µg/L	2.0737 ppb	06:08:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992965.1	100.39	%	0.215				0.21%
Sc RADIAL	57407.5	100	%	0.9				0.94%
Y 371.029	1369308.9	100.36	%	0.205				0.20%
Ag 328.068†	112.1	0.8556	µg/L	0.50188	0.8556	ppb	0.50188	58.66%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	56.6	39.407	µg/L	7.9561	39.407	ppb	7.9561	20.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-1.7199	µg/L	6.52795	-1.7199	ppb	6.52795	379.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	131.1	5.3797	µg/L	0.38711	5.3797	ppb	0.38711	7.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.2	0.6210	µg/L	0.05511	0.6210	ppb	0.05511	8.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	209.6	0.1301	µg/L	0.04750	0.1301	ppb	0.04750	36.52%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	38.3	33.210	µg/L	8.5611	33.210	ppb	8.5611	25.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	24.4	0.6294	µg/L	0.13959	0.6294	ppb	0.13959	22.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	13.9	0.6452	µg/L	0.31536	0.6452	ppb	0.31536	48.88%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                50.2      1.0458 µg/L       0.09066      1.0458 ppb        0.09066   8.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               407.6      2.6988 µg/L       0.25653      2.6988 ppb        0.25653   9.51%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          6.4      50.706 µg/L        8.9248     50.706 ppb         8.9248  17.60%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          93.2      64.160 µg/L       39.1304     64.160 ppb        39.1304  60.99%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             7.1      62.537 µg/L       22.3479     62.537 ppb        22.3479  35.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               139.4      0.4576 µg/L       0.04049      0.4576 ppb        0.04049   8.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.4      0.9531 µg/L       0.22227      0.9531 ppb        0.22227  23.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        269.6      83.885 µg/L       17.5781     83.885 ppb        17.5781  20.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                19.6      1.0124 µg/L       0.39324      1.0124 ppb        0.39324  38.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.5     -9.2938 µg/L       7.89644     -9.2938 ppb        7.89644  84.96%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                32.5      8.1444 µg/L       1.15819      8.1444 ppb        1.15819  14.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.3     -1.3773 µg/L      11.71591     -1.3773 ppb       11.71591 850.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.7      2.5095 µg/L       4.67378      2.5095 ppb        4.67378 186.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -3.1355 µg/L       9.97340     -3.1355 ppb        9.97340 318.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      78.1      15.949 µg/L        1.2556      15.949 ppb         1.2556   7.87%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                89.1      6.9607 µg/L       0.60808      6.9607 ppb        0.60808   8.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.7      2.9021 µg/L       1.37064      2.9021 ppb        1.37064  47.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                49.3      0.4868 µg/L       0.18672      0.4868 ppb        0.18672  38.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               225.5      0.5162 µg/L       0.02745      0.5162 ppb        0.02745   5.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.7     -0.8655 µg/L       1.99089     -0.8655 ppb        1.99089 230.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 19.5      1.6560 µg/L       5.48912      1.6560 ppb        5.48912 331.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.5      0.3052 µg/L       0.14927      0.3052 ppb        0.14927  48.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                88.0      2.0593 µg/L       0.15666      2.0593 ppb        0.15666   7.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/12/2010 06:24:25
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502
Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021210.sif
Batch ID:
Results Data Set: 021210
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si
IEC File: 011510.iec
Method Description:
Method Last Saved: 2/12/2010 05:25:43
MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:
Autosampler Location: 113
Date Collected: 2/12/2010 06:24:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57930.1	57930.1	101	%			06:25:02
1	Al 396.153Radial†	-7.7	16.6	11.594	µg/L	11.594	ppb	06:25:02
1	Ca 317.933Radial†	225.2	35.7	31.017	µg/L	31.017	ppb	06:25:23
1	Fe 238.204 Radial†	6.8	-7.0	53.982	µg/L	53.982	ppb	06:25:23

1	K 766.490 Radial†	183.5	14.9	10.260 µg/L	10.260 ppb	06:25:02
1	Mg 279.077 IEC†	12.6	1.7	14.831 µg/L	14.831 ppb	06:25:23
1	Na 589.592 Radial†	580.6	60.3	18.751 µg/L	18.751 ppb	06:25:02
1	Sr 421.552†	79.4	53.1	0.5241 µg/L	0.5241 ppb	06:25:02
1	Sc 361.383	1980769.0	1980769.0	99.772 %		06:26:28
1	Y 371.029	1357978.9	1357978.9	99.530 %		06:26:28
1	Ag 328.068†	-405.9	154.3	0.8593 µg/L	0.8593 ppb	06:26:33
1	As 188.979†	-105.7	-107.8	-198.12 µg/L	-198.12 ppb	06:26:54
1	B 249.677†	-446.4	-741.7	2.5138 µg/L	2.5138 ppb	06:26:33
1	Ba 233.527†	426957.6	427961.4	10556 µg/L	10556 ppb	06:26:28
1	Be 313.107†	-9050.2	-5470.5	-3.4014 µg/L	-3.4014 ppb	06:26:33
1	Cd 226.502†	-114.5	31.5	0.8291 µg/L	0.8291 ppb	06:26:54
1	Co 228.616†	110133.5	110394.6	5134.4 µg/L	5134.4 ppb	06:26:33
1	Cr 267.716†	991205.2	993523.8	20675 µg/L	20675 ppb	06:26:28
1	Cu 324.752†	1774.0	-666.1	-4.4070 µg/L	-4.4070 ppb	06:26:33
1	Mn 257.610†	1578536.3	1582416.1	5145.3 µg/L	5145.3 ppb	06:26:28
1	Mo 202.031†	-5.4	-0.6	-0.0618 µg/L	-0.0618 ppb	06:26:54
1	Ni 231.604†	417.1	115.5	-0.1506 µg/L	-0.1506 ppb	06:26:54
1	P 214.914†	14.1	-12.5	-24.684 µg/L	-24.684 ppb	06:26:54
1	Pb 220.353†	111.6	24.9	6.2101 µg/L	6.2101 ppb	06:26:54
1	S 181.975 Axial†	12.9	-4.6	-18.943 µg/L	-18.943 ppb	06:26:54
1	Sb 206.836†	455.6	433.0	166.77 µg/L	166.77 ppb	06:26:54
1	Se 196.026†	20.6	2.3	3.0615 µg/L	3.0615 ppb	06:26:54
1	SiO2†	-237.6	-1529.0	-312.30 µg/L	-312.30 ppb	06:26:33
1	Si 251.611†	283.6	-10.8	-0.8470 µg/L	-0.8470 ppb	06:26:54
1	Sn 189.927†	-7.7	-8.0	-3.4723 µg/L	-3.4723 ppb	06:26:54
1	Ti 334.940†	2449.2	2359.5	5.4476 µg/L	5.4476 ppb	06:26:33
1	Tl 190.801†	-0.3	23.4	34.963 µg/L	34.963 ppb	06:26:54
1	U 409.014†	472.2	562.4	47.994 µg/L	47.994 ppb	06:26:33
1	V 292.402†	-4652.4	-4617.4	1.0070 µg/L	1.0070 ppb	06:26:33
1	Zn 213.857†	442346.8	442895.8	10441 µg/L	10441 ppb	06:26:28
2	Sc RADIAL	57975.5	57975.5	101 %		06:25:28
2	Al 396.153Radial†	-20.3	4.2	2.9116 µg/L	2.9116 ppb	06:25:28
2	Ca 317.933Radial†	217.6	28.1	24.413 µg/L	24.413 ppb	06:25:49
2	Fe 238.204 Radial†	8.4	-5.4	64.691 µg/L	64.691 ppb	06:25:49
2	K 766.490 Radial†	191.2	22.4	15.411 µg/L	15.411 ppb	06:25:28
2	Mg 279.077 IEC†	12.0	1.0	9.0086 µg/L	9.0086 ppb	06:25:49
2	Na 589.592 Radial†	572.0	51.3	15.972 µg/L	15.972 ppb	06:25:28
2	Sr 421.552†	45.8	19.8	0.1953 µg/L	0.1953 ppb	06:25:28
2	Sc 361.383	1993435.5	1993435.5	100.41 %		06:27:01
2	Y 371.029	1367498.0	1367498.0	100.23 %		06:27:01
2	Ag 328.068†	-322.3	240.1	1.5137 µg/L	1.5137 ppb	06:27:07
2	As 188.979†	-100.8	-102.2	-187.91 µg/L	-187.91 ppb	06:27:27
2	B 249.677†	-443.1	-735.5	2.8149 µg/L	2.8149 ppb	06:27:07
2	Ba 233.527†	430122.0	428393.8	10567 µg/L	10567 ppb	06:27:01
2	Be 313.107†	-8970.5	-5333.6	-3.3164 µg/L	-3.3164 ppb	06:27:07
2	Cd 226.502†	-119.2	27.4	0.7225 µg/L	0.7225 ppb	06:27:27
2	Co 228.616†	109350.4	108913.3	5065.5 µg/L	5065.5 ppb	06:27:07
2	Cr 267.716†	999164.3	995137.7	20709 µg/L	20709 ppb	06:27:01
2	Cu 324.752†	1733.3	-717.9	-4.7474 µg/L	-4.7474 ppb	06:27:07
2	Mn 257.610†	1587399.9	1581190.3	5141.3 µg/L	5141.3 ppb	06:27:01
2	Mo 202.031†	-7.0	-2.1	-0.2180 µg/L	-0.2180 ppb	06:27:27
2	Ni 231.604†	410.4	106.2	-0.5494 µg/L	-0.5494 ppb	06:27:27
2	P 214.914†	16.7	-10.0	-19.541 µg/L	-19.541 ppb	06:27:27
2	Pb 220.353†	96.0	8.7	2.1337 µg/L	2.1337 ppb	06:27:27
2	S 181.975 Axial†	10.4	-7.1	-29.506 µg/L	-29.506 ppb	06:27:27
2	Sb 206.836†	450.1	424.6	158.62 µg/L	158.62 ppb	06:27:27
2	Se 196.026†	10.8	-7.6	-10.976 µg/L	-10.976 ppb	06:27:27
2	SiO2†	-221.0	-1511.0	-308.62 µg/L	-308.62 ppb	06:27:07
2	Si 251.611†	300.8	4.5	0.3502 µg/L	0.3502 ppb	06:27:27
2	Sn 189.927†	-10.1	-10.3	-4.4720 µg/L	-4.4720 ppb	06:27:27
2	Ti 334.940†	2481.1	2375.7	5.4854 µg/L	5.4854 ppb	06:27:07
2	Tl 190.801†	3.1	26.8	39.595 µg/L	39.595 ppb	06:27:27
2	U 409.014†	410.0	497.4	42.446 µg/L	42.446 ppb	06:27:07
2	V 292.402†	-4645.2	-4580.6	1.4509 µg/L	1.4509 ppb	06:27:07
2	Zn 213.857†	445685.7	443403.9	10453 µg/L	10453 ppb	06:27:01
3	Sc RADIAL	57316.5	57316.5	100 %		06:25:54
3	Al 396.153Radial†	10.2	34.4	23.978 µg/L	23.978 ppb	06:25:54
3	Ca 317.933Radial†	223.4	36.4	31.584 µg/L	31.584 ppb	06:26:15
3	Fe 238.204 Radial†	4.9	-8.8	26.747 µg/L	26.747 ppb	06:26:15
3	K 766.490 Radial†	179.9	13.3	9.1588 µg/L	9.1588 ppb	06:25:54

3	Mg 279.077 IEC†	10.6	-0.3	-2.4590	µg/L	-2.4590 ppb	06:26:15
3	Na 589.592 Radial†	539.8	25.6	7.9757	µg/L	7.9757 ppb	06:25:54
3	Sr 421.552†	34.2	8.7	0.0862	µg/L	0.0862 ppb	06:25:54
3	Sc 361.383	2007652.8	2007652.8	101.13	%		06:27:34
3	Y 371.029	1376558.9	1376558.9	100.89	%		06:27:34
3	Ag 328.068†	-379.1	186.2	1.1429	µg/L	1.1429 ppb	06:27:40
3	As 188.979†	-83.1	-84.0	-154.34	µg/L	-154.34 ppb	06:28:01
3	B 249.677†	-338.3	-628.8	4.6891	µg/L	4.6891 ppb	06:27:40
3	Ba 233.527†	409206.3	404677.4	9981.6	µg/L	9981.6 ppb	06:27:34
3	Be 313.107†	-8316.4	-4623.4	-2.8748	µg/L	-2.8748 ppb	06:27:40
3	Cd 226.502†	-103.5	43.8	1.1500	µg/L	1.1500 ppb	06:28:01
3	Co 228.616†	98806.5	97715.5	4544.7	µg/L	4544.7 ppb	06:27:40
3	Cr 267.716†	929098.6	918805.2	19120	µg/L	19120 ppb	06:27:34
3	Cu 324.752†	1896.9	-568.4	-3.7634	µg/L	-3.7634 ppb	06:27:40
3	Mn 257.610†	1499493.8	1483067.3	4822.2	µg/L	4822.2 ppb	06:27:34
3	Mo 202.031†	-1.5	3.3	0.3337	µg/L	0.3337 ppb	06:28:01
3	Ni 231.604†	395.3	88.4	-0.8493	µg/L	-0.8493 ppb	06:28:01
3	P 214.914†	21.9	-5.0	-9.5569	µg/L	-9.5569 ppb	06:28:01
3	Pb 220.353†	108.4	20.3	5.0518	µg/L	5.0518 ppb	06:28:01
3	S 181.975 Axial†	16.9	-0.7	-2.9144	µg/L	-2.9144 ppb	06:28:01
3	Sb 206.836†	367.7	339.9	98.225	µg/L	98.225 ppb	06:28:01
3	Se 196.026†	10.5	-7.9	-11.612	µg/L	-11.612 ppb	06:28:01
3	SiO2†	-58.8	-1349.1	-275.55	µg/L	-275.55 ppb	06:27:40
3	Si 251.611†	314.3	15.8	1.2325	µg/L	1.2325 ppb	06:28:01
3	Sn 189.927†	-4.5	-4.7	-2.0341	µg/L	-2.0341 ppb	06:28:01
3	Ti 334.940†	2157.3	2037.9	4.7066	µg/L	4.7066 ppb	06:27:40
3	Tl 190.801†	0.5	24.2	36.648	µg/L	36.648 ppb	06:28:01
3	U 409.014†	392.5	477.3	40.728	µg/L	40.728 ppb	06:27:40
3	V 292.402†	-4079.2	-3988.1	3.7792	µg/L	3.7792 ppb	06:27:40
3	Zn 213.857†	420775.2	415627.4	9798.2	µg/L	9798.2 ppb	06:27:34

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1993952.4	100.44	%	0.677				0.67%
Sc RADIAL	57740.7	101	%	0.6				0.64%
Y 371.029	1367345.3	100.22	%	0.681				0.68%
Ag 328.068†	193.5	1.1720	µg/L	0.32814	1.1720	ppb	0.32814	28.00%
Al 396.153Radial†	18.4	12.828	µg/L	10.5871	12.828	ppb	10.5871	82.53%
As 188.979†	-98.0	-180.12	µg/L	22.904	-180.12	ppb	22.904	12.72%
B 249.677†	-702.0	3.3393	µg/L	1.17865	3.3393	ppb	1.17865	35.30%
Ba 233.527†	420344.2	10368	µg/L	334.7	10368	ppb	334.7	3.23%
Be 313.107†	-5142.5	-3.1975	µg/L	0.28273	-3.1975	ppb	0.28273	8.84%
Ca 317.933Radial†	33.4	29.005	µg/L	3.9863	29.005	ppb	3.9863	13.74%
Cd 226.502†	34.2	0.9005	µg/L	0.22251	0.9005	ppb	0.22251	24.71%
Co 228.616†	105674.4	4914.8	µg/L	322.42	4914.8	ppb	322.42	6.56%
Cr 267.716†	969155.6	20168	µg/L	907.6	20168	ppb	907.6	4.50%
Cu 324.752†	-650.8	-4.3059	µg/L	0.49975	-4.3059	ppb	0.49975	11.61%
Fe 238.204 Radial†	-7.1	48.473	µg/L	19.5628	48.473	ppb	19.5628	40.36%
K 766.490 Radial†	16.9	11.610	µg/L	3.3373	11.610	ppb	3.3373	28.75%
Mg 279.077 IEC†	0.8	7.1269	µg/L	8.79738	7.1269	ppb	8.79738	123.44%
Mn 257.610†	1548891.2	5036.3	µg/L	185.37	5036.3	ppb	185.37	3.68%
Mo 202.031†	0.2	0.0180	µg/L	0.28441	0.0180	ppb	0.28441	>999.9%
Na 589.592 Radial†	45.7	14.233	µg/L	5.5945	14.233	ppb	5.5945	39.31%
Ni 231.604†	103.4	-0.5164	µg/L	0.35055	-0.5164	ppb	0.35055	67.88%
P 214.914†	-9.1	-17.928	µg/L	7.6917	-17.928	ppb	7.6917	42.90%
Pb 220.353†	18.0	4.4652	µg/L	2.10057	4.4652	ppb	2.10057	47.04%
S 181.975 Axial†	-4.1	-17.121	µg/L	13.3891	-17.121	ppb	13.3891	78.20%
Sb 206.836†	399.2	141.21	µg/L	37.445	141.21	ppb	37.445	26.52%
Se 196.026†	-4.4	-6.5088	µg/L	8.29430	-6.5088	ppb	8.29430	127.43%
SiO2†	-1463.1	-298.83	µg/L	20.238	-298.83	ppb	20.238	6.77%
Si 251.611†	3.1	0.2452	µg/L	1.04370	0.2452	ppb	1.04370	425.58%
Sn 189.927†	-7.7	-3.3261	µg/L	1.22554	-3.3261	ppb	1.22554	36.85%
Sr 421.552†	27.2	0.2685	µg/L	0.22792	0.2685	ppb	0.22792	84.88%
Ti 334.940†	2257.7	5.2132	µg/L	0.43918	5.2132	ppb	0.43918	8.42%
Tl 190.801†	24.8	37.069	µg/L	2.3443	37.069	ppb	2.3443	6.32%
U 409.014†	512.4	43.723	µg/L	3.7972	43.723	ppb	3.7972	8.68%
V 292.402†	-4395.4	2.0790	µg/L	1.48904	2.0790	ppb	1.48904	71.62%
Zn 213.857†	433975.7	10231	µg/L	374.6	10231	ppb	374.6	3.66%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 06:28:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57356.8	57356.8	100	%			06:28:46
1	Al 396.153Radial†	7041.6	7055.8	4904.4	µg/L	4904.4	ppb	06:28:46
1	Ca 317.933Radial†	5830.3	5635.1	4891.6	µg/L	4891.6	ppb	06:29:06
1	Fe 238.204 Radial†	650.1	635.4	5030.6	µg/L	5030.6	ppb	06:29:06
1	K 766.490 Radial†	7476.0	7298.7	5023.8	µg/L	5023.8	ppb	06:28:46
1	Mg 279.077 IEC†	583.7	572.1	5069.2	µg/L	5069.2	ppb	06:29:06
1	Na 589.592 Radial†	31897.9	31338.5	9751.4	µg/L	9751.4	ppb	06:28:46
1	Sr 421.552†	50327.2	50229.7	495.67	µg/L	495.67	ppb	06:28:46
1	Sc 361.383	1995159.3	1995159.3	100.50	%			06:30:09
1	Y 371.029	1365233.4	1365233.4	100.06	%			06:30:09
1	Ag 328.068†	64715.4	64956.9	496.62	µg/L	496.62	ppb	06:30:15
1	As 188.979†	290.4	287.1	526.75	µg/L	526.75	ppb	06:30:35
1	B 249.677†	12439.5	12083.8	496.33	µg/L	496.33	ppb	06:30:15
1	Ba 233.527†	20547.5	20472.0	505.86	µg/L	505.86	ppb	06:30:15
1	Be 313.107†	806998.5	806613.1	501.04	µg/L	501.04	ppb	06:30:09
1	Cd 226.502†	19511.7	19561.5	507.96	µg/L	507.96	ppb	06:30:15
1	Co 228.616†	10990.0	10944.6	508.45	µg/L	508.45	ppb	06:30:15
1	Cr 267.716†	24533.2	24460.6	509.34	µg/L	509.34	ppb	06:30:15
1	Cu 324.752†	78614.7	75782.2	501.20	µg/L	501.20	ppb	06:30:15
1	Mn 257.610†	156211.1	155704.3	506.74	µg/L	506.74	ppb	06:30:09
1	Mo 202.031†	5127.2	5106.8	515.61	µg/L	515.61	ppb	06:30:35
1	Ni 231.604†	10224.3	9871.3	509.13	µg/L	509.13	ppb	06:30:15
1	P 214.914†	1316.9	1283.8	2531.2	µg/L	2531.2	ppb	06:30:35
1	Pb 220.353†	2158.2	2060.6	516.46	µg/L	516.46	ppb	06:30:35
1	S 181.975 Axial†	262.2	243.5	1012.6	µg/L	1012.6	ppb	06:30:35
1	Sb 206.836†	578.3	551.7	513.09	µg/L	513.09	ppb	06:30:35
1	Se 196.026†	374.6	354.4	516.86	µg/L	516.86	ppb	06:30:35
1	SiO2†	27567.4	26140.3	5339.1	µg/L	5339.1	ppb	06:30:15
1	Si 251.611†	32431.5	31976.3	2499.0	µg/L	2499.0	ppb	06:30:15
1	Sn 189.927†	1203.9	1197.7	518.39	µg/L	518.39	ppb	06:30:35
1	Ti 334.940†	216363.4	215199.5	496.60	µg/L	496.60	ppb	06:30:09
1	Tl 190.801†	357.6	379.5	507.10	µg/L	507.10	ppb	06:30:35
1	U 409.014†	5875.1	5935.2	505.41	µg/L	505.41	ppb	06:30:15
1	V 292.402†	49866.3	49665.7	508.28	µg/L	508.28	ppb	06:30:15
1	Zn 213.857†	22230.8	21657.0	506.97	µg/L	506.97	ppb	06:30:15
2	Sc RADIAL	57159.1	57159.1	99.8	%			06:29:11
2	Al 396.153Radial†	7106.7	7145.3	4966.9	µg/L	4966.9	ppb	06:29:11
2	Ca 317.933Radial†	5880.8	5705.8	4953.0	µg/L	4953.0	ppb	06:29:32
2	Fe 238.204 Radial†	653.5	641.1	5075.5	µg/L	5075.5	ppb	06:29:32
2	K 766.490 Radial†	7497.5	7346.1	5056.5	µg/L	5056.5	ppb	06:29:11
2	Mg 279.077 IEC†	591.8	582.2	5158.7	µg/L	5158.7	ppb	06:29:32
2	Na 589.592 Radial†	32029.4	31580.4	9826.7	µg/L	9826.7	ppb	06:29:11
2	Sr 421.552†	50615.7	50692.6	500.24	µg/L	500.24	ppb	06:29:11
2	Sc 361.383	1990334.0	1990334.0	100.25	%			06:30:43
2	Y 371.029	1362565.4	1362565.4	99.866	%			06:30:43
2	Ag 328.068†	64411.7	64810.0	495.49	µg/L	495.49	ppb	06:30:48
2	As 188.979†	279.5	276.9	508.07	µg/L	508.07	ppb	06:31:09
2	B 249.677†	12384.8	12059.3	495.30	µg/L	495.30	ppb	06:30:48
2	Ba 233.527†	20353.0	20327.6	502.30	µg/L	502.30	ppb	06:30:48
2	Be 313.107†	799020.5	800602.1	497.30	µg/L	497.30	ppb	06:30:43
2	Cd 226.502†	19319.2	19416.6	504.19	µg/L	504.19	ppb	06:30:48
2	Co 228.616†	10911.4	10892.7	506.04	µg/L	506.04	ppb	06:30:48
2	Cr 267.716†	24387.2	24374.2	507.54	µg/L	507.54	ppb	06:30:48
2	Cu 324.752†	78198.7	75557.0	499.72	µg/L	499.72	ppb	06:30:48
2	Mn 257.610†	154582.8	154456.9	502.69	µg/L	502.69	ppb	06:30:43
2	Mo 202.031†	5033.5	5025.7	507.43	µg/L	507.43	ppb	06:31:09
2	Ni 231.604†	10144.7	9816.6	506.31	µg/L	506.31	ppb	06:30:48
2	P 214.914†	1287.1	1257.2	2477.9	µg/L	2477.9	ppb	06:31:09
2	Pb 220.353†	2113.4	2021.2	506.56	µg/L	506.56	ppb	06:31:09

2	S 181.975 Axial†	259.6	241.5	1004.5 µg/L	1004.5 ppb	06:31:09
2	Sb 206.836†	564.5	539.4	501.53 µg/L	501.53 ppb	06:31:09
2	Se 196.026†	368.1	348.9	508.91 µg/L	508.91 ppb	06:31:09
2	SiO2†	27483.1	26122.7	5335.5 µg/L	5335.5 ppb	06:30:48
2	Si 251.611†	32329.7	31953.0	2497.1 µg/L	2497.1 ppb	06:30:48
2	Sn 189.927†	1188.5	1185.2	512.99 µg/L	512.99 ppb	06:31:09
2	Ti 334.940†	214019.2	213383.1	492.40 µg/L	492.40 ppb	06:30:43
2	Tl 190.801†	356.2	379.1	506.44 µg/L	506.44 ppb	06:31:09
2	U 409.014†	5821.6	5896.0	502.06 µg/L	502.06 ppb	06:30:48
2	V 292.402†	49482.4	49403.0	505.56 µg/L	505.56 ppb	06:30:48
2	Zn 213.857†	22020.4	21500.8	503.30 µg/L	503.30 ppb	06:30:48
3	Sc RADIAL	57501.3	57501.3	100 %		06:29:37
3	Al 396.153Radial†	7095.0	7091.3	4930.7 µg/L	4930.7 ppb	06:29:37
3	Ca 317.933Radial†	5849.1	5639.1	4895.1 µg/L	4895.1 ppb	06:29:58
3	Fe 238.204 Radial†	651.2	635.0	5026.2 µg/L	5026.2 ppb	06:29:58
3	K 766.490 Radial†	7471.7	7275.7	5008.0 µg/L	5008.0 ppb	06:29:37
3	Mg 279.077 IEC†	588.5	575.4	5097.3 µg/L	5097.3 ppb	06:29:58
3	Na 589.592 Radial†	32047.2	31407.1	9772.8 µg/L	9772.8 ppb	06:29:37
3	Sr 421.552†	50638.4	50413.4	497.48 µg/L	497.48 ppb	06:29:37
3	Sc 361.383	1977457.7	1977457.7	99.605 %		06:31:16
3	Y 371.029	1354865.0	1354865.0	99.301 %		06:31:16
3	Ag 328.068†	61531.6	62336.8	476.49 µg/L	476.49 ppb	06:31:22
3	As 188.979†	246.6	245.7	450.88 µg/L	450.88 ppb	06:31:42
3	B 249.677†	11794.5	11547.1	474.14 µg/L	474.14 ppb	06:31:22
3	Ba 233.527†	19057.9	19159.6	473.42 µg/L	473.42 ppb	06:31:22
3	Be 313.107†	763020.6	769649.0	478.08 µg/L	478.08 ppb	06:31:16
3	Cd 226.502†	18002.2	18219.9	473.08 µg/L	473.08 ppb	06:31:22
3	Co 228.616†	10103.6	10152.5	471.60 µg/L	471.60 ppb	06:31:22
3	Cr 267.716†	22107.0	22243.3	463.18 µg/L	463.18 ppb	06:31:22
3	Cu 324.752†	72899.2	70744.4	467.93 µg/L	467.93 ppb	06:31:22
3	Mn 257.610†	148309.2	149162.4	485.47 µg/L	485.47 ppb	06:31:16
3	Mo 202.031†	4331.1	4353.1	439.55 µg/L	439.55 ppb	06:31:42
3	Ni 231.604†	9407.6	9142.4	471.54 µg/L	471.54 ppb	06:31:22
3	P 214.914†	1126.0	1103.8	2171.9 µg/L	2171.9 ppb	06:31:42
3	Pb 220.353†	1902.1	1822.8	456.75 µg/L	456.75 ppb	06:31:42
3	S 181.975 Axial†	226.9	210.3	874.77 µg/L	874.77 ppb	06:31:42
3	Sb 206.836†	500.5	478.8	444.83 µg/L	444.83 ppb	06:31:42
3	Se 196.026†	333.9	316.9	462.93 µg/L	462.93 ppb	06:31:42
3	SiO2†	25924.2	24736.1	5052.3 µg/L	5052.3 ppb	06:31:22
3	Si 251.611†	30334.3	30159.6	2357.0 µg/L	2357.0 ppb	06:31:22
3	Sn 189.927†	1000.5	1004.1	434.64 µg/L	434.64 ppb	06:31:42
3	Ti 334.940†	203783.5	204496.9	471.89 µg/L	471.89 ppb	06:31:16
3	Tl 190.801†	326.9	352.0	470.47 µg/L	470.47 ppb	06:31:42
3	U 409.014†	5398.4	5509.0	469.04 µg/L	469.04 ppb	06:31:22
3	V 292.402†	45740.5	45967.7	470.17 µg/L	470.17 ppb	06:31:22
3	Zn 213.857†	20527.5	20144.9	471.54 µg/L	471.54 ppb	06:31:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1987650.4	100.12	%	0.461				0.46%
Sc RADIAL	57339.1	100	%	0.3				0.30%
Y 371.029	1360888.0	99.743	%	0.3946				0.40%
Ag 328.068†	64034.6	489.53	µg/L	11.311	489.53	ppb	11.311	2.31%
QC value within limits for Ag 328.068 Recovery = 97.91%								
Al 396.153Radial†	7097.5	4934.0	µg/L	31.39	4934.0	ppb	31.39	0.64%
QC value within limits for Al 396.153Radial Recovery = 98.68%								
As 188.979†	269.9	495.23	µg/L	39.530	495.23	ppb	39.530	7.98%
QC value within limits for As 188.979 Recovery = 99.05%								
B 249.677†	11896.7	488.59	µg/L	12.527	488.59	ppb	12.527	2.56%
QC value within limits for B 249.677 Recovery = 97.72%								
Ba 233.527†	19986.4	493.86	µg/L	17.789	493.86	ppb	17.789	3.60%
QC value within limits for Ba 233.527 Recovery = 98.77%								
Be 313.107†	792288.1	492.14	µg/L	12.320	492.14	ppb	12.320	2.50%
QC value within limits for Be 313.107 Recovery = 98.43%								
Ca 317.933Radial†	5660.0	4913.2	µg/L	34.48	4913.2	ppb	34.48	0.70%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	19066.0	495.08	µg/L	19.142	495.08	ppb	19.142	3.87%
QC value within limits for Cd 226.502 Recovery = 99.02%								
Co 228.616†	10663.3	495.37	µg/L	20.617	495.37	ppb	20.617	4.16%

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   QC value within limits for Co 228.616  Recovery = 99.07%
Cr 267.716†            23692.7      493.35 µg/L        26.150      493.35 ppb        26.150   5.30%
   QC value within limits for Cr 267.716  Recovery = 98.67%
Cu 324.752†            74027.9      489.62 µg/L        18.797      489.62 ppb        18.797   3.84%
   QC value within limits for Cu 324.752  Recovery = 97.92%
Fe 238.204 Radial†       637.2      5044.1 µg/L         27.27      5044.1 ppb         27.27   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.88%
K 766.490 Radial†       7306.9      5029.4 µg/L         24.71      5029.4 ppb         24.71   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 100.59%
Mg 279.077 IEC†          576.5      5108.4 µg/L         45.77      5108.4 ppb         45.77   0.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.17%
Mn 257.610†           153107.8      498.30 µg/L        11.295      498.30 ppb        11.295   2.27%
   QC value within limits for Mn 257.610  Recovery = 99.66%
Mo 202.031†             4828.5      487.53 µg/L        41.754      487.53 ppb        41.754   8.56%
   QC value within limits for Mo 202.031  Recovery = 97.51%
Na 589.592 Radial†     31442.0      9783.6 µg/L         38.79      9783.6 ppb         38.79   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 97.84%
Ni 231.604†             9610.1      495.66 µg/L        20.937      495.66 ppb        20.937   4.22%
   QC value within limits for Ni 231.604  Recovery = 99.13%
P 214.914†              1215.0      2393.7 µg/L        193.89      2393.7 ppb        193.89   8.10%
   QC value within limits for P 214.914  Recovery = 95.75%
Pb 220.353†             1968.2      493.26 µg/L        32.000      493.26 ppb        32.000   6.49%
   QC value within limits for Pb 220.353  Recovery = 98.65%
S 181.975 Axial†         231.8      963.94 µg/L        77.336      963.94 ppb        77.336   8.02%
   QC value within limits for S 181.975 Axial  Recovery = 96.39%
Sb 206.836†              523.3      486.48 µg/L        36.535      486.48 ppb        36.535   7.51%
   QC value within limits for Sb 206.836  Recovery = 97.30%
Se 196.026†              340.1      496.23 µg/L        29.116      496.23 ppb        29.116   5.87%
   QC value within limits for Se 196.026  Recovery = 99.25%
SiO2†                  25666.4      5242.3 µg/L        164.56      5242.3 ppb        164.56   3.14%
   QC value within limits for SiO2  Recovery = 98.03%
Si 251.611†            31362.9      2451.0 µg/L         81.45      2451.0 ppb         81.45   3.32%
   QC value within limits for Si 251.611  Recovery = 98.04%
Sn 189.927†             1129.0      488.67 µg/L        46.874      488.67 ppb        46.874   9.59%
   QC value within limits for Sn 189.927  Recovery = 97.73%
Sr 421.552†            50445.2      497.80 µg/L         2.300      497.80 ppb         2.300   0.46%
   QC value within limits for Sr 421.552  Recovery = 99.56%
Ti 334.940†           211026.5      486.96 µg/L        13.225      486.96 ppb        13.225   2.72%
   QC value within limits for Ti 334.940  Recovery = 97.39%
Tl 190.801†              370.2      494.67 µg/L        20.957      494.67 ppb        20.957   4.24%
   QC value within limits for Tl 190.801  Recovery = 98.93%
U 409.014†              5780.1      492.17 µg/L        20.098      492.17 ppb        20.098   4.08%
   QC value within limits for U 409.014  Recovery = 98.43%
V 292.402†             48345.5      494.67 µg/L        21.261      494.67 ppb        21.261   4.30%
   QC value within limits for V 292.402  Recovery = 98.93%
Zn 213.857†            21100.9      493.94 µg/L        19.481      493.94 ppb        19.481   3.94%
   QC value within limits for Zn 213.857  Recovery = 98.79%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 06:31:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56611.2	56611.2	98.8	%			06:32:24
1	Al 396.153Radial†	12.1	36.5	25.407	µg/L	25.407	ppb	06:32:24
1	Ca 317.933Radial†	194.8	10.2	8.8812	µg/L	8.8812	ppb	06:32:44
1	Fe 238.204 Radial†	16.6	3.1	24.646	µg/L	24.646	ppb	06:32:44
1	K 766.490 Radial†	230.1	66.3	45.648	µg/L	45.648	ppb	06:32:24
1	Mg 279.077 IEC†	10.8	0.1	0.5186	µg/L	0.5186	ppb	06:32:44
1	Na 589.592 Radial†	592.3	85.5	26.592	µg/L	26.592	ppb	06:32:24
1	Sr 421.552†	48.6	23.7	0.2341	µg/L	0.2341	ppb	06:32:24
1	Sc 361.383	1988683.7	1988683.7	100.17	%			06:33:46
1	Y 371.029	1365870.7	1365870.7	100.11	%			06:33:46
1	Ag 328.068†	-449.4	112.4	0.8538	µg/L	0.8538	ppb	06:33:52
1	As 188.979†	-1.9	-3.7	-6.8730	µg/L	-6.8730	ppb	06:34:12
1	B 249.677†	332.0	37.2	1.5213	µg/L	1.5213	ppb	06:34:12
1	Ba 233.527†	4.5	30.5	0.7531	µg/L	0.7531	ppb	06:34:12
1	Be 313.107†	-3439.7	166.5	0.1034	µg/L	0.1034	ppb	06:33:52
1	Cd 226.502†	-155.6	-9.2	-0.2416	µg/L	-0.2416	ppb	06:34:12
1	Co 228.616†	2.9	11.8	0.5476	µg/L	0.5476	ppb	06:34:12
1	Cr 267.716†	2.2	50.8	1.0569	µg/L	1.0569	ppb	06:33:52
1	Cu 324.752†	2600.1	151.5	1.0040	µg/L	1.0040	ppb	06:33:52
1	Mn 257.610†	-139.0	125.9	0.4127	µg/L	0.4127	ppb	06:34:12
1	Mo 202.031†	4.1	8.9	0.9023	µg/L	0.9023	ppb	06:34:12
1	Ni 231.604†	305.6	2.6	0.1317	µg/L	0.1317	ppb	06:34:12
1	P 214.914†	20.1	-6.6	-13.289	µg/L	-13.289	ppb	06:34:12
1	Pb 220.353†	90.7	3.6	0.9124	µg/L	0.9124	ppb	06:34:12
1	S 181.975 Axial†	17.1	-0.3	-1.4205	µg/L	-1.4205	ppb	06:34:12
1	Sb 206.836†	25.1	1.4	1.2967	µg/L	1.2967	ppb	06:34:12
1	Se 196.026†	13.1	-5.3	-7.5716	µg/L	-7.5716	ppb	06:34:12
1	SiO2†	1322.0	28.8	5.8791	µg/L	5.8791	ppb	06:33:52
1	Si 251.611†	333.0	37.3	2.9167	µg/L	2.9167	ppb	06:34:12
1	Sn 189.927†	3.4	3.1	1.3382	µg/L	1.3382	ppb	06:34:12
1	Ti 334.940†	193.9	98.2	0.2270	µg/L	0.2270	ppb	06:33:52
1	Tl 190.801†	-22.0	1.7	2.3166	µg/L	2.3166	ppb	06:34:12
1	U 409.014†	-71.7	17.6	1.4957	µg/L	1.4957	ppb	06:33:52
1	V 292.402†	-62.8	-17.0	-0.1577	µg/L	-0.1577	ppb	06:33:52
1	Zn 213.857†	565.3	100.3	2.3615	µg/L	2.3615	ppb	06:34:12
2	Sc RADIAL	57447.9	57447.9	100	%			06:32:50
2	Al 396.153Radial†	-14.6	9.6	6.6898	µg/L	6.6898	ppb	06:32:50
2	Ca 317.933Radial†	200.5	13.1	11.336	µg/L	11.336	ppb	06:33:10
2	Fe 238.204 Radial†	15.5	1.8	13.928	µg/L	13.928	ppb	06:33:10
2	K 766.490 Radial†	231.0	63.8	43.885	µg/L	43.885	ppb	06:32:50
2	Mg 279.077 IEC†	10.8	-0.0	-0.2955	µg/L	-0.2955	ppb	06:33:10
2	Na 589.592 Radial†	548.4	32.9	10.252	µg/L	10.252	ppb	06:32:50
2	Sr 421.552†	47.0	21.5	0.2120	µg/L	0.2120	ppb	06:32:50
2	Sc 361.383	1996321.4	1996321.4	100.55	%			06:34:18
2	Y 371.029	1371694.8	1371694.8	100.53	%			06:34:18
2	Ag 328.068†	-463.7	99.9	0.7594	µg/L	0.7594	ppb	06:34:24
2	As 188.979†	2.9	1.1	1.9486	µg/L	1.9486	ppb	06:34:44
2	B 249.677†	332.0	35.9	1.4756	µg/L	1.4756	ppb	06:34:44
2	Ba 233.527†	55.1	80.9	1.9948	µg/L	1.9948	ppb	06:34:44
2	Be 313.107†	-3330.2	288.5	0.1792	µg/L	0.1792	ppb	06:34:24
2	Cd 226.502†	-133.1	13.8	0.3577	µg/L	0.3577	ppb	06:34:44
2	Co 228.616†	20.2	29.0	1.3473	µg/L	1.3473	ppb	06:34:44
2	Cr 267.716†	42.0	90.4	1.8806	µg/L	1.8806	ppb	06:34:24
2	Cu 324.752†	2637.7	178.9	1.1838	µg/L	1.1838	ppb	06:34:24
2	Mn 257.610†	76.7	341.0	1.1105	µg/L	1.1105	ppb	06:34:44
2	Mo 202.031†	0.9	5.8	0.5840	µg/L	0.5840	ppb	06:34:44
2	Ni 231.604†	316.4	12.1	0.6258	µg/L	0.6258	ppb	06:34:44
2	P 214.914†	35.9	9.1	18.139	µg/L	18.139	ppb	06:34:44
2	Pb 220.353†	94.4	6.9	1.7347	µg/L	1.7347	ppb	06:34:44

2	S 181.975 Axial†	13.2	-4.3	-17.978 µg/L	-17.978 ppb	06:34:44
2	Sb 206.836†	20.5	-3.3	-3.0259 µg/L	-3.0259 ppb	06:34:44
2	Se 196.026†	13.9	-4.5	-6.4707 µg/L	-6.4707 ppb	06:34:44
2	SiO2†	1320.1	21.8	4.4621 µg/L	4.4621 ppb	06:34:24
2	Si 251.611†	341.3	44.4	3.4671 µg/L	3.4671 ppb	06:34:44
2	Sn 189.927†	2.9	2.6	1.1331 µg/L	1.1331 ppb	06:34:44
2	Ti 334.940†	207.5	111.0	0.2566 µg/L	0.2566 ppb	06:34:24
2	Tl 190.801†	-26.5	-2.6	-3.4723 µg/L	-3.4723 ppb	06:34:44
2	U 409.014†	-89.0	0.6	0.0457 µg/L	0.0457 ppb	06:34:24
2	V 292.402†	-39.8	6.1	0.0725 µg/L	0.0725 ppb	06:34:24
2	Zn 213.857†	618.0	150.6	3.5445 µg/L	3.5445 ppb	06:34:44
3	Sc RADIAL	57276.6	57276.6	100 %		06:33:16
3	Al 396.153Radial†	15.2	39.4	27.448 µg/L	27.448 ppb	06:33:16
3	Ca 317.933Radial†	197.5	10.6	9.2005 µg/L	9.2005 ppb	06:33:36
3	Fe 238.204 Radial†	16.6	2.9	22.616 µg/L	22.616 ppb	06:33:36
3	K 766.490 Radial†	245.7	79.1	54.477 µg/L	54.477 ppb	06:33:16
3	Mg 279.077 IEC†	17.5	6.6	58.659 µg/L	58.659 ppb	06:33:36
3	Na 589.592 Radial†	574.8	61.0	18.992 µg/L	18.992 ppb	06:33:16
3	Sr 421.552†	62.6	37.2	0.3668 µg/L	0.3668 ppb	06:33:16
3	Sc 361.383	2009280.7	2009280.7	101.21 %		06:34:50
3	Y 371.029	1380056.2	1380056.2	101.15 %		06:34:50
3	Ag 328.068†	-487.3	79.6	0.6037 µg/L	0.6037 ppb	06:34:56
3	As 188.979†	-2.2	-4.0	-7.3741 µg/L	-7.3741 ppb	06:35:16
3	B 249.677†	334.0	35.8	1.4669 µg/L	1.4669 ppb	06:35:16
3	Ba 233.527†	17.7	43.6	1.0741 µg/L	1.0741 ppb	06:35:16
3	Be 313.107†	-3350.9	289.4	0.1798 µg/L	0.1798 ppb	06:34:56
3	Cd 226.502†	-137.0	10.9	0.2797 µg/L	0.2797 ppb	06:35:16
3	Co 228.616†	16.1	24.8	1.1545 µg/L	1.1545 ppb	06:35:16
3	Cr 267.716†	21.5	69.8	1.4527 µg/L	1.4527 ppb	06:34:56
3	Cu 324.752†	2642.4	166.7	1.1038 µg/L	1.1038 ppb	06:34:56
3	Mn 257.610†	-126.3	139.9	0.4555 µg/L	0.4555 ppb	06:35:16
3	Mo 202.031†	-2.2	2.7	0.2753 µg/L	0.2753 ppb	06:35:16
3	Ni 231.604†	315.0	8.7	0.4501 µg/L	0.4501 ppb	06:35:16
3	P 214.914†	28.5	1.6	3.0805 µg/L	3.0805 ppb	06:35:16
3	Pb 220.353†	95.8	7.8	1.9438 µg/L	1.9438 ppb	06:35:16
3	S 181.975 Axial†	16.7	-0.9	-3.7967 µg/L	-3.7967 ppb	06:35:16
3	Sb 206.836†	22.4	-1.5	-1.4262 µg/L	-1.4262 ppb	06:35:16
3	Se 196.026†	14.4	-4.1	-5.9118 µg/L	-5.9118 ppb	06:35:16
3	SiO2†	1280.5	-25.7	-5.2429 µg/L	-5.2429 ppb	06:34:56
3	Si 251.611†	328.9	29.9	2.3398 µg/L	2.3398 ppb	06:35:16
3	Sn 189.927†	2.2	1.8	0.7996 µg/L	0.7996 ppb	06:35:16
3	Ti 334.940†	164.2	66.9	0.1499 µg/L	0.1499 ppb	06:34:56
3	Tl 190.801†	-21.7	2.3	3.0917 µg/L	3.0917 ppb	06:35:16
3	U 409.014†	-54.2	35.6	3.0312 µg/L	3.0312 ppb	06:34:56
3	V 292.402†	-69.1	-22.6	-0.2169 µg/L	-0.2169 ppb	06:34:56
3	Zn 213.857†	562.6	91.8	2.1564 µg/L	2.1564 ppb	06:35:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1998095.2	100.64	%	0.524				0.52%
Sc RADIAL	57111.9	99.7	%	0.77				0.77%
Y 371.029	1372540.6	100.60	%	0.523				0.52%
Ag 328.068†	97.3	0.7390	µg/L	0.12629	0.7390	ppb	0.12629	17.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	28.5	19.848	µg/L	11.4411	19.848	ppb	11.4411	57.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.2	-4.0995	µg/L	5.24377	-4.0995	ppb	5.24377	127.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	36.3	1.4879	µg/L	0.02919	1.4879	ppb	0.02919	1.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	51.7	1.2740	µg/L	0.64455	1.2740	ppb	0.64455	50.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	248.2	0.1541	µg/L	0.04394	0.1541	ppb	0.04394	28.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.3	9.8059	µg/L	1.33473	9.8059	ppb	1.33473	13.61%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.2	0.1320	µg/L	0.32583	0.1320	ppb	0.32583	246.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	21.9	1.0164	µg/L	0.41735	1.0164	ppb	0.41735	41.06%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                70.3      1.4634 µg/L       0.41196      1.4634 ppb        0.41196  28.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               165.7      1.0972 µg/L       0.09007      1.0972 ppb        0.09007   8.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6      20.397 µg/L        5.6933      20.397 ppb         5.6933  27.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          69.7      48.003 µg/L        5.6754      48.003 ppb         5.6754  11.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.2      19.627 µg/L       33.8046      19.627 ppb        33.8046 172.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               202.3      0.6596 µg/L       0.39112      0.6596 ppb        0.39112  59.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.8      0.5872 µg/L       0.31351      0.5872 ppb        0.31351  53.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         59.8      18.612 µg/L        8.1765      18.612 ppb         8.1765  43.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.8      0.4025 µg/L       0.25048      0.4025 ppb        0.25048  62.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.4      2.6434 µg/L      15.71844      2.6434 ppb       15.71844 594.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 6.1      1.5303 µg/L       0.54527      1.5303 ppb        0.54527  35.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.9     -7.7316 µg/L       8.95246     -7.7316 ppb        8.95246 115.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.1     -1.0518 µg/L       2.18546     -1.0518 ppb        2.18546 207.79%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.7     -6.6514 µg/L       0.84450     -6.6514 ppb        0.84450  12.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       8.3      1.6994 µg/L       6.05385      1.6994 ppb        6.05385 356.23%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                37.2      2.9079 µg/L       0.56367      2.9079 ppb        0.56367  19.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.5      1.0903 µg/L       0.27181      1.0903 ppb        0.27181  24.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                27.5      0.2710 µg/L       0.08372      0.2710 ppb        0.08372  30.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                92.0      0.2112 µg/L       0.05509      0.2112 ppb        0.05509  26.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.5      0.6454 µg/L       3.58695      0.6454 ppb        3.58695 555.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 17.9      1.5242 µg/L       1.49298      1.5242 ppb        1.49298  97.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -11.1     -0.1007 µg/L       0.15287     -0.1007 ppb        0.15287 151.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               114.2      2.6875 µg/L       0.74927      2.6875 ppb        0.74927  27.88%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 07:10:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56596.2	56596.2	98.8	%			07:11:27
1	Al 396.153Radial†	7160.3	7270.3	5053.9	µg/L	5053.9	ppb	07:11:27
1	Ca 317.933Radial†	5813.8	5696.6	4945.1	µg/L	4945.1	ppb	07:11:47
1	Fe 238.204 Radial†	653.0	647.1	5123.1	µg/L	5123.1	ppb	07:11:47
1	K 766.490 Radial†	7517.2	7440.8	5121.6	µg/L	5121.6	ppb	07:11:27
1	Mg 279.077 IEC†	590.6	586.8	5199.8	µg/L	5199.8	ppb	07:11:47
1	Na 589.592 Radial†	32213.5	32085.9	9984.0	µg/L	9984.0	ppb	07:11:27
1	Sr 421.552†	50336.2	50914.2	502.43	µg/L	502.43	ppb	07:11:27
1	Sc 361.383	1982491.2	1982491.2	99.858	%			07:12:50
1	Y 371.029	1358368.3	1358368.3	99.558	%			07:12:50
1	Ag 328.068†	64457.1	65109.7	497.77	µg/L	497.77	ppb	07:12:56
1	As 188.979†	280.2	278.8	511.46	µg/L	511.46	ppb	07:13:17
1	B 249.677†	12250.9	11974.1	491.76	µg/L	491.76	ppb	07:12:56
1	Ba 233.527†	20243.9	20298.6	501.58	µg/L	501.58	ppb	07:12:56
1	Be 313.107†	797474.8	802207.2	498.30	µg/L	498.30	ppb	07:12:50
1	Cd 226.502†	19183.6	19357.0	502.64	µg/L	502.64	ppb	07:12:56
1	Co 228.616†	10779.1	10803.2	501.88	µg/L	501.88	ppb	07:12:56
1	Cr 267.716†	24167.6	24250.5	504.97	µg/L	504.97	ppb	07:12:56
1	Cu 324.752†	77996.6	75663.2	500.43	µg/L	500.43	ppb	07:12:56
1	Mn 257.610†	154468.4	154952.3	504.31	µg/L	504.31	ppb	07:12:50
1	Mo 202.031†	5072.9	5084.9	513.42	µg/L	513.42	ppb	07:13:17
1	Ni 231.604†	10108.0	9819.9	506.48	µg/L	506.48	ppb	07:12:56
1	P 214.914†	1299.1	1274.3	2512.1	µg/L	2512.1	ppb	07:13:17
1	Pb 220.353†	2129.2	2045.4	512.64	µg/L	512.64	ppb	07:13:17
1	S 181.975 Axial†	253.9	236.8	984.93	µg/L	984.93	ppb	07:13:17
1	Sb 206.836†	561.9	539.0	501.35	µg/L	501.35	ppb	07:13:17
1	Se 196.026†	377.3	359.5	524.29	µg/L	524.29	ppb	07:13:17
1	SiO2†	27635.5	26383.8	5388.8	µg/L	5388.8	ppb	07:12:56
1	Si 251.611†	32491.6	32242.6	2519.8	µg/L	2519.8	ppb	07:12:56
1	Sn 189.927†	1180.7	1182.1	511.65	µg/L	511.65	ppb	07:13:17
1	Ti 334.940†	213968.8	214177.1	494.23	µg/L	494.23	ppb	07:12:50
1	Tl 190.801†	356.8	381.0	509.12	µg/L	509.12	ppb	07:13:17
1	U 409.014†	5877.9	5975.3	508.81	µg/L	508.81	ppb	07:12:56
1	V 292.402†	49378.6	49494.4	506.53	µg/L	506.53	ppb	07:12:56
1	Zn 213.857†	21877.5	21444.5	501.96	µg/L	501.96	ppb	07:12:56
2	Sc RADIAL	57294.2	57294.2	100	%			07:11:53
2	Al 396.153Radial†	7172.5	7194.3	5001.2	µg/L	5001.2	ppb	07:11:53
2	Ca 317.933Radial†	5788.6	5599.8	4861.0	µg/L	4861.0	ppb	07:12:13
2	Fe 238.204 Radial†	642.3	628.3	4974.4	µg/L	4974.4	ppb	07:12:13
2	K 766.490 Radial†	7562.5	7393.4	5089.0	µg/L	5089.0	ppb	07:11:53
2	Mg 279.077 IEC†	592.1	581.1	5149.1	µg/L	5149.1	ppb	07:12:13
2	Na 589.592 Radial†	32362.0	31837.1	9906.6	µg/L	9906.6	ppb	07:11:53
2	Sr 421.552†	50694.1	50651.4	499.83	µg/L	499.83	ppb	07:11:53
2	Sc 361.383	2007664.9	2007664.9	101.13	%			07:13:24
2	Y 371.029	1376250.3	1376250.3	100.87	%			07:13:24
2	Ag 328.068†	64742.3	64582.3	493.73	µg/L	493.73	ppb	07:13:29
2	As 188.979†	277.2	272.3	499.54	µg/L	499.54	ppb	07:13:50
2	B 249.677†	12397.7	11965.4	491.47	µg/L	491.47	ppb	07:13:29
2	Ba 233.527†	20363.8	20163.0	498.23	µg/L	498.23	ppb	07:13:29
2	Be 313.107†	800825.2	795506.6	494.14	µg/L	494.14	ppb	07:13:24
2	Cd 226.502†	19272.4	19204.0	498.67	µg/L	498.67	ppb	07:13:29
2	Co 228.616†	10877.2	10764.9	500.10	µg/L	500.10	ppb	07:13:29
2	Cr 267.716†	24283.7	24061.8	501.04	µg/L	501.04	ppb	07:13:29
2	Cu 324.752†	78556.2	75237.1	497.59	µg/L	497.59	ppb	07:13:29
2	Mn 257.610†	154910.0	153449.4	499.40	µg/L	499.40	ppb	07:13:24
2	Mo 202.031†	5022.1	4971.0	501.91	µg/L	501.91	ppb	07:13:50
2	Ni 231.604†	10104.9	9689.8	499.77	µg/L	499.77	ppb	07:13:29
2	P 214.914†	1270.0	1229.2	2421.8	µg/L	2421.8	ppb	07:13:50
2	Pb 220.353†	2111.9	2001.5	501.62	µg/L	501.62	ppb	07:13:50

2	S 181.975 Axial†	254.1	233.8	972.43 µg/L	972.43 ppb	07:13:50
2	Sb 206.836†	562.3	532.4	495.04 µg/L	495.04 ppb	07:13:50
2	Se 196.026†	366.9	344.4	502.29 µg/L	502.29 ppb	07:13:50
2	SiO2†	27826.8	26226.0	5356.6 µg/L	5356.6 ppb	07:13:29
2	Si 251.611†	32703.1	32043.8	2504.2 µg/L	2504.2 ppb	07:13:29
2	Sn 189.927†	1178.8	1165.4	504.43 µg/L	504.43 ppb	07:13:50
2	Ti 334.940†	214599.8	212114.4	489.47 µg/L	489.47 ppb	07:13:24
2	Tl 190.801†	356.5	376.3	502.78 µg/L	502.78 ppb	07:13:50
2	U 409.014†	5866.8	5890.6	501.61 µg/L	501.61 ppb	07:13:29
2	V 292.402†	49586.3	49079.8	502.22 µg/L	502.22 ppb	07:13:29
2	Zn 213.857†	21943.4	21235.0	497.07 µg/L	497.07 ppb	07:13:29
3	Sc RADIAL	58495.7	58495.7	102 %		07:12:18
3	Al 396.153Radial†	7055.6	6932.6	4820.3 µg/L	4820.3 ppb	07:12:18
3	Ca 317.933Radial†	5806.6	5498.5	4773.0 µg/L	4773.0 ppb	07:12:39
3	Fe 238.204 Radial†	648.2	621.0	4915.5 µg/L	4915.5 ppb	07:12:39
3	K 766.490 Radial†	7508.3	7185.0	4945.6 µg/L	4945.6 ppb	07:12:18
3	Mg 279.077 IEC†	589.8	566.6	5019.7 µg/L	5019.7 ppb	07:12:39
3	Na 589.592 Radial†	31880.2	30700.9	9553.0 µg/L	9553.0 ppb	07:12:18
3	Sr 421.552†	50005.7	48936.5	482.91 µg/L	482.91 ppb	07:12:18
3	Sc 361.383	2001194.7	2001194.7	100.80 %		07:13:57
3	Y 371.029	1370075.6	1370075.6	100.42 %		07:13:57
3	Ag 328.068†	60940.1	61017.2	466.38 µg/L	466.38 ppb	07:14:03
3	As 188.979†	247.5	243.8	447.25 µg/L	447.25 ppb	07:14:23
3	B 249.677†	11571.8	11185.7	459.27 µg/L	459.27 ppb	07:14:03
3	Ba 233.527†	18698.3	18575.9	459.00 µg/L	459.00 ppb	07:14:03
3	Be 313.107†	754815.7	752422.9	467.38 µg/L	467.38 ppb	07:13:57
3	Cd 226.502†	17652.7	17658.7	458.50 µg/L	458.50 ppb	07:14:03
3	Co 228.616†	9911.9	9842.1	457.17 µg/L	457.17 ppb	07:14:03
3	Cr 267.716†	21569.9	21447.2	446.60 µg/L	446.60 ppb	07:14:03
3	Cu 324.752†	71898.2	68883.2	455.62 µg/L	455.62 ppb	07:14:03
3	Mn 257.610†	146304.8	145407.8	473.25 µg/L	473.25 ppb	07:13:57
3	Mo 202.031†	4281.4	4252.2	429.36 µg/L	429.36 ppb	07:14:23
3	Ni 231.604†	9225.4	8849.7	456.44 µg/L	456.44 ppb	07:14:03
3	P 214.914†	1122.3	1086.8	2139.0 µg/L	2139.0 ppb	07:14:23
3	Pb 220.353†	1879.7	1777.9	445.51 µg/L	445.51 ppb	07:14:23
3	S 181.975 Axial†	231.6	212.4	883.24 µg/L	883.24 ppb	07:14:23
3	Sb 206.836†	500.9	473.2	439.72 µg/L	439.72 ppb	07:14:23
3	Se 196.026†	338.8	317.8	464.04 µg/L	464.04 ppb	07:14:23
3	SiO2†	25877.6	24381.2	4979.8 µg/L	4979.8 ppb	07:14:03
3	Si 251.611†	30327.3	29791.4	2328.2 µg/L	2328.2 ppb	07:14:03
3	Sn 189.927†	993.5	985.3	426.48 µg/L	426.48 ppb	07:14:23
3	Ti 334.940†	201985.5	200286.4	462.17 µg/L	462.17 ppb	07:13:57
3	Tl 190.801†	328.2	349.3	466.90 µg/L	466.90 ppb	07:14:23
3	U 409.014†	5235.3	5282.9	449.77 µg/L	449.77 ppb	07:14:03
3	V 292.402†	45088.2	44775.9	457.97 µg/L	457.97 ppb	07:14:03
3	Zn 213.857†	20061.5	19438.2	454.98 µg/L	454.98 ppb	07:14:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1997117.0	100.59	%	0.658				0.65%
Sc RADIAL	57462.0	100	%	1.7				1.67%
Y 371.029	1368231.4	100.28	%	0.666				0.66%
Ag 328.068†	63569.8	485.96	µg/L	17.075	485.96	ppb	17.075	3.51%
QC value within limits for Ag 328.068 Recovery = 97.19%								
Al 396.153Radial†	7132.4	4958.5	µg/L	122.50	4958.5	ppb	122.50	2.47%
QC value within limits for Al 396.153Radial Recovery = 99.17%								
As 188.979†	264.9	486.08	µg/L	34.154	486.08	ppb	34.154	7.03%
QC value within limits for As 188.979 Recovery = 97.22%								
B 249.677†	11708.4	480.83	µg/L	18.673	480.83	ppb	18.673	3.88%
QC value within limits for B 249.677 Recovery = 96.17%								
Ba 233.527†	19679.2	486.27	µg/L	23.674	486.27	ppb	23.674	4.87%
QC value within limits for Ba 233.527 Recovery = 97.25%								
Be 313.107†	783378.9	486.60	µg/L	16.782	486.60	ppb	16.782	3.45%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 317.933Radial†	5598.3	4859.7	µg/L	86.01	4859.7	ppb	86.01	1.77%
QC value within limits for Ca 317.933Radial Recovery = 97.19%								
Cd 226.502†	18739.9	486.61	µg/L	24.416	486.61	ppb	24.416	5.02%
QC value within limits for Cd 226.502 Recovery = 97.32%								
Co 228.616†	10470.1	486.38	µg/L	25.316	486.38	ppb	25.316	5.20%

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   QC value within limits for Co 228.616  Recovery = 97.28%
Cr 267.716†            23253.2      484.20 µg/L        32.623      484.20 ppb        32.623   6.74%
   QC value within limits for Cr 267.716  Recovery = 96.84%
Cu 324.752†            73261.2      484.55 µg/L        25.091      484.55 ppb        25.091   5.18%
   QC value within limits for Cu 324.752  Recovery = 96.91%
Fe 238.204 Radial†       632.2      5004.3 µg/L       106.98      5004.3 ppb        106.98   2.14%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.09%
K 766.490 Radial†       7339.7      5052.1 µg/L        93.64      5052.1 ppb         93.64   1.85%
   QC value within limits for K 766.490 Radial  Recovery = 101.04%
Mg 279.077 IEC†          578.2      5122.9 µg/L        92.90      5122.9 ppb         92.90   1.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.46%
Mn 257.610†           151269.8      492.32 µg/L        16.695      492.32 ppb        16.695   3.39%
   QC value within limits for Mn 257.610  Recovery = 98.46%
Mo 202.031†             4769.4      481.56 µg/L        45.573      481.56 ppb        45.573   9.46%
   QC value within limits for Mo 202.031  Recovery = 96.31%
Na 589.592 Radial†     31541.3      9814.6 µg/L       229.75      9814.6 ppb        229.75   2.34%
   QC value within limits for Na 589.592 Radial  Recovery = 98.15%
Ni 231.604†             9453.1      487.57 µg/L        27.163      487.57 ppb        27.163   5.57%
   QC value within limits for Ni 231.604  Recovery = 97.51%
P 214.914†              1196.8      2357.6 µg/L       194.65      2357.6 ppb        194.65   8.26%
   QC value within limits for P 214.914  Recovery = 94.30%
Pb 220.353†             1941.6      486.59 µg/L        36.000      486.59 ppb        36.000   7.40%
   QC value within limits for Pb 220.353  Recovery = 97.32%
S 181.975 Axial†         227.7      946.87 µg/L        55.454      946.87 ppb        55.454   5.86%
   QC value within limits for S 181.975 Axial  Recovery = 94.69%
Sb 206.836†              514.9      478.70 µg/L        33.907      478.70 ppb        33.907   7.08%
   QC value within limits for Sb 206.836  Recovery = 95.74%
Se 196.026†              340.6      496.87 µg/L        30.492      496.87 ppb        30.492   6.14%
   QC value within limits for Se 196.026  Recovery = 99.37%
SiO2†                  25663.7      5241.7 µg/L       227.42      5241.7 ppb        227.42   4.34%
   QC value within limits for SiO2  Recovery = 98.02%
Si 251.611†            31359.3      2450.7 µg/L       106.40      2450.7 ppb        106.40   4.34%
   QC value within limits for Si 251.611  Recovery = 98.03%
Sn 189.927†             1110.9      480.85 µg/L        47.225      480.85 ppb        47.225   9.82%
   QC value within limits for Sn 189.927  Recovery = 96.17%
Sr 421.552†            50167.4      495.06 µg/L        10.599      495.06 ppb        10.599   2.14%
   QC value within limits for Sr 421.552  Recovery = 99.01%
Ti 334.940†           208859.3      481.96 µg/L        17.303      481.96 ppb        17.303   3.59%
   QC value within limits for Ti 334.940  Recovery = 96.39%
Tl 190.801†              368.9      492.93 µg/L        22.767      492.93 ppb        22.767   4.62%
   QC value within limits for Tl 190.801  Recovery = 98.59%
U 409.014†              5716.2      486.73 µg/L        32.211      486.73 ppb        32.211   6.62%
   QC value within limits for U 409.014  Recovery = 97.35%
V 292.402†             47783.4      488.91 µg/L        26.878      488.91 ppb        26.878   5.50%
   QC value within limits for V 292.402  Recovery = 97.78%
Zn 213.857†            20705.9      484.67 µg/L        25.830      484.67 ppb        25.830   5.33%
   QC value within limits for Zn 213.857  Recovery = 96.93%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 07:14:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56105.4	56105.4	98.0	%			07:15:05
1	Al 396.153Radial†	-5.8	18.3	12.738	µg/L	12.738	ppb	07:15:05
1	Ca 317.933Radial†	193.1	10.3	8.9002	µg/L	8.9002	ppb	07:15:25
1	Fe 238.204 Radial†	19.3	6.0	47.296	µg/L	47.296	ppb	07:15:25
1	K 766.490 Radial†	189.1	26.5	18.238	µg/L	18.238	ppb	07:15:05
1	Mg 279.077 IEC†	12.4	1.8	15.683	µg/L	15.683	ppb	07:15:25
1	Na 589.592 Radial†	585.1	83.5	25.981	µg/L	25.981	ppb	07:15:05
1	Sr 421.552†	28.7	3.9	0.0381	µg/L	0.0381	ppb	07:15:05
1	Sc 361.383	1961473.3	1961473.3	98.800	%			07:16:27
1	Y 371.029	1348897.3	1348897.3	98.864	%			07:16:27
1	Ag 328.068†	-436.7	119.0	0.9016	µg/L	0.9016	ppb	07:16:33
1	As 188.979†	-0.6	-2.5	-4.5515	µg/L	-4.5515	ppb	07:16:54
1	B 249.677†	352.1	62.2	2.5379	µg/L	2.5379	ppb	07:16:54
1	Ba 233.527†	-20.8	5.0	0.1224	µg/L	0.1224	ppb	07:16:54
1	Be 313.107†	-3388.4	170.8	0.1061	µg/L	0.1061	ppb	07:16:33
1	Cd 226.502†	-136.9	7.6	0.1926	µg/L	0.1926	ppb	07:16:54
1	Co 228.616†	-11.8	-3.1	-0.1430	µg/L	-0.1430	ppb	07:16:54
1	Cr 267.716†	-36.5	11.6	0.2404	µg/L	0.2404	ppb	07:16:33
1	Cu 324.752†	2582.0	169.2	1.1238	µg/L	1.1238	ppb	07:16:33
1	Mn 257.610†	-226.9	35.0	0.1194	µg/L	0.1194	ppb	07:16:54
1	Mo 202.031†	-8.2	-3.5	-0.3479	µg/L	-0.3479	ppb	07:16:54
1	Ni 231.604†	308.9	10.2	0.5279	µg/L	0.5279	ppb	07:16:54
1	P 214.914†	17.3	-9.1	-18.522	µg/L	-18.522	ppb	07:16:54
1	Pb 220.353†	104.1	18.5	4.6164	µg/L	4.6164	ppb	07:16:54
1	S 181.975 Axial†	16.2	-1.0	-4.2795	µg/L	-4.2795	ppb	07:16:54
1	Sb 206.836†	21.8	-1.6	-1.4608	µg/L	-1.4608	ppb	07:16:54
1	Se 196.026†	14.7	-3.5	-4.8527	µg/L	-4.8527	ppb	07:16:54
1	SiO2†	1400.6	126.7	25.880	µg/L	25.880	ppb	07:16:33
1	Si 251.611†	449.6	160.0	12.503	µg/L	12.503	ppb	07:16:54
1	Sn 189.927†	1.2	0.9	0.4065	µg/L	0.4065	ppb	07:16:54
1	Ti 334.940†	117.7	23.8	0.0539	µg/L	0.0539	ppb	07:16:33
1	Tl 190.801†	-24.5	-1.1	-1.4268	µg/L	-1.4268	ppb	07:16:54
1	U 409.014†	-49.1	39.4	3.3561	µg/L	3.3561	ppb	07:16:33
1	V 292.402†	-116.9	-72.7	-0.7275	µg/L	-0.7275	ppb	07:16:33
1	Zn 213.857†	495.5	37.5	0.8773	µg/L	0.8773	ppb	07:16:54
2	Sc RADIAL	56986.8	56986.8	99.5	%			07:15:31
2	Al 396.153Radial†	-17.6	6.5	4.5198	µg/L	4.5198	ppb	07:15:31
2	Ca 317.933Radial†	193.5	7.6	6.6075	µg/L	6.6075	ppb	07:15:51
2	Fe 238.204 Radial†	15.6	2.0	15.691	µg/L	15.691	ppb	07:15:51
2	K 766.490 Radial†	231.6	66.2	45.579	µg/L	45.579	ppb	07:15:31
2	Mg 279.077 IEC†	10.9	0.2	1.3970	µg/L	1.3970	ppb	07:15:51
2	Na 589.592 Radial†	548.7	37.7	11.732	µg/L	11.732	ppb	07:15:31
2	Sr 421.552†	16.9	-8.4	-0.0828	µg/L	-0.0828	ppb	07:15:31
2	Sc 361.383	1961940.7	1961940.7	98.823	%			07:17:00
2	Y 371.029	1349256.0	1349256.0	98.890	%			07:17:00
2	Ag 328.068†	-446.8	108.9	0.8279	µg/L	0.8279	ppb	07:17:05
2	As 188.979†	2.5	0.7	1.2758	µg/L	1.2758	ppb	07:17:26
2	B 249.677†	328.6	38.2	1.5680	µg/L	1.5680	ppb	07:17:26
2	Ba 233.527†	-8.6	17.3	0.4271	µg/L	0.4271	ppb	07:17:26
2	Be 313.107†	-3447.9	111.4	0.0692	µg/L	0.0692	ppb	07:17:05
2	Cd 226.502†	-134.3	10.3	0.2668	µg/L	0.2668	ppb	07:17:26
2	Co 228.616†	-0.9	7.9	0.3682	µg/L	0.3682	ppb	07:17:26
2	Cr 267.716†	-34.9	13.3	0.2759	µg/L	0.2759	ppb	07:17:05
2	Cu 324.752†	2584.6	171.2	1.1332	µg/L	1.1332	ppb	07:17:05
2	Mn 257.610†	-221.8	40.2	0.1327	µg/L	0.1327	ppb	07:17:26
2	Mo 202.031†	-1.2	3.7	0.3700	µg/L	0.3700	ppb	07:17:26
2	Ni 231.604†	312.5	13.8	0.7102	µg/L	0.7102	ppb	07:17:26
2	P 214.914†	18.8	-7.6	-15.316	µg/L	-15.316	ppb	07:17:26
2	Pb 220.353†	97.8	12.0	3.0079	µg/L	3.0079	ppb	07:17:26

2	S 181.975 Axial†	14.8	-2.5	-10.192 µg/L	-10.192 ppb	07:17:26
2	Sb 206.836†	20.9	-2.6	-2.3726 µg/L	-2.3726 ppb	07:17:26
2	Se 196.026†	12.2	-6.1	-8.6555 µg/L	-8.6555 ppb	07:17:26
2	SiO2†	1396.5	122.2	24.949 µg/L	24.949 ppb	07:17:05
2	Si 251.611†	457.4	167.8	13.111 µg/L	13.111 ppb	07:17:26
2	Sn 189.927†	2.6	2.3	0.9988 µg/L	0.9988 ppb	07:17:26
2	Ti 334.940†	158.6	65.1	0.1503 µg/L	0.1503 ppb	07:17:05
2	Tl 190.801†	-25.3	-1.8	-2.4323 µg/L	-2.4323 ppb	07:17:26
2	U 409.014†	-84.6	3.5	0.2928 µg/L	0.2928 ppb	07:17:05
2	V 292.402†	-39.3	5.9	0.0653 µg/L	0.0653 ppb	07:17:05
2	Zn 213.857†	490.9	32.7	0.7654 µg/L	0.7654 ppb	07:17:26
3	Sc RADIAL	57309.5	57309.5	100 %		07:15:57
3	Al 396.153Radial†	-10.5	13.8	9.5809 µg/L	9.5809 ppb	07:15:57
3	Ca 317.933Radial†	189.2	2.2	1.9162 µg/L	1.9162 ppb	07:16:17
3	Fe 238.204 Radial†	19.1	5.4	42.413 µg/L	42.413 ppb	07:16:17
3	K 766.490 Radial†	170.9	4.3	2.9876 µg/L	2.9876 ppb	07:15:57
3	Mg 279.077 IEC†	13.3	2.5	21.721 µg/L	21.721 ppb	07:16:17
3	Na 589.592 Radial†	580.0	65.9	20.492 µg/L	20.492 ppb	07:15:57
3	Sr 421.552†	48.1	22.7	0.2239 µg/L	0.2239 ppb	07:15:57
3	Sc 361.383	1983464.4	1983464.4	99.907 %		07:17:32
3	Y 371.029	1363646.5	1363646.5	99.945 %		07:17:32
3	Ag 328.068†	-468.5	92.1	0.7030 µg/L	0.7030 ppb	07:17:37
3	As 188.979†	-3.6	-5.4	-9.8886 µg/L	-9.8886 ppb	07:17:58
3	B 249.677†	335.1	41.2	1.6775 µg/L	1.6775 ppb	07:17:58
3	Ba 233.527†	1.5	27.6	0.6804 µg/L	0.6804 ppb	07:17:58
3	Be 313.107†	-3394.1	203.1	0.1262 µg/L	0.1262 ppb	07:17:37
3	Cd 226.502†	-137.1	9.0	0.2287 µg/L	0.2287 ppb	07:17:58
3	Co 228.616†	-6.6	2.3	0.1071 µg/L	0.1071 ppb	07:17:58
3	Cr 267.716†	-27.3	21.3	0.4429 µg/L	0.4429 ppb	07:17:37
3	Cu 324.752†	2565.4	123.6	0.8219 µg/L	0.8219 ppb	07:17:37
3	Mn 257.610†	-215.3	49.1	0.1646 µg/L	0.1646 ppb	07:17:58
3	Mo 202.031†	0.0	4.9	0.4951 µg/L	0.4951 ppb	07:17:58
3	Ni 231.604†	315.9	13.7	0.7082 µg/L	0.7082 ppb	07:17:58
3	P 214.914†	28.1	1.5	2.8840 µg/L	2.8840 ppb	07:17:58
3	Pb 220.353†	95.7	8.9	2.2238 µg/L	2.2238 ppb	07:17:58
3	S 181.975 Axial†	15.1	-2.3	-9.5330 µg/L	-9.5330 ppb	07:17:58
3	Sb 206.836†	32.1	8.5	7.8338 µg/L	7.8338 ppb	07:17:58
3	Se 196.026†	19.4	1.1	1.6589 µg/L	1.6589 ppb	07:17:58
3	SiO2†	1400.2	110.6	22.584 µg/L	22.584 ppb	07:17:37
3	Si 251.611†	462.2	167.6	13.096 µg/L	13.096 ppb	07:17:58
3	Sn 189.927†	0.3	-0.0	-0.0174 µg/L	-0.0174 ppb	07:17:58
3	Ti 334.940†	72.2	-23.1	-0.0550 µg/L	-0.0550 ppb	07:17:37
3	Tl 190.801†	-22.5	1.2	1.5558 µg/L	1.5558 ppb	07:17:58
3	U 409.014†	-77.5	11.5	0.9784 µg/L	0.9784 ppb	07:17:37
3	V 292.402†	-28.2	17.4	0.1871 µg/L	0.1871 ppb	07:17:37
3	Zn 213.857†	491.3	27.7	0.6464 µg/L	0.6464 ppb	07:17:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1968959.5	99.177	%	0.6328				0.64%
Sc RADIAL	56800.6	99.2	%	1.09				1.10%
Y 371.029	1353933.2	99.233	%	0.6167				0.62%
Ag 328.068†	106.7	0.8108	µg/L	0.10035	0.8108	ppb	0.10035	12.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.8	8.9464	µg/L	4.14589	8.9464	ppb	4.14589	46.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.3881	µg/L	5.58396	-4.3881	ppb	5.58396	127.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	47.2	1.9278	µg/L	0.53121	1.9278	ppb	0.53121	27.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.6	0.4100	µg/L	0.27937	0.4100	ppb	0.27937	68.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	161.8	0.1005	µg/L	0.02894	0.1005	ppb	0.02894	28.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.7	5.8079	µg/L	3.55997	5.8079	ppb	3.55997	61.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.0	0.2293	µg/L	0.03715	0.2293	ppb	0.03715	16.20%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.4	0.1108	µg/L	0.25561	0.1108	ppb	0.25561	230.80%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.4      0.3197 µg/L       0.10815      0.3197 ppb        0.10815  33.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               154.7      1.0263 µg/L       0.17706      1.0263 ppb        0.17706  17.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.4      35.134 µg/L       17.0135      35.134 ppb        17.0135  48.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          32.4      22.268 µg/L       21.5797      22.268 ppb        21.5797  96.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.5      12.934 µg/L       10.4373      12.934 ppb        10.4373  80.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                41.4       0.1389 µg/L       0.02321      0.1389 ppb        0.02321  16.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.7       0.1724 µg/L       0.45489      0.1724 ppb        0.45489 263.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         62.4      19.402 µg/L        7.1868      19.402 ppb         7.1868  37.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.6       0.6487 µg/L       0.10468      0.6487 ppb        0.10468  16.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.1     -10.318 µg/L       11.5452     -10.318 ppb        11.5452 111.89%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                13.1       3.2827 µg/L       1.21973      3.2827 ppb        1.21973  37.16%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.9      -8.0015 µg/L       3.24018     -8.0015 ppb        3.24018  40.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4       1.3335 µg/L       5.64790      1.3335 ppb        5.64790 423.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.8      -3.9498 µg/L       5.21614     -3.9498 ppb        5.21614 132.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     119.8      24.471 µg/L        1.6995      24.471 ppb         1.6995   6.94%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               165.1      12.903 µg/L        0.3470      12.903 ppb         0.3470   2.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.1       0.4626 µg/L       0.51040      0.4626 ppb        0.51040 110.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.1       0.0597 µg/L       0.15450      0.0597 ppb        0.15450 258.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                21.9       0.0497 µg/L       0.10273      0.0497 ppb        0.10273 206.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6      -0.7678 µg/L       2.07412     -0.7678 ppb        2.07412 270.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 18.1       1.5424 µg/L       1.60762      1.5424 ppb        1.60762 104.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -16.4      -0.1584 µg/L       0.49663     -0.1584 ppb        0.49663 313.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                32.7       0.7630 µg/L       0.11545      0.7630 ppb        0.11545  15.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 07:50:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57381.7	57381.7	100	%			07:50:46
1	Al 396.153Radial†	7221.0	7231.7	5026.8	µg/L	5026.8	ppb	07:50:46
1	Ca 317.933Radial†	5854.5	5656.7	4910.4	µg/L	4910.4	ppb	07:51:06
1	Fe 238.204 Radial†	656.6	641.7	5080.2	µg/L	5080.2	ppb	07:51:06
1	K 766.490 Radial†	7632.3	7451.6	5129.0	µg/L	5129.0	ppb	07:50:46
1	Mg 279.077 IEC†	594.9	582.9	5165.7	µg/L	5165.7	ppb	07:51:06
1	Na 589.592 Radial†	32512.7	31938.3	9938.1	µg/L	9938.1	ppb	07:50:46
1	Sr 421.552†	50915.2	50794.8	501.25	µg/L	501.25	ppb	07:50:46
1	Sc 361.383	1981698.7	1981698.7	99.818	%			07:52:10
1	Y 371.029	1360509.9	1360509.9	99.715	%			07:52:10
1	Ag 328.068†	65789.0	66469.8	508.16	µg/L	508.16	ppb	07:52:15
1	As 188.979†	290.1	288.8	529.80	µg/L	529.80	ppb	07:52:36
1	B 249.677†	12515.0	12243.6	502.91	µg/L	502.91	ppb	07:52:15
1	Ba 233.527†	20713.1	20776.9	513.40	µg/L	513.40	ppb	07:52:15
1	Be 313.107†	822070.7	827167.2	513.80	µg/L	513.80	ppb	07:52:10
1	Cd 226.502†	19589.2	19771.0	513.40	µg/L	513.40	ppb	07:52:15
1	Co 228.616†	11079.8	11108.8	516.07	µg/L	516.07	ppb	07:52:15
1	Cr 267.716†	24671.3	24764.7	515.68	µg/L	515.68	ppb	07:52:15
1	Cu 324.752†	79815.7	77516.8	512.66	µg/L	512.66	ppb	07:52:15
1	Mn 257.610†	159242.2	159796.7	520.05	µg/L	520.05	ppb	07:52:10
1	Mo 202.031†	5189.9	5204.2	525.45	µg/L	525.45	ppb	07:52:36
1	Ni 231.604†	10255.4	9971.6	514.30	µg/L	514.30	ppb	07:52:15
1	P 214.914†	1320.6	1296.4	2555.4	µg/L	2555.4	ppb	07:52:36
1	Pb 220.353†	2166.1	2083.2	522.12	µg/L	522.12	ppb	07:52:36
1	S 181.975 Axial†	257.1	240.1	998.56	µg/L	998.56	ppb	07:52:36
1	Sb 206.836†	573.1	550.5	512.04	µg/L	512.04	ppb	07:52:36
1	Se 196.026†	381.5	363.8	530.42	µg/L	530.42	ppb	07:52:36
1	SiO2†	28259.7	27020.2	5518.8	µg/L	5518.8	ppb	07:52:15
1	Si 251.611†	33254.1	33019.5	2580.5	µg/L	2580.5	ppb	07:52:15
1	Sn 189.927†	1202.8	1204.6	521.41	µg/L	521.41	ppb	07:52:36
1	Ti 334.940†	221184.3	221491.4	511.12	µg/L	511.12	ppb	07:52:10
1	Tl 190.801†	370.7	395.2	527.91	µg/L	527.91	ppb	07:52:36
1	U 409.014†	5967.9	6067.9	516.72	µg/L	516.72	ppb	07:52:15
1	V 292.402†	50429.1	50566.6	517.49	µg/L	517.49	ppb	07:52:15
1	Zn 213.857†	22279.8	21856.3	511.62	µg/L	511.62	ppb	07:52:15
2	Sc RADIAL	56676.9	56676.9	99.0	%			07:51:12
2	Al 396.153Radial†	7153.9	7253.6	5042.0	µg/L	5042.0	ppb	07:51:12
2	Ca 317.933Radial†	5850.6	5725.4	4970.0	µg/L	4970.0	ppb	07:51:32
2	Fe 238.204 Radial†	654.2	647.4	5125.2	µg/L	5125.2	ppb	07:51:32
2	K 766.490 Radial†	7497.3	7409.9	5100.3	µg/L	5100.3	ppb	07:51:12
2	Mg 279.077 IEC†	594.3	589.7	5225.8	µg/L	5225.8	ppb	07:51:32
2	Na 589.592 Radial†	32323.4	32150.5	10004	µg/L	10004	ppb	07:51:12
2	Sr 421.552†	50316.8	50822.0	501.52	µg/L	501.52	ppb	07:51:12
2	Sc 361.383	1973669.4	1973669.4	99.414	%			07:52:43
2	Y 371.029	1356681.1	1356681.1	99.434	%			07:52:43
2	Ag 328.068†	65853.0	66802.2	510.71	µg/L	510.71	ppb	07:52:48
2	As 188.979†	277.9	277.7	509.54	µg/L	509.54	ppb	07:53:09
2	B 249.677†	12591.7	12371.6	508.17	µg/L	508.17	ppb	07:52:48
2	Ba 233.527†	20686.1	20834.1	514.82	µg/L	514.82	ppb	07:52:48
2	Be 313.107†	820429.3	828866.5	514.86	µg/L	514.86	ppb	07:52:43
2	Cd 226.502†	19619.8	19881.6	516.27	µg/L	516.27	ppb	07:52:48
2	Co 228.616†	11074.8	11149.0	517.94	µg/L	517.94	ppb	07:52:48
2	Cr 267.716†	24735.8	24930.2	519.12	µg/L	519.12	ppb	07:52:48
2	Cu 324.752†	79975.1	78002.4	515.88	µg/L	515.88	ppb	07:52:48
2	Mn 257.610†	158859.7	160060.9	520.92	µg/L	520.92	ppb	07:52:43
2	Mo 202.031†	5158.3	5193.5	524.38	µg/L	524.38	ppb	07:53:09
2	Ni 231.604†	10275.9	10034.0	517.52	µg/L	517.52	ppb	07:52:48
2	P 214.914†	1321.6	1302.8	2567.8	µg/L	2567.8	ppb	07:53:09
2	Pb 220.353†	2161.1	2086.9	523.05	µg/L	523.05	ppb	07:53:09

2	S 181.975 Axial†	253.0	237.1	986.00 µg/L	986.00 ppb	07:53:09
2	Sb 206.836†	575.5	555.2	516.36 µg/L	516.36 ppb	07:53:09
2	Se 196.026†	384.2	368.1	536.63 µg/L	536.63 ppb	07:53:09
2	SiO2†	28371.2	27247.6	5565.2 µg/L	5565.2 ppb	07:52:48
2	Si 251.611†	33348.6	33250.1	2598.5 µg/L	2598.5 ppb	07:52:48
2	Sn 189.927†	1193.8	1200.6	519.66 µg/L	519.66 ppb	07:53:09
2	Ti 334.940†	220602.7	221807.9	511.85 µg/L	511.85 ppb	07:52:43
2	Tl 190.801†	361.2	387.1	517.27 µg/L	517.27 ppb	07:53:09
2	U 409.014†	5979.2	6103.6	519.75 µg/L	519.75 ppb	07:52:48
2	V 292.402†	50541.9	50885.6	520.72 µg/L	520.72 ppb	07:52:48
2	Zn 213.857†	22332.8	22000.4	514.99 µg/L	514.99 ppb	07:52:48
3	Sc RADIAL	56994.8	56994.8	99.5 %		07:51:38
3	Al 396.153Radial†	7208.4	7268.0	5053.8 µg/L	5053.8 ppb	07:51:38
3	Ca 317.933Radial†	5877.0	5719.0	4964.4 µg/L	4964.4 ppb	07:51:58
3	Fe 238.204 Radial†	662.0	651.6	5157.4 µg/L	5157.4 ppb	07:51:58
3	K 766.490 Radial†	7616.4	7487.3	5153.6 µg/L	5153.6 ppb	07:51:38
3	Mg 279.077 IEC†	599.1	591.2	5237.5 µg/L	5237.5 ppb	07:51:58
3	Na 589.592 Radial†	32542.2	32188.2	10016 µg/L	10016 ppb	07:51:38
3	Sr 421.552†	50897.4	51121.9	504.48 µg/L	504.48 ppb	07:51:38
3	Sc 361.383	1976698.3	1976698.3	99.566 %		07:53:16
3	Y 371.029	1358469.4	1358469.4	99.565 %		07:53:16
3	Ag 328.068†	62378.0	63210.6	483.15 µg/L	483.15 ppb	07:53:22
3	As 188.979†	248.7	247.9	454.92 µg/L	454.92 ppb	07:53:42
3	B 249.677†	11874.7	11632.2	477.58 µg/L	477.58 ppb	07:53:22
3	Ba 233.527†	19166.3	19275.8	476.30 µg/L	476.30 ppb	07:53:22
3	Be 313.107†	783268.0	790278.9	490.89 µg/L	490.89 ppb	07:53:16
3	Cd 226.502†	18098.6	18323.6	475.76 µg/L	475.76 ppb	07:53:22
3	Co 228.616†	10130.1	10183.1	472.99 µg/L	472.99 ppb	07:53:22
3	Cr 267.716†	22253.9	22399.4	466.43 µg/L	466.43 ppb	07:53:22
3	Cu 324.752†	73718.3	71595.1	473.57 µg/L	473.57 ppb	07:53:22
3	Mn 257.610†	151928.4	152854.6	497.49 µg/L	497.49 ppb	07:53:16
3	Mo 202.031†	4344.4	4368.1	441.07 µg/L	441.07 ppb	07:53:42
3	Ni 231.604†	9474.5	9213.3	475.20 µg/L	475.20 ppb	07:53:22
3	P 214.914†	1138.4	1116.7	2197.1 µg/L	2197.1 ppb	07:53:42
3	Pb 220.353†	1908.5	1829.9	458.53 µg/L	458.53 ppb	07:53:42
3	S 181.975 Axial†	231.6	215.2	894.96 µg/L	894.96 ppb	07:53:42
3	Sb 206.836†	495.5	474.0	440.33 µg/L	440.33 ppb	07:53:42
3	Se 196.026†	342.6	325.8	475.88 µg/L	475.88 ppb	07:53:42
3	SiO2†	26598.7	25423.6	5192.7 µg/L	5192.7 ppb	07:53:22
3	Si 251.611†	31221.5	31062.4	2427.5 µg/L	2427.5 ppb	07:53:22
3	Sn 189.927†	999.6	1003.6	434.42 µg/L	434.42 ppb	07:53:42
3	Ti 334.940†	209974.9	210793.8	486.42 µg/L	486.42 ppb	07:53:16
3	Tl 190.801†	329.2	354.3	473.82 µg/L	473.82 ppb	07:53:42
3	U 409.014†	5380.7	5493.3	467.68 µg/L	467.68 ppb	07:53:22
3	V 292.402†	46141.5	46388.1	474.45 µg/L	474.45 ppb	07:53:22
3	Zn 213.857†	20539.0	20164.4	471.96 µg/L	471.96 ppb	07:53:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1977355.5	99.600	%	0.2042				0.21%
Sc RADIAL	57017.8	99.6	%	0.62				0.62%
Y 371.029	1358553.5	99.572	%	0.1404				0.14%
Ag 328.068†	65494.2	500.68	µg/L	15.228	500.68	ppb	15.228	3.04%
QC value within limits for Ag 328.068 Recovery = 100.14%								
Al 396.153Radial†	7251.1	5040.9	µg/L	13.53	5040.9	ppb	13.53	0.27%
QC value within limits for Al 396.153Radial Recovery = 100.82%								
As 188.979†	271.5	498.09	µg/L	38.731	498.09	ppb	38.731	7.78%
QC value within limits for As 188.979 Recovery = 99.62%								
B 249.677†	12082.5	496.22	µg/L	16.352	496.22	ppb	16.352	3.30%
QC value within limits for B 249.677 Recovery = 99.24%								
Ba 233.527†	20295.6	501.50	µg/L	21.842	501.50	ppb	21.842	4.36%
QC value within limits for Ba 233.527 Recovery = 100.30%								
Be 313.107†	815437.5	506.52	µg/L	13.544	506.52	ppb	13.544	2.67%
QC value within limits for Be 313.107 Recovery = 101.30%								
Ca 317.933Radial†	5700.4	4948.3	µg/L	32.94	4948.3	ppb	32.94	0.67%
QC value within limits for Ca 317.933Radial Recovery = 98.97%								
Cd 226.502†	19325.4	501.81	µg/L	22.604	501.81	ppb	22.604	4.50%
QC value within limits for Cd 226.502 Recovery = 100.36%								
Co 228.616†	10813.6	502.33	µg/L	25.428	502.33	ppb	25.428	5.06%

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   QC value within limits for Co 228.616  Recovery = 100.47%
Cr 267.716†            24031.4      500.41 µg/L        29.479      500.41 ppb        29.479   5.89%
   QC value within limits for Cr 267.716  Recovery = 100.08%
Cu 324.752†            75704.8      500.70 µg/L        23.556      500.70 ppb        23.556   4.70%
   QC value within limits for Cu 324.752  Recovery = 100.14%
Fe 238.204 Radial†       646.9      5120.9 µg/L         38.77      5120.9 ppb         38.77   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.42%
K 766.490 Radial†       7449.6      5127.7 µg/L         26.66      5127.7 ppb         26.66   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 102.55%
Mg 279.077 IEC†          588.0      5209.7 µg/L         38.55      5209.7 ppb         38.55   0.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.19%
Mn 257.610†           157570.7      512.82 µg/L        13.284      512.82 ppb        13.284   2.59%
   QC value within limits for Mn 257.610  Recovery = 102.56%
Mo 202.031†             4922.0      496.97 µg/L        48.412      496.97 ppb        48.412   9.74%
   QC value within limits for Mo 202.031  Recovery = 99.39%
Na 589.592 Radial†     32092.3      9986.0 µg/L         41.92      9986.0 ppb         41.92   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 99.86%
Ni 231.604†             9739.6      502.34 µg/L        23.560      502.34 ppb        23.560   4.69%
   QC value within limits for Ni 231.604  Recovery = 100.47%
P 214.914†              1238.6      2440.1 µg/L        210.51      2440.1 ppb        210.51   8.63%
   QC value within limits for P 214.914  Recovery = 97.60%
Pb 220.353†             2000.0      501.24 µg/L        36.982      501.24 ppb        36.982   7.38%
   QC value within limits for Pb 220.353  Recovery = 100.25%
S 181.975 Axial†         230.8      959.84 µg/L        56.533      959.84 ppb        56.533   5.89%
   QC value within limits for S 181.975 Axial  Recovery = 95.98%
Sb 206.836†              526.6      489.58 µg/L        42.702      489.58 ppb        42.702   8.72%
   QC value within limits for Sb 206.836  Recovery = 97.92%
Se 196.026†              352.6      514.31 µg/L        33.425      514.31 ppb        33.425   6.50%
   QC value within limits for Se 196.026  Recovery = 102.86%
SiO2†                  26563.8      5425.6 µg/L        203.01      5425.6 ppb        203.01   3.74%
   QC value within limits for SiO2  Recovery = 101.46%
Si 251.611†            32444.0      2535.5 µg/L         93.94      2535.5 ppb         93.94   3.71%
   QC value within limits for Si 251.611  Recovery = 101.42%
Sn 189.927†             1136.3      491.83 µg/L        49.724      491.83 ppb        49.724  10.11%
   QC value within limits for Sn 189.927  Recovery = 98.37%
Sr 421.552†            50912.9      502.41 µg/L         1.791      502.41 ppb         1.791   0.36%
   QC value within limits for Sr 421.552  Recovery = 100.48%
Ti 334.940†           218031.1      503.13 µg/L        14.479      503.13 ppb        14.479   2.88%
   QC value within limits for Ti 334.940  Recovery = 100.63%
Tl 190.801†              378.9      506.33 µg/L        28.659      506.33 ppb        28.659   5.66%
   QC value within limits for Tl 190.801  Recovery = 101.27%
U 409.014†              5888.2      501.38 µg/L        29.229      501.38 ppb        29.229   5.83%
   QC value within limits for U 409.014  Recovery = 100.28%
V 292.402†             49280.1      504.22 µg/L        25.834      504.22 ppb        25.834   5.12%
   QC value within limits for V 292.402  Recovery = 100.84%
Zn 213.857†            21340.4      499.52 µg/L        23.930      499.52 ppb        23.930   4.79%
   QC value within limits for Zn 213.857  Recovery = 99.90%
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 07:53:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56115.6	56115.6	98.0	%			07:54:24
1	Al 396.153Radial†	2.0	26.2	18.270	µg/L	18.270	ppb	07:54:24
1	Ca 317.933Radial†	198.1	15.4	13.331	µg/L	13.331	ppb	07:54:44
1	Fe 238.204 Radial†	17.0	3.6	28.493	µg/L	28.493	ppb	07:54:44
1	K 766.490 Radial†	229.3	67.5	46.458	µg/L	46.458	ppb	07:54:24
1	Mg 279.077 IEC†	12.3	1.8	15.651	µg/L	15.651	ppb	07:54:44
1	Na 589.592 Radial†	481.7	-22.1	-6.8739	µg/L	-6.8739	ppb	07:54:24
1	Sr 421.552†	47.5	23.0	0.2272	µg/L	0.2272	ppb	07:54:24
1	Sc 361.383	1977818.8	1977818.8	99.623	%			07:55:46
1	Y 371.029	1363090.1	1363090.1	99.904	%			07:55:46
1	Ag 328.068†	-449.6	109.8	0.8330	µg/L	0.8330	ppb	07:55:52
1	As 188.979†	-1.6	-3.4	-6.3385	µg/L	-6.3385	ppb	07:56:12
1	B 249.677†	355.3	62.4	2.5549	µg/L	2.5549	ppb	07:56:12
1	Ba 233.527†	-21.7	4.2	0.1039	µg/L	0.1039	ppb	07:56:12
1	Be 313.107†	-3279.4	308.5	0.1915	µg/L	0.1915	ppb	07:55:52
1	Cd 226.502†	-142.3	3.3	0.0825	µg/L	0.0825	ppb	07:56:12
1	Co 228.616†	-10.7	-1.9	-0.0871	µg/L	-0.0871	ppb	07:56:12
1	Cr 267.716†	-67.2	-18.9	-0.3942	µg/L	-0.3942	ppb	07:55:52
1	Cu 324.752†	2560.5	126.0	0.8363	µg/L	0.8363	ppb	07:55:52
1	Mn 257.610†	-140.4	123.7	0.4054	µg/L	0.4054	ppb	07:56:12
1	Mo 202.031†	-3.8	1.0	0.1021	µg/L	0.1021	ppb	07:56:12
1	Ni 231.604†	306.6	5.3	0.2734	µg/L	0.2734	ppb	07:56:12
1	P 214.914†	16.4	-10.2	-20.614	µg/L	-20.614	ppb	07:56:12
1	Pb 220.353†	87.7	1.1	0.2656	µg/L	0.2656	ppb	07:56:12
1	S 181.975 Axial†	14.4	-3.0	-12.277	µg/L	-12.277	ppb	07:56:12
1	Sb 206.836†	29.8	6.2	5.7529	µg/L	5.7529	ppb	07:56:12
1	Se 196.026†	18.2	-0.1	-0.0146	µg/L	-0.0146	ppb	07:56:12
1	SiO2†	1395.4	109.8	22.417	µg/L	22.417	ppb	07:55:52
1	Si 251.611†	451.6	158.2	12.363	µg/L	12.363	ppb	07:56:12
1	Sn 189.927†	-3.0	-3.3	-1.4321	µg/L	-1.4321	ppb	07:56:12
1	Ti 334.940†	307.3	213.1	0.4911	µg/L	0.4911	ppb	07:55:52
1	Tl 190.801†	-25.1	-1.5	-1.9563	µg/L	-1.9563	ppb	07:56:12
1	U 409.014†	-43.1	45.9	3.9104	µg/L	3.9104	ppb	07:55:52
1	V 292.402†	-77.4	-32.0	-0.3166	µg/L	-0.3166	ppb	07:55:52
1	Zn 213.857†	489.2	27.0	0.6321	µg/L	0.6321	ppb	07:56:12
2	Sc RADIAL	56154.7	56154.7	98.0	%			07:54:50
2	Al 396.153Radial†	5.6	29.9	20.834	µg/L	20.834	ppb	07:54:50
2	Ca 317.933Radial†	193.8	10.8	9.3538	µg/L	9.3538	ppb	07:55:10
2	Fe 238.204 Radial†	16.4	3.0	23.829	µg/L	23.829	ppb	07:55:10
2	K 766.490 Radial†	152.3	-11.1	-7.6545	µg/L	-7.6545	ppb	07:54:50
2	Mg 279.077 IEC†	8.4	-2.3	-19.988	µg/L	-19.988	ppb	07:55:10
2	Na 589.592 Radial†	503.8	0.1	0.0311	µg/L	0.0311	ppb	07:54:50
2	Sr 421.552†	40.3	15.7	0.1552	µg/L	0.1552	ppb	07:54:50
2	Sc 361.383	1965379.7	1965379.7	98.996	%			07:56:18
2	Y 371.029	1353979.6	1353979.6	99.236	%			07:56:18
2	Ag 328.068†	-450.2	106.3	0.8076	µg/L	0.8076	ppb	07:56:24
2	As 188.979†	-0.4	-2.2	-4.1322	µg/L	-4.1322	ppb	07:56:44
2	B 249.677†	333.5	42.6	1.7433	µg/L	1.7433	ppb	07:56:44
2	Ba 233.527†	-18.7	7.2	0.1766	µg/L	0.1766	ppb	07:56:44
2	Be 313.107†	-3478.1	87.0	0.0539	µg/L	0.0539	ppb	07:56:24
2	Cd 226.502†	-136.5	8.3	0.2123	µg/L	0.2123	ppb	07:56:44
2	Co 228.616†	0.5	9.4	0.4346	µg/L	0.4346	ppb	07:56:44
2	Cr 267.716†	-66.1	-18.2	-0.3789	µg/L	-0.3789	ppb	07:56:24
2	Cu 324.752†	2564.7	146.5	0.9709	µg/L	0.9709	ppb	07:56:24
2	Mn 257.610†	-168.4	94.6	0.3115	µg/L	0.3115	ppb	07:56:44
2	Mo 202.031†	-1.8	3.1	0.3107	µg/L	0.3107	ppb	07:56:44
2	Ni 231.604†	295.3	-4.2	-0.2179	µg/L	-0.2179	ppb	07:56:44
2	P 214.914†	19.7	-6.7	-13.527	µg/L	-13.527	ppb	07:56:44
2	Pb 220.353†	96.1	10.1	2.5305	µg/L	2.5305	ppb	07:56:44

2	S 181.975 Axial†	13.9	-3.4	-13.972 µg/L	-13.972 ppb		07:56:44
2	Sb 206.836†	23.4	-0.0	-0.0223 µg/L	-0.0223 ppb		07:56:44
2	Se 196.026†	14.3	-4.0	-5.5936 µg/L	-5.5936 ppb		07:56:44
2	SiO2†	1532.4	257.0	52.486 µg/L	52.486 ppb		07:56:24
2	Si 251.611†	498.3	208.3	16.276 µg/L	16.276 ppb		07:56:44
2	Sn 189.927†	2.7	2.4	1.0545 µg/L	1.0545 ppb		07:56:44
2	Ti 334.940†	307.1	214.9	0.4979 µg/L	0.4979 ppb		07:56:24
2	Tl 190.801†	-27.3	-3.8	-5.0185 µg/L	-5.0185 ppb		07:56:44
2	U 409.014†	-4.3	84.8	7.2287 µg/L	7.2287 ppb		07:56:24
2	V 292.402†	-54.9	-9.8	-0.0871 µg/L	-0.0871 ppb		07:56:24
2	Zn 213.857†	497.3	38.3	0.9030 µg/L	0.9030 ppb		07:56:44
3	Sc RADIAL	56137.5	56137.5	98.0 %			07:55:16
3	Al 396.153Radial†	-0.0	24.2	16.840 µg/L	16.840 ppb		07:55:16
3	Ca 317.933Radial†	198.1	15.2	13.200 µg/L	13.200 ppb		07:55:36
3	Fe 238.204 Radial†	14.7	1.3	10.600 µg/L	10.600 ppb		07:55:36
3	K 766.490 Radial†	180.4	17.5	12.066 µg/L	12.066 ppb		07:55:16
3	Mg 279.077 IEC†	14.1	3.5	31.397 µg/L	31.397 ppb		07:55:36
3	Na 589.592 Radial†	500.9	-2.7	-0.8466 µg/L	-0.8466 ppb		07:55:16
3	Sr 421.552†	64.8	40.7	0.4017 µg/L	0.4017 ppb		07:55:16
3	Sc 361.383	1975074.6	1975074.6	99.485 %			07:56:50
3	Y 371.029	1361237.6	1361237.6	99.768 %			07:56:50
3	Ag 328.068†	-557.9	0.3	-0.0009 µg/L	-0.0009 ppb		07:56:56
3	As 188.979†	-0.4	-2.2	-4.0375 µg/L	-4.0375 ppb		07:57:16
3	B 249.677†	330.6	38.1	1.5643 µg/L	1.5643 ppb		07:57:16
3	Ba 233.527†	-13.1	12.9	0.3171 µg/L	0.3171 ppb		07:57:16
3	Be 313.107†	-3512.9	69.3	0.0429 µg/L	0.0429 ppb		07:56:56
3	Cd 226.502†	-141.7	3.7	0.0964 µg/L	0.0964 ppb		07:57:16
3	Co 228.616†	-20.6	-11.9	-0.5523 µg/L	-0.5523 ppb		07:57:16
3	Cr 267.716†	-47.0	1.3	0.0272 µg/L	0.0272 ppb		07:56:56
3	Cu 324.752†	2506.0	74.8	0.4952 µg/L	0.4952 ppb		07:56:56
3	Mn 257.610†	-174.6	89.2	0.2901 µg/L	0.2901 ppb		07:57:16
3	Mo 202.031†	-5.4	-0.6	-0.0561 µg/L	-0.0561 ppb		07:57:16
3	Ni 231.604†	317.0	16.1	0.8326 µg/L	0.8326 ppb		07:57:16
3	P 214.914†	24.7	-1.8	-3.6399 µg/L	-3.6399 ppb		07:57:16
3	Pb 220.353†	90.0	3.6	0.8910 µg/L	0.8910 ppb		07:57:16
3	S 181.975 Axial†	14.7	-2.7	-11.089 µg/L	-11.089 ppb		07:57:16
3	Sb 206.836†	20.5	-3.1	-2.8426 µg/L	-2.8426 ppb		07:57:16
3	Se 196.026†	12.7	-5.6	-8.0526 µg/L	-8.0526 ppb		07:57:16
3	SiO2†	1387.7	104.0	21.237 µg/L	21.237 ppb		07:56:56
3	Si 251.611†	481.3	188.7	14.750 µg/L	14.750 ppb		07:57:16
3	Sn 189.927†	7.7	7.5	3.2399 µg/L	3.2399 ppb		07:57:16
3	Ti 334.940†	285.1	191.2	0.4392 µg/L	0.4392 ppb		07:56:56
3	Tl 190.801†	-19.5	4.2	5.5354 µg/L	5.5354 ppb		07:57:16
3	U 409.014†	-27.6	61.4	5.2327 µg/L	5.2327 ppb		07:56:56
3	V 292.402†	-102.1	-56.9	-0.5688 µg/L	-0.5688 ppb		07:56:56
3	Zn 213.857†	494.7	33.2	0.7753 µg/L	0.7753 ppb		07:57:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1972757.7	99.368	%	0.3292				0.33%
Sc RADIAL	56135.9	98.0	%	0.03				0.03%
Y 371.029	1359435.7	99.636	%	0.3529				0.35%
Ag 328.068†	72.1	0.5465	µg/L	0.47425	0.5465	ppb	0.47425	86.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.8	18.648	µg/L	2.0233	18.648	ppb	2.0233	10.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-4.8361	µg/L	1.30199	-4.8361	ppb	1.30199	26.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	47.7	1.9541	µg/L	0.52793	1.9541	ppb	0.52793	27.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.1	0.1992	µg/L	0.10836	0.1992	ppb	0.10836	54.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	154.9	0.0961	µg/L	0.08284	0.0961	ppb	0.08284	86.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	13.8	11.962	µg/L	2.2593	11.962	ppb	2.2593	18.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.1	0.1304	µg/L	0.07127	0.1304	ppb	0.07127	54.65%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.4	-0.0683	µg/L	0.49372	-0.0683	ppb	0.49372	723.27%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -11.9     -0.2486 µg/L       0.23901     -0.2486 ppb        0.23901  96.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              115.8      0.7675 µg/L       0.24520      0.7675 ppb        0.24520  31.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.7     20.974 µg/L        9.2820     20.974 ppb         9.2820  44.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         24.6     16.956 µg/L       27.3855     16.956 ppb        27.3855 161.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.0      9.0199 µg/L      26.32680      9.0199 ppb       26.32680 291.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              102.5      0.3357 µg/L       0.06135      0.3357 ppb        0.06135  18.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.2      0.1189 µg/L       0.18398      0.1189 ppb        0.18398 154.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -8.2     -2.5631 µg/L       3.75893     -2.5631 ppb        3.75893 146.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                5.7      0.2960 µg/L       0.52563      0.2960 ppb        0.52563 177.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.2     -12.594 µg/L        8.5256     -12.594 ppb         8.5256  67.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                4.9      1.2290 µg/L       1.16969      1.2290 ppb        1.16969  95.17%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.0     -12.446 µg/L        1.4487     -12.446 ppb         1.4487  11.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.0      0.9627 µg/L       4.38160      0.9627 ppb        4.38160 455.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.2     -4.5536 µg/L       4.11868     -4.5536 ppb        4.11868  90.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    156.9     32.047 µg/L       17.7106     32.047 ppb        17.7106  55.27%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              185.1     14.463 µg/L        1.9722     14.463 ppb         1.9722  13.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.2      0.9541 µg/L       2.33762      0.9541 ppb        2.33762 245.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               26.5      0.2614 µg/L       0.12677      0.2614 ppb        0.12677  48.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              206.4      0.4761 µg/L       0.03213      0.4761 ppb        0.03213   6.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.4     -0.4798 µg/L       5.42965     -0.4798 ppb        5.42965 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                64.0      5.4573 µg/L       1.67048      5.4573 ppb        1.67048  30.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -32.9     -0.3241 µg/L       0.24093     -0.3241 ppb        0.24093  74.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               32.8      0.7701 µg/L       0.13554      0.7701 ppb        0.13554  17.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 08:22:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57160.6	57160.6	99.8	%			08:23:27
1	Al 396.153Radial†	7054.9	7093.2	4930.6	µg/L	4930.6	ppb	08:23:27
1	Ca 317.933Radial†	5660.0	5484.4	4760.8	µg/L	4760.8	ppb	08:23:47
1	Fe 238.204 Radial†	639.0	626.6	4960.9	µg/L	4960.9	ppb	08:23:47
1	K 766.490 Radial†	7440.3	7288.6	5016.9	µg/L	5016.9	ppb	08:23:27
1	Mg 279.077 IEC†	580.2	570.5	5055.9	µg/L	5055.9	ppb	08:23:47
1	Na 589.592 Radial†	31952.0	31502.0	9802.3	µg/L	9802.3	ppb	08:23:27
1	Sr 421.552†	49971.8	50046.1	493.86	µg/L	493.86	ppb	08:23:27
1	Sc 361.383	1989718.9	1989718.9	100.22	%			08:24:46
1	Y 371.029	1367817.6	1367817.6	100.25	%			08:24:46
1	Ag 328.068†	64534.1	64952.0	496.55	µg/L	496.55	ppb	08:24:52
1	As 188.979†	280.0	277.6	509.23	µg/L	509.23	ppb	08:25:12
1	B 249.677†	12276.6	11955.1	491.06	µg/L	491.06	ppb	08:24:52
1	Ba 233.527†	20170.2	20151.5	497.95	µg/L	497.95	ppb	08:24:52
1	Be 313.107†	797331.2	799162.9	496.41	µg/L	496.41	ppb	08:24:46
1	Cd 226.502†	19140.5	19244.3	499.72	µg/L	499.72	ppb	08:24:52
1	Co 228.616†	10808.2	10793.1	501.40	µg/L	501.40	ppb	08:24:52
1	Cr 267.716†	24112.4	24107.4	501.99	µg/L	501.99	ppb	08:24:52
1	Cu 324.752†	78302.4	75684.5	500.55	µg/L	500.55	ppb	08:24:52
1	Mn 257.610†	154674.7	154596.3	503.13	µg/L	503.13	ppb	08:24:46
1	Mo 202.031†	5046.5	5040.2	508.89	µg/L	508.89	ppb	08:25:12
1	Ni 231.604†	10013.9	9689.2	499.74	µg/L	499.74	ppb	08:24:52
1	P 214.914†	1285.6	1256.1	2475.5	µg/L	2475.5	ppb	08:25:12
1	Pb 220.353†	2107.1	2015.5	505.16	µg/L	505.16	ppb	08:25:12
1	S 181.975 Axial†	252.5	234.5	975.28	µg/L	975.28	ppb	08:25:12
1	Sb 206.836†	570.0	545.1	506.91	µg/L	506.91	ppb	08:25:12
1	Se 196.026†	387.3	368.0	536.29	µg/L	536.29	ppb	08:25:12
1	SiO2†	27425.0	26073.2	5325.4	µg/L	5325.4	ppb	08:24:52
1	Si 251.611†	32244.8	31878.2	2491.3	µg/L	2491.3	ppb	08:24:52
1	Sn 189.927†	1166.1	1163.2	503.49	µg/L	503.49	ppb	08:25:12
1	Ti 334.940†	215145.3	214572.7	495.15	µg/L	495.15	ppb	08:24:46
1	Tl 190.801†	358.8	381.7	510.01	µg/L	510.01	ppb	08:25:12
1	U 409.014†	5808.2	5884.5	501.10	µg/L	501.10	ppb	08:24:52
1	V 292.402†	49309.2	49245.5	503.95	µg/L	503.95	ppb	08:24:52
1	Zn 213.857†	21788.4	21276.0	498.04	µg/L	498.04	ppb	08:24:52
2	Sc RADIAL	57203.0	57203.0	99.9	%			08:23:52
2	Al 396.153Radial†	7065.0	7098.1	4934.0	µg/L	4934.0	ppb	08:23:52
2	Ca 317.933Radial†	5698.5	5518.8	4790.6	µg/L	4790.6	ppb	08:24:12
2	Fe 238.204 Radial†	643.2	630.3	4989.6	µg/L	4989.6	ppb	08:24:12
2	K 766.490 Radial†	7489.2	7332.0	5046.8	µg/L	5046.8	ppb	08:23:52
2	Mg 279.077 IEC†	583.8	573.7	5084.1	µg/L	5084.1	ppb	08:24:12
2	Na 589.592 Radial†	31921.4	31447.6	9785.4	µg/L	9785.4	ppb	08:23:52
2	Sr 421.552†	49913.0	49950.1	492.91	µg/L	492.91	ppb	08:23:52
2	Sc 361.383	1982473.9	1982473.9	99.857	%			08:25:19
2	Y 371.029	1361662.5	1361662.5	99.800	%			08:25:19
2	Ag 328.068†	63989.3	64641.7	494.19	µg/L	494.19	ppb	08:25:24
2	As 188.979†	277.8	276.4	507.02	µg/L	507.02	ppb	08:25:44
2	B 249.677†	12229.6	11952.8	490.94	µg/L	490.94	ppb	08:25:24
2	Ba 233.527†	20112.7	20167.5	498.34	µg/L	498.34	ppb	08:25:24
2	Be 313.107†	794214.7	798949.4	496.28	µg/L	496.28	ppb	08:25:19
2	Cd 226.502†	19056.9	19230.3	499.36	µg/L	499.36	ppb	08:25:24
2	Co 228.616†	10712.4	10736.5	498.78	µg/L	498.78	ppb	08:25:24
2	Cr 267.716†	23985.4	24068.2	501.17	µg/L	501.17	ppb	08:25:24
2	Cu 324.752†	77558.0	75224.5	497.51	µg/L	497.51	ppb	08:25:24
2	Mn 257.610†	154115.6	154600.4	503.15	µg/L	503.15	ppb	08:25:19
2	Mo 202.031†	5037.8	5049.8	509.86	µg/L	509.86	ppb	08:25:44
2	Ni 231.604†	9990.1	9701.9	500.40	µg/L	500.40	ppb	08:25:24
2	P 214.914†	1279.1	1254.3	2472.2	µg/L	2472.2	ppb	08:25:44
2	Pb 220.353†	2101.5	2017.5	505.68	µg/L	505.68	ppb	08:25:44

2	S 181.975 Axial†	257.5	240.5	1000.1 µg/L	1000.1 ppb	08:25:44
2	Sb 206.836†	562.8	540.0	502.20 µg/L	502.20 ppb	08:25:44
2	Se 196.026†	374.0	356.2	519.29 µg/L	519.29 ppb	08:25:44
2	SiO2†	27307.2	26055.2	5321.7 µg/L	5321.7 ppb	08:25:24
2	Si 251.611†	32113.8	31864.6	2490.2 µg/L	2490.2 ppb	08:25:24
2	Sn 189.927†	1172.5	1173.8	508.08 µg/L	508.08 ppb	08:25:44
2	Ti 334.940†	213522.3	213731.9	493.21 µg/L	493.21 ppb	08:25:19
2	Tl 190.801†	354.0	378.3	505.40 µg/L	505.40 ppb	08:25:44
2	U 409.014†	5734.3	5831.6	496.58 µg/L	496.58 ppb	08:25:24
2	V 292.402†	49095.6	49211.4	503.61 µg/L	503.61 ppb	08:25:24
2	Zn 213.857†	21658.2	21225.1	496.83 µg/L	496.83 ppb	08:25:24
3	Sc RADIAL	57341.1	57341.1	100 %		08:24:17
3	Al 396.153Radial†	7107.5	7123.4	4952.9 µg/L	4952.9 ppb	08:24:17
3	Ca 317.933Radial†	5692.5	5499.0	4773.5 µg/L	4773.5 ppb	08:24:37
3	Fe 238.204 Radial†	646.7	632.3	5004.9 µg/L	5004.9 ppb	08:24:37
3	K 766.490 Radial†	7459.3	7284.2	5013.8 µg/L	5013.8 ppb	08:24:17
3	Mg 279.077 IEC†	582.3	570.8	5057.0 µg/L	5057.0 ppb	08:24:37
3	Na 589.592 Radial†	32062.3	31511.4	9805.2 µg/L	9805.2 ppb	08:24:17
3	Sr 421.552†	50279.5	50195.9	495.34 µg/L	495.34 ppb	08:24:17
3	Sc 361.383	1998410.6	1998410.6	100.66 %		08:25:51
3	Y 371.029	1373845.8	1373845.8	100.69 %		08:25:51
3	Ag 328.068†	62575.3	62726.0	479.49 µg/L	479.49 ppb	08:25:56
3	As 188.979†	250.8	247.3	453.73 µg/L	453.73 ppb	08:26:17
3	B 249.677†	11892.6	11520.3	473.06 µg/L	473.06 ppb	08:25:56
3	Ba 233.527†	19463.6	19362.0	478.43 µg/L	478.43 ppb	08:25:56
3	Be 313.107†	776606.2	775113.6	481.47 µg/L	481.47 ppb	08:25:51
3	Cd 226.502†	18420.0	18445.4	478.95 µg/L	478.95 ppb	08:25:56
3	Co 228.616†	10299.3	10240.6	475.70 µg/L	475.70 ppb	08:25:56
3	Cr 267.716†	22836.6	22735.4	473.42 µg/L	473.42 ppb	08:25:56
3	Cu 324.752†	74731.4	71797.1	474.88 µg/L	474.88 ppb	08:25:56
3	Mn 257.610†	150741.9	150018.0	488.25 µg/L	488.25 ppb	08:25:51
3	Mo 202.031†	4496.9	4472.3	451.58 µg/L	451.58 ppb	08:26:17
3	Ni 231.604†	9635.4	9269.8	478.11 µg/L	478.11 ppb	08:25:56
3	P 214.914†	1165.3	1131.1	2226.0 µg/L	2226.0 ppb	08:26:17
3	Pb 220.353†	1943.3	1843.6	461.99 µg/L	461.99 ppb	08:26:17
3	S 181.975 Axial†	237.1	218.1	907.04 µg/L	907.04 ppb	08:26:17
3	Sb 206.836†	515.4	488.3	453.74 µg/L	453.74 ppb	08:26:17
3	Se 196.026†	345.2	324.5	473.94 µg/L	473.94 ppb	08:26:17
3	SiO2†	26568.1	25102.9	5127.2 µg/L	5127.2 ppb	08:25:56
3	Si 251.611†	31199.3	30699.6	2399.2 µg/L	2399.2 ppb	08:25:56
3	Sn 189.927†	1034.4	1027.3	444.68 µg/L	444.68 ppb	08:26:17
3	Ti 334.940†	208298.3	206837.0	477.29 µg/L	477.29 ppb	08:25:51
3	Tl 190.801†	337.2	358.7	479.42 µg/L	479.42 ppb	08:26:17
3	U 409.014†	5605.0	5657.4	481.72 µg/L	481.72 ppb	08:25:56
3	V 292.402†	47078.6	46815.6	478.86 µg/L	478.86 ppb	08:25:56
3	Zn 213.857†	20911.0	20309.8	475.39 µg/L	475.39 ppb	08:25:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1990201.1	100.25	%	0.402				0.40%
Sc RADIAL	57234.9	99.9	%	0.16				0.16%
Y 371.029	1367775.3	100.25	%	0.446				0.45%
Ag 328.068†	64106.6	490.08	µg/L	9.241	490.08	ppb	9.241	1.89%
QC value within limits for Ag 328.068 Recovery = 98.02%								
Al 396.153Radial†	7104.9	4939.2	µg/L	11.98	4939.2	ppb	11.98	0.24%
QC value within limits for Al 396.153Radial Recovery = 98.78%								
As 188.979†	267.1	489.99	µg/L	31.427	489.99	ppb	31.427	6.41%
QC value within limits for As 188.979 Recovery = 98.00%								
B 249.677†	11809.4	485.02	µg/L	10.357	485.02	ppb	10.357	2.14%
QC value within limits for B 249.677 Recovery = 97.00%								
Ba 233.527†	19893.6	491.57	µg/L	11.384	491.57	ppb	11.384	2.32%
QC value within limits for Ba 233.527 Recovery = 98.31%								
Be 313.107†	791075.3	491.38	µg/L	8.586	491.38	ppb	8.586	1.75%
QC value within limits for Be 313.107 Recovery = 98.28%								
Ca 317.933Radial†	5500.7	4775.0	µg/L	14.95	4775.0	ppb	14.95	0.31%
QC value within limits for Ca 317.933Radial Recovery = 95.50%								
Cd 226.502†	18973.3	492.67	µg/L	11.890	492.67	ppb	11.890	2.41%
QC value within limits for Cd 226.502 Recovery = 98.53%								
Co 228.616†	10590.1	491.96	µg/L	14.146	491.96	ppb	14.146	2.88%

```
   QC value within limits for Co 228.616  Recovery = 98.39%
Cr 267.716†            23637.0      492.20 µg/L        16.262      492.20 ppb        16.262   3.30%
   QC value within limits for Cr 267.716  Recovery = 98.44%
Cu 324.752†            74235.4      490.98 µg/L        14.026      490.98 ppb        14.026   2.86%
   QC value within limits for Cu 324.752  Recovery = 98.20%
Fe 238.204 Radial†       629.7      4985.1 µg/L         22.34      4985.1 ppb         22.34   0.45%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.70%
K 766.490 Radial†       7301.6      5025.8 µg/L         18.20      5025.8 ppb         18.20   0.36%
   QC value within limits for K 766.490 Radial  Recovery = 100.52%
Mg 279.077 IEC†          571.7      5065.6 µg/L         15.97      5065.6 ppb         15.97   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.31%
Mn 257.610†           153071.5      498.18 µg/L         8.596      498.18 ppb         8.596   1.73%
   QC value within limits for Mn 257.610  Recovery = 99.64%
Mo 202.031†             4854.1      490.11 µg/L        33.375      490.11 ppb        33.375   6.81%
   QC value within limits for Mo 202.031  Recovery = 98.02%
Na 589.592 Radial†     31487.0      9797.6 µg/L         10.71      9797.6 ppb         10.71   0.11%
   QC value within limits for Na 589.592 Radial  Recovery = 97.98%
Ni 231.604†             9553.6      492.75 µg/L        12.681      492.75 ppb        12.681   2.57%
   QC value within limits for Ni 231.604  Recovery = 98.55%
P 214.914†              1213.8      2391.3 µg/L        143.09      2391.3 ppb        143.09   5.98%
   QC value within limits for P 214.914  Recovery = 95.65%
Pb 220.353†             1958.9      490.94 µg/L        25.075      490.94 ppb        25.075   5.11%
   QC value within limits for Pb 220.353  Recovery = 98.19%
S 181.975 Axial†         231.0      960.82 µg/L        48.203      960.82 ppb        48.203   5.02%
   QC value within limits for S 181.975 Axial  Recovery = 96.08%
Sb 206.836†              524.4      487.62 µg/L        29.430      487.62 ppb        29.430   6.04%
   QC value within limits for Sb 206.836  Recovery = 97.52%
Se 196.026†              349.6      509.84 µg/L        32.236      509.84 ppb        32.236   6.32%
   QC value within limits for Se 196.026  Recovery = 101.97%
SiO2†                  25743.8      5258.1 µg/L        113.37      5258.1 ppb        113.37   2.16%
   QC value within limits for SiO2  Recovery = 98.33%
Si 251.611†            31480.8      2460.2 µg/L         52.87      2460.2 ppb         52.87   2.15%
   QC value within limits for Si 251.611  Recovery = 98.41%
Sn 189.927†             1121.5      485.41 µg/L        35.355      485.41 ppb        35.355   7.28%
   QC value within limits for Sn 189.927  Recovery = 97.08%
Sr 421.552†            50064.0      494.04 µg/L         1.223      494.04 ppb         1.223   0.25%
   QC value within limits for Sr 421.552  Recovery = 98.81%
Ti 334.940†           211713.8      488.55 µg/L         9.800      488.55 ppb         9.800   2.01%
   QC value within limits for Ti 334.940  Recovery = 97.71%
Tl 190.801†              372.9      498.28 µg/L        16.489      498.28 ppb        16.489   3.31%
   QC value within limits for Tl 190.801  Recovery = 99.66%
U 409.014†              5791.2      493.13 µg/L        10.141      493.13 ppb        10.141   2.06%
   QC value within limits for U 409.014  Recovery = 98.63%
V 292.402†             48424.2      495.47 µg/L        14.385      495.47 ppb        14.385   2.90%
   QC value within limits for V 292.402  Recovery = 99.09%
Zn 213.857†            20937.0      490.09 µg/L        12.740      490.09 ppb        12.740   2.60%
   QC value within limits for Zn 213.857  Recovery = 98.02%
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 08:26:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56540.0	56540.0	98.7	%			08:26:57
1	Al 396.153Radial†	-9.5	14.6	10.145	µg/L	10.145	ppb	08:26:57
1	Ca 317.933Radial†	191.3	6.9	5.9762	µg/L	5.9762	ppb	08:27:17
1	Fe 238.204 Radial†	14.5	1.0	8.1795	µg/L	8.1795	ppb	08:27:17
1	K 766.490 Radial†	132.0	-32.8	-22.568	µg/L	-22.568	ppb	08:26:57
1	Mg 279.077 IEC†	12.9	2.2	19.417	µg/L	19.417	ppb	08:27:17
1	Na 589.592 Radial†	491.4	-16.0	-4.9770	µg/L	-4.9770	ppb	08:26:57
1	Sr 421.552†	48.9	24.1	0.2378	µg/L	0.2378	ppb	08:26:57
1	Sc 361.383	1984213.3	1984213.3	99.945	%			08:28:16
1	Y 371.029	1368350.9	1368350.9	100.29	%			08:28:16
1	Ag 328.068†	-508.3	52.5	0.3965	µg/L	0.3965	ppb	08:28:21
1	As 188.979†	0.3	-1.6	-2.8659	µg/L	-2.8659	ppb	08:28:41
1	B 249.677†	339.2	45.1	1.8554	µg/L	1.8554	ppb	08:28:41
1	Ba 233.527†	-11.3	14.7	0.3616	µg/L	0.3616	ppb	08:28:41
1	Be 313.107†	-3383.7	214.8	0.1334	µg/L	0.1334	ppb	08:28:21
1	Cd 226.502†	-144.8	1.3	0.0333	µg/L	0.0333	ppb	08:28:41
1	Co 228.616†	-11.3	-2.4	-0.1133	µg/L	-0.1133	ppb	08:28:41
1	Cr 267.716†	-38.5	10.1	0.2091	µg/L	0.2091	ppb	08:28:41
1	Cu 324.752†	2536.9	94.2	0.6230	µg/L	0.6230	ppb	08:28:21
1	Mn 257.610†	-210.5	54.0	0.1759	µg/L	0.1759	ppb	08:28:41
1	Mo 202.031†	-6.1	-1.3	-0.1300	µg/L	-0.1300	ppb	08:28:41
1	Ni 231.604†	304.6	2.3	0.1201	µg/L	0.1201	ppb	08:28:41
1	P 214.914†	24.5	-2.1	-4.2017	µg/L	-4.2017	ppb	08:28:41
1	Pb 220.353†	90.0	3.1	0.7753	µg/L	0.7753	ppb	08:28:41
1	S 181.975 Axial†	17.6	0.2	0.7459	µg/L	0.7459	ppb	08:28:41
1	Sb 206.836†	19.5	-4.2	-3.8631	µg/L	-3.8631	ppb	08:28:41
1	Se 196.026†	18.1	-0.2	-0.3115	µg/L	-0.3115	ppb	08:28:41
1	SiO2†	1321.2	31.0	6.3269	µg/L	6.3269	ppb	08:28:21
1	Si 251.611†	385.9	91.0	7.1141	µg/L	7.1141	ppb	08:28:41
1	Sn 189.927†	5.4	5.1	2.2288	µg/L	2.2288	ppb	08:28:41
1	Ti 334.940†	158.7	63.4	0.1450	µg/L	0.1450	ppb	08:28:21
1	Tl 190.801†	-26.4	-2.7	-3.4989	µg/L	-3.4989	ppb	08:28:41
1	U 409.014†	-11.0	78.1	6.6607	µg/L	6.6607	ppb	08:28:21
1	V 292.402†	-80.1	-34.5	-0.3410	µg/L	-0.3410	ppb	08:28:21
1	Zn 213.857†	488.5	24.7	0.5794	µg/L	0.5794	ppb	08:28:41
2	Sc RADIAL	56101.0	56101.0	98.0	%			08:27:22
2	Al 396.153Radial†	-11.8	12.1	8.4306	µg/L	8.4306	ppb	08:27:22
2	Ca 317.933Radial†	192.9	10.0	8.7209	µg/L	8.7209	ppb	08:27:43
2	Fe 238.204 Radial†	17.0	3.7	28.883	µg/L	28.883	ppb	08:27:43
2	K 766.490 Radial†	201.0	38.7	26.671	µg/L	26.671	ppb	08:27:22
2	Mg 279.077 IEC†	10.8	0.1	1.3103	µg/L	1.3103	ppb	08:27:43
2	Na 589.592 Radial†	473.4	-30.5	-9.4779	µg/L	-9.4779	ppb	08:27:22
2	Sr 421.552†	43.0	18.5	0.1828	µg/L	0.1828	ppb	08:27:22
2	Sc 361.383	2001647.1	2001647.1	100.82	%			08:28:47
2	Y 371.029	1380015.3	1380015.3	101.14	%			08:28:47
2	Ag 328.068†	-478.9	86.1	0.6545	µg/L	0.6545	ppb	08:28:52
2	As 188.979†	-2.7	-4.5	-8.2260	µg/L	-8.2260	ppb	08:29:12
2	B 249.677†	346.0	48.9	2.0015	µg/L	2.0015	ppb	08:29:12
2	Ba 233.527†	-20.2	5.9	0.1466	µg/L	0.1466	ppb	08:29:12
2	Be 313.107†	-3332.2	295.4	0.1835	µg/L	0.1835	ppb	08:28:52
2	Cd 226.502†	-133.8	13.5	0.3464	µg/L	0.3464	ppb	08:29:12
2	Co 228.616†	-8.4	0.5	0.0247	µg/L	0.0247	ppb	08:29:12
2	Cr 267.716†	-34.7	14.2	0.2951	µg/L	0.2951	ppb	08:29:12
2	Cu 324.752†	2510.5	45.8	0.3065	µg/L	0.3065	ppb	08:28:52
2	Mn 257.610†	-213.0	53.4	0.1774	µg/L	0.1774	ppb	08:29:12
2	Mo 202.031†	5.6	10.4	1.0489	µg/L	1.0489	ppb	08:29:12
2	Ni 231.604†	306.8	1.8	0.0939	µg/L	0.0939	ppb	08:29:12
2	P 214.914†	27.3	0.5	0.9894	µg/L	0.9894	ppb	08:29:12
2	Pb 220.353†	86.6	-1.0	-0.2655	µg/L	-0.2655	ppb	08:29:12

2	S 181.975 Axial†	9.8	-7.7	-32.195 µg/L	-32.195 ppb	08:29:12
2	Sb 206.836†	27.0	3.1	2.9279 µg/L	2.9279 ppb	08:29:12
2	Se 196.026†	17.1	-1.4	-1.9269 µg/L	-1.9269 ppb	08:29:12
2	SiO2†	1326.6	24.8	5.0692 µg/L	5.0692 ppb	08:28:52
2	Si 251.611†	391.8	93.5	7.3102 µg/L	7.3102 ppb	08:29:12
2	Sn 189.927†	6.5	6.2	2.6590 µg/L	2.6590 ppb	08:29:12
2	Ti 334.940†	168.3	71.5	0.1652 µg/L	0.1652 ppb	08:28:52
2	Tl 190.801†	-24.3	-0.4	-0.4939 µg/L	-0.4939 ppb	08:29:12
2	U 409.014†	-8.5	80.7	6.8777 µg/L	6.8777 ppb	08:28:52
2	V 292.402†	-57.2	-11.0	-0.0920 µg/L	-0.0920 ppb	08:28:52
2	Zn 213.857†	490.3	22.2	0.5216 µg/L	0.5216 ppb	08:29:12
3	Sc RADIAL	56264.9	56264.9	98.2 %		08:27:48
3	Al 396.153Radial†	4.7	29.0	20.175 µg/L	20.175 ppb	08:27:48
3	Ca 317.933Radial†	195.9	12.5	10.864 µg/L	10.864 ppb	08:28:08
3	Fe 238.204 Radial†	17.7	4.4	34.425 µg/L	34.425 ppb	08:28:08
3	K 766.490 Radial†	147.1	-16.8	-11.534 µg/L	-11.534 ppb	08:27:48
3	Mg 279.077 IEC†	9.9	-0.8	-7.0181 µg/L	-7.0181 ppb	08:28:08
3	Na 589.592 Radial†	503.0	-1.8	-0.5524 µg/L	-0.5524 ppb	08:27:48
3	Sr 421.552†	34.6	9.8	0.0970 µg/L	0.0970 ppb	08:27:48
3	Sc 361.383	1979600.8	1979600.8	99.713 %		08:29:18
3	Y 371.029	1365446.9	1365446.9	100.08 %		08:29:18
3	Ag 328.068†	-517.5	42.0	0.3224 µg/L	0.3224 ppb	08:29:23
3	As 188.979†	0.4	-1.4	-2.6461 µg/L	-2.6461 ppb	08:29:43
3	B 249.677†	332.2	38.9	1.5864 µg/L	1.5864 ppb	08:29:43
3	Ba 233.527†	-30.1	-4.1	-0.1015 µg/L	-0.1015 ppb	08:29:43
3	Be 313.107†	-3521.9	68.4	0.0424 µg/L	0.0424 ppb	08:29:23
3	Cd 226.502†	-134.5	11.3	0.2906 µg/L	0.2906 ppb	08:29:43
3	Co 228.616†	-1.4	7.4	0.3454 µg/L	0.3454 ppb	08:29:43
3	Cr 267.716†	-39.3	9.2	0.1912 µg/L	0.1912 ppb	08:29:43
3	Cu 324.752†	2460.7	23.6	0.1606 µg/L	0.1606 ppb	08:29:23
3	Mn 257.610†	-211.4	52.6	0.1760 µg/L	0.1760 ppb	08:29:43
3	Mo 202.031†	-7.5	-2.7	-0.2704 µg/L	-0.2704 ppb	08:29:43
3	Ni 231.604†	307.3	5.7	0.2968 µg/L	0.2968 ppb	08:29:43
3	P 214.914†	24.2	-2.3	-4.7741 µg/L	-4.7741 ppb	08:29:43
3	Pb 220.353†	94.9	8.3	2.0574 µg/L	2.0574 ppb	08:29:43
3	S 181.975 Axial†	15.2	-2.2	-9.3167 µg/L	-9.3167 ppb	08:29:43
3	Sb 206.836†	24.1	0.5	0.4446 µg/L	0.4446 ppb	08:29:43
3	Se 196.026†	16.4	-1.9	-2.6823 µg/L	-2.6823 ppb	08:29:43
3	SiO2†	1352.5	65.5	13.369 µg/L	13.369 ppb	08:29:23
3	Si 251.611†	388.0	94.0	7.3462 µg/L	7.3462 ppb	08:29:43
3	Sn 189.927†	-4.1	-4.4	-1.9226 µg/L	-1.9226 ppb	08:29:43
3	Ti 334.940†	192.8	98.0	0.2269 µg/L	0.2269 ppb	08:29:23
3	Tl 190.801†	-24.3	-0.6	-0.7771 µg/L	-0.7771 ppb	08:29:43
3	U 409.014†	12.3	101.4	8.6479 µg/L	8.6479 ppb	08:29:23
3	V 292.402†	-25.8	19.8	0.2118 µg/L	0.2118 ppb	08:29:23
3	Zn 213.857†	481.8	19.1	0.4482 µg/L	0.4482 ppb	08:29:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1988487.1	100.16	%	0.586				0.58%
Sc RADIAL	56302.0	98.3	%	0.39				0.39%
Y 371.029	1371271.0	100.50	%	0.565				0.56%
Ag 328.068†	60.2	0.4578	µg/L	0.17429	0.4578	ppb	0.17429	38.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.5	12.917	µg/L	6.3441	12.917	ppb	6.3441	49.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.5	-4.5793	µg/L	3.16000	-4.5793	ppb	3.16000	69.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	44.3	1.8144	µg/L	0.21058	1.8144	ppb	0.21058	11.61%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.5	0.1355	µg/L	0.23175	0.1355	ppb	0.23175	170.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	192.8	0.1198	µg/L	0.07154	0.1198	ppb	0.07154	59.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.8	8.5203	µg/L	2.45009	8.5203	ppb	2.45009	28.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.7	0.2234	µg/L	0.16702	0.2234	ppb	0.16702	74.75%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.8	0.0856	µg/L	0.23533	0.0856	ppb	0.23533	274.92%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.1      0.2318 µg/L       0.05554      0.2318 ppb        0.05554  23.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                54.5      0.3634 µg/L       0.23634      0.3634 ppb        0.23634  65.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          3.0      23.829 µg/L       13.8334      23.829 ppb        13.8334  58.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -3.6     -2.4768 µg/L      25.83895     -2.4768 ppb       25.83895 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      4.5698 µg/L      13.51568      4.5698 ppb       13.51568 295.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                53.4      0.1765 µg/L       0.00084      0.1765 ppb        0.00084   0.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.1      0.2161 µg/L       0.72458      0.2161 ppb        0.72458 335.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -16.1     -5.0024 µg/L       4.46280     -5.0024 ppb        4.46280  89.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.3      0.1703 µg/L       0.11034      0.1703 ppb        0.11034  64.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.3     -2.6621 µg/L       3.17525     -2.6621 ppb        3.17525 119.27%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.4      0.8557 µg/L       1.16354      0.8557 ppb        1.16354 135.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.3     -13.589 µg/L       16.8810     -13.589 ppb        16.8810 124.23%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.2     -0.1636 µg/L       3.43612     -0.1636 ppb        3.43612 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.2     -1.6402 µg/L       1.21111     -1.6402 ppb        1.21111  73.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      40.4      8.2550 µg/L       4.47329      8.2550 ppb        4.47329  54.19%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                92.9      7.2568 µg/L       0.12491      7.2568 ppb        0.12491   1.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.3      0.9884 µg/L       2.53013      0.9884 ppb        2.53013 255.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                17.5      0.1725 µg/L       0.07097      0.1725 ppb        0.07097  41.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                77.6      0.1791 µg/L       0.04267      0.1791 ppb        0.04267  23.83%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.5900 µg/L       1.65922     -1.5900 ppb        1.65922 104.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 86.7      7.3954 µg/L       1.09008      7.3954 ppb        1.09008  14.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -8.6     -0.0738 µg/L       0.27685     -0.0738 ppb        0.27685 375.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                22.0      0.5164 µg/L       0.06574      0.5164 ppb        0.06574  12.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 08:54:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56649.6	56649.6	98.9	%			08:55:23
1	Al 396.153Radial†	7204.3	7308.0	5079.9	µg/L	5079.9	ppb	08:55:23
1	Ca 317.933Radial†	5882.9	5760.9	5000.9	µg/L	5000.9	ppb	08:55:43
1	Fe 238.204 Radial†	654.7	648.2	5132.0	µg/L	5132.0	ppb	08:55:43
1	K 766.490 Radial†	7636.3	7554.0	5199.6	µg/L	5199.6	ppb	08:55:23
1	Mg 279.077 IEC†	595.3	591.1	5237.6	µg/L	5237.6	ppb	08:55:43
1	Na 589.592 Radial†	32438.2	32282.3	10045	µg/L	10045	ppb	08:55:23
1	Sr 421.552†	50877.1	51413.1	507.35	µg/L	507.35	ppb	08:55:23
1	Sc 361.383	1977743.7	1977743.7	99.619	%			08:56:43
1	Y 371.029	1358624.1	1358624.1	99.577	%			08:56:43
1	Ag 328.068†	65536.7	66348.3	507.24	µg/L	507.24	ppb	08:56:49
1	As 188.979†	288.8	288.0	528.45	µg/L	528.45	ppb	08:57:09
1	B 249.677†	12482.1	12235.6	502.55	µg/L	502.55	ppb	08:56:49
1	Ba 233.527†	20582.8	20687.5	511.19	µg/L	511.19	ppb	08:56:49
1	Be 313.107†	813722.8	820434.3	509.62	µg/L	509.62	ppb	08:56:43
1	Cd 226.502†	19590.2	19811.2	514.44	µg/L	514.44	ppb	08:56:49
1	Co 228.616†	11018.5	11069.5	514.26	µg/L	514.26	ppb	08:56:49
1	Cr 267.716†	24656.1	24798.9	516.39	µg/L	516.39	ppb	08:56:49
1	Cu 324.752†	79312.0	77171.1	510.39	µg/L	510.39	ppb	08:56:49
1	Mn 257.610†	157233.2	158099.1	514.54	µg/L	514.54	ppb	08:56:43
1	Mo 202.031†	5203.4	5228.2	527.87	µg/L	527.87	ppb	08:57:09
1	Ni 231.604†	10240.0	9976.6	514.56	µg/L	514.56	ppb	08:56:49
1	P 214.914†	1319.7	1298.2	2559.2	µg/L	2559.2	ppb	08:57:09
1	Pb 220.353†	2171.2	2092.6	524.48	µg/L	524.48	ppb	08:57:09
1	S 181.975 Axial†	264.9	248.5	1033.4	µg/L	1033.4	ppb	08:57:09
1	Sb 206.836†	577.8	556.3	517.44	µg/L	517.44	ppb	08:57:09
1	Se 196.026†	376.2	359.3	523.98	µg/L	523.98	ppb	08:57:09
1	SiO2†	27853.2	26668.7	5447.0	µg/L	5447.0	ppb	08:56:49
1	Si 251.611†	32748.6	32578.7	2546.0	µg/L	2546.0	ppb	08:56:49
1	Sn 189.927†	1213.5	1217.8	527.12	µg/L	527.12	ppb	08:57:09
1	Ti 334.940†	218490.0	219230.0	505.90	µg/L	505.90	ppb	08:56:43
1	Tl 190.801†	368.9	394.1	526.44	µg/L	526.44	ppb	08:57:09
1	U 409.014†	5950.7	6062.6	516.26	µg/L	516.26	ppb	08:56:49
1	V 292.402†	50316.4	50554.4	517.39	µg/L	517.39	ppb	08:56:49
1	Zn 213.857†	22274.1	21895.2	512.53	µg/L	512.53	ppb	08:56:49
2	Sc RADIAL	56814.6	56814.6	99.2	%			08:55:49
2	Al 396.153Radial†	7122.2	7204.1	5007.6	µg/L	5007.6	ppb	08:55:49
2	Ca 317.933Radial†	5908.8	5769.8	5008.6	µg/L	5008.6	ppb	08:56:09
2	Fe 238.204 Radial†	659.7	651.3	5156.0	µg/L	5156.0	ppb	08:56:09
2	K 766.490 Radial†	7529.5	7424.0	5110.0	µg/L	5110.0	ppb	08:55:49
2	Mg 279.077 IEC†	596.5	590.5	5232.9	µg/L	5232.9	ppb	08:56:09
2	Na 589.592 Radial†	32089.0	31835.1	9905.9	µg/L	9905.9	ppb	08:55:49
2	Sr 421.552†	50280.3	50662.0	499.94	µg/L	499.94	ppb	08:55:49
2	Sc 361.383	1970345.5	1970345.5	99.246	%			08:57:16
2	Y 371.029	1353789.2	1353789.2	99.222	%			08:57:16
2	Ag 328.068†	64740.5	65793.0	503.00	µg/L	503.00	ppb	08:57:21
2	As 188.979†	285.4	285.7	524.16	µg/L	524.16	ppb	08:57:41
2	B 249.677†	12338.9	12138.3	498.52	µg/L	498.52	ppb	08:57:21
2	Ba 233.527†	20337.2	20517.6	506.99	µg/L	506.99	ppb	08:57:21
2	Be 313.107†	802376.1	812068.4	504.42	µg/L	504.42	ppb	08:57:16
2	Cd 226.502†	19294.5	19587.1	508.61	µg/L	508.61	ppb	08:57:21
2	Co 228.616†	10836.9	10928.1	507.68	µg/L	507.68	ppb	08:57:21
2	Cr 267.716†	24311.5	24544.7	511.10	µg/L	511.10	ppb	08:57:21
2	Cu 324.752†	78416.2	76567.4	506.40	µg/L	506.40	ppb	08:57:21
2	Mn 257.610†	155054.0	156495.9	509.33	µg/L	509.33	ppb	08:57:16
2	Mo 202.031†	5131.7	5175.6	522.56	µg/L	522.56	ppb	08:57:41
2	Ni 231.604†	10094.8	9869.0	509.02	µg/L	509.02	ppb	08:57:21
2	P 214.914†	1300.0	1283.2	2529.5	µg/L	2529.5	ppb	08:57:41
2	Pb 220.353†	2151.2	2080.7	521.50	µg/L	521.50	ppb	08:57:41

2	S 181.975 Axial†	263.1	247.6	1029.9 µg/L	1029.9 ppb	08:57:41
2	Sb 206.836†	576.3	557.0	518.01 µg/L	518.01 ppb	08:57:41
2	Se 196.026†	375.1	359.6	524.45 µg/L	524.45 ppb	08:57:41
2	SiO2†	27571.4	26489.8	5410.5 µg/L	5410.5 ppb	08:57:21
2	Si 251.611†	32429.3	32380.4	2530.5 µg/L	2530.5 ppb	08:57:21
2	Sn 189.927†	1200.8	1209.6	523.55 µg/L	523.55 ppb	08:57:41
2	Ti 334.940†	215558.8	217100.1	500.98 µg/L	500.98 ppb	08:57:16
2	Tl 190.801†	361.2	387.7	517.99 µg/L	517.99 ppb	08:57:41
2	U 409.014†	5853.2	5986.8	509.79 µg/L	509.79 ppb	08:57:21
2	V 292.402†	49707.8	50130.9	513.05 µg/L	513.05 ppb	08:57:21
2	Zn 213.857†	21926.7	21629.1	506.29 µg/L	506.29 ppb	08:57:21
3	Sc RADIAL	56615.9	56615.9	98.8 %		08:56:14
3	Al 396.153Radial†	7139.7	7247.0	5038.8 µg/L	5038.8 ppb	08:56:14
3	Ca 317.933Radial†	5855.4	5736.7	4979.8 µg/L	4979.8 ppb	08:56:34
3	Fe 238.204 Radial†	653.5	647.4	5124.6 µg/L	5124.6 ppb	08:56:34
3	K 766.490 Radial†	7520.5	7441.5	5122.1 µg/L	5122.1 ppb	08:56:14
3	Mg 279.077 IEC†	590.5	586.5	5196.3 µg/L	5196.3 ppb	08:56:34
3	Na 589.592 Radial†	32292.7	32154.6	10005 µg/L	10005 ppb	08:56:14
3	Sr 421.552†	50663.7	51227.7	505.52 µg/L	505.52 ppb	08:56:14
3	Sc 361.383	1984031.3	1984031.3	99.936 %		08:57:48
3	Y 371.029	1361618.5	1361618.5	99.796 %		08:57:48
3	Ag 328.068†	62910.1	63511.6	485.51 µg/L	485.51 ppb	08:57:53
3	As 188.979†	257.5	255.9	469.45 µg/L	469.45 ppb	08:58:14
3	B 249.677†	11995.4	11708.8	480.78 µg/L	480.78 ppb	08:57:53
3	Ba 233.527†	19548.9	19587.5	484.00 µg/L	484.00 ppb	08:57:53
3	Be 313.107†	783926.2	788029.9	489.49 µg/L	489.49 ppb	08:57:48
3	Cd 226.502†	18567.0	18725.1	486.20 µg/L	486.20 ppb	08:57:53
3	Co 228.616†	10390.4	10405.9	483.37 µg/L	483.37 ppb	08:57:53
3	Cr 267.716†	22907.7	22971.0	478.33 µg/L	478.33 ppb	08:57:53
3	Cu 324.752†	75013.1	72617.1	480.31 µg/L	480.31 ppb	08:57:53
3	Mn 257.610†	151942.2	152304.4	495.70 µg/L	495.70 ppb	08:57:48
3	Mo 202.031†	4505.6	4513.3	455.72 µg/L	455.72 ppb	08:58:14
3	Ni 231.604†	9688.1	9391.8	484.41 µg/L	484.41 ppb	08:57:53
3	P 214.914†	1174.7	1148.9	2261.2 µg/L	2261.2 ppb	08:58:14
3	Pb 220.353†	1956.1	1870.4	468.71 µg/L	468.71 ppb	08:58:14
3	S 181.975 Axial†	235.8	218.5	908.67 µg/L	908.67 ppb	08:58:14
3	Sb 206.836†	514.5	491.2	456.38 µg/L	456.38 ppb	08:58:14
3	Se 196.026†	339.9	321.7	470.07 µg/L	470.07 ppb	08:58:14
3	SiO2†	26690.9	25417.1	5191.4 µg/L	5191.4 ppb	08:57:53
3	Si 251.611†	31284.4	31009.4	2423.4 µg/L	2423.4 ppb	08:57:53
3	Sn 189.927†	1034.5	1034.8	447.92 µg/L	447.92 ppb	08:58:14
3	Ti 334.940†	210238.8	210278.4	485.23 µg/L	485.23 ppb	08:57:48
3	Tl 190.801†	333.3	357.3	477.64 µg/L	477.64 ppb	08:58:14
3	U 409.014†	5571.6	5664.3	482.27 µg/L	482.27 ppb	08:57:53
3	V 292.402†	47399.4	47475.5	485.59 µg/L	485.59 ppb	08:57:53
3	Zn 213.857†	21012.3	20561.7	481.28 µg/L	481.28 ppb	08:57:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1977373.5	99.600	%	0.3451				0.35%
Sc RADIAL	56693.4	99.0	%	0.19				0.19%
Y 371.029	1358010.6	99.532	%	0.2895				0.29%
Ag 328.068†	65217.6	498.58	µg/L	11.521	498.58	ppb	11.521	2.31%
QC value within limits for Ag 328.068 Recovery = 99.72%								
Al 396.153Radial†	7253.1	5042.1	µg/L	36.25	5042.1	ppb	36.25	0.72%
QC value within limits for Al 396.153Radial Recovery = 100.84%								
As 188.979†	276.5	507.35	µg/L	32.891	507.35	ppb	32.891	6.48%
QC value within limits for As 188.979 Recovery = 101.47%								
B 249.677†	12027.6	493.95	µg/L	11.583	493.95	ppb	11.583	2.35%
QC value within limits for B 249.677 Recovery = 98.79%								
Ba 233.527†	20264.2	500.73	µg/L	14.637	500.73	ppb	14.637	2.92%
QC value within limits for Ba 233.527 Recovery = 100.15%								
Be 313.107†	806844.2	501.18	µg/L	10.449	501.18	ppb	10.449	2.08%
QC value within limits for Be 313.107 Recovery = 100.24%								
Ca 317.933Radial†	5755.8	4996.4	µg/L	14.89	4996.4	ppb	14.89	0.30%
QC value within limits for Ca 317.933Radial Recovery = 99.93%								
Cd 226.502†	19374.5	503.09	µg/L	14.908	503.09	ppb	14.908	2.96%
QC value within limits for Cd 226.502 Recovery = 100.62%								
Co 228.616†	10801.2	501.77	µg/L	16.270	501.77	ppb	16.270	3.24%

QC value within limits for Co 228.616 Recovery = 100.35%

Cr 267.716†	24104.9	501.94 µg/L	20.616	501.94 ppb	20.616	4.11%

QC value within limits for Cr 267.716 Recovery = 100.39%

Cu 324.752†	75451.9	499.03 µg/L	16.337	499.03 ppb	16.337	3.27%

QC value within limits for Cu 324.752 Recovery = 99.81%

Fe 238.204 Radial†	649.0	5137.5 µg/L	16.39	5137.5 ppb	16.39	0.32%

QC value within limits for Fe 238.204 Radial Recovery = 102.75%

K 766.490 Radial†	7473.2	5143.9 µg/L	48.58	5143.9 ppb	48.58	0.94%

QC value within limits for K 766.490 Radial Recovery = 102.88%

Mg 279.077 IEC†	589.4	5222.3 µg/L	22.60	5222.3 ppb	22.60	0.43%

QC value within limits for Mg 279.077 IEC Recovery = 104.45%

Mn 257.610†	155633.1	506.52 µg/L	9.729	506.52 ppb	9.729	1.92%

QC value within limits for Mn 257.610 Recovery = 101.30%

Mo 202.031†	4972.3	502.05 µg/L	40.212	502.05 ppb	40.212	8.01%

QC value within limits for Mo 202.031 Recovery = 100.41%

Na 589.592 Radial†	32090.6	9985.5 µg/L	71.68	9985.5 ppb	71.68	0.72%

QC value within limits for Na 589.592 Radial Recovery = 99.85%

Ni 231.604†	9745.8	502.66 µg/L	16.051	502.66 ppb	16.051	3.19%

QC value within limits for Ni 231.604 Recovery = 100.53%

P 214.914†	1243.4	2450.0 µg/L	164.12	2450.0 ppb	164.12	6.70%

QC value within limits for P 214.914 Recovery = 98.00%

Pb 220.353†	2014.6	504.90 µg/L	31.375	504.90 ppb	31.375	6.21%

QC value within limits for Pb 220.353 Recovery = 100.98%

S 181.975 Axial†	238.2	990.64 µg/L	71.013	990.64 ppb	71.013	7.17%

QC value within limits for S 181.975 Axial Recovery = 99.06%

Sb 206.836†	534.8	497.27 µg/L	35.420	497.27 ppb	35.420	7.12%

QC value within limits for Sb 206.836 Recovery = 99.45%

Se 196.026†	346.9	506.17 µg/L	31.264	506.17 ppb	31.264	6.18%

QC value within limits for Se 196.026 Recovery = 101.23%

SiO2†	26191.9	5349.6 µg/L	138.26	5349.6 ppb	138.26	2.58%

QC value within limits for SiO2 Recovery = 100.04%

Si 251.611†	31989.5	2500.0 µg/L	66.78	2500.0 ppb	66.78	2.67%

QC value within limits for Si 251.611 Recovery = 100.00%

Sn 189.927†	1154.1	499.53 µg/L	44.727	499.53 ppb	44.727	8.95%

QC value within limits for Sn 189.927 Recovery = 99.91%

Sr 421.552†	51100.9	504.27 µg/L	3.861	504.27 ppb	3.861	0.77%

QC value within limits for Sr 421.552 Recovery = 100.85%

Ti 334.940†	215536.2	497.37 µg/L	10.797	497.37 ppb	10.797	2.17%

QC value within limits for Ti 334.940 Recovery = 99.47%

Tl 190.801†	379.7	507.35 µg/L	26.082	507.35 ppb	26.082	5.14%

QC value within limits for Tl 190.801 Recovery = 101.47%

U 409.014†	5904.6	502.77 µg/L	18.045	502.77 ppb	18.045	3.59%

QC value within limits for U 409.014 Recovery = 100.55%

V 292.402†	49386.9	505.35 µg/L	17.245	505.35 ppb	17.245	3.41%

QC value within limits for V 292.402 Recovery = 101.07%

Zn 213.857†	21362.0	500.03 µg/L	16.538	500.03 ppb	16.538	3.31%

QC value within limits for Zn 213.857 Recovery = 100.01%

All analyte(s) passed QC.

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 08:58:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56807.7	56807.7	99.2	%			08:58:55
1	Al 396.153Radial†	-11.3	12.8	8.9247	µg/L	8.9247	ppb	08:58:55
1	Ca 317.933Radial†	191.2	5.9	5.0919	µg/L	5.0919	ppb	08:59:15
1	Fe 238.204 Radial†	17.9	4.3	34.085	µg/L	34.085	ppb	08:59:15
1	K 766.490 Radial†	138.3	-27.0	-18.607	µg/L	-18.607	ppb	08:58:55
1	Mg 279.077 IEC†	13.8	3.1	27.671	µg/L	27.671	ppb	08:59:15
1	Na 589.592 Radial†	475.9	-34.0	-10.576	µg/L	-10.576	ppb	08:58:55
1	Sr 421.552†	54.3	29.3	0.2893	µg/L	0.2893	ppb	08:58:55
1	Sc 361.383	1979652.8	1979652.8	99.715	%			09:00:14
1	Y 371.029	1363255.7	1363255.7	99.916	%			09:00:14
1	Ag 328.068†	-485.4	74.3	0.5635	µg/L	0.5635	ppb	09:00:19
1	As 188.979†	-0.8	-2.6	-4.8284	µg/L	-4.8284	ppb	09:00:39
1	B 249.677†	327.4	34.1	1.3868	µg/L	1.3868	ppb	09:00:39
1	Ba 233.527†	-20.9	5.1	0.1245	µg/L	0.1245	ppb	09:00:39
1	Be 313.107†	-3448.6	141.9	0.0881	µg/L	0.0881	ppb	09:00:19
1	Cd 226.502†	-140.6	5.2	0.1301	µg/L	0.1301	ppb	09:00:39
1	Co 228.616†	-15.5	-6.6	-0.3087	µg/L	-0.3087	ppb	09:00:39
1	Cr 267.716†	-43.7	4.8	0.0990	µg/L	0.0990	ppb	09:00:19
1	Cu 324.752†	2559.9	123.0	0.8170	µg/L	0.8170	ppb	09:00:19
1	Mn 257.610†	-192.6	71.5	0.2358	µg/L	0.2358	ppb	09:00:39
1	Mo 202.031†	-4.6	0.2	0.0206	µg/L	0.0206	ppb	09:00:39
1	Ni 231.604†	299.2	-2.4	-0.1231	µg/L	-0.1231	ppb	09:00:39
1	P 214.914†	26.7	0.2	0.2955	µg/L	0.2955	ppb	09:00:39
1	Pb 220.353†	89.9	3.3	0.8181	µg/L	0.8181	ppb	09:00:39
1	S 181.975 Axial†	16.1	-1.3	-5.5235	µg/L	-5.5235	ppb	09:00:39
1	Sb 206.836†	27.1	3.5	3.2516	µg/L	3.2516	ppb	09:00:39
1	Se 196.026†	17.2	-1.1	-1.5570	µg/L	-1.5570	ppb	09:00:39
1	SiO2†	1324.3	37.1	7.5852	µg/L	7.5852	ppb	09:00:19
1	Si 251.611†	356.4	62.3	4.8691	µg/L	4.8691	ppb	09:00:39
1	Sn 189.927†	-2.2	-2.5	-1.0769	µg/L	-1.0769	ppb	09:00:39
1	Ti 334.940†	201.5	106.7	0.2443	µg/L	0.2443	ppb	09:00:19
1	Tl 190.801†	-21.0	2.7	3.5816	µg/L	3.5816	ppb	09:00:39
1	U 409.014†	-68.0	20.9	1.7762	µg/L	1.7762	ppb	09:00:19
1	V 292.402†	-82.2	-36.7	-0.3651	µg/L	-0.3651	ppb	09:00:19
1	Zn 213.857†	491.4	28.8	0.6748	µg/L	0.6748	ppb	09:00:39
2	Sc RADIAL	56940.4	56940.4	99.4	%			08:59:20
2	Al 396.153Radial†	-33.4	-9.4	-6.5730	µg/L	-6.5730	ppb	08:59:20
2	Ca 317.933Radial†	195.9	10.2	8.8700	µg/L	8.8700	ppb	08:59:41
2	Fe 238.204 Radial†	15.0	1.4	11.324	µg/L	11.324	ppb	08:59:41
2	K 766.490 Radial†	123.8	-41.9	-28.869	µg/L	-28.869	ppb	08:59:20
2	Mg 279.077 IEC†	14.9	4.2	36.806	µg/L	36.806	ppb	08:59:41
2	Na 589.592 Radial†	503.6	-7.2	-2.2431	µg/L	-2.2431	ppb	08:59:20
2	Sr 421.552†	38.7	13.5	0.1336	µg/L	0.1336	ppb	08:59:20
2	Sc 361.383	1987536.9	1987536.9	100.11	%			09:00:45
2	Y 371.029	1368350.0	1368350.0	100.29	%			09:00:45
2	Ag 328.068†	-459.5	102.1	0.7717	µg/L	0.7717	ppb	09:00:50
2	As 188.979†	-0.5	-2.3	-4.2327	µg/L	-4.2327	ppb	09:01:11
2	B 249.677†	326.7	32.1	1.3149	µg/L	1.3149	ppb	09:01:11
2	Ba 233.527†	-23.6	2.5	0.0599	µg/L	0.0599	ppb	09:01:11
2	Be 313.107†	-3425.2	179.0	0.1111	µg/L	0.1111	ppb	09:00:50
2	Cd 226.502†	-150.9	-4.6	-0.1196	µg/L	-0.1196	ppb	09:01:11
2	Co 228.616†	-5.5	3.4	0.1586	µg/L	0.1586	ppb	09:01:11
2	Cr 267.716†	-66.4	-17.8	-0.3711	µg/L	-0.3711	ppb	09:00:50
2	Cu 324.752†	2531.3	84.3	0.5585	µg/L	0.5585	ppb	09:00:50
2	Mn 257.610†	-198.5	66.3	0.2158	µg/L	0.2158	ppb	09:01:11
2	Mo 202.031†	-1.7	3.1	0.3171	µg/L	0.3171	ppb	09:01:11
2	Ni 231.604†	300.1	-2.7	-0.1419	µg/L	-0.1419	ppb	09:01:11
2	P 214.914†	23.6	-3.1	-6.2264	µg/L	-6.2264	ppb	09:01:11
2	Pb 220.353†	95.5	8.5	2.1266	µg/L	2.1266	ppb	09:01:11

2	S 181.975 Axial†	16.2	-1.3	-5.2718 µg/L	-5.2718 ppb	09:01:11
2	Sb 206.836†	20.1	-3.6	-3.3121 µg/L	-3.3121 ppb	09:01:11
2	Se 196.026†	8.8	-9.6	-13.732 µg/L	-13.732 ppb	09:01:11
2	SiO2†	1320.1	27.7	5.6550 µg/L	5.6550 ppb	09:00:50
2	Si 251.611†	351.4	55.9	4.3705 µg/L	4.3705 ppb	09:01:11
2	Sn 189.927†	-1.5	-1.8	-0.7595 µg/L	-0.7595 ppb	09:01:11
2	Ti 334.940†	232.2	136.6	0.3126 µg/L	0.3126 ppb	09:00:50
2	Tl 190.801†	-24.5	-0.8	-0.9842 µg/L	-0.9842 ppb	09:01:11
2	U 409.014†	-26.5	62.6	5.3394 µg/L	5.3394 ppb	09:00:50
2	V 292.402†	-101.5	-55.7	-0.5549 µg/L	-0.5549 ppb	09:00:50
2	Zn 213.857†	490.6	26.0	0.6102 µg/L	0.6102 ppb	09:01:11
3	Sc RADIAL	56733.9	56733.9	99.1 %		08:59:46
3	Al 396.153Radial†	-28.1	-4.1	-2.8622 µg/L	-2.8622 ppb	08:59:46
3	Ca 317.933Radial†	192.3	7.3	6.3416 µg/L	6.3416 ppb	09:00:06
3	Fe 238.204 Radial†	15.1	1.6	12.531 µg/L	12.531 ppb	09:00:06
3	K 766.490 Radial†	180.0	15.2	10.479 µg/L	10.479 ppb	08:59:46
3	Mg 279.077 IEC†	9.7	-1.1	-9.5322 µg/L	-9.5322 ppb	09:00:06
3	Na 589.592 Radial†	527.4	18.7	5.8066 µg/L	5.8066 ppb	08:59:46
3	Sr 421.552†	40.2	15.2	0.1500 µg/L	0.1500 ppb	08:59:46
3	Sc 361.383	1987273.6	1987273.6	100.10 %		09:01:16
3	Y 371.029	1369838.2	1369838.2	100.40 %		09:01:16
3	Ag 328.068†	-490.1	71.4	0.5432 µg/L	0.5432 ppb	09:01:22
3	As 188.979†	-0.7	-2.6	-4.7276 µg/L	-4.7276 ppb	09:01:42
3	B 249.677†	313.1	18.6	0.7586 µg/L	0.7586 ppb	09:01:42
3	Ba 233.527†	-24.3	1.8	0.0445 µg/L	0.0445 ppb	09:01:42
3	Be 313.107†	-3298.5	305.1	0.1896 µg/L	0.1896 ppb	09:01:22
3	Cd 226.502†	-135.8	10.5	0.2719 µg/L	0.2719 ppb	09:01:42
3	Co 228.616†	-6.9	2.0	0.0915 µg/L	0.0915 ppb	09:01:42
3	Cr 267.716†	-48.1	0.5	0.0108 µg/L	0.0108 ppb	09:01:22
3	Cu 324.752†	2526.9	80.3	0.5318 µg/L	0.5318 ppb	09:01:22
3	Mn 257.610†	-170.4	94.4	0.3091 µg/L	0.3091 ppb	09:01:42
3	Mo 202.031†	-8.1	-3.2	-0.3262 µg/L	-0.3262 ppb	09:01:42
3	Ni 231.604†	310.8	8.0	0.4109 µg/L	0.4109 ppb	09:01:42
3	P 214.914†	20.7	-5.9	-11.933 µg/L	-11.933 ppb	09:01:42
3	Pb 220.353†	86.4	-0.6	-0.1525 µg/L	-0.1525 ppb	09:01:42
3	S 181.975 Axial†	16.4	-1.1	-4.5152 µg/L	-4.5152 ppb	09:01:42
3	Sb 206.836†	26.3	2.6	2.3573 µg/L	2.3573 ppb	09:01:42
3	Se 196.026†	6.9	-11.5	-16.425 µg/L	-16.425 ppb	09:01:42
3	SiO2†	1303.9	11.7	2.3827 µg/L	2.3827 ppb	09:01:22
3	Si 251.611†	367.9	72.5	5.6653 µg/L	5.6653 ppb	09:01:42
3	Sn 189.927†	-1.6	-1.9	-0.8258 µg/L	-0.8258 ppb	09:01:42
3	Ti 334.940†	153.1	57.6	0.1339 µg/L	0.1339 ppb	09:01:22
3	Tl 190.801†	-21.7	2.1	2.7873 µg/L	2.7873 ppb	09:01:42
3	U 409.014†	-76.7	12.5	1.0659 µg/L	1.0659 ppb	09:01:22
3	V 292.402†	-42.7	3.0	0.0303 µg/L	0.0303 ppb	09:01:22
3	Zn 213.857†	482.2	17.7	0.4137 µg/L	0.4137 ppb	09:01:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984821.1	99.976	%	0.2255				0.23%
Sc RADIAL	56827.3	99.2	%	0.18				0.18%
Y 371.029	1367148.0	100.20	%	0.253				0.25%
Ag 328.068†	82.6	0.6261	µg/L	0.12649	0.6261	ppb	0.12649	20.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.2	-0.1702	µg/L	8.09192	-0.1702	ppb	8.09192	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.5	-4.5962	µg/L	0.31885	-4.5962	ppb	0.31885	6.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	28.2	1.1534	µg/L	0.34383	1.1534	ppb	0.34383	29.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0763	µg/L	0.04245	0.0763	ppb	0.04245	55.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	208.7	0.1296	µg/L	0.05319	0.1296	ppb	0.05319	41.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.8	6.7679	µg/L	1.92479	6.7679	ppb	1.92479	28.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	3.7	0.0941	µg/L	0.19823	0.0941	ppb	0.19823	210.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.4	-0.0195	µg/L	0.25261	-0.0195	ppb	0.25261	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.2     -0.0871 µg/L       0.24989     -0.0871 ppb        0.24989 286.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                95.9      0.6358 µg/L       0.15751      0.6358 ppb        0.15751  24.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.4      19.313 µg/L       12.8069      19.313 ppb        12.8069  66.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -17.9     -12.332 µg/L       20.4111     -12.332 ppb        20.4111 165.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.1      18.315 µg/L       24.5450      18.315 ppb        24.5450 134.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                77.4      0.2536 µg/L       0.04913      0.2536 ppb        0.04913  19.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.0      0.0039 µg/L       0.32198      0.0039 ppb        0.32198 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -7.5     -2.3374 µg/L       8.19155     -2.3374 ppb        8.19155 350.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.9      0.0486 µg/L       0.31390      0.0486 ppb        0.31390 645.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.9     -5.9546 µg/L       6.11877     -5.9546 ppb        6.11877 102.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.7      0.9307 µg/L       1.14373      0.9307 ppb        1.14373 122.89%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.2     -5.1035 µg/L       0.52480     -5.1035 ppb        0.52480  10.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.8      0.7656 µg/L       3.55957      0.7656 ppb        3.55957 464.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.4     -10.571 µg/L        7.9219     -10.571 ppb         7.9219  74.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      25.5      5.2076 µg/L       2.62998      5.2076 ppb        2.62998  50.50%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                63.6      4.9683 µg/L       0.65307      4.9683 ppb        0.65307  13.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -0.8874 µg/L       0.16743     -0.8874 ppb        0.16743  18.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                19.4      0.1910 µg/L       0.08555      0.1910 ppb        0.08555  44.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               100.3      0.2303 µg/L       0.09017      0.2303 ppb        0.09017  39.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.4      1.7949 µg/L       2.43931      1.7949 ppb        2.43931 135.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 32.0      2.7271 µg/L       2.28995      2.7271 ppb        2.28995  83.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -29.8     -0.2965 µg/L       0.29859     -0.2965 ppb        0.29859 100.69%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.2      0.5662 µg/L       0.13599      0.5662 ppb        0.13599  24.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 09:30:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56702.1	56702.1	99.0	%			09:30:41
1	Al 396.153Radial†	7072.5	7168.1	4982.6	µg/L	4982.6	ppb	09:30:41
1	Ca 317.933Radial†	5685.2	5555.7	4822.7	µg/L	4822.7	ppb	09:31:01
1	Fe 238.204 Radial†	638.6	631.4	4998.7	µg/L	4998.7	ppb	09:31:01
1	K 766.490 Radial†	7430.5	7339.0	5051.5	µg/L	5051.5	ppb	09:30:41
1	Mg 279.077 IEC†	583.3	578.3	5124.9	µg/L	5124.9	ppb	09:31:01
1	Na 589.592 Radial†	31971.9	31781.0	9889.1	µg/L	9889.1	ppb	09:30:41
1	Sr 421.552†	50025.8	50505.5	498.39	µg/L	498.39	ppb	09:30:41
1	Sc 361.383	1956726.4	1956726.4	98.560	%			09:32:01
1	Y 371.029	1341261.3	1341261.3	98.304	%			09:32:01
1	Ag 328.068†	63998.1	65493.9	500.71	µg/L	500.71	ppb	09:32:06
1	As 188.979†	277.6	279.8	513.29	µg/L	513.29	ppb	09:32:27
1	B 249.677†	12205.3	12089.3	496.58	µg/L	496.58	ppb	09:32:06
1	Ba 233.527†	20127.3	20447.3	505.26	µg/L	505.26	ppb	09:32:06
1	Be 313.107†	792042.6	807211.1	501.41	µg/L	501.41	ppb	09:32:01
1	Cd 226.502†	19011.2	19435.1	504.68	µg/L	504.68	ppb	09:32:06
1	Co 228.616†	10736.9	10902.6	506.50	µg/L	506.50	ppb	09:32:06
1	Cr 267.716†	23985.4	24384.2	507.76	µg/L	507.76	ppb	09:32:06
1	Cu 324.752†	77388.9	76075.0	503.13	µg/L	503.13	ppb	09:32:06
1	Mn 257.610†	153440.1	155945.8	507.52	µg/L	507.52	ppb	09:32:01
1	Mo 202.031†	5077.3	5156.3	520.61	µg/L	520.61	ppb	09:32:27
1	Ni 231.604†	9964.4	9807.4	505.83	µg/L	505.83	ppb	09:32:06
1	P 214.914†	1287.0	1279.2	2521.8	µg/L	2521.8	ppb	09:32:27
1	Pb 220.353†	2119.5	2063.5	517.20	µg/L	517.20	ppb	09:32:27
1	S 181.975 Axial†	259.2	245.5	1021.1	µg/L	1021.1	ppb	09:32:27
1	Sb 206.836†	575.2	559.9	520.77	µg/L	520.77	ppb	09:32:27
1	Se 196.026†	369.2	356.2	519.37	µg/L	519.37	ppb	09:32:27
1	SiO2†	27213.4	26320.0	5375.8	µg/L	5375.8	ppb	09:32:06
1	Si 251.611†	31977.9	32149.9	2512.5	µg/L	2512.5	ppb	09:32:06
1	Sn 189.927†	1184.2	1201.2	519.94	µg/L	519.94	ppb	09:32:27
1	Ti 334.940†	213040.2	216056.4	498.58	µg/L	498.58	ppb	09:32:01
1	Tl 190.801†	353.2	382.1	510.60	µg/L	510.60	ppb	09:32:27
1	U 409.014†	5832.5	6006.8	511.52	µg/L	511.52	ppb	09:32:06
1	V 292.402†	49165.2	49928.9	510.97	µg/L	510.97	ppb	09:32:06
1	Zn 213.857†	21686.5	21539.2	504.20	µg/L	504.20	ppb	09:32:06
2	Sc RADIAL	56676.7	56676.7	99.0	%			09:31:07
2	Al 396.153Radial†	7025.8	7124.1	4952.0	µg/L	4952.0	ppb	09:31:07
2	Ca 317.933Radial†	5683.7	5556.8	4823.6	µg/L	4823.6	ppb	09:31:27
2	Fe 238.204 Radial†	636.5	629.5	4983.5	µg/L	4983.5	ppb	09:31:27
2	K 766.490 Radial†	7427.8	7339.6	5052.0	µg/L	5052.0	ppb	09:31:07
2	Mg 279.077 IEC†	585.1	580.5	5143.9	µg/L	5143.9	ppb	09:31:27
2	Na 589.592 Radial†	31860.5	31682.8	9858.6	µg/L	9858.6	ppb	09:31:07
2	Sr 421.552†	49875.2	50376.0	497.11	µg/L	497.11	ppb	09:31:07
2	Sc 361.383	1973658.4	1973658.4	99.413	%			09:32:33
2	Y 371.029	1352621.0	1352621.0	99.137	%			09:32:33
2	Ag 328.068†	63766.5	64703.8	494.67	µg/L	494.67	ppb	09:32:39
2	As 188.979†	279.2	279.0	511.91	µg/L	511.91	ppb	09:32:59
2	B 249.677†	12146.1	11923.5	489.74	µg/L	489.74	ppb	09:32:39
2	Ba 233.527†	20113.3	20258.0	500.58	µg/L	500.58	ppb	09:32:39
2	Be 313.107†	799253.7	807570.6	501.63	µg/L	501.63	ppb	09:32:33
2	Cd 226.502†	19053.6	19312.2	501.49	µg/L	501.49	ppb	09:32:39
2	Co 228.616†	10758.0	10830.3	503.14	µg/L	503.14	ppb	09:32:39
2	Cr 267.716†	23965.6	24155.6	502.99	µg/L	502.99	ppb	09:32:39
2	Cu 324.752†	77141.4	75152.4	497.04	µg/L	497.04	ppb	09:32:39
2	Mn 257.610†	154556.9	155733.6	506.83	µg/L	506.83	ppb	09:32:33
2	Mo 202.031†	5065.4	5100.1	514.94	µg/L	514.94	ppb	09:32:59
2	Ni 231.604†	10023.0	9779.7	504.41	µg/L	504.41	ppb	09:32:39
2	P 214.914†	1289.9	1270.9	2505.7	µg/L	2505.7	ppb	09:32:59
2	Pb 220.353†	2115.8	2041.4	511.66	µg/L	511.66	ppb	09:32:59

2	S 181.975 Axial†	254.8	238.9	993.64 µg/L	993.64 ppb	09:32:59
2	Sb 206.836†	570.1	549.8	511.36 µg/L	511.36 ppb	09:32:59
2	Se 196.026†	369.4	353.2	515.01 µg/L	515.01 ppb	09:32:59
2	SiO2†	27226.9	26096.6	5330.1 µg/L	5330.1 ppb	09:32:39
2	Si 251.611†	31950.0	31843.4	2488.6 µg/L	2488.6 ppb	09:32:39
2	Sn 189.927†	1183.3	1190.0	515.07 µg/L	515.07 ppb	09:32:59
2	Ti 334.940†	215143.0	216317.3	499.18 µg/L	499.18 ppb	09:32:33
2	Tl 190.801†	362.0	387.9	518.15 µg/L	518.15 ppb	09:32:59
2	U 409.014†	5833.1	5956.6	507.24 µg/L	507.24 ppb	09:32:39
2	V 292.402†	48978.1	49312.9	504.69 µg/L	504.69 ppb	09:32:39
2	Zn 213.857†	21627.4	21291.0	498.37 µg/L	498.37 ppb	09:32:39
3	Sc RADIAL	56519.3	56519.3	98.7 %		09:31:32
3	Al 396.153Radial†	7016.8	7134.8	4960.7 µg/L	4960.7 ppb	09:31:32
3	Ca 317.933Radial†	5682.4	5571.5	4836.4 µg/L	4836.4 ppb	09:31:52
3	Fe 238.204 Radial†	637.3	632.1	5003.9 µg/L	5003.9 ppb	09:31:52
3	K 766.490 Radial†	7467.3	7400.6	5094.0 µg/L	5094.0 ppb	09:31:32
3	Mg 279.077 IEC†	578.8	575.7	5100.9 µg/L	5100.9 ppb	09:31:52
3	Na 589.592 Radial†	31812.1	31723.5	9871.2 µg/L	9871.2 ppb	09:31:32
3	Sr 421.552†	49792.7	50432.8	497.68 µg/L	497.68 ppb	09:31:32
3	Sc 361.383	1967278.4	1967278.4	99.092 %		09:33:06
3	Y 371.029	1350919.1	1350919.1	99.012 %		09:33:06
3	Ag 328.068†	62339.8	63472.1	485.20 µg/L	485.20 ppb	09:33:11
3	As 188.979†	249.6	250.0	458.70 µg/L	458.70 ppb	09:33:31
3	B 249.677†	11857.4	11671.8	479.32 µg/L	479.32 ppb	09:33:11
3	Ba 233.527†	19327.4	19530.5	482.60 µg/L	482.60 ppb	09:33:11
3	Be 313.107†	780863.5	791619.2	491.72 µg/L	491.72 ppb	09:33:06
3	Cd 226.502†	18268.8	18582.3	482.51 µg/L	482.51 ppb	09:33:11
3	Co 228.616†	10290.8	10394.0	482.81 µg/L	482.81 ppb	09:33:11
3	Cr 267.716†	22821.9	23079.6	480.59 µg/L	480.59 ppb	09:33:11
3	Cu 324.752†	74492.5	72731.0	481.05 µg/L	481.05 ppb	09:33:11
3	Mn 257.610†	150724.8	152370.6	495.90 µg/L	495.90 ppb	09:33:06
3	Mo 202.031†	4471.3	4517.1	456.10 µg/L	456.10 ppb	09:33:31
3	Ni 231.604†	9594.9	9380.3	483.81 µg/L	483.81 ppb	09:33:11
3	P 214.914†	1151.9	1135.8	2235.0 µg/L	2235.0 ppb	09:33:31
3	Pb 220.353†	1934.6	1865.4	467.46 µg/L	467.46 ppb	09:33:31
3	S 181.975 Axial†	238.5	223.3	928.62 µg/L	928.62 ppb	09:33:31
3	Sb 206.836†	514.6	495.6	460.49 µg/L	460.49 ppb	09:33:31
3	Se 196.026†	347.9	332.8	485.70 µg/L	485.70 ppb	09:33:31
3	SiO2†	26339.3	25289.7	5165.3 µg/L	5165.3 ppb	09:33:11
3	Si 251.611†	30943.1	30931.6	2417.3 µg/L	2417.3 ppb	09:33:11
3	Sn 189.927†	1027.1	1036.2	448.53 µg/L	448.53 ppb	09:33:31
3	Ti 334.940†	209426.5	211250.2	487.48 µg/L	487.48 ppb	09:33:06
3	Tl 190.801†	333.1	359.9	481.15 µg/L	481.15 ppb	09:33:31
3	U 409.014†	5445.9	5585.0	475.53 µg/L	475.53 ppb	09:33:11
3	V 292.402†	46923.3	47399.0	484.80 µg/L	484.80 ppb	09:33:11
3	Zn 213.857†	20809.2	20535.8	480.68 µg/L	480.68 ppb	09:33:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1965887.8	99.022	%	0.4307				0.43%
Sc RADIAL	56632.7	98.9	%	0.17				0.17%
Y 371.029	1348267.1	98.818	%	0.4490				0.45%
Ag 328.068†	64556.6	493.52	µg/L	7.819	493.52	ppb	7.819	1.58%
QC value within limits for Ag 328.068 Recovery = 98.70%								
Al 396.153Radial†	7142.3	4965.1	µg/L	15.75	4965.1	ppb	15.75	0.32%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	269.6	494.63	µg/L	31.127	494.63	ppb	31.127	6.29%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	11894.9	488.55	µg/L	8.689	488.55	ppb	8.689	1.78%
QC value within limits for B 249.677 Recovery = 97.71%								
Ba 233.527†	20078.6	496.14	µg/L	11.963	496.14	ppb	11.963	2.41%
QC value within limits for Ba 233.527 Recovery = 99.23%								
Be 313.107†	802133.6	498.25	µg/L	5.657	498.25	ppb	5.657	1.14%
QC value within limits for Be 313.107 Recovery = 99.65%								
Ca 317.933Radial†	5561.3	4827.6	µg/L	7.64	4827.6	ppb	7.64	0.16%
QC value within limits for Ca 317.933Radial Recovery = 96.55%								
Cd 226.502†	19109.9	496.22	µg/L	11.984	496.22	ppb	11.984	2.42%
QC value within limits for Cd 226.502 Recovery = 99.24%								
Co 228.616†	10709.0	497.48	µg/L	12.817	497.48	ppb	12.817	2.58%

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   QC value within limits for Co 228.616  Recovery = 99.50%
Cr 267.716†            23873.1      497.11 µg/L        14.506      497.11 ppb         14.506   2.92%
   QC value within limits for Cr 267.716  Recovery = 99.42%
Cu 324.752†            74652.8      493.74 µg/L        11.406      493.74 ppb         11.406   2.31%
   QC value within limits for Cu 324.752  Recovery = 98.75%
Fe 238.204 Radial†       631.0      4995.4 µg/L         10.61      4995.4 ppb          10.61   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.91%
K 766.490 Radial†       7359.7      5065.8 µg/L         24.37      5065.8 ppb          24.37   0.48%
   QC value within limits for K 766.490 Radial  Recovery = 101.32%
Mg 279.077 IEC†          578.2      5123.2 µg/L         21.55      5123.2 ppb          21.55   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.46%
Mn 257.610†           154683.4      503.42 µg/L         6.520      503.42 ppb          6.520   1.30%
   QC value within limits for Mn 257.610  Recovery = 100.68%
Mo 202.031†             4924.5      497.22 µg/L        35.722      497.22 ppb         35.722   7.18%
   QC value within limits for Mo 202.031  Recovery = 99.44%
Na 589.592 Radial†     31729.1      9873.0 µg/L         15.35      9873.0 ppb          15.35   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 98.73%
Ni 231.604†             9655.8      498.02 µg/L        12.324      498.02 ppb         12.324   2.47%
   QC value within limits for Ni 231.604  Recovery = 99.60%
P 214.914†              1228.6      2420.9 µg/L        161.14      2420.9 ppb         161.14   6.66%
   QC value within limits for P 214.914  Recovery = 96.83%
Pb 220.353†             1990.1      498.77 µg/L        27.261      498.77 ppb         27.261   5.47%
   QC value within limits for Pb 220.353  Recovery = 99.75%
S 181.975 Axial†         235.9      981.13 µg/L        47.514      981.13 ppb         47.514   4.84%
   QC value within limits for S 181.975 Axial  Recovery = 98.11%
Sb 206.836†              535.1      497.54 µg/L        32.429      497.54 ppb         32.429   6.52%
   QC value within limits for Sb 206.836  Recovery = 99.51%
Se 196.026†              347.4      506.69 µg/L        18.308      506.69 ppb         18.308   3.61%
   QC value within limits for Se 196.026  Recovery = 101.34%
SiO2†                  25902.1      5290.4 µg/L        110.70      5290.4 ppb         110.70   2.09%
   QC value within limits for SiO2  Recovery = 98.93%
Si 251.611†            31641.6      2472.8 µg/L         49.53      2472.8 ppb          49.53   2.00%
   QC value within limits for Si 251.611  Recovery = 98.91%
Sn 189.927†             1142.5      494.51 µg/L        39.894      494.51 ppb         39.894   8.07%
   QC value within limits for Sn 189.927  Recovery = 98.90%
Sr 421.552†            50438.1      497.73 µg/L         0.641      497.73 ppb          0.641   0.13%
   QC value within limits for Sr 421.552  Recovery = 99.55%
Ti 334.940†           214541.3      495.08 µg/L         6.587      495.08 ppb          6.587   1.33%
   QC value within limits for Ti 334.940  Recovery = 99.02%
Tl 190.801†              376.6      503.30 µg/L        19.552      503.30 ppb         19.552   3.88%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†              5849.4      498.10 µg/L        19.662      498.10 ppb         19.662   3.95%
   QC value within limits for U 409.014  Recovery = 99.62%
V 292.402†             48880.3      500.15 µg/L        13.660      500.15 ppb         13.660   2.73%
   QC value within limits for V 292.402  Recovery = 100.03%
Zn 213.857†            21122.0      494.42 µg/L        12.247      494.42 ppb         12.247   2.48%
   QC value within limits for Zn 213.857  Recovery = 98.88%
All analyte(s) passed QC.
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Sequence No.: 38
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 09:33:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54820.8	54820.8	95.7	%			09:34:11
1	Al 396.153Radial†	-19.2	4.2	2.8987	µg/L	2.8987	ppb	09:34:11
1	Ca 317.933Radial†	191.9	13.7	11.858	µg/L	11.858	ppb	09:34:31
1	Fe 238.204 Radial†	17.4	4.4	35.140	µg/L	35.140	ppb	09:34:31
1	K 766.490 Radial†	194.8	37.0	25.476	µg/L	25.476	ppb	09:34:11
1	Mg 279.077 IEC†	10.9	0.6	5.1818	µg/L	5.1818	ppb	09:34:31
1	Na 589.592 Radial†	578.2	90.3	28.109	µg/L	28.109	ppb	09:34:11
1	Sr 421.552†	38.0	14.3	0.1410	µg/L	0.1410	ppb	09:34:11
1	Sc 361.383	1944771.3	1944771.3	97.958	%			09:35:30
1	Y 371.029	1338146.0	1338146.0	98.076	%			09:35:30
1	Ag 328.068†	-494.1	56.6	0.4292	µg/L	0.4292	ppb	09:35:35
1	As 188.979†	-1.8	-3.7	-6.8096	µg/L	-6.8096	ppb	09:35:55
1	B 249.677†	316.4	28.8	1.1686	µg/L	1.1686	ppb	09:35:55
1	Ba 233.527†	-29.8	-4.4	-0.1091	µg/L	-0.1091	ppb	09:35:55
1	Be 313.107†	-3561.4	-35.2	-0.0220	µg/L	-0.0220	ppb	09:35:35
1	Cd 226.502†	-147.2	-4.1	-0.1088	µg/L	-0.1088	ppb	09:35:55
1	Co 228.616†	-12.1	-3.5	-0.1609	µg/L	-0.1609	ppb	09:35:55
1	Cr 267.716†	-41.2	6.4	0.1339	µg/L	0.1339	ppb	09:35:55
1	Cu 324.752†	2531.3	139.9	0.9288	µg/L	0.9288	ppb	09:35:35
1	Mn 257.610†	-181.7	79.2	0.2619	µg/L	0.2619	ppb	09:35:55
1	Mo 202.031†	-3.5	1.3	0.1308	µg/L	0.1308	ppb	09:35:55
1	Ni 231.604†	308.2	12.1	0.6271	µg/L	0.6271	ppb	09:35:55
1	P 214.914†	27.0	0.9	1.7845	µg/L	1.7845	ppb	09:35:55
1	Pb 220.353†	94.6	9.6	2.4038	µg/L	2.4038	ppb	09:35:55
1	S 181.975 Axial†	16.0	-1.1	-4.6507	µg/L	-4.6507	ppb	09:35:55
1	Sb 206.836†	25.9	2.8	2.5624	µg/L	2.5624	ppb	09:35:55
1	Se 196.026†	11.1	-7.1	-10.064	µg/L	-10.064	ppb	09:35:55
1	SiO2†	1308.9	45.3	9.2423	µg/L	9.2423	ppb	09:35:35
1	Si 251.611†	338.8	50.8	3.9708	µg/L	3.9708	ppb	09:35:55
1	Sn 189.927†	3.2	2.9	1.2639	µg/L	1.2639	ppb	09:35:55
1	Ti 334.940†	164.9	73.0	0.1684	µg/L	0.1684	ppb	09:35:35
1	Tl 190.801†	-23.8	-0.6	-0.7442	µg/L	-0.7442	ppb	09:35:55
1	U 409.014†	-3.7	85.4	7.2794	µg/L	7.2794	ppb	09:35:35
1	V 292.402†	-86.1	-42.2	-0.4133	µg/L	-0.4133	ppb	09:35:35
1	Zn 213.857†	481.1	27.1	0.6322	µg/L	0.6322	ppb	09:35:55
2	Sc RADIAL	55567.2	55567.2	97.0	%			09:34:37
2	Al 396.153Radial†	-11.6	12.2	8.5014	µg/L	8.5014	ppb	09:34:37
2	Ca 317.933Radial†	195.9	15.1	13.084	µg/L	13.084	ppb	09:34:57
2	Fe 238.204 Radial†	14.8	1.5	11.905	µg/L	11.905	ppb	09:34:57
2	K 766.490 Radial†	145.0	-17.0	-11.706	µg/L	-11.706	ppb	09:34:37
2	Mg 279.077 IEC†	10.3	-0.2	-1.9436	µg/L	-1.9436	ppb	09:34:57
2	Na 589.592 Radial†	516.8	18.9	5.8718	µg/L	5.8718	ppb	09:34:37
2	Sr 421.552†	15.3	-9.6	-0.0948	µg/L	-0.0948	ppb	09:34:37
2	Sc 361.383	1944778.7	1944778.7	97.959	%			09:36:01
2	Y 371.029	1338510.2	1338510.2	98.103	%			09:36:01
2	Ag 328.068†	-516.6	33.7	0.2582	µg/L	0.2582	ppb	09:36:06
2	As 188.979†	-0.9	-2.8	-5.0942	µg/L	-5.0942	ppb	09:36:26
2	B 249.677†	317.5	29.9	1.2276	µg/L	1.2276	ppb	09:36:26
2	Ba 233.527†	-28.5	-3.1	-0.0763	µg/L	-0.0763	ppb	09:36:26
2	Be 313.107†	-3533.9	-7.2	-0.0046	µg/L	-0.0046	ppb	09:36:06
2	Cd 226.502†	-134.2	9.2	0.2387	µg/L	0.2387	ppb	09:36:26
2	Co 228.616†	-6.4	2.3	0.1073	µg/L	0.1073	ppb	09:36:26
2	Cr 267.716†	-31.3	16.6	0.3447	µg/L	0.3447	ppb	09:36:26
2	Cu 324.752†	2467.6	74.9	0.4962	µg/L	0.4962	ppb	09:36:06
2	Mn 257.610†	-178.3	82.6	0.2703	µg/L	0.2703	ppb	09:36:26
2	Mo 202.031†	-1.2	3.6	0.3633	µg/L	0.3633	ppb	09:36:26
2	Ni 231.604†	306.1	10.0	0.5178	µg/L	0.5178	ppb	09:36:26
2	P 214.914†	29.5	3.5	7.0401	µg/L	7.0401	ppb	09:36:26
2	Pb 220.353†	93.2	8.3	2.0693	µg/L	2.0693	ppb	09:36:26

2	S 181.975 Axial†	16.5	-0.6	-2.5634 µg/L	-2.5634 ppb		09:36:26
2	Sb 206.836†	21.9	-1.4	-1.2647 µg/L	-1.2647 ppb		09:36:26
2	Se 196.026†	18.9	0.9	1.3606 µg/L	1.3606 ppb		09:36:26
2	SiO2†	1296.8	32.9	6.7200 µg/L	6.7200 ppb		09:36:06
2	Si 251.611†	336.7	48.7	3.8034 µg/L	3.8034 ppb		09:36:26
2	Sn 189.927†	-4.5	-4.9	-2.1186 µg/L	-2.1186 ppb		09:36:26
2	Ti 334.940†	230.0	139.4	0.3222 µg/L	0.3222 ppb		09:36:06
2	Tl 190.801†	-22.1	1.2	1.5758 µg/L	1.5758 ppb		09:36:26
2	U 409.014†	-51.8	36.2	3.0874 µg/L	3.0874 ppb		09:36:06
2	V 292.402†	-21.9	23.3	0.2442 µg/L	0.2442 ppb		09:36:06
2	Zn 213.857†	486.5	32.6	0.7643 µg/L	0.7643 ppb		09:36:26
3	Sc RADIAL	55689.0	55689.0	97.2 %			09:35:02
3	Al 396.153Radial†	-7.8	16.2	11.319 µg/L	11.319 ppb		09:35:02
3	Ca 317.933Radial†	190.2	8.8	7.6030 µg/L	7.6030 ppb		09:35:22
3	Fe 238.204 Radial†	18.5	5.3	41.849 µg/L	41.849 ppb		09:35:22
3	K 766.490 Radial†	92.6	-71.3	-49.051 µg/L	-49.051 ppb		09:35:02
3	Mg 279.077 IEC†	14.9	4.5	39.961 µg/L	39.961 ppb		09:35:22
3	Na 589.592 Radial†	479.3	-20.9	-6.5002 µg/L	-6.5002 ppb		09:35:02
3	Sr 421.552†	26.1	1.5	0.0144 µg/L	0.0144 ppb		09:35:02
3	Sc 361.383	1947807.3	1947807.3	98.111 %			09:36:32
3	Y 371.029	1341530.1	1341530.1	98.324 %			09:36:32
3	Ag 328.068†	-512.0	39.2	0.2985 µg/L	0.2985 ppb		09:36:37
3	As 188.979†	-1.5	-3.4	-6.2531 µg/L	-6.2531 ppb		09:36:58
3	B 249.677†	308.2	19.9	0.7969 µg/L	0.7969 ppb		09:36:58
3	Ba 233.527†	-20.5	5.1	0.1265 µg/L	0.1265 ppb		09:36:58
3	Be 313.107†	-3464.1	69.6	0.0433 µg/L	0.0433 ppb		09:36:37
3	Cd 226.502†	-148.5	-5.1	-0.1376 µg/L	-0.1376 ppb		09:36:58
3	Co 228.616†	-6.3	2.5	0.1155 µg/L	0.1155 ppb		09:36:58
3	Cr 267.716†	-57.1	-9.7	-0.2016 µg/L	-0.2016 ppb		09:36:58
3	Cu 324.752†	2542.5	147.2	0.9782 µg/L	0.9782 ppb		09:36:37
3	Mn 257.610†	-169.7	91.7	0.3020 µg/L	0.3020 ppb		09:36:58
3	Mo 202.031†	-6.5	-1.8	-0.1815 µg/L	-0.1815 ppb		09:36:58
3	Ni 231.604†	307.9	11.3	0.5844 µg/L	0.5844 ppb		09:36:58
3	P 214.914†	28.7	2.7	5.2104 µg/L	5.2104 ppb		09:36:58
3	Pb 220.353†	95.8	10.7	2.6728 µg/L	2.6728 ppb		09:36:58
3	S 181.975 Axial†	17.2	0.1	0.2220 µg/L	0.2220 ppb		09:36:58
3	Sb 206.836†	23.7	0.5	0.4620 µg/L	0.4620 ppb		09:36:58
3	Se 196.026†	9.7	-8.5	-12.137 µg/L	-12.137 ppb		09:36:58
3	SiO2†	1339.7	74.6	15.237 µg/L	15.237 ppb		09:36:37
3	Si 251.611†	347.3	59.0	4.6078 µg/L	4.6078 ppb		09:36:58
3	Sn 189.927†	-1.1	-1.4	-0.5987 µg/L	-0.5987 ppb		09:36:58
3	Ti 334.940†	89.2	-4.4	-0.0132 µg/L	-0.0132 ppb		09:36:37
3	Tl 190.801†	-24.0	-0.7	-0.9600 µg/L	-0.9600 ppb		09:36:58
3	U 409.014†	13.8	103.2	8.7956 µg/L	8.7956 ppb		09:36:37
3	V 292.402†	-67.2	-22.8	-0.2182 µg/L	-0.2182 ppb		09:36:37
3	Zn 213.857†	482.6	27.8	0.6478 µg/L	0.6478 ppb		09:36:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1945785.8	98.009	%	0.0882				0.09%
Sc RADIAL	55359.0	96.7	%	0.82				0.85%
Y 371.029	1339395.4	98.168	%	0.1361				0.14%
Ag 328.068†	43.2	0.3286	µg/L	0.08938	0.3286	ppb	0.08938	27.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.9	7.5729	µg/L	4.28610	7.5729	ppb	4.28610	56.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-6.0523	µg/L	0.87512	-6.0523	ppb	0.87512	14.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	26.2	1.0644	µg/L	0.23347	1.0644	ppb	0.23347	21.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0197	µg/L	0.12761	-0.0197	ppb	0.12761	649.23%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	9.1	0.0056	µg/L	0.03377	0.0056	ppb	0.03377	606.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.5	10.848	µg/L	2.8767	10.848	ppb	2.8767	26.52%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	0.0	-0.0026	µg/L	0.20946	-0.0026	ppb	0.20946	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0206	µg/L	0.15726	0.0206	ppb	0.15726	762.40%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.4      0.0923 µg/L       0.27550      0.0923 ppb        0.27550 298.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              120.7      0.8011 µg/L       0.26517      0.8011 ppb        0.26517  33.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.8      29.631 µg/L       15.7134      29.631 ppb        15.7134  53.03%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -17.1     -11.760 µg/L       37.2633     -11.760 ppb        37.2633 316.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.6      14.400 µg/L       22.4216      14.400 ppb        22.4216 155.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               84.5      0.2781 µg/L       0.02116      0.2781 ppb        0.02116   7.61%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.0      0.1042 µg/L       0.27336      0.1042 ppb        0.27336 262.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        29.4      9.1601 µg/L      17.53733      9.1601 ppb       17.53733 191.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               11.2      0.5764 µg/L       0.05508      0.5764 ppb        0.05508   9.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.4      4.6783 µg/L       2.66793      4.6783 ppb        2.66793  57.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                9.5      2.3820 µg/L       0.30230      2.3820 ppb        0.30230  12.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.6     -2.3307 µg/L       2.44471     -2.3307 ppb        2.44471 104.89%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.6      0.5866 µg/L       1.91658      0.5866 ppb        1.91658 326.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.9     -6.9467 µg/L       7.26858     -6.9467 ppb        7.26858 104.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     50.9      10.400 µg/L        4.3750      10.400 ppb         4.3750  42.07%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               52.8      4.1274 µg/L       0.42440      4.1274 ppb        0.42440  10.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.1     -0.4845 µg/L       1.69415     -0.4845 ppb        1.69415 349.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                2.0      0.0202 µg/L       0.11802      0.0202 ppb        0.11802 584.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               69.3      0.1591 µg/L       0.16793      0.1591 ppb        0.16793 105.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.0     -0.0428 µg/L       1.40587     -0.0428 ppb        1.40587 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                74.9      6.3875 µg/L       2.95677      6.3875 ppb        2.95677  46.29%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -13.9     -0.1291 µg/L       0.33767     -0.1291 ppb        0.33767 261.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               29.2      0.6814 µg/L       0.07218      0.6814 ppb        0.07218  10.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 10:18:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56701.9	56701.9	99.0	%			10:19:25
1	Al 396.153Radial†	6842.2	6935.5	4821.0	µg/L	4821.0	ppb	10:19:25
1	Ca 317.933Radial†	5596.2	5465.9	4744.7	µg/L	4744.7	ppb	10:19:45
1	Fe 238.204 Radial†	628.6	621.2	4918.0	µg/L	4918.0	ppb	10:19:45
1	K 766.490 Radial†	7294.9	7202.1	4957.3	µg/L	4957.3	ppb	10:19:25
1	Mg 279.077 IEC†	568.3	563.2	4990.6	µg/L	4990.6	ppb	10:19:45
1	Na 589.592 Radial†	31116.1	30916.6	9620.2	µg/L	9620.2	ppb	10:19:25
1	Sr 421.552†	48308.2	48770.7	481.27	µg/L	481.27	ppb	10:19:25
1	Sc 361.383	1993112.2	1993112.2	100.39	%			10:20:44
1	Y 371.029	1365870.1	1365870.1	100.11	%			10:20:44
1	Ag 328.068†	63040.0	63354.1	484.34	µg/L	484.34	ppb	10:20:50
1	As 188.979†	271.5	268.6	492.77	µg/L	492.77	ppb	10:21:10
1	B 249.677†	12011.3	11670.0	479.30	µg/L	479.30	ppb	10:20:50
1	Ba 233.527†	19759.9	19708.5	487.00	µg/L	487.00	ppb	10:20:50
1	Be 313.107†	786713.2	787232.1	489.00	µg/L	489.00	ppb	10:20:44
1	Cd 226.502†	18695.2	18768.2	487.35	µg/L	487.35	ppb	10:20:50
1	Co 228.616†	10556.4	10523.9	488.89	µg/L	488.89	ppb	10:20:50
1	Cr 267.716†	23590.5	23546.7	490.31	µg/L	490.31	ppb	10:20:50
1	Cu 324.752†	76013.8	73271.9	484.61	µg/L	484.61	ppb	10:20:50
1	Mn 257.610†	152225.3	151893.7	494.34	µg/L	494.34	ppb	10:20:44
1	Mo 202.031†	4971.1	4956.5	500.44	µg/L	500.44	ppb	10:21:10
1	Ni 231.604†	9825.7	9484.7	489.19	µg/L	489.19	ppb	10:20:50
1	P 214.914†	1268.4	1236.9	2438.4	µg/L	2438.4	ppb	10:21:10
1	Pb 220.353†	2074.5	1979.5	496.13	µg/L	496.13	ppb	10:21:10
1	S 181.975 Axial†	253.4	234.9	977.12	µg/L	977.12	ppb	10:21:10
1	Sb 206.836†	555.1	529.3	492.28	µg/L	492.28	ppb	10:21:10
1	Se 196.026†	363.8	344.0	501.67	µg/L	501.67	ppb	10:21:10
1	SiO2†	26759.9	25364.1	5180.5	µg/L	5180.5	ppb	10:20:50
1	Si 251.611†	31452.8	31034.5	2425.4	µg/L	2425.4	ppb	10:20:50
1	Sn 189.927†	1158.1	1153.3	499.18	µg/L	499.18	ppb	10:21:10
1	Ti 334.940†	212137.9	211211.6	487.40	µg/L	487.40	ppb	10:20:44
1	Tl 190.801†	346.1	368.5	492.47	µg/L	492.47	ppb	10:21:10
1	U 409.014†	5712.8	5779.5	492.15	µg/L	492.15	ppb	10:20:50
1	V 292.402†	48188.4	48045.4	491.71	µg/L	491.71	ppb	10:20:50
1	Zn 213.857†	21285.1	20737.7	485.42	µg/L	485.42	ppb	10:20:50
2	Sc RADIAL	57130.0	57130.0	99.7	%			10:19:50
2	Al 396.153Radial†	6957.5	6999.3	4865.3	µg/L	4865.3	ppb	10:19:50
2	Ca 317.933Radial†	5560.2	5387.4	4676.6	µg/L	4676.6	ppb	10:20:10
2	Fe 238.204 Radial†	624.1	612.0	4845.4	µg/L	4845.4	ppb	10:20:10
2	K 766.490 Radial†	7416.8	7269.0	5003.4	µg/L	5003.4	ppb	10:19:50
2	Mg 279.077 IEC†	572.1	562.7	4986.5	µg/L	4986.5	ppb	10:20:10
2	Na 589.592 Radial†	31502.3	31068.3	9667.3	µg/L	9667.3	ppb	10:19:50
2	Sr 421.552†	49136.5	49235.4	485.86	µg/L	485.86	ppb	10:19:50
2	Sc 361.383	1987695.2	1987695.2	100.12	%			10:21:17
2	Y 371.029	1364057.8	1364057.8	99.975	%			10:21:17
2	Ag 328.068†	63654.8	64139.3	490.34	µg/L	490.34	ppb	10:21:22
2	As 188.979†	278.3	276.1	506.58	µg/L	506.58	ppb	10:21:42
2	B 249.677†	12102.9	11794.1	484.47	µg/L	484.47	ppb	10:21:22
2	Ba 233.527†	19932.1	19934.2	492.58	µg/L	492.58	ppb	10:21:22
2	Be 313.107†	797534.7	800176.1	497.04	µg/L	497.04	ppb	10:21:17
2	Cd 226.502†	18863.4	18986.9	493.05	µg/L	493.05	ppb	10:21:22
2	Co 228.616†	10659.1	10655.2	494.99	µg/L	494.99	ppb	10:21:22
2	Cr 267.716†	23871.3	23891.2	497.49	µg/L	497.49	ppb	10:21:22
2	Cu 324.752†	76938.4	74401.8	492.06	µg/L	492.06	ppb	10:21:22
2	Mn 257.610†	154002.0	154081.5	501.45	µg/L	501.45	ppb	10:21:17
2	Mo 202.031†	5004.1	5003.0	505.13	µg/L	505.13	ppb	10:21:42
2	Ni 231.604†	9922.3	9607.9	495.54	µg/L	495.54	ppb	10:21:22
2	P 214.914†	1273.4	1245.3	2454.7	µg/L	2454.7	ppb	10:21:42
2	Pb 220.353†	2093.8	2004.4	502.38	µg/L	502.38	ppb	10:21:42

2	S 181.975 Axial†	259.0	241.2	1003.2 µg/L	1003.2 ppb	10:21:42
2	Sb 206.836†	562.9	538.6	500.90 µg/L	500.90 ppb	10:21:42
2	Se 196.026†	372.1	353.3	514.93 µg/L	514.93 ppb	10:21:42
2	SiO2†	27027.4	25704.0	5250.0 µg/L	5250.0 ppb	10:21:22
2	Si 251.611†	31789.2	31455.9	2458.3 µg/L	2458.3 ppb	10:21:22
2	Sn 189.927†	1166.3	1164.6	504.08 µg/L	504.08 ppb	10:21:42
2	Ti 334.940†	214919.2	214565.5	495.14 µg/L	495.14 ppb	10:21:17
2	Tl 190.801†	354.9	378.2	505.37 µg/L	505.37 ppb	10:21:42
2	U 409.014†	5706.3	5788.6	492.94 µg/L	492.94 ppb	10:21:22
2	V 292.402†	48779.3	48766.3	499.04 µg/L	499.04 ppb	10:21:22
2	Zn 213.857†	21473.3	20983.5	491.18 µg/L	491.18 ppb	10:21:22
3	Sc RADIAL	57176.9	57176.9	99.8 %		10:20:15
3	Al 396.153Radial†	6857.2	6893.1	4792.5 µg/L	4792.5 ppb	10:20:15
3	Ca 317.933Radial†	5587.5	5410.2	4696.4 µg/L	4696.4 ppb	10:20:35
3	Fe 238.204 Radial†	625.1	612.4	4848.4 µg/L	4848.4 ppb	10:20:35
3	K 766.490 Radial†	7275.6	7121.5	4901.9 µg/L	4901.9 ppb	10:20:15
3	Mg 279.077 IEC†	574.1	564.3	4999.3 µg/L	4999.3 ppb	10:20:35
3	Na 589.592 Radial†	31272.4	30812.1	9587.6 µg/L	9587.6 ppb	10:20:15
3	Sr 421.552†	48675.3	48733.2	480.90 µg/L	480.90 ppb	10:20:15
3	Sc 361.383	1988493.7	1988493.7	100.16 %		10:21:49
3	Y 371.029	1363060.3	1363060.3	99.902 %		10:21:49
3	Ag 328.068†	62531.8	62992.6	481.52 µg/L	481.52 ppb	10:21:54
3	As 188.979†	249.0	246.7	452.70 µg/L	452.70 ppb	10:22:14
3	B 249.677†	11962.4	11648.9	478.45 µg/L	478.45 ppb	10:21:54
3	Ba 233.527†	19419.3	19414.2	479.72 µg/L	479.72 ppb	10:21:54
3	Be 313.107†	766889.7	769260.4	477.83 µg/L	477.83 ppb	10:21:49
3	Cd 226.502†	18340.8	18457.6	479.28 µg/L	479.28 ppb	10:21:54
3	Co 228.616†	10360.2	10352.5	480.90 µg/L	480.90 ppb	10:21:54
3	Cr 267.716†	22805.0	22817.0	475.12 µg/L	475.12 ppb	10:21:54
3	Cu 324.752†	74539.8	71976.1	476.04 µg/L	476.04 ppb	10:21:54
3	Mn 257.610†	148160.9	148188.0	482.28 µg/L	482.28 ppb	10:21:49
3	Mo 202.031†	4434.1	4431.9	447.49 µg/L	447.49 ppb	10:22:14
3	Ni 231.604†	9613.0	9295.1	479.41 µg/L	479.41 ppb	10:21:54
3	P 214.914†	1152.3	1123.8	2211.5 µg/L	2211.5 ppb	10:22:14
3	Pb 220.353†	1921.6	1831.6	458.96 µg/L	458.96 ppb	10:22:14
3	S 181.975 Axial†	238.2	220.4	916.52 µg/L	916.52 ppb	10:22:14
3	Sb 206.836†	510.9	486.4	451.87 µg/L	451.87 ppb	10:22:14
3	Se 196.026†	336.1	317.2	462.97 µg/L	462.97 ppb	10:22:14
3	SiO2†	26456.4	25123.1	5131.3 µg/L	5131.3 ppb	10:21:54
3	Si 251.611†	31079.3	30734.4	2401.9 µg/L	2401.9 ppb	10:21:54
3	Sn 189.927†	1027.0	1025.1	443.70 µg/L	443.70 ppb	10:22:14
3	Ti 334.940†	206699.2	206272.5	475.99 µg/L	475.99 ppb	10:21:49
3	Tl 190.801†	330.6	353.8	472.84 µg/L	472.84 ppb	10:22:14
3	U 409.014†	5466.1	5546.4	472.27 µg/L	472.27 ppb	10:21:54
3	V 292.402†	47048.3	47018.6	480.86 µg/L	480.86 ppb	10:21:54
3	Zn 213.857†	20862.2	20364.7	476.69 µg/L	476.69 ppb	10:21:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1989767.0	100.22	%	0.147				0.15%
Sc RADIAL	57002.9	99.5	%	0.46				0.46%
Y 371.029	1364329.4	99.995	%	0.1044				0.10%
Ag 328.068†	63495.3	485.40	µg/L	4.504	485.40	ppb	4.504	0.93%
QC value within limits for Ag 328.068 Recovery = 97.08%								
Al 396.153Radial†	6942.7	4826.3	µg/L	36.69	4826.3	ppb	36.69	0.76%
QC value within limits for Al 396.153Radial Recovery = 96.53%								
As 188.979†	263.8	484.01	µg/L	27.988	484.01	ppb	27.988	5.78%
QC value within limits for As 188.979 Recovery = 96.80%								
B 249.677†	11704.3	480.74	µg/L	3.258	480.74	ppb	3.258	0.68%
QC value within limits for B 249.677 Recovery = 96.15%								
Ba 233.527†	19685.6	486.43	µg/L	6.447	486.43	ppb	6.447	1.33%
QC value within limits for Ba 233.527 Recovery = 97.29%								
Be 313.107†	785556.2	487.96	µg/L	9.644	487.96	ppb	9.644	1.98%
QC value within limits for Be 313.107 Recovery = 97.59%								
Ca 317.933Radial†	5421.2	4705.9	µg/L	35.05	4705.9	ppb	35.05	0.74%
QC value within limits for Ca 317.933Radial Recovery = 94.12%								
Cd 226.502†	18737.5	486.56	µg/L	6.915	486.56	ppb	6.915	1.42%
QC value within limits for Cd 226.502 Recovery = 97.31%								
Co 228.616†	10510.5	488.26	µg/L	7.066	488.26	ppb	7.066	1.45%

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   QC value within limits for Co 228.616  Recovery = 97.65%
Cr 267.716†            23418.3      487.64 µg/L        11.419      487.64 ppb         11.419   2.34%
   QC value within limits for Cr 267.716  Recovery = 97.53%
Cu 324.752†            73216.6      484.23 µg/L         8.016      484.23 ppb          8.016   1.66%
   QC value within limits for Cu 324.752  Recovery = 96.85%
Fe 238.204 Radial†       615.2      4870.6 µg/L         41.10      4870.6 ppb          41.10   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.41%
K 766.490 Radial†       7197.6      4954.2 µg/L         50.83      4954.2 ppb          50.83   1.03%
   QC value within limits for K 766.490 Radial  Recovery = 99.08%
Mg 279.077 IEC†          563.4      4992.1 µg/L          6.52      4992.1 ppb           6.52   0.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.84%
Mn 257.610†           151387.7      492.69 µg/L         9.688      492.69 ppb          9.688   1.97%
   QC value within limits for Mn 257.610  Recovery = 98.54%
Mo 202.031†             4797.1      484.35 µg/L        32.011      484.35 ppb         32.011   6.61%
   QC value within limits for Mo 202.031  Recovery = 96.87%
Na 589.592 Radial†     30932.3      9625.0 µg/L         40.08      9625.0 ppb          40.08   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 96.25%
Ni 231.604†             9462.5      488.05 µg/L         8.127      488.05 ppb          8.127   1.67%
   QC value within limits for Ni 231.604  Recovery = 97.61%
P 214.914†              1202.0      2368.2 µg/L        135.96      2368.2 ppb         135.96   5.74%
   QC value within limits for P 214.914  Recovery = 94.73%
Pb 220.353†             1938.5      485.83 µg/L        23.472      485.83 ppb         23.472   4.83%
   QC value within limits for Pb 220.353  Recovery = 97.17%
S 181.975 Axial†         232.2      965.62 µg/L        44.484      965.62 ppb         44.484   4.61%
   QC value within limits for S 181.975 Axial  Recovery = 96.56%
Sb 206.836†              518.1      481.68 µg/L        26.172      481.68 ppb         26.172   5.43%
   QC value within limits for Sb 206.836  Recovery = 96.34%
Se 196.026†              338.2      493.19 µg/L        26.998      493.19 ppb         26.998   5.47%
   QC value within limits for Se 196.026  Recovery = 98.64%
SiO2†                  25397.1      5187.3 µg/L         59.61      5187.3 ppb          59.61   1.15%
   QC value within limits for SiO2  Recovery = 97.00%
Si 251.611†            31075.0      2428.5 µg/L         28.33      2428.5 ppb          28.33   1.17%
   QC value within limits for Si 251.611  Recovery = 97.14%
Sn 189.927†             1114.3      482.32 µg/L        33.531      482.32 ppb         33.531   6.95%
   QC value within limits for Sn 189.927  Recovery = 96.46%
Sr 421.552†            48913.1      482.68 µg/L         2.761      482.68 ppb          2.761   0.57%
   QC value within limits for Sr 421.552  Recovery = 96.54%
Ti 334.940†           210683.2      486.18 µg/L         9.633      486.18 ppb          9.633   1.98%
   QC value within limits for Ti 334.940  Recovery = 97.24%
Tl 190.801†              366.8      490.23 µg/L        16.381      490.23 ppb         16.381   3.34%
   QC value within limits for Tl 190.801  Recovery = 98.05%
U 409.014†              5704.9      485.79 µg/L        11.710      485.79 ppb         11.710   2.41%
   QC value within limits for U 409.014  Recovery = 97.16%
V 292.402†             47943.4      490.54 µg/L         9.148      490.54 ppb          9.148   1.86%
   QC value within limits for V 292.402  Recovery = 98.11%
Zn 213.857†            20695.3      484.43 µg/L         7.297      484.43 ppb          7.297   1.51%
   QC value within limits for Zn 213.857  Recovery = 96.89%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 10:22:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56234.5	56234.5	98.2	%			10:22:54
1	Al 396.153Radial†	-2.0	22.2	15.439	µg/L	15.439	ppb	10:22:54
1	Ca 317.933Radial†	199.7	16.5	14.322	µg/L	14.322	ppb	10:23:14
1	Fe 238.204 Radial†	16.6	3.2	25.559	µg/L	25.559	ppb	10:23:14
1	K 766.490 Radial†	150.1	-13.6	-9.3815	µg/L	-9.3815	ppb	10:22:54
1	Mg 279.077 IEC†	11.5	0.9	7.9102	µg/L	7.9102	ppb	10:23:14
1	Na 589.592 Radial†	512.0	7.7	2.3939	µg/L	2.3939	ppb	10:22:54
1	Sr 421.552†	90.3	66.5	0.6564	µg/L	0.6564	ppb	10:22:54
1	Sc 361.383	1964636.1	1964636.1	98.959	%			10:24:12
1	Y 371.029	1351731.6	1351731.6	99.072	%			10:24:12
1	Ag 328.068†	-537.3	18.1	0.1419	µg/L	0.1419	ppb	10:24:18
1	As 188.979†	1.1	-0.7	-1.2301	µg/L	-1.2301	ppb	10:24:38
1	B 249.677†	340.2	49.5	2.0291	µg/L	2.0291	ppb	10:24:38
1	Ba 233.527†	-18.1	7.8	0.1921	µg/L	0.1921	ppb	10:24:38
1	Be 313.107†	-3331.4	234.0	0.1450	µg/L	0.1450	ppb	10:24:18
1	Cd 226.502†	-127.2	17.7	0.4561	µg/L	0.4561	ppb	10:24:38
1	Co 228.616†	-10.1	-1.4	-0.0650	µg/L	-0.0650	ppb	10:24:38
1	Cr 267.716†	-44.2	3.9	0.0806	µg/L	0.0806	ppb	10:24:38
1	Cu 324.752†	2467.5	49.3	0.3290	µg/L	0.3290	ppb	10:24:18
1	Mn 257.610†	-195.8	66.8	0.2201	µg/L	0.2201	ppb	10:24:38
1	Mo 202.031†	-1.9	2.9	0.2984	µg/L	0.2984	ppb	10:24:38
1	Ni 231.604†	308.0	8.7	0.4513	µg/L	0.4513	ppb	10:24:38
1	P 214.914†	15.7	-10.8	-21.698	µg/L	-21.698	ppb	10:24:38
1	Pb 220.353†	101.6	15.7	3.9424	µg/L	3.9424	ppb	10:24:38
1	S 181.975 Axial†	16.0	-1.3	-5.2112	µg/L	-5.2112	ppb	10:24:38
1	Sb 206.836†	24.6	1.2	1.1098	µg/L	1.1098	ppb	10:24:38
1	Se 196.026†	8.5	-9.7	-13.920	µg/L	-13.920	ppb	10:24:38
1	SiO2†	1345.5	68.7	14.038	µg/L	14.038	ppb	10:24:18
1	Si 251.611†	357.6	66.3	5.1812	µg/L	5.1812	ppb	10:24:38
1	Sn 189.927†	-1.6	-1.9	-0.8222	µg/L	-0.8222	ppb	10:24:38
1	Ti 334.940†	467.7	377.3	0.8708	µg/L	0.8708	ppb	10:24:18
1	Tl 190.801†	-24.5	-1.1	-1.3856	µg/L	-1.3856	ppb	10:24:38
1	U 409.014†	-60.9	27.6	2.3509	µg/L	2.3509	ppb	10:24:18
1	V 292.402†	2.8	48.5	0.4985	µg/L	0.4985	ppb	10:24:18
1	Zn 213.857†	477.3	18.3	0.4267	µg/L	0.4267	ppb	10:24:38
2	Sc RADIAL	55965.7	55965.7	97.7	%			10:23:19
2	Al 396.153Radial†	-19.6	4.1	2.8725	µg/L	2.8725	ppb	10:23:19
2	Ca 317.933Radial†	204.2	22.1	19.219	µg/L	19.219	ppb	10:23:39
2	Fe 238.204 Radial†	16.9	3.6	28.097	µg/L	28.097	ppb	10:23:39
2	K 766.490 Radial†	179.7	17.4	11.972	µg/L	11.972	ppb	10:23:19
2	Mg 279.077 IEC†	10.1	-0.5	-4.4499	µg/L	-4.4499	ppb	10:23:39
2	Na 589.592 Radial†	479.5	-23.1	-7.1885	µg/L	-7.1885	ppb	10:23:19
2	Sr 421.552†	37.4	12.9	0.1269	µg/L	0.1269	ppb	10:23:19
2	Sc 361.383	1954981.7	1954981.7	98.473	%			10:24:44
2	Y 371.029	1344413.9	1344413.9	98.535	%			10:24:44
2	Ag 328.068†	-566.6	-14.3	-0.1052	µg/L	-0.1052	ppb	10:24:49
2	As 188.979†	-4.5	-6.4	-11.745	µg/L	-11.745	ppb	10:25:09
2	B 249.677†	339.4	50.4	2.0621	µg/L	2.0621	ppb	10:25:09
2	Ba 233.527†	-13.6	12.2	0.3018	µg/L	0.3018	ppb	10:25:09
2	Be 313.107†	-3405.9	141.6	0.0876	µg/L	0.0876	ppb	10:24:49
2	Cd 226.502†	-139.3	4.7	0.1198	µg/L	0.1198	ppb	10:25:09
2	Co 228.616†	-7.4	1.4	0.0621	µg/L	0.0621	ppb	10:25:09
2	Cr 267.716†	-54.3	-6.6	-0.1362	µg/L	-0.1362	ppb	10:25:09
2	Cu 324.752†	2484.5	78.9	0.5250	µg/L	0.5250	ppb	10:24:49
2	Mn 257.610†	-201.2	60.4	0.2002	µg/L	0.2002	ppb	10:25:09
2	Mo 202.031†	-1.5	3.3	0.3344	µg/L	0.3344	ppb	10:25:09
2	Ni 231.604†	304.1	6.3	0.3255	µg/L	0.3255	ppb	10:25:09
2	P 214.914†	27.7	1.6	3.0514	µg/L	3.0514	ppb	10:25:09
2	Pb 220.353†	95.2	9.8	2.4523	µg/L	2.4523	ppb	10:25:09

2	S 181.975 Axial†	14.4	-2.8	-11.499 µg/L	-11.499 ppb	10:25:09
2	Sb 206.836†	26.0	2.7	2.5084 µg/L	2.5084 ppb	10:25:09
2	Se 196.026†	15.6	-2.5	-3.4625 µg/L	-3.4625 ppb	10:25:09
2	SiO2†	1315.8	45.3	9.2538 µg/L	9.2538 ppb	10:24:49
2	Si 251.611†	366.5	77.1	6.0260 µg/L	6.0260 ppb	10:25:09
2	Sn 189.927†	0.6	0.3	0.1286 µg/L	0.1286 ppb	10:25:09
2	Ti 334.940†	533.3	446.2	1.0309 µg/L	1.0309 ppb	10:24:49
2	Tl 190.801†	-22.2	1.2	1.5572 µg/L	1.5572 ppb	10:25:09
2	U 409.014†	-61.5	26.7	2.2725 µg/L	2.2725 ppb	10:24:49
2	V 292.402†	-17.4	28.0	0.2909 µg/L	0.2909 ppb	10:24:49
2	Zn 213.857†	483.9	27.3	0.6406 µg/L	0.6406 ppb	10:25:09
3	Sc RADIAL	56186.1	56186.1	98.1 %		10:23:45
3	Al 396.153Radial†	1.1	25.4	17.662 µg/L	17.662 ppb	10:23:45
3	Ca 317.933Radial†	205.5	22.6	19.602 µg/L	19.602 ppb	10:24:05
3	Fe 238.204 Radial†	16.2	2.8	21.823 µg/L	21.823 ppb	10:24:05
3	K 766.490 Radial†	142.3	-21.5	-14.775 µg/L	-14.775 ppb	10:23:45
3	Mg 279.077 IEC†	10.3	-0.4	-3.2304 µg/L	-3.2304 ppb	10:24:05
3	Na 589.592 Radial†	492.9	-11.3	-3.5149 µg/L	-3.5149 ppb	10:23:45
3	Sr 421.552†	16.3	-8.8	-0.0867 µg/L	-0.0867 ppb	10:23:45
3	Sc 361.383	1952710.7	1952710.7	98.358 %		10:25:15
3	Y 371.029	1343989.9	1343989.9	98.504 %		10:25:15
3	Ag 328.068†	-498.1	54.6	0.4170 µg/L	0.4170 ppb	10:25:20
3	As 188.979†	-5.6	-7.6	-13.884 µg/L	-13.884 ppb	10:25:40
3	B 249.677†	332.1	43.4	1.7759 µg/L	1.7759 ppb	10:25:40
3	Ba 233.527†	-20.4	5.3	0.1320 µg/L	0.1320 ppb	10:25:40
3	Be 313.107†	-3435.9	107.1	0.0662 µg/L	0.0662 ppb	10:25:20
3	Cd 226.502†	-136.9	7.0	0.1786 µg/L	0.1786 ppb	10:25:40
3	Co 228.616†	-6.4	2.4	0.1096 µg/L	0.1096 ppb	10:25:40
3	Cr 267.716†	-43.9	3.9	0.0812 µg/L	0.0812 ppb	10:25:40
3	Cu 324.752†	2488.5	85.8	0.5699 µg/L	0.5699 ppb	10:25:20
3	Mn 257.610†	-190.3	71.2	0.2345 µg/L	0.2345 ppb	10:25:40
3	Mo 202.031†	-4.9	-0.2	-0.0161 µg/L	-0.0161 ppb	10:25:40
3	Ni 231.604†	303.5	6.1	0.3148 µg/L	0.3148 ppb	10:25:40
3	P 214.914†	26.1	-0.1	-0.2412 µg/L	-0.2412 ppb	10:25:40
3	Pb 220.353†	95.9	10.6	2.6492 µg/L	2.6492 ppb	10:25:40
3	S 181.975 Axial†	13.3	-3.9	-16.113 µg/L	-16.113 ppb	10:25:40
3	Sb 206.836†	24.8	1.6	1.4589 µg/L	1.4589 ppb	10:25:40
3	Se 196.026†	19.9	1.9	2.8028 µg/L	2.8028 ppb	10:25:40
3	SiO2†	1280.4	10.8	2.2157 µg/L	2.2157 ppb	10:25:20
3	Si 251.611†	349.3	60.0	4.6909 µg/L	4.6909 ppb	10:25:40
3	Sn 189.927†	2.5	2.2	0.9523 µg/L	0.9523 ppb	10:25:40
3	Ti 334.940†	509.0	422.2	0.9754 µg/L	0.9754 ppb	10:25:20
3	Tl 190.801†	-25.7	-2.4	-3.2072 µg/L	-3.2072 ppb	10:25:40
3	U 409.014†	-46.1	42.3	3.6011 µg/L	3.6011 ppb	10:25:20
3	V 292.402†	-30.6	14.6	0.1538 µg/L	0.1538 ppb	10:25:20
3	Zn 213.857†	480.1	24.1	0.5652 µg/L	0.5652 ppb	10:25:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1957442.8	98.597	%	0.3190				0.32%
Sc RADIAL	56128.8	98.0	%	0.25				0.26%
Y 371.029	1346711.8	98.704	%	0.3190				0.32%
Ag 328.068†	19.5	0.1513	µg/L	0.26125	0.1513	ppb	0.26125	172.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.2	11.991	µg/L	7.9750	11.991	ppb	7.9750	66.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.9	-8.9532	µg/L	6.77334	-8.9532	ppb	6.77334	75.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	47.8	1.9557	µg/L	0.15660	1.9557	ppb	0.15660	8.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.4	0.2086	µg/L	0.08614	0.2086	ppb	0.08614	41.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	160.9	0.0996	µg/L	0.04078	0.0996	ppb	0.04078	40.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.4	17.715	µg/L	2.9444	17.715	ppb	2.9444	16.62%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.8	0.2515	µg/L	0.17959	0.2515	ppb	0.17959	71.41%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.8	0.0356	µg/L	0.09027	0.0356	ppb	0.09027	253.71%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.4      0.0085 µg/L       0.12537      0.0085 ppb        0.12537 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               71.3      0.4746 µg/L       0.12810      0.4746 ppb        0.12810  26.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.2      25.160 µg/L        3.1560      25.160 ppb         3.1560  12.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -5.9     -4.0615 µg/L      14.14525     -4.0615 ppb       14.14525 348.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.0      0.0766 µg/L       6.81142      0.0766 ppb        6.81142 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               66.1      0.2183 µg/L       0.01723      0.2183 ppb        0.01723   7.89%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.0      0.2056 µg/L       0.19284      0.2056 ppb        0.19284  93.81%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -8.9     -2.7699 µg/L       4.83444     -2.7699 ppb        4.83444 174.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.0      0.3639 µg/L       0.07591      0.3639 ppb        0.07591  20.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -3.1     -6.2958 µg/L      13.43952     -6.2958 ppb       13.43952 213.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               12.0      3.0146 µg/L       0.80948      3.0146 ppb        0.80948  26.85%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.6     -10.941 µg/L        5.4724     -10.941 ppb         5.4724  50.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.8      1.6924 µg/L       0.72798      1.6924 ppb        0.72798  43.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.4     -4.8598 µg/L       8.44836     -4.8598 ppb        8.44836 173.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     41.6      8.5026 µg/L       5.94694      8.5026 ppb        5.94694  69.94%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               67.8      5.2994 µg/L       0.67535      5.2994 ppb        0.67535  12.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.2      0.0862 µg/L       0.88799      0.0862 ppb        0.88799 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               23.5      0.2322 µg/L       0.38259      0.2322 ppb        0.38259 164.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              415.2      0.9591 µg/L       0.08131      0.9591 ppb        0.08131   8.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.8     -1.0118 µg/L       2.40409     -1.0118 ppb        2.40409 237.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                32.2      2.7415 µg/L       0.74546      2.7415 ppb        0.74546  27.19%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                30.4      0.3144 µg/L       0.17353      0.3144 ppb        0.17353  55.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               23.2      0.5441 µg/L       0.10846      0.5441 ppb        0.10846  19.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 10:58:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56478.3	56478.3	98.6	%			10:59:13
1	Al 396.153Radial†	6906.1	7027.6	4885.0	µg/L	4885.0	ppb	10:59:34
1	Ca 317.933Radial†	5641.2	5533.9	4803.8	µg/L	4803.8	ppb	10:59:34
1	Fe 238.204 Radial†	628.0	623.1	4933.4	µg/L	4933.4	ppb	10:59:34
1	K 766.490 Radial†	7311.9	7248.5	4989.3	µg/L	4989.3	ppb	10:59:13
1	Mg 279.077 IEC†	576.0	573.3	5080.1	µg/L	5080.1	ppb	10:59:34
1	Na 589.592 Radial†	31549.2	31480.3	9795.5	µg/L	9795.5	ppb	10:59:13
1	Sr 421.552†	49215.0	49883.5	492.26	µg/L	492.26	ppb	10:59:13
1	Sc 361.383	1989530.1	1989530.1	100.21	%			11:00:37
1	Y 371.029	1361090.7	1361090.7	99.758	%			11:00:37
1	Ag 328.068†	63934.8	64360.1	492.04	µg/L	492.04	ppb	11:00:43
1	As 188.979†	274.0	271.6	498.21	µg/L	498.21	ppb	11:01:03
1	B 249.677†	12236.5	11916.2	489.46	µg/L	489.46	ppb	11:00:43
1	Ba 233.527†	20121.9	20105.2	496.80	µg/L	496.80	ppb	11:00:43
1	Be 313.107†	782603.8	784542.3	487.33	µg/L	487.33	ppb	11:00:37
1	Cd 226.502†	19019.1	19124.9	496.62	µg/L	496.62	ppb	11:00:43
1	Co 228.616†	10772.0	10758.0	499.79	µg/L	499.79	ppb	11:00:43
1	Cr 267.716†	24065.4	24062.9	501.06	µg/L	501.06	ppb	11:00:43
1	Cu 324.752†	77296.4	74688.1	493.96	µg/L	493.96	ppb	11:00:43
1	Mn 257.610†	150869.6	150813.9	490.83	µg/L	490.83	ppb	11:00:37
1	Mo 202.031†	5004.6	4998.8	504.72	µg/L	504.72	ppb	11:01:03
1	Ni 231.604†	9982.6	9658.9	498.18	µg/L	498.18	ppb	11:00:43
1	P 214.914†	1273.2	1243.9	2451.7	µg/L	2451.7	ppb	11:01:03
1	Pb 220.353†	2113.5	2022.1	506.82	µg/L	506.82	ppb	11:01:03
1	S 181.975 Axial†	253.0	235.0	977.43	µg/L	977.43	ppb	11:01:03
1	Sb 206.836†	559.2	534.3	496.89	µg/L	496.89	ppb	11:01:03
1	Se 196.026†	364.3	345.2	503.32	µg/L	503.32	ppb	11:01:03
1	SiO2†	27287.6	25938.7	5297.9	µg/L	5297.9	ppb	11:00:43
1	Si 251.611†	32068.9	31705.8	2477.8	µg/L	2477.8	ppb	11:00:43
1	Sn 189.927†	1169.9	1167.1	505.18	µg/L	505.18	ppb	11:01:03
1	Ti 334.940†	210490.4	209948.1	484.47	µg/L	484.47	ppb	11:00:37
1	Tl 190.801†	350.8	373.8	499.32	µg/L	499.32	ppb	11:01:03
1	U 409.014†	5783.4	5860.2	499.03	µg/L	499.03	ppb	11:00:43
1	V 292.402†	49113.3	49054.7	501.98	µg/L	501.98	ppb	11:00:43
1	Zn 213.857†	21684.5	21174.4	495.66	µg/L	495.66	ppb	11:00:43
2	Sc RADIAL	56626.5	56626.5	98.9	%			10:59:39
2	Al 396.153Radial†	6874.7	6977.6	4850.2	µg/L	4850.2	ppb	11:00:00
2	Ca 317.933Radial†	5632.3	5509.9	4783.0	µg/L	4783.0	ppb	11:00:00
2	Fe 238.204 Radial†	621.5	614.9	4868.5	µg/L	4868.5	ppb	11:00:00
2	K 766.490 Radial†	7315.5	7232.7	4978.4	µg/L	4978.4	ppb	10:59:39
2	Mg 279.077 IEC†	571.5	567.2	5026.4	µg/L	5026.4	ppb	11:00:00
2	Na 589.592 Radial†	31392.1	31237.6	9720.0	µg/L	9720.0	ppb	10:59:39
2	Sr 421.552†	49050.5	49586.5	489.32	µg/L	489.32	ppb	10:59:39
2	Sc 361.383	1976882.9	1976882.9	99.576	%			11:01:11
2	Y 371.029	1352181.6	1352181.6	99.105	%			11:01:11
2	Ag 328.068†	63482.5	64314.0	491.68	µg/L	491.68	ppb	11:01:16
2	As 188.979†	272.2	271.5	498.09	µg/L	498.09	ppb	11:01:37
2	B 249.677†	12125.5	11882.9	488.12	µg/L	488.12	ppb	11:01:16
2	Ba 233.527†	19951.5	20062.6	495.75	µg/L	495.75	ppb	11:01:16
2	Be 313.107†	784889.2	791833.6	491.85	µg/L	491.85	ppb	11:01:11
2	Cd 226.502†	18847.6	19074.1	495.31	µg/L	495.31	ppb	11:01:16
2	Co 228.616†	10647.7	10701.9	497.17	µg/L	497.17	ppb	11:01:16
2	Cr 267.716†	23797.4	23947.3	498.66	µg/L	498.66	ppb	11:01:16
2	Cu 324.752†	76817.2	74700.3	494.03	µg/L	494.03	ppb	11:01:16
2	Mn 257.610†	151308.9	152218.2	495.39	µg/L	495.39	ppb	11:01:11
2	Mo 202.031†	4973.8	4999.8	504.81	µg/L	504.81	ppb	11:01:37
2	Ni 231.604†	9936.3	9676.2	499.07	µg/L	499.07	ppb	11:01:16
2	P 214.914†	1271.9	1250.7	2465.3	µg/L	2465.3	ppb	11:01:37
2	Pb 220.353†	2088.3	2010.3	503.83	µg/L	503.83	ppb	11:01:37

2	S 181.975 Axial†	249.7	233.3	970.37 µg/L	970.37 ppb	11:01:37
2	Sb 206.836†	556.0	534.7	497.24 µg/L	497.24 ppb	11:01:37
2	Se 196.026†	363.5	346.7	505.36 µg/L	505.36 ppb	11:01:37
2	SiO2†	27092.8	25917.3	5293.5 µg/L	5293.5 ppb	11:01:16
2	Si 251.611†	31863.5	31704.1	2477.7 µg/L	2477.7 ppb	11:01:16
2	Sn 189.927†	1161.7	1166.3	504.84 µg/L	504.84 ppb	11:01:37
2	Ti 334.940†	211575.1	212381.1	490.10 µg/L	490.10 ppb	11:01:11
2	Tl 190.801†	356.0	381.2	509.26 µg/L	509.26 ppb	11:01:37
2	U 409.014†	5861.3	5975.4	508.87 µg/L	508.87 ppb	11:01:16
2	V 292.402†	48636.2	48889.1	500.30 µg/L	500.30 ppb	11:01:16
2	Zn 213.857†	21490.9	21118.4	494.34 µg/L	494.34 ppb	11:01:16
3	Sc RADIAL	56497.2	56497.2	98.6 %		11:00:05
3	Al 396.153Radial†	6906.1	7025.3	4885.1 µg/L	4885.1 ppb	11:00:26
3	Ca 317.933Radial†	5651.2	5542.1	4810.9 µg/L	4810.9 ppb	11:00:26
3	Fe 238.204 Radial†	627.9	622.8	4929.8 µg/L	4929.8 ppb	11:00:26
3	K 766.490 Radial†	7270.2	7203.8	4958.5 µg/L	4958.5 ppb	11:00:05
3	Mg 279.077 IEC†	573.1	570.2	5051.0 µg/L	5051.0 ppb	11:00:26
3	Na 589.592 Radial†	31374.7	31292.6	9737.2 µg/L	9737.2 ppb	11:00:05
3	Sr 421.552†	48892.3	49539.7	488.86 µg/L	488.86 ppb	11:00:05
3	Sc 361.383	1988073.0	1988073.0	100.14 %		11:01:44
3	Y 371.029	1360441.7	1360441.7	99.710 %		11:01:44
3	Ag 328.068†	60467.9	60944.7	465.83 µg/L	465.83 ppb	11:01:49
3	As 188.979†	241.8	239.6	439.71 µg/L	439.71 ppb	11:02:10
3	B 249.677†	11525.2	11214.9	460.47 µg/L	460.47 ppb	11:01:49
3	Ba 233.527†	18643.8	18643.9	460.68 µg/L	460.68 ppb	11:01:49
3	Be 313.107†	750086.0	752642.1	467.51 µg/L	467.51 ppb	11:01:44
3	Cd 226.502†	17495.4	17617.2	457.43 µg/L	457.43 ppb	11:01:49
3	Co 228.616†	9829.3	9824.5	456.35 µg/L	456.35 ppb	11:01:49
3	Cr 267.716†	21494.3	21513.0	447.97 µg/L	447.97 ppb	11:01:49
3	Cu 324.752†	71217.5	68674.2	454.24 µg/L	454.24 ppb	11:01:49
3	Mn 257.610†	145322.4	145384.7	473.18 µg/L	473.18 ppb	11:01:44
3	Mo 202.031†	4202.8	4201.8	424.27 µg/L	424.27 ppb	11:02:10
3	Ni 231.604†	9168.2	8852.9	456.61 µg/L	456.61 ppb	11:01:49
3	P 214.914†	1104.9	1076.8	2118.8 µg/L	2118.8 ppb	11:02:10
3	Pb 220.353†	1846.5	1757.0	440.27 µg/L	440.27 ppb	11:02:10
3	S 181.975 Axial†	226.9	209.2	869.95 µg/L	869.95 ppb	11:02:10
3	Sb 206.836†	488.6	464.3	431.33 µg/L	431.33 ppb	11:02:10
3	Se 196.026†	329.5	310.7	453.80 µg/L	453.80 ppb	11:02:10
3	SiO2†	25586.4	24259.8	4955.0 µg/L	4955.0 ppb	11:01:49
3	Si 251.611†	29980.4	29643.6	2316.7 µg/L	2316.7 ppb	11:01:49
3	Sn 189.927†	961.4	959.8	415.45 µg/L	415.45 ppb	11:02:10
3	Ti 334.940†	201394.7	201019.0	463.86 µg/L	463.86 ppb	11:01:44
3	Tl 190.801†	322.7	346.0	462.52 µg/L	462.52 ppb	11:02:10
3	U 409.014†	5271.3	5353.1	455.76 µg/L	455.76 ppb	11:01:49
3	V 292.402†	44742.5	44725.9	457.44 µg/L	457.44 ppb	11:01:49
3	Zn 213.857†	19892.6	19400.9	454.10 µg/L	454.10 ppb	11:01:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984828.7	99.976	%	0.3485				0.35%
Sc RADIAL	56534.0	98.7	%	0.14				0.14%
Y 371.029	1357904.6	99.524	%	0.3640				0.37%
Ag 328.068†	63206.3	483.18	µg/L	15.028	483.18	ppb	15.028	3.11%
QC value within limits for Ag 328.068 Recovery = 96.64%								
Al 396.153Radial†	7010.2	4873.4	µg/L	20.13	4873.4	ppb	20.13	0.41%
QC value within limits for Al 396.153Radial Recovery = 97.47%								
As 188.979†	260.9	478.67	µg/L	33.743	478.67	ppb	33.743	7.05%
QC value within limits for As 188.979 Recovery = 95.73%								
B 249.677†	11671.4	479.35	µg/L	16.366	479.35	ppb	16.366	3.41%
QC value within limits for B 249.677 Recovery = 95.87%								
Ba 233.527†	19603.9	484.41	µg/L	20.559	484.41	ppb	20.559	4.24%
QC value within limits for Ba 233.527 Recovery = 96.88%								
Be 313.107†	776339.3	482.23	µg/L	12.947	482.23	ppb	12.947	2.68%
QC value within limits for Be 313.107 Recovery = 96.45%								
Ca 317.933Radial†	5528.6	4799.2	µg/L	14.52	4799.2	ppb	14.52	0.30%
QC value within limits for Ca 317.933Radial Recovery = 95.98%								
Cd 226.502†	18605.4	483.12	µg/L	22.261	483.12	ppb	22.261	4.61%
QC value within limits for Cd 226.502 Recovery = 96.62%								
Co 228.616†	10428.1	484.44	µg/L	24.361	484.44	ppb	24.361	5.03%

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   QC value within limits for Co 228.616  Recovery = 96.89%
Cr 267.716†            23174.4      482.56 µg/L        29.982      482.56 ppb         29.982   6.21%
   QC value within limits for Cr 267.716  Recovery = 96.51%
Cu 324.752†            72687.5      480.75 µg/L        22.953      480.75 ppb         22.953   4.77%
   QC value within limits for Cu 324.752  Recovery = 96.15%
Fe 238.204 Radial†       620.3      4910.6 µg/L         36.49      4910.6 ppb          36.49   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.21%
K 766.490 Radial†       7228.3      4975.4 µg/L         15.63      4975.4 ppb          15.63   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 99.51%
Mg 279.077 IEC†          570.2      5052.5 µg/L         26.89      5052.5 ppb          26.89   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.05%
Mn 257.610†           149472.3      486.47 µg/L        11.731      486.47 ppb         11.731   2.41%
   QC value within limits for Mn 257.610  Recovery = 97.29%
Mo 202.031†             4733.5      477.93 µg/L        46.471      477.93 ppb         46.471   9.72%
   QC value within limits for Mo 202.031  Recovery = 95.59%
Na 589.592 Radial†     31336.8      9750.9 µg/L         39.59      9750.9 ppb          39.59   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 97.51%
Ni 231.604†             9396.0      484.62 µg/L        24.259      484.62 ppb         24.259   5.01%
   QC value within limits for Ni 231.604  Recovery = 96.92%
P 214.914†              1190.5      2345.3 µg/L        196.23      2345.3 ppb         196.23   8.37%
   QC value within limits for P 214.914  Recovery = 93.81%
Pb 220.353†             1929.8      483.64 µg/L        37.591      483.64 ppb         37.591   7.77%
   QC value within limits for Pb 220.353  Recovery = 96.73%
S 181.975 Axial†         225.8      939.25 µg/L        60.118      939.25 ppb         60.118   6.40%
   QC value within limits for S 181.975 Axial  Recovery = 93.93%
Sb 206.836†              511.1      475.15 µg/L        37.951      475.15 ppb         37.951   7.99%
   QC value within limits for Sb 206.836  Recovery = 95.03%
Se 196.026†              334.2      487.49 µg/L        29.197      487.49 ppb         29.197   5.99%
   QC value within limits for Se 196.026  Recovery = 97.50%
SiO2†                  25371.9      5182.1 µg/L        196.73      5182.1 ppb         196.73   3.80%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†            31017.8      2424.1 µg/L         93.01      2424.1 ppb          93.01   3.84%
   QC value within limits for Si 251.611  Recovery = 96.96%
Sn 189.927†             1097.7      475.16 µg/L        51.710      475.16 ppb         51.710  10.88%
   QC value within limits for Sn 189.927  Recovery = 95.03%
Sr 421.552†            49669.9      490.15 µg/L         1.840      490.15 ppb          1.840   0.38%
   QC value within limits for Sr 421.552  Recovery = 98.03%
Ti 334.940†           207782.7      479.48 µg/L        13.815      479.48 ppb         13.815   2.88%
   QC value within limits for Ti 334.940  Recovery = 95.90%
Tl 190.801†              367.0      490.37 µg/L        24.624      490.37 ppb         24.624   5.02%
   QC value within limits for Tl 190.801  Recovery = 98.07%
U 409.014†              5729.6      487.88 µg/L        28.251      487.88 ppb         28.251   5.79%
   QC value within limits for U 409.014  Recovery = 97.58%
V 292.402†             47556.6      486.57 µg/L        25.247      486.57 ppb         25.247   5.19%
   QC value within limits for V 292.402  Recovery = 97.31%
Zn 213.857†            20564.5      481.36 µg/L        23.623      481.36 ppb         23.623   4.91%
   QC value within limits for Zn 213.857  Recovery = 96.27%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 11:02:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56950.0	56950.0	99.4	%			11:02:52
1	Al 396.153Radial†	10.3	34.6	24.086	µg/L	24.086	ppb	11:02:52
1	Ca 317.933Radial†	198.2	12.4	10.804	µg/L	10.804	ppb	11:03:12
1	Fe 238.204 Radial†	16.2	2.6	20.378	µg/L	20.378	ppb	11:03:12
1	K 766.490 Radial†	164.8	-0.8	-0.5362	µg/L	-0.5362	ppb	11:02:52
1	Mg 279.077 IEC†	10.5	-0.2	-2.1426	µg/L	-2.1426	ppb	11:03:12
1	Na 589.592 Radial†	434.2	-77.1	-23.982	µg/L	-23.982	ppb	11:02:52
1	Sr 421.552†	42.3	17.1	0.1687	µg/L	0.1687	ppb	11:02:52
1	Sc 361.383	1961622.9	1961622.9	98.807	%			11:04:14
1	Y 371.029	1345995.7	1345995.7	98.651	%			11:04:14
1	Ag 328.068†	-579.2	-25.1	-0.1894	µg/L	-0.1894	ppb	11:04:20
1	As 188.979†	-2.0	-3.9	-7.1475	µg/L	-7.1475	ppb	11:04:40
1	B 249.677†	328.7	38.4	1.5732	µg/L	1.5732	ppb	11:04:40
1	Ba 233.527†	-19.7	6.1	0.1508	µg/L	0.1508	ppb	11:04:40
1	Be 313.107†	-3615.2	-58.5	-0.0365	µg/L	-0.0365	ppb	11:04:20
1	Cd 226.502†	-132.3	12.3	0.3167	µg/L	0.3167	ppb	11:04:40
1	Co 228.616†	-9.8	-1.1	-0.0521	µg/L	-0.0521	ppb	11:04:40
1	Cr 267.716†	-37.5	10.6	0.2211	µg/L	0.2211	ppb	11:04:40
1	Cu 324.752†	2485.7	71.6	0.4756	µg/L	0.4756	ppb	11:04:20
1	Mn 257.610†	-157.8	104.9	0.3439	µg/L	0.3439	ppb	11:04:40
1	Mo 202.031†	-10.1	-5.3	-0.5378	µg/L	-0.5378	ppb	11:04:40
1	Ni 231.604†	298.1	-0.8	-0.0403	µg/L	-0.0403	ppb	11:04:40
1	P 214.914†	28.2	2.0	3.8552	µg/L	3.8552	ppb	11:04:40
1	Pb 220.353†	98.3	12.6	3.1488	µg/L	3.1488	ppb	11:04:40
1	S 181.975 Axial†	14.9	-2.4	-9.9456	µg/L	-9.9456	ppb	11:04:40
1	Sb 206.836†	23.1	-0.3	-0.2750	µg/L	-0.2750	ppb	11:04:40
1	Se 196.026†	17.4	-0.8	-1.0717	µg/L	-1.0717	ppb	11:04:40
1	SiO2†	1342.6	67.9	13.873	µg/L	13.873	ppb	11:04:20
1	Si 251.611†	385.1	94.7	7.3978	µg/L	7.3978	ppb	11:04:40
1	Sn 189.927†	-1.6	-2.0	-0.8534	µg/L	-0.8534	ppb	11:04:40
1	Ti 334.940†	240.1	147.7	0.3413	µg/L	0.3413	ppb	11:04:20
1	Tl 190.801†	-21.8	1.7	2.2356	µg/L	2.2356	ppb	11:04:40
1	U 409.014†	36.8	126.4	10.778	µg/L	10.778	ppb	11:04:20
1	V 292.402†	-49.1	-4.0	-0.0306	µg/L	-0.0306	ppb	11:04:20
1	Zn 213.857†	473.3	15.0	0.3524	µg/L	0.3524	ppb	11:04:40
2	Sc RADIAL	56019.8	56019.8	97.8	%			11:03:18
2	Al 396.153Radial†	-13.6	10.3	7.1428	µg/L	7.1428	ppb	11:03:18
2	Ca 317.933Radial†	195.3	12.8	11.095	µg/L	11.095	ppb	11:03:38
2	Fe 238.204 Radial†	18.1	4.8	37.606	µg/L	37.606	ppb	11:03:38
2	K 766.490 Radial†	192.8	30.6	21.044	µg/L	21.044	ppb	11:03:18
2	Mg 279.077 IEC†	12.9	2.4	21.126	µg/L	21.126	ppb	11:03:38
2	Na 589.592 Radial†	434.4	-69.6	-21.668	µg/L	-21.668	ppb	11:03:18
2	Sr 421.552†	39.1	14.6	0.1436	µg/L	0.1436	ppb	11:03:18
2	Sc 361.383	1976928.2	1976928.2	99.578	%			11:04:47
2	Y 371.029	1356046.8	1356046.8	99.388	%			11:04:47
2	Ag 328.068†	-513.3	45.6	0.3510	µg/L	0.3510	ppb	11:04:52
2	As 188.979†	1.1	-0.7	-1.2937	µg/L	-1.2937	ppb	11:05:13
2	B 249.677†	325.0	32.1	1.3049	µg/L	1.3049	ppb	11:05:13
2	Ba 233.527†	-15.2	10.7	0.2656	µg/L	0.2656	ppb	11:05:13
2	Be 313.107†	-3630.4	-45.4	-0.0283	µg/L	-0.0283	ppb	11:04:52
2	Cd 226.502†	-131.5	14.2	0.3641	µg/L	0.3641	ppb	11:05:13
2	Co 228.616†	-16.9	-8.1	-0.3790	µg/L	-0.3790	ppb	11:05:13
2	Cr 267.716†	-42.8	5.6	0.1166	µg/L	0.1166	ppb	11:05:13
2	Cu 324.752†	2470.7	37.0	0.2495	µg/L	0.2495	ppb	11:04:52
2	Mn 257.610†	-142.3	121.8	0.4001	µg/L	0.4001	ppb	11:05:13
2	Mo 202.031†	-0.8	4.1	0.4127	µg/L	0.4127	ppb	11:05:13
2	Ni 231.604†	309.4	8.3	0.4280	µg/L	0.4280	ppb	11:05:13
2	P 214.914†	30.9	4.4	8.8498	µg/L	8.8498	ppb	11:05:13
2	Pb 220.353†	94.0	7.5	1.8825	µg/L	1.8825	ppb	11:05:13

2	S 181.975 Axial†	13.5	-3.9	-16.102 µg/L	-16.102 ppb	11:05:13
2	Sb 206.836†	24.5	0.9	0.8614 µg/L	0.8614 ppb	11:05:13
2	Se 196.026†	8.8	-9.5	-13.540 µg/L	-13.540 ppb	11:05:13
2	SiO2†	1347.0	61.8	12.618 µg/L	12.618 ppb	11:04:52
2	Si 251.611†	362.0	68.5	5.3536 µg/L	5.3536 ppb	11:05:13
2	Sn 189.927†	2.6	2.3	0.9960 µg/L	0.9960 ppb	11:05:13
2	Ti 334.940†	256.9	162.6	0.3740 µg/L	0.3740 ppb	11:04:52
2	Tl 190.801†	-24.3	-0.7	-0.9183 µg/L	-0.9183 ppb	11:05:13
2	U 409.014†	-74.4	14.4	1.2221 µg/L	1.2221 ppb	11:04:52
2	V 292.402†	-2.7	43.0	0.4440 µg/L	0.4440 ppb	11:04:52
2	Zn 213.857†	467.6	5.6	0.1263 µg/L	0.1263 ppb	11:05:13
3	Sc RADIAL	55855.7	55855.7	97.5 %		11:03:44
3	Al 396.153Radial†	7.7	32.1	22.351 µg/L	22.351 ppb	11:03:44
3	Ca 317.933Radial†	193.2	11.2	9.7529 µg/L	9.7529 ppb	11:04:04
3	Fe 238.204 Radial†	17.5	4.2	33.293 µg/L	33.293 ppb	11:04:04
3	K 766.490 Radial†	94.2	-69.9	-48.130 µg/L	-48.130 ppb	11:03:44
3	Mg 279.077 IEC†	12.1	1.5	13.551 µg/L	13.551 ppb	11:04:04
3	Na 589.592 Radial†	472.3	-29.5	-9.1659 µg/L	-9.1659 ppb	11:03:44
3	Sr 421.552†	28.0	3.3	0.0324 µg/L	0.0324 ppb	11:03:44
3	Sc 361.383	1980806.4	1980806.4	99.773 %		11:05:19
3	Y 371.029	1358468.5	1358468.5	99.565 %		11:05:19
3	Ag 328.068†	-557.5	2.3	0.0220 µg/L	0.0220 ppb	11:05:24
3	As 188.979†	0.1	-1.7	-3.1393 µg/L	-3.1393 ppb	11:05:45
3	B 249.677†	314.5	21.0	0.8469 µg/L	0.8469 ppb	11:05:45
3	Ba 233.527†	-16.7	9.3	0.2302 µg/L	0.2302 ppb	11:05:45
3	Be 313.107†	-3468.5	124.0	0.0769 µg/L	0.0769 ppb	11:05:24
3	Cd 226.502†	-141.5	4.4	0.1103 µg/L	0.1103 ppb	11:05:45
3	Co 228.616†	-20.5	-11.7	-0.5420 µg/L	-0.5420 ppb	11:05:45
3	Cr 267.716†	-32.0	16.5	0.3430 µg/L	0.3430 ppb	11:05:45
3	Cu 324.752†	2487.5	49.0	0.3280 µg/L	0.3280 ppb	11:05:24
3	Mn 257.610†	-149.4	114.9	0.3776 µg/L	0.3776 ppb	11:05:45
3	Mo 202.031†	2.5	7.3	0.7421 µg/L	0.7421 ppb	11:05:45
3	Ni 231.604†	302.8	1.0	0.0534 µg/L	0.0534 ppb	11:05:45
3	P 214.914†	29.5	2.9	5.8346 µg/L	5.8346 ppb	11:05:45
3	Pb 220.353†	98.1	11.4	2.8666 µg/L	2.8666 ppb	11:05:45
3	S 181.975 Axial†	15.0	-2.4	-9.9721 µg/L	-9.9721 ppb	11:05:45
3	Sb 206.836†	25.8	2.2	2.0126 µg/L	2.0126 ppb	11:05:45
3	Se 196.026†	8.8	-9.5	-13.618 µg/L	-13.618 ppb	11:05:45
3	SiO2†	1311.4	23.5	4.7931 µg/L	4.7931 ppb	11:05:24
3	Si 251.611†	367.2	73.0	5.7039 µg/L	5.7039 ppb	11:05:45
3	Sn 189.927†	0.9	0.6	0.2379 µg/L	0.2379 ppb	11:05:45
3	Ti 334.940†	246.2	151.5	0.3488 µg/L	0.3488 ppb	11:05:24
3	Tl 190.801†	-21.7	2.0	2.6136 µg/L	2.6136 ppb	11:05:45
3	U 409.014†	-93.3	-4.4	-0.3809 µg/L	-0.3809 ppb	11:05:24
3	V 292.402†	-8.7	37.0	0.3839 µg/L	0.3839 ppb	11:05:24
3	Zn 213.857†	478.4	15.4	0.3602 µg/L	0.3602 ppb	11:05:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1973119.2	99.386	%	0.5109				0.51%
Sc RADIAL	56275.1	98.3	%	1.03				1.05%
Y 371.029	1353503.7	99.202	%	0.4847				0.49%
Ag 328.068†	7.6	0.0612	µg/L	0.27236	0.0612	ppb	0.27236	445.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	25.6	17.860	µg/L	9.3215	17.860	ppb	9.3215	52.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.1	-3.8602	µg/L	2.99273	-3.8602	ppb	2.99273	77.53%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.5	1.2417	µg/L	0.36725	1.2417	ppb	0.36725	29.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.7	0.2155	µg/L	0.05877	0.2155	ppb	0.05877	27.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	6.7	0.0040	µg/L	0.06324	0.0040	ppb	0.06324	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.2	10.551	µg/L	0.7060	10.551	ppb	0.7060	6.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.3	0.2637	µg/L	0.13496	0.2637	ppb	0.13496	51.18%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-7.0	-0.3243	µg/L	0.24946	-0.3243	ppb	0.24946	76.91%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.9      0.2269 µg/L       0.11330      0.2269 ppb        0.11330  49.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                52.5      0.3510 µg/L       0.11480      0.3510 ppb        0.11480  32.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          3.9      30.426 µg/L        8.9650      30.426 ppb         8.9650  29.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -13.4     -9.2074 µg/L      35.39248     -9.2074 ppb       35.39248 384.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      10.845 µg/L       11.8681      10.845 ppb        11.8681 109.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               113.9      0.3739 µg/L       0.02830      0.3739 ppb        0.02830   7.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.0      0.2057 µg/L       0.66455      0.2057 ppb        0.66455 323.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -58.7     -18.272 µg/L        7.9706     -18.272 ppb         7.9706  43.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.8      0.1470 µg/L       0.24778      0.1470 ppb        0.24778 168.52%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.1      6.1798 µg/L       2.51513      6.1798 ppb        2.51513  40.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.5      2.6326 µg/L       0.66476      2.6326 ppb        0.66476  25.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.9     -12.007 µg/L        3.5469     -12.007 ppb         3.5469  29.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.9      0.8663 µg/L       1.14383      0.8663 ppb        1.14383 132.03%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.6     -9.4099 µg/L       7.22114     -9.4099 ppb        7.22114  76.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      51.1      10.428 µg/L        4.9201      10.428 ppb         4.9201  47.18%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                78.7      6.1518 µg/L       1.09323      6.1518 ppb        1.09323  17.77%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.3      0.1268 µg/L       0.92969      0.1268 ppb        0.92969 733.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.6      0.1149 µg/L       0.07255      0.1149 ppb        0.07255  63.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               153.9      0.3547 µg/L       0.01713      0.3547 ppb        0.01713   4.83%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.3103 µg/L       1.93924      1.3103 ppb        1.93924 148.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 45.5      3.8730 µg/L       6.03325      3.8730 ppb        6.03325 155.78%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 25.3      0.2658 µg/L       0.25840      0.2658 ppb        0.25840  97.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.0      0.2796 µg/L       0.13281      0.2796 ppb        0.13281  47.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: 1202030846|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 401
Date Collected: 2/12/2010 11:05:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030846|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55570.8	55570.8	97.0	%			11:06:32
1	Al 396.153Radial†	88.3	115.2	80.253	µg/L	80.253	ppb	11:06:32
1	Ca 317.933Radial†	259.0	80.1	69.501	µg/L	69.501	ppb	11:06:52
1	Fe 238.204 Radial†	30.8	18.0	142.56	µg/L	142.56	ppb	11:06:52
1	K 766.490 Radial†	117.5	-45.4	-31.280	µg/L	-31.280	ppb	11:06:32
1	Mg 279.077 IEC†	15.4	5.0	44.136	µg/L	44.136	ppb	11:06:52
1	Na 589.592 Radial†	494.9	-3.7	-1.1507	µg/L	-1.1507	ppb	11:06:32
1	Sr 421.552†	148.7	127.8	1.2613	µg/L	1.2613	ppb	11:06:32
1	Sc 361.383	1966524.1	1966524.1	99.054	%			11:07:54
1	Y 371.029	1347214.1	1347214.1	98.741	%			11:07:54
1	Ag 328.068†	-574.0	-18.5	-0.1294	µg/L	-0.1294	ppb	11:08:00
1	As 188.979†	-3.9	-5.8	-10.627	µg/L	-10.627	ppb	11:08:20
1	B 249.677†	339.5	48.5	1.9271	µg/L	1.9271	ppb	11:08:20
1	Ba 233.527†	20.5	46.7	1.1528	µg/L	1.1528	ppb	11:08:20
1	Be 313.107†	-2941.0	631.3	0.3905	µg/L	0.3905	ppb	11:08:00
1	Cd 226.502†	-128.0	17.0	0.4253	µg/L	0.4253	ppb	11:08:20
1	Co 228.616†	-12.9	-4.2	-0.2046	µg/L	-0.2046	ppb	11:08:20
1	Cr 267.716†	23.4	72.1	1.5016	µg/L	1.5016	ppb	11:08:20
1	Cu 324.752†	2642.3	223.3	1.4948	µg/L	1.4948	ppb	11:08:00
1	Mn 257.610†	750.0	1021.8	3.3398	µg/L	3.3398	ppb	11:08:20
1	Mo 202.031†	-7.2	-2.4	-0.2373	µg/L	-0.2373	ppb	11:08:20
1	Ni 231.604†	310.2	10.7	0.5535	µg/L	0.5535	ppb	11:08:20
1	P 214.914†	27.9	1.6	2.9548	µg/L	2.9548	ppb	11:08:20
1	Pb 220.353†	87.1	1.1	0.2559	µg/L	0.2559	ppb	11:08:20
1	S 181.975 Axial†	15.8	-1.5	-6.0758	µg/L	-6.0758	ppb	11:08:20
1	Sb 206.836†	26.0	2.6	2.3346	µg/L	2.3346	ppb	11:08:20
1	Se 196.026†	8.1	-10.2	-14.301	µg/L	-14.301	ppb	11:08:20
1	SiO2†	2598.3	1332.1	272.09	µg/L	272.09	ppb	11:08:00
1	Si 251.611†	1922.9	1646.2	128.65	µg/L	128.65	ppb	11:08:00
1	Sn 189.927†	6.0	5.7	2.4770	µg/L	2.4770	ppb	11:08:20
1	Ti 334.940†	2145.8	2071.0	4.7797	µg/L	4.7797	ppb	11:08:00
1	Tl 190.801†	-25.3	-1.8	-2.3401	µg/L	-2.3401	ppb	11:08:20
1	U 409.014†	-37.0	51.7	4.3885	µg/L	4.3885	ppb	11:08:00
1	V 292.402†	-19.5	26.0	0.2854	µg/L	0.2854	ppb	11:08:00
1	Zn 213.857†	649.2	191.4	4.4974	µg/L	4.4974	ppb	11:08:20
2	Sc RADIAL	56189.1	56189.1	98.1	%			11:06:58
2	Al 396.153Radial†	77.9	103.7	72.210	µg/L	72.210	ppb	11:06:58
2	Ca 317.933Radial†	258.9	77.0	66.859	µg/L	66.859	ppb	11:07:18
2	Fe 238.204 Radial†	31.3	18.2	143.42	µg/L	143.42	ppb	11:07:18
2	K 766.490 Radial†	256.6	95.0	65.402	µg/L	65.402	ppb	11:06:58
2	Mg 279.077 IEC†	13.1	2.5	22.338	µg/L	22.338	ppb	11:07:18
2	Na 589.592 Radial†	496.5	-7.7	-2.4114	µg/L	-2.4114	ppb	11:06:58
2	Sr 421.552†	138.7	115.9	1.1441	µg/L	1.1441	ppb	11:06:58
2	Sc 361.383	1945012.6	1945012.6	97.970	%			11:08:26
2	Y 371.029	1332264.3	1332264.3	97.645	%			11:08:26
2	Ag 328.068†	-532.8	17.2	0.1417	µg/L	0.1417	ppb	11:08:32
2	As 188.979†	-1.8	-3.7	-6.7236	µg/L	-6.7236	ppb	11:08:52
2	B 249.677†	356.1	69.2	2.7797	µg/L	2.7797	ppb	11:08:52
2	Ba 233.527†	20.9	47.3	1.1676	µg/L	1.1676	ppb	11:08:52
2	Be 313.107†	-2996.0	542.3	0.3351	µg/L	0.3351	ppb	11:08:32
2	Cd 226.502†	-124.1	19.5	0.4921	µg/L	0.4921	ppb	11:08:52
2	Co 228.616†	3.8	12.8	0.5839	µg/L	0.5839	ppb	11:08:52
2	Cr 267.716†	31.4	80.6	1.6776	µg/L	1.6776	ppb	11:08:52
2	Cu 324.752†	2580.4	189.7	1.2725	µg/L	1.2725	ppb	11:08:32
2	Mn 257.610†	747.8	1027.9	3.3605	µg/L	3.3605	ppb	11:08:52
2	Mo 202.031†	-2.5	2.3	0.2378	µg/L	0.2378	ppb	11:08:52
2	Ni 231.604†	321.5	25.6	1.3242	µg/L	1.3242	ppb	11:08:52
2	P 214.914†	29.3	3.3	6.4803	µg/L	6.4803	ppb	11:08:52
2	Pb 220.353†	96.4	11.5	2.8740	µg/L	2.8740	ppb	11:08:52

2	S 181.975 Axial†	19.4	2.4	10.030	µg/L	10.030 ppb	11:08:52
2	Sb 206.836†	30.5	7.5	6.9283	µg/L	6.9283 ppb	11:08:52
2	Se 196.026†	23.9	6.0	8.9664	µg/L	8.9664 ppb	11:08:52
2	SiO2†	2568.8	1331.1	271.86	µg/L	271.86 ppb	11:08:32
2	Si 251.611†	1895.0	1639.2	128.10	µg/L	128.10 ppb	11:08:32
2	Sn 189.927†	3.6	3.4	1.4384	µg/L	1.4384 ppb	11:08:52
2	Ti 334.940†	2216.8	2167.3	5.0040	µg/L	5.0040 ppb	11:08:32
2	Tl 190.801†	-24.5	-1.3	-1.6080	µg/L	-1.6080 ppb	11:08:52
2	U 409.014†	-83.7	3.7	0.2901	µg/L	0.2901 ppb	11:08:32
2	V 292.402†	-13.4	32.0	0.3462	µg/L	0.3462 ppb	11:08:32
2	Zn 213.857†	650.8	200.3	4.7049	µg/L	4.7049 ppb	11:08:52
3	Sc RADIAL	56013.7	56013.7	97.8	%		11:07:23
3	Al 396.153Radial†	69.7	95.5	66.530	µg/L	66.530 ppb	11:07:23
3	Ca 317.933Radial†	252.5	71.3	61.861	µg/L	61.861 ppb	11:07:44
3	Fe 238.204 Radial†	31.2	18.2	144.02	µg/L	144.02 ppb	11:07:44
3	K 766.490 Radial†	148.1	-15.1	-10.375	µg/L	-10.375 ppb	11:07:23
3	Mg 279.077 IEC†	15.4	4.9	43.007	µg/L	43.007 ppb	11:07:44
3	Na 589.592 Radial†	486.2	-16.6	-5.1679	µg/L	-5.1679 ppb	11:07:23
3	Sr 421.552†	165.3	143.6	1.4169	µg/L	1.4169 ppb	11:07:23
3	Sc 361.383	1927813.7	1927813.7	97.104	%		11:08:58
3	Y 371.029	1320160.9	1320160.9	96.758	%		11:08:58
3	Ag 328.068†	-554.4	-9.9	-0.0600	µg/L	-0.0600 ppb	11:09:04
3	As 188.979†	-2.3	-4.2	-7.7200	µg/L	-7.7200 ppb	11:09:25
3	B 249.677†	354.2	70.5	2.8341	µg/L	2.8341 ppb	11:09:25
3	Ba 233.527†	16.2	42.7	1.0540	µg/L	1.0540 ppb	11:09:25
3	Be 313.107†	-3028.6	481.4	0.2974	µg/L	0.2974 ppb	11:09:04
3	Cd 226.502†	-135.8	6.4	0.1496	µg/L	0.1496 ppb	11:09:25
3	Co 228.616†	-0.5	8.3	0.3769	µg/L	0.3769 ppb	11:09:25
3	Cr 267.716†	9.1	57.9	1.2060	µg/L	1.2060 ppb	11:09:25
3	Cu 324.752†	2638.7	273.2	1.8242	µg/L	1.8242 ppb	11:09:04
3	Mn 257.610†	697.7	983.2	3.2144	µg/L	3.2144 ppb	11:09:25
3	Mo 202.031†	-9.5	-4.9	-0.4895	µg/L	-0.4895 ppb	11:09:25
3	Ni 231.604†	306.0	12.6	0.6544	µg/L	0.6544 ppb	11:09:25
3	P 214.914†	25.9	0.1	-0.0304	µg/L	-0.0304 ppb	11:09:25
3	Pb 220.353†	100.9	17.0	4.2483	µg/L	4.2483 ppb	11:09:25
3	S 181.975 Axial†	15.9	-1.1	-4.5472	µg/L	-4.5472 ppb	11:09:25
3	Sb 206.836†	26.3	3.4	3.0993	µg/L	3.0993 ppb	11:09:25
3	Se 196.026†	20.8	3.1	4.8119	µg/L	4.8119 ppb	11:09:25
3	SiO2†	2599.8	1386.4	283.16	µg/L	283.16 ppb	11:09:04
3	Si 251.611†	1893.2	1654.6	129.31	µg/L	129.31 ppb	11:09:04
3	Sn 189.927†	7.6	7.5	3.2341	µg/L	3.2341 ppb	11:09:25
3	Ti 334.940†	2047.8	2013.6	4.6472	µg/L	4.6472 ppb	11:09:04
3	Tl 190.801†	-21.5	1.6	2.1373	µg/L	2.1373 ppb	11:09:25
3	U 409.014†	-4.5	84.5	7.1868	µg/L	7.1868 ppb	11:09:04
3	V 292.402†	46.0	93.1	0.9642	µg/L	0.9642 ppb	11:09:04
3	Zn 213.857†	644.5	199.7	4.6933	µg/L	4.6933 ppb	11:09:25

Mean Data: 1202030846|948032|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1946450.1	98.043	%	0.9769				1.00%
Sc RADIAL	55924.6	97.6	%	0.56				0.57%
Y 371.029	1333213.1	97.714	%	0.9932				1.02%
Ag 328.068†	-3.7	-0.0159	µg/L	0.14085	-0.0159	ppb	0.14085	885.57%
Al 396.153Radial†	104.8	72.997	µg/L	6.8953	72.997	ppb	6.8953	9.45%
As 188.979†	-4.5	-8.3568	µg/L	2.02804	-8.3568	ppb	2.02804	24.27%
B 249.677†	62.7	2.5136	µg/L	0.50870	2.5136	ppb	0.50870	20.24%
Ba 233.527†	45.6	1.1248	µg/L	0.06177	1.1248	ppb	0.06177	5.49%
Be 313.107†	551.7	0.3410	µg/L	0.04683	0.3410	ppb	0.04683	13.73%
Ca 317.933Radial†	76.1	66.074	µg/L	3.8803	66.074	ppb	3.8803	5.87%
Cd 226.502†	14.3	0.3557	µg/L	0.18151	0.3557	ppb	0.18151	51.04%
Co 228.616†	5.6	0.2521	µg/L	0.40878	0.2521	ppb	0.40878	162.18%
Cr 267.716†	70.2	1.4618	µg/L	0.23831	1.4618	ppb	0.23831	16.30%
Cu 324.752†	228.7	1.5305	µg/L	0.27759	1.5305	ppb	0.27759	18.14%
Fe 238.204 Radial†	18.1	143.34	µg/L	0.734	143.34	ppb	0.734	0.51%
K 766.490 Radial†	11.5	7.9156	µg/L	50.87014	7.9156	ppb	50.87014	642.65%
Mg 279.077 IEC†	4.1	36.494	µg/L	12.2721	36.494	ppb	12.2721	33.63%
Mn 257.610†	1011.0	3.3049	µg/L	0.07907	3.3049	ppb	0.07907	2.39%
Mo 202.031†	-1.7	-0.1630	µg/L	0.36933	-0.1630	ppb	0.36933	226.59%
Na 589.592 Radial†	-9.4	-2.9100	µg/L	2.05447	-2.9100	ppb	2.05447	70.60%

Ni 231.604†	16.3	0.8440 µg/L	0.41885	0.8440 ppb	0.41885	49.63%
P 214.914†	1.7	3.1349 µg/L	3.25909	3.1349 ppb	3.25909	103.96%
Pb 220.353†	9.9	2.4594 µg/L	2.02824	2.4594 ppb	2.02824	82.47%
S 181.975 Axial†	-0.0	-0.1975 µg/L	8.89059	-0.1975 ppb	8.89059	>999.9%
Sb 206.836†	4.5	4.1207 µg/L	2.46130	4.1207 ppb	2.46130	59.73%
Se 196.026†	-0.4	-0.1743 µg/L	12.40940	-0.1743 ppb	12.40940	>999.9%
SiO2†	1349.9	275.70 µg/L	6.460	275.70 ppb	6.460	2.34%
Si 251.611†	1646.7	128.69 µg/L	0.602	128.69 ppb	0.602	0.47%
Sn 189.927†	5.5	2.3832 µg/L	0.90148	2.3832 ppb	0.90148	37.83%
Sr 421.552†	129.1	1.2741 µg/L	0.13690	1.2741 ppb	0.13690	10.74%
Ti 334.940†	2083.9	4.8103 µg/L	0.18035	4.8103 ppb	0.18035	3.75%
Tl 190.801†	-0.5	-0.6036 µg/L	2.40174	-0.6036 ppb	2.40174	397.92%
U 409.014†	46.6	3.9551 µg/L	3.46870	3.9551 ppb	3.46870	87.70%
V 292.402†	50.3	0.5319 µg/L	0.37556	0.5319 ppb	0.37556	70.61%
Zn 213.857†	197.1	4.6319 µg/L	0.11662	4.6319 ppb	0.11662	2.52%

Sequence No.: 22
Sample ID: 1202030851|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 402
Date Collected: 2/12/2010 11:09:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030851|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56551.8	56551.8	98.7	%			11:10:13
1	Al 396.153Radial†	173680.0	175924.1	122530	µg/L	122530	ppb	11:10:08
1	Ca 317.933Radial†	127013.4	128449.9	111500	µg/L	111500	ppb	11:10:08
1	Fe 238.204 Radial†	29627.1	29992.0	236960	µg/L	236960	ppb	11:10:13
1	K 766.490 Radial†	73606.9	74381.3	51198	µg/L	51198	ppb	11:10:08
1	Mg 279.077 IEC†	5340.6	5398.0	47560	µg/L	47560	ppb	11:10:13
1	Na 589.592 Radial†	37412.3	37376.7	11630	µg/L	11630	ppb	11:10:08
1	Sr 421.552†	266408.1	269787.8	2662.3	µg/L	2662.3	ppb	11:10:08
1	Sc 361.383	1942331.9	1942331.9	97.835	%			11:10:48
1	Y 371.029	1368070.1	1368070.1	100.27	%			11:10:48
1	Ag 328.068†	42339.8	43837.6	357.25	µg/L	357.25	ppb	11:10:54
1	As 188.979†	673.6	686.7	1268.9	µg/L	1268.9	ppb	11:11:14
1	B 249.677†	42925.4	43580.9	1677.5	µg/L	1677.5	ppb	11:10:54
1	Ba 233.527†	90513.3	92541.9	2285.2	µg/L	2285.2	ppb	11:10:54
1	Be 313.107†	1465227.5	1501245.4	929.93	µg/L	929.93	ppb	11:10:48
1	Cd 226.502†	26361.6	27091.1	678.34	µg/L	678.34	ppb	11:10:54
1	Co 228.616†	22957.1	23473.8	1076.2	µg/L	1076.2	ppb	11:10:54
1	Cr 267.716†	133284.7	136282.1	2837.0	µg/L	2837.0	ppb	11:10:54
1	Cu 324.752†	314169.1	318675.8	2137.6	µg/L	2137.6	ppb	11:10:54
1	Mn 257.610†	1920270.2	1963020.1	6412.4	µg/L	6412.4	ppb	11:10:48
1	Mo 202.031†	6073.4	6212.7	636.04	µg/L	636.04	ppb	11:11:14
1	Ni 231.604†	29698.5	30053.1	1553.5	µg/L	1553.5	ppb	11:10:54
1	P 214.914†	4929.6	5012.1	9707.9	µg/L	9707.9	ppb	11:11:14
1	Pb 220.353†	4028.1	4030.3	1005.9	µg/L	1005.9	ppb	11:11:14
1	S 181.975 Axial†	1076.5	1082.8	4503.7	µg/L	4503.7	ppb	11:11:14
1	Sb 206.836†	2175.6	2200.0	2005.5	µg/L	2005.5	ppb	11:11:14
1	Se 196.026†	2186.6	2216.6	3757.6	µg/L	3757.6	ppb	11:11:14
1	SiO2†	218281.3	221819.7	45306	µg/L	45306	ppb	11:10:54
1	Si 251.611†	265229.5	270802.5	21163	µg/L	21163	ppb	11:10:54
1	Sn 189.927†	2818.3	2880.4	1226.4	µg/L	1226.4	ppb	11:11:14
1	Ti 334.940†	3263349.3	3335454.4	7700.0	µg/L	7700.0	ppb	11:10:48
1	Tl 190.801†	985.1	1030.6	1482.7	µg/L	1482.7	ppb	11:11:14
1	U 409.014†	-1878.8	-1831.3	-195.99	µg/L	-195.99	ppb	11:10:54
1	V 292.402†	141064.8	144231.5	1497.0	µg/L	1497.0	ppb	11:10:54
1	Zn 213.857†	289038.3	294969.1	6929.5	µg/L	6929.5	ppb	11:10:54
2	Sc RADIAL	56524.0	56524.0	98.7	%			11:10:24
2	Al 396.153Radial†	174800.4	177146.2	123390	µg/L	123390	ppb	11:10:19
2	Ca 317.933Radial†	127542.5	129049.6	112020	µg/L	112020	ppb	11:10:19
2	Fe 238.204 Radial†	29561.0	29939.9	236550	µg/L	236550	ppb	11:10:24
2	K 766.490 Radial†	73933.1	74748.5	51451	µg/L	51451	ppb	11:10:19
2	Mg 279.077 IEC†	5328.3	5388.3	47474	µg/L	47474	ppb	11:10:24
2	Na 589.592 Radial†	37614.4	37600.2	11700	µg/L	11700	ppb	11:10:19
2	Sr 421.552†	267863.5	271395.7	2678.2	µg/L	2678.2	ppb	11:10:19
2	Sc 361.383	1958912.2	1958912.2	98.671	%			11:11:21
2	Y 371.029	1378729.2	1378729.2	101.05	%			11:11:21
2	Ag 328.068†	42252.5	43382.8	353.66	µg/L	353.66	ppb	11:11:27
2	As 188.979†	665.3	672.4	1242.6	µg/L	1242.6	ppb	11:11:48
2	B 249.677†	42846.6	43129.7	1659.0	µg/L	1659.0	ppb	11:11:27
2	Ba 233.527†	90482.5	91727.7	2265.1	µg/L	2265.1	ppb	11:11:27
2	Be 313.107†	1468664.7	1492052.9	924.24	µg/L	924.24	ppb	11:11:21
2	Cd 226.502†	26271.6	26771.8	670.08	µg/L	670.08	ppb	11:11:27
2	Co 228.616†	22940.3	23258.2	1066.3	µg/L	1066.3	ppb	11:11:27
2	Cr 267.716†	132697.3	134533.7	2800.6	µg/L	2800.6	ppb	11:11:27
2	Cu 324.752†	313281.4	315058.1	2113.7	µg/L	2113.7	ppb	11:11:27
2	Mn 257.610†	1926107.8	1952323.6	6377.6	µg/L	6377.6	ppb	11:11:21
2	Mo 202.031†	6044.1	6130.4	627.72	µg/L	627.72	ppb	11:11:48
2	Ni 231.604†	29625.6	29722.3	1536.4	µg/L	1536.4	ppb	11:11:27
2	P 214.914†	4908.4	4947.9	9582.1	µg/L	9582.1	ppb	11:11:48
2	Pb 220.353†	4014.1	3981.3	993.72	µg/L	993.72	ppb	11:11:48

2	S 181.975 Axial†	1064.9	1061.8	4416.2 µg/L	4416.2 ppb		11:11:48
2	Sb 206.836†	2161.1	2166.5	1974.7 µg/L	1974.7 ppb		11:11:48
2	Se 196.026†	2209.8	2221.3	3763.1 µg/L	3763.1 ppb		11:11:48
2	SiO2†	217811.2	219454.9	44823 µg/L	44823 ppb		11:11:27
2	Si 251.611†	264260.2	267525.6	20907 µg/L	20907 ppb		11:11:27
2	Sn 189.927†	2834.4	2872.3	1223.0 µg/L	1223.0 ppb		11:11:48
2	Ti 334.940†	3272868.8	3316869.9	7657.1 µg/L	7657.1 ppb		11:11:21
2	Tl 190.801†	979.6	1016.5	1463.6 µg/L	1463.6 ppb		11:11:48
2	U 409.014†	-1878.5	-1814.7	-194.55 µg/L	-194.55 ppb		11:11:27
2	V 292.402†	140655.1	142595.9	1480.2 µg/L	1480.2 ppb		11:11:27
2	Zn 213.857†	288414.2	291836.1	6855.8 µg/L	6855.8 ppb		11:11:27
3	Sc RADIAL	56867.2	56867.2	99.3 %			11:10:35
3	Al 396.153Radial†	175061.1	176339.8	122820 µg/L	122820 ppb		11:10:30
3	Ca 317.933Radial†	127663.5	128391.5	111450 µg/L	111450 ppb		11:10:30
3	Fe 238.204 Radial†	29879.4	30079.9	237650 µg/L	237650 ppb		11:10:35
3	K 766.490 Radial†	74112.0	74476.5	51263 µg/L	51263 ppb		11:10:30
3	Mg 279.077 IEC†	5375.3	5403.0	47603 µg/L	47603 ppb		11:10:35
3	Na 589.592 Radial†	37697.1	37453.5	11654 µg/L	11654 ppb		11:10:30
3	Sr 421.552†	268402.1	270300.0	2667.3 µg/L	2667.3 ppb		11:10:30
3	Sc 361.383	1954865.9	1954865.9	98.467 %			11:11:55
3	Y 371.029	1376579.2	1376579.2	100.89 %			11:11:55
3	Ag 328.068†	42260.6	43479.7	354.49 µg/L	354.49 ppb		11:12:01
3	As 188.979†	654.4	662.8	1225.0 µg/L	1225.0 ppb		11:12:21
3	B 249.677†	42837.6	43210.4	1661.8 µg/L	1661.8 ppb		11:12:01
3	Ba 233.527†	90312.4	91744.7	2265.6 µg/L	2265.6 ppb		11:12:01
3	Be 313.107†	1445090.9	1471192.9	911.31 µg/L	911.31 ppb		11:11:55
3	Cd 226.502†	26227.4	26781.9	670.22 µg/L	670.22 ppb		11:12:01
3	Co 228.616†	22869.0	23234.0	1065.4 µg/L	1065.4 ppb		11:12:01
3	Cr 267.716†	132700.8	134815.7	2806.4 µg/L	2806.4 ppb		11:12:01
3	Cu 324.752†	313558.6	315996.9	2120.0 µg/L	2120.0 ppb		11:12:01
3	Mn 257.610†	1890721.8	1920427.0	6274.0 µg/L	6274.0 ppb		11:11:55
3	Mo 202.031†	6051.3	6150.4	629.79 µg/L	629.79 ppb		11:12:21
3	Ni 231.604†	29576.2	29734.3	1537.0 µg/L	1537.0 ppb		11:12:01
3	P 214.914†	4923.9	4974.0	9632.7 µg/L	9632.7 ppb		11:12:21
3	Pb 220.353†	4013.2	3988.8	995.54 µg/L	995.54 ppb		11:12:21
3	S 181.975 Axial†	1076.3	1075.6	4473.4 µg/L	4473.4 ppb		11:12:21
3	Sb 206.836†	2172.4	2182.5	1989.5 µg/L	1989.5 ppb		11:12:21
3	Se 196.026†	2198.5	2214.4	3756.3 µg/L	3756.3 ppb		11:12:21
3	SiO2†	217841.8	219942.9	44923 µg/L	44923 ppb		11:12:01
3	Si 251.611†	264468.4	268291.4	20967 µg/L	20967 ppb		11:12:01
3	Sn 189.927†	2828.5	2872.3	1222.8 µg/L	1222.8 ppb		11:12:21
3	Ti 334.940†	3221977.3	3272051.5	7553.6 µg/L	7553.6 ppb		11:11:55
3	Tl 190.801†	975.0	1013.9	1458.9 µg/L	1458.9 ppb		11:12:21
3	U 409.014†	-1966.9	-1908.4	-202.66 µg/L	-202.66 ppb		11:12:01
3	V 292.402†	140641.4	142877.0	1483.2 µg/L	1483.2 ppb		11:12:01
3	Zn 213.857†	288142.2	292164.8	6863.5 µg/L	6863.5 ppb		11:12:01

Mean Data: 1202030851|948032|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952036.6	98.324	%	0.4354				0.44%
Sc RADIAL	56647.7	98.9	%	0.33				0.34%
Y 371.029	1374459.5	100.74	%	0.413				0.41%
Ag 328.068†	43566.7	355.13	µg/L	1.879	355.13	ppb	1.879	0.53%
Al 396.153Radial†	176470.0	122910	µg/L	432.9	122910	ppb	432.9	0.35%
As 188.979†	674.0	1245.5	µg/L	22.09	1245.5	ppb	22.09	1.77%
B 249.677†	43307.0	1666.1	µg/L	9.95	1666.1	ppb	9.95	0.60%
Ba 233.527†	92004.8	2272.0	µg/L	11.49	2272.0	ppb	11.49	0.51%
Be 313.107†	1488163.7	921.83	µg/L	9.540	921.83	ppb	9.540	1.03%
Ca 317.933Radial†	128630.3	111660	µg/L	316.2	111660	ppb	316.2	0.28%
Cd 226.502†	26881.6	672.88	µg/L	4.731	672.88	ppb	4.731	0.70%
Co 228.616†	23322.0	1069.3	µg/L	6.02	1069.3	ppb	6.02	0.56%
Cr 267.716†	135210.5	2814.7	µg/L	19.54	2814.7	ppb	19.54	0.69%
Cu 324.752†	316576.9	2123.8	µg/L	12.41	2123.8	ppb	12.41	0.58%
Fe 238.204 Radial†	30003.9	237050	µg/L	558.7	237050	ppb	558.7	0.24%
K 766.490 Radial†	74535.4	51304	µg/L	131.2	51304	ppb	131.2	0.26%
Mg 279.077 IEC†	5396.4	47545	µg/L	65.8	47545	ppb	65.8	0.14%
Mn 257.610†	1945256.9	6354.7	µg/L	71.99	6354.7	ppb	71.99	1.13%
Mo 202.031†	6164.5	631.18	µg/L	4.333	631.18	ppb	4.333	0.69%
Na 589.592 Radial†	37476.8	11661	µg/L	35.3	11661	ppb	35.3	0.30%

Ni 231.604†	29836.6	1542.3	µg/L	9.68	1542.3	ppb	9.68	0.63%
P 214.914†	4978.0	9640.9	µg/L	63.31	9640.9	ppb	63.31	0.66%
Pb 220.353†	4000.1	998.39	µg/L	6.583	998.39	ppb	6.583	0.66%
S 181.975 Axial†	1073.4	4464.4	µg/L	44.42	4464.4	ppb	44.42	0.99%
Sb 206.836†	2183.0	1989.9	µg/L	15.42	1989.9	ppb	15.42	0.77%
Se 196.026†	2217.4	3759.0	µg/L	3.60	3759.0	ppb	3.60	0.10%
SiO2†	220405.8	45017	µg/L	255.0	45017	ppb	255.0	0.57%
Si 251.611†	268873.2	21013	µg/L	134.0	21013	ppb	134.0	0.64%
Sn 189.927†	2875.0	1224.1	µg/L	2.03	1224.1	ppb	2.03	0.17%
Sr 421.552†	270494.5	2669.3	µg/L	8.11	2669.3	ppb	8.11	0.30%
Ti 334.940†	3308125.3	7636.9	µg/L	75.27	7636.9	ppb	75.27	0.99%
Tl 190.801†	1020.4	1468.4	µg/L	12.62	1468.4	ppb	12.62	0.86%
U 409.014†	-1851.5	-197.73	µg/L	4.328	-197.73	ppb	4.328	2.19%
V 292.402†	143234.8	1486.8	µg/L	8.92	1486.8	ppb	8.92	0.60%
Zn 213.857†	292990.0	6883.0	µg/L	40.53	6883.0	ppb	40.53	0.59%

Sequence No.: 23
Sample ID: 245688001|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 403
Date Collected: 2/12/2010 11:12:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688001|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56919.1	56919.1	99.4	%			11:13:03
1	Al 396.153Radial†	58105.9	58493.1	40746	µg/L	40746	ppb	11:13:03
1	Ca 317.933Radial†	10423.4	10301.7	8942.5	µg/L	8942.5	ppb	11:13:23
1	Fe 238.204 Radial†	9184.5	9228.1	72903	µg/L	72903	ppb	11:13:23
1	K 766.490 Radial†	12092.8	12001.8	8261.1	µg/L	8261.1	ppb	11:13:03
1	Mg 279.077 IEC†	902.9	897.7	7871.8	µg/L	7871.8	ppb	11:13:23
1	Na 589.592 Radial†	1711.4	1208.3	375.98	µg/L	375.98	ppb	11:13:03
1	Sr 421.552†	11019.8	11063.2	109.17	µg/L	109.17	ppb	11:13:03
1	Sc 361.383	1936201.0	1936201.0	97.527	%			11:14:27
1	Y 371.029	1350129.1	1350129.1	98.954	%			11:14:27
1	Ag 328.068†	-1499.2	-976.2	-1.8663	µg/L	-1.8663	ppb	11:14:32
1	As 188.979†	10.3	8.7	19.799	µg/L	19.799	ppb	11:14:53
1	B 249.677†	1003.5	734.7	-7.6089	µg/L	-7.6089	ppb	11:14:32
1	Ba 233.527†	21639.2	22214.0	548.18	µg/L	548.18	ppb	11:14:32
1	Be 313.107†	7812.6	11611.1	6.0772	µg/L	6.0772	ppb	11:14:32
1	Cd 226.502†	142.0	291.8	-0.6066	µg/L	-0.6066	ppb	11:14:53
1	Co 228.616†	1024.6	1059.5	43.046	µg/L	43.046	ppb	11:14:53
1	Cr 267.716†	4125.6	4278.8	89.133	µg/L	89.133	ppb	11:14:32
1	Cu 324.752†	11319.5	9162.4	70.646	µg/L	70.646	ppb	11:14:32
1	Mn 257.610†	846078.5	867800.7	2831.1	µg/L	2831.1	ppb	11:14:27
1	Mo 202.031†	35.8	41.5	6.9619	µg/L	6.9619	ppb	11:14:53
1	Ni 231.604†	1287.8	1018.0	53.450	µg/L	53.450	ppb	11:14:53
1	P 214.914†	344.6	326.7	602.28	µg/L	602.28	ppb	11:14:53
1	Pb 220.353†	484.6	410.0	102.14	µg/L	102.14	ppb	11:14:53
1	S 181.975 Axial†	147.5	133.8	556.67	µg/L	556.67	ppb	11:14:53
1	Sb 206.836†	36.4	13.7	10.947	µg/L	10.947	ppb	11:14:53
1	Se 196.026†	-28.7	-47.8	121.08	µg/L	121.08	ppb	11:14:53
1	SiO2†	170019.5	173040.4	35343	µg/L	35343	ppb	11:14:32
1	Si 251.611†	205479.1	210395.2	16442	µg/L	16442	ppb	11:14:27
1	Sn 189.927†	-22.2	-23.0	-16.857	µg/L	-16.857	ppb	11:14:53
1	Ti 334.940†	1261463.7	1293360.5	2986.1	µg/L	2986.1	ppb	11:14:27
1	Tl 190.801†	-53.7	-31.3	8.7765	µg/L	8.7765	ppb	11:14:53
1	U 409.014†	-537.4	-461.9	-50.086	µg/L	-50.086	ppb	11:14:32
1	V 292.402†	13839.1	14235.7	152.67	µg/L	152.67	ppb	11:14:32
1	Zn 213.857†	9255.5	9026.2	208.55	µg/L	208.55	ppb	11:14:32
2	Sc RADIAL	56279.0	56279.0	98.3	%			11:13:29
2	Al 396.153Radial†	57616.9	58660.5	40862	µg/L	40862	ppb	11:13:29
2	Ca 317.933Radial†	10403.6	10400.8	9028.5	µg/L	9028.5	ppb	11:13:49
2	Fe 238.204 Radial†	9215.6	9365.0	73984	µg/L	73984	ppb	11:13:49
2	K 766.490 Radial†	12008.3	12054.3	8297.1	µg/L	8297.1	ppb	11:13:29
2	Mg 279.077 IEC†	905.8	911.0	7988.3	µg/L	7988.3	ppb	11:13:49
2	Na 589.592 Radial†	1670.7	1186.5	369.19	µg/L	369.19	ppb	11:13:29
2	Sr 421.552†	10897.5	11064.9	109.19	µg/L	109.19	ppb	11:13:29
2	Sc 361.383	1946738.1	1946738.1	98.057	%			11:15:00
2	Y 371.029	1357913.3	1357913.3	99.525	%			11:15:00
2	Ag 328.068†	-1518.0	-987.0	-1.8904	µg/L	-1.8904	ppb	11:15:06
2	As 188.979†	10.9	9.2	20.807	µg/L	20.807	ppb	11:15:26
2	B 249.677†	1000.3	725.8	-8.5416	µg/L	-8.5416	ppb	11:15:06
2	Ba 233.527†	21524.0	21976.5	542.32	µg/L	542.32	ppb	11:15:06
2	Be 313.107†	8089.6	11850.3	6.2208	µg/L	6.2208	ppb	11:15:06
2	Cd 226.502†	140.1	289.0	-0.8008	µg/L	-0.8008	ppb	11:15:26
2	Co 228.616†	1033.5	1062.9	43.176	µg/L	43.176	ppb	11:15:26
2	Cr 267.716†	4118.6	4248.7	88.506	µg/L	88.506	ppb	11:15:06
2	Cu 324.752†	11320.3	9100.4	70.387	µg/L	70.387	ppb	11:15:06
2	Mn 257.610†	855290.9	872499.8	2846.5	µg/L	2846.5	ppb	11:15:00
2	Mo 202.031†	31.0	36.5	6.4954	µg/L	6.4954	ppb	11:15:26
2	Ni 231.604†	1298.1	1021.3	53.636	µg/L	53.636	ppb	11:15:26
2	P 214.914†	346.8	327.1	602.22	µg/L	602.22	ppb	11:15:26
2	Pb 220.353†	478.4	401.0	99.844	µg/L	99.844	ppb	11:15:26

2	S 181.975 Axial†	144.7	130.2	541.36 µg/L	541.36 ppb	11:15:26
2	Sb 206.836†	38.0	15.1	12.276 µg/L	12.276 ppb	11:15:26
2	Se 196.026†	-27.8	-46.7	125.48 µg/L	125.48 ppb	11:15:26
2	SiO2†	169405.8	171471.0	35022 µg/L	35022 ppb	11:15:06
2	Si 251.611†	207622.8	211441.0	16524 µg/L	16524 ppb	11:15:00
2	Sn 189.927†	-24.2	-25.0	-17.810 µg/L	-17.810 ppb	11:15:26
2	Ti 334.940†	1273970.0	1299113.5	2999.3 µg/L	2999.3 ppb	11:15:00
2	Tl 190.801†	-55.7	-33.1	6.7789 µg/L	6.7789 ppb	11:15:26
2	U 409.014†	-551.1	-472.9	-51.186 µg/L	-51.186 ppb	11:15:06
2	V 292.402†	13766.0	14084.4	151.26 µg/L	151.26 ppb	11:15:06
2	Zn 213.857†	9268.5	8988.1	207.59 µg/L	207.59 ppb	11:15:06
3	Sc RADIAL	57017.7	57017.7	99.6 %		11:13:54
3	Al 396.153Radial†	58832.0	59121.3	41183 µg/L	41183 ppb	11:13:54
3	Ca 317.933Radial†	10517.1	10377.6	9008.4 µg/L	9008.4 ppb	11:14:15
3	Fe 238.204 Radial†	9277.5	9305.6	73515 µg/L	73515 ppb	11:14:15
3	K 766.490 Radial†	12229.3	12117.9	8340.9 µg/L	8340.9 ppb	11:13:54
3	Mg 279.077 IEC†	916.8	910.1	7980.4 µg/L	7980.4 ppb	11:14:15
3	Na 589.592 Radial†	1726.5	1220.5	379.77 µg/L	379.77 ppb	11:13:54
3	Sr 421.552†	11166.5	11191.4	110.44 µg/L	110.44 ppb	11:13:54
3	Sc 361.383	1941834.8	1941834.8	97.810 %		11:15:33
3	Y 371.029	1352935.2	1352935.2	99.160 %		11:15:33
3	Ag 328.068†	-1406.3	-876.7	-1.0988 µg/L	-1.0988 ppb	11:15:39
3	As 188.979†	4.1	2.4	8.1819 µg/L	8.1819 ppb	11:15:59
3	B 249.677†	971.0	698.5	-9.4237 µg/L	-9.4237 ppb	11:15:39
3	Ba 233.527†	21120.2	21619.1	533.50 µg/L	533.50 ppb	11:15:39
3	Be 313.107†	8623.0	12416.4	6.5839 µg/L	6.5839 ppb	11:15:39
3	Cd 226.502†	147.4	296.8	-0.5472 µg/L	-0.5472 ppb	11:15:59
3	Co 228.616†	990.6	1021.6	41.321 µg/L	41.321 ppb	11:15:59
3	Cr 267.716†	4072.2	4212.0	87.739 µg/L	87.739 ppb	11:15:39
3	Cu 324.752†	11324.1	9133.4	70.540 µg/L	70.540 ppb	11:15:39
3	Mn 257.610†	844574.5	863746.0	2818.0 µg/L	2818.0 ppb	11:15:33
3	Mo 202.031†	40.4	46.1	7.4502 µg/L	7.4502 ppb	11:15:59
3	Ni 231.604†	1255.3	980.9	51.543 µg/L	51.543 ppb	11:15:59
3	P 214.914†	322.3	302.9	554.25 µg/L	554.25 ppb	11:15:59
3	Pb 220.353†	463.4	386.9	96.347 µg/L	96.347 ppb	11:15:59
3	S 181.975 Axial†	139.4	125.1	520.25 µg/L	520.25 ppb	11:15:59
3	Sb 206.836†	35.5	12.6	9.9407 µg/L	9.9407 ppb	11:15:59
3	Se 196.026†	-14.0	-32.7	144.33 µg/L	144.33 ppb	11:15:59
3	SiO2†	166318.8	168751.1	34467 µg/L	34467 ppb	11:15:39
3	Si 251.611†	205868.0	210181.6	16426 µg/L	16426 ppb	11:15:33
3	Sn 189.927†	-21.2	-22.0	-16.460 µg/L	-16.460 ppb	11:15:59
3	Ti 334.940†	1258111.6	1286180.7	2969.5 µg/L	2969.5 ppb	11:15:33
3	Tl 190.801†	-48.4	-25.8	16.029 µg/L	16.029 ppb	11:15:59
3	U 409.014†	-451.7	-372.7	-42.567 µg/L	-42.567 ppb	11:15:39
3	V 292.402†	13502.6	13850.5	148.86 µg/L	148.86 ppb	11:15:39
3	Zn 213.857†	9223.2	8965.7	207.09 µg/L	207.09 ppb	11:15:39

Mean Data: 245688001|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941591.3	97.798	%	0.2656				0.27%
Sc RADIAL	56738.6	99.1	%	0.70				0.71%
Y 371.029	1353659.2	99.213	%	0.2889				0.29%
Ag 328.068†	-946.6	-1.6185	µg/L	0.45022	-1.6185	ppb	0.45022	27.82%
Al 396.153Radial†	58758.3	40931	µg/L	226.6	40931	ppb	226.6	0.55%
As 188.979†	6.8	16.263	µg/L	7.0162	16.263	ppb	7.0162	43.14%
B 249.677†	719.7	-8.5247	µg/L	0.90750	-8.5247	ppb	0.90750	10.65%
Ba 233.527†	21936.5	541.34	µg/L	7.390	541.34	ppb	7.390	1.37%
Be 313.107†	11959.2	6.2940	µg/L	0.26118	6.2940	ppb	0.26118	4.15%
Ca 317.933Radial†	10360.0	8993.2	µg/L	45.00	8993.2	ppb	45.00	0.50%
Cd 226.502†	292.6	-0.6516	µg/L	0.13261	-0.6516	ppb	0.13261	20.35%
Co 228.616†	1048.0	42.514	µg/L	1.0352	42.514	ppb	1.0352	2.43%
Cr 267.716†	4246.5	88.460	µg/L	0.6981	88.460	ppb	0.6981	0.79%
Cu 324.752†	9132.1	70.524	µg/L	0.1303	70.524	ppb	0.1303	0.18%
Fe 238.204 Radial†	9299.6	73467	µg/L	542.0	73467	ppb	542.0	0.74%
K 766.490 Radial†	12058.0	8299.7	µg/L	40.00	8299.7	ppb	40.00	0.48%
Mg 279.077 IEC†	906.3	7946.8	µg/L	65.10	7946.8	ppb	65.10	0.82%
Mn 257.610†	868015.5	2831.8	µg/L	14.28	2831.8	ppb	14.28	0.50%
Mo 202.031†	41.4	6.9692	µg/L	0.47741	6.9692	ppb	0.47741	6.85%
Na 589.592 Radial†	1205.1	374.98	µg/L	5.359	374.98	ppb	5.359	1.43%

Ni 231.604†	1006.7	52.876	µg/L	1.1580	52.876	ppb	1.1580	2.19%
P 214.914†	318.9	586.25	µg/L	27.713	586.25	ppb	27.713	4.73%
Pb 220.353†	399.3	99.443	µg/L	2.9159	99.443	ppb	2.9159	2.93%
S 181.975 Axial†	129.7	539.43	µg/L	18.285	539.43	ppb	18.285	3.39%
Sb 206.836†	13.8	11.054	µg/L	1.1713	11.054	ppb	1.1713	10.60%
Se 196.026†	-42.4	130.30	µg/L	12.351	130.30	ppb	12.351	9.48%
SiO2†	171087.5	34944	µg/L	443.3	34944	ppb	443.3	1.27%
Si 251.611†	210672.6	16464	µg/L	52.7	16464	ppb	52.7	0.32%
Sn 189.927†	-23.3	-17.042	µg/L	0.6936	-17.042	ppb	0.6936	4.07%
Sr 421.552†	11106.5	109.60	µg/L	0.726	109.60	ppb	0.726	0.66%
Ti 334.940†	1292884.9	2985.0	µg/L	14.96	2985.0	ppb	14.96	0.50%
Tl 190.801†	-30.1	10.528	µg/L	4.8676	10.528	ppb	4.8676	46.23%
U 409.014†	-435.8	-47.947	µg/L	4.6911	-47.947	ppb	4.6911	9.78%
V 292.402†	14056.9	150.93	µg/L	1.928	150.93	ppb	1.928	1.28%
Zn 213.857†	8993.3	207.74	µg/L	0.739	207.74	ppb	0.739	0.36%

Sequence No.: 24
Sample ID: 1202030847|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 404
Date Collected: 2/12/2010 11:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030847|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55502.2	55502.2	96.9	%			11:16:41
1	Al 396.153Radial†	47753.4	49302.6	34344	µg/L	34344	ppb	11:16:41
1	Ca 317.933Radial†	7323.6	7370.6	6398.1	µg/L	6398.1	ppb	11:17:01
1	Fe 238.204 Radial†	8327.2	8579.4	67778	µg/L	67778	ppb	11:17:01
1	K 766.490 Radial†	10192.5	10351.5	7125.1	µg/L	7125.1	ppb	11:16:41
1	Mg 279.077 IEC†	726.1	738.4	6466.6	µg/L	6466.6	ppb	11:17:01
1	Na 589.592 Radial†	1519.9	1054.6	328.16	µg/L	328.16	ppb	11:16:41
1	Sr 421.552†	8241.2	8478.9	83.671	µg/L	83.671	ppb	11:16:41
1	Sc 361.383	1949052.0	1949052.0	98.174	%			11:18:05
1	Y 371.029	1353444.5	1353444.5	99.197	%			11:18:05
1	Ag 328.068†	-1442.7	-908.5	-1.8211	µg/L	-1.8211	ppb	11:18:11
1	As 188.979†	4.1	2.4	7.9159	µg/L	7.9159	ppb	11:18:31
1	B 249.677†	861.0	582.8	-11.198	µg/L	-11.198	ppb	11:18:11
1	Ba 233.527†	15622.2	15938.8	393.36	µg/L	393.36	ppb	11:18:11
1	Be 313.107†	5278.9	8977.5	4.5111	µg/L	4.5111	ppb	11:18:11
1	Cd 226.502†	93.3	241.2	-1.3490	µg/L	-1.3490	ppb	11:18:31
1	Co 228.616†	795.2	818.8	32.240	µg/L	32.240	ppb	11:18:31
1	Cr 267.716†	4145.9	4271.6	88.969	µg/L	88.969	ppb	11:18:11
1	Cu 324.752†	7890.7	5593.3	46.362	µg/L	46.362	ppb	11:18:11
1	Mn 257.610†	657563.1	670058.7	2187.5	µg/L	2187.5	ppb	11:18:05
1	Mo 202.031†	26.8	32.1	5.8173	µg/L	5.8173	ppb	11:18:31
1	Ni 231.604†	1159.3	878.4	46.190	µg/L	46.190	ppb	11:18:31
1	P 214.914†	260.9	239.2	431.27	µg/L	431.27	ppb	11:18:31
1	Pb 220.353†	374.4	294.5	73.077	µg/L	73.077	ppb	11:18:31
1	S 181.975 Axial†	97.1	81.5	338.79	µg/L	338.79	ppb	11:18:31
1	Sb 206.836†	30.4	7.2	5.1970	µg/L	5.1970	ppb	11:18:31
1	Se 196.026†	-21.1	-39.8	120.50	µg/L	120.50	ppb	11:18:31
1	SiO2†	150205.4	151708.3	30986	µg/L	30986	ppb	11:18:11
1	Si 251.611†	185444.3	188598.6	14739	µg/L	14739	ppb	11:18:05
1	Sn 189.927†	-23.5	-24.2	-16.972	µg/L	-16.972	ppb	11:18:31
1	Ti 334.940†	1191253.3	1213315.8	2801.3	µg/L	2801.3	ppb	11:18:05
1	Tl 190.801†	-55.3	-32.6	1.8645	µg/L	1.8645	ppb	11:18:31
1	U 409.014†	-519.0	-439.5	-47.311	µg/L	-47.311	ppb	11:18:11
1	V 292.402†	11785.9	12050.8	129.98	µg/L	129.98	ppb	11:18:11
1	Zn 213.857†	9119.7	8825.3	204.20	µg/L	204.20	ppb	11:18:11
2	Sc RADIAL	56183.3	56183.3	98.1	%			11:17:07
2	Al 396.153Radial†	48209.1	49169.8	34251	µg/L	34251	ppb	11:17:07
2	Ca 317.933Radial†	7349.4	7305.3	6341.4	µg/L	6341.4	ppb	11:17:27
2	Fe 238.204 Radial†	8362.1	8510.8	67236	µg/L	67236	ppb	11:17:27
2	K 766.490 Radial†	10322.1	10356.1	7128.3	µg/L	7128.3	ppb	11:17:07
2	Mg 279.077 IEC†	727.2	730.5	6396.8	µg/L	6396.8	ppb	11:17:27
2	Na 589.592 Radial†	1543.4	1059.6	329.72	µg/L	329.72	ppb	11:17:07
2	Sr 421.552†	8298.9	8434.7	83.234	µg/L	83.234	ppb	11:17:07
2	Sc 361.383	1943870.4	1943870.4	97.913	%			11:18:38
2	Y 371.029	1348296.0	1348296.0	98.820	%			11:18:38
2	Ag 328.068†	-1371.1	-839.2	-1.3203	µg/L	-1.3203	ppb	11:18:44
2	As 188.979†	3.8	2.0	7.3077	µg/L	7.3077	ppb	11:19:04
2	B 249.677†	874.5	598.8	-10.253	µg/L	-10.253	ppb	11:18:44
2	Ba 233.527†	15777.5	16139.8	398.32	µg/L	398.32	ppb	11:18:44
2	Be 313.107†	5306.9	9020.4	4.5423	µg/L	4.5423	ppb	11:18:44
2	Cd 226.502†	101.1	249.5	-1.0737	µg/L	-1.0737	ppb	11:19:04
2	Co 228.616†	796.1	821.9	32.408	µg/L	32.408	ppb	11:19:04
2	Cr 267.716†	4160.4	4297.7	89.513	µg/L	89.513	ppb	11:18:44
2	Cu 324.752†	7967.8	5693.5	46.948	µg/L	46.948	ppb	11:18:44
2	Mn 257.610†	653155.4	667342.5	2178.6	µg/L	2178.6	ppb	11:18:38
2	Mo 202.031†	30.7	36.2	6.2122	µg/L	6.2122	ppb	11:19:04
2	Ni 231.604†	1146.6	868.5	45.673	µg/L	45.673	ppb	11:19:04
2	P 214.914†	253.5	232.3	417.87	µg/L	417.87	ppb	11:19:04
2	Pb 220.353†	366.0	286.9	71.178	µg/L	71.178	ppb	11:19:04

2	S 181.975 Axial†	100.9	85.6	355.93 µg/L	355.93 ppb	11:19:04
2	Sb 206.836†	30.7	7.6	5.5729 µg/L	5.5729 ppb	11:19:04
2	Se 196.026†	-15.7	-34.4	126.91 µg/L	126.91 ppb	11:19:04
2	SiO2†	151406.6	153343.0	31320 µg/L	31320 ppb	11:18:44
2	Si 251.611†	184264.6	187897.3	14684 µg/L	14684 ppb	11:18:38
2	Sn 189.927†	-21.8	-22.6	-16.209 µg/L	-16.209 ppb	11:19:04
2	Ti 334.940†	1183051.9	1208174.1	2789.4 µg/L	2789.4 ppb	11:18:38
2	Tl 190.801†	-49.2	-26.6	9.6696 µg/L	9.6696 ppb	11:19:04
2	U 409.014†	-430.6	-350.7	-39.654 µg/L	-39.654 ppb	11:18:44
2	V 292.402†	11894.1	12193.3	131.36 µg/L	131.36 ppb	11:18:44
2	Zn 213.857†	9167.4	8898.7	205.96 µg/L	205.96 ppb	11:18:44
3	Sc RADIAL	56573.5	56573.5	98.8 %		11:17:33
3	Al 396.153Radial†	47547.4	48160.9	33548 µg/L	33548 ppb	11:17:33
3	Ca 317.933Radial†	7332.4	7236.4	6281.6 µg/L	6281.6 ppb	11:17:53
3	Fe 238.204 Radial†	8351.4	8441.2	66685 µg/L	66685 ppb	11:17:53
3	K 766.490 Radial†	10106.3	10065.0	6927.9 µg/L	6927.9 ppb	11:17:33
3	Mg 279.077 IEC†	726.1	724.2	6342.0 µg/L	6342.0 ppb	11:17:53
3	Na 589.592 Radial†	1541.5	1046.8	325.73 µg/L	325.73 ppb	11:17:33
3	Sr 421.552†	8231.3	8307.9	81.983 µg/L	81.983 ppb	11:17:33
3	Sc 361.383	1965448.6	1965448.6	99.000 %		11:19:11
3	Y 371.029	1363456.7	1363456.7	99.931 %		11:19:11
3	Ag 328.068†	-1381.1	-834.0	-1.3554 µg/L	-1.3554 ppb	11:19:17
3	As 188.979†	4.9	3.1	9.2179 µg/L	9.2179 ppb	11:19:38
3	B 249.677†	837.8	552.0	-11.904 µg/L	-11.904 ppb	11:19:17
3	Ba 233.527†	15310.4	15491.1	382.31 µg/L	382.31 ppb	11:19:17
3	Be 313.107†	5099.2	8751.0	4.4060 µg/L	4.4060 ppb	11:19:17
3	Cd 226.502†	81.7	228.7	-1.5554 µg/L	-1.5554 ppb	11:19:38
3	Co 228.616†	743.8	760.2	29.705 µg/L	29.705 ppb	11:19:38
3	Cr 267.716†	3964.4	4053.0	84.418 µg/L	84.418 ppb	11:19:17
3	Cu 324.752†	7783.7	5418.1	45.053 µg/L	45.053 ppb	11:19:17
3	Mn 257.610†	642423.5	649178.5	2119.4 µg/L	2119.4 ppb	11:19:11
3	Mo 202.031†	17.6	22.6	4.8156 µg/L	4.8156 ppb	11:19:38
3	Ni 231.604†	1102.0	810.6	42.679 µg/L	42.679 ppb	11:19:38
3	P 214.914†	254.9	230.9	415.40 µg/L	415.40 ppb	11:19:38
3	Pb 220.353†	377.9	294.8	73.163 µg/L	73.163 ppb	11:19:38
3	S 181.975 Axial†	95.6	79.2	329.23 µg/L	329.23 ppb	11:19:38
3	Sb 206.836†	22.4	-1.0	-2.4143 µg/L	-2.4143 ppb	11:19:38
3	Se 196.026†	-16.8	-35.3	124.11 µg/L	124.11 ppb	11:19:38
3	SiO2†	146917.7	147111.0	30047 µg/L	30047 ppb	11:19:17
3	Si 251.611†	182295.9	183842.6	14367 µg/L	14367 ppb	11:19:11
3	Sn 189.927†	-22.4	-23.0	-16.327 µg/L	-16.327 ppb	11:19:38
3	Ti 334.940†	1161227.0	1172863.3	2707.9 µg/L	2707.9 ppb	11:19:11
3	Tl 190.801†	-48.7	-25.5	9.9842 µg/L	9.9842 ppb	11:19:38
3	U 409.014†	-509.1	-425.2	-45.927 µg/L	-45.927 ppb	11:19:17
3	V 292.402†	11429.3	11590.4	125.18 µg/L	125.18 ppb	11:19:17
3	Zn 213.857†	8913.7	8539.7	197.55 µg/L	197.55 ppb	11:19:17

Mean Data: 1202030847|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952790.3	98.362	%	0.5674				0.58%
Sc RADIAL	56086.3	97.9	%	0.95				0.97%
Y 371.029	1355065.7	99.316	%	0.5650				0.57%
Ag 328.068†	-860.6	-1.4989	µg/L	0.27955	-1.4989	ppb	0.27955	18.65%
Al 396.153Radial†	48877.8	34048	µg/L	434.9	34048	ppb	434.9	1.28%
As 188.979†	2.5	8.1472	µg/L	0.97588	8.1472	ppb	0.97588	11.98%
B 249.677†	577.9	-11.118	µg/L	0.8281	-11.118	ppb	0.8281	7.45%
Ba 233.527†	15856.6	391.33	µg/L	8.197	391.33	ppb	8.197	2.09%
Be 313.107†	8916.3	4.4865	µg/L	0.07142	4.4865	ppb	0.07142	1.59%
Ca 317.933Radial†	7304.1	6340.4	µg/L	58.25	6340.4	ppb	58.25	0.92%
Cd 226.502†	239.8	-1.3261	µg/L	0.24164	-1.3261	ppb	0.24164	18.22%
Co 228.616†	800.3	31.451	µg/L	1.5140	31.451	ppb	1.5140	4.81%
Cr 267.716†	4207.4	87.633	µg/L	2.7979	87.633	ppb	2.7979	3.19%
Cu 324.752†	5568.3	46.121	µg/L	0.9703	46.121	ppb	0.9703	2.10%
Fe 238.204 Radial†	8510.5	67233	µg/L	546.1	67233	ppb	546.1	0.81%
K 766.490 Radial†	10257.5	7060.4	µg/L	114.77	7060.4	ppb	114.77	1.63%
Mg 279.077 IEC†	731.0	6401.8	µg/L	62.47	6401.8	ppb	62.47	0.98%
Mn 257.610†	662193.2	2161.8	µg/L	36.98	2161.8	ppb	36.98	1.71%
Mo 202.031†	30.3	5.6150	µg/L	0.71992	5.6150	ppb	0.71992	12.82%
Na 589.592 Radial†	1053.7	327.87	µg/L	2.010	327.87	ppb	2.010	0.61%

Ni 231.604†	852.5	44.847	µg/L	1.8953	44.847	ppb	1.8953	4.23%
P 214.914†	234.1	421.51	µg/L	8.538	421.51	ppb	8.538	2.03%
Pb 220.353†	292.1	72.473	µg/L	1.1224	72.473	ppb	1.1224	1.55%
S 181.975 Axial†	82.1	341.32	µg/L	13.531	341.32	ppb	13.531	3.96%
Sb 206.836†	4.6	2.7852	µg/L	4.50685	2.7852	ppb	4.50685	161.81%
Se 196.026†	-36.5	123.84	µg/L	3.213	123.84	ppb	3.213	2.59%
SiO2†	150720.8	30784	µg/L	660.0	30784	ppb	660.0	2.14%
Si 251.611†	186779.5	14597	µg/L	200.7	14597	ppb	200.7	1.37%
Sn 189.927†	-23.2	-16.503	µg/L	0.4108	-16.503	ppb	0.4108	2.49%
Sr 421.552†	8407.2	82.963	µg/L	0.8763	82.963	ppb	0.8763	1.06%
Ti 334.940†	1198117.7	2766.2	µg/L	50.85	2766.2	ppb	50.85	1.84%
Tl 190.801†	-28.2	7.1728	µg/L	4.59978	7.1728	ppb	4.59978	64.13%
U 409.014†	-405.1	-44.297	µg/L	4.0803	-44.297	ppb	4.0803	9.21%
V 292.402†	11944.9	128.84	µg/L	3.247	128.84	ppb	3.247	2.52%
Zn 213.857†	8754.6	202.57	µg/L	4.440	202.57	ppb	4.440	2.19%

Sequence No.: 25
Sample ID: 1202030849|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 405
Date Collected: 2/12/2010 11:19:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030849|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56815.4	56815.4	99.2	%			11:20:20
1	Al 396.153Radial†	101796.7	102643.8	71489	µg/L	71489	ppb	11:20:20
1	Ca 317.933Radial†	16749.4	16697.9	14495	µg/L	14495	ppb	11:20:41
1	Fe 238.204 Radial†	10056.1	10123.7	79989	µg/L	79989	ppb	11:20:41
1	K 766.490 Radial†	22930.7	22949.6	15797	µg/L	15797	ppb	11:20:20
1	Mg 279.077 IEC†	1697.7	1700.5	14983	µg/L	14983	ppb	11:20:41
1	Na 589.592 Radial†	18001.8	17633.6	5486.9	µg/L	5486.9	ppb	11:20:20
1	Sr 421.552†	64153.2	64646.4	637.94	µg/L	637.94	ppb	11:20:20
1	Sc 361.383	1928480.5	1928480.5	97.138	%			11:21:45
1	Y 371.029	1343427.9	1343427.9	98.463	%			11:21:45
1	Ag 328.068†	66546.7	69068.6	533.83	µg/L	533.83	ppb	11:21:51
1	As 188.979†	305.7	312.8	577.81	µg/L	577.81	ppb	11:22:11
1	B 249.677†	13780.6	13892.4	532.08	µg/L	532.08	ppb	11:21:51
1	Ba 233.527†	42782.3	44068.9	1088.2	µg/L	1088.2	ppb	11:21:51
1	Be 313.107†	881168.2	910733.2	564.46	µg/L	564.46	ppb	11:21:45
1	Cd 226.502†	19906.0	20638.7	527.59	µg/L	527.59	ppb	11:21:51
1	Co 228.616†	11957.9	12319.1	565.45	µg/L	565.45	ppb	11:21:51
1	Cr 267.716†	32497.6	33503.7	697.65	µg/L	697.65	ppb	11:21:51
1	Cu 324.752†	100496.6	101013.7	678.26	µg/L	678.26	ppb	11:21:51
1	Mn 257.610†	862522.1	888201.9	2898.1	µg/L	2898.1	ppb	11:21:45
1	Mo 202.031†	5449.3	5614.7	569.73	µg/L	569.73	ppb	11:22:11
1	Ni 231.604†	12185.3	12241.8	632.42	µg/L	632.42	ppb	11:21:51
1	P 214.914†	673.6	666.8	1233.4	µg/L	1233.4	ppb	11:22:11
1	Pb 220.353†	2621.9	2612.2	655.28	µg/L	655.28	ppb	11:22:11
1	S 181.975 Axial†	1524.5	1552.0	6455.0	µg/L	6455.0	ppb	11:22:11
1	Sb 206.836†	605.6	599.8	555.43	µg/L	555.43	ppb	11:22:11
1	Se 196.026†	363.5	355.9	712.31	µg/L	712.31	ppb	11:22:11
1	SiO2†	233509.7	239099.3	48835	µg/L	48835	ppb	11:21:45
1	Si 251.611†	282515.6	290545.1	22706	µg/L	22706	ppb	11:21:45
1	Sn 189.927†	1312.9	1351.3	578.02	µg/L	578.02	ppb	11:22:11
1	Ti 334.940†	1616025.3	1663547.9	3840.4	µg/L	3840.4	ppb	11:21:45
1	Tl 190.801†	357.0	391.2	576.50	µg/L	576.50	ppb	11:22:11
1	U 409.014†	6449.9	6729.1	562.14	µg/L	562.14	ppb	11:21:51
1	V 292.402†	66850.6	68866.1	712.07	µg/L	712.07	ppb	11:21:51
1	Zn 213.857†	33810.2	34342.4	801.09	µg/L	801.09	ppb	11:21:51
2	Sc RADIAL	56717.9	56717.9	99.0	%			11:20:46
2	Al 396.153Radial†	102752.3	103785.1	72284	µg/L	72284	ppb	11:20:46
2	Ca 317.933Radial†	16869.1	16847.8	14625	µg/L	14625	ppb	11:21:07
2	Fe 238.204 Radial†	10189.1	10275.4	81187	µg/L	81187	ppb	11:21:07
2	K 766.490 Radial†	23109.8	23170.2	15948	µg/L	15948	ppb	11:20:46
2	Mg 279.077 IEC†	1714.7	1720.7	15160	µg/L	15160	ppb	11:21:07
2	Na 589.592 Radial†	18165.3	17829.8	5548.0	µg/L	5548.0	ppb	11:20:46
2	Sr 421.552†	64849.3	65460.4	645.97	µg/L	645.97	ppb	11:20:46
2	Sc 361.383	1950300.8	1950300.8	98.237	%			11:22:19
2	Y 371.029	1357142.4	1357142.4	99.468	%			11:22:19
2	Ag 328.068†	65714.4	67454.9	521.53	µg/L	521.53	ppb	11:22:25
2	As 188.979†	302.5	306.1	565.51	µg/L	565.51	ppb	11:22:45
2	B 249.677†	13612.0	13562.0	517.81	µg/L	517.81	ppb	11:22:25
2	Ba 233.527†	42126.7	42908.9	1059.6	µg/L	1059.6	ppb	11:22:25
2	Be 313.107†	871450.3	890691.7	552.04	µg/L	552.04	ppb	11:22:19
2	Cd 226.502†	19662.4	20161.5	515.04	µg/L	515.04	ppb	11:22:25
2	Co 228.616†	11796.3	12016.9	551.56	µg/L	551.56	ppb	11:22:25
2	Cr 267.716†	31992.1	32614.9	679.14	µg/L	679.14	ppb	11:22:25
2	Cu 324.752†	99016.4	98349.4	660.83	µg/L	660.83	ppb	11:22:25
2	Mn 257.610†	852463.0	868027.9	2832.6	µg/L	2832.6	ppb	11:22:19
2	Mo 202.031†	5426.9	5529.2	561.14	µg/L	561.14	ppb	11:22:45
2	Ni 231.604†	12004.6	11917.6	615.71	µg/L	615.71	ppb	11:22:25
2	P 214.914†	660.3	645.6	1191.7	µg/L	1191.7	ppb	11:22:45
2	Pb 220.353†	2592.7	2552.4	640.29	µg/L	640.29	ppb	11:22:45

2	S 181.975 Axial†	1501.2	1510.7	6283.3 µg/L	6283.3 ppb	11:22:45
2	Sb 206.836†	609.3	596.6	552.54 µg/L	552.54 ppb	11:22:45
2	Se 196.026†	357.0	345.1	699.83 µg/L	699.83 ppb	11:22:45
2	SiO2†	230809.9	233661.6	47725 µg/L	47725 ppb	11:22:19
2	Si 251.611†	279353.8	284072.6	22200 µg/L	22200 ppb	11:22:19
2	Sn 189.927†	1307.7	1330.9	569.07 µg/L	569.07 ppb	11:22:45
2	Ti 334.940†	1599227.9	1627835.9	3757.9 µg/L	3757.9 ppb	11:22:19
2	Tl 190.801†	353.5	383.6	565.64 µg/L	565.64 ppb	11:22:45
2	U 409.014†	6428.9	6633.4	553.80 µg/L	553.80 ppb	11:22:25
2	V 292.402†	65784.8	67011.2	693.34 µg/L	693.34 ppb	11:22:25
2	Zn 213.857†	33336.9	33471.2	780.58 µg/L	780.58 ppb	11:22:25
3	Sc RADIAL	56438.4	56438.4	98.5 %		11:21:12
3	Al 396.153Radial†	104061.1	105627.3	73568 µg/L	73568 ppb	11:21:12
3	Ca 317.933Radial†	16963.6	17028.1	14781 µg/L	14781 ppb	11:21:33
3	Fe 238.204 Radial†	10242.0	10380.1	82014 µg/L	82014 ppb	11:21:33
3	K 766.490 Radial†	23326.7	23505.9	16179 µg/L	16179 ppb	11:21:12
3	Mg 279.077 IEC†	1713.2	1727.7	15221 µg/L	15221 ppb	11:21:33
3	Na 589.592 Radial†	18377.1	18135.6	5643.2 µg/L	5643.2 ppb	11:21:12
3	Sr 421.552†	65465.9	66410.5	655.35 µg/L	655.35 ppb	11:21:12
3	Sc 361.383	1934063.1	1934063.1	97.419 %		11:22:52
3	Y 371.029	1346450.8	1346450.8	98.685 %		11:22:52
3	Ag 328.068†	65481.9	67777.8	523.96 µg/L	523.96 ppb	11:22:58
3	As 188.979†	286.2	291.9	539.54 µg/L	539.54 ppb	11:23:18
3	B 249.677†	13499.7	13563.1	517.40 µg/L	517.40 ppb	11:22:58
3	Ba 233.527†	41390.9	42513.6	1049.8 µg/L	1049.8 ppb	11:22:58
3	Be 313.107†	856518.7	882812.1	547.16 µg/L	547.16 ppb	11:22:52
3	Cd 226.502†	19476.9	20139.1	514.36 µg/L	514.36 ppb	11:22:58
3	Co 228.616†	11539.1	11853.7	544.02 µg/L	544.02 ppb	11:22:58
3	Cr 267.716†	31077.7	31949.6	665.29 µg/L	665.29 ppb	11:22:58
3	Cu 324.752†	96732.6	96851.3	651.05 µg/L	651.05 ppb	11:22:58
3	Mn 257.610†	839582.5	862091.6	2813.4 µg/L	2813.4 ppb	11:22:52
3	Mo 202.031†	5104.9	5245.0	532.49 µg/L	532.49 ppb	11:23:18
3	Ni 231.604†	11782.1	11791.8	609.24 µg/L	609.24 ppb	11:22:58
3	P 214.914†	623.6	613.5	1127.7 µg/L	1127.7 ppb	11:23:18
3	Pb 220.353†	2496.6	2475.8	621.10 µg/L	621.10 ppb	11:23:18
3	S 181.975 Axial†	1458.6	1479.8	6154.5 µg/L	6154.5 ppb	11:23:18
3	Sb 206.836†	567.2	558.6	517.04 µg/L	517.04 ppb	11:23:18
3	Se 196.026†	340.8	331.5	682.49 µg/L	682.49 ppb	11:23:18
3	SiO2†	224134.9	228782.3	46728 µg/L	46728 ppb	11:22:52
3	Si 251.611†	271083.2	277970.4	21723 µg/L	21723 ppb	11:22:52
3	Sn 189.927†	1226.0	1258.2	537.52 µg/L	537.52 ppb	11:23:18
3	Ti 334.940†	1570846.1	1612369.6	3722.2 µg/L	3722.2 ppb	11:22:52
3	Tl 190.801†	336.2	368.9	546.07 µg/L	546.07 ppb	11:23:18
3	U 409.014†	6235.6	6490.0	541.44 µg/L	541.44 ppb	11:22:58
3	V 292.402†	64125.8	65870.5	681.65 µg/L	681.65 ppb	11:22:58
3	Zn 213.857†	32813.1	33218.4	774.63 µg/L	774.63 ppb	11:22:58

Mean Data: 1202030849|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1937614.8	97.598	%	0.5710				0.59%
Sc RADIAL	56657.2	98.9	%	0.34				0.35%
Y 371.029	1349007.0	98.872	%	0.5281				0.53%
Ag 328.068†	68100.4	526.44	µg/L	6.512	526.44	ppb	6.512	1.24%
Al 396.153Radial†	104018.7	72447	µg/L	1049.0	72447	ppb	1049.0	1.45%
As 188.979†	303.6	560.95	µg/L	19.535	560.95	ppb	19.535	3.48%
B 249.677†	13672.5	522.43	µg/L	8.362	522.43	ppb	8.362	1.60%
Ba 233.527†	43163.8	1065.9	µg/L	19.97	1065.9	ppb	19.97	1.87%
Be 313.107†	894745.7	554.55	µg/L	8.922	554.55	ppb	8.922	1.61%
Ca 317.933Radial†	16857.9	14634	µg/L	143.5	14634	ppb	143.5	0.98%
Cd 226.502†	20313.1	519.00	µg/L	7.448	519.00	ppb	7.448	1.44%
Co 228.616†	12063.3	553.68	µg/L	10.873	553.68	ppb	10.873	1.96%
Cr 267.716†	32689.4	680.70	µg/L	16.235	680.70	ppb	16.235	2.39%
Cu 324.752†	98738.1	663.38	µg/L	13.783	663.38	ppb	13.783	2.08%
Fe 238.204 Radial†	10259.7	81063	µg/L	1018.1	81063	ppb	1018.1	1.26%
K 766.490 Radial†	23208.5	15975	µg/L	192.8	15975	ppb	192.8	1.21%
Mg 279.077 IEC†	1716.3	15121	µg/L	123.5	15121	ppb	123.5	0.82%
Mn 257.610†	872773.8	2848.0	µg/L	44.38	2848.0	ppb	44.38	1.56%
Mo 202.031†	5462.9	554.45	µg/L	19.498	554.45	ppb	19.498	3.52%
Na 589.592 Radial†	17866.3	5559.4	µg/L	78.73	5559.4	ppb	78.73	1.42%

Ni 231.604†	11983.7	619.13 µg/L	11.963	619.13 ppb	11.963	1.93%
P 214.914†	642.0	1184.3 µg/L	53.28	1184.3 ppb	53.28	4.50%
Pb 220.353†	2546.8	638.89 µg/L	17.132	638.89 ppb	17.132	2.68%
S 181.975 Axial†	1514.2	6297.6 µg/L	150.77	6297.6 ppb	150.77	2.39%
Sb 206.836†	585.0	541.67 µg/L	21.378	541.67 ppb	21.378	3.95%
Se 196.026†	344.1	698.21 µg/L	14.977	698.21 ppb	14.977	2.15%
SiO2†	233847.8	47763 µg/L	1054.1	47763 ppb	1054.1	2.21%
Si 251.611†	284196.0	22210 µg/L	491.4	22210 ppb	491.4	2.21%
Sn 189.927†	1313.5	561.54 µg/L	21.275	561.54 ppb	21.275	3.79%
Sr 421.552†	65505.8	646.42 µg/L	8.713	646.42 ppb	8.713	1.35%
Ti 334.940†	1634584.4	3773.5 µg/L	60.62	3773.5 ppb	60.62	1.61%
Tl 190.801†	381.2	562.74 µg/L	15.423	562.74 ppb	15.423	2.74%
U 409.014†	6617.5	552.46 µg/L	10.415	552.46 ppb	10.415	1.89%
V 292.402†	67249.3	695.69 µg/L	15.347	695.69 ppb	15.347	2.21%
Zn 213.857†	33677.3	785.43 µg/L	13.881	785.43 ppb	13.881	1.77%

Sequence No.: 26
Sample ID: 1202030850|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 406
Date Collected: 2/12/2010 11:23:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030850|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55077.8	55077.8	96.2	%			11:24:01
1	Al 396.153Radial†	90354.2	93982.3	65456	µg/L	65456	ppb	11:24:01
1	Ca 317.933Radial†	13834.7	14199.7	12326	µg/L	12326	ppb	11:24:21
1	Fe 238.204 Radial†	9921.4	10303.4	81408	µg/L	81408	ppb	11:24:21
1	K 766.490 Radial†	20775.3	21437.4	14756	µg/L	14756	ppb	11:24:01
1	Mg 279.077 IEC†	1571.4	1623.2	14297	µg/L	14297	ppb	11:24:21
1	Na 589.592 Radial†	17936.1	18137.7	5643.8	µg/L	5643.8	ppb	11:24:01
1	Sr 421.552†	62054.9	64504.6	636.54	µg/L	636.54	ppb	11:24:01
1	Sc 361.383	1934934.2	1934934.2	97.463	%			11:25:26
1	Y 371.029	1343008.2	1343008.2	98.432	%			11:25:26
1	Ag 328.068†	65912.1	68189.0	527.24	µg/L	527.24	ppb	11:25:32
1	As 188.979†	290.9	296.7	548.28	µg/L	548.28	ppb	11:25:52
1	B 249.677†	13369.6	13423.4	511.89	µg/L	511.89	ppb	11:25:32
1	Ba 233.527†	40789.3	41877.2	1034.2	µg/L	1034.2	ppb	11:25:32
1	Be 313.107†	848056.6	873733.9	541.41	µg/L	541.41	ppb	11:25:26
1	Cd 226.502†	19573.6	20229.4	516.76	µg/L	516.76	ppb	11:25:32
1	Co 228.616†	11730.6	12044.8	552.33	µg/L	552.33	ppb	11:25:32
1	Cr 267.716†	29223.2	30032.5	625.42	µg/L	625.42	ppb	11:25:32
1	Cu 324.752†	91944.2	91893.6	618.23	µg/L	618.23	ppb	11:25:32
1	Mn 257.610†	891476.7	914948.7	2985.2	µg/L	2985.2	ppb	11:25:26
1	Mo 202.031†	5322.9	5466.4	554.81	µg/L	554.81	ppb	11:25:52
1	Ni 231.604†	11452.9	11448.6	591.50	µg/L	591.50	ppb	11:25:32
1	P 214.914†	544.4	531.9	965.67	µg/L	965.67	ppb	11:25:52
1	Pb 220.353†	2434.8	2411.3	604.65	µg/L	604.65	ppb	11:25:52
1	S 181.975 Axial†	1410.5	1429.8	5946.6	µg/L	5946.6	ppb	11:25:52
1	Sb 206.836†	598.4	590.3	547.48	µg/L	547.48	ppb	11:25:52
1	Se 196.026†	340.9	331.4	682.27	µg/L	682.27	ppb	11:25:52
1	SiO2†	209855.8	214027.9	43715	µg/L	43715	ppb	11:25:26
1	Si 251.611†	253874.9	260188.8	20334	µg/L	20334	ppb	11:25:26
1	Sn 189.927†	1278.9	1311.9	560.73	µg/L	560.73	ppb	11:25:52
1	Ti 334.940†	1692716.8	1736687.0	4009.3	µg/L	4009.3	ppb	11:25:26
1	Tl 190.801†	353.3	386.2	571.61	µg/L	571.61	ppb	11:25:52
1	U 409.014†	5961.9	6206.3	517.46	µg/L	517.46	ppb	11:25:32
1	V 292.402†	67148.5	68942.2	712.68	µg/L	712.68	ppb	11:25:32
1	Zn 213.857†	30555.4	30886.8	719.87	µg/L	719.87	ppb	11:25:32
2	Sc RADIAL	55665.0	55665.0	97.2	%			11:24:27
2	Al 396.153Radial†	91381.0	94047.7	65502	µg/L	65502	ppb	11:24:27
2	Ca 317.933Radial†	13709.6	13919.2	12083	µg/L	12083	ppb	11:24:47
2	Fe 238.204 Radial†	9827.4	10097.9	79784	µg/L	79784	ppb	11:24:47
2	K 766.490 Radial†	20949.0	21388.3	14722	µg/L	14722	ppb	11:24:27
2	Mg 279.077 IEC†	1563.6	1598.0	14075	µg/L	14075	ppb	11:24:47
2	Na 589.592 Radial†	18153.7	18164.8	5652.3	µg/L	5652.3	ppb	11:24:27
2	Sr 421.552†	62732.4	64521.0	636.70	µg/L	636.70	ppb	11:24:27
2	Sc 361.383	1951504.5	1951504.5	98.297	%			11:26:00
2	Y 371.029	1352939.1	1352939.1	99.160	%			11:26:00
2	Ag 328.068†	64687.0	66368.4	513.19	µg/L	513.19	ppb	11:26:05
2	As 188.979†	283.6	286.7	529.97	µg/L	529.97	ppb	11:26:26
2	B 249.677†	13121.1	13054.2	497.49	µg/L	497.49	ppb	11:26:05
2	Ba 233.527†	39938.0	40655.8	1004.0	µg/L	1004.0	ppb	11:26:05
2	Be 313.107†	845080.9	863318.4	534.95	µg/L	534.95	ppb	11:26:00
2	Cd 226.502†	19169.7	19647.9	501.82	µg/L	501.82	ppb	11:26:05
2	Co 228.616†	11461.1	11668.5	534.91	µg/L	534.91	ppb	11:26:05
2	Cr 267.716†	28609.9	29154.0	607.12	µg/L	607.12	ppb	11:26:05
2	Cu 324.752†	90292.7	89412.4	601.61	µg/L	601.61	ppb	11:26:05
2	Mn 257.610†	889716.4	905391.3	2954.0	µg/L	2954.0	ppb	11:26:00
2	Mo 202.031†	5315.0	5411.9	549.25	µg/L	549.25	ppb	11:26:26
2	Ni 231.604†	11264.9	11157.5	576.47	µg/L	576.47	ppb	11:26:05
2	P 214.914†	522.6	505.1	914.67	µg/L	914.67	ppb	11:26:26
2	Pb 220.353†	2416.0	2371.0	594.65	µg/L	594.65	ppb	11:26:26

2	S 181.975 Axial†	1406.9	1413.8	5880.3 µg/L	5880.3 ppb	11:26:26
2	Sb 206.836†	591.4	577.9	536.11 µg/L	536.11 ppb	11:26:26
2	Se 196.026†	334.7	322.1	664.72 µg/L	664.72 ppb	11:26:26
2	SiO2†	209082.9	211413.4	43181 µg/L	43181 ppb	11:26:00
2	Si 251.611†	253050.4	257138.2	20095 µg/L	20095 ppb	11:26:00
2	Sn 189.927†	1270.5	1292.2	552.37 µg/L	552.37 ppb	11:26:26
2	Ti 334.940†	1689314.9	1718479.1	3967.3 µg/L	3967.3 ppb	11:26:00
2	Tl 190.801†	343.7	373.4	553.99 µg/L	553.99 ppb	11:26:26
2	U 409.014†	5820.9	6010.8	501.03 µg/L	501.03 ppb	11:26:05
2	V 292.402†	65664.2	66847.2	691.21 µg/L	691.21 ppb	11:26:05
2	Zn 213.857†	30037.1	30093.3	701.35 µg/L	701.35 ppb	11:26:05
3	Sc RADIAL	55583.7	55583.7	97.0 %		11:24:53
3	Al 396.153Radial†	89997.4	92759.6	64605 µg/L	64605 ppb	11:24:53
3	Ca 317.933Radial†	13680.7	13910.0	12075 µg/L	12075 ppb	11:25:13
3	Fe 238.204 Radial†	9801.3	10085.8	79689 µg/L	79689 ppb	11:25:13
3	K 766.490 Radial†	20719.7	21183.5	14581 µg/L	14581 ppb	11:24:53
3	Mg 279.077 IEC†	1555.4	1591.9	14021 µg/L	14021 ppb	11:25:13
3	Na 589.592 Radial†	17932.1	17963.8	5589.7 µg/L	5589.7 ppb	11:24:53
3	Sr 421.552†	61880.6	63737.7	628.97 µg/L	628.97 ppb	11:24:53
3	Sc 361.383	1916586.4	1916586.4	96.539 %		11:26:33
3	Y 371.029	1330140.9	1330140.9	97.489 %		11:26:33
3	Ag 328.068†	64888.1	67775.7	523.88 µg/L	523.88 ppb	11:26:39
3	As 188.979†	277.3	285.4	527.60 µg/L	527.60 ppb	11:26:59
3	B 249.677†	13152.3	13329.7	508.90 µg/L	508.90 ppb	11:26:39
3	Ba 233.527†	39628.0	41074.8	1014.4 µg/L	1014.4 ppb	11:26:39
3	Be 313.107†	828573.1	861881.8	534.06 µg/L	534.06 ppb	11:26:33
3	Cd 226.502†	19085.7	19916.2	508.81 µg/L	508.81 ppb	11:26:39
3	Co 228.616†	11365.6	11781.9	540.19 µg/L	540.19 ppb	11:26:39
3	Cr 267.716†	28224.9	29285.4	609.86 µg/L	609.86 ppb	11:26:39
3	Cu 324.752†	89092.0	89842.2	604.44 µg/L	604.44 ppb	11:26:39
3	Mn 257.610†	872287.1	903827.4	2948.9 µg/L	2948.9 ppb	11:26:33
3	Mo 202.031†	5029.9	5215.1	529.38 µg/L	529.38 ppb	11:26:59
3	Ni 231.604†	11122.5	11218.8	579.63 µg/L	579.63 ppb	11:26:39
3	P 214.914†	501.3	492.7	889.10 µg/L	889.10 ppb	11:26:59
3	Pb 220.353†	2342.2	2339.2	586.59 µg/L	586.59 ppb	11:26:59
3	S 181.975 Axial†	1359.8	1391.2	5786.0 µg/L	5786.0 ppb	11:26:59
3	Sb 206.836†	569.2	565.9	524.65 µg/L	524.65 ppb	11:26:59
3	Se 196.026†	338.8	332.6	679.58 µg/L	679.58 ppb	11:26:59
3	SiO2†	203108.3	209099.8	42708 µg/L	42708 ppb	11:26:33
3	Si 251.611†	245646.4	254158.9	19863 µg/L	19863 ppb	11:26:33
3	Sn 189.927†	1215.9	1259.1	538.06 µg/L	538.06 ppb	11:26:59
3	Ti 334.940†	1653843.5	1713046.4	3954.7 µg/L	3954.7 ppb	11:26:33
3	Tl 190.801†	335.2	371.0	550.58 µg/L	550.58 ppb	11:26:59
3	U 409.014†	5741.1	6036.1	503.20 µg/L	503.20 ppb	11:26:39
3	V 292.402†	64793.5	67162.4	694.24 µg/L	694.24 ppb	11:26:39
3	Zn 213.857†	29846.0	30452.1	709.79 µg/L	709.79 ppb	11:26:39

Mean Data: 1202030850|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1934341.7	97.433	%	0.8798				0.90%
Sc RADIAL	55442.2	96.8	%	0.56				0.57%
Y 371.029	1342029.4	98.361	%	0.8378				0.85%
Ag 328.068†	67444.4	521.44	µg/L	7.341	521.44	ppb	7.341	1.41%
Al 396.153Radial†	93596.5	65188	µg/L	505.2	65188	ppb	505.2	0.77%
As 188.979†	289.6	535.28	µg/L	11.319	535.28	ppb	11.319	2.11%
B 249.677†	13269.1	506.09	µg/L	7.600	506.09	ppb	7.600	1.50%
Ba 233.527†	41202.6	1017.5	µg/L	15.33	1017.5	ppb	15.33	1.51%
Be 313.107†	866311.4	536.81	µg/L	4.008	536.81	ppb	4.008	0.75%
Ca 317.933Radial†	14009.6	12161	µg/L	142.9	12161	ppb	142.9	1.18%
Cd 226.502†	19931.1	509.13	µg/L	7.471	509.13	ppb	7.471	1.47%
Co 228.616†	11831.7	542.47	µg/L	8.933	542.47	ppb	8.933	1.65%
Cr 267.716†	29490.6	614.13	µg/L	9.868	614.13	ppb	9.868	1.61%
Cu 324.752†	90382.7	608.09	µg/L	8.889	608.09	ppb	8.889	1.46%
Fe 238.204 Radial†	10162.4	80294	µg/L	966.5	80294	ppb	966.5	1.20%
K 766.490 Radial†	21336.4	14686	µg/L	92.7	14686	ppb	92.7	0.63%
Mg 279.077 IEC†	1604.4	14131	µg/L	146.2	14131	ppb	146.2	1.03%
Mn 257.610†	908055.8	2962.7	µg/L	19.70	2962.7	ppb	19.70	0.66%
Mo 202.031†	5364.4	544.48	µg/L	13.370	544.48	ppb	13.370	2.46%
Na 589.592 Radial†	18088.8	5628.6	µg/L	33.94	5628.6	ppb	33.94	0.60%

Ni 231.604†	11275.0	582.53	µg/L	7.923	582.53	ppb	7.923	1.36%
P 214.914†	509.9	923.15	µg/L	38.984	923.15	ppb	38.984	4.22%
Pb 220.353†	2373.8	595.29	µg/L	9.047	595.29	ppb	9.047	1.52%
S 181.975 Axial†	1411.6	5870.9	µg/L	80.72	5870.9	ppb	80.72	1.37%
Sb 206.836†	578.1	536.08	µg/L	11.412	536.08	ppb	11.412	2.13%
Se 196.026†	328.7	675.52	µg/L	9.450	675.52	ppb	9.450	1.40%
SiO2†	211513.7	43201	µg/L	503.6	43201	ppb	503.6	1.17%
Si 251.611†	257162.0	20097	µg/L	235.6	20097	ppb	235.6	1.17%
Sn 189.927†	1287.7	550.39	µg/L	11.461	550.39	ppb	11.461	2.08%
Sr 421.552†	64254.4	634.07	µg/L	4.417	634.07	ppb	4.417	0.70%
Ti 334.940†	1722737.5	3977.1	µg/L	28.58	3977.1	ppb	28.58	0.72%
Tl 190.801†	376.9	558.73	µg/L	11.283	558.73	ppb	11.283	2.02%
U 409.014†	6084.4	507.23	µg/L	8.928	507.23	ppb	8.928	1.76%
V 292.402†	67650.6	699.38	µg/L	11.620	699.38	ppb	11.620	1.66%
Zn 213.857†	30477.4	710.34	µg/L	9.274	710.34	ppb	9.274	1.31%

Sequence No.: 27
Sample ID: 1202030848|948032|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 407
Date Collected: 2/12/2010 11:27:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030848|948032|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56112.2	56112.2	98.0	%			11:27:41
1	Al 396.153Radial†	11812.2	12081.1	8415.6	µg/L	8415.6	ppb	11:27:41
1	Ca 317.933Radial†	2269.4	2129.5	1848.6	µg/L	1848.6	ppb	11:28:01
1	Fe 238.204 Radial†	1903.5	1929.2	15241	µg/L	15241	ppb	11:28:01
1	K 766.490 Radial†	2559.8	2446.3	1683.8	µg/L	1683.8	ppb	11:27:41
1	Mg 279.077 IEC†	197.7	191.0	1674.8	µg/L	1674.8	ppb	11:28:01
1	Na 589.592 Radial†	701.2	202.0	62.845	µg/L	62.845	ppb	11:27:41
1	Sr 421.552†	2257.8	2279.2	22.491	µg/L	22.491	ppb	11:27:41
1	Sc 361.383	1965224.6	1965224.6	98.989	%			11:29:04
1	Y 371.029	1347742.2	1347742.2	98.779	%			11:29:04
1	Ag 328.068†	-726.8	-173.1	-0.1605	µg/L	-0.1605	ppb	11:29:10
1	As 188.979†	-3.6	-5.5	-9.2880	µg/L	-9.2880	ppb	11:29:30
1	B 249.677†	483.9	194.6	0.0977	µg/L	0.0977	ppb	11:29:10
1	Ba 233.527†	4426.5	4497.7	110.99	µg/L	110.99	ppb	11:29:10
1	Be 313.107†	-827.3	2764.6	1.4833	µg/L	1.4833	ppb	11:29:10
1	Cd 226.502†	-66.0	79.5	0.3531	µg/L	0.3531	ppb	11:29:30
1	Co 228.616†	206.1	217.1	8.8114	µg/L	8.8114	ppb	11:29:30
1	Cr 267.716†	817.6	874.5	18.218	µg/L	18.218	ppb	11:29:10
1	Cu 324.752†	4269.1	1868.5	14.459	µg/L	14.459	ppb	11:29:10
1	Mn 257.610†	178817.6	180909.4	590.19	µg/L	590.19	ppb	11:29:04
1	Mo 202.031†	1.9	6.7	1.2602	µg/L	1.2602	ppb	11:29:30
1	Ni 231.604†	516.1	218.8	11.485	µg/L	11.485	ppb	11:29:30
1	P 214.914†	86.7	61.0	111.15	µg/L	111.15	ppb	11:29:30
1	Pb 220.353†	174.0	88.9	22.154	µg/L	22.154	ppb	11:29:30
1	S 181.975 Axial†	39.9	22.8	94.989	µg/L	94.989	ppb	11:29:30
1	Sb 206.836†	35.5	12.2	10.915	µg/L	10.915	ppb	11:29:30
1	Se 196.026†	5.9	-12.4	21.820	µg/L	21.820	ppb	11:29:30
1	SiO2†	36740.1	35824.6	7317.1	µg/L	7317.1	ppb	11:29:10
1	Si 251.611†	43401.0	43549.4	3403.4	µg/L	3403.4	ppb	11:29:10
1	Sn 189.927†	-9.5	-9.9	-5.7278	µg/L	-5.7278	ppb	11:29:30
1	Ti 334.940†	264085.2	266688.3	615.72	µg/L	615.72	ppb	11:29:04
1	Tl 190.801†	-32.2	-8.8	-1.2210	µg/L	-1.2210	ppb	11:29:30
1	U 409.014†	-237.8	-151.2	-15.128	µg/L	-15.128	ppb	11:29:10
1	V 292.402†	2824.4	2898.9	31.129	µg/L	31.129	ppb	11:29:10
1	Zn 213.857†	2250.5	1809.4	41.767	µg/L	41.767	ppb	11:29:30
2	Sc RADIAL	54643.7	54643.7	95.4	%			11:28:07
2	Al 396.153Radial†	11883.7	12480.1	8693.5	µg/L	8693.5	ppb	11:28:07
2	Ca 317.933Radial†	2267.6	2189.9	1901.0	µg/L	1901.0	ppb	11:28:27
2	Fe 238.204 Radial†	1900.1	1977.9	15626	µg/L	15626	ppb	11:28:27
2	K 766.490 Radial†	2505.3	2459.4	1692.8	µg/L	1692.8	ppb	11:28:07
2	Mg 279.077 IEC†	190.0	188.4	1651.3	µg/L	1651.3	ppb	11:28:27
2	Na 589.592 Radial†	744.3	266.3	82.877	µg/L	82.877	ppb	11:28:07
2	Sr 421.552†	2257.8	2341.1	23.102	µg/L	23.102	ppb	11:28:07
2	Sc 361.383	1958032.5	1958032.5	98.626	%			11:29:37
2	Y 371.029	1343156.9	1343156.9	98.443	%			11:29:37
2	Ag 328.068†	-774.2	-223.9	-0.5214	µg/L	-0.5214	ppb	11:29:42
2	As 188.979†	-0.1	-1.9	-2.7245	µg/L	-2.7245	ppb	11:30:03
2	B 249.677†	460.1	172.3	-1.0215	µg/L	-1.0215	ppb	11:29:42
2	Ba 233.527†	4413.7	4501.2	111.08	µg/L	111.08	ppb	11:29:42
2	Be 313.107†	-1014.2	2572.1	1.3630	µg/L	1.3630	ppb	11:29:42
2	Cd 226.502†	-80.4	64.6	-0.0765	µg/L	-0.0765	ppb	11:30:03
2	Co 228.616†	200.2	211.8	8.5634	µg/L	8.5634	ppb	11:30:03
2	Cr 267.716†	804.1	863.9	17.996	µg/L	17.996	ppb	11:29:42
2	Cu 324.752†	4246.1	1861.0	14.463	µg/L	14.463	ppb	11:29:42
2	Mn 257.610†	178726.7	181480.8	592.10	µg/L	592.10	ppb	11:29:37
2	Mo 202.031†	5.6	10.5	1.6564	µg/L	1.6564	ppb	11:30:03
2	Ni 231.604†	515.7	220.4	11.571	µg/L	11.571	ppb	11:30:03
2	P 214.914†	97.6	72.4	133.91	µg/L	133.91	ppb	11:30:03
2	Pb 220.353†	186.4	102.1	25.437	µg/L	25.437	ppb	11:30:03

2	S 181.975 Axial†	40.7	23.8	99.044	µg/L	99.044 ppb	11:30:03
2	Sb 206.836†	22.6	-0.8	-1.0918	µg/L	-1.0918 ppb	11:30:03
2	Se 196.026†	8.4	-9.8	26.625	µg/L	26.625 ppb	11:30:03
2	SiO2†	36785.0	36006.5	7354.2	µg/L	7354.2 ppb	11:29:42
2	Si 251.611†	43492.2	43802.9	3423.2	µg/L	3423.2 ppb	11:29:42
2	Sn 189.927†	-3.2	-3.6	-3.0247	µg/L	-3.0247 ppb	11:30:03
2	Ti 334.940†	263817.7	267397.0	617.36	µg/L	617.36 ppb	11:29:37
2	Tl 190.801†	-27.4	-4.1	5.1017	µg/L	5.1017 ppb	11:30:03
2	U 409.014†	-110.6	-23.0	-4.2484	µg/L	-4.2484 ppb	11:29:42
2	V 292.402†	2816.2	2901.1	31.210	µg/L	31.210 ppb	11:29:42
2	Zn 213.857†	2239.5	1806.7	41.685	µg/L	41.685 ppb	11:30:03
3	Sc RADIAL	55814.3	55814.3	97.5	%		11:28:33
3	Al 396.153Radial†	12066.0	12406.0	8641.9	µg/L	8641.9 ppb	11:28:33
3	Ca 317.933Radial†	2267.9	2140.3	1857.9	µg/L	1857.9 ppb	11:28:53
3	Fe 238.204 Radial†	1906.6	1942.8	15348	µg/L	15348 ppb	11:28:53
3	K 766.490 Radial†	2641.4	2544.0	1751.1	µg/L	1751.1 ppb	11:28:33
3	Mg 279.077 IEC†	198.7	193.1	1693.5	µg/L	1693.5 ppb	11:28:53
3	Na 589.592 Radial†	704.0	208.6	64.903	µg/L	64.903 ppb	11:28:33
3	Sr 421.552†	2323.2	2358.5	23.274	µg/L	23.274 ppb	11:28:33
3	Sc 361.383	1943792.2	1943792.2	97.909	%		11:30:10
3	Y 371.029	1333433.7	1333433.7	97.731	%		11:30:10
3	Ag 328.068†	-733.1	-187.7	-0.2767	µg/L	-0.2767 ppb	11:30:15
3	As 188.979†	0.8	-1.0	-1.0668	µg/L	-1.0668 ppb	11:30:36
3	B 249.677†	449.6	164.9	-1.1824	µg/L	-1.1824 ppb	11:30:15
3	Ba 233.527†	4151.6	4266.3	105.28	µg/L	105.28 ppb	11:30:15
3	Be 313.107†	-1041.5	2536.6	1.3507	µg/L	1.3507 ppb	11:30:15
3	Cd 226.502†	-74.8	69.7	0.0866	µg/L	0.0866 ppb	11:30:36
3	Co 228.616†	174.8	187.4	7.4808	µg/L	7.4808 ppb	11:30:36
3	Cr 267.716†	750.2	814.7	16.972	µg/L	16.972 ppb	11:30:15
3	Cu 324.752†	4121.2	1765.1	13.791	µg/L	13.791 ppb	11:30:15
3	Mn 257.610†	171042.4	174960.0	570.86	µg/L	570.86 ppb	11:30:10
3	Mo 202.031†	2.8	7.7	1.3561	µg/L	1.3561 ppb	11:30:36
3	Ni 231.604†	478.6	186.4	9.8118	µg/L	9.8118 ppb	11:30:36
3	P 214.914†	78.0	53.1	95.404	µg/L	95.404 ppb	11:30:36
3	Pb 220.353†	163.4	80.0	19.921	µg/L	19.921 ppb	11:30:36
3	S 181.975 Axial†	36.4	19.7	82.137	µg/L	82.137 ppb	11:30:36
3	Sb 206.836†	30.4	7.4	6.4806	µg/L	6.4806 ppb	11:30:36
3	Se 196.026†	8.4	-9.8	25.852	µg/L	25.852 ppb	11:30:36
3	SiO2†	34789.4	34241.5	6993.7	µg/L	6993.7 ppb	11:30:15
3	Si 251.611†	41070.2	41652.3	3255.1	µg/L	3255.1 ppb	11:30:15
3	Sn 189.927†	-3.9	-4.3	-3.2873	µg/L	-3.2873 ppb	11:30:36
3	Ti 334.940†	251104.9	256372.3	591.89	µg/L	591.89 ppb	11:30:10
3	Tl 190.801†	-32.8	-9.8	-2.7670	µg/L	-2.7670 ppb	11:30:36
3	U 409.014†	-237.7	-153.6	-15.353	µg/L	-15.353 ppb	11:30:15
3	V 292.402†	2607.8	2709.2	29.221	µg/L	29.221 ppb	11:30:15
3	Zn 213.857†	2002.9	1581.6	36.399	µg/L	36.399 ppb	11:30:36

Mean Data: 1202030848|948032|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1955683.1	98.508	%	0.5494				0.56%
Sc RADIAL	55523.4	96.9	%	1.36				1.40%
Y 371.029	1341444.3	98.318	%	0.5355				0.54%
Ag 328.068†	-194.9	-0.3195	µg/L	0.18421	-0.3195	ppb	0.18421	57.65%
Al 396.153Radial†	12322.4	8583.7	µg/L	147.84	8583.7	ppb	147.84	1.72%
As 188.979†	-2.8	-4.3598	µg/L	4.34771	-4.3598	ppb	4.34771	99.72%
B 249.677†	177.3	-0.7021	µg/L	0.69728	-0.7021	ppb	0.69728	99.31%
Ba 233.527†	4421.7	109.12	µg/L	3.323	109.12	ppb	3.323	3.05%
Be 313.107†	2624.5	1.3990	µg/L	0.07326	1.3990	ppb	0.07326	5.24%
Ca 317.933Radial†	2153.2	1869.1	µg/L	27.94	1869.1	ppb	27.94	1.49%
Cd 226.502†	71.3	0.1211	µg/L	0.21688	0.1211	ppb	0.21688	179.15%
Co 228.616†	205.4	8.2852	µg/L	0.70757	8.2852	ppb	0.70757	8.54%
Cr 267.716†	851.0	17.728	µg/L	0.6646	17.728	ppb	0.6646	3.75%
Cu 324.752†	1831.5	14.238	µg/L	0.3870	14.238	ppb	0.3870	2.72%
Fe 238.204 Radial†	1950.0	15405	µg/L	198.5	15405	ppb	198.5	1.29%
K 766.490 Radial†	2483.2	1709.2	µg/L	36.49	1709.2	ppb	36.49	2.13%
Mg 279.077 IEC†	190.8	1673.2	µg/L	21.15	1673.2	ppb	21.15	1.26%
Mn 257.610†	179116.7	584.39	µg/L	11.751	584.39	ppb	11.751	2.01%
Mo 202.031†	8.3	1.4242	µg/L	0.20670	1.4242	ppb	0.20670	14.51%
Na 589.592 Radial†	225.6	70.208	µg/L	11.0196	70.208	ppb	11.0196	15.70%

Ni 231.604†	208.5	10.956 µg/L	0.9917	10.956 ppb	0.9917	9.05%
P 214.914†	62.1	113.49 µg/L	19.358	113.49 ppb	19.358	17.06%
Pb 220.353†	90.3	22.504 µg/L	2.7748	22.504 ppb	2.7748	12.33%
S 181.975 Axial†	22.1	92.057 µg/L	8.8268	92.057 ppb	8.8268	9.59%
Sb 206.836†	6.2	5.4346 µg/L	6.07137	5.4346 ppb	6.07137	111.72%
Se 196.026†	-10.7	24.765 µg/L	2.5800	24.765 ppb	2.5800	10.42%
SiO2†	35357.5	7221.7 µg/L	198.28	7221.7 ppb	198.28	2.75%
Si 251.611†	43001.5	3360.6 µg/L	91.85	3360.6 ppb	91.85	2.73%
Sn 189.927†	-5.9	-4.0133 µg/L	1.49065	-4.0133 ppb	1.49065	37.14%
Sr 421.552†	2326.3	22.956 µg/L	0.4115	22.956 ppb	0.4115	1.79%
Ti 334.940†	263485.9	608.32 µg/L	14.251	608.32 ppb	14.251	2.34%
Tl 190.801†	-7.6	0.3712 µg/L	4.16901	0.3712 ppb	4.16901	>999.9%
U 409.014†	-109.2	-11.577 µg/L	6.3474	-11.577 ppb	6.3474	54.83%
V 292.402†	2836.4	30.520 µg/L	1.1256	30.520 ppb	1.1256	3.69%
Zn 213.857†	1732.6	39.950 µg/L	3.0755	39.950 ppb	3.0755	7.70%

Sequence No.: 28
Sample ID: 245688002|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 408
Date Collected: 2/12/2010 11:30:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688002|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55899.3	55899.3	97.6	%			11:31:18
1	Al 396.153Radial†	66347.9	68004.5	47371	µg/L	47371	ppb	11:31:18
1	Ca 317.933Radial†	7996.2	8006.0	6949.7	µg/L	6949.7	ppb	11:31:38
1	Fe 238.204 Radial†	13552.3	13872.1	109590	µg/L	109590	ppb	11:31:18
1	K 766.490 Radial†	9301.5	9363.8	6445.3	µg/L	6445.3	ppb	11:31:18
1	Mg 279.077 IEC†	763.5	771.5	6714.5	µg/L	6714.5	ppb	11:31:38
1	Na 589.592 Radial†	6091.0	5727.1	1782.1	µg/L	1782.1	ppb	11:31:18
1	Sr 421.552†	7080.1	7228.9	71.335	µg/L	71.335	ppb	11:31:18
1	Sc 361.383	1965419.6	1965419.6	98.998	%			11:32:43
1	Y 371.029	1462129.6	1462129.6	107.16	%			11:32:43
1	Ag 328.068†	-1886.0	-1344.0	-2.9193	µg/L	-2.9193	ppb	11:32:48
1	As 188.979†	12.6	10.9	26.050	µg/L	26.050	ppb	11:33:09
1	B 249.677†	890.0	604.8	-32.079	µg/L	-32.079	ppb	11:32:48
1	Ba 233.527†	18105.9	18315.1	451.86	µg/L	451.86	ppb	11:32:48
1	Be 313.107†	8370.8	12055.9	6.7058	µg/L	6.7058	ppb	11:32:48
1	Cd 226.502†	202.4	350.6	-3.1993	µg/L	-3.1993	ppb	11:33:09
1	Co 228.616†	822.5	839.7	34.757	µg/L	34.757	ppb	11:33:09
1	Cr 267.716†	5113.9	5214.2	108.54	µg/L	108.54	ppb	11:32:48
1	Cu 324.752†	5858.4	3473.5	38.174	µg/L	38.174	ppb	11:32:48
1	Mn 257.610†	808705.9	817152.9	2671.3	µg/L	2671.3	ppb	11:32:43
1	Mo 202.031†	75.9	81.5	12.393	µg/L	12.393	ppb	11:33:09
1	Ni 231.604†	1817.5	1533.4	80.550	µg/L	80.550	ppb	11:33:09
1	P 214.914†	328.4	305.2	535.21	µg/L	535.21	ppb	11:33:09
1	Pb 220.353†	313.6	229.8	56.224	µg/L	56.224	ppb	11:33:09
1	S 181.975 Axial†	42.4	25.4	105.51	µg/L	105.51	ppb	11:33:09
1	Sb 206.836†	24.5	1.0	-0.7362	µg/L	-0.7362	ppb	11:33:09
1	Se 196.026†	-42.6	-61.4	203.42	µg/L	203.42	ppb	11:33:09
1	SiO2†	176357.1	176850.5	36121	µg/L	36121	ppb	11:32:48
1	Si 251.611†	219032.4	220953.4	17268	µg/L	17268	ppb	11:32:43
1	Sn 189.927†	-6.5	-6.9	-13.888	µg/L	-13.888	ppb	11:33:09
1	Ti 334.940†	884146.9	892997.2	2061.6	µg/L	2061.6	ppb	11:32:43
1	Tl 190.801†	-53.4	-30.2	7.3440	µg/L	7.3440	ppb	11:33:09
1	U 409.014†	-2449.9	-2385.6	-219.20	µg/L	-219.20	ppb	11:32:43
1	V 292.402†	5546.8	5648.6	70.096	µg/L	70.096	ppb	11:32:48
1	Zn 213.857†	21719.6	21475.3	500.29	µg/L	500.29	ppb	11:32:48
2	Sc RADIAL	57046.0	57046.0	99.6	%			11:31:44
2	Al 396.153Radial†	66162.2	66451.6	46289	µg/L	46289	ppb	11:31:44
2	Ca 317.933Radial†	7983.3	7828.4	6795.6	µg/L	6795.6	ppb	11:32:04
2	Fe 238.204 Radial†	13562.2	13602.9	107460	µg/L	107460	ppb	11:31:44
2	K 766.490 Radial†	9310.2	9181.0	6319.5	µg/L	6319.5	ppb	11:31:44
2	Mg 279.077 IEC†	766.4	758.7	6603.3	µg/L	6603.3	ppb	11:32:04
2	Na 589.592 Radial†	6095.5	5606.2	1744.4	µg/L	1744.4	ppb	11:31:44
2	Sr 421.552†	7112.0	7115.1	70.213	µg/L	70.213	ppb	11:31:44
2	Sc 361.383	1943953.6	1943953.6	97.917	%			11:33:16
2	Y 371.029	1444867.1	1444867.1	105.90	%			11:33:16
2	Ag 328.068†	-1918.1	-1397.8	-3.4541	µg/L	-3.4541	ppb	11:33:22
2	As 188.979†	3.0	1.2	8.0918	µg/L	8.0918	ppb	11:33:43
2	B 249.677†	916.3	641.5	-29.451	µg/L	-29.451	ppb	11:33:22
2	Ba 233.527†	18347.6	18763.9	462.93	µg/L	462.93	ppb	11:33:22
2	Be 313.107†	8416.4	12195.8	6.7869	µg/L	6.7869	ppb	11:33:22
2	Cd 226.502†	202.3	352.8	-2.9012	µg/L	-2.9012	ppb	11:33:43
2	Co 228.616†	825.8	852.2	35.310	µg/L	35.310	ppb	11:33:43
2	Cr 267.716†	5174.4	5333.0	111.02	µg/L	111.02	ppb	11:33:22
2	Cu 324.752†	5867.3	3548.0	38.370	µg/L	38.370	ppb	11:33:22
2	Mn 257.610†	806895.8	824324.7	2694.4	µg/L	2694.4	ppb	11:33:16
2	Mo 202.031†	84.1	90.7	13.236	µg/L	13.236	ppb	11:33:43
2	Ni 231.604†	1815.7	1551.8	81.472	µg/L	81.472	ppb	11:33:43
2	P 214.914†	304.0	283.9	493.79	µg/L	493.79	ppb	11:33:43
2	Pb 220.353†	316.0	235.8	57.748	µg/L	57.748	ppb	11:33:43

2	S 181.975 Axial†	48.0	31.6	131.37 µg/L	131.37 ppb	11:33:43
2	Sb 206.836†	33.4	10.4	7.9484 µg/L	7.9484 ppb	11:33:43
2	Se 196.026†	-41.3	-60.5	198.95 µg/L	198.95 ppb	11:33:43
2	SiO2†	178362.9	180866.1	36941 µg/L	36941 ppb	11:33:22
2	Si 251.611†	217955.2	222296.5	17373 µg/L	17373 ppb	11:33:16
2	Sn 189.927†	-6.7	-7.1	-13.783 µg/L	-13.783 ppb	11:33:43
2	Ti 334.940†	881085.8	899732.9	2077.2 µg/L	2077.2 ppb	11:33:16
2	Tl 190.801†	-48.9	-26.2	12.471 µg/L	12.471 ppb	11:33:43
2	U 409.014†	-2433.2	-2395.9	-219.77 µg/L	-219.77 ppb	11:33:16
2	V 292.402†	5603.5	5768.4	71.068 µg/L	71.068 ppb	11:33:22
2	Zn 213.857†	21967.7	21971.0	512.08 µg/L	512.08 ppb	11:33:22
3	Sc RADIAL	56272.8	56272.8	98.3 %		11:32:10
3	Al 396.153Radial†	66480.1	67687.9	47151 µg/L	47151 ppb	11:32:10
3	Ca 317.933Radial†	7952.2	7906.9	6863.7 µg/L	6863.7 ppb	11:32:30
3	Fe 238.204 Radial†	13553.7	13781.3	108870 µg/L	108870 ppb	11:32:10
3	K 766.490 Radial†	9300.5	9299.5	6401.0 µg/L	6401.0 ppb	11:32:10
3	Mg 279.077 IEC†	763.1	765.8	6665.1 µg/L	6665.1 ppb	11:32:30
3	Na 589.592 Radial†	6094.1	5688.8	1770.2 µg/L	1770.2 ppb	11:32:10
3	Sr 421.552†	7099.1	7200.1	71.051 µg/L	71.051 ppb	11:32:10
3	Sc 361.383	1950227.9	1950227.9	98.233 %		11:33:50
3	Y 371.029	1446087.7	1446087.7	105.99 %		11:33:50
3	Ag 328.068†	-1858.6	-1331.0	-2.8730 µg/L	-2.8730 ppb	11:33:56
3	As 188.979†	9.2	7.6	19.859 µg/L	19.859 ppb	11:34:16
3	B 249.677†	923.2	645.5	-30.029 µg/L	-30.029 ppb	11:33:56
3	Ba 233.527†	17727.7	18072.5	445.87 µg/L	445.87 ppb	11:33:56
3	Be 313.107†	7999.2	11743.5	6.5265 µg/L	6.5265 ppb	11:33:56
3	Cd 226.502†	181.6	331.1	-3.6296 µg/L	-3.6296 ppb	11:34:16
3	Co 228.616†	768.0	790.7	32.560 µg/L	32.560 ppb	11:34:16
3	Cr 267.716†	4950.8	5088.4	105.93 µg/L	105.93 ppb	11:33:56
3	Cu 324.752†	5767.9	3427.5	37.770 µg/L	37.770 ppb	11:33:56
3	Mn 257.610†	789765.8	804235.4	2629.2 µg/L	2629.2 ppb	11:33:50
3	Mo 202.031†	74.2	80.3	12.247 µg/L	12.247 ppb	11:34:16
3	Ni 231.604†	1719.8	1448.3	76.148 µg/L	76.148 ppb	11:34:16
3	P 214.914†	302.8	281.6	488.49 µg/L	488.49 ppb	11:34:16
3	Pb 220.353†	302.6	221.1	54.039 µg/L	54.039 ppb	11:34:16
3	S 181.975 Axial†	42.1	25.4	105.52 µg/L	105.52 ppb	11:34:16
3	Sb 206.836†	31.7	8.6	6.2700 µg/L	6.2700 ppb	11:34:16
3	Se 196.026†	-32.3	-51.3	216.06 µg/L	216.06 ppb	11:34:16
3	SiO2†	172991.1	174811.6	35705 µg/L	35705 ppb	11:33:56
3	Si 251.611†	214170.4	217727.4	17015 µg/L	17015 ppb	11:33:50
3	Sn 189.927†	-10.2	-10.6	-15.457 µg/L	-15.457 ppb	11:34:16
3	Ti 334.940†	860736.1	876122.2	2022.7 µg/L	2022.7 ppb	11:33:50
3	Tl 190.801†	-47.9	-25.0	13.578 µg/L	13.578 ppb	11:34:16
3	U 409.014†	-2352.7	-2305.9	-212.30 µg/L	-212.30 ppb	11:33:50
3	V 292.402†	5403.1	5545.9	68.973 µg/L	68.973 ppb	11:33:56
3	Zn 213.857†	21319.7	21239.1	494.78 µg/L	494.78 ppb	11:33:56

Mean Data: 245688002|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1953200.4	98.383	%	0.5560				0.57%
Sc RADIAL	56406.0	98.5	%	1.02				1.04%
Y 371.029	1451028.1	106.35	%	0.706				0.66%
Ag 328.068†	-1357.6	-3.0821	µg/L	0.32295	-3.0821	ppb	0.32295	10.48%
Al 396.153Radial†	67381.3	46937	µg/L	571.6	46937	ppb	571.6	1.22%
As 188.979†	6.6	18.000	µg/L	9.1223	18.000	ppb	9.1223	50.68%
B 249.677†	630.6	-30.520	µg/L	1.3810	-30.520	ppb	1.3810	4.52%
Ba 233.527†	18383.8	453.55	µg/L	8.654	453.55	ppb	8.654	1.91%
Be 313.107†	11998.4	6.6731	µg/L	0.13322	6.6731	ppb	0.13322	2.00%
Ca 317.933Radial†	7913.8	6869.7	µg/L	77.25	6869.7	ppb	77.25	1.12%
Cd 226.502†	344.8	-3.2434	µg/L	0.36619	-3.2434	ppb	0.36619	11.29%
Co 228.616†	827.5	34.209	µg/L	1.4546	34.209	ppb	1.4546	4.25%
Cr 267.716†	5211.9	108.50	µg/L	2.546	108.50	ppb	2.546	2.35%
Cu 324.752†	3483.0	38.104	µg/L	0.3057	38.104	ppb	0.3057	0.80%
Fe 238.204 Radial†	13752.1	108640	µg/L	1082.0	108640	ppb	1082.0	1.00%
K 766.490 Radial†	9281.5	6388.6	µg/L	63.83	6388.6	ppb	63.83	1.00%
Mg 279.077 IEC†	765.3	6661.0	µg/L	55.74	6661.0	ppb	55.74	0.84%
Mn 257.610†	815237.7	2665.0	µg/L	33.03	2665.0	ppb	33.03	1.24%
Mo 202.031†	84.2	12.625	µg/L	0.5342	12.625	ppb	0.5342	4.23%
Na 589.592 Radial†	5674.0	1765.6	µg/L	19.23	1765.6	ppb	19.23	1.09%

Ni 231.604†	1511.2	79.390 µg/L	2.8451	79.390 ppb	2.8451	3.58%
P 214.914†	290.2	505.83 µg/L	25.587	505.83 ppb	25.587	5.06%
Pb 220.353†	228.9	56.004 µg/L	1.8645	56.004 ppb	1.8645	3.33%
S 181.975 Axial†	27.4	114.13 µg/L	14.928	114.13 ppb	14.928	13.08%
Sb 206.836†	6.7	4.4941 µg/L	4.60664	4.4941 ppb	4.60664	102.50%
Se 196.026†	-57.7	206.14 µg/L	8.871	206.14 ppb	8.871	4.30%
SiO2†	177509.4	36256 µg/L	629.2	36256 ppb	629.2	1.74%
Si 251.611†	220325.8	17219 µg/L	183.5	17219 ppb	183.5	1.07%
Sn 189.927†	-8.2	-14.376 µg/L	0.9376	-14.376 ppb	0.9376	6.52%
Sr 421.552†	7181.4	70.866 µg/L	0.5837	70.866 ppb	0.5837	0.82%
Ti 334.940†	889617.4	2053.8 µg/L	28.09	2053.8 ppb	28.09	1.37%
Tl 190.801†	-27.1	11.131 µg/L	3.3261	11.131 ppb	3.3261	29.88%
U 409.014†	-2362.5	-217.09 µg/L	4.162	-217.09 ppb	4.162	1.92%
V 292.402†	5654.3	70.046 µg/L	1.0482	70.046 ppb	1.0482	1.50%
Zn 213.857†	21561.8	502.38 µg/L	8.838	502.38 ppb	8.838	1.76%

Sequence No.: 29
Sample ID: 245688003|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 409
Date Collected: 2/12/2010 11:34:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688003|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56559.7	56559.7	98.8	%			11:34:58
1	Al 396.153Radial†	86729.3	87849.8	61195	µg/L	61195	ppb	11:34:58
1	Ca 317.933Radial†	18881.9	18933.7	16436	µg/L	16436	ppb	11:34:58
1	Fe 238.204 Radial†	13870.3	14032.0	110850	µg/L	110850	ppb	11:34:58
1	K 766.490 Radial†	11160.7	11135.3	7664.6	µg/L	7664.6	ppb	11:34:58
1	Mg 279.077 IEC†	1089.2	1092.2	9553.2	µg/L	9553.2	ppb	11:35:18
1	Na 589.592 Radial†	6369.1	5935.9	1847.0	µg/L	1847.0	ppb	11:34:58
1	Sr 421.552†	12803.8	12940.2	127.70	µg/L	127.70	ppb	11:34:58
1	Sc 361.383	1959919.1	1959919.1	98.721	%			11:36:23
1	Y 371.029	1426663.9	1426663.9	104.56	%			11:36:23
1	Ag 328.068†	-1896.6	-1360.1	-2.9113	µg/L	-2.9113	ppb	11:36:28
1	As 188.979†	3.9	2.1	9.4986	µg/L	9.4986	ppb	11:36:49
1	B 249.677†	1000.0	718.7	-27.939	µg/L	-27.939	ppb	11:36:28
1	Ba 233.527†	28931.9	29332.7	723.63	µg/L	723.63	ppb	11:36:28
1	Be 313.107†	13316.8	17089.6	9.9363	µg/L	9.9363	ppb	11:36:28
1	Cd 226.502†	204.3	353.1	-3.2495	µg/L	-3.2495	ppb	11:36:49
1	Co 228.616†	770.9	789.8	33.001	µg/L	33.001	ppb	11:36:49
1	Cr 267.716†	8089.7	8243.0	171.58	µg/L	171.58	ppb	11:36:28
1	Cu 324.752†	5807.7	3438.8	38.120	µg/L	38.120	ppb	11:36:28
1	Mn 257.610†	916918.0	929059.1	3035.2	µg/L	3035.2	ppb	11:36:23
1	Mo 202.031†	120.9	127.3	17.062	µg/L	17.062	ppb	11:36:49
1	Ni 231.604†	2328.3	2055.9	107.55	µg/L	107.55	ppb	11:36:49
1	P 214.914†	370.7	348.8	625.99	µg/L	625.99	ppb	11:36:49
1	Pb 220.353†	300.1	217.1	53.717	µg/L	53.717	ppb	11:36:49
1	S 181.975 Axial†	75.6	59.1	245.97	µg/L	245.97	ppb	11:36:49
1	Sb 206.836†	35.6	12.4	8.3080	µg/L	8.3080	ppb	11:36:49
1	Se 196.026†	-37.3	-56.1	209.24	µg/L	209.24	ppb	11:36:49
1	SiO2†	200138.6	201440.0	41143	µg/L	41143	ppb	11:36:23
1	Si 251.611†	242135.9	244977.1	19145	µg/L	19145	ppb	11:36:23
1	Sn 189.927†	-2.9	-3.2	-12.175	µg/L	-12.175	ppb	11:36:49
1	Ti 334.940†	766553.2	776386.7	1792.3	µg/L	1792.3	ppb	11:36:23
1	Tl 190.801†	-54.6	-31.6	5.1093	µg/L	5.1093	ppb	11:36:49
1	U 409.014†	-2114.4	-2052.7	-191.55	µg/L	-191.55	ppb	11:36:23
1	V 292.402†	6283.9	6410.9	78.160	µg/L	78.160	ppb	11:36:28
1	Zn 213.857†	11837.6	11526.9	265.42	µg/L	265.42	ppb	11:36:28
2	Sc RADIAL	56790.9	56790.9	99.2	%			11:35:24
2	Al 396.153Radial†	87392.5	88161.2	61412	µg/L	61412	ppb	11:35:24
2	Ca 317.933Radial†	19076.1	19051.7	16538	µg/L	16538	ppb	11:35:24
2	Fe 238.204 Radial†	13910.2	14015.0	110720	µg/L	110720	ppb	11:35:24
2	K 766.490 Radial†	11282.3	11211.9	7717.4	µg/L	7717.4	ppb	11:35:24
2	Mg 279.077 IEC†	1086.0	1084.4	9484.9	µg/L	9484.9	ppb	11:35:44
2	Na 589.592 Radial†	6462.1	6003.3	1868.0	µg/L	1868.0	ppb	11:35:24
2	Sr 421.552†	12945.3	13030.2	128.58	µg/L	128.58	ppb	11:35:24
2	Sc 361.383	1968717.5	1968717.5	99.164	%			11:36:56
2	Y 371.029	1433068.3	1433068.3	105.03	%			11:36:56
2	Ag 328.068†	-1923.3	-1378.5	-3.0558	µg/L	-3.0558	ppb	11:37:02
2	As 188.979†	11.1	9.4	22.770	µg/L	22.770	ppb	11:37:23
2	B 249.677†	1027.1	741.5	-26.929	µg/L	-26.929	ppb	11:37:02
2	Ba 233.527†	29253.2	29525.7	728.39	µg/L	728.39	ppb	11:37:02
2	Be 313.107†	13379.3	17092.4	9.9348	µg/L	9.9348	ppb	11:37:02
2	Cd 226.502†	209.3	357.2	-3.1285	µg/L	-3.1285	ppb	11:37:23
2	Co 228.616†	775.7	791.1	33.047	µg/L	33.047	ppb	11:37:23
2	Cr 267.716†	8200.3	8318.0	173.14	µg/L	173.14	ppb	11:37:02
2	Cu 324.752†	5866.0	3471.3	38.316	µg/L	38.316	ppb	11:37:02
2	Mn 257.610†	924694.5	932750.3	3047.2	µg/L	3047.2	ppb	11:36:56
2	Mo 202.031†	126.3	132.2	17.549	µg/L	17.549	ppb	11:37:23
2	Ni 231.604†	2335.2	2052.4	107.36	µg/L	107.36	ppb	11:37:23
2	P 214.914†	370.9	347.4	623.14	µg/L	623.14	ppb	11:37:23
2	Pb 220.353†	291.1	206.7	51.118	µg/L	51.118	ppb	11:37:23

2	S 181.975 Axial†	81.1	64.4	267.68 µg/L	267.68 ppb	11:37:23
2	Sb 206.836†	38.1	14.8	10.519 µg/L	10.519 ppb	11:37:23
2	Se 196.026†	-40.2	-58.9	204.91 µg/L	204.91 ppb	11:37:23
2	SiO2†	202157.2	202569.6	41374 µg/L	41374 ppb	11:36:56
2	Si 251.611†	244359.3	246123.1	19235 µg/L	19235 ppb	11:36:56
2	Sn 189.927†	-9.5	-9.9	-15.055 µg/L	-15.055 ppb	11:37:23
2	Ti 334.940†	773762.7	780186.8	1801.1 µg/L	1801.1 ppb	11:36:56
2	Tl 190.801†	-48.0	-24.7	14.350 µg/L	14.350 ppb	11:37:23
2	U 409.014†	-1992.1	-1919.8	-180.20 µg/L	-180.20 ppb	11:36:56
2	V 292.402†	6361.8	6461.1	78.670 µg/L	78.670 ppb	11:37:02
2	Zn 213.857†	11932.5	11569.0	266.43 µg/L	266.43 ppb	11:37:02
3	Sc RADIAL	56302.6	56302.6	98.3 %		11:35:50
3	Al 396.153Radial†	87146.2	88675.0	61770 µg/L	61770 ppb	11:35:50
3	Ca 317.933Radial†	18872.8	19011.8	16503 µg/L	16503 ppb	11:35:50
3	Fe 238.204 Radial†	13831.1	14056.2	111040 µg/L	111040 ppb	11:35:50
3	K 766.490 Radial†	11254.3	11282.1	7765.6 µg/L	7765.6 ppb	11:35:50
3	Mg 279.077 IEC†	1097.4	1105.5	9671.0 µg/L	9671.0 ppb	11:36:10
3	Na 589.592 Radial†	6405.6	6002.4	1867.7 µg/L	1867.7 ppb	11:35:50
3	Sr 421.552†	12859.7	13056.3	128.84 µg/L	128.84 ppb	11:35:50
3	Sc 361.383	1989595.6	1989595.6	100.22 %		11:37:31
3	Y 371.029	1443302.2	1443302.2	105.78 %		11:37:31
3	Ag 328.068†	-1831.8	-1266.8	-2.2158 µg/L	-2.2158 ppb	11:37:36
3	As 188.979†	10.3	8.5	21.161 µg/L	21.161 ppb	11:37:57
3	B 249.677†	961.8	665.5	-30.253 µg/L	-30.253 ppb	11:37:36
3	Ba 233.527†	27849.5	27815.5	686.20 µg/L	686.20 ppb	11:37:36
3	Be 313.107†	12408.1	15981.7	9.2766 µg/L	9.2766 ppb	11:37:36
3	Cd 226.502†	182.5	328.3	-3.9251 µg/L	-3.9251 ppb	11:37:57
3	Co 228.616†	728.8	736.1	30.662 µg/L	30.662 ppb	11:37:57
3	Cr 267.716†	7692.9	7724.8	160.79 µg/L	160.79 ppb	11:37:36
3	Cu 324.752†	5660.7	3204.3	36.598 µg/L	36.598 ppb	11:37:36
3	Mn 257.610†	895015.3	893350.0	2919.1 µg/L	2919.1 ppb	11:37:31
3	Mo 202.031†	115.9	120.5	16.377 µg/L	16.377 ppb	11:37:57
3	Ni 231.604†	2198.1	1890.9	99.033 µg/L	99.033 ppb	11:37:57
3	P 214.914†	351.7	324.3	576.76 µg/L	576.76 ppb	11:37:57
3	Pb 220.353†	294.8	207.3	51.285 µg/L	51.285 ppb	11:37:57
3	S 181.975 Axial†	78.3	60.7	252.48 µg/L	252.48 ppb	11:37:57
3	Sb 206.836†	32.5	8.8	5.0466 µg/L	5.0466 ppb	11:37:57
3	Se 196.026†	-38.2	-56.5	209.12 µg/L	209.12 ppb	11:37:57
3	SiO2†	196424.8	194710.3	39769 µg/L	39769 ppb	11:37:31
3	Si 251.611†	237193.7	236387.1	18474 µg/L	18474 ppb	11:37:31
3	Sn 189.927†	-14.3	-14.6	-17.090 µg/L	-17.090 ppb	11:37:57
3	Ti 334.940†	745480.2	743777.3	1717.0 µg/L	1717.0 ppb	11:37:31
3	Tl 190.801†	-51.2	-27.3	9.6852 µg/L	9.6852 ppb	11:37:57
3	U 409.014†	-2047.4	-1953.8	-183.15 µg/L	-183.15 ppb	11:37:31
3	V 292.402†	6002.8	6035.5	74.367 µg/L	74.367 ppb	11:37:36
3	Zn 213.857†	11463.4	10974.6	252.43 µg/L	252.43 ppb	11:37:36

Mean Data: 245688003|948032|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1972744.1	99.367	%	0.7678				0.77%
Sc RADIAL	56551.1	98.7	%	0.43				0.43%
Y 371.029	1434344.8	105.13	%	0.615				0.59%
Ag 328.068†	-1335.1	-2.7276	µg/L	0.44909	-2.7276	ppb	0.44909	16.46%
Al 396.153Radial†	88228.7	61459	µg/L	290.3	61459	ppb	290.3	0.47%
As 188.979†	6.7	17.810	µg/L	7.2427	17.810	ppb	7.2427	40.67%
B 249.677†	708.6	-28.373	µg/L	1.7040	-28.373	ppb	1.7040	6.01%
Ba 233.527†	28891.3	712.74	µg/L	23.107	712.74	ppb	23.107	3.24%
Be 313.107†	16721.2	9.7159	µg/L	0.38047	9.7159	ppb	0.38047	3.92%
Ca 317.933Radial†	18999.1	16492	µg/L	52.1	16492	ppb	52.1	0.32%
Cd 226.502†	346.2	-3.4344	µg/L	0.42925	-3.4344	ppb	0.42925	12.50%
Co 228.616†	772.3	32.237	µg/L	1.3642	32.237	ppb	1.3642	4.23%
Cr 267.716†	8095.3	168.50	µg/L	6.723	168.50	ppb	6.723	3.99%
Cu 324.752†	3371.4	37.678	µg/L	0.9405	37.678	ppb	0.9405	2.50%
Fe 238.204 Radial†	14034.4	110870	µg/L	163.3	110870	ppb	163.3	0.15%
K 766.490 Radial†	11209.8	7715.9	µg/L	50.53	7715.9	ppb	50.53	0.65%
Mg 279.077 IEC†	1094.0	9569.7	µg/L	94.11	9569.7	ppb	94.11	0.98%
Mn 257.610†	918386.5	3000.5	µg/L	70.74	3000.5	ppb	70.74	2.36%
Mo 202.031†	126.7	16.996	µg/L	0.5892	16.996	ppb	0.5892	3.47%
Na 589.592 Radial†	5980.5	1860.9	µg/L	12.03	1860.9	ppb	12.03	0.65%

Ni 231.604†	1999.7	104.65	µg/L	4.864	104.65	ppb	4.864	4.65%
P 214.914†	340.2	608.63	µg/L	27.634	608.63	ppb	27.634	4.54%
Pb 220.353†	210.3	52.040	µg/L	1.4548	52.040	ppb	1.4548	2.80%
S 181.975 Axial†	61.4	255.38	µg/L	11.146	255.38	ppb	11.146	4.36%
Sb 206.836†	12.0	7.9580	µg/L	2.75315	7.9580	ppb	2.75315	34.60%
Se 196.026†	-57.2	207.76	µg/L	2.468	207.76	ppb	2.468	1.19%
SiO2†	199573.3	40762	µg/L	867.9	40762	ppb	867.9	2.13%
Si 251.611†	242495.8	18951	µg/L	415.9	18951	ppb	415.9	2.19%
Sn 189.927†	-9.2	-14.773	µg/L	2.4693	-14.773	ppb	2.4693	16.71%
Sr 421.552†	13008.9	128.37	µg/L	0.601	128.37	ppb	0.601	0.47%
Ti 334.940†	766783.6	1770.1	µg/L	46.22	1770.1	ppb	46.22	2.61%
Tl 190.801†	-27.8	9.7149	µg/L	4.62051	9.7149	ppb	4.62051	47.56%
U 409.014†	-1975.4	-184.96	µg/L	5.891	-184.96	ppb	5.891	3.19%
V 292.402†	6302.5	77.066	µg/L	2.3513	77.066	ppb	2.3513	3.05%
Zn 213.857†	11356.8	261.42	µg/L	7.808	261.42	ppb	7.808	2.99%

Sequence No.: 30
Sample ID: 245688004|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 410
Date Collected: 2/12/2010 11:38:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688004|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57318.7	57318.7	100	%			11:38:39
1	Al 396.153Radial†	114653.7	114589.8	79822	µg/L	79822	ppb	11:38:39
1	Ca 317.933Radial†	15380.3	15181.6	13179	µg/L	13179	ppb	11:38:39
1	Fe 238.204 Radial†	11749.5	11726.8	92642	µg/L	92642	ppb	11:39:00
1	K 766.490 Radial†	14452.9	14275.3	9826.0	µg/L	9826.0	ppb	11:38:39
1	Mg 279.077 IEC†	1357.1	1345.2	11813	µg/L	11813	ppb	11:39:00
1	Na 589.592 Radial†	2557.7	2041.9	635.38	µg/L	635.38	ppb	11:38:39
1	Sr 421.552†	13788.8	13752.8	135.71	µg/L	135.71	ppb	11:38:39
1	Sc 361.383	1981366.3	1981366.3	99.802	%			11:40:04
1	Y 371.029	1391423.5	1391423.5	101.98	%			11:40:04
1	Ag 328.068†	-1815.1	-1257.7	-2.8896	µg/L	-2.8896	ppb	11:40:10
1	As 188.979†	8.9	7.1	17.801	µg/L	17.801	ppb	11:40:30
1	B 249.677†	1053.3	761.1	-16.698	µg/L	-16.698	ppb	11:40:10
1	Ba 233.527†	35653.3	35750.2	882.03	µg/L	882.03	ppb	11:40:10
1	Be 313.107†	10498.7	14119.9	7.8835	µg/L	7.8835	ppb	11:40:10
1	Cd 226.502†	169.4	315.9	-2.1676	µg/L	-2.1676	ppb	11:40:30
1	Co 228.616†	711.1	721.4	28.673	µg/L	28.673	ppb	11:40:30
1	Cr 267.716†	7939.4	8003.8	166.64	µg/L	166.64	ppb	11:40:10
1	Cu 324.752†	8755.2	6328.4	54.673	µg/L	54.673	ppb	11:40:10
1	Mn 257.610†	814869.3	816753.9	2667.6	µg/L	2667.6	ppb	11:40:04
1	Mo 202.031†	6.6	11.4	4.6748	µg/L	4.6748	ppb	11:40:30
1	Ni 231.604†	2178.2	1880.0	98.232	µg/L	98.232	ppb	11:40:30
1	P 214.914†	257.7	231.6	408.57	µg/L	408.57	ppb	11:40:30
1	Pb 220.353†	413.3	327.2	82.869	µg/L	82.869	ppb	11:40:30
1	S 181.975 Axial†	99.2	82.0	340.84	µg/L	340.84	ppb	11:40:30
1	Sb 206.836†	37.4	13.8	9.7183	µg/L	9.7183	ppb	11:40:30
1	Se 196.026†	-23.4	-41.8	178.95	µg/L	178.95	ppb	11:40:30
1	SiO2†	228195.1	227357.8	46437	µg/L	46437	ppb	11:40:04
1	Si 251.611†	275843.7	276097.0	21577	µg/L	21577	ppb	11:40:04
1	Sn 189.927†	-9.4	-9.7	-12.764	µg/L	-12.764	ppb	11:40:30
1	Ti 334.940†	1010354.9	1012268.1	2336.7	µg/L	2336.7	ppb	11:40:04
1	Tl 190.801†	-57.1	-33.5	5.2613	µg/L	5.2613	ppb	11:40:30
1	U 409.014†	-1055.1	-968.1	-96.282	µg/L	-96.282	ppb	11:40:04
1	V 292.402†	12209.1	12279.0	135.32	µg/L	135.32	ppb	11:40:10
1	Zn 213.857†	9889.5	9445.1	217.09	µg/L	217.09	ppb	11:40:10
2	Sc RADIAL	57351.6	57351.6	100	%			11:39:05
2	Al 396.153Radial†	115264.0	115133.6	80201	µg/L	80201	ppb	11:39:05
2	Ca 317.933Radial†	15412.8	15205.3	13199	µg/L	13199	ppb	11:39:05
2	Fe 238.204 Radial†	11719.2	11689.8	92349	µg/L	92349	ppb	11:39:26
2	K 766.490 Radial†	14550.0	14364.0	9887.0	µg/L	9887.0	ppb	11:39:05
2	Mg 279.077 IEC†	1357.2	1344.5	11808	µg/L	11808	ppb	11:39:26
2	Na 589.592 Radial†	2539.8	2022.6	629.36	µg/L	629.36	ppb	11:39:05
2	Sr 421.552†	13850.0	13806.0	136.24	µg/L	136.24	ppb	11:39:05
2	Sc 361.383	1974473.0	1974473.0	99.454	%			11:40:38
2	Y 371.029	1387408.4	1387408.4	101.69	%			11:40:38
2	Ag 328.068†	-1678.5	-1126.7	-1.9189	µg/L	-1.9189	ppb	11:40:44
2	As 188.979†	16.3	14.5	31.374	µg/L	31.374	ppb	11:41:04
2	B 249.677†	1052.3	763.8	-16.433	µg/L	-16.433	ppb	11:40:44
2	Ba 233.527†	35255.0	35474.5	875.22	µg/L	875.22	ppb	11:40:44
2	Be 313.107†	10450.2	14107.9	7.8741	µg/L	7.8741	ppb	11:40:44
2	Cd 226.502†	167.9	315.0	-2.1565	µg/L	-2.1565	ppb	11:41:04
2	Co 228.616†	708.5	721.2	28.658	µg/L	28.658	ppb	11:41:04
2	Cr 267.716†	7900.4	7992.3	166.40	µg/L	166.40	ppb	11:40:44
2	Cu 324.752†	8685.4	6288.8	54.371	µg/L	54.371	ppb	11:40:44
2	Mn 257.610†	815196.9	819933.8	2677.9	µg/L	2677.9	ppb	11:40:38
2	Mo 202.031†	17.0	22.0	5.7254	µg/L	5.7254	ppb	11:41:04
2	Ni 231.604†	2189.7	1899.2	99.220	µg/L	99.220	ppb	11:41:04
2	P 214.914†	266.6	241.4	428.69	µg/L	428.69	ppb	11:41:04
2	Pb 220.353†	400.7	316.0	80.085	µg/L	80.085	ppb	11:41:04

2	S 181.975 Axial†	104.0	87.1	362.27	µg/L	362.27 ppb	11:41:04
2	Sb 206.836†	33.8	10.3	6.5229	µg/L	6.5229 ppb	11:41:04
2	Se 196.026†	-23.5	-41.9	177.94	µg/L	177.94 ppb	11:41:04
2	SiO2†	227638.2	227596.1	46486	µg/L	46486 ppb	11:40:38
2	Si 251.611†	275197.3	276412.0	21602	µg/L	21602 ppb	11:40:38
2	Sn 189.927†	-9.0	-9.4	-12.562	µg/L	-12.562 ppb	11:41:04
2	Ti 334.940†	1008974.3	1014414.4	2341.7	µg/L	2341.7 ppb	11:40:38
2	Tl 190.801†	-46.7	-23.2	18.877	µg/L	18.877 ppb	11:41:04
2	U 409.014†	-1000.2	-916.6	-91.846	µg/L	-91.846 ppb	11:40:38
2	V 292.402†	12096.4	12208.4	134.59	µg/L	134.59 ppb	11:40:44
2	Zn 213.857†	9825.0	9414.9	216.39	µg/L	216.39 ppb	11:40:44
3	Sc RADIAL	57415.0	57415.0	100	%		11:39:31
3	Al 396.153Radial†	115269.7	115012.2	80117	µg/L	80117 ppb	11:39:31
3	Ca 317.933Radial†	15408.6	15184.1	13181	µg/L	13181 ppb	11:39:31
3	Fe 238.204 Radial†	11692.8	11650.5	92039	µg/L	92039 ppb	11:39:51
3	K 766.490 Radial†	14583.6	14381.5	9899.0	µg/L	9899.0 ppb	11:39:31
3	Mg 279.077 IEC†	1360.0	1345.9	11820	µg/L	11820 ppb	11:39:51
3	Na 589.592 Radial†	2532.9	2012.9	626.35	µg/L	626.35 ppb	11:39:31
3	Sr 421.552†	13831.1	13771.8	135.90	µg/L	135.90 ppb	11:39:31
3	Sc 361.383	1964688.3	1964688.3	98.962	%		11:41:12
3	Y 371.029	1379381.9	1379381.9	101.10	%		11:41:12
3	Ag 328.068†	-1734.1	-1191.3	-2.4557	µg/L	-2.4557 ppb	11:41:18
3	As 188.979†	6.4	4.7	13.263	µg/L	13.263 ppb	11:41:38
3	B 249.677†	1034.7	751.4	-16.794	µg/L	-16.794 ppb	11:41:18
3	Ba 233.527†	34291.6	34677.4	855.56	µg/L	855.56 ppb	11:41:18
3	Be 313.107†	10010.2	13715.7	7.6429	µg/L	7.6429 ppb	11:41:18
3	Cd 226.502†	153.9	301.6	-2.4734	µg/L	-2.4734 ppb	11:41:38
3	Co 228.616†	666.7	682.6	26.926	µg/L	26.926 ppb	11:41:38
3	Cr 267.716†	7613.4	7741.8	161.18	µg/L	161.18 ppb	11:41:18
3	Cu 324.752†	8521.7	6167.0	53.523	µg/L	53.523 ppb	11:41:18
3	Mn 257.610†	801261.7	809934.6	2645.3	µg/L	2645.3 ppb	11:41:12
3	Mo 202.031†	5.2	10.1	4.5201	µg/L	4.5201 ppb	11:41:38
3	Ni 231.604†	2085.1	1804.5	94.326	µg/L	94.326 ppb	11:41:38
3	P 214.914†	253.0	229.0	403.96	µg/L	403.96 ppb	11:41:38
3	Pb 220.353†	395.0	312.2	79.156	µg/L	79.156 ppb	11:41:38
3	S 181.975 Axial†	98.7	82.3	342.11	µg/L	342.11 ppb	11:41:38
3	Sb 206.836†	34.7	11.4	7.6202	µg/L	7.6202 ppb	11:41:38
3	Se 196.026†	-28.7	-47.4	169.26	µg/L	169.26 ppb	11:41:38
3	SiO2†	224697.7	225764.7	46112	µg/L	46112 ppb	11:41:12
3	Si 251.611†	271663.5	274219.2	21430	µg/L	21430 ppb	11:41:12
3	Sn 189.927†	-15.5	-15.9	-15.371	µg/L	-15.371 ppb	11:41:38
3	Ti 334.940†	989869.8	1000161.9	2308.8	µg/L	2308.8 ppb	11:41:12
3	Tl 190.801†	-49.6	-26.4	14.281	µg/L	14.281 ppb	11:41:38
3	U 409.014†	-1029.0	-950.7	-94.711	µg/L	-94.711 ppb	11:41:12
3	V 292.402†	11632.0	11799.8	130.40	µg/L	130.40 ppb	11:41:18
3	Zn 213.857†	9593.9	9230.6	212.08	µg/L	212.08 ppb	11:41:18

Mean Data: 245688004|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1973509.2	99.406	%	0.4221				0.42%
Sc RADIAL	57361.8	100	%	0.1				0.09%
Y 371.029	1386071.2	101.59	%	0.449				0.44%
Ag 328.068†	-1191.9	-2.4214	µg/L	0.48626	-2.4214	ppb	0.48626	20.08%
Al 396.153Radial†	114911.9	80047	µg/L	198.8	80047	ppb	198.8	0.25%
As 188.979†	8.8	20.813	µg/L	9.4235	20.813	ppb	9.4235	45.28%
B 249.677†	758.8	-16.641	µg/L	0.1872	-16.641	ppb	0.1872	1.12%
Ba 233.527†	35300.7	870.94	µg/L	13.746	870.94	ppb	13.746	1.58%
Be 313.107†	13981.2	7.8002	µg/L	0.13627	7.8002	ppb	0.13627	1.75%
Ca 317.933Radial†	15190.3	13186	µg/L	11.3	13186	ppb	11.3	0.09%
Cd 226.502†	310.8	-2.2658	µg/L	0.17984	-2.2658	ppb	0.17984	7.94%
Co 228.616†	708.4	28.086	µg/L	1.0043	28.086	ppb	1.0043	3.58%
Cr 267.716†	7912.6	164.74	µg/L	3.082	164.74	ppb	3.082	1.87%
Cu 324.752†	6261.4	54.189	µg/L	0.5963	54.189	ppb	0.5963	1.10%
Fe 238.204 Radial†	11689.0	92343	µg/L	301.6	92343	ppb	301.6	0.33%
K 766.490 Radial†	14340.3	9870.7	µg/L	39.17	9870.7	ppb	39.17	0.40%
Mg 279.077 IEC†	1345.2	11814	µg/L	6.1	11814	ppb	6.1	0.05%
Mn 257.610†	815540.8	2663.6	µg/L	16.64	2663.6	ppb	16.64	0.62%
Mo 202.031†	14.5	4.9735	µg/L	0.65580	4.9735	ppb	0.65580	13.19%
Na 589.592 Radial†	2025.8	630.37	µg/L	4.596	630.37	ppb	4.596	0.73%

Ni 231.604†	1861.2	97.260 µg/L	2.5879	97.260 ppb	2.5879	2.66%
P 214.914†	234.0	413.74 µg/L	13.147	413.74 ppb	13.147	3.18%
Pb 220.353†	318.5	80.704 µg/L	1.9323	80.704 ppb	1.9323	2.39%
S 181.975 Axial†	83.8	348.41 µg/L	12.021	348.41 ppb	12.021	3.45%
Sb 206.836†	11.8	7.9538 µg/L	1.62361	7.9538 ppb	1.62361	20.41%
Se 196.026†	-43.7	175.38 µg/L	5.323	175.38 ppb	5.323	3.04%
SiO2†	226906.2	46345 µg/L	203.4	46345 ppb	203.4	0.44%
Si 251.611†	275576.1	21536 µg/L	92.7	21536 ppb	92.7	0.43%
Sn 189.927†	-11.7	-13.566 µg/L	1.5667	-13.566 ppb	1.5667	11.55%
Sr 421.552†	13776.9	135.95 µg/L	0.266	135.95 ppb	0.266	0.20%
Ti 334.940†	1008948.1	2329.1 µg/L	17.74	2329.1 ppb	17.74	0.76%
Tl 190.801†	-27.7	12.806 µg/L	6.9266	12.806 ppb	6.9266	54.09%
U 409.014†	-945.1	-94.280 µg/L	2.2494	-94.280 ppb	2.2494	2.39%
V 292.402†	12095.8	133.44 µg/L	2.658	133.44 ppb	2.658	1.99%
Zn 213.857†	9363.5	215.19 µg/L	2.713	215.19 ppb	2.713	1.26%

Sequence No.: 31
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 11:41:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56482.4	56482.4	98.6	%			11:42:27
1	Al 396.153Radial†	7026.4	7149.2	4969.7	µg/L	4969.7	ppb	11:42:27
1	Ca 317.933Radial†	5677.5	5570.2	4835.3	µg/L	4835.3	ppb	11:42:47
1	Fe 238.204 Radial†	633.7	628.9	4979.0	µg/L	4979.0	ppb	11:42:47
1	K 766.490 Radial†	7387.0	7324.1	5041.3	µg/L	5041.3	ppb	11:42:27
1	Mg 279.077 IEC†	582.9	580.3	5141.7	µg/L	5141.7	ppb	11:42:47
1	Na 589.592 Radial†	31700.8	31631.7	9842.7	µg/L	9842.7	ppb	11:42:27
1	Sr 421.552†	49347.7	50014.5	493.55	µg/L	493.55	ppb	11:42:27
1	Sc 361.383	1990397.4	1990397.4	100.26	%			11:43:51
1	Y 371.029	1359100.2	1359100.2	99.612	%			11:43:51
1	Ag 328.068†	64402.4	64798.6	495.39	µg/L	495.39	ppb	11:43:56
1	As 188.979†	277.6	275.1	504.67	µg/L	504.67	ppb	11:44:17
1	B 249.677†	12285.3	11959.6	491.23	µg/L	491.23	ppb	11:43:56
1	Ba 233.527†	20320.1	20294.1	501.47	µg/L	501.47	ppb	11:43:56
1	Be 313.107†	794485.6	796053.4	494.48	µg/L	494.48	ppb	11:43:51
1	Cd 226.502†	19084.9	19182.3	498.11	µg/L	498.11	ppb	11:43:56
1	Co 228.616†	10832.7	10813.9	502.37	µg/L	502.37	ppb	11:43:56
1	Cr 267.716†	24185.8	24172.5	503.35	µg/L	503.35	ppb	11:43:56
1	Cu 324.752†	77684.0	75041.1	496.30	µg/L	496.30	ppb	11:43:56
1	Mn 257.610†	152951.7	152825.0	497.37	µg/L	497.37	ppb	11:43:51
1	Mo 202.031†	5018.4	5010.4	505.89	µg/L	505.89	ppb	11:44:17
1	Ni 231.604†	10062.0	9733.8	502.04	µg/L	502.04	ppb	11:43:56
1	P 214.914†	1281.8	1251.9	2467.4	µg/L	2467.4	ppb	11:44:17
1	Pb 220.353†	2108.3	2016.0	505.27	µg/L	505.27	ppb	11:44:17
1	S 181.975 Axial†	259.6	241.5	1004.3	µg/L	1004.3	ppb	11:44:17
1	Sb 206.836†	564.3	539.1	501.34	µg/L	501.34	ppb	11:44:17
1	Se 196.026†	369.0	349.7	509.94	µg/L	509.94	ppb	11:44:17
1	SiO2†	27588.6	26227.0	5356.8	µg/L	5356.8	ppb	11:43:56
1	Si 251.611†	32517.8	32139.5	2511.7	µg/L	2511.7	ppb	11:43:56
1	Sn 189.927†	1171.9	1168.6	505.84	µg/L	505.84	ppb	11:44:17
1	Ti 334.940†	214259.1	213615.6	492.94	µg/L	492.94	ppb	11:43:51
1	Tl 190.801†	352.5	375.3	501.52	µg/L	501.52	ppb	11:44:17
1	U 409.014†	5862.3	5936.4	505.52	µg/L	505.52	ppb	11:43:56
1	V 292.402†	49432.5	49351.7	505.01	µg/L	505.01	ppb	11:43:56
1	Zn 213.857†	21775.4	21255.6	497.55	µg/L	497.55	ppb	11:43:56
2	Sc RADIAL	56824.7	56824.7	99.2	%			11:42:53
2	Al 396.153Radial†	7011.5	7091.3	4929.3	µg/L	4929.3	ppb	11:42:53
2	Ca 317.933Radial†	5673.7	5531.8	4801.9	µg/L	4801.9	ppb	11:43:13
2	Fe 238.204 Radial†	634.1	625.4	4951.4	µg/L	4951.4	ppb	11:43:13
2	K 766.490 Radial†	7434.9	7327.3	5043.5	µg/L	5043.5	ppb	11:42:53
2	Mg 279.077 IEC†	580.5	574.2	5088.4	µg/L	5088.4	ppb	11:43:13
2	Na 589.592 Radial†	31813.2	31551.3	9817.6	µg/L	9817.6	ppb	11:42:53
2	Sr 421.552†	49680.4	50048.4	493.88	µg/L	493.88	ppb	11:42:53
2	Sc 361.383	1973693.8	1973693.8	99.415	%			11:44:24
2	Y 371.029	1347479.6	1347479.6	98.760	%			11:44:24
2	Ag 328.068†	63831.8	64768.4	495.15	µg/L	495.15	ppb	11:44:30
2	As 188.979†	277.0	276.8	507.77	µg/L	507.77	ppb	11:44:50
2	B 249.677†	12190.8	11968.3	491.60	µg/L	491.60	ppb	11:44:30
2	Ba 233.527†	20072.0	20216.1	499.54	µg/L	499.54	ppb	11:44:30
2	Be 313.107†	788368.9	796607.3	494.82	µg/L	494.82	ppb	11:44:24
2	Cd 226.502†	18849.0	19106.1	496.14	µg/L	496.14	ppb	11:44:30
2	Co 228.616†	10723.6	10795.6	501.52	µg/L	501.52	ppb	11:44:30
2	Cr 267.716†	23834.6	24023.4	500.24	µg/L	500.24	ppb	11:44:30
2	Cu 324.752†	77020.2	75029.1	496.22	µg/L	496.22	ppb	11:44:30
2	Mn 257.610†	151977.5	153136.3	498.38	µg/L	498.38	ppb	11:44:24
2	Mo 202.031†	4989.5	5023.7	507.22	µg/L	507.22	ppb	11:44:50
2	Ni 231.604†	9958.1	9714.2	501.03	µg/L	501.03	ppb	11:44:30
2	P 214.914†	1271.1	1251.9	2467.6	µg/L	2467.6	ppb	11:44:50
2	Pb 220.353†	2089.8	2015.2	505.08	µg/L	505.08	ppb	11:44:50

2	S 181.975 Axial†	253.0	237.1	986.05 µg/L	986.05 ppb	11:44:50
2	Sb 206.836†	559.6	539.2	501.46 µg/L	501.46 ppb	11:44:50
2	Se 196.026†	368.9	352.7	514.23 µg/L	514.23 ppb	11:44:50
2	SiO2†	27384.5	26254.7	5362.4 µg/L	5362.4 ppb	11:44:30
2	Si 251.611†	32290.5	32185.4	2515.3 µg/L	2515.3 ppb	11:44:30
2	Sn 189.927†	1162.3	1168.8	505.92 µg/L	505.92 ppb	11:44:50
2	Ti 334.940†	212674.9	213830.7	493.44 µg/L	493.44 ppb	11:44:24
2	Tl 190.801†	361.1	387.0	516.87 µg/L	516.87 ppb	11:44:50
2	U 409.014†	5756.8	5879.8	500.70 µg/L	500.70 ppb	11:44:30
2	V 292.402†	48874.5	49207.7	503.55 µg/L	503.55 ppb	11:44:30
2	Zn 213.857†	21526.2	21188.8	495.98 µg/L	495.98 ppb	11:44:30
3	Sc RADIAL	57023.2	57023.2	99.6 %		11:43:18
3	Al 396.153Radial†	7026.6	7081.8	4924.3 µg/L	4924.3 ppb	11:43:18
3	Ca 317.933Radial†	5629.1	5467.1	4745.8 µg/L	4745.8 ppb	11:43:39
3	Fe 238.204 Radial†	623.3	612.3	4847.3 µg/L	4847.3 ppb	11:43:39
3	K 766.490 Radial†	7474.6	7341.1	5053.0 µg/L	5053.0 ppb	11:43:18
3	Mg 279.077 IEC†	582.8	574.5	5089.8 µg/L	5089.8 ppb	11:43:39
3	Na 589.592 Radial†	31902.4	31529.3	9810.8 µg/L	9810.8 ppb	11:43:18
3	Sr 421.552†	49722.3	49916.1	492.58 µg/L	492.58 ppb	11:43:18
3	Sc 361.383	1975155.8	1975155.8	99.489 %		11:44:57
3	Y 371.029	1349647.7	1349647.7	98.919 %		11:44:57
3	Ag 328.068†	61012.5	61887.1	473.03 µg/L	473.03 ppb	11:45:03
3	As 188.979†	243.1	242.5	444.90 µg/L	444.90 ppb	11:45:23
3	B 249.677†	11616.6	11382.0	467.41 µg/L	467.41 ppb	11:45:03
3	Ba 233.527†	18780.3	18902.9	467.08 µg/L	467.08 ppb	11:45:03
3	Be 313.107†	756360.8	763847.8	474.47 µg/L	474.47 ppb	11:44:57
3	Cd 226.502†	17547.4	17783.7	461.77 µg/L	461.77 ppb	11:45:03
3	Co 228.616†	9913.9	9973.7	463.28 µg/L	463.28 ppb	11:45:03
3	Cr 267.716†	21638.7	21798.4	453.92 µg/L	453.92 ppb	11:45:03
3	Cu 324.752†	71843.9	69768.9	461.46 µg/L	461.46 ppb	11:45:03
3	Mn 257.610†	146092.2	147107.5	478.77 µg/L	478.77 ppb	11:44:57
3	Mo 202.031†	4262.5	4289.2	433.09 µg/L	433.09 ppb	11:45:23
3	Ni 231.604†	9268.2	9013.4	464.89 µg/L	464.89 ppb	11:45:03
3	P 214.914†	1118.7	1097.9	2160.7 µg/L	2160.7 ppb	11:45:23
3	Pb 220.353†	1880.2	1802.9	451.79 µg/L	451.79 ppb	11:45:23
3	S 181.975 Axial†	230.2	213.9	889.70 µg/L	889.70 ppb	11:45:23
3	Sb 206.836†	493.4	472.3	438.83 µg/L	438.83 ppb	11:45:23
3	Se 196.026†	328.1	311.4	454.60 µg/L	454.60 ppb	11:45:23
3	SiO2†	25968.5	24811.0	5067.6 µg/L	5067.6 ppb	11:45:03
3	Si 251.611†	30558.5	30420.5	2377.4 µg/L	2377.4 ppb	11:45:03
3	Sn 189.927†	980.0	984.8	426.27 µg/L	426.27 ppb	11:45:23
3	Ti 334.940†	203178.1	204126.8	471.03 µg/L	471.03 ppb	11:44:57
3	Tl 190.801†	321.3	346.7	463.49 µg/L	463.49 ppb	11:45:23
3	U 409.014†	5254.8	5371.0	457.30 µg/L	457.30 ppb	11:45:03
3	V 292.402†	45177.5	45455.3	464.88 µg/L	464.88 ppb	11:45:03
3	Zn 213.857†	20047.9	19686.9	460.79 µg/L	460.79 ppb	11:45:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1979749.0	99.720	%	0.4660				0.47%
Sc RADIAL	56776.8	99.1	%	0.48				0.48%
Y 371.029	1352075.8	99.097	%	0.4529				0.46%
Ag 328.068†	63818.0	487.86	µg/L	12.843	487.86	ppb	12.843	2.63%
QC value within limits for Ag 328.068 Recovery = 97.57%								
Al 396.153Radial†	7107.4	4941.1	µg/L	24.90	4941.1	ppb	24.90	0.50%
QC value within limits for Al 396.153Radial Recovery = 98.82%								
As 188.979†	264.8	485.78	µg/L	35.436	485.78	ppb	35.436	7.29%
QC value within limits for As 188.979 Recovery = 97.16%								
B 249.677†	11770.0	483.42	µg/L	13.860	483.42	ppb	13.860	2.87%
QC value within limits for B 249.677 Recovery = 96.68%								
Ba 233.527†	19804.4	489.36	µg/L	19.322	489.36	ppb	19.322	3.95%
QC value within limits for Ba 233.527 Recovery = 97.87%								
Be 313.107†	785502.8	487.92	µg/L	11.650	487.92	ppb	11.650	2.39%
QC value within limits for Be 313.107 Recovery = 97.58%								
Ca 317.933Radial†	5523.0	4794.3	µg/L	45.25	4794.3	ppb	45.25	0.94%
QC value within limits for Ca 317.933Radial Recovery = 95.89%								
Cd 226.502†	18690.7	485.34	µg/L	20.436	485.34	ppb	20.436	4.21%
QC value within limits for Cd 226.502 Recovery = 97.07%								
Co 228.616†	10527.7	489.06	µg/L	22.331	489.06	ppb	22.331	4.57%

```
   QC value within limits for Co 228.616  Recovery = 97.81%
Cr 267.716†            23331.4      485.83 µg/L        27.686      485.83 ppb         27.686   5.70%
   QC value within limits for Cr 267.716  Recovery = 97.17%
Cu 324.752†            73279.7      484.66 µg/L        20.090      484.66 ppb         20.090   4.15%
   QC value within limits for Cu 324.752  Recovery = 96.93%
Fe 238.204 Radial†       622.2      4925.9 µg/L         69.45      4925.9 ppb          69.45   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.52%
K 766.490 Radial†       7330.8      5045.9 µg/L          6.21      5045.9 ppb           6.21   0.12%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†          576.3      5106.7 µg/L         30.38      5106.7 ppb          30.38   0.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.13%
Mn 257.610†           151023.0      491.51 µg/L        11.045      491.51 ppb         11.045   2.25%
   QC value within limits for Mn 257.610  Recovery = 98.30%
Mo 202.031†             4774.4      482.07 µg/L        42.419      482.07 ppb         42.419   8.80%
   QC value within limits for Mo 202.031  Recovery = 96.41%
Na 589.592 Radial†     31570.7      9823.7 µg/L         16.78      9823.7 ppb          16.78   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 98.24%
Ni 231.604†             9487.1      489.32 µg/L        21.163      489.32 ppb         21.163   4.33%
   QC value within limits for Ni 231.604  Recovery = 97.86%
P 214.914†              1200.6      2365.2 µg/L        177.15      2365.2 ppb         177.15   7.49%
   QC value within limits for P 214.914  Recovery = 94.61%
Pb 220.353†             1944.7      487.38 µg/L        30.825      487.38 ppb         30.825   6.32%
   QC value within limits for Pb 220.353  Recovery = 97.48%
S 181.975 Axial†         230.8      960.03 µg/L        61.586      960.03 ppb         61.586   6.42%
   QC value within limits for S 181.975 Axial  Recovery = 96.00%
Sb 206.836†              516.9      480.54 µg/L        36.127      480.54 ppb         36.127   7.52%
   QC value within limits for Sb 206.836  Recovery = 96.11%
Se 196.026†              337.9      492.92 µg/L        33.256      492.92 ppb         33.256   6.75%
   QC value within limits for Se 196.026  Recovery = 98.58%
SiO2†                  25764.2      5262.3 µg/L        168.64      5262.3 ppb         168.64   3.20%
   QC value within limits for SiO2  Recovery = 98.41%
Si 251.611†            31581.8      2468.1 µg/L         78.62      2468.1 ppb          78.62   3.19%
   QC value within limits for Si 251.611  Recovery = 98.73%
Sn 189.927†             1107.4      479.34 µg/L        45.963      479.34 ppb         45.963   9.59%
   QC value within limits for Sn 189.927  Recovery = 95.87%
Sr 421.552†            49993.0      493.34 µg/L         0.678      493.34 ppb          0.678   0.14%
   QC value within limits for Sr 421.552  Recovery = 98.67%
Ti 334.940†           210524.4      485.80 µg/L        12.796      485.80 ppb         12.796   2.63%
   QC value within limits for Ti 334.940  Recovery = 97.16%
Tl 190.801†              369.7      493.96 µg/L        27.478      493.96 ppb         27.478   5.56%
   QC value within limits for Tl 190.801  Recovery = 98.79%
U 409.014†              5729.0      487.84 µg/L        26.557      487.84 ppb         26.557   5.44%
   QC value within limits for U 409.014  Recovery = 97.57%
V 292.402†             48004.9      491.15 µg/L        22.756      491.15 ppb         22.756   4.63%
   QC value within limits for V 292.402  Recovery = 98.23%
Zn 213.857†            20710.4      484.77 µg/L        20.782      484.77 ppb         20.782   4.29%
   QC value within limits for Zn 213.857  Recovery = 96.95%
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 11:45:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56173.2	56173.2	98.1	%			11:46:05
1	Al 396.153Radial†	-4.0	20.1	14.004	µg/L	14.004	ppb	11:46:05
1	Ca 317.933Radial†	193.2	10.1	8.7979	µg/L	8.7979	ppb	11:46:26
1	Fe 238.204 Radial†	18.0	4.7	36.911	µg/L	36.911	ppb	11:46:26
1	K 766.490 Radial†	112.8	-51.5	-35.442	µg/L	-35.442	ppb	11:46:05
1	Mg 279.077 IEC†	13.5	2.9	25.841	µg/L	25.841	ppb	11:46:26
1	Na 589.592 Radial†	462.1	-42.6	-13.270	µg/L	-13.270	ppb	11:46:05
1	Sr 421.552†	18.4	-6.7	-0.0661	µg/L	-0.0661	ppb	11:46:05
1	Sc 361.383	1968199.8	1968199.8	99.138	%			11:47:28
1	Y 371.029	1347729.2	1347729.2	98.778	%			11:47:28
1	Ag 328.068†	-623.5	-67.8	-0.5108	µg/L	-0.5108	ppb	11:47:33
1	As 188.979†	1.7	-0.1	-0.1377	µg/L	-0.1377	ppb	11:47:54
1	B 249.677†	319.9	28.4	1.1546	µg/L	1.1546	ppb	11:47:54
1	Ba 233.527†	-25.1	0.7	0.0182	µg/L	0.0182	ppb	11:47:54
1	Be 313.107†	-3591.7	-22.6	-0.0142	µg/L	-0.0142	ppb	11:47:33
1	Cd 226.502†	-132.5	12.6	0.3219	µg/L	0.3219	ppb	11:47:54
1	Co 228.616†	-17.1	-8.4	-0.3913	µg/L	-0.3913	ppb	11:47:54
1	Cr 267.716†	-13.6	34.8	0.7244	µg/L	0.7244	ppb	11:47:54
1	Cu 324.752†	2532.4	110.2	0.7330	µg/L	0.7330	ppb	11:47:33
1	Mn 257.610†	-122.7	140.9	0.4620	µg/L	0.4620	ppb	11:47:54
1	Mo 202.031†	-2.7	2.2	0.2193	µg/L	0.2193	ppb	11:47:54
1	Ni 231.604†	299.6	-0.3	-0.0143	µg/L	-0.0143	ppb	11:47:54
1	P 214.914†	23.9	-2.5	-5.1943	µg/L	-5.1943	ppb	11:47:54
1	Pb 220.353†	89.2	3.0	0.7572	µg/L	0.7572	ppb	11:47:54
1	S 181.975 Axial†	17.5	0.2	0.8921	µg/L	0.8921	ppb	11:47:54
1	Sb 206.836†	22.4	-1.1	-0.9820	µg/L	-0.9820	ppb	11:47:54
1	Se 196.026†	15.7	-2.5	-3.4893	µg/L	-3.4893	ppb	11:47:54
1	SiO2†	1368.4	89.4	18.256	µg/L	18.256	ppb	11:47:33
1	Si 251.611†	423.6	132.2	10.333	µg/L	10.333	ppb	11:47:54
1	Sn 189.927†	-0.8	-1.1	-0.4878	µg/L	-0.4878	ppb	11:47:54
1	Ti 334.940†	262.2	169.2	0.3887	µg/L	0.3887	ppb	11:47:33
1	Tl 190.801†	-26.2	-2.7	-3.5496	µg/L	-3.5496	ppb	11:47:54
1	U 409.014†	-91.3	-3.0	-0.2621	µg/L	-0.2621	ppb	11:47:33
1	V 292.402†	-19.6	25.9	0.2690	µg/L	0.2690	ppb	11:47:33
1	Zn 213.857†	478.8	18.9	0.4415	µg/L	0.4415	ppb	11:47:54
2	Sc RADIAL	55821.5	55821.5	97.5	%			11:46:31
2	Al 396.153Radial†	-4.5	19.6	13.631	µg/L	13.631	ppb	11:46:31
2	Ca 317.933Radial†	186.8	4.8	4.1705	µg/L	4.1705	ppb	11:46:52
2	Fe 238.204 Radial†	16.6	3.3	26.104	µg/L	26.104	ppb	11:46:52
2	K 766.490 Radial†	168.1	6.0	4.1241	µg/L	4.1241	ppb	11:46:31
2	Mg 279.077 IEC†	14.1	3.6	31.758	µg/L	31.758	ppb	11:46:52
2	Na 589.592 Radial†	468.9	-32.7	-10.180	µg/L	-10.180	ppb	11:46:31
2	Sr 421.552†	41.8	17.5	0.1723	µg/L	0.1723	ppb	11:46:31
2	Sc 361.383	1978959.5	1978959.5	99.680	%			11:48:00
2	Y 371.029	1356560.2	1356560.2	99.426	%			11:48:00
2	Ag 328.068†	-575.2	-16.0	-0.1188	µg/L	-0.1188	ppb	11:48:05
2	As 188.979†	-0.8	-2.6	-4.7865	µg/L	-4.7865	ppb	11:48:26
2	B 249.677†	308.4	15.2	0.6125	µg/L	0.6125	ppb	11:48:26
2	Ba 233.527†	-28.6	-2.7	-0.0664	µg/L	-0.0664	ppb	11:48:26
2	Be 313.107†	-3610.1	-21.3	-0.0134	µg/L	-0.0134	ppb	11:48:05
2	Cd 226.502†	-129.7	16.0	0.4141	µg/L	0.4141	ppb	11:48:26
2	Co 228.616†	-11.8	-3.0	-0.1400	µg/L	-0.1400	ppb	11:48:26
2	Cr 267.716†	-17.1	31.4	0.6544	µg/L	0.6544	ppb	11:48:26
2	Cu 324.752†	2507.5	71.4	0.4752	µg/L	0.4752	ppb	11:48:05
2	Mn 257.610†	-131.4	132.9	0.4342	µg/L	0.4342	ppb	11:48:26
2	Mo 202.031†	-1.4	3.5	0.3528	µg/L	0.3528	ppb	11:48:26
2	Ni 231.604†	308.7	7.2	0.3705	µg/L	0.3705	ppb	11:48:26
2	P 214.914†	34.8	8.3	16.564	µg/L	16.564	ppb	11:48:26
2	Pb 220.353†	98.8	12.2	3.0571	µg/L	3.0571	ppb	11:48:26

2	S 181.975 Axial†	18.1	0.7	2.9497 µg/L	2.9497 ppb	11:48:26
2	Sb 206.836†	26.6	3.1	2.8285 µg/L	2.8285 ppb	11:48:26
2	Se 196.026†	11.3	-7.0	-9.9895 µg/L	-9.9895 ppb	11:48:26
2	SiO2†	1367.5	80.9	16.530 µg/L	16.530 ppb	11:48:05
2	Si 251.611†	436.2	142.5	11.137 µg/L	11.137 ppb	11:48:26
2	Sn 189.927†	0.7	0.4	0.1695 µg/L	0.1695 ppb	11:48:26
2	Ti 334.940†	245.5	150.9	0.3461 µg/L	0.3461 ppb	11:48:05
2	Tl 190.801†	-20.5	3.2	4.2670 µg/L	4.2670 ppb	11:48:26
2	U 409.014†	-57.5	31.5	2.6796 µg/L	2.6796 ppb	11:48:05
2	V 292.402†	-36.1	9.5	0.1058 µg/L	0.1058 ppb	11:48:05
2	Zn 213.857†	479.9	17.4	0.4045 µg/L	0.4045 ppb	11:48:26
3	Sc RADIAL	56204.5	56204.5	98.1 %		11:46:57
3	Al 396.153Radial†	-5.5	18.6	12.976 µg/L	12.976 ppb	11:46:57
3	Ca 317.933Radial†	199.8	16.8	14.557 µg/L	14.557 ppb	11:47:18
3	Fe 238.204 Radial†	17.6	4.2	33.534 µg/L	33.534 ppb	11:47:18
3	K 766.490 Radial†	178.9	15.8	10.855 µg/L	10.855 ppb	11:46:57
3	Mg 279.077 IEC†	15.9	5.3	47.195 µg/L	47.195 ppb	11:47:18
3	Na 589.592 Radial†	470.8	-34.0	-10.574 µg/L	-10.574 ppb	11:46:57
3	Sr 421.552†	14.6	-10.5	-0.1040 µg/L	-0.1040 ppb	11:46:57
3	Sc 361.383	1977832.6	1977832.6	99.624 %		11:48:32
3	Y 371.029	1354702.1	1354702.1	99.289 %		11:48:32
3	Ag 328.068†	-577.3	-18.4	-0.1371 µg/L	-0.1371 ppb	11:48:37
3	As 188.979†	1.4	-0.4	-0.8098 µg/L	-0.8098 ppb	11:48:58
3	B 249.677†	326.3	33.3	1.3547 µg/L	1.3547 ppb	11:48:58
3	Ba 233.527†	-17.0	8.9	0.2204 µg/L	0.2204 ppb	11:48:58
3	Be 313.107†	-3542.6	44.3	0.0274 µg/L	0.0274 ppb	11:48:37
3	Cd 226.502†	-144.4	1.2	0.0271 µg/L	0.0271 ppb	11:48:58
3	Co 228.616†	-11.6	-2.8	-0.1290 µg/L	-0.1290 ppb	11:48:58
3	Cr 267.716†	-21.0	27.4	0.5708 µg/L	0.5708 ppb	11:48:58
3	Cu 324.752†	2508.0	73.3	0.4887 µg/L	0.4887 ppb	11:48:37
3	Mn 257.610†	-118.3	145.9	0.4770 µg/L	0.4770 ppb	11:48:58
3	Mo 202.031†	-5.6	-0.8	-0.0819 µg/L	-0.0819 ppb	11:48:58
3	Ni 231.604†	305.5	4.1	0.2133 µg/L	0.2133 ppb	11:48:58
3	P 214.914†	38.7	12.2	24.483 µg/L	24.483 ppb	11:48:58
3	Pb 220.353†	91.4	4.9	1.2133 µg/L	1.2133 ppb	11:48:58
3	S 181.975 Axial†	17.4	0.0	0.1535 µg/L	0.1535 ppb	11:48:58
3	Sb 206.836†	20.6	-3.0	-2.7504 µg/L	-2.7504 ppb	11:48:58
3	Se 196.026†	8.2	-10.1	-14.529 µg/L	-14.529 ppb	11:48:58
3	SiO2†	1377.4	91.7	18.723 µg/L	18.723 ppb	11:48:37
3	Si 251.611†	455.6	162.2	12.678 µg/L	12.678 ppb	11:48:58
3	Sn 189.927†	-3.8	-4.1	-1.7786 µg/L	-1.7786 ppb	11:48:58
3	Ti 334.940†	237.2	142.7	0.3261 µg/L	0.3261 ppb	11:48:37
3	Tl 190.801†	-16.9	6.8	8.9381 µg/L	8.9381 ppb	11:48:58
3	U 409.014†	-6.2	82.9	7.0638 µg/L	7.0638 ppb	11:48:37
3	V 292.402†	-40.3	5.2	0.0646 µg/L	0.0646 ppb	11:48:37
3	Zn 213.857†	470.8	8.5	0.1948 µg/L	0.1948 ppb	11:48:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1974997.3	99.481	%	0.2979				0.30%
Sc RADIAL	56066.4	97.9	%	0.37				0.38%
Y 371.029	1352997.2	99.164	%	0.3412				0.34%
Ag 328.068†	-34.1	-0.2555	µg/L	0.22120	-0.2555	ppb	0.22120	86.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.4	13.537	µg/L	0.5206	13.537	ppb	0.5206	3.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.9114	µg/L	2.51255	-1.9114	ppb	2.51255	131.45%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	25.6	1.0406	µg/L	0.38404	1.0406	ppb	0.38404	36.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.3	0.0574	µg/L	0.14736	0.0574	ppb	0.14736	256.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	0.1	0.0000	µg/L	0.02380	0.0000	ppb	0.02380	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.6	9.1751	µg/L	5.20349	9.1751	ppb	5.20349	56.71%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.9	0.2544	µg/L	0.20218	0.2544	ppb	0.20218	79.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.7	-0.2201	µg/L	0.14835	-0.2201	ppb	0.14835	67.41%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              31.2      0.6499 µg/L       0.07688      0.6499 ppb        0.07688  11.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              85.0      0.5656 µg/L       0.14510      0.5656 ppb        0.14510  25.65%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.1      32.183 µg/L        5.5288     32.183 ppb         5.5288  17.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -9.9     -6.8210 µg/L      25.01365     -6.8210 ppb       25.01365 366.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.9      34.931 µg/L       11.0250     34.931 ppb        11.0250  31.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             139.9      0.4578 µg/L       0.02174      0.4578 ppb        0.02174   4.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.6      0.1634 µg/L       0.22270      0.1634 ppb        0.22270 136.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -36.4     -11.341 µg/L        1.6817    -11.341 ppb         1.6817  14.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               3.7      0.1898 µg/L       0.19351      0.1898 ppb        0.19351 101.94%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                6.0      11.951 µg/L       15.3671      11.951 ppb        15.3671 128.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               6.7      1.6759 µg/L       1.21771      1.6759 ppb        1.21771  72.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.3      1.3318 µg/L       1.44900      1.3318 ppb        1.44900 108.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.3     -0.3013 µg/L       2.85104     -0.3013 ppb        2.85104 946.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.5     -9.3360 µg/L       5.54885     -9.3360 ppb        5.54885  59.44%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    87.3      17.836 µg/L        1.1552      17.836 ppb         1.1552   6.48%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             145.7      11.383 µg/L        1.1916      11.383 ppb         1.1916  10.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.6     -0.6990 µg/L       0.99109     -0.6990 ppb        0.99109 141.80%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.1      0.0007 µg/L       0.14976      0.0007 ppb        0.14976 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             154.3      0.3536 µg/L       0.03199      0.3536 ppb        0.03199   9.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.4      3.2185 µg/L       6.30950      3.2185 ppb        6.30950 196.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               37.1      3.1604 µg/L       3.68652      3.1604 ppb        3.68652 116.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               13.5      0.1465 µg/L       0.10812      0.1465 ppb        0.10812  73.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              14.9      0.3469 µg/L       0.13304      0.3469 ppb        0.13304  38.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: 245688005|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 411
Date Collected: 2/12/2010 11:49:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688005|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56122.8	56122.8	98.0	%			11:49:47
1	Al 396.153Radial†	26081.3	26640.9	18558	µg/L	18558	ppb	11:49:47
1	Ca 317.933Radial†	4524.2	4430.1	3845.7	µg/L	3845.7	ppb	11:50:07
1	Fe 238.204 Radial†	9690.9	9876.1	78021	µg/L	78021	ppb	11:49:47
1	K 766.490 Radial†	4600.0	4527.9	3116.7	µg/L	3116.7	ppb	11:49:47
1	Mg 279.077 IEC†	395.9	393.2	3398.6	µg/L	3398.6	ppb	11:50:07
1	Na 589.592 Radial†	4361.9	3937.7	1225.3	µg/L	1225.3	ppb	11:49:47
1	Sr 421.552†	3966.1	4022.1	39.690	µg/L	39.690	ppb	11:49:47
1	Sc 361.383	1967212.8	1967212.8	99.089	%			11:51:12
1	Y 371.029	1467893.9	1467893.9	107.59	%			11:51:12
1	Ag 328.068†	-1708.8	-1163.5	-3.7328	µg/L	-3.7328	ppb	11:51:17
1	As 188.979†	6.2	4.4	12.386	µg/L	12.386	ppb	11:51:38
1	B 249.677†	663.7	375.6	-24.572	µg/L	-24.572	ppb	11:51:17
1	Ba 233.527†	13922.1	14076.2	347.25	µg/L	347.25	ppb	11:51:17
1	Be 313.107†	4688.9	8332.4	4.4944	µg/L	4.4944	ppb	11:51:17
1	Cd 226.502†	110.7	257.8	-1.9083	µg/L	-1.9083	ppb	11:51:17
1	Co 228.616†	344.1	356.2	12.832	µg/L	12.832	ppb	11:51:38
1	Cr 267.716†	19521.4	19749.5	411.00	µg/L	411.00	ppb	11:51:17
1	Cu 324.752†	4550.6	2148.3	25.033	µg/L	25.033	ppb	11:51:17
1	Mn 257.610†	665863.0	672251.6	2196.1	µg/L	2196.1	ppb	11:51:12
1	Mo 202.031†	89.6	95.3	12.580	µg/L	12.580	ppb	11:51:38
1	Ni 231.604†	4364.7	4102.4	212.81	µg/L	212.81	ppb	11:51:17
1	P 214.914†	301.8	278.0	498.93	µg/L	498.93	ppb	11:51:38
1	Pb 220.353†	210.2	125.2	29.614	µg/L	29.614	ppb	11:51:38
1	S 181.975 Axial†	28.9	11.8	48.944	µg/L	48.944	ppb	11:51:38
1	Sb 206.836†	30.8	7.5	2.0684	µg/L	2.0684	ppb	11:51:38
1	Se 196.026†	-37.0	-55.7	129.07	µg/L	129.07	ppb	11:51:38
1	SiO2†	117000.9	116786.0	23853	µg/L	23853	ppb	11:51:17
1	Si 251.611†	143644.9	144670.9	11306	µg/L	11306	ppb	11:51:12
1	Sn 189.927†	1.7	1.4	-7.3423	µg/L	-7.3423	ppb	11:51:38
1	Ti 334.940†	769716.8	776700.5	1793.3	µg/L	1793.3	ppb	11:51:12
1	Tl 190.801†	-45.0	-21.7	7.9095	µg/L	7.9095	ppb	11:51:38
1	U 409.014†	-2066.7	-1996.6	-181.43	µg/L	-181.43	ppb	11:51:12
1	V 292.402†	2662.5	2732.6	37.648	µg/L	37.648	ppb	11:51:17
1	Zn 213.857†	17846.4	17546.5	408.79	µg/L	408.79	ppb	11:51:17
2	Sc RADIAL	56165.0	56165.0	98.1	%			11:50:13
2	Al 396.153Radial†	26184.0	26725.6	18617	µg/L	18617	ppb	11:50:13
2	Ca 317.933Radial†	4535.2	4438.0	3852.4	µg/L	3852.4	ppb	11:50:33
2	Fe 238.204 Radial†	9651.9	9828.9	77648	µg/L	77648	ppb	11:50:13
2	K 766.490 Radial†	4558.8	4482.3	3085.3	µg/L	3085.3	ppb	11:50:13
2	Mg 279.077 IEC†	394.1	391.0	3379.8	µg/L	3379.8	ppb	11:50:33
2	Na 589.592 Radial†	4380.3	3953.0	1230.0	µg/L	1230.0	ppb	11:50:13
2	Sr 421.552†	3969.9	4022.9	39.699	µg/L	39.699	ppb	11:50:13
2	Sc 361.383	1962436.3	1962436.3	98.848	%			11:51:45
2	Y 371.029	1463521.9	1463521.9	107.27	%			11:51:45
2	Ag 328.068†	-1597.6	-1055.1	-2.9339	µg/L	-2.9339	ppb	11:51:51
2	As 188.979†	5.7	3.9	11.513	µg/L	11.513	ppb	11:52:12
2	B 249.677†	659.3	372.8	-24.501	µg/L	-24.501	ppb	11:51:51
2	Ba 233.527†	13788.0	13974.7	344.74	µg/L	344.74	ppb	11:51:51
2	Be 313.107†	4628.5	8282.8	4.4661	µg/L	4.4661	ppb	11:51:51
2	Cd 226.502†	121.4	269.0	-1.5782	µg/L	-1.5782	ppb	11:51:51
2	Co 228.616†	353.7	366.7	13.336	µg/L	13.336	ppb	11:52:12
2	Cr 267.716†	19255.9	19528.8	406.41	µg/L	406.41	ppb	11:51:51
2	Cu 324.752†	4489.9	2098.1	24.650	µg/L	24.650	ppb	11:51:51
2	Mn 257.610†	662615.0	670601.3	2190.7	µg/L	2190.7	ppb	11:51:45
2	Mo 202.031†	86.6	92.5	12.284	µg/L	12.284	ppb	11:52:12
2	Ni 231.604†	4341.9	4090.0	212.16	µg/L	212.16	ppb	11:51:51
2	P 214.914†	307.0	284.0	511.35	µg/L	511.35	ppb	11:52:12
2	Pb 220.353†	215.3	130.9	31.040	µg/L	31.040	ppb	11:52:12

2	S 181.975 Axial†	28.9	11.8	49.000 µg/L	49.000 ppb	11:52:12
2	Sb 206.836†	34.7	11.4	5.7541 µg/L	5.7541 ppb	11:52:12
2	Se 196.026†	-24.6	-43.2	146.06 µg/L	146.06 ppb	11:52:12
2	SiO2†	116048.8	116110.2	23715 µg/L	23715 ppb	11:51:51
2	Si 251.611†	142989.4	144360.6	11282 µg/L	11282 ppb	11:51:45
2	Sn 189.927†	3.7	3.5	-6.3964 µg/L	-6.3964 ppb	11:52:12
2	Ti 334.940†	764947.8	773766.6	1786.5 µg/L	1786.5 ppb	11:51:45
2	Tl 190.801†	-46.3	-23.1	5.8322 µg/L	5.8322 ppb	11:52:12
2	U 409.014†	-1996.9	-1931.1	-175.79 µg/L	-175.79 ppb	11:51:45
2	V 292.402†	2653.5	2730.1	37.571 µg/L	37.571 ppb	11:51:51
2	Zn 213.857†	17694.6	17436.7	406.22 µg/L	406.22 ppb	11:51:51
3	Sc RADIAL	56360.1	56360.1	98.4 %		11:50:39
3	Al 396.153Radial†	26470.0	26923.7	18755 µg/L	18755 ppb	11:50:39
3	Ca 317.933Radial†	4567.4	4454.7	3867.0 µg/L	3867.0 ppb	11:50:59
3	Fe 238.204 Radial†	9829.9	9975.7	78808 µg/L	78808 ppb	11:50:39
3	K 766.490 Radial†	4654.7	4563.7	3141.3 µg/L	3141.3 ppb	11:50:39
3	Mg 279.077 IEC†	410.0	405.8	3509.4 µg/L	3509.4 ppb	11:50:59
3	Na 589.592 Radial†	4373.4	3930.6	1223.1 µg/L	1223.1 ppb	11:50:39
3	Sr 421.552†	4030.1	4070.1	40.164 µg/L	40.164 ppb	11:50:39
3	Sc 361.383	1964757.5	1964757.5	98.965 %		11:52:19
3	Y 371.029	1462633.6	1462633.6	107.20 %		11:52:19
3	Ag 328.068†	-1550.7	-1005.9	-2.4936 µg/L	-2.4936 ppb	11:52:25
3	As 188.979†	5.3	3.6	10.925 µg/L	10.925 ppb	11:52:45
3	B 249.677†	636.8	349.2	-26.105 µg/L	-26.105 ppb	11:52:25
3	Ba 233.527†	13258.8	13423.5	331.15 µg/L	331.15 ppb	11:52:25
3	Be 313.107†	4304.8	7950.2	4.2766 µg/L	4.2766 ppb	11:52:25
3	Cd 226.502†	107.6	254.9	-2.0835 µg/L	-2.0835 ppb	11:52:25
3	Co 228.616†	328.4	340.7	12.217 µg/L	12.217 ppb	11:52:45
3	Cr 267.716†	18458.4	18700.0	389.16 µg/L	389.16 ppb	11:52:25
3	Cu 324.752†	4395.8	1997.6	24.147 µg/L	24.147 ppb	11:52:25
3	Mn 257.610†	648603.0	655650.8	2142.2 µg/L	2142.2 ppb	11:52:19
3	Mo 202.031†	85.8	91.6	12.235 µg/L	12.235 ppb	11:52:45
3	Ni 231.604†	4184.1	3925.4	203.68 µg/L	203.68 ppb	11:52:25
3	P 214.914†	286.5	262.8	468.08 µg/L	468.08 ppb	11:52:45
3	Pb 220.353†	202.5	117.7	27.709 µg/L	27.709 ppb	11:52:45
3	S 181.975 Axial†	24.4	7.2	30.056 µg/L	30.056 ppb	11:52:45
3	Sb 206.836†	32.8	9.5	4.1583 µg/L	4.1583 ppb	11:52:45
3	Se 196.026†	-30.3	-49.0	140.84 µg/L	140.84 ppb	11:52:45
3	SiO2†	112283.2	112166.5	22910 µg/L	22910 ppb	11:52:25
3	Si 251.611†	140712.4	141888.9	11089 µg/L	11089 ppb	11:52:19
3	Sn 189.927†	4.5	4.2	-6.1788 µg/L	-6.1788 ppb	11:52:45
3	Ti 334.940†	746552.3	754264.5	1741.5 µg/L	1741.5 ppb	11:52:19
3	Tl 190.801†	-49.2	-26.0	1.6415 µg/L	1.6415 ppb	11:52:45
3	U 409.014†	-1955.8	-1887.1	-172.20 µg/L	-172.20 ppb	11:52:19
3	V 292.402†	2558.9	2631.4	36.673 µg/L	36.673 ppb	11:52:25
3	Zn 213.857†	17162.5	16877.9	393.03 µg/L	393.03 ppb	11:52:25

Mean Data: 245688005|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1964802.2	98.967	%	0.1203				0.12%
Sc RADIAL	56216.0	98.2	%	0.22				0.23%
Y 371.029	1464683.1	107.35	%	0.206				0.19%
Ag 328.068†	-1074.8	-3.0534	µg/L	0.62821	-3.0534	ppb	0.62821	20.57%
Al 396.153Radial†	26763.4	18643	µg/L	101.1	18643	ppb	101.1	0.54%
As 188.979†	4.0	11.608	µg/L	0.7354	11.608	ppb	0.7354	6.33%
B 249.677†	365.8	-25.059	µg/L	0.9065	-25.059	ppb	0.9065	3.62%
Ba 233.527†	13824.8	341.05	µg/L	8.664	341.05	ppb	8.664	2.54%
Be 313.107†	8188.4	4.4124	µg/L	0.11842	4.4124	ppb	0.11842	2.68%
Ca 317.933Radial†	4440.9	3855.0	µg/L	10.88	3855.0	ppb	10.88	0.28%
Cd 226.502†	260.6	-1.8567	µg/L	0.25654	-1.8567	ppb	0.25654	13.82%
Co 228.616†	354.5	12.795	µg/L	0.5605	12.795	ppb	0.5605	4.38%
Cr 267.716†	19326.1	402.19	µg/L	11.515	402.19	ppb	11.515	2.86%
Cu 324.752†	2081.3	24.610	µg/L	0.4442	24.610	ppb	0.4442	1.80%
Fe 238.204 Radial†	9893.6	78159	µg/L	592.0	78159	ppb	592.0	0.76%
K 766.490 Radial†	4524.7	3114.4	µg/L	28.07	3114.4	ppb	28.07	0.90%
Mg 279.077 IEC†	396.7	3429.3	µg/L	70.07	3429.3	ppb	70.07	2.04%
Mn 257.610†	666167.9	2176.3	µg/L	29.67	2176.3	ppb	29.67	1.36%
Mo 202.031†	93.1	12.367	µg/L	0.1866	12.367	ppb	0.1866	1.51%
Na 589.592 Radial†	3940.4	1226.1	µg/L	3.57	1226.1	ppb	3.57	0.29%

Ni 231.604†	4039.3	209.55 µg/L	5.095	209.55 ppb	5.095	2.43%
P 214.914†	274.9	492.79 µg/L	22.282	492.79 ppb	22.282	4.52%
Pb 220.353†	124.6	29.454 µg/L	1.6714	29.454 ppb	1.6714	5.67%
S 181.975 Axial†	10.3	42.667 µg/L	10.9215	42.667 ppb	10.9215	25.60%
Sb 206.836†	9.4	3.9936 µg/L	1.84834	3.9936 ppb	1.84834	46.28%
Se 196.026†	-49.3	138.66 µg/L	8.700	138.66 ppb	8.700	6.27%
SiO2†	115020.9	23493 µg/L	509.6	23493 ppb	509.6	2.17%
Si 251.611†	143640.2	11226 µg/L	119.1	11226 ppb	119.1	1.06%
Sn 189.927†	3.0	-6.6392 µg/L	0.61857	-6.6392 ppb	0.61857	9.32%
Sr 421.552†	4038.4	39.851 µg/L	0.2710	39.851 ppb	0.2710	0.68%
Ti 334.940†	768243.9	1773.8 µg/L	28.17	1773.8 ppb	28.17	1.59%
Tl 190.801†	-23.6	5.1277 µg/L	3.19286	5.1277 ppb	3.19286	62.27%
U 409.014†	-1938.3	-176.48 µg/L	4.654	-176.48 ppb	4.654	2.64%
V 292.402†	2698.0	37.297 µg/L	0.5419	37.297 ppb	0.5419	1.45%
Zn 213.857†	17287.0	402.68 µg/L	8.458	402.68 ppb	8.458	2.10%

Sequence No.: 34
Sample ID: 245688006|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 412
Date Collected: 2/12/2010 11:52:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688006|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55509.6	55509.6	96.9	%			11:53:27
1	Al 396.153Radial†	44170.4	45599.1	31764	µg/L	31764	ppb	11:53:27
1	Ca 317.933Radial†	6585.4	6607.9	5736.1	µg/L	5736.1	ppb	11:53:48
1	Fe 238.204 Radial†	6904.4	7110.2	56171	µg/L	56171	ppb	11:53:48
1	K 766.490 Radial†	8785.7	8898.6	6125.1	µg/L	6125.1	ppb	11:53:27
1	Mg 279.077 IEC†	654.3	664.2	5821.9	µg/L	5821.9	ppb	11:53:48
1	Na 589.592 Radial†	1250.2	776.2	241.51	µg/L	241.51	ppb	11:53:27
1	Sr 421.552†	7453.1	7664.7	75.636	µg/L	75.636	ppb	11:53:27
1	Sc 361.383	1968696.3	1968696.3	99.163	%			11:54:52
1	Y 371.029	1355536.8	1355536.8	99.351	%			11:54:52
1	Ag 328.068†	-1292.7	-742.6	-1.3437	µg/L	-1.3437	ppb	11:54:57
1	As 188.979†	5.3	3.6	9.5175	µg/L	9.5175	ppb	11:55:18
1	B 249.677†	822.4	535.1	-7.1718	µg/L	-7.1718	ppb	11:54:57
1	Ba 233.527†	14429.9	14577.7	359.77	µg/L	359.77	ppb	11:54:57
1	Be 313.107†	4130.3	7765.6	3.7750	µg/L	3.7750	ppb	11:54:57
1	Cd 226.502†	55.1	201.8	-1.0787	µg/L	-1.0787	ppb	11:55:18
1	Co 228.616†	650.6	665.0	25.173	µg/L	25.173	ppb	11:55:18
1	Cr 267.716†	2304.0	2372.0	49.434	µg/L	49.434	ppb	11:55:18
1	Cu 324.752†	6242.7	3851.2	33.243	µg/L	33.243	ppb	11:54:57
1	Mn 257.610†	480875.6	485197.2	1584.9	µg/L	1584.9	ppb	11:54:52
1	Mo 202.031†	-2.2	2.7	2.4046	µg/L	2.4046	ppb	11:55:18
1	Ni 231.604†	846.9	551.6	29.171	µg/L	29.171	ppb	11:55:18
1	P 214.914†	259.5	235.1	432.88	µg/L	432.88	ppb	11:55:18
1	Pb 220.353†	331.5	247.4	61.554	µg/L	61.554	ppb	11:55:18
1	S 181.975 Axial†	97.4	80.8	336.03	µg/L	336.03	ppb	11:55:18
1	Sb 206.836†	26.1	2.6	1.3516	µg/L	1.3516	ppb	11:55:18
1	Se 196.026†	-5.2	-23.6	112.89	µg/L	112.89	ppb	11:55:18
1	SiO2†	153461.2	153464.9	31345	µg/L	31345	ppb	11:54:57
1	Si 251.611†	188604.3	189900.3	14841	µg/L	14841	ppb	11:54:52
1	Sn 189.927†	-28.6	-29.2	-17.944	µg/L	-17.944	ppb	11:55:18
1	Ti 334.940†	1184087.1	1193981.3	2756.7	µg/L	2756.7	ppb	11:54:52
1	Tl 190.801†	-49.8	-26.5	5.3438	µg/L	5.3438	ppb	11:55:18
1	U 409.014†	-138.1	-50.2	-12.438	µg/L	-12.438	ppb	11:54:57
1	V 292.402†	11153.3	11293.1	120.87	µg/L	120.87	ppb	11:54:57
1	Zn 213.857†	5629.9	5213.3	119.73	µg/L	119.73	ppb	11:55:18
2	Sc RADIAL	56113.3	56113.3	98.0	%			11:53:53
2	Al 396.153Radial†	44908.8	45862.5	31947	µg/L	31947	ppb	11:53:53
2	Ca 317.933Radial†	6622.8	6573.0	5705.8	µg/L	5705.8	ppb	11:54:14
2	Fe 238.204 Radial†	6930.4	7060.2	55776	µg/L	55776	ppb	11:54:14
2	K 766.490 Radial†	8944.3	8963.0	6169.4	µg/L	6169.4	ppb	11:53:53
2	Mg 279.077 IEC†	661.9	664.7	5826.8	µg/L	5826.8	ppb	11:54:14
2	Na 589.592 Radial†	1207.5	718.7	223.62	µg/L	223.62	ppb	11:53:53
2	Sr 421.552†	7591.4	7723.1	76.212	µg/L	76.212	ppb	11:53:53
2	Sc 361.383	1977289.3	1977289.3	99.596	%			11:55:25
2	Y 371.029	1361019.9	1361019.9	99.752	%			11:55:25
2	Ag 328.068†	-1315.6	-759.9	-1.5146	µg/L	-1.5146	ppb	11:55:30
2	As 188.979†	0.6	-1.3	0.6030	µg/L	0.6030	ppb	11:55:51
2	B 249.677†	791.9	500.9	-8.3788	µg/L	-8.3788	ppb	11:55:30
2	Ba 233.527†	14190.4	14274.0	352.28	µg/L	352.28	ppb	11:55:30
2	Be 313.107†	3948.4	7564.8	3.6477	µg/L	3.6477	ppb	11:55:30
2	Cd 226.502†	57.2	203.6	-0.9886	µg/L	-0.9886	ppb	11:55:51
2	Co 228.616†	637.0	648.4	24.390	µg/L	24.390	ppb	11:55:51
2	Cr 267.716†	2250.1	2307.8	48.096	µg/L	48.096	ppb	11:55:51
2	Cu 324.752†	6228.1	3809.1	32.910	µg/L	32.910	ppb	11:55:30
2	Mn 257.610†	483699.5	485925.1	1587.2	µg/L	1587.2	ppb	11:55:25
2	Mo 202.031†	-7.3	-2.5	1.8646	µg/L	1.8646	ppb	11:55:51
2	Ni 231.604†	827.3	528.1	27.958	µg/L	27.958	ppb	11:55:51
2	P 214.914†	251.9	226.3	415.61	µg/L	415.61	ppb	11:55:51
2	Pb 220.353†	333.4	247.8	61.684	µg/L	61.684	ppb	11:55:51

2	S 181.975 Axial†	93.3	76.2	316.99 µg/L	316.99 ppb	11:55:51
2	Sb 206.836†	31.7	8.1	6.4957 µg/L	6.4957 ppb	11:55:51
2	Se 196.026†	-16.5	-34.9	95.497 µg/L	95.497 ppb	11:55:51
2	SiO2†	151189.0	150510.9	30741 µg/L	30741 ppb	11:55:30
2	Si 251.611†	189869.6	190344.2	14875 µg/L	14875 ppb	11:55:25
2	Sn 189.927†	-27.0	-27.4	-17.156 µg/L	-17.156 ppb	11:55:51
2	Ti 334.940†	1192178.7	1196916.4	2763.5 µg/L	2763.5 ppb	11:55:25
2	Tl 190.801†	-49.9	-26.4	5.5211 µg/L	5.5211 ppb	11:55:51
2	U 409.014†	-140.7	-52.1	-12.548 µg/L	-12.548 ppb	11:55:30
2	V 292.402†	10983.0	11073.2	118.59 µg/L	118.59 ppb	11:55:30
2	Zn 213.857†	5551.8	5110.2	117.33 µg/L	117.33 ppb	11:55:51
3	Sc RADIAL	56322.0	56322.0	98.3 %		11:54:19
3	Al 396.153Radial†	44376.1	45150.9	31452 µg/L	31452 ppb	11:54:19
3	Ca 317.933Radial†	6579.3	6503.7	5645.7 µg/L	5645.7 ppb	11:54:39
3	Fe 238.204 Radial†	6890.7	6993.6	55249 µg/L	55249 ppb	11:54:39
3	K 766.490 Radial†	8872.3	8855.9	6095.6 µg/L	6095.6 ppb	11:54:19
3	Mg 279.077 IEC†	647.4	647.5	5674.8 µg/L	5674.8 ppb	11:54:39
3	Na 589.592 Radial†	1249.7	757.0	235.55 µg/L	235.55 ppb	11:54:19
3	Sr 421.552†	7475.4	7576.4	74.765 µg/L	74.765 ppb	11:54:19
3	Sc 361.383	1978077.8	1978077.8	99.636 %		11:55:58
3	Y 371.029	1360286.8	1360286.8	99.699 %		11:55:58
3	Ag 328.068†	-1269.8	-713.4	-1.2045 µg/L	-1.2045 ppb	11:56:03
3	As 188.979†	3.6	1.7	6.1064 µg/L	6.1064 ppb	11:56:24
3	B 249.677†	762.2	470.7	-9.3507 µg/L	-9.3507 ppb	11:56:03
3	Ba 233.527†	14087.4	14164.9	349.59 µg/L	349.59 ppb	11:56:03
3	Be 313.107†	3738.6	7352.6	3.5447 µg/L	3.5447 ppb	11:56:03
3	Cd 226.502†	42.2	188.6	-1.3204 µg/L	-1.3204 ppb	11:56:24
3	Co 228.616†	600.4	611.5	22.830 µg/L	22.830 ppb	11:56:24
3	Cr 267.716†	2139.8	2196.2	45.772 µg/L	45.772 ppb	11:56:24
3	Cu 324.752†	6210.8	3789.3	32.706 µg/L	32.706 ppb	11:56:03
3	Mn 257.610†	471275.1	473261.7	1545.9 µg/L	1545.9 ppb	11:55:58
3	Mo 202.031†	-4.3	0.5	2.1539 µg/L	2.1539 ppb	11:56:24
3	Ni 231.604†	794.9	495.3	26.256 µg/L	26.256 ppb	11:56:24
3	P 214.914†	244.2	218.4	400.26 µg/L	400.26 ppb	11:56:24
3	Pb 220.353†	328.5	242.8	60.429 µg/L	60.429 ppb	11:56:24
3	S 181.975 Axial†	88.7	71.6	297.88 µg/L	297.88 ppb	11:56:24
3	Sb 206.836†	34.2	10.6	8.8520 µg/L	8.8520 ppb	11:56:24
3	Se 196.026†	-6.5	-24.9	108.59 µg/L	108.59 ppb	11:56:24
3	SiO2†	150660.3	149919.9	30621 µg/L	30621 ppb	11:56:03
3	Si 251.611†	185990.3	186374.8	14565 µg/L	14565 ppb	11:55:58
3	Sn 189.927†	-19.3	-19.7	-13.772 µg/L	-13.772 ppb	11:56:24
3	Ti 334.940†	1159967.1	1164110.0	2687.7 µg/L	2687.7 ppb	11:55:58
3	Tl 190.801†	-42.8	-19.2	14.088 µg/L	14.088 ppb	11:56:24
3	U 409.014†	-236.9	-148.7	-20.709 µg/L	-20.709 ppb	11:56:03
3	V 292.402†	10848.1	10933.4	117.11 µg/L	117.11 ppb	11:56:03
3	Zn 213.857†	5342.6	4898.1	112.37 µg/L	112.37 ppb	11:56:24

Mean Data: 245688006|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1974687.8	99.465	%	0.2621				0.26%
Sc RADIAL	55981.6	97.7	%	0.74				0.75%
Y 371.029	1358947.8	99.601	%	0.2182				0.22%
Ag 328.068†	-738.6	-1.3542	µg/L	0.15530	-1.3542	ppb	0.15530	11.47%
Al 396.153Radial†	45537.5	31721	µg/L	250.6	31721	ppb	250.6	0.79%
As 188.979†	1.3	5.4090	µg/L	4.49800	5.4090	ppb	4.49800	83.16%
B 249.677†	502.2	-8.3004	µg/L	1.09154	-8.3004	ppb	1.09154	13.15%
Ba 233.527†	14338.9	353.88	µg/L	5.279	353.88	ppb	5.279	1.49%
Be 313.107†	7561.0	3.6558	µg/L	0.11537	3.6558	ppb	0.11537	3.16%
Ca 317.933Radial†	6561.5	5695.8	µg/L	46.03	5695.8	ppb	46.03	0.81%
Cd 226.502†	198.0	-1.1292	µg/L	0.17158	-1.1292	ppb	0.17158	15.19%
Co 228.616†	641.6	24.131	µg/L	1.1927	24.131	ppb	1.1927	4.94%
Cr 267.716†	2292.0	47.767	µg/L	1.8530	47.767	ppb	1.8530	3.88%
Cu 324.752†	3816.6	32.953	µg/L	0.2710	32.953	ppb	0.2710	0.82%
Fe 238.204 Radial†	7054.7	55732	µg/L	462.4	55732	ppb	462.4	0.83%
K 766.490 Radial†	8905.8	6130.0	µg/L	37.10	6130.0	ppb	37.10	0.61%
Mg 279.077 IEC†	658.8	5774.5	µg/L	86.34	5774.5	ppb	86.34	1.50%
Mn 257.610†	481461.3	1572.7	µg/L	23.17	1572.7	ppb	23.17	1.47%
Mo 202.031†	0.2	2.1410	µg/L	0.27026	2.1410	ppb	0.27026	12.62%
Na 589.592 Radial†	750.6	233.56	µg/L	9.110	233.56	ppb	9.110	3.90%

Ni 231.604†	525.0	27.795	µg/L	1.4643	27.795	ppb	1.4643	5.27%
P 214.914†	226.6	416.25	µg/L	16.321	416.25	ppb	16.321	3.92%
Pb 220.353†	246.0	61.222	µg/L	0.6904	61.222	ppb	0.6904	1.13%
S 181.975 Axial†	76.2	316.97	µg/L	19.075	316.97	ppb	19.075	6.02%
Sb 206.836†	7.1	5.5664	µg/L	3.83560	5.5664	ppb	3.83560	68.91%
Se 196.026†	-27.8	105.66	µg/L	9.059	105.66	ppb	9.059	8.57%
SiO2†	151298.6	30902	µg/L	387.9	30902	ppb	387.9	1.26%
Si 251.611†	188873.1	14761	µg/L	170.0	14761	ppb	170.0	1.15%
Sn 189.927†	-25.4	-16.291	µg/L	2.2168	-16.291	ppb	2.2168	13.61%
Sr 421.552†	7654.7	75.537	µg/L	0.7286	75.537	ppb	0.7286	0.96%
Ti 334.940†	1185002.6	2736.0	µg/L	41.91	2736.0	ppb	41.91	1.53%
Tl 190.801†	-24.0	8.3175	µg/L	4.99794	8.3175	ppb	4.99794	60.09%
U 409.014†	-83.7	-15.232	µg/L	4.7437	-15.232	ppb	4.7437	31.14%
V 292.402†	11099.9	118.86	µg/L	1.895	118.86	ppb	1.895	1.59%
Zn 213.857†	5073.9	116.48	µg/L	3.756	116.48	ppb	3.756	3.22%

Sequence No.: 35
Sample ID: 245688007|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 413
Date Collected: 2/12/2010 11:56:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688007|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57146.1	57146.1	99.8	%			11:57:06
1	Al 396.153Radial†	75923.6	76118.7	53024	µg/L	53024	ppb	11:57:06
1	Ca 317.933Radial†	9921.6	9757.1	8469.8	µg/L	8469.8	ppb	11:57:26
1	Fe 238.204 Radial†	8514.8	8520.2	67310	µg/L	67310	ppb	11:57:26
1	K 766.490 Radial†	13638.1	13502.3	9293.9	µg/L	9293.9	ppb	11:57:06
1	Mg 279.077 IEC†	1134.5	1126.2	9901.2	µg/L	9901.2	ppb	11:57:26
1	Na 589.592 Radial†	2711.0	2203.3	685.59	µg/L	685.59	ppb	11:57:06
1	Sr 421.552†	14080.0	14086.2	139.00	µg/L	139.00	ppb	11:57:06
1	Sc 361.383	1966667.9	1966667.9	99.061	%			11:58:30
1	Y 371.029	1382856.1	1382856.1	101.35	%			11:58:30
1	Ag 328.068†	-1488.7	-941.7	-2.0567	µg/L	-2.0567	ppb	11:58:36
1	As 188.979†	8.4	6.6	15.671	µg/L	15.671	ppb	11:58:56
1	B 249.677†	926.7	641.2	-8.4120	µg/L	-8.4120	ppb	11:58:36
1	Ba 233.527†	26954.0	27235.5	672.01	µg/L	672.01	ppb	11:58:36
1	Be 313.107†	8674.4	12357.0	6.5086	µg/L	6.5086	ppb	11:58:36
1	Cd 226.502†	107.4	254.6	-0.8976	µg/L	-0.8976	ppb	11:58:56
1	Co 228.616†	1147.3	1167.1	47.871	µg/L	47.871	ppb	11:58:56
1	Cr 267.716†	8147.0	8272.7	172.24	µg/L	172.24	ppb	11:58:36
1	Cu 324.752†	15668.8	13373.1	97.678	µg/L	97.678	ppb	11:58:36
1	Mn 257.610†	732345.2	739550.0	2413.2	µg/L	2413.2	ppb	11:58:30
1	Mo 202.031†	2.6	7.5	3.3125	µg/L	3.3125	ppb	11:58:56
1	Ni 231.604†	2136.8	1854.5	96.562	µg/L	96.562	ppb	11:58:56
1	P 214.914†	279.8	255.8	465.03	µg/L	465.03	ppb	11:58:56
1	Pb 220.353†	499.5	417.4	104.82	µg/L	104.82	ppb	11:58:56
1	S 181.975 Axial†	131.8	115.6	480.66	µg/L	480.66	ppb	11:58:56
1	Sb 206.836†	31.2	7.8	4.5547	µg/L	4.5547	ppb	11:58:56
1	Se 196.026†	-21.6	-40.1	115.14	µg/L	115.14	ppb	11:58:56
1	SiO2†	183977.9	184430.5	37669	µg/L	37669	ppb	11:58:36
1	Si 251.611†	226156.3	228004.4	17819	µg/L	17819	ppb	11:58:30
1	Sn 189.927†	-29.2	-29.8	-18.944	µg/L	-18.944	ppb	11:58:56
1	Ti 334.940†	1317489.8	1329879.8	3070.2	µg/L	3070.2	ppb	11:58:30
1	Tl 190.801†	-51.7	-28.5	11.866	µg/L	11.866	ppb	11:58:56
1	U 409.014†	-563.0	-479.2	-50.758	µg/L	-50.758	ppb	11:58:30
1	V 292.402†	12582.4	12747.4	137.13	µg/L	137.13	ppb	11:58:36
1	Zn 213.857†	6808.8	6409.3	146.77	µg/L	146.77	ppb	11:58:36
2	Sc RADIAL	56470.1	56470.1	98.6	%			11:57:32
2	Al 396.153Radial†	75727.4	76830.5	53520	µg/L	53520	ppb	11:57:32
2	Ca 317.933Radial†	9923.9	9878.4	8575.1	µg/L	8575.1	ppb	11:57:52
2	Fe 238.204 Radial†	8532.9	8640.8	68263	µg/L	68263	ppb	11:57:52
2	K 766.490 Radial†	13638.5	13666.3	9406.8	µg/L	9406.8	ppb	11:57:32
2	Mg 279.077 IEC†	1134.8	1140.1	10023	µg/L	10023	ppb	11:57:52
2	Na 589.592 Radial†	2718.6	2243.6	698.11	µg/L	698.11	ppb	11:57:32
2	Sr 421.552†	13988.1	14162.0	139.75	µg/L	139.75	ppb	11:57:32
2	Sc 361.383	1954642.8	1954642.8	98.456	%			11:59:04
2	Y 371.029	1372677.0	1372677.0	100.61	%			11:59:04
2	Ag 328.068†	-1545.2	-1008.4	-2.4928	µg/L	-2.4928	ppb	11:59:09
2	As 188.979†	12.9	11.3	24.223	µg/L	24.223	ppb	11:59:30
2	B 249.677†	873.5	592.9	-10.898	µg/L	-10.898	ppb	11:59:09
2	Ba 233.527†	27121.9	27573.4	680.35	µg/L	680.35	ppb	11:59:09
2	Be 313.107†	8645.2	12381.2	6.5284	µg/L	6.5284	ppb	11:59:09
2	Cd 226.502†	97.0	244.7	-1.2643	µg/L	-1.2643	ppb	11:59:30
2	Co 228.616†	1140.7	1167.4	47.914	µg/L	47.914	ppb	11:59:30
2	Cr 267.716†	8200.8	8378.0	174.43	µg/L	174.43	ppb	11:59:09
2	Cu 324.752†	15635.2	13436.3	98.228	µg/L	98.228	ppb	11:59:09
2	Mn 257.610†	722879.0	734483.4	2396.9	µg/L	2396.9	ppb	11:59:04
2	Mo 202.031†	0.7	5.6	3.1546	µg/L	3.1546	ppb	11:59:30
2	Ni 231.604†	2121.2	1852.0	96.444	µg/L	96.444	ppb	11:59:30
2	P 214.914†	273.6	251.2	455.19	µg/L	455.19	ppb	11:59:30
2	Pb 220.353†	490.0	410.8	103.16	µg/L	103.16	ppb	11:59:30

2	S 181.975 Axial†	126.4	110.9	461.24 µg/L	461.24 ppb	11:59:30
2	Sb 206.836†	35.6	12.5	8.8697 µg/L	8.8697 ppb	11:59:30
2	Se 196.026†	-17.9	-36.5	122.75 µg/L	122.75 ppb	11:59:30
2	SiO2†	184890.1	186499.5	38092 µg/L	38092 ppb	11:59:09
2	Si 251.611†	224033.0	227252.3	17760 µg/L	17760 ppb	11:59:04
2	Sn 189.927†	-24.2	-24.9	-16.899 µg/L	-16.899 ppb	11:59:30
2	Ti 334.940†	1304048.6	1324409.8	3057.6 µg/L	3057.6 ppb	11:59:04
2	Tl 190.801†	-54.5	-31.6	7.7328 µg/L	7.7328 ppb	11:59:30
2	U 409.014†	-473.9	-392.2	-43.474 µg/L	-43.474 ppb	11:59:04
2	V 292.402†	12652.1	12896.3	138.76 µg/L	138.76 ppb	11:59:09
2	Zn 213.857†	6820.1	6463.0	147.98 µg/L	147.98 ppb	11:59:09
3	Sc RADIAL	56527.8	56527.8	98.7 %		11:57:57
3	Al 396.153Radial†	75867.9	76894.5	53564 µg/L	53564 ppb	11:57:57
3	Ca 317.933Radial†	9844.4	9787.6	8496.3 µg/L	8496.3 ppb	11:58:18
3	Fe 238.204 Radial†	8479.7	8578.0	67767 µg/L	67767 ppb	11:58:18
3	K 766.490 Radial†	13672.7	13686.9	9420.9 µg/L	9420.9 ppb	11:57:57
3	Mg 279.077 IEC†	1131.4	1135.5	9982.7 µg/L	9982.7 ppb	11:58:18
3	Na 589.592 Radial†	2725.0	2247.2	699.24 µg/L	699.24 ppb	11:57:57
3	Sr 421.552†	14038.1	14198.2	140.11 µg/L	140.11 ppb	11:57:57
3	Sc 361.383	1961331.3	1961331.3	98.792 %		11:59:37
3	Y 371.029	1377631.0	1377631.0	100.97 %		11:59:37
3	Ag 328.068†	-1482.6	-939.7	-2.0430 µg/L	-2.0430 ppb	11:59:43
3	As 188.979†	9.6	7.9	18.071 µg/L	18.071 ppb	12:00:03
3	B 249.677†	871.7	588.1	-10.853 µg/L	-10.853 ppb	11:59:43
3	Ba 233.527†	26062.8	26407.4	651.58 µg/L	651.58 ppb	11:59:43
3	Be 313.107†	8126.3	11826.0	6.2058 µg/L	6.2058 ppb	11:59:43
3	Cd 226.502†	83.1	230.3	-1.5865 µg/L	-1.5865 ppb	12:00:03
3	Co 228.616†	1067.9	1089.8	44.426 µg/L	44.426 ppb	12:00:03
3	Cr 267.716†	7809.7	7953.7	165.60 µg/L	165.60 ppb	11:59:43
3	Cu 324.752†	15091.0	12831.2	94.163 µg/L	94.163 ppb	11:59:43
3	Mn 257.610†	713108.6	722089.8	2356.5 µg/L	2356.5 ppb	11:59:37
3	Mo 202.031†	0.9	5.7	3.1528 µg/L	3.1528 ppb	12:00:03
3	Ni 231.604†	2024.6	1746.9	91.016 µg/L	91.016 ppb	12:00:03
3	P 214.914†	254.8	231.3	415.93 µg/L	415.93 ppb	12:00:03
3	Pb 220.353†	483.0	402.0	101.00 µg/L	101.00 ppb	12:00:03
3	S 181.975 Axial†	119.1	103.1	428.86 µg/L	428.86 ppb	12:00:03
3	Sb 206.836†	34.7	11.5	8.0371 µg/L	8.0371 ppb	12:00:03
3	Se 196.026†	-16.9	-35.4	123.06 µg/L	123.06 ppb	12:00:03
3	SiO2†	178039.6	178924.9	36545 µg/L	36545 ppb	11:59:43
3	Si 251.611†	221658.6	224072.9	17511 µg/L	17511 ppb	11:59:37
3	Sn 189.927†	-22.4	-23.0	-16.049 µg/L	-16.049 ppb	12:00:03
3	Ti 334.940†	1283346.9	1298938.3	2998.8 µg/L	2998.8 ppb	11:59:37
3	Tl 190.801†	-48.7	-25.6	14.944 µg/L	14.944 ppb	12:00:03
3	U 409.014†	-578.7	-496.6	-52.309 µg/L	-52.309 ppb	11:59:37
3	V 292.402†	12096.5	12290.1	132.54 µg/L	132.54 ppb	11:59:43
3	Zn 213.857†	6623.3	6240.2	142.79 µg/L	142.79 ppb	11:59:43

Mean Data: 245688007|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1960880.7	98.770	%	0.3035				0.31%
Sc RADIAL	56714.7	99.0	%	0.65				0.66%
Y 371.029	1377721.4	100.98	%	0.373				0.37%
Ag 328.068†	-963.3	-2.1975	µg/L	0.25587	-2.1975	ppb	0.25587	11.64%
Al 396.153Radial†	76614.6	53369	µg/L	300.0	53369	ppb	300.0	0.56%
As 188.979†	8.6	19.322	µg/L	4.4109	19.322	ppb	4.4109	22.83%
B 249.677†	607.4	-10.054	µg/L	1.4225	-10.054	ppb	1.4225	14.15%
Ba 233.527†	27072.1	667.98	µg/L	14.803	667.98	ppb	14.803	2.22%
Be 313.107†	12188.1	6.4143	µg/L	0.18078	6.4143	ppb	0.18078	2.82%
Ca 317.933Radial†	9807.7	8513.7	µg/L	54.78	8513.7	ppb	54.78	0.64%
Cd 226.502†	243.2	-1.2495	µg/L	0.34471	-1.2495	ppb	0.34471	27.59%
Co 228.616†	1141.4	46.737	µg/L	2.0015	46.737	ppb	2.0015	4.28%
Cr 267.716†	8201.5	170.75	µg/L	4.600	170.75	ppb	4.600	2.69%
Cu 324.752†	13213.5	96.690	µg/L	2.2053	96.690	ppb	2.2053	2.28%
Fe 238.204 Radial†	8579.7	67780	µg/L	476.5	67780	ppb	476.5	0.70%
K 766.490 Radial†	13618.5	9373.8	µg/L	69.63	9373.8	ppb	69.63	0.74%
Mg 279.077 IEC†	1133.9	9969.1	µg/L	62.24	9969.1	ppb	62.24	0.62%
Mn 257.610†	732041.1	2388.9	µg/L	29.19	2388.9	ppb	29.19	1.22%
Mo 202.031†	6.3	3.2066	µg/L	0.09170	3.2066	ppb	0.09170	2.86%
Na 589.592 Radial†	2231.3	694.32	µg/L	7.579	694.32	ppb	7.579	1.09%

Ni 231.604†	1817.8	94.674	µg/L	3.1688	94.674	ppb	3.1688	3.35%
P 214.914†	246.1	445.39	µg/L	25.976	445.39	ppb	25.976	5.83%
Pb 220.353†	410.1	102.99	µg/L	1.917	102.99	ppb	1.917	1.86%
S 181.975 Axial†	109.9	456.92	µg/L	26.170	456.92	ppb	26.170	5.73%
Sb 206.836†	10.6	7.1538	µg/L	2.28907	7.1538	ppb	2.28907	32.00%
Se 196.026†	-37.4	120.31	µg/L	4.484	120.31	ppb	4.484	3.73%
SiO2†	183285.0	37435	µg/L	799.6	37435	ppb	799.6	2.14%
Si 251.611†	226443.2	17697	µg/L	163.1	17697	ppb	163.1	0.92%
Sn 189.927†	-25.9	-17.297	µg/L	1.4881	-17.297	ppb	1.4881	8.60%
Sr 421.552†	14148.8	139.62	µg/L	0.564	139.62	ppb	0.564	0.40%
Ti 334.940†	1317742.6	3042.2	µg/L	38.13	3042.2	ppb	38.13	1.25%
Tl 190.801†	-28.5	11.514	µg/L	3.6184	11.514	ppb	3.6184	31.43%
U 409.014†	-456.0	-48.847	µg/L	4.7176	-48.847	ppb	4.7176	9.66%
V 292.402†	12644.6	136.14	µg/L	3.223	136.14	ppb	3.223	2.37%
Zn 213.857†	6370.8	145.85	µg/L	2.718	145.85	ppb	2.718	1.86%

Sequence No.: 36
Sample ID: 245688008|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 414
Date Collected: 2/12/2010 12:00:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688008|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55736.2	55736.2	97.3	%			12:00:46
1	Al 396.153Radial†	18302.1	18831.5	13118	µg/L	13118	ppb	12:00:46
1	Ca 317.933Radial†	8584.4	8634.5	7495.3	µg/L	7495.3	ppb	12:00:46
1	Fe 238.204 Radial†	9158.9	9398.0	74244	µg/L	74244	ppb	12:00:46
1	K 766.490 Radial†	5061.9	5035.1	3465.8	µg/L	3465.8	ppb	12:00:46
1	Mg 279.077 IEC†	364.8	364.0	3143.8	µg/L	3143.8	ppb	12:01:06
1	Na 589.592 Radial†	4604.5	4217.8	1312.4	µg/L	1312.4	ppb	12:00:46
1	Sr 421.552†	3941.5	4024.9	39.718	µg/L	39.718	ppb	12:00:46
1	Sc 361.383	1964956.4	1964956.4	98.975	%			12:02:10
1	Y 371.029	1455759.7	1455759.7	106.70	%			12:02:10
1	Ag 328.068†	-1509.6	-964.1	-2.4776	µg/L	-2.4776	ppb	12:02:16
1	As 188.979†	4.7	3.0	9.3666	µg/L	9.3666	ppb	12:02:36
1	B 249.677†	599.7	311.7	-25.675	µg/L	-25.675	ppb	12:02:16
1	Ba 233.527†	10126.5	10257.4	253.05	µg/L	253.05	ppb	12:02:16
1	Be 313.107†	5465.4	9122.4	4.9410	µg/L	4.9410	ppb	12:02:16
1	Cd 226.502†	97.3	244.5	-1.9479	µg/L	-1.9479	ppb	12:02:16
1	Co 228.616†	272.1	283.8	9.2183	µg/L	9.2183	ppb	12:02:36
1	Cr 267.716†	6422.5	6537.6	136.06	µg/L	136.06	ppb	12:02:16
1	Cu 324.752†	7074.8	4703.9	41.387	µg/L	41.387	ppb	12:02:16
1	Mn 257.610†	683901.5	691248.6	2257.4	µg/L	2257.4	ppb	12:02:10
1	Mo 202.031†	60.0	65.4	9.4253	µg/L	9.4253	ppb	12:02:36
1	Ni 231.604†	2062.4	1781.2	92.917	µg/L	92.917	ppb	12:02:16
1	P 214.914†	549.7	528.7	1002.4	µg/L	1002.4	ppb	12:02:36
1	Pb 220.353†	325.1	241.5	58.576	µg/L	58.576	ppb	12:02:36
1	S 181.975 Axial†	21.2	4.0	16.514	µg/L	16.514	ppb	12:02:36
1	Sb 206.836†	26.6	3.2	0.9196	µg/L	0.9196	ppb	12:02:36
1	Se 196.026†	-29.3	-48.0	129.09	µg/L	129.09	ppb	12:02:36
1	SiO2†	96741.1	96452.0	19700	µg/L	19700	ppb	12:02:16
1	Si 251.611†	116976.5	117892.8	9213.4	µg/L	9213.4	ppb	12:02:16
1	Sn 189.927†	-2.9	-3.2	-8.9596	µg/L	-8.9596	ppb	12:02:36
1	Ti 334.940†	818619.6	827001.8	1909.5	µg/L	1909.5	ppb	12:02:10
1	Tl 190.801†	-47.0	-23.7	5.0892	µg/L	5.0892	ppb	12:02:36
1	U 409.014†	-2209.7	-2143.4	-193.66	µg/L	-193.66	ppb	12:02:10
1	V 292.402†	2365.4	2435.5	33.531	µg/L	33.531	ppb	12:02:16
1	Zn 213.857†	19512.5	19250.5	449.66	µg/L	449.66	ppb	12:02:16
2	Sc RADIAL	55787.8	55787.8	97.4	%			12:01:12
2	Al 396.153Radial†	18529.1	19047.2	13268	µg/L	13268	ppb	12:01:12
2	Ca 317.933Radial†	8669.2	8713.3	7563.7	µg/L	7563.7	ppb	12:01:12
2	Fe 238.204 Radial†	9225.5	9457.6	74715	µg/L	74715	ppb	12:01:12
2	K 766.490 Radial†	5065.8	5034.3	3465.2	µg/L	3465.2	ppb	12:01:12
2	Mg 279.077 IEC†	361.2	360.0	3107.7	µg/L	3107.7	ppb	12:01:32
2	Na 589.592 Radial†	4666.0	4276.5	1330.7	µg/L	1330.7	ppb	12:01:12
2	Sr 421.552†	4010.0	4091.4	40.374	µg/L	40.374	ppb	12:01:12
2	Sc 361.383	1942279.0	1942279.0	97.833	%			12:02:44
2	Y 371.029	1438600.9	1438600.9	105.44	%			12:02:44
2	Ag 328.068†	-1562.0	-1035.6	-2.9843	µg/L	-2.9843	ppb	12:02:49
2	As 188.979†	6.5	4.8	12.824	µg/L	12.824	ppb	12:03:10
2	B 249.677†	621.2	340.7	-24.720	µg/L	-24.720	ppb	12:02:49
2	Ba 233.527†	10162.9	10414.0	256.91	µg/L	256.91	ppb	12:02:49
2	Be 313.107†	5393.1	9113.0	4.9313	µg/L	4.9313	ppb	12:02:49
2	Cd 226.502†	109.9	258.6	-1.6338	µg/L	-1.6338	ppb	12:02:49
2	Co 228.616†	272.3	287.2	9.3575	µg/L	9.3575	ppb	12:03:10
2	Cr 267.716†	6445.6	6636.9	138.13	µg/L	138.13	ppb	12:02:49
2	Cu 324.752†	7219.6	4935.4	42.981	µg/L	42.981	ppb	12:02:49
2	Mn 257.610†	678595.9	693893.1	2266.0	µg/L	2266.0	ppb	12:02:44
2	Mo 202.031†	58.5	64.7	9.3648	µg/L	9.3648	ppb	12:03:10
2	Ni 231.604†	2083.0	1826.6	95.266	µg/L	95.266	ppb	12:02:49
2	P 214.914†	535.6	520.9	986.01	µg/L	986.01	ppb	12:03:10
2	Pb 220.353†	321.0	241.2	58.485	µg/L	58.485	ppb	12:03:10

2	S 181.975 Axial†	20.4	3.4	14.157	µg/L	14.157 ppb	12:03:10
2	Sb 206.836†	33.1	10.2	7.2874	µg/L	7.2874 ppb	12:03:10
2	Se 196.026†	-34.2	-53.3	122.70	µg/L	122.70 ppb	12:03:10
2	SiO2†	97001.2	97859.0	19987	µg/L	19987 ppb	12:02:49
2	Si 251.611†	117358.7	119663.4	9351.7	µg/L	9351.7 ppb	12:02:49
2	Sn 189.927†	-5.2	-5.7	-10.081	µg/L	-10.081 ppb	12:03:10
2	Ti 334.940†	813481.2	831406.4	1919.7	µg/L	1919.7 ppb	12:02:44
2	Tl 190.801†	-40.7	-17.8	13.033	µg/L	13.033 ppb	12:03:10
2	U 409.014†	-2249.1	-2209.8	-199.39	µg/L	-199.39 ppb	12:02:44
2	V 292.402†	2421.7	2521.1	34.449	µg/L	34.449 ppb	12:02:49
2	Zn 213.857†	19627.4	19598.2	457.82	µg/L	457.82 ppb	12:02:49
3	Sc RADIAL	56009.3	56009.3	97.8	%		12:01:37
3	Al 396.153Radial†	18355.0	18793.9	13092	µg/L	13092 ppb	12:01:37
3	Ca 317.933Radial†	8558.2	8564.7	7434.7	µg/L	7434.7 ppb	12:01:37
3	Fe 238.204 Radial†	9145.9	9338.9	73777	µg/L	73777 ppb	12:01:37
3	K 766.490 Radial†	5068.7	5016.7	3453.1	µg/L	3453.1 ppb	12:01:37
3	Mg 279.077 IEC†	359.4	356.7	3079.7	µg/L	3079.7 ppb	12:01:58
3	Na 589.592 Radial†	4625.7	4216.4	1312.0	µg/L	1312.0 ppb	12:01:37
3	Sr 421.552†	3952.5	4016.4	39.634	µg/L	39.634 ppb	12:01:37
3	Sc 361.383	1934599.3	1934599.3	97.446	%		12:03:17
3	Y 371.029	1433659.3	1433659.3	105.08	%		12:03:17
3	Ag 328.068†	-1457.5	-934.6	-2.2880	µg/L	-2.2880 ppb	12:03:23
3	As 188.979†	4.7	3.0	9.3106	µg/L	9.3106 ppb	12:03:43
3	B 249.677†	596.7	318.1	-25.173	µg/L	-25.173 ppb	12:03:23
3	Ba 233.527†	9778.3	10060.6	248.20	µg/L	248.20 ppb	12:03:23
3	Be 313.107†	5085.2	8818.9	4.7596	µg/L	4.7596 ppb	12:03:23
3	Cd 226.502†	98.3	247.1	-1.8295	µg/L	-1.8295 ppb	12:03:23
3	Co 228.616†	257.3	272.9	8.7545	µg/L	8.7545 ppb	12:03:43
3	Cr 267.716†	6133.2	6342.5	132.00	µg/L	132.00 ppb	12:03:23
3	Cu 324.752†	6979.5	4718.3	41.417	µg/L	41.417 ppb	12:03:23
3	Mn 257.610†	668471.2	686256.5	2241.1	µg/L	2241.1 ppb	12:03:17
3	Mo 202.031†	64.3	70.8	9.9496	µg/L	9.9496 ppb	12:03:43
3	Ni 231.604†	1994.4	1744.2	91.001	µg/L	91.001 ppb	12:03:23
3	P 214.914†	513.8	500.6	946.29	µg/L	946.29 ppb	12:03:43
3	Pb 220.353†	311.5	232.8	56.405	µg/L	56.405 ppb	12:03:43
3	S 181.975 Axial†	24.5	7.7	32.005	µg/L	32.005 ppb	12:03:43
3	Sb 206.836†	20.7	-2.4	-4.2839	µg/L	-4.2839 ppb	12:03:43
3	Se 196.026†	-22.6	-41.5	137.19	µg/L	137.19 ppb	12:03:43
3	SiO2†	93741.8	94907.9	19385	µg/L	19385 ppb	12:03:23
3	Si 251.611†	113380.1	116056.7	9069.9	µg/L	9069.9 ppb	12:03:23
3	Sn 189.927†	-4.6	-5.1	-9.7311	µg/L	-9.7311 ppb	12:03:43
3	Ti 334.940†	798017.3	818838.0	1890.7	µg/L	1890.7 ppb	12:03:17
3	Tl 190.801†	-47.3	-24.8	3.3093	µg/L	3.3093 ppb	12:03:43
3	U 409.014†	-2253.7	-2223.6	-200.43	µg/L	-200.43 ppb	12:03:17
3	V 292.402†	2256.5	2361.3	32.713	µg/L	32.713 ppb	12:03:23
3	Zn 213.857†	18942.4	18974.8	443.19	µg/L	443.19 ppb	12:03:23

Mean Data: 245688008|948032|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1947278.2	98.085	%	0.7950				0.81%
Sc RADIAL	55844.4	97.5	%	0.25				0.26%
Y 371.029	1442673.3	105.74	%	0.850				0.80%
Ag 328.068†	-978.1	-2.5833	µg/L	0.36001	-2.5833	ppb	0.36001	13.94%
Al 396.153Radial†	18890.9	13159	µg/L	95.2	13159	ppb	95.2	0.72%
As 188.979†	3.6	10.500	µg/L	2.0123	10.500	ppb	2.0123	19.16%
B 249.677†	323.5	-25.189	µg/L	0.4778	-25.189	ppb	0.4778	1.90%
Ba 233.527†	10244.0	252.72	µg/L	4.369	252.72	ppb	4.369	1.73%
Be 313.107†	9018.1	4.8773	µg/L	0.10206	4.8773	ppb	0.10206	2.09%
Ca 317.933Radial†	8637.5	7497.9	µg/L	64.55	7497.9	ppb	64.55	0.86%
Cd 226.502†	250.1	-1.8038	µg/L	0.15863	-1.8038	ppb	0.15863	8.79%
Co 228.616†	281.3	9.1101	µg/L	0.31574	9.1101	ppb	0.31574	3.47%
Cr 267.716†	6505.7	135.40	µg/L	3.117	135.40	ppb	3.117	2.30%
Cu 324.752†	4785.9	41.928	µg/L	0.9118	41.928	ppb	0.9118	2.17%
Fe 238.204 Radial†	9398.2	74245	µg/L	469.2	74245	ppb	469.2	0.63%
K 766.490 Radial†	5028.7	3461.3	µg/L	7.19	3461.3	ppb	7.19	0.21%
Mg 279.077 IEC†	360.2	3110.4	µg/L	32.13	3110.4	ppb	32.13	1.03%
Mn 257.610†	690466.1	2254.8	µg/L	12.67	2254.8	ppb	12.67	0.56%
Mo 202.031†	67.0	9.5799	µg/L	0.32156	9.5799	ppb	0.32156	3.36%
Na 589.592 Radial†	4236.9	1318.4	µg/L	10.68	1318.4	ppb	10.68	0.81%

Ni 231.604†	1784.0	93.062	µg/L	2.1364	93.062	ppb	2.1364	2.30%
P 214.914†	516.7	978.23	µg/L	28.842	978.23	ppb	28.842	2.95%
Pb 220.353†	238.5	57.822	µg/L	1.2277	57.822	ppb	1.2277	2.12%
S 181.975 Axial†	5.0	20.892	µg/L	9.6957	20.892	ppb	9.6957	46.41%
Sb 206.836†	3.7	1.3077	µg/L	5.79542	1.3077	ppb	5.79542	443.17%
Se 196.026†	-47.6	129.66	µg/L	7.264	129.66	ppb	7.264	5.60%
SiO2†	96406.3	19691	µg/L	301.5	19691	ppb	301.5	1.53%
Si 251.611†	117871.0	9211.7	µg/L	140.94	9211.7	ppb	140.94	1.53%
Sn 189.927†	-4.6	-9.5905	µg/L	0.57364	-9.5905	ppb	0.57364	5.98%
Sr 421.552†	4044.2	39.909	µg/L	0.4055	39.909	ppb	0.4055	1.02%
Ti 334.940†	825748.7	1906.6	µg/L	14.73	1906.6	ppb	14.73	0.77%
Tl 190.801†	-22.1	7.1439	µg/L	5.17725	7.1439	ppb	5.17725	72.47%
U 409.014†	-2192.3	-197.83	µg/L	3.646	-197.83	ppb	3.646	1.84%
V 292.402†	2439.3	33.564	µg/L	0.8683	33.564	ppb	0.8683	2.59%
Zn 213.857†	19274.5	450.22	µg/L	7.331	450.22	ppb	7.331	1.63%

Sequence No.: 37
Sample ID: 245688009|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 415
Date Collected: 2/12/2010 12:03:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688009|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55785.9	55785.9	97.4	%			12:04:25
1	Al 396.153Radial†	127147.1	130564.5	90950	µg/L	90950	ppb	12:04:25
1	Ca 317.933Radial†	19957.4	20303.1	17624	µg/L	17624	ppb	12:04:45
1	Fe 238.204 Radial†	13398.6	13742.4	108570	µg/L	108570	ppb	12:04:45
1	K 766.490 Radial†	16932.1	17217.4	11851	µg/L	11851	ppb	12:04:25
1	Mg 279.077 IEC†	1633.8	1666.5	14642	µg/L	14642	ppb	12:04:45
1	Na 589.592 Radial†	2757.1	2316.9	720.94	µg/L	720.94	ppb	12:04:45
1	Sr 421.552†	15832.2	16229.3	160.15	µg/L	160.15	ppb	12:04:25
1	Sc 361.383	1934468.2	1934468.2	97.439	%			12:05:50
1	Y 371.029	1347583.9	1347583.9	98.768	%			12:05:50
1	Ag 328.068†	129.4	693.9	13.287	µg/L	13.287	ppb	12:05:56
1	As 188.979†	14.6	13.2	29.594	µg/L	29.594	ppb	12:06:17
1	B 249.677†	1450.5	1194.4	-7.0843	µg/L	-7.0843	ppb	12:05:56
1	Ba 233.527†	31950.2	32815.9	809.75	µg/L	809.75	ppb	12:05:56
1	Be 313.107†	45465.8	50261.0	30.185	µg/L	30.185	ppb	12:05:56
1	Cd 226.502†	248.3	401.0	-1.7344	µg/L	-1.7344	ppb	12:06:17
1	Co 228.616†	935.6	969.1	39.337	µg/L	39.337	ppb	12:06:17
1	Cr 267.716†	9529.4	9828.4	204.64	µg/L	204.64	ppb	12:05:56
1	Cu 324.752†	253642.8	257864.3	1718.2	µg/L	1718.2	ppb	12:05:50
1	Mn 257.610†	534373.0	548680.8	1797.9	µg/L	1797.9	ppb	12:05:50
1	Mo 202.031†	16.4	21.7	6.3116	µg/L	6.3116	ppb	12:06:17
1	Ni 231.604†	2548.7	2313.2	120.79	µg/L	120.79	ppb	12:06:17
1	P 214.914†	389.3	372.9	507.50	µg/L	507.50	ppb	12:06:17
1	Pb 220.353†	3908.4	3924.2	980.04	µg/L	980.04	ppb	12:06:17
1	S 181.975 Axial†	95.1	80.1	333.22	µg/L	333.22	ppb	12:06:17
1	Sb 206.836†	44.7	22.2	16.737	µg/L	16.737	ppb	12:06:17
1	Se 196.026†	-39.0	-58.4	194.88	µg/L	194.88	ppb	12:06:17
1	SiO2†	249913.8	255190.5	52122	µg/L	52122	ppb	12:05:50
1	Si 251.611†	302413.9	310066.1	24232	µg/L	24232	ppb	12:05:50
1	Sn 189.927†	15.8	15.9	-3.0366	µg/L	-3.0366	ppb	12:06:17
1	Ti 334.940†	1160134.3	1190526.8	2748.2	µg/L	2748.2	ppb	12:05:50
1	Tl 190.801†	-53.3	-31.0	12.711	µg/L	12.711	ppb	12:06:17
1	U 409.014†	12523.0	12941.2	1088.0	µg/L	1088.0	ppb	12:05:50
1	V 292.402†	17211.0	17709.0	193.41	µg/L	193.41	ppb	12:05:56
1	Zn 213.857†	18412.0	18431.8	425.26	µg/L	425.26	ppb	12:05:56
2	Sc RADIAL	56756.7	56756.7	99.1	%			12:04:51
2	Al 396.153Radial†	128100.7	129293.9	90065	µg/L	90065	ppb	12:04:51
2	Ca 317.933Radial†	20015.8	20011.6	17371	µg/L	17371	ppb	12:05:12
2	Fe 238.204 Radial†	13420.1	13528.8	106880	µg/L	106880	ppb	12:05:12
2	K 766.490 Radial†	16930.2	16918.2	11645	µg/L	11645	ppb	12:04:51
2	Mg 279.077 IEC†	1630.7	1634.8	14363	µg/L	14363	ppb	12:05:12
2	Na 589.592 Radial†	2760.1	2271.5	706.81	µg/L	706.81	ppb	12:05:12
2	Sr 421.552†	15945.5	16065.6	158.54	µg/L	158.54	ppb	12:04:51
2	Sc 361.383	1929864.1	1929864.1	97.207	%			12:06:25
2	Y 371.029	1344641.9	1344641.9	98.552	%			12:06:25
2	Ag 328.068†	93.1	656.8	12.876	µg/L	12.876	ppb	12:06:30
2	As 188.979†	17.9	16.6	35.826	µg/L	35.826	ppb	12:06:51
2	B 249.677†	1432.7	1179.7	-6.8176	µg/L	-6.8176	ppb	12:06:30
2	Ba 233.527†	31449.2	32378.7	798.96	µg/L	798.96	ppb	12:06:30
2	Be 313.107†	44748.1	49634.0	29.800	µg/L	29.800	ppb	12:06:30
2	Cd 226.502†	254.1	407.6	-1.3723	µg/L	-1.3723	ppb	12:06:51
2	Co 228.616†	926.3	961.8	39.023	µg/L	39.023	ppb	12:06:51
2	Cr 267.716†	9323.9	9640.4	200.73	µg/L	200.73	ppb	12:06:30
2	Cu 324.752†	251830.6	256621.0	1709.7	µg/L	1709.7	ppb	12:06:25
2	Mn 257.610†	529940.8	545429.6	1787.1	µg/L	1787.1	ppb	12:06:25
2	Mo 202.031†	9.8	14.9	5.5680	µg/L	5.5680	ppb	12:06:51
2	Ni 231.604†	2535.7	2306.1	120.40	µg/L	120.40	ppb	12:06:51
2	P 214.914†	394.5	379.2	522.04	µg/L	522.04	ppb	12:06:51
2	Pb 220.353†	3926.9	3952.8	987.24	µg/L	987.24	ppb	12:06:51

2	S 181.975 Axial†	98.5	83.9	348.85 µg/L	348.85 ppb	12:06:51
2	Sb 206.836†	51.6	29.5	23.510 µg/L	23.510 ppb	12:06:51
2	Se 196.026†	-36.8	-56.2	193.70 µg/L	193.70 ppb	12:06:51
2	SiO2†	248331.7	254174.9	51914 µg/L	51914 ppb	12:06:25
2	Si 251.611†	300253.5	308584.1	24116 µg/L	24116 ppb	12:06:25
2	Sn 189.927†	11.9	12.0	-4.6051 µg/L	-4.6051 ppb	12:06:51
2	Ti 334.940†	1151784.2	1184777.3	2734.9 µg/L	2734.9 ppb	12:06:25
2	Tl 190.801†	-55.6	-33.5	8.9098 µg/L	8.9098 ppb	12:06:51
2	U 409.014†	12405.4	12850.9	1080.5 µg/L	1080.5 ppb	12:06:25
2	V 292.402†	16840.5	17369.9	189.76 µg/L	189.76 ppb	12:06:30
2	Zn 213.857†	18151.1	18208.5	420.10 µg/L	420.10 ppb	12:06:30
3	Sc RADIAL	56361.9	56361.9	98.4 %		12:05:17
3	Al 396.153Radial†	126973.8	129054.2	89898 µg/L	89898 ppb	12:05:17
3	Ca 317.933Radial†	20078.7	20217.0	17550 µg/L	17550 ppb	12:05:38
3	Fe 238.204 Radial†	13469.3	13673.7	108020 µg/L	108020 ppb	12:05:38
3	K 766.490 Radial†	16819.9	16925.8	11650 µg/L	11650 ppb	12:05:17
3	Mg 279.077 IEC†	1638.5	1654.2	14533 µg/L	14533 ppb	12:05:38
3	Na 589.592 Radial†	2772.3	2303.4	716.75 µg/L	716.75 ppb	12:05:38
3	Sr 421.552†	15735.3	15964.7	157.54 µg/L	157.54 ppb	12:05:17
3	Sc 361.383	1942177.4	1942177.4	97.828 %		12:06:59
3	Y 371.029	1353249.9	1353249.9	99.183 %		12:06:59
3	Ag 328.068†	187.6	752.8	13.631 µg/L	13.631 ppb	12:07:04
3	As 188.979†	14.0	12.5	28.260 µg/L	28.260 ppb	12:07:25
3	B 249.677†	1385.3	1121.8	-9.8142 µg/L	-9.8142 ppb	12:07:04
3	Ba 233.527†	30645.3	31351.9	773.62 µg/L	773.62 ppb	12:07:04
3	Be 313.107†	43268.5	47829.7	28.700 µg/L	28.700 ppb	12:07:04
3	Cd 226.502†	235.8	387.2	-2.0391 µg/L	-2.0391 ppb	12:07:25
3	Co 228.616†	876.2	904.5	36.476 µg/L	36.476 ppb	12:07:25
3	Cr 267.716†	8997.1	9245.4	192.50 µg/L	192.50 ppb	12:07:04
3	Cu 324.752†	249221.4	252311.4	1681.4 µg/L	1681.4 ppb	12:06:59
3	Mn 257.610†	525575.7	537511.3	1761.5 µg/L	1761.5 ppb	12:06:59
3	Mo 202.031†	11.2	16.3	5.7459 µg/L	5.7459 ppb	12:07:25
3	Ni 231.604†	2408.1	2159.1	112.83 µg/L	112.83 ppb	12:07:25
3	P 214.914†	368.4	350.0	465.40 µg/L	465.40 ppb	12:07:25
3	Pb 220.353†	3761.4	3758.0	938.47 µg/L	938.47 ppb	12:07:25
3	S 181.975 Axial†	99.0	83.7	348.32 µg/L	348.32 ppb	12:07:25
3	Sb 206.836†	47.6	25.0	19.455 µg/L	19.455 ppb	12:07:25
3	Se 196.026†	-37.4	-56.6	196.09 µg/L	196.09 ppb	12:07:25
3	SiO2†	245823.1	249990.9	51060 µg/L	51060 ppb	12:06:59
3	Si 251.611†	297483.3	303794.1	23742 µg/L	23742 ppb	12:06:59
3	Sn 189.927†	7.5	7.4	-6.6825 µg/L	-6.6825 ppb	12:07:25
3	Ti 334.940†	1135384.0	1160500.9	2678.9 µg/L	2678.9 ppb	12:06:59
3	Tl 190.801†	-48.4	-25.7	18.731 µg/L	18.731 ppb	12:07:25
3	U 409.014†	12191.7	12551.5	1054.8 µg/L	1054.8 ppb	12:06:59
3	V 292.402†	16265.7	16672.6	182.81 µg/L	182.81 ppb	12:07:04
3	Zn 213.857†	17760.9	17691.3	407.93 µg/L	407.93 ppb	12:07:04

Mean Data: 245688009|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1935503.2	97.491	%	0.3134				0.32%
Sc RADIAL	56301.5	98.3	%	0.85				0.87%
Y 371.029	1348491.9	98.834	%	0.3207				0.32%
Ag 328.068†	701.2	13.265	µg/L	0.3777	13.265	ppb	0.3777	2.85%
Al 396.153Radial†	129637.5	90304	µg/L	565.4	90304	ppb	565.4	0.63%
As 188.979†	14.1	31.227	µg/L	4.0385	31.227	ppb	4.0385	12.93%
B 249.677†	1165.3	-7.9054	µg/L	1.65848	-7.9054	ppb	1.65848	20.98%
Ba 233.527†	32182.2	794.11	µg/L	18.546	794.11	ppb	18.546	2.34%
Be 313.107†	49241.6	29.562	µg/L	0.7704	29.562	ppb	0.7704	2.61%
Ca 317.933Radial†	20177.2	17515	µg/L	130.0	17515	ppb	130.0	0.74%
Cd 226.502†	398.6	-1.7153	µg/L	0.33379	-1.7153	ppb	0.33379	19.46%
Co 228.616†	945.1	38.278	µg/L	1.5690	38.278	ppb	1.5690	4.10%
Cr 267.716†	9571.4	199.29	µg/L	6.196	199.29	ppb	6.196	3.11%
Cu 324.752†	255598.9	1703.1	µg/L	19.25	1703.1	ppb	19.25	1.13%
Fe 238.204 Radial†	13648.3	107820	µg/L	861.3	107820	ppb	861.3	0.80%
K 766.490 Radial†	17020.5	11715	µg/L	117.4	11715	ppb	117.4	1.00%
Mg 279.077 IEC†	1651.8	14513	µg/L	140.8	14513	ppb	140.8	0.97%
Mn 257.610†	543873.9	1782.2	µg/L	18.69	1782.2	ppb	18.69	1.05%
Mo 202.031†	17.6	5.8752	µg/L	0.38827	5.8752	ppb	0.38827	6.61%
Na 589.592 Radial†	2297.3	714.83	µg/L	7.255	714.83	ppb	7.255	1.01%

Ni 231.604†	2259.5	118.01 µg/L	4.489	118.01 ppb	4.489	3.80%
P 214.914†	367.4	498.31 µg/L	29.414	498.31 ppb	29.414	5.90%
Pb 220.353†	3878.3	968.59 µg/L	26.325	968.59 ppb	26.325	2.72%
S 181.975 Axial†	82.6	343.46 µg/L	8.875	343.46 ppb	8.875	2.58%
Sb 206.836†	25.5	19.901 µg/L	3.4085	19.901 ppb	3.4085	17.13%
Se 196.026†	-57.1	194.89 µg/L	1.197	194.89 ppb	1.197	0.61%
SiO2†	253118.8	51699 µg/L	562.9	51699 ppb	562.9	1.09%
Si 251.611†	307481.4	24030 µg/L	256.2	24030 ppb	256.2	1.07%
Sn 189.927†	11.8	-4.7747 µg/L	1.82889	-4.7747 ppb	1.82889	38.30%
Sr 421.552†	16086.5	158.74 µg/L	1.318	158.74 ppb	1.318	0.83%
Ti 334.940†	1178601.7	2720.7 µg/L	36.80	2720.7 ppb	36.80	1.35%
Tl 190.801†	-30.1	13.451 µg/L	4.9523	13.451 ppb	4.9523	36.82%
U 409.014†	12781.2	1074.5 µg/L	17.40	1074.5 ppb	17.40	1.62%
V 292.402†	17250.5	188.66 µg/L	5.388	188.66 ppb	5.388	2.86%
Zn 213.857†	18110.5	417.76 µg/L	8.899	417.76 ppb	8.899	2.13%

Sequence No.: 38
Sample ID: 245688010|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 416
Date Collected: 2/12/2010 12:07:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688010|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57224.2	57224.2	99.9	%			12:08:07
1	Al 396.153Radial†	117915.1	118043.3	82228	µg/L	82228	ppb	12:08:07
1	Ca 317.933Radial†	28280.9	28119.0	24409	µg/L	24409	ppb	12:08:27
1	Fe 238.204 Radial†	15288.3	15288.1	120780	µg/L	120780	ppb	12:08:27
1	K 766.490 Radial†	16638.8	16487.0	11348	µg/L	11348	ppb	12:08:07
1	Mg 279.077 IEC†	1841.2	1832.0	16094	µg/L	16094	ppb	12:08:27
1	Na 589.592 Radial†	10204.8	9700.0	3018.3	µg/L	3018.3	ppb	12:08:07
1	Sr 421.552†	21795.0	21788.8	215.01	µg/L	215.01	ppb	12:08:07
1	Sc 361.383	1956224.7	1956224.7	98.535	%			12:09:32
1	Y 371.029	1410831.7	1410831.7	103.40	%			12:09:32
1	Ag 328.068†	-2224.7	-1696.7	-4.3995	µg/L	-4.3995	ppb	12:09:38
1	As 188.979†	19.0	17.5	37.867	µg/L	37.867	ppb	12:09:58
1	B 249.677†	1221.0	944.9	-23.636	µg/L	-23.636	ppb	12:09:38
1	Ba 233.527†	46669.0	47388.8	1169.1	µg/L	1169.1	ppb	12:09:38
1	Be 313.107†	12913.7	16706.1	9.3021	µg/L	9.3021	ppb	12:09:38
1	Cd 226.502†	250.2	400.1	-3.1098	µg/L	-3.1098	ppb	12:09:58
1	Co 228.616†	1012.3	1036.2	42.288	µg/L	42.288	ppb	12:09:58
1	Cr 267.716†	12697.0	12934.3	269.25	µg/L	269.25	ppb	12:09:38
1	Cu 324.752†	7470.2	5137.1	50.716	µg/L	50.716	ppb	12:09:38
1	Mn 257.610†	819836.8	832288.9	2721.6	µg/L	2721.6	ppb	12:09:32
1	Mo 202.031†	47.1	52.6	9.9012	µg/L	9.9012	ppb	12:09:58
1	Ni 231.604†	3107.0	2850.7	148.70	µg/L	148.70	ppb	12:09:58
1	P 214.914†	319.1	297.3	519.04	µg/L	519.04	ppb	12:09:58
1	Pb 220.353†	415.9	335.2	84.027	µg/L	84.027	ppb	12:09:58
1	S 181.975 Axial†	142.2	126.9	527.73	µg/L	527.73	ppb	12:09:58
1	Sb 206.836†	42.6	19.5	12.993	µg/L	12.993	ppb	12:09:58
1	Se 196.026†	-51.7	-70.8	207.23	µg/L	207.23	ppb	12:09:58
1	SiO2†	233896.0	236082.1	48219	µg/L	48219	ppb	12:09:32
1	Si 251.611†	282728.4	286636.2	22401	µg/L	22401	ppb	12:09:32
1	Sn 189.927†	-22.3	-23.0	-21.034	µg/L	-21.034	ppb	12:09:58
1	Ti 334.940†	1208565.4	1226436.1	2831.1	µg/L	2831.1	ppb	12:09:32
1	Tl 190.801†	-56.6	-33.7	12.427	µg/L	12.427	ppb	12:09:58
1	U 409.014†	-1923.6	-1863.1	-177.24	µg/L	-177.24	ppb	12:09:32
1	V 292.402†	12790.1	13026.0	146.37	µg/L	146.37	ppb	12:09:38
1	Zn 213.857†	12030.7	11745.5	269.53	µg/L	269.53	ppb	12:09:38
2	Sc RADIAL	56975.4	56975.4	99.5	%			12:08:33
2	Al 396.153Radial†	118440.7	119087.0	82955	µg/L	82955	ppb	12:08:33
2	Ca 317.933Radial†	28195.9	28157.1	24442	µg/L	24442	ppb	12:08:53
2	Fe 238.204 Radial†	15289.4	15356.0	121310	µg/L	121310	ppb	12:08:53
2	K 766.490 Radial†	16856.7	16778.7	11549	µg/L	11549	ppb	12:08:33
2	Mg 279.077 IEC†	1842.2	1841.1	16174	µg/L	16174	ppb	12:08:53
2	Na 589.592 Radial†	10254.9	9795.0	3047.8	µg/L	3047.8	ppb	12:08:33
2	Sr 421.552†	21858.2	21947.6	216.58	µg/L	216.58	ppb	12:08:33
2	Sc 361.383	1966552.1	1966552.1	99.055	%			12:10:06
2	Y 371.029	1418287.0	1418287.0	103.95	%			12:10:06
2	Ag 328.068†	-2159.5	-1619.0	-3.7927	µg/L	-3.7927	ppb	12:10:12
2	As 188.979†	15.6	14.0	31.417	µg/L	31.417	ppb	12:10:32
2	B 249.677†	1184.2	901.2	-25.722	µg/L	-25.722	ppb	12:10:12
2	Ba 233.527†	46509.5	46979.0	1159.0	µg/L	1159.0	ppb	12:10:12
2	Be 313.107†	12968.2	16692.3	9.2896	µg/L	9.2896	ppb	12:10:12
2	Cd 226.502†	243.7	392.2	-3.3771	µg/L	-3.3771	ppb	12:10:32
2	Co 228.616†	1034.1	1052.8	43.038	µg/L	43.038	ppb	12:10:32
2	Cr 267.716†	12649.9	12819.1	266.85	µg/L	266.85	ppb	12:10:12
2	Cu 324.752†	7536.3	5164.0	50.968	µg/L	50.968	ppb	12:10:12
2	Mn 257.610†	829072.5	837243.3	2737.8	µg/L	2737.8	ppb	12:10:06
2	Mo 202.031†	43.9	49.1	9.5670	µg/L	9.5670	ppb	12:10:32
2	Ni 231.604†	3092.7	2819.7	147.10	µg/L	147.10	ppb	12:10:32
2	P 214.914†	309.0	285.4	494.97	µg/L	494.97	ppb	12:10:32
2	Pb 220.353†	404.8	321.7	80.675	µg/L	80.675	ppb	12:10:32

2	S 181.975 Axial†	151.5	135.5	563.48 µg/L	563.48 ppb	12:10:32
2	Sb 206.836†	41.8	18.5	12.091 µg/L	12.091 ppb	12:10:32
2	Se 196.026†	-43.5	-62.3	220.88 µg/L	220.88 ppb	12:10:32
2	SiO2†	235586.1	236541.7	48313 µg/L	48313 ppb	12:10:06
2	Si 251.611†	285091.9	287515.4	22469 µg/L	22469 ppb	12:10:06
2	Sn 189.927†	-18.4	-18.8	-19.297 µg/L	-19.297 ppb	12:10:32
2	Ti 334.940†	1219315.7	1230847.8	2841.3 µg/L	2841.3 ppb	12:10:06
2	Tl 190.801†	-52.2	-29.0	18.922 µg/L	18.922 ppb	12:10:32
2	U 409.014†	-1855.4	-1783.9	-170.56 µg/L	-170.56 ppb	12:10:06
2	V 292.402†	12614.5	12780.5	143.96 µg/L	143.96 ppb	12:10:12
2	Zn 213.857†	11962.4	11612.5	266.37 µg/L	266.37 ppb	12:10:12
3	Sc RADIAL	57066.3	57066.3	99.6 %		12:08:59
3	Al 396.153Radial†	117539.5	117992.8	82193 µg/L	82193 ppb	12:08:59
3	Ca 317.933Radial†	28283.7	28200.1	24480 µg/L	24480 ppb	12:09:19
3	Fe 238.204 Radial†	15328.8	15371.1	121430 µg/L	121430 ppb	12:09:19
3	K 766.490 Radial†	16594.1	16488.2	11349 µg/L	11349 ppb	12:08:59
3	Mg 279.077 IEC†	1854.6	1850.5	16258 µg/L	16258 ppb	12:09:19
3	Na 589.592 Radial†	10164.1	9687.4	3014.4 µg/L	3014.4 ppb	12:08:59
3	Sr 421.552†	21678.3	21732.0	214.45 µg/L	214.45 ppb	12:08:59
3	Sc 361.383	1983563.0	1983563.0	99.912 %		12:10:40
3	Y 371.029	1428761.2	1428761.2	104.72 %		12:10:40
3	Ag 328.068†	-2058.5	-1499.3	-2.9079 µg/L	-2.9079 ppb	12:10:46
3	As 188.979†	5.3	3.5	12.196 µg/L	12.196 ppb	12:11:06
3	B 249.677†	1172.0	878.8	-26.726 µg/L	-26.726 ppb	12:10:46
3	Ba 233.527†	45450.6	45516.5	1122.9 µg/L	1122.9 ppb	12:10:46
3	Be 313.107†	12415.9	16027.2	8.9092 µg/L	8.9092 ppb	12:10:46
3	Cd 226.502†	222.5	368.9	-4.0071 µg/L	-4.0071 ppb	12:11:06
3	Co 228.616†	937.3	947.0	38.296 µg/L	38.296 ppb	12:11:06
3	Cr 267.716†	12205.4	12264.7	255.31 µg/L	255.31 ppb	12:10:46
3	Cu 324.752†	7593.0	5155.5	50.928 µg/L	50.928 ppb	12:10:46
3	Mn 257.610†	813794.3	814773.8	2664.8 µg/L	2664.8 ppb	12:10:40
3	Mo 202.031†	46.7	51.6	9.8213 µg/L	9.8213 ppb	12:11:06
3	Ni 231.604†	2909.4	2609.4	136.26 µg/L	136.26 ppb	12:11:06
3	P 214.914†	288.6	262.2	448.08 µg/L	448.08 ppb	12:11:06
3	Pb 220.353†	402.4	315.8	79.143 µg/L	79.143 ppb	12:11:06
3	S 181.975 Axial†	134.2	116.9	486.21 µg/L	486.21 ppb	12:11:06
3	Sb 206.836†	28.9	5.2	-0.0851 µg/L	-0.0851 ppb	12:11:06
3	Se 196.026†	-36.5	-54.9	231.72 µg/L	231.72 ppb	12:11:06
3	SiO2†	232244.3	231157.3	47213 µg/L	47213 ppb	12:10:40
3	Si 251.611†	280913.8	280865.4	21950 µg/L	21950 ppb	12:10:40
3	Sn 189.927†	-27.9	-28.2	-23.369 µg/L	-23.369 ppb	12:11:06
3	Ti 334.940†	1192528.7	1193480.8	2755.0 µg/L	2755.0 ppb	12:10:40
3	Tl 190.801†	-54.2	-30.5	15.854 µg/L	15.854 ppb	12:11:06
3	U 409.014†	-1820.2	-1732.7	-166.21 µg/L	-166.21 ppb	12:10:40
3	V 292.402†	12246.1	12302.5	139.12 µg/L	139.12 ppb	12:10:46
3	Zn 213.857†	11709.3	11255.6	258.00 µg/L	258.00 ppb	12:10:46

Mean Data: 245688010|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1968779.9	99.168	%	0.6953				0.70%
Sc RADIAL	57088.7	99.7	%	0.22				0.22%
Y 371.029	1419293.3	104.02	%	0.660				0.63%
Ag 328.068†	-1605.0	-3.7001	µg/L	0.75010	-3.7001	ppb	0.75010	20.27%
Al 396.153Radial†	118374.3	82459	µg/L	430.3	82459	ppb	430.3	0.52%
As 188.979†	11.6	27.160	µg/L	13.3542	27.160	ppb	13.3542	49.17%
B 249.677†	908.3	-25.362	µg/L	1.5762	-25.362	ppb	1.5762	6.21%
Ba 233.527†	46628.1	1150.3	µg/L	24.28	1150.3	ppb	24.28	2.11%
Be 313.107†	16475.2	9.1670	µg/L	0.22332	9.1670	ppb	0.22332	2.44%
Ca 317.933Radial†	28158.7	24444	µg/L	35.2	24444	ppb	35.2	0.14%
Cd 226.502†	387.1	-3.4980	µg/L	0.46066	-3.4980	ppb	0.46066	13.17%
Co 228.616†	1012.0	41.207	µg/L	2.5492	41.207	ppb	2.5492	6.19%
Cr 267.716†	12672.7	263.80	µg/L	7.452	263.80	ppb	7.452	2.82%
Cu 324.752†	5152.2	50.871	µg/L	0.1356	50.871	ppb	0.1356	0.27%
Fe 238.204 Radial†	15338.4	121170	µg/L	349.3	121170	ppb	349.3	0.29%
K 766.490 Radial†	16584.6	11415	µg/L	115.7	11415	ppb	115.7	1.01%
Mg 279.077 IEC†	1841.2	16175	µg/L	81.6	16175	ppb	81.6	0.50%
Mn 257.610†	828102.0	2708.1	µg/L	38.37	2708.1	ppb	38.37	1.42%
Mo 202.031†	51.1	9.7632	µg/L	0.17452	9.7632	ppb	0.17452	1.79%
Na 589.592 Radial†	9727.5	3026.8	µg/L	18.29	3026.8	ppb	18.29	0.60%

Ni 231.604†	2759.9	144.02 µg/L	6.771	144.02 ppb	6.771	4.70%
P 214.914†	281.6	487.36 µg/L	36.086	487.36 ppb	36.086	7.40%
Pb 220.353†	324.2	81.281 µg/L	2.4981	81.281 ppb	2.4981	3.07%
S 181.975 Axial†	126.4	525.81 µg/L	38.674	525.81 ppb	38.674	7.36%
Sb 206.836†	14.4	8.3330 µg/L	7.30423	8.3330 ppb	7.30423	87.65%
Se 196.026†	-62.6	219.94 µg/L	12.272	219.94 ppb	12.272	5.58%
SiO2†	234593.7	47915 µg/L	609.7	47915 ppb	609.7	1.27%
Si 251.611†	285005.7	22273 µg/L	282.3	22273 ppb	282.3	1.27%
Sn 189.927†	-23.3	-21.233 µg/L	2.0434	-21.233 ppb	2.0434	9.62%
Sr 421.552†	21822.8	215.35 µg/L	1.103	215.35 ppb	1.103	0.51%
Ti 334.940†	1216921.6	2809.1 µg/L	47.16	2809.1 ppb	47.16	1.68%
Tl 190.801†	-31.0	15.734 µg/L	3.2495	15.734 ppb	3.2495	20.65%
U 409.014†	-1793.2	-171.34 µg/L	5.557	-171.34 ppb	5.557	3.24%
V 292.402†	12703.0	143.15 µg/L	3.695	143.15 ppb	3.695	2.58%
Zn 213.857†	11537.8	264.63 µg/L	5.961	264.63 ppb	5.961	2.25%

Sequence No.: 39
Sample ID: 245688011|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 417
Date Collected: 2/12/2010 12:11:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688011|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56524.3	56524.3	98.7	%			12:11:48
1	Al 396.153Radial†	55143.7	55899.9	38939	µg/L	38939	ppb	12:11:48
1	Ca 317.933Radial†	34603.9	34876.4	30275	µg/L	30275	ppb	12:11:48
1	Fe 238.204 Radial†	9268.7	9378.0	74086	µg/L	74086	ppb	12:12:08
1	K 766.490 Radial†	6842.5	6766.8	4657.7	µg/L	4657.7	ppb	12:11:48
1	Mg 279.077 IEC†	942.4	944.0	8280.9	µg/L	8280.9	ppb	12:12:08
1	Na 589.592 Radial†	9720.7	9335.9	2905.0	µg/L	2905.0	ppb	12:11:48
1	Sr 421.552†	14185.0	14347.9	141.59	µg/L	141.59	ppb	12:11:48
1	Sc 361.383	1955784.7	1955784.7	98.513	%			12:13:12
1	Y 371.029	1409497.4	1409497.4	103.31	%			12:13:12
1	Ag 328.068†	-1693.5	-1158.0	-3.7448	µg/L	-3.7448	ppb	12:13:18
1	As 188.979†	7.2	5.4	12.706	µg/L	12.706	ppb	12:13:38
1	B 249.677†	695.8	412.1	-21.222	µg/L	-21.222	ppb	12:13:18
1	Ba 233.527†	22193.2	22554.2	556.42	µg/L	556.42	ppb	12:13:18
1	Be 313.107†	9876.8	13626.3	7.8490	µg/L	7.8490	ppb	12:13:18
1	Cd 226.502†	89.1	236.7	-2.0653	µg/L	-2.0653	ppb	12:13:38
1	Co 228.616†	300.7	314.1	11.232	µg/L	11.232	ppb	12:13:38
1	Cr 267.716†	13196.9	13444.7	279.82	µg/L	279.82	ppb	12:13:18
1	Cu 324.752†	5663.4	3304.7	32.124	µg/L	32.124	ppb	12:13:18
1	Mn 257.610†	760457.1	772200.1	2520.4	µg/L	2520.4	ppb	12:13:12
1	Mo 202.031†	92.3	98.5	12.759	µg/L	12.759	ppb	12:13:38
1	Ni 231.604†	3356.4	3104.6	161.24	µg/L	161.24	ppb	12:13:38
1	P 214.914†	178.2	154.3	258.69	µg/L	258.69	ppb	12:13:38
1	Pb 220.353†	287.4	204.8	50.791	µg/L	50.791	ppb	12:13:38
1	S 181.975 Axial†	165.0	150.0	624.00	µg/L	624.00	ppb	12:13:38
1	Sb 206.836†	35.8	12.7	6.1186	µg/L	6.1186	ppb	12:13:38
1	Se 196.026†	-32.0	-50.8	113.64	µg/L	113.64	ppb	12:13:38
1	SiO2†	185245.8	186751.0	38143	µg/L	38143	ppb	12:13:18
1	Si 251.611†	227163.1	230296.8	17998	µg/L	17998	ppb	12:13:12
1	Sn 189.927†	-5.7	-6.1	-9.7241	µg/L	-9.7241	ppb	12:13:38
1	Ti 334.940†	692456.2	702812.7	1622.7	µg/L	1622.7	ppb	12:13:12
1	Tl 190.801†	-40.2	-17.1	12.268	µg/L	12.268	ppb	12:13:38
1	U 409.014†	-1879.1	-1818.4	-167.29	µg/L	-167.29	ppb	12:13:12
1	V 292.402†	5518.1	5647.1	66.359	µg/L	66.359	ppb	12:13:18
1	Zn 213.857†	10127.9	9816.7	226.69	µg/L	226.69	ppb	12:13:18
2	Sc RADIAL	56945.0	56945.0	99.4	%			12:12:14
2	Al 396.153Radial†	55563.9	55909.8	38946	µg/L	38946	ppb	12:12:14
2	Ca 317.933Radial†	34747.1	34761.4	30175	µg/L	30175	ppb	12:12:14
2	Fe 238.204 Radial†	9288.9	9329.0	73699	µg/L	73699	ppb	12:12:34
2	K 766.490 Radial†	6929.0	6802.6	4682.3	µg/L	4682.3	ppb	12:12:14
2	Mg 279.077 IEC†	944.3	938.9	8236.0	µg/L	8236.0	ppb	12:12:34
2	Na 589.592 Radial†	9747.8	9290.4	2890.9	µg/L	2890.9	ppb	12:12:14
2	Sr 421.552†	14298.8	14356.2	141.67	µg/L	141.67	ppb	12:12:14
2	Sc 361.383	1950748.9	1950748.9	98.259	%			12:13:46
2	Y 371.029	1404254.7	1404254.7	102.92	%			12:13:46
2	Ag 328.068†	-1624.4	-1092.1	-3.2712	µg/L	-3.2712	ppb	12:13:52
2	As 188.979†	12.1	10.4	21.892	µg/L	21.892	ppb	12:14:12
2	B 249.677†	673.2	390.9	-21.894	µg/L	-21.894	ppb	12:13:52
2	Ba 233.527†	22033.7	22450.1	553.85	µg/L	553.85	ppb	12:13:52
2	Be 313.107†	9813.3	13587.5	7.8277	µg/L	7.8277	ppb	12:13:52
2	Cd 226.502†	84.8	232.4	-2.1306	µg/L	-2.1306	ppb	12:14:12
2	Co 228.616†	311.2	325.6	11.780	µg/L	11.780	ppb	12:14:12
2	Cr 267.716†	13170.1	13451.9	279.97	µg/L	279.97	ppb	12:13:52
2	Cu 324.752†	5646.4	3302.2	32.054	µg/L	32.054	ppb	12:13:52
2	Mn 257.610†	755203.5	768846.1	2509.4	µg/L	2509.4	ppb	12:13:46
2	Mo 202.031†	97.2	103.8	13.274	µg/L	13.274	ppb	12:14:12
2	Ni 231.604†	3367.3	3124.5	162.26	µg/L	162.26	ppb	12:14:12
2	P 214.914†	168.6	145.0	240.32	µg/L	240.32	ppb	12:14:12
2	Pb 220.353†	272.5	190.5	47.219	µg/L	47.219	ppb	12:14:12

2	S 181.975 Axial†	172.2	157.8	656.15	µg/L	656.15 ppb	12:14:12
2	Sb 206.836†	36.9	13.8	7.1923	µg/L	7.1923 ppb	12:14:12
2	Se 196.026†	-18.6	-37.3	132.11	µg/L	132.11 ppb	12:14:12
2	SiO2†	184320.9	186295.1	38050	µg/L	38050 ppb	12:13:52
2	Si 251.611†	225427.7	229126.0	17906	µg/L	17906 ppb	12:13:46
2	Sn 189.927†	-6.6	-7.0	-10.082	µg/L	-10.082 ppb	12:14:12
2	Ti 334.940†	687526.6	699610.3	1615.3	µg/L	1615.3 ppb	12:13:46
2	Tl 190.801†	-41.6	-18.6	10.169	µg/L	10.169 ppb	12:14:12
2	U 409.014†	-1939.5	-1884.7	-172.89	µg/L	-172.89 ppb	12:13:46
2	V 292.402†	5473.4	5616.0	65.999	µg/L	65.999 ppb	12:13:52
2	Zn 213.857†	10006.1	9719.3	224.41	µg/L	224.41 ppb	12:13:52
3	Sc RADIAL	56996.4	56996.4	99.5	%		12:12:39
3	Al 396.153Radial†	55589.9	55885.6	38929	µg/L	38929 ppb	12:12:39
3	Ca 317.933Radial†	34808.4	34791.5	30201	µg/L	30201 ppb	12:12:39
3	Fe 238.204 Radial†	9236.8	9268.2	73218	µg/L	73218 ppb	12:13:00
3	K 766.490 Radial†	6936.1	6803.4	4682.9	µg/L	4682.9 ppb	12:12:39
3	Mg 279.077 IEC†	950.0	943.8	8279.7	µg/L	8279.7 ppb	12:13:00
3	Na 589.592 Radial†	9793.4	9327.4	2902.4	µg/L	2902.4 ppb	12:12:39
3	Sr 421.552†	14291.3	14335.7	141.47	µg/L	141.47 ppb	12:12:39
3	Sc 361.383	1976555.4	1976555.4	99.559	%		12:14:20
3	Y 371.029	1423314.8	1423314.8	104.32	%		12:14:20
3	Ag 328.068†	-1625.5	-1071.6	-3.1640	µg/L	-3.1640 ppb	12:14:25
3	As 188.979†	10.6	8.8	18.905	µg/L	18.905 ppb	12:14:46
3	B 249.677†	682.4	391.2	-21.652	µg/L	-21.652 ppb	12:14:25
3	Ba 233.527†	21551.0	21672.4	534.66	µg/L	534.66 ppb	12:14:25
3	Be 313.107†	9473.8	13116.1	7.5438	µg/L	7.5438 ppb	12:14:25
3	Cd 226.502†	69.3	215.8	-2.5194	µg/L	-2.5194 ppb	12:14:46
3	Co 228.616†	285.9	296.1	10.457	µg/L	10.457 ppb	12:14:46
3	Cr 267.716†	12697.4	12802.2	266.45	µg/L	266.45 ppb	12:14:25
3	Cu 324.752†	5570.5	3151.0	30.988	µg/L	30.988 ppb	12:14:25
3	Mn 257.610†	756908.7	760524.1	2482.3	µg/L	2482.3 ppb	12:14:20
3	Mo 202.031†	93.1	98.4	12.712	µg/L	12.712 ppb	12:14:46
3	Ni 231.604†	3200.3	2912.0	151.29	µg/L	151.29 ppb	12:14:46
3	P 214.914†	163.7	137.8	226.41	µg/L	226.41 ppb	12:14:46
3	Pb 220.353†	275.9	190.2	47.157	µg/L	47.157 ppb	12:14:46
3	S 181.975 Axial†	160.5	143.8	598.02	µg/L	598.02 ppb	12:14:46
3	Sb 206.836†	44.9	21.4	14.314	µg/L	14.314 ppb	12:14:46
3	Se 196.026†	-20.2	-38.6	128.85	µg/L	128.85 ppb	12:14:46
3	SiO2†	180582.4	180090.9	36783	µg/L	36783 ppb	12:14:25
3	Si 251.611†	226813.4	227522.4	17781	µg/L	17781 ppb	12:14:20
3	Sn 189.927†	-6.6	-6.9	-9.9824	µg/L	-9.9824 ppb	12:14:46
3	Ti 334.940†	686421.5	689364.8	1591.7	µg/L	1591.7 ppb	12:14:20
3	Tl 190.801†	-43.9	-20.3	7.4550	µg/L	7.4550 ppb	12:14:46
3	U 409.014†	-1809.5	-1728.4	-159.49	µg/L	-159.49 ppb	12:14:20
3	V 292.402†	5271.4	5340.5	63.135	µg/L	63.135 ppb	12:14:25
3	Zn 213.857†	9878.4	9458.0	218.32	µg/L	218.32 ppb	12:14:25

Mean Data: 245688011|948032|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1961029.7	98.777	%	0.6890				0.70%
Sc RADIAL	56821.9	99.2	%	0.45				0.46%
Y 371.029	1412355.6	103.51	%	0.722				0.70%
Ag 328.068†	-1107.3	-3.3933	µg/L	0.30903	-3.3933	ppb	0.30903	9.11%
Al 396.153Radial†	55898.4	38938	µg/L	8.5	38938	ppb	8.5	0.02%
As 188.979†	8.2	17.835	µg/L	4.6859	17.835	ppb	4.6859	26.27%
B 249.677†	398.1	-21.589	µg/L	0.3403	-21.589	ppb	0.3403	1.58%
Ba 233.527†	22225.6	548.31	µg/L	11.888	548.31	ppb	11.888	2.17%
Be 313.107†	13443.3	7.7402	µg/L	0.17038	7.7402	ppb	0.17038	2.20%
Ca 317.933Radial†	34809.7	30217	µg/L	51.8	30217	ppb	51.8	0.17%
Cd 226.502†	228.3	-2.2384	µg/L	0.24549	-2.2384	ppb	0.24549	10.97%
Co 228.616†	311.9	11.156	µg/L	0.6646	11.156	ppb	0.6646	5.96%
Cr 267.716†	13232.9	275.41	µg/L	7.765	275.41	ppb	7.765	2.82%
Cu 324.752†	3252.7	31.722	µg/L	0.6364	31.722	ppb	0.6364	2.01%
Fe 238.204 Radial†	9325.1	73668	µg/L	434.6	73668	ppb	434.6	0.59%
K 766.490 Radial†	6791.0	4674.3	µg/L	14.37	4674.3	ppb	14.37	0.31%
Mg 279.077 IEC†	942.3	8265.5	µg/L	25.60	8265.5	ppb	25.60	0.31%
Mn 257.610†	767190.1	2504.0	µg/L	19.60	2504.0	ppb	19.60	0.78%
Mo 202.031†	100.2	12.915	µg/L	0.3121	12.915	ppb	0.3121	2.42%
Na 589.592 Radial†	9317.9	2899.4	µg/L	7.52	2899.4	ppb	7.52	0.26%

Ni 231.604†	3047.0	158.26	µg/L	6.062	158.26	ppb	6.062	3.83%
P 214.914†	145.7	241.80	µg/L	16.189	241.80	ppb	16.189	6.70%
Pb 220.353†	195.1	48.389	µg/L	2.0803	48.389	ppb	2.0803	4.30%
S 181.975 Axial†	150.5	626.06	µg/L	29.119	626.06	ppb	29.119	4.65%
Sb 206.836†	16.0	9.2084	µg/L	4.45434	9.2084	ppb	4.45434	48.37%
Se 196.026†	-42.2	124.87	µg/L	9.856	124.87	ppb	9.856	7.89%
SiO2†	184379.0	37659	µg/L	759.9	37659	ppb	759.9	2.02%
Si 251.611†	228981.7	17895	µg/L	108.8	17895	ppb	108.8	0.61%
Sn 189.927†	-6.7	-9.9294	µg/L	0.18468	-9.9294	ppb	0.18468	1.86%
Sr 421.552†	14346.6	141.57	µg/L	0.102	141.57	ppb	0.102	0.07%
Ti 334.940†	697262.6	1609.9	µg/L	16.22	1609.9	ppb	16.22	1.01%
Tl 190.801†	-18.7	9.9638	µg/L	2.41284	9.9638	ppb	2.41284	24.22%
U 409.014†	-1810.5	-166.56	µg/L	6.732	-166.56	ppb	6.732	4.04%
V 292.402†	5534.5	65.164	µg/L	1.7665	65.164	ppb	1.7665	2.71%
Zn 213.857†	9664.7	223.14	µg/L	4.326	223.14	ppb	4.326	1.94%

Sequence No.: 40
Sample ID: 245688012|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 418
Date Collected: 2/12/2010 12:14:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688012|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58669.1	58669.1	102	%			12:15:28
1	Al 396.153Radial†	104641.1	102178.2	71176	µg/L	71176	ppb	12:15:28
1	Ca 317.933Radial†	25349.4	24560.0	21320	µg/L	21320	ppb	12:15:49
1	Fe 238.204 Radial†	12230.3	11925.9	94216	µg/L	94216	ppb	12:15:49
1	K 766.490 Radial†	19510.0	18879.8	12995	µg/L	12995	ppb	12:15:28
1	Mg 279.077 IEC†	1806.1	1752.3	15417	µg/L	15417	ppb	12:15:49
1	Na 589.592 Radial†	2276.5	1708.6	531.65	µg/L	531.65	ppb	12:15:49
1	Sr 421.552†	26719.6	26059.1	257.15	µg/L	257.15	ppb	12:15:28
1	Sc 361.383	1956375.5	1956375.5	98.543	%			12:16:53
1	Y 371.029	1400313.9	1400313.9	102.63	%			12:16:53
1	Ag 328.068†	-1893.9	-1360.8	-3.1589	µg/L	-3.1589	ppb	12:16:59
1	As 188.979†	8.4	6.7	16.736	µg/L	16.736	ppb	12:17:19
1	B 249.677†	1214.6	938.3	-10.273	µg/L	-10.273	ppb	12:16:59
1	Ba 233.527†	57210.4	58082.5	1433.0	µg/L	1433.0	ppb	12:16:59
1	Be 313.107†	17354.0	21211.0	11.720	µg/L	11.720	ppb	12:16:59
1	Cd 226.502†	288.9	439.3	0.8622	µg/L	0.8622	ppb	12:17:19
1	Co 228.616†	1715.0	1749.2	73.365	µg/L	73.365	ppb	12:17:19
1	Cr 267.716†	6080.3	6218.7	129.53	µg/L	129.53	ppb	12:16:59
1	Cu 324.752†	72922.9	71557.0	485.69	µg/L	485.69	ppb	12:16:59
1	Mn 257.610†	1727298.5	1753105.5	5712.2	µg/L	5712.2	ppb	12:16:53
1	Mo 202.031†	75.1	81.0	11.759	µg/L	11.759	ppb	12:17:19
1	Ni 231.604†	2182.1	1911.8	99.840	µg/L	99.840	ppb	12:17:19
1	P 214.914†	624.9	607.5	1114.2	µg/L	1114.2	ppb	12:17:19
1	Pb 220.353†	1022.2	950.4	237.49	µg/L	237.49	ppb	12:17:19
1	S 181.975 Axial†	330.8	318.3	1323.8	µg/L	1323.8	ppb	12:17:19
1	Sb 206.836†	37.4	14.3	10.080	µg/L	10.080	ppb	12:17:19
1	Se 196.026†	-20.8	-39.5	181.12	µg/L	181.12	ppb	12:17:19
1	SiO2†	214304.1	216182.1	44155	µg/L	44155	ppb	12:16:53
1	Si 251.611†	259482.9	263024.9	20556	µg/L	20556	ppb	12:16:53
1	Sn 189.927†	-42.0	-42.9	-26.899	µg/L	-26.899	ppb	12:17:19
1	Ti 334.940†	1635576.9	1659667.5	3831.5	µg/L	3831.5	ppb	12:16:53
1	Tl 190.801†	-59.1	-36.2	25.964	µg/L	25.964	ppb	12:17:19
1	U 409.014†	1909.4	2026.8	158.53	µg/L	158.53	ppb	12:16:53
1	V 292.402†	18180.7	18495.3	198.58	µg/L	198.58	ppb	12:16:59
1	Zn 213.857†	12278.5	11996.1	276.25	µg/L	276.25	ppb	12:16:59
2	Sc RADIAL	55890.6	55890.6	97.6	%			12:15:54
2	Al 396.153Radial†	105362.0	107995.3	75229	µg/L	75229	ppb	12:15:54
2	Ca 317.933Radial†	25224.6	25662.4	22277	µg/L	22277	ppb	12:16:15
2	Fe 238.204 Radial†	12216.6	12505.4	98793	µg/L	98793	ppb	12:16:15
2	K 766.490 Radial†	19539.3	19856.7	13668	µg/L	13668	ppb	12:15:54
2	Mg 279.077 IEC†	1811.6	1845.6	16239	µg/L	16239	ppb	12:16:15
2	Na 589.592 Radial†	2261.9	1804.2	561.39	µg/L	561.39	ppb	12:16:15
2	Sr 421.552†	26779.0	27416.8	270.55	µg/L	270.55	ppb	12:15:54
2	Sc 361.383	1962505.9	1962505.9	98.852	%			12:17:27
2	Y 371.029	1404904.8	1404904.8	102.97	%			12:17:27
2	Ag 328.068†	-1905.1	-1366.2	-2.9138	µg/L	-2.9138	ppb	12:17:33
2	As 188.979†	14.7	13.0	28.463	µg/L	28.463	ppb	12:17:53
2	B 249.677†	1187.3	906.8	-13.961	µg/L	-13.961	ppb	12:17:33
2	Ba 233.527†	57392.5	58085.3	1433.0	µg/L	1433.0	ppb	12:17:33
2	Be 313.107†	17508.4	21312.2	11.799	µg/L	11.799	ppb	12:17:33
2	Cd 226.502†	298.8	448.4	0.5810	µg/L	0.5810	ppb	12:17:53
2	Co 228.616†	1717.6	1746.4	73.323	µg/L	73.323	ppb	12:17:53
2	Cr 267.716†	6092.4	6211.7	129.38	µg/L	129.38	ppb	12:17:33
2	Cu 324.752†	72928.0	71331.1	484.84	µg/L	484.84	ppb	12:17:33
2	Mn 257.610†	1713005.8	1733171.2	5648.0	µg/L	5648.0	ppb	12:17:27
2	Mo 202.031†	71.9	77.6	11.588	µg/L	11.588	ppb	12:17:53
2	Ni 231.604†	2187.1	1910.0	99.804	µg/L	99.804	ppb	12:17:53
2	P 214.914†	628.8	609.5	1115.9	µg/L	1115.9	ppb	12:17:53
2	Pb 220.353†	1019.3	944.2	236.00	µg/L	236.00	ppb	12:17:53

2	S 181.975 Axial†	332.0	318.5	1324.5 µg/L	1324.5 ppb	12:17:53
2	Sb 206.836†	33.3	10.0	5.9727 µg/L	5.9727 ppb	12:17:53
2	Se 196.026†	-23.8	-42.4	188.39 µg/L	188.39 ppb	12:17:53
2	SiO2†	212839.8	214021.5	43713 µg/L	43713 ppb	12:17:27
2	Si 251.611†	257392.7	260087.9	20326 µg/L	20326 ppb	12:17:27
2	Sn 189.927†	-38.6	-39.4	-25.774 µg/L	-25.774 ppb	12:17:53
2	Ti 334.940†	1622574.1	1641329.0	3789.1 µg/L	3789.1 ppb	12:17:27
2	Tl 190.801†	-64.3	-41.3	19.573 µg/L	19.573 ppb	12:17:53
2	U 409.014†	1814.9	1925.1	149.16 µg/L	149.16 ppb	12:17:27
2	V 292.402†	18197.8	18454.9	198.69 µg/L	198.69 ppb	12:17:33
2	Zn 213.857†	12280.6	11959.3	275.12 µg/L	275.12 ppb	12:17:33
3	Sc RADIAL	56412.5	56412.5	98.5 %		12:16:20
3	Al 396.153Radial†	108225.2	109903.6	76558 µg/L	76558 ppb	12:16:20
3	Ca 317.933Radial†	25328.6	25528.9	22161 µg/L	22161 ppb	12:16:41
3	Fe 238.204 Radial†	12251.5	12425.1	98159 µg/L	98159 ppb	12:16:41
3	K 766.490 Radial†	20014.1	20153.5	13872 µg/L	13872 ppb	12:16:20
3	Mg 279.077 IEC†	1810.7	1827.6	16079 µg/L	16079 ppb	12:16:41
3	Na 589.592 Radial†	2265.6	1786.5	555.88 µg/L	555.88 ppb	12:16:41
3	Sr 421.552†	27591.8	27988.1	276.19 µg/L	276.19 ppb	12:16:20
3	Sc 361.383	1945514.8	1945514.8	97.996 %		12:18:01
3	Y 371.029	1391675.5	1391675.5	102.00 %		12:18:01
3	Ag 328.068†	-1795.9	-1271.6	-2.2751 µg/L	-2.2751 ppb	12:18:06
3	As 188.979†	17.0	15.5	33.033 µg/L	33.033 ppb	12:18:27
3	B 249.677†	1170.6	900.3	-13.902 µg/L	-13.902 ppb	12:18:06
3	Ba 233.527†	55452.8	56613.0	1396.7 µg/L	1396.7 ppb	12:18:06
3	Be 313.107†	16624.4	20564.8	11.357 µg/L	11.357 ppb	12:18:06
3	Cd 226.502†	275.9	427.8	0.1110 µg/L	0.1110 ppb	12:18:27
3	Co 228.616†	1609.6	1651.4	69.022 µg/L	69.022 ppb	12:18:27
3	Cr 267.716†	5859.4	6027.8	125.55 µg/L	125.55 ppb	12:18:06
3	Cu 324.752†	70732.2	69734.7	474.21 µg/L	474.21 ppb	12:18:06
3	Mn 257.610†	1680742.1	1715381.9	5590.0 µg/L	5590.0 ppb	12:18:01
3	Mo 202.031†	66.5	72.7	11.072 µg/L	11.072 ppb	12:18:27
3	Ni 231.604†	2075.1	1815.0	94.897 µg/L	94.897 ppb	12:18:27
3	P 214.914†	583.2	568.5	1035.5 µg/L	1035.5 ppb	12:18:27
3	Pb 220.353†	969.3	902.2	225.61 µg/L	225.61 ppb	12:18:27
3	S 181.975 Axial†	322.4	311.6	1295.8 µg/L	1295.8 ppb	12:18:27
3	Sb 206.836†	36.0	13.1	8.8763 µg/L	8.8763 ppb	12:18:27
3	Se 196.026†	-29.7	-48.6	177.91 µg/L	177.91 ppb	12:18:27
3	SiO2†	208748.1	211726.6	43244 µg/L	43244 ppb	12:18:01
3	Si 251.611†	252339.0	257204.9	20101 µg/L	20101 ppb	12:18:01
3	Sn 189.927†	-33.9	-34.9	-23.787 µg/L	-23.787 ppb	12:18:27
3	Ti 334.940†	1583833.6	1616131.5	3730.9 µg/L	3730.9 ppb	12:18:01
3	Tl 190.801†	-62.7	-40.3	20.175 µg/L	20.175 ppb	12:18:27
3	U 409.014†	1699.7	1823.6	140.60 µg/L	140.60 ppb	12:18:01
3	V 292.402†	17464.6	17867.5	192.66 µg/L	192.66 ppb	12:18:06
3	Zn 213.857†	11976.7	11757.6	270.44 µg/L	270.44 ppb	12:18:06

Mean Data: 245688012|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1954798.7	98.463	%	0.4334				0.44%
Sc RADIAL	56990.7	99.5	%	2.58				2.59%
Y 371.029	1398964.7	102.53	%	0.492				0.48%
Ag 328.068†	-1332.8	-2.7826	µg/L	0.45626	-2.7826	ppb	0.45626	16.40%
Al 396.153Radial†	106692.4	74321	µg/L	2803.2	74321	ppb	2803.2	3.77%
As 188.979†	11.8	26.078	µg/L	8.4063	26.078	ppb	8.4063	32.24%
B 249.677†	915.1	-12.712	µg/L	2.1126	-12.712	ppb	2.1126	16.62%
Ba 233.527†	57593.6	1420.9	µg/L	20.95	1420.9	ppb	20.95	1.47%
Be 313.107†	21029.3	11.626	µg/L	0.2359	11.626	ppb	0.2359	2.03%
Ca 317.933Radial†	25250.4	21919	µg/L	522.2	21919	ppb	522.2	2.38%
Cd 226.502†	438.5	0.5181	µg/L	0.37953	0.5181	ppb	0.37953	73.25%
Co 228.616†	1715.7	71.903	µg/L	2.4953	71.903	ppb	2.4953	3.47%
Cr 267.716†	6152.7	128.16	µg/L	2.255	128.16	ppb	2.255	1.76%
Cu 324.752†	70874.3	481.58	µg/L	6.400	481.58	ppb	6.400	1.33%
Fe 238.204 Radial†	12285.5	97056	µg/L	2480.2	97056	ppb	2480.2	2.56%
K 766.490 Radial†	19630.0	13512	µg/L	458.7	13512	ppb	458.7	3.39%
Mg 279.077 IEC†	1808.5	15912	µg/L	435.7	15912	ppb	435.7	2.74%
Mn 257.610†	1733886.2	5650.1	µg/L	61.11	5650.1	ppb	61.11	1.08%
Mo 202.031†	77.1	11.473	µg/L	0.3577	11.473	ppb	0.3577	3.12%
Na 589.592 Radial†	1766.4	549.64	µg/L	15.819	549.64	ppb	15.819	2.88%

Ni 231.604†	1879.0	98.180	µg/L	2.8433	98.180	ppb	2.8433	2.90%
P 214.914†	595.2	1088.6	µg/L	45.93	1088.6	ppb	45.93	4.22%
Pb 220.353†	932.3	233.03	µg/L	6.470	233.03	ppb	6.470	2.78%
S 181.975 Axial†	316.1	1314.7	µg/L	16.37	1314.7	ppb	16.37	1.25%
Sb 206.836†	12.5	8.3095	µg/L	2.11126	8.3095	ppb	2.11126	25.41%
Se 196.026†	-43.5	182.47	µg/L	5.368	182.47	ppb	5.368	2.94%
SiO2†	213976.7	43704	µg/L	455.1	43704	ppb	455.1	1.04%
Si 251.611†	260105.9	20327	µg/L	227.4	20327	ppb	227.4	1.12%
Sn 189.927†	-39.1	-25.487	µg/L	1.5757	-25.487	ppb	1.5757	6.18%
Sr 421.552†	27154.6	267.96	µg/L	9.778	267.96	ppb	9.778	3.65%
Ti 334.940†	1639042.7	3783.9	µg/L	50.49	3783.9	ppb	50.49	1.33%
Tl 190.801†	-39.3	21.904	µg/L	3.5285	21.904	ppb	3.5285	16.11%
U 409.014†	1925.2	149.43	µg/L	8.972	149.43	ppb	8.972	6.00%
V 292.402†	18272.6	196.64	µg/L	3.450	196.64	ppb	3.450	1.75%
Zn 213.857†	11904.3	273.94	µg/L	3.077	273.94	ppb	3.077	1.12%

Sequence No.: 41
Sample ID: 245688013|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 419
Date Collected: 2/12/2010 12:18:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688013|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55387.1	55387.1	96.7	%			12:19:09
1	Al 396.153Radial†	30670.6	31740.1	22110	µg/L	22110	ppb	12:19:09
1	Ca 317.933Radial†	11347.8	11547.7	10024	µg/L	10024	ppb	12:19:09
1	Fe 238.204 Radial†	10715.8	11067.3	87431	µg/L	87431	ppb	12:19:09
1	K 766.490 Radial†	6390.0	6441.3	4433.7	µg/L	4433.7	ppb	12:19:09
1	Mg 279.077 IEC†	506.1	512.5	4445.4	µg/L	4445.4	ppb	12:19:29
1	Na 589.592 Radial†	4757.7	4406.0	1371.0	µg/L	1371.0	ppb	12:19:09
1	Sr 421.552†	5838.6	6012.2	59.329	µg/L	59.329	ppb	12:19:09
1	Sc 361.383	1954030.4	1954030.4	98.425	%			12:20:34
1	Y 371.029	1437535.0	1437535.0	105.36	%			12:20:34
1	Ag 328.068†	-1650.9	-1116.3	-2.7313	µg/L	-2.7313	ppb	12:20:39
1	As 188.979†	9.3	7.6	18.474	µg/L	18.474	ppb	12:21:00
1	B 249.677†	722.6	439.9	-27.232	µg/L	-27.232	ppb	12:20:39
1	Ba 233.527†	12883.4	13115.6	323.57	µg/L	323.57	ppb	12:20:39
1	Be 313.107†	5574.3	9263.8	4.9341	µg/L	4.9341	ppb	12:20:39
1	Cd 226.502†	151.6	300.2	-1.9868	µg/L	-1.9868	ppb	12:21:00
1	Co 228.616†	349.8	364.3	12.451	µg/L	12.451	ppb	12:21:00
1	Cr 267.716†	7492.5	7660.9	159.45	µg/L	159.45	ppb	12:20:39
1	Cu 324.752†	7495.5	5171.3	46.307	µg/L	46.307	ppb	12:20:39
1	Mn 257.610†	667359.6	678305.6	2217.0	µg/L	2217.0	ppb	12:20:34
1	Mo 202.031†	128.1	135.0	16.949	µg/L	16.949	ppb	12:21:00
1	Ni 231.604†	2145.9	1877.7	98.068	µg/L	98.068	ppb	12:21:00
1	P 214.914†	350.0	329.0	592.68	µg/L	592.68	ppb	12:21:00
1	Pb 220.353†	502.5	423.6	104.19	µg/L	104.19	ppb	12:21:00
1	S 181.975 Axial†	30.4	13.5	56.118	µg/L	56.118	ppb	12:21:00
1	Sb 206.836†	34.0	10.8	7.5817	µg/L	7.5817	ppb	12:21:00
1	Se 196.026†	-31.5	-50.4	159.78	µg/L	159.78	ppb	12:21:00
1	SiO2†	118098.3	118697.6	24244	µg/L	24244	ppb	12:20:39
1	Si 251.611†	147049.9	149108.4	11653	µg/L	11653	ppb	12:20:34
1	Sn 189.927†	-3.0	-3.3	-10.293	µg/L	-10.293	ppb	12:21:00
1	Ti 334.940†	920096.4	934727.5	2158.2	µg/L	2158.2	ppb	12:20:34
1	Tl 190.801†	-49.3	-26.4	5.9493	µg/L	5.9493	ppb	12:21:00
1	U 409.014†	-2102.8	-2047.4	-187.45	µg/L	-187.45	ppb	12:20:34
1	V 292.402†	3384.1	3484.0	45.797	µg/L	45.797	ppb	12:20:39
1	Zn 213.857†	18541.5	18374.2	428.27	µg/L	428.27	ppb	12:20:39
2	Sc RADIAL	55727.6	55727.6	97.3	%			12:19:35
2	Al 396.153Radial†	30827.2	31707.2	22087	µg/L	22087	ppb	12:19:35
2	Ca 317.933Radial†	11418.8	11548.9	10025	µg/L	10025	ppb	12:19:35
2	Fe 238.204 Radial†	10824.2	11111.0	87776	µg/L	87776	ppb	12:19:35
2	K 766.490 Radial†	6399.2	6410.4	4412.4	µg/L	4412.4	ppb	12:19:35
2	Mg 279.077 IEC†	501.8	504.9	4377.5	µg/L	4377.5	ppb	12:19:55
2	Na 589.592 Radial†	4752.3	4370.4	1359.9	µg/L	1359.9	ppb	12:19:35
2	Sr 421.552†	5882.6	6020.4	59.410	µg/L	59.410	ppb	12:19:35
2	Sc 361.383	1976285.3	1976285.3	99.546	%			12:21:08
2	Y 371.029	1451402.8	1451402.8	106.38	%			12:21:08
2	Ag 328.068†	-1614.0	-1060.3	-2.2962	µg/L	-2.2962	ppb	12:21:13
2	As 188.979†	9.5	7.7	18.772	µg/L	18.772	ppb	12:21:34
2	B 249.677†	711.8	420.8	-28.200	µg/L	-28.200	ppb	12:21:13
2	Ba 233.527†	12852.6	12937.3	319.17	µg/L	319.17	ppb	12:21:13
2	Be 313.107†	5525.5	9151.1	4.8897	µg/L	4.8897	ppb	12:21:13
2	Cd 226.502†	145.8	292.6	-2.2231	µg/L	-2.2231	ppb	12:21:34
2	Co 228.616†	355.4	365.9	12.666	µg/L	12.666	ppb	12:21:34
2	Cr 267.716†	7521.5	7604.3	158.27	µg/L	158.27	ppb	12:21:13
2	Cu 324.752†	7488.8	5078.8	45.744	µg/L	45.744	ppb	12:21:13
2	Mn 257.610†	654308.6	657559.6	2149.6	µg/L	2149.6	ppb	12:21:08
2	Mo 202.031†	132.9	138.3	17.295	µg/L	17.295	ppb	12:21:34
2	Ni 231.604†	2147.4	1854.7	96.882	µg/L	96.882	ppb	12:21:34
2	P 214.914†	350.6	325.5	585.51	µg/L	585.51	ppb	12:21:34
2	Pb 220.353†	509.2	424.6	104.43	µg/L	104.43	ppb	12:21:34

2	S 181.975 Axial†	31.0	13.7	57.026 µg/L	57.026 ppb	12:21:34
2	Sb 206.836†	28.2	4.7	1.8722 µg/L	1.8722 ppb	12:21:34
2	Se 196.026†	-32.9	-51.4	159.39 µg/L	159.39 ppb	12:21:34
2	SiO2†	117884.1	117131.2	23924 µg/L	23924 ppb	12:21:13
2	Si 251.611†	144236.6	144599.8	11301 µg/L	11301 ppb	12:21:08
2	Sn 189.927†	-0.4	-0.7	-9.1875 µg/L	-9.1875 ppb	12:21:34
2	Ti 334.940†	901589.4	905609.0	2091.0 µg/L	2091.0 ppb	12:21:08
2	Tl 190.801†	-45.7	-22.2	10.677 µg/L	10.677 ppb	12:21:34
2	U 409.014†	-2029.0	-1949.2	-179.12 µg/L	-179.12 ppb	12:21:08
2	V 292.402†	3255.8	3316.3	44.152 µg/L	44.152 ppb	12:21:13
2	Zn 213.857†	18578.9	18199.7	424.15 µg/L	424.15 ppb	12:21:13
3	Sc RADIAL	54995.8	54995.8	96.0 %		12:20:01
3	Al 396.153Radial†	30764.5	32063.5	22335 µg/L	22335 ppb	12:20:01
3	Ca 317.933Radial†	11349.4	11632.8	10098 µg/L	10098 ppb	12:20:01
3	Fe 238.204 Radial†	10729.1	11160.0	88164 µg/L	88164 ppb	12:20:01
3	K 766.490 Radial†	6356.6	6453.5	4442.0 µg/L	4442.0 ppb	12:20:01
3	Mg 279.077 IEC†	498.8	508.7	4410.1 µg/L	4410.1 ppb	12:20:21
3	Na 589.592 Radial†	4766.8	4450.6	1384.9 µg/L	1384.9 ppb	12:20:01
3	Sr 421.552†	5860.2	6077.6	59.975 µg/L	59.975 ppb	12:20:01
3	Sc 361.383	1973766.2	1973766.2	99.419 %		12:21:41
3	Y 371.029	1446757.3	1446757.3	106.04 %		12:21:41
3	Ag 328.068†	-1663.4	-1112.1	-2.6675 µg/L	-2.6675 ppb	12:21:47
3	As 188.979†	4.8	3.0	10.117 µg/L	10.117 ppb	12:22:07
3	B 249.677†	730.4	440.4	-27.606 µg/L	-27.606 ppb	12:21:47
3	Ba 233.527†	12459.3	12558.1	309.81 µg/L	309.81 ppb	12:21:47
3	Be 313.107†	5119.9	8750.2	4.6612 µg/L	4.6612 ppb	12:21:47
3	Cd 226.502†	116.1	263.0	-3.0433 µg/L	-3.0433 ppb	12:22:07
3	Co 228.616†	335.7	346.6	11.879 µg/L	11.879 ppb	12:22:07
3	Cr 267.716†	7186.2	7276.7	151.45 µg/L	151.45 ppb	12:21:47
3	Cu 324.752†	7342.6	4941.3	44.890 µg/L	44.890 ppb	12:21:47
3	Mn 257.610†	638489.7	642487.1	2100.6 µg/L	2100.6 ppb	12:21:41
3	Mo 202.031†	120.2	125.7	16.039 µg/L	16.039 ppb	12:22:07
3	Ni 231.604†	2019.9	1729.2	90.409 µg/L	90.409 ppb	12:22:07
3	P 214.914†	338.2	313.6	561.31 µg/L	561.31 ppb	12:22:07
3	Pb 220.353†	493.5	409.5	100.61 µg/L	100.61 ppb	12:22:07
3	S 181.975 Axial†	25.1	7.8	32.493 µg/L	32.493 ppb	12:22:07
3	Sb 206.836†	30.4	6.9	4.0109 µg/L	4.0109 ppb	12:22:07
3	Se 196.026†	-32.9	-51.4	160.31 µg/L	160.31 ppb	12:22:07
3	SiO2†	114375.4	113753.1	23234 µg/L	23234 ppb	12:21:47
3	Si 251.611†	141223.3	141753.8	11078 µg/L	11078 ppb	12:21:41
3	Sn 189.927†	-2.8	-3.1	-10.286 µg/L	-10.286 ppb	12:22:07
3	Ti 334.940†	877124.8	882157.3	2036.8 µg/L	2036.8 ppb	12:21:41
3	Tl 190.801†	-41.4	-17.9	15.663 µg/L	15.663 ppb	12:22:07
3	U 409.014†	-1886.8	-1808.7	-167.20 µg/L	-167.20 ppb	12:21:41
3	V 292.402†	3207.5	3271.9	43.735 µg/L	43.735 ppb	12:21:47
3	Zn 213.857†	18051.4	17692.9	412.21 µg/L	412.21 ppb	12:21:47

Mean Data: 245688013|948032|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1968027.3	99.130	%	0.6139				0.62%
Sc RADIAL	55370.2	96.7	%	0.64				0.66%
Y 371.029	1445231.7	105.92	%	0.517				0.49%
Ag 328.068†	-1096.2	-2.5650	µg/L	0.23494	-2.5650	ppb	0.23494	9.16%
Al 396.153Radial†	31836.9	22177	µg/L	137.2	22177	ppb	137.2	0.62%
As 188.979†	6.1	15.788	µg/L	4.9136	15.788	ppb	4.9136	31.12%
B 249.677†	433.7	-27.679	µg/L	0.4878	-27.679	ppb	0.4878	1.76%
Ba 233.527†	12870.3	317.52	µg/L	7.024	317.52	ppb	7.024	2.21%
Be 313.107†	9055.0	4.8284	µg/L	0.14645	4.8284	ppb	0.14645	3.03%
Ca 317.933Radial†	11576.5	10049	µg/L	42.4	10049	ppb	42.4	0.42%
Cd 226.502†	285.3	-2.4177	µg/L	0.55445	-2.4177	ppb	0.55445	22.93%
Co 228.616†	358.9	12.332	µg/L	0.4066	12.332	ppb	0.4066	3.30%
Cr 267.716†	7514.0	156.39	µg/L	4.317	156.39	ppb	4.317	2.76%
Cu 324.752†	5063.8	45.647	µg/L	0.7136	45.647	ppb	0.7136	1.56%
Fe 238.204 Radial†	11112.8	87791	µg/L	366.5	87791	ppb	366.5	0.42%
K 766.490 Radial†	6435.0	4429.4	µg/L	15.29	4429.4	ppb	15.29	0.35%
Mg 279.077 IEC†	508.7	4411.0	µg/L	33.96	4411.0	ppb	33.96	0.77%
Mn 257.610†	659450.8	2155.7	µg/L	58.43	2155.7	ppb	58.43	2.71%
Mo 202.031†	133.0	16.761	µg/L	0.6487	16.761	ppb	0.6487	3.87%
Na 589.592 Radial†	4409.0	1371.9	µg/L	12.49	1371.9	ppb	12.49	0.91%

Ni 231.604†	1820.6	95.120	µg/L	4.1224	95.120	ppb	4.1224	4.33%
P 214.914†	322.7	579.83	µg/L	16.441	579.83	ppb	16.441	2.84%
Pb 220.353†	419.2	103.08	µg/L	2.142	103.08	ppb	2.142	2.08%
S 181.975 Axial†	11.7	48.546	µg/L	13.9092	48.546	ppb	13.9092	28.65%
Sb 206.836†	7.5	4.4883	µg/L	2.88453	4.4883	ppb	2.88453	64.27%
Se 196.026†	-51.1	159.83	µg/L	0.460	159.83	ppb	0.460	0.29%
SiO2†	116527.3	23800	µg/L	516.1	23800	ppb	516.1	2.17%
Si 251.611†	145154.0	11344	µg/L	289.8	11344	ppb	289.8	2.55%
Sn 189.927†	-2.4	-9.9222	µg/L	0.63633	-9.9222	ppb	0.63633	6.41%
Sr 421.552†	6036.7	59.571	µg/L	0.3518	59.571	ppb	0.3518	0.59%
Ti 334.940†	907497.9	2095.3	µg/L	60.81	2095.3	ppb	60.81	2.90%
Tl 190.801†	-22.2	10.763	µg/L	4.8575	10.763	ppb	4.8575	45.13%
U 409.014†	-1935.1	-177.92	µg/L	10.180	-177.92	ppb	10.180	5.72%
V 292.402†	3357.4	44.561	µg/L	1.0901	44.561	ppb	1.0901	2.45%
Zn 213.857†	18088.9	421.54	µg/L	8.340	421.54	ppb	8.340	1.98%

Sequence No.: 42
Sample ID: 245688014|948032|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 420
Date Collected: 2/12/2010 12:22:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688014|948032|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54754.5	54754.5	95.6	%			12:22:49
1	Al 396.153Radial†	47183.8	49379.7	34397	µg/L	34397	ppb	12:22:49
1	Ca 317.933Radial†	7506.9	7665.5	6654.2	µg/L	6654.2	ppb	12:23:09
1	Fe 238.204 Radial†	6708.4	7003.5	55328	µg/L	55328	ppb	12:23:09
1	K 766.490 Radial†	10112.9	10411.8	7166.6	µg/L	7166.6	ppb	12:22:49
1	Mg 279.077 IEC†	733.3	756.2	6637.6	µg/L	6637.6	ppb	12:23:09
1	Na 589.592 Radial†	1562.4	1120.5	348.66	µg/L	348.66	ppb	12:22:49
1	Sr 421.552†	8719.9	9095.8	89.758	µg/L	89.758	ppb	12:22:49
1	Sc 361.383	1919099.7	1919099.7	96.665	%			12:24:13
1	Y 371.029	1332105.9	1332105.9	97.633	%			12:24:13
1	Ag 328.068†	-1297.2	-780.9	-1.7641	µg/L	-1.7641	ppb	12:24:19
1	As 188.979†	5.5	3.9	10.034	µg/L	10.034	ppb	12:24:39
1	B 249.677†	770.0	502.3	-8.0600	µg/L	-8.0600	ppb	12:24:19
1	Ba 233.527†	16989.0	17601.1	434.33	µg/L	434.33	ppb	12:24:19
1	Be 313.107†	4971.9	8743.8	4.5594	µg/L	4.5594	ppb	12:24:19
1	Cd 226.502†	56.3	204.4	-0.9037	µg/L	-0.9037	ppb	12:24:39
1	Co 228.616†	727.1	761.1	30.613	µg/L	30.613	ppb	12:24:39
1	Cr 267.716†	2976.3	3127.6	65.150	µg/L	65.150	ppb	12:24:39
1	Cu 324.752†	8704.2	6560.3	51.018	µg/L	51.018	ppb	12:24:19
1	Mn 257.610†	586319.7	606811.4	1980.2	µg/L	1980.2	ppb	12:24:13
1	Mo 202.031†	21.0	26.6	4.7891	µg/L	4.7891	ppb	12:24:39
1	Ni 231.604†	1036.2	769.4	40.404	µg/L	40.404	ppb	12:24:39
1	P 214.914†	243.6	225.4	413.07	µg/L	413.07	ppb	12:24:39
1	Pb 220.353†	379.6	305.8	76.367	µg/L	76.367	ppb	12:24:39
1	S 181.975 Axial†	87.9	73.4	305.48	µg/L	305.48	ppb	12:24:39
1	Sb 206.836†	36.3	13.9	11.622	µg/L	11.622	ppb	12:24:39
1	Se 196.026†	-13.1	-31.9	97.606	µg/L	97.606	ppb	12:24:39
1	SiO2†	158487.0	162663.6	33224	µg/L	33224	ppb	12:24:19
1	Si 251.611†	191134.7	197433.4	15430	µg/L	15430	ppb	12:24:13
1	Sn 189.927†	-25.1	-26.3	-16.536	µg/L	-16.536	ppb	12:24:39
1	Ti 334.940†	960333.4	993367.8	2293.4	µg/L	2293.4	ppb	12:24:13
1	Tl 190.801†	-50.6	-28.6	0.1901	µg/L	0.1901	ppb	12:24:39
1	U 409.014†	-517.6	-446.3	-46.177	µg/L	-46.177	ppb	12:24:19
1	V 292.402†	9771.5	10154.3	109.28	µg/L	109.28	ppb	12:24:19
1	Zn 213.857†	6684.9	6451.5	148.84	µg/L	148.84	ppb	12:24:19
2	Sc RADIAL	55416.3	55416.3	96.8	%			12:23:15
2	Al 396.153Radial†	47838.9	49467.3	34459	µg/L	34459	ppb	12:23:15
2	Ca 317.933Radial†	7493.5	7557.9	6560.7	µg/L	6560.7	ppb	12:23:35
2	Fe 238.204 Radial†	6680.3	6890.6	54436	µg/L	54436	ppb	12:23:35
2	K 766.490 Radial†	10262.8	10440.4	7186.3	µg/L	7186.3	ppb	12:23:15
2	Mg 279.077 IEC†	723.8	737.2	6470.2	µg/L	6470.2	ppb	12:23:35
2	Na 589.592 Radial†	1532.6	1070.2	333.02	µg/L	333.02	ppb	12:23:15
2	Sr 421.552†	8810.3	9080.3	89.606	µg/L	89.606	ppb	12:23:15
2	Sc 361.383	1938361.2	1938361.2	97.635	%			12:24:46
2	Y 371.029	1345762.5	1345762.5	98.634	%			12:24:46
2	Ag 328.068†	-1256.0	-725.3	-1.4084	µg/L	-1.4084	ppb	12:24:52
2	As 188.979†	7.8	6.2	14.117	µg/L	14.117	ppb	12:25:12
2	B 249.677†	772.5	497.0	-7.8148	µg/L	-7.8148	ppb	12:24:52
2	Ba 233.527†	16944.9	17381.3	428.90	µg/L	428.90	ppb	12:24:52
2	Be 313.107†	5022.5	8744.5	4.5526	µg/L	4.5526	ppb	12:24:52
2	Cd 226.502†	56.4	203.9	-0.8177	µg/L	-0.8177	ppb	12:25:12
2	Co 228.616†	738.0	764.7	30.741	µg/L	30.741	ppb	12:25:12
2	Cr 267.716†	2938.0	3057.8	63.696	µg/L	63.696	ppb	12:25:12
2	Cu 324.752†	8690.3	6456.5	50.209	µg/L	50.209	ppb	12:24:52
2	Mn 257.610†	597118.7	611844.6	1996.4	µg/L	1996.4	ppb	12:24:46
2	Mo 202.031†	17.9	23.2	4.4073	µg/L	4.4073	ppb	12:25:12
2	Ni 231.604†	1010.1	732.1	38.465	µg/L	38.465	ppb	12:25:12
2	P 214.914†	249.3	228.7	420.54	µg/L	420.54	ppb	12:25:12
2	Pb 220.353†	367.6	289.6	72.351	µg/L	72.351	ppb	12:25:12

2	S 181.975 Axial†	87.8	72.5	301.65	µg/L	301.65 ppb	12:25:12
2	Sb 206.836†	27.1	4.1	2.5516	µg/L	2.5516 ppb	12:25:12
2	Se 196.026†	-18.6	-37.4	87.498	µg/L	87.498 ppb	12:25:12
2	SiO2†	158316.2	160859.5	32855	µg/L	32855 ppb	12:24:52
2	Si 251.611†	194533.8	198950.1	15548	µg/L	15548 ppb	12:24:46
2	Sn 189.927†	-22.5	-23.3	-15.159	µg/L	-15.159 ppb	12:25:12
2	Ti 334.940†	977982.9	1001572.8	2312.4	µg/L	2312.4 ppb	12:24:46
2	Tl 190.801†	-46.9	-24.3	5.9868	µg/L	5.9868 ppb	12:25:12
2	U 409.014†	-549.1	-473.3	-48.348	µg/L	-48.348 ppb	12:24:52
2	V 292.402†	9722.3	10003.5	107.64	µg/L	107.64 ppb	12:24:52
2	Zn 213.857†	6674.3	6371.9	147.02	µg/L	147.02 ppb	12:24:52
3	Sc RADIAL	55862.9	55862.9	97.5	%		12:23:41
3	Al 396.153Radial†	48011.0	49248.6	34306	µg/L	34306 ppb	12:23:41
3	Ca 317.933Radial†	7460.1	7461.8	6477.3	µg/L	6477.3 ppb	12:24:01
3	Fe 238.204 Radial†	6670.1	6825.0	53918	µg/L	53918 ppb	12:24:01
3	K 766.490 Radial†	10287.4	10380.9	7145.3	µg/L	7145.3 ppb	12:23:41
3	Mg 279.077 IEC†	726.8	734.3	6445.0	µg/L	6445.0 ppb	12:24:01
3	Na 589.592 Radial†	1600.7	1127.4	350.81	µg/L	350.81 ppb	12:23:41
3	Sr 421.552†	8881.4	9080.4	89.607	µg/L	89.607 ppb	12:23:41
3	Sc 361.383	1935250.8	1935250.8	97.479	%		12:25:19
3	Y 371.029	1343271.9	1343271.9	98.452	%		12:25:19
3	Ag 328.068†	-1249.8	-721.1	-1.4237	µg/L	-1.4237 ppb	12:25:25
3	As 188.979†	5.5	3.9	9.8759	µg/L	9.8759 ppb	12:25:45
3	B 249.677†	738.3	463.1	-8.9447	µg/L	-8.9447 ppb	12:25:25
3	Ba 233.527†	16601.6	17057.0	420.90	µg/L	420.90 ppb	12:25:25
3	Be 313.107†	4638.4	8358.7	4.3288	µg/L	4.3288 ppb	12:25:25
3	Cd 226.502†	47.9	195.3	-0.9829	µg/L	-0.9829 ppb	12:25:45
3	Co 228.616†	687.4	714.0	28.471	µg/L	28.471 ppb	12:25:45
3	Cr 267.716†	2823.4	2945.0	61.347	µg/L	61.347 ppb	12:25:45
3	Cu 324.752†	8527.0	6303.3	49.125	µg/L	49.125 ppb	12:25:25
3	Mn 257.610†	587229.6	602682.7	1966.6	µg/L	1966.6 ppb	12:25:19
3	Mo 202.031†	13.0	18.2	3.8829	µg/L	3.8829 ppb	12:25:45
3	Ni 231.604†	991.2	714.4	37.547	µg/L	37.547 ppb	12:25:45
3	P 214.914†	233.3	212.7	388.91	µg/L	388.91 ppb	12:25:45
3	Pb 220.353†	366.2	288.8	72.158	µg/L	72.158 ppb	12:25:45
3	S 181.975 Axial†	85.5	70.3	292.39	µg/L	292.39 ppb	12:25:45
3	Sb 206.836†	20.9	-2.3	-3.3176	µg/L	-3.3176 ppb	12:25:45
3	Se 196.026†	-14.6	-33.4	91.864	µg/L	91.864 ppb	12:25:45
3	SiO2†	155429.7	158158.9	32303	µg/L	32303 ppb	12:25:25
3	Si 251.611†	191987.8	196658.4	15369	µg/L	15369 ppb	12:25:19
3	Sn 189.927†	-20.9	-21.7	-14.414	µg/L	-14.414 ppb	12:25:45
3	Ti 334.940†	958762.9	983465.5	2270.5	µg/L	2270.5 ppb	12:25:19
3	Tl 190.801†	-42.6	-20.0	11.133	µg/L	11.133 ppb	12:25:45
3	U 409.014†	-456.4	-379.1	-40.234	µg/L	-40.234 ppb	12:25:25
3	V 292.402†	9488.4	9779.5	105.32	µg/L	105.32 ppb	12:25:25
3	Zn 213.857†	6565.1	6270.8	144.67	µg/L	144.67 ppb	12:25:25

Mean Data: 245688014|948032|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1930903.9	97.260	%	0.5208				0.54%
Sc RADIAL	55344.6	96.6	%	0.97				1.01%
Y 371.029	1340380.1	98.240	%	0.5331				0.54%
Ag 328.068†	-742.5	-1.5321	µg/L	0.20111	-1.5321	ppb	0.20111	13.13%
Al 396.153Radial†	49365.2	34387	µg/L	76.7	34387	ppb	76.7	0.22%
As 188.979†	4.6	11.342	µg/L	2.4044	11.342	ppb	2.4044	21.20%
B 249.677†	487.5	-8.2731	µg/L	0.59433	-8.2731	ppb	0.59433	7.18%
Ba 233.527†	17346.4	428.04	µg/L	6.755	428.04	ppb	6.755	1.58%
Be 313.107†	8615.7	4.4803	µg/L	0.13121	4.4803	ppb	0.13121	2.93%
Ca 317.933Radial†	7561.7	6564.1	µg/L	88.47	6564.1	ppb	88.47	1.35%
Cd 226.502†	201.2	-0.9014	µg/L	0.08263	-0.9014	ppb	0.08263	9.17%
Co 228.616†	746.6	29.942	µg/L	1.2751	29.942	ppb	1.2751	4.26%
Cr 267.716†	3043.4	63.398	µg/L	1.9185	63.398	ppb	1.9185	3.03%
Cu 324.752†	6440.0	50.117	µg/L	0.9497	50.117	ppb	0.9497	1.89%
Fe 238.204 Radial†	6906.4	54561	µg/L	713.3	54561	ppb	713.3	1.31%
K 766.490 Radial†	10411.0	7166.1	µg/L	20.51	7166.1	ppb	20.51	0.29%
Mg 279.077 IEC†	742.6	6517.6	µg/L	104.69	6517.6	ppb	104.69	1.61%
Mn 257.610†	607112.9	1981.0	µg/L	14.95	1981.0	ppb	14.95	0.75%
Mo 202.031†	22.7	4.3598	µg/L	0.45500	4.3598	ppb	0.45500	10.44%
Na 589.592 Radial†	1106.1	344.16	µg/L	9.708	344.16	ppb	9.708	2.82%

Ni 231.604†	738.6	38.805 µg/L	1.4589	38.805 ppb	1.4589	3.76%
P 214.914†	222.3	407.51 µg/L	16.536	407.51 ppb	16.536	4.06%
Pb 220.353†	294.7	73.626 µg/L	2.3765	73.626 ppb	2.3765	3.23%
S 181.975 Axial†	72.1	299.84 µg/L	6.731	299.84 ppb	6.731	2.24%
Sb 206.836†	5.3	3.6186 µg/L	7.52665	3.6186 ppb	7.52665	208.00%
Se 196.026†	-34.2	92.323 µg/L	5.0697	92.323 ppb	5.0697	5.49%
SiO2†	160560.6	32794 µg/L	463.1	32794 ppb	463.1	1.41%
Si 251.611†	197680.6	15449 µg/L	91.1	15449 ppb	91.1	0.59%
Sn 189.927†	-23.8	-15.370 µg/L	1.0766	-15.370 ppb	1.0766	7.00%
Sr 421.552†	9085.5	89.657 µg/L	0.0879	89.657 ppb	0.0879	0.10%
Ti 334.940†	992802.0	2292.1 µg/L	20.94	2292.1 ppb	20.94	0.91%
Tl 190.801†	-24.3	5.7698 µg/L	5.47445	5.7698 ppb	5.47445	94.88%
U 409.014†	-432.9	-44.919 µg/L	4.2005	-44.919 ppb	4.2005	9.35%
V 292.402†	9979.1	107.41 µg/L	1.992	107.41 ppb	1.992	1.85%
Zn 213.857†	6364.7	146.84 µg/L	2.089	146.84 ppb	2.089	1.42%

Sequence No.: 43
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 12:25:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56070.2	56070.2	97.9	%			12:26:34
1	Al 396.153Radial†	7000.5	7175.1	4987.5	µg/L	4987.5	ppb	12:26:34
1	Ca 317.933Radial†	5550.7	5483.0	4759.6	µg/L	4759.6	ppb	12:26:54
1	Fe 238.204 Radial†	621.0	620.6	4913.5	µg/L	4913.5	ppb	12:26:54
1	K 766.490 Radial†	7386.1	7378.2	5078.6	µg/L	5078.6	ppb	12:26:34
1	Mg 279.077 IEC†	575.8	577.3	5115.9	µg/L	5115.9	ppb	12:26:54
1	Na 589.592 Radial†	31664.2	31830.6	9904.6	µg/L	9904.6	ppb	12:26:34
1	Sr 421.552†	49085.2	50114.2	494.53	µg/L	494.53	ppb	12:26:34
1	Sc 361.383	1930990.1	1930990.1	97.264	%			12:27:57
1	Y 371.029	1317868.6	1317868.6	96.590	%			12:27:57
1	Ag 328.068†	63166.1	65503.9	500.77	µg/L	500.77	ppb	12:28:03
1	As 188.979†	276.2	282.1	517.61	µg/L	517.61	ppb	12:28:23
1	B 249.677†	12003.8	12047.2	494.88	µg/L	494.88	ppb	12:28:03
1	Ba 233.527†	19810.6	20393.8	503.94	µg/L	503.94	ppb	12:28:03
1	Be 313.107†	782061.8	807660.1	501.68	µg/L	501.68	ppb	12:27:57
1	Cd 226.502†	18604.2	19273.7	500.50	µg/L	500.50	ppb	12:28:03
1	Co 228.616†	10584.2	10890.8	505.94	µg/L	505.94	ppb	12:28:03
1	Cr 267.716†	23616.3	24329.2	506.61	µg/L	506.61	ppb	12:28:03
1	Cu 324.752†	76545.9	76254.9	504.31	µg/L	504.31	ppb	12:28:03
1	Mn 257.610†	150901.7	155410.9	505.77	µg/L	505.77	ppb	12:27:57
1	Mo 202.031†	4948.8	5092.8	514.20	µg/L	514.20	ppb	12:28:23
1	Ni 231.604†	9812.3	9785.9	504.72	µg/L	504.72	ppb	12:28:03
1	P 214.914†	1268.3	1277.4	2518.0	µg/L	2518.0	ppb	12:28:23
1	Pb 220.353†	2072.3	2043.7	512.23	µg/L	512.23	ppb	12:28:23
1	S 181.975 Axial†	252.2	241.9	1006.0	µg/L	1006.0	ppb	12:28:23
1	Sb 206.836†	559.5	551.6	512.97	µg/L	512.97	ppb	12:28:23
1	Se 196.026†	360.3	352.1	513.16	µg/L	513.16	ppb	12:28:23
1	SiO2†	26960.7	26428.1	5397.9	µg/L	5397.9	ppb	12:28:03
1	Si 251.611†	31767.0	32365.5	2529.4	µg/L	2529.4	ppb	12:28:03
1	Sn 189.927†	1148.6	1180.6	511.01	µg/L	511.01	ppb	12:28:23
1	Ti 334.940†	212161.2	218033.5	503.14	µg/L	503.14	ppb	12:27:57
1	Tl 190.801†	346.9	380.4	508.34	µg/L	508.34	ppb	12:28:23
1	U 409.014†	5767.5	6018.9	512.57	µg/L	512.57	ppb	12:28:03
1	V 292.402†	48448.9	49857.4	510.19	µg/L	510.19	ppb	12:28:03
1	Zn 213.857†	21293.7	21428.6	501.60	µg/L	501.60	ppb	12:28:03
2	Sc RADIAL	55970.9	55970.9	97.7	%			12:26:59
2	Al 396.153Radial†	7008.7	7196.2	5002.3	µg/L	5002.3	ppb	12:26:59
2	Ca 317.933Radial†	5563.8	5506.6	4780.1	µg/L	4780.1	ppb	12:27:20
2	Fe 238.204 Radial†	624.0	624.9	4947.1	µg/L	4947.1	ppb	12:27:20
2	K 766.490 Radial†	7369.5	7374.6	5076.1	µg/L	5076.1	ppb	12:26:59
2	Mg 279.077 IEC†	574.9	577.5	5117.2	µg/L	5117.2	ppb	12:27:20
2	Na 589.592 Radial†	31701.9	31926.6	9934.4	µg/L	9934.4	ppb	12:26:59
2	Sr 421.552†	49242.6	50364.3	497.00	µg/L	497.00	ppb	12:26:59
2	Sc 361.383	1939571.4	1939571.4	97.696	%			12:28:31
2	Y 371.029	1322345.5	1322345.5	96.918	%			12:28:31
2	Ag 328.068†	62922.1	64966.8	496.67	µg/L	496.67	ppb	12:28:36
2	As 188.979†	271.4	276.0	506.29	µg/L	506.29	ppb	12:28:57
2	B 249.677†	11912.6	11899.2	488.76	µg/L	488.76	ppb	12:28:36
2	Ba 233.527†	19715.6	20206.5	499.31	µg/L	499.31	ppb	12:28:36
2	Be 313.107†	778584.1	800543.0	497.26	µg/L	497.26	ppb	12:28:31
2	Cd 226.502†	18426.6	19007.3	493.57	µg/L	493.57	ppb	12:28:36
2	Co 228.616†	10513.7	10770.5	500.34	µg/L	500.34	ppb	12:28:36
2	Cr 267.716†	23454.3	24055.9	500.92	µg/L	500.92	ppb	12:28:36
2	Cu 324.752†	76223.4	75576.6	499.83	µg/L	499.83	ppb	12:28:36
2	Mn 257.610†	150443.0	154255.1	502.02	µg/L	502.02	ppb	12:28:31
2	Mo 202.031†	4922.5	5043.4	509.22	µg/L	509.22	ppb	12:28:57
2	Ni 231.604†	9781.6	9709.8	500.80	µg/L	500.80	ppb	12:28:36
2	P 214.914†	1254.8	1257.8	2479.0	µg/L	2479.0	ppb	12:28:57
2	Pb 220.353†	2062.4	2024.1	507.32	µg/L	507.32	ppb	12:28:57

2	S 181.975 Axial†	248.1	236.5	983.76 µg/L	983.76 ppb	12:28:57
2	Sb 206.836†	556.0	545.5	507.28 µg/L	507.28 ppb	12:28:57
2	Se 196.026†	360.1	350.2	510.64 µg/L	510.64 ppb	12:28:57
2	SiO2†	26958.7	26303.5	5372.4 µg/L	5372.4 ppb	12:28:36
2	Si 251.611†	31741.8	32195.1	2516.1 µg/L	2516.1 ppb	12:28:36
2	Sn 189.927†	1145.8	1172.5	507.50 µg/L	507.50 ppb	12:28:57
2	Ti 334.940†	211813.8	216712.9	500.09 µg/L	500.09 ppb	12:28:31
2	Tl 190.801†	346.8	378.7	506.05 µg/L	506.05 ppb	12:28:57
2	U 409.014†	5645.0	5867.3	499.63 µg/L	499.63 ppb	12:28:36
2	V 292.402†	48207.0	49389.4	505.40 µg/L	505.40 ppb	12:28:36
2	Zn 213.857†	21208.4	21244.4	497.28 µg/L	497.28 ppb	12:28:36
3	Sc RADIAL	55785.0	55785.0	97.4 %		12:27:25
3	Al 396.153Radial†	7024.2	7235.9	5031.6 µg/L	5031.6 ppb	12:27:25
3	Ca 317.933Radial†	5566.5	5528.2	4798.9 µg/L	4798.9 ppb	12:27:46
3	Fe 238.204 Radial†	627.1	630.2	4988.1 µg/L	4988.1 ppb	12:27:46
3	K 766.490 Radial†	7364.4	7394.5	5089.8 µg/L	5089.8 ppb	12:27:25
3	Mg 279.077 IEC†	574.8	579.3	5132.0 µg/L	5132.0 ppb	12:27:46
3	Na 589.592 Radial†	31676.0	32008.1	9959.8 µg/L	9959.8 ppb	12:27:25
3	Sr 421.552†	49367.2	50660.0	499.92 µg/L	499.92 ppb	12:27:25
3	Sc 361.383	1948523.5	1948523.5	98.147 %		12:29:04
3	Y 371.029	1331328.2	1331328.2	97.576 %		12:29:04
3	Ag 328.068†	60320.5	62020.2	474.05 µg/L	474.05 ppb	12:29:10
3	As 188.979†	241.0	243.7	447.18 µg/L	447.18 ppb	12:29:30
3	B 249.677†	11413.1	11334.3	465.37 µg/L	465.37 ppb	12:29:10
3	Ba 233.527†	18604.7	18982.0	469.03 µg/L	469.03 ppb	12:29:10
3	Be 313.107†	742327.3	759940.3	472.04 µg/L	472.04 ppb	12:29:04
3	Cd 226.502†	17266.7	17738.8	460.59 µg/L	460.59 ppb	12:29:10
3	Co 228.616†	9838.1	10032.7	466.01 µg/L	466.01 ppb	12:29:10
3	Cr 267.716†	21442.6	21895.9	455.95 µg/L	455.95 ppb	12:29:10
3	Cu 324.752†	71271.6	70172.8	464.15 µg/L	464.15 ppb	12:29:10
3	Mn 257.610†	144268.3	147256.3	479.27 µg/L	479.27 ppb	12:29:04
3	Mo 202.031†	4190.4	4274.4	431.60 µg/L	431.60 ppb	12:29:30
3	Ni 231.604†	9170.6	9041.3	466.33 µg/L	466.33 ppb	12:29:10
3	P 214.914†	1108.0	1102.3	2169.1 µg/L	2169.1 ppb	12:29:30
3	Pb 220.353†	1835.0	1782.7	446.70 µg/L	446.70 ppb	12:29:30
3	S 181.975 Axial†	222.2	208.9	868.91 µg/L	868.91 ppb	12:29:30
3	Sb 206.836†	480.4	465.8	432.78 µg/L	432.78 ppb	12:29:30
3	Se 196.026†	324.3	312.0	455.83 µg/L	455.83 ppb	12:29:30
3	SiO2†	25763.6	24959.0	5097.8 µg/L	5097.8 ppb	12:29:10
3	Si 251.611†	30276.7	30553.1	2387.7 µg/L	2387.7 ppb	12:29:10
3	Sn 189.927†	961.6	979.4	423.94 µg/L	423.94 ppb	12:29:30
3	Ti 334.940†	201980.3	205697.7	474.66 µg/L	474.66 ppb	12:29:04
3	Tl 190.801†	314.9	344.6	460.82 µg/L	460.82 ppb	12:29:30
3	U 409.014†	5299.0	5488.2	467.28 µg/L	467.28 ppb	12:29:10
3	V 292.402†	44656.2	45544.8	465.81 µg/L	465.81 ppb	12:29:10
3	Zn 213.857†	19816.1	19726.1	461.70 µg/L	461.70 ppb	12:29:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1939695.0	97.703	%	0.4416				0.45%
Sc RADIAL	55942.1	97.7	%	0.25				0.26%
Y 371.029	1323847.4	97.028	%	0.5024				0.52%
Ag 328.068†	64163.6	490.50	µg/L	14.390	490.50	ppb	14.390	2.93%
QC value within limits for Ag 328.068 Recovery = 98.10%								
Al 396.153Radial†	7202.4	5007.2	µg/L	22.45	5007.2	ppb	22.45	0.45%
QC value within limits for Al 396.153Radial Recovery = 100.14%								
As 188.979†	267.3	490.36	µg/L	37.820	490.36	ppb	37.820	7.71%
QC value within limits for As 188.979 Recovery = 98.07%								
B 249.677†	11760.2	483.00	µg/L	15.573	483.00	ppb	15.573	3.22%
QC value within limits for B 249.677 Recovery = 96.60%								
Ba 233.527†	19860.8	490.76	µg/L	18.957	490.76	ppb	18.957	3.86%
QC value within limits for Ba 233.527 Recovery = 98.15%								
Be 313.107†	789381.1	490.33	µg/L	15.991	490.33	ppb	15.991	3.26%
QC value within limits for Be 313.107 Recovery = 98.07%								
Ca 317.933Radial†	5505.9	4779.5	µg/L	19.63	4779.5	ppb	19.63	0.41%
QC value within limits for Ca 317.933Radial Recovery = 95.59%								
Cd 226.502†	18673.3	484.88	µg/L	21.325	484.88	ppb	21.325	4.40%
QC value within limits for Cd 226.502 Recovery = 96.98%								
Co 228.616†	10564.6	490.76	µg/L	21.617	490.76	ppb	21.617	4.40%

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   QC value within limits for Co 228.616  Recovery = 98.15%
Cr 267.716†            23427.0      487.82 µg/L        27.755      487.82 ppb         27.755   5.69%
   QC value within limits for Cr 267.716  Recovery = 97.56%
Cu 324.752†            74001.4      489.43 µg/L        22.008      489.43 ppb         22.008   4.50%
   QC value within limits for Cu 324.752  Recovery = 97.89%
Fe 238.204 Radial†       625.2      4949.6 µg/L         37.39      4949.6 ppb          37.39   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.99%
K 766.490 Radial†       7382.5      5081.5 µg/L          7.30      5081.5 ppb           7.30   0.14%
   QC value within limits for K 766.490 Radial  Recovery = 101.63%
Mg 279.077 IEC†          578.0      5121.7 µg/L          8.95      5121.7 ppb           8.95   0.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.43%
Mn 257.610†           152307.4      495.69 µg/L        14.343      495.69 ppb         14.343   2.89%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†             4803.5      485.01 µg/L        46.318      485.01 ppb         46.318   9.55%
   QC value within limits for Mo 202.031  Recovery = 97.00%
Na 589.592 Radial†     31921.8      9932.9 µg/L         27.65      9932.9 ppb          27.65   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 99.33%
Ni 231.604†             9512.3      490.62 µg/L        21.127      490.62 ppb         21.127   4.31%
   QC value within limits for Ni 231.604  Recovery = 98.12%
P 214.914†              1212.5      2388.7 µg/L        191.15      2388.7 ppb         191.15   8.00%
   QC value within limits for P 214.914  Recovery = 95.55%
Pb 220.353†             1950.2      488.75 µg/L        36.498      488.75 ppb         36.498   7.47%
   QC value within limits for Pb 220.353  Recovery = 97.75%
S 181.975 Axial†         229.1      952.89 µg/L        73.580      952.89 ppb         73.580   7.72%
   QC value within limits for S 181.975 Axial  Recovery = 95.29%
Sb 206.836†              521.0      484.34 µg/L        44.747      484.34 ppb         44.747   9.24%
   QC value within limits for Sb 206.836  Recovery = 96.87%
Se 196.026†              338.1      493.21 µg/L        32.395      493.21 ppb         32.395   6.57%
   QC value within limits for Se 196.026  Recovery = 98.64%
SiO2†                  25896.8      5289.3 µg/L        166.38      5289.3 ppb         166.38   3.15%
   QC value within limits for SiO2  Recovery = 98.91%
Si 251.611†            31704.6      2477.7 µg/L         78.21      2477.7 ppb          78.21   3.16%
   QC value within limits for Si 251.611  Recovery = 99.11%
Sn 189.927†             1110.8      480.82 µg/L        49.284      480.82 ppb         49.284  10.25%
   QC value within limits for Sn 189.927  Recovery = 96.16%
Sr 421.552†            50379.5      497.15 µg/L         2.697      497.15 ppb          2.697   0.54%
   QC value within limits for Sr 421.552  Recovery = 99.43%
Ti 334.940†           213481.4      492.63 µg/L        15.641      492.63 ppb         15.641   3.17%
   QC value within limits for Ti 334.940  Recovery = 98.53%
Tl 190.801†              367.9      491.74 µg/L        26.799      491.74 ppb         26.799   5.45%
   QC value within limits for Tl 190.801  Recovery = 98.35%
U 409.014†              5791.5      493.16 µg/L        23.330      493.16 ppb         23.330   4.73%
   QC value within limits for U 409.014  Recovery = 98.63%
V 292.402†             48263.9      493.80 µg/L        24.359      493.80 ppb         24.359   4.93%
   QC value within limits for V 292.402  Recovery = 98.76%
Zn 213.857†            20799.7      486.86 µg/L        21.899      486.86 ppb         21.899   4.50%
   QC value within limits for Zn 213.857  Recovery = 97.37%
All analyte(s) passed QC.
```

Sequence No.: 44
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 12:29:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54929.0	54929.0	95.9	%			12:30:12
1	Al 396.153Radial†	2.4	26.7	18.585	µg/L	18.585	ppb	12:30:12
1	Ca 317.933Radial†	195.8	17.3	15.017	µg/L	15.017	ppb	12:30:32
1	Fe 238.204 Radial†	18.6	5.7	44.851	µg/L	44.851	ppb	12:30:32
1	K 766.490 Radial†	107.2	-54.7	-37.642	µg/L	-37.642	ppb	12:30:12
1	Mg 279.077 IEC†	15.1	4.9	43.379	µg/L	43.379	ppb	12:30:32
1	Na 589.592 Radial†	483.3	-9.9	-3.0754	µg/L	-3.0754	ppb	12:30:12
1	Sr 421.552†	35.5	11.6	0.1140	µg/L	0.1140	ppb	12:30:12
1	Sc 361.383	1973353.1	1973353.1	99.398	%			12:31:34
1	Y 371.029	1352273.5	1352273.5	99.111	%			12:31:34
1	Ag 328.068†	-622.1	-64.8	-0.4894	µg/L	-0.4894	ppb	12:31:40
1	As 188.979†	2.6	0.8	1.4926	µg/L	1.4926	ppb	12:32:00
1	B 249.677†	321.3	29.0	1.1732	µg/L	1.1732	ppb	12:32:00
1	Ba 233.527†	-19.3	6.6	0.1630	µg/L	0.1630	ppb	12:32:00
1	Be 313.107†	-3673.3	-95.2	-0.0594	µg/L	-0.0594	ppb	12:31:40
1	Cd 226.502†	-124.7	20.7	0.5318	µg/L	0.5318	ppb	12:32:00
1	Co 228.616†	-11.9	-3.1	-0.1428	µg/L	-0.1428	ppb	12:32:00
1	Cr 267.716†	-30.3	18.1	0.3765	µg/L	0.3765	ppb	12:32:00
1	Cu 324.752†	2492.5	63.4	0.4248	µg/L	0.4248	ppb	12:31:40
1	Mn 257.610†	-88.8	175.3	0.5741	µg/L	0.5741	ppb	12:32:00
1	Mo 202.031†	-1.8	3.1	0.3115	µg/L	0.3115	ppb	12:32:00
1	Ni 231.604†	293.2	-7.5	-0.3860	µg/L	-0.3860	ppb	12:32:00
1	P 214.914†	34.2	7.8	15.532	µg/L	15.532	ppb	12:32:00
1	Pb 220.353†	91.6	5.3	1.3104	µg/L	1.3104	ppb	12:32:00
1	S 181.975 Axial†	11.0	-6.3	-26.360	µg/L	-26.360	ppb	12:32:00
1	Sb 206.836†	26.0	2.5	2.3071	µg/L	2.3071	ppb	12:32:00
1	Se 196.026†	14.6	-3.7	-5.1760	µg/L	-5.1760	ppb	12:32:00
1	SiO2†	1329.3	46.4	9.4705	µg/L	9.4705	ppb	12:31:40
1	Si 251.611†	400.3	107.7	8.4134	µg/L	8.4134	ppb	12:32:00
1	Sn 189.927†	-2.7	-3.0	-1.3023	µg/L	-1.3023	ppb	12:32:00
1	Ti 334.940†	319.2	225.8	0.5181	µg/L	0.5181	ppb	12:31:40
1	Tl 190.801†	-18.7	4.9	6.4934	µg/L	6.4934	ppb	12:32:00
1	U 409.014†	-34.4	54.5	4.6442	µg/L	4.6442	ppb	12:31:40
1	V 292.402†	-51.8	-6.4	-0.0517	µg/L	-0.0517	ppb	12:31:40
1	Zn 213.857†	480.1	18.9	0.4429	µg/L	0.4429	ppb	12:32:00
2	Sc RADIAL	56783.9	56783.9	99.1	%			12:30:38
2	Al 396.153Radial†	14.7	39.1	27.204	µg/L	27.204	ppb	12:30:38
2	Ca 317.933Radial†	197.0	11.8	10.285	µg/L	10.285	ppb	12:30:58
2	Fe 238.204 Radial†	19.8	6.3	49.695	µg/L	49.695	ppb	12:30:58
2	K 766.490 Radial†	159.8	-5.3	-3.6453	µg/L	-3.6453	ppb	12:30:38
2	Mg 279.077 IEC†	10.4	-0.3	-2.9077	µg/L	-2.9077	ppb	12:30:58
2	Na 589.592 Radial†	443.1	-66.9	-20.801	µg/L	-20.801	ppb	12:30:38
2	Sr 421.552†	56.4	31.5	0.3107	µg/L	0.3107	ppb	12:30:38
2	Sc 361.383	1955471.5	1955471.5	98.497	%			12:32:06
2	Y 371.029	1338888.0	1338888.0	98.130	%			12:32:06
2	Ag 328.068†	-597.4	-45.5	-0.3415	µg/L	-0.3415	ppb	12:32:12
2	As 188.979†	-0.9	-2.7	-5.0242	µg/L	-5.0242	ppb	12:32:32
2	B 249.677†	307.6	18.0	0.7169	µg/L	0.7169	ppb	12:32:32
2	Ba 233.527†	-18.0	7.8	0.1916	µg/L	0.1916	ppb	12:32:32
2	Be 313.107†	-3527.0	19.6	0.0120	µg/L	0.0120	ppb	12:32:12
2	Cd 226.502†	-130.4	13.8	0.3519	µg/L	0.3519	ppb	12:32:32
2	Co 228.616†	-0.4	8.5	0.3940	µg/L	0.3940	ppb	12:32:32
2	Cr 267.716†	-26.9	21.3	0.4424	µg/L	0.4424	ppb	12:32:32
2	Cu 324.752†	2515.7	109.9	0.7326	µg/L	0.7326	ppb	12:32:12
2	Mn 257.610†	-52.3	211.6	0.6948	µg/L	0.6948	ppb	12:32:32
2	Mo 202.031†	-3.9	0.9	0.0916	µg/L	0.0916	ppb	12:32:32
2	Ni 231.604†	302.3	4.4	0.2290	µg/L	0.2290	ppb	12:32:32
2	P 214.914†	40.6	14.6	29.153	µg/L	29.153	ppb	12:32:32
2	Pb 220.353†	97.0	11.6	2.8891	µg/L	2.8891	ppb	12:32:32

2	S 181.975 Axial†	17.3	0.1	0.3907 µg/L	0.3907 ppb	12:32:32
2	Sb 206.836†	20.7	-2.6	-2.4229 µg/L	-2.4229 ppb	12:32:32
2	Se 196.026†	18.4	0.3	0.5482 µg/L	0.5482 ppb	12:32:32
2	SiO2†	1339.8	69.3	14.153 µg/L	14.153 ppb	12:32:12
2	Si 251.611†	400.5	111.5	8.7155 µg/L	8.7155 ppb	12:32:32
2	Sn 189.927†	-1.6	-1.9	-0.8318 µg/L	-0.8318 ppb	12:32:32
2	Ti 334.940†	332.4	242.1	0.5594 µg/L	0.5594 ppb	12:32:12
2	Tl 190.801†	-27.8	-4.4	-5.8439 µg/L	-5.8439 ppb	12:32:32
2	U 409.014†	-0.7	88.4	7.5372 µg/L	7.5372 ppb	12:32:12
2	V 292.402†	-33.2	12.0	0.1370 µg/L	0.1370 ppb	12:32:12
2	Zn 213.857†	475.4	18.6	0.4338 µg/L	0.4338 ppb	12:32:32
3	Sc RADIAL	56536.0	56536.0	98.7 %		12:31:04
3	Al 396.153Radial†	6.3	30.6	21.305 µg/L	21.305 ppb	12:31:04
3	Ca 317.933Radial†	189.7	5.3	4.5683 µg/L	4.5683 ppb	12:31:24
3	Fe 238.204 Radial†	20.9	7.4	58.750 µg/L	58.750 ppb	12:31:24
3	K 766.490 Radial†	132.8	-32.0	-22.017 µg/L	-22.017 ppb	12:31:04
3	Mg 279.077 IEC†	17.3	6.7	59.641 µg/L	59.641 ppb	12:31:24
3	Na 589.592 Radial†	436.5	-71.6	-22.279 µg/L	-22.279 ppb	12:31:04
3	Sr 421.552†	4.8	-20.6	-0.2033 µg/L	-0.2033 ppb	12:31:04
3	Sc 361.383	1974101.0	1974101.0	99.436 %		12:32:38
3	Y 371.029	1351748.3	1351748.3	99.073 %		12:32:38
3	Ag 328.068†	-592.2	-34.5	-0.2577 µg/L	-0.2577 ppb	12:32:44
3	As 188.979†	0.5	-1.3	-2.4333 µg/L	-2.4333 ppb	12:33:04
3	B 249.677†	316.1	23.6	0.9438 µg/L	0.9438 ppb	12:33:04
3	Ba 233.527†	-10.7	15.3	0.3778 µg/L	0.3778 ppb	12:33:04
3	Be 313.107†	-2972.4	611.1	0.3793 µg/L	0.3793 ppb	12:32:44
3	Cd 226.502†	-118.9	26.6	0.6843 µg/L	0.6843 ppb	12:33:04
3	Co 228.616†	-0.4	8.5	0.3924 µg/L	0.3924 ppb	12:33:04
3	Cr 267.716†	-13.0	35.5	0.7391 µg/L	0.7391 ppb	12:33:04
3	Cu 324.752†	2510.7	80.8	0.5419 µg/L	0.5419 ppb	12:32:44
3	Mn 257.610†	0.0	264.7	0.8661 µg/L	0.8661 ppb	12:33:04
3	Mo 202.031†	-0.6	4.2	0.4254 µg/L	0.4254 ppb	12:33:04
3	Ni 231.604†	304.8	4.0	0.2090 µg/L	0.2090 ppb	12:33:04
3	P 214.914†	32.8	6.3	12.612 µg/L	12.612 ppb	12:33:04
3	Pb 220.353†	98.0	11.6	2.9111 µg/L	2.9111 ppb	12:33:04
3	S 181.975 Axial†	16.9	-0.4	-1.7978 µg/L	-1.7978 ppb	12:33:04
3	Sb 206.836†	27.3	3.7	3.4659 µg/L	3.4659 ppb	12:33:04
3	Se 196.026†	14.3	-4.0	-5.6354 µg/L	-5.6354 ppb	12:33:04
3	SiO2†	1371.4	88.2	18.023 µg/L	18.023 ppb	12:32:44
3	Si 251.611†	433.0	140.4	10.972 µg/L	10.972 ppb	12:33:04
3	Sn 189.927†	-2.0	-2.3	-0.9867 µg/L	-0.9867 ppb	12:33:04
3	Ti 334.940†	520.3	427.9	0.9834 µg/L	0.9834 ppb	12:32:44
3	Tl 190.801†	-25.4	-1.8	-2.4110 µg/L	-2.4110 ppb	12:33:04
3	U 409.014†	-82.8	5.9	0.4916 µg/L	0.4916 ppb	12:32:44
3	V 292.402†	-40.8	4.6	0.0594 µg/L	0.0594 ppb	12:32:44
3	Zn 213.857†	502.5	41.3	0.9665 µg/L	0.9665 ppb	12:33:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1967641.9	99.110	%	0.5312				0.54%
Sc RADIAL	56083.0	97.9	%	1.76				1.80%
Y 371.029	1347636.6	98.772	%	0.5556				0.56%
Ag 328.068†	-48.3	-0.3629	µg/L	0.11729	-0.3629	ppb	0.11729	32.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	32.1	22.365	µg/L	4.4059	22.365	ppb	4.4059	19.70%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-1.9883	µg/L	3.28110	-1.9883	ppb	3.28110	165.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	23.5	0.9446	µg/L	0.22817	0.9446	ppb	0.22817	24.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.9	0.2441	µg/L	0.11663	0.2441	ppb	0.11663	47.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	178.5	0.1106	µg/L	0.23541	0.1106	ppb	0.23541	212.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.5	9.9565	µg/L	5.23182	9.9565	ppb	5.23182	52.55%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.3	0.5227	µg/L	0.16640	0.5227	ppb	0.16640	31.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.6	0.2146	µg/L	0.30945	0.2146	ppb	0.30945	144.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                25.0      0.5193 µg/L       0.19319      0.5193 ppb        0.19319  37.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                84.7      0.5664 µg/L       0.15533      0.5664 ppb        0.15533  27.42%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          6.5      51.099 µg/L        7.0549     51.099 ppb         7.0549  13.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -30.7     -21.102 µg/L       17.0171    -21.102 ppb        17.0171  80.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.8      33.371 µg/L       32.4534     33.371 ppb        32.4534  97.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               217.2      0.7117 µg/L       0.14670      0.7117 ppb        0.14670  20.61%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.7      0.2762 µg/L       0.16970      0.2762 ppb        0.16970  61.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -49.4     -15.385 µg/L       10.6861    -15.385 ppb        10.6861  69.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.3      0.0173 µg/L       0.34946      0.0173 ppb        0.34946 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  9.6      19.099 µg/L        8.8285     19.099 ppb         8.8285  46.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.5      2.3702 µg/L       0.91788      2.3702 ppb        0.91788  38.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.2     -9.2559 µg/L      14.85339     -9.2559 ppb       14.85339 160.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.2      1.1167 µg/L       3.11969      1.1167 ppb        3.11969 279.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.5     -3.4211 µg/L       3.44517     -3.4211 ppb        3.44517 100.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      68.0      13.882 µg/L        4.2829     13.882 ppb         4.2829  30.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               119.9      9.3671 µg/L       1.39849      9.3671 ppb        1.39849  14.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.4     -1.0403 µg/L       0.23977     -1.0403 ppb        0.23977  23.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.5      0.0738 µg/L       0.25935      0.0738 ppb        0.25935 351.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               298.6      0.6870 µg/L       0.25754      0.6870 ppb        0.25754  37.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.5     -0.5872 µg/L       6.36765     -0.5872 ppb        6.36765 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 49.6      4.2244 µg/L       3.54152      4.2244 ppb        3.54152  83.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  3.4      0.0482 µg/L       0.09486      0.0482 ppb        0.09486 196.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                26.3      0.6144 µg/L       0.30497      0.6144 ppb        0.30497  49.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/19/2010 16:24:40 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 15:19:26**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/19/2010 16:24:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56379.0	56379.0	99.8	%	16:25:17
1	Al 396.153Radial†	16.2	16.2	[0.00]	µg/L	16:25:17
1	Ca 317.933Radial†	214.7	215.2	[0.00]	µg/L	16:25:38
1	Fe 238.204 Radial†	18.4	18.4	[0.00]	µg/L	16:25:38

1	K 766.490 Radial†	170.1	170.5	[0.00]	µg/L	16:25:17
1	Mg 279.077 IEC†	12.4	12.5	[0.00]	µg/L	16:25:38
1	Na 589.592 Radial†	471.3	472.3	[0.00]	µg/L	16:25:17
1	Sr 421.552†	12.0	12.0	[0.00]	µg/L	16:25:17
1	Sc 361.383	1972868.2	1972868.2	100.50	%	16:26:40
1	Y 371.029	1358545.8	1358545.8	100.43	%	16:26:40
1	Ag 328.068†	-377.9	-376.0	[0.00]	µg/L	16:26:45
1	As 188.979†	2.0	2.0	[0.00]	µg/L	16:27:06
1	B 249.677†	379.3	377.5	[0.00]	µg/L	16:27:06
1	Ba 233.527†	-13.3	-13.3	[0.00]	µg/L	16:27:06
1	Be 313.107†	-2914.6	-2900.2	[0.00]	µg/L	16:26:45
1	Cd 226.502†	-140.3	-139.6	[0.00]	µg/L	16:27:06
1	Co 228.616†	-4.5	-4.5	[0.00]	µg/L	16:27:06
1	Cr 267.716†	-50.8	-50.6	[0.00]	µg/L	16:26:45
1	Cu 324.752†	2545.0	2532.4	[0.00]	µg/L	16:26:45
1	Mn 257.610†	-255.0	-253.7	[0.00]	µg/L	16:27:06
1	Mo 202.031†	-2.4	-2.3	[0.00]	µg/L	16:27:06
1	Ni 231.604†	320.7	319.1	[0.00]	µg/L	16:27:06
1	P 214.914†	15.8	15.8	[0.00]	µg/L	16:27:06
1	Pb 220.353†	88.6	88.2	[0.00]	µg/L	16:27:06
1	S 181.975 Axial†	19.1	19.1	[0.00]	µg/L	16:27:06
1	Sb 206.836†	17.4	17.3	[0.00]	µg/L	16:27:06
1	Se 196.026†	20.3	20.2	[0.00]	µg/L	16:27:06
1	SiO2†	1396.5	1389.6	[0.00]	µg/L	16:26:45
1	Si 251.611†	308.1	306.6	[0.00]	µg/L	16:27:06
1	Sn 189.927†	0.6	0.6	[0.00]	µg/L	16:27:06
1	Ti 334.940†	185.3	184.3	[0.00]	µg/L	16:26:45
1	Tl 190.801†	-23.5	-23.3	[0.00]	µg/L	16:27:06
1	U 409.014†	-92.6	-92.1	[0.00]	µg/L	16:26:45
1	V 292.402†	-67.1	-66.8	[0.00]	µg/L	16:26:45
1	Zn 213.857†	537.3	534.6	[0.00]	µg/L	16:27:06
2	Sc RADIAL	56755.6	56755.6	100	%	16:25:43
2	Al 396.153Radial†	-1.8	-1.8	[0.00]	µg/L	16:25:43
2	Ca 317.933Radial†	215.5	214.5	[0.00]	µg/L	16:26:04
2	Fe 238.204 Radial†	16.5	16.4	[0.00]	µg/L	16:26:04
2	K 766.490 Radial†	182.5	181.6	[0.00]	µg/L	16:25:43
2	Mg 279.077 IEC†	11.4	11.3	[0.00]	µg/L	16:26:04
2	Na 589.592 Radial†	457.5	455.4	[0.00]	µg/L	16:25:43
2	Sr 421.552†	48.2	48.0	[0.00]	µg/L	16:25:43
2	Sc 361.383	1966863.7	1966863.7	100.19	%	16:27:12
2	Y 371.029	1355430.0	1355430.0	100.20	%	16:27:12
2	Ag 328.068†	-456.1	-455.2	[0.00]	µg/L	16:27:17
2	As 188.979†	1.0	0.9	[0.00]	µg/L	16:27:38
2	B 249.677†	393.1	392.3	[0.00]	µg/L	16:27:38
2	Ba 233.527†	-22.9	-22.8	[0.00]	µg/L	16:27:38
2	Be 313.107†	-2829.8	-2824.4	[0.00]	µg/L	16:27:17
2	Cd 226.502†	-143.7	-143.4	[0.00]	µg/L	16:27:38
2	Co 228.616†	5.2	5.2	[0.00]	µg/L	16:27:38
2	Cr 267.716†	-56.7	-56.6	[0.00]	µg/L	16:27:17
2	Cu 324.752†	2525.9	2521.0	[0.00]	µg/L	16:27:17
2	Mn 257.610†	-246.3	-245.8	[0.00]	µg/L	16:27:38
2	Mo 202.031†	-7.2	-7.2	[0.00]	µg/L	16:27:38
2	Ni 231.604†	311.9	311.3	[0.00]	µg/L	16:27:38
2	P 214.914†	14.8	14.8	[0.00]	µg/L	16:27:38
2	Pb 220.353†	93.7	93.5	[0.00]	µg/L	16:27:38
2	S 181.975 Axial†	14.7	14.7	[0.00]	µg/L	16:27:38
2	Sb 206.836†	27.4	27.4	[0.00]	µg/L	16:27:38
2	Se 196.026†	17.0	16.9	[0.00]	µg/L	16:27:38
2	SiO2†	1365.2	1362.6	[0.00]	µg/L	16:27:17
2	Si 251.611†	311.7	311.1	[0.00]	µg/L	16:27:38
2	Sn 189.927†	0.1	0.1	[0.00]	µg/L	16:27:38
2	Ti 334.940†	147.4	147.1	[0.00]	µg/L	16:27:17
2	Tl 190.801†	-23.8	-23.8	[0.00]	µg/L	16:27:38
2	U 409.014†	-39.1	-39.0	[0.00]	µg/L	16:27:17
2	V 292.402†	-66.7	-66.6	[0.00]	µg/L	16:27:17
2	Zn 213.857†	535.6	534.6	[0.00]	µg/L	16:27:38
3	Sc RADIAL	56352.2	56352.2	99.7	%	16:26:09
3	Al 396.153Radial†	7.7	7.7	[0.00]	µg/L	16:26:09
3	Ca 317.933Radial†	203.6	204.1	[0.00]	µg/L	16:26:29
3	Fe 238.204 Radial†	14.9	14.9	[0.00]	µg/L	16:26:29
3	K 766.490 Radial†	142.5	142.8	[0.00]	µg/L	16:26:09

3	Mg 279.077 IEC†	14.6	14.7	[0.00]	µg/L	16:26:29
3	Na 589.592 Radial†	487.6	488.9	[0.00]	µg/L	16:26:09
3	Sr 421.552†	26.3	26.4	[0.00]	µg/L	16:26:09
3	Sc 361.383	1949627.5	1949627.5	99.313	%	16:27:44
3	Y 371.029	1344291.5	1344291.5	99.374	%	16:27:44
3	Ag 328.068†	-371.1	-373.6	[0.00]	µg/L	16:27:50
3	As 188.979†	-4.3	-4.4	[0.00]	µg/L	16:28:10
3	B 249.677†	380.0	382.6	[0.00]	µg/L	16:28:10
3	Ba 233.527†	-15.0	-15.1	[0.00]	µg/L	16:28:10
3	Be 313.107†	-2823.0	-2842.5	[0.00]	µg/L	16:27:50
3	Cd 226.502†	-141.0	-142.0	[0.00]	µg/L	16:28:10
3	Co 228.616†	5.0	5.1	[0.00]	µg/L	16:28:10
3	Cr 267.716†	-43.6	-43.9	[0.00]	µg/L	16:27:50
3	Cu 324.752†	2560.1	2577.8	[0.00]	µg/L	16:27:50
3	Mn 257.610†	-266.7	-268.5	[0.00]	µg/L	16:28:10
3	Mo 202.031†	-6.5	-6.5	[0.00]	µg/L	16:28:10
3	Ni 231.604†	304.5	306.6	[0.00]	µg/L	16:28:10
3	P 214.914†	15.4	15.5	[0.00]	µg/L	16:28:10
3	Pb 220.353†	90.5	91.1	[0.00]	µg/L	16:28:10
3	S 181.975 Axial†	22.9	23.0	[0.00]	µg/L	16:28:10
3	Sb 206.836†	22.7	22.8	[0.00]	µg/L	16:28:10
3	Se 196.026†	20.7	20.8	[0.00]	µg/L	16:28:10
3	SiO2†	1412.7	1422.5	[0.00]	µg/L	16:27:50
3	Si 251.611†	312.1	314.3	[0.00]	µg/L	16:28:10
3	Sn 189.927†	0.4	0.4	[0.00]	µg/L	16:28:10
3	Ti 334.940†	192.3	193.6	[0.00]	µg/L	16:27:50
3	Tl 190.801†	-19.9	-20.0	[0.00]	µg/L	16:28:10
3	U 409.014†	-99.5	-100.1	[0.00]	µg/L	16:27:50
3	V 292.402†	-0.9	-0.9	[0.00]	µg/L	16:27:50
3	Zn 213.857†	530.3	534.0	[0.00]	µg/L	16:28:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1963119.8	12064.22	0.61%	100.00	%
Sc RADIAL	56495.6	225.58	0.40%	100	%
Y 371.029	1352755.8	7494.01	0.55%	100.00	%
Ag 328.068†	-401.6	46.42	11.56%	[0.00]	µg/L
Al 396.153Radial†	7.4	9.00	122.22%	[0.00]	µg/L
As 188.979†	-0.5	3.42	746.44%	[0.00]	µg/L
B 249.677†	384.1	7.56	1.97%	[0.00]	µg/L
Ba 233.527†	-17.1	5.08	29.78%	[0.00]	µg/L
Be 313.107†	-2855.7	39.56	1.39%	[0.00]	µg/L
Ca 317.933Radial†	211.3	6.18	2.93%	[0.00]	µg/L
Cd 226.502†	-141.7	1.91	1.35%	[0.00]	µg/L
Co 228.616†	1.9	5.56	287.58%	[0.00]	µg/L
Cr 267.716†	-50.4	6.37	12.65%	[0.00]	µg/L
Cu 324.752†	2543.7	30.02	1.18%	[0.00]	µg/L
Fe 238.204 Radial†	16.6	1.77	10.70%	[0.00]	µg/L
K 766.490 Radial†	165.0	19.97	12.10%	[0.00]	µg/L
Mg 279.077 IEC†	12.8	1.69	13.22%	[0.00]	µg/L
Mn 257.610†	-256.0	11.55	4.51%	[0.00]	µg/L
Mo 202.031†	-5.3	2.62	48.99%	[0.00]	µg/L
Na 589.592 Radial†	472.2	16.73	3.54%	[0.00]	µg/L
Ni 231.604†	312.3	6.29	2.01%	[0.00]	µg/L
P 214.914†	15.3	0.52	3.38%	[0.00]	µg/L
Pb 220.353†	90.9	2.66	2.92%	[0.00]	µg/L
S 181.975 Axial†	18.9	4.16	21.98%	[0.00]	µg/L
Sb 206.836†	22.5	5.03	22.34%	[0.00]	µg/L
Se 196.026†	19.3	2.09	10.80%	[0.00]	µg/L
SiO2†	1391.6	29.99	2.16%	[0.00]	µg/L
Si 251.611†	310.6	3.86	1.24%	[0.00]	µg/L
Sn 189.927†	0.4	0.26	71.28%	[0.00]	µg/L
Sr 421.552†	28.8	18.10	62.83%	[0.00]	µg/L
Ti 334.940†	175.0	24.62	14.06%	[0.00]	µg/L
Tl 190.801†	-22.4	2.06	9.20%	[0.00]	µg/L
U 409.014†	-77.1	33.23	43.11%	[0.00]	µg/L
V 292.402†	-44.8	37.98	84.87%	[0.00]	µg/L
Zn 213.857†	534.4	0.37	0.07%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/19/2010 16:28:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56547.7	56547.7	100	%	16:28:54
1	K 766.490 Radial†	1729.4	1562.9	[1000]	µg/L	16:28:54
1	Sr 421.552†	10915.2	10876.4	[100]	µg/L	16:28:54
1	Sc 361.383	1958657.5	1958657.5	99.773	%	16:29:16
1	Y 371.029	1350548.9	1350548.9	99.837	%	16:29:16
1	Ag 328.068†	13553.9	13986.4	[100]	µg/L	16:29:22
1	As 188.979†	59.6	60.2	[100]	µg/L	16:29:42
1	B 249.677†	2836.9	2459.2	[100]	µg/L	16:29:22
1	Ba 233.527†	4355.0	4382.0	[100]	µg/L	16:29:22
1	Be 313.107†	171130.8	174376.3	[100]	µg/L	16:29:16
1	Cd 226.502†	4124.2	4275.2	[100]	µg/L	16:29:22
1	Co 228.616†	2298.0	2301.3	[100]	µg/L	16:29:42
1	Cr 267.716†	5258.9	5321.2	[100]	µg/L	16:29:22
1	Cu 324.752†	18781.5	16280.6	[100]	µg/L	16:29:22
1	Mn 257.610†	33738.0	34070.9	[100]	µg/L	16:29:22
1	Mo 202.031†	1103.1	1111.0	[100]	µg/L	16:29:42
1	Ni 231.604†	2464.7	2158.0	[100]	µg/L	16:29:22
1	P 214.914†	279.5	264.8	[500]	µg/L	16:29:42
1	Pb 220.353†	532.5	442.7	[100]	µg/L	16:29:42
1	S 181.975 Axial†	65.4	46.6	[200]	µg/L	16:29:42
1	Sb 206.836†	134.3	112.1	[100]	µg/L	16:29:42
1	Se 196.026†	91.1	72.0	[100]	µg/L	16:29:42
1	SiO2†	6958.0	5582.3	[1069.5]	µg/L	16:29:22
1	Si 251.611†	7026.5	6731.9	[500]	µg/L	16:29:22
1	Sn 189.927†	255.8	256.0	[100]	µg/L	16:29:42
1	Ti 334.940†	46558.0	46489.0	[100]	µg/L	16:29:22
1	Tl 190.801†	54.5	77.1	[100]	µg/L	16:29:42
1	U 409.014†	1252.7	1332.6	[100]	µg/L	16:29:22
1	V 292.402†	10759.4	10828.7	[100]	µg/L	16:29:22
1	Zn 213.857†	5084.1	4561.2	[100]	µg/L	16:29:22
2	Sc RADIAL	56202.9	56202.9	99.5	%	16:29:00
2	K 766.490 Radial†	1727.4	1571.4	[1000]	µg/L	16:29:00
2	Sr 421.552†	10846.6	10874.3	[100]	µg/L	16:29:00
2	Sc 361.383	1969774.0	1969774.0	100.34	%	16:29:48
2	Y 371.029	1358589.1	1358589.1	100.43	%	16:29:48
2	Ag 328.068†	13626.3	13981.9	[100]	µg/L	16:29:54
2	As 188.979†	59.0	59.2	[100]	µg/L	16:30:15
2	B 249.677†	2870.2	2476.3	[100]	µg/L	16:29:54
2	Ba 233.527†	4352.8	4355.2	[100]	µg/L	16:29:54
2	Be 313.107†	172207.8	174481.8	[100]	µg/L	16:29:48
2	Cd 226.502†	4144.1	4271.8	[100]	µg/L	16:29:54
2	Co 228.616†	2299.6	2289.9	[100]	µg/L	16:30:15
2	Cr 267.716†	5267.7	5300.2	[100]	µg/L	16:29:54
2	Cu 324.752†	18798.4	16191.1	[100]	µg/L	16:29:54
2	Mn 257.610†	33750.8	33892.8	[100]	µg/L	16:29:54
2	Mo 202.031†	1093.5	1095.1	[100]	µg/L	16:30:15
2	Ni 231.604†	2441.8	2121.3	[100]	µg/L	16:29:54
2	P 214.914†	278.5	262.2	[500]	µg/L	16:30:15
2	Pb 220.353†	534.1	441.4	[100]	µg/L	16:30:15
2	S 181.975 Axial†	68.1	49.0	[200]	µg/L	16:30:15
2	Sb 206.836†	141.3	118.3	[100]	µg/L	16:30:15
2	Se 196.026†	84.6	65.0	[100]	µg/L	16:30:15
2	SiO2†	6950.3	5535.3	[1069.5]	µg/L	16:29:54
2	Si 251.611†	7046.5	6712.0	[500]	µg/L	16:29:54
2	Sn 189.927†	257.8	256.5	[100]	µg/L	16:30:15
2	Ti 334.940†	46408.5	46076.6	[100]	µg/L	16:29:54
2	Tl 190.801†	53.9	76.1	[100]	µg/L	16:30:15
2	U 409.014†	1326.1	1398.7	[100]	µg/L	16:29:54
2	V 292.402†	10708.8	10717.4	[100]	µg/L	16:29:54

2	Zn 213.857†	5067.8	4516.3	[100]	µg/L	16:29:54
3	Sc RADIAL	55976.7	55976.7	99.1	%	16:29:05
3	K 766.490 Radial†	1714.6	1565.5	[1000]	µg/L	16:29:05
3	Sr 421.552†	10778.8	10849.9	[100]	µg/L	16:29:05
3	Sc 361.383	1959694.8	1959694.8	99.826	%	16:30:21
3	Y 371.029	1350466.2	1350466.2	99.831	%	16:30:21
3	Ag 328.068†	13514.1	13939.3	[100]	µg/L	16:30:27
3	As 188.979†	60.6	61.1	[100]	µg/L	16:30:47
3	B 249.677†	2823.5	2444.3	[100]	µg/L	16:30:27
3	Ba 233.527†	4346.0	4370.6	[100]	µg/L	16:30:27
3	Be 313.107†	170786.2	173940.4	[100]	µg/L	16:30:21
3	Cd 226.502†	4105.4	4254.3	[100]	µg/L	16:30:27
3	Co 228.616†	2321.1	2323.2	[100]	µg/L	16:30:47
3	Cr 267.716†	5182.0	5241.4	[100]	µg/L	16:30:27
3	Cu 324.752†	18775.8	16264.9	[100]	µg/L	16:30:27
3	Mn 257.610†	33438.9	33753.4	[100]	µg/L	16:30:27
3	Mo 202.031†	1103.0	1110.3	[100]	µg/L	16:30:47
3	Ni 231.604†	2473.4	2165.4	[100]	µg/L	16:30:27
3	P 214.914†	282.4	267.5	[500]	µg/L	16:30:47
3	Pb 220.353†	529.2	439.2	[100]	µg/L	16:30:47
3	S 181.975 Axial†	72.1	53.3	[200]	µg/L	16:30:47
3	Sb 206.836†	136.5	114.2	[100]	µg/L	16:30:47
3	Se 196.026†	86.4	67.3	[100]	µg/L	16:30:47
3	SiO2†	6918.8	5539.3	[1069.5]	µg/L	16:30:27
3	Si 251.611†	6976.1	6677.7	[500]	µg/L	16:30:27
3	Sn 189.927†	259.9	260.0	[100]	µg/L	16:30:47
3	Ti 334.940†	46135.2	46040.8	[100]	µg/L	16:30:27
3	Tl 190.801†	63.1	85.5	[100]	µg/L	16:30:47
3	U 409.014†	1279.4	1358.7	[100]	µg/L	16:30:27
3	V 292.402†	10662.6	10726.0	[100]	µg/L	16:30:27
3	Zn 213.857†	5060.1	4534.5	[100]	µg/L	16:30:27

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1962708.8	6140.62	0.31%	99.979	%
Sc RADIAL	56242.4	287.56	0.51%	99.6	%
Y 371.029	1353201.4	4666.07	0.34%	100.03	%
Ag 328.068†	13969.2	25.98	0.19%	[100]	µg/L
As 188.979†	60.2	0.95	1.58%	[100]	µg/L
B 249.677†	2459.9	16.02	0.65%	[100]	µg/L
Ba 233.527†	4369.3	13.48	0.31%	[100]	µg/L
Be 313.107†	174266.2	287.04	0.16%	[100]	µg/L
Cd 226.502†	4267.1	11.24	0.26%	[100]	µg/L
Co 228.616†	2304.8	16.95	0.74%	[100]	µg/L
Cr 267.716†	5287.6	41.38	0.78%	[100]	µg/L
Cu 324.752†	16245.5	47.76	0.29%	[100]	µg/L
K 766.490 Radial†	1566.6	4.37	0.28%	[1000]	µg/L
Mn 257.610†	33905.7	159.14	0.47%	[100]	µg/L
Mo 202.031†	1105.5	8.97	0.81%	[100]	µg/L
Ni 231.604†	2148.2	23.63	1.10%	[100]	µg/L
P 214.914†	264.9	2.64	1.00%	[500]	µg/L
Pb 220.353†	441.1	1.78	0.40%	[100]	µg/L
S 181.975 Axial†	49.6	3.39	6.83%	[200]	µg/L
Sb 206.836†	114.9	3.15	2.74%	[100]	µg/L
Se 196.026†	68.1	3.58	5.25%	[100]	µg/L
SiO2†	5552.3	26.07	0.47%	[1069.5]	µg/L
Si 251.611†	6707.2	27.43	0.41%	[500]	µg/L
Sn 189.927†	257.5	2.17	0.84%	[100]	µg/L
Sr 421.552†	10866.8	14.72	0.14%	[100]	µg/L
Ti 334.940†	46202.1	249.08	0.54%	[100]	µg/L
Tl 190.801†	79.6	5.19	6.52%	[100]	µg/L
U 409.014†	1363.3	33.25	2.44%	[100]	µg/L
V 292.402†	10757.4	61.94	0.58%	[100]	µg/L
Zn 213.857†	4537.3	22.62	0.50%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/19/2010 16:30:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56525.4	56525.4	100	%	16:31:29
1	Al 396.153Radial†	7453.5	7442.2	[5000]	µg/L	16:31:29
1	Ca 317.933Radial†	6221.9	6007.4	[5000]	µg/L	16:31:49
1	K 766.490 Radial†	7933.1	7763.9	[5000]	µg/L	16:31:29
1	Mg 279.077 IEC†	599.2	586.0	[5000]	µg/L	16:31:49
1	Sr 421.552†	54754.2	54696.6	[500]	µg/L	16:31:29
1	Sc 361.383	1991566.8	1991566.8	101.45	%	16:32:53
1	Y 371.029	1367918.2	1367918.2	101.12	%	16:32:53
1	Ag 328.068†	68503.2	67926.3	[500]	µg/L	16:32:58
1	As 188.979†	299.0	295.2	[500]	µg/L	16:33:19
1	B 249.677†	12863.6	12295.7	[500]	µg/L	16:32:58
1	Ba 233.527†	21495.8	21205.8	[500]	µg/L	16:32:58
1	Be 313.107†	866518.5	856997.1	[500]	µg/L	16:32:53
1	Cd 226.502†	20677.7	20524.0	[500]	µg/L	16:32:58
1	Co 228.616†	11538.9	11372.2	[500]	µg/L	16:32:58
1	Cr 267.716†	25928.5	25608.5	[500]	µg/L	16:32:58
1	Cu 324.752†	81773.4	78061.6	[500]	µg/L	16:32:58
1	Mn 257.610†	167098.7	164967.9	[500]	µg/L	16:32:53
1	Mo 202.031†	5532.6	5459.0	[500]	µg/L	16:33:19
1	Ni 231.604†	10768.1	10301.9	[500]	µg/L	16:32:58
1	P 214.914†	1359.0	1324.3	[2500]	µg/L	16:33:19
1	Pb 220.353†	2302.4	2178.6	[500]	µg/L	16:33:19
1	S 181.975 Axial†	272.4	249.5	[1000]	µg/L	16:33:19
1	Sb 206.836†	599.4	568.4	[500]	µg/L	16:33:19
1	Se 196.026†	396.8	371.8	[500]	µg/L	16:33:19
1	SiO2†	29409.8	27598.2	[5347.5]	µg/L	16:32:58
1	Si 251.611†	34329.7	33528.7	[2500]	µg/L	16:32:58
1	Sn 189.927†	1299.8	1280.9	[500]	µg/L	16:33:19
1	Ti 334.940†	233565.9	230054.7	[500]	µg/L	16:32:53
1	Tl 190.801†	385.4	402.3	[500]	µg/L	16:33:19
1	U 409.014†	6215.4	6203.7	[500]	µg/L	16:32:58
1	V 292.402†	53048.0	52335.0	[500]	µg/L	16:32:58
1	Zn 213.857†	22866.4	22005.3	[500]	µg/L	16:32:58
2	Sc RADIAL	57277.6	57277.6	101	%	16:31:55
2	Al 396.153Radial†	7395.5	7287.2	[5000]	µg/L	16:31:55
2	Ca 317.933Radial†	6211.2	5915.2	[5000]	µg/L	16:32:15
2	K 766.490 Radial†	7980.6	7706.7	[5000]	µg/L	16:31:55
2	Mg 279.077 IEC†	604.0	583.0	[5000]	µg/L	16:32:15
2	Sr 421.552†	54765.5	53989.0	[500]	µg/L	16:31:55
2	Sc 361.383	1976796.7	1976796.7	100.70	%	16:33:26
2	Y 371.029	1357513.2	1357513.2	100.35	%	16:33:26
2	Ag 328.068†	68789.6	68715.3	[500]	µg/L	16:33:31
2	As 188.979†	285.8	284.2	[500]	µg/L	16:33:52
2	B 249.677†	12976.0	12502.1	[500]	µg/L	16:33:31
2	Ba 233.527†	21626.4	21493.9	[500]	µg/L	16:33:31
2	Be 313.107†	874707.4	871511.2	[500]	µg/L	16:33:26
2	Cd 226.502†	20785.1	20783.0	[500]	µg/L	16:33:31
2	Co 228.616†	11579.6	11497.5	[500]	µg/L	16:33:31
2	Cr 267.716†	26128.8	25998.4	[500]	µg/L	16:33:31
2	Cu 324.752†	82210.9	79098.3	[500]	µg/L	16:33:31
2	Mn 257.610†	168624.9	167714.3	[500]	µg/L	16:33:26
2	Mo 202.031†	5307.9	5276.5	[500]	µg/L	16:33:52
2	Ni 231.604†	10841.5	10454.2	[500]	µg/L	16:33:31
2	P 214.914†	1330.2	1305.6	[2500]	µg/L	16:33:52
2	Pb 220.353†	2234.1	2127.7	[500]	µg/L	16:33:52
2	S 181.975 Axial†	262.6	241.9	[1000]	µg/L	16:33:52
2	Sb 206.836†	590.7	564.1	[500]	µg/L	16:33:52
2	Se 196.026†	389.5	367.5	[500]	µg/L	16:33:52
2	SiO2†	29539.9	27943.9	[5347.5]	µg/L	16:33:31

2	Si 251.611†	34501.4	33952.0	[2500]	µg/L	16:33:31
2	Sn 189.927†	1233.2	1224.3	[500]	µg/L	16:33:52
2	Ti 334.940†	235746.0	233939.9	[500]	µg/L	16:33:26
2	Tl 190.801†	379.0	398.8	[500]	µg/L	16:33:52
2	U 409.014†	6274.1	6307.8	[500]	µg/L	16:33:31
2	V 292.402†	53430.8	53105.9	[500]	µg/L	16:33:31
2	Zn 213.857†	22993.9	22300.4	[500]	µg/L	16:33:31
3	Sc RADIAL	57058.8	57058.8	101	%	16:32:20
3	Al 396.153Radial†	7492.8	7411.5	[5000]	µg/L	16:32:20
3	Ca 317.933Radial†	6205.9	5933.4	[5000]	µg/L	16:32:41
3	K 766.490 Radial†	8033.0	7788.8	[5000]	µg/L	16:32:20
3	Mg 279.077 IEC†	601.3	582.5	[5000]	µg/L	16:32:41
3	Sr 421.552†	55478.9	54902.6	[500]	µg/L	16:32:20
3	Sc 361.383	1973452.3	1973452.3	100.53	%	16:33:59
3	Y 371.029	1355765.1	1355765.1	100.22	%	16:33:59
3	Ag 328.068†	62917.4	62989.6	[500]	µg/L	16:34:05
3	As 188.979†	237.6	236.8	[500]	µg/L	16:34:25
3	B 249.677†	11812.4	11366.4	[500]	µg/L	16:34:05
3	Ba 233.527†	19002.6	18920.2	[500]	µg/L	16:34:05
3	Be 313.107†	778040.5	776822.6	[500]	µg/L	16:33:59
3	Cd 226.502†	18161.8	18208.4	[500]	µg/L	16:34:05
3	Co 228.616†	9999.7	9945.4	[500]	µg/L	16:34:05
3	Cr 267.716†	21799.1	21735.4	[500]	µg/L	16:34:05
3	Cu 324.752†	71681.4	68762.3	[500]	µg/L	16:34:05
3	Mn 257.610†	150744.1	150210.9	[500]	µg/L	16:33:59
3	Mo 202.031†	4242.5	4225.7	[500]	µg/L	16:34:25
3	Ni 231.604†	9432.3	9070.6	[500]	µg/L	16:34:05
3	P 214.914†	1083.7	1062.7	[2500]	µg/L	16:34:25
3	Pb 220.353†	1851.4	1750.7	[500]	µg/L	16:34:25
3	S 181.975 Axial†	228.1	208.0	[1000]	µg/L	16:34:25
3	Sb 206.836†	487.0	461.9	[500]	µg/L	16:34:25
3	Se 196.026†	331.3	310.2	[500]	µg/L	16:34:25
3	SiO2†	26534.1	25003.6	[5347.5]	µg/L	16:34:05
3	Si 251.611†	30910.4	30437.9	[2500]	µg/L	16:34:05
3	Sn 189.927†	970.3	964.9	[500]	µg/L	16:34:25
3	Ti 334.940†	207765.1	206502.3	[500]	µg/L	16:33:59
3	Tl 190.801†	318.1	338.8	[500]	µg/L	16:34:25
3	U 409.014†	5271.8	5321.3	[500]	µg/L	16:34:05
3	V 292.402†	45729.0	45534.4	[500]	µg/L	16:34:05
3	Zn 213.857†	20028.6	19389.3	[500]	µg/L	16:34:05

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1980605.3	9639.15	0.49%	100.89	%
Sc RADIAL	56953.9	386.91	0.68%	101	%
Y 371.029	1360398.8	6570.38	0.48%	100.57	%
Ag 328.068†	66543.7	3103.16	4.66%	[500]	µg/L
Al 396.153Radial†	7380.3	82.09	1.11%	[5000]	µg/L
As 188.979†	272.1	31.03	11.41%	[500]	µg/L
B 249.677†	12054.7	604.97	5.02%	[500]	µg/L
Ba 233.527†	20540.0	1410.14	6.87%	[500]	µg/L
Be 313.107†	835110.3	50997.60	6.11%	[500]	µg/L
Ca 317.933Radial†	5952.0	48.84	0.82%	[5000]	µg/L
Cd 226.502†	19838.5	1417.61	7.15%	[500]	µg/L
Co 228.616†	10938.4	862.20	7.88%	[500]	µg/L
Cr 267.716†	24447.5	2356.79	9.64%	[500]	µg/L
Cu 324.752†	75307.4	5691.88	7.56%	[500]	µg/L
K 766.490 Radial†	7753.1	42.12	0.54%	[5000]	µg/L
Mg 279.077 IEC†	583.8	1.92	0.33%	[5000]	µg/L
Mn 257.610†	160964.4	9413.47	5.85%	[500]	µg/L
Mo 202.031†	4987.0	665.66	13.35%	[500]	µg/L
Ni 231.604†	9942.2	758.69	7.63%	[500]	µg/L
P 214.914†	1230.9	145.94	11.86%	[2500]	µg/L
Pb 220.353†	2019.0	233.71	11.58%	[500]	µg/L
S 181.975 Axial†	233.1	22.09	9.48%	[1000]	µg/L
Sb 206.836†	531.5	60.25	11.34%	[500]	µg/L
Se 196.026†	349.9	34.37	9.82%	[500]	µg/L
SiO2†	26848.6	1607.13	5.99%	[5347.5]	µg/L
Si 251.611†	32639.5	1918.39	5.88%	[2500]	µg/L

Sn 189.927†	1156.7	168.51	14.57%	[500]	µg/L
Sr 421.552†	54529.4	479.17	0.88%	[500]	µg/L
Ti 334.940†	223499.0	14847.21	6.64%	[500]	µg/L
Tl 190.801†	380.0	35.70	9.40%	[500]	µg/L
U 409.014†	5944.2	542.02	9.12%	[500]	µg/L
V 292.402†	50325.1	4166.77	8.28%	[500]	µg/L
Zn 213.857†	21231.7	1602.33	7.55%	[500]	µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/19/2010 16:34:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57422.3	57422.3	102	%	16:35:07
1	Al 396.153Radial†	14869.0	14621.7	[10000]	µg/L	16:35:07
1	Ca 317.933Radial†	12244.2	11835.4	[10000]	µg/L	16:35:27
1	Fe 238.204 Radial†	1337.9	1299.7	[10000]	µg/L	16:35:27
1	K 766.490 Radial†	15761.0	15341.7	[10000]	µg/L	16:35:07
1	Mg 279.077 IEC†	1192.0	1159.9	[10000]	µg/L	16:35:27
1	Na 589.592 Radial†	34164.4	33140.9	[10000]	µg/L	16:35:07
1	Sr 421.552†	110392.2	108581.9	[1000]	µg/L	16:35:07
1	Sc 361.383	1976099.1	1976099.1	100.66	%	16:36:31
1	Y 371.029	1355904.7	1355904.7	100.23	%	16:36:31
1	Ag 328.068†	139743.4	139227.2	[1000]	µg/L	16:36:37
1	As 188.979†	605.1	601.6	[1000]	µg/L	16:36:57
1	B 249.677†	26002.4	25447.4	[1000]	µg/L	16:36:37
1	Ba 233.527†	43710.4	43440.4	[1000]	µg/L	16:36:37
1	Be 313.107†	1745428.1	1736819.7	[1000]	µg/L	16:36:31
1	Cd 226.502†	41933.9	41800.2	[1000]	µg/L	16:36:37
1	Co 228.616†	23253.7	23099.0	[1000]	µg/L	16:36:37
1	Cr 267.716†	53002.6	52704.8	[1000]	µg/L	16:36:37
1	Cu 324.752†	163999.7	160378.8	[1000]	µg/L	16:36:37
1	Mn 257.610†	334533.8	332592.5	[1000]	µg/L	16:36:37
1	Mo 202.031†	11127.7	11059.9	[1000]	µg/L	16:36:57
1	Ni 231.604†	21437.9	20984.7	[1000]	µg/L	16:36:37
1	P 214.914†	2747.0	2713.6	[5000]	µg/L	16:36:57
1	Pb 220.353†	4519.4	4398.7	[1000]	µg/L	16:36:57
1	S 181.975 Axial†	537.0	514.5	[2000]	µg/L	16:36:57
1	Sb 206.836†	1201.1	1170.7	[1000]	µg/L	16:36:57
1	Se 196.026†	778.4	754.0	[1000]	µg/L	16:36:57
1	SiO2†	57839.1	56067.6	[10695]	µg/L	16:36:37
1	Si 251.611†	68811.8	68049.2	[5000]	µg/L	16:36:37
1	Sn 189.927†	2603.2	2585.7	[1000]	µg/L	16:36:57
1	Ti 334.940†	470528.6	467263.1	[1000]	µg/L	16:36:31
1	Tl 190.801†	793.2	810.4	[1000]	µg/L	16:36:57
1	U 409.014†	12617.6	12611.8	[1000]	µg/L	16:36:37
1	V 292.402†	108523.0	107854.9	[1000]	µg/L	16:36:37
1	Zn 213.857†	45321.2	44489.2	[1000]	µg/L	16:36:37
2	Sc RADIAL	58102.6	58102.6	103	%	16:35:33
2	Al 396.153Radial†	14960.9	14539.8	[10000]	µg/L	16:35:33
2	Ca 317.933Radial†	12189.3	11640.9	[10000]	µg/L	16:35:53
2	Fe 238.204 Radial†	1332.7	1279.3	[10000]	µg/L	16:35:53
2	K 766.490 Radial†	15805.1	15203.0	[10000]	µg/L	16:35:33
2	Mg 279.077 IEC†	1183.6	1138.1	[10000]	µg/L	16:35:53
2	Na 589.592 Radial†	34301.4	32880.5	[10000]	µg/L	16:35:33
2	Sr 421.552†	111111.1	108009.2	[1000]	µg/L	16:35:33
2	Sc 361.383	1983646.2	1983646.2	101.05	%	16:37:04
2	Y 371.029	1360206.5	1360206.5	100.55	%	16:37:04
2	Ag 328.068†	139094.6	138056.9	[1000]	µg/L	16:37:10
2	As 188.979†	587.5	581.9	[1000]	µg/L	16:37:30
2	B 249.677†	25898.4	25246.3	[1000]	µg/L	16:37:10
2	Ba 233.527†	43616.3	43182.0	[1000]	µg/L	16:37:10
2	Be 313.107†	1746219.5	1731005.6	[1000]	µg/L	16:37:04
2	Cd 226.502†	41774.2	41483.6	[1000]	µg/L	16:37:10
2	Co 228.616†	23185.1	22943.2	[1000]	µg/L	16:37:10
2	Cr 267.716†	52660.4	52165.9	[1000]	µg/L	16:37:10
2	Cu 324.752†	163246.9	159013.9	[1000]	µg/L	16:37:10
2	Mn 257.610†	333323.0	330129.8	[1000]	µg/L	16:37:10
2	Mo 202.031†	10856.0	10749.0	[1000]	µg/L	16:37:30
2	Ni 231.604†	21396.9	20863.1	[1000]	µg/L	16:37:10
2	P 214.914†	2695.8	2652.5	[5000]	µg/L	16:37:30
2	Pb 220.353†	4439.8	4303.0	[1000]	µg/L	16:37:30

2	S 181.975 Axial†	528.4	504.0	[2000]	µg/L	16:37:30
2	Sb 206.836†	1179.2	1144.5	[1000]	µg/L	16:37:30
2	Se 196.026†	773.9	746.5	[1000]	µg/L	16:37:30
2	SiO2†	57827.3	55837.4	[10695]	µg/L	16:37:10
2	Si 251.611†	68760.8	67738.7	[5000]	µg/L	16:37:10
2	Sn 189.927†	2530.7	2504.2	[1000]	µg/L	16:37:30
2	Ti 334.940†	470622.3	465577.3	[1000]	µg/L	16:37:04
2	Tl 190.801†	781.8	796.1	[1000]	µg/L	16:37:30
2	U 409.014†	12629.7	12576.1	[1000]	µg/L	16:37:10
2	V 292.402†	108044.3	106971.0	[1000]	µg/L	16:37:10
2	Zn 213.857†	45147.6	44146.0	[1000]	µg/L	16:37:10
3	Sc RADIAL	57759.7	57759.7	102	%	16:35:59
3	Al 396.153Radial†	14873.5	14540.6	[10000]	µg/L	16:35:59
3	Ca 317.933Radial†	12176.6	11698.9	[10000]	µg/L	16:36:19
3	Fe 238.204 Radial†	1332.4	1286.7	[10000]	µg/L	16:36:19
3	K 766.490 Radial†	15741.4	15231.9	[10000]	µg/L	16:35:59
3	Mg 279.077 IEC†	1190.1	1151.2	[10000]	µg/L	16:36:19
3	Na 589.592 Radial†	34189.4	32969.0	[10000]	µg/L	16:35:59
3	Sr 421.552†	110552.5	108104.4	[1000]	µg/L	16:35:59
3	Sc 361.383	1985078.6	1985078.6	101.12	%	16:37:37
3	Y 371.029	1363323.6	1363323.6	100.78	%	16:37:37
3	Ag 328.068†	130033.0	128996.2	[1000]	µg/L	16:37:43
3	As 188.979†	504.5	499.3	[1000]	µg/L	16:38:03
3	B 249.677†	23878.6	23230.3	[1000]	µg/L	16:37:43
3	Ba 233.527†	39125.7	38709.9	[1000]	µg/L	16:37:43
3	Be 313.107†	1611138.8	1596172.2	[1000]	µg/L	16:37:37
3	Cd 226.502†	37509.7	37236.5	[1000]	µg/L	16:37:43
3	Co 228.616†	20554.3	20325.0	[1000]	µg/L	16:37:43
3	Cr 267.716†	45522.8	45069.6	[1000]	µg/L	16:37:43
3	Cu 324.752†	146020.7	141861.7	[1000]	µg/L	16:37:43
3	Mn 257.610†	295756.2	292740.6	[1000]	µg/L	16:37:43
3	Mo 202.031†	9074.4	8979.3	[1000]	µg/L	16:38:03
3	Ni 231.604†	18944.4	18422.5	[1000]	µg/L	16:37:43
3	P 214.914†	2295.1	2254.3	[5000]	µg/L	16:38:03
3	Pb 220.353†	3820.6	3687.4	[1000]	µg/L	16:38:03
3	S 181.975 Axial†	464.0	439.9	[2000]	µg/L	16:38:03
3	Sb 206.836†	1004.3	970.7	[1000]	µg/L	16:38:03
3	Se 196.026†	672.5	645.8	[1000]	µg/L	16:38:03
3	SiO2†	52945.1	50967.8	[10695]	µg/L	16:37:43
3	Si 251.611†	62859.1	61853.1	[5000]	µg/L	16:37:43
3	Sn 189.927†	2084.7	2061.2	[1000]	µg/L	16:38:03
3	Ti 334.940†	431690.8	426740.5	[1000]	µg/L	16:37:37
3	Tl 190.801†	695.2	709.9	[1000]	µg/L	16:38:03
3	U 409.014†	11027.6	10982.7	[1000]	µg/L	16:37:43
3	V 292.402†	95350.9	94340.9	[1000]	µg/L	16:37:43
3	Zn 213.857†	40251.0	39271.3	[1000]	µg/L	16:37:43

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1981608.0	4824.30	0.24%	100.94	%
Sc RADIAL	57761.5	340.17	0.59%	102	%
Y 371.029	1359811.6	3725.20	0.27%	100.52	%
Ag 328.068†	135426.8	5599.70	4.13%	[1000]	µg/L
Al 396.153Radial†	14567.3	47.07	0.32%	[10000]	µg/L
As 188.979†	560.9	54.25	9.67%	[1000]	µg/L
B 249.677†	24641.4	1226.12	4.98%	[1000]	µg/L
Ba 233.527†	41777.5	2659.67	6.37%	[1000]	µg/L
Be 313.107†	1687999.2	79577.59	4.71%	[1000]	µg/L
Ca 317.933Radial†	11725.1	99.83	0.85%	[10000]	µg/L
Cd 226.502†	40173.4	2548.40	6.34%	[1000]	µg/L
Co 228.616†	22122.4	1558.58	7.05%	[1000]	µg/L
Cr 267.716†	49980.1	4261.16	8.53%	[1000]	µg/L
Cu 324.752†	153751.5	10319.43	6.71%	[1000]	µg/L
Fe 238.204 Radial†	1288.5	10.35	0.80%	[10000]	µg/L
K 766.490 Radial†	15258.9	73.17	0.48%	[10000]	µg/L
Mg 279.077 IEC†	1149.7	11.01	0.96%	[10000]	µg/L
Mn 257.610†	318487.6	22331.56	7.01%	[1000]	µg/L
Mo 202.031†	10262.8	1122.29	10.94%	[1000]	µg/L
Na 589.592 Radial†	32996.8	132.37	0.40%	[10000]	µg/L

Ni 231.604†	20090.1	1445.49	7.20%	[1000]	µg/L
P 214.914†	2540.1	249.38	9.82%	[5000]	µg/L
Pb 220.353†	4129.7	386.03	9.35%	[1000]	µg/L
S 181.975 Axial†	486.1	40.36	8.30%	[2000]	µg/L
Sb 206.836†	1095.3	108.69	9.92%	[1000]	µg/L
Se 196.026†	715.4	60.44	8.45%	[1000]	µg/L
SiO2†	54290.9	2880.22	5.31%	[10695]	µg/L
Si 251.611†	65880.3	3491.15	5.30%	[5000]	µg/L
Sn 189.927†	2383.7	282.23	11.84%	[1000]	µg/L
Sr 421.552†	108231.8	306.90	0.28%	[1000]	µg/L
Ti 334.940†	453193.6	22924.60	5.06%	[1000]	µg/L
Tl 190.801†	772.1	54.39	7.04%	[1000]	µg/L
U 409.014†	12056.9	930.42	7.72%	[1000]	µg/L
V 292.402†	103055.6	7560.10	7.34%	[1000]	µg/L
Zn 213.857†	42635.5	2918.50	6.85%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/19/2010 16:38:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57539.5	57539.5	102	%	16:38:46
1	Al 396.153Radial†	72990.6	71659.1	[50000]	µg/L	16:38:46
1	Ca 317.933Radial†	59650.4	58357.0	[50000]	µg/L	16:38:46
1	Fe 238.204 Radial†	2601.5	2537.7	[20000]	µg/L	16:39:06
1	Mg 279.077 IEC†	5707.4	5591.1	[50000]	µg/L	16:39:06
1	Na 589.592 Radial†	66487.5	64809.1	[20000]	µg/L	16:38:46
1	Sc 361.383	1991346.9	1991346.9	101.44	%	16:40:10
1	Y 371.029	1361642.8	1361642.8	100.66	%	16:40:10
2	Sc RADIAL	57692.4	57692.4	102	%	16:39:12
2	Al 396.153Radial†	73669.2	72133.7	[50000]	µg/L	16:39:12
2	Ca 317.933Radial†	60236.2	58775.4	[50000]	µg/L	16:39:12
2	Fe 238.204 Radial†	2575.9	2505.9	[20000]	µg/L	16:39:32
2	Mg 279.077 IEC†	5682.3	5551.6	[50000]	µg/L	16:39:32
2	Na 589.592 Radial†	66913.0	65052.7	[20000]	µg/L	16:39:12
2	Sc 361.383	1994513.8	1994513.8	101.60	%	16:40:18
2	Y 371.029	1362831.0	1362831.0	100.74	%	16:40:18
3	Sc RADIAL	57518.8	57518.8	102	%	16:39:38
3	Al 396.153Radial†	72963.9	71658.6	[50000]	µg/L	16:39:38
3	Ca 317.933Radial†	59707.9	58434.6	[50000]	µg/L	16:39:38
3	Fe 238.204 Radial†	2595.7	2533.0	[20000]	µg/L	16:39:58
3	Mg 279.077 IEC†	5726.3	5611.7	[50000]	µg/L	16:39:58
3	Na 589.592 Radial†	66483.6	64828.8	[20000]	µg/L	16:39:38
3	Sc 361.383	1986414.7	1986414.7	101.19	%	16:40:26
3	Y 371.029	1358035.0	1358035.0	100.39	%	16:40:26

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1990758.5	4081.49	0.21%	101.41	%
Sc RADIAL	57583.6	94.84	0.16%	102	%
Y 371.029	1360836.3	2497.65	0.18%	100.60	%
Al 396.153Radial†	71817.1	274.12	0.38%	[50000]	µg/L
Ca 317.933Radial†	58522.3	222.58	0.38%	[50000]	µg/L
Fe 238.204 Radial†	2525.5	17.19	0.68%	[20000]	µg/L
Mg 279.077 IEC†	5584.8	30.54	0.55%	[50000]	µg/L
Na 589.592 Radial†	64896.9	135.34	0.21%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	135.0	0.00000	0.999971	
Al 396.153Radial	3	Lin Thru 0	0.0	1.437	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	0.5579	0.00000	0.999904	
B 249.677	3	Lin Thru 0	0.0	24.54	0.00000	0.999963	
Ba 233.527	3	Lin Thru 0	0.0	41.65	0.00000	0.999968	
Be 313.107	3	Lin Thru 0	0.0	1685	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.171	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	40.09	0.00000	0.999971	
Co 228.616	3	Lin Thru 0	0.0	22.08	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	49.79	0.00000	0.999947	
Cu 324.752	3	Lin Thru 0	0.0	153.2	0.00000	0.999952	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1268	0.00000	0.999967	
K 766.490 Radial	3	Lin Thru 0	0.0	1.531	0.00000	0.999977	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1119	0.00000	0.999975	
Mn 257.610	3	Lin Thru 0	0.0	319.3	0.00000	0.999976	
Mo 202.031	3	Lin Thru 0	0.0	10.21	0.00000	0.999909	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.256	0.00000	0.999977	

Ni 231.604	3	Lin Thru 0	0.0	20.06	0.00000	0.999972
P 214.914	3	Lin Thru 0	0.0	0.5051	0.00000	0.999914
Pb 220.353	3	Lin Thru 0	0.0	4.114	0.00000	0.999940
S 181.975 Axial	3	Lin Thru 0	0.0	0.2411	0.00000	0.999862
Sb 206.836	3	Lin Thru 0	0.0	1.089	0.00000	0.999918
Se 196.026	3	Lin Thru 0	0.0	0.7120	0.00000	0.999954
SiO2	3	Lin Thru 0	0.0	5.066	0.00000	0.999988
Si 251.611	3	Lin Thru 0	0.0	13.15	0.00000	0.999992
Sn 189.927	3	Lin Thru 0	0.0	2.371	0.00000	0.999901
Sr 421.552	3	Lin Thru 0	0.0	108.4	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	452.0	0.00000	0.999983
Tl 190.801	3	Lin Thru 0	0.0	0.7699	0.00000	0.999976
U 409.014	3	Lin Thru 0	0.0	12.04	0.00000	0.999914
V 292.402	3	Lin Thru 0	0.0	102.6	0.00000	0.999947
Zn 213.857	3	Lin Thru 0	0.0	42.62	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/19/2010 16:40:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57359.3	57359.3	102	%			16:41:09
1	Al 396.153Radial†	7610.3	7488.4	5197.5	µg/L	5197.5	ppb	16:41:09
1	Ca 317.933Radial†	6222.8	5917.8	5054.9	µg/L	5054.9	ppb	16:41:29
1	Fe 238.204 Radial†	692.6	665.6	5260.8	µg/L	5260.8	ppb	16:41:29
1	K 766.490 Radial†	4130.5	3903.3	2549.3	µg/L	2549.3	ppb	16:41:09
1	Mg 279.077 IEC†	619.9	597.8	5347.7	µg/L	5347.7	ppb	16:41:29
1	Na 589.592 Radial†	9010.6	8402.7	2580.8	µg/L	2580.8	ppb	16:41:09
1	Sr 421.552†	58315.4	57408.5	529.60	µg/L	529.60	ppb	16:41:09
1	Sc 361.383	2000166.2	2000166.2	101.89	%			16:42:33
1	Y 371.029	1374985.6	1374985.6	101.64	%			16:42:33
1	Ag 328.068†	36064.6	35798.3	269.00	µg/L	269.00	ppb	16:42:38
1	As 188.979†	291.8	286.8	513.02	µg/L	513.02	ppb	16:42:59
1	B 249.677†	13712.5	13074.4	530.96	µg/L	530.96	ppb	16:42:38
1	Ba 233.527†	22228.0	21833.3	525.11	µg/L	525.11	ppb	16:42:38
1	Be 313.107†	460753.1	455074.9	269.89	µg/L	269.89	ppb	16:42:33
1	Cd 226.502†	21063.9	20815.4	519.08	µg/L	519.08	ppb	16:42:38
1	Co 228.616†	11897.3	11675.0	528.19	µg/L	528.19	ppb	16:42:38
1	Cr 267.716†	25972.0	25541.3	513.34	µg/L	513.34	ppb	16:42:38
1	Cu 324.752†	84959.1	80841.8	528.42	µg/L	528.42	ppb	16:42:38
1	Mn 257.610†	174009.6	171042.6	536.11	µg/L	536.11	ppb	16:42:33
1	Mo 202.031†	5977.0	5871.6	575.18	µg/L	575.18	ppb	16:42:59
1	Ni 231.604†	11001.5	10485.4	522.13	µg/L	522.13	ppb	16:42:38
1	P 214.914†	1396.3	1355.1	2632.9	µg/L	2632.9	ppb	16:42:59
1	Pb 220.353†	2319.9	2186.0	531.70	µg/L	531.70	ppb	16:42:59
1	S 181.975 Axial†	667.0	635.7	2636.3	µg/L	2636.3	ppb	16:42:59
1	Sb 206.836†	616.3	582.4	537.83	µg/L	537.83	ppb	16:42:59
1	Se 196.026†	1971.6	1915.8	2698.7	µg/L	2698.7	ppb	16:42:59
1	SiO2†	55895.4	53468.6	10554	µg/L	10554	ppb	16:42:38
1	Si 251.611†	66312.0	64773.2	4924.2	µg/L	4924.2	ppb	16:42:38
1	Sn 189.927†	1397.6	1371.4	578.38	µg/L	578.38	ppb	16:42:59
1	Ti 334.940†	236505.6	231950.1	512.78	µg/L	512.78	ppb	16:42:33
1	Tl 190.801†	406.2	421.1	553.15	µg/L	553.15	ppb	16:42:59
1	U 409.014†	6233.6	6195.2	513.68	µg/L	513.68	ppb	16:42:38
1	V 292.402†	55272.1	54293.1	535.87	µg/L	535.87	ppb	16:42:38
1	Zn 213.857†	23721.8	22748.1	529.99	µg/L	529.99	ppb	16:42:38
2	Sc RADIAL	57362.6	57362.6	102	%			16:41:35
2	Al 396.153Radial†	7570.2	7448.5	5170.1	µg/L	5170.1	ppb	16:41:35
2	Ca 317.933Radial†	6248.3	5942.6	5076.0	µg/L	5076.0	ppb	16:41:55
2	Fe 238.204 Radial†	687.3	660.3	5219.2	µg/L	5219.2	ppb	16:41:55
2	K 766.490 Radial†	4135.1	3907.6	2552.1	µg/L	2552.1	ppb	16:41:35
2	Mg 279.077 IEC†	628.6	606.2	5423.0	µg/L	5423.0	ppb	16:41:55
2	Na 589.592 Radial†	8905.8	8299.0	2549.0	µg/L	2549.0	ppb	16:41:35
2	Sr 421.552†	58283.1	57373.4	529.28	µg/L	529.28	ppb	16:41:35
2	Sc 361.383	1991588.3	1991588.3	101.45	%			16:43:06
2	Y 371.029	1369085.3	1369085.3	101.21	%			16:43:06
2	Ag 328.068†	36279.5	36162.5	271.74	µg/L	271.74	ppb	16:43:12
2	As 188.979†	284.2	280.6	501.89	µg/L	501.89	ppb	16:43:32
2	B 249.677†	13841.7	13259.7	538.55	µg/L	538.55	ppb	16:43:12
2	Ba 233.527†	22542.4	22237.3	534.82	µg/L	534.82	ppb	16:43:12
2	Be 313.107†	458487.5	454789.4	269.72	µg/L	269.72	ppb	16:43:06
2	Cd 226.502†	21330.8	21167.6	527.88	µg/L	527.88	ppb	16:43:12
2	Co 228.616†	12048.7	11874.5	537.21	µg/L	537.21	ppb	16:43:12
2	Cr 267.716†	26258.5	25933.5	521.22	µg/L	521.22	ppb	16:43:12
2	Cu 324.752†	85756.0	81986.4	535.89	µg/L	535.89	ppb	16:43:12
2	Mn 257.610†	173215.7	170995.8	535.95	µg/L	535.95	ppb	16:43:06
2	Mo 202.031†	5783.7	5706.4	559.00	µg/L	559.00	ppb	16:43:32
2	Ni 231.604†	11147.8	10676.1	531.63	µg/L	531.63	ppb	16:43:12
2	P 214.914†	1350.6	1315.9	2554.3	µg/L	2554.3	ppb	16:43:32
2	Pb 220.353†	2269.2	2145.8	521.87	µg/L	521.87	ppb	16:43:32

2	S 181.975 Axial†	662.1	633.7	2628.1 µg/L	2628.1 ppb	16:43:32
2	Sb 206.836†	597.3	566.3	522.67 µg/L	522.67 ppb	16:43:32
2	Se 196.026†	1939.9	1892.9	2666.3 µg/L	2666.3 ppb	16:43:32
2	SiO2†	56544.0	54344.2	10727 µg/L	10727 ppb	16:43:12
2	Si 251.611†	67028.2	65759.4	4999.2 µg/L	4999.2 ppb	16:43:12
2	Sn 189.927†	1346.2	1326.5	559.48 µg/L	559.48 ppb	16:43:32
2	Ti 334.940†	235243.5	231705.8	512.24 µg/L	512.24 ppb	16:43:06
2	Tl 190.801†	411.2	427.8	561.75 µg/L	561.75 ppb	16:43:32
2	U 409.014†	6266.1	6253.6	518.55 µg/L	518.55 ppb	16:43:12
2	V 292.402†	55774.5	55022.0	542.87 µg/L	542.87 ppb	16:43:12
2	Zn 213.857†	24005.0	23127.4	538.84 µg/L	538.84 ppb	16:43:12
3	Sc RADIAL	57314.4	57314.4	101 %		16:42:01
3	Al 396.153Radial†	7617.9	7501.8	5209.5 µg/L	5209.5 ppb	16:42:01
3	Ca 317.933Radial†	6192.6	5892.9	5033.6 µg/L	5033.6 ppb	16:42:21
3	Fe 238.204 Radial†	680.9	654.6	5172.6 µg/L	5172.6 ppb	16:42:21
3	K 766.490 Radial†	4172.6	3948.0	2578.5 µg/L	2578.5 ppb	16:42:01
3	Mg 279.077 IEC†	617.9	596.2	5331.5 µg/L	5331.5 ppb	16:42:21
3	Na 589.592 Radial†	9012.1	8411.2	2583.4 µg/L	2583.4 ppb	16:42:01
3	Sr 421.552†	58397.5	57534.4	530.76 µg/L	530.76 ppb	16:42:01
3	Sc 361.383	1985318.4	1985318.4	101.13 %		16:43:39
3	Y 371.029	1365549.9	1365549.9	100.95 %		16:43:39
3	Ag 328.068†	32686.9	32723.0	245.69 µg/L	245.69 ppb	16:43:45
3	As 188.979†	231.6	229.5	410.45 µg/L	410.45 ppb	16:44:05
3	B 249.677†	12281.0	11759.6	477.28 µg/L	477.28 ppb	16:43:45
3	Ba 233.527†	19297.0	19098.3	459.31 µg/L	459.31 ppb	16:43:45
3	Be 313.107†	404356.4	402690.8	238.83 µg/L	238.83 ppb	16:43:39
3	Cd 226.502†	18203.2	18141.4	452.33 µg/L	452.33 ppb	16:43:45
3	Co 228.616†	10166.3	10050.7	454.63 µg/L	454.63 ppb	16:43:45
3	Cr 267.716†	21411.9	21222.9	426.55 µg/L	426.55 ppb	16:43:45
3	Cu 324.752†	73007.3	69647.2	455.34 µg/L	455.34 ppb	16:43:45
3	Mn 257.610†	153334.3	151875.9	476.08 µg/L	476.08 ppb	16:43:39
3	Mo 202.031†	4566.2	4520.5	442.87 µg/L	442.87 ppb	16:44:05
3	Ni 231.604†	9424.8	9007.0	448.52 µg/L	448.52 ppb	16:43:45
3	P 214.914†	1102.1	1074.4	2083.0 µg/L	2083.0 ppb	16:44:05
3	Pb 220.353†	1863.1	1751.3	425.87 µg/L	425.87 ppb	16:44:05
3	S 181.975 Axial†	551.5	526.4	2182.8 µg/L	2182.8 ppb	16:44:05
3	Sb 206.836†	493.8	465.8	429.60 µg/L	429.60 ppb	16:44:05
3	Se 196.026†	1594.6	1557.5	2195.3 µg/L	2195.3 ppb	16:44:05
3	SiO2†	49563.2	47617.5	9399.1 µg/L	9399.1 ppb	16:43:45
3	Si 251.611†	58584.7	57619.0	4380.3 µg/L	4380.3 ppb	16:43:45
3	Sn 189.927†	1053.3	1041.2	439.13 µg/L	439.13 ppb	16:44:05
3	Ti 334.940†	205922.2	203444.7	449.72 µg/L	449.72 ppb	16:43:39
3	Tl 190.801†	337.8	356.4	468.42 µg/L	468.42 ppb	16:44:05
3	U 409.014†	5226.1	5244.7	434.73 µg/L	434.73 ppb	16:43:45
3	V 292.402†	46549.8	46074.1	454.46 µg/L	454.46 ppb	16:43:45
3	Zn 213.857†	20360.6	19598.5	456.55 µg/L	456.55 ppb	16:43:45

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992357.6	101.49	%	0.380				0.37%
Sc RADIAL	57345.5	102	%	0.0				0.05%
Y 371.029	1369873.6	101.27	%	0.352				0.35%
Ag 328.068†	34894.6	262.14	µg/L	14.318	262.14	ppb	14.318	5.46%
QC value within limits for Ag 328.068 Recovery = 104.86%								
Al 396.153Radial†	7479.5	5192.4	µg/L	20.22	5192.4	ppb	20.22	0.39%
QC value within limits for Al 396.153Radial Recovery = 103.85%								
As 188.979†	265.6	475.12	µg/L	56.284	475.12	ppb	56.284	11.85%
QC value within limits for As 188.979 Recovery = 95.02%								
B 249.677†	12697.9	515.59	µg/L	33.400	515.59	ppb	33.400	6.48%
QC value within limits for B 249.677 Recovery = 103.12%								
Ba 233.527†	21056.3	506.41	µg/L	41.083	506.41	ppb	41.083	8.11%
QC value within limits for Ba 233.527 Recovery = 101.28%								
Be 313.107†	437518.4	259.48	µg/L	17.887	259.48	ppb	17.887	6.89%
QC value within limits for Be 313.107 Recovery = 103.79%								
Ca 317.933Radial†	5917.8	5054.8	µg/L	21.22	5054.8	ppb	21.22	0.42%
QC value within limits for Ca 317.933Radial Recovery = 101.10%								
Cd 226.502†	20041.5	499.76	µg/L	41.316	499.76	ppb	41.316	8.27%
QC value within limits for Cd 226.502 Recovery = 99.95%								
Co 228.616†	11200.1	506.67	µg/L	45.295	506.67	ppb	45.295	8.94%

```
   QC value within limits for Co 228.616  Recovery = 101.33%
Cr 267.716†            24232.6      487.04 µg/L        52.530      487.04 ppb         52.530  10.79%
   QC value within limits for Cr 267.716  Recovery = 97.41%
Cu 324.752†            77491.8      506.55 µg/L        44.507      506.55 ppb         44.507   8.79%
   QC value within limits for Cu 324.752  Recovery = 101.31%
Fe 238.204 Radial†       660.2      5217.6 µg/L         44.12      5217.6 ppb          44.12   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.35%
K 766.490 Radial†       3919.6      2560.0 µg/L         16.09      2560.0 ppb          16.09   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          600.1      5367.4 µg/L         48.83      5367.4 ppb          48.83   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.35%
Mn 257.610†           164638.1      516.05 µg/L        34.615      516.05 ppb         34.615   6.71%
   QC value within limits for Mn 257.610  Recovery = 103.21%
Mo 202.031†            5366.2      525.68 µg/L        72.174      525.68 ppb         72.174  13.73%
   QC value within limits for Mo 202.031  Recovery = 105.14%
Na 589.592 Radial†     8371.0      2571.1 µg/L         19.18      2571.1 ppb          19.18   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 102.84%
Ni 231.604†           10056.2      500.76 µg/L        45.489      500.76 ppb         45.489   9.08%
   QC value within limits for Ni 231.604  Recovery = 100.15%
P 214.914†             1248.5      2423.4 µg/L        297.40      2423.4 ppb         297.40  12.27%
   QC value within limits for P 214.914  Recovery = 96.94%
Pb 220.353†            2027.7      493.15 µg/L        58.472      493.15 ppb         58.472  11.86%
   QC value within limits for Pb 220.353  Recovery = 98.63%
S 181.975 Axial†        598.6      2482.4 µg/L        259.45      2482.4 ppb         259.45  10.45%
   QC value within limits for S 181.975 Axial  Recovery = 99.30%
Sb 206.836†             538.2      496.70 µg/L        58.600      496.70 ppb         58.600  11.80%
   QC value within limits for Sb 206.836  Recovery = 99.34%
Se 196.026†            1788.7      2520.1 µg/L        281.74      2520.1 ppb         281.74  11.18%
   QC value within limits for Se 196.026  Recovery = 100.81%
SiO2†                 51810.1       10227 µg/L         721.9       10227 ppb          721.9   7.06%
   QC value within limits for SiO2  Recovery = 95.62%
Si 251.611†           62717.2      4767.9 µg/L        337.74      4767.9 ppb         337.74   7.08%
   QC value within limits for Si 251.611  Recovery = 95.36%
Sn 189.927†            1246.4      525.66 µg/L        75.534      525.66 ppb         75.534  14.37%
   QC value within limits for Sn 189.927  Recovery = 105.13%
Sr 421.552†           57438.8      529.88 µg/L         0.781      529.88 ppb          0.781   0.15%
   QC value within limits for Sr 421.552  Recovery = 105.98%
Ti 334.940†          222366.9      491.58 µg/L        36.251      491.58 ppb         36.251   7.37%
   QC value within limits for Ti 334.940  Recovery = 98.32%
Tl 190.801†             401.7      527.77 µg/L        51.582      527.77 ppb         51.582   9.77%
   QC value within limits for Tl 190.801  Recovery = 105.55%
U 409.014†             5897.8      488.99 µg/L        47.052      488.99 ppb         47.052   9.62%
   QC value within limits for U 409.014  Recovery = 97.80%
V 292.402†            51796.4      511.07 µg/L        49.146      511.07 ppb         49.146   9.62%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†           21824.7      508.46 µg/L        45.173      508.46 ppb         45.173   8.88%
   QC value within limits for Zn 213.857  Recovery = 101.69%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/19/2010 16:44:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56443.8	56443.8	99.9	%			16:44:48
1	Al 396.153Radial†	-10.1	-17.4	-12.137	µg/L	-12.137	ppb	16:44:48
1	Ca 317.933Radial†	199.6	-11.5	-9.8207	µg/L	-9.8207	ppb	16:45:08
1	Fe 238.204 Radial†	15.6	-0.9	-7.1871	µg/L	-7.1871	ppb	16:45:08
1	K 766.490 Radial†	171.4	6.6	4.2945	µg/L	4.2945	ppb	16:44:48
1	Mg 279.077 IEC†	7.6	-5.2	-46.321	µg/L	-46.321	ppb	16:45:08
1	Na 589.592 Radial†	489.1	17.3	5.3226	µg/L	5.3226	ppb	16:44:48
1	Sr 421.552†	79.0	50.3	0.4638	µg/L	0.4638	ppb	16:44:48
1	Sc 361.383	1989449.1	1989449.1	101.34	%			16:46:10
1	Y 371.029	1372109.7	1372109.7	101.43	%			16:46:10
1	Ag 328.068†	-456.4	-48.7	-0.3594	µg/L	-0.3594	ppb	16:46:15
1	As 188.979†	-5.3	-4.7	-8.4993	µg/L	-8.4993	ppb	16:46:36
1	B 249.677†	407.4	17.9	0.7343	µg/L	0.7343	ppb	16:46:36
1	Ba 233.527†	-5.2	11.9	0.2870	µg/L	0.2870	ppb	16:46:36
1	Be 313.107†	-2754.2	138.0	0.0819	µg/L	0.0819	ppb	16:46:15
1	Cd 226.502†	-144.4	-0.8	-0.0195	µg/L	-0.0195	ppb	16:46:36
1	Co 228.616†	1.0	-1.0	-0.0431	µg/L	-0.0431	ppb	16:46:36
1	Cr 267.716†	-33.7	17.2	0.3447	µg/L	0.3447	ppb	16:46:36
1	Cu 324.752†	2574.7	-3.1	-0.0214	µg/L	-0.0214	ppb	16:46:15
1	Mn 257.610†	-226.6	32.4	0.1025	µg/L	0.1025	ppb	16:46:36
1	Mo 202.031†	0.9	6.2	0.6075	µg/L	0.6075	ppb	16:46:36
1	Ni 231.604†	309.9	-6.6	-0.3281	µg/L	-0.3281	ppb	16:46:36
1	P 214.914†	11.4	-4.0	-7.9899	µg/L	-7.9899	ppb	16:46:36
1	Pb 220.353†	88.4	-3.8	-0.9074	µg/L	-0.9074	ppb	16:46:36
1	S 181.975 Axial†	15.3	-3.9	-15.967	µg/L	-15.967	ppb	16:46:36
1	Sb 206.836†	19.9	-2.9	-2.6187	µg/L	-2.6187	ppb	16:46:36
1	Se 196.026†	12.9	-6.6	-9.2715	µg/L	-9.2715	ppb	16:46:36
1	SiO2†	1429.0	18.5	3.6472	µg/L	3.6472	ppb	16:46:15
1	Si 251.611†	332.7	17.7	1.3429	µg/L	1.3429	ppb	16:46:36
1	Sn 189.927†	3.4	3.0	1.2548	µg/L	1.2548	ppb	16:46:36
1	Ti 334.940†	214.5	36.6	0.0844	µg/L	0.0844	ppb	16:46:15
1	Tl 190.801†	-23.3	-0.6	-0.8230	µg/L	-0.8230	ppb	16:46:36
1	U 409.014†	-112.1	-33.5	-2.7841	µg/L	-2.7841	ppb	16:46:15
1	V 292.402†	-13.0	31.9	0.3124	µg/L	0.3124	ppb	16:46:15
1	Zn 213.857†	555.4	13.6	0.3246	µg/L	0.3246	ppb	16:46:36
2	Sc RADIAL	56635.2	56635.2	100	%			16:45:14
2	Al 396.153Radial†	-10.1	-17.4	-12.141	µg/L	-12.141	ppb	16:45:14
2	Ca 317.933Radial†	187.9	-23.8	-20.367	µg/L	-20.367	ppb	16:45:34
2	Fe 238.204 Radial†	16.3	-0.3	-2.5827	µg/L	-2.5827	ppb	16:45:34
2	K 766.490 Radial†	218.4	52.9	34.520	µg/L	34.520	ppb	16:45:14
2	Mg 279.077 IEC†	12.4	-0.5	-4.1392	µg/L	-4.1392	ppb	16:45:34
2	Na 589.592 Radial†	513.9	40.5	12.430	µg/L	12.430	ppb	16:45:14
2	Sr 421.552†	58.4	29.4	0.2715	µg/L	0.2715	ppb	16:45:14
2	Sc 361.383	1983608.7	1983608.7	101.04	%			16:46:42
2	Y 371.029	1367482.8	1367482.8	101.09	%			16:46:42
2	Ag 328.068†	-443.4	-37.3	-0.2763	µg/L	-0.2763	ppb	16:46:47
2	As 188.979†	-2.8	-2.3	-4.1149	µg/L	-4.1149	ppb	16:47:08
2	B 249.677†	412.0	23.6	0.9621	µg/L	0.9621	ppb	16:47:08
2	Ba 233.527†	-18.2	-0.9	-0.0219	µg/L	-0.0219	ppb	16:47:08
2	Be 313.107†	-2703.5	180.2	0.1068	µg/L	0.1068	ppb	16:46:47
2	Cd 226.502†	-127.6	15.4	0.3840	µg/L	0.3840	ppb	16:47:08
2	Co 228.616†	7.3	5.3	0.2405	µg/L	0.2405	ppb	16:47:08
2	Cr 267.716†	-58.8	-7.8	-0.1569	µg/L	-0.1569	ppb	16:47:08
2	Cu 324.752†	2608.4	37.7	0.2459	µg/L	0.2459	ppb	16:46:47
2	Mn 257.610†	-227.1	31.2	0.0977	µg/L	0.0977	ppb	16:47:08
2	Mo 202.031†	0.0	5.4	0.5248	µg/L	0.5248	ppb	16:47:08
2	Ni 231.604†	305.0	-10.5	-0.5251	µg/L	-0.5251	ppb	16:47:08
2	P 214.914†	15.6	0.1	0.1534	µg/L	0.1534	ppb	16:47:08
2	Pb 220.353†	82.8	-8.9	-2.1787	µg/L	-2.1787	ppb	16:47:08

2	S 181.975 Axial†	18.3	-0.8	-3.3922 µg/L	-3.3922 ppb	16:47:08
2	Sb 206.836†	21.7	-1.0	-0.9259 µg/L	-0.9259 ppb	16:47:08
2	Se 196.026†	16.5	-3.0	-4.1629 µg/L	-4.1629 ppb	16:47:08
2	SiO2†	1450.1	43.5	8.5888 µg/L	8.5888 ppb	16:46:47
2	Si 251.611†	323.7	9.8	0.7431 µg/L	0.7431 ppb	16:47:08
2	Sn 189.927†	7.2	6.8	2.8541 µg/L	2.8541 ppb	16:47:08
2	Ti 334.940†	275.2	97.3	0.2152 µg/L	0.2152 ppb	16:46:47
2	Tl 190.801†	-21.7	1.0	1.2441 µg/L	1.2441 ppb	16:47:08
2	U 409.014†	-34.6	42.8	3.5596 µg/L	3.5596 ppb	16:46:47
2	V 292.402†	-47.6	-2.4	-0.0159 µg/L	-0.0159 ppb	16:46:47
2	Zn 213.857†	557.8	17.6	0.4155 µg/L	0.4155 ppb	16:47:08
3	Sc RADIAL	56103.5	56103.5	99.3 %		16:45:39
3	Al 396.153Radial†	-12.8	-20.2	-14.109 µg/L	-14.109 ppb	16:45:39
3	Ca 317.933Radial†	191.0	-18.9	-16.130 µg/L	-16.130 ppb	16:46:00
3	Fe 238.204 Radial†	17.4	1.0	7.6890 µg/L	7.6890 ppb	16:46:00
3	K 766.490 Radial†	173.9	10.1	6.6116 µg/L	6.6116 ppb	16:45:39
3	Mg 279.077 IEC†	10.0	-2.8	-24.916 µg/L	-24.916 ppb	16:46:00
3	Na 589.592 Radial†	509.0	40.4	12.402 µg/L	12.402 ppb	16:45:39
3	Sr 421.552†	51.1	22.6	0.2086 µg/L	0.2086 ppb	16:45:39
3	Sc 361.383	1979825.1	1979825.1	100.85 %		16:47:14
3	Y 371.029	1367032.8	1367032.8	101.06 %		16:47:14
3	Ag 328.068†	-365.2	39.5	0.2926 µg/L	0.2926 ppb	16:47:20
3	As 188.979†	6.4	6.8	12.172 µg/L	12.172 ppb	16:47:40
3	B 249.677†	398.6	11.1	0.4486 µg/L	0.4486 ppb	16:47:40
3	Ba 233.527†	-12.4	4.8	0.1152 µg/L	0.1152 ppb	16:47:40
3	Be 313.107†	-2652.0	226.1	0.1341 µg/L	0.1341 ppb	16:47:20
3	Cd 226.502†	-131.0	11.8	0.2924 µg/L	0.2924 ppb	16:47:40
3	Co 228.616†	3.8	1.9	0.0848 µg/L	0.0848 ppb	16:47:40
3	Cr 267.716†	-32.1	18.5	0.3716 µg/L	0.3716 ppb	16:47:40
3	Cu 324.752†	2543.2	-22.0	-0.1426 µg/L	-0.1426 ppb	16:47:20
3	Mn 257.610†	-230.0	28.0	0.0896 µg/L	0.0896 ppb	16:47:40
3	Mo 202.031†	7.5	12.8	1.2495 µg/L	1.2495 ppb	16:47:40
3	Ni 231.604†	307.7	-7.2	-0.3603 µg/L	-0.3603 ppb	16:47:40
3	P 214.914†	16.4	0.9	1.7842 µg/L	1.7842 ppb	16:47:40
3	Pb 220.353†	91.4	-0.3	-0.0769 µg/L	-0.0769 ppb	16:47:40
3	S 181.975 Axial†	16.1	-2.9	-12.216 µg/L	-12.216 ppb	16:47:40
3	Sb 206.836†	18.4	-4.3	-3.9156 µg/L	-3.9156 ppb	16:47:40
3	Se 196.026†	19.5	-0.0	0.0313 µg/L	0.0313 ppb	16:47:40
3	SiO2†	1408.7	5.2	1.0280 µg/L	1.0280 ppb	16:47:20
3	Si 251.611†	328.7	15.3	1.1614 µg/L	1.1614 ppb	16:47:40
3	Sn 189.927†	7.2	6.8	2.8616 µg/L	2.8616 ppb	16:47:40
3	Ti 334.940†	264.4	87.1	0.1944 µg/L	0.1944 ppb	16:47:20
3	Tl 190.801†	-17.8	4.8	6.2130 µg/L	6.2130 ppb	16:47:40
3	U 409.014†	44.4	121.1	10.062 µg/L	10.062 ppb	16:47:20
3	V 292.402†	-48.6	-3.5	-0.0118 µg/L	-0.0118 ppb	16:47:20
3	Zn 213.857†	546.8	7.8	0.1863 µg/L	0.1863 ppb	16:47:40

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984294.3	101.08	%	0.247				0.24%
Sc RADIAL	56394.2	99.8	%	0.48				0.48%
Y 371.029	1368875.1	101.19	%	0.208				0.21%
Ag 328.068†	-15.5	-0.1144	µg/L	0.35487	-0.1144	ppb	0.35487	310.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.4	-12.796	µg/L	1.1373	-12.796	ppb	1.1373	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1476	µg/L	10.89157	-0.1476	ppb	10.89157	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.5	0.7150	µg/L	0.25726	0.7150	ppb	0.25726	35.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1268	µg/L	0.15478	0.1268	ppb	0.15478	122.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.4	0.1076	µg/L	0.02612	0.1076	ppb	0.02612	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.1	-15.439	µg/L	5.3071	-15.439	ppb	5.3071	34.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.8	0.2189	µg/L	0.21153	0.2189	ppb	0.21153	96.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0941	µg/L	0.14201	0.0941	ppb	0.14201	150.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.3      0.1865 µg/L       0.29770      0.1865 ppb        0.29770 159.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.2      0.0273 µg/L       0.19878      0.0273 ppb        0.19878 728.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -0.6936 µg/L       7.61586     -0.6936 ppb        7.61586 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          23.2      15.142 µg/L       16.8219      15.142 ppb        16.8219 111.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8     -25.125 µg/L       21.0915     -25.125 ppb        21.0915  83.94%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.6      0.0966 µg/L       0.00647      0.0966 ppb        0.00647   6.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.1      0.7939 µg/L       0.39671      0.7939 ppb        0.39671  49.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         32.7      10.051 µg/L        4.0953      10.051 ppb         4.0953  40.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.1     -0.4045 µg/L       0.10569     -0.4045 ppb        0.10569  26.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.0     -2.0175 µg/L       5.23620     -2.0175 ppb        5.23620 259.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.3     -1.0543 µg/L       1.05859     -1.0543 ppb        1.05859 100.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.5     -10.525 µg/L        6.4558     -10.525 ppb         6.4558  61.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.7     -2.4867 µg/L       1.49921     -2.4867 ppb        1.49921  60.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.2     -4.4677 µg/L       4.65886     -4.4677 ppb        4.65886 104.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      22.4      4.4213 µg/L       3.83941      4.4213 ppb        3.83941  86.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                14.2      1.0825 µg/L       0.30758      1.0825 ppb        0.30758  28.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.5      2.3235 µg/L       0.92554      2.3235 ppb        0.92554  39.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                34.1      0.3146 µg/L       0.13296      0.3146 ppb        0.13296  42.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.7      0.1647 µg/L       0.07028      0.1647 ppb        0.07028  42.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.7      2.2114 µg/L       3.61632      2.2114 ppb        3.61632 163.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.5      3.6126 µg/L       6.42347      3.6126 ppb        6.42347 177.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  8.7      0.0949 µg/L       0.18839      0.0949 ppb        0.18839 198.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                13.0      0.3088 µg/L       0.11540      0.3088 ppb        0.11540  37.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/19/2010 16:47:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56282.3	56282.3	99.6	%			16:48:22
1	Al 396.153Radial†	298.2	292.0	202.91	µg/L	202.91	ppb	16:48:22
1	Ca 317.933Radial†	429.4	219.7	187.68	µg/L	187.68	ppb	16:48:43
1	Fe 238.204 Radial†	29.6	13.1	103.39	µg/L	103.39	ppb	16:48:43
1	K 766.490 Radial†	342.0	178.3	116.45	µg/L	116.45	ppb	16:48:22
1	Mg 279.077 IEC†	44.3	31.6	282.85	µg/L	282.85	ppb	16:48:43
1	Na 589.592 Radial†	1474.0	1007.4	309.41	µg/L	309.41	ppb	16:48:22
1	Sr 421.552†	600.8	574.3	5.2980	µg/L	5.2980	ppb	16:48:22
1	Sc 361.383	1977761.8	1977761.8	100.75	%			16:49:45
1	Y 371.029	1365399.5	1365399.5	100.93	%			16:49:45
1	Ag 328.068†	258.4	658.1	4.9148	µg/L	4.9148	ppb	16:49:50
1	As 188.979†	15.7	16.1	28.782	µg/L	28.782	ppb	16:50:11
1	B 249.677†	1617.1	1221.0	49.720	µg/L	49.720	ppb	16:49:50
1	Ba 233.527†	202.7	218.3	5.2492	µg/L	5.2492	ppb	16:50:11
1	Be 313.107†	5999.9	8811.2	5.2276	µg/L	5.2276	ppb	16:49:50
1	Cd 226.502†	69.7	210.9	5.2540	µg/L	5.2540	ppb	16:50:11
1	Co 228.616†	98.7	96.0	4.3479	µg/L	4.3479	ppb	16:50:11
1	Cr 267.716†	241.4	290.0	5.8279	µg/L	5.8279	ppb	16:49:50
1	Cu 324.752†	4202.8	1627.9	10.640	µg/L	10.640	ppb	16:49:50
1	Mn 257.610†	3188.0	3420.5	10.714	µg/L	10.714	ppb	16:49:50
1	Mo 202.031†	99.0	103.6	10.146	µg/L	10.146	ppb	16:50:11
1	Ni 231.604†	418.0	102.5	5.1075	µg/L	5.1075	ppb	16:50:11
1	P 214.914†	98.6	82.5	162.32	µg/L	162.32	ppb	16:50:11
1	Pb 220.353†	137.2	45.3	10.965	µg/L	10.965	ppb	16:50:11
1	S 181.975 Axial†	42.3	23.0	95.542	µg/L	95.542	ppb	16:50:11
1	Sb 206.836†	37.6	14.8	13.659	µg/L	13.659	ppb	16:50:11
1	Se 196.026†	37.4	17.8	24.952	µg/L	24.952	ppb	16:50:11
1	SiO2†	2505.0	1094.9	216.12	µg/L	216.12	ppb	16:49:50
1	Si 251.611†	1649.6	1326.8	100.86	µg/L	100.86	ppb	16:50:11
1	Sn 189.927†	23.4	22.9	9.6771	µg/L	9.6771	ppb	16:50:11
1	Ti 334.940†	2480.4	2287.0	5.0399	µg/L	5.0399	ppb	16:49:50
1	Tl 190.801†	-7.5	15.0	19.606	µg/L	19.606	ppb	16:50:11
1	U 409.014†	617.0	689.5	57.259	µg/L	57.259	ppb	16:49:50
1	V 292.402†	481.6	522.7	5.2575	µg/L	5.2575	ppb	16:49:50
1	Zn 213.857†	992.7	450.9	10.519	µg/L	10.519	ppb	16:50:11
2	Sc RADIAL	56210.7	56210.7	99.5	%			16:48:48
2	Al 396.153Radial†	273.4	267.4	185.81	µg/L	185.81	ppb	16:48:48
2	Ca 317.933Radial†	426.2	217.1	185.45	µg/L	185.45	ppb	16:49:08
2	Fe 238.204 Radial†	28.4	12.0	94.492	µg/L	94.492	ppb	16:49:08
2	K 766.490 Radial†	411.4	248.5	162.28	µg/L	162.28	ppb	16:48:48
2	Mg 279.077 IEC†	50.3	37.8	337.62	µg/L	337.62	ppb	16:49:08
2	Na 589.592 Radial†	1464.1	999.4	306.94	µg/L	306.94	ppb	16:48:48
2	Sr 421.552†	574.2	548.3	5.0581	µg/L	5.0581	ppb	16:48:48
2	Sc 361.383	1972692.6	1972692.6	100.49	%			16:50:17
2	Y 371.029	1361966.2	1361966.2	100.68	%			16:50:17
2	Ag 328.068†	270.6	670.9	5.0087	µg/L	5.0087	ppb	16:50:23
2	As 188.979†	17.9	18.3	32.707	µg/L	32.707	ppb	16:50:43
2	B 249.677†	1623.8	1231.8	50.165	µg/L	50.165	ppb	16:50:23
2	Ba 233.527†	197.6	213.7	5.1395	µg/L	5.1395	ppb	16:50:43
2	Be 313.107†	5881.6	8708.7	5.1667	µg/L	5.1667	ppb	16:50:23
2	Cd 226.502†	72.2	213.5	5.3190	µg/L	5.3190	ppb	16:50:43
2	Co 228.616†	112.6	110.1	4.9856	µg/L	4.9856	ppb	16:50:43
2	Cr 267.716†	212.6	261.9	5.2641	µg/L	5.2641	ppb	16:50:23
2	Cu 324.752†	4135.5	1571.7	10.273	µg/L	10.273	ppb	16:50:23
2	Mn 257.610†	3139.9	3380.7	10.586	µg/L	10.586	ppb	16:50:23
2	Mo 202.031†	100.4	105.3	10.314	µg/L	10.314	ppb	16:50:43
2	Ni 231.604†	409.7	95.3	4.7480	µg/L	4.7480	ppb	16:50:43
2	P 214.914†	98.3	82.5	162.33	µg/L	162.33	ppb	16:50:43
2	Pb 220.353†	137.5	45.9	11.123	µg/L	11.123	ppb	16:50:43

2	S 181.975 Axial†	44.4	25.2	104.52 µg/L	104.52 ppb	16:50:43
2	Sb 206.836†	32.9	10.2	9.4639 µg/L	9.4639 ppb	16:50:43
2	Se 196.026†	35.2	15.7	21.973 µg/L	21.973 ppb	16:50:43
2	SiO2†	2523.6	1119.7	221.02 µg/L	221.02 ppb	16:50:23
2	Si 251.611†	1635.2	1316.7	100.10 µg/L	100.10 ppb	16:50:43
2	Sn 189.927†	26.0	25.5	10.767 µg/L	10.767 ppb	16:50:43
2	Ti 334.940†	2526.0	2338.7	5.1499 µg/L	5.1499 ppb	16:50:23
2	Tl 190.801†	-4.6	17.8	23.319 µg/L	23.319 ppb	16:50:43
2	U 409.014†	591.4	665.6	55.280 µg/L	55.280 ppb	16:50:23
2	V 292.402†	473.1	515.6	5.1847 µg/L	5.1847 ppb	16:50:23
2	Zn 213.857†	977.2	438.1	10.216 µg/L	10.216 ppb	16:50:43
3	Sc RADIAL	56270.8	56270.8	99.6 %		16:49:14
3	Al 396.153Radial†	299.9	293.7	204.14 µg/L	204.14 ppb	16:49:14
3	Ca 317.933Radial†	434.4	224.8	192.04 µg/L	192.04 ppb	16:49:35
3	Fe 238.204 Radial†	29.7	13.3	104.87 µg/L	104.87 ppb	16:49:35
3	K 766.490 Radial†	455.9	292.7	191.16 µg/L	191.16 ppb	16:49:14
3	Mg 279.077 IEC†	45.6	33.0	295.03 µg/L	295.03 ppb	16:49:35
3	Na 589.592 Radial†	1506.5	1040.3	319.53 µg/L	319.53 ppb	16:49:14
3	Sr 421.552†	597.6	571.2	5.2696 µg/L	5.2696 ppb	16:49:14
3	Sc 361.383	1984220.0	1984220.0	101.07 %		16:50:49
3	Y 371.029	1369121.2	1369121.2	101.21 %		16:50:49
3	Ag 328.068†	201.6	601.1	4.4889 µg/L	4.4889 ppb	16:50:55
3	As 188.979†	12.2	12.5	22.435 µg/L	22.435 ppb	16:51:15
3	B 249.677†	1528.3	1127.9	45.924 µg/L	45.924 ppb	16:50:55
3	Ba 233.527†	159.9	175.2	4.2153 µg/L	4.2153 ppb	16:51:15
3	Be 313.107†	4886.5	7690.3	4.5625 µg/L	4.5625 ppb	16:50:55
3	Cd 226.502†	36.1	177.4	4.4177 µg/L	4.4177 ppb	16:51:15
3	Co 228.616†	97.9	94.9	4.2983 µg/L	4.2983 ppb	16:51:15
3	Cr 267.716†	217.3	265.4	5.3332 µg/L	5.3332 ppb	16:50:55
3	Cu 324.752†	4009.3	1423.0	9.3030 µg/L	9.3030 ppb	16:50:55
3	Mn 257.610†	2806.1	3032.2	9.4977 µg/L	9.4977 ppb	16:50:55
3	Mo 202.031†	85.5	90.0	8.8152 µg/L	8.8152 ppb	16:51:15
3	Ni 231.604†	395.2	78.7	3.9181 µg/L	3.9181 ppb	16:51:15
3	P 214.914†	81.4	65.2	128.29 µg/L	128.29 ppb	16:51:15
3	Pb 220.353†	131.5	39.1	9.4710 µg/L	9.4710 ppb	16:51:15
3	S 181.975 Axial†	39.1	19.8	81.981 µg/L	81.981 ppb	16:51:15
3	Sb 206.836†	33.0	10.1	9.3652 µg/L	9.3652 ppb	16:51:15
3	Se 196.026†	36.9	17.2	24.099 µg/L	24.099 ppb	16:51:15
3	SiO2†	2440.0	1022.5	201.82 µg/L	201.82 ppb	16:50:55
3	Si 251.611†	1427.0	1101.2	83.718 µg/L	83.718 ppb	16:51:15
3	Sn 189.927†	23.7	23.1	9.7555 µg/L	9.7555 ppb	16:51:15
3	Ti 334.940†	2205.8	2007.3	4.4203 µg/L	4.4203 ppb	16:50:55
3	Tl 190.801†	-9.0	13.5	17.705 µg/L	17.705 ppb	16:51:15
3	U 409.014†	550.5	621.7	51.630 µg/L	51.630 ppb	16:50:55
3	V 292.402†	420.4	460.6	4.6353 µg/L	4.6353 ppb	16:50:55
3	Zn 213.857†	910.8	366.7	8.5490 µg/L	8.5490 ppb	16:51:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1978224.8	100.77	%	0.294				0.29%
Sc RADIAL	56254.6	99.6	%	0.07				0.07%
Y 371.029	1365495.6	100.94	%	0.265				0.26%
Ag 328.068†	643.3	4.8041	µg/L	0.27699	4.8041	ppb	0.27699	5.77%
QC value within limits for Ag 328.068 Recovery = 96.08%								
Al 396.153Radial†	284.4	197.62	µg/L	10.244	197.62	ppb	10.244	5.18%
QC value within limits for Al 396.153Radial Recovery = 98.81%								
As 188.979†	15.6	27.975	µg/L	5.1834	27.975	ppb	5.1834	18.53%
QC value within limits for As 188.979 Recovery = 93.25%								
B 249.677†	1193.6	48.603	µg/L	2.3307	48.603	ppb	2.3307	4.80%
QC value within limits for B 249.677 Recovery = 97.21%								
Ba 233.527†	202.4	4.8680	µg/L	0.56789	4.8680	ppb	0.56789	11.67%
QC value within limits for Ba 233.527 Recovery = 97.36%								
Be 313.107†	8403.4	4.9856	µg/L	0.36766	4.9856	ppb	0.36766	7.37%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	220.5	188.39	µg/L	3.356	188.39	ppb	3.356	1.78%
QC value within limits for Ca 317.933Radial Recovery = 94.19%								
Cd 226.502†	200.6	4.9969	µg/L	0.50267	4.9969	ppb	0.50267	10.06%
QC value within limits for Cd 226.502 Recovery = 99.94%								
Co 228.616†	100.4	4.5440	µg/L	0.38331	4.5440	ppb	0.38331	8.44%

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   QC value within limits for Co 228.616  Recovery = 90.88%
Cr 267.716†              272.4      5.4751 µg/L       0.30749      5.4751 ppb        0.30749   5.62%
   QC value within limits for Cr 267.716  Recovery = 109.50%
Cu 324.752†             1540.9      10.072 µg/L        0.6909      10.072 ppb         0.6909   6.86%
   QC value within limits for Cu 324.752  Recovery = 100.72%
Fe 238.204 Radial†        12.8      100.92 µg/L         5.613      100.92 ppb          5.613   5.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.92%
K 766.490 Radial†        239.8      156.63 µg/L        37.674      156.63 ppb         37.674  24.05%
   QC value within limits for K 766.490 Radial  Recovery = 104.42%
Mg 279.077 IEC†           34.1      305.17 µg/L        28.759      305.17 ppb         28.759   9.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.72%
Mn 257.610†             3277.8      10.266 µg/L        0.6682      10.266 ppb         0.6682   6.51%
   QC value within limits for Mn 257.610  Recovery = 102.66%
Mo 202.031†               99.6      9.7581 µg/L       0.82093      9.7581 ppb        0.82093   8.41%
   QC value within limits for Mo 202.031  Recovery = 97.58%
Na 589.592 Radial†      1015.7      311.96 µg/L         6.671      311.96 ppb          6.671   2.14%
   QC value within limits for Na 589.592 Radial  Recovery = 103.99%
Ni 231.604†               92.2      4.5912 µg/L       0.61004      4.5912 ppb        0.61004  13.29%
   QC value within limits for Ni 231.604  Recovery = 91.82%
P 214.914†                76.7      150.98 µg/L        19.653      150.98 ppb         19.653  13.02%
   QC value within limits for P 214.914  Recovery = 100.65%
Pb 220.353†               43.4      10.520 µg/L        0.9115      10.520 ppb         0.9115   8.67%
   QC value within limits for Pb 220.353  Recovery = 105.20%
S 181.975 Axial†          22.7      94.016 µg/L       11.3485      94.016 ppb        11.3485  12.07%
   QC value within limits for S 181.975 Axial  Recovery = 94.02%
Sb 206.836†               11.7      10.829 µg/L        2.4509      10.829 ppb         2.4509  22.63%
   QC value within limits for Sb 206.836  Recovery = 108.29%
Se 196.026†               16.9      23.675 µg/L        1.5343      23.675 ppb         1.5343   6.48%
   QC value within limits for Se 196.026  Recovery = 78.92%
SiO2†                   1079.0      212.99 µg/L         9.975      212.99 ppb          9.975   4.68%
   QC value within limits for SiO2  Recovery = 99.99%
Si 251.611†             1248.2      94.893 µg/L        9.6851      94.893 ppb         9.6851  10.21%
   QC value within limits for Si 251.611  Recovery = 94.89%
Sn 189.927†               23.8      10.067 µg/L        0.6079      10.067 ppb         0.6079   6.04%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†              564.6      5.2086 µg/L       0.13109      5.2086 ppb        0.13109   2.52%
   QC value within limits for Sr 421.552  Recovery = 104.17%
Ti 334.940†             2211.0      4.8701 µg/L       0.39334      4.8701 ppb        0.39334   8.08%
   QC value within limits for Ti 334.940  Recovery = 97.40%
Tl 190.801†               15.4      20.210 µg/L        2.8552      20.210 ppb         2.8552  14.13%
   QC value within limits for Tl 190.801  Recovery = 101.05%
U 409.014†               659.0      54.723 µg/L        2.8553      54.723 ppb         2.8553   5.22%
   QC value within limits for U 409.014  Recovery = 109.45%
V 292.402†               499.7      5.0258 µg/L       0.34018      5.0258 ppb        0.34018   6.77%
   QC value within limits for V 292.402  Recovery = 100.52%
Zn 213.857†              418.6      9.7614 µg/L       1.06081      9.7614 ppb        1.06081  10.87%
   QC value within limits for Zn 213.857  Recovery = 97.61%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/19/2010 16:51:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55393.6	55393.6	98.0	%			16:52:06
1	Al 396.153Radial†	724194.0	738594.2	513810	µg/L	513810	ppb	16:52:00
1	Ca 317.933Radial†	560588.9	571530.4	488190	µg/L	488190	ppb	16:52:00
1	Fe 238.204 Radial†	23830.6	24288.1	191560	µg/L	191560	ppb	16:52:06
1	K 766.490 Radial†	115.1	-47.6	-31.114	µg/L	-31.114	ppb	16:52:06
1	Mg 279.077 IEC†	54305.7	55373.3	494780	µg/L	494780	ppb	16:52:06
1	Na 589.592 Radial†	579.7	119.1	36.566	µg/L	36.566	ppb	16:52:06
1	Sr 421.552†	417.7	397.2	3.6640	µg/L	3.6640	ppb	16:52:06
1	Sc 361.383	1850788.2	1850788.2	94.278	%			16:52:38
1	Y 371.029	1267800.9	1267800.9	93.720	%			16:52:38
1	Ag 328.068†	-2693.6	-2455.5	-6.2926	µg/L	-6.2926	ppb	16:52:44
1	As 188.979†	-3.5	-3.2	-20.025	µg/L	-20.025	ppb	16:53:05
1	B 249.677†	871.2	539.9	-77.949	µg/L	-77.949	ppb	16:52:44
1	Ba 233.527†	294.9	329.9	7.8736	µg/L	7.8736	ppb	16:53:05
1	Be 313.107†	-3450.2	-803.9	-0.4876	µg/L	-0.4876	ppb	16:52:44
1	Cd 226.502†	449.3	618.2	-6.2337	µg/L	-6.2337	ppb	16:53:05
1	Co 228.616†	61.1	62.9	2.7806	µg/L	2.7806	ppb	16:53:05
1	Cr 267.716†	-66.1	-19.8	-0.4132	µg/L	-0.4132	ppb	16:53:05
1	Cu 324.752†	-1734.2	-4383.2	-1.9848	µg/L	-1.9848	ppb	16:52:44
1	Mn 257.610†	821.6	1127.5	9.2085	µg/L	9.2085	ppb	16:52:44
1	Mo 202.031†	-118.4	-120.2	-4.4913	µg/L	-4.4913	ppb	16:53:05
1	Ni 231.604†	163.0	-139.5	-4.4672	µg/L	-4.4672	ppb	16:53:05
1	P 214.914†	72.2	61.2	116.25	µg/L	116.25	ppb	16:53:05
1	Pb 220.353†	39.4	-49.1	9.0511	µg/L	9.0511	ppb	16:53:05
1	S 181.975 Axial†	32.2	15.3	63.310	µg/L	63.310	ppb	16:53:05
1	Sb 206.836†	57.5	38.5	-7.3305	µg/L	-7.3305	ppb	16:53:05
1	Se 196.026†	11.6	-7.0	-62.783	µg/L	-62.783	ppb	16:53:05
1	SiO2†	1235.7	-80.9	-15.963	µg/L	-15.963	ppb	16:53:05
1	Si 251.611†	441.8	157.9	12.007	µg/L	12.007	ppb	16:53:05
1	Sn 189.927†	-66.4	-70.8	5.6696	µg/L	5.6696	ppb	16:53:05
1	Ti 334.940†	11832.7	12375.9	-3.9147	µg/L	-3.9147	ppb	16:52:44
1	Tl 190.801†	-42.3	-22.5	-8.4040	µg/L	-8.4040	ppb	16:53:05
1	U 409.014†	-59.0	14.5	-55.197	µg/L	-55.197	ppb	16:52:44
1	V 292.402†	-2553.4	-2663.6	-3.5017	µg/L	-3.5017	ppb	16:52:44
1	Zn 213.857†	1634.5	1199.3	-8.9501	µg/L	-8.9501	ppb	16:53:05
2	Sc RADIAL	55011.0	55011.0	97.4	%			16:52:17
2	Al 396.153Radial†	723719.7	743244.2	517040	µg/L	517040	ppb	16:52:11
2	Ca 317.933Radial†	561511.7	576454.6	492400	µg/L	492400	ppb	16:52:11
2	Fe 238.204 Radial†	23613.9	24234.6	191140	µg/L	191140	ppb	16:52:17
2	K 766.490 Radial†	128.3	-33.2	-21.699	µg/L	-21.699	ppb	16:52:17
2	Mg 279.077 IEC†	53736.1	55173.5	492990	µg/L	492990	ppb	16:52:17
2	Na 589.592 Radial†	541.6	84.0	25.796	µg/L	25.796	ppb	16:52:17
2	Sr 421.552†	414.5	396.8	3.6609	µg/L	3.6609	ppb	16:52:17
2	Sc 361.383	1848725.6	1848725.6	94.173	%			16:53:11
2	Y 371.029	1266302.7	1266302.7	93.609	%			16:53:11
2	Ag 328.068†	-2764.2	-2533.7	-6.8956	µg/L	-6.8956	ppb	16:53:16
2	As 188.979†	-19.7	-20.5	-51.199	µg/L	-51.199	ppb	16:53:37
2	B 249.677†	821.6	488.3	-79.833	µg/L	-79.833	ppb	16:53:16
2	Ba 233.527†	289.2	324.1	7.7351	µg/L	7.7351	ppb	16:53:37
2	Be 313.107†	-3507.9	-869.3	-0.5266	µg/L	-0.5266	ppb	16:53:16
2	Cd 226.502†	439.6	608.5	-6.4301	µg/L	-6.4301	ppb	16:53:37
2	Co 228.616†	46.3	47.3	2.0733	µg/L	2.0733	ppb	16:53:37
2	Cr 267.716†	-55.1	-8.1	-0.1798	µg/L	-0.1798	ppb	16:53:37
2	Cu 324.752†	-1747.2	-4399.1	-2.1470	µg/L	-2.1470	ppb	16:53:16
2	Mn 257.610†	693.8	992.7	8.8018	µg/L	8.8018	ppb	16:53:16
2	Mo 202.031†	-103.9	-105.0	-3.0206	µg/L	-3.0206	ppb	16:53:37
2	Ni 231.604†	140.3	-163.4	-5.6612	µg/L	-5.6612	ppb	16:53:37
2	P 214.914†	95.8	86.4	167.33	µg/L	167.33	ppb	16:53:37
2	Pb 220.353†	25.6	-63.7	5.6987	µg/L	5.6987	ppb	16:53:37

2	S 181.975 Axial†	46.7	30.7	127.27	µg/L	127.27 ppb	16:53:37
2	Sb 206.836†	44.2	24.4	-20.582	µg/L	-20.582 ppb	16:53:37
2	Se 196.026†	15.1	-3.2	-58.240	µg/L	-58.240 ppb	16:53:37
2	SiO2†	1212.8	-103.8	-20.481	µg/L	-20.481 ppb	16:53:37
2	Si 251.611†	449.3	166.5	12.657	µg/L	12.657 ppb	16:53:37
2	Sn 189.927†	-68.4	-73.0	4.5450	µg/L	4.5450 ppb	16:53:37
2	Ti 334.940†	12102.5	12676.3	-3.0417	µg/L	-3.0417 ppb	16:53:16
2	Tl 190.801†	-37.0	-17.0	-1.3751	µg/L	-1.3751 ppb	16:53:37
2	U 409.014†	-33.8	41.2	-53.185	µg/L	-53.185 ppb	16:53:16
2	V 292.402†	-2512.7	-2623.4	-3.1453	µg/L	-3.1453 ppb	16:53:16
2	Zn 213.857†	1609.3	1174.4	-9.4073	µg/L	-9.4073 ppb	16:53:37
3	Sc RADIAL	55087.9	55087.9	97.5	%		16:52:28
3	Al 396.153Radial†	720131.5	738527.0	513760	µg/L	513760 ppb	16:52:23
3	Ca 317.933Radial†	556178.1	570179.9	487040	µg/L	487040 ppb	16:52:23
3	Fe 238.204 Radial†	23691.3	24280.2	191500	µg/L	191500 ppb	16:52:28
3	K 766.490 Radial†	149.7	-11.5	-7.5099	µg/L	-7.5099 ppb	16:52:28
3	Mg 279.077 IEC†	53963.6	55329.8	494390	µg/L	494390 ppb	16:52:28
3	Na 589.592 Radial†	551.3	93.2	28.624	µg/L	28.624 ppb	16:52:28
3	Sr 421.552†	418.9	400.8	3.6974	µg/L	3.6974 ppb	16:52:28
3	Sc 361.383	1849927.7	1849927.7	94.234	%		16:53:43
3	Y 371.029	1267002.1	1267002.1	93.661	%		16:53:43
3	Ag 328.068†	-2734.1	-2499.7	-6.6223	µg/L	-6.6223 ppb	16:53:49
3	As 188.979†	-9.3	-9.4	-31.056	µg/L	-31.056 ppb	16:54:09
3	B 249.677†	848.6	516.3	-78.878	µg/L	-78.878 ppb	16:53:49
3	Ba 233.527†	283.0	317.4	7.5725	µg/L	7.5725 ppb	16:54:09
3	Be 313.107†	-3473.1	-829.9	-0.5033	µg/L	-0.5033 ppb	16:53:49
3	Cd 226.502†	443.2	612.0	-6.3822	µg/L	-6.3822 ppb	16:54:09
3	Co 228.616†	37.7	38.1	1.6569	µg/L	1.6569 ppb	16:54:09
3	Cr 267.716†	-62.9	-16.3	-0.3442	µg/L	-0.3442 ppb	16:54:09
3	Cu 324.752†	-1721.6	-4370.7	-1.9119	µg/L	-1.9119 ppb	16:53:49
3	Mn 257.610†	731.2	1032.0	8.9167	µg/L	8.9167 ppb	16:53:49
3	Mo 202.031†	-107.8	-109.1	-3.4029	µg/L	-3.4029 ppb	16:54:09
3	Ni 231.604†	145.6	-157.8	-5.3810	µg/L	-5.3810 ppb	16:54:09
3	P 214.914†	108.6	100.0	193.00	µg/L	193.00 ppb	16:54:09
3	Pb 220.353†	37.4	-51.2	8.5535	µg/L	8.5535 ppb	16:54:09
3	S 181.975 Axial†	37.1	20.4	84.584	µg/L	84.584 ppb	16:54:09
3	Sb 206.836†	48.6	29.0	-15.889	µg/L	-15.889 ppb	16:54:09
3	Se 196.026†	35.7	18.5	-26.410	µg/L	-26.410 ppb	16:54:09
3	SiO2†	1232.2	-83.9	-16.565	µg/L	-16.565 ppb	16:54:09
3	Si 251.611†	426.5	142.0	10.792	µg/L	10.792 ppb	16:54:09
3	Sn 189.927†	-55.5	-59.3	10.507	µg/L	10.507 ppb	16:54:09
3	Ti 334.940†	12184.3	12754.8	-3.0642	µg/L	-3.0642 ppb	16:53:49
3	Tl 190.801†	-36.8	-16.7	-0.7208	µg/L	-0.7208 ppb	16:54:09
3	U 409.014†	-97.2	-26.0	-58.491	µg/L	-58.491 ppb	16:53:49
3	V 292.402†	-2526.9	-2636.8	-3.2422	µg/L	-3.2422 ppb	16:53:49
3	Zn 213.857†	1595.9	1159.1	-9.8646	µg/L	-9.8646 ppb	16:54:09

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1849813.8	94.228	%	0.0528				0.06%
Sc RADIAL	55164.1	97.6	%	0.36				0.37%
Y 371.029	1267035.2	93.663	%	0.0554				0.06%
Ag 328.068†	-2496.3	-6.6035	µg/L	0.30193	-6.6035	ppb	0.30193	4.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	740121.8	514870	µg/L	1881.2	514870	ppb	1881.2	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.97%								
As 188.979†	-11.0	-34.093	µg/L	15.8073	-34.093	ppb	15.8073	46.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	514.9	-78.887	µg/L	0.9419	-78.887	ppb	0.9419	1.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	323.8	7.7271	µg/L	0.15071	7.7271	ppb	0.15071	1.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-834.4	-0.5058	µg/L	0.01964	-0.5058	ppb	0.01964	3.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	572721.6	489210	µg/L	2821.0	489210	ppb	2821.0	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	612.9	-6.3487	µg/L	0.10242	-6.3487	ppb	0.10242	1.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	49.4	2.1702	µg/L	0.56812	2.1702	ppb	0.56812	26.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.7     -0.3124 µg/L       0.11992     -0.3124 ppb        0.11992  38.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -4384.3     -2.0146 µg/L       0.12034     -2.0146 ppb        0.12034   5.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     24267.6      191400 µg/L         227.6      191400 ppb          227.6   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.70%
K 766.490 Radial†        -30.8     -20.107 µg/L       11.8821     -20.107 ppb        11.8821  59.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        55292.2      494060 µg/L         938.7      494060 ppb          938.7   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.81%
Mn 257.610†             1050.7      8.9756 µg/L       0.20969      8.9756 ppb        0.20969   2.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -111.4     -3.6383 µg/L       0.76308     -3.6383 ppb        0.76308  20.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        98.7      30.329 µg/L        5.5836      30.329 ppb         5.5836  18.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -153.6     -5.1698 µg/L       0.62439     -5.1698 ppb        0.62439  12.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                82.5      158.86 µg/L        39.068      158.86 ppb         39.068  24.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -54.7      7.7677 µg/L       1.80905      7.7677 ppb        1.80905  23.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          22.1      91.723 µg/L       32.5738      91.723 ppb        32.5738  35.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               30.6     -14.600 µg/L        6.7191     -14.600 ppb         6.7191  46.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.8     -49.144 µg/L       19.8190     -49.144 ppb        19.8190  40.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -89.5     -17.670 µg/L        2.4533     -17.670 ppb         2.4533  13.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              155.5      11.818 µg/L        0.9466      11.818 ppb         0.9466   8.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -67.7      6.9072 µg/L       3.16787      6.9072 ppb        3.16787  45.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              398.3      3.6741 µg/L       0.02024      3.6741 ppb        0.02024   0.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            12602.3     -3.3402 µg/L       0.49765     -3.3402 ppb        0.49765  14.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -18.7     -3.4999 µg/L       4.25960     -3.4999 ppb        4.25960 121.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 9.9     -55.624 µg/L        2.6789     -55.624 ppb         2.6789   4.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2641.3     -3.2964 µg/L       0.18427     -3.2964 ppb        0.18427   5.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1177.6     -9.4073 µg/L       0.45728     -9.4073 ppb        0.45728   4.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/19/2010 16:54:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	55797.0	55797.0	98.8	%			16:54:58
1	Al 396.153Radial†	721688.4	730717.2	508320	µg/L	508320	ppb	16:54:53
1	Ca 317.933Radial†	559165.5	565955.4	483430	µg/L	483430	ppb	16:54:53
1	Fe 238.204 Radial†	23697.0	23977.1	189110	µg/L	189110	ppb	16:54:58
1	K 766.490 Radial†	7825.4	7758.4	5067.1	µg/L	5067.1	ppb	16:54:58
1	Mg 279.077 IEC†	54011.0	54674.5	488540	µg/L	488540	ppb	16:54:58
1	Na 589.592 Radial†	17079.2	16820.9	5166.4	µg/L	5166.4	ppb	16:54:58
1	Sr 421.552†	53653.0	54296.0	500.89	µg/L	500.89	ppb	16:54:58
1	Sc 361.383	1843700.1	1843700.1	93.917	%			16:55:33
1	Y 371.029	1261744.6	1261744.6	93.272	%			16:55:33
1	Ag 328.068†	30366.5	32735.0	257.65	µg/L	257.65	ppb	16:55:33
1	As 188.979†	267.3	285.0	495.71	µg/L	495.71	ppb	16:55:53
1	B 249.677†	12776.1	13219.5	440.90	µg/L	440.90	ppb	16:55:33
1	Ba 233.527†	19707.5	21001.1	505.07	µg/L	505.07	ppb	16:55:33
1	Be 313.107†	381967.5	409563.9	242.87	µg/L	242.87	ppb	16:55:33
1	Cd 226.502†	18000.5	19308.2	460.62	µg/L	460.62	ppb	16:55:33
1	Co 228.616†	9028.5	9611.4	434.60	µg/L	434.60	ppb	16:55:53
1	Cr 267.716†	22814.5	24342.6	489.24	µg/L	489.24	ppb	16:55:33
1	Cu 324.752†	76830.3	79263.0	543.67	µg/L	543.67	ppb	16:55:33
1	Mn 257.610†	145121.7	154777.5	490.29	µg/L	490.29	ppb	16:55:33
1	Mo 202.031†	4771.3	5085.6	505.20	µg/L	505.20	ppb	16:55:53
1	Ni 231.604†	8362.6	8591.9	430.24	µg/L	430.24	ppb	16:55:53
1	P 214.914†	1320.9	1391.1	2699.5	µg/L	2699.5	ppb	16:55:53
1	Pb 220.353†	1871.2	1901.4	483.01	µg/L	483.01	ppb	16:55:53
1	S 181.975 Axial†	648.6	671.7	2785.4	µg/L	2785.4	ppb	16:55:53
1	Sb 206.836†	575.1	589.8	502.04	µg/L	502.04	ppb	16:55:53
1	Se 196.026†	1623.8	1709.6	2348.3	µg/L	2348.3	ppb	16:55:53
1	SiO2†	53672.2	55757.1	11006	µg/L	11006	ppb	16:55:33
1	Si 251.611†	64106.8	67948.4	5165.6	µg/L	5165.6	ppb	16:55:33
1	Sn 189.927†	1083.9	1153.7	521.63	µg/L	521.63	ppb	16:55:53
1	Ti 334.940†	229038.7	243698.9	508.24	µg/L	508.24	ppb	16:55:33
1	Tl 190.801†	288.9	330.0	454.77	µg/L	454.77	ppb	16:55:53
1	U 409.014†	5773.2	6224.2	461.36	µg/L	461.36	ppb	16:55:33
1	V 292.402†	47456.1	50574.7	520.63	µg/L	520.63	ppb	16:55:33
1	Zn 213.857†	20837.2	21652.5	468.58	µg/L	468.58	ppb	16:55:33
2	Sc RADIAL	55348.5	55348.5	98.0	%			16:55:10
2	Al 396.153Radial†	722041.1	736998.6	512690	µg/L	512690	ppb	16:55:04
2	Ca 317.933Radial†	559699.2	571088.2	487810	µg/L	487810	ppb	16:55:04
2	Fe 238.204 Radial†	23398.1	23866.4	188240	µg/L	188240	ppb	16:55:10
2	K 766.490 Radial†	7752.4	7748.1	5060.4	µg/L	5060.4	ppb	16:55:10
2	Mg 279.077 IEC†	53665.0	54764.4	489350	µg/L	489350	ppb	16:55:10
2	Na 589.592 Radial†	16898.5	16776.6	5152.8	µg/L	5152.8	ppb	16:55:10
2	Sr 421.552†	53220.9	54295.2	500.88	µg/L	500.88	ppb	16:55:10
2	Sc 361.383	1828346.4	1828346.4	93.135	%			16:56:01
2	Y 371.029	1251250.1	1251250.1	92.496	%			16:56:01
2	Ag 328.068†	30001.6	32614.7	256.69	µg/L	256.69	ppb	16:56:01
2	As 188.979†	258.0	277.4	481.82	µg/L	481.82	ppb	16:56:21
2	B 249.677†	12695.1	13246.8	442.46	µg/L	442.46	ppb	16:56:01
2	Ba 233.527†	19356.4	20800.3	500.24	µg/L	500.24	ppb	16:56:01
2	Be 313.107†	377037.1	407685.5	241.76	µg/L	241.76	ppb	16:56:01
2	Cd 226.502†	17698.0	19144.3	456.64	µg/L	456.64	ppb	16:56:01
2	Co 228.616†	8995.7	9656.8	436.67	µg/L	436.67	ppb	16:56:21
2	Cr 267.716†	22554.0	24266.9	487.72	µg/L	487.72	ppb	16:56:01
2	Cu 324.752†	76157.1	79227.2	543.32	µg/L	543.32	ppb	16:56:01
2	Mn 257.610†	143300.8	154120.0	488.08	µg/L	488.08	ppb	16:56:01
2	Mo 202.031†	4737.2	5091.8	505.77	µg/L	505.77	ppb	16:56:21
2	Ni 231.604†	8356.6	8660.3	433.64	µg/L	433.64	ppb	16:56:21
2	P 214.914†	1314.8	1396.4	2712.1	µg/L	2712.1	ppb	16:56:21
2	Pb 220.353†	1869.4	1916.2	486.89	µg/L	486.89	ppb	16:56:21

2	S 181.975 Axial†	642.4	670.8	2782.0 µg/L	2782.0 ppb	16:56:21
2	Sb 206.836†	578.7	598.8	509.94 µg/L	509.94 ppb	16:56:21
2	Se 196.026†	1633.2	1734.3	2378.6 µg/L	2378.6 ppb	16:56:21
2	SiO2†	52972.0	55485.1	10952 µg/L	10952 ppb	16:56:01
2	Si 251.611†	63354.2	67713.7	5147.7 µg/L	5147.7 ppb	16:56:01
2	Sn 189.927†	1076.4	1155.4	522.48 µg/L	522.48 ppb	16:56:21
2	Ti 334.940†	226229.7	242730.8	506.11 µg/L	506.11 ppb	16:56:01
2	Tl 190.801†	294.9	339.0	466.26 µg/L	466.26 ppb	16:56:21
2	U 409.014†	5629.0	6121.0	452.64 µg/L	452.64 ppb	16:56:01
2	V 292.402†	46870.5	50370.2	518.52 µg/L	518.52 ppb	16:56:01
2	Zn 213.857†	20535.2	21514.5	465.32 µg/L	465.32 ppb	16:56:01
3	Sc RADIAL	55847.7	55847.7	98.9 %		16:55:21
3	Al 396.153Radial†	722897.9	731277.0	508700 µg/L	508700 ppb	16:55:15
3	Ca 317.933Radial†	559752.9	566035.4	483500 µg/L	483500 ppb	16:55:15
3	Fe 238.204 Radial†	23698.6	23957.0	188960 µg/L	188960 ppb	16:55:21
3	K 766.490 Radial†	7809.0	7734.7	5051.6 µg/L	5051.6 ppb	16:55:21
3	Mg 279.077 IEC†	54100.9	54715.7	488910 µg/L	488910 ppb	16:55:21
3	Na 589.592 Radial†	17037.2	16762.7	5148.5 µg/L	5148.5 ppb	16:55:21
3	Sr 421.552†	53557.3	54149.8	499.54 µg/L	499.54 ppb	16:55:21
3	Sc 361.383	1849513.8	1849513.8	94.213 %		16:56:29
3	Y 371.029	1265200.0	1265200.0	93.528 %		16:56:29
3	Ag 328.068†	30278.1	32539.5	256.19 µg/L	256.19 ppb	16:56:29
3	As 188.979†	249.4	265.2	460.15 µg/L	460.15 ppb	16:56:49
3	B 249.677†	12838.9	13243.4	441.96 µg/L	441.96 ppb	16:56:29
3	Ba 233.527†	19684.2	20910.3	502.89 µg/L	502.89 ppb	16:56:29
3	Be 313.107†	381877.8	408190.3	242.06 µg/L	242.06 ppb	16:56:29
3	Cd 226.502†	18049.5	19299.9	460.44 µg/L	460.44 ppb	16:56:29
3	Co 228.616†	9068.2	9623.2	435.15 µg/L	435.15 ppb	16:56:49
3	Cr 267.716†	22913.2	24371.1	489.81 µg/L	489.81 ppb	16:56:29
3	Cu 324.752†	76676.5	78842.6	540.91 µg/L	540.91 ppb	16:56:29
3	Mn 257.610†	145122.9	154293.0	488.74 µg/L	488.74 ppb	16:56:29
3	Mo 202.031†	4785.3	5084.6	505.09 µg/L	505.09 ppb	16:56:49
3	Ni 231.604†	8413.0	8617.4	431.51 µg/L	431.51 ppb	16:56:49
3	P 214.914†	1336.0	1402.7	2723.0 µg/L	2723.0 ppb	16:56:49
3	Pb 220.353†	1874.0	1898.2	482.26 µg/L	482.26 ppb	16:56:49
3	S 181.975 Axial†	650.5	671.5	2784.8 µg/L	2784.8 ppb	16:56:49
3	Sb 206.836†	579.0	592.1	504.11 µg/L	504.11 ppb	16:56:49
3	Se 196.026†	1645.5	1727.2	2372.2 µg/L	2372.2 ppb	16:56:49
3	SiO2†	53612.6	55514.2	10958 µg/L	10958 ppb	16:56:29
3	Si 251.611†	64125.9	67754.2	5150.8 µg/L	5150.8 ppb	16:56:29
3	Sn 189.927†	1079.8	1145.8	518.33 µg/L	518.33 ppb	16:56:49
3	Ti 334.940†	228839.3	242720.7	506.05 µg/L	506.05 ppb	16:56:29
3	Tl 190.801†	301.0	341.8	470.11 µg/L	470.11 ppb	16:56:49
3	U 409.014†	5634.4	6057.5	447.53 µg/L	447.53 ppb	16:56:29
3	V 292.402†	47572.3	50539.2	520.25 µg/L	520.25 ppb	16:56:29
3	Zn 213.857†	20782.8	21525.0	465.57 µg/L	465.57 ppb	16:56:29

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1840520.1	93.755	%	0.5571				0.59%
Sc RADIAL	55664.4	98.5	%	0.49				0.49%
Y 371.029	1259398.2	93.099	%	0.5370				0.58%
Ag 328.068†	32629.7	256.85	µg/L	0.742	256.85	ppb	0.742	0.29%
QC value within limits for Ag 328.068 Recovery = 102.74%								
Al 396.153Radial†	732997.6	509900	µg/L	2418.3	509900	ppb	2418.3	0.47%
QC value within limits for Al 396.153Radial Recovery = 101.98%								
As 188.979†	275.9	479.23	µg/L	17.921	479.23	ppb	17.921	3.74%
QC value within limits for As 188.979 Recovery = 95.85%								
B 249.677†	13236.6	441.77	µg/L	0.799	441.77	ppb	0.799	0.18%
QC value within limits for B 249.677 Recovery = 88.35%								
Ba 233.527†	20903.9	502.73	µg/L	2.416	502.73	ppb	2.416	0.48%
QC value within limits for Ba 233.527 Recovery = 100.55%								
Be 313.107†	408479.9	242.23	µg/L	0.577	242.23	ppb	0.577	0.24%
QC value within limits for Be 313.107 Recovery = 96.89%								
Ca 317.933Radial†	567693.0	484910	µg/L	2511.8	484910	ppb	2511.8	0.52%
QC value within limits for Ca 317.933Radial Recovery = 96.98%								
Cd 226.502†	19250.8	459.23	µg/L	2.249	459.23	ppb	2.249	0.49%
QC value within limits for Cd 226.502 Recovery = 91.85%								
Co 228.616†	9630.5	435.47	µg/L	1.070	435.47	ppb	1.070	0.25%

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   QC value within limits for Co 228.616  Recovery = 87.09%
Cr 267.716†            24326.8      488.92 µg/L         1.082      488.92 ppb          1.082   0.22%
   QC value within limits for Cr 267.716  Recovery = 97.78%
Cu 324.752†            79110.9      542.63 µg/L         1.505      542.63 ppb          1.505   0.28%
   QC value within limits for Cu 324.752  Recovery = 108.53%
Fe 238.204 Radial†     23933.5      188770 µg/L         465.0      188770 ppb          465.0   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.39%
K 766.490 Radial†       7747.0      5059.7 µg/L          7.77      5059.7 ppb           7.77   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 101.19%
Mg 279.077 IEC†        54718.2      488940 µg/L         403.0      488940 ppb          403.0   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.79%
Mn 257.610†           154396.8      489.04 µg/L         1.134      489.04 ppb          1.134   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.81%
Mo 202.031†             5087.3      505.36 µg/L         0.362      505.36 ppb          0.362   0.07%
   QC value within limits for Mo 202.031  Recovery = 101.07%
Na 589.592 Radial†     16786.7      5155.9 µg/L          9.34      5155.9 ppb           9.34   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 103.12%
Ni 231.604†             8623.2      431.80 µg/L         1.714      431.80 ppb          1.714   0.40%
   QC value within limits for Ni 231.604  Recovery = 86.36%
P 214.914†              1396.7      2711.6 µg/L         11.77      2711.6 ppb          11.77   0.43%
   QC value within limits for P 214.914  Recovery = 108.46%
Pb 220.353†             1905.3      484.05 µg/L         2.482      484.05 ppb          2.482   0.51%
   QC value within limits for Pb 220.353  Recovery = 96.81%
S 181.975 Axial†         671.3      2784.0 µg/L          1.83      2784.0 ppb           1.83   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 111.36%
Sb 206.836†              593.6      505.36 µg/L         4.096      505.36 ppb          4.096   0.81%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†             1723.7      2366.3 µg/L         15.98      2366.3 ppb          15.98   0.68%
   QC value within limits for Se 196.026  Recovery = 94.65%
SiO2†                  55585.5       10972 µg/L          29.5       10972 ppb           29.5   0.27%
   QC value within limits for SiO2  Recovery = 102.59%
Si 251.611†            67805.4      5154.7 µg/L          9.54      5154.7 ppb           9.54   0.19%
   QC value within limits for Si 251.611  Recovery = 103.09%
Sn 189.927†             1151.6      520.81 µg/L         2.193      520.81 ppb          2.193   0.42%
   QC value within limits for Sn 189.927  Recovery = 104.16%
Sr 421.552†            54247.0      500.44 µg/L         0.776      500.44 ppb          0.776   0.16%
   QC value within limits for Sr 421.552  Recovery = 100.09%
Ti 334.940†           243050.1      506.80 µg/L         1.249      506.80 ppb          1.249   0.25%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              337.0      463.71 µg/L         7.981      463.71 ppb          7.981   1.72%
   QC value within limits for Tl 190.801  Recovery = 92.74%
U 409.014†              6134.3      453.84 µg/L         6.995      453.84 ppb          6.995   1.54%
   QC value within limits for U 409.014  Recovery = 90.77%
V 292.402†             50494.7      519.80 µg/L         1.121      519.80 ppb          1.121   0.22%
   QC value within limits for V 292.402  Recovery = 103.96%
Zn 213.857†            21564.0      466.49 µg/L         1.813      466.49 ppb          1.813   0.39%
   QC value within limits for Zn 213.857  Recovery = 93.30%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/19/2010 16:56:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54748.6	54748.6	96.9	%			16:57:39
1	Al 396.153Radial†	706292.1	728823.1	507010	µg/L	507010	ppb	16:57:34
1	Ca 317.933Radial†	550897.7	568266.0	485400	µg/L	485400	ppb	16:57:34
1	Fe 238.204 Radial†	56162.0	57937.6	456950	µg/L	456950	ppb	16:57:39
1	K 766.490 Radial†	115.4	-45.9	-29.969	µg/L	-29.969	ppb	16:57:39
1	Mg 279.077 IEC†	52280.8	53936.3	481650	µg/L	481650	ppb	16:57:39
1	Na 589.592 Radial†	1551701.3	1600745.1	491660	µg/L	491660	ppb	16:57:34
1	Sr 421.552†	596.5	586.7	5.4124	µg/L	5.4124	ppb	16:57:39
1	Sc 361.383	1808982.1	1808982.1	92.148	%			16:58:15
1	Y 371.029	1229275.2	1229275.2	90.872	%			16:58:15
1	Ag 328.068†	-4982.3	-5005.2	-8.7931	µg/L	-8.7931	ppb	16:58:15
1	As 188.979†	-19.3	-20.5	-35.405	µg/L	-35.405	ppb	16:58:35
1	B 249.677†	1469.8	1210.9	-189.08	µg/L	-189.08	ppb	16:58:15
1	Ba 233.527†	599.8	668.0	15.898	µg/L	15.898	ppb	16:58:35
1	Be 313.107†	-11244.2	-9346.6	-5.5617	µg/L	-5.5617	ppb	16:58:15
1	Cd 226.502†	1210.5	1455.3	-15.352	µg/L	-15.352	ppb	16:58:15
1	Co 228.616†	210.6	226.6	10.160	µg/L	10.160	ppb	16:58:35
1	Cr 267.716†	45.2	99.4	1.9489	µg/L	1.9489	ppb	16:58:35
1	Cu 324.752†	-9617.8	-12981.1	-21.218	µg/L	-21.218	ppb	16:58:15
1	Mn 257.610†	-6155.9	-6424.4	21.370	µg/L	21.370	ppb	16:58:15
1	Mo 202.031†	-225.9	-239.8	-6.1197	µg/L	-6.1197	ppb	16:58:35
1	Ni 231.604†	48.3	-259.9	-7.0295	µg/L	-7.0295	ppb	16:58:35
1	P 214.914†	306.6	317.4	411.96	µg/L	411.96	ppb	16:58:35
1	Pb 220.353†	156.6	79.1	15.477	µg/L	15.477	ppb	16:58:35
1	S 181.975 Axial†	35.4	19.5	80.955	µg/L	80.955	ppb	16:58:35
1	Sb 206.836†	57.1	39.4	-6.4292	µg/L	-6.4292	ppb	16:58:35
1	Se 196.026†	-157.5	-190.2	417.62	µg/L	417.62	ppb	16:58:35
1	SiO2†	1118.3	-178.0	-35.141	µg/L	-35.141	ppb	16:58:35
1	Si 251.611†	-300.1	-636.3	-48.374	µg/L	-48.374	ppb	16:58:35
1	Sn 189.927†	-47.4	-51.8	-16.141	µg/L	-16.141	ppb	16:58:35
1	Ti 334.940†	15981.4	17168.1	7.6569	µg/L	7.6569	ppb	16:58:15
1	Tl 190.801†	-58.7	-41.3	21.254	µg/L	21.254	ppb	16:58:35
1	U 409.014†	152808.3	165905.7	13691	µg/L	13691	ppb	16:58:15
1	V 292.402†	-7264.4	-7838.6	-8.4612	µg/L	-8.4612	ppb	16:58:15
1	Zn 213.857†	2986.9	2707.0	14.661	µg/L	14.661	ppb	16:58:35
2	Sc RADIAL	54627.5	54627.5	96.7	%			16:57:51
2	Al 396.153Radial†	705003.9	729106.1	507210	µg/L	507210	ppb	16:57:46
2	Ca 317.933Radial†	548288.5	566827.4	484170	µg/L	484170	ppb	16:57:46
2	Fe 238.204 Radial†	56104.2	58006.2	457490	µg/L	457490	ppb	16:57:51
2	K 766.490 Radial†	75.8	-86.6	-56.548	µg/L	-56.548	ppb	16:57:51
2	Mg 279.077 IEC†	52084.5	53852.8	480900	µg/L	480900	ppb	16:57:51
2	Na 589.592 Radial†	1549659.8	1602182.6	492100	µg/L	492100	ppb	16:57:46
2	Sr 421.552†	580.4	571.4	5.2714	µg/L	5.2714	ppb	16:57:51
2	Sc 361.383	1809663.3	1809663.3	92.183	%			16:58:42
2	Y 371.029	1230302.7	1230302.7	90.948	%			16:58:42
2	Ag 328.068†	-5024.4	-5048.9	-9.0852	µg/L	-9.0852	ppb	16:58:42
2	As 188.979†	-32.4	-34.7	-60.833	µg/L	-60.833	ppb	16:59:03
2	B 249.677†	1435.1	1172.6	-190.92	µg/L	-190.92	ppb	16:58:42
2	Ba 233.527†	598.4	666.2	15.855	µg/L	15.855	ppb	16:59:03
2	Be 313.107†	-11290.0	-9391.7	-5.5890	µg/L	-5.5890	ppb	16:58:42
2	Cd 226.502†	1204.3	1448.1	-15.591	µg/L	-15.591	ppb	16:58:42
2	Co 228.616†	198.7	213.6	9.5711	µg/L	9.5711	ppb	16:59:03
2	Cr 267.716†	78.1	135.1	2.6649	µg/L	2.6649	ppb	16:59:03
2	Cu 324.752†	-9599.6	-12957.4	-20.988	µg/L	-20.988	ppb	16:58:42
2	Mn 257.610†	-6316.5	-6596.2	20.934	µg/L	20.934	ppb	16:58:42
2	Mo 202.031†	-200.5	-212.1	-3.3875	µg/L	-3.3875	ppb	16:59:03
2	Ni 231.604†	53.6	-254.2	-6.7348	µg/L	-6.7348	ppb	16:59:03
2	P 214.914†	301.0	311.1	399.21	µg/L	399.21	ppb	16:59:03
2	Pb 220.353†	148.3	69.9	13.245	µg/L	13.245	ppb	16:59:03

2	S 181.975 Axial†	35.1	19.1	79.229 µg/L	79.229 ppb	16:59:03
2	Sb 206.836†	43.8	25.1	-19.483 µg/L	-19.483 ppb	16:59:03
2	Se 196.026†	-176.5	-210.8	391.20 µg/L	391.20 ppb	16:59:03
2	SiO2†	1119.0	-177.7	-35.076 µg/L	-35.076 ppb	16:59:03
2	Si 251.611†	-359.8	-700.9	-53.283 µg/L	-53.283 ppb	16:59:03
2	Sn 189.927†	-47.7	-52.1	-16.412 µg/L	-16.412 ppb	16:59:03
2	Ti 334.940†	16565.0	17794.7	9.0824 µg/L	9.0824 ppb	16:58:42
2	Tl 190.801†	-50.4	-32.3	33.191 µg/L	33.191 ppb	16:59:03
2	U 409.014†	152895.7	165938.1	13694 µg/L	13694 ppb	16:58:42
2	V 292.402†	-7309.1	-7884.1	-8.8154 µg/L	-8.8154 ppb	16:58:42
2	Zn 213.857†	2986.8	2705.7	14.646 µg/L	14.646 ppb	16:59:03
3	Sc RADIAL	54733.6	54733.6	96.9 %		16:58:03
3	Al 396.153Radial†	704918.4	727604.3	506160 µg/L	506160 ppb	16:57:58
3	Ca 317.933Radial†	547195.5	564600.0	482270 µg/L	482270 ppb	16:57:58
3	Fe 238.204 Radial†	56342.5	58139.8	458540 µg/L	458540 ppb	16:58:03
3	K 766.490 Radial†	150.9	-9.2	-6.0382 µg/L	-6.0382 ppb	16:58:03
3	Mg 279.077 IEC†	52432.2	54107.4	483180 µg/L	483180 ppb	16:58:03
3	Na 589.592 Radial†	1551864.9	1601351.6	491840 µg/L	491840 ppb	16:57:58
3	Sr 421.552†	544.2	532.9	4.9161 µg/L	4.9161 ppb	16:58:03
3	Sc 361.383	1803530.5	1803530.5	91.871 %		16:59:10
3	Y 371.029	1226225.3	1226225.3	90.646 %		16:59:10
3	Ag 328.068†	-4992.7	-5032.9	-8.8937 µg/L	-8.8937 ppb	16:59:10
3	As 188.979†	-17.9	-19.1	-32.607 µg/L	-32.607 ppb	16:59:30
3	B 249.677†	1429.0	1171.3	-191.53 µg/L	-191.53 ppb	16:59:10
3	Ba 233.527†	596.4	666.2	15.857 µg/L	15.857 ppb	16:59:30
3	Be 313.107†	-11247.7	-9387.3	-5.5855 µg/L	-5.5855 ppb	16:59:10
3	Cd 226.502†	1240.2	1491.6	-14.625 µg/L	-14.625 ppb	16:59:10
3	Co 228.616†	217.8	235.1	10.551 µg/L	10.551 ppb	16:59:30
3	Cr 267.716†	61.4	117.2	2.3057 µg/L	2.3057 ppb	16:59:30
3	Cu 324.752†	-9496.4	-12880.5	-20.340 µg/L	-20.340 ppb	16:59:10
3	Mn 257.610†	-6307.3	-6609.4	20.942 µg/L	20.942 ppb	16:59:10
3	Mo 202.031†	-204.7	-217.5	-3.8705 µg/L	-3.8705 ppb	16:59:30
3	Ni 231.604†	57.2	-250.1	-6.5186 µg/L	-6.5186 ppb	16:59:30
3	P 214.914†	280.7	290.2	356.64 µg/L	356.64 ppb	16:59:30
3	Pb 220.353†	147.7	69.8	13.118 µg/L	13.118 ppb	16:59:30
3	S 181.975 Axial†	25.1	8.4	34.818 µg/L	34.818 ppb	16:59:30
3	Sb 206.836†	38.6	19.5	-24.434 µg/L	-24.434 ppb	16:59:30
3	Se 196.026†	-161.9	-195.6	413.95 µg/L	413.95 ppb	16:59:30
3	SiO2†	1115.5	-177.4	-35.018 µg/L	-35.018 ppb	16:59:30
3	Si 251.611†	-321.2	-660.2	-50.191 µg/L	-50.191 ppb	16:59:30
3	Sn 189.927†	-41.2	-45.3	-13.350 µg/L	-13.350 ppb	16:59:30
3	Ti 334.940†	15494.0	16690.0	6.4283 µg/L	6.4283 ppb	16:59:10
3	Tl 190.801†	-51.2	-33.3	32.056 µg/L	32.056 ppb	16:59:30
3	U 409.014†	152493.7	166064.5	13704 µg/L	13704 ppb	16:59:10
3	V 292.402†	-7191.9	-7783.6	-7.7057 µg/L	-7.7057 ppb	16:59:10
3	Zn 213.857†	2972.0	2700.6	14.345 µg/L	14.345 ppb	16:59:30

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807392.0	92.067	%	0.1712				0.19%
Sc RADIAL	54703.2	96.8	%	0.12				0.12%
Y 371.029	1228601.0	90.822	%	0.1568				0.17%
Ag 328.068†	-5029.0	-8.9240	µg/L	0.14840	-8.9240	ppb	0.14840	1.66%
Al 396.153Radial†	728511.2	506790	µg/L	555.2	506790	ppb	555.2	0.11%
QC value within limits for Al 396.153Radial Recovery = 101.36%								
As 188.979†	-24.8	-42.948	µg/L	15.5521	-42.948	ppb	15.5521	36.21%
B 249.677†	1184.9	-190.51	µg/L	1.274	-190.51	ppb	1.274	0.67%
Ba 233.527†	666.8	15.870	µg/L	0.0245	15.870	ppb	0.0245	0.15%
Be 313.107†	-9375.2	-5.5787	µg/L	0.01486	-5.5787	ppb	0.01486	0.27%
Ca 317.933Radial†	566564.5	483950	µg/L	1577.8	483950	ppb	1577.8	0.33%
QC value within limits for Ca 317.933Radial Recovery = 96.79%								
Cd 226.502†	1465.0	-15.189	µg/L	0.5033	-15.189	ppb	0.5033	3.31%
Co 228.616†	225.1	10.094	µg/L	0.4933	10.094	ppb	0.4933	4.89%
Cr 267.716†	117.2	2.3065	µg/L	0.35801	2.3065	ppb	0.35801	15.52%
Cu 324.752†	-12939.7	-20.849	µg/L	0.4554	-20.849	ppb	0.4554	2.18%
Fe 238.204 Radial†	58027.9	457660	µg/L	810.7	457660	ppb	810.7	0.18%
QC value within limits for Fe 238.204 Radial Recovery = 91.53%								
K 766.490 Radial†	-47.2	-30.852	µg/L	25.2666	-30.852	ppb	25.2666	81.90%
Mg 279.077 IEC†	53965.5	481910	µg/L	1159.2	481910	ppb	1159.2	0.24%

QC value within limits for Mg 279.077 IEC Recovery = 96.38%

Mn 257.610†	-6543.3	21.082	µg/L	0.2497	21.082	ppb	0.2497	1.18%
Mo 202.031†	-223.1	-4.4592	µg/L	1.45813	-4.4592	ppb	1.45813	32.70%
Na 589.592 Radial†	1601426.4	491870	µg/L	221.6	491870	ppb	221.6	0.05%

QC value within limits for Na 589.592 Radial Recovery = 98.37%

Ni 231.604†	-254.7	-6.7610	µg/L	0.25647	-6.7610	ppb	0.25647	3.79%
P 214.914†	306.2	389.27	µg/L	28.970	389.27	ppb	28.970	7.44%
Pb 220.353†	72.9	13.947	µg/L	1.3271	13.947	ppb	1.3271	9.52%
S 181.975 Axial†	15.7	65.000	µg/L	26.1534	65.000	ppb	26.1534	40.24%
Sb 206.836†	28.0	-16.782	µg/L	9.3013	-16.782	ppb	9.3013	55.42%
Se 196.026†	-198.8	407.59	µg/L	14.310	407.59	ppb	14.310	3.51%
SiO2†	-177.7	-35.078	µg/L	0.0614	-35.078	ppb	0.0614	0.18%
Si 251.611†	-665.8	-50.616	µg/L	2.4820	-50.616	ppb	2.4820	4.90%
Sn 189.927†	-49.7	-15.301	µg/L	1.6952	-15.301	ppb	1.6952	11.08%
Sr 421.552†	563.7	5.2000	µg/L	0.25572	5.2000	ppb	0.25572	4.92%
Ti 334.940†	17217.6	7.7225	µg/L	1.32825	7.7225	ppb	1.32825	17.20%
Tl 190.801†	-35.6	28.834	µg/L	6.5890	28.834	ppb	6.5890	22.85%
U 409.014†	165969.4	13696	µg/L	7.0	13696	ppb	7.0	0.05%

QC value within limits for U 409.014 Recovery = 91.31%

V 292.402†	-7835.4	-8.3274	µg/L	0.56678	-8.3274	ppb	0.56678	6.81%
Zn 213.857†	2704.4	14.551	µg/L	0.1785	14.551	ppb	0.1785	1.23%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/19/2010 16:59:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56692.7	56692.7	100	%			17:00:22
1	Al 396.153Radial†	410.3	401.6	67.150	µg/L	67.150	ppb	17:00:22
1	Ca 317.933Radial†	313.1	100.7	86.030	µg/L	86.030	ppb	17:00:42
1	Fe 238.204 Radial†	6.3	-10.3	125.34	µg/L	125.34	ppb	17:00:42
1	K 766.490 Radial†	452848.2	451108.7	294630	µg/L	294630	ppb	17:00:16
1	Mg 279.077 IEC†	-3.5	-16.3	27.924	µg/L	27.924	ppb	17:00:42
1	Na 589.592 Radial†	1202.8	726.5	223.13	µg/L	223.13	ppb	17:00:22
1	Sr 421.552†	1055792.8	1052093.2	9705.7	µg/L	9705.7	ppb	17:00:16
1	Sc 361.383	1927950.9	1927950.9	98.209	%			17:02:14
1	Y 371.029	1317313.5	1317313.5	97.380	%			17:02:14
1	Ag 328.068†	-7740.8	-7480.4	13.019	µg/L	13.019	ppb	17:02:19
1	As 188.979†	5373.1	5471.6	9786.3	µg/L	9786.3	ppb	17:02:19
1	B 249.677†	122177.3	124021.9	5094.8	µg/L	5094.8	ppb	17:02:14
1	Ba 233.527†	611336.6	622505.5	14963	µg/L	14963	ppb	17:02:14
1	Be 313.107†	4884950.3	4976915.5	2949.9	µg/L	2949.9	ppb	17:02:03
1	Cd 226.502†	386911.9	394111.5	9839.4	µg/L	9839.4	ppb	17:02:14
1	Co 228.616†	210861.9	214706.5	9711.7	µg/L	9711.7	ppb	17:02:14
1	Cr 267.716†	1221432.5	1243763.8	24988	µg/L	24988	ppb	17:02:14
1	Cu 324.752†	3142243.6	3197019.5	20869	µg/L	20869	ppb	17:02:14
1	Mn 257.610†	3084343.0	3140862.5	9835.7	µg/L	9835.7	ppb	17:02:14
1	Mo 202.031†	103586.6	105481.5	10329	µg/L	10329	ppb	17:02:14
1	Ni 231.604†	195607.8	198863.7	9901.7	µg/L	9901.7	ppb	17:02:14
1	P 214.914†	7737.6	7863.4	13522	µg/L	13522	ppb	17:02:19
1	Pb 220.353†	104065.3	105872.7	25731	µg/L	25731	ppb	17:02:14
1	S 181.975 Axial†	12812.3	13027.1	54023	µg/L	54023	ppb	17:02:19
1	Sb 206.836†	11529.6	11717.4	10643	µg/L	10643	ppb	17:02:19
1	Se 196.026†	6981.3	7089.4	9956.3	µg/L	9956.3	ppb	17:02:19
1	SiO2†	509789.5	517697.3	102190	µg/L	102190	ppb	17:02:14
1	Si 251.611†	616246.3	627177.0	47679	µg/L	47679	ppb	17:02:14
1	Sn 189.927†	24747.6	25198.7	10627	µg/L	10627	ppb	17:02:19
1	Ti 334.940†	4520614.2	4602902.5	10183	µg/L	10183	ppb	17:02:03
1	Tl 190.801†	7250.0	7404.6	9714.3	µg/L	9714.3	ppb	17:02:19
1	U 409.014†	894.0	987.4	82.040	µg/L	82.040	ppb	17:02:14
1	V 292.402†	1045223.3	1064334.6	10510	µg/L	10510	ppb	17:02:14
1	Zn 213.857†	624777.0	635639.6	14836	µg/L	14836	ppb	17:02:14
2	Sc RADIAL	56901.4	56901.4	101	%			17:00:54
2	Al 396.153Radial†	358.9	349.0	41.120	µg/L	41.120	ppb	17:00:54
2	Ca 317.933Radial†	305.5	92.1	78.637	µg/L	78.637	ppb	17:01:14
2	Fe 238.204 Radial†	4.4	-12.2	99.290	µg/L	99.290	ppb	17:01:14
2	K 766.490 Radial†	456232.0	452813.9	295740	µg/L	295740	ppb	17:00:48
2	Mg 279.077 IEC†	1.4	-11.4	63.333	µg/L	63.333	ppb	17:01:14
2	Na 589.592 Radial†	1121.5	641.3	196.97	µg/L	196.97	ppb	17:00:54
2	Sr 421.552†	1064137.7	1056521.3	9746.6	µg/L	9746.6	ppb	17:00:48
2	Sc 361.383	1930719.4	1930719.4	98.350	%			17:02:38
2	Y 371.029	1320362.0	1320362.0	97.605	%			17:02:38
2	Ag 328.068†	-7077.0	-6794.2	14.570	µg/L	14.570	ppb	17:02:44
2	As 188.979†	5081.0	5166.8	9240.9	µg/L	9240.9	ppb	17:02:44
2	B 249.677†	118618.7	120225.2	4937.5	µg/L	4937.5	ppb	17:02:38
2	Ba 233.527†	584914.6	594747.4	14296	µg/L	14296	ppb	17:02:38
2	Be 313.107†	4840646.5	4924735.5	2919.0	µg/L	2919.0	ppb	17:02:28
2	Cd 226.502†	369934.9	376284.7	9394.3	µg/L	9394.3	ppb	17:02:38
2	Co 228.616†	200219.4	203577.5	9207.4	µg/L	9207.4	ppb	17:02:38
2	Cr 267.716†	1146054.0	1165336.9	23412	µg/L	23412	ppb	17:02:38
2	Cu 324.752†	2987260.6	3034847.6	19810	µg/L	19810	ppb	17:02:38
2	Mn 257.610†	2933156.9	2982635.7	9340.2	µg/L	9340.2	ppb	17:02:38
2	Mo 202.031†	98580.4	100240.0	9816.1	µg/L	9816.1	ppb	17:02:38
2	Ni 231.604†	185684.1	188487.9	9385.1	µg/L	9385.1	ppb	17:02:38
2	P 214.914†	7168.5	7273.5	12452	µg/L	12452	ppb	17:02:44
2	Pb 220.353†	100296.4	101888.6	24763	µg/L	24763	ppb	17:02:38

2	S 181.975 Axial†	12172.5	12357.8	51247	µg/L	51247	ppb	17:02:44
2	Sb 206.836†	10777.5	10935.8	9934.7	µg/L	9934.7	ppb	17:02:44
2	Se 196.026†	6594.7	6686.0	9389.7	µg/L	9389.7	ppb	17:02:44
2	SiO2†	493318.0	500205.0	98734	µg/L	98734	ppb	17:02:38
2	Si 251.611†	596653.2	606355.3	46096	µg/L	46096	ppb	17:02:38
2	Sn 189.927†	22590.4	22969.2	9686.4	µg/L	9686.4	ppb	17:02:44
2	Ti 334.940†	4476920.0	4551874.4	10070	µg/L	10070	ppb	17:02:28
2	Tl 190.801†	7064.0	7204.9	9453.5	µg/L	9453.5	ppb	17:02:44
2	U 409.014†	804.4	895.0	74.370	µg/L	74.370	ppb	17:02:38
2	V 292.402†	992711.5	1009415.4	9966.7	µg/L	9966.7	ppb	17:02:38
2	Zn 213.857†	595571.0	605031.1	14122	µg/L	14122	ppb	17:02:38
3	Sc RADIAL	56734.5	56734.5	100	%			17:01:26
3	Al 396.153Radial†	382.8	373.8	92.098	µg/L	92.098	ppb	17:01:26
3	Ca 317.933Radial†	337.7	125.0	106.77	µg/L	106.77	ppb	17:01:46
3	Fe 238.204 Radial†	8.1	-8.5	96.137	µg/L	96.137	ppb	17:01:46
3	K 766.490 Radial†	455344.2	453262.2	296030	µg/L	296030	ppb	17:01:20
3	Mg 279.077 IEC†	6.4	-6.4	80.021	µg/L	80.021	ppb	17:01:46
3	Na 589.592 Radial†	1058.9	582.2	178.83	µg/L	178.83	ppb	17:01:26
3	Sr 421.552†	1062613.5	1058110.9	9761.2	µg/L	9761.2	ppb	17:01:20
3	Sc 361.383	1951531.6	1951531.6	99.410	%			17:03:03
3	Y 371.029	1334759.8	1334759.8	98.670	%			17:03:03
3	Ag 328.068†	-5952.6	-5586.4	12.490	µg/L	12.490	ppb	17:03:09
3	As 188.979†	4352.3	4378.6	7831.5	µg/L	7831.5	ppb	17:03:09
3	B 249.677†	103961.3	104194.4	4277.3	µg/L	4277.3	ppb	17:03:03
3	Ba 233.527†	498513.8	501491.0	12054	µg/L	12054	ppb	17:03:03
3	Be 313.107†	4199873.9	4227668.5	2505.9	µg/L	2505.9	ppb	17:02:53
3	Cd 226.502†	314684.6	316694.9	7906.5	µg/L	7906.5	ppb	17:03:03
3	Co 228.616†	168522.5	169521.2	7666.6	µg/L	7666.6	ppb	17:03:03
3	Cr 267.716†	945201.2	950864.3	19103	µg/L	19103	ppb	17:03:03
3	Cu 324.752†	2517755.9	2530162.7	16516	µg/L	16516	ppb	17:03:03
3	Mn 257.610†	2467371.4	2482278.7	7773.3	µg/L	7773.3	ppb	17:03:03
3	Mo 202.031†	82974.3	83472.3	8174.1	µg/L	8174.1	ppb	17:03:03
3	Ni 231.604†	156258.3	156873.9	7811.0	µg/L	7811.0	ppb	17:03:03
3	P 214.914†	6005.8	6026.1	10305	µg/L	10305	ppb	17:03:09
3	Pb 220.353†	86464.2	86886.7	21117	µg/L	21117	ppb	17:03:03
3	S 181.975 Axial†	10331.9	10374.4	43022	µg/L	43022	ppb	17:03:09
3	Sb 206.836†	9128.5	9160.2	8326.6	µg/L	8326.6	ppb	17:03:09
3	Se 196.026†	5645.3	5659.5	7948.1	µg/L	7948.1	ppb	17:03:09
3	SiO2†	429530.2	430689.2	85012	µg/L	85012	ppb	17:03:03
3	Si 251.611†	519223.8	521996.3	39683	µg/L	39683	ppb	17:03:03
3	Sn 189.927†	18770.5	18881.6	7962.6	µg/L	7962.6	ppb	17:03:09
3	Ti 334.940†	3882788.8	3905669.8	8640.2	µg/L	8640.2	ppb	17:02:53
3	Tl 190.801†	6222.6	6282.0	8241.0	µg/L	8241.0	ppb	17:03:09
3	U 409.014†	704.1	785.3	65.252	µg/L	65.252	ppb	17:03:03
3	V 292.402†	832909.4	837900.0	8272.7	µg/L	8272.7	ppb	17:03:03
3	Zn 213.857†	505033.0	507497.5	11846	µg/L	11846	ppb	17:03:03

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1936734.0	98.656	%	0.6566				0.67%
Sc RADIAL	56776.2	100	%	0.2				0.19%
Y 371.029	1324145.1	97.885	%	0.6888				0.70%
Ag 328.068†	-6620.3	13.360	µg/L	1.0808	13.360	ppb	1.0808	8.09%
Al 396.153Radial†	374.8	66.790	µg/L	25.4910	66.790	ppb	25.4910	38.17%
As 188.979†	5005.6	8952.9	µg/L	1008.74	8952.9	ppb	1008.74	11.27%
QC value less than the lower limit for As 188.979 Recovery = 89.53%								
B 249.677†	116147.2	4769.9	µg/L	433.79	4769.9	ppb	433.79	9.09%
QC value within limits for B 249.677 Recovery = 95.40%								
Ba 233.527†	572914.6	13771	µg/L	1524.0	13771	ppb	1524.0	11.07%
QC value within limits for Ba 233.527 Recovery = 91.81%								
Be 313.107†	4709773.2	2791.6	µg/L	247.95	2791.6	ppb	247.95	8.88%
QC value within limits for Be 313.107 Recovery = 93.05%								
Ca 317.933Radial†	105.9	90.480	µg/L	14.5864	90.480	ppb	14.5864	16.12%
Cd 226.502†	362363.7	9046.7	µg/L	1012.25	9046.7	ppb	1012.25	11.19%
QC value within limits for Cd 226.502 Recovery = 90.47%								
Co 228.616†	195935.1	8861.9	µg/L	1065.42	8861.9	ppb	1065.42	12.02%
QC value less than the lower limit for Co 228.616 Recovery = 88.62%								
Cr 267.716†	1119988.3	22501	µg/L	3046.1	22501	ppb	3046.1	13.54%
QC value within limits for Cr 267.716 Recovery = 90.00%								

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Cu 324.752†          2920676.6       19065 µg/L        2270.1       19065 ppb        2270.1  11.91%
   QC value within limits for Cu 324.752  Recovery = 95.32%
Fe 238.204 Radial†       -10.3      106.92 µg/L        16.029      106.92 ppb        16.029  14.99%
K 766.490 Radial†     452395.0      295470 µg/L         742.1      295470 ppb         742.1   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 98.49%
Mg 279.077 IEC†          -11.4      57.093 µg/L       26.6031      57.093 ppb       26.6031  46.60%
Mn 257.610†          2868592.3      8983.1 µg/L       1076.57      8983.1 ppb       1076.57  11.98%
   QC value less than the lower limit for Mn 257.610  Recovery = 89.83%
Mo 202.031†            96398.0      9439.9 µg/L       1125.82      9439.9 ppb       1125.82  11.93%
   QC value within limits for Mo 202.031  Recovery = 94.40%
Na 589.592 Radial†       650.0      199.64 µg/L        22.270      199.64 ppb        22.270  11.15%
Ni 231.604†           181408.5      9032.6 µg/L       1089.03      9032.6 ppb       1089.03  12.06%
   QC value within limits for Ni 231.604  Recovery = 90.33%
P 214.914†              7054.3      12093 µg/L        1638.4       12093 ppb        1638.4  13.55%
   QC value less than the lower limit for P 214.914  Recovery = 80.62%
Pb 220.353†            98216.0      23870 µg/L        2433.1       23870 ppb        2433.1  10.19%
   QC value within limits for Pb 220.353  Recovery = 95.48%
S 181.975 Axial†       11919.8      49431 µg/L        5721.0       49431 ppb        5721.0  11.57%
   QC value within limits for S 181.975 Axial  Recovery = 98.86%
Sb 206.836†            10604.5      9634.7 µg/L       1186.86      9634.7 ppb       1186.86  12.32%
   QC value within limits for Sb 206.836  Recovery = 96.35%
Se 196.026†             6478.3      9098.0 µg/L       1035.37      9098.0 ppb       1035.37  11.38%
   QC value within limits for Se 196.026  Recovery = 90.98%
SiO2†                 482863.9      95311 µg/L        9084.4       95311 ppb        9084.4   9.53%
   QC value less than the lower limit for SiO2  Recovery = 89.08%
Si 251.611†           585176.2      44486 µg/L        4234.2       44486 ppb        4234.2   9.52%
   QC value less than the lower limit for Si 251.611  Recovery = 88.97%
Sn 189.927†            22349.8      9425.3 µg/L       1351.08      9425.3 ppb       1351.08  14.33%
   QC value within limits for Sn 189.927  Recovery = 94.25%
Sr 421.552†          1055575.2      9737.8 µg/L         28.77      9737.8 ppb         28.77   0.30%
   QC value within limits for Sr 421.552  Recovery = 97.38%
Ti 334.940†          4353482.3      9630.9 µg/L        859.79      9630.9 ppb        859.79   8.93%
   QC value within limits for Ti 334.940  Recovery = 96.31%
Tl 190.801†             6963.8      9136.3 µg/L        786.19      9136.3 ppb        786.19   8.61%
   QC value within limits for Tl 190.801  Recovery = 91.36%
U 409.014†               889.2      73.887 µg/L        8.4048      73.887 ppb        8.4048  11.38%
V 292.402†            970550.0      9583.0 µg/L       1166.76      9583.0 ppb       1166.76  12.18%
   QC value within limits for V 292.402  Recovery = 95.83%
Zn 213.857†           582722.8      13601 µg/L        1561.6       13601 ppb        1561.6  11.48%
   QC value within limits for Zn 213.857  Recovery = 90.67%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:03:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55888.6	55888.6	98.9	%			17:03:56
1	Al 396.153Radial†	7603.9	7679.1	5330.8	µg/L	5330.8	ppb	17:03:56
1	Ca 317.933Radial†	6396.5	6254.7	5342.6	µg/L	5342.6	ppb	17:04:16
1	Fe 238.204 Radial†	693.3	684.2	5407.8	µg/L	5407.8	ppb	17:04:16
1	K 766.490 Radial†	8387.1	8313.2	5429.5	µg/L	5429.5	ppb	17:03:56
1	Mg 279.077 IEC†	619.4	613.3	5485.4	µg/L	5485.4	ppb	17:04:16
1	Na 589.592 Radial†	35135.8	35045.3	10764	µg/L	10764	ppb	17:03:56
1	Sr 421.552†	55695.8	56272.0	519.12	µg/L	519.12	ppb	17:03:56
1	Sc 361.383	1985726.3	1985726.3	101.15	%			17:05:20
1	Y 371.029	1365771.7	1365771.7	100.96	%			17:05:20
1	Ag 328.068†	70288.8	69890.2	521.53	µg/L	521.53	ppb	17:05:25
1	As 188.979†	301.3	298.4	533.72	µg/L	533.72	ppb	17:05:46
1	B 249.677†	13549.7	13011.4	528.34	µg/L	528.34	ppb	17:05:25
1	Ba 233.527†	22064.2	21830.1	525.03	µg/L	525.03	ppb	17:05:25
1	Be 313.107†	895757.0	888415.0	527.08	µg/L	527.08	ppb	17:05:20
1	Cd 226.502†	21255.4	21155.1	527.55	µg/L	527.55	ppb	17:05:25
1	Co 228.616†	11817.8	11681.3	528.41	µg/L	528.41	ppb	17:05:25
1	Cr 267.716†	26786.8	26532.2	533.24	µg/L	533.24	ppb	17:05:25
1	Cu 324.752†	84423.2	80918.4	528.94	µg/L	528.94	ppb	17:05:25
1	Mn 257.610†	172694.5	170984.5	535.94	µg/L	535.94	ppb	17:05:20
1	Mo 202.031†	5634.1	5575.3	546.17	µg/L	546.17	ppb	17:05:46
1	Ni 231.604†	11061.6	10623.3	529.01	µg/L	529.01	ppb	17:05:25
1	P 214.914†	1393.6	1362.4	2646.9	µg/L	2646.9	ppb	17:05:46
1	Pb 220.353†	2366.1	2248.2	546.74	µg/L	546.74	ppb	17:05:46
1	S 181.975 Axial†	286.4	264.2	1095.6	µg/L	1095.6	ppb	17:05:46
1	Sb 206.836†	624.5	594.8	548.51	µg/L	548.51	ppb	17:05:46
1	Se 196.026†	403.3	379.4	541.16	µg/L	541.16	ppb	17:05:46
1	SiO2†	30463.6	28725.2	5670.0	µg/L	5670.0	ppb	17:05:25
1	Si 251.611†	35537.3	34822.1	2647.2	µg/L	2647.2	ppb	17:05:25
1	Sn 189.927†	1316.6	1301.2	548.79	µg/L	548.79	ppb	17:05:46
1	Ti 334.940†	242343.4	239409.4	529.28	µg/L	529.28	ppb	17:05:20
1	Tl 190.801†	396.9	414.8	545.11	µg/L	545.11	ppb	17:05:46
1	U 409.014†	6392.8	6397.1	530.42	µg/L	530.42	ppb	17:05:25
1	V 292.402†	54586.5	54009.9	532.97	µg/L	532.97	ppb	17:05:25
1	Zn 213.857†	23680.6	22876.6	532.96	µg/L	532.96	ppb	17:05:25
2	Sc RADIAL	56411.2	56411.2	99.9	%			17:04:22
2	Al 396.153Radial†	7635.5	7639.5	5303.6	µg/L	5303.6	ppb	17:04:22
2	Ca 317.933Radial†	6387.4	6185.7	5283.7	µg/L	5283.7	ppb	17:04:42
2	Fe 238.204 Radial†	694.2	678.6	5363.5	µg/L	5363.5	ppb	17:04:42
2	K 766.490 Radial†	8367.7	8215.3	5365.5	µg/L	5365.5	ppb	17:04:22
2	Mg 279.077 IEC†	620.5	608.6	5443.2	µg/L	5443.2	ppb	17:04:42
2	Na 589.592 Radial†	35309.3	34889.9	10716	µg/L	10716	ppb	17:04:22
2	Sr 421.552†	56012.6	56067.6	517.23	µg/L	517.23	ppb	17:04:22
2	Sc 361.383	1973301.2	1973301.2	100.52	%			17:05:53
2	Y 371.029	1356327.8	1356327.8	100.26	%			17:05:53
2	Ag 328.068†	69539.4	69582.3	519.23	µg/L	519.23	ppb	17:05:58
2	As 188.979†	297.6	296.5	530.36	µg/L	530.36	ppb	17:06:19
2	B 249.677†	13399.5	12946.2	525.71	µg/L	525.71	ppb	17:05:58
2	Ba 233.527†	21880.7	21784.8	523.94	µg/L	523.94	ppb	17:05:58
2	Be 313.107†	883505.0	881802.2	523.15	µg/L	523.15	ppb	17:05:53
2	Cd 226.502†	20975.5	21009.0	523.90	µg/L	523.90	ppb	17:05:58
2	Co 228.616†	11661.3	11599.2	524.68	µg/L	524.68	ppb	17:05:58
2	Cr 267.716†	26502.8	26416.4	530.91	µg/L	530.91	ppb	17:05:58
2	Cu 324.752†	83587.4	80612.4	526.94	µg/L	526.94	ppb	17:05:58
2	Mn 257.610†	170657.8	170033.3	532.96	µg/L	532.96	ppb	17:05:53
2	Mo 202.031†	5420.5	5397.9	528.80	µg/L	528.80	ppb	17:06:19
2	Ni 231.604†	10882.8	10514.3	523.58	µg/L	523.58	ppb	17:05:58
2	P 214.914†	1342.7	1320.4	2563.7	µg/L	2563.7	ppb	17:06:19
2	Pb 220.353†	2290.9	2188.1	532.08	µg/L	532.08	ppb	17:06:19

2	S 181.975 Axial†	275.7	255.3	1058.7 µg/L	1058.7 ppb	17:06:19
2	Sb 206.836†	598.1	572.5	527.76 µg/L	527.76 ppb	17:06:19
2	Se 196.026†	397.1	375.7	535.95 µg/L	535.95 ppb	17:06:19
2	SiO2†	30055.7	28509.0	5627.3 µg/L	5627.3 ppb	17:05:58
2	Si 251.611†	35203.5	34711.2	2638.8 µg/L	2638.8 ppb	17:05:58
2	Sn 189.927†	1262.7	1255.8	529.63 µg/L	529.63 ppb	17:06:19
2	Ti 334.940†	239137.9	237729.0	525.56 µg/L	525.56 ppb	17:05:53
2	Tl 190.801†	378.8	399.3	524.92 µg/L	524.92 ppb	17:06:19
2	U 409.014†	6362.6	6406.8	531.24 µg/L	531.24 ppb	17:05:58
2	V 292.402†	53891.1	53657.8	529.39 µg/L	529.39 ppb	17:05:58
2	Zn 213.857†	23377.3	22722.3	529.37 µg/L	529.37 ppb	17:05:58
3	Sc RADIAL	56975.5	56975.5	101 %		17:04:48
3	Al 396.153Radial†	7635.5	7563.8	5253.0 µg/L	5253.0 ppb	17:04:48
3	Ca 317.933Radial†	6375.4	6110.4	5219.4 µg/L	5219.4 ppb	17:05:08
3	Fe 238.204 Radial†	692.0	669.6	5290.9 µg/L	5290.9 ppb	17:05:08
3	K 766.490 Radial†	8336.4	8101.2	5291.0 µg/L	5291.0 ppb	17:04:48
3	Mg 279.077 IEC†	615.1	597.1	5339.2 µg/L	5339.2 ppb	17:05:08
3	Na 589.592 Radial†	35286.2	34516.8	10602 µg/L	10602 ppb	17:04:48
3	Sr 421.552†	56155.5	55653.7	513.41 µg/L	513.41 ppb	17:04:48
3	Sc 361.383	1965301.5	1965301.5	100.11 %		17:06:26
3	Y 371.029	1350670.0	1350670.0	99.846 %		17:06:26
3	Ag 328.068†	64381.3	64711.5	482.70 µg/L	482.70 ppb	17:06:32
3	As 188.979†	245.8	246.0	440.05 µg/L	440.05 ppb	17:06:52
3	B 249.677†	12272.2	11874.4	481.93 µg/L	481.93 ppb	17:06:32
3	Ba 233.527†	19548.8	19544.2	470.02 µg/L	470.02 ppb	17:06:32
3	Be 313.107†	784667.9	786652.6	466.70 µg/L	466.70 ppb	17:06:26
3	Cd 226.502†	18615.7	18736.7	467.18 µg/L	467.18 ppb	17:06:32
3	Co 228.616†	10218.5	10205.2	461.59 µg/L	461.59 ppb	17:06:32
3	Cr 267.716†	22418.3	22443.7	451.08 µg/L	451.08 ppb	17:06:32
3	Cu 324.752†	73939.9	71314.0	466.24 µg/L	466.24 ppb	17:06:32
3	Mn 257.610†	152452.7	152539.5	478.17 µg/L	478.17 ppb	17:06:26
3	Mo 202.031†	4381.2	4381.7	429.29 µg/L	429.29 ppb	17:06:52
3	Ni 231.604†	9646.8	9323.7	464.30 µg/L	464.30 ppb	17:06:32
3	P 214.914†	1099.4	1082.8	2098.1 µg/L	2098.1 ppb	17:06:52
3	Pb 220.353†	1951.4	1858.2	451.78 µg/L	451.78 ppb	17:06:52
3	S 181.975 Axial†	236.4	217.2	900.67 µg/L	900.67 ppb	17:06:52
3	Sb 206.836†	506.2	483.2	445.02 µg/L	445.02 ppb	17:06:52
3	Se 196.026†	341.1	321.4	459.63 µg/L	459.63 ppb	17:06:52
3	SiO2†	27392.4	25970.5	5126.2 µg/L	5126.2 ppb	17:06:32
3	Si 251.611†	31876.5	31530.5	2397.0 µg/L	2397.0 ppb	17:06:32
3	Sn 189.927†	1001.9	1000.4	421.93 µg/L	421.93 ppb	17:06:52
3	Ti 334.940†	211018.2	210609.0	465.58 µg/L	465.58 ppb	17:06:26
3	Tl 190.801†	333.8	355.8	467.83 µg/L	467.83 ppb	17:06:52
3	U 409.014†	5451.1	5522.1	457.75 µg/L	457.75 ppb	17:06:32
3	V 292.402†	46793.0	46785.8	461.39 µg/L	461.39 ppb	17:06:32
3	Zn 213.857†	20591.5	20034.3	466.68 µg/L	466.68 ppb	17:06:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1974776.3	100.59	%	0.524				0.52%
Sc RADIAL	56425.1	99.9	%	0.96				0.96%
Y 371.029	1357589.8	100.36	%	0.564				0.56%
Ag 328.068†	68061.3	507.82	µg/L	21.786	507.82	ppb	21.786	4.29%
QC value within limits for Ag 328.068 Recovery = 101.56%								
Al 396.153Radial†	7627.5	5295.8	µg/L	39.51	5295.8	ppb	39.51	0.75%
QC value within limits for Al 396.153Radial Recovery = 105.92%								
As 188.979†	280.3	501.38	µg/L	53.136	501.38	ppb	53.136	10.60%
QC value within limits for As 188.979 Recovery = 100.28%								
B 249.677†	12610.7	512.00	µg/L	26.067	512.00	ppb	26.067	5.09%
QC value within limits for B 249.677 Recovery = 102.40%								
Ba 233.527†	21053.0	506.33	µg/L	31.447	506.33	ppb	31.447	6.21%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	852289.9	505.65	µg/L	33.780	505.65	ppb	33.780	6.68%
QC value within limits for Be 313.107 Recovery = 101.13%								
Ca 317.933Radial†	6183.6	5281.9	µg/L	61.64	5281.9	ppb	61.64	1.17%
QC value within limits for Ca 317.933Radial Recovery = 105.64%								
Cd 226.502†	20300.3	506.21	µg/L	33.851	506.21	ppb	33.851	6.69%
QC value within limits for Cd 226.502 Recovery = 101.24%								
Co 228.616†	11161.9	504.89	µg/L	37.550	504.89	ppb	37.550	7.44%

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   QC value within limits for Co 228.616  Recovery = 100.98%
Cr 267.716†            25130.8      505.07 µg/L        46.779      505.07 ppb        46.779   9.26%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†            77614.9      507.37 µg/L        35.640      507.37 ppb        35.640   7.02%
   QC value within limits for Cu 324.752  Recovery = 101.47%
Fe 238.204 Radial†       677.5      5354.0 µg/L         59.03      5354.0 ppb         59.03   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.08%
K 766.490 Radial†       8209.9      5362.0 µg/L         69.32      5362.0 ppb         69.32   1.29%
   QC value within limits for K 766.490 Radial  Recovery = 107.24%
Mg 279.077 IEC†          606.3      5422.6 µg/L         75.22      5422.6 ppb         75.22   1.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.45%
Mn 257.610†           164519.1      515.69 µg/L        32.527      515.69 ppb        32.527   6.31%
   QC value within limits for Mn 257.610  Recovery = 103.14%
Mo 202.031†            5118.3      501.42 µg/L        63.069      501.42 ppb        63.069  12.58%
   QC value within limits for Mo 202.031  Recovery = 100.28%
Na 589.592 Radial†     34817.3       10694 µg/L          83.4       10694 ppb          83.4   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 106.94%
Ni 231.604†            10153.8      505.63 µg/L        35.893      505.63 ppb        35.893   7.10%
   QC value within limits for Ni 231.604  Recovery = 101.13%
P 214.914†             1255.2      2436.2 µg/L        295.76      2436.2 ppb        295.76  12.14%
   QC value within limits for P 214.914  Recovery = 97.45%
Pb 220.353†            2098.2      510.20 µg/L        51.120      510.20 ppb        51.120  10.02%
   QC value within limits for Pb 220.353  Recovery = 102.04%
S 181.975 Axial†        245.6      1018.3 µg/L        103.55      1018.3 ppb        103.55  10.17%
   QC value within limits for S 181.975 Axial  Recovery = 101.83%
Sb 206.836†             550.2      507.10 µg/L        54.752      507.10 ppb        54.752  10.80%
   QC value within limits for Sb 206.836  Recovery = 101.42%
Se 196.026†             358.8      512.25 µg/L        45.639      512.25 ppb        45.639   8.91%
   QC value within limits for Se 196.026  Recovery = 102.45%
SiO2†                  27734.9      5474.5 µg/L        302.37      5474.5 ppb        302.37   5.52%
   QC value within limits for SiO2  Recovery = 102.38%
Si 251.611†            33688.0      2561.0 µg/L        142.10      2561.0 ppb        142.10   5.55%
   QC value within limits for Si 251.611  Recovery = 102.44%
Sn 189.927†            1185.8      500.11 µg/L        68.387      500.11 ppb        68.387  13.67%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†            55997.8      516.59 µg/L         2.906      516.59 ppb         2.906   0.56%
   QC value within limits for Sr 421.552  Recovery = 103.32%
Ti 334.940†           229249.1      506.81 µg/L        35.755      506.81 ppb        35.755   7.05%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†             390.0      512.62 µg/L        40.080      512.62 ppb        40.080   7.82%
   QC value within limits for Tl 190.801  Recovery = 102.52%
U 409.014†             6108.7      506.47 µg/L        42.195      506.47 ppb        42.195   8.33%
   QC value within limits for U 409.014  Recovery = 101.29%
V 292.402†             51484.5      507.91 µg/L        40.335      507.91 ppb        40.335   7.94%
   QC value within limits for V 292.402  Recovery = 101.58%
Zn 213.857†            21877.7      509.67 µg/L        37.277      509.67 ppb        37.277   7.31%
   QC value within limits for Zn 213.857  Recovery = 101.93%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:07:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55412.9	55412.9	98.1	%			17:07:34
1	Al 396.153Radial†	37.8	31.1	21.627	µg/L	21.627	ppb	17:07:34
1	Ca 317.933Radial†	224.1	17.2	14.719	µg/L	14.719	ppb	17:07:55
1	Fe 238.204 Radial†	17.2	1.0	7.9128	µg/L	7.9128	ppb	17:07:55
1	K 766.490 Radial†	263.9	104.0	67.945	µg/L	67.945	ppb	17:07:34
1	Mg 279.077 IEC†	16.1	3.6	31.922	µg/L	31.922	ppb	17:07:55
1	Na 589.592 Radial†	689.0	230.2	70.711	µg/L	70.711	ppb	17:07:34
1	Sr 421.552†	101.9	75.1	0.6926	µg/L	0.6926	ppb	17:07:34
1	Sc 361.383	1951828.9	1951828.9	99.425	%			17:08:57
1	Y 371.029	1347100.7	1347100.7	99.582	%			17:08:57
1	Ag 328.068†	-411.9	-12.6	-0.0884	µg/L	-0.0884	ppb	17:09:02
1	As 188.979†	1.0	1.5	2.6447	µg/L	2.6447	ppb	17:09:23
1	B 249.677†	547.2	166.2	6.7725	µg/L	6.7725	ppb	17:09:02
1	Ba 233.527†	13.0	30.1	0.7248	µg/L	0.7248	ppb	17:09:23
1	Be 313.107†	-2489.6	351.6	0.2085	µg/L	0.2085	ppb	17:09:02
1	Cd 226.502†	-106.1	35.0	0.8724	µg/L	0.8724	ppb	17:09:23
1	Co 228.616†	8.3	6.4	0.2907	µg/L	0.2907	ppb	17:09:23
1	Cr 267.716†	3.3	53.7	1.0792	µg/L	1.0792	ppb	17:09:02
1	Cu 324.752†	2832.8	305.4	1.9949	µg/L	1.9949	ppb	17:09:02
1	Mn 257.610†	-94.7	160.8	0.5033	µg/L	0.5033	ppb	17:09:23
1	Mo 202.031†	11.2	16.6	1.6267	µg/L	1.6267	ppb	17:09:23
1	Ni 231.604†	329.4	19.0	0.9450	µg/L	0.9450	ppb	17:09:23
1	P 214.914†	17.5	2.3	4.3252	µg/L	4.3252	ppb	17:09:23
1	Pb 220.353†	117.3	27.1	6.5756	µg/L	6.5756	ppb	17:09:23
1	S 181.975 Axial†	13.9	-5.0	-20.708	µg/L	-20.708	ppb	17:09:23
1	Sb 206.836†	24.4	2.0	1.8677	µg/L	1.8677	ppb	17:09:23
1	Se 196.026†	8.1	-11.2	-15.713	µg/L	-15.713	ppb	17:09:23
1	SiO2†	1498.4	115.5	22.804	µg/L	22.804	ppb	17:09:02
1	Si 251.611†	397.1	88.7	6.7465	µg/L	6.7465	ppb	17:09:23
1	Sn 189.927†	7.9	7.6	3.2082	µg/L	3.2082	ppb	17:09:23
1	Ti 334.940†	420.5	247.9	0.5462	µg/L	0.5462	ppb	17:09:02
1	Tl 190.801†	-26.0	-3.7	-4.8506	µg/L	-4.8506	ppb	17:09:23
1	U 409.014†	-2.4	74.7	6.2026	µg/L	6.2026	ppb	17:09:02
1	V 292.402†	29.6	74.5	0.7487	µg/L	0.7487	ppb	17:09:02
1	Zn 213.857†	624.2	93.4	2.1827	µg/L	2.1827	ppb	17:09:23
2	Sc RADIAL	55845.1	55845.1	98.8	%			17:08:00
2	Al 396.153Radial†	15.5	8.3	5.7389	µg/L	5.7389	ppb	17:08:00
2	Ca 317.933Radial†	229.7	21.1	18.050	µg/L	18.050	ppb	17:08:21
2	Fe 238.204 Radial†	18.3	1.9	15.065	µg/L	15.065	ppb	17:08:21
2	K 766.490 Radial†	268.0	106.2	69.336	µg/L	69.336	ppb	17:08:00
2	Mg 279.077 IEC†	18.8	6.2	55.616	µg/L	55.616	ppb	17:08:21
2	Na 589.592 Radial†	718.0	254.2	78.078	µg/L	78.078	ppb	17:08:00
2	Sr 421.552†	118.8	91.4	0.8433	µg/L	0.8433	ppb	17:08:00
2	Sc 361.383	1967750.3	1967750.3	100.24	%			17:09:29
2	Y 371.029	1358640.9	1358640.9	100.44	%			17:09:29
2	Ag 328.068†	-328.6	73.7	0.5515	µg/L	0.5515	ppb	17:09:34
2	As 188.979†	0.4	0.9	1.5587	µg/L	1.5587	ppb	17:09:55
2	B 249.677†	564.6	179.1	7.2933	µg/L	7.2933	ppb	17:09:34
2	Ba 233.527†	22.7	39.7	0.9547	µg/L	0.9547	ppb	17:09:55
2	Be 313.107†	-2501.6	360.0	0.2134	µg/L	0.2134	ppb	17:09:34
2	Cd 226.502†	-111.0	30.9	0.7694	µg/L	0.7694	ppb	17:09:55
2	Co 228.616†	5.7	3.7	0.1688	µg/L	0.1688	ppb	17:09:55
2	Cr 267.716†	-17.2	33.2	0.6680	µg/L	0.6680	ppb	17:09:34
2	Cu 324.752†	2799.6	249.3	1.6293	µg/L	1.6293	ppb	17:09:34
2	Mn 257.610†	-100.4	155.9	0.4879	µg/L	0.4879	ppb	17:09:55
2	Mo 202.031†	11.5	16.9	1.6521	µg/L	1.6521	ppb	17:09:55
2	Ni 231.604†	309.9	-3.2	-0.1576	µg/L	-0.1576	ppb	17:09:55
2	P 214.914†	22.6	7.2	14.217	µg/L	14.217	ppb	17:09:55
2	Pb 220.353†	112.5	21.3	5.1809	µg/L	5.1809	ppb	17:09:55

2	S 181.975 Axial†	17.8	-1.2	-5.0873	µg/L	-5.0873 ppb	17:09:55
2	Sb 206.836†	28.6	6.1	5.5939	µg/L	5.5939 ppb	17:09:55
2	Se 196.026†	12.5	-6.8	-9.5638	µg/L	-9.5638 ppb	17:09:55
2	SiO2†	1499.4	104.3	20.597	µg/L	20.597 ppb	17:09:34
2	Si 251.611†	402.2	90.6	6.8889	µg/L	6.8889 ppb	17:09:55
2	Sn 189.927†	9.5	9.2	3.8641	µg/L	3.8641 ppb	17:09:55
2	Ti 334.940†	469.3	293.2	0.6444	µg/L	0.6444 ppb	17:09:34
2	Tl 190.801†	-20.6	1.9	2.4344	µg/L	2.4344 ppb	17:09:55
2	U 409.014†	-26.6	50.5	4.1927	µg/L	4.1927 ppb	17:09:34
2	V 292.402†	21.3	66.0	0.6641	µg/L	0.6641 ppb	17:09:34
2	Zn 213.857†	610.2	74.4	1.7390	µg/L	1.7390 ppb	17:09:55
3	Sc RADIAL	55020.8	55020.8	97.4	%		17:08:26
3	Al 396.153Radial†	25.2	18.5	12.855	µg/L	12.855 ppb	17:08:26
3	Ca 317.933Radial†	219.3	13.9	11.843	µg/L	11.843 ppb	17:08:46
3	Fe 238.204 Radial†	16.8	0.7	5.5902	µg/L	5.5902 ppb	17:08:46
3	K 766.490 Radial†	318.2	161.7	105.61	µg/L	105.61 ppb	17:08:26
3	Mg 279.077 IEC†	14.2	1.7	15.617	µg/L	15.617 ppb	17:08:46
3	Na 589.592 Radial†	674.2	220.1	67.603	µg/L	67.603 ppb	17:08:26
3	Sr 421.552†	108.4	82.5	0.7609	µg/L	0.7609 ppb	17:08:26
3	Sc 361.383	1948909.4	1948909.4	99.276	%		17:10:01
3	Y 371.029	1346308.2	1346308.2	99.523	%		17:10:01
3	Ag 328.068†	-352.8	46.2	0.3442	µg/L	0.3442 ppb	17:10:07
3	As 188.979†	-1.2	-0.7	-1.3112	µg/L	-1.3112 ppb	17:10:27
3	B 249.677†	510.9	130.5	5.3165	µg/L	5.3165 ppb	17:10:07
3	Ba 233.527†	13.0	30.2	0.7245	µg/L	0.7245 ppb	17:10:27
3	Be 313.107†	-2546.8	290.3	0.1721	µg/L	0.1721 ppb	17:10:07
3	Cd 226.502†	-112.3	28.5	0.7115	µg/L	0.7115 ppb	17:10:27
3	Co 228.616†	15.8	14.0	0.6325	µg/L	0.6325 ppb	17:10:27
3	Cr 267.716†	5.2	55.6	1.1178	µg/L	1.1178 ppb	17:10:07
3	Cu 324.752†	2793.0	269.6	1.7608	µg/L	1.7608 ppb	17:10:07
3	Mn 257.610†	-128.7	126.3	0.3957	µg/L	0.3957 ppb	17:10:27
3	Mo 202.031†	14.1	19.5	1.9140	µg/L	1.9140 ppb	17:10:27
3	Ni 231.604†	312.1	2.0	0.1004	µg/L	0.1004 ppb	17:10:27
3	P 214.914†	16.0	0.8	1.3809	µg/L	1.3809 ppb	17:10:27
3	Pb 220.353†	106.0	15.9	3.8630	µg/L	3.8630 ppb	17:10:27
3	S 181.975 Axial†	14.2	-4.6	-19.132	µg/L	-19.132 ppb	17:10:27
3	Sb 206.836†	16.0	-6.4	-5.8776	µg/L	-5.8776 ppb	17:10:27
3	Se 196.026†	18.1	-1.1	-1.5391	µg/L	-1.5391 ppb	17:10:27
3	SiO2†	1473.7	92.8	18.326	µg/L	18.326 ppb	17:10:07
3	Si 251.611†	414.5	106.9	8.1279	µg/L	8.1279 ppb	17:10:27
3	Sn 189.927†	10.6	10.3	4.3488	µg/L	4.3488 ppb	17:10:27
3	Ti 334.940†	439.9	268.1	0.5920	µg/L	0.5920 ppb	17:10:07
3	Tl 190.801†	-23.3	-1.1	-1.4129	µg/L	-1.4129 ppb	17:10:27
3	U 409.014†	-71.7	4.9	0.4060	µg/L	0.4060 ppb	17:10:07
3	V 292.402†	-20.7	23.9	0.2511	µg/L	0.2511 ppb	17:10:07
3	Zn 213.857†	601.7	71.7	1.6777	µg/L	1.6777 ppb	17:10:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1956162.9	99.646	%	0.5166				0.52%
Sc RADIAL	55426.3	98.1	%	0.73				0.74%
Y 371.029	1350683.2	99.847	%	0.5103				0.51%
Ag 328.068†	35.8	0.2691	µg/L	0.32647	0.2691	ppb	0.32647	121.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.3	13.407	µg/L	7.9584	13.407	ppb	7.9584	59.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.9641	µg/L	2.04391	0.9641	ppb	2.04391	212.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	158.6	6.4608	µg/L	1.02461	6.4608	ppb	1.02461	15.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	33.3	0.8013	µg/L	0.13279	0.8013	ppb	0.13279	16.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.0	0.1980	µg/L	0.02257	0.1980	ppb	0.02257	11.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	17.4	14.871	µg/L	3.1063	14.871	ppb	3.1063	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.5	0.7844	µg/L	0.08148	0.7844	ppb	0.08148	10.39%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.3640	µg/L	0.24037	0.3640	ppb	0.24037	66.04%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                47.5      0.9550 µg/L       0.24930      0.9550 ppb        0.24930  26.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               274.8      1.7950 µg/L       0.18518      1.7950 ppb        0.18518  10.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      9.5227 µg/L       4.93823      9.5227 ppb        4.93823  51.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         124.0      80.963 µg/L       21.3541      80.963 ppb        21.3541  26.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.8      34.385 µg/L       20.1131      34.385 ppb        20.1131  58.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               147.7      0.4623 µg/L       0.05817      0.4623 ppb        0.05817  12.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                17.7      1.7309 µg/L       0.15903      1.7309 ppb        0.15903   9.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        234.8      72.131 µg/L        5.3801      72.131 ppb         5.3801   7.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.9      0.2959 µg/L       0.57673      0.2959 ppb        0.57673 194.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.4      6.6410 µg/L       6.72404      6.6410 ppb        6.72404 101.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                21.4      5.2065 µg/L       1.35647      5.2065 ppb        1.35647  26.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.6     -14.976 µg/L        8.5998     -14.976 ppb         8.5998  57.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.6      0.5280 µg/L       5.85192      0.5280 ppb        5.85192 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.4     -8.9385 µg/L       7.10744     -8.9385 ppb        7.10744  79.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     104.2      20.576 µg/L        2.2394      20.576 ppb         2.2394  10.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                95.4      7.2544 µg/L       0.75977      7.2544 ppb        0.75977  10.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 9.0      3.8070 µg/L       0.57241      3.8070 ppb        0.57241  15.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                83.0      0.7656 µg/L       0.07544      0.7656 ppb        0.07544   9.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               269.7      0.5942 µg/L       0.04915      0.5942 ppb        0.04915   8.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.0     -1.2763 µg/L       3.64442     -1.2763 ppb        3.64442 285.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.4      3.6004 µg/L       2.94331      3.6004 ppb        2.94331  81.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 54.8      0.5546 µg/L       0.26626      0.5546 ppb        0.26626  48.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                79.8      1.8665 µg/L       0.27558      1.8665 ppb        0.27558  14.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/19/2010 17:18:12 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 16:28:12**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR2 **Date Collected: 2/19/2010 17:18:14**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57089.6	57089.6	101	%			17:18:49
1	Al 396.153Radial†	-10.5	-17.7	-12.364	µg/L	-12.364	ppb	17:18:49
1	Ca 317.933Radial†	228.9	15.3	13.039	µg/L	13.039	ppb	17:19:09
1	Fe 238.204 Radial†	8.4	-8.2	43.697	µg/L	43.697	ppb	17:19:09

1	K 766.490 Radial†	220.7	53.4	34.889 µg/L	34.889 ppb	17:18:49
1	Mg 279.077 IEC†	10.1	-2.8	-24.911 µg/L	-24.911 ppb	17:19:09
1	Na 589.592 Radial†	602.0	123.6	37.957 µg/L	37.957 ppb	17:18:49
1	Sr 421.552†	60.8	31.4	0.2896 µg/L	0.2896 ppb	17:18:49
1	Sc 361.383	1992980.4	1992980.4	101.52 %		17:20:12
1	Y 371.029	1370801.5	1370801.5	101.33 %		17:20:12
1	Ag 328.068†	-413.2	-5.4	-0.0402 µg/L	-0.0402 ppb	17:20:18
1	As 188.979†	2879.0	2836.3	5083.5 µg/L	5083.5 ppb	17:20:38
1	B 249.677†	863.8	466.7	19.057 µg/L	19.057 ppb	17:20:18
1	Ba 233.527†	-3.1	14.0	0.3366 µg/L	0.3366 ppb	17:20:38
1	Be 313.107†	-2634.3	260.8	0.1545 µg/L	0.1545 ppb	17:20:18
1	Cd 226.502†	-101.6	41.6	1.0480 µg/L	1.0480 ppb	17:20:38
1	Co 228.616†	114754.7	113033.4	5119.0 µg/L	5119.0 ppb	17:20:18
1	Cr 267.716†	-18.5	32.2	0.6465 µg/L	0.6465 ppb	17:20:18
1	Cu 324.752†	1806.3	-764.5	-4.9994 µg/L	-4.9994 ppb	17:20:18
1	Mn 257.610†	-157.7	100.7	0.3076 µg/L	0.3076 ppb	17:20:38
1	Mo 202.031†	8.0	13.2	1.2927 µg/L	1.2927 ppb	17:20:38
1	Ni 231.604†	383.1	65.0	-2.8550 µg/L	-2.8550 ppb	17:20:38
1	P 214.914†	5661.5	5561.4	11011 µg/L	11011 ppb	17:20:18
1	Pb 220.353†	103.9	11.4	2.7844 µg/L	2.7844 ppb	17:20:38
1	S 181.975 Axial†	11.6	-7.5	-31.222 µg/L	-31.222 ppb	17:20:38
1	Sb 206.836†	26.1	3.2	2.9217 µg/L	2.9217 ppb	17:20:38
1	Se 196.026†	15.5	-4.1	-5.9032 µg/L	-5.9032 ppb	17:20:38
1	SiO2†	426908.6	419120.7	82729 µg/L	82729 ppb	17:20:12
1	Si 251.611†	511420.1	503446.9	38273 µg/L	38273 ppb	17:20:12
1	Sn 189.927†	7.7	7.2	3.0305 µg/L	3.0305 ppb	17:20:38
1	Ti 334.940†	600.4	416.4	0.9232 µg/L	0.9232 ppb	17:20:18
1	Tl 190.801†	0.4	22.7	12.314 µg/L	12.314 ppb	17:20:38
1	U 409.014†	-95.3	-16.8	-1.3899 µg/L	-1.3899 ppb	17:20:18
1	V 292.402†	13.1	57.7	0.5647 µg/L	0.5647 ppb	17:20:18
1	Zn 213.857†	632.3	88.4	2.0732 µg/L	2.0732 ppb	17:20:38
2	Sc RADIAL	56165.6	56165.6	99.4 %		17:19:15
2	Al 396.153Radial†	-6.9	-14.3	-9.9617 µg/L	-9.9617 ppb	17:19:15
2	Ca 317.933Radial†	216.0	6.0	5.1201 µg/L	5.1201 ppb	17:19:35
2	Fe 238.204 Radial†	7.6	-8.9	36.342 µg/L	36.342 ppb	17:19:35
2	K 766.490 Radial†	221.8	58.1	37.930 µg/L	37.930 ppb	17:19:15
2	Mg 279.077 IEC†	7.5	-5.3	-47.450 µg/L	-47.450 ppb	17:19:35
2	Na 589.592 Radial†	593.1	124.4	38.204 µg/L	38.204 ppb	17:19:15
2	Sr 421.552†	33.6	5.0	0.0462 µg/L	0.0462 ppb	17:19:15
2	Sc 361.383	2021073.3	2021073.3	102.95 %		17:20:45
2	Y 371.029	1388832.8	1388832.8	102.67 %		17:20:45
2	Ag 328.068†	-393.4	19.5	0.1414 µg/L	0.1414 ppb	17:20:50
2	As 188.979†	2798.9	2719.1	4873.4 µg/L	4873.4 ppb	17:21:11
2	B 249.677†	844.8	436.4	17.824 µg/L	17.824 ppb	17:20:50
2	Ba 233.527†	-4.8	12.4	0.2992 µg/L	0.2992 ppb	17:21:11
2	Be 313.107†	-2671.8	260.5	0.1543 µg/L	0.1543 ppb	17:20:50
2	Cd 226.502†	-106.1	38.6	0.9740 µg/L	0.9740 ppb	17:21:11
2	Co 228.616†	114007.7	110736.6	5015.0 µg/L	5015.0 ppb	17:20:50
2	Cr 267.716†	-23.2	27.9	0.5600 µg/L	0.5600 ppb	17:20:50
2	Cu 324.752†	1789.0	-806.1	-5.2714 µg/L	-5.2714 ppb	17:20:50
2	Mn 257.610†	-160.2	100.4	0.3070 µg/L	0.3070 ppb	17:21:11
2	Mo 202.031†	1.7	7.0	0.6793 µg/L	0.6793 ppb	17:21:11
2	Ni 231.604†	365.6	42.8	-3.8392 µg/L	-3.8392 ppb	17:21:11
2	P 214.914†	5616.7	5440.3	10772 µg/L	10772 ppb	17:20:50
2	Pb 220.353†	110.3	16.2	3.9509 µg/L	3.9509 ppb	17:21:11
2	S 181.975 Axial†	18.6	-0.9	-3.7186 µg/L	-3.7186 ppb	17:21:11
2	Sb 206.836†	25.8	2.5	2.3409 µg/L	2.3409 ppb	17:21:11
2	Se 196.026†	13.5	-6.2	-8.8057 µg/L	-8.8057 ppb	17:21:11
2	SiO2†	425202.9	411618.8	81248 µg/L	81248 ppb	17:20:45
2	Si 251.611†	509536.8	494615.4	37602 µg/L	37602 ppb	17:20:45
2	Sn 189.927†	2.6	2.2	0.9156 µg/L	0.9156 ppb	17:21:11
2	Ti 334.940†	589.0	397.1	0.8822 µg/L	0.8822 ppb	17:20:50
2	Tl 190.801†	0.9	23.3	13.383 µg/L	13.383 ppb	17:21:11
2	U 409.014†	-89.3	-9.7	-0.7935 µg/L	-0.7935 ppb	17:20:50
2	V 292.402†	-20.8	24.5	0.2365 µg/L	0.2365 ppb	17:20:50
2	Zn 213.857†	620.1	67.9	1.5977 µg/L	1.5977 ppb	17:21:11
3	Sc RADIAL	56192.1	56192.1	99.5 %		17:19:41
3	Al 396.153Radial†	-3.6	-11.0	-7.6627 µg/L	-7.6627 ppb	17:19:41
3	Ca 317.933Radial†	218.7	8.6	7.3845 µg/L	7.3845 ppb	17:20:01
3	Fe 238.204 Radial†	9.7	-6.8	38.692 µg/L	38.692 ppb	17:20:01
3	K 766.490 Radial†	214.2	50.4	32.899 µg/L	32.899 ppb	17:19:41

3	Mg 279.077 IEC†	13.9	1.2	10.769 µg/L	10.769 ppb	17:20:01
3	Na 589.592 Radial†	600.0	131.0	40.239 µg/L	40.239 ppb	17:19:41
3	Sr 421.552†	67.6	39.2	0.3616 µg/L	0.3616 ppb	17:19:41
3	Sc 361.383	1998637.7	1998637.7	101.81 %		17:21:17
3	Y 371.029	1373104.8	1373104.8	101.50 %		17:21:17
3	Ag 328.068†	-417.7	-8.6	-0.0666 µg/L	-0.0666 ppb	17:21:23
3	As 188.979†	2369.6	2327.9	4172.3 µg/L	4172.3 ppb	17:21:43
3	B 249.677†	832.0	433.0	17.679 µg/L	17.679 ppb	17:21:23
3	Ba 233.527†	-4.2	12.9	0.3111 µg/L	0.3111 ppb	17:21:43
3	Be 313.107†	-2497.8	402.3	0.2384 µg/L	0.2384 ppb	17:21:23
3	Cd 226.502†	-118.0	25.8	0.6517 µg/L	0.6517 ppb	17:21:43
3	Co 228.616†	98118.9	96373.3	4364.5 µg/L	4364.5 ppb	17:21:23
3	Cr 267.716†	-6.1	44.4	0.8924 µg/L	0.8924 ppb	17:21:23
3	Cu 324.752†	1945.6	-632.7	-4.1375 µg/L	-4.1375 ppb	17:21:23
3	Mn 257.610†	-181.8	77.4	0.2349 µg/L	0.2349 ppb	17:21:43
3	Mo 202.031†	-0.1	5.3	0.5134 µg/L	0.5134 ppb	17:21:43
3	Ni 231.604†	349.6	31.0	-3.6536 µg/L	-3.6536 ppb	17:21:43
3	P 214.914†	4913.6	4810.9	9525.5 µg/L	9525.5 ppb	17:21:23
3	Pb 220.353†	106.2	13.4	3.2602 µg/L	3.2602 ppb	17:21:43
3	S 181.975 Axial†	19.1	-0.2	-0.8917 µg/L	-0.8917 ppb	17:21:43
3	Sb 206.836†	17.0	-5.8	-5.3639 µg/L	-5.3639 ppb	17:21:43
3	Se 196.026†	14.4	-5.1	-7.3641 µg/L	-7.3641 ppb	17:21:43
3	SiO2†	388378.1	380084.6	75024 µg/L	75024 ppb	17:21:17
3	Si 251.611†	465723.5	457136.5	34752 µg/L	34752 ppb	17:21:17
3	Sn 189.927†	7.2	6.7	2.8419 µg/L	2.8419 ppb	17:21:43
3	Ti 334.940†	599.4	413.7	0.9146 µg/L	0.9146 ppb	17:21:23
3	Tl 190.801†	-3.1	19.4	10.494 µg/L	10.494 ppb	17:21:43
3	U 409.014†	-33.0	44.6	3.7148 µg/L	3.7148 ppb	17:21:23
3	V 292.402†	-34.4	11.0	0.1103 µg/L	0.1103 ppb	17:21:23
3	Zn 213.857†	609.9	64.6	1.5181 µg/L	1.5181 ppb	17:21:43

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004230.5	102.09	%	0.757				0.74%
Sc RADIAL	56482.4	100.0	%	0.93				0.93%
Y 371.029	1377579.7	101.84	%	0.725				0.71%
Ag 328.068†	1.8	0.0115	µg/L	0.11324	0.0115	ppb	0.11324	983.61%
Al 396.153Radial†	-14.3	-9.9961	µg/L	2.35074	-9.9961	ppb	2.35074	23.52%
As 188.979†	2627.8	4709.7	µg/L	477.13	4709.7	ppb	477.13	10.13%
B 249.677†	445.4	18.187	µg/L	0.7573	18.187	ppb	0.7573	4.16%
Ba 233.527†	13.1	0.3156	µg/L	0.01910	0.3156	ppb	0.01910	6.05%
Be 313.107†	307.9	0.1824	µg/L	0.04852	0.1824	ppb	0.04852	26.60%
Ca 317.933Radial†	10.0	8.5144	µg/L	4.07847	8.5144	ppb	4.07847	47.90%
Cd 226.502†	35.4	0.8912	µg/L	0.21072	0.8912	ppb	0.21072	23.64%
Co 228.616†	106714.5	4832.9	µg/L	408.90	4832.9	ppb	408.90	8.46%
Cr 267.716†	34.8	0.6996	µg/L	0.17243	0.6996	ppb	0.17243	24.65%
Cu 324.752†	-734.4	-4.8027	µg/L	0.59198	-4.8027	ppb	0.59198	12.33%
Fe 238.204 Radial†	-8.0	39.577	µg/L	3.7566	39.577	ppb	3.7566	9.49%
K 766.490 Radial†	54.0	35.239	µg/L	2.5339	35.239	ppb	2.5339	7.19%
Mg 279.077 IEC†	-2.3	-20.531	µg/L	29.3558	-20.531	ppb	29.3558	142.98%
Mn 257.610†	92.8	0.2832	µg/L	0.04179	0.2832	ppb	0.04179	14.76%
Mo 202.031†	8.5	0.8285	µg/L	0.41049	0.8285	ppb	0.41049	49.55%
Na 589.592 Radial†	126.3	38.800	µg/L	1.2520	38.800	ppb	1.2520	3.23%
Ni 231.604†	46.3	-3.4493	µg/L	0.52296	-3.4493	ppb	0.52296	15.16%
P 214.914†	5270.9	10436	µg/L	797.7	10436	ppb	797.7	7.64%
Pb 220.353†	13.7	3.3319	µg/L	0.58655	3.3319	ppb	0.58655	17.60%
S 181.975 Axial†	-2.9	-11.944	µg/L	16.7551	-11.944	ppb	16.7551	140.28%
Sb 206.836†	-0.0	-0.0338	µg/L	4.62516	-0.0338	ppb	4.62516	>999.9%
Se 196.026†	-5.1	-7.3577	µg/L	1.45126	-7.3577	ppb	1.45126	19.72%
SiO2†	403608.1	79667	µg/L	4088.7	79667	ppb	4088.7	5.13%
Si 251.611†	485066.3	36876	µg/L	1869.2	36876	ppb	1869.2	5.07%
Sn 189.927†	5.4	2.2626	µg/L	1.17039	2.2626	ppb	1.17039	51.73%
Sr 421.552†	25.2	0.2325	µg/L	0.16530	0.2325	ppb	0.16530	71.11%
Ti 334.940†	409.0	0.9067	µg/L	0.02163	0.9067	ppb	0.02163	2.39%
Tl 190.801†	21.8	12.064	µg/L	1.4608	12.064	ppb	1.4608	12.11%
U 409.014†	6.0	0.5104	µg/L	2.79101	0.5104	ppb	2.79101	546.79%
V 292.402†	31.1	0.3038	µg/L	0.23456	0.3038	ppb	0.23456	77.20%
Zn 213.857†	73.7	1.7297	µg/L	0.30016	1.7297	ppb	0.30016	17.35%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:21:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55997.1	55997.1	99.1	%			17:22:28
1	Al 396.153Radial†	7484.4	7543.7	5236.5	µg/L	5236.5	ppb	17:22:28
1	Ca 317.933Radial†	6284.2	6128.9	5235.2	µg/L	5235.2	ppb	17:22:48
1	Fe 238.204 Radial†	689.0	678.6	5363.5	µg/L	5363.5	ppb	17:22:48
1	K 766.490 Radial†	8069.9	7976.8	5209.8	µg/L	5209.8	ppb	17:22:28
1	Mg 279.077 IEC†	607.2	599.8	5365.3	µg/L	5365.3	ppb	17:22:48
1	Na 589.592 Radial†	34612.1	34448.1	10580	µg/L	10580	ppb	17:22:28
1	Sr 421.552†	55249.7	55712.7	513.96	µg/L	513.96	ppb	17:22:28
1	Sc 361.383	1941292.6	1941292.6	98.888	%			17:23:51
1	Y 371.029	1335522.5	1335522.5	98.726	%			17:23:51
1	Ag 328.068†	70158.7	71349.1	532.40	µg/L	532.40	ppb	17:23:57
1	As 188.979†	304.1	308.0	550.96	µg/L	550.96	ppb	17:24:18
1	B 249.677†	13216.5	12981.0	527.15	µg/L	527.15	ppb	17:23:57
1	Ba 233.527†	22082.2	22347.5	537.47	µg/L	537.47	ppb	17:23:57
1	Be 313.107†	881057.8	893819.8	530.28	µg/L	530.28	ppb	17:23:51
1	Cd 226.502†	21234.9	21615.4	539.04	µg/L	539.04	ppb	17:23:57
1	Co 228.616†	11841.2	11972.4	541.59	µg/L	541.59	ppb	17:23:57
1	Cr 267.716†	26708.5	27059.1	543.83	µg/L	543.83	ppb	17:23:57
1	Cu 324.752†	83577.2	81973.2	535.82	µg/L	535.82	ppb	17:23:57
1	Mn 257.610†	169839.0	172004.6	539.13	µg/L	539.13	ppb	17:23:51
1	Mo 202.031†	5552.9	5620.6	550.61	µg/L	550.61	ppb	17:24:18
1	Ni 231.604†	11057.1	10869.0	541.24	µg/L	541.24	ppb	17:23:57
1	P 214.914†	1373.5	1373.6	2668.4	µg/L	2668.4	ppb	17:24:18
1	Pb 220.353†	2326.6	2261.9	550.03	µg/L	550.03	ppb	17:24:18
1	S 181.975 Axial†	279.6	263.8	1093.9	µg/L	1093.9	ppb	17:24:18
1	Sb 206.836†	611.1	595.5	549.07	µg/L	549.07	ppb	17:24:18
1	Se 196.026†	411.0	396.3	565.02	µg/L	565.02	ppb	17:24:18
1	SiO2†	30336.5	29286.0	5780.7	µg/L	5780.7	ppb	17:23:57
1	Si 251.611†	35486.6	35575.0	2704.5	µg/L	2704.5	ppb	17:23:57
1	Sn 189.927†	1307.2	1321.6	557.36	µg/L	557.36	ppb	17:24:18
1	Ti 334.940†	237204.0	239696.0	529.92	µg/L	529.92	ppb	17:23:51
1	Tl 190.801†	383.1	409.8	538.64	µg/L	538.64	ppb	17:24:18
1	U 409.014†	6443.7	6593.3	546.74	µg/L	546.74	ppb	17:23:57
1	V 292.402†	54369.9	55025.9	542.94	µg/L	542.94	ppb	17:23:57
1	Zn 213.857†	23470.8	23200.3	540.50	µg/L	540.50	ppb	17:23:57
2	Sc RADIAL	55374.2	55374.2	98.0	%			17:22:54
2	Al 396.153Radial†	7516.3	7661.2	5318.8	µg/L	5318.8	ppb	17:22:54
2	Ca 317.933Radial†	6316.8	6233.4	5324.5	µg/L	5324.5	ppb	17:23:14
2	Fe 238.204 Radial†	689.1	686.5	5425.5	µg/L	5425.5	ppb	17:23:14
2	K 766.490 Radial†	8078.4	8077.0	5275.2	µg/L	5275.2	ppb	17:22:54
2	Mg 279.077 IEC†	616.4	616.1	5510.0	µg/L	5510.0	ppb	17:23:14
2	Na 589.592 Radial†	34699.9	34930.4	10729	µg/L	10729	ppb	17:22:54
2	Sr 421.552†	55215.6	56305.0	519.42	µg/L	519.42	ppb	17:22:54
2	Sc 361.383	1972008.9	1972008.9	100.45	%			17:24:25
2	Y 371.029	1357440.8	1357440.8	100.35	%			17:24:25
2	Ag 328.068†	69394.0	69482.8	518.48	µg/L	518.48	ppb	17:24:30
2	As 188.979†	292.5	291.6	521.69	µg/L	521.69	ppb	17:24:51
2	B 249.677†	13098.0	12654.8	513.80	µg/L	513.80	ppb	17:24:30
2	Ba 233.527†	21766.9	21685.9	521.56	µg/L	521.56	ppb	17:24:30
2	Be 313.107†	875557.6	874466.7	518.80	µg/L	518.80	ppb	17:24:25
2	Cd 226.502†	20934.5	20981.8	523.22	µg/L	523.22	ppb	17:24:30
2	Co 228.616†	11674.3	11619.7	525.62	µg/L	525.62	ppb	17:24:30
2	Cr 267.716†	26349.4	26281.0	528.19	µg/L	528.19	ppb	17:24:30
2	Cu 324.752†	82762.2	79845.4	521.94	µg/L	521.94	ppb	17:24:30
2	Mn 257.610†	168819.9	168315.0	527.58	µg/L	527.58	ppb	17:24:25
2	Mo 202.031†	5374.4	5355.5	524.65	µg/L	524.65	ppb	17:24:51
2	Ni 231.604†	10896.7	10535.3	524.62	µg/L	524.62	ppb	17:24:30
2	P 214.914†	1349.1	1327.7	2578.5	µg/L	2578.5	ppb	17:24:51
2	Pb 220.353†	2255.8	2154.7	523.94	µg/L	523.94	ppb	17:24:51

2	S 181.975 Axial†	273.6	253.5	1051.2 µg/L	1051.2 ppb	17:24:51
2	Sb 206.836†	597.1	571.9	527.15 µg/L	527.15 ppb	17:24:51
2	Se 196.026†	399.0	377.9	539.15 µg/L	539.15 ppb	17:24:51
2	SiO2†	30015.2	28488.3	5623.2 µg/L	5623.2 ppb	17:24:30
2	Si 251.611†	35058.2	34589.5	2629.6 µg/L	2629.6 ppb	17:24:30
2	Sn 189.927†	1256.6	1250.5	527.41 µg/L	527.41 ppb	17:24:51
2	Ti 334.940†	235686.9	234449.5	518.30 µg/L	518.30 ppb	17:24:25
2	Tl 190.801†	379.7	400.4	526.29 µg/L	526.29 ppb	17:24:51
2	U 409.014†	6398.7	6446.9	534.56 µg/L	534.56 ppb	17:24:30
2	V 292.402†	53704.7	53507.4	527.90 µg/L	527.90 ppb	17:24:30
2	Zn 213.857†	23141.6	22502.9	524.22 µg/L	524.22 ppb	17:24:30
3	Sc RADIAL	55679.0	55679.0	98.6 %		17:23:19
3	Al 396.153Radial†	7596.6	7700.7	5348.4 µg/L	5348.4 ppb	17:23:19
3	Ca 317.933Radial†	6283.1	6164.0	5265.1 µg/L	5265.1 ppb	17:23:40
3	Fe 238.204 Radial†	686.1	679.6	5369.7 µg/L	5369.7 ppb	17:23:40
3	K 766.490 Radial†	8154.7	8109.3	5296.3 µg/L	5296.3 ppb	17:23:19
3	Mg 279.077 IEC†	612.2	608.4	5439.6 µg/L	5439.6 ppb	17:23:40
3	Na 589.592 Radial†	34975.0	35015.8	10755 µg/L	10755 ppb	17:23:19
3	Sr 421.552†	55908.1	56699.3	523.06 µg/L	523.06 ppb	17:23:19
3	Sc 361.383	1952535.0	1952535.0	99.461 %		17:24:58
3	Y 371.029	1343624.0	1343624.0	99.325 %		17:24:58
3	Ag 328.068†	63360.5	64105.6	478.17 µg/L	478.17 ppb	17:25:04
3	As 188.979†	241.7	243.4	435.49 µg/L	435.49 ppb	17:25:24
3	B 249.677†	11843.3	11523.4	467.57 µg/L	467.57 ppb	17:25:04
3	Ba 233.527†	19104.2	19224.8	462.34 µg/L	462.34 ppb	17:25:04
3	Be 313.107†	780835.5	787924.2	467.46 µg/L	467.46 ppb	17:24:58
3	Cd 226.502†	18231.2	18471.7	460.55 µg/L	460.55 ppb	17:25:04
3	Co 228.616†	10034.6	10087.0	456.23 µg/L	456.23 ppb	17:25:04
3	Cr 267.716†	21902.6	22071.8	443.60 µg/L	443.60 ppb	17:25:04
3	Cu 324.752†	72242.1	70090.0	458.26 µg/L	458.26 ppb	17:25:04
3	Mn 257.610†	151408.5	152485.3	478.01 µg/L	478.01 ppb	17:24:58
3	Mo 202.031†	4271.9	4300.4	421.32 µg/L	421.32 ppb	17:25:24
3	Ni 231.604†	9447.8	9186.7	457.48 µg/L	457.48 ppb	17:25:04
3	P 214.914†	1083.3	1073.8	2080.9 µg/L	2080.9 ppb	17:25:24
3	Pb 220.353†	1873.7	1793.0	435.92 µg/L	435.92 ppb	17:25:24
3	S 181.975 Axial†	233.8	216.1	896.36 µg/L	896.36 ppb	17:25:24
3	Sb 206.836†	489.4	469.6	432.51 µg/L	432.51 ppb	17:25:24
3	Se 196.026†	332.8	315.3	451.15 µg/L	451.15 ppb	17:25:24
3	SiO2†	26947.7	25702.2	5073.3 µg/L	5073.3 ppb	17:25:04
3	Si 251.611†	31277.9	31136.9	2367.1 µg/L	2367.1 ppb	17:25:04
3	Sn 189.927†	976.9	981.8	414.09 µg/L	414.09 ppb	17:25:24
3	Ti 334.940†	208555.8	209511.3	463.14 µg/L	463.14 ppb	17:24:58
3	Tl 190.801†	319.8	343.9	452.38 µg/L	452.38 ppb	17:25:24
3	U 409.014†	5254.4	5360.0	444.27 µg/L	444.27 ppb	17:25:04
3	V 292.402†	45815.6	46108.8	454.70 µg/L	454.70 ppb	17:25:04
3	Zn 213.857†	20168.8	19743.8	459.90 µg/L	459.90 ppb	17:25:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1955278.8	99.601	%	0.7916				0.79%
Sc RADIAL	55683.5	98.6	%	0.55				0.56%
Y 371.029	1345529.1	99.466	%	0.8193				0.82%
Ag 328.068†	68312.5	509.69	µg/L	28.165	509.69	ppb	28.165	5.53%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	7635.2	5301.2	µg/L	57.98	5301.2	ppb	57.98	1.09%
QC value within limits for Al 396.153Radial Recovery = 106.02%								
As 188.979†	281.0	502.71	µg/L	60.027	502.71	ppb	60.027	11.94%
QC value within limits for As 188.979 Recovery = 100.54%								
B 249.677†	12386.4	502.84	µg/L	31.261	502.84	ppb	31.261	6.22%
QC value within limits for B 249.677 Recovery = 100.57%								
Ba 233.527†	21086.1	507.12	µg/L	39.588	507.12	ppb	39.588	7.81%
QC value within limits for Ba 233.527 Recovery = 101.42%								
Be 313.107†	852070.2	505.52	µg/L	33.453	505.52	ppb	33.453	6.62%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	6175.4	5274.9	µg/L	45.45	5274.9	ppb	45.45	0.86%
QC value within limits for Ca 317.933Radial Recovery = 105.50%								
Cd 226.502†	20356.3	507.61	µg/L	41.509	507.61	ppb	41.509	8.18%
QC value within limits for Cd 226.502 Recovery = 101.52%								
Co 228.616†	11226.4	507.82	µg/L	45.380	507.82	ppb	45.380	8.94%

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   QC value within limits for Co 228.616  Recovery = 101.56%
Cr 267.716†            25137.3      505.21 µg/L        53.922      505.21 ppb        53.922  10.67%
   QC value within limits for Cr 267.716  Recovery = 101.04%
Cu 324.752†            77302.9      505.34 µg/L        41.362      505.34 ppb        41.362   8.19%
   QC value within limits for Cu 324.752  Recovery = 101.07%
Fe 238.204 Radial†       681.6      5386.2 µg/L         34.14      5386.2 ppb         34.14   0.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.72%
K 766.490 Radial†       8054.3      5260.4 µg/L         45.13      5260.4 ppb         45.13   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 105.21%
Mg 279.077 IEC†          608.1      5438.3 µg/L         72.33      5438.3 ppb         72.33   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.77%
Mn 257.610†           164268.3      514.91 µg/L        32.475      514.91 ppb        32.475   6.31%
   QC value within limits for Mn 257.610  Recovery = 102.98%
Mo 202.031†             5092.2      498.86 µg/L        68.394      498.86 ppb        68.394  13.71%
   QC value within limits for Mo 202.031  Recovery = 99.77%
Na 589.592 Radial†     34798.1       10688 µg/L          94.0       10688 ppb          94.0   0.88%
   QC value within limits for Na 589.592 Radial  Recovery = 106.88%
Ni 231.604†            10197.0      507.78 µg/L        44.349      507.78 ppb        44.349   8.73%
   QC value within limits for Ni 231.604  Recovery = 101.56%
P 214.914†              1258.3      2442.6 µg/L        316.42      2442.6 ppb        316.42  12.95%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             2069.8      503.29 µg/L        59.790      503.29 ppb        59.790  11.88%
   QC value within limits for Pb 220.353  Recovery = 100.66%
S 181.975 Axial†         244.5      1013.8 µg/L        103.94      1013.8 ppb        103.94  10.25%
   QC value within limits for S 181.975 Axial  Recovery = 101.38%
Sb 206.836†              545.7      502.91 µg/L        61.945      502.91 ppb        61.945  12.32%
   QC value within limits for Sb 206.836  Recovery = 100.58%
Se 196.026†              363.2      518.44 µg/L        59.692      518.44 ppb        59.692  11.51%
   QC value within limits for Se 196.026  Recovery = 103.69%
SiO2†                  27825.5      5492.4 µg/L        371.40      5492.4 ppb        371.40   6.76%
   QC value within limits for SiO2  Recovery = 102.71%
Si 251.611†            33767.1      2567.0 µg/L        177.17      2567.0 ppb        177.17   6.90%
   QC value within limits for Si 251.611  Recovery = 102.68%
Sn 189.927†             1184.6      499.62 µg/L        75.568      499.62 ppb        75.568  15.13%
   QC value within limits for Sn 189.927  Recovery = 99.92%
Sr 421.552†            56239.0      518.81 µg/L         4.581      518.81 ppb         4.581   0.88%
   QC value within limits for Sr 421.552  Recovery = 103.76%
Ti 334.940†           227885.6      503.79 µg/L        35.678      503.79 ppb        35.678   7.08%
   QC value within limits for Ti 334.940  Recovery = 100.76%
Tl 190.801†              384.7      505.77 µg/L        46.646      505.77 ppb        46.646   9.22%
   QC value within limits for Tl 190.801  Recovery = 101.15%
U 409.014†              6133.4      508.52 µg/L        55.977      508.52 ppb        55.977  11.01%
   QC value within limits for U 409.014  Recovery = 101.70%
V 292.402†             51547.4      508.51 µg/L        47.203      508.51 ppb        47.203   9.28%
   QC value within limits for V 292.402  Recovery = 101.70%
Zn 213.857†            21815.7      508.21 µg/L        42.623      508.21 ppb        42.623   8.39%
   QC value within limits for Zn 213.857  Recovery = 101.64%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:25:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55715.1	55715.1	98.6	%			17:26:06
1	Al 396.153Radial†	9.9	2.7	1.8794	µg/L	1.8794	ppb	17:26:06
1	Ca 317.933Radial†	200.0	-8.4	-7.2065	µg/L	-7.2065	ppb	17:26:26
1	Fe 238.204 Radial†	18.1	1.8	14.281	µg/L	14.281	ppb	17:26:26
1	K 766.490 Radial†	190.3	28.0	18.262	µg/L	18.262	ppb	17:26:06
1	Mg 279.077 IEC†	10.8	-1.8	-16.403	µg/L	-16.403	ppb	17:26:26
1	Na 589.592 Radial†	566.5	102.3	31.414	µg/L	31.414	ppb	17:26:06
1	Sr 421.552†	8.2	-20.5	-0.1895	µg/L	-0.1895	ppb	17:26:06
1	Sc 361.383	1953458.7	1953458.7	99.508	%			17:27:28
1	Y 371.029	1347989.6	1347989.6	99.648	%			17:27:28
1	Ag 328.068†	-445.9	-46.5	-0.3428	µg/L	-0.3428	ppb	17:27:34
1	As 188.979†	1.8	2.2	4.0261	µg/L	4.0261	ppb	17:27:54
1	B 249.677†	402.6	20.4	0.8246	µg/L	0.8246	ppb	17:27:54
1	Ba 233.527†	-7.2	9.9	0.2372	µg/L	0.2372	ppb	17:27:54
1	Be 313.107†	-2535.3	307.9	0.1827	µg/L	0.1827	ppb	17:27:34
1	Cd 226.502†	-139.8	1.2	0.0290	µg/L	0.0290	ppb	17:27:54
1	Co 228.616†	8.7	6.8	0.3065	µg/L	0.3065	ppb	17:27:54
1	Cr 267.716†	-42.4	7.8	0.1560	µg/L	0.1560	ppb	17:27:34
1	Cu 324.752†	2642.5	111.8	0.7321	µg/L	0.7321	ppb	17:27:34
1	Mn 257.610†	-204.1	50.9	0.1618	µg/L	0.1618	ppb	17:27:54
1	Mo 202.031†	-2.0	3.3	0.3242	µg/L	0.3242	ppb	17:27:54
1	Ni 231.604†	314.6	3.8	0.1900	µg/L	0.1900	ppb	17:27:54
1	P 214.914†	18.8	3.5	6.8616	µg/L	6.8616	ppb	17:27:54
1	Pb 220.353†	98.3	7.8	1.8853	µg/L	1.8853	ppb	17:27:54
1	S 181.975 Axial†	15.5	-3.4	-14.112	µg/L	-14.112	ppb	17:27:54
1	Sb 206.836†	26.9	4.5	4.1739	µg/L	4.1739	ppb	17:27:54
1	Se 196.026†	12.3	-7.0	-9.7684	µg/L	-9.7684	ppb	17:27:54
1	SiO2†	1515.6	131.5	25.955	µg/L	25.955	ppb	17:27:34
1	Si 251.611†	416.0	107.4	8.1665	µg/L	8.1665	ppb	17:27:54
1	Sn 189.927†	2.2	1.9	0.7860	µg/L	0.7860	ppb	17:27:54
1	Ti 334.940†	256.5	82.7	0.1842	µg/L	0.1842	ppb	17:27:34
1	Tl 190.801†	-25.3	-3.1	-3.9679	µg/L	-3.9679	ppb	17:27:54
1	U 409.014†	32.9	110.1	9.1492	µg/L	9.1492	ppb	17:27:34
1	V 292.402†	-29.6	15.0	0.1604	µg/L	0.1604	ppb	17:27:34
1	Zn 213.857†	546.5	14.8	0.3443	µg/L	0.3443	ppb	17:27:54
2	Sc RADIAL	55504.2	55504.2	98.2	%			17:26:32
2	Al 396.153Radial†	11.6	4.4	3.0699	µg/L	3.0699	ppb	17:26:32
2	Ca 317.933Radial†	200.3	-7.4	-6.2839	µg/L	-6.2839	ppb	17:26:52
2	Fe 238.204 Radial†	17.9	1.6	12.645	µg/L	12.645	ppb	17:26:52
2	K 766.490 Radial†	201.9	40.6	26.491	µg/L	26.491	ppb	17:26:32
2	Mg 279.077 IEC†	10.5	-2.1	-19.078	µg/L	-19.078	ppb	17:26:52
2	Na 589.592 Radial†	562.4	100.3	30.804	µg/L	30.804	ppb	17:26:32
2	Sr 421.552†	36.5	8.4	0.0774	µg/L	0.0774	ppb	17:26:32
2	Sc 361.383	1950778.5	1950778.5	99.371	%			17:28:00
2	Y 371.029	1346193.0	1346193.0	99.515	%			17:28:00
2	Ag 328.068†	-396.0	3.1	0.0257	µg/L	0.0257	ppb	17:28:06
2	As 188.979†	1.1	1.6	2.8532	µg/L	2.8532	ppb	17:28:26
2	B 249.677†	390.0	8.3	0.3322	µg/L	0.3322	ppb	17:28:26
2	Ba 233.527†	-6.8	10.2	0.2452	µg/L	0.2452	ppb	17:28:26
2	Be 313.107†	-2616.4	222.8	0.1321	µg/L	0.1321	ppb	17:28:06
2	Cd 226.502†	-139.8	1.0	0.0242	µg/L	0.0242	ppb	17:28:26
2	Co 228.616†	3.7	1.8	0.0803	µg/L	0.0803	ppb	17:28:26
2	Cr 267.716†	-54.5	-4.5	-0.0900	µg/L	-0.0900	ppb	17:28:06
2	Cu 324.752†	2637.6	110.5	0.7233	µg/L	0.7233	ppb	17:28:06
2	Mn 257.610†	-213.1	41.5	0.1325	µg/L	0.1325	ppb	17:28:26
2	Mo 202.031†	-0.0	5.3	0.5204	µg/L	0.5204	ppb	17:28:26
2	Ni 231.604†	311.7	1.3	0.0651	µg/L	0.0651	ppb	17:28:26
2	P 214.914†	7.2	-8.1	-16.019	µg/L	-16.019	ppb	17:28:26
2	Pb 220.353†	96.7	6.4	1.5474	µg/L	1.5474	ppb	17:28:26

2	S 181.975 Axial†	17.4	-1.4	-5.8210 µg/L	-5.8210 ppb	17:28:26
2	Sb 206.836†	19.7	-2.6	-2.3998 µg/L	-2.3998 ppb	17:28:26
2	Se 196.026†	15.0	-4.2	-5.8108 µg/L	-5.8108 ppb	17:28:26
2	SiO2†	1459.9	77.6	15.313 µg/L	15.313 ppb	17:28:06
2	Si 251.611†	412.0	104.0	7.9062 µg/L	7.9062 ppb	17:28:26
2	Sn 189.927†	7.8	7.4	3.1294 µg/L	3.1294 ppb	17:28:26
2	Ti 334.940†	270.4	97.1	0.2161 µg/L	0.2161 ppb	17:28:06
2	Tl 190.801†	-21.2	1.0	1.3155 µg/L	1.3155 ppb	17:28:26
2	U 409.014†	-29.9	47.0	3.9019 µg/L	3.9019 ppb	17:28:06
2	V 292.402†	-11.1	33.5	0.3361 µg/L	0.3361 ppb	17:28:06
2	Zn 213.857†	544.6	13.6	0.3180 µg/L	0.3180 ppb	17:28:26
3	Sc RADIAL	55576.2	55576.2	98.4 %		17:26:57
3	Al 396.153Radial†	-4.2	-11.6	-8.0814 µg/L	-8.0814 ppb	17:26:57
3	Ca 317.933Radial†	198.4	-9.6	-8.1878 µg/L	-8.1878 ppb	17:27:18
3	Fe 238.204 Radial†	17.1	0.8	6.2197 µg/L	6.2197 ppb	17:27:18
3	K 766.490 Radial†	182.5	20.5	13.397 µg/L	13.397 ppb	17:26:57
3	Mg 279.077 IEC†	14.4	1.8	16.514 µg/L	16.514 ppb	17:27:18
3	Na 589.592 Radial†	564.0	101.1	31.056 µg/L	31.056 ppb	17:26:57
3	Sr 421.552†	84.4	57.0	0.5260 µg/L	0.5260 ppb	17:26:57
3	Sc 361.383	1984583.7	1984583.7	101.09 %		17:28:32
3	Y 371.029	1368650.9	1368650.9	101.18 %		17:28:32
3	Ag 328.068†	-463.7	-57.1	-0.4221 µg/L	-0.4221 ppb	17:28:38
3	As 188.979†	1.5	1.9	3.4901 µg/L	3.4901 ppb	17:28:58
3	B 249.677†	385.7	-2.6	-0.1102 µg/L	-0.1102 ppb	17:28:58
3	Ba 233.527†	-8.4	8.8	0.2107 µg/L	0.2107 ppb	17:28:58
3	Be 313.107†	-2606.1	277.8	0.1648 µg/L	0.1648 ppb	17:28:38
3	Cd 226.502†	-137.9	5.3	0.1312 µg/L	0.1312 ppb	17:28:58
3	Co 228.616†	11.7	9.7	0.4385 µg/L	0.4385 ppb	17:28:58
3	Cr 267.716†	-56.0	-5.0	-0.1002 µg/L	-0.1002 ppb	17:28:38
3	Cu 324.752†	2581.0	9.4	0.0621 µg/L	0.0621 ppb	17:28:38
3	Mn 257.610†	-221.0	37.4	0.1174 µg/L	0.1174 ppb	17:28:58
3	Mo 202.031†	2.7	8.0	0.7835 µg/L	0.7835 ppb	17:28:58
3	Ni 231.604†	311.4	-4.3	-0.2151 µg/L	-0.2151 ppb	17:28:58
3	P 214.914†	14.9	-0.6	-1.1261 µg/L	-1.1261 ppb	17:28:58
3	Pb 220.353†	89.4	-2.5	-0.6244 µg/L	-0.6244 ppb	17:28:58
3	S 181.975 Axial†	14.9	-4.2	-17.388 µg/L	-17.388 ppb	17:28:58
3	Sb 206.836†	22.0	-0.7	-0.6331 µg/L	-0.6331 ppb	17:28:58
3	Se 196.026†	16.1	-3.3	-4.6875 µg/L	-4.6875 ppb	17:28:58
3	SiO2†	1488.2	80.6	15.904 µg/L	15.904 ppb	17:28:38
3	Si 251.611†	405.3	90.2	6.8609 µg/L	6.8609 ppb	17:28:58
3	Sn 189.927†	5.4	5.0	2.0931 µg/L	2.0931 ppb	17:28:58
3	Ti 334.940†	242.9	65.3	0.1429 µg/L	0.1429 ppb	17:28:38
3	Tl 190.801†	-20.1	2.5	3.3063 µg/L	3.3063 ppb	17:28:58
3	U 409.014†	41.4	118.0	9.8042 µg/L	9.8042 ppb	17:28:38
3	V 292.402†	-37.8	7.4	0.0885 µg/L	0.0885 ppb	17:28:38
3	Zn 213.857†	537.5	-2.8	-0.0653 µg/L	-0.0653 ppb	17:28:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962940.3	99.991	%	0.9572				0.96%
Sc RADIAL	55598.5	98.4	%	0.19				0.19%
Y 371.029	1354277.8	100.11	%	0.923				0.92%
Ag 328.068†	-33.5	-0.2464	µg/L	0.23900	-0.2464	ppb	0.23900	96.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.5	-1.0440	µg/L	6.12354	-1.0440	ppb	6.12354	586.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.4565	µg/L	0.58720	3.4565	ppb	0.58720	16.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.7	0.3489	µg/L	0.46764	0.3489	ppb	0.46764	134.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.2310	µg/L	0.01805	0.2310	ppb	0.01805	7.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.5	0.1599	µg/L	0.02562	0.1599	ppb	0.02562	16.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.5	-7.2261	µg/L	0.95208	-7.2261	ppb	0.95208	13.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	2.5	0.0615	µg/L	0.06046	0.0615	ppb	0.06046	98.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.1	0.2751	µg/L	0.18114	0.2751	ppb	0.18114	65.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.6     -0.0114 µg/L       0.14502     -0.0114 ppb        0.14502 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                77.3      0.5058 µg/L       0.38426      0.5058 ppb        0.38426  75.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4      11.049 µg/L        4.2612      11.049 ppb         4.2612  38.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.7      19.384 µg/L        6.6186      19.384 ppb         6.6186  34.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.7     -6.3222 µg/L      19.82205     -6.3222 ppb       19.82205 313.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                43.3      0.1372 µg/L       0.02261      0.1372 ppb        0.02261  16.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.5      0.5427 µg/L       0.23045      0.5427 ppb        0.23045  42.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.2      31.091 µg/L        0.3066      31.091 ppb         0.3066   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.3      0.0133 µg/L       0.20747      0.0133 ppb        0.20747 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.7     -3.4277 µg/L      11.61243     -3.4277 ppb       11.61243 338.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.9      0.9361 µg/L       1.36196      0.9361 ppb        1.36196 145.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.0     -12.440 µg/L        5.9620     -12.440 ppb         5.9620  47.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.3803 µg/L       3.40201      0.3803 ppb        3.40201 894.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.8     -6.7556 µg/L       2.66893     -6.7556 ppb        2.66893  39.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      96.5      19.057 µg/L        5.9811      19.057 ppb         5.9811  31.38%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               100.6      7.6446 µg/L       0.69104      7.6446 ppb        0.69104   9.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.8      2.0028 µg/L       1.17429      2.0028 ppb        1.17429  58.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                15.0      0.1380 µg/L       0.36157      0.1380 ppb        0.36157 262.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                81.7      0.1811 µg/L       0.03671      0.1811 ppb        0.03671  20.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.2      0.2179 µg/L       3.75923      0.2179 ppb        3.75923 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 91.7      7.6184 µg/L       3.23526      7.6184 ppb        3.23526  42.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.6      0.1950 µg/L       0.12739      0.1950 ppb        0.12739  65.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 8.5      0.1990 µg/L       0.22924      0.1990 ppb        0.22924 115.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56387.7	56387.7	99.8	%			17:52:51
1	Al 396.153Radial†	7516.2	7523.2	5222.3	µg/L	5222.3	ppb	17:52:51
1	Ca 317.933Radial†	6203.6	6004.2	5128.7	µg/L	5128.7	ppb	17:53:12
1	Fe 238.204 Radial†	678.6	663.3	5242.5	µg/L	5242.5	ppb	17:53:12
1	K 766.490 Radial†	8065.5	7916.0	5170.1	µg/L	5170.1	ppb	17:52:51
1	Mg 279.077 IEC†	612.7	601.1	5376.4	µg/L	5376.4	ppb	17:53:12
1	Na 589.592 Radial†	34827.6	34422.1	10573	µg/L	10573	ppb	17:52:51
1	Sr 421.552†	55284.5	55361.6	510.72	µg/L	510.72	ppb	17:52:51
1	Sc 361.383	1961302.2	1961302.2	99.907	%			17:54:15
1	Y 371.029	1346537.9	1346537.9	99.540	%			17:54:15
1	Ag 328.068†	69774.1	70240.4	524.12	µg/L	524.12	ppb	17:54:21
1	As 188.979†	301.3	302.0	540.22	µg/L	540.22	ppb	17:54:41
1	B 249.677†	13080.8	12708.8	516.10	µg/L	516.10	ppb	17:54:21
1	Ba 233.527†	21956.6	21994.0	528.97	µg/L	528.97	ppb	17:54:21
1	Be 313.107†	883536.0	887210.5	526.36	µg/L	526.36	ppb	17:54:15
1	Cd 226.502†	21042.7	21203.9	528.78	µg/L	528.78	ppb	17:54:21
1	Co 228.616†	11741.3	11750.3	531.54	µg/L	531.54	ppb	17:54:21
1	Cr 267.716†	26482.6	26557.5	533.75	µg/L	533.75	ppb	17:54:21
1	Cu 324.752†	83088.9	80622.2	526.99	µg/L	526.99	ppb	17:54:21
1	Mn 257.610†	170434.3	170848.3	535.50	µg/L	535.50	ppb	17:54:15
1	Mo 202.031†	5552.2	5562.7	544.93	µg/L	544.93	ppb	17:54:41
1	Ni 231.604†	10987.8	10685.6	532.11	µg/L	532.11	ppb	17:54:21
1	P 214.914†	1368.8	1354.8	2632.0	µg/L	2632.0	ppb	17:54:41
1	Pb 220.353†	2310.1	2221.3	540.17	µg/L	540.17	ppb	17:54:41
1	S 181.975 Axial†	278.0	259.3	1075.2	µg/L	1075.2	ppb	17:54:41
1	Sb 206.836†	616.4	594.4	548.12	µg/L	548.12	ppb	17:54:41
1	Se 196.026†	407.1	388.1	553.19	µg/L	553.19	ppb	17:54:41
1	SiO2†	29956.0	28592.2	5643.7	µg/L	5643.7	ppb	17:54:21
1	Si 251.611†	34932.9	34654.6	2634.5	µg/L	2634.5	ppb	17:54:21
1	Sn 189.927†	1295.2	1296.1	546.62	µg/L	546.62	ppb	17:54:41
1	Ti 334.940†	237959.8	238005.3	526.18	µg/L	526.18	ppb	17:54:15
1	Tl 190.801†	387.6	410.3	539.25	µg/L	539.25	ppb	17:54:41
1	U 409.014†	6411.5	6494.5	538.55	µg/L	538.55	ppb	17:54:21
1	V 292.402†	54050.9	54145.8	534.27	µg/L	534.27	ppb	17:54:21
1	Zn 213.857†	23288.3	22775.5	530.59	µg/L	530.59	ppb	17:54:21
2	Sc RADIAL	56513.7	56513.7	100	%			17:53:17
2	Al 396.153Radial†	7511.3	7501.5	5207.6	µg/L	5207.6	ppb	17:53:17
2	Ca 317.933Radial†	6229.5	6016.2	5139.0	µg/L	5139.0	ppb	17:53:38
2	Fe 238.204 Radial†	684.9	668.1	5280.5	µg/L	5280.5	ppb	17:53:38
2	K 766.490 Radial†	8100.3	7932.7	5181.0	µg/L	5181.0	ppb	17:53:17
2	Mg 279.077 IEC†	601.5	588.5	5263.5	µg/L	5263.5	ppb	17:53:38
2	Na 589.592 Radial†	34828.0	34344.7	10549	µg/L	10549	ppb	17:53:17
2	Sr 421.552†	55539.3	55492.7	511.93	µg/L	511.93	ppb	17:53:17
2	Sc 361.383	1968482.8	1968482.8	100.27	%			17:54:48
2	Y 371.029	1351706.6	1351706.6	99.922	%			17:54:48
2	Ag 328.068†	69757.2	69968.7	522.10	µg/L	522.10	ppb	17:54:54
2	As 188.979†	290.5	290.2	519.13	µg/L	519.13	ppb	17:55:15
2	B 249.677†	13075.3	12655.5	513.91	µg/L	513.91	ppb	17:54:54
2	Ba 233.527†	21957.1	21914.4	527.05	µg/L	527.05	ppb	17:54:54
2	Be 313.107†	886040.3	886482.1	525.93	µg/L	525.93	ppb	17:54:48
2	Cd 226.502†	21056.7	21141.0	527.21	µg/L	527.21	ppb	17:54:54
2	Co 228.616†	11735.1	11701.2	529.30	µg/L	529.30	ppb	17:54:54
2	Cr 267.716†	26499.8	26477.9	532.15	µg/L	532.15	ppb	17:54:54
2	Cu 324.752†	83008.4	80238.5	524.49	µg/L	524.49	ppb	17:54:54
2	Mn 257.610†	171057.7	170847.6	535.50	µg/L	535.50	ppb	17:54:48
2	Mo 202.031†	5398.9	5389.5	527.98	µg/L	527.98	ppb	17:55:15
2	Ni 231.604†	11020.6	10678.2	531.74	µg/L	531.74	ppb	17:54:54
2	P 214.914†	1347.0	1328.0	2579.1	µg/L	2579.1	ppb	17:55:15
2	Pb 220.353†	2257.9	2160.8	525.43	µg/L	525.43	ppb	17:55:15

2	S 181.975 Axial†	275.1	255.4	1059.1 µg/L	1059.1 ppb	17:55:15
2	Sb 206.836†	599.1	574.9	529.97 µg/L	529.97 ppb	17:55:15
2	Se 196.026†	397.7	377.3	538.13 µg/L	538.13 ppb	17:55:15
2	SiO2†	29922.8	28449.7	5615.6 µg/L	5615.6 ppb	17:54:54
2	Si 251.611†	35029.2	34623.1	2632.1 µg/L	2632.1 ppb	17:54:54
2	Sn 189.927†	1263.5	1259.7	531.25 µg/L	531.25 ppb	17:55:15
2	Ti 334.940†	238598.7	237773.6	525.67 µg/L	525.67 ppb	17:54:48
2	Tl 190.801†	380.1	401.4	527.72 µg/L	527.72 ppb	17:55:15
2	U 409.014†	6311.3	6371.2	528.30 µg/L	528.30 ppb	17:54:54
2	V 292.402†	54031.0	53928.5	532.01 µg/L	532.01 ppb	17:54:54
2	Zn 213.857†	23199.9	22602.3	526.54 µg/L	526.54 ppb	17:54:54
3	Sc RADIAL	56302.2	56302.2	99.7 %		17:53:43
3	Al 396.153Radial†	7458.4	7476.7	5192.5 µg/L	5192.5 ppb	17:53:43
3	Ca 317.933Radial†	6210.0	6020.1	5142.2 µg/L	5142.2 ppb	17:54:03
3	Fe 238.204 Radial†	676.1	661.8	5229.6 µg/L	5229.6 ppb	17:54:03
3	K 766.490 Radial†	8076.1	7938.9	5185.0 µg/L	5185.0 ppb	17:53:43
3	Mg 279.077 IEC†	611.6	600.9	5372.7 µg/L	5372.7 ppb	17:54:03
3	Na 589.592 Radial†	34581.8	34228.4	10513 µg/L	10513 ppb	17:53:43
3	Sr 421.552†	55197.9	55358.8	510.69 µg/L	510.69 ppb	17:53:43
3	Sc 361.383	1973873.7	1973873.7	100.55 %		17:55:22
3	Y 371.029	1355653.4	1355653.4	100.21 %		17:55:22
3	Ag 328.068†	63217.1	63274.3	471.97 µg/L	471.97 ppb	17:55:27
3	As 188.979†	239.4	238.6	426.79 µg/L	426.79 ppb	17:55:48
3	B 249.677†	11772.4	11324.2	459.52 µg/L	459.52 ppb	17:55:27
3	Ba 233.527†	19082.8	18995.9	456.84 µg/L	456.84 ppb	17:55:27
3	Be 313.107†	789189.1	787745.2	467.35 µg/L	467.35 ppb	17:55:22
3	Cd 226.502†	18227.9	18270.3	455.54 µg/L	455.54 ppb	17:55:27
3	Co 228.616†	10065.9	10009.1	452.70 µg/L	452.70 ppb	17:55:27
3	Cr 267.716†	21831.4	21762.8	437.39 µg/L	437.39 ppb	17:55:27
3	Cu 324.752†	71769.6	68834.9	450.04 µg/L	450.04 ppb	17:55:27
3	Mn 257.610†	152925.4	152348.2	477.56 µg/L	477.56 ppb	17:55:22
3	Mo 202.031†	4301.6	4283.5	419.66 µg/L	419.66 ppb	17:55:48
3	Ni 231.604†	9432.0	9068.3	451.58 µg/L	451.58 ppb	17:55:27
3	P 214.914†	1090.2	1068.9	2072.2 µg/L	2072.2 ppb	17:55:48
3	Pb 220.353†	1884.4	1783.2	433.56 µg/L	433.56 ppb	17:55:48
3	S 181.975 Axial†	236.4	216.2	896.48 µg/L	896.48 ppb	17:55:48
3	Sb 206.836†	488.0	462.9	426.39 µg/L	426.39 ppb	17:55:48
3	Se 196.026†	334.6	313.5	448.33 µg/L	448.33 ppb	17:55:48
3	SiO2†	26642.0	25105.3	4955.5 µg/L	4955.5 ppb	17:55:27
3	Si 251.611†	30980.1	30500.6	2318.7 µg/L	2318.7 ppb	17:55:27
3	Sn 189.927†	986.2	980.5	413.54 µg/L	413.54 ppb	17:55:48
3	Ti 334.940†	210724.4	209401.3	462.90 µg/L	462.90 ppb	17:55:22
3	Tl 190.801†	331.8	352.3	463.31 µg/L	463.31 ppb	17:55:48
3	U 409.014†	5301.6	5349.8	443.44 µg/L	443.44 ppb	17:55:27
3	V 292.402†	45830.4	45625.5	449.95 µg/L	449.95 ppb	17:55:27
3	Zn 213.857†	20052.4	19408.7	452.08 µg/L	452.08 ppb	17:55:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1967886.2	100.24	%	0.321				0.32%
Sc RADIAL	56401.2	99.8	%	0.19				0.19%
Y 371.029	1351299.3	99.892	%	0.3379				0.34%
Ag 328.068†	67827.8	506.07	µg/L	29.542	506.07	ppb	29.542	5.84%
QC value within limits for Ag 328.068 Recovery = 101.21%								
Al 396.153Radial†	7500.4	5207.5	µg/L	14.90	5207.5	ppb	14.90	0.29%
QC value within limits for Al 396.153Radial Recovery = 104.15%								
As 188.979†	276.9	495.38	µg/L	60.328	495.38	ppb	60.328	12.18%
QC value within limits for As 188.979 Recovery = 99.08%								
B 249.677†	12229.5	496.51	µg/L	32.053	496.51	ppb	32.053	6.46%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	20968.1	504.29	µg/L	41.100	504.29	ppb	41.100	8.15%
QC value within limits for Ba 233.527 Recovery = 100.86%								
Be 313.107†	853812.6	506.55	µg/L	33.945	506.55	ppb	33.945	6.70%
QC value within limits for Be 313.107 Recovery = 101.31%								
Ca 317.933Radial†	6013.5	5136.6	µg/L	7.07	5136.6	ppb	7.07	0.14%
QC value within limits for Ca 317.933Radial Recovery = 102.73%								
Cd 226.502†	20205.1	503.85	µg/L	41.841	503.85	ppb	41.841	8.30%
QC value within limits for Cd 226.502 Recovery = 100.77%								
Co 228.616†	11153.5	504.51	µg/L	44.882	504.51	ppb	44.882	8.90%

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   QC value within limits for Co 228.616  Recovery = 100.90%
Cr 267.716†            24932.7      501.10 µg/L        55.174      501.10 ppb         55.174  11.01%
   QC value within limits for Cr 267.716  Recovery = 100.22%
Cu 324.752†            76565.2      500.51 µg/L        43.720      500.51 ppb         43.720   8.74%
   QC value within limits for Cu 324.752  Recovery = 100.10%
Fe 238.204 Radial†       664.4      5250.8 µg/L         26.46      5250.8 ppb          26.46   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.02%
K 766.490 Radial†       7929.2      5178.7 µg/L          7.74      5178.7 ppb           7.74   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 103.57%
Mg 279.077 IEC†          596.8      5337.6 µg/L         64.15      5337.6 ppb          64.15   1.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.75%
Mn 257.610†           164681.4      516.19 µg/L        33.451      516.19 ppb         33.451   6.48%
   QC value within limits for Mn 257.610  Recovery = 103.24%
Mo 202.031†            5078.6      497.52 µg/L        67.959      497.52 ppb         67.959  13.66%
   QC value within limits for Mo 202.031  Recovery = 99.50%
Na 589.592 Radial†     34331.7       10545 µg/L          29.9       10545 ppb           29.9   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 105.45%
Ni 231.604†            10144.1      505.14 µg/L        46.388      505.14 ppb         46.388   9.18%
   QC value within limits for Ni 231.604  Recovery = 101.03%
P 214.914†              1250.6      2427.8 µg/L        309.09      2427.8 ppb         309.09  12.73%
   QC value within limits for P 214.914  Recovery = 97.11%
Pb 220.353†             2055.1      499.72 µg/L        57.768      499.72 ppb         57.768  11.56%
   QC value within limits for Pb 220.353  Recovery = 99.94%
S 181.975 Axial†         243.6      1010.2 µg/L         98.85      1010.2 ppb          98.85   9.79%
   QC value within limits for S 181.975 Axial  Recovery = 101.02%
Sb 206.836†              544.1      501.49 µg/L        65.671      501.49 ppb         65.671  13.10%
   QC value within limits for Sb 206.836  Recovery = 100.30%
Se 196.026†              359.6      513.22 µg/L        56.697      513.22 ppb         56.697  11.05%
   QC value within limits for Se 196.026  Recovery = 102.64%
SiO2†                  27382.4      5404.9 µg/L        389.50      5404.9 ppb         389.50   7.21%
   QC value within limits for SiO2  Recovery = 101.07%
Si 251.611†            33259.5      2528.4 µg/L        181.64      2528.4 ppb         181.64   7.18%
   QC value within limits for Si 251.611  Recovery = 101.14%
Sn 189.927†             1178.7      497.14 µg/L        72.805      497.14 ppb         72.805  14.64%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†            55404.3      511.11 µg/L         0.706      511.11 ppb          0.706   0.14%
   QC value within limits for Sr 421.552  Recovery = 102.22%
Ti 334.940†           228393.4      504.92 µg/L        36.389      504.92 ppb         36.389   7.21%
   QC value within limits for Ti 334.940  Recovery = 100.98%
Tl 190.801†              388.0      510.09 µg/L        40.923      510.09 ppb         40.923   8.02%
   QC value within limits for Tl 190.801  Recovery = 102.02%
U 409.014†              6071.8      503.43 µg/L        52.204      503.43 ppb         52.204  10.37%
   QC value within limits for U 409.014  Recovery = 100.69%
V 292.402†             51233.3      505.41 µg/L        48.044      505.41 ppb         48.044   9.51%
   QC value within limits for V 292.402  Recovery = 101.08%
Zn 213.857†            21595.5      503.07 µg/L        44.204      503.07 ppb         44.204   8.79%
   QC value within limits for Zn 213.857  Recovery = 100.61%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:55:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55016.4	55016.4	97.4	%			17:56:30
1	Al 396.153Radial†	-25.6	-33.6	-23.423	µg/L	-23.423	ppb	17:56:30
1	Ca 317.933Radial†	188.9	-17.3	-14.738	µg/L	-14.738	ppb	17:56:51
1	Fe 238.204 Radial†	16.8	0.7	5.5284	µg/L	5.5284	ppb	17:56:51
1	K 766.490 Radial†	203.2	43.7	28.526	µg/L	28.526	ppb	17:56:30
1	Mg 279.077 IEC†	6.2	-6.4	-57.504	µg/L	-57.504	ppb	17:56:51
1	Na 589.592 Radial†	507.1	48.5	14.906	µg/L	14.906	ppb	17:56:30
1	Sr 421.552†	39.0	11.2	0.1037	µg/L	0.1037	ppb	17:56:30
1	Sc 361.383	1965901.2	1965901.2	100.14	%			17:57:53
1	Y 371.029	1354342.9	1354342.9	100.12	%			17:57:53
1	Ag 328.068†	-375.0	27.2	0.2015	µg/L	0.2015	ppb	17:57:58
1	As 188.979†	2.9	3.3	5.9435	µg/L	5.9435	ppb	17:58:19
1	B 249.677†	389.1	4.4	0.1765	µg/L	0.1765	ppb	17:58:19
1	Ba 233.527†	-21.5	-4.4	-0.1059	µg/L	-0.1059	ppb	17:58:19
1	Be 313.107†	-2713.7	145.8	0.0865	µg/L	0.0865	ppb	17:57:58
1	Cd 226.502†	-132.8	9.1	0.2255	µg/L	0.2255	ppb	17:58:19
1	Co 228.616†	-6.2	-8.1	-0.3659	µg/L	-0.3659	ppb	17:58:19
1	Cr 267.716†	-50.1	0.4	0.0078	µg/L	0.0078	ppb	17:57:58
1	Cu 324.752†	2544.7	-2.7	-0.0168	µg/L	-0.0168	ppb	17:57:58
1	Mn 257.610†	-245.9	10.5	0.0359	µg/L	0.0359	ppb	17:58:19
1	Mo 202.031†	3.8	9.1	0.8915	µg/L	0.8915	ppb	17:58:19
1	Ni 231.604†	300.7	-12.0	-0.5990	µg/L	-0.5990	ppb	17:58:19
1	P 214.914†	17.4	2.0	4.0305	µg/L	4.0305	ppb	17:58:19
1	Pb 220.353†	97.4	6.3	1.5269	µg/L	1.5269	ppb	17:58:19
1	S 181.975 Axial†	17.7	-1.2	-5.1360	µg/L	-5.1360	ppb	17:58:19
1	Sb 206.836†	24.8	2.2	2.0583	µg/L	2.0583	ppb	17:58:19
1	Se 196.026†	12.5	-6.8	-9.5059	µg/L	-9.5059	ppb	17:58:19
1	SiO2†	1426.2	32.7	6.4463	µg/L	6.4463	ppb	17:57:58
1	Si 251.611†	326.4	15.3	1.1636	µg/L	1.1636	ppb	17:58:19
1	Sn 189.927†	4.0	3.6	1.5081	µg/L	1.5081	ppb	17:58:19
1	Ti 334.940†	201.4	26.1	0.0620	µg/L	0.0620	ppb	17:57:58
1	Tl 190.801†	-21.5	0.9	1.1647	µg/L	1.1647	ppb	17:58:19
1	U 409.014†	-51.8	25.4	2.1068	µg/L	2.1068	ppb	17:57:58
1	V 292.402†	-46.0	-1.1	-0.0014	µg/L	-0.0014	ppb	17:57:58
1	Zn 213.857†	533.4	-1.7	-0.0344	µg/L	-0.0344	ppb	17:58:19
2	Sc RADIAL	55682.3	55682.3	98.6	%			17:56:56
2	Al 396.153Radial†	-28.9	-36.6	-25.497	µg/L	-25.497	ppb	17:56:56
2	Ca 317.933Radial†	190.4	-18.1	-15.487	µg/L	-15.487	ppb	17:57:17
2	Fe 238.204 Radial†	16.8	0.5	4.1171	µg/L	4.1171	ppb	17:57:17
2	K 766.490 Radial†	223.9	62.2	40.619	µg/L	40.619	ppb	17:56:56
2	Mg 279.077 IEC†	9.9	-2.8	-25.072	µg/L	-25.072	ppb	17:57:17
2	Na 589.592 Radial†	519.3	54.7	16.798	µg/L	16.798	ppb	17:56:56
2	Sr 421.552†	32.7	4.3	0.0401	µg/L	0.0401	ppb	17:56:56
2	Sc 361.383	1957019.5	1957019.5	99.689	%			17:58:25
2	Y 371.029	1350334.7	1350334.7	99.821	%			17:58:25
2	Ag 328.068†	-377.0	23.5	0.1757	µg/L	0.1757	ppb	17:58:30
2	As 188.979†	-0.8	-0.3	-0.5788	µg/L	-0.5788	ppb	17:58:51
2	B 249.677†	388.0	5.1	0.2060	µg/L	0.2060	ppb	17:58:51
2	Ba 233.527†	-16.1	0.9	0.0215	µg/L	0.0215	ppb	17:58:51
2	Be 313.107†	-2677.7	169.6	0.1006	µg/L	0.1006	ppb	17:58:30
2	Cd 226.502†	-142.7	-1.4	-0.0367	µg/L	-0.0367	ppb	17:58:51
2	Co 228.616†	7.4	5.5	0.2501	µg/L	0.2501	ppb	17:58:51
2	Cr 267.716†	-33.3	17.0	0.3420	µg/L	0.3420	ppb	17:58:30
2	Cu 324.752†	2564.5	28.8	0.1884	µg/L	0.1884	ppb	17:58:30
2	Mn 257.610†	-244.8	10.4	0.0341	µg/L	0.0341	ppb	17:58:51
2	Mo 202.031†	-1.9	3.5	0.3412	µg/L	0.3412	ppb	17:58:51
2	Ni 231.604†	305.0	-6.4	-0.3187	µg/L	-0.3187	ppb	17:58:51
2	P 214.914†	15.9	0.6	1.2381	µg/L	1.2381	ppb	17:58:51
2	Pb 220.353†	85.8	-4.9	-1.1822	µg/L	-1.1822	ppb	17:58:51

2	S 181.975 Axial†	16.3	-2.6	-10.626 µg/L	-10.626 ppb	17:58:51
2	Sb 206.836†	25.7	3.2	2.9825 µg/L	2.9825 ppb	17:58:51
2	Se 196.026†	18.4	-0.8	-1.1281 µg/L	-1.1281 ppb	17:58:51
2	SiO2†	1461.8	74.8	14.763 µg/L	14.763 ppb	17:58:30
2	Si 251.611†	344.9	35.3	2.6849 µg/L	2.6849 ppb	17:58:51
2	Sn 189.927†	-1.0	-1.4	-0.5943 µg/L	-0.5943 ppb	17:58:51
2	Ti 334.940†	216.4	42.0	0.0947 µg/L	0.0947 ppb	17:58:30
2	Tl 190.801†	-19.8	2.5	3.2612 µg/L	3.2612 ppb	17:58:51
2	U 409.014†	-50.4	26.6	2.2066 µg/L	2.2066 ppb	17:58:30
2	V 292.402†	-18.0	26.7	0.2662 µg/L	0.2662 ppb	17:58:30
2	Zn 213.857†	535.3	2.5	0.0614 µg/L	0.0614 ppb	17:58:51
3	Sc RADIAL	55053.2	55053.2	97.4 %		17:57:22
3	Al 396.153Radial†	-40.3	-48.7	-33.898 µg/L	-33.898 ppb	17:57:22
3	Ca 317.933Radial†	188.9	-17.4	-14.892 µg/L	-14.892 ppb	17:57:42
3	Fe 238.204 Radial†	16.1	-0.0	-0.3068 µg/L	-0.3068 ppb	17:57:42
3	K 766.490 Radial†	212.7	53.3	34.793 µg/L	34.793 ppb	17:57:22
3	Mg 279.077 IEC†	19.0	6.7	59.990 µg/L	59.990 ppb	17:57:42
3	Na 589.592 Radial†	541.5	83.5	25.652 µg/L	25.652 ppb	17:57:22
3	Sr 421.552†	50.1	22.6	0.2082 µg/L	0.2082 ppb	17:57:22
3	Sc 361.383	1965248.8	1965248.8	100.11 %		17:58:57
3	Y 371.029	1354189.1	1354189.1	100.11 %		17:58:57
3	Ag 328.068†	-450.0	-47.9	-0.3524 µg/L	-0.3524 ppb	17:59:03
3	As 188.979†	0.1	0.6	1.0726 µg/L	1.0726 ppb	17:59:23
3	B 249.677†	379.0	-5.5	-0.2247 µg/L	-0.2247 ppb	17:59:23
3	Ba 233.527†	-9.6	7.5	0.1800 µg/L	0.1800 ppb	17:59:23
3	Be 313.107†	-2642.2	216.4	0.1284 µg/L	0.1284 ppb	17:59:03
3	Cd 226.502†	-137.1	4.7	0.1164 µg/L	0.1164 ppb	17:59:23
3	Co 228.616†	5.7	3.7	0.1693 µg/L	0.1693 ppb	17:59:23
3	Cr 267.716†	-63.8	-13.4	-0.2679 µg/L	-0.2679 ppb	17:59:03
3	Cu 324.752†	2541.3	-5.2	-0.0342 µg/L	-0.0342 ppb	17:59:03
3	Mn 257.610†	-242.2	14.1	0.0418 µg/L	0.0418 ppb	17:59:23
3	Mo 202.031†	-0.6	4.8	0.4652 µg/L	0.4652 ppb	17:59:23
3	Ni 231.604†	301.2	-11.4	-0.5704 µg/L	-0.5704 ppb	17:59:23
3	P 214.914†	21.9	6.6	13.019 µg/L	13.019 ppb	17:59:23
3	Pb 220.353†	81.2	-9.9	-2.4060 µg/L	-2.4060 ppb	17:59:23
3	S 181.975 Axial†	14.0	-4.9	-20.443 µg/L	-20.443 ppb	17:59:23
3	Sb 206.836†	27.7	5.2	4.7514 µg/L	4.7514 ppb	17:59:23
3	Se 196.026†	17.1	-2.2	-3.1763 µg/L	-3.1763 ppb	17:59:23
3	SiO2†	1412.3	19.2	3.7961 µg/L	3.7961 ppb	17:59:03
3	Si 251.611†	335.9	24.9	1.8933 µg/L	1.8933 ppb	17:59:23
3	Sn 189.927†	3.9	3.5	1.4733 µg/L	1.4733 ppb	17:59:23
3	Ti 334.940†	206.9	31.6	0.0650 µg/L	0.0650 ppb	17:59:03
3	Tl 190.801†	-23.3	-0.9	-1.1798 µg/L	-1.1798 ppb	17:59:23
3	U 409.014†	2.6	79.6	6.6183 µg/L	6.6183 ppb	17:59:03
3	V 292.402†	-4.6	40.2	0.4016 µg/L	0.4016 ppb	17:59:03
3	Zn 213.857†	533.9	-1.1	-0.0271 µg/L	-0.0271 ppb	17:59:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962723.2	99.980	%	0.2522				0.25%
Sc RADIAL	55250.6	97.8	%	0.66				0.68%
Y 371.029	1352955.6	100.01	%	0.168				0.17%
Ag 328.068†	0.9	0.0083	µg/L	0.31265	0.0083	ppb	0.31265	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-39.7	-27.606	µg/L	5.5466	-27.606	ppb	5.5466	20.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	2.1458	µg/L	3.39103	2.1458	ppb	3.39103	158.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.3	0.0526	µg/L	0.24059	0.0526	ppb	0.24059	457.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.3	0.0318	µg/L	0.14326	0.0318	ppb	0.14326	449.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	177.3	0.1052	µg/L	0.02132	0.1052	ppb	0.02132	20.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.6	-15.039	µg/L	0.3955	-15.039	ppb	0.3955	2.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.1	0.1017	µg/L	0.13173	0.1017	ppb	0.13173	129.53%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0179	µg/L	0.33479	0.0179	ppb	0.33479	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.4      0.0273 µg/L       0.30543      0.0273 ppb        0.30543 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 7.0      0.0458 µg/L       0.12379      0.0458 ppb        0.12379 270.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.1129 µg/L       3.04443      3.1129 ppb        3.04443  97.80%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          53.0     34.646 µg/L        6.0478     34.646 ppb         6.0478  17.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.5284 µg/L      60.67961     -7.5284 ppb       60.67961 806.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.7      0.0373 µg/L       0.00401      0.0373 ppb        0.00401  10.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.8      0.5659 µg/L       0.28866      0.5659 ppb        0.28866  51.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         62.2     19.119 µg/L        5.7369     19.119 ppb         5.7369  30.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.0     -0.4960 µg/L       0.15424     -0.4960 ppb        0.15424  31.09%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.1      6.0957 µg/L       6.15582      6.0957 ppb        6.15582 100.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.8     -0.6871 µg/L       2.01265     -0.6871 ppb        2.01265 292.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.9    -12.068 µg/L        7.7546    -12.068 ppb         7.7546  64.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      3.2641 µg/L       1.36846      3.2641 ppb        1.36846  41.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.3     -4.6035 µg/L       4.36743     -4.6035 ppb        4.36743  94.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      42.2      8.3350 µg/L       5.72201      8.3350 ppb        5.72201  68.65%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                25.2      1.9139 µg/L       0.76087      1.9139 ppb        0.76087  39.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.7957 µg/L       1.20387      0.7957 ppb        1.20387 151.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.7      0.1173 µg/L       0.08487      0.1173 ppb        0.08487  72.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                33.2      0.0739 µg/L       0.01807      0.0739 ppb        0.01807  24.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.8      1.0820 µg/L       2.22165      1.0820 ppb        2.22165 205.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.9      3.6439 µg/L       2.57643      3.6439 ppb        2.57643  70.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 21.9      0.2221 µg/L       0.20505      0.2221 ppb        0.20505  92.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -0.1      0.0000 µg/L       0.05335      0.0000 ppb        0.05335 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: 1202046765|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 307
Date Collected: 2/19/2010 17:59:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202046765|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54021.6	54021.6	95.6	%			18:00:10
1	Al 396.153Radial†	26.6	20.4	14.204	µg/L	14.204	ppb	18:00:10
1	Ca 317.933Radial†	237.3	36.9	31.555	µg/L	31.555	ppb	18:00:31
1	Fe 238.204 Radial†	26.1	10.8	84.882	µg/L	84.882	ppb	18:00:31
1	K 766.490 Radial†	166.5	9.1	5.9460	µg/L	5.9460	ppb	18:00:10
1	Mg 279.077 IEC†	14.1	1.9	16.797	µg/L	16.797	ppb	18:00:31
1	Na 589.592 Radial†	591.0	145.8	44.792	µg/L	44.792	ppb	18:00:10
1	Sr 421.552†	72.8	47.4	0.4370	µg/L	0.4370	ppb	18:00:10
1	Sc 361.383	1924829.7	1924829.7	98.050	%			18:01:32
1	Y 371.029	1325548.9	1325548.9	97.989	%			18:01:32
1	Ag 328.068†	-375.6	18.5	0.1402	µg/L	0.1402	ppb	18:01:38
1	As 188.979†	-0.9	-0.5	-0.8505	µg/L	-0.8505	ppb	18:01:59
1	B 249.677†	387.9	11.5	0.4237	µg/L	0.4237	ppb	18:01:59
1	Ba 233.527†	50.3	68.4	1.6406	µg/L	1.6406	ppb	18:01:59
1	Be 313.107†	-2730.6	70.8	0.0416	µg/L	0.0416	ppb	18:01:38
1	Cd 226.502†	-135.5	3.5	0.0774	µg/L	0.0774	ppb	18:01:59
1	Co 228.616†	13.1	11.4	0.5139	µg/L	0.5139	ppb	18:01:59
1	Cr 267.716†	-8.8	41.4	0.8318	µg/L	0.8318	ppb	18:01:38
1	Cu 324.752†	2707.6	217.7	1.4328	µg/L	1.4328	ppb	18:01:38
1	Mn 257.610†	517.5	783.8	2.4650	µg/L	2.4650	ppb	18:01:59
1	Mo 202.031†	-2.4	2.9	0.2919	µg/L	0.2919	ppb	18:01:59
1	Ni 231.604†	317.6	11.6	0.5772	µg/L	0.5772	ppb	18:01:59
1	P 214.914†	16.3	1.3	2.7585	µg/L	2.7585	ppb	18:01:59
1	Pb 220.353†	92.7	3.6	0.8572	µg/L	0.8572	ppb	18:01:59
1	S 181.975 Axial†	24.5	6.1	25.117	µg/L	25.117	ppb	18:01:59
1	Sb 206.836†	26.2	4.3	3.8986	µg/L	3.8986	ppb	18:01:59
1	Se 196.026†	10.1	-9.1	-12.521	µg/L	-12.521	ppb	18:01:59
1	SiO2†	1782.4	426.3	84.137	µg/L	84.137	ppb	18:01:38
1	Si 251.611†	775.0	479.7	36.471	µg/L	36.471	ppb	18:01:59
1	Sn 189.927†	54.5	55.2	23.262	µg/L	23.262	ppb	18:01:59
1	Ti 334.940†	644.1	481.9	1.0652	µg/L	1.0652	ppb	18:01:38
1	Tl 190.801†	-25.5	-3.7	-4.7341	µg/L	-4.7341	ppb	18:01:59
1	U 409.014†	1.8	78.9	6.5440	µg/L	6.5440	ppb	18:01:38
1	V 292.402†	-77.6	-34.4	-0.3144	µg/L	-0.3144	ppb	18:01:38
1	Zn 213.857†	691.0	170.3	3.9868	µg/L	3.9868	ppb	18:01:59
2	Sc RADIAL	54735.8	54735.8	96.9	%			18:00:36
2	Al 396.153Radial†	2.1	-5.2	-3.5992	µg/L	-3.5992	ppb	18:00:36
2	Ca 317.933Radial†	234.8	31.0	26.509	µg/L	26.509	ppb	18:00:57
2	Fe 238.204 Radial†	25.5	9.7	76.571	µg/L	76.571	ppb	18:00:57
2	K 766.490 Radial†	258.5	101.8	66.474	µg/L	66.474	ppb	18:00:36
2	Mg 279.077 IEC†	15.5	3.2	28.386	µg/L	28.386	ppb	18:00:57
2	Na 589.592 Radial†	613.2	160.7	49.369	µg/L	49.369	ppb	18:00:36
2	Sr 421.552†	49.6	22.3	0.2061	µg/L	0.2061	ppb	18:00:36
2	Sc 361.383	1942879.6	1942879.6	98.969	%			18:02:05
2	Y 371.029	1337587.5	1337587.5	98.879	%			18:02:05
2	Ag 328.068†	-337.7	60.4	0.4544	µg/L	0.4544	ppb	18:02:10
2	As 188.979†	-4.8	-4.4	-7.7954	µg/L	-7.7954	ppb	18:02:31
2	B 249.677†	386.2	6.0	0.2082	µg/L	0.2082	ppb	18:02:31
2	Ba 233.527†	39.6	57.1	1.3722	µg/L	1.3722	ppb	18:02:31
2	Be 313.107†	-2662.4	165.6	0.0980	µg/L	0.0980	ppb	18:02:10
2	Cd 226.502†	-131.2	9.1	0.2184	µg/L	0.2184	ppb	18:02:31
2	Co 228.616†	10.3	8.4	0.3810	µg/L	0.3810	ppb	18:02:31
2	Cr 267.716†	-0.2	50.2	1.0080	µg/L	1.0080	ppb	18:02:10
2	Cu 324.752†	2679.8	163.9	1.0808	µg/L	1.0808	ppb	18:02:10
2	Mn 257.610†	493.5	754.7	2.3723	µg/L	2.3723	ppb	18:02:31
2	Mo 202.031†	0.1	5.4	0.5321	µg/L	0.5321	ppb	18:02:31
2	Ni 231.604†	312.7	3.7	0.1827	µg/L	0.1827	ppb	18:02:31
2	P 214.914†	12.3	-2.9	-5.5799	µg/L	-5.5799	ppb	18:02:31
2	Pb 220.353†	94.5	4.5	1.0933	µg/L	1.0933	ppb	18:02:31

2	S 181.975 Axial†	16.6	-2.2	-9.0188 µg/L	-9.0188 ppb	18:02:31
2	Sb 206.836†	21.7	-0.5	-0.4935 µg/L	-0.4935 ppb	18:02:31
2	Se 196.026†	19.6	0.5	0.9173 µg/L	0.9173 ppb	18:02:31
2	SiO2†	1830.9	458.4	90.488 µg/L	90.488 ppb	18:02:10
2	Si 251.611†	771.7	469.1	35.663 µg/L	35.663 ppb	18:02:31
2	Sn 189.927†	54.4	54.6	23.003 µg/L	23.003 ppb	18:02:31
2	Ti 334.940†	529.6	360.1	0.7948 µg/L	0.7948 ppb	18:02:10
2	Tl 190.801†	-17.9	4.3	5.5840 µg/L	5.5840 ppb	18:02:31
2	U 409.014†	-30.1	46.7	3.8658 µg/L	3.8658 ppb	18:02:10
2	V 292.402†	-12.7	32.0	0.3308 µg/L	0.3308 ppb	18:02:10
2	Zn 213.857†	678.8	151.5	3.5468 µg/L	3.5468 ppb	18:02:31
3	Sc RADIAL	54342.3	54342.3	96.2 %		18:01:02
3	Al 396.153Radial†	31.9	25.8	17.938 µg/L	17.938 ppb	18:01:02
3	Ca 317.933Radial†	242.4	40.7	34.807 µg/L	34.807 ppb	18:01:22
3	Fe 238.204 Radial†	23.5	7.8	61.797 µg/L	61.797 ppb	18:01:22
3	K 766.490 Radial†	239.9	84.4	55.149 µg/L	55.149 ppb	18:01:02
3	Mg 279.077 IEC†	14.8	2.5	22.576 µg/L	22.576 ppb	18:01:22
3	Na 589.592 Radial†	609.7	161.7	49.656 µg/L	49.656 ppb	18:01:02
3	Sr 421.552†	65.7	39.5	0.3645 µg/L	0.3645 ppb	18:01:02
3	Sc 361.383	1927043.9	1927043.9	98.162 %		18:02:37
3	Y 371.029	1326171.0	1326171.0	98.035 %		18:02:37
3	Ag 328.068†	-356.2	38.7	0.2921 µg/L	0.2921 ppb	18:02:42
3	As 188.979†	-2.2	-1.8	-3.2252 µg/L	-3.2252 ppb	18:03:03
3	B 249.677†	371.6	-5.6	-0.2577 µg/L	-0.2577 ppb	18:03:03
3	Ba 233.527†	46.0	63.9	1.5350 µg/L	1.5350 ppb	18:03:03
3	Be 313.107†	-2775.4	28.4	0.0165 µg/L	0.0165 ppb	18:02:42
3	Cd 226.502†	-137.0	2.2	0.0471 µg/L	0.0471 ppb	18:03:03
3	Co 228.616†	7.3	5.5	0.2470 µg/L	0.2470 ppb	18:03:03
3	Cr 267.716†	0.9	51.2	1.0295 µg/L	1.0295 ppb	18:02:42
3	Cu 324.752†	2706.3	213.2	1.4005 µg/L	1.4005 ppb	18:02:42
3	Mn 257.610†	457.1	721.6	2.2671 µg/L	2.2671 ppb	18:03:03
3	Mo 202.031†	0.3	5.6	0.5521 µg/L	0.5521 ppb	18:03:03
3	Ni 231.604†	315.5	9.1	0.4545 µg/L	0.4545 ppb	18:03:03
3	P 214.914†	15.8	0.7	1.5643 µg/L	1.5643 ppb	18:03:03
3	Pb 220.353†	104.5	15.5	3.7531 µg/L	3.7531 ppb	18:03:03
3	S 181.975 Axial†	21.6	3.1	12.653 µg/L	12.653 ppb	18:03:03
3	Sb 206.836†	25.1	3.1	2.8377 µg/L	2.8377 ppb	18:03:03
3	Se 196.026†	22.4	3.5	5.0659 µg/L	5.0659 ppb	18:03:03
3	SiO2†	1770.1	411.7	81.264 µg/L	81.264 ppb	18:02:42
3	Si 251.611†	756.7	460.3	34.991 µg/L	34.991 ppb	18:03:03
3	Sn 189.927†	49.8	50.4	21.232 µg/L	21.232 ppb	18:03:03
3	Ti 334.940†	608.1	444.5	0.9821 µg/L	0.9821 ppb	18:02:42
3	Tl 190.801†	-23.8	-1.8	-2.3377 µg/L	-2.3377 ppb	18:03:03
3	U 409.014†	-14.8	62.1	5.1447 µg/L	5.1447 ppb	18:02:42
3	V 292.402†	-20.6	23.8	0.2509 µg/L	0.2509 ppb	18:02:42
3	Zn 213.857†	674.9	153.1	3.5842 µg/L	3.5842 ppb	18:03:03

Mean Data: 1202046765|954751|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1931584.4	98.394	%	0.5015				0.51%
Sc RADIAL	54366.6	96.2	%	0.63				0.66%
Y 371.029	1329769.2	98.301	%	0.5011				0.51%
Ag 328.068†	39.2	0.2956	µg/L	0.15714	0.2956	ppb	0.15714	53.17%
Al 396.153Radial†	13.7	9.5145	µg/L	11.50920	9.5145	ppb	11.50920	120.97%
As 188.979†	-2.2	-3.9570	µg/L	3.52977	-3.9570	ppb	3.52977	89.20%
B 249.677†	4.0	0.1247	µg/L	0.34832	0.1247	ppb	0.34832	279.26%
Ba 233.527†	63.1	1.5159	µg/L	0.13523	1.5159	ppb	0.13523	8.92%
Be 313.107†	88.2	0.0520	µg/L	0.04174	0.0520	ppb	0.04174	80.26%
Ca 317.933Radial†	36.2	30.957	µg/L	4.1814	30.957	ppb	4.1814	13.51%
Cd 226.502†	4.9	0.1143	µg/L	0.09138	0.1143	ppb	0.09138	79.95%
Co 228.616†	8.4	0.3807	µg/L	0.13343	0.3807	ppb	0.13343	35.05%
Cr 267.716†	47.6	0.9564	µg/L	0.10846	0.9564	ppb	0.10846	11.34%
Cu 324.752†	198.3	1.3047	µg/L	0.19458	1.3047	ppb	0.19458	14.91%
Fe 238.204 Radial†	9.4	74.417	µg/L	11.6925	74.417	ppb	11.6925	15.71%
K 766.490 Radial†	65.1	42.523	µg/L	32.1787	42.523	ppb	32.1787	75.67%
Mg 279.077 IEC†	2.5	22.586	µg/L	5.7946	22.586	ppb	5.7946	25.66%
Mn 257.610†	753.4	2.3681	µg/L	0.09902	2.3681	ppb	0.09902	4.18%
Mo 202.031†	4.7	0.4587	µg/L	0.14477	0.4587	ppb	0.14477	31.56%
Na 589.592 Radial†	156.1	47.939	µg/L	2.7293	47.939	ppb	2.7293	5.69%

Ni 231.604†	8.1	0.4048	µg/L	0.20189	0.4048	ppb	0.20189	49.87%
P 214.914†	-0.3	-0.4190	µg/L	4.50914	-0.4190	ppb	4.50914	>999.9%
Pb 220.353†	7.9	1.9012	µg/L	1.60810	1.9012	ppb	1.60810	84.58%
S 181.975 Axial†	2.3	9.5839	µg/L	17.27375	9.5839	ppb	17.27375	180.24%
Sb 206.836†	2.3	2.0809	µg/L	2.29177	2.0809	ppb	2.29177	110.13%
Se 196.026†	-1.7	-2.1792	µg/L	9.19318	-2.1792	ppb	9.19318	421.86%
SiO2†	432.1	85.296	µg/L	4.7204	85.296	ppb	4.7204	5.53%
Si 251.611†	469.7	35.709	µg/L	0.7411	35.709	ppb	0.7411	2.08%
Sn 189.927†	53.4	22.499	µg/L	1.1049	22.499	ppb	1.1049	4.91%
Sr 421.552†	36.4	0.3359	µg/L	0.11807	0.3359	ppb	0.11807	35.15%
Ti 334.940†	428.8	0.9474	µg/L	0.13849	0.9474	ppb	0.13849	14.62%
Tl 190.801†	-0.4	-0.4959	µg/L	5.39995	-0.4959	ppb	5.39995	>999.9%
U 409.014†	62.6	5.1849	µg/L	1.33957	5.1849	ppb	1.33957	25.84%
V 292.402†	7.1	0.0891	µg/L	0.35172	0.0891	ppb	0.35172	394.62%
Zn 213.857†	158.3	3.7059	µg/L	0.24397	3.7059	ppb	0.24397	6.58%

Sequence No.: 10
Sample ID: 1202046766|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 308
Date Collected: 2/19/2010 18:03:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202046766|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56269.6	56269.6	99.6	%			18:03:51
1	Al 396.153Radial†	130292.6	130808.5	90985	µg/L	90985	ppb	18:03:46
1	Ca 317.933Radial†	126611.6	126908.8	108400	µg/L	108400	ppb	18:03:46
1	Fe 238.204 Radial†	25818.6	25905.8	204340	µg/L	204340	ppb	18:03:51
1	K 766.490 Radial†	65639.2	65737.9	42934	µg/L	42934	ppb	18:03:46
1	Mg 279.077 IEC†	4586.1	4591.7	40836	µg/L	40836	ppb	18:03:51
1	Na 589.592 Radial†	35734.3	35405.6	10875	µg/L	10875	ppb	18:03:46
1	Sr 421.552†	266541.1	267582.8	2468.5	µg/L	2468.5	ppb	18:03:46
1	Sc 361.383	1934863.8	1934863.8	98.561	%			18:04:26
1	Y 371.029	1360580.2	1360580.2	100.58	%			18:04:26
1	Ag 328.068†	42149.8	43167.0	341.27	µg/L	341.27	ppb	18:04:32
1	As 188.979†	659.1	669.1	1204.4	µg/L	1204.4	ppb	18:04:52
1	B 249.677†	39134.2	39321.5	1500.2	µg/L	1500.2	ppb	18:04:32
1	Ba 233.527†	87532.9	88828.3	2134.9	µg/L	2134.9	ppb	18:04:32
1	Be 313.107†	1451984.9	1476044.8	873.80	µg/L	873.80	ppb	18:04:26
1	Cd 226.502†	26497.8	27026.4	652.46	µg/L	652.46	ppb	18:04:32
1	Co 228.616†	22290.8	22614.4	1012.4	µg/L	1012.4	ppb	18:04:32
1	Cr 267.716†	128470.9	130397.4	2619.9	µg/L	2619.9	ppb	18:04:32
1	Cu 324.752†	300039.2	301877.1	1998.9	µg/L	1998.9	ppb	18:04:32
1	Mn 257.610†	1861422.5	1888862.1	5940.5	µg/L	5940.5	ppb	18:04:26
1	Mo 202.031†	5904.3	5995.9	594.92	µg/L	594.92	ppb	18:04:52
1	Ni 231.604†	29569.8	29689.3	1481.4	µg/L	1481.4	ppb	18:04:32
1	P 214.914†	4666.1	4718.9	9013.2	µg/L	9013.2	ppb	18:04:52
1	Pb 220.353†	3816.3	3781.1	914.87	µg/L	914.87	ppb	18:04:52
1	S 181.975 Axial†	1009.5	1005.3	4169.1	µg/L	4169.1	ppb	18:04:52
1	Sb 206.836†	2148.3	2157.2	1950.9	µg/L	1950.9	ppb	18:04:52
1	Se 196.026†	2172.3	2184.7	3560.0	µg/L	3560.0	ppb	18:04:52
1	SiO2†	122235.0	122628.5	24205	µg/L	24205	ppb	18:04:32
1	Si 251.611†	146449.0	148277.1	11272	µg/L	11272	ppb	18:04:32
1	Sn 189.927†	2895.2	2937.1	1221.1	µg/L	1221.1	ppb	18:04:52
1	Ti 334.940†	2619063.7	2657136.4	5876.7	µg/L	5876.7	ppb	18:04:26
1	Tl 190.801†	947.2	983.4	1374.6	µg/L	1374.6	ppb	18:04:52
1	U 409.014†	-1352.1	-1294.8	-142.59	µg/L	-142.59	ppb	18:04:32
1	V 292.402†	132267.1	134243.4	1342.7	µg/L	1342.7	ppb	18:04:32
1	Zn 213.857†	270095.7	273505.7	6395.1	µg/L	6395.1	ppb	18:04:32
2	Sc RADIAL	55940.9	55940.9	99.0	%			18:04:02
2	Al 396.153Radial†	128998.2	130270.0	90611	µg/L	90611	ppb	18:03:57
2	Ca 317.933Radial†	124918.2	125945.7	107580	µg/L	107580	ppb	18:03:57
2	Fe 238.204 Radial†	25577.2	25814.3	203620	µg/L	203620	ppb	18:04:02
2	K 766.490 Radial†	64919.1	65397.9	42712	µg/L	42712	ppb	18:03:57
2	Mg 279.077 IEC†	4586.1	4618.8	41079	µg/L	41079	ppb	18:04:02
2	Na 589.592 Radial†	35439.5	35318.8	10848	µg/L	10848	ppb	18:03:57
2	Sr 421.552†	263572.4	266157.3	2455.3	µg/L	2455.3	ppb	18:03:57
2	Sc 361.383	1951918.2	1951918.2	99.429	%			18:04:59
2	Y 371.029	1372357.9	1372357.9	101.45	%			18:04:59
2	Ag 328.068†	42266.6	42910.8	339.30	µg/L	339.30	ppb	18:05:05
2	As 188.979†	664.5	668.8	1203.7	µg/L	1203.7	ppb	18:05:26
2	B 249.677†	39458.3	39300.6	1499.7	µg/L	1499.7	ppb	18:05:05
2	Ba 233.527†	88016.6	88538.8	2127.9	µg/L	2127.9	ppb	18:05:05
2	Be 313.107†	1455994.1	1467205.5	868.57	µg/L	868.57	ppb	18:04:59
2	Cd 226.502†	26694.8	26989.6	651.61	µg/L	651.61	ppb	18:05:05
2	Co 228.616†	22379.4	22505.9	1007.6	µg/L	1007.6	ppb	18:05:05
2	Cr 267.716†	129370.7	130163.5	2615.2	µg/L	2615.2	ppb	18:05:05
2	Cu 324.752†	301230.2	300415.1	1989.3	µg/L	1989.3	ppb	18:05:05
2	Mn 257.610†	1864859.8	1875817.8	5899.6	µg/L	5899.6	ppb	18:04:59
2	Mo 202.031†	5917.2	5956.5	591.03	µg/L	591.03	ppb	18:05:26
2	Ni 231.604†	29696.5	29554.6	1474.7	µg/L	1474.7	ppb	18:05:05
2	P 214.914†	4670.5	4682.0	8941.6	µg/L	8941.6	ppb	18:05:26
2	Pb 220.353†	3807.7	3738.6	904.55	µg/L	904.55	ppb	18:05:26

2	S 181.975 Axial†	1005.0	991.8	4113.1 µg/L	4113.1 ppb	18:05:26
2	Sb 206.836†	2144.7	2134.5	1930.1 µg/L	1930.1 ppb	18:05:26
2	Se 196.026†	2203.8	2197.1	3575.4 µg/L	3575.4 ppb	18:05:26
2	SiO2†	123269.2	122585.0	24197 µg/L	24197 ppb	18:05:05
2	Si 251.611†	147781.6	148319.0	11276 µg/L	11276 ppb	18:05:05
2	Sn 189.927†	2900.6	2916.9	1212.7 µg/L	1212.7 ppb	18:05:26
2	Ti 334.940†	2624781.8	2639669.8	5838.0 µg/L	5838.0 ppb	18:04:59
2	Tl 190.801†	953.9	981.7	1371.9 µg/L	1371.9 ppb	18:05:26
2	U 409.014†	-1415.4	-1346.4	-146.73 µg/L	-146.73 ppb	18:05:05
2	V 292.402†	133042.1	133850.3	1338.8 µg/L	1338.8 ppb	18:05:05
2	Zn 213.857†	271755.4	272780.5	6378.2 µg/L	6378.2 ppb	18:05:05
3	Sc RADIAL	55498.3	55498.3	98.2 %		18:04:13
3	Al 396.153Radial†	130091.7	132422.3	92108 µg/L	92108 ppb	18:04:08
3	Ca 317.933Radial†	125875.6	127926.5	109270 µg/L	109270 ppb	18:04:08
3	Fe 238.204 Radial†	25339.7	25778.5	203330 µg/L	203330 ppb	18:04:13
3	K 766.490 Radial†	65510.5	66522.8	43447 µg/L	43447 ppb	18:04:08
3	Mg 279.077 IEC†	4521.6	4590.1	40823 µg/L	40823 ppb	18:04:13
3	Na 589.592 Radial†	35676.0	35845.0	11010 µg/L	11010 ppb	18:04:08
3	Sr 421.552†	265343.8	270083.5	2491.6 µg/L	2491.6 ppb	18:04:08
3	Sc 361.383	1942813.6	1942813.6	98.966 %		18:05:33
3	Y 371.029	1366581.2	1366581.2	101.02 %		18:05:33
3	Ag 328.068†	41974.0	42814.3	338.56 µg/L	338.56 ppb	18:05:39
3	As 188.979†	651.7	659.0	1186.1 µg/L	1186.1 ppb	18:05:59
3	B 249.677†	39211.3	39237.0	1497.3 µg/L	1497.3 ppb	18:05:39
3	Ba 233.527†	87613.5	88546.4	2128.1 µg/L	2128.1 ppb	18:05:39
3	Be 313.107†	1475246.0	1493521.0	884.15 µg/L	884.15 ppb	18:05:33
3	Cd 226.502†	26576.7	26996.2	651.81 µg/L	651.81 ppb	18:05:39
3	Co 228.616†	22301.4	22532.6	1008.6 µg/L	1008.6 ppb	18:05:39
3	Cr 267.716†	128634.8	130029.6	2612.5 µg/L	2612.5 ppb	18:05:39
3	Cu 324.752†	299647.2	300235.4	1988.0 µg/L	1988.0 ppb	18:05:39
3	Mn 257.610†	1888761.5	1908758.8	6002.7 µg/L	6002.7 ppb	18:05:33
3	Mo 202.031†	5927.0	5994.3	594.73 µg/L	594.73 ppb	18:05:59
3	Ni 231.604†	29540.3	29536.7	1473.8 µg/L	1473.8 ppb	18:05:39
3	P 214.914†	4679.5	4713.1	9004.1 µg/L	9004.1 ppb	18:05:59
3	Pb 220.353†	3819.1	3768.1	911.82 µg/L	911.82 ppb	18:05:59
3	S 181.975 Axial†	1004.6	996.1	4130.9 µg/L	4130.9 ppb	18:05:59
3	Sb 206.836†	2141.0	2140.9	1935.9 µg/L	1935.9 ppb	18:05:59
3	Se 196.026†	2200.2	2203.9	3584.0 µg/L	3584.0 ppb	18:05:59
3	SiO2†	122331.3	122218.4	24124 µg/L	24124 ppb	18:05:39
3	Si 251.611†	146526.2	147747.0	11232 µg/L	11232 ppb	18:05:39
3	Sn 189.927†	2914.8	2944.9	1224.5 µg/L	1224.5 ppb	18:05:59
3	Ti 334.940†	2657781.7	2685385.7	5939.2 µg/L	5939.2 ppb	18:05:33
3	Tl 190.801†	946.1	978.4	1368.9 µg/L	1368.9 ppb	18:05:59
3	U 409.014†	-1379.6	-1317.0	-144.35 µg/L	-144.35 ppb	18:05:39
3	V 292.402†	132362.2	133790.4	1338.2 µg/L	1338.2 ppb	18:05:39
3	Zn 213.857†	270388.7	272680.4	6375.8 µg/L	6375.8 ppb	18:05:39

Mean Data: 1202046766|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1943198.5	98.985	%	0.4347				0.44%
Sc RADIAL	55902.9	99.0	%	0.69				0.69%
Y 371.029	1366506.4	101.02	%	0.435				0.43%
Ag 328.068†	42964.0	339.71	µg/L	1.398	339.71	ppb	1.398	0.41%
Al 396.153Radial†	131166.9	91235	µg/L	779.1	91235	ppb	779.1	0.85%
As 188.979†	665.7	1198.1	µg/L	10.38	1198.1	ppb	10.38	0.87%
B 249.677†	39286.4	1499.1	µg/L	1.57	1499.1	ppb	1.57	0.10%
Ba 233.527†	88637.8	2130.3	µg/L	3.97	2130.3	ppb	3.97	0.19%
Be 313.107†	1478923.8	875.51	µg/L	7.929	875.51	ppb	7.929	0.91%
Ca 317.933Radial†	126927.0	108420	µg/L	846.1	108420	ppb	846.1	0.78%
Cd 226.502†	27004.1	651.96	µg/L	0.442	651.96	ppb	0.442	0.07%
Co 228.616†	22551.0	1009.5	µg/L	2.55	1009.5	ppb	2.55	0.25%
Cr 267.716†	130196.8	2615.9	µg/L	3.74	2615.9	ppb	3.74	0.14%
Cu 324.752†	300842.5	1992.1	µg/L	5.95	1992.1	ppb	5.95	0.30%
Fe 238.204 Radial†	25832.9	203760	µg/L	517.6	203760	ppb	517.6	0.25%
K 766.490 Radial†	65886.2	43031	µg/L	376.8	43031	ppb	376.8	0.88%
Mg 279.077 IEC†	4600.2	40913	µg/L	144.1	40913	ppb	144.1	0.35%
Mn 257.610†	1891146.2	5947.6	µg/L	51.93	5947.6	ppb	51.93	0.87%
Mo 202.031†	5982.2	593.56	µg/L	2.191	593.56	ppb	2.191	0.37%
Na 589.592 Radial†	35523.1	10911	µg/L	86.6	10911	ppb	86.6	0.79%

Ni 231.604†	29593.6	1476.7 µg/L	4.16	1476.7 ppb	4.16	0.28%
P 214.914†	4704.6	8986.3 µg/L	39.02	8986.3 ppb	39.02	0.43%
Pb 220.353†	3762.6	910.41 µg/L	5.300	910.41 ppb	5.300	0.58%
S 181.975 Axial†	997.8	4137.7 µg/L	28.60	4137.7 ppb	28.60	0.69%
Sb 206.836†	2144.2	1939.0 µg/L	10.71	1939.0 ppb	10.71	0.55%
Se 196.026†	2195.2	3573.1 µg/L	12.14	3573.1 ppb	12.14	0.34%
SiO2†	122477.3	24175 µg/L	44.5	24175 ppb	44.5	0.18%
Si 251.611†	148114.4	11260 µg/L	24.2	11260 ppb	24.2	0.22%
Sn 189.927†	2933.0	1219.4 µg/L	6.09	1219.4 ppb	6.09	0.50%
Sr 421.552†	267941.2	2471.8 µg/L	18.33	2471.8 ppb	18.33	0.74%
Ti 334.940†	2660730.6	5884.6 µg/L	51.06	5884.6 ppb	51.06	0.87%
Tl 190.801†	981.2	1371.8 µg/L	2.89	1371.8 ppb	2.89	0.21%
U 409.014†	-1319.4	-144.55 µg/L	2.078	-144.55 ppb	2.078	1.44%
V 292.402†	133961.4	1339.9 µg/L	2.48	1339.9 ppb	2.48	0.18%
Zn 213.857†	272988.9	6383.0 µg/L	10.52	6383.0 ppb	10.52	0.16%

Sequence No.: 11
Sample ID: 245688001|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 309
Date Collected: 2/19/2010 18:06:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688001|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56658.6	56658.6	100	%			18:06:41
1	Al 396.153Radial†	43990.6	43856.7	30509	µg/L	30509	ppb	18:06:41
1	Ca 317.933Radial†	9595.6	9356.7	7992.3	µg/L	7992.3	ppb	18:07:01
1	Fe 238.204 Radial†	8267.5	8227.2	64888	µg/L	64888	ppb	18:07:01
1	K 766.490 Radial†	10851.2	10655.0	6959.0	µg/L	6959.0	ppb	18:06:41
1	Mg 279.077 IEC†	774.1	759.0	6715.5	µg/L	6715.5	ppb	18:07:01
1	Na 589.592 Radial†	1838.4	1360.9	417.98	µg/L	417.98	ppb	18:06:41
1	Sr 421.552†	10799.6	10739.8	99.076	µg/L	99.076	ppb	18:06:41
1	Sc 361.383	2002841.7	2002841.7	102.02	%			18:08:05
1	Y 371.029	1404317.0	1404317.0	103.81	%			18:08:05
1	Ag 328.068†	-1165.4	-740.7	-0.6159	µg/L	-0.6159	ppb	18:08:11
1	As 188.979†	8.8	9.1	19.633	µg/L	19.633	ppb	18:08:31
1	B 249.677†	924.0	521.5	-12.468	µg/L	-12.468	ppb	18:08:11
1	Ba 233.527†	18915.8	18557.7	445.73	µg/L	445.73	ppb	18:08:11
1	Be 313.107†	7135.3	9849.5	4.9873	µg/L	4.9873	ppb	18:08:11
1	Cd 226.502†	119.9	259.2	-0.8102	µg/L	-0.8102	ppb	18:08:31
1	Co 228.616†	851.8	833.0	33.023	µg/L	33.023	ppb	18:08:31
1	Cr 267.716†	4248.8	4214.9	84.732	µg/L	84.732	ppb	18:08:11
1	Cu 324.752†	12499.4	9707.7	72.386	µg/L	72.386	ppb	18:08:11
1	Mn 257.610†	630248.2	618004.6	1943.7	µg/L	1943.7	ppb	18:08:05
1	Mo 202.031†	28.1	32.9	5.6887	µg/L	5.6887	ppb	18:08:31
1	Ni 231.604†	1499.7	1157.7	58.507	µg/L	58.507	ppb	18:08:31
1	P 214.914†	-16.0	-31.0	319.94	µg/L	319.94	ppb	18:08:31
1	Pb 220.353†	484.2	383.6	92.402	µg/L	92.402	ppb	18:08:31
1	S 181.975 Axial†	122.4	101.0	418.84	µg/L	418.84	ppb	18:08:31
1	Sb 206.836†	-65.2	-86.4	-80.897	µg/L	-80.897	ppb	18:08:31
1	Se 196.026†	-18.8	-37.7	116.10	µg/L	116.10	ppb	18:08:31
1	SiO2†	120727.0	116941.1	23083	µg/L	23083	ppb	18:08:11
1	Si 251.611†	147037.6	143810.8	10933	µg/L	10933	ppb	18:08:05
1	Sn 189.927†	70548.3	69148.8	29155	µg/L	29155	ppb	18:08:11
1	Ti 334.940†	1039255.7	1018469.4	2252.7	µg/L	2252.7	ppb	18:08:05
1	Tl 190.801†	-41.3	-18.1	14.769	µg/L	14.769	ppb	18:08:31
1	U 409.014†	-509.7	-422.5	-44.611	µg/L	-44.611	ppb	18:08:11
1	V 292.402†	12377.9	12177.1	126.49	µg/L	126.49	ppb	18:08:11
1	Zn 213.857†	8274.3	7575.8	173.91	µg/L	173.91	ppb	18:08:11
2	Sc RADIAL	56572.8	56572.8	100	%			18:07:07
2	Al 396.153Radial†	43624.4	43557.5	30301	µg/L	30301	ppb	18:07:07
2	Ca 317.933Radial†	9585.5	9361.2	7996.1	µg/L	7996.1	ppb	18:07:27
2	Fe 238.204 Radial†	8258.6	8230.8	64916	µg/L	64916	ppb	18:07:27
2	K 766.490 Radial†	10761.7	10582.0	6911.3	µg/L	6911.3	ppb	18:07:07
2	Mg 279.077 IEC†	775.8	761.9	6740.9	µg/L	6740.9	ppb	18:07:27
2	Na 589.592 Radial†	1802.6	1328.0	407.87	µg/L	407.87	ppb	18:07:07
2	Sr 421.552†	10717.6	10674.1	98.470	µg/L	98.470	ppb	18:07:07
2	Sc 361.383	1997573.4	1997573.4	101.76	%			18:08:38
2	Y 371.029	1399622.9	1399622.9	103.46	%			18:08:38
2	Ag 328.068†	-1227.2	-804.4	-1.0817	µg/L	-1.0817	ppb	18:08:44
2	As 188.979†	6.7	7.0	15.954	µg/L	15.954	ppb	18:09:04
2	B 249.677†	908.5	508.7	-13.003	µg/L	-13.003	ppb	18:08:44
2	Ba 233.527†	19021.0	18710.1	449.39	µg/L	449.39	ppb	18:08:44
2	Be 313.107†	7135.0	9867.7	4.9976	µg/L	4.9976	ppb	18:08:44
2	Cd 226.502†	114.1	253.9	-0.9468	µg/L	-0.9468	ppb	18:09:04
2	Co 228.616†	837.9	821.5	32.502	µg/L	32.502	ppb	18:09:04
2	Cr 267.716†	4288.5	4264.9	85.737	µg/L	85.737	ppb	18:08:44
2	Cu 324.752†	12554.9	9794.6	72.957	µg/L	72.957	ppb	18:08:44
2	Mn 257.610†	627184.0	616622.5	1939.3	µg/L	1939.3	ppb	18:08:38
2	Mo 202.031†	22.3	27.2	5.1347	µg/L	5.1347	ppb	18:09:04
2	Ni 231.604†	1483.0	1145.1	57.882	µg/L	57.882	ppb	18:09:04
2	P 214.914†	-15.6	-30.6	324.38	µg/L	324.38	ppb	18:09:04
2	Pb 220.353†	485.7	386.4	93.071	µg/L	93.071	ppb	18:09:04

2	S 181.975 Axial†	119.1	98.1	406.89 µg/L	406.89 ppb	18:09:04
2	Sb 206.836†	-68.3	-89.7	-83.931 µg/L	-83.931 ppb	18:09:04
2	Se 196.026†	-22.6	-41.5	110.85 µg/L	110.85 ppb	18:09:04
2	SiO2†	121417.2	117931.4	23278 µg/L	23278 ppb	18:08:44
2	Si 251.611†	146295.5	143461.6	10906 µg/L	10906 ppb	18:08:38
2	Sn 189.927†	70993.8	69768.9	29416 µg/L	29416 ppb	18:08:44
2	Ti 334.940†	1037091.8	1019029.3	2253.9 µg/L	2253.9 ppb	18:08:38
2	Tl 190.801†	-39.5	-16.4	16.974 µg/L	16.974 ppb	18:09:04
2	U 409.014†	-530.2	-444.0	-46.398 µg/L	-46.398 ppb	18:08:44
2	V 292.402†	12417.3	12247.9	127.18 µg/L	127.18 ppb	18:08:44
2	Zn 213.857†	8292.7	7615.3	174.84 µg/L	174.84 ppb	18:08:44
3	Sc RADIAL	57009.8	57009.8	101 %		18:07:33
3	Al 396.153Radial†	43761.5	43359.5	30163 µg/L	30163 ppb	18:07:33
3	Ca 317.933Radial†	9487.0	9190.2	7850.1 µg/L	7850.1 ppb	18:07:53
3	Fe 238.204 Radial†	8146.6	8056.5	63542 µg/L	63542 ppb	18:07:53
3	K 766.490 Radial†	10752.1	10490.2	6851.3 µg/L	6851.3 ppb	18:07:33
3	Mg 279.077 IEC†	760.8	741.1	6556.7 µg/L	6556.7 ppb	18:07:53
3	Na 589.592 Radial†	1794.6	1306.2	401.19 µg/L	401.19 ppb	18:07:33
3	Sr 421.552†	10711.3	10585.9	97.657 µg/L	97.657 ppb	18:07:33
3	Sc 361.383	1995401.8	1995401.8	101.64 %		18:09:11
3	Y 371.029	1395758.4	1395758.4	103.18 %		18:09:11
3	Ag 328.068†	-1106.1	-686.6	-0.3427 µg/L	-0.3427 ppb	18:09:17
3	As 188.979†	4.4	4.8	11.915 µg/L	11.915 ppb	18:09:38
3	B 249.677†	873.6	475.3	-13.655 µg/L	-13.655 ppb	18:09:17
3	Ba 233.527†	17979.3	17705.5	425.26 µg/L	425.26 ppb	18:09:17
3	Be 313.107†	6548.0	9297.8	4.6990 µg/L	4.6990 ppb	18:09:17
3	Cd 226.502†	97.9	238.0	-1.1911 µg/L	-1.1911 ppb	18:09:38
3	Co 228.616†	770.4	756.0	29.751 µg/L	29.751 ppb	18:09:38
3	Cr 267.716†	4013.0	3998.4	80.380 µg/L	80.380 ppb	18:09:17
3	Cu 324.752†	11940.5	9203.6	68.909 µg/L	68.909 ppb	18:09:17
3	Mn 257.610†	601722.3	592243.5	1862.8 µg/L	1862.8 ppb	18:09:11
3	Mo 202.031†	22.1	27.1	5.0653 µg/L	5.0653 ppb	18:09:38
3	Ni 231.604†	1386.3	1051.6	53.205 µg/L	53.205 ppb	18:09:38
3	P 214.914†	-20.9	-35.9	290.66 µg/L	290.66 ppb	18:09:38
3	Pb 220.353†	470.0	371.5	89.493 µg/L	89.493 ppb	18:09:38
3	S 181.975 Axial†	115.6	94.8	393.22 µg/L	393.22 ppb	18:09:38
3	Sb 206.836†	-61.0	-82.5	-77.256 µg/L	-77.256 ppb	18:09:38
3	Se 196.026†	-13.0	-32.1	120.55 µg/L	120.55 ppb	18:09:38
3	SiO2†	114966.8	111715.3	22051 µg/L	22051 ppb	18:09:17
3	Si 251.611†	141428.6	138830.0	10554 µg/L	10554 ppb	18:09:11
3	Sn 189.927†	66877.8	65795.5	27741 µg/L	27741 ppb	18:09:17
3	Ti 334.940†	988173.3	972011.4	2149.9 µg/L	2149.9 ppb	18:09:11
3	Tl 190.801†	-35.7	-12.7	20.367 µg/L	20.367 ppb	18:09:38
3	U 409.014†	-555.3	-469.3	-48.299 µg/L	-48.299 ppb	18:09:17
3	V 292.402†	11657.8	11514.0	119.85 µg/L	119.85 ppb	18:09:17
3	Zn 213.857†	7872.2	7210.4	165.45 µg/L	165.45 ppb	18:09:17

Mean Data: 245688001|954751|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1998605.6	101.81	%	0.195				0.19%
Sc RADIAL	56747.0	100	%	0.4				0.41%
Y 371.029	1399899.4	103.49	%	0.317				0.31%
Ag 328.068†	-743.9	-0.6801	µg/L	0.37366	-0.6801	ppb	0.37366	54.94%
Al 396.153Radial†	43591.2	30324	µg/L	174.1	30324	ppb	174.1	0.57%
As 188.979†	7.0	15.834	µg/L	3.8604	15.834	ppb	3.8604	24.38%
B 249.677†	501.8	-13.042	µg/L	0.5945	-13.042	ppb	0.5945	4.56%
Ba 233.527†	18324.4	440.13	µg/L	13.005	440.13	ppb	13.005	2.95%
Be 313.107†	9671.7	4.8946	µg/L	0.16949	4.8946	ppb	0.16949	3.46%
Ca 317.933Radial†	9302.7	7946.2	µg/L	83.25	7946.2	ppb	83.25	1.05%
Cd 226.502†	250.4	-0.9827	µg/L	0.19295	-0.9827	ppb	0.19295	19.63%
Co 228.616†	803.5	31.759	µg/L	1.7584	31.759	ppb	1.7584	5.54%
Cr 267.716†	4159.4	83.616	µg/L	2.8474	83.616	ppb	2.8474	3.41%
Cu 324.752†	9568.6	71.417	µg/L	2.1914	71.417	ppb	2.1914	3.07%
Fe 238.204 Radial†	8171.5	64449	µg/L	785.4	64449	ppb	785.4	1.22%
K 766.490 Radial†	10575.7	6907.2	µg/L	53.94	6907.2	ppb	53.94	0.78%
Mg 279.077 IEC†	754.0	6671.1	µg/L	99.81	6671.1	ppb	99.81	1.50%
Mn 257.610†	608956.9	1915.3	µg/L	45.48	1915.3	ppb	45.48	2.37%
Mo 202.031†	29.1	5.2962	µg/L	0.34166	5.2962	ppb	0.34166	6.45%
Na 589.592 Radial†	1331.7	409.02	µg/L	8.454	409.02	ppb	8.454	2.07%

Ni 231.604†	1118.1	56.531 µg/L	2.8977	56.531 ppb	2.8977	5.13%
P 214.914†	-32.5	311.66 µg/L	18.323	311.66 ppb	18.323	5.88%
Pb 220.353†	380.5	91.656 µg/L	1.9027	91.656 ppb	1.9027	2.08%
S 181.975 Axial†	98.0	406.31 µg/L	12.820	406.31 ppb	12.820	3.16%
Sb 206.836†	-86.2	-80.695 µg/L	3.3422	-80.695 ppb	3.3422	4.14%
Se 196.026†	-37.1	115.83 µg/L	4.852	115.83 ppb	4.852	4.19%
SiO2†	115529.3	22804 µg/L	659.3	22804 ppb	659.3	2.89%
Si 251.611†	142034.1	10798 µg/L	211.4	10798 ppb	211.4	1.96%
Sn 189.927†	68237.7	28771 µg/L	901.4	28771 ppb	901.4	3.13%
Sr 421.552†	10666.6	98.401 µg/L	0.7123	98.401 ppb	0.7123	0.72%
Ti 334.940†	1003170.1	2218.8 µg/L	59.69	2218.8 ppb	59.69	2.69%
Tl 190.801†	-15.7	17.370 µg/L	2.8197	17.370 ppb	2.8197	16.23%
U 409.014†	-445.2	-46.436 µg/L	1.8444	-46.436 ppb	1.8444	3.97%
V 292.402†	11979.7	124.51 µg/L	4.047	124.51 ppb	4.047	3.25%
Zn 213.857†	7467.2	171.40 µg/L	5.178	171.40 ppb	5.178	3.02%

Sequence No.: 12
Sample ID: 1202030847|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 310
Date Collected: 2/19/2010 18:09:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030847|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56698.1	56698.1	100	%			18:10:20
1	Al 396.153Radial†	38826.9	38680.8	26908	µg/L	26908	ppb	18:10:20
1	Ca 317.933Radial†	8522.8	8281.1	7073.6	µg/L	7073.6	ppb	18:10:41
1	Fe 238.204 Radial†	8165.7	8120.0	64042	µg/L	64042	ppb	18:10:41
1	K 766.490 Radial†	9573.8	9374.6	6122.7	µg/L	6122.7	ppb	18:10:20
1	Mg 279.077 IEC†	691.2	676.0	5973.8	µg/L	5973.8	ppb	18:10:41
1	Na 589.592 Radial†	1617.1	1139.2	349.89	µg/L	349.89	ppb	18:10:20
1	Sr 421.552†	9389.9	9327.6	86.048	µg/L	86.048	ppb	18:10:20
1	Sc 361.383	2000935.3	2000935.3	101.93	%			18:11:44
1	Y 371.029	1397662.9	1397662.9	103.32	%			18:11:44
1	Ag 328.068†	-1211.0	-786.5	-1.0174	µg/L	-1.0174	ppb	18:11:50
1	As 188.979†	6.5	6.8	15.521	µg/L	15.521	ppb	18:12:10
1	B 249.677†	828.2	428.4	-15.836	µg/L	-15.836	ppb	18:11:50
1	Ba 233.527†	16835.8	16534.7	397.16	µg/L	397.16	ppb	18:11:50
1	Be 313.107†	5846.5	8591.7	4.2690	µg/L	4.2690	ppb	18:11:50
1	Cd 226.502†	115.1	254.6	-0.8435	µg/L	-0.8435	ppb	18:12:10
1	Co 228.616†	811.3	794.1	31.416	µg/L	31.416	ppb	18:12:10
1	Cr 267.716†	3785.6	3764.4	75.683	µg/L	75.683	ppb	18:11:50
1	Cu 324.752†	9954.7	7222.9	56.049	µg/L	56.049	ppb	18:11:50
1	Mn 257.610†	597610.4	586572.3	1845.1	µg/L	1845.1	ppb	18:11:44
1	Mo 202.031†	23.7	28.6	5.2321	µg/L	5.2321	ppb	18:12:10
1	Ni 231.604†	1201.7	866.6	43.991	µg/L	43.991	ppb	18:12:10
1	P 214.914†	260.7	240.4	427.25	µg/L	427.25	ppb	18:12:10
1	Pb 220.353†	430.7	331.7	79.623	µg/L	79.623	ppb	18:12:10
1	S 181.975 Axial†	107.3	86.3	358.01	µg/L	358.01	ppb	18:12:10
1	Sb 206.836†	28.3	5.3	3.4525	µg/L	3.4525	ppb	18:12:10
1	Se 196.026†	-19.9	-38.8	113.17	µg/L	113.17	ppb	18:12:10
1	SiO2†	104522.1	101155.2	19967	µg/L	19967	ppb	18:11:50
1	Si 251.611†	125306.7	122627.9	9322.4	µg/L	9322.4	ppb	18:11:50
1	Sn 189.927†	88.0	86.0	30.095	µg/L	30.095	ppb	18:12:10
1	Ti 334.940†	1004180.9	985028.0	2178.7	µg/L	2178.7	ppb	18:11:44
1	Tl 190.801†	-51.9	-28.6	-0.1596	µg/L	-0.1596	ppb	18:12:10
1	U 409.014†	-388.5	-304.1	-34.597	µg/L	-34.597	ppb	18:11:50
1	V 292.402†	12226.9	12040.6	125.05	µg/L	125.05	ppb	18:11:50
1	Zn 213.857†	7958.2	7273.4	166.99	µg/L	166.99	ppb	18:11:50
2	Sc RADIAL	56537.1	56537.1	100	%			18:10:46
2	Al 396.153Radial†	38581.7	38546.1	26815	µg/L	26815	ppb	18:10:46
2	Ca 317.933Radial†	8505.1	8287.6	7079.1	µg/L	7079.1	ppb	18:11:06
2	Fe 238.204 Radial†	8158.6	8136.0	64169	µg/L	64169	ppb	18:11:06
2	K 766.490 Radial†	9487.8	9315.8	6084.3	µg/L	6084.3	ppb	18:10:46
2	Mg 279.077 IEC†	684.3	671.0	5929.0	µg/L	5929.0	ppb	18:11:06
2	Na 589.592 Radial†	1659.5	1186.1	364.31	µg/L	364.31	ppb	18:10:46
2	Sr 421.552†	9265.4	9229.8	85.146	µg/L	85.146	ppb	18:10:46
2	Sc 361.383	2000028.5	2000028.5	101.88	%			18:12:17
2	Y 371.029	1396187.5	1396187.5	103.21	%			18:12:17
2	Ag 328.068†	-1183.7	-760.2	-0.8038	µg/L	-0.8038	ppb	18:12:23
2	As 188.979†	7.8	8.1	17.865	µg/L	17.865	ppb	18:12:43
2	B 249.677†	821.1	421.8	-16.167	µg/L	-16.167	ppb	18:12:23
2	Ba 233.527†	17111.5	16812.8	403.84	µg/L	403.84	ppb	18:12:23
2	Be 313.107†	6075.7	8819.3	4.4031	µg/L	4.4031	ppb	18:12:23
2	Cd 226.502†	108.4	248.1	-1.0204	µg/L	-1.0204	ppb	18:12:43
2	Co 228.616†	807.4	790.6	31.253	µg/L	31.253	ppb	18:12:43
2	Cr 267.716†	3832.5	3812.1	76.643	µg/L	76.643	ppb	18:12:23
2	Cu 324.752†	10076.3	7346.6	56.874	µg/L	56.874	ppb	18:12:23
2	Mn 257.610†	598277.3	587492.6	1848.0	µg/L	1848.0	ppb	18:12:17
2	Mo 202.031†	24.3	29.2	5.3002	µg/L	5.3002	ppb	18:12:43
2	Ni 231.604†	1182.6	848.5	43.088	µg/L	43.088	ppb	18:12:43
2	P 214.914†	263.5	243.3	432.85	µg/L	432.85	ppb	18:12:43
2	Pb 220.353†	411.8	313.3	75.147	µg/L	75.147	ppb	18:12:43

2	S 181.975 Axial†	103.5	82.6	342.67 µg/L	342.67 ppb	18:12:43
2	Sb 206.836†	30.4	7.4	5.3354 µg/L	5.3354 ppb	18:12:43
2	Se 196.026†	-19.4	-38.4	114.19 µg/L	114.19 ppb	18:12:43
2	SiO2†	105777.7	102434.1	20219 µg/L	20219 ppb	18:12:23
2	Si 251.611†	126810.5	124159.7	9438.9 µg/L	9438.9 ppb	18:12:23
2	Sn 189.927†	93.2	91.1	32.255 µg/L	32.255 ppb	18:12:43
2	Ti 334.940†	1004863.5	986144.6	2181.2 µg/L	2181.2 ppb	18:12:17
2	Tl 190.801†	-46.0	-22.7	7.4483 µg/L	7.4483 ppb	18:12:43
2	U 409.014†	-361.9	-278.1	-32.460 µg/L	-32.460 ppb	18:12:23
2	V 292.402†	12394.5	12210.5	126.72 µg/L	126.72 ppb	18:12:23
2	Zn 213.857†	8090.7	7407.0	170.13 µg/L	170.13 ppb	18:12:23
3	Sc RADIAL	56739.5	56739.5	100 %		18:11:12
3	Al 396.153Radial†	38727.9	38554.0	26820 µg/L	26820 ppb	18:11:12
3	Ca 317.933Radial†	8489.5	8241.8	7040.0 µg/L	7040.0 ppb	18:11:32
3	Fe 238.204 Radial†	8114.8	8063.3	63595 µg/L	63595 ppb	18:11:32
3	K 766.490 Radial†	9535.2	9329.2	6093.1 µg/L	6093.1 ppb	18:11:12
3	Mg 279.077 IEC†	686.7	670.9	5929.4 µg/L	5929.4 ppb	18:11:32
3	Na 589.592 Radial†	1690.4	1210.9	371.92 µg/L	371.92 ppb	18:11:12
3	Sr 421.552†	9290.7	9222.0	85.074 µg/L	85.074 ppb	18:11:12
3	Sc 361.383	2003924.6	2003924.6	102.08 %		18:12:50
3	Y 371.029	1399308.3	1399308.3	103.44 %		18:12:50
3	Ag 328.068†	-1104.7	-680.6	-0.3177 µg/L	-0.3177 ppb	18:12:56
3	As 188.979†	4.9	5.2	12.675 µg/L	12.675 ppb	18:13:16
3	B 249.677†	828.8	427.8	-15.637 µg/L	-15.637 ppb	18:12:56
3	Ba 233.527†	15735.6	15432.3	370.68 µg/L	370.68 ppb	18:12:56
3	Be 313.107†	5295.0	8042.9	3.9854 µg/L	3.9854 ppb	18:12:56
3	Cd 226.502†	73.2	213.4	-1.8244 µg/L	-1.8244 ppb	18:13:16
3	Co 228.616†	710.7	694.3	27.129 µg/L	27.129 ppb	18:13:16
3	Cr 267.716†	3482.0	3461.5	69.594 µg/L	69.594 ppb	18:12:56
3	Cu 324.752†	9386.9	6652.0	52.261 µg/L	52.261 ppb	18:12:56
3	Mn 257.610†	572162.7	560768.1	1764.3 µg/L	1764.3 ppb	18:12:50
3	Mo 202.031†	12.4	17.5	4.1309 µg/L	4.1309 ppb	18:13:16
3	Ni 231.604†	1105.2	770.4	39.193 µg/L	39.193 ppb	18:13:16
3	P 214.914†	237.7	217.5	382.59 µg/L	382.59 ppb	18:13:16
3	Pb 220.353†	402.8	303.7	72.840 µg/L	72.840 ppb	18:13:16
3	S 181.975 Axial†	99.6	78.7	326.29 µg/L	326.29 ppb	18:13:16
3	Sb 206.836†	30.8	7.6	5.6293 µg/L	5.6293 ppb	18:13:16
3	Se 196.026†	-19.7	-38.7	112.25 µg/L	112.25 ppb	18:13:16
3	SiO2†	97359.0	93984.9	18551 µg/L	18551 ppb	18:12:56
3	Si 251.611†	116679.2	113992.7	8665.9 µg/L	8665.9 ppb	18:12:56
3	Sn 189.927†	75.6	73.7	24.948 µg/L	24.948 ppb	18:13:16
3	Ti 334.940†	954675.3	935060.7	2068.2 µg/L	2068.2 ppb	18:12:50
3	Tl 190.801†	-43.1	-19.8	9.8141 µg/L	9.8141 ppb	18:13:16
3	U 409.014†	-439.0	-352.9	-38.592 µg/L	-38.592 ppb	18:12:56
3	V 292.402†	11342.1	11155.9	116.34 µg/L	116.34 ppb	18:12:56
3	Zn 213.857†	7474.8	6788.2	155.66 µg/L	155.66 ppb	18:12:56

Mean Data: 1202030847|954751|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2001629.5	101.96	%	0.104				0.10%
Sc RADIAL	56658.3	100	%	0.2				0.19%
Y 371.029	1397719.6	103.32	%	0.115				0.11%
Ag 328.068†	-742.4	-0.7130	µg/L	0.35862	-0.7130	ppb	0.35862	50.30%
Al 396.153Radial†	38593.7	26848	µg/L	52.6	26848	ppb	52.6	0.20%
As 188.979†	6.7	15.354	µg/L	2.5990	15.354	ppb	2.5990	16.93%
B 249.677†	426.0	-15.880	µg/L	0.2679	-15.880	ppb	0.2679	1.69%
Ba 233.527†	16259.9	390.56	µg/L	17.538	390.56	ppb	17.538	4.49%
Be 313.107†	8484.6	4.2192	µg/L	0.21328	4.2192	ppb	0.21328	5.06%
Ca 317.933Radial†	8270.2	7064.2	µg/L	21.18	7064.2	ppb	21.18	0.30%
Cd 226.502†	238.7	-1.2294	µg/L	0.52283	-1.2294	ppb	0.52283	42.53%
Co 228.616†	759.6	29.932	µg/L	2.4292	29.932	ppb	2.4292	8.12%
Cr 267.716†	3679.3	73.973	µg/L	3.8230	73.973	ppb	3.8230	5.17%
Cu 324.752†	7073.8	55.061	µg/L	2.4603	55.061	ppb	2.4603	4.47%
Fe 238.204 Radial†	8106.4	63935	µg/L	301.3	63935	ppb	301.3	0.47%
K 766.490 Radial†	9339.9	6100.0	µg/L	20.12	6100.0	ppb	20.12	0.33%
Mg 279.077 IEC†	672.6	5944.1	µg/L	25.74	5944.1	ppb	25.74	0.43%
Mn 257.610†	578277.7	1819.2	µg/L	47.55	1819.2	ppb	47.55	2.61%
Mo 202.031†	25.1	4.8877	µg/L	0.65636	4.8877	ppb	0.65636	13.43%
Na 589.592 Radial†	1178.7	362.04	µg/L	11.189	362.04	ppb	11.189	3.09%

Ni 231.604†	828.5	42.091	µg/L	2.5502	42.091	ppb	2.5502	6.06%
P 214.914†	233.7	414.23	µg/L	27.544	414.23	ppb	27.544	6.65%
Pb 220.353†	316.2	75.870	µg/L	3.4487	75.870	ppb	3.4487	4.55%
S 181.975 Axial†	82.5	342.32	µg/L	15.865	342.32	ppb	15.865	4.63%
Sb 206.836†	6.8	4.8057	µg/L	1.18111	4.8057	ppb	1.18111	24.58%
Se 196.026†	-38.6	113.20	µg/L	0.973	113.20	ppb	0.973	0.86%
SiO2†	99191.4	19579	µg/L	898.9	19579	ppb	898.9	4.59%
Si 251.611†	120260.1	9142.4	µg/L	416.72	9142.4	ppb	416.72	4.56%
Sn 189.927†	83.6	29.099	µg/L	3.7536	29.099	ppb	3.7536	12.90%
Sr 421.552†	9259.8	85.423	µg/L	0.5430	85.423	ppb	0.5430	0.64%
Ti 334.940†	968744.5	2142.7	µg/L	64.54	2142.7	ppb	64.54	3.01%
Tl 190.801†	-23.7	5.7010	µg/L	5.21139	5.7010	ppb	5.21139	91.41%
U 409.014†	-311.7	-35.216	µg/L	3.1128	-35.216	ppb	3.1128	8.84%
V 292.402†	11802.3	122.70	µg/L	5.571	122.70	ppb	5.571	4.54%
Zn 213.857†	7156.2	164.26	µg/L	7.610	164.26	ppb	7.610	4.63%

Sequence No.: 13
Sample ID: 1202030849|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 311
Date Collected: 2/19/2010 18:13:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030849|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56588.3	56588.3	100	%			18:13:58
1	Al 396.153Radial†	76806.8	76673.6	53327	µg/L	53327	ppb	18:13:58
1	Ca 317.933Radial†	13688.5	13454.8	11493	µg/L	11493	ppb	18:14:19
1	Fe 238.204 Radial†	8382.3	8352.0	65883	µg/L	65883	ppb	18:14:19
1	K 766.490 Radial†	18831.4	18635.6	12171	µg/L	12171	ppb	18:13:58
1	Mg 279.077 IEC†	1410.3	1395.2	12410	µg/L	12410	ppb	18:14:19
1	Na 589.592 Radial†	18284.4	17782.2	5461.7	µg/L	5461.7	ppb	18:13:58
1	Sr 421.552†	64415.1	64280.8	593.00	µg/L	593.00	ppb	18:13:58
1	Sc 361.383	1976656.5	1976656.5	100.69	%			18:15:23
1	Y 371.029	1378981.4	1378981.4	101.94	%			18:15:23
1	Ag 328.068†	69055.9	68984.6	519.30	µg/L	519.30	ppb	18:15:29
1	As 188.979†	305.8	304.2	547.32	µg/L	547.32	ppb	18:15:49
1	B 249.677†	13612.2	13134.8	501.95	µg/L	501.95	ppb	18:15:29
1	Ba 233.527†	39857.1	39601.2	951.84	µg/L	951.84	ppb	18:15:29
1	Be 313.107†	908334.2	904969.4	535.99	µg/L	535.99	ppb	18:15:23
1	Cd 226.502†	21231.9	21228.2	522.59	µg/L	522.59	ppb	18:15:29
1	Co 228.616†	12340.0	12253.6	549.34	µg/L	549.34	ppb	18:15:29
1	Cr 267.716†	30781.9	30621.4	615.43	µg/L	615.43	ppb	18:15:29
1	Cu 324.752†	92751.2	89572.3	593.84	µg/L	593.84	ppb	18:15:29
1	Mn 257.610†	748339.3	743470.5	2336.5	µg/L	2336.5	ppb	18:15:23
1	Mo 202.031†	5419.8	5388.0	530.13	µg/L	530.13	ppb	18:15:49
1	Ni 231.604†	12028.7	11634.0	580.15	µg/L	580.15	ppb	18:15:29
1	P 214.914†	540.1	521.0	939.85	µg/L	939.85	ppb	18:15:49
1	Pb 220.353†	2622.0	2513.1	611.34	µg/L	611.34	ppb	18:15:49
1	S 181.975 Axial†	1420.0	1391.3	5769.8	µg/L	5769.8	ppb	18:15:49
1	Sb 206.836†	593.7	567.1	521.29	µg/L	521.29	ppb	18:15:49
1	Se 196.026†	366.5	344.7	649.82	µg/L	649.82	ppb	18:15:49
1	SiO2†	158655.5	156177.4	30827	µg/L	30827	ppb	18:15:29
1	Si 251.611†	192178.4	190551.6	14486	µg/L	14486	ppb	18:15:23
1	Sn 189.927†	1316.8	1307.4	545.74	µg/L	545.74	ppb	18:15:49
1	Ti 334.940†	1326142.7	1316885.9	2912.4	µg/L	2912.4	ppb	18:15:23
1	Tl 190.801†	353.9	373.8	531.82	µg/L	531.82	ppb	18:15:49
1	U 409.014†	6018.7	6054.6	493.18	µg/L	493.18	ppb	18:15:29
1	V 292.402†	64710.6	64312.2	640.50	µg/L	640.50	ppb	18:15:29
1	Zn 213.857†	30105.4	29364.8	681.60	µg/L	681.60	ppb	18:15:29
2	Sc RADIAL	56723.5	56723.5	100	%			18:14:24
2	Al 396.153Radial†	77608.6	77289.5	53756	µg/L	53756	ppb	18:14:24
2	Ca 317.933Radial†	13789.7	13523.0	11551	µg/L	11551	ppb	18:14:45
2	Fe 238.204 Radial†	8443.3	8392.8	66205	µg/L	66205	ppb	18:14:45
2	K 766.490 Radial†	19019.1	18777.7	12264	µg/L	12264	ppb	18:14:24
2	Mg 279.077 IEC†	1425.2	1406.6	12512	µg/L	12512	ppb	18:14:45
2	Na 589.592 Radial†	18412.8	17866.6	5487.6	µg/L	5487.6	ppb	18:14:24
2	Sr 421.552†	64985.6	64695.7	596.83	µg/L	596.83	ppb	18:14:24
2	Sc 361.383	1982946.5	1982946.5	101.01	%			18:15:57
2	Y 371.029	1382091.1	1382091.1	102.17	%			18:15:57
2	Ag 328.068†	68882.9	68595.8	516.41	µg/L	516.41	ppb	18:16:02
2	As 188.979†	306.2	303.6	546.33	µg/L	546.33	ppb	18:16:23
2	B 249.677†	13619.4	13099.1	500.32	µg/L	500.32	ppb	18:16:02
2	Ba 233.527†	39592.1	39213.3	942.52	µg/L	942.52	ppb	18:16:02
2	Be 313.107†	912129.2	905864.9	536.52	µg/L	536.52	ppb	18:15:57
2	Cd 226.502†	21070.9	21001.9	516.90	µg/L	516.90	ppb	18:16:02
2	Co 228.616†	12235.5	12111.3	542.87	µg/L	542.87	ppb	18:16:02
2	Cr 267.716†	30681.9	30425.5	611.50	µg/L	611.50	ppb	18:16:02
2	Cu 324.752†	92519.1	89050.3	590.48	µg/L	590.48	ppb	18:16:02
2	Mn 257.610†	751973.0	744710.3	2340.4	µg/L	2340.4	ppb	18:15:57
2	Mo 202.031†	5352.4	5304.2	521.94	µg/L	521.94	ppb	18:16:23
2	Ni 231.604†	11934.3	11502.6	573.61	µg/L	573.61	ppb	18:16:02
2	P 214.914†	542.0	521.3	940.42	µg/L	940.42	ppb	18:16:23
2	Pb 220.353†	2600.2	2483.3	604.09	µg/L	604.09	ppb	18:16:23

2	S 181.975 Axial†	1411.7	1378.7	5717.3 µg/L	5717.3 ppb	18:16:23
2	Sb 206.836†	592.2	563.8	518.17 µg/L	518.17 ppb	18:16:23
2	Se 196.026†	373.1	350.1	658.18 µg/L	658.18 ppb	18:16:23
2	SiO2†	156797.0	153837.7	30366 µg/L	30366 ppb	18:16:02
2	Si 251.611†	192282.0	190048.9	14448 µg/L	14448 ppb	18:15:57
2	Sn 189.927†	1293.4	1280.1	534.22 µg/L	534.22 ppb	18:16:23
2	Ti 334.940†	1333792.1	1320281.1	2919.9 µg/L	2919.9 ppb	18:15:57
2	Tl 190.801†	359.2	378.0	537.43 µg/L	537.43 ppb	18:16:23
2	U 409.014†	6102.2	6118.3	498.43 µg/L	498.43 ppb	18:16:02
2	V 292.402†	64478.1	63878.1	636.24 µg/L	636.24 ppb	18:16:02
2	Zn 213.857†	29958.2	29124.2	675.97 µg/L	675.97 ppb	18:16:02
3	Sc RADIAL	56942.9	56942.9	101 %		18:14:50
3	Al 396.153Radial†	77740.6	77122.5	53641 µg/L	53641 ppb	18:14:50
3	Ca 317.933Radial†	13721.2	13402.2	11448 µg/L	11448 ppb	18:15:11
3	Fe 238.204 Radial†	8400.6	8318.0	65615 µg/L	65615 ppb	18:15:11
3	K 766.490 Radial†	19090.5	18775.5	12263 µg/L	12263 ppb	18:14:50
3	Mg 279.077 IEC†	1421.4	1397.4	12429 µg/L	12429 ppb	18:15:11
3	Na 589.592 Radial†	18458.7	17841.5	5479.9 µg/L	5479.9 ppb	18:14:50
3	Sr 421.552†	65163.8	64623.1	596.16 µg/L	596.16 ppb	18:14:50
3	Sc 361.383	1985215.9	1985215.9	101.13 %		18:16:30
3	Y 371.029	1383220.0	1383220.0	102.25 %		18:16:30
3	Ag 328.068†	67041.3	66696.7	502.06 µg/L	502.06 ppb	18:16:36
3	As 188.979†	274.2	271.6	489.08 µg/L	489.08 ppb	18:16:56
3	B 249.677†	13151.9	12621.3	481.09 µg/L	481.09 ppb	18:16:36
3	Ba 233.527†	37758.1	37355.0	897.84 µg/L	897.84 ppb	18:16:36
3	Be 313.107†	871944.5	865095.1	512.38 µg/L	512.38 ppb	18:16:30
3	Cd 226.502†	20238.0	20154.4	495.80 µg/L	495.80 ppb	18:16:36
3	Co 228.616†	11653.1	11521.4	516.40 µg/L	516.40 ppb	18:16:36
3	Cr 267.716†	28707.8	28438.7	571.57 µg/L	571.57 ppb	18:16:36
3	Cu 324.752†	87545.5	84027.4	557.61 µg/L	557.61 ppb	18:16:36
3	Mn 257.610†	719876.0	712119.6	2238.2 µg/L	2238.2 ppb	18:16:30
3	Mo 202.031†	4835.2	4786.7	471.24 µg/L	471.24 ppb	18:16:56
3	Ni 231.604†	11287.5	10849.5	541.07 µg/L	541.07 ppb	18:16:36
3	P 214.914†	495.1	474.2	850.42 µg/L	850.42 ppb	18:16:56
3	Pb 220.353†	2426.2	2308.2	561.50 µg/L	561.50 ppb	18:16:56
3	S 181.975 Axial†	1304.9	1271.5	5272.8 µg/L	5272.8 ppb	18:16:56
3	Sb 206.836†	545.0	516.5	474.31 µg/L	474.31 ppb	18:16:56
3	Se 196.026†	349.0	325.8	622.57 µg/L	622.57 ppb	18:16:56
3	SiO2†	146162.1	143143.7	28255 µg/L	28255 ppb	18:16:36
3	Si 251.611†	182273.6	179934.2	13679 µg/L	13679 ppb	18:16:30
3	Sn 189.927†	1172.0	1158.6	483.02 µg/L	483.02 ppb	18:16:56
3	Ti 334.940†	1271629.6	1257300.9	2780.6 µg/L	2780.6 ppb	18:16:30
3	Tl 190.801†	330.7	349.4	498.55 µg/L	498.55 ppb	18:16:56
3	U 409.014†	5586.7	5601.6	455.59 µg/L	455.59 ppb	18:16:36
3	V 292.402†	60660.5	60030.1	598.14 µg/L	598.14 ppb	18:16:36
3	Zn 213.857†	28605.1	27752.3	644.01 µg/L	644.01 ppb	18:16:36

Mean Data: 1202030849|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1981606.3	100.94	%	0.226				0.22%
Sc RADIAL	56751.6	100	%	0.3				0.32%
Y 371.029	1381430.9	102.12	%	0.162				0.16%
Ag 328.068†	68092.4	512.59	µg/L	9.233	512.59	ppb	9.233	1.80%
Al 396.153Radial†	77028.6	53575	µg/L	221.8	53575	ppb	221.8	0.41%
As 188.979†	293.1	527.58	µg/L	33.343	527.58	ppb	33.343	6.32%
B 249.677†	12951.7	494.45	µg/L	11.600	494.45	ppb	11.600	2.35%
Ba 233.527†	38723.2	930.74	µg/L	28.866	930.74	ppb	28.866	3.10%
Be 313.107†	891976.5	528.30	µg/L	13.789	528.30	ppb	13.789	2.61%
Ca 317.933Radial†	13460.0	11497	µg/L	51.8	11497	ppb	51.8	0.45%
Cd 226.502†	20794.8	511.76	µg/L	14.115	511.76	ppb	14.115	2.76%
Co 228.616†	11962.1	536.20	µg/L	17.451	536.20	ppb	17.451	3.25%
Cr 267.716†	29828.5	599.50	µg/L	24.270	599.50	ppb	24.270	4.05%
Cu 324.752†	87550.0	580.64	µg/L	20.018	580.64	ppb	20.018	3.45%
Fe 238.204 Radial†	8354.3	65901	µg/L	295.4	65901	ppb	295.4	0.45%
K 766.490 Radial†	18729.6	12233	µg/L	53.2	12233	ppb	53.2	0.43%
Mg 279.077 IEC†	1399.7	12450	µg/L	54.1	12450	ppb	54.1	0.43%
Mn 257.610†	733433.5	2305.0	µg/L	57.87	2305.0	ppb	57.87	2.51%
Mo 202.031†	5159.6	507.77	µg/L	31.898	507.77	ppb	31.898	6.28%
Na 589.592 Radial†	17830.1	5476.4	µg/L	13.30	5476.4	ppb	13.30	0.24%

Ni 231.604†	11328.7	564.94 µg/L	20.928	564.94 ppb	20.928	3.70%
P 214.914†	505.5	910.23 µg/L	51.795	910.23 ppb	51.795	5.69%
Pb 220.353†	2434.9	592.31 µg/L	26.926	592.31 ppb	26.926	4.55%
S 181.975 Axial†	1347.2	5586.6 µg/L	273.07	5586.6 ppb	273.07	4.89%
Sb 206.836†	549.1	504.59 µg/L	26.270	504.59 ppb	26.270	5.21%
Se 196.026†	340.2	643.53 µg/L	18.620	643.53 ppb	18.620	2.89%
SiO2†	151052.9	29816 µg/L	1371.6	29816 ppb	1371.6	4.60%
Si 251.611†	186844.9	14204 µg/L	455.4	14204 ppb	455.4	3.21%
Sn 189.927†	1248.7	520.99 µg/L	33.386	520.99 ppb	33.386	6.41%
Sr 421.552†	64533.2	595.33 µg/L	2.044	595.33 ppb	2.044	0.34%
Ti 334.940†	1298156.0	2871.0 µg/L	78.36	2871.0 ppb	78.36	2.73%
Tl 190.801†	367.1	522.60 µg/L	21.019	522.60 ppb	21.019	4.02%
U 409.014†	5924.8	482.40 µg/L	23.368	482.40 ppb	23.368	4.84%
V 292.402†	62740.1	624.96 µg/L	23.322	624.96 ppb	23.322	3.73%
Zn 213.857†	28747.1	667.20 µg/L	20.273	667.20 ppb	20.273	3.04%

Sequence No.: 14
Sample ID: 1202030850|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 312
Date Collected: 2/19/2010 18:17:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030850|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56832.4	56832.4	101	%			18:17:39
1	Al 396.153Radial†	85082.0	84570.5	58821	µg/L	58821	ppb	18:17:39
1	Ca 317.933Radial†	15267.5	14965.8	12783	µg/L	12783	ppb	18:18:00
1	Fe 238.204 Radial†	9858.9	9783.9	77176	µg/L	77176	ppb	18:18:00
1	K 766.490 Radial†	20371.2	20085.6	13118	µg/L	13118	ppb	18:17:39
1	Mg 279.077 IEC†	1519.5	1497.7	13314	µg/L	13314	ppb	18:18:00
1	Na 589.592 Radial†	18311.6	17730.9	5445.9	µg/L	5445.9	ppb	18:17:39
1	Sr 421.552†	66562.4	66139.2	610.14	µg/L	610.14	ppb	18:17:39
1	Sc 361.383	2004322.9	2004322.9	102.10	%			18:19:04
1	Y 371.029	1399471.1	1399471.1	103.45	%			18:19:04
1	Ag 328.068†	68825.0	67811.7	511.40	µg/L	511.40	ppb	18:19:10
1	As 188.979†	305.3	299.5	539.62	µg/L	539.62	ppb	18:19:30
1	B 249.677†	13860.3	13191.3	498.35	µg/L	498.35	ppb	18:19:10
1	Ba 233.527†	42542.5	41685.0	1001.9	µg/L	1001.9	ppb	18:19:10
1	Be 313.107†	914795.1	898845.3	532.27	µg/L	532.27	ppb	18:19:04
1	Cd 226.502†	21259.8	20964.5	514.73	µg/L	514.73	ppb	18:19:10
1	Co 228.616†	12390.6	12133.9	543.40	µg/L	543.40	ppb	18:19:10
1	Cr 267.716†	31041.9	30454.1	612.08	µg/L	612.08	ppb	18:19:10
1	Cu 324.752†	93776.0	89304.5	593.66	µg/L	593.66	ppb	18:19:10
1	Mn 257.610†	799270.5	783095.8	2462.0	µg/L	2462.0	ppb	18:19:04
1	Mo 202.031†	5395.8	5290.2	520.98	µg/L	520.98	ppb	18:19:30
1	Ni 231.604†	12093.6	11532.6	575.25	µg/L	575.25	ppb	18:19:10
1	P 214.914†	583.9	556.6	1002.6	µg/L	1002.6	ppb	18:19:30
1	Pb 220.353†	2631.3	2486.3	604.68	µg/L	604.68	ppb	18:19:30
1	S 181.975 Axial†	1429.3	1381.0	5726.8	µg/L	5726.8	ppb	18:19:30
1	Sb 206.836†	600.6	565.7	519.76	µg/L	519.76	ppb	18:19:30
1	Se 196.026†	351.3	324.8	651.59	µg/L	651.59	ppb	18:19:30
1	SiO2†	152723.6	148192.5	29251	µg/L	29251	ppb	18:19:10
1	Si 251.611†	186499.0	182354.5	13863	µg/L	13863	ppb	18:19:04
1	Sn 189.927†	1303.0	1275.9	531.34	µg/L	531.34	ppb	18:19:30
1	Ti 334.940†	1456507.1	1426390.5	3154.6	µg/L	3154.6	ppb	18:19:04
1	Tl 190.801†	358.3	373.3	535.70	µg/L	535.70	ppb	18:19:30
1	U 409.014†	5974.7	5929.0	481.10	µg/L	481.10	ppb	18:19:10
1	V 292.402†	66940.5	65609.2	654.38	µg/L	654.38	ppb	18:19:10
1	Zn 213.857†	31600.4	30416.4	705.71	µg/L	705.71	ppb	18:19:10
2	Sc RADIAL	57176.9	57176.9	101	%			18:18:05
2	Al 396.153Radial†	85579.7	84552.6	58809	µg/L	58809	ppb	18:18:05
2	Ca 317.933Radial†	15126.8	14735.3	12587	µg/L	12587	ppb	18:18:26
2	Fe 238.204 Radial†	9781.1	9648.0	76104	µg/L	76104	ppb	18:18:26
2	K 766.490 Radial†	20513.6	20104.2	13130	µg/L	13130	ppb	18:18:05
2	Mg 279.077 IEC†	1511.5	1480.7	13163	µg/L	13163	ppb	18:18:26
2	Na 589.592 Radial†	18421.0	17729.4	5445.4	µg/L	5445.4	ppb	18:18:05
2	Sr 421.552†	67063.8	66235.9	611.04	µg/L	611.04	ppb	18:18:05
2	Sc 361.383	1997083.4	1997083.4	101.73	%			18:19:38
2	Y 371.029	1395342.7	1395342.7	103.15	%			18:19:38
2	Ag 328.068†	68063.9	67308.0	507.57	µg/L	507.57	ppb	18:19:44
2	As 188.979†	308.8	304.0	547.59	µg/L	547.59	ppb	18:20:04
2	B 249.677†	13670.3	13053.6	493.30	µg/L	493.30	ppb	18:19:44
2	Ba 233.527†	42091.7	41393.0	994.87	µg/L	994.87	ppb	18:19:44
2	Be 313.107†	912393.7	899732.7	532.79	µg/L	532.79	ppb	18:19:38
2	Cd 226.502†	20925.1	20711.0	508.52	µg/L	508.52	ppb	18:19:44
2	Co 228.616†	12236.2	12026.1	538.51	µg/L	538.51	ppb	18:19:44
2	Cr 267.716†	30693.4	30221.8	607.41	µg/L	607.41	ppb	18:19:44
2	Cu 324.752†	92891.6	88768.1	590.01	µg/L	590.01	ppb	18:19:44
2	Mn 257.610†	796387.7	783099.8	2461.9	µg/L	2461.9	ppb	18:19:38
2	Mo 202.031†	5350.4	5264.8	518.45	µg/L	518.45	ppb	18:20:04
2	Ni 231.604†	11902.5	11387.7	568.01	µg/L	568.01	ppb	18:19:44
2	P 214.914†	592.7	567.3	1025.1	µg/L	1025.1	ppb	18:20:04
2	Pb 220.353†	2620.2	2484.7	604.33	µg/L	604.33	ppb	18:20:04

2	S 181.975 Axial†	1427.1	1383.9	5738.8 µg/L	5738.8 ppb	18:20:04
2	Sb 206.836†	592.7	560.1	514.67 µg/L	514.67 ppb	18:20:04
2	Se 196.026†	358.4	333.0	660.42 µg/L	660.42 ppb	18:20:04
2	SiO2†	150653.6	146699.9	28957 µg/L	28957 ppb	18:19:44
2	Si 251.611†	185069.0	181611.0	13806 µg/L	13806 ppb	18:19:38
2	Sn 189.927†	1302.2	1279.7	533.05 µg/L	533.05 ppb	18:20:04
2	Ti 334.940†	1452407.3	1427531.7	3157.2 µg/L	3157.2 ppb	18:19:38
2	Tl 190.801†	353.9	370.3	531.68 µg/L	531.68 ppb	18:20:04
2	U 409.014†	5957.5	5933.3	481.62 µg/L	481.62 ppb	18:19:44
2	V 292.402†	66135.1	65055.1	648.82 µg/L	648.82 ppb	18:19:44
2	Zn 213.857†	31260.1	30194.1	700.59 µg/L	700.59 ppb	18:19:44
3	Sc RADIAL	57721.1	57721.1	102 %		18:18:31
3	Al 396.153Radial†	85860.6	84030.3	58446 µg/L	58446 ppb	18:18:31
3	Ca 317.933Radial†	15255.1	14719.9	12573 µg/L	12573 ppb	18:18:52
3	Fe 238.204 Radial†	9831.5	9606.2	75774 µg/L	75774 ppb	18:18:52
3	K 766.490 Radial†	20621.2	20018.4	13074 µg/L	13074 ppb	18:18:31
3	Mg 279.077 IEC†	1521.4	1476.3	13123 µg/L	13123 ppb	18:18:52
3	Na 589.592 Radial†	18487.6	17622.9	5412.8 µg/L	5412.8 ppb	18:18:31
3	Sr 421.552†	67269.0	65811.9	607.12 µg/L	607.12 ppb	18:18:31
3	Sc 361.383	1987921.5	1987921.5	101.26 %		18:20:11
3	Y 371.029	1387227.9	1387227.9	102.55 %		18:20:11
3	Ag 328.068†	66918.3	66485.0	501.26 µg/L	501.26 ppb	18:20:17
3	As 188.979†	278.5	275.5	496.54 µg/L	496.54 ppb	18:20:37
3	B 249.677†	13319.4	12769.1	481.83 µg/L	481.83 ppb	18:20:17
3	Ba 233.527†	40418.2	39931.0	959.72 µg/L	959.72 ppb	18:20:17
3	Be 313.107†	874464.5	866410.2	513.06 µg/L	513.06 ppb	18:20:11
3	Cd 226.502†	20370.3	20257.8	497.23 µg/L	497.23 ppb	18:20:17
3	Co 228.616†	11696.0	11548.1	517.08 µg/L	517.08 ppb	18:20:17
3	Cr 267.716†	29104.9	28792.2	578.68 µg/L	578.68 ppb	18:20:17
3	Cu 324.752†	88707.4	85056.9	565.74 µg/L	565.74 ppb	18:20:17
3	Mn 257.610†	766365.5	757060.2	2380.3 µg/L	2380.3 ppb	18:20:11
3	Mo 202.031†	4864.8	4809.5	473.85 µg/L	473.85 ppb	18:20:37
3	Ni 231.604†	11332.0	10878.3	542.64 µg/L	542.64 ppb	18:20:17
3	P 214.914†	542.8	520.7	934.94 µg/L	934.94 ppb	18:20:37
3	Pb 220.353†	2445.4	2323.9	565.18 µg/L	565.18 ppb	18:20:37
3	S 181.975 Axial†	1345.3	1309.6	5430.7 µg/L	5430.7 ppb	18:20:37
3	Sb 206.836†	543.4	514.2	472.07 µg/L	472.07 ppb	18:20:37
3	Se 196.026†	337.4	313.9	632.68 µg/L	632.68 ppb	18:20:37
3	SiO2†	141747.5	138587.4	27355 µg/L	27355 ppb	18:20:17
3	Si 251.611†	176602.5	174088.5	13235 µg/L	13235 ppb	18:20:11
3	Sn 189.927†	1185.3	1170.1	486.86 µg/L	486.86 ppb	18:20:37
3	Ti 334.940†	1388508.7	1371010.4	3032.1 µg/L	3032.1 ppb	18:20:11
3	Tl 190.801†	333.2	351.4	505.76 µg/L	505.76 ppb	18:20:37
3	U 409.014†	5655.7	5662.2	459.14 µg/L	459.14 ppb	18:20:17
3	V 292.402†	62884.3	62144.5	619.98 µg/L	619.98 ppb	18:20:17
3	Zn 213.857†	30038.8	29129.6	675.79 µg/L	675.79 ppb	18:20:17

Mean Data: 1202030850|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1996442.6	101.70	%	0.419				0.41%
Sc RADIAL	57243.5	101	%	0.8				0.78%
Y 371.029	1394013.9	103.05	%	0.460				0.45%
Ag 328.068†	67201.6	506.74	µg/L	5.119	506.74	ppb	5.119	1.01%
Al 396.153Radial†	84384.5	58692	µg/L	212.9	58692	ppb	212.9	0.36%
As 188.979†	293.0	527.92	µg/L	27.462	527.92	ppb	27.462	5.20%
B 249.677†	13004.7	491.16	µg/L	8.469	491.16	ppb	8.469	1.72%
Ba 233.527†	41003.0	985.50	µg/L	22.594	985.50	ppb	22.594	2.29%
Be 313.107†	888329.4	526.04	µg/L	11.242	526.04	ppb	11.242	2.14%
Ca 317.933Radial†	14807.0	12648	µg/L	117.6	12648	ppb	117.6	0.93%
Cd 226.502†	20644.4	506.83	µg/L	8.871	506.83	ppb	8.871	1.75%
Co 228.616†	11902.7	533.00	µg/L	13.998	533.00	ppb	13.998	2.63%
Cr 267.716†	29822.7	599.39	µg/L	18.088	599.39	ppb	18.088	3.02%
Cu 324.752†	87709.8	583.14	µg/L	15.177	583.14	ppb	15.177	2.60%
Fe 238.204 Radial†	9679.4	76352	µg/L	733.1	76352	ppb	733.1	0.96%
K 766.490 Radial†	20069.4	13108	µg/L	29.5	13108	ppb	29.5	0.22%
Mg 279.077 IEC†	1484.9	13200	µg/L	100.7	13200	ppb	100.7	0.76%
Mn 257.610†	774418.6	2434.7	µg/L	47.14	2434.7	ppb	47.14	1.94%
Mo 202.031†	5121.5	504.43	µg/L	26.509	504.43	ppb	26.509	5.26%
Na 589.592 Radial†	17694.4	5434.7	µg/L	19.01	5434.7	ppb	19.01	0.35%

Ni 231.604†	11266.2	561.97 µg/L	17.124	561.97 ppb	17.124	3.05%
P 214.914†	548.2	987.57 µg/L	46.954	987.57 ppb	46.954	4.75%
Pb 220.353†	2431.6	591.40 µg/L	22.703	591.40 ppb	22.703	3.84%
S 181.975 Axial†	1358.1	5632.1 µg/L	174.54	5632.1 ppb	174.54	3.10%
Sb 206.836†	546.7	502.17 µg/L	26.192	502.17 ppb	26.192	5.22%
Se 196.026†	323.9	648.23 µg/L	14.170	648.23 ppb	14.170	2.19%
SiO2†	144493.3	28521 µg/L	1020.2	28521 ppb	1020.2	3.58%
Si 251.611†	179351.3	13635 µg/L	347.6	13635 ppb	347.6	2.55%
Sn 189.927†	1241.9	517.08 µg/L	26.189	517.08 ppb	26.189	5.06%
Sr 421.552†	66062.3	609.43 µg/L	2.049	609.43 ppb	2.049	0.34%
Ti 334.940†	1408310.9	3114.6 µg/L	71.47	3114.6 ppb	71.47	2.29%
Tl 190.801†	365.0	524.38 µg/L	16.253	524.38 ppb	16.253	3.10%
U 409.014†	5841.5	473.95 µg/L	12.828	473.95 ppb	12.828	2.71%
V 292.402†	64269.6	641.06 µg/L	18.463	641.06 ppb	18.463	2.88%
Zn 213.857†	29913.3	694.03 µg/L	16.005	694.03 ppb	16.005	2.31%

Sequence No.: 15
Sample ID: 1202030848|954751|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 313
Date Collected: 2/19/2010 18:20:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030848|954751|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56362.8	56362.8	99.8	%			18:21:20
1	Al 396.153Radial†	8689.1	8702.2	6053.7	µg/L	6053.7	ppb	18:21:20
1	Ca 317.933Radial†	2073.3	1866.9	1594.7	µg/L	1594.7	ppb	18:21:41
1	Fe 238.204 Radial†	1673.3	1660.7	13098	µg/L	13098	ppb	18:21:41
1	K 766.490 Radial†	2285.8	2126.2	1388.7	µg/L	1388.7	ppb	18:21:20
1	Mg 279.077 IEC†	162.0	149.5	1322.6	µg/L	1322.6	ppb	18:21:41
1	Na 589.592 Radial†	749.0	278.6	85.568	µg/L	85.568	ppb	18:21:20
1	Sr 421.552†	2178.1	2154.4	19.875	µg/L	19.875	ppb	18:21:20
1	Sc 361.383	2009727.0	2009727.0	102.37	%			18:22:43
1	Y 371.029	1387092.6	1387092.6	102.54	%			18:22:43
1	Ag 328.068†	-538.7	-124.6	0.0581	µg/L	0.0581	ppb	18:22:48
1	As 188.979†	-2.4	-1.9	-2.7730	µg/L	-2.7730	ppb	18:23:09
1	B 249.677†	487.6	92.1	-3.0528	µg/L	-3.0528	ppb	18:22:48
1	Ba 233.527†	3844.9	3772.8	90.616	µg/L	90.616	ppb	18:22:48
1	Be 313.107†	-866.3	2009.5	1.0193	µg/L	1.0193	ppb	18:22:48
1	Cd 226.502†	-85.1	58.5	-0.0094	µg/L	-0.0094	ppb	18:23:09
1	Co 228.616†	171.7	165.8	6.5595	µg/L	6.5595	ppb	18:23:09
1	Cr 267.716†	830.9	862.0	17.328	µg/L	17.328	ppb	18:22:48
1	Cu 324.752†	4528.1	1879.3	14.088	µg/L	14.088	ppb	18:22:48
1	Mn 257.610†	126861.3	124175.3	390.55	µg/L	390.55	ppb	18:22:48
1	Mo 202.031†	4.8	10.1	1.4835	µg/L	1.4835	ppb	18:23:09
1	Ni 231.604†	532.3	207.6	10.510	µg/L	10.510	ppb	18:23:09
1	P 214.914†	2.9	-12.5	53.767	µg/L	53.767	ppb	18:23:09
1	Pb 220.353†	168.2	73.4	17.667	µg/L	17.667	ppb	18:23:09
1	S 181.975 Axial†	37.7	17.9	74.297	µg/L	74.297	ppb	18:23:09
1	Sb 206.836†	4.9	-17.7	-16.536	µg/L	-16.536	ppb	18:23:09
1	Se 196.026†	11.6	-8.0	22.979	µg/L	22.979	ppb	18:23:09
1	SiO2†	25895.4	23903.3	4718.2	µg/L	4718.2	ppb	18:22:48
1	Si 251.611†	29963.9	28958.4	2201.5	µg/L	2201.5	ppb	18:22:48
1	Sn 189.927†	14551.6	14213.7	5992.9	µg/L	5992.9	ppb	18:22:48
1	Ti 334.940†	210724.8	205662.9	454.89	µg/L	454.89	ppb	18:22:43
1	Tl 190.801†	-26.5	-3.5	3.1588	µg/L	3.1588	ppb	18:23:09
1	U 409.014†	-192.1	-110.6	-11.104	µg/L	-11.104	ppb	18:22:48
1	V 292.402†	2435.0	2423.3	25.195	µg/L	25.195	ppb	18:22:48
1	Zn 213.857†	2093.0	1510.0	34.664	µg/L	34.664	ppb	18:23:09
2	Sc RADIAL	56404.2	56404.2	99.8	%			18:21:46
2	Al 396.153Radial†	8692.0	8698.7	6051.3	µg/L	6051.3	ppb	18:21:46
2	Ca 317.933Radial†	2078.5	1870.6	1597.8	µg/L	1597.8	ppb	18:22:06
2	Fe 238.204 Radial†	1676.4	1662.6	13113	µg/L	13113	ppb	18:22:06
2	K 766.490 Radial†	2375.5	2214.4	1446.3	µg/L	1446.3	ppb	18:21:46
2	Mg 279.077 IEC†	164.0	151.4	1339.6	µg/L	1339.6	ppb	18:22:06
2	Na 589.592 Radial†	738.2	267.2	82.059	µg/L	82.059	ppb	18:21:46
2	Sr 421.552†	2129.9	2104.6	19.415	µg/L	19.415	ppb	18:21:46
2	Sc 361.383	1996058.5	1996058.5	101.68	%			18:23:15
2	Y 371.029	1376505.0	1376505.0	101.76	%			18:23:15
2	Ag 328.068†	-578.1	-167.0	-0.2505	µg/L	-0.2505	ppb	18:23:21
2	As 188.979†	-0.4	0.1	0.8744	µg/L	0.8744	ppb	18:23:42
2	B 249.677†	501.8	109.4	-2.3543	µg/L	-2.3543	ppb	18:23:21
2	Ba 233.527†	3857.4	3810.8	91.531	µg/L	91.531	ppb	18:23:21
2	Be 313.107†	-769.3	2099.0	1.0718	µg/L	1.0718	ppb	18:23:21
2	Cd 226.502†	-93.8	49.4	-0.2396	µg/L	-0.2396	ppb	18:23:42
2	Co 228.616†	167.1	162.4	6.4012	µg/L	6.4012	ppb	18:23:42
2	Cr 267.716†	846.6	883.0	17.751	µg/L	17.751	ppb	18:23:21
2	Cu 324.752†	4507.5	1889.4	14.156	µg/L	14.156	ppb	18:23:21
2	Mn 257.610†	127477.8	125630.2	395.10	µg/L	395.10	ppb	18:23:21
2	Mo 202.031†	9.1	14.3	1.8971	µg/L	1.8971	ppb	18:23:42
2	Ni 231.604†	517.0	196.1	9.9389	µg/L	9.9389	ppb	18:23:42
2	P 214.914†	0.9	-14.5	50.839	µg/L	50.839	ppb	18:23:42
2	Pb 220.353†	165.1	71.4	17.171	µg/L	17.171	ppb	18:23:42

2	S 181.975 Axial†	40.1	20.5	84.836 µg/L	84.836 ppb	18:23:42
2	Sb 206.836†	5.2	-17.4	-16.268 µg/L	-16.268 ppb	18:23:42
2	Se 196.026†	23.2	3.5	39.114 µg/L	39.114 ppb	18:23:42
2	SiO2†	26617.4	24786.6	4892.5 µg/L	4892.5 ppb	18:23:21
2	Si 251.611†	30742.4	29924.4	2274.9 µg/L	2274.9 ppb	18:23:21
2	Sn 189.927†	14600.8	14359.5	6054.4 µg/L	6054.4 ppb	18:23:21
2	Ti 334.940†	210054.0	206412.7	456.55 µg/L	456.55 ppb	18:23:15
2	Tl 190.801†	-25.5	-2.7	4.2686 µg/L	4.2686 ppb	18:23:42
2	U 409.014†	-70.3	8.0	-1.2593 µg/L	-1.2593 ppb	18:23:21
2	V 292.402†	2491.0	2494.7	25.907 µg/L	25.907 ppb	18:23:21
2	Zn 213.857†	2074.8	1506.1	34.573 µg/L	34.573 ppb	18:23:42
3	Sc RADIAL	56630.4	56630.4	100 %		18:22:12
3	Al 396.153Radial†	8807.2	8778.9	6107.0 µg/L	6107.0 ppb	18:22:12
3	Ca 317.933Radial†	2076.8	1860.6	1589.3 µg/L	1589.3 ppb	18:22:32
3	Fe 238.204 Radial†	1674.7	1654.1	13046 µg/L	13046 ppb	18:22:32
3	K 766.490 Radial†	2362.1	2191.5	1431.3 µg/L	1431.3 ppb	18:22:12
3	Mg 279.077 IEC†	163.8	150.6	1332.4 µg/L	1332.4 ppb	18:22:32
3	Na 589.592 Radial†	780.4	306.3	94.093 µg/L	94.093 ppb	18:22:12
3	Sr 421.552†	2169.2	2135.2	19.697 µg/L	19.697 ppb	18:22:12
3	Sc 361.383	2012716.1	2012716.1	102.53 %		18:23:48
3	Y 371.029	1387525.2	1387525.2	102.57 %		18:23:48
3	Ag 328.068†	-539.3	-124.4	0.0419 µg/L	0.0419 ppb	18:23:54
3	As 188.979†	-1.5	-1.0	-1.0676 µg/L	-1.0676 ppb	18:24:14
3	B 249.677†	503.5	106.9	-2.4253 µg/L	-2.4253 ppb	18:23:54
3	Ba 233.527†	3471.7	3403.2	81.740 µg/L	81.740 ppb	18:23:54
3	Be 313.107†	-1040.3	1841.0	0.9319 µg/L	0.9319 ppb	18:23:54
3	Cd 226.502†	-101.9	42.3	-0.4099 µg/L	-0.4099 ppb	18:24:14
3	Co 228.616†	137.9	132.5	5.1231 µg/L	5.1231 ppb	18:24:14
3	Cr 267.716†	738.0	770.2	15.483 µg/L	15.483 ppb	18:23:54
3	Cu 324.752†	4309.5	1659.6	12.646 µg/L	12.646 ppb	18:23:54
3	Mn 257.610†	113534.6	110993.0	349.26 µg/L	349.26 ppb	18:23:54
3	Mo 202.031†	10.5	15.6	2.0233 µg/L	2.0233 ppb	18:24:14
3	Ni 231.604†	498.9	174.3	8.8516 µg/L	8.8516 ppb	18:24:14
3	P 214.914†	7.0	-8.5	51.808 µg/L	51.808 ppb	18:24:14
3	Pb 220.353†	156.8	62.0	14.896 µg/L	14.896 ppb	18:24:14
3	S 181.975 Axial†	35.6	15.8	65.511 µg/L	65.511 ppb	18:24:14
3	Sb 206.836†	7.0	-15.7	-14.662 µg/L	-14.662 ppb	18:24:14
3	Se 196.026†	10.1	-9.4	20.797 µg/L	20.797 ppb	18:24:14
3	SiO2†	23794.4	21816.5	4306.3 µg/L	4306.3 ppb	18:23:54
3	Si 251.611†	27299.7	26316.4	2000.6 µg/L	2000.6 ppb	18:23:54
3	Sn 189.927†	12919.5	12600.8	5312.7 µg/L	5312.7 ppb	18:23:54
3	Ti 334.940†	195755.2	190756.5	421.91 µg/L	421.91 ppb	18:23:48
3	Tl 190.801†	-32.4	-9.2	-4.7274 µg/L	-4.7274 ppb	18:24:14
3	U 409.014†	-145.9	-65.2	-7.3251 µg/L	-7.3251 ppb	18:23:54
3	V 292.402†	2210.2	2200.5	23.022 µg/L	23.022 ppb	18:23:54
3	Zn 213.857†	1793.5	1214.9	27.750 µg/L	27.750 ppb	18:24:14

Mean Data: 1202030848|954751|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2006167.2	102.19	%	0.452				0.44%
Sc RADIAL	56465.8	99.9	%	0.25				0.26%
Y 371.029	1383707.6	102.29	%	0.461				0.45%
Ag 328.068†	-138.7	-0.0502	µg/L	0.17367	-0.0502	ppb	0.17367	346.07%
Al 396.153Radial†	8726.6	6070.7	µg/L	31.53	6070.7	ppb	31.53	0.52%
As 188.979†	-0.9	-0.9887	µg/L	1.82495	-0.9887	ppb	1.82495	184.57%
B 249.677†	102.8	-2.6108	µg/L	0.38445	-2.6108	ppb	0.38445	14.73%
Ba 233.527†	3662.3	87.962	µg/L	5.4084	87.962	ppb	5.4084	6.15%
Be 313.107†	1983.2	1.0077	µg/L	0.07070	1.0077	ppb	0.07070	7.02%
Ca 317.933Radial†	1866.0	1593.9	µg/L	4.28	1593.9	ppb	4.28	0.27%
Cd 226.502†	50.1	-0.2196	µg/L	0.20099	-0.2196	ppb	0.20099	91.51%
Co 228.616†	153.6	6.0279	µg/L	0.78761	6.0279	ppb	0.78761	13.07%
Cr 267.716†	838.4	16.854	µg/L	1.2060	16.854	ppb	1.2060	7.16%
Cu 324.752†	1809.4	13.630	µg/L	0.8525	13.630	ppb	0.8525	6.25%
Fe 238.204 Radial†	1659.1	13085	µg/L	35.1	13085	ppb	35.1	0.27%
K 766.490 Radial†	2177.4	1422.1	µg/L	29.90	1422.1	ppb	29.90	2.10%
Mg 279.077 IEC†	150.5	1331.5	µg/L	8.53	1331.5	ppb	8.53	0.64%
Mn 257.610†	120266.1	378.30	µg/L	25.256	378.30	ppb	25.256	6.68%
Mo 202.031†	13.3	1.8013	µg/L	0.28232	1.8013	ppb	0.28232	15.67%
Na 589.592 Radial†	284.0	87.240	µg/L	6.1888	87.240	ppb	6.1888	7.09%

Ni 231.604†	192.7	9.7668	µg/L	0.84240	9.7668	ppb	0.84240	8.63%
P 214.914†	-11.9	52.138	µg/L	1.4916	52.138	ppb	1.4916	2.86%
Pb 220.353†	68.9	16.578	µg/L	1.4779	16.578	ppb	1.4779	8.91%
S 181.975 Axial†	18.1	74.881	µg/L	9.6759	74.881	ppb	9.6759	12.92%
Sb 206.836†	-16.9	-15.822	µg/L	1.0138	-15.822	ppb	1.0138	6.41%
Se 196.026†	-4.6	27.630	µg/L	10.0051	27.630	ppb	10.0051	36.21%
SiO2†	23502.1	4639.0	µg/L	301.04	4639.0	ppb	301.04	6.49%
Si 251.611†	28399.7	2159.0	µg/L	141.99	2159.0	ppb	141.99	6.58%
Sn 189.927†	13724.7	5786.7	µg/L	411.61	5786.7	ppb	411.61	7.11%
Sr 421.552†	2131.4	19.662	µg/L	0.2319	19.662	ppb	0.2319	1.18%
Ti 334.940†	200944.0	444.45	µg/L	19.535	444.45	ppb	19.535	4.40%
Tl 190.801†	-5.1	0.9000	µg/L	4.90501	0.9000	ppb	4.90501	544.99%
U 409.014†	-55.9	-6.5629	µg/L	4.96657	-6.5629	ppb	4.96657	75.68%
V 292.402†	2372.8	24.708	µg/L	1.5029	24.708	ppb	1.5029	6.08%
Zn 213.857†	1410.3	32.329	µg/L	3.9656	32.329	ppb	3.9656	12.27%

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:24:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58110.7	58110.7	103	%			18:24:59
1	Al 396.153Radial†	7350.7	7139.0	4955.6	µg/L	4955.6	ppb	18:24:59
1	Ca 317.933Radial†	6185.2	5802.1	4956.0	µg/L	4956.0	ppb	18:25:20
1	Fe 238.204 Radial†	675.1	639.8	5056.7	µg/L	5056.7	ppb	18:25:20
1	K 766.490 Radial†	7936.4	7550.9	4931.6	µg/L	4931.6	ppb	18:24:59
1	Mg 279.077 IEC†	594.2	564.9	5052.6	µg/L	5052.6	ppb	18:25:20
1	Na 589.592 Radial†	33978.9	32562.3	10001	µg/L	10001	ppb	18:24:59
1	Sr 421.552†	54344.8	52805.6	487.14	µg/L	487.14	ppb	18:24:59
1	Sc 361.383	2010503.2	2010503.2	102.41	%			18:26:23
1	Y 371.029	1378737.8	1378737.8	101.92	%			18:26:23
1	Ag 328.068†	69160.3	67932.0	506.90	µg/L	506.90	ppb	18:26:28
1	As 188.979†	303.0	296.3	530.04	µg/L	530.04	ppb	18:26:49
1	B 249.677†	13059.0	12367.1	502.24	µg/L	502.24	ppb	18:26:28
1	Ba 233.527†	21831.0	21333.5	513.08	µg/L	513.08	ppb	18:26:28
1	Be 313.107†	864886.0	847358.1	502.72	µg/L	502.72	ppb	18:26:23
1	Cd 226.502†	21036.3	20682.2	515.78	µg/L	515.78	ppb	18:26:28
1	Co 228.616†	11703.6	11425.8	516.87	µg/L	516.87	ppb	18:26:28
1	Cr 267.716†	26284.2	25715.1	516.82	µg/L	516.82	ppb	18:26:28
1	Cu 324.752†	82127.8	77648.4	507.55	µg/L	507.55	ppb	18:26:28
1	Mn 257.610†	166823.1	163147.4	511.37	µg/L	511.37	ppb	18:26:23
1	Mo 202.031†	5448.5	5325.4	521.69	µg/L	521.69	ppb	18:26:49
1	Ni 231.604†	10977.7	10406.6	518.22	µg/L	518.22	ppb	18:26:28
1	P 214.914†	1361.9	1314.4	2554.1	µg/L	2554.1	ppb	18:26:49
1	Pb 220.353†	2277.9	2133.2	518.76	µg/L	518.76	ppb	18:26:49
1	S 181.975 Axial†	276.1	250.7	1039.6	µg/L	1039.6	ppb	18:26:49
1	Sb 206.836†	598.0	561.4	517.60	µg/L	517.60	ppb	18:26:49
1	Se 196.026†	404.7	375.8	535.75	µg/L	535.75	ppb	18:26:49
1	SiO2†	29945.4	27848.1	5496.8	µg/L	5496.8	ppb	18:26:28
1	Si 251.611†	34979.9	33844.9	2573.0	µg/L	2573.0	ppb	18:26:28
1	Sn 189.927†	1294.8	1263.9	533.06	µg/L	533.06	ppb	18:26:49
1	Ti 334.940†	232405.2	226752.9	501.31	µg/L	501.31	ppb	18:26:23
1	Tl 190.801†	387.3	400.5	526.22	µg/L	526.22	ppb	18:26:49
1	U 409.014†	6254.1	6183.8	512.77	µg/L	512.77	ppb	18:26:28
1	V 292.402†	53539.0	52322.0	516.23	µg/L	516.23	ppb	18:26:28
1	Zn 213.857†	23135.9	22056.3	513.84	µg/L	513.84	ppb	18:26:28
2	Sc RADIAL	57983.0	57983.0	103	%			18:25:25
2	Al 396.153Radial†	7301.1	7106.5	4933.3	µg/L	4933.3	ppb	18:25:25
2	Ca 317.933Radial†	6156.7	5787.5	4943.6	µg/L	4943.6	ppb	18:25:45
2	Fe 238.204 Radial†	670.2	636.5	5030.5	µg/L	5030.5	ppb	18:25:45
2	K 766.490 Radial†	7863.7	7497.0	4896.4	µg/L	4896.4	ppb	18:25:25
2	Mg 279.077 IEC†	585.6	557.7	4988.7	µg/L	4988.7	ppb	18:25:45
2	Na 589.592 Radial†	33805.3	32465.9	9971.7	µg/L	9971.7	ppb	18:25:25
2	Sr 421.552†	54068.8	52653.0	485.73	µg/L	485.73	ppb	18:25:25
2	Sc 361.383	2038047.8	2038047.8	103.82	%			18:26:56
2	Y 371.029	1399253.6	1399253.6	103.44	%			18:26:56
2	Ag 328.068†	68906.4	66774.7	498.26	µg/L	498.26	ppb	18:27:02
2	As 188.979†	291.3	281.1	502.79	µg/L	502.79	ppb	18:27:22
2	B 249.677†	13031.9	12168.7	494.15	µg/L	494.15	ppb	18:27:02
2	Ba 233.527†	21788.4	21004.4	505.16	µg/L	505.16	ppb	18:27:02
2	Be 313.107†	871938.9	842738.2	499.98	µg/L	499.98	ppb	18:26:56
2	Cd 226.502†	20959.6	20330.7	507.01	µg/L	507.01	ppb	18:27:02
2	Co 228.616†	11663.7	11232.9	508.13	µg/L	508.13	ppb	18:27:02
2	Cr 267.716†	26195.8	25283.1	508.13	µg/L	508.13	ppb	18:27:02
2	Cu 324.752†	81865.7	76312.2	498.82	µg/L	498.82	ppb	18:27:02
2	Mn 257.610†	168150.2	162224.2	508.48	µg/L	508.48	ppb	18:26:56
2	Mo 202.031†	5330.8	5140.1	503.54	µg/L	503.54	ppb	18:27:22
2	Ni 231.604†	10880.8	10168.4	506.35	µg/L	506.35	ppb	18:27:02
2	P 214.914†	1337.9	1273.4	2473.4	µg/L	2473.4	ppb	18:27:22
2	Pb 220.353†	2238.1	2064.9	502.11	µg/L	502.11	ppb	18:27:22

2	S 181.975 Axial†	271.4	242.5	1005.7 µg/L	1005.7 ppb	18:27:22
2	Sb 206.836†	590.8	546.6	503.85 µg/L	503.85 ppb	18:27:22
2	Se 196.026†	401.0	366.9	523.19 µg/L	523.19 ppb	18:27:22
2	SiO2†	29842.8	27354.0	5399.3 µg/L	5399.3 ppb	18:27:02
2	Si 251.611†	34939.6	33344.4	2534.9 µg/L	2534.9 ppb	18:27:02
2	Sn 189.927†	1259.4	1212.7	511.46 µg/L	511.46 ppb	18:27:22
2	Ti 334.940†	233999.5	225221.6	497.93 µg/L	497.93 ppb	18:26:56
2	Tl 190.801†	377.0	385.6	506.75 µg/L	506.75 ppb	18:27:22
2	U 409.014†	6252.8	6100.0	505.82 µg/L	505.82 ppb	18:27:02
2	V 292.402†	53301.3	51386.4	506.94 µg/L	506.94 ppb	18:27:02
2	Zn 213.857†	23074.0	21691.3	505.35 µg/L	505.35 ppb	18:27:02
3	Sc RADIAL	58101.7	58101.7	103 %		18:25:51
3	Al 396.153Radial†	7325.2	7115.3	4941.3 µg/L	4941.3 ppb	18:25:51
3	Ca 317.933Radial†	6167.8	5786.1	4942.3 µg/L	4942.3 ppb	18:26:11
3	Fe 238.204 Radial†	673.8	638.6	5046.3 µg/L	5046.3 ppb	18:26:11
3	K 766.490 Radial†	7958.4	7573.4	4946.3 µg/L	4946.3 ppb	18:25:51
3	Mg 279.077 IEC†	598.9	569.5	5092.5 µg/L	5092.5 ppb	18:26:11
3	Na 589.592 Radial†	33931.7	32521.6	9988.8 µg/L	9988.8 ppb	18:25:51
3	Sr 421.552†	54158.1	52632.2	485.54 µg/L	485.54 ppb	18:25:51
3	Sc 361.383	2006960.6	2006960.6	102.23 %		18:27:29
3	Y 371.029	1377064.8	1377064.8	101.80 %		18:27:29
3	Ag 328.068†	63249.3	62269.2	464.47 µg/L	464.47 ppb	18:27:35
3	As 188.979†	239.9	235.1	420.56 µg/L	420.56 ppb	18:27:55
3	B 249.677†	11912.9	11268.6	457.34 µg/L	457.34 ppb	18:27:35
3	Ba 233.527†	19263.5	18859.7	453.56 µg/L	453.56 ppb	18:27:35
3	Be 313.107†	784759.4	770472.5	457.11 µg/L	457.11 ppb	18:27:29
3	Cd 226.502†	18434.4	18173.4	453.14 µg/L	453.14 ppb	18:27:35
3	Co 228.616†	10122.4	9899.4	447.75 µg/L	447.75 ppb	18:27:35
3	Cr 267.716†	21992.5	21562.5	433.36 µg/L	433.36 ppb	18:27:35
3	Cu 324.752†	71871.2	67757.5	442.99 µg/L	442.99 ppb	18:27:35
3	Mn 257.610†	152131.1	149063.9	467.26 µg/L	467.26 ppb	18:27:29
3	Mo 202.031†	4313.3	4224.4	413.87 µg/L	413.87 ppb	18:27:55
3	Ni 231.604†	9585.0	9063.2	451.33 µg/L	451.33 ppb	18:27:35
3	P 214.914†	1100.5	1061.1	2057.6 µg/L	2057.6 ppb	18:27:55
3	Pb 220.353†	1891.6	1759.4	427.76 µg/L	427.76 ppb	18:27:55
3	S 181.975 Axial†	229.0	205.1	850.35 µg/L	850.35 ppb	18:27:55
3	Sb 206.836†	491.8	458.5	422.37 µg/L	422.37 ppb	18:27:55
3	Se 196.026†	337.5	310.8	444.41 µg/L	444.41 ppb	18:27:55
3	SiO2†	27007.5	25025.9	4939.8 µg/L	4939.8 ppb	18:27:35
3	Si 251.611†	31393.7	30397.3	2310.9 µg/L	2310.9 ppb	18:27:35
3	Sn 189.927†	994.9	972.8	410.27 µg/L	410.27 ppb	18:27:55
3	Ti 334.940†	209196.0	204451.2	451.97 µg/L	451.97 ppb	18:27:29
3	Tl 190.801†	327.6	342.9	450.86 µg/L	450.86 ppb	18:27:55
3	U 409.014†	5293.3	5254.7	435.59 µg/L	435.59 ppb	18:27:35
3	V 292.402†	45934.6	44975.9	443.54 µg/L	443.54 ppb	18:27:35
3	Zn 213.857†	20247.3	19270.6	448.88 µg/L	448.88 ppb	18:27:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2018503.9	102.82	%	0.867				0.84%
Sc RADIAL	58065.1	103	%	0.1				0.12%
Y 371.029	1385018.8	102.38	%	0.913				0.89%
Ag 328.068†	65658.6	489.88	µg/L	22.418	489.88	ppb	22.418	4.58%
QC value within limits for Ag 328.068 Recovery = 97.98%								
Al 396.153Radial†	7120.3	4943.4	µg/L	11.28	4943.4	ppb	11.28	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	270.8	484.46	µg/L	56.991	484.46	ppb	56.991	11.76%
QC value within limits for As 188.979 Recovery = 96.89%								
B 249.677†	11934.8	484.58	µg/L	23.933	484.58	ppb	23.933	4.94%
QC value within limits for B 249.677 Recovery = 96.92%								
Ba 233.527†	20399.2	490.60	µg/L	32.321	490.60	ppb	32.321	6.59%
QC value within limits for Ba 233.527 Recovery = 98.12%								
Be 313.107†	820189.6	486.60	µg/L	25.580	486.60	ppb	25.580	5.26%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 317.933Radial†	5791.9	4947.3	µg/L	7.57	4947.3	ppb	7.57	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.95%								
Cd 226.502†	19728.8	491.98	µg/L	33.915	491.98	ppb	33.915	6.89%
QC value within limits for Cd 226.502 Recovery = 98.40%								
Co 228.616†	10852.7	490.92	µg/L	37.639	490.92	ppb	37.639	7.67%

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   QC value within limits for Co 228.616  Recovery = 98.18%
Cr 267.716†            24186.9      486.10 µg/L        45.880      486.10 ppb         45.880   9.44%
   QC value within limits for Cr 267.716  Recovery = 97.22%
Cu 324.752†            73906.0      483.12 µg/L        35.030      483.12 ppb         35.030   7.25%
   QC value within limits for Cu 324.752  Recovery = 96.62%
Fe 238.204 Radial†       638.3      5044.5 µg/L         13.19      5044.5 ppb         13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.89%
K 766.490 Radial†       7540.4      4924.8 µg/L         25.64      4924.8 ppb         25.64   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 98.50%
Mg 279.077 IEC†          564.0      5044.6 µg/L         52.37      5044.6 ppb         52.37   1.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.89%
Mn 257.610†           158145.2      495.70 µg/L        24.672      495.70 ppb        24.672   4.98%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†             4896.7      479.70 µg/L        57.728      479.70 ppb        57.728  12.03%
   QC value within limits for Mo 202.031  Recovery = 95.94%
Na 589.592 Radial†     32516.6      9987.3 µg/L         14.87      9987.3 ppb         14.87   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 99.87%
Ni 231.604†             9879.4      491.97 µg/L        35.688      491.97 ppb        35.688   7.25%
   QC value within limits for Ni 231.604  Recovery = 98.39%
P 214.914†              1216.3      2361.7 µg/L        266.42      2361.7 ppb        266.42  11.28%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1985.8      482.88 µg/L        48.455      482.88 ppb        48.455  10.03%
   QC value within limits for Pb 220.353  Recovery = 96.58%
S 181.975 Axial†         232.7      965.19 µg/L       100.884      965.19 ppb       100.884  10.45%
   QC value within limits for S 181.975 Axial  Recovery = 96.52%
Sb 206.836†              522.2      481.27 µg/L        51.474      481.27 ppb        51.474  10.70%
   QC value within limits for Sb 206.836  Recovery = 96.25%
Se 196.026†              351.2      501.12 µg/L        49.509      501.12 ppb        49.509   9.88%
   QC value within limits for Se 196.026  Recovery = 100.22%
SiO2†                  26742.7      5278.7 µg/L        297.49      5278.7 ppb        297.49   5.64%
   QC value within limits for SiO2  Recovery = 98.71%
Si 251.611†            32528.9      2472.9 µg/L        141.62      2472.9 ppb        141.62   5.73%
   QC value within limits for Si 251.611  Recovery = 98.92%
Sn 189.927†             1149.8      484.93 µg/L        65.553      484.93 ppb        65.553  13.52%
   QC value within limits for Sn 189.927  Recovery = 96.99%
Sr 421.552†            52696.9      486.14 µg/L         0.873      486.14 ppb         0.873   0.18%
   QC value within limits for Sr 421.552  Recovery = 97.23%
Ti 334.940†           218808.6      483.73 µg/L        27.562      483.73 ppb        27.562   5.70%
   QC value within limits for Ti 334.940  Recovery = 96.75%
Tl 190.801†              376.3      494.61 µg/L        39.121      494.61 ppb        39.121   7.91%
   QC value within limits for Tl 190.801  Recovery = 98.92%
U 409.014†              5846.2      484.73 µg/L        42.700      484.73 ppb        42.700   8.81%
   QC value within limits for U 409.014  Recovery = 96.95%
V 292.402†             49561.4      488.90 µg/L        39.562      488.90 ppb        39.562   8.09%
   QC value within limits for V 292.402  Recovery = 97.78%
Zn 213.857†            21006.1      489.36 µg/L        35.308      489.36 ppb        35.308   7.22%
   QC value within limits for Zn 213.857  Recovery = 97.87%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 18:28:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56920.6	56920.6	101	%			18:28:38
1	Al 396.153Radial†	-0.3	-7.6	-5.3346	µg/L	-5.3346	ppb	18:28:38
1	Ca 317.933Radial†	189.5	-23.2	-19.841	µg/L	-19.841	ppb	18:28:58
1	Fe 238.204 Radial†	19.4	2.7	21.377	µg/L	21.377	ppb	18:28:58
1	K 766.490 Radial†	221.6	55.0	35.912	µg/L	35.912	ppb	18:28:38
1	Mg 279.077 IEC†	10.8	-2.1	-18.380	µg/L	-18.380	ppb	18:28:58
1	Na 589.592 Radial†	498.2	22.3	6.8542	µg/L	6.8542	ppb	18:28:38
1	Sr 421.552†	54.9	25.7	0.2367	µg/L	0.2367	ppb	18:28:38
1	Sc 361.383	2032515.3	2032515.3	103.53	%			18:30:00
1	Y 371.029	1398820.8	1398820.8	103.41	%			18:30:00
1	Ag 328.068†	-457.1	-39.8	-0.2911	µg/L	-0.2911	ppb	18:30:06
1	As 188.979†	5.6	5.9	10.594	µg/L	10.594	ppb	18:30:26
1	B 249.677†	410.3	12.1	0.4845	µg/L	0.4845	ppb	18:30:26
1	Ba 233.527†	49.3	64.6	1.5526	µg/L	1.5526	ppb	18:30:26
1	Be 313.107†	-2857.0	96.2	0.0570	µg/L	0.0570	ppb	18:30:06
1	Cd 226.502†	-101.1	44.0	1.0963	µg/L	1.0963	ppb	18:30:26
1	Co 228.616†	28.1	25.2	1.1408	µg/L	1.1408	ppb	18:30:26
1	Cr 267.716†	-32.9	18.6	0.3731	µg/L	0.3731	ppb	18:30:06
1	Cu 324.752†	2585.0	-47.0	-0.3039	µg/L	-0.3039	ppb	18:30:06
1	Mn 257.610†	1142.9	1359.9	4.2620	µg/L	4.2620	ppb	18:30:26
1	Mo 202.031†	8.1	13.2	1.2945	µg/L	1.2945	ppb	18:30:26
1	Ni 231.604†	338.7	14.7	0.7339	µg/L	0.7339	ppb	18:30:26
1	P 214.914†	15.9	0.0	0.2437	µg/L	0.2437	ppb	18:30:26
1	Pb 220.353†	99.8	5.5	1.3339	µg/L	1.3339	ppb	18:30:26
1	S 181.975 Axial†	18.1	-1.5	-6.0253	µg/L	-6.0253	ppb	18:30:26
1	Sb 206.836†	22.7	-0.5	-0.4788	µg/L	-0.4788	ppb	18:30:26
1	Se 196.026†	18.0	-1.9	-2.6538	µg/L	-2.6538	ppb	18:30:26
1	SiO2†	1447.9	6.9	1.3541	µg/L	1.3541	ppb	18:30:06
1	Si 251.611†	659.6	326.5	24.820	µg/L	24.820	ppb	18:30:26
1	Sn 189.927†	38.3	36.6	15.441	µg/L	15.441	ppb	18:30:26
1	Ti 334.940†	321.1	135.1	0.3001	µg/L	0.3001	ppb	18:30:06
1	Tl 190.801†	-21.1	2.0	2.6395	µg/L	2.6395	ppb	18:30:26
1	U 409.014†	-28.7	49.4	4.1035	µg/L	4.1035	ppb	18:30:06
1	V 292.402†	-3.2	41.6	0.4232	µg/L	0.4232	ppb	18:30:06
1	Zn 213.857†	618.9	63.4	1.4848	µg/L	1.4848	ppb	18:30:26
2	Sc RADIAL	56709.3	56709.3	100	%			18:29:04
2	Al 396.153Radial†	-16.5	-23.8	-16.528	µg/L	-16.528	ppb	18:29:04
2	Ca 317.933Radial†	196.4	-15.6	-13.311	µg/L	-13.311	ppb	18:29:24
2	Fe 238.204 Radial†	19.1	2.4	18.992	µg/L	18.992	ppb	18:29:24
2	K 766.490 Radial†	204.3	38.5	25.150	µg/L	25.150	ppb	18:29:04
2	Mg 279.077 IEC†	11.8	-1.1	-9.6092	µg/L	-9.6092	ppb	18:29:24
2	Na 589.592 Radial†	485.8	11.8	3.6148	µg/L	3.6148	ppb	18:29:04
2	Sr 421.552†	30.8	1.9	0.0174	µg/L	0.0174	ppb	18:29:04
2	Sc 361.383	2017506.8	2017506.8	102.77	%			18:30:32
2	Y 371.029	1389281.0	1389281.0	102.70	%			18:30:32
2	Ag 328.068†	-439.2	-25.7	-0.1831	µg/L	-0.1831	ppb	18:30:38
2	As 188.979†	-2.8	-2.2	-4.0102	µg/L	-4.0102	ppb	18:30:58
2	B 249.677†	382.6	-11.8	-0.4899	µg/L	-0.4899	ppb	18:30:58
2	Ba 233.527†	4.3	21.2	0.5118	µg/L	0.5118	ppb	18:30:58
2	Be 313.107†	-2101.4	811.0	0.4800	µg/L	0.4800	ppb	18:30:38
2	Cd 226.502†	-138.5	6.9	0.1705	µg/L	0.1705	ppb	18:30:58
2	Co 228.616†	11.1	8.8	0.3922	µg/L	0.3922	ppb	18:30:58
2	Cr 267.716†	4.0	54.3	1.0911	µg/L	1.0911	ppb	18:30:38
2	Cu 324.752†	2748.4	130.6	0.8552	µg/L	0.8552	ppb	18:30:38
2	Mn 257.610†	83.5	337.3	1.0592	µg/L	1.0592	ppb	18:30:58
2	Mo 202.031†	-7.8	-2.2	-0.2192	µg/L	-0.2192	ppb	18:30:58
2	Ni 231.604†	324.9	3.8	0.1884	µg/L	0.1884	ppb	18:30:58
2	P 214.914†	13.0	-2.7	-5.2676	µg/L	-5.2676	ppb	18:30:58
2	Pb 220.353†	93.0	-0.4	-0.1127	µg/L	-0.1127	ppb	18:30:58

2	S 181.975 Axial†	20.2	0.7	2.8524 µg/L	2.8524 ppb	18:30:58
2	Sb 206.836†	24.9	1.7	1.5373 µg/L	1.5373 ppb	18:30:58
2	Se 196.026†	20.3	0.5	0.7192 µg/L	0.7192 ppb	18:30:58
2	SiO2†	1642.6	206.7	40.802 µg/L	40.802 ppb	18:30:38
2	Si 251.611†	453.6	130.8	9.9406 µg/L	9.9406 ppb	18:30:58
2	Sn 189.927†	19.1	18.2	7.6779 µg/L	7.6779 ppb	18:30:58
2	Ti 334.940†	1831.1	1606.7	3.5550 µg/L	3.5550 ppb	18:30:38
2	Tl 190.801†	-20.6	2.3	3.0926 µg/L	3.0926 ppb	18:30:58
2	U 409.014†	-17.3	60.3	5.0059 µg/L	5.0059 ppb	18:30:38
2	V 292.402†	54.7	98.0	0.9631 µg/L	0.9631 ppb	18:30:38
2	Zn 213.857†	549.1	-0.1	-0.0060 µg/L	-0.0060 ppb	18:30:58
3	Sc RADIAL	57463.0	57463.0	102 %		18:29:29
3	Al 396.153Radial†	-41.0	-47.6	-33.158 µg/L	-33.158 ppb	18:29:29
3	Ca 317.933Radial†	194.3	-20.2	-17.244 µg/L	-17.244 ppb	18:29:50
3	Fe 238.204 Radial†	18.7	1.8	14.201 µg/L	14.201 ppb	18:29:50
3	K 766.490 Radial†	178.1	10.2	6.6395 µg/L	6.6395 ppb	18:29:29
3	Mg 279.077 IEC†	8.7	-4.2	-37.957 µg/L	-37.957 ppb	18:29:50
3	Na 589.592 Radial†	506.8	26.1	8.0102 µg/L	8.0102 ppb	18:29:29
3	Sr 421.552†	42.9	13.3	0.1232 µg/L	0.1232 ppb	18:29:29
3	Sc 361.383	2013891.9	2013891.9	102.59 %		18:31:04
3	Y 371.029	1385497.7	1385497.7	102.42 %		18:31:04
3	Ag 328.068†	-434.1	-21.6	-0.1566 µg/L	-0.1566 ppb	18:31:10
3	As 188.979†	1.4	1.8	3.2592 µg/L	3.2592 ppb	18:31:31
3	B 249.677†	380.8	-12.9	-0.5336 µg/L	-0.5336 ppb	18:31:31
3	Ba 233.527†	-7.5	9.7	0.2343 µg/L	0.2343 ppb	18:31:31
3	Be 313.107†	-2627.4	294.5	0.1745 µg/L	0.1745 ppb	18:31:10
3	Cd 226.502†	-139.2	6.0	0.1475 µg/L	0.1475 ppb	18:31:31
3	Co 228.616†	-2.4	-4.2	-0.1927 µg/L	-0.1927 ppb	18:31:31
3	Cr 267.716†	-21.1	29.8	0.5980 µg/L	0.5980 ppb	18:31:10
3	Cu 324.752†	2619.6	9.8	0.0659 µg/L	0.0659 ppb	18:31:10
3	Mn 257.610†	-3.1	253.0	0.7956 µg/L	0.7956 ppb	18:31:31
3	Mo 202.031†	1.5	6.8	0.6637 µg/L	0.6637 ppb	18:31:31
3	Ni 231.604†	309.6	-10.5	-0.5253 µg/L	-0.5253 ppb	18:31:31
3	P 214.914†	10.7	-4.9	-9.6506 µg/L	-9.6506 ppb	18:31:31
3	Pb 220.353†	92.1	-1.1	-0.2804 µg/L	-0.2804 ppb	18:31:31
3	S 181.975 Axial†	20.6	1.2	4.9214 µg/L	4.9214 ppb	18:31:31
3	Sb 206.836†	22.0	-1.0	-0.9299 µg/L	-0.9299 ppb	18:31:31
3	Se 196.026†	22.4	2.6	3.6800 µg/L	3.6800 ppb	18:31:31
3	SiO2†	1531.3	101.1	19.951 µg/L	19.951 ppb	18:31:10
3	Si 251.611†	470.6	148.1	11.258 µg/L	11.258 ppb	18:31:31
3	Sn 189.927†	15.7	14.9	6.2845 µg/L	6.2845 ppb	18:31:31
3	Ti 334.940†	545.2	356.5	0.7913 µg/L	0.7913 ppb	18:31:10
3	Tl 190.801†	-18.8	4.0	5.2381 µg/L	5.2381 ppb	18:31:31
3	U 409.014†	-62.1	16.5	1.3714 µg/L	1.3714 ppb	18:31:10
3	V 292.402†	-10.9	34.2	0.3425 µg/L	0.3425 ppb	18:31:10
3	Zn 213.857†	537.6	-10.4	-0.2395 µg/L	-0.2395 ppb	18:31:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2021304.7	102.96	%	0.503				0.49%
Sc RADIAL	57030.9	101	%	0.7				0.68%
Y 371.029	1391199.8	102.84	%	0.508				0.49%
Ag 328.068†	-29.0	-0.2103	µg/L	0.07128	-0.2103	ppb	0.07128	33.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-26.3	-18.340	µg/L	14.0000	-18.340	ppb	14.0000	76.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	3.2809	µg/L	7.30195	3.2809	ppb	7.30195	222.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-4.2	-0.1797	µg/L	0.57561	-0.1797	ppb	0.57561	320.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	31.9	0.7662	µg/L	0.69500	0.7662	ppb	0.69500	90.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	400.6	0.2372	µg/L	0.21833	0.2372	ppb	0.21833	92.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.7	-16.799	µg/L	3.2876	-16.799	ppb	3.2876	19.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.0	0.4714	µg/L	0.54127	0.4714	ppb	0.54127	114.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.9	0.4468	µg/L	0.66842	0.4468	ppb	0.66842	149.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                34.2      0.6874 µg/L       0.36726      0.6874 ppb        0.36726  53.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                31.1      0.2057 µg/L       0.59207      0.2057 ppb        0.59207 287.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3      18.190 µg/L        3.6545      18.190 ppb         3.6545  20.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          34.6      22.567 µg/L       14.8062      22.567 ppb        14.8062  65.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.5     -21.982 µg/L       14.5132     -21.982 ppb        14.5132  66.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               650.0      2.0389 µg/L       1.92974      2.0389 ppb        1.92974  94.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.9      0.5797 µg/L       0.76032      0.5797 ppb        0.76032 131.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         20.1      6.1597 µg/L       2.27853      6.1597 ppb        2.27853  36.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.7      0.1323 µg/L       0.63148      0.1323 ppb        0.63148 477.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -4.8915 µg/L       4.95786     -4.8915 ppb        4.95786 101.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.3      0.3136 µg/L       0.88754      0.3136 ppb        0.88754 283.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.1      0.5829 µg/L       5.81558      0.5829 ppb        5.81558 997.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.0      0.0429 µg/L       1.31372      0.0429 ppb        1.31372 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.4      0.5818 µg/L       3.16914      0.5818 ppb        3.16914 544.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     104.9      20.702 µg/L       19.7346      20.702 ppb        19.7346  95.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               201.8      15.340 µg/L        8.2366      15.340 ppb         8.2366  53.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                23.3      9.8010 µg/L       4.93347      9.8010 ppb        4.93347  50.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.6      0.1258 µg/L       0.10971      0.1258 ppb        0.10971  87.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               699.4      1.5488 µg/L       1.75468      1.5488 ppb        1.75468 113.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      3.6567 µg/L       1.38813      3.6567 ppb        1.38813  37.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 42.1      3.4936 µg/L       1.89246      3.4936 ppb        1.89246  54.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 57.9      0.5763 µg/L       0.33743      0.5763 ppb        0.33743  58.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                17.6      0.4131 µg/L       0.93546      0.4131 ppb        0.93546 226.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: 245688002|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 314
Date Collected: 2/19/2010 18:31:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688002|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57411.7	57411.7	102	%			18:32:17
1	Al 396.153Radial†	46454.9	45706.3	31796	µg/L	31796	ppb	18:32:17
1	Ca 317.933Radial†	8430.3	8084.5	6905.7	µg/L	6905.7	ppb	18:32:37
1	Fe 238.204 Radial†	12084.1	11874.7	93655	µg/L	93655	ppb	18:32:37
1	K 766.490 Radial†	8010.6	7717.8	5040.6	µg/L	5040.6	ppb	18:32:17
1	Mg 279.077 IEC†	618.8	596.1	5228.0	µg/L	5228.0	ppb	18:32:37
1	Na 589.592 Radial†	5877.4	5311.5	1631.4	µg/L	1631.4	ppb	18:32:17
1	Sr 421.552†	7574.9	7425.2	68.499	µg/L	68.499	ppb	18:32:17
1	Sc 361.383	2020607.6	2020607.6	102.93	%			18:33:41
1	Y 371.029	1500641.7	1500641.7	110.93	%			18:33:41
1	Ag 328.068†	-1508.9	-1064.3	-1.6902	µg/L	-1.6902	ppb	18:33:47
1	As 188.979†	13.1	13.2	28.651	µg/L	28.651	ppb	18:34:07
1	B 249.677†	843.9	435.8	-31.004	µg/L	-31.004	ppb	18:33:47
1	Ba 233.527†	20380.3	19817.5	475.84	µg/L	475.84	ppb	18:33:47
1	Be 313.107†	8261.1	10881.8	5.9996	µg/L	5.9996	ppb	18:33:47
1	Cd 226.502†	187.5	323.9	-2.4449	µg/L	-2.4449	ppb	18:34:07
1	Co 228.616†	956.7	927.5	39.499	µg/L	39.499	ppb	18:34:07
1	Cr 267.716†	3241.2	3199.4	64.289	µg/L	64.289	ppb	18:34:07
1	Cu 324.752†	5829.7	3120.1	33.385	µg/L	33.385	ppb	18:33:47
1	Mn 257.610†	789518.6	767312.2	2415.1	µg/L	2415.1	ppb	18:33:41
1	Mo 202.031†	78.9	82.0	11.588	µg/L	11.588	ppb	18:34:07
1	Ni 231.604†	1558.3	1201.6	61.067	µg/L	61.067	ppb	18:34:07
1	P 214.914†	301.9	278.0	481.50	µg/L	481.50	ppb	18:34:07
1	Pb 220.353†	328.1	227.9	53.751	µg/L	53.751	ppb	18:34:07
1	S 181.975 Axial†	45.5	25.2	104.63	µg/L	104.63	ppb	18:34:07
1	Sb 206.836†	32.4	9.0	7.0722	µg/L	7.0722	ppb	18:34:07
1	Se 196.026†	-40.1	-58.3	167.53	µg/L	167.53	ppb	18:34:07
1	SiO2†	89429.4	85493.5	16875	µg/L	16875	ppb	18:33:47
1	Si 251.611†	106865.8	103514.8	7869.4	µg/L	7869.4	ppb	18:33:47
1	Sn 189.927†	25.9	24.8	1.0453	µg/L	1.0453	ppb	18:34:07
1	Ti 334.940†	560428.0	544308.3	1203.8	µg/L	1203.8	ppb	18:33:41
1	Tl 190.801†	-39.0	-15.5	15.020	µg/L	15.020	ppb	18:34:07
1	U 409.014†	-2250.4	-2109.3	-188.69	µg/L	-188.69	ppb	18:33:41
1	V 292.402†	4657.5	4569.8	55.585	µg/L	55.585	ppb	18:33:47
1	Zn 213.857†	19181.4	18101.3	419.64	µg/L	419.64	ppb	18:33:47
2	Sc RADIAL	57481.1	57481.1	102	%			18:32:43
2	Al 396.153Radial†	47138.1	46322.6	32224	µg/L	32224	ppb	18:32:43
2	Ca 317.933Radial†	8478.4	8121.7	6937.4	µg/L	6937.4	ppb	18:33:03
2	Fe 238.204 Radial†	12171.2	11946.0	94218	µg/L	94218	ppb	18:33:03
2	K 766.490 Radial†	8051.4	7748.4	5060.6	µg/L	5060.6	ppb	18:32:43
2	Mg 279.077 IEC†	613.2	589.9	5172.3	µg/L	5172.3	ppb	18:33:03
2	Na 589.592 Radial†	5946.0	5371.9	1649.9	µg/L	1649.9	ppb	18:32:43
2	Sr 421.552†	7624.3	7464.8	68.864	µg/L	68.864	ppb	18:32:43
2	Sc 361.383	2011821.3	2011821.3	102.48	%			18:34:15
2	Y 371.029	1494992.4	1494992.4	110.51	%			18:34:15
2	Ag 328.068†	-1498.9	-1061.0	-1.6315	µg/L	-1.6315	ppb	18:34:20
2	As 188.979†	9.7	9.9	22.876	µg/L	22.876	ppb	18:34:41
2	B 249.677†	799.3	395.9	-32.927	µg/L	-32.927	ppb	18:34:20
2	Ba 233.527†	20396.0	19919.3	478.29	µg/L	478.29	ppb	18:34:20
2	Be 313.107†	8001.8	10663.8	5.8730	µg/L	5.8730	ppb	18:34:20
2	Cd 226.502†	180.5	317.9	-2.6595	µg/L	-2.6595	ppb	18:34:41
2	Co 228.616†	949.4	924.5	39.378	µg/L	39.378	ppb	18:34:41
2	Cr 267.716†	3166.5	3140.2	63.100	µg/L	63.100	ppb	18:34:41
2	Cu 324.752†	5805.0	3120.7	33.467	µg/L	33.467	ppb	18:34:20
2	Mn 257.610†	783658.6	764944.1	2407.8	µg/L	2407.8	ppb	18:34:15
2	Mo 202.031†	76.3	79.8	11.395	µg/L	11.395	ppb	18:34:41
2	Ni 231.604†	1543.7	1194.0	60.694	µg/L	60.694	ppb	18:34:41
2	P 214.914†	299.0	276.4	478.04	µg/L	478.04	ppb	18:34:41
2	Pb 220.353†	323.6	224.9	53.046	µg/L	53.046	ppb	18:34:41

2	S 181.975 Axial†	48.0	27.9	115.62 µg/L	115.62 ppb	18:34:41
2	Sb 206.836†	28.9	5.7	4.0553 µg/L	4.0553 ppb	18:34:41
2	Se 196.026†	-33.2	-51.7	178.31 µg/L	178.31 ppb	18:34:41
2	SiO2†	89597.1	86036.6	16982 µg/L	16982 ppb	18:34:20
2	Si 251.611†	106975.7	104075.5	7912.0 µg/L	7912.0 ppb	18:34:20
2	Sn 189.927†	24.8	23.8	0.5777 µg/L	0.5777 ppb	18:34:41
2	Ti 334.940†	554667.6	541065.4	1196.7 µg/L	1196.7 ppb	18:34:15
2	Tl 190.801†	-45.5	-22.0	6.6148 µg/L	6.6148 ppb	18:34:41
2	U 409.014†	-2520.0	-2381.9	-211.42 µg/L	-211.42 ppb	18:34:15
2	V 292.402†	4610.1	4543.3	55.365 µg/L	55.365 ppb	18:34:20
2	Zn 213.857†	19220.1	18220.4	422.41 µg/L	422.41 ppb	18:34:20
3	Sc RADIAL	57638.8	57638.8	102 %		18:33:08
3	Al 396.153Radial†	47281.8	46336.7	32234 µg/L	32234 ppb	18:33:08
3	Ca 317.933Radial†	8379.4	8001.9	6835.1 µg/L	6835.1 ppb	18:33:29
3	Fe 238.204 Radial†	12002.1	11747.5	92652 µg/L	92652 ppb	18:33:29
3	K 766.490 Radial†	8051.6	7726.9	5046.6 µg/L	5046.6 ppb	18:33:08
3	Mg 279.077 IEC†	612.4	587.4	5151.6 µg/L	5151.6 ppb	18:33:29
3	Na 589.592 Radial†	5999.5	5408.3	1661.1 µg/L	1661.1 ppb	18:33:08
3	Sr 421.552†	7680.8	7499.7	69.185 µg/L	69.185 ppb	18:33:08
3	Sc 361.383	2018685.1	2018685.1	102.83 %		18:34:48
3	Y 371.029	1491590.0	1491590.0	110.26 %		18:34:48
3	Ag 328.068†	-1429.8	-988.8	-1.2163 µg/L	-1.2163 ppb	18:34:54
3	As 188.979†	5.0	5.3	14.544 µg/L	14.544 ppb	18:35:14
3	B 249.677†	793.9	387.9	-32.447 µg/L	-32.447 ppb	18:34:54
3	Ba 233.527†	19080.0	18571.9	445.93 µg/L	445.93 ppb	18:34:54
3	Be 313.107†	7072.6	9733.6	5.3459 µg/L	5.3459 ppb	18:34:54
3	Cd 226.502†	144.3	282.0	-3.3831 µg/L	-3.3831 ppb	18:35:14
3	Co 228.616†	839.0	814.0	34.511 µg/L	34.511 ppb	18:35:14
3	Cr 267.716†	2800.5	2773.7	55.737 µg/L	55.737 ppb	18:35:14
3	Cu 324.752†	5520.0	2824.4	31.315 µg/L	31.315 ppb	18:34:54
3	Mn 257.610†	748408.6	728064.4	2292.1 µg/L	2292.1 ppb	18:34:48
3	Mo 202.031†	73.6	76.9	11.056 µg/L	11.056 ppb	18:35:14
3	Ni 231.604†	1411.2	1060.0	54.003 µg/L	54.003 ppb	18:35:14
3	P 214.914†	271.1	248.3	423.82 µg/L	423.82 ppb	18:35:14
3	Pb 220.353†	306.9	207.6	48.870 µg/L	48.870 ppb	18:35:14
3	S 181.975 Axial†	44.8	24.6	102.11 µg/L	102.11 ppb	18:35:14
3	Sb 206.836†	28.8	5.5	3.9831 µg/L	3.9831 ppb	18:35:14
3	Se 196.026†	-31.4	-49.8	176.75 µg/L	176.75 ppb	18:35:14
3	SiO2†	83796.1	80098.0	15810 µg/L	15810 ppb	18:34:54
3	Si 251.611†	99831.7	96773.2	7356.9 µg/L	7356.9 ppb	18:34:54
3	Sn 189.927†	27.8	26.6	1.9369 µg/L	1.9369 ppb	18:35:14
3	Ti 334.940†	525993.2	511339.9	1130.9 µg/L	1130.9 ppb	18:34:48
3	Tl 190.801†	-39.1	-15.7	13.615 µg/L	13.615 ppb	18:35:14
3	U 409.014†	-2136.6	-2000.8	-179.53 µg/L	-179.53 ppb	18:34:48
3	V 292.402†	4294.7	4221.3	52.056 µg/L	52.056 ppb	18:34:54
3	Zn 213.857†	17969.9	16940.9	392.50 µg/L	392.50 ppb	18:34:54

Mean Data: 245688002|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2017038.0	102.75	%	0.235				0.23%
Sc RADIAL	57510.5	102	%	0.2				0.20%
Y 371.029	1495741.4	110.57	%	0.338				0.31%
Ag 328.068†	-1038.0	-1.5127	µg/L	0.25830	-1.5127	ppb	0.25830	17.08%
Al 396.153Radial†	46121.9	32085	µg/L	250.4	32085	ppb	250.4	0.78%
As 188.979†	9.5	22.024	µg/L	7.0918	22.024	ppb	7.0918	32.20%
B 249.677†	406.5	-32.126	µg/L	1.0008	-32.126	ppb	1.0008	3.12%
Ba 233.527†	19436.3	466.69	µg/L	18.015	466.69	ppb	18.015	3.86%
Be 313.107†	10426.4	5.7395	µg/L	0.34666	5.7395	ppb	0.34666	6.04%
Ca 317.933Radial†	8069.4	6892.7	µg/L	52.38	6892.7	ppb	52.38	0.76%
Cd 226.502†	307.9	-2.8291	µg/L	0.49156	-2.8291	ppb	0.49156	17.37%
Co 228.616†	888.7	37.796	µg/L	2.8454	37.796	ppb	2.8454	7.53%
Cr 267.716†	3037.8	61.042	µg/L	4.6321	61.042	ppb	4.6321	7.59%
Cu 324.752†	3021.7	32.722	µg/L	1.2195	32.722	ppb	1.2195	3.73%
Fe 238.204 Radial†	11856.1	93509	µg/L	792.9	93509	ppb	792.9	0.85%
K 766.490 Radial†	7731.0	5049.3	µg/L	10.24	5049.3	ppb	10.24	0.20%
Mg 279.077 IEC†	591.1	5184.0	µg/L	39.54	5184.0	ppb	39.54	0.76%
Mn 257.610†	753440.2	2371.6	µg/L	69.01	2371.6	ppb	69.01	2.91%
Mo 202.031†	79.6	11.346	µg/L	0.2695	11.346	ppb	0.2695	2.38%
Na 589.592 Radial†	5363.9	1647.5	µg/L	15.02	1647.5	ppb	15.02	0.91%

Ni 231.604†	1151.9	58.588 µg/L	3.9751	58.588 ppb	3.9751	6.78%
P 214.914†	267.6	461.12 µg/L	32.347	461.12 ppb	32.347	7.01%
Pb 220.353†	220.1	51.889 µg/L	2.6380	51.889 ppb	2.6380	5.08%
S 181.975 Axial†	25.9	107.45 µg/L	7.183	107.45 ppb	7.183	6.68%
Sb 206.836†	6.8	5.0369 µg/L	1.76299	5.0369 ppb	1.76299	35.00%
Se 196.026†	-53.3	174.20 µg/L	5.827	174.20 ppb	5.827	3.34%
SiO2†	83876.0	16556 µg/L	648.0	16556 ppb	648.0	3.91%
Si 251.611†	101454.5	7712.8 µg/L	308.94	7712.8 ppb	308.94	4.01%
Sn 189.927†	25.1	1.1867 µg/L	0.69055	1.1867 ppb	0.69055	58.19%
Sr 421.552†	7463.2	68.849 µg/L	0.3436	68.849 ppb	0.3436	0.50%
Ti 334.940†	532237.9	1177.1 µg/L	40.20	1177.1 ppb	40.20	3.41%
Tl 190.801†	-17.7	11.750 µg/L	4.5023	11.750 ppb	4.5023	38.32%
U 409.014†	-2164.0	-193.21 µg/L	16.420	-193.21 ppb	16.420	8.50%
V 292.402†	4444.8	54.335 µg/L	1.9769	54.335 ppb	1.9769	3.64%
Zn 213.857†	17754.2	411.51 µg/L	16.527	411.51 ppb	16.527	4.02%

Sequence No.: 19
Sample ID: 245688003|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 315
Date Collected: 2/19/2010 18:35:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688003|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57702.7	57702.7	102	%			18:35:56
1	Al 396.153Radial†	81341.7	79632.8	55396	µg/L	55396	ppb	18:35:56
1	Ca 317.933Radial†	25961.0	25206.7	21531	µg/L	21531	ppb	18:35:56
1	Fe 238.204 Radial†	15611.2	15268.0	120420	µg/L	120420	ppb	18:35:56
1	K 766.490 Radial†	12619.6	12190.6	7961.9	µg/L	7961.9	ppb	18:35:56
1	Mg 279.077 IEC†	1219.3	1180.9	10428	µg/L	10428	ppb	18:36:16
1	Na 589.592 Radial†	7825.1	7189.3	2208.1	µg/L	2208.1	ppb	18:35:56
1	Sr 421.552†	17905.0	17501.6	161.45	µg/L	161.45	ppb	18:35:56
1	Sc 361.383	2036950.8	2036950.8	103.76	%			18:37:20
1	Y 371.029	1502006.7	1502006.7	111.03	%			18:37:20
1	Ag 328.068†	-1924.9	-1453.5	-2.6995	µg/L	-2.6995	ppb	18:37:26
1	As 188.979†	15.2	15.1	32.846	µg/L	32.846	ppb	18:37:47
1	B 249.677†	991.3	571.2	-38.975	µg/L	-38.975	ppb	18:37:26
1	Ba 233.527†	39127.4	37726.3	905.83	µg/L	905.83	ppb	18:37:26
1	Be 313.107†	17500.8	19722.1	11.155	µg/L	11.155	ppb	18:37:26
1	Cd 226.502†	249.7	382.3	-3.8567	µg/L	-3.8567	ppb	18:37:47
1	Co 228.616†	1074.2	1033.3	43.806	µg/L	43.806	ppb	18:37:47
1	Cr 267.716†	18585.3	17962.0	360.82	µg/L	360.82	ppb	18:37:26
1	Cu 324.752†	7208.4	4403.4	45.481	µg/L	45.481	ppb	18:37:26
1	Mn 257.610†	1285054.8	1238732.9	3894.7	µg/L	3894.7	ppb	18:37:20
1	Mo 202.031†	252.2	248.4	28.905	µg/L	28.905	ppb	18:37:47
1	Ni 231.604†	4806.4	4319.9	216.85	µg/L	216.85	ppb	18:37:26
1	P 214.914†	492.2	459.0	824.21	µg/L	824.21	ppb	18:37:47
1	Pb 220.353†	374.6	270.1	64.348	µg/L	64.348	ppb	18:37:47
1	S 181.975 Axial†	97.5	75.1	311.31	µg/L	311.31	ppb	18:37:47
1	Sb 206.836†	37.2	13.3	6.6533	µg/L	6.6533	ppb	18:37:47
1	Se 196.026†	-43.3	-61.0	228.09	µg/L	228.09	ppb	18:37:47
1	SiO2†	92617.2	87868.7	17344	µg/L	17344	ppb	18:37:26
1	Si 251.611†	110776.7	106450.9	8092.6	µg/L	8092.6	ppb	18:37:26
1	Sn 189.927†	43.4	41.5	5.7768	µg/L	5.7768	ppb	18:37:47
1	Ti 334.940†	677050.1	652334.8	1442.6	µg/L	1442.6	ppb	18:37:20
1	Tl 190.801†	-45.5	-21.5	19.714	µg/L	19.714	ppb	18:37:47
1	U 409.014†	-2523.6	-2355.0	-213.72	µg/L	-213.72	ppb	18:37:20
1	V 292.402†	7723.1	7487.9	87.960	µg/L	87.960	ppb	18:37:26
1	Zn 213.857†	13774.1	12740.4	291.59	µg/L	291.59	ppb	18:37:26
2	Sc RADIAL	58370.7	58370.7	103	%			18:36:22
2	Al 396.153Radial†	81826.9	79191.0	55089	µg/L	55089	ppb	18:36:22
2	Ca 317.933Radial†	26172.4	25120.4	21457	µg/L	21457	ppb	18:36:22
2	Fe 238.204 Radial†	15742.7	15220.4	120040	µg/L	120040	ppb	18:36:22
2	K 766.490 Radial†	12724.1	12150.4	7935.6	µg/L	7935.6	ppb	18:36:22
2	Mg 279.077 IEC†	1224.6	1172.4	10352	µg/L	10352	ppb	18:36:42
2	Na 589.592 Radial†	7906.3	7180.1	2205.3	µg/L	2205.3	ppb	18:36:22
2	Sr 421.552†	18127.2	17516.1	161.59	µg/L	161.59	ppb	18:36:22
2	Sc 361.383	2004574.0	2004574.0	102.11	%			18:37:54
2	Y 371.029	1479675.6	1479675.6	109.38	%			18:37:54
2	Ag 328.068†	-1835.0	-1395.4	-2.2881	µg/L	-2.2881	ppb	18:38:00
2	As 188.979†	17.6	17.7	37.588	µg/L	37.588	ppb	18:38:20
2	B 249.677†	1012.6	607.5	-37.295	µg/L	-37.295	ppb	18:38:00
2	Ba 233.527†	38874.2	38087.3	914.50	µg/L	914.50	ppb	18:38:00
2	Be 313.107†	17386.4	19882.6	11.249	µg/L	11.249	ppb	18:38:00
2	Cd 226.502†	264.1	400.4	-3.3623	µg/L	-3.3623	ppb	18:38:20
2	Co 228.616†	1074.2	1050.1	44.555	µg/L	44.555	ppb	18:38:20
2	Cr 267.716†	18453.1	18121.9	364.03	µg/L	364.03	ppb	18:38:00
2	Cu 324.752†	7149.7	4458.1	45.786	µg/L	45.786	ppb	18:38:00
2	Mn 257.610†	1267391.6	1241438.2	3903.1	µg/L	3903.1	ppb	18:37:54
2	Mo 202.031†	240.6	241.0	28.159	µg/L	28.159	ppb	18:38:20
2	Ni 231.604†	4770.8	4359.8	218.84	µg/L	218.84	ppb	18:38:00
2	P 214.914†	485.8	460.4	827.05	µg/L	827.05	ppb	18:38:20
2	Pb 220.353†	384.3	285.4	68.077	µg/L	68.077	ppb	18:38:20

2	S 181.975 Axial†	98.5	77.5	321.37 µg/L	321.37 ppb	18:38:20
2	Sb 206.836†	31.2	8.0	1.7540 µg/L	1.7540 ppb	18:38:20
2	Se 196.026†	-52.8	-71.0	213.07 µg/L	213.07 ppb	18:38:20
2	SiO2†	92105.6	88809.3	17530 µg/L	17530 ppb	18:38:00
2	Si 251.611†	110344.1	107751.5	8191.5 µg/L	8191.5 ppb	18:38:00
2	Sn 189.927†	37.0	35.8	3.4309 µg/L	3.4309 ppb	18:38:20
2	Ti 334.940†	668268.6	654273.9	1446.9 µg/L	1446.9 ppb	18:37:54
2	Tl 190.801†	-48.8	-25.4	14.548 µg/L	14.548 ppb	18:38:20
2	U 409.014†	-2459.2	-2331.3	-211.69 µg/L	-211.69 ppb	18:37:54
2	V 292.402†	7670.4	7556.5	88.588 µg/L	88.588 ppb	18:38:00
2	Zn 213.857†	13744.9	12926.2	295.97 µg/L	295.97 ppb	18:38:00
3	Sc RADIAL	57919.6	57919.6	103 %		18:36:48
3	Al 396.153Radial†	81718.2	79701.7	55444 µg/L	55444 ppb	18:36:48
3	Ca 317.933Radial†	26094.8	25242.0	21561 µg/L	21561 ppb	18:36:48
3	Fe 238.204 Radial†	15687.0	15284.7	120550 µg/L	120550 ppb	18:36:48
3	K 766.490 Radial†	12609.8	12134.8	7925.4 µg/L	7925.4 ppb	18:36:48
3	Mg 279.077 IEC†	1230.4	1187.3	10485 µg/L	10485 ppb	18:37:08
3	Na 589.592 Radial†	7894.4	7228.1	2220.1 µg/L	2220.1 ppb	18:36:48
3	Sr 421.552†	18060.6	17587.8	162.25 µg/L	162.25 ppb	18:36:48
3	Sc 361.383	2027760.4	2027760.4	103.29 %		18:38:27
3	Y 371.029	1490900.1	1490900.1	110.21 %		18:38:27
3	Ag 328.068†	-1749.0	-1291.6	-1.5255 µg/L	-1.5255 ppb	18:38:33
3	As 188.979†	10.9	11.0	25.576 µg/L	25.576 ppb	18:38:54
3	B 249.677†	962.2	547.4	-40.054 µg/L	-40.054 ppb	18:38:33
3	Ba 233.527†	36976.1	35814.4	859.92 µg/L	859.92 ppb	18:38:33
3	Be 313.107†	16075.2	18418.4	10.408 µg/L	10.408 ppb	18:38:33
3	Cd 226.502†	220.5	355.1	-4.5621 µg/L	-4.5621 ppb	18:38:54
3	Co 228.616†	976.3	943.3	39.873 µg/L	39.873 ppb	18:38:54
3	Cr 267.716†	17310.3	16808.8	337.65 µg/L	337.65 ppb	18:38:33
3	Cu 324.752†	6902.7	4138.9	43.773 µg/L	43.773 ppb	18:38:33
3	Mn 257.610†	1225099.1	1186301.6	3730.5 µg/L	3730.5 ppb	18:38:27
3	Mo 202.031†	213.7	212.2	25.362 µg/L	25.362 ppb	18:38:54
3	Ni 231.604†	4519.7	4063.3	204.07 µg/L	204.07 ppb	18:38:33
3	P 214.914†	447.1	417.5	742.12 µg/L	742.12 ppb	18:38:54
3	Pb 220.353†	357.0	254.6	60.578 µg/L	60.578 ppb	18:38:54
3	S 181.975 Axial†	85.4	63.8	264.48 µg/L	264.48 ppb	18:38:54
3	Sb 206.836†	34.8	11.2	4.9105 µg/L	4.9105 ppb	18:38:54
3	Se 196.026†	-38.6	-56.7	234.45 µg/L	234.45 ppb	18:38:54
3	SiO2†	87936.3	83741.5	16529 µg/L	16529 ppb	18:38:33
3	Si 251.611†	105082.3	101421.9	7710.3 µg/L	7710.3 ppb	18:38:33
3	Sn 189.927†	34.9	33.4	2.3693 µg/L	2.3693 ppb	18:38:54
3	Ti 334.940†	641185.4	620570.7	1372.3 µg/L	1372.3 ppb	18:38:27
3	Tl 190.801†	-40.2	-16.5	24.856 µg/L	24.856 ppb	18:38:54
3	U 409.014†	-2400.1	-2246.5	-204.72 µg/L	-204.72 ppb	18:38:27
3	V 292.402†	7148.6	6965.5	82.813 µg/L	82.813 ppb	18:38:33
3	Zn 213.857†	13062.2	12111.4	276.89 µg/L	276.89 ppb	18:38:33

Mean Data: 245688003|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2023095.1	103.06	%	0.850				0.82%
Sc RADIAL	57997.7	103	%	0.6				0.59%
Y 371.029	1490860.8	110.21	%	0.825				0.75%
Ag 328.068†	-1380.2	-2.1710	µg/L	0.59570	-2.1710	ppb	0.59570	27.44%
Al 396.153Radial†	79508.5	55310	µg/L	192.8	55310	ppb	192.8	0.35%
As 188.979†	14.6	32.003	µg/L	6.0503	32.003	ppb	6.0503	18.91%
B 249.677†	575.4	-38.774	µg/L	1.3902	-38.774	ppb	1.3902	3.59%
Ba 233.527†	37209.3	893.42	µg/L	29.329	893.42	ppb	29.329	3.28%
Be 313.107†	19341.0	10.938	µg/L	0.4607	10.938	ppb	0.4607	4.21%
Ca 317.933Radial†	25189.7	21517	µg/L	53.4	21517	ppb	53.4	0.25%
Cd 226.502†	379.3	-3.9270	µg/L	0.60303	-3.9270	ppb	0.60303	15.36%
Co 228.616†	1008.9	42.745	µg/L	2.5151	42.745	ppb	2.5151	5.88%
Cr 267.716†	17630.9	354.17	µg/L	14.391	354.17	ppb	14.391	4.06%
Cu 324.752†	4333.5	45.014	µg/L	1.0851	45.014	ppb	1.0851	2.41%
Fe 238.204 Radial†	15257.7	120340	µg/L	263.1	120340	ppb	263.1	0.22%
K 766.490 Radial†	12158.6	7941.0	µg/L	18.81	7941.0	ppb	18.81	0.24%
Mg 279.077 IEC†	1180.2	10421	µg/L	66.5	10421	ppb	66.5	0.64%
Mn 257.610†	1222157.6	3842.8	µg/L	97.31	3842.8	ppb	97.31	2.53%
Mo 202.031†	233.9	27.475	µg/L	1.8674	27.475	ppb	1.8674	6.80%
Na 589.592 Radial†	7199.1	2211.2	µg/L	7.82	2211.2	ppb	7.82	0.35%

Ni 231.604†	4247.7	213.25	µg/L	8.015	213.25	ppb	8.015	3.76%
P 214.914†	445.7	797.79	µg/L	48.232	797.79	ppb	48.232	6.05%
Pb 220.353†	270.1	64.334	µg/L	3.7497	64.334	ppb	3.7497	5.83%
S 181.975 Axial†	72.1	299.05	µg/L	30.360	299.05	ppb	30.360	10.15%
Sb 206.836†	10.8	4.4393	µg/L	2.48339	4.4393	ppb	2.48339	55.94%
Se 196.026†	-62.9	225.20	µg/L	10.979	225.20	ppb	10.979	4.88%
SiO2†	86806.5	17134	µg/L	532.1	17134	ppb	532.1	3.11%
Si 251.611†	105208.1	7998.1	µg/L	254.13	7998.1	ppb	254.13	3.18%
Sn 189.927†	36.9	3.8590	µg/L	1.74362	3.8590	ppb	1.74362	45.18%
Sr 421.552†	17535.2	161.76	µg/L	0.425	161.76	ppb	0.425	0.26%
Ti 334.940†	642393.2	1420.6	µg/L	41.87	1420.6	ppb	41.87	2.95%
Tl 190.801†	-21.1	19.706	µg/L	5.1542	19.706	ppb	5.1542	26.16%
U 409.014†	-2310.9	-210.04	µg/L	4.719	-210.04	ppb	4.719	2.25%
V 292.402†	7336.6	86.454	µg/L	3.1683	86.454	ppb	3.1683	3.66%
Zn 213.857†	12592.7	288.15	µg/L	9.995	288.15	ppb	9.995	3.47%

Sequence No.: 20
Sample ID: 245688004|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 316
Date Collected: 2/19/2010 18:39:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688004|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57444.4	57444.4	102	%			18:39:36
1	Al 396.153Radial†	83037.2	81658.3	56806	µg/L	56806	ppb	18:39:36
1	Ca 317.933Radial†	15527.9	15060.1	12864	µg/L	12864	ppb	18:39:36
1	Fe 238.204 Radial†	10854.8	10658.9	84067	µg/L	84067	ppb	18:39:57
1	K 766.490 Radial†	11712.2	11353.8	7415.4	µg/L	7415.4	ppb	18:39:36
1	Mg 279.077 IEC†	1121.8	1090.5	9657.6	µg/L	9657.6	ppb	18:39:57
1	Na 589.592 Radial†	2815.6	2296.9	705.47	µg/L	705.47	ppb	18:39:36
1	Sr 421.552†	13768.3	13512.1	124.65	µg/L	124.65	ppb	18:39:36
1	Sc 361.383	2026679.5	2026679.5	103.24	%			18:41:01
1	Y 371.029	1435113.6	1435113.6	106.09	%			18:41:01
1	Ag 328.068†	-1455.9	-1008.6	-1.5187	µg/L	-1.5187	ppb	18:41:07
1	As 188.979†	7.5	7.7	17.989	µg/L	17.989	ppb	18:41:27
1	B 249.677†	803.6	394.3	-27.406	µg/L	-27.406	ppb	18:41:07
1	Ba 233.527†	36616.5	35485.2	852.08	µg/L	852.08	ppb	18:41:07
1	Be 313.107†	10212.0	12747.5	6.9860	µg/L	6.9860	ppb	18:41:07
1	Cd 226.502†	167.7	304.1	-1.7774	µg/L	-1.7774	ppb	18:41:27
1	Co 228.616†	768.9	742.8	30.471	µg/L	30.471	ppb	18:41:27
1	Cr 267.716†	12506.1	12164.2	244.38	µg/L	244.38	ppb	18:41:07
1	Cu 324.752†	11116.2	8223.9	65.366	µg/L	65.366	ppb	18:41:07
1	Mn 257.610†	859647.8	832944.0	2619.2	µg/L	2619.2	ppb	18:41:01
1	Mo 202.031†	56.8	60.4	9.1086	µg/L	9.1086	ppb	18:41:27
1	Ni 231.604†	3161.7	2750.2	138.15	µg/L	138.15	ppb	18:41:27
1	P 214.914†	228.0	205.5	349.39	µg/L	349.39	ppb	18:41:27
1	Pb 220.353†	467.4	361.8	87.899	µg/L	87.899	ppb	18:41:27
1	S 181.975 Axial†	92.5	70.6	292.89	µg/L	292.89	ppb	18:41:27
1	Sb 206.836†	35.5	11.9	7.1422	µg/L	7.1422	ppb	18:41:27
1	Se 196.026†	-27.3	-45.7	153.30	µg/L	153.30	ppb	18:41:27
1	SiO2†	105162.8	100473.2	19832	µg/L	19832	ppb	18:41:07
1	Si 251.611†	126182.7	121914.8	9268.2	µg/L	9268.2	ppb	18:41:07
1	Sn 189.927†	14.1	13.3	-2.2860	µg/L	-2.2860	ppb	18:41:27
1	Ti 334.940†	710216.7	687768.2	1520.9	µg/L	1520.9	ppb	18:41:01
1	Tl 190.801†	-49.6	-25.6	5.7903	µg/L	5.7903	ppb	18:41:27
1	U 409.014†	-1206.0	-1091.1	-103.12	µg/L	-103.12	ppb	18:41:01
1	V 292.402†	10494.1	10209.8	109.91	µg/L	109.91	ppb	18:41:07
1	Zn 213.857†	9280.9	8455.5	193.14	µg/L	193.14	ppb	18:41:07
2	Sc RADIAL	57967.5	57967.5	103	%			18:40:02
2	Al 396.153Radial†	83160.2	81041.3	56377	µg/L	56377	ppb	18:40:02
2	Ca 317.933Radial†	15561.8	14955.5	12775	µg/L	12775	ppb	18:40:02
2	Fe 238.204 Radial†	10931.0	10636.9	83893	µg/L	83893	ppb	18:40:23
2	K 766.490 Radial†	11764.3	11300.6	7380.6	µg/L	7380.6	ppb	18:40:02
2	Mg 279.077 IEC†	1130.7	1089.2	9646.6	µg/L	9646.6	ppb	18:40:23
2	Na 589.592 Radial†	2801.3	2258.0	693.54	µg/L	693.54	ppb	18:40:02
2	Sr 421.552†	13804.3	13425.0	123.85	µg/L	123.85	ppb	18:40:02
2	Sc 361.383	2041738.9	2041738.9	104.00	%			18:41:35
2	Y 371.029	1445703.9	1445703.9	106.87	%			18:41:35
2	Ag 328.068†	-1383.8	-928.9	-0.9379	µg/L	-0.9379	ppb	18:41:40
2	As 188.979†	14.6	14.5	30.200	µg/L	30.200	ppb	18:42:01
2	B 249.677†	854.7	437.7	-25.546	µg/L	-25.546	ppb	18:41:40
2	Ba 233.527†	36908.0	35503.9	852.53	µg/L	852.53	ppb	18:41:40
2	Be 313.107†	10451.0	12904.3	7.0811	µg/L	7.0811	ppb	18:41:40
2	Cd 226.502†	148.7	284.7	-2.2462	µg/L	-2.2462	ppb	18:42:01
2	Co 228.616†	750.3	719.5	29.425	µg/L	29.425	ppb	18:42:01
2	Cr 267.716†	12607.9	12172.8	244.56	µg/L	244.56	ppb	18:41:40
2	Cu 324.752†	11150.4	8177.3	65.038	µg/L	65.038	ppb	18:41:40
2	Mn 257.610†	861884.1	828952.4	2606.6	µg/L	2606.6	ppb	18:41:35
2	Mo 202.031†	56.6	59.8	9.0411	µg/L	9.0411	ppb	18:42:01
2	Ni 231.604†	3111.2	2679.0	134.60	µg/L	134.60	ppb	18:42:01
2	P 214.914†	221.8	197.9	334.44	µg/L	334.44	ppb	18:42:01
2	Pb 220.353†	463.8	355.0	86.219	µg/L	86.219	ppb	18:42:01

2	S 181.975 Axial†	90.3	67.9	281.63 µg/L	281.63 ppb	18:42:01
2	Sb 206.836†	28.5	4.9	0.7380 µg/L	0.7380 ppb	18:42:01
2	Se 196.026†	-33.9	-51.9	144.17 µg/L	144.17 ppb	18:42:01
2	SiO2†	105819.3	100353.0	19808 µg/L	19808 ppb	18:41:40
2	Si 251.611†	126776.8	121584.5	9243.1 µg/L	9243.1 ppb	18:41:40
2	Sn 189.927†	18.6	17.5	-0.4801 µg/L	-0.4801 ppb	18:42:01
2	Ti 334.940†	713008.0	685377.9	1515.6 µg/L	1515.6 ppb	18:41:35
2	Tl 190.801†	-41.8	-17.8	15.867 µg/L	15.867 ppb	18:42:01
2	U 409.014†	-1044.2	-926.9	-89.449 µg/L	-89.449 ppb	18:41:35
2	V 292.402†	10588.4	10225.5	110.05 µg/L	110.05 ppb	18:41:40
2	Zn 213.857†	9302.4	8409.8	192.09 µg/L	192.09 ppb	18:41:40
3	Sc RADIAL	57921.5	57921.5	103 %		18:40:28
3	Al 396.153Radial†	83026.5	80975.3	56331 µg/L	56331 ppb	18:40:28
3	Ca 317.933Radial†	15567.0	14972.5	12789 µg/L	12789 ppb	18:40:28
3	Fe 238.204 Radial†	10876.5	10592.2	83540 µg/L	83540 ppb	18:40:49
3	K 766.490 Radial†	11849.3	11392.6	7440.7 µg/L	7440.7 ppb	18:40:28
3	Mg 279.077 IEC†	1130.8	1090.1	9655.0 µg/L	9655.0 ppb	18:40:49
3	Na 589.592 Radial†	2794.9	2253.9	692.27 µg/L	692.27 ppb	18:40:28
3	Sr 421.552†	13772.2	13404.4	123.66 µg/L	123.66 ppb	18:40:28
3	Sc 361.383	2014606.4	2014606.4	102.62 %		18:42:08
3	Y 371.029	1424537.3	1424537.3	105.31 %		18:42:08
3	Ag 328.068†	-1426.2	-988.2	-1.4351 µg/L	-1.4351 ppb	18:42:14
3	As 188.979†	4.6	4.9	13.005 µg/L	13.005 ppb	18:42:34
3	B 249.677†	797.0	392.5	-27.229 µg/L	-27.229 ppb	18:42:14
3	Ba 233.527†	34644.1	33775.8	811.03 µg/L	811.03 ppb	18:42:14
3	Be 313.107†	9253.3	11872.5	6.4949 µg/L	6.4949 ppb	18:42:14
3	Cd 226.502†	129.4	267.8	-2.6379 µg/L	-2.6379 ppb	18:42:34
3	Co 228.616†	675.5	656.3	26.704 µg/L	26.704 ppb	18:42:34
3	Cr 267.716†	11626.2	11379.4	228.62 µg/L	228.62 ppb	18:42:14
3	Cu 324.752†	10729.8	7911.8	63.256 µg/L	63.256 ppb	18:42:14
3	Mn 257.610†	817544.7	796907.1	2506.3 µg/L	2506.3 ppb	18:42:08
3	Mo 202.031†	42.9	47.1	7.7873 µg/L	7.7873 ppb	18:42:34
3	Ni 231.604†	2844.3	2459.3	123.64 µg/L	123.64 ppb	18:42:34
3	P 214.914†	206.9	186.3	311.85 µg/L	311.85 ppb	18:42:34
3	Pb 220.353†	451.6	349.1	84.801 µg/L	84.801 ppb	18:42:34
3	S 181.975 Axial†	89.5	68.3	283.25 µg/L	283.25 ppb	18:42:34
3	Sb 206.836†	34.8	11.4	6.8701 µg/L	6.8701 ppb	18:42:34
3	Se 196.026†	-21.7	-40.5	159.26 µg/L	159.26 ppb	18:42:34
3	SiO2†	99843.6	95900.3	18929 µg/L	18929 ppb	18:42:14
3	Si 251.611†	119610.8	116243.3	8837.0 µg/L	8837.0 ppb	18:42:14
3	Sn 189.927†	13.1	12.4	-2.6206 µg/L	-2.6206 ppb	18:42:34
3	Ti 334.940†	671707.6	654365.9	1447.0 µg/L	1447.0 ppb	18:42:08
3	Tl 190.801†	-40.1	-16.7	16.244 µg/L	16.244 ppb	18:42:34
3	U 409.014†	-1063.7	-959.4	-92.103 µg/L	-92.103 ppb	18:42:08
3	V 292.402†	9879.6	9671.8	104.57 µg/L	104.57 ppb	18:42:14
3	Zn 213.857†	8814.2	8054.5	183.83 µg/L	183.83 ppb	18:42:14

Mean Data: 245688004|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2027674.9	103.29	%	0.692				0.67%
Sc RADIAL	57777.8	102	%	0.5				0.50%
Y 371.029	1435118.3	106.09	%	0.782				0.74%
Ag 328.068†	-975.2	-1.2972	µg/L	0.31398	-1.2972	ppb	0.31398	24.20%
Al 396.153Radial†	81225.0	56504	µg/L	262.1	56504	ppb	262.1	0.46%
As 188.979†	9.0	20.398	µg/L	8.8470	20.398	ppb	8.8470	43.37%
B 249.677†	408.1	-26.727	µg/L	1.0265	-26.727	ppb	1.0265	3.84%
Ba 233.527†	34921.6	838.55	µg/L	23.830	838.55	ppb	23.830	2.84%
Be 313.107†	12508.1	6.8540	µg/L	0.31461	6.8540	ppb	0.31461	4.59%
Ca 317.933Radial†	14996.0	12809	µg/L	48.0	12809	ppb	48.0	0.37%
Cd 226.502†	285.5	-2.2205	µg/L	0.43086	-2.2205	ppb	0.43086	19.40%
Co 228.616†	706.2	28.867	µg/L	1.9446	28.867	ppb	1.9446	6.74%
Cr 267.716†	11905.5	239.19	µg/L	9.153	239.19	ppb	9.153	3.83%
Cu 324.752†	8104.3	64.554	µg/L	1.1354	64.554	ppb	1.1354	1.76%
Fe 238.204 Radial†	10629.4	83833	µg/L	268.2	83833	ppb	268.2	0.32%
K 766.490 Radial†	11349.0	7412.2	µg/L	30.18	7412.2	ppb	30.18	0.41%
Mg 279.077 IEC†	1089.9	9653.1	µg/L	5.73	9653.1	ppb	5.73	0.06%
Mn 257.610†	819601.1	2577.4	µg/L	61.90	2577.4	ppb	61.90	2.40%
Mo 202.031†	55.8	8.6457	µg/L	0.74412	8.6457	ppb	0.74412	8.61%
Na 589.592 Radial†	2269.6	697.09	µg/L	7.281	697.09	ppb	7.281	1.04%

Ni 231.604†	2629.5	132.13	µg/L	7.561	132.13	ppb	7.561	5.72%
P 214.914†	196.6	331.89	µg/L	18.899	331.89	ppb	18.899	5.69%
Pb 220.353†	355.3	86.306	µg/L	1.5506	86.306	ppb	1.5506	1.80%
S 181.975 Axial†	68.9	285.92	µg/L	6.085	285.92	ppb	6.085	2.13%
Sb 206.836†	9.4	4.9168	µg/L	3.62148	4.9168	ppb	3.62148	73.66%
Se 196.026†	-46.1	152.24	µg/L	7.603	152.24	ppb	7.603	4.99%
SiO2†	98908.8	19523	µg/L	514.4	19523	ppb	514.4	2.63%
Si 251.611†	119914.2	9116.1	µg/L	242.01	9116.1	ppb	242.01	2.65%
Sn 189.927†	14.4	-1.7956	µg/L	1.15146	-1.7956	ppb	1.15146	64.13%
Sr 421.552†	13447.2	124.05	µg/L	0.528	124.05	ppb	0.528	0.43%
Ti 334.940†	675837.3	1494.5	µg/L	41.22	1494.5	ppb	41.22	2.76%
Tl 190.801†	-20.0	12.634	µg/L	5.9295	12.634	ppb	5.9295	46.93%
U 409.014†	-992.4	-94.891	µg/L	7.2496	-94.891	ppb	7.2496	7.64%
V 292.402†	10035.7	108.17	µg/L	3.126	108.17	ppb	3.126	2.89%
Zn 213.857†	8306.6	189.69	µg/L	5.102	189.69	ppb	5.102	2.69%

Sequence No.: 21
Sample ID: 245688005|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 317
Date Collected: 2/19/2010 18:42:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688005|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56745.4	56745.4	100	%			18:43:16
1	Al 396.153Radial†	26808.1	26682.7	18562	µg/L	18562	ppb	18:43:16
1	Ca 317.933Radial†	6269.8	6030.9	5151.5	µg/L	5151.5	ppb	18:43:36
1	Fe 238.204 Radial†	11141.3	11075.7	87353	µg/L	87353	ppb	18:43:16
1	K 766.490 Radial†	5319.7	5131.3	3351.3	µg/L	3351.3	ppb	18:43:16
1	Mg 279.077 IEC†	455.0	440.2	3841.1	µg/L	3841.1	ppb	18:43:36
1	Na 589.592 Radial†	4990.7	4496.6	1381.1	µg/L	1381.1	ppb	18:43:16
1	Sr 421.552†	5695.6	5641.7	52.046	µg/L	52.046	ppb	18:43:16
1	Sc 361.383	2020467.1	2020467.1	102.92	%			18:44:40
1	Y 371.029	1523314.6	1523314.6	112.61	%			18:44:40
1	Ag 328.068†	-1461.1	-1018.0	-1.8480	µg/L	-1.8480	ppb	18:44:46
1	As 188.979†	11.3	11.4	25.295	µg/L	25.295	ppb	18:45:06
1	B 249.677†	688.2	284.5	-33.466	µg/L	-33.466	ppb	18:44:46
1	Ba 233.527†	17792.6	17304.7	415.49	µg/L	415.49	ppb	18:44:46
1	Be 313.107†	6215.6	8894.9	4.8158	µg/L	4.8158	ppb	18:44:46
1	Cd 226.502†	175.4	312.1	-1.9093	µg/L	-1.9093	ppb	18:45:06
1	Co 228.616†	429.5	415.4	16.282	µg/L	16.282	ppb	18:45:06
1	Cr 267.716†	16569.6	16149.6	324.39	µg/L	324.39	ppb	18:44:46
1	Cu 324.752†	4922.4	2238.9	26.757	µg/L	26.757	ppb	18:44:46
1	Mn 257.610†	710178.5	690277.4	2173.1	µg/L	2173.1	ppb	18:44:40
1	Mo 202.031†	94.5	97.2	12.838	µg/L	12.838	ppb	18:45:06
1	Ni 231.604†	3976.2	3551.0	178.13	µg/L	178.13	ppb	18:45:06
1	P 214.914†	361.9	336.3	599.09	µg/L	599.09	ppb	18:45:06
1	Pb 220.353†	269.1	170.5	39.340	µg/L	39.340	ppb	18:45:06
1	S 181.975 Axial†	40.9	20.8	86.099	µg/L	86.099	ppb	18:45:06
1	Sb 206.836†	26.0	2.7	-1.4532	µg/L	-1.4532	ppb	18:45:06
1	Se 196.026†	-43.8	-61.9	146.90	µg/L	146.90	ppb	18:45:06
1	SiO2†	89324.9	85398.0	16856	µg/L	16856	ppb	18:44:46
1	Si 251.611†	106799.1	103457.1	7865.0	µg/L	7865.0	ppb	18:44:46
1	Sn 189.927†	61.8	59.7	16.276	µg/L	16.276	ppb	18:45:06
1	Ti 334.940†	565996.4	549756.6	1216.0	µg/L	1216.0	ppb	18:44:40
1	Tl 190.801†	-39.7	-16.2	11.513	µg/L	11.513	ppb	18:45:06
1	U 409.014†	-2211.0	-2071.1	-184.53	µg/L	-184.53	ppb	18:44:40
1	V 292.402†	2991.8	2951.6	39.688	µg/L	39.688	ppb	18:44:46
1	Zn 213.857†	19149.9	18072.0	418.82	µg/L	418.82	ppb	18:44:46
2	Sc RADIAL	57060.3	57060.3	101	%			18:43:42
2	Al 396.153Radial†	26969.8	26695.5	18571	µg/L	18571	ppb	18:43:42
2	Ca 317.933Radial†	6254.8	5981.6	5109.4	µg/L	5109.4	ppb	18:44:02
2	Fe 238.204 Radial†	11128.1	11001.4	86767	µg/L	86767	ppb	18:43:42
2	K 766.490 Radial†	5318.9	5101.3	3331.7	µg/L	3331.7	ppb	18:43:42
2	Mg 279.077 IEC†	451.9	434.6	3791.6	µg/L	3791.6	ppb	18:44:02
2	Na 589.592 Radial†	4956.7	4435.5	1362.3	µg/L	1362.3	ppb	18:43:42
2	Sr 421.552†	5708.2	5622.9	51.872	µg/L	51.872	ppb	18:43:42
2	Sc 361.383	2020241.3	2020241.3	102.91	%			18:45:14
2	Y 371.029	1521177.9	1521177.9	112.45	%			18:45:14
2	Ag 328.068†	-1394.8	-953.7	-1.4099	µg/L	-1.4099	ppb	18:45:19
2	As 188.979†	5.4	5.7	15.007	µg/L	15.007	ppb	18:45:40
2	B 249.677†	634.8	232.8	-35.281	µg/L	-35.281	ppb	18:45:19
2	Ba 233.527†	17388.7	16914.1	406.11	µg/L	406.11	ppb	18:45:19
2	Be 313.107†	5977.6	8664.2	4.6815	µg/L	4.6815	ppb	18:45:19
2	Cd 226.502†	163.2	300.3	-2.1412	µg/L	-2.1412	ppb	18:45:40
2	Co 228.616†	425.9	411.9	16.140	µg/L	16.140	ppb	18:45:40
2	Cr 267.716†	16201.7	15794.0	317.24	µg/L	317.24	ppb	18:45:19
2	Cu 324.752†	4862.3	2181.0	26.297	µg/L	26.297	ppb	18:45:19
2	Mn 257.610†	706328.5	686613.4	2161.5	µg/L	2161.5	ppb	18:45:14
2	Mo 202.031†	87.1	90.0	12.112	µg/L	12.112	ppb	18:45:40
2	Ni 231.604†	3916.6	3493.5	175.26	µg/L	175.26	ppb	18:45:40
2	P 214.914†	348.9	323.7	574.52	µg/L	574.52	ppb	18:45:40
2	Pb 220.353†	274.0	175.3	40.514	µg/L	40.514	ppb	18:45:40

2	S 181.975 Axial†	37.8	17.8	73.664	µg/L	73.664 ppb	18:45:40
2	Sb 206.836†	31.7	8.3	3.6953	µg/L	3.6953 ppb	18:45:40
2	Se 196.026†	-31.0	-49.4	162.91	µg/L	162.91 ppb	18:45:40
2	SiO2†	87856.3	83980.6	16577	µg/L	16577 ppb	18:45:19
2	Si 251.611†	105135.0	101851.8	7743.0	µg/L	7743.0 ppb	18:45:19
2	Sn 189.927†	56.3	54.4	14.105	µg/L	14.105 ppb	18:45:40
2	Ti 334.940†	562737.5	546651.3	1209.1	µg/L	1209.1 ppb	18:45:14
2	Tl 190.801†	-38.0	-14.5	13.539	µg/L	13.539 ppb	18:45:40
2	U 409.014†	-2267.4	-2126.2	-189.03	µg/L	-189.03 ppb	18:45:14
2	V 292.402†	2970.4	2931.2	39.393	µg/L	39.393 ppb	18:45:19
2	Zn 213.857†	18774.7	17709.5	410.36	µg/L	410.36 ppb	18:45:19
3	Sc RADIAL	57143.4	57143.4	101	%		18:44:08
3	Al 396.153Radial†	26927.2	26614.6	18514	µg/L	18514 ppb	18:44:08
3	Ca 317.933Radial†	6258.8	5976.6	5105.1	µg/L	5105.1 ppb	18:44:28
3	Fe 238.204 Radial†	11119.5	10976.8	86574	µg/L	86574 ppb	18:44:08
3	K 766.490 Radial†	5243.1	5018.7	3277.8	µg/L	3277.8 ppb	18:44:08
3	Mg 279.077 IEC†	450.6	432.7	3775.0	µg/L	3775.0 ppb	18:44:28
3	Na 589.592 Radial†	4947.4	4419.1	1357.3	µg/L	1357.3 ppb	18:44:08
3	Sr 421.552†	5709.4	5615.9	51.807	µg/L	51.807 ppb	18:44:08
3	Sc 361.383	2022464.1	2022464.1	103.02	%		18:45:47
3	Y 371.029	1515586.0	1515586.0	112.04	%		18:45:47
3	Ag 328.068†	-1344.4	-903.3	-1.0619	µg/L	-1.0619 ppb	18:45:53
3	As 188.979†	2.6	3.0	10.137	µg/L	10.137 ppb	18:46:13
3	B 249.677†	666.1	262.4	-34.007	µg/L	-34.007 ppb	18:45:53
3	Ba 233.527†	16552.6	16084.0	386.18	µg/L	386.18 ppb	18:45:53
3	Be 313.107†	5376.2	8074.2	4.3565	µg/L	4.3565 ppb	18:45:53
3	Cd 226.502†	126.8	264.7	-3.0234	µg/L	-3.0234 ppb	18:46:13
3	Co 228.616†	376.8	363.8	14.100	µg/L	14.100 ppb	18:46:13
3	Cr 267.716†	15139.9	14746.1	296.20	µg/L	296.20 ppb	18:45:53
3	Cu 324.752†	4853.9	2167.8	26.184	µg/L	26.184 ppb	18:45:53
3	Mn 257.610†	673069.5	653575.9	2058.0	µg/L	2058.0 ppb	18:45:47
3	Mo 202.031†	91.4	94.0	12.497	µg/L	12.497 ppb	18:46:13
3	Ni 231.604†	3565.4	3148.4	158.05	µg/L	158.05 ppb	18:46:13
3	P 214.914†	324.1	299.3	526.34	µg/L	526.34 ppb	18:46:13
3	Pb 220.353†	256.5	158.0	36.311	µg/L	36.311 ppb	18:46:13
3	S 181.975 Axial†	40.7	20.6	85.438	µg/L	85.438 ppb	18:46:13
3	Sb 206.836†	29.6	6.2	2.0350	µg/L	2.0350 ppb	18:46:13
3	Se 196.026†	-26.0	-44.6	169.19	µg/L	169.19 ppb	18:46:13
3	SiO2†	83540.8	79698.0	15731	µg/L	15731 ppb	18:45:53
3	Si 251.611†	99750.0	96512.5	7337.1	µg/L	7337.1 ppb	18:45:53
3	Sn 189.927†	49.8	48.0	11.425	µg/L	11.425 ppb	18:46:13
3	Ti 334.940†	532584.4	516782.0	1143.0	µg/L	1143.0 ppb	18:45:47
3	Tl 190.801†	-43.5	-19.9	5.5639	µg/L	5.5639 ppb	18:46:13
3	U 409.014†	-2099.1	-1960.4	-175.22	µg/L	-175.22 ppb	18:45:47
3	V 292.402†	2767.0	2730.6	37.384	µg/L	37.384 ppb	18:45:53
3	Zn 213.857†	17907.3	16847.5	390.22	µg/L	390.22 ppb	18:45:53

Mean Data: 245688005|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2021057.5	102.95	%	0.062				0.06%
Sc RADIAL	56983.0	101	%	0.4				0.37%
Y 371.029	1520026.2	112.37	%	0.295				0.26%
Ag 328.068†	-958.4	-1.4400	µg/L	0.39392	-1.4400	ppb	0.39392	27.36%
Al 396.153Radial†	26664.3	18549	µg/L	30.3	18549	ppb	30.3	0.16%
As 188.979†	6.7	16.813	µg/L	7.7388	16.813	ppb	7.7388	46.03%
B 249.677†	259.9	-34.252	µg/L	0.9318	-34.252	ppb	0.9318	2.72%
Ba 233.527†	16767.6	402.59	µg/L	14.968	402.59	ppb	14.968	3.72%
Be 313.107†	8544.4	4.6179	µg/L	0.23617	4.6179	ppb	0.23617	5.11%
Ca 317.933Radial†	5996.4	5122.0	µg/L	25.62	5122.0	ppb	25.62	0.50%
Cd 226.502†	292.4	-2.3580	µg/L	0.58786	-2.3580	ppb	0.58786	24.93%
Co 228.616†	397.1	15.507	µg/L	1.2208	15.507	ppb	1.2208	7.87%
Cr 267.716†	15563.2	312.61	µg/L	14.657	312.61	ppb	14.657	4.69%
Cu 324.752†	2195.9	26.413	µg/L	0.3032	26.413	ppb	0.3032	1.15%
Fe 238.204 Radial†	11018.0	86898	µg/L	405.9	86898	ppb	405.9	0.47%
K 766.490 Radial†	5083.7	3320.3	µg/L	38.09	3320.3	ppb	38.09	1.15%
Mg 279.077 IEC†	435.8	3802.6	µg/L	34.41	3802.6	ppb	34.41	0.90%
Mn 257.610†	676822.2	2130.9	µg/L	63.34	2130.9	ppb	63.34	2.97%
Mo 202.031†	93.7	12.482	µg/L	0.3628	12.482	ppb	0.3628	2.91%
Na 589.592 Radial†	4450.4	1366.9	µg/L	12.54	1366.9	ppb	12.54	0.92%

Ni 231.604†	3397.6	170.48 µg/L	10.856	170.48 ppb	10.856	6.37%
P 214.914†	319.7	566.65 µg/L	37.010	566.65 ppb	37.010	6.53%
Pb 220.353†	167.9	38.722 µg/L	2.1687	38.722 ppb	2.1687	5.60%
S 181.975 Axial†	19.7	81.734 µg/L	6.9961	81.734 ppb	6.9961	8.56%
Sb 206.836†	5.7	1.4257 µg/L	2.62778	1.4257 ppb	2.62778	184.31%
Se 196.026†	-52.0	159.67 µg/L	11.495	159.67 ppb	11.495	7.20%
SiO2†	83025.5	16388 µg/L	585.8	16388 ppb	585.8	3.57%
Si 251.611†	100607.1	7648.3 µg/L	276.40	7648.3 ppb	276.40	3.61%
Sn 189.927†	54.0	13.935 µg/L	2.4297	13.935 ppb	2.4297	17.44%
Sr 421.552†	5626.8	51.908 µg/L	0.1233	51.908 ppb	0.1233	0.24%
Ti 334.940†	537729.9	1189.4 µg/L	40.28	1189.4 ppb	40.28	3.39%
Tl 190.801†	-16.9	10.205 µg/L	4.1453	10.205 ppb	4.1453	40.62%
U 409.014†	-2052.6	-182.93 µg/L	7.040	-182.93 ppb	7.040	3.85%
V 292.402†	2871.1	38.822 µg/L	1.2536	38.822 ppb	1.2536	3.23%
Zn 213.857†	17543.0	406.46 µg/L	14.691	406.46 ppb	14.691	3.61%

Sequence No.: 22
Sample ID: 245688006|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 318
Date Collected: 2/19/2010 18:46:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688006|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57545.1	57545.1	102	%			18:46:55
1	Al 396.153Radial†	45262.9	44430.0	30908	µg/L	30908	ppb	18:46:55
1	Ca 317.933Radial†	10770.7	10363.0	8851.9	µg/L	8851.9	ppb	18:47:16
1	Fe 238.204 Radial†	9713.2	9519.5	75080	µg/L	75080	ppb	18:47:16
1	K 766.490 Radial†	10913.5	10549.5	6890.0	µg/L	6890.0	ppb	18:46:55
1	Mg 279.077 IEC†	813.6	786.0	6945.1	µg/L	6945.1	ppb	18:47:16
1	Na 589.592 Radial†	1363.2	866.1	266.03	µg/L	266.03	ppb	18:46:55
1	Sr 421.552†	11360.0	11124.0	102.62	µg/L	102.62	ppb	18:46:55
1	Sc 361.383	2008598.3	2008598.3	102.32	%			18:48:19
1	Y 371.029	1395067.8	1395067.8	103.13	%			18:48:19
1	Ag 328.068†	-1309.1	-877.8	-0.7295	µg/L	-0.7295	ppb	18:48:25
1	As 188.979†	8.6	8.9	19.831	µg/L	19.831	ppb	18:48:45
1	B 249.677†	897.9	493.5	-18.958	µg/L	-18.958	ppb	18:48:25
1	Ba 233.527†	20676.0	20224.9	485.83	µg/L	485.83	ppb	18:48:25
1	Be 313.107†	7222.7	9914.8	4.7194	µg/L	4.7194	ppb	18:48:25
1	Cd 226.502†	175.7	313.4	-0.6313	µg/L	-0.6313	ppb	18:48:45
1	Co 228.616†	921.5	898.7	34.319	µg/L	34.319	ppb	18:48:45
1	Cr 267.716†	3329.3	3304.3	66.468	µg/L	66.468	ppb	18:48:25
1	Cu 324.752†	15105.2	12219.4	90.198	µg/L	90.198	ppb	18:48:25
1	Mn 257.610†	764577.7	747522.2	2350.6	µg/L	2350.6	ppb	18:48:19
1	Mo 202.031†	3.5	8.8	3.7104	µg/L	3.7104	ppb	18:48:45
1	Ni 231.604†	1057.2	720.9	36.867	µg/L	36.867	ppb	18:48:45
1	P 214.914†	397.5	373.1	678.27	µg/L	678.27	ppb	18:48:45
1	Pb 220.353†	786.1	677.4	163.35	µg/L	163.35	ppb	18:48:45
1	S 181.975 Axial†	150.1	127.7	529.76	µg/L	529.76	ppb	18:48:45
1	Sb 206.836†	31.6	8.4	6.2204	µg/L	6.2204	ppb	18:48:45
1	Se 196.026†	-24.0	-42.8	136.39	µg/L	136.39	ppb	18:48:45
1	SiO2†	100714.2	97042.2	19155	µg/L	19155	ppb	18:48:25
1	Si 251.611†	120625.8	117584.0	8939.0	µg/L	8939.0	ppb	18:48:25
1	Sn 189.927†	-3.8	-4.1	-8.9482	µg/L	-8.9482	ppb	18:48:45
1	Ti 334.940†	1414567.4	1382363.9	3057.7	µg/L	3057.7	ppb	18:48:19
1	Tl 190.801†	-56.9	-33.2	5.2808	µg/L	5.2808	ppb	18:48:45
1	U 409.014†	274.8	345.7	17.746	µg/L	17.746	ppb	18:48:25
1	V 292.402†	16555.6	16225.5	167.15	µg/L	167.15	ppb	18:48:25
1	Zn 213.857†	8440.8	7715.2	176.76	µg/L	176.76	ppb	18:48:25
2	Sc RADIAL	57663.9	57663.9	102	%			18:47:21
2	Al 396.153Radial†	45261.6	44337.3	30843	µg/L	30843	ppb	18:47:21
2	Ca 317.933Radial†	10790.0	10360.1	8849.4	µg/L	8849.4	ppb	18:47:42
2	Fe 238.204 Radial†	9744.7	9530.7	75169	µg/L	75169	ppb	18:47:42
2	K 766.490 Radial†	10948.1	10561.4	6897.8	µg/L	6897.8	ppb	18:47:21
2	Mg 279.077 IEC†	809.8	780.6	6896.9	µg/L	6896.9	ppb	18:47:42
2	Na 589.592 Radial†	1361.7	861.9	264.72	µg/L	264.72	ppb	18:47:21
2	Sr 421.552†	11356.7	11097.8	102.38	µg/L	102.38	ppb	18:47:21
2	Sc 361.383	2003921.3	2003921.3	102.08	%			18:48:52
2	Y 371.029	1391092.7	1391092.7	102.83	%			18:48:52
2	Ag 328.068†	-1306.4	-878.2	-0.7188	µg/L	-0.7188	ppb	18:48:58
2	As 188.979†	10.7	11.0	23.571	µg/L	23.571	ppb	18:49:19
2	B 249.677†	858.7	457.1	-20.488	µg/L	-20.488	ppb	18:48:58
2	Ba 233.527†	20644.2	20241.0	486.22	µg/L	486.22	ppb	18:48:58
2	Be 313.107†	7120.6	9831.3	4.6737	µg/L	4.6737	ppb	18:48:58
2	Cd 226.502†	163.4	301.8	-0.9308	µg/L	-0.9308	ppb	18:49:19
2	Co 228.616†	897.0	876.8	33.346	µg/L	33.346	ppb	18:49:19
2	Cr 267.716†	3333.2	3315.7	66.697	µg/L	66.697	ppb	18:48:58
2	Cu 324.752†	15074.7	12224.0	90.240	µg/L	90.240	ppb	18:48:58
2	Mn 257.610†	760791.0	745556.7	2344.4	µg/L	2344.4	ppb	18:48:52
2	Mo 202.031†	-2.7	2.7	3.1216	µg/L	3.1216	ppb	18:49:19
2	Ni 231.604†	1054.1	720.3	36.839	µg/L	36.839	ppb	18:49:19
2	P 214.914†	412.3	388.5	708.64	µg/L	708.64	ppb	18:49:19
2	Pb 220.353†	785.4	678.5	163.60	µg/L	163.60	ppb	18:49:19

2	S 181.975 Axial†	155.0	132.9	551.20 µg/L	551.20 ppb	18:49:19
2	Sb 206.836†	32.9	9.7	7.3818 µg/L	7.3818 ppb	18:49:19
2	Se 196.026†	-15.6	-34.6	148.26 µg/L	148.26 ppb	18:49:19
2	SiO2†	100261.3	96828.3	19113 µg/L	19113 ppb	18:48:58
2	Si 251.611†	120028.5	117274.0	8915.4 µg/L	8915.4 ppb	18:48:58
2	Sn 189.927†	-3.7	-4.0	-8.9307 µg/L	-8.9307 ppb	18:49:19
2	Ti 334.940†	1406551.6	1377738.0	3047.5 µg/L	3047.5 ppb	18:48:52
2	Tl 190.801†	-48.7	-25.4	15.370 µg/L	15.370 ppb	18:49:19
2	U 409.014†	300.4	371.4	19.869 µg/L	19.869 ppb	18:48:58
2	V 292.402†	16639.9	16345.9	168.33 µg/L	168.33 ppb	18:48:58
2	Zn 213.857†	8392.8	7687.5	176.11 µg/L	176.11 ppb	18:48:58
3	Sc RADIAL	58098.9	58098.9	103 %		18:47:47
3	Al 396.153Radial†	45468.8	44206.7	30753 µg/L	30753 ppb	18:47:47
3	Ca 317.933Radial†	10718.9	10211.9	8722.7 µg/L	8722.7 ppb	18:48:08
3	Fe 238.204 Radial†	9686.5	9402.6	74158 µg/L	74158 ppb	18:48:08
3	K 766.490 Radial†	10985.8	10517.6	6869.2 µg/L	6869.2 ppb	18:47:47
3	Mg 279.077 IEC†	813.6	778.4	6878.2 µg/L	6878.2 ppb	18:48:08
3	Na 589.592 Radial†	1366.2	856.3	263.01 µg/L	263.01 ppb	18:47:47
3	Sr 421.552†	11391.3	11048.1	101.92 µg/L	101.92 ppb	18:47:47
3	Sc 361.383	2009799.6	2009799.6	102.38 %		18:49:25
3	Y 371.029	1394936.8	1394936.8	103.12 %		18:49:25
3	Ag 328.068†	-1320.4	-888.1	-0.9272 µg/L	-0.9272 ppb	18:49:31
3	As 188.979†	4.2	4.6	12.064 µg/L	12.064 ppb	18:49:51
3	B 249.677†	885.2	480.5	-19.012 µg/L	-19.012 ppb	18:49:31
3	Ba 233.527†	19517.0	19080.8	458.34 µg/L	458.34 ppb	18:49:31
3	Be 313.107†	6419.4	9126.0	4.3083 µg/L	4.3083 ppb	18:49:31
3	Cd 226.502†	129.8	268.5	-1.6515 µg/L	-1.6515 ppb	18:49:51
3	Co 228.616†	800.5	780.0	29.256 µg/L	29.256 ppb	18:49:51
3	Cr 267.716†	3112.6	3090.7	62.170 µg/L	62.170 ppb	18:49:31
3	Cu 324.752†	14346.0	11469.0	85.172 µg/L	85.172 ppb	18:49:31
3	Mn 257.610†	731691.9	714953.5	2248.5 µg/L	2248.5 ppb	18:49:25
3	Mo 202.031†	-0.1	5.3	3.3357 µg/L	3.3357 ppb	18:49:51
3	Ni 231.604†	976.1	641.1	32.880 µg/L	32.880 ppb	18:49:51
3	P 214.914†	379.2	355.1	643.70 µg/L	643.70 ppb	18:49:51
3	Pb 220.353†	746.4	638.1	153.84 µg/L	153.84 ppb	18:49:51
3	S 181.975 Axial†	146.6	124.2	515.21 µg/L	515.21 ppb	18:49:51
3	Sb 206.836†	17.6	-5.3	-6.3561 µg/L	-6.3561 ppb	18:49:51
3	Se 196.026†	-16.6	-35.6	144.14 µg/L	144.14 ppb	18:49:51
3	SiO2†	95345.6	91739.5	18108 µg/L	18108 ppb	18:49:31
3	Si 251.611†	114094.9	111134.3	8448.6 µg/L	8448.6 ppb	18:49:31
3	Sn 189.927†	-0.2	-0.6	-7.3755 µg/L	-7.3755 ppb	18:49:51
3	Ti 334.940†	1346050.1	1314611.6	2907.8 µg/L	2907.8 ppb	18:49:25
3	Tl 190.801†	-55.8	-32.1	4.8940 µg/L	4.8940 ppb	18:49:51
3	U 409.014†	171.1	244.3	9.4534 µg/L	9.4534 ppb	18:49:31
3	V 292.402†	15550.5	15234.1	157.36 µg/L	157.36 ppb	18:49:31
3	Zn 213.857†	7969.5	7250.0	165.92 µg/L	165.92 ppb	18:49:31

Mean Data: 245688006|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2007439.7	102.26	%	0.158				0.15%
Sc RADIAL	57769.3	102	%	0.5				0.50%
Y 371.029	1393699.1	103.03	%	0.167				0.16%
Ag 328.068†	-881.4	-0.7918	µg/L	0.11737	-0.7918	ppb	0.11737	14.82%
Al 396.153Radial†	44324.7	30835	µg/L	78.0	30835	ppb	78.0	0.25%
As 188.979†	8.2	18.489	µg/L	5.8699	18.489	ppb	5.8699	31.75%
B 249.677†	477.0	-19.486	µg/L	0.8683	-19.486	ppb	0.8683	4.46%
Ba 233.527†	19848.9	476.80	µg/L	15.982	476.80	ppb	15.982	3.35%
Be 313.107†	9624.0	4.5671	µg/L	0.22529	4.5671	ppb	0.22529	4.93%
Ca 317.933Radial†	10311.7	8808.0	µg/L	73.85	8808.0	ppb	73.85	0.84%
Cd 226.502†	294.6	-1.0712	µg/L	0.52438	-1.0712	ppb	0.52438	48.95%
Co 228.616†	851.8	32.307	µg/L	2.6869	32.307	ppb	2.6869	8.32%
Cr 267.716†	3236.9	65.112	µg/L	2.5500	65.112	ppb	2.5500	3.92%
Cu 324.752†	11970.8	88.537	µg/L	2.9142	88.537	ppb	2.9142	3.29%
Fe 238.204 Radial†	9484.3	74802	µg/L	559.5	74802	ppb	559.5	0.75%
K 766.490 Radial†	10542.8	6885.7	µg/L	14.77	6885.7	ppb	14.77	0.21%
Mg 279.077 IEC†	781.6	6906.8	µg/L	34.51	6906.8	ppb	34.51	0.50%
Mn 257.610†	736010.8	2314.5	µg/L	57.26	2314.5	ppb	57.26	2.47%
Mo 202.031†	5.6	3.3892	µg/L	0.29803	3.3892	ppb	0.29803	8.79%
Na 589.592 Radial†	861.5	264.59	µg/L	1.513	264.59	ppb	1.513	0.57%

Ni 231.604†	694.1	35.529 µg/L	2.2934	35.529 ppb	2.2934	6.45%
P 214.914†	372.2	676.87 µg/L	32.493	676.87 ppb	32.493	4.80%
Pb 220.353†	664.7	160.27 µg/L	5.562	160.27 ppb	5.562	3.47%
S 181.975 Axial†	128.3	532.06 µg/L	18.107	532.06 ppb	18.107	3.40%
Sb 206.836†	4.3	2.4154 µg/L	7.61845	2.4154 ppb	7.61845	315.42%
Se 196.026†	-37.6	142.93 µg/L	6.028	142.93 ppb	6.028	4.22%
SiO2†	95203.4	18792 µg/L	592.5	18792 ppb	592.5	3.15%
Si 251.611†	115330.8	8767.7 µg/L	276.53	8767.7 ppb	276.53	3.15%
Sn 189.927†	-2.9	-8.4181 µg/L	0.90299	-8.4181 ppb	0.90299	10.73%
Sr 421.552†	11090.0	102.31 µg/L	0.356	102.31 ppb	0.356	0.35%
Ti 334.940†	1358237.8	3004.3 µg/L	83.74	3004.3 ppb	83.74	2.79%
Tl 190.801†	-30.2	8.5148 µg/L	5.93963	8.5148 ppb	5.93963	69.76%
U 409.014†	320.4	15.690 µg/L	5.5040	15.690 ppb	5.5040	35.08%
V 292.402†	15935.2	164.28 µg/L	6.023	164.28 ppb	6.023	3.67%
Zn 213.857†	7550.9	172.93 µg/L	6.081	172.93 ppb	6.081	3.52%

Sequence No.: 23
Sample ID: 245688007|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 319
Date Collected: 2/19/2010 18:50:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688007|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58067.5	58067.5	103	%			18:50:34
1	Al 396.153Radial†	96930.3	94299.1	65599	µg/L	65599	ppb	18:50:34
1	Ca 317.933Radial†	18736.0	18017.6	15390	µg/L	15390	ppb	18:50:54
1	Fe 238.204 Radial†	13399.1	13019.8	102690	µg/L	102690	ppb	18:50:54
1	K 766.490 Radial†	20375.1	19658.6	12839	µg/L	12839	ppb	18:50:34
1	Mg 279.077 IEC†	1769.5	1708.8	15165	µg/L	15165	ppb	18:50:54
1	Na 589.592 Radial†	3712.4	3139.7	964.33	µg/L	964.33	ppb	18:50:54
1	Sr 421.552†	21490.6	20880.0	192.62	µg/L	192.62	ppb	18:50:34
1	Sc 361.383	2013406.8	2013406.8	102.56	%			18:51:59
1	Y 371.029	1472329.7	1472329.7	108.84	%			18:51:59
1	Ag 328.068†	-1746.3	-1301.0	-1.8671	µg/L	-1.8671	ppb	18:52:04
1	As 188.979†	25.5	25.3	50.504	µg/L	50.504	ppb	18:52:25
1	B 249.677†	1067.5	656.7	-26.408	µg/L	-26.408	ppb	18:52:04
1	Ba 233.527†	45905.8	44776.4	1075.3	µg/L	1075.3	ppb	18:52:04
1	Be 313.107†	18103.7	20507.3	10.776	µg/L	10.776	ppb	18:52:04
1	Cd 226.502†	241.7	377.3	-2.0436	µg/L	-2.0436	ppb	18:52:25
1	Co 228.616†	2087.2	2033.1	84.438	µg/L	84.438	ppb	18:52:25
1	Cr 267.716†	12942.8	12669.9	254.60	µg/L	254.60	ppb	18:52:04
1	Cu 324.752†	31023.2	27704.7	195.12	µg/L	195.12	ppb	18:52:04
1	Mn 257.610†	1393798.8	1359243.2	4269.5	µg/L	4269.5	ppb	18:51:59
1	Mo 202.031†	15.1	20.0	5.8633	µg/L	5.8633	ppb	18:52:25
1	Ni 231.604†	3379.0	2982.3	149.89	µg/L	149.89	ppb	18:52:25
1	P 214.914†	484.7	457.3	821.64	µg/L	821.64	ppb	18:52:25
1	Pb 220.353†	881.7	768.8	186.35	µg/L	186.35	ppb	18:52:25
1	S 181.975 Axial†	260.2	234.8	973.75	µg/L	973.75	ppb	18:52:25
1	Sb 206.836†	40.2	16.7	11.136	µg/L	11.136	ppb	18:52:25
1	Se 196.026†	-26.7	-45.3	199.17	µg/L	199.17	ppb	18:52:25
1	SiO2†	111051.9	106886.7	21098	µg/L	21098	ppb	18:52:04
1	Si 251.611†	134138.1	130477.3	9919.1	µg/L	9919.1	ppb	18:51:59
1	Sn 189.927†	-13.6	-13.6	-14.961	µg/L	-14.961	ppb	18:52:25
1	Ti 334.940†	1697320.7	1654753.3	3659.7	µg/L	3659.7	ppb	18:51:59
1	Tl 190.801†	-67.7	-43.6	10.717	µg/L	10.717	ppb	18:52:25
1	U 409.014†	-809.5	-712.2	-74.388	µg/L	-74.388	ppb	18:51:59
1	V 292.402†	20710.7	20238.2	209.85	µg/L	209.85	ppb	18:52:04
1	Zn 213.857†	10317.1	9525.0	216.78	µg/L	216.78	ppb	18:52:04
2	Sc RADIAL	58182.9	58182.9	103	%			18:51:00
2	Al 396.153Radial†	97431.1	94598.3	65808	µg/L	65808	ppb	18:51:00
2	Ca 317.933Radial†	18623.5	17872.2	15266	µg/L	15266	ppb	18:51:20
2	Fe 238.204 Radial†	13315.4	12912.7	101840	µg/L	101840	ppb	18:51:20
2	K 766.490 Radial†	20479.4	19720.6	12880	µg/L	12880	ppb	18:51:00
2	Mg 279.077 IEC†	1763.6	1699.6	15084	µg/L	15084	ppb	18:51:20
2	Na 589.592 Radial†	3701.3	3121.7	958.82	µg/L	958.82	ppb	18:51:20
2	Sr 421.552†	21609.3	20953.8	193.30	µg/L	193.30	ppb	18:51:00
2	Sc 361.383	2013388.8	2013388.8	102.56	%			18:52:32
2	Y 371.029	1471314.2	1471314.2	108.76	%			18:52:32
2	Ag 328.068†	-1755.3	-1309.9	-1.9951	µg/L	-1.9951	ppb	18:52:38
2	As 188.979†	19.8	19.8	40.599	µg/L	40.599	ppb	18:52:58
2	B 249.677†	1045.1	634.9	-26.861	µg/L	-26.861	ppb	18:52:38
2	Ba 233.527†	45403.8	44287.3	1063.6	µg/L	1063.6	ppb	18:52:38
2	Be 313.107†	17833.1	20243.5	10.627	µg/L	10.627	ppb	18:52:38
2	Cd 226.502†	259.4	394.6	-1.5194	µg/L	-1.5194	ppb	18:52:58
2	Co 228.616†	2070.4	2016.8	83.738	µg/L	83.738	ppb	18:52:58
2	Cr 267.716†	12873.1	12602.1	253.24	µg/L	253.24	ppb	18:52:38
2	Cu 324.752†	30845.9	27532.0	193.87	µg/L	193.87	ppb	18:52:38
2	Mn 257.610†	1385384.6	1351051.3	4243.8	µg/L	4243.8	ppb	18:52:32
2	Mo 202.031†	20.4	25.3	6.3431	µg/L	6.3431	ppb	18:52:58
2	Ni 231.604†	3352.7	2956.7	148.60	µg/L	148.60	ppb	18:52:58
2	P 214.914†	474.7	447.5	803.09	µg/L	803.09	ppb	18:52:58
2	Pb 220.353†	868.3	755.7	183.21	µg/L	183.21	ppb	18:52:58

2	S 181.975 Axial†	258.0	232.6	964.67	µg/L	964.67 ppb	18:52:58
2	Sb 206.836†	37.3	13.9	8.6222	µg/L	8.6222 ppb	18:52:58
2	Se 196.026†	-47.9	-66.1	167.84	µg/L	167.84 ppb	18:52:58
2	SiO2†	109789.9	105657.2	20855	µg/L	20855 ppb	18:52:38
2	Si 251.611†	133422.0	129780.2	9866.1	µg/L	9866.1 ppb	18:52:32
2	Sn 189.927†	-16.6	-16.6	-16.138	µg/L	-16.138 ppb	18:52:58
2	Ti 334.940†	1688452.0	1646120.8	3640.6	µg/L	3640.6 ppb	18:52:32
2	Tl 190.801†	-58.7	-34.8	21.814	µg/L	21.814 ppb	18:52:58
2	U 409.014†	-709.3	-614.5	-66.144	µg/L	-66.144 ppb	18:52:32
2	V 292.402†	20559.7	20091.1	208.33	µg/L	208.33 ppb	18:52:38
2	Zn 213.857†	10219.6	9430.0	214.60	µg/L	214.60 ppb	18:52:38
3	Sc RADIAL	57739.8	57739.8	102	%		18:51:26
3	Al 396.153Radial†	96781.0	94688.2	65870	µg/L	65870 ppb	18:51:26
3	Ca 317.933Radial†	18640.0	18027.1	15398	µg/L	15398 ppb	18:51:46
3	Fe 238.204 Radial†	13339.5	13035.4	102810	µg/L	102810 ppb	18:51:46
3	K 766.490 Radial†	20365.7	19761.9	12907	µg/L	12907 ppb	18:51:26
3	Mg 279.077 IEC†	1768.2	1717.3	15241	µg/L	15241 ppb	18:51:46
3	Na 589.592 Radial†	3696.3	3144.4	965.79	µg/L	965.79 ppb	18:51:46
3	Sr 421.552†	21429.3	20938.8	193.16	µg/L	193.16 ppb	18:51:26
3	Sc 361.383	2021969.8	2021969.8	103.00	%		18:53:06
3	Y 371.029	1472108.8	1472108.8	108.82	%		18:53:06
3	Ag 328.068†	-1676.6	-1226.2	-1.4121	µg/L	-1.4121 ppb	18:53:11
3	As 188.979†	20.6	20.4	41.755	µg/L	41.755 ppb	18:53:32
3	B 249.677†	1032.4	618.2	-28.077	µg/L	-28.077 ppb	18:53:11
3	Ba 233.527†	42871.7	41641.0	1000.0	µg/L	1000.0 ppb	18:53:11
3	Be 313.107†	16484.8	18860.7	9.8752	µg/L	9.8752 ppb	18:53:11
3	Cd 226.502†	195.4	331.4	-3.2198	µg/L	-3.2198 ppb	18:53:32
3	Co 228.616†	1864.5	1808.3	74.671	µg/L	74.671 ppb	18:53:32
3	Cr 267.716†	11943.1	11645.9	234.03	µg/L	234.03 ppb	18:53:11
3	Cu 324.752†	29261.9	25866.5	183.13	µg/L	183.13 ppb	18:53:11
3	Mn 257.610†	1328960.3	1290536.5	4054.4	µg/L	4054.4 ppb	18:53:06
3	Mo 202.031†	16.6	21.4	6.0051	µg/L	6.0051 ppb	18:53:32
3	Ni 231.604†	3033.0	2632.3	132.46	µg/L	132.46 ppb	18:53:32
3	P 214.914†	437.1	409.1	727.53	µg/L	727.53 ppb	18:53:32
3	Pb 220.353†	803.5	689.2	167.03	µg/L	167.03 ppb	18:53:32
3	S 181.975 Axial†	238.6	212.8	882.34	µg/L	882.34 ppb	18:53:32
3	Sb 206.836†	27.1	3.8	-0.4639	µg/L	-0.4639 ppb	18:53:32
3	Se 196.026†	-33.4	-51.8	190.38	µg/L	190.38 ppb	18:53:32
3	SiO2†	103646.4	99238.2	19588	µg/L	19588 ppb	18:53:11
3	Si 251.611†	128275.7	124231.6	9444.3	µg/L	9444.3 ppb	18:53:06
3	Sn 189.927†	-8.1	-8.2	-12.699	µg/L	-12.699 ppb	18:53:32
3	Ti 334.940†	1611634.4	1564552.2	3460.2	µg/L	3460.2 ppb	18:53:06
3	Tl 190.801†	-61.3	-37.1	16.638	µg/L	16.638 ppb	18:53:32
3	U 409.014†	-757.4	-658.3	-69.923	µg/L	-69.923 ppb	18:53:06
3	V 292.402†	19080.5	18570.0	193.57	µg/L	193.57 ppb	18:53:11
3	Zn 213.857†	9690.1	8873.7	201.58	µg/L	201.58 ppb	18:53:11

Mean Data: 245688007|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2016255.2	102.71	%	0.252				0.25%
Sc RADIAL	57996.7	103	%	0.4				0.40%
Y 371.029	1471917.6	108.81	%	0.039				0.04%
Ag 328.068†	-1279.0	-1.7581	µg/L	0.30640	-1.7581	ppb	0.30640	17.43%
Al 396.153Radial†	94528.5	65759	µg/L	141.7	65759	ppb	141.7	0.22%
As 188.979†	21.8	44.286	µg/L	5.4160	44.286	ppb	5.4160	12.23%
B 249.677†	636.6	-27.115	µg/L	0.8630	-27.115	ppb	0.8630	3.18%
Ba 233.527†	43568.2	1046.3	µg/L	40.51	1046.3	ppb	40.51	3.87%
Be 313.107†	19870.5	10.426	µg/L	0.4830	10.426	ppb	0.4830	4.63%
Ca 317.933Radial†	17972.3	15352	µg/L	74.2	15352	ppb	74.2	0.48%
Cd 226.502†	367.8	-2.2610	µg/L	0.87075	-2.2610	ppb	0.87075	38.51%
Co 228.616†	1952.7	80.949	µg/L	5.4481	80.949	ppb	5.4481	6.73%
Cr 267.716†	12306.0	247.29	µg/L	11.507	247.29	ppb	11.507	4.65%
Cu 324.752†	27034.4	190.71	µg/L	6.588	190.71	ppb	6.588	3.45%
Fe 238.204 Radial†	12989.3	102450	µg/L	527.1	102450	ppb	527.1	0.51%
K 766.490 Radial†	19713.7	12875	µg/L	33.9	12875	ppb	33.9	0.26%
Mg 279.077 IEC†	1708.6	15163	µg/L	78.6	15163	ppb	78.6	0.52%
Mn 257.610†	1333610.3	4189.2	µg/L	117.48	4189.2	ppb	117.48	2.80%
Mo 202.031†	22.2	6.0705	µg/L	0.24646	6.0705	ppb	0.24646	4.06%
Na 589.592 Radial†	3135.3	962.98	µg/L	3.675	962.98	ppb	3.675	0.38%

Ni 231.604†	2857.1	143.65	µg/L	9.713	143.65	ppb	9.713	6.76%
P 214.914†	437.9	784.08	µg/L	49.849	784.08	ppb	49.849	6.36%
Pb 220.353†	737.9	178.86	µg/L	10.365	178.86	ppb	10.365	5.80%
S 181.975 Axial†	226.7	940.25	µg/L	50.361	940.25	ppb	50.361	5.36%
Sb 206.836†	11.5	6.4314	µg/L	6.10233	6.4314	ppb	6.10233	94.88%
Se 196.026†	-54.4	185.79	µg/L	16.157	185.79	ppb	16.157	8.70%
SiO2†	103927.3	20514	µg/L	810.7	20514	ppb	810.7	3.95%
Si 251.611†	128163.0	9743.2	µg/L	260.18	9743.2	ppb	260.18	2.67%
Sn 189.927†	-12.8	-14.599	µg/L	1.7478	-14.599	ppb	1.7478	11.97%
Sr 421.552†	20924.2	193.03	µg/L	0.360	193.03	ppb	0.360	0.19%
Ti 334.940†	1621808.8	3586.8	µg/L	110.11	3586.8	ppb	110.11	3.07%
Tl 190.801†	-38.5	16.390	µg/L	5.5525	16.390	ppb	5.5525	33.88%
U 409.014†	-661.7	-70.152	µg/L	4.1270	-70.152	ppb	4.1270	5.88%
V 292.402†	19633.1	203.92	µg/L	8.995	203.92	ppb	8.995	4.41%
Zn 213.857†	9276.2	210.99	µg/L	8.217	210.99	ppb	8.217	3.89%

Sequence No.: 24
Sample ID: 245688008|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 320
Date Collected: 2/19/2010 18:53:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688008|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57014.3	57014.3	101	%			18:54:14
1	Al 396.153Radial†	37661.3	37311.3	25956	µg/L	25956	ppb	18:54:14
1	Ca 317.933Radial†	16919.8	16554.7	14141	µg/L	14141	ppb	18:54:14
1	Fe 238.204 Radial†	11273.0	11153.9	87970	µg/L	87970	ppb	18:54:35
1	K 766.490 Radial†	7922.2	7685.1	5019.3	µg/L	5019.3	ppb	18:54:14
1	Mg 279.077 IEC†	644.3	625.6	5498.3	µg/L	5498.3	ppb	18:54:35
1	Na 589.592 Radial†	4797.7	4281.9	1315.1	µg/L	1315.1	ppb	18:54:14
1	Sr 421.552†	10159.1	10037.9	92.601	µg/L	92.601	ppb	18:54:14
1	Sc 361.383	1984032.7	1984032.7	101.07	%			18:55:39
1	Y 371.029	1458303.3	1458303.3	107.80	%			18:55:39
1	Ag 328.068†	-1501.1	-1083.6	-2.1388	µg/L	-2.1388	ppb	18:55:44
1	As 188.979†	10.4	10.7	23.548	µg/L	23.548	ppb	18:56:05
1	B 249.677†	721.1	329.4	-32.269	µg/L	-32.269	ppb	18:55:44
1	Ba 233.527†	19474.8	19286.6	463.11	µg/L	463.11	ppb	18:55:44
1	Be 313.107†	7289.4	10068.3	5.4858	µg/L	5.4858	ppb	18:55:44
1	Cd 226.502†	190.7	330.4	-1.6096	µg/L	-1.6096	ppb	18:56:05
1	Co 228.616†	417.1	410.8	15.931	µg/L	15.931	ppb	18:56:05
1	Cr 267.716†	6512.3	6494.0	130.47	µg/L	130.47	ppb	18:55:44
1	Cu 324.752†	10610.9	7955.3	64.156	µg/L	64.156	ppb	18:55:44
1	Mn 257.610†	703200.3	696044.1	2191.2	µg/L	2191.2	ppb	18:55:39
1	Mo 202.031†	94.1	98.4	12.980	µg/L	12.980	ppb	18:56:05
1	Ni 231.604†	2151.0	1816.0	91.647	µg/L	91.647	ppb	18:56:05
1	P 214.914†	385.4	366.0	655.99	µg/L	655.99	ppb	18:56:05
1	Pb 220.353†	549.0	452.3	108.13	µg/L	108.13	ppb	18:56:05
1	S 181.975 Axial†	49.3	29.8	123.77	µg/L	123.77	ppb	18:56:05
1	Sb 206.836†	26.1	3.4	0.5414	µg/L	0.5414	ppb	18:56:05
1	Se 196.026†	-44.0	-62.9	143.24	µg/L	143.24	ppb	18:56:05
1	SiO2†	68283.7	66172.4	13062	µg/L	13062	ppb	18:55:44
1	Si 251.611†	81162.5	79996.4	6081.5	µg/L	6081.5	ppb	18:55:44
1	Sn 189.927†	123.5	121.9	42.592	µg/L	42.592	ppb	18:56:05
1	Ti 334.940†	587440.5	581073.5	1285.2	µg/L	1285.2	ppb	18:55:39
1	Tl 190.801†	-47.0	-24.1	1.7499	µg/L	1.7499	ppb	18:56:05
1	U 409.014†	-1994.5	-1896.4	-170.65	µg/L	-170.65	ppb	18:55:39
1	V 292.402†	5397.0	5384.9	63.042	µg/L	63.042	ppb	18:55:44
1	Zn 213.857†	16948.7	16235.7	375.93	µg/L	375.93	ppb	18:55:44
2	Sc RADIAL	56420.9	56420.9	99.9	%			18:54:40
2	Al 396.153Radial†	37506.2	37548.5	26121	µg/L	26121	ppb	18:54:40
2	Ca 317.933Radial†	16770.0	16580.9	14163	µg/L	14163	ppb	18:54:40
2	Fe 238.204 Radial†	11357.4	11355.9	89563	µg/L	89563	ppb	18:55:01
2	K 766.490 Radial†	7875.9	7721.4	5042.9	µg/L	5042.9	ppb	18:54:40
2	Mg 279.077 IEC†	656.6	644.6	5666.4	µg/L	5666.4	ppb	18:55:01
2	Na 589.592 Radial†	4801.5	4335.6	1331.7	µg/L	1331.7	ppb	18:54:40
2	Sr 421.552†	10121.9	10106.5	93.234	µg/L	93.234	ppb	18:54:40
2	Sc 361.383	1993596.0	1993596.0	101.55	%			18:56:12
2	Y 371.029	1465543.0	1465543.0	108.34	%			18:56:12
2	Ag 328.068†	-1437.0	-1013.4	-1.5194	µg/L	-1.5194	ppb	18:56:18
2	As 188.979†	12.6	12.9	27.509	µg/L	27.509	ppb	18:56:38
2	B 249.677†	784.4	388.3	-30.699	µg/L	-30.699	ppb	18:56:18
2	Ba 233.527†	19621.6	19338.7	464.36	µg/L	464.36	ppb	18:56:18
2	Be 313.107†	7189.7	9935.5	5.4074	µg/L	5.4074	ppb	18:56:18
2	Cd 226.502†	156.4	295.7	-2.6576	µg/L	-2.6576	ppb	18:56:38
2	Co 228.616†	417.5	409.2	15.859	µg/L	15.859	ppb	18:56:38
2	Cr 267.716†	6569.5	6519.5	130.98	µg/L	130.98	ppb	18:56:18
2	Cu 324.752†	10655.9	7949.3	64.338	µg/L	64.338	ppb	18:56:18
2	Mn 257.610†	707317.6	696760.8	2193.6	µg/L	2193.6	ppb	18:56:12
2	Mo 202.031†	91.9	95.8	12.785	µg/L	12.785	ppb	18:56:38
2	Ni 231.604†	2132.7	1787.8	90.262	µg/L	90.262	ppb	18:56:38
2	P 214.914†	380.7	359.5	641.76	µg/L	641.76	ppb	18:56:38
2	Pb 220.353†	543.0	443.8	106.02	µg/L	106.02	ppb	18:56:38

2	S 181.975 Axial†	45.5	25.8	107.16 µg/L	107.16 ppb	18:56:38
2	Sb 206.836†	29.0	6.0	2.9795 µg/L	2.9795 ppb	18:56:38
2	Se 196.026†	-41.1	-59.8	151.78 µg/L	151.78 ppb	18:56:38
2	SiO2†	68675.6	66234.2	13074 µg/L	13074 ppb	18:56:18
2	Si 251.611†	81496.5	79940.1	6077.2 µg/L	6077.2 ppb	18:56:18
2	Sn 189.927†	110.7	108.7	36.883 µg/L	36.883 ppb	18:56:38
2	Ti 334.940†	589747.7	580557.2	1284.1 µg/L	1284.1 ppb	18:56:12
2	Tl 190.801†	-43.6	-20.5	6.6164 µg/L	6.6164 ppb	18:56:38
2	U 409.014†	-2059.8	-1951.2	-175.43 µg/L	-175.43 ppb	18:56:12
2	V 292.402†	5400.9	5363.1	63.012 µg/L	63.012 ppb	18:56:18
2	Zn 213.857†	16999.1	16204.9	375.13 µg/L	375.13 ppb	18:56:18
3	Sc RADIAL	56255.4	56255.4	99.6 %		18:55:06
3	Al 396.153Radial†	37762.4	37916.3	26376 µg/L	26376 ppb	18:55:06
3	Ca 317.933Radial†	16818.0	16678.6	14247 µg/L	14247 ppb	18:55:06
3	Fe 238.204 Radial†	11404.6	11436.8	90201 µg/L	90201 ppb	18:55:26
3	K 766.490 Radial†	7907.9	7776.7	5079.1 µg/L	5079.1 ppb	18:55:06
3	Mg 279.077 IEC†	655.1	645.1	5669.8 µg/L	5669.8 ppb	18:55:26
3	Na 589.592 Radial†	4794.5	4342.8	1333.9 µg/L	1333.9 ppb	18:55:06
3	Sr 421.552†	10162.1	10176.7	93.882 µg/L	93.882 ppb	18:55:06
3	Sc 361.383	2006978.5	2006978.5	102.23 %		18:56:46
3	Y 371.029	1469662.3	1469662.3	108.64 %		18:56:46
3	Ag 328.068†	-1392.2	-960.2	-1.1136 µg/L	-1.1136 ppb	18:56:51
3	As 188.979†	10.8	11.1	24.302 µg/L	24.302 ppb	18:57:12
3	B 249.677†	703.2	303.7	-34.498 µg/L	-34.498 ppb	18:56:51
3	Ba 233.527†	18337.2	17953.5	431.10 µg/L	431.10 ppb	18:56:51
3	Be 313.107†	6484.2	9198.2	4.9966 µg/L	4.9966 ppb	18:56:51
3	Cd 226.502†	136.0	274.8	-3.2617 µg/L	-3.2617 ppb	18:57:12
3	Co 228.616†	371.0	360.9	13.820 µg/L	13.820 ppb	18:57:12
3	Cr 267.716†	6072.5	5990.2	120.34 µg/L	120.34 ppb	18:56:51
3	Cu 324.752†	10199.1	7432.5	61.053 µg/L	61.053 ppb	18:56:51
3	Mn 257.610†	676543.2	662014.7	2084.9 µg/L	2084.9 ppb	18:56:46
3	Mo 202.031†	81.6	85.1	11.766 µg/L	11.766 ppb	18:57:12
3	Ni 231.604†	1931.0	1576.4	79.737 µg/L	79.737 ppb	18:57:12
3	P 214.914†	342.7	319.9	563.11 µg/L	563.11 ppb	18:57:12
3	Pb 220.353†	496.1	394.3	93.972 µg/L	93.972 ppb	18:57:12
3	S 181.975 Axial†	37.6	17.8	73.915 µg/L	73.915 ppb	18:57:12
3	Sb 206.836†	22.6	-0.4	-2.7895 µg/L	-2.7895 ppb	18:57:12
3	Se 196.026†	-28.4	-47.0	171.40 µg/L	171.40 ppb	18:57:12
3	SiO2†	64806.0	61998.2	12238 µg/L	12238 ppb	18:56:51
3	Si 251.611†	76946.9	74954.7	5698.2 µg/L	5698.2 ppb	18:56:51
3	Sn 189.927†	101.1	98.5	32.517 µg/L	32.517 ppb	18:57:12
3	Ti 334.940†	561258.9	548818.6	1213.9 µg/L	1213.9 ppb	18:56:46
3	Tl 190.801†	-46.5	-23.1	2.3220 µg/L	2.3220 ppb	18:57:12
3	U 409.014†	-1893.7	-1775.2	-160.90 µg/L	-160.90 ppb	18:56:46
3	V 292.402†	4985.0	4920.9	58.760 µg/L	58.760 ppb	18:56:51
3	Zn 213.857†	16040.4	15155.5	350.53 µg/L	350.53 ppb	18:56:51

Mean Data: 245688008|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1994869.1	101.62	%	0.587				0.58%
Sc RADIAL	56563.5	100	%	0.7				0.71%
Y 371.029	1464502.9	108.26	%	0.425				0.39%
Ag 328.068†	-1019.1	-1.5906	µg/L	0.51629	-1.5906	ppb	0.51629	32.46%
Al 396.153Radial†	37592.0	26151	µg/L	212.1	26151	ppb	212.1	0.81%
As 188.979†	11.5	25.119	µg/L	2.1032	25.119	ppb	2.1032	8.37%
B 249.677†	340.4	-32.489	µg/L	1.9089	-32.489	ppb	1.9089	5.88%
Ba 233.527†	18859.6	452.86	µg/L	18.853	452.86	ppb	18.853	4.16%
Be 313.107†	9734.0	5.2966	µg/L	0.26278	5.2966	ppb	0.26278	4.96%
Ca 317.933Radial†	16604.7	14183	µg/L	55.8	14183	ppb	55.8	0.39%
Cd 226.502†	300.3	-2.5096	µg/L	0.83589	-2.5096	ppb	0.83589	33.31%
Co 228.616†	393.6	15.203	µg/L	1.1984	15.203	ppb	1.1984	7.88%
Cr 267.716†	6334.6	127.26	µg/L	5.997	127.26	ppb	5.997	4.71%
Cu 324.752†	7779.0	63.182	µg/L	1.8461	63.182	ppb	1.8461	2.92%
Fe 238.204 Radial†	11315.5	89245	µg/L	1149.2	89245	ppb	1149.2	1.29%
K 766.490 Radial†	7727.7	5047.1	µg/L	30.12	5047.1	ppb	30.12	0.60%
Mg 279.077 IEC†	638.4	5611.5	µg/L	98.08	5611.5	ppb	98.08	1.75%
Mn 257.610†	684939.9	2156.5	µg/L	62.08	2156.5	ppb	62.08	2.88%
Mo 202.031†	93.1	12.510	µg/L	0.6521	12.510	ppb	0.6521	5.21%
Na 589.592 Radial†	4320.1	1326.9	µg/L	10.23	1326.9	ppb	10.23	0.77%

Ni 231.604†	1726.7	87.215 µg/L	6.5136	87.215 ppb	6.5136	7.47%
P 214.914†	348.5	620.29 µg/L	50.028	620.29 ppb	50.028	8.07%
Pb 220.353†	430.1	102.71 µg/L	7.637	102.71 ppb	7.637	7.44%
S 181.975 Axial†	24.5	101.61 µg/L	25.385	101.61 ppb	25.385	24.98%
Sb 206.836†	3.0	0.2438 µg/L	2.89598	0.2438 ppb	2.89598	>999.9%
Se 196.026†	-56.6	155.47 µg/L	14.439	155.47 ppb	14.439	9.29%
SiO2†	64801.6	12791 µg/L	479.3	12791 ppb	479.3	3.75%
Si 251.611†	78297.1	5952.3 µg/L	220.06	5952.3 ppb	220.06	3.70%
Sn 189.927†	109.7	37.330 µg/L	5.0523	37.330 ppb	5.0523	13.53%
Sr 421.552†	10107.0	93.239 µg/L	0.6403	93.239 ppb	0.6403	0.69%
Ti 334.940†	570149.8	1261.1 µg/L	40.87	1261.1 ppb	40.87	3.24%
Tl 190.801†	-22.6	3.5628 µg/L	2.65995	3.5628 ppb	2.65995	74.66%
U 409.014†	-1874.3	-168.99 µg/L	7.407	-168.99 ppb	7.407	4.38%
V 292.402†	5222.9	61.605 µg/L	2.4637	61.605 ppb	2.4637	4.00%
Zn 213.857†	15865.4	367.20 µg/L	14.439	367.20 ppb	14.439	3.93%

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:57:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58333.6	58333.6	103	%			18:58:00
1	Al 396.153Radial†	7365.1	7125.7	4946.5	µg/L	4946.5	ppb	18:58:00
1	Ca 317.933Radial†	6192.0	5785.6	4942.0	µg/L	4942.0	ppb	18:58:20
1	Fe 238.204 Radial†	674.6	636.7	5032.7	µg/L	5032.7	ppb	18:58:20
1	K 766.490 Radial†	7915.6	7501.2	4899.2	µg/L	4899.2	ppb	18:58:00
1	Mg 279.077 IEC†	598.6	566.9	5070.8	µg/L	5070.8	ppb	18:58:20
1	Na 589.592 Radial†	33942.4	32400.8	9951.7	µg/L	9951.7	ppb	18:58:00
1	Sr 421.552†	54192.3	52456.0	483.91	µg/L	483.91	ppb	18:58:00
1	Sc 361.383	2038441.2	2038441.2	103.84	%			18:59:24
1	Y 371.029	1399434.4	1399434.4	103.45	%			18:59:24
1	Ag 328.068†	68624.6	66490.5	496.15	µg/L	496.15	ppb	18:59:29
1	As 188.979†	294.5	284.1	508.19	µg/L	508.19	ppb	18:59:50
1	B 249.677†	12921.2	12059.6	489.70	µg/L	489.70	ppb	18:59:29
1	Ba 233.527†	21646.3	20863.5	501.78	µg/L	501.78	ppb	18:59:29
1	Be 313.107†	864552.3	835462.4	495.66	µg/L	495.66	ppb	18:59:24
1	Cd 226.502†	20886.7	20256.6	505.16	µg/L	505.16	ppb	18:59:29
1	Co 228.616†	11617.5	11186.3	506.03	µg/L	506.03	ppb	18:59:29
1	Cr 267.716†	26041.8	25130.0	505.06	µg/L	505.06	ppb	18:59:29
1	Cu 324.752†	81610.2	76051.0	497.12	µg/L	497.12	ppb	18:59:29
1	Mn 257.610†	166517.1	160620.2	503.45	µg/L	503.45	ppb	18:59:24
1	Mo 202.031†	5420.2	5225.2	511.88	µg/L	511.88	ppb	18:59:50
1	Ni 231.604†	10851.5	10138.2	504.85	µg/L	504.85	ppb	18:59:29
1	P 214.914†	1356.9	1291.4	2509.3	µg/L	2509.3	ppb	18:59:50
1	Pb 220.353†	2274.9	2099.9	510.66	µg/L	510.66	ppb	18:59:50
1	S 181.975 Axial†	272.1	243.1	1008.0	µg/L	1008.0	ppb	18:59:50
1	Sb 206.836†	600.9	556.2	512.79	µg/L	512.79	ppb	18:59:50
1	Se 196.026†	401.3	367.2	523.52	µg/L	523.52	ppb	18:59:50
1	SiO2†	29690.3	27201.7	5369.3	µg/L	5369.3	ppb	18:59:29
1	Si 251.611†	34620.8	33030.9	2511.1	µg/L	2511.1	ppb	18:59:29
1	Sn 189.927†	1274.6	1227.1	517.53	µg/L	517.53	ppb	18:59:50
1	Ti 334.940†	232175.5	223421.5	493.94	µg/L	493.94	ppb	18:59:24
1	Tl 190.801†	380.4	388.7	510.84	µg/L	510.84	ppb	18:59:50
1	U 409.014†	6240.2	6086.8	504.71	µg/L	504.71	ppb	18:59:29
1	V 292.402†	53236.3	51313.9	506.29	µg/L	506.29	ppb	18:59:29
1	Zn 213.857†	23013.8	21629.0	503.89	µg/L	503.89	ppb	18:59:29
2	Sc RADIAL	58344.7	58344.7	103	%			18:58:26
2	Al 396.153Radial†	7317.7	7078.4	4913.9	µg/L	4913.9	ppb	18:58:26
2	Ca 317.933Radial†	6132.7	5727.0	4891.9	µg/L	4891.9	ppb	18:58:46
2	Fe 238.204 Radial†	665.9	628.2	4965.5	µg/L	4965.5	ppb	18:58:46
2	K 766.490 Radial†	7920.4	7504.4	4901.2	µg/L	4901.2	ppb	18:58:26
2	Mg 279.077 IEC†	590.4	558.9	4999.2	µg/L	4999.2	ppb	18:58:46
2	Na 589.592 Radial†	33811.9	32268.1	9910.9	µg/L	9910.9	ppb	18:58:26
2	Sr 421.552†	54099.6	52356.2	482.99	µg/L	482.99	ppb	18:58:26
2	Sc 361.383	2035256.6	2035256.6	103.67	%			18:59:57
2	Y 371.029	1396273.2	1396273.2	103.22	%			18:59:57
2	Ag 328.068†	68425.9	66402.2	495.48	µg/L	495.48	ppb	19:00:03
2	As 188.979†	292.9	282.9	506.17	µg/L	506.17	ppb	19:00:23
2	B 249.677†	12903.7	12062.2	489.84	µg/L	489.84	ppb	19:00:03
2	Ba 233.527†	21596.0	20847.7	501.39	µg/L	501.39	ppb	19:00:03
2	Be 313.107†	862338.3	834629.7	495.17	µg/L	495.17	ppb	18:59:57
2	Cd 226.502†	20772.6	20178.1	503.20	µg/L	503.20	ppb	19:00:03
2	Co 228.616†	11542.6	11131.5	503.54	µg/L	503.54	ppb	19:00:03
2	Cr 267.716†	25954.2	25084.7	504.15	µg/L	504.15	ppb	19:00:03
2	Cu 324.752†	81509.2	76076.5	497.28	µg/L	497.28	ppb	19:00:03
2	Mn 257.610†	166351.9	160711.8	503.73	µg/L	503.73	ppb	18:59:57
2	Mo 202.031†	5270.1	5088.7	498.51	µg/L	498.51	ppb	19:00:23
2	Ni 231.604†	10791.0	10096.2	502.76	µg/L	502.76	ppb	19:00:03
2	P 214.914†	1323.9	1261.6	2450.2	µg/L	2450.2	ppb	19:00:23
2	Pb 220.353†	2210.1	2040.8	496.26	µg/L	496.26	ppb	19:00:23

2	S 181.975 Axial†	270.0	241.5	1001.5 µg/L	1001.5 ppb	19:00:23
2	Sb 206.836†	587.9	544.6	501.96 µg/L	501.96 ppb	19:00:23
2	Se 196.026†	392.6	359.4	512.48 µg/L	512.48 ppb	19:00:23
2	SiO2†	29616.5	27175.2	5364.0 µg/L	5364.0 ppb	19:00:03
2	Si 251.611†	34657.6	33118.5	2517.7 µg/L	2517.7 ppb	19:00:03
2	Sn 189.927†	1231.7	1187.7	500.91 µg/L	500.91 ppb	19:00:23
2	Ti 334.940†	231864.1	223470.9	494.05 µg/L	494.05 ppb	18:59:57
2	Tl 190.801†	372.5	381.7	501.72 µg/L	501.72 ppb	19:00:23
2	U 409.014†	6180.9	6038.9	500.75 µg/L	500.75 ppb	19:00:03
2	V 292.402†	53024.3	51189.7	504.96 µg/L	504.96 ppb	19:00:03
2	Zn 213.857†	22918.2	21571.5	502.56 µg/L	502.56 ppb	19:00:03
3	Sc RADIAL	58456.7	58456.7	103 %		18:58:52
3	Al 396.153Radial†	7314.1	7061.4	4904.0 µg/L	4904.0 ppb	18:58:52
3	Ca 317.933Radial†	6160.3	5742.4	4905.0 µg/L	4905.0 ppb	18:59:12
3	Fe 238.204 Radial†	669.3	630.3	4980.2 µg/L	4980.2 ppb	18:59:12
3	K 766.490 Radial†	7905.3	7475.1	4882.1 µg/L	4882.1 ppb	18:58:52
3	Mg 279.077 IEC†	592.0	559.3	5000.9 µg/L	5000.9 ppb	18:59:12
3	Na 589.592 Radial†	33692.4	32089.9	9856.2 µg/L	9856.2 ppb	18:58:52
3	Sr 421.552†	53981.8	52142.0	481.02 µg/L	481.02 ppb	18:58:52
3	Sc 361.383	2047612.7	2047612.7	104.30 %		19:00:30
3	Y 371.029	1406490.5	1406490.5	103.97 %		19:00:30
3	Ag 328.068†	63103.6	60901.3	454.27 µg/L	454.27 ppb	19:00:36
3	As 188.979†	237.6	228.3	408.38 µg/L	408.38 ppb	19:00:57
3	B 249.677†	11765.8	10896.1	442.18 µg/L	442.18 ppb	19:00:36
3	Ba 233.527†	19176.1	18401.9	442.55 µg/L	442.55 ppb	19:00:36
3	Be 313.107†	782724.7	753282.0	446.91 µg/L	446.91 ppb	19:00:30
3	Cd 226.502†	18400.9	17783.3	443.41 µg/L	443.41 ppb	19:00:36
3	Co 228.616†	10109.3	9690.2	438.29 µg/L	438.29 ppb	19:00:36
3	Cr 267.716†	21969.5	21113.3	424.34 µg/L	424.34 ppb	19:00:36
3	Cu 324.752†	71747.0	66242.7	433.09 µg/L	433.09 ppb	19:00:36
3	Mn 257.610†	151555.7	145557.9	456.28 µg/L	456.28 ppb	19:00:30
3	Mo 202.031†	4263.1	4092.5	400.95 µg/L	400.95 ppb	19:00:57
3	Ni 231.604†	9465.5	8762.6	436.35 µg/L	436.35 ppb	19:00:36
3	P 214.914†	1103.2	1042.4	2021.3 µg/L	2021.3 ppb	19:00:57
3	Pb 220.353†	1887.4	1718.6	417.83 µg/L	417.83 ppb	19:00:57
3	S 181.975 Axial†	232.4	203.9	845.45 µg/L	845.45 ppb	19:00:57
3	Sb 206.836†	490.6	447.9	412.47 µg/L	412.47 ppb	19:00:57
3	Se 196.026†	335.5	302.3	432.38 µg/L	432.38 ppb	19:00:57
3	SiO2†	26801.6	24304.1	4797.3 µg/L	4797.3 ppb	19:00:36
3	Si 251.611†	31212.7	29614.1	2251.3 µg/L	2251.3 ppb	19:00:36
3	Sn 189.927†	987.7	946.6	399.24 µg/L	399.24 ppb	19:00:57
3	Ti 334.940†	208406.1	199631.3	441.31 µg/L	441.31 ppb	19:00:30
3	Tl 190.801†	322.4	331.5	435.96 µg/L	435.96 ppb	19:00:57
3	U 409.014†	5296.2	5154.8	427.29 µg/L	427.29 ppb	19:00:36
3	V 292.402†	45829.3	43982.9	433.72 µg/L	433.72 ppb	19:00:36
3	Zn 213.857†	20142.3	18776.7	437.38 µg/L	437.38 ppb	19:00:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2040436.8	103.94	%	0.327				0.31%
Sc RADIAL	58378.3	103	%	0.1				0.12%
Y 371.029	1400732.7	103.55	%	0.387				0.37%
Ag 328.068†	64598.0	481.97	µg/L	23.988	481.97	ppb	23.988	4.98%
QC value within limits for Ag 328.068 Recovery = 96.39%								
Al 396.153Radial†	7088.5	4921.5	µg/L	22.23	4921.5	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	265.1	474.24	µg/L	57.051	474.24	ppb	57.051	12.03%
QC value within limits for As 188.979 Recovery = 94.85%								
B 249.677†	11672.6	473.91	µg/L	27.477	473.91	ppb	27.477	5.80%
QC value within limits for B 249.677 Recovery = 94.78%								
Ba 233.527†	20037.7	481.91	µg/L	34.084	481.91	ppb	34.084	7.07%
QC value within limits for Ba 233.527 Recovery = 96.38%								
Be 313.107†	807791.4	479.25	µg/L	28.007	479.25	ppb	28.007	5.84%
QC value within limits for Be 313.107 Recovery = 95.85%								
Ca 317.933Radial†	5751.7	4913.0	µg/L	25.95	4913.0	ppb	25.95	0.53%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	19406.0	483.92	µg/L	35.100	483.92	ppb	35.100	7.25%
QC value within limits for Cd 226.502 Recovery = 96.78%								
Co 228.616†	10669.3	482.62	µg/L	38.414	482.62	ppb	38.414	7.96%

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   QC value within limits for Co 228.616  Recovery = 96.52%
Cr 267.716†            23776.0      477.85 µg/L        46.344      477.85 ppb         46.344   9.70%
   QC value within limits for Cr 267.716  Recovery = 95.57%
Cu 324.752†            72790.1      475.83 µg/L        37.014      475.83 ppb         37.014   7.78%
   QC value within limits for Cu 324.752  Recovery = 95.17%
Fe 238.204 Radial†       631.7      4992.8 µg/L         35.34      4992.8 ppb          35.34   0.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.86%
K 766.490 Radial†       7493.6      4894.2 µg/L         10.48      4894.2 ppb          10.48   0.21%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†          561.7      5023.6 µg/L         40.85      5023.6 ppb          40.85   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.47%
Mn 257.610†           155630.0      487.82 µg/L        27.316      487.82 ppb         27.316   5.60%
   QC value within limits for Mn 257.610  Recovery = 97.56%
Mo 202.031†             4802.1      470.44 µg/L        60.553      470.44 ppb         60.553  12.87%
   QC value within limits for Mo 202.031  Recovery = 94.09%
Na 589.592 Radial†     32252.9      9906.3 µg/L         47.92      9906.3 ppb          47.92   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 99.06%
Ni 231.604†             9665.7      481.32 µg/L        38.955      481.32 ppb         38.955   8.09%
   QC value within limits for Ni 231.604  Recovery = 96.26%
P 214.914†              1198.4      2326.9 µg/L        266.31      2326.9 ppb         266.31  11.44%
   QC value within limits for P 214.914  Recovery = 93.08%
Pb 220.353†             1953.1      474.92 µg/L        49.957      474.92 ppb         49.957  10.52%
   QC value within limits for Pb 220.353  Recovery = 94.98%
S 181.975 Axial†         229.5      951.68 µg/L        92.053      951.68 ppb         92.053   9.67%
   QC value within limits for S 181.975 Axial  Recovery = 95.17%
Sb 206.836†              516.2      475.74 µg/L        55.061      475.74 ppb         55.061  11.57%
   QC value within limits for Sb 206.836  Recovery = 95.15%
Se 196.026†              343.0      489.46 µg/L        49.737      489.46 ppb         49.737  10.16%
   QC value within limits for Se 196.026  Recovery = 97.89%
SiO2†                  26227.0      5176.9 µg/L        328.72      5176.9 ppb         328.72   6.35%
   QC value within limits for SiO2  Recovery = 96.81%
Si 251.611†            31921.2      2426.7 µg/L        151.93      2426.7 ppb         151.93   6.26%
   QC value within limits for Si 251.611  Recovery = 97.07%
Sn 189.927†             1120.5      472.56 µg/L        64.040      472.56 ppb         64.040  13.55%
   QC value within limits for Sn 189.927  Recovery = 94.51%
Sr 421.552†            52318.1      482.64 µg/L         1.480      482.64 ppb          1.480   0.31%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†           215507.9      476.43 µg/L        30.416      476.43 ppb         30.416   6.38%
   QC value within limits for Ti 334.940  Recovery = 95.29%
Tl 190.801†              367.3      482.84 µg/L        40.853      482.84 ppb         40.853   8.46%
   QC value within limits for Tl 190.801  Recovery = 96.57%
U 409.014†              5760.1      477.59 µg/L        43.602      477.59 ppb         43.602   9.13%
   QC value within limits for U 409.014  Recovery = 95.52%
V 292.402†             48828.8      481.66 µg/L        41.521      481.66 ppb         41.521   8.62%
   QC value within limits for V 292.402  Recovery = 96.33%
Zn 213.857†            20659.1      481.28 µg/L        38.019      481.28 ppb         38.019   7.90%
   QC value within limits for Zn 213.857  Recovery = 96.26%
All analyte(s) passed QC.
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Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:01:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57423.2	57423.2	102	%			19:01:39
1	Al 396.153Radial†	-18.9	-25.9	-18.036	µg/L	-18.036	ppb	19:01:39
1	Ca 317.933Radial†	194.6	-19.8	-16.907	µg/L	-16.907	ppb	19:02:00
1	Fe 238.204 Radial†	20.3	3.4	26.844	µg/L	26.844	ppb	19:02:00
1	K 766.490 Radial†	169.3	1.6	1.0514	µg/L	1.0514	ppb	19:01:39
1	Mg 279.077 IEC†	10.7	-2.3	-20.795	µg/L	-20.795	ppb	19:02:00
1	Na 589.592 Radial†	537.1	56.3	17.279	µg/L	17.279	ppb	19:01:39
1	Sr 421.552†	21.5	-7.7	-0.0709	µg/L	-0.0709	ppb	19:01:39
1	Sc 361.383	2013251.1	2013251.1	102.55	%			19:03:02
1	Y 371.029	1385844.0	1385844.0	102.45	%			19:03:02
1	Ag 328.068†	-425.6	-13.4	-0.0944	µg/L	-0.0944	ppb	19:03:07
1	As 188.979†	1.0	1.5	2.6013	µg/L	2.6013	ppb	19:03:28
1	B 249.677†	361.7	-31.5	-1.2963	µg/L	-1.2963	ppb	19:03:28
1	Ba 233.527†	-6.9	10.3	0.2492	µg/L	0.2492	ppb	19:03:28
1	Be 313.107†	-2769.2	155.5	0.0922	µg/L	0.0922	ppb	19:03:07
1	Cd 226.502†	-136.0	9.0	0.2223	µg/L	0.2223	ppb	19:03:28
1	Co 228.616†	7.0	4.9	0.2213	µg/L	0.2213	ppb	19:03:28
1	Cr 267.716†	-45.7	5.9	0.1181	µg/L	0.1181	ppb	19:03:07
1	Cu 324.752†	2554.2	-53.2	-0.3432	µg/L	-0.3432	ppb	19:03:07
1	Mn 257.610†	-168.0	92.2	0.2930	µg/L	0.2930	ppb	19:03:28
1	Mo 202.031†	-4.8	0.6	0.0615	µg/L	0.0615	ppb	19:03:28
1	Ni 231.604†	318.0	-2.3	-0.1132	µg/L	-0.1132	ppb	19:03:28
1	P 214.914†	14.8	-0.9	-1.7488	µg/L	-1.7488	ppb	19:03:28
1	Pb 220.353†	84.3	-8.7	-2.1358	µg/L	-2.1358	ppb	19:03:28
1	S 181.975 Axial†	16.4	-2.9	-12.184	µg/L	-12.184	ppb	19:03:28
1	Sb 206.836†	29.7	6.4	5.9047	µg/L	5.9047	ppb	19:03:28
1	Se 196.026†	21.6	1.7	2.5321	µg/L	2.5321	ppb	19:03:28
1	SiO2†	1445.6	18.1	3.5679	µg/L	3.5679	ppb	19:03:07
1	Si 251.611†	358.6	39.1	2.9715	µg/L	2.9715	ppb	19:03:28
1	Sn 189.927†	6.5	5.9	2.5018	µg/L	2.5018	ppb	19:03:28
1	Ti 334.940†	319.2	136.2	0.3026	µg/L	0.3026	ppb	19:03:07
1	Tl 190.801†	-23.1	-0.1	-0.1533	µg/L	-0.1533	ppb	19:03:28
1	U 409.014†	95.4	170.1	14.129	µg/L	14.129	ppb	19:03:07
1	V 292.402†	4.5	49.1	0.4975	µg/L	0.4975	ppb	19:03:07
1	Zn 213.857†	525.8	-21.7	-0.5072	µg/L	-0.5072	ppb	19:03:28
2	Sc RADIAL	57351.0	57351.0	102	%			19:02:05
2	Al 396.153Radial†	0.6	-6.8	-4.7217	µg/L	-4.7217	ppb	19:02:05
2	Ca 317.933Radial†	191.9	-22.2	-18.945	µg/L	-18.945	ppb	19:02:26
2	Fe 238.204 Radial†	16.4	-0.4	-2.9277	µg/L	-2.9277	ppb	19:02:26
2	K 766.490 Radial†	226.8	58.4	38.151	µg/L	38.151	ppb	19:02:05
2	Mg 279.077 IEC†	4.7	-8.2	-72.904	µg/L	-72.904	ppb	19:02:26
2	Na 589.592 Radial†	474.9	-4.4	-1.3380	µg/L	-1.3380	ppb	19:02:05
2	Sr 421.552†	49.2	19.7	0.1813	µg/L	0.1813	ppb	19:02:05
2	Sc 361.383	2012182.2	2012182.2	102.50	%			19:03:34
2	Y 371.029	1385686.0	1385686.0	102.43	%			19:03:34
2	Ag 328.068†	-448.4	-35.9	-0.2659	µg/L	-0.2659	ppb	19:03:39
2	As 188.979†	-1.5	-1.0	-1.7378	µg/L	-1.7378	ppb	19:04:00
2	B 249.677†	352.5	-40.3	-1.6393	µg/L	-1.6393	ppb	19:04:00
2	Ba 233.527†	-10.2	7.1	0.1714	µg/L	0.1714	ppb	19:04:00
2	Be 313.107†	-2906.5	20.0	0.0117	µg/L	0.0117	ppb	19:03:39
2	Cd 226.502†	-139.6	5.4	0.1354	µg/L	0.1354	ppb	19:04:00
2	Co 228.616†	8.8	6.6	0.3005	µg/L	0.3005	ppb	19:04:00
2	Cr 267.716†	-48.8	2.8	0.0565	µg/L	0.0565	ppb	19:03:39
2	Cu 324.752†	2585.7	-21.1	-0.1382	µg/L	-0.1382	ppb	19:03:39
2	Mn 257.610†	-165.3	94.7	0.2992	µg/L	0.2992	ppb	19:04:00
2	Mo 202.031†	-0.6	4.7	0.4624	µg/L	0.4624	ppb	19:04:00
2	Ni 231.604†	304.3	-15.4	-0.7700	µg/L	-0.7700	ppb	19:04:00
2	P 214.914†	20.3	4.4	8.7926	µg/L	8.7926	ppb	19:04:00
2	Pb 220.353†	93.2	-0.0	-0.0043	µg/L	-0.0043	ppb	19:04:00

2	S 181.975 Axial†	10.8	-8.4	-34.884 µg/L	-34.884 ppb		19:04:00
2	Sb 206.836†	19.1	-3.9	-3.5666 µg/L	-3.5666 ppb		19:04:00
2	Se 196.026†	15.1	-4.6	-6.4360 µg/L	-6.4360 ppb		19:04:00
2	SiO2†	1460.9	33.7	6.6594 µg/L	6.6594 ppb		19:03:39
2	Si 251.611†	358.4	39.0	2.9639 µg/L	2.9639 ppb		19:04:00
2	Sn 189.927†	4.7	4.2	1.7676 µg/L	1.7676 ppb		19:04:00
2	Ti 334.940†	408.1	223.1	0.4990 µg/L	0.4990 ppb		19:03:39
2	Tl 190.801†	-23.8	-0.9	-1.1422 µg/L	-1.1422 ppb		19:04:00
2	U 409.014†	-63.7	15.0	1.2443 µg/L	1.2443 ppb		19:03:39
2	V 292.402†	-44.3	1.5	0.0193 µg/L	0.0193 ppb		19:03:39
2	Zn 213.857†	528.3	-19.0	-0.4374 µg/L	-0.4374 ppb		19:04:00
3	Sc RADIAL	57190.0	57190.0	101 %			19:02:31
3	Al 396.153Radial†	-22.6	-29.7	-20.673 µg/L	-20.673 ppb		19:02:31
3	Ca 317.933Radial†	189.8	-23.8	-20.291 µg/L	-20.291 ppb		19:02:51
3	Fe 238.204 Radial†	18.6	1.8	13.987 µg/L	13.987 ppb		19:02:51
3	K 766.490 Radial†	197.7	30.3	19.782 µg/L	19.782 ppb		19:02:31
3	Mg 279.077 IEC†	10.1	-2.9	-25.784 µg/L	-25.784 ppb		19:02:51
3	Na 589.592 Radial†	485.7	7.6	2.3466 µg/L	2.3466 ppb		19:02:31
3	Sr 421.552†	55.0	25.5	0.2351 µg/L	0.2351 ppb		19:02:31
3	Sc 361.383	2000057.1	2000057.1	101.88 %			19:04:06
3	Y 371.029	1377155.5	1377155.5	101.80 %			19:04:06
3	Ag 328.068†	-451.3	-41.4	-0.3043 µg/L	-0.3043 ppb		19:04:11
3	As 188.979†	5.3	5.6	10.113 µg/L	10.113 ppb		19:04:32
3	B 249.677†	349.5	-41.1	-1.6816 µg/L	-1.6816 ppb		19:04:32
3	Ba 233.527†	-13.8	3.6	0.0860 µg/L	0.0860 ppb		19:04:32
3	Be 313.107†	-2997.1	-86.1	-0.0512 µg/L	-0.0512 ppb		19:04:11
3	Cd 226.502†	-137.9	6.3	0.1551 µg/L	0.1551 ppb		19:04:32
3	Co 228.616†	6.6	4.6	0.2062 µg/L	0.2062 ppb		19:04:32
3	Cr 267.716†	-22.6	28.2	0.5656 µg/L	0.5656 ppb		19:04:11
3	Cu 324.752†	2587.8	-3.8	-0.0226 µg/L	-0.0226 ppb		19:04:11
3	Mn 257.610†	-159.2	99.8	0.3153 µg/L	0.3153 ppb		19:04:32
3	Mo 202.031†	2.5	7.8	0.7608 µg/L	0.7608 ppb		19:04:32
3	Ni 231.604†	316.7	-1.4	-0.0722 µg/L	-0.0722 ppb		19:04:32
3	P 214.914†	14.3	-1.3	-2.5898 µg/L	-2.5898 ppb		19:04:32
3	Pb 220.353†	83.5	-8.9	-2.1741 µg/L	-2.1741 ppb		19:04:32
3	S 181.975 Axial†	16.2	-3.0	-12.393 µg/L	-12.393 ppb		19:04:32
3	Sb 206.836†	23.0	0.1	0.0887 µg/L	0.0887 ppb		19:04:32
3	Se 196.026†	9.9	-9.6	-13.418 µg/L	-13.418 ppb		19:04:32
3	SiO2†	1462.5	43.9	8.6651 µg/L	8.6651 ppb		19:04:11
3	Si 251.611†	360.6	43.4	3.2962 µg/L	3.2962 ppb		19:04:32
3	Sn 189.927†	6.4	5.9	2.4731 µg/L	2.4731 ppb		19:04:32
3	Ti 334.940†	309.8	129.0	0.2871 µg/L	0.2871 ppb		19:04:11
3	Tl 190.801†	-25.4	-2.6	-3.3285 µg/L	-3.3285 ppb		19:04:32
3	U 409.014†	-45.5	32.4	2.6931 µg/L	2.6931 ppb		19:04:11
3	V 292.402†	-23.1	22.0	0.2263 µg/L	0.2263 ppb		19:04:11
3	Zn 213.857†	527.6	-16.5	-0.3862 µg/L	-0.3862 ppb		19:04:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2008496.8	102.31	%	0.373				0.36%
Sc RADIAL	57321.4	101	%	0.2				0.21%
Y 371.029	1382895.2	102.23	%	0.367				0.36%
Ag 328.068†	-30.2	-0.2215	µg/L	0.11176	-0.2215	ppb	0.11176	50.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-20.8	-14.477	µg/L	8.5505	-14.477	ppb	8.5505	59.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	3.6588	µg/L	5.99568	3.6588	ppb	5.99568	163.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.6	-1.5391	µg/L	0.21127	-1.5391	ppb	0.21127	13.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.1689	µg/L	0.08165	0.1689	ppb	0.08165	48.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	29.8	0.0176	µg/L	0.07185	0.0176	ppb	0.07185	409.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-21.9	-18.714	µg/L	1.7037	-18.714	ppb	1.7037	9.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1709	µg/L	0.04557	0.1709	ppb	0.04557	26.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.2427	µg/L	0.05064	0.2427	ppb	0.05064	20.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.3      0.2467 µg/L       0.27783      0.2467 ppb        0.27783 112.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -26.0     -0.1680 µg/L       0.16236     -0.1680 ppb        0.16236  96.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.6      12.634 µg/L       14.9319      12.634 ppb        14.9319 118.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          30.1      19.662 µg/L       18.5502      19.662 ppb        18.5502  94.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.5     -39.828 µg/L       28.7536     -39.828 ppb        28.7536  72.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                95.6      0.3025 µg/L       0.01153      0.3025 ppb        0.01153   3.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.4      0.4283 µg/L       0.35090      0.4283 ppb        0.35090  81.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         19.8      6.0958 µg/L       9.85836      6.0958 ppb        9.85836 161.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.4     -0.3185 µg/L       0.39156     -0.3185 ppb        0.39156 122.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.7      1.4847 µg/L       6.34276      1.4847 ppb        6.34276 427.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9     -1.4381 µg/L       1.24182     -1.4381 ppb        1.24182  86.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.8     -19.820 µg/L       13.0459     -19.820 ppb        13.0459  65.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.9      0.8090 µg/L       4.77653      0.8090 ppb        4.77653 590.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.2     -5.7739 µg/L       7.99551     -5.7739 ppb        7.99551 138.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      31.9      6.2974 µg/L       2.56780      6.2974 ppb        2.56780  40.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                40.5      3.0772 µg/L       0.18971      3.0772 ppb        0.18971   6.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      2.2475 µg/L       0.41585      2.2475 ppb        0.41585  18.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.5      0.1152 µg/L       0.16339      0.1152 ppb        0.16339 141.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               162.8      0.3629 µg/L       0.11813      0.3629 ppb        0.11813  32.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.5413 µg/L       1.62481     -1.5413 ppb        1.62481 105.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 72.5      6.0222 µg/L       7.05819      6.0222 ppb        7.05819 117.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 24.2      0.2477 µg/L       0.23982      0.2477 ppb        0.23982  96.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -19.1     -0.4436 µg/L       0.06072     -0.4436 ppb        0.06072  13.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: 245688009|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 321
Date Collected: 2/19/2010 19:04:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688009|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57447.0	57447.0	102	%			19:05:20
1	Al 396.153Radial†	82286.8	80916.7	56290	µg/L	56290	ppb	19:05:20
1	Ca 317.933Radial†	18635.2	18115.3	15474	µg/L	15474	ppb	19:05:20
1	Fe 238.204 Radial†	12110.6	11893.5	93804	µg/L	93804	ppb	19:05:40
1	K 766.490 Radial†	12867.8	12489.7	8157.2	µg/L	8157.2	ppb	19:05:20
1	Mg 279.077 IEC†	1251.1	1217.6	10783	µg/L	10783	ppb	19:05:40
1	Na 589.592 Radial†	2556.8	2042.3	627.28	µg/L	627.28	ppb	19:05:20
1	Sr 421.552†	14778.7	14505.1	133.81	µg/L	133.81	ppb	19:05:20
1	Sc 361.383	2015604.9	2015604.9	102.67	%			19:06:44
1	Y 371.029	1412732.1	1412732.1	104.43	%			19:06:44
1	Ag 328.068†	-1106.9	-676.5	1.9726	µg/L	1.9726	ppb	19:06:50
1	As 188.979†	16.2	16.2	33.716	µg/L	33.716	ppb	19:07:10
1	B 249.677†	1201.0	785.6	-16.614	µg/L	-16.614	ppb	19:06:50
1	Ba 233.527†	30227.7	29457.7	707.49	µg/L	707.49	ppb	19:06:50
1	Be 313.107†	49248.0	50821.3	29.319	µg/L	29.319	ppb	19:06:50
1	Cd 226.502†	227.1	362.9	-1.4346	µg/L	-1.4346	ppb	19:07:10
1	Co 228.616†	862.8	838.4	33.351	µg/L	33.351	ppb	19:07:10
1	Cr 267.716†	9981.2	9771.6	196.37	µg/L	196.37	ppb	19:06:50
1	Cu 324.752†	669780.7	649796.3	4254.6	µg/L	4254.6	ppb	19:06:44
1	Mn 257.610†	549218.1	535172.8	1687.9	µg/L	1687.9	ppb	19:06:44
1	Mo 202.031†	25.5	30.2	6.5209	µg/L	6.5209	ppb	19:07:10
1	Ni 231.604†	2680.3	2298.2	115.74	µg/L	115.74	ppb	19:07:10
1	P 214.914†	458.4	431.1	345.99	µg/L	345.99	ppb	19:07:10
1	Pb 220.353†	12762.9	12339.7	2990.8	µg/L	2990.8	ppb	19:06:50
1	S 181.975 Axial†	86.7	65.5	271.60	µg/L	271.60	ppb	19:07:10
1	Sb 206.836†	66.8	42.6	35.556	µg/L	35.556	ppb	19:07:10
1	Se 196.026†	-29.5	-48.1	174.92	µg/L	174.92	ppb	19:07:10
1	SiO2†	115525.6	111125.9	21935	µg/L	21935	ppb	19:06:50
1	Si 251.611†	140532.1	136562.1	10382	µg/L	10382	ppb	19:06:44
1	Sn 189.927†	43.9	42.3	9.0546	µg/L	9.0546	ppb	19:07:10
1	Ti 334.940†	1027387.8	1000460.2	2212.6	µg/L	2212.6	ppb	19:06:44
1	Tl 190.801†	-49.8	-26.1	9.9552	µg/L	9.9552	ppb	19:07:10
1	U 409.014†	15019.5	14705.5	1207.8	µg/L	1207.8	ppb	19:06:50
1	V 292.402†	17108.3	16707.5	175.60	µg/L	175.60	ppb	19:06:50
1	Zn 213.857†	30705.6	29371.6	676.69	µg/L	676.69	ppb	19:06:50
2	Sc RADIAL	57626.0	57626.0	102	%			19:05:46
2	Al 396.153Radial†	82651.2	81022.6	56364	µg/L	56364	ppb	19:05:46
2	Ca 317.933Radial†	18633.7	18057.0	15424	µg/L	15424	ppb	19:05:46
2	Fe 238.204 Radial†	12117.0	11862.7	93561	µg/L	93561	ppb	19:06:06
2	K 766.490 Radial†	12955.9	12536.8	8188.0	µg/L	8188.0	ppb	19:05:46
2	Mg 279.077 IEC†	1261.7	1224.2	10843	µg/L	10843	ppb	19:06:06
2	Na 589.592 Radial†	2592.0	2069.0	635.47	µg/L	635.47	ppb	19:05:46
2	Sr 421.552†	14770.9	14452.4	133.33	µg/L	133.33	ppb	19:05:46
2	Sc 361.383	1980151.1	1980151.1	100.87	%			19:07:18
2	Y 371.029	1388029.7	1388029.7	102.61	%			19:07:18
2	Ag 328.068†	-1166.2	-754.5	1.3990	µg/L	1.3990	ppb	19:07:23
2	As 188.979†	20.5	20.8	41.912	µg/L	41.912	ppb	19:07:44
2	B 249.677†	1183.1	788.8	-16.352	µg/L	-16.352	ppb	19:07:23
2	Ba 233.527†	30242.3	29999.3	720.50	µg/L	720.50	ppb	19:07:23
2	Be 313.107†	49213.5	51645.9	29.796	µg/L	29.796	ppb	19:07:23
2	Cd 226.502†	222.2	361.9	-1.4289	µg/L	-1.4289	ppb	19:07:44
2	Co 228.616†	855.0	845.7	33.614	µg/L	33.614	ppb	19:07:44
2	Cr 267.716†	10006.5	9970.8	200.37	µg/L	200.37	ppb	19:07:23
2	Cu 324.752†	668105.5	659815.4	4319.9	µg/L	4319.9	ppb	19:07:18
2	Mn 257.610†	547260.9	542810.0	1711.8	µg/L	1711.8	ppb	19:07:18
2	Mo 202.031†	19.0	24.2	5.9233	µg/L	5.9233	ppb	19:07:44
2	Ni 231.604†	2665.6	2330.4	117.34	µg/L	117.34	ppb	19:07:44
2	P 214.914†	456.4	437.1	351.16	µg/L	351.16	ppb	19:07:44
2	Pb 220.353†	12788.0	12587.1	3050.8	µg/L	3050.8	ppb	19:07:23

2	S 181.975 Axial†	87.2	67.6	280.14	µg/L	280.14 ppb	19:07:44
2	Sb 206.836†	67.4	44.3	37.077	µg/L	37.077 ppb	19:07:44
2	Se 196.026†	-42.3	-61.2	155.73	µg/L	155.73 ppb	19:07:44
2	SiO2†	115630.5	113244.4	22353	µg/L	22353 ppb	19:07:23
2	Si 251.611†	139720.3	138207.9	10507	µg/L	10507 ppb	19:07:18
2	Sn 189.927†	36.3	35.6	6.2362	µg/L	6.2362 ppb	19:07:44
2	Ti 334.940†	1024268.0	1015283.2	2245.4	µg/L	2245.4 ppb	19:07:18
2	Tl 190.801†	-54.6	-31.7	3.0708	µg/L	3.0708 ppb	19:07:44
2	U 409.014†	15144.4	15091.2	1239.9	µg/L	1239.9 ppb	19:07:23
2	V 292.402†	17116.2	17013.7	178.60	µg/L	178.60 ppb	19:07:23
2	Zn 213.857†	30784.1	29984.9	690.97	µg/L	690.97 ppb	19:07:23
3	Sc RADIAL	57830.6	57830.6	102	%		19:06:11
3	Al 396.153Radial†	82504.8	80592.9	56065	µg/L	56065 ppb	19:06:11
3	Ca 317.933Radial†	18634.7	17993.3	15369	µg/L	15369 ppb	19:06:11
3	Fe 238.204 Radial†	12065.5	11770.5	92833	µg/L	92833 ppb	19:06:32
3	K 766.490 Radial†	12921.0	12457.8	8136.4	µg/L	8136.4 ppb	19:06:11
3	Mg 279.077 IEC†	1257.2	1215.4	10765	µg/L	10765 ppb	19:06:32
3	Na 589.592 Radial†	2540.8	2010.0	617.35	µg/L	617.35 ppb	19:06:11
3	Sr 421.552†	14779.0	14409.0	132.93	µg/L	132.93 ppb	19:06:11
3	Sc 361.383	1985522.6	1985522.6	101.14	%		19:07:51
3	Y 371.029	1390115.4	1390115.4	102.76	%		19:07:51
3	Ag 328.068†	-1121.2	-706.9	1.6380	µg/L	1.6380 ppb	19:07:56
3	As 188.979†	16.2	16.4	34.041	µg/L	34.041 ppb	19:08:17
3	B 249.677†	1152.3	755.1	-17.365	µg/L	-17.365 ppb	19:07:56
3	Ba 233.527†	28745.0	28437.7	682.99	µg/L	682.99 ppb	19:07:56
3	Be 313.107†	46109.2	48444.6	27.933	µg/L	27.933 ppb	19:07:56
3	Cd 226.502†	179.1	318.8	-2.4339	µg/L	-2.4339 ppb	19:08:17
3	Co 228.616†	785.3	774.5	30.591	µg/L	30.591 ppb	19:08:17
3	Cr 267.716†	9353.8	9298.6	186.86	µg/L	186.86 ppb	19:07:56
3	Cu 324.752†	645464.1	635637.5	4162.0	µg/L	4162.0 ppb	19:07:51
3	Mn 257.610†	527010.5	521320.3	1644.4	µg/L	1644.4 ppb	19:07:51
3	Mo 202.031†	20.2	25.3	6.0044	µg/L	6.0044 ppb	19:08:17
3	Ni 231.604†	2445.2	2105.3	106.11	µg/L	106.11 ppb	19:08:17
3	P 214.914†	422.2	402.1	298.97	µg/L	298.97 ppb	19:08:17
3	Pb 220.353†	12300.7	12070.9	2925.7	µg/L	2925.7 ppb	19:07:56
3	S 181.975 Axial†	87.5	67.6	280.34	µg/L	280.34 ppb	19:08:17
3	Sb 206.836†	66.2	42.9	36.002	µg/L	36.002 ppb	19:08:17
3	Se 196.026†	-29.7	-48.6	171.50	µg/L	171.50 ppb	19:08:17
3	SiO2†	109938.4	107306.4	21181	µg/L	21181 ppb	19:07:56
3	Si 251.611†	135363.0	133525.0	10151	µg/L	10151 ppb	19:07:51
3	Sn 189.927†	44.1	43.3	9.5455	µg/L	9.5455 ppb	19:08:17
3	Ti 334.940†	983140.0	971872.2	2149.4	µg/L	2149.4 ppb	19:07:51
3	Tl 190.801†	-48.5	-25.5	9.8066	µg/L	9.8066 ppb	19:08:17
3	U 409.014†	14222.7	14139.3	1160.9	µg/L	1160.9 ppb	19:07:56
3	V 292.402†	16093.3	15956.5	168.10	µg/L	168.10 ppb	19:07:56
3	Zn 213.857†	29320.9	28455.7	655.44	µg/L	655.44 ppb	19:07:56

Mean Data: 245688009|954751|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1993759.5	101.56	%	0.973				0.96%
Sc RADIAL	57634.5	102	%	0.3				0.33%
Y 371.029	1396959.1	103.27	%	1.013				0.98%
Ag 328.068†	-712.6	1.6699	µg/L	0.28813	1.6699	ppb	0.28813	17.25%
Al 396.153Radial†	80844.1	56239	µg/L	155.7	56239	ppb	155.7	0.28%
As 188.979†	17.8	36.556	µg/L	4.6408	36.556	ppb	4.6408	12.69%
B 249.677†	776.5	-16.777	µg/L	0.5257	-16.777	ppb	0.5257	3.13%
Ba 233.527†	29298.2	703.66	µg/L	19.044	703.66	ppb	19.044	2.71%
Be 313.107†	50304.0	29.016	µg/L	0.9680	29.016	ppb	0.9680	3.34%
Ca 317.933Radial†	18055.2	15422	µg/L	52.2	15422	ppb	52.2	0.34%
Cd 226.502†	347.9	-1.7658	µg/L	0.57859	-1.7658	ppb	0.57859	32.77%
Co 228.616†	819.5	32.519	µg/L	1.6747	32.519	ppb	1.6747	5.15%
Cr 267.716†	9680.4	194.53	µg/L	6.938	194.53	ppb	6.938	3.57%
Cu 324.752†	648416.4	4245.5	µg/L	79.35	4245.5	ppb	79.35	1.87%
Fe 238.204 Radial†	11842.2	93399	µg/L	505.0	93399	ppb	505.0	0.54%
K 766.490 Radial†	12494.8	8160.5	µg/L	25.94	8160.5	ppb	25.94	0.32%
Mg 279.077 IEC†	1219.0	10797	µg/L	40.6	10797	ppb	40.6	0.38%
Mn 257.610†	533101.0	1681.4	µg/L	34.17	1681.4	ppb	34.17	2.03%
Mo 202.031†	26.6	6.1495	µg/L	0.32417	6.1495	ppb	0.32417	5.27%
Na 589.592 Radial†	2040.4	626.70	µg/L	9.073	626.70	ppb	9.073	1.45%

Ni 231.604†	2244.6	113.06	µg/L	6.072	113.06	ppb	6.072	5.37%
P 214.914†	423.4	332.04	µg/L	28.759	332.04	ppb	28.759	8.66%
Pb 220.353†	12332.6	2989.1	µg/L	62.58	2989.1	ppb	62.58	2.09%
S 181.975 Axial†	66.9	277.36	µg/L	4.990	277.36	ppb	4.990	1.80%
Sb 206.836†	43.3	36.212	µg/L	0.7819	36.212	ppb	0.7819	2.16%
Se 196.026†	-52.6	167.39	µg/L	10.235	167.39	ppb	10.235	6.11%
SiO2†	110558.9	21823	µg/L	594.0	21823	ppb	594.0	2.72%
Si 251.611†	136098.4	10346	µg/L	180.6	10346	ppb	180.6	1.75%
Sn 189.927†	40.4	8.2788	µg/L	1.78584	8.2788	ppb	1.78584	21.57%
Sr 421.552†	14455.5	133.35	µg/L	0.444	133.35	ppb	0.444	0.33%
Ti 334.940†	995871.9	2202.5	µg/L	48.81	2202.5	ppb	48.81	2.22%
Tl 190.801†	-27.8	7.6109	µg/L	3.93253	7.6109	ppb	3.93253	51.67%
U 409.014†	14645.3	1202.9	µg/L	39.72	1202.9	ppb	39.72	3.30%
V 292.402†	16559.3	174.10	µg/L	5.410	174.10	ppb	5.410	3.11%
Zn 213.857†	29270.8	674.37	µg/L	17.881	674.37	ppb	17.881	2.65%

Sequence No.: 28
Sample ID: 245688010|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 322
Date Collected: 2/19/2010 19:08:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688010|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57698.6	57698.6	102	%			19:08:59
1	Al 396.153Radial†	85825.6	84028.9	58455	µg/L	58455	ppb	19:08:59
1	Ca 317.933Radial†	25364.6	24624.5	21034	µg/L	21034	ppb	19:09:20
1	Fe 238.204 Radial†	14757.2	14432.9	113830	µg/L	113830	ppb	19:09:20
1	K 766.490 Radial†	14700.2	14228.8	9293.0	µg/L	9293.0	ppb	19:08:59
1	Mg 279.077 IEC†	1533.9	1489.1	13189	µg/L	13189	ppb	19:09:20
1	Na 589.592 Radial†	10323.5	9636.0	2959.6	µg/L	2959.6	ppb	19:09:20
1	Sr 421.552†	21695.3	21214.2	195.70	µg/L	195.70	ppb	19:08:59
1	Sc 361.383	2006141.9	2006141.9	102.19	%			19:10:24
1	Y 371.029	1464333.0	1464333.0	108.25	%			19:10:24
1	Ag 328.068†	-1862.9	-1421.4	-2.5141	µg/L	-2.5141	ppb	19:10:29
1	As 188.979†	7.9	8.2	20.180	µg/L	20.180	ppb	19:10:50
1	B 249.677†	1035.2	628.9	-33.234	µg/L	-33.234	ppb	19:10:29
1	Ba 233.527†	37896.3	37100.6	890.91	µg/L	890.91	ppb	19:10:29
1	Be 313.107†	13756.5	16317.2	8.7817	µg/L	8.7817	ppb	19:10:29
1	Cd 226.502†	255.5	391.7	-2.9110	µg/L	-2.9110	ppb	19:10:50
1	Co 228.616†	1087.3	1062.0	43.158	µg/L	43.158	ppb	19:10:50
1	Cr 267.716†	16831.8	16521.3	331.91	µg/L	331.91	ppb	19:10:29
1	Cu 324.752†	7876.9	5164.2	49.532	µg/L	49.532	ppb	19:10:29
1	Mn 257.610†	1026218.0	1004466.6	3160.1	µg/L	3160.1	ppb	19:10:24
1	Mo 202.031†	57.5	61.6	10.355	µg/L	10.355	ppb	19:10:50
1	Ni 231.604†	4085.5	3685.6	185.15	µg/L	185.15	ppb	19:10:50
1	P 214.914†	295.3	273.7	462.72	µg/L	462.72	ppb	19:10:50
1	Pb 220.353†	495.4	393.8	94.755	µg/L	94.755	ppb	19:10:50
1	S 181.975 Axial†	132.7	110.9	460.08	µg/L	460.08	ppb	19:10:50
1	Sb 206.836†	35.5	12.3	5.7586	µg/L	5.7586	ppb	19:10:50
1	Se 196.026†	-46.0	-64.3	203.14	µg/L	203.14	ppb	19:10:50
1	SiO2†	109609.5	105867.3	20897	µg/L	20897	ppb	19:10:29
1	Si 251.611†	131828.0	128690.3	9783.3	µg/L	9783.3	ppb	19:10:29
1	Sn 189.927†	9.2	8.6	-7.0371	µg/L	-7.0371	ppb	19:10:50
1	Ti 334.940†	1094563.7	1070915.6	2368.4	µg/L	2368.4	ppb	19:10:24
1	Tl 190.801†	-54.0	-30.5	12.462	µg/L	12.462	ppb	19:10:50
1	U 409.014†	-2062.2	-1940.9	-178.36	µg/L	-178.36	ppb	19:10:24
1	V 292.402†	13360.3	13118.5	141.88	µg/L	141.88	ppb	19:10:29
1	Zn 213.857†	11206.1	10431.3	237.71	µg/L	237.71	ppb	19:10:29
2	Sc RADIAL	57394.9	57394.9	102	%			19:09:25
2	Al 396.153Radial†	85529.5	84182.0	58561	µg/L	58561	ppb	19:09:25
2	Ca 317.933Radial†	25176.1	24570.3	20987	µg/L	20987	ppb	19:09:46
2	Fe 238.204 Radial†	14607.1	14361.6	113270	µg/L	113270	ppb	19:09:46
2	K 766.490 Radial†	14653.4	14258.9	9312.7	µg/L	9312.7	ppb	19:09:25
2	Mg 279.077 IEC†	1530.3	1493.5	13229	µg/L	13229	ppb	19:09:46
2	Na 589.592 Radial†	10227.8	9595.4	2947.2	µg/L	2947.2	ppb	19:09:46
2	Sr 421.552†	21629.1	21261.4	196.14	µg/L	196.14	ppb	19:09:25
2	Sc 361.383	2009298.5	2009298.5	102.35	%			19:10:57
2	Y 371.029	1467598.0	1467598.0	108.49	%			19:10:57
2	Ag 328.068†	-1871.0	-1426.4	-2.5819	µg/L	-2.5819	ppb	19:11:03
2	As 188.979†	17.8	17.8	37.418	µg/L	37.418	ppb	19:11:23
2	B 249.677†	988.4	581.6	-34.870	µg/L	-34.870	ppb	19:11:03
2	Ba 233.527†	38027.6	37170.7	892.60	µg/L	892.60	ppb	19:11:03
2	Be 313.107†	13787.2	16326.0	8.7829	µg/L	8.7829	ppb	19:11:03
2	Cd 226.502†	239.9	376.0	-3.2399	µg/L	-3.2399	ppb	19:11:23
2	Co 228.616†	1073.2	1046.6	42.438	µg/L	42.438	ppb	19:11:23
2	Cr 267.716†	16891.4	16553.6	332.56	µg/L	332.56	ppb	19:11:03
2	Cu 324.752†	7946.9	5220.5	49.821	µg/L	49.821	ppb	19:11:03
2	Mn 257.610†	1033136.5	1009648.4	3176.3	µg/L	3176.3	ppb	19:10:57
2	Mo 202.031†	55.5	59.5	10.134	µg/L	10.134	ppb	19:11:23
2	Ni 231.604†	4031.1	3626.1	182.18	µg/L	182.18	ppb	19:11:23
2	P 214.914†	307.9	285.5	486.58	µg/L	486.58	ppb	19:11:23
2	Pb 220.353†	503.8	401.2	96.585	µg/L	96.585	ppb	19:11:23

2	S 181.975 Axial†	132.8	110.8	459.48	µg/L	459.48 ppb	19:11:23
2	Sb 206.836†	40.1	16.6	9.7824	µg/L	9.7824 ppb	19:11:23
2	Se 196.026†	-62.0	-79.9	179.74	µg/L	179.74 ppb	19:11:23
2	SiO2†	110366.8	106438.7	21010	µg/L	21010 ppb	19:11:03
2	Si 251.611†	132665.8	129306.2	9830.1	µg/L	9830.1 ppb	19:11:03
2	Sn 189.927†	-1.6	-2.0	-11.446	µg/L	-11.446 ppb	19:11:23
2	Ti 334.940†	1101240.8	1075756.5	2379.1	µg/L	2379.1 ppb	19:10:57
2	Tl 190.801†	-51.2	-27.6	16.258	µg/L	16.258 ppb	19:11:23
2	U 409.014†	-2136.3	-2010.1	-184.04	µg/L	-184.04 ppb	19:10:57
2	V 292.402†	13456.2	13191.7	142.53	µg/L	142.53 ppb	19:11:03
2	Zn 213.857†	11286.9	10493.1	239.19	µg/L	239.19 ppb	19:11:03
3	Sc RADIAL	57733.4	57733.4	102	%		19:09:51
3	Al 396.153Radial†	85376.1	83538.3	58114	µg/L	58114 ppb	19:09:51
3	Ca 317.933Radial†	25106.8	24357.2	20805	µg/L	20805 ppb	19:10:12
3	Fe 238.204 Radial†	14563.8	14234.9	112270	µg/L	112270 ppb	19:10:12
3	K 766.490 Radial†	14691.8	14211.8	9282.0	µg/L	9282.0 ppb	19:09:51
3	Mg 279.077 IEC†	1519.0	1473.6	13052	µg/L	13052 ppb	19:10:12
3	Na 589.592 Radial†	10234.3	9542.7	2931.0	µg/L	2931.0 ppb	19:10:12
3	Sr 421.552†	21610.7	21118.5	194.82	µg/L	194.82 ppb	19:09:51
3	Sc 361.383	1999822.7	1999822.7	101.87	%		19:11:31
3	Y 371.029	1456103.4	1456103.4	107.64	%		19:11:31
3	Ag 328.068†	-1759.0	-1325.1	-1.9486	µg/L	-1.9486 ppb	19:11:36
3	As 188.979†	13.6	13.8	30.129	µg/L	30.129 ppb	19:11:57
3	B 249.677†	1013.3	610.6	-33.200	µg/L	-33.200 ppb	19:11:36
3	Ba 233.527†	35908.0	35266.0	846.85	µg/L	846.85 ppb	19:11:36
3	Be 313.107†	12728.4	15350.5	8.2506	µg/L	8.2506 ppb	19:11:36
3	Cd 226.502†	198.6	336.7	-4.1267	µg/L	-4.1267 ppb	19:11:57
3	Co 228.616†	966.6	946.9	38.178	µg/L	38.178 ppb	19:11:57
3	Cr 267.716†	15717.7	15479.7	310.99	µg/L	310.99 ppb	19:11:36
3	Cu 324.752†	7617.3	4933.8	47.811	µg/L	47.811 ppb	19:11:36
3	Mn 257.610†	982963.7	965179.3	3036.9	µg/L	3036.9 ppb	19:11:31
3	Mo 202.031†	48.1	52.5	9.4090	µg/L	9.4090 ppb	19:11:57
3	Ni 231.604†	3648.2	3268.9	164.36	µg/L	164.36 ppb	19:11:57
3	P 214.914†	275.5	255.1	427.28	µg/L	427.28 ppb	19:11:57
3	Pb 220.353†	476.1	376.4	90.554	µg/L	90.554 ppb	19:11:57
3	S 181.975 Axial†	123.7	102.5	425.20	µg/L	425.20 ppb	19:11:57
3	Sb 206.836†	33.3	10.2	4.1053	µg/L	4.1053 ppb	19:11:57
3	Se 196.026†	-34.1	-52.8	215.29	µg/L	215.29 ppb	19:11:57
3	SiO2†	104599.6	101288.3	19993	µg/L	19993 ppb	19:11:36
3	Si 251.611†	125638.6	123022.1	9352.4	µg/L	9352.4 ppb	19:11:36
3	Sn 189.927†	6.8	6.3	-7.8708	µg/L	-7.8708 ppb	19:11:57
3	Ti 334.940†	1039652.8	1020397.0	2256.6	µg/L	2256.6 ppb	19:11:31
3	Tl 190.801†	-47.5	-24.3	18.816	µg/L	18.816 ppb	19:11:57
3	U 409.014†	-1979.1	-1865.7	-171.88	µg/L	-171.88 ppb	19:11:31
3	V 292.402†	12542.1	12356.6	134.23	µg/L	134.23 ppb	19:11:36
3	Zn 213.857†	10639.9	9910.2	225.66	µg/L	225.66 ppb	19:11:36

Mean Data: 245688010|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2005087.7	102.14	%	0.246				0.24%
Sc RADIAL	57609.0	102	%	0.3				0.32%
Y 371.029	1462678.1	108.13	%	0.438				0.40%
Ag 328.068†	-1391.0	-2.3482	µg/L	0.34774	-2.3482	ppb	0.34774	14.81%
Al 396.153Radial†	83916.4	58377	µg/L	233.9	58377	ppb	233.9	0.40%
As 188.979†	13.3	29.242	µg/L	8.6530	29.242	ppb	8.6530	29.59%
B 249.677†	607.0	-33.768	µg/L	0.9542	-33.768	ppb	0.9542	2.83%
Ba 233.527†	36512.5	876.79	µg/L	25.936	876.79	ppb	25.936	2.96%
Be 313.107†	15997.9	8.6050	µg/L	0.30699	8.6050	ppb	0.30699	3.57%
Ca 317.933Radial†	24517.4	20942	µg/L	120.7	20942	ppb	120.7	0.58%
Cd 226.502†	368.1	-3.4259	µg/L	0.62880	-3.4259	ppb	0.62880	18.35%
Co 228.616†	1018.5	41.258	µg/L	2.6916	41.258	ppb	2.6916	6.52%
Cr 267.716†	16184.8	325.16	µg/L	12.273	325.16	ppb	12.273	3.77%
Cu 324.752†	5106.2	49.055	µg/L	1.0870	49.055	ppb	1.0870	2.22%
Fe 238.204 Radial†	14343.2	113120	µg/L	791.0	113120	ppb	791.0	0.70%
K 766.490 Radial†	14233.1	9295.9	µg/L	15.57	9295.9	ppb	15.57	0.17%
Mg 279.077 IEC†	1485.4	13157	µg/L	92.8	13157	ppb	92.8	0.71%
Mn 257.610†	993098.1	3124.4	µg/L	76.24	3124.4	ppb	76.24	2.44%
Mo 202.031†	57.9	9.9660	µg/L	0.49479	9.9660	ppb	0.49479	4.96%
Na 589.592 Radial†	9591.4	2945.9	µg/L	14.37	2945.9	ppb	14.37	0.49%

Ni 231.604†	3526.9	177.23 µg/L	11.241	177.23 ppb	11.241	6.34%
P 214.914†	271.4	458.86 µg/L	29.838	458.86 ppb	29.838	6.50%
Pb 220.353†	390.5	93.965 µg/L	3.0922	93.965 ppb	3.0922	3.29%
S 181.975 Axial†	108.1	448.25 µg/L	19.966	448.25 ppb	19.966	4.45%
Sb 206.836†	13.0	6.5488 µg/L	2.91985	6.5488 ppb	2.91985	44.59%
Se 196.026†	-65.6	199.39 µg/L	18.068	199.39 ppb	18.068	9.06%
SiO2†	104531.5	20633 µg/L	557.3	20633 ppb	557.3	2.70%
Si 251.611†	127006.2	9655.3 µg/L	263.34	9655.3 ppb	263.34	2.73%
Sn 189.927†	4.3	-8.7847 µg/L	2.34234	-8.7847 ppb	2.34234	26.66%
Sr 421.552†	21198.1	195.56 µg/L	0.672	195.56 ppb	0.672	0.34%
Ti 334.940†	1055689.7	2334.7 µg/L	67.82	2334.7 ppb	67.82	2.90%
Tl 190.801†	-27.4	15.845 µg/L	3.1974	15.845 ppb	3.1974	20.18%
U 409.014†	-1938.9	-178.09 µg/L	6.081	-178.09 ppb	6.081	3.41%
V 292.402†	12888.9	139.55 µg/L	4.617	139.55 ppb	4.617	3.31%
Zn 213.857†	10278.2	234.19 µg/L	7.424	234.19 ppb	7.424	3.17%

Sequence No.: 29
Sample ID: 245688011|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 323
Date Collected: 2/19/2010 19:12:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688011|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56085.4	56085.4	99.3	%			19:12:39
1	Al 396.153Radial†	44205.0	44521.0	30971	µg/L	30971	ppb	19:12:39
1	Ca 317.933Radial†	37305.0	37366.5	31918	µg/L	31918	ppb	19:12:39
1	Fe 238.204 Radial†	8464.3	8509.7	67115	µg/L	67115	ppb	19:12:59
1	K 766.490 Radial†	6481.1	6363.5	4156.1	µg/L	4156.1	ppb	19:12:39
1	Mg 279.077 IEC†	934.6	928.6	8228.9	µg/L	8228.9	ppb	19:12:59
1	Na 589.592 Radial†	11910.9	11525.8	3540.1	µg/L	3540.1	ppb	19:12:39
1	Sr 421.552†	18695.1	18803.1	173.46	µg/L	173.46	ppb	19:12:39
1	Sc 361.383	1999408.6	1999408.6	101.85	%			19:14:04
1	Y 371.029	1444411.9	1444411.9	106.78	%			19:14:04
1	Ag 328.068†	-1297.0	-871.9	-1.8031	µg/L	-1.8031	ppb	19:14:09
1	As 188.979†	12.3	12.6	24.739	µg/L	24.739	ppb	19:14:30
1	B 249.677†	577.6	183.0	-27.066	µg/L	-27.066	ppb	19:14:09
1	Ba 233.527†	36964.6	36310.8	871.84	µg/L	871.84	ppb	19:14:09
1	Be 313.107†	13192.4	15808.7	9.0031	µg/L	9.0031	ppb	19:14:09
1	Cd 226.502†	64.9	205.4	-2.2625	µg/L	-2.2625	ppb	19:14:30
1	Co 228.616†	485.2	474.5	19.419	µg/L	19.419	ppb	19:14:30
1	Cr 267.716†	15652.7	15418.9	309.73	µg/L	309.73	ppb	19:14:09
1	Cu 324.752†	5453.0	2810.3	27.673	µg/L	27.673	ppb	19:14:09
1	Mn 257.610†	1394263.0	1369213.4	4296.3	µg/L	4296.3	ppb	19:14:04
1	Mo 202.031†	106.7	110.1	13.337	µg/L	13.337	ppb	19:14:30
1	Ni 231.604†	4368.8	3977.2	199.11	µg/L	199.11	ppb	19:14:30
1	P 214.914†	166.2	147.8	245.43	µg/L	245.43	ppb	19:14:30
1	Pb 220.353†	604.4	502.5	121.47	µg/L	121.47	ppb	19:14:30
1	S 181.975 Axial†	196.2	173.7	720.25	µg/L	720.25	ppb	19:14:30
1	Sb 206.836†	35.0	11.9	4.7895	µg/L	4.7895	ppb	19:14:30
1	Se 196.026†	-26.2	-45.1	103.90	µg/L	103.90	ppb	19:14:30
1	SiO2†	109567.7	106187.5	20960	µg/L	20960	ppb	19:14:09
1	Si 251.611†	131631.4	128931.7	9801.6	µg/L	9801.6	ppb	19:14:09
1	Sn 189.927†	36.6	35.5	8.6370	µg/L	8.6370	ppb	19:14:30
1	Ti 334.940†	458620.9	450122.0	995.62	µg/L	995.62	ppb	19:14:04
1	Tl 190.801†	-37.7	-14.7	15.836	µg/L	15.836	ppb	19:14:30
1	U 409.014†	-1931.4	-1819.3	-162.43	µg/L	-162.43	ppb	19:14:04
1	V 292.402†	6720.0	6642.8	73.275	µg/L	73.275	ppb	19:14:09
1	Zn 213.857†	9192.5	8491.3	194.65	µg/L	194.65	ppb	19:14:09
2	Sc RADIAL	56389.8	56389.8	99.8	%			19:13:05
2	Al 396.153Radial†	44450.4	44526.5	30975	µg/L	30975	ppb	19:13:05
2	Ca 317.933Radial†	37553.2	37412.4	31957	µg/L	31957	ppb	19:13:05
2	Fe 238.204 Radial†	8447.7	8447.0	66621	µg/L	66621	ppb	19:13:25
2	K 766.490 Radial†	6526.3	6373.6	4162.7	µg/L	4162.7	ppb	19:13:05
2	Mg 279.077 IEC†	935.6	924.6	8193.5	µg/L	8193.5	ppb	19:13:25
2	Na 589.592 Radial†	11928.4	11478.6	3525.6	µg/L	3525.6	ppb	19:13:05
2	Sr 421.552†	18882.5	18889.1	174.25	µg/L	174.25	ppb	19:13:05
2	Sc 361.383	2000332.8	2000332.8	101.90	%			19:14:37
2	Y 371.029	1444501.3	1444501.3	106.78	%			19:14:37
2	Ag 328.068†	-1303.4	-877.5	-1.8743	µg/L	-1.8743	ppb	19:14:43
2	As 188.979†	10.0	10.2	20.523	µg/L	20.523	ppb	19:15:03
2	B 249.677†	600.6	205.2	-25.896	µg/L	-25.896	ppb	19:14:43
2	Ba 233.527†	37413.6	36734.7	882.01	µg/L	882.01	ppb	19:14:43
2	Be 313.107†	13454.7	16060.1	9.1565	µg/L	9.1565	ppb	19:14:43
2	Cd 226.502†	75.9	216.2	-1.9380	µg/L	-1.9380	ppb	19:15:03
2	Co 228.616†	482.5	471.6	19.312	µg/L	19.312	ppb	19:15:03
2	Cr 267.716†	15846.2	15601.7	313.41	µg/L	313.41	ppb	19:14:43
2	Cu 324.752†	5537.6	2890.9	28.131	µg/L	28.131	ppb	19:14:43
2	Mn 257.610†	1380703.4	1355273.6	4252.6	µg/L	4252.6	ppb	19:14:37
2	Mo 202.031†	108.3	111.6	13.462	µg/L	13.462	ppb	19:15:03
2	Ni 231.604†	4358.2	3964.7	198.48	µg/L	198.48	ppb	19:15:03
2	P 214.914†	156.8	138.5	227.31	µg/L	227.31	ppb	19:15:03
2	Pb 220.353†	603.1	500.9	121.10	µg/L	121.10	ppb	19:15:03

2	S 181.975 Axial†	198.7	176.1	730.20 µg/L	730.20 ppb	19:15:03
2	Sb 206.836†	37.6	14.4	7.0339 µg/L	7.0339 ppb	19:15:03
2	Se 196.026†	-18.6	-37.6	113.03 µg/L	113.03 ppb	19:15:03
2	SiO2†	110682.0	107231.4	21166 µg/L	21166 ppb	19:14:43
2	Si 251.611†	133118.3	130331.2	9908.0 µg/L	9908.0 ppb	19:14:43
2	Sn 189.927†	38.6	37.5	9.5289 µg/L	9.5289 ppb	19:15:03
2	Ti 334.940†	453782.7	445165.7	984.66 µg/L	984.66 ppb	19:14:37
2	Tl 190.801†	-39.2	-16.1	13.584 µg/L	13.584 ppb	19:15:03
2	U 409.014†	-1865.2	-1753.4	-156.89 µg/L	-156.89 ppb	19:14:37
2	V 292.402†	6749.3	6668.5	73.482 µg/L	73.482 ppb	19:14:43
2	Zn 213.857†	9284.5	8577.4	196.70 µg/L	196.70 ppb	19:14:43
3	Sc RADIAL	56328.2	56328.2	99.7 %		19:13:31
3	Al 396.153Radial†	44145.8	44269.7	30796 µg/L	30796 ppb	19:13:31
3	Ca 317.933Radial†	37268.3	37167.8	31748 µg/L	31748 ppb	19:13:31
3	Fe 238.204 Radial†	8442.3	8450.8	66651 µg/L	66651 ppb	19:13:51
3	K 766.490 Radial†	6480.2	6334.5	4137.2 µg/L	4137.2 ppb	19:13:31
3	Mg 279.077 IEC†	934.9	924.9	8196.2 µg/L	8196.2 ppb	19:13:51
3	Na 589.592 Radial†	11841.4	11404.4	3502.8 µg/L	3502.8 ppb	19:13:31
3	Sr 421.552†	18734.9	18761.8	173.08 µg/L	173.08 ppb	19:13:31
3	Sc 361.383	1989042.0	1989042.0	101.32 %		19:15:11
3	Y 371.029	1434353.3	1434353.3	106.03 %		19:15:11
3	Ag 328.068†	-1257.7	-839.7	-1.6149 µg/L	-1.6149 ppb	19:15:16
3	As 188.979†	10.6	10.9	21.748 µg/L	21.748 ppb	19:15:37
3	B 249.677†	558.2	166.7	-27.513 µg/L	-27.513 ppb	19:15:16
3	Ba 233.527†	35334.6	34891.1	837.75 µg/L	837.75 ppb	19:15:16
3	Be 313.107†	12426.0	15119.7	8.6066 µg/L	8.6066 ppb	19:15:16
3	Cd 226.502†	47.3	188.3	-2.6544 µg/L	-2.6544 ppb	19:15:37
3	Co 228.616†	436.4	428.8	17.418 µg/L	17.418 ppb	19:15:37
3	Cr 267.716†	14760.2	14618.2	293.65 µg/L	293.65 ppb	19:15:16
3	Cu 324.752†	5374.1	2760.3	27.282 µg/L	27.282 ppb	19:15:16
3	Mn 257.610†	1350477.6	1333133.5	4183.3 µg/L	4183.3 ppb	19:15:11
3	Mo 202.031†	96.4	100.5	12.371 µg/L	12.371 ppb	19:15:37
3	Ni 231.604†	3974.6	3610.5	180.82 µg/L	180.82 ppb	19:15:37
3	P 214.914†	142.6	125.4	201.37 µg/L	201.37 ppb	19:15:37
3	Pb 220.353†	574.2	475.8	114.98 µg/L	114.98 ppb	19:15:37
3	S 181.975 Axial†	186.7	165.4	685.78 µg/L	685.78 ppb	19:15:37
3	Sb 206.836†	40.0	17.0	9.6996 µg/L	9.6996 ppb	19:15:37
3	Se 196.026†	-15.4	-34.6	117.47 µg/L	117.47 ppb	19:15:37
3	SiO2†	104620.3	101865.3	20107 µg/L	20107 ppb	19:15:16
3	Si 251.611†	125530.8	123584.2	9395.1 µg/L	9395.1 ppb	19:15:16
3	Sn 189.927†	30.9	30.1	6.3943 µg/L	6.3943 ppb	19:15:37
3	Ti 334.940†	441335.0	435408.2	963.07 µg/L	963.07 ppb	19:15:11
3	Tl 190.801†	-38.0	-15.1	14.466 µg/L	14.466 ppb	19:15:37
3	U 409.014†	-1960.7	-1858.1	-165.58 µg/L	-165.58 ppb	19:15:11
3	V 292.402†	6359.4	6321.2	70.039 µg/L	70.039 ppb	19:15:16
3	Zn 213.857†	8810.1	8160.9	187.01 µg/L	187.01 ppb	19:15:16

Mean Data: 245688011|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1996261.1	101.69	%	0.319				0.31%
Sc RADIAL	56267.8	99.6	%	0.28				0.29%
Y 371.029	1441088.8	106.53	%	0.431				0.40%
Ag 328.068†	-863.0	-1.7641	µg/L	0.13406	-1.7641	ppb	0.13406	7.60%
Al 396.153Radial†	44439.0	30914	µg/L	102.0	30914	ppb	102.0	0.33%
As 188.979†	11.2	22.336	µg/L	2.1688	22.336	ppb	2.1688	9.71%
B 249.677†	185.0	-26.825	µg/L	0.8349	-26.825	ppb	0.8349	3.11%
Ba 233.527†	35978.9	863.87	µg/L	23.183	863.87	ppb	23.183	2.68%
Be 313.107†	15662.8	8.9221	µg/L	0.28376	8.9221	ppb	0.28376	3.18%
Ca 317.933Radial†	37315.6	31874	µg/L	111.1	31874	ppb	111.1	0.35%
Cd 226.502†	203.3	-2.2850	µg/L	0.35875	-2.2850	ppb	0.35875	15.70%
Co 228.616†	458.3	18.716	µg/L	1.1257	18.716	ppb	1.1257	6.01%
Cr 267.716†	15213.0	305.60	µg/L	10.508	305.60	ppb	10.508	3.44%
Cu 324.752†	2820.5	27.695	µg/L	0.4245	27.695	ppb	0.4245	1.53%
Fe 238.204 Radial†	8469.1	66796	µg/L	277.2	66796	ppb	277.2	0.42%
K 766.490 Radial†	6357.2	4152.0	µg/L	13.25	4152.0	ppb	13.25	0.32%
Mg 279.077 IEC†	926.0	8206.2	µg/L	19.73	8206.2	ppb	19.73	0.24%
Mn 257.610†	1352540.2	4244.1	µg/L	57.00	4244.1	ppb	57.00	1.34%
Mo 202.031†	107.4	13.057	µg/L	0.5968	13.057	ppb	0.5968	4.57%
Na 589.592 Radial†	11469.6	3522.8	µg/L	18.79	3522.8	ppb	18.79	0.53%

Ni 231.604†	3850.8	192.80 µg/L	10.380	192.80 ppb	10.380	5.38%
P 214.914†	137.3	224.70 µg/L	22.144	224.70 ppb	22.144	9.85%
Pb 220.353†	493.1	119.18 µg/L	3.645	119.18 ppb	3.645	3.06%
S 181.975 Axial†	171.7	712.08 µg/L	23.309	712.08 ppb	23.309	3.27%
Sb 206.836†	14.4	7.1743 µg/L	2.45806	7.1743 ppb	2.45806	34.26%
Se 196.026†	-39.1	111.47 µg/L	6.918	111.47 ppb	6.918	6.21%
SiO2†	105094.7	20744 µg/L	561.6	20744 ppb	561.6	2.71%
Si 251.611†	127615.7	9701.6 µg/L	270.70	9701.6 ppb	270.70	2.79%
Sn 189.927†	34.4	8.1867 µg/L	1.61507	8.1867 ppb	1.61507	19.73%
Sr 421.552†	18818.0	173.60 µg/L	0.599	173.60 ppb	0.599	0.35%
Ti 334.940†	443565.3	981.12 µg/L	16.562	981.12 ppb	16.562	1.69%
Tl 190.801†	-15.3	14.629 µg/L	1.1348	14.629 ppb	1.1348	7.76%
U 409.014†	-1810.3	-161.63 µg/L	4.398	-161.63 ppb	4.398	2.72%
V 292.402†	6544.2	72.265 µg/L	1.9309	72.265 ppb	1.9309	2.67%
Zn 213.857†	8409.8	192.79 µg/L	5.110	192.79 ppb	5.110	2.65%

Sequence No.: 30
Sample ID: 245688012|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 324
Date Collected: 2/19/2010 19:15:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688012|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57882.0	57882.0	102	%			19:16:19
1	Al 396.153Radial†	73257.1	71495.0	49736	µg/L	49736	ppb	19:16:19
1	Ca 317.933Radial†	21928.3	21191.8	18102	µg/L	18102	ppb	19:16:39
1	Fe 238.204 Radial†	9783.2	9532.3	75182	µg/L	75182	ppb	19:16:39
1	K 766.490 Radial†	15300.8	14769.3	9646.1	µg/L	9646.1	ppb	19:16:19
1	Mg 279.077 IEC†	1378.4	1332.6	11832	µg/L	11832	ppb	19:16:39
1	Na 589.592 Radial†	1843.6	1327.3	407.67	µg/L	407.67	ppb	19:16:39
1	Sr 421.552†	21829.9	21278.2	196.29	µg/L	196.29	ppb	19:16:19
1	Sc 361.383	2003517.8	2003517.8	102.06	%			19:17:44
1	Y 371.029	1429014.4	1429014.4	105.64	%			19:17:44
1	Ag 328.068†	-1295.7	-868.0	-0.7692	µg/L	-0.7692	ppb	19:17:49
1	As 188.979†	14.3	14.5	29.378	µg/L	29.378	ppb	19:18:10
1	B 249.677†	989.3	585.3	-15.220	µg/L	-15.220	ppb	19:17:49
1	Ba 233.527†	49140.8	48167.0	1156.6	µg/L	1156.6	ppb	19:17:49
1	Be 313.107†	14227.2	16796.0	8.9852	µg/L	8.9852	ppb	19:17:49
1	Cd 226.502†	225.7	362.9	0.6319	µg/L	0.6319	ppb	19:18:10
1	Co 228.616†	1449.9	1418.7	58.869	µg/L	58.869	ppb	19:18:10
1	Cr 267.716†	4905.1	4856.6	97.635	µg/L	97.635	ppb	19:17:49
1	Cu 324.752†	41663.9	38280.1	260.32	µg/L	260.32	ppb	19:17:49
1	Mn 257.610†	1459405.6	1430234.9	4488.3	µg/L	4488.3	ppb	19:17:44
1	Mo 202.031†	63.7	67.8	9.4936	µg/L	9.4936	ppb	19:18:10
1	Ni 231.604†	1905.5	1554.7	78.403	µg/L	78.403	ppb	19:18:10
1	P 214.914†	565.6	538.8	993.70	µg/L	993.70	ppb	19:18:10
1	Pb 220.353†	905.0	795.8	192.81	µg/L	192.81	ppb	19:18:10
1	S 181.975 Axial†	287.9	263.2	1091.4	µg/L	1091.4	ppb	19:18:10
1	Sb 206.836†	34.8	11.6	8.0333	µg/L	8.0333	ppb	19:18:10
1	Se 196.026†	-20.6	-39.5	134.40	µg/L	134.40	ppb	19:18:10
1	SiO2†	126055.6	122122.3	24105	µg/L	24105	ppb	19:17:49
1	Si 251.611†	152973.9	149578.8	11371	µg/L	11371	ppb	19:17:44
1	Sn 189.927†	-1.2	-1.6	-7.3743	µg/L	-7.3743	ppb	19:18:10
1	Ti 334.940†	1190875.6	1166688.3	2580.3	µg/L	2580.3	ppb	19:17:44
1	Tl 190.801†	-54.2	-30.7	13.892	µg/L	13.892	ppb	19:18:10
1	U 409.014†	1393.9	1442.8	108.32	µg/L	108.32	ppb	19:17:44
1	V 292.402†	14621.1	14371.1	149.30	µg/L	149.30	ppb	19:17:49
1	Zn 213.857†	10247.6	9506.5	218.05	µg/L	218.05	ppb	19:17:49
2	Sc RADIAL	57929.1	57929.1	103	%			19:16:45
2	Al 396.153Radial†	74216.0	72372.2	50346	µg/L	50346	ppb	19:16:45
2	Ca 317.933Radial†	22091.6	21333.6	18223	µg/L	18223	ppb	19:17:05
2	Fe 238.204 Radial†	9858.7	9598.2	75702	µg/L	75702	ppb	19:17:05
2	K 766.490 Radial†	15519.3	14970.3	9777.4	µg/L	9777.4	ppb	19:16:45
2	Mg 279.077 IEC†	1386.2	1339.0	11889	µg/L	11889	ppb	19:17:05
2	Na 589.592 Radial†	1860.0	1341.8	412.12	µg/L	412.12	ppb	19:17:05
2	Sr 421.552†	22078.3	21503.1	198.37	µg/L	198.37	ppb	19:16:45
2	Sc 361.383	2037221.2	2037221.2	103.77	%			19:18:17
2	Y 371.029	1451248.5	1451248.5	107.28	%			19:18:17
2	Ag 328.068†	-1365.1	-913.8	-1.0915	µg/L	-1.0915	ppb	19:18:23
2	As 188.979†	16.7	16.5	33.068	µg/L	33.068	ppb	19:18:43
2	B 249.677†	999.6	579.1	-15.744	µg/L	-15.744	ppb	19:18:23
2	Ba 233.527†	48830.6	47071.5	1130.3	µg/L	1130.3	ppb	19:18:23
2	Be 313.107†	14109.5	16452.0	8.7900	µg/L	8.7900	ppb	19:18:23
2	Cd 226.502†	226.4	359.9	0.4961	µg/L	0.4961	ppb	19:18:43
2	Co 228.616†	1449.1	1394.4	57.820	µg/L	57.820	ppb	19:18:43
2	Cr 267.716†	4872.1	4745.2	95.396	µg/L	95.396	ppb	19:18:23
2	Cu 324.752†	41393.2	37343.9	254.28	µg/L	254.28	ppb	19:18:23
2	Mn 257.610†	1472006.7	1418720.3	4452.3	µg/L	4452.3	ppb	19:18:17
2	Mo 202.031†	68.8	71.6	9.8888	µg/L	9.8888	ppb	19:18:43
2	Ni 231.604†	1886.4	1505.4	75.954	µg/L	75.954	ppb	19:18:43
2	P 214.914†	560.4	524.7	966.05	µg/L	966.05	ppb	19:18:43
2	Pb 220.353†	905.9	782.0	189.48	µg/L	189.48	ppb	19:18:43

2	S 181.975 Axial†	282.4	253.2	1049.9	µg/L	1049.9 ppb	19:18:43
2	Sb 206.836†	32.2	8.5	5.2804	µg/L	5.2804 ppb	19:18:43
2	Se 196.026†	-19.1	-37.7	138.24	µg/L	138.24 ppb	19:18:43
2	SiO2†	125262.0	119314.2	23551	µg/L	23551 ppb	19:18:23
2	Si 251.611†	154771.9	148831.7	11314	µg/L	11314 ppb	19:18:17
2	Sn 189.927†	2.5	2.0	-5.8963	µg/L	-5.8963 ppb	19:18:43
2	Ti 334.940†	1199803.5	1155987.1	2556.6	µg/L	2556.6 ppb	19:18:17
2	Tl 190.801†	-51.0	-26.8	18.762	µg/L	18.762 ppb	19:18:43
2	U 409.014†	1424.3	1449.6	108.80	µg/L	108.80 ppb	19:18:17
2	V 292.402†	14616.5	14129.6	147.01	µg/L	147.01 ppb	19:18:23
2	Zn 213.857†	10215.0	9309.0	213.40	µg/L	213.40 ppb	19:18:23
3	Sc RADIAL	57430.1	57430.1	102	%		19:17:11
3	Al 396.153Radial†	73585.4	72380.7	50352	µg/L	50352 ppb	19:17:11
3	Ca 317.933Radial†	21890.0	21322.5	18213	µg/L	18213 ppb	19:17:31
3	Fe 238.204 Radial†	9793.5	9617.6	75854	µg/L	75854 ppb	19:17:31
3	K 766.490 Radial†	15398.3	14982.7	9785.5	µg/L	9785.5 ppb	19:17:11
3	Mg 279.077 IEC†	1381.5	1346.2	11952	µg/L	11952 ppb	19:17:31
3	Na 589.592 Radial†	1853.2	1350.8	414.90	µg/L	414.90 ppb	19:17:31
3	Sr 421.552†	21810.0	21426.3	197.66	µg/L	197.66 ppb	19:17:11
3	Sc 361.383	2004970.8	2004970.8	102.13	%		19:18:51
3	Y 371.029	1427101.8	1427101.8	105.50	%		19:18:51
3	Ag 328.068†	-1293.7	-865.1	-0.7630	µg/L	-0.7630 ppb	19:18:56
3	As 188.979†	11.5	11.7	24.441	µg/L	24.441 ppb	19:19:17
3	B 249.677†	955.7	551.7	-16.951	µg/L	-16.951 ppb	19:18:56
3	Ba 233.527†	46342.8	45392.5	1090.0	µg/L	1090.0 ppb	19:18:56
3	Be 313.107†	13110.9	15692.9	8.3740	µg/L	8.3740 ppb	19:18:56
3	Cd 226.502†	198.4	335.9	-0.1240	µg/L	-0.1240 ppb	19:19:17
3	Co 228.616†	1280.6	1251.9	51.554	µg/L	51.554 ppb	19:19:17
3	Cr 267.716†	4575.1	4530.0	91.070	µg/L	91.070 ppb	19:18:56
3	Cu 324.752†	39257.0	35893.8	244.84	µg/L	244.84 ppb	19:18:56
3	Mn 257.610†	1404110.8	1375058.0	4315.6	µg/L	4315.6 ppb	19:18:51
3	Mo 202.031†	63.6	67.6	9.5066	µg/L	9.5066 ppb	19:19:17
3	Ni 231.604†	1741.2	1392.5	70.336	µg/L	70.336 ppb	19:19:17
3	P 214.914†	487.0	461.5	841.83	µg/L	841.83 ppb	19:19:17
3	Pb 220.353†	851.0	742.3	179.84	µg/L	179.84 ppb	19:19:17
3	S 181.975 Axial†	262.7	238.3	988.06	µg/L	988.06 ppb	19:19:17
3	Sb 206.836†	34.1	10.8	7.4482	µg/L	7.4482 ppb	19:19:17
3	Se 196.026†	-16.3	-35.2	142.07	µg/L	142.07 ppb	19:19:17
3	SiO2†	119056.4	115179.7	22735	µg/L	22735 ppb	19:18:56
3	Si 251.611†	148210.4	144806.0	11008	µg/L	11008 ppb	19:18:51
3	Sn 189.927†	-6.5	-6.7	-9.5933	µg/L	-9.5933 ppb	19:19:17
3	Ti 334.940†	1139036.3	1115085.5	2466.2	µg/L	2466.2 ppb	19:18:51
3	Tl 190.801†	-44.4	-21.1	24.857	µg/L	24.857 ppb	19:19:17
3	U 409.014†	1358.7	1407.4	105.28	µg/L	105.28 ppb	19:18:51
3	V 292.402†	13721.7	13480.1	140.68	µg/L	140.68 ppb	19:18:56
3	Zn 213.857†	9704.9	8967.9	205.43	µg/L	205.43 ppb	19:18:56

Mean Data: 245688012|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2015236.6	102.65	%	0.971				0.95%
Sc RADIAL	57747.1	102	%	0.5				0.48%
Y 371.029	1435788.2	106.14	%	0.992				0.93%
Ag 328.068†	-882.3	-0.8746	µg/L	0.18791	-0.8746	ppb	0.18791	21.48%
Al 396.153Radial†	72082.6	50144	µg/L	354.0	50144	ppb	354.0	0.71%
As 188.979†	14.2	28.962	µg/L	4.3283	28.962	ppb	4.3283	14.94%
B 249.677†	572.0	-15.972	µg/L	0.8876	-15.972	ppb	0.8876	5.56%
Ba 233.527†	46877.0	1125.6	µg/L	33.56	1125.6	ppb	33.56	2.98%
Be 313.107†	16313.7	8.7164	µg/L	0.31219	8.7164	ppb	0.31219	3.58%
Ca 317.933Radial†	21282.7	18179	µg/L	67.4	18179	ppb	67.4	0.37%
Cd 226.502†	352.9	0.3346	µg/L	0.40299	0.3346	ppb	0.40299	120.43%
Co 228.616†	1355.0	56.081	µg/L	3.9556	56.081	ppb	3.9556	7.05%
Cr 267.716†	4710.6	94.700	µg/L	3.3374	94.700	ppb	3.3374	3.52%
Cu 324.752†	37172.6	253.15	µg/L	7.803	253.15	ppb	7.803	3.08%
Fe 238.204 Radial†	9582.7	75579	µg/L	352.6	75579	ppb	352.6	0.47%
K 766.490 Radial†	14907.5	9736.3	µg/L	78.25	9736.3	ppb	78.25	0.80%
Mg 279.077 IEC†	1339.3	11891	µg/L	60.4	11891	ppb	60.4	0.51%
Mn 257.610†	1408004.4	4418.8	µg/L	91.12	4418.8	ppb	91.12	2.06%
Mo 202.031†	69.0	9.6296	µg/L	0.22450	9.6296	ppb	0.22450	2.33%
Na 589.592 Radial†	1340.0	411.56	µg/L	3.648	411.56	ppb	3.648	0.89%

Ni 231.604†	1484.2	74.898 µg/L	4.1361	74.898 ppb	4.1361	5.52%
P 214.914†	508.3	933.86 µg/L	80.889	933.86 ppb	80.889	8.66%
Pb 220.353†	773.4	187.38 µg/L	6.738	187.38 ppb	6.738	3.60%
S 181.975 Axial†	251.5	1043.1 µg/L	51.98	1043.1 ppb	51.98	4.98%
Sb 206.836†	10.3	6.9206 µg/L	1.45034	6.9206 ppb	1.45034	20.96%
Se 196.026†	-37.5	138.24 µg/L	3.836	138.24 ppb	3.836	2.77%
SiO2†	118872.1	23464 µg/L	689.3	23464 ppb	689.3	2.94%
Si 251.611†	147738.8	11231 µg/L	195.2	11231 ppb	195.2	1.74%
Sn 189.927†	-2.1	-7.6213 µg/L	1.86083	-7.6213 ppb	1.86083	24.42%
Sr 421.552†	21402.6	197.44 µg/L	1.055	197.44 ppb	1.055	0.53%
Ti 334.940†	1145920.3	2534.4 µg/L	60.25	2534.4 ppb	60.25	2.38%
Tl 190.801†	-26.2	19.170 µg/L	5.4940	19.170 ppb	5.4940	28.66%
U 409.014†	1433.3	107.47 µg/L	1.911	107.47 ppb	1.911	1.78%
V 292.402†	13993.6	145.66 µg/L	4.466	145.66 ppb	4.466	3.07%
Zn 213.857†	9261.2	212.29 µg/L	6.380	212.29 ppb	6.380	3.01%

Sequence No.: 31
Sample ID: 245688013|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 325
Date Collected: 2/19/2010 19:19:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688013|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56607.2	56607.2	100	%			19:19:59
1	Al 396.153Radial†	21597.3	21547.4	14989	µg/L	14989	ppb	19:19:59
1	Ca 317.933Radial†	11540.0	11306.0	9657.3	µg/L	9657.3	ppb	19:19:59
1	Fe 238.204 Radial†	10913.4	10875.3	85773	µg/L	85773	ppb	19:19:59
1	K 766.490 Radial†	5829.5	5653.0	3692.1	µg/L	3692.1	ppb	19:19:59
1	Mg 279.077 IEC†	396.5	382.9	3331.0	µg/L	3331.0	ppb	19:20:20
1	Na 589.592 Radial†	5166.6	4684.3	1438.7	µg/L	1438.7	ppb	19:19:59
1	Sr 421.552†	6045.0	6004.2	55.390	µg/L	55.390	ppb	19:19:59
1	Sc 361.383	1974940.0	1974940.0	100.60	%			19:21:24
1	Y 371.029	1486906.0	1486906.0	109.92	%			19:21:24
1	Ag 328.068†	-1338.2	-928.6	-1.3119	µg/L	-1.3119	ppb	19:21:30
1	As 188.979†	10.1	10.5	23.294	µg/L	23.294	ppb	19:21:50
1	B 249.677†	664.1	276.0	-33.116	µg/L	-33.116	ppb	19:21:30
1	Ba 233.527†	14537.2	14467.3	347.36	µg/L	347.36	ppb	19:21:30
1	Be 313.107†	6345.8	9163.5	4.8819	µg/L	4.8819	ppb	19:21:30
1	Cd 226.502†	149.2	290.0	-2.3266	µg/L	-2.3266	ppb	19:21:50
1	Co 228.616†	342.7	338.7	12.300	µg/L	12.300	ppb	19:21:50
1	Cr 267.716†	12207.4	12184.7	244.75	µg/L	244.75	ppb	19:21:30
1	Cu 324.752†	7502.6	4913.9	43.998	µg/L	43.998	ppb	19:21:30
1	Mn 257.610†	743928.8	739732.4	2327.8	µg/L	2327.8	ppb	19:21:24
1	Mo 202.031†	91.7	96.5	12.705	µg/L	12.705	ppb	19:21:50
1	Ni 231.604†	3020.5	2690.1	135.19	µg/L	135.19	ppb	19:21:50
1	P 214.914†	408.7	390.9	705.23	µg/L	705.23	ppb	19:21:50
1	Pb 220.353†	445.6	352.0	83.304	µg/L	83.304	ppb	19:21:50
1	S 181.975 Axial†	34.0	14.8	61.463	µg/L	61.463	ppb	19:21:50
1	Sb 206.836†	30.5	7.8	3.6822	µg/L	3.6822	ppb	19:21:50
1	Se 196.026†	-35.6	-54.7	151.92	µg/L	151.92	ppb	19:21:50
1	SiO2†	74234.7	72398.8	14291	µg/L	14291	ppb	19:21:30
1	Si 251.611†	88482.9	87642.7	6662.8	µg/L	6662.8	ppb	19:21:30
1	Sn 189.927†	11.2	10.8	-4.2639	µg/L	-4.2639	ppb	19:21:50
1	Ti 334.940†	664681.8	660528.6	1461.1	µg/L	1461.1	ppb	19:21:24
1	Tl 190.801†	-38.5	-15.9	13.700	µg/L	13.700	ppb	19:21:50
1	U 409.014†	-2515.0	-2422.9	-213.82	µg/L	-213.82	ppb	19:21:24
1	V 292.402†	2510.4	2540.1	35.277	µg/L	35.277	ppb	19:21:30
1	Zn 213.857†	19077.8	18429.2	427.46	µg/L	427.46	ppb	19:21:30
2	Sc RADIAL	56821.0	56821.0	101	%			19:20:25
2	Al 396.153Radial†	21841.1	21708.7	15102	µg/L	15102	ppb	19:20:25
2	Ca 317.933Radial†	11614.8	11337.1	9683.9	µg/L	9683.9	ppb	19:20:25
2	Fe 238.204 Radial†	11085.8	11005.7	86801	µg/L	86801	ppb	19:20:25
2	K 766.490 Radial†	5903.5	5704.7	3725.8	µg/L	3725.8	ppb	19:20:25
2	Mg 279.077 IEC†	401.5	386.3	3360.5	µg/L	3360.5	ppb	19:20:46
2	Na 589.592 Radial†	5206.1	4704.1	1444.8	µg/L	1444.8	ppb	19:20:25
2	Sr 421.552†	6082.9	6019.2	55.528	µg/L	55.528	ppb	19:20:25
2	Sc 361.383	2055054.6	2055054.6	104.68	%			19:21:58
2	Y 371.029	1538136.3	1538136.3	113.70	%			19:21:58
2	Ag 328.068†	-1408.6	-943.9	-1.3665	µg/L	-1.3665	ppb	19:22:03
2	As 188.979†	6.7	6.9	16.793	µg/L	16.793	ppb	19:22:24
2	B 249.677†	655.3	241.8	-35.059	µg/L	-35.059	ppb	19:22:03
2	Ba 233.527†	14570.3	13935.6	334.60	µg/L	334.60	ppb	19:22:03
2	Be 313.107†	6314.7	8887.9	4.7518	µg/L	4.7518	ppb	19:22:03
2	Cd 226.502†	167.2	301.4	-2.1653	µg/L	-2.1653	ppb	19:22:24
2	Co 228.616†	352.1	334.4	12.286	µg/L	12.286	ppb	19:22:24
2	Cr 267.716†	12217.9	11721.7	235.45	µg/L	235.45	ppb	19:22:03
2	Cu 324.752†	7516.7	4636.7	42.332	µg/L	42.332	ppb	19:22:03
2	Mn 257.610†	728426.5	696095.7	2191.2	µg/L	2191.2	ppb	19:21:58
2	Mo 202.031†	84.3	85.8	11.703	µg/L	11.703	ppb	19:22:24
2	Ni 231.604†	2964.0	2519.1	126.68	µg/L	126.68	ppb	19:22:24
2	P 214.914†	398.3	365.2	653.73	µg/L	653.73	ppb	19:22:24
2	Pb 220.353†	442.7	332.0	78.406	µg/L	78.406	ppb	19:22:24

2	S 181.975 Axial†	33.6	13.1	54.447	µg/L	54.447 ppb	19:22:24
2	Sb 206.836†	38.3	14.1	9.5809	µg/L	9.5809 ppb	19:22:24
2	Se 196.026†	-35.7	-53.4	156.55	µg/L	156.55 ppb	19:22:24
2	SiO2†	74472.6	69749.4	13768	µg/L	13768 ppb	19:22:03
2	Si 251.611†	88659.7	84382.8	6414.9	µg/L	6414.9 ppb	19:22:03
2	Sn 189.927†	9.4	8.6	-5.2837	µg/L	-5.2837 ppb	19:22:24
2	Ti 334.940†	649961.2	620709.6	1373.0	µg/L	1373.0 ppb	19:21:58
2	Tl 190.801†	-42.1	-17.8	10.040	µg/L	10.040 ppb	19:22:24
2	U 409.014†	-2458.1	-2271.1	-201.35	µg/L	-201.35 ppb	19:21:58
2	V 292.402†	2515.9	2448.1	34.485	µg/L	34.485 ppb	19:22:03
2	Zn 213.857†	19130.9	17740.7	411.30	µg/L	411.30 ppb	19:22:03
3	Sc RADIAL	56560.0	56560.0	100	%		19:20:51
3	Al 396.153Radial†	21717.5	21685.5	15085	µg/L	15085 ppb	19:20:51
3	Ca 317.933Radial†	11544.2	11319.8	9669.1	µg/L	9669.1 ppb	19:20:51
3	Fe 238.204 Radial†	10980.5	10951.5	86374	µg/L	86374 ppb	19:20:51
3	K 766.490 Radial†	5827.8	5656.2	3694.1	µg/L	3694.1 ppb	19:20:51
3	Mg 279.077 IEC†	394.6	381.4	3316.4	µg/L	3316.4 ppb	19:21:12
3	Na 589.592 Radial†	5123.0	4645.0	1426.7	µg/L	1426.7 ppb	19:20:51
3	Sr 421.552†	6104.4	6068.6	55.984	µg/L	55.984 ppb	19:20:51
3	Sc 361.383	2049717.0	2049717.0	104.41	%		19:22:31
3	Y 371.029	1527225.8	1527225.8	112.90	%		19:22:31
3	Ag 328.068†	-1336.3	-878.3	-0.9151	µg/L	-0.9151 ppb	19:22:37
3	As 188.979†	5.1	5.3	14.038	µg/L	14.038 ppb	19:22:57
3	B 249.677†	638.1	227.0	-35.472	µg/L	-35.472 ppb	19:22:37
3	Ba 233.527†	13590.9	13033.8	312.94	µg/L	312.94 ppb	19:22:37
3	Be 313.107†	5752.8	8365.4	4.4716	µg/L	4.4716 ppb	19:22:37
3	Cd 226.502†	110.7	247.7	-3.4684	µg/L	-3.4684 ppb	19:22:57
3	Co 228.616†	307.3	292.4	10.544	µg/L	10.544 ppb	19:22:57
3	Cr 267.716†	11167.9	10746.5	215.86	µg/L	215.86 ppb	19:22:37
3	Cu 324.752†	7193.9	4346.2	40.376	µg/L	40.376 ppb	19:22:37
3	Mn 257.610†	687852.5	659047.8	2075.2	µg/L	2075.2 ppb	19:22:31
3	Mo 202.031†	70.3	72.7	10.401	µg/L	10.401 ppb	19:22:57
3	Ni 231.604†	2693.5	2267.4	114.13	µg/L	114.13 ppb	19:22:57
3	P 214.914†	365.0	334.2	592.98	µg/L	592.98 ppb	19:22:57
3	Pb 220.353†	405.9	297.8	70.106	µg/L	70.106 ppb	19:22:57
3	S 181.975 Axial†	32.6	12.3	51.064	µg/L	51.064 ppb	19:22:57
3	Sb 206.836†	26.9	3.2	-0.2022	µg/L	-0.2022 ppb	19:22:57
3	Se 196.026†	-29.7	-47.8	163.32	µg/L	163.32 ppb	19:22:57
3	SiO2†	69319.9	64999.6	12830	µg/L	12830 ppb	19:22:37
3	Si 251.611†	82438.5	78644.9	5978.7	µg/L	5978.7 ppb	19:22:37
3	Sn 189.927†	16.5	15.4	-2.3585	µg/L	-2.3585 ppb	19:22:57
3	Ti 334.940†	611333.5	585330.6	1294.8	µg/L	1294.8 ppb	19:22:31
3	Tl 190.801†	-40.1	-16.0	11.123	µg/L	11.123 ppb	19:22:57
3	U 409.014†	-2274.8	-2101.6	-187.20	µg/L	-187.20 ppb	19:22:31
3	V 292.402†	2377.3	2321.6	33.161	µg/L	33.161 ppb	19:22:37
3	Zn 213.857†	17827.7	16540.1	383.22	µg/L	383.22 ppb	19:22:37

Mean Data: 245688013|954751|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2026570.5	103.23	%	2.282				2.21%
Sc RADIAL	56662.7	100	%	0.2				0.25%
Y 371.029	1517422.7	112.17	%	1.995				1.78%
Ag 328.068†	-916.9	-1.1978	µg/L	0.24635	-1.1978	ppb	0.24635	20.57%
Al 396.153Radial†	21647.2	15059	µg/L	60.7	15059	ppb	60.7	0.40%
As 188.979†	7.6	18.041	µg/L	4.7525	18.041	ppb	4.7525	26.34%
B 249.677†	248.3	-34.549	µg/L	1.2580	-34.549	ppb	1.2580	3.64%
Ba 233.527†	13812.2	331.63	µg/L	17.400	331.63	ppb	17.400	5.25%
Be 313.107†	8805.6	4.7018	µg/L	0.20968	4.7018	ppb	0.20968	4.46%
Ca 317.933Radial†	11320.9	9670.1	µg/L	13.30	9670.1	ppb	13.30	0.14%
Cd 226.502†	279.7	-2.6534	µg/L	0.71035	-2.6534	ppb	0.71035	26.77%
Co 228.616†	321.8	11.710	µg/L	1.0096	11.710	ppb	1.0096	8.62%
Cr 267.716†	11551.0	232.02	µg/L	14.746	232.02	ppb	14.746	6.36%
Cu 324.752†	4632.3	42.235	µg/L	1.8130	42.235	ppb	1.8130	4.29%
Fe 238.204 Radial†	10944.2	86316	µg/L	516.5	86316	ppb	516.5	0.60%
K 766.490 Radial†	5671.3	3704.0	µg/L	18.91	3704.0	ppb	18.91	0.51%
Mg 279.077 IEC†	383.5	3336.0	µg/L	22.46	3336.0	ppb	22.46	0.67%
Mn 257.610†	698292.0	2198.1	µg/L	126.43	2198.1	ppb	126.43	5.75%
Mo 202.031†	85.0	11.603	µg/L	1.1555	11.603	ppb	1.1555	9.96%
Na 589.592 Radial†	4677.8	1436.7	µg/L	9.23	1436.7	ppb	9.23	0.64%

Ni 231.604†	2492.2	125.34 µg/L	10.595	125.34 ppb	10.595	8.45%
P 214.914†	363.4	650.65 µg/L	56.189	650.65 ppb	56.189	8.64%
Pb 220.353†	327.3	77.272 µg/L	6.6716	77.272 ppb	6.6716	8.63%
S 181.975 Axial†	13.4	55.658 µg/L	5.3040	55.658 ppb	5.3040	9.53%
Sb 206.836†	8.4	4.3536 µg/L	4.92601	4.3536 ppb	4.92601	113.15%
Se 196.026†	-51.9	157.26 µg/L	5.732	157.26 ppb	5.732	3.64%
SiO2†	69049.3	13629 µg/L	740.0	13629 ppb	740.0	5.43%
Si 251.611†	83556.8	6352.2 µg/L	346.31	6352.2 ppb	346.31	5.45%
Sn 189.927†	11.6	-3.9687 µg/L	1.48476	-3.9687 ppb	1.48476	37.41%
Sr 421.552†	6030.7	55.634 µg/L	0.3108	55.634 ppb	0.3108	0.56%
Ti 334.940†	622189.6	1376.3 µg/L	83.23	1376.3 ppb	83.23	6.05%
Tl 190.801†	-16.6	11.621 µg/L	1.8803	11.621 ppb	1.8803	16.18%
U 409.014†	-2265.2	-200.79 µg/L	13.315	-200.79 ppb	13.315	6.63%
V 292.402†	2436.6	34.308 µg/L	1.0688	34.308 ppb	1.0688	3.12%
Zn 213.857†	17570.0	407.33 µg/L	22.390	407.33 ppb	22.390	5.50%

Sequence No.: 32
Sample ID: 245688014|954751|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 326
Date Collected: 2/19/2010 19:23:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245688014|954751|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57832.8	57832.8	102	%			19:23:40
1	Al 396.153Radial†	55283.5	53997.9	37564	µg/L	37564	ppb	19:23:40
1	Ca 317.933Radial†	14064.9	13528.4	11556	µg/L	11556	ppb	19:24:01
1	Fe 238.204 Radial†	11174.3	10899.4	85963	µg/L	85963	ppb	19:24:01
1	K 766.490 Radial†	14044.2	13554.5	8852.7	µg/L	8852.7	ppb	19:23:40
1	Mg 279.077 IEC†	1010.4	974.2	8616.4	µg/L	8616.4	ppb	19:24:01
1	Na 589.592 Radial†	2299.1	1773.7	544.79	µg/L	544.79	ppb	19:23:40
1	Sr 421.552†	14416.4	14054.3	129.65	µg/L	129.65	ppb	19:23:40
1	Sc 361.383	2026432.5	2026432.5	103.23	%			19:25:05
1	Y 371.029	1436492.5	1436492.5	106.19	%			19:25:05
1	Ag 328.068†	-1529.0	-1079.7	-1.5742	µg/L	-1.5742	ppb	19:25:11
1	As 188.979†	13.7	13.7	28.907	µg/L	28.907	ppb	19:25:31
1	B 249.677†	964.0	549.7	-22.209	µg/L	-22.209	ppb	19:25:11
1	Ba 233.527†	27612.8	26767.1	642.88	µg/L	642.88	ppb	19:25:11
1	Be 313.107†	11514.2	14010.2	7.3211	µg/L	7.3211	ppb	19:25:11
1	Cd 226.502†	209.8	345.0	-1.0220	µg/L	-1.0220	ppb	19:25:31
1	Co 228.616†	1175.5	1136.8	46.045	µg/L	46.045	ppb	19:25:31
1	Cr 267.716†	7724.7	7533.7	151.41	µg/L	151.41	ppb	19:25:11
1	Cu 324.752†	16452.3	13394.5	99.381	µg/L	99.381	ppb	19:25:11
1	Mn 257.610†	940823.3	911684.8	2866.0	µg/L	2866.0	ppb	19:25:05
1	Mo 202.031†	46.7	50.6	8.2206	µg/L	8.2206	ppb	19:25:31
1	Ni 231.604†	2147.4	1767.9	89.187	µg/L	89.187	ppb	19:25:31
1	P 214.914†	399.9	372.0	668.27	µg/L	668.27	ppb	19:25:31
1	Pb 220.353†	672.9	560.9	135.07	µg/L	135.07	ppb	19:25:31
1	S 181.975 Axial†	174.1	149.7	620.86	µg/L	620.86	ppb	19:25:31
1	Sb 206.836†	33.9	10.3	6.8466	µg/L	6.8466	ppb	19:25:31
1	Se 196.026†	-29.5	-47.9	156.81	µg/L	156.81	ppb	19:25:31
1	SiO2†	110325.5	105487.0	20822	µg/L	20822	ppb	19:25:11
1	Si 251.611†	132590.1	128136.9	9741.2	µg/L	9741.2	ppb	19:25:11
1	Sn 189.927†	-8.2	-8.3	-11.701	µg/L	-11.701	ppb	19:25:31
1	Ti 334.940†	1217585.5	1179368.9	2608.5	µg/L	2608.5	ppb	19:25:05
1	Tl 190.801†	-57.9	-33.7	4.4792	µg/L	4.4792	ppb	19:25:31
1	U 409.014†	-728.8	-629.0	-64.912	µg/L	-64.912	ppb	19:25:05
1	V 292.402†	16135.0	15675.6	163.21	µg/L	163.21	ppb	19:25:11
1	Zn 213.857†	12379.7	11458.5	263.73	µg/L	263.73	ppb	19:25:11
2	Sc RADIAL	57772.8	57772.8	102	%			19:24:06
2	Al 396.153Radial†	55506.4	54272.0	37754	µg/L	37754	ppb	19:24:06
2	Ca 317.933Radial†	14108.3	13585.2	11604	µg/L	11604	ppb	19:24:27
2	Fe 238.204 Radial†	11214.5	10950.0	86363	µg/L	86363	ppb	19:24:27
2	K 766.490 Radial†	14043.4	13568.0	8861.5	µg/L	8861.5	ppb	19:24:06
2	Mg 279.077 IEC†	1017.1	981.8	8683.8	µg/L	8683.8	ppb	19:24:27
2	Na 589.592 Radial†	2331.0	1807.3	555.10	µg/L	555.10	ppb	19:24:06
2	Sr 421.552†	14484.2	14135.2	130.40	µg/L	130.40	ppb	19:24:06
2	Sc 361.383	2015360.0	2015360.0	102.66	%			19:25:38
2	Y 371.029	1429282.2	1429282.2	105.66	%			19:25:38
2	Ag 328.068†	-1476.7	-1036.8	-1.2162	µg/L	-1.2162	ppb	19:25:44
2	As 188.979†	15.8	15.9	32.873	µg/L	32.873	ppb	19:26:05
2	B 249.677†	941.2	532.6	-23.112	µg/L	-23.112	ppb	19:25:44
2	Ba 233.527†	27823.2	27119.0	651.33	µg/L	651.33	ppb	19:25:44
2	Be 313.107†	11622.1	14176.5	7.4199	µg/L	7.4199	ppb	19:25:44
2	Cd 226.502†	199.6	336.1	-1.2885	µg/L	-1.2885	ppb	19:26:05
2	Co 228.616†	1155.3	1123.4	45.437	µg/L	45.437	ppb	19:26:05
2	Cr 267.716†	7750.1	7599.6	152.74	µg/L	152.74	ppb	19:25:44
2	Cu 324.752†	16388.6	13420.0	99.603	µg/L	99.603	ppb	19:25:44
2	Mn 257.610†	935519.5	911525.9	2865.6	µg/L	2865.6	ppb	19:25:38
2	Mo 202.031†	44.5	48.7	8.0525	µg/L	8.0525	ppb	19:26:05
2	Ni 231.604†	2117.4	1750.2	88.308	µg/L	88.308	ppb	19:26:05
2	P 214.914†	381.4	356.2	636.64	µg/L	636.64	ppb	19:26:05
2	Pb 220.353†	660.3	552.3	132.95	µg/L	132.95	ppb	19:26:05

2	S 181.975 Axial†	173.1	149.7	620.67 µg/L	620.67 ppb	19:26:05
2	Sb 206.836†	39.7	16.2	12.216 µg/L	12.216 ppb	19:26:05
2	Se 196.026†	-35.2	-53.6	149.78 µg/L	149.78 ppb	19:26:05
2	SiO2†	111234.0	106959.2	21112 µg/L	21112 ppb	19:25:44
2	Si 251.611†	133609.4	129835.5	9870.3 µg/L	9870.3 ppb	19:25:44
2	Sn 189.927†	3.2	2.8	-7.0780 µg/L	-7.0780 ppb	19:26:05
2	Ti 334.940†	1210758.2	1179199.0	2608.1 µg/L	2608.1 ppb	19:25:38
2	Tl 190.801†	-51.2	-27.5	12.733 µg/L	12.733 ppb	19:26:05
2	U 409.014†	-460.5	-371.5	-43.574 µg/L	-43.574 ppb	19:25:38
2	V 292.402†	16294.9	15917.3	165.64 µg/L	165.64 ppb	19:25:44
2	Zn 213.857†	12457.4	11600.1	267.03 µg/L	267.03 ppb	19:25:44
3	Sc RADIAL	58443.6	58443.6	103 %		19:24:32
3	Al 396.153Radial†	56136.6	54258.1	37745 µg/L	37745 ppb	19:24:32
3	Ca 317.933Radial†	13960.2	13283.6	11347 µg/L	11347 ppb	19:24:52
3	Fe 238.204 Radial†	11113.3	10726.3	84598 µg/L	84598 ppb	19:24:52
3	K 766.490 Radial†	14207.3	13568.8	8862.0 µg/L	8862.0 ppb	19:24:32
3	Mg 279.077 IEC†	1007.4	961.0	8500.0 µg/L	8500.0 ppb	19:24:52
3	Na 589.592 Radial†	2373.3	1822.0	559.60 µg/L	559.60 ppb	19:24:32
3	Sr 421.552†	14606.5	14090.9	129.99 µg/L	129.99 ppb	19:24:32
3	Sc 361.383	2027678.8	2027678.8	103.29 %		19:26:12
3	Y 371.029	1435928.1	1435928.1	106.15 %		19:26:12
3	Ag 328.068†	-1469.9	-1021.5	-1.2934 µg/L	-1.2934 ppb	19:26:17
3	As 188.979†	16.1	16.1	33.086 µg/L	33.086 ppb	19:26:38
3	B 249.677†	934.9	521.0	-22.688 µg/L	-22.688 ppb	19:26:17
3	Ba 233.527†	26034.6	25222.8	605.79 µg/L	605.79 ppb	19:26:17
3	Be 313.107†	10552.6	13072.3	6.8095 µg/L	6.8095 ppb	19:26:17
3	Cd 226.502†	169.7	306.0	-1.8492 µg/L	-1.8492 ppb	19:26:38
3	Co 228.616†	1045.9	1010.6	40.575 µg/L	40.575 ppb	19:26:38
3	Cr 267.716†	7108.4	6932.5	139.33 µg/L	139.33 ppb	19:26:17
3	Cu 324.752†	15496.2	12459.1	93.085 µg/L	93.085 ppb	19:26:17
3	Mn 257.610†	907020.8	878398.3	2761.6 µg/L	2761.6 ppb	19:26:12
3	Mo 202.031†	34.6	38.8	7.0191 µg/L	7.0191 ppb	19:26:38
3	Ni 231.604†	1939.8	1565.7	79.096 µg/L	79.096 ppb	19:26:38
3	P 214.914†	360.5	333.7	594.11 µg/L	594.11 ppb	19:26:38
3	Pb 220.353†	622.6	511.8	123.19 µg/L	123.19 ppb	19:26:38
3	S 181.975 Axial†	163.1	139.0	576.26 µg/L	576.26 ppb	19:26:38
3	Sb 206.836†	34.7	11.1	7.6463 µg/L	7.6463 ppb	19:26:38
3	Se 196.026†	-23.9	-42.5	160.80 µg/L	160.80 ppb	19:26:38
3	SiO2†	103743.1	99048.4	19551 µg/L	19551 ppb	19:26:17
3	Si 251.611†	124532.6	120257.0	9142.2 µg/L	9142.2 ppb	19:26:17
3	Sn 189.927†	-9.8	-9.8	-12.220 µg/L	-12.220 ppb	19:26:38
3	Ti 334.940†	1163080.0	1125873.8	2490.2 µg/L	2490.2 ppb	19:26:12
3	Tl 190.801†	-48.5	-24.5	14.844 µg/L	14.844 ppb	19:26:38
3	U 409.014†	-562.9	-467.9	-51.326 µg/L	-51.326 ppb	19:26:12
3	V 292.402†	15115.2	14678.7	153.31 µg/L	153.31 ppb	19:26:17
3	Zn 213.857†	11695.0	10788.2	248.13 µg/L	248.13 ppb	19:26:17

Mean Data: 245688014|954751|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2023157.1	103.06	%	0.345				0.34%
Sc RADIAL	58016.4	103	%	0.7				0.64%
Y 371.029	1433901.0	106.00	%	0.296				0.28%
Ag 328.068†	-1046.0	-1.3613	µg/L	0.18836	-1.3613	ppb	0.18836	13.84%
Al 396.153Radial†	54176.0	37688	µg/L	107.4	37688	ppb	107.4	0.29%
As 188.979†	15.2	31.622	µg/L	2.3538	31.622	ppb	2.3538	7.44%
B 249.677†	534.4	-22.669	µg/L	0.4516	-22.669	ppb	0.4516	1.99%
Ba 233.527†	26369.6	633.33	µg/L	24.227	633.33	ppb	24.227	3.83%
Be 313.107†	13753.0	7.1835	µg/L	0.32763	7.1835	ppb	0.32763	4.56%
Ca 317.933Radial†	13465.7	11502	µg/L	136.9	11502	ppb	136.9	1.19%
Cd 226.502†	329.0	-1.3866	µg/L	0.42226	-1.3866	ppb	0.42226	30.45%
Co 228.616†	1090.3	44.019	µg/L	2.9982	44.019	ppb	2.9982	6.81%
Cr 267.716†	7355.3	147.83	µg/L	7.388	147.83	ppb	7.388	5.00%
Cu 324.752†	13091.2	97.357	µg/L	3.7007	97.357	ppb	3.7007	3.80%
Fe 238.204 Radial†	10858.6	85641	µg/L	925.5	85641	ppb	925.5	1.08%
K 766.490 Radial†	13563.8	8858.7	µg/L	5.26	8858.7	ppb	5.26	0.06%
Mg 279.077 IEC†	972.3	8600.1	µg/L	92.98	8600.1	ppb	92.98	1.08%
Mn 257.610†	900536.3	2831.1	µg/L	60.15	2831.1	ppb	60.15	2.12%
Mo 202.031†	46.1	7.7641	µg/L	0.65064	7.7641	ppb	0.65064	8.38%
Na 589.592 Radial†	1801.0	553.16	µg/L	7.594	553.16	ppb	7.594	1.37%

Ni 231.604†	1694.6	85.530 µg/L	5.5900	85.530 ppb	5.5900	6.54%
P 214.914†	353.9	633.01 µg/L	37.214	633.01 ppb	37.214	5.88%
Pb 220.353†	541.7	130.40 µg/L	6.338	130.40 ppb	6.338	4.86%
S 181.975 Axial†	146.1	605.93 µg/L	25.691	605.93 ppb	25.691	4.24%
Sb 206.836†	12.5	8.9029 µg/L	2.89669	8.9029 ppb	2.89669	32.54%
Se 196.026†	-48.0	155.80 µg/L	5.580	155.80 ppb	5.580	3.58%
SiO2†	103831.5	20495 µg/L	830.4	20495 ppb	830.4	4.05%
Si 251.611†	126076.5	9584.6 µg/L	388.54	9584.6 ppb	388.54	4.05%
Sn 189.927†	-5.1	-10.333 µg/L	2.8306	-10.333 ppb	2.8306	27.39%
Sr 421.552†	14093.4	130.01 µg/L	0.374	130.01 ppb	0.374	0.29%
Ti 334.940†	1161480.6	2568.9 µg/L	68.21	2568.9 ppb	68.21	2.66%
Tl 190.801†	-28.6	10.685 µg/L	5.4775	10.685 ppb	5.4775	51.26%
U 409.014†	-489.4	-53.271 µg/L	10.8013	-53.271 ppb	10.8013	20.28%
V 292.402†	15423.9	160.72 µg/L	6.529	160.72 ppb	6.529	4.06%
Zn 213.857†	11282.3	259.63 µg/L	10.096	259.63 ppb	10.096	3.89%

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 19:26:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58011.2	58011.2	103	%			19:27:24
1	Al 396.153Radial†	7306.1	7107.9	4934.0	µg/L	4934.0	ppb	19:27:24
1	Ca 317.933Radial†	6126.5	5755.1	4915.9	µg/L	4915.9	ppb	19:27:44
1	Fe 238.204 Radial†	670.2	636.1	5027.8	µg/L	5027.8	ppb	19:27:44
1	K 766.490 Radial†	7850.1	7480.0	4885.3	µg/L	4885.3	ppb	19:27:24
1	Mg 279.077 IEC†	589.4	561.2	5020.1	µg/L	5020.1	ppb	19:27:44
1	Na 589.592 Radial†	33642.4	32291.3	9918.0	µg/L	9918.0	ppb	19:27:24
1	Sr 421.552†	53727.7	52295.2	482.43	µg/L	482.43	ppb	19:27:24
1	Sc 361.383	2023941.6	2023941.6	103.10	%			19:28:48
1	Y 371.029	1390155.2	1390155.2	102.76	%			19:28:48
1	Ag 328.068†	68263.9	66614.1	497.07	µg/L	497.07	ppb	19:28:53
1	As 188.979†	297.5	289.1	517.08	µg/L	517.08	ppb	19:29:14
1	B 249.677†	12754.8	11987.3	486.76	µg/L	486.76	ppb	19:28:53
1	Ba 233.527†	21527.5	20897.6	502.60	µg/L	502.60	ppb	19:28:53
1	Be 313.107†	859738.4	836757.9	496.43	µg/L	496.43	ppb	19:28:48
1	Cd 226.502†	20670.0	20190.5	503.51	µg/L	503.51	ppb	19:28:53
1	Co 228.616†	11554.6	11205.5	506.90	µg/L	506.90	ppb	19:28:53
1	Cr 267.716†	25881.7	25154.3	505.55	µg/L	505.55	ppb	19:28:53
1	Cu 324.752†	81255.0	76269.5	498.55	µg/L	498.55	ppb	19:28:53
1	Mn 257.610†	166147.8	161410.9	505.93	µg/L	505.93	ppb	19:28:48
1	Mo 202.031†	5454.8	5296.3	518.83	µg/L	518.83	ppb	19:29:14
1	Ni 231.604†	10745.9	10110.7	503.47	µg/L	503.47	ppb	19:28:53
1	P 214.914†	1361.8	1305.6	2537.4	µg/L	2537.4	ppb	19:29:14
1	Pb 220.353†	2266.4	2107.4	512.48	µg/L	512.48	ppb	19:29:14
1	S 181.975 Axial†	273.5	246.4	1021.7	µg/L	1021.7	ppb	19:29:14
1	Sb 206.836†	610.7	569.8	525.42	µg/L	525.42	ppb	19:29:14
1	Se 196.026†	395.7	364.5	519.83	µg/L	519.83	ppb	19:29:14
1	SiO2†	29524.0	27245.2	5377.9	µg/L	5377.9	ppb	19:28:53
1	Si 251.611†	34545.7	33196.9	2523.7	µg/L	2523.7	ppb	19:28:53
1	Sn 189.927†	1282.8	1243.9	524.60	µg/L	524.60	ppb	19:29:14
1	Ti 334.940†	231474.2	224343.1	495.98	µg/L	495.98	ppb	19:28:48
1	Tl 190.801†	382.2	393.1	516.55	µg/L	516.55	ppb	19:29:14
1	U 409.014†	6240.4	6130.0	508.31	µg/L	508.31	ppb	19:28:53
1	V 292.402†	52860.7	51317.0	506.38	µg/L	506.38	ppb	19:28:53
1	Zn 213.857†	22851.7	21630.6	503.94	µg/L	503.94	ppb	19:28:53
2	Sc RADIAL	58208.4	58208.4	103	%			19:27:50
2	Al 396.153Radial†	7271.3	7050.0	4894.0	µg/L	4894.0	ppb	19:27:50
2	Ca 317.933Radial†	6163.6	5771.0	4929.4	µg/L	4929.4	ppb	19:28:10
2	Fe 238.204 Radial†	675.5	639.1	5051.0	µg/L	5051.0	ppb	19:28:10
2	K 766.490 Radial†	7866.0	7469.5	4878.5	µg/L	4878.5	ppb	19:27:50
2	Mg 279.077 IEC†	590.4	560.2	5010.8	µg/L	5010.8	ppb	19:28:10
2	Na 589.592 Radial†	33660.4	32197.8	9889.3	µg/L	9889.3	ppb	19:27:50
2	Sr 421.552†	53698.2	52089.4	480.53	µg/L	480.53	ppb	19:27:50
2	Sc 361.383	2026589.1	2026589.1	103.23	%			19:29:21
2	Y 371.029	1392880.6	1392880.6	102.97	%			19:29:21
2	Ag 328.068†	68809.4	67056.0	500.36	µg/L	500.36	ppb	19:29:27
2	As 188.979†	296.8	288.0	515.16	µg/L	515.16	ppb	19:29:47
2	B 249.677†	12885.4	12097.7	491.25	µg/L	491.25	ppb	19:29:27
2	Ba 233.527†	21677.5	21015.6	505.43	µg/L	505.43	ppb	19:29:27
2	Be 313.107†	865418.2	841170.5	499.05	µg/L	499.05	ppb	19:29:21
2	Cd 226.502†	20826.2	20315.7	506.63	µg/L	506.63	ppb	19:29:27
2	Co 228.616†	11598.5	11233.3	508.15	µg/L	508.15	ppb	19:29:27
2	Cr 267.716†	26109.2	25341.9	509.31	µg/L	509.31	ppb	19:29:27
2	Cu 324.752†	81892.1	76783.6	501.90	µg/L	501.90	ppb	19:29:27
2	Mn 257.610†	167199.4	162219.0	508.46	µg/L	508.46	ppb	19:29:21
2	Mo 202.031†	5288.0	5127.7	502.33	µg/L	502.33	ppb	19:29:47
2	Ni 231.604†	10828.5	10177.0	506.78	µg/L	506.78	ppb	19:29:27
2	P 214.914†	1324.9	1268.1	2462.5	µg/L	2462.5	ppb	19:29:47
2	Pb 220.353†	2219.6	2059.1	500.70	µg/L	500.70	ppb	19:29:47

2	S 181.975 Axial†	269.0	241.6	1001.9	µg/L	1001.9 ppb	19:29:47
2	Sb 206.836†	585.9	545.1	502.40	µg/L	502.40 ppb	19:29:47
2	Se 196.026†	401.2	369.3	526.64	µg/L	526.64 ppb	19:29:47
2	SiO2†	29674.8	27353.9	5399.3	µg/L	5399.3 ppb	19:29:27
2	Si 251.611†	34681.9	33285.1	2530.4	µg/L	2530.4 ppb	19:29:27
2	Sn 189.927†	1240.2	1201.0	506.52	µg/L	506.52 ppb	19:29:47
2	Ti 334.940†	232768.0	225303.0	498.10	µg/L	498.10 ppb	19:29:21
2	Tl 190.801†	370.9	381.6	501.66	µg/L	501.66 ppb	19:29:47
2	U 409.014†	6213.7	6096.2	505.50	µg/L	505.50 ppb	19:29:27
2	V 292.402†	53162.8	51542.6	508.46	µg/L	508.46 ppb	19:29:27
2	Zn 213.857†	22978.8	21724.8	506.12	µg/L	506.12 ppb	19:29:27
3	Sc RADIAL	57939.2	57939.2	103	%		19:28:16
3	Al 396.153Radial†	7262.7	7074.4	4912.9	µg/L	4912.9 ppb	19:28:16
3	Ca 317.933Radial†	6172.6	5807.6	4960.7	µg/L	4960.7 ppb	19:28:36
3	Fe 238.204 Radial†	672.1	638.8	5047.6	µg/L	5047.6 ppb	19:28:36
3	K 766.490 Radial†	7867.0	7506.0	4902.3	µg/L	4902.3 ppb	19:28:16
3	Mg 279.077 IEC†	596.5	568.8	5086.0	µg/L	5086.0 ppb	19:28:36
3	Na 589.592 Radial†	33675.5	32364.3	9940.5	µg/L	9940.5 ppb	19:28:16
3	Sr 421.552†	53684.5	52318.1	482.64	µg/L	482.64 ppb	19:28:16
3	Sc 361.383	2019244.9	2019244.9	102.86	%		19:29:54
3	Y 371.029	1386733.2	1386733.2	102.51	%		19:29:54
3	Ag 328.068†	63032.4	61682.0	460.10	µg/L	460.10 ppb	19:30:00
3	As 188.979†	244.2	237.9	425.60	µg/L	425.60 ppb	19:30:20
3	B 249.677†	11714.9	11005.2	446.60	µg/L	446.60 ppb	19:30:00
3	Ba 233.527†	19107.8	18593.8	447.17	µg/L	447.17 ppb	19:30:00
3	Be 313.107†	780455.8	761618.7	451.85	µg/L	451.85 ppb	19:29:54
3	Cd 226.502†	18286.2	17919.6	446.80	µg/L	446.80 ppb	19:30:00
3	Co 228.616†	10093.7	9811.2	443.77	µg/L	443.77 ppb	19:30:00
3	Cr 267.716†	21917.3	21358.4	429.26	µg/L	429.26 ppb	19:30:00
3	Cu 324.752†	71787.5	67248.4	439.66	µg/L	439.66 ppb	19:30:00
3	Mn 257.610†	151706.1	147745.4	463.13	µg/L	463.13 ppb	19:29:54
3	Mo 202.031†	4317.7	4203.0	411.78	µg/L	411.78 ppb	19:30:20
3	Ni 231.604†	9445.6	8870.7	441.74	µg/L	441.74 ppb	19:30:00
3	P 214.914†	1095.4	1049.6	2035.1	µg/L	2035.1 ppb	19:30:20
3	Pb 220.353†	1899.2	1755.5	426.81	µg/L	426.81 ppb	19:30:20
3	S 181.975 Axial†	229.2	203.9	845.45	µg/L	845.45 ppb	19:30:20
3	Sb 206.836†	491.4	455.2	419.32	µg/L	419.32 ppb	19:30:20
3	Se 196.026†	335.0	306.4	438.20	µg/L	438.20 ppb	19:30:20
3	SiO2†	26768.8	24633.2	4862.3	µg/L	4862.3 ppb	19:30:00
3	Si 251.611†	31095.2	29920.3	2274.6	µg/L	2274.6 ppb	19:30:00
3	Sn 189.927†	986.7	958.9	404.42	µg/L	404.42 ppb	19:30:20
3	Ti 334.940†	208387.6	202420.4	447.48	µg/L	447.48 ppb	19:29:54
3	Tl 190.801†	323.7	337.1	443.33	µg/L	443.33 ppb	19:30:20
3	U 409.014†	5278.3	5208.6	431.75	µg/L	431.75 ppb	19:30:00
3	V 292.402†	45791.0	44563.0	439.48	µg/L	439.48 ppb	19:30:00
3	Zn 213.857†	20107.0	19013.7	442.90	µg/L	442.90 ppb	19:30:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2023258.5	103.06	%	0.189				0.18%
Sc RADIAL	58052.9	103	%	0.2				0.24%
Y 371.029	1389923.0	102.75	%	0.228				0.22%
Ag 328.068†	65117.4	485.84	µg/L	22.354	485.84	ppb	22.354	4.60%
QC value within limits for Ag 328.068 Recovery = 97.17%								
Al 396.153Radial†	7077.4	4913.6	µg/L	19.97	4913.6	ppb	19.97	0.41%
QC value within limits for Al 396.153Radial Recovery = 98.27%								
As 188.979†	271.6	485.95	µg/L	52.268	485.95	ppb	52.268	10.76%
QC value within limits for As 188.979 Recovery = 97.19%								
B 249.677†	11696.7	474.87	µg/L	24.588	474.87	ppb	24.588	5.18%
QC value within limits for B 249.677 Recovery = 94.97%								
Ba 233.527†	20169.0	485.07	µg/L	32.850	485.07	ppb	32.850	6.77%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	813182.4	482.44	µg/L	26.525	482.44	ppb	26.525	5.50%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	5777.9	4935.4	µg/L	22.97	4935.4	ppb	22.97	0.47%
QC value within limits for Ca 317.933Radial Recovery = 98.71%								
Cd 226.502†	19475.3	485.65	µg/L	33.674	485.65	ppb	33.674	6.93%
QC value within limits for Cd 226.502 Recovery = 97.13%								
Co 228.616†	10750.0	486.27	µg/L	36.817	486.27	ppb	36.817	7.57%

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   QC value within limits for Co 228.616  Recovery = 97.25%
Cr 267.716†            23951.5      481.37 µg/L        45.169      481.37 ppb         45.169   9.38%
   QC value within limits for Cr 267.716  Recovery = 96.27%
Cu 324.752†            73433.8      480.04 µg/L        35.005      480.04 ppb         35.005   7.29%
   QC value within limits for Cu 324.752  Recovery = 96.01%
Fe 238.204 Radial†       638.0      5042.1 µg/L         12.53      5042.1 ppb          12.53   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.84%
K 766.490 Radial†       7485.2      4888.7 µg/L         12.26      4888.7 ppb          12.26   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 97.77%
Mg 279.077 IEC†          563.4      5039.0 µg/L         41.01      5039.0 ppb          41.01   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.78%
Mn 257.610†           157125.1      492.51 µg/L        25.470      492.51 ppb         25.470   5.17%
   QC value within limits for Mn 257.610  Recovery = 98.50%
Mo 202.031†             4875.7      477.65 µg/L        57.638      477.65 ppb         57.638  12.07%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     32284.4      9915.9 µg/L         25.63      9915.9 ppb          25.63   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.16%
Ni 231.604†             9719.5      484.00 µg/L        36.636      484.00 ppb         36.636   7.57%
   QC value within limits for Ni 231.604  Recovery = 96.80%
P 214.914†              1207.8      2345.0 µg/L        270.98      2345.0 ppb         270.98  11.56%
   QC value within limits for P 214.914  Recovery = 93.80%
Pb 220.353†             1974.0      480.00 µg/L        46.437      480.00 ppb         46.437   9.67%
   QC value within limits for Pb 220.353  Recovery = 96.00%
S 181.975 Axial†         230.6      956.35 µg/L        96.547      956.35 ppb         96.547  10.10%
   QC value within limits for S 181.975 Axial  Recovery = 95.63%
Sb 206.836†              523.4      482.38 µg/L        55.814      482.38 ppb         55.814  11.57%
   QC value within limits for Sb 206.836  Recovery = 96.48%
Se 196.026†              346.8      494.89 µg/L        49.212      494.89 ppb         49.212   9.94%
   QC value within limits for Se 196.026  Recovery = 98.98%
SiO2†                  26410.8      5213.1 µg/L        304.05      5213.1 ppb         304.05   5.83%
   QC value within limits for SiO2  Recovery = 97.49%
Si 251.611†            32134.1      2442.9 µg/L        145.79      2442.9 ppb         145.79   5.97%
   QC value within limits for Si 251.611  Recovery = 97.72%
Sn 189.927†             1134.6      478.51 µg/L        64.799      478.51 ppb         64.799  13.54%
   QC value within limits for Sn 189.927  Recovery = 95.70%
Sr 421.552†            52234.2      481.87 µg/L         1.162      481.87 ppb          1.162   0.24%
   QC value within limits for Sr 421.552  Recovery = 96.37%
Ti 334.940†           217355.5      480.52 µg/L        28.636      480.52 ppb         28.636   5.96%
   QC value within limits for Ti 334.940  Recovery = 96.10%
Tl 190.801†              370.6      487.18 µg/L        38.702      487.18 ppb         38.702   7.94%
   QC value within limits for Tl 190.801  Recovery = 97.44%
U 409.014†              5811.6      481.85 µg/L        43.409      481.85 ppb         43.409   9.01%
   QC value within limits for U 409.014  Recovery = 96.37%
V 292.402†             49140.8      484.77 µg/L        39.238      484.77 ppb         39.238   8.09%
   QC value within limits for V 292.402  Recovery = 96.95%
Zn 213.857†            20789.7      484.32 µg/L        35.886      484.32 ppb         35.886   7.41%
   QC value within limits for Zn 213.857  Recovery = 96.86%
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:30:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57803.7	57803.7	102	%			19:31:04
1	Al 396.153Radial†	-10.0	-17.1	-11.924	µg/L	-11.924	ppb	19:31:04
1	Ca 317.933Radial†	196.7	-19.1	-16.278	µg/L	-16.278	ppb	19:31:24
1	Fe 238.204 Radial†	20.4	3.4	26.456	µg/L	26.456	ppb	19:31:24
1	K 766.490 Radial†	206.4	36.8	24.007	µg/L	24.007	ppb	19:31:04
1	Mg 279.077 IEC†	12.2	-0.9	-8.3904	µg/L	-8.3904	ppb	19:31:24
1	Na 589.592 Radial†	467.0	-15.7	-4.8300	µg/L	-4.8300	ppb	19:31:04
1	Sr 421.552†	46.6	16.7	0.1542	µg/L	0.1542	ppb	19:31:04
1	Sc 361.383	2025799.3	2025799.3	103.19	%			19:32:26
1	Y 371.029	1395690.7	1395690.7	103.17	%			19:32:26
1	Ag 328.068†	-418.9	-4.3	-0.0299	µg/L	-0.0299	ppb	19:32:32
1	As 188.979†	5.7	6.0	10.690	µg/L	10.690	ppb	19:32:52
1	B 249.677†	346.4	-48.5	-1.9903	µg/L	-1.9903	ppb	19:32:52
1	Ba 233.527†	-10.1	7.3	0.1761	µg/L	0.1761	ppb	19:32:52
1	Be 313.107†	-2840.4	103.2	0.0611	µg/L	0.0611	ppb	19:32:32
1	Cd 226.502†	-141.4	4.7	0.1130	µg/L	0.1130	ppb	19:32:52
1	Co 228.616†	3.9	1.9	0.0851	µg/L	0.0851	ppb	19:32:52
1	Cr 267.716†	-52.3	-0.3	-0.0059	µg/L	-0.0059	ppb	19:32:32
1	Cu 324.752†	2589.2	-34.6	-0.2223	µg/L	-0.2223	ppb	19:32:32
1	Mn 257.610†	-125.9	134.0	0.4234	µg/L	0.4234	ppb	19:32:52
1	Mo 202.031†	-3.8	1.7	0.1637	µg/L	0.1637	ppb	19:32:52
1	Ni 231.604†	312.5	-9.5	-0.4735	µg/L	-0.4735	ppb	19:32:52
1	P 214.914†	19.0	3.1	6.0665	µg/L	6.0665	ppb	19:32:52
1	Pb 220.353†	87.4	-6.2	-1.5170	µg/L	-1.5170	ppb	19:32:52
1	S 181.975 Axial†	16.2	-3.2	-13.428	µg/L	-13.428	ppb	19:32:52
1	Sb 206.836†	17.3	-5.7	-5.2171	µg/L	-5.2171	ppb	19:32:52
1	Se 196.026†	14.6	-5.2	-7.2159	µg/L	-7.2159	ppb	19:32:52
1	SiO2†	1457.3	20.6	4.0713	µg/L	4.0713	ppb	19:32:32
1	Si 251.611†	367.4	45.4	3.4484	µg/L	3.4484	ppb	19:32:52
1	Sn 189.927†	2.9	2.5	1.0388	µg/L	1.0388	ppb	19:32:52
1	Ti 334.940†	320.1	135.2	0.2995	µg/L	0.2995	ppb	19:32:32
1	Tl 190.801†	-20.2	2.8	3.6951	µg/L	3.6951	ppb	19:32:52
1	U 409.014†	5.9	82.8	6.8777	µg/L	6.8777	ppb	19:32:32
1	V 292.402†	-40.7	5.3	0.0634	µg/L	0.0634	ppb	19:32:32
1	Zn 213.857†	538.4	-12.7	-0.2952	µg/L	-0.2952	ppb	19:32:52
2	Sc RADIAL	57446.2	57446.2	102	%			19:31:29
2	Al 396.153Radial†	-13.6	-20.7	-14.413	µg/L	-14.413	ppb	19:31:29
2	Ca 317.933Radial†	196.2	-18.3	-15.615	µg/L	-15.615	ppb	19:31:50
2	Fe 238.204 Radial†	16.6	-0.3	-2.1967	µg/L	-2.1967	ppb	19:31:50
2	K 766.490 Radial†	247.6	78.5	51.300	µg/L	51.300	ppb	19:31:29
2	Mg 279.077 IEC†	10.6	-2.4	-21.567	µg/L	-21.567	ppb	19:31:50
2	Na 589.592 Radial†	483.2	3.0	0.9277	µg/L	0.9277	ppb	19:31:29
2	Sr 421.552†	2.4	-26.4	-0.2440	µg/L	-0.2440	ppb	19:31:29
2	Sc 361.383	2031745.9	2031745.9	103.50	%			19:32:58
2	Y 371.029	1401392.4	1401392.4	103.60	%			19:32:58
2	Ag 328.068†	-396.7	18.3	0.1368	µg/L	0.1368	ppb	19:33:04
2	As 188.979†	0.2	0.6	1.1375	µg/L	1.1375	ppb	19:33:24
2	B 249.677†	348.5	-47.4	-1.9319	µg/L	-1.9319	ppb	19:33:24
2	Ba 233.527†	-17.3	0.3	0.0083	µg/L	0.0083	ppb	19:33:24
2	Be 313.107†	-2882.3	70.8	0.0419	µg/L	0.0419	ppb	19:33:04
2	Cd 226.502†	-137.7	8.6	0.2144	µg/L	0.2144	ppb	19:33:24
2	Co 228.616†	-1.5	-3.4	-0.1547	µg/L	-0.1547	ppb	19:33:24
2	Cr 267.716†	-68.0	-15.3	-0.3078	µg/L	-0.3078	ppb	19:33:04
2	Cu 324.752†	2609.0	-22.8	-0.1493	µg/L	-0.1493	ppb	19:33:04
2	Mn 257.610†	-117.6	142.3	0.4463	µg/L	0.4463	ppb	19:33:24
2	Mo 202.031†	-2.4	3.0	0.2951	µg/L	0.2951	ppb	19:33:24
2	Ni 231.604†	312.9	-10.0	-0.4983	µg/L	-0.4983	ppb	19:33:24
2	P 214.914†	11.5	-4.2	-8.3725	µg/L	-8.3725	ppb	19:33:24
2	Pb 220.353†	83.2	-10.5	-2.5612	µg/L	-2.5612	ppb	19:33:24

2	S 181.975 Axial†	19.8	0.2	0.8387	µg/L	0.8387 ppb	19:33:24
2	Sb 206.836†	25.4	2.1	1.9038	µg/L	1.9038 ppb	19:33:24
2	Se 196.026†	16.0	-3.9	-5.4218	µg/L	-5.4218 ppb	19:33:24
2	SiO2†	1425.4	-14.3	-2.8218	µg/L	-2.8218 ppb	19:33:04
2	Si 251.611†	386.0	62.4	4.7401	µg/L	4.7401 ppb	19:33:24
2	Sn 189.927†	-0.4	-0.8	-0.3347	µg/L	-0.3347 ppb	19:33:24
2	Ti 334.940†	346.5	159.8	0.3550	µg/L	0.3550 ppb	19:33:04
2	Tl 190.801†	-19.1	3.9	5.0976	µg/L	5.0976 ppb	19:33:24
2	U 409.014†	-2.7	74.5	6.1922	µg/L	6.1922 ppb	19:33:04
2	V 292.402†	-29.1	16.7	0.1702	µg/L	0.1702 ppb	19:33:04
2	Zn 213.857†	529.8	-22.5	-0.5234	µg/L	-0.5234 ppb	19:33:24
3	Sc RADIAL	56634.0	56634.0	100	%		19:31:55
3	Al 396.153Radial†	3.4	-4.0	-2.7853	µg/L	-2.7853 ppb	19:31:55
3	Ca 317.933Radial†	194.5	-17.2	-14.719	µg/L	-14.719 ppb	19:32:16
3	Fe 238.204 Radial†	18.7	2.1	16.416	µg/L	16.416 ppb	19:32:16
3	K 766.490 Radial†	165.0	-0.4	-0.2546	µg/L	-0.2546 ppb	19:31:55
3	Mg 279.077 IEC†	11.4	-1.4	-12.921	µg/L	-12.921 ppb	19:32:16
3	Na 589.592 Radial†	499.6	26.2	8.0527	µg/L	8.0527 ppb	19:31:55
3	Sr 421.552†	20.0	-8.9	-0.0818	µg/L	-0.0818 ppb	19:31:55
3	Sc 361.383	2031784.6	2031784.6	103.50	%		19:33:30
3	Y 371.029	1401143.1	1401143.1	103.58	%		19:33:30
3	Ag 328.068†	-447.4	-30.7	-0.2248	µg/L	-0.2248 ppb	19:33:36
3	As 188.979†	-3.2	-2.6	-4.7006	µg/L	-4.7006 ppb	19:33:57
3	B 249.677†	355.0	-41.1	-1.6835	µg/L	-1.6835 ppb	19:33:57
3	Ba 233.527†	-12.0	5.5	0.1329	µg/L	0.1329 ppb	19:33:57
3	Be 313.107†	-2752.0	196.7	0.1167	µg/L	0.1167 ppb	19:33:36
3	Cd 226.502†	-133.4	12.8	0.3163	µg/L	0.3163 ppb	19:33:57
3	Co 228.616†	5.6	3.5	0.1593	µg/L	0.1593 ppb	19:33:57
3	Cr 267.716†	-3.9	46.6	0.9367	µg/L	0.9367 ppb	19:33:36
3	Cu 324.752†	2597.8	-33.7	-0.2180	µg/L	-0.2180 ppb	19:33:36
3	Mn 257.610†	-109.9	149.9	0.4720	µg/L	0.4720 ppb	19:33:57
3	Mo 202.031†	-0.0	5.3	0.5227	µg/L	0.5227 ppb	19:33:57
3	Ni 231.604†	321.2	-2.0	-0.0983	µg/L	-0.0983 ppb	19:33:57
3	P 214.914†	15.7	-0.2	-0.3967	µg/L	-0.3967 ppb	19:33:57
3	Pb 220.353†	93.0	-1.1	-0.2629	µg/L	-0.2629 ppb	19:33:57
3	S 181.975 Axial†	17.9	-1.7	-6.9059	µg/L	-6.9059 ppb	19:33:57
3	Sb 206.836†	24.5	1.2	1.0976	µg/L	1.0976 ppb	19:33:57
3	Se 196.026†	13.0	-6.8	-9.4419	µg/L	-9.4419 ppb	19:33:57
3	SiO2†	1471.5	30.2	5.9619	µg/L	5.9619 ppb	19:33:36
3	Si 251.611†	378.8	55.4	4.2091	µg/L	4.2091 ppb	19:33:57
3	Sn 189.927†	1.2	0.8	0.3212	µg/L	0.3212 ppb	19:33:57
3	Ti 334.940†	295.3	110.3	0.2447	µg/L	0.2447 ppb	19:33:36
3	Tl 190.801†	-22.9	0.3	0.3574	µg/L	0.3574 ppb	19:33:57
3	U 409.014†	-14.1	63.5	5.2725	µg/L	5.2725 ppb	19:33:36
3	V 292.402†	-25.9	19.7	0.2057	µg/L	0.2057 ppb	19:33:36
3	Zn 213.857†	530.6	-21.8	-0.5098	µg/L	-0.5098 ppb	19:33:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2029776.6	103.40	%	0.175				0.17%
Sc RADIAL	57294.7	101	%	1.1				1.05%
Y 371.029	1399408.7	103.45	%	0.238				0.23%
Ag 328.068†	-5.5	-0.0393	µg/L	0.18096	-0.0393	ppb	0.18096	460.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.9	-9.7076	µg/L	6.12268	-9.7076	ppb	6.12268	63.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	2.3757	µg/L	7.76979	2.3757	ppb	7.76979	327.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.7	-1.8686	µg/L	0.16289	-1.8686	ppb	0.16289	8.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.4	0.1057	µg/L	0.08714	0.1057	ppb	0.08714	82.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.6	0.0732	µg/L	0.03884	0.0732	ppb	0.03884	53.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.2	-15.537	µg/L	0.7823	-15.537	ppb	0.7823	5.04%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.7	0.2146	µg/L	0.10166	0.2146	ppb	0.10166	47.38%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0299	µg/L	0.16412	0.0299	ppb	0.16412	548.91%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.3      0.2077 µg/L       0.64914      0.2077 ppb        0.64914 312.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -30.4     -0.1965 µg/L       0.04097     -0.1965 ppb        0.04097  20.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.7      13.558 µg/L       14.5386      13.558 ppb        14.5386 107.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          38.3      25.017 µg/L       25.7921      25.017 ppb        25.7921 103.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.6     -14.293 µg/L        6.6944     -14.293 ppb         6.6944  46.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               142.1      0.4473 µg/L       0.02431      0.4473 ppb        0.02431   5.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.3      0.3272 µg/L       0.18162      0.3272 ppb        0.18162  55.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          4.5      1.3835 µg/L       6.45342      1.3835 ppb        6.45342 466.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.2     -0.3567 µg/L       0.22417     -0.3567 ppb        0.22417  62.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.5     -0.9009 µg/L       7.23268     -0.9009 ppb        7.23268 802.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9     -1.4470 µg/L       1.15074     -1.4470 ppb        1.15074  79.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.6     -6.4984 µg/L       7.14204     -6.4984 ppb        7.14204 109.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.8     -0.7386 µg/L       3.89940     -0.7386 ppb        3.89940 527.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.3     -7.3599 µg/L       2.01391     -7.3599 ppb        2.01391  27.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      12.2      2.4038 µg/L       4.62317      2.4038 ppb        4.62317 192.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                54.4      4.1325 µg/L       0.64925      4.1325 ppb        0.64925  15.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.3418 µg/L       0.68701      0.3418 ppb        0.68701 201.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.2     -0.0572 µg/L       0.20025     -0.0572 ppb        0.20025 350.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               135.1      0.2997 µg/L       0.05511      0.2997 ppb        0.05511  18.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.3      3.0500 µg/L       2.43504      3.0500 ppb        2.43504  79.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 73.6      6.1141 µg/L       0.80544      6.1141 ppb        0.80544  13.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 13.9      0.1464 µg/L       0.07408      0.1464 ppb        0.07408  50.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -19.0     -0.4428 µg/L       0.12799     -0.4428 ppb        0.12799  28.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 24, 2010 10:54:04
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.6305
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	491.8	491.808	9.258	1.9
	Mg	24.0	4360.9	4360.866	82.243	1.9
	Co	58.9	14176.4	14176.431	126.046	0.9
	Rh	102.9	39998.7	39998.719	148.690	0.4
	In	114.9	60912.6	60912.590	369.100	0.6
	Pb	208.0	41242.1	41242.058	652.789	1.6
⌈>	Ba	137.9	44699.4	44699.400	505.116	1.1
⌊	Ba++	69.0	841.8	0.019	0.001	2.7
⌈>	Ce	139.9	58883.1	58883.129	961.641	1.6
⌊	CeO	155.9	1397.3	0.024	0.000	0.9
	Bkgd	220.0	1.8	1.800	0.975	54.1

Current Optimization File Data

Current Value	Description
1.06	Nebulizer Gas Flow
6.50	Lens Voltage
1450.00	ICP RF Power
-1855.00	Analog Stage Voltage
1350.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	6.5	750.0
Co	59	25	7.8	14952.5
In	115	25	9.0	94906.9

ICPMS#3 Instrument Tuning Report

File Name: 100224.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.1	590	2060	0.634
Be	9.0	9.0	2068	2060	0.633
Mg	24.0	24.0	5706	2110	0.589
Mg	25.0	25.0	5920	2020	0.661
Mg	26.0	26.0	6214	2140	0.637
Co	58.9	59.0	14209	2115	0.625
Rh	102.9	102.9	24899	2165	0.661
In	114.9	114.9	27824	2180	0.656
Ce	139.9	139.9	33912	2220	0.621
Pb	206.0	206.0	49992	2280	0.619
Pb	207.0	207.0	50296	2310	0.656
Pb	208.0	208.0	50474	2300	0.637
U	238.1	238.1	57851	2340	0.666

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, February 24, 2010 11:00:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		2	
>	Sc	45		ug/L		169674	
	Ni	60		ug/L		16	
>	Ge	74		ug/L		90066	
	As	75		ug/L		89	
	Se	77		ug/L		801	
	Se	82		ug/L		22	
	Kr	83		ug/L		17	
>	Lu	175		ug/L		142193	
	Tl	205		ug/L		76	
	U	238		ug/L		76	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, February 24, 2010 11:02:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	11.353	438	0.003
>	Sc	45		ug/L		167918	167918.234
	Ni	60	10.000	ug/L	15.937	2404	0.014
>	Ge	74		ug/L		87137	87137.149
	As	75	10.000	ug/L	3.097	2708	0.030
	Se	77		ug/L		1215	0.005
	Se	82	10.000	ug/L	2.149	257	0.003
	Kr	83		ug/L		13	-0.000
>	Lu	175		ug/L		140318	140317.693
	Tl	205	10.000	ug/L	2.472	65460	0.466
	U	238	10.000	ug/L	5.578	90208	0.643

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, February 24, 2010 11:05:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.865**	**ug/L**	15.048	3734	0.023
>	Sc	45		**ug/L**		163679	163678.747
	Ni	60	**99.980**	**ug/L**	12.258	22928	0.141
>	Ge	74		**ug/L**		86355	86355.077
	As	75	**99.998**	**ug/L**	1.810	26011	0.300
	Se	77		**ug/L**		3000	0.026
	Se	82	**100.049**	**ug/L**	0.555	2484	0.029
	Kr	83		**ug/L**		18	0.000
>	Lu	175		**ug/L**		139407	139406.634
	Tl	205	**99.972**	**ug/L**	1.218	631983	4.533
	U	238	**99.976**	**ug/L**	0.642	874726	6.274

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, February 24, 2010 11:08:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.414**	**ug/L**	10.252	1998	0.012
>	Sc	45		**ug/L**		168463	168462.510
	Ni	60	**49.710**	**ug/L**	5.547	11835	0.070
>	Ge	74		**ug/L**		88009	88009.149
	As	75	**47.817**	**ug/L**	2.163	12720	0.144
	Se	77		**ug/L**		2027	0.014
	Se	82	**51.151**	**ug/L**	3.522	1305	0.015
	Kr	83		**ug/L**		17	0.000
>	Lu	175		**ug/L**		139615	139614.985
	Tl	205	**49.156**	**ug/L**	0.932	311242	2.229
	U	238	**53.183**	**ug/L**	1.529	466037	3.338

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	102.828				
>	Sc	45			99.3		
	Ni	60	99.419				
>	Ge	74			97.7		
	As	75	95.634				
	Se	77					
	Se	82	102.301				
	Kr	83					
>	Lu	175			98.2		
	Tl	205	98.313				
	U	238	106.367				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, February 24, 2010 11:11:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.018	ug/L	208.575	2	-0.000
>	Sc	45		ug/L		175005	175005.013
	Ni	60	-0.015	ug/L	67.162	13	-0.000
>	Ge	74		ug/L		92259	92258.576
	As	75	-0.289	ug/L	106.096	10	-0.001
	Se	77		ug/L		889	0.001
	Se	82	0.464	ug/L	58.565	34	0.000
	Kr	83		ug/L		17	-0.000
>	Lu	175		ug/L		142412	142411.917
	Tl	205	0.139	ug/L	5.844	970	0.006
	U	238	0.008	ug/L	20.174	145	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			103.1		
	Ni	60					
>	Ge	74			102.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175			100.2		
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, February 24, 2010 11:13:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.641**	**ug/L**	22.091	29	0.000
>	Sc	45		**ug/L**		180783	180782.820
	Ni	60	**2.015**	**ug/L**	7.587	531	0.003
>	Ge	74		**ug/L**		89719	89718.779
	As	75	**5.218**	**ug/L**	4.478	1494	0.016
	Se	77		**ug/L**		1026	0.003
	Se	82	**5.031**	**ug/L**	7.306	150	0.001
	Kr	83		**ug/L**		17	0.000
>	Lu	175		**ug/L**		142826	142825.851
	Tl	205	**1.105**	**ug/L**	2.033	7234	0.050
	U	238	**0.241**	**ug/L**	0.603	2237	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	128.224				
>	Sc	45		106.5			
	Ni	60	100.739				
>	Ge	74		99.6			
	As	75	104.354				
	Se	77					
	Se	82	100.629				
	Kr	83					
>	Lu	175		100.4			
	Tl	205	110.536				
	U	238	120.517				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, February 24, 2010 11:16:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.076**	**ug/L**	58.330	4	0.000
>	Sc	45		**ug/L**		138183	138182.906
	Ni	60	**2.931**	**ug/L**	6.538	585	0.004
>	Ge	74		**ug/L**		71243	71243.252
	As	75	**1.057**	**ug/L**	50.833	296	0.003
	Se	77		**ug/L**		1407	0.011
	Se	82	**-0.733**	**ug/L**	196.517	2	-0.000
	Kr	83		**ug/L**		64	0.001
>	Lu	175		**ug/L**		108523	108522.806
	Tl	205	**0.063**	**ug/L**	1.662	367	0.003
	U	238	**0.003**	**ug/L**	41.275	75	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		81.4			
	Ni	60	88.553				
>	Ge	74		79.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		76.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 74 Int Std for QC	Ge	74	
Lu 175 Int Std for Q	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, February 24, 2010 11:19:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**13.374**	**ug/L**	5.727	444	0.003
>	Sc	45		**ug/L**		143219	143219.393
	Ni	60	**19.092**	**ug/L**	2.315	3876	0.027
>	Ge	74		**ug/L**		71808	71808.175
	As	75	**21.639**	**ug/L**	2.885	4734	0.065
	Se	77		**ug/L**		1484	0.012
	Se	82	**20.558**	**ug/L**	1.707	438	0.006
	Kr	83		**ug/L**		67	0.001
>	Lu	175		**ug/L**		108466	108466.371
	Tl	205	**19.805**	**ug/L**	1.216	97443	0.898
	U	238	**22.490**	**ug/L**	1.628	153123	1.411

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	66.870				
>	Sc	45		84.4			
	Ni	60	81.904				
>	Ge	74		79.7			
	As	75	108.197				
	Se	77					
	Se	82	102.789				
	Kr	83					
>	Lu	175		76.3			
	Tl	205	99.023				
	U	238	112.450				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Be	9	ICSAB is out of limits
Ge 74 Int Std for QC	Ge	74	
Lu 175 Int Std for QC	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 11:21:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.424**	**ug/L**	2.401	1938	0.011
>	Sc	45		**ug/L**		173600	173599.704
	Ni	60	**47.512**	**ug/L**	6.661	11620	0.067
>	Ge	74		**ug/L**		85776	85775.933
	As	75	**47.099**	**ug/L**	1.716	12213	0.141
	Se	77		**ug/L**		1953	0.014
	Se	82	**49.199**	**ug/L**	1.411	1224	0.014
	Kr	83		**ug/L**		17	0.000
>	Lu	175		**ug/L**		135822	135822.080
	Tl	205	**48.042**	**ug/L**	1.947	295900	2.178
	U	238	**52.884**	**ug/L**	1.769	450832	3.319

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	96.847				
>	Sc	45		102.3			
	Ni	60	95.025				
>	Ge	74		95.2			
	As	75	94.198				
	Se	77					
	Se	82	98.399				
	Kr	83					
>	Lu	175		95.5			
	Tl	205	96.083				
	U	238	105.768				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 11:24:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.006**	**ug/L**	1018.072	3	0.000
>	Sc	45		**ug/L**		182827	182826.867
	Ni	60	**-0.024**	**ug/L**	20.983	11	-0.000
>	Ge	74		**ug/L**		90398	90398.394
	As	75	**0.571**	**ug/L**	16.041	244	0.002
	Se	77		**ug/L**		878	0.001
	Se	82	**-0.055**	**ug/L**	234.066	20	-0.000
	Kr	83		**ug/L**		19	0.000
>	Lu	175		**ug/L**		138394	138394.320
	Tl	205	**0.130**	**ug/L**	4.042	890	0.006
	U	238	**0.005**	**ug/L**	48.393	117	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		107.8			
	Ni	60					
>	Ge	74		100.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202030852
Sample Date/Time: Wednesday, February 24, 2010 11:27:17
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\1202030852.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.028**	**ug/L**	47.313	1	-0.000
>	Sc	45		**ug/L**		182818	182817.591
	Ni	60	**0.132**	**ug/L**	20.600	51	0.000
>	Ge	74		**ug/L**		86707	86707.251
	As	75	**0.214**	**ug/L**	138.999	140	0.001
	Se	77		**ug/L**		876	0.001
	Se	82	**0.048**	**ug/L**	335.447	22	0.000
	Kr	83		**ug/L**		16	-0.000
>	Lu	175		**ug/L**		142648	142647.762
	Tl	205	**0.075**	**ug/L**	9.761	560	0.003
	U	238	**0.003**	**ug/L**	65.656	99	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		107.7			
	Ni	60					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688001
Sample Date/Time: Wednesday, February 24, 2010 11:32:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688001.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.747**	**ug/L**	9.208	81	0.000
>	Sc	45		**ug/L**		195273	195273.075
	Ni	60	**14.726**	**ug/L**	5.602	4076	0.021
>	Ge	74		**ug/L**		83592	83592.041
	As	75	**5.560**	**ug/L**	10.521	1477	0.017
	Se	77		**ug/L**		765	0.000
	Se	82	**0.549**	**ug/L**	53.820	33	0.000
	Kr	83		**ug/L**		38	0.000
>	Lu	175		**ug/L**		137131	137130.756
	Tl	205	**0.815**	**ug/L**	6.149	5137	0.037
	U	238	**26.965**	**ug/L**	0.729	232133	1.692

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		115.1			
	Ni	60					
>	Ge	74		92.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202030853
Sample Date/Time: Wednesday, February 24, 2010 11:35:24
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\1202030853.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.079**	**ug/L**	12.321	86	0.000
>	Sc	45		**ug/L**		174173	174173.258
	Ni	60	**17.257**	**ug/L**	1.249	4265	0.024
>	Ge	74		**ug/L**		83061	83060.623
	As	75	**5.709**	**ug/L**	9.649	1504	0.017
	Se	77		**ug/L**		737	-0.000
	Se	82	**-1.014**	**ug/L**	273.048	-4	-0.000
	Kr	83		**ug/L**		62	0.001
>	Lu	175		**ug/L**		137733	137732.575
	Tl	205	**0.525**	**ug/L**	1.938	3350	0.024
	U	238	**30.293**	**ug/L**	2.310	261887	1.901

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		102.7			
	Ni	60					
>	Ge	74		92.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202030855
Sample Date/Time: Wednesday, February 24, 2010 11:38:08
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\1202030855.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.251**	**ug/L**	12.130	890	0.005
>	Sc	45		**ug/L**		191584	191583.914
	Ni	60	**38.022**	**ug/L**	12.367	10211	0.054
>	Ge	74		**ug/L**		83065	83065.307
	As	75	**39.190**	**ug/L**	0.449	9855	0.118
	Se	77		**ug/L**		907	0.002
	Se	82	**6.256**	**ug/L**	8.188	168	0.002
	Kr	83		**ug/L**		45	0.000
>	Lu	175		**ug/L**		137813	137813.319
	Tl	205	**44.240**	**ug/L**	2.014	276464	2.006
	U	238	**54.151**	**ug/L**	1.414	468380	3.398

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		112.9			
	Ni	60					
>	Ge	74		92.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202030856
Sample Date/Time: Wednesday, February 24, 2010 11:40:52
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\1202030856.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.948**	**ug/L**	9.207	964	0.005
>	Sc	45		**ug/L**		190532	190531.949
	Ni	60	**36.957**	**ug/L**	6.784	9959	0.052
>	Ge	74		**ug/L**		83629	83628.906
	As	75	**40.387**	**ug/L**	1.823	10223	0.121
	Se	77		**ug/L**		854	0.001
	Se	82	**7.254**	**ug/L**	2.197	193	0.002
	Kr	83		**ug/L**		41	0.000
>	Lu	175		**ug/L**		140066	140065.563
	Tl	205	**46.642**	**ug/L**	3.073	296149	2.115
	U	238	**52.108**	**ug/L**	3.141	457914	3.270

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		112.3			
	Ni	60					
>	Ge	74		92.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202030854
Sample Date/Time: Wednesday, February 24, 2010 11:43:37
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948035|10|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\1202030854.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.423**	**ug/L**	11.196	21	0.000
>	Sc	45		**ug/L**		191520	191520.282
	Ni	60	**3.195**	**ug/L**	5.257	882	0.005
>	Ge	74		**ug/L**		86628	86628.118
	As	75	**1.352**	**ug/L**	3.667	437	0.004
	Se	77		**ug/L**		943	0.002
	Se	82	**-0.357**	**ug/L**	91.794	12	-0.000
	Kr	83		**ug/L**		21	0.000
>	Lu	175		**ug/L**		137592	137591.879
	Tl	205	**0.293**	**ug/L**	4.218	1902	0.013
	U	238	**5.381**	**ug/L**	1.869	46537	0.338

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		112.9			
	Ni	60					
>	Ge	74		96.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688002
Sample Date/Time: Wednesday, February 24, 2010 11:46:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688002.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.670**	**ug/L**	6.858	78	0.000
>	Sc	45		**ug/L**		195649	195649.417
	Ni	60	**23.093**	**ug/L**	2.091	6405	0.033
>	Ge	74		**ug/L**		84537	84537.253
	As	75	**5.861**	**ug/L**	8.053	1570	0.018
	Se	77		**ug/L**		788	0.000
	Se	82	**-0.244**	**ug/L**	280.623	14	-0.000
	Kr	83		**ug/L**		53	0.000
>	Lu	175		**ug/L**		143921	143920.775
	Tl	205	**0.327**	**ug/L**	1.160	2212	0.015
	U	238	**3.012**	**ug/L**	2.027	27277	0.189

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		115.3			
	Ni	60					
>	Ge	74		93.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688003
Sample Date/Time: Wednesday, February 24, 2010 11:49:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688003.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.275**	**ug/L**	6.880	147	0.001
>	Sc	45		**ug/L**		191745	191745.251
	Ni	60	**25.807**	**ug/L**	10.910	6955	0.036
>	Ge	74		**ug/L**		83136	83136.423
	As	75	**6.534**	**ug/L**	3.740	1713	0.020
	Se	77		**ug/L**		751	0.000
	Se	82	**-0.365**	**ug/L**	27.977	11	-0.000
	Kr	83		**ug/L**		51	0.000
>	Lu	175		**ug/L**		140037	140037.120
	Tl	205	**0.376**	**ug/L**	2.965	2463	0.017
	U	238	**4.870**	**ug/L**	1.298	42879	0.306

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.0			
	Ni	60					
>	Ge	74		92.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688004
Sample Date/Time: Wednesday, February 24, 2010 11:51:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688004.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.157**	**ug/L**	18.317	106	0.000
>	Sc	45		**ug/L**		208970	208969.546
	Ni	60	**21.053**	**ug/L**	4.661	6233	0.030
>	Ge	74		**ug/L**		82713	82712.927
	As	75	**7.259**	**ug/L**	4.732	1884	0.022
	Se	77		**ug/L**		716	-0.000
	Se	82	**-1.236**	**ug/L**	29.112	-9	-0.000
	Kr	83		**ug/L**		51	0.000
>	Lu	175		**ug/L**		135319	135318.567
	Tl	205	**0.469**	**ug/L**	2.921	2946	0.021
	U	238	**9.817**	**ug/L**	2.972	83448	0.616

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		123.2			
	Ni	60					
>	Ge	74		91.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 11:54:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**45.947**	**ug/L**	19.535	2067	0.011
>	Sc	45		**ug/L**		196419	196418.884
	Ni	60	**44.646**	**ug/L**	10.929	12365	0.063
>	Ge	74		**ug/L**		91625	91624.855
	As	75	**46.927**	**ug/L**	3.038	12996	0.141
	Se	77		**ug/L**		1989	0.013
	Se	82	**47.212**	**ug/L**	0.747	1256	0.013
	Kr	83		**ug/L**		18	0.000
>	Lu	175		**ug/L**		137772	137771.615
	Tl	205	**49.053**	**ug/L**	2.454	306418	2.224
	U	238	**52.466**	**ug/L**	1.935	453659	3.293

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	91.894				
>	Sc	45		115.8			
	Ni	60	89.291				
>	Ge	74		101.7			
	As	75	93.853				
	Se	77					
	Se	82	94.425				
	Kr	83					
>	Lu	175		96.9			
	Tl	205	98.106				
	U	238	104.931				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 11:57:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.006**	**ug/L**	644.930	2	-0.000
>	Sc	45		**ug/L**		199174	199174.131
	Ni	60	**-0.034**	**ug/L**	33.989	9	-0.000
>	Ge	74		**ug/L**		93765	93765.402
	As	75	**0.199**	**ug/L**	224.600	148	0.001
	Se	77		**ug/L**		908	0.001
	Se	82	**-0.037**	**ug/L**	537.748	21	-0.000
	Kr	83		**ug/L**		21	0.000
>	Lu	175		**ug/L**		139832	139831.767
	Tl	205	**0.102**	**ug/L**	6.165	723	0.005
	U	238	**0.006**	**ug/L**	38.892	127	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		117.4			
	Ni	60					
>	Ge	74		104.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688005
Sample Date/Time: Wednesday, February 24, 2010 11:59:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688005.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.586**	**ug/L**	8.020	81	0.000
>	Sc	45		**ug/L**		214745	214745.380
	Ni	60	**23.139**	**ug/L**	3.086	7044	0.033
>	Ge	74		**ug/L**		85451	85451.006
	As	75	**3.479**	**ug/L**	4.888	977	0.010
	Se	77		**ug/L**		799	0.000
	Se	82	**0.357**	**ug/L**	145.011	29	0.000
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		149995	149995.349
	Tl	205	**0.218**	**ug/L**	4.302	1562	0.010
	U	238	**3.069**	**ug/L**	5.136	28956	0.193

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		126.6			
	Ni	60					
>	Ge	74		94.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245688006
Sample Date/Time: Wednesday, February 24, 2010 12:02:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688006.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.171**	**ug/L**	16.963	95	0.001
>	Sc	45		**ug/L**		185980	185980.022
	Ni	60	**19.984**	**ug/L**	8.065	5251	0.028
>	Ge	74		**ug/L**		83969	83968.578
	As	75	**6.935**	**ug/L**	6.254	1830	0.021
	Se	77		**ug/L**		737	-0.000
	Se	82	**-0.039**	**ug/L**	1608.567	19	-0.000
	Kr	83		**ug/L**		35	0.000
>	Lu	175		**ug/L**		135625	135625.180
	Tl	205	**0.576**	**ug/L**	1.722	3611	0.026
	U	238	**60.166**	**ug/L**	1.243	512136	3.776

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		109.6			
	Ni	60					
>	Ge	74		93.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688007
Sample Date/Time: Wednesday, February 24, 2010 12:05:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688007.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.492**	**ug/L**	6.707	165	0.001
>	Sc	45		**ug/L**		201822	201822.333
	Ni	60	**42.856**	**ug/L**	3.452	12239	0.061
>	Ge	74		**ug/L**		83576	83576.276
	As	75	**13.302**	**ug/L**	5.724	3421	0.040
	Se	77		**ug/L**		824	0.001
	Se	82	**-0.490**	**ug/L**	141.627	8	-0.000
	Kr	83		**ug/L**		75	0.001
>	Lu	175		**ug/L**		137390	137390.240
	Tl	205	**1.269**	**ug/L**	2.148	7977	0.058
	U	238	**67.018**	**ug/L**	1.240	577963	4.206

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		118.9			
	Ni	60					
>	Ge	74		92.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688008
Sample Date/Time: Wednesday, February 24, 2010 12:08:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688008.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.415**	**ug/L**	13.637	66	0.000
>	Sc	45		**ug/L**		193889	193888.703
	Ni	60	**18.516**	**ug/L**	7.125	5080	0.026
>	Ge	74		**ug/L**		85229	85229.003
	As	75	**2.574**	**ug/L**	6.537	743	0.008
	Se	77		**ug/L**		718	-0.000
	Se	82	**0.037**	**ug/L**	667.800	21	0.000
	Kr	83		**ug/L**		46	0.000
>	Lu	175		**ug/L**		149486	149485.885
	Tl	205	**0.165**	**ug/L**	2.104	1198	0.007
	U	238	**10.179**	**ug/L**	1.581	95563	0.639

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		114.3			
	Ni	60					
>	Ge	74		94.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688009
Sample Date/Time: Wednesday, February 24, 2010 12:10:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688009.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**8.862**	**ug/L**	5.476	411	0.002
>	Sc	45		**ug/L**		199900	199900.094
	Ni	60	**31.452**	**ug/L**	4.246	8893	0.044
>	Ge	74		**ug/L**		84868	84867.602
	As	75	**12.168**	**ug/L**	5.860	3182	0.037
	Se	77		**ug/L**		738	-0.000
	Se	82	**-1.011**	**ug/L**	10.404	-4	-0.000
	Kr	83		**ug/L**		58	0.000
>	Lu	175		**ug/L**		136671	136670.710
	Tl	205	**0.684**	**ug/L**	2.779	4310	0.031
	U	238	**403.768**	**ug/L**	0.641	3463187	25.340

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		117.8			
	Ni	60					
>	Ge	74		94.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688010
Sample Date/Time: Wednesday, February 24, 2010 12:13:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688010.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.059**	**ug/L**	13.568	133	0.001
>	Sc	45		**ug/L**		186280	186279.537
	Ni	60	**33.304**	**ug/L**	7.639	8743	0.047
>	Ge	74		**ug/L**		83569	83568.553
	As	75	**10.406**	**ug/L**	5.566	2693	0.031
	Se	77		**ug/L**		764	0.000
	Se	82	**-1.013**	**ug/L**	47.841	-4	-0.000
	Kr	83		**ug/L**		59	0.001
>	Lu	175		**ug/L**		136730	136729.683
	Tl	205	**0.672**	**ug/L**	3.317	4235	0.030
	U	238	**5.605**	**ug/L**	2.155	48179	0.352

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		109.8			
	Ni	60					
>	Ge	74		92.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245688011
Sample Date/Time: Wednesday, February 24, 2010 12:16:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688011.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.037**	**ug/L**	7.186	148	0.001
>	Sc	45		**ug/L**		208212	208211.839
	Ni	60	**31.142**	**ug/L**	8.964	9161	0.044
>	Ge	74		**ug/L**		84886	84885.652
	As	75	**7.208**	**ug/L**	3.164	1921	0.022
	Se	77		**ug/L**		788	0.000
	Se	82	**-0.319**	**ug/L**	157.407	13	-0.000
	Kr	83		**ug/L**		48	0.000
>	Lu	175		**ug/L**		142583	142582.904
	Tl	205	**0.455**	**ug/L**	2.413	3017	0.021
	U	238	**4.420**	**ug/L**	1.696	39623	0.277

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		122.7			
	Ni	60					
>	Ge	74		94.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.3			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245688012
Sample Date/Time: Wednesday, February 24, 2010 12:19:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688012.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.177**	**ug/L**	12.245	155	0.001
>	Sc	45		**ug/L**		208678	208678.290
	Ni	60	**29.391**	**ug/L**	1.575	8689	0.042
>	Ge	74		**ug/L**		83568	83568.267
	As	75	**11.181**	**ug/L**	1.401	2887	0.034
	Se	77		**ug/L**		757	0.000
	Se	82	**-0.534**	**ug/L**	176.461	7	-0.000
	Kr	83		**ug/L**		55	0.000
>	Lu	175		**ug/L**		137428	137428.004
	Tl	205	**0.796**	**ug/L**	2.021	5031	0.036
	U	238	**105.746**	**ug/L**	1.444	912022	6.636

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		123.0			
	Ni	60					
>	Ge	74		92.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245688013
Sample Date/Time: Wednesday, February 24, 2010 12:21:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688013.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.366**	**ug/L**	15.508	73	0.000
>	Sc	45		**ug/L**		220859	220858.539
	Ni	60	**17.213**	**ug/L**	2.469	5395	0.024
>	Ge	74		**ug/L**		86185	86185.401
	As	75	**2.441**	**ug/L**	9.462	717	0.007
	Se	77		**ug/L**		707	-0.001
	Se	82	**0.108**	**ug/L**	352.314	23	0.000
	Kr	83		**ug/L**		41	0.000
>	Lu	175		**ug/L**		151614	151613.871
	Tl	205	**0.128**	**ug/L**	4.365	963	0.006
	U	238	**186.857**	**ug/L**	1.043	1778156	11.727

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		130.2			
	Ni	60					
>	Ge	74		95.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		106.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245688014
Sample Date/Time: Wednesday, February 24, 2010 12:24:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688014.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.929**	**ug/L**	7.696	95	0.000
>	Sc	45		**ug/L**		207511	207510.571
	Ni	60	**16.123**	**ug/L**	3.790	4746	0.023
>	Ge	74		**ug/L**		82223	82223.102
	As	75	**6.146**	**ug/L**	2.269	1598	0.018
	Se	77		**ug/L**		676	-0.001
	Se	82	**-0.743**	**ug/L**	125.226	2	-0.000
	Kr	83		**ug/L**		40	0.000
>	Lu	175		**ug/L**		136281	136280.714
	Tl	205	**0.472**	**ug/L**	3.333	2987	0.021
	U	238	**25.606**	**ug/L**	2.550	219027	1.607

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		122.3			
	Ni	60					
>	Ge	74		91.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 12:27:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	**43.730**	**ug/L**	8.133	2094	0.010
|>	Sc	45		**ug/L**		207300	207299.758
[	Ni	60	**41.406**	**ug/L**	6.447	12107	0.059
[>	Ge	74		**ug/L**		89509	89508.778
|	As	75	**47.528**	**ug/L**	2.569	12859	0.143
|	Se	77		**ug/L**		1963	0.013
|	Se	82	**48.128**	**ug/L**	4.113	1250	0.014
[	Kr	83		**ug/L**		13	-0.000
[>	Lu	175		**ug/L**		137186	137186.103
|	Tl	205	**48.162**	**ug/L**	2.807	299532	2.184
[	U	238	**52.159**	**ug/L**	1.451	449046	3.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[	Be	9	87.460				
|>	Sc	45		122.2			
[	Ni	60	82.813				
[>	Ge	74		99.4			
|	As	75	95.057				
|	Se	77					
|	Se	82	96.255				
[	Kr	83					
[>	Lu	175		96.5			
|	Tl	205	96.325				
[	U	238	104.318				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 12:30:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	2074.238	3	0.000
>	Sc	45		**ug/L**		215589	215589.214
	Ni	60	**-0.028**	**ug/L**	42.508	12	-0.000
>	Ge	74		**ug/L**		91421	91421.170
	As	75	**-0.113**	**ug/L**	657.255	59	-0.000
	Se	77		**ug/L**		850	0.000
	Se	82	**0.191**	**ug/L**	365.605	27	0.000
	Kr	83		**ug/L**		17	0.000
>	Lu	175		**ug/L**		135857	135857.311
	Tl	205	**0.075**	**ug/L**	6.046	535	0.003
	U	238	**0.005**	**ug/L**	28.350	111	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		127.1			
	Ni	60					
>	Ge	74		101.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245688009
Sample Date/Time: Wednesday, February 24, 2010 12:38:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|20|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688009.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.972**	**ug/L**	16.246	51	0.000
>	Sc	45		**ug/L**		212671	212671.169
	Ni	60	**3.247**	**ug/L**	4.338	996	0.005
>	Ge	74		**ug/L**		87738	87738.489
	As	75	**1.414**	**ug/L**	41.433	459	0.004
	Se	77		**ug/L**		953	0.002
	Se	82	**-0.619**	**ug/L**	35.695	5	-0.000
	Kr	83		**ug/L**		21	0.000
>	Lu	175		**ug/L**		135185	135185.315
	Tl	205	**0.069**	**ug/L**	7.818	496	0.003
	U	238	**59.665**	**ug/L**	1.815	506267	3.744

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		125.3			
	Ni	60					
>	Ge	74		97.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245688012
Sample Date/Time: Wednesday, February 24, 2010 12:41:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|10|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688012.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.708**	**ug/L**	21.170	38	0.000
>	Sc	45		**ug/L**		211891	211890.514
	Ni	60	**6.328**	**ug/L**	4.363	1915	0.009
>	Ge	74		**ug/L**		86901	86900.715
	As	75	**2.348**	**ug/L**	19.618	699	0.007
	Se	77		**ug/L**		927	0.002
	Se	82	**-0.469**	**ug/L**	50.039	9	-0.000
	Kr	83		**ug/L**		21	0.000
>	Lu	175		**ug/L**		135315	135314.573
	Tl	205	**0.165**	**ug/L**	5.353	1086	0.007
	U	238	**21.191**	**ug/L**	1.361	180008	1.330

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		124.9			
	Ni	60					
>	Ge	74		96.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245688013
Sample Date/Time: Wednesday, February 24, 2010 12:44:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|10|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\245688013.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.282**	**ug/L**	28.502	17	0.000
>	Sc	45		**ug/L**		211538	211537.713
	Ni	60	**3.462**	**ug/L**	6.589	1056	0.005
>	Ge	74		**ug/L**		86573	86573.072
	As	75	**0.719**	**ug/L**	92.922	272	0.002
	Se	77		**ug/L**		851	0.001
	Se	82	**-0.966**	**ug/L**	80.218	-3	-0.000
	Kr	83		**ug/L**		30	0.000
>	Lu	175		**ug/L**		136770	136770.308
	Tl	205	**0.028**	**ug/L**	12.871	248	0.001
	U	238	**39.839**	**ug/L**	0.903	342037	2.500

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		124.7			
	Ni	60					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.2			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1202030857
Sample Date/Time: Wednesday, February 24, 2010 12:47:08
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948035|40|prb
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\1202030857.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.446**	**ug/L**	15.786	873	0.004
>	Sc	45		**ug/L**		205858	205858.274
	Ni	60	**30.692**	**ug/L**	6.947	8929	0.043
>	Ge	74		**ug/L**		86739	86738.733
	As	75	**27.096**	**ug/L**	7.539	7143	0.081
	Se	77		**ug/L**		2591	0.021
	Se	82	**71.574**	**ug/L**	2.534	1791	0.020
	Kr	83		**ug/L**		20	0.000
>	Lu	175		**ug/L**		134951	134951.483
	Tl	205	**33.549**	**ug/L**	2.615	205327	1.521
	U	238	**0.580**	**ug/L**	2.205	4987	0.036

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		121.3			
	Ni	60					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for san	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 12:49:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**43.130**	**ug/L**	3.690	2029	0.010
>	Sc	45		**ug/L**		203963	203962.899
	Ni	60	**41.843**	**ug/L**	8.312	12011	0.059
>	Ge	74		**ug/L**		89601	89601.356
	As	75	**47.975**	**ug/L**	1.378	12993	0.144
	Se	77		**ug/L**		2087	0.014
	Se	82	**48.873**	**ug/L**	0.776	1270	0.014
	Kr	83		**ug/L**		19	0.000
>	Lu	175		**ug/L**		135881	135880.532
	Tl	205	**48.242**	**ug/L**	1.782	297269	2.187
	U	238	**52.693**	**ug/L**	1.703	449433	3.307

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	86.261				
>	Sc	45		120.2			
	Ni	60	83.687				
>	Ge	74		99.5			
	As	75	95.951				
	Se	77					
	Se	82	97.747				
	Kr	83					
>	Lu	175		95.6			
	Tl	205	96.483				
	U	238	105.386				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 12:52:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.019**	**ug/L**	204.975	4	0.000
>	Sc	45		**ug/L**		218849	218849.367
	Ni	60	**-0.041**	**ug/L**	16.208	8	-0.000
>	Ge	74		**ug/L**		92495	92495.087
	As	75	**0.183**	**ug/L**	418.434	142	0.001
	Se	77		**ug/L**		915	0.001
	Se	82	**0.167**	**ug/L**	38.583	26	0.000
	Kr	83		**ug/L**		21	0.000
>	Lu	175		**ug/L**		137728	137728.181
	Tl	205	**0.115**	**ug/L**	4.421	791	0.005
	U	238	**0.005**	**ug/L**	18.448	118	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	0.9999
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		129.0			
	Ni	60					
>	Ge	74		102.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 24, 2010 09:43:38
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.333
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	969.4	969.433	38.510	4.0
	Mg	24.0	17145.3	17145.285	285.504	1.7
	Co	58.9	46044.1	46044.087	387.015	0.8
	Rh	102.9	82959.6	82959.587	367.776	0.4
	In	114.9	109180.8	109180.840	667.307	0.6
	Pb	208.0	39651.0	39650.952	237.985	0.6
⌈>	Ba	137.9	88612.4	88612.367	201.057	0.2
⌊	Ba++	69.0	1068.3	0.012	0.000	1.6
⌈>	Ce	139.9	104716.8	104716.811	763.026	0.7
⌊	CeO	155.9	2804.4	0.027	0.001	2.2
	Bkgd	220.0	1.2	1.200	0.570	47.5

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	5.5	1019.4
Co	59	21	6.3	32736.8
In	115	21	7.5	73094.5

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	605	2060	0.637
Be	9.0	9.0	2048	2045	0.655
Mg	24.0	24.0	5678	2065	0.692
Mg	25.0	25.0	5917	2080	0.665
Mg	26.0	26.0	6163	2085	0.603
Co	58.9	59.0	14175	2140	0.629
Rh	102.9	102.9	24867	2230	0.647
In	114.9	114.9	27791	2255	0.659
Ce	139.9	139.9	33853	2310	0.630
Pb	206.0	206.0	49931	2500	0.618
Pb	207.0	207.0	50125	2375	0.657
Pb	208.0	208.0	50436	2570	0.653
U	238.1	238.0	57687	2510	0.706

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, February 24, 2010 12:05:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\Blank.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		1	
>	Sc	45		ug/L		236314	
	Ni	60		ug/L		29	
	Cu	63		ug/L		104	
	Cu	65		ug/L		64	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, February 24, 2010 12:07:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\Standard 1.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	4.927	946	0.004
>	Sc	45		ug/L		234834	234834.489
	Ni	60	10.000	ug/L	0.605	6648	0.028
	Cu	63		ug/L		13988	0.059
	Cu	65	10.000	ug/L	4.317	6786	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, February 24, 2010 12:09:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\Standard 2.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.032**	**ug/L**	3.773	9904	0.042
>	Sc	45		**ug/L**		237947	237946.881
	Ni	60	**99.950**	**ug/L**	1.551	63882	0.268
	Cu	63		**ug/L**		137836	0.579
	Cu	65	**99.977**	**ug/L**	3.394	66580	0.280

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, February 24, 2010 12:11:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 1.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.665**	**ug/L**	2.808	4988	0.021
>	Sc	45		**ug/L**		236502	236501.650
	Ni	60	**52.451**	**ug/L**	1.689	33343	0.141
	Cu	63		**ug/L**		70101	0.296
	Cu	65	**50.560**	**ug/L**	2.112	33505	0.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.331				
>	Sc	45		100.1			
	Ni	60	104.901				
	Cu	63					
	Cu	65	101.121				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, February 24, 2010 12:13:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 2.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.043**	**ug/L**	81.075	5	0.000
>	Sc	45		**ug/L**		242559	242559.117
	Ni	60	**0.015**	**ug/L**	35.182	40	0.000
	Cu	63		**ug/L**		137	0.000
	Cu	65	**0.028**	**ug/L**	64.768	85	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			102.6		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, February 24, 2010 12:15:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 3.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.506**	**ug/L**	7.891	52	0.000
>	Sc	45		**ug/L**		242154	242153.668
	Ni	60	**2.241**	**ug/L**	1.210	1487	0.006
	Cu	63		**ug/L**		1751	0.007
	Cu	65	**1.147**	**ug/L**	3.321	843	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.231				
>	Sc	45		102.5			
	Ni	60	112.066				
	Cu	63					
	Cu	65	114.700				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, February 24, 2010 12:16:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 4.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.109	ug/L	45.689	10	0.000
>	Sc	45		ug/L		213584	213583.977
	Ni	60	5.554	ug/L	1.467	3212	0.015
	Cu	63		ug/L		3849	0.018
	Cu	65	3.445	ug/L	2.041	2116	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			90.4		
	Ni	60	167.781				
	Cu	63					
	Cu	65	103.139				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, February 24, 2010 12:18:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 5.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.030**	**ug/L**	4.345	1709	0.008
>	Sc	45		**ug/L**		215520	215520.469
	Ni	60	**23.924**	**ug/L**	1.898	13869	0.064
	Cu	63		**ug/L**		26189	0.121
	Cu	65	**21.260**	**ug/L**	3.305	12868	0.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	95.152				
>	Sc	45		91.2			
	Ni	60	102.634				
	Cu	63					
	Cu	65	91.088				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 12:20:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**51.980**	**ug/L**	3.369	4973	0.022
|>	Sc	45		**ug/L**		229907	229907.154
|	Ni	60	**51.903**	**ug/L**	2.801	32068	0.139
|	Cu	63		**ug/L**		68221	0.296
⌊	Cu	65	**51.298**	**ug/L**	3.646	33041	0.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	103.960				
|>	Sc	45		97.3			
|	Ni	60	103.807				
|	Cu	63					
⌊	Cu	65	102.596				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 12:22:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.017	ug/L	32.081	2	0.000
>	Sc	45		ug/L		234949	234949.484
	Ni	60	-0.004	ug/L	289.449	27	-0.000
	Cu	63		ug/L		134	0.000
	Cu	65	0.041	ug/L	22.224	91	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			99.4		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030852
Sample Date/Time: Wednesday, February 24, 2010 12:24:23
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\1202030852.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.028	ug/L	77.993	3	0.000
>	Sc	45		ug/L		231749	231749.376
	Ni	60	0.159	ug/L	11.614	128	0.000
	Cu	63		ug/L		283	0.001
	Cu	65	0.117	ug/L	19.491	139	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			98.1		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030857
Sample Date/Time: Wednesday, February 24, 2010 12:26:13
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948035|40|sk|
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\1202030857.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	23.038	ug/L	4.135	2271	0.010
>	Sc	45		ug/L		236691	236691.303
	Ni	60	40.535	ug/L	1.005	25792	0.109
	Cu	63		ug/L		69783	0.294
	Cu	65	50.822	ug/L	3.243	33712	0.142

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			100.2		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 12:28:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.951**	**ug/L**	3.138	5094	0.022
>	Sc	45		**ug/L**		235636	235636.018
	Ni	60	**52.265**	**ug/L**	2.382	33095	0.140
	Cu	63		**ug/L**		69606	0.295
	Cu	65	**51.290**	**ug/L**	4.180	33859	0.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.902				
>	Sc	45			99.7		
	Ni	60	104.529				
	Cu	63					
	Cu	65	102.581				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 12:29:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.041**	**ug/L**	38.218	5	0.000
>	Sc	45		**ug/L**		234155	234154.720
	Ni	60	**0.014**	**ug/L**	71.026	38	0.000
	Cu	63		**ug/L**		148	0.000
	Cu	65	**0.003**	**ug/L**	292.893	66	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			99.1		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688001
Sample Date/Time: Wednesday, February 24, 2010 12:31:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688001.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.954**	**ug/L**	10.722	203	0.001
>	Sc	45		**ug/L**		248076	248075.696
	Ni	60	**17.139**	**ug/L**	2.760	11445	0.046
	Cu	63		**ug/L**		45798	0.184
	Cu	65	**32.205**	**ug/L**	3.203	22410	0.090

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		105.0			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030853
Sample Date/Time: Wednesday, February 24, 2010 12:33:41
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\1202030853.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.090**	**ug/L**	2.633	220	0.001
>	Sc	45		**ug/L**		252504	252504.032
	Ni	60	**17.515**	**ug/L**	2.983	11906	0.047
	Cu	63		**ug/L**		44925	0.178
	Cu	65	**30.963**	**ug/L**	2.883	21935	0.087

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		106.9			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030855
Sample Date/Time: Wednesday, February 24, 2010 12:35:33
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\1202030855.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.939**	**ug/L**	2.612	2438	0.010
>	Sc	45		**ug/L**		255355	255354.676
	Ni	60	**41.792**	**ug/L**	0.626	28688	0.112
	Cu	63		**ug/L**		81032	0.317
	Cu	65	**54.728**	**ug/L**	2.783	39155	0.153

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			108.1		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030856
Sample Date/Time: Wednesday, February 24, 2010 12:37:26
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\1202030856.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.787**	**ug/L**	8.311	2466	0.009
>	Sc	45		**ug/L**		260446	260446.225
	Ni	60	**39.667**	**ug/L**	4.716	27721	0.107
	Cu	63		**ug/L**		80103	0.308
	Cu	65	**53.668**	**ug/L**	6.276	39077	0.150

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		110.2			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202030854
Sample Date/Time: Wednesday, February 24, 2010 12:39:19
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948035|10|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\1202030854.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.446	ug/L	18.171	45	0.000
|>	Sc	45		ug/L		237451	237451.486
|	Ni	60	3.752	ug/L	5.739	2420	0.010
|	Cu	63		ug/L		9787	0.041
⌊	Cu	65	7.026	ug/L	4.224	4729	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45			100.5		
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 12:41:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.718**	**ug/L**	5.492	5188	0.022
|>	Sc	45		**ug/L**		236489	236489.386
|	Ni	60	**51.759**	**ug/L**	2.248	32894	0.139
|	Cu	63		**ug/L**		69158	0.292
⌊	Cu	65	**50.522**	**ug/L**	2.486	33479	0.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	105.436				
|>	Sc	45		100.1			
|	Ni	60	103.519				
|	Cu	63					
⌊	Cu	65	101.043				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 12:43:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.013**	**ug/L**	130.350	2	0.000
>	Sc	45		**ug/L**		238967	238967.234
	Ni	60	**0.005**	**ug/L**	153.342	33	0.000
	Cu	63		**ug/L**		147	0.000
	Cu	65	**0.033**	**ug/L**	79.023	87	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		101.1			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688002
Sample Date/Time: Wednesday, February 24, 2010 12:44:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688002.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.154**	**ug/L**	4.672	232	0.001
>	Sc	45		**ug/L**		257774	257773.607
	Ni	60	**25.988**	**ug/L**	1.916	18017	0.070
	Cu	63		**ug/L**		25378	0.098
	Cu	65	**17.046**	**ug/L**	3.321	12352	0.048

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		109.1			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688003
Sample Date/Time: Wednesday, February 24, 2010 12:46:48
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688003.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.813**	**ug/L**	5.007	420	0.002
>	Sc	45		**ug/L**		264559	264558.799
	Ni	60	**28.138**	**ug/L**	2.055	20023	0.076
	Cu	63		**ug/L**		26508	0.100
	Cu	65	**17.617**	**ug/L**	2.117	13107	0.049

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			112.0		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688004
Sample Date/Time: Wednesday, February 24, 2010 12:48:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688004.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.669**	**ug/L**	1.334	289	0.001
>	Sc	45		**ug/L**		259159	259158.566
	Ni	60	**25.038**	**ug/L**	3.969	17462	0.067
	Cu	63		**ug/L**		31194	0.120
	Cu	65	**20.655**	**ug/L**	2.989	15035	0.058

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			109.7		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688005
Sample Date/Time: Wednesday, February 24, 2010 12:50:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688005.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.856**	**ug/L**	7.841	200	0.001
>	Sc	45		**ug/L**		257057	257056.856
	Ni	60	**28.610**	**ug/L**	6.680	19759	0.077
	Cu	63		**ug/L**		17824	0.069
	Cu	65	**12.003**	**ug/L**	5.071	8690	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			108.8		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 12:52:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.843**	**ug/L**	2.359	5014	0.022
>	Sc	45		**ug/L**		232461	232460.610
	Ni	60	**52.133**	**ug/L**	2.450	32571	0.140
	Cu	63		**ug/L**		68726	0.295
	Cu	65	**51.155**	**ug/L**	4.370	33297	0.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.685				
>	Sc	45			98.4		
	Ni	60	104.266				
	Cu	63					
	Cu	65	102.310				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 12:54:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.050**	**ug/L**	62.891	6	0.000
>	Sc	45		**ug/L**		239201	239201.280
	Ni	60	**0.013**	**ug/L**	62.449	38	0.000
	Cu	63		**ug/L**		158	0.000
	Cu	65	**0.021**	**ug/L**	53.698	79	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			101.2		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688006
Sample Date/Time: Wednesday, February 24, 2010 12:56:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688006.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	2.266	ug/L	1.090	234	0.001
>	Sc	45		ug/L		247403	247403.153
	Ni	60	21.739	ug/L	2.097	14473	0.058
	Cu	63		ug/L		43877	0.177
	Cu	65	31.038	ug/L	3.296	21544	0.087

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		104.7			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688007
Sample Date/Time: Wednesday, February 24, 2010 12:58:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688007.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	4.539	ug/L	1.319	523	0.002
>	Sc	45		ug/L		276304	276304.290
	Ni	60	48.587	ug/L	1.530	36083	0.130
	Cu	63		ug/L		133312	0.482
	Cu	65	83.699	ug/L	3.118	64757	0.234

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		116.9			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688008
Sample Date/Time: Wednesday, February 24, 2010 12:59:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688008.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.534**	**ug/L**	14.193	163	0.001
|>	Sc	45		**ug/L**		254541	254541.194
|	Ni	60	**20.815**	**ug/L**	1.952	14260	0.056
|	Cu	63		**ug/L**		28252	0.111
⌊	Cu	65	**19.297**	**ug/L**	1.855	13805	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45			107.7		
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688009
Sample Date/Time: Wednesday, February 24, 2010 13:01:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688009.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.435**	**ug/L**	2.569	1171	0.004
>	Sc	45		**ug/L**		269501	269501.422
	Ni	60	**35.094**	**ug/L**	1.326	25424	0.094
	Cu	63		**ug/L**		738300	2.741
	Cu	65	**472.733**	**ug/L**	4.235	356185	1.322

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		114.0			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688010
Sample Date/Time: Wednesday, February 24, 2010 13:03:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688010.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	3.335	ug/L	0.313	371	0.001
>	Sc	45		ug/L		267020	267019.612
	Ni	60	34.641	ug/L	1.374	24868	0.093
	Cu	63		ug/L		31619	0.118
	Cu	65	20.744	ug/L	4.281	15552	0.058

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		113.0			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 13:05:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**51.450**	**ug/L**	3.149	5121	0.021
|>	Sc	45		**ug/L**		239080	239080.170
|	Ni	60	**52.445**	**ug/L**	1.825	33696	0.141
|	Cu	63		**ug/L**		71467	0.299
⌊	Cu	65	**51.232**	**ug/L**	2.438	34323	0.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	102.900				
|>	Sc	45		101.2			
|	Ni	60	104.889				
|	Cu	63					
⌊	Cu	65	102.463				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 13:07:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.043**	**ug/L**	24.559	5	0.000
|>	Sc	45		**ug/L**		241452	241452.188
|	Ni	60	**0.014**	**ug/L**	56.053	39	0.000
|	Cu	63		**ug/L**		162	0.000
⌊	Cu	65	**0.026**	**ug/L**	24.774	83	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45			102.2		
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688011
Sample Date/Time: Wednesday, February 24, 2010 13:09:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688011.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.512**	**ug/L**	5.893	380	0.001
>	Sc	45		**ug/L**		259287	259287.287
	Ni	60	**36.356**	**ug/L**	1.757	25341	0.098
	Cu	63		**ug/L**		21354	0.082
	Cu	65	**14.440**	**ug/L**	3.191	10543	0.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			109.7		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688012
Sample Date/Time: Wednesday, February 24, 2010 13:11:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688012.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	4.012	ug/L	1.904	430	0.002
>	Sc	45		ug/L		257233	257232.771
	Ni	60	35.530	ug/L	1.428	24573	0.095
	Cu	63		ug/L		159493	0.620
	Cu	65	106.966	ug/L	1.911	77025	0.299

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		108.9			
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688013
Sample Date/Time: Wednesday, February 24, 2010 13:13:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688013.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.622**	**ug/L**	8.700	167	0.001
|>	Sc	45		**ug/L**		246300	246300.390
|	Ni	60	**21.807**	**ug/L**	2.424	14448	0.059
|	Cu	63		**ug/L**		37510	0.152
⌊	Cu	65	**26.154**	**ug/L**	3.520	18082	0.073

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
|>	Sc	45			104.2		
|	Ni	60					
|	Cu	63					
⌊	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245688014
Sample Date/Time: Wednesday, February 24, 2010 13:14:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948035|2|skj
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\245688014.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	2.287	ug/L	5.227	227	0.001
>	Sc	45		ug/L		238176	238176.111
	Ni	60	19.777	ug/L	2.896	12678	0.053
	Cu	63		ug/L		42477	0.178
	Cu	65	30.908	ug/L	1.766	20657	0.086

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			100.8		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, February 24, 2010 13:16:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**51.964**	**ug/L**	3.128	5034	0.022
|>	Sc	45		**ug/L**		232637	232636.997
|	Ni	60	**52.322**	**ug/L**	2.207	32706	0.141
|	Cu	63		**ug/L**		69074	0.297
⌊	Cu	65	**51.265**	**ug/L**	3.345	33423	0.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	103.927				
|>	Sc	45			98.4		
|	Ni	60	104.643				
|	Cu	63					
⌊	Cu	65	102.530				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, February 24, 2010 13:18:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni cu.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.027	ug/L	55.990	3	0.000
>	Sc	45		ug/L		237746	237746.068
	Ni	60	0.007	ug/L	210.805	34	0.000
	Cu	63		ug/L		136	0.000
	Cu	65	0.004	ug/L	147.714	67	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45			100.6		
	Ni	60					
	Cu	63					
	Cu	65					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

%RSD: 0.9 0.9 0.9273

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/16/2010
Sample ID: 245688001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored

==========

Element: Hg Seq. No.: 43 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.564	5.564	0.0281	0.0305	10:13:29	No
2	5.567	5.567	0.0281	0.0305	10:14:03	No
Mean:	5.566	5.566	0.0281			
SD :	0.0016	0.0016	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 44 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.092	0.092	0.0010	0.0034	10:15:32	No
2	0.097	0.097	0.0011	0.0035	10:16:06	No
Mean:	0.094	0.094	0.0010			
SD :	0.0035	0.0035	0.0000			
%RSD:	3.7	3.7	1.6345			

==========

Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/16/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021610S1.SIF Results Data Set Name: 021610S2

==========

Element: Hg Seq. No.: 45 AS Loc.: 1 Date: 02/16/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0032	0.0032	10:18:51	No
2			0.0031	0.0031	10:19:26	No
Mean:			0.0031			
SD :			0.0000			
%RSD:			1.1573			

Auto-zero performed.

==========

Element: Hg Seq. No.: 46 AS Loc.: 2 Date: 02/16/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0029	0.0060	10:20:48	No
2			0.0029	0.0060	10:21:23	No
Mean:			0.0029			

SD : 0.0000
%RSD: 0.5208
[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.01438
Intercept : 0.00000

==========
Element: Hg Seq. No.: 47 AS Loc.: 3 Date: 02/16/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0060	0.0092	10:22:47	No
2			0.0061	0.0093	10:23:22	No
Mean:			0.0061			
SD :			0.0001			
%RSD:			1.0905			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99653 Slope: 0.01206
Intercept : 0.00017

==========
Element: Hg Seq. No.: 48 AS Loc.: 4 Date: 02/16/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0223	0.0254	10:24:47	No
2			0.0226	0.0257	10:25:22	No
Mean:			0.0224			
SD :			0.0002			
%RSD:			0.9330			

[Hg] Standard number 3 applied. [2.000]
Correlation Coefficient: 0.99956 Slope: 0.01105
Intercept : 0.00039

==========
Element: Hg Seq. No.: 49 AS Loc.: 5 Date: 02/16/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0545	0.0577	10:26:48	No
2			0.0555	0.0587	10:27:23	No
Mean:			0.0550			
SD :			0.0007			
%RSD:			1.2760			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99993 Slope: 0.01093
Intercept : 0.00045

==========
Element: Hg Seq. No.: 50 AS Loc.: 6 Date: 02/16/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1060	0.1091	10:28:49	No
2			0.1066	0.1097	10:29:24	No
Mean:			0.1063			
SD :			0.0004			
%RSD:			0.3772			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99985 Slope: 0.01061
Intercept : 0.00081

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0031	---	----	----	----
S0.2	0.0029	0.200	0.195	0.0000	0.5
S0.5	0.0061	0.500	0.498	0.0001	1.1
S2.0	0.0224	2.000	2.036	0.0002	0.9
S5.0	0.0550	5.000	5.109	0.0007	1.3
S10	0.1063	10.000	9.938	0.0004	0.4

Correlation Coefficient: 0.99985 Slope: 0.01061 Intercept: 0.0008

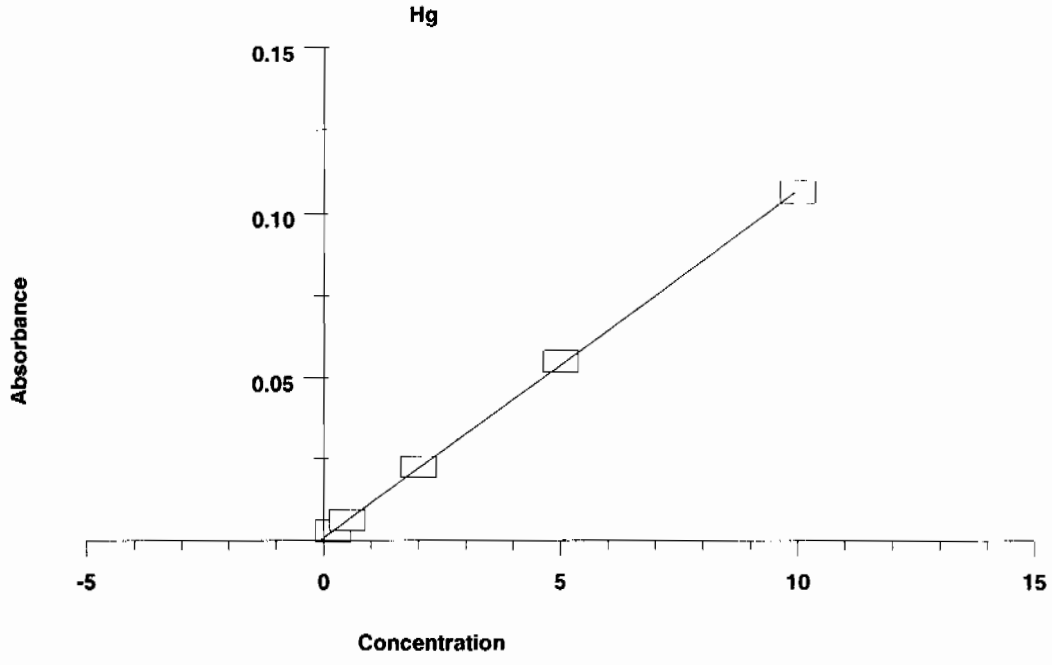

Element: Hg Seq. No.: 51 AS Loc.: 9 Date: 02/16/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.149	5.149	0.0554	0.0586	10:30:53	No
2	5.060	5.060	0.0545	0.0576	10:31:28	No
Mean:	5.104	5.104	0.0550			
SD :	0.0631	0.0631	0.0007			
%RSD:	1.2	1.2	1.2174			

QC value within specified limits.

Element: Hg Seq. No.: 52 AS Loc.: 10 Date: 02/16/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0009	0.0041	10:32:50	No
2	0.014	0.014	0.0010	0.0041	10:33:25	No
Mean:	0.013	0.013	0.0009			
SD :	0.0013	0.0013	0.0000			

```
%RSD:      10.1       10.1    1.4456
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 53       AS Loc.: 11   Date: 02/16/2010
Sample ID: CRDL
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.267     0.267    0.0036     0.0068   10:34:48  No
 2        0.268     0.268    0.0036     0.0068   10:35:23  No
Mean:     0.267     0.267    0.0036
SD  :    0.0007    0.0007    0.0000
%RSD:       0.3       0.3    0.2140
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 54       AS Loc.: 7    Date: 02/16/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.777     4.777    0.0515     0.0546   10:36:48  No
 2        4.828     4.828    0.0520     0.0552   10:37:24  No
Mean:     4.802     4.802    0.0518
SD  :    0.0364    0.0364    0.0004
%RSD:       0.8       0.8    0.7458
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 55       AS Loc.: 8    Date: 02/16/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.037     0.037    0.0012     0.0043   10:38:52  No
 2        0.038     0.038    0.0012     0.0043   10:39:27  No
Mean:     0.038     0.038    0.0012
SD  :    0.0003    0.0003    0.0000
%RSD:       0.8       0.8    0.2677
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 56       AS Loc.: 37   Date: 02/16/2010
Sample ID: 1202029993|i||947654|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.020    -0.020    0.0006     0.0037   10:40:55  No
 2      -0.029    -0.029    0.0005     0.0036   10:41:30  No
Mean:   -0.025    -0.025    0.0005
SD  :   0.0060    0.0060    0.0001
%RSD:     24.3      24.3   11.6617

==========================================================================================
Element: Hg    Seq. No.: 57       AS Loc.: 38   Date: 02/16/2010
Sample ID: 1202029994|i|10||LCS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        3.849     3.849    0.0417     0.0448   10:42:53  No
 2        3.831     3.831    0.0415     0.0446   10:43:28  No
Mean:     3.840     3.840    0.0416
SD  :    0.0129    0.0129    0.0001
%RSD:       0.3       0.3    0.3301

==========================================================================================
```

Element: Hg Seq. No.: 58 AS Loc.: 39 Date: 02/16/2010
Sample ID: 245688001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.233	0.233	0.0033	0.0064	10:44:51	No
2	0.205	0.205	0.0030	0.0061	10:45:26	No
Mean:	0.219	0.219	0.0031			
SD :	0.0195	0.0195	0.0002			
%RSD:	8.9	8.9	6.6290			

Element: Hg Seq. No.: 59 AS Loc.: 40 Date: 02/16/2010
Sample ID: 1202029995|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.204	0.204	0.0030	0.0061	10:46:50	No
2	0.203	0.203	0.0030	0.0061	10:47:25	No
Mean:	0.204	0.204	0.0030			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.5	0.5	0.3809			

Element: Hg Seq. No.: 60 AS Loc.: 41 Date: 02/16/2010
Sample ID: 1202029996|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.156	2.156	0.0237	0.0268	10:48:49	No
2	2.134	2.134	0.0235	0.0266	10:49:24	No
Mean:	2.145	2.145	0.0236			
SD :	0.0157	0.0157	0.0002			
%RSD:	0.7	0.7	0.7071			

Element: Hg Seq. No.: 61 AS Loc.: 42 Date: 02/16/2010
Sample ID: 1202029998|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.164	2.164	0.0238	0.0269	10:50:49	No
2	2.151	2.151	0.0236	0.0268	10:51:24	No
Mean:	2.158	2.158	0.0237			
SD :	0.0092	0.0092	0.0001			
%RSD:	0.4	0.4	0.4140			

Element: Hg Seq. No.: 62 AS Loc.: 43 Date: 02/16/2010
Sample ID: 1202029997|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.064	-0.064	0.0001	0.0033	10:52:49	No
2	-0.076	-0.076	0.0000	0.0031	10:53:24	No
Mean:	-0.070	-0.070	0.0001			
SD :	0.0083	0.0083	0.0001			
%RSD:	11.8	11.8	144.8537			

Element: Hg Seq. No.: 63 AS Loc.: 44 Date: 02/16/2010
Sample ID: 245688002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.289	0.289	0.0039	0.0070	10:54:50	No
2	0.263	0.263	0.0036	0.0067	10:55:24	No

Mean:	0.276	0.276	0.0037
SD :	0.0181	0.0181	0.0002
%RSD:	6.6	6.6	5.1554

==========

Element: Hg Seq. No.: 64 AS Loc.: 45 Date: 02/16/2010
Sample ID: 245688003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.261	0.261	0.0036	0.0067	10:56:50	No
2	0.270	0.270	0.0037	0.0068	10:57:25	No
Mean:	0.266	0.266	0.0036			
SD :	0.0065	0.0065	0.0001			
%RSD:	2.4	2.4	1.8947			

==========

Element: Hg Seq. No.: 65 AS Loc.: 46 Date: 02/16/2010
Sample ID: 245688004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.284	0.284	0.0038	0.0070	10:58:51	No
2	0.272	0.272	0.0037	0.0068	10:59:26	No
Mean:	0.278	0.278	0.0038			
SD :	0.0079	0.0079	0.0001			
%RSD:	2.8	2.8	2.2293			

==========

Element: Hg Seq. No.: 66 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.777	4.777	0.0515	0.0546	11:00:53	No
2	4.776	4.776	0.0515	0.0546	11:01:28	No
Mean:	4.777	4.777	0.0515			
SD :	0.0009	0.0009	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 67 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0008	0.0039	11:02:56	No
2	-0.008	-0.008	0.0007	0.0039	11:03:30	No
Mean:	-0.004	-0.004	0.0008			
SD :	0.0054	0.0054	0.0001			
%RSD:	143.7	143.7	7.4420			

QC value within specified limits.

==========

Element: Hg Seq. No.: 68 AS Loc.: 47 Date: 02/16/2010
Sample ID: 245688005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.250	0.250	0.0035	0.0066	11:04:57	No
2	0.243	0.243	0.0034	0.0065	11:05:32	No
Mean:	0.247	0.247	0.0034			
SD :	0.0047	0.0047	0.0001			
%RSD:	1.9	1.9	1.4689			

==========

Element: Hg Seq. No.: 69 AS Loc.: 48 Date: 02/16/2010
Sample ID: 245688006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.134	0.134	0.0022	0.0054	11:06:56	No
2	0.133	0.133	0.0022	0.0054	11:07:31	No
Mean:	0.134	0.134	0.0022			
SD :	0.0003	0.0003	0.0000			
%RSD:	0.3	0.3	0.1600			

Element: Hg Seq. No.: 70 AS Loc.: 49 Date: 02/16/2010
Sample ID: 245688007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.413	0.413	0.0052	0.0083	11:08:51	No
2	0.393	0.393	0.0050	0.0081	11:09:26	No
Mean:	0.403	0.403	0.0051			
SD :	0.0140	0.0140	0.0001			
%RSD:	3.5	3.5	2.9298			

Element: Hg Seq. No.: 71 AS Loc.: 50 Date: 02/16/2010
Sample ID: 245688008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.323	0.323	0.0042	0.0074	11:10:46	No
2	0.330	0.330	0.0043	0.0075	11:11:20	No
Mean:	0.326	0.326	0.0043			
SD :	0.0054	0.0054	0.0001			
%RSD:	1.6	1.6	1.3299			

Element: Hg Seq. No.: 72 AS Loc.: 51 Date: 02/16/2010
Sample ID: 245688009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.247	0.247	0.0034	0.0066	11:12:41	No
2	0.240	0.240	0.0034	0.0065	11:13:15	No
Mean:	0.244	0.244	0.0034			
SD :	0.0048	0.0048	0.0001			
%RSD:	2.0	2.0	1.5150			

Element: Hg Seq. No.: 73 AS Loc.: 52 Date: 02/16/2010
Sample ID: 245688010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.276	0.276	0.0037	0.0069	11:14:38	No
2	0.263	0.263	0.0036	0.0067	11:15:13	No
Mean:	0.270	0.270	0.0037			
SD :	0.0087	0.0087	0.0001			
%RSD:	3.2	3.2	2.5292			

Element: Hg Seq. No.: 74 AS Loc.: 53 Date: 02/16/2010
Sample ID: 245688011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.477	0.477	0.0059	0.0090	11:16:35	No
2	0.465	0.465	0.0057	0.0089	11:17:09	No

Mean:	0.471	0.471	0.0058
SD :	0.0088	0.0088	0.0001
%RSD:	1.9	1.9	1.5999

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Element: Hg Seq. No.: 75 AS Loc.: 54 Date: 02/16/2010
Sample ID: 245688012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.438	0.438	0.0055	0.0086	11:18:31	No
2	0.428	0.428	0.0053	0.0085	11:19:06	No
Mean:	0.433	0.433	0.0054			
SD :	0.0074	0.0074	0.0001			
%RSD:	1.7	1.7	1.4448			

==========

Element: Hg Seq. No.: 76 AS Loc.: 55 Date: 02/16/2010
Sample ID: 245688013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.305	0.305	0.0040	0.0072	11:20:28	No
2	0.295	0.295	0.0039	0.0071	11:21:03	No
Mean:	0.300	0.300	0.0040			
SD :	0.0071	0.0071	0.0001			
%RSD:	2.4	2.4	1.8871			

==========

Element: Hg Seq. No.: 77 AS Loc.: 56 Date: 02/16/2010
Sample ID: 245688014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.135	0.135	0.0022	0.0054	11:22:26	No
2	0.142	0.142	0.0023	0.0055	11:23:01	No
Mean:	0.138	0.138	0.0023			
SD :	0.0050	0.0050	0.0001			
%RSD:	3.6	3.6	2.3207			

==========

Element: Hg Seq. No.: 78 AS Loc.: 7 Date: 02/16/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.920	4.920	0.0530	0.0561	11:24:26	No
2	4.889	4.889	0.0527	0.0558	11:25:01	No
Mean:	4.904	4.904	0.0529			
SD :	0.0213	0.0213	0.0002			
%RSD:	0.4	0.4	0.4284			

QC value within specified limits.

==========

Element: Hg Seq. No.: 79 AS Loc.: 8 Date: 02/16/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.043	0.043	0.0013	0.0044	11:26:29	No
2	0.043	0.043	0.0013	0.0044	11:27:04	No
Mean:	0.043	0.043	0.0013			
SD :	0.0005	0.0005	0.0000			
%RSD:	1.1	1.1	0.3837			

QC value within specified limits.

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Miscellaneous

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 948031

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030851	UI062540-I	.509	g
MS	1202030849	UI100120-01	.25	mL
MS	1202030849	UI100120-06	.25	mL
MSD	1202030850	UI100120-01	.25	mL
MSD	1202030850	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030846		SW846 3050B	08-FEB-2010 23:30	0.519 g	50 mL	96.33911	SOIL
LCS	1202030851		SW846 3050B	08-FEB-2010 23:30	0.509 g	50 mL	98.23183	SOIL
SAMPLE	245688001		SW846 3050B	08-FEB-2010 23:30	0.506 g	50 mL	98.81423	SOIL
DUP	1202030847	245688001	SW846 3050B	08-FEB-2010 23:30	0.532 g	50 mL	93.98496	SOIL
SDILT	1202030848	245688001	SW846 3050B	08-FEB-2010 23:30	0.506 g	50 mL	98.81423	SOIL
MS	1202030849	245688001	SW846 3050B	08-FEB-2010 23:30	0.54 g	50 mL	92.59259	SOIL
MSD	1202030850	245688001	SW846 3050B	08-FEB-2010 23:30	0.559 g	50 mL	89.44544	SOIL
SAMPLE	245688002		SW846 3050B	08-FEB-2010 23:30	0.521 g	50 mL	95.96929	SOIL
SAMPLE	245688003		SW846 3050B	08-FEB-2010 23:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	245688004		SW846 3050B	08-FEB-2010 23:30	0.5 g	50 mL	100	SOIL
SAMPLE	245688005		SW846 3050B	08-FEB-2010 23:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	245688006		SW846 3050B	08-FEB-2010 23:30	0.559 g	50 mL	89.44544	SOIL
SAMPLE	245688007		SW846 3050B	08-FEB-2010 23:30	0.531 g	50 mL	94.16196	SOIL
SAMPLE	245688008		SW846 3050B	08-FEB-2010 23:30	0.5 g	50 mL	100	SOIL
SAMPLE	245688009		SW846 3050B	08-FEB-2010 23:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245688010		SW846 3050B	08-FEB-2010 23:30	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245688011		SW846 3050B	08-FEB-2010 23:30	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245688012		SW846 3050B	08-FEB-2010 23:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245688013		SW846 3050B	08-FEB-2010 23:30	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245688014		SW846 3050B	08-FEB-2010 23:30	0.5 g	50 mL	100	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1264396	1.25 mL	Nitric Acid CONC.

Comments sample#245688001 is a brown, moist, soil.

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 954750

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202046766	UI062540-I	.503	g
MS	1202030849	UI1268741-01	.25	mL
MS	1202030849	UI1268744-06	.25	mL
MSD	1202030850	UI1268741-01	.25	mL
MSD	1202030850	UI1268744-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202046765		SW846 3050B	18-FEB-2010 20:02	0.532 g	50 mL	93.98496	SOIL
LCS	1202046766		SW846 3050B	18-FEB-2010 20:02	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245688001		SW846 3050B	18-FEB-2010 20:02	0.513 g	50 mL	97.46589	SOIL
DUP	1202030847	245688001	SW846 3050B	18-FEB-2010 20:02	0.516 g	50 mL	96.89922	SOIL
SDILT	1202030848	245688001	SW846 3050B	18-FEB-2010 20:02	0.513 g	50 mL	97.46589	SOIL
MS	1202030849	245688001	SW846 3050B	18-FEB-2010 20:02	0.525 g	50 mL	95.2381	SOIL
MSD	1202030850	245688001	SW846 3050B	18-FEB-2010 20:02	0.504 g	50 mL	99.20635	SOIL
SAMPLE	245688002		SW846 3050B	18-FEB-2010 20:02	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245688003		SW846 3050B	18-FEB-2010 20:02	0.597 g	50 mL	83.75209	SOIL
SAMPLE	245688004		SW846 3050B	18-FEB-2010 20:02	0.5 g	50 mL	100	SOIL
SAMPLE	245688005		SW846 3050B	18-FEB-2010 20:02	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245688006		SW846 3050B	18-FEB-2010 20:02	0.534 g	50 mL	93.63296	SOIL
SAMPLE	245688007		SW846 3050B	18-FEB-2010 20:02	0.543 g	50 mL	92.08103	SOIL
SAMPLE	245688008		SW846 3050B	18-FEB-2010 20:02	0.506 g	50 mL	98.81423	SOIL
SAMPLE	245688009		SW846 3050B	18-FEB-2010 20:02	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245688010		SW846 3050B	18-FEB-2010 20:02	0.518 g	50 mL	96.5251	SOIL
SAMPLE	245688011		SW846 3050B	18-FEB-2010 20:02	0.5 g	50 mL	100	SOIL
SAMPLE	245688012		SW846 3050B	18-FEB-2010 20:02	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245688013		SW846 3050B	18-FEB-2010 20:02	0.556 g	50 mL	89.92806	SOIL
SAMPLE	245688014		SW846 3050B	18-FEB-2010 20:02	0.63 g	50 mL	79.36508	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1268732	1.25 mL	Nitric Acid CONC.

Comments. The QC sample is a moist, brown soil.

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 948033

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030857	UI062540-MS	.546	g
MS	1202030855	UI091015-A	.5	mL
MS	1202030855	UI091015-B	.5	mL
MSD	1202030856	UI091015-A	.5	mL
MSD	1202030856	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030852		SW846 3050B	23-FEB-2010 22:52	0.524 g	50 mL	95.41985	SOIL
LCS	1202030857		SW846 3050B	23-FEB-2010 22:52	0.546 g	50 mL	91.57509	SOIL
SAMPLE	245688001		SW846 3050B	23-FEB-2010 22:52	0.516 g	50 mL	96.89922	SOIL
DUP	1202030853	245688001	SW846 3050B	23-FEB-2010 22:52	0.515 g	50 mL	97.08738	SOIL
SDILT	1202030854	245688001	SW846 3050B	23-FEB-2010 22:52	0.516 g	50 mL	96.89922	SOIL
MS	1202030855	245688001	SW846 3050B	23-FEB-2010 22:52	0.579 g	50 mL	86.35579	SOIL
MSD	1202030856	245688001	SW846 3050B	23-FEB-2010 22:52	0.504 g	50 mL	99.20635	SOIL
SAMPLE	245688002		SW846 3050B	23-FEB-2010 22:52	0.535 g	50 mL	93.45794	SOIL
SAMPLE	245688003		SW846 3050B	23-FEB-2010 22:52	0.572 g	50 mL	87.41259	SOIL
SAMPLE	245688004		SW846 3050B	23-FEB-2010 22:52	0.524 g	50 mL	95.41985	SOIL
SAMPLE	245688005		SW846 3050B	23-FEB-2010 22:52	0.537 g	50 mL	93.10987	SOIL
SAMPLE	245688006		SW846 3050B	23-FEB-2010 22:52	0.549 g	50 mL	91.07468	SOIL
SAMPLE	245688007		SW846 3050B	23-FEB-2010 22:52	0.533 g	50 mL	93.80863	SOIL
SAMPLE	245688008		SW846 3050B	23-FEB-2010 22:52	0.57 g	50 mL	87.7193	SOIL
SAMPLE	245688009		SW846 3050B	23-FEB-2010 22:52	0.553 g	50 mL	90.41591	SOIL
SAMPLE	245688010		SW846 3050B	23-FEB-2010 22:52	0.528 g	50 mL	94.69697	SOIL
SAMPLE	245688011		SW846 3050B	23-FEB-2010 22:52	0.523 g	50 mL	95.60229	SOIL
SAMPLE	245688012		SW846 3050B	23-FEB-2010 22:52	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245688013		SW846 3050B	23-FEB-2010 22:52	0.529 g	50 mL	94.51796	SOIL
SAMPLE	245688014		SW846 3050B	23-FEB-2010 22:52	0.593 g	50 mL	84.31703	SOIL

Reagent/Solvent Lot ID	Amount	Description
1250038-02	1.5 mL	Hydrogen Peroxide 30%
1268732	5 mL	Nitric Acid CONC.

Comments sample#245688001 is a brown, moist soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 947653

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029994	UI031809A	.204	g
MS	1202029996	WHG100215-14	.3	mL
MSD	1202029998	WHG100215-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029993		SW846 7471A Prep	15-FEB-2010 16:45	0.523 g	30 mL	57.36138	SOIL
LCS	1202029994		SW846 7471A Prep	15-FEB-2010 16:45	0.204 g	30 mL	147.05882	SOIL
SAMPLE	245688001		SW846 7471A Prep	15-FEB-2010 16:45	0.535 g	30 mL	56.07477	SOIL
DUP	1202029995	245688001	SW846 7471A Prep	15-FEB-2010 16:45	0.566 g	30 mL	53.00353	SOIL
MS	1202029996	245688001	SW846 7471A Prep	15-FEB-2010 16:45	0.548 g	30 mL	54.74453	SOIL
MSD	1202029998	245688001	SW846 7471A Prep	15-FEB-2010 16:45	0.576 g	30 mL	52.08333	SOIL
SDILT	1202029997	245688001	SW846 7471A Prep	15-FEB-2010 16:45	0.535 g	30 mL	56.07477	SOIL
SAMPLE	245688002		SW846 7471A Prep	15-FEB-2010 16:45	0.54 g	30 mL	55.55556	SOIL
SAMPLE	245688003		SW846 7471A Prep	15-FEB-2010 16:45	0.518 g	30 mL	57.91506	SOIL
SAMPLE	245688004		SW846 7471A Prep	15-FEB-2010 16:45	0.581 g	30 mL	51.63511	SOIL
SAMPLE	245688005		SW846 7471A Prep	15-FEB-2010 16:45	0.515 g	30 mL	58.25243	SOIL
SAMPLE	245688006		SW846 7471A Prep	15-FEB-2010 16:45	0.559 g	30 mL	53.66726	SOIL
SAMPLE	245688007		SW846 7471A Prep	15-FEB-2010 16:45	0.521 g	30 mL	57.58157	SOIL
SAMPLE	245688008		SW846 7471A Prep	15-FEB-2010 16:45	0.542 g	30 mL	55.35055	SOIL
SAMPLE	245688009		SW846 7471A Prep	15-FEB-2010 16:45	0.536 g	30 mL	55.97015	SOIL
SAMPLE	245688010		SW846 7471A Prep	15-FEB-2010 16:45	0.568 g	30 mL	52.8169	SOIL
SAMPLE	245688011		SW846 7471A Prep	15-FEB-2010 16:45	0.55 g	30 mL	54.54545	SOIL
SAMPLE	245688012		SW846 7471A Prep	15-FEB-2010 16:45	0.543 g	30 mL	55.24862	SOIL
SAMPLE	245688013		SW846 7471A Prep	15-FEB-2010 16:45	0.538 g	30 mL	55.76208	SOIL
SAMPLE	245688014		SW846 7471A Prep	15-FEB-2010 16:45	0.579 g	30 mL	51.81347	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent
WHG100215-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100215-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100215-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100215-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100215-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100215-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments Sample 245688001 is a wet muddy brown soil.
Digestion Start Date: 15-FEB-10 16:45
Digestion End Date: 15-FEB-10 17:15

DER Report No.: 791250
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
948032	See Below		

Potentially affected work order(s)(SDG): 245688(10-1433)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Failed RPD for DUP

Specification and Requirements Exception Description:

1. Failed Recovery for MS/PS:

   QC 1202030849MS

2. Failed RPD for DUP:

   QC 1202030847DUP

3. Failed RPD for MS/MSD, or PS/PSD:

   QC 1202030850MSD

4. Failed Recovery for MSD/PSD:

   QC 1202030850MSD

DER Disposition:

1. The matrix spike recovery failed outside of the control limits for magnesium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

2. The sample and sample duplicate % RPD failed outside the control limits for aluminum,barium,calcium,cobalt,lead,magnesium,manganese, potassium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for calcium due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

4. The matrix spike duplicate recovery failed outside of the control limits for calcium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Carnello 18-FEB-10

Data Validator/Group Leader:

Eric Lawson 19-FEB-10

DER Report No.: 794447
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
954751	See Below		

Potentially affected work order(s)(SDG): 245688(10-1433)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202030847DUP	1. The sample and sample duplicate % RPD failed outside the control limits for copper due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 23-FEB-10

Data Validator/Group Leader:

Louise Smith 23-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
948035	See Below		

Potentially affected work order(s)(SDG): 245688(10-1433)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202030855MS 2. Failed RPD for MS/MSD, or PS/PSD: QC 1202030856MSD 3. Failed Recovery for MSD/PSD: QC 1202030856MSD	The matrix spike, matrix spike duplicate and the matrix spike duplicate % RPD failed outside of the control limits for Se. These failures were due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Paul Boyd 24-FEB-10

Data Validator/Group Leader:

Elizabeth Janssen 24-FEB-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100217-49.2 **Opened:** 19-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 20-FEB-10 **Lot Number :** 1018879
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI1268741-01 **Opened:** 11-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI1268744-06 **Opened:** 11-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 11-FEB-10
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100215-01 **Opened:** 15-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 15-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 16-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100215-02 **Opened:** 15-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 16-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100215-07 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100215-08 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100215-09 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100215-10 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100215-11 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100215-12 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100215-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100215-14 **Opened:** 15-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 15-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 22-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100212-43 **Opened:** 12-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 13-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100219-42 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Carnello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100219-43 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100219-44 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100219-45 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100219-46 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100219-47 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100224-04 **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100224-04A **Opened:** 24-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100224-05 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100224-06
Name: ICPMS CRDL
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 24-FEB-10
Received: 24-FEB-10
Expires: 25-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100224-07 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 24-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-08 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1268732 **Opened:** 11-FEB-10 **Lot Number :** H12022 L
Name: I-HNO3 **Received:** 11-FEB-10
Type: Reagent/Solvent **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1270010 **Opened:** 15-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1433-1

Sample Analysis

Sample ID	**Client ID**
245690001	RE15-10-8080
245690002	RE15-10-8079
1202030862	Method Blank (MB) **ICP**
1202030863	Laboratory Control Sample (LCS)
1202030866	245690001(RE15-10-8080L) Serial Dilution (SD)
1202030864	245690001(RE15-10-8080D) Sample Duplicate (DUP)
1202030865	245690001(RE15-10-8080S) Matrix Spike (MS)
1202030875	Method Blank (MB) **ICP-MS**
1202030876	Laboratory Control Sample (LCS)
1202030879	245690001(RE15-10-8080L) Serial Dilution (SD)
1202030877	245690001(RE15-10-8080D) Sample Duplicate (DUP)
1202030878	245690001(RE15-10-8080S) Matrix Spike (MS)
1202029965	Method Blank (MB) **CVAA**
1202029966	Laboratory Control Sample (LCS)
1202029969	245807001(RE15-10-8081L) Serial Dilution (SD)
1202029967	245807001(RE15-10-8081D) Sample Duplicate (DUP)
1202029968	245807001(RE15-10-8081S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	948038, 948041 and 947646
Prep Batch :	948036, 948039 and 947645
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria. Due to software issues, the middle page (#69) is not available for reporting for CCV04 analyzed 12-FEB-10 at 12:38 on Optima3. Details of the values are on the form 2a and on the LIMS upload printout submitted in its place. Reprocessing the missing data sheet at this time would result in different values.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 245690001 and 245807001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parsons **Date:** 2/24/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245690001 **BASIS:** As Received **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-8080 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/18/10 08:51	100217-2	948041
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/18/10 08:51	100217-2	948041
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7439-95-4	Magnesium	106	ug/L	J	85	300	300	1	P	HSC	02/12/10 17:10	021210-1	948038
7439-96-5	Manganese	1.11	ug/L	J	1	5	5	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:09	021510W1-7	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-09-7	Potassium	128	ug/L	J	50	150	150	1	P	HSC	02/12/10 17:10	021210-1	948038
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-23-5	Sodium	255	ug/L	J	100	300	300	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/18/10 17:53	100218-3	948041
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/18/10 19:57	100218-6	948041
7440-62-2	Vanadium	1.06	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:10	021210-1	948038
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/12/10 17:10	021210-1	948038

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948038	948036	SW846 3005A	50	mL	50	mL	02/07/10	BCD1
948041	948039	SW846 3005A	50	mL	50	mL	02/07/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1433-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245690002 **BASIS:** As Received **DATE COLLECTED** 25-JAN-10

CLIENT ID: RE15-10-8079 **LEVEL:** Low **DATE RECEIVED** 28-JAN-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	118	ug/L	J	68	200	200	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/18/10 09:16	100217-2	948041
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-39-3	Barium	1.88	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/18/10 09:16	100217-2	948041
7440-70-2	Calcium	90.3	ug/L	J	50	200	200	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-47-3	Chromium	1.49	ug/L	J	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-89-6	Iron	75.5	ug/L	J	30	100	100	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/12/10 17:38	021210-1	948038
7439-96-5	Manganese	5.97	ug/L		1	5	5	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/15/10 11:11	021510W1-7	947646
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-09-7	Potassium	199	ug/L		50	150	150	1	P	HSC	02/12/10 17:38	021210-1	948038
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-23-5	Sodium	268	ug/L	J	100	300	300	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/18/10 18:15	100218-3	948041
7440-61-1	Uranium	0.154	ug/L	J	0.05	0.2	0.2	1	MS	BAJ	02/18/10 20:06	100218-6	948041
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/12/10 17:38	021210-1	948038
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/12/10 17:38	021210-1	948038

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
947646	947645	SW846 7470A Prep	20	mL	20	mL	02/12/10	TXB3
948038	948036	SW846 3005A	50	mL	50	mL	02/07/10	BCD1
948041	948039	SW846 3005A	50	mL	50	mL	02/07/10	BCD1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Arsenic	465	ug/L	500	ug/L	93.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Chromium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Iron	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Nickel	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Potassium	2460	ug/L	2500	ug/L	98.4	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Selenium	2520	ug/L	2500	ug/L	101	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Silver	253	ug/L	250	ug/L	101.4	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Sodium	2550	ug/L	2500	ug/L	102	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Zinc	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	12-FEB-10 09:03	021210-1
	Mercury	5.02	ug/L	5	ug/L	100.4	90.0 – 110.0	AV	15-FEB-10 09:34	021510W1-7
	Antimony	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	18-FEB-10 05:25	100217-2
	Cadmium	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	18-FEB-10 05:25	100217-2
	Beryllium	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	18-FEB-10 16:58	100218-3
	Lead	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	18-FEB-10 16:58	100218-3
	Manganese	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	18-FEB-10 16:58	100218-3
	Thallium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	18-FEB-10 16:58	100218-3
	Uranium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	18-FEB-10 19:37	100218-6
CCV01										
	Aluminum	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Arsenic	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Barium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Calcium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	12-FEB-10 09:48	021210-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	12-FEB-10 09:48	021210-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1433–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Iron	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Magnesium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Nickel	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Selenium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Silver	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Sodium	10000	ug/L	10000	ug/L	100.5	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Vanadium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Zinc	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	12–FEB–10 09:48	021210–1
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	15–FEB–10 09:40	021510W1–7
	Antimony	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	18–FEB–10 05:56	100217–2
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	18–FEB–10 05:56	100217–2
	Beryllium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	18–FEB–10 17:11	100218–3
	Lead	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	18–FEB–10 17:11	100218–3
	Manganese	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	18–FEB–10 17:11	100218–3
	Thallium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	18–FEB–10 17:11	100218–3
	Uranium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	18–FEB–10 19:48	100218–6
CCV02										
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Arsenic	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Calcium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Copper	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Iron	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	12–FEB–10 10:14	021210–1
	Nickel	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12–FEB–10 10:14	021210–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	12-FEB-10 10:14	021210-1
	Selenium	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	12-FEB-10 10:14	021210-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 10:14	021210-1
	Sodium	10400	ug/L	10000	ug/L	104.5	90.0 - 110.0	P	12-FEB-10 10:14	021210-1
	Vanadium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	12-FEB-10 10:14	021210-1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	12-FEB-10 10:14	021210-1
	Mercury	5.12	ug/L	5	ug/L	102.3	80.0 - 120.0	AV	15-FEB-10 10:04	021510W1-7
	Antimony	53.4	ug/L	50	ug/L	106.9	90.0 - 110.0	MS	18-FEB-10 06:14	100217-2
	Cadmium	52	ug/L	50	ug/L	104.1	90.0 - 110.0	MS	18-FEB-10 06:14	100217-2
	Beryllium	51.9	ug/L	50	ug/L	103.8	90.0 - 110.0	MS	18-FEB-10 17:38	100218-3
	Lead	51.9	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	18-FEB-10 17:38	100218-3
	Manganese	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	18-FEB-10 17:38	100218-3
	Thallium	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	18-FEB-10 17:38	100218-3
	Uranium	53.8	ug/L	50	ug/L	107.6	90.0 - 110.0	MS	18-FEB-10 20:10	100218-6
CCV03										
	Aluminum	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Arsenic	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Barium	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Calcium	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Chromium	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Cobalt	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Copper	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Nickel	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Selenium	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Silver	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 - 110.0	P	12-FEB-10 11:35	021210-1
	Vanadium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	12-FEB-10 11:35	021210-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	12-FEB-10 11:35	021210-1
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	15-FEB-10 10:28	021510W1-7
	Antimony	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	18-FEB-10 07:09	100217-2
	Cadmium	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	18-FEB-10 07:09	100217-2
	Beryllium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	18-FEB-10 18:09	100218-3
	Lead	51.6	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	18-FEB-10 18:09	100218-3
	Manganese	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	18-FEB-10 18:09	100218-3
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	18-FEB-10 18:09	100218-3
CCV04										
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Arsenic	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Cobalt	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Nickel	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Selenium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	12-FEB-10 12:38	021210-1
	Mercury	5.1	ug/L	5	ug/L	102.1	80.0 – 120.0	AV	15-FEB-10 10:51	021510W1-7
	Antimony	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	18-FEB-10 08:12	100217-2
	Cadmium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	18-FEB-10 08:12	100217-2
	Beryllium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	18-FEB-10 18:27	100218-3
	Lead	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	18-FEB-10 18:27	100218-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	50.3	ug/L	50	ug/L	100.6	90.0 - 110.0	MS	18-FEB-10 18:27	100218-3
	Thallium	50.4	ug/L	50	ug/L	100.8	90.0 - 110.0	MS	18-FEB-10 18:27	100218-3
CCV05										
	Aluminum	5030	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Arsenic	490	ug/L	500	ug/L	98	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Barium	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Chromium	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Copper	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Magnesium	4980	ug/L	5000	ug/L	99.6	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Nickel	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Potassium	4880	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Selenium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Silver	490	ug/L	500	ug/L	98	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Vanadium	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Zinc	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	12-FEB-10 13:32	021210-1
	Mercury	5.1	ug/L	5	ug/L	102	80.0 - 120.0	AV	15-FEB-10 11:15	021510W1-7
	Antimony	52.6	ug/L	50	ug/L	105.2	90.0 - 110.0	MS	18-FEB-10 09:28	100217-2
	Cadmium	53.1	ug/L	50	ug/L	106.2	90.0 - 110.0	MS	18-FEB-10 09:28	100217-2
CCV06										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	12-FEB-10 13:59	021210-1
	Arsenic	490	ug/L	500	ug/L	98	90.0 - 110.0	P	12-FEB-10 13:59	021210-1
	Barium	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	12-FEB-10 13:59	021210-1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	12-FEB-10 13:59	021210-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	12-FEB-10 13:59	021210-1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	12-FEB-10 13:59	021210-1
	Copper	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	12-FEB-10 13:59	021210-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1433–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Nickel	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Selenium	514	ug/L	500	ug/L	102.7	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Silver	495	ug/L	500	ug/L	99	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Zinc	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12–FEB–10 13:59	021210–1
	Mercury	5.2	ug/L	5	ug/L	103.9	80.0 – 120.0	AV	15–FEB–10 11:39	021510W1–7
CCV07										
	Aluminum	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Arsenic	475	ug/L	500	ug/L	95	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Barium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Calcium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Chromium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Cobalt	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Copper	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Iron	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Magnesium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Nickel	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Potassium	4780	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Selenium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Silver	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
	Zinc	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	12–FEB–10 15:21	021210–1
CCV08										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Arsenic	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	12–FEB–10 16:43	021210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1433–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Cobalt	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Copper	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Nickel	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Potassium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Selenium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Silver	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Sodium	10500	ug/L	10000	ug/L	104.8	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Vanadium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	12–FEB–10 16:43	021210–1
CCV09										
	Aluminum	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Arsenic	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Chromium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Copper	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Magnesium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Nickel	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Potassium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Selenium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Sodium	11000	ug/L	10000	ug/L	109.9	90.0 – 110.0	P	12–FEB–10 17:59	021210–1
	Vanadium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	12–FEB–10 17:59	021210–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	12-FEB-10 17:59	021210-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS5,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.197	ug/L	.2	ug/L	98.4	70.0 – 130.0	AV	15-FEB-10 09:38	021510W1-7
	Antimony	3.27	ug/L	3	ug/L	108.9	70.0 – 130.0	MS	18-FEB-10 05:37	100217-2
	Cadmium	1.11	ug/L	1	ug/L	110.9	70.0 – 130.0	MS	18-FEB-10 05:37	100217-2
	Lead	2.37	ug/L	2	ug/L	118.6	70.0 – 130.0	MS	18-FEB-10 17:03	100218-3
	Manganese	5.89	ug/L	5	ug/L	117.7	70.0 – 130.0	MS	18-FEB-10 17:03	100218-3
	Thallium	1.23	ug/L	1	ug/L	122.6	70.0 – 130.0	MS	18-FEB-10 17:03	100218-3
	Beryllium	.528	ug/L	.5	ug/L	105.6	70.0 – 130.0	MS	18-FEB-10 17:03	100218-3
	Uranium	.235	ug/L	.2	ug/L	117.5	70.0 – 130.0	MS	18-FEB-10 19:41	100218-6
PQL01										
	Copper	10.1	ug/L	10	ug/L	100.5	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Cobalt	4.96	ug/L	5	ug/L	99.2	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Chromium	5.37	ug/L	5	ug/L	107.4	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Barium	5.15	ug/L	5	ug/L	102.9	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Arsenic	29.1	ug/L	30	ug/L	97	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Sodium	300	ug/L	300	ug/L	100.1	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Silver	4.86	ug/L	5	ug/L	97.3	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Potassium	171	ug/L	150	ug/L	113.8	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Nickel	5.61	ug/L	5	ug/L	112.3	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Vanadium	4.84	ug/L	5	ug/L	96.7	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Zinc	9.94	ug/L	10	ug/L	99.4	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Aluminum	193	ug/L	200	ug/L	96.5	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Magnesium	289	ug/L	300	ug/L	96.3	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Iron	92.2	ug/L	100	ug/L	92.2	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Calcium	209	ug/L	200	ug/L	104.3	70.0 – 130.0	P	12-FEB-10 09:16	021210-1
	Selenium	30.8	ug/L	30	ug/L	102.7	70.0 – 130.0	P	12-FEB-10 09:16	021210-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 09:09	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 09:09	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 09:09	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 09:09	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 09:09	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 09:09	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 09:09	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 09:09	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 09:09	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:09	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 09:09	021210-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	15-FEB-10 09:36	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 05:31	100217-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 05:31	100217-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	18-FEB-10 17:01	100218-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	18-FEB-10 17:01	100218-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-FEB-10 17:01	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	18-FEB-10 17:01	100218-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	18-FEB-10 19:39	100218-6
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 09:55	021210-1
	Arsenic	9.62	+/-30	J	5.0	30.0	LIQ	P	12-FEB-10 09:55	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 09:55	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 09:55	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 09:55	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 09:55	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Potassium	67.59	+/-150	J	50.0	150	LIQ	P	12-FEB-10 09:55	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 09:55	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 09:55	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 09:55	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 09:55	021210-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	15-FEB-10 09:42	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 06:02	100217-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 06:02	100217-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	18-FEB-10 17:14	100218-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	18-FEB-10 17:14	100218-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-FEB-10 17:14	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	18-FEB-10 17:14	100218-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	18-FEB-10 19:50	100218-6
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 10:21	021210-1
	Arsenic	5.25	+/-30	J	5.0	30.0	LIQ	P	12-FEB-10 10:21	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 10:21	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 10:21	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 10:21	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 10:21	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 10:21	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 10:21	021210-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 10:21	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 10:21	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 10:21	021210-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	15-FEB-10 10:06	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 06:20	100217-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	18-FEB-10 06:20	100217-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	18-FEB-10 17:41	100218-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	18-FEB-10 17:41	100218-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	18-FEB-10 17:41	100218-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	18-FEB-10 17:41	100218-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	18-FEB-10 20:12	100218-6
CCB03										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 11:43	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 11:43	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 11:43	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 11:43	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 11:43	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 11:43	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 11:43	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 11:43	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 11:43	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 11:43	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 11:43	021210-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	15-FEB-10 10:30	021510W1-7
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	18-FEB-10 07:15	100217-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1433–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	18–FEB–10 07:15	100217–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	18–FEB–10 18:12	100218–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	18–FEB–10 18:12	100218–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	18–FEB–10 18:12	100218–3
	Thallium	0.388	+/–1	J	0.3	1.0	LIQ	MS	18–FEB–10 18:12	100218–3
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	12–FEB–10 12:45	021210–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	12–FEB–10 12:45	021210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 12:45	021210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	12–FEB–10 12:45	021210–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 12:45	021210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 12:45	021210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	12–FEB–10 12:45	021210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	12–FEB–10 12:45	021210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	12–FEB–10 12:45	021210–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	12–FEB–10 12:45	021210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	12–FEB–10 12:45	021210–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	12–FEB–10 12:45	021210–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 12:45	021210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	12–FEB–10 12:45	021210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 12:45	021210–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	12–FEB–10 12:45	021210–1
	Mercury	–0.097	+/–.2	J	0.066	0.2	LIQ	AV	15–FEB–10 10:53	021510W1–7
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	18–FEB–10 08:18	100217–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	18–FEB–10 08:18	100217–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	18–FEB–10 18:30	100218–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	18–FEB–10 18:30	100218–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	18–FEB–10 18:30	100218–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	18–FEB–10 18:30	100218–3
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	12–FEB–10 13:39	021210–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1433–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	12–FEB–10 13:39	021210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 13:39	021210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	12–FEB–10 13:39	021210–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 13:39	021210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 13:39	021210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	12–FEB–10 13:39	021210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	12–FEB–10 13:39	021210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	12–FEB–10 13:39	021210–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	12–FEB–10 13:39	021210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	12–FEB–10 13:39	021210–1
	Selenium	5.81	+/–30	J	5.0	30.0	LIQ	P	12–FEB–10 13:39	021210–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 13:39	021210–1
	Sodium	149.21	+/–300	J	100	300	LIQ	P	12–FEB–10 13:39	021210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 13:39	021210–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	12–FEB–10 13:39	021210–1
	Mercury	–0.108	+/–.2	J	0.066	0.2	LIQ	AV	15–FEB–10 11:17	021510W1–7
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	18–FEB–10 09:34	100217–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	18–FEB–10 09:34	100217–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	12–FEB–10 14:06	021210–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	12–FEB–10 14:06	021210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 14:06	021210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	12–FEB–10 14:06	021210–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 14:06	021210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	12–FEB–10 14:06	021210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	12–FEB–10 14:06	021210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	12–FEB–10 14:06	021210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	12–FEB–10 14:06	021210–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	12–FEB–10 14:06	021210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	12–FEB–10 14:06	021210–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	12–FEB–10 14:06	021210–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 14:06	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 14:06	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 14:06	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 14:06	021210-1
	Mercury	-0.096	+/-.2	J	0.066	0.2	LIQ	AV	15-FEB-10 11:41	021510W1-7
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 15:28	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 15:28	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 15:28	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 15:28	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 15:28	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 15:28	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 15:28	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 15:28	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Sodium	100	+/-300	U	100	300	LIQ	P	12-FEB-10 15:28	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 15:28	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 15:28	021210-1
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 16:50	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 16:50	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 16:50	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 16:50	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 16:50	021210-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1433-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 16:50	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 16:50	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 16:50	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Sodium	130.12	+/-300	J	100	300	LIQ	P	12-FEB-10 16:50	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 16:50	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 16:50	021210-1
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	12-FEB-10 18:06	021210-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 18:06	021210-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	12-FEB-10 18:06	021210-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	12-FEB-10 18:06	021210-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	12-FEB-10 18:06	021210-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	12-FEB-10 18:06	021210-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	12-FEB-10 18:06	021210-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	12-FEB-10 18:06	021210-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Sodium	175.6	+/-300	J	100	300	LIQ	P	12-FEB-10 18:06	021210-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	12-FEB-10 18:06	021210-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	12-FEB-10 18:06	021210-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1433–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202029965								
	Mercury	–0.115	ug/L	+/–0.2	J	AV	0.066	0.2
1202030862								
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Sodium	150	ug/L	+/–300	J	P	100	300
	Silver	1	ug/L	+/–5	U	P	1	5
	Selenium	5	ug/L	+/–30	U	P	5	30
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Copper	3	ug/L	+/–10	U	P	3	10
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Chromium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Barium	1	ug/L	+/–5	U	P	1	5
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Aluminum	68	ug/L	+/–200	U	P	68	200
1202030875								
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2

METALS
–4–
Interference Check Sample

SDG No: 10–1433–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	526000	ug/L	500000	ug/L	105	80.0 – 120.0	12–FEB–10 09:23	021210–1
	Arsenic	11.9	ug/L					12–FEB–10 09:23	021210–1
	Barium	–0.241	ug/L					12–FEB–10 09:23	021210–1
	Calcium	488000	ug/L	500000	ug/L	97.5	80.0 – 120.0	12–FEB–10 09:23	021210–1
	Chromium	1.19	ug/L					12–FEB–10 09:23	021210–1
	Cobalt	–1.55	ug/L					12–FEB–10 09:23	021210–1
	Copper	1.55	ug/L					12–FEB–10 09:23	021210–1
	Iron	191000	ug/L	200000	ug/L	95.6	80.0 – 120.0	12–FEB–10 09:23	021210–1
	Magnesium	493000	ug/L	500000	ug/L	98.6	80.0 – 120.0	12–FEB–10 09:23	021210–1
	Nickel	4.65	ug/L					12–FEB–10 09:23	021210–1
	Potassium	–183.0	ug/L					12–FEB–10 09:23	021210–1
	Selenium	–19.3	ug/L					12–FEB–10 09:23	021210–1
	Silver	4.21	ug/L					12–FEB–10 09:23	021210–1
	Sodium	31.5	ug/L					12–FEB–10 09:23	021210–1
	Vanadium	–2.45	ug/L					12–FEB–10 09:23	021210–1
	Zinc	–3.33	ug/L					12–FEB–10 09:23	021210–1
ICSAB01									
	Aluminum	526000	ug/L	500000	ug/L	105	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Arsenic	511	ug/L	500	ug/L	102	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Barium	483	ug/L	500	ug/L	96.6	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Chromium	483	ug/L	500	ug/L	96.6	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Cobalt	432	ug/L	500	ug/L	86.5	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Copper	537	ug/L	500	ug/L	107	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Iron	190000	ug/L	200000	ug/L	95	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Magnesium	490000	ug/L	500000	ug/L	98	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Nickel	447	ug/L	500	ug/L	89.4	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Potassium	5130	ug/L	5000	ug/L	103	80.0 – 120.0	12–FEB–10 09:29	021210–1
	Selenium	2460	ug/L	2500	ug/L	98.3	80.0 – 120.0	12–FEB–10 09:29	021210–1

METALS
-4-
Interference Check Sample

SDG No: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	273	ug/L	250	ug/L	109	80.0 – 120.0	12-FEB-10 09:29	021210-1
	Sodium	5750	ug/L	5000	ug/L	115	80.0 – 120.0	12-FEB-10 09:29	021210-1
	Vanadium	502	ug/L	500	ug/L	100	80.0 – 120.0	12-FEB-10 09:29	021210-1
	Zinc	480	ug/L	500	ug/L	96	80.0 – 120.0	12-FEB-10 09:29	021210-1

METALS
-4-
Interference Check Sample

SDG No: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.16	ug/L					18-FEB-10 05:43	100217-2
	Cadmium	0.519	ug/L					18-FEB-10 05:43	100217-2
ICSAB01									
	Antimony	21.3	ug/L	20	ug/L	107	80.0 - 120.0	18-FEB-10 05:49	100217-2
	Cadmium	20.1	ug/L	20.44	ug/L	98.2	80.0 - 120.0	18-FEB-10 05:49	100217-2

METALS
–4–
Interference Check Sample

SDG No: 10–1433–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.125	ug/L					18–FEB–10 17:06	100218–3
	Lead	0.236	ug/L					18–FEB–10 17:06	100218–3
	Manganese	6.04	ug/L					18–FEB–10 17:06	100218–3
	Thallium	0.043	ug/L					18–FEB–10 17:06	100218–3
ICSAB01									
	Beryllium	19.9	ug/L	20	ug/L	99.6	80.0 – 120.0	18–FEB–10 17:09	100218–3
	Lead	22.0	ug/L	20.19	ug/L	109	80.0 – 120.0	18–FEB–10 17:09	100218–3
	Manganese	28.3	ug/L	25.8	ug/L	110	80.0 – 120.0	18–FEB–10 17:09	100218–3
	Thallium	21.6	ug/L	20	ug/L	108	80.0 – 120.0	18–FEB–10 17:09	100218–3

METALS
–4–
Interference Check Sample

SDG No: 10–1433–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.008	ug/L					18–FEB–10 19:43	100218–6
ICSAB01									
	Uranium	21.4	ug/L	20	ug/L	107	80.0 – 120.0	18–FEB–10 19:46	100218–6

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1433-1 **Client ID** RE15-10-8081S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 245807001 **Spike ID:** 1202029968

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.11		0.066	U	2	106		AV

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1433-1 **Client ID** RE15-10-8080S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 245690001 **Spike ID:** 1202030865

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5020		68	U	5000	99.9		P
Arsenic	ug/L	75-125	487		5	U	500	96.7		P
Barium	ug/L	75-125	502		1	U	500	100		P
Calcium	ug/L	75-125	5050		50	U	5000	100		P
Chromium	ug/L	75-125	489		1	U	500	97.7		P
Cobalt	ug/L	75-125	484		1	U	500	96.8		P
Copper	ug/L	75-125	502		3	U	500	100		P
Iron	ug/L	75-125	5210		30	U	5000	104		P
Magnesium	ug/L	75-125	5150		106	J	5000	101		P
Nickel	ug/L	75-125	489		1.5	U	500	97.7		P
Potassium	ug/L	75-125	5170		128	J	5000	101		P
Selenium	ug/L	75-125	495		5	U	500	98.4		P
Silver	ug/L	75-125	495		1	U	500	99		P
Sodium	ug/L	75-125	5760		255	J	5000	110		P
Vanadium	ug/L	75-125	502		1.06	J	500	100		P
Zinc	ug/L	75-125	476		3.3	U	500	94.8		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1433-1 **Client ID** RE15-10-8080S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 245690001 **Spike ID:** 1202030878

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/L	75-125	46.9		0.1	U	50	93.7		MS
Cadmium	ug/L	75-125	11		0.11	U	10	110		MS
Lead	ug/L	75-125	46.3		0.5	U	40	116		MS
Manganese	ug/L	75-125	53.7		1.11	J	50	105		MS
Thallium	ug/L	75-125	92		0.3	U	100	91.7		MS
Uranium	ug/L	75-125	58.1		0.05	U	50	116		MS
Antimony	ug/L	75-125	212		1	U	200	106		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1433–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8081D

Sample ID: 245807001 **Duplicate ID:** 1202029967 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1433–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8080D

Sample ID: 245690001 **Duplicate ID:** 1202030864 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L		50	U	50	U			P
Chromium	ug/L		1	U	1	U			P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L		106	J	85	U	200		P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L	+/–150	128	J	144	J	11.7		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	255	J	238	J	6.73		P
Vanadium	ug/L	+/–5	1.06	J	1.19	J	11.1		P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1433-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15-10-8080D

Sample ID: 245690001 **Duplicate ID:** 1202030877 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L	+/-5	1.11	J	1.02	J	8.65		MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1433-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202029966								
	Mercury	ug/L	2	2.04		102	80-120	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1433-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030863								
	Aluminum	ug/L	5000	4920		98.4	80-120	P
	Arsenic	ug/L	500	482		96.5	80-120	P
	Barium	ug/L	500	497		99.3	80-120	P
	Calcium	ug/L	5000	4950		98.9	80-120	P
	Chromium	ug/L	500	485		96.9	80-120	P
	Cobalt	ug/L	500	480		96.1	80-120	P
	Copper	ug/L	500	497		99.4	80-120	P
	Iron	ug/L	5000	5100		102	80-120	P
	Magnesium	ug/L	5000	5050		101	80-120	P
	Nickel	ug/L	500	486		97.2	80-120	P
	Potassium	ug/L	5000	4880		97.7	80-120	P
	Selenium	ug/L	500	495		99	80-120	P
	Silver	ug/L	500	491		98.2	80-120	P
	Sodium	ug/L	5000	5560		111	80-120	P
	Vanadium	ug/L	500	497		99.3	80-120	P
	Zinc	ug/L	500	474		94.8	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1433-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202030876								
	Antimony	ug/L	50	54.6		109	80-120	MS
	Beryllium	ug/L	50	46.3		92.6	80-120	MS
	Cadmium	ug/L	50	51.3		103	80-120	MS
	Lead	ug/L	50	55.2		110	80-120	MS
	Manganese	ug/L	50	52.5		105	80-120	MS
	Thallium	ug/L	50	51		102	80-120	MS
	Uranium	ug/L	50	58.6		117	80-120	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1433-1 **Client ID** RE15-10-8081L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 245807001 **Serial Dilution ID:** 1202029969

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1433-1 **Client ID** RE15-10-8080L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 245690001 **Serial Dilution ID:** 1202030866

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	50	U	250	U				P
Chromium	1	U	5	U				P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	106	J	425	U	100			P
Nickel	1.5	U	7.5	U				P
Potassium	128	J	250	U	100			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	255	J	765	J	200			P
Vanadium	1.06	J	5	U	100			P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1433-1 **Client ID** RE15-10-8080L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 245690001 **Serial Dilution ID:** 1202030879

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1.11	J	5	U	100			MS
Thallium	.3	U	12.3					MS
Uranium	.05	U	.25	U				MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948036						
1202030862	MB for batch 948036	MB	W	07-FEB-10	50mL	50mL	
1202030863	LCS for batch 948036	LCS	W	07-FEB-10	50mL	50mL	
1202030865	RE15-10-8080S	MS	W	07-FEB-10	50mL	50mL	
1202030864	RE15-10-8080D	DUP	W	07-FEB-10	50mL	50mL	
245690001	RE15-10-8080	SAMPLE	W	07-FEB-10	50mL	50mL	
245690002	RE15-10-8079	SAMPLE	W	07-FEB-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948039							
1202030875	MB for batch 948039	MB	W	07-FEB-10	50mL	50mL	
1202030876	LCS for batch 948039	LCS	W	07-FEB-10	50mL	50mL	
1202030878	RE15-10-8080S	MS	W	07-FEB-10	50mL	50mL	
1202030877	RE15-10-8080D	DUP	W	07-FEB-10	50mL	50mL	
245690001	RE15-10-8080	SAMPLE	W	07-FEB-10	50mL	50mL	
245690002	RE15-10-8079	SAMPLE	W	07-FEB-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1433-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	947645						
1202029965	MB for batch 947645	MB	W	12-FEB-10	20mL	20mL	
1202029966	LCS for batch 947645	LCS	W	12-FEB-10	20mL	20mL	
1202029968	RE15-10-8081S	MS	W	12-FEB-10	20mL	20mL	
1202029967	RE15-10-8081D	DUP	W	12-FEB-10	20mL	20mL	
245690001	RE15-10-8080	SAMPLE	W	12-FEB-10	20mL	20mL	
245690002	RE15-10-8079	SAMPLE	W	12-FEB-10	20mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 18-FEB-10 **End Date:** 18-FEB-10

Client Sdg: 10-1433-1
Method MS
Data File: 100217-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	05:07		X				X																		
S10	1	05:13		X				X																		
S100	1	05:19		X				X																		
ICV01	1	05:25		X				X																		
ICB01	1	05:31		X				X																		
CRDL01	1	05:37		X				X																		
ICSA01	1	05:43		X				X																		
ICSAB01	1	05:49		X				X																		
CCV01	1	05:56		X				X																		
CCB01	1	06:02		X				X																		
LR01	1	06:08		X				X																		
CCV02	1	06:14		X				X																		
CCB02	1	06:20		X				X																		
ZZZZZZ	1	06:26																								
ZZZZZZ	1	06:32																								
ZZZZZZ	1	06:38																								
ZZZZZZ	1	06:45																								
ZZZZZZ	1	06:51																								
ZZZZZZ	5	06:57																								
ZZZZZZ	1	07:03																								
CCV03	1	07:09		X				X																		
CCB03	1	07:15		X				X																		
ZZZZZZ	1	07:21																								
ZZZZZZ	1	07:27																								
ZZZZZZ	1	07:34																								
ZZZZZZ	1	07:41																								
ZZZZZZ	1	07:47																								
ZZZZZZ	1	07:53																								
ZZZZZZ	5	07:59																								
ZZZZZZ	1	08:06																								
CCV04	1	08:12		X				X																		
CCB04	1	08:18		X				X																		
ZZZZZZ	1	08:25																								
1202030875	1	08:32		X				X																		
1202030876	1	08:38		X				X																		
ZZZZZZ	1	08:44																								
245690001	1	08:51		X				X																		
1202030877	1	08:57		X				X																		
1202030878	1	09:03		X				X																		
1202030879	5	09:09		X				X																		

Metals
-14-
Analysis Run Log

| Samp No. | D/F | Run Time | | |

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 18-FEB-10 **End Date:** 18-FEB-10

Client Sdg: 10-1433-1
Method MS
Data File: 100218-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:50					X							X		X							X			
S10	1	16:53					X							X		X							X			
S100	1	16:55					X							X		X							X			
ICV01	1	16:58					X							X		X							X			
ICB01	1	17:01					X							X		X							X			
CRDL01	1	17:03					X							X		X							X			
ICSA01	1	17:06					X							X		X							X			
ICSAB01	1	17:09					X							X		X							X			
CCV01	1	17:11					X							X		X							X			
CCB01	1	17:14					X							X		X							X			
ZZZZZZ	1	17:17																								
ZZZZZZ	1	17:19																								
ZZZZZZ	1	17:22																								
ZZZZZZ	1	17:25																								
ZZZZZZ	1	17:27																								
ZZZZZZ	5	17:30																								
ZZZZZZ	1	17:33																								
ZZZZZZ	1	17:36																								
CCV02	1	17:38					X							X		X							X			
CCB02	1	17:41					X							X		X							X			
1202030875	1	17:44					X							X		X							X			
1202030876	1	17:47					X							X		X							X			
ZZZZZZ	1	17:50																								
245690001	1	17:53					X							X		X							X			
1202030877	1	17:56					X							X		X							X			
1202030878	1	17:58					X							X		X							X			
1202030879	5	18:01					X							X		X							X			
ZZZZZZ	1	18:04																								
ZZZZZZ	1	18:07																								
CCV03	1	18:09					X							X		X							X			
CCB03	1	18:12					X							X		X							X			
245690002	1	18:15					X							X		X							X			
ZZZZZZ	5	18:18																								
ZZZZZZ	10	18:21																								
ZZZZZZ	100	18:24																								
CCV04	1	18:27					X							X		X							X			
CCB04	1	18:30					X							X		X							X			

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 18–FEB–10 **End Date:** 18–FEB–10

Client Sdg: 10–1433–1
Method MS
Data File: 100218–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	19:30																						X		
S10	1	19:32																						X		
S100	1	19:35																						X		
ICV01	1	19:37																						X		
ICB01	1	19:39																						X		
CRDL01	1	19:41																						X		
ICSA01	1	19:43																						X		
ICSAB01	1	19:46																						X		
CCV01	1	19:48																						X		
CCB01	1	19:50																						X		
1202030875	1	19:52																						X		
1202030876	1	19:54																						X		
245690001	1	19:57																						X		
1202030877	1	19:59																						X		
1202030878	1	20:01																						X		
1202030879	5	20:03																						X		
245690002	1	20:06																						X		
ZZZZZZ	1	20:08																								
CCV02	1	20:10																						X		
CCB02	1	20:12																						X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 12-FEB-10 **End Date:** 12-FEB-10

Client Sdg: 10-1433-1
Method P
Data File: 021210-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	08:37			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	08:43	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	08:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	08:57	X						X				X		X							X				
ICV01	1	09:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	09:09	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	09:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	09:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	09:29	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	09:35	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	09:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	09:48	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	09:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	10:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	10:14	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	10:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	10:28																								
ZZZZZZ	1	10:34																								
ZZZZZZ	1	10:41																								
ZZZZZZ	1	10:48																								
ZZZZZZ	1	10:55																								
ZZZZZZ	1	11:02																								
ZZZZZZ	1	11:08																								
ZZZZZZ	1	11:15																								
ZZZZZZ	1	11:22																								
ZZZZZZ	1	11:29																								
CCV03	1	11:35	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	11:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	11:49																								
ZZZZZZ	1	11:56																								
ZZZZZZ	1	12:03																								
ZZZZZZ	1	12:10																								
ZZZZZZ	1	12:17																								
ZZZZZZ	1	12:24																								
ZZZZZZ	5	12:31																								
CCV04	1	12:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	12:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	12:51																								
ZZZZZZ	5	12:58																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	5	13:04																							
ZZZZZZ	5	13:11																							
ZZZZZZ	5	13:18																							
ZZZZZZ	25	13:25																							
CCV05	1	13:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB05	1	13:39	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV06	1	13:59	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB06	1	14:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	14:13																							
ZZZZZZ	1	14:20																							
ZZZZZZ	1	14:27																							
ZZZZZZ	1	14:33																							
ZZZZZZ	1	14:40																							
ZZZZZZ	1	14:47																							
ZZZZZZ	1	14:54																							
ZZZZZZ	1	15:01																							
ZZZZZZ	1	15:07																							
ZZZZZZ	1	15:14																							
CCV07	1	15:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB07	1	15:28	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:35																							
ZZZZZZ	1	15:42																							
ZZZZZZ	1	15:48																							
ZZZZZZ	1	15:55																							
ZZZZZZ	1	16:02																							
ZZZZZZ	1	16:09																							
ZZZZZZ	1	16:16																							
ZZZZZZ	1	16:22																							
ZZZZZZ	1	16:29																							
ZZZZZZ	1	16:36																							
CCV08	1	16:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB08	1	16:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202030862	1	16:56	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202030863	1	17:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
245690001	1	17:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202030864	1	17:17	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202030865	1	17:24	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202030866	5	17:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
245690002	1	17:38	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:45																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Ti	U	V	Zn
ZZZZZZ	10	17:52																								
CCV09	1	17:59	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB09	1	18:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 15-FEB-10 **End Date:** 15-FEB-10

Client Sdg: 10-1433-1
Method AV
Data File: 021510W1-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:22															X									
S0.2	1	09:24															X									
S0.5	1	09:26															X									
S2.0	1	09:28															X									
S5.0	1	09:30															X									
S10	1	09:32															X									
ICV01	1	09:34															X									
ICB01	1	09:36															X									
CRDL01	1	09:38															X									
CCV01	1	09:40															X									
CCB01	1	09:42															X									
ZZZZZZ	1	09:44																								
ZZZZZZ	1	09:46																								
ZZZZZZ	1	09:48																								
ZZZZZZ	1	09:50																								
ZZZZZZ	1	09:52																								
ZZZZZZ	1	09:54																								
ZZZZZZ	1	09:56																								
ZZZZZZ	1	09:58																								
ZZZZZZ	1	10:00																								
ZZZZZZ	5	10:02																								
CCV02	1	10:04															X									
CCB02	1	10:06															X									
ZZZZZZ	1	10:08																								
ZZZZZZ	1	10:10																								
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
ZZZZZZ	1	10:16																								
ZZZZZZ	1	10:18																								
ZZZZZZ	1	10:20																								
ZZZZZZ	1	10:22																								
ZZZZZZ	1	10:24																								
ZZZZZZ	1	10:26																								
CCV03	1	10:28															X									
CCB03	1	10:30															X									
ZZZZZZ	5	10:32																								
ZZZZZZ	1	10:34																								
ZZZZZZ	1	10:36																								
ZZZZZZ	1	10:37																								
ZZZZZZ	1	10:39																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:41																							
ZZZZZZ	1	10:43																							
ZZZZZZ	1	10:45																							
ZZZZZZ	1	10:47																							
ZZZZZZ	5	10:49																							
CCV04	1	10:51													X										
CCB04	1	10:53													X										
ZZZZZZ	1	10:55																							
ZZZZZZ	1	10:57																							
ZZZZZZ	1	10:59																							
1202029965	1	11:01													X										
1202029966	1	11:03													X										
ZZZZZZ	1	11:05																							
ZZZZZZ	1	11:07																							
245690001	1	11:09													X										
245690002	1	11:11													X										
ZZZZZZ	1	11:13																							
CCV05	1	11:15													X										
CCB05	1	11:17													X										
1202029967	1	11:19													X										
1202029968	1	11:21													X										
1202029969	5	11:23													X										
ZZZZZZ	1	11:25																							
ZZZZZZ	1	11:27																							
ZZZZZZ	1	11:29																							
ZZZZZZ	1	11:31																							
ZZZZZZ	1	11:33																							
ZZZZZZ	1	11:35																							
ZZZZZZ	1	11:37																							
CCV06	1	11:39													X										
CCB06	1	11:41													X										

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1433-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1433-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1433-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1433-1
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1433-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1433–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-1433-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

Raw Data

Method: Hg_ReAlign
Result: 022310

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

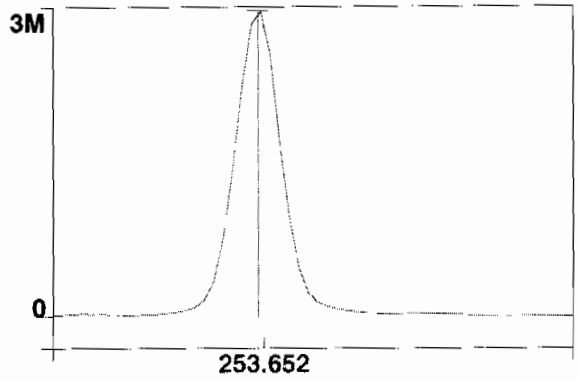

Intensity: 3258674.4 cps
Conc:

1

2/12/2010 08:27:36 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -3

Analysis Begun

Start Time: 2/12/2010 08:30:31 **Plasma On Time: 2/12/2010 07:08:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021210.sif
Batch ID:
Results Data Set: 021210
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/11/2010 10:02:25**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/12/2010 08:30:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4949.6	4949.6	101	%	08:32:26
1	Y RADIAL	5232.2	5232.2	100.9	%	08:32:26
1	Al 396.153Radial†	-167.5	-166.6	[0.00]	ug/L	08:32:26
1	Ca 317.933Radial†	15.2	15.2	[0.00]	ug/L	08:32:46
1	Fe 238.204 Radial†	10.3	10.2	[0.00]	ug/L	08:32:46
1	K 766.490 Radial†	2949.4	2933.6	[0.00]	ug/L	08:32:26
1	Mg 279.077 IEC†	2.6	2.5	[0.00]	ug/L	08:32:46
1	Na 589.592 Radial†	-1138.3	-1132.2	[0.00]	ug/L	08:32:26
1	Sr 421.552†	26.0	25.9	[0.00]	ug/L	08:32:26
1	Sc 361.383	824519.0	824519.0	99.715	%	08:33:43
1	Y 371.029	664311.9	664311.9	99.536	%	08:33:43
1	Ag 328.068†	291.8	292.6	[0.00]	ug/L	08:33:43
1	As 188.979†	-34.4	-34.5	[0.00]	ug/L	08:34:03
1	B 249.677†	-606.3	-608.0	[0.00]	ug/L	08:34:03
1	Ba 233.527†	-6.8	-6.9	[0.00]	ug/L	08:34:03
1	Be 313.107†	-3673.3	-3683.8	[0.00]	ug/L	08:33:43
1	Cd 226.502†	-218.8	-219.4	[0.00]	ug/L	08:34:03
1	Co 228.616†	-79.9	-80.1	[0.00]	ug/L	08:34:03
1	Cr 267.716†	57.8	58.0	[0.00]	ug/L	08:34:03
1	Cu 324.752†	4709.3	4722.8	[0.00]	ug/L	08:33:43
1	Mn 257.610†	457.6	458.9	[0.00]	ug/L	08:34:03
1	Mo 202.031†	7.6	7.7	[0.00]	ug/L	08:34:03
1	Ni 231.604†	80.4	80.6	[0.00]	ug/L	08:34:03
1	P 214.914†	250.9	251.6	[0.00]	ug/L	08:34:03
1	Pb 220.353†	-51.7	-51.8	[0.00]	ug/L	08:34:03
1	S 181.975 Axial†	50.2	50.4	[0.00]	ug/L	08:34:03
1	Sb 206.836†	37.0	37.1	[0.00]	ug/L	08:34:03
1	Se 196.026†	-23.4	-23.5	[0.00]	ug/L	08:34:03
1	Si 251.611†	515.8	517.2	[0.00]	ug/L	08:34:03
1	Sn 189.927†	3.0	3.0	[0.00]	ug/L	08:34:03
1	Ti 334.940†	-1561.8	-1566.3	[0.00]	ug/L	08:33:43
1	Tl 190.801†	-37.3	-37.4	[0.00]	ug/L	08:34:03
1	U 409.014†	-3600.5	-3610.7	[0.00]	ug/L	08:33:43
1	V 292.402†	-1570.2	-1574.6	[0.00]	ug/L	08:33:43
1	Zn 213.857†	734.4	736.5	[0.00]	ug/L	08:34:03
1	SiO2†	497.1	498.5	[0.00]	ug/L	08:34:59
2	Sc Radial	4929.1	4929.1	100	%	08:32:51
2	Y RADIAL	5185.7	5185.7	99.99	%	08:32:51
2	Al 396.153Radial†	-148.5	-148.3	[0.00]	ug/L	08:32:51
2	Ca 317.933Radial†	18.2	18.2	[0.00]	ug/L	08:33:11
2	Fe 238.204 Radial†	13.1	13.0	[0.00]	ug/L	08:33:11
2	K 766.490 Radial†	2954.5	2950.9	[0.00]	ug/L	08:32:51
2	Mg 279.077 IEC†	2.7	2.7	[0.00]	ug/L	08:33:11
2	Na 589.592 Radial†	-1177.3	-1175.8	[0.00]	ug/L	08:32:51
2	Sr 421.552†	-10.3	-10.3	[0.00]	ug/L	08:32:51
2	Sc 361.383	833268.3	833268.3	100.77	%	08:34:08
2	Y 371.029	674252.3	674252.3	101.03	%	08:34:08
2	Ag 328.068†	269.6	267.5	[0.00]	ug/L	08:34:08
2	As 188.979†	-31.0	-30.8	[0.00]	ug/L	08:34:28
2	B 249.677†	-594.4	-589.9	[0.00]	ug/L	08:34:28
2	Ba 233.527†	2.8	2.8	[0.00]	ug/L	08:34:28
2	Be 313.107†	-3727.5	-3698.9	[0.00]	ug/L	08:34:08
2	Cd 226.502†	-218.5	-216.8	[0.00]	ug/L	08:34:28
2	Co 228.616†	-92.6	-91.9	[0.00]	ug/L	08:34:28
2	Cr 267.716†	58.0	57.5	[0.00]	ug/L	08:34:28
2	Cu 324.752†	4723.5	4687.2	[0.00]	ug/L	08:34:08
2	Mn 257.610†	484.7	481.0	[0.00]	ug/L	08:34:28
2	Mo 202.031†	13.3	13.2	[0.00]	ug/L	08:34:28
2	Ni 231.604†	65.7	65.2	[0.00]	ug/L	08:34:28
2	P 214.914†	241.2	239.4	[0.00]	ug/L	08:34:28
2	Pb 220.353†	-61.6	-61.2	[0.00]	ug/L	08:34:28
2	S 181.975 Axial†	47.4	47.0	[0.00]	ug/L	08:34:28
2	Sb 206.836†	34.9	34.6	[0.00]	ug/L	08:34:28
2	Se 196.026†	-28.9	-28.7	[0.00]	ug/L	08:34:28
2	Si 251.611†	537.7	533.6	[0.00]	ug/L	08:34:28
2	Sn 189.927†	23.3	23.1	[0.00]	ug/L	08:34:28
2	Ti 334.940†	-1541.0	-1529.2	[0.00]	ug/L	08:34:08
2	Tl 190.801†	-36.6	-36.3	[0.00]	ug/L	08:34:28
2	U 409.014†	-3718.3	-3689.8	[0.00]	ug/L	08:34:08
2	V 292.402†	-1655.4	-1642.7	[0.00]	ug/L	08:34:08

2	Zn 213.857†	731.3	725.7	[0.00]	ug/L	08:34:28
2	SiO2†	546.0	541.8	[0.00]	ug/L	08:35:04
3	Sc Radial	4890.5	4890.5	99.3	%	08:33:16
3	Y RADIAL	5141.2	5141.2	99.13	%	08:33:16
3	Al 396.153Radial†	-173.7	-174.9	[0.00]	ug/L	08:33:16
3	Ca 317.933Radial†	11.4	11.5	[0.00]	ug/L	08:33:36
3	Fe 238.204 Radial†	11.0	11.0	[0.00]	ug/L	08:33:36
3	K 766.490 Radial†	2984.6	3004.5	[0.00]	ug/L	08:33:16
3	Mg 279.077 IEC†	-1.6	-1.6	[0.00]	ug/L	08:33:36
3	Na 589.592 Radial†	-1135.1	-1142.7	[0.00]	ug/L	08:33:16
3	Sr 421.552†	25.2	25.4	[0.00]	ug/L	08:33:16
3	Sc 361.383	822831.0	822831.0	99.511	%	08:34:33
3	Y 371.029	663653.2	663653.2	99.438	%	08:34:33
3	Ag 328.068†	329.6	331.3	[0.00]	ug/L	08:34:33
3	As 188.979†	-26.5	-26.6	[0.00]	ug/L	08:34:53
3	B 249.677†	-584.3	-587.2	[0.00]	ug/L	08:34:53
3	Ba 233.527†	-26.6	-26.8	[0.00]	ug/L	08:34:53
3	Be 313.107†	-3700.2	-3718.3	[0.00]	ug/L	08:34:33
3	Cd 226.502†	-210.9	-212.0	[0.00]	ug/L	08:34:53
3	Co 228.616†	-77.7	-78.1	[0.00]	ug/L	08:34:53
3	Cr 267.716†	84.0	84.4	[0.00]	ug/L	08:34:53
3	Cu 324.752†	4729.6	4752.8	[0.00]	ug/L	08:34:33
3	Mn 257.610†	467.4	469.7	[0.00]	ug/L	08:34:53
3	Mo 202.031†	14.6	14.7	[0.00]	ug/L	08:34:53
3	Ni 231.604†	84.9	85.3	[0.00]	ug/L	08:34:53
3	P 214.914†	248.9	250.2	[0.00]	ug/L	08:34:53
3	Pb 220.353†	-88.1	-88.5	[0.00]	ug/L	08:34:53
3	S 181.975 Axial†	45.7	46.0	[0.00]	ug/L	08:34:53
3	Sb 206.836†	33.5	33.6	[0.00]	ug/L	08:34:53
3	Se 196.026†	-23.9	-24.0	[0.00]	ug/L	08:34:53
3	Si 251.611†	540.5	543.2	[0.00]	ug/L	08:34:53
3	Sn 189.927†	2.3	2.4	[0.00]	ug/L	08:34:53
3	Ti 334.940†	-1609.4	-1617.3	[0.00]	ug/L	08:34:33
3	Tl 190.801†	-29.1	-29.3	[0.00]	ug/L	08:34:53
3	U 409.014†	-3518.0	-3535.3	[0.00]	ug/L	08:34:33
3	V 292.402†	-1545.7	-1553.2	[0.00]	ug/L	08:34:33
3	Zn 213.857†	720.1	723.6	[0.00]	ug/L	08:34:53
3	SiO2†	554.0	556.8	[0.00]	ug/L	08:35:09

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	826872.8	5602.60	0.68%	100.00	%
Sc Radial	4923.1	30.02	0.61%	100	%
Y 371.029	667405.8	5938.37	0.89%	100.00	%
Y RADIAL	5186.4	45.51	0.88%	100.0	%
Ag 328.068†	297.1	32.10	10.80%	[0.00]	ug/L
Al 396.153Radial†	-163.2	13.59	8.32%	[0.00]	ug/L
As 188.979†	-30.7	3.95	12.87%	[0.00]	ug/L
B 249.677†	-595.0	11.34	1.91%	[0.00]	ug/L
Ba 233.527†	-10.3	15.08	146.79%	[0.00]	ug/L
Be 313.107†	-3700.3	17.32	0.47%	[0.00]	ug/L
Ca 317.933Radial†	15.0	3.36	22.48%	[0.00]	ug/L
Cd 226.502†	-216.1	3.77	1.74%	[0.00]	ug/L
Co 228.616†	-83.3	7.48	8.97%	[0.00]	ug/L
Cr 267.716†	66.6	15.40	23.10%	[0.00]	ug/L
Cu 324.752†	4720.9	32.85	0.70%	[0.00]	ug/L
Fe 238.204 Radial†	11.4	1.46	12.80%	[0.00]	ug/L
K 766.490 Radial†	2963.0	36.96	1.25%	[0.00]	ug/L
Mg 279.077 IEC†	1.2	2.45	203.48%	[0.00]	ug/L
Mn 257.610†	469.9	11.07	2.36%	[0.00]	ug/L
Mo 202.031†	11.9	3.71	31.27%	[0.00]	ug/L
Na 589.592 Radial†	-1150.2	22.80	1.98%	[0.00]	ug/L
Ni 231.604†	77.0	10.54	13.68%	[0.00]	ug/L
P 214.914†	247.0	6.66	2.70%	[0.00]	ug/L
Pb 220.353†	-67.2	19.08	28.41%	[0.00]	ug/L
S 181.975 Axial†	47.8	2.30	4.81%	[0.00]	ug/L
Sb 206.836†	35.1	1.80	5.14%	[0.00]	ug/L
Se 196.026†	-25.4	2.87	11.31%	[0.00]	ug/L
Si 251.611†	531.3	13.12	2.47%	[0.00]	ug/L

Sn 189.927†	9.5	11.82	124.68%	[0.00]	ug/L
Sr 421.552†	13.7	20.72	151.74%	[0.00]	ug/L
Ti 334.940†	-1570.9	44.27	2.82%	[0.00]	ug/L
Tl 190.801†	-34.3	4.42	12.86%	[0.00]	ug/L
U 409.014†	-3611.9	77.25	2.14%	[0.00]	ug/L
V 292.402†	-1590.2	46.71	2.94%	[0.00]	ug/L
Zn 213.857†	728.6	6.92	0.95%	[0.00]	ug/L
SiO2†	532.4	30.25	5.68%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/12/2010 08:37:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4904.6	4904.6	99.6	%	08:39:17
1	Y RADIAL	5197.3	5197.3	100.2	%	08:39:17
1	K 766.490 Radial†	8576.3	5645.7	[1000]	ug/L	08:39:12
1	Sr 421.552†	14832.0	14874.4	[100]	ug/L	08:39:17
1	Sc 361.383	822772.8	822772.8	99.504	%	08:39:44
1	Y 371.029	658024.0	658024.0	98.594	%	08:39:44
1	Ag 328.068†	21175.5	20983.9	[100]	ug/L	08:39:44
1	As 188.979†	199.7	231.4	[100]	ug/L	08:40:04
1	B 249.677†	3473.5	4085.8	[100]	ug/L	08:39:44
1	Ba 233.527†	12824.7	12898.9	[100]	ug/L	08:39:44
1	Be 313.107†	273095.0	278156.2	[100]	ug/L	08:39:44
1	Cd 226.502†	8537.8	8796.4	[100]	ug/L	08:39:44
1	Co 228.616†	4745.8	4852.8	[100]	ug/L	08:40:04
1	Cr 267.716†	8646.5	8623.0	[100]	ug/L	08:39:44
1	Cu 324.752†	37789.3	33256.7	[100]	ug/L	08:39:44
1	Mn 257.610†	92439.3	92430.1	[100]	ug/L	08:39:44
1	Mo 202.031†	1345.4	1340.3	[100]	ug/L	08:40:04
1	Ni 231.604†	3904.2	3846.6	[100]	ug/L	08:40:04
1	P 214.914†	1078.0	836.3	[500]	ug/L	08:40:04
1	Pb 220.353†	751.2	822.1	[100]	ug/L	08:40:04
1	S 181.975 Axial†	193.0	146.1	[200]	ug/L	08:40:04
1	Sb 206.836†	327.9	294.4	[100]	ug/L	08:40:04
1	Se 196.026†	127.0	153.0	[100]	ug/L	08:40:04
1	Si 251.611†	15947.7	15495.8	[500]	ug/L	08:39:44
1	Sn 189.927†	563.3	556.6	[100]	ug/L	08:40:04
1	Ti 334.940†	62237.6	64118.6	[100]	ug/L	08:39:44
1	Tl 190.801†	303.9	339.7	[100]	ug/L	08:40:04
1	U 409.014†	-185.2	3425.8	[100]	ug/L	08:39:44
1	V 292.402†	11814.1	13463.2	[100]	ug/L	08:39:44
1	Zn 213.857†	11348.4	10676.3	[100]	ug/L	08:39:44
1	SiO2†	15671.6	15217.3	[1069.5]	ug/L	08:41:01
2	Sc Radial	4870.5	4870.5	98.9	%	08:39:27
2	Y RADIAL	5155.0	5155.0	99.40	%	08:39:27
2	K 766.490 Radial†	8593.6	5723.5	[1000]	ug/L	08:39:22
2	Sr 421.552†	14952.3	15100.2	[100]	ug/L	08:39:27
2	Sc 361.383	828433.6	828433.6	100.19	%	08:40:10
2	Y 371.029	662322.6	662322.6	99.238	%	08:40:10
2	Ag 328.068†	20927.2	20590.7	[100]	ug/L	08:40:10
2	As 188.979†	208.7	239.0	[100]	ug/L	08:40:30
2	B 249.677†	3425.3	4013.8	[100]	ug/L	08:40:10
2	Ba 233.527†	12691.0	12677.4	[100]	ug/L	08:40:10
2	Be 313.107†	268824.2	272018.0	[100]	ug/L	08:40:10
2	Cd 226.502†	8459.1	8659.2	[100]	ug/L	08:40:10
2	Co 228.616†	4680.5	4755.0	[100]	ug/L	08:40:30
2	Cr 267.716†	8518.0	8435.4	[100]	ug/L	08:40:10
2	Cu 324.752†	37186.9	32395.9	[100]	ug/L	08:40:10
2	Mn 257.610†	91236.8	90595.0	[100]	ug/L	08:40:10
2	Mo 202.031†	1345.0	1330.6	[100]	ug/L	08:40:30
2	Ni 231.604†	3878.3	3793.9	[100]	ug/L	08:40:30
2	P 214.914†	1073.9	824.8	[500]	ug/L	08:40:30
2	Pb 220.353†	739.6	805.4	[100]	ug/L	08:40:30
2	S 181.975 Axial†	187.3	139.2	[200]	ug/L	08:40:30
2	Sb 206.836†	320.5	284.7	[100]	ug/L	08:40:30
2	Se 196.026†	124.6	149.8	[100]	ug/L	08:40:30
2	Si 251.611†	15762.5	15201.5	[500]	ug/L	08:40:10
2	Sn 189.927†	546.5	536.0	[100]	ug/L	08:40:30
2	Ti 334.940†	61454.5	62909.7	[100]	ug/L	08:40:10
2	Tl 190.801†	291.5	325.3	[100]	ug/L	08:40:30
2	U 409.014†	-193.3	3419.0	[100]	ug/L	08:40:10

2	V 292.402†	11606.9	13175.2	[100]	ug/L	08:40:10
2	Zn 213.857†	11243.9	10494.1	[100]	ug/L	08:40:10
2	SiO2†	15804.3	15242.1	[1069.5]	ug/L	08:41:06
3	Sc Radial	4803.7	4803.7	97.6	%	08:39:37
3	Y RADIAL	5099.1	5099.1	98.32	%	08:39:37
3	K 766.490 Radial†	8566.4	5816.4	[1000]	ug/L	08:39:32
3	Sr 421.552†	15012.1	15371.6	[100]	ug/L	08:39:37
3	Sc 361.383	830200.0	830200.0	100.40	%	08:40:35
3	Y 371.029	663459.8	663459.8	99.409	%	08:40:35
3	Ag 328.068†	20826.2	20445.6	[100]	ug/L	08:40:35
3	As 188.979†	199.5	229.3	[100]	ug/L	08:40:55
3	B 249.677†	3382.4	3963.9	[100]	ug/L	08:40:35
3	Ba 233.527†	12664.6	12624.1	[100]	ug/L	08:40:35
3	Be 313.107†	268227.8	270853.2	[100]	ug/L	08:40:35
3	Cd 226.502†	8421.8	8604.1	[100]	ug/L	08:40:35
3	Co 228.616†	4680.5	4745.1	[100]	ug/L	08:40:55
3	Cr 267.716†	8504.0	8403.3	[100]	ug/L	08:40:35
3	Cu 324.752†	37198.6	32328.6	[100]	ug/L	08:40:35
3	Mn 257.610†	91196.3	90360.9	[100]	ug/L	08:40:35
3	Mo 202.031†	1330.3	1313.1	[100]	ug/L	08:40:55
3	Ni 231.604†	3869.4	3776.8	[100]	ug/L	08:40:55
3	P 214.914†	1064.7	813.4	[500]	ug/L	08:40:55
3	Pb 220.353†	719.7	783.9	[100]	ug/L	08:40:55
3	S 181.975 Axial†	188.0	139.5	[200]	ug/L	08:40:55
3	Sb 206.836†	327.0	290.6	[100]	ug/L	08:40:55
3	Se 196.026†	122.2	147.1	[100]	ug/L	08:40:55
3	Si 251.611†	15737.8	15143.4	[500]	ug/L	08:40:35
3	Sn 189.927†	544.0	532.3	[100]	ug/L	08:40:55
3	Ti 334.940†	61295.3	62620.6	[100]	ug/L	08:40:35
3	Tl 190.801†	286.4	319.6	[100]	ug/L	08:40:55
3	U 409.014†	-135.0	3477.5	[100]	ug/L	08:40:35
3	V 292.402†	11468.7	13012.9	[100]	ug/L	08:40:35
3	Zn 213.857†	11208.2	10434.7	[100]	ug/L	08:40:35
3	SiO2†	15651.1	15056.0	[1069.5]	ug/L	08:41:11

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	827135.5	3880.01	0.47%	100.03	%
Sc Radial	4859.6	51.33	1.06%	98.7	%
Y 371.029	661268.8	2867.00	0.43%	99.080	%
Y RADIAL	5150.5	49.23	0.96%	99.31	%
Ag 328.068†	20673.4	278.53	1.35%	[100]	ug/L
As 188.979†	233.2	5.08	2.18%	[100]	ug/L
B 249.677†	4021.2	61.29	1.52%	[100]	ug/L
Ba 233.527†	12733.5	145.71	1.14%	[100]	ug/L
Be 313.107†	273675.8	3923.60	1.43%	[100]	ug/L
Cd 226.502†	8686.6	99.06	1.14%	[100]	ug/L
Co 228.616†	4784.3	59.55	1.24%	[100]	ug/L
Cr 267.716†	8487.2	118.68	1.40%	[100]	ug/L
Cu 324.752†	32660.4	517.53	1.58%	[100]	ug/L
K 766.490 Radial†	5728.5	85.45	1.49%	[1000]	ug/L
Mn 257.610†	91128.7	1133.11	1.24%	[100]	ug/L
Mo 202.031†	1328.0	13.77	1.04%	[100]	ug/L
Ni 231.604†	3805.8	36.39	0.96%	[100]	ug/L
P 214.914†	824.8	11.47	1.39%	[500]	ug/L
Pb 220.353†	803.8	19.14	2.38%	[100]	ug/L
S 181.975 Axial†	141.6	3.95	2.79%	[200]	ug/L
Sb 206.836†	289.9	4.86	1.68%	[100]	ug/L
Se 196.026†	150.0	2.96	1.97%	[100]	ug/L
Si 251.611†	15280.2	188.95	1.24%	[500]	ug/L
Sn 189.927†	541.7	13.08	2.41%	[100]	ug/L
Sr 421.552†	15115.4	248.95	1.65%	[100]	ug/L
Ti 334.940†	63216.3	794.70	1.26%	[100]	ug/L
Tl 190.801†	328.2	10.36	3.16%	[100]	ug/L
U 409.014†	3440.8	32.01	0.93%	[100]	ug/L
V 292.402†	13217.1	228.06	1.73%	[100]	ug/L
Zn 213.857†	10535.0	125.94	1.20%	[100]	ug/L
SiO2†	15171.8	101.03	0.67%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/12/2010 08:43:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4893.0	4893.0	99.4	%	08:45:13
1	Y RADIAL	5167.5	5167.5	99.64	%	08:45:13
1	Al 396.153Radial†	5525.8	5723.0	[5000]	ug/L	08:45:13
1	Ca 317.933Radial†	3207.9	3212.6	[5000]	ug/L	08:45:33
1	K 766.490 Radial†	30898.7	28125.6	[5000]	ug/L	08:45:13
1	Mg 279.077 IEC†	159.9	159.6	[5000]	ug/L	08:45:33
1	Sr 421.552†	75281.9	75730.9	[500]	ug/L	08:45:13
1	Sc 361.383	846083.3	846083.3	102.32	%	08:46:30
1	Y 371.029	670195.9	670195.9	100.42	%	08:46:30
1	Ag 328.068†	103848.7	101193.7	[500]	ug/L	08:46:36
1	As 188.979†	1128.3	1133.3	[500]	ug/L	08:46:56
1	B 249.677†	20430.6	20561.7	[500]	ug/L	08:46:36
1	Ba 233.527†	63274.4	61848.0	[500]	ug/L	08:46:36
1	Be 313.107†	1376935.7	1349372.4	[500]	ug/L	08:46:30
1	Cd 226.502†	43180.2	42415.9	[500]	ug/L	08:46:36
1	Co 228.616†	24566.7	24092.3	[500]	ug/L	08:46:36
1	Cr 267.716†	42463.5	41432.7	[500]	ug/L	08:46:36
1	Cu 324.752†	168170.2	159630.9	[500]	ug/L	08:46:36
1	Mn 257.610†	450706.1	440002.9	[500]	ug/L	08:46:30
1	Mo 202.031†	6595.5	6433.9	[500]	ug/L	08:46:56
1	Ni 231.604†	19840.8	19313.3	[500]	ug/L	08:46:36
1	P 214.914†	4483.2	4134.4	[2500]	ug/L	08:46:56
1	Pb 220.353†	4008.1	3984.3	[500]	ug/L	08:46:56
1	S 181.975 Axial†	767.1	701.9	[1000]	ug/L	08:46:56
1	Sb 206.836†	1465.0	1396.7	[500]	ug/L	08:46:56
1	Se 196.026†	746.5	755.0	[500]	ug/L	08:46:56
1	Si 251.611†	77510.5	75219.3	[2500]	ug/L	08:46:36
1	Sn 189.927†	2759.7	2687.5	[500]	ug/L	08:46:56
1	Ti 334.940†	308118.1	302693.1	[500]	ug/L	08:46:36
1	Tl 190.801†	1582.5	1580.9	[500]	ug/L	08:46:56
1	U 409.014†	12257.8	15591.4	[500]	ug/L	08:46:36
1	V 292.402†	65793.2	65889.5	[500]	ug/L	08:46:36
1	Zn 213.857†	53618.4	51672.3	[500]	ug/L	08:46:36
1	SiO2†	76680.7	74407.2	[5347.5]	ug/L	08:48:03
2	Sc Radial	4834.7	4834.7	98.2	%	08:45:38
2	Y RADIAL	5094.6	5094.6	98.23	%	08:45:38
2	Al 396.153Radial†	5463.8	5726.9	[5000]	ug/L	08:45:38
2	Ca 317.933Radial†	3202.6	3246.2	[5000]	ug/L	08:45:58
2	K 766.490 Radial†	30695.3	28293.3	[5000]	ug/L	08:45:38
2	Mg 279.077 IEC†	154.7	156.4	[5000]	ug/L	08:45:58
2	Sr 421.552†	74422.3	75768.7	[500]	ug/L	08:45:38
2	Sc 361.383	834905.9	834905.9	100.97	%	08:47:02
2	Y 371.029	661125.3	661125.3	99.059	%	08:47:02
2	Ag 328.068†	102729.9	101444.3	[500]	ug/L	08:47:07
2	As 188.979†	1127.0	1146.9	[500]	ug/L	08:47:27
2	B 249.677†	20225.0	20625.5	[500]	ug/L	08:47:07
2	Ba 233.527†	62739.8	62146.4	[500]	ug/L	08:47:07
2	Be 313.107†	1351283.5	1341982.3	[500]	ug/L	08:47:02
2	Cd 226.502†	42730.8	42535.7	[500]	ug/L	08:47:07
2	Co 228.616†	24325.4	24174.7	[500]	ug/L	08:47:07
2	Cr 267.716†	41996.0	41525.3	[500]	ug/L	08:47:07
2	Cu 324.752†	166135.8	159816.4	[500]	ug/L	08:47:07
2	Mn 257.610†	444463.1	439716.7	[500]	ug/L	08:47:02
2	Mo 202.031†	6587.6	6512.4	[500]	ug/L	08:47:27
2	Ni 231.604†	19637.7	19371.7	[500]	ug/L	08:47:07
2	P 214.914†	4473.0	4182.9	[2500]	ug/L	08:47:27
2	Pb 220.353†	3981.4	4010.3	[500]	ug/L	08:47:27
2	S 181.975 Axial†	765.1	710.0	[1000]	ug/L	08:47:27
2	Sb 206.836†	1439.5	1390.5	[500]	ug/L	08:47:27

2	Se 196.026†	738.9	757.2	[500]	ug/L	08:47:27
2	Si 251.611†	76653.2	75384.3	[2500]	ug/L	08:47:07
2	Sn 189.927†	2757.6	2721.6	[500]	ug/L	08:47:27
2	Ti 334.940†	304767.1	303405.7	[500]	ug/L	08:47:07
2	Tl 190.801†	1574.0	1593.1	[500]	ug/L	08:47:27
2	U 409.014†	12173.3	15668.1	[500]	ug/L	08:47:07
2	V 292.402†	64915.5	65881.1	[500]	ug/L	08:47:07
2	Zn 213.857†	53105.2	51865.6	[500]	ug/L	08:47:07
2	SiO2†	77534.5	76256.1	[5347.5]	ug/L	08:48:08
3	Sc Radial	4885.2	4885.2	99.2	%	08:46:03
3	Y RADIAL	5151.6	5151.6	99.33	%	08:46:03
3	Al 396.153Radial†	5533.0	5739.2	[5000]	ug/L	08:46:03
3	Ca 317.933Radial†	3196.2	3206.0	[5000]	ug/L	08:46:23
3	K 766.490 Radial†	31092.9	28371.4	[5000]	ug/L	08:46:03
3	Mg 279.077 IEC†	158.9	159.0	[5000]	ug/L	08:46:23
3	Sr 421.552†	75514.3	76087.1	[500]	ug/L	08:46:03
3	Sc 361.383	835248.6	835248.6	101.01	%	08:47:33
3	Y 371.029	660937.9	660937.9	99.031	%	08:47:33
3	Ag 328.068†	103707.5	102370.4	[500]	ug/L	08:47:38
3	As 188.979†	1137.2	1156.4	[500]	ug/L	08:47:58
3	B 249.677†	20462.5	20852.4	[500]	ug/L	08:47:38
3	Ba 233.527†	63233.5	62609.7	[500]	ug/L	08:47:38
3	Be 313.107†	1357145.4	1347236.4	[500]	ug/L	08:47:33
3	Cd 226.502†	43014.7	42799.4	[500]	ug/L	08:47:38
3	Co 228.616†	24523.4	24360.8	[500]	ug/L	08:47:38
3	Cr 267.716†	42515.0	42022.0	[500]	ug/L	08:47:38
3	Cu 324.752†	167854.2	161450.0	[500]	ug/L	08:47:38
3	Mn 257.610†	445897.9	440956.6	[500]	ug/L	08:47:33
3	Mo 202.031†	6574.8	6497.0	[500]	ug/L	08:47:58
3	Ni 231.604†	19821.1	19545.4	[500]	ug/L	08:47:38
3	P 214.914†	4462.7	4170.9	[2500]	ug/L	08:47:58
3	Pb 220.353†	3993.5	4020.7	[500]	ug/L	08:47:58
3	S 181.975 Axial†	771.8	716.3	[1000]	ug/L	08:47:58
3	Sb 206.836†	1462.3	1412.5	[500]	ug/L	08:47:58
3	Se 196.026†	732.9	751.0	[500]	ug/L	08:47:58
3	Si 251.611†	77419.4	76111.7	[2500]	ug/L	08:47:38
3	Sn 189.927†	2749.2	2712.2	[500]	ug/L	08:47:58
3	Ti 334.940†	307748.6	306233.4	[500]	ug/L	08:47:38
3	Tl 190.801†	1582.0	1600.5	[500]	ug/L	08:47:58
3	U 409.014†	12274.4	15763.3	[500]	ug/L	08:47:38
3	V 292.402†	65658.1	66589.9	[500]	ug/L	08:47:38
3	Zn 213.857†	53611.5	52345.3	[500]	ug/L	08:47:38
3	SiO2†	76783.5	75481.2	[5347.5]	ug/L	08:48:13

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	838745.9	6356.62	0.76%	101.44	%
Sc Radial	4871.0	31.62	0.65%	98.9	%
Y 371.029	664086.4	5291.84	0.80%	99.503	%
Y RADIAL	5137.9	38.33	0.75%	99.07	%
Ag 328.068†	101669.5	619.80	0.61%	[500]	ug/L
Al 396.153Radial†	5729.7	8.43	0.15%	[5000]	ug/L
As 188.979†	1145.5	11.62	1.01%	[500]	ug/L
B 249.677†	20679.9	152.76	0.74%	[500]	ug/L
Ba 233.527†	62201.4	383.79	0.62%	[500]	ug/L
Be 313.107†	1346197.0	3803.13	0.28%	[500]	ug/L
Ca 317.933Radial†	3221.6	21.53	0.67%	[5000]	ug/L
Cd 226.502†	42583.6	196.19	0.46%	[500]	ug/L
Co 228.616†	24209.3	137.57	0.57%	[500]	ug/L
Cr 267.716†	41660.0	316.91	0.76%	[500]	ug/L
Cu 324.752†	160299.1	1001.04	0.62%	[500]	ug/L
K 766.490 Radial†	28263.4	125.60	0.44%	[5000]	ug/L
Mg 279.077 IEC†	158.3	1.73	1.09%	[5000]	ug/L
Mn 257.610†	440225.4	649.18	0.15%	[500]	ug/L
Mo 202.031†	6481.1	41.58	0.64%	[500]	ug/L
Ni 231.604†	19410.1	120.70	0.62%	[500]	ug/L
P 214.914†	4162.7	25.30	0.61%	[2500]	ug/L
Pb 220.353†	4005.1	18.74	0.47%	[500]	ug/L
S 181.975 Axial†	709.4	7.21	1.02%	[1000]	ug/L

Sb 206.836†	1399.9	11.34	0.81%	[500]	ug/L
Se 196.026†	754.4	3.14	0.42%	[500]	ug/L
Si 251.611†	75571.8	474.84	0.63%	[2500]	ug/L
Sn 189.927†	2707.1	17.60	0.65%	[500]	ug/L
Sr 421.552†	75862.2	195.63	0.26%	[500]	ug/L
Ti 334.940†	304110.7	1872.49	0.62%	[500]	ug/L
Tl 190.801†	1591.5	9.90	0.62%	[500]	ug/L
U 409.014†	15674.3	86.08	0.55%	[500]	ug/L
V 292.402†	66120.2	406.82	0.62%	[500]	ug/L
Zn 213.857†	51961.1	346.46	0.67%	[500]	ug/L
SiO2†	75381.5	928.47	1.23%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/12/2010 08:50:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4779.4	4779.4	97.1	%	08:52:37
1	Y RADIAL	5019.6	5019.6	96.79	%	08:52:37
1	Al 396.153Radial†	11204.2	11704.4	[10000]	ug/L	08:52:17
1	Ca 317.933Radial†	6326.1	6501.4	[10000]	ug/L	08:52:37
1	Fe 238.204 Radial†	1113.0	1135.0	[10000]	ug/L	08:52:37
1	K 766.490 Radial†	59169.3	57985.6	[10000]	ug/L	08:52:17
1	Mg 279.077 IEC†	309.3	317.4	[10000]	ug/L	08:52:37
1	Na 589.592 Radial†	30658.7	32730.9	[10000]	ug/L	08:52:17
1	Sr 421.552†	149597.0	154081.9	[1000]	ug/L	08:52:17
1	Sc 361.383	820468.2	820468.2	99.225	%	08:53:41
1	Y 371.029	658950.7	658950.7	98.733	%	08:53:41
1	Ag 328.068†	206784.7	208101.8	[1000]	ug/L	08:53:41
1	As 188.979†	2270.5	2318.9	[1000]	ug/L	08:54:01
1	B 249.677†	41298.7	42216.1	[1000]	ug/L	08:53:41
1	Ba 233.527†	124674.3	125657.7	[1000]	ug/L	08:53:41
1	Be 313.107†	2696451.0	2721199.8	[1000]	ug/L	08:53:35
1	Cd 226.502†	84983.2	85862.6	[1000]	ug/L	08:53:41
1	Co 228.616†	48264.5	48724.6	[1000]	ug/L	08:53:41
1	Cr 267.716†	83736.0	84323.0	[1000]	ug/L	08:53:41
1	Cu 324.752†	329044.2	326891.8	[1000]	ug/L	08:53:41
1	Mn 257.610†	879525.6	885921.3	[1000]	ug/L	08:53:35
1	Mo 202.031†	13186.5	13277.6	[1000]	ug/L	08:54:01
1	Ni 231.604†	38879.1	39105.6	[1000]	ug/L	08:53:41
1	P 214.914†	8656.4	8477.0	[5000]	ug/L	08:54:01
1	Pb 220.353†	7988.8	8118.3	[1000]	ug/L	08:54:01
1	S 181.975 Axial†	1494.1	1458.0	[2000]	ug/L	08:54:01
1	Sb 206.836†	2869.1	2856.4	[1000]	ug/L	08:54:01
1	Se 196.026†	1490.4	1527.5	[1000]	ug/L	08:54:01
1	Si 251.611†	152848.1	153509.9	[5000]	ug/L	08:53:41
1	Sn 189.927†	5480.6	5513.9	[1000]	ug/L	08:54:01
1	Ti 334.940†	615935.1	622314.0	[1000]	ug/L	08:53:41
1	Tl 190.801†	3152.5	3211.5	[1000]	ug/L	08:54:01
1	U 409.014†	28093.2	31924.4	[1000]	ug/L	08:53:41
1	V 292.402†	131791.8	134410.7	[1000]	ug/L	08:53:41
1	Zn 213.857†	104768.9	104858.1	[1000]	ug/L	08:53:41
1	SiO2†	151264.0	151912.4	[10695]	ug/L	08:55:09
2	Sc Radial	4839.1	4839.1	98.3	%	08:53:03
2	Y RADIAL	5071.9	5071.9	97.79	%	08:53:03
2	Al 396.153Radial†	11113.7	11469.9	[10000]	ug/L	08:52:42
2	Ca 317.933Radial†	6407.7	6503.9	[10000]	ug/L	08:53:03
2	Fe 238.204 Radial†	1124.0	1132.1	[10000]	ug/L	08:53:03
2	K 766.490 Radial†	58410.4	56461.0	[10000]	ug/L	08:52:42
2	Mg 279.077 IEC†	308.8	313.0	[10000]	ug/L	08:53:03
2	Na 589.592 Radial†	30119.2	31792.1	[10000]	ug/L	08:52:42
2	Sr 421.552†	147421.6	149966.2	[1000]	ug/L	08:52:42
2	Sc 361.383	806199.1	806199.1	97.500	%	08:54:12
2	Y 371.029	644744.0	644744.0	96.604	%	08:54:12
2	Ag 328.068†	202654.9	207554.5	[1000]	ug/L	08:54:12
2	As 188.979†	2261.0	2349.6	[1000]	ug/L	08:54:32
2	B 249.677†	40357.2	41987.1	[1000]	ug/L	08:54:12
2	Ba 233.527†	122292.3	125438.6	[1000]	ug/L	08:54:12
2	Be 313.107†	2704434.9	2777486.2	[1000]	ug/L	08:54:07
2	Cd 226.502†	83111.9	85459.2	[1000]	ug/L	08:54:12
2	Co 228.616†	47254.2	48549.3	[1000]	ug/L	08:54:12
2	Cr 267.716†	82127.5	84166.9	[1000]	ug/L	08:54:12
2	Cu 324.752†	321898.6	325432.3	[1000]	ug/L	08:54:12
2	Mn 257.610†	883223.7	905402.7	[1000]	ug/L	08:54:07
2	Mo 202.031†	13151.3	13476.7	[1000]	ug/L	08:54:32
2	Ni 231.604†	38036.7	38935.1	[1000]	ug/L	08:54:12

2	P 214.914†	8647.2	8621.9	[5000]	ug/L	08:54:32
2	Pb 220.353†	8024.9	8297.8	[1000]	ug/L	08:54:32
2	S 181.975 Axial†	1483.9	1474.1	[2000]	ug/L	08:54:32
2	Sb 206.836†	2899.5	2938.7	[1000]	ug/L	08:54:32
2	Se 196.026†	1492.2	1555.8	[1000]	ug/L	08:54:32
2	Si 251.611†	149394.5	152694.1	[5000]	ug/L	08:54:12
2	Sn 189.927†	5498.1	5629.6	[1000]	ug/L	08:54:32
2	Ti 334.940†	603268.4	620309.1	[1000]	ug/L	08:54:12
2	Tl 190.801†	3164.3	3279.8	[1000]	ug/L	08:54:32
2	U 409.014†	27540.4	31858.6	[1000]	ug/L	08:54:12
2	V 292.402†	128993.0	133891.0	[1000]	ug/L	08:54:12
2	Zn 213.857†	102511.3	104411.4	[1000]	ug/L	08:54:12
2	SiO2†	154440.2	157868.2	[10695]	ug/L	08:55:15
3	Sc Radial	4842.4	4842.4	98.4	%	08:53:28
3	Y RADIAL	5079.5	5079.5	97.94	%	08:53:28
3	Al 396.153Radial†	11377.7	11730.4	[10000]	ug/L	08:53:08
3	Ca 317.933Radial†	6402.0	6493.6	[10000]	ug/L	08:53:28
3	Fe 238.204 Radial†	1130.2	1137.6	[10000]	ug/L	08:53:28
3	K 766.490 Radial†	60200.5	58240.1	[10000]	ug/L	08:53:08
3	Mg 279.077 IEC†	312.6	316.6	[10000]	ug/L	08:53:28
3	Na 589.592 Radial†	31051.7	32719.1	[10000]	ug/L	08:53:08
3	Sr 421.552†	151778.2	154292.2	[1000]	ug/L	08:53:08
3	Sc 361.383	820749.3	820749.3	99.259	%	08:54:44
3	Y 371.029	660353.8	660353.8	98.943	%	08:54:44
3	Ag 328.068†	207095.5	208343.5	[1000]	ug/L	08:54:44
3	As 188.979†	2262.5	2310.1	[1000]	ug/L	08:55:04
3	B 249.677†	41419.8	42323.9	[1000]	ug/L	08:54:44
3	Ba 233.527†	125036.3	125979.5	[1000]	ug/L	08:54:44
3	Be 313.107†	2725989.6	2750028.3	[1000]	ug/L	08:54:38
3	Cd 226.502†	85170.5	86022.0	[1000]	ug/L	08:54:44
3	Co 228.616†	48391.8	48836.2	[1000]	ug/L	08:54:44
3	Cr 267.716†	83976.4	84536.3	[1000]	ug/L	08:54:44
3	Cu 324.752†	329326.7	327062.8	[1000]	ug/L	08:54:44
3	Mn 257.610†	888358.6	894516.7	[1000]	ug/L	08:54:38
3	Mo 202.031†	13215.4	13302.1	[1000]	ug/L	08:55:04
3	Ni 231.604†	38976.1	39189.9	[1000]	ug/L	08:54:44
3	P 214.914†	8701.3	8519.2	[5000]	ug/L	08:55:04
3	Pb 220.353†	8044.9	8172.1	[1000]	ug/L	08:55:04
3	S 181.975 Axial†	1507.2	1470.6	[2000]	ug/L	08:55:04
3	Sb 206.836†	2899.4	2885.9	[1000]	ug/L	08:55:04
3	Se 196.026†	1487.9	1524.4	[1000]	ug/L	08:55:04
3	Si 251.611†	153030.0	153640.4	[5000]	ug/L	08:54:44
3	Sn 189.927†	5503.5	5535.1	[1000]	ug/L	08:55:04
3	Ti 334.940†	617438.5	623616.0	[1000]	ug/L	08:54:44
3	Tl 190.801†	3157.5	3215.4	[1000]	ug/L	08:55:04
3	U 409.014†	28239.4	32062.1	[1000]	ug/L	08:54:44
3	V 292.402†	132316.5	134893.8	[1000]	ug/L	08:54:44
3	Zn 213.857†	104831.2	104884.7	[1000]	ug/L	08:54:44
3	SiO2†	151396.8	151994.0	[10695]	ug/L	08:55:20

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	815805.5	8320.60	1.02%	98.662	%
Sc Radial	4820.3	35.49	0.74%	97.9	%
Y 371.029	654682.8	8635.83	1.32%	98.094	%
Y RADIAL	5057.0	32.60	0.64%	97.51	%
Ag 328.068†	207999.9	404.22	0.19%	[1000]	ug/L
Al 396.153Radial†	11634.9	143.52	1.23%	[10000]	ug/L
As 188.979†	2326.2	20.77	0.89%	[1000]	ug/L
B 249.677†	42175.7	171.99	0.41%	[1000]	ug/L
Ba 233.527†	125691.9	272.06	0.22%	[1000]	ug/L
Be 313.107†	2749571.4	28145.97	1.02%	[1000]	ug/L
Ca 317.933Radial†	6499.6	5.35	0.08%	[10000]	ug/L
Cd 226.502†	85781.3	290.09	0.34%	[1000]	ug/L
Co 228.616†	48703.3	144.64	0.30%	[1000]	ug/L
Cr 267.716†	84342.1	185.48	0.22%	[1000]	ug/L
Cu 324.752†	326462.3	896.11	0.27%	[1000]	ug/L
Fe 238.204 Radial†	1134.9	2.75	0.24%	[10000]	ug/L
K 766.490 Radial†	57562.2	962.15	1.67%	[10000]	ug/L

Mg 279.077 IEC†	315.6	2.37	0.75%	[10000]	ug/L
Mn 257.610†	895280.2	9763.15	1.09%	[1000]	ug/L
Mo 202.031†	13352.1	108.53	0.81%	[1000]	ug/L
Na 589.592 Radial†	32414.0	538.64	1.66%	[10000]	ug/L
Ni 231.604†	39076.9	129.83	0.33%	[1000]	ug/L
P 214.914†	8539.4	74.55	0.87%	[5000]	ug/L
Pb 220.353†	8196.1	92.11	1.12%	[1000]	ug/L
S 181.975 Axial†	1467.6	8.51	0.58%	[2000]	ug/L
Sb 206.836†	2893.7	41.71	1.44%	[1000]	ug/L
Se 196.026†	1535.9	17.35	1.13%	[1000]	ug/L
Si 251.611†	153281.5	512.84	0.33%	[5000]	ug/L
Sn 189.927†	5559.5	61.61	1.11%	[1000]	ug/L
Sr 421.552†	152780.1	2439.17	1.60%	[1000]	ug/L
Ti 334.940†	622079.7	1665.84	0.27%	[1000]	ug/L
Tl 190.801†	3235.5	38.37	1.19%	[1000]	ug/L
U 409.014†	31948.4	103.82	0.32%	[1000]	ug/L
V 292.402†	134398.5	501.54	0.37%	[1000]	ug/L
Zn 213.857†	104718.1	265.90	0.25%	[1000]	ug/L
SiO2†	153924.9	3415.27	2.22%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/12/2010 08:57:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4767.0	4767.0	96.8	%	08:59:45
1	Y RADIAL	5001.9	5001.9	96.44	%	08:59:45
1	Al 396.153Radial†	54890.4	56851.5	[50000]	ug/L	08:59:25
1	Ca 317.933Radial†	30517.9	31502.5	[50000]	ug/L	08:59:25
1	Fe 238.204 Radial†	2119.1	2177.1	[20000]	ug/L	08:59:45
1	Mg 279.077 IEC†	1467.8	1514.7	[50000]	ug/L	08:59:45
1	Na 589.592 Radial†	56904.0	59918.1	[20000]	ug/L	08:59:25
1	Sc 361.383	830756.5	830756.5	100.47	%	09:00:42
1	Y 371.029	657038.0	657038.0	98.447	%	09:00:42
2	Sc Radial	4740.3	4740.3	96.3	%	09:00:10
2	Y RADIAL	5003.5	5003.5	96.48	%	09:00:10
2	Al 396.153Radial†	55385.3	57684.1	[50000]	ug/L	08:59:50
2	Ca 317.933Radial†	30763.3	31934.5	[50000]	ug/L	08:59:50
2	Fe 238.204 Radial†	2109.5	2179.4	[20000]	ug/L	09:00:10
2	Mg 279.077 IEC†	1467.0	1522.4	[50000]	ug/L	09:00:10
2	Na 589.592 Radial†	57156.9	60510.9	[20000]	ug/L	08:59:50
2	Sc 361.383	817405.0	817405.0	98.855	%	09:00:47
2	Y 371.029	645615.2	645615.2	96.735	%	09:00:47
3	Sc Radial	4778.1	4778.1	97.1	%	09:00:35
3	Y RADIAL	5027.7	5027.7	96.94	%	09:00:35
3	Al 396.153Radial†	56509.9	58388.3	[50000]	ug/L	09:00:15
3	Ca 317.933Radial†	31249.8	32183.3	[50000]	ug/L	09:00:15
3	Fe 238.204 Radial†	2120.0	2172.9	[20000]	ug/L	09:00:35
3	Mg 279.077 IEC†	1470.4	1513.9	[50000]	ug/L	09:00:35
3	Na 589.592 Radial†	58167.7	61083.4	[20000]	ug/L	09:00:15
3	Sc 361.383	821064.1	821064.1	99.298	%	09:00:53
3	Y 371.029	648596.8	648596.8	97.182	%	09:00:53

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	823075.2	6899.22	0.84%	99.541	%
Sc Radial	4761.8	19.40	0.41%	96.7	%
Y 371.029	650416.7	5924.88	0.91%	97.454	%
Y RADIAL	5011.0	14.48	0.29%	96.62	%
Al 396.153Radial†	57641.3	769.31	1.33%	[50000]	ug/L
Ca 317.933Radial†	31873.4	344.47	1.08%	[50000]	ug/L
Fe 238.204 Radial†	2176.5	3.27	0.15%	[20000]	ug/L
Mg 279.077 IEC†	1517.0	4.70	0.31%	[50000]	ug/L
Na 589.592 Radial†	60504.1	582.69	0.96%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	207.1	0.00000	0.999960	
Al 396.153Radial	3	Lin Thru 0	0.0	1.153	0.00000	0.999998	
As 188.979	3	Lin Thru 0	0.0	2.319	0.00000	0.999982	
B 249.677	3	Lin Thru 0	0.0	42.00	0.00000	0.999963	
Ba 233.527	3	Lin Thru 0	0.0	125.4	0.00000	0.999991	
Be 313.107	3	Lin Thru 0	0.0	2738	0.00000	0.999965	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6380	0.00000	0.999993	
Cd 226.502	3	Lin Thru 0	0.0	85.67	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	48.64	0.00000	0.999996	
Cr 267.716	3	Lin Thru 0	0.0	84.14	0.00000	0.999988	
Cu 324.752	3	Lin Thru 0	0.0	325.3	0.00000	0.999974	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1098	0.00000	0.999855	
K 766.490 Radial	3	Lin Thru 0	0.0	5.735	0.00000	0.999974	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0304	0.00000	0.999962
Mn 257.610	3	Lin Thru 0	0.0	892.5	0.00000	0.999976
Mo 202.031	3	Lin Thru 0	0.0	13.27	0.00000	0.999932
Na 589.592 Radia	2	Lin Thru 0	0.0	3.068	0.00000	0.999603
Ni 231.604	3	Lin Thru 0	0.0	39.02	0.00000	0.999994
P 214.914	3	Lin Thru 0	0.0	1.699	0.00000	0.999946
Pb 220.353	3	Lin Thru 0	0.0	8.158	0.00000	0.999958
S 181.975 Axial	3	Lin Thru 0	0.0	0.7287	0.00000	0.999908
Sb 206.836	3	Lin Thru 0	0.0	2.875	0.00000	0.999915
Se 196.026	3	Lin Thru 0	0.0	1.530	0.00000	0.999973
Si 251.611	3	Lin Thru 0	0.0	30.57	0.00000	0.999984
Sn 189.927	3	Lin Thru 0	0.0	5.530	0.00000	0.999944
Sr 421.552	3	Lin Thru 0	0.0	152.6	0.00000	0.999996
Ti 334.940	3	Lin Thru 0	0.0	619.4	0.00000	0.999959
Tl 190.801	3	Lin Thru 0	0.0	3.225	0.00000	0.999978
U 409.014	3	Lin Thru 0	0.0	31.85	0.00000	0.999946
V 292.402	3	Lin Thru 0	0.0	134.0	0.00000	0.999979
Zn 213.857	3	Lin Thru 0	0.0	104.6	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	14.33	0.00000	0.999966

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/12/2010 09:03:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4860.2	4860.2	98.7	%			09:04:57
1	Y RADIAL	5165.2	5165.2	99.59	%			09:04:57
1	Al 396.153Radial†	5536.2	5771.1	4979.1	ug/L	4979.1	ppb	09:04:57
1	Ca 317.933Radial†	3181.1	3207.3	5027.1	ug/L	5027.1	ppb	09:05:18
1	Fe 238.204 Radial†	568.9	564.9	5161.3	ug/L	5161.3	ppb	09:05:18
1	K 766.490 Radial†	16717.5	13970.8	2432.4	ug/L	2432.4	ppb	09:04:57
1	Mg 279.077 IEC†	159.6	160.5	5279.9	ug/L	5279.9	ppb	09:05:18
1	Na 589.592 Radial†	6561.0	7796.1	2540.7	ug/L	2540.7	ppb	09:04:57
1	Sr 421.552†	77194.4	78179.4	512.42	ug/L	512.42	ppb	09:04:57
1	Sc 361.383	847545.6	847545.6	102.50	%			09:06:15
1	Y 371.029	672376.6	672376.6	100.74	%			09:06:15
1	Ag 328.068†	53558.0	51954.5	254.18	ug/L	254.18	ppb	09:06:15
1	As 188.979†	1063.9	1068.6	464.97	ug/L	464.97	ppb	09:06:35
1	B 249.677†	21223.2	21300.6	504.94	ug/L	504.94	ppb	09:06:15
1	Ba 233.527†	64173.7	62618.7	500.40	ug/L	500.40	ppb	09:06:15
1	Be 313.107†	704513.8	691030.1	253.50	ug/L	253.50	ppb	09:06:15
1	Cd 226.502†	41565.9	40768.2	475.76	ug/L	475.76	ppb	09:06:35
1	Co 228.616†	24340.1	23829.8	490.06	ug/L	490.06	ppb	09:06:35
1	Cr 267.716†	41235.8	40163.3	477.92	ug/L	477.92	ppb	09:06:15
1	Cu 324.752†	170317.5	161442.3	496.29	ug/L	496.29	ppb	09:06:15
1	Mn 257.610†	457739.6	446104.9	500.15	ug/L	500.15	ppb	09:06:15
1	Mo 202.031†	7155.6	6969.2	525.48	ug/L	525.48	ppb	09:06:35
1	Ni 231.604†	19434.0	18883.0	483.66	ug/L	483.66	ppb	09:06:35
1	P 214.914†	4508.2	4151.2	2346.8	ug/L	2346.8	ppb	09:06:35
1	Pb 220.353†	4016.6	3985.7	490.26	ug/L	490.26	ppb	09:06:35
1	S 181.975 Axial†	1870.6	1777.2	2437.7	ug/L	2437.7	ppb	09:06:35
1	Sb 206.836†	1473.3	1402.3	506.56	ug/L	506.56	ppb	09:06:35
1	Se 196.026†	3902.1	3832.4	2522.8	ug/L	2522.8	ppb	09:06:35
1	Si 251.611†	149137.2	144968.2	4735.6	ug/L	4735.6	ppb	09:06:15
1	Sn 189.927†	2973.5	2891.5	523.77	ug/L	523.77	ppb	09:06:35
1	Ti 334.940†	313511.7	307435.7	496.19	ug/L	496.19	ppb	09:06:15
1	Tl 190.801†	1662.9	1656.6	517.04	ug/L	517.04	ppb	09:06:35
1	U 409.014†	12177.4	15492.3	484.78	ug/L	484.78	ppb	09:06:15
1	V 292.402†	66120.7	66098.1	500.44	ug/L	500.44	ppb	09:06:15
1	Zn 213.857†	54263.5	52211.3	494.79	ug/L	494.79	ppb	09:06:15
1	SiO2†	149488.7	145310.1	10125	ug/L	10125	ppb	09:07:33
2	Sc Radial	4802.8	4802.8	97.6	%			09:05:23
2	Y RADIAL	5103.8	5103.8	98.41	%			09:05:23
2	Al 396.153Radial†	5462.0	5762.1	4971.2	ug/L	4971.2	ppb	09:05:23
2	Ca 317.933Radial†	3193.0	3258.1	5106.6	ug/L	5106.6	ppb	09:05:43
2	Fe 238.204 Radial†	568.7	571.5	5222.1	ug/L	5222.1	ppb	09:05:43
2	K 766.490 Radial†	16689.9	14145.1	2462.7	ug/L	2462.7	ppb	09:05:23
2	Mg 279.077 IEC†	159.9	162.7	5352.0	ug/L	5352.0	ppb	09:05:43
2	Na 589.592 Radial†	6523.9	7837.6	2554.3	ug/L	2554.3	ppb	09:05:23
2	Sr 421.552†	76229.4	78125.8	512.07	ug/L	512.07	ppb	09:05:23
2	Sc 361.383	846542.4	846542.4	102.38	%			09:06:41
2	Y 371.029	671725.4	671725.4	100.65	%			09:06:41
2	Ag 328.068†	53239.6	51705.4	253.00	ug/L	253.00	ppb	09:06:41
2	As 188.979†	1075.8	1081.5	470.54	ug/L	470.54	ppb	09:07:01
2	B 249.677†	21147.3	21251.0	503.74	ug/L	503.74	ppb	09:06:41
2	Ba 233.527†	64078.6	62600.0	500.25	ug/L	500.25	ppb	09:06:41
2	Be 313.107†	704334.4	691669.3	253.73	ug/L	253.73	ppb	09:06:41
2	Cd 226.502†	41810.0	41054.6	479.09	ug/L	479.09	ppb	09:07:01
2	Co 228.616†	24459.8	23974.8	493.05	ug/L	493.05	ppb	09:07:01
2	Cr 267.716†	41142.1	40119.5	477.41	ug/L	477.41	ppb	09:06:41
2	Cu 324.752†	170001.1	161330.1	495.95	ug/L	495.95	ppb	09:06:41
2	Mn 257.610†	457241.4	446147.4	500.20	ug/L	500.20	ppb	09:06:41
2	Mo 202.031†	7186.2	7007.4	528.36	ug/L	528.36	ppb	09:07:01
2	Ni 231.604†	19522.1	18991.4	486.44	ug/L	486.44	ppb	09:07:01

2	P 214.914†	4547.0	4194.4	2372.3 ug/L	2372.3 ppb	09:07:01
2	Pb 220.353†	4034.4	4007.8	492.98 ug/L	492.98 ppb	09:07:01
2	S 181.975 Axial†	1887.4	1795.8	2463.3 ug/L	2463.3 ppb	09:07:01
2	Sb 206.836†	1481.1	1411.5	509.88 ug/L	509.88 ppb	09:07:01
2	Se 196.026†	3954.1	3887.6	2559.1 ug/L	2559.1 ppb	09:07:01
2	Si 251.611†	148931.4	144939.7	4734.6 ug/L	4734.6 ppb	09:06:41
2	Sn 189.927†	2980.0	2901.3	525.56 ug/L	525.56 ppb	09:07:01
2	Ti 334.940†	312596.7	306904.4	495.34 ug/L	495.34 ppb	09:06:41
2	Tl 190.801†	1673.9	1669.4	520.96 ug/L	520.96 ppb	09:07:01
2	U 409.014†	11829.8	15166.9	474.55 ug/L	474.55 ppb	09:06:41
2	V 292.402†	65952.2	66009.9	499.80 ug/L	499.80 ppb	09:06:41
2	Zn 213.857†	54196.8	52208.9	494.74 ug/L	494.74 ppb	09:06:41
2	SiO2†	151540.3	147486.9	10276 ug/L	10276 ppb	09:07:38
3	Sc Radial	4877.3	4877.3	99.1 %		09:05:48
3	Y RADIAL	5157.6	5157.6	99.45 %		09:05:48
3	Al 396.153Radial†	5562.3	5777.9	4985.3 ug/L	4985.3 ppb	09:05:48
3	Ca 317.933Radial†	3189.8	3204.8	5023.1 ug/L	5023.1 ppb	09:06:08
3	Fe 238.204 Radial†	574.7	568.7	5196.1 ug/L	5196.1 ppb	09:06:08
3	K 766.490 Radial†	17070.4	14267.9	2484.2 ug/L	2484.2 ppb	09:05:48
3	Mg 279.077 IEC†	162.6	162.9	5359.4 ug/L	5359.4 ppb	09:06:08
3	Na 589.592 Radial†	6628.5	7841.0	2555.4 ug/L	2555.4 ppb	09:05:48
3	Sr 421.552†	77579.0	78294.4	513.17 ug/L	513.17 ppb	09:05:48
3	Sc 361.383	862327.3	862327.3	104.29 %		09:07:07
3	Y 371.029	684913.9	684913.9	102.62 %		09:07:07
3	Ag 328.068†	54265.4	51737.2	253.14 ug/L	253.14 ppb	09:07:07
3	As 188.979†	1071.0	1057.6	460.28 ug/L	460.28 ppb	09:07:27
3	B 249.677†	21718.5	21420.6	507.81 ug/L	507.81 ppb	09:07:07
3	Ba 233.527†	65256.7	62583.9	500.12 ug/L	500.12 ppb	09:07:07
3	Be 313.107†	719874.9	693977.7	254.58 ug/L	254.58 ppb	09:07:07
3	Cd 226.502†	41683.3	40185.6	468.95 ug/L	468.95 ppb	09:07:27
3	Co 228.616†	24415.9	23495.4	483.17 ug/L	483.17 ppb	09:07:27
3	Cr 267.716†	41889.4	40100.5	477.18 ug/L	477.18 ppb	09:07:07
3	Cu 324.752†	173549.4	161693.0	497.06 ug/L	497.06 ppb	09:07:07
3	Mn 257.610†	465625.8	446011.7	500.05 ug/L	500.05 ppb	09:07:07
3	Mo 202.031†	7174.1	6867.3	517.81 ug/L	517.81 ppb	09:07:27
3	Ni 231.604†	19464.9	18587.6	476.10 ug/L	476.10 ppb	09:07:27
3	P 214.914†	4521.0	4088.1	2309.5 ug/L	2309.5 ppb	09:07:27
3	Pb 220.353†	4031.0	3932.4	483.71 ug/L	483.71 ppb	09:07:27
3	S 181.975 Axial†	1861.4	1737.1	2382.7 ug/L	2382.7 ppb	09:07:27
3	Sb 206.836†	1475.6	1379.8	498.47 ug/L	498.47 ppb	09:07:27
3	Se 196.026†	3918.5	3782.8	2490.5 ug/L	2490.5 ppb	09:07:27
3	Si 251.611†	151960.6	145181.4	4742.7 ug/L	4742.7 ppb	09:07:07
3	Sn 189.927†	2983.2	2851.1	516.45 ug/L	516.45 ppb	09:07:27
3	Ti 334.940†	318800.0	307263.5	495.91 ug/L	495.91 ppb	09:07:07
3	Tl 190.801†	1670.5	1636.1	510.70 ug/L	510.70 ppb	09:07:27
3	U 409.014†	12373.0	15476.2	484.27 ug/L	484.27 ppb	09:07:07
3	V 292.402†	67328.1	66150.1	500.72 ug/L	500.72 ppb	09:07:07
3	Zn 213.857†	55388.4	52382.5	496.47 ug/L	496.47 ppb	09:07:07
3	SiO2†	148124.1	141501.6	9859.1 ug/L	9859.1 ppb	09:07:43

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852138.4	103.06	%	1.069				1.04%
Sc Radial	4846.7	98.4	%	0.79				0.81%
Y 371.029	676338.6	101.34	%	1.114				1.10%
Y RADIAL	5142.2	99.15	%	0.646				0.65%
Ag 328.068†	51799.0	253.44	ug/L	0.643	253.44	ppb	0.643	0.25%
QC value within limits for Ag 328.068 Recovery = 101.38%								
Al 396.153Radial†	5770.4	4978.6	ug/L	7.09	4978.6	ppb	7.09	0.14%
QC value within limits for Al 396.153Radial Recovery = 99.57%								
As 188.979†	1069.2	465.27	ug/L	5.136	465.27	ppb	5.136	1.10%
QC value within limits for As 188.979 Recovery = 93.05%								
B 249.677†	21324.0	505.50	ug/L	2.091	505.50	ppb	2.091	0.41%
QC value within limits for B 249.677 Recovery = 101.10%								
Ba 233.527†	62600.9	500.26	ug/L	0.138	500.26	ppb	0.138	0.03%
QC value within limits for Ba 233.527 Recovery = 100.05%								
Be 313.107†	692225.7	253.94	ug/L	0.566	253.94	ppb	0.566	0.22%
QC value within limits for Be 313.107 Recovery = 101.57%								
Ca 317.933Radial†	3223.4	5052.3	ug/L	47.11	5052.3	ppb	47.11	0.93%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.05%
Cd 226.502†            40669.4      474.60 ug/L         5.171      474.60 ppb          5.171   1.09%
   QC value within limits for Cd 226.502  Recovery = 94.92%
Co 228.616†            23766.7      488.76 ug/L         5.068      488.76 ppb          5.068   1.04%
   QC value within limits for Co 228.616  Recovery = 97.75%
Cr 267.716†            40127.8      477.50 ug/L         0.382      477.50 ppb          0.382   0.08%
   QC value within limits for Cr 267.716  Recovery = 95.50%
Cu 324.752†           161488.5      496.44 ug/L         0.569      496.44 ppb          0.569   0.11%
   QC value within limits for Cu 324.752  Recovery = 99.29%
Fe 238.204 Radial†       568.4      5193.2 ug/L         30.51      5193.2 ppb          30.51   0.59%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.86%
K 766.490 Radial†      14127.9      2459.8 ug/L         26.03      2459.8 ppb          26.03   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 98.39%
Mg 279.077 IEC†          162.0      5330.5 ug/L         43.92      5330.5 ppb          43.92   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.61%
Mn 257.610†           446088.0      500.13 ug/L         0.079      500.13 ppb          0.079   0.02%
   QC value within limits for Mn 257.610  Recovery = 100.03%
Mo 202.031†             6948.0      523.88 ug/L         5.455      523.88 ppb          5.455   1.04%
   QC value within limits for Mo 202.031  Recovery = 104.78%
Na 589.592 Radial†      7824.9      2550.1 ug/L          8.14      2550.1 ppb           8.14   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 102.00%
Ni 231.604†            18820.7      482.07 ug/L         5.353      482.07 ppb          5.353   1.11%
   QC value within limits for Ni 231.604  Recovery = 96.41%
P 214.914†              4144.5      2342.9 ug/L         31.61      2342.9 ppb          31.61   1.35%
   QC value within limits for P 214.914  Recovery = 93.71%
Pb 220.353†             3975.3      488.98 ug/L         4.766      488.98 ppb          4.766   0.97%
   QC value within limits for Pb 220.353  Recovery = 97.80%
S 181.975 Axial†        1770.0      2427.9 ug/L         41.17      2427.9 ppb          41.17   1.70%
   QC value within limits for S 181.975 Axial  Recovery = 97.12%
Sb 206.836†             1397.9      504.97 ug/L         5.868      504.97 ppb          5.868   1.16%
   QC value within limits for Sb 206.836  Recovery = 100.99%
Se 196.026†             3834.3      2524.2 ug/L         34.34      2524.2 ppb          34.34   1.36%
   QC value within limits for Se 196.026  Recovery = 100.97%
Si 251.611†           145029.8      4737.6 ug/L          4.39      4737.6 ppb           4.39   0.09%
   QC value within limits for Si 251.611  Recovery = 94.75%
Sn 189.927†             2881.3      521.93 ug/L         4.824      521.93 ppb          4.824   0.92%
   QC value within limits for Sn 189.927  Recovery = 104.39%
Sr 421.552†            78199.8      512.55 ug/L         0.565      512.55 ppb          0.565   0.11%
   QC value within limits for Sr 421.552  Recovery = 102.51%
Ti 334.940†           307201.2      495.82 ug/L         0.432      495.82 ppb          0.432   0.09%
   QC value within limits for Ti 334.940  Recovery = 99.16%
Tl 190.801†             1654.0      516.23 ug/L         5.178      516.23 ppb          5.178   1.00%
   QC value within limits for Tl 190.801  Recovery = 103.25%
U 409.014†             15378.5      481.20 ug/L         5.761      481.20 ppb          5.761   1.20%
   QC value within limits for U 409.014  Recovery = 96.24%
V 292.402†             66086.0      500.32 ug/L         0.472      500.32 ppb          0.472   0.09%
   QC value within limits for V 292.402  Recovery = 100.06%
Zn 213.857†            52267.6      495.34 ug/L         0.984      495.34 ppb          0.984   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.07%
SiO2†                 144766.2       10087 ug/L         211.2       10087 ppb          211.2   2.09%
   QC value within limits for SiO2  Recovery = 94.31%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/12/2010 09:09:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4893.6	4893.6	99.4	%			09:11:47
1	Y RADIAL	5162.8	5162.8	99.55	%			09:11:47
1	Al 396.153Radial†	-173.6	-11.4	-9.9281	ug/L	-9.9281	ppb	09:11:47
1	Ca 317.933Radial†	17.0	2.2	3.3741	ug/L	3.3741	ppb	09:12:07
1	Fe 238.204 Radial†	11.8	0.5	4.3788	ug/L	4.3788	ppb	09:12:07
1	K 766.490 Radial†	3134.1	190.0	33.118	ug/L	33.118	ppb	09:11:47
1	Mg 279.077 IEC†	0.8	-0.4	-12.608	ug/L	-12.608	ppb	09:12:07
1	Na 589.592 Radial†	-1139.7	3.7	1.1925	ug/L	1.1925	ppb	09:11:47
1	Sr 421.552†	4.0	-9.7	-0.0634	ug/L	-0.0634	ppb	09:11:47
1	Sc 361.383	834566.6	834566.6	100.93	%			09:13:04
1	Y 371.029	666877.4	666877.4	99.921	%			09:13:04
1	Ag 328.068†	317.3	17.3	0.0855	ug/L	0.0855	ppb	09:13:04
1	As 188.979†	-31.7	-0.7	-0.3128	ug/L	-0.3128	ppb	09:13:24
1	B 249.677†	-393.5	205.1	4.8831	ug/L	4.8831	ppb	09:13:24
1	Ba 233.527†	2.8	13.1	0.1044	ug/L	0.1044	ppb	09:13:24
1	Be 313.107†	-3756.1	-21.1	-0.0076	ug/L	-0.0076	ppb	09:13:04
1	Cd 226.502†	-207.0	11.0	0.1274	ug/L	0.1274	ppb	09:13:24
1	Co 228.616†	-80.2	3.9	0.0808	ug/L	0.0808	ppb	09:13:24
1	Cr 267.716†	81.2	13.8	0.1641	ug/L	0.1641	ppb	09:13:24
1	Cu 324.752†	4638.3	-125.4	-0.3847	ug/L	-0.3847	ppb	09:13:04
1	Mn 257.610†	497.6	23.1	0.0269	ug/L	0.0269	ppb	09:13:24
1	Mo 202.031†	22.1	10.0	0.7534	ug/L	0.7534	ppb	09:13:24
1	Ni 231.604†	83.3	5.5	0.1407	ug/L	0.1407	ppb	09:13:24
1	P 214.914†	224.9	-24.2	-14.148	ug/L	-14.148	ppb	09:13:24
1	Pb 220.353†	-66.4	1.4	0.1686	ug/L	0.1686	ppb	09:13:24
1	S 181.975 Axial†	48.9	0.6	0.8806	ug/L	0.8806	ppb	09:13:24
1	Sb 206.836†	43.6	8.0	2.8429	ug/L	2.8429	ppb	09:13:24
1	Se 196.026†	-20.2	5.4	3.5624	ug/L	3.5624	ppb	09:13:24
1	Si 251.611†	581.1	44.4	1.4434	ug/L	1.4434	ppb	09:13:24
1	Sn 189.927†	21.6	11.9	2.1609	ug/L	2.1609	ppb	09:13:24
1	Ti 334.940†	-1546.0	39.2	0.0651	ug/L	0.0651	ppb	09:13:04
1	Tl 190.801†	-16.7	17.8	5.5152	ug/L	5.5152	ppb	09:13:24
1	U 409.014†	-3678.1	-32.2	-1.0134	ug/L	-1.0134	ppb	09:13:04
1	V 292.402†	-1614.9	-9.8	-0.0658	ug/L	-0.0658	ppb	09:13:04
1	Zn 213.857†	715.4	-19.8	-0.1905	ug/L	-0.1905	ppb	09:13:24
1	SiO2†	614.4	76.4	5.3075	ug/L	5.3075	ppb	09:14:20
2	Sc Radial	4800.0	4800.0	97.5	%			09:12:13
2	Y RADIAL	5099.7	5099.7	98.33	%			09:12:13
2	Al 396.153Radial†	-177.2	-18.5	-16.138	ug/L	-16.138	ppb	09:12:13
2	Ca 317.933Radial†	18.2	3.7	5.7973	ug/L	5.7973	ppb	09:12:33
2	Fe 238.204 Radial†	12.3	1.2	11.195	ug/L	11.195	ppb	09:12:33
2	K 766.490 Radial†	3016.9	131.3	22.880	ug/L	22.880	ppb	09:12:13
2	Mg 279.077 IEC†	1.1	-0.1	-2.9284	ug/L	-2.9284	ppb	09:12:33
2	Na 589.592 Radial†	-1108.1	13.7	4.4722	ug/L	4.4722	ppb	09:12:13
2	Sr 421.552†	8.3	-5.1	-0.0336	ug/L	-0.0336	ppb	09:12:13
2	Sc 361.383	820959.5	820959.5	99.285	%			09:13:30
2	Y 371.029	657033.5	657033.5	98.446	%			09:13:30
2	Ag 328.068†	212.0	-83.6	-0.4083	ug/L	-0.4083	ppb	09:13:30
2	As 188.979†	-20.6	9.9	4.2846	ug/L	4.2846	ppb	09:13:50
2	B 249.677†	-365.6	226.8	5.3984	ug/L	5.3984	ppb	09:13:50
2	Ba 233.527†	-7.8	2.4	0.0187	ug/L	0.0187	ppb	09:13:50
2	Be 313.107†	-3664.9	9.0	0.0030	ug/L	0.0030	ppb	09:13:30
2	Cd 226.502†	-216.9	-2.4	-0.0275	ug/L	-0.0275	ppb	09:13:50
2	Co 228.616†	-76.9	5.9	0.1248	ug/L	0.1248	ppb	09:13:50
2	Cr 267.716†	75.9	9.8	0.1132	ug/L	0.1132	ppb	09:13:50
2	Cu 324.752†	4624.4	-63.3	-0.1983	ug/L	-0.1983	ppb	09:13:30
2	Mn 257.610†	487.3	21.0	0.0247	ug/L	0.0247	ppb	09:13:50
2	Mo 202.031†	30.1	18.5	1.3913	ug/L	1.3913	ppb	09:13:50
2	Ni 231.604†	96.7	20.4	0.5219	ug/L	0.5219	ppb	09:13:50

2	P 214.914†	232.3	-13.1	-7.6970	ug/L	-7.6970	ppb	09:13:50
2	Pb 220.353†	-59.1	7.6	0.9357	ug/L	0.9357	ppb	09:13:50
2	S 181.975 Axial†	45.8	-1.6	-2.2472	ug/L	-2.2472	ppb	09:13:50
2	Sb 206.836†	44.0	9.2	3.2251	ug/L	3.2251	ppb	09:13:50
2	Se 196.026†	-28.1	-2.9	-1.8841	ug/L	-1.8841	ppb	09:13:50
2	Si 251.611†	595.5	68.5	2.2232	ug/L	2.2232	ppb	09:13:50
2	Sn 189.927†	4.5	-4.9	-0.8865	ug/L	-0.8865	ppb	09:13:50
2	Ti 334.940†	-1641.5	-82.4	-0.1356	ug/L	-0.1356	ppb	09:13:30
2	Tl 190.801†	-29.4	4.7	1.4651	ug/L	1.4651	ppb	09:13:50
2	U 409.014†	-3333.5	254.4	7.9875	ug/L	7.9875	ppb	09:13:30
2	V 292.402†	-1628.9	-50.4	-0.3430	ug/L	-0.3430	ppb	09:13:30
2	Zn 213.857†	696.3	-27.3	-0.2661	ug/L	-0.2661	ppb	09:13:50
2	SiO2†	604.3	76.3	5.2862	ug/L	5.2862	ppb	09:14:25
3	Sc Radial	4871.7	4871.7	99.0	%			09:12:38
3	Y RADIAL	5220.0	5220.0	100.6	%			09:12:38
3	Al 396.153Radial†	-168.9	-7.4	-6.4739	ug/L	-6.4739	ppb	09:12:38
3	Ca 317.933Radial†	20.2	5.4	8.4934	ug/L	8.4934	ppb	09:12:58
3	Fe 238.204 Radial†	9.6	-1.7	-15.358	ug/L	-15.358	ppb	09:12:58
3	K 766.490 Radial†	3110.8	180.7	31.490	ug/L	31.490	ppb	09:12:38
3	Mg 279.077 IEC†	2.7	1.5	50.133	ug/L	50.133	ppb	09:12:58
3	Na 589.592 Radial†	-1108.4	30.2	9.8260	ug/L	9.8260	ppb	09:12:38
3	Sr 421.552†	6.8	-6.8	-0.0448	ug/L	-0.0448	ppb	09:12:38
3	Sc 361.383	815718.9	815718.9	98.651	%			09:13:55
3	Y 371.029	653510.6	653510.6	97.918	%			09:13:55
3	Ag 328.068†	291.6	-1.5	-0.0090	ug/L	-0.0090	ppb	09:13:55
3	As 188.979†	-29.6	0.7	0.2887	ug/L	0.2887	ppb	09:14:15
3	B 249.677†	-425.9	163.3	3.8909	ug/L	3.8909	ppb	09:14:15
3	Ba 233.527†	-14.2	-4.1	-0.0335	ug/L	-0.0335	ppb	09:14:15
3	Be 313.107†	-3657.6	-7.2	-0.0031	ug/L	-0.0031	ppb	09:13:55
3	Cd 226.502†	-195.4	18.0	0.2110	ug/L	0.2110	ppb	09:14:15
3	Co 228.616†	-66.8	15.7	0.3250	ug/L	0.3250	ppb	09:14:15
3	Cr 267.716†	88.3	22.9	0.2740	ug/L	0.2740	ppb	09:14:15
3	Cu 324.752†	4694.0	37.3	0.1169	ug/L	0.1169	ppb	09:13:55
3	Mn 257.610†	476.9	13.5	0.0116	ug/L	0.0116	ppb	09:14:15
3	Mo 202.031†	25.7	14.2	1.0704	ug/L	1.0704	ppb	09:14:15
3	Ni 231.604†	91.6	15.9	0.4063	ug/L	0.4063	ppb	09:14:15
3	P 214.914†	236.2	-7.6	-4.4431	ug/L	-4.4431	ppb	09:14:15
3	Pb 220.353†	-66.2	0.0	0.0073	ug/L	0.0073	ppb	09:14:15
3	S 181.975 Axial†	40.5	-6.8	-9.2673	ug/L	-9.2673	ppb	09:14:15
3	Sb 206.836†	39.8	5.2	1.8847	ug/L	1.8847	ppb	09:14:15
3	Se 196.026†	-15.7	9.5	6.1482	ug/L	6.1482	ppb	09:14:15
3	Si 251.611†	591.7	68.5	2.2269	ug/L	2.2269	ppb	09:14:15
3	Sn 189.927†	24.4	15.2	2.7519	ug/L	2.7519	ppb	09:14:15
3	Ti 334.940†	-1665.8	-117.7	-0.1905	ug/L	-0.1905	ppb	09:13:55
3	Tl 190.801†	-25.2	8.8	2.7339	ug/L	2.7339	ppb	09:14:15
3	U 409.014†	-3745.6	-184.9	-5.8034	ug/L	-5.8034	ppb	09:13:55
3	V 292.402†	-1601.7	-33.4	-0.2419	ug/L	-0.2419	ppb	09:13:55
3	Zn 213.857†	713.0	-5.9	-0.0567	ug/L	-0.0567	ppb	09:14:15
3	SiO2†	569.2	44.6	3.0805	ug/L	3.0805	ppb	09:14:30

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	823748.3	99.622	%	1.1765				1.18%
Sc Radial	4855.1	98.6	%	0.99				1.01%
Y 371.029	659140.5	98.762	%	1.0381				1.05%
Y RADIAL	5160.8	99.51	%	1.161				1.17%
Ag 328.068†	-22.6	-0.1106	ug/L	0.26210	-0.1106	ppb	0.26210	236.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.4	-10.847	ug/L	4.8969	-10.847	ppb	4.8969	45.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.3	1.4202	ug/L	2.49882	1.4202	ppb	2.49882	175.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	198.4	4.7241	ug/L	0.76621	4.7241	ppb	0.76621	16.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.8	0.0299	ug/L	0.06959	0.0299	ppb	0.06959	232.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-6.5	-0.0026	ug/L	0.00530	-0.0026	ppb	0.00530	207.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.8	5.8883	ug/L	2.56088	5.8883	ppb	2.56088	43.49%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.9      0.1036 ug/L       0.12104      0.1036 ppb        0.12104 116.78%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.5      0.1769 ug/L       0.13019      0.1769 ppb        0.13019  73.61%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.5      0.1838 ug/L       0.08222      0.1838 ppb        0.08222  44.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -50.5     -0.1554 ug/L       0.25357     -0.1554 ppb        0.25357 163.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.0      0.0719 ug/L      13.79053      0.0719 ppb       13.79053 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         167.3      29.163 ug/L        5.5013      29.163 ppb         5.5013  18.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      11.532 ug/L       33.7777      11.532 ppb        33.7777 292.90%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                19.2      0.0211 ug/L       0.00828      0.0211 ppb        0.00828  39.32%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                14.2      1.0717 ug/L       0.31892      1.0717 ppb        0.31892  29.76%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         15.8      5.1636 ug/L       4.35809      5.1636 ppb        4.35809  84.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.9      0.3563 ug/L       0.19546      0.3563 ppb        0.19546  54.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -15.0     -8.7628 ug/L       4.93954     -8.7628 ppb        4.93954  56.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.0      0.3705 ug/L       0.49602      0.3705 ppb        0.49602 133.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.6     -3.5446 ug/L       5.19688     -3.5446 ppb        5.19688 146.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.5      2.6509 ug/L       0.69050      2.6509 ppb        0.69050  26.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.0      2.6088 ug/L       4.10020      2.6088 ppb        4.10020 157.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                60.5      1.9645 ug/L       0.45129      1.9645 ppb        0.45129  22.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.4      1.3421 ug/L       1.95249      1.3421 ppb        1.95249 145.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -7.2     -0.0473 ug/L       0.01506     -0.0473 ppb        0.01506  31.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -53.6     -0.0870 ug/L       0.13456     -0.0870 ppb        0.13456 154.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                10.4      3.2381 ug/L       2.07159      3.2381 ppb        2.07159  63.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 12.4      0.3902 ug/L       7.00175      0.3902 ppb        7.00175 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -31.2     -0.2169 ug/L       0.14029     -0.2169 ppb        0.14029  64.69%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -17.7     -0.1711 ug/L       0.10606     -0.1711 ppb        0.10606  61.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      65.7      4.5580 ug/L       1.27968      4.5580 ppb        1.27968  28.08%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/12/2010 09:16:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4870.8	4870.8	98.9	%			09:18:35
1	Y RADIAL	5179.0	5179.0	99.86	%			09:18:35
1	Al 396.153Radial†	65.9	229.9	198.82	ug/L	198.82	ppb	09:18:35
1	Ca 317.933Radial†	148.4	135.1	211.71	ug/L	211.71	ppb	09:18:55
1	Fe 238.204 Radial†	23.3	12.1	110.73	ug/L	110.73	ppb	09:18:55
1	K 766.490 Radial†	3736.6	813.8	141.67	ug/L	141.67	ppb	09:18:35
1	Mg 279.077 IEC†	7.4	6.3	207.15	ug/L	207.15	ppb	09:18:55
1	Na 589.592 Radial†	-181.1	967.2	315.19	ug/L	315.19	ppb	09:18:35
1	Sr 421.552†	755.0	749.5	4.9112	ug/L	4.9112	ppb	09:18:35
1	Sc 361.383	822377.0	822377.0	99.456	%			09:19:52
1	Y 371.029	661376.1	661376.1	99.097	%			09:19:52
1	Ag 328.068†	1270.9	980.7	4.7451	ug/L	4.7451	ppb	09:19:52
1	As 188.979†	34.4	65.2	28.163	ug/L	28.163	ppb	09:20:12
1	B 249.677†	1501.5	2104.8	50.083	ug/L	50.083	ppb	09:19:52
1	Ba 233.527†	629.7	643.4	5.1424	ug/L	5.1424	ppb	09:20:12
1	Be 313.107†	9599.4	13352.2	4.8878	ug/L	4.8878	ppb	09:19:52
1	Cd 226.502†	221.8	439.1	5.1282	ug/L	5.1282	ppb	09:20:12
1	Co 228.616†	164.8	249.1	5.1343	ug/L	5.1343	ppb	09:20:12
1	Cr 267.716†	524.5	460.7	5.4625	ug/L	5.4625	ppb	09:19:52
1	Cu 324.752†	7953.7	3276.3	10.047	ug/L	10.047	ppb	09:19:52
1	Mn 257.610†	9524.1	9106.2	10.206	ug/L	10.206	ppb	09:19:52
1	Mo 202.031†	155.6	144.6	10.903	ug/L	10.903	ppb	09:20:12
1	Ni 231.604†	290.9	215.5	5.5195	ug/L	5.5195	ppb	09:20:12
1	P 214.914†	485.8	241.4	140.16	ug/L	140.16	ppb	09:20:12
1	Pb 220.353†	19.0	86.3	10.636	ug/L	10.636	ppb	09:20:12
1	S 181.975 Axial†	116.3	69.1	94.801	ug/L	94.801	ppb	09:20:12
1	Sb 206.836†	75.6	40.9	14.619	ug/L	14.619	ppb	09:20:12
1	Se 196.026†	19.8	45.3	30.002	ug/L	30.002	ppb	09:20:12
1	Si 251.611†	3608.6	3097.0	101.17	ug/L	101.17	ppb	09:19:52
1	Sn 189.927†	77.2	68.1	12.348	ug/L	12.348	ppb	09:20:12
1	Ti 334.940†	1542.6	3121.9	5.0257	ug/L	5.0257	ppb	09:19:52
1	Tl 190.801†	33.1	67.6	21.025	ug/L	21.025	ppb	09:20:12
1	U 409.014†	-1868.2	1733.5	54.406	ug/L	54.406	ppb	09:19:52
1	V 292.402†	-956.6	628.3	4.9292	ug/L	4.9292	ppb	09:19:52
1	Zn 213.857†	1764.8	1045.9	9.9365	ug/L	9.9365	ppb	09:20:12
1	SiO2†	3574.9	3062.1	213.36	ug/L	213.36	ppb	09:21:08
2	Sc Radial	4851.2	4851.2	98.5	%			09:19:00
2	Y RADIAL	5169.0	5169.0	99.67	%			09:19:00
2	Al 396.153Radial†	44.3	208.3	180.07	ug/L	180.07	ppb	09:19:00
2	Ca 317.933Radial†	139.6	126.7	198.58	ug/L	198.58	ppb	09:19:20
2	Fe 238.204 Radial†	19.2	8.0	73.422	ug/L	73.422	ppb	09:19:20
2	K 766.490 Radial†	3966.5	1062.3	185.02	ug/L	185.02	ppb	09:19:00
2	Mg 279.077 IEC†	11.1	10.0	330.52	ug/L	330.52	ppb	09:19:20
2	Na 589.592 Radial†	-230.2	916.6	298.72	ug/L	298.72	ppb	09:19:00
2	Sr 421.552†	708.4	705.2	4.6212	ug/L	4.6212	ppb	09:19:00
2	Sc 361.383	813315.3	813315.3	98.360	%			09:20:17
2	Y 371.029	654127.6	654127.6	98.010	%			09:20:17
2	Ag 328.068†	1294.5	1018.9	4.9216	ug/L	4.9216	ppb	09:20:17
2	As 188.979†	40.9	72.3	31.191	ug/L	31.191	ppb	09:20:37
2	B 249.677†	1521.6	2142.0	50.976	ug/L	50.976	ppb	09:20:17
2	Ba 233.527†	624.4	645.0	5.1544	ug/L	5.1544	ppb	09:20:37
2	Be 313.107†	9445.2	13303.0	4.8696	ug/L	4.8696	ppb	09:20:17
2	Cd 226.502†	218.5	438.3	5.1214	ug/L	5.1214	ppb	09:20:37
2	Co 228.616†	145.8	231.6	4.7752	ug/L	4.7752	ppb	09:20:37
2	Cr 267.716†	530.2	472.4	5.6024	ug/L	5.6024	ppb	09:20:17
2	Cu 324.752†	7908.5	3319.4	10.181	ug/L	10.181	ppb	09:20:17
2	Mn 257.610†	9450.2	9137.8	10.233	ug/L	10.233	ppb	09:20:17
2	Mo 202.031†	152.7	143.4	10.808	ug/L	10.808	ppb	09:20:37
2	Ni 231.604†	294.3	222.2	5.6909	ug/L	5.6909	ppb	09:20:37

2	P 214.914†	484.4	245.4	142.52 ug/L	142.52 ppb	09:20:37
2	Pb 220.353†	9.7	77.0	9.4944 ug/L	9.4944 ppb	09:20:37
2	S 181.975 Axial†	120.1	74.4	102.01 ug/L	102.01 ppb	09:20:37
2	Sb 206.836†	60.6	26.5	9.6093 ug/L	9.6093 ppb	09:20:37
2	Se 196.026†	24.1	49.9	32.877 ug/L	32.877 ppb	09:20:37
2	Si 251.611†	3528.8	3056.3	99.841 ug/L	99.841 ppb	09:20:17
2	Sn 189.927†	67.5	59.2	10.732 ug/L	10.732 ppb	09:20:37
2	Ti 334.940†	1447.2	3042.2	4.8875 ug/L	4.8875 ppb	09:20:17
2	Tl 190.801†	31.6	66.4	20.657 ug/L	20.657 ppb	09:20:37
2	U 409.014†	-2012.1	1566.3	49.159 ug/L	49.159 ppb	09:20:17
2	V 292.402†	-943.5	631.0	4.9457 ug/L	4.9457 ppb	09:20:17
2	Zn 213.857†	1744.3	1044.7	9.9303 ug/L	9.9303 ppb	09:20:37
2	SiO2†	3604.3	3132.0	218.24 ug/L	218.24 ppb	09:21:13
3	Sc Radial	4782.3	4782.3	97.1 %		09:19:25
3	Y RADIAL	5055.1	5055.1	97.47 %		09:19:25
3	Al 396.153Radial†	66.0	231.2	199.97 ug/L	199.97 ppb	09:19:25
3	Ca 317.933Radial†	148.2	137.7	215.75 ug/L	215.75 ppb	09:19:45
3	Fe 238.204 Radial†	20.9	10.1	92.367 ug/L	92.367 ppb	09:19:45
3	K 766.490 Radial†	3913.0	1065.2	185.52 ug/L	185.52 ppb	09:19:25
3	Mg 279.077 IEC†	10.9	10.0	329.16 ug/L	329.16 ppb	09:19:45
3	Na 589.592 Radial†	-263.1	879.4	286.59 ug/L	286.59 ppb	09:19:25
3	Sr 421.552†	688.8	695.4	4.5568 ug/L	4.5568 ppb	09:19:25
3	Sc 361.383	820802.1	820802.1	99.266 %		09:20:43
3	Y 371.029	661529.3	661529.3	99.119 %		09:20:43
3	Ag 328.068†	1307.2	1019.8	4.9262 ug/L	4.9262 ppb	09:20:43
3	As 188.979†	33.8	64.7	27.937 ug/L	27.937 ppb	09:21:03
3	B 249.677†	1487.6	2093.7	49.822 ug/L	49.822 ppb	09:20:43
3	Ba 233.527†	628.1	643.0	5.1384 ug/L	5.1384 ppb	09:21:03
3	Be 313.107†	9594.7	13366.0	4.8926 ug/L	4.8926 ppb	09:20:43
3	Cd 226.502†	213.6	431.3	5.0387 ug/L	5.0387 ppb	09:21:03
3	Co 228.616†	156.7	241.2	4.9737 ug/L	4.9737 ppb	09:21:03
3	Cr 267.716†	488.2	425.1	5.0389 ug/L	5.0389 ppb	09:20:43
3	Cu 324.752†	7895.5	3233.0	9.9131 ug/L	9.9131 ppb	09:20:43
3	Mn 257.610†	9494.9	9095.2	10.187 ug/L	10.187 ppb	09:20:43
3	Mo 202.031†	160.3	149.6	11.282 ug/L	11.282 ppb	09:21:03
3	Ni 231.604†	294.7	219.8	5.6313 ug/L	5.6313 ppb	09:21:03
3	P 214.914†	481.4	237.9	138.15 ug/L	138.15 ppb	09:21:03
3	Pb 220.353†	-9.8	57.3	7.0781 ug/L	7.0781 ppb	09:21:03
3	S 181.975 Axial†	118.4	71.5	98.098 ug/L	98.098 ppb	09:21:03
3	Sb 206.836†	72.5	37.9	13.548 ug/L	13.548 ppb	09:21:03
3	Se 196.026†	19.2	44.7	29.545 ug/L	29.545 ppb	09:21:03
3	Si 251.611†	3539.0	3033.9	99.102 ug/L	99.102 ppb	09:20:43
3	Sn 189.927†	63.6	54.6	9.9138 ug/L	9.9138 ppb	09:21:03
3	Ti 334.940†	1467.4	3049.1	4.8988 ug/L	4.8988 ppb	09:20:43
3	Tl 190.801†	17.9	52.3	16.277 ug/L	16.277 ppb	09:21:03
3	U 409.014†	-1854.9	1743.4	54.717 ug/L	54.717 ppb	09:20:43
3	V 292.402†	-995.7	587.1	4.6329 ug/L	4.6329 ppb	09:20:43
3	Zn 213.857†	1762.6	1047.0	9.9501 ug/L	9.9501 ppb	09:21:03
3	SiO2†	3564.4	3058.4	213.09 ug/L	213.09 ppb	09:21:18

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	818831.5	99.028	%	0.5855				0.59%
Sc Radial	4834.8	98.2	%	0.94				0.96%
Y 371.029	659011.0	98.742	%	0.6338				0.64%
Y RADIAL	5134.4	99.00	%	1.327				1.34%
Ag 328.068†	1006.5	4.8643	ug/L	0.10325	4.8643	ppb	0.10325	2.12%
QC value within limits for Ag 328.068 Recovery = 97.29%								
Al 396.153Radial†	223.1	192.95	ug/L	11.175	192.95	ppb	11.175	5.79%
QC value within limits for Al 396.153Radial Recovery = 96.48%								
As 188.979†	67.4	29.097	ug/L	1.8167	29.097	ppb	1.8167	6.24%
QC value within limits for As 188.979 Recovery = 96.99%								
B 249.677†	2113.5	50.294	ug/L	0.6049	50.294	ppb	0.6049	1.20%
QC value within limits for B 249.677 Recovery = 100.59%								
Ba 233.527†	643.8	5.1451	ug/L	0.00836	5.1451	ppb	0.00836	0.16%
QC value within limits for Ba 233.527 Recovery = 102.90%								
Be 313.107†	13340.4	4.8833	ug/L	0.01217	4.8833	ppb	0.01217	0.25%
QC value within limits for Be 313.107 Recovery = 97.67%								
Ca 317.933Radial†	133.1	208.68	ug/L	8.975	208.68	ppb	8.975	4.30%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.34%
Cd 226.502†              436.2      5.0961 ug/L       0.04982      5.0961 ppb        0.04982   0.98%
   QC value within limits for Cd 226.502  Recovery = 101.92%
Co 228.616†              240.6      4.9611 ug/L       0.17986      4.9611 ppb        0.17986   3.63%
   QC value within limits for Co 228.616  Recovery = 99.22%
Cr 267.716†              452.7      5.3679 ug/L       0.29343      5.3679 ppb        0.29343   5.47%
   QC value within limits for Cr 267.716  Recovery = 107.36%
Cu 324.752†             3276.2      10.047 ug/L        0.1339      10.047 ppb         0.1339   1.33%
   QC value within limits for Cu 324.752  Recovery = 100.47%
Fe 238.204 Radial†        10.1      92.173 ug/L       18.6546      92.173 ppb        18.6546  20.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.17%
K 766.490 Radial†        980.4      170.74 ug/L        25.175      170.74 ppb         25.175  14.74%
   QC value within limits for K 766.490 Radial  Recovery = 113.83%
Mg 279.077 IEC†           8.8      288.94 ug/L        70.839      288.94 ppb         70.839  24.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.31%
Mn 257.610†             9113.1      10.208 ug/L        0.0230      10.208 ppb         0.0230   0.23%
   QC value within limits for Mn 257.610  Recovery = 102.08%
Mo 202.031†              145.9      10.997 ug/L        0.2510      10.997 ppb         0.2510   2.28%
   QC value within limits for Mo 202.031  Recovery = 109.97%
Na 589.592 Radial†       921.0      300.17 ug/L        14.358      300.17 ppb         14.358   4.78%
   QC value within limits for Na 589.592 Radial  Recovery = 100.06%
Ni 231.604†              219.2      5.6139 ug/L       0.08703      5.6139 ppb        0.08703   1.55%
   QC value within limits for Ni 231.604  Recovery = 112.28%
P 214.914†               241.6      140.28 ug/L         2.186      140.28 ppb          2.186   1.56%
   QC value within limits for P 214.914  Recovery = 93.52%
Pb 220.353†               73.5      9.0696 ug/L       1.81671      9.0696 ppb        1.81671  20.03%
   QC value within limits for Pb 220.353  Recovery = 90.70%
S 181.975 Axial†          71.7      98.301 ug/L        3.6068      98.301 ppb         3.6068   3.67%
   QC value within limits for S 181.975 Axial  Recovery = 98.30%
Sb 206.836†               35.1      12.592 ug/L        2.6382      12.592 ppb         2.6382  20.95%
   QC value within limits for Sb 206.836  Recovery = 125.92%
Se 196.026†               46.6      30.808 ug/L        1.8065      30.808 ppb         1.8065   5.86%
   QC value within limits for Se 196.026  Recovery = 102.69%
Si 251.611†             3062.4      100.04 ug/L         1.049      100.04 ppb          1.049   1.05%
   QC value within limits for Si 251.611  Recovery = 100.04%
Sn 189.927†               60.6      10.998 ug/L        1.2386      10.998 ppb         1.2386  11.26%
   QC value within limits for Sn 189.927  Recovery = 109.98%
Sr 421.552†              716.7      4.6964 ug/L       0.18878      4.6964 ppb        0.18878   4.02%
   QC value within limits for Sr 421.552  Recovery = 93.93%
Ti 334.940†             3071.1      4.9374 ug/L       0.07674      4.9374 ppb        0.07674   1.55%
   QC value within limits for Ti 334.940  Recovery = 98.75%
Tl 190.801†               62.1      19.320 ug/L        2.6417      19.320 ppb         2.6417  13.67%
   QC value within limits for Tl 190.801  Recovery = 96.60%
U 409.014†              1681.1      52.761 ug/L        3.1226      52.761 ppb         3.1226   5.92%
   QC value within limits for U 409.014  Recovery = 105.52%
V 292.402†               615.5      4.8359 ug/L       0.17601      4.8359 ppb        0.17601   3.64%
   QC value within limits for V 292.402  Recovery = 96.72%
Zn 213.857†             1045.9      9.9390 ug/L       0.01011      9.9390 ppb        0.01011   0.10%
   QC value within limits for Zn 213.857  Recovery = 99.39%
SiO2†                   3084.2      214.90 ug/L         2.899      214.90 ppb          2.899   1.35%
   QC value within limits for SiO2  Recovery = 100.89%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/12/2010 09:23:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4456.2	4456.2	90.5	%			09:25:28
1	Y RADIAL	4738.9	4738.9	91.37	%			09:25:28
1	Al 396.153Radial†	550892.0	608780.1	527920	ug/L	527920	ppb	09:25:23
1	Ca 317.933Radial†	282543.1	312134.2	489230	ug/L	489230	ppb	09:25:23
1	Fe 238.204 Radial†	19070.9	21057.8	191860	ug/L	191860	ppb	09:25:28
1	K 766.490 Radial†	2536.6	-160.6	-191.64	ug/L	-191.64	ppb	09:25:23
1	Mg 279.077 IEC†	13582.5	15004.5	493390	ug/L	493390	ppb	09:25:28
1	Na 589.592 Radial†	-952.3	98.1	31.978	ug/L	31.978	ppb	09:25:28
1	Sr 421.552†	522.8	563.9	0.0432	ug/L	0.0432	ppb	09:25:28
1	Sc 361.383	732035.2	732035.2	88.531	%			09:25:55
1	Y 371.029	580308.1	580308.1	86.950	%			09:25:55
1	Ag 328.068†	-9449.8	-10971.2	5.1648	ug/L	5.1648	ppb	09:25:55
1	As 188.979†	-97.5	-79.5	10.526	ug/L	10.526	ppb	09:26:16
1	B 249.677†	229.7	854.4	-10.816	ug/L	-10.816	ppb	09:25:55
1	Ba 233.527†	-699.4	-779.7	-0.3426	ug/L	-0.3426	ppb	09:26:16
1	Be 313.107†	-4071.2	-898.4	-0.3797	ug/L	-0.3797	ppb	09:25:55
1	Cd 226.502†	1079.0	1434.8	-3.0582	ug/L	-3.0582	ppb	09:26:16
1	Co 228.616†	-26.1	53.9	-1.6641	ug/L	-1.6641	ppb	09:26:16
1	Cr 267.716†	-141.2	-226.1	1.0483	ug/L	1.0483	ppb	09:26:16
1	Cu 324.752†	1667.3	-2837.6	1.4100	ug/L	1.4100	ppb	09:25:55
1	Mn 257.610†	245.8	-192.2	-1.4475	ug/L	-1.4475	ppb	09:25:55
1	Mo 202.031†	-223.3	-264.1	0.8194	ug/L	0.8194	ppb	09:26:16
1	Ni 231.604†	231.5	184.5	4.7284	ug/L	4.7284	ppb	09:26:16
1	P 214.914†	203.4	-17.3	-32.023	ug/L	-32.023	ppb	09:26:16
1	Pb 220.353†	-869.8	-915.4	-8.5655	ug/L	-8.5655	ppb	09:26:16
1	S 181.975 Axial†	69.9	31.2	-56.137	ug/L	-56.137	ppb	09:26:16
1	Sb 206.836†	71.8	46.0	-1.7982	ug/L	-1.7982	ppb	09:26:16
1	Se 196.026†	-916.8	-1010.2	-24.538	ug/L	-24.538	ppb	09:26:16
1	Si 251.611†	469.1	-1.5	0.1971	ug/L	0.1971	ppb	09:26:16
1	Sn 189.927†	-350.9	-405.9	4.1731	ug/L	4.1731	ppb	09:26:16
1	Ti 334.940†	-13856.6	-14080.9	2.5541	ug/L	2.5541	ppb	09:25:55
1	Tl 190.801†	-62.8	-36.6	-11.575	ug/L	-11.575	ppb	09:26:16
1	U 409.014†	-2073.2	1270.2	18.016	ug/L	18.016	ppb	09:25:55
1	V 292.402†	492.9	2146.9	-2.5627	ug/L	-2.5627	ppb	09:26:16
1	Zn 213.857†	2987.0	2645.4	-3.4311	ug/L	-3.4311	ppb	09:26:16
1	SiO2†	417.7	-60.6	-3.6867	ug/L	-3.6867	ppb	09:27:12
2	Sc Radial	4426.7	4426.7	89.9	%			09:25:39
2	Y RADIAL	4739.7	4739.7	91.39	%			09:25:39
2	Al 396.153Radial†	545564.4	606907.8	526300	ug/L	526300	ppb	09:25:33
2	Ca 317.933Radial†	280503.4	311944.3	488930	ug/L	488930	ppb	09:25:33
2	Fe 238.204 Radial†	18863.8	20967.8	191040	ug/L	191040	ppb	09:25:39
2	K 766.490 Radial†	2641.7	-25.0	-167.91	ug/L	-167.91	ppb	09:25:33
2	Mg 279.077 IEC†	13484.3	14995.2	493080	ug/L	493080	ppb	09:25:39
2	Na 589.592 Radial†	-925.0	121.5	39.601	ug/L	39.601	ppb	09:25:39
2	Sr 421.552†	530.9	576.8	0.1300	ug/L	0.1300	ppb	09:25:39
2	Sc 361.383	737827.3	737827.3	89.231	%			09:26:21
2	Y 371.029	585236.6	585236.6	87.688	%			09:26:21
2	Ag 328.068†	-9676.3	-11141.2	4.0729	ug/L	4.0729	ppb	09:26:21
2	As 188.979†	-96.4	-77.4	11.228	ug/L	11.228	ppb	09:26:41
2	B 249.677†	237.3	861.0	-10.527	ug/L	-10.527	ppb	09:26:21
2	Ba 233.527†	-684.5	-756.8	-0.1848	ug/L	-0.1848	ppb	09:26:41
2	Be 313.107†	-4120.8	-917.8	-0.3865	ug/L	-0.3865	ppb	09:26:21
2	Cd 226.502†	1080.4	1426.9	-3.0670	ug/L	-3.0670	ppb	09:26:41
2	Co 228.616†	-24.7	55.6	-1.6164	ug/L	-1.6164	ppb	09:26:41
2	Cr 267.716†	-112.8	-193.1	1.4259	ug/L	1.4259	ppb	09:26:41
2	Cu 324.752†	1665.8	-2854.1	1.3168	ug/L	1.3168	ppb	09:26:21
2	Mn 257.610†	368.1	-57.3	-1.3649	ug/L	-1.3649	ppb	09:26:21
2	Mo 202.031†	-224.9	-263.8	0.7706	ug/L	0.7706	ppb	09:26:41
2	Ni 231.604†	214.7	163.6	4.1926	ug/L	4.1926	ppb	09:26:41

2	P 214.914†	202.4	-20.2	-33.420	ug/L	-33.420 ppb	09:26:41
2	Pb 220.353†	-811.6	-842.4	0.1065	ug/L	0.1065 ppb	09:26:41
2	S 181.975 Axial†	59.9	19.3	-72.141	ug/L	-72.141 ppb	09:26:41
2	Sb 206.836†	78.4	52.7	0.6610	ug/L	0.6610 ppb	09:26:41
2	Se 196.026†	-903.5	-987.2	-12.207	ug/L	-12.207 ppb	09:26:41
2	Si 251.611†	460.1	-15.7	-0.2699	ug/L	-0.2699 ppb	09:26:41
2	Sn 189.927†	-333.0	-382.7	8.3085	ug/L	8.3085 ppb	09:26:41
2	Ti 334.940†	-13886.3	-13991.2	2.6845	ug/L	2.6845 ppb	09:26:21
2	Tl 190.801†	-71.6	-45.9	-14.457	ug/L	-14.457 ppb	09:26:41
2	U 409.014†	-2141.0	1212.5	16.298	ug/L	16.298 ppb	09:26:21
2	V 292.402†	524.1	2177.6	-2.2236	ug/L	-2.2236 ppb	09:26:41
2	Zn 213.857†	3020.7	2656.7	-3.1970	ug/L	-3.1970 ppb	09:26:41
2	SiO2†	397.6	-86.7	-5.5114	ug/L	-5.5114 ppb	09:27:17
3	Sc Radial	4470.1	4470.1	90.8	%		09:25:49
3	Y RADIAL	4775.7	4775.7	92.08	%		09:25:49
3	Al 396.153Radial†	547547.7	603196.4	523080	ug/L	523080 ppb	09:25:44
3	Ca 317.933Radial†	280732.5	309165.4	484580	ug/L	484580 ppb	09:25:44
3	Fe 238.204 Radial†	19031.4	20948.5	190860	ug/L	190860 ppb	09:25:49
3	K 766.490 Radial†	2547.1	-157.8	-189.60	ug/L	-189.60 ppb	09:25:44
3	Mg 279.077 IEC†	13608.5	14986.3	492790	ug/L	492790 ppb	09:25:49
3	Na 589.592 Radial†	-980.8	70.0	22.827	ug/L	22.827 ppb	09:25:49
3	Sr 421.552†	544.2	585.6	0.2205	ug/L	0.2205 ppb	09:25:49
3	Sc 361.383	733788.6	733788.6	88.743	%		09:26:46
3	Y 371.029	580353.3	580353.3	86.957	%		09:26:46
3	Ag 328.068†	-9743.9	-11277.0	3.4056	ug/L	3.4056 ppb	09:26:46
3	As 188.979†	-90.5	-71.3	13.829	ug/L	13.829 ppb	09:27:07
3	B 249.677†	144.6	758.0	-12.952	ug/L	-12.952 ppb	09:26:46
3	Ba 233.527†	-681.1	-757.2	-0.1942	ug/L	-0.1942 ppb	09:27:07
3	Be 313.107†	-4102.1	-922.1	-0.3877	ug/L	-0.3877 ppb	09:26:46
3	Cd 226.502†	1103.9	1460.0	-2.6593	ug/L	-2.6593 ppb	09:27:07
3	Co 228.616†	-13.8	67.8	-1.3650	ug/L	-1.3650 ppb	09:27:07
3	Cr 267.716†	-136.0	-219.9	1.0981	ug/L	1.0981 ppb	09:27:07
3	Cu 324.752†	1834.8	-2653.4	1.9181	ug/L	1.9181 ppb	09:26:46
3	Mn 257.610†	324.8	-103.8	-1.4224	ug/L	-1.4224 ppb	09:26:46
3	Mo 202.031†	-230.5	-271.6	0.1248	ug/L	0.1248 ppb	09:27:07
3	Ni 231.604†	242.6	196.3	5.0312	ug/L	5.0312 ppb	09:27:07
3	P 214.914†	206.5	-14.3	-30.801	ug/L	-30.801 ppb	09:27:07
3	Pb 220.353†	-844.9	-884.9	-5.8580	ug/L	-5.8580 ppb	09:27:07
3	S 181.975 Axial†	59.2	19.0	-71.984	ug/L	-71.984 ppb	09:27:07
3	Sb 206.836†	59.7	32.2	-6.4628	ug/L	-6.4628 ppb	09:27:07
3	Se 196.026†	-909.6	-999.6	-21.021	ug/L	-21.021 ppb	09:27:07
3	Si 251.611†	414.0	-64.8	-1.8692	ug/L	-1.8692 ppb	09:27:07
3	Sn 189.927†	-345.6	-398.9	4.7096	ug/L	4.7096 ppb	09:27:07
3	Ti 334.940†	-13723.0	-13892.9	2.2779	ug/L	2.2779 ppb	09:26:46
3	Tl 190.801†	-76.7	-52.1	-16.382	ug/L	-16.382 ppb	09:27:07
3	U 409.014†	-1790.2	1594.6	28.316	ug/L	28.316 ppb	09:26:46
3	V 292.402†	475.2	2125.6	-2.5767	ug/L	-2.5767 ppb	09:27:07
3	Zn 213.857†	2987.7	2638.1	-3.3541	ug/L	-3.3541 ppb	09:27:07
3	SiO2†	448.5	-27.0	-1.3267	ug/L	-1.3267 ppb	09:27:22

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	734550.4	88.835	%	0.3592				0.40%
Sc Radial	4451.0	90.4	%	0.45				0.50%
Y 371.029	581966.0	87.198	%	0.4244				0.49%
Y RADIAL	4751.4	91.61	%	0.405				0.44%
Ag 328.068†	-11129.8	4.2145	ug/L	0.88811	4.2145	ppb	0.88811	21.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	606294.7	525770	ug/L	2464.4	525770	ppb	2464.4	0.47%
QC value within limits for Al 396.153Radial Recovery = 105.15%								
As 188.979†	-76.1	11.861	ug/L	1.7405	11.861	ppb	1.7405	14.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	824.5	-11.431	ug/L	1.3247	-11.431	ppb	1.3247	11.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-764.6	-0.2405	ug/L	0.08853	-0.2405	ppb	0.08853	36.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-912.7	-0.3846	ug/L	0.00430	-0.3846	ppb	0.00430	1.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	311081.3	487580	ug/L	2604.9	487580	ppb	2604.9	0.53%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.52%
Cd 226.502†            1440.6     -2.9282 ug/L       0.23290     -2.9282 ppb        0.23290   7.95%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              59.1     -1.5485 ug/L       0.16070     -1.5485 ppb        0.16070  10.38%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -213.1      1.1908 ug/L       0.20515      1.1908 ppb        0.20515  17.23%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2781.7      1.5483 ug/L       0.32359      1.5483 ppb        0.32359  20.90%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    20991.4      191250 ug/L         531.8      191250 ppb          531.8   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.63%
K 766.490 Radial†      -114.5     -183.05 ug/L        13.153     -183.05 ppb         13.153   7.19%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       14995.3      493090 ug/L         298.5      493090 ppb          298.5   0.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.62%
Mn 257.610†            -117.8     -1.4116 ug/L       0.04234     -1.4116 ppb        0.04234   3.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -266.5      0.5716 ug/L       0.38769      0.5716 ppb        0.38769  67.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       96.6      31.469 ug/L        8.3986      31.469 ppb         8.3986  26.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             181.5      4.6507 ug/L       0.42467      4.6507 ppb        0.42467   9.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -17.3     -32.081 ug/L        1.3103     -32.081 ppb         1.3103   4.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -880.9     -4.7724 ug/L       4.43676     -4.7724 ppb        4.43676  92.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         23.2     -66.754 ug/L        9.1951     -66.754 ppb         9.1951  13.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              43.6     -2.5333 ug/L       3.61831     -2.5333 ppb        3.61831 142.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -999.0     -19.255 ug/L        6.3522     -19.255 ppb         6.3522  32.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -27.3     -0.6473 ug/L       1.08361     -0.6473 ppb        1.08361 167.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -395.8      5.7304 ug/L       2.24871      5.7304 ppb        2.24871  39.24%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             575.4      0.1312 ug/L       0.08866      0.1312 ppb        0.08866  67.58%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13988.3      2.5055 ug/L       0.20763      2.5055 ppb        0.20763   8.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -44.9     -14.138 ug/L        2.4196     -14.138 ppb         2.4196  17.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1359.1      20.877 ug/L        6.4999      20.877 ppb         6.4999  31.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2150.0     -2.4543 ug/L       0.19990     -2.4543 ppb        0.19990   8.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2646.7     -3.3274 ug/L       0.11931     -3.3274 ppb        0.11931   3.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -58.1     -3.5083 ug/L       2.09801     -3.5083 ppb        2.09801  59.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/12/2010 09:29:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4484.3	4484.3	91.1	%			09:31:32
1	Y RADIAL	4785.4	4785.4	92.27	%			09:31:32
1	Al 396.153Radial†	553045.8	607331.4	526640	ug/L	526640	ppb	09:31:27
1	Ca 317.933Radial†	278494.7	305733.9	479200	ug/L	479200	ppb	09:31:27
1	Fe 238.204 Radial†	18797.9	20626.1	187940	ug/L	187940	ppb	09:31:32
1	K 766.490 Radial†	30159.6	30148.1	5093.2	ug/L	5093.2	ppb	09:31:27
1	Mg 279.077 IEC†	13276.3	14574.4	479250	ug/L	479250	ppb	09:31:32
1	Na 589.592 Radial†	15010.3	17629.5	5745.4	ug/L	5745.4	ppb	09:31:32
1	Sr 421.552†	71462.7	78442.6	510.60	ug/L	510.60	ppb	09:31:27
1	Sc 361.383	752765.0	752765.0	91.038	%			09:32:00
1	Y 371.029	594756.7	594756.7	89.115	%			09:32:00
1	Ag 328.068†	40650.9	44355.8	272.78	ug/L	272.78	ppb	09:32:00
1	As 188.979†	936.2	1059.0	503.75	ug/L	503.75	ppb	09:32:20
1	B 249.677†	19580.7	22103.4	494.54	ug/L	494.54	ppb	09:32:00
1	Ba 233.527†	54391.1	59756.0	483.18	ug/L	483.18	ppb	09:32:00
1	Be 313.107†	598158.2	660745.7	242.42	ug/L	242.42	ppb	09:32:00
1	Cd 226.502†	36314.5	40105.7	449.13	ug/L	449.13	ppb	09:32:20
1	Co 228.616†	19077.7	21039.2	429.90	ug/L	429.90	ppb	09:32:20
1	Cr 267.716†	36726.5	40275.5	482.82	ug/L	482.82	ppb	09:32:00
1	Cu 324.752†	160613.6	171704.6	537.49	ug/L	537.49	ppb	09:32:00
1	Mn 257.610†	383557.8	420848.2	470.52	ug/L	470.52	ppb	09:32:00
1	Mo 202.031†	5560.8	6096.4	479.56	ug/L	479.56	ppb	09:32:20
1	Ni 231.604†	15882.2	17368.8	444.89	ug/L	444.89	ppb	09:32:20
1	P 214.914†	3938.3	4079.0	2279.8	ug/L	2279.8	ppb	09:32:20
1	Pb 220.353†	2505.8	2819.6	450.07	ug/L	450.07	ppb	09:32:20
1	S 181.975 Axial†	1762.3	1888.1	2492.1	ug/L	2492.1	ppb	09:32:20
1	Sb 206.836†	1433.5	1539.5	535.04	ug/L	535.04	ppb	09:32:20
1	Se 196.026†	2524.7	2798.7	2453.3	ug/L	2453.3	ppb	09:32:20
1	Si 251.611†	142091.0	155548.2	5082.5	ug/L	5082.5	ppb	09:32:00
1	Sn 189.927†	2040.3	2231.6	479.57	ug/L	479.57	ppb	09:32:20
1	Ti 334.940†	272790.9	301217.4	511.00	ug/L	511.00	ppb	09:32:00
1	Tl 190.801†	1222.1	1376.8	430.27	ug/L	430.27	ppb	09:32:20
1	U 409.014†	12085.0	16886.7	507.72	ug/L	507.72	ppb	09:32:00
1	V 292.402†	61128.7	68736.9	501.85	ug/L	501.85	ppb	09:32:00
1	Zn 213.857†	49415.0	53551.1	480.46	ug/L	480.46	ppb	09:32:00
1	SiO2†	141522.0	154922.1	10797	ug/L	10797	ppb	09:33:17
2	Sc Radial	4522.2	4522.2	91.9	%			09:31:42
2	Y RADIAL	4824.5	4824.5	93.02	%			09:31:42
2	Al 396.153Radial†	553815.3	603073.1	522950	ug/L	522950	ppb	09:31:37
2	Ca 317.933Radial†	283539.1	308659.3	483780	ug/L	483780	ppb	09:31:37
2	Fe 238.204 Radial†	19284.7	20982.8	191190	ug/L	191190	ppb	09:31:42
2	K 766.490 Radial†	30565.2	30311.8	5120.2	ug/L	5120.2	ppb	09:31:37
2	Mg 279.077 IEC†	13869.1	15097.4	496450	ug/L	496450	ppb	09:31:42
2	Na 589.592 Radial†	15249.5	17751.6	5785.2	ug/L	5785.2	ppb	09:31:42
2	Sr 421.552†	70893.4	77164.3	502.19	ug/L	502.19	ppb	09:31:37
2	Sc 361.383	748621.9	748621.9	90.537	%			09:32:26
2	Y 371.029	592706.6	592706.6	88.808	%			09:32:26
2	Ag 328.068†	40236.2	44144.8	272.79	ug/L	272.79	ppb	09:32:26
2	As 188.979†	935.7	1064.2	506.72	ug/L	506.72	ppb	09:32:46
2	B 249.677†	19486.7	22118.6	494.37	ug/L	494.37	ppb	09:32:26
2	Ba 233.527†	54014.2	59670.4	482.60	ug/L	482.60	ppb	09:32:26
2	Be 313.107†	595255.4	661175.7	242.57	ug/L	242.57	ppb	09:32:26
2	Cd 226.502†	36387.8	40407.3	452.31	ug/L	452.31	ppb	09:32:46
2	Co 228.616†	19080.5	21158.3	432.31	ug/L	432.31	ppb	09:32:46
2	Cr 267.716†	36462.9	40207.6	482.07	ug/L	482.07	ppb	09:32:26
2	Cu 324.752†	159403.3	171344.3	536.55	ug/L	536.55	ppb	09:32:26
2	Mn 257.610†	380679.5	420000.8	469.18	ug/L	469.18	ppb	09:32:26
2	Mo 202.031†	5540.5	6107.8	480.72	ug/L	480.72	ppb	09:32:46
2	Ni 231.604†	15881.0	17464.0	447.33	ug/L	447.33	ppb	09:32:46

2	P 214.914†	3982.5	4151.7	2319.3 ug/L	2319.3 ppb	09:32:46
2	Pb 220.353†	2485.2	2812.1	448.14 ug/L	448.14 ppb	09:32:46
2	S 181.975 Axial†	1760.4	1896.7	2504.6 ug/L	2504.6 ppb	09:32:46
2	Sb 206.836†	1418.4	1531.5	532.39 ug/L	532.39 ppb	09:32:46
2	Se 196.026†	2507.6	2795.1	2461.3 ug/L	2461.3 ppb	09:32:46
2	Si 251.611†	141110.2	155328.6	5075.3 ug/L	5075.3 ppb	09:32:26
2	Sn 189.927†	2036.8	2240.2	481.87 ug/L	481.87 ppb	09:32:46
2	Ti 334.940†	271024.7	300924.9	509.74 ug/L	509.74 ppb	09:32:26
2	Tl 190.801†	1208.6	1369.3	427.93 ug/L	427.93 ppb	09:32:46
2	U 409.014†	12207.1	17095.0	513.89 ug/L	513.89 ppb	09:32:26
2	V 292.402†	60832.5	68781.4	502.06 ug/L	502.06 ppb	09:32:26
2	Zn 213.857†	49112.8	53517.8	479.64 ug/L	479.64 ppb	09:32:26
2	SiO2†	141199.6	155426.3	10832 ug/L	10832 ppb	09:33:22
3	Sc Radial	4460.9	4460.9	90.6 %		09:31:52
3	Y RADIAL	4763.5	4763.5	91.85 %		09:31:52
3	Al 396.153Radial†	551834.7	609179.9	528240 ug/L	528240 ppb	09:31:47
3	Ca 317.933Radial†	282427.7	311678.3	488520 ug/L	488520 ppb	09:31:47
3	Fe 238.204 Radial†	18963.9	20917.6	190590 ug/L	190590 ppb	09:31:52
3	K 766.490 Radial†	30405.9	30593.7	5167.7 ug/L	5167.7 ppb	09:31:47
3	Mg 279.077 IEC†	13609.2	15018.2	493840 ug/L	493840 ppb	09:31:52
3	Na 589.592 Radial†	14900.1	17594.3	5733.9 ug/L	5733.9 ppb	09:31:52
3	Sr 421.552†	71008.3	78352.6	509.95 ug/L	509.95 ppb	09:31:47
3	Sc 361.383	744503.1	744503.1	90.038 %		09:32:52
3	Y 371.029	589308.0	589308.0	88.298 %		09:32:52
3	Ag 328.068†	40066.8	44202.5	272.81 ug/L	272.81 ppb	09:32:52
3	As 188.979†	961.4	1098.4	521.34 ug/L	521.34 ppb	09:33:12
3	B 249.677†	19279.0	22007.0	491.80 ug/L	491.80 ppb	09:32:52
3	Ba 233.527†	53853.4	59821.8	483.79 ug/L	483.79 ppb	09:32:52
3	Be 313.107†	593361.0	662709.0	243.13 ug/L	243.13 ppb	09:32:52
3	Cd 226.502†	36329.6	40565.1	454.22 ug/L	454.22 ppb	09:33:12
3	Co 228.616†	19090.3	21285.7	434.94 ug/L	434.94 ppb	09:33:12
3	Cr 267.716†	36464.9	40432.7	484.74 ug/L	484.74 ppb	09:32:52
3	Cu 324.752†	158261.6	171050.3	535.62 ug/L	535.62 ppb	09:32:52
3	Mn 257.610†	379270.3	420761.8	470.08 ug/L	470.08 ppb	09:32:52
3	Mo 202.031†	5526.0	6125.5	482.07 ug/L	482.07 ppb	09:33:12
3	Ni 231.604†	15855.3	17532.5	449.08 ug/L	449.08 ppb	09:33:12
3	P 214.914†	3960.7	4151.8	2321.4 ug/L	2321.4 ppb	09:33:12
3	Pb 220.353†	2492.3	2835.2	452.26 ug/L	452.26 ppb	09:33:12
3	S 181.975 Axial†	1742.0	1886.9	2490.2 ug/L	2490.2 ppb	09:33:12
3	Sb 206.836†	1409.8	1530.6	532.00 ug/L	532.00 ppb	09:33:12
3	Se 196.026†	2496.1	2797.7	2461.3 ug/L	2461.3 ppb	09:33:12
3	Si 251.611†	140280.5	155269.4	5073.3 ug/L	5073.3 ppb	09:32:52
3	Sn 189.927†	2039.6	2255.7	485.39 ug/L	485.39 ppb	09:33:12
3	Ti 334.940†	269594.6	300992.7	510.70 ug/L	510.70 ppb	09:32:52
3	Tl 190.801†	1217.2	1386.2	433.17 ug/L	433.17 ppb	09:33:12
3	U 409.014†	11986.7	16924.8	508.61 ug/L	508.61 ppb	09:32:52
3	V 292.402†	60565.1	68856.1	502.66 ug/L	502.66 ppb	09:32:52
3	Zn 213.857†	48900.9	53582.6	480.34 ug/L	480.34 ppb	09:32:52
3	SiO2†	140822.7	155870.6	10863 ug/L	10863 ppb	09:33:28

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	748630.0	90.538	%	0.4996				0.55%
Sc Radial	4489.1	91.2	%	0.63				0.69%
Y 371.029	592257.1	88.740	%	0.4123				0.46%
Y RADIAL	4791.1	92.38	%	0.595				0.64%
Ag 328.068†	44234.4	272.79	ug/L	0.016	272.79	ppb	0.016	0.01%
QC value within limits for Ag 328.068 Recovery = 109.12%								
Al 396.153Radial†	606528.2	525950	ug/L	2715.7	525950	ppb	2715.7	0.52%
QC value within limits for Al 396.153Radial Recovery = 105.19%								
As 188.979†	1073.9	510.60	ug/L	9.415	510.60	ppb	9.415	1.84%
QC value within limits for As 188.979 Recovery = 102.12%								
B 249.677†	22076.4	493.57	ug/L	1.535	493.57	ppb	1.535	0.31%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	59749.4	483.19	ug/L	0.595	483.19	ppb	0.595	0.12%
QC value within limits for Ba 233.527 Recovery = 96.64%								
Be 313.107†	661543.5	242.71	ug/L	0.377	242.71	ppb	0.377	0.16%
QC value within limits for Be 313.107 Recovery = 97.08%								
Ca 317.933Radial†	308690.5	483830	ug/L	4658.7	483830	ppb	4658.7	0.96%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.77%
Cd 226.502†            40359.3      451.89 ug/L         2.572      451.89 ppb          2.572   0.57%
   QC value within limits for Cd 226.502  Recovery = 90.38%
Co 228.616†            21161.1      432.38 ug/L         2.518      432.38 ppb          2.518   0.58%
   QC value within limits for Co 228.616  Recovery = 86.48%
Cr 267.716†            40305.3      483.21 ug/L         1.375      483.21 ppb          1.375   0.28%
   QC value within limits for Cr 267.716  Recovery = 96.64%
Cu 324.752†           171366.4      536.55 ug/L         0.936      536.55 ppb          0.936   0.17%
   QC value within limits for Cu 324.752  Recovery = 107.31%
Fe 238.204 Radial†     20842.2      189910 ug/L        1730.6      189910 ppb         1730.6   0.91%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.95%
K 766.490 Radial†      30351.2      5127.0 ug/L         37.76      5127.0 ppb          37.76   0.74%
   QC value within limits for K 766.490 Radial  Recovery = 102.54%
Mg 279.077 IEC†        14896.6      489850 ug/L        9271.0      489850 ppb         9271.0   1.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.97%
Mn 257.610†           420536.9      469.93 ug/L         0.680      469.93 ppb          0.680   0.14%
   QC value within limits for Mn 257.610  Recovery = 93.99%
Mo 202.031†             6109.9      480.78 ug/L         1.257      480.78 ppb          1.257   0.26%
   QC value within limits for Mo 202.031  Recovery = 96.16%
Na 589.592 Radial†     17658.5      5754.9 ug/L         26.90      5754.9 ppb          26.90   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 115.10%
Ni 231.604†            17455.1      447.10 ug/L         2.105      447.10 ppb          2.105   0.47%
   QC value within limits for Ni 231.604  Recovery = 89.42%
P 214.914†              4127.5      2306.8 ug/L         23.43      2306.8 ppb          23.43   1.02%
   QC value within limits for P 214.914  Recovery = 92.27%
Pb 220.353†             2822.3      450.15 ug/L         2.061      450.15 ppb          2.061   0.46%
   QC value within limits for Pb 220.353  Recovery = 90.03%
S 181.975 Axial†        1890.5      2495.7 ug/L          7.81      2495.7 ppb           7.81   0.31%
   QC value within limits for S 181.975 Axial  Recovery = 99.83%
Sb 206.836†             1533.9      533.15 ug/L         1.654      533.15 ppb          1.654   0.31%
   QC value within limits for Sb 206.836  Recovery = 106.63%
Se 196.026†             2797.1      2458.6 ug/L          4.60      2458.6 ppb           4.60   0.19%
   QC value within limits for Se 196.026  Recovery = 98.35%
Si 251.611†           155382.1      5077.0 ug/L          4.82      5077.0 ppb           4.82   0.09%
   QC value within limits for Si 251.611  Recovery = 101.54%
Sn 189.927†             2242.5      482.27 ug/L         2.931      482.27 ppb          2.931   0.61%
   QC value within limits for Sn 189.927  Recovery = 96.45%
Sr 421.552†            77986.5      507.58 ug/L         4.679      507.58 ppb          4.679   0.92%
   QC value within limits for Sr 421.552  Recovery = 101.52%
Ti 334.940†           301045.0      510.48 ug/L         0.660      510.48 ppb          0.660   0.13%
   QC value within limits for Ti 334.940  Recovery = 102.10%
Tl 190.801†             1377.4      430.46 ug/L         2.628      430.46 ppb          2.628   0.61%
   QC value within limits for Tl 190.801  Recovery = 86.09%
U 409.014†             16968.8      510.07 ug/L         3.336      510.07 ppb          3.336   0.65%
   QC value within limits for U 409.014  Recovery = 102.01%
V 292.402†             68791.5      502.19 ug/L         0.424      502.19 ppb          0.424   0.08%
   QC value within limits for V 292.402  Recovery = 100.44%
Zn 213.857†            53550.5      480.15 ug/L         0.442      480.15 ppb          0.442   0.09%
   QC value within limits for Zn 213.857  Recovery = 96.03%
SiO2†                 155406.3       10831 ug/L          33.1       10831 ppb           33.1   0.31%
   QC value within limits for SiO2  Recovery = 101.27%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/12/2010 09:35:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4318.9	4318.9	87.7	%			09:37:35
1	Y RADIAL	4608.5	4608.5	88.86	%			09:37:35
1	Al 396.153Radial†	526200.1	599981.9	520290	ug/L	520290	ppb	09:37:30
1	Ca 317.933Radial†	264617.0	301623.6	472760	ug/L	472760	ppb	09:37:30
1	Fe 238.204 Radial†	41698.7	47521.1	432970	ug/L	432970	ppb	09:37:35
1	K 766.490 Radial†	2638.3	44.5	-350.28	ug/L	-350.28	ppb	09:37:30
1	Mg 279.077 IEC†	12599.2	14360.6	471950	ug/L	471950	ppb	09:37:35
1	Na 589.592 Radial†	1378766.6	1572814.4	512580	ug/L	512580	ppb	09:37:30
1	Sr 421.552†	759.7	852.3	2.0565	ug/L	2.0565	ppb	09:37:35
1	Sc 361.383	718931.8	718931.8	86.946	%			09:38:03
1	Y 371.029	572199.8	572199.8	85.735	%			09:38:03
1	Ag 328.068†	-22280.1	-25922.4	3.3758	ug/L	3.3758	ppb	09:38:03
1	As 188.979†	-192.3	-190.5	19.241	ug/L	19.241	ppb	09:38:23
1	B 249.677†	1047.0	1799.2	-27.493	ug/L	-27.493	ppb	09:38:03
1	Ba 233.527†	-1768.2	-2023.4	-2.8904	ug/L	-2.8904	ppb	09:38:23
1	Be 313.107†	-9371.5	-7078.2	-2.6252	ug/L	-2.6252	ppb	09:38:03
1	Cd 226.502†	2897.8	3548.9	-0.5999	ug/L	-0.5999	ppb	09:38:23
1	Co 228.616†	244.8	364.9	1.1798	ug/L	1.1798	ppb	09:38:23
1	Cr 267.716†	-89.3	-169.4	0.9616	ug/L	0.9616	ppb	09:38:23
1	Cu 324.752†	-802.2	-5643.6	-2.0875	ug/L	-2.0875	ppb	09:38:03
1	Mn 257.610†	-22610.6	-26475.3	-6.2180	ug/L	-6.2180	ppb	09:38:03
1	Mo 202.031†	-482.9	-567.3	-3.4978	ug/L	-3.4978	ppb	09:38:23
1	Ni 231.604†	255.6	217.0	5.5568	ug/L	5.5568	ppb	09:38:23
1	P 214.914†	565.5	403.4	21.141	ug/L	21.141	ppb	09:38:23
1	Pb 220.353†	-615.2	-640.4	0.1065	ug/L	0.1065	ppb	09:38:23
1	S 181.975 Axial†	90.4	56.1	-20.481	ug/L	-20.481	ppb	09:38:23
1	Sb 206.836†	84.9	62.5	0.9304	ug/L	0.9304	ppb	09:38:23
1	Se 196.026†	-2099.8	-2389.6	-149.47	ug/L	-149.47	ppb	09:38:23
1	Si 251.611†	-557.3	-1172.3	-37.822	ug/L	-37.822	ppb	09:38:23
1	Sn 189.927†	-370.1	-435.2	0.4308	ug/L	0.4308	ppb	09:38:23
1	Ti 334.940†	-10899.6	-10965.1	1.0491	ug/L	1.0491	ppb	09:38:03
1	Tl 190.801†	-115.8	-98.8	-31.017	ug/L	-31.017	ppb	09:38:23
1	U 409.014†	379791.3	440425.4	13779	ug/L	13779	ppb	09:38:03
1	V 292.402†	2074.6	3976.3	1.6304	ug/L	1.6304	ppb	09:38:23
1	Zn 213.857†	5353.2	5428.3	-12.893	ug/L	-12.893	ppb	09:38:23
1	SiO2†	-583.6	-1203.6	-82.813	ug/L	-82.813	ppb	09:39:20
2	Sc Radial	4346.1	4346.1	88.3	%			09:37:46
2	Y RADIAL	4673.7	4673.7	90.12	%			09:37:46
2	Al 396.153Radial†	527255.2	597410.8	518060	ug/L	518060	ppb	09:37:41
2	Ca 317.933Radial†	263926.1	298946.9	468560	ug/L	468560	ppb	09:37:41
2	Fe 238.204 Radial†	42187.5	47776.4	435290	ug/L	435290	ppb	09:37:46
2	K 766.490 Radial†	2673.2	65.1	-343.66	ug/L	-343.66	ppb	09:37:41
2	Mg 279.077 IEC†	12736.1	14425.6	474090	ug/L	474090	ppb	09:37:46
2	Na 589.592 Radial†	1376186.6	1560023.4	508410	ug/L	508410	ppb	09:37:41
2	Sr 421.552†	725.1	807.7	1.7959	ug/L	1.7959	ppb	09:37:46
2	Sc 361.383	709798.8	709798.8	85.841	%			09:38:29
2	Y 371.029	563768.8	563768.8	84.472	%			09:38:29
2	Ag 328.068†	-22111.6	-26055.8	3.5129	ug/L	3.5129	ppb	09:38:29
2	As 188.979†	-182.0	-181.4	23.707	ug/L	23.707	ppb	09:38:49
2	B 249.677†	1107.2	1884.9	-25.827	ug/L	-25.827	ppb	09:38:29
2	Ba 233.527†	-1750.2	-2028.7	-2.8620	ug/L	-2.8620	ppb	09:38:49
2	Be 313.107†	-9340.1	-7180.3	-2.6581	ug/L	-2.6581	ppb	09:38:29
2	Cd 226.502†	2856.7	3544.0	-0.8835	ug/L	-0.8835	ppb	09:38:49
2	Co 228.616†	186.6	300.7	-0.1751	ug/L	-0.1751	ppb	09:38:49
2	Cr 267.716†	-72.2	-150.8	1.1983	ug/L	1.1983	ppb	09:38:49
2	Cu 324.752†	-720.3	-5560.1	-1.7487	ug/L	-1.7487	ppb	09:38:29
2	Mn 257.610†	-22151.5	-26275.1	-5.8514	ug/L	-5.8514	ppb	09:38:29
2	Mo 202.031†	-460.2	-547.9	-1.9124	ug/L	-1.9124	ppb	09:38:49
2	Ni 231.604†	252.1	216.7	5.5502	ug/L	5.5502	ppb	09:38:49

2	P 214.914†	542.7	385.2	7.9412	ug/L	7.9412 ppb	09:38:49
2	Pb 220.353†	-594.5	-625.4	1.1788	ug/L	1.1788 ppb	09:38:49
2	S 181.975 Axial†	80.8	46.4	-33.467	ug/L	-33.467 ppb	09:38:49
2	Sb 206.836†	53.6	27.3	-11.295	ug/L	-11.295 ppb	09:38:49
2	Se 196.026†	-2075.5	-2392.5	-143.91	ug/L	-143.91 ppb	09:38:49
2	Si 251.611†	-535.8	-1155.5	-37.289	ug/L	-37.289 ppb	09:38:49
2	Sn 189.927†	-377.1	-448.8	-2.6386	ug/L	-2.6386 ppb	09:38:49
2	Ti 334.940†	-9721.0	-9753.5	2.2354	ug/L	2.2354 ppb	09:38:29
2	Tl 190.801†	-107.1	-90.5	-28.399	ug/L	-28.399 ppb	09:38:49
2	U 409.014†	376994.9	442788.2	13853	ug/L	13853 ppb	09:38:29
2	V 292.402†	2049.3	3977.6	1.5027	ug/L	1.5027 ppb	09:38:49
2	Zn 213.857†	5321.1	5470.2	-12.840	ug/L	-12.840 ppb	09:38:49
2	SiO2†	-567.6	-1193.6	-82.161	ug/L	-82.161 ppb	09:39:25
3	Sc Radial	4364.5	4364.5	88.7	%		09:37:56
3	Y RADIAL	4657.4	4657.4	89.80	%		09:37:56
3	Al 396.153Radial†	532548.0	600872.9	521070	ug/L	521070 ppb	09:37:51
3	Ca 317.933Radial†	266983.9	301140.5	472000	ug/L	472000 ppb	09:37:51
3	Fe 238.204 Radial†	42012.2	47377.9	431660	ug/L	431660 ppb	09:37:56
3	K 766.490 Radial†	2639.4	14.2	-355.47	ug/L	-355.47 ppb	09:37:51
3	Mg 279.077 IEC†	12701.4	14325.8	470810	ug/L	470810 ppb	09:37:56
3	Na 589.592 Radial†	1394528.1	1574165.9	513020	ug/L	513020 ppb	09:37:51
3	Sr 421.552†	721.8	800.5	1.7229	ug/L	1.7229 ppb	09:37:56
3	Sc 361.383	708806.2	708806.2	85.721	%		09:38:55
3	Y 371.029	563266.0	563266.0	84.396	%		09:38:55
3	Ag 328.068†	-22083.6	-26059.2	2.2669	ug/L	2.2669 ppb	09:38:55
3	As 188.979†	-185.3	-185.5	21.089	ug/L	21.089 ppb	09:39:15
3	B 249.677†	1153.3	1940.4	-23.915	ug/L	-23.915 ppb	09:38:55
3	Ba 233.527†	-1702.4	-1975.7	-2.5511	ug/L	-2.5511 ppb	09:39:15
3	Be 313.107†	-9382.2	-7244.7	-2.6820	ug/L	-2.6820 ppb	09:38:55
3	Cd 226.502†	2870.6	3564.9	-0.2743	ug/L	-0.2743 ppb	09:39:15
3	Co 228.616†	187.3	301.8	-0.1011	ug/L	-0.1011 ppb	09:39:15
3	Cr 267.716†	-68.9	-147.0	1.1934	ug/L	1.1934 ppb	09:39:15
3	Cu 324.752†	-602.3	-5423.6	-1.4915	ug/L	-1.4915 ppb	09:38:55
3	Mn 257.610†	-22081.9	-26230.0	-6.0253	ug/L	-6.0253 ppb	09:38:55
3	Mo 202.031†	-468.4	-558.3	-2.9329	ug/L	-2.9329 ppb	09:39:15
3	Ni 231.604†	279.2	248.7	6.3698	ug/L	6.3698 ppb	09:39:15
3	P 214.914†	549.4	393.9	16.663	ug/L	16.663 ppb	09:39:15
3	Pb 220.353†	-580.3	-609.8	4.1371	ug/L	4.1371 ppb	09:39:15
3	S 181.975 Axial†	97.8	66.3	-6.6177	ug/L	-6.6177 ppb	09:39:15
3	Sb 206.836†	62.1	37.4	-7.8263	ug/L	-7.8263 ppb	09:39:15
3	Se 196.026†	-2083.7	-2405.4	-163.93	ug/L	-163.93 ppb	09:39:15
3	Si 251.611†	-521.3	-1139.5	-36.756	ug/L	-36.756 ppb	09:39:15
3	Sn 189.927†	-370.5	-441.7	-0.8899	ug/L	-0.8899 ppb	09:39:15
3	Ti 334.940†	-9805.4	-9867.7	2.8037	ug/L	2.8037 ppb	09:38:55
3	Tl 190.801†	-94.4	-75.8	-23.856	ug/L	-23.856 ppb	09:39:15
3	U 409.014†	374999.0	441074.9	13800	ug/L	13800 ppb	09:38:55
3	V 292.402†	2005.3	3929.6	1.4960	ug/L	1.4960 ppb	09:39:15
3	Zn 213.857†	5307.0	5462.4	-12.378	ug/L	-12.378 ppb	09:39:15
3	SiO2†	-629.6	-1266.9	-87.251	ug/L	-87.251 ppb	09:39:30

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	712512.3	86.170	%	0.6750				0.78%
Sc Radial	4343.2	88.2	%	0.47				0.53%
Y 371.029	566411.5	84.868	%	0.7520				0.89%
Y RADIAL	4646.5	89.59	%	0.654				0.73%
Ag 328.068†	-26012.5	3.0519	ug/L	0.68325	3.0519	ppb	0.68325	22.39%
Al 396.153Radial†	599421.8	519810	ug/L	1558.9	519810	ppb	1558.9	0.30%
QC value within limits for Al 396.153Radial Recovery = 103.96%								
As 188.979†	-185.8	21.346	ug/L	2.2441	21.346	ppb	2.2441	10.51%
B 249.677†	1874.8	-25.745	ug/L	1.7901	-25.745	ppb	1.7901	6.95%
Ba 233.527†	-2009.2	-2.7678	ug/L	0.18826	-2.7678	ppb	0.18826	6.80%
Be 313.107†	-7167.7	-2.6551	ug/L	0.02851	-2.6551	ppb	0.02851	1.07%
Ca 317.933Radial†	300570.3	471110	ug/L	2235.9	471110	ppb	2235.9	0.47%
QC value within limits for Ca 317.933Radial Recovery = 94.22%								
Cd 226.502†	3552.6	-0.5859	ug/L	0.30482	-0.5859	ppb	0.30482	52.03%
Co 228.616†	322.5	0.3012	ug/L	0.76177	0.3012	ppb	0.76177	252.89%
Cr 267.716†	-155.7	1.1178	ug/L	0.13531	1.1178	ppb	0.13531	12.11%
Cu 324.752†	-5542.4	-1.7759	ug/L	0.29893	-1.7759	ppb	0.29893	16.83%

Fe 238.204 Radial†	47558.5	433310	ug/L	1838.8	433310	ppb	1838.8	0.42%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.66%								
K 766.490 Radial†	41.2	-349.80	ug/L	5.923	-349.80	ppb	5.923	1.69%
Mg 279.077 IEC†	14370.7	472280	ug/L	1663.0	472280	ppb	1663.0	0.35%
QC value within limits for Mg 279.077 IEC Recovery = 94.46%								
Mn 257.610†	-26326.8	-6.0316	ug/L	0.18341	-6.0316	ppb	0.18341	3.04%
Mo 202.031†	-557.8	-2.7810	ug/L	0.80355	-2.7810	ppb	0.80355	28.89%
Na 589.592 Radial†	1569001.2	511330	ug/L	2543.4	511330	ppb	2543.4	0.50%
QC value within limits for Na 589.592 Radial Recovery = 102.27%								
Ni 231.604†	227.5	5.8256	ug/L	0.47128	5.8256	ppb	0.47128	8.09%
P 214.914†	394.2	15.248	ug/L	6.7126	15.248	ppb	6.7126	44.02%
Pb 220.353†	-625.2	1.8075	ug/L	2.08752	1.8075	ppb	2.08752	115.49%
S 181.975 Axial†	56.3	-20.189	ug/L	13.4271	-20.189	ppb	13.4271	66.51%
Sb 206.836†	42.4	-6.0635	ug/L	6.30024	-6.0635	ppb	6.30024	103.90%
Se 196.026†	-2395.8	-152.44	ug/L	10.337	-152.44	ppb	10.337	6.78%
Si 251.611†	-1155.8	-37.289	ug/L	0.5330	-37.289	ppb	0.5330	1.43%
Sn 189.927†	-441.9	-1.0325	ug/L	1.53968	-1.0325	ppb	1.53968	149.12%
Sr 421.552†	820.2	1.8584	ug/L	0.17538	1.8584	ppb	0.17538	9.44%
Ti 334.940†	-10195.5	2.0294	ug/L	0.89527	2.0294	ppb	0.89527	44.12%
Tl 190.801†	-88.4	-27.757	ug/L	3.6234	-27.757	ppb	3.6234	13.05%
U 409.014†	441429.5	13811	ug/L	38.2	13811	ppb	38.2	0.28%
QC value within limits for U 409.014 Recovery = 92.07%								
V 292.402†	3961.1	1.5430	ug/L	0.07571	1.5430	ppb	0.07571	4.91%
Zn 213.857†	5453.6	-12.704	ug/L	0.2835	-12.704	ppb	0.2835	2.23%
SiO2†	-1221.4	-84.075	ug/L	2.7698	-84.075	ppb	2.7698	3.29%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/12/2010 09:41:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4784.3	4784.3	97.2	%			09:43:39
1	Y RADIAL	5044.7	5044.7	97.27	%			09:43:39
1	Al 396.153Radial†	364.8	538.6	14.265	ug/L	14.265	ppb	09:43:39
1	Ca 317.933Radial†	31.9	17.8	27.930	ug/L	27.930	ppb	09:43:59
1	Fe 238.204 Radial†	-19.9	-31.9	-26.538	ug/L	-26.538	ppb	09:43:59
1	K 766.490 Radial†	1576632.3	1619392.7	282330	ug/L	282330	ppb	09:43:34
1	Mg 279.077 IEC†	-4.0	-5.3	-76.932	ug/L	-76.932	ppb	09:43:59
1	Na 589.592 Radial†	-651.1	480.3	156.51	ug/L	156.51	ppb	09:43:39
1	Sr 421.552†	1406909.8	1447697.5	9489.5	ug/L	9489.5	ppb	09:43:34
1	Sc 361.383	816218.0	816218.0	98.711	%			09:45:16
1	Y 371.029	643255.1	643255.1	96.381	%			09:45:16
1	Ag 328.068†	-7092.9	-7482.6	2.9783	ug/L	2.9783	ppb	09:45:21
1	As 188.979†	20935.2	21239.1	9221.0	ug/L	9221.0	ppb	09:45:21
1	B 249.677†	201260.7	204482.9	4843.7	ug/L	4843.7	ppb	09:45:16
1	Ba 233.527†	1637759.2	1659148.4	13247	ug/L	13247	ppb	09:45:16
1	Be 313.107†	7482874.8	7584255.1	2792.4	ug/L	2792.4	ppb	09:45:10
1	Cd 226.502†	776072.3	786419.0	9185.7	ug/L	9185.7	ppb	09:45:16
1	Co 228.616†	424171.5	429791.9	8833.3	ug/L	8833.3	ppb	09:45:21
1	Cr 267.716†	1915576.1	1940515.0	23076	ug/L	23076	ppb	09:45:16
1	Cu 324.752†	6338348.4	6416366.9	19724	ug/L	19724	ppb	09:45:10
1	Mn 257.610†	8042204.4	8146715.7	9128.3	ug/L	9128.3	ppb	09:45:10
1	Mo 202.031†	122353.0	123938.3	9336.8	ug/L	9336.8	ppb	09:45:21
1	Ni 231.604†	349954.3	354445.5	9078.9	ug/L	9078.9	ppb	09:45:21
1	P 214.914†	28873.6	29003.5	13245	ug/L	13245	ppb	09:45:21
1	Pb 220.353†	185074.1	187557.2	23003	ug/L	23003	ppb	09:45:21
1	S 181.975 Axial†	36028.9	36451.4	50020	ug/L	50020	ppb	09:45:21
1	Sb 206.836†	29102.3	29447.0	10586	ug/L	10586	ppb	09:45:21
1	Se 196.026†	14560.3	14775.8	9683.8	ug/L	9683.8	ppb	09:45:21
1	Si 251.611†	1398652.5	1416378.9	46216	ug/L	46216	ppb	09:45:16
1	Sn 189.927†	52768.9	53448.3	9665.9	ug/L	9665.9	ppb	09:45:21
1	Ti 334.940†	6064971.4	6145713.2	9913.5	ug/L	9913.5	ppb	09:45:10
1	Tl 190.801†	28687.3	29096.1	9089.6	ug/L	9089.6	ppb	09:45:21
1	U 409.014†	-2145.6	1438.4	-6.4134	ug/L	-6.4134	ppb	09:45:21
1	V 292.402†	1281794.7	1300117.2	9818.8	ug/L	9818.8	ppb	09:45:16
1	Zn 213.857†	1373108.5	1390304.1	13212	ug/L	13212	ppb	09:45:16
1	SiO2†	1387776.2	1405359.6	97804	ug/L	97804	ppb	09:46:07
2	Sc Radial	4807.9	4807.9	97.7	%			09:44:09
2	Y RADIAL	5061.6	5061.6	97.59	%			09:44:09
2	Al 396.153Radial†	366.8	538.8	10.421	ug/L	10.421	ppb	09:44:09
2	Ca 317.933Radial†	27.3	13.0	20.298	ug/L	20.298	ppb	09:44:29
2	Fe 238.204 Radial†	-17.1	-29.0	2.6116	ug/L	2.6116	ppb	09:44:29
2	K 766.490 Radial†	1598583.9	1633933.8	284870	ug/L	284870	ppb	09:44:04
2	Mg 279.077 IEC†	-3.6	-4.9	-61.119	ug/L	-61.119	ppb	09:44:29
2	Na 589.592 Radial†	-587.2	548.9	178.89	ug/L	178.89	ppb	09:44:09
2	Sr 421.552†	1426659.8	1460838.5	9575.6	ug/L	9575.6	ppb	09:44:04
2	Sc 361.383	821930.6	821930.6	99.402	%			09:45:36
2	Y 371.029	647690.1	647690.1	97.046	%			09:45:36
2	Ag 328.068†	-7065.5	-7405.1	3.3346	ug/L	3.3346	ppb	09:45:41
2	As 188.979†	21366.4	21525.5	9343.8	ug/L	9343.8	ppb	09:45:41
2	B 249.677†	203037.4	204853.3	4852.3	ug/L	4852.3	ppb	09:45:36
2	Ba 233.527†	1646359.2	1656268.8	13224	ug/L	13224	ppb	09:45:36
2	Be 313.107†	7488049.7	7536774.5	2774.9	ug/L	2774.9	ppb	09:45:30
2	Cd 226.502†	779953.5	784859.3	9167.5	ug/L	9167.5	ppb	09:45:36
2	Co 228.616†	430524.1	433196.1	8903.6	ug/L	8903.6	ppb	09:45:41
2	Cr 267.716†	1926327.6	1937843.7	23044	ug/L	23044	ppb	09:45:36
2	Cu 324.752†	6342262.4	6375676.6	19599	ug/L	19599	ppb	09:45:30
2	Mn 257.610†	8056795.6	8104770.0	9081.3	ug/L	9081.3	ppb	09:45:30
2	Mo 202.031†	124312.6	125048.2	9420.4	ug/L	9420.4	ppb	09:45:41
2	Ni 231.604†	355726.5	357788.4	9164.5	ug/L	9164.5	ppb	09:45:41

2	P 214.914†	29318.6	29247.8	13414	ug/L	13414 ppb	09:45:41
2	Pb 220.353†	187914.3	189111.4	23194	ug/L	23194 ppb	09:45:41
2	S 181.975 Axial†	36771.3	36944.6	50696	ug/L	50696 ppb	09:45:41
2	Sb 206.836†	29638.3	29781.4	10705	ug/L	10705 ppb	09:45:41
2	Se 196.026†	14865.3	14980.0	9817.6	ug/L	9817.6 ppb	09:45:41
2	Si 251.611†	1407922.3	1415856.6	46198	ug/L	46198 ppb	09:45:36
2	Sn 189.927†	53621.1	53934.1	9753.8	ug/L	9753.8 ppb	09:45:41
2	Ti 334.940†	6073187.5	6111275.5	9858.0	ug/L	9858.0 ppb	09:45:30
2	Tl 190.801†	29228.0	29438.1	9194.7	ug/L	9194.7 ppb	09:45:41
2	U 409.014†	-2193.4	1405.4	-7.3812	ug/L	-7.3812 ppb	09:45:41
2	V 292.402†	1289839.1	1299184.9	9813.1	ug/L	9813.1 ppb	09:45:36
2	Zn 213.857†	1381100.5	1388676.2	13196	ug/L	13196 ppb	09:45:36
2	SiO2†	1420789.8	1428800.5	99437	ug/L	99437 ppb	09:46:13
3	Sc Radial	4852.8	4852.8	98.6	%		09:44:40
3	Y RADIAL	5097.6	5097.6	98.29	%		09:44:40
3	Al 396.153Radial†	402.2	571.3	37.219	ug/L	37.219 ppb	09:44:40
3	Ca 317.933Radial†	39.7	25.3	39.663	ug/L	39.663 ppb	09:45:00
3	Fe 238.204 Radial†	-18.8	-30.5	-11.005	ug/L	-11.005 ppb	09:45:00
3	K 766.490 Radial†	1609627.3	1629975.5	284180	ug/L	284180 ppb	09:44:35
3	Mg 279.077 IEC†	-5.8	-7.1	-135.53	ug/L	-135.53 ppb	09:45:00
3	Na 589.592 Radial†	-584.6	557.2	181.59	ug/L	181.59 ppb	09:44:40
3	Sr 421.552†	1436930.3	1457726.8	9555.2	ug/L	9555.2 ppb	09:44:35
3	Sc 361.383	813967.4	813967.4	98.439	%		09:45:56
3	Y 371.029	642105.4	642105.4	96.209	%		09:45:56
3	Ag 328.068†	-7011.5	-7419.8	3.2602	ug/L	3.2602 ppb	09:46:01
3	As 188.979†	21211.6	21578.6	9366.5	ug/L	9366.5 ppb	09:46:01
3	B 249.677†	200887.8	204667.9	4847.8	ug/L	4847.8 ppb	09:45:56
3	Ba 233.527†	1631138.2	1657009.9	13230	ug/L	13230 ppb	09:45:56
3	Be 313.107†	7391300.0	7512188.4	2765.9	ug/L	2765.9 ppb	09:45:49
3	Cd 226.502†	771759.4	784211.6	9159.9	ug/L	9159.9 ppb	09:45:56
3	Co 228.616†	427589.7	434452.4	8929.5	ug/L	8929.5 ppb	09:46:01
3	Cr 267.716†	1908408.4	1938599.3	23053	ug/L	23053 ppb	09:45:56
3	Cu 324.752†	6266896.1	6361535.9	19556	ug/L	19556 ppb	09:45:49
3	Mn 257.610†	7966540.4	8092378.8	9067.4	ug/L	9067.4 ppb	09:45:49
3	Mo 202.031†	123475.8	125421.6	9448.5	ug/L	9448.5 ppb	09:46:01
3	Ni 231.604†	352660.7	358175.0	9174.4	ug/L	9174.4 ppb	09:46:01
3	P 214.914†	29087.8	29302.0	13455	ug/L	13455 ppb	09:46:01
3	Pb 220.353†	186478.2	189502.0	23242	ug/L	23242 ppb	09:46:01
3	S 181.975 Axial†	36581.8	37114.1	50929	ug/L	50929 ppb	09:46:01
3	Sb 206.836†	29356.5	29786.8	10708	ug/L	10708 ppb	09:46:01
3	Se 196.026†	14689.9	14948.2	9796.8	ug/L	9796.8 ppb	09:46:01
3	Si 251.611†	1392768.8	1414319.6	46148	ug/L	46148 ppb	09:45:56
3	Sn 189.927†	53254.5	54089.3	9781.9	ug/L	9781.9 ppb	09:46:01
3	Ti 334.940†	6004707.4	6101482.0	9842.1	ug/L	9842.1 ppb	09:45:49
3	Tl 190.801†	28950.3	29443.6	9196.1	ug/L	9196.1 ppb	09:46:01
3	U 409.014†	-1938.4	1642.8	0.0546	ug/L	0.0546 ppb	09:46:01
3	V 292.402†	1277595.2	1299441.5	9815.5	ug/L	9815.5 ppb	09:45:56
3	Zn 213.857†	1367584.0	1388538.2	13194	ug/L	13194 ppb	09:45:56
3	SiO2†	1409095.8	1430904.4	99583	ug/L	99583 ppb	09:46:19

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	817372.0	98.851	%	0.4965				0.50%
Sc Radial	4815.0	97.8	%	0.71				0.72%
Y 371.029	644350.2	96.545	%	0.4419				0.46%
Y RADIAL	5068.0	97.72	%	0.521				0.53%
Ag 328.068†	-7435.8	3.1910	ug/L	0.18797	3.1910	ppb	0.18797	5.89%
Al 396.153Radial†	549.6	20.635	ug/L	14.4900	20.635	ppb	14.4900	70.22%
As 188.979†	21447.7	9310.4	ug/L	78.28	9310.4	ppb	78.28	0.84%
QC value within limits for As 188.979 Recovery = 93.10%								
B 249.677†	204668.0	4847.9	ug/L	4.31	4847.9	ppb	4.31	0.09%
QC value within limits for B 249.677 Recovery = 96.96%								
Ba 233.527†	1657475.7	13234	ug/L	11.9	13234	ppb	11.9	0.09%
QC value less than the lower limit for Ba 233.527 Recovery = 88.22%								
Be 313.107†	7544406.0	2777.7	ug/L	13.46	2777.7	ppb	13.46	0.48%
QC value within limits for Be 313.107 Recovery = 92.59%								
Ca 317.933Radial†	18.7	29.297	ug/L	9.7545	29.297	ppb	9.7545	33.30%
Cd 226.502†	785163.3	9171.0	ug/L	13.21	9171.0	ppb	13.21	0.14%
QC value within limits for Cd 226.502 Recovery = 91.71%								

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Co 228.616†          432480.1      8888.8 ug/L        49.79      8888.8 ppb        49.79   0.56%
   QC value less than the lower limit for Co 228.616  Recovery = 88.89%
Cr 267.716†         1938986.0       23057 ug/L         16.4       23057 ppb         16.4   0.07%
   QC value within limits for Cr 267.716  Recovery = 92.23%
Cu 324.752†         6384526.5       19627 ug/L         87.5       19627 ppb         87.5   0.45%
   QC value within limits for Cu 324.752  Recovery = 98.13%
Fe 238.204 Radial†      -30.5     -11.644 ug/L      14.5853     -11.644 ppb      14.5853 125.26%
K 766.490 Radial†   1627767.4      283790 ug/L       1310.7      283790 ppb       1310.7   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 94.60%
Mg 279.077 IEC†         -5.8     -91.195 ug/L      39.2045     -91.195 ppb      39.2045  42.99%
Mn 257.610†         8114621.5      9092.4 ug/L        31.91      9092.4 ppb        31.91   0.35%
   QC value within limits for Mn 257.610  Recovery = 90.92%
Mo 202.031†          124802.7      9401.9 ug/L        58.12      9401.9 ppb        58.12   0.62%
   QC value within limits for Mo 202.031  Recovery = 94.02%
Na 589.592 Radial†      528.8      172.33 ug/L       13.766      172.33 ppb       13.766   7.99%
Ni 231.604†          356803.0      9139.2 ug/L        52.53      9139.2 ppb        52.53   0.57%
   QC value within limits for Ni 231.604  Recovery = 91.39%
P 214.914†            29184.4       13371 ug/L        111.5       13371 ppb        111.5   0.83%
   QC value less than the lower limit for P 214.914  Recovery = 89.14%
Pb 220.353†          188723.5       23146 ug/L        126.3       23146 ppb        126.3   0.55%
   QC value within limits for Pb 220.353  Recovery = 92.58%
S 181.975 Axial†      36836.7       50548 ug/L        472.4       50548 ppb        472.4   0.93%
   QC value within limits for S 181.975 Axial  Recovery = 101.10%
Sb 206.836†           29671.7       10666 ug/L         69.9       10666 ppb         69.9   0.66%
   QC value within limits for Sb 206.836  Recovery = 106.66%
Se 196.026†           14901.3      9766.1 ug/L        72.03      9766.1 ppb        72.03   0.74%
   QC value within limits for Se 196.026  Recovery = 97.66%
Si 251.611†         1415518.4       46187 ug/L         35.6       46187 ppb         35.6   0.08%
   QC value within limits for Si 251.611  Recovery = 92.37%
Sn 189.927†           53823.9      9733.9 ug/L        60.48      9733.9 ppb        60.48   0.62%
   QC value within limits for Sn 189.927  Recovery = 97.34%
Sr 421.552†         1455421.0      9540.1 ug/L        45.01      9540.1 ppb        45.01   0.47%
   QC value within limits for Sr 421.552  Recovery = 95.40%
Ti 334.940†         6119490.3      9871.2 ug/L        37.50      9871.2 ppb        37.50   0.38%
   QC value within limits for Ti 334.940  Recovery = 98.71%
Tl 190.801†           29325.9      9160.1 ug/L        61.05      9160.1 ppb        61.05   0.67%
   QC value within limits for Tl 190.801  Recovery = 91.60%
U 409.014†             1495.5     -4.5800 ug/L      4.04272     -4.5800 ppb      4.04272  88.27%
V 292.402†          1299581.2      9815.8 ug/L        2.87      9815.8 ppb         2.87   0.03%
   QC value within limits for V 292.402  Recovery = 98.16%
Zn 213.857†         1389172.8       13200 ug/L         9.6       13200 ppb         9.6   0.07%
   QC value less than the lower limit for Zn 213.857  Recovery = 88.00%
SiO2†               1421688.1       98941 ug/L        987.8       98941 ppb        987.8   1.00%
   QC value within limits for SiO2  Recovery = 92.47%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 09:48:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4854.8	4854.8	98.6	%			09:50:22
1	Y RADIAL	5145.9	5145.9	99.22	%			09:50:22
1	Al 396.153Radial†	5596.1	5838.0	5039.4	ug/L	5039.4	ppb	09:50:22
1	Ca 317.933Radial†	3207.9	3238.0	5075.2	ug/L	5075.2	ppb	09:50:42
1	Fe 238.204 Radial†	560.2	556.7	5086.4	ug/L	5086.4	ppb	09:50:42
1	K 766.490 Radial†	31530.5	29010.9	5051.8	ug/L	5051.8	ppb	09:50:22
1	Mg 279.077 IEC†	159.1	160.2	5268.7	ug/L	5268.7	ppb	09:50:42
1	Na 589.592 Radial†	29469.8	31034.4	10114	ug/L	10114	ppb	09:50:22
1	Sr 421.552†	75105.7	76148.2	499.11	ug/L	499.11	ppb	09:50:22
1	Sc 361.383	860698.1	860698.1	104.09	%			09:51:39
1	Y 371.029	681458.8	681458.8	102.11	%			09:51:39
1	Ag 328.068†	103232.8	98878.6	480.70	ug/L	480.70	ppb	09:51:44
1	As 188.979†	1173.2	1157.8	503.36	ug/L	503.36	ppb	09:52:04
1	B 249.677†	21779.8	21518.9	510.19	ug/L	510.19	ppb	09:51:44
1	Ba 233.527†	62486.0	60040.6	479.81	ug/L	479.81	ppb	09:51:44
1	Be 313.107†	1372038.7	1321818.1	483.83	ug/L	483.83	ppb	09:51:39
1	Cd 226.502†	42293.2	40847.2	476.68	ug/L	476.68	ppb	09:51:44
1	Co 228.616†	24116.1	23251.7	478.10	ug/L	478.10	ppb	09:51:44
1	Cr 267.716†	41927.3	40212.9	478.49	ug/L	478.49	ppb	09:51:44
1	Cu 324.752†	168070.5	156744.4	481.84	ug/L	481.84	ppb	09:51:44
1	Mn 257.610†	451024.2	432829.1	485.27	ug/L	485.27	ppb	09:51:39
1	Mo 202.031†	6632.3	6359.8	479.56	ug/L	479.56	ppb	09:52:04
1	Ni 231.604†	19421.2	18580.9	475.93	ug/L	475.93	ppb	09:51:44
1	P 214.914†	4461.8	4039.4	2283.6	ug/L	2283.6	ppb	09:52:04
1	Pb 220.353†	4005.9	3915.6	481.58	ug/L	481.58	ppb	09:52:04
1	S 181.975 Axial†	784.0	705.4	967.06	ug/L	967.06	ppb	09:52:04
1	Sb 206.836†	1502.8	1408.7	507.18	ug/L	507.18	ppb	09:52:04
1	Se 196.026†	760.1	755.7	511.80	ug/L	511.80	ppb	09:52:04
1	Si 251.611†	76875.5	73323.0	2392.6	ug/L	2392.6	ppb	09:51:44
1	Sn 189.927†	2766.8	2648.5	479.83	ug/L	479.83	ppb	09:52:04
1	Ti 334.940†	306506.0	296031.3	477.79	ug/L	477.79	ppb	09:51:44
1	Tl 190.801†	1588.6	1560.5	487.09	ug/L	487.09	ppb	09:52:04
1	U 409.014†	12565.8	15683.9	490.80	ug/L	490.80	ppb	09:51:44
1	V 292.402†	65031.5	64065.9	484.67	ug/L	484.67	ppb	09:51:44
1	Zn 213.857†	52723.5	49922.8	472.99	ug/L	472.99	ppb	09:51:44
1	SiO2†	77016.8	73457.7	5112.4	ug/L	5112.4	ppb	09:53:12
2	Sc Radial	5019.9	5019.9	102	%			09:50:47
2	Y RADIAL	5284.3	5284.3	101.9	%			09:50:47
2	Al 396.153Radial†	5725.1	5778.0	4987.1	ug/L	4987.1	ppb	09:50:47
2	Ca 317.933Radial†	3212.3	3135.4	4914.4	ug/L	4914.4	ppb	09:51:07
2	Fe 238.204 Radial†	560.1	537.9	4915.6	ug/L	4915.6	ppb	09:51:07
2	K 766.490 Radial†	32342.7	28756.2	5007.4	ug/L	5007.4	ppb	09:50:47
2	Mg 279.077 IEC†	155.1	150.9	4963.7	ug/L	4963.7	ppb	09:51:07
2	Na 589.592 Radial†	30157.4	30726.2	10014	ug/L	10014	ppb	09:50:47
2	Sr 421.552†	77255.0	75751.9	496.51	ug/L	496.51	ppb	09:50:47
2	Sc 361.383	848031.7	848031.7	102.56	%			09:52:10
2	Y 371.029	670353.3	670353.3	100.44	%			09:52:10
2	Ag 328.068†	103605.3	100723.2	489.58	ug/L	489.58	ppb	09:52:15
2	As 188.979†	1146.6	1148.6	499.45	ug/L	499.45	ppb	09:52:35
2	B 249.677†	21869.4	21918.8	519.71	ug/L	519.71	ppb	09:52:15
2	Ba 233.527†	62740.5	61185.4	488.95	ug/L	488.95	ppb	09:52:15
2	Be 313.107†	1348044.2	1318110.0	482.50	ug/L	482.50	ppb	09:52:10
2	Cd 226.502†	42443.7	41600.7	485.51	ug/L	485.51	ppb	09:52:15
2	Co 228.616†	24250.2	23728.5	487.89	ug/L	487.89	ppb	09:52:15
2	Cr 267.716†	42015.0	40900.1	486.66	ug/L	486.66	ppb	09:52:15
2	Cu 324.752†	168658.2	159729.1	491.00	ug/L	491.00	ppb	09:52:15
2	Mn 257.610†	445099.6	433524.2	486.04	ug/L	486.04	ppb	09:52:10
2	Mo 202.031†	6592.3	6416.0	483.78	ug/L	483.78	ppb	09:52:35
2	Ni 231.604†	19572.4	19007.0	486.84	ug/L	486.84	ppb	09:52:15

2	P 214.914†	4423.6	4066.1	2297.7 ug/L	2297.7 ppb	09:52:35
2	Pb 220.353†	3944.7	3913.4	481.32 ug/L	481.32 ppb	09:52:35
2	S 181.975 Axial†	770.8	703.8	964.82 ug/L	964.82 ppb	09:52:35
2	Sb 206.836†	1486.1	1413.9	509.14 ug/L	509.14 ppb	09:52:35
2	Se 196.026†	733.8	740.9	501.62 ug/L	501.62 ppb	09:52:35
2	Si 251.611†	77238.3	74779.8	2440.2 ug/L	2440.2 ppb	09:52:15
2	Sn 189.927†	2739.5	2661.7	482.18 ug/L	482.18 ppb	09:52:35
2	Ti 334.940†	307655.1	301549.8	486.69 ug/L	486.69 ppb	09:52:15
2	Tl 190.801†	1585.4	1580.1	493.20 ug/L	493.20 ppb	09:52:35
2	U 409.014†	12712.1	16006.9	500.94 ug/L	500.94 ppb	09:52:15
2	V 292.402†	65256.2	65218.2	493.35 ug/L	493.35 ppb	09:52:15
2	Zn 213.857†	52973.0	50922.7	482.49 ug/L	482.49 ppb	09:52:15
2	SiO2†	77058.4	74603.4	5192.2 ug/L	5192.2 ppb	09:53:17
3	Sc Radial	4970.9	4970.9	101 %		09:51:12
3	Y RADIAL	5246.5	5246.5	101.2 %		09:51:12
3	Al 396.153Radial†	5686.4	5794.9	5001.9 ug/L	5001.9 ppb	09:51:12
3	Ca 317.933Radial†	3199.7	3154.0	4943.5 ug/L	4943.5 ppb	09:51:32
3	Fe 238.204 Radial†	551.2	534.5	4883.8 ug/L	4883.8 ppb	09:51:32
3	K 766.490 Radial†	31711.7	28443.6	4952.9 ug/L	4952.9 ppb	09:51:12
3	Mg 279.077 IEC†	160.0	157.3	5173.4 ug/L	5173.4 ppb	09:51:32
3	Na 589.592 Radial†	29854.5	30717.5	10011 ug/L	10011 ppb	09:51:12
3	Sr 421.552†	76303.9	75556.1	495.23 ug/L	495.23 ppb	09:51:12
3	Sc 361.383	856742.6	856742.6	103.61 %		09:52:41
3	Y 371.029	677646.3	677646.3	101.53 %		09:52:41
3	Ag 328.068†	102962.2	99075.3	481.59 ug/L	481.59 ppb	09:52:46
3	As 188.979†	1162.0	1152.1	500.88 ug/L	500.88 ppb	09:53:06
3	B 249.677†	21628.0	21469.0	509.03 ug/L	509.03 ppb	09:52:46
3	Ba 233.527†	62264.8	60104.3	480.32 ug/L	480.32 ppb	09:52:46
3	Be 313.107†	1362409.8	1318610.4	482.66 ug/L	482.66 ppb	09:52:41
3	Cd 226.502†	42071.4	40820.7	476.40 ug/L	476.40 ppb	09:52:46
3	Co 228.616†	24078.9	23322.8	479.56 ug/L	479.56 ppb	09:52:46
3	Cr 267.716†	41748.6	40226.4	478.65 ug/L	478.65 ppb	09:52:46
3	Cu 324.752†	168116.6	157534.4	484.26 ug/L	484.26 ppb	09:52:46
3	Mn 257.610†	448846.2	432727.6	485.14 ug/L	485.14 ppb	09:52:41
3	Mo 202.031†	6616.5	6373.9	480.61 ug/L	480.61 ppb	09:53:06
3	Ni 231.604†	19429.0	18674.6	478.33 ug/L	478.33 ppb	09:52:46
3	P 214.914†	4459.0	4056.5	2293.3 ug/L	2293.3 ppb	09:53:06
3	Pb 220.353†	3981.3	3909.6	480.86 ug/L	480.86 ppb	09:53:06
3	S 181.975 Axial†	778.0	703.1	963.91 ug/L	963.91 ppb	09:53:06
3	Sb 206.836†	1509.9	1422.1	511.87 ug/L	511.87 ppb	09:53:06
3	Se 196.026†	753.6	752.7	509.24 ug/L	509.24 ppb	09:53:06
3	Si 251.611†	76667.5	73463.2	2397.2 ug/L	2397.2 ppb	09:52:46
3	Sn 189.927†	2748.7	2643.4	478.89 ug/L	478.89 ppb	09:53:06
3	Ti 334.940†	305529.3	296448.1	478.45 ug/L	478.45 ppb	09:52:46
3	Tl 190.801†	1581.2	1560.4	487.07 ug/L	487.07 ppb	09:53:06
3	U 409.014†	12497.9	15674.1	490.52 ug/L	490.52 ppb	09:52:46
3	V 292.402†	64821.0	64151.2	485.34 ug/L	485.34 ppb	09:52:46
3	Zn 213.857†	52612.6	50049.7	474.21 ug/L	474.21 ppb	09:52:46
3	SiO2†	76200.1	73011.1	5081.2 ug/L	5081.2 ppb	09:53:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855157.5	103.42	%	0.784				0.76%
Sc Radial	4948.5	101	%	1.7				1.71%
Y 371.029	676486.1	101.36	%	0.845				0.83%
Y RADIAL	5225.5	100.8	%	1.38				1.37%
Ag 328.068†	99559.0	483.95	ug/L	4.891	483.95	ppb	4.891	1.01%
QC value within limits for Ag 328.068 Recovery = 96.79%								
Al 396.153Radial†	5803.6	5009.5	ug/L	26.93	5009.5	ppb	26.93	0.54%
QC value within limits for Al 396.153Radial Recovery = 100.19%								
As 188.979†	1152.8	501.23	ug/L	1.977	501.23	ppb	1.977	0.39%
QC value within limits for As 188.979 Recovery = 100.25%								
B 249.677†	21635.6	512.97	ug/L	5.861	512.97	ppb	5.861	1.14%
QC value within limits for B 249.677 Recovery = 102.59%								
Ba 233.527†	60443.4	483.03	ug/L	5.138	483.03	ppb	5.138	1.06%
QC value within limits for Ba 233.527 Recovery = 96.61%								
Be 313.107†	1319512.9	483.00	ug/L	0.727	483.00	ppb	0.727	0.15%
QC value within limits for Be 313.107 Recovery = 96.60%								
Ca 317.933Radial†	3175.8	4977.7	ug/L	85.70	4977.7	ppb	85.70	1.72%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.55%
Cd 226.502†            41089.5      479.53 ug/L         5.179      479.53 ppb          5.179   1.08%
   QC value within limits for Cd 226.502  Recovery = 95.91%
Co 228.616†            23434.3      481.85 ug/L         5.284      481.85 ppb          5.284   1.10%
   QC value within limits for Co 228.616  Recovery = 96.37%
Cr 267.716†            40446.5      481.26 ug/L         4.673      481.26 ppb          4.673   0.97%
   QC value within limits for Cr 267.716  Recovery = 96.25%
Cu 324.752†           158002.6      485.70 ug/L         4.747      485.70 ppb          4.747   0.98%
   QC value within limits for Cu 324.752  Recovery = 97.14%
Fe 238.204 Radial†       543.0      4961.9 ug/L        108.97      4961.9 ppb         108.97   2.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.24%
K 766.490 Radial†      28736.9      5004.0 ug/L         49.50      5004.0 ppb          49.50   0.99%
   QC value within limits for K 766.490 Radial  Recovery = 100.08%
Mg 279.077 IEC†          156.1      5135.3 ug/L        156.02      5135.3 ppb         156.02   3.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.71%
Mn 257.610†           433027.0      485.48 ug/L         0.489      485.48 ppb          0.489   0.10%
   QC value within limits for Mn 257.610  Recovery = 97.10%
Mo 202.031†             6383.2      481.32 ug/L         2.197      481.32 ppb          2.197   0.46%
   QC value within limits for Mo 202.031  Recovery = 96.26%
Na 589.592 Radial†     30826.1       10046 ug/L          58.8       10046 ppb           58.8   0.59%
   QC value within limits for Na 589.592 Radial  Recovery = 100.46%
Ni 231.604†            18754.2      480.36 ug/L         5.736      480.36 ppb          5.736   1.19%
   QC value within limits for Ni 231.604  Recovery = 96.07%
P 214.914†              4054.0      2291.5 ug/L          7.20      2291.5 ppb           7.20   0.31%
   QC value within limits for P 214.914  Recovery = 91.66%
Pb 220.353†             3912.9      481.25 ug/L         0.366      481.25 ppb          0.366   0.08%
   QC value within limits for Pb 220.353  Recovery = 96.25%
S 181.975 Axial†         704.1      965.27 ug/L         1.621      965.27 ppb          1.621   0.17%
   QC value within limits for S 181.975 Axial  Recovery = 96.53%
Sb 206.836†             1414.9      509.40 ug/L         2.355      509.40 ppb          2.355   0.46%
   QC value within limits for Sb 206.836  Recovery = 101.88%
Se 196.026†              749.8      507.55 ug/L         5.299      507.55 ppb          5.299   1.04%
   QC value within limits for Se 196.026  Recovery = 101.51%
Si 251.611†            73855.4      2410.0 ug/L         26.26      2410.0 ppb          26.26   1.09%
   QC value within limits for Si 251.611  Recovery = 96.40%
Sn 189.927†             2651.2      480.30 ug/L         1.695      480.30 ppb          1.695   0.35%
   QC value within limits for Sn 189.927  Recovery = 96.06%
Sr 421.552†            75818.7      496.95 ug/L         1.977      496.95 ppb          1.977   0.40%
   QC value within limits for Sr 421.552  Recovery = 99.39%
Ti 334.940†           298009.7      480.98 ug/L         4.961      480.98 ppb          4.961   1.03%
   QC value within limits for Ti 334.940  Recovery = 96.20%
Tl 190.801†             1567.0      489.12 ug/L         3.531      489.12 ppb          3.531   0.72%
   QC value within limits for Tl 190.801  Recovery = 97.82%
U 409.014†             15788.3      494.09 ug/L         5.939      494.09 ppb          5.939   1.20%
   QC value within limits for U 409.014  Recovery = 98.82%
V 292.402†             64478.5      487.79 ug/L         4.832      487.79 ppb          4.832   0.99%
   QC value within limits for V 292.402  Recovery = 97.56%
Zn 213.857†            50298.4      476.57 ug/L         5.171      476.57 ppb          5.171   1.09%
   QC value within limits for Zn 213.857  Recovery = 95.31%
SiO2†                  73690.7      5128.6 ug/L         57.26      5128.6 ppb          57.26   1.12%
   QC value within limits for SiO2  Recovery = 95.91%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 09:55:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4902.9	4902.9	99.6	%			09:57:26
1	Y RADIAL	5232.2	5232.2	100.9	%			09:57:26
1	Al 396.153Radial†	-166.0	-3.4	-3.0471	ug/L	-3.0471	ppb	09:57:26
1	Ca 317.933Radial†	20.4	5.5	8.6949	ug/L	8.6949	ppb	09:57:46
1	Fe 238.204 Radial†	11.1	-0.3	-2.7081	ug/L	-2.7081	ppb	09:57:46
1	K 766.490 Radial†	3336.6	387.4	67.511	ug/L	67.511	ppb	09:57:26
1	Mg 279.077 IEC†	2.7	1.5	48.043	ug/L	48.043	ppb	09:57:46
1	Na 589.592 Radial†	-947.3	199.0	64.866	ug/L	64.866	ppb	09:57:26
1	Sr 421.552†	14.0	0.4	0.0025	ug/L	0.0025	ppb	09:57:26
1	Sc 361.383	839133.1	839133.1	101.48	%			09:58:43
1	Y 371.029	671926.0	671926.0	100.68	%			09:58:43
1	Ag 328.068†	246.5	-54.3	-0.2749	ug/L	-0.2749	ppb	09:58:43
1	As 188.979†	-7.6	23.1	9.9685	ug/L	9.9685	ppb	09:59:03
1	B 249.677†	174.3	766.8	18.259	ug/L	18.259	ppb	09:58:43
1	Ba 233.527†	-1.6	8.7	0.0693	ug/L	0.0693	ppb	09:59:03
1	Be 313.107†	-3977.9	-219.4	-0.0794	ug/L	-0.0794	ppb	09:58:43
1	Cd 226.502†	-168.1	50.4	0.5915	ug/L	0.5915	ppb	09:59:03
1	Co 228.616†	-82.9	1.6	0.0367	ug/L	0.0367	ppb	09:59:03
1	Cr 267.716†	85.2	17.3	0.1998	ug/L	0.1998	ppb	09:59:03
1	Cu 324.752†	4960.9	167.5	0.5064	ug/L	0.5064	ppb	09:58:43
1	Mn 257.610†	477.8	1.0	-0.0012	ug/L	-0.0012	ppb	09:59:03
1	Mo 202.031†	36.8	24.4	1.8377	ug/L	1.8377	ppb	09:59:03
1	Ni 231.604†	83.5	5.2	0.1335	ug/L	0.1335	ppb	09:59:03
1	P 214.914†	222.5	-27.8	-16.397	ug/L	-16.397	ppb	09:59:03
1	Pb 220.353†	-52.7	15.2	1.8699	ug/L	1.8699	ppb	09:59:03
1	S 181.975 Axial†	53.1	4.5	6.2362	ug/L	6.2362	ppb	09:59:03
1	Sb 206.836†	46.0	10.2	3.6951	ug/L	3.6951	ppb	09:59:03
1	Se 196.026†	-22.6	3.1	2.0327	ug/L	2.0327	ppb	09:59:03
1	Si 251.611†	613.4	73.1	2.3700	ug/L	2.3700	ppb	09:59:03
1	Sn 189.927†	52.6	42.4	7.6667	ug/L	7.6667	ppb	09:59:03
1	Ti 334.940†	-1376.7	214.4	0.3366	ug/L	0.3366	ppb	09:58:43
1	Tl 190.801†	-28.3	6.5	2.0094	ug/L	2.0094	ppb	09:59:03
1	U 409.014†	-3178.3	480.0	15.072	ug/L	15.072	ppb	09:58:43
1	V 292.402†	-1597.5	16.0	0.1754	ug/L	0.1754	ppb	09:58:43
1	Zn 213.857†	738.7	-0.7	-0.0083	ug/L	-0.0083	ppb	09:59:03
1	SiO2†	633.8	92.1	6.3789	ug/L	6.3789	ppb	09:59:59
2	Sc Radial	4894.9	4894.9	99.4	%			09:57:51
2	Y RADIAL	5226.5	5226.5	100.8	%			09:57:51
2	Al 396.153Radial†	-162.7	-0.4	-0.4252	ug/L	-0.4252	ppb	09:57:51
2	Ca 317.933Radial†	15.7	0.8	1.3080	ug/L	1.3080	ppb	09:58:11
2	Fe 238.204 Radial†	9.4	-2.0	-18.356	ug/L	-18.356	ppb	09:58:11
2	K 766.490 Radial†	3342.1	398.4	69.430	ug/L	69.430	ppb	09:57:51
2	Mg 279.077 IEC†	3.5	2.3	76.644	ug/L	76.644	ppb	09:58:11
2	Na 589.592 Radial†	-901.5	243.5	79.357	ug/L	79.357	ppb	09:57:51
2	Sr 421.552†	14.5	0.9	0.0061	ug/L	0.0061	ppb	09:57:51
2	Sc 361.383	839061.7	839061.7	101.47	%			09:59:08
2	Y 371.029	671510.5	671510.5	100.62	%			09:59:08
2	Ag 328.068†	200.7	-99.3	-0.4957	ug/L	-0.4957	ppb	09:59:08
2	As 188.979†	-10.1	20.7	8.9265	ug/L	8.9265	ppb	09:59:28
2	B 249.677†	149.4	742.2	17.676	ug/L	17.676	ppb	09:59:08
2	Ba 233.527†	-18.3	-7.7	-0.0623	ug/L	-0.0623	ppb	09:59:28
2	Be 313.107†	-3896.0	-139.1	-0.0499	ug/L	-0.0499	ppb	09:59:08
2	Cd 226.502†	-164.9	53.5	0.6293	ug/L	0.6293	ppb	09:59:28
2	Co 228.616†	-86.0	-1.4	-0.0254	ug/L	-0.0254	ppb	09:59:28
2	Cr 267.716†	83.7	15.8	0.1832	ug/L	0.1832	ppb	09:59:28
2	Cu 324.752†	4948.5	155.7	0.4713	ug/L	0.4713	ppb	09:59:08
2	Mn 257.610†	515.0	37.6	0.0372	ug/L	0.0372	ppb	09:59:28
2	Mo 202.031†	37.8	25.4	1.9113	ug/L	1.9113	ppb	09:59:28
2	Ni 231.604†	84.4	6.2	0.1586	ug/L	0.1586	ppb	09:59:28

2	P 214.914†	237.2	-13.3	-7.8505	ug/L	-7.8505 ppb	09:59:28
2	Pb 220.353†	-66.4	1.8	0.2227	ug/L	0.2227 ppb	09:59:28
2	S 181.975 Axial†	46.0	-2.4	-3.3185	ug/L	-3.3185 ppb	09:59:28
2	Sb 206.836†	43.4	7.7	2.8284	ug/L	2.8284 ppb	09:59:28
2	Se 196.026†	-16.4	9.2	5.9564	ug/L	5.9564 ppb	09:59:28
2	Si 251.611†	616.9	76.6	2.4818	ug/L	2.4818 ppb	09:59:28
2	Sn 189.927†	51.7	41.4	7.4941	ug/L	7.4941 ppb	09:59:28
2	Ti 334.940†	-1347.3	243.2	0.3815	ug/L	0.3815 ppb	09:59:08
2	Tl 190.801†	-28.7	6.0	1.8661	ug/L	1.8661 ppb	09:59:28
2	U 409.014†	-3294.8	365.0	11.463	ug/L	11.463 ppb	09:59:08
2	V 292.402†	-1631.3	-17.4	-0.0774	ug/L	-0.0774 ppb	09:59:08
2	Zn 213.857†	750.1	10.6	0.1021	ug/L	0.1021 ppb	09:59:28
2	SiO2†	665.2	123.2	8.5439	ug/L	8.5439 ppb	10:00:04
3	Sc Radial	5018.9	5018.9	102	%		09:58:16
3	Y RADIAL	5302.8	5302.8	102.2	%		09:58:16
3	Al 396.153Radial†	-174.7	-8.1	-7.1394	ug/L	-7.1394 ppb	09:58:16
3	Ca 317.933Radial†	24.1	8.7	13.572	ug/L	13.572 ppb	09:58:36
3	Fe 238.204 Radial†	11.7	0.0	0.3305	ug/L	0.3305 ppb	09:58:36
3	K 766.490 Radial†	3405.7	377.8	65.833	ug/L	65.833 ppb	09:58:16
3	Mg 279.077 IEC†	0.4	-0.8	-25.901	ug/L	-25.901 ppb	09:58:36
3	Na 589.592 Radial†	-950.3	218.0	71.057	ug/L	71.057 ppb	09:58:16
3	Sr 421.552†	32.4	18.2	0.1190	ug/L	0.1190 ppb	09:58:16
3	Sc 361.383	828600.5	828600.5	100.21	%		09:59:34
3	Y 371.029	662715.4	662715.4	99.297	%		09:59:34
3	Ag 328.068†	120.0	-177.3	-0.8613	ug/L	-0.8613 ppb	09:59:34
3	As 188.979†	-7.5	23.1	9.9737	ug/L	9.9737 ppb	09:59:54
3	B 249.677†	128.0	722.8	17.209	ug/L	17.209 ppb	09:59:34
3	Ba 233.527†	10.0	20.3	0.1618	ug/L	0.1618 ppb	09:59:54
3	Be 313.107†	-3852.8	-144.5	-0.0521	ug/L	-0.0521 ppb	09:59:34
3	Cd 226.502†	-164.9	51.5	0.6021	ug/L	0.6021 ppb	09:59:54
3	Co 228.616†	-67.6	15.9	0.3305	ug/L	0.3305 ppb	09:59:54
3	Cr 267.716†	84.4	17.6	0.2064	ug/L	0.2064 ppb	09:59:54
3	Cu 324.752†	4923.8	192.6	0.5887	ug/L	0.5887 ppb	09:59:34
3	Mn 257.610†	504.6	33.6	0.0388	ug/L	0.0388 ppb	09:59:54
3	Mo 202.031†	38.7	26.8	2.0186	ug/L	2.0186 ppb	09:59:54
3	Ni 231.604†	74.0	-3.2	-0.0825	ug/L	-0.0825 ppb	09:59:54
3	P 214.914†	240.1	-7.4	-4.4150	ug/L	-4.4150 ppb	09:59:54
3	Pb 220.353†	-60.9	6.4	0.7871	ug/L	0.7871 ppb	09:59:54
3	S 181.975 Axial†	48.6	0.7	1.0066	ug/L	1.0066 ppb	09:59:54
3	Sb 206.836†	51.4	16.1	5.7523	ug/L	5.7523 ppb	09:59:54
3	Se 196.026†	-21.4	4.1	2.6753	ug/L	2.6753 ppb	09:59:54
3	Si 251.611†	643.9	111.2	3.6131	ug/L	3.6131 ppb	09:59:54
3	Sn 189.927†	43.6	34.0	6.1496	ug/L	6.1496 ppb	09:59:54
3	Ti 334.940†	-1384.6	189.2	0.3067	ug/L	0.3067 ppb	09:59:34
3	Tl 190.801†	-29.9	4.5	1.3949	ug/L	1.3949 ppb	09:59:54
3	U 409.014†	-3428.5	190.5	5.9824	ug/L	5.9824 ppb	09:59:34
3	V 292.402†	-1589.0	4.5	0.0726	ug/L	0.0726 ppb	09:59:34
3	Zn 213.857†	738.3	8.2	0.0779	ug/L	0.0779 ppb	09:59:54
3	SiO2†	589.0	55.4	3.8077	ug/L	3.8077 ppb	10:00:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835598.4	101.06	%	0.733				0.73%
Sc Radial	4938.9	100	%	1.4				1.40%
Y 371.029	668717.3	100.20	%	0.779				0.78%
Y RADIAL	5253.8	101.3	%	0.82				0.81%
Ag 328.068†	-110.3	-0.5440	ug/L	0.29615	-0.5440	ppb	0.29615	54.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.0	-3.5372	ug/L	3.38384	-3.5372	ppb	3.38384	95.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	22.3	9.6229	ug/L	0.60314	9.6229	ppb	0.60314	6.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	744.0	17.715	ug/L	0.5258	17.715	ppb	0.5258	2.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0562	ug/L	0.11262	0.0562	ppb	0.11262	200.24%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-167.7	-0.0604	ug/L	0.01641	-0.0604	ppb	0.01641	27.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.0	7.8582	ug/L	6.17447	7.8582	ppb	6.17447	78.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 51.8      0.6076 ug/L       0.01949      0.6076 ppb        0.01949   3.21%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                  5.4      0.1139 ug/L       0.19014      0.1139 ppb        0.19014 166.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 16.9      0.1965 ug/L       0.01193      0.1965 ppb        0.01193   6.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                171.9      0.5222 ug/L       0.06026      0.5222 ppb        0.06026  11.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          -0.8     -6.9111 ug/L      10.02702     -6.9111 ppb       10.02702 145.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          387.9      67.591 ug/L        1.7999      67.591 ppb         1.7999   2.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†              1.0      32.929 ug/L       52.9166      32.929 ppb        52.9166 160.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 24.1      0.0249 ug/L       0.02261      0.0249 ppb        0.02261  90.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 25.5      1.9225 ug/L       0.09094      1.9225 ppb        0.09094   4.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         220.2      71.760 ug/L        7.2707      71.760 ppb         7.2707  10.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                  2.7      0.0699 ug/L       0.13253      0.0699 ppb        0.13253 189.62%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -16.2     -9.5543 ug/L       6.17020     -9.5543 ppb        6.17020  64.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                  7.8      0.9599 ug/L       0.83712      0.9599 ppb        0.83712  87.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             1.0      1.3081 ug/L       4.78452      1.3081 ppb        4.78452 365.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 11.3      4.0919 ug/L       1.50181      4.0919 ppb        1.50181  36.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                  5.5      3.5548 ug/L       2.10454      3.5548 ppb        2.10454  59.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 87.0      2.8216 ug/L       0.68772      2.8216 ppb        0.68772  24.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 39.3      7.1035 ug/L       0.83057      7.1035 ppb        0.83057  11.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                  6.5      0.0425 ug/L       0.06622      0.0425 ppb        0.06622 155.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                215.6      0.3416 ug/L       0.03765      0.3416 ppb        0.03765  11.02%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  5.7      1.7568 ug/L       0.32148      1.7568 ppb        0.32148  18.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 345.2      10.839 ug/L        4.5770      10.839 ppb         4.5770  42.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                   1.0      0.0569 ug/L       0.12714      0.0569 ppb        0.12714 223.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                  6.0      0.0572 ug/L       0.05801      0.0572 ppb        0.05801 101.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       90.2      6.2435 ug/L       2.37098      6.2435 ppb        2.37098  37.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/12/2010 10:07:08 **Plasma On Time:** 2/12/2010 07:08:18
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\021210.sif
Batch ID:
Results Data Set: 021210
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved:** 2/12/2010 08:35:11
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location:** 37
Sample ID: LR2 **Date Collected:** 2/12/2010 10:07:09
Analyst: HSC **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5043.2	5043.2	102	%			10:09:03
1	Y RADIAL	5310.6	5310.6	102.4	%			10:09:03
1	Al 396.153Radial†	-165.9	1.3	1.2003	ug/L	1.2003	ppb	10:09:03

1	Ca 317.933Radial†	30.9	15.3	23.909 ug/L	23.909 ppb	10:09:23
1	Fe 238.204 Radial†	-6.1	-17.4	-11.919 ug/L	-11.919 ppb	10:09:23
1	K 766.490 Radial†	3219.4	179.7	31.299 ug/L	31.299 ppb	10:09:03
1	Mg 279.077 IEC†	4.8	3.5	115.41 ug/L	115.41 ppb	10:09:23
1	Na 589.592 Radial†	-919.8	252.4	82.246 ug/L	82.246 ppb	10:09:03
1	Sr 421.552†	30.1	15.7	0.1028 ug/L	0.1028 ppb	10:09:03
1	Sc 361.383	852165.2	852165.2	103.06 %		10:10:20
1	Y 371.029	679311.1	679311.1	101.78 %		10:10:20
1	Ag 328.068†	220.0	-83.7	-0.4775 ug/L	-0.4775 ppb	10:10:25
1	As 188.979†	-16.9	14.2	6.1119 ug/L	6.1119 ppb	10:10:45
1	B 249.677†	556.2	1134.7	13.075 ug/L	13.075 ppb	10:10:25
1	Ba 233.527†	1245813.5	1208847.8	9636.2 ug/L	9636.2 ppb	10:10:20
1	Be 313.107†	-3873.0	-57.7	-0.0202 ug/L	-0.0202 ppb	10:10:25
1	Cd 226.502†	-193.3	28.5	0.3563 ug/L	0.3563 ppb	10:10:45
1	Co 228.616†	245101.8	237910.5	4895.9 ug/L	4895.9 ppb	10:10:20
1	Cr 267.716†	123.9	53.6	0.6245 ug/L	0.6245 ppb	10:10:45
1	Cu 324.752†	4437.3	-415.3	-1.2983 ug/L	-1.2983 ppb	10:10:25
1	Mn 257.610†	543.3	57.3	0.0439 ug/L	0.0439 ppb	10:10:45
1	Mo 202.031†	-10.9	-22.5	-1.7051 ug/L	-1.7051 ppb	10:10:45
1	Ni 231.604†	208.8	125.6	0.2657 ug/L	0.2657 ppb	10:10:45
1	P 214.914†	16407.1	15673.1	9225.7 ug/L	9225.7 ppb	10:10:25
1	Pb 220.353†	-39.7	28.7	3.5248 ug/L	3.5248 ppb	10:10:45
1	S 181.975 Axial†	42.6	-6.5	-8.8656 ug/L	-8.8656 ppb	10:10:45
1	Sb 206.836†	42.8	6.4	2.2501 ug/L	2.2501 ppb	10:10:45
1	Se 196.026†	-21.9	4.1	2.1816 ug/L	2.1816 ppb	10:10:45
1	Si 251.611†	608.2	58.8	1.9444 ug/L	1.9444 ppb	10:10:45
1	Sn 189.927†	33.0	22.6	4.0797 ug/L	4.0797 ppb	10:10:45
1	Ti 334.940†	-1382.9	229.1	0.3529 ug/L	0.3529 ppb	10:10:25
1	Tl 190.801†	51.3	84.1	4.6526 ug/L	4.6526 ppb	10:10:45
1	U 409.014†	-2935.5	763.6	23.992 ug/L	23.992 ppb	10:10:20
1	V 292.402†	-1639.4	-0.5	0.0427 ug/L	0.0427 ppb	10:10:25
1	Zn 213.857†	997848.3	967503.4	9252.6 ug/L	9252.6 ppb	10:10:20
1	SiO2†	642.4	91.0	6.3937 ug/L	6.3937 ppb	10:11:51
2	Sc Radial	5016.8	5016.8	102 %		10:09:28
2	Y RADIAL	5336.7	5336.7	102.9 %		10:09:28
2	Al 396.153Radial†	-167.3	-0.9	-0.6867 ug/L	-0.6867 ppb	10:09:28
2	Ca 317.933Radial†	31.3	15.7	24.670 ug/L	24.670 ppb	10:09:48
2	Fe 238.204 Radial†	-5.0	-16.3	-0.8297 ug/L	-0.8297 ppb	10:09:48
2	K 766.490 Radial†	3198.1	175.4	30.550 ug/L	30.550 ppb	10:09:28
2	Mg 279.077 IEC†	1.4	0.2	5.9511 ug/L	5.9511 ppb	10:09:48
2	Na 589.592 Radial†	-938.4	229.4	74.759 ug/L	74.759 ppb	10:09:28
2	Sr 421.552†	68.0	53.0	0.3474 ug/L	0.3474 ppb	10:09:28
2	Sc 361.383	854514.1	854514.1	103.34 %		10:10:50
2	Y 371.029	680041.5	680041.5	101.89 %		10:10:50
2	Ag 328.068†	264.1	-41.6	-0.2708 ug/L	-0.2708 ppb	10:10:55
2	As 188.979†	-18.3	13.0	5.5713 ug/L	5.5713 ppb	10:11:15
2	B 249.677†	487.6	1066.9	11.338 ug/L	11.338 ppb	10:10:55
2	Ba 233.527†	1256806.5	1216162.4	9694.5 ug/L	9694.5 ppb	10:10:50
2	Be 313.107†	-3888.5	-62.4	-0.0220 ug/L	-0.0220 ppb	10:10:55
2	Cd 226.502†	-179.3	42.6	0.5190 ug/L	0.5190 ppb	10:11:15
2	Co 228.616†	247890.0	239954.8	4937.9 ug/L	4937.9 ppb	10:10:50
2	Cr 267.716†	102.8	32.8	0.3778 ug/L	0.3778 ppb	10:11:15
2	Cu 324.752†	4389.0	-473.9	-1.4777 ug/L	-1.4777 ppb	10:10:55
2	Mn 257.610†	540.7	53.3	0.0448 ug/L	0.0448 ppb	10:11:15
2	Mo 202.031†	-13.2	-24.6	-1.8653 ug/L	-1.8653 ppb	10:11:15
2	Ni 231.604†	211.3	127.4	0.2865 ug/L	0.2865 ppb	10:11:15
2	P 214.914†	16450.4	15671.2	9224.7 ug/L	9224.7 ppb	10:10:55
2	Pb 220.353†	-32.2	36.0	4.4258 ug/L	4.4258 ppb	10:11:15
2	S 181.975 Axial†	49.6	0.2	0.2647 ug/L	0.2647 ppb	10:11:15
2	Sb 206.836†	37.9	1.6	0.6084 ug/L	0.6084 ppb	10:11:15
2	Se 196.026†	-11.9	13.9	8.5689 ug/L	8.5689 ppb	10:11:15
2	Si 251.611†	634.9	83.1	2.7396 ug/L	2.7396 ppb	10:11:15
2	Sn 189.927†	46.7	35.7	6.4571 ug/L	6.4571 ppb	10:11:15
2	Ti 334.940†	-1410.9	205.6	0.3243 ug/L	0.3243 ppb	10:10:55
2	Tl 190.801†	50.7	83.4	4.2563 ug/L	4.2563 ppb	10:11:15
2	U 409.014†	-2955.1	752.5	23.642 ug/L	23.642 ppb	10:10:50
2	V 292.402†	-1654.0	-10.3	-0.0365 ug/L	-0.0365 ppb	10:10:55
2	Zn 213.857†	1007658.0	974334.3	9318.0 ug/L	9318.0 ppb	10:10:50
2	SiO2†	624.0	71.5	5.0364 ug/L	5.0364 ppb	10:11:56
3	Sc Radial	5153.6	5153.6	105 %		10:09:53
3	Y RADIAL	5479.6	5479.6	105.7 %		10:09:53

3	Al 396.153Radial†	-187.2	-15.6	-13.478 ug/L	-13.478 ppb	10:09:53
3	Ca 317.933Radial†	22.0	6.0	9.4540 ug/L	9.4540 ppb	10:10:13
3	Fe 238.204 Radial†	-5.3	-16.5	-3.3500 ug/L	-3.3500 ppb	10:10:13
3	K 766.490 Radial†	3197.9	91.9	15.993 ug/L	15.993 ppb	10:09:53
3	Mg 279.077 IEC†	0.0	-1.2	-39.243 ug/L	-39.243 ppb	10:10:13
3	Na 589.592 Radial†	-989.6	204.9	66.762 ug/L	66.762 ppb	10:09:53
3	Sr 421.552†	36.1	20.8	0.1366 ug/L	0.1366 ppb	10:09:53
3	Sc 361.383	852132.9	852132.9	103.05 %		10:11:21
3	Y 371.029	677881.9	677881.9	101.57 %		10:11:21
3	Ag 328.068†	248.8	-55.7	-0.3316 ug/L	-0.3316 ppb	10:11:26
3	As 188.979†	-14.9	16.2	6.9572 ug/L	6.9572 ppb	10:11:46
3	B 249.677†	552.0	1130.7	12.889 ug/L	12.889 ppb	10:11:26
3	Ba 233.527†	1251655.6	1214562.5	9681.7 ug/L	9681.7 ppb	10:11:21
3	Be 313.107†	-3888.1	-72.5	-0.0256 ug/L	-0.0256 ppb	10:11:26
3	Cd 226.502†	-179.9	41.5	0.5055 ug/L	0.5055 ppb	10:11:46
3	Co 228.616†	246670.2	239441.4	4927.4 ug/L	4927.4 ppb	10:11:21
3	Cr 267.716†	92.3	22.9	0.2636 ug/L	0.2636 ppb	10:11:46
3	Cu 324.752†	4391.8	-459.3	-1.4292 ug/L	-1.4292 ppb	10:11:26
3	Mn 257.610†	555.3	68.9	0.0640 ug/L	0.0640 ppb	10:11:46
3	Mo 202.031†	-4.7	-16.5	-1.2514 ug/L	-1.2514 ppb	10:11:46
3	Ni 231.604†	203.0	120.0	0.1034 ug/L	0.1034 ppb	10:11:46
3	P 214.914†	16636.5	15896.3	9357.1 ug/L	9357.1 ppb	10:11:26
3	Pb 220.353†	-41.4	26.9	3.3114 ug/L	3.3114 ppb	10:11:46
3	S 181.975 Axial†	48.8	-0.4	-0.5945 ug/L	-0.5945 ppb	10:11:46
3	Sb 206.836†	34.1	-2.0	-0.6492 ug/L	-0.6492 ppb	10:11:46
3	Se 196.026†	-25.6	0.6	-0.1005 ug/L	-0.1005 ppb	10:11:46
3	Si 251.611†	643.6	93.2	3.0626 ug/L	3.0626 ppb	10:11:46
3	Sn 189.927†	38.5	27.9	5.0399 ug/L	5.0399 ppb	10:11:46
3	Ti 334.940†	-1366.4	245.0	0.3926 ug/L	0.3926 ppb	10:11:26
3	Tl 190.801†	53.9	86.6	5.2904 ug/L	5.2904 ppb	10:11:46
3	U 409.014†	-3177.0	529.1	16.629 ug/L	16.629 ppb	10:11:21
3	V 292.402†	-1575.7	61.2	0.4918 ug/L	0.4918 ppb	10:11:26
3	Zn 213.857†	1002646.4	972195.9	9297.5 ug/L	9297.5 ppb	10:11:21
3	SiO2†	659.2	107.3	7.5218 ug/L	7.5218 ppb	10:12:01

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852937.4	103.15	%	0.165				0.16%
Sc Radial	5071.2	103	%	1.5				1.43%
Y 371.029	679078.2	101.75	%	0.165				0.16%
Y RADIAL	5375.6	103.6	%	1.75				1.69%
Ag 328.068†	-60.3	-0.3600	ug/L	0.10618	-0.3600	ppb	0.10618	29.50%
Al 396.153Radial†	-5.1	-4.3213	ug/L	7.98554	-4.3213	ppb	7.98554	184.79%
As 188.979†	14.5	6.2135	ug/L	0.69848	6.2135	ppb	0.69848	11.24%
B 249.677†	1110.7	12.434	ug/L	0.9535	12.434	ppb	0.9535	7.67%
Ba 233.527†	1213190.9	9670.8	ug/L	30.65	9670.8	ppb	30.65	0.32%
Be 313.107†	-64.2	-0.0226	ug/L	0.00271	-0.0226	ppb	0.00271	11.98%
Ca 317.933Radial†	12.3	19.344	ug/L	8.5738	19.344	ppb	8.5738	44.32%
Cd 226.502†	37.5	0.4602	ug/L	0.09030	0.4602	ppb	0.09030	19.62%
Co 228.616†	239102.2	4920.4	ug/L	21.88	4920.4	ppb	21.88	0.44%
Cr 267.716†	36.5	0.4220	ug/L	0.18443	0.4220	ppb	0.18443	43.71%
Cu 324.752†	-449.5	-1.4018	ug/L	0.09282	-1.4018	ppb	0.09282	6.62%
Fe 238.204 Radial†	-16.7	-5.3663	ug/L	5.81311	-5.3663	ppb	5.81311	108.33%
K 766.490 Radial†	149.0	25.947	ug/L	8.6291	25.947	ppb	8.6291	33.26%
Mg 279.077 IEC†	0.8	27.372	ug/L	79.5188	27.372	ppb	79.5188	290.51%
Mn 257.610†	59.9	0.0509	ug/L	0.01134	0.0509	ppb	0.01134	22.28%
Mo 202.031†	-21.2	-1.6073	ug/L	0.31845	-1.6073	ppb	0.31845	19.81%
Na 589.592 Radial†	228.9	74.589	ug/L	7.7432	74.589	ppb	7.7432	10.38%
Ni 231.604†	124.3	0.2185	ug/L	0.10029	0.2185	ppb	0.10029	45.89%
P 214.914†	15746.9	9269.2	ug/L	76.17	9269.2	ppb	76.17	0.82%
Pb 220.353†	30.5	3.7540	ug/L	0.59152	3.7540	ppb	0.59152	15.76%
S 181.975 Axial†	-2.2	-3.0651	ug/L	5.04168	-3.0651	ppb	5.04168	164.48%
Sb 206.836†	2.0	0.7364	ug/L	1.45388	0.7364	ppb	1.45388	197.42%
Se 196.026†	6.2	3.5500	ug/L	4.49376	3.5500	ppb	4.49376	126.59%
Si 251.611†	78.3	2.5822	ug/L	0.57545	2.5822	ppb	0.57545	22.29%
Sn 189.927†	28.7	5.1922	ug/L	1.19598	5.1922	ppb	1.19598	23.03%
Sr 421.552†	29.9	0.1956	ug/L	0.13256	0.1956	ppb	0.13256	67.78%
Ti 334.940†	226.6	0.3566	ug/L	0.03432	0.3566	ppb	0.03432	9.63%
Tl 190.801†	84.7	4.7331	ug/L	0.52173	4.7331	ppb	0.52173	11.02%

U 409.014†	681.7	21.421 ug/L	4.1538	21.421 ppb	4.1538	19.39%
V 292.402†	16.8	0.1660 ug/L	0.28492	0.1660 ppb	0.28492	171.61%
Zn 213.857†	971344.5	9289.4 ug/L	33.41	9289.4 ppb	33.41	0.36%
SiO2†	89.9	6.3173 ug/L	1.24445	6.3173 ppb	1.24445	19.70%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 10:14:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5052.6	5052.6	103	%			10:16:06
1	Y RADIAL	5313.0	5313.0	102.4	%			10:16:06
1	Al 396.153Radial†	5780.6	5795.6	5002.4	ug/L	5002.4	ppb	10:16:06
1	Ca 317.933Radial†	3226.9	3129.3	4904.7	ug/L	4904.7	ppb	10:16:26
1	Fe 238.204 Radial†	576.4	550.2	5027.5	ug/L	5027.5	ppb	10:16:26
1	K 766.490 Radial†	31552.6	27780.6	4837.2	ug/L	4837.2	ppb	10:16:06
1	Mg 279.077 IEC†	158.8	153.6	5051.4	ug/L	5051.4	ppb	10:16:26
1	Na 589.592 Radial†	31878.6	32211.5	10498	ug/L	10498	ppb	10:16:06
1	Sr 421.552†	78853.7	76818.3	503.50	ug/L	503.50	ppb	10:16:06
1	Sc 361.383	845588.8	845588.8	102.26	%			10:17:23
1	Y 371.029	669818.2	669818.2	100.36	%			10:17:23
1	Ag 328.068†	103065.3	100486.9	488.47	ug/L	488.47	ppb	10:17:28
1	As 188.979†	1126.8	1132.5	492.52	ug/L	492.52	ppb	10:17:48
1	B 249.677†	20865.8	20998.9	497.79	ug/L	497.79	ppb	10:17:28
1	Ba 233.527†	62339.0	60969.5	487.23	ug/L	487.23	ppb	10:17:28
1	Be 313.107†	1349924.8	1323746.4	484.55	ug/L	484.55	ppb	10:17:23
1	Cd 226.502†	41982.7	41269.5	481.62	ug/L	481.62	ppb	10:17:28
1	Co 228.616†	24092.4	23642.5	486.13	ug/L	486.13	ppb	10:17:28
1	Cr 267.716†	41711.7	40721.8	484.54	ug/L	484.54	ppb	10:17:28
1	Cu 324.752†	168280.8	159835.2	491.33	ug/L	491.33	ppb	10:17:28
1	Mn 257.610†	444605.1	434294.5	486.91	ug/L	486.91	ppb	10:17:23
1	Mo 202.031†	6571.5	6414.2	483.65	ug/L	483.65	ppb	10:17:48
1	Ni 231.604†	19362.6	18857.0	483.00	ug/L	483.00	ppb	10:17:28
1	P 214.914†	4437.8	4092.5	2313.0	ug/L	2313.0	ppb	10:17:48
1	Pb 220.353†	3968.9	3948.2	485.57	ug/L	485.57	ppb	10:17:48
1	S 181.975 Axial†	755.1	690.6	946.76	ug/L	946.76	ppb	10:17:48
1	Sb 206.836†	1465.2	1397.6	503.50	ug/L	503.50	ppb	10:17:48
1	Se 196.026†	751.3	760.0	514.49	ug/L	514.49	ppb	10:17:48
1	Si 251.611†	76656.7	74428.7	2428.7	ug/L	2428.7	ppb	10:17:28
1	Sn 189.927†	2742.1	2671.9	484.03	ug/L	484.03	ppb	10:17:48
1	Ti 334.940†	305790.0	300592.7	485.14	ug/L	485.14	ppb	10:17:28
1	Tl 190.801†	1575.9	1575.3	491.70	ug/L	491.70	ppb	10:17:48
1	U 409.014†	12648.5	15980.5	500.11	ug/L	500.11	ppb	10:17:28
1	V 292.402†	64950.4	65103.0	492.48	ug/L	492.48	ppb	10:17:28
1	Zn 213.857†	52714.2	50818.8	481.51	ug/L	481.51	ppb	10:17:28
1	SiO2†	77009.3	74772.4	5204.0	ug/L	5204.0	ppb	10:18:56
2	Sc Radial	4940.3	4940.3	100	%			10:16:31
2	Y RADIAL	5232.4	5232.4	100.9	%			10:16:31
2	Al 396.153Radial†	5633.1	5776.7	4986.3	ug/L	4986.3	ppb	10:16:31
2	Ca 317.933Radial†	3198.6	3172.4	4972.4	ug/L	4972.4	ppb	10:16:51
2	Fe 238.204 Radial†	565.4	552.0	5044.3	ug/L	5044.3	ppb	10:16:51
2	K 766.490 Radial†	31139.4	28067.8	4887.2	ug/L	4887.2	ppb	10:16:31
2	Mg 279.077 IEC†	156.4	154.7	5087.4	ug/L	5087.4	ppb	10:16:51
2	Na 589.592 Radial†	31073.2	32115.0	10466	ug/L	10466	ppb	10:16:31
2	Sr 421.552†	76952.7	76670.6	502.53	ug/L	502.53	ppb	10:16:31
2	Sc 361.383	852346.1	852346.1	103.08	%			10:17:54
2	Y 371.029	673658.9	673658.9	100.94	%			10:17:54
2	Ag 328.068†	103856.6	100455.6	488.33	ug/L	488.33	ppb	10:17:59
2	As 188.979†	1104.9	1102.5	479.59	ug/L	479.59	ppb	10:18:19
2	B 249.677†	21126.4	21090.1	499.96	ug/L	499.96	ppb	10:17:59
2	Ba 233.527†	62874.4	61005.6	487.52	ug/L	487.52	ppb	10:17:59
2	Be 313.107†	1357392.8	1320525.9	483.38	ug/L	483.38	ppb	10:17:54
2	Cd 226.502†	42451.6	41398.9	483.13	ug/L	483.13	ppb	10:17:59
2	Co 228.616†	24344.9	23700.7	487.30	ug/L	487.30	ppb	10:17:59
2	Cr 267.716†	42131.9	40806.1	485.55	ug/L	485.55	ppb	10:17:59
2	Cu 324.752†	169281.8	159501.7	490.31	ug/L	490.31	ppb	10:17:59
2	Mn 257.610†	447897.6	434041.8	486.63	ug/L	486.63	ppb	10:17:54
2	Mo 202.031†	6517.0	6310.3	475.83	ug/L	475.83	ppb	10:18:19
2	Ni 231.604†	19603.3	18940.5	485.14	ug/L	485.14	ppb	10:17:59

2	P 214.914†	4386.7	4008.6	2263.7 ug/L	2263.7 ppb	10:18:19
2	Pb 220.353†	3924.4	3874.3	476.50 ug/L	476.50 ppb	10:18:19
2	S 181.975 Axial†	760.2	689.7	945.44 ug/L	945.44 ppb	10:18:19
2	Sb 206.836†	1459.6	1380.9	497.34 ug/L	497.34 ppb	10:18:19
2	Se 196.026†	725.4	729.1	494.32 ug/L	494.32 ppb	10:18:19
2	Si 251.611†	77358.5	74515.3	2431.6 ug/L	2431.6 ppb	10:17:59
2	Sn 189.927†	2703.4	2613.2	473.42 ug/L	473.42 ppb	10:18:19
2	Ti 334.940†	308289.9	300647.2	485.23 ug/L	485.23 ppb	10:17:59
2	Tl 190.801†	1559.8	1547.5	483.09 ug/L	483.09 ppb	10:18:19
2	U 409.014†	12555.5	15792.2	494.19 ug/L	494.19 ppb	10:17:59
2	V 292.402†	65401.5	65037.1	491.86 ug/L	491.86 ppb	10:17:59
2	Zn 213.857†	53159.7	50842.3	481.72 ug/L	481.72 ppb	10:17:59
2	SiO2†	76474.8	73656.9	5126.4 ug/L	5126.4 ppb	10:19:01
3	Sc Radial	5047.3	5047.3	103 %		10:16:56
3	Y RADIAL	5362.3	5362.3	103.4 %		10:16:56
3	Al 396.153Radial†	5735.2	5757.3	4969.2 ug/L	4969.2 ppb	10:16:56
3	Ca 317.933Radial†	3217.0	3122.9	4894.7 ug/L	4894.7 ppb	10:17:16
3	Fe 238.204 Radial†	569.1	543.6	4967.6 ug/L	4967.6 ppb	10:17:16
3	K 766.490 Radial†	31556.7	27817.1	4843.6 ug/L	4843.6 ppb	10:16:56
3	Mg 279.077 IEC†	159.6	154.5	5081.9 ug/L	5081.9 ppb	10:17:16
3	Na 589.592 Radial†	31486.0	31861.4	10384 ug/L	10384 ppb	10:16:56
3	Sr 421.552†	78461.2	76516.6	501.52 ug/L	501.52 ppb	10:16:56
3	Sc 361.383	844312.5	844312.5	102.11 %		10:18:25
3	Y 371.029	667690.6	667690.6	100.04 %		10:18:25
3	Ag 328.068†	103133.4	100706.0	489.51 ug/L	489.51 ppb	10:18:30
3	As 188.979†	1120.2	1127.8	490.46 ug/L	490.46 ppb	10:18:50
3	B 249.677†	20972.4	21134.2	501.03 ug/L	501.03 ppb	10:18:30
3	Ba 233.527†	62165.8	60892.0	486.61 ug/L	486.61 ppb	10:18:30
3	Be 313.107†	1346092.5	1321988.6	483.91 ug/L	483.91 ppb	10:18:25
3	Cd 226.502†	41811.5	41163.9	480.40 ug/L	480.40 ppb	10:18:30
3	Co 228.616†	24047.1	23633.7	485.94 ug/L	485.94 ppb	10:18:30
3	Cr 267.716†	41678.0	40750.5	484.88 ug/L	484.88 ppb	10:18:30
3	Cu 324.752†	168555.3	160352.8	492.92 ug/L	492.92 ppb	10:18:30
3	Mn 257.610†	443576.0	433943.8	486.51 ug/L	486.51 ppb	10:18:25
3	Mo 202.031†	6547.2	6400.1	482.59 ug/L	482.59 ppb	10:18:50
3	Ni 231.604†	19353.2	18876.4	483.50 ug/L	483.50 ppb	10:18:30
3	P 214.914†	4409.7	4071.6	2300.4 ug/L	2300.4 ppb	10:18:50
3	Pb 220.353†	3931.2	3917.1	481.76 ug/L	481.76 ppb	10:18:50
3	S 181.975 Axial†	761.3	697.8	956.65 ug/L	956.65 ppb	10:18:50
3	Sb 206.836†	1458.1	1392.9	501.76 ug/L	501.76 ppb	10:18:50
3	Se 196.026†	734.8	745.0	504.49 ug/L	504.49 ppb	10:18:50
3	Si 251.611†	76674.5	74559.4	2433.0 ug/L	2433.0 ppb	10:18:30
3	Sn 189.927†	2714.8	2649.2	479.93 ug/L	479.93 ppb	10:18:50
3	Ti 334.940†	306019.5	301269.5	486.23 ug/L	486.23 ppb	10:18:30
3	Tl 190.801†	1559.9	1562.0	487.57 ug/L	487.57 ppb	10:18:50
3	U 409.014†	12543.2	15896.1	497.46 ug/L	497.46 ppb	10:18:30
3	V 292.402†	64840.7	65091.6	492.38 ug/L	492.38 ppb	10:18:30
3	Zn 213.857†	52570.6	50756.2	480.91 ug/L	480.91 ppb	10:18:30
3	SiO2†	76821.2	74702.1	5199.1 ug/L	5199.1 ppb	10:19:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	847415.8	102.48	%	0.522				0.51%
Sc Radial	5013.4	102	%	1.3				1.26%
Y 371.029	670389.2	100.45	%	0.453				0.45%
Y RADIAL	5302.6	102.2	%	1.26				1.24%
Ag 328.068†	100549.5	488.77	ug/L	0.646	488.77	ppb	0.646	0.13%
QC value within limits for Ag 328.068 Recovery = 97.75%								
Al 396.153Radial†	5776.5	4986.0	ug/L	16.60	4986.0	ppb	16.60	0.33%
QC value within limits for Al 396.153Radial Recovery = 99.72%								
As 188.979†	1120.9	487.52	ug/L	6.945	487.52	ppb	6.945	1.42%
QC value within limits for As 188.979 Recovery = 97.50%								
B 249.677†	21074.4	499.59	ug/L	1.646	499.59	ppb	1.646	0.33%
QC value within limits for B 249.677 Recovery = 99.92%								
Ba 233.527†	60955.7	487.12	ug/L	0.463	487.12	ppb	0.463	0.10%
QC value within limits for Ba 233.527 Recovery = 97.42%								
Be 313.107†	1322087.0	483.95	ug/L	0.589	483.95	ppb	0.589	0.12%
QC value within limits for Be 313.107 Recovery = 96.79%								
Ca 317.933Radial†	3141.5	4923.9	ug/L	42.26	4923.9	ppb	42.26	0.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.48%
Cd 226.502†            41277.5      481.72 ug/L         1.370      481.72 ppb          1.370   0.28%
   QC value within limits for Cd 226.502  Recovery = 96.34%
Co 228.616†            23659.0      486.46 ug/L         0.739      486.46 ppb          0.739   0.15%
   QC value within limits for Co 228.616  Recovery = 97.29%
Cr 267.716†            40759.5      484.99 ug/L         0.510      484.99 ppb          0.510   0.11%
   QC value within limits for Cr 267.716  Recovery = 97.00%
Cu 324.752†           159896.6      491.52 ug/L         1.316      491.52 ppb          1.316   0.27%
   QC value within limits for Cu 324.752  Recovery = 98.30%
Fe 238.204 Radial†       548.6      5013.1 ug/L        40.31      5013.1 ppb         40.31   0.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.26%
K 766.490 Radial†      27888.5      4856.0 ug/L        27.24      4856.0 ppb         27.24   0.56%
   QC value within limits for K 766.490 Radial  Recovery = 97.12%
Mg 279.077 IEC†          154.2      5073.6 ug/L        19.38      5073.6 ppb         19.38   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.47%
Mn 257.610†           434093.4      486.68 ug/L         0.206      486.68 ppb          0.206   0.04%
   QC value within limits for Mn 257.610  Recovery = 97.34%
Mo 202.031†             6374.9      480.69 ug/L         4.242      480.69 ppb          4.242   0.88%
   QC value within limits for Mo 202.031  Recovery = 96.14%
Na 589.592 Radial†     32062.6       10449 ug/L          58.9       10449 ppb           58.9   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 104.49%
Ni 231.604†            18891.3      483.88 ug/L         1.119      483.88 ppb          1.119   0.23%
   QC value within limits for Ni 231.604  Recovery = 96.78%
P 214.914†              4057.6      2292.4 ug/L        25.61      2292.4 ppb         25.61   1.12%
   QC value within limits for P 214.914  Recovery = 91.70%
Pb 220.353†             3913.2      481.28 ug/L         4.558      481.28 ppb          4.558   0.95%
   QC value within limits for Pb 220.353  Recovery = 96.26%
S 181.975 Axial†         692.7      949.62 ug/L         6.126      949.62 ppb          6.126   0.65%
   QC value within limits for S 181.975 Axial  Recovery = 94.96%
Sb 206.836†             1390.5      500.87 ug/L         3.176      500.87 ppb          3.176   0.63%
   QC value within limits for Sb 206.836  Recovery = 100.17%
Se 196.026†              744.7      504.43 ug/L        10.086      504.43 ppb         10.086   2.00%
   QC value within limits for Se 196.026  Recovery = 100.89%
Si 251.611†            74501.1      2431.1 ug/L          2.19      2431.1 ppb          2.19   0.09%
   QC value within limits for Si 251.611  Recovery = 97.24%
Sn 189.927†             2644.8      479.13 ug/L         5.350      479.13 ppb          5.350   1.12%
   QC value within limits for Sn 189.927  Recovery = 95.83%
Sr 421.552†            76668.5      502.52 ug/L         0.989      502.52 ppb          0.989   0.20%
   QC value within limits for Sr 421.552  Recovery = 100.50%
Ti 334.940†           300836.4      485.53 ug/L         0.603      485.53 ppb          0.603   0.12%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             1561.6      487.45 ug/L         4.307      487.45 ppb          4.307   0.88%
   QC value within limits for Tl 190.801  Recovery = 97.49%
U 409.014†             15889.6      497.25 ug/L         2.964      497.25 ppb          2.964   0.60%
   QC value within limits for U 409.014  Recovery = 99.45%
V 292.402†             65077.2      492.24 ug/L         0.331      492.24 ppb          0.331   0.07%
   QC value within limits for V 292.402  Recovery = 98.45%
Zn 213.857†            50805.8      481.38 ug/L         0.418      481.38 ppb          0.418   0.09%
   QC value within limits for Zn 213.857  Recovery = 96.28%
SiO2†                  74377.1      5176.5 ug/L        43.47      5176.5 ppb         43.47   0.84%
   QC value within limits for SiO2  Recovery = 96.80%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 10:21:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4973.4	4973.4	101	%			10:23:10
1	Y RADIAL	5272.2	5272.2	101.7	%			10:23:10
1	Al 396.153Radial†	-188.9	-23.8	-20.685	ug/L	-20.685	ppb	10:23:10
1	Ca 317.933Radial†	29.1	13.9	21.732	ug/L	21.732	ppb	10:23:30
1	Fe 238.204 Radial†	12.2	0.6	5.5981	ug/L	5.5981	ppb	10:23:30
1	K 766.490 Radial†	3094.0	99.6	17.337	ug/L	17.337	ppb	10:23:10
1	Mg 279.077 IEC†	2.0	0.7	24.481	ug/L	24.481	ppb	10:23:30
1	Na 589.592 Radial†	-935.1	224.6	73.196	ug/L	73.196	ppb	10:23:10
1	Sr 421.552†	12.4	-1.4	-0.0093	ug/L	-0.0093	ppb	10:23:10
1	Sc 361.383	826339.9	826339.9	99.936	%			10:24:27
1	Y 371.029	661830.1	661830.1	99.165	%			10:24:27
1	Ag 328.068†	227.7	-69.2	-0.3414	ug/L	-0.3414	ppb	10:24:27
1	As 188.979†	-15.1	15.5	6.7019	ug/L	6.7019	ppb	10:24:47
1	B 249.677†	-65.8	529.2	12.600	ug/L	12.600	ppb	10:24:47
1	Ba 233.527†	-16.9	-6.6	-0.0529	ug/L	-0.0529	ppb	10:24:47
1	Be 313.107†	-3862.3	-164.4	-0.0592	ug/L	-0.0592	ppb	10:24:27
1	Cd 226.502†	-183.6	32.3	0.3785	ug/L	0.3785	ppb	10:24:47
1	Co 228.616†	-75.1	8.2	0.1696	ug/L	0.1696	ppb	10:24:47
1	Cr 267.716†	101.2	34.6	0.4074	ug/L	0.4074	ppb	10:24:47
1	Cu 324.752†	4908.0	190.2	0.5793	ug/L	0.5793	ppb	10:24:27
1	Mn 257.610†	508.6	39.1	0.0433	ug/L	0.0433	ppb	10:24:47
1	Mo 202.031†	27.2	15.3	1.1557	ug/L	1.1557	ppb	10:24:47
1	Ni 231.604†	76.6	-0.4	-0.0095	ug/L	-0.0095	ppb	10:24:47
1	P 214.914†	232.9	-13.9	-8.2980	ug/L	-8.2980	ppb	10:24:47
1	Pb 220.353†	-62.0	5.1	0.6233	ug/L	0.6233	ppb	10:24:47
1	S 181.975 Axial†	49.2	1.5	2.0265	ug/L	2.0265	ppb	10:24:47
1	Sb 206.836†	45.1	10.0	3.5559	ug/L	3.5559	ppb	10:24:47
1	Se 196.026†	-19.2	6.2	4.0532	ug/L	4.0532	ppb	10:24:47
1	Si 251.611†	593.3	62.3	2.0243	ug/L	2.0243	ppb	10:24:47
1	Sn 189.927†	31.5	22.0	3.9909	ug/L	3.9909	ppb	10:24:47
1	Ti 334.940†	-1331.9	238.2	0.3808	ug/L	0.3808	ppb	10:24:27
1	Tl 190.801†	-35.6	-1.3	-0.4091	ug/L	-0.4091	ppb	10:24:47
1	U 409.014†	-3279.8	330.0	10.360	ug/L	10.360	ppb	10:24:27
1	V 292.402†	-1593.8	-4.6	0.0010	ug/L	0.0010	ppb	10:24:27
1	Zn 213.857†	778.2	50.1	0.4776	ug/L	0.4776	ppb	10:24:47
1	SiO2†	604.4	72.4	5.0200	ug/L	5.0200	ppb	10:25:43
2	Sc Radial	4938.2	4938.2	100	%			10:23:35
2	Y RADIAL	5259.4	5259.4	101.4	%			10:23:35
2	Al 396.153Radial†	-171.3	-7.5	-6.5669	ug/L	-6.5669	ppb	10:23:35
2	Ca 317.933Radial†	21.2	6.2	9.6844	ug/L	9.6844	ppb	10:23:55
2	Fe 238.204 Radial†	11.7	0.2	2.0015	ug/L	2.0015	ppb	10:23:55
2	K 766.490 Radial†	3158.6	185.9	32.388	ug/L	32.388	ppb	10:23:35
2	Mg 279.077 IEC†	1.9	0.7	22.013	ug/L	22.013	ppb	10:23:55
2	Na 589.592 Radial†	-960.8	192.4	62.693	ug/L	62.693	ppb	10:23:35
2	Sr 421.552†	20.4	6.7	0.0436	ug/L	0.0436	ppb	10:23:35
2	Sc 361.383	823714.4	823714.4	99.618	%			10:24:52
2	Y 371.029	658967.9	658967.9	98.736	%			10:24:52
2	Ag 328.068†	263.1	-33.0	-0.1656	ug/L	-0.1656	ppb	10:24:52
2	As 188.979†	-15.0	15.6	6.7202	ug/L	6.7202	ppb	10:25:12
2	B 249.677†	-98.0	496.6	11.824	ug/L	11.824	ppb	10:25:12
2	Ba 233.527†	3.3	13.6	0.1091	ug/L	0.1091	ppb	10:25:12
2	Be 313.107†	-3849.1	-163.5	-0.0593	ug/L	-0.0593	ppb	10:24:52
2	Cd 226.502†	-177.6	37.7	0.4426	ug/L	0.4426	ppb	10:25:12
2	Co 228.616†	-74.8	8.2	0.1727	ug/L	0.1727	ppb	10:25:12
2	Cr 267.716†	95.2	28.9	0.3400	ug/L	0.3400	ppb	10:25:12
2	Cu 324.752†	4898.9	196.8	0.5997	ug/L	0.5997	ppb	10:24:52
2	Mn 257.610†	508.1	40.2	0.0443	ug/L	0.0443	ppb	10:25:12
2	Mo 202.031†	32.1	20.4	1.5357	ug/L	1.5357	ppb	10:25:12
2	Ni 231.604†	99.3	22.7	0.5813	ug/L	0.5813	ppb	10:25:12

2	P 214.914†	230.1	-16.1	-9.5440	ug/L	-9.5440	ppb	10:25:12
2	Pb 220.353†	-57.8	9.1	1.1170	ug/L	1.1170	ppb	10:25:12
2	S 181.975 Axial†	51.5	3.9	5.3121	ug/L	5.3121	ppb	10:25:12
2	Sb 206.836†	36.4	1.4	0.6283	ug/L	0.6283	ppb	10:25:12
2	Se 196.026†	-13.8	11.6	7.5783	ug/L	7.5783	ppb	10:25:12
2	Si 251.611†	583.4	54.3	1.7578	ug/L	1.7578	ppb	10:25:12
2	Sn 189.927†	42.8	33.5	6.0512	ug/L	6.0512	ppb	10:25:12
2	Ti 334.940†	-1454.1	111.2	0.1748	ug/L	0.1748	ppb	10:24:52
2	Tl 190.801†	-30.9	3.3	1.0351	ug/L	1.0351	ppb	10:25:12
2	U 409.014†	-3296.8	302.5	9.4969	ug/L	9.4969	ppb	10:24:52
2	V 292.402†	-1553.7	30.6	0.2678	ug/L	0.2678	ppb	10:24:52
2	Zn 213.857†	767.7	42.0	0.3972	ug/L	0.3972	ppb	10:25:12
2	SiO2†	602.6	72.6	5.0230	ug/L	5.0230	ppb	10:25:48
3	Sc Radial	4874.2	4874.2	99.0	%			10:24:00
3	Y RADIAL	5216.9	5216.9	100.6	%			10:24:00
3	Al 396.153Radial†	-144.7	17.1	14.800	ug/L	14.800	ppb	10:24:00
3	Ca 317.933Radial†	22.7	8.0	12.529	ug/L	12.529	ppb	10:24:20
3	Fe 238.204 Radial†	11.2	-0.1	-0.6489	ug/L	-0.6489	ppb	10:24:20
3	K 766.490 Radial†	3227.1	296.5	51.674	ug/L	51.674	ppb	10:24:00
3	Mg 279.077 IEC†	1.4	0.2	7.2093	ug/L	7.2093	ppb	10:24:20
3	Na 589.592 Radial†	-1002.1	138.1	44.992	ug/L	44.992	ppb	10:24:00
3	Sr 421.552†	3.6	-10.0	-0.0656	ug/L	-0.0656	ppb	10:24:00
3	Sc 361.383	821270.5	821270.5	99.322	%			10:25:17
3	Y 371.029	658160.2	658160.2	98.615	%			10:25:17
3	Ag 328.068†	363.6	69.0	0.3239	ug/L	0.3239	ppb	10:25:17
3	As 188.979†	-25.1	5.4	2.3326	ug/L	2.3326	ppb	10:25:37
3	B 249.677†	-119.9	474.3	11.293	ug/L	11.293	ppb	10:25:37
3	Ba 233.527†	11.5	21.9	0.1736	ug/L	0.1736	ppb	10:25:37
3	Be 313.107†	-3881.8	-207.9	-0.0756	ug/L	-0.0756	ppb	10:25:17
3	Cd 226.502†	-197.7	17.0	0.2005	ug/L	0.2005	ppb	10:25:37
3	Co 228.616†	-67.1	15.8	0.3263	ug/L	0.3263	ppb	10:25:37
3	Cr 267.716†	80.1	14.0	0.1623	ug/L	0.1623	ppb	10:25:37
3	Cu 324.752†	5011.4	324.6	0.9928	ug/L	0.9928	ppb	10:25:17
3	Mn 257.610†	486.0	19.4	0.0214	ug/L	0.0214	ppb	10:25:37
3	Mo 202.031†	24.6	12.9	0.9720	ug/L	0.9720	ppb	10:25:37
3	Ni 231.604†	87.0	10.5	0.2699	ug/L	0.2699	ppb	10:25:37
3	P 214.914†	225.5	-20.0	-11.927	ug/L	-11.927	ppb	10:25:37
3	Pb 220.353†	-65.1	1.6	0.2019	ug/L	0.2019	ppb	10:25:37
3	S 181.975 Axial†	47.8	0.3	0.4001	ug/L	0.4001	ppb	10:25:37
3	Sb 206.836†	39.7	4.8	1.7850	ug/L	1.7850	ppb	10:25:37
3	Se 196.026†	-23.6	1.6	1.0519	ug/L	1.0519	ppb	10:25:37
3	Si 251.611†	555.5	28.0	0.9034	ug/L	0.9034	ppb	10:25:37
3	Sn 189.927†	38.1	28.8	5.2170	ug/L	5.2170	ppb	10:25:37
3	Ti 334.940†	-1482.0	78.8	0.1243	ug/L	0.1243	ppb	10:25:17
3	Tl 190.801†	-32.6	1.5	0.4567	ug/L	0.4567	ppb	10:25:37
3	U 409.014†	-3298.5	291.0	9.1362	ug/L	9.1362	ppb	10:25:17
3	V 292.402†	-1619.5	-40.4	-0.2703	ug/L	-0.2703	ppb	10:25:17
3	Zn 213.857†	760.7	37.3	0.3537	ug/L	0.3537	ppb	10:25:37
3	SiO2†	577.6	49.1	3.4011	ug/L	3.4011	ppb	10:25:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	823774.9	99.625	%	0.3066				0.31%
Sc Radial	4928.6	100	%	1.0				1.02%
Y 371.029	659652.7	98.838	%	0.2889				0.29%
Y RADIAL	5249.5	101.2	%	0.56				0.55%
Ag 328.068†	-11.1	-0.0610	ug/L	0.34478	-0.0610	ppb	0.34478	564.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.7	-4.1507	ug/L	17.86573	-4.1507	ppb	17.86573	430.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.2	5.2516	ug/L	2.52789	5.2516	ppb	2.52789	48.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	500.1	11.906	ug/L	0.6572	11.906	ppb	0.6572	5.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.0766	ug/L	0.11666	0.0766	ppb	0.11666	152.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-178.6	-0.0647	ug/L	0.00948	-0.0647	ppb	0.00948	14.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.3	14.649	ug/L	6.2975	14.649	ppb	6.2975	42.99%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                29.0      0.3405 ug/L       0.12545      0.3405 ppb        0.12545  36.84%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                10.7      0.2228 ug/L       0.08958      0.2228 ppb        0.08958  40.20%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                25.8      0.3033 ug/L       0.12660      0.3033 ppb        0.12660  41.75%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               237.2      0.7240 ug/L       0.23308      0.7240 ppb        0.23308  32.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      2.3169 ug/L       3.13539      2.3169 ppb        3.13539 135.33%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         194.0      33.800 ug/L       17.2121      33.800 ppb        17.2121  50.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      17.901 ug/L        9.3410      17.901 ppb         9.3410  52.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                32.9      0.0363 ug/L       0.01297      0.0363 ppb        0.01297  35.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                16.2      1.2211 ug/L       0.28747      1.2211 ppb        0.28747  23.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        185.0      60.294 ug/L       14.2544      60.294 ppb        14.2544  23.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                11.0      0.2806 ug/L       0.29551      0.2806 ppb        0.29551 105.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -16.7     -9.9229 ug/L       1.84381     -9.9229 ppb        1.84381  18.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.3      0.6474 ug/L       0.45803      0.6474 ppb        0.45803  70.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.9      2.5795 ug/L       2.50224      2.5795 ppb        2.50224  97.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.4      1.9897 ug/L       1.47448      1.9897 ppb        1.47448  74.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.5      4.2278 ug/L       3.26673      4.2278 ppb        3.26673  77.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                48.2      1.5618 ug/L       0.58558      1.5618 ppb        0.58558  37.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                28.1      5.0864 ug/L       1.03634      5.0864 ppb        1.03634  20.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -1.6     -0.0104 ug/L       0.05463     -0.0104 ppb        0.05463 523.54%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               142.7      0.2266 ug/L       0.13587      0.2266 ppb        0.13587  59.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.2      0.3609 ug/L       0.72685      0.3609 ppb        0.72685 201.41%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                307.8      9.6644 ug/L       0.62886      9.6644 ppb        0.62886   6.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -4.8     -0.0005 ug/L       0.26907     -0.0005 ppb        0.26907 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                43.1      0.4095 ug/L       0.06286      0.4095 ppb        0.06286  15.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      64.7      4.4814 ug/L       0.93550      4.4814 ppb        0.93550  20.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 11:35:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4750.8	4750.8	96.5	%			11:37:51
1	Y RADIAL	5058.9	5058.9	97.54	%			11:37:51
1	Al 396.153Radial†	5504.3	5867.2	5064.5	ug/L	5064.5	ppb	11:37:51
1	Ca 317.933Radial†	3195.8	3296.8	5167.3	ug/L	5167.3	ppb	11:38:11
1	Fe 238.204 Radial†	557.6	566.4	5175.4	ug/L	5175.4	ppb	11:38:11
1	K 766.490 Radial†	30062.5	28190.1	4908.6	ug/L	4908.6	ppb	11:37:51
1	Mg 279.077 IEC†	153.6	158.0	5197.9	ug/L	5197.9	ppb	11:38:11
1	Na 589.592 Radial†	28752.2	30945.4	10085	ug/L	10085	ppb	11:37:51
1	Sr 421.552†	73569.9	76225.0	499.61	ug/L	499.61	ppb	11:37:51
1	Sc 361.383	842964.8	842964.8	101.95	%			11:39:08
1	Y 371.029	666155.0	666155.0	99.813	%			11:39:08
1	Ag 328.068†	102921.3	100659.5	489.36	ug/L	489.36	ppb	11:39:13
1	As 188.979†	1110.1	1119.6	486.99	ug/L	486.99	ppb	11:39:33
1	B 249.677†	20313.2	20520.4	486.37	ug/L	486.37	ppb	11:39:13
1	Ba 233.527†	62170.9	60994.3	487.43	ug/L	487.43	ppb	11:39:13
1	Be 313.107†	1345096.1	1323118.9	484.32	ug/L	484.32	ppb	11:39:08
1	Cd 226.502†	41990.8	41405.3	483.19	ug/L	483.19	ppb	11:39:13
1	Co 228.616†	24121.0	23743.8	488.21	ug/L	488.21	ppb	11:39:13
1	Cr 267.716†	41731.2	40868.0	486.28	ug/L	486.28	ppb	11:39:13
1	Cu 324.752†	167441.2	159523.8	490.39	ug/L	490.39	ppb	11:39:13
1	Mn 257.610†	445309.0	436338.3	489.21	ug/L	489.21	ppb	11:39:08
1	Mo 202.031†	6551.0	6414.1	483.66	ug/L	483.66	ppb	11:39:33
1	Ni 231.604†	19371.5	18924.6	484.73	ug/L	484.73	ppb	11:39:13
1	P 214.914†	4426.3	4094.8	2314.4	ug/L	2314.4	ppb	11:39:33
1	Pb 220.353†	3937.7	3929.7	483.31	ug/L	483.31	ppb	11:39:33
1	S 181.975 Axial†	767.8	705.3	966.90	ug/L	966.90	ppb	11:39:33
1	Sb 206.836†	1462.9	1399.9	504.24	ug/L	504.24	ppb	11:39:33
1	Se 196.026†	727.3	738.8	501.11	ug/L	501.11	ppb	11:39:33
1	Si 251.611†	76269.0	74281.7	2423.9	ug/L	2423.9	ppb	11:39:13
1	Sn 189.927†	2719.6	2658.2	481.60	ug/L	481.60	ppb	11:39:33
1	Ti 334.940†	305510.1	301248.9	486.22	ug/L	486.22	ppb	11:39:13
1	Tl 190.801†	1561.6	1566.2	488.88	ug/L	488.88	ppb	11:39:33
1	U 409.014†	12371.9	15747.7	492.77	ug/L	492.77	ppb	11:39:13
1	V 292.402†	64708.1	65063.0	492.14	ug/L	492.14	ppb	11:39:13
1	Zn 213.857†	52448.2	50718.4	480.52	ug/L	480.52	ppb	11:39:13
1	SiO2†	77017.0	75014.4	5220.9	ug/L	5220.9	ppb	11:40:41
2	Sc Radial	4903.9	4903.9	99.6	%			11:38:16
2	Y RADIAL	5186.8	5186.8	100.0	%			11:38:16
2	Al 396.153Radial†	5658.2	5843.6	5044.1	ug/L	5044.1	ppb	11:38:16
2	Ca 317.933Radial†	3171.6	3169.0	4967.1	ug/L	4967.1	ppb	11:38:36
2	Fe 238.204 Radial†	555.9	546.7	4995.6	ug/L	4995.6	ppb	11:38:36
2	K 766.490 Radial†	30824.7	27982.4	4872.5	ug/L	4872.5	ppb	11:38:16
2	Mg 279.077 IEC†	155.5	154.9	5094.5	ug/L	5094.5	ppb	11:38:36
2	Na 589.592 Radial†	29449.9	30715.5	10010	ug/L	10010	ppb	11:38:16
2	Sr 421.552†	75461.0	75742.9	496.45	ug/L	496.45	ppb	11:38:16
2	Sc 361.383	846907.9	846907.9	102.42	%			11:39:39
2	Y 371.029	668914.4	668914.4	100.23	%			11:39:39
2	Ag 328.068†	103054.4	100319.4	487.65	ug/L	487.65	ppb	11:39:44
2	As 188.979†	1107.3	1111.8	483.57	ug/L	483.57	ppb	11:40:04
2	B 249.677†	20548.1	20657.1	489.66	ug/L	489.66	ppb	11:39:44
2	Ba 233.527†	62391.5	60925.8	486.88	ug/L	486.88	ppb	11:39:44
2	Be 313.107†	1348392.4	1320194.1	483.25	ug/L	483.25	ppb	11:39:39
2	Cd 226.502†	42060.4	41281.5	481.77	ug/L	481.77	ppb	11:39:44
2	Co 228.616†	24164.3	23676.0	486.81	ug/L	486.81	ppb	11:39:44
2	Cr 267.716†	41736.3	40682.4	484.07	ug/L	484.07	ppb	11:39:44
2	Cu 324.752†	168085.1	159387.8	489.96	ug/L	489.96	ppb	11:39:44
2	Mn 257.610†	447006.6	435961.9	488.78	ug/L	488.78	ppb	11:39:39
2	Mo 202.031†	6558.5	6391.5	481.95	ug/L	481.95	ppb	11:40:04
2	Ni 231.604†	19377.1	18841.7	482.61	ug/L	482.61	ppb	11:39:44

2	P 214.914†	4439.9	4087.8	2310.5 ug/L	2310.5 ppb	11:40:04
2	Pb 220.353†	3954.8	3928.4	483.16 ug/L	483.16 ppb	11:40:04
2	S 181.975 Axial†	762.2	696.4	954.69 ug/L	954.69 ppb	11:40:04
2	Sb 206.836†	1455.6	1386.0	499.31 ug/L	499.31 ppb	11:40:04
2	Se 196.026†	744.2	752.0	509.11 ug/L	509.11 ppb	11:40:04
2	Si 251.611†	76445.1	74105.3	2418.1 ug/L	2418.1 ppb	11:39:44
2	Sn 189.927†	2707.1	2633.6	477.12 ug/L	477.12 ppb	11:40:04
2	Ti 334.940†	306062.4	300392.8	484.82 ug/L	484.82 ppb	11:39:44
2	Tl 190.801†	1576.2	1573.3	491.07 ug/L	491.07 ppb	11:40:04
2	U 409.014†	12640.5	15953.4	499.26 ug/L	499.26 ppb	11:39:44
2	V 292.402†	64964.2	65017.6	491.82 ug/L	491.82 ppb	11:39:44
2	Zn 213.857†	52501.6	50530.9	478.76 ug/L	478.76 ppb	11:39:44
2	SiO2†	78319.7	75934.6	5285.2 ug/L	5285.2 ppb	11:40:46
3	Sc Radial	4907.7	4907.7	99.7 %		11:38:41
3	Y RADIAL	5194.6	5194.6	100.2 %		11:38:41
3	Al 396.153Radial†	5647.3	5828.2	5030.9 ug/L	5030.9 ppb	11:38:41
3	Ca 317.933Radial†	3193.4	3188.5	4997.5 ug/L	4997.5 ppb	11:39:01
3	Fe 238.204 Radial†	555.9	546.2	4990.8 ug/L	4990.8 ppb	11:39:01
3	K 766.490 Radial†	30772.1	27905.3	4859.1 ug/L	4859.1 ppb	11:38:41
3	Mg 279.077 IEC†	156.3	155.6	5119.4 ug/L	5119.4 ppb	11:39:01
3	Na 589.592 Radial†	29367.7	30609.7	9975.6 ug/L	9975.6 ppb	11:38:41
3	Sr 421.552†	75408.0	75630.1	495.71 ug/L	495.71 ppb	11:38:41
3	Sc 361.383	850006.3	850006.3	102.80 %		11:40:10
3	Y 371.029	671029.0	671029.0	100.54 %		11:40:10
3	Ag 328.068†	103921.8	100796.4	489.95 ug/L	489.95 ppb	11:40:15
3	As 188.979†	1105.6	1106.2	481.19 ug/L	481.19 ppb	11:40:35
3	B 249.677†	20786.8	20816.1	493.44 ug/L	493.44 ppb	11:40:15
3	Ba 233.527†	62840.1	61140.1	488.59 ug/L	488.59 ppb	11:40:15
3	Be 313.107†	1353768.2	1320624.8	483.42 ug/L	483.42 ppb	11:40:10
3	Cd 226.502†	42406.6	41468.5	483.95 ug/L	483.95 ppb	11:40:15
3	Co 228.616†	24371.6	23791.7	489.18 ug/L	489.18 ppb	11:40:15
3	Cr 267.716†	42048.5	40837.5	485.91 ug/L	485.91 ppb	11:40:15
3	Cu 324.752†	169515.6	160181.2	492.39 ug/L	492.39 ppb	11:40:15
3	Mn 257.610†	449865.3	437152.0	490.11 ug/L	490.11 ppb	11:40:10
3	Mo 202.031†	6549.7	6359.6	479.54 ug/L	479.54 ppb	11:40:35
3	Ni 231.604†	19520.4	18912.1	484.41 ug/L	484.41 ppb	11:40:15
3	P 214.914†	4405.8	4038.8	2281.2 ug/L	2281.2 ppb	11:40:35
3	Pb 220.353†	3936.5	3896.5	479.24 ug/L	479.24 ppb	11:40:35
3	S 181.975 Axial†	753.4	685.2	939.24 ug/L	939.24 ppb	11:40:35
3	Sb 206.836†	1473.5	1398.3	503.50 ug/L	503.50 ppb	11:40:35
3	Se 196.026†	734.7	740.1	501.30 ug/L	501.30 ppb	11:40:35
3	Si 251.611†	77281.1	74646.5	2435.9 ug/L	2435.9 ppb	11:40:15
3	Sn 189.927†	2709.9	2626.6	475.86 ug/L	475.86 ppb	11:40:35
3	Ti 334.940†	309115.5	302273.6	487.85 ug/L	487.85 ppb	11:40:15
3	Tl 190.801†	1552.1	1544.2	482.07 ug/L	482.07 ppb	11:40:35
3	U 409.014†	13009.9	16267.8	509.13 ug/L	509.13 ppb	11:40:15
3	V 292.402†	65342.3	65154.1	492.82 ug/L	492.82 ppb	11:40:15
3	Zn 213.857†	52974.1	50803.7	481.36 ug/L	481.36 ppb	11:40:15
3	SiO2†	76225.8	73618.9	5123.7 ug/L	5123.7 ppb	11:40:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846626.3	102.39	%	0.427				0.42%
Sc Radial	4854.1	98.6	%	1.82				1.84%
Y 371.029	668699.5	100.19	%	0.366				0.37%
Y RADIAL	5146.8	99.24	%	1.469				1.48%
Ag 328.068†	100591.7	488.99	ug/L	1.193	488.99	ppb	1.193	0.24%
QC value within limits for Ag 328.068 Recovery = 97.80%								
Al 396.153Radial†	5846.4	5046.5	ug/L	16.92	5046.5	ppb	16.92	0.34%
QC value within limits for Al 396.153Radial Recovery = 100.93%								
As 188.979†	1112.5	483.92	ug/L	2.918	483.92	ppb	2.918	0.60%
QC value within limits for As 188.979 Recovery = 96.78%								
B 249.677†	20664.5	489.82	ug/L	3.537	489.82	ppb	3.537	0.72%
QC value within limits for B 249.677 Recovery = 97.96%								
Ba 233.527†	61020.1	487.64	ug/L	0.873	487.64	ppb	0.873	0.18%
QC value within limits for Ba 233.527 Recovery = 97.53%								
Be 313.107†	1321312.6	483.67	ug/L	0.577	483.67	ppb	0.577	0.12%
QC value within limits for Be 313.107 Recovery = 96.73%								
Ca 317.933Radial†	3218.1	5044.0	ug/L	107.92	5044.0	ppb	107.92	2.14%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.88%
Cd 226.502†            41385.1      482.97 ug/L         1.110      482.97 ppb          1.110   0.23%
   QC value within limits for Cd 226.502  Recovery = 96.59%
Co 228.616†            23737.2      488.07 ug/L         1.190      488.07 ppb          1.190   0.24%
   QC value within limits for Co 228.616  Recovery = 97.61%
Cr 267.716†            40795.9      485.42 ug/L         1.185      485.42 ppb          1.185   0.24%
   QC value within limits for Cr 267.716  Recovery = 97.08%
Cu 324.752†           159697.6      490.91 ug/L         1.298      490.91 ppb          1.298   0.26%
   QC value within limits for Cu 324.752  Recovery = 98.18%
Fe 238.204 Radial†       553.1      5053.9 ug/L        105.22      5053.9 ppb        105.22   2.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.08%
K 766.490 Radial†      28025.9      4880.1 ug/L         25.62      4880.1 ppb          25.62   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 97.60%
Mg 279.077 IEC†          156.2      5137.3 ug/L         53.96      5137.3 ppb          53.96   1.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.75%
Mn 257.610†           436484.1      489.36 ug/L         0.679      489.36 ppb          0.679   0.14%
   QC value within limits for Mn 257.610  Recovery = 97.87%
Mo 202.031†             6388.4      481.72 ug/L         2.069      481.72 ppb          2.069   0.43%
   QC value within limits for Mo 202.031  Recovery = 96.34%
Na 589.592 Radial†     30756.9       10024 ug/L          55.9       10024 ppb           55.9   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 100.24%
Ni 231.604†            18892.8      483.91 ug/L         1.145      483.91 ppb          1.145   0.24%
   QC value within limits for Ni 231.604  Recovery = 96.78%
P 214.914†              4073.8      2302.0 ug/L         18.16      2302.0 ppb          18.16   0.79%
   QC value within limits for P 214.914  Recovery = 92.08%
Pb 220.353†             3918.2      481.90 ug/L         2.306      481.90 ppb          2.306   0.48%
   QC value within limits for Pb 220.353  Recovery = 96.38%
S 181.975 Axial†         695.6      953.61 ug/L        13.861      953.61 ppb         13.861   1.45%
   QC value within limits for S 181.975 Axial  Recovery = 95.36%
Sb 206.836†             1394.7      502.35 ug/L         2.657      502.35 ppb          2.657   0.53%
   QC value within limits for Sb 206.836  Recovery = 100.47%
Se 196.026†              743.6      503.84 ug/L         4.567      503.84 ppb          4.567   0.91%
   QC value within limits for Se 196.026  Recovery = 100.77%
Si 251.611†            74344.5      2426.0 ug/L          9.05      2426.0 ppb           9.05   0.37%
   QC value within limits for Si 251.611  Recovery = 97.04%
Sn 189.927†             2639.5      478.19 ug/L         3.017      478.19 ppb          3.017   0.63%
   QC value within limits for Sn 189.927  Recovery = 95.64%
Sr 421.552†            75866.0      497.26 ug/L         2.070      497.26 ppb          2.070   0.42%
   QC value within limits for Sr 421.552  Recovery = 99.45%
Ti 334.940†           301305.1      486.30 ug/L         1.518      486.30 ppb          1.518   0.31%
   QC value within limits for Ti 334.940  Recovery = 97.26%
Tl 190.801†             1561.2      487.34 ug/L         4.695      487.34 ppb          4.695   0.96%
   QC value within limits for Tl 190.801  Recovery = 97.47%
U 409.014†             15989.6      500.39 ug/L         8.234      500.39 ppb          8.234   1.65%
   QC value within limits for U 409.014  Recovery = 100.08%
V 292.402†             65078.2      492.26 ug/L         0.511      492.26 ppb          0.511   0.10%
   QC value within limits for V 292.402  Recovery = 98.45%
Zn 213.857†            50684.3      480.21 ug/L         1.324      480.21 ppb          1.324   0.28%
   QC value within limits for Zn 213.857  Recovery = 96.04%
SiO2†                  74855.9      5209.9 ug/L         81.32      5209.9 ppb          81.32   1.56%
   QC value within limits for SiO2  Recovery = 97.43%
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 11:43:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4999.5	4999.5	102	%			11:44:55
1	Y RADIAL	5303.0	5303.0	102.2	%			11:44:55
1	Al 396.153Radial†	-146.7	18.8	16.260	ug/L	16.260	ppb	11:44:55
1	Ca 317.933Radial†	20.3	5.0	7.8734	ug/L	7.8734	ppb	11:45:15
1	Fe 238.204 Radial†	9.0	-2.5	-22.942	ug/L	-22.942	ppb	11:45:15
1	K 766.490 Radial†	2955.2	-52.9	-9.2527	ug/L	-9.2527	ppb	11:44:55
1	Mg 279.077 IEC†	0.8	-0.5	-15.140	ug/L	-15.140	ppb	11:45:15
1	Na 589.592 Radial†	-1003.7	161.8	52.736	ug/L	52.736	ppb	11:44:55
1	Sr 421.552†	23.1	9.1	0.0593	ug/L	0.0593	ppb	11:44:55
1	Sc 361.383	825460.6	825460.6	99.829	%			11:46:12
1	Y 371.029	660528.7	660528.7	98.970	%			11:46:12
1	Ag 328.068†	329.9	33.3	0.1402	ug/L	0.1402	ppb	11:46:12
1	As 188.979†	-21.3	9.3	4.0032	ug/L	4.0032	ppb	11:46:32
1	B 249.677†	-318.9	275.6	6.5652	ug/L	6.5652	ppb	11:46:32
1	Ba 233.527†	0.8	11.1	0.0875	ug/L	0.0875	ppb	11:46:32
1	Be 313.107†	-3805.4	-111.5	-0.0403	ug/L	-0.0403	ppb	11:46:12
1	Cd 226.502†	-206.6	9.1	0.1121	ug/L	0.1121	ppb	11:46:32
1	Co 228.616†	-80.1	3.1	0.0659	ug/L	0.0659	ppb	11:46:32
1	Cr 267.716†	84.4	17.9	0.2063	ug/L	0.2063	ppb	11:46:32
1	Cu 324.752†	4884.7	172.1	0.5193	ug/L	0.5193	ppb	11:46:12
1	Mn 257.610†	463.9	-5.2	-0.0075	ug/L	-0.0075	ppb	11:46:32
1	Mo 202.031†	22.2	10.4	0.7833	ug/L	0.7833	ppb	11:46:32
1	Ni 231.604†	93.6	16.7	0.4283	ug/L	0.4283	ppb	11:46:32
1	P 214.914†	245.0	-1.6	-0.9906	ug/L	-0.9906	ppb	11:46:32
1	Pb 220.353†	-70.1	-3.0	-0.3648	ug/L	-0.3648	ppb	11:46:32
1	S 181.975 Axial†	45.3	-2.4	-3.3423	ug/L	-3.3423	ppb	11:46:32
1	Sb 206.836†	43.4	8.4	2.9663	ug/L	2.9663	ppb	11:46:32
1	Se 196.026†	-16.8	8.5	5.5086	ug/L	5.5086	ppb	11:46:32
1	Si 251.611†	543.8	13.4	0.4276	ug/L	0.4276	ppb	11:46:32
1	Sn 189.927†	21.5	12.1	2.1809	ug/L	2.1809	ppb	11:46:32
1	Ti 334.940†	-1442.9	125.6	0.1980	ug/L	0.1980	ppb	11:46:12
1	Tl 190.801†	-29.5	4.8	1.4802	ug/L	1.4802	ppb	11:46:32
1	U 409.014†	-3106.7	499.9	15.700	ug/L	15.700	ppb	11:46:12
1	V 292.402†	-1587.9	-0.4	0.0408	ug/L	0.0408	ppb	11:46:12
1	Zn 213.857†	732.9	5.5	0.0530	ug/L	0.0530	ppb	11:46:32
1	SiO2†	548.4	17.0	1.1625	ug/L	1.1625	ppb	11:47:28
2	Sc Radial	4909.8	4909.8	99.7	%			11:45:20
2	Y RADIAL	5224.2	5224.2	100.7	%			11:45:20
2	Al 396.153Radial†	-180.3	-17.6	-15.249	ug/L	-15.249	ppb	11:45:20
2	Ca 317.933Radial†	21.8	6.9	10.741	ug/L	10.741	ppb	11:45:40
2	Fe 238.204 Radial†	11.7	0.4	3.2292	ug/L	3.2292	ppb	11:45:40
2	K 766.490 Radial†	2990.6	35.7	6.1807	ug/L	6.1807	ppb	11:45:20
2	Mg 279.077 IEC†	2.4	1.2	37.998	ug/L	37.998	ppb	11:45:40
2	Na 589.592 Radial†	-878.2	269.6	87.872	ug/L	87.872	ppb	11:45:20
2	Sr 421.552†	10.0	-3.6	-0.0240	ug/L	-0.0240	ppb	11:45:20
2	Sc 361.383	828370.5	828370.5	100.18	%			11:46:37
2	Y 371.029	662226.2	662226.2	99.224	%			11:46:37
2	Ag 328.068†	276.1	-21.5	-0.1071	ug/L	-0.1071	ppb	11:46:37
2	As 188.979†	-18.6	12.1	5.2149	ug/L	5.2149	ppb	11:46:57
2	B 249.677†	-327.5	268.1	6.3833	ug/L	6.3833	ppb	11:46:57
2	Ba 233.527†	-9.3	1.0	0.0094	ug/L	0.0094	ppb	11:46:57
2	Be 313.107†	-3863.0	-155.7	-0.0565	ug/L	-0.0565	ppb	11:46:37
2	Cd 226.502†	-206.2	10.3	0.1215	ug/L	0.1215	ppb	11:46:57
2	Co 228.616†	-75.5	8.0	0.1646	ug/L	0.1646	ppb	11:46:57
2	Cr 267.716†	87.8	21.0	0.2471	ug/L	0.2471	ppb	11:46:57
2	Cu 324.752†	4906.8	176.9	0.5396	ug/L	0.5396	ppb	11:46:37
2	Mn 257.610†	504.5	33.7	0.0366	ug/L	0.0366	ppb	11:46:57
2	Mo 202.031†	15.1	3.3	0.2458	ug/L	0.2458	ppb	11:46:57
2	Ni 231.604†	91.5	14.3	0.3671	ug/L	0.3671	ppb	11:46:57

2	P 214.914†	250.3	2.8	1.5208 ug/L	1.5208 ppb	11:46:57
2	Pb 220.353†	-68.9	-1.7	-0.2073 ug/L	-0.2073 ppb	11:46:57
2	S 181.975 Axial†	42.8	-5.1	-6.9740 ug/L	-6.9740 ppb	11:46:57
2	Sb 206.836†	55.0	19.8	6.9047 ug/L	6.9047 ppb	11:46:57
2	Se 196.026†	-14.7	10.7	7.0079 ug/L	7.0079 ppb	11:46:57
2	Si 251.611†	523.0	-9.3	-0.3066 ug/L	-0.3066 ppb	11:46:57
2	Sn 189.927†	13.8	4.3	0.7714 ug/L	0.7714 ppb	11:46:57
2	Ti 334.940†	-1470.5	103.1	0.1611 ug/L	0.1611 ppb	11:46:37
2	Tl 190.801†	-31.2	3.2	0.9849 ug/L	0.9849 ppb	11:46:57
2	U 409.014†	-3359.3	258.7	8.1211 ug/L	8.1211 ppb	11:46:37
2	V 292.402†	-1508.9	84.0	0.6464 ug/L	0.6464 ppb	11:46:37
2	Zn 213.857†	750.0	20.0	0.1877 ug/L	0.1877 ppb	11:46:57
2	SiO2†	536.7	3.4	0.2303 ug/L	0.2303 ppb	11:47:33
3	Sc Radial	4937.3	4937.3	100 %		11:45:45
3	Y RADIAL	5242.9	5242.9	101.1 %		11:45:45
3	Al 396.153Radial†	-149.5	14.2	12.233 ug/L	12.233 ppb	11:45:45
3	Ca 317.933Radial†	19.3	4.2	6.6540 ug/L	6.6540 ppb	11:46:05
3	Fe 238.204 Radial†	7.7	-3.7	-33.987 ug/L	-33.987 ppb	11:46:05
3	K 766.490 Radial†	2967.9	-3.7	-0.6625 ug/L	-0.6625 ppb	11:45:45
3	Mg 279.077 IEC†	3.9	2.7	89.627 ug/L	89.627 ppb	11:46:05
3	Na 589.592 Radial†	-985.2	167.9	54.706 ug/L	54.706 ppb	11:45:45
3	Sr 421.552†	51.5	37.7	0.2473 ug/L	0.2473 ppb	11:45:45
3	Sc 361.383	825041.7	825041.7	99.779 %		11:47:02
3	Y 371.029	659068.0	659068.0	98.751 %		11:47:02
3	Ag 328.068†	306.5	10.1	0.0280 ug/L	0.0280 ppb	11:47:02
3	As 188.979†	-34.3	-3.7	-1.5963 ug/L	-1.5963 ppb	11:47:23
3	B 249.677†	-356.7	237.5	5.6596 ug/L	5.6596 ppb	11:47:23
3	Ba 233.527†	3.2	13.4	0.1045 ug/L	0.1045 ppb	11:47:23
3	Be 313.107†	-3840.8	-149.0	-0.0541 ug/L	-0.0541 ppb	11:47:02
3	Cd 226.502†	-203.3	12.3	0.1489 ug/L	0.1489 ppb	11:47:23
3	Co 228.616†	-74.4	8.8	0.1842 ug/L	0.1842 ppb	11:47:23
3	Cr 267.716†	58.4	-8.1	-0.1010 ug/L	-0.1010 ppb	11:47:23
3	Cu 324.752†	4861.3	151.1	0.4586 ug/L	0.4586 ppb	11:47:02
3	Mn 257.610†	478.8	10.0	0.0042 ug/L	0.0042 ppb	11:47:23
3	Mo 202.031†	26.4	14.6	1.0942 ug/L	1.0942 ppb	11:47:23
3	Ni 231.604†	85.4	8.6	0.2204 ug/L	0.2204 ppb	11:47:23
3	P 214.914†	231.2	-15.3	-9.0768 ug/L	-9.0768 ppb	11:47:23
3	Pb 220.353†	-65.4	1.6	0.2050 ug/L	0.2050 ppb	11:47:23
3	S 181.975 Axial†	50.1	2.4	3.3457 ug/L	3.3457 ppb	11:47:23
3	Sb 206.836†	26.7	-8.4	-2.8745 ug/L	-2.8745 ppb	11:47:23
3	Se 196.026†	-21.8	3.6	2.2144 ug/L	2.2144 ppb	11:47:23
3	Si 251.611†	564.2	34.1	1.1019 ug/L	1.1019 ppb	11:47:23
3	Sn 189.927†	16.2	6.8	1.2268 ug/L	1.2268 ppb	11:47:23
3	Ti 334.940†	-1492.8	74.8	0.1111 ug/L	0.1111 ppb	11:47:02
3	Tl 190.801†	-33.8	0.5	0.1487 ug/L	0.1487 ppb	11:47:23
3	U 409.014†	-3366.4	238.1	7.4793 ug/L	7.4793 ppb	11:47:02
3	V 292.402†	-1684.9	-98.5	-0.6988 ug/L	-0.6988 ppb	11:47:02
3	Zn 213.857†	727.9	0.9	0.0113 ug/L	0.0113 ppb	11:47:23
3	SiO2†	547.3	16.2	1.0975 ug/L	1.0975 ppb	11:47:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826291.0	99.930	%	0.2193				0.22%
Sc Radial	4948.9	101	%	0.9				0.93%
Y 371.029	660607.6	98.981	%	0.2368				0.24%
Y RADIAL	5256.7	101.4	%	0.79				0.78%
Ag 328.068†	7.3	0.0204	ug/L	0.12379	0.0204	ppb	0.12379	607.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.1	4.4147	ug/L	17.14783	4.4147	ppb	17.14783	388.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.9	2.5406	ug/L	3.63353	2.5406	ppb	3.63353	143.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	260.4	6.2027	ug/L	0.47910	6.2027	ppb	0.47910	7.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.5	0.0672	ug/L	0.05072	0.0672	ppb	0.05072	75.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-138.7	-0.0503	ug/L	0.00875	-0.0503	ppb	0.00875	17.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.4	8.4228	ug/L	2.09807	8.4228	ppb	2.09807	24.91%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                10.6      0.1275 ug/L       0.01910      0.1275 ppb        0.01910  14.98%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.6      0.1382 ug/L       0.06342      0.1382 ppb        0.06342  45.88%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.3      0.1175 ug/L       0.19027      0.1175 ppb        0.19027 161.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               166.7      0.5058 ug/L       0.04215      0.5058 ppb        0.04215   8.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.0     -17.900 ug/L       19.1136     -17.900 ppb        19.1136 106.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -7.0     -1.2448 ug/L       7.73314     -1.2448 ppb        7.73314 621.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      37.495 ug/L       52.3851      37.495 ppb        52.3851 139.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                12.8      0.0111 ug/L       0.02282      0.0111 ppb        0.02282 206.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.4      0.7078 ug/L       0.42922      0.7078 ppb        0.42922  60.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        199.8      65.105 ug/L       19.7417      65.105 ppb        19.7417  30.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.2      0.3386 ug/L       0.10684      0.3386 ppb        0.10684  31.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.7     -2.8488 ug/L       5.53778     -2.8488 ppb        5.53778 194.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.0     -0.1224 ug/L       0.29425     -0.1224 ppb        0.29425 240.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.7     -2.3235 ug/L       5.23476     -2.3235 ppb        5.23476 225.29%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.6      2.3322 ug/L       4.92031      2.3322 ppb        4.92031 210.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.6      4.9103 ug/L       2.45211      4.9103 ppb        2.45211  49.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                12.7      0.4077 ug/L       0.70445      0.4077 ppb        0.70445 172.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.7      1.3930 ug/L       0.71932      1.3930 ppb        0.71932  51.64%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                14.4      0.0942 ug/L       0.13895      0.0942 ppb        0.13895 147.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               101.2      0.1568 ug/L       0.04360      0.1568 ppb        0.04360  27.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      0.8713 ug/L       0.67300      0.8713 ppb        0.67300  77.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                332.2      10.433 ug/L        4.5720      10.433 ppb         4.5720  43.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -4.9     -0.0038 ug/L       0.67370     -0.0038 ppb        0.67370 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 8.8      0.0840 ug/L       0.09220      0.0840 ppb        0.09220 109.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      12.2      0.8301 ug/L       0.52045      0.8301 ppb        0.52045  62.70%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 23
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 12:38:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4876.0	4876.0	99.0	%			12:39:56
1	Y RADIAL	5173.8	5173.8	99.76	%			12:39:56
1	Al 396.153Radial†	5614.8	5832.3	5033.9	ug/L	5033.9	ppb	12:39:56
1	Ca 317.933Radial†	3216.1	3232.2	5066.1	ug/L	5066.1	ppb	12:40:16
1	Fe 238.204 Radial†	561.6	555.6	5077.0	ug/L	5077.0	ppb	12:40:16
1	K 766.490 Radial†	30846.2	28181.5	4907.1	ug/L	4907.1	ppb	12:39:56
1	Mg 279.077 IEC†	153.7	154.0	5065.5	ug/L	5065.5	ppb	12:40:16
1	Na 589.592 Radial†	30040.5	31481.2	10260	ug/L	10260	ppb	12:39:56
1	Sr 421.552†	76221.7	76945.0	504.33	ug/L	504.33	ppb	12:39:56
1	Sc 361.383	843061.4	843061.4	101.96	%			12:41:14
1	Y 371.029	665577.6	665577.6	99.726	%			12:41:14
1	Ag 328.068†	104699.6	102392.0	497.71	ug/L	497.71	ppb	12:41:19
1	As 188.979†	1116.2	1125.5	489.60	ug/L	489.60	ppb	12:41:39
1	B 249.677†	20641.5	20840.2	493.98	ug/L	493.98	ppb	12:41:19
1	Ba 233.527†	63228.5	62024.7	495.66	ug/L	495.66	ppb	12:41:19
1	Be 313.107†	1347615.5	1325438.7	485.21	ug/L	485.21	ppb	12:41:14
1	Cd 226.502†	42573.9	41972.5	489.83	ug/L	489.83	ppb	12:41:19
1	Co 228.616†	24530.1	24142.4	496.39	ug/L	496.39	ppb	12:41:19
1	Cr 267.716†	42265.4	41387.1	492.46	ug/L	492.46	ppb	12:41:19
1	Cu 324.752†	170954.3	162950.7	500.91	ug/L	500.91	ppb	12:41:19
1	Mn 257.610†	447344.0	438284.2	491.39	ug/L	491.39	ppb	12:41:14
1	Mo 202.031†	6637.4	6498.1	489.98	ug/L	489.98	ppb	12:41:39
1	Ni 231.604†	19676.5	19221.6	492.34	ug/L	492.34	ppb	12:41:19
1	P 214.914†	4488.4	4155.2	2348.0	ug/L	2348.0	ppb	12:41:39
1	Pb 220.353†	3983.7	3974.4	488.80	ug/L	488.80	ppb	12:41:39
1	S 181.975 Axial†	787.2	724.3	992.99	ug/L	992.99	ppb	12:41:39
1	Sb 206.836†	1489.6	1425.8	513.40	ug/L	513.40	ppb	12:41:39
1	Se 196.026†	741.2	752.3	509.63	ug/L	509.63	ppb	12:41:39
1	Si 251.611†	78020.9	75991.4	2479.7	ug/L	2479.7	ppb	12:41:19
1	Sn 189.927†	2727.9	2666.1	483.01	ug/L	483.01	ppb	12:41:39
1	Ti 334.940†	314915.3	310439.1	501.05	ug/L	501.05	ppb	12:41:14
1	Tl 190.801†	1584.6	1588.5	495.89	ug/L	495.89	ppb	12:41:39
1	U 409.014†	12992.4	16354.9	511.84	ug/L	511.84	ppb	12:41:19
1	V 292.402†	65797.2	66123.9	500.18	ug/L	500.18	ppb	12:41:19
1	Zn 213.857†	53390.8	51637.0	489.25	ug/L	489.25	ppb	12:41:19
1	SiO2†	77489.5	75469.2	5252.5	ug/L	5252.5	ppb	12:42:47
2	Sc Radial	4911.3	4911.3	99.8	%			12:40:21
2	Y RADIAL	5198.9	5198.9	100.2	%			12:40:21
2	Al 396.153Radial†	5686.7	5863.6	5061.3	ug/L	5061.3	ppb	12:40:21
2	Ca 317.933Radial†	3220.2	3212.9	5035.8	ug/L	5035.8	ppb	12:40:41
2	Fe 238.204 Radial†	561.5	551.4	5038.9	ug/L	5038.9	ppb	12:40:41
2	K 766.490 Radial†	30834.1	27945.0	4865.9	ug/L	4865.9	ppb	12:40:21
2	Mg 279.077 IEC†	158.9	158.1	5201.6	ug/L	5201.6	ppb	12:40:41
2	Na 589.592 Radial†	30103.6	31326.0	10209	ug/L	10209	ppb	12:40:21
2	Sr 421.552†	76839.0	77009.5	504.75	ug/L	504.75	ppb	12:40:21
2	Sc 361.383	850286.2	850286.2	102.83	%			12:41:45
2	Y 371.029	670475.9	670475.9	100.46	%			12:41:45
2	Ag 328.068†	105114.7	101923.2	495.42	ug/L	495.42	ppb	12:41:50
2	As 188.979†	1116.0	1115.9	485.51	ug/L	485.51	ppb	12:42:10
2	B 249.677†	20812.7	20834.6	493.86	ug/L	493.86	ppb	12:41:50
2	Ba 233.527†	63370.7	61636.0	492.56	ug/L	492.56	ppb	12:41:50
2	Be 313.107†	1357957.2	1324265.0	484.78	ug/L	484.78	ppb	12:41:45
2	Cd 226.502†	42678.1	41719.0	486.88	ug/L	486.88	ppb	12:41:50
2	Co 228.616†	24575.5	23982.1	493.08	ug/L	493.08	ppb	12:41:50
2	Cr 267.716†	42370.3	41136.9	489.48	ug/L	489.48	ppb	12:41:50
2	Cu 324.752†	171718.3	162269.0	498.81	ug/L	498.81	ppb	12:41:50
2	Mn 257.610†	450565.3	437688.7	490.71	ug/L	490.71	ppb	12:41:45
2	Mo 202.031†	6612.9	6419.0	484.02	ug/L	484.02	ppb	12:42:10
2	Ni 231.604†	19701.0	19081.5	488.75	ug/L	488.75	ppb	12:41:50

Uploaded Data CCV 12-FEB-2010 12:38:00

Run Level

Attribute	Value	Units
Dilution	1	num
Spike Refmat Id	1268948	num
Serial Number	WI100212-43	text

Parmname Level

Details	Parmname	Status	Initial Result ug/L	Intensity none	Nominal ug/L	Recovery percent
View	1,1-Dichloroethane	LOAD				
View	1,2-Dichloropropane	LOAD				
View	3,3'-Dichlorobenzidine	LOAD				
View	4,4'-DDT	LOAD				
View	4-Chloro-3-methylphenol	LOAD				
View	Aluminum	LOAD	5050.8	5851.55802	5000	101.016
View	Antimony	LOAD	510.94	1419.278251	500	102.188
View	Arsenic	LOAD	486.63	1118.549888	500	97.326
View	Barium	LOAD	491.15	61459.90842	500	98.23
View	Beryllium	LOAD	485.23	1325495.333	500	97.046
View	Bismuth	LOAD				
View	Boron	LOAD	491.11	20718.62124	500	98.222
View	Cadmium	LOAD	485.38	41590.89153	500	97.076
View	Calcium	LOAD	5002.4	3191.561502	5000	100.048
View	Cerium	LOAD				
View	Cesium	LOAD				
View	Chromium	LOAD	488.1	41021.45302	500	97.62
View	Chrysene	LOAD				

View	Cobalt	LOAD	491.62	23911.07612	500	98.324
View	Copper	LOAD	496.94	161659.8254	500	99.388
View	Europium	LOAD				
View	Famphur	LOAD				
View	Fluoranthene	LOAD				
View	Gadolinium	LOAD				
View	Germanium	LOAD				
View	Gold	LOAD				
View	Holmium	LOAD				
View	Indium	LOAD				
View	Iron	LOAD	5009.3	548.187294	5000	100.186
View	Krypton	LOAD				
View	Lanthanum	LOAD				
View	Lead	LOAD	484.56	3939.787398	500	96.912
View	Lithium	LOAD				
View	Lutetium	LOAD				
View	Magnesium	LOAD	5081.4	154.472073	5000	101.628
View	Manganese	LOAD	490.7	437673.5191	500	98.14
View	Mercury	LOAD				
View	Methapyrilene	LOAD				
View	Molybdenum	LOAD	485.61	6440.13694	500	97.122
View	Neodymium	LOAD				
View	Nickel	LOAD	487.33	19026.04146	500	97.466
View	Niobium	LOAD				
View	Palladium	LOAD				
View	Pentachlorobenzene	LOAD				
View	Phosphorous	LOAD	2318.5	4103.659163	2500	92.74
View	Platinum	LOAD				

View	Potassium	LOAD	4871.7	27978.10496	5000	97.434
View	Praseodymium	LOAD				
View	Ruthenium	LOAD				
View	Samarium	LOAD				
View	Scandium	LOAD				
View	Selenium	LOAD	508.22	750.525344	500	101.644
View	Silica	LOAD	5185.4	74505.71396	5350	96.923364
View	Silicon	LOAD	2454.8	75226.0418	2500	98.192
View	Silver	LOAD	493.47	101520.8575	500	98.694
View	Sodium	LOAD	10188	31262.26694	10000	101.88
View	Strontium	LOAD	503.35	76795.05705	500	100.67
View	Sulfur	LOAD	971.05	708.334767	1000	97.105
View	Terbium	LOAD				
View	Thallium	LOAD	491.64	1574.724261	500	98.328
View	Thorium	LOAD				
View	Tin	LOAD	478.69	2642.294979	500	95.738
View	Titanium	LOAD	501.42	310672.7306	500	100.284
View	Total Uranium	LOAD				
View	Tungsten	LOAD				
View	Uranium	LOAD	507.7	16222.52493	500	101.54
View	Uranium-233	LOAD				
View	Uranium-234	LOAD				
View	Uranium-235	LOAD				
View	Uranium-236	LOAD				
View	Uranium-238	LOAD				
View	Vanadium	LOAD	496.19	65596.84692	500	99.238
View	Yttrium	LOAD				
View	Zinc	LOAD	484.08	51091.67043	500	96.816

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.05%
Cd 226.502†            41590.9      485.38 ug/L         5.356      485.38 ppb          5.356   1.10%
   QC value within limits for Cd 226.502  Recovery = 97.08%
Co 228.616†            23911.1      491.62 ug/L         5.637      491.62 ppb          5.637   1.15%
   QC value within limits for Co 228.616  Recovery = 98.32%
Cr 267.716†            41021.5      488.10 ug/L         5.177      488.10 ppb          5.177   1.06%
   QC value within limits for Cr 267.716  Recovery = 97.62%
Cu 324.752†           161659.8      496.94 ug/L         5.168      496.94 ppb          5.168   1.04%
   QC value within limits for Cu 324.752  Recovery = 99.39%
Fe 238.204 Radial†       548.2      5009.3 ug/L        86.40      5009.3 ppb         86.40   1.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.19%
K 766.490 Radial†      27978.1      4871.7 ug/L        32.90      4871.7 ppb         32.90   0.68%
   QC value within limits for K 766.490 Radial  Recovery = 97.43%
Mg 279.077 IEC†          154.5      5081.4 ug/L       113.11      5081.4 ppb        113.11   2.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.63%
Mn 257.610†           437673.5      490.70 ug/L         0.699      490.70 ppb          0.699   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.14%
Mo 202.031†             6440.1      485.61 ug/L         3.835      485.61 ppb          3.835   0.79%
   QC value within limits for Mo 202.031  Recovery = 97.12%
Na 589.592 Radial†     31262.3       10188 ug/L          83.7       10188 ppb           83.7   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 101.88%
Ni 231.604†            19026.0      487.33 ug/L         5.850      487.33 ppb          5.850   1.20%
   QC value within limits for Ni 231.604  Recovery = 97.47%
P 214.914†              4103.7      2318.5 ug/L        27.45      2318.5 ppb         27.45   1.18%
   QC value within limits for P 214.914  Recovery = 92.74%
Pb 220.353†             3939.8      484.56 ug/L         3.689      484.56 ppb          3.689   0.76%
   QC value within limits for Pb 220.353  Recovery = 96.91%
S 181.975 Axial†         708.3      971.05 ug/L        20.436      971.05 ppb         20.436   2.10%
   QC value within limits for S 181.975 Axial  Recovery = 97.10%
Sb 206.836†             1419.3      510.94 ug/L         3.026      510.94 ppb          3.026   0.59%
   QC value within limits for Sb 206.836  Recovery = 102.19%
Se 196.026†              750.5      508.22 ug/L         1.393      508.22 ppb          1.393   0.27%
   QC value within limits for Se 196.026  Recovery = 101.64%
Si 251.611†            75226.0      2454.8 ug/L        28.97      2454.8 ppb         28.97   1.18%
   QC value within limits for Si 251.611  Recovery = 98.19%
Sn 189.927†             2642.3      478.69 ug/L         3.755      478.69 ppb          3.755   0.78%
   QC value within limits for Sn 189.927  Recovery = 95.74%
Sr 421.552†            76795.1      503.35 ug/L         2.078      503.35 ppb          2.078   0.41%
   QC value within limits for Sr 421.552  Recovery = 100.67%
Ti 334.940†           310672.7      501.42 ug/L         0.384      501.42 ppb          0.384   0.08%
   QC value within limits for Ti 334.940  Recovery = 100.28%
Tl 190.801†             1574.7      491.64 ug/L         3.682      491.64 ppb          3.682   0.75%
   QC value within limits for Tl 190.801  Recovery = 98.33%
U 409.014†             16222.5      507.70 ug/L         4.331      507.70 ppb          4.331   0.85%
   QC value within limits for U 409.014  Recovery = 101.54%
V 292.402†             65596.8      496.19 ug/L         4.540      496.19 ppb          4.540   0.92%
   QC value within limits for V 292.402  Recovery = 99.24%
Zn 213.857†            51091.7      484.08 ug/L         5.802      484.08 ppb          5.802   1.20%
   QC value within limits for Zn 213.857  Recovery = 96.82%
SiO2†                  74505.7      5185.4 ug/L        75.10      5185.4 ppb         75.10   1.45%
   QC value within limits for SiO2  Recovery = 96.97%
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 12:45:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4768.3	4768.3	96.9	%			12:47:00
1	Y RADIAL	5108.3	5108.3	98.50	%			12:47:00
1	Al 396.153Radial†	-173.2	-15.6	-13.552	ug/L	-13.552	ppb	12:47:00
1	Ca 317.933Radial†	23.5	9.3	14.597	ug/L	14.597	ppb	12:47:20
1	Fe 238.204 Radial†	10.1	-1.0	-9.4342	ug/L	-9.4342	ppb	12:47:20
1	K 766.490 Radial†	2897.9	29.0	5.0197	ug/L	5.0197	ppb	12:47:00
1	Mg 279.077 IEC†	2.6	1.5	47.788	ug/L	47.788	ppb	12:47:20
1	Na 589.592 Radial†	-886.1	235.4	76.714	ug/L	76.714	ppb	12:47:00
1	Sr 421.552†	9.6	-3.7	-0.0244	ug/L	-0.0244	ppb	12:47:00
1	Sc 361.383	830975.2	830975.2	100.50	%			12:48:17
1	Y 371.029	662144.7	662144.7	99.212	%			12:48:17
1	Ag 328.068†	148.5	-149.4	-0.7361	ug/L	-0.7361	ppb	12:48:17
1	As 188.979†	-28.6	2.2	0.9242	ug/L	0.9242	ppb	12:48:37
1	B 249.677†	-425.6	171.5	4.0852	ug/L	4.0852	ppb	12:48:37
1	Ba 233.527†	-19.1	-8.7	-0.0692	ug/L	-0.0692	ppb	12:48:37
1	Be 313.107†	-3878.1	-158.6	-0.0576	ug/L	-0.0576	ppb	12:48:17
1	Cd 226.502†	-209.5	7.6	0.0926	ug/L	0.0926	ppb	12:48:37
1	Co 228.616†	-68.7	15.0	0.3097	ug/L	0.3097	ppb	12:48:37
1	Cr 267.716†	58.6	-8.3	-0.1049	ug/L	-0.1049	ppb	12:48:37
1	Cu 324.752†	4953.0	207.6	0.6292	ug/L	0.6292	ppb	12:48:17
1	Mn 257.610†	540.6	68.0	0.0733	ug/L	0.0733	ppb	12:48:37
1	Mo 202.031†	24.8	12.8	0.9629	ug/L	0.9629	ppb	12:48:37
1	Ni 231.604†	84.9	7.5	0.1915	ug/L	0.1915	ppb	12:48:37
1	P 214.914†	252.6	4.3	2.4001	ug/L	2.4001	ppb	12:48:37
1	Pb 220.353†	-57.7	9.8	1.1990	ug/L	1.1990	ppb	12:48:37
1	S 181.975 Axial†	45.9	-2.1	-2.8409	ug/L	-2.8409	ppb	12:48:37
1	Sb 206.836†	34.7	-0.6	-0.1817	ug/L	-0.1817	ppb	12:48:37
1	Se 196.026†	-23.5	2.0	1.2763	ug/L	1.2763	ppb	12:48:37
1	Si 251.611†	569.8	35.7	1.1557	ug/L	1.1557	ppb	12:48:37
1	Sn 189.927†	10.3	0.7	0.1352	ug/L	0.1352	ppb	12:48:37
1	Ti 334.940†	-1494.1	84.2	0.1272	ug/L	0.1272	ppb	12:48:17
1	Tl 190.801†	-35.5	-1.0	-0.3112	ug/L	-0.3112	ppb	12:48:37
1	U 409.014†	-3136.9	490.5	15.403	ug/L	15.403	ppb	12:48:17
1	V 292.402†	-1550.8	47.0	0.3965	ug/L	0.3965	ppb	12:48:17
1	Zn 213.857†	737.6	5.3	0.0505	ug/L	0.0505	ppb	12:48:37
1	SiO2†	602.4	67.1	4.6524	ug/L	4.6524	ppb	12:49:33
2	Sc Radial	4940.4	4940.4	100	%			12:47:25
2	Y RADIAL	5278.1	5278.1	101.8	%			12:47:25
2	Al 396.153Radial†	-180.4	-16.5	-14.389	ug/L	-14.389	ppb	12:47:25
2	Ca 317.933Radial†	24.6	9.5	14.945	ug/L	14.945	ppb	12:47:45
2	Fe 238.204 Radial†	8.4	-3.1	-27.925	ug/L	-27.925	ppb	12:47:45
2	K 766.490 Radial†	2860.4	-112.5	-19.658	ug/L	-19.658	ppb	12:47:25
2	Mg 279.077 IEC†	1.8	0.6	20.370	ug/L	20.370	ppb	12:47:45
2	Na 589.592 Radial†	-937.1	216.4	70.525	ug/L	70.525	ppb	12:47:25
2	Sr 421.552†	-16.9	-30.5	-0.2003	ug/L	-0.2003	ppb	12:47:25
2	Sc 361.383	834452.6	834452.6	100.92	%			12:48:42
2	Y 371.029	665801.8	665801.8	99.760	%			12:48:42
2	Ag 328.068†	274.1	-25.5	-0.1444	ug/L	-0.1444	ppb	12:48:42
2	As 188.979†	-19.7	11.2	4.8073	ug/L	4.8073	ppb	12:49:02
2	B 249.677†	-439.6	159.4	3.8000	ug/L	3.8000	ppb	12:49:02
2	Ba 233.527†	-4.4	5.9	0.0454	ug/L	0.0454	ppb	12:49:02
2	Be 313.107†	-3856.8	-121.5	-0.0440	ug/L	-0.0440	ppb	12:48:42
2	Cd 226.502†	-208.3	9.7	0.1187	ug/L	0.1187	ppb	12:49:02
2	Co 228.616†	-87.6	-3.4	-0.0663	ug/L	-0.0663	ppb	12:49:02
2	Cr 267.716†	87.5	20.1	0.2325	ug/L	0.2325	ppb	12:49:02
2	Cu 324.752†	4931.8	166.0	0.5022	ug/L	0.5022	ppb	12:48:42
2	Mn 257.610†	456.3	-17.7	-0.0234	ug/L	-0.0234	ppb	12:49:02
2	Mo 202.031†	38.1	25.9	1.9502	ug/L	1.9502	ppb	12:49:02
2	Ni 231.604†	100.7	22.8	0.5840	ug/L	0.5840	ppb	12:49:02

2	P 214.914†	240.6	-8.6	-5.1677 ug/L	-5.1677 ppb	12:49:02
2	Pb 220.353†	-55.5	12.2	1.4988 ug/L	1.4988 ppb	12:49:02
2	S 181.975 Axial†	46.3	-1.9	-2.6326 ug/L	-2.6326 ppb	12:49:02
2	Sb 206.836†	32.3	-3.1	-1.0435 ug/L	-1.0435 ppb	12:49:02
2	Se 196.026†	-18.4	7.1	4.5799 ug/L	4.5799 ppb	12:49:02
2	Si 251.611†	567.5	31.0	0.9895 ug/L	0.9895 ppb	12:49:02
2	Sn 189.927†	12.8	3.2	0.5853 ug/L	0.5853 ppb	12:49:02
2	Ti 334.940†	-1475.6	108.7	0.1705 ug/L	0.1705 ppb	12:48:42
2	Tl 190.801†	-32.1	2.5	0.7866 ug/L	0.7866 ppb	12:49:02
2	U 409.014†	-3253.7	387.8	12.179 ug/L	12.179 ppb	12:48:42
2	V 292.402†	-1653.9	-48.7	-0.3083 ug/L	-0.3083 ppb	12:48:42
2	Zn 213.857†	736.8	1.5	0.0139 ug/L	0.0139 ppb	12:49:02
2	SiO2†	597.5	59.7	4.1113 ug/L	4.1113 ppb	12:49:38
3	Sc Radial	4965.4	4965.4	101 %		12:47:50
3	Y RADIAL	5278.1	5278.1	101.8 %		12:47:50
3	Al 396.153Radial†	-157.3	7.2	6.2497 ug/L	6.2497 ppb	12:47:50
3	Ca 317.933Radial†	16.6	1.5	2.3916 ug/L	2.3916 ppb	12:48:10
3	Fe 238.204 Radial†	7.7	-3.8	-34.876 ug/L	-34.876 ppb	12:48:10
3	K 766.490 Radial†	2919.9	-68.0	-11.883 ug/L	-11.883 ppb	12:47:50
3	Mg 279.077 IEC†	1.8	0.6	20.696 ug/L	20.696 ppb	12:48:10
3	Na 589.592 Radial†	-904.3	253.7	82.668 ug/L	82.668 ppb	12:47:50
3	Sr 421.552†	15.4	1.6	0.0105 ug/L	0.0105 ppb	12:47:50
3	Sc 361.383	837007.5	837007.5	101.23 %		12:49:08
3	Y 371.029	668258.1	668258.1	100.13 %		12:49:08
3	Ag 328.068†	324.1	23.1	0.0890 ug/L	0.0890 ppb	12:49:08
3	As 188.979†	-31.8	-0.7	-0.3194 ug/L	-0.3194 ppb	12:49:28
3	B 249.677†	-473.5	127.3	3.0347 ug/L	3.0347 ppb	12:49:28
3	Ba 233.527†	-19.9	-9.3	-0.0744 ug/L	-0.0744 ppb	12:49:28
3	Be 313.107†	-3844.4	-97.5	-0.0351 ug/L	-0.0351 ppb	12:49:08
3	Cd 226.502†	-196.0	22.4	0.2683 ug/L	0.2683 ppb	12:49:28
3	Co 228.616†	-62.4	21.7	0.4477 ug/L	0.4477 ppb	12:49:28
3	Cr 267.716†	68.2	0.7	0.0024 ug/L	0.0024 ppb	12:49:28
3	Cu 324.752†	4922.2	141.7	0.4252 ug/L	0.4252 ppb	12:49:08
3	Mn 257.610†	499.4	23.5	0.0221 ug/L	0.0221 ppb	12:49:28
3	Mo 202.031†	18.7	6.7	0.4986 ug/L	0.4986 ppb	12:49:28
3	Ni 231.604†	89.2	11.1	0.2831 ug/L	0.2831 ppb	12:49:28
3	P 214.914†	244.6	-5.4	-3.2426 ug/L	-3.2426 ppb	12:49:28
3	Pb 220.353†	-65.6	2.3	0.2920 ug/L	0.2920 ppb	12:49:28
3	S 181.975 Axial†	47.2	-1.2	-1.5987 ug/L	-1.5987 ppb	12:49:28
3	Sb 206.836†	42.7	7.0	2.4841 ug/L	2.4841 ppb	12:49:28
3	Se 196.026†	-16.0	9.6	6.1385 ug/L	6.1385 ppb	12:49:28
3	Si 251.611†	545.8	7.9	0.2516 ug/L	0.2516 ppb	12:49:28
3	Sn 189.927†	17.1	7.4	1.3446 ug/L	1.3446 ppb	12:49:28
3	Ti 334.940†	-1459.2	129.4	0.2007 ug/L	0.2007 ppb	12:49:08
3	Tl 190.801†	-34.2	0.5	0.1671 ug/L	0.1671 ppb	12:49:28
3	U 409.014†	-3157.7	492.5	15.468 ug/L	15.468 ppb	12:49:08
3	V 292.402†	-1542.9	66.0	0.5347 ug/L	0.5347 ppb	12:49:08
3	Zn 213.857†	735.7	-1.8	-0.0142 ug/L	-0.0142 ppb	12:49:28
3	SiO2†	706.0	165.1	11.508 ug/L	11.508 ppb	12:49:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	834145.1	100.88	%	0.366				0.36%
Sc Radial	4891.4	99.4	%	2.18				2.19%
Y 371.029	665401.6	99.700	%	0.4609				0.46%
Y RADIAL	5221.5	100.7	%	1.89				1.88%
Ag 328.068†	-50.6	-0.2638	ug/L	0.42530	-0.2638	ppb	0.42530	161.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.3	-7.2305	ug/L	11.68173	-7.2305	ppb	11.68173	161.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.2	1.8040	ug/L	2.67422	1.8040	ppb	2.67422	148.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	152.7	3.6400	ug/L	0.54320	3.6400	ppb	0.54320	14.92%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.1	-0.0327	ug/L	0.06773	-0.0327	ppb	0.06773	206.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-125.9	-0.0456	ug/L	0.01133	-0.0456	ppb	0.01133	24.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.8	10.645	ug/L	7.1494	10.645	ppb	7.1494	67.16%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.2      0.1599 ug/L       0.09481      0.1599 ppb        0.09481  59.31%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.1      0.2304 ug/L       0.26602      0.2304 ppb        0.26602 115.46%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.1      0.0433 ug/L       0.17238      0.0433 ppb        0.17238 397.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               171.8      0.5189 ug/L       0.10302      0.5189 ppb        0.10302  19.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.6     -24.078 ug/L       13.1499     -24.078 ppb       13.1499  54.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -50.5     -8.8403 ug/L      12.61701     -8.8403 ppb      12.61701 142.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9      29.618 ug/L       15.7363      29.618 ppb        15.7363  53.13%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                24.6      0.0240 ug/L       0.04840      0.0240 ppb        0.04840 201.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                15.1      1.1372 ug/L       0.74135      1.1372 ppb        0.74135  65.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        235.2      76.636 ug/L        6.0717      76.636 ppb         6.0717   7.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.8      0.3529 ug/L       0.20534      0.3529 ppb        0.20534  58.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.3     -2.0034 ug/L       3.93315     -2.0034 ppb       3.93315 196.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.1      0.9966 ug/L       0.62833      0.9966 ppb        0.62833  63.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.7     -2.3574 ug/L       0.66522     -2.3574 ppb        0.66522  28.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.1      0.4196 ug/L       1.83908      0.4196 ppb        1.83908 438.25%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.2      3.9982 ug/L       2.48273      3.9982 ppb        2.48273  62.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                24.9      0.7990 ug/L       0.48122      0.7990 ppb        0.48122  60.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.8      0.6883 ug/L       0.61125      0.6883 ppb        0.61125  88.80%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -10.9     -0.0714 ug/L       0.11297     -0.0714 ppb        0.11297 158.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               107.4      0.1661 ug/L       0.03694      0.1661 ppb        0.03694  22.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.7      0.2142 ug/L       0.55042      0.2142 ppb        0.55042 256.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                457.0      14.350 ug/L        1.8805      14.350 ppb         1.8805  13.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 21.5      0.2076 ug/L       0.45208      0.2076 ppb        0.45208 217.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 1.7      0.0167 ug/L       0.03244      0.0167 ppb        0.03244 194.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      97.3      6.7573 ug/L       4.12330      6.7573 ppb        4.12330  61.02%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 13:32:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5085.1	5085.1	103	%			13:33:52
1	Y RADIAL	5407.7	5407.7	104.3	%			13:33:52
1	Al 396.153Radial†	5833.5	5810.9	5015.6	ug/L	5015.6	ppb	13:33:52
1	Ca 317.933Radial†	3214.0	3096.6	4853.6	ug/L	4853.6	ppb	13:34:12
1	Fe 238.204 Radial†	557.8	528.6	4830.4	ug/L	4830.4	ppb	13:34:12
1	K 766.490 Radial†	31867.2	27889.1	4856.3	ug/L	4856.3	ppb	13:33:52
1	Mg 279.077 IEC†	154.0	147.9	4865.1	ug/L	4865.1	ppb	13:34:12
1	Na 589.592 Radial†	30567.9	30744.3	10020	ug/L	10020	ppb	13:33:52
1	Sr 421.552†	78206.2	75701.1	496.18	ug/L	496.18	ppb	13:33:52
1	Sc 361.383	842858.2	842858.2	101.93	%			13:35:10
1	Y 371.029	664244.7	664244.7	99.526	%			13:35:10
1	Ag 328.068†	103528.8	101268.2	492.18	ug/L	492.18	ppb	13:35:15
1	As 188.979†	1115.6	1125.1	489.33	ug/L	489.33	ppb	13:35:35
1	B 249.677†	20392.5	20600.7	488.33	ug/L	488.33	ppb	13:35:15
1	Ba 233.527†	62462.1	61287.7	489.77	ug/L	489.77	ppb	13:35:15
1	Be 313.107†	1355303.6	1333299.6	488.05	ug/L	488.05	ppb	13:35:10
1	Cd 226.502†	41977.1	41397.1	483.14	ug/L	483.14	ppb	13:35:15
1	Co 228.616†	24244.1	23867.6	490.75	ug/L	490.75	ppb	13:35:15
1	Cr 267.716†	41662.0	40805.2	485.53	ug/L	485.53	ppb	13:35:15
1	Cu 324.752†	169355.9	161423.0	496.20	ug/L	496.20	ppb	13:35:15
1	Mn 257.610†	449828.4	440827.2	494.22	ug/L	494.22	ppb	13:35:10
1	Mo 202.031†	6554.5	6418.3	483.95	ug/L	483.95	ppb	13:35:35
1	Ni 231.604†	19434.1	18988.5	486.37	ug/L	486.37	ppb	13:35:15
1	P 214.914†	4435.8	4104.6	2319.3	ug/L	2319.3	ppb	13:35:35
1	Pb 220.353†	3932.4	3925.0	482.75	ug/L	482.75	ppb	13:35:35
1	S 181.975 Axial†	758.9	696.7	955.06	ug/L	955.06	ppb	13:35:35
1	Sb 206.836†	1461.4	1398.6	503.72	ug/L	503.72	ppb	13:35:35
1	Se 196.026†	741.2	752.5	508.96	ug/L	508.96	ppb	13:35:35
1	Si 251.611†	77063.7	75070.8	2449.7	ug/L	2449.7	ppb	13:35:15
1	Sn 189.927†	2692.0	2631.5	476.71	ug/L	476.71	ppb	13:35:35
1	Ti 334.940†	308294.1	304018.0	490.67	ug/L	490.67	ppb	13:35:15
1	Tl 190.801†	1570.4	1575.0	491.65	ug/L	491.65	ppb	13:35:35
1	U 409.014†	12851.4	16219.6	507.63	ug/L	507.63	ppb	13:35:15
1	V 292.402†	64961.1	65319.3	494.13	ug/L	494.13	ppb	13:35:15
1	Zn 213.857†	52693.9	50965.9	482.92	ug/L	482.92	ppb	13:35:15
1	SiO2†	76625.2	74639.6	5194.8	ug/L	5194.8	ppb	13:36:43
2	Sc Radial	4971.3	4971.3	101	%			13:34:18
2	Y RADIAL	5253.2	5253.2	101.3	%			13:34:18
2	Al 396.153Radial†	5683.8	5792.0	4999.0	ug/L	4999.0	ppb	13:34:18
2	Ca 317.933Radial†	3202.8	3156.8	4947.9	ug/L	4947.9	ppb	13:34:38
2	Fe 238.204 Radial†	560.4	543.5	4966.5	ug/L	4966.5	ppb	13:34:38
2	K 766.490 Radial†	31220.1	27954.6	4867.7	ug/L	4867.7	ppb	13:34:18
2	Mg 279.077 IEC†	155.7	153.0	5032.1	ug/L	5032.1	ppb	13:34:38
2	Na 589.592 Radial†	29804.2	30665.6	9993.9	ug/L	9993.9	ppb	13:34:18
2	Sr 421.552†	76087.4	75336.5	493.79	ug/L	493.79	ppb	13:34:18
2	Sc 361.383	841080.6	841080.6	101.72	%			13:35:41
2	Y 371.029	663112.6	663112.6	99.357	%			13:35:41
2	Ag 328.068†	103310.4	101268.1	492.23	ug/L	492.23	ppb	13:35:46
2	As 188.979†	1123.9	1135.6	493.87	ug/L	493.87	ppb	13:36:06
2	B 249.677†	20417.6	20667.8	489.91	ug/L	489.91	ppb	13:35:46
2	Ba 233.527†	62353.0	61310.0	489.95	ug/L	489.95	ppb	13:35:46
2	Be 313.107†	1353715.1	1334548.1	488.51	ug/L	488.51	ppb	13:35:41
2	Cd 226.502†	41854.1	41363.1	482.73	ug/L	482.73	ppb	13:35:46
2	Co 228.616†	24107.0	23783.1	489.02	ug/L	489.02	ppb	13:35:46
2	Cr 267.716†	41642.6	40872.6	486.33	ug/L	486.33	ppb	13:35:46
2	Cu 324.752†	168954.8	161379.9	496.08	ug/L	496.08	ppb	13:35:46
2	Mn 257.610†	448186.3	440145.6	493.46	ug/L	493.46	ppb	13:35:41
2	Mo 202.031†	6591.4	6468.2	487.72	ug/L	487.72	ppb	13:36:06
2	Ni 231.604†	19353.5	18949.6	485.37	ug/L	485.37	ppb	13:35:46

2	P 214.914†	4459.5	4137.1	2338.3 ug/L	2338.3 ppb	13:36:06
2	Pb 220.353†	3961.3	3961.5	487.22 ug/L	487.22 ppb	13:36:06
2	S 181.975 Axial†	764.5	703.8	964.88 ug/L	964.88 ppb	13:36:06
2	Sb 206.836†	1489.6	1429.3	514.54 ug/L	514.54 ppb	13:36:06
2	Se 196.026†	747.1	759.8	514.17 ug/L	514.17 ppb	13:36:06
2	Si 251.611†	76722.0	74894.7	2443.9 ug/L	2443.9 ppb	13:35:46
2	Sn 189.927†	2712.1	2656.8	481.30 ug/L	481.30 ppb	13:36:06
2	Ti 334.940†	307166.2	303548.4	489.92 ug/L	489.92 ppb	13:35:46
2	Tl 190.801†	1586.1	1593.6	497.42 ug/L	497.42 ppb	13:36:06
2	U 409.014†	12737.3	16134.1	504.93 ug/L	504.93 ppb	13:35:46
2	V 292.402†	64910.7	65404.4	494.80 ug/L	494.80 ppb	13:35:46
2	Zn 213.857†	52442.2	50827.8	481.58 ug/L	481.58 ppb	13:35:46
2	SiO2†	77877.1	76029.2	5291.6 ug/L	5291.6 ppb	13:36:48
3	Sc Radial	4981.5	4981.5	101 %		13:34:43
3	Y RADIAL	5257.6	5257.6	101.4 %		13:34:43
3	Al 396.153Radial†	5769.4	5865.1	5062.6 ug/L	5062.6 ppb	13:34:43
3	Ca 317.933Radial†	3214.5	3161.9	4955.8 ug/L	4955.8 ppb	13:35:03
3	Fe 238.204 Radial†	559.0	541.0	4943.8 ug/L	4943.8 ppb	13:35:03
3	K 766.490 Radial†	31515.8	28183.5	4907.5 ug/L	4907.5 ppb	13:34:43
3	Mg 279.077 IEC†	156.1	153.1	5035.2 ug/L	5035.2 ppb	13:35:03
3	Na 589.592 Radial†	30208.3	31004.6	10104 ug/L	10104 ppb	13:34:43
3	Sr 421.552†	77335.6	76415.7	500.86 ug/L	500.86 ppb	13:34:43
3	Sc 361.383	849092.7	849092.7	102.69 %		13:36:12
3	Y 371.029	669149.3	669149.3	100.26 %		13:36:12
3	Ag 328.068†	102998.9	100006.4	486.11 ug/L	486.11 ppb	13:36:17
3	As 188.979†	1116.1	1117.6	486.04 ug/L	486.04 ppb	13:36:37
3	B 249.677†	20346.8	20409.3	483.77 ug/L	483.77 ppb	13:36:17
3	Ba 233.527†	62443.3	60819.5	486.03 ug/L	486.03 ppb	13:36:17
3	Be 313.107†	1368910.2	1336787.4	489.31 ug/L	489.31 ppb	13:36:12
3	Cd 226.502†	41910.8	41030.1	478.84 ug/L	478.84 ppb	13:36:17
3	Co 228.616†	24221.8	23671.3	486.72 ug/L	486.72 ppb	13:36:17
3	Cr 267.716†	41681.1	40523.7	482.18 ug/L	482.18 ppb	13:36:17
3	Cu 324.752†	168076.7	158957.4	488.63 ug/L	488.63 ppb	13:36:17
3	Mn 257.610†	452947.2	440624.2	494.00 ug/L	494.00 ppb	13:36:12
3	Mo 202.031†	6606.2	6421.4	484.20 ug/L	484.20 ppb	13:36:37
3	Ni 231.604†	19414.8	18829.7	482.30 ug/L	482.30 ppb	13:36:17
3	P 214.914†	4469.2	4105.2	2321.1 ug/L	2321.1 ppb	13:36:37
3	Pb 220.353†	3974.4	3937.5	484.29 ug/L	484.29 ppb	13:36:37
3	S 181.975 Axial†	759.5	691.9	948.43 ug/L	948.43 ppb	13:36:37
3	Sb 206.836†	1477.9	1404.1	505.62 ug/L	505.62 ppb	13:36:37
3	Se 196.026†	742.1	748.1	506.40 ug/L	506.40 ppb	13:36:37
3	Si 251.611†	76655.6	74118.3	2418.5 ug/L	2418.5 ppb	13:36:17
3	Sn 189.927†	2709.9	2629.6	476.38 ug/L	476.38 ppb	13:36:37
3	Ti 334.940†	306665.2	300211.0	484.53 ug/L	484.53 ppb	13:36:17
3	Tl 190.801†	1581.0	1574.0	491.32 ug/L	491.32 ppb	13:36:37
3	U 409.014†	12742.7	16021.2	501.40 ug/L	501.40 ppb	13:36:17
3	V 292.402†	64714.0	64610.7	488.83 ug/L	488.83 ppb	13:36:17
3	Zn 213.857†	52567.0	50462.8	478.12 ug/L	478.12 ppb	13:36:17
3	SiO2†	76786.3	74244.5	5167.2 ug/L	5167.2 ppb	13:36:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844343.8	102.11	%	0.509				0.50%
Sc Radial	5012.6	102	%	1.3				1.26%
Y 371.029	665502.2	99.715	%	0.4808				0.48%
Y RADIAL	5306.2	102.3	%	1.70				1.66%
Ag 328.068†	100847.6	490.17	ug/L	3.521	490.17	ppb	3.521	0.72%
QC value within limits for Ag 328.068 Recovery = 98.03%								
Al 396.153Radial†	5822.6	5025.8	ug/L	32.96	5025.8	ppb	32.96	0.66%
QC value within limits for Al 396.153Radial Recovery = 100.52%								
As 188.979†	1126.1	489.75	ug/L	3.931	489.75	ppb	3.931	0.80%
QC value within limits for As 188.979 Recovery = 97.95%								
B 249.677†	20559.3	487.34	ug/L	3.190	487.34	ppb	3.190	0.65%
QC value within limits for B 249.677 Recovery = 97.47%								
Ba 233.527†	61139.1	488.58	ug/L	2.214	488.58	ppb	2.214	0.45%
QC value within limits for Ba 233.527 Recovery = 97.72%								
Be 313.107†	1334878.4	488.62	ug/L	0.638	488.62	ppb	0.638	0.13%
QC value within limits for Be 313.107 Recovery = 97.72%								
Ca 317.933Radial†	3138.4	4919.1	ug/L	56.90	4919.1	ppb	56.90	1.16%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.38%
Cd 226.502†            41263.4      481.57 ug/L          2.372      481.57 ppb          2.372   0.49%
   QC value within limits for Cd 226.502  Recovery = 96.31%
Co 228.616†            23774.0      488.83 ug/L          2.019      488.83 ppb          2.019   0.41%
   QC value within limits for Co 228.616  Recovery = 97.77%
Cr 267.716†            40733.8      484.68 ug/L          2.203      484.68 ppb          2.203   0.45%
   QC value within limits for Cr 267.716  Recovery = 96.94%
Cu 324.752†           160586.7      493.64 ug/L          4.335      493.64 ppb          4.335   0.88%
   QC value within limits for Cu 324.752  Recovery = 98.73%
Fe 238.204 Radial†       537.7      4913.6 ug/L         72.91      4913.6 ppb         72.91   1.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.27%
K 766.490 Radial†      28009.1      4877.2 ug/L         26.92      4877.2 ppb         26.92   0.55%
   QC value within limits for K 766.490 Radial  Recovery = 97.54%
Mg 279.077 IEC†          151.3      4977.5 ug/L         97.33      4977.5 ppb         97.33   1.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.55%
Mn 257.610†           440532.3      493.89 ug/L         0.389      493.89 ppb         0.389   0.08%
   QC value within limits for Mn 257.610  Recovery = 98.78%
Mo 202.031†             6436.0      485.29 ug/L         2.110      485.29 ppb         2.110   0.43%
   QC value within limits for Mo 202.031  Recovery = 97.06%
Na 589.592 Radial†     30804.9       10039 ug/L          57.8       10039 ppb          57.8   0.58%
   QC value within limits for Na 589.592 Radial  Recovery = 100.39%
Ni 231.604†            18922.6      484.68 ug/L         2.120      484.68 ppb         2.120   0.44%
   QC value within limits for Ni 231.604  Recovery = 96.94%
P 214.914†              4115.7      2326.2 ug/L         10.52      2326.2 ppb         10.52   0.45%
   QC value within limits for P 214.914  Recovery = 93.05%
Pb 220.353†             3941.3      484.76 ug/L         2.272      484.76 ppb         2.272   0.47%
   QC value within limits for Pb 220.353  Recovery = 96.95%
S 181.975 Axial†         697.5      956.12 ug/L         8.280      956.12 ppb         8.280   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 95.61%
Sb 206.836†             1410.7      507.96 ug/L         5.775      507.96 ppb         5.775   1.14%
   QC value within limits for Sb 206.836  Recovery = 101.59%
Se 196.026†              753.5      509.84 ug/L         3.964      509.84 ppb         3.964   0.78%
   QC value within limits for Se 196.026  Recovery = 101.97%
Si 251.611†            74694.6      2437.4 ug/L         16.57      2437.4 ppb         16.57   0.68%
   QC value within limits for Si 251.611  Recovery = 97.49%
Sn 189.927†             2639.3      478.13 ug/L         2.751      478.13 ppb         2.751   0.58%
   QC value within limits for Sn 189.927  Recovery = 95.63%
Sr 421.552†            75817.8      496.94 ug/L         3.598      496.94 ppb         3.598   0.72%
   QC value within limits for Sr 421.552  Recovery = 99.39%
Ti 334.940†           302592.5      488.37 ug/L         3.349      488.37 ppb         3.349   0.69%
   QC value within limits for Ti 334.940  Recovery = 97.67%
Tl 190.801†             1580.8      493.47 ug/L         3.432      493.47 ppb         3.432   0.70%
   QC value within limits for Tl 190.801  Recovery = 98.69%
U 409.014†             16124.9      504.65 ug/L         3.127      504.65 ppb         3.127   0.62%
   QC value within limits for U 409.014  Recovery = 100.93%
V 292.402†             65111.4      492.58 ug/L         3.272      492.58 ppb         3.272   0.66%
   QC value within limits for V 292.402  Recovery = 98.52%
Zn 213.857†            50752.2      480.87 ug/L         2.473      480.87 ppb         2.473   0.51%
   QC value within limits for Zn 213.857  Recovery = 96.17%
SiO2†                  74971.1      5217.8 ug/L         65.35      5217.8 ppb         65.35   1.25%
   QC value within limits for SiO2  Recovery = 97.58%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 13:39:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4859.8	4859.8	98.7	%			13:40:55
1	Y RADIAL	5175.1	5175.1	99.78	%			13:40:55
1	Al 396.153Radial†	-160.1	1.0	0.8118	ug/L	0.8118	ppb	13:40:55
1	Ca 317.933Radial†	27.2	12.6	19.741	ug/L	19.741	ppb	13:41:15
1	Fe 238.204 Radial†	10.9	-0.4	-3.3394	ug/L	-3.3394	ppb	13:41:15
1	K 766.490 Radial†	3004.8	80.9	14.064	ug/L	14.064	ppb	13:40:55
1	Mg 279.077 IEC†	-0.6	-1.8	-60.390	ug/L	-60.390	ppb	13:41:15
1	Na 589.592 Radial†	-872.7	266.2	86.740	ug/L	86.740	ppb	13:40:55
1	Sr 421.552†	-8.1	-21.9	-0.1435	ug/L	-0.1435	ppb	13:40:55
1	Sc 361.383	827370.4	827370.4	100.06	%			13:42:12
1	Y 371.029	661124.8	661124.8	99.059	%			13:42:12
1	Ag 328.068†	268.6	-28.7	-0.1461	ug/L	-0.1461	ppb	13:42:12
1	As 188.979†	-40.9	-10.2	-4.4166	ug/L	-4.4166	ppb	13:42:32
1	B 249.677†	-447.9	147.4	3.5103	ug/L	3.5103	ppb	13:42:32
1	Ba 233.527†	-9.8	0.5	0.0048	ug/L	0.0048	ppb	13:42:32
1	Be 313.107†	-3809.4	-106.7	-0.0387	ug/L	-0.0387	ppb	13:42:12
1	Cd 226.502†	-190.8	25.4	0.2983	ug/L	0.2983	ppb	13:42:32
1	Co 228.616†	-69.4	14.0	0.2914	ug/L	0.2914	ppb	13:42:32
1	Cr 267.716†	65.8	-0.9	-0.0140	ug/L	-0.0140	ppb	13:42:32
1	Cu 324.752†	4959.5	235.5	0.7188	ug/L	0.7188	ppb	13:42:12
1	Mn 257.610†	474.6	4.5	0.0071	ug/L	0.0071	ppb	13:42:32
1	Mo 202.031†	30.5	18.6	1.4045	ug/L	1.4045	ppb	13:42:32
1	Ni 231.604†	86.6	9.5	0.2443	ug/L	0.2443	ppb	13:42:32
1	P 214.914†	234.1	-13.1	-7.8333	ug/L	-7.8333	ppb	13:42:32
1	Pb 220.353†	-68.6	-1.4	-0.1733	ug/L	-0.1733	ppb	13:42:32
1	S 181.975 Axial†	44.9	-2.9	-3.9631	ug/L	-3.9631	ppb	13:42:32
1	Sb 206.836†	31.5	-3.6	-1.2324	ug/L	-1.2324	ppb	13:42:32
1	Se 196.026†	-17.9	7.5	4.9019	ug/L	4.9019	ppb	13:42:32
1	Si 251.611†	546.7	15.1	0.4755	ug/L	0.4755	ppb	13:42:32
1	Sn 189.927†	11.4	1.9	0.3532	ug/L	0.3532	ppb	13:42:32
1	Ti 334.940†	-1482.1	89.7	0.1484	ug/L	0.1484	ppb	13:42:12
1	Tl 190.801†	-32.5	1.8	0.5717	ug/L	0.5717	ppb	13:42:32
1	U 409.014†	-3322.0	291.9	9.1667	ug/L	9.1667	ppb	13:42:12
1	V 292.402†	-1551.9	39.2	0.3295	ug/L	0.3295	ppb	13:42:12
1	Zn 213.857†	712.8	-16.2	-0.1573	ug/L	-0.1573	ppb	13:42:32
1	SiO2†	547.6	14.9	1.0029	ug/L	1.0029	ppb	13:43:28
2	Sc Radial	5005.5	5005.5	102	%			13:41:20
2	Y RADIAL	5330.8	5330.8	102.8	%			13:41:20
2	Al 396.153Radial†	-110.7	54.4	47.096	ug/L	47.096	ppb	13:41:20
2	Ca 317.933Radial†	19.1	3.9	6.0480	ug/L	6.0480	ppb	13:41:40
2	Fe 238.204 Radial†	10.9	-0.7	-6.1594	ug/L	-6.1594	ppb	13:41:40
2	K 766.490 Radial†	3288.7	271.6	47.253	ug/L	47.253	ppb	13:41:20
2	Mg 279.077 IEC†	4.6	3.3	108.86	ug/L	108.86	ppb	13:41:40
2	Na 589.592 Radial†	-374.7	781.7	254.77	ug/L	254.77	ppb	13:41:20
2	Sr 421.552†	23.4	9.4	0.0615	ug/L	0.0615	ppb	13:41:20
2	Sc 361.383	834205.8	834205.8	100.89	%			13:42:37
2	Y 371.029	666970.0	666970.0	99.935	%			13:42:37
2	Ag 328.068†	227.9	-71.2	-0.3570	ug/L	-0.3570	ppb	13:42:37
2	As 188.979†	-19.3	11.5	4.9657	ug/L	4.9657	ppb	13:42:57
2	B 249.677†	-458.0	141.1	3.3591	ug/L	3.3591	ppb	13:42:57
2	Ba 233.527†	-17.8	-7.3	-0.0580	ug/L	-0.0580	ppb	13:42:57
2	Be 313.107†	-3913.7	-179.0	-0.0649	ug/L	-0.0649	ppb	13:42:37
2	Cd 226.502†	-200.1	17.8	0.2109	ug/L	0.2109	ppb	13:42:57
2	Co 228.616†	-75.3	8.7	0.1821	ug/L	0.1821	ppb	13:42:57
2	Cr 267.716†	75.5	8.2	0.0917	ug/L	0.0917	ppb	13:42:57
2	Cu 324.752†	4987.0	222.3	0.6750	ug/L	0.6750	ppb	13:42:37
2	Mn 257.610†	485.2	11.1	0.0073	ug/L	0.0073	ppb	13:42:57
2	Mo 202.031†	28.3	16.2	1.2210	ug/L	1.2210	ppb	13:42:57
2	Ni 231.604†	88.1	10.3	0.2648	ug/L	0.2648	ppb	13:42:57

2	P 214.914†	242.9	-6.2	-3.7932 ug/L	-3.7932 ppb	13:42:57
2	Pb 220.353†	-78.5	-10.6	-1.2902 ug/L	-1.2902 ppb	13:42:57
2	S 181.975 Axial†	45.0	-3.2	-4.3682 ug/L	-4.3682 ppb	13:42:57
2	Sb 206.836†	37.5	2.0	0.7375 ug/L	0.7375 ppb	13:42:57
2	Se 196.026†	-9.1	16.3	10.655 ug/L	10.655 ppb	13:42:57
2	Si 251.611†	540.0	3.9	0.1134 ug/L	0.1134 ppb	13:42:57
2	Sn 189.927†	10.0	0.4	0.0792 ug/L	0.0792 ppb	13:42:57
2	Ti 334.940†	-1471.9	112.0	0.1664 ug/L	0.1664 ppb	13:42:37
2	Tl 190.801†	-35.0	-0.3	-0.1043 ug/L	-0.1043 ppb	13:42:57
2	U 409.014†	-3185.5	454.5	14.270 ug/L	14.270 ppb	13:42:37
2	V 292.402†	-1574.5	29.5	0.2677 ug/L	0.2677 ppb	13:42:37
2	Zn 213.857†	727.3	-7.7	-0.0753 ug/L	-0.0753 ppb	13:42:57
2	SiO2†	552.4	15.1	1.0231 ug/L	1.0231 ppb	13:43:33
3	Sc Radial	4926.0	4926.0	100 %		13:41:45
3	Y RADIAL	5234.8	5234.8	100.9 %		13:41:45
3	Al 396.153Radial†	-156.1	7.2	6.2213 ug/L	6.2213 ppb	13:41:45
3	Ca 317.933Radial†	19.3	4.3	6.7898 ug/L	6.7898 ppb	13:42:05
3	Fe 238.204 Radial†	10.2	-1.2	-11.336 ug/L	-11.336 ppb	13:42:05
3	K 766.490 Radial†	2806.7	-157.9	-27.582 ug/L	-27.582 ppb	13:41:45
3	Mg 279.077 IEC†	4.0	2.8	91.104 ug/L	91.104 ppb	13:42:05
3	Na 589.592 Radial†	-825.1	325.6	106.11 ug/L	106.11 ppb	13:41:45
3	Sr 421.552†	13.5	-0.1	-0.0008 ug/L	-0.0008 ppb	13:41:45
3	Sc 361.383	826011.7	826011.7	99.896 %		13:43:02
3	Y 371.029	659271.6	659271.6	98.781 %		13:43:02
3	Ag 328.068†	218.0	-78.9	-0.3926 ug/L	-0.3926 ppb	13:43:02
3	As 188.979†	-29.2	1.5	0.6254 ug/L	0.6254 ppb	13:43:22
3	B 249.677†	-457.8	136.8	3.2582 ug/L	3.2582 ppb	13:43:22
3	Ba 233.527†	-16.9	-6.6	-0.0530 ug/L	-0.0530 ppb	13:43:22
3	Be 313.107†	-3983.1	-287.0	-0.1044 ug/L	-0.1044 ppb	13:43:02
3	Cd 226.502†	-189.5	26.4	0.3115 ug/L	0.3115 ppb	13:43:22
3	Co 228.616†	-86.5	-3.2	-0.0660 ug/L	-0.0660 ppb	13:43:22
3	Cr 267.716†	88.4	21.9	0.2561 ug/L	0.2561 ppb	13:43:22
3	Cu 324.752†	4984.8	269.1	0.8212 ug/L	0.8212 ppb	13:43:02
3	Mn 257.610†	494.6	25.3	0.0235 ug/L	0.0235 ppb	13:43:22
3	Mo 202.031†	17.9	6.1	0.4563 ug/L	0.4563 ppb	13:43:22
3	Ni 231.604†	101.2	24.2	0.6213 ug/L	0.6213 ppb	13:43:22
3	P 214.914†	219.8	-27.0	-16.026 ug/L	-16.026 ppb	13:43:22
3	Pb 220.353†	-58.7	8.4	1.0279 ug/L	1.0279 ppb	13:43:22
3	S 181.975 Axial†	43.0	-4.7	-6.4614 ug/L	-6.4614 ppb	13:43:22
3	Sb 206.836†	44.7	9.6	3.3772 ug/L	3.3772 ppb	13:43:22
3	Se 196.026†	-22.5	2.9	1.8646 ug/L	1.8646 ppb	13:43:22
3	Si 251.611†	537.5	6.8	0.2159 ug/L	0.2159 ppb	13:43:22
3	Sn 189.927†	16.6	7.2	1.2960 ug/L	1.2960 ppb	13:43:22
3	Ti 334.940†	-1455.2	114.2	0.1735 ug/L	0.1735 ppb	13:43:02
3	Tl 190.801†	-30.4	3.9	1.2079 ug/L	1.2079 ppb	13:43:22
3	U 409.014†	-3300.5	308.0	9.6716 ug/L	9.6716 ppb	13:43:02
3	V 292.402†	-1584.7	3.8	0.0567 ug/L	0.0567 ppb	13:43:02
3	Zn 213.857†	747.0	19.1	0.1795 ug/L	0.1795 ppb	13:43:22
3	SiO2†	621.7	90.0	6.2675 ug/L	6.2675 ppb	13:43:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	829196.0	100.28	%	0.531				0.53%
Sc Radial	4930.4	100	%	1.5				1.48%
Y 371.029	662455.5	99.258	%	0.6020				0.61%
Y RADIAL	5246.9	101.2	%	1.51				1.50%
Ag 328.068†	-59.6	-0.2986	ug/L	0.13322	-0.2986	ppb	0.13322	44.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.9	18.043	ug/L	25.3057	18.043	ppb	25.3057	140.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	0.3915	ug/L	4.69553	0.3915	ppb	4.69553	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	141.7	3.3759	ug/L	0.12689	3.3759	ppb	0.12689	3.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.5	-0.0354	ug/L	0.03490	-0.0354	ppb	0.03490	98.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-190.9	-0.0693	ug/L	0.03308	-0.0693	ppb	0.03308	47.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.9	10.860	ug/L	7.7007	10.860	ppb	7.7007	70.91%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.2      0.2735 ug/L       0.05466      0.2735 ppb        0.05466  19.98%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.5      0.1358 ug/L       0.18312      0.1358 ppb        0.18312 134.82%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.7      0.1113 ug/L       0.13614      0.1113 ppb        0.13614 122.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               242.3      0.7383 ug/L       0.07501      0.7383 ppb        0.07501  10.16%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.9449 ug/L       4.05579     -6.9449 ppb        4.05579  58.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          64.9      11.245 ug/L       37.4972      11.245 ppb        37.4972 333.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.4      46.523 ug/L       93.0146      46.523 ppb        93.0146 199.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                13.6      0.0127 ug/L       0.00936      0.0127 ppb        0.00936  74.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.6      1.0273 ug/L       0.50291      1.0273 ppb        0.50291  48.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        457.8      149.21 ug/L        91.932      149.21 ppb         91.932  61.61%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.7      0.3768 ug/L       0.21198      0.3768 ppb        0.21198  56.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -15.4     -9.2175 ug/L       6.23276     -9.2175 ppb        6.23276  67.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.2     -0.1452 ug/L       1.15929     -0.1452 ppb        1.15929 798.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.6     -4.9309 ug/L       1.34084     -4.9309 ppb        1.34084  27.19%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.7      0.9608 ug/L       2.31288      0.9608 ppb        2.31288 240.73%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.9      5.8070 ug/L       4.46432      5.8070 ppb        4.46432  76.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 8.6      0.2683 ug/L       0.18665      0.2683 ppb        0.18665  69.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.2      0.5761 ug/L       0.63827      0.5761 ppb        0.63827 110.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.2     -0.0276 ug/L       0.10510     -0.0276 ppb        0.10510 380.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               105.3      0.1628 ug/L       0.01296      0.1628 ppb        0.01296   7.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.8      0.5584 ug/L       0.65623      0.5584 ppb        0.65623 117.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                351.5      11.036 ug/L        2.8119      11.036 ppb         2.8119  25.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 24.2      0.2180 ug/L       0.14303      0.2180 ppb        0.14303  65.61%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -1.6     -0.0177 ug/L       0.17565     -0.0177 ppb        0.17565 992.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      40.0      2.7645 ug/L       3.03368      2.7645 ppb        3.03368 109.74%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/12/2010 13:59:43 **Plasma On Time:** 2/12/2010 07:08:18
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\021210.sif
Batch ID:
Results Data Set: 021210
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location:** 7
Sample ID: CCV **Date Collected:** 2/12/2010 13:59:44
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4925.5	4925.5	100	%			14:01:37
1	Y RADIAL	5191.2	5191.2	100.1	%			14:01:37
1	Al 396.153Radial†	5671.2	5831.6	5033.4	ug/L	5033.4	ppb	14:01:37
1	Ca 317.933Radial†	3234.9	3218.3	5044.3	ug/L	5044.3	ppb	14:01:57
1	Fe 238.204 Radial†	562.4	550.7	5032.1	ug/L	5032.1	ppb	14:01:57
1	K 766.490 Radial†	31148.6	28170.1	4905.2	ug/L	4905.2	ppb	14:01:37
1	Mg 279.077 IEC†	156.8	155.5	5115.4	ug/L	5115.4	ppb	14:01:57
1	Na 589.592 Radial†	29915.2	31050.6	10119	ug/L	10119	ppb	14:01:37
1	Sr 421.552†	75949.3	75897.9	497.47	ug/L	497.47	ppb	14:01:37
1	Sc 361.383	849262.1	849262.1	102.71	%			14:02:54
1	Y 371.029	671257.7	671257.7	100.58	%			14:02:54
1	Ag 328.068†	104488.8	101437.0	493.07	ug/L	493.07	ppb	14:02:59
1	As 188.979†	1119.8	1120.9	487.55	ug/L	487.55	ppb	14:03:19
1	B 249.677†	20650.3	20700.9	490.68	ug/L	490.68	ppb	14:02:59
1	Ba 233.527†	63419.9	61758.2	493.53	ug/L	493.53	ppb	14:02:59
1	Be 313.107†	1366797.4	1334464.5	488.48	ug/L	488.48	ppb	14:02:54
1	Cd 226.502†	42877.0	41962.7	489.72	ug/L	489.72	ppb	14:02:59
1	Co 228.616†	24558.9	23994.8	493.37	ug/L	493.37	ppb	14:02:59
1	Cr 267.716†	42386.2	41202.1	490.25	ug/L	490.25	ppb	14:02:59
1	Cu 324.752†	169750.3	160554.2	493.54	ug/L	493.54	ppb	14:02:59
1	Mn 257.610†	452979.5	440567.7	493.94	ug/L	493.94	ppb	14:02:54
1	Mo 202.031†	6656.2	6468.9	487.78	ug/L	487.78	ppb	14:03:19
1	Ni 231.604†	19674.5	19078.8	488.68	ug/L	488.68	ppb	14:02:59
1	P 214.914†	4513.1	4147.1	2344.8	ug/L	2344.8	ppb	14:03:19
1	Pb 220.353†	4023.1	3984.2	490.01	ug/L	490.01	ppb	14:03:19
1	S 181.975 Axial†	774.8	706.6	968.67	ug/L	968.67	ppb	14:03:19
1	Sb 206.836†	1490.8	1416.4	510.16	ug/L	510.16	ppb	14:03:19
1	Se 196.026†	748.2	753.9	510.52	ug/L	510.52	ppb	14:03:19
1	Si 251.611†	77654.6	75076.1	2449.8	ug/L	2449.8	ppb	14:02:59
1	Sn 189.927†	2772.4	2689.8	487.29	ug/L	487.29	ppb	14:03:19
1	Ti 334.940†	310725.8	304105.0	490.82	ug/L	490.82	ppb	14:02:59
1	Tl 190.801†	1589.7	1582.1	493.85	ug/L	493.85	ppb	14:03:19
1	U 409.014†	13014.2	16283.1	509.59	ug/L	509.59	ppb	14:02:59
1	V 292.402†	65944.0	65795.7	497.72	ug/L	497.72	ppb	14:02:59
1	Zn 213.857†	53325.6	51191.2	485.03	ug/L	485.03	ppb	14:02:59
1	SiO2†	78956.3	76342.4	5313.5	ug/L	5313.5	ppb	14:04:27
2	Sc Radial	4834.9	4834.9	98.2	%			14:02:02
2	Y RADIAL	5107.5	5107.5	98.48	%			14:02:02
2	Al 396.153Radial†	5627.3	5893.1	5086.7	ug/L	5086.7	ppb	14:02:02
2	Ca 317.933Radial†	3236.2	3280.2	5141.3	ug/L	5141.3	ppb	14:02:22
2	Fe 238.204 Radial†	566.2	565.1	5163.8	ug/L	5163.8	ppb	14:02:22
2	K 766.490 Radial†	30936.9	28538.0	4969.2	ug/L	4969.2	ppb	14:02:02
2	Mg 279.077 IEC†	154.1	155.8	5123.4	ug/L	5123.4	ppb	14:02:22
2	Na 589.592 Radial†	29570.7	31260.1	10188	ug/L	10188	ppb	14:02:02
2	Sr 421.552†	75143.8	76500.3	501.41	ug/L	501.41	ppb	14:02:02
2	Sc 361.383	856977.4	856977.4	103.64	%			14:03:25
2	Y 371.029	675815.0	675815.0	101.26	%			14:03:25

2	Ag 328.068†	105519.6	101515.7	493.51 ug/L	493.51 ppb	14:03:30
2	As 188.979†	1136.6	1127.3	490.37 ug/L	490.37 ppb	14:03:50
2	B 249.677†	20866.0	20728.1	491.29 ug/L	491.29 ppb	14:03:30
2	Ba 233.527†	64080.2	61839.4	494.18 ug/L	494.18 ppb	14:03:30
2	Be 313.107†	1381318.7	1336494.9	489.22 ug/L	489.22 ppb	14:03:25
2	Cd 226.502†	43443.4	42133.3	491.70 ug/L	491.70 ppb	14:03:30
2	Co 228.616†	24910.8	24119.1	495.92 ug/L	495.92 ppb	14:03:30
2	Cr 267.716†	42764.4	41195.5	490.18 ug/L	490.18 ppb	14:03:30
2	Cu 324.752†	171188.4	160453.8	493.24 ug/L	493.24 ppb	14:03:30
2	Mn 257.610†	458577.5	441998.3	495.55 ug/L	495.55 ppb	14:03:25
2	Mo 202.031†	6718.2	6470.3	487.90 ug/L	487.90 ppb	14:03:50
2	Ni 231.604†	20018.9	19238.6	492.77 ug/L	492.77 ppb	14:03:30
2	P 214.914†	4553.7	4146.7	2344.5 ug/L	2344.5 ppb	14:03:50
2	Pb 220.353†	4046.5	3971.6	488.46 ug/L	488.46 ppb	14:03:50
2	S 181.975 Axial†	789.5	714.0	978.78 ug/L	978.78 ppb	14:03:50
2	Sb 206.836†	1496.0	1408.3	507.34 ug/L	507.34 ppb	14:03:50
2	Se 196.026†	757.9	756.7	512.75 ug/L	512.75 ppb	14:03:50
2	Si 251.611†	78694.4	75398.7	2460.4 ug/L	2460.4 ppb	14:03:30
2	Sn 189.927†	2795.7	2688.0	486.98 ug/L	486.98 ppb	14:03:50
2	Ti 334.940†	314129.5	304665.4	491.74 ug/L	491.74 ppb	14:03:30
2	Tl 190.801†	1612.0	1589.6	496.19 ug/L	496.19 ppb	14:03:50
2	U 409.014†	12865.6	16025.6	501.49 ug/L	501.49 ppb	14:03:30
2	V 292.402†	66599.4	65850.1	498.09 ug/L	498.09 ppb	14:03:30
2	Zn 213.857†	54034.0	51407.3	487.05 ug/L	487.05 ppb	14:03:30
2	SiO2†	78614.2	75320.2	5242.1 ug/L	5242.1 ppb	14:04:32
3	Sc Radial	4903.2	4903.2	99.6 %		14:02:27
3	Y RADIAL	5201.2	5201.2	100.3 %		14:02:27
3	Al 396.153Radial†	5672.8	5859.1	5057.2 ug/L	5057.2 ppb	14:02:27
3	Ca 317.933Radial†	3233.3	3231.4	5064.9 ug/L	5064.9 ppb	14:02:47
3	Fe 238.204 Radial†	560.4	551.3	5037.6 ug/L	5037.6 ppb	14:02:47
3	K 766.490 Radial†	31097.6	28260.9	4921.0 ug/L	4921.0 ppb	14:02:27
3	Mg 279.077 IEC†	154.5	153.9	5062.4 ug/L	5062.4 ppb	14:02:47
3	Na 589.592 Radial†	29781.2	31052.4	10120 ug/L	10120 ppb	14:02:27
3	Sr 421.552†	75917.4	76212.1	499.52 ug/L	499.52 ppb	14:02:27
3	Sc 361.383	848346.5	848346.5	102.60 %		14:03:56
3	Y 371.029	669664.9	669664.9	100.34 %		14:03:56
3	Ag 328.068†	105576.4	102606.9	498.74 ug/L	498.74 ppb	14:04:01
3	As 188.979†	1129.5	1131.6	492.21 ug/L	492.21 ppb	14:04:21
3	B 249.677†	21029.4	21092.1	499.97 ug/L	499.97 ppb	14:04:01
3	Ba 233.527†	64099.3	62487.0	499.35 ug/L	499.35 ppb	14:04:01
3	Be 313.107†	1365918.5	1335044.1	488.71 ug/L	488.71 ppb	14:03:56
3	Cd 226.502†	43359.1	42477.7	495.74 ug/L	495.74 ppb	14:04:01
3	Co 228.616†	24918.7	24371.3	501.10 ug/L	501.10 ppb	14:04:01
3	Cr 267.716†	42853.5	41702.1	496.20 ug/L	496.20 ppb	14:04:01
3	Cu 324.752†	171667.7	162601.5	499.83 ug/L	499.83 ppb	14:04:01
3	Mn 257.610†	453970.9	442009.9	495.56 ug/L	495.56 ppb	14:03:56
3	Mo 202.031†	6663.4	6482.9	488.83 ug/L	488.83 ppb	14:04:21
3	Ni 231.604†	19993.8	19410.7	497.18 ug/L	497.18 ppb	14:04:01
3	P 214.914†	4508.9	4147.8	2343.9 ug/L	2343.9 ppb	14:04:21
3	Pb 220.353†	4026.4	3991.6	490.92 ug/L	490.92 ppb	14:04:21
3	S 181.975 Axial†	776.3	708.8	971.74 ug/L	971.74 ppb	14:04:21
3	Sb 206.836†	1488.6	1415.8	509.93 ug/L	509.93 ppb	14:04:21
3	Se 196.026†	759.0	765.2	517.91 ug/L	517.91 ppb	14:04:21
3	Si 251.611†	78736.7	76212.4	2487.0 ug/L	2487.0 ppb	14:04:01
3	Sn 189.927†	2756.1	2676.8	484.95 ug/L	484.95 ppb	14:04:21
3	Ti 334.940†	314538.0	308147.2	497.34 ug/L	497.34 ppb	14:04:01
3	Tl 190.801†	1599.0	1592.8	497.19 ug/L	497.19 ppb	14:04:21
3	U 409.014†	13325.4	16600.1	519.53 ug/L	519.53 ppb	14:04:01
3	V 292.402†	66601.5	66505.9	503.04 ug/L	503.04 ppb	14:04:01
3	Zn 213.857†	54016.8	51920.9	491.94 ug/L	491.94 ppb	14:04:01
3	SiO2†	77875.1	75371.5	5245.7 ug/L	5245.7 ppb	14:04:37

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851528.7	102.98	%	0.573				0.56%
Sc Radial	4887.9	99.3	%	0.96				0.97%
Y 371.029	672245.9	100.73	%	0.478				0.47%
Y RADIAL	5166.6	99.62	%	0.991				1.00%
Ag 328.068†	101853.2	495.11	ug/L	3.153	495.11	ppb	3.153	0.64%

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   QC value within limits for Ag 328.068  Recovery = 99.02%
Al 396.153Radial†       5861.3      5059.1 ug/L        26.74      5059.1 ppb        26.74   0.53%
   QC value within limits for Al 396.153Radial  Recovery = 101.18%
As 188.979†             1126.6      490.04 ug/L        2.350      490.04 ppb        2.350   0.48%
   QC value within limits for As 188.979  Recovery = 98.01%
B 249.677†             20840.3      493.98 ug/L        5.196      493.98 ppb        5.196   1.05%
   QC value within limits for B 249.677  Recovery = 98.80%
Ba 233.527†            62028.2      495.69 ug/L        3.190      495.69 ppb        3.190   0.64%
   QC value within limits for Ba 233.527  Recovery = 99.14%
Be 313.107†          1335334.5      488.80 ug/L        0.381      488.80 ppb        0.381   0.08%
   QC value within limits for Be 313.107  Recovery = 97.76%
Ca 317.933Radial†       3243.3      5083.5 ug/L        51.12      5083.5 ppb        51.12   1.01%
   QC value within limits for Ca 317.933Radial  Recovery = 101.67%
Cd 226.502†            42191.2      492.39 ug/L        3.067      492.39 ppb        3.067   0.62%
   QC value within limits for Cd 226.502  Recovery = 98.48%
Co 228.616†            24161.7      496.80 ug/L        3.938      496.80 ppb        3.938   0.79%
   QC value within limits for Co 228.616  Recovery = 99.36%
Cr 267.716†            41366.6      492.21 ug/L        3.454      492.21 ppb        3.454   0.70%
   QC value within limits for Cr 267.716  Recovery = 98.44%
Cu 324.752†           161203.1      495.54 ug/L        3.719      495.54 ppb        3.719   0.75%
   QC value within limits for Cu 324.752  Recovery = 99.11%
Fe 238.204 Radial†       555.7      5077.8 ug/L        74.52      5077.8 ppb        74.52   1.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.56%
K 766.490 Radial†      28323.0      4931.8 ug/L        33.38      4931.8 ppb        33.38   0.68%
   QC value within limits for K 766.490 Radial  Recovery = 98.64%
Mg 279.077 IEC†          155.1      5100.4 ug/L        33.18      5100.4 ppb        33.18   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.01%
Mn 257.610†           441525.3      495.02 ug/L        0.934      495.02 ppb        0.934   0.19%
   QC value within limits for Mn 257.610  Recovery = 99.00%
Mo 202.031†             6474.0      488.17 ug/L        0.579      488.17 ppb        0.579   0.12%
   QC value within limits for Mo 202.031  Recovery = 97.63%
Na 589.592 Radial†     31121.0       10142 ug/L         39.2       10142 ppb         39.2   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 101.42%
Ni 231.604†            19242.7      492.88 ug/L        4.252      492.88 ppb        4.252   0.86%
   QC value within limits for Ni 231.604  Recovery = 98.58%
P 214.914†              4147.2      2344.4 ug/L         0.45      2344.4 ppb         0.45   0.02%
   QC value within limits for P 214.914  Recovery = 93.78%
Pb 220.353†             3982.5      489.80 ug/L        1.244      489.80 ppb        1.244   0.25%
   QC value within limits for Pb 220.353  Recovery = 97.96%
S 181.975 Axial†         709.8      973.07 ug/L        5.181      973.07 ppb        5.181   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 97.31%
Sb 206.836†             1413.5      509.14 ug/L        1.567      509.14 ppb        1.567   0.31%
   QC value within limits for Sb 206.836  Recovery = 101.83%
Se 196.026†              758.6      513.72 ug/L        3.791      513.72 ppb        3.791   0.74%
   QC value within limits for Se 196.026  Recovery = 102.74%
Si 251.611†            75562.4      2465.7 ug/L        19.15      2465.7 ppb        19.15   0.78%
   QC value within limits for Si 251.611  Recovery = 98.63%
Sn 189.927†             2684.9      486.41 ug/L        1.272      486.41 ppb        1.272   0.26%
   QC value within limits for Sn 189.927  Recovery = 97.28%
Sr 421.552†            76203.4      499.47 ug/L        1.974      499.47 ppb        1.974   0.40%
   QC value within limits for Sr 421.552  Recovery = 99.89%
Ti 334.940†           305639.2      493.30 ug/L        3.532      493.30 ppb        3.532   0.72%
   QC value within limits for Ti 334.940  Recovery = 98.66%
Tl 190.801†             1588.2      495.74 ug/L        1.714      495.74 ppb        1.714   0.35%
   QC value within limits for Tl 190.801  Recovery = 99.15%
U 409.014†             16302.9      510.21 ug/L        9.034      510.21 ppb        9.034   1.77%
   QC value within limits for U 409.014  Recovery = 102.04%
V 292.402†             66050.5      499.62 ug/L        2.973      499.62 ppb        2.973   0.60%
   QC value within limits for V 292.402  Recovery = 99.92%
Zn 213.857†            51506.5      488.01 ug/L        3.556      488.01 ppb        3.556   0.73%
   QC value within limits for Zn 213.857  Recovery = 97.60%
SiO2†                  75678.0      5267.1 ug/L        40.19      5267.1 ppb        40.19   0.76%
   QC value within limits for SiO2  Recovery = 98.50%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 14:06:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4949.2	4949.2	101	%			14:08:40
1	Y RADIAL	5233.5	5233.5	100.9	%			14:08:40
1	Al 396.153Radial†	-165.2	-1.1	-1.0255	ug/L	-1.0255	ppb	14:08:40
1	Ca 317.933Radial†	20.2	5.2	8.1109	ug/L	8.1109	ppb	14:09:00
1	Fe 238.204 Radial†	7.8	-3.7	-33.274	ug/L	-33.274	ppb	14:09:00
1	K 766.490 Radial†	3075.7	96.5	16.786	ug/L	16.786	ppb	14:08:40
1	Mg 279.077 IEC†	-1.4	-2.6	-85.385	ug/L	-85.385	ppb	14:09:00
1	Na 589.592 Radial†	-889.4	265.6	86.543	ug/L	86.543	ppb	14:08:40
1	Sr 421.552†	26.7	12.9	0.0845	ug/L	0.0845	ppb	14:08:40
1	Sc 361.383	836365.2	836365.2	101.15	%			14:09:57
1	Y 371.029	669212.8	669212.8	100.27	%			14:09:57
1	Ag 328.068†	295.2	-5.3	-0.0475	ug/L	-0.0475	ppb	14:09:57
1	As 188.979†	-27.7	3.2	1.3794	ug/L	1.3794	ppb	14:10:17
1	B 249.677†	-480.8	119.7	2.8550	ug/L	2.8550	ppb	14:10:17
1	Ba 233.527†	-10.5	-0.1	-0.0015	ug/L	-0.0015	ppb	14:10:17
1	Be 313.107†	-3744.4	-1.6	-0.0002	ug/L	-0.0002	ppb	14:09:57
1	Cd 226.502†	-194.7	23.6	0.2815	ug/L	0.2815	ppb	14:10:17
1	Co 228.616†	-66.3	17.8	0.3692	ug/L	0.3692	ppb	14:10:17
1	Cr 267.716†	76.9	9.4	0.1056	ug/L	0.1056	ppb	14:10:17
1	Cu 324.752†	4763.5	-11.5	-0.0446	ug/L	-0.0446	ppb	14:09:57
1	Mn 257.610†	490.1	14.7	0.0167	ug/L	0.0167	ppb	14:10:17
1	Mo 202.031†	26.9	14.7	1.1069	ug/L	1.1069	ppb	14:10:17
1	Ni 231.604†	85.5	7.5	0.1912	ug/L	0.1912	ppb	14:10:17
1	P 214.914†	242.2	-7.6	-4.3896	ug/L	-4.3896	ppb	14:10:17
1	Pb 220.353†	-75.0	-7.0	-0.8484	ug/L	-0.8484	ppb	14:10:17
1	S 181.975 Axial†	40.6	-7.6	-10.464	ug/L	-10.464	ppb	14:10:17
1	Sb 206.836†	41.7	6.1	2.1990	ug/L	2.1990	ppb	14:10:17
1	Se 196.026†	-29.6	-3.9	-2.6443	ug/L	-2.6443	ppb	14:10:17
1	Si 251.611†	563.0	25.2	0.8116	ug/L	0.8116	ppb	14:10:17
1	Sn 189.927†	23.4	13.6	2.4690	ug/L	2.4690	ppb	14:10:17
1	Ti 334.940†	-1498.5	89.5	0.1466	ug/L	0.1466	ppb	14:09:57
1	Tl 190.801†	-32.3	2.4	0.7290	ug/L	0.7290	ppb	14:10:17
1	U 409.014†	-3221.7	426.8	13.404	ug/L	13.404	ppb	14:09:57
1	V 292.402†	-1592.9	15.4	0.1594	ug/L	0.1594	ppb	14:09:57
1	Zn 213.857†	724.9	-11.9	-0.1101	ug/L	-0.1101	ppb	14:10:17
1	SiO2†	518.5	-19.8	-1.4107	ug/L	-1.4107	ppb	14:11:13
2	Sc Radial	4919.6	4919.6	99.9	%			14:09:05
2	Y RADIAL	5196.1	5196.1	100.2	%			14:09:05
2	Al 396.153Radial†	-160.2	2.9	2.4429	ug/L	2.4429	ppb	14:09:05
2	Ca 317.933Radial†	20.4	5.5	8.6142	ug/L	8.6142	ppb	14:09:25
2	Fe 238.204 Radial†	7.2	-4.2	-38.456	ug/L	-38.456	ppb	14:09:25
2	K 766.490 Radial†	2797.7	-163.3	-28.517	ug/L	-28.517	ppb	14:09:05
2	Mg 279.077 IEC†	1.7	0.5	16.761	ug/L	16.761	ppb	14:09:25
2	Na 589.592 Radial†	-874.1	275.5	89.797	ug/L	89.797	ppb	14:09:05
2	Sr 421.552†	6.9	-6.7	-0.0442	ug/L	-0.0442	ppb	14:09:05
2	Sc 361.383	843075.6	843075.6	101.96	%			14:10:22
2	Y 371.029	674836.9	674836.9	101.11	%			14:10:22
2	Ag 328.068†	227.2	-74.3	-0.3763	ug/L	-0.3763	ppb	14:10:22
2	As 188.979†	-28.5	2.7	1.1441	ug/L	1.1441	ppb	14:10:42
2	B 249.677†	-498.5	106.1	2.5322	ug/L	2.5322	ppb	14:10:42
2	Ba 233.527†	-9.3	1.1	0.0078	ug/L	0.0078	ppb	14:10:42
2	Be 313.107†	-3799.4	-26.1	-0.0090	ug/L	-0.0090	ppb	14:10:22
2	Cd 226.502†	-202.5	17.5	0.2089	ug/L	0.2089	ppb	14:10:42
2	Co 228.616†	-75.1	9.7	0.2021	ug/L	0.2021	ppb	14:10:42
2	Cr 267.716†	68.5	0.5	0.0033	ug/L	0.0033	ppb	14:10:42
2	Cu 324.752†	4844.1	30.1	0.0876	ug/L	0.0876	ppb	14:10:22
2	Mn 257.610†	518.9	39.1	0.0393	ug/L	0.0393	ppb	14:10:42
2	Mo 202.031†	27.6	15.2	1.1435	ug/L	1.1435	ppb	14:10:42
2	Ni 231.604†	87.8	9.1	0.2330	ug/L	0.2330	ppb	14:10:42

2	P 214.914†	245.4	-6.3	-3.6914	ug/L	-3.6914 ppb	14:10:42
2	Pb 220.353†	-48.7	19.4	2.3894	ug/L	2.3894 ppb	14:10:42
2	S 181.975 Axial†	41.6	-7.0	-9.6153	ug/L	-9.6153 ppb	14:10:42
2	Sb 206.836†	46.1	10.1	3.5617	ug/L	3.5617 ppb	14:10:42
2	Se 196.026†	-14.7	10.9	7.0217	ug/L	7.0217 ppb	14:10:42
2	Si 251.611†	550.8	8.9	0.2772	ug/L	0.2772 ppb	14:10:42
2	Sn 189.927†	15.7	6.0	1.0784	ug/L	1.0784 ppb	14:10:42
2	Ti 334.940†	-1445.6	153.1	0.2446	ug/L	0.2446 ppb	14:10:22
2	Tl 190.801†	-40.9	-5.8	-1.7950	ug/L	-1.7950 ppb	14:10:42
2	U 409.014†	-3512.0	167.5	5.2628	ug/L	5.2628 ppb	14:10:22
2	V 292.402†	-1617.8	3.5	0.0578	ug/L	0.0578 ppb	14:10:22
2	Zn 213.857†	732.3	-10.3	-0.0947	ug/L	-0.0947 ppb	14:10:42
2	SiO2†	577.1	33.6	2.3159	ug/L	2.3159 ppb	14:11:18
3	Sc Radial	4905.2	4905.2	99.6	%		14:09:30
3	Y RADIAL	5215.1	5215.1	100.6	%		14:09:30
3	Al 396.153Radial†	-166.4	-3.8	-3.3341	ug/L	-3.3341 ppb	14:09:30
3	Ca 317.933Radial†	16.8	1.9	3.0556	ug/L	3.0556 ppb	14:09:50
3	Fe 238.204 Radial†	10.8	-0.6	-5.6783	ug/L	-5.6783 ppb	14:09:50
3	K 766.490 Radial†	2859.6	-92.9	-16.238	ug/L	-16.238 ppb	14:09:30
3	Mg 279.077 IEC†	0.1	-1.1	-35.913	ug/L	-35.913 ppb	14:09:50
3	Na 589.592 Radial†	-862.1	285.0	92.884	ug/L	92.884 ppb	14:09:30
3	Sr 421.552†	12.2	-1.4	-0.0090	ug/L	-0.0090 ppb	14:09:30
3	Sc 361.383	838218.6	838218.6	101.37	%		14:10:48
3	Y 371.029	670494.0	670494.0	100.46	%		14:10:48
3	Ag 328.068†	249.4	-51.1	-0.2591	ug/L	-0.2591 ppb	14:10:48
3	As 188.979†	-20.4	10.5	4.5425	ug/L	4.5425 ppb	14:11:08
3	B 249.677†	-501.6	100.2	2.3854	ug/L	2.3854 ppb	14:11:08
3	Ba 233.527†	0.6	10.9	0.0873	ug/L	0.0873 ppb	14:11:08
3	Be 313.107†	-3816.0	-64.0	-0.0229	ug/L	-0.0229 ppb	14:10:48
3	Cd 226.502†	-206.1	12.8	0.1526	ug/L	0.1526 ppb	14:11:08
3	Co 228.616†	-64.4	19.8	0.4083	ug/L	0.4083 ppb	14:11:08
3	Cr 267.716†	83.6	15.8	0.1827	ug/L	0.1827 ppb	14:11:08
3	Cu 324.752†	4774.7	-10.9	-0.0416	ug/L	-0.0416 ppb	14:10:48
3	Mn 257.610†	477.2	0.9	0.0019	ug/L	0.0019 ppb	14:11:08
3	Mo 202.031†	20.7	8.5	0.6424	ug/L	0.6424 ppb	14:11:08
3	Ni 231.604†	80.1	1.9	0.0497	ug/L	0.0497 ppb	14:11:08
3	P 214.914†	238.2	-12.0	-7.0691	ug/L	-7.0691 ppb	14:11:08
3	Pb 220.353†	-52.3	15.5	1.9035	ug/L	1.9035 ppb	14:11:08
3	S 181.975 Axial†	48.2	-0.3	-0.3894	ug/L	-0.3894 ppb	14:11:08
3	Sb 206.836†	46.0	10.2	3.5900	ug/L	3.5900 ppb	14:11:08
3	Se 196.026†	-15.0	10.6	6.9332	ug/L	6.9332 ppb	14:11:08
3	Si 251.611†	523.9	-14.5	-0.4834	ug/L	-0.4834 ppb	14:11:08
3	Sn 189.927†	16.0	6.3	1.1357	ug/L	1.1357 ppb	14:11:08
3	Ti 334.940†	-1449.9	140.7	0.2241	ug/L	0.2241 ppb	14:10:48
3	Tl 190.801†	-36.9	-2.0	-0.6323	ug/L	-0.6323 ppb	14:11:08
3	U 409.014†	-3200.5	454.8	14.280	ug/L	14.280 ppb	14:10:48
3	V 292.402†	-1575.9	35.6	0.3018	ug/L	0.3018 ppb	14:10:48
3	Zn 213.857†	729.2	-9.3	-0.0880	ug/L	-0.0880 ppb	14:11:08
3	SiO2†	547.5	7.8	0.5239	ug/L	0.5239 ppb	14:11:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	839219.8	101.49	%	0.419				0.41%
Sc Radial	4924.7	100	%	0.5				0.46%
Y 371.029	671514.6	100.62	%	0.442				0.44%
Y RADIAL	5214.9	100.6	%	0.36				0.36%
Ag 328.068†	-43.6	-0.2276	ug/L	0.16660	-0.2276	ppb	0.16660	73.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.7	-0.6389	ug/L	2.90788	-0.6389	ppb	2.90788	455.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.5	2.3553	ug/L	1.89779	2.3553	ppb	1.89779	80.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	108.7	2.5908	ug/L	0.24025	2.5908	ppb	0.24025	9.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.0	0.0312	ug/L	0.04882	0.0312	ppb	0.04882	156.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-30.6	-0.0107	ug/L	0.01141	-0.0107	ppb	0.01141	106.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.2	6.5935	ug/L	3.07431	6.5935	ppb	3.07431	46.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                17.9      0.2143 ug/L       0.06461      0.2143 ppb        0.06461  30.14%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                15.8      0.3265 ug/L       0.10952      0.3265 ppb        0.10952  33.54%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.6      0.0972 ug/L       0.09000      0.0972 ppb        0.09000  92.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 2.6      0.0005 ug/L       0.07549      0.0005 ppb        0.07549 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.8     -25.803 ug/L       17.6200     -25.803 ppb        17.6200  68.29%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -53.2      -9.3227 ug/L      23.42980      -9.3227 ppb       23.42980 251.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -34.846 ug/L       51.0817     -34.846 ppb        51.0817 146.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                18.2      0.0193 ug/L       0.01881      0.0193 ppb        0.01881  97.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.8      0.9643 ug/L       0.27931      0.9643 ppb        0.27931  28.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        275.4     89.741 ug/L        3.1704     89.741 ppb         3.1704   3.53%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.2      0.1579 ug/L       0.09607      0.1579 ppb        0.09607  60.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.6     -5.0500 ug/L       1.78311     -5.0500 ppb        1.78311  35.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.3      1.1482 ug/L       1.74602      1.1482 ppb        1.74602 152.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.0     -6.8229 ug/L       5.58768     -6.8229 ppb        5.58768  81.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 8.8      3.1169 ug/L       0.79507      3.1169 ppb        0.79507  25.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.9      3.7702 ug/L       5.55530      3.7702 ppb        5.55530 147.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 6.5      0.2018 ug/L       0.65080      0.2018 ppb        0.65080 322.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.6      1.5610 ug/L       0.78684      1.5610 ppb        0.78684  50.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 1.6      0.0104 ug/L       0.06653      0.0104 ppb        0.06653 638.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               127.7      0.2051 ug/L       0.05171      0.2051 ppb        0.05171  25.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.8     -0.5661 ug/L       1.26327     -0.5661 ppb        1.26327 223.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                349.7      10.982 ug/L        4.9725      10.982 ppb         4.9725  45.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.2      0.1730 ug/L       0.12257      0.1730 ppb        0.12257  70.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -10.5     -0.0976 ug/L       0.01133     -0.0976 ppb        0.01133  11.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       7.2      0.4764 ug/L       1.86375      0.4764 ppb        1.86375 391.25%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/12/2010 15:21:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4980.5	4980.5	101	%			15:23:20
1	Y RADIAL	5271.1	5271.1	101.6	%			15:23:20
1	Al 396.153Radial†	5629.5	5727.9	4944.5	ug/L	4944.5	ppb	15:23:20
1	Ca 317.933Radial†	3176.7	3125.2	4898.3	ug/L	4898.3	ppb	15:23:40
1	Fe 238.204 Radial†	545.5	527.8	4822.9	ug/L	4822.9	ppb	15:23:40
1	K 766.490 Radial†	30768.1	27450.7	4780.0	ug/L	4780.0	ppb	15:23:20
1	Mg 279.077 IEC†	151.8	148.9	4896.6	ug/L	4896.6	ppb	15:23:40
1	Na 589.592 Radial†	28979.7	29796.2	9710.5	ug/L	9710.5	ppb	15:23:20
1	Sr 421.552†	74772.9	73897.9	484.36	ug/L	484.36	ppb	15:23:20
1	Sc 361.383	873058.5	873058.5	105.59	%			15:24:38
1	Y 371.029	690044.4	690044.4	103.39	%			15:24:38
1	Ag 328.068†	103846.1	98055.4	476.62	ug/L	476.62	ppb	15:24:43
1	As 188.979†	1112.1	1083.9	471.45	ug/L	471.45	ppb	15:25:03
1	B 249.677†	20401.8	19917.5	472.10	ug/L	472.10	ppb	15:24:43
1	Ba 233.527†	62886.5	59570.0	476.05	ug/L	476.05	ppb	15:24:43
1	Be 313.107†	1365853.5	1297298.7	474.87	ug/L	474.87	ppb	15:24:38
1	Cd 226.502†	42532.8	40498.8	472.64	ug/L	472.64	ppb	15:24:43
1	Co 228.616†	24385.3	23178.7	476.58	ug/L	476.58	ppb	15:24:43
1	Cr 267.716†	42104.2	39810.2	473.69	ug/L	473.69	ppb	15:24:43
1	Cu 324.752†	168682.7	155038.2	476.58	ug/L	476.58	ppb	15:24:43
1	Mn 257.610†	451877.5	427502.8	479.29	ug/L	479.29	ppb	15:24:38
1	Mo 202.031†	6560.8	6201.9	467.64	ug/L	467.64	ppb	15:25:03
1	Ni 231.604†	19606.6	18492.3	473.66	ug/L	473.66	ppb	15:24:43
1	P 214.914†	4455.3	3972.6	2245.4	ug/L	2245.4	ppb	15:25:03
1	Pb 220.353†	3944.6	3803.1	467.76	ug/L	467.76	ppb	15:25:03
1	S 181.975 Axial†	760.9	672.9	922.40	ug/L	922.40	ppb	15:25:03
1	Sb 206.836†	1481.2	1367.7	492.50	ug/L	492.50	ppb	15:25:03
1	Se 196.026†	750.9	736.5	498.43	ug/L	498.43	ppb	15:25:03
1	Si 251.611†	77138.3	72526.3	2366.7	ug/L	2366.7	ppb	15:24:43
1	Sn 189.927†	2729.3	2575.4	466.58	ug/L	466.58	ppb	15:25:03
1	Ti 334.940†	308651.3	293894.2	474.34	ug/L	474.34	ppb	15:24:43
1	Tl 190.801†	1591.0	1541.1	481.04	ug/L	481.04	ppb	15:25:03
1	U 409.014†	12881.0	15811.5	494.85	ug/L	494.85	ppb	15:24:43
1	V 292.402†	65433.4	63562.1	480.78	ug/L	480.78	ppb	15:24:43
1	Zn 213.857†	52844.8	49320.6	467.29	ug/L	467.29	ppb	15:24:43
1	SiO2†	76986.1	72381.1	5037.6	ug/L	5037.6	ppb	15:26:10
2	Sc Radial	5037.0	5037.0	102	%			15:23:45
2	Y RADIAL	5276.2	5276.2	101.7	%			15:23:45
2	Al 396.153Radial†	5614.6	5650.9	4877.2	ug/L	4877.2	ppb	15:23:45
2	Ca 317.933Radial†	3187.8	3100.8	4860.1	ug/L	4860.1	ppb	15:24:05
2	Fe 238.204 Radial†	546.1	522.3	4773.3	ug/L	4773.3	ppb	15:24:05
2	K 766.490 Radial†	30804.6	27145.0	4726.7	ug/L	4726.7	ppb	15:23:45
2	Mg 279.077 IEC†	151.9	147.3	4845.1	ug/L	4845.1	ppb	15:24:05
2	Na 589.592 Radial†	28964.6	29459.8	9600.9	ug/L	9600.9	ppb	15:23:45
2	Sr 421.552†	74916.9	73209.1	479.84	ug/L	479.84	ppb	15:23:45
2	Sc 361.383	860802.6	860802.6	104.10	%			15:25:09
2	Y 371.029	681469.1	681469.1	102.11	%			15:25:09
2	Ag 328.068†	105443.8	100990.5	490.83	ug/L	490.83	ppb	15:25:14
2	As 188.979†	1116.5	1103.2	479.85	ug/L	479.85	ppb	15:25:34
2	B 249.677†	20765.5	20542.0	486.94	ug/L	486.94	ppb	15:25:14
2	Ba 233.527†	63610.4	61113.4	488.38	ug/L	488.38	ppb	15:25:14
2	Be 313.107†	1354937.3	1305230.8	477.80	ug/L	477.80	ppb	15:25:09
2	Cd 226.502†	43083.0	41600.9	485.52	ug/L	485.52	ppb	15:25:14
2	Co 228.616†	24717.5	23826.6	489.89	ug/L	489.89	ppb	15:25:14
2	Cr 267.716†	42672.6	40924.0	486.94	ug/L	486.94	ppb	15:25:14
2	Cu 324.752†	171488.9	160008.5	491.85	ug/L	491.85	ppb	15:25:14
2	Mn 257.610†	447188.7	429092.2	481.07	ug/L	481.07	ppb	15:25:09
2	Mo 202.031†	6584.0	6312.6	475.98	ug/L	475.98	ppb	15:25:34
2	Ni 231.604†	19888.6	19027.7	487.37	ug/L	487.37	ppb	15:25:14

2	P 214.914†	4427.2	4005.6	2261.8 ug/L	2261.8 ppb	15:25:34
2	Pb 220.353†	3947.1	3858.7	474.58 ug/L	474.58 ppb	15:25:34
2	S 181.975 Axial†	762.0	684.2	937.95 ug/L	937.95 ppb	15:25:34
2	Sb 206.836†	1479.6	1386.2	499.15 ug/L	499.15 ppb	15:25:34
2	Se 196.026†	738.5	734.8	497.16 ug/L	497.16 ppb	15:25:34
2	Si 251.611†	78335.3	74716.3	2438.2 ug/L	2438.2 ppb	15:25:14
2	Sn 189.927†	2714.7	2598.2	470.70 ug/L	470.70 ppb	15:25:34
2	Ti 334.940†	313346.1	302566.0	488.33 ug/L	488.33 ppb	15:25:14
2	Tl 190.801†	1552.7	1525.8	476.33 ug/L	476.33 ppb	15:25:34
2	U 409.014†	12950.4	16051.9	502.37 ug/L	502.37 ppb	15:25:14
2	V 292.402†	66510.7	65479.3	495.21 ug/L	495.21 ppb	15:25:14
2	Zn 213.857†	53627.0	50784.6	481.19 ug/L	481.19 ppb	15:25:14
2	SiO2†	77346.1	73765.1	5133.9 ug/L	5133.9 ppb	15:26:15
3	Sc Radial	4908.7	4908.7	99.7 %		15:24:10
3	Y RADIAL	5190.7	5190.7	100.1 %		15:24:10
3	Al 396.153Radial†	5560.7	5740.3	4955.0 ug/L	4955.0 ppb	15:24:10
3	Ca 317.933Radial†	3150.0	3144.3	4928.3 ug/L	4928.3 ppb	15:24:30
3	Fe 238.204 Radial†	534.5	524.7	4794.6 ug/L	4794.6 ppb	15:24:30
3	K 766.490 Radial†	30671.1	27798.0	4840.5 ug/L	4840.5 ppb	15:24:10
3	Mg 279.077 IEC†	151.3	150.5	4951.8 ug/L	4951.8 ppb	15:24:30
3	Na 589.592 Radial†	28640.1	29874.2	9736.0 ug/L	9736.0 ppb	15:24:10
3	Sr 421.552†	73851.1	74053.8	485.38 ug/L	485.38 ppb	15:24:10
3	Sc 361.383	871316.0	871316.0	105.37 %		15:25:40
3	Y 371.029	689259.4	689259.4	103.27 %		15:25:40
3	Ag 328.068†	103987.1	98385.9	478.21 ug/L	478.21 ppb	15:25:45
3	As 188.979†	1114.4	1088.2	473.32 ug/L	473.32 ppb	15:26:05
3	B 249.677†	20572.0	20117.7	476.87 ug/L	476.87 ppb	15:25:45
3	Ba 233.527†	63014.9	59811.0	477.97 ug/L	477.97 ppb	15:25:45
3	Be 313.107†	1365804.9	1299839.5	475.80 ug/L	475.80 ppb	15:25:40
3	Cd 226.502†	42659.8	40699.9	474.99 ug/L	474.99 ppb	15:25:45
3	Co 228.616†	24496.2	23330.0	479.70 ug/L	479.70 ppb	15:25:45
3	Cr 267.716†	42119.9	39904.8	474.82 ug/L	474.82 ppb	15:25:45
3	Cu 324.752†	168941.4	155603.3	478.32 ug/L	478.32 ppb	15:25:45
3	Mn 257.610†	450526.8	427076.9	478.81 ug/L	478.81 ppb	15:25:40
3	Mo 202.031†	6602.9	6254.2	471.58 ug/L	471.58 ppb	15:26:05
3	Ni 231.604†	19670.3	18590.0	476.16 ug/L	476.16 ppb	15:25:45
3	P 214.914†	4453.9	3979.7	2249.2 ug/L	2249.2 ppb	15:26:05
3	Pb 220.353†	3969.5	3834.2	471.59 ug/L	471.59 ppb	15:26:05
3	S 181.975 Axial†	764.4	677.6	928.88 ug/L	928.88 ppb	15:26:05
3	Sb 206.836†	1465.8	1355.9	488.49 ug/L	488.49 ppb	15:26:05
3	Se 196.026†	741.9	729.4	493.71 ug/L	493.71 ppb	15:26:05
3	Si 251.611†	77275.8	72802.8	2375.7 ug/L	2375.7 ppb	15:25:45
3	Sn 189.927†	2727.2	2578.6	467.17 ug/L	467.17 ppb	15:26:05
3	Ti 334.940†	309056.5	294863.4	475.91 ug/L	475.91 ppb	15:25:45
3	Tl 190.801†	1566.2	1520.6	474.67 ug/L	474.67 ppb	15:26:05
3	U 409.014†	12804.6	15763.4	493.34 ug/L	493.34 ppb	15:25:45
3	V 292.402†	65547.3	63794.1	482.57 ug/L	482.57 ppb	15:25:45
3	Zn 213.857†	52992.9	49561.3	469.58 ug/L	469.58 ppb	15:25:45
3	SiO2†	77217.2	72746.2	5063.0 ug/L	5063.0 ppb	15:26:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868392.4	105.02	%	0.802				0.76%
Sc Radial	4975.4	101	%	1.3				1.29%
Y 371.029	686924.3	102.92	%	0.710				0.69%
Y RADIAL	5246.0	101.2	%	0.93				0.91%
Ag 328.068†	99143.9	481.89	ug/L	7.785	481.89	ppb	7.785	1.62%
QC value within limits for Ag 328.068 Recovery = 96.38%								
Al 396.153Radial†	5706.4	4925.6	ug/L	42.17	4925.6	ppb	42.17	0.86%
QC value within limits for Al 396.153Radial Recovery = 98.51%								
As 188.979†	1091.8	474.87	ug/L	4.411	474.87	ppb	4.411	0.93%
QC value within limits for As 188.979 Recovery = 94.97%								
B 249.677†	20192.4	478.64	ug/L	7.577	478.64	ppb	7.577	1.58%
QC value within limits for B 249.677 Recovery = 95.73%								
Ba 233.527†	60164.8	480.80	ug/L	6.635	480.80	ppb	6.635	1.38%
QC value within limits for Ba 233.527 Recovery = 96.16%								
Be 313.107†	1300789.7	476.15	ug/L	1.496	476.15	ppb	1.496	0.31%
QC value within limits for Be 313.107 Recovery = 95.23%								
Ca 317.933Radial†	3123.4	4895.6	ug/L	34.19	4895.6	ppb	34.19	0.70%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.91%
Cd 226.502†            40933.2      477.72 ug/L         6.859      477.72 ppb          6.859   1.44%
   QC value within limits for Cd 226.502  Recovery = 95.54%
Co 228.616†            23445.1      482.06 ug/L         6.962      482.06 ppb          6.962   1.44%
   QC value within limits for Co 228.616  Recovery = 96.41%
Cr 267.716†            40213.0      478.48 ug/L         7.348      478.48 ppb          7.348   1.54%
   QC value within limits for Cr 267.716  Recovery = 95.70%
Cu 324.752†           156883.3      482.25 ug/L         8.361      482.25 ppb          8.361   1.73%
   QC value within limits for Cu 324.752  Recovery = 96.45%
Fe 238.204 Radial†       524.9      4796.9 ug/L        24.85      4796.9 ppb         24.85   0.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.94%
K 766.490 Radial†      27464.6      4782.4 ug/L        56.93      4782.4 ppb         56.93   1.19%
   QC value within limits for K 766.490 Radial  Recovery = 95.65%
Mg 279.077 IEC†          148.9      4897.8 ug/L        53.34      4897.8 ppb         53.34   1.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.96%
Mn 257.610†           427890.6      479.72 ug/L         1.191      479.72 ppb         1.191   0.25%
   QC value within limits for Mn 257.610  Recovery = 95.94%
Mo 202.031†             6256.2      471.74 ug/L         4.171      471.74 ppb         4.171   0.88%
   QC value within limits for Mo 202.031  Recovery = 94.35%
Na 589.592 Radial†     29710.1      9682.5 ug/L        71.77      9682.5 ppb         71.77   0.74%
   QC value within limits for Na 589.592 Radial  Recovery = 96.82%
Ni 231.604†            18703.3      479.06 ug/L         7.303      479.06 ppb         7.303   1.52%
   QC value within limits for Ni 231.604  Recovery = 95.81%
P 214.914†              3986.0      2252.2 ug/L          8.62      2252.2 ppb          8.62   0.38%
   QC value within limits for P 214.914  Recovery = 90.09%
Pb 220.353†             3832.0      471.31 ug/L         3.416      471.31 ppb         3.416   0.72%
   QC value within limits for Pb 220.353  Recovery = 94.26%
S 181.975 Axial†         678.2      929.74 ug/L         7.808      929.74 ppb         7.808   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 92.97%
Sb 206.836†             1370.0      493.38 ug/L         5.387      493.38 ppb         5.387   1.09%
   QC value within limits for Sb 206.836  Recovery = 98.68%
Se 196.026†              733.6      496.43 ug/L         2.442      496.43 ppb         2.442   0.49%
   QC value within limits for Se 196.026  Recovery = 99.29%
Si 251.611†            73348.5      2393.5 ug/L        38.96      2393.5 ppb         38.96   1.63%
   QC value within limits for Si 251.611  Recovery = 95.74%
Sn 189.927†             2584.1      468.15 ug/L         2.229      468.15 ppb         2.229   0.48%
   QC value within limits for Sn 189.927  Recovery = 93.63%
Sr 421.552†            73720.3      483.19 ug/L         2.946      483.19 ppb         2.946   0.61%
   QC value within limits for Sr 421.552  Recovery = 96.64%
Ti 334.940†           297107.8      479.53 ug/L         7.666      479.53 ppb         7.666   1.60%
   QC value within limits for Ti 334.940  Recovery = 95.91%
Tl 190.801†             1529.2      477.35 ug/L         3.302      477.35 ppb         3.302   0.69%
   QC value within limits for Tl 190.801  Recovery = 95.47%
U 409.014†             15875.6      496.85 ug/L         4.839      496.85 ppb         4.839   0.97%
   QC value within limits for U 409.014  Recovery = 99.37%
V 292.402†             64278.5      486.19 ug/L         7.867      486.19 ppb         7.867   1.62%
   QC value within limits for V 292.402  Recovery = 97.24%
Zn 213.857†            49888.8      472.69 ug/L         7.453      472.69 ppb         7.453   1.58%
   QC value within limits for Zn 213.857  Recovery = 94.54%
SiO2†                  72964.1      5078.2 ug/L        49.94      5078.2 ppb         49.94   0.98%
   QC value within limits for SiO2  Recovery = 94.96%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/12/2010 15:28:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5125.4	5125.4	104	%			15:30:25
1	Y RADIAL	5450.9	5450.9	105.1	%			15:30:25
1	Al 396.153Radial†	-181.1	-10.7	-9.3312	ug/L	-9.3312	ppb	15:30:25
1	Ca 317.933Radial†	16.3	0.7	1.0577	ug/L	1.0577	ppb	15:30:45
1	Fe 238.204 Radial†	11.2	-0.7	-6.4520	ug/L	-6.4520	ppb	15:30:45
1	K 766.490 Radial†	2916.2	-161.9	-28.264	ug/L	-28.264	ppb	15:30:25
1	Mg 279.077 IEC†	-0.4	-1.5	-50.787	ug/L	-50.787	ppb	15:30:45
1	Na 589.592 Radial†	-964.9	223.5	72.823	ug/L	72.823	ppb	15:30:25
1	Sr 421.552†	-0.3	-13.9	-0.0913	ug/L	-0.0913	ppb	15:30:25
1	Sc 361.383	844328.5	844328.5	102.11	%			15:31:42
1	Y 371.029	674532.4	674532.4	101.07	%			15:31:42
1	Ag 328.068†	317.3	13.6	0.0576	ug/L	0.0576	ppb	15:31:42
1	As 188.979†	-27.4	3.8	1.6321	ug/L	1.6321	ppb	15:32:02
1	B 249.677†	-473.8	131.0	3.1205	ug/L	3.1205	ppb	15:32:02
1	Ba 233.527†	-10.9	-0.4	-0.0024	ug/L	-0.0024	ppb	15:32:02
1	Be 313.107†	-3748.2	29.6	0.0109	ug/L	0.0109	ppb	15:31:42
1	Cd 226.502†	-218.8	1.8	0.0238	ug/L	0.0238	ppb	15:32:02
1	Co 228.616†	-72.0	12.8	0.2648	ug/L	0.2648	ppb	15:32:02
1	Cr 267.716†	56.4	-11.4	-0.1387	ug/L	-0.1387	ppb	15:32:02
1	Cu 324.752†	4772.2	-47.4	-0.1514	ug/L	-0.1514	ppb	15:31:42
1	Mn 257.610†	478.3	-1.4	-0.0002	ug/L	-0.0002	ppb	15:32:02
1	Mo 202.031†	19.3	7.0	0.5283	ug/L	0.5283	ppb	15:32:02
1	Ni 231.604†	85.4	6.6	0.1699	ug/L	0.1699	ppb	15:32:02
1	P 214.914†	231.5	-20.4	-11.944	ug/L	-11.944	ppb	15:32:02
1	Pb 220.353†	-68.7	-0.1	-0.0129	ug/L	-0.0129	ppb	15:32:02
1	S 181.975 Axial†	46.6	-2.2	-3.0089	ug/L	-3.0089	ppb	15:32:02
1	Sb 206.836†	44.4	8.4	2.9527	ug/L	2.9527	ppb	15:32:02
1	Se 196.026†	-22.1	3.7	2.4220	ug/L	2.4220	ppb	15:32:02
1	Si 251.611†	531.5	-10.8	-0.3604	ug/L	-0.3604	ppb	15:32:02
1	Sn 189.927†	15.5	5.7	1.0274	ug/L	1.0274	ppb	15:32:02
1	Ti 334.940†	-1584.6	19.1	0.0308	ug/L	0.0308	ppb	15:31:42
1	Tl 190.801†	-23.4	11.4	3.5203	ug/L	3.5203	ppb	15:32:02
1	U 409.014†	-3365.8	315.7	9.9148	ug/L	9.9148	ppb	15:31:42
1	V 292.402†	-1555.3	67.0	0.5268	ug/L	0.5268	ppb	15:31:42
1	Zn 213.857†	719.4	-24.0	-0.2298	ug/L	-0.2298	ppb	15:32:02
1	SiO2†	587.0	42.5	2.9538	ug/L	2.9538	ppb	15:32:58
2	Sc Radial	4887.1	4887.1	99.3	%			15:30:50
2	Y RADIAL	5218.8	5218.8	100.6	%			15:30:50
2	Al 396.153Radial†	-160.8	1.3	1.1508	ug/L	1.1508	ppb	15:30:50
2	Ca 317.933Radial†	13.2	-1.7	-2.6138	ug/L	-2.6138	ppb	15:31:10
2	Fe 238.204 Radial†	10.7	-0.6	-5.4678	ug/L	-5.4678	ppb	15:31:10
2	K 766.490 Radial†	3068.5	128.1	22.309	ug/L	22.309	ppb	15:30:50
2	Mg 279.077 IEC†	0.9	-0.3	-8.7097	ug/L	-8.7097	ppb	15:31:10
2	Na 589.592 Radial†	-925.6	217.9	71.002	ug/L	71.002	ppb	15:30:50
2	Sr 421.552†	53.9	40.6	0.2662	ug/L	0.2662	ppb	15:30:50
2	Sc 361.383	834505.4	834505.4	100.92	%			15:32:07
2	Y 371.029	668543.8	668543.8	100.17	%			15:32:07
2	Ag 328.068†	368.0	67.5	0.3144	ug/L	0.3144	ppb	15:32:07
2	As 188.979†	-27.3	3.6	1.5677	ug/L	1.5677	ppb	15:32:27
2	B 249.677†	-501.3	98.3	2.3419	ug/L	2.3419	ppb	15:32:27
2	Ba 233.527†	-12.7	-2.3	-0.0182	ug/L	-0.0182	ppb	15:32:27
2	Be 313.107†	-3699.8	34.4	0.0132	ug/L	0.0132	ppb	15:32:07
2	Cd 226.502†	-203.1	14.8	0.1765	ug/L	0.1765	ppb	15:32:27
2	Co 228.616†	-83.2	0.9	0.0161	ug/L	0.0161	ppb	15:32:27
2	Cr 267.716†	83.0	15.6	0.1809	ug/L	0.1809	ppb	15:32:27
2	Cu 324.752†	4812.1	47.1	0.1373	ug/L	0.1373	ppb	15:32:07
2	Mn 257.610†	482.5	8.2	0.0090	ug/L	0.0090	ppb	15:32:27
2	Mo 202.031†	6.1	-5.8	-0.4376	ug/L	-0.4376	ppb	15:32:27
2	Ni 231.604†	114.6	36.5	0.9355	ug/L	0.9355	ppb	15:32:27

2	P 214.914†	235.7	-13.5	-7.9629 ug/L	-7.9629 ppb	15:32:27
2	Pb 220.353†	-65.6	2.2	0.2652 ug/L	0.2652 ppb	15:32:27
2	S 181.975 Axial†	33.8	-14.3	-19.594 ug/L	-19.594 ppb	15:32:27
2	Sb 206.836†	40.5	5.0	1.7346 ug/L	1.7346 ppb	15:32:27
2	Se 196.026†	-32.0	-6.3	-4.1579 ug/L	-4.1579 ppb	15:32:27
2	Si 251.611†	521.1	-15.0	-0.4850 ug/L	-0.4850 ppb	15:32:27
2	Sn 189.927†	10.0	0.4	0.0756 ug/L	0.0756 ppb	15:32:27
2	Ti 334.940†	-1399.7	184.0	0.2916 ug/L	0.2916 ppb	15:32:07
2	Tl 190.801†	-40.6	-5.9	-1.8263 ug/L	-1.8263 ppb	15:32:27
2	U 409.014†	-3223.6	417.8	13.120 ug/L	13.120 ppb	15:32:07
2	V 292.402†	-1580.1	24.5	0.2023 ug/L	0.2023 ppb	15:32:07
2	Zn 213.857†	723.7	-11.5	-0.1155 ug/L	-0.1155 ppb	15:32:27
2	SiO2†	510.4	-26.6	-1.8448 ug/L	-1.8448 ppb	15:33:03
3	Sc Radial	4873.9	4873.9	99.0 %		15:31:15
3	Y RADIAL	5149.9	5149.9	99.30 %		15:31:15
3	Al 396.153Radial†	-164.2	-2.6	-2.3226 ug/L	-2.3226 ppb	15:31:15
3	Ca 317.933Radial†	15.9	1.1	1.7506 ug/L	1.7506 ppb	15:31:35
3	Fe 238.204 Radial†	9.9	-1.4	-12.846 ug/L	-12.846 ppb	15:31:35
3	K 766.490 Radial†	2921.2	-12.2	-2.1673 ug/L	-2.1673 ppb	15:31:15
3	Mg 279.077 IEC†	2.3	1.1	35.332 ug/L	35.332 ppb	15:31:35
3	Na 589.592 Radial†	-900.9	240.2	78.286 ug/L	78.286 ppb	15:31:15
3	Sr 421.552†	32.9	19.6	0.1286 ug/L	0.1286 ppb	15:31:15
3	Sc 361.383	836896.0	836896.0	101.21 %		15:32:32
3	Y 371.029	670427.0	670427.0	100.45 %		15:32:32
3	Ag 328.068†	274.5	-25.9	-0.1412 ug/L	-0.1412 ppb	15:32:32
3	As 188.979†	-25.7	5.3	2.2721 ug/L	2.2721 ppb	15:32:52
3	B 249.677†	-509.3	91.8	2.1879 ug/L	2.1879 ppb	15:32:52
3	Ba 233.527†	-6.6	3.8	0.0309 ug/L	0.0309 ppb	15:32:52
3	Be 313.107†	-3757.3	-12.0	-0.0042 ug/L	-0.0042 ppb	15:32:32
3	Cd 226.502†	-210.5	8.0	0.0985 ug/L	0.0985 ppb	15:32:52
3	Co 228.616†	-68.7	15.5	0.3209 ug/L	0.3209 ppb	15:32:52
3	Cr 267.716†	73.1	5.6	0.0601 ug/L	0.0601 ppb	15:32:52
3	Cu 324.752†	4829.2	50.4	0.1451 ug/L	0.1451 ppb	15:32:32
3	Mn 257.610†	476.2	0.6	-0.0020 ug/L	-0.0020 ppb	15:32:52
3	Mo 202.031†	28.3	16.1	1.2097 ug/L	1.2097 ppb	15:32:52
3	Ni 231.604†	84.1	6.1	0.1555 ug/L	0.1555 ppb	15:32:52
3	P 214.914†	248.8	-1.2	-0.7109 ug/L	-0.7109 ppb	15:32:52
3	Pb 220.353†	-65.4	2.6	0.3175 ug/L	0.3175 ppb	15:32:52
3	S 181.975 Axial†	52.7	4.3	5.8366 ug/L	5.8366 ppb	15:32:52
3	Sb 206.836†	50.5	14.8	5.1822 ug/L	5.1822 ppb	15:32:52
3	Se 196.026†	-21.3	4.3	2.8006 ug/L	2.8006 ppb	15:32:52
3	Si 251.611†	548.1	10.2	0.3198 ug/L	0.3198 ppb	15:32:52
3	Sn 189.927†	14.6	5.0	0.8953 ug/L	0.8953 ppb	15:32:52
3	Ti 334.940†	-1540.9	48.5	0.0684 ug/L	0.0684 ppb	15:32:32
3	Tl 190.801†	-34.3	0.4	0.1315 ug/L	0.1315 ppb	15:32:52
3	U 409.014†	-3125.1	524.3	16.464 ug/L	16.464 ppb	15:32:32
3	V 292.402†	-1545.8	62.9	0.5206 ug/L	0.5206 ppb	15:32:32
3	Zn 213.857†	709.9	-27.2	-0.2591 ug/L	-0.2591 ppb	15:32:52
3	SiO2†	579.4	40.1	2.7667 ug/L	2.7667 ppb	15:33:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	838576.6	101.42	%	0.620				0.61%
Sc Radial	4962.1	101	%	2.9				2.85%
Y 371.029	671167.7	100.56	%	0.459				0.46%
Y RADIAL	5273.2	101.7	%	3.04				2.99%
Ag 328.068†	18.4	0.0770	ug/L	0.22842	0.0770	ppb	0.22842	296.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.0	-3.5010	ug/L	5.33945	-3.5010	ppb	5.33945	152.51%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.2	1.8240	ug/L	0.38942	1.8240	ppb	0.38942	21.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	107.1	2.5501	ug/L	0.49994	2.5501	ppb	0.49994	19.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.4	0.0034	ug/L	0.02509	0.0034	ppb	0.02509	736.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	17.3	0.0066	ug/L	0.00946	0.0066	ppb	0.00946	142.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.0	0.0648	ug/L	2.34549	0.0648	ppb	2.34549	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.2      0.0996 ug/L       0.07636      0.0996 ppb        0.07636  76.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.7      0.2006 ug/L       0.16224      0.2006 ppb        0.16224  80.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.3      0.0341 ug/L       0.16139      0.0341 ppb        0.16139 473.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                16.7      0.0437 ug/L       0.16900      0.0437 ppb        0.16900 387.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.9     -8.2552 ug/L       4.00592     -8.2552 ppb        4.00592  48.53%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -15.4     -2.7077 ug/L      25.29092     -2.7077 ppb       25.29092 934.05%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.2     -8.0548 ug/L      43.06319     -8.0548 ppb       43.06319 534.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 2.5      0.0023 ug/L       0.00589      0.0023 ppb        0.00589 259.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.8      0.4335 ug/L       0.82776      0.4335 ppb        0.82776 190.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        227.2     74.037 ug/L        3.7908     74.037 ppb         3.7908   5.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                16.4      0.4203 ug/L       0.44627      0.4203 ppb        0.44627 106.18%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -11.7     -6.8726 ug/L       5.69536     -6.8726 ppb        5.69536  82.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.5      0.1900 ug/L       0.17758      0.1900 ppb        0.17758  93.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.1     -5.5888 ug/L      12.91008     -5.5888 ppb       12.91008 231.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.4      3.2898 ug/L       1.74836      3.2898 ppb        1.74836  53.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.6      0.3549 ug/L       3.91281      0.3549 ppb        3.91281 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -5.2     -0.1752 ug/L       0.43319     -0.1752 ppb        0.43319 247.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.7      0.6661 ug/L       0.51567      0.6661 ppb        0.51567  77.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                15.4      0.1011 ug/L       0.18031      0.1011 ppb        0.18031 178.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                83.9      0.1303 ug/L       0.14097      0.1303 ppb        0.14097 108.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.0      0.6085 ug/L       2.70502      0.6085 ppb        2.70502 444.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                419.3     13.166 ug/L        3.2748     13.166 ppb         3.2748  24.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 51.5      0.4166 ug/L       0.18561      0.4166 ppb        0.18561  44.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.9     -0.2015 ug/L       0.07587     -0.2015 ppb        0.07587  37.66%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      18.7      1.2919 ug/L       2.71805      1.2919 ppb        2.71805 210.39%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/12/2010 16:43:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4977.2	4977.2	101	%			16:45:04
1	Y RADIAL	5276.8	5276.8	101.7	%			16:45:04
1	Al 396.153Radial†	5588.2	5690.7	4911.7	ug/L	4911.7	ppb	16:45:04
1	Ca 317.933Radial†	3204.9	3155.1	4945.2	ug/L	4945.2	ppb	16:45:24
1	Fe 238.204 Radial†	565.5	547.9	5007.1	ug/L	5007.1	ppb	16:45:24
1	K 766.490 Radial†	31174.5	27872.6	4853.2	ug/L	4853.2	ppb	16:45:04
1	Mg 279.077 IEC†	157.2	154.3	5075.0	ug/L	5075.0	ppb	16:45:24
1	Na 589.592 Radial†	31451.5	32259.8	10513	ug/L	10513	ppb	16:45:04
1	Sr 421.552†	77370.5	76515.8	501.52	ug/L	501.52	ppb	16:45:04
1	Sc 361.383	846846.5	846846.5	102.42	%			16:46:21
1	Y 371.029	669583.4	669583.4	100.33	%			16:46:21
1	Ag 328.068†	103747.0	101002.9	490.97	ug/L	490.97	ppb	16:46:26
1	As 188.979†	1104.5	1109.1	482.48	ug/L	482.48	ppb	16:46:46
1	B 249.677†	20356.0	20470.9	485.20	ug/L	485.20	ppb	16:46:26
1	Ba 233.527†	62913.8	61440.2	490.99	ug/L	490.99	ppb	16:46:26
1	Be 313.107†	1337428.6	1309584.3	479.39	ug/L	479.39	ppb	16:46:21
1	Cd 226.502†	42856.6	42061.9	490.88	ug/L	490.88	ppb	16:46:26
1	Co 228.616†	24551.1	24055.4	494.60	ug/L	494.60	ppb	16:46:26
1	Cr 267.716†	42187.7	41126.0	489.35	ug/L	489.35	ppb	16:46:26
1	Cu 324.752†	168312.3	159621.6	490.68	ug/L	490.68	ppb	16:46:26
1	Mn 257.610†	445639.6	434658.9	487.32	ug/L	487.32	ppb	16:46:21
1	Mo 202.031†	6518.3	6352.7	479.02	ug/L	479.02	ppb	16:46:46
1	Ni 231.604†	19660.0	19119.3	489.72	ug/L	489.72	ppb	16:46:26
1	P 214.914†	4433.3	4081.7	2306.7	ug/L	2306.7	ppb	16:46:46
1	Pb 220.353†	3954.9	3928.8	483.17	ug/L	483.17	ppb	16:46:46
1	S 181.975 Axial†	749.2	683.7	937.33	ug/L	937.33	ppb	16:46:46
1	Sb 206.836†	1474.2	1404.3	505.58	ug/L	505.58	ppb	16:46:46
1	Se 196.026†	742.3	750.2	507.96	ug/L	507.96	ppb	16:46:46
1	Si 251.611†	77235.0	74882.0	2443.6	ug/L	2443.6	ppb	16:46:26
1	Sn 189.927†	2699.1	2625.9	475.73	ug/L	475.73	ppb	16:46:46
1	Ti 334.940†	308989.6	303272.7	489.47	ug/L	489.47	ppb	16:46:26
1	Tl 190.801†	1561.5	1559.0	486.64	ug/L	486.64	ppb	16:46:46
1	U 409.014†	12691.5	16004.2	500.84	ug/L	500.84	ppb	16:46:26
1	V 292.402†	65509.2	65554.3	495.78	ug/L	495.78	ppb	16:46:26
1	Zn 213.857†	53088.4	51107.6	484.23	ug/L	484.23	ppb	16:46:26
1	SiO2†	76300.2	73968.3	5148.0	ug/L	5148.0	ppb	16:47:54
2	Sc Radial	4864.7	4864.7	98.8	%			16:45:29
2	Y RADIAL	5147.3	5147.3	99.25	%			16:45:29
2	Al 396.153Radial†	5443.4	5671.9	4895.4	ug/L	4895.4	ppb	16:45:29
2	Ca 317.933Radial†	3186.7	3210.0	5031.3	ug/L	5031.3	ppb	16:45:49
2	Fe 238.204 Radial†	560.7	556.0	5080.7	ug/L	5080.7	ppb	16:45:49
2	K 766.490 Radial†	30507.4	27910.5	4859.8	ug/L	4859.8	ppb	16:45:29
2	Mg 279.077 IEC†	155.0	155.7	5120.1	ug/L	5120.1	ppb	16:45:49
2	Na 589.592 Radial†	30531.0	32047.6	10444	ug/L	10444	ppb	16:45:29
2	Sr 421.552†	75255.7	76145.2	499.09	ug/L	499.09	ppb	16:45:29
2	Sc 361.383	844648.9	844648.9	102.15	%			16:46:52
2	Y 371.029	667910.1	667910.1	100.08	%			16:46:52
2	Ag 328.068†	103518.5	101042.8	491.18	ug/L	491.18	ppb	16:46:57
2	As 188.979†	1083.7	1091.6	474.93	ug/L	474.93	ppb	16:47:17
2	B 249.677†	20421.6	20586.8	487.95	ug/L	487.95	ppb	16:46:57
2	Ba 233.527†	62710.6	61401.1	490.68	ug/L	490.68	ppb	16:46:57
2	Be 313.107†	1330823.7	1306516.2	478.27	ug/L	478.27	ppb	16:46:52
2	Cd 226.502†	42599.0	41918.5	489.20	ug/L	489.20	ppb	16:46:57
2	Co 228.616†	24377.6	23948.0	492.39	ug/L	492.39	ppb	16:46:57
2	Cr 267.716†	41952.6	41003.1	487.89	ug/L	487.89	ppb	16:46:57
2	Cu 324.752†	167879.5	159625.4	490.69	ug/L	490.69	ppb	16:46:57
2	Mn 257.610†	442578.9	432794.7	485.23	ug/L	485.23	ppb	16:46:52
2	Mo 202.031†	6495.9	6347.4	478.63	ug/L	478.63	ppb	16:47:17
2	Ni 231.604†	19648.6	19158.1	490.71	ug/L	490.71	ppb	16:46:57

2	P 214.914†	4406.7	4066.9	2297.9 ug/L	2297.9 ppb	16:47:17
2	Pb 220.353†	3937.0	3921.3	482.25 ug/L	482.25 ppb	16:47:17
2	S 181.975 Axial†	760.3	696.5	954.87 ug/L	954.87 ppb	16:47:17
2	Sb 206.836†	1461.6	1395.7	502.57 ug/L	502.57 ppb	16:47:17
2	Se 196.026†	721.2	731.5	495.97 ug/L	495.97 ppb	16:47:17
2	Si 251.611†	76892.1	74742.6	2439.0 ug/L	2439.0 ppb	16:46:57
2	Sn 189.927†	2681.9	2616.0	473.94 ug/L	473.94 ppb	16:47:17
2	Ti 334.940†	308108.6	303195.2	489.35 ug/L	489.35 ppb	16:46:57
2	Tl 190.801†	1564.7	1566.1	488.85 ug/L	488.85 ppb	16:47:17
2	U 409.014†	12827.1	16169.1	506.01 ug/L	506.01 ppb	16:46:57
2	V 292.402†	65185.1	65403.4	494.65 ug/L	494.65 ppb	16:46:57
2	Zn 213.857†	52779.3	50939.9	482.61 ug/L	482.61 ppb	16:46:57
2	SiO2†	77414.6	75253.0	5237.7 ug/L	5237.7 ppb	16:47:59
3	Sc Radial	4929.4	4929.4	100 %		16:45:54
3	Y RADIAL	5240.5	5240.5	101.0 %		16:45:54
3	Al 396.153Radial†	5510.7	5666.9	4891.3 ug/L	4891.3 ppb	16:45:54
3	Ca 317.933Radial†	3200.5	3181.4	4986.4 ug/L	4986.4 ppb	16:46:14
3	Fe 238.204 Radial†	566.0	553.8	5060.5 ug/L	5060.5 ppb	16:46:14
3	K 766.490 Radial†	30907.1	27904.6	4858.8 ug/L	4858.8 ppb	16:45:54
3	Mg 279.077 IEC†	158.1	156.7	5155.1 ug/L	5155.1 ppb	16:46:14
3	Na 589.592 Radial†	31078.7	32189.2	10490 ug/L	10490 ppb	16:45:54
3	Sr 421.552†	76297.1	76186.0	499.35 ug/L	499.35 ppb	16:45:54
3	Sc 361.383	858549.7	858549.7	103.83 %		16:47:23
3	Y 371.029	679623.6	679623.6	101.83 %		16:47:23
3	Ag 328.068†	103030.3	98931.8	480.95 ug/L	480.95 ppb	16:47:28
3	As 188.979†	1098.2	1088.3	473.44 ug/L	473.44 ppb	16:47:48
3	B 249.677†	20209.8	20059.1	475.42 ug/L	475.42 ppb	16:47:28
3	Ba 233.527†	62407.0	60114.7	480.41 ug/L	480.41 ppb	16:47:28
3	Be 313.107†	1354836.5	1308548.9	478.99 ug/L	478.99 ppb	16:47:23
3	Cd 226.502†	42376.9	41029.5	478.81 ug/L	478.81 ppb	16:47:28
3	Co 228.616†	24253.0	23441.5	481.98 ug/L	481.98 ppb	16:47:28
3	Cr 267.716†	41817.5	40208.0	478.43 ug/L	478.43 ppb	16:47:28
3	Cu 324.752†	167449.1	156550.0	481.24 ug/L	481.24 ppb	16:47:28
3	Mn 257.610†	449358.6	432309.3	484.69 ug/L	484.69 ppb	16:47:23
3	Mo 202.031†	6512.6	6260.4	472.07 ug/L	472.07 ppb	16:47:48
3	Ni 231.604†	19395.1	18602.5	476.48 ug/L	476.48 ppb	16:47:28
3	P 214.914†	4425.9	4015.6	2269.6 ug/L	2269.6 ppb	16:47:48
3	Pb 220.353†	3945.4	3867.0	475.58 ug/L	475.58 ppb	16:47:48
3	S 181.975 Axial†	754.5	678.9	930.63 ug/L	930.63 ppb	16:47:48
3	Sb 206.836†	1470.1	1380.8	497.23 ug/L	497.23 ppb	16:47:48
3	Se 196.026†	731.9	730.3	495.14 ug/L	495.14 ppb	16:47:48
3	Si 251.611†	76630.1	73271.4	2391.0 ug/L	2391.0 ppb	16:47:28
3	Sn 189.927†	2727.8	2617.7	474.25 ug/L	474.25 ppb	16:47:48
3	Ti 334.940†	307140.0	297378.7	479.96 ug/L	479.96 ppb	16:47:28
3	Tl 190.801†	1558.7	1535.5	479.34 ug/L	479.34 ppb	16:47:48
3	U 409.014†	12700.5	15843.8	495.82 ug/L	495.82 ppb	16:47:28
3	V 292.402†	65009.5	64201.2	485.58 ug/L	485.58 ppb	16:47:28
3	Zn 213.857†	52536.4	49869.4	472.48 ug/L	472.48 ppb	16:47:28
3	SiO2†	76392.6	73041.7	5083.6 ug/L	5083.6 ppb	16:48:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850015.0	102.80	%	0.904				0.88%
Sc Radial	4923.8	100	%	1.1				1.15%
Y 371.029	672372.4	100.74	%	0.949				0.94%
Y RADIAL	5221.6	100.7	%	1.29				1.28%
Ag 328.068†	100325.8	487.70	ug/L	5.847	487.70	ppb	5.847	1.20%
QC value within limits for Ag 328.068 Recovery = 97.54%								
Al 396.153Radial†	5676.5	4899.5	ug/L	10.76	4899.5	ppb	10.76	0.22%
QC value within limits for Al 396.153Radial Recovery = 97.99%								
As 188.979†	1096.3	476.95	ug/L	4.843	476.95	ppb	4.843	1.02%
QC value within limits for As 188.979 Recovery = 95.39%								
B 249.677†	20372.3	482.86	ug/L	6.585	482.86	ppb	6.585	1.36%
QC value within limits for B 249.677 Recovery = 96.57%								
Ba 233.527†	60985.4	487.36	ug/L	6.024	487.36	ppb	6.024	1.24%
QC value within limits for Ba 233.527 Recovery = 97.47%								
Be 313.107†	1308216.5	478.88	ug/L	0.568	478.88	ppb	0.568	0.12%
QC value within limits for Be 313.107 Recovery = 95.78%								
Ca 317.933Radial†	3182.2	4987.7	ug/L	43.07	4987.7	ppb	43.07	0.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.75%
Cd 226.502†            41670.0      486.30 ug/L         6.536      486.30 ppb          6.536   1.34%
   QC value within limits for Cd 226.502  Recovery = 97.26%
Co 228.616†            23815.0      489.65 ug/L         6.738      489.65 ppb          6.738   1.38%
   QC value within limits for Co 228.616  Recovery = 97.93%
Cr 267.716†            40779.0      485.22 ug/L         5.929      485.22 ppb          5.929   1.22%
   QC value within limits for Cr 267.716  Recovery = 97.04%
Cu 324.752†           158599.0      487.54 ug/L         5.452      487.54 ppb          5.452   1.12%
   QC value within limits for Cu 324.752  Recovery = 97.51%
Fe 238.204 Radial†       552.6      5049.4 ug/L        38.05      5049.4 ppb         38.05   0.75%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.99%
K 766.490 Radial†      27895.9      4857.2 ug/L         3.55      4857.2 ppb          3.55   0.07%
   QC value within limits for K 766.490 Radial  Recovery = 97.14%
Mg 279.077 IEC†          155.6      5116.7 ug/L        40.19      5116.7 ppb         40.19   0.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.33%
Mn 257.610†           433254.3      485.75 ug/L         1.388      485.75 ppb          1.388   0.29%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†             6320.2      476.57 ug/L         3.902      476.57 ppb          3.902   0.82%
   QC value within limits for Mo 202.031  Recovery = 95.31%
Na 589.592 Radial†     32165.5       10483 ug/L          35.2       10483 ppb           35.2   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 104.83%
Ni 231.604†            18960.0      485.63 ug/L         7.946      485.63 ppb          7.946   1.64%
   QC value within limits for Ni 231.604  Recovery = 97.13%
P 214.914†              4054.7      2291.4 ug/L        19.39      2291.4 ppb         19.39   0.85%
   QC value within limits for P 214.914  Recovery = 91.66%
Pb 220.353†             3905.7      480.33 ug/L         4.142      480.33 ppb          4.142   0.86%
   QC value within limits for Pb 220.353  Recovery = 96.07%
S 181.975 Axial†         686.4      940.94 ug/L        12.513      940.94 ppb         12.513   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 94.09%
Sb 206.836†             1393.6      501.79 ug/L         4.229      501.79 ppb          4.229   0.84%
   QC value within limits for Sb 206.836  Recovery = 100.36%
Se 196.026†              737.3      499.69 ug/L         7.176      499.69 ppb          7.176   1.44%
   QC value within limits for Se 196.026  Recovery = 99.94%
Si 251.611†            74298.7      2424.5 ug/L        29.14      2424.5 ppb         29.14   1.20%
   QC value within limits for Si 251.611  Recovery = 96.98%
Sn 189.927†             2619.9      474.64 ug/L         0.957      474.64 ppb          0.957   0.20%
   QC value within limits for Sn 189.927  Recovery = 94.93%
Sr 421.552†            76282.3      499.99 ug/L         1.332      499.99 ppb          1.332   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.00%
Ti 334.940†           301282.2      486.26 ug/L         5.457      486.26 ppb          5.457   1.12%
   QC value within limits for Ti 334.940  Recovery = 97.25%
Tl 190.801†             1553.5      484.94 ug/L         4.979      484.94 ppb          4.979   1.03%
   QC value within limits for Tl 190.801  Recovery = 96.99%
U 409.014†             16005.7      500.89 ug/L         5.095      500.89 ppb          5.095   1.02%
   QC value within limits for U 409.014  Recovery = 100.18%
V 292.402†             65052.9      492.00 ug/L         5.592      492.00 ppb          5.592   1.14%
   QC value within limits for V 292.402  Recovery = 98.40%
Zn 213.857†            50639.0      479.77 ug/L         6.369      479.77 ppb          6.369   1.33%
   QC value within limits for Zn 213.857  Recovery = 95.95%
SiO2†                  74087.6      5156.4 ug/L        77.40      5156.4 ppb         77.40   1.50%
   QC value within limits for SiO2  Recovery = 96.43%
All analyte(s) passed QC.
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Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/12/2010 16:50:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4869.7	4869.7	98.9	%			16:52:06
1	Y RADIAL	5191.3	5191.3	100.1	%			16:52:06
1	Al 396.153Radial†	-159.7	1.8	1.5621	ug/L	1.5621	ppb	16:52:06
1	Ca 317.933Radial†	8.6	-6.3	-9.8519	ug/L	-9.8519	ppb	16:52:26
1	Fe 238.204 Radial†	11.4	0.1	0.8047	ug/L	0.8047	ppb	16:52:26
1	K 766.490 Radial†	2728.6	-204.5	-35.697	ug/L	-35.697	ppb	16:52:06
1	Mg 279.077 IEC†	1.4	0.2	8.0783	ug/L	8.0783	ppb	16:52:26
1	Na 589.592 Radial†	-779.5	362.2	118.04	ug/L	118.04	ppb	16:52:06
1	Sr 421.552†	19.3	5.8	0.0383	ug/L	0.0383	ppb	16:52:06
1	Sc 361.383	832586.2	832586.2	100.69	%			16:53:23
1	Y 371.029	664186.0	664186.0	99.518	%			16:53:23
1	Ag 328.068†	211.6	-87.0	-0.4339	ug/L	-0.4339	ppb	16:53:23
1	As 188.979†	-34.4	-3.6	-1.5312	ug/L	-1.5312	ppb	16:53:43
1	B 249.677†	-496.7	101.8	2.4224	ug/L	2.4224	ppb	16:53:43
1	Ba 233.527†	-14.3	-3.9	-0.0311	ug/L	-0.0311	ppb	16:53:43
1	Be 313.107†	-3922.9	-195.6	-0.0709	ug/L	-0.0709	ppb	16:53:23
1	Cd 226.502†	-209.3	8.2	0.0992	ug/L	0.0992	ppb	16:53:43
1	Co 228.616†	-75.6	8.2	0.1706	ug/L	0.1706	ppb	16:53:43
1	Cr 267.716†	76.7	9.5	0.1064	ug/L	0.1064	ppb	16:53:43
1	Cu 324.752†	4707.2	-46.0	-0.1512	ug/L	-0.1512	ppb	16:53:23
1	Mn 257.610†	455.5	-17.5	-0.0198	ug/L	-0.0198	ppb	16:53:43
1	Mo 202.031†	21.6	9.6	0.7262	ug/L	0.7262	ppb	16:53:43
1	Ni 231.604†	60.1	-17.4	-0.4453	ug/L	-0.4453	ppb	16:53:43
1	P 214.914†	243.1	-5.6	-3.2634	ug/L	-3.2634	ppb	16:53:43
1	Pb 220.353†	-46.0	21.5	2.6382	ug/L	2.6382	ppb	16:53:43
1	S 181.975 Axial†	44.3	-3.8	-5.1606	ug/L	-5.1606	ppb	16:53:43
1	Sb 206.836†	48.8	13.3	4.6597	ug/L	4.6597	ppb	16:53:43
1	Se 196.026†	-26.7	-1.2	-0.7468	ug/L	-0.7468	ppb	16:53:43
1	Si 251.611†	499.1	-35.7	-1.1770	ug/L	-1.1770	ppb	16:53:43
1	Sn 189.927†	11.1	1.6	0.2832	ug/L	0.2832	ppb	16:53:43
1	Ti 334.940†	-1417.1	163.5	0.2543	ug/L	0.2543	ppb	16:53:23
1	Tl 190.801†	-41.5	-6.9	-2.1410	ug/L	-2.1410	ppb	16:53:43
1	U 409.014†	-3073.0	560.1	17.585	ug/L	17.585	ppb	16:53:23
1	V 292.402†	-1600.0	1.2	0.0527	ug/L	0.0527	ppb	16:53:23
1	Zn 213.857†	696.3	-37.1	-0.3515	ug/L	-0.3515	ppb	16:53:43
1	SiO2†	551.3	15.2	1.0385	ug/L	1.0385	ppb	16:54:39
2	Sc Radial	4840.2	4840.2	98.3	%			16:52:31
2	Y RADIAL	5146.4	5146.4	99.23	%			16:52:31
2	Al 396.153Radial†	-168.0	-7.6	-6.6496	ug/L	-6.6496	ppb	16:52:31
2	Ca 317.933Radial†	19.1	4.5	7.0081	ug/L	7.0081	ppb	16:52:51
2	Fe 238.204 Radial†	10.2	-1.0	-9.2082	ug/L	-9.2082	ppb	16:52:51
2	K 766.490 Radial†	2830.3	-84.1	-14.724	ug/L	-14.724	ppb	16:52:31
2	Mg 279.077 IEC†	1.3	0.1	2.7839	ug/L	2.7839	ppb	16:52:51
2	Na 589.592 Radial†	-732.5	405.2	132.06	ug/L	132.06	ppb	16:52:31
2	Sr 421.552†	-1.1	-14.7	-0.0967	ug/L	-0.0967	ppb	16:52:31
2	Sc 361.383	835716.5	835716.5	101.07	%			16:53:48
2	Y 371.029	669032.9	669032.9	100.24	%			16:53:48
2	Ag 328.068†	202.4	-96.9	-0.4783	ug/L	-0.4783	ppb	16:53:48
2	As 188.979†	-23.3	7.6	3.2673	ug/L	3.2673	ppb	16:54:08
2	B 249.677†	-494.2	106.0	2.5255	ug/L	2.5255	ppb	16:54:08
2	Ba 233.527†	-9.6	0.8	0.0082	ug/L	0.0082	ppb	16:54:08
2	Be 313.107†	-3899.9	-158.3	-0.0571	ug/L	-0.0571	ppb	16:53:48
2	Cd 226.502†	-204.7	13.5	0.1611	ug/L	0.1611	ppb	16:54:08
2	Co 228.616†	-77.5	6.7	0.1375	ug/L	0.1375	ppb	16:54:08
2	Cr 267.716†	97.4	29.7	0.3492	ug/L	0.3492	ppb	16:54:08
2	Cu 324.752†	4620.7	-149.1	-0.4664	ug/L	-0.4664	ppb	16:53:48
2	Mn 257.610†	449.2	-25.5	-0.0296	ug/L	-0.0296	ppb	16:54:08
2	Mo 202.031†	18.0	6.0	0.4479	ug/L	0.4479	ppb	16:54:08
2	Ni 231.604†	56.3	-21.3	-0.5469	ug/L	-0.5469	ppb	16:54:08

2	P 214.914†	252.6	2.9	1.8393 ug/L	1.8393 ppb	16:54:08
2	Pb 220.353†	-59.3	8.5	1.0398 ug/L	1.0398 ppb	16:54:08
2	S 181.975 Axial†	38.9	-9.3	-12.717 ug/L	-12.717 ppb	16:54:08
2	Sb 206.836†	43.3	7.7	2.7179 ug/L	2.7179 ppb	16:54:08
2	Se 196.026†	-16.2	9.3	6.0783 ug/L	6.0783 ppb	16:54:08
2	Si 251.611†	502.4	-34.2	-1.1245 ug/L	-1.1245 ppb	16:54:08
2	Sn 189.927†	18.8	9.1	1.6505 ug/L	1.6505 ppb	16:54:08
2	Ti 334.940†	-1393.5	192.2	0.3049 ug/L	0.3049 ppb	16:53:48
2	Tl 190.801†	-38.0	-3.3	-1.0250 ug/L	-1.0250 ppb	16:54:08
2	U 409.014†	-3214.7	431.3	13.543 ug/L	13.543 ppb	16:53:48
2	V 292.402†	-1479.4	126.5	0.9773 ug/L	0.9773 ppb	16:53:48
2	Zn 213.857†	704.4	-31.7	-0.2977 ug/L	-0.2977 ppb	16:54:08
2	SiO2†	530.4	-7.6	-0.5438 ug/L	-0.5438 ppb	16:54:44
3	Sc Radial	4875.7	4875.7	99.0 %		16:52:56
3	Y RADIAL	5172.5	5172.5	99.73 %		16:52:56
3	Al 396.153Radial†	-143.1	18.7	16.199 ug/L	16.199 ppb	16:52:56
3	Ca 317.933Radial†	20.9	6.1	9.5720 ug/L	9.5720 ppb	16:53:16
3	Fe 238.204 Radial†	11.8	0.5	4.8500 ug/L	4.8500 ppb	16:53:16
3	K 766.490 Radial†	2788.3	-147.5	-25.782 ug/L	-25.782 ppb	16:52:56
3	Mg 279.077 IEC†	2.3	1.1	35.964 ug/L	35.964 ppb	16:53:16
3	Na 589.592 Radial†	-712.9	430.4	140.26 ug/L	140.26 ppb	16:52:56
3	Sr 421.552†	13.8	0.2	0.0014 ug/L	0.0014 ppb	16:52:56
3	Sc 361.383	820032.1	820032.1	99.173 %		16:54:14
3	Y 371.029	656570.2	656570.2	98.376 %		16:54:14
3	Ag 328.068†	272.1	-22.8	-0.1205 ug/L	-0.1205 ppb	16:54:14
3	As 188.979†	-26.3	4.2	1.7926 ug/L	1.7926 ppb	16:54:34
3	B 249.677†	-512.4	78.3	1.8638 ug/L	1.8638 ppb	16:54:34
3	Ba 233.527†	-15.4	-5.2	-0.0418 ug/L	-0.0418 ppb	16:54:34
3	Be 313.107†	-3871.6	-203.5	-0.0743 ug/L	-0.0743 ppb	16:54:14
3	Cd 226.502†	-202.3	12.1	0.1436 ug/L	0.1436 ppb	16:54:34
3	Co 228.616†	-76.3	6.4	0.1323 ug/L	0.1323 ppb	16:54:34
3	Cr 267.716†	61.4	-4.7	-0.0614 ug/L	-0.0614 ppb	16:54:34
3	Cu 324.752†	4562.1	-120.8	-0.3789 ug/L	-0.3789 ppb	16:54:14
3	Mn 257.610†	451.6	-14.5	-0.0172 ug/L	-0.0172 ppb	16:54:34
3	Mo 202.031†	20.5	8.8	0.6657 ug/L	0.6657 ppb	16:54:34
3	Ni 231.604†	86.4	10.1	0.2599 ug/L	0.2599 ppb	16:54:34
3	P 214.914†	235.7	-9.4	-5.4205 ug/L	-5.4205 ppb	16:54:34
3	Pb 220.353†	-48.6	18.2	2.2323 ug/L	2.2323 ppb	16:54:34
3	S 181.975 Axial†	43.0	-4.4	-6.0363 ug/L	-6.0363 ppb	16:54:34
3	Sb 206.836†	44.5	9.7	3.4104 ug/L	3.4104 ppb	16:54:34
3	Se 196.026†	-30.1	-5.0	-3.2267 ug/L	-3.2267 ppb	16:54:34
3	Si 251.611†	500.4	-26.8	-0.8846 ug/L	-0.8846 ppb	16:54:34
3	Sn 189.927†	16.0	6.6	1.1985 ug/L	1.1985 ppb	16:54:34
3	Ti 334.940†	-1556.9	1.0	-0.0062 ug/L	-0.0062 ppb	16:54:14
3	Tl 190.801†	-30.9	3.2	0.9965 ug/L	0.9965 ppb	16:54:34
3	U 409.014†	-3133.1	452.8	14.215 ug/L	14.215 ppb	16:54:14
3	V 292.402†	-1589.6	-12.7	-0.0579 ug/L	-0.0579 ppb	16:54:14
3	Zn 213.857†	704.4	-18.3	-0.1770 ug/L	-0.1770 ppb	16:54:34
3	SiO2†	584.6	57.1	3.9633 ug/L	3.9633 ppb	16:54:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	829444.9	100.31	%	1.004				1.00%
Sc Radial	4861.8	98.8	%	0.39				0.39%
Y 371.029	663263.0	99.379	%	0.9413				0.95%
Y RADIAL	5170.0	99.69	%	0.435				0.44%
Ag 328.068†	-68.9	-0.3442	ug/L	0.19507	-0.3442	ppb	0.19507	56.67%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	3.7039	ug/L	11.57398	3.7039	ppb	11.57398	312.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.7	1.1762	ug/L	2.45790	1.1762	ppb	2.45790	208.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	95.4	2.2706	ug/L	0.35600	2.2706	ppb	0.35600	15.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.8	-0.0216	ug/L	0.02635	-0.0216	ppb	0.02635	122.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-185.8	-0.0674	ug/L	0.00911	-0.0674	ppb	0.00911	13.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	2.2427	ug/L	10.55239	2.2427	ppb	10.55239	470.52%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.3      0.1346 ug/L       0.03191      0.1346 ppb        0.03191  23.70%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.1      0.1468 ug/L       0.02074      0.1468 ppb        0.02074  14.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.5      0.1314 ug/L       0.20641      0.1314 ppb        0.20641 157.08%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -105.3     -0.3322 ug/L       0.16273     -0.3322 ppb        0.16273  48.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -1.1845 ug/L       7.23710     -1.1845 ppb        7.23710 610.98%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -145.4     -25.401 ug/L       10.4916     -25.401 ppb        10.4916  41.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      15.609 ug/L       17.8258      15.609 ppb        17.8258 114.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -19.1     -0.0222 ug/L       0.00650     -0.0222 ppb        0.00650  29.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.1      0.6132 ug/L       0.14634      0.6132 ppb        0.14634  23.86%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        399.3      130.12 ug/L        11.233      130.12 ppb         11.233   8.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.5     -0.2441 ug/L       0.43940     -0.2441 ppb        0.43940 179.99%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.0     -2.2815 ug/L       3.72818     -2.2815 ppb        3.72818 163.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                16.1      1.9701 ug/L       0.83081      1.9701 ppb        0.83081  42.17%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.8     -7.9715 ug/L       4.13340     -7.9715 ppb        4.13340  51.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.3      3.5960 ug/L       0.98409      3.5960 ppb        0.98409  27.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      0.7016 ug/L       4.81860      0.7016 ppb        4.81860 686.79%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -32.2     -1.0620 ug/L       0.15589     -1.0620 ppb        0.15589  14.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.8      1.0441 ug/L       0.69665      1.0441 ppb        0.69665  66.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.9     -0.0190 ug/L       0.06974     -0.0190 ppb        0.06974 367.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               118.9      0.1843 ug/L       0.16697      0.1843 ppb        0.16697  90.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.3     -0.7232 ug/L       1.59034     -0.7232 ppb        1.59034 219.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                481.4      15.114 ug/L        2.1658      15.114 ppb         2.1658  14.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.3      0.3240 ug/L       0.56844      0.3240 ppb        0.56844 175.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -29.0     -0.2754 ug/L       0.08939     -0.2754 ppb        0.08939  32.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      21.5      1.4860 ug/L       2.28662      1.4860 ppb        2.28662 153.88%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: 1202030862|948038|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 2/12/2010 16:56:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030862|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4928.0	4928.0	100	%			16:58:53
1	Y RADIAL	5220.1	5220.1	100.7	%			16:58:53
1	Al 396.153Radial†	-158.4	5.0	4.2536	ug/L	4.2536	ppb	16:58:53
1	Ca 317.933Radial†	26.3	11.3	17.676	ug/L	17.676	ppb	16:59:13
1	Fe 238.204 Radial†	11.5	0.0	0.4264	ug/L	0.4264	ppb	16:59:13
1	K 766.490 Radial†	2809.4	-156.4	-27.331	ug/L	-27.331	ppb	16:58:53
1	Mg 279.077 IEC†	1.9	0.7	22.461	ug/L	22.461	ppb	16:59:13
1	Na 589.592 Radial†	-666.5	484.4	157.87	ug/L	157.87	ppb	16:58:53
1	Sr 421.552†	32.8	19.1	0.1251	ug/L	0.1251	ppb	16:58:53
1	Sc 361.383	829796.2	829796.2	100.35	%			17:00:09
1	Y 371.029	662203.2	662203.2	99.220	%			17:00:09
1	Ag 328.068†	175.8	-121.9	-0.6005	ug/L	-0.6005	ppb	17:00:09
1	As 188.979†	-29.4	1.4	0.5847	ug/L	0.5847	ppb	17:00:30
1	B 249.677†	-519.8	77.1	1.8345	ug/L	1.8345	ppb	17:00:30
1	Ba 233.527†	-16.7	-6.4	-0.0510	ug/L	-0.0510	ppb	17:00:30
1	Be 313.107†	-3918.1	-204.0	-0.0740	ug/L	-0.0740	ppb	17:00:09
1	Cd 226.502†	-209.9	6.9	0.0828	ug/L	0.0828	ppb	17:00:30
1	Co 228.616†	-67.2	16.3	0.3373	ug/L	0.3373	ppb	17:00:30
1	Cr 267.716†	89.6	22.7	0.2641	ug/L	0.2641	ppb	17:00:30
1	Cu 324.752†	4632.2	-105.0	-0.3302	ug/L	-0.3302	ppb	17:00:09
1	Mn 257.610†	519.8	48.1	0.0530	ug/L	0.0530	ppb	17:00:30
1	Mo 202.031†	23.2	11.3	0.8504	ug/L	0.8504	ppb	17:00:30
1	Ni 231.604†	69.2	-8.1	-0.2065	ug/L	-0.2065	ppb	17:00:30
1	P 214.914†	250.4	2.5	1.5408	ug/L	1.5408	ppb	17:00:30
1	Pb 220.353†	-77.9	-10.5	-1.2854	ug/L	-1.2854	ppb	17:00:30
1	S 181.975 Axial†	46.8	-1.2	-1.6211	ug/L	-1.6211	ppb	17:00:30
1	Sb 206.836†	50.1	14.8	5.2008	ug/L	5.2008	ppb	17:00:30
1	Se 196.026†	-26.5	-1.0	-0.6804	ug/L	-0.6804	ppb	17:00:30
1	Si 251.611†	843.9	309.6	10.117	ug/L	10.117	ppb	17:00:30
1	Sn 189.927†	20.4	10.8	1.9559	ug/L	1.9559	ppb	17:00:30
1	Ti 334.940†	-1430.7	145.2	0.2290	ug/L	0.2290	ppb	17:00:09
1	Tl 190.801†	-31.4	3.0	0.9448	ug/L	0.9448	ppb	17:00:30
1	U 409.014†	-3199.0	424.3	13.321	ug/L	13.321	ppb	17:00:09
1	V 292.402†	-1621.1	-25.2	-0.1509	ug/L	-0.1509	ppb	17:00:09
1	Zn 213.857†	868.7	137.1	1.3126	ug/L	1.3126	ppb	17:00:30
1	SiO2†	882.0	346.5	24.154	ug/L	24.154	ppb	17:01:26
2	Sc Radial	4935.0	4935.0	100	%			16:59:18
2	Y RADIAL	5233.6	5233.6	100.9	%			16:59:18
2	Al 396.153Radial†	-159.4	4.2	3.6221	ug/L	3.6221	ppb	16:59:18
2	Ca 317.933Radial†	20.6	5.5	8.6875	ug/L	8.6875	ppb	16:59:38
2	Fe 238.204 Radial†	12.5	1.0	9.3315	ug/L	9.3315	ppb	16:59:38
2	K 766.490 Radial†	2787.4	-182.4	-31.853	ug/L	-31.853	ppb	16:59:18
2	Mg 279.077 IEC†	2.3	1.1	35.212	ug/L	35.212	ppb	16:59:38
2	Na 589.592 Radial†	-717.5	434.5	141.60	ug/L	141.60	ppb	16:59:18
2	Sr 421.552†	51.5	37.8	0.2474	ug/L	0.2474	ppb	16:59:18
2	Sc 361.383	829657.3	829657.3	100.34	%			17:00:35
2	Y 371.029	662470.0	662470.0	99.260	%			17:00:35
2	Ag 328.068†	229.9	-68.0	-0.3304	ug/L	-0.3304	ppb	17:00:35
2	As 188.979†	-29.1	1.7	0.7245	ug/L	0.7245	ppb	17:00:55
2	B 249.677†	-536.9	60.0	1.4263	ug/L	1.4263	ppb	17:00:55
2	Ba 233.527†	-11.9	-1.6	-0.0108	ug/L	-0.0108	ppb	17:00:55
2	Be 313.107†	-3976.3	-262.6	-0.0955	ug/L	-0.0955	ppb	17:00:35
2	Cd 226.502†	-204.8	12.0	0.1404	ug/L	0.1404	ppb	17:00:55
2	Co 228.616†	-88.4	-4.7	-0.0966	ug/L	-0.0966	ppb	17:00:55
2	Cr 267.716†	74.8	7.9	0.0918	ug/L	0.0918	ppb	17:00:55
2	Cu 324.752†	4679.0	-57.6	-0.1820	ug/L	-0.1820	ppb	17:00:35
2	Mn 257.610†	515.3	43.7	0.0485	ug/L	0.0485	ppb	17:00:55
2	Mo 202.031†	19.4	7.5	0.5622	ug/L	0.5622	ppb	17:00:55
2	Ni 231.604†	59.5	-17.7	-0.4541	ug/L	-0.4541	ppb	17:00:55

2	P 214.914†	255.4	7.5	4.4409	ug/L	4.4409 ppb	17:00:55
2	Pb 220.353†	-86.6	-19.1	-2.3440	ug/L	-2.3440 ppb	17:00:55
2	S 181.975 Axial†	40.3	-7.6	-10.472	ug/L	-10.472 ppb	17:00:55
2	Sb 206.836†	39.9	4.6	1.6215	ug/L	1.6215 ppb	17:00:55
2	Se 196.026†	-24.0	1.4	0.9742	ug/L	0.9742 ppb	17:00:55
2	Si 251.611†	851.2	317.0	10.362	ug/L	10.362 ppb	17:00:55
2	Sn 189.927†	11.1	1.5	0.2814	ug/L	0.2814 ppb	17:00:55
2	Ti 334.940†	-1465.1	110.8	0.1728	ug/L	0.1728 ppb	17:00:35
2	Tl 190.801†	-27.4	7.0	2.1841	ug/L	2.1841 ppb	17:00:55
2	U 409.014†	-3314.7	308.3	9.6801	ug/L	9.6801 ppb	17:00:35
2	V 292.402†	-1494.5	100.7	0.7774	ug/L	0.7774 ppb	17:00:35
2	Zn 213.857†	880.4	148.8	1.4249	ug/L	1.4249 ppb	17:00:55
2	SiO2†	848.9	313.7	21.874	ug/L	21.874 ppb	17:01:31
3	Sc Radial	4961.0	4961.0	101	%		16:59:43
3	Y RADIAL	5228.4	5228.4	100.8	%		16:59:43
3	Al 396.153Radial†	-169.2	-4.6	-4.0475	ug/L	-4.0475 ppb	16:59:43
3	Ca 317.933Radial†	22.1	6.9	10.855	ug/L	10.855 ppb	17:00:03
3	Fe 238.204 Radial†	11.1	-0.4	-4.0407	ug/L	-4.0407 ppb	17:00:03
3	K 766.490 Radial†	2690.0	-293.5	-51.233	ug/L	-51.233 ppb	16:59:43
3	Mg 279.077 IEC†	5.6	4.4	143.63	ug/L	143.63 ppb	17:00:03
3	Na 589.592 Radial†	-696.6	458.9	149.56	ug/L	149.56 ppb	16:59:43
3	Sr 421.552†	68.6	54.4	0.3566	ug/L	0.3566 ppb	16:59:43
3	Sc 361.383	836144.5	836144.5	101.12	%		17:01:00
3	Y 371.029	668160.0	668160.0	100.11	%		17:01:00
3	Ag 328.068†	67.4	-230.5	-1.1252	ug/L	-1.1252 ppb	17:01:00
3	As 188.979†	-27.2	3.8	1.6367	ug/L	1.6367 ppb	17:01:20
3	B 249.677†	-552.0	49.2	1.1708	ug/L	1.1708 ppb	17:01:20
3	Ba 233.527†	-19.6	-9.1	-0.0716	ug/L	-0.0716 ppb	17:01:20
3	Be 313.107†	-3816.2	-73.5	-0.0260	ug/L	-0.0260 ppb	17:01:00
3	Cd 226.502†	-213.8	4.6	0.0576	ug/L	0.0576 ppb	17:01:20
3	Co 228.616†	-78.8	5.4	0.1114	ug/L	0.1114 ppb	17:01:20
3	Cr 267.716†	77.2	9.7	0.1101	ug/L	0.1101 ppb	17:01:20
3	Cu 324.752†	4665.9	-106.8	-0.3368	ug/L	-0.3368 ppb	17:01:00
3	Mn 257.610†	538.6	62.8	0.0641	ug/L	0.0641 ppb	17:01:20
3	Mo 202.031†	17.9	5.8	0.4388	ug/L	0.4388 ppb	17:01:20
3	Ni 231.604†	73.4	-4.5	-0.1143	ug/L	-0.1143 ppb	17:01:20
3	P 214.914†	258.4	8.5	5.0786	ug/L	5.0786 ppb	17:01:20
3	Pb 220.353†	-68.5	-0.6	-0.0716	ug/L	-0.0716 ppb	17:01:20
3	S 181.975 Axial†	49.1	0.8	1.0948	ug/L	1.0948 ppb	17:01:20
3	Sb 206.836†	44.7	9.1	3.1949	ug/L	3.1949 ppb	17:01:20
3	Se 196.026†	-25.2	0.5	0.3085	ug/L	0.3085 ppb	17:01:20
3	Si 251.611†	854.6	313.8	10.259	ug/L	10.259 ppb	17:01:20
3	Sn 189.927†	13.8	4.2	0.7626	ug/L	0.7626 ppb	17:01:20
3	Ti 334.940†	-1362.5	223.6	0.3440	ug/L	0.3440 ppb	17:01:00
3	Tl 190.801†	-29.2	5.4	1.6789	ug/L	1.6789 ppb	17:01:20
3	U 409.014†	-3165.7	481.4	15.115	ug/L	15.115 ppb	17:01:00
3	V 292.402†	-1551.2	56.2	0.4573	ug/L	0.4573 ppb	17:01:00
3	Zn 213.857†	872.7	134.5	1.2876	ug/L	1.2876 ppb	17:01:20
3	SiO2†	892.1	349.8	24.398	ug/L	24.398 ppb	17:01:36

Mean Data: 1202030862|948038|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	831866.0	100.60	%	0.448				0.45%
Sc Radial	4941.3	100	%	0.4				0.35%
Y 371.029	664277.7	99.531	%	0.5042				0.51%
Y RADIAL	5227.4	100.8	%	0.13				0.13%
Ag 328.068†	-140.1	-0.6854	ug/L	0.40415	-0.6854	ppb	0.40415	58.97%
Al 396.153Radial†	1.5	1.2761	ug/L	4.62114	1.2761	ppb	4.62114	362.14%
As 188.979†	2.3	0.9820	ug/L	0.57131	0.9820	ppb	0.57131	58.18%
B 249.677†	62.1	1.4772	ug/L	0.33476	1.4772	ppb	0.33476	22.66%
Ba 233.527†	-5.7	-0.0445	ug/L	0.03096	-0.0445	ppb	0.03096	69.60%
Be 313.107†	-180.0	-0.0652	ug/L	0.03556	-0.0652	ppb	0.03556	54.57%
Ca 317.933Radial†	7.9	12.406	ug/L	4.6906	12.406	ppb	4.6906	37.81%
Cd 226.502†	7.8	0.0936	ug/L	0.04244	0.0936	ppb	0.04244	45.35%
Co 228.616†	5.7	0.1174	ug/L	0.21703	0.1174	ppb	0.21703	184.88%
Cr 267.716†	13.5	0.1553	ug/L	0.09460	0.1553	ppb	0.09460	60.90%
Cu 324.752†	-89.8	-0.2830	ug/L	0.08752	-0.2830	ppb	0.08752	30.92%
Fe 238.204 Radial†	0.2	1.9057	ug/L	6.80773	1.9057	ppb	6.80773	357.23%
K 766.490 Radial†	-210.7	-36.806	ug/L	12.6972	-36.806	ppb	12.6972	34.50%

Mg 279.077 IEC†	2.0	67.102	ug/L	66.5825	67.102	ppb	66.5825	99.23%
Mn 257.610†	51.5	0.0552	ug/L	0.00801	0.0552	ppb	0.00801	14.51%
Mo 202.031†	8.2	0.6171	ug/L	0.21120	0.6171	ppb	0.21120	34.22%
Na 589.592 Radial†	459.3	149.68	ug/L	8.135	149.68	ppb	8.135	5.44%
Ni 231.604†	-10.1	-0.2583	ug/L	0.17572	-0.2583	ppb	0.17572	68.03%
P 214.914†	6.2	3.6867	ug/L	1.88561	3.6867	ppb	1.88561	51.15%
Pb 220.353†	-10.1	-1.2337	ug/L	1.13710	-1.2337	ppb	1.13710	92.17%
S 181.975 Axial†	-2.7	-3.6661	ug/L	6.04849	-3.6661	ppb	6.04849	164.98%
Sb 206.836†	9.5	3.3391	ug/L	1.79396	3.3391	ppb	1.79396	53.73%
Se 196.026†	0.3	0.2008	ug/L	0.83252	0.2008	ppb	0.83252	414.70%
Si 251.611†	313.5	10.246	ug/L	0.1231	10.246	ppb	0.1231	1.20%
Sn 189.927†	5.5	1.0000	ug/L	0.86211	1.0000	ppb	0.86211	86.21%
Sr 421.552†	37.1	0.2430	ug/L	0.11579	0.2430	ppb	0.11579	47.64%
Ti 334.940†	159.8	0.2486	ug/L	0.08724	0.2486	ppb	0.08724	35.09%
Tl 190.801†	5.2	1.6026	ug/L	0.62316	1.6026	ppb	0.62316	38.88%
U 409.014†	404.7	12.705	ug/L	2.7690	12.705	ppb	2.7690	21.79%
V 292.402†	43.9	0.3612	ug/L	0.47153	0.3612	ppb	0.47153	130.53%
Zn 213.857†	140.1	1.3417	ug/L	0.07313	1.3417	ppb	0.07313	5.45%
SiO2†	336.7	23.475	ug/L	1.3918	23.475	ppb	1.3918	5.93%

Sequence No.: 28
Sample ID: 1202030863|948038|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 2/12/2010 17:03:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030863|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4929.1	4929.1	100	%			17:05:40
1	Y RADIAL	5266.8	5266.8	101.6	%			17:05:40
1	Al 396.153Radial†	5535.7	5692.1	4912.5	ug/L	4912.5	ppb	17:05:40
1	Ca 317.933Radial†	3214.8	3195.9	5009.1	ug/L	5009.1	ppb	17:06:00
1	Fe 238.204 Radial†	578.5	566.3	5174.4	ug/L	5174.4	ppb	17:06:00
1	K 766.490 Radial†	31038.9	28038.0	4883.9	ug/L	4883.9	ppb	17:05:40
1	Mg 279.077 IEC†	156.6	155.2	5105.2	ug/L	5105.2	ppb	17:06:00
1	Na 589.592 Radial†	15983.8	17114.5	5577.6	ug/L	5577.6	ppb	17:05:40
1	Sr 421.552†	78383.3	78273.8	513.04	ug/L	513.04	ppb	17:05:40
1	Sc 361.383	846845.6	846845.6	102.42	%			17:06:59
1	Y 371.029	667968.0	667968.0	100.08	%			17:06:59
1	Ag 328.068†	103705.7	100962.6	490.82	ug/L	490.82	ppb	17:06:59
1	As 188.979†	1103.9	1108.5	482.39	ug/L	482.39	ppb	17:07:19
1	B 249.677†	20103.2	20224.1	479.33	ug/L	479.33	ppb	17:06:59
1	Ba 233.527†	63625.0	62134.7	496.53	ug/L	496.53	ppb	17:06:59
1	Be 313.107†	1321496.4	1294029.2	473.75	ug/L	473.75	ppb	17:06:59
1	Cd 226.502†	41594.5	40829.6	476.48	ug/L	476.48	ppb	17:07:19
1	Co 228.616†	23929.5	23448.4	482.10	ug/L	482.10	ppb	17:07:19
1	Cr 267.716†	41748.2	40697.0	484.25	ug/L	484.25	ppb	17:06:59
1	Cu 324.752†	170506.7	161764.4	497.26	ug/L	497.26	ppb	17:06:59
1	Mn 257.610†	450630.8	439532.8	492.79	ug/L	492.79	ppb	17:06:59
1	Mo 202.031†	6634.7	6466.4	487.60	ug/L	487.60	ppb	17:07:19
1	Ni 231.604†	19609.5	19070.0	488.46	ug/L	488.46	ppb	17:07:19
1	P 214.914†	1264.7	987.8	484.49	ug/L	484.49	ppb	17:07:19
1	Pb 220.353†	4030.0	4002.1	492.16	ug/L	492.16	ppb	17:07:19
1	S 181.975 Axial†	3717.0	3581.5	4913.7	ug/L	4913.7	ppb	17:07:19
1	Sb 206.836†	1526.1	1455.0	523.82	ug/L	523.82	ppb	17:07:19
1	Se 196.026†	722.3	730.6	495.76	ug/L	495.76	ppb	17:07:19
1	Si 251.611†	151404.7	147302.5	4812.4	ug/L	4812.4	ppb	17:06:59
1	Sn 189.927†	2876.9	2799.6	507.15	ug/L	507.15	ppb	17:07:19
1	Ti 334.940†	321942.5	315920.4	509.89	ug/L	509.89	ppb	17:06:59
1	Tl 190.801†	1573.1	1570.4	490.41	ug/L	490.41	ppb	17:07:19
1	U 409.014†	13215.7	16515.9	516.90	ug/L	516.90	ppb	17:06:59
1	V 292.402†	65452.8	65499.3	495.48	ug/L	495.48	ppb	17:06:59
1	Zn 213.857†	51931.2	49977.8	473.40	ug/L	473.40	ppb	17:06:59
1	SiO2†	151078.1	146982.6	10242	ug/L	10242	ppb	17:08:19
2	Sc Radial	4951.2	4951.2	101	%			17:06:05
2	Y RADIAL	5233.2	5233.2	100.9	%			17:06:05
2	Al 396.153Radial†	5585.4	5717.0	4934.3	ug/L	4934.3	ppb	17:06:05
2	Ca 317.933Radial†	3212.7	3179.5	4983.5	ug/L	4983.5	ppb	17:06:25
2	Fe 238.204 Radial†	576.7	562.0	5135.1	ug/L	5135.1	ppb	17:06:25
2	K 766.490 Radial†	31258.5	28118.2	4897.9	ug/L	4897.9	ppb	17:06:05
2	Mg 279.077 IEC†	155.3	153.2	5040.9	ug/L	5040.9	ppb	17:06:25
2	Na 589.592 Radial†	15981.1	17040.6	5553.5	ug/L	5553.5	ppb	17:06:05
2	Sr 421.552†	78592.1	78132.6	512.11	ug/L	512.11	ppb	17:06:05
2	Sc 361.383	857074.3	857074.3	103.65	%			17:07:26
2	Y 371.029	677304.9	677304.9	101.48	%			17:07:26
2	Ag 328.068†	104824.7	100833.7	490.19	ug/L	490.19	ppb	17:07:26
2	As 188.979†	1106.9	1098.6	478.12	ug/L	478.12	ppb	17:07:46
2	B 249.677†	20339.0	20217.3	479.19	ug/L	479.19	ppb	17:07:26
2	Ba 233.527†	64257.4	62003.4	495.49	ug/L	495.49	ppb	17:07:26
2	Be 313.107†	1343436.2	1299796.7	475.86	ug/L	475.86	ppb	17:07:26
2	Cd 226.502†	41566.0	40317.4	470.50	ug/L	470.50	ppb	17:07:46
2	Co 228.616†	23940.2	23180.0	476.56	ug/L	476.56	ppb	17:07:46
2	Cr 267.716†	42226.1	40671.5	483.95	ug/L	483.95	ppb	17:07:26
2	Cu 324.752†	172317.5	161524.5	496.53	ug/L	496.53	ppb	17:07:26
2	Mn 257.610†	455263.7	438751.3	491.92	ug/L	491.92	ppb	17:07:26
2	Mo 202.031†	6622.1	6376.9	480.85	ug/L	480.85	ppb	17:07:46
2	Ni 231.604†	19566.0	18799.5	481.53	ug/L	481.53	ppb	17:07:46

2	P 214.914†	1270.5	978.7	479.22 ug/L	479.22 ppb	17:07:46
2	Pb 220.353†	4009.3	3935.2	483.95 ug/L	483.95 ppb	17:07:46
2	S 181.975 Axial†	3693.6	3515.7	4823.4 ug/L	4823.4 ppb	17:07:46
2	Sb 206.836†	1551.5	1461.7	525.87 ug/L	525.87 ppb	17:07:46
2	Se 196.026†	721.2	721.2	489.44 ug/L	489.44 ppb	17:07:46
2	Si 251.611†	153027.5	147103.8	4806.0 ug/L	4806.0 ppb	17:07:26
2	Sn 189.927†	2861.2	2750.9	498.33 ug/L	498.33 ppb	17:07:46
2	Ti 334.940†	325421.1	315524.9	509.25 ug/L	509.25 ppb	17:07:26
2	Tl 190.801†	1588.7	1567.0	489.39 ug/L	489.39 ppb	17:07:46
2	U 409.014†	13187.9	16335.1	511.23 ug/L	511.23 ppb	17:07:26
2	V 292.402†	66461.1	65709.4	496.94 ug/L	496.94 ppb	17:07:26
2	Zn 213.857†	52551.9	49971.5	473.39 ug/L	473.39 ppb	17:07:26
2	SiO2†	153068.7	147142.5	10254 ug/L	10254 ppb	17:08:24
3	Sc Radial	5034.5	5034.5	102 %		17:06:30
3	Y RADIAL	5293.3	5293.3	102.1 %		17:06:30
3	Al 396.153Radial†	5655.2	5693.3	4913.5 ug/L	4913.5 ppb	17:06:30
3	Ca 317.933Radial†	3176.1	3090.8	4844.5 ug/L	4844.5 ppb	17:06:50
3	Fe 238.204 Radial†	568.9	544.9	4978.9 ug/L	4978.9 ppb	17:06:50
3	K 766.490 Radial†	31607.1	27944.7	4867.7 ug/L	4867.7 ppb	17:06:30
3	Mg 279.077 IEC†	156.6	151.9	4997.0 ug/L	4997.0 ppb	17:06:50
3	Na 589.592 Radial†	16258.7	17049.1	5556.3 ug/L	5556.3 ppb	17:06:30
3	Sr 421.552†	79803.7	78024.0	511.40 ug/L	511.40 ppb	17:06:30
3	Sc 361.383	848535.0	848535.0	102.62 %		17:07:53
3	Y 371.029	670530.4	670530.4	100.47 %		17:07:53
3	Ag 328.068†	104050.8	101097.4	491.42 ug/L	491.42 ppb	17:07:53
3	As 188.979†	1115.3	1117.5	486.24 ug/L	486.24 ppb	17:08:13
3	B 249.677†	20198.4	20277.8	480.64 ug/L	480.64 ppb	17:07:53
3	Ba 233.527†	63947.8	62325.5	498.05 ug/L	498.05 ppb	17:07:53
3	Be 313.107†	1332522.7	1302205.1	476.74 ug/L	476.74 ppb	17:07:53
3	Cd 226.502†	41630.8	40784.0	475.97 ug/L	475.97 ppb	17:08:13
3	Co 228.616†	23987.7	23458.6	482.31 ug/L	482.31 ppb	17:08:13
3	Cr 267.716†	41955.0	40817.3	485.68 ug/L	485.68 ppb	17:07:53
3	Cu 324.752†	170770.0	161689.5	497.03 ug/L	497.03 ppb	17:07:53
3	Mn 257.610†	452368.5	440350.2	493.69 ug/L	493.69 ppb	17:07:53
3	Mo 202.031†	6662.0	6480.0	488.61 ug/L	488.61 ppb	17:08:13
3	Ni 231.604†	19645.8	19067.2	488.39 ug/L	488.39 ppb	17:08:13
3	P 214.914†	1279.7	999.9	491.82 ug/L	491.82 ppb	17:08:13
3	Pb 220.353†	4016.3	3980.9	489.58 ug/L	489.58 ppb	17:08:13
3	S 181.975 Axial†	3721.6	3578.8	4910.1 ug/L	4910.1 ppb	17:08:13
3	Sb 206.836†	1565.2	1490.1	536.04 ug/L	536.04 ppb	17:08:13
3	Se 196.026†	731.6	738.3	500.13 ug/L	500.13 ppb	17:08:13
3	Si 251.611†	151920.4	147510.7	4819.2 ug/L	4819.2 ppb	17:07:53
3	Sn 189.927†	2875.3	2792.4	505.81 ug/L	505.81 ppb	17:08:13
3	Ti 334.940†	322869.1	316197.5	510.32 ug/L	510.32 ppb	17:07:53
3	Tl 190.801†	1580.9	1574.9	491.82 ug/L	491.82 ppb	17:08:13
3	U 409.014†	13059.9	16338.5	511.35 ug/L	511.35 ppb	17:07:53
3	V 292.402†	65899.2	65807.1	497.80 ug/L	497.80 ppb	17:07:53
3	Zn 213.857†	52290.6	50227.0	475.81 ug/L	475.81 ppb	17:07:53
3	SiO2†	154081.1	149615.2	10426 ug/L	10426 ppb	17:08:29

Mean Data: 1202030863|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850818.3	102.90	%	0.663				0.64%
Sc Radial	4971.6	101	%	1.1				1.12%
Y 371.029	671934.4	100.68	%	0.723				0.72%
Y RADIAL	5264.4	101.5	%	0.58				0.57%
Ag 328.068†	100964.6	490.81	ug/L	0.613	490.81	ppb	0.613	0.12%
Al 396.153Radial†	5700.8	4920.1	ug/L	12.35	4920.1	ppb	12.35	0.25%
As 188.979†	1108.2	482.25	ug/L	4.061	482.25	ppb	4.061	0.84%
B 249.677†	20239.7	479.72	ug/L	0.800	479.72	ppb	0.800	0.17%
Ba 233.527†	62154.6	496.69	ug/L	1.290	496.69	ppb	1.290	0.26%
Be 313.107†	1298677.0	475.45	ug/L	1.535	475.45	ppb	1.535	0.32%
Ca 317.933Radial†	3155.4	4945.7	ug/L	88.61	4945.7	ppb	88.61	1.79%
Cd 226.502†	40643.7	474.32	ug/L	3.315	474.32	ppb	3.315	0.70%
Co 228.616†	23362.4	480.32	ug/L	3.258	480.32	ppb	3.258	0.68%
Cr 267.716†	40728.6	484.62	ug/L	0.925	484.62	ppb	0.925	0.19%
Cu 324.752†	161659.4	496.94	ug/L	0.376	496.94	ppb	0.376	0.08%
Fe 238.204 Radial†	557.8	5096.1	ug/L	103.39	5096.1	ppb	103.39	2.03%
K 766.490 Radial†	28033.6	4883.2	ug/L	15.12	4883.2	ppb	15.12	0.31%

Mg 279.077 IEC†	153.5	5047.7	ug/L	54.43	5047.7	ppb	54.43	1.08%
Mn 257.610†	439544.8	492.80	ug/L	0.889	492.80	ppb	0.889	0.18%
Mo 202.031†	6441.1	485.69	ug/L	4.216	485.69	ppb	4.216	0.87%
Na 589.592 Radial†	17068.1	5562.5	ug/L	13.17	5562.5	ppb	13.17	0.24%
Ni 231.604†	18978.9	486.13	ug/L	3.980	486.13	ppb	3.980	0.82%
P 214.914†	988.8	485.18	ug/L	6.328	485.18	ppb	6.328	1.30%
Pb 220.353†	3972.7	488.56	ug/L	4.200	488.56	ppb	4.200	0.86%
S 181.975 Axial†	3558.7	4882.4	ug/L	51.14	4882.4	ppb	51.14	1.05%
Sb 206.836†	1468.9	528.58	ug/L	6.544	528.58	ppb	6.544	1.24%
Se 196.026†	730.0	495.11	ug/L	5.374	495.11	ppb	5.374	1.09%
Si 251.611†	147305.7	4812.6	ug/L	6.61	4812.6	ppb	6.61	0.14%
Sn 189.927†	2780.9	503.76	ug/L	4.754	503.76	ppb	4.754	0.94%
Sr 421.552†	78143.5	512.19	ug/L	0.820	512.19	ppb	0.820	0.16%
Ti 334.940†	315880.9	509.82	ug/L	0.538	509.82	ppb	0.538	0.11%
Tl 190.801†	1570.8	490.54	ug/L	1.224	490.54	ppb	1.224	0.25%
U 409.014†	16396.5	513.16	ug/L	3.240	513.16	ppb	3.240	0.63%
V 292.402†	65671.9	496.74	ug/L	1.177	496.74	ppb	1.177	0.24%
Zn 213.857†	50058.8	474.20	ug/L	1.396	474.20	ppb	1.396	0.29%
SiO2†	147913.4	10307	ug/L	102.9	10307	ppb	102.9	1.00%

Sequence No.: 29
Sample ID: 245690001|948038|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 51
Date Collected: 2/12/2010 17:10:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245690001|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5077.5	5077.5	103	%			17:12:33
1	Y RADIAL	5370.6	5370.6	103.6	%			17:12:33
1	Al 396.153Radial†	-151.6	16.2	14.054	ug/L	14.054	ppb	17:12:33
1	Ca 317.933Radial†	36.9	20.8	32.601	ug/L	32.601	ppb	17:12:53
1	Fe 238.204 Radial†	10.2	-1.5	-13.615	ug/L	-13.615	ppb	17:12:53
1	K 766.490 Radial†	3851.6	771.5	134.40	ug/L	134.40	ppb	17:12:33
1	Mg 279.077 IEC†	6.1	4.7	153.88	ug/L	153.88	ppb	17:12:53
1	Na 589.592 Radial†	-374.0	787.6	256.69	ug/L	256.69	ppb	17:12:33
1	Sr 421.552†	23.1	8.7	0.0569	ug/L	0.0569	ppb	17:12:33
1	Sc 361.383	862807.4	862807.4	104.35	%			17:13:50
1	Y 371.029	685344.1	685344.1	102.69	%			17:13:50
1	Ag 328.068†	181.4	-123.2	-0.6177	ug/L	-0.6177	ppb	17:13:55
1	As 188.979†	-29.3	2.6	1.1249	ug/L	1.1249	ppb	17:14:15
1	B 249.677†	244.5	829.3	19.748	ug/L	19.748	ppb	17:13:55
1	Ba 233.527†	43.1	51.6	0.4125	ug/L	0.4125	ppb	17:14:15
1	Be 313.107†	-3885.2	-23.0	-0.0069	ug/L	-0.0069	ppb	17:13:55
1	Cd 226.502†	-198.2	26.2	0.3118	ug/L	0.3118	ppb	17:14:15
1	Co 228.616†	-75.0	11.4	0.2348	ug/L	0.2348	ppb	17:14:15
1	Cr 267.716†	103.4	32.5	0.3766	ug/L	0.3766	ppb	17:14:15
1	Cu 324.752†	4921.3	-4.6	-0.0290	ug/L	-0.0290	ppb	17:13:55
1	Mn 257.610†	1132.9	615.9	0.6825	ug/L	0.6825	ppb	17:14:15
1	Mo 202.031†	18.3	5.7	0.4261	ug/L	0.4261	ppb	17:14:15
1	Ni 231.604†	73.3	-6.8	-0.1744	ug/L	-0.1744	ppb	17:14:15
1	P 214.914†	276.9	18.3	10.801	ug/L	10.801	ppb	17:14:15
1	Pb 220.353†	-64.5	5.4	0.6642	ug/L	0.6642	ppb	17:14:15
1	S 181.975 Axial†	78.5	27.4	37.602	ug/L	37.602	ppb	17:14:15
1	Sb 206.836†	45.7	8.7	3.0540	ug/L	3.0540	ppb	17:14:15
1	Se 196.026†	-14.6	11.4	7.3855	ug/L	7.3855	ppb	17:14:15
1	Si 251.611†	41575.5	39312.6	1286.0	ug/L	1286.0	ppb	17:13:55
1	Sn 189.927†	15.5	5.4	0.9817	ug/L	0.9817	ppb	17:14:15
1	Ti 334.940†	-1198.3	422.6	0.6626	ug/L	0.6626	ppb	17:13:55
1	Tl 190.801†	-30.6	5.0	1.5593	ug/L	1.5593	ppb	17:14:15
1	U 409.014†	-2915.8	817.6	25.671	ug/L	25.671	ppb	17:13:50
1	V 292.402†	-1538.5	115.8	0.9236	ug/L	0.9236	ppb	17:13:55
1	Zn 213.857†	976.1	206.8	1.9813	ug/L	1.9813	ppb	17:14:15
1	SiO2†	42339.1	40043.4	2794.0	ug/L	2794.0	ppb	17:15:21
2	Sc Radial	5071.1	5071.1	103	%			17:12:58
2	Y RADIAL	5374.4	5374.4	103.6	%			17:12:58
2	Al 396.153Radial†	-129.7	37.3	32.332	ug/L	32.332	ppb	17:12:58
2	Ca 317.933Radial†	36.0	19.9	31.258	ug/L	31.258	ppb	17:13:18
2	Fe 238.204 Radial†	10.9	-0.8	-7.2832	ug/L	-7.2832	ppb	17:13:18
2	K 766.490 Radial†	3760.3	687.5	119.77	ug/L	119.77	ppb	17:12:58
2	Mg 279.077 IEC†	2.5	1.2	39.686	ug/L	39.686	ppb	17:13:18
2	Na 589.592 Radial†	-407.9	754.2	245.80	ug/L	245.80	ppb	17:12:58
2	Sr 421.552†	78.3	62.4	0.4087	ug/L	0.4087	ppb	17:12:58
2	Sc 361.383	852794.5	852794.5	103.13	%			17:14:20
2	Y 371.029	678549.9	678549.9	101.67	%			17:14:20
2	Ag 328.068†	249.6	-55.1	-0.2831	ug/L	-0.2831	ppb	17:14:25
2	As 188.979†	-18.2	13.0	5.6016	ug/L	5.6016	ppb	17:14:45
2	B 249.677†	227.4	815.6	19.420	ug/L	19.420	ppb	17:14:25
2	Ba 233.527†	23.0	32.6	0.2620	ug/L	0.2620	ppb	17:14:45
2	Be 313.107†	-3855.2	-37.7	-0.0127	ug/L	-0.0127	ppb	17:14:25
2	Cd 226.502†	-199.8	22.3	0.2659	ug/L	0.2659	ppb	17:14:45
2	Co 228.616†	-84.9	1.1	0.0237	ug/L	0.0237	ppb	17:14:45
2	Cr 267.716†	98.0	28.3	0.3292	ug/L	0.3292	ppb	17:14:45
2	Cu 324.752†	4999.3	126.4	0.3757	ug/L	0.3757	ppb	17:14:25
2	Mn 257.610†	1155.4	650.4	0.7264	ug/L	0.7264	ppb	17:14:45
2	Mo 202.031†	27.0	14.3	1.0802	ug/L	1.0802	ppb	17:14:45
2	Ni 231.604†	90.1	10.3	0.2639	ug/L	0.2639	ppb	17:14:45

2	P 214.914†	263.9	8.8	5.1562	ug/L	5.1562 ppb	17:14:45
2	Pb 220.353†	-46.0	22.5	2.7703	ug/L	2.7703 ppb	17:14:45
2	S 181.975 Axial†	77.7	27.6	37.822	ug/L	37.822 ppb	17:14:45
2	Sb 206.836†	44.8	8.3	2.9348	ug/L	2.9348 ppb	17:14:45
2	Se 196.026†	-25.1	1.1	0.7020	ug/L	0.7020 ppb	17:14:45
2	Si 251.611†	42258.6	40442.8	1322.9	ug/L	1322.9 ppb	17:14:25
2	Sn 189.927†	21.8	11.6	2.1086	ug/L	2.1086 ppb	17:14:45
2	Ti 334.940†	-1327.6	283.7	0.4490	ug/L	0.4490 ppb	17:14:25
2	Tl 190.801†	-39.2	-3.7	-1.1286	ug/L	-1.1286 ppb	17:14:45
2	U 409.014†	-2983.5	719.2	22.580	ug/L	22.580 ppb	17:14:20
2	V 292.402†	-1493.2	142.4	1.1227	ug/L	1.1227 ppb	17:14:25
2	Zn 213.857†	967.3	209.3	2.0007	ug/L	2.0007 ppb	17:14:45
2	SiO2†	42127.0	40314.1	2812.9	ug/L	2812.9 ppb	17:15:26
3	Sc Radial	5049.9	5049.9	103	%		17:13:23
3	Y RADIAL	5322.9	5322.9	102.6	%		17:13:23
3	Al 396.153Radial†	-148.7	18.2	15.843	ug/L	15.843 ppb	17:13:23
3	Ca 317.933Radial†	33.5	17.7	27.689	ug/L	27.689 ppb	17:13:43
3	Fe 238.204 Radial†	11.5	-0.2	-1.5754	ug/L	-1.5754 ppb	17:13:43
3	K 766.490 Radial†	3809.3	750.6	130.77	ug/L	130.77 ppb	17:13:23
3	Mg 279.077 IEC†	5.1	3.8	123.83	ug/L	123.83 ppb	17:13:43
3	Na 589.592 Radial†	-355.5	803.7	261.91	ug/L	261.91 ppb	17:13:23
3	Sr 421.552†	41.0	26.3	0.1720	ug/L	0.1720 ppb	17:13:23
3	Sc 361.383	856255.2	856255.2	103.55	%		17:14:50
3	Y 371.029	680516.5	680516.5	101.96	%		17:14:50
3	Ag 328.068†	264.6	-41.6	-0.2142	ug/L	-0.2142 ppb	17:14:55
3	As 188.979†	-20.1	11.2	4.8518	ug/L	4.8518 ppb	17:15:15
3	B 249.677†	345.4	928.5	22.109	ug/L	22.109 ppb	17:14:55
3	Ba 233.527†	35.6	44.6	0.3582	ug/L	0.3582 ppb	17:15:15
3	Be 313.107†	-3922.4	-87.4	-0.0309	ug/L	-0.0309 ppb	17:14:55
3	Cd 226.502†	-204.5	18.6	0.2208	ug/L	0.2208 ppb	17:15:15
3	Co 228.616†	-79.6	6.5	0.1308	ug/L	0.1308 ppb	17:15:15
3	Cr 267.716†	114.0	43.4	0.5093	ug/L	0.5093 ppb	17:15:15
3	Cu 324.752†	4952.3	61.4	0.1772	ug/L	0.1772 ppb	17:14:55
3	Mn 257.610†	1158.5	648.9	0.7218	ug/L	0.7218 ppb	17:15:15
3	Mo 202.031†	2.5	-9.4	-0.7115	ug/L	-0.7115 ppb	17:15:15
3	Ni 231.604†	78.4	-1.3	-0.0327	ug/L	-0.0327 ppb	17:15:15
3	P 214.914†	266.7	10.5	6.1415	ug/L	6.1415 ppb	17:15:15
3	Pb 220.353†	-47.4	21.4	2.6206	ug/L	2.6206 ppb	17:15:15
3	S 181.975 Axial†	80.2	29.6	40.676	ug/L	40.676 ppb	17:15:15
3	Sb 206.836†	45.2	8.6	2.9824	ug/L	2.9824 ppb	17:15:15
3	Se 196.026†	-23.0	3.2	2.0664	ug/L	2.0664 ppb	17:15:15
3	Si 251.611†	42351.6	40367.0	1320.5	ug/L	1320.5 ppb	17:14:55
3	Sn 189.927†	17.6	7.5	1.3611	ug/L	1.3611 ppb	17:15:15
3	Ti 334.940†	-1324.9	291.5	0.4550	ug/L	0.4550 ppb	17:14:55
3	Tl 190.801†	-35.0	0.5	0.1722	ug/L	0.1722 ppb	17:15:15
3	U 409.014†	-3060.7	656.3	20.605	ug/L	20.605 ppb	17:14:50
3	V 292.402†	-1492.1	149.3	1.1456	ug/L	1.1456 ppb	17:14:55
3	Zn 213.857†	994.5	231.8	2.2170	ug/L	2.2170 ppb	17:15:15
3	SiO2†	42491.0	40500.6	2825.9	ug/L	2825.9 ppb	17:15:31

Mean Data: 245690001|948038|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857285.7	103.68	%	0.615				0.59%
Sc Radial	5066.2	103	%	0.3				0.28%
Y 371.029	681470.2	102.11	%	0.524				0.51%
Y RADIAL	5356.0	103.3	%	0.55				0.54%
Ag 328.068†	-73.3	-0.3717	ug/L	0.21583	-0.3717	ppb	0.21583	58.07%
Al 396.153Radial†	23.9	20.743	ug/L	10.0761	20.743	ppb	10.0761	48.58%
As 188.979†	8.9	3.8594	ug/L	2.39769	3.8594	ppb	2.39769	62.13%
B 249.677†	857.8	20.426	ug/L	1.4669	20.426	ppb	1.4669	7.18%
Ba 233.527†	42.9	0.3443	ug/L	0.07621	0.3443	ppb	0.07621	22.14%
Be 313.107†	-49.4	-0.0168	ug/L	0.01251	-0.0168	ppb	0.01251	74.39%
Ca 317.933Radial†	19.5	30.516	ug/L	2.5385	30.516	ppb	2.5385	8.32%
Cd 226.502†	22.3	0.2661	ug/L	0.04550	0.2661	ppb	0.04550	17.10%
Co 228.616†	6.3	0.1298	ug/L	0.10555	0.1298	ppb	0.10555	81.34%
Cr 267.716†	34.7	0.4050	ug/L	0.09334	0.4050	ppb	0.09334	23.04%
Cu 324.752†	61.1	0.1746	ug/L	0.20233	0.1746	ppb	0.20233	115.85%
Fe 238.204 Radial†	-0.8	-7.4913	ug/L	6.02260	-7.4913	ppb	6.02260	80.39%
K 766.490 Radial†	736.6	128.31	ug/L	7.621	128.31	ppb	7.621	5.94%

Mg 279.077 IEC†	3.2	105.80	ug/L	59.193	105.80	ppb	59.193	55.95%
Mn 257.610†	638.4	0.7102	ug/L	0.02416	0.7102	ppb	0.02416	3.40%
Mo 202.031†	3.5	0.2649	ug/L	0.90664	0.2649	ppb	0.90664	342.21%
Na 589.592 Radial†	781.8	254.80	ug/L	8.216	254.80	ppb	8.216	3.22%
Ni 231.604†	0.7	0.0189	ug/L	0.22370	0.0189	ppb	0.22370	>999.9%
P 214.914†	12.5	7.3663	ug/L	3.01518	7.3663	ppb	3.01518	40.93%
Pb 220.353†	16.4	2.0184	ug/L	1.17509	2.0184	ppb	1.17509	58.22%
S 181.975 Axial†	28.2	38.700	ug/L	1.7152	38.700	ppb	1.7152	4.43%
Sb 206.836†	8.5	2.9904	ug/L	0.06001	2.9904	ppb	0.06001	2.01%
Se 196.026†	5.2	3.3846	ug/L	3.53140	3.3846	ppb	3.53140	104.34%
Si 251.611†	40040.8	1309.8	ug/L	20.67	1309.8	ppb	20.67	1.58%
Sn 189.927†	8.2	1.4838	ug/L	0.57338	1.4838	ppb	0.57338	38.64%
Sr 421.552†	32.5	0.2125	ug/L	0.17936	0.2125	ppb	0.17936	84.41%
Ti 334.940†	332.6	0.5222	ug/L	0.12163	0.5222	ppb	0.12163	23.29%
Tl 190.801†	0.6	0.2009	ug/L	1.34415	0.2009	ppb	1.34415	668.91%
U 409.014†	731.0	22.952	ug/L	2.5538	22.952	ppb	2.5538	11.13%
V 292.402†	135.8	1.0640	ug/L	0.12207	1.0640	ppb	0.12207	11.47%
Zn 213.857†	216.0	2.0663	ug/L	0.13085	2.0663	ppb	0.13085	6.33%
SiO2†	40286.0	2810.9	ug/L	16.05	2810.9	ppb	16.05	0.57%

Sequence No.: 30
Sample ID: 1202030864|948038|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 52
Date Collected: 2/12/2010 17:17:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030864|948038|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4912.4	4912.4	99.8	%			17:19:35
1	Y RADIAL	5193.6	5193.6	100.1	%			17:19:35
1	Al 396.153Radial†	-140.9	22.1	19.098	ug/L	19.098	ppb	17:19:35
1	Ca 317.933Radial†	34.2	19.3	30.284	ug/L	30.284	ppb	17:19:55
1	Fe 238.204 Radial†	10.8	-0.6	-5.8186	ug/L	-5.8186	ppb	17:19:55
1	K 766.490 Radial†	3807.8	853.1	148.64	ug/L	148.64	ppb	17:19:35
1	Mg 279.077 IEC†	0.8	-0.4	-13.225	ug/L	-13.225	ppb	17:19:55
1	Na 589.592 Radial†	-456.2	693.1	225.87	ug/L	225.87	ppb	17:19:35
1	Sr 421.552†	2.8	-10.9	-0.0716	ug/L	-0.0716	ppb	17:19:35
1	Sc 361.383	845556.3	845556.3	102.26	%			17:20:51
1	Y 371.029	672332.1	672332.1	100.74	%			17:20:51
1	Ag 328.068†	248.1	-54.5	-0.2836	ug/L	-0.2836	ppb	17:20:57
1	As 188.979†	-27.5	3.8	1.6430	ug/L	1.6430	ppb	17:21:17
1	B 249.677†	205.7	796.2	18.959	ug/L	18.959	ppb	17:20:57
1	Ba 233.527†	35.5	45.0	0.3602	ug/L	0.3602	ppb	17:21:17
1	Be 313.107†	-4033.2	-243.8	-0.0879	ug/L	-0.0879	ppb	17:20:57
1	Cd 226.502†	-192.7	27.6	0.3280	ug/L	0.3280	ppb	17:21:17
1	Co 228.616†	-84.2	1.0	0.0228	ug/L	0.0228	ppb	17:21:17
1	Cr 267.716†	112.1	43.0	0.5015	ug/L	0.5015	ppb	17:21:17
1	Cu 324.752†	4748.2	-77.6	-0.2536	ug/L	-0.2536	ppb	17:20:57
1	Mn 257.610†	1544.2	1040.2	1.1655	ug/L	1.1655	ppb	17:21:17
1	Mo 202.031†	26.2	13.8	1.0384	ug/L	1.0384	ppb	17:21:17
1	Ni 231.604†	68.8	-9.7	-0.2491	ug/L	-0.2491	ppb	17:21:17
1	P 214.914†	257.6	4.8	2.9368	ug/L	2.9368	ppb	17:21:17
1	Pb 220.353†	-79.6	-10.7	-1.3048	ug/L	-1.3048	ppb	17:21:17
1	S 181.975 Axial†	73.6	24.2	33.165	ug/L	33.165	ppb	17:21:17
1	Sb 206.836†	33.1	-2.7	-0.8806	ug/L	-0.8806	ppb	17:21:17
1	Se 196.026†	-23.9	2.1	1.3287	ug/L	1.3287	ppb	17:21:17
1	Si 251.611†	41752.9	40299.0	1318.2	ug/L	1318.2	ppb	17:20:57
1	Sn 189.927†	25.4	15.4	2.7826	ug/L	2.7826	ppb	17:21:17
1	Ti 334.940†	-1296.0	303.5	0.4834	ug/L	0.4834	ppb	17:20:57
1	Tl 190.801†	-40.2	-5.0	-1.5507	ug/L	-1.5507	ppb	17:21:17
1	U 409.014†	-2830.4	844.1	26.503	ug/L	26.503	ppb	17:20:51
1	V 292.402†	-1507.4	116.1	0.9320	ug/L	0.9320	ppb	17:20:57
1	Zn 213.857†	819.7	73.0	0.7008	ug/L	0.7008	ppb	17:21:17
1	SiO2†	41850.5	40393.4	2818.4	ug/L	2818.4	ppb	17:22:23
2	Sc Radial	4953.3	4953.3	101	%			17:20:00
2	Y RADIAL	5243.0	5243.0	101.1	%			17:20:00
2	Al 396.153Radial†	-175.3	-11.0	-9.6086	ug/L	-9.6086	ppb	17:20:00
2	Ca 317.933Radial†	37.5	22.3	35.004	ug/L	35.004	ppb	17:20:20
2	Fe 238.204 Radial†	13.0	1.4	13.173	ug/L	13.173	ppb	17:20:20
2	K 766.490 Radial†	3805.5	819.3	142.74	ug/L	142.74	ppb	17:20:00
2	Mg 279.077 IEC†	0.3	-0.9	-29.027	ug/L	-29.027	ppb	17:20:20
2	Na 589.592 Radial†	-425.1	727.7	237.16	ug/L	237.16	ppb	17:20:00
2	Sr 421.552†	-6.8	-20.4	-0.1342	ug/L	-0.1342	ppb	17:20:00
2	Sc 361.383	855588.7	855588.7	103.47	%			17:21:22
2	Y 371.029	681149.8	681149.8	102.06	%			17:21:22
2	Ag 328.068†	178.1	-125.0	-0.6151	ug/L	-0.6151	ppb	17:21:27
2	As 188.979†	-29.1	2.5	1.1032	ug/L	1.1032	ppb	17:21:47
2	B 249.677†	274.7	860.5	20.488	ug/L	20.488	ppb	17:21:27
2	Ba 233.527†	38.0	47.0	0.3775	ug/L	0.3775	ppb	17:21:47
2	Be 313.107†	-3977.2	-143.4	-0.0513	ug/L	-0.0513	ppb	17:21:27
2	Cd 226.502†	-198.3	24.4	0.2876	ug/L	0.2876	ppb	17:21:47
2	Co 228.616†	-88.2	-1.8	-0.0365	ug/L	-0.0365	ppb	17:21:47
2	Cr 267.716†	83.9	14.4	0.1638	ug/L	0.1638	ppb	17:21:47
2	Cu 324.752†	4858.3	-25.7	-0.0917	ug/L	-0.0917	ppb	17:21:27
2	Mn 257.610†	1524.6	1003.6	1.1270	ug/L	1.1270	ppb	17:21:47
2	Mo 202.031†	27.5	14.7	1.1077	ug/L	1.1077	ppb	17:21:47
2	Ni 231.604†	43.2	-35.2	-0.9029	ug/L	-0.9029	ppb	17:21:47

2	P 214.914†	256.9	1.3	0.7597 ug/L	0.7597 ppb	17:21:47
2	Pb 220.353†	-64.1	5.2	0.6422 ug/L	0.6422 ppb	17:21:47
2	S 181.975 Axial†	71.9	21.7	29.845 ug/L	29.845 ppb	17:21:47
2	Sb 206.836†	46.7	10.0	3.5281 ug/L	3.5281 ppb	17:21:47
2	Se 196.026†	-26.1	0.2	0.1447 ug/L	0.1447 ppb	17:21:47
2	Si 251.611†	42088.4	40144.5	1313.2 ug/L	1313.2 ppb	17:21:27
2	Sn 189.927†	13.3	3.4	0.6151 ug/L	0.6151 ppb	17:21:47
2	Ti 334.940†	-1312.5	302.5	0.4847 ug/L	0.4847 ppb	17:21:27
2	Tl 190.801†	-43.6	-7.8	-2.4040 ug/L	-2.4040 ppb	17:21:47
2	U 409.014†	-2941.0	769.6	24.163 ug/L	24.163 ppb	17:21:22
2	V 292.402†	-1492.1	148.1	1.1647 ug/L	1.1647 ppb	17:21:27
2	Zn 213.857†	823.0	66.8	0.6426 ug/L	0.6426 ppb	17:21:47
2	SiO2†	42026.1	40083.3	2796.7 ug/L	2796.7 ppb	17:22:28
3	Sc Radial	4964.2	4964.2	101 %		17:20:25
3	Y RADIAL	5216.7	5216.7	100.6 %		17:20:25
3	Al 396.153Radial†	-141.9	22.5	19.470 ug/L	19.470 ppb	17:20:25
3	Ca 317.933Radial†	35.8	20.5	32.156 ug/L	32.156 ppb	17:20:45
3	Fe 238.204 Radial†	11.9	0.4	3.7242 ug/L	3.7242 ppb	17:20:45
3	K 766.490 Radial†	3806.4	811.8	141.44 ug/L	141.44 ppb	17:20:25
3	Mg 279.077 IEC†	5.0	3.8	124.43 ug/L	124.43 ppb	17:20:45
3	Na 589.592 Radial†	-381.4	772.0	251.60 ug/L	251.60 ppb	17:20:25
3	Sr 421.552†	34.0	20.0	0.1310 ug/L	0.1310 ppb	17:20:25
3	Sc 361.383	855784.1	855784.1	103.50 %		17:21:52
3	Y 371.029	680505.4	680505.4	101.96 %		17:21:52
3	Ag 328.068†	82.0	-217.9	-1.0651 ug/L	-1.0651 ppb	17:21:57
3	As 188.979†	-31.0	0.7	0.2927 ug/L	0.2927 ppb	17:22:17
3	B 249.677†	238.9	825.8	19.662 ug/L	19.662 ppb	17:21:57
3	Ba 233.527†	54.8	63.2	0.5070 ug/L	0.5070 ppb	17:22:17
3	Be 313.107†	-4044.3	-207.4	-0.0746 ug/L	-0.0746 ppb	17:21:57
3	Cd 226.502†	-192.1	30.4	0.3592 ug/L	0.3592 ppb	17:22:17
3	Co 228.616†	-85.1	1.1	0.0229 ug/L	0.0229 ppb	17:22:17
3	Cr 267.716†	115.5	44.9	0.5264 ug/L	0.5264 ppb	17:22:17
3	Cu 324.752†	4845.1	-39.6	-0.1346 ug/L	-0.1346 ppb	17:21:57
3	Mn 257.610†	1513.8	992.8	1.1077 ug/L	1.1077 ppb	17:22:17
3	Mo 202.031†	18.9	6.4	0.4843 ug/L	0.4843 ppb	17:22:17
3	Ni 231.604†	73.2	-6.3	-0.1606 ug/L	-0.1606 ppb	17:22:17
3	P 214.914†	255.3	-0.4	-0.1721 ug/L	-0.1721 ppb	17:22:17
3	Pb 220.353†	-63.8	5.5	0.6854 ug/L	0.6854 ppb	17:22:17
3	S 181.975 Axial†	72.6	22.3	30.641 ug/L	30.641 ppb	17:22:17
3	Sb 206.836†	44.2	7.6	2.6680 ug/L	2.6680 ppb	17:22:17
3	Se 196.026†	-24.7	1.5	0.9987 ug/L	0.9987 ppb	17:22:17
3	Si 251.611†	42617.2	40646.1	1329.6 ug/L	1329.6 ppb	17:21:57
3	Sn 189.927†	20.3	10.1	1.8292 ug/L	1.8292 ppb	17:22:17
3	Ti 334.940†	-1303.4	311.5	0.4864 ug/L	0.4864 ppb	17:21:57
3	Tl 190.801†	-37.8	-2.2	-0.6612 ug/L	-0.6612 ppb	17:22:17
3	U 409.014†	-2952.8	758.9	23.827 ug/L	23.827 ppb	17:21:52
3	V 292.402†	-1449.5	189.7	1.4698 ug/L	1.4698 ppb	17:21:57
3	Zn 213.857†	822.1	65.7	0.6292 ug/L	0.6292 ppb	17:22:17
3	SiO2†	41624.0	39685.5	2769.0 ug/L	2769.0 ppb	17:22:33

Mean Data: 1202030864|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852309.7	103.08	%	0.707				0.69%
Sc Radial	4943.3	100	%	0.6				0.55%
Y 371.029	677995.8	101.59	%	0.737				0.72%
Y RADIAL	5217.8	100.6	%	0.48				0.47%
Ag 328.068†	-132.5	-0.6546	ug/L	0.39228	-0.6546	ppb	0.39228	59.93%
Al 396.153Radial†	11.2	9.6530	ug/L	16.68207	9.6530	ppb	16.68207	172.82%
As 188.979†	2.3	1.0130	ug/L	0.67967	1.0130	ppb	0.67967	67.10%
B 249.677†	827.5	19.703	ug/L	0.7652	19.703	ppb	0.7652	3.88%
Ba 233.527†	51.7	0.4149	ug/L	0.08024	0.4149	ppb	0.08024	19.34%
Be 313.107†	-198.2	-0.0713	ug/L	0.01855	-0.0713	ppb	0.01855	26.03%
Ca 317.933Radial†	20.7	32.481	ug/L	2.3771	32.481	ppb	2.3771	7.32%
Cd 226.502†	27.5	0.3249	ug/L	0.03589	0.3249	ppb	0.03589	11.05%
Co 228.616†	0.1	0.0031	ug/L	0.03426	0.0031	ppb	0.03426	>999.9%
Cr 267.716†	34.1	0.3972	ug/L	0.20258	0.3972	ppb	0.20258	51.00%
Cu 324.752†	-47.6	-0.1600	ug/L	0.08388	-0.1600	ppb	0.08388	52.44%
Fe 238.204 Radial†	0.4	3.6930	ug/L	9.49604	3.6930	ppb	9.49604	257.14%
K 766.490 Radial†	828.1	144.27	ug/L	3.839	144.27	ppb	3.839	2.66%

Mg 279.077 IEC†	0.8	27.393	ug/L	84.4078	27.393	ppb	84.4078 308.13%
Mn 257.610†	1012.2	1.1334	ug/L	0.02943	1.1334	ppb	0.02943 2.60%
Mo 202.031†	11.6	0.8768	ug/L	0.34170	0.8768	ppb	0.34170 38.97%
Na 589.592 Radial†	730.9	238.21	ug/L	12.897	238.21	ppb	12.897 5.41%
Ni 231.604†	-17.1	-0.4375	ug/L	0.40543	-0.4375	ppb	0.40543 92.66%
P 214.914†	1.9	1.1748	ug/L	1.59548	1.1748	ppb	1.59548 135.81%
Pb 220.353†	0.0	0.0076	ug/L	1.13676	0.0076	ppb	1.13676 >999.9%
S 181.975 Axial†	22.8	31.217	ug/L	1.7333	31.217	ppb	1.7333 5.55%
Sb 206.836†	5.0	1.7718	ug/L	2.33697	1.7718	ppb	2.33697 131.90%
Se 196.026†	1.2	0.8240	ug/L	0.61101	0.8240	ppb	0.61101 74.15%
Si 251.611†	40363.2	1320.3	ug/L	8.41	1320.3	ppb	8.41 0.64%
Sn 189.927†	9.6	1.7423	ug/L	1.08639	1.7423	ppb	1.08639 62.35%
Sr 421.552†	-3.8	-0.0249	ug/L	0.13863	-0.0249	ppb	0.13863 555.81%
Ti 334.940†	305.8	0.4848	ug/L	0.00151	0.4848	ppb	0.00151 0.31%
Tl 190.801†	-5.0	-1.5387	ug/L	0.87148	-1.5387	ppb	0.87148 56.64%
U 409.014†	790.9	24.831	ug/L	1.4576	24.831	ppb	1.4576 5.87%
V 292.402†	151.3	1.1888	ug/L	0.26971	1.1888	ppb	0.26971 22.69%
Zn 213.857†	68.5	0.6576	ug/L	0.03807	0.6576	ppb	0.03807 5.79%
SiO2†	40054.0	2794.7	ug/L	24.75	2794.7	ppb	24.75 0.89%

Sequence No.: 31
Sample ID: 1202030865|948038|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 53
Date Collected: 2/12/2010 17:24:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030865|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5012.7	5012.7	102	%			17:26:36
1	Y RADIAL	5278.5	5278.5	101.8	%			17:26:36
1	Al 396.153Radial†	5806.5	5866.0	5063.3	ug/L	5063.3	ppb	17:26:36
1	Ca 317.933Radial†	3243.4	3170.5	4969.4	ug/L	4969.4	ppb	17:26:56
1	Fe 238.204 Radial†	579.1	557.3	5091.9	ug/L	5091.9	ppb	17:26:56
1	K 766.490 Radial†	33415.7	29855.6	5200.7	ug/L	5200.7	ppb	17:26:36
1	Mg 279.077 IEC†	155.8	151.8	4992.6	ug/L	4992.6	ppb	17:26:56
1	Na 589.592 Radial†	16943.3	17790.8	5798.0	ug/L	5798.0	ppb	17:26:36
1	Sr 421.552†	82080.8	80600.4	528.29	ug/L	528.29	ppb	17:26:36
1	Sc 361.383	862605.0	862605.0	104.32	%			17:27:55
1	Y 371.029	682086.9	682086.9	102.20	%			17:27:55
1	Ag 328.068†	106495.5	101787.0	494.79	ug/L	494.79	ppb	17:27:55
1	As 188.979†	1127.4	1111.4	483.64	ug/L	483.64	ppb	17:28:15
1	B 249.677†	21494.7	21199.4	502.57	ug/L	502.57	ppb	17:27:55
1	Ba 233.527†	65430.5	62730.4	501.29	ug/L	501.29	ppb	17:27:55
1	Be 313.107†	1372251.0	1319107.7	482.92	ug/L	482.92	ppb	17:27:55
1	Cd 226.502†	43309.7	41731.7	487.02	ug/L	487.02	ppb	17:27:55
1	Co 228.616†	24318.3	23394.3	480.97	ug/L	480.97	ppb	17:28:15
1	Cr 267.716†	42918.3	41073.8	488.73	ug/L	488.73	ppb	17:27:55
1	Cu 324.752†	175379.0	163393.2	502.27	ug/L	502.27	ppb	17:27:55
1	Mn 257.610†	462314.7	442694.1	496.33	ug/L	496.33	ppb	17:27:55
1	Mo 202.031†	6742.8	6451.7	486.48	ug/L	486.48	ppb	17:28:15
1	Ni 231.604†	19846.7	18947.5	485.32	ug/L	485.32	ppb	17:28:15
1	P 214.914†	1266.9	967.4	471.53	ug/L	471.53	ppb	17:28:15
1	Pb 220.353†	4091.8	3989.5	490.65	ug/L	490.65	ppb	17:28:15
1	S 181.975 Axial†	3788.7	3584.0	4917.1	ug/L	4917.1	ppb	17:28:15
1	Sb 206.836†	1569.0	1468.9	528.59	ug/L	528.59	ppb	17:28:15
1	Se 196.026†	724.3	719.7	488.33	ug/L	488.33	ppb	17:28:15
1	Si 251.611†	197473.5	188762.0	6168.6	ug/L	6168.6	ppb	17:27:55
1	Sn 189.927†	2912.0	2781.9	503.93	ug/L	503.93	ppb	17:28:15
1	Ti 334.940†	330171.2	318065.2	513.35	ug/L	513.35	ppb	17:27:55
1	Tl 190.801†	1587.5	1556.0	486.01	ug/L	486.01	ppb	17:28:15
1	U 409.014†	13485.7	16539.0	517.63	ug/L	517.63	ppb	17:27:55
1	V 292.402†	67491.6	66286.1	501.34	ug/L	501.34	ppb	17:27:55
1	Zn 213.857†	53227.0	50293.5	476.44	ug/L	476.44	ppb	17:27:55
1	SiO2†	194751.2	186151.5	12975	ug/L	12975	ppb	17:29:15
2	Sc Radial	4953.5	4953.5	101	%			17:27:01
2	Y RADIAL	5265.4	5265.4	101.5	%			17:27:01
2	Al 396.153Radial†	5667.7	5796.1	5002.2	ug/L	5002.2	ppb	17:27:01
2	Ca 317.933Radial†	3317.7	3282.3	5144.6	ug/L	5144.6	ppb	17:27:21
2	Fe 238.204 Radial†	599.9	584.8	5342.5	ug/L	5342.5	ppb	17:27:21
2	K 766.490 Radial†	32932.2	29766.8	5185.2	ug/L	5185.2	ppb	17:27:01
2	Mg 279.077 IEC†	164.0	161.8	5320.6	ug/L	5320.6	ppb	17:27:21
2	Na 589.592 Radial†	16636.6	17684.5	5763.3	ug/L	5763.3	ppb	17:27:01
2	Sr 421.552†	80245.8	79738.8	522.64	ug/L	522.64	ppb	17:27:01
2	Sc 361.383	851776.2	851776.2	103.01	%			17:28:22
2	Y 371.029	673304.4	673304.4	100.88	%			17:28:22
2	Ag 328.068†	105213.8	101840.5	495.14	ug/L	495.14	ppb	17:28:22
2	As 188.979†	1133.9	1131.4	492.31	ug/L	492.31	ppb	17:28:42
2	B 249.677†	21230.9	21205.2	502.64	ug/L	502.64	ppb	17:28:22
2	Ba 233.527†	64617.2	62738.3	501.36	ug/L	501.36	ppb	17:28:22
2	Be 313.107†	1353928.0	1318043.4	482.53	ug/L	482.53	ppb	17:28:22
2	Cd 226.502†	42710.8	41678.2	486.37	ug/L	486.37	ppb	17:28:22
2	Co 228.616†	24425.6	23794.8	489.23	ug/L	489.23	ppb	17:28:42
2	Cr 267.716†	42417.1	41110.3	489.17	ug/L	489.17	ppb	17:28:22
2	Cu 324.752†	172916.8	163140.3	501.50	ug/L	501.50	ppb	17:28:22
2	Mn 257.610†	457039.3	443206.9	496.92	ug/L	496.92	ppb	17:28:22
2	Mo 202.031†	6787.3	6577.0	495.95	ug/L	495.95	ppb	17:28:42
2	Ni 231.604†	19909.1	19250.0	493.07	ug/L	493.07	ppb	17:28:42

2	P 214.914†	1289.7	1005.0	493.69 ug/L	493.69 ppb	17:28:42
2	Pb 220.353†	4112.4	4059.3	499.20 ug/L	499.20 ppb	17:28:42
2	S 181.975 Axial†	3789.7	3631.1	4981.8 ug/L	4981.8 ppb	17:28:42
2	Sb 206.836†	1577.3	1496.1	538.40 ug/L	538.40 ppb	17:28:42
2	Se 196.026†	733.9	737.9	501.05 ug/L	501.05 ppb	17:28:42
2	Si 251.611†	194977.8	188745.9	6168.0 ug/L	6168.0 ppb	17:28:22
2	Sn 189.927†	2935.8	2840.5	514.57 ug/L	514.57 ppb	17:28:42
2	Ti 334.940†	326037.6	318076.1	513.37 ug/L	513.37 ppb	17:28:22
2	Tl 190.801†	1582.4	1570.5	490.46 ug/L	490.46 ppb	17:28:42
2	U 409.014†	13217.6	16443.1	514.58 ug/L	514.58 ppb	17:28:22
2	V 292.402†	66697.4	66337.6	501.82 ug/L	501.82 ppb	17:28:22
2	Zn 213.857†	52482.1	50219.1	475.65 ug/L	475.65 ppb	17:28:22
2	SiO2†	195945.3	189684.1	13222 ug/L	13222 ppb	17:29:21
3	Sc Radial	5017.0	5017.0	102 %		17:27:26
3	Y RADIAL	5309.5	5309.5	102.4 %		17:27:26
3	Al 396.153Radial†	5715.9	5772.1	4981.7 ug/L	4981.7 ppb	17:27:26
3	Ca 317.933Radial†	3296.0	3219.3	5045.9 ug/L	5045.9 ppb	17:27:46
3	Fe 238.204 Radial†	590.4	567.9	5188.4 ug/L	5188.4 ppb	17:27:46
3	K 766.490 Radial†	32961.9	29381.7	5118.1 ug/L	5118.1 ppb	17:27:26
3	Mg 279.077 IEC†	160.0	155.8	5125.0 ug/L	5125.0 ppb	17:27:46
3	Na 589.592 Radial†	16673.9	17511.9	5707.1 ug/L	5707.1 ppb	17:27:26
3	Sr 421.552†	80814.3	79287.3	519.68 ug/L	519.68 ppb	17:27:26
3	Sc 361.383	861453.6	861453.6	104.18 %		17:28:50
3	Y 371.029	679855.1	679855.1	101.87 %		17:28:50
3	Ag 328.068†	106331.8	101766.3	494.73 ug/L	494.73 ppb	17:28:50
3	As 188.979†	1132.3	1117.5	486.30 ug/L	486.30 ppb	17:29:10
3	B 249.677†	21525.1	21256.0	503.90 ug/L	503.90 ppb	17:28:50
3	Ba 233.527†	65534.6	62914.1	502.76 ug/L	502.76 ppb	17:28:50
3	Be 313.107†	1369891.4	1318601.1	482.74 ug/L	482.74 ppb	17:28:50
3	Cd 226.502†	43437.5	41909.9	489.09 ug/L	489.09 ppb	17:28:50
3	Co 228.616†	24383.6	23488.1	482.91 ug/L	482.91 ppb	17:29:10
3	Cr 267.716†	42927.4	41137.5	489.49 ug/L	489.49 ppb	17:28:50
3	Cu 324.752†	174890.2	163148.7	501.52 ug/L	501.52 ppb	17:28:50
3	Mn 257.610†	462677.0	443634.2	497.39 ug/L	497.39 ppb	17:28:50
3	Mo 202.031†	6784.5	6500.3	490.16 ug/L	490.16 ppb	17:29:10
3	Ni 231.604†	19919.8	19043.2	487.77 ug/L	487.77 ppb	17:29:10
3	P 214.914†	1282.7	984.1	481.51 ug/L	481.51 ppb	17:29:10
3	Pb 220.353†	4089.8	3992.8	491.04 ug/L	491.04 ppb	17:29:10
3	S 181.975 Axial†	3790.9	3591.0	4926.7 ug/L	4926.7 ppb	17:29:10
3	Sb 206.836†	1561.0	1463.2	526.77 ug/L	526.77 ppb	17:29:10
3	Se 196.026†	735.5	731.4	496.31 ug/L	496.31 ppb	17:29:10
3	Si 251.611†	197557.7	189095.9	6179.5 ug/L	6179.5 ppb	17:28:50
3	Sn 189.927†	2943.1	2815.5	510.02 ug/L	510.02 ppb	17:29:10
3	Ti 334.940†	329701.4	318037.3	513.31 ug/L	513.31 ppb	17:28:50
3	Tl 190.801†	1591.4	1561.8	487.80 ug/L	487.80 ppb	17:29:10
3	U 409.014†	13394.4	16468.6	515.40 ug/L	515.40 ppb	17:28:50
3	V 292.402†	67417.7	66301.6	501.49 ug/L	501.49 ppb	17:28:50
3	Zn 213.857†	53191.4	50327.6	476.74 ug/L	476.74 ppb	17:28:50
3	SiO2†	196039.6	187637.8	13079 ug/L	13079 ppb	17:29:26

Mean Data: 1202030865|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858611.6	103.84	%	0.719				0.69%
Sc Radial	4994.4	101	%	0.7				0.71%
Y 371.029	678415.5	101.65	%	0.684				0.67%
Y RADIAL	5284.5	101.9	%	0.44				0.43%
Ag 328.068†	101797.9	494.89	ug/L	0.221	494.89	ppb	0.221	0.04%
Al 396.153Radial†	5811.4	5015.7	ug/L	42.45	5015.7	ppb	42.45	0.85%
As 188.979†	1120.1	487.42	ug/L	4.437	487.42	ppb	4.437	0.91%
B 249.677†	21220.2	503.04	ug/L	0.746	503.04	ppb	0.746	0.15%
Ba 233.527†	62794.3	501.80	ug/L	0.827	501.80	ppb	0.827	0.16%
Be 313.107†	1318584.1	482.73	ug/L	0.194	482.73	ppb	0.194	0.04%
Ca 317.933Radial†	3224.1	5053.3	ug/L	87.85	5053.3	ppb	87.85	1.74%
Cd 226.502†	41773.3	487.49	ug/L	1.420	487.49	ppb	1.420	0.29%
Co 228.616†	23559.1	484.37	ug/L	4.316	484.37	ppb	4.316	0.89%
Cr 267.716†	41107.2	489.13	ug/L	0.382	489.13	ppb	0.382	0.08%
Cu 324.752†	163227.4	501.76	ug/L	0.435	501.76	ppb	0.435	0.09%
Fe 238.204 Radial†	570.0	5207.6	ug/L	126.39	5207.6	ppb	126.39	2.43%
K 766.490 Radial†	29668.0	5168.0	ug/L	43.91	5168.0	ppb	43.91	0.85%

Mg 279.077 IEC†	156.4	5146.1 ug/L	165.03	5146.1 ppb	165.03	3.21%
Mn 257.610†	443178.4	496.88 ug/L	0.530	496.88 ppb	0.530	0.11%
Mo 202.031†	6509.7	490.86 ug/L	4.770	490.86 ppb	4.770	0.97%
Na 589.592 Radial†	17662.4	5756.1 ug/L	45.86	5756.1 ppb	45.86	0.80%
Ni 231.604†	19080.2	488.72 ug/L	3.961	488.72 ppb	3.961	0.81%
P 214.914†	985.5	482.24 ug/L	11.101	482.24 ppb	11.101	2.30%
Pb 220.353†	4013.9	493.63 ug/L	4.828	493.63 ppb	4.828	0.98%
S 181.975 Axial†	3602.0	4941.8 ug/L	34.91	4941.8 ppb	34.91	0.71%
Sb 206.836†	1476.1	531.25 ug/L	6.255	531.25 ppb	6.255	1.18%
Se 196.026†	729.6	495.23 ug/L	6.426	495.23 ppb	6.426	1.30%
Si 251.611†	188867.9	6172.0 ug/L	6.47	6172.0 ppb	6.47	0.10%
Sn 189.927†	2812.6	509.51 ug/L	5.338	509.51 ppb	5.338	1.05%
Sr 421.552†	79875.5	523.54 ug/L	4.373	523.54 ppb	4.373	0.84%
Ti 334.940†	318059.5	513.34 ug/L	0.031	513.34 ppb	0.031	0.01%
Tl 190.801†	1562.8	488.09 ug/L	2.239	488.09 ppb	2.239	0.46%
U 409.014†	16483.6	515.87 ug/L	1.574	515.87 ppb	1.574	0.31%
V 292.402†	66308.4	501.55 ug/L	0.246	501.55 ppb	0.246	0.05%
Zn 213.857†	50280.1	476.28 ug/L	0.566	476.28 ppb	0.566	0.12%
SiO2†	187824.4	13092 ug/L	123.6	13092 ppb	123.6	0.94%

Sequence No.: 32
Sample ID: 1202030866|948038|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 54
Date Collected: 2/12/2010 17:31:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202030866|948038|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5040.5	5040.5	102	%			17:33:29
1	Y RADIAL	5339.6	5339.6	103.0	%			17:33:29
1	Al 396.153Radial†	-157.3	9.6	8.2548	ug/L	8.2548	ppb	17:33:29
1	Ca 317.933Radial†	23.7	8.2	12.839	ug/L	12.839	ppb	17:33:49
1	Fe 238.204 Radial†	11.8	0.1	0.7976	ug/L	0.7976	ppb	17:33:49
1	K 766.490 Radial†	3124.1	88.4	15.340	ug/L	15.340	ppb	17:33:29
1	Mg 279.077 IEC†	2.3	1.1	35.574	ug/L	35.574	ppb	17:33:49
1	Na 589.592 Radial†	-697.3	469.2	152.91	ug/L	152.91	ppb	17:33:29
1	Sr 421.552†	17.4	3.3	0.0218	ug/L	0.0218	ppb	17:33:29
1	Sc 361.383	839319.2	839319.2	101.51	%			17:34:46
1	Y 371.029	670108.6	670108.6	100.40	%			17:34:46
1	Ag 328.068†	284.7	-16.6	-0.0942	ug/L	-0.0942	ppb	17:34:46
1	As 188.979†	-22.7	8.3	3.5838	ug/L	3.5838	ppb	17:35:06
1	B 249.677†	-341.8	258.3	6.1491	ug/L	6.1491	ppb	17:35:06
1	Ba 233.527†	-2.5	7.8	0.0633	ug/L	0.0633	ppb	17:35:06
1	Be 313.107†	-3879.4	-121.6	-0.0439	ug/L	-0.0439	ppb	17:34:46
1	Cd 226.502†	-187.0	31.8	0.3755	ug/L	0.3755	ppb	17:35:06
1	Co 228.616†	-79.2	5.3	0.1113	ug/L	0.1113	ppb	17:35:06
1	Cr 267.716†	96.9	28.8	0.3355	ug/L	0.3355	ppb	17:35:06
1	Cu 324.752†	4807.0	14.8	0.0346	ug/L	0.0346	ppb	17:34:46
1	Mn 257.610†	631.0	151.7	0.1686	ug/L	0.1686	ppb	17:35:06
1	Mo 202.031†	23.3	11.1	0.8397	ug/L	0.8397	ppb	17:35:06
1	Ni 231.604†	79.6	1.4	0.0350	ug/L	0.0350	ppb	17:35:06
1	P 214.914†	248.2	-2.5	-1.4977	ug/L	-1.4977	ppb	17:35:06
1	Pb 220.353†	-61.4	6.7	0.8267	ug/L	0.8267	ppb	17:35:06
1	S 181.975 Axial†	46.0	-2.4	-3.3243	ug/L	-3.3243	ppb	17:35:06
1	Sb 206.836†	46.0	10.2	3.5883	ug/L	3.5883	ppb	17:35:06
1	Se 196.026†	-23.6	2.1	1.3848	ug/L	1.3848	ppb	17:35:06
1	Si 251.611†	8815.7	8153.6	266.70	ug/L	266.70	ppb	17:34:46
1	Sn 189.927†	14.9	5.2	0.9360	ug/L	0.9360	ppb	17:35:06
1	Ti 334.940†	-1445.1	147.3	0.2277	ug/L	0.2277	ppb	17:34:46
1	Tl 190.801†	-31.2	3.5	1.0987	ug/L	1.0987	ppb	17:35:06
1	U 409.014†	-3022.0	634.7	19.928	ug/L	19.928	ppb	17:34:46
1	V 292.402†	-1536.1	76.8	0.6237	ug/L	0.6237	ppb	17:34:46
1	Zn 213.857†	769.6	29.6	0.2825	ug/L	0.2825	ppb	17:35:06
1	SiO2†	8858.2	8194.4	571.74	ug/L	571.74	ppb	17:36:02
2	Sc Radial	5005.4	5005.4	102	%			17:33:54
2	Y RADIAL	5281.8	5281.8	101.8	%			17:33:54
2	Al 396.153Radial†	-170.9	-4.9	-4.2845	ug/L	-4.2845	ppb	17:33:54
2	Ca 317.933Radial†	28.2	12.7	19.970	ug/L	19.970	ppb	17:34:14
2	Fe 238.204 Radial†	10.5	-1.1	-9.9294	ug/L	-9.9294	ppb	17:34:14
2	K 766.490 Radial†	3009.0	-3.4	-0.6609	ug/L	-0.6609	ppb	17:33:54
2	Mg 279.077 IEC†	3.4	2.1	69.963	ug/L	69.963	ppb	17:34:14
2	Na 589.592 Radial†	-709.9	452.0	147.31	ug/L	147.31	ppb	17:33:54
2	Sr 421.552†	13.8	-0.1	-0.0008	ug/L	-0.0008	ppb	17:33:54
2	Sc 361.383	833172.1	833172.1	100.76	%			17:35:11
2	Y 371.029	665169.1	665169.1	99.665	%			17:35:11
2	Ag 328.068†	204.2	-94.4	-0.4675	ug/L	-0.4675	ppb	17:35:11
2	As 188.979†	-34.0	-3.0	-1.3173	ug/L	-1.3173	ppb	17:35:31
2	B 249.677†	-328.2	269.3	6.4149	ug/L	6.4149	ppb	17:35:31
2	Ba 233.527†	-12.4	-2.0	-0.0146	ug/L	-0.0146	ppb	17:35:31
2	Be 313.107†	-3757.2	-28.5	-0.0097	ug/L	-0.0097	ppb	17:35:11
2	Cd 226.502†	-195.6	21.9	0.2594	ug/L	0.2594	ppb	17:35:31
2	Co 228.616†	-84.0	0.0	0.0021	ug/L	0.0021	ppb	17:35:31
2	Cr 267.716†	76.6	9.4	0.1075	ug/L	0.1075	ppb	17:35:31
2	Cu 324.752†	4767.4	10.4	0.0242	ug/L	0.0242	ppb	17:35:11
2	Mn 257.610†	624.2	149.6	0.1638	ug/L	0.1638	ppb	17:35:31
2	Mo 202.031†	26.7	14.6	1.1019	ug/L	1.1019	ppb	17:35:31
2	Ni 231.604†	71.7	-5.8	-0.1499	ug/L	-0.1499	ppb	17:35:31

2	P 214.914†	238.2	-10.6	-6.2651 ug/L	-6.2651 ppb	17:35:31
2	Pb 220.353†	-78.5	-10.7	-1.3097 ug/L	-1.3097 ppb	17:35:31
2	S 181.975 Axial†	52.6	4.4	6.1071 ug/L	6.1071 ppb	17:35:31
2	Sb 206.836†	36.4	1.0	0.3902 ug/L	0.3902 ppb	17:35:31
2	Se 196.026†	-23.7	1.8	1.1788 ug/L	1.1788 ppb	17:35:31
2	Si 251.611†	8792.2	8194.4	268.03 ug/L	268.03 ppb	17:35:11
2	Sn 189.927†	10.1	0.5	0.1006 ug/L	0.1006 ppb	17:35:31
2	Ti 334.940†	-1402.4	179.1	0.2803 ug/L	0.2803 ppb	17:35:11
2	Tl 190.801†	-37.9	-3.3	-1.0297 ug/L	-1.0297 ppb	17:35:31
2	U 409.014†	-3212.6	423.6	13.301 ug/L	13.301 ppb	17:35:11
2	V 292.402†	-1500.7	100.8	0.7962 ug/L	0.7962 ppb	17:35:11
2	Zn 213.857†	773.8	39.3	0.3784 ug/L	0.3784 ppb	17:35:31
2	SiO2†	8688.3	8090.3	564.46 ug/L	564.46 ppb	17:36:07
3	Sc Radial	4939.4	4939.4	100 %		17:34:19
3	Y RADIAL	5238.5	5238.5	101.0 %		17:34:19
3	Al 396.153Radial†	-140.2	23.5	20.400 ug/L	20.400 ppb	17:34:19
3	Ca 317.933Radial†	26.7	11.7	18.267 ug/L	18.267 ppb	17:34:39
3	Fe 238.204 Radial†	7.6	-3.9	-35.191 ug/L	-35.191 ppb	17:34:39
3	K 766.490 Radial†	3054.1	81.0	14.049 ug/L	14.049 ppb	17:34:19
3	Mg 279.077 IEC†	1.9	0.7	22.696 ug/L	22.696 ppb	17:34:39
3	Na 589.592 Radial†	-664.8	487.6	158.92 ug/L	158.92 ppb	17:34:19
3	Sr 421.552†	17.4	3.6	0.0237 ug/L	0.0237 ppb	17:34:19
3	Sc 361.383	847207.6	847207.6	102.46 %		17:35:36
3	Y 371.029	675424.3	675424.3	101.20 %		17:35:36
3	Ag 328.068†	175.0	-126.3	-0.6284 ug/L	-0.6284 ppb	17:35:36
3	As 188.979†	-18.9	12.2	5.2572 ug/L	5.2572 ppb	17:35:56
3	B 249.677†	-317.9	284.7	6.7856 ug/L	6.7856 ppb	17:35:56
3	Ba 233.527†	0.3	10.6	0.0859 ug/L	0.0859 ppb	17:35:56
3	Be 313.107†	-3936.5	-141.7	-0.0513 ug/L	-0.0513 ppb	17:35:36
3	Cd 226.502†	-182.0	38.4	0.4548 ug/L	0.4548 ppb	17:35:56
3	Co 228.616†	-94.3	-8.7	-0.1784 ug/L	-0.1784 ppb	17:35:56
3	Cr 267.716†	77.2	8.7	0.0993 ug/L	0.0993 ppb	17:35:56
3	Cu 324.752†	4783.9	-51.8	-0.1685 ug/L	-0.1685 ppb	17:35:36
3	Mn 257.610†	626.3	141.4	0.1540 ug/L	0.1540 ppb	17:35:56
3	Mo 202.031†	11.7	-0.5	-0.0387 ug/L	-0.0387 ppb	17:35:56
3	Ni 231.604†	65.9	-12.7	-0.3258 ug/L	-0.3258 ppb	17:35:56
3	P 214.914†	249.0	-4.0	-2.2770 ug/L	-2.2770 ppb	17:35:56
3	Pb 220.353†	-60.6	8.0	0.9890 ug/L	0.9890 ppb	17:35:56
3	S 181.975 Axial†	44.6	-4.2	-5.7758 ug/L	-5.7758 ppb	17:35:56
3	Sb 206.836†	40.8	4.7	1.6186 ug/L	1.6186 ppb	17:35:56
3	Se 196.026†	-23.6	2.4	1.4406 ug/L	1.4406 ppb	17:35:56
3	Si 251.611†	8864.9	8120.8	265.64 ug/L	265.64 ppb	17:35:36
3	Sn 189.927†	8.9	-0.8	-0.1336 ug/L	-0.1336 ppb	17:35:56
3	Ti 334.940†	-1484.7	121.9	0.1914 ug/L	0.1914 ppb	17:35:36
3	Tl 190.801†	-30.1	5.0	1.5412 ug/L	1.5412 ppb	17:35:56
3	U 409.014†	-3265.2	425.1	13.351 ug/L	13.351 ppb	17:35:36
3	V 292.402†	-1467.4	158.0	1.2098 ug/L	1.2098 ppb	17:35:36
3	Zn 213.857†	762.8	15.9	0.1597 ug/L	0.1597 ppb	17:35:56
3	SiO2†	8864.2	8119.0	566.50 ug/L	566.50 ppb	17:36:12

Mean Data: 1202030866|948038|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	839899.6	101.58	%	0.851				0.84%
Sc Radial	4995.1	101	%	1.0				1.03%
Y 371.029	670234.0	100.42	%	0.768				0.77%
Y RADIAL	5286.6	101.9	%	0.98				0.96%
Ag 328.068†	-79.1	-0.3967	ug/L	0.27405	-0.3967	ppb	0.27405	69.08%
Al 396.153Radial†	9.4	8.1234	ug/L	12.34280	8.1234	ppb	12.34280	151.94%
As 188.979†	5.8	2.5079	ug/L	3.41675	2.5079	ppb	3.41675	136.24%
B 249.677†	270.8	6.4498	ug/L	0.31969	6.4498	ppb	0.31969	4.96%
Ba 233.527†	5.5	0.0449	ug/L	0.05270	0.0449	ppb	0.05270	117.44%
Be 313.107†	-97.3	-0.0350	ug/L	0.02217	-0.0350	ppb	0.02217	63.38%
Ca 317.933Radial†	10.9	17.026	ug/L	3.7240	17.026	ppb	3.7240	21.87%
Cd 226.502†	30.7	0.3632	ug/L	0.09827	0.3632	ppb	0.09827	27.05%
Co 228.616†	-1.1	-0.0217	ug/L	0.14631	-0.0217	ppb	0.14631	674.91%
Cr 267.716†	15.7	0.1808	ug/L	0.13406	0.1808	ppb	0.13406	74.16%
Cu 324.752†	-8.8	-0.0366	ug/L	0.11440	-0.0366	ppb	0.11440	312.85%
Fe 238.204 Radial†	-1.6	-14.774	ug/L	18.4769	-14.774	ppb	18.4769	125.06%
K 766.490 Radial†	55.3	9.5762	ug/L	8.88906	9.5762	ppb	8.88906	92.82%

Mg 279.077 IEC†	1.3	42.744	ug/L	24.4356	42.744	ppb	24.4356	57.17%
Mn 257.610†	147.6	0.1621	ug/L	0.00745	0.1621	ppb	0.00745	4.59%
Mo 202.031†	8.4	0.6343	ug/L	0.59739	0.6343	ppb	0.59739	94.18%
Na 589.592 Radial†	469.6	153.05	ug/L	5.805	153.05	ppb	5.805	3.79%
Ni 231.604†	-5.7	-0.1469	ug/L	0.18042	-0.1469	ppb	0.18042	122.82%
P 214.914†	-5.7	-3.3466	ug/L	2.55738	-3.3466	ppb	2.55738	76.42%
Pb 220.353†	1.3	0.1686	ug/L	1.28288	0.1686	ppb	1.28288	760.76%
S 181.975 Axial†	-0.7	-0.9977	ug/L	6.27380	-0.9977	ppb	6.27380	628.84%
Sb 206.836†	5.3	1.8657	ug/L	1.61328	1.8657	ppb	1.61328	86.47%
Se 196.026†	2.1	1.3348	ug/L	0.13792	1.3348	ppb	0.13792	10.33%
Si 251.611†	8156.3	266.79	ug/L	1.200	266.79	ppb	1.200	0.45%
Sn 189.927†	1.7	0.3010	ug/L	0.56228	0.3010	ppb	0.56228	186.80%
Sr 421.552†	2.3	0.0149	ug/L	0.01365	0.0149	ppb	0.01365	91.73%
Ti 334.940†	149.4	0.2331	ug/L	0.04467	0.2331	ppb	0.04467	19.16%
Tl 190.801†	1.7	0.5367	ug/L	1.37452	0.5367	ppb	1.37452	256.09%
U 409.014†	494.5	15.527	ug/L	3.8120	15.527	ppb	3.8120	24.55%
V 292.402†	111.9	0.8766	ug/L	0.30121	0.8766	ppb	0.30121	34.36%
Zn 213.857†	28.3	0.2735	ug/L	0.10960	0.2735	ppb	0.10960	40.07%
SiO2†	8134.6	567.57	ug/L	3.754	567.57	ppb	3.754	0.66%

Sequence No.: 33
Sample ID: 245690002|948038|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 55
Date Collected: 2/12/2010 17:38:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245690002|948038|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4967.7	4967.7	101	%			17:40:15
1	Y RADIAL	5268.4	5268.4	101.6	%			17:40:15
1	Al 396.153Radial†	-23.6	139.9	121.23	ug/L	121.23	ppb	17:40:15
1	Ca 317.933Radial†	74.6	59.0	92.508	ug/L	92.508	ppb	17:40:35
1	Fe 238.204 Radial†	18.6	7.0	63.727	ug/L	63.727	ppb	17:40:35
1	K 766.490 Radial†	4125.1	1125.1	196.04	ug/L	196.04	ppb	17:40:15
1	Mg 279.077 IEC†	4.8	3.5	116.35	ug/L	116.35	ppb	17:40:35
1	Na 589.592 Radial†	-372.3	781.3	254.62	ug/L	254.62	ppb	17:40:15
1	Sr 421.552†	83.5	69.1	0.4519	ug/L	0.4519	ppb	17:40:15
1	Sc 361.383	846522.9	846522.9	102.38	%			17:41:32
1	Y 371.029	675329.1	675329.1	101.19	%			17:41:32
1	Ag 328.068†	190.5	-111.1	-0.5281	ug/L	-0.5281	ppb	17:41:32
1	As 188.979†	-25.5	5.7	2.5087	ug/L	2.5087	ppb	17:41:52
1	B 249.677†	226.0	815.7	19.413	ug/L	19.413	ppb	17:41:32
1	Ba 233.527†	230.9	235.8	1.8840	ug/L	1.8840	ppb	17:41:52
1	Be 313.107†	-3761.7	26.0	0.0172	ug/L	0.0172	ppb	17:41:32
1	Cd 226.502†	-192.5	28.0	0.3251	ug/L	0.3251	ppb	17:41:52
1	Co 228.616†	-83.8	1.5	0.0261	ug/L	0.0261	ppb	17:41:52
1	Cr 267.716†	175.5	104.8	1.2408	ug/L	1.2408	ppb	17:41:52
1	Cu 324.752†	5068.2	229.6	0.6981	ug/L	0.6981	ppb	17:41:32
1	Mn 257.610†	5521.8	4923.7	5.5185	ug/L	5.5185	ppb	17:41:32
1	Mo 202.031†	25.3	12.9	0.9773	ug/L	0.9773	ppb	17:41:52
1	Ni 231.604†	111.5	31.9	0.8183	ug/L	0.8183	ppb	17:41:52
1	P 214.914†	265.1	11.9	6.8713	ug/L	6.8713	ppb	17:41:52
1	Pb 220.353†	-64.4	4.3	0.5476	ug/L	0.5476	ppb	17:41:52
1	S 181.975 Axial†	79.4	29.7	40.790	ug/L	40.790	ppb	17:41:52
1	Sb 206.836†	44.0	7.8	2.7415	ug/L	2.7415	ppb	17:41:52
1	Se 196.026†	-18.2	7.6	5.1744	ug/L	5.1744	ppb	17:41:52
1	Si 251.611†	50307.2	48608.1	1590.0	ug/L	1590.0	ppb	17:41:32
1	Sn 189.927†	13.0	3.2	0.5911	ug/L	0.5911	ppb	17:41:52
1	Ti 334.940†	542.7	2101.0	3.3856	ug/L	3.3856	ppb	17:41:32
1	Tl 190.801†	-45.9	-10.5	-3.2108	ug/L	-3.2108	ppb	17:41:52
1	U 409.014†	-3043.8	638.8	20.046	ug/L	20.046	ppb	17:41:32
1	V 292.402†	-1472.3	152.0	1.1759	ug/L	1.1759	ppb	17:41:32
1	Zn 213.857†	1033.1	280.5	2.6670	ug/L	2.6670	ppb	17:41:52
1	SiO2†	49807.5	48118.9	3357.4	ug/L	3357.4	ppb	17:42:48
2	Sc Radial	5013.0	5013.0	102	%			17:40:40
2	Y RADIAL	5281.1	5281.1	101.8	%			17:40:40
2	Al 396.153Radial†	-28.5	135.3	117.26	ug/L	117.26	ppb	17:40:40
2	Ca 317.933Radial†	73.1	56.8	89.048	ug/L	89.048	ppb	17:41:00
2	Fe 238.204 Radial†	20.5	8.7	79.305	ug/L	79.305	ppb	17:41:00
2	K 766.490 Radial†	4214.8	1176.3	204.95	ug/L	204.95	ppb	17:40:40
2	Mg 279.077 IEC†	0.6	-0.6	-18.646	ug/L	-18.646	ppb	17:41:00
2	Na 589.592 Radial†	-321.2	834.8	272.06	ug/L	272.06	ppb	17:40:40
2	Sr 421.552†	108.2	92.6	0.6061	ug/L	0.6061	ppb	17:40:40
2	Sc 361.383	849606.0	849606.0	102.75	%			17:41:57
2	Y 371.029	677940.5	677940.5	101.58	%			17:41:57
2	Ag 328.068†	224.0	-79.1	-0.3639	ug/L	-0.3639	ppb	17:41:57
2	As 188.979†	-26.1	5.2	2.2989	ug/L	2.2989	ppb	17:42:17
2	B 249.677†	123.2	715.0	17.010	ug/L	17.010	ppb	17:41:57
2	Ba 233.527†	244.1	247.8	1.9793	ug/L	1.9793	ppb	17:42:17
2	Be 313.107†	-3879.9	-75.7	-0.0200	ug/L	-0.0200	ppb	17:41:57
2	Cd 226.502†	-201.2	20.2	0.2310	ug/L	0.2310	ppb	17:42:17
2	Co 228.616†	-75.1	10.3	0.2057	ug/L	0.2057	ppb	17:42:17
2	Cr 267.716†	203.1	131.1	1.5551	ug/L	1.5551	ppb	17:42:17
2	Cu 324.752†	5029.3	173.8	0.5315	ug/L	0.5315	ppb	17:41:57
2	Mn 257.610†	5572.2	4953.2	5.5587	ug/L	5.5587	ppb	17:41:57
2	Mo 202.031†	23.4	11.0	0.8325	ug/L	0.8325	ppb	17:42:17
2	Ni 231.604†	128.5	48.0	1.2313	ug/L	1.2313	ppb	17:42:17

2	P 214.914†	267.8	13.6	7.8771	ug/L	7.8771 ppb	17:42:17
2	Pb 220.353†	-53.5	15.1	1.8717	ug/L	1.8717 ppb	17:42:17
2	S 181.975 Axial†	76.5	26.7	36.627	ug/L	36.627 ppb	17:42:17
2	Sb 206.836†	39.3	3.1	1.1280	ug/L	1.1280 ppb	17:42:17
2	Se 196.026†	-16.0	9.9	6.7054	ug/L	6.7054 ppb	17:42:17
2	Si 251.611†	50541.6	48657.9	1591.6	ug/L	1591.6 ppb	17:41:57
2	Sn 189.927†	21.7	11.6	2.1111	ug/L	2.1111 ppb	17:42:17
2	Ti 334.940†	542.4	2098.8	3.3959	ug/L	3.3959 ppb	17:41:57
2	Tl 190.801†	-42.1	-6.7	-2.0216	ug/L	-2.0216 ppb	17:42:17
2	U 409.014†	-3301.6	398.7	12.507	ug/L	12.507 ppb	17:41:57
2	V 292.402†	-1539.4	91.9	0.7059	ug/L	0.7059 ppb	17:41:57
2	Zn 213.857†	1039.2	282.8	2.6841	ug/L	2.6841 ppb	17:42:17
2	SiO2†	50506.8	48623.0	3392.6	ug/L	3392.6 ppb	17:42:53
3	Sc Radial	5014.0	5014.0	102	%		17:41:05
3	Y RADIAL	5320.7	5320.7	102.6	%		17:41:05
3	Al 396.153Radial†	-29.8	134.0	116.19	ug/L	116.19 ppb	17:41:05
3	Ca 317.933Radial†	73.2	56.9	89.198	ug/L	89.198 ppb	17:41:25
3	Fe 238.204 Radial†	21.0	9.2	83.585	ug/L	83.585 ppb	17:41:25
3	K 766.490 Radial†	4162.6	1124.2	195.86	ug/L	195.86 ppb	17:41:05
3	Mg 279.077 IEC†	3.6	2.3	75.285	ug/L	75.285 ppb	17:41:25
3	Na 589.592 Radial†	-300.4	855.3	278.73	ug/L	278.73 ppb	17:41:05
3	Sr 421.552†	83.6	68.4	0.4479	ug/L	0.4479 ppb	17:41:05
3	Sc 361.383	847884.1	847884.1	102.54	%		17:42:23
3	Y 371.029	676002.2	676002.2	101.29	%		17:42:23
3	Ag 328.068†	276.4	-27.6	-0.1185	ug/L	-0.1185 ppb	17:42:23
3	As 188.979†	-27.8	3.6	1.5916	ug/L	1.5916 ppb	17:42:43
3	B 249.677†	230.5	819.8	19.505	ug/L	19.505 ppb	17:42:23
3	Ba 233.527†	219.0	223.8	1.7876	ug/L	1.7876 ppb	17:42:43
3	Be 313.107†	-3832.4	-37.1	-0.0058	ug/L	-0.0058 ppb	17:42:23
3	Cd 226.502†	-214.6	6.8	0.0749	ug/L	0.0749 ppb	17:42:43
3	Co 228.616†	-70.8	14.3	0.2878	ug/L	0.2878 ppb	17:42:43
3	Cr 267.716†	213.7	141.8	1.6801	ug/L	1.6801 ppb	17:42:43
3	Cu 324.752†	4952.4	108.8	0.3294	ug/L	0.3294 ppb	17:42:23
3	Mn 257.610†	5488.6	4882.8	5.4763	ug/L	5.4763 ppb	17:42:23
3	Mo 202.031†	19.5	7.2	0.5485	ug/L	0.5485 ppb	17:42:43
3	Ni 231.604†	118.0	38.1	0.9752	ug/L	0.9752 ppb	17:42:43
3	P 214.914†	256.0	2.7	1.4662	ug/L	1.4662 ppb	17:42:43
3	Pb 220.353†	-55.9	12.6	1.5699	ug/L	1.5699 ppb	17:42:43
3	S 181.975 Axial†	75.9	26.3	36.018	ug/L	36.018 ppb	17:42:43
3	Sb 206.836†	39.0	2.9	1.0127	ug/L	1.0127 ppb	17:42:43
3	Se 196.026†	-33.5	-7.3	-4.4781	ug/L	-4.4781 ppb	17:42:43
3	Si 251.611†	50462.4	48680.6	1592.4	ug/L	1592.4 ppb	17:42:23
3	Sn 189.927†	12.1	2.3	0.4355	ug/L	0.4355 ppb	17:42:43
3	Ti 334.940†	562.6	2119.6	3.4196	ug/L	3.4196 ppb	17:42:23
3	Tl 190.801†	-36.7	-1.5	-0.4112	ug/L	-0.4112 ppb	17:42:43
3	U 409.014†	-3144.9	545.0	17.099	ug/L	17.099 ppb	17:42:23
3	V 292.402†	-1570.0	59.1	0.4668	ug/L	0.4668 ppb	17:42:23
3	Zn 213.857†	1032.0	277.8	2.6378	ug/L	2.6378 ppb	17:42:43
3	SiO2†	51029.7	49232.8	3435.2	ug/L	3435.2 ppb	17:42:58

Mean Data: 245690002|948038|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	848004.4	102.56	%	0.187				0.18%
Sc Radial	4998.2	102	%	0.5				0.53%
Y 371.029	676423.9	101.35	%	0.203				0.20%
Y RADIAL	5290.1	102.0	%	0.53				0.52%
Ag 328.068†	-72.6	-0.3368	ug/L	0.20612	-0.3368	ppb	0.20612	61.20%
Al 396.153Radial†	136.4	118.23	ug/L	2.655	118.23	ppb	2.655	2.25%
As 188.979†	4.8	2.1331	ug/L	0.48052	2.1331	ppb	0.48052	22.53%
B 249.677†	783.5	18.643	ug/L	1.4146	18.643	ppb	1.4146	7.59%
Ba 233.527†	235.8	1.8837	ug/L	0.09585	1.8837	ppb	0.09585	5.09%
Be 313.107†	-28.9	-0.0028	ug/L	0.01874	-0.0028	ppb	0.01874	658.24%
Ca 317.933Radial†	57.6	90.252	ug/L	1.9558	90.252	ppb	1.9558	2.17%
Cd 226.502†	18.4	0.2103	ug/L	0.12633	0.2103	ppb	0.12633	60.06%
Co 228.616†	8.7	0.1732	ug/L	0.13386	0.1732	ppb	0.13386	77.30%
Cr 267.716†	125.9	1.4920	ug/L	0.22635	1.4920	ppb	0.22635	15.17%
Cu 324.752†	170.7	0.5196	ug/L	0.18464	0.5196	ppb	0.18464	35.53%
Fe 238.204 Radial†	8.3	75.539	ug/L	10.4512	75.539	ppb	10.4512	13.84%
K 766.490 Radial†	1141.9	198.95	ug/L	5.198	198.95	ppb	5.198	2.61%

Mg 279.077 IEC†	1.8	57.663 ug/L	69.2020	57.663 ppb	69.2020	120.01%
Mn 257.610†	4919.9	5.5178 ug/L	0.04120	5.5178 ppb	0.04120	0.75%
Mo 202.031†	10.3	0.7861 ug/L	0.21812	0.7861 ppb	0.21812	27.75%
Na 589.592 Radial†	823.8	268.47 ug/L	12.449	268.47 ppb	12.449	4.64%
Ni 231.604†	39.3	1.0083 ug/L	0.20852	1.0083 ppb	0.20852	20.68%
P 214.914†	9.4	5.4048 ug/L	3.44788	5.4048 ppb	3.44788	63.79%
Pb 220.353†	10.7	1.3297 ug/L	0.69393	1.3297 ppb	0.69393	52.19%
S 181.975 Axial†	27.6	37.812 ug/L	2.5976	37.812 ppb	2.5976	6.87%
Sb 206.836†	4.6	1.6274 ug/L	0.96654	1.6274 ppb	0.96654	59.39%
Se 196.026†	3.4	2.4672 ug/L	6.06336	2.4672 ppb	6.06336	245.76%
Si 251.611†	48648.9	1591.3 ug/L	1.22	1591.3 ppb	1.22	0.08%
Sn 189.927†	5.7	1.0459 ug/L	0.92578	1.0459 ppb	0.92578	88.51%
Sr 421.552†	76.7	0.5020 ug/L	0.09019	0.5020 ppb	0.09019	17.97%
Ti 334.940†	2106.5	3.4003 ug/L	0.01742	3.4003 ppb	0.01742	0.51%
Tl 190.801†	-6.2	-1.8812 ug/L	1.40510	-1.8812 ppb	1.40510	74.69%
U 409.014†	527.5	16.550 ug/L	3.7993	16.550 ppb	3.7993	22.96%
V 292.402†	101.0	0.7829 ug/L	0.36080	0.7829 ppb	0.36080	46.09%
Zn 213.857†	280.4	2.6630 ug/L	0.02340	2.6630 ppb	0.02340	0.88%
SiO2†	48658.2	3395.1 ug/L	38.92	3395.1 ppb	38.92	1.15%

Sequence No.: 36
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/12/2010 17:59:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5014.0	5014.0	102	%			18:01:02
1	Y RADIAL	5343.3	5343.3	103.0	%			18:01:02
1	Al 396.153Radial†	5623.5	5684.8	4906.8	ug/L	4906.8	ppb	18:01:02
1	Ca 317.933Radial†	3182.9	3110.3	4875.0	ug/L	4875.0	ppb	18:01:22
1	Fe 238.204 Radial†	574.9	553.0	5053.2	ug/L	5053.2	ppb	18:01:22
1	K 766.490 Radial†	31424.9	27892.4	4856.5	ug/L	4856.5	ppb	18:01:02
1	Mg 279.077 IEC†	152.7	148.7	4891.2	ug/L	4891.2	ppb	18:01:22
1	Na 589.592 Radial†	33372.7	33918.1	11054	ug/L	11054	ppb	18:01:02
1	Sr 421.552†	80007.8	78544.1	514.81	ug/L	514.81	ppb	18:01:02
1	Sc 361.383	853394.9	853394.9	103.21	%			18:02:20
1	Y 371.029	672941.0	672941.0	100.83	%			18:02:20
1	Ag 328.068†	103325.4	99817.1	485.22	ug/L	485.22	ppb	18:02:25
1	As 188.979†	1095.0	1091.6	474.91	ug/L	474.91	ppb	18:02:45
1	B 249.677†	20313.7	20277.4	480.62	ug/L	480.62	ppb	18:02:25
1	Ba 233.527†	62401.0	60472.0	483.25	ug/L	483.25	ppb	18:02:25
1	Be 313.107†	1333841.6	1296088.3	474.45	ug/L	474.45	ppb	18:02:20
1	Cd 226.502†	41768.8	40686.8	474.82	ug/L	474.82	ppb	18:02:25
1	Co 228.616†	24226.3	23556.7	484.34	ug/L	484.34	ppb	18:02:25
1	Cr 267.716†	41505.8	40149.2	477.73	ug/L	477.73	ppb	18:02:25
1	Cu 324.752†	168041.8	158098.4	485.99	ug/L	485.99	ppb	18:02:25
1	Mn 257.610†	446643.5	432292.7	484.68	ug/L	484.68	ppb	18:02:20
1	Mo 202.031†	6513.5	6299.2	474.99	ug/L	474.99	ppb	18:02:45
1	Ni 231.604†	19222.3	18547.9	475.08	ug/L	475.08	ppb	18:02:25
1	P 214.914†	4407.2	4023.2	2273.1	ug/L	2273.1	ppb	18:02:45
1	Pb 220.353†	3895.8	3841.9	472.50	ug/L	472.50	ppb	18:02:45
1	S 181.975 Axial†	763.0	691.5	948.04	ug/L	948.04	ppb	18:02:45
1	Sb 206.836†	1470.0	1389.2	500.12	ug/L	500.12	ppb	18:02:45
1	Se 196.026†	729.5	732.2	496.34	ug/L	496.34	ppb	18:02:45
1	Si 251.611†	76608.3	73696.1	2404.8	ug/L	2404.8	ppb	18:02:25
1	Sn 189.927†	2675.3	2582.7	467.90	ug/L	467.90	ppb	18:02:45
1	Ti 334.940†	308409.5	300395.6	484.83	ug/L	484.83	ppb	18:02:25
1	Tl 190.801†	1568.6	1554.2	485.15	ug/L	485.15	ppb	18:02:45
1	U 409.014†	12948.2	16157.7	505.68	ug/L	505.68	ppb	18:02:25
1	V 292.402†	64609.6	64191.8	485.56	ug/L	485.56	ppb	18:02:25
1	Zn 213.857†	52244.3	49892.1	472.70	ug/L	472.70	ppb	18:02:25
1	SiO2†	77075.2	74147.5	5160.7	ug/L	5160.7	ppb	18:03:52
2	Sc Radial	4925.1	4925.1	100	%			18:01:27
2	Y RADIAL	5183.4	5183.4	99.94	%			18:01:27
2	Al 396.153Radial†	5506.5	5667.6	4891.6	ug/L	4891.6	ppb	18:01:27
2	Ca 317.933Radial†	3175.6	3159.4	4951.9	ug/L	4951.9	ppb	18:01:48
2	Fe 238.204 Radial†	568.4	556.8	5087.2	ug/L	5087.2	ppb	18:01:48
2	K 766.490 Radial†	30757.7	27782.3	4837.3	ug/L	4837.3	ppb	18:01:27
2	Mg 279.077 IEC†	155.0	153.7	5056.7	ug/L	5056.7	ppb	18:01:48
2	Na 589.592 Radial†	32590.9	33728.0	10992	ug/L	10992	ppb	18:01:27
2	Sr 421.552†	78099.6	78054.6	511.60	ug/L	511.60	ppb	18:01:27
2	Sc 361.383	846894.7	846894.7	102.42	%			18:02:51
2	Y 371.029	667309.7	667309.7	99.986	%			18:02:51
2	Ag 328.068†	102405.5	99687.3	484.60	ug/L	484.60	ppb	18:02:56
2	As 188.979†	1087.9	1092.9	475.45	ug/L	475.45	ppb	18:03:16
2	B 249.677†	20161.2	20279.6	480.66	ug/L	480.66	ppb	18:02:56
2	Ba 233.527†	61953.2	60498.8	483.47	ug/L	483.47	ppb	18:02:56
2	Be 313.107†	1326493.8	1298833.7	475.45	ug/L	475.45	ppb	18:02:51
2	Cd 226.502†	41568.5	40801.8	476.16	ug/L	476.16	ppb	18:02:56
2	Co 228.616†	24046.0	23560.9	484.44	ug/L	484.44	ppb	18:02:56
2	Cr 267.716†	41154.7	40115.1	477.32	ug/L	477.32	ppb	18:02:56
2	Cu 324.752†	166753.8	158090.5	485.97	ug/L	485.97	ppb	18:02:56
2	Mn 257.610†	445329.5	434331.3	486.96	ug/L	486.96	ppb	18:02:51
2	Mo 202.031†	6502.1	6336.5	477.81	ug/L	477.81	ppb	18:03:16
2	Ni 231.604†	19174.1	18643.8	477.54	ug/L	477.54	ppb	18:02:56

2	P 214.914†	4410.3	4059.0	2294.1 ug/L	2294.1 ppb	18:03:16
2	Pb 220.353†	3899.2	3874.2	476.47 ug/L	476.47 ppb	18:03:16
2	S 181.975 Axial†	757.8	692.1	948.84 ug/L	948.84 ppb	18:03:16
2	Sb 206.836†	1471.9	1402.0	504.67 ug/L	504.67 ppb	18:03:16
2	Se 196.026†	718.6	727.0	493.10 ug/L	493.10 ppb	18:03:16
2	Si 251.611†	76045.1	73715.9	2405.4 ug/L	2405.4 ppb	18:02:56
2	Sn 189.927†	2671.1	2598.4	470.76 ug/L	470.76 ppb	18:03:16
2	Ti 334.940†	306336.2	300664.8	485.26 ug/L	485.26 ppb	18:02:56
2	Tl 190.801†	1542.2	1540.1	480.80 ug/L	480.80 ppb	18:03:16
2	U 409.014†	12951.5	16257.2	508.80 ug/L	508.80 ppb	18:02:56
2	V 292.402†	64306.6	64376.5	486.98 ug/L	486.98 ppb	18:02:56
2	Zn 213.857†	51907.6	49951.9	473.25 ug/L	473.25 ppb	18:02:56
2	SiO2†	76643.1	74298.8	5171.1 ug/L	5171.1 ppb	18:03:58
3	Sc Radial	5017.5	5017.5	102 %		18:01:53
3	Y RADIAL	5329.3	5329.3	102.8 %		18:01:53
3	Al 396.153Radial†	5627.3	5684.6	4906.5 ug/L	4906.5 ppb	18:01:53
3	Ca 317.933Radial†	3220.8	3145.2	4929.7 ug/L	4929.7 ppb	18:02:13
3	Fe 238.204 Radial†	573.5	551.3	5037.5 ug/L	5037.5 ppb	18:02:13
3	K 766.490 Radial†	31364.1	27810.8	4842.2 ug/L	4842.2 ppb	18:01:53
3	Mg 279.077 IEC†	158.0	153.8	5059.4 ug/L	5059.4 ppb	18:02:13
3	Na 589.592 Radial†	33021.2	33549.9	10934 ug/L	10934 ppb	18:01:53
3	Sr 421.552†	79798.6	78283.0	513.10 ug/L	513.10 ppb	18:01:53
3	Sc 361.383	850381.9	850381.9	102.84 %		18:03:22
3	Y 371.029	669486.9	669486.9	100.31 %		18:03:22
3	Ag 328.068†	104888.5	101691.7	494.30 ug/L	494.30 ppb	18:03:27
3	As 188.979†	1093.6	1094.0	476.00 ug/L	476.00 ppb	18:03:47
3	B 249.677†	20836.1	20855.1	494.35 ug/L	494.35 ppb	18:03:27
3	Ba 233.527†	63265.3	61526.6	491.68 ug/L	491.68 ppb	18:03:27
3	Be 313.107†	1328913.2	1295875.3	474.39 ug/L	474.39 ppb	18:03:22
3	Cd 226.502†	42457.2	41499.5	484.31 ug/L	484.31 ppb	18:03:27
3	Co 228.616†	24570.8	23974.9	492.93 ug/L	492.93 ppb	18:03:27
3	Cr 267.716†	41974.4	40747.4	484.84 ug/L	484.84 ppb	18:03:27
3	Cu 324.752†	171052.1	161602.3	496.76 ug/L	496.76 ppb	18:03:27
3	Mn 257.610†	445968.6	433169.8	485.65 ug/L	485.65 ppb	18:03:22
3	Mo 202.031†	6502.5	6310.9	475.87 ug/L	475.87 ppb	18:03:47
3	Ni 231.604†	19578.4	18960.1	485.64 ug/L	485.64 ppb	18:03:27
3	P 214.914†	4368.6	4000.7	2257.8 ug/L	2257.8 ppb	18:03:47
3	Pb 220.353†	3887.1	3846.8	473.10 ug/L	473.10 ppb	18:03:47
3	S 181.975 Axial†	751.3	682.8	935.99 ug/L	935.99 ppb	18:03:47
3	Sb 206.836†	1472.5	1396.7	502.74 ug/L	502.74 ppb	18:03:47
3	Se 196.026†	724.3	729.6	494.62 ug/L	494.62 ppb	18:03:47
3	Si 251.611†	77991.0	75303.6	2457.4 ug/L	2457.4 ppb	18:03:27
3	Sn 189.927†	2667.4	2584.2	468.17 ug/L	468.17 ppb	18:03:47
3	Ti 334.940†	313502.1	306406.2	494.52 ug/L	494.52 ppb	18:03:27
3	Tl 190.801†	1540.4	1532.1	478.35 ug/L	478.35 ppb	18:03:47
3	U 409.014†	13186.9	16434.3	514.35 ug/L	514.35 ppb	18:03:27
3	V 292.402†	65772.7	65544.6	495.68 ug/L	495.68 ppb	18:03:27
3	Zn 213.857†	53021.3	50826.9	481.56 ug/L	481.56 ppb	18:03:27
3	SiO2†	77118.3	74454.0	5182.0 ug/L	5182.0 ppb	18:04:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850223.8	102.82	%	0.393				0.38%
Sc Radial	4985.5	101	%	1.1				1.05%
Y 371.029	669912.5	100.38	%	0.425				0.42%
Y RADIAL	5285.3	101.9	%	1.71				1.67%
Ag 328.068†	100398.7	488.04	ug/L	5.429	488.04	ppb	5.429	1.11%
QC value within limits for Ag 328.068 Recovery = 97.61%								
Al 396.153Radial†	5679.0	4901.6	ug/L	8.66	4901.6	ppb	8.66	0.18%
QC value within limits for Al 396.153Radial Recovery = 98.03%								
As 188.979†	1092.8	475.45	ug/L	0.548	475.45	ppb	0.548	0.12%
QC value within limits for As 188.979 Recovery = 95.09%								
B 249.677†	20470.7	485.21	ug/L	7.916	485.21	ppb	7.916	1.63%
QC value within limits for B 249.677 Recovery = 97.04%								
Ba 233.527†	60832.5	486.13	ug/L	4.804	486.13	ppb	4.804	0.99%
QC value within limits for Ba 233.527 Recovery = 97.23%								
Be 313.107†	1296932.4	474.77	ug/L	0.596	474.77	ppb	0.596	0.13%
QC value within limits for Be 313.107 Recovery = 94.95%								
Ca 317.933Radial†	3138.3	4918.8	ug/L	39.59	4918.8	ppb	39.59	0.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.38%
Cd 226.502†            40996.0      478.43 ug/L         5.140      478.43 ppb          5.140   1.07%
   QC value within limits for Cd 226.502  Recovery = 95.69%
Co 228.616†            23697.5      487.24 ug/L         4.928      487.24 ppb          4.928   1.01%
   QC value within limits for Co 228.616  Recovery = 97.45%
Cr 267.716†            40337.2      479.96 ug/L         4.232      479.96 ppb          4.232   0.88%
   QC value within limits for Cr 267.716  Recovery = 95.99%
Cu 324.752†           159263.8      489.57 ug/L         6.223      489.57 ppb          6.223   1.27%
   QC value within limits for Cu 324.752  Recovery = 97.91%
Fe 238.204 Radial†       553.7      5059.3 ug/L         25.36      5059.3 ppb          25.36   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.19%
K 766.490 Radial†      27828.5      4845.3 ug/L          9.96      4845.3 ppb           9.96   0.21%
   QC value within limits for K 766.490 Radial  Recovery = 96.91%
Mg 279.077 IEC†          152.1      5002.4 ug/L         96.36      5002.4 ppb          96.36   1.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.05%
Mn 257.610†           433264.6      485.76 ug/L         1.144      485.76 ppb          1.144   0.24%
   QC value within limits for Mn 257.610  Recovery = 97.15%
Mo 202.031†             6315.5      476.22 ug/L         1.439      476.22 ppb          1.439   0.30%
   QC value within limits for Mo 202.031  Recovery = 95.24%
Na 589.592 Radial†     33732.0       10993 ug/L          60.0       10993 ppb           60.0   0.55%
   QC value within limits for Na 589.592 Radial  Recovery = 109.93%
Ni 231.604†            18717.3      479.42 ug/L         5.525      479.42 ppb          5.525   1.15%
   QC value within limits for Ni 231.604  Recovery = 95.88%
P 214.914†              4027.6      2275.0 ug/L         18.27      2275.0 ppb          18.27   0.80%
   QC value within limits for P 214.914  Recovery = 91.00%
Pb 220.353†             3854.3      474.02 ug/L         2.138      474.02 ppb          2.138   0.45%
   QC value within limits for Pb 220.353  Recovery = 94.80%
S 181.975 Axial†         688.8      944.29 ug/L         7.198      944.29 ppb          7.198   0.76%
   QC value within limits for S 181.975 Axial  Recovery = 94.43%
Sb 206.836†             1396.0      502.51 ug/L         2.280      502.51 ppb          2.280   0.45%
   QC value within limits for Sb 206.836  Recovery = 100.50%
Se 196.026†              729.6      494.69 ug/L         1.624      494.69 ppb          1.624   0.33%
   QC value within limits for Se 196.026  Recovery = 98.94%
Si 251.611†            74238.5      2422.6 ug/L         30.18      2422.6 ppb          30.18   1.25%
   QC value within limits for Si 251.611  Recovery = 96.90%
Sn 189.927†             2588.4      468.94 ug/L         1.576      468.94 ppb          1.576   0.34%
   QC value within limits for Sn 189.927  Recovery = 93.79%
Sr 421.552†            78293.9      513.17 ug/L         1.606      513.17 ppb          1.606   0.31%
   QC value within limits for Sr 421.552  Recovery = 102.63%
Ti 334.940†           302488.9      488.20 ug/L         5.475      488.20 ppb          5.475   1.12%
   QC value within limits for Ti 334.940  Recovery = 97.64%
Tl 190.801†             1542.1      481.43 ug/L         3.445      481.43 ppb          3.445   0.72%
   QC value within limits for Tl 190.801  Recovery = 96.29%
U 409.014†             16283.1      509.61 ug/L         4.391      509.61 ppb          4.391   0.86%
   QC value within limits for U 409.014  Recovery = 101.92%
V 292.402†             64704.3      489.41 ug/L         5.479      489.41 ppb          5.479   1.12%
   QC value within limits for V 292.402  Recovery = 97.88%
Zn 213.857†            50223.6      475.84 ug/L         4.964      475.84 ppb          4.964   1.04%
   QC value within limits for Zn 213.857  Recovery = 95.17%
SiO2†                  74300.1      5171.3 ug/L         10.68      5171.3 ppb          10.68   0.21%
   QC value within limits for SiO2  Recovery = 96.70%
All analyte(s) passed QC.
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Sequence No.: 37
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/12/2010 18:06:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5057.6	5057.6	103	%			18:08:04
1	Y RADIAL	5381.7	5381.7	103.8	%			18:08:04
1	Al 396.153Radial†	-150.0	17.3	14.945	ug/L	14.945	ppb	18:08:04
1	Ca 317.933Radial†	24.0	8.4	13.154	ug/L	13.154	ppb	18:08:24
1	Fe 238.204 Radial†	9.2	-2.5	-22.571	ug/L	-22.571	ppb	18:08:24
1	K 766.490 Radial†	2868.9	-170.3	-29.775	ug/L	-29.775	ppb	18:08:04
1	Mg 279.077 IEC†	2.1	0.8	26.846	ug/L	26.846	ppb	18:08:24
1	Na 589.592 Radial†	-607.5	558.9	182.15	ug/L	182.15	ppb	18:08:04
1	Sr 421.552†	-15.1	-28.4	-0.1862	ug/L	-0.1862	ppb	18:08:04
1	Sc 361.383	833741.1	833741.1	100.83	%			18:09:21
1	Y 371.029	666226.2	666226.2	99.823	%			18:09:21
1	Ag 328.068†	164.4	-134.1	-0.6682	ug/L	-0.6682	ppb	18:09:21
1	As 188.979†	-29.9	1.0	0.4044	ug/L	0.4044	ppb	18:09:41
1	B 249.677†	-437.6	161.0	3.8366	ug/L	3.8366	ppb	18:09:41
1	Ba 233.527†	-26.8	-16.3	-0.1298	ug/L	-0.1298	ppb	18:09:41
1	Be 313.107†	-3965.0	-232.0	-0.0844	ug/L	-0.0844	ppb	18:09:21
1	Cd 226.502†	-201.2	16.5	0.1981	ug/L	0.1981	ppb	18:09:41
1	Co 228.616†	-81.9	2.1	0.0456	ug/L	0.0456	ppb	18:09:41
1	Cr 267.716†	63.4	-3.8	-0.0516	ug/L	-0.0516	ppb	18:09:41
1	Cu 324.752†	4688.0	-71.6	-0.2308	ug/L	-0.2308	ppb	18:09:21
1	Mn 257.610†	539.3	65.0	0.0695	ug/L	0.0695	ppb	18:09:41
1	Mo 202.031†	21.5	9.4	0.7101	ug/L	0.7101	ppb	18:09:41
1	Ni 231.604†	74.3	-3.3	-0.0849	ug/L	-0.0849	ppb	18:09:41
1	P 214.914†	233.5	-15.4	-9.0040	ug/L	-9.0040	ppb	18:09:41
1	Pb 220.353†	-52.5	15.1	1.8558	ug/L	1.8558	ppb	18:09:41
1	S 181.975 Axial†	56.2	8.0	10.951	ug/L	10.951	ppb	18:09:41
1	Sb 206.836†	50.4	14.9	5.2253	ug/L	5.2253	ppb	18:09:41
1	Se 196.026†	-18.6	7.0	4.4972	ug/L	4.4972	ppb	18:09:41
1	Si 251.611†	513.1	-22.5	-0.7445	ug/L	-0.7445	ppb	18:09:41
1	Sn 189.927†	19.8	10.2	1.8440	ug/L	1.8440	ppb	18:09:41
1	Ti 334.940†	-1500.4	82.8	0.1257	ug/L	0.1257	ppb	18:09:21
1	Tl 190.801†	-35.4	-0.8	-0.2494	ug/L	-0.2494	ppb	18:09:41
1	U 409.014†	-3085.7	551.6	17.323	ug/L	17.323	ppb	18:09:21
1	V 292.402†	-1555.5	47.5	0.4016	ug/L	0.4016	ppb	18:09:21
1	Zn 213.857†	711.6	-22.9	-0.2143	ug/L	-0.2143	ppb	18:09:41
1	SiO2†	580.7	43.6	3.0220	ug/L	3.0220	ppb	18:10:37
2	Sc Radial	5011.1	5011.1	102	%			18:08:29
2	Y RADIAL	5335.8	5335.8	102.9	%			18:08:29
2	Al 396.153Radial†	-159.4	6.7	5.7516	ug/L	5.7516	ppb	18:08:29
2	Ca 317.933Radial†	16.9	1.7	2.5968	ug/L	2.5968	ppb	18:08:49
2	Fe 238.204 Radial†	11.3	-0.3	-2.5859	ug/L	-2.5859	ppb	18:08:49
2	K 766.490 Radial†	2938.6	-76.0	-13.316	ug/L	-13.316	ppb	18:08:29
2	Mg 279.077 IEC†	2.0	0.8	25.804	ug/L	25.804	ppb	18:08:49
2	Na 589.592 Radial†	-620.6	540.5	176.16	ug/L	176.16	ppb	18:08:29
2	Sr 421.552†	25.5	11.4	0.0748	ug/L	0.0748	ppb	18:08:29
2	Sc 361.383	832068.3	832068.3	100.63	%			18:09:46
2	Y 371.029	663907.0	663907.0	99.476	%			18:09:46
2	Ag 328.068†	196.2	-102.1	-0.5021	ug/L	-0.5021	ppb	18:09:46
2	As 188.979†	-27.9	2.9	1.2439	ug/L	1.2439	ppb	18:10:06
2	B 249.677†	-480.2	117.8	2.8044	ug/L	2.8044	ppb	18:10:06
2	Ba 233.527†	-24.7	-14.2	-0.1110	ug/L	-0.1110	ppb	18:10:06
2	Be 313.107†	-3960.7	-235.7	-0.0855	ug/L	-0.0855	ppb	18:09:46
2	Cd 226.502†	-202.1	15.3	0.1818	ug/L	0.1818	ppb	18:10:06
2	Co 228.616†	-72.9	10.9	0.2254	ug/L	0.2254	ppb	18:10:06
2	Cr 267.716†	70.3	3.2	0.0334	ug/L	0.0334	ppb	18:10:06
2	Cu 324.752†	4756.4	5.8	0.0090	ug/L	0.0090	ppb	18:09:46
2	Mn 257.610†	504.6	31.5	0.0340	ug/L	0.0340	ppb	18:10:06
2	Mo 202.031†	23.1	11.1	0.8390	ug/L	0.8390	ppb	18:10:06
2	Ni 231.604†	87.0	9.4	0.2420	ug/L	0.2420	ppb	18:10:06

2	P 214.914†	247.9	-0.7	-0.3827	ug/L	-0.3827 ppb	18:10:06
2	Pb 220.353†	-71.0	-3.4	-0.4089	ug/L	-0.4089 ppb	18:10:06
2	S 181.975 Axial†	44.3	-3.7	-5.1022	ug/L	-5.1022 ppb	18:10:06
2	Sb 206.836†	48.3	12.9	4.5385	ug/L	4.5385 ppb	18:10:06
2	Se 196.026†	-10.3	15.1	9.8873	ug/L	9.8873 ppb	18:10:06
2	Si 251.611†	559.5	24.6	0.7953	ug/L	0.7953 ppb	18:10:06
2	Sn 189.927†	25.6	16.0	2.8904	ug/L	2.8904 ppb	18:10:06
2	Ti 334.940†	-1431.9	147.9	0.2302	ug/L	0.2302 ppb	18:09:46
2	Tl 190.801†	-30.7	3.8	1.1752	ug/L	1.1752 ppb	18:10:06
2	U 409.014†	-3136.9	494.6	15.530	ug/L	15.530 ppb	18:09:46
2	V 292.402†	-1441.9	157.3	1.2164	ug/L	1.2164 ppb	18:09:46
2	Zn 213.857†	704.0	-29.0	-0.2785	ug/L	-0.2785 ppb	18:10:06
2	SiO2†	565.2	29.3	2.0195	ug/L	2.0195 ppb	18:10:42
3	Sc Radial	5034.4	5034.4	102	%		18:08:54
3	Y RADIAL	5368.1	5368.1	103.5	%		18:08:54
3	Al 396.153Radial†	-162.6	4.2	3.6677	ug/L	3.6677 ppb	18:08:54
3	Ca 317.933Radial†	16.8	1.4	2.2514	ug/L	2.2514 ppb	18:09:14
3	Fe 238.204 Radial†	8.7	-3.0	-27.002	ug/L	-27.002 ppb	18:09:14
3	K 766.490 Radial†	2804.1	-220.9	-38.578	ug/L	-38.578 ppb	18:08:54
3	Mg 279.077 IEC†	0.0	-1.2	-38.293	ug/L	-38.293 ppb	18:09:14
3	Na 589.592 Radial†	-647.5	517.0	168.49	ug/L	168.49 ppb	18:08:54
3	Sr 421.552†	27.8	13.6	0.0888	ug/L	0.0888 ppb	18:08:54
3	Sc 361.383	832422.2	832422.2	100.67	%		18:10:12
3	Y 371.029	664403.7	664403.7	99.550	%		18:10:12
3	Ag 328.068†	163.0	-135.2	-0.6731	ug/L	-0.6731 ppb	18:10:12
3	As 188.979†	-23.0	7.8	3.3592	ug/L	3.3592 ppb	18:10:32
3	B 249.677†	-478.7	119.5	2.8484	ug/L	2.8484 ppb	18:10:32
3	Ba 233.527†	-42.7	-32.2	-0.2549	ug/L	-0.2549 ppb	18:10:32
3	Be 313.107†	-3919.5	-193.0	-0.0697	ug/L	-0.0697 ppb	18:10:12
3	Cd 226.502†	-183.6	33.7	0.3997	ug/L	0.3997 ppb	18:10:32
3	Co 228.616†	-74.7	9.2	0.1884	ug/L	0.1884 ppb	18:10:32
3	Cr 267.716†	58.7	-8.3	-0.1054	ug/L	-0.1054 ppb	18:10:32
3	Cu 324.752†	4729.1	-23.3	-0.0836	ug/L	-0.0836 ppb	18:10:12
3	Mn 257.610†	504.6	31.4	0.0341	ug/L	0.0341 ppb	18:10:32
3	Mo 202.031†	15.4	3.4	0.2559	ug/L	0.2559 ppb	18:10:32
3	Ni 231.604†	88.2	10.6	0.2705	ug/L	0.2705 ppb	18:10:32
3	P 214.914†	231.8	-16.8	-9.8244	ug/L	-9.8244 ppb	18:10:32
3	Pb 220.353†	-67.4	0.2	0.0314	ug/L	0.0314 ppb	18:10:32
3	S 181.975 Axial†	53.0	4.8	6.6259	ug/L	6.6259 ppb	18:10:32
3	Sb 206.836†	36.6	1.3	0.4626	ug/L	0.4626 ppb	18:10:32
3	Se 196.026†	-28.9	-3.3	-2.2421	ug/L	-2.2421 ppb	18:10:32
3	Si 251.611†	523.9	-11.0	-0.3614	ug/L	-0.3614 ppb	18:10:32
3	Sn 189.927†	14.7	5.2	0.9332	ug/L	0.9332 ppb	18:10:32
3	Ti 334.940†	-1351.5	228.4	0.3639	ug/L	0.3639 ppb	18:10:12
3	Tl 190.801†	-29.4	5.2	1.6022	ug/L	1.6022 ppb	18:10:32
3	U 409.014†	-3029.7	602.4	18.918	ug/L	18.918 ppb	18:10:12
3	V 292.402†	-1456.4	143.5	1.1140	ug/L	1.1140 ppb	18:10:12
3	Zn 213.857†	717.9	-15.5	-0.1455	ug/L	-0.1455 ppb	18:10:32
3	SiO2†	525.4	-10.5	-0.7364	ug/L	-0.7364 ppb	18:10:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	832743.9	100.71	%	0.107				0.11%
Sc Radial	5034.3	102	%	0.5				0.46%
Y 371.029	664845.6	99.616	%	0.1830				0.18%
Y RADIAL	5361.9	103.4	%	0.45				0.44%
Ag 328.068†	-123.8	-0.6145	ug/L	0.09734	-0.6145	ppb	0.09734	15.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.4	8.1214	ug/L	6.00051	8.1214	ppb	6.00051	73.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.9	1.6692	ug/L	1.52261	1.6692	ppb	1.52261	91.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	132.7	3.1631	ug/L	0.58367	3.1631	ppb	0.58367	18.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-20.9	-0.1652	ug/L	0.07818	-0.1652	ppb	0.07818	47.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-220.2	-0.0799	ug/L	0.00886	-0.0799	ppb	0.00886	11.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.8	6.0008	ug/L	6.19741	6.0008	ppb	6.19741	103.28%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                21.8      0.2599 ug/L       0.12141      0.2599 ppb        0.12141  46.72%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.4      0.1531 ug/L       0.09498      0.1531 ppb        0.09498  62.02%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.0     -0.0412 ug/L       0.06996     -0.0412 ppb        0.06996 169.82%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -29.7     -0.1018 ug/L       0.12091     -0.1018 ppb        0.12091 118.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.9     -17.386 ug/L       13.0077     -17.386 ppb        13.0077  74.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -155.7     -27.223 ug/L       12.8231     -27.223 ppb        12.8231  47.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.1      4.7858 ug/L      37.31078      4.7858 ppb       37.31078 779.62%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                42.6      0.0459 ug/L       0.02048      0.0459 ppb        0.02048  44.66%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.0      0.6017 ug/L       0.30631      0.6017 ppb        0.30631  50.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        538.8      175.60 ug/L         6.844      175.60 ppb          6.844   3.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.6      0.1425 ug/L       0.19746      0.1425 ppb        0.19746 138.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -11.0     -6.4037 ug/L       5.23049     -6.4037 ppb        5.23049  81.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.0      0.4927 ug/L       1.20075      0.4927 ppb        1.20075 243.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.0      4.1583 ug/L       8.30620      4.1583 ppb        8.30620 199.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.7      3.4088 ug/L       2.57450      3.4088 ppb        2.57450  75.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.3      4.0475 ug/L       6.07720      4.0475 ppb        6.07720 150.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -2.9     -0.1035 ug/L       0.80166     -0.1035 ppb        0.80166 774.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.4      1.8892 ug/L       0.97940      1.8892 ppb        0.97940  51.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -1.1     -0.0076 ug/L       0.15491     -0.0076 ppb        0.15491 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               153.1      0.2400 ug/L       0.11941      0.2400 ppb        0.11941  49.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.7      0.8427 ug/L       0.96955      0.8427 ppb        0.96955 115.06%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                549.5      17.257 ug/L        1.6952      17.257 ppb         1.6952   9.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                116.1      0.9107 ug/L       0.44382      0.9107 ppb        0.44382  48.73%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -22.4     -0.2128 ug/L       0.06652     -0.2128 ppb        0.06652  31.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      20.8      1.4350 ug/L       1.94619      1.4350 ppb        1.94619 135.62%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 17, 2010 11:57:47
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.523
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4467.9	4467.899	43.254	1.0
	Mg	24.0	38366.7	38366.654	346.056	0.9
	Co	58.9	105938.4	105938.381	1022.634	1.0
	Rh	102.9	236422.2	236422.185	3310.770	1.4
	In	114.9	326706.3	326706.271	2026.655	0.6
	Pb	208.0	264004.7	264004.749	2944.788	1.1
⌈>	Ba	137.9	294978.2	294978.201	2981.545	1.0
⌊	Ba++	69.0	5767.7	0.020	0.000	2.3
⌈>	Ce	139.9	353763.5	353763.523	1849.417	0.5
⌊	CeO	155.9	7716.9	0.022	0.001	2.7
	Bkgd	220.0	26.3	26.300	0.908	3.5

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.3	4596.1
Co	59	11	5.5	105509.9
In	115	11	6.0	310864.5

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	591	2072	0.624
Be	9.0	9.0	2048	2088	0.616
Mg	24.0	24.0	5681	2100	0.589
Mg	25.0	25.0	5945	2100	0.636
Mg	26.0	26.0	6166	2100	0.617
Co	58.9	58.9	14186	2125	0.606
Rh	102.9	102.9	24877	2180	0.593
In	114.9	114.9	27791	2200	0.599
Ce	139.9	139.9	33863	2220	0.596
Pb	206.0	206.0	49948	2305	0.606
Pb	207.0	206.9	50147	2240	0.648
Pb	208.0	207.9	50439	2265	0.715
U	238.1	238.0	57719	2275	0.751

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 18, 2010 05:07:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\Blank.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		84	
	Be	9		ug/L		20	
	B	11		ug/L		255	
	Na	23		ug/L		5335	
	Mg	24		ug/L		1000	
	Al	27		ug/L		7002	
	P	31		ug/L		2726	
	K	39		ug/L		418046	
	Ca	43		ug/L		277	
>	Sc	45		ug/L		1023757	
	Ti	47		ug/L		296	
	V	51		ug/L		1185	
	Cr	52		ug/L		-1897	
	Cr	53		ug/L		75937	
	Mn	55		ug/L		1167	
	Fe	57		ug/L		4774	
	Co	59		ug/L		111	
	Ni	60		ug/L		119	
	Cu	63		ug/L		218	
	Cu	65		ug/L		144	
	Zn	66		ug/L		330	
	Zn	67		ug/L		8102	
	Zn	68		ug/L		949	
>	Ge	74		ug/L		428342	
	As	75		ug/L		-204	
	Se	77		ug/L		4227	
	Se	82		ug/L		3	
	Kr	83		ug/L		140	
	Sr	88		ug/L		229	
	Y	89		ug/L		78	
	Mo	98		ug/L		123	
	Ag	107		ug/L		76	
	Cd	111		ug/L		24	
	Cd	114		ug/L		85	
>	In	115		ug/L		298850	
	Sn	120		ug/L		226	
	Sb	121		ug/L		408	
	Sb	123		ug/L		329	
	Ba	135		ug/L		56	
	Ba	137		ug/L		74	
	Ho	165		ug/L		30	
>	Lu	175		ug/L		538520	
	Tl	205		ug/L		1696	
	Pb	208		ug/L		815	
	Bi	209		ug/L		175	
	Th	232		ug/L		795	
	U	238		ug/L		874	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 18, 2010 05:13:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\Standard 1.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.545	13000	0.012
	Be	9	10.000	ug/L	3.822	3225	0.003
	B	11	20.000	ug/L	1.415	4964	0.005
	Na	23	1000.000	ug/L	5.475	1735201	1.670
	Mg	24	1000.000	ug/L	1.093	1327273	1.281
	Al	27	1000.000	ug/L	3.191	1937062	1.864
	P	31	1000.000	ug/L	2.453	132933	0.126
	K	39	1000.000	ug/L	4.853	3714444	3.178
	Ca	43	1000.000	ug/L	1.623	8623	0.008
>	Sc	45		ug/L		1035597	1035596.679
	Ti	47	10.000	ug/L	2.807	4644	0.004
	V	51	10.000	ug/L	10.163	55178	0.052
	Cr	52	10.000	ug/L	4.650	41939	0.042
	Cr	53		ug/L		90719	0.013
	Mn	55	10.000	ug/L	1.997	77541	0.074
	Fe	57	1000.000	ug/L	2.505	162212	0.152
	Co	59	10.000	ug/L	2.847	60067	0.058
	Ni	60	10.000	ug/L	0.897	13172	0.013
	Cu	63		ug/L		32422	0.031
	Cu	65	10.000	ug/L	1.485	16447	0.016
	Zn	66	10.000	ug/L	2.360	11710	0.026
	Zn	67		ug/L		10571	0.005
	Zn	68		ug/L		9361	0.019
>	Ge	74		ug/L		437359	437358.939
	As	75	10.000	ug/L	9.246	11676	0.027
	Se	77		ug/L		6103	0.004
	Se	82	10.000	ug/L	2.099	1278	0.003
	Kr	83		ug/L		137	-0.000
	Sr	88	10.000	ug/L	2.064	155438	0.507
	Y	89		ug/L		102	0.000
	Mo	98	10.000	ug/L	0.493	37424	0.122
	Ag	107	10.000	ug/L	1.680	67055	0.219
	Cd	111	10.000	ug/L	0.422	17069	0.056
	Cd	114		ug/L		40395	0.132
>	In	115		ug/L		306111	306110.536
	Sn	120	10.000	ug/L	0.841	69448	0.226
	Sb	121	10.000	ug/L	1.195	59950	0.194
	Sb	123		ug/L		46215	0.150
	Ba	135		ug/L		17264	0.032
	Ba	137	10.000	ug/L	0.976	30722	0.057
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		541467	541466.879
	Tl	205	10.000	ug/L	1.542	228160	0.418
	Pb	208	10.000	ug/L	1.079	396146	0.730
	Bi	209		ug/L		200	0.000
	Th	232	10.000	ug/L	2.273	505293	0.932
	U	238	10.000	ug/L	0.803	518072	0.955

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 18, 2010 05:19:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\Standard 2.267

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.941**	**ug/L**	1.796	132919	0.118
	Be	9	**99.887**	**ug/L**	2.631	31375	0.028
	B	11	**199.938**	**ug/L**	4.051	50009	0.044
	Na	23	**9989.202**	**ug/L**	4.797	16996054	15.060
	Mg	24	**9997.038**	**ug/L**	10.281	14024555	12.434
	Al	27	**9990.008**	**ug/L**	7.367	19128640	16.928
	P	31	**9989.911**	**ug/L**	4.223	1290105	1.141
	K	39	**10000.760**	**ug/L**	11.019	36544304	32.026
	Ca	43	**9999.043**	**ug/L**	3.025	90358	0.080
>	Sc	45		**ug/L**		1129104	1129103.946
	Ti	47	**99.954**	**ug/L**	2.514	45560	0.040
	V	51	**99.961**	**ug/L**	1.910	567725	0.502
	Cr	52	**99.938**	**ug/L**	2.033	447964	0.399
	Cr	53		**ug/L**		143954	0.053
	Mn	55	**99.936**	**ug/L**	1.808	783534	0.693
	Fe	57	**9987.042**	**ug/L**	3.356	1521962	1.344
	Co	59	**99.935**	**ug/L**	1.647	613552	0.543
	Ni	60	**99.959**	**ug/L**	3.265	136646	0.121
	Cu	63		**ug/L**		340512	0.301
	Cu	65	**99.957**	**ug/L**	1.882	170475	0.151
	Zn	66	**99.951**	**ug/L**	2.438	118833	0.248
	Zn	67		**ug/L**		28688	0.041
	Zn	68		**ug/L**		88449	0.183
>	Ge	74		**ug/L**		478193	478192.858
	As	75	**99.991**	**ug/L**	2.718	128427	0.269
	Se	77		**ug/L**		15733	0.023
	Se	82	**99.967**	**ug/L**	4.885	13477	0.028
	Kr	83		**ug/L**		186	0.000
	Sr	88	**99.924**	**ug/L**	1.479	1509049	4.707
	Y	89		**ug/L**		216	0.000
	Mo	98	**100.006**	**ug/L**	1.967	393128	1.226
	Ag	107	**99.952**	**ug/L**	0.440	669056	2.087
	Cd	111	**99.975**	**ug/L**	2.493	174137	0.543
	Cd	114		**ug/L**		406748	1.269
>	In	115		**ug/L**		320567	320567.498
	Sn	120	**99.960**	**ug/L**	2.799	697115	2.174
	Sb	121	**99.988**	**ug/L**	1.973	616323	1.922
	Sb	123		**ug/L**		485156	1.513
	Ba	135		**ug/L**		178468	0.327
	Ba	137	**100.003**	**ug/L**	1.966	309732	0.568
	Ho	165		**ug/L**		33	0.000
>	Lu	175		**ug/L**		545237	545236.581
	Tl	205	**99.816**	**ug/L**	1.273	1924467	3.527
	Pb	208	**99.862**	**ug/L**	2.674	3492290	6.405
	Bi	209		**ug/L**		466	0.001
	Th	232	**99.798**	**ug/L**	1.827	4217197	7.735
	U	238	**99.795**	**ug/L**	2.933	4313730	7.913

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 18, 2010 05:25:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 1.268

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.875**	ug/L	3.641	70568	0.062
	Be	9	**53.985**	ug/L	2.365	17024	0.015
	B	11	**111.976**	ug/L	2.913	28215	0.025
	Na	23	**6227.390**	ug/L	6.928	10650218	9.388
	Mg	24	**4913.347**	ug/L	6.776	6920796	6.111
	Al	27	**5349.826**	ug/L	3.489	10273404	9.065
	P	31	**5423.112**	ug/L	1.918	704302	0.619
	K	39	**4609.824**	ug/L	2.812	17182582	14.762
	Ca	43	**5053.335**	ug/L	1.667	45967	0.040
>	Sc	45		ug/L		1132603	1132603.159
	Ti	47	**52.104**	ug/L	2.461	23986	0.021
	V	51	**52.950**	ug/L	0.693	302415	0.266
	Cr	52	**54.569**	ug/L	0.855	244495	0.218
	Cr	53		ug/L		119896	0.032
	Mn	55	**54.388**	ug/L	3.328	428183	0.377
	Fe	57	**5510.076**	ug/L	1.921	844823	0.741
	Co	59	**53.157**	ug/L	1.021	327443	0.289
	Ni	60	**54.522**	ug/L	4.324	74834	0.066
	Cu	63		ug/L		181770	0.160
	Cu	65	**53.939**	ug/L	2.975	92347	0.081
	Zn	66	**54.285**	ug/L	1.434	65434	0.135
	Zn	67		ug/L		20192	0.023
	Zn	68		ug/L		49715	0.101
>	Ge	74		ug/L		483380	483380.469
	As	75	**52.391**	ug/L	1.344	67942	0.141
	Se	77		ug/L		11199	0.013
	Se	82	**54.110**	ug/L	0.969	7382	0.015
	Kr	83		ug/L		142	-0.000
	Sr	88	**55.527**	ug/L	1.658	862886	2.616
	Y	89		ug/L		115	0.000
	Mo	98	**51.719**	ug/L	2.563	209266	0.634
	Ag	107	**53.788**	ug/L	2.193	370445	1.123
	Cd	111	**52.443**	ug/L	1.500	94024	0.285
	Cd	114		ug/L		218376	0.662
>	In	115		ug/L		329831	329830.905
	Sn	120	**52.272**	ug/L	0.347	375259	1.137
	Sb	121	**52.378**	ug/L	2.285	332420	1.007
	Sb	123		ug/L		261132	0.791
	Ba	135		ug/L		94055	0.175
	Ba	137	**54.148**	ug/L	2.196	165566	0.308
	Ho	165		ug/L		66	0.000
>	Lu	175		ug/L		538024	538024.384
	Tl	205	**54.722**	ug/L	3.152	1041788	1.934
	Pb	208	**55.895**	ug/L	0.678	1929696	3.585
	Bi	209		ug/L		513	0.001
	Th	232	**53.166**	ug/L	0.186	2217751	4.121
	U	238	**53.917**	ug/L	1.128	2300788	4.275

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.749				
	Be	9	107.970				
	B	11	111.976				
	Na	23	124.548				
	Mg	24	98.267				
	Al	27	105.937				
	P	31	108.462				
	K	39	92.196				
	Ca	43	101.067				
>	Sc	45		110.6			
	Ti	47	104.207				
	V	51	105.900				
	Cr	52	109.138				
	Cr	53					
	Mn	55	108.776				
	Fe	57	110.202				
	Co	59	106.314				
	Ni	60	109.045				
	Cu	63					
	Cu	65	107.879				
	Zn	66	108.570				
	Zn	67					
	Zn	68					
>	Ge	74		112.8			
	As	75	104.782				
	Se	77					
	Se	82	108.220				
	Kr	83					
	Sr	88	111.055				
	Y	89					
	Mo	98	103.438				
	Ag	107	107.577				
	Cd	111	104.885				
	Cd	114					
>	In	115		110.4			
	Sn	120	104.544				
	Sb	121	104.757				
	Sb	123					
	Ba	135					
	Ba	137	108.296				
	Ho	165					
>	Lu	175		99.9			
	Tl	205	109.444				
	Pb	208	111.789				
	Bi	209					
	Th	232	106.332				
	U	238	107.833				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	B	11	ICV is out of limits (+/- 10%)
QC Std 1	Na	23	ICV is out of limits (+/- 10%)
QC Std 1	Fe	57	ICV is out of limits (+/- 10%)
QC Std 1	Sr	88	ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 18, 2010 05:31:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 2.269

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.038**	**ug/L**	10.279	143	0.000
	Be	9	**0.028**	**ug/L**	39.489	31	0.000
	B	11	**5.251**	**ug/L**	15.133	1587	0.001
	Na	23	**0.273**	**ug/L**	322.970	6335	0.000
	Mg	24	**2.558**	**ug/L**	58.796	4668	0.003
	Al	27	**-0.507**	**ug/L**	338.092	6668	-0.001
	P	31	**1.250**	**ug/L**	50.961	3159	0.000
	K	39	**4.446**	**ug/L**	333.606	475867	0.014
	Ca	43	**2.740**	**ug/L**	195.507	329	0.000
>	Sc	45		**ug/L**		1125738	1125737.885
	Ti	47	**0.033**	**ug/L**	225.389	340	0.000
	V	51	**0.168**	**ug/L**	319.200	2212	0.001
	Cr	52	**0.244**	**ug/L**	9.267	-991	0.001
	Cr	53		**ug/L**		86300	0.002
	Mn	55	**-0.004**	**ug/L**	36.962	1253	-0.000
	Fe	57	**3.306**	**ug/L**	28.450	5748	0.000
	Co	59	**0.008**	**ug/L**	48.117	170	0.000
	Ni	60	**0.012**	**ug/L**	50.439	147	0.000
	Cu	63		**ug/L**		286	0.000
	Cu	65	**0.002**	**ug/L**	985.325	161	0.000
	Zn	66	**-0.016**	**ug/L**	210.954	355	-0.000
	Zn	67		**ug/L**		8933	-0.001
	Zn	68		**ug/L**		1060	-0.000
>	Ge	74		**ug/L**		485807	485807.290
	As	75	**-0.085**	**ug/L**	326.213	-341	-0.000
	Se	77		**ug/L**		5607	0.002
	Se	82	**-0.069**	**ug/L**	212.356	-6	-0.000
	Kr	83		**ug/L**		147	-0.000
	Sr	88	**0.009**	**ug/L**	22.520	385	0.000
	Y	89		**ug/L**		90	0.000
	Mo	98	**0.049**	**ug/L**	8.482	329	0.001
	Ag	107	**0.007**	**ug/L**	40.832	132	0.000
	Cd	111	**0.011**	**ug/L**	23.190	46	0.000
	Cd	114		**ug/L**		95	0.000
>	In	115		**ug/L**		326319	326319.076
	Sn	120	**0.030**	**ug/L**	16.195	456	0.001
	Sb	121	**0.328**	**ug/L**	9.339	2506	0.006
	Sb	123		**ug/L**		1951	0.005
	Ba	135		**ug/L**		67	0.000
	Ba	137	**0.009**	**ug/L**	40.249	101	0.000
	Ho	165		**ug/L**		33	0.000
>	Lu	175		**ug/L**		541755	541754.994
	Tl	205	**0.245**	**ug/L**	20.028	6401	0.009
	Pb	208	**0.008**	**ug/L**	46.251	1091	0.001
	Bi	209		**ug/L**		163	-0.000
	Th	232	**0.030**	**ug/L**	3.317	2059	0.002
	U	238	**0.010**	**ug/L**	22.561	1317	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	0.9999
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		113.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		109.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 18, 2010 05:37:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 3.270

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.237**	**ug/L**	0.696	15124	0.013
	Be	9	**0.537**	**ug/L**	11.238	192	0.000
	B	11	**18.142**	**ug/L**	1.318	4824	0.004
	Na	23	**315.173**	**ug/L**	9.731	545258	0.475
	Mg	24	**21.792**	**ug/L**	46.547	31706	0.027
	Al	27	**41.158**	**ug/L**	17.637	86935	0.070
	P	31	**61.075**	**ug/L**	8.785	10940	0.007
	K	39	**312.386**	**ug/L**	1.209	1600214	1.000
	Ca	43	**200.591**	**ug/L**	0.307	2125	0.002
>	Sc	45		**ug/L**		1136060	1136060.416
	Ti	47	**9.486**	**ug/L**	0.570	4650	0.004
	V	51	**11.611**	**ug/L**	8.705	67461	0.058
	Cr	52	**11.493**	**ug/L**	3.399	49975	0.046
	Cr	53		**ug/L**		97365	0.012
	Mn	55	**5.922**	**ug/L**	2.557	47925	0.041
	Fe	57	**125.424**	**ug/L**	3.981	24462	0.017
	Co	59	**1.148**	**ug/L**	3.707	7214	0.006
	Ni	60	**2.247**	**ug/L**	0.651	3222	0.003
	Cu	63		**ug/L**		4273	0.004
	Cu	65	**1.186**	**ug/L**	1.024	2194	0.002
	Zn	66	**11.248**	**ug/L**	0.928	13894	0.028
	Zn	67		**ug/L**		11597	0.005
	Zn	68		**ug/L**		11032	0.021
>	Ge	74		**ug/L**		484774	484774.124
	As	75	**5.805**	**ug/L**	9.942	7344	0.016
	Se	77		**ug/L**		6522	0.004
	Se	82	**5.679**	**ug/L**	7.107	780	0.002
	Kr	83		**ug/L**		139	-0.000
	Sr	88	**12.156**	**ug/L**	1.608	190292	0.573
	Y	89		**ug/L**		85	-0.000
	Mo	98	**0.549**	**ug/L**	1.755	2372	0.007
	Ag	107	**1.074**	**ug/L**	3.356	7524	0.022
	Cd	111	**1.109**	**ug/L**	1.934	2027	0.006
	Cd	114		**ug/L**		4674	0.014
>	In	115		**ug/L**		331879	331879.484
	Sn	120	**5.522**	**ug/L**	1.833	40114	0.120
	Sb	121	**3.266**	**ug/L**	2.404	21286	0.063
	Sb	123		**ug/L**		16464	0.049
	Ba	135		**ug/L**		3967	0.007
	Ba	137	**2.219**	**ug/L**	1.273	6940	0.013
	Ho	165		**ug/L**		33	0.000
>	Lu	175		**ug/L**		544820	544819.714
	Tl	205	**1.324**	**ug/L**	1.025	27201	0.047
	Pb	208	**2.452**	**ug/L**	0.451	86512	0.157
	Bi	209		**ug/L**		175	-0.000
	Th	232	**1.316**	**ug/L**	1.699	56353	0.102
	U	238	**0.274**	**ug/L**	1.526	12724	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	112.370				
	Be	9	107.388				
	B	11	120.946				
	Na	23	126.069				
	Mg	24	145.278				
	Al	27	137.194				
	P	31	122.150				
	K	39	104.129				
	Ca	43	100.296				
>	Sc	45		111.0			
	Ti	47	94.861				
	V	51	116.114				
	Cr	52	114.935				
	Cr	53					
	Mn	55	118.445				
	Fe	57	125.424				
	Co	59	114.838				
	Ni	60	112.328				
	Cu	63					
	Cu	65	118.620				
	Zn	66	112.482				
	Zn	67					
	Zn	68					
>	Ge	74		113.2			
	As	75	116.102				
	Se	77					
	Se	82	113.587				
	Kr	83					
	Sr	88	121.558				
	Y	89					
	Mo	98	109.839				
	Ag	107	107.375				
	Cd	111	110.919				
	Cd	114					
>	In	115		111.1			
	Sn	120	110.445				
	Sb	121	108.868				
	Sb	123					
	Ba	135					
	Ba	137	110.925				
	Ho	165					
>	Lu	175		101.2			
	Tl	205	132.395				
	Pb	208	122.601				
	Bi	209					
	Th	232	131.563				
	U	238	137.054				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 18, 2010 05:43:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 4.271

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.083**	ug/L	28.716	197	0.000
	Be	9	**0.093**	ug/L	36.778	50	0.000
	B	11	**1.834**	ug/L	3.389	718	0.000
	Na	23	**97770.767**	ug/L	4.305	161929540	147.399
	Mg	24	**94050.480**	ug/L	7.098	128466940	116.975
	Al	27	**95332.203**	ug/L	8.072	177448187	161.538
	P	31	**96105.201**	ug/L	1.450	12068387	10.976
	K	39	**99066.423**	ug/L	11.721	348662495	317.242
	Ca	43	**90175.681**	ug/L	1.283	791149	0.720
>	Sc	45		ug/L		1099083	1099082.529
	Ti	47	**1818.187**	ug/L	0.908	801659	0.729
	V	51	**0.211**	ug/L	284.367	2421	0.001
	Cr	52	**2.516**	ug/L	2.725	8995	0.010
	Cr	53		ug/L		80550	-0.001
	Mn	55	**6.113**	ug/L	0.363	47830	0.042
	Fe	57	**104542.288**	ug/L	2.535	15461651	14.067
	Co	59	**0.251**	ug/L	5.147	1620	0.001
	Ni	60	**2.918**	ug/L	2.406	4009	0.004
	Cu	63		ug/L		7718	0.007
	Cu	65	**3.073**	ug/L	1.333	5252	0.005
	Zn	66	**3.711**	ug/L	3.626	4632	0.009
	Zn	67		ug/L		9743	0.002
	Zn	68		ug/L		1981	0.002
>	Ge	74		ug/L		464834	464834.194
	As	75	**-0.525**	ug/L	73.763	-872	-0.001
	Se	77		ug/L		7755	0.007
	Se	82	**-1.212**	ug/L	10.041	-156	-0.000
	Kr	83		ug/L		351	0.000
	Sr	88	**3.308**	ug/L	1.528	49016	0.156
	Y	89		ug/L		506	0.001
	Mo	98	**1904.214**	ug/L	0.313	7308378	23.350
	Ag	107	**0.103**	ug/L	2.068	754	0.002
	Cd	111	**0.519**	ug/L	31.880	908	0.003
	Cd	114		ug/L		10293	0.033
>	In	115		ug/L		312982	312981.570
	Sn	120	**0.296**	ug/L	1.974	2255	0.006
	Sb	121	**0.160**	ug/L	24.497	1391	0.003
	Sb	123		ug/L		1061	0.002
	Ba	135		ug/L		1314	0.002
	Ba	137	**0.758**	ug/L	0.473	2262	0.004
	Ho	165		ug/L		10229	0.020
>	Lu	175		ug/L		508938	508938.083
	Tl	205	**0.027**	ug/L	27.481	2097	0.001
	Pb	208	**0.225**	ug/L	2.270	8101	0.014
	Bi	209		ug/L		6088	0.012
	Th	232	**0.040**	ug/L	38.341	2342	0.003
	U	238	**-0.011**	ug/L	3.709	364	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	97.771				
	Mg	24	94.050				
	Al	27	95.332				
	P	31	96.105				
	K	39	99.066				
	Ca	43	90.176				
>	Sc	45		107.4			
	Ti	47	90.909				
	V	51					
	Cr	52	76.248				
	Cr	53					
	Mn	55	105.389				
	Fe	57	104.542				
	Co	59	106.822				
	Ni	60	88.144				
	Cu	63					
	Cu	65	92.001				
	Zn	66	98.690				
	Zn	67					
	Zn	68					
>	Ge	74		108.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	111.770				
	Y	89					
	Mo	98	95.211				
	Ag	107					
	Cd	111	116.941				
	Cd	114					
>	In	115		104.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	95.029				
	Ho	165					
>	Lu	175		94.5			
	Tl	205					
	Pb	208	118.823				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 18, 2010 05:49:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 5.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.216**	ug/L	1.205	25047	0.023
	Be	9	**18.772**	ug/L	3.082	5781	0.005
	B	11	**19.300**	ug/L	3.297	4965	0.004
	Na	23	**98686.986**	ug/L	10.687	164086546	148.781
	Mg	24	**91425.242**	ug/L	5.937	125412244	113.710
	Al	27	**99550.838**	ug/L	3.542	186134462	168.686
	P	31	**96492.620**	ug/L	1.497	12159904	11.020
	K	39	**100034.645**	ug/L	4.338	353696660	320.342
	Ca	43	**92104.042**	ug/L	2.596	810942	0.735
>	Sc	45		ug/L		1103171	1103170.818
	Ti	47	**1870.508**	ug/L	2.299	827685	0.750
	V	51	**21.199**	ug/L	4.279	118642	0.106
	Cr	52	**23.170**	ug/L	1.458	99935	0.092
	Cr	53		ug/L		90458	0.008
	Mn	55	**27.455**	ug/L	1.604	211226	0.190
	Fe	57	**105880.541**	ug/L	0.474	15722972	14.247
	Co	59	**21.233**	ug/L	2.009	127455	0.115
	Ni	60	**22.319**	ug/L	2.552	29924	0.027
	Cu	63		ug/L		71771	0.065
	Cu	65	**22.499**	ug/L	0.904	37620	0.034
	Zn	66	**22.767**	ug/L	1.777	27120	0.056
	Zn	67		ug/L		13661	0.010
	Zn	68		ug/L		18326	0.036
>	Ge	74		ug/L		473916	473915.712
	As	75	**20.461**	ug/L	4.125	25877	0.055
	Se	77		ug/L		9581	0.010
	Se	82	**19.069**	ug/L	2.168	2553	0.005
	Kr	83		ug/L		350	0.000
	Sr	88	**26.841**	ug/L	2.365	401623	1.264
	Y	89		ug/L		526	0.001
	Mo	98	**1902.519**	ug/L	0.142	7405615	23.329
	Ag	107	**20.032**	ug/L	1.107	132851	0.418
	Cd	111	**20.073**	ug/L	1.417	34653	0.109
	Cd	114		ug/L		90312	0.284
>	In	115		ug/L		317432	317432.199
	Sn	120	**21.341**	ug/L	1.086	147586	0.464
	Sb	121	**21.334**	ug/L	1.540	130588	0.410
	Sb	123		ug/L		101198	0.318
	Ba	135		ug/L		35377	0.069
	Ba	137	**21.909**	ug/L	0.570	63716	0.124
	Ho	165		ug/L		10328	0.020
>	Lu	175		ug/L		511415	511415.250
	Tl	205	**21.003**	ug/L	1.819	381146	0.742
	Pb	208	**21.067**	ug/L	0.214	691836	1.351
	Bi	209		ug/L		6567	0.013
	Th	232	**22.472**	ug/L	1.281	891495	1.742
	U	238	**23.022**	ug/L	0.430	934362	1.825

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	96.078				
	Be	9	93.859				
	B	11	96.500				
	Na	23	98.687				
	Mg	24	91.425				
	Al	27	99.551				
	P	31	96.493				
	K	39	100.035				
	Ca	43	92.104				
>	Sc	45		107.8			
	Ti	47	93.525				
	V	51	105.997				
	Cr	52	99.441				
	Cr	53					
	Mn	55	106.413				
	Fe	57	105.881				
	Co	59	104.931				
	Ni	60	95.748				
	Cu	63					
	Cu	65	96.398				
	Zn	66	95.822				
	Zn	67					
	Zn	68					
>	Ge	74		110.6			
	As	75	102.304				
	Se	77					
	Se	82	95.346				
	Kr	83					
	Sr	88	116.902				
	Y	89					
	Mo	98	95.126				
	Ag	107	100.160				
	Cd	111	98.184				
	Cd	114					
>	In	115		106.2			
	Sn	120	106.704				
	Sb	121	106.672				
	Sb	123					
	Ba	135					
	Ba	137	105.342				
	Ho	165					
>	Lu	175		95.0			
	Tl	205	105.014				
	Pb	208	104.347				
	Bi	209					
	Th	232	112.362				
	U	238	115.111				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 05:56:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 6.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.814**	**ug/L**	1.900	67138	0.059
	Be	9	**51.216**	**ug/L**	3.163	16304	0.014
	B	11	**101.688**	**ug/L**	3.189	25892	0.022
	Na	23	**5754.677**	**ug/L**	3.355	9928006	8.676
	Mg	24	**5479.360**	**ug/L**	2.345	7790536	6.815
	Al	27	**5522.551**	**ug/L**	8.603	10697192	9.358
	P	31	**5254.325**	**ug/L**	3.256	688911	0.600
	K	39	**4601.524**	**ug/L**	3.471	17307853	14.736
	Ca	43	**4865.187**	**ug/L**	0.687	44693	0.039
>	Sc	45		**ug/L**		1143316	1143316.276
	Ti	47	**51.564**	**ug/L**	4.069	23961	0.021
	V	51	**51.573**	**ug/L**	3.356	297237	0.259
	Cr	52	**52.972**	**ug/L**	0.938	239531	0.211
	Cr	53		**ug/L**		118174	0.029
	Mn	55	**52.413**	**ug/L**	3.456	416599	0.363
	Fe	57	**5353.738**	**ug/L**	4.665	828526	0.720
	Co	59	**51.714**	**ug/L**	2.334	321523	0.281
	Ni	60	**52.230**	**ug/L**	1.686	72400	0.063
	Cu	63		**ug/L**		178442	0.156
	Cu	65	**51.957**	**ug/L**	1.854	89815	0.078
	Zn	66	**50.984**	**ug/L**	2.412	63655	0.126
	Zn	67		**ug/L**		19939	0.021
	Zn	68		**ug/L**		48850	0.095
>	Ge	74		**ug/L**		500481	500480.880
	As	75	**49.992**	**ug/L**	2.668	67117	0.135
	Se	77		**ug/L**		11541	0.013
	Se	82	**50.871**	**ug/L**	2.568	7186	0.014
	Kr	83		**ug/L**		145	-0.000
	Sr	88	**53.455**	**ug/L**	1.630	856393	2.518
	Y	89		**ug/L**		198	0.000
	Mo	98	**49.613**	**ug/L**	3.023	206949	0.608
	Ag	107	**51.396**	**ug/L**	1.425	364937	1.073
	Cd	111	**49.933**	**ug/L**	1.917	92289	0.271
	Cd	114		**ug/L**		215690	0.634
>	In	115		**ug/L**		340017	340017.494
	Sn	120	**50.269**	**ug/L**	0.747	372021	1.093
	Sb	121	**49.280**	**ug/L**	1.173	322486	0.947
	Sb	123		**ug/L**		253512	0.745
	Ba	135		**ug/L**		92213	0.166
	Ba	137	**51.405**	**ug/L**	1.518	162224	0.292
	Ho	165		**ug/L**		68	0.000
>	Lu	175		**ug/L**		555362	555361.717
	Tl	205	**50.600**	**ug/L**	1.051	994628	1.788
	Pb	208	**52.127**	**ug/L**	2.331	1857439	3.344
	Bi	209		**ug/L**		546	0.001
	Th	232	**50.021**	**ug/L**	1.448	2153698	3.877
	U	238	**50.908**	**ug/L**	1.146	2242451	4.036

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	99.628				
	Be	9	102.432				
	B	11	101.688				
	Na	23	115.094				
	Mg	24	109.587				
	Al	27	109.357				
	P	31	105.087				
	K	39	92.030				
	Ca	43	97.304				
>	Sc	45		111.7			
	Ti	47	103.128				
	V	51	103.146				
	Cr	52	105.944				
	Cr	53					
	Mn	55	104.826				
	Fe	57	107.075				
	Co	59	103.427				
	Ni	60	104.459				
	Cu	63					
	Cu	65	103.915				
	Zn	66	101.968				
	Zn	67					
	Zn	68					
>	Ge	74		116.8			
	As	75	99.985				
	Se	77					
	Se	82	101.743				
	Kr	83					
	Sr	88	106.910				
	Y	89					
	Mo	98	99.226				
	Ag	107	102.792				
	Cd	111	99.867				
	Cd	114					
>	In	115		113.8			
	Sn	120	100.539				
	Sb	121	98.560				
	Sb	123					
	Ba	135					
	Ba	137	102.811				
	Ho	165					
>	Lu	175		103.1			
	Tl	205	101.201				
	Pb	208	104.254				
	Bi	209					
	Th	232	100.041				
	U	238	101.816				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 06:02:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 7.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.047**	**ug/L**	11.993	156	0.000
	Be	9	**0.008**	**ug/L**	88.552	25	0.000
	B	11	**3.214**	**ug/L**	11.718	1084	0.001
	Na	23	**0.056**	**ug/L**	2060.191	6001	0.000
	Mg	24	**1.345**	**ug/L**	91.106	3000	0.002
	Al	27	**0.670**	**ug/L**	277.863	9003	0.001
	P	31	**0.939**	**ug/L**	55.428	3135	0.000
	K	39	**-8.778**	**ug/L**	106.495	430417	-0.028
	Ca	43	**-0.051**	**ug/L**	7219.075	305	-0.000
>	Sc	45		**ug/L**		1131717	1131716.950
	Ti	47	**0.004**	**ug/L**	1722.179	329	0.000
	V	51	**-0.151**	**ug/L**	485.876	477	-0.001
	Cr	52	**0.096**	**ug/L**	57.394	-1665	0.000
	Cr	53		**ug/L**		86494	0.002
	Mn	55	**-0.018**	**ug/L**	18.851	1150	-0.000
	Fe	57	**6.641**	**ug/L**	8.929	6289	0.001
	Co	59	**0.003**	**ug/L**	42.421	143	0.000
	Ni	60	**0.008**	**ug/L**	58.920	143	0.000
	Cu	63		**ug/L**		236	-0.000
	Cu	65	**0.003**	**ug/L**	150.791	165	0.000
	Zn	66	**-0.023**	**ug/L**	132.947	351	-0.000
	Zn	67		**ug/L**		8949	-0.001
	Zn	68		**ug/L**		1065	-0.000
>	Ge	74		**ug/L**		492819	492819.336
	As	75	**-0.461**	**ug/L**	18.514	-846	-0.001
	Se	77		**ug/L**		5909	0.002
	Se	82	**-0.033**	**ug/L**	304.584	-1	-0.000
	Kr	83		**ug/L**		161	-0.000
	Sr	88	**0.003**	**ug/L**	23.334	298	0.000
	Y	89		**ug/L**		71	-0.000
	Mo	98	**0.079**	**ug/L**	22.097	464	0.001
	Ag	107	**0.003**	**ug/L**	34.809	109	0.000
	Cd	111	**0.013**	**ug/L**	16.407	51	0.000
	Cd	114		**ug/L**		102	0.000
>	In	115		**ug/L**		335303	335302.706
	Sn	120	**0.019**	**ug/L**	13.729	390	0.000
	Sb	121	**0.152**	**ug/L**	17.385	1436	0.003
	Sb	123		**ug/L**		1104	0.002
	Ba	135		**ug/L**		76	0.000
	Ba	137	**0.003**	**ug/L**	55.127	86	0.000
	Ho	165		**ug/L**		33	0.000
>	Lu	175		**ug/L**		551827	551827.432
	Tl	205	**0.231**	**ug/L**	23.636	6240	0.008
	Pb	208	**0.002**	**ug/L**	14.593	902	0.000
	Bi	209		**ug/L**		160	-0.000
	Th	232	**0.029**	**ug/L**	9.687	2048	0.002
	U	238	**0.004**	**ug/L**	37.335	1051	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		110.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		115.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		112.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, February 18, 2010 06:08:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 10.275

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**942.892**	**ug/L**	1.775	1181557	1.110
	Be	9	**973.576**	**ug/L**	0.992	288241	0.271
	B	11	**1.306**	**ug/L**	14.800	571	0.000
	Na	23	**59538.627**	**ug/L**	4.958	95524562	89.761
	Mg	24	**49355.878**	**ug/L**	3.295	65336555	61.386
	Al	27	**53782.136**	**ug/L**	6.181	96967191	91.132
	P	31	**25969.168**	**ug/L**	3.423	3159290	2.966
	K	39	**51552.289**	**ug/L**	7.563	176195753	165.086
	Ca	43	**47703.068**	**ug/L**	2.199	405411	0.381
>	Sc	45		**ug/L**		1064317	1064316.923
	Ti	47	**41.819**	**ug/L**	3.754	18161	0.017
	V	51	**889.362**	**ug/L**	2.157	4752817	4.465
	Cr	52	**903.986**	**ug/L**	2.098	3836740	3.607
	Cr	53		**ug/L**		587248	0.478
	Mn	55	**934.736**	**ug/L**	0.751	6898329	6.481
	Fe	57	**53588.816**	**ug/L**	1.481	7679485	7.211
	Co	59	**860.359**	**ug/L**	3.689	4978193	4.678
	Ni	60	**893.989**	**ug/L**	1.595	1151763	1.082
	Cu	63		**ug/L**		2733029	2.568
	Cu	65	**860.440**	**ug/L**	1.522	1382457	1.299
	Zn	66	**2296.251**	**ug/L**	2.524	2615024	5.694
	Zn	67		**ug/L**		427032	0.911
	Zn	68		**ug/L**		1732235	3.770
>	Ge	74		**ug/L**		459247	459247.389
	As	75	**883.053**	**ug/L**	0.825	1091519	2.377
	Se	77		**ug/L**		50699	0.101
	Se	82	**475.246**	**ug/L**	0.944	61578	0.134
	Kr	83		**ug/L**		227	0.000
	Sr	88	**995.378**	**ug/L**	2.644	14767789	46.891
	Y	89		**ug/L**		551	0.001
	Mo	98	**956.615**	**ug/L**	2.631	3694403	11.730
	Ag	107	**224.174**	**ug/L**	2.498	1474193	4.681
	Cd	111	**863.790**	**ug/L**	1.774	1478600	4.695
	Cd	114		**ug/L**		3560101	11.305
>	In	115		**ug/L**		315002	315001.536
	Sn	120	**924.248**	**ug/L**	2.576	6331433	20.104
	Sb	121	**231.104**	**ug/L**	2.325	1399350	4.442
	Sb	123		**ug/L**		1110323	3.525
	Ba	135		**ug/L**		1489490	2.835
	Ba	137	**901.711**	**ug/L**	1.336	2691213	5.122
	Ho	165		**ug/L**		420	0.001
>	Lu	175		**ug/L**		525452	525452.057
	Tl	205	**464.976**	**ug/L**	1.332	8633805	16.429
	Pb	208	**4618.733**	**ug/L**	2.335	155648236	296.259
	Bi	209		**ug/L**		4800	0.009
	Th	232	**2443.326**	**ug/L**	0.503	99502195	189.367
	U	238	**5020.557**	**ug/L**	2.082	209140098	398.071

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	94.289				
	Be	9	97.358				
	B	11					
	Na	23	119.077				
	Mg	24	98.712				
	Al	27	107.564				
	P	31	103.877				
	K	39	103.105				
	Ca	43	95.406				
>	Sc	45		104.0			
	Ti	47					
	V	51	88.936				
	Cr	52	90.399				
	Cr	53					
	Mn	55	93.474				
	Fe	57	107.178				
	Co	59	86.036				
	Ni	60	89.399				
	Cu	63					
	Cu	65	86.044				
	Zn	66	91.850				
	Zn	67					
	Zn	68					
>	Ge	74		107.2			
	As	75	88.305				
	Se	77					
	Se	82	95.049				
	Kr	83					
	Sr	88	99.538				
	Y	89					
	Mo	98	95.662				
	Ag	107	89.670				
	Cd	111	86.379				
	Cd	114					
>	In	115		105.4			
	Sn	120	92.425				
	Sb	121	92.442				
	Sb	123					
	Ba	135					
	Ba	137	90.171				
	Ho	165					
>	Lu	175		97.6			
	Tl	205	92.995				
	Pb	208	92.375				
	Bi	209					
	Th	232	97.733				
	U	238	100.411				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Na	23	LRS is out of limits (+/- 10%)
QC Std 10	V	51	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)

QC Std 10	Cd	111LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, February 18, 2010 06:14:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 11.276

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.787**	ug/L	3.103	71122	0.060
	Be	9	**51.096**	ug/L	2.027	16907	0.014
	B	11	**102.159**	ug/L	4.550	27030	0.023
	Na	23	**5905.773**	ug/L	10.793	10575590	8.904
	Mg	24	**5177.838**	ug/L	7.085	7649998	6.440
	Al	27	**5339.279**	ug/L	8.179	10752589	9.047
	P	31	**5287.570**	ug/L	2.477	720553	0.604
	K	39	**4979.877**	ug/L	8.569	19434555	15.947
	Ca	43	**5019.901**	ug/L	1.547	47908	0.040
>	Sc	45		ug/L		1188162	1188162.304
	Ti	47	**53.093**	ug/L	3.355	25632	0.021
	V	51	**53.112**	ug/L	5.474	317963	0.267
	Cr	52	**53.530**	ug/L	2.914	251504	0.214
	Cr	53		ug/L		119578	0.026
	Mn	55	**53.561**	ug/L	1.836	442463	0.371
	Fe	57	**5426.258**	ug/L	2.129	872845	0.730
	Co	59	**52.415**	ug/L	2.147	338668	0.285
	Ni	60	**52.784**	ug/L	3.266	76030	0.064
	Cu	63		ug/L		185705	0.156
	Cu	65	**52.039**	ug/L	2.320	93477	0.079
	Zn	66	**53.626**	ug/L	2.224	67531	0.133
	Zn	67		ug/L		20843	0.022
	Zn	68		ug/L		50338	0.097
>	Ge	74		ug/L		504921	504920.743
	As	75	**51.657**	ug/L	3.242	69964	0.139
	Se	77		ug/L		11216	0.012
	Se	82	**52.062**	ug/L	3.891	7418	0.015
	Kr	83		ug/L		165	-0.000
	Sr	88	**55.568**	ug/L	0.731	881803	2.618
	Y	89		ug/L		119	0.000
	Mo	98	**51.672**	ug/L	1.552	213505	0.634
	Ag	107	**53.394**	ug/L	0.507	375534	1.115
	Cd	111	**52.041**	ug/L	0.394	95278	0.283
	Cd	114		ug/L		222555	0.661
>	In	115		ug/L		336780	336779.799
	Sn	120	**52.537**	ug/L	1.430	385074	1.143
	Sb	121	**53.434**	ug/L	1.555	346303	1.027
	Sb	123		ug/L		270926	0.803
	Ba	135		ug/L		95763	0.176
	Ba	137	**53.891**	ug/L	1.297	166380	0.306
	Ho	165		ug/L		57	0.000
>	Lu	175		ug/L		543318	543318.388
	Tl	205	**53.314**	ug/L	1.752	1025085	1.884
	Pb	208	**54.617**	ug/L	0.825	1904170	3.503
	Bi	209		ug/L		540	0.001
	Th	232	**53.351**	ug/L	1.814	2247108	4.135
	U	238	**54.163**	ug/L	2.031	2333871	4.295

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.574				
	Be	9	102.192				
	B	11	102.159				
	Na	23	118.115				
	Mg	24	103.557				
	Al	27	105.728				
	P	31	105.751				
	K	39	99.598				
	Ca	43	100.398				
>	Sc	45		116.1			
	Ti	47	106.186				
	V	51	106.224				
	Cr	52	107.061				
	Cr	53					
	Mn	55	107.122				
	Fe	57	108.525				
	Co	59	104.831				
	Ni	60	105.567				
	Cu	63					
	Cu	65	104.078				
	Zn	66	107.253				
	Zn	67					
	Zn	68					
>	Ge	74		117.9			
	As	75	103.315				
	Se	77					
	Se	82	104.123				
	Kr	83					
	Sr	88	111.135				
	Y	89					
	Mo	98	103.344				
	Ag	107	106.787				
	Cd	111	104.081				
	Cd	114					
>	In	115		112.7			
	Sn	120	105.074				
	Sb	121	106.868				
	Sb	123					
	Ba	135					
	Ba	137	107.782				
	Ho	165					
>	Lu	175		100.9			
	Tl	205	106.628				
	Pb	208	109.235				
	Bi	209					
	Th	232	106.702				
	U	238	108.326				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	Sr	88	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, February 18, 2010 06:20:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 12.277

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.102**	ug/L	12.921	239	0.000
	Be	9	**0.044**	ug/L	17.174	38	0.000
	B	11	**2.981**	ug/L	14.524	1068	0.001
	Na	23	**1.971**	ug/L	46.833	9670	0.003
	Mg	24	**1.784**	ug/L	124.015	3667	0.002
	Al	27	**1.475**	ug/L	98.906	11004	0.002
	P	31	**1.197**	ug/L	168.175	3284	0.000
	K	39	**25.671**	ug/L	155.289	572942	0.082
	Ca	43	**-2.329**	ug/L	88.855	296	-0.000
>	Sc	45		ug/L		1176070	1176069.733
	Ti	47	**-0.052**	ug/L	83.096	315	-0.000
	V	51	**0.279**	ug/L	119.917	2948	0.001
	Cr	52	**0.206**	ug/L	19.610	-1215	0.001
	Cr	53		ug/L		85779	-0.001
	Mn	55	**-0.006**	ug/L	200.102	1291	-0.000
	Fe	57	**1.202**	ug/L	148.115	5666	0.000
	Co	59	**0.024**	ug/L	16.331	278	0.000
	Ni	60	**0.026**	ug/L	16.646	175	0.000
	Cu	63		ug/L		389	0.000
	Cu	65	**0.036**	ug/L	32.631	230	0.000
	Zn	66	**0.005**	ug/L	174.795	390	0.000
	Zn	67		ug/L		9279	-0.000
	Zn	68		ug/L		1170	0.000
>	Ge	74		ug/L		497964	497963.952
	As	75	**-0.063**	ug/L	335.348	-319	-0.000
	Se	77		ug/L		5596	0.001
	Se	82	**0.022**	ug/L	713.343	6	0.000
	Kr	83		ug/L		155	-0.000
	Sr	88	**0.019**	ug/L	10.884	568	0.001
	Y	89		ug/L		75	-0.000
	Mo	98	**0.138**	ug/L	4.180	717	0.002
	Ag	107	**0.010**	ug/L	30.192	160	0.000
	Cd	111	**0.023**	ug/L	53.437	70	0.000
	Cd	114		ug/L		132	0.000
>	In	115		ug/L		340721	340721.379
	Sn	120	**0.109**	ug/L	10.428	1069	0.002
	Sb	121	**0.714**	ug/L	9.799	5144	0.014
	Sb	123		ug/L		3957	0.011
	Ba	135		ug/L		89	0.000
	Ba	137	**0.020**	ug/L	3.699	135	0.000
	Ho	165		ug/L		38	0.000
>	Lu	175		ug/L		545428	545427.760
	Tl	205	**0.360**	ug/L	17.462	8662	0.013
	Pb	208	**0.069**	ug/L	4.770	3224	0.004
	Bi	209		ug/L		139	-0.000
	Th	232	**0.084**	ug/L	4.254	4338	0.006
	U	238	**0.086**	ug/L	6.809	4615	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		116.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		114.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 18, 2010 07:09:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 8.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.969**	**ug/L**	1.255	70321	0.064
	Be	9	**53.938**	**ug/L**	1.516	16603	0.015
	B	11	**106.029**	**ug/L**	3.637	26092	0.023
	Na	23	**5742.192**	**ug/L**	8.757	9571715	8.657
	Mg	24	**4956.648**	**ug/L**	2.778	6814730	6.165
	Al	27	**5760.481**	**ug/L**	3.839	10794137	9.761
	P	31	**5470.685**	**ug/L**	1.906	693469	0.625
	K	39	**4800.096**	**ug/L**	3.449	17438951	15.371
	Ca	43	**5139.936**	**ug/L**	0.741	45631	0.041
>	Sc	45		**ug/L**		1105244	1105244.123
	Ti	47	**54.568**	**ug/L**	2.556	24507	0.022
	V	51	**53.982**	**ug/L**	1.701	300781	0.271
	Cr	52	**54.312**	**ug/L**	2.034	237454	0.217
	Cr	53		**ug/L**		133243	0.046
	Mn	55	**55.834**	**ug/L**	1.073	429096	0.387
	Fe	57	**5548.176**	**ug/L**	0.755	830323	0.747
	Co	59	**53.851**	**ug/L**	1.834	323714	0.293
	Ni	60	**54.352**	**ug/L**	1.492	72849	0.066
	Cu	63		**ug/L**		178338	0.161
	Cu	65	**53.556**	**ug/L**	1.351	89505	0.081
	Zn	66	**53.904**	**ug/L**	3.197	63593	0.134
	Zn	67		**ug/L**		22042	0.028
	Zn	68		**ug/L**		48493	0.100
>	Ge	74		**ug/L**		473167	473167.001
	As	75	**52.425**	**ug/L**	2.239	66551	0.141
	Se	77		**ug/L**		11980	0.015
	Se	82	**52.622**	**ug/L**	2.133	7027	0.015
	Kr	83		**ug/L**		167	0.000
	Sr	88	**56.225**	**ug/L**	2.006	850459	2.649
	Y	89		**ug/L**		188	0.000
	Mo	98	**52.227**	**ug/L**	2.202	205686	0.640
	Ag	107	**54.561**	**ug/L**	2.446	365730	1.139
	Cd	111	**52.130**	**ug/L**	3.144	90948	0.283
	Cd	114		**ug/L**		216119	0.673
>	In	115		**ug/L**		321083	321083.325
	Sn	120	**53.510**	**ug/L**	2.308	373813	1.164
	Sb	121	**52.358**	**ug/L**	2.755	323408	1.006
	Sb	123		**ug/L**		251327	0.782
	Ba	135		**ug/L**		93301	0.177
	Ba	137	**55.162**	**ug/L**	1.453	164824	0.313
	Ho	165		**ug/L**		68	0.000
>	Lu	175		**ug/L**		525839	525839.084
	Tl	205	**55.077**	**ug/L**	2.778	1024741	1.946
	Pb	208	**55.921**	**ug/L**	2.059	1886626	3.587
	Bi	209		**ug/L**		504	0.001
	Th	232	**53.160**	**ug/L**	3.939	2166534	4.120
	U	238	**54.431**	**ug/L**	2.514	2269731	4.316

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	107.938				
	Be	9	107.875				
	B	11	106.029				
	Na	23	114.844				
	Mg	24	99.133				
	Al	27	114.069				
	P	31	109.414				
	K	39	96.002				
	Ca	43	102.799				
>	Sc	45		108.0			
	Ti	47	109.136				
	V	51	107.964				
	Cr	52	108.623				
	Cr	53					
	Mn	55	111.668				
	Fe	57	110.964				
	Co	59	107.703				
	Ni	60	108.704				
	Cu	63					
	Cu	65	107.111				
	Zn	66	107.808				
	Zn	67					
	Zn	68					
>	Ge	74		110.5			
	As	75	104.849				
	Se	77					
	Se	82	105.244				
	Kr	83					
	Sr	88	112.450				
	Y	89					
	Mo	98	104.454				
	Ag	107	109.123				
	Cd	111	104.260				
	Cd	114					
>	In	115		107.4			
	Sn	120	107.020				
	Sb	121	104.717				
	Sb	123					
	Ba	135					
	Ba	137	110.324				
	Ho	165					
>	Lu	175		97.6			
	Tl	205	110.154				
	Pb	208	111.843				
	Bi	209					
	Th	232	106.320				
	U	238	108.862				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Al	27	CCV is out of limits (+/- 10%)
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Sr	88	CCV is out of limits (+/- 10%)
QC Std 8	Ba	137	CCV is out of limits (+/- 10%)
QC Std 8	Tl	205	CCV is out of limits (+/- 10%)

QC Std 8	Pb	208CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 18, 2010 07:15:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 9.286

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.000	ug/L	1581.495	94	-0.000
	Be	9	0.007	ug/L	239.804	25	0.000
	B	11	3.195	ug/L	14.024	1093	0.001
	Na	23	2.726	ug/L	53.910	10671	0.004
	Mg	24	0.843	ug/L	124.633	2334	0.001
	Al	27	-0.939	ug/L	97.963	6001	-0.002
	P	31	-0.515	ug/L	434.828	2984	-0.000
	K	39	-13.588	ug/L	8.159	418031	-0.044
	Ca	43	2.056	ug/L	190.979	329	0.000
>	Sc	45		ug/L		1145705	1145704.945
	Ti	47	-0.015	ug/L	679.565	324	-0.000
	V	51	-0.101	ug/L	139.273	741	-0.001
	Cr	52	0.052	ug/L	97.781	-1886	0.000
	Cr	53		ug/L		92384	0.006
	Mn	55	-0.020	ug/L	20.373	1146	-0.000
	Fe	57	2.647	ug/L	11.183	5750	0.000
	Co	59	0.003	ug/L	26.297	142	0.000
	Ni	60	-0.001	ug/L	217.378	132	-0.000
	Cu	63		ug/L		263	0.000
	Cu	65	-0.002	ug/L	352.350	157	-0.000
	Zn	66	-0.013	ug/L	108.752	360	-0.000
	Zn	67		ug/L		9999	0.002
	Zn	68		ug/L		1136	0.000
>	Ge	74		ug/L		488534	488534.387
	As	75	-0.320	ug/L	58.129	-658	-0.001
	Se	77		ug/L		6045	0.003
	Se	82	0.009	ug/L	615.498	4	0.000
	Kr	83		ug/L		152	-0.000
	Sr	88	0.004	ug/L	19.669	312	0.000
	Y	89		ug/L		73	-0.000
	Mo	98	0.039	ug/L	12.646	299	0.000
	Ag	107	0.002	ug/L	68.120	101	0.000
	Cd	111	0.011	ug/L	16.191	46	0.000
	Cd	114		ug/L		77	-0.000
>	In	115		ug/L		333675	333675.378
	Sn	120	0.023	ug/L	18.617	422	0.001
	Sb	121	0.188	ug/L	13.486	1664	0.004
	Sb	123		ug/L		1305	0.003
	Ba	135		ug/L		64	0.000
	Ba	137	0.008	ug/L	42.414	99	0.000
	Ho	165		ug/L		35	0.000
>	Lu	175		ug/L		547140	547140.210
	Tl	205	0.388	ug/L	11.579	9234	0.014
	Pb	208	0.002	ug/L	39.947	910	0.000
	Bi	209		ug/L		152	-0.000
	Th	232	0.030	ug/L	3.606	2060	0.002
	U	238	0.004	ug/L	20.530	1046	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		111.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		114.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		111.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 18, 2010 08:12:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 8.295

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.262**	ug/L	0.417	67473	0.063
	Be	9	**56.196**	ug/L	2.808	16813	0.016
	B	11	**106.395**	ug/L	4.070	25447	0.023
	Na	23	**5696.823**	ug/L	6.605	9229868	8.589
	Mg	24	**5780.882**	ug/L	11.017	7732199	7.190
	Al	27	**5579.576**	ug/L	3.717	10170919	9.454
	P	31	**5392.176**	ug/L	2.552	664387	0.616
	K	39	**4532.846**	ug/L	1.141	16037659	14.516
	Ca	43	**4946.766**	ug/L	2.028	42717	0.039
>	Sc	45		ug/L		1074531	1074531.224
	Ti	47	**53.866**	ug/L	3.348	23517	0.022
	V	51	**52.624**	ug/L	3.313	285011	0.264
	Cr	52	**53.515**	ug/L	1.044	227444	0.214
	Cr	53		ug/L		140665	0.057
	Mn	55	**54.027**	ug/L	2.353	403654	0.375
	Fe	57	**5427.695**	ug/L	1.289	789791	0.730
	Co	59	**52.690**	ug/L	1.756	307924	0.286
	Ni	60	**54.277**	ug/L	1.876	70706	0.066
	Cu	63		ug/L		171636	0.159
	Cu	65	**53.114**	ug/L	0.620	86309	0.080
	Zn	66	**52.232**	ug/L	3.364	62037	0.130
	Zn	67		ug/L		23002	0.029
	Zn	68		ug/L		47338	0.097
>	Ge	74		ug/L		476454	476453.646
	As	75	**50.930**	ug/L	3.405	65062	0.137
	Se	77		ug/L		11924	0.015
	Se	82	**52.272**	ug/L	3.199	7025	0.015
	Kr	83		ug/L		156	-0.000
	Sr	88	**54.105**	ug/L	2.313	824238	2.549
	Y	89		ug/L		184	0.000
	Mo	98	**50.820**	ug/L	1.913	201607	0.623
	Ag	107	**52.995**	ug/L	1.861	357831	1.107
	Cd	111	**52.016**	ug/L	1.775	91425	0.283
	Cd	114		ug/L		214212	0.662
>	In	115		ug/L		323365	323364.693
	Sn	120	**52.215**	ug/L	0.910	367470	1.136
	Sb	121	**51.777**	ug/L	3.207	322132	0.995
	Sb	123		ug/L		252915	0.781
	Ba	135		ug/L		91432	0.172
	Ba	137	**53.458**	ug/L	1.047	161500	0.304
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		531642	531641.501
	Tl	205	**54.406**	ug/L	1.712	1023523	1.922
	Pb	208	**54.525**	ug/L	1.178	1859963	3.497
	Bi	209		ug/L		535	0.001
	Th	232	**52.582**	ug/L	2.154	2167013	4.075
	U	238	**53.361**	ug/L	1.974	2249809	4.231

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.525				
	Be	9	112.391				
	B	11	106.395				
	Na	23	113.936				
	Mg	24	115.618				
	Al	27	110.487				
	P	31	107.844				
	K	39	90.657				
	Ca	43	98.935				
>	Sc	45		105.0			
	Ti	47	107.732				
	V	51	105.248				
	Cr	52	107.029				
	Cr	53					
	Mn	55	108.055				
	Fe	57	108.554				
	Co	59	105.380				
	Ni	60	108.554				
	Cu	63					
	Cu	65	106.227				
	Zn	66	104.463				
	Zn	67					
	Zn	68					
>	Ge	74		111.2			
	As	75	101.859				
	Se	77					
	Se	82	104.545				
	Kr	83					
	Sr	88	108.210				
	Y	89					
	Mo	98	101.640				
	Ag	107	105.990				
	Cd	111	104.032				
	Cd	114					
>	In	115		108.2			
	Sn	120	104.429				
	Sb	121	103.554				
	Sb	123					
	Ba	135					
	Ba	137	106.917				
	Ho	165					
>	Lu	175		98.7			
	Tl	205	108.811				
	Pb	208	109.050				
	Bi	209					
	Th	232	105.165				
	U	238	106.723				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	CCV is out of limits (+/- 10%)
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Mg	24	CCV is out of limits (+/- 10%)
QC Std 8	Al	27	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 18, 2010 08:18:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 9.296

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.003**	**ug/L**	144.283	82	-0.000
	Be	9	**0.027**	**ug/L**	102.697	28	0.000
	B	11	**3.240**	**ug/L**	17.401	1000	0.001
	Na	23	**1.876**	**ug/L**	41.523	8336	0.003
	Mg	24	**0.246**	**ug/L**	179.001	1333	0.000
	Al	27	**-0.812**	**ug/L**	42.770	5668	-0.001
	P	31	**3.289**	**ug/L**	24.280	3153	0.000
	K	39	**15.600**	**ug/L**	51.456	475460	0.050
	Ca	43	**8.780**	**ug/L**	43.718	353	0.000
>	Sc	45		**ug/L**		1037844	1037844.020
	Ti	47	**0.128**	**ug/L**	69.299	354	0.000
	V	51	**-0.022**	**ug/L**	921.348	1091	-0.000
	Cr	52	**-0.129**	**ug/L**	62.827	-2460	-0.001
	Cr	53		**ug/L**		98894	0.021
	Mn	55	**-0.004**	**ug/L**	322.230	1155	-0.000
	Fe	57	**8.964**	**ug/L**	15.848	6090	0.001
	Co	59	**0.009**	**ug/L**	39.805	165	0.000
	Ni	60	**0.003**	**ug/L**	471.662	124	0.000
	Cu	63		**ug/L**		264	0.000
	Cu	65	**0.011**	**ug/L**	92.267	163	0.000
	Zn	66	**-0.017**	**ug/L**	177.977	334	-0.000
	Zn	67		**ug/L**		10888	0.005
	Zn	68		**ug/L**		1289	0.001
>	Ge	74		**ug/L**		459054	459053.872
	As	75	**-0.397**	**ug/L**	115.555	-705	-0.001
	Se	77		**ug/L**		6048	0.003
	Se	82	**-0.006**	**ug/L**	2522.976	2	-0.000
	Kr	83		**ug/L**		154	0.000
	Sr	88	**0.004**	**ug/L**	39.828	301	0.000
	Y	89		**ug/L**		66	-0.000
	Mo	98	**0.040**	**ug/L**	16.637	289	0.000
	Ag	107	**0.005**	**ug/L**	28.286	115	0.000
	Cd	111	**0.008**	**ug/L**	37.274	39	0.000
	Cd	114		**ug/L**		87	-0.000
>	In	115		**ug/L**		320108	320108.372
	Sn	120	**0.027**	**ug/L**	10.434	431	0.001
	Sb	121	**0.192**	**ug/L**	20.224	1617	0.004
	Sb	123		**ug/L**		1228	0.003
	Ba	135		**ug/L**		68	0.000
	Ba	137	**0.002**	**ug/L**	93.524	78	0.000
	Ho	165		**ug/L**		34	0.000
>	Lu	175		**ug/L**		532263	532262.996
	Tl	205	**0.429**	**ug/L**	14.775	9749	0.015
	Pb	208	**0.003**	**ug/L**	24.618	894	0.000
	Bi	209		**ug/L**		173	-0.000
	Th	232	**0.031**	**ug/L**	12.819	2058	0.002
	U	238	**0.004**	**ug/L**	20.753	1035	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		107.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		107.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030875
Sample Date/Time: Thursday, February 18, 2010 08:32:27
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\1202030875.298

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.004**	**ug/L**	297.490	100	-0.000
	Be	9	**-0.022**	**ug/L**	53.291	18	-0.000
	B	11	**0.250**	**ug/L**	10.438	392	0.000
	Na	23	**5.641**	**ug/L**	21.178	17678	0.009
	Mg	24	**0.250**	**ug/L**	137.882	1667	0.000
	Al	27	**0.831**	**ug/L**	144.490	10671	0.001
	P	31	**7.343**	**ug/L**	23.385	4510	0.001
	K	39	**29.988**	**ug/L**	16.824	650142	0.096
	Ca	43	**35.344**	**ug/L**	13.092	711	0.000
>	Sc	45		**ug/L**		1289209	1289209.238
	Ti	47	**0.606**	**ug/L**	7.728	686	0.000
	V	51	**-5.531**	**ug/L**	22.269	-34421	-0.028
	Cr	52	**-0.112**	**ug/L**	54.647	-2964	-0.000
	Cr	53		**ug/L**		342203	0.191
	Mn	55	**0.249**	**ug/L**	5.394	3697	0.002
	Fe	57	**11.325**	**ug/L**	17.337	7973	0.002
	Co	59	**-0.003**	**ug/L**	40.211	122	-0.000
	Ni	60	**0.050**	**ug/L**	23.024	229	0.000
	Cu	63		**ug/L**		473	0.000
	Cu	65	**0.037**	**ug/L**	22.022	254	0.000
	Zn	66	**0.701**	**ug/L**	6.661	1265	0.002
	Zn	67		**ug/L**		54992	0.090
	Zn	68		**ug/L**		4342	0.006
>	Ge	74		**ug/L**		504075	504075.171
	As	75	**-1.564**	**ug/L**	57.238	-2360	-0.004
	Se	77		**ug/L**		25949	0.042
	Se	82	**0.212**	**ug/L**	62.365	33	0.000
	Kr	83		**ug/L**		144	-0.000
	Sr	88	**0.050**	**ug/L**	4.012	958	0.002
	Y	89		**ug/L**		88	0.000
	Mo	98	**-0.006**	**ug/L**	42.821	106	-0.000
	Ag	107	**-0.005**	**ug/L**	18.294	49	-0.000
	Cd	111	**0.004**	**ug/L**	123.271	31	0.000
	Cd	114		**ug/L**		37	-0.000
>	In	115		**ug/L**		309271	309270.904
	Sn	120	**0.054**	**ug/L**	6.744	596	0.001
	Sb	121	**0.009**	**ug/L**	49.661	476	0.000
	Sb	123		**ug/L**		364	0.000
	Ba	135		**ug/L**		82	0.000
	Ba	137	**0.018**	**ug/L**	9.055	120	0.000
	Ho	165		**ug/L**		33	0.000
>	Lu	175		**ug/L**		499355	499355.161
	Tl	205	**0.093**	**ug/L**	6.590	3215	0.003
	Pb	208	**-0.006**	**ug/L**	10.908	558	-0.000
	Bi	209		**ug/L**		108	-0.000
	Th	232	**0.001**	**ug/L**	228.021	766	0.000
	U	238	**-0.018**	**ug/L**	0.877	98	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		125.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		117.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202030876
Sample Date/Time: Thursday, February 18, 2010 08:38:38
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\1202030876.299

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.324**	ug/L	2.004	68223	0.051
	Be	9	**45.572**	ug/L	3.662	16947	0.013
	B	11	**91.189**	ug/L	2.989	27157	0.020
	Na	23	**1934.559**	ug/L	5.492	3899944	2.917
	Mg	24	**2128.804**	ug/L	15.250	3534644	2.648
	Al	27	**2144.013**	ug/L	10.132	4858331	3.633
	P	31	**2161.112**	ug/L	3.089	333050	0.247
	K	39	**1880.002**	ug/L	1.306	8588378	6.020
	Ca	43	**2078.915**	ug/L	0.557	22518	0.017
>	Sc	45		ug/L		1335764	1335764.272
	Ti	47	**47.536**	ug/L	2.964	25836	0.019
	V	51	**40.348**	ug/L	7.260	271731	0.203
	Cr	52	**49.299**	ug/L	3.518	260168	0.197
	Cr	53		ug/L		376175	0.208
	Mn	55	**50.631**	ug/L	5.422	469966	0.351
	Fe	57	**2083.004**	ug/L	5.267	380247	0.280
	Co	59	**48.529**	ug/L	4.838	352281	0.264
	Ni	60	**49.714**	ug/L	3.717	80480	0.060
	Cu	63		ug/L		195381	0.146
	Cu	65	**48.007**	ug/L	3.605	96924	0.072
	Zn	66	**53.574**	ug/L	2.292	68113	0.133
	Zn	67		ug/L		66295	0.111
	Zn	68		ug/L		53923	0.104
>	Ge	74		ug/L		509859	509859.358
	As	75	**49.447**	ug/L	0.471	67626	0.133
	Se	77		ug/L		30836	0.051
	Se	82	**51.282**	ug/L	2.323	7378	0.014
	Kr	83		ug/L		183	0.000
	Sr	88	**56.592**	ug/L	2.267	844623	2.666
	Y	89		ug/L		122	0.000
	Mo	98	**52.473**	ug/L	0.960	203943	0.643
	Ag	107	**54.584**	ug/L	1.552	361075	1.140
	Cd	111	**51.349**	ug/L	1.057	88436	0.279
	Cd	114		ug/L		209282	0.660
>	In	115		ug/L		316772	316771.559
	Sn	120	**51.840**	ug/L	0.908	357411	1.128
	Sb	121	**54.568**	ug/L	1.005	332644	1.049
	Sb	123		ug/L		258742	0.816
	Ba	135		ug/L		87450	0.169
	Ba	137	**52.572**	ug/L	1.466	154836	0.299
	Ho	165		ug/L		50	0.000
>	Lu	175		ug/L		518259	518259.162
	Tl	205	**49.638**	ug/L	1.714	910557	1.754
	Pb	208	**52.949**	ug/L	0.973	1760890	3.396
	Bi	209		ug/L		1477131	2.850
	Th	232	**50.343**	ug/L	2.365	2022740	3.902
	U	238	**51.813**	ug/L	1.176	2129856	4.108

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		130.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		119.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 245690001
Sample Date/Time: Thursday, February 18, 2010 08:51:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\245690001.301

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.093**	**ug/L**	5.156	260	0.000
	Be	9	**-0.015**	**ug/L**	95.450	21	-0.000
	B	11	**17.748**	**ug/L**	4.611	5635	0.004
	Na	23	**112.799**	**ug/L**	5.187	237633	0.170
	Mg	24	**3.548**	**ug/L**	56.289	7336	0.004
	Al	27	**11.276**	**ug/L**	28.645	35044	0.019
	P	31	**9.453**	**ug/L**	40.424	5062	0.001
	K	39	**209.713**	**ug/L**	11.008	1464785	0.672
	Ca	43	**61.321**	**ug/L**	6.328	1029	0.000
>	Sc	45		**ug/L**		1355144	1355144.025
	Ti	47	**1.023**	**ug/L**	6.049	948	0.000
	V	51	**-5.487**	**ug/L**	24.188	-35904	-0.028
	Cr	52	**0.929**	**ug/L**	19.274	2498	0.004
	Cr	53		**ug/L**		383013	0.208
	Mn	55	**0.999**	**ug/L**	5.851	10926	0.007
	Fe	57	**20.267**	**ug/L**	11.882	10009	0.003
	Co	59	**0.004**	**ug/L**	37.426	175	0.000
	Ni	60	**0.103**	**ug/L**	11.167	326	0.000
	Cu	63		**ug/L**		2425	0.002
	Cu	65	**0.487**	**ug/L**	6.334	1186	0.001
	Zn	66	**1.954**	**ug/L**	4.657	2821	0.005
	Zn	67		**ug/L**		56152	0.093
	Zn	68		**ug/L**		5705	0.009
>	Ge	74		**ug/L**		502644	502644.311
	As	75	**-2.447**	**ug/L**	28.821	-3558	-0.007
	Se	77		**ug/L**		30423	0.051
	Se	82	**0.053**	**ug/L**	263.411	11	0.000
	Kr	83		**ug/L**		168	0.000
	Sr	88	**0.136**	**ug/L**	2.512	2214	0.006
	Y	89		**ug/L**		233	0.000
	Mo	98	**0.039**	**ug/L**	7.570	273	0.000
	Ag	107	**0.001**	**ug/L**	64.475	83	0.000
	Cd	111	**0.005**	**ug/L**	202.309	34	0.000
	Cd	114		**ug/L**		47	-0.000
>	In	115		**ug/L**		307956	307955.760
	Sn	120	**0.460**	**ug/L**	2.107	3313	0.010
	Sb	121	**-0.006**	**ug/L**	8.333	387	-0.000
	Sb	123		**ug/L**		317	-0.000
	Ba	135		**ug/L**		491	0.001
	Ba	137	**0.273**	**ug/L**	2.236	859	0.002
	Ho	165		**ug/L**		43	0.000
>	Lu	175		**ug/L**		508443	508442.759
	Tl	205	**0.242**	**ug/L**	5.762	5951	0.009
	Pb	208	**0.027**	**ug/L**	8.169	1652	0.002
	Bi	209		**ug/L**		251	0.000
	Th	232	**0.002**	**ug/L**	79.836	814	0.000
	U	238	**-0.010**	**ug/L**	8.866	434	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		132.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		117.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202030877
Sample Date/Time: Thursday, February 18, 2010 08:57:28
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\1202030877.302

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	ug/L	11.307	243	0.000
	Be	9	**-0.003**	ug/L	77.838	26	-0.000
	B	11	**17.253**	ug/L	2.556	5563	0.004
	Na	23	**99.716**	ug/L	12.505	213600	0.150
	Mg	24	**4.290**	ug/L	56.866	8670	0.005
	Al	27	**10.019**	ug/L	19.581	32705	0.017
	P	31	**8.573**	ug/L	3.178	5001	0.001
	K	39	**201.161**	ug/L	17.878	1445427	0.644
	Ca	43	**56.041**	ug/L	4.933	985	0.000
>	Sc	45		ug/L		1373415	1373414.961
	Ti	47	**0.913**	ug/L	2.665	900	0.000
	V	51	**-5.825**	ug/L	58.180	-38594	-0.029
	Cr	52	**0.846**	ug/L	18.758	2091	0.003
	Cr	53		ug/L		392496	0.212
	Mn	55	**0.937**	ug/L	2.203	10489	0.006
	Fe	57	**13.131**	ug/L	2.127	8831	0.002
	Co	59	**0.003**	ug/L	49.104	170	0.000
	Ni	60	**0.086**	ug/L	11.827	303	0.000
	Cu	63		ug/L		2370	0.002
	Cu	65	**0.463**	ug/L	4.101	1153	0.001
	Zn	66	**1.975**	ug/L	1.836	2829	0.005
	Zn	67		ug/L		55531	0.092
	Zn	68		ug/L		5643	0.009
>	Ge	74		ug/L		499172	499172.154
	As	75	**-2.428**	ug/L	43.726	-3486	-0.007
	Se	77		ug/L		32237	0.055
	Se	82	**0.139**	ug/L	78.936	23	0.000
	Kr	83		ug/L		159	-0.000
	Sr	88	**0.130**	ug/L	7.000	2167	0.006
	Y	89		ug/L		179	0.000
	Mo	98	**0.011**	ug/L	26.933	172	0.000
	Ag	107	**-0.001**	ug/L	202.244	76	-0.000
	Cd	111	**0.006**	ug/L	76.664	36	0.000
	Cd	114		ug/L		55	-0.000
>	In	115		ug/L		314226	314226.002
	Sn	120	**0.262**	ug/L	2.235	2028	0.006
	Sb	121	**-0.014**	ug/L	20.807	342	-0.000
	Sb	123		ug/L		275	-0.000
	Ba	135		ug/L		398	0.001
	Ba	137	**0.208**	ug/L	2.668	678	0.001
	Ho	165		ug/L		38	0.000
>	Lu	175		ug/L		515073	515073.486
	Tl	205	**0.137**	ug/L	4.851	4113	0.005
	Pb	208	**0.027**	ug/L	5.000	1665	0.002
	Bi	209		ug/L		122	-0.000
	Th	232	**-0.004**	ug/L	27.863	619	-0.000
	U	238	**-0.013**	ug/L	3.181	285	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		134.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		116.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202030878
Sample Date/Time: Thursday, February 18, 2010 09:03:40
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\1202030878.303

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.083**	ug/L	1.687	69891	0.051
	Be	9	**45.187**	ug/L	3.747	17315	0.013
	B	11	**108.294**	ug/L	0.816	33173	0.024
	Na	23	**2349.979**	ug/L	9.620	4874930	3.543
	Mg	24	**1969.731**	ug/L	10.311	3372894	2.450
	Al	27	**2157.669**	ug/L	9.857	5032832	3.656
	P	31	**2168.958**	ug/L	2.358	344379	0.248
	K	39	**2327.385**	ug/L	9.957	10817044	7.453
	Ca	43	**2163.482**	ug/L	2.841	24129	0.017
>	Sc	45		ug/L		1375907	1375907.429
	Ti	47	**49.582**	ug/L	0.156	27756	0.020
	V	51	**41.751**	ug/L	6.574	289705	0.210
	Cr	52	**51.597**	ug/L	5.863	280509	0.206
	Cr	53		ug/L		408606	0.223
	Mn	55	**50.021**	ug/L	1.233	478649	0.347
	Fe	57	**2058.482**	ug/L	1.990	387435	0.277
	Co	59	**47.835**	ug/L	3.187	357854	0.260
	Ni	60	**48.125**	ug/L	2.364	80284	0.058
	Cu	63		ug/L		199910	0.145
	Cu	65	**47.811**	ug/L	2.986	99454	0.072
	Zn	66	**55.168**	ug/L	2.076	67893	0.137
	Zn	67		ug/L		67241	0.117
	Zn	68		ug/L		53472	0.106
>	Ge	74		ug/L		493571	493571.478
	As	75	**79.199**	ug/L	3.369	104991	0.213
	Se	77		ug/L		32366	0.056
	Se	82	**20.886**	ug/L	1.801	2912	0.006
	Kr	83		ug/L		190	0.000
	Sr	88	**57.359**	ug/L	1.786	826481	2.702
	Y	89		ug/L		219	0.000
	Mo	98	**53.338**	ug/L	0.862	200143	0.654
	Ag	107	**56.088**	ug/L	1.167	358195	1.171
	Cd	111	**11.011**	ug/L	1.236	18326	0.060
	Cd	114		ug/L		41637	0.136
>	In	115		ug/L		305806	305805.502
	Sn	120	**54.351**	ug/L	0.895	361774	1.182
	Sb	121	**211.546**	ug/L	1.684	1243830	4.066
	Sb	123		ug/L		984820	3.220
	Ba	135		ug/L		89254	0.175
	Ba	137	**53.866**	ug/L	0.605	156209	0.306
	Ho	165		ug/L		304	0.001
>	Lu	175		ug/L		510306	510305.929
	Tl	205	**89.558**	ug/L	2.635	1616466	3.164
	Pb	208	**44.947**	ug/L	0.630	1471967	2.883
	Bi	209		ug/L		632	0.001
	Th	232	**53.356**	ug/L	0.856	2111005	4.135
	U	238	**54.406**	ug/L	0.379	2202182	4.314

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		134.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		115.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202030879
Sample Date/Time: Thursday, February 18, 2010 09:09:54
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948041|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\1202030879.304

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.004**	ug/L	142.161	95	0.000
	Be	9	**-0.010**	ug/L	111.624	19	-0.000
	B	11	**7.079**	ug/L	11.185	1982	0.002
	Na	23	**24.905**	ug/L	17.889	46744	0.038
	Mg	24	**0.203**	ug/L	563.550	1333	0.000
	Al	27	**-1.173**	ug/L	92.176	5334	-0.002
	P	31	**9.979**	ug/L	7.051	4163	0.001
	K	39	**62.124**	ug/L	43.982	663903	0.199
	Ca	43	**31.750**	ug/L	8.767	573	0.000
>	Sc	45		ug/L		1094733	1094732.866
	Ti	47	**0.461**	ug/L	19.815	519	0.000
	V	51	**-0.968**	ug/L	86.403	-4035	-0.005
	Cr	52	**0.268**	ug/L	30.509	-855	0.001
	Cr	53		ug/L		182888	0.093
	Mn	55	**0.289**	ug/L	5.730	3438	0.002
	Fe	57	**9.554**	ug/L	16.020	6510	0.001
	Co	59	**0.001**	ug/L	163.524	125	0.000
	Ni	60	**0.040**	ug/L	23.867	180	0.000
	Cu	63		ug/L		719	0.000
	Cu	65	**0.137**	ug/L	9.940	380	0.000
	Zn	66	**0.602**	ug/L	1.179	1028	0.001
	Zn	67		ug/L		20493	0.026
	Zn	68		ug/L		2384	0.003
>	Ge	74		ug/L		454457	454457.087
	As	75	**-1.255**	ug/L	64.164	-1748	-0.003
	Se	77		ug/L		14289	0.022
	Se	82	**0.101**	ug/L	117.093	16	0.000
	Kr	83		ug/L		139	-0.000
	Sr	88	**0.029**	ug/L	3.295	655	0.001
	Y	89		ug/L		96	0.000
	Mo	98	**0.020**	ug/L	63.625	203	0.000
	Ag	107	**-0.002**	ug/L	22.355	66	-0.000
	Cd	111	**0.004**	ug/L	124.489	31	0.000
	Cd	114		ug/L		54	-0.000
>	In	115		ug/L		307730	307729.649
	Sn	120	**0.122**	ug/L	0.983	1050	0.003
	Sb	121	**-0.003**	ug/L	285.581	404	-0.000
	Sb	123		ug/L		305	-0.000
	Ba	135		ug/L		150	0.000
	Ba	137	**0.062**	ug/L	2.635	255	0.000
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		519920	519920.440
	Tl	205	**2.649**	ug/L	16.262	50339	0.094
	Pb	208	**-0.000**	ug/L	8.865	778	-0.000
	Bi	209		ug/L		187	0.000
	Th	232	**0.007**	ug/L	58.120	1064	0.001
	U	238	**-0.014**	ug/L	9.054	269	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovr	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		106.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245690002
Sample Date/Time: Thursday, February 18, 2010 09:16:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\245690002.305

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.136**	ug/L	12.784	319	0.000
	Be	9	**-0.002**	ug/L	414.001	25	-0.000
	B	11	**17.308**	ug/L	2.058	5348	0.004
	Na	23	**146.865**	ug/L	9.838	298094	0.221
	Mg	24	**21.259**	ug/L	15.502	36046	0.026
	Al	27	**158.675**	ug/L	17.531	362275	0.269
	P	31	**14.230**	ug/L	5.319	5642	0.002
	K	39	**244.527**	ug/L	9.916	1568583	0.783
	Ca	43	**114.212**	ug/L	8.045	1555	0.001
>	Sc	45		ug/L		1316029	1316029.348
	Ti	47	**3.656**	ug/L	2.252	2310	0.001
	V	51	**-4.896**	ug/L	33.647	-30893	-0.025
	Cr	52	**2.790**	ug/L	3.617	12208	0.011
	Cr	53		ug/L		384489	0.218
	Mn	55	**5.782**	ug/L	0.515	54258	0.040
	Fe	57	**106.721**	ug/L	2.753	25031	0.014
	Co	59	**0.084**	ug/L	2.799	741	0.000
	Ni	60	**1.273**	ug/L	3.892	2181	0.002
	Cu	63		ug/L		4968	0.004
	Cu	65	**1.141**	ug/L	4.123	2451	0.002
	Zn	66	**2.199**	ug/L	4.040	3008	0.005
	Zn	67		ug/L		52387	0.089
	Zn	68		ug/L		5581	0.009
>	Ge	74		ug/L		483457	483456.941
	As	75	**-2.284**	ug/L	44.807	-3206	-0.006
	Se	77		ug/L		33050	0.058
	Se	82	**-0.011**	ug/L	1092.397	2	-0.000
	Kr	83		ug/L		154	-0.000
	Sr	88	**0.603**	ug/L	1.279	8693	0.028
	Y	89		ug/L		2082	0.007
	Mo	98	**0.121**	ug/L	2.740	565	0.001
	Ag	107	**0.001**	ug/L	223.182	81	0.000
	Cd	111	**0.010**	ug/L	77.623	41	0.000
	Cd	114		ug/L		56	-0.000
>	In	115		ug/L		298168	298168.439
	Sn	120	**0.276**	ug/L	2.640	2017	0.006
	Sb	121	**0.004**	ug/L	113.944	430	0.000
	Sb	123		ug/L		360	0.000
	Ba	135		ug/L		3241	0.006
	Ba	137	**2.045**	ug/L	3.070	5856	0.012
	Ho	165		ug/L		181	0.000
>	Lu	175		ug/L		498192	498192.249
	Tl	205	**0.888**	ug/L	7.864	17195	0.031
	Pb	208	**0.393**	ug/L	0.927	13309	0.025
	Bi	209		ug/L		207	0.000
	Th	232	**0.054**	ug/L	1.196	2826	0.004
	U	238	**0.133**	ug/L	0.519	6070	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		128.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		112.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 09:28:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 6.307

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.093**	**ug/L**	2.317	68613	0.063
	Be	9	**56.084**	**ug/L**	3.719	17118	0.016
	B	11	**107.750**	**ug/L**	1.899	26299	0.024
	Na	23	**5741.951**	**ug/L**	1.885	9497087	8.657
	Mg	24	**5070.284**	**ug/L**	3.638	6912841	6.306
	Al	27	**5118.469**	**ug/L**	5.197	9511693	8.673
	P	31	**5419.199**	**ug/L**	2.691	681295	0.619
	K	39	**4835.508**	**ug/L**	2.019	17424385	15.485
	Ca	43	**5157.210**	**ug/L**	2.996	45403	0.041
>	Sc	45		**ug/L**		1096509	1096508.749
	Ti	47	**57.052**	**ug/L**	3.021	25395	0.023
	V	51	**54.668**	**ug/L**	1.864	302162	0.274
	Cr	52	**54.360**	**ug/L**	1.867	235774	0.217
	Cr	53		**ug/L**		139116	0.053
	Mn	55	**55.601**	**ug/L**	4.004	423691	0.385
	Fe	57	**5635.968**	**ug/L**	3.747	836216	0.758
	Co	59	**53.765**	**ug/L**	1.178	320624	0.292
	Ni	60	**54.980**	**ug/L**	2.295	73086	0.067
	Cu	63		**ug/L**		178773	0.163
	Cu	65	**53.846**	**ug/L**	5.111	89223	0.081
	Zn	66	**53.385**	**ug/L**	1.226	64563	0.132
	Zn	67		**ug/L**		24635	0.032
	Zn	68		**ug/L**		49490	0.100
>	Ge	74		**ug/L**		484935	484935.422
	As	75	**52.406**	**ug/L**	2.029	68177	0.141
	Se	77		**ug/L**		11294	0.013
	Se	82	**54.259**	**ug/L**	2.135	7425	0.015
	Kr	83		**ug/L**		156	-0.000
	Sr	88	**55.381**	**ug/L**	1.625	871180	2.609
	Y	89		**ug/L**		217	0.000
	Mo	98	**51.068**	**ug/L**	0.249	209192	0.626
	Ag	107	**53.306**	**ug/L**	2.530	371644	1.113
	Cd	111	**53.115**	**ug/L**	0.808	96398	0.289
	Cd	114		**ug/L**		223994	0.671
>	In	115		**ug/L**		333839	333838.915
	Sn	120	**52.376**	**ug/L**	1.567	380599	1.139
	Sb	121	**52.595**	**ug/L**	0.462	337929	1.011
	Sb	123		**ug/L**		264030	0.790
	Ba	135		**ug/L**		95601	0.178
	Ba	137	**55.248**	**ug/L**	3.348	168470	0.314
	Ho	165		**ug/L**		79	0.000
>	Lu	175		**ug/L**		536839	536839.132
	Tl	205	**54.371**	**ug/L**	2.214	1032780	1.921
	Pb	208	**55.282**	**ug/L**	2.188	1903860	3.546
	Bi	209		**ug/L**		506	0.001
	Th	232	**53.060**	**ug/L**	2.976	2207620	4.112
	U	238	**54.324**	**ug/L**	3.274	2312256	4.307

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.186				
	Be	9	112.169				
	B	11	107.750				
	Na	23	114.839				
	Mg	24	101.406				
	Al	27	101.356				
	P	31	108.384				
	K	39	96.710				
	Ca	43	103.144				
>	Sc	45		107.1			
	Ti	47	114.104				
	V	51	109.336				
	Cr	52	108.719				
	Cr	53					
	Mn	55	111.202				
	Fe	57	112.719				
	Co	59	107.530				
	Ni	60	109.959				
	Cu	63					
	Cu	65	107.692				
	Zn	66	106.770				
	Zn	67					
	Zn	68					
>	Ge	74		113.2			
	As	75	104.812				
	Se	77					
	Se	82	108.519				
	Kr	83					
	Sr	88	110.761				
	Y	89					
	Mo	98	102.136				
	Ag	107	106.613				
	Cd	111	106.230				
	Cd	114					
>	In	115		111.7			
	Sn	120	104.753				
	Sb	121	105.190				
	Sb	123					
	Ba	135					
	Ba	137	110.497				
	Ho	165					
>	Lu	175		99.7			
	Tl	205	108.742				
	Pb	208	110.565				
	Bi	209					
	Th	232	106.120				
	U	238	108.648				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	Ti	47	CCV is out of limits (+/- 10%)
QC Std 6	Mn	55	CCV is out of limits (+/- 10%)
QC Std 6	Fe	57	CCV is out of limits (+/- 10%)
QC Std 6	Sr	88	CCV is out of limits (+/- 10%)
QC Std 6	Ba	137	CCV is out of limits (+/- 10%)

QC Std 6	Pb	208CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 09:34:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100217\QC Std 7.308

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.061**	ug/L	5.599	173	0.000
	Be	9	**0.037**	ug/L	90.104	34	0.000
	B	11	**4.086**	ug/L	15.199	1285	0.001
	Na	23	**13.179**	ug/L	29.476	28028	0.020
	Mg	24	**2.332**	ug/L	16.971	4334	0.003
	Al	27	**-0.688**	ug/L	271.400	6335	-0.001
	P	31	**5.614**	ug/L	35.590	3691	0.001
	K	39	**18.141**	ug/L	74.640	521048	0.058
	Ca	43	**6.736**	ug/L	5.555	362	0.000
>	Sc	45		ug/L		1117267	1117267.198
	Ti	47	**0.020**	ug/L	57.704	332	0.000
	V	51	**-0.187**	ug/L	508.430	223	-0.001
	Cr	52	**-0.184**	ug/L	22.080	-2892	-0.001
	Cr	53		ug/L		104573	0.019
	Mn	55	**0.148**	ug/L	12.742	2423	0.001
	Fe	57	**8.074**	ug/L	26.884	6423	0.001
	Co	59	**0.009**	ug/L	35.319	175	0.000
	Ni	60	**0.025**	ug/L	41.217	164	0.000
	Cu	63		ug/L		255	0.000
	Cu	65	**0.007**	ug/L	144.148	169	0.000
	Zn	66	**0.002**	ug/L	912.962	380	0.000
	Zn	67		ug/L		12302	0.006
	Zn	68		ug/L		1556	0.001
>	Ge	74		ug/L		490898	490897.886
	As	75	**-0.076**	ug/L	488.531	-336	-0.000
	Se	77		ug/L		6137	0.003
	Se	82	**-0.106**	ug/L	53.881	-11	-0.000
	Kr	83		ug/L		164	0.000
	Sr	88	**0.009**	ug/L	28.301	395	0.000
	Y	89		ug/L		73	-0.000
	Mo	98	**0.040**	ug/L	26.906	304	0.000
	Ag	107	**0.004**	ug/L	23.480	112	0.000
	Cd	111	**0.005**	ug/L	96.322	37	0.000
	Cd	114		ug/L		86	-0.000
>	In	115		ug/L		336608	336608.417
	Sn	120	**0.028**	ug/L	14.529	458	0.001
	Sb	121	**0.182**	ug/L	19.717	1640	0.004
	Sb	123		ug/L		1232	0.003
	Ba	135		ug/L		66	0.000
	Ba	137	**0.007**	ug/L	110.720	93	0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		529238	529238.226
	Tl	205	**0.516**	ug/L	15.547	11312	0.018
	Pb	208	**0.004**	ug/L	27.496	923	0.000
	Bi	209		ug/L		174	0.000
	Th	232	**0.032**	ug/L	11.397	2114	0.003
	U	238	**0.004**	ug/L	50.000	1028	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	0.9999
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		114.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		112.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 18, 2010 10:34:20
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.526
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4590.3	4590.338	75.528	1.6
	Mg	24.0	42116.4	42116.405	696.982	1.7
	Co	58.9	113039.1	113039.071	585.621	0.5
	Rh	102.9	234034.9	234034.895	1182.039	0.5
	In	114.9	310309.8	310309.844	999.539	0.3
	Pb	208.0	263216.0	263215.982	954.913	0.4
⌈>	Ba	137.9	294173.7	294173.699	1883.004	0.6
⌊	Ba++	69.0	6584.6	0.022	0.000	0.8
⌈>	Ce	139.9	356927.7	356927.750	1437.135	0.4
⌊	CeO	155.9	8337.9	0.023	0.000	1.6
	Bkgd	220.0	27.8	27.800	1.441	5.2

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.5	4654.4
Co	59	11	6.0	116332.4
In	115	11	6.3	315547.9

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	592	2072	0.622
Be	9.0	9.0	2051	2088	0.619
Mg	24.0	24.0	5679	2100	0.585
Mg	25.0	25.0	5943	2100	0.597
Mg	26.0	25.9	6153	2100	0.608
Co	58.9	58.9	14184	2125	0.600
Rh	102.9	102.9	24870	2180	0.589
In	114.9	114.9	27784	2200	0.586
Ce	139.9	139.9	33868	2220	0.598
Pb	206.0	206.0	49948	2305	0.616
Pb	207.0	207.0	50159	2240	0.651
Pb	208.0	208.0	50451	2265	0.726
U	238.1	238.1	57725	2275	0.744

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 18, 2010 16:50:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\Blank.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		25	
>	Sc	45		ug/L		1211763	
	Cr	52		ug/L		-1078	
	Cr	53		ug/L		130227	
	Mn	55		ug/L		1278	
	Ni	60		ug/L		123	
>	Lu	175		ug/L		581789	
	Tl	205		ug/L		1344	
	Pb	208		ug/L		439	
	U	238		ug/L		400	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Ni	60	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 18, 2010 16:53:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\Standard 1.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	2.275	3522	0.003
>	Sc	45		**ug/L**		1181401	1181400.805
	Cr	52	**10.000**	**ug/L**	1.438	50927	0.044
	Cr	53		**ug/L**		143130	0.014
	Mn	55	**10.000**	**ug/L**	3.318	92903	0.078
	Ni	60	**10.000**	**ug/L**	2.794	16019	0.013
>	Lu	175		**ug/L**		557899	557899.488
	Tl	205	**10.000**	**ug/L**	1.843	229327	0.409
	Pb	208	**10.000**	**ug/L**	2.907	418627	0.750
	U	238	**10.000**	**ug/L**	0.697	529521	0.949

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 18, 2010 16:55:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\Standard 2.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.034**	**ug/L**	3.446	34768	0.031
>	Sc	45		**ug/L**		1133994	1133993.963
	Cr	52	**100.009**	**ug/L**	5.100	501901	0.444
	Cr	53		**ug/L**		195695	0.065
	Mn	55	**99.962**	**ug/L**	1.524	848592	0.747
	Ni	60	**100.015**	**ug/L**	3.507	155089	0.137
>	Lu	175		**ug/L**		527594	527594.336
	Tl	205	**99.878**	**ug/L**	2.577	1921156	3.640
	Pb	208	**99.913**	**ug/L**	1.193	3636202	6.892
	U	238	**99.842**	**ug/L**	0.856	4314339	8.177

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 18, 2010 16:58:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 1.149

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.651**	**ug/L**	3.569	17670	0.015
>	Sc	45		**ug/L**		1183995	1183994.677
	Cr	52	**49.287**	**ug/L**	2.921	257865	0.219
	Cr	53		**ug/L**		165154	0.032
	Mn	55	**50.100**	**ug/L**	1.027	444704	0.375
	Ni	60	**49.589**	**ug/L**	5.340	80346	0.068
>	Lu	175		**ug/L**		553667	553667.178
	Tl	205	**50.745**	**ug/L**	2.410	1024839	1.849
	Pb	208	**51.469**	**ug/L**	2.899	1965361	3.550
	U	238	**50.563**	**ug/L**	1.103	2293065	4.141

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	97.302				
>	Sc	45		97.7			
	Cr	52	98.574				
	Cr	53					
	Mn	55	100.201				
	Ni	60	99.179				
>	Lu	175		95.2			
	Tl	205	101.490				
	Pb	208	102.938				
	U	238	101.125				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 18, 2010 17:01:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 2.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.029**	**ug/L**	62.678	35	0.000
>	Sc	45		**ug/L**		1209830	1209830.270
	Cr	52	**-0.136**	**ug/L**	60.752	-1811	-0.001
	Cr	53		**ug/L**		118880	-0.009
	Mn	55	**-0.002**	**ug/L**	72.578	1254	-0.000
	Ni	60	**0.008**	**ug/L**	88.730	136	0.000
>	Lu	175		**ug/L**		579300	579299.698
	Tl	205	**0.194**	**ug/L**	8.246	5433	0.007
	Pb	208	**0.007**	**ug/L**	8.778	725	0.000
	U	238	**0.011**	**ug/L**	6.756	917	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		99.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 18, 2010 17:03:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 3.151

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.528**	**ug/L**	12.741	216	0.000
>	Sc	45		**ug/L**		1190339	1190339.119
	Cr	52	**10.745**	**ug/L**	5.154	55627	0.048
	Cr	53		**ug/L**		147250	0.016
	Mn	55	**5.886**	**ug/L**	4.246	53586	0.044
	Ni	60	**2.127**	**ug/L**	2.979	3580	0.003
>	Lu	175		**ug/L**		553462	553461.833
	Tl	205	**1.226**	**ug/L**	3.767	25996	0.045
	Pb	208	**2.371**	**ug/L**	1.388	90917	0.164
	U	238	**0.283**	**ug/L**	0.940	13218	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	105.501				
>	Sc	45			98.2		
	Cr	52	107.448				
	Cr	53					
	Mn	55	117.725				
	Ni	60	106.367				
>	Lu	175			95.1		
	Tl	205	122.604				
	Pb	208	118.543				
	U	238	141.589				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 18, 2010 17:06:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 4.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.125**	**ug/L**	14.187	60	0.000
>	Sc	45		**ug/L**		1031475	1031474.648
	Cr	52	**2.181**	**ug/L**	8.557	9061	0.010
	Cr	53		**ug/L**		98388	-0.012
	Mn	55	**6.037**	**ug/L**	3.030	47630	0.045
	Ni	60	**2.948**	**ug/L**	4.481	4261	0.004
>	Lu	175		**ug/L**		505437	505436.955
	Tl	205	**0.043**	**ug/L**	4.683	1960	0.002
	Pb	208	**0.236**	**ug/L**	3.236	8604	0.016
	U	238	**-0.002**	**ug/L**	20.638	268	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.1			
	Cr	52	66.098				
	Cr	53					
	Mn	55	104.085				
	Ni	60	89.056				
>	Lu	175		86.9			
	Tl	205					
	Pb	208	124.837				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 18, 2010 17:09:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 5.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.918**	**ug/L**	3.985	6004	0.006
>	Sc	45		**ug/L**		981195	981195.330
	Cr	52	**23.356**	**ug/L**	3.041	100753	0.104
	Cr	53		**ug/L**		111952	0.007
	Mn	55	**28.319**	**ug/L**	3.594	208642	0.212
	Ni	60	**22.613**	**ug/L**	4.618	30400	0.031
>	Lu	175		**ug/L**		485382	485381.559
	Tl	205	**21.630**	**ug/L**	2.970	383616	0.788
	Pb	208	**21.945**	**ug/L**	2.395	734972	1.514
	U	238	**24.879**	**ug/L**	0.833	989267	2.038

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.589				
>	Sc	45		81.0			
	Cr	52	100.239				
	Cr	53					
	Mn	55	109.764				
	Ni	60	97.011				
>	Lu	175		83.4			
	Tl	205	108.152				
	Pb	208	108.700				
	U	238	124.394				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 17:11:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.008**	**ug/L**	1.951	16956	0.016
>	Sc	45		**ug/L**		1083431	1083430.884
	Cr	52	**47.568**	**ug/L**	3.484	227657	0.211
	Cr	53		**ug/L**		143446	0.025
	Mn	55	**49.179**	**ug/L**	4.812	399248	0.368
	Ni	60	**47.657**	**ug/L**	0.807	70702	0.065
>	Lu	175		**ug/L**		551706	551705.788
	Tl	205	**50.233**	**ug/L**	2.638	1011032	1.831
	Pb	208	**51.106**	**ug/L**	0.968	1945184	3.525
	U	238	**50.580**	**ug/L**	1.109	2285745	4.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	102.016				
>	Sc	45		89.4			
	Cr	52	95.136				
	Cr	53					
	Mn	55	98.358				
	Ni	60	95.315				
>	Lu	175		94.8			
	Tl	205	100.466				
	Pb	208	102.212				
	U	238	101.161				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 17:14:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.155

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.013**	**ug/L**	72.341	27	0.000
>	Sc	45		**ug/L**		1111757	1111757.321
	Cr	52	**-0.299**	**ug/L**	22.595	-2464	-0.001
	Cr	53		**ug/L**		105856	-0.012
	Mn	55	**-0.003**	**ug/L**	176.270	1145	-0.000
	Ni	60	**0.004**	**ug/L**	55.852	119	0.000
>	Lu	175		**ug/L**		576547	576547.348
	Tl	205	**0.169**	**ug/L**	7.104	4886	0.006
	Pb	208	**0.006**	**ug/L**	13.143	679	0.000
	U	238	**0.010**	**ug/L**	11.058	864	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.7			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		99.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 17:38:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.916**	**ug/L**	2.585	16924	0.016
>	Sc	45		**ug/L**		1062434	1062433.657
	Cr	52	**48.877**	**ug/L**	3.127	229507	0.217
	Cr	53		**ug/L**		172441	0.055
	Mn	55	**52.119**	**ug/L**	0.674	415099	0.390
	Ni	60	**51.004**	**ug/L**	2.083	74192	0.070
>	Lu	175		**ug/L**		545896	545895.542
	Tl	205	**50.886**	**ug/L**	1.819	1013466	1.854
	Pb	208	**51.940**	**ug/L**	2.167	1955795	3.583
	U	238	**51.579**	**ug/L**	0.848	2306503	4.224

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.831				
>	Sc	45		87.7			
	Cr	52	97.753				
	Cr	53					
	Mn	55	104.238				
	Ni	60	102.009				
>	Lu	175		93.8			
	Tl	205	101.772				
	Pb	208	103.880				
	U	238	103.158				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 17:41:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.017**	**ug/L**	18.721	28	0.000
>	Sc	45		**ug/L**		1112030	1112030.483
	Cr	52	**-0.409**	**ug/L**	27.003	-3008	-0.002
	Cr	53		**ug/L**		118483	-0.001
	Mn	55	**0.005**	**ug/L**	106.624	1211	0.000
	Ni	60	**0.007**	**ug/L**	56.736	124	0.000
>	Lu	175		**ug/L**		575726	575726.183
	Tl	205	**0.240**	**ug/L**	1.715	6365	0.009
	Pb	208	**0.004**	**ug/L**	28.604	592	0.000
	U	238	**0.007**	**ug/L**	20.607	723	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030875
Sample Date/Time: Thursday, February 18, 2010 17:44:55
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\1202030875.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.008	ug/L	76.608	22	-0.000
>	Sc	45		ug/L		1255489	1255489.480
	Cr	52	-0.073	ug/L	346.763	-1535	-0.000
	Cr	53		ug/L		366563	0.185
	Mn	55	0.230	ug/L	4.585	3486	0.002
	Ni	60	0.055	ug/L	9.161	222	0.000
>	Lu	175		ug/L		511098	511098.125
	Tl	205	0.093	ug/L	7.511	2906	0.003
	Pb	208	0.006	ug/L	20.795	613	0.000
	U	238	-0.005	ug/L	6.154	134	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.6			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		87.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030876
Sample Date/Time: Thursday, February 18, 2010 17:47:40
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\1202030876.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.316**	**ug/L**	1.149	17678	0.014
>	Sc	45		**ug/L**		1243817	1243816.802
	Cr	52	**50.853**	**ug/L**	3.544	279548	0.226
	Cr	53		**ug/L**		397267	0.212
	Mn	55	**52.518**	**ug/L**	4.410	489650	0.393
	Ni	60	**49.849**	**ug/L**	0.832	84896	0.068
>	Lu	175		**ug/L**		515376	515376.280
	Tl	205	**51.016**	**ug/L**	3.974	959048	1.859
	Pb	208	**55.246**	**ug/L**	1.508	1964196	3.811
	U	238	**54.441**	**ug/L**	2.217	2297931	4.459

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.6			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		88.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245690001
Sample Date/Time: Thursday, February 18, 2010 17:53:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\245690001.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.013	ug/L	160.385	20	-0.000
>	Sc	45		ug/L		1245046	1245045.776
	Cr	52	1.458	ug/L	14.186	6948	0.006
	Cr	53		ug/L		436395	0.243
	Mn	55	1.110	ug/L	4.056	11641	0.008
	Ni	60	0.098	ug/L	10.426	293	0.000
>	Lu	175		ug/L		496210	496210.425
	Tl	205	0.289	ug/L	1.346	6366	0.011
	Pb	208	0.044	ug/L	1.347	1868	0.003
	U	238	0.005	ug/L	4.633	565	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.7			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		85.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030877
Sample Date/Time: Thursday, February 18, 2010 17:56:02
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\1202030877.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.028	ug/L	52.216	16	-0.000
>	Sc	45		ug/L		1309981	1309981.316
	Cr	52	0.815	ug/L	58.145	3562	0.004
	Cr	53		ug/L		453478	0.239
	Mn	55	1.018	ug/L	2.818	11348	0.008
	Ni	60	0.088	ug/L	11.645	290	0.000
>	Lu	175		ug/L		507382	507381.953
	Tl	205	0.159	ug/L	4.755	4103	0.006
	Pb	208	0.042	ug/L	3.007	1853	0.003
	U	238	-0.001	ug/L	35.000	305	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.1			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		87.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030878
Sample Date/Time: Thursday, February 18, 2010 17:58:48
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\1202030878.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.852**	**ug/L**	4.365	17778	0.014
>	Sc	45		**ug/L**		1238165	1238165.258
	Cr	52	**53.553**	**ug/L**	6.038	292610	0.238
	Cr	53		**ug/L**		416188	0.229
	Mn	55	**53.743**	**ug/L**	4.647	498101	0.402
	Ni	60	**50.654**	**ug/L**	4.231	85757	0.069
>	Lu	175		**ug/L**		513210	513210.088
	Tl	205	**92.010**	**ug/L**	3.826	1721327	3.353
	Pb	208	**46.330**	**ug/L**	2.107	1639975	3.196
	U	238	**56.567**	**ug/L**	1.322	2377598	4.633

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.2			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		88.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030879
Sample Date/Time: Thursday, February 18, 2010 18:01:35
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948041|5|baj
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\1202030879.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	1708.133	24	0.000
>	Sc	45		**ug/L**		1136745	1136745.346
	Cr	52	**0.295**	**ug/L**	30.848	476	0.001
	Cr	53		**ug/L**		198057	0.067
	Mn	55	**0.277**	**ug/L**	6.933	3547	0.002
	Ni	60	**0.045**	**ug/L**	33.390	186	0.000
>	Lu	175		**ug/L**		545256	545256.012
	Tl	205	**2.452**	**ug/L**	5.872	49973	0.089
	Pb	208	**0.016**	**ug/L**	0.868	1013	0.001
	U	238	**0.006**	**ug/L**	29.334	636	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		93.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 18:09:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.923**	**ug/L**	1.170	16605	0.015
>	Sc	45		**ug/L**		1084032	1084031.756
	Cr	52	**47.365**	**ug/L**	1.777	226913	0.210
	Cr	53		**ug/L**		164927	0.045
	Mn	55	**50.861**	**ug/L**	1.115	413345	0.380
	Ni	60	**49.289**	**ug/L**	3.815	73146	0.067
>	Lu	175		**ug/L**		558773	558773.319
	Tl	205	**51.749**	**ug/L**	0.985	1054887	1.886
	Pb	208	**51.641**	**ug/L**	2.240	1990242	3.562
	U	238	**51.563**	**ug/L**	0.346	2360147	4.223

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.846				
>	Sc	45		89.5			
	Cr	52	94.730				
	Cr	53					
	Mn	55	101.723				
	Ni	60	98.577				
>	Lu	175		96.0			
	Tl	205	103.498				
	Pb	208	103.281				
	U	238	103.126				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 18:12:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.003**	**ug/L**	448.581	24	0.000
>	Sc	45		**ug/L**		1130029	1130028.702
	Cr	52	**-0.855**	**ug/L**	5.992	-5295	-0.004
	Cr	53		**ug/L**		133991	0.011
	Mn	55	**0.092**	**ug/L**	5.284	1966	0.001
	Ni	60	**0.009**	**ug/L**	71.280	128	0.000
>	Lu	175		**ug/L**		578931	578930.636
	Tl	205	**0.388**	**ug/L**	4.631	9508	0.014
	Pb	208	**0.004**	**ug/L**	12.532	581	0.000
	U	238	**0.007**	**ug/L**	10.782	713	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.3			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		99.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245690002
Sample Date/Time: Thursday, February 18, 2010 18:15:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\245690002.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	63.460	27	0.000
>	Sc	45		**ug/L**		1243464	1243464.216
	Cr	52	**0.157**	**ug/L**	181.798	-235	0.001
	Cr	53		**ug/L**		376862	0.196
	Mn	55	**5.969**	**ug/L**	3.056	56792	0.045
	Ni	60	**1.341**	**ug/L**	1.730	2405	0.002
>	Lu	175		**ug/L**		505763	505762.791
	Tl	205	**0.223**	**ug/L**	2.530	5286	0.008
	Pb	208	**0.420**	**ug/L**	1.677	15042	0.029
	U	238	**0.151**	**ug/L**	0.212	6613	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.6			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		86.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 18:27:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.683**	**ug/L**	1.142	16836	0.015
>	Sc	45		**ug/L**		1127035	1127035.295
	Cr	52	**48.089**	**ug/L**	3.453	239481	0.213
	Cr	53		**ug/L**		166294	0.040
	Mn	55	**50.275**	**ug/L**	3.244	424704	0.376
	Ni	60	**48.336**	**ug/L**	1.711	74590	0.066
>	Lu	175		**ug/L**		549972	549972.378
	Tl	205	**50.384**	**ug/L**	1.528	1010939	1.836
	Pb	208	**51.000**	**ug/L**	2.285	1934776	3.518
	U	238	**50.816**	**ug/L**	1.104	2289086	4.162

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	97.366				
>	Sc	45		93.0			
	Cr	52	96.177				
	Cr	53					
	Mn	55	100.550				
	Ni	60	96.671				
>	Lu	175		94.5			
	Tl	205	100.768				
	Pb	208	102.001				
	U	238	101.631				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 18:30:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\100218.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.014**	**ug/L**	73.272	29	0.000
>	Sc	45		**ug/L**		1174295	1174295.345
	Cr	52	**-0.626**	**ug/L**	14.648	-4297	-0.003
	Cr	53		**ug/L**		135090	0.008
	Mn	55	**0.015**	**ug/L**	52.538	1367	0.000
	Ni	60	**0.010**	**ug/L**	60.139	135	0.000
>	Lu	175		**ug/L**		578040	578040.437
	Tl	205	**0.263**	**ug/L**	5.952	6867	0.010
	Pb	208	**0.003**	**ug/L**	15.479	568	0.000
	U	238	**0.006**	**ug/L**	7.181	693	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Lu	175		99.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 18, 2010 19:30:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\Blank.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		581492	
	U	238		ug/L		688	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 18, 2010 19:32:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\Standard 1.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		545138	545138.158
⌊	U	238	10.000	ug/L	2.809	510225	0.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 18, 2010 19:35:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\Standard 2.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		544505	544504.519
⌊	U	238	99.795	ug/L	0.455	4217741	7.745

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 18, 2010 19:37:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 1.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		546680	546679.724
	U	238	52.231	ug/L	0.752	2216637	4.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.0			
	U	238	104.462				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 18, 2010 19:39:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 2.208

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		580105	580105.172
U	238	0.003	ug/L	15.419	812	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Lu	175		99.8			
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 18, 2010 19:41:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 3.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		570026	570026.005
	U	238	0.235	ug/L	1.036	11056	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.0			
	U	238	117.339				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 18, 2010 19:43:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 4.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		533220	533220.079
	U	238	-0.008	ug/L	20.072	308	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		91.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 18, 2010 19:46:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 5.211

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		575307	575306.958
U	238	21.403	ug/L	0.991	956296	1.661

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Lu	175		98.9			
U	238	107.017				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 19:48:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		541276	541276.374
	U	238	52.577	ug/L	1.383	2209183	4.080

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		93.1			
	U	238	105.154				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 19:50:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		567462	567462.295
	U	238	0.011	ug/L	6.648	1169	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		97.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030875
Sample Date/Time: Thursday, February 18, 2010 19:52:41
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\1202030875.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		509223	509223.096
⌊	U	238	-0.011	ug/L	5.993	152	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		87.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030876
Sample Date/Time: Thursday, February 18, 2010 19:54:54
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\1202030876.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		488699	488699.007
⌊	U	238	58.569	ug/L	1.279	2221789	4.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		84.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245690001
Sample Date/Time: Thursday, February 18, 2010 19:57:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\245690001.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		496470	496469.531
	U	238	0.002	ug/L	34.416	668	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		85.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030877
Sample Date/Time: Thursday, February 18, 2010 19:59:23
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\1202030877.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		488914	488913.726
	U	238	-0.007	ug/L	4.277	323	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		84.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030878
Sample Date/Time: Thursday, February 18, 2010 20:01:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\1202030878.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		495400	495399.742
⌊	U	238	**58.138**	ug/L	0.568	2235795	4.512

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		85.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202030879
Sample Date/Time: Thursday, February 18, 2010 20:03:55
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948041|5|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\1202030879.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		528840	528839.689
	U	238	-0.003	ug/L	7.459	504	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		90.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245690002
Sample Date/Time: Thursday, February 18, 2010 20:06:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948041|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\245690002.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		485487	485487.208
⌊	U	238	0.154	ug/L	1.798	6362	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		83.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 18, 2010 20:10:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 6.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		518903	518902.836
⌊	U	238	53.822	ug/L	0.655	2168120	4.177

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		89.2			
⌊	U	238	107.644				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 18, 2010 20:12:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100218\QC Std 7.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		545378	545378.174
	U	238	-0.002	ug/L	46.278	578	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		93.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: WATER
Method Description: 7470A, 245.2, ILM04 ANALYST JXL
Element: Hg

Date: 02/15/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021510W1.SIF Results Data Set Name: 021510W1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/15/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0024	0.0024	09:21:41	No
2			0.0024	0.0024	09:22:16	No
Mean:			0.0024			
SD :			0.0000			
%RSD:			0.5205			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/15/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0018	0.0042	09:23:38	No
2			0.0018	0.0042	09:24:13	No
Mean:			0.0018			
SD :			0.0000			
%RSD:						

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00889
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/15/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0042	0.0067	09:25:37	No
2			0.0041	0.0065	09:26:12	No
Mean:			0.0042			
SD :			0.0001			
%RSD:			1.7287			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99956 Slope: 0.00831
Intercept : 0.00004

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/15/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0182	0.0206	09:27:37	No
2			0.0179	0.0203	09:28:11	No
Mean:			0.0180			
SD :			0.0002			
%RSD:			1.1683			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99980 Slope: 0.00905
Intercept : -0.00011

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/15/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0452	0.0477	09:29:36	No
2			0.0450	0.0474	09:30:11	No
Mean:			0.0451			
SD :			0.0002			
%RSD:			0.4113			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.00905
Intercept : -0.00011

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/15/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0897	0.0921	09:31:37	No
2			0.0887	0.0911	09:32:12	No
Mean:			0.0892			
SD :			0.0007			
%RSD:			0.8016			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99997 Slope: 0.00894
Intercept : 0.00001

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0024	---	----	----	----
S0.2	0.0018	0.200	0.198	0.0000	----
S0.5	0.0042	0.500	0.465	0.0001	1.7
S2.0	0.0180	2.000	2.017	0.0002	1.2
S5.0	0.0451	5.000	5.046	0.0002	0.4
S10	0.0892	10.000	9.975	0.0007	0.8

Correlation Coefficient: 0.99997 Slope: 0.00894 Intercept: 0.0000

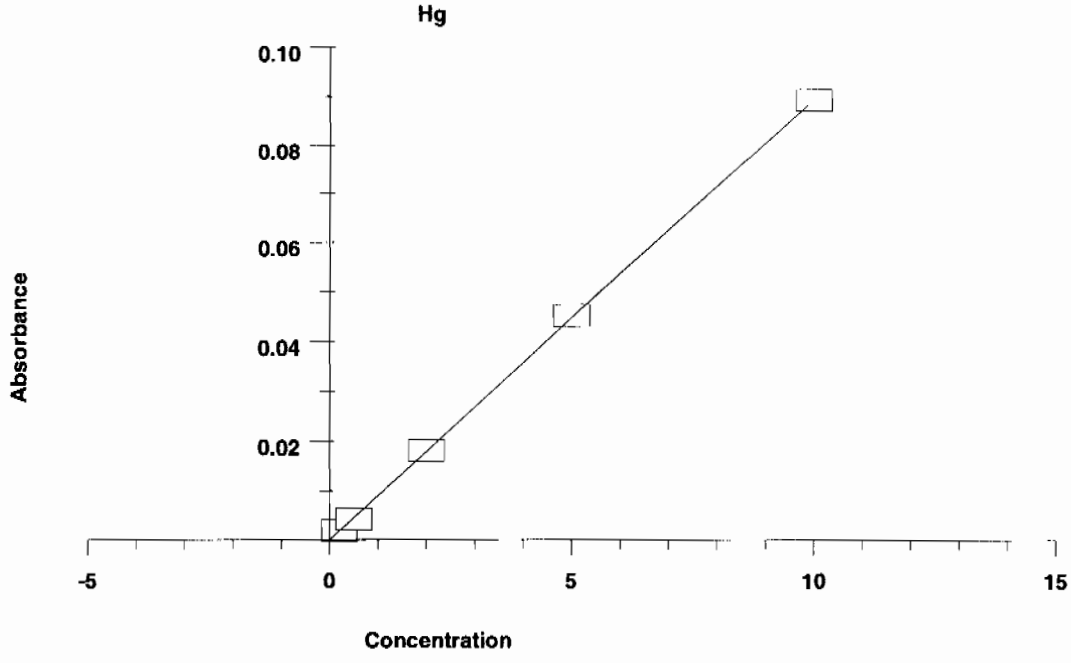

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/15/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.048	5.048	0.0451	0.0476	09:33:41	No
2	4.991	4.991	0.0446	0.0471	09:34:16	No
Mean:	5.020	5.020	0.0449			
SD :	0.0405	0.0405	0.0004			
%RSD:	0.8	0.8	0.8076			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/15/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.028	-0.028	-0.0002	0.0022	09:35:38	No
2	-0.055	-0.055	-0.0005	0.0019	09:36:13	No
Mean:	-0.042	-0.042	-0.0004			
SD :	0.0195	0.0195	0.0002			
%RSD:	47.1	47.1	48.4306			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/15/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.200	0.200	0.0018	0.0042	09:37:35	No
2	0.193	0.193	0.0017	0.0042	09:38:10	No
Mean:	0.197	0.197	0.0018			
SD :	0.0048	0.0048	0.0000			
%RSD:	2.4	2.4	2.4178			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.071	5.071	0.0453	0.0478	09:39:35	No
2	5.003	5.003	0.0447	0.0472	09:40:10	No
Mean:	5.037	5.037	0.0450			
SD :	0.0480	0.0480	0.0004			
%RSD:	1.0	1.0	0.9530			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0003	0.0021	09:41:39	No
2	-0.033	-0.033	-0.0003	0.0021	09:42:13	No
Mean:	-0.034	-0.034	-0.0003			
SD :	0.0001	0.0001	0.0000			
%RSD:	0.3	0.3	0.3404			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/15/2010
Sample ID: 1202030001|i||947659|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0003	0.0021	09:43:40	No
2	-0.041	-0.041	-0.0004	0.0021	09:44:15	No
Mean:	-0.037	-0.037	-0.0003			
SD :	0.0063	0.0063	0.0001			
%RSD:	17.1	17.1	17.6447			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/15/2010
Sample ID: 1202030002|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.137	2.137	0.0191	0.0215	09:45:39	No
2	2.109	2.109	0.0189	0.0213	09:46:14	No
Mean:	2.123	2.123	0.0190			
SD :	0.0200	0.0200	0.0002			
%RSD:	0.9	0.9	0.9436			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/15/2010
Sample ID: 245605002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0024	09:47:39	No
2	0.002	0.002	0.0000	0.0025	09:48:14	No
Mean:	0.000	0.000	0.0000			
SD :	0.0015	0.0015	0.0000			
%RSD:	336.1	336.1	93.9525			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/15/2010
Sample ID: 245605003|i|||

%RSD: 0.7 0.7 0.6795

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/15/2010
Sample ID: 1202030005|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.099	-0.099	-0.0009	0.0016	10:01:28	No
2	-0.104	-0.104	-0.0009	0.0015	10:02:03	No
Mean:	-0.102	-0.102	-0.0009			
SD :	0.0037	0.0037	0.0000			
%RSD:	3.7	3.7	3.7087			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.145	5.145	0.0460	0.0484	10:03:28	No
2	5.088	5.088	0.0455	0.0479	10:04:03	No
Mean:	5.117	5.117	0.0457			
SD :	0.0403	0.0403	0.0004			
%RSD:	0.8	0.8	0.7877			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.043	-0.043	-0.0004	0.0021	10:05:31	No
2	-0.037	-0.037	-0.0003	0.0021	10:06:06	No
Mean:	-0.040	-0.040	-0.0003			
SD :	0.0038	0.0038	0.0000			
%RSD:	9.4	9.4	9.6735			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/15/2010
Sample ID: 245673002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.031	-0.031	-0.0003	0.0022	10:07:31	No
2	-0.051	-0.051	-0.0004	0.0020	10:08:06	No
Mean:	-0.041	-0.041	-0.0004			
SD :	0.0135	0.0135	0.0001			
%RSD:	33.0	33.0	33.9271			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/15/2010
Sample ID: 245673003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0004	0.0020	10:09:30	No
2	-0.053	-0.053	-0.0005	0.0020	10:10:04	No
Mean:	-0.050	-0.050	-0.0004			
SD :	0.0044	0.0044	0.0000			
%RSD:	8.7	8.7	8.9549			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/15/2010
Sample ID: 245673004|i|||

%RSD:

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/15/2010
Sample ID: 1202041608|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0005	0.0020	10:23:29	No
2	-0.055	-0.055	-0.0005	0.0019	10:24:04	No
Mean:	-0.054	-0.054	-0.0005			
SD :	0.0019	0.0019	0.0000			
%RSD:	3.6	3.6	3.6715			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/15/2010
Sample ID: 1202041609|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.104	2.104	0.0188	0.0212	10:25:32	No
2	2.113	2.113	0.0189	0.0213	10:26:07	No
Mean:	2.108	2.108	0.0189			
SD :	0.0059	0.0059	0.0001			
%RSD:	0.3	0.3	0.2779			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.147	5.147	0.0460	0.0484	10:27:34	No
2	5.128	5.128	0.0459	0.0483	10:28:09	No
Mean:	5.137	5.137	0.0459			
SD :	0.0129	0.0129	0.0001			
%RSD:	0.3	0.3	0.2516			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0004	0.0020	10:29:38	No
2	-0.049	-0.049	-0.0004	0.0020	10:30:12	No
Mean:	-0.048	-0.048	-0.0004			
SD :	0.0018	0.0018	0.0000			
%RSD:	3.7	3.7	3.8110			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/15/2010
Sample ID: 1202041610|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0008	0.0016	10:31:36	No
2	-0.100	-0.100	-0.0009	0.0015	10:32:11	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0063	0.0063	0.0001			
%RSD:	6.6	6.6	6.6348			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/15/2010
Sample ID: 246789002|i|||

%RSD: 5.9 5.9 5.9632

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/15/2010
Sample ID: 1202041424|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.068	2.068	0.0185	0.0209	10:45:09	No
2	2.071	2.071	0.0185	0.0209	10:45:44	No
Mean:	2.070	2.070	0.0185			
SD :	0.0017	0.0017	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/15/2010
Sample ID: 1202041425|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.101	2.101	0.0188	0.0212	10:47:08	No
2	2.106	2.106	0.0188	0.0213	10:47:43	No
Mean:	2.103	2.103	0.0188			
SD :	0.0033	0.0033	0.0000			
%RSD:	0.2	0.2	0.1587			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/15/2010
Sample ID: 1202041435|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0010	0.0014	10:49:07	No
2	-0.125	-0.125	-0.0011	0.0013	10:49:42	No
Mean:	-0.122	-0.122	-0.0011			
SD :	0.0046	0.0046	0.0000			
%RSD:	3.7	3.7	3.7805			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.101	5.101	0.0456	0.0480	10:51:08	No
2	5.106	5.106	0.0456	0.0481	10:51:43	No
Mean:	5.103	5.103	0.0456			
SD :	0.0035	0.0035	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0008	0.0016	10:53:11	No
2	-0.099	-0.099	-0.0009	0.0016	10:53:46	No
Mean:	-0.097	-0.097	-0.0009			
SD :	0.0026	0.0026	0.0000			
%RSD:	2.7	2.7	2.7104			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/15/2010
Sample ID: 246914003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.083	-0.083	-0.0007	0.0017	10:55:12	No
2	-0.092	-0.092	-0.0008	0.0016	10:55:47	No
Mean:	-0.087	-0.087	-0.0008			
SD :	0.0064	0.0064	0.0001			
%RSD:	7.3	7.3	7.3722			

Element: Hg Seq. No.: 49 AS Loc.: 43 Date: 02/15/2010
Sample ID: 246914004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.109	-0.109	-0.0010	0.0015	10:57:12	No
2	-0.113	-0.113	-0.0010	0.0014	10:57:47	No
Mean:	-0.111	-0.111	-0.0010			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.8	2.8	2.7827			

Element: Hg Seq. No.: 50 AS Loc.: 44 Date: 02/15/2010
Sample ID: 246914005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0008	0.0016	10:59:13	No
2	-0.098	-0.098	-0.0009	0.0016	10:59:48	No
Mean:	-0.095	-0.095	-0.0008			
SD :	0.0039	0.0039	0.0000			
%RSD:	4.1	4.1	4.1164			

Element: Hg Seq. No.: 51 AS Loc.: 45 Date: 02/15/2010
Sample ID: 1202029965|i||947646|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.118	-0.118	-0.0010	0.0014	11:01:14	No
2	-0.112	-0.112	-0.0010	0.0014	11:01:48	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0040	0.0040	0.0000			
%RSD:	3.4	3.4	3.4701			

Element: Hg Seq. No.: 52 AS Loc.: 46 Date: 02/15/2010
Sample ID: 1202029966|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.047	2.047	0.0183	0.0207	11:03:14	No
2	2.027	2.027	0.0181	0.0206	11:03:49	No
Mean:	2.037	2.037	0.0182			
SD :	0.0137	0.0137	0.0001			
%RSD:	0.7	0.7	0.6701			

Element: Hg Seq. No.: 53 AS Loc.: 47 Date: 02/15/2010
Sample ID: 245681001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.114	-0.114	-0.0010	0.0014	11:05:16	No
2	-0.107	-0.107	-0.0009	0.0015	11:05:51	No
Mean:	-0.111	-0.111	-0.0010			
SD :	0.0051	0.0051	0.0000			

%RSD: 4.6 4.6 4.6202

==========

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 02/15/2010
Sample ID: 245681002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0010	0.0014	11:07:15	No
2	-0.118	-0.118	-0.0010	0.0014	11:07:50	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0038	0.0038	0.0000			
%RSD:	3.3	3.3	3.3203			

==========

Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 02/15/2010
Sample ID: 245690001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.102	-0.102	-0.0009	0.0015	11:09:10	No
2	-0.107	-0.107	-0.0009	0.0015	11:09:45	No
Mean:	-0.105	-0.105	-0.0009			
SD :	0.0036	0.0036	0.0000			
%RSD:	3.4	3.4	3.4771			

==========

Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 02/15/2010
Sample ID: 245690002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.099	-0.099	-0.0009	0.0016	11:11:06	No
2	-0.109	-0.109	-0.0010	0.0015	11:11:41	No
Mean:	-0.104	-0.104	-0.0009			
SD :	0.0072	0.0072	0.0001			
%RSD:	6.9	6.9	6.9975			

==========

Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 02/15/2010
Sample ID: 245807001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.110	-0.110	-0.0010	0.0015	11:13:02	No
2	-0.115	-0.115	-0.0010	0.0014	11:13:36	No
Mean:	-0.112	-0.112	-0.0010			
SD :	0.0033	0.0033	0.0000			
%RSD:	3.0	3.0	2.9987			

==========

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.081	5.081	0.0454	0.0479	11:15:01	No
2	5.124	5.124	0.0458	0.0482	11:15:36	No
Mean:	5.102	5.102	0.0456			
SD :	0.0304	0.0304	0.0003			
%RSD:	0.6	0.6	0.5954			

QC value within specified limits.

==========

Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.104	-0.104	-0.0009	0.0015	11:17:04	No
2	-0.111	-0.111	-0.0010	0.0014	11:17:39	No
Mean:	-0.108	-0.108	-0.0010			
SD :	0.0046	0.0046	0.0000			
%RSD:	4.2	4.2	4.2806			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/15/2010
Sample ID: 1202029967|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.107	-0.107	-0.0009	0.0015	11:19:04	No
2	-0.116	-0.116	-0.0010	0.0014	11:19:39	No
Mean:	-0.111	-0.111	-0.0010			
SD :	0.0065	0.0065	0.0001			
%RSD:	5.8	5.8	5.8805			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/15/2010
Sample ID: 1202029968|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.104	2.104	0.0188	0.0212	11:21:01	No
2	2.120	2.120	0.0190	0.0214	11:21:36	No
Mean:	2.112	2.112	0.0189			
SD :	0.0117	0.0117	0.0001			
%RSD:	0.6	0.6	0.5520			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/15/2010
Sample ID: 1202029969|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.149	-0.149	-0.0013	0.0011	11:22:58	No
2	-0.148	-0.148	-0.0013	0.0011	11:23:33	No
Mean:	-0.148	-0.148	-0.0013			
SD :	0.0006	0.0006	0.0000			
%RSD:	0.4	0.4	0.3912			

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/15/2010
Sample ID: 245807002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.112	-0.112	-0.0010	0.0014	11:24:56	No
2	-0.117	-0.117	-0.0010	0.0014	11:25:30	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.7	2.7	2.7422			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/15/2010
Sample ID: 1202039059|i||951455|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0008	0.0016	11:26:55	No
2	-0.105	-0.105	-0.0009	0.0015	11:27:29	No
Mean:	-0.099	-0.099	-0.0009			
SD :	0.0076	0.0076	0.0001			

%RSD: 7.6 7.6 7.7159

==========

Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 02/15/2010
Sample ID: 1202039060|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.267	2.267	0.0203	0.0227	11:28:54	No
2	2.265	2.265	0.0203	0.0227	11:29:28	No
Mean:	2.266	2.266	0.0203			
SD :	0.0011	0.0011	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 02/15/2010
Sample ID: 246264001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.097	-0.097	-0.0009	0.0016	11:30:52	No
2	-0.104	-0.104	-0.0009	0.0015	11:31:26	No
Mean:	-0.101	-0.101	-0.0009			
SD :	0.0048	0.0048	0.0000			
%RSD:	4.7	4.7	4.7837			

==========

Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 02/15/2010
Sample ID: 246269001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.098	-0.098	-0.0009	0.0016	11:32:50	No
2	-0.108	-0.108	-0.0010	0.0015	11:33:24	No
Mean:	-0.103	-0.103	-0.0009			
SD :	0.0072	0.0072	0.0001			
%RSD:	7.0	7.0	7.0414			

==========

Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 02/15/2010
Sample ID: 246278001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.110	-0.110	-0.0010	0.0015	11:34:49	No
2	-0.110	-0.110	-0.0010	0.0015	11:35:24	No
Mean:	-0.110	-0.110	-0.0010			
SD :	0.0002	0.0002	0.0000			
%RSD:	0.2	0.2	0.1960			

==========

Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 02/15/2010
Sample ID: 246282001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0008	0.0016	11:36:50	No
2	-0.113	-0.113	-0.0010	0.0014	11:37:25	No
Mean:	-0.104	-0.104	-0.0009			
SD :	0.0134	0.0134	0.0001			
%RSD:	12.9	12.9	13.0431			

==========

Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 02/15/2010
Sample ID: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Time	Peak

#	µg/L	µg/L	Signal	Height		Stored
1	5.193	5.193	0.0464	0.0489	11:38:52	No
2	5.202	5.202	0.0465	0.0489	11:39:27	No
Mean:	5.197	5.197	0.0465			
SD :	0.0063	0.0063	0.0001			
%RSD:	0.1	0.1	0.1218			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 02/15/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0008	0.0016	11:40:54	No
2	-0.097	-0.097	-0.0009	0.0016	11:41:29	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0024	0.0024	0.0000			
%RSD:	2.5	2.5	2.5414			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 02/15/2010
Sample ID: 246292001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.097	-0.097	-0.0009	0.0016	11:42:56	No
2	-0.091	-0.091	-0.0008	0.0016	11:43:31	No
Mean:	-0.094	-0.094	-0.0008			
SD :	0.0042	0.0042	0.0000			
%RSD:	4.5	4.5	4.5299			

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 02/15/2010
Sample ID: 246292002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.126	-0.126	-0.0011	0.0013	11:44:53	No
2	-0.128	-0.128	-0.0011	0.0013	11:45:28	No
Mean:	-0.127	-0.127	-0.0011			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.9	0.9	0.8800			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 02/15/2010
Sample ID: 246299001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.113	-0.113	-0.0010	0.0014	11:46:48	No
2	-0.116	-0.116	-0.0010	0.0014	11:47:23	No
Mean:	-0.115	-0.115	-0.0010			
SD :	0.0022	0.0022	0.0000			
%RSD:	1.9	1.9	1.9110			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 02/15/2010
Sample ID: 246306001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.096	-0.096	-0.0008	0.0016	11:48:44	No
2	-0.096	-0.096	-0.0008	0.0016	11:49:18	No
Mean:	-0.096	-0.096	-0.0008			
SD :	0.0002	0.0002	0.0000			

Miscellaneous

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 947645

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029966	WHG100212-13	.2	mL
MS	1202029968	WHG100212-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029965		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
LCS	1202029966		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245681001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245681002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245690001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245690002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245807001		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
DUP	1202029967	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
MS	1202029968	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SDILT	1202029969	245807001	SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER
SAMPLE	245807002		SW846 7470A Prep	12-FEB-2010 14:10	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1257474-1	.5 mL	NITRIC ACID
1261483-C	1.5 mL	5% Potassium Persulfate
1264984-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100212-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100212-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100212-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100212-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100212-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100212-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 12-FEB-10 14:10
Digestion End Date: 12-FEB-10 16:10

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 948036

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030863	UI100205-01	.25	mL
LCS	1202030863	UI100205-06	.25	mL
MS	1202030865	UI100205-01	.25	mL
MS	1202030865	UI100205-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030862		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	WATER
LCS	1202030863		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	WATER
SAMPLE	245690001		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	WATER
DUP	1202030864	245690001	SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	WATER
MS	1202030865	245690001	SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	WATER
SDILT	1202030866	245690001	SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	WATER
SAMPLE	245690002		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	WATER
SAMPLE	245809001		SW846 3005A	07-FEB-2010 08:13	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 948039

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202030876	UI100205-A	.5	mL
LCS	1202030876	UI100205-B	.5	mL
MS	1202030878	UI090930-A	.5	mL
MS	1202030878	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202030875		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER
LCS	1202030876		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER
SAMPLE	245690001		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER
DUP	1202030877	245690001	SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER
MS	1202030878	245690001	SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER
SDILT	1202030879	245690001	SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER
SAMPLE	245690002		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER
SAMPLE	245809001		SW846 3005A	07-FEB-2010 08:23	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Standard Logbook

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Standard Logbook

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Standard Logbook

Serial ID: UI100126-11 **Opened:** 26-JAN-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 26-JAN-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 26-JAN-11 **Lot Number :** 1018321
Employee: Elizabeth Janssen **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL

Analyte	Concentration	Analyte	Concentration
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-A **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100205-B **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100212-01 **Opened:** 12-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 12-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 13-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100212-02 **Opened:** 12-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 13-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100212-01a **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100212-02 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100212-03 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100212-04 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100212-05 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100212-06 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100212-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100212-13 **Opened:** 12-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 12-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 19-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100212-42 **Opened:** 12-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 13-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100212-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100212-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100212-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100212-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100212-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100212-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100212-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100212-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100212-43 **Opened:** 12-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 13-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Carnello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100212-44 **Opened:** 12-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 13-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100212-45 **Opened:** 12-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 13-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100212-46 **Opened:** 12-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 13-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100212-47 **Opened:** 12-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 13-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Carnello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100217-04 **Opened:** 17-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 18-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100217-04A **Opened:** 17-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 17-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100217-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100217-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100217-04B **Opened:** 17-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 17-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 18-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100217-05 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 17-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100217-06 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 17-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100217-07 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 17-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 18-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100217-08 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 17-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100217-70 **Opened:** 17-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 17-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 18-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100218-04 **Opened:** 18-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 18-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 19-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1269792
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100218-04A **Opened:** 18-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 18-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100217-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100217-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100217-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100217-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100217-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100218-05 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 18-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100218-06 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 18-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100218-07 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 18-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 19-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1269792
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100218-08 **Opened:** 18-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 18-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 19-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1269792
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1269792 **Opened:** 15-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 15-FEB-10
Type: Reagent/Solvent **Expires:** 22-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1433

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	947312 and 947315	**Method:**	SW9012A Cyanide and Total
Prep Batch :	947310 and 947314	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245688001	RE15-10-7883
245688002	RE15-10-7884
245688003	RE15-10-7932
245688004	RE15-10-7931
245688005	RE15-10-7938
245688006	RE15-10-7933
245688007	RE15-10-7939
245688008	RE15-10-7936
245688009	RE15-10-7935
245688010	RE15-10-7934
245688011	RE15-10-7940
245688012	RE15-10-7937
245688013	RE15-10-8056
245688014	RE15-10-8057
1202029230	Method Blank (MB)
1202029231	245612007(RE46-10-11814) Sample Duplicate (DUP)
1202029232	245612008(RE46-10-11825) Sample Duplicate (DUP)
1202029233	245612007(RE46-10-11814) Matrix Spike (MS)
1202029234	245612008(RE46-10-11825) Matrix Spike (MS)
1202029235	245612007(RE46-10-11814) Matrix Spike Duplicate (MSD)
1202029236	245612008(RE46-10-11825) Matrix Spike Duplicate (MSD)
1202029237	Laboratory Control Sample (LCS)
1202029242	Method Blank (MB)
1202029243	245688011(RE15-10-7940) Sample Duplicate (DUP)
1202029244	245688012(RE15-10-7937) Sample Duplicate (DUP)
1202029245	245688011(RE15-10-7940) Matrix Spike (MS)
1202029246	245688012(RE15-10-7937) Matrix Spike (MS)
1202029247	245688011(RE15-10-7940) Matrix Spike Duplicate (MSD)
1202029248	245688012(RE15-10-7937) Matrix Spike Duplicate (MSD)
1202029249	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245612007 (RE46-10-11814), 245612008 (RE46-10-11825)- Batch 947312, 245688011 (RE15-10-7940) and 245688012 (RE15-10-7937)- Batch 947315.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202029246 (RE15-10-7937)- Batch 947315.

Matrix Spike Duplicate (MSD) Recovery Statement
The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202029247 (RE15-10-7940)- Batch 947315.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202029231 (RE46-10-11814), 1202029232 (RE46-10-11825)- Batch 947312, 1202029243 (RE15-10-7940), 1202029244 (RE15-10-7937), 245688011 (RE15-10-7940) and 245688012 (RE15-10-7937)- Batch 947315.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202029237 (LCS)- Batch 947312 and 1202029249 (LCS)- Batch 947315.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202029242 (MB)- Batch 947315.

Miscellaneous Information

Data Exception (DER) Documentation
The following DERs were generated for this SDG: 788611 1202029246 (RE15-10-7937) and 1202029248 (RE15-10-7937)- Batch 947315.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 19Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1433 GEL Work Order: 245688

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7931	Project:	LANL01004
Sample ID:	245688004	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	17.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.2	269	ug/kg	1	AXC2 02/08/10	1430	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7938	Project:	LANL01004
Sample ID:	245688005	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	3.57%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.5	259	ug/kg	1	AXC2 02/08/10	1431	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7933
Sample ID: 245688006
Matrix: R
Collect Date: 25-JAN-10 12:00
Receive Date: 28-JAN-10
Collector: Client
Moisture: 20.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2 02/08/10	1432	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7939	Project:	LANL01004
Sample ID:	245688007	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	23.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	81.2	298	ug/kg	1	AXC2 02/08/10	1433	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7936	Project:	LANL01004
Sample ID:	245688008	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	3.67%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2 02/08/10	1433	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7935	Project:	LANL01004
Sample ID:	245688009	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	23.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.4	303	ug/kg	1	AXC2 02/08/10	1434	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7934
Sample ID: 245688010
Matrix: R
Collect Date: 25-JAN-10 12:00
Receive Date: 28-JAN-10
Collector: Client
Moisture: 9.67%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2 02/08/10	1435	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7940	Project:	LANL01004
Sample ID:	245688011	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	4.85%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.8	235	ug/kg	1	AXC2 02/08/10	1343	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID: RE15-10-7937
Sample ID: 245688012
Matrix: R
Collect Date: 25-JAN-10 12:00
Receive Date: 28-JAN-10
Collector: Client
Moisture: 23.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	85.8	315	ug/kg	1	AXC2 02/08/10	1346	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-8056	Project:	LANL01004
Sample ID:	245688013	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	3.56%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.1	254	ug/kg	1	AXC2 02/08/10	1353	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-8057	Project:	LANL01004
Sample ID:	245688014	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	29.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	93.1	342	ug/kg	1	AXC2 02/08/10	1354	947315	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1542	947314

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7883	Project:	LANL01004
Sample ID:	245688001	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	31.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	98.7	363	ug/kg	1	AXC2 02/08/10	1424	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7884	Project:	LANL01004
Sample ID:	245688002	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	5.82%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.1	250	ug/kg	1	AXC2 02/08/10	1424	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 19, 2010

Client SDG: 10-1433

Client Sample ID:	RE15-10-7932	Project:	LANL01004
Sample ID:	245688003	Client ID:	LANL010
Matrix:	R		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		
Moisture:	9.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2 02/08/10	1425	947312	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/04/10	1549	947310

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

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QC Summary

Report Date: February 19, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245688

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 947312											
QC1202029231 245612007 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	02/08/10 14:07
QC1202029232 245612008 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				02/08/10 14:10
QC1202029237 LCS											
Cyanide, Total	67900				70000	ug/kg		103	(32%-157%)		02/08/10 14:05
QC1202029230 MB											
Cyanide, Total				U	250	ug/kg					02/08/10 14:00
QC1202029233 245612007 MS											
Cyanide, Total	5570	U	ND		5000	ug/kg		89.8	(26%-158%)		02/08/10 14:08
QC1202029234 245612008 MS											
Cyanide, Total	5090	U	ND		4400	ug/kg		86.4	(26%-158%)		02/08/10 14:11
QC1202029235 245612007 MSD											
Cyanide, Total	5170	U	ND		4410	ug/kg	12.7	85.3	(0%-30%)		02/08/10 14:08
QC1202029236 245612008 MSD											
Cyanide, Total	5380	U	ND		4560	ug/kg	3.74	84.8	(0%-30%)		02/08/10 14:12
Batch 947315											
QC1202029243 245688011 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	02/08/10 13:43
QC1202029244 245688012 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				02/08/10 13:47
QC1202029249 LCS											
Cyanide, Total	67900				66500	ug/kg		97.9	(32%-157%)		02/08/10 13:28
QC1202029242 MB											
Cyanide, Total				U	250	ug/kg					02/08/10 13:40
QC1202029245 245688011 MS											
Cyanide, Total	4530	U	ND		3920	ug/kg		86.6	(26%-158%)		02/08/10 13:44
QC1202029246 245688012 MS											
Cyanide, Total	6070	U	ND		4200	ug/kg		68.9	(26%-158%)		02/08/10 13:48
QC1202029247 245688011 MSD											
Cyanide, Total	5050	U	ND		3960	ug/kg	0.972	78.4	(0%-30%)		02/08/10 13:45
QC1202029248 245688012 MSD											
Cyanide, Total	5960	U	ND		4260	ug/kg	1.29	71.1	(0%-30%)		02/08/10 13:52

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 245688

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 19-FEB-2010 14:59

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1433

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 13:36:51	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 13:49:17	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:01:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:14:12	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:26:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:39:11	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 13:38:42	OM_2-8-2010_13-14-40	-1.4	10	Yes
CCB	08-FEB-2010 13:51:07	OM_2-8-2010_13-14-40	-1.92	10	Yes
CCB	08-FEB-2010 14:03:31	OM_2-8-2010_13-14-40	-1.86	10	Yes
CCB	08-FEB-2010 14:16:04	OM_2-8-2010_13-14-40	-1.95	10	Yes
CCB	08-FEB-2010 14:28:32	OM_2-8-2010_13-14-40	-1.47	10	Yes
CCB	08-FEB-2010 14:41:01	OM_2-8-2010_13-14-40	-1.57	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 947314

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029249	URF1200957-01	.25	g
MS	1202029245	URF1184831-02	.025	mL
MS	1202029246	URF1184831-02	.025	mL
MSD	1202029247	URF1184831-02	.025	mL
MSD	1202029248	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029242		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	SOIL
LCS	1202029249		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245682001		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682002		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682003		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245682004		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245682005		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682006		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682007		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245682008		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245682009		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245682010		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245688011		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1202029243	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963	SOIL
MS	1202029245	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1202029247	245688011	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245688012		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202029244	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	SOIL
MS	1202029246	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202029248	245688012	SW846 9010B Prep	04-FEB-2010 15:42	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245688013		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245688014		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245797001		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797002		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245797003		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245797004		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245797005		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245797006		SW846 9010B Prep	04-FEB-2010 15:42	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100204-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 947310

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202029237	URF1200957-01	.25	g
MS	1202029233	URF1184831-02	.025	mL
MS	1202029234	URF1184831-02	.025	mL
MSD	1202029235	URF1184831-02	.025	mL
MSD	1202029236	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202029230		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	SOIL
LCS	1202029237		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245612007		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.58 g	25 mL	43.10345	SOIL
DUP	1202029231	245612007	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.54 g	25 mL	46.2963	SOIL
MS	1202029233	245612007	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1202029235	245612007	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245612008		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1202029232	245612008	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202029234	245612008	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.55 g	25 mL	45.45455	SOIL
MSD	1202029236	245612008	SW846 9010B Prep	04-FEB-2010 15:49	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245612009		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245612010		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245612011		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245612012		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245612013		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245612014		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245612015		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245612016		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245688001		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245688002		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245688003		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245688004		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245688005		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245688006		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245688007		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245688008		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245688009		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245688010		SW846 9010B Prep	04-FEB-2010 15:49	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100204-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010	15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010	15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010	15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010	15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010	15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010	15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010	15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010	15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010	15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010	15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010	15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010	15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010	15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010	15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010	15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010	15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010	15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010	15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010	15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010	15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010	15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010	15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010	15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010	15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010	15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010	15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010	15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010	15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010	15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010	15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010	15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010	15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010	15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	16:02:41	OM_2-8-2010_13-14-40

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-1.86 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.86 > -5.00					
Message			CCB Passed					
Action			Continue					
1202029237||LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231||DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233||MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235||MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232||DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234||MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236||MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.95 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.95 > -5.00					
Message			CCB Passed					
Action			Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			4.6 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.6 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.47 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.47 > -5.00					
Message			CCB Passed					
Action			Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.57 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.57 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.0 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.83 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.83 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2

Date : 2/8/2010

Channel 1: Current View

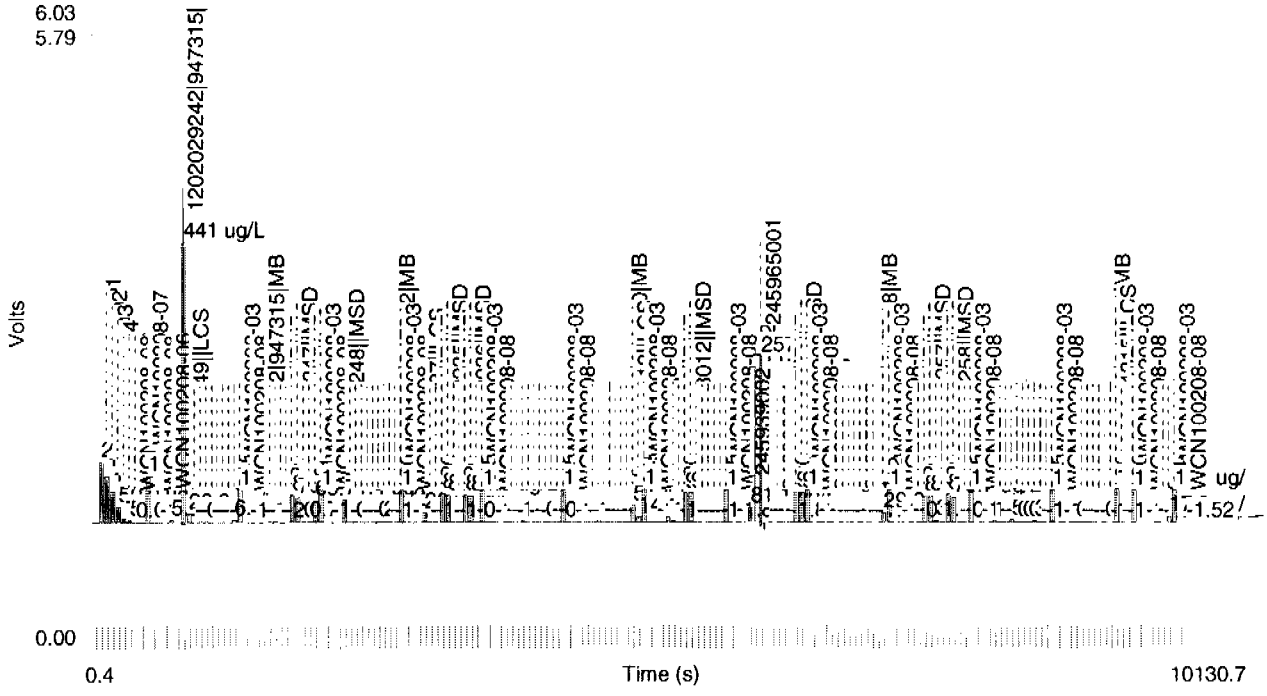

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE

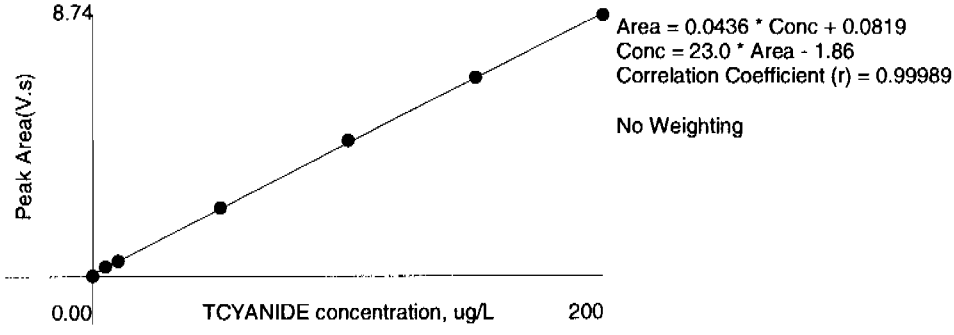

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-FEB-10			
Instrument Type:	**Test / Method:** SW846 9012A	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 947315	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 245682(10-1450-1),245688(10-1433),245797(10-1471)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD QC 1202029246MS 1202029248MSD	1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD (soil sample).

Originator's Name:

Ashley Earl 09-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 19-FEB-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1433-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	947324	**Method:**	SW9012A Cyanide and Total
Prep Batch :	947322	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245690001	RE15-10-8080
245690002	RE15-10-8079
1202029270	Method Blank (MB)
1202029271	245619001(GW51-10-11855) Sample Duplicate (DUP)
1202029272	245605002(CAMO-10-9315) Sample Duplicate (DUP)
1202029273	245676001(CAWR-10-11786) Sample Duplicate (DUP)
1202029274	245619001(GW51-10-11855) Matrix Spike (MS)
1202029275	245605002(CAMO-10-9315) Matrix Spike (MS)
1202029276	245676001(CAWR-10-11786) Matrix Spike (MS)
1202029277	245619001(GW51-10-11855) Matrix Spike Duplicate (MSD)
1202029278	245605002(CAMO-10-9315) Matrix Spike Duplicate (MSD)
1202029279	245676001(CAWR-10-11786) Matrix Spike Duplicate (MSD)
1202029280	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245605002 (CAMO-10-9315), 245619001 (GW51-10-11855) and 245676001 (CAWR-10-11786).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202029271 (GW51-10-11855).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis

The following sample was re-analyzed due to instrument failure: 245690001 (RE15-10-8080).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 19Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1433-1 GEL Work Order: 245690

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, RmJ11
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 9, 2010

Client SDG: 10-1433-1

Client Sample ID:	RE15-10-8080	Project:	LANL01004
Sample ID:	245690001	Client ID:	LANL010
Matrix:	W		
Collect Date:	25-JAN-10 12:00		
Receive Date:	28-JAN-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	J	2.79	1.66	5.00	ug/L	1	AXC2 02/05/10	1112	947324	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 9, 2010

Client SDG: 10-1433-1

Client Sample ID: RE15-10-8079
Sample ID: 245690002
Matrix: W
Collect Date: 25-JAN-10 12:00
Receive Date: 28-JAN-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	J	2.65	1.66	5.00	ug/L	1	AXC2 02/05/10	1104	947324	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/03/10	1524	947322

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 9, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245690

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 947324										
QC1202029271 245619001 DUP										
Cyanide, Total	J	2.69	J	3.37	ug/L	22.4 ^		(+/-5.00)	AXC2	02/05/10 10:48
QC1202029272 245605002 DUP										
Cyanide, Total	J	3.11	J	2.62	ug/L	17.1 ^		(+/-5.00)		02/05/10 10:40
QC1202029273 245676001 DUP										
Cyanide, Total	J	3.12	J	2.85	ug/L	9.05 ^		(+/-5.00)		02/05/10 10:53
QC1202029280 LCS										
Cyanide, Total	50.0			46.7	ug/L		93.4	(90%-110%)		02/05/10 10:37
QC1202029270 MB										
Cyanide, Total			J	2.49	ug/L					02/05/10 10:36
QC1202029274 245619001 MS										
Cyanide, Total	100 J	2.69		102	ug/L		99.3	(60%-144%)		02/05/10 10:48
QC1202029275 245605002 MS										
Cyanide, Total	100 J	3.11		102	ug/L		98.9	(60%-144%)		02/05/10 10:40
QC1202029276 245676001 MS										
Cyanide, Total	100 J	3.12		101	ug/L		97.9	(60%-144%)		02/05/10 10:54
QC1202029277 245619001 MSD										
Cyanide, Total	100 J	2.69		91.7	ug/L	10.6	89	(0%-20%)		02/05/10 10:49
QC1202029278 245605002 MSD										
Cyanide, Total	100 J	3.11		101	ug/L	0.985	97.9	(0%-20%)		02/05/10 10:41
QC1202029279 245676001 MSD										
Cyanide, Total	100 J	3.12		99.3	ug/L	1.70	96.2	(0%-20%)		02/05/10 10:55

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded

QC Summary

Workorder: **245690**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

J	Value is estimated
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 09-FEB-2010 14:34

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1433-1**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**05-FEB-2010 10:04:21**	**OM_2-5-2010_09-56-27**	**137**	**150**	**91**	**(90%-110%)**	**Yes**
CCV	05-FEB-2010 10:31:03	OM_2-5-2010_09-56-27	96.7	100	97	(90%-110%)	Yes
CCV	05-FEB-2010 10:43:30	OM_2-5-2010_09-56-27	96.8	100	97	(90%-110%)	Yes
CCV	05-FEB-2010 10:55:59	OM_2-5-2010_09-56-27	96.2	100	96	(90%-110%)	Yes
CCV	05-FEB-2010 11:08:28	OM_2-5-2010_09-56-27	95.3	100	95	(90%-110%)	Yes
CCV	05-FEB-2010 11:20:57	OM_2-5-2010_09-56-27	95.7	100	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**05-FEB-2010 10:06:11**	**OM_2-5-2010_09-56-27**	**0.293**	**10**	**Yes**
CCB	05-FEB-2010 10:32:54	OM_2-5-2010_09-56-27	0.125	10	Yes
CCB	05-FEB-2010 10:45:20	OM_2-5-2010_09-56-27	0.121	10	Yes
CCB	05-FEB-2010 10:57:50	OM_2-5-2010_09-56-27	1.57	10	Yes
CCB	05-FEB-2010 11:10:18	OM_2-5-2010_09-56-27	1.88	10	Yes
CCB	05-FEB-2010 11:22:48	OM_2-5-2010_09-56-27	1.88	10	Yes

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **947322.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.3 EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202029280	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
MS	1202029274	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029275	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029276	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029277	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029278	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029279	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202029270 MB	03-FEB-2010 15:24:00	Water	25	25	1	>12
1202029280 LCS	03-FEB-2010 15:24:00	Water	25	25	1	>12
245427008	03-FEB-2010 15:24:00	Water	25	25	1	>12
245605002	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
1202029272 DUP (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
1202029275 MS (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
1202029278 MSD (245605002)	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245619001	03-FEB-2010 15:24:00	Water	25	25	1	>12
1202029271 DUP (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12
1202029274 MS (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12
1202029277 MSD (245619001)	03-FEB-2010 15:24:00	Water	25	25	1	>12
245673004	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245673005	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245676001	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
1202029273 DUP (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
1202029276 MS (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12

Prep Logbook

Batch ID: **947322.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.3 EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202029280	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
MS	1202029274	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029275	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1202029276	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029277	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029278	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1202029279	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202029279 MSD (245676001)	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245676002	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245676005	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12
245681001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245681002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245690001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245690002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245777003	03-FEB-2010 15:24:00	Water	25	25	1	>12
245777006	03-FEB-2010 15:24:00	Water	25	25	1	>12
245791002	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245791004	03-FEB-2010 15:24:00	Ground Water	25	25	1	>12
245807001	03-FEB-2010 15:24:00	Water	25	25	1	>12
245807002	03-FEB-2010 15:24:00	Water	25	25	1	>12
245818012	03-FEB-2010 15:24:00	Waste Water	25	25	1	>12
245841001	03-FEB-2010 15:24:00	Surface Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
091211-C	0.25N Sodium Hydroxide Solution	25 mL
1176724-C	0.8N H3NO3S	1.25 mL

Comments:

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/5/2010 9:57:12	OM_2-5-2010_09-56-27
150 ppb		1	axc2	2/5/2010 9:58:04	OM_2-5-2010_09-56-27
100 ppb		1	axc2	2/5/2010 9:58:57	OM_2-5-2010_09-56-27
50 ppb		1	axc2	2/5/2010 9:59:49	OM_2-5-2010_09-56-27
10 ppb		1	axc2	2/5/2010 10:00:43	OM_2-5-2010_09-56-27
CRDL 5.0 ppb		1	axc2	2/5/2010 10:01:37	OM_2-5-2010_09-56-27
ICAL-00		1	axc2	2/5/2010 10:02:31	OM_2-5-2010_09-56-27
ICV		1	axc2	2/5/2010 10:04:21	OM_2-5-2010_09-56-27
ICB		1	axc2	2/5/2010 10:06:11	OM_2-5-2010_09-56-27
CRDL		1	axc2	2/5/2010 10:08:01	OM_2-5-2010_09-56-27
1202024505	945278	1	axc2	2/5/2010 10:09:51	OM_2-5-2010_09-56-27
1202024507	945278	250	axc2	2/5/2010 10:10:44	OM_2-5-2010_09-56-27
245307001	945278	1	axc2	2/5/2010 10:11:37	OM_2-5-2010_09-56-27
1202024506	945278	1	axc2	2/5/2010 10:12:30	OM_2-5-2010_09-56-27
245307002	945278	1	axc2	2/5/2010 10:13:23	OM_2-5-2010_09-56-27
245706001	945278	1	axc2	2/5/2010 10:14:16	OM_2-5-2010_09-56-27
1202030431*	947859	1	axc2	2/5/2010 10:15:09	OM_2-5-2010_09-56-27
1202030435	947859	1	axc2	2/5/2010 10:16:02	OM_2-5-2010_09-56-27
245791005	947859	1	axc2	2/5/2010 10:16:54	OM_2-5-2010_09-56-27
1202030432	947859	1	axc2	2/5/2010 10:17:46	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:18:39	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:20:29	OM_2-5-2010_09-56-27
245706001	945278	10	axc2	2/5/2010 10:22:18	OM_2-5-2010_09-56-27
1202030431	947859	1	axc2	2/5/2010 10:23:11	OM_2-5-2010_09-56-27
1202030433	947859	1	axc2	2/5/2010 10:24:03	OM_2-5-2010_09-56-27
1202030434	947859	1	axc2	2/5/2010 10:24:55	OM_2-5-2010_09-56-27
245791007	947859	1	axc2	2/5/2010 10:25:46	OM_2-5-2010_09-56-27
245818013	947859	1	axc2	2/5/2010 10:26:38	OM_2-5-2010_09-56-27
245893001	947859	1	axc2	2/5/2010 10:27:30	OM_2-5-2010_09-56-27
245900002	947859	1	axc2	2/5/2010 10:28:24	OM_2-5-2010_09-56-27
246007001	947859	1	axc2	2/5/2010 10:29:17	OM_2-5-2010_09-56-27
1202031533	947859	1	axc2	2/5/2010 10:30:10	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:31:03	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:32:54	OM_2-5-2010_09-56-27
1202031534	947859	1	axc2	2/5/2010 10:34:43	OM_2-5-2010_09-56-27
1202031535	947859	1	axc2	2/5/2010 10:35:37	OM_2-5-2010_09-56-27
1202029270	947324	1	axc2	2/5/2010 10:36:30	OM_2-5-2010_09-56-27
1202029280	947324	1	axc2	2/5/2010 10:37:23	OM_2-5-2010_09-56-27
245427008	947324	1	axc2	2/5/2010 10:38:15	OM_2-5-2010_09-56-27
245605002	947324	1	axc2	2/5/2010 10:39:08	OM_2-5-2010_09-56-27
1202029272	947324	1	axc2	2/5/2010 10:40:01	OM_2-5-2010_09-56-27
1202029275	947324	1	axc2	2/5/2010 10:40:53	OM_2-5-2010_09-56-27
1202029278	947324	1	axc2	2/5/2010 10:41:45	OM_2-5-2010_09-56-27
245619001	947324	1	axc2	2/5/2010 10:42:37	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:43:30	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:45:20	OM_2-5-2010_09-56-27
245427008	947324	10	axc2	2/5/2010 10:47:09	OM_2-5-2010_09-56-27
1202029271	947324	1	axc2	2/5/2010 10:48:00	OM_2-5-2010_09-56-27
1202029274	947324	1	axc2	2/5/2010 10:48:53	OM_2-5-2010_09-56-27
1202029277	947324	1	axc2	2/5/2010 10:49:47	OM_2-5-2010_09-56-27
245673004	947324	1	axc2	2/5/2010 10:50:40	OM_2-5-2010_09-56-27
245673005	947324	1	axc2	2/5/2010 10:51:34	OM_2-5-2010_09-56-27
245676001	947324	1	axc2	2/5/2010 10:52:28	OM_2-5-2010_09-56-27
1202029273	947324	1	axc2	2/5/2010 10:53:21	OM_2-5-2010_09-56-27
1202029276	947324	1	axc2	2/5/2010 10:54:14	OM_2-5-2010_09-56-27
1202029279	947324	1	axc2	2/5/2010 10:55:07	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010 10:55:59	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010 10:57:50	OM_2-5-2010_09-56-27

245676002	947324	1	axc2	2/5/2010	10:59:40	OM_2-5-2010_09-56-27
245676005	947324	1	axc2	2/5/2010	11:00:33	OM_2-5-2010_09-56-27
245681001	947324	1	axc2	2/5/2010	11:01:25	OM_2-5-2010_09-56-27
245681002	947324	1	axc2	2/5/2010	11:02:18	OM_2-5-2010_09-56-27
245690001*	947324	1	axc2	2/5/2010	11:03:11	OM_2-5-2010_09-56-27
245690002	947324	1	axc2	2/5/2010	11:04:02	OM_2-5-2010_09-56-27
245777003	947324	1	axc2	2/5/2010	11:04:55	OM_2-5-2010_09-56-27
245777006	947324	1	axc2	2/5/2010	11:05:46	OM_2-5-2010_09-56-27
245791002	947324	1	axc2	2/5/2010	11:06:41	OM_2-5-2010_09-56-27
245791004	947324	1	axc2	2/5/2010	11:07:35	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:08:28	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:10:18	OM_2-5-2010_09-56-27
245690001	947324	1	axc2	2/5/2010	11:12:06	OM_2-5-2010_09-56-27
245807001	947324	1	axc2	2/5/2010	11:12:59	OM_2-5-2010_09-56-27
245807002	947324	1	axc2	2/5/2010	11:13:53	OM_2-5-2010_09-56-27
245818012	947324	1	axc2	2/5/2010	11:14:46	OM_2-5-2010_09-56-27
245841001	947324	1	axc2	2/5/2010	11:15:40	OM_2-5-2010_09-56-27
1202025750	945817	1	axc2	2/5/2010	11:16:34	OM_2-5-2010_09-56-27
1202025757	945817	25	axc2	2/5/2010	11:17:26	OM_2-5-2010_09-56-27
245420011	945817	1	axc2	2/5/2010	11:18:19	OM_2-5-2010_09-56-27
245514013*	945817	1	axc2	2/5/2010	11:19:12	OM_2-5-2010_09-56-27
1202025751	945817	1	axc2	2/5/2010	11:20:04	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:20:57	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:22:48	OM_2-5-2010_09-56-27
245514013	945817	1	axc2	2/5/2010	11:24:36	OM_2-5-2010_09-56-27
1202025753	945817	1	axc2	2/5/2010	11:25:28	OM_2-5-2010_09-56-27
1202025755	945817	1	axc2	2/5/2010	11:26:22	OM_2-5-2010_09-56-27
245514014	945817	1	axc2	2/5/2010	11:27:13	OM_2-5-2010_09-56-27
245514015	945817	1	axc2	2/5/2010	11:28:05	OM_2-5-2010_09-56-27
245514016	945817	1	axc2	2/5/2010	11:28:59	OM_2-5-2010_09-56-27
245514017	945817	1	axc2	2/5/2010	11:29:53	OM_2-5-2010_09-56-27
245514018	945817	1	axc2	2/5/2010	11:30:47	OM_2-5-2010_09-56-27
245514019	945817	1	axc2	2/5/2010	11:31:41	OM_2-5-2010_09-56-27
245514020	945817	1	axc2	2/5/2010	11:32:35	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:33:28	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:35:18	OM_2-5-2010_09-56-27
245515001	945817	1	axc2	2/5/2010	11:37:07	OM_2-5-2010_09-56-27
245515002	945817	1	axc2	2/5/2010	11:38:01	OM_2-5-2010_09-56-27
245521001	945817	1	axc2	2/5/2010	11:38:54	OM_2-5-2010_09-56-27
245612001	945817	1	axc2	2/5/2010	11:39:47	OM_2-5-2010_09-56-27
1202025752*	945817	1	axc2	2/5/2010	11:40:40	OM_2-5-2010_09-56-27
1202025754	945817	1	axc2	2/5/2010	11:41:33	OM_2-5-2010_09-56-27
1202025756	945817	1	axc2	2/5/2010	11:42:25	OM_2-5-2010_09-56-27
245612002	945817	1	axc2	2/5/2010	11:43:18	OM_2-5-2010_09-56-27
245612003	945817	1	axc2	2/5/2010	11:44:10	OM_2-5-2010_09-56-27
245612004	945817	1	axc2	2/5/2010	11:45:03	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:45:55	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:47:46	OM_2-5-2010_09-56-27
1202025752	945817	1	axc2	2/5/2010	11:49:35	OM_2-5-2010_09-56-27
245612005	945817	1	axc2	2/5/2010	11:50:30	OM_2-5-2010_09-56-27
245612006	945817	1	axc2	2/5/2010	11:51:24	OM_2-5-2010_09-56-27
245740001	945817	1	axc2	2/5/2010	11:52:18	OM_2-5-2010_09-56-27
245741001	945817	1	axc2	2/5/2010	11:53:12	OM_2-5-2010_09-56-27
245420011	945817	10	axc2	2/5/2010	11:54:05	OM_2-5-2010_09-56-27
CCV		1	axc2	2/5/2010	11:54:57	OM_2-5-2010_09-56-27
CCB		1	axc2	2/5/2010	11:56:49	OM_2-5-2010_09-56-27

Author: axc2 Date : 2/5/2010

Original Run Filename: OM_2-5-2010_09-56-27.OMN created 2/5/2010 09:56:27
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-5-2010_09-56-27.OMN last modified 2/5/2010 11:57:54
Current Run Author's Signature: [axc2]
Description: GL-GC-E-102 EPA 420.4, 9066
LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100205-01	1	S1	200	9.56	2/5/2010@09:57:12			200 ppb
WCN100205-02	1	S2	150	7.18	2/5/2010@09:58:04			150 ppb
WCN100205-03	1	S3	100	4.47	2/5/2010@09:58:57			100 ppb
WCN100205-04	1	S4	50.0	2.22	2/5/2010@09:59:49			50 ppb
WCN100205-05	1	S5	10.0	0.464	2/5/2010@10:00:43			10 ppb
WCN100205-06	1	S6	5.00	0.275	2/5/2010@10:01:37			CRDL 5.0 ppb
WCN100205-08	1	S7	0.00	-0.0584	2/5/2010@10:02:31			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99944 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100205-07	1	S8	137	6.46	2/5/2010@10:04:21			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-8.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-8.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100205-08	1	S7	0.293	-0.0613	2/5/2010@10:06:11			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.293 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.293 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100205-06	1	S6	7.24	0.271	2/5/2010@10:08:01			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	7.24 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	7.24 > 2.50					
		Message	Pass					
		Action	None					
1202024505|945278|MB	1	1	2.51	0.0446	2/5/2010@10:09:51			
1202024507||LCS	1	2	172	8.13	2/5/2010@10:10:44		250.00	
245307001	1	3	1.97	0.0188	2/5/2010@10:11:37			
1202024506||DUP	1	4	1.58	3.83e-4	2/5/2010@10:12:30			
245307002	1	5	0.859	-0.0342	2/5/2010@10:13:23			
245706001	1	6	418	19.9	2/5/2010@10:14:16			
1202030431|947859|MB	1	7	42.8	1.97	2/5/2010@10:15:09			
1202030435||LCS	1	8	46.0	2.12	2/5/2010@10:16:02			
245791005	1	9	1.63	0.00275	2/5/2010@10:16:54			
1202030432||DUP	1	10	1.58	2.94e-4	2/5/2010@10:17:46			
WCN100205-03	1	S3	96.0	4.52	2/5/2010@10:18:39			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.0 < 10.0					
		Message	CCV Passed					

		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	0.291	-0.0614	2/5/2010@10:20:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.291 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.291 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245706001|945278|	1	6	39.5	1.81	2/5/2010@10:22:18		10.00	
1202030431|947859|MB	1	7	2.52	0.0452	2/5/2010@10:23:11			
1202030433||MS	1	11	99.9	4.70	2/5/2010@10:24:03			
1202030434||MSD	1	12	78.6	3.68	2/5/2010@10:24:55			
245791007	1	13	1.68	0.00490	2/5/2010@10:25:46			
245818013	1	14	3.49	0.0915	2/5/2010@10:26:38			
245893001	1	15	5.80	0.202	2/5/2010@10:27:30			
245900002	1	16	3.33	0.0842	2/5/2010@10:28:24			
246007001	1	17	1.74	0.00781	2/5/2010@10:29:17			
1202031533||DUP	1	18	1.78	0.00994	2/5/2010@10:30:10			
WCN100205-03	1	S3	96.7	4.55	2/5/2010@10:31:03			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	0.125	-0.0693	2/5/2010@10:32:54			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.125 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.125 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202031534||MS	1	19	86.8	4.07	2/5/2010@10:34:43			
1202031535||MSD	1	20	97.2	4.57	2/5/2010@10:35:37			
1202029270|947324|MB	1	21	2.49	0.0436	2/5/2010@10:36:30			
1202029280||LCS	1	22	46.7	2.16	2/5/2010@10:37:23			
245427008	1	23	339	16.1	2/5/2010@10:38:15			
245605002	1	24	3.11	0.0735	2/5/2010@10:39:08			
1202029272||DUP	1	25	2.62	0.0502	2/5/2010@10:40:01			
1202029275||MS	1	26	102	4.78	2/5/2010@10:40:53			
1202029278|947324|MSD	1	27	101	4.75	2/5/2010@10:41:45			
245619001	1	28	2.69	0.0533	2/5/2010@10:42:37			
WCN100205-03	1	S3	96.8	4.55	2/5/2010@10:43:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	0.121	-0.0695	2/5/2010@10:45:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								

		Result:	0.121 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.121 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245427008	1	23	28.0	1.26	2/5/2010@10:47:09		10.00	
1202029271||DUP	1	29	3.37	0.0860	2/5/2010@10:48:00			
1202029274||MS	1	30	102	4.80	2/5/2010@10:48:53			
1202029277||MSD	1	31	91.7	4.31	2/5/2010@10:49:47			
245673004	1	32	5.30	0.178	2/5/2010@10:50:40			
245673005	1	33	4.74	0.152	2/5/2010@10:51:34			
245676001	1	34	3.12	0.0738	2/5/2010@10:52:28			
1202029273||DUP	1	35	2.85	0.0609	2/5/2010@10:53:21			
1202029276||MS	1	36	101	4.76	2/5/2010@10:54:14			
1202029279||MSD	1	37	99.3	4.67	2/5/2010@10:55:07			
WCN100205-03	1	S3	96.2	4.52	2/5/2010@10:55:59			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	1.57	-1.31e-4	2/5/2010@10:57:50			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245676002	1	38	2.93	0.0649	2/5/2010@10:59:40			
245676005	1	39	3.03	0.0698	2/5/2010@11:00:33			
245681001	1	40	2.89	0.0628	2/5/2010@11:01:25			
245681002	1	41	2.79	0.0582	2/5/2010@11:02:18			
245690001	1	42	5.08	0.167	2/5/2010@11:03:11			
245690002	1	43	2.65	0.0517	2/5/2010@11:04:02			
245777003	1	44	3.52	0.0929	2/5/2010@11:04:55			
245777006	1	45	4.92	0.160	2/5/2010@11:05:46			
245791002	1	46	2.86	0.0613	2/5/2010@11:06:41			
245791004	1	47	2.60	0.0491	2/5/2010@11:07:35			
WCN100205-03	1	S3	95.3	4.48	2/5/2010@11:08:28			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100205-08	1	S7	1.88	0.0145	2/5/2010@11:10:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.88 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.88 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245690001	1	42	2.79	0.0582	2/5/2010@11:12:06			

245807001	1	48	2.82	0.0594	2/5/2010@11:12:59			
245807002	1	49	2.67	0.0526	2/5/2010@11:13:53			
245818012	1	50	7.63	0.290	2/5/2010@11:14:46			
245841001	1	51	3.12	0.0740	2/5/2010@11:15:40			
1202025750|945817|MB	1	52	3.14	0.0749	2/5/2010@11:16:34			
1202025757||LCS	1	53	26.7	1.20	2/5/2010@11:17:26		25.00	
245420011	1	54	624	29.7	2/5/2010@11:18:19			
245514013	1	55	14.7	0.628	2/5/2010@11:19:12			
1202025751||DUP	1	56	4.56	0.143	2/5/2010@11:20:04			
WCN100205-03	1	S3	95.7	4.50	2/5/2010@11:20:57			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-4.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-4.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100205-08	1	S7	1.88	0.0145	2/5/2010@11:22:48			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		1.88 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.88 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245514013	1	55	4.67	0.148	2/5/2010@11:24:36			
1202025753||MS	1	57	85.5	4.01	2/5/2010@11:25:28			
1202025755||MSD	1	58	87.1	4.09	2/5/2010@11:26:22			
245514014	1	59	5.67	0.196	2/5/2010@11:27:13			
245514015	1	60	4.79	0.154	2/5/2010@11:28:05			
245514016	1	61	34.5	1.58	2/5/2010@11:28:59			
245514017	1	62	91.0	4.28	2/5/2010@11:29:53			
245514018	1	63	8.35	0.324	2/5/2010@11:30:47			
245514019	1	64	27.5	1.24	2/5/2010@11:31:41			
245514020	1	65	157	7.41	2/5/2010@11:32:35			
WCN100205-03	1	S3	96.1	4.52	2/5/2010@11:33:28			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-3.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-3.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100205-08	1	S7	1.93	0.0169	2/5/2010@11:35:18			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		1.93 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.93 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245515001	1	66	29.3	1.33	2/5/2010@11:37:07			
245515002	1	67	20.7	0.917	2/5/2010@11:38:01			
245521001	1	68	3.85	0.109	2/5/2010@11:38:54			
245612001	1	69	3.79	0.106	2/5/2010@11:39:47			
1202025752||DUP	1	70	8.08	0.311	2/5/2010@11:40:40			
1202025754||MS	1	71	96.6	4.54	2/5/2010@11:41:33			
1202025756||MSD	1	72	96.1	4.52	2/5/2010@11:42:25			
245612002	1	73	3.95	0.113	2/5/2010@11:43:18			
245612003	1	74	3.75	0.104	2/5/2010@11:44:10			

245612004	1	75	3.52	0.0928	2/5/2010@11:45:03			
WCN100205-03	1	S3	95.8	4.51	2/5/2010@11:45:55			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-4.2 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-4.2 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100205-08	1	S7	1.58	3.12e-4	2/5/2010@11:47:46			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			1.58 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.58 > -5.00					
Message			CCB Passed					
Action			Continue					
1202025752||DUP	1	70	4.24	0.127	2/5/2010@11:49:35			
245612005	1	76	4.19	0.125	2/5/2010@11:50:30			
245612006	1	77	3.44	0.0890	2/5/2010@11:51:24			
245740001	1	78	3.91	0.112	2/5/2010@11:52:18			
245741001	1	79	4.26	0.128	2/5/2010@11:53:12			
245420011	1	54	59.7	2.78	2/5/2010@11:54:05		10.00	
WCN100205-03	1	S3	96.1	4.52	2/5/2010@11:54:57			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			-3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-3.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100205-08	1	S7	1.58	3.24e-4	2/5/2010@11:56:49			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			1.58 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.58 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM_2-5-2010_09-56-27.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/5/2010

Channel 1: Current View

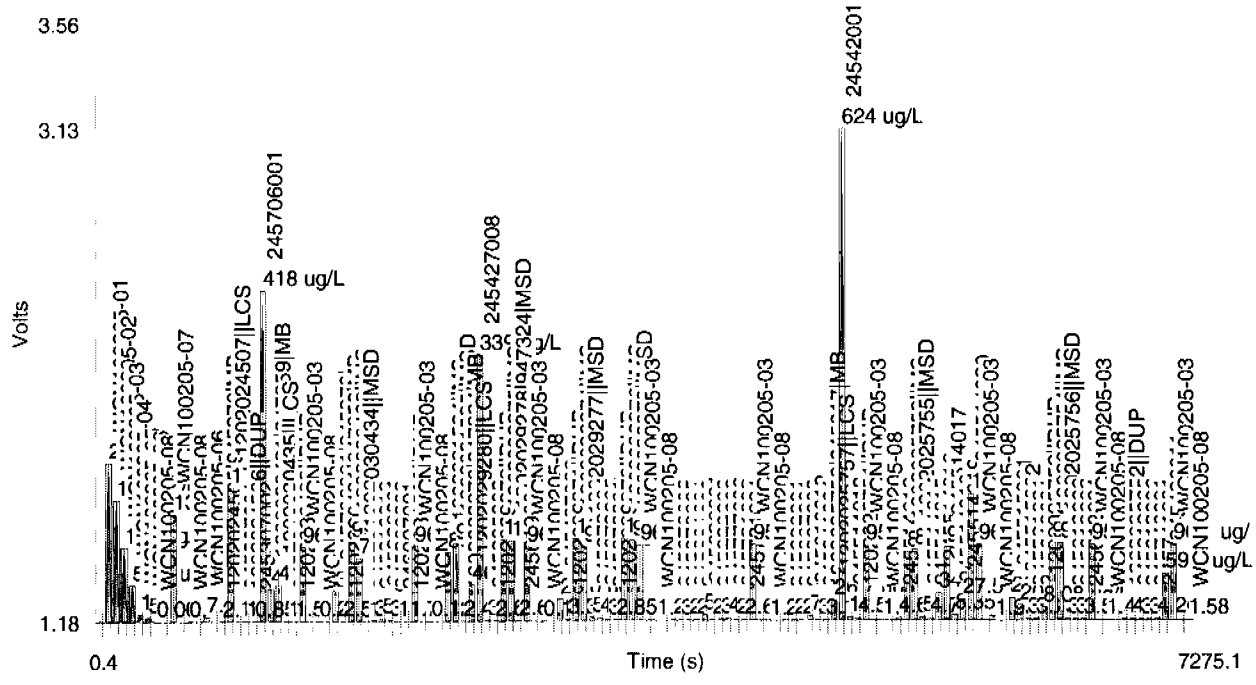

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.56	0.625	-0.8	2/5/2010	09:58:15
2	150	1	7.18	0.475	-1.2	2/5/2010	09:59:07
3	100	1	4.47	0.290	5.1	2/5/2010	09:59:59
4	50.0	1	2.22	0.141	4.3	2/5/2010	10:00:52
5	10.0	1	0.464	0.0293	-14.2	2/5/2010	10:01:46
6	5.00	1	0.275	0.0163	-64.2	2/5/2010	10:02:39
7	0.00	1	-0.0584	-0.00104		2/5/2010	10:03:34

Figure 1: TCYANIDE

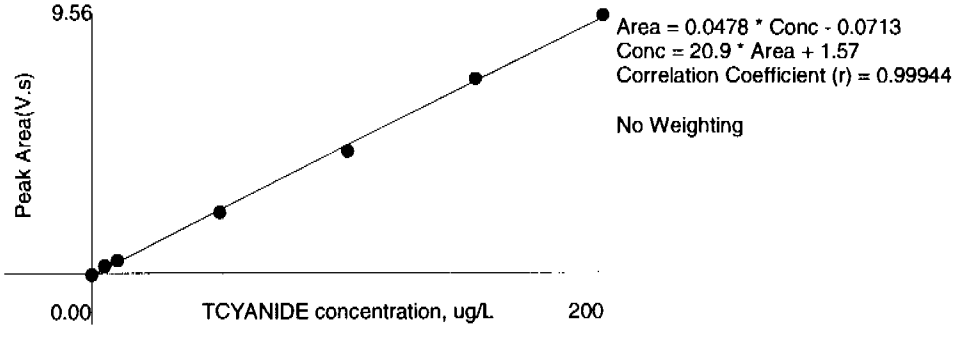

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1432
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/27/2010
TURNAROUND/REPORT DUE: 2/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	SW-846:8321A_MOD	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

Final Page of REQUEST NUMBER 10-1432

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1432

REQUEST NUMBER: 10-1432

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7884	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7932	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7931	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7938	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7933	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7939	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7936	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7935	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7934	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7940	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7937	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8056	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8057	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	1/27/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7883 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	TUFF I	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610711	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01.11.10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist sandy brown clay

FD: RE15-10-8057

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-66 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 52 dpm
Beta/Gamma ≤ 2120 dpm

HF negative

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R Marin	1/25/10 16:55	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1655
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7884 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	TUFF 1	
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	15-610711		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3.8	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	y	
1		H3	500 ML POLY	Ice	y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-660, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 91 dpm
Beta/Gamma ≤ 2410 dpm

PID Ambient 0.4 / Reading 4.7 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10 16:55	(Printed Name) Sherri Sherwood	1/25/10 1655
(Signature) Jack Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7931 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1342	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610735	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01.11.10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown clayey silt, roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-82, mesa top S of fire rd

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 39 dpm
Beta/Gamma ≤ 2370 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10 1655	(Printed Name) Sherri Sherwood	1/25/10 1655
(Signature) Jack R. Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7932 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1406	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610735	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff, few small rocks

SAMPLE COMMENTS: Hit tuff at 3.5'

LOCATION DESC: 8b - 82 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 39 dpm
Beta/Gamma ≤ 2490 dpm

PID Ambient 0.2 / Reading 1.3 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gourmas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jerry Marin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7933 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	Alth
TIME COLLECTED (HH:MM)		1339	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610736	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01.11.10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty clay, some roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-81, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 39 dpm
Beta/Gamma ≤ 2440 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jan R. Marin	1/25/10 16:56	(Printed Name) (Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7934 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1428	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610736	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	BM 1/25/10 ~~3.0~~ 3.9	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-10-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brownish grey tuff

SAMPLE COMMENTS: Hit tuff at 1.0 ft

LOCATION DESC: 8b-81 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 85 dpm
Beta/Gamma ≤ 2880 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) A. Gournas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10 1656	(Printed Name) Sherri Sherwood	1/25/10 1656
(Signature) Joseph Marin		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7935 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1347	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610737	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty clay, small rocks, moist

(FR: RE15-10-8079)

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-78, mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 104 dpm
Beta/Gamma ≤ 4540 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) A. Gonmas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jon R. Marin	1656	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7936 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610737	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FD RE15-10-8056

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-78, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 72 **dpm**
Beta/Gamma = 2710 **dpm**

PID Ambient 0.0 / Reading 0.0 = **ppm** 0.0 / 0.0

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gomas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jon R. Marin	16:56	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7937 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	Air h
TIME COLLECTED (HH:MM)		1457	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610738	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-80 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 85 dpm
Beta/Gamma ≤ 2330 dpm

PID Ambient Reading 0.1 / 0.2 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jack Marin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7938 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1525	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610738	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.9	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

FR RE15-10-8080

SAMPLE COMMENTS: Hit tuff at 2.9'

LOCATION DESC: 8b-80 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm
Beta/Gamma = 2060 dpm

PID Ambient Reading 0.0 / 1.9 ppm

COLLECTED BY (PRINT) TL McFarlang

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jon R. Marin	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7939 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1522	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610739	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: moist brown silty sand, some clay

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-79 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 1596 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jan R. Marin	16:56	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7940 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1600	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610739	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray, tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 86-79 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 22 dpm
Beta/Gamma = 7940 dpm

PID Ambient Reading 0.2 / 0.2 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) T L McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARCH (Signature) Jack R. March	1/25/10 16:56	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8056 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1426	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610737	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	2.9	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER TJM 1/25/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082+~~NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 JRC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-~~8056~~ 7936 RG 1/25/10

Gray tuff

SAMPLE COMMENTS:

LOCATION DESC: 8b-78

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 72 **dpm**
Beta/Gamma ≤ 2710 **dpm**

PID Ambient 0.0 / Reading 0.0 = **ppm** 0.0 / 0.0

COLLECTED BY (PRINT)

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jan R. Marin	16:56	(Signature) Sherri Sherwood	1656
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8057 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		1445	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-61071	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.4	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-~~7833~~ 7883 JRM 1/26/10
moist brown sandy clay

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-66 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 52 **dpm**
Beta/Gamma ≤ 2120 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jan R Marin	1/25/10 16:57	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1657
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8079 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1450	SUB-MEDIA:	OTHER	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	↓
LOCATION ID:	UNK	15-610737	FIELD QC TYPE:	FR	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	↓	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	↓	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1	↓	SW-846:6850	250 ML POLY	Ice	Y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7935

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = _____ **dpm** TJM 1/25/10

Beta/Gamma = _____ **dpm**

PID Ambient / Reading = **ppm** TJM 1/25/10

COLLECTED BY (PRINT) TJ McFarlane

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN	1/25/10	(Printed Name) Sherri Sherwood	1/25/10
(Signature) Jack R. Marin	16:57	(Signature) Sherri Sherwood	1657
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8080 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/25/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		15:35	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610738	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7938

SAMPLE COMMENTS: Rinsate

LOCATION DESC:
8b-80

FIELD SCREENING/MEASUREMENT RESULTS:

JRM 1/25/10
Alpha = _____ **dpm**
Beta/Gamma = _____ **dpm**

JRM 1/25/10
PID Ambient Reading = ppm

COLLECTED BY (PRINT) J. MARIN **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) MARIN (Signature) Jan R. Marin	MARIN 1/25/10 16:57	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/25/10 1657
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7883
7884
7931
7932
7933
7934
7935
7936
7937
7938
7939

RE15-10-7940
8056
8057

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8080 FR
8079 FR

Reason:

Print Last Name MARIN Signature Jon R. Marin Date 1/25/10

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7883	ARS Sample ID:	ARS2-10-00023-001
Sample Collection Date:	01/25/10 14:45	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.44	32.43	36.09	32.90		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	49.89	16.45	17.69	17.55		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	19.62	7.19	1.50	7.21		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.10	0.10	0.10		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.14	0.15	0.06	0.15		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.33	0.43	0.11	0.43		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	0.69	0.41	0.18	0.41		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	1.16	0.90	0.26	0.90		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.10	0.86	0.28	0.86		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.30	3.64	1.41	3.84		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.21	0.24	0.10	0.24		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.50

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7884	ARS Sample ID:	ARS2-10-00023-002
Sample Collection Date:	01/25/10 15:00	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.95	25.78	31.78	26.03		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	42.70	15.72	18.25	16.67		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	23.70	8.15	1.61	8.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.50	0.11	10.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.16	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	13.74	0.07	13.74		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.15	0.24	0.14	0.24		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	2.30	0.63	0.17	0.64		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.73	0.40	0.57	0.40		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.95	0.87	0.16	0.87		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	4.36	3.03	1.22	3.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.08	0.14	0.06	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.52

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7931	ARS Sample ID:	ARS2-10-00023-003
Sample Collection Date:	01/25/10 13:42	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.20	26.91	30.56	27.22		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	47.72	17.26	19.68	18.22		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-1.19	-30.61	4.37	-30.61		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.29	8.10	10.29		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.10	0.12	0.08	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.00	0.03	0.06	0.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.28	0.32	0.12	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.21	0.47	0.15	0.47		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.08	0.76	0.27	0.76		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.43	0.80	0.31	0.80		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.51	2.54	1.21	2.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.03	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 1.43

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARSZ-10-00023
Client Sample ID: RE15-10-7932
Sample Collection Date: 01/25/10 14:06
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-004
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	15.13	22.44	38.20	22.51		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	43.35	18.72	18.71	16.59		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-2.70	-28.07	4.29	-28.07		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.06	0.13	0.11	0.13		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.23	0.20	0.08	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.24	0.20	0.07	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	11.12	0.12	11.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.61	0.49	0.09	0.49		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	0.96	0.68	0.62	0.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	2.18	0.97	0.17	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	2.90	3.24	1.43	3.23		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.39	0.30	0.10	0.30		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 1.01

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: AR52-10-00023
Client Sample ID: RE15-10-7933
Sample Collection Date: 01/25/10 13:39
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: AR52-10-00023-005
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Result	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	75.13	40.22	36.09	41.26		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	58.76	17.74	17.69	19.15		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.05	0.09	0.07	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	15.44	5.66	1.18	5.68		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	7.71	0.08	7.71		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.14	0.13	0.05	0.13		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	8.01	0.09	8.01		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	0.97	0.35	0.10	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.97	0.50	0.21	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.92	0.70	0.29	0.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.44	3.80	1.34	4.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.04	0.14	0.08	0.14		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.33

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7934	ARS Sample ID:	ARS2-10-00023-006
Sample Collection Date:	01/25/10 14:28	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	-2.35	9.58	31.78	9.58		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	48.35	15.44	18.25	16.41		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	24.06	8.16	1.59	8.19		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.38	0.11	10.38		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.15	0.16	0.07	0.16		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.34	0.32	0.12	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.24	0.50	0.17	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	1.64	0.86	0.28	0.86		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.77	0.58	0.21	0.58		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	3.71	3.36	1.38	3.49		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.05	0.18	0.09	0.18		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.98

Quality Assurance Review

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7935	ARS Sample ID:	ARS2-10-00023-007
Sample Collection Date:	01/25/10 13:47	Date Received:	01/25/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	47.69	31.52	30.56	32.05		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	141.19	25.34	19.68	30.67		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	0.43	4.80	2.88	4.80		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.32	0.08	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.14	0.12	0.06	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.01	0.04	0.05	0.04		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	0.65	0.10	0.65		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.36	0.42	0.11	0.43		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
BA-133	0.29	0.45	0.37	0.45		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	2.38	1.28	0.43	1.28		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	41.91	6.65	1.77	11.65		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.83	0.65	0.23	0.65		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.46

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7936	ARS Sample ID:	ARS2-10-00023-008
Sample Collection Date:	01/25/10 14:26	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.91	27.32	38.20	27.55		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	39.59	15.87	18.71	16.31		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-1.94	-30.91	3.71	-30.91		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	11.53	0.12	11.53		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.10	0.11	0.08	0.11		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	15.08	0.07	15.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	11.99	0.13	11.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.37	0.52	0.16	0.52		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	1.72	1.07	0.31	1.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.04	0.45	0.29	0.45		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.36	3.67	1.46	3.67		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.45	0.46	0.17	0.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.38

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7937	ARS Sample ID:	ARS2-10-00023-009
Sample Collection Date:	01/25/10 14:57	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	50.41	33.85	36.09	34.40		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	42.67	15.79	17.69	16.64		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.16	0.21	0.10	0.21		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.64	-6.08	2.30	-6.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.29	0.10	10.29		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.12	0.18	0.08	0.18		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.07	0.11	0.06	0.11		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	1.94	0.98	0.23	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.28	0.62	0.27	0.62		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	0.89	0.69	0.38	0.69		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	4.21	2.20	0.98	2.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	34.62	7.38	2.36	10.82		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	1.17	0.93	0.33	0.93		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.63

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RS15-10-7938
Sample Collection Date: 01/25/10 15:10
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-010
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TMC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	46.40	31.49	31.78	32.05		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	54.09	17.17	18.25	18.40		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	24.77	8.28	1.59	8.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.40	0.11	10.40		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.03	0.08	0.07	0.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.00	54.99	0.12	54.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.29	0.50	0.17	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	2.55	0.96	0.28	0.96		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.44	0.98	0.29	0.98		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	0.66	1.04	0.98	1.05		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.01	0.09	0.08	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.57

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
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ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7939	ARS Sample ID:	ARS2-10-00023-011
Sample Collection Date:	01/25/10 15:22	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	28.37	25.20	30.56	25.43		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	61.21	18.82	19.58	19.97		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.10	-6.00	2.94	-6.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	0.01	0.09	0.01		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.06	0.08	0.07	0.08		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.10	0.12	0.06	0.12		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.37	0.28	0.10	0.28		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.14	0.48	0.19	0.48		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	2.86	0.78	0.24	0.78		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.78	1.39	0.46	1.39		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	13.79	5.54	1.92	5.57		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.36	0.32	0.14	0.32		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 2.19

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-7940	ARS Sample ID:	ARS2-10-00023-012
Sample Collection Date:	01/25/10 16:00	Date Received:	01/26/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	33.50	28.77	38.20	29.06		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	44.37	16.15	18.71	17.04		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	26.35	8.47	1.57	8.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.25	0.10	10.25		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	33.64	0.08	33.64		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.00	0.03	0.06	0.03		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.18	0.25	0.12	0.25		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.72	0.54	0.15	0.55		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.36	0.59	0.32	0.59		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.81	0.51	0.19	0.51		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	4.08	3.73	1.44	3.85		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.33	0.35	0.14	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.46

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00023	Request or PO Number:	
Client Sample ID:	RE15-10-8056	ARS Sample ID:	ARS2-10-00023-013
Sample Collection Date:	01/25/10 14:26	Date Received:	01/25/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	76.21	39.02	36.09	39.96		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	48.44	16.39	17.69	17.30		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	29.01	10.74	2.74	10.77		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	11.82	0.12	11.82		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.53	0.35	0.09	0.35		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	-0.01	15.46	0.07	15.46		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	1.18	0.63	0.14	0.63		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.68	0.61	0.21	0.62		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-226	1.47	0.81	0.32	0.81		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	1.48	0.85	0.38	0.85		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	0.60	2.94	1.58	2.94		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.31	0.42	0.18	0.42		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 0.32

Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00023
Client Sample ID: RE15-10-8057
Sample Collection Date: 01/25/10 14:45
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00023-014
Date Received: 01/26/10 00:00
Report Date: 01/26/10 14:28

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	39.18	28.78	31.78	29.17		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
GROSS BETA	43.67	15.98	16.25	16.85		pCi/g	EPA 900.0M	1/26/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
K-40	-0.78	-15.99	3.11	-15.99		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CO-60	0.00	10.50	0.11	10.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
CS-137	0.23	0.20	0.07	0.20		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
EU-152	0.61	0.50	0.12	0.50		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
PB-212	1.16	0.46	0.15	0.47		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
RA-228	1.52	0.81	0.28	0.81		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-235	0.82	0.84	0.18	0.84		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
U-238	5.20	3.80	1.31	3.70		pCi/g	EPA 901.1M	1/26/2010	ME	N/A
AM-241	0.01	0.09	0.08	0.09		pCi/g	EPA 901.1M	1/26/2010	ME	N/A

NOTES: % Moisture: 3.76

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1432 VALIDATION DATE: 3/4/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds were >20% with a positive bias for 2,4,6-trinitrotoluene; PETN; and 2,4-dinitrotoluene. The associated sample results were NDs and, thus, were not qualified.
2. The surrogate %R was > the laboratory's UAL for the secondary HE analytes in sample RE15-10-8057. The associated sample results were NDs and, thus, were not qualified.
3. The LCS %R was < the laboratory's LAL but ≥10% for tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12a.
4. The MSD %R was > the laboratory's UAL for TATB. The associated sample results were NDs and, thus, were not qualified.
5. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate retention time criteria could not be evaluated. No sample data were qualified as a result.
6. It should also be noted that the MS and MSD parent sample was from another LANL RN. No sample data were qualified as a result.

Reviewed by: Susan Ball Level: I Date: 03/05/10

DATA VALIDATION COVER SHEET

5122-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: _____ DATE: 3/4/10

Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☒	☐	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☒	☐	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☒	☐	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686001

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208185a

Date Analyzed: 12-FEB-10 09:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686001

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130017.wiff

Date Analyzed: 13-FEB-10 14:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7884

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686002

Sample Amount 2

Moisture: 5.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208188a

Date Analyzed: 12-FEB-10 10:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7884

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686002

Sample Amount 2

Moisture: 5.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130020.wiff

Date Analyzed: 13-FEB-10 15:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7932

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208189a

Date Analyzed: 12-FEB-10 11:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7932

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130021.wiff

Date Analyzed: 13-FEB-10 15:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7931

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208190a

Date Analyzed: 12-FEB-10 11:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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3/4/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7931

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130022.wiff

Date Analyzed: 13-FEB-10 15:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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3/4/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7938

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208191a

Date Analyzed: 12-FEB-10 12:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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3/4/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7938

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130023.wiff

Date Analyzed: 13-FEB-10 15:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7933

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208195a

Date Analyzed: 12-FEB-10 14:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7933

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130027.wiff

Date Analyzed: 13-FEB-10 17:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7939

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208196a

Date Analyzed: 12-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7939

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130028.wiff

Date Analyzed: 13-FEB-10 17:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7936

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208197a

Date Analyzed: 12-FEB-10 15:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7936

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130029.wiff

Date Analyzed: 13-FEB-10 17:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7935

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208198a

Date Analyzed: 12-FEB-10 15:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	576	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7935

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130030.wiff

Date Analyzed: 13-FEB-10 17:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7934

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208199a

Date Analyzed: 12-FEB-10 16:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7934

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130031.wiff

Date Analyzed: 13-FEB-10 18:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7940

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208200a

Date Analyzed: 12-FEB-10 16:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7940

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130032.wiff

Date Analyzed: 13-FEB-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7937

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208201a

Date Analyzed: 12-FEB-10 17:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7937

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130033.wiff

Date Analyzed: 13-FEB-10 18:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8056

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686013

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208202a

Date Analyzed: 12-FEB-10 17:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8056

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686013

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130034.wiff

Date Analyzed: 13-FEB-10 18:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8057

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686014

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208203a

Date Analyzed: 12-FEB-10 18:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LMF
3/4/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8057

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686014

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130035.wiff

Date Analyzed: 13-FEB-10 19:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LMF
3/4/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1432 VALIDATION DATE: 3/5/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the bracketing CCVs associated with all samples except RE15-10-7883, the average %D for Aroclor-1260 was >15% on both columns. The associated sample results were NDs and, thus, were qualified UJ,P7c. In the bracketing CCVs associated with all samples except -7883, the average %D for Aroclor-1016 was >15% on one column only. The associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the MS and MSD parent sample was from another LANL RN and the raw data for the parent sample were not included in the package. Since an MS/MSD was not required, no sample results were qualified.

Reviewed by: Susan Ball Level: I Date: 03/05/10

VALIDATOR'S SIGNATURE: DATE: 3/5/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686001	**Date Received:**	01/28/2010 08:45	**%Moisture:**	31.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7883	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/03/2010 21:57	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.83	ug/kg	1.61	4.83	1
11104-28-2	Aroclor-1221	U	4.83	ug/kg	1.61	4.83	1
11141-16-5	Aroclor-1232	U	4.83	ug/kg	1.61	4.83	1
53469-21-9	Aroclor-1242	U	4.83	ug/kg	1.61	4.83	1
12672-29-6	Aroclor-1248	U	4.83	ug/kg	1.61	4.83	1
11097-69-1	Aroclor-1254	J	3.90	ug/kg	1.61	4.83	2
11096-82-5	Aroclor-1260	U	4.83	ug/kg	1.61	4.83	1

LMF
3/5/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686002	**Date Received:**	01/28/2010 08:45	**%Moisture:**	5.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7884	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/02/2010 21:53	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
12674–11–2	Aroclor–1016	U	3.53	ug/kg	1.18	3.53		1
11104–28–2	Aroclor–1221	U	3.53	ug/kg	1.18	3.53		1
11141–16–5	Aroclor–1232	U	3.53	ug/kg	1.18	3.53		1
53469–21–9	Aroclor–1242	U	3.53	ug/kg	1.18	3.53		1
12672–29–6	Aroclor–1248	U	3.53	ug/kg	1.18	3.53		1
11097–69–1	Aroclor–1254	U	3.53	ug/kg	1.18	3.53		1
11096–82–5	Aroclor–1260	U	3.53	ug/kg	1.18	3.53	UJ,P7c	1

LMF
3/5/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686013	**Date Received:**	01/28/2010 08:45	**%Moisture:**	3.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8056	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/02/2010 22:06	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	050f5001.d	**Column:**	1 CLP1	**Level:**	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
12674-11-2	Aroclor-1016	U	3.45	ug/kg	1.15	3.45		1
11104-28-2	Aroclor-1221	U	3.45	ug/kg	1.15	3.45		1
11141-16-5	Aroclor-1232	U	3.45	ug/kg	1.15	3.45		1
53469-21-9	Aroclor-1242	U	3.45	ug/kg	1.15	3.45		1
12672-29-6	Aroclor-1248	U	3.45	ug/kg	1.15	3.45		1
11097-69-1	Aroclor-1254	U	3.45	ug/kg	1.15	3.45		1
11096-82-5	Aroclor-1260	U	3.45	ug/kg	1.15	3.45	UJ,P7c	1

LMF
3/5/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686014	**Date Received:**	01/28/2010 08:45	**%Moisture:**	29.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8057	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/02/2010 22:18	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	051f5101.d	**Column:**	1 CLP1	**Level:**	LOW
	051b5101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
12674-11-2	Aroclor-1016	U	4.72	ug/kg	1.57	4.72		1
11104-28-2	Aroclor-1221	U	4.72	ug/kg	1.57	4.72		1
11141-16-5	Aroclor-1232	U	4.72	ug/kg	1.57	4.72		1
53469-21-9	Aroclor-1242	U	4.72	ug/kg	1.57	4.72		1
12672-29-6	Aroclor-1248	U	4.72	ug/kg	1.57	4.72		1
11097-69-1	Aroclor-1254	U	4.72	ug/kg	1.57	4.72		1
11096-82-5	Aroclor-1260	U	4.72	ug/kg	1.57	4.72	UJ,P7c	1

LMF
3/5/10

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1432

REQUEST NUMBER: 10-1432

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245686

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7884	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7932	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7931	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7938	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7933	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7939	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7936	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7935	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7934	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7940	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7937	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8056	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8057	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
Jeffrey S		1/27/10	1400	Patricia Doyle-Dent	P. Doyle-Dent	1-28-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1432
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/27/2010
TURNAROUND/REPORT DUE: 2/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	SW-846:8321A_MOD	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

Final Page of REQUEST NUMBER 10-1432

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 01, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245686
SDG: 10-1432

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 28, 2010, and analyzed for Explosives by LCMSMS and GC Semivolatile PCB. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1432
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245686
SDG: 10-1432

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 14

LC/MS/MS Explosives Analysis.....16
Sample Data Summary.....23
Quality Control Summary.....52
Sample Data..... 158
Standards Data.....257
Quality Control Data.....443
Miscellaneous Data.....475

GC Semivolatile PCB Analysis.....489
Sample Data Summary.....496
Quality Control Summary.....501
Sample Data..... 507
Standards Data.....534
Quality Control Data.....655
Miscellaneous Data.....668

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245686
SDG # : 10-1432

February 01, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 28, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245686001	RE15-10-7883
245686002	RE15-10-7884
245686003	RE15-10-7932
245686004	RE15-10-7931
245686005	RE15-10-7938
245686006	RE15-10-7933
245686007	RE15-10-7939
245686008	RE15-10-7936
245686009	RE15-10-7935
245686010	RE15-10-7934
245686011	RE15-10-7940
245686012	RE15-10-7937
245686013	RE15-10-8056
245686014	RE15-10-8057

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS and GC Semivolatile PCB.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for D Francis

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 01 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, January 27, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1432

REQUEST NUMBER: 10-1432

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245686

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7883	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7884	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7932	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7931	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7938	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7933	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7939	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7936	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7935	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7934	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7940	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7937	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8056	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8057	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
Jeffrey S		1/27/10	1400	Patricia Dover-Dent	P. Dover-Dent	1-28-10	08:45
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1432

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1432
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 1/27/2010
TURNAROUND/REPORT DUE: 2/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	
	SW-846:8321A_MOD	1	RE15-10-7883	R	1/25/2010	
		1	RE15-10-7884	R	1/25/2010	
		1	RE15-10-7931	R	1/25/2010	
		1	RE15-10-7932	R	1/25/2010	
		1	RE15-10-7933	R	1/25/2010	

Wednesday, January 27, 2010

REQUEST NUMBER: 10-1432

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7934	R	1/25/2010	
		1	RE15-10-7935	R	1/25/2010	
		1	RE15-10-7936	R	1/25/2010	
		1	RE15-10-7937	R	1/25/2010	
		1	RE15-10-7938	R	1/25/2010	
		1	RE15-10-7939	R	1/25/2010	
		1	RE15-10-7940	R	1/25/2010	
		1	RE15-10-8056	R	1/25/2010	
		1	RE15-10-8057	R	1/25/2010	

Final Page of REQUEST NUMBER 10-1432

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1432**
Received By: Patricia Dover-Dent	**Date Received: January 28, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **0-3** **12-14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7165 0C
7209 7849 7132 1C
7209 7849 7187 1C
7209 7849 7257 1C
7209 7849 7143 2C
7209 7849 7154 2C
7209 7849 7176 2C
7209 7849 7202 2C
7209 7849 7198 3C
7209 7849 7268 3C
7209 7849 7110 12C
7209 7849 7095 13C
7209 7849 7121 13C
7209 7849 7100 14C

PM (or PMA) review: Initials PA Date 1/29/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

0c

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3 of 3
MPS# 0263 7209 7849 7165
Mstr# 7209 7849 7143 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

29407
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Part # 156148-434 NRIT V3.04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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°VALERIE DAVIS
GENERAL ENGINEERING LAB
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2 of 2
7209 7849 7132
Mstr# 7209 7849 7121 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

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SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3.04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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°VALERIE DAVIS
GENERAL ENGINEERING LAB
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REF: 6B010AMR1A015AGWG0

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TRK# 0201 7209 7849 7187
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2449

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REF: 6B010AMR1A0515BYD0

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TRK# 0201 7209 7849 7257
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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
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1 of 3

TRK# 0201 7209 7849 7143

THU - 28JAN A1
PRIORITY OVERNIGHT

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CHS

Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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2 of 3

MPS# 0263 7209 7849 7154

Mstr# 7209 7849 7143 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

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CHS

Part # 156148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2c

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TRK# 0201 7209 7849 7176

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWG0

2c

FedEx Express

TRK# 0201 7209 7849 7202

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWG0

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2 of 2
MPS# 0263 7209 7849 7198
Mstr# 7209 7849 7187 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRTF V3 04-0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 35.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A05153YD0

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2 of 2
MPS# 0263 7209 7849 7268
Mstr# 7209 7849 7257 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

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Part # 156148-434 NRTF V3 04-0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

°VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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FedEx Express

TRK# 0201 7209 7849 7110

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

13c

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2 of 3
MPS# 0263 7209 7849 7095
Mstr# 7209 7849 7084 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0352VA00

13c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7121
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PRIORITY OVERNIGHT

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SC-US
CHS

Part # 156148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 27JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

14c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7100
Mstr# 7209 7849 7084 0201

THU - 28JAN A1
PRIORITY OVERNIGHT

XX CHSA

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CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS EXPLOSIVES ANALYSIS

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1432

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	947078
Prep Batch Number:	947076

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
245686001	RE15-10-7883
245686002	RE15-10-7884
245686003	RE15-10-7932
245686004	RE15-10-7931
245686005	RE15-10-7938
245686006	RE15-10-7933
245686007	RE15-10-7939
245686008	RE15-10-7936
245686009	RE15-10-7935
245686010	RE15-10-7934
245686011	RE15-10-7940
245686012	RE15-10-7937
245686013	RE15-10-8056

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245686014	RE15-10-8057
1202028672	Method Blank (MB)
1202028673	Laboratory Control Sample (LCS)
1202028674	245686001(RE15-10-7883) Matrix Spike (MS)
1202028675	245686001(RE15-10-7883) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered Tetryl at 48.5%. The limits are 51-112%. The MS and MSD both have passing recoveries for Tetryl. The data are reported. Please see data exception report 791265.

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QC Sample Designation
Sample 245686001 (RE15-10-7883) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

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Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
Sample 245686014 (RE15-10-8057) did not meet acceptance criteria for surrogate recovery in the Secondary analyte analysis at 149%. The limits are 70-144%. The sample had a passing surrogate recovery of 121% in the Primary analyte analysis. The sample did have any detects of target analytes. The data are considered unaffected and are reported. Please see data exception report 791265.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 245686001 (RE15-10-7883) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovered TATB at 189%. The limits are 29-155%. The LCS and MSD have passing recoveries for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported. Please see data exception report 791265.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
The SDG was re-analyzed due to high CCV recoveries. The re-analysis passed acceptance criteria and is reported.

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Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 791265 was generated for this SDG.

Sample 245686014 (RE15-10-8057) did not meet acceptance criteria for surrogate recovery in the Secondary analyte analysis at 149%. The limits are 70-144%. The sample had a passing surrogate recovery of 121% in the Primary analyte analysis. The sample did have any detects of target analytes. The data are considered unaffected and are reported.

The LCS recovered Tetryl at 48.5%. The limits are 51-112%. The MS and MSD both have passing recoveries for Tetryl. The data are reported.

The MS recovered TATB at 189%. The limits are 29-155%. The LCS and MSD have passing recoveries for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

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Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Mauer **Date:** 02/17/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686001

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208185a

Date Analyzed: 12-FEB-10 09:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686001

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130017.wiff

Date Analyzed: 13-FEB-10 14:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7884

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686002

Sample Amount 2

Moisture: 5.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208188a

Date Analyzed: 12-FEB-10 10:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7884

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686002

Sample Amount 2

Moisture: 5.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130020.wiff

Date Analyzed: 13-FEB-10 15:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7932

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208189a

Date Analyzed: 12-FEB-10 11:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7932

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130021.wiff

Date Analyzed: 13-FEB-10 15:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7931

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208190a

Date Analyzed: 12-FEB-10 11:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7931

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130022.wiff

Date Analyzed: 13-FEB-10 15:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7938

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208191a

Date Analyzed: 12-FEB-10 12:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7938

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130023.wiff

Date Analyzed: 13-FEB-10 15:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7933

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208195a

Date Analyzed: 12-FEB-10 14:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7933

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130027.wiff

Date Analyzed: 13-FEB-10 17:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7939

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208196a

Date Analyzed: 12-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7939

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130028.wiff

Date Analyzed: 13-FEB-10 17:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6--Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4--Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7936

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208197a

Date Analyzed: 12-FEB-10 15:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7936

Lab Code: GEI

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130029.wiff

Date Analyzed: 13-FEB-10 17:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7935

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208198a

Date Analyzed: 12-FEB-10 15:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	576	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7935

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130030.wiff

Date Analyzed: 13-FEB-10 17:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7934

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208199a

Date Analyzed: 12-FEB-10 16:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7934

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130031.wiff

Date Analyzed: 13-FEB-10 18:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7940

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208200a

Date Analyzed: 12-FEB-10 16:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7940

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130032.wiff

Date Analyzed: 13-FEB-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7937

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208201a

Date Analyzed: 12-FEB-10 17:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7937

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130033.wiff

Date Analyzed: 13-FEB-10 18:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8056

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686013

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208202a

Date Analyzed: 12-FEB-10 17:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8056

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686013

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130034.wiff

Date Analyzed: 13-FEB-10 18:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8057

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686014

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208203a

Date Analyzed: 12-FEB-10 18:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8057

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686014

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130035.wiff

Date Analyzed: 13-FEB-10 19:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1432

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245686001	RE15-10-7883	109	70 - 144	
245686001	RE15-10-7883	135	70 - 144	
245686002	RE15-10-7884	111	70 - 144	
245686002	RE15-10-7884	129	70 - 144	
245686003	RE15-10-7932	107	70 - 144	
245686003	RE15-10-7932	139	70 - 144	
245686004	RE15-10-7931	111	70 - 144	
245686004	RE15-10-7931	134	70 - 144	
245686005	RE15-10-7938	108	70 - 144	
245686005	RE15-10-7938	135	70 - 144	
245686006	RE15-10-7933	111	70 - 144	
245686006	RE15-10-7933	142	70 - 144	
245686007	RE15-10-7939	99.1	70 - 144	
245686007	RE15-10-7939	140	70 - 144	
245686008	RE15-10-7936	111	70 - 144	
245686008	RE15-10-7936	137	70 - 144	
245686009	RE15-10-7935	103	70 - 144	
245686009	RE15-10-7935	138	70 - 144	
245686010	RE15-10-7934	101	70 - 144	
245686010	RE15-10-7934	138	70 - 144	
245686011	RE15-10-7940	118	70 - 144	
245686011	RE15-10-7940	134	70 - 144	
245686012	RE15-10-7937	120	70 - 144	
245686012	RE15-10-7937	139	70 - 144	
245686013	RE15-10-8056	112	70 - 144	
245686013	RE15-10-8056	134	70 - 144	
245686014	RE15-10-8057	121	70 - 144	
245686014	RE15-10-8057	149	70 - 144	*
1202028672	MB for batch 947076	106	70 - 144	
1202028672	MB for batch 947076	123	70 - 144	
1202028673	LCS for batch 947076	114	70 - 144	
1202028673	LCS for batch 947076	118	70 - 144	
1202028674	RE15-10-7883(245686001MS)	115	70 - 144	
1202028674	RE15-10-7883(245686001MS)	126	70 - 144	
1202028675	RE15-10-7883(245686001MSD)	104	70 - 144	
1202028675	RE15-10-7883(245686001MSD)	125	70 - 144	

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High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1432

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1432

Extract Batch Code: 947076

Date Extracted: 04-FEB-10

GEL LCS ID: 1202028673

GEL LCSDUP ID:

Analysis Date/Time: 12-FEB-10 08:15

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	3850	76.9								69 - 126
2,4,6-Trinitrotoluene	5000	5840	117								73 - 149
2,4-Dinitrotoluene	5000	5210	104								87 - 137
2,6-Dinitrotoluene	5000	4990	99.8								89 - 120
2-Amino-4,6-dinitrotoluene	5000	5190	104								90 - 130
4-Amino-2,6-dinitrotoluene	5000	4660	93.1								84 - 130
HMX	5000	3970	79.4								58 - 138
Nitrobenzene	5000	4570	91.4								71 - 122
PETN	5000	6230	125								64 - 137
RDX	5000	4260	85.3								81 - 137
Tetryl	5000	2430	48.5	*							51 - 112
m-Dinitrobenzene	5000	5000	99.9								83 - 122
m-Nitrotoluene	5000	4470	89.4								73 - 118
o-Nitrotoluene	5000	4650	93								72 - 119
p-Nitrotoluene	5000	4580	91.5								67 - 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1432

Extract Batch Code: 947076

Date Extracted: 04–FEB–10

GEL LCS ID: 1202028673

GEL LCSDUP ID:

Analysis Date/Time: 13–FEB–10 13:52

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4–Diamino–6–nitrotoluene	5000	4660	93.2					52 – 114
2,6–Diamino–4–nitrotoluene	5000	5210	104					64 – 122
3,5–Dinitroaniline	5000	5530	111					70 – 127
TATB	5000	7100	142					28 – 162
tris(o–cresyl) phosphate	5000	5200	104					84 – 119

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7883

Lab Code: GEL

GEL Job No (SDG) 10-1432

Extract Batch Code: 947076

Date Extracted: 04-FEB-10

GEL Spike ID: 1202028674

GEL SpikeDup ID: 1202028675

Analysis Date/Time: 12-FEB-10 09:44

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4350	86.9	4710	94.2	8.11	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	6410	128	5050	101	23.8	30	76 – 144
2,4-Dinitrotoluene	5000	0	5010	100	5510	110	9.55	30	86 – 135
2,6-Dinitrotoluene	5000	0	5070	101	5060	101	.173	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	5200	104	5100	102	1.92	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	4900	97.9	4720	94.4	3.69	30	72 – 143
HMX	5000	0	4280	85.6	4890	97.7	13.3	30	51 – 144
Nitrobenzene	5000	0	5030	101	5120	102	1.73	30	70 – 122
PETN	5000	0	6370	127	5850	117	8.61	30	60 – 140
RDX	5000	0	4730	94.7	5370	107	12.6	30	59 – 152
Tetryl	5000	0	3490	69.8	3450	69	1.13	30	36 – 124
m-Dinitrobenzene	5000	0	5040	101	5380	108	6.55	30	85 – 118
m-Nitrotoluene	5000	0	4420	88.5	4090	81.9	7.75	30	70 – 120
o-Nitrotoluene	5000	0	4650	93	4500	89.9	3.41	30	69 – 123
p-Nitrotoluene	5000	0	4860	97.2	4430	88.6	9.22	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7883

Lab Code: GEL

GEL Job No (SDG) 10-1432

Extract Batch Code: 947076

Date Extracted: 04-FEB-10

GEL Spike ID: 1202028674

GEL SpikeDup ID: 1202028675

Analysis Date/Time: 13-FEB-10 14:39

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	4520	90.4	4330	86.6	4.29	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	5350	107	4780	95.6	11.3	30	55 - 130
3,5-Dinitroaniline	5000	0	6110	122	5530	111	9.97	30	73 - 129
TATB	5000	0	9430	189 *	7460	149	23.3	30	29 - 155
tris(o-cresyl) phosphate	5000	0	5320	106	5130	103	3.64	30	72 - 127

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08–FEB–10 14:44

GEL Data File: EXP0208001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	481.075
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	515.914
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\020810expa.mdb, Time: Tue Feb 09 09:17:48 2010
Calibration: Untitled, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208001a
Date: 08-Feb-2010
Time: 14:44:17
ID: XIBLK01
Vial: 1:1,A

MAT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.316e+003

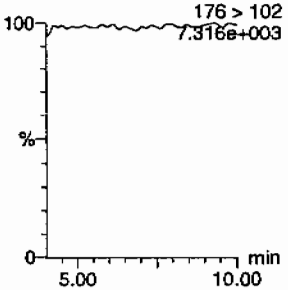

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.316e+003

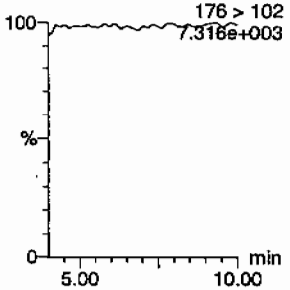

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.656e+003

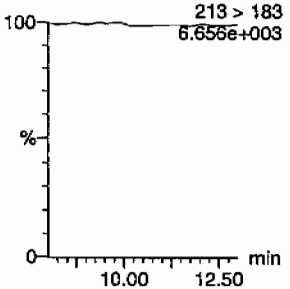

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.391e+004

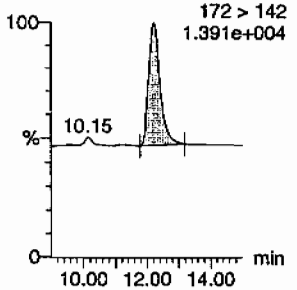

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.578e+003

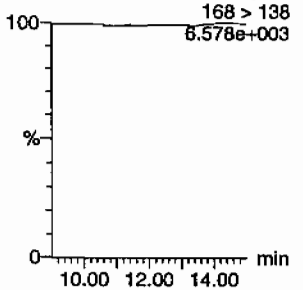

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.578e+003

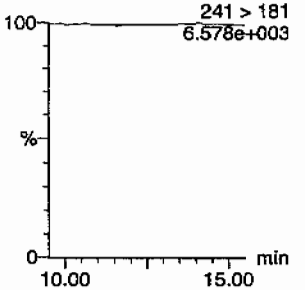

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.577e+003

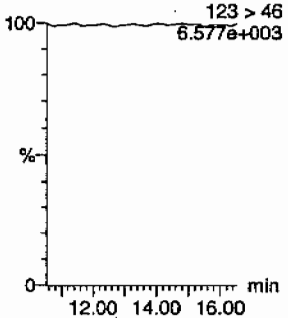

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.822e+003

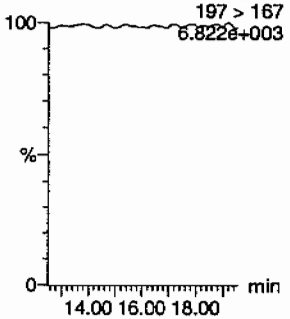

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.801e+003

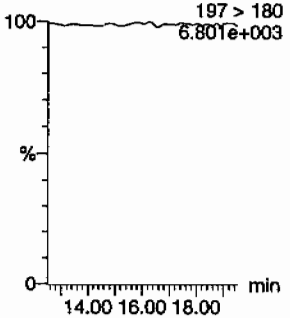

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.606e+003

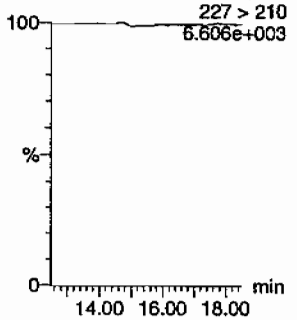

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.603e+003

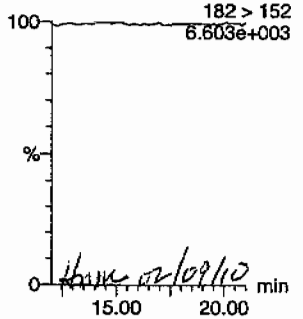

tbm 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.603e+003

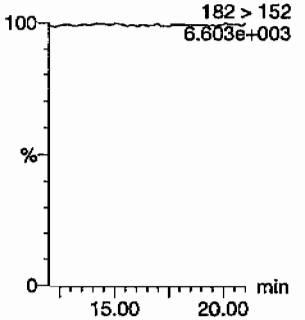

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

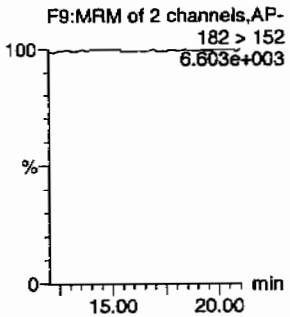

26-dinitrotoluene-d3

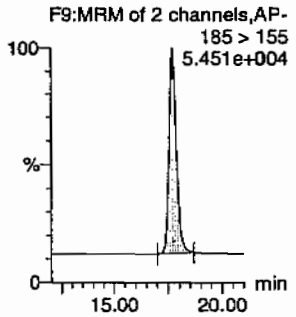

2-Nitrotoluene

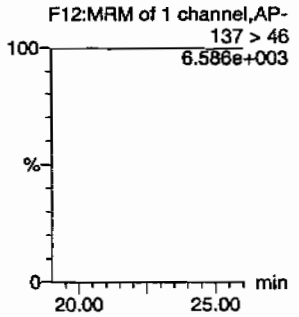

4-Nitrotoluene

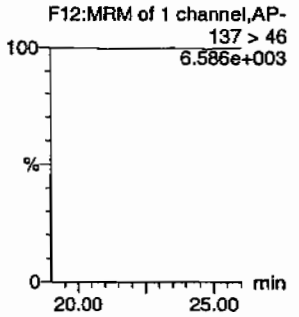

3-Nitrotoluene

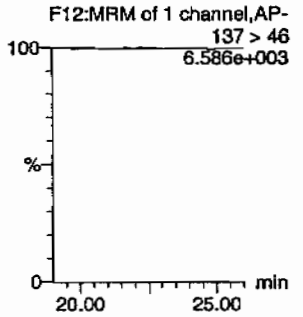

PETN

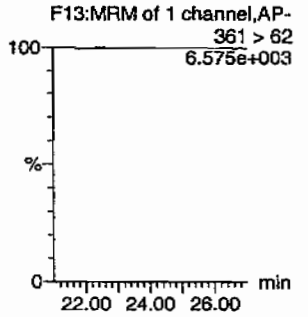

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3092.901									
XIBLK01	RDX	176 > 102			3092.901									
XIBLK01	135-Trinitrobenzene	213 > 183			3092.901									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.20	3092.901		3092.901	3092.901	bb			481.0748	96.2	-3.8	573.7
XIBLK01	13-Dinitrobenzene	168 > 138			3092.901									
XIBLK01	Tetryl	241 > 181			3092.901									
XIBLK01	Nitrobenzene	123 > 46			3092.901									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			19047.234									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			19047.234									
XIBLK01	246-Trinitrotoluene	227 > 210			19047.234									
XIBLK01	34-dinitrotoluene	182 > 152			19047.234									
XIBLK01	26-dinitrotoluene	182 > 152			19047.234									
XIBLK01	24-dinitrotoluene	182 > 152			19047.234									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.71	19047.234		19047.234	19047.234	bb			515.9145	103.2	3.2	1409.8
XIBLK01	2-Nitrotoluene	137 > 46			19047.234									
XIBLK01	4-Nitrotoluene	137 > 46			19047.234									
XIBLK01	3-Nitrotoluene	137 > 46			19047.234									
XIBLK01	PETN	361 > 62			19047.234									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-FEB-10 15:13

GEL Data File: EXP0208002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
PETN	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	552.32
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	568.377
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208002a
Date: 08-Feb-2010
Time: 15:13:49
ID: XIBLK01
Vial: 1:1,A

MMT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.206e+003

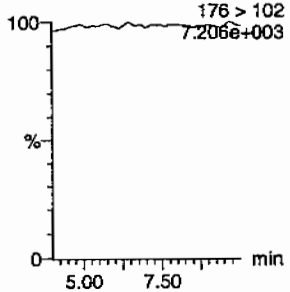

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.206e+003

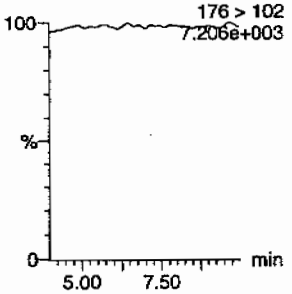

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.702e+003

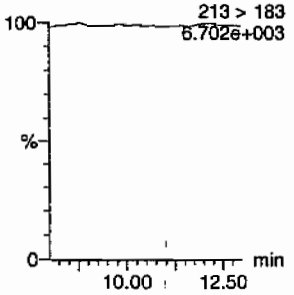

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.488e+004

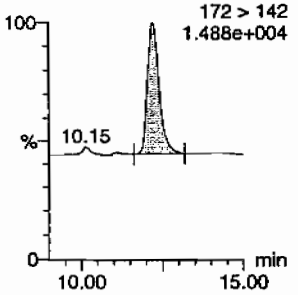

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.624e+003

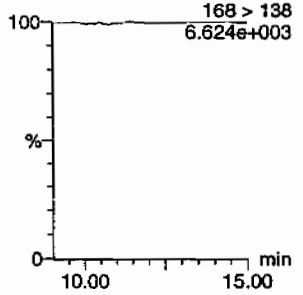

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.663e+003

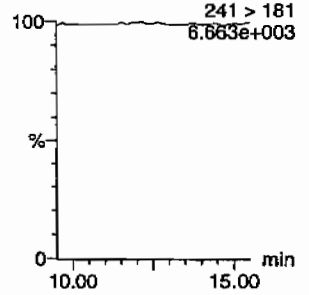

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.646e+003

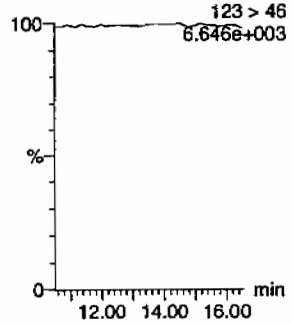

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.735e+003

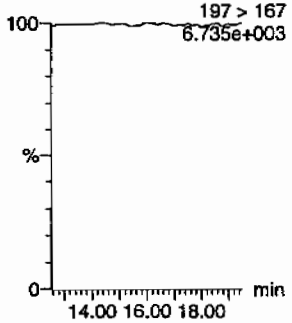

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.783e+003

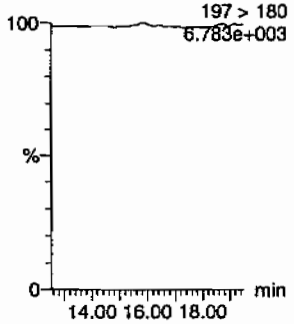

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.651e+003

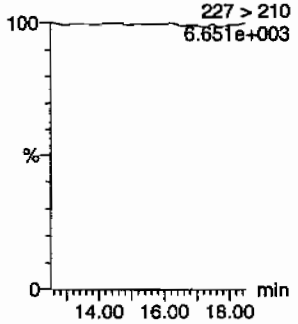

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.663e+003

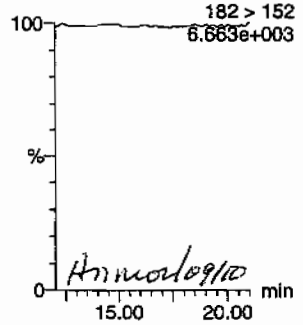

Hmcd 02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.663e+003

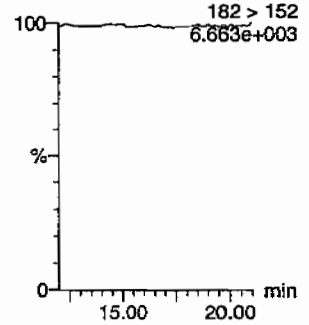

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

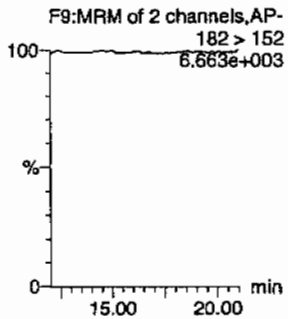

26-dinitrotoluene-d3

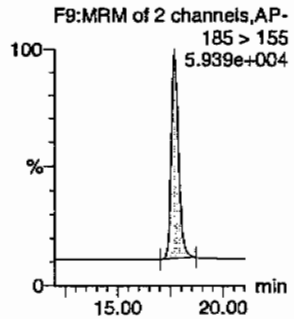

2-Nitrotoluene

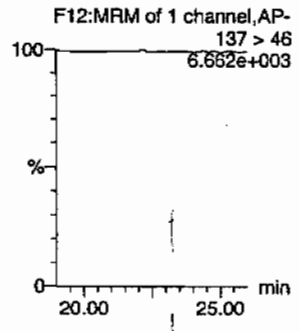

4-Nitrotoluene

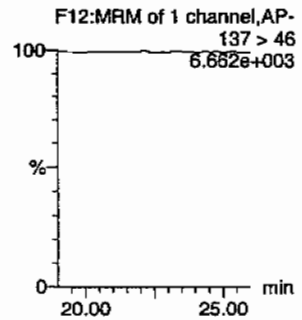

3-Nitrotoluene

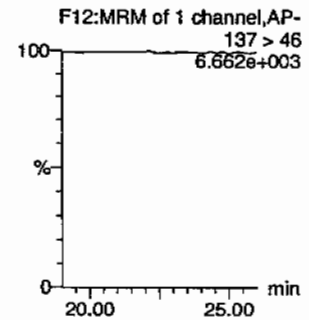

PETN

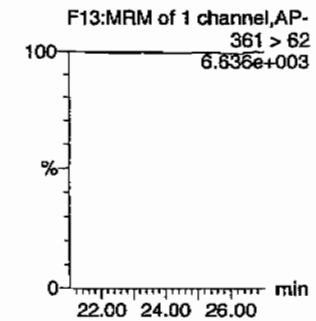

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3550.947									
XIBLK01	RDX	176 > 102			3550.947									
XIBLK01	135-Trinitrobenzene	213 > 183			3550.947									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.20	3550.947		3550.947	3550.947	bb			552.3201	110.5	10.5	593.6
XIBLK01	13-Dinitrobenzene	168 > 138			3550.947									
XIBLK01	Tetryl	241 > 181			3550.947									
XIBLK01	Nitrobenzene	123 > 46			3550.947									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			20984.104									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			20984.104									
XIBLK01	246-Trinitrotoluene	227 > 210			20984.104									
XIBLK01	34-dinitrotoluene	182 > 152			20984.104									
XIBLK01	26-dinitrotoluene	182 > 152			20984.104									
XIBLK01	24-dinitrotoluene	182 > 152			20984.104									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.72	20984.104		20984.104	20984.104	bb			568.3767	113.7	13.7	1591.1
XIBLK01	2-Nitrotoluene	137 > 46			20984.104									
XIBLK01	4-Nitrotoluene	137 > 46			20984.104									
XIBLK01	3-Nitrotoluene	137 > 46			20984.104									
XIBLK01	PETN	361 > 62			20984.104									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 13–FEB–10 10:12

GEL Data File: EXS02130001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.56
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sar 2/15/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02130001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:12:45 AM

Modified: No

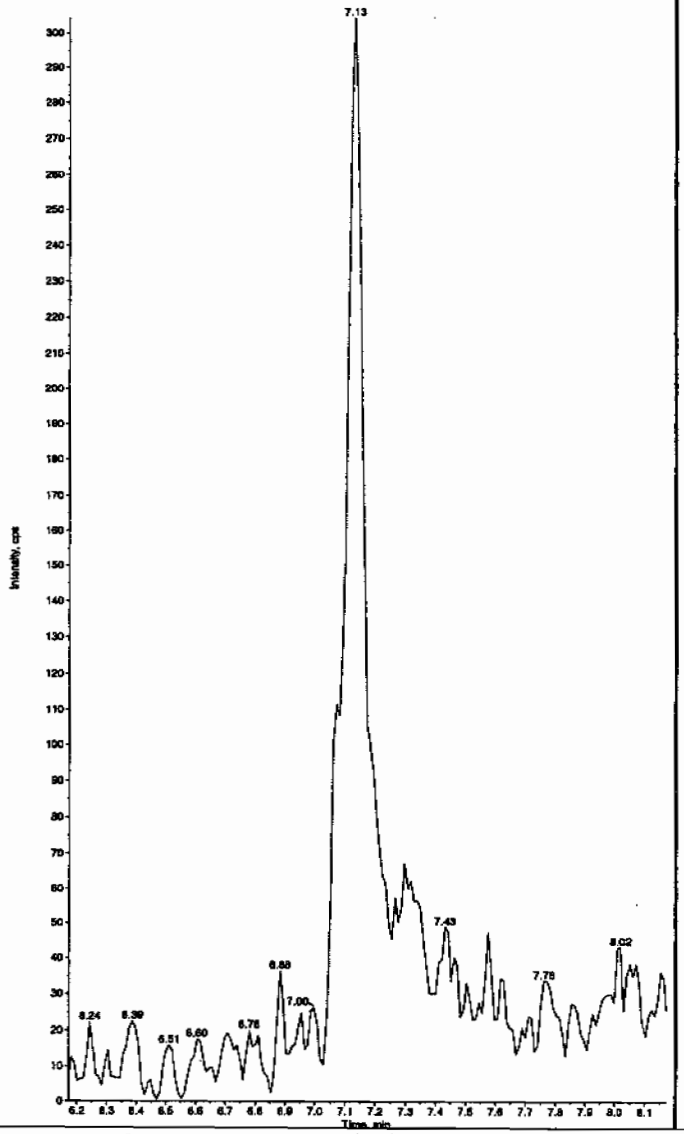

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02130001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:12:45 AM

Modified: No

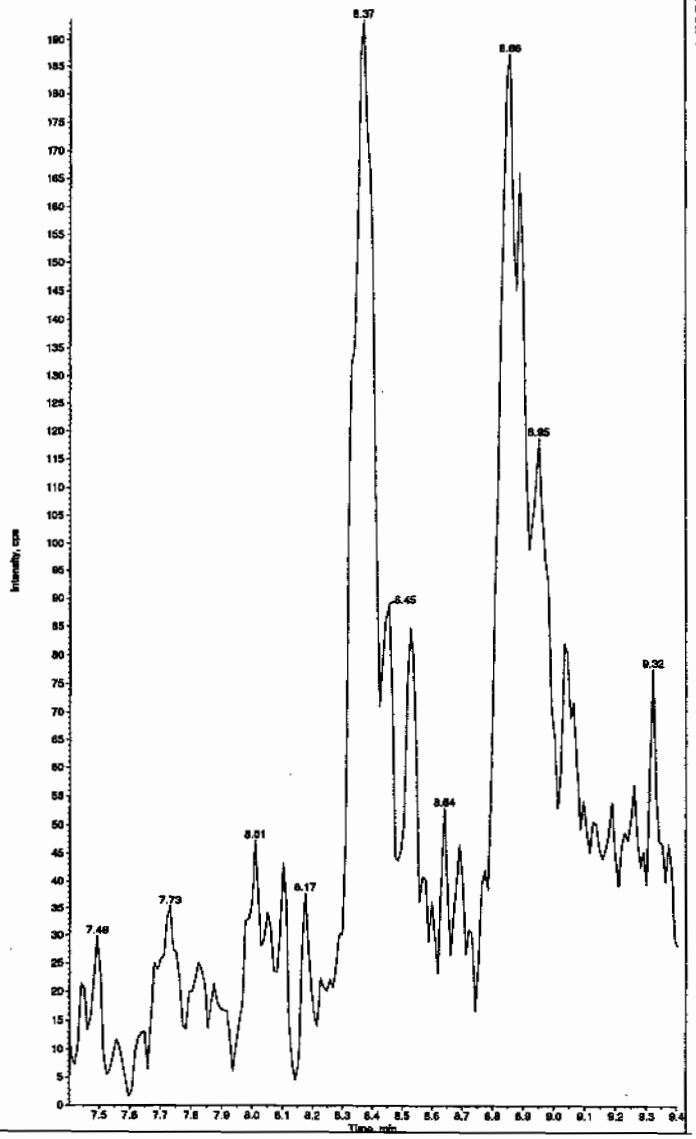

Hum 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02130001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:12:45 AM

Modified: No

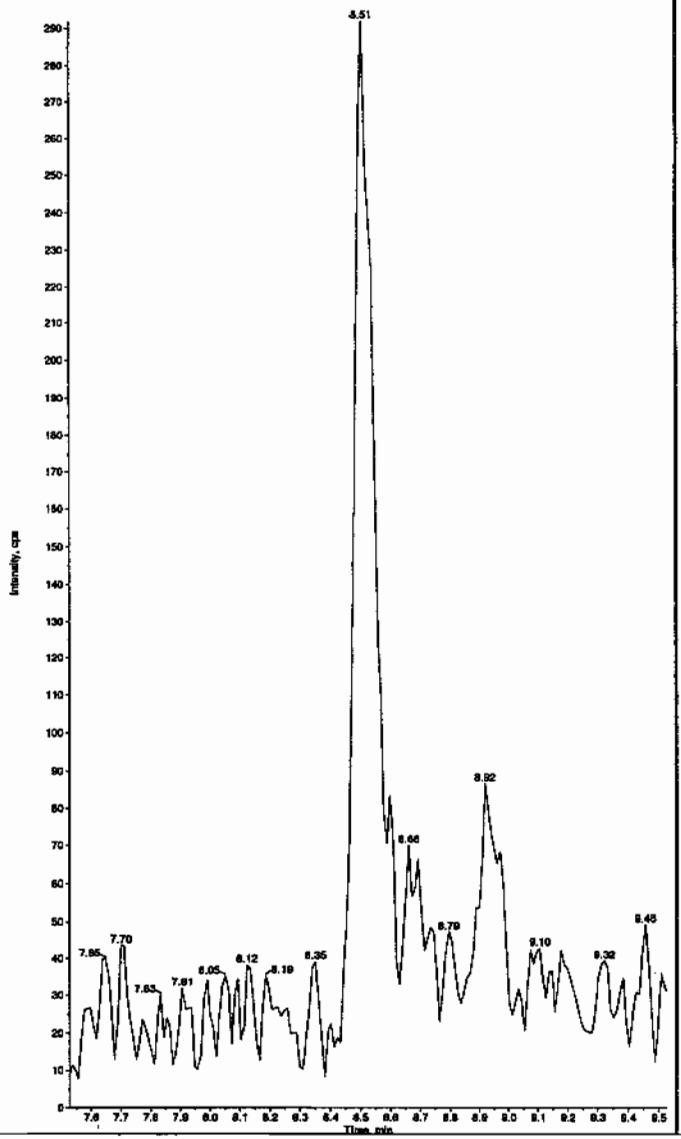

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02130001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:12:45 AM

Modified: No

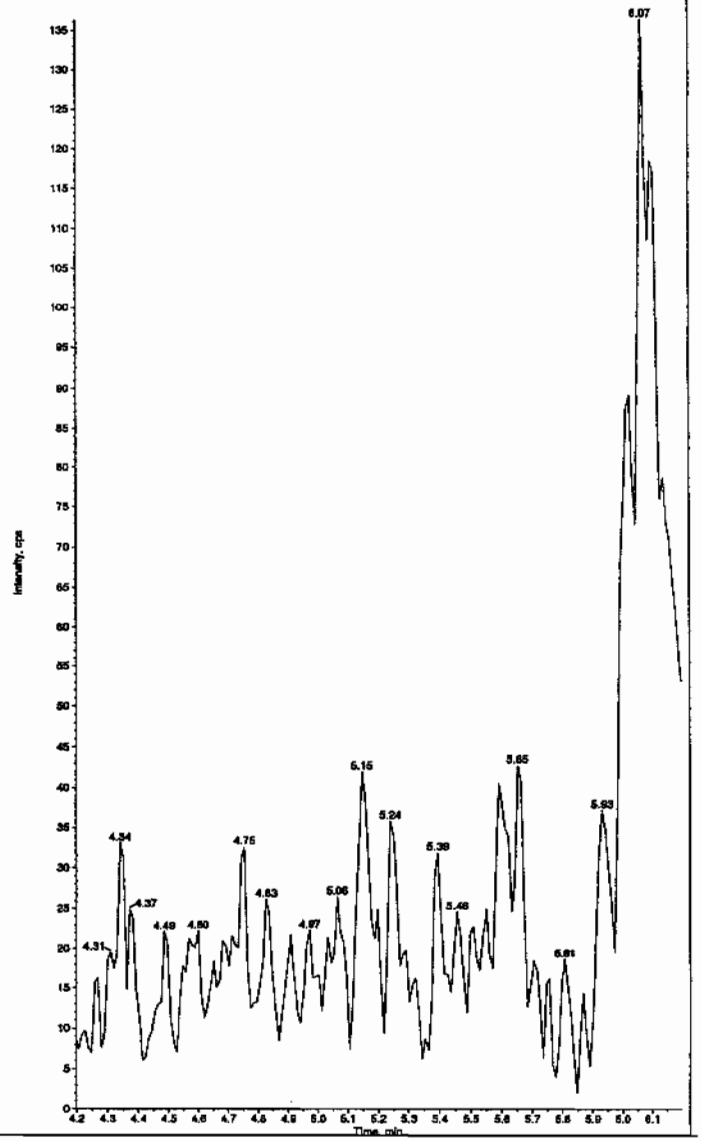

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "1|LER" File: "EXS02130001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:12:45 AM

Modified: No

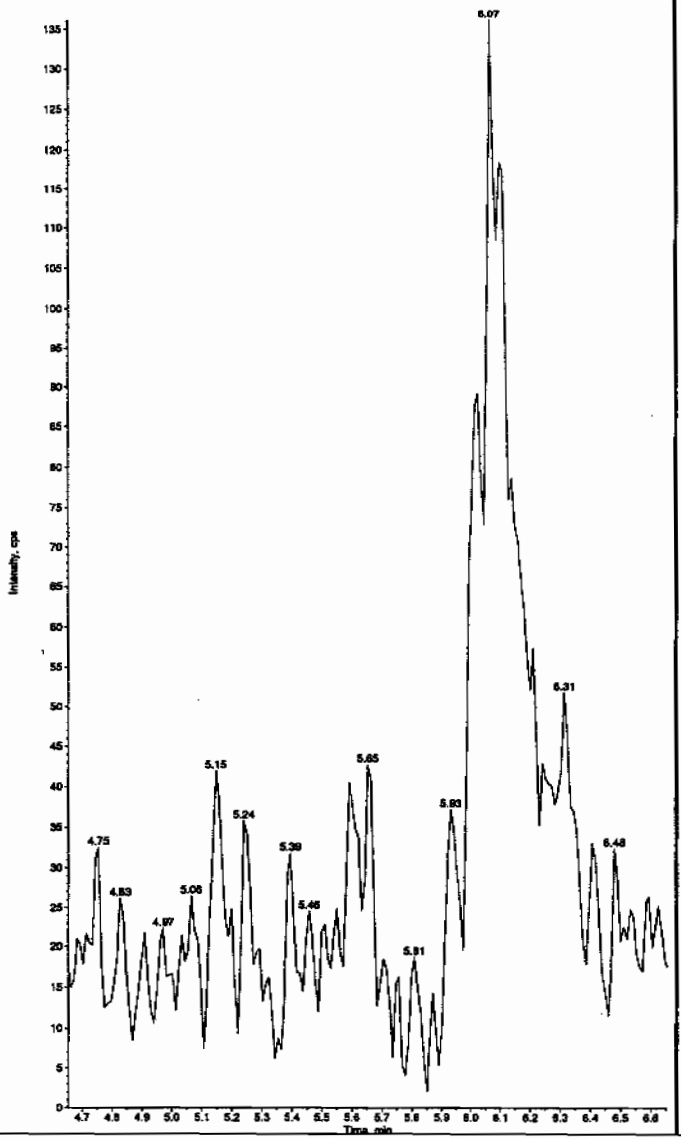

Sample Name: "XIBLK01" Sample ID: "1|LER" File: "EXS02130001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.560 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:12:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 5.00e+004 counts
Height: 11916.587 cps
Start Time: 10.9 min
End Time: 11.2 min

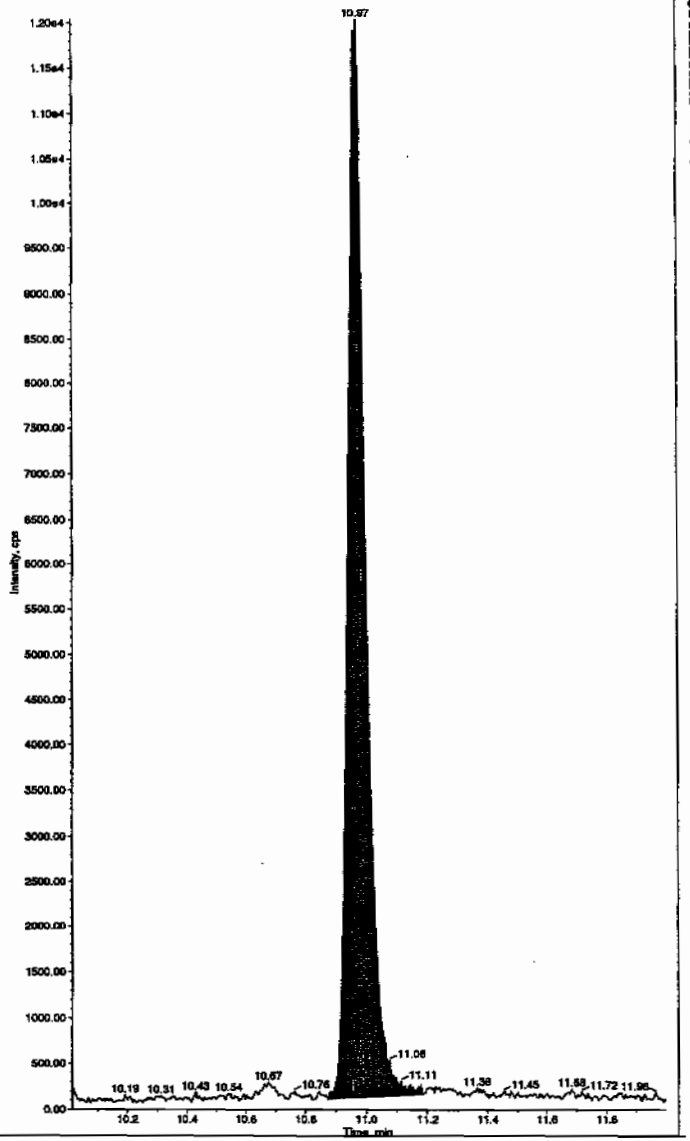

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 13–FEB–10 10:28

GEL Data File: EXS02130002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/15/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02130002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:28:33 AM

Modified: No

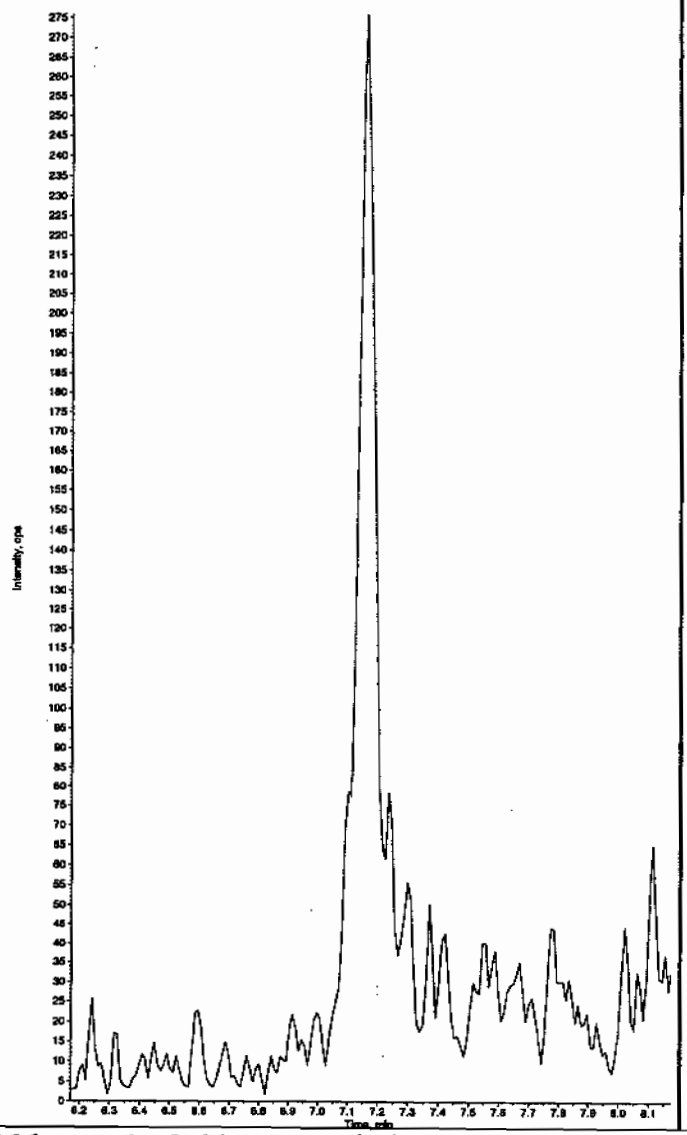

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02130002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:28:33 AM

Modified: No

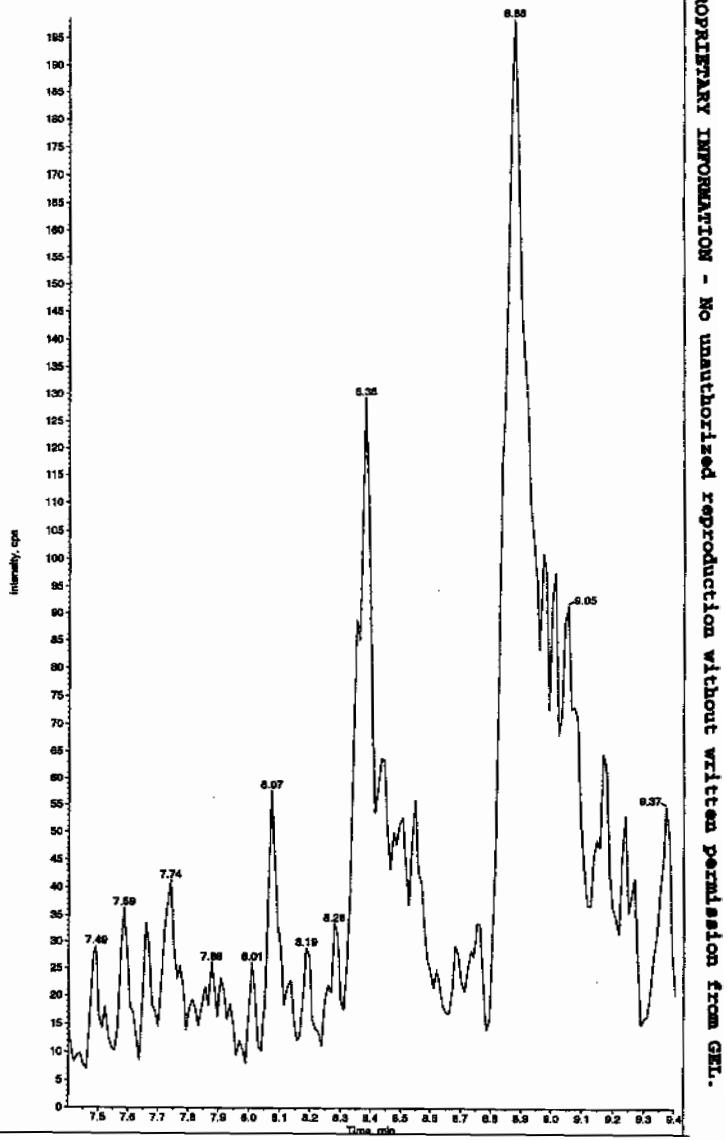

HJM 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02130002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:28:33 AM

Modified: No

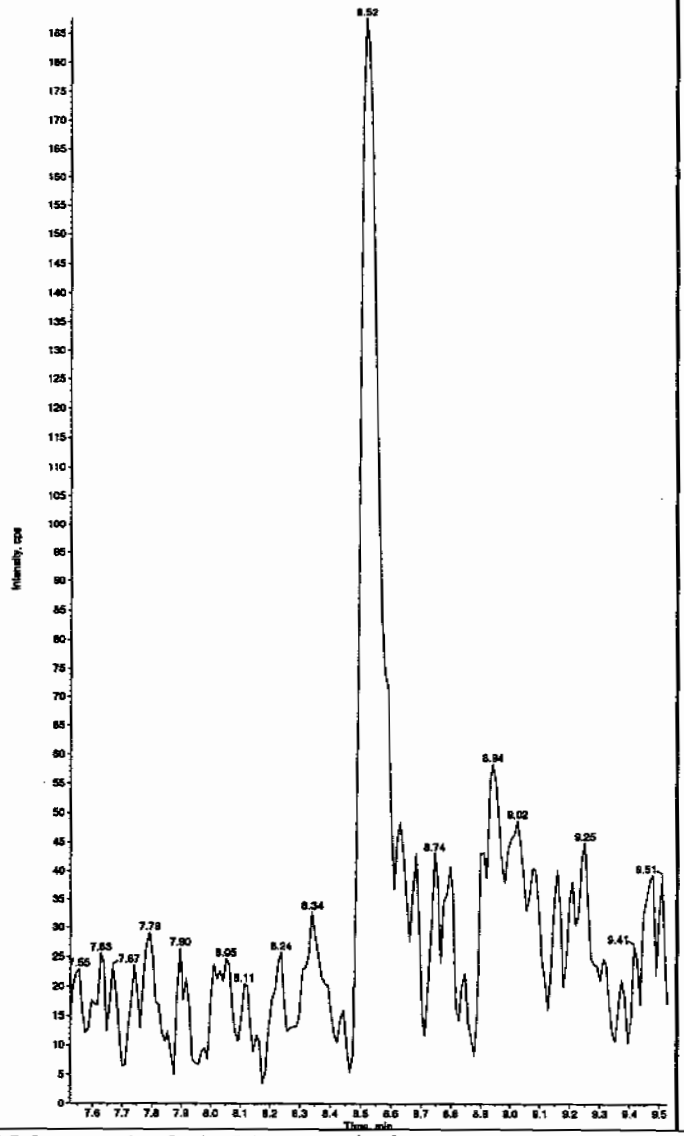

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02130002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:28:33 AM

Modified: No

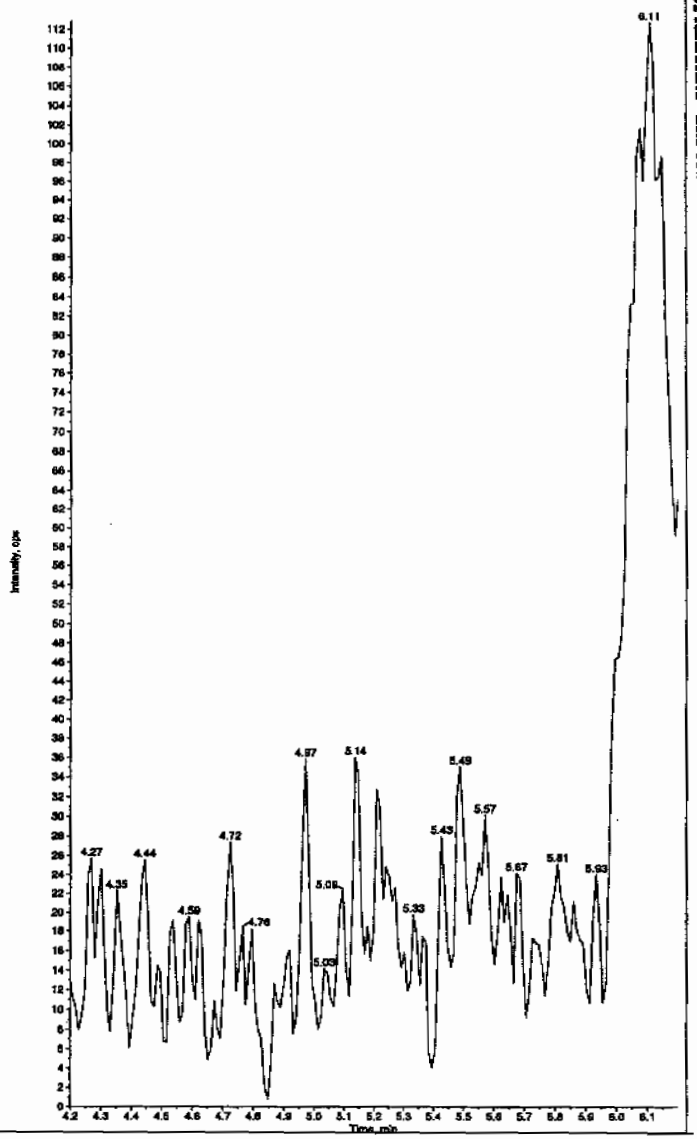

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02130002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:28:33 AM

Modified: No

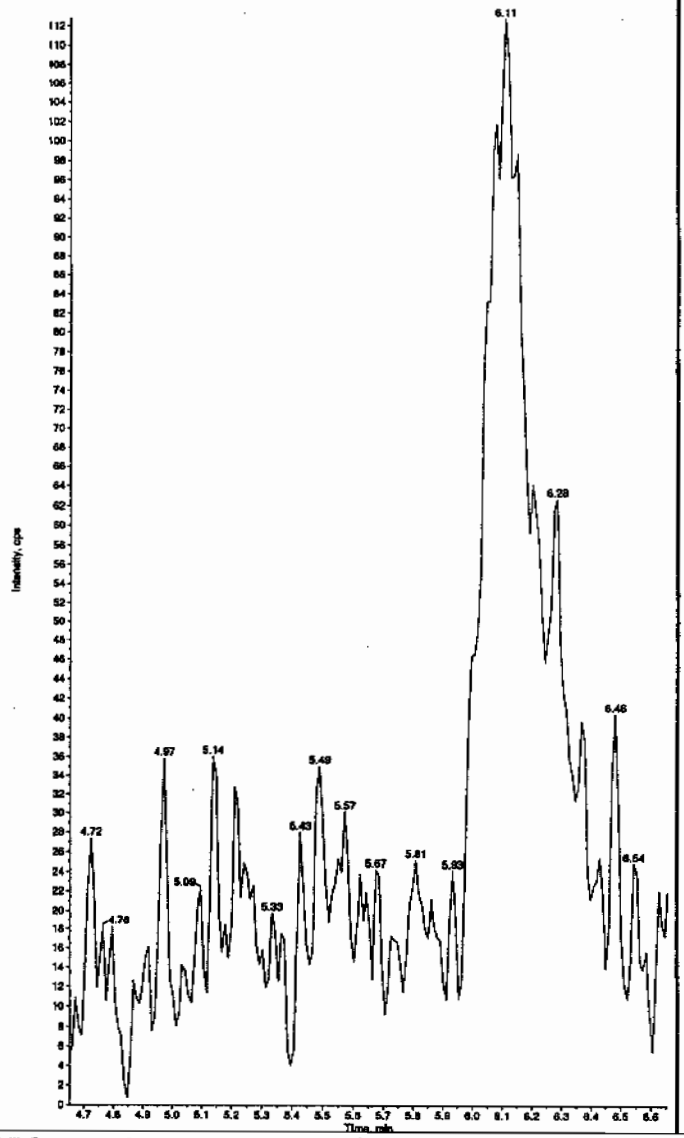

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02130002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 10:28:33 AM

Modified: No

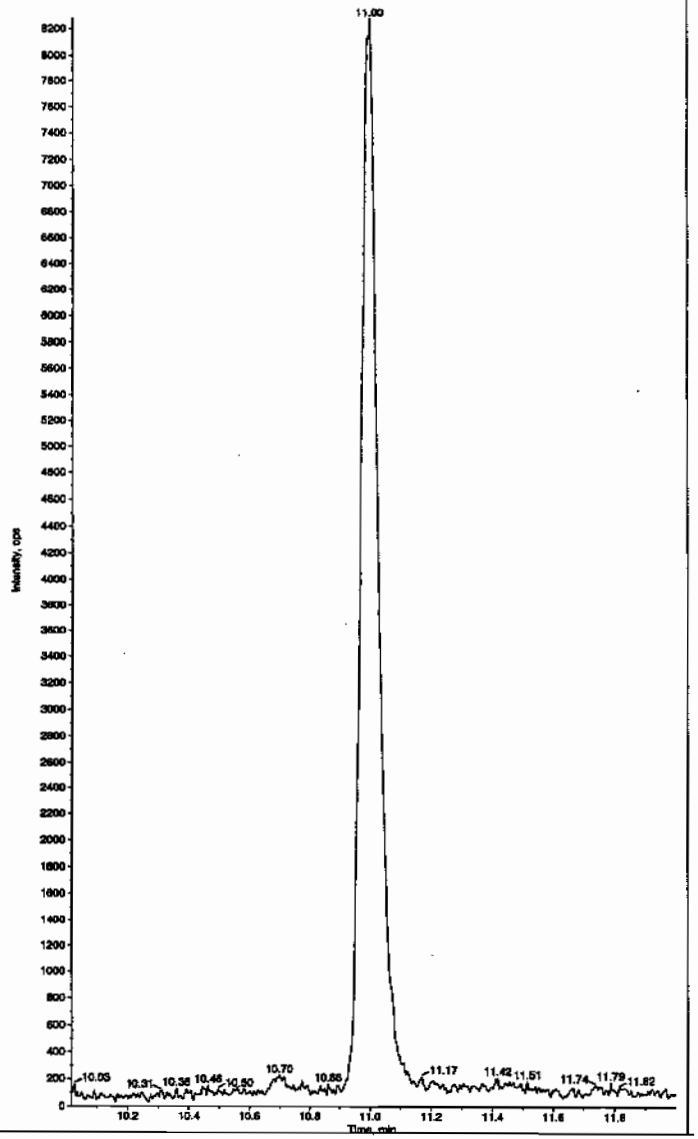

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1432
Lab Code: GEL
Lab Sample ID: XIBLK02
Analysis Date: 08-FEB-10 18:40
GEL Data File: EXP0208009a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	519.67
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	546.786
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208009a
Date: 08-Feb-2010
Time: 18:40:36
ID: XIBLK02
Vial: 1:1,A

MMT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.702e+003

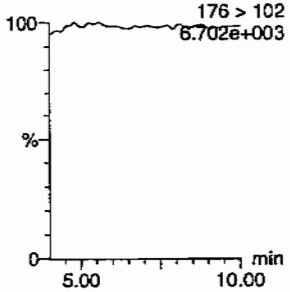

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.702e+003

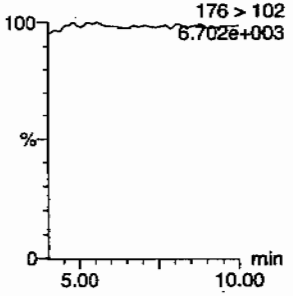

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.295e+003

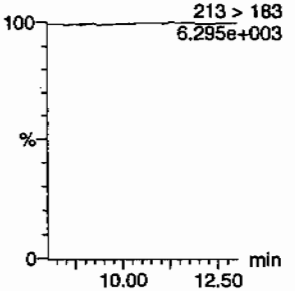

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.413e+004

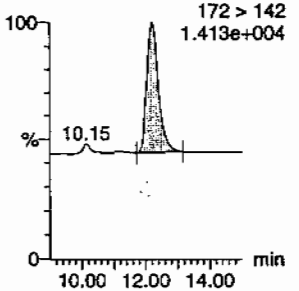

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.259e+003

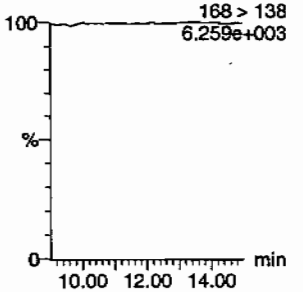

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.285e+003

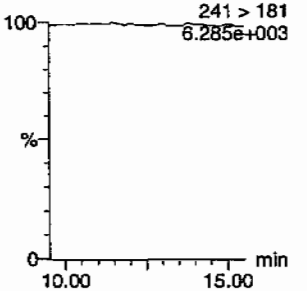

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.301e+003

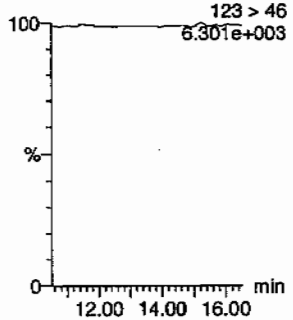

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.424e+003

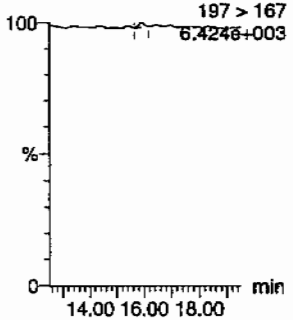

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.378e+003

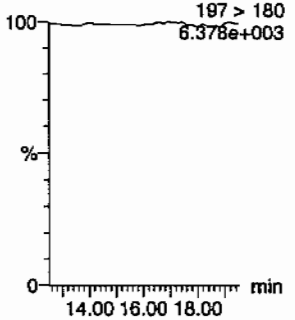

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.301e+003

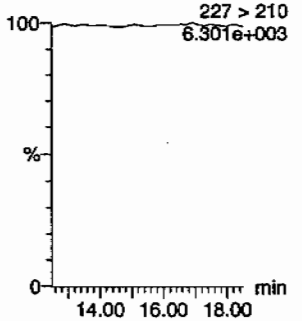

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.294e+003

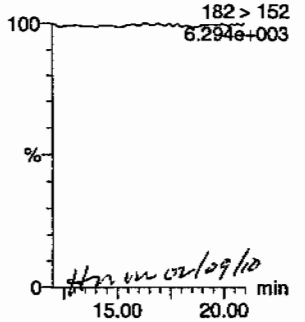

HM 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.294e+003

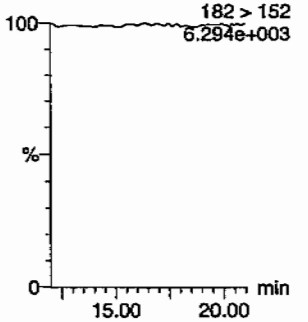

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

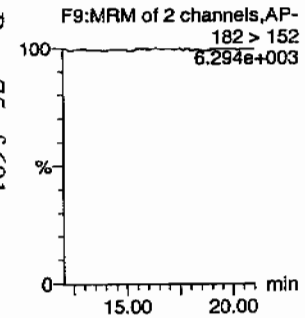

26-dinitrotoluene-d3

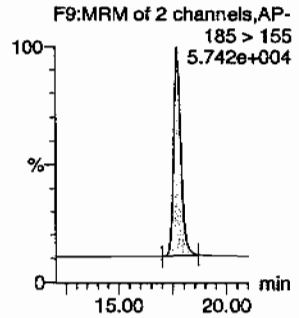

2-Nitrotoluene

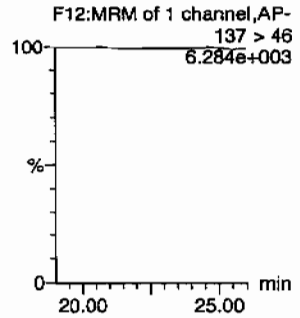

4-Nitrotoluene

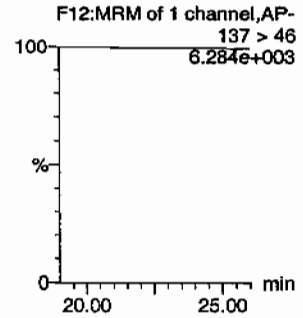

3-Nitrotoluene

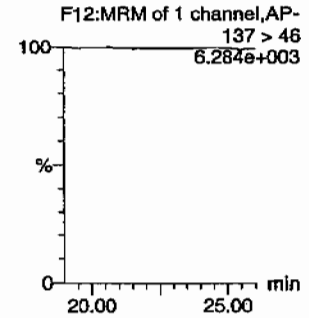

PETN

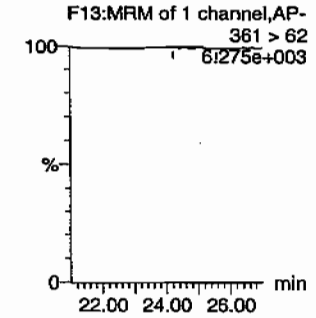

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3341.034									
XIBLK02	RDX	176 > 102			3341.034									
XIBLK02	135-Trinitrobenzene	213 > 183			3341.034									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.20	3341.034		3341.034	3341.034	bb			519.6698	103.9	3.9	344.2
XIBLK02	13-Dinitrobenzene	168 > 138			3341.034									
XIBLK02	Tetryl	241 > 181			3341.034									
XIBLK02	Nitrobenzene	123 > 46			3341.034									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			20186.990			MM-	09-Feb-10	10:07:01				
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			20186.990									
XIBLK02	246-Trinitrotoluene	227 > 210			20186.990									
XIBLK02	34-dinitrotoluene	182 > 152			20186.990									
XIBLK02	26-dinitrotoluene	182 > 152			20186.990									
XIBLK02	24-dinitrotoluene	182 > 152			20186.990									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.71	20186.990		20186.990	20186.990	bb			546.7860	109.4	9.4	1811.7
XIBLK02	2-Nitrotoluene	137 > 46			20186.990									
XIBLK02	4-Nitrotoluene	137 > 46			20186.990									
XIBLK02	3-Nitrotoluene	137 > 46			20186.990									
XIBLK02	PETN	361 > 62			20186.990			MM-	09-Feb-10	10:12:32				

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1432
Lab Code: GEL
Lab Sample ID: XIBLK03
Analysis Date: 08-FEB-10 19:39
GEL Data File: EXP0208011a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	583.46
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	534.714
2,4,6-Trinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208011a
Date: 08-Feb-2010
Time: 19:39:33
ID: XIBLK03
Vial: 1:1,A

MHP 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.777e+003

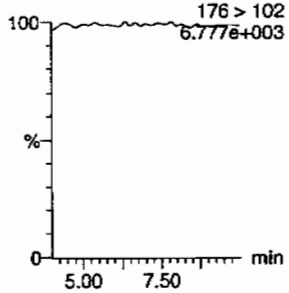

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.777e+003

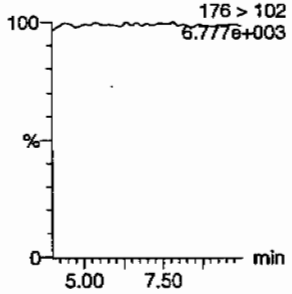

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.509e+003

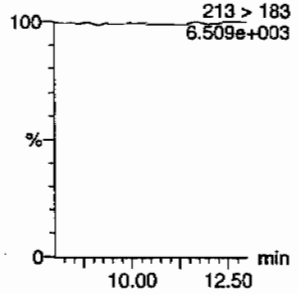

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.443e+004

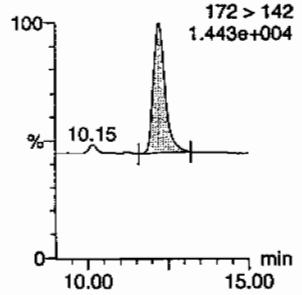

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.498e+003

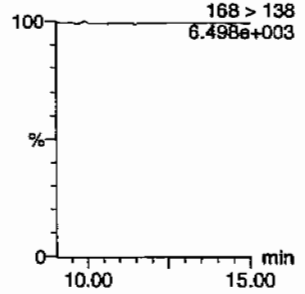

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.560e+003

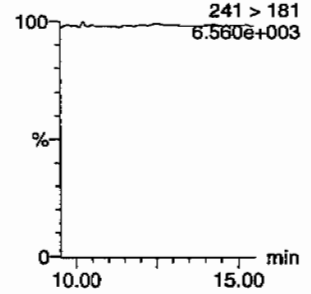

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.510e+003

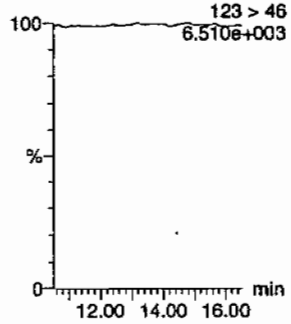

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.604e+003

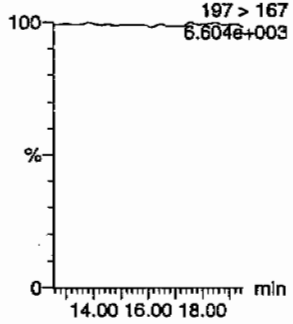

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.605e+003

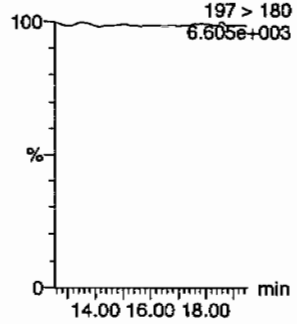

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.507e+003

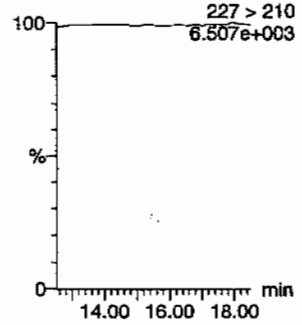

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

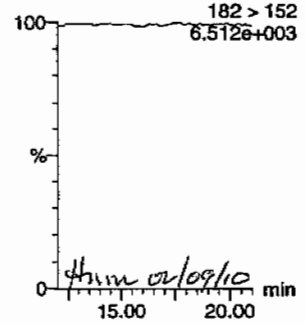

Hm 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

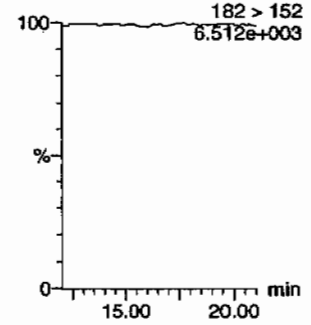

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

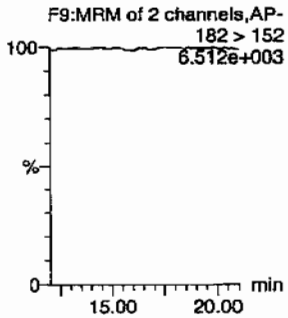

26-dinitrotoluene-d3

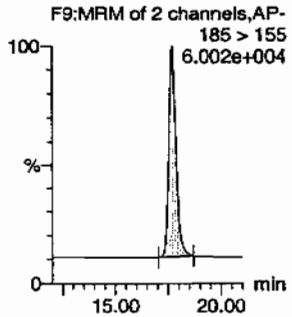

2-Nitrotoluene

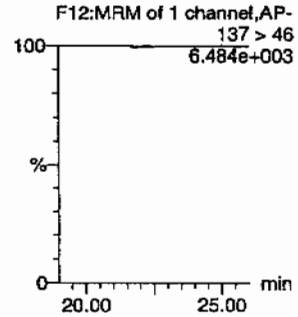

4-Nitrotoluene

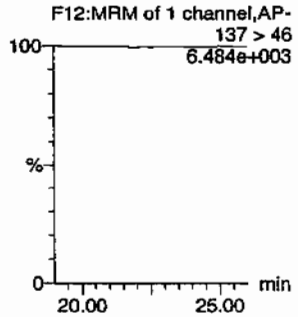

3-Nitrotoluene

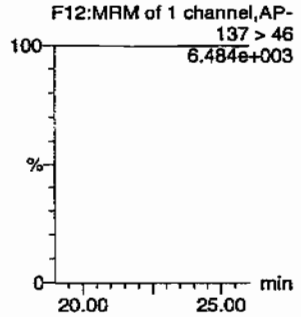

PETN

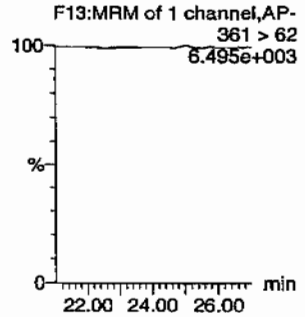

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			3437.753									
XIBLK03	RDX	176 > 102			3437.753									
XIBLK03	135-Trinitrobenzene	213 > 183			3437.753									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.20	3437.753		3437.753	3437.753	bb			534.7137	106.9	6.9	235.9
XIBLK03	13-Dinitrobenzene	168 > 138			3437.753									
XIBLK03	Tetryl	241 > 181			3437.753									
XIBLK03	Nitrobenzene	123 > 46			3437.753									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			21540.977									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			21540.977									
XIBLK03	246-Trinitrotoluene	227 > 210			21540.977									
XIBLK03	34-dinitrotoluene	182 > 152			21540.977									
XIBLK03	26-dinitrotoluene	182 > 152			21540.977									
XIBLK03	24-dinitrotoluene	182 > 152			21540.977									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.72	21540.977		21540.977	21540.977	bb			583.4602	116.7	16.7	396.6
XIBLK03	2-Nitrotoluene	137 > 46			21540.977									
XIBLK03	4-Nitrotoluene	137 > 46			21540.977									
XIBLK03	3-Nitrotoluene	137 > 46			21540.977									
XIBLK03	PETN	361 > 62			21540.977									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09–FEB–10 02:02

GEL Data File: EXP0208024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	594.411
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	592.137
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208024a
Date: 09-Feb-2010
Time: 02:02:53
ID: XIBLK04
Vial: 1:1,A

MMT 2/9/10

HMX
F2:MRM of 1 channel,AP-
5.30 176 > 102
6.636e+003

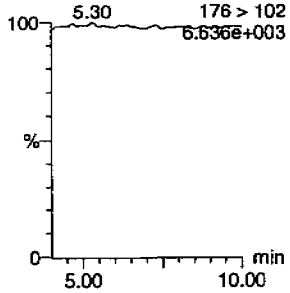

RDX
F2:MRM of 1 channel,AP-
5.30 176 > 102
6.636e+003

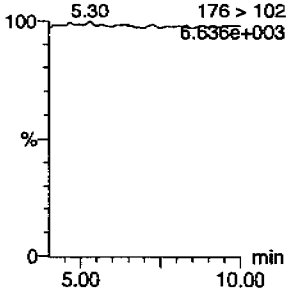

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.331e+003

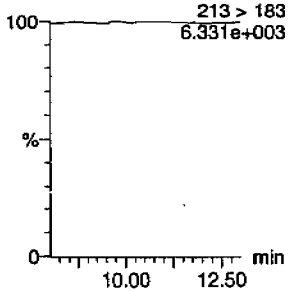

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.551e+004

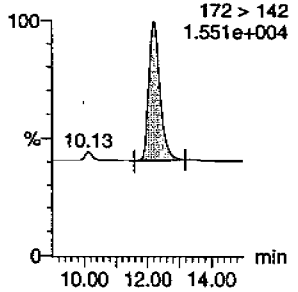

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.326e+003

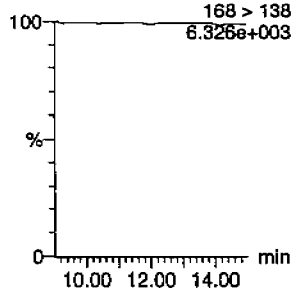

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.343e+003

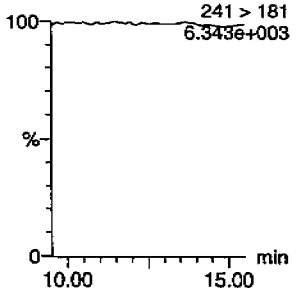

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.349e+003

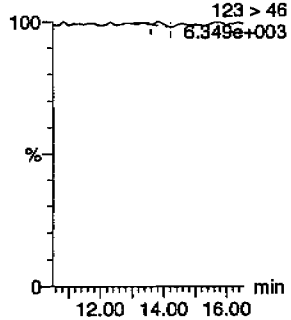

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.388e+003

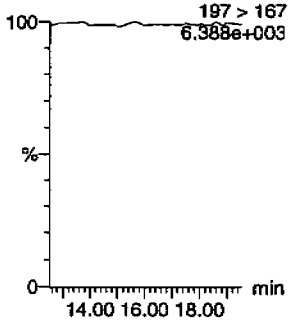

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.380e+003

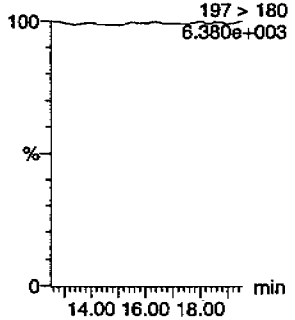

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.341e+003

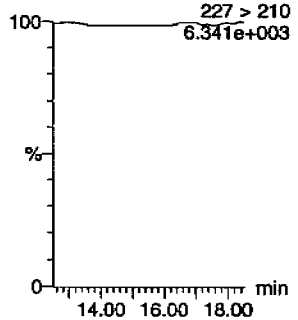

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.335e+003

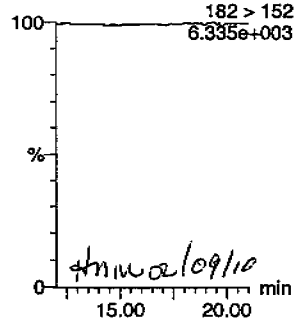

tmw 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.335e+003

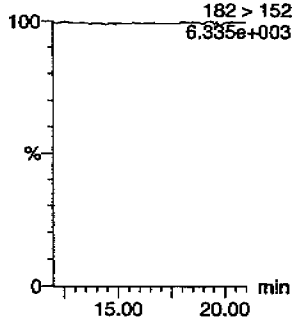

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

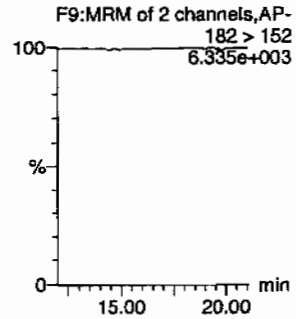

26-dinitrotoluene-d3

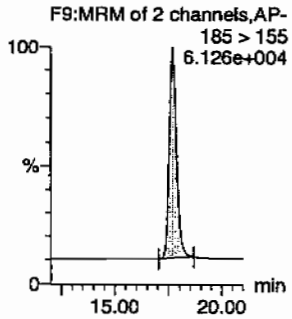

2-Nitrotoluene

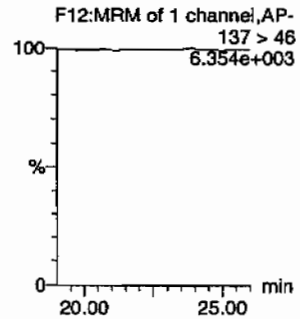

4-Nitrotoluene

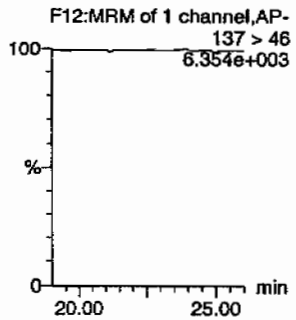

3-Nitrotoluene

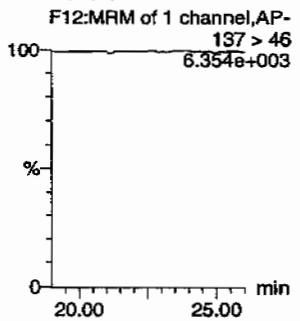

PETN

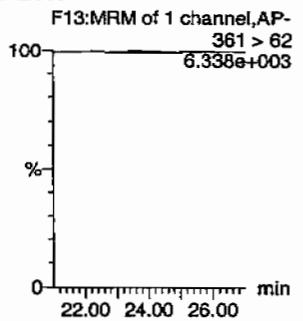

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3821.559									
XIBLK04	RDX	176 > 102			3821.559									
XIBLK04	135-Trinitrobenzene	213 > 183			3821.559									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.20	3821.559		3821.559	3821.559	bb			594.4115	118.9	18.9	582.0
XIBLK04	13-Dinitrobenzene	168 > 138			3821.559									
XIBLK04	Tetryl	241 > 181			3821.559									
XIBLK04	Nitrobenzene	123 > 46			3821.559			MM-	09-Feb-10	10:05:00				
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			21861.324									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			21861.324									
XIBLK04	246-Trinitrotoluene	227 > 210			21861.324									
XIBLK04	34-dinitrotoluene	182 > 152			21861.324									
XIBLK04	26-dinitrotoluene	182 > 152			21861.324									
XIBLK04	24-dinitrotoluene	182 > 152			21861.324									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.71	21861.324		21861.324	21861.324	bb			592.1371	118.4	18.4	2394.8
XIBLK04	2-Nitrotoluene	137 > 46			21861.324									
XIBLK04	4-Nitrotoluene	137 > 46			21861.324									
XIBLK04	3-Nitrotoluene	137 > 46			21861.324									
XIBLK04	PETN	361 > 62			21861.324									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1432
Lab Code: GEL
Lab Sample ID: XIBLK05
Analysis Date: 09–FEB–10 08:26
GEL Data File: EXP0208037a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	568.449
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	592.976

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208037a
Date: 09-Feb-2010
Time: 08:26:48
ID: XIBLK05
Vial: 1:1,A

MMT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.138e+003

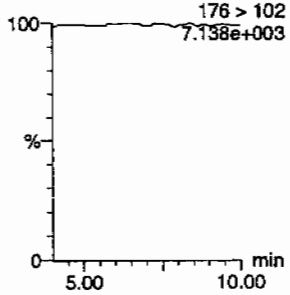

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.138e+003

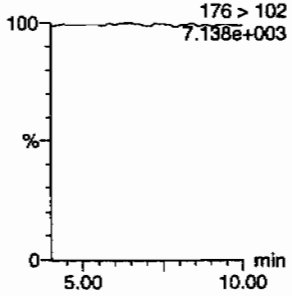

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.989e+003

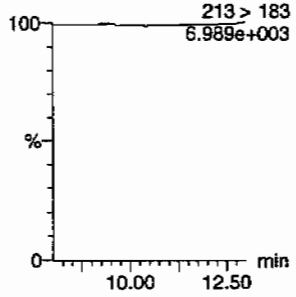

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.604e+004

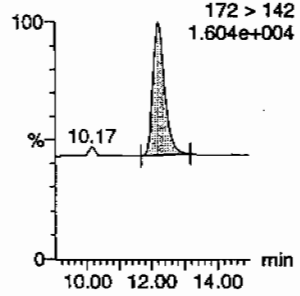

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.983e+003

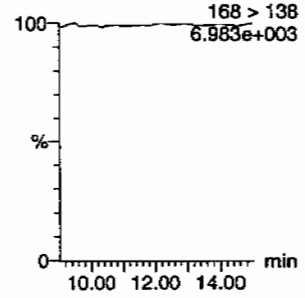

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.983e+003

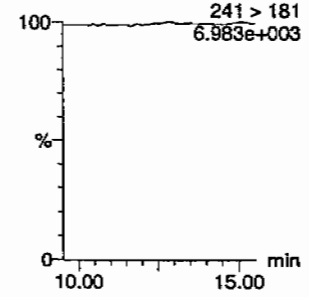

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.005e+003

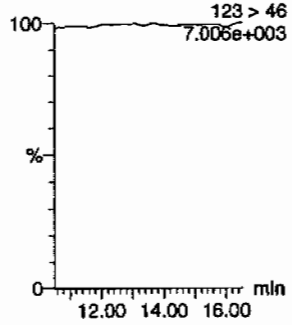

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.056e+003

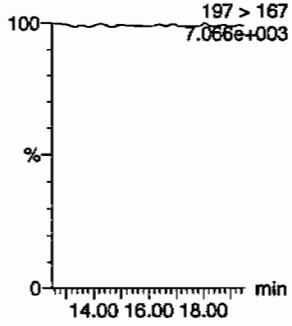

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.046e+003

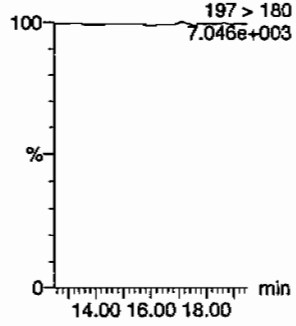

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.995e+003

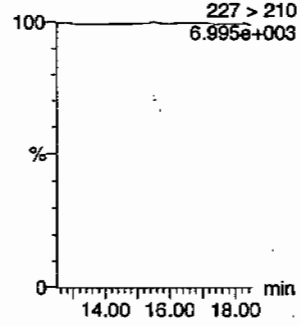

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.009e+003

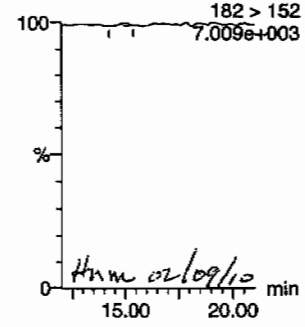

HMM 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.009e+003

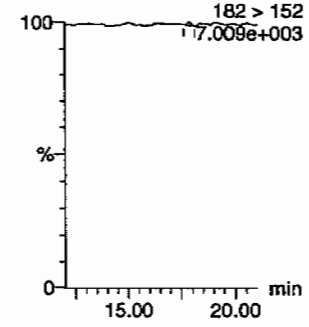

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

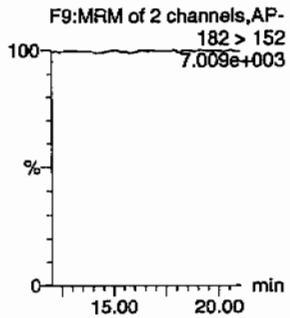

26-dinitrotoluene-d3

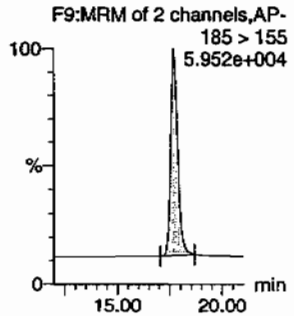

2-Nitrotoluene

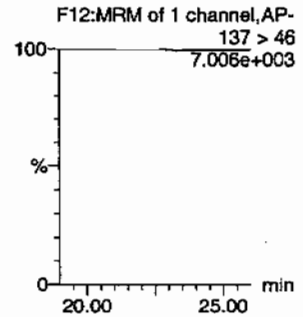

4-Nitrotoluene

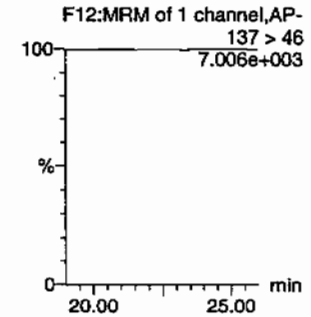

3-Nitrotoluene

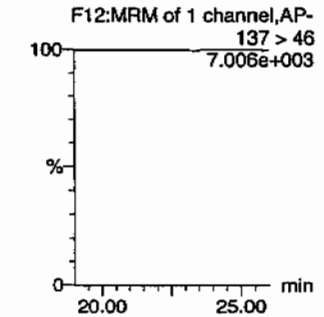

PETN

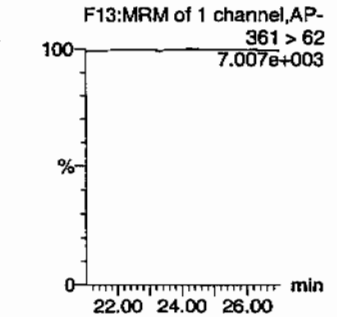

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			3812.331									
XIBLK05	RDX	176 > 102			3812.331									
XIBLK05	135-Trinitrobenzene	213 > 183			3812.331									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.20	3812.331		3812.331	3812.331	bb			592.9761	118.6	18.6	397.2
XIBLK05	13-Dinitrobenzene	168 > 138			3812.331									
XIBLK05	Tetryl	241 > 181			3812.331									
XIBLK05	Nitrobenzene	123 > 46			3812.331									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			20986.781									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			20986.781									
XIBLK05	246-Trinitrotoluene	227 > 210			20986.781									
XIBLK05	34-dinitrotoluene	182 > 152			20986.781			MM-	09-Feb-10	10:09:37				
XIBLK05	26-dinitrotoluene	182 > 152			20986.781			MM-	09-Feb-10	10:15:23				
XIBLK05	24-dinitrotoluene	182 > 152			20986.781									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.71	20986.781		20986.781	20986.781	bb			568.4492	113.7	13.7	1868.8
XIBLK05	2-Nitrotoluene	137 > 46			20986.781									
XIBLK05	4-Nitrotoluene	137 > 46			20986.781									
XIBLK05	3-Nitrotoluene	137 > 46			20986.781									
XIBLK05	PETN	361 > 62			20986.781									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09-FEB-10 14:50

GEL Data File: EXP0208050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	619.031
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	615.609
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208050a
Date: 09-Feb-2010
Time: 14:50:17
ID: XIBLK06
Vial: 1:1,A

MM 2/10/10

HMX

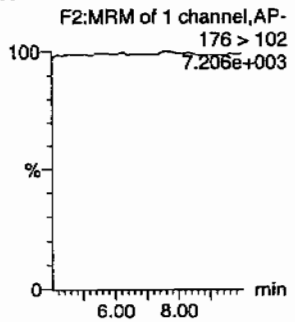

RDX

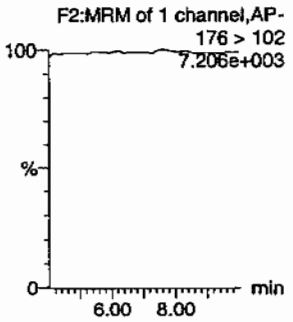

135-Trinitrobenzene

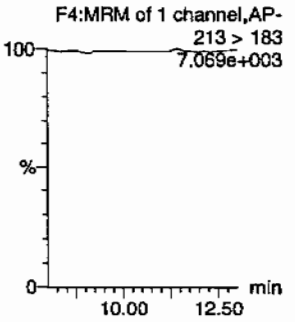

13-Dinitrobenzene-d4

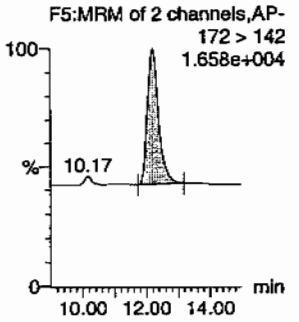

13-Dinitrobenzene

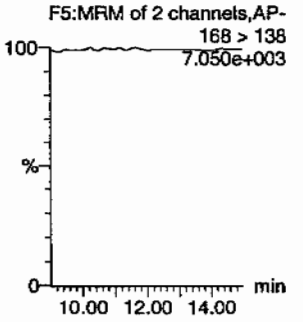

Tetryl

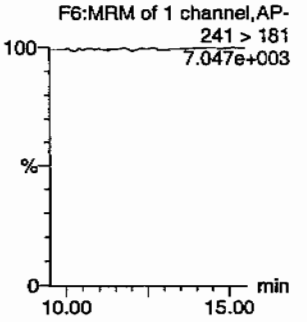

Nitrobenzene

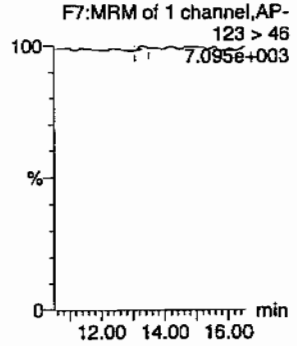

4-Amino-26-dinitrotoluene

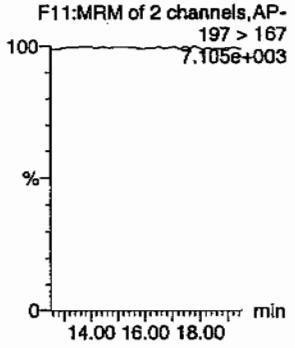

2-Amino-46-dinitrotoluene

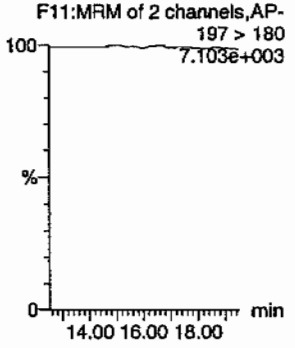

246-Trinitrotoluene

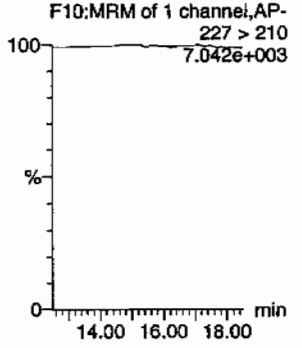

34-dinitrotoluene

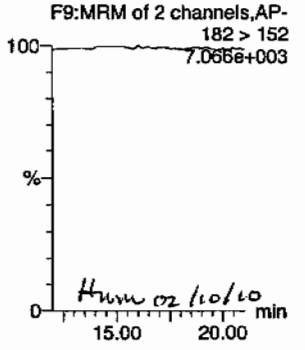

Hmm 02/10/10

26-dinitrotoluene

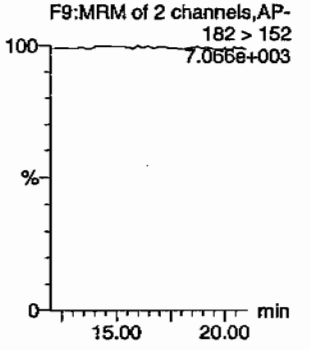

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

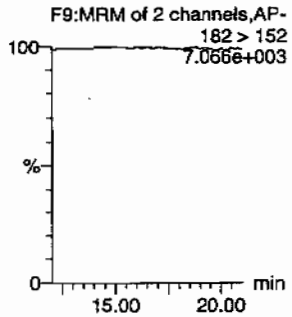

26-dinitrotoluene-d3

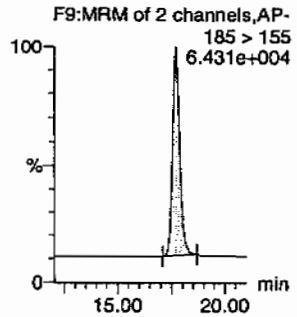

2-Nitrotoluene

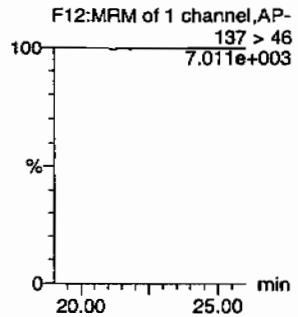

4-Nitrotoluene

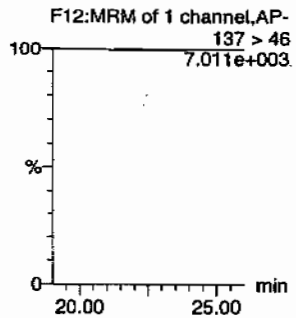

3-Nitrotoluene

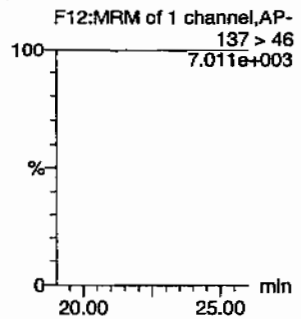

PETN

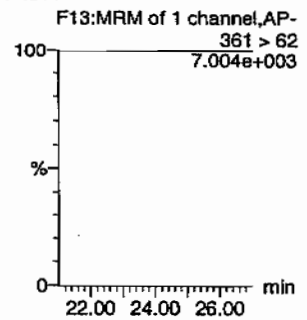

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			3979.842									
XIBLK06	RDX	176 > 102			3979.842									
XIBLK06	135-Trinitrobenzene	213 > 183			3979.842									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.20	3979.842		3979.842	3979.842	bb			619.0311	123.8	23.8	262.8
XIBLK06	13-Dinitrobenzene	168 > 138			3979.842									
XIBLK06	Tetryl	241 > 181			3979.842									
XIBLK06	Nitrobenzene	123 > 46			3979.842			MM-	10-Feb-10	09:17:09				
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			22727.891									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			22727.891									
XIBLK06	246-Trinitrotoluene	227 > 210			22727.891									
XIBLK06	34-dinitrotoluene	182 > 152			22727.891									
XIBLK06	26-dinitrotoluene	182 > 152			22727.891									
XIBLK06	24-dinitrotoluene	182 > 152			22727.891									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.71	22727.891		22727.891	22727.891	bb			615.6090	123.1	23.1	1189.9
XIBLK06	2-Nitrotoluene	137 > 46			22727.891									
XIBLK06	4-Nitrotoluene	137 > 46			22727.891									
XIBLK06	3-Nitrotoluene	137 > 46			22727.891									
XIBLK06	PETN	361 > 62			22727.891									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 09–FEB–10 21:13

GEL Data File: EXP0208063a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	602.957
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	577.242
2–Amino–4,6–dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208063a
Date: 09-Feb-2010
Time: 21:13:58
ID: XIBLK07
Vial: 1:1,A

MM 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.393e+003

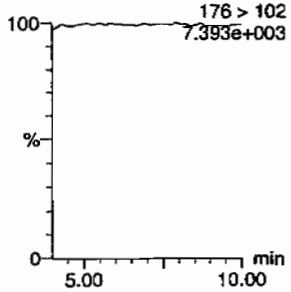

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.393e+003

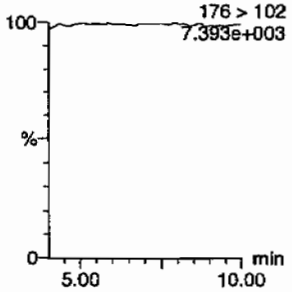

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
7.238e+003

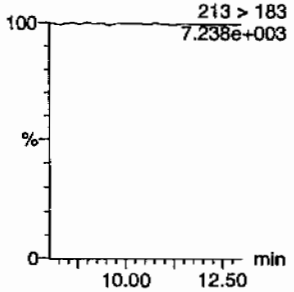

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.638e+004

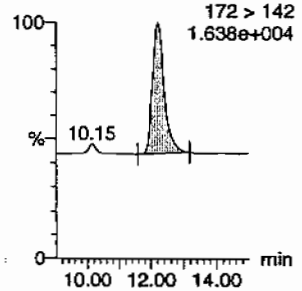

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.216e+003

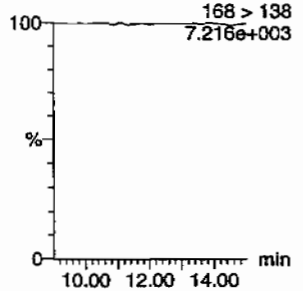

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.208e+003

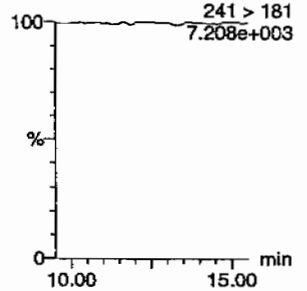

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.255e+003

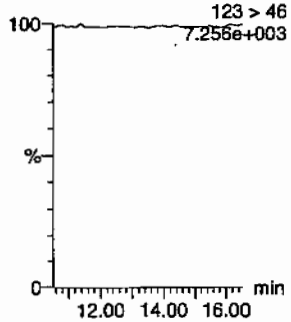

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.290e+003

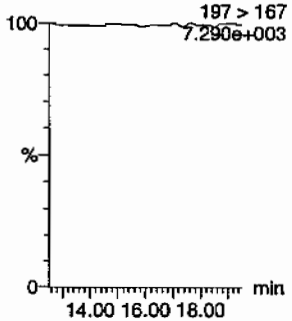

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.292e+003

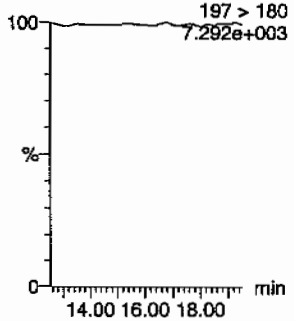

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.230e+003

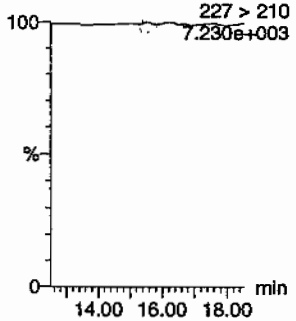

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.246e+003

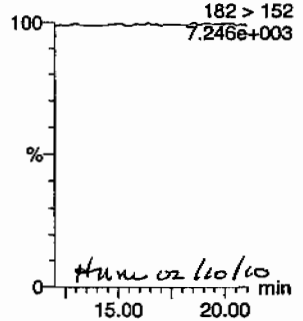

Hum 02/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.246e+003

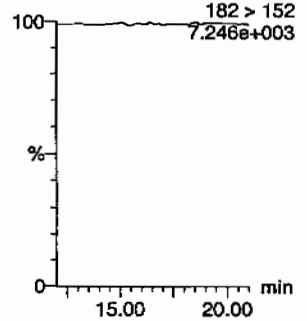

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.246e+003

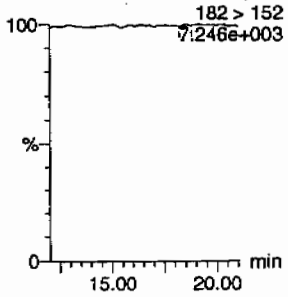

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.097e+004

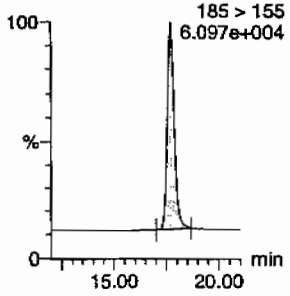

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
7.217e+003

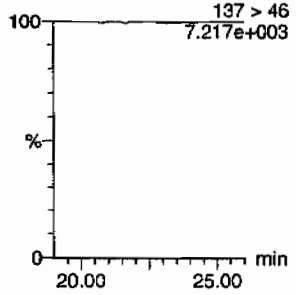

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
7.217e+003

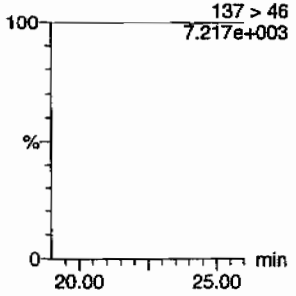

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
7.217e+003

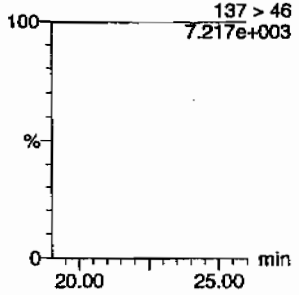

PETN
F13:MRM of 1 channel,AP-
361 > 62
7.213e+003

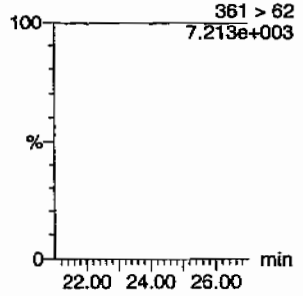

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3876.500									
XIBLK07	RDX	176 > 102			3876.500									
XIBLK07	135-Trinitrobenzene	213 > 183			3876.500									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.20	3876.500		3876.500	3876.500	bb			602.9571	120.6	20.6	383.4
XIBLK07	13-Dinitrobenzene	168 > 138			3876.500									
XIBLK07	Tetryl	241 > 181			3876.500									
XIBLK07	Nitrobenzene	123 > 46			3876.500									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			21311.416									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			21311.416									
XIBLK07	246-Trinitrotoluene	227 > 210			21311.416									
XIBLK07	34-dinitrotoluene	182 > 152			21311.416									
XIBLK07	26-dinitrotoluene	182 > 152			21311.416									
XIBLK07	24-dinitrotoluene	182 > 152			21311.416			MM-	10-Feb-10	09:08:37				
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.71	21311.416		21311.416	21311.416	bb			577.2423	115.4	15.4	1930.8
XIBLK07	2-Nitrotoluene	137 > 46			21311.416									
XIBLK07	4-Nitrotoluene	137 > 46			21311.416									
XIBLK07	3-Nitrotoluene	137 > 46			21311.416									
XIBLK07	PETN	361 > 62			21311.416									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1432
Lab Code: GEL
Lab Sample ID: XIBLK08
Analysis Date: 10-FEB-10 03:37
GEL Data File: EXP0208076a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	571.729
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	557.496
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208076a
Date: 10-Feb-2010
Time: 03:37:30
ID: XIBLK08
Vial: 1:1,A

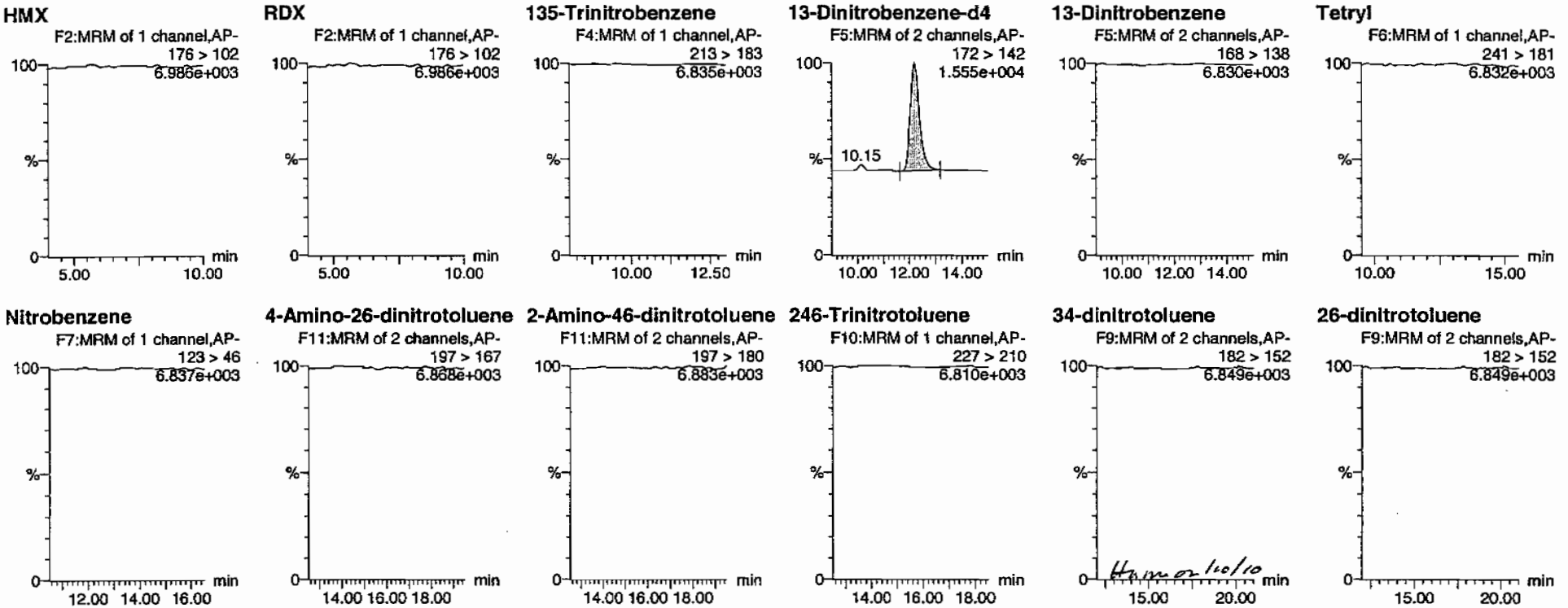

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

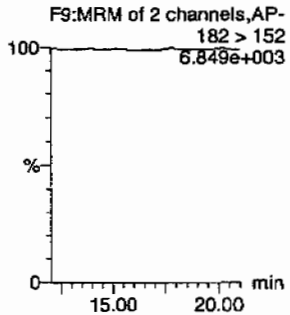

26-dinitrotoluene-d3

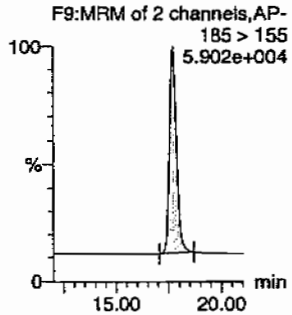

2-Nitrotoluene

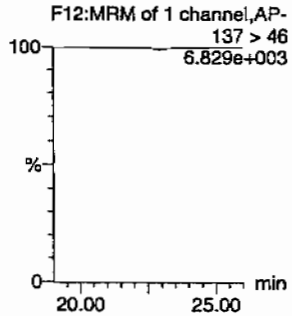

4-Nitrotoluene

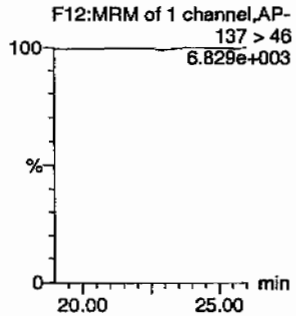

3-Nitrotoluene

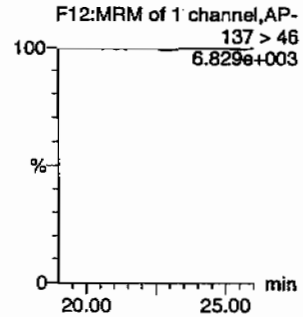

PETN

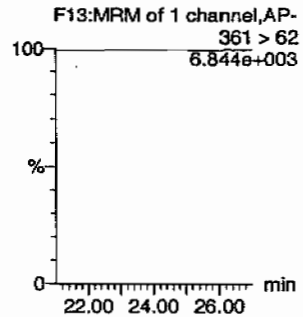

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3675.727									
XIBLK08	RDX	176 > 102			3675.727									
XIBLK08	135-Trinitrobenzene	213 > 183			3675.727									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.20	3675.727		3675.727	3675.727	bb			571.7285	114.3	14.3	285.2
XIBLK08	13-Dinitrobenzene	168 > 138			3675.727									
XIBLK08	Tetryl	241 > 181			3675.727									
XIBLK08	Nitrobenzene	123 > 46			3675.727									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			20582.389									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			20582.389									
XIBLK08	246-Trinitrotoluene	227 > 210			20582.389									
XIBLK08	34-dinitrotoluene	182 > 152			20582.389									
XIBLK08	26-dinitrotoluene	182 > 152			20582.389									
XIBLK08	24-dinitrotoluene	182 > 152			20582.389									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.71	20582.389		20582.389	20582.389	bb			557.4958	111.5	11.5	2116.4
XIBLK08	2-Nitrotoluene	137 > 46			20582.389									
XIBLK08	4-Nitrotoluene	137 > 46			20582.389									
XIBLK08	3-Nitrotoluene	137 > 46			20582.389									
XIBLK08	PETN	361 > 62			20582.389									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 10-FEB-10 10:01

GEL Data File: EXP0208089a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	589.535
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	534.323
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208089a
Date: 10-Feb-2010
Time: 10:01:12
ID: XIBLK09
Vial: 1:1,A

MM 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.095e+003

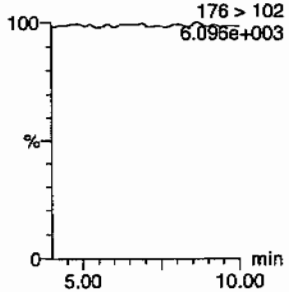

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.096e+003

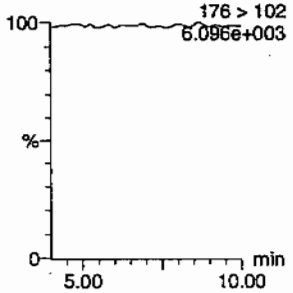

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.958e+003

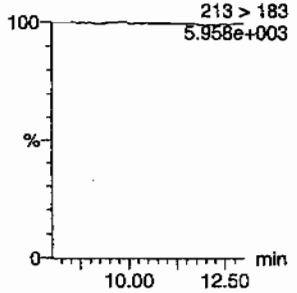

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.501e+004

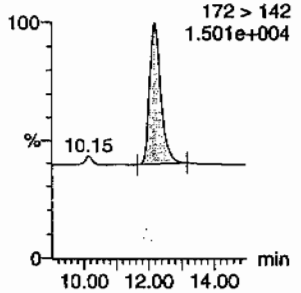

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.933e+003

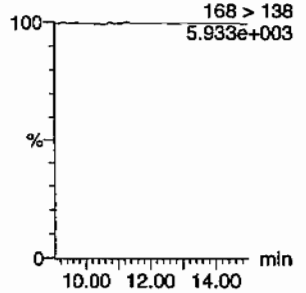

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.935e+003

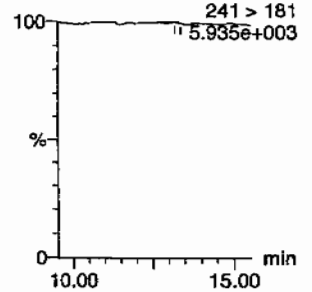

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.943e+003

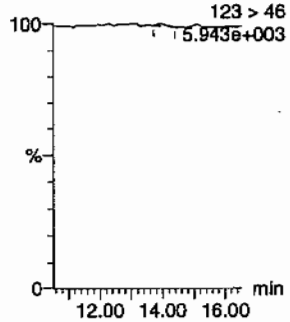

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.012e+003

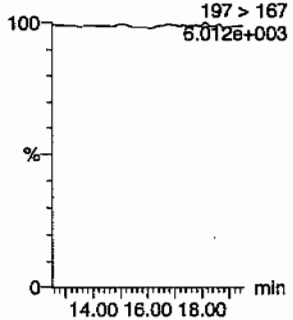

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.980e+003

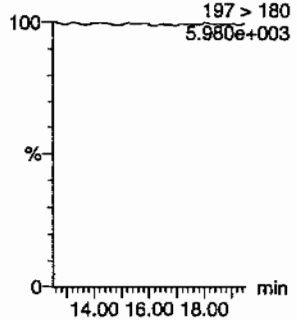

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.954e+003

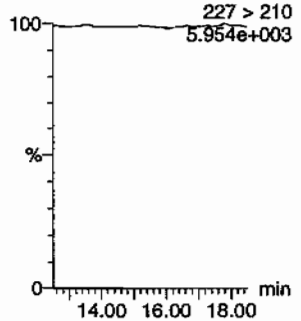

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.970e+003

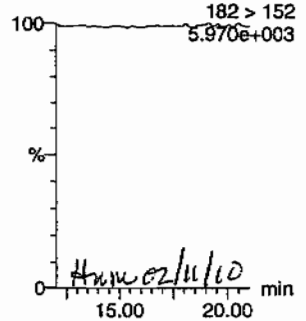

HMW 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.970e+003

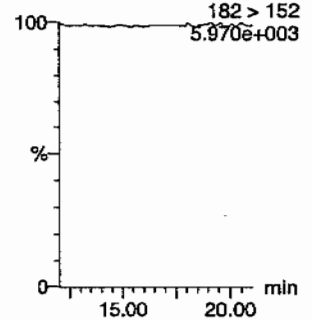

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

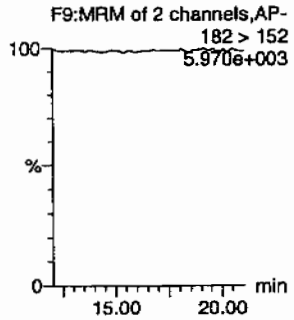

26-dinitrotoluene-d3

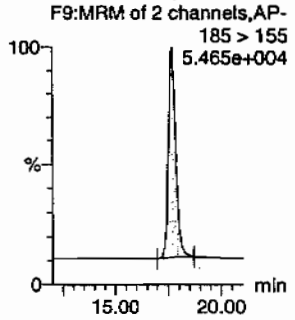

2-Nitrotoluene

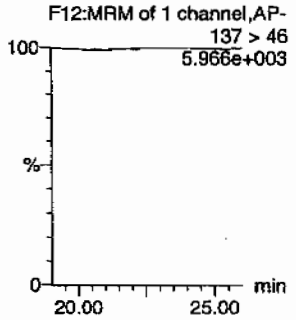

4-Nitrotoluene

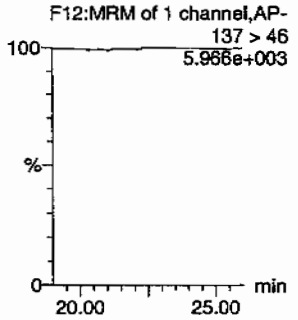

3-Nitrotoluene

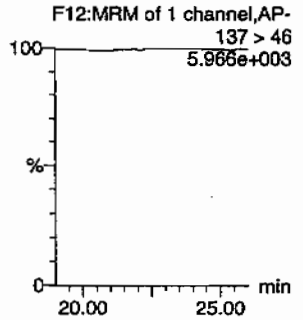

PETN

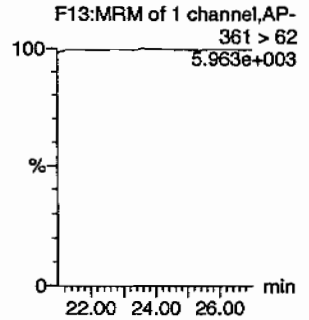

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3790.207									
XIBLK09	RDX	176 > 102			3790.207									
XIBLK09	135-Trinitrobenzene	213 > 183			3790.207									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.21	3790.207		3790.207	3790.207	bb			589.5349	117.9	17.9	289.8
XIBLK09	13-Dinitrobenzene	168 > 138			3790.207									
XIBLK09	Tetryl	241 > 181			3790.207			MM-	11-Feb-10	09:25:42				
XIBLK09	Nitrobenzene	123 > 46			3790.207			MM-	11-Feb-10	09:25:57				
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			19726.857									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			19726.857									
XIBLK09	246-Trinitrotoluene	227 > 210			19726.857									
XIBLK09	34-dinitrotoluene	182 > 152			19726.857									
XIBLK09	26-dinitrotoluene	182 > 152			19726.857									
XIBLK09	24-dinitrotoluene	182 > 152			19726.857									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.68	19726.857		19726.857	19726.857	bb			534.3228	106.9	6.9	2274.9
XIBLK09	2-Nitrotoluene	137 > 46			19726.857									
XIBLK09	4-Nitrotoluene	137 > 46			19726.857									
XIBLK09	3-Nitrotoluene	137 > 46			19726.857									
XIBLK09	PETN	361 > 62			19726.857									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1432
Lab Code: GEL
Lab Sample ID: XIBLK10
Analysis Date: 10–FEB–10 11:59
GEL Data File: EXP0208093a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	590.034
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	518.982

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208093a
Date: 10-Feb-2010
Time: 11:59:19
ID: XIBLK10
Vial: 1:1,F

MMT 2/11/10

HMX

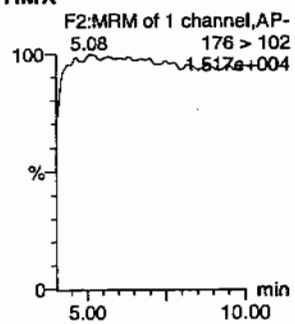

RDX

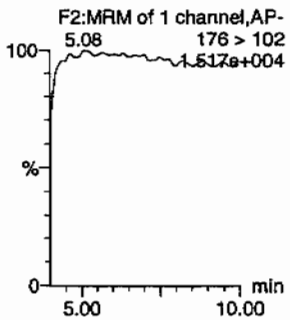

135-Trinitrobenzene

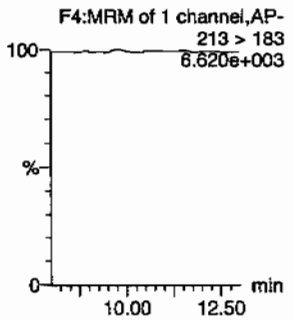

13-Dinitrobenzene-d4

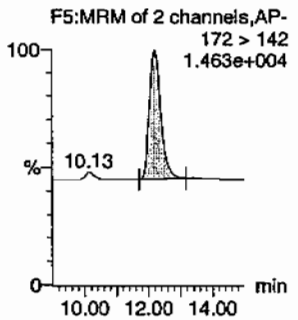

13-Dinitrobenzene

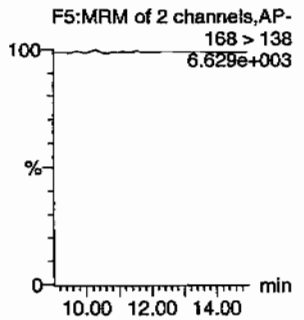

Tetryl

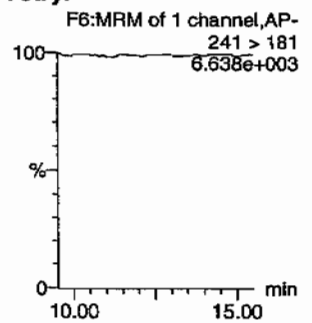

Nitrobenzene

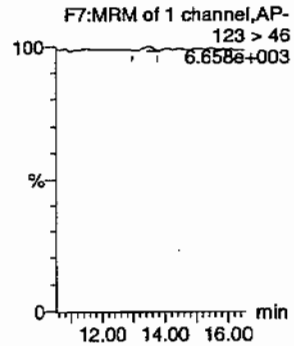

4-Amino-26-dinitrotoluene

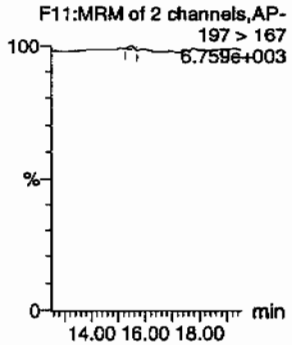

2-Amino-46-dinitrotoluene

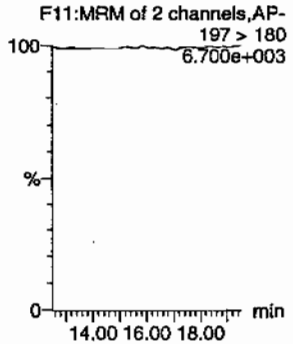

246-Trinitrotoluene

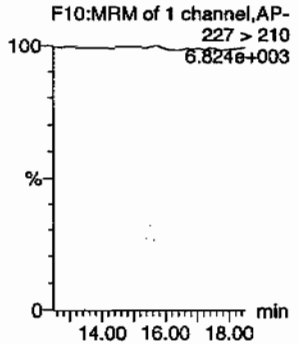

34-dinitrotoluene

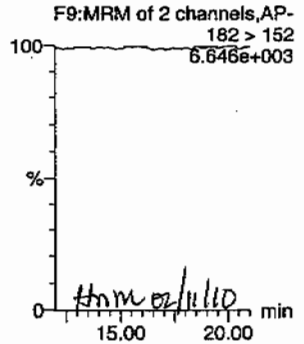

26-dinitrotoluene

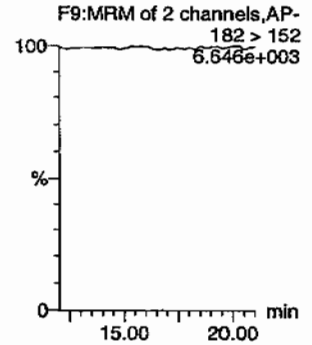

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

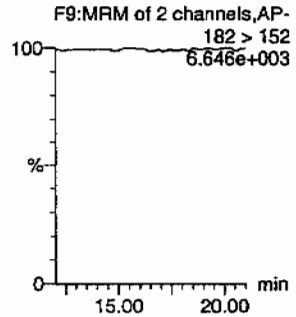

26-dinitrotoluene-d3

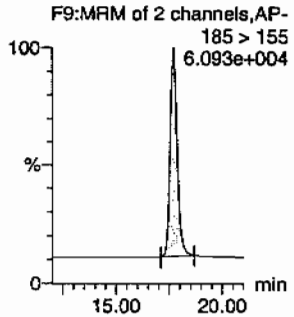

2-Nitrotoluene

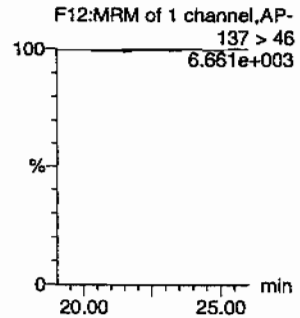

4-Nitrotoluene

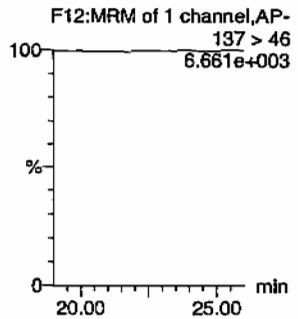

3-Nitrotoluene

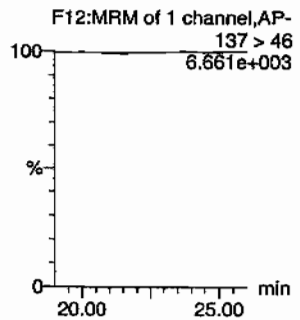

PETN

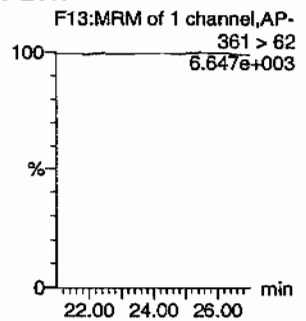

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			3336.610									
XIBLK10	RDX	176 > 102			3336.610									
XIBLK10	135-Trinitrobenzene	213 > 183			3336.610									
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.21	3336.610		3336.610	3336.610	bb			518.9817	103.8	3.8	444.8
XIBLK10	13-Dinitrobenzene	168 > 138			3336.610									
XIBLK10	Tetryl	241 > 181			3336.610									
XIBLK10	Nitrobenzene	123 > 46			3336.610			MM-	11-Feb-10	09:26:00				
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			21783.670			MM-	11-Feb-10	09:29:33				
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			21783.670									
XIBLK10	246-Trinitrotoluene	227 > 210			21783.670									
XIBLK10	34-dinitrotoluene	182 > 152			21783.670									
XIBLK10	26-dinitrotoluene	182 > 152			21783.670									
XIBLK10	24-dinitrotoluene	182 > 152			21783.670									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.71	21783.670		21783.670	21783.670	bb			590.0337	118.0	18.0	1654.2
XIBLK10	2-Nitrotoluene	137 > 46			21783.670									
XIBLK10	4-Nitrotoluene	137 > 46			21783.670									
XIBLK10	3-Nitrotoluene	137 > 46			21783.670									
XIBLK10	PETN	361 > 62			21783.670									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 10-FEB-10 13:28

GEL Data File: EXP0208096a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	515.625
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	487.539
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208096a
Date: 10-Feb-2010
Time: 13:28:03
ID: XIBLK11
Vial: 1:1,F

MM 2/11/10

HMX
F2:MRM of 1 channel,AP-
5.25 176 > 102
3.214e+004

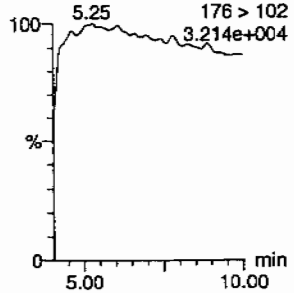

RDX
F2:MRM of 1 channel,AP-
5.25 176 > 102
3.214e+004

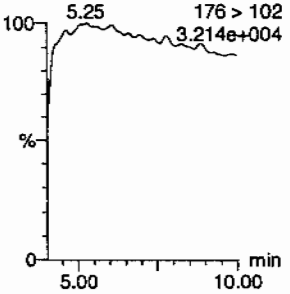

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.745e+003

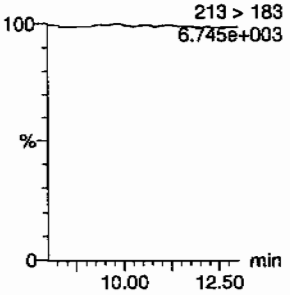

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.462e+004

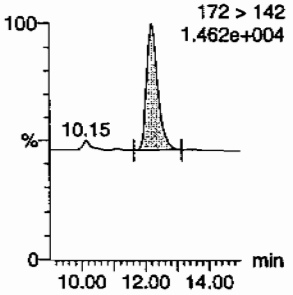

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.730e+003

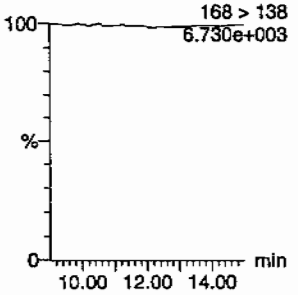

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.727e+003

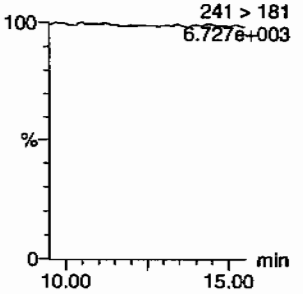

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.780e+003

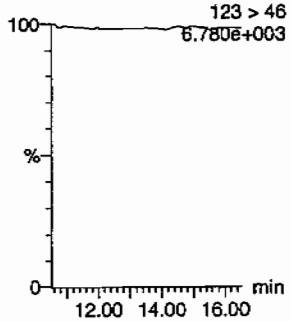

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.869e+003

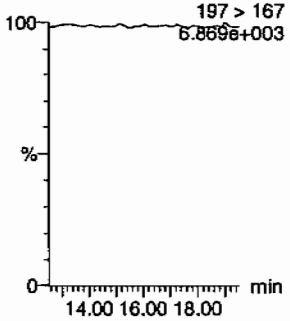

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.837e+003

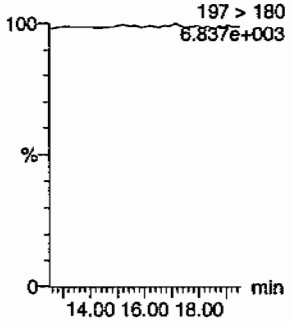

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
13.12 227 > 210
7.279e+003

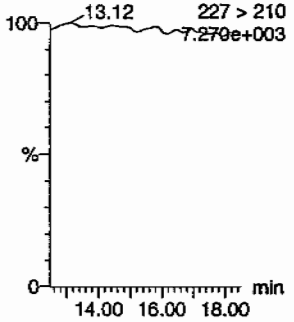

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.714e+003

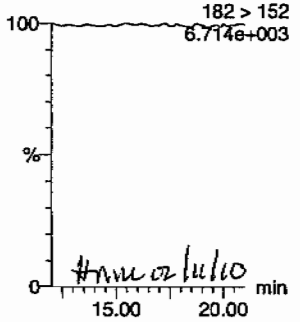

MM 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.714e+003

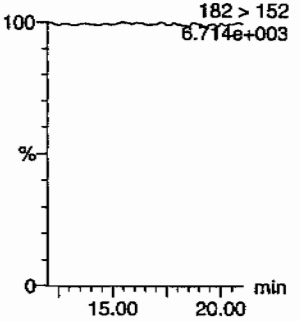

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

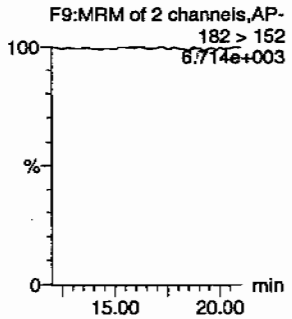

26-dinitrotoluene-d3

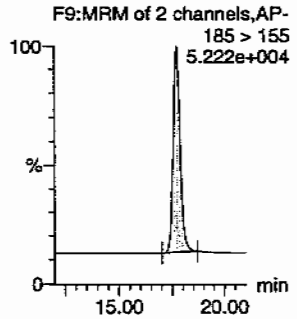

2-Nitrotoluene

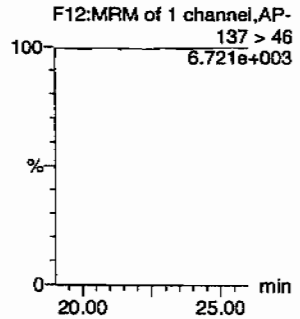

4-Nitrotoluene

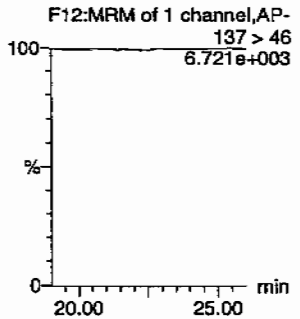

3-Nitrotoluene

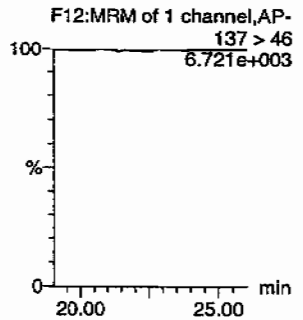

PETN

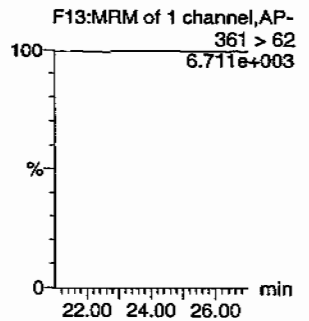

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			3315.031									
XIBLK11	RDX	176 > 102			3315.031									
XIBLK11	135-Trinitrobenzene	213 > 183			3315.031									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.21	3315.031		3315.031	3315.031	bb			515.6253	103.1	3.1	246.5
XIBLK11	13-Dinitrobenzene	168 > 138			3315.031									
XIBLK11	Tetryl	241 > 181			3315.031									
XIBLK11	Nitrobenzene	123 > 46			3315.031									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			17999.613									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			17999.613									
XIBLK11	246-Trinitrotoluene	227 > 210			17999.613									
XIBLK11	34-dinitrotoluene	182 > 152			17999.613									
XIBLK11	26-dinitrotoluene	182 > 152			17999.613									
XIBLK11	24-dinitrotoluene	182 > 152			17999.613			MM-	11-Feb-10	10:03:53				
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.70	17999.613		17999.613	17999.613	bb			487.5386	97.5	-2.5	1653.3
XIBLK11	2-Nitrotoluene	137 > 46			17999.613									
XIBLK11	4-Nitrotoluene	137 > 46			17999.613									
XIBLK11	3-Nitrotoluene	137 > 46			17999.613									
XIBLK11	PETN	361 > 62			17999.613									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1432
Lab Code: GEL
Lab Sample ID: XIBLK12
Analysis Date: 10-FEB-10 15:55
GEL Data File: EXP0208101a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	493.427
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	444.368
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208101a
Date: 10-Feb-2010
Time: 15:55:49
ID: XIBLK12
Vial: 1:1,A

MAP 2/11/10

HMX
F2:MRM of 1 channel,AP-
5.22 7.27 176 > 102
9.801e+003

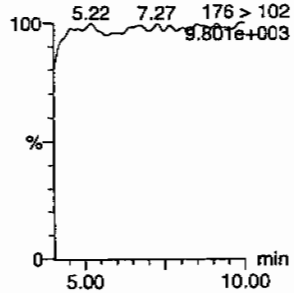

RDX
F2:MRM of 1 channel,AP-
5.22 7.27 176 > 102
9.801e+003

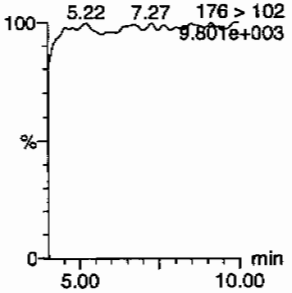

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.520e+003

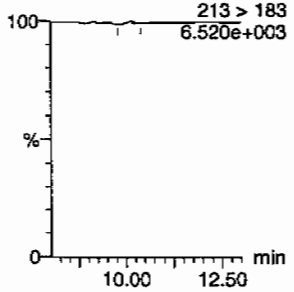

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.397e+004

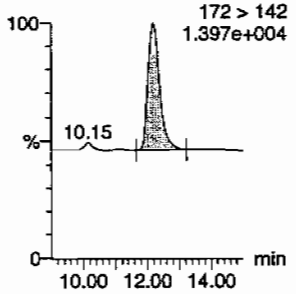

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.494e+003

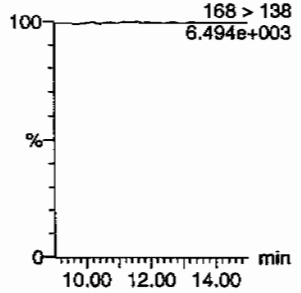

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.514e+003

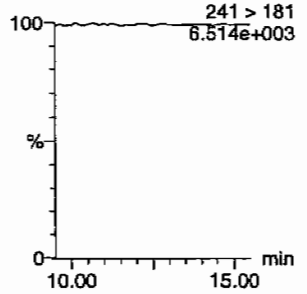

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.525e+003

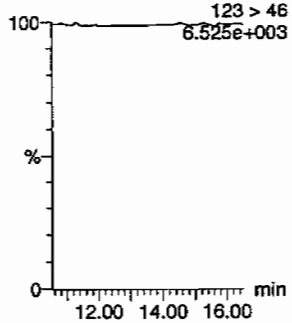

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.609e+003

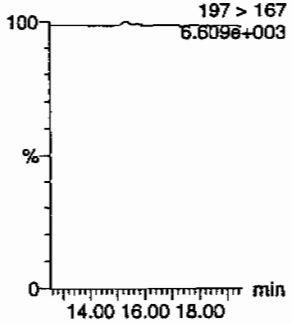

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.558e+003

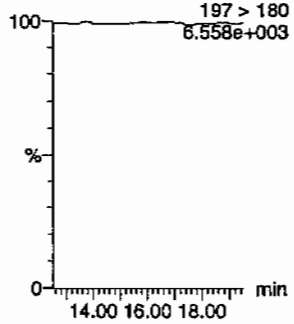

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.530e+003

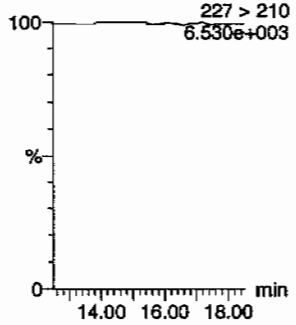

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

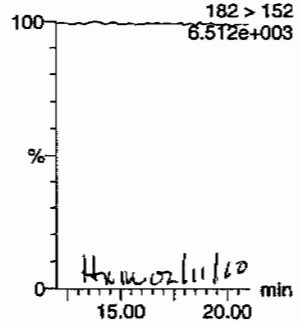

HMW 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.512e+003

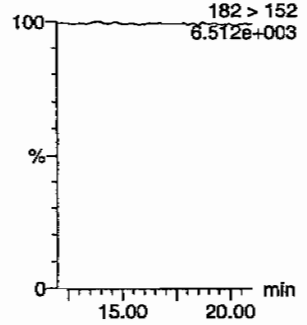

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

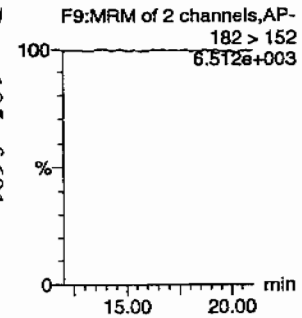

26-dinitrotoluene-d3

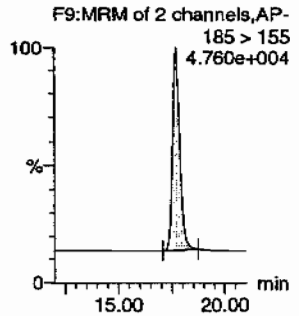

2-Nitrotoluene

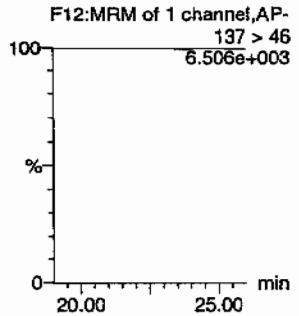

4-Nitrotoluene

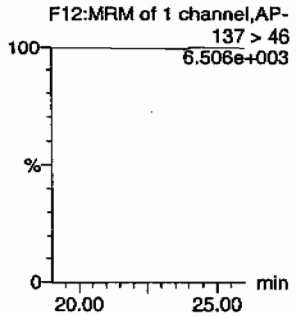

3-Nitrotoluene

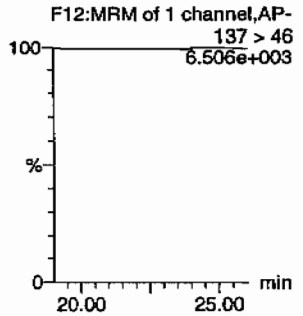

PETN

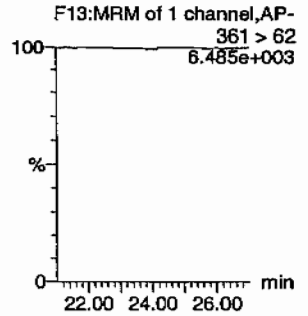

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			3172.314									
XIBLK12	RDX	176 > 102			3172.314									
XIBLK12	135-Trinitrobenzene	213 > 183			3172.314			MM-	11-Feb-10	09:24:25				
XIBLK12	13-Dinitrobenzene-d4	172 > 142	12.21	3172.314		3172.314	3172.314	bb			493.4269	98.7	-1.3	568.0
XIBLK12	13-Dinitrobenzene	168 > 138			3172.314									
XIBLK12	Tetryl	241 > 181			3172.314									
XIBLK12	Nitrobenzene	123 > 46			3172.314									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			16405.785									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			16405.785									
XIBLK12	246-Trinitrotoluene	227 > 210			16405.785									
XIBLK12	34-dinitrotoluene	182 > 152			16405.785									
XIBLK12	26-dinitrotoluene	182 > 152			16405.785									
XIBLK12	24-dinitrotoluene	182 > 152			16405.785									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.70	16405.785		16405.785	16405.785	bb			444.3680	88.9	-11.1	967.6
XIBLK12	2-Nitrotoluene	137 > 46			16405.785									
XIBLK12	4-Nitrotoluene	137 > 46			16405.785									
XIBLK12	3-Nitrotoluene	137 > 46			16405.785									
XIBLK12	PETN	361 > 62			16405.785									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 10-FEB-10 22:19

GEL Data File: EXP0208114a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	507.231
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	572.472
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208114a
Date: 10-Feb-2010
Time: 22:19:14
ID: XIBLK13
Vial: 1:1,A

MMT 2/11/10

HMX
F2:MRM of 1 channel,AP-
4.41 176 > 102
6.784e+003

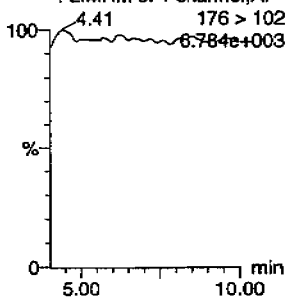

RDX
F2:MRM of 1 channel,AP-
4.41 176 > 102
6.784e+003

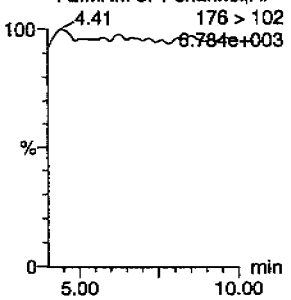

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.910e+003

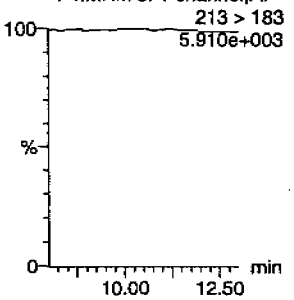

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.403e+004

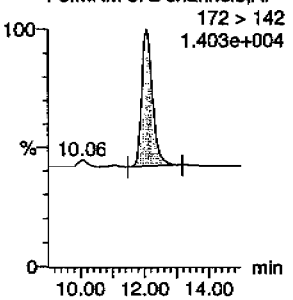

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.927e+003

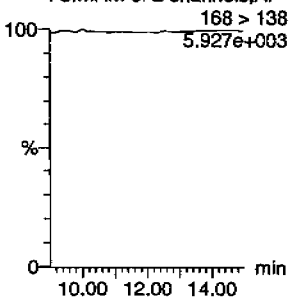

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.902e+003

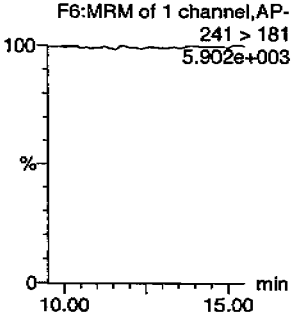

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.944e+003

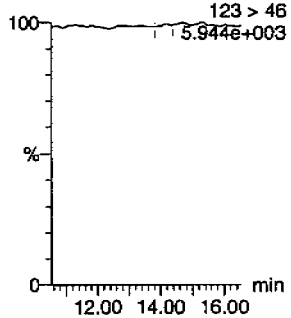

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.980e+003

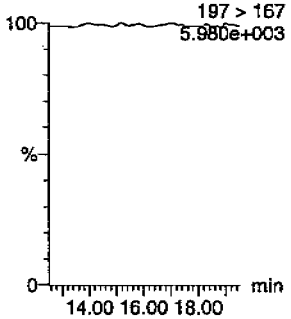

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.967e+003

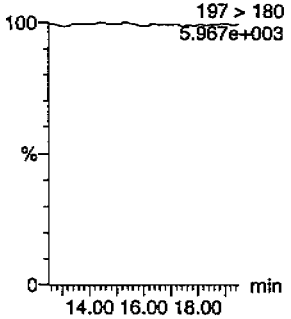

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.939e+003

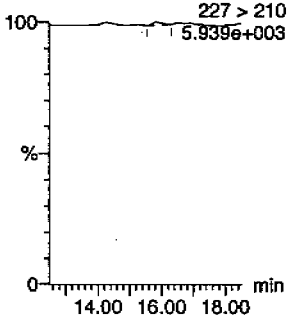

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.027e+003

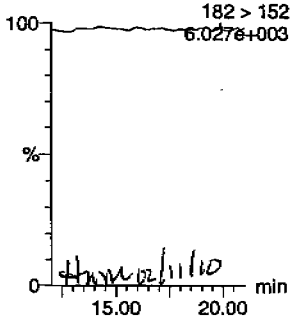

HMM 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.027e+003

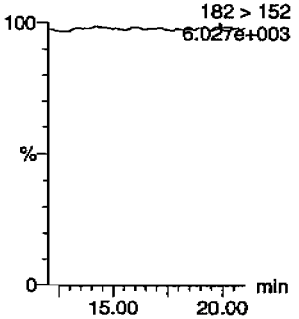

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

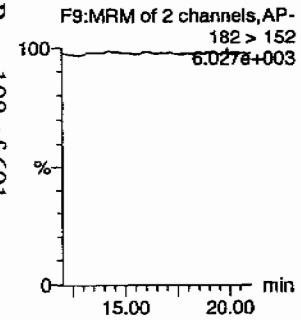

26-dinitrotoluene-d3

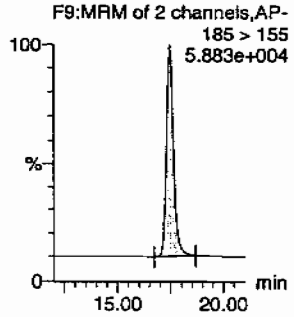

2-Nitrotoluene

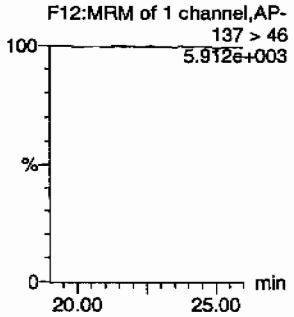

4-Nitrotoluene

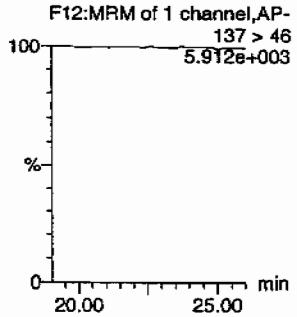

3-Nitrotoluene

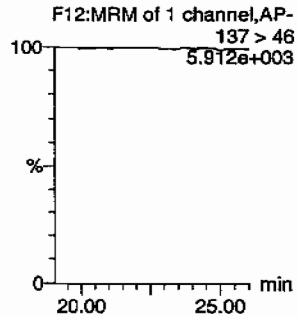

PETN

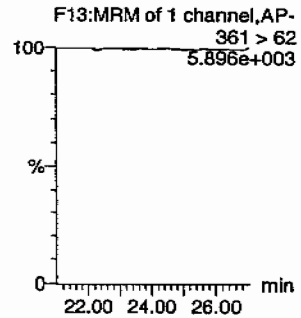

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			3261.062									
XIBLK13	RDX	176 > 102			3261.062									
XIBLK13	135-Trinitrobenzene	213 > 183			3261.062									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	12.07	3261.062		3261.062	3261.062	bb			507.2309	101.4	1.4	412.3
XIBLK13	13-Dinitrobenzene	168 > 138			3261.062									
XIBLK13	Tetryl	241 > 181			3261.062									
XIBLK13	Nitrobenzene	123 > 46			3261.062			MM-	11-Feb-10	09:26:18				
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			21135.303									
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			21135.303									
XIBLK13	246-Trinitrotoluene	227 > 210			21135.303			MM-	11-Feb-10	09:55:57				
XIBLK13	34-dinitrotoluene	182 > 152			21135.303									
XIBLK13	26-dinitrotoluene	182 > 152			21135.303									
XIBLK13	24-dinitrotoluene	182 > 152			21135.303									
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.46	21135.303		21135.303	21135.303	bb			572.4720	114.5	14.5	2332.9
XIBLK13	2-Nitrotoluene	137 > 46			21135.303									
XIBLK13	4-Nitrotoluene	137 > 46			21135.303									
XIBLK13	3-Nitrotoluene	137 > 46			21135.303									
XIBLK13	PETN	361 > 62			21135.303									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 11-FEB-10 01:45

GEL Data File: EXP0208121a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	460.845
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	484.127
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208121a
Date: 11-Feb-2010
Time: 01:45:43
ID: XIBLK14
Vial: 1:1,A

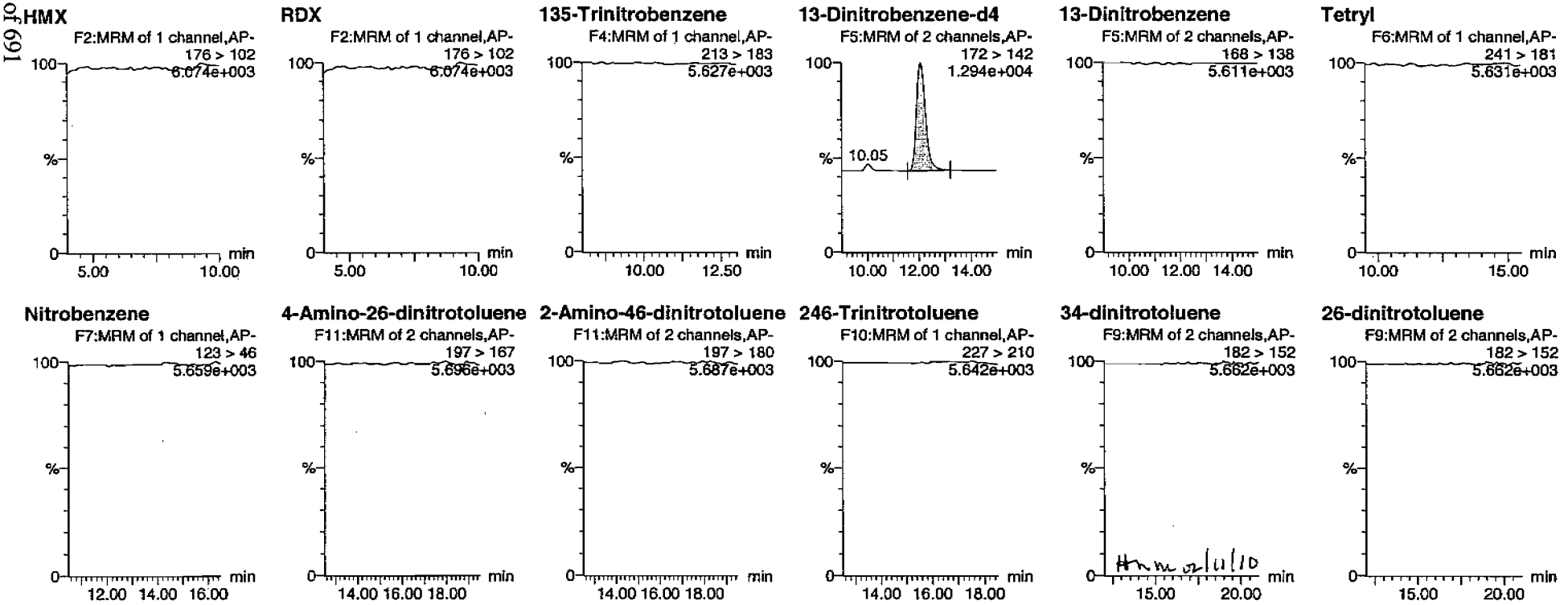

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

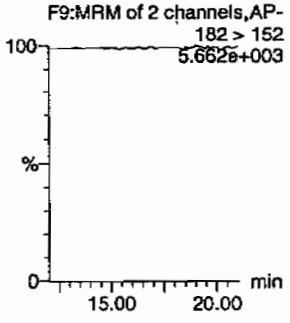

26-dinitrotoluene-d3

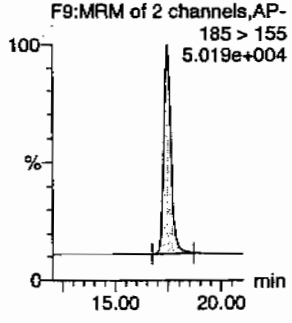

2-Nitrotoluene

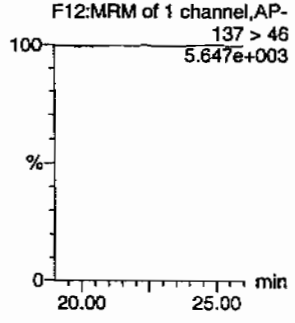

4-Nitrotoluene

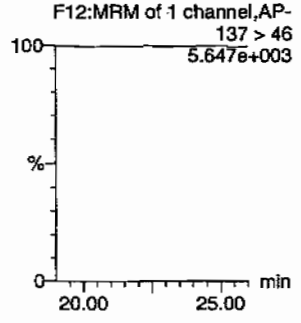

3-Nitrotoluene

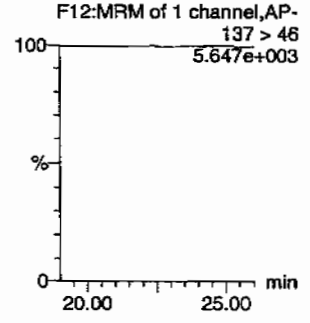

PETN

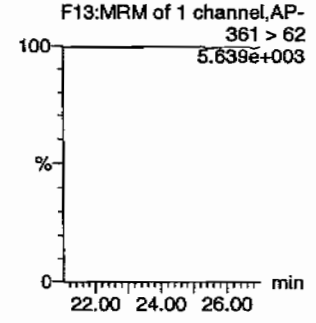

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK14	HMX	176 > 102			2962.838									
XIBLK14	RDX	176 > 102			2962.838									
XIBLK14	135-Trinitrobenzene	213 > 183			2962.838									
XIBLK14	13-Dinitrobenzene-d4	172 > 142	12.07	2962.838		2962.838	2962.838	bb			460.8446	92.2	-7.8	93.8
XIBLK14	13-Dinitrobenzene	168 > 138			2962.838									
XIBLK14	Tetryl	241 > 181			2962.838									
XIBLK14	Nitrobenzene	123 > 46			2962.838									
XIBLK14	4-Amino-26-dinitrotoluene	197 > 167			17873.645									
XIBLK14	2-Amino-46-dinitrotoluene	197 > 180			17873.645									
XIBLK14	246-Trinitrotoluene	227 > 210			17873.645									
XIBLK14	34-dinitrotoluene	182 > 152			17873.645									
XIBLK14	26-dinitrotoluene	182 > 152			17873.645									
XIBLK14	24-dinitrotoluene	182 > 152			17873.645									
XIBLK14	26-dinitrotoluene-d3	185 > 155	17.46	17873.645		17873.645	17873.645	bb			484.1266	96.8	-3.2	1654.2
XIBLK14	2-Nitrotoluene	137 > 46			17873.645									
XIBLK14	4-Nitrotoluene	137 > 46			17873.645									
XIBLK14	3-Nitrotoluene	137 > 46			17873.645									
XIBLK14	PETN	361 > 62			17873.645									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 11-FEB-10 08:09

GEL Data File: EXP0208134a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	574.283
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	594.383
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208134a
Date: 11-Feb-2010
Time: 08:09:15
ID: XIBLK15
Vial: 1:1,A

MATT 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.112e+003

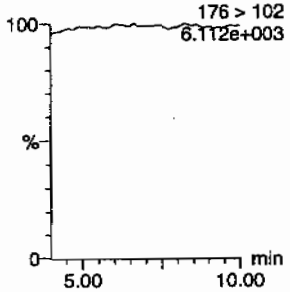

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.112e+003

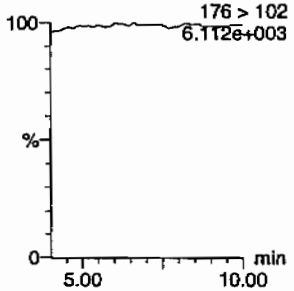

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.845e+003

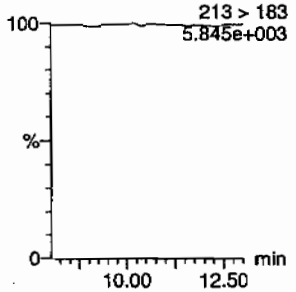

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.485e+004

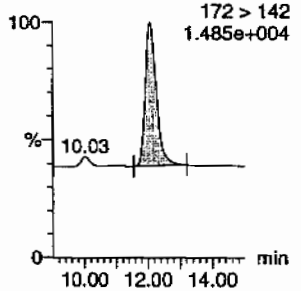

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.877e+003

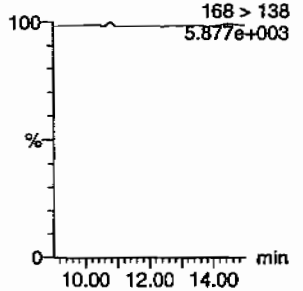

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.850e+003

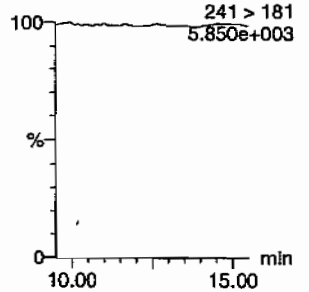

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.881e+003

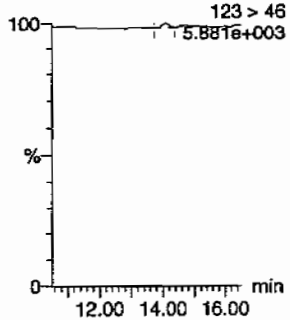

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.948e+003

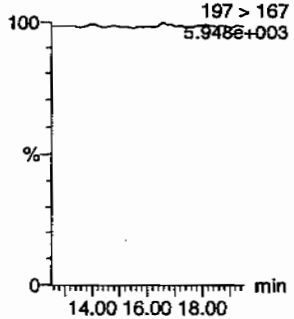

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.952e+003

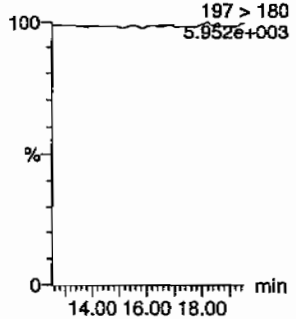

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.871e+003

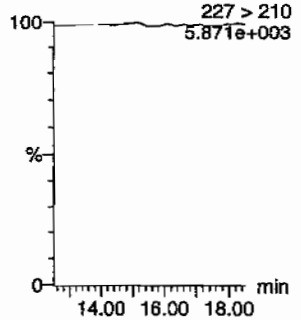

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.852e+003

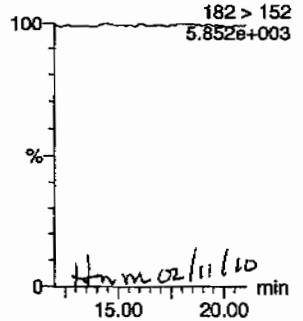

HMM 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.852e+003

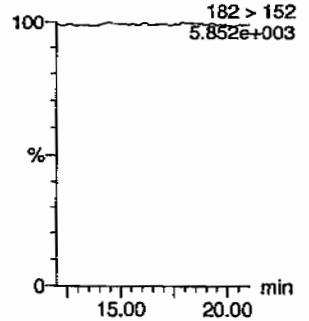

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

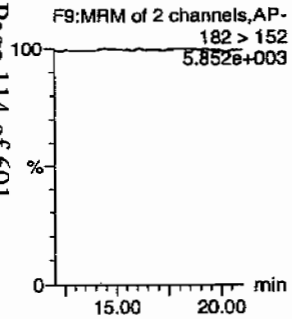

26-dinitrotoluene-d3

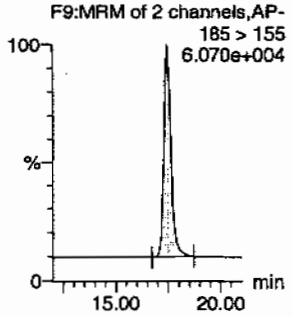

2-Nitrotoluene

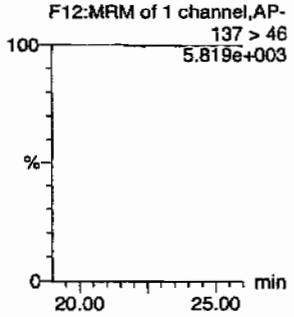

4-Nitrotoluene

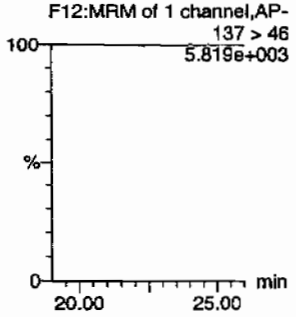

3-Nitrotoluene

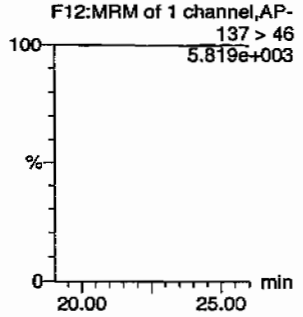

PETN

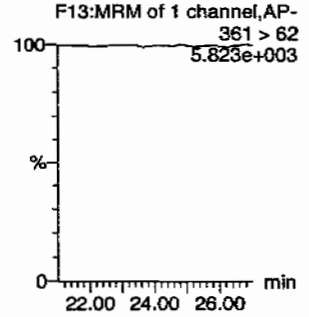

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK15	HMX	176 > 102			3692.150									
XIBLK15	RDX	176 > 102			3692.150									
XIBLK15	135-Trinitrobenzene	213 > 183			3692.150									
XIBLK15	13-Dinitrobenzene-d4	172 > 142	12.07	3692.150		3692.150	3692.150	bb			574.2830	114.9	14.9	272.1
XIBLK15	13-Dinitrobenzene	168 > 138			3692.150									
XIBLK15	Tetryl	241 > 181			3692.150									
XIBLK15	Nitrobenzene	123 > 46			3692.150			MM-	11-Feb-10	09:26:34				
XIBLK15	4-Amino-26-dinitrotoluene	197 > 167			21944.232									
XIBLK15	2-Amino-46-dinitrotoluene	197 > 180			21944.232									
XIBLK15	246-Trinitrotoluene	227 > 210			21944.232									
XIBLK15	34-dinitrotoluene	182 > 152			21944.232									
XIBLK15	26-dinitrotoluene	182 > 152			21944.232									
XIBLK15	24-dinitrotoluene	182 > 152			21944.232									
XIBLK15	26-dinitrotoluene-d3	185 > 155	17.46	21944.232		21944.232	21944.232	bb			594.3827	118.9	18.9	1682.3
XIBLK15	2-Nitrotoluene	137 > 46			21944.232									
XIBLK15	4-Nitrotoluene	137 > 46			21944.232									
XIBLK15	3-Nitrotoluene	137 > 46			21944.232									
XIBLK15	PETN	361 > 62			21944.232									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 11-FEB-10 14:03

GEL Data File: EXP0208146a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	571.158
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	588.501
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208146a
Date: 11-Feb-2010
Time: 14:03:38
ID: XIBLK16
Vial: 1:1,A

MM 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.779e+003

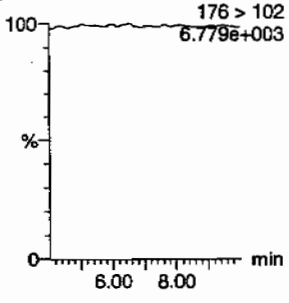

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.779e+003

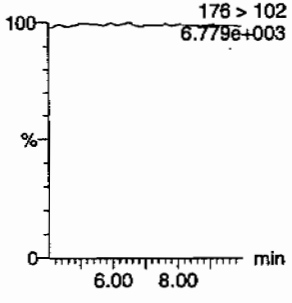

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.570e+003

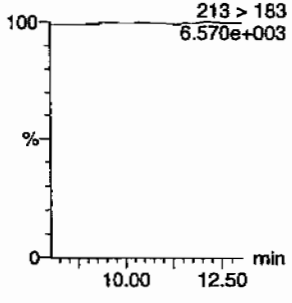

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.563e+004

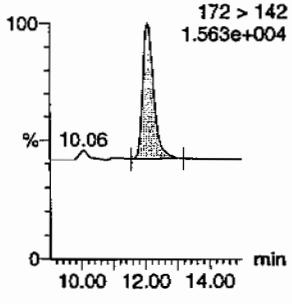

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.595e+003

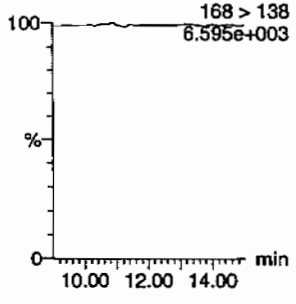

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.563e+003

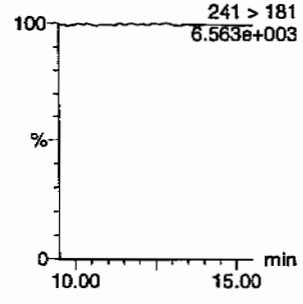

Nitrobenzene
F7:MRM of 1 channel,AP-
10.84
123 > 46
6.685e+003

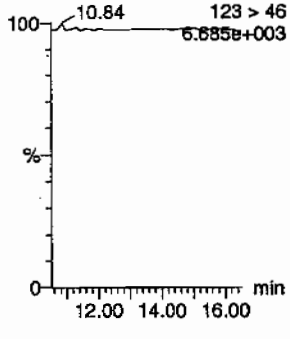

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.636e+003

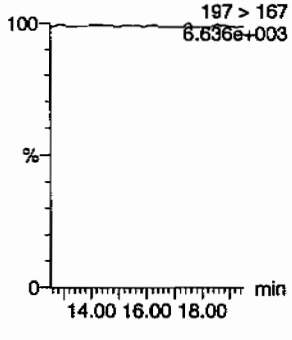

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.631e+003

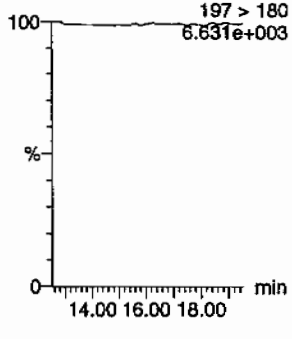

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.570e+003

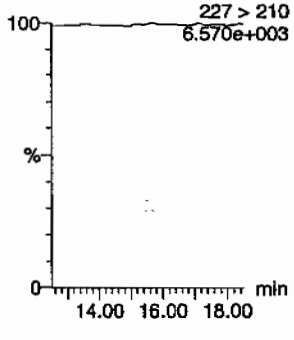

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.581e+003

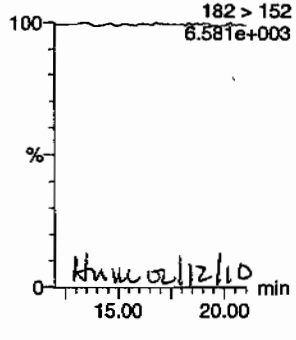

HMW 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.581e+003

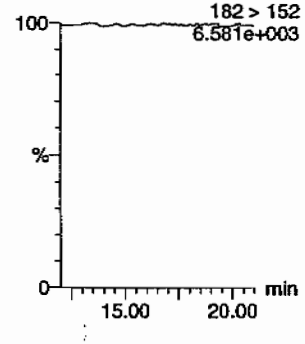

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

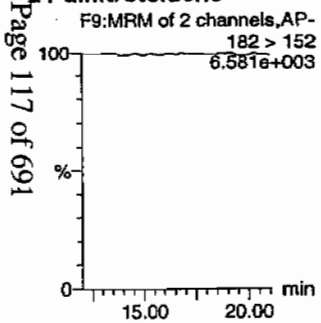

26-dinitrotoluene-d3

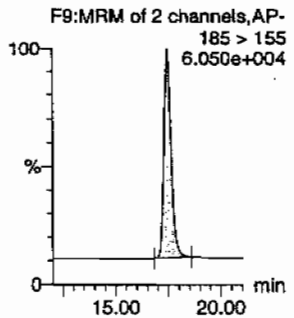

2-Nitrotoluene

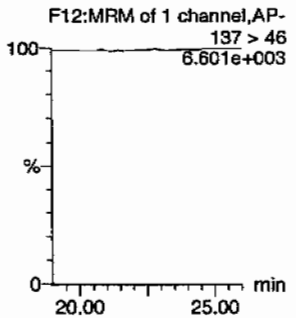

4-Nitrotoluene

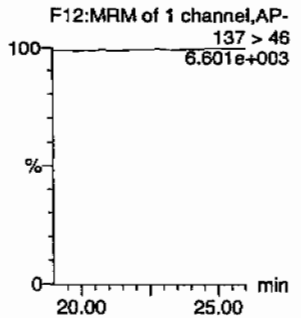

3-Nitrotoluene

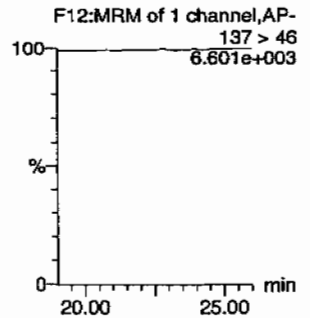

PETN

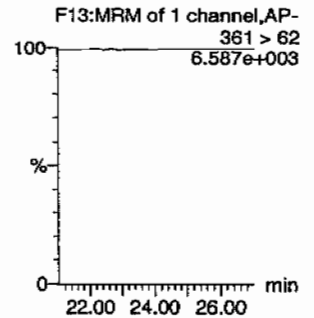

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK16	HMX	176 > 102			3672.062									
XIBLK16	RDX	176 > 102			3672.062									
XIBLK16	135-Trinitrobenzene	213 > 183			3672.062									
XIBLK16	13-Dinitrobenzene-d4	172 > 142	12.07	3672.062		3672.062	3672.062	bb			571.1585	114.2	14.2	399.7
XIBLK16	13-Dinitrobenzene	168 > 138			3672.062									
XIBLK16	Tetryl	241 > 181			3672.062									
XIBLK16	Nitrobenzene	123 > 46			3672.062									
XIBLK16	4-Amino-26-dinitrotoluene	197 > 167			21727.074									
XIBLK16	2-Amino-46-dinitrotoluene	197 > 180			21727.074									
XIBLK16	246-Trinitrotoluene	227 > 210			21727.074									
XIBLK16	34-dinitrotoluene	182 > 152			21727.074									
XIBLK16	26-dinitrotoluene	182 > 152			21727.074									
XIBLK16	24-dinitrotoluene	182 > 152			21727.074									
XIBLK16	26-dinitrotoluene-d3	185 > 155	17.46	21727.074		21727.074	21727.074	bb			588.5008	117.7	17.7	2034.5
XIBLK16	2-Nitrotoluene	137 > 46			21727.074									
XIBLK16	4-Nitrotoluene	137 > 46			21727.074									
XIBLK16	3-Nitrotoluene	137 > 46			21727.074									
XIBLK16	PETN	361 > 62			21727.074									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 11–FEB–10 18:58

GEL Data File: EXP0208156a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	492.787
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	564
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208156a
Date: 11-Feb-2010
Time: 18:58:59
ID: XIBLK17
Vial: 1:1,A

MATT 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.946e+003

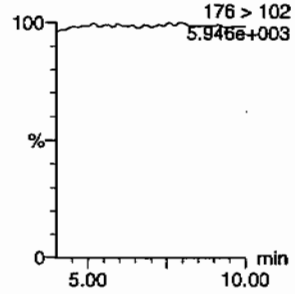

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.945e+003

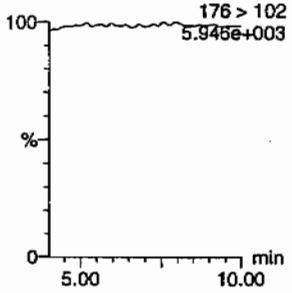

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.733e+003

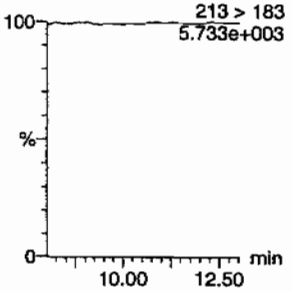

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.320e+004

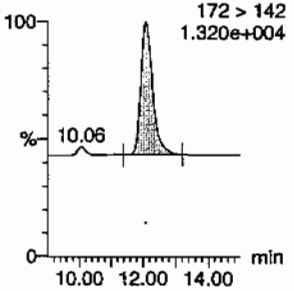

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.746e+003

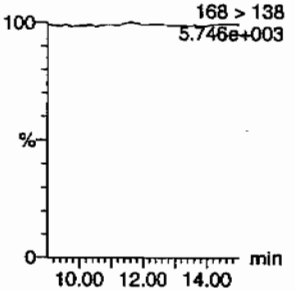

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.768e+003

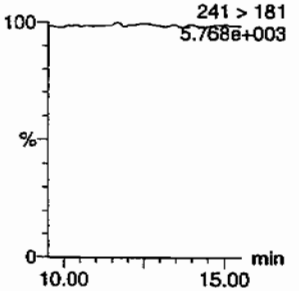

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.777e+003

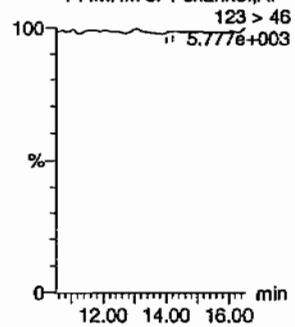

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.844e+003

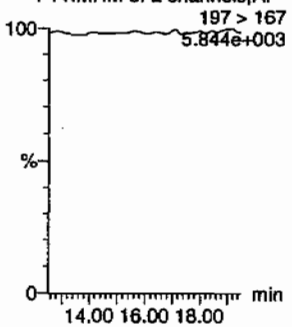

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.832e+003

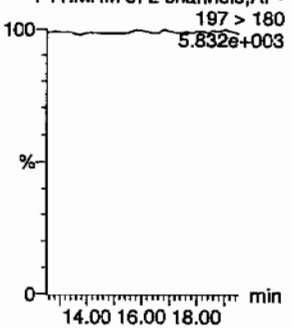

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.733e+003

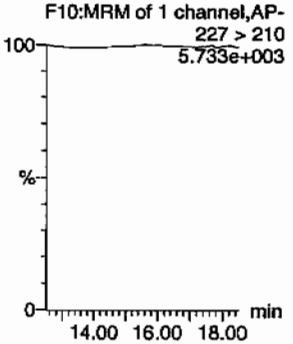

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

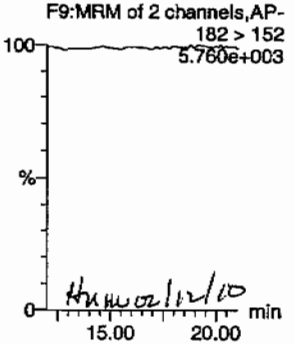

HMW 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

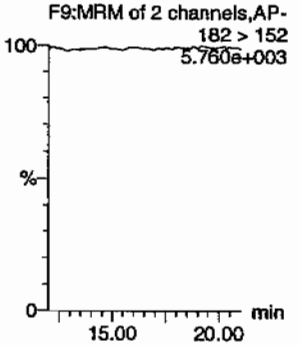

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

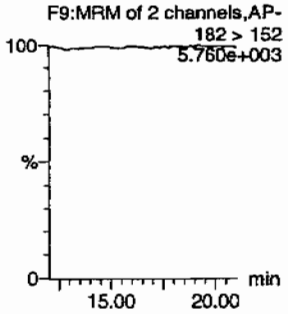

26-dinitrotoluene-d3

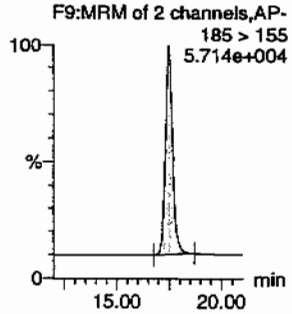

2-Nitrotoluene

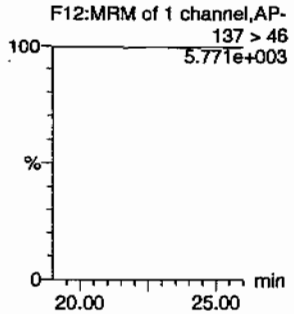

4-Nitrotoluene

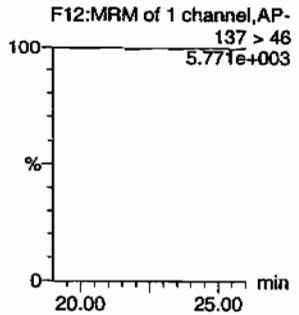

3-Nitrotoluene

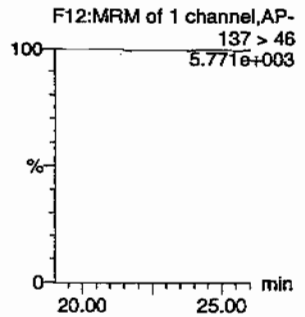

PETN

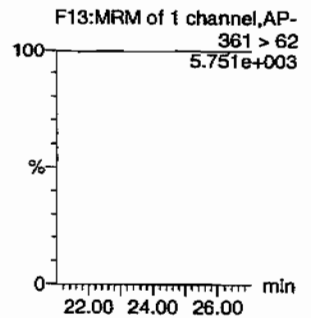

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK17	HMX	176 > 102			3168.198									
XIBLK17	RDX	176 > 102			3168.198									
XIBLK17	135-Trinitrobenzene	213 > 183			3168.198									
XIBLK17	13-Dinitrobenzene-d4	172 > 142	12.10	3168.198		3168.198	3168.198	bb			492.7867	98.6	-1.4	174.2
XIBLK17	13-Dinitrobenzene	168 > 138			3168.198									
XIBLK17	Tetryl	241 > 181			3168.198									
XIBLK17	Nitrobenzene	123 > 46			3168.198			MM-	12-Feb-10	07:57:31				
XIBLK17	4-Amino-26-dinitrotoluene	197 > 167			20822.535									
XIBLK17	2-Amino-46-dinitrotoluene	197 > 180			20822.535									
XIBLK17	246-Trinitrotoluene	227 > 210			20822.535									
XIBLK17	34-dinitrotoluene	182 > 152			20822.535									
XIBLK17	26-dinitrotoluene	182 > 152			20822.535									
XIBLK17	24-dinitrotoluene	182 > 152			20822.535									
XIBLK17	26-dinitrotoluene-d3	185 > 155	17.48	20822.535		20822.535	20822.535	bb			564.0004	112.8	12.8	2100.9
XIBLK17	2-Nitrotoluene	137 > 46			20822.535									
XIBLK17	4-Nitrotoluene	137 > 46			20822.535									
XIBLK17	3-Nitrotoluene	137 > 46			20822.535									
XIBLK17	PETN	361 > 62			20822.535									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 12-FEB-10 01:22

GEL Data File: EXP0208169a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	440.022
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	437.531
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208169a
Date: 12-Feb-2010
Time: 01:22:24
ID: XIBLK18
Vial: 1:1,A

MAP 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.815e+003

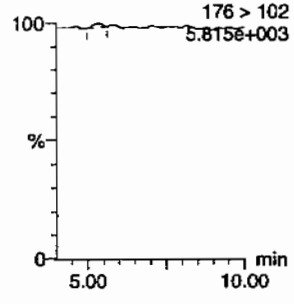

RDX
F2:MRM of 1 channel,AP-
5.35
176 > 102
5.815e+003

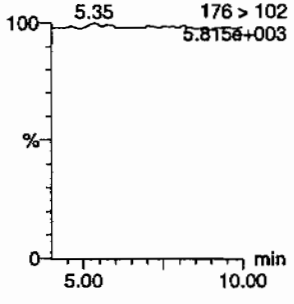

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.653e+003

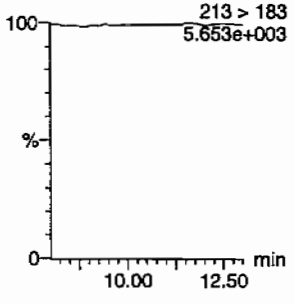

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.238e+004

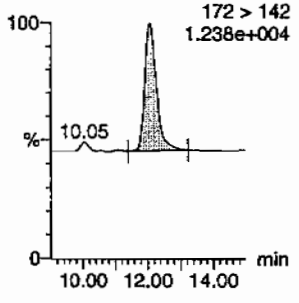

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.653e+003

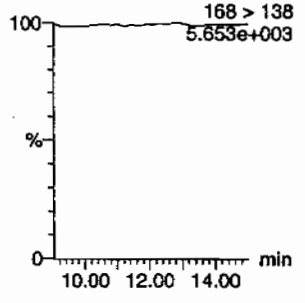

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.651e+003

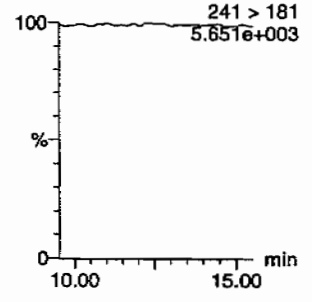

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.657e+003

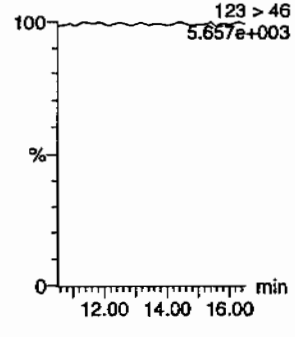

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.699e+003

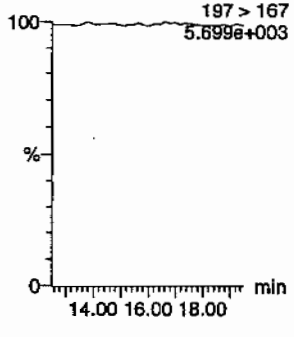

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.697e+003

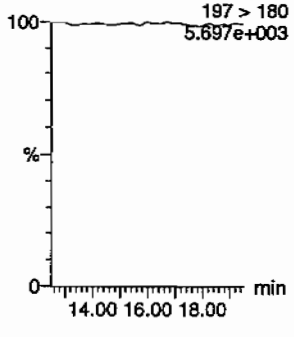

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.660e+003

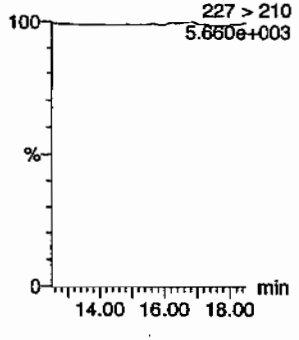

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.657e+003

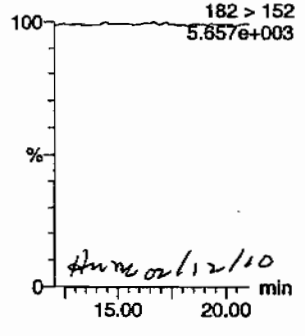

Anne 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.657e+003

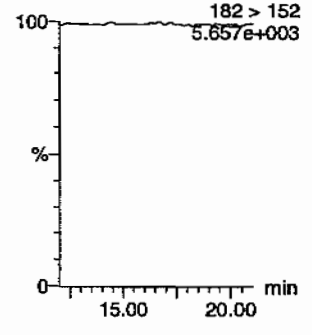

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

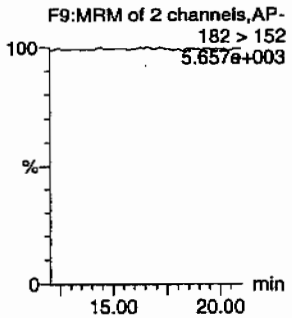

26-dinitrotoluene-d3

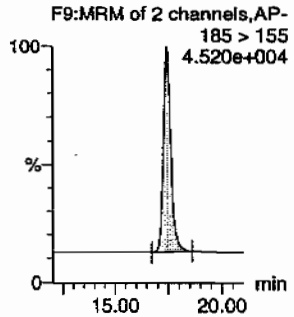

2-Nitrotoluene

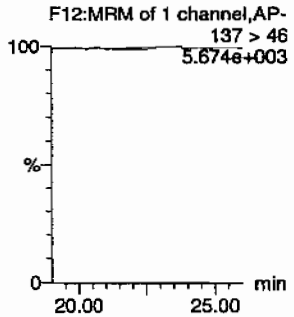

4-Nitrotoluene

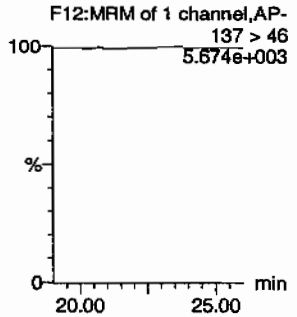

3-Nitrotoluene

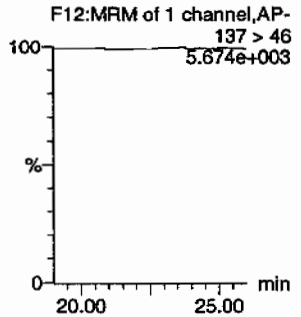

PETN

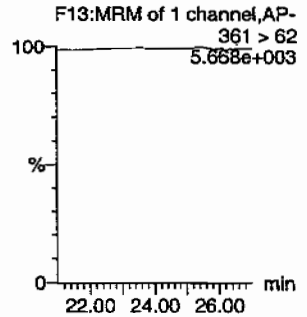

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	mg/mL	%Rec	%Dev	S/N
XIBLK18	HMX	176 > 102			2812.949			MM-	12-Feb-10	07:53:15				
XIBLK18	RDX	176 > 102			2812.949									
XIBLK18	135-Trinitrobenzene	213 > 183			2812.949									
XIBLK18	13-Dinitrobenzene-d4	172 > 142	12.07	2812.949		2812.949	2812.949	bb			437.5306	87.5	-12.5	123.0
XIBLK18	13-Dinitrobenzene	168 > 138			2812.949									
XIBLK18	Tetryl	241 > 181			2812.949									
XIBLK18	Nitrobenzene	123 > 46			2812.949									
XIBLK18	4-Amino-26-dinitrotoluene	197 > 167			16245.318									
XIBLK18	2-Amino-46-dinitrotoluene	197 > 180			16245.318									
XIBLK18	246-Trinitrotoluene	227 > 210			16245.318									
XIBLK18	34-dinitrotoluene	182 > 152			16245.318									
XIBLK18	26-dinitrotoluene	182 > 152			16245.318									
XIBLK18	24-dinitrotoluene	182 > 152			16245.318									
XIBLK18	26-dinitrotoluene-d3	185 > 155	17.46	16245.318		16245.318	16245.318	bb			440.0216	88.0	-12.0	1126.2
XIBLK18	2-Nitrotoluene	137 > 46			16245.318									
XIBLK18	4-Nitrotoluene	137 > 46			16245.318									
XIBLK18	3-Nitrotoluene	137 > 46			16245.318									
XIBLK18	PETN	361 > 62			16245.318									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 12-FEB-10 06:47

GEL Data File: EXP0208180a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	487.474
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	475.411
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208180a
Date: 12-Feb-2010
Time: 06:47:03
ID: XIBLK19
Vial: 1:1,A

MAP 2/12/10

HMX

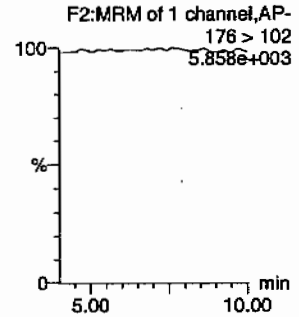

RDX

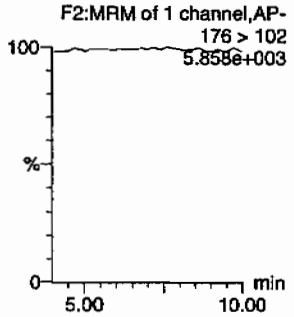

135-Trinitrobenzene

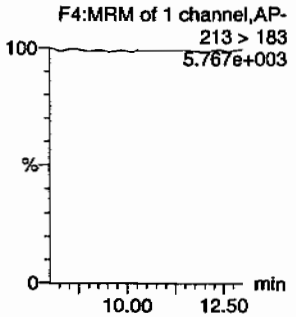

13-Dinitrobenzene-d4

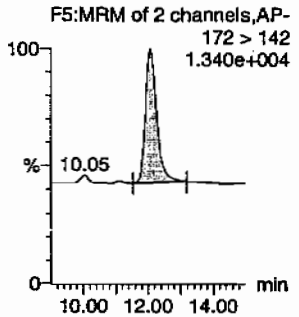

13-Dinitrobenzene

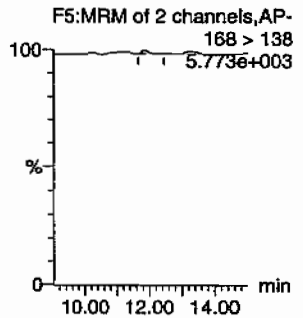

Tetryl

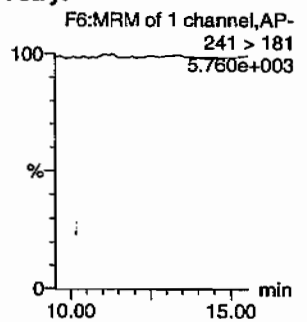

Nitrobenzene

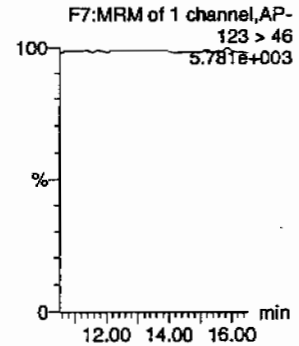

4-Amino-26-dinitrotoluene

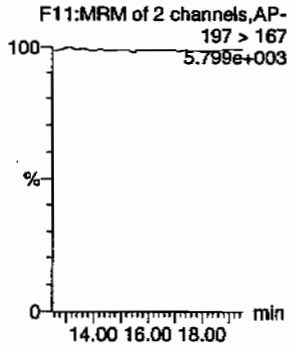

2-Amino-46-dinitrotoluene

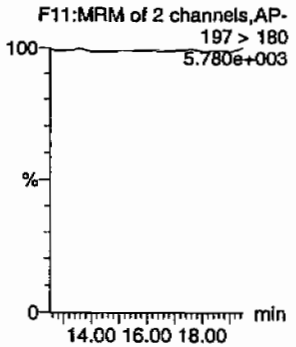

246-Trinitrotoluene

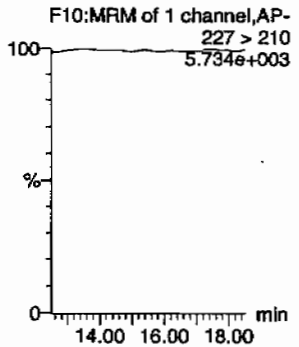

34-dinitrotoluene

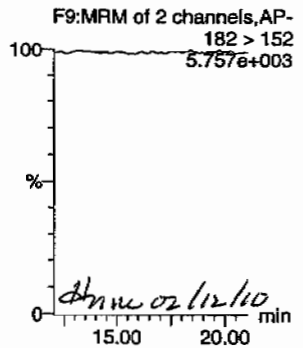

dhm 02/12/10

26-dinitrotoluene

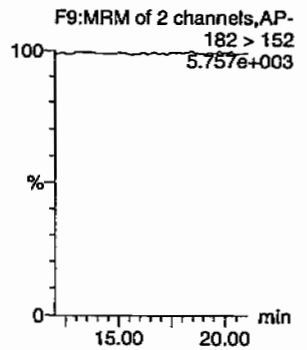

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

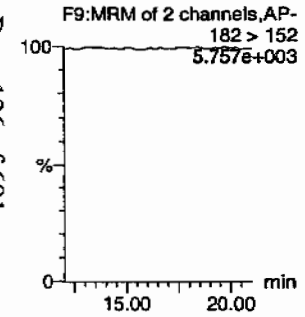

26-dinitrotoluene-d3

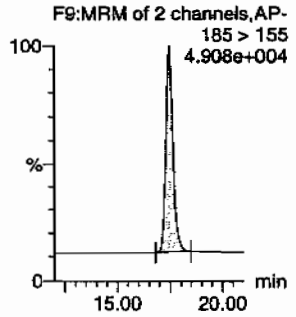

2-Nitrotoluene

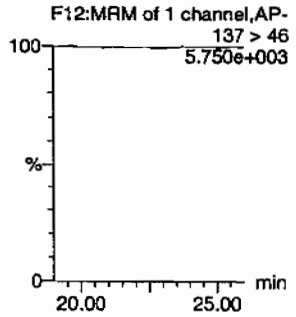

4-Nitrotoluene

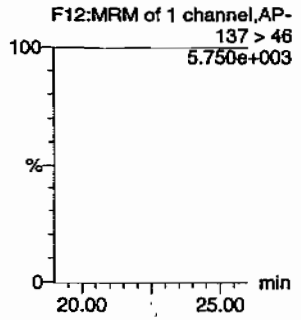

3-Nitrotoluene

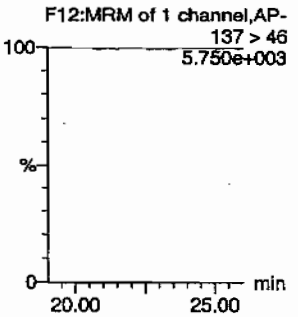

PETN

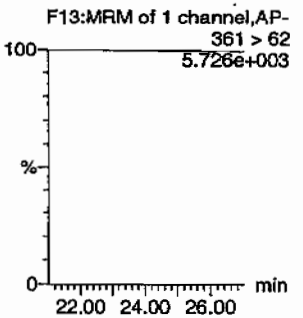

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK19	HMX	176 > 102			3134.045									
XIBLK19	RDX	176 > 102			3134.045									
XIBLK19	135-Trinitrobenzene	213 > 183			3134.045									
XIBLK19	13-Dinitrobenzene-d4	172 > 142	12.07	3134.045		3134.045	3134.045	bb			487.4744	97.5	-2.5	275.0
XIBLK19	13-Dinitrobenzene	168 > 138			3134.045			MM-	12-Feb-10	07:55:22				
XIBLK19	Tetryl	241 > 181			3134.045									
XIBLK19	Nitrobenzene	123 > 46			3134.045									
XIBLK19	4-Amino-26-dinitrotoluene	197 > 167			17551.871									
XIBLK19	2-Amino-46-dinitrotoluene	197 > 180			17551.871									
XIBLK19	246-Trinitrotoluene	227 > 210			17551.871									
XIBLK19	34-dinitrotoluene	182 > 152			17551.871									
XIBLK19	26-dinitrotoluene	182 > 152			17551.871									
XIBLK19	24-dinitrotoluene	182 > 152			17551.871									
XIBLK19	26-dinitrotoluene-d3	185 > 155	17.47	17551.871		17551.871	17551.871	bb			475.4110	95.1	-4.9	1700.9
XIBLK19	2-Nitrotoluene	137 > 46			17551.871									
XIBLK19	4-Nitrotoluene	137 > 46			17551.871									
XIBLK19	3-Nitrotoluene	137 > 46			17551.871									
XIBLK19	PETN	361 > 62			17551.871									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK20

Analysis Date: 12–FEB–10 13:11

GEL Data File: EXP0208193a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	497.184
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	467.617
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208193a
Date: 12-Feb-2010
Time: 13:11:28
ID: XIBLK20
Vial: 1:1,A

HMT 2/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.810e+003

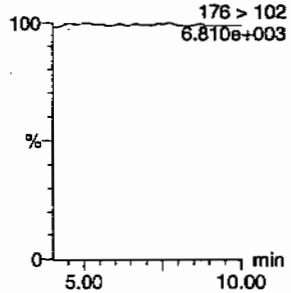

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.810e+003

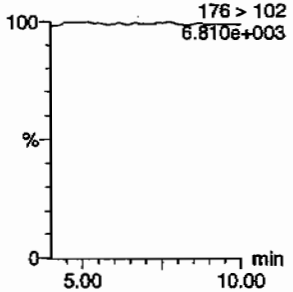

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.698e+003

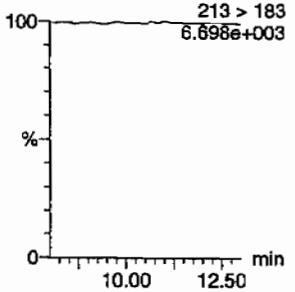

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.428e+004

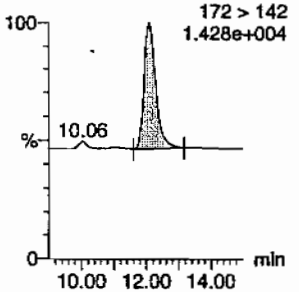

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.688e+003

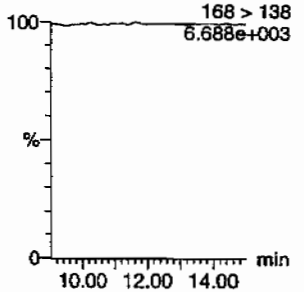

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.686e+003

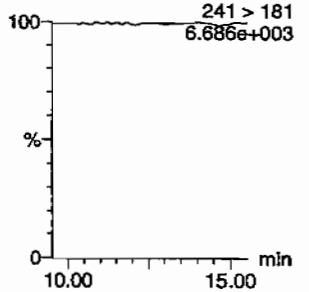

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.699e+003

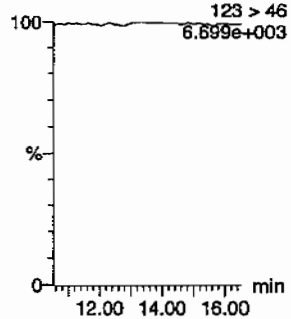

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.749e+003

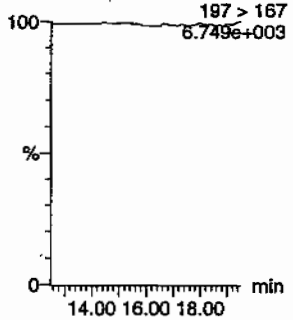

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.783e+003

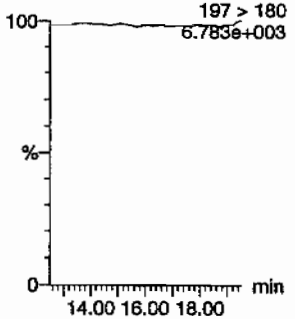

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.688e+003

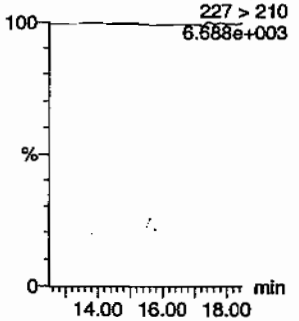

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.715e+003

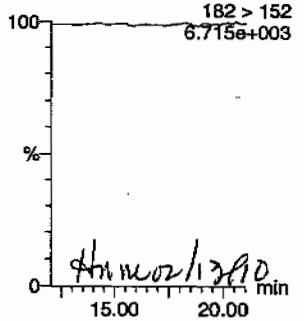

HMM 02/13/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.715e+003

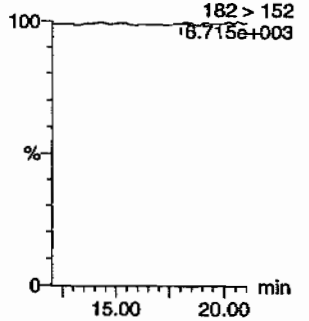

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

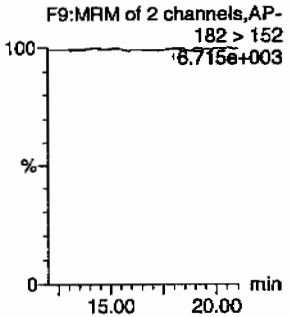

26-dinitrotoluene-d3

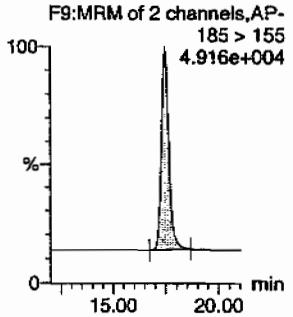

2-Nitrotoluene

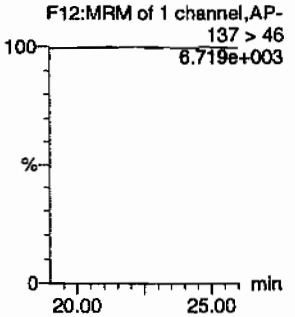

4-Nitrotoluene

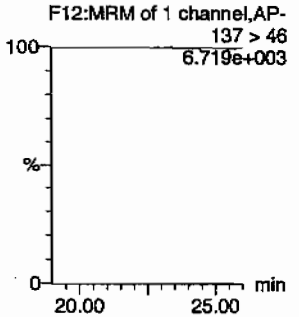

3-Nitrotoluene

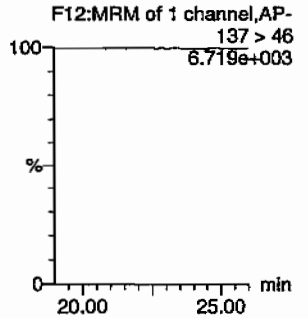

PETN

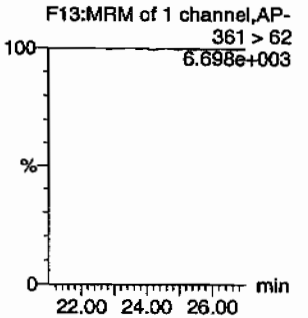

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK20	HMX	176 > 102			3196.466									
XIBLK20	RDX	176 > 102			3196.466									
XIBLK20	135-Trinitrobenzene	213 > 183			3196.466									
XIBLK20	13-Dinitrobenzene-d4	172 > 142	12.10	3196.466		3196.466	3196.466	bb			497.1835	99.4	-0.6	280.3
XIBLK20	13-Dinitrobenzene	168 > 138			3196.466									
XIBLK20	Tetryl	241 > 181			3196.466									
XIBLK20	Nitrobenzene	123 > 46			3196.466									
XIBLK20	4-Amino-26-dinitrotoluene	197 > 167			17264.107									
XIBLK20	2-Amino-46-dinitrotoluene	197 > 180			17264.107									
XIBLK20	246-Trinitrotoluene	227 > 210			17264.107									
XIBLK20	34-dinitrotoluene	182 > 152			17264.107									
XIBLK20	26-dinitrotoluene	182 > 152			17264.107			MM-	13-Feb-10	09:24:40				
XIBLK20	24-dinitrotoluene	182 > 152			17264.107			MM-	13-Feb-10	09:27:57				
XIBLK20	26-dinitrotoluene-d3	185 > 155	17.47	17264.107		17264.107	17264.107	bb			467.6166	93.5	-6.5	1336.7
XIBLK20	2-Nitrotoluene	137 > 46			17264.107									
XIBLK20	4-Nitrotoluene	137 > 46			17264.107									
XIBLK20	3-Nitrotoluene	137 > 46			17264.107									
XIBLK20	PETN	361 > 62			17264.107									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK21

Analysis Date: 12-FEB-10 19:05

GEL Data File: EXP0208205a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	437.64
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	490.15
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208205a
Date: 12-Feb-2010
Time: 19:05:45
ID: XIBLK21
Vial: 1:1,A

MM 2/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.720e+003

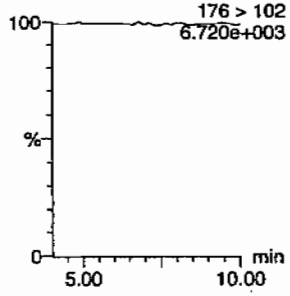

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.720e+003

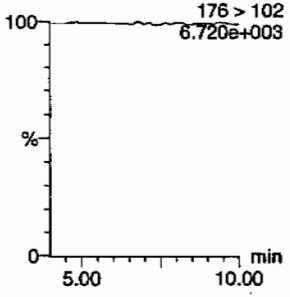

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.606e+003

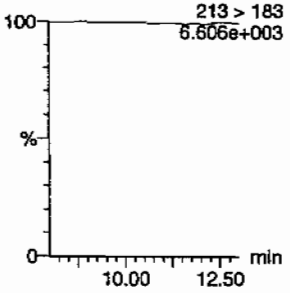

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.340e+004

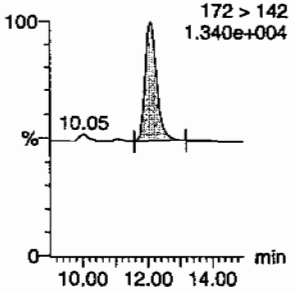

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.594e+003

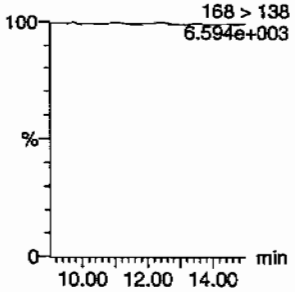

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.601e+003

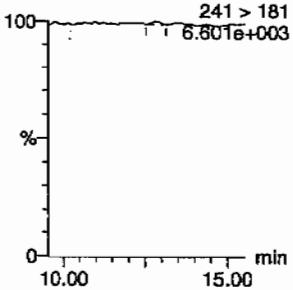

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.597e+003

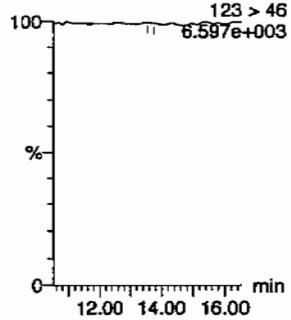

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.639e+003

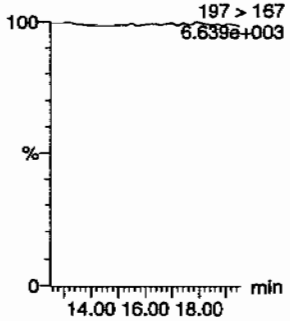

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.626e+003

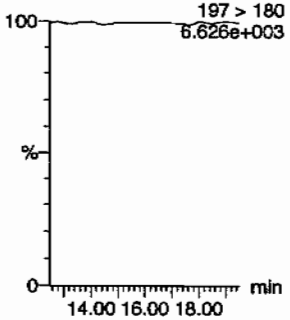

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.585e+003

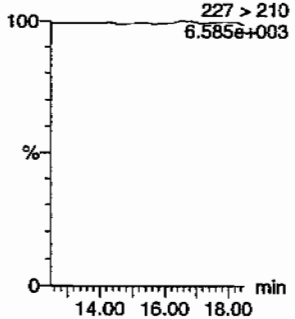

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.592e+003

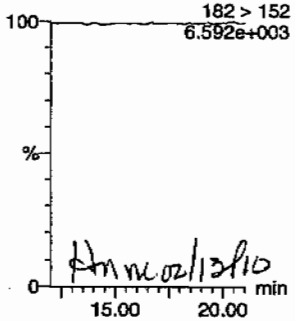

HM mc 02/13/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.592e+003

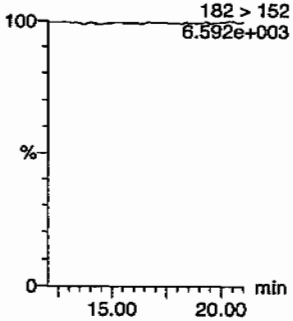

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

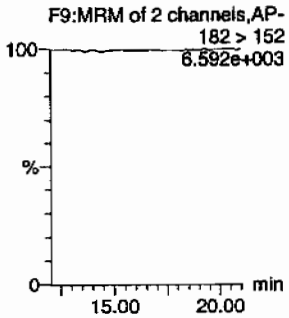

26-dinitrotoluene-d3

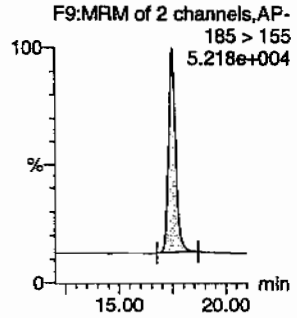

2-Nitrotoluene

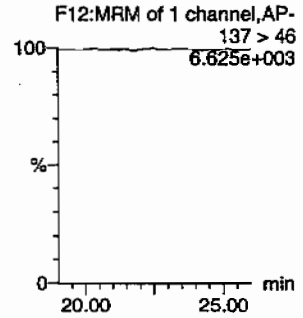

4-Nitrotoluene

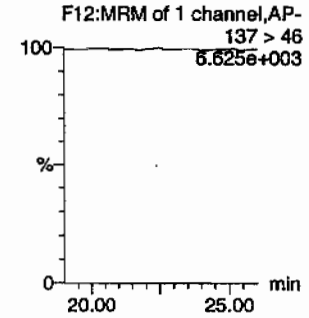

3-Nitrotoluene

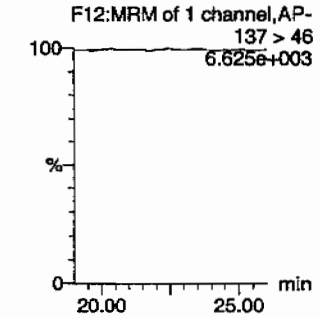

PETN

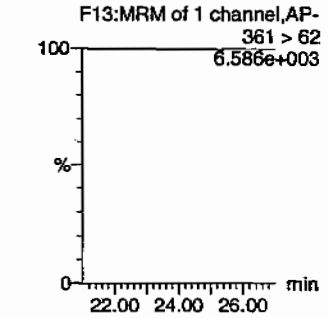

ID	Name	Trace	RT	Area	%IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK21	HMX	176 > 102			2813.650									
XIBLK21	RDX	176 > 102			2813.650									
XIBLK21	135-Trinitrobenzene	213 > 183			2813.650									
XIBLK21	13-Dinitrobenzene-d4	172 > 142	12.07	2813.650		2813.650	2813.650	bb			437.6397	87.5	-12.5	264.4
XIBLK21	13-Dinitrobenzene	168 > 138			2813.650									
XIBLK21	Tetryl	241 > 181			2813.650			MM-	13-Feb-10	09:17:32				
XIBLK21	Nitrobenzene	123 > 46			2813.650			MM-	13-Feb-10	09:18:58				
XIBLK21	4-Amino-26-dinitrotoluene	197 > 167			18096.025									
XIBLK21	2-Amino-46-dinitrotoluene	197 > 180			18096.025									
XIBLK21	246-Trinitrotoluene	227 > 210			18096.025									
XIBLK21	34-dinitrotoluene	182 > 152			18096.025									
XIBLK21	26-dinitrotoluene	182 > 152			18096.025									
XIBLK21	24-dinitrotoluene	182 > 152			18096.025									
XIBLK21	26-dinitrotoluene-d3	185 > 155	17.47	18096.025		18096.025	18096.025	bb			490.1500	98.0	-2.0	1864.4
XIBLK21	2-Nitrotoluene	137 > 46			18096.025									
XIBLK21	4-Nitrotoluene	137 > 46			18096.025									
XIBLK21	3-Nitrotoluene	137 > 46			18096.025									
XIBLK21	PETN	361 > 62			18096.025									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1432

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 13-FEB-10 12:34

GEL Data File: EXS02130010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	9.65
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Dan 2/15/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02130010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:34:10 PM

Modified: No

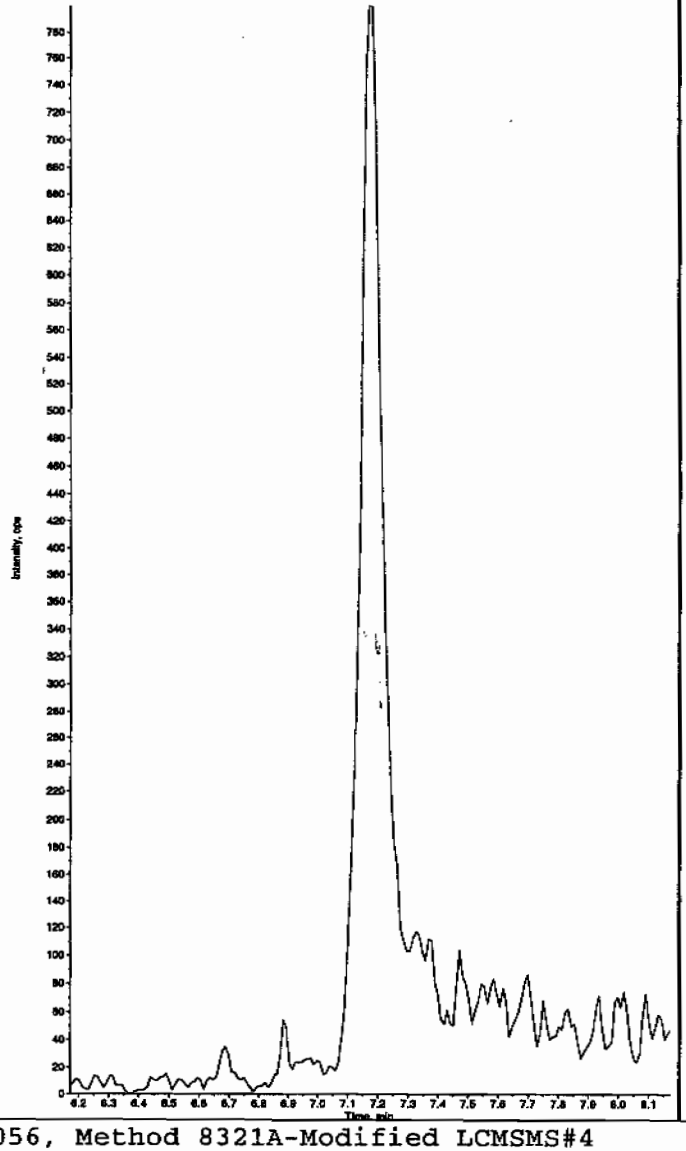

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02130010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:34:10 PM

Modified: No

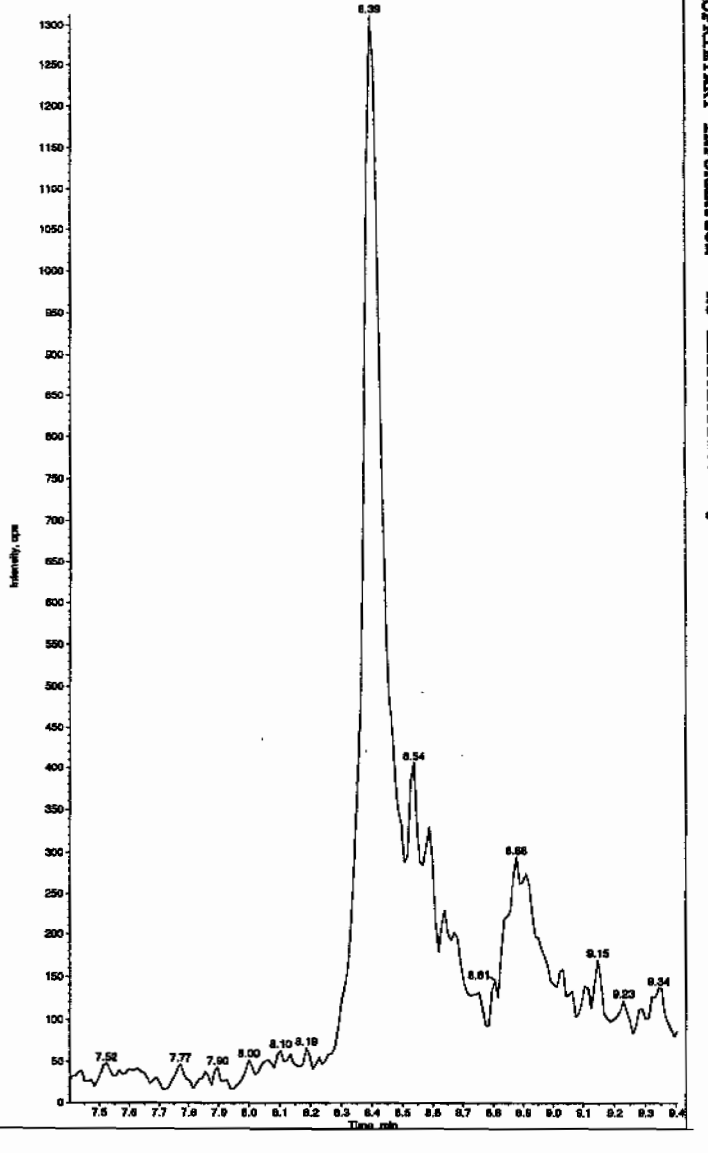

Hmm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02130010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:34:10 PM

Modified: No

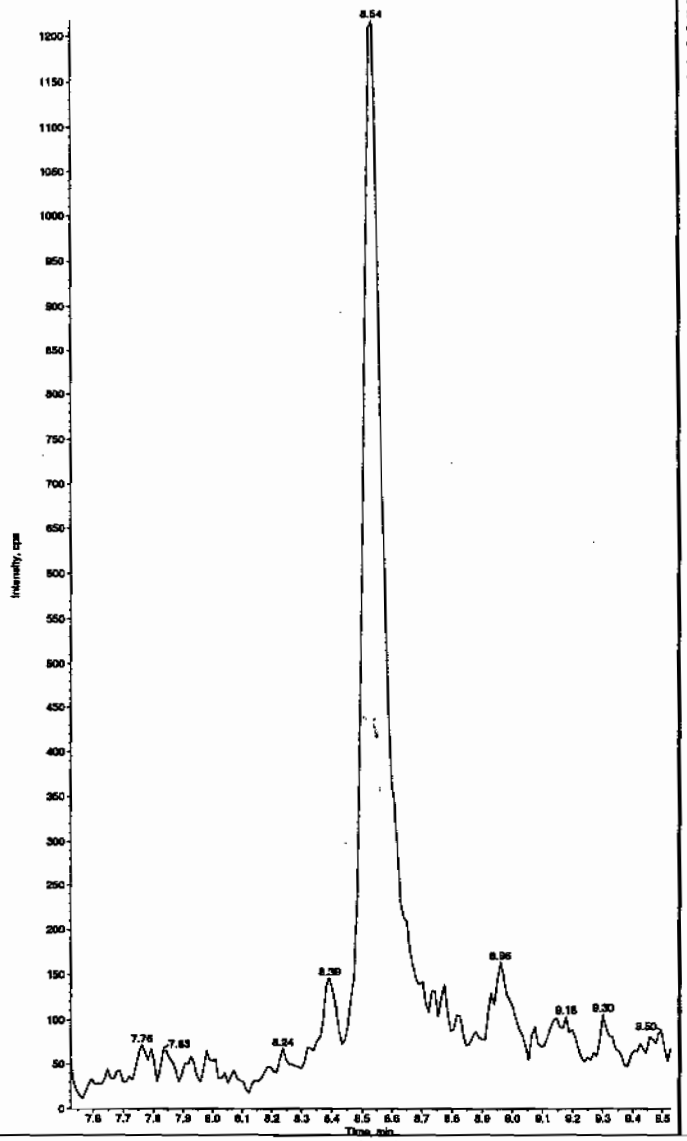

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02130010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:34:10 PM

Modified: No

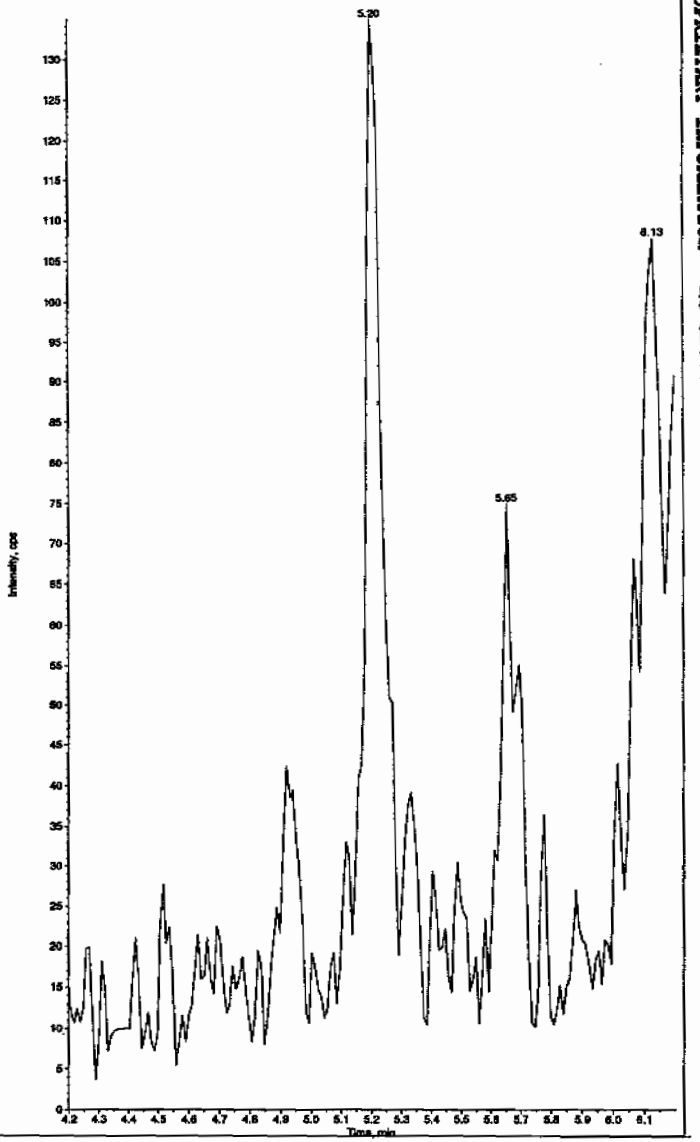

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02130010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:34:10 PM

Modified: No

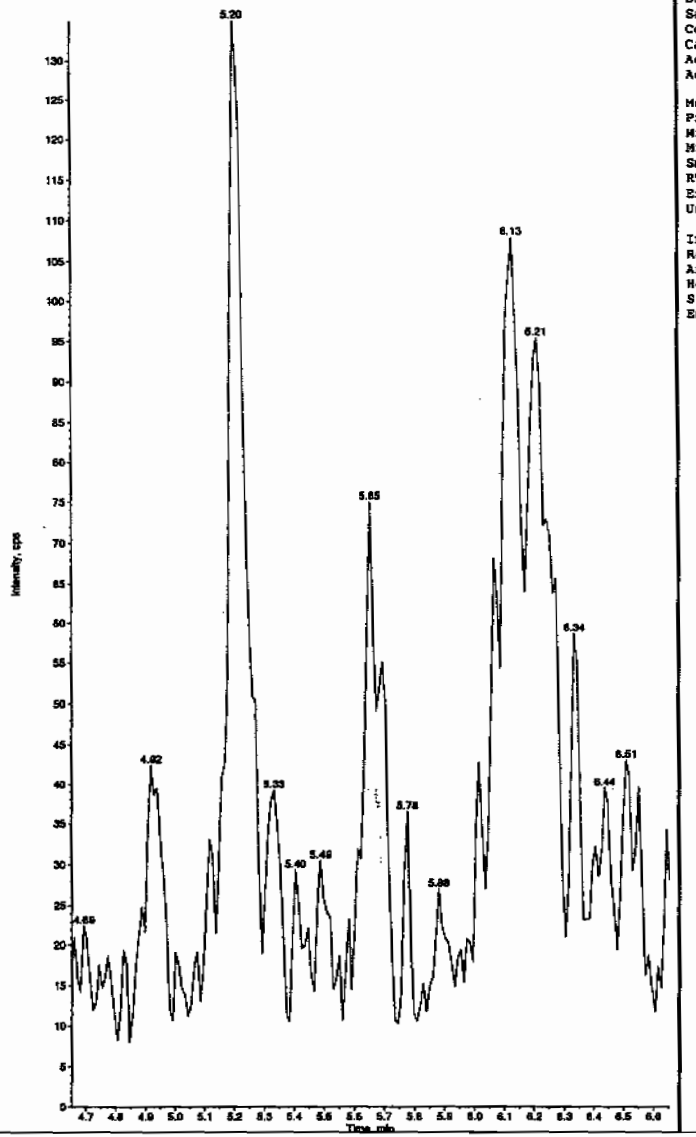

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02130010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 9.65 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:34:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.61e+005 counts
Height: 61272.419 cps
Start Time: 10.9 min
End Time: 11.3 min

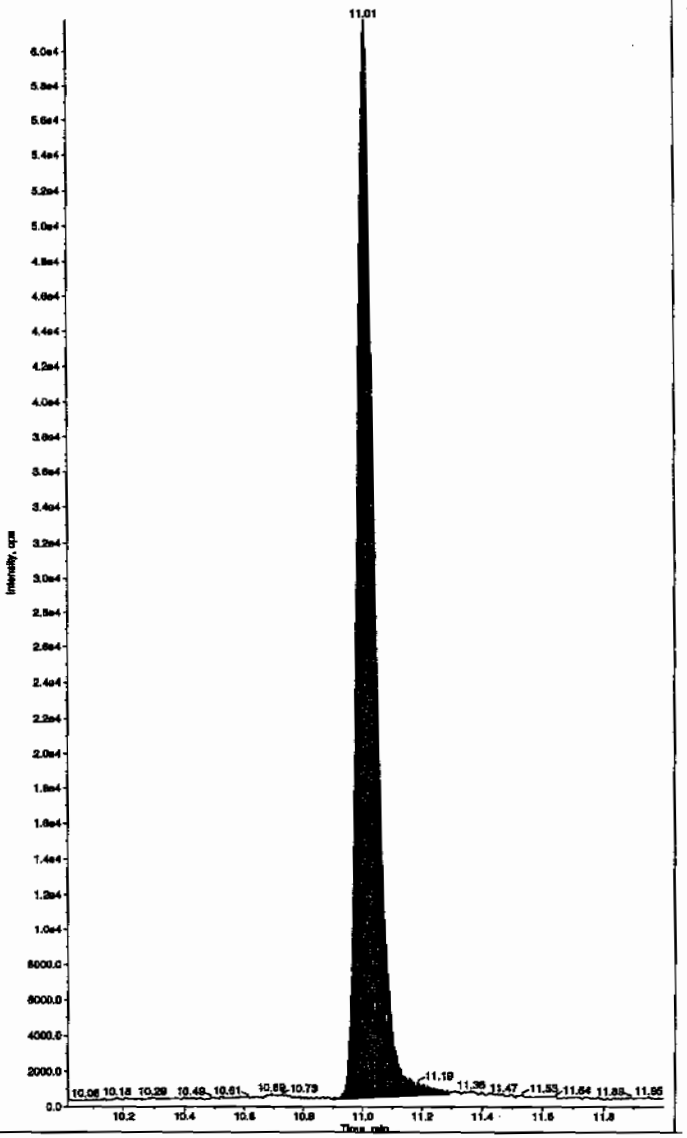

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 13–FEB–10 13:05

GEL Data File: EXS02130012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.76
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sen 2/18/10

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02130012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:05:35 PM

Modified: No

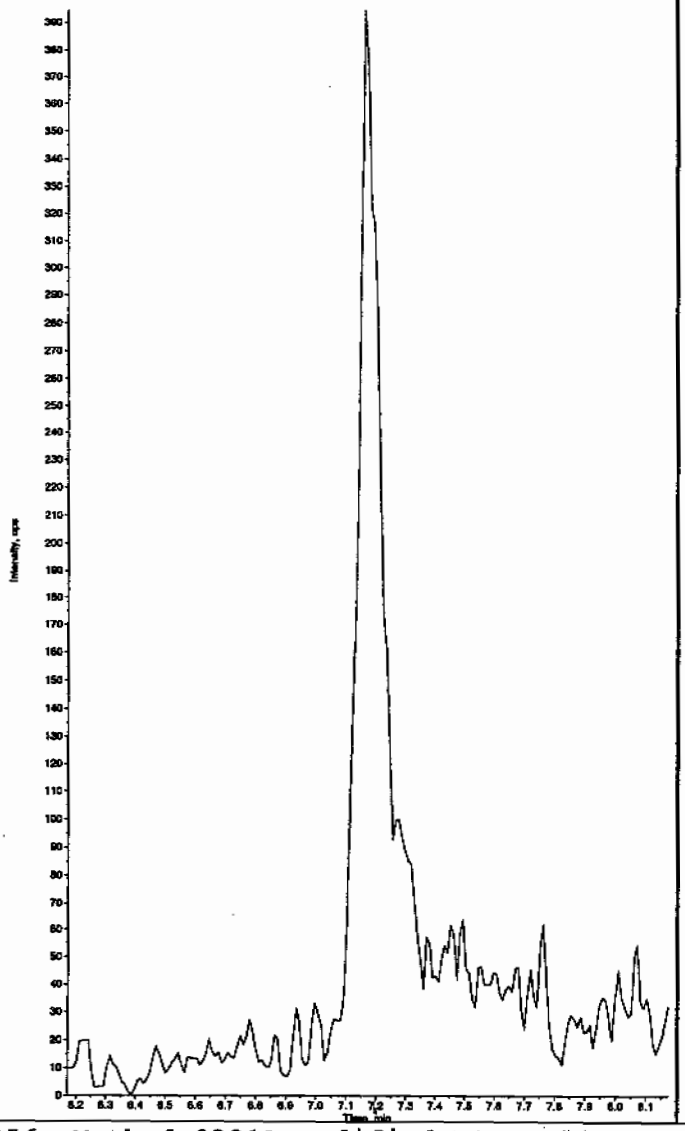

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02130012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:05:35 PM

Modified: No

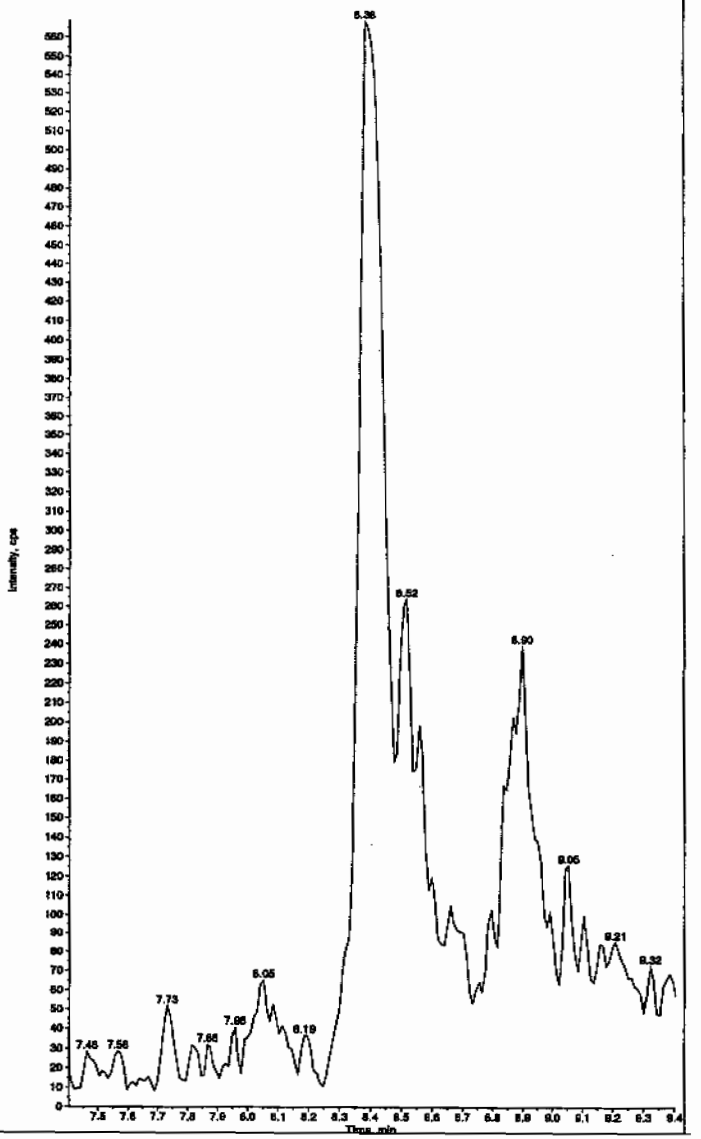

Hum 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02130012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:05:35 PM

Modified: No

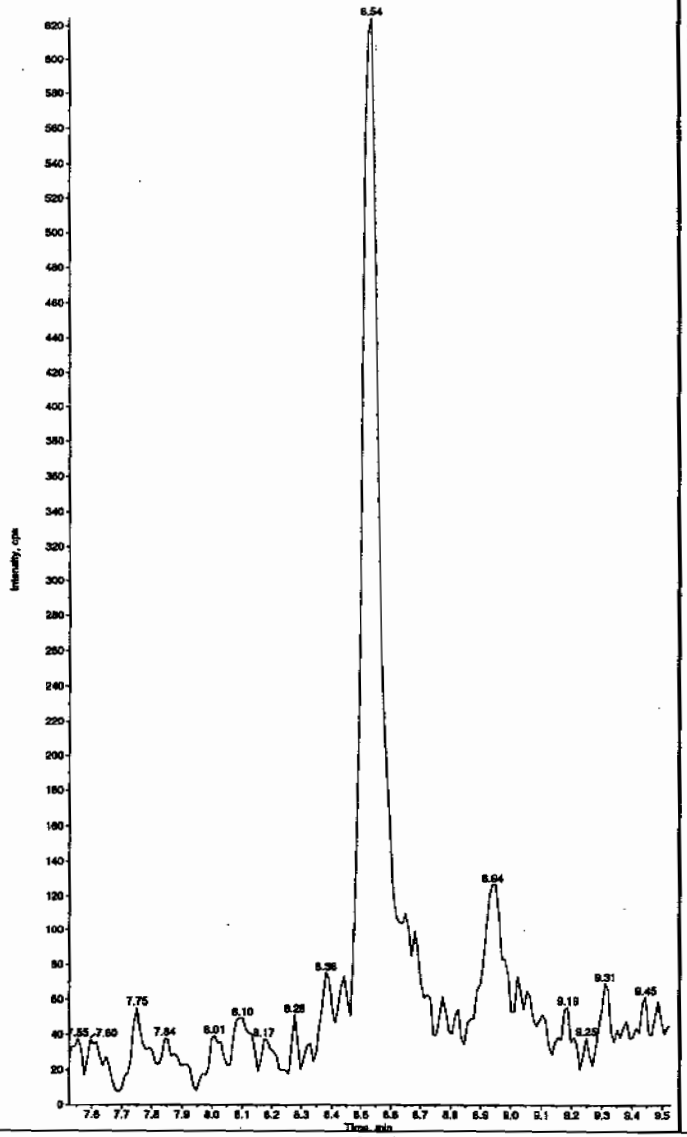

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02130012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:05:35 PM

Modified: No

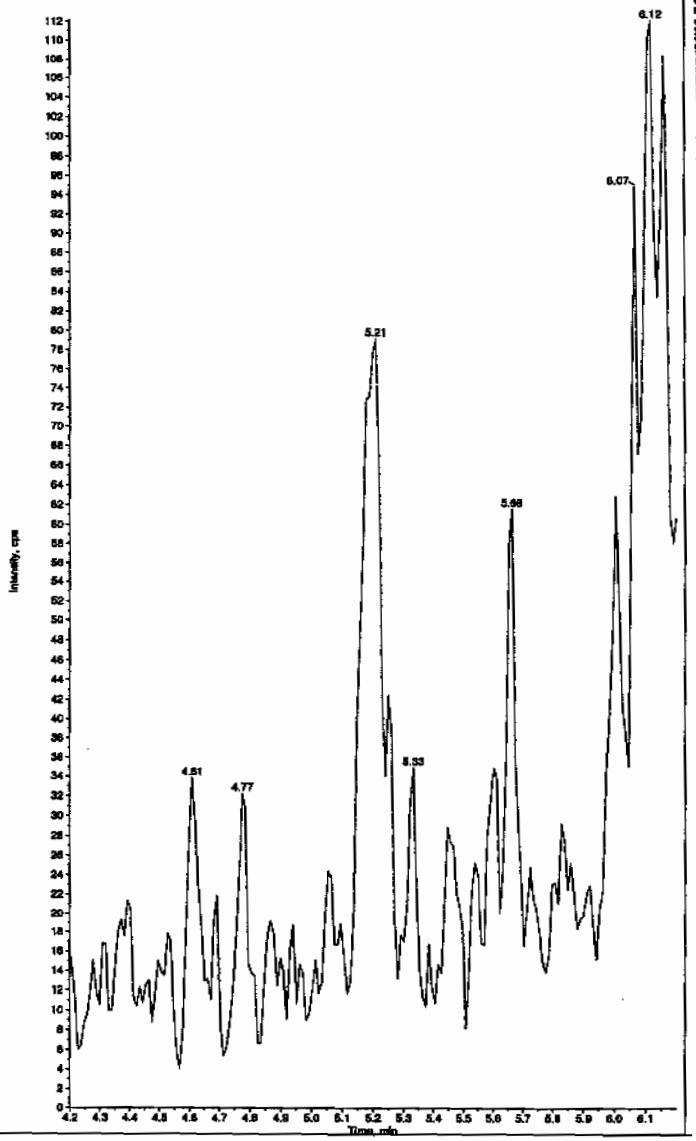

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02130012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:05:35 PM

Modified: No

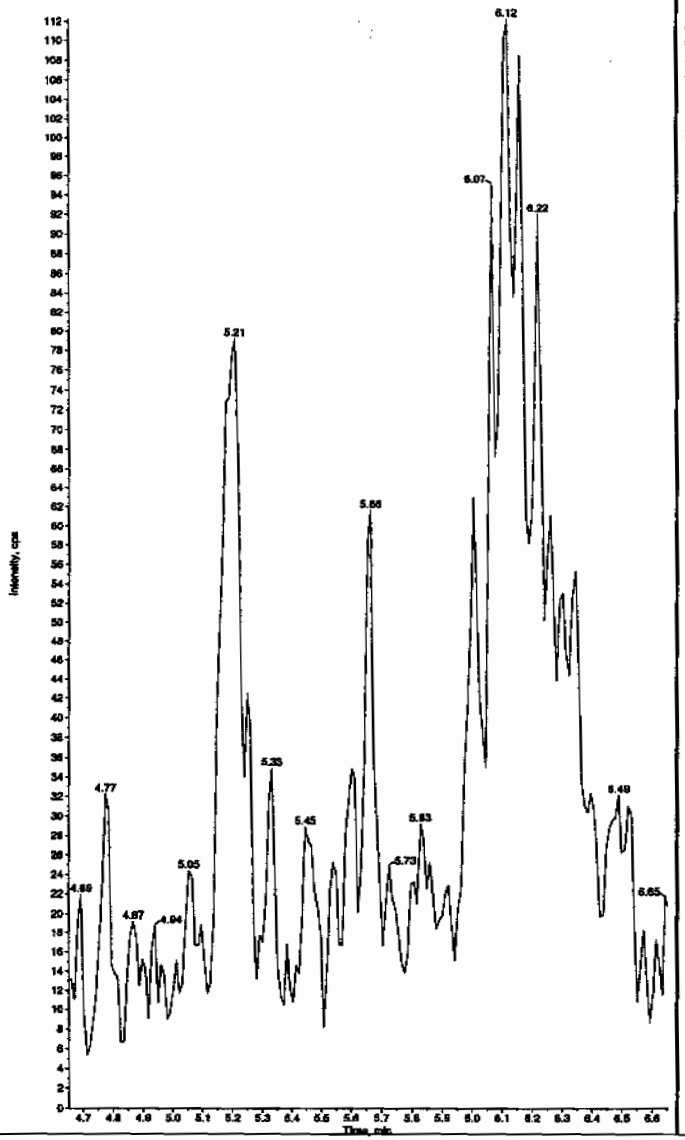

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02130012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.76 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:05:35 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.24e+005 counts
Height: 29857.605 cps
Start Time: 10.9 min
End Time: 11.2 min

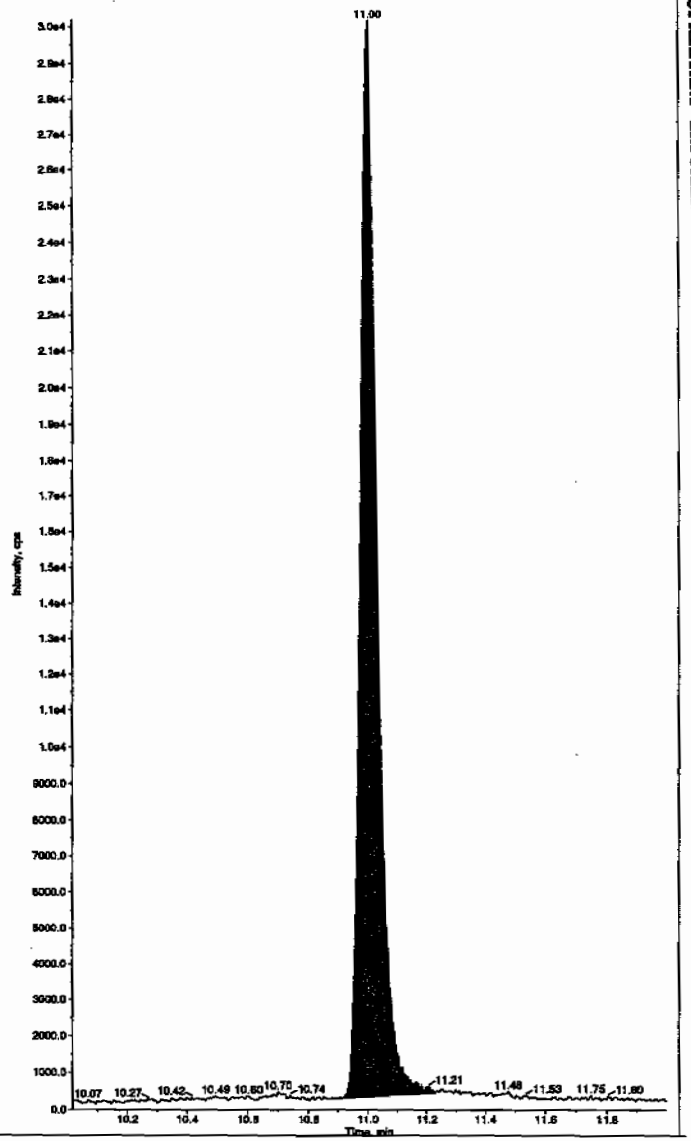

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1432

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 13–FEB–10 16:29

GEL Data File: EXS02130025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.63
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sam 2/15/10

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02130025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:29:43 PM

Modified: No

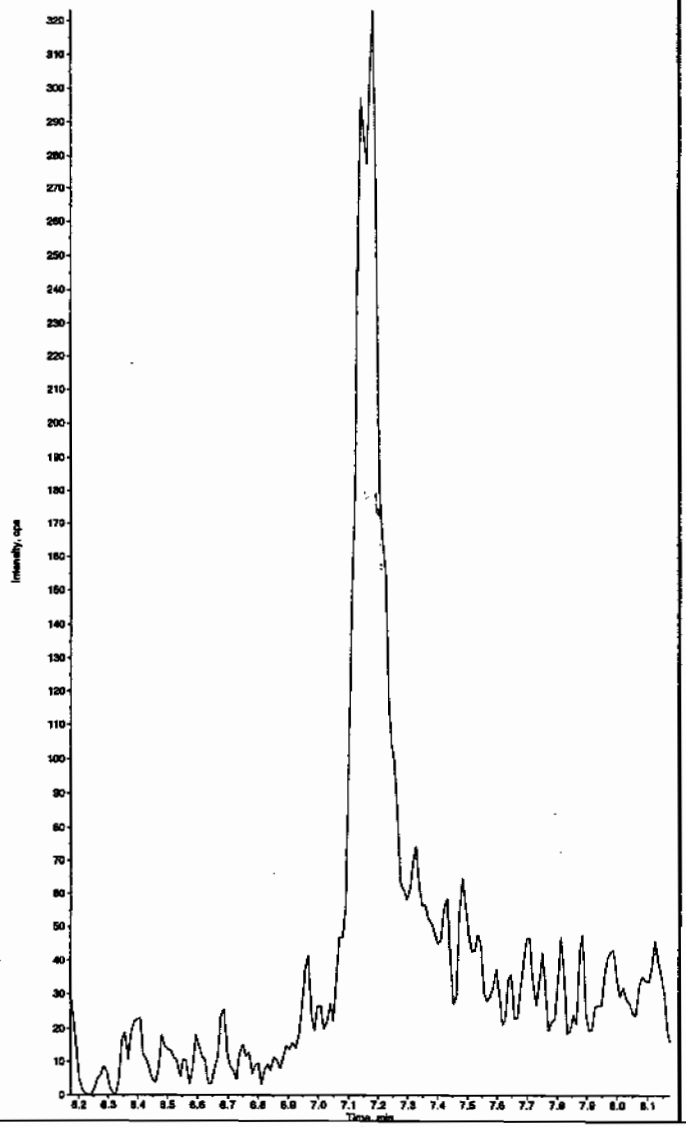

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02130025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:29:43 PM

Modified: No

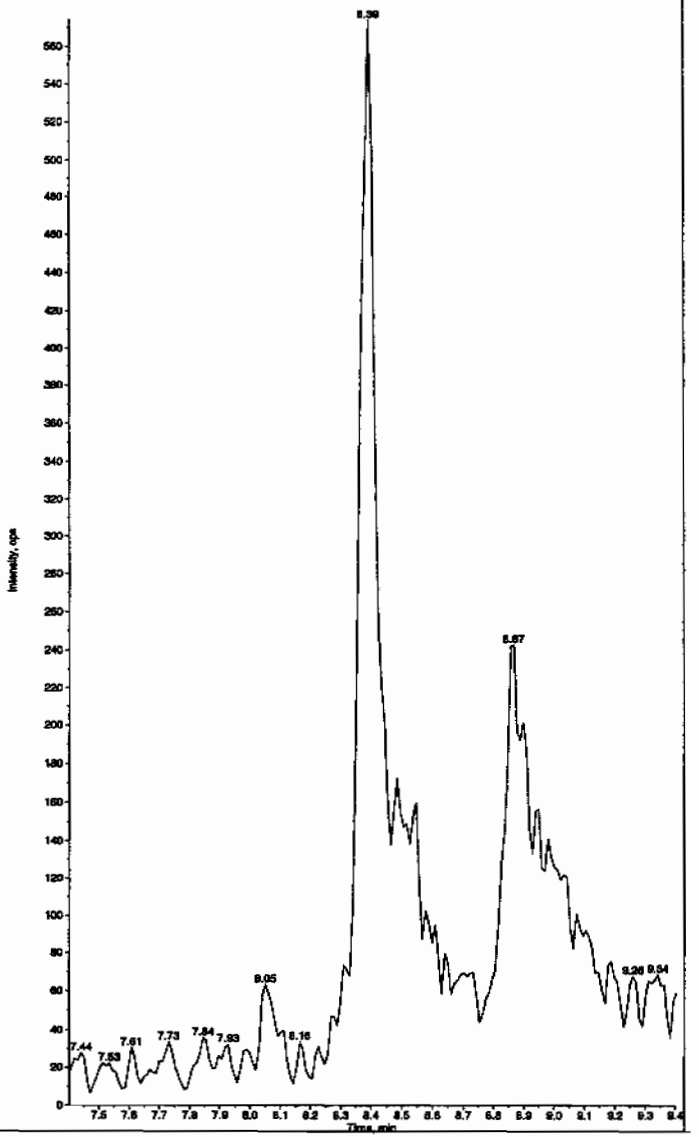

Hnm 02/15/10

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02130025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:29:43 PM

Modified: No

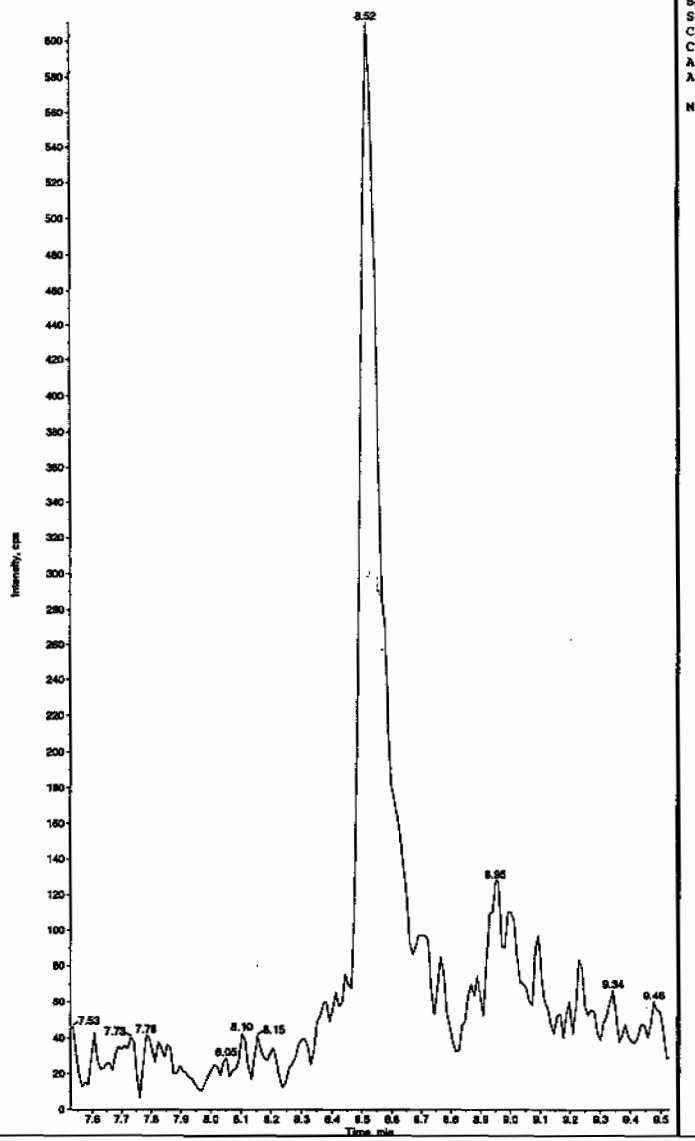

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02130025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:29:43 PM

Modified: No

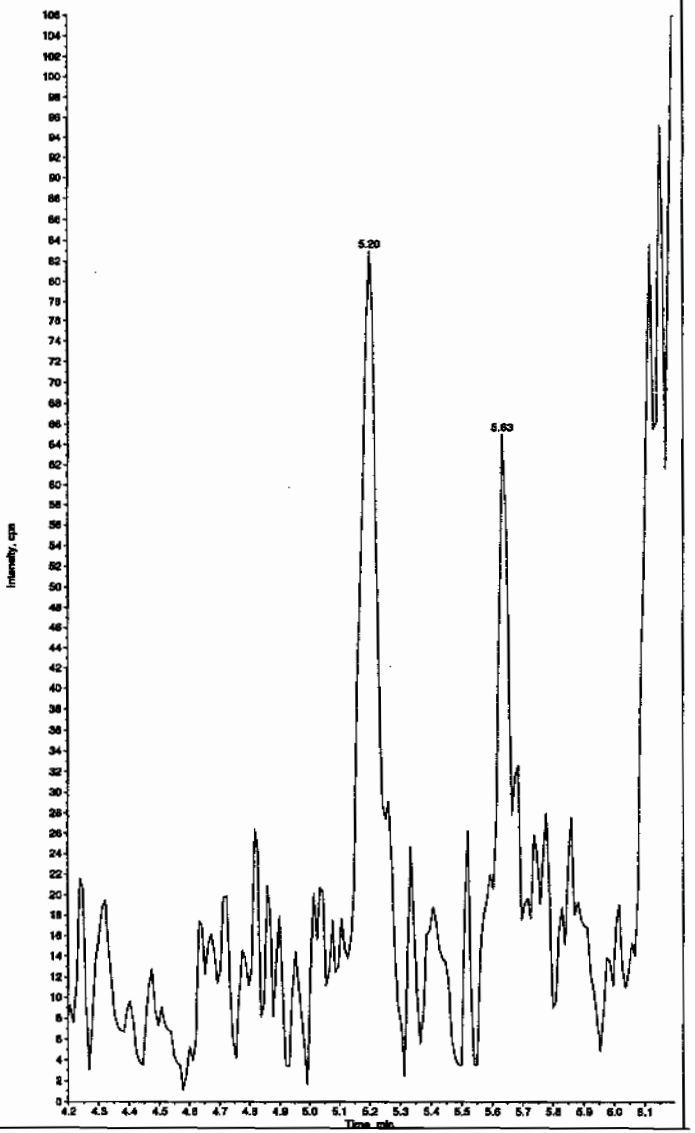

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02130025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:29:43 PM

Modified: No

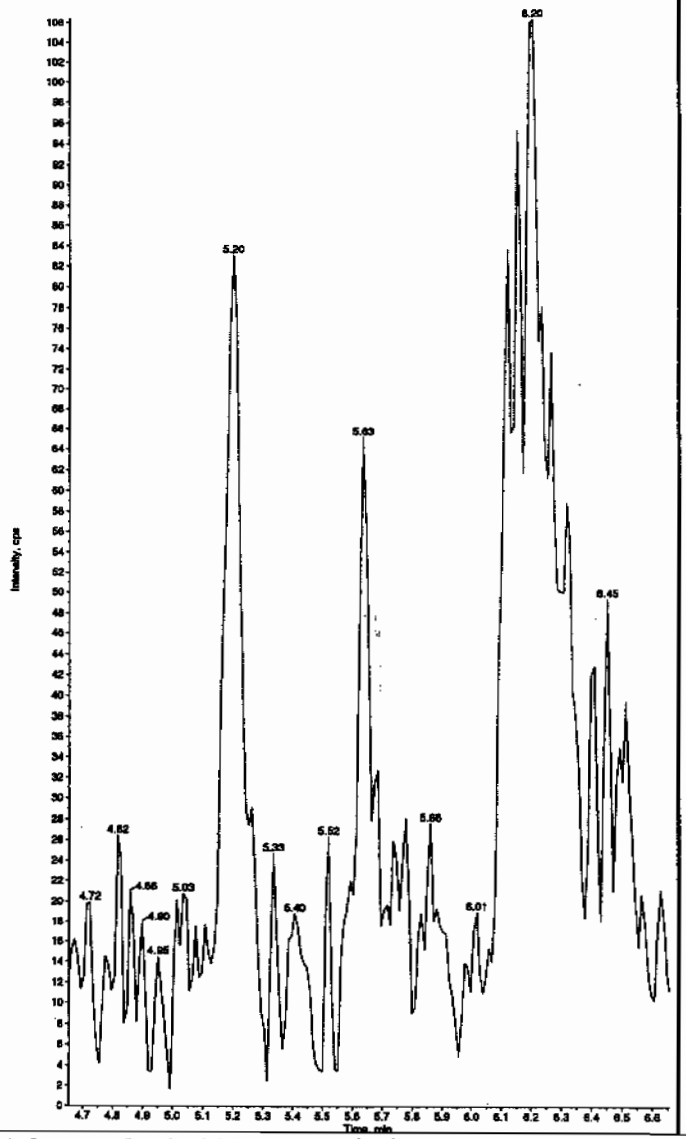

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02130025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.63 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:29:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 9.81e+004 counts
Height: 23090.134 cps
Start Time: 10.9 min
End Time: 11.3 min

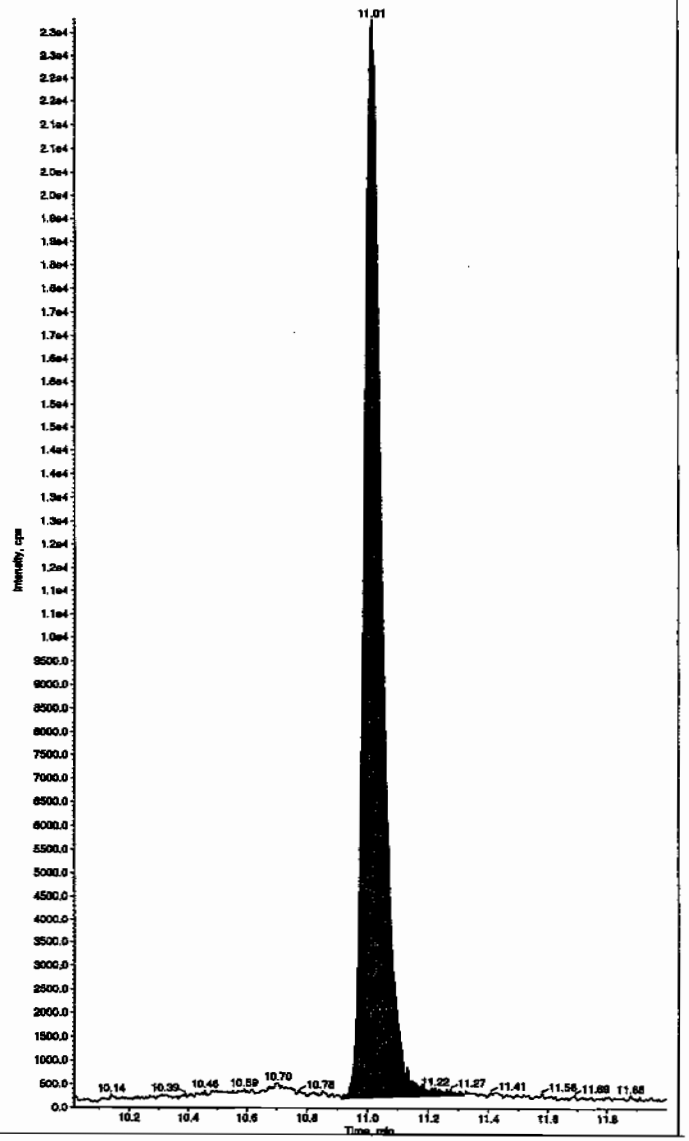

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1432
Lab Code: GEL
Lab Sample ID: XIBLK05
Analysis Date: 13–FEB–10 19:38
GEL Data File: EXS02130037.wiff
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.67
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcr 2/15/10

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02130037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:38:01 PM

Modified: No

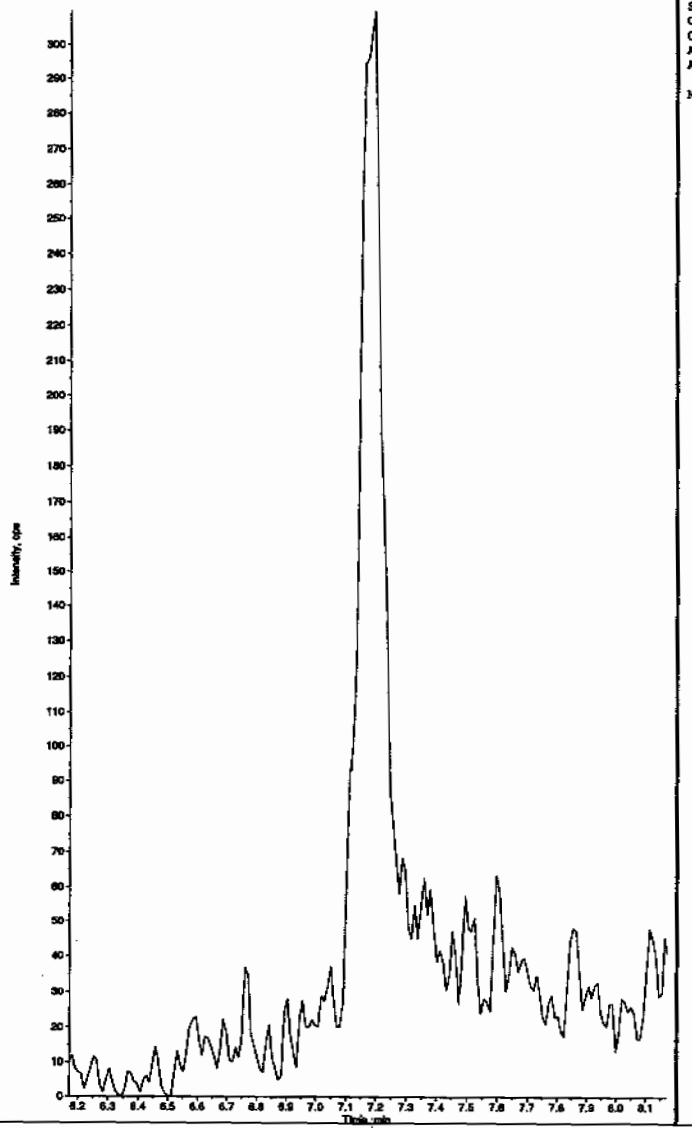

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02130037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:38:01 PM

Modified: No

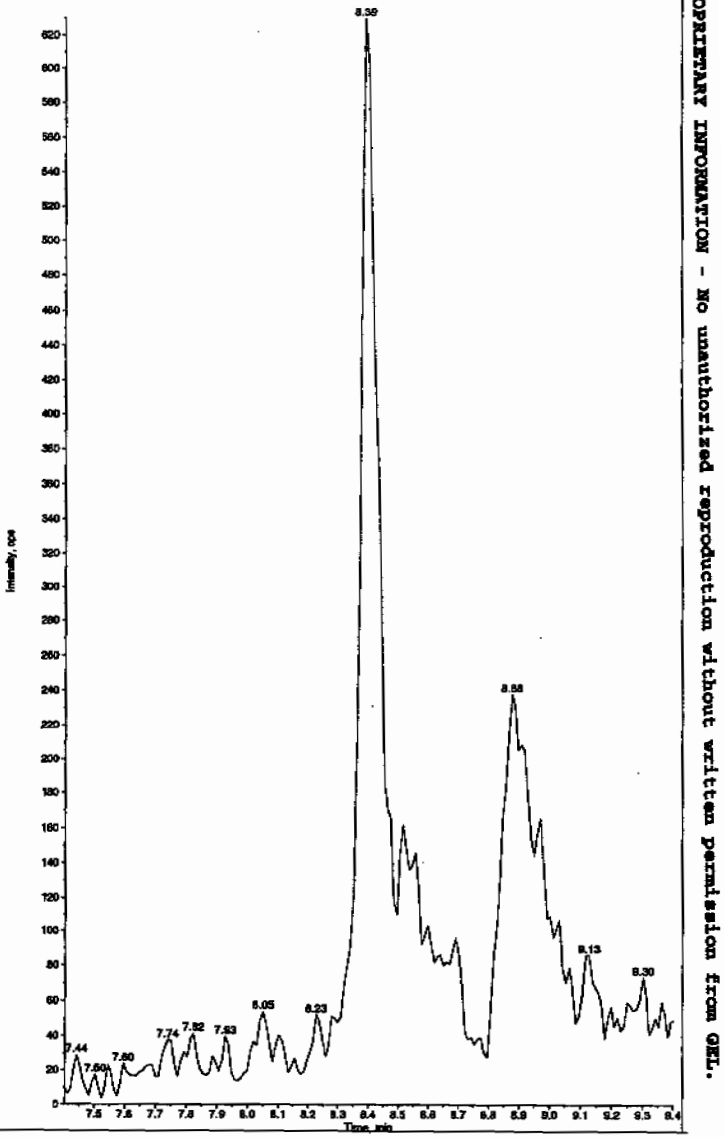

Hrm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02130037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:38:01 PM

Modified: No

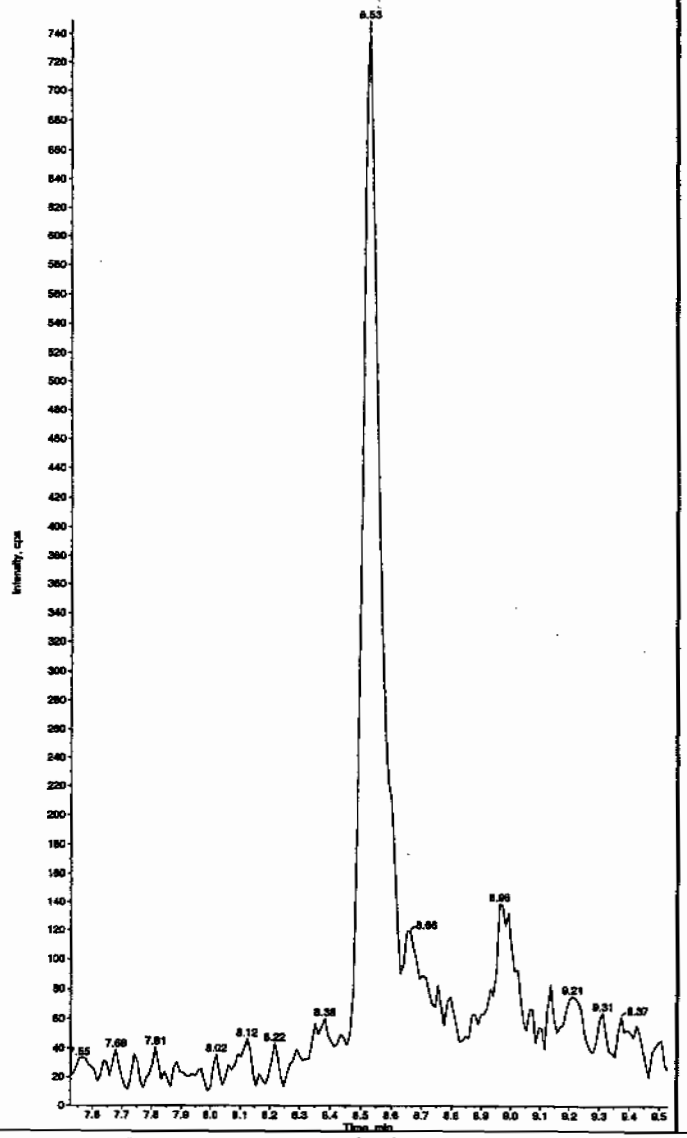

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02130037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:38:01 PM

Modified: No

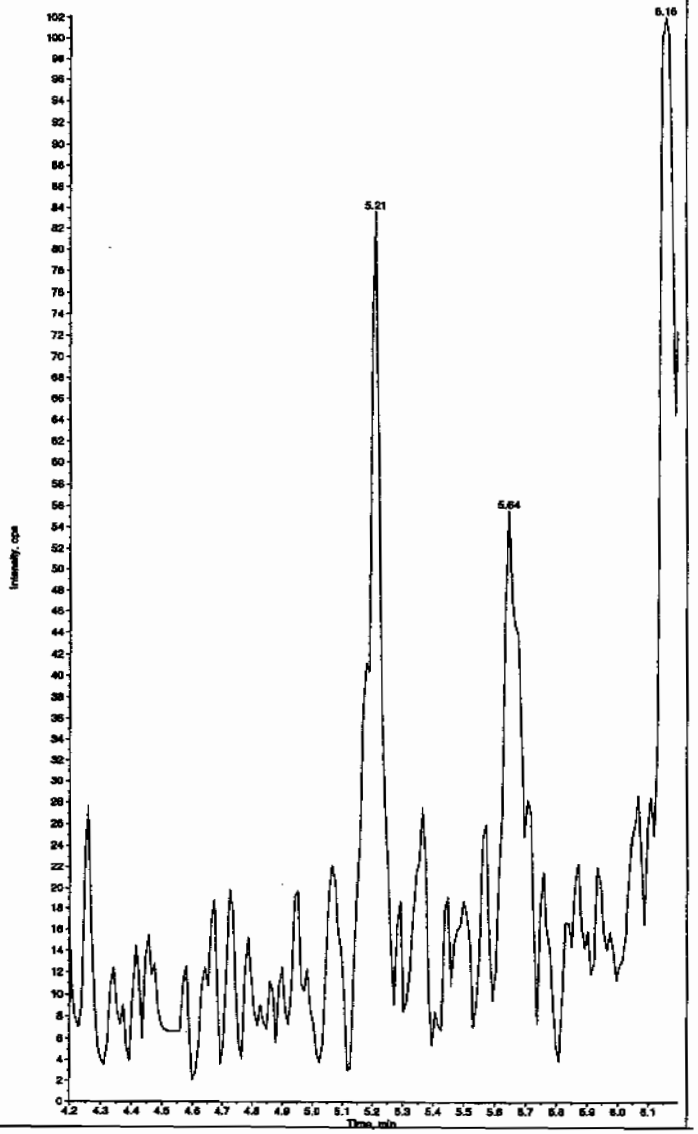

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02130037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:38:01 PM

Modified: No

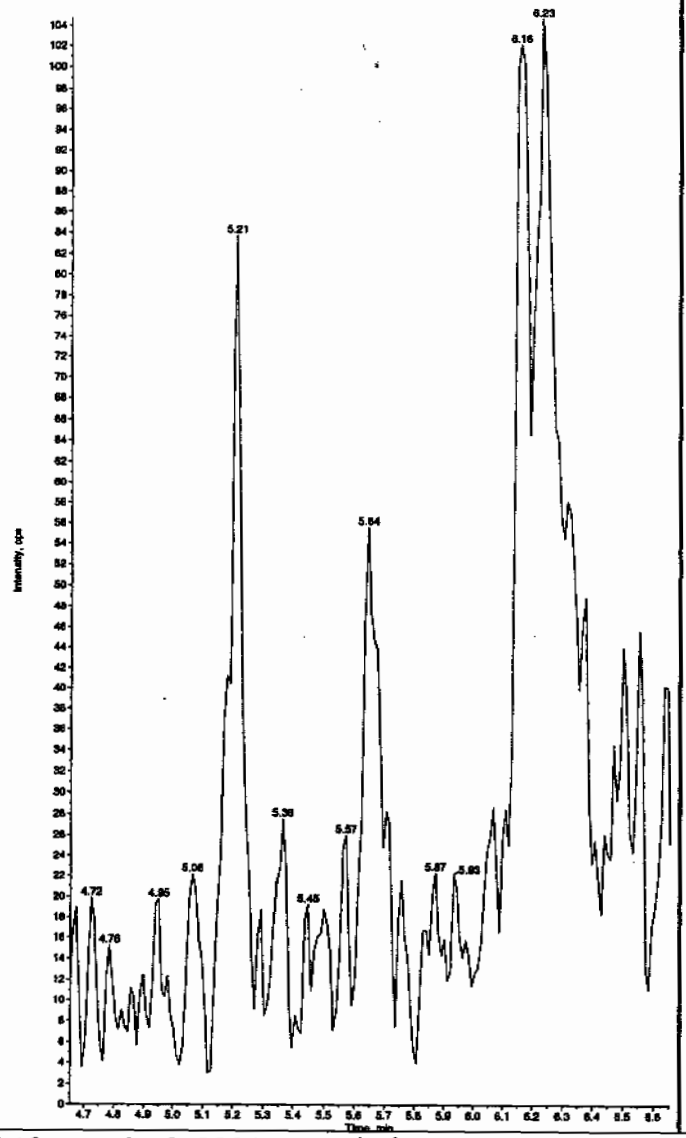

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02130037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.67 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:38:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 9.91e+004 counts
Height: 24030.212 cps
Start Time: 10.9 min
End Time: 11.3 min

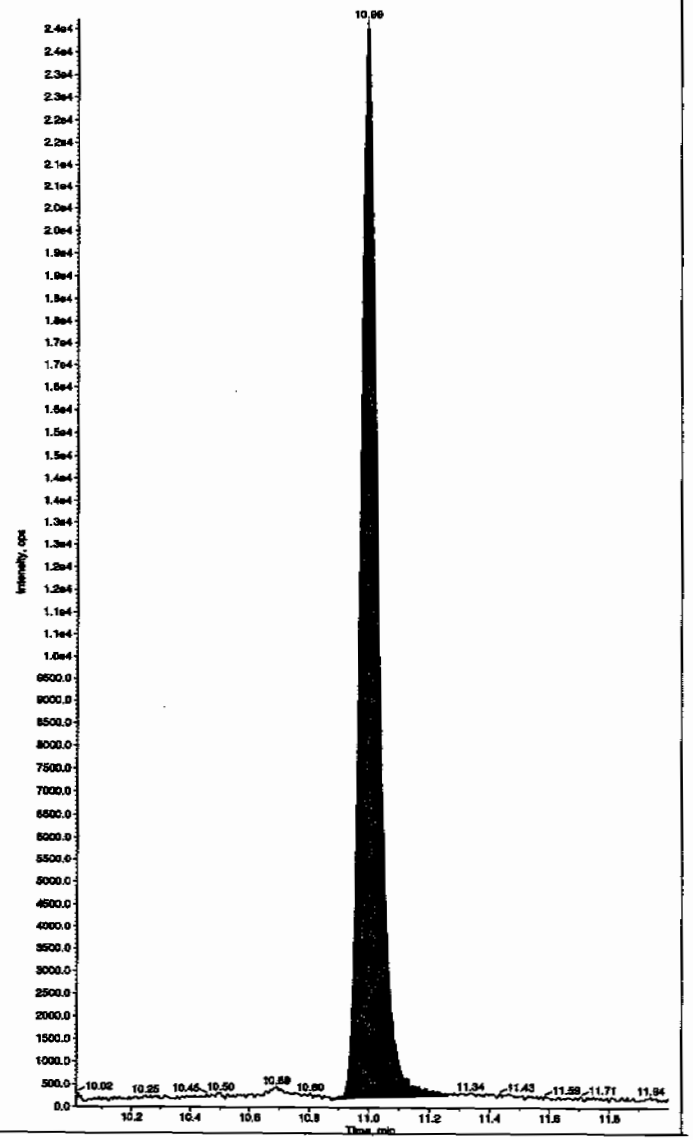

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

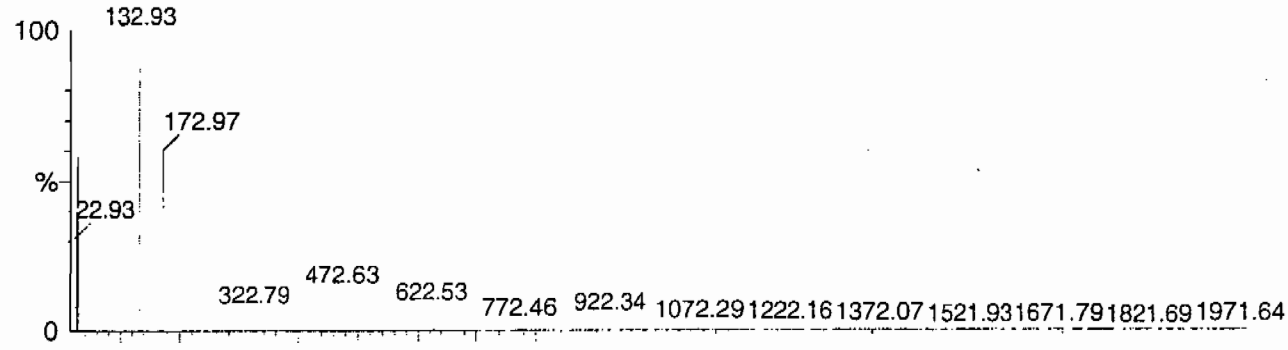

Reference file: Naics2

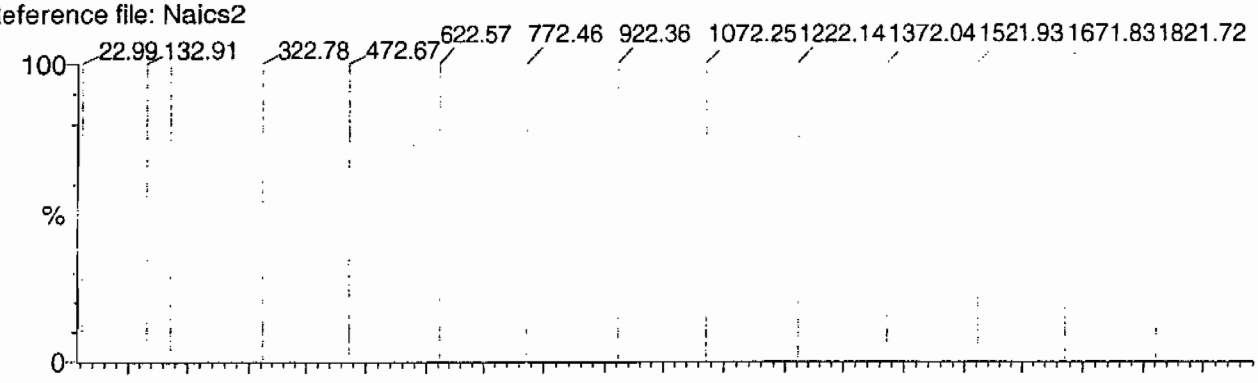

Mass difference (Raw - Ref mass)

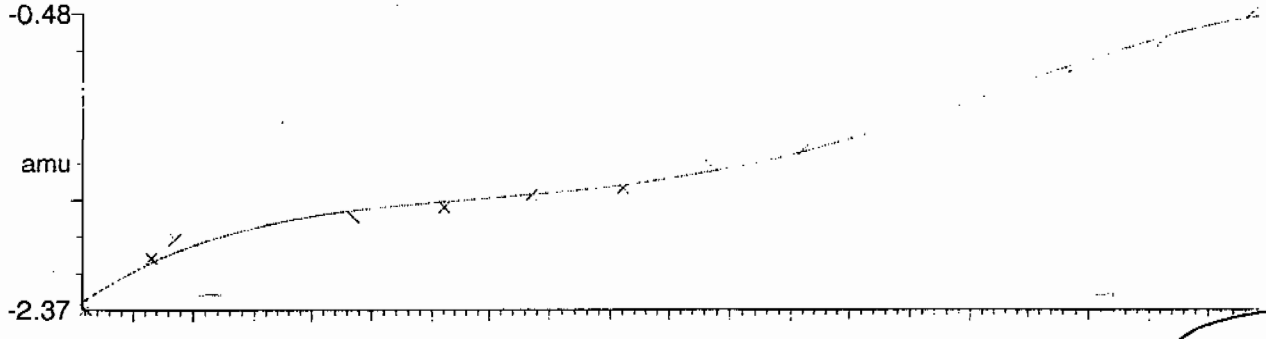

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

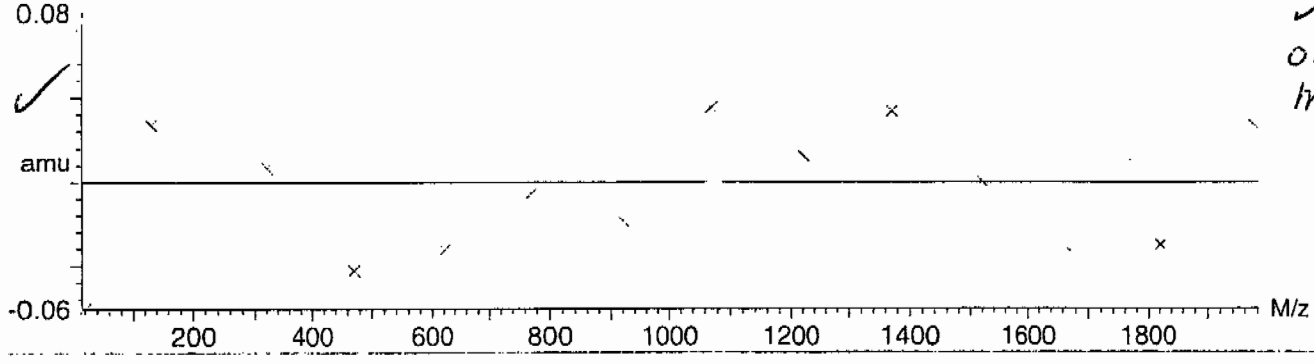

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

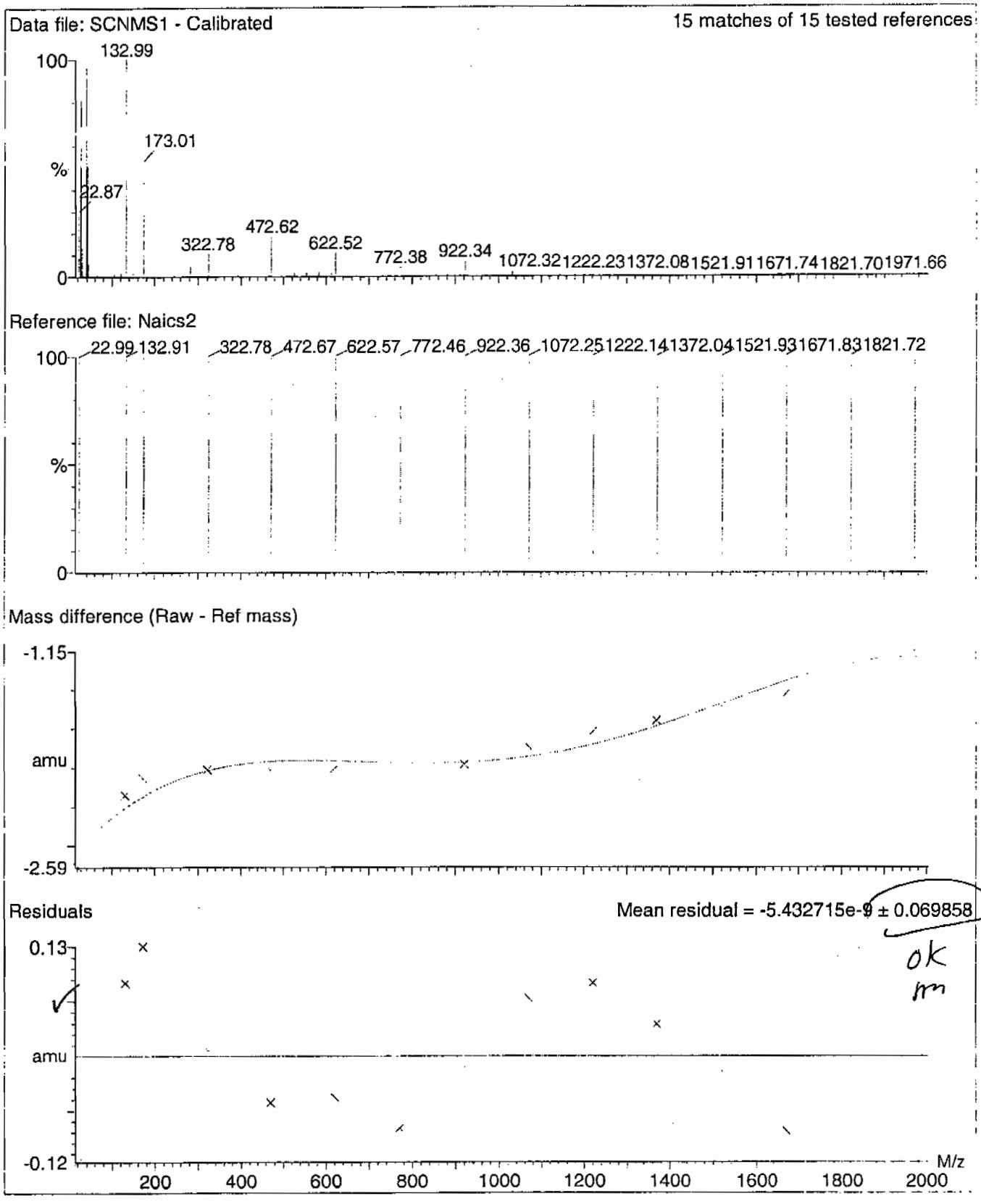

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

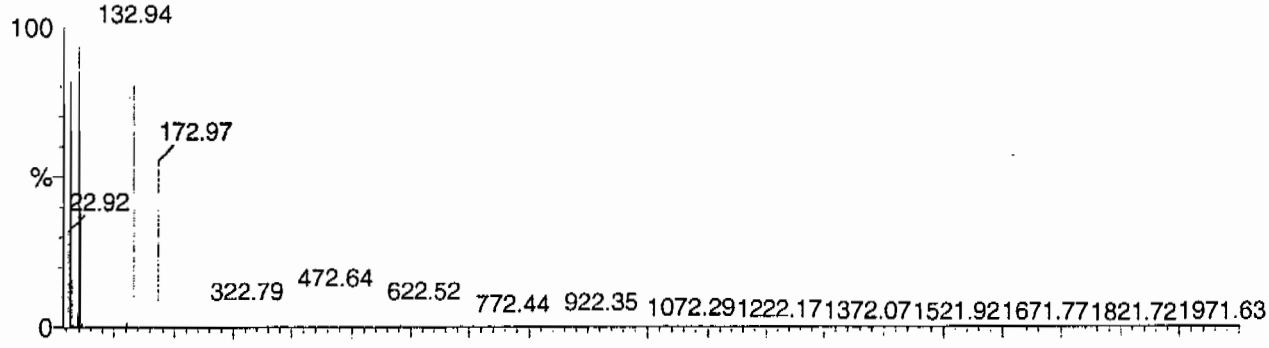

Reference file: Naics2

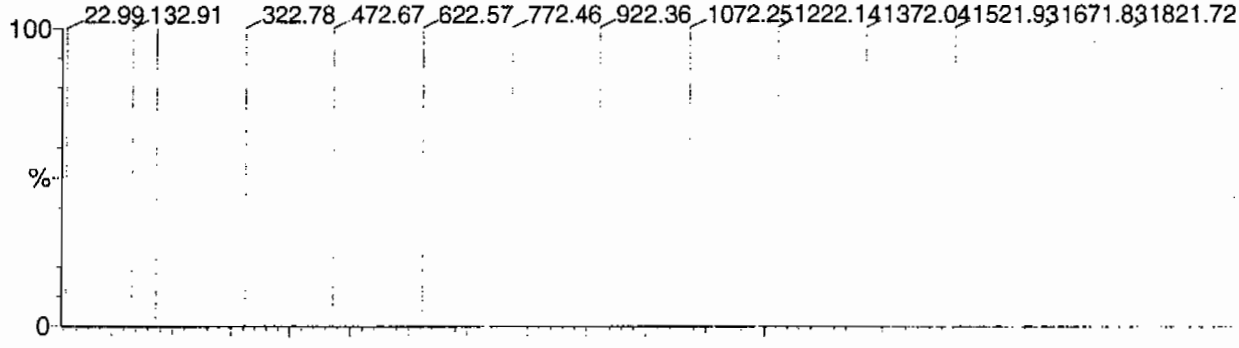

Mass difference (Raw - Ref mass)

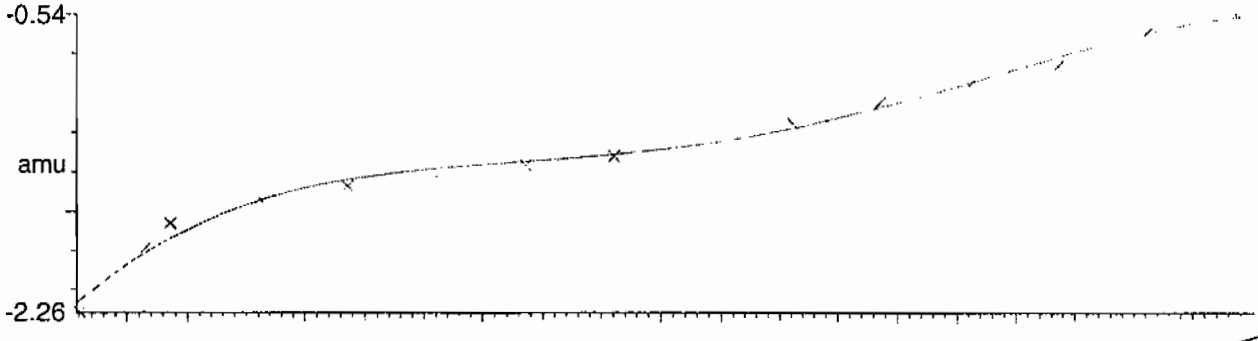

Residuals

Mean residual = 3.486639e-9 ± 0.040487

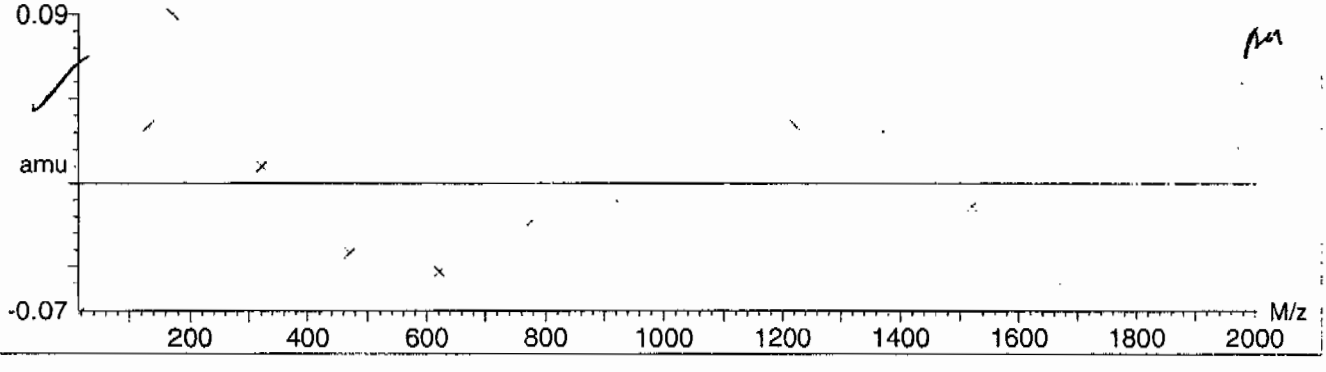

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

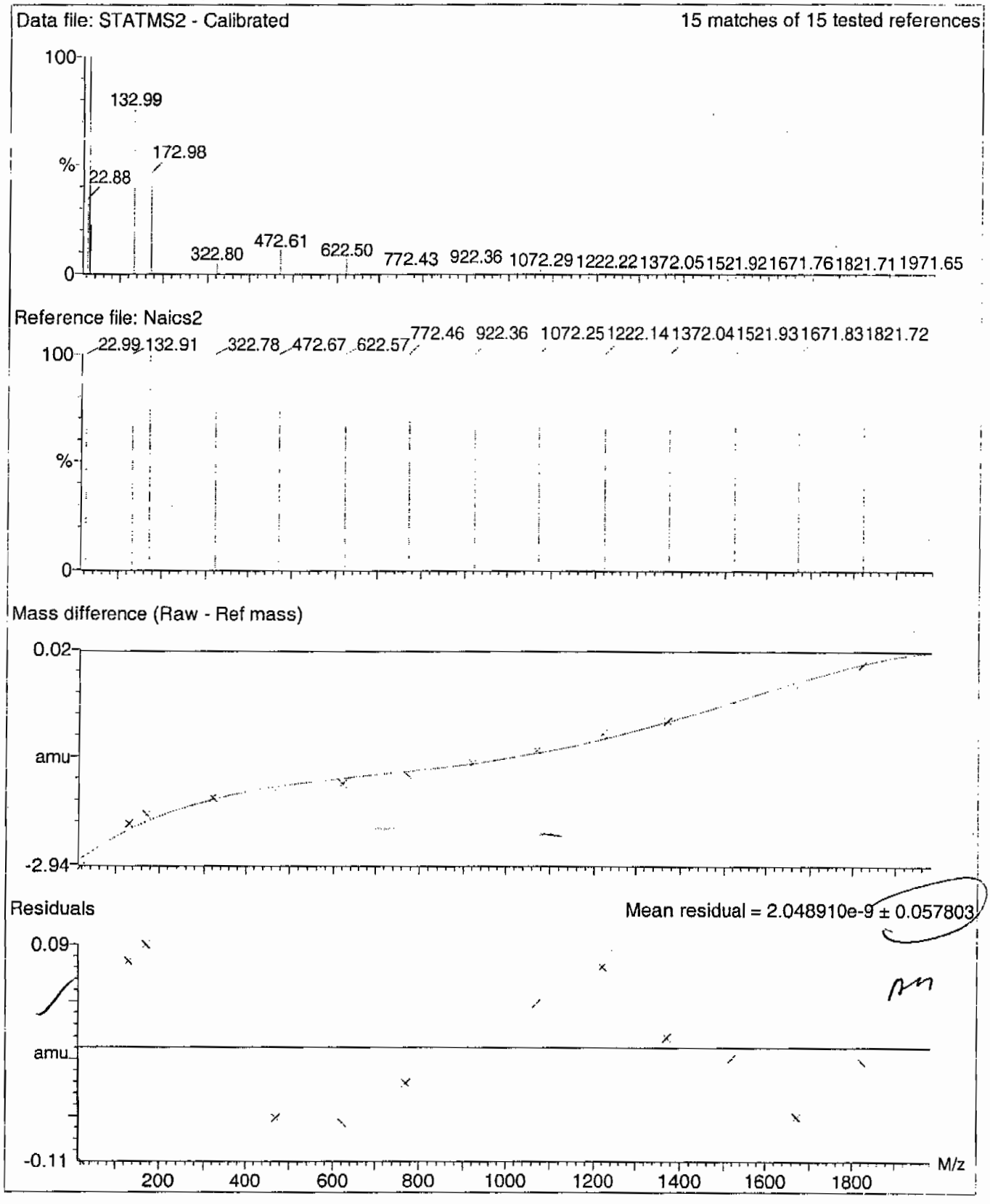

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

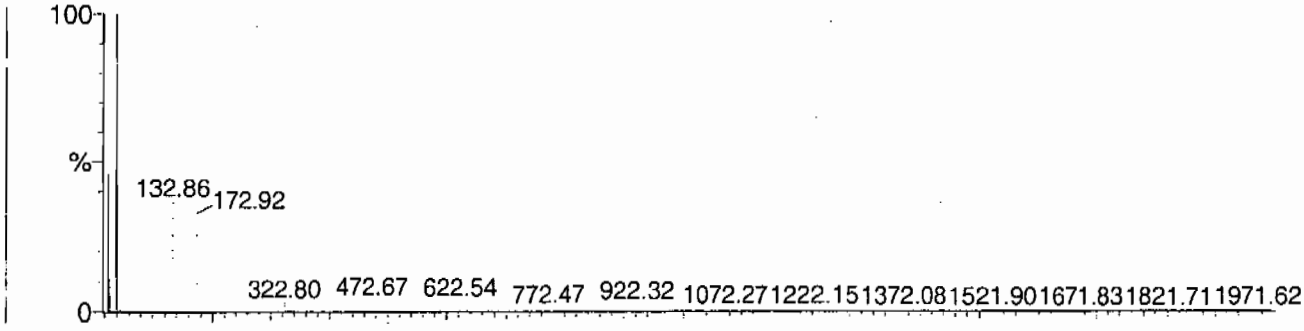

Reference file: Naics2

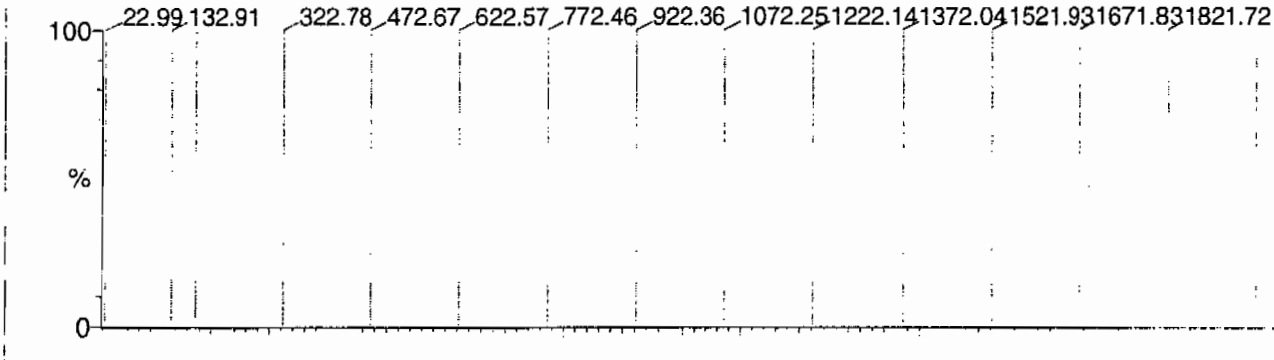

Mass difference (Raw - Ref mass)

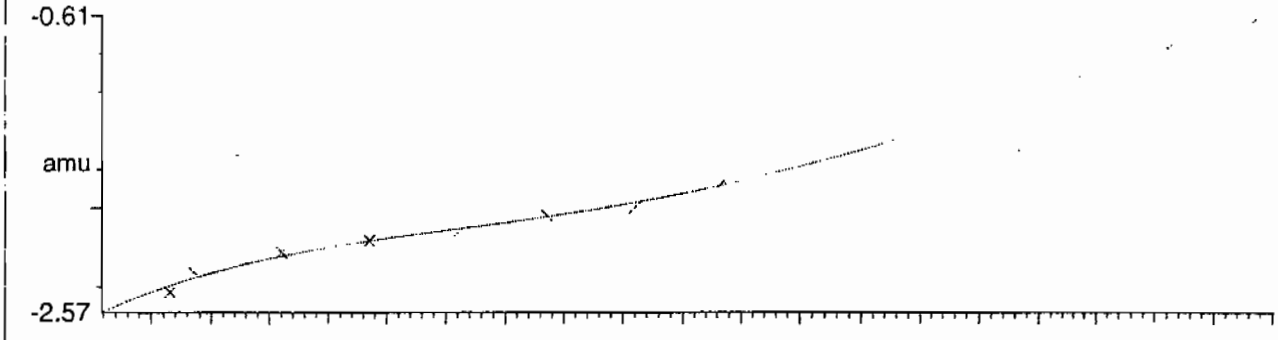

Residuals

Mean residual = -2.623502e-9 ± 0.025622

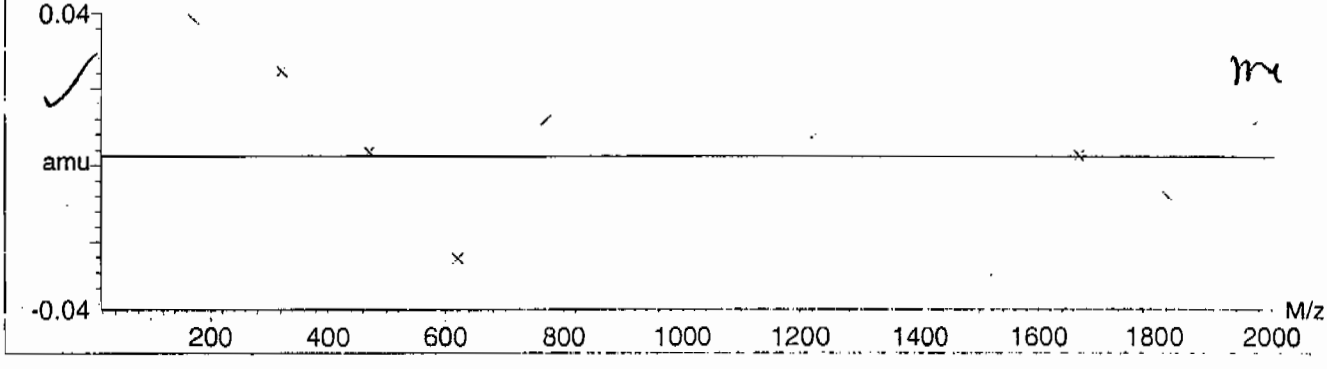

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

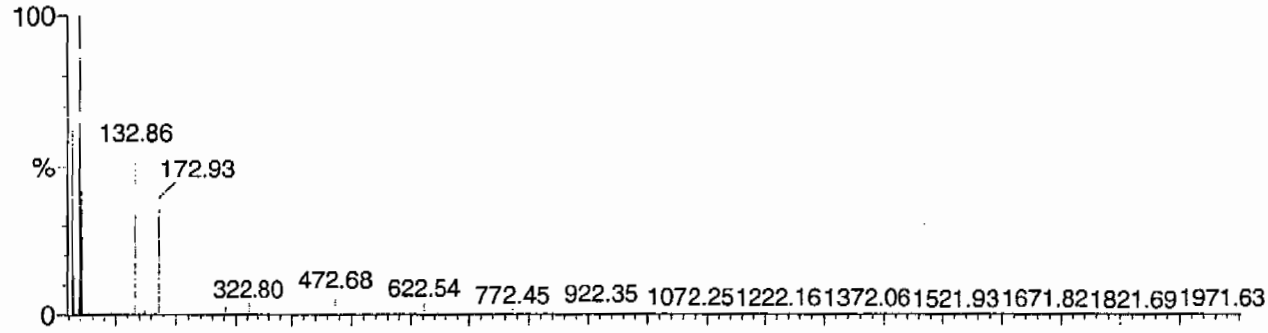

Reference file: Naics2

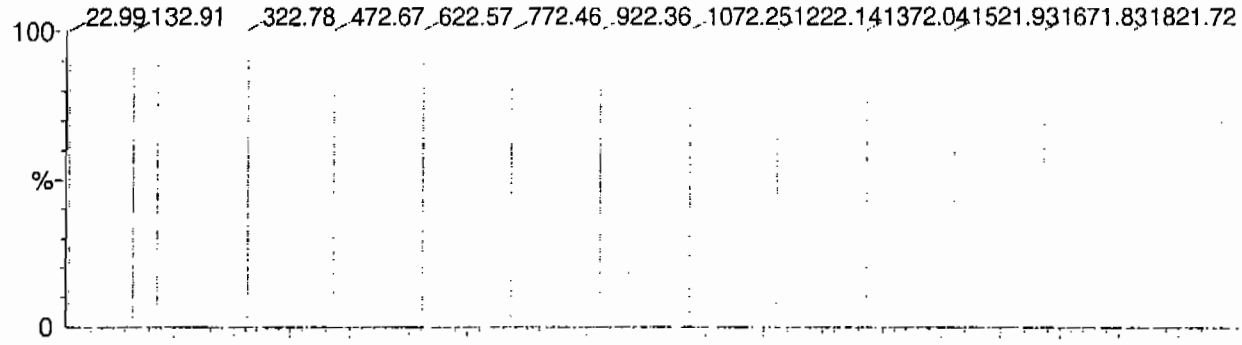

Mass difference (Raw - Ref mass)

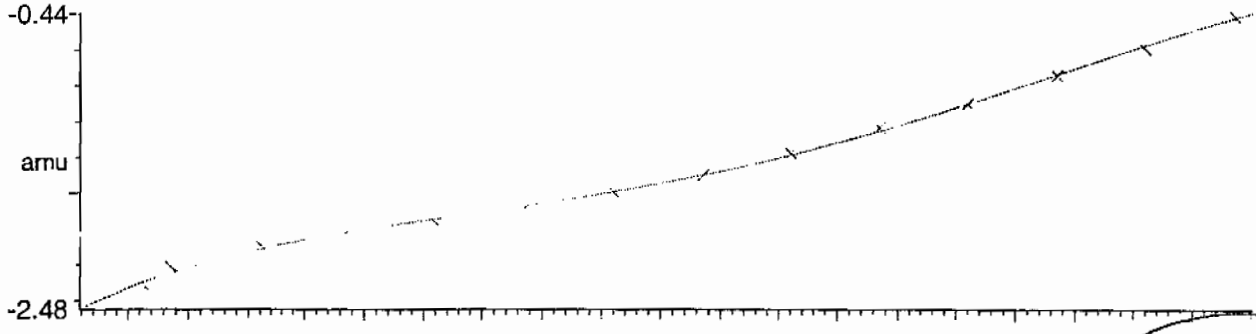

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

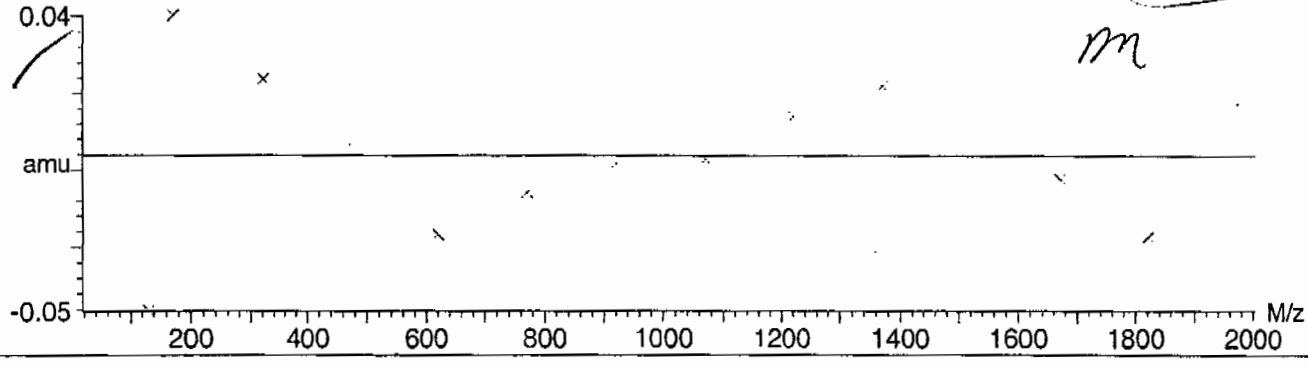

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.ipr

Printed : Mon Feb 08 14:05:58 2010

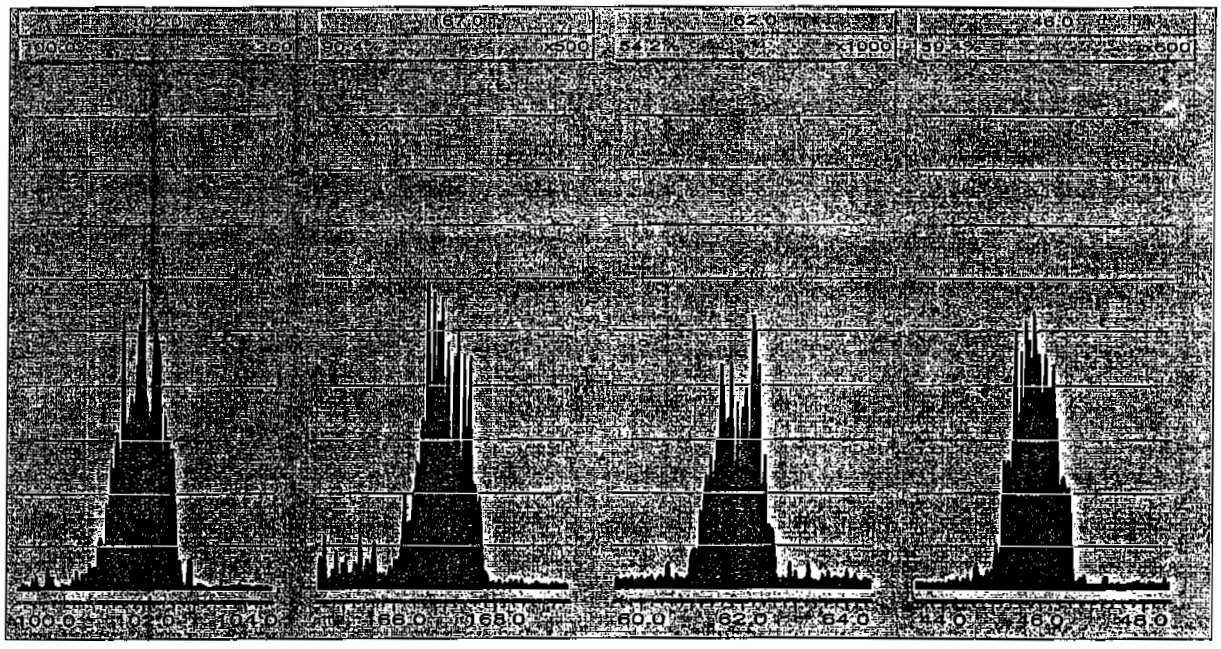

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3214.577	12.205	18459.667	17.697
Upper Limit			4178.9501	12.705	23997.5671	18.197
Lower Limit			2250.2039	11.705	12921.7669	17.197
MB for batch 947076	12–feb–10 07:46	EXP0208182a	2731.76	12.068	17376.6	17.462
LCS for batch 947076	12–feb–10 08:15	EXP0208183a	2945.59	12.069	16481.7	17.463
RE15–10–7883	12–feb–10 09:14	EXP0208185a	2917.17	12.068	16461.3	17.466
RE15–10–7883(245686001MS)	12–feb–10 09:44	EXP0208186a	3045.19	12.068	17171.1	17.466
RE15–10–7883(245686001MSD)	12–feb–10 10:13	EXP0208187a	2646.46	12.102	17593.5	17.466
RE15–10–7884	12–feb–10 10:43	EXP0208188a	2743.54	12.071	15761.6	17.463
RE15–10–7932	12–feb–10 11:13	EXP0208189a	3094.48	12.102	18009.8	17.465
RE15–10–7931	12–feb–10 11:42	EXP0208190a	3140.77	12.07	18084.1	17.464
RE15–10–7938	12–feb–10 12:12	EXP0208191a	2779.32	12.102	17403.5	17.465
RE15–10–7933	12–feb–10 14:10	EXP0208195a	2714.27	12.072	15636.6	17.465
RE15–10–7939	12–feb–10 14:40	EXP0208196a	2567.92	12.065	17395.1	17.476
RE15–10–7936	12–feb–10 15:09	EXP0208197a	2577.59	12.102	14931.8	17.465
RE15–10–7935	12–feb–10 15:38	EXP0208198a	2683.22	12.072	16712.6	17.465
RE15–10–7934	12–feb–10 16:08	EXP0208199a	2773.36	12.067	18369	17.465
RE15–10–7940	12–feb–10 16:38	EXP0208200a	2749.13	12.067	15534.3	17.464
RE15–10–7937	12–feb–10 17:07	EXP0208201a	2664.56	12.067	14384.5	17.464
RE15–10–8056	12–feb–10 17:36	EXP0208202a	2664.82	12.072	15262.9	17.467
RE15–10–8057	12–feb–10 18:06	EXP0208203a	2723.03	12.067	15060.3	17.466

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686001

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208185a

Date Analyzed: 12-FEB-10 09:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208185a
Date: 12-Feb-2010
Time: 09:14:47
ID: 245686001 | LANL | 947078 | Solids | 2 |
Vial: 4:4,D

MAP 2/13/10

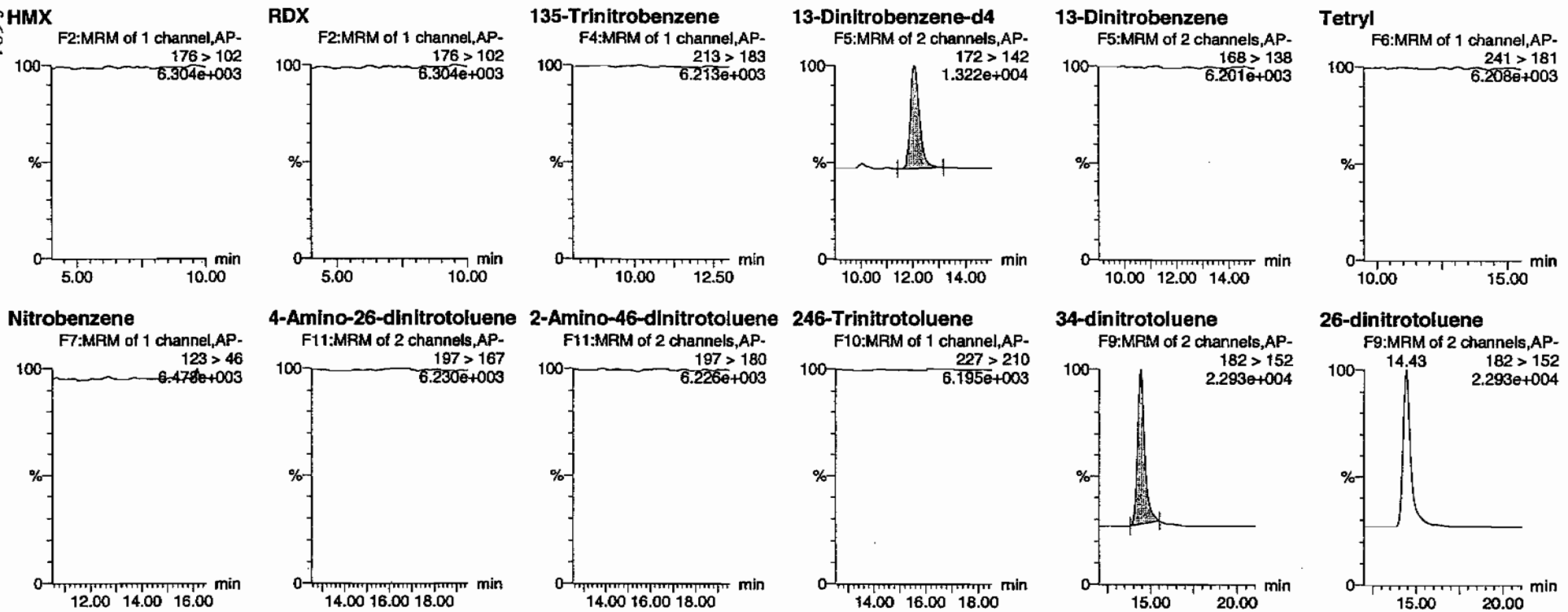

Hmm 02/13/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

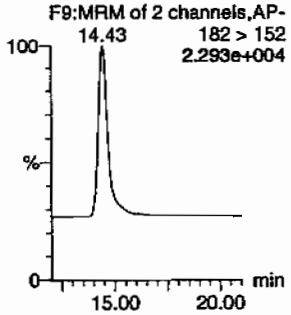

26-dinitrotoluene-d3

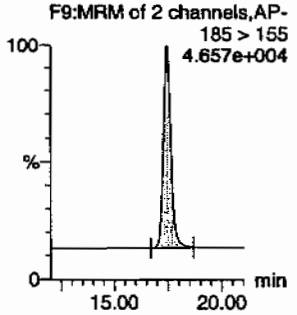

2-Nitrotoluene

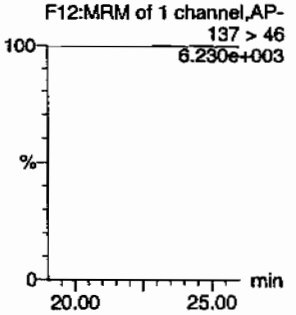

4-Nitrotoluene

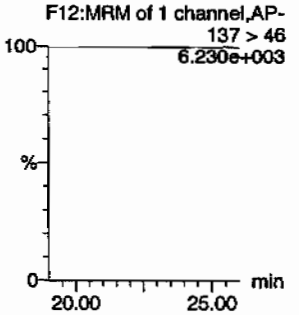

3-Nitrotoluene

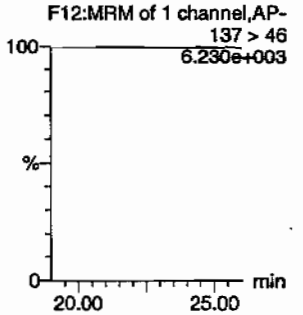

PETN

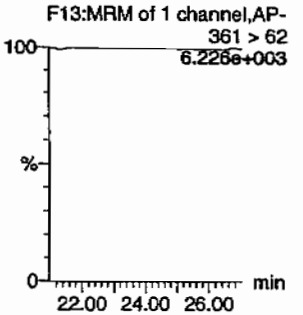

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245686001	HMX	176 > 102			2917.166									
245686001	RDX	176 > 102			2917.166									
245686001	135-Trinitrobenzene	213 > 183			2917.166									
245686001	13-Dinitrobenzene-d4	172 > 142	12.07	2917.166		2917.166	2917.166	bb			453.7407	90.7	-9.3	350.0
245686001	13-Dinitrobenzene	168 > 138			2917.166									
245686001	Tetryl	241 > 181			2917.166									
245686001	Nitrobenzene	123 > 46			2917.166									
245686001	4-Amino-26-dinitrotoluene	197 > 167			16461.314									
245686001	2-Amino-46-dinitrotoluene	197 > 180			16461.314									
245686001	246-Trinitrotoluene	227 > 210			16461.314									
245686001	34-dinitrotoluene	182 > 152	14.43	8087.404	16461.314	8087.404	245.649	bb			272.9455	109.2	9.2	588.7
245686001	26-dinitrotoluene	182 > 152			16461.314									
245686001	24-dinitrotoluene	182 > 152			16461.314									
245686001	26-dinitrotoluene-d3	185 > 155	17.47	16461.314		16461.314	16461.314	bb			445.8721	89.2	-10.8	1245.5
245686001	2-Nitrotoluene	137 > 46			16461.314									
245686001	4-Nitrotoluene	137 > 46			16461.314									
245686001	3-Nitrotoluene	137 > 46			16461.314									
245686001	PETN	361 > 62			16461.314									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686001

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130017.wiff

Date Analyzed: 13-FEB-10 14:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sha 2/15/10

Sample Name: "245686001" Sample ID: "947078|2|LER" File: "EXS02130017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:24:08 PM

Modified: No

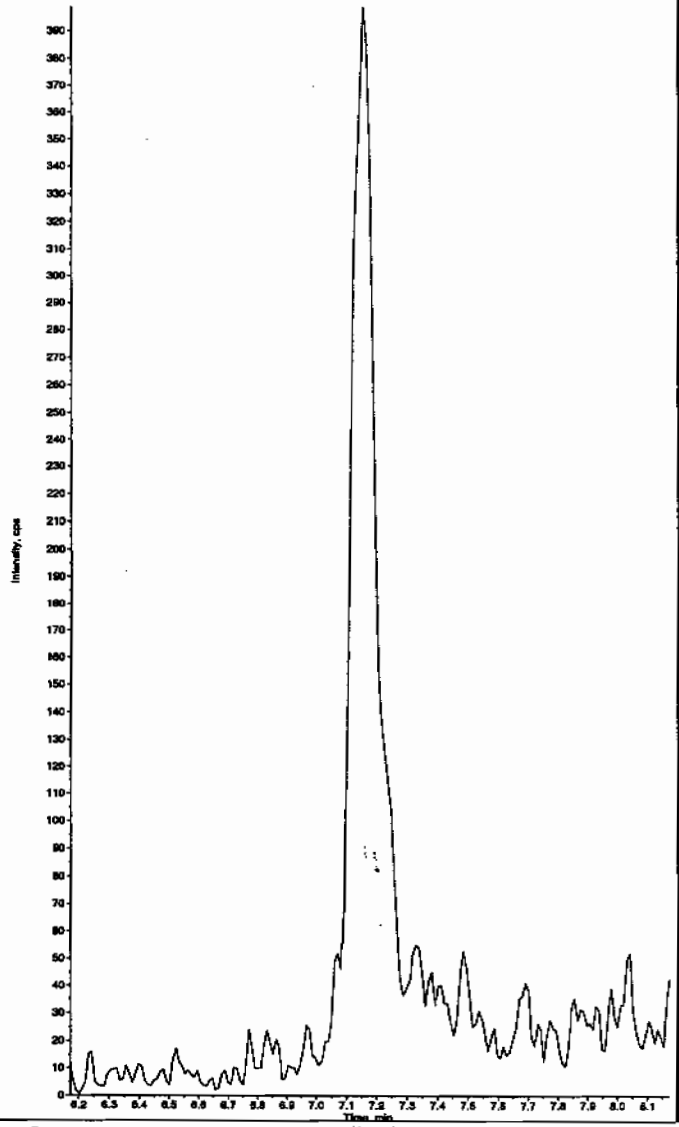

Sample Name: "245686001" Sample ID: "947078|2|LER" File: "EXS02130017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:24:08 PM

Modified: Yes

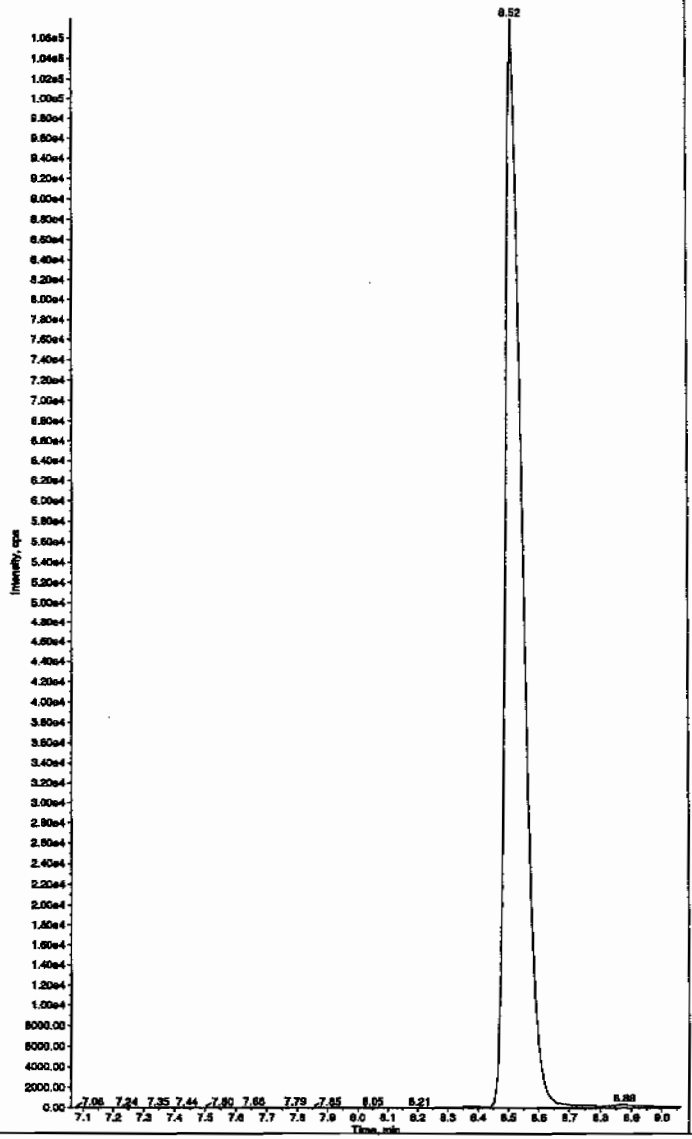

Hmm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686001" Sample ID: "947078[2]LER" File: "EXS02130017.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 338. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:24:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.98e+006 counts
Height: 1029846.313 cps
Start Time: 8.37 min
End Time: 8.88 min

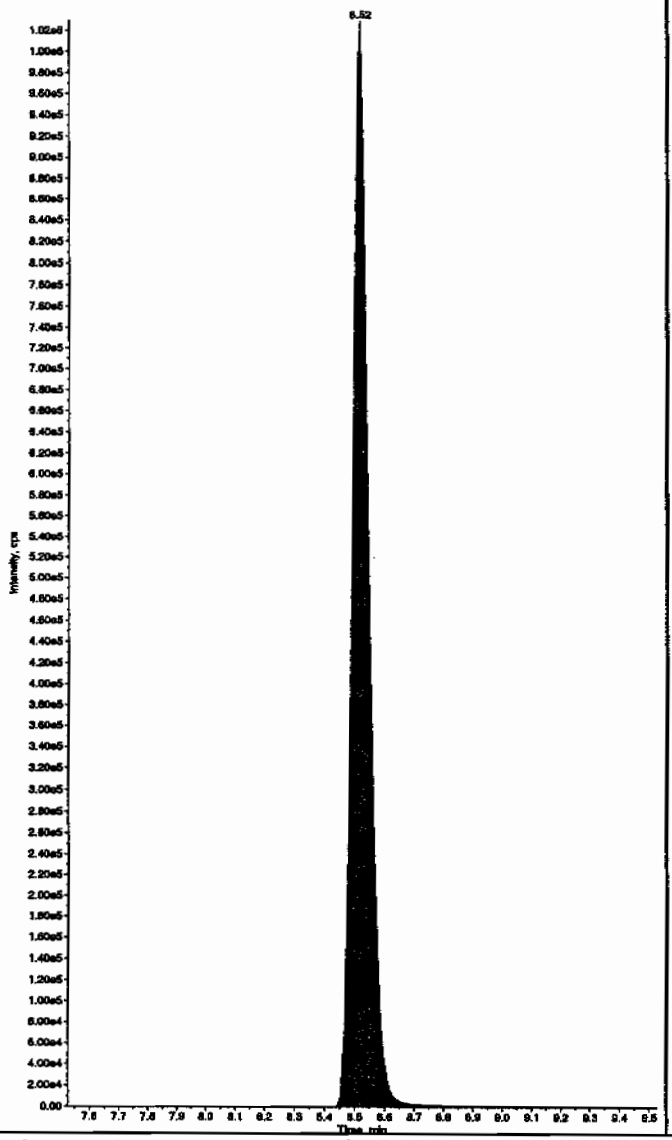

Sample Name: "245686001" Sample ID: "947078[2]LER" File: "EXS02130017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:24:08 PM

Modified: No

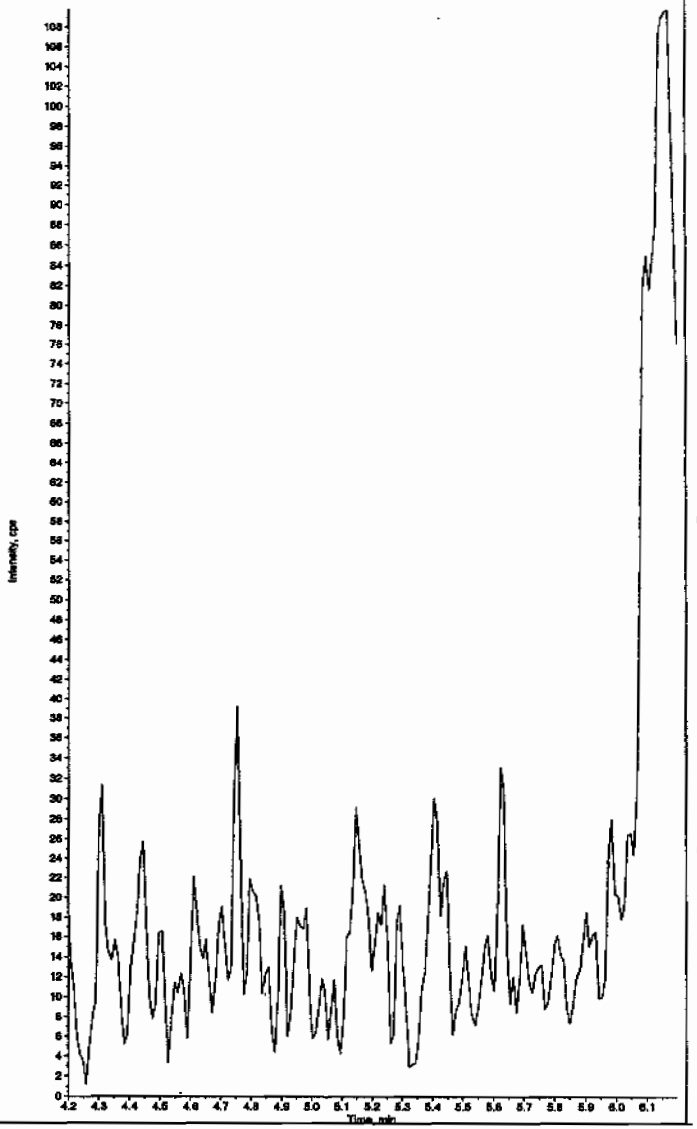

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686001" Sample ID: "947078|2|LER" File: "EXS02130017.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:24:08 PM

Modified: No

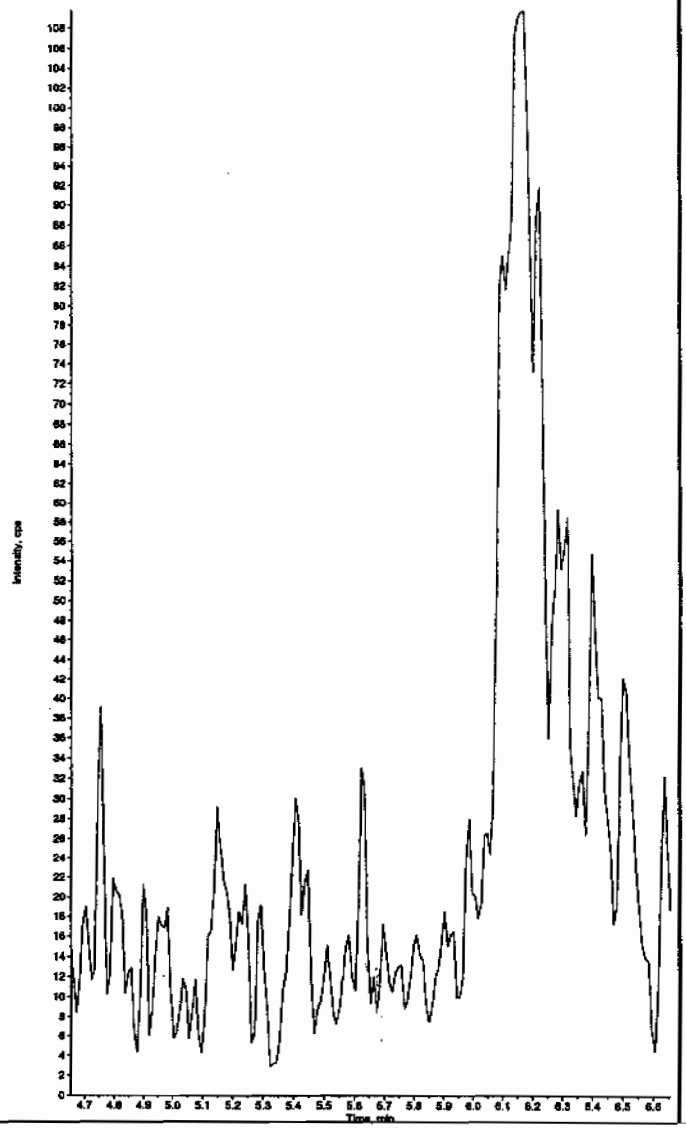

Sample Name: "245686001" Sample ID: "947078|2|LER" File: "EXS02130017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:24:08 PM

Modified: No

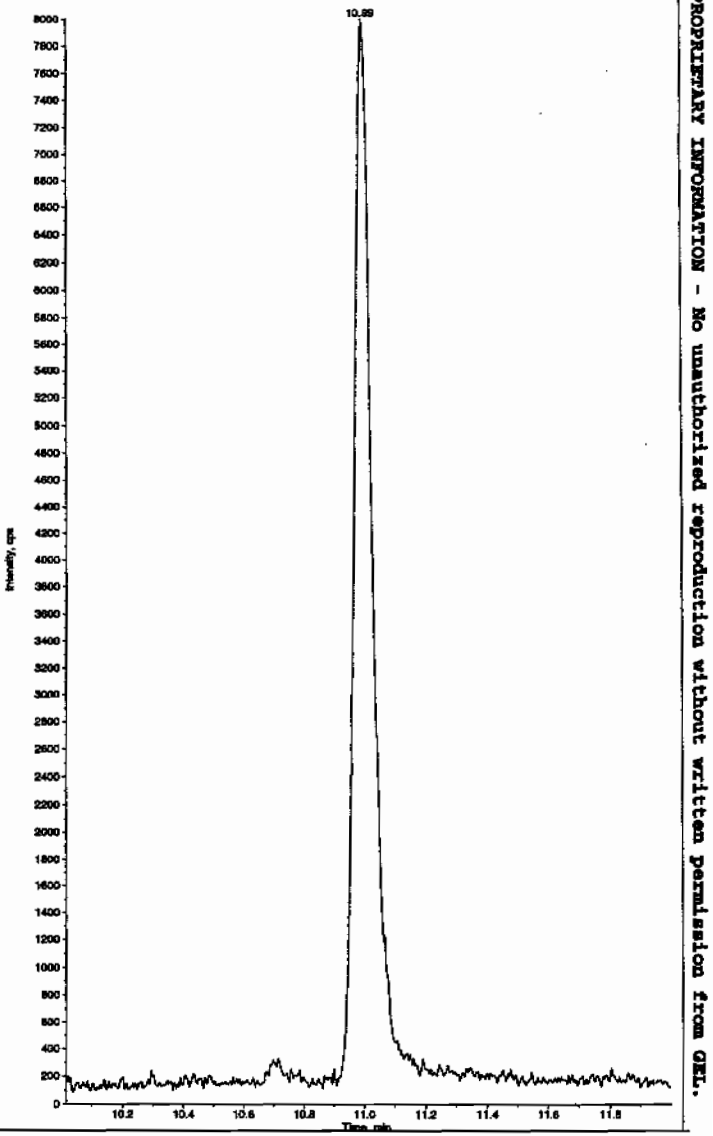

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7884

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686002

Sample Amount 2

Moisture: 5.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208188a

Date Analyzed: 12-FEB-10 10:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208188a
Date: 12-Feb-2010
Time: 10:43:12
ID: 245686002
Vial: 4:5,A

LANC | 947078 | Solids | 2 |

MM 2/13/10

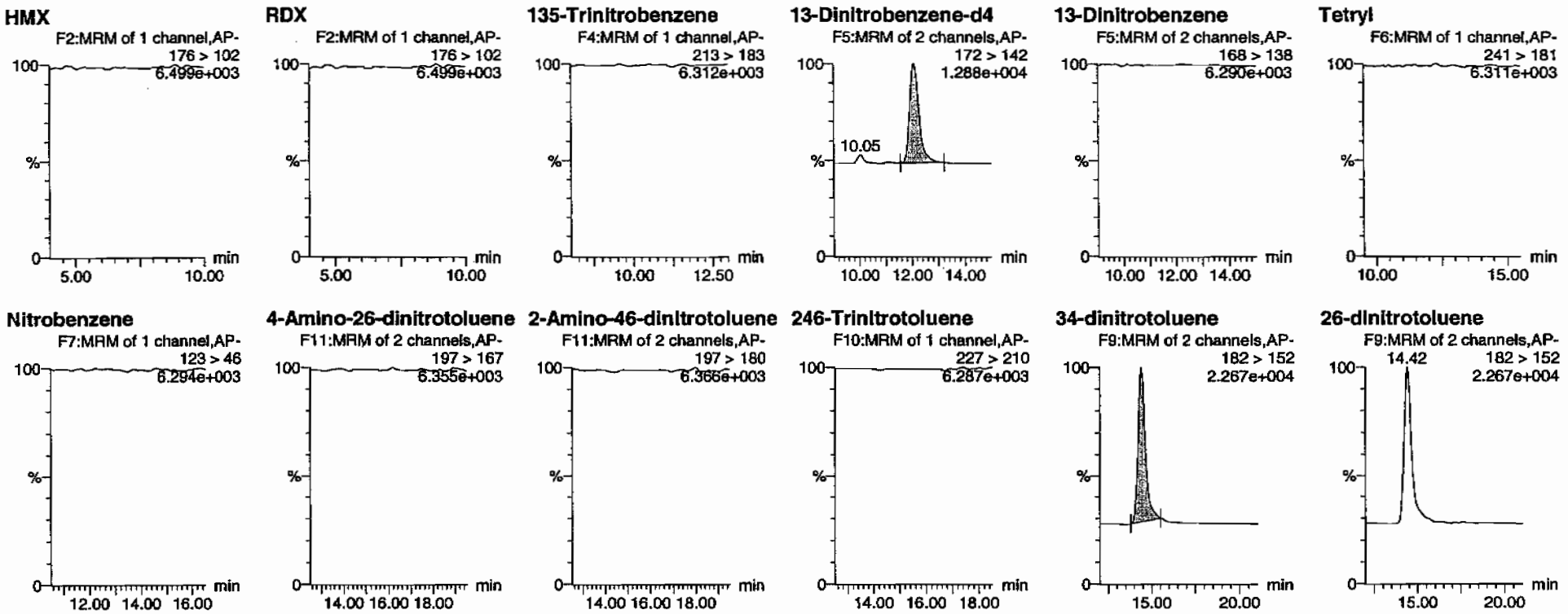

Hmw 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

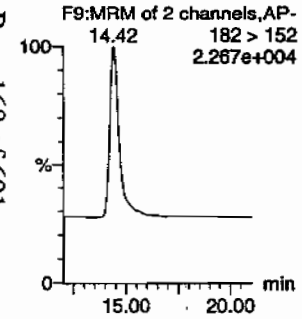

26-dinitrotoluene-d3

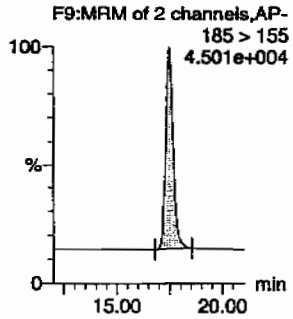

2-Nitrotoluene

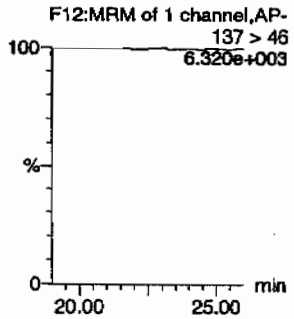

4-Nitrotoluene

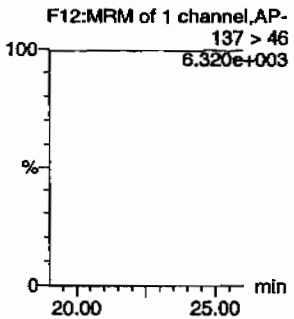

3-Nitrotoluene

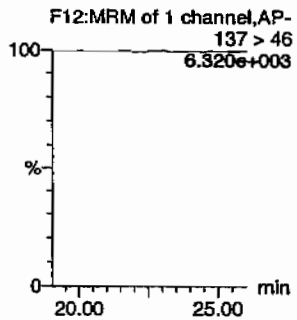

PETN

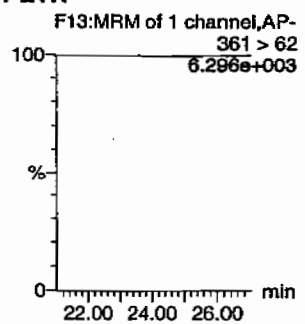

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245686002	HMX	176 > 102			2743.540									
245686002	RDX	176 > 102			2743.540									
245686002	135-Trinitrobenzene	213 > 183			2743.540									
245686002	13-Dinitrobenzene-d4	172 > 142	12.07	2743.540		2743.540	2743.540	bb			426.7347	85.3	-14.7	358.2
245686002	13-Dinitrobenzene	168 > 138			2743.540									
245686002	Tetryl	241 > 181			2743.540									
245686002	Nitrobenzene	123 > 46			2743.540									
245686002	4-Amino-26-dinitrotoluene	197 > 167			15761.599									
245686002	2-Amino-46-dinitrotoluene	197 > 180			15761.599									
245686002	246-Trinitrotoluene	227 > 210			15761.599									
245686002	34-dinitrotoluene	182 > 152	14.42	7899.613	15761.599	7899.613	250.597	bb			278.4434	111.4	11.4	364.2
245686002	26-dinitrotoluene	182 > 152			15761.599									
245686002	24-dinitrotoluene	182 > 152			15761.599									
245686002	26-dinitrotoluene-d3	185 > 155	17.46	15761.599		15761.599	15761.599	bb			426.9196	85.4	-14.6	1613.8
245686002	2-Nitrotoluene	137 > 46			15761.599									
245686002	4-Nitrotoluene	137 > 46			15761.599									
245686002	3-Nitrotoluene	137 > 46			15761.599									
245686002	PETN	361 > 62			15761.599									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7884

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686002

Sample Amount 2

Moisture: 5.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130020.wiff

Date Analyzed: 13-FEB-10 15:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/15/10

Sample Name: "245686002" Sample ID: "947078[2]LER" File: "EXS02130020.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:11:17 PM

Modified: No

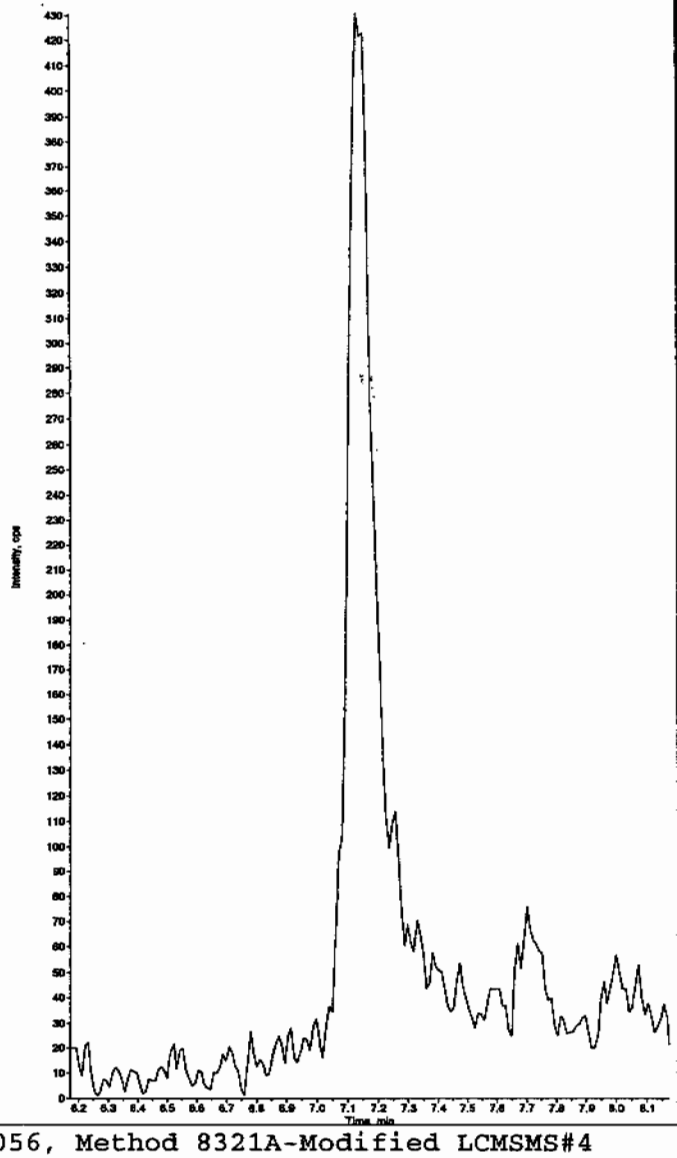

Sample Name: "245686002" Sample ID: "947078[2]LER" File: "EXS02130020.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:11:17 PM

Modified: Yes

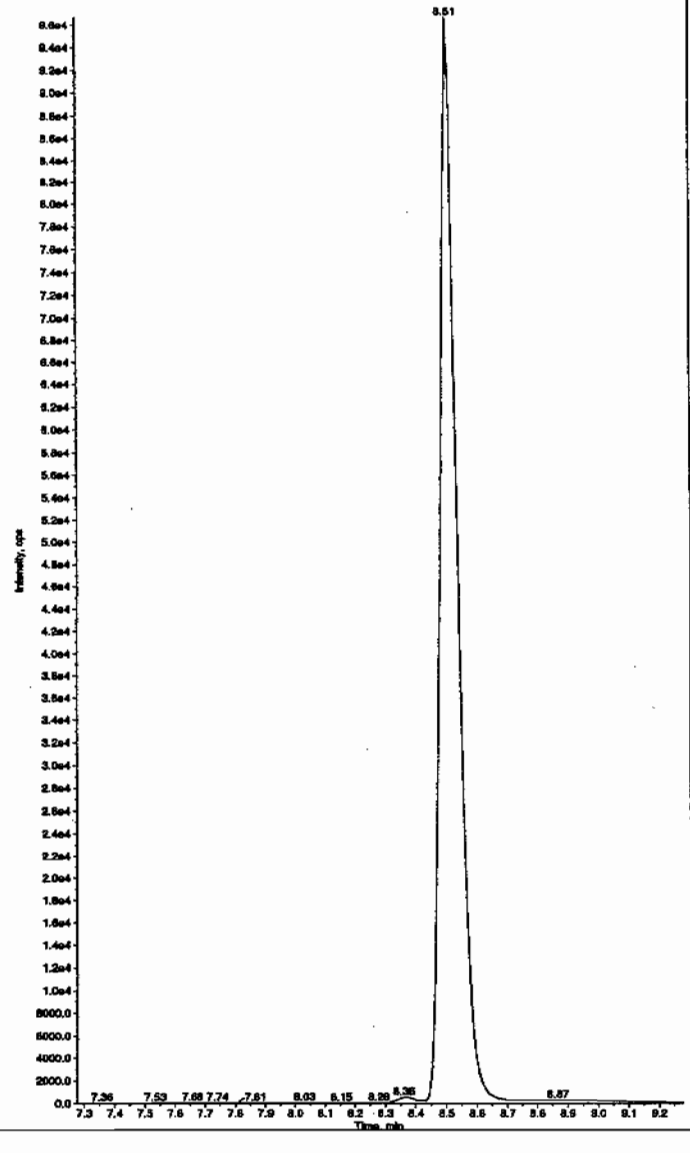

Hmm 2/16/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245686002" Sample ID: "947078|2|LER" File: "EXS02130020.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 322. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:11:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Avg. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.51 min
Area: 3.80e+006 counts
Height: 950876.099 cps
Start Time: 8.40 min
End Time: 8.82 min

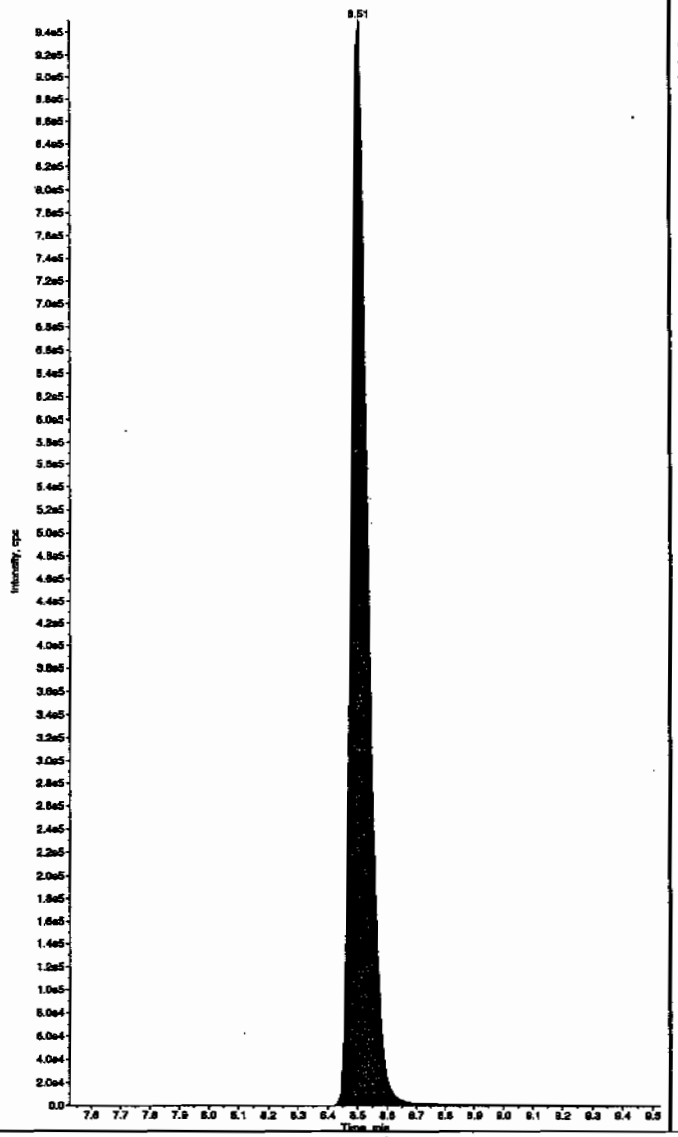

Sample Name: "245686002" Sample ID: "947078|2|LER" File: "EXS02130020.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:11:17 PM

Modified: No

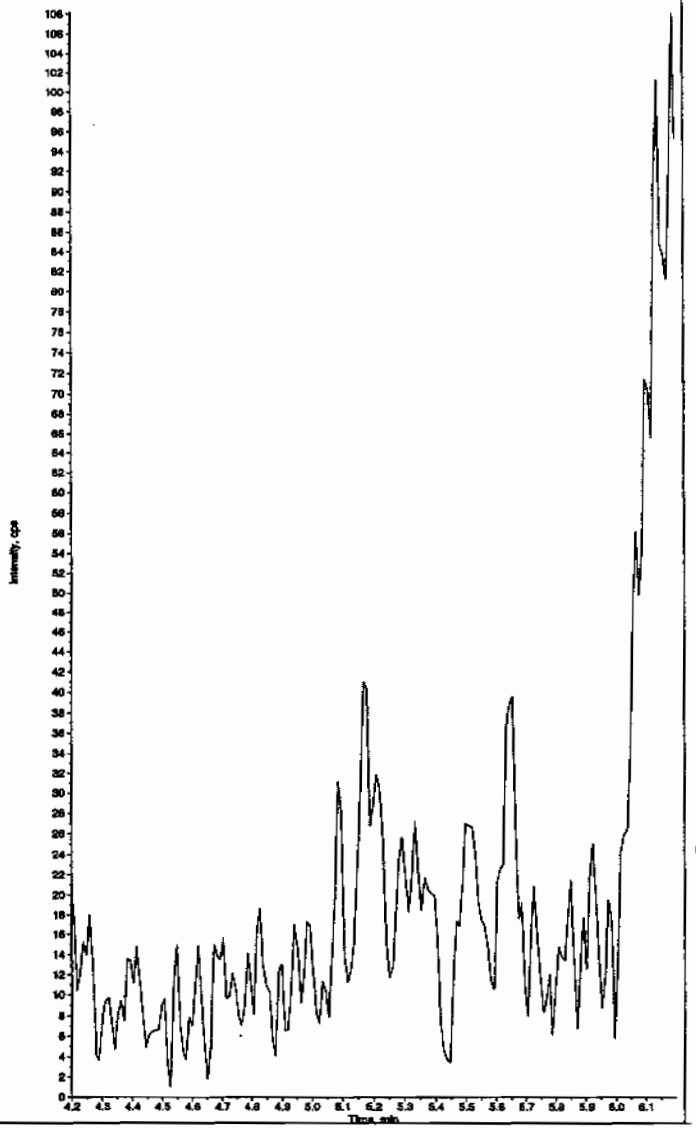

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686002" Sample ID: "947078[2]LER" File: "EXS02130020.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 8.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:11:17 PM

Modified: No

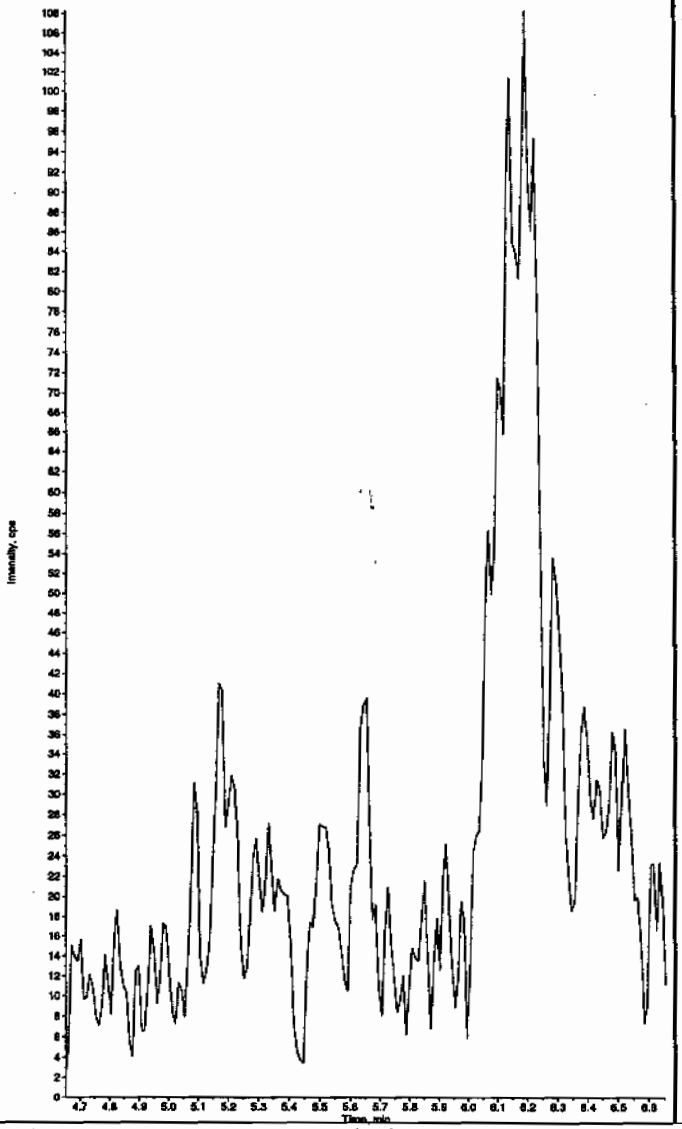

Sample Name: "245686002" Sample ID: "947078[2]LER" File: "EXS02130020.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.02 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:11:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 8.40e+004 counts
Height: 18557.674 cps
Start Time: 10.9 min
End Time: 11.2 min

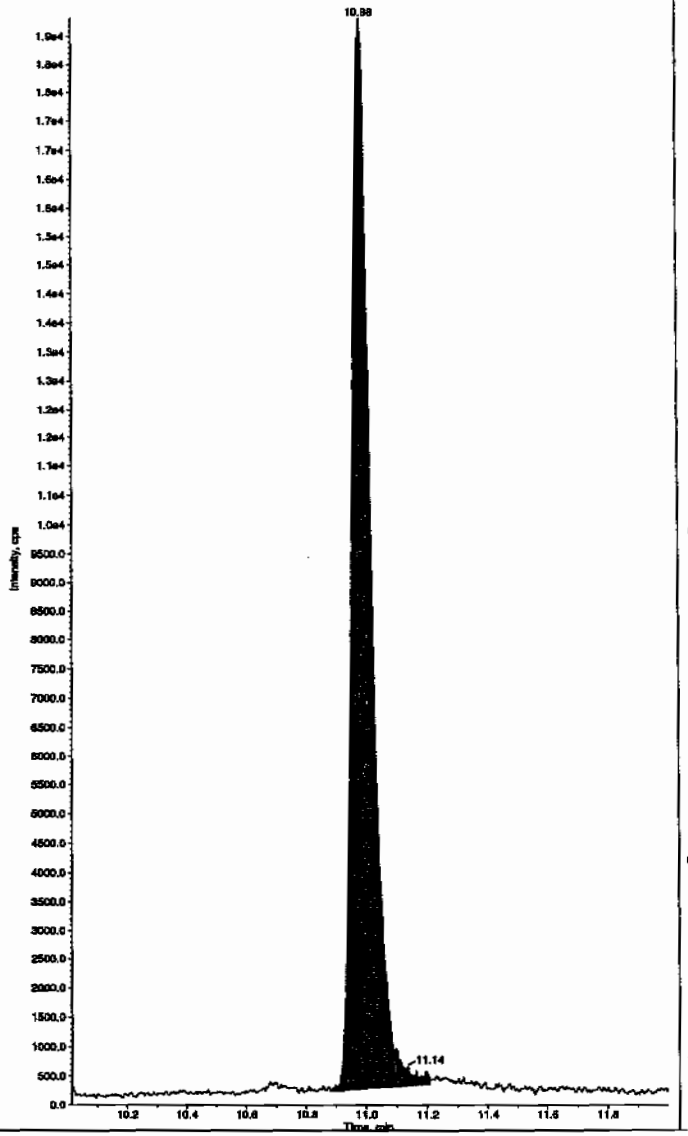

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7932

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208189a

Date Analyzed: 12-FEB-10 11:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208189a
Date: 12-Feb-2010
Time: 11:13:12
ID: 245686003 | LANL | 947078 | Solid | 2 |
Vial: 4:5,B

MAP 2/13/10

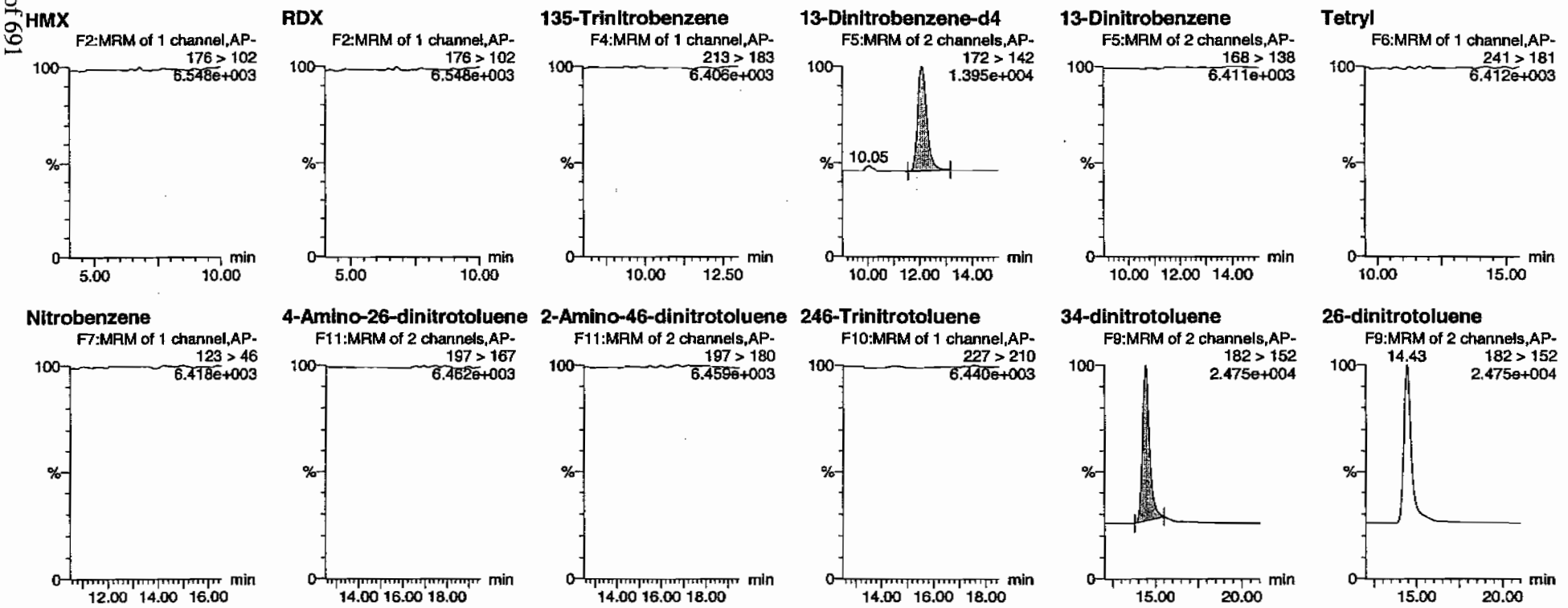

Hmm 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43 182 > 152
2.475e+004

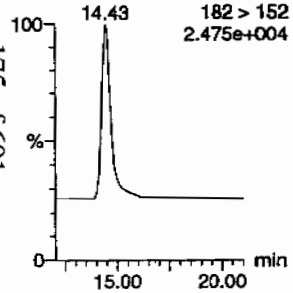

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.056e+004

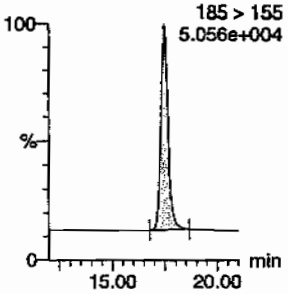

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.427e+003

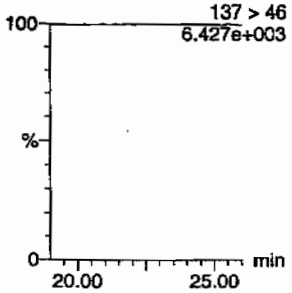

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.427e+003

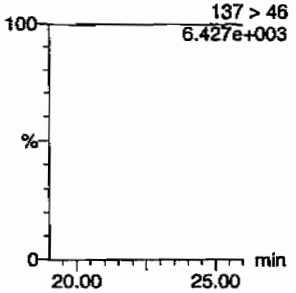

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.427e+003

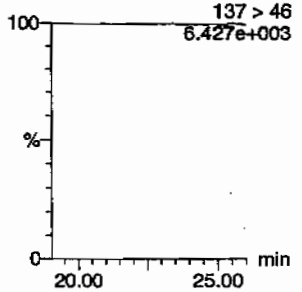

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.415e+003

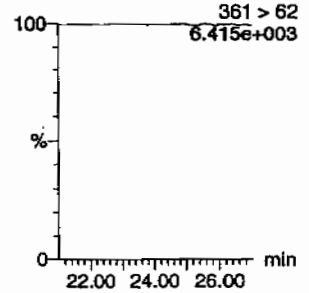

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date?	Modtime	mg/mL	%Rec	%Dev	S/N
245686003	HMX	176 > 102			3094.481									
245686003	RDX	176 > 102			3094.481									
245686003	135-Trinitrobenzene	213 > 183			3094.481									
245686003	13-Dinitrobenzene-d4	172 > 142	12.10	3094.481		3094.481	3094.481	bb			481.3206	96.3	-3.7	299.9
245686003	13-Dinitrobenzene	168 > 138			3094.481									
245686003	Tetryl	241 > 181			3094.481									
245686003	Nitrobenzene	123 > 46			3094.481									
245686003	4-Amino-26-dinitrotoluene	197 > 167			18009.797									
245686003	2-Amino-46-dinitrotoluene	197 > 180			18009.797									
245686003	246-Trinitrotoluene	227 > 210			18009.797									
245686003	34-dinitrotoluene	182 > 152	14.43	8704.408	18009.797	8704.408	241.658	bb			268.5108	107.4	7.4	527.1
245686003	26-dinitrotoluene	182 > 152			18009.797									
245686003	24-dinitrotoluene	182 > 152			18009.797									
245686003	26-dinitrotoluene-d3	185 > 155	17.46	18009.797		18009.797	18009.797	bb			487.8144	97.6	-2.4	2733.4
245686003	2-Nitrotoluene	137 > 46			18009.797									
245686003	4-Nitrotoluene	137 > 46			18009.797									
245686003	3-Nitrotoluene	137 > 46			18009.797									
245686003	PETN	361 > 62			18009.797									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7932

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130021.wiff

Date Analyzed: 13-FEB-10 15:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dar 2/15/10

Sample Name: "245686003" Sample ID: "947078[2]LER" File: "EXS02130021.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:26:57 PM

Modified: No

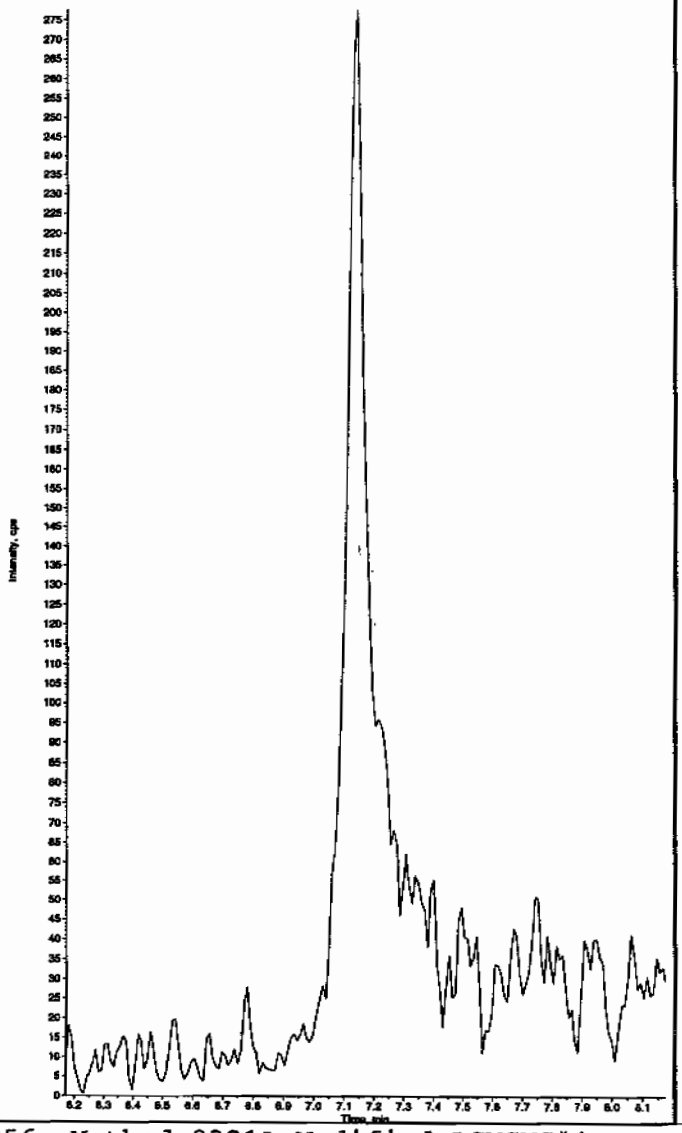

Sample Name: "245686003" Sample ID: "947078[2]LER" File: "EXS02130021.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:26:57 PM

Modified: Yes

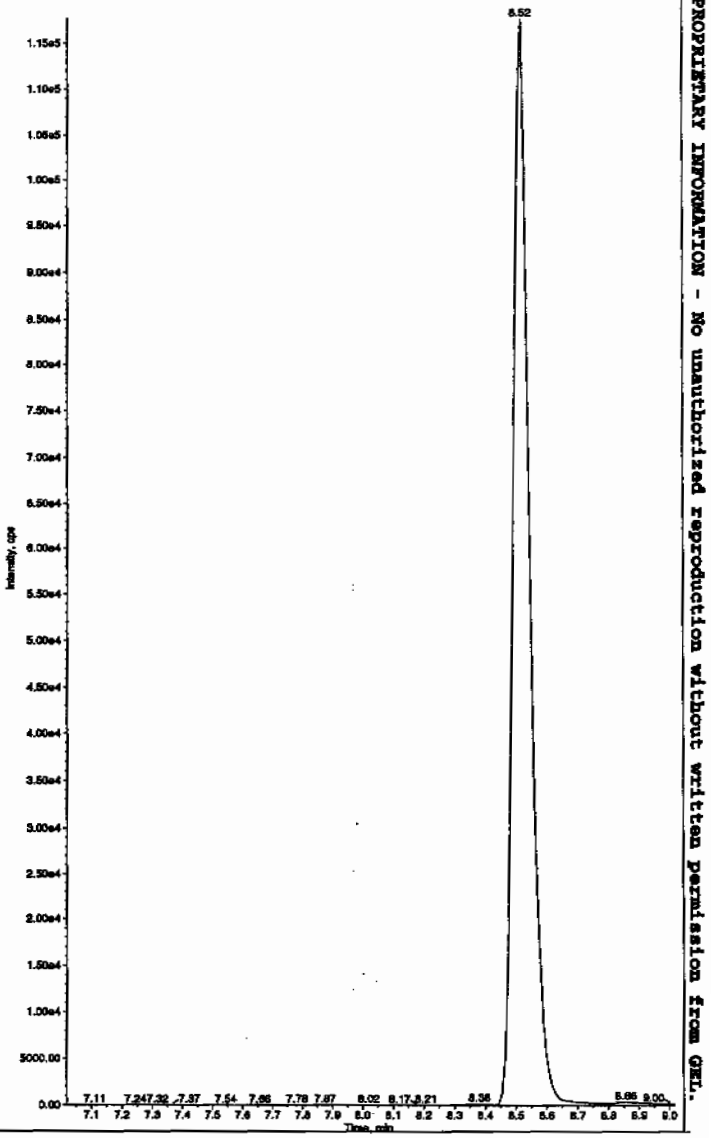

Hmm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245586003" Sample ID: "947078[2]LER" File: "EXS02130021.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 348. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:26:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.51 min
Area: 4.09e+006 counts
Height: 1053510.254 cps
Start Time: 8.41 min
End Time: 8.88 min

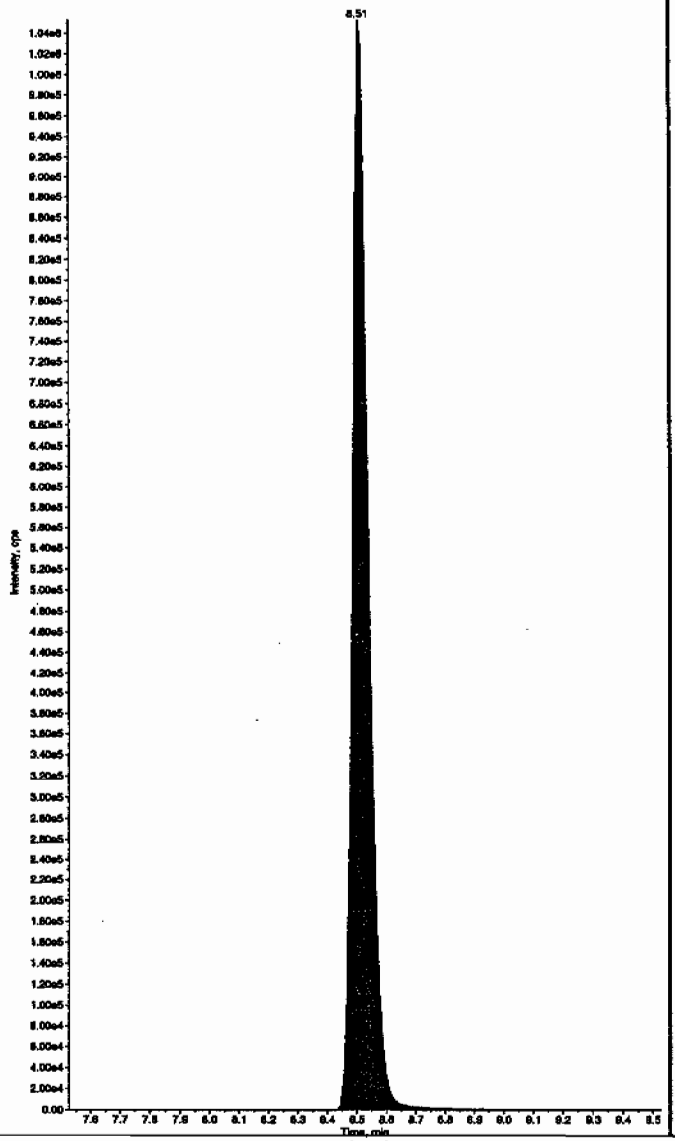

Sample Name: "245586003" Sample ID: "947078[2]LER" File: "EXS02130021.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:26:57 PM

Modified: No

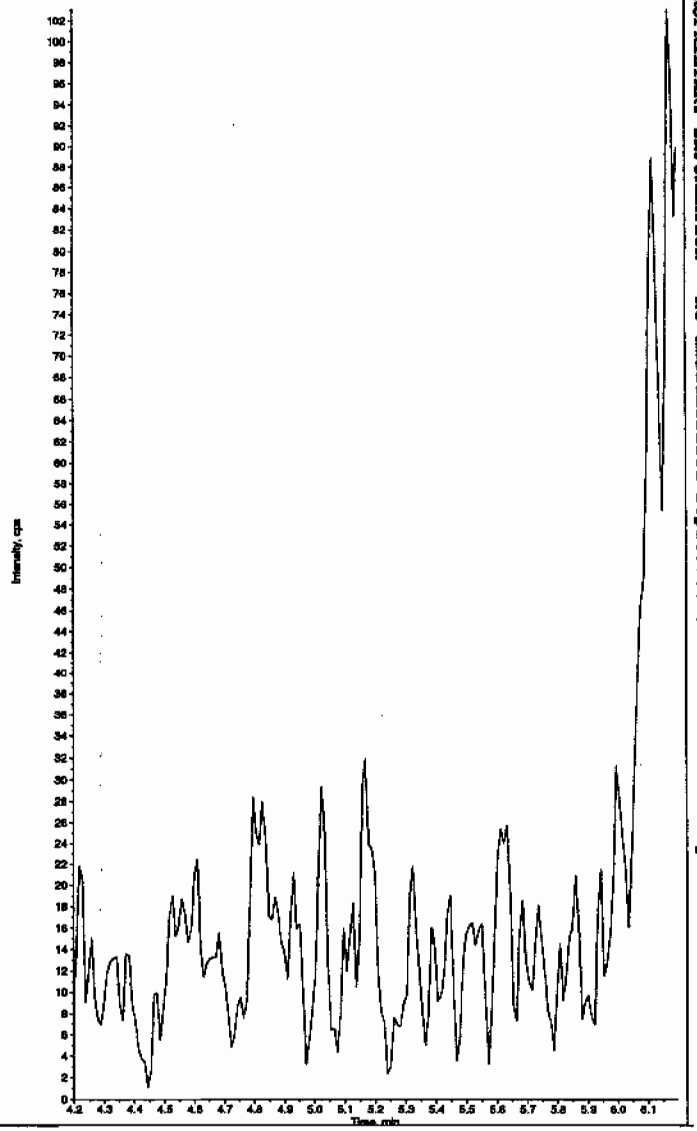

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686003" Sample ID: "947078[2]LER" File: "EXS02130021.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:26:57 PM

Modified: No

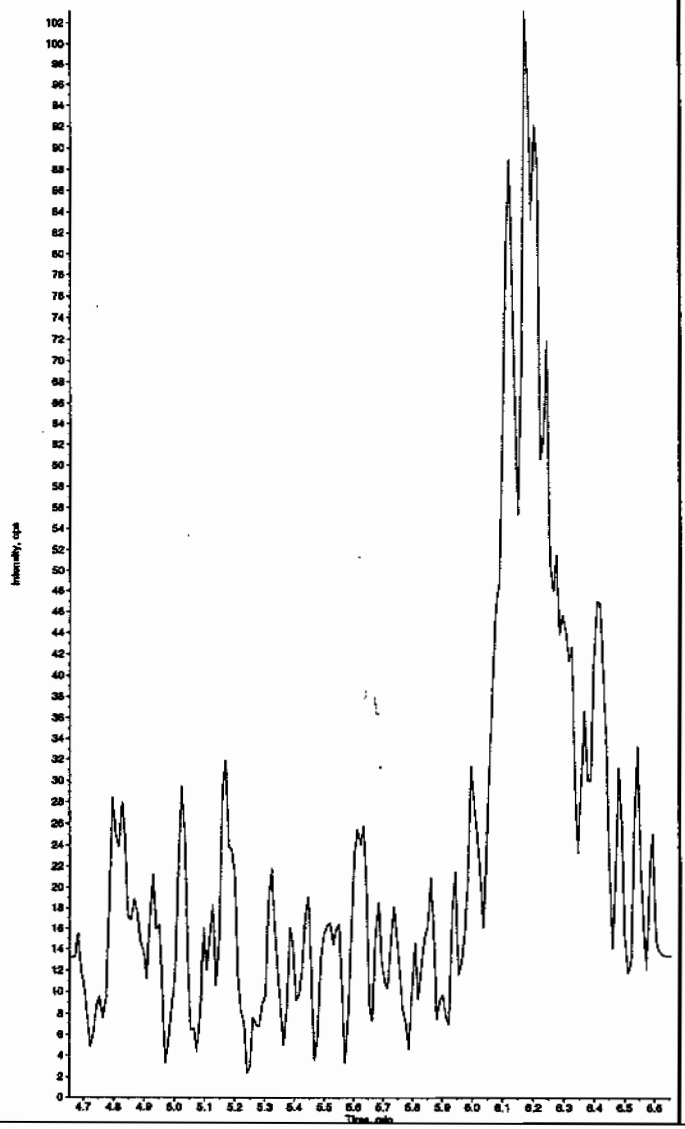

Sample Name: "245686003" Sample ID: "947078[2]LER" File: "EXS02130021.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:26:57 PM

Modified: No

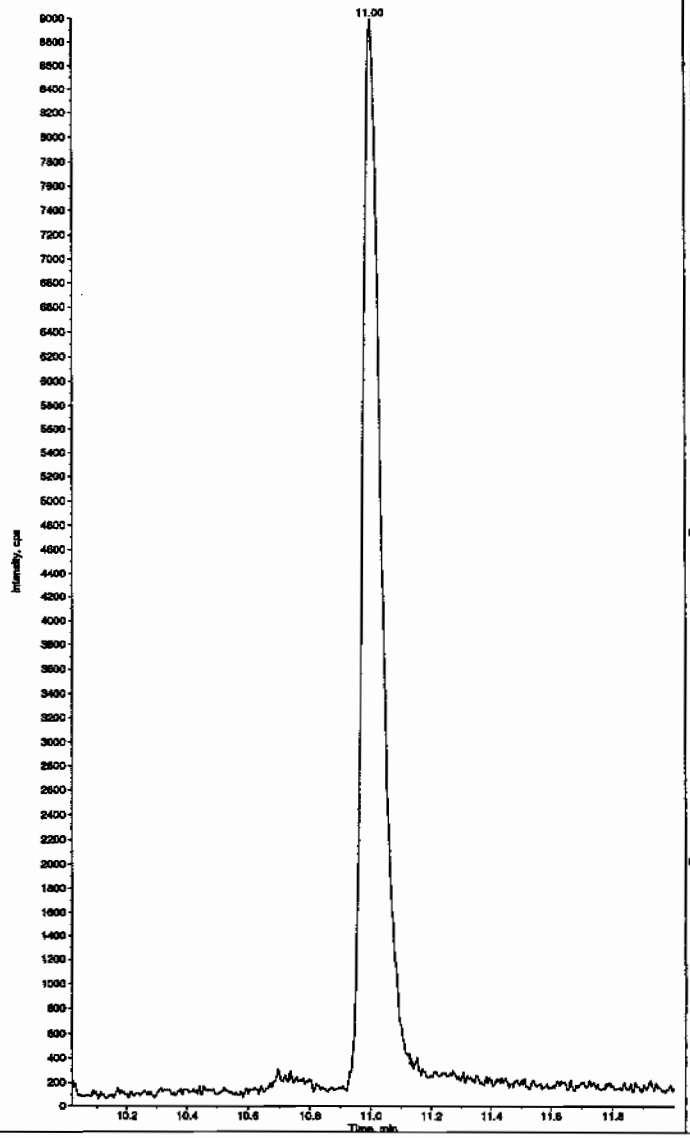

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7931

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208190a

Date Analyzed: 12-FEB-10 11:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208190a
Date: 12-Feb-2010
Time: 11:42:57
ID: 245686004 | LANL | 947078 | Soils | 21
Vial: 4:5,C

MGP 2/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.791e+003

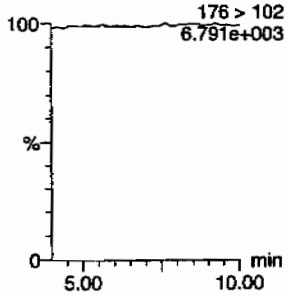

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.791e+003

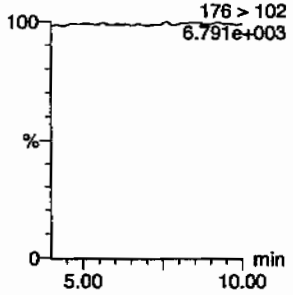

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.674e+003

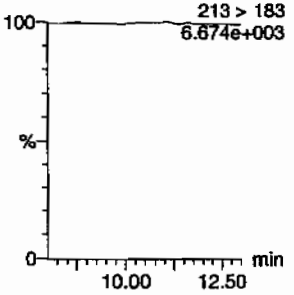

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.440e+004

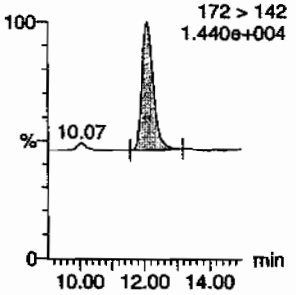

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.672e+003

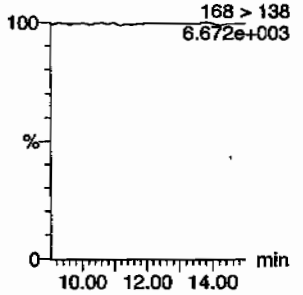

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.698e+003

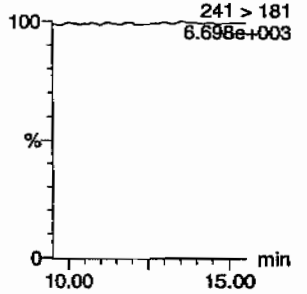

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.696e+003

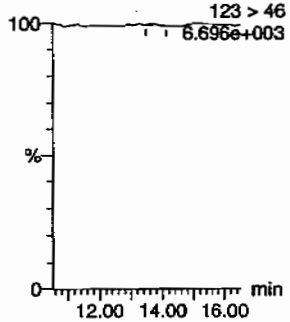

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.712e+003

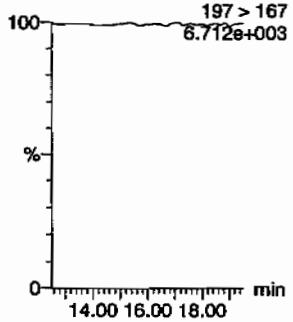

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.696e+003

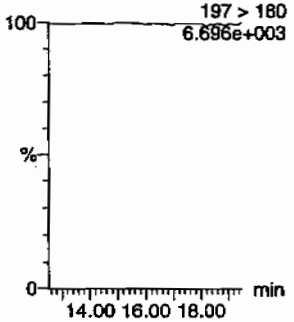

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.716e+003

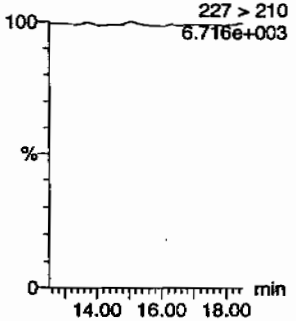

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.500e+004

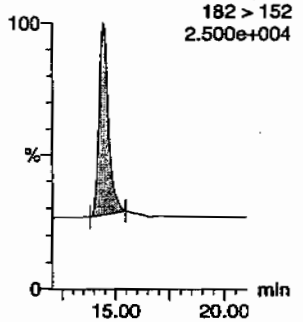

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.42
182 > 152
2.500e+004

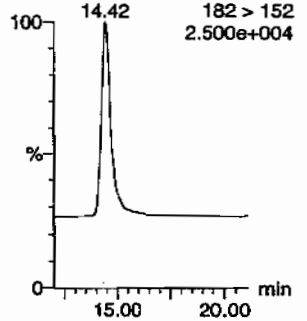

HMC 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

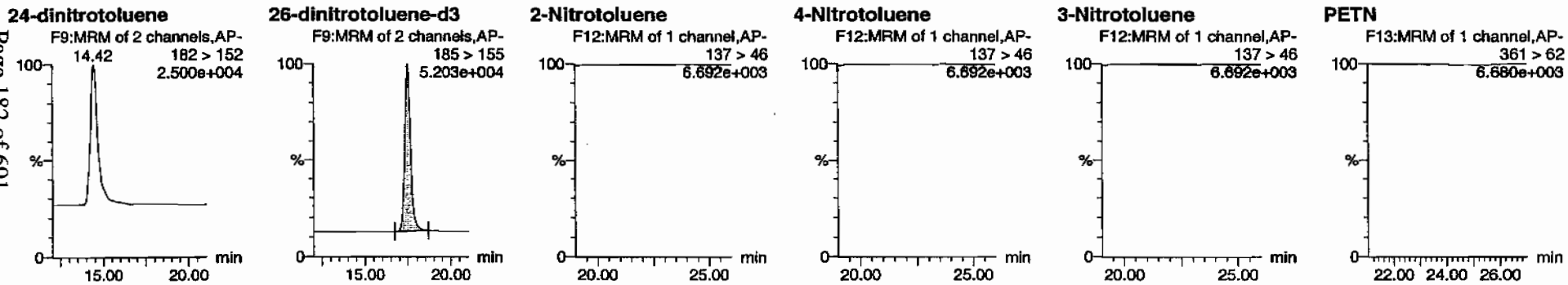

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245686004	HMX	176 > 102			3140.770									
245686004	RDX	176 > 102			3140.770									
245686004	135-Trinitrobenzene	213 > 183			3140.770									
245686004	13-Dinitrobenzene-d4	172 > 142	12.07	3140.770		3140.770	3140.770	bb			488.5205	97.7	-2.3	158.9
245686004	13-Dinitrobenzene	168 > 138			3140.770									
245686004	Tetryl	241 > 181			3140.770									
245686004	Nitrobenzene	123 > 46			3140.770			MM-	13-Feb-10	09:18:41				
245686004	4-Amino-26-dinitrotoluene	197 > 167			18084.086									
245686004	2-Amino-46-dinitrotoluene	197 > 180			18084.086									
245686004	246-Trinitrotoluene	227 > 210			18084.086									
245686004	34-dinitrotoluene	182 > 152	14.42	8997.962	18084.086	8997.962	248.781	bb			276.4260	110.6	10.6	243.2
245686004	26-dinitrotoluene	182 > 152			18084.086									
245686004	24-dinitrotoluene	182 > 152			18084.086									
245686004	26-dinitrotoluene-d3	185 > 155	17.46	18084.086		18084.086	18084.086	bb			489.8266	98.0	-2.0	2160.7
245686004	2-Nitrotoluene	137 > 46			18084.086									
245686004	4-Nitrotoluene	137 > 46			18084.086									
245686004	3-Nitrotoluene	137 > 46			18084.086									
245686004	PETN	361 > 62			18084.086									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7931

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130022.wiff

Date Analyzed: 13-FEB-10 15:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rev 2/10/10

Sample Name: "245686004" Sample ID: "947078[2]LER" File: "EXS02130022.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:42:39 PM

Modified: No

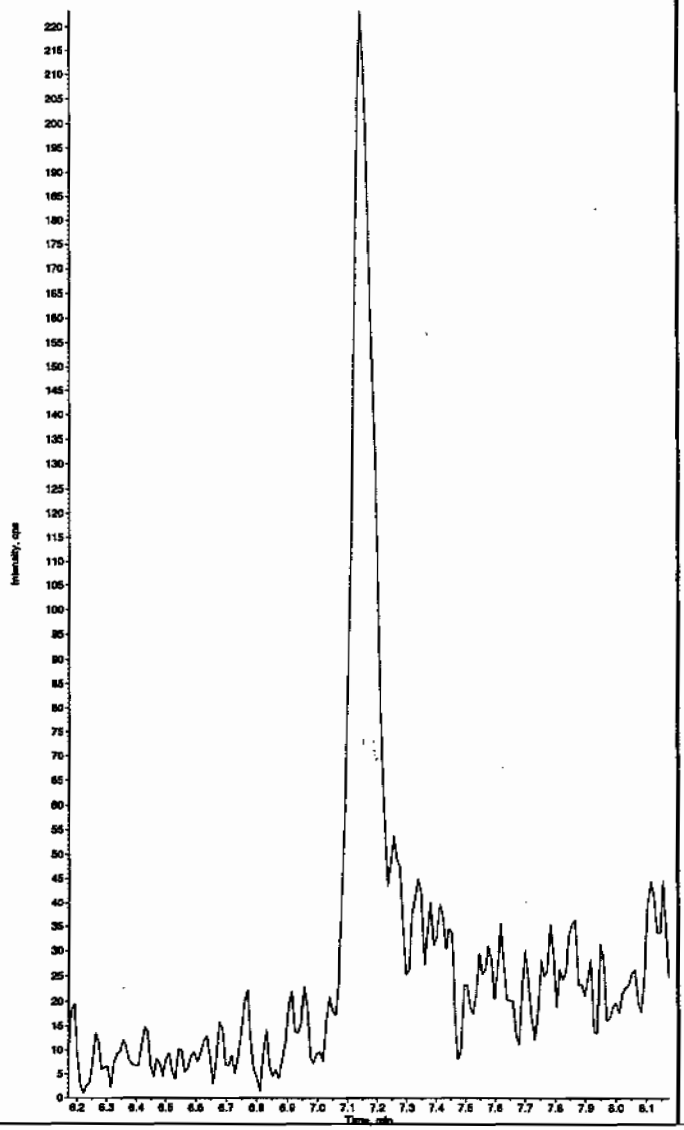

Sample Name: "245686004" Sample ID: "947078[2]LER" File: "EXS02130022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:42:39 PM

Modified: Yes

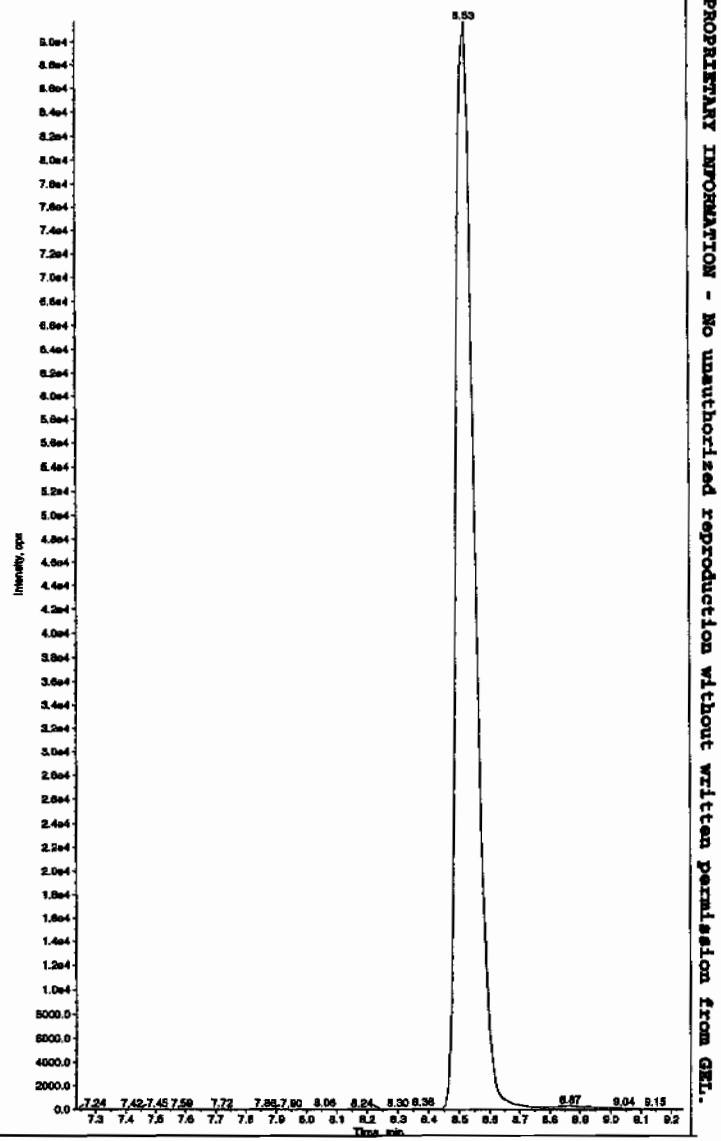

Hrme 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686004" Sample ID: "947076[2]LER" File: "EXS02130022.wiff"
Peak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 336. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:42:39 PM

Modified: No
Integ. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.95e+006 counts
Height: 1015330.505 cps
Start Time: 8.39 min
End Time: 8.88 min

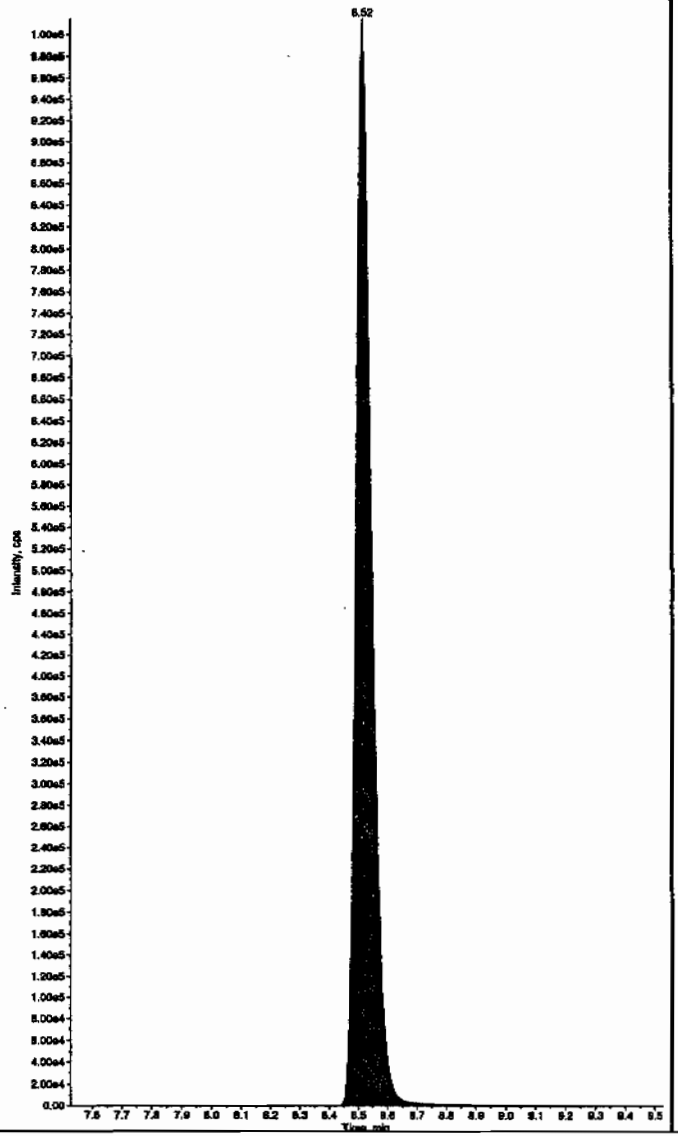

Sample Name: "245686004" Sample ID: "947076[2]LER" File: "EXS02130022.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:42:39 PM

Modified: No

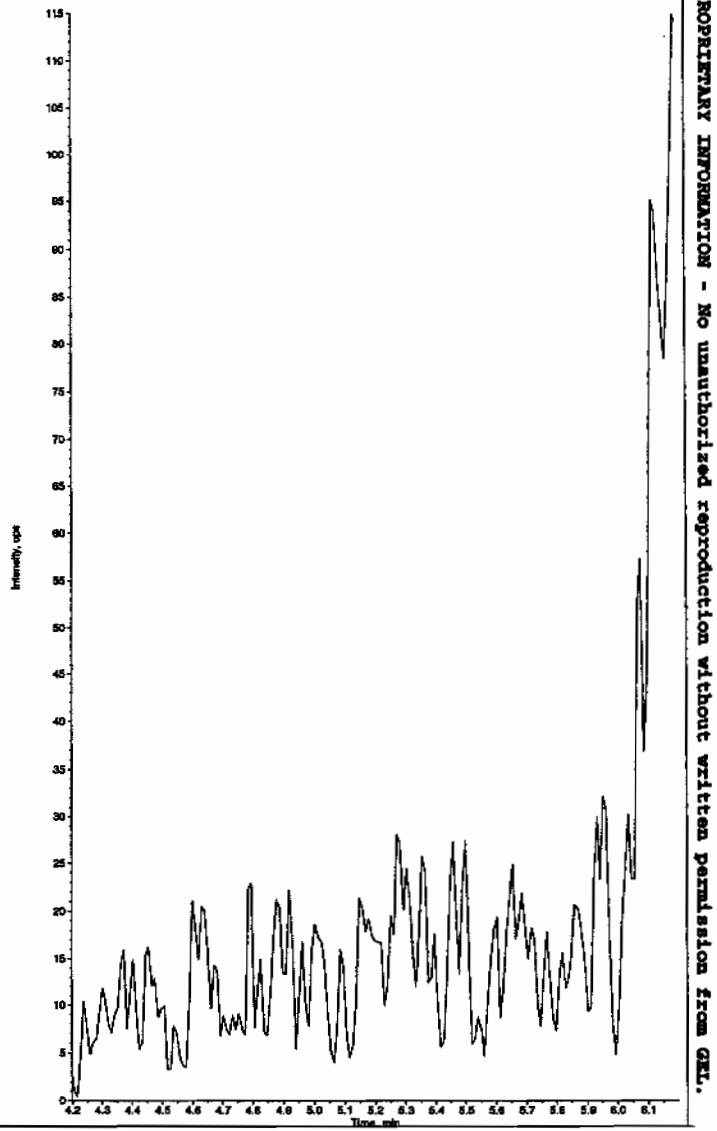

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686004" Sample ID: "947078|2|LER" File: "EXS02130022.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:42:39 PM

Modified: No

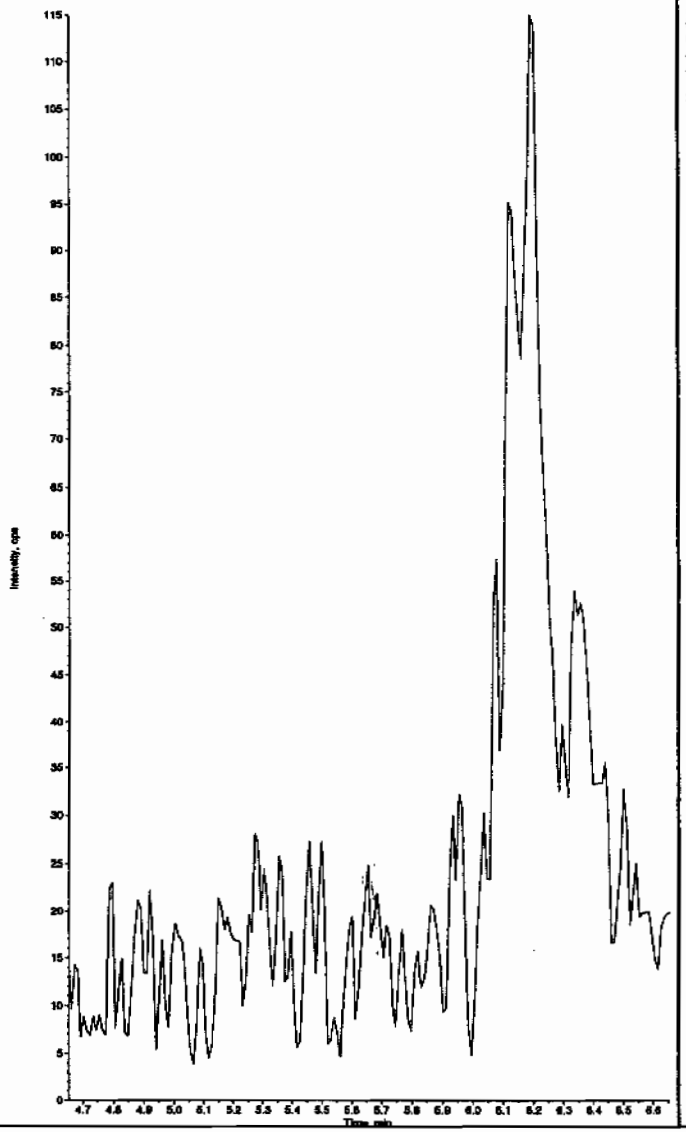

Sample Name: "245686004" Sample ID: "947078|2|LER" File: "EXS02130022.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:42:39 PM

Modified: No

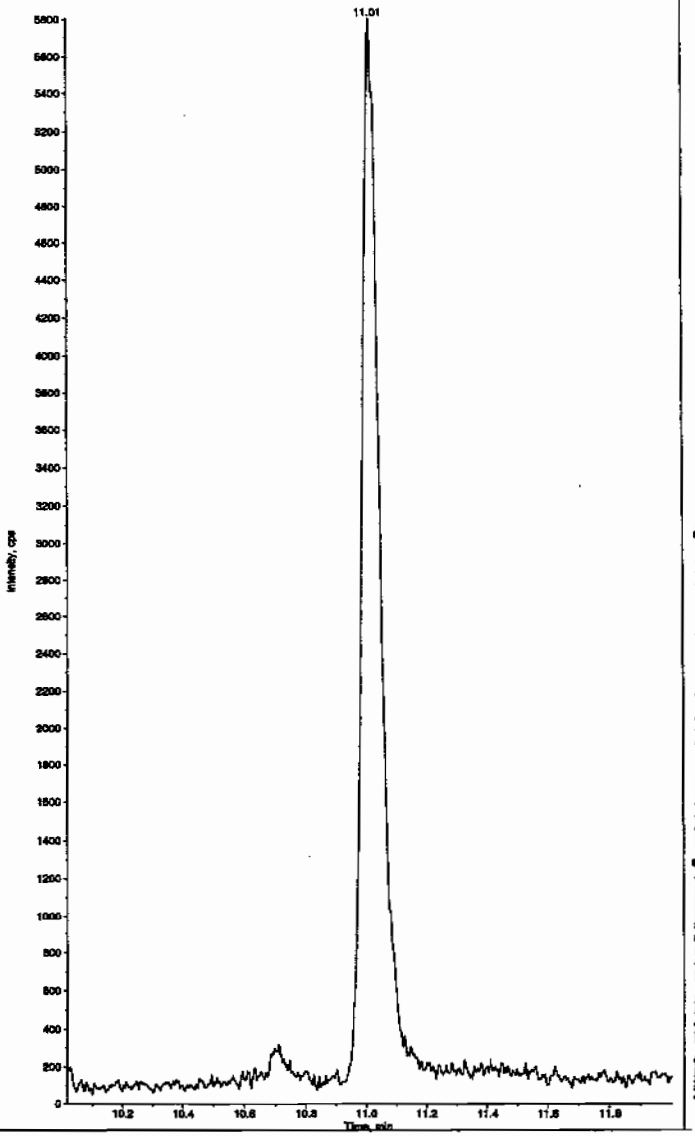

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7938

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208191a

Date Analyzed: 12-FEB-10 12:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208191a
Date: 12-Feb-2010
Time: 12:12:27
ID: 245686005 | LANU | 947078 | Solids | 2 |
Vial: 4:5,D

MMT 2/12/10

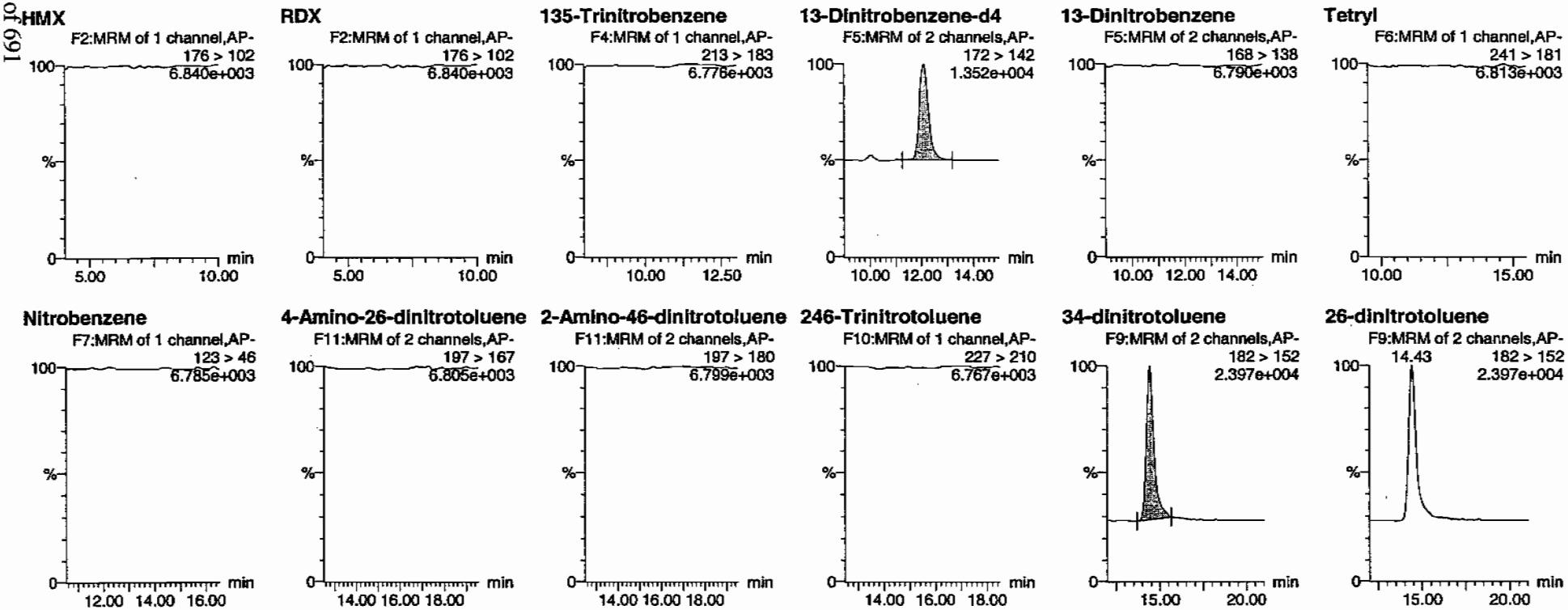

Hmm 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

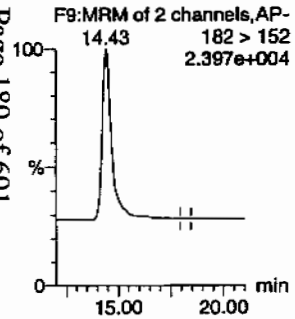

26-dinitrotoluene-d3

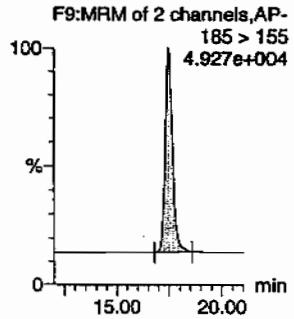

2-Nitrotoluene

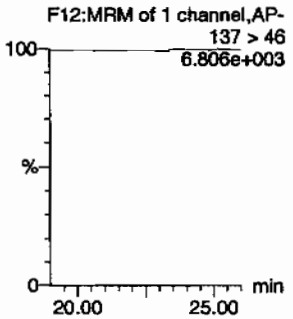

4-Nitrotoluene

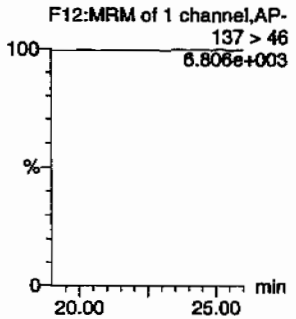

3-Nitrotoluene

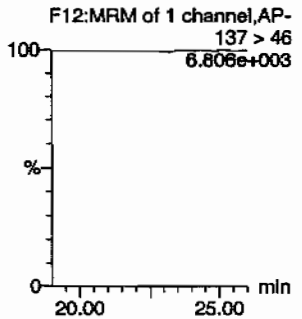

PETN

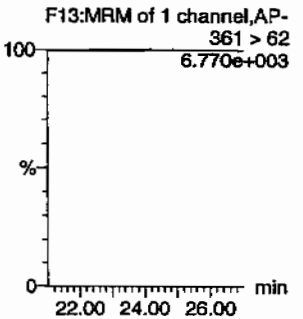

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245686005	HMX	176 > 102			2779.316									
245686005	RDX	176 > 102			2779.316									
245686005	135-Trinitrobenzene	213 > 183			2779.316									
245686005	13-Dinitrobenzene-d4	172 > 142	12.10	2779.316		2779.316	2779.316	bb			432.2993	86.5	-13.5	358.4
245686005	13-Dinitrobenzene	168 > 138			2779.316									
245686005	Tetryl	241 > 181			2779.316									
245686005	Nitrobenzene	123 > 46			2779.316									
245686005	4-Amino-26-dinitrotoluene	197 > 167			17403.484									
245686005	2-Amino-46-dinitrotoluene	197 > 180			17403.484									
245686005	246-Trinitrotoluene	227 > 210			17403.484									
245686005	34-dinitrotoluene	182 > 152	14.43	8465.923	17403.484	8465.923	243.225	bb			270.2523	108.1	8.1	418.7
245686005	26-dinitrotoluene	182 > 152			17403.484									
245686005	24-dinitrotoluene	182 > 152			17403.484			MM-	13-Feb-10	09:27:43				
245686005	26-dinitrotoluene-d3	185 > 155	17.47	17403.484		17403.484	17403.484	bb			471.3918	94.3	-5.7	1777.6
245686005	2-Nitrotoluene	137 > 46			17403.484									
245686005	4-Nitrotoluene	137 > 46			17403.484									
245686005	3-Nitrotoluene	137 > 46			17403.484									
245686005	PETN	361 > 62			17403.484									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7938

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130023.wiff

Date Analyzed: 13-FEB-10 15:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Pkr 2/15/10

Sample Name: "245686005" Sample ID: "947078[2]LER" File: "EXS02130023.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:58:20 PM

Modified: No

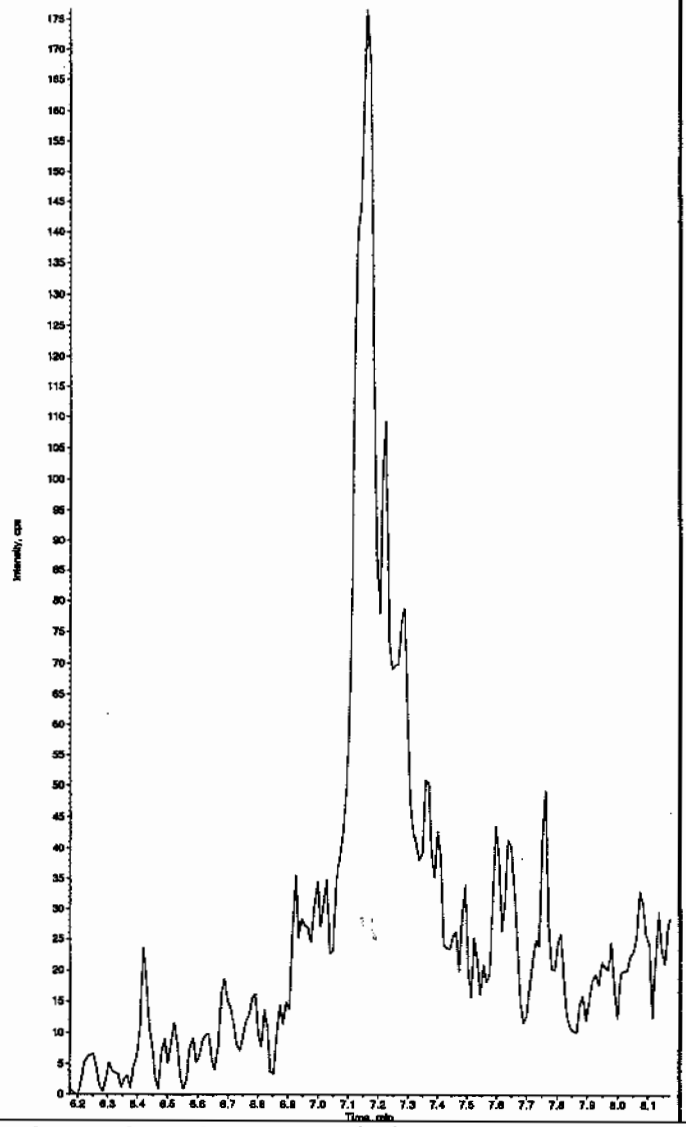

Sample Name: "245686005" Sample ID: "947078[2]LER" File: "EXS02130023.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:58:20 PM

Modified: Yes

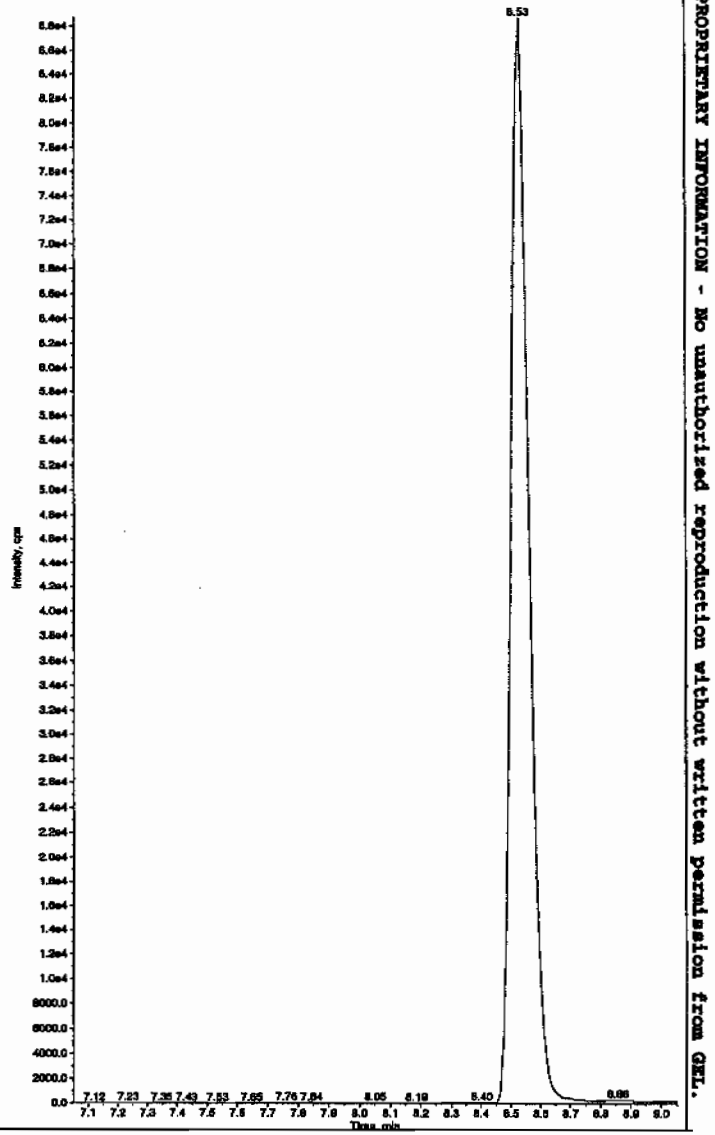

Hmm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686005" Sample ID: "947078|2|LER" File: "EXS02130023.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 337. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:58:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.96e+006 counts
Height: 995820.557 cps
Start Time: 8.38 min
End Time: 8.89 min

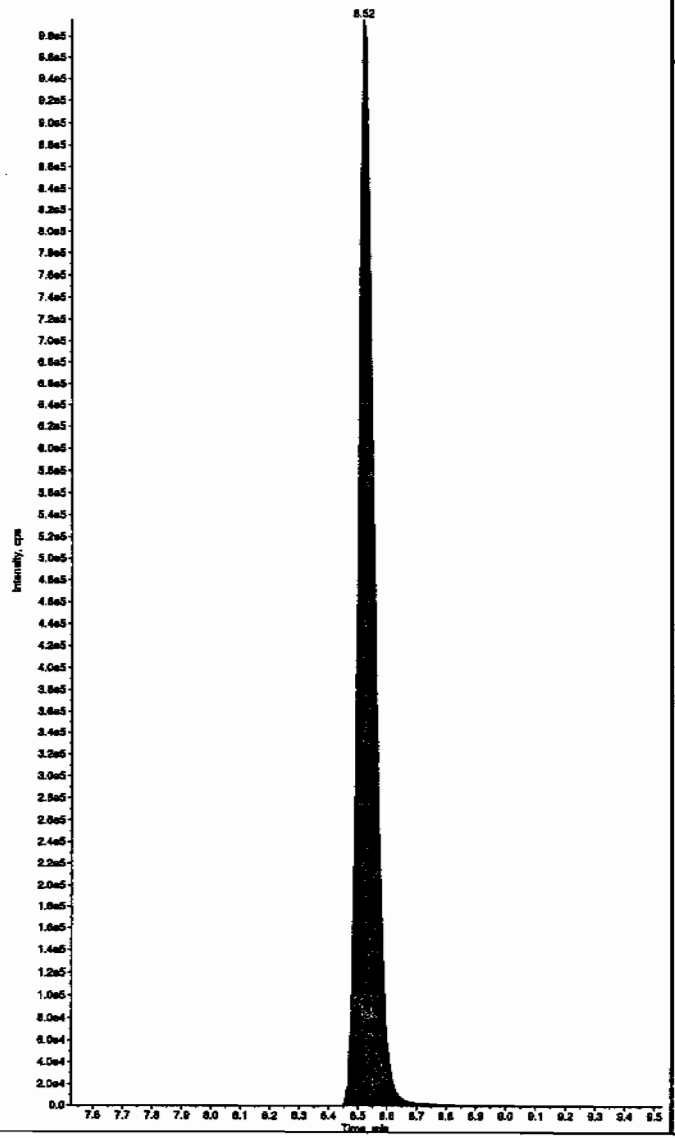

Sample Name: "245686005" Sample ID: "947078|2|LER" File: "EXS02130023.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:58:20 PM

Modified: No

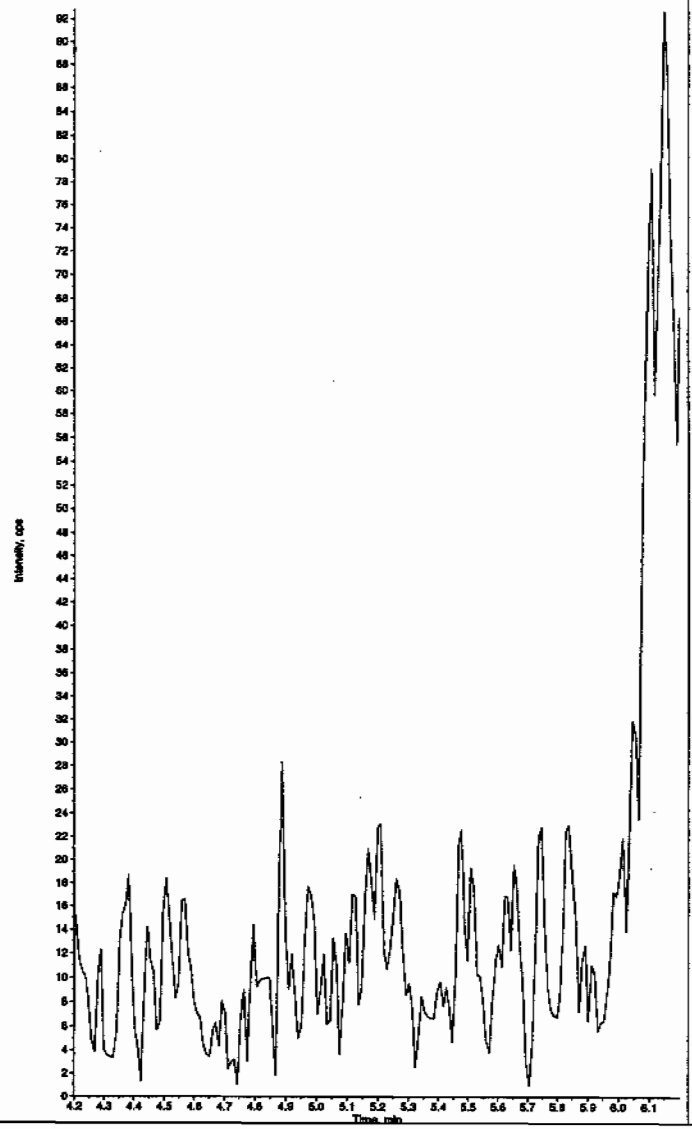

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686005" Sample ID: "947078[2]LER" File: "EXS02130023.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:58:20 PM

Modified: No

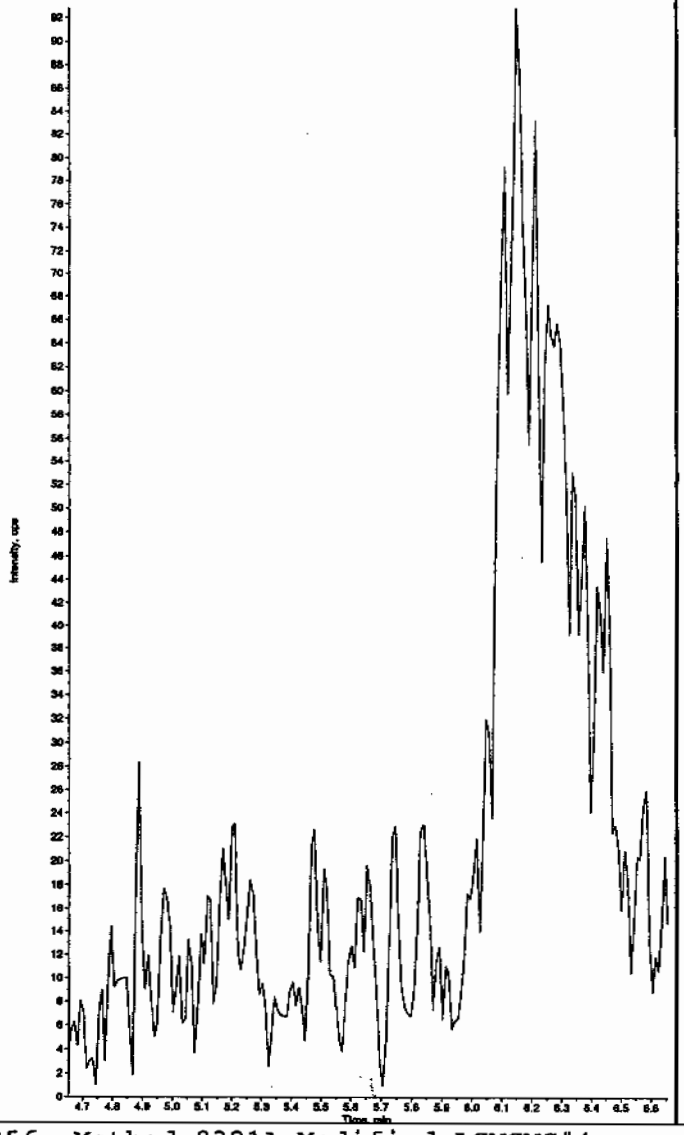

Sample Name: "245686005" Sample ID: "947078[2]LER" File: "EXS02130023.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 3:58:20 PM

Modified: No

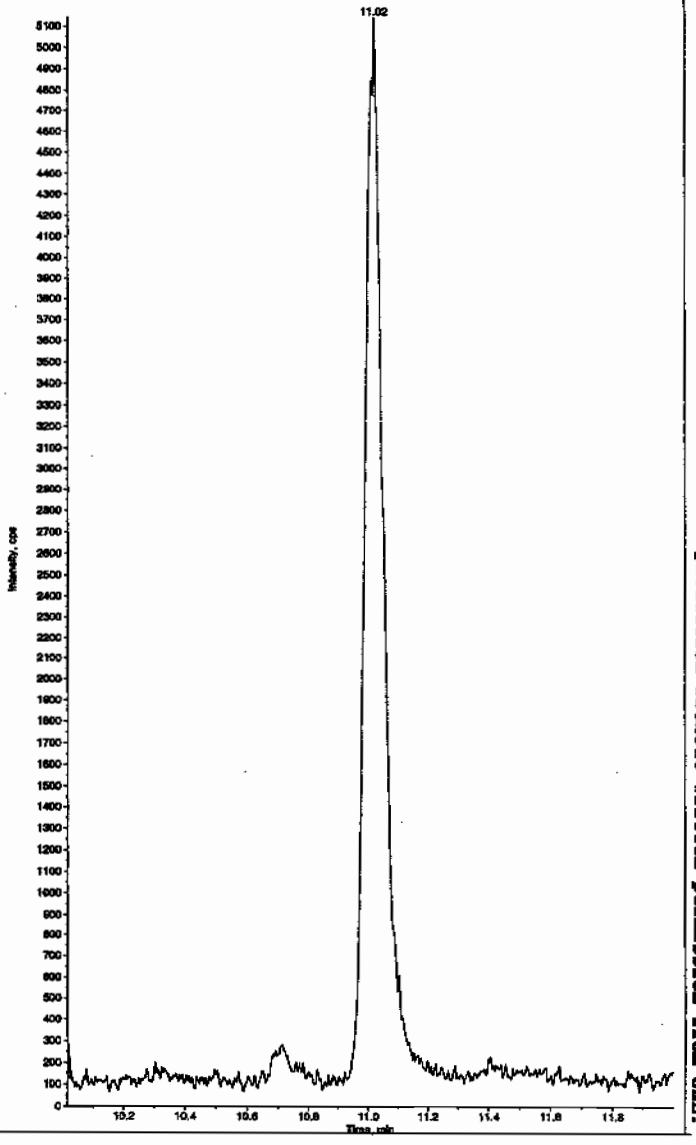

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7933

Lab Code: GEI

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208195a

Date Analyzed: 12-FEB-10 14:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208195a
Date: 12-Feb-2010
Time: 14:10:25
ID: 245686006 | LANC | 947078 | Soil | 2 |
Vial: 4:5,E

MAP 2/13/10

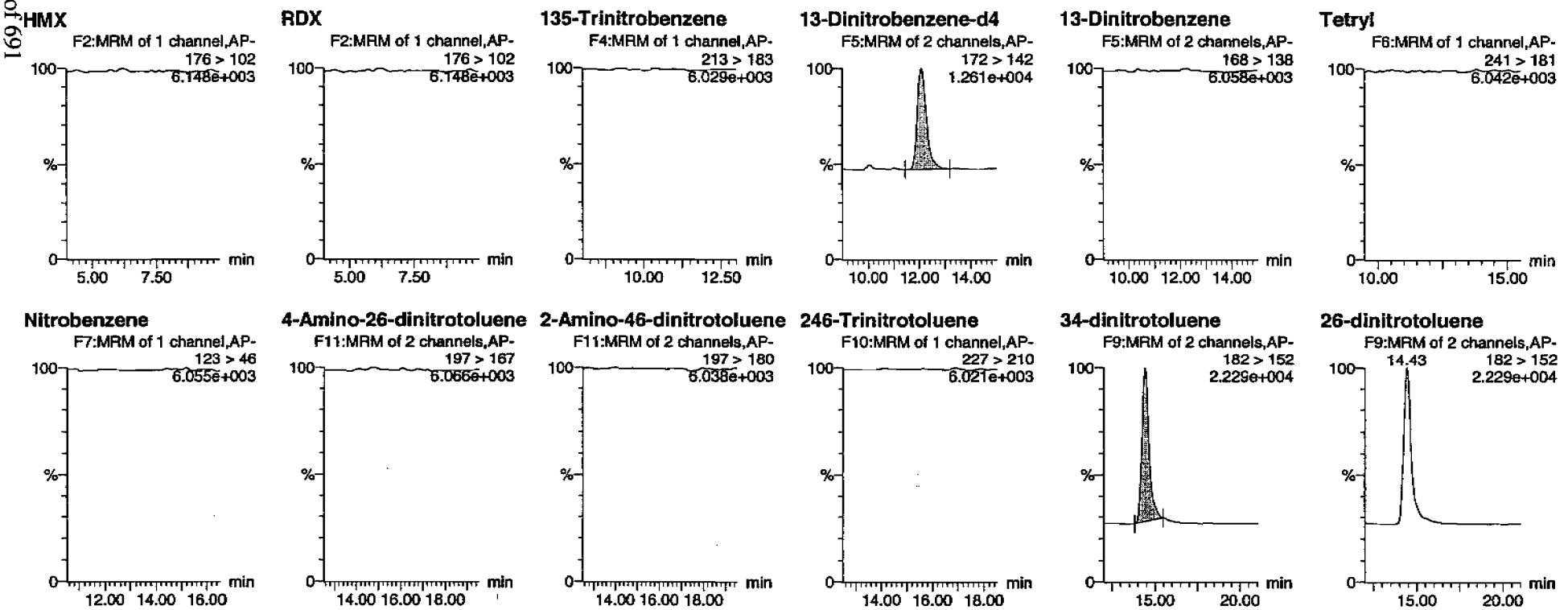

HMW 02/13/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

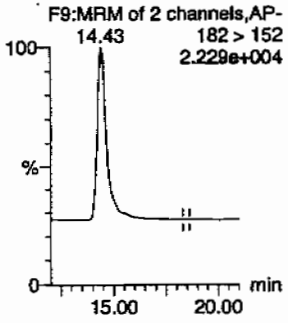

26-dinitrotoluene-d3

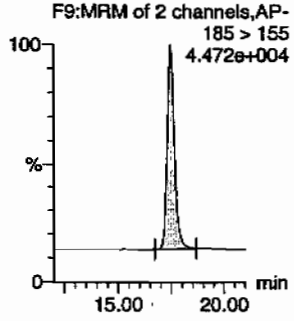

2-Nitrotoluene

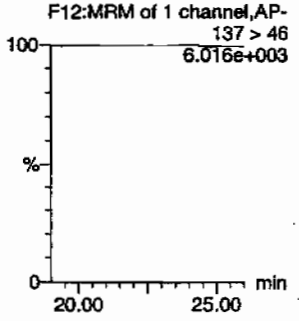

4-Nitrotoluene

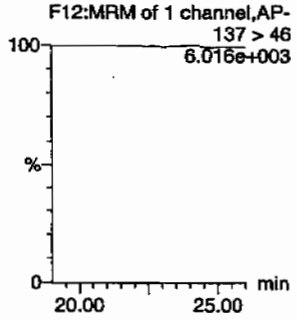

3-Nitrotoluene

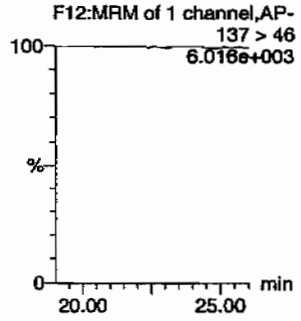

PETN

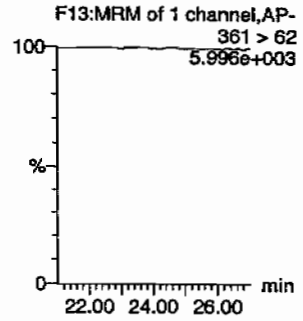

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245686006	HMX	176 > 102			2714.267									
245686006	RDX	176 > 102			2714.267									
245686006	135-Trinitrobenzene	213 > 183			2714.267									
245686006	13-Dinitrobenzene-d4	172 > 142	12.07	2714.267		2714.267	2714.267	bb			422.1815	84.4	-15.6	316.6
245686006	13-Dinitrobenzene	168 > 138			2714.267									
245686006	Tetryl	241 > 181			2714.267									
245686006	Nitrobenzene	123 > 46			2714.267									
245686006	4-Amino-26-dinitrotoluene	197 > 167			15636.625									
245686006	2-Amino-46-dinitrotoluene	197 > 180			15636.625									
245686006	246-Trinitrotoluene	227 > 210			15636.625									
245686006	34-dinitrotoluene	182 > 152	14.43	7791.336	15636.625	7791.336	249.137	bb			276.8218	110.7	10.7	482.7
245686006	26-dinitrotoluene	182 > 152			15636.625									
245686006	24-dinitrotoluene	182 > 152			15636.625			MM-	13-Feb-10	09:28:14				
245686006	26-dinitrotoluene-d3	185 > 155	17.47	15636.625		15636.625	15636.625	bb			423.5345	84.7	-15.3	1097.3
245686006	2-Nitrotoluene	137 > 46			15636.625									
245686006	4-Nitrotoluene	137 > 46			15636.625									
245686006	3-Nitrotoluene	137 > 46			15636.625									
245686006	PETN	361 > 62			15636.625									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7933

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130027.wiff

Date Analyzed: 13-FEB-10 17:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcr 2/15/10

Sample Name: "245686006" Sample ID: "947078|2|LER" File: "EXS02130027.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:01:05 PM

Modified: No

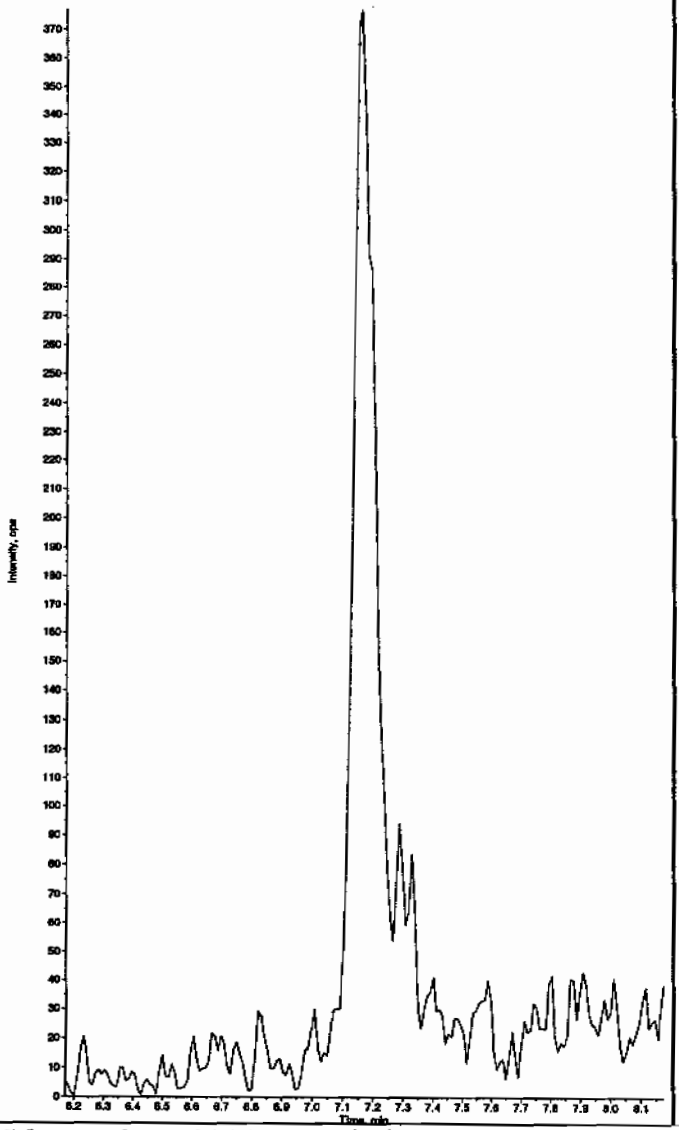

Sample Name: "245686006" Sample ID: "947078|2|LER" File: "EXS02130027.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:01:05 PM

Modified: Yes

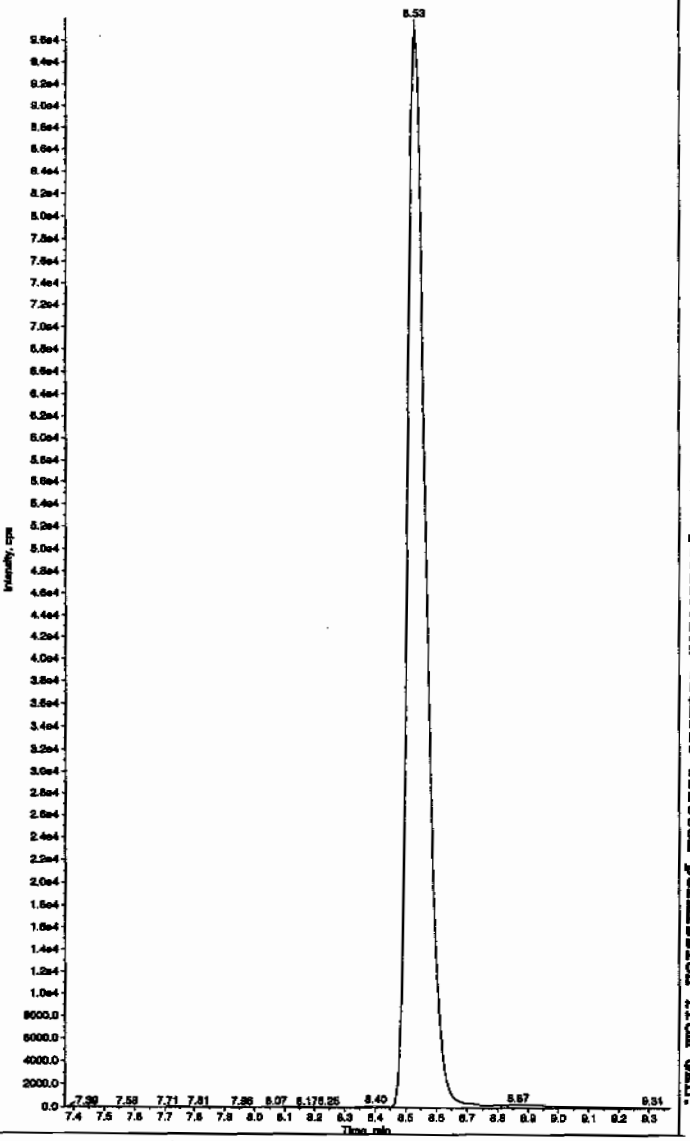

Hnm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686006" Sample ID: "947078|2|LER" File: "EXS02130027.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 356. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:01:05 PM

Modified: No
Conc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 4.18e+006 counts
Height: 1051453.491 cps
Start Time: 8.35 min
End Time: 9.01 min

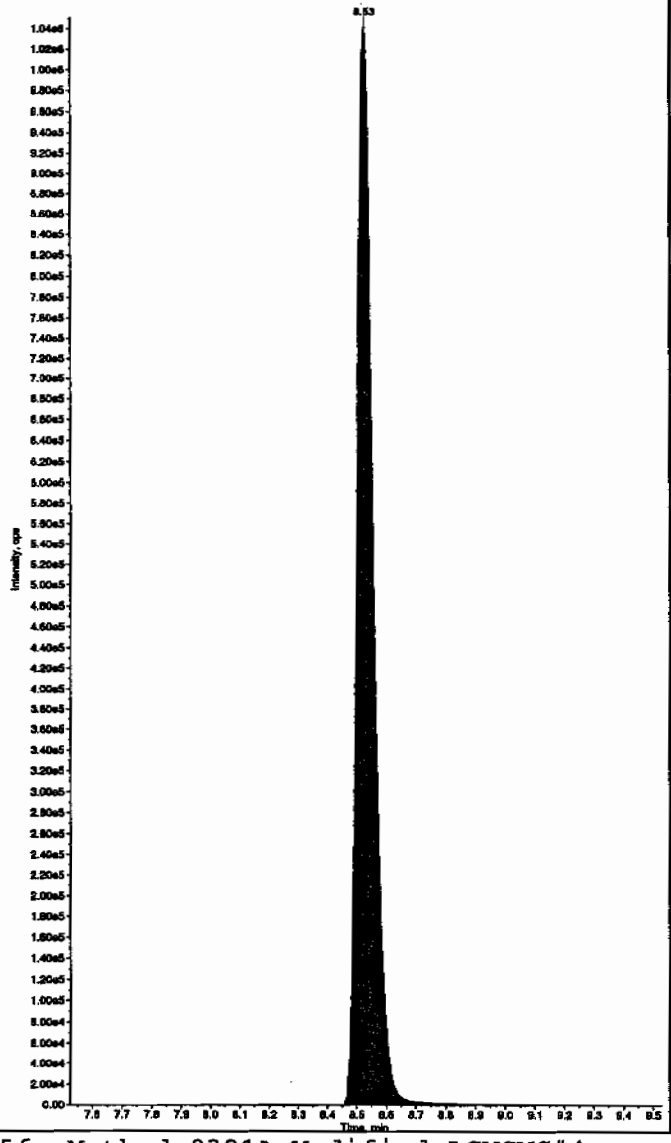

Sample Name: "245686006" Sample ID: "947078|2|LER" File: "EXS02130027.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/48.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:01:05 PM

Modified: No

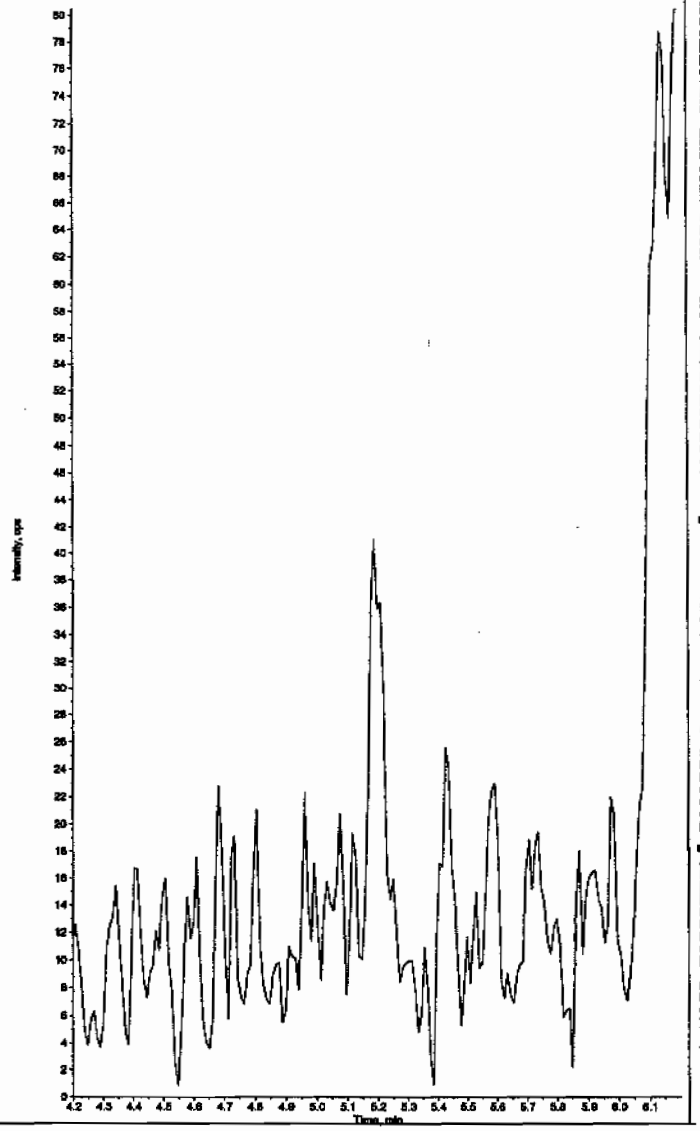

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686006" Sample ID: "947078[2]LER" File: "EXS02130027.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:01:05 PM

Modified: No

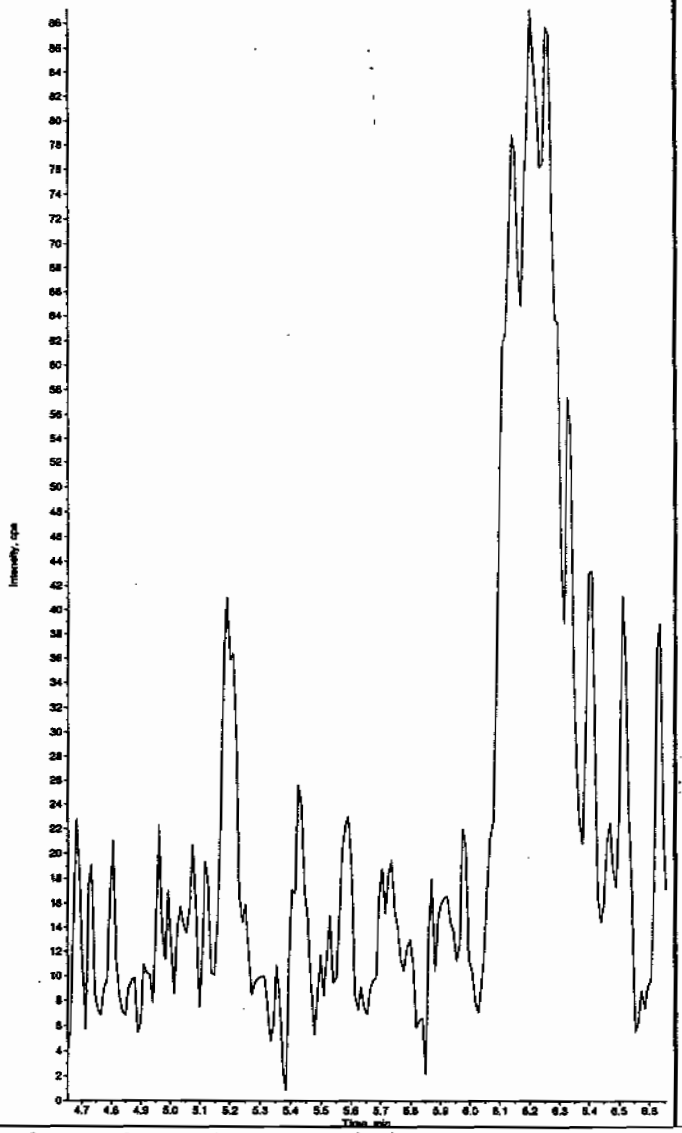

Sample Name: "245686006" Sample ID: "947078[2]LER" File: "EXS02130027.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:01:05 PM

Modified: No

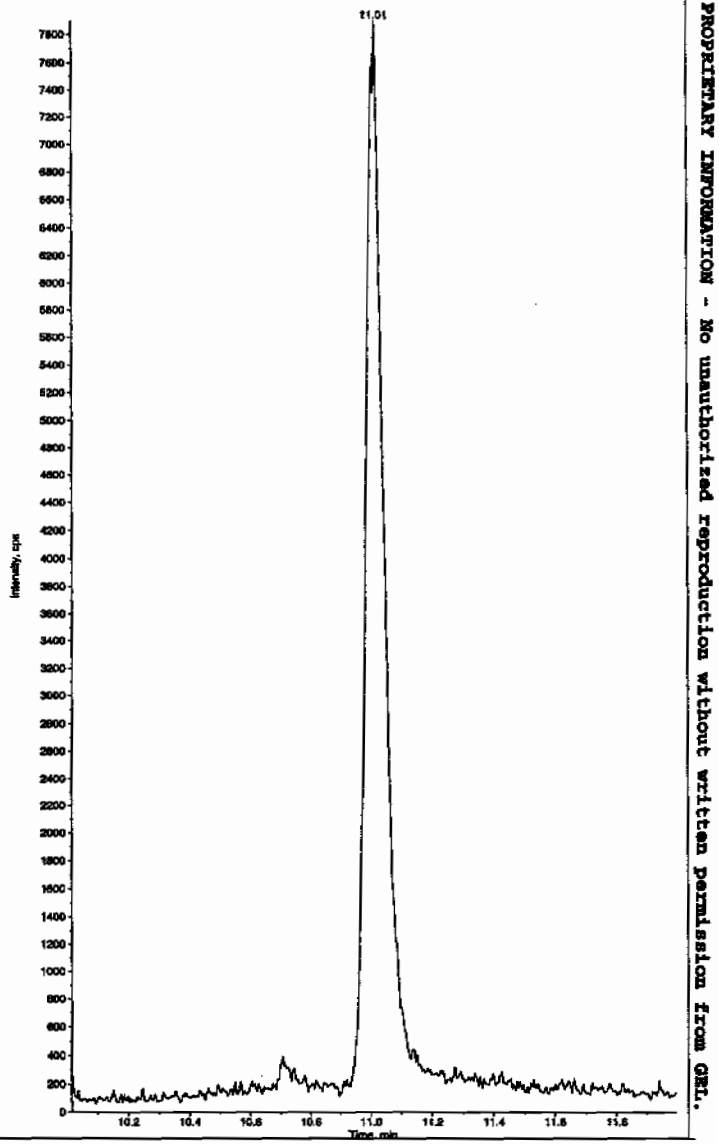

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7939

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208196a

Date Analyzed: 12-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208196a
Date: 12-Feb-2010
Time: 14:40:01
ID: 245686007 | LANL | 947078 | Solids | 21
Vial: 4:5,F

MMP 2/13/10

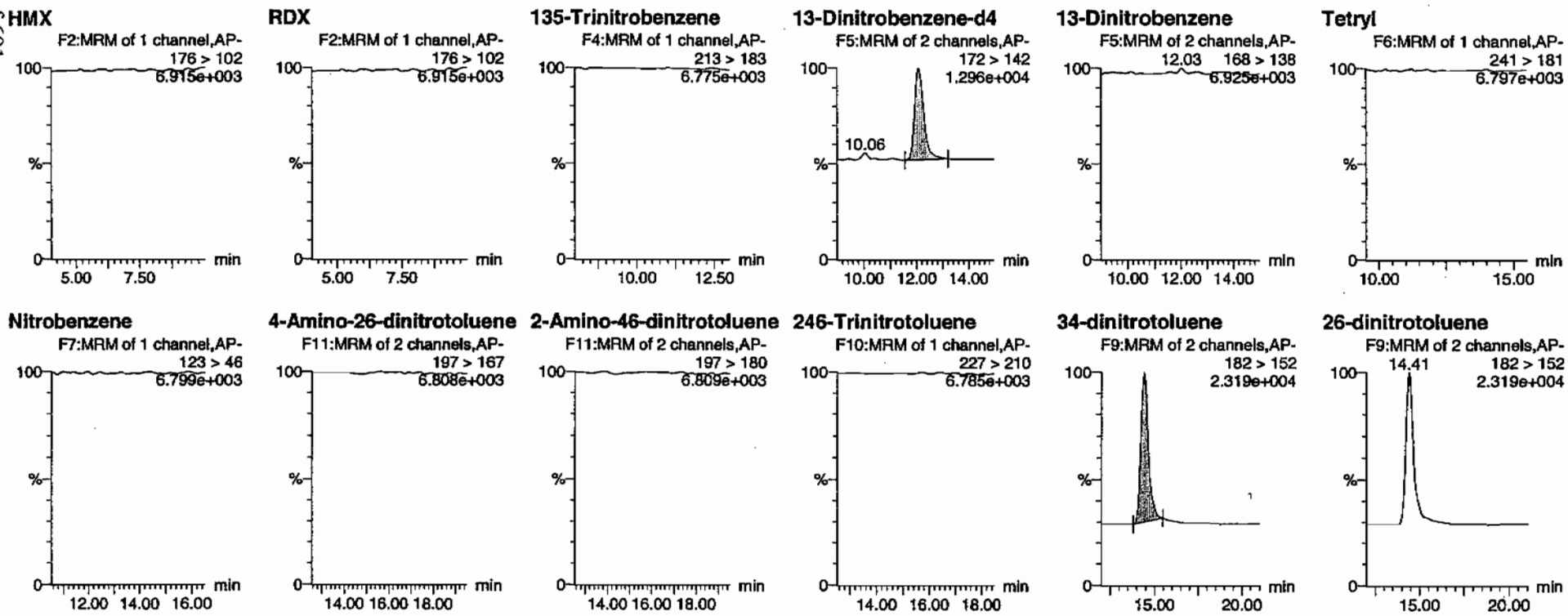

HMK 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

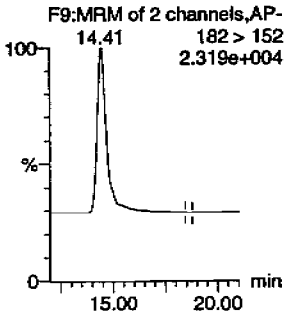

26-dinitrotoluene-d3

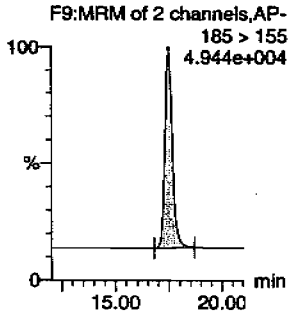

2-Nitrotoluene

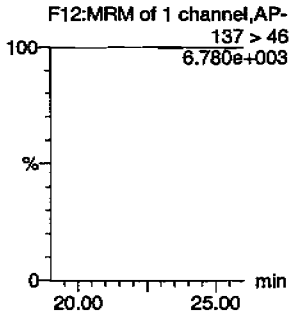

4-Nitrotoluene

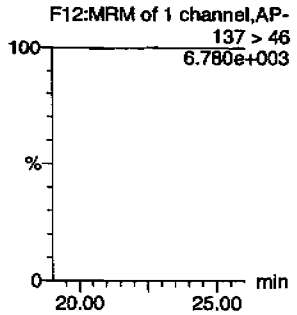

3-Nitrotoluene

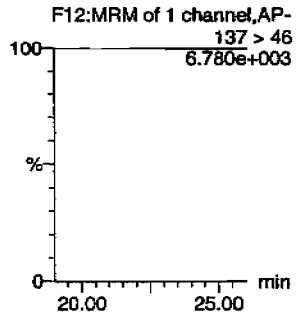

PETN

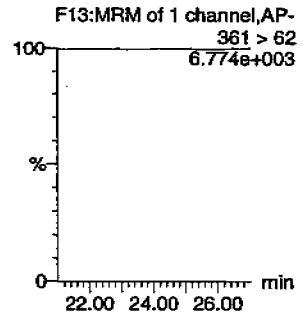

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245686007	HMX	176 > 102			2567.924									
245686007	RDX	176 > 102			2567.924									
245686007	135-Trinitrobenzene	213 > 183			2567.924									
245686007	13-Dinitrobenzene-d4	172 > 142	12.06	2567.924		2567.924	2567.924	bb			399.4191	79.9	-20.1	240.8
245686007	13-Dinitrobenzene	168 > 138			2567.924									
245686007	Tetryl	241 > 181			2567.924									
245686007	Nitrobenzene	123 > 46			2567.924									
245686007	4-Amino-26-dinitrotoluene	197 > 167			17395.074									
245686007	2-Amino-46-dinitrotoluene	197 > 180			17395.074									
245686007	246-Trinitrotoluene	227 > 210			17395.074									
245686007	34-dinitrotoluene	182 > 152	14.41	7759.319	17395.074	7759.319	223.032	bb			247.8156	99.1	-0.9	546.9
245686007	26-dinitrotoluene	182 > 152			17395.074									
245686007	24-dinitrotoluene	182 > 152			17395.074			MM-	13-Feb-10	09:28:18				
245686007	26-dinitrotoluene-d3	185 > 155	17.48	17395.074		17395.074	17395.074	bb			471.1640	94.2	-5.8	1168.1
245686007	2-Nitrotoluene	137 > 46			17395.074									
245686007	4-Nitrotoluene	137 > 46			17395.074									
245686007	3-Nitrotoluene	137 > 46			17395.074									
245686007	PETN	361 > 62			17395.074									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7939

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130028.wiff

Date Analyzed: 13-FEB-10 17:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sam 2/15/10

Sample Name: "245686007" Sample ID: "947078|2|LER" File: "EXS02130028.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:16:48 PM

Modified: No

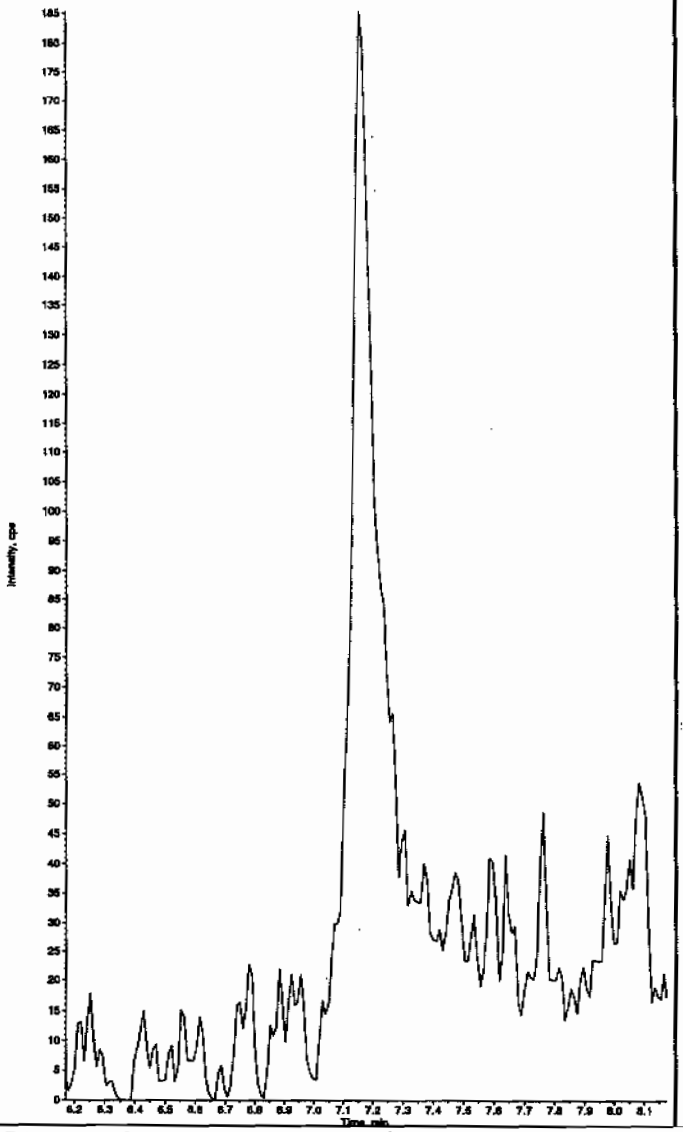

Sample Name: "245686007" Sample ID: "947078|2|LER" File: "EXS02130028.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:16:48 PM

Modified: No

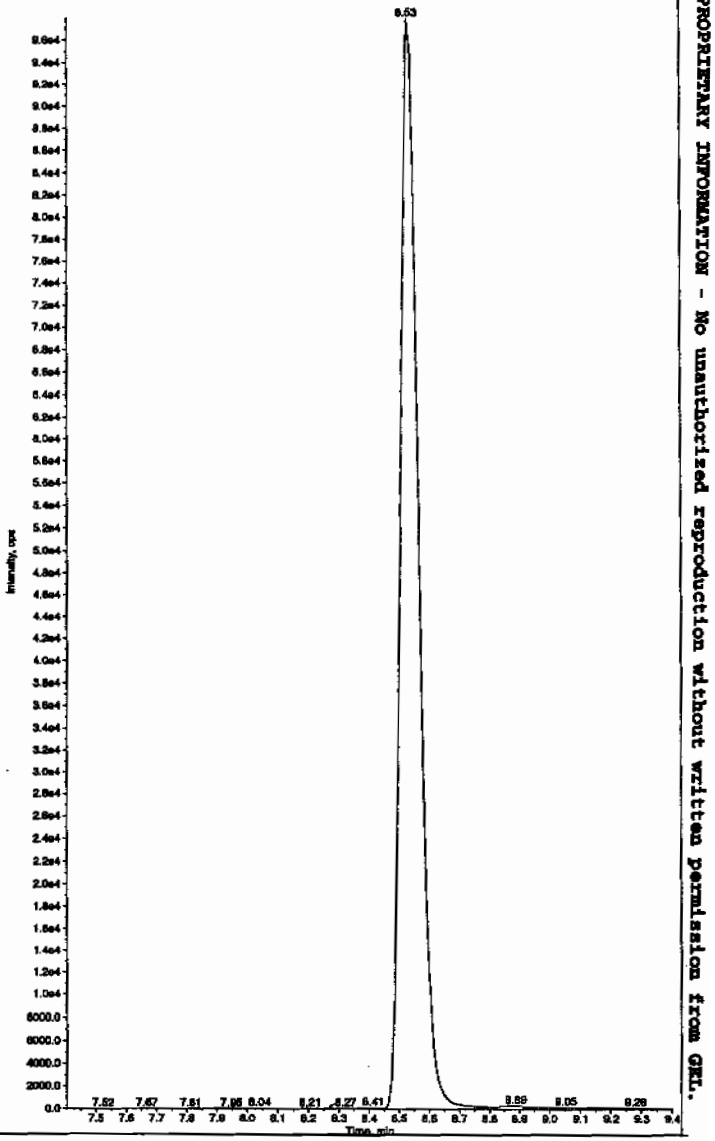

Hmm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686007" Sample ID: "947078[2]LER" File: "EXS02130028.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 349. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:16:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 4.10e+006 counts
Height: 1049275.513 cps
Start Time: 8.43 min
End Time: 8.94 min

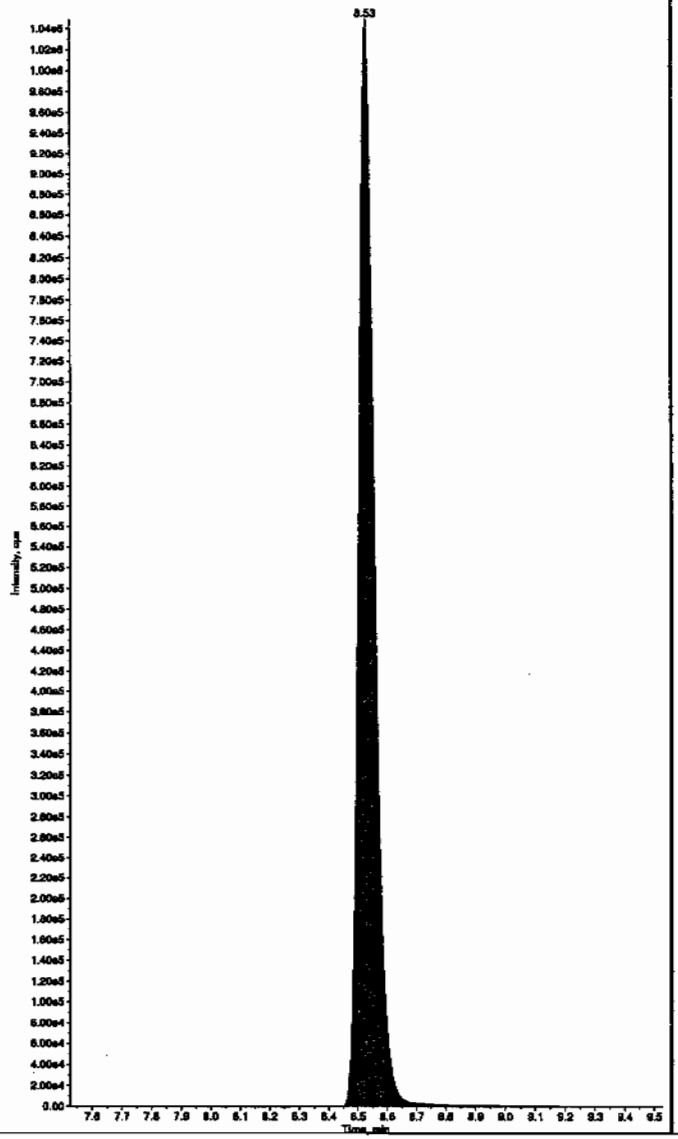

Sample Name: "245686007" Sample ID: "947078[2]LER" File: "EXS02130028.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:16:48 PM

Modified: No

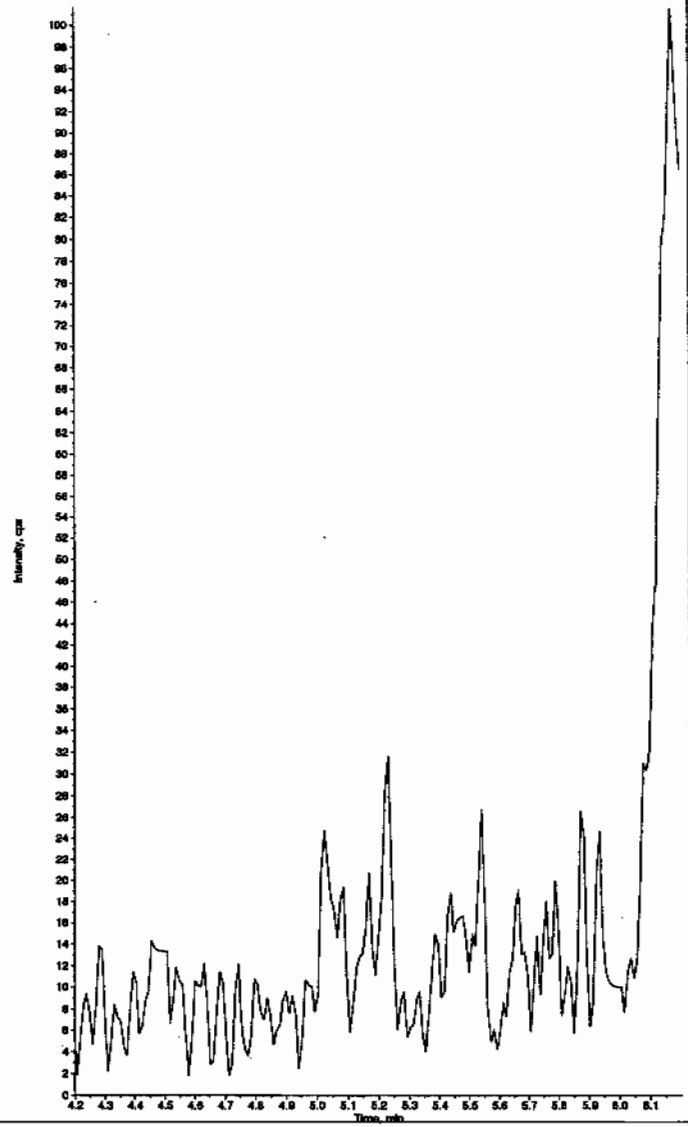

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686007" Sample ID: "947078[2]LER" File: "EXS02130028.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:16:48 PM

Modified: No

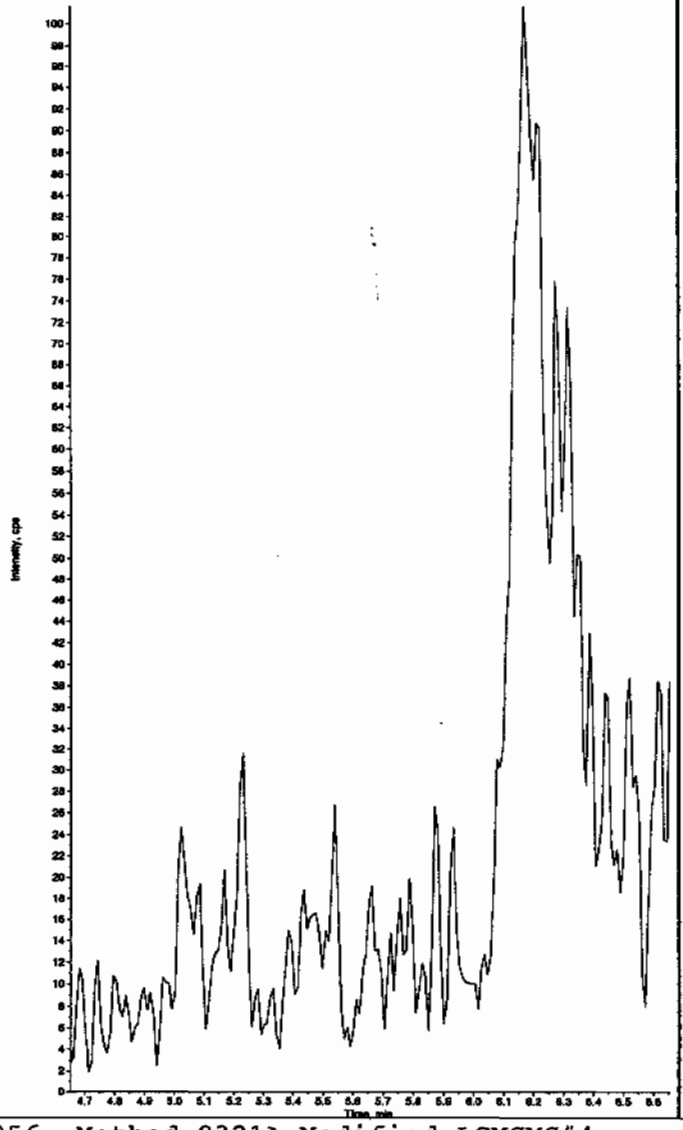

Sample Name: "245686007" Sample ID: "947078[2]LER" File: "EXS02130028.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:16:48 PM

Modified: No

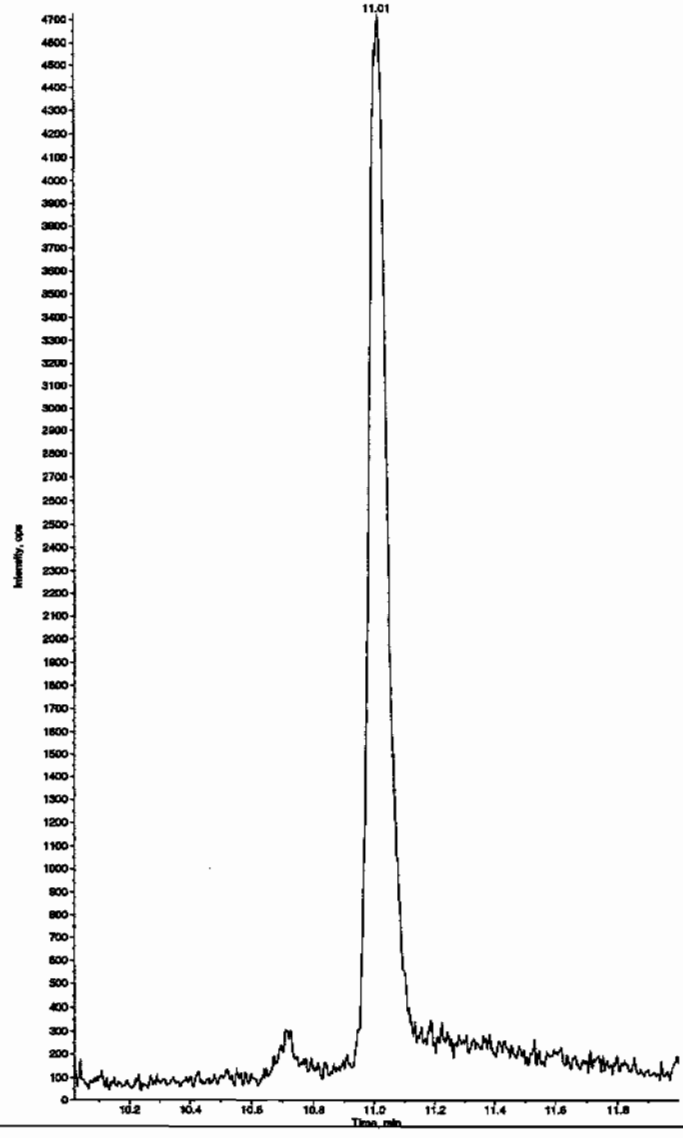

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7936

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208197a

Date Analyzed: 12-FEB-10 15:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208197a
Date: 12-Feb-2010
Time: 15:09:29
ID: 245686008 | LANL | 947078 | Soils | 2
Vial: 4:6,A

MAP 2/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.000e+003

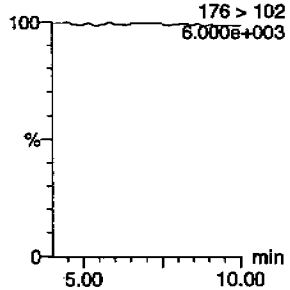

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.000e+003

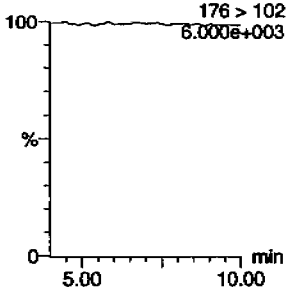

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.898e+003

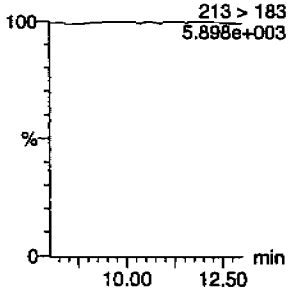

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.224e+004

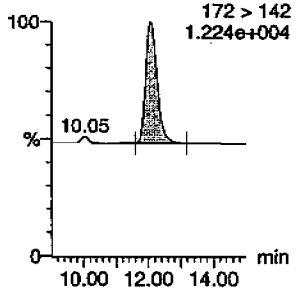

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.910e+003

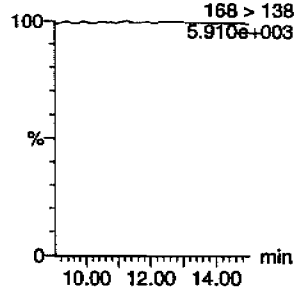

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.923e+003

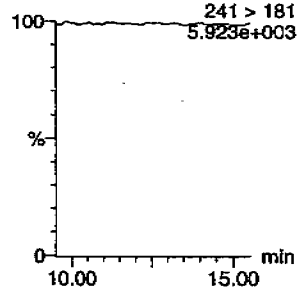

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.071e+003

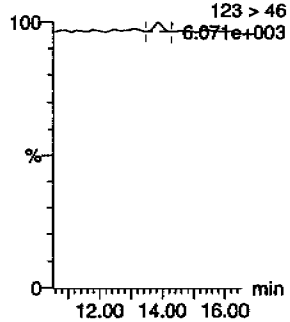

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.943e+003

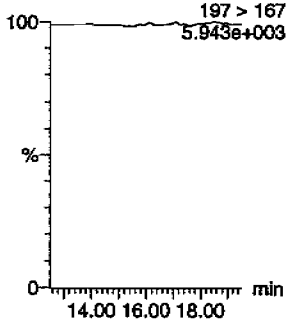

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.938e+003

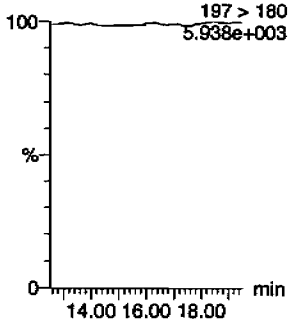

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.925e+003

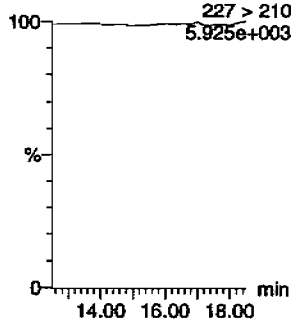

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.124e+004

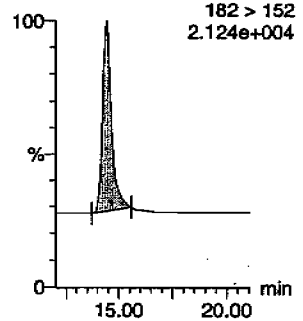

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.124e+004

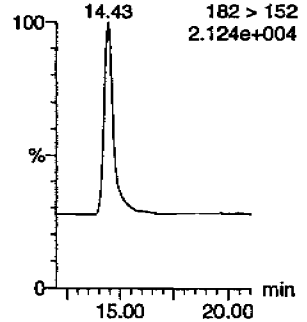

HMW 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

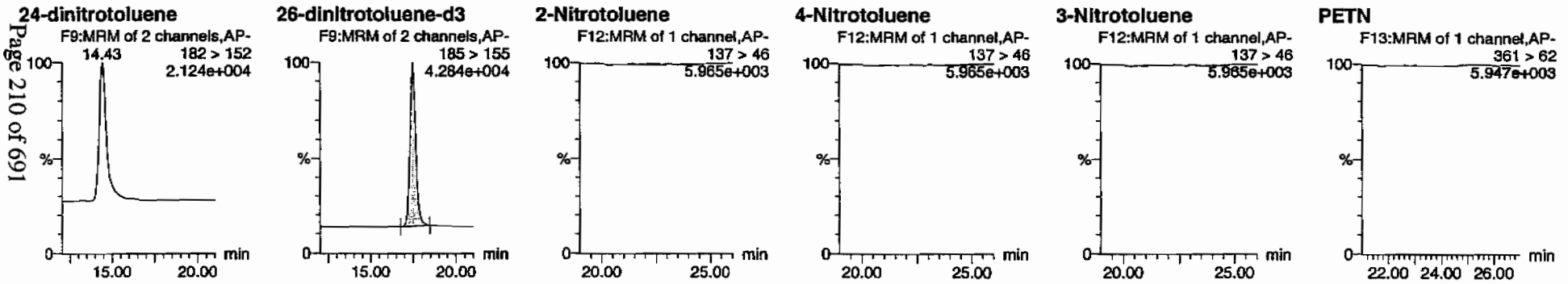

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Rel.Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245686008	HMX	176 > 102			2577.593									
245686008	RDX	176 > 102			2577.593									
245686008	135-Trinitrobenzene	213 > 183			2577.593									
245686008	13-Dinitrobenzene-d4	172 > 142	12.10	2577.593		2577.593	2577.593	bb			400.9230	80.2	-19.8	173.7
245686008	13-Dinitrobenzene	168 > 138			2577.593									
245686008	Tetryl	241 > 181			2577.593									
245686008	Nitrobenzene	123 > 46			2577.593			MM-	13-Feb-10	09:18:46				
245686008	4-Amino-26-dinitrotoluene	197 > 167			14931.843									
245686008	2-Amino-46-dinitrotoluene	197 > 180			14931.843									
245686008	246-Trinitrotoluene	227 > 210			14931.843									
245686008	34-dinitrotoluene	182 > 152	14.43	7473.735	14931.843	7473.735	250.262	bb			278.0709	111.2	11.2	537.5
245686008	26-dinitrotoluene	182 > 152			14931.843									
245686008	24-dinitrotoluene	182 > 152			14931.843									
245686008	26-dinitrotoluene-d3	185 > 155	17.47	14931.843		14931.843	14931.843	bb			404.4448	80.9	-19.1	605.6
245686008	2-Nitrotoluene	137 > 46			14931.843									
245686008	4-Nitrotoluene	137 > 46			14931.843									
245686008	3-Nitrotoluene	137 > 46			14931.843									
245686008	PETN	361 > 62			14931.843									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7936

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130029.wiff

Date Analyzed: 13-FEB-10 17:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sler 2/15/10

Sample Name: "245686008" Sample ID: "947078[2]LER" File: "EXS02130029.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:32:30 PM

Modified: No

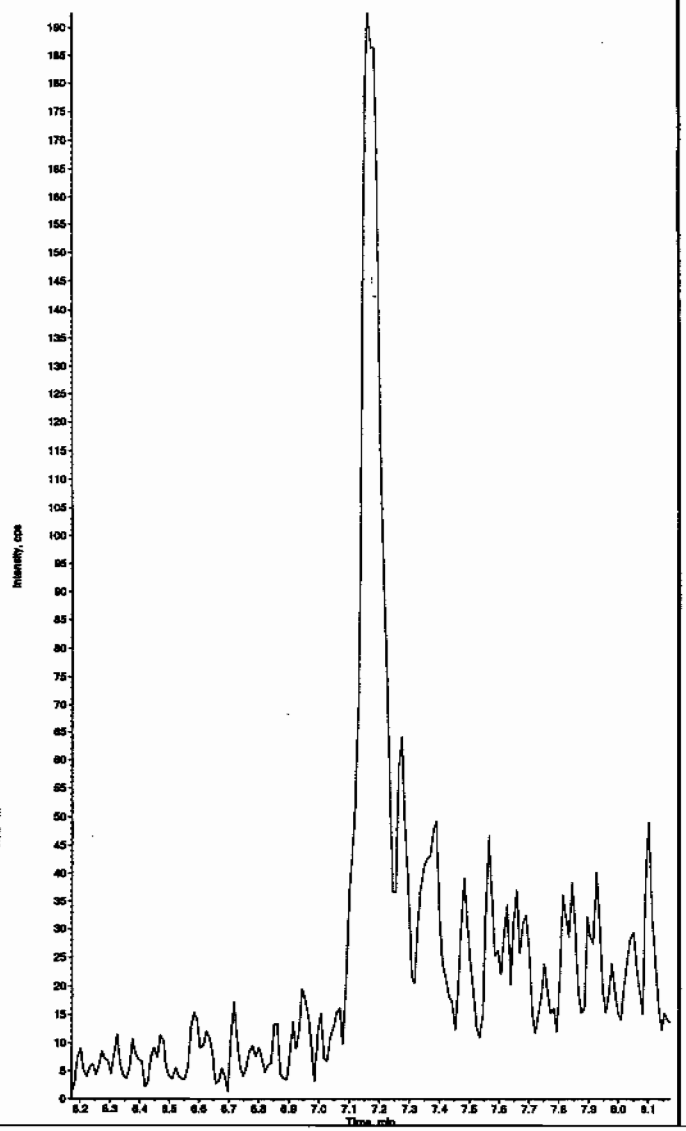

Sample Name: "245686008" Sample ID: "947078[2]LER" File: "EXS02130029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:32:30 PM

Modified: No

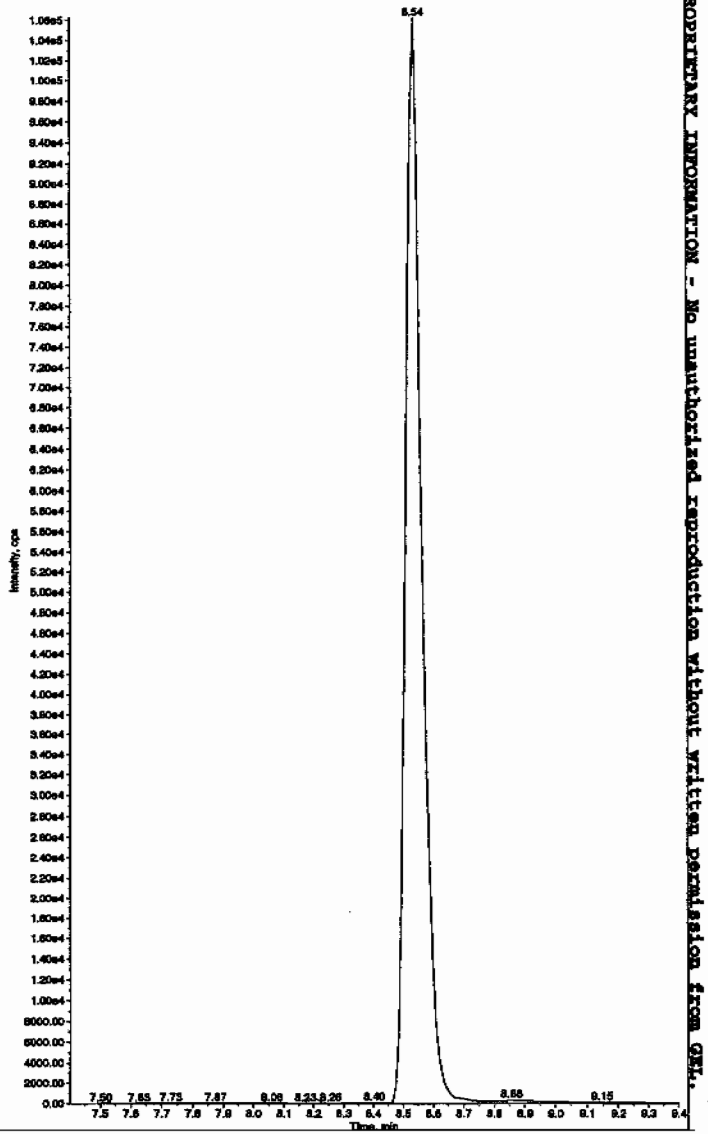

Hnm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686006" Sample ID: "947078|2|LER" File: "EXS02130029.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 343. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:32:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 4.03e+006 counts
Height: 1039825.317 cps
Start Time: 8.42 min
End Time: 8.99 min

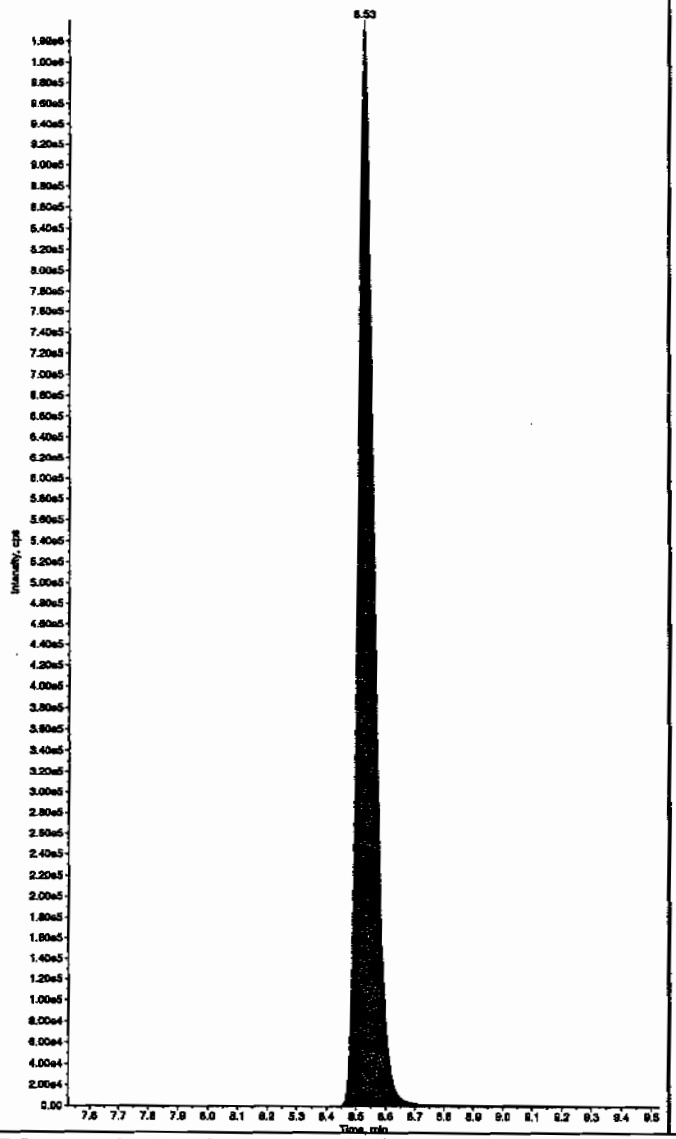

Sample Name: "245686006" Sample ID: "947078|2|LER" File: "EXS02130029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:32:30 PM

Modified: No

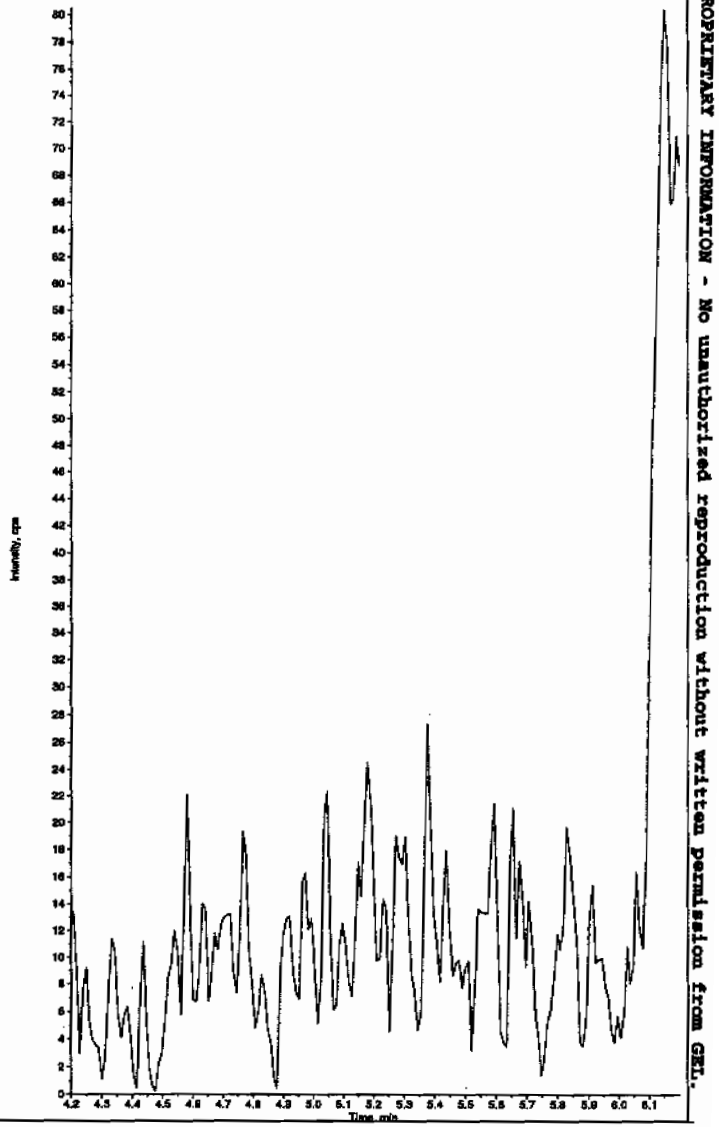

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245686008" Sample ID: "947078[2]LER" File: "EXS02130029.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:32:30 PM

Modified: No

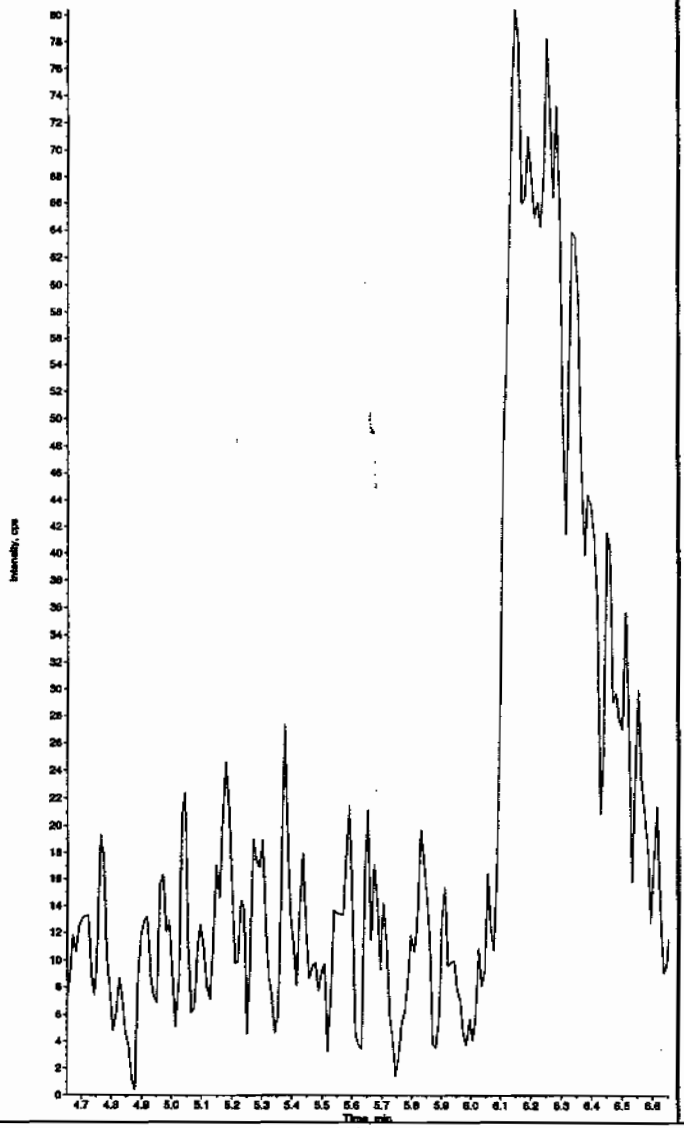

Sample Name: "245686008" Sample ID: "947078[2]LER" File: "EXS02130029.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:32:30 PM

Modified: No

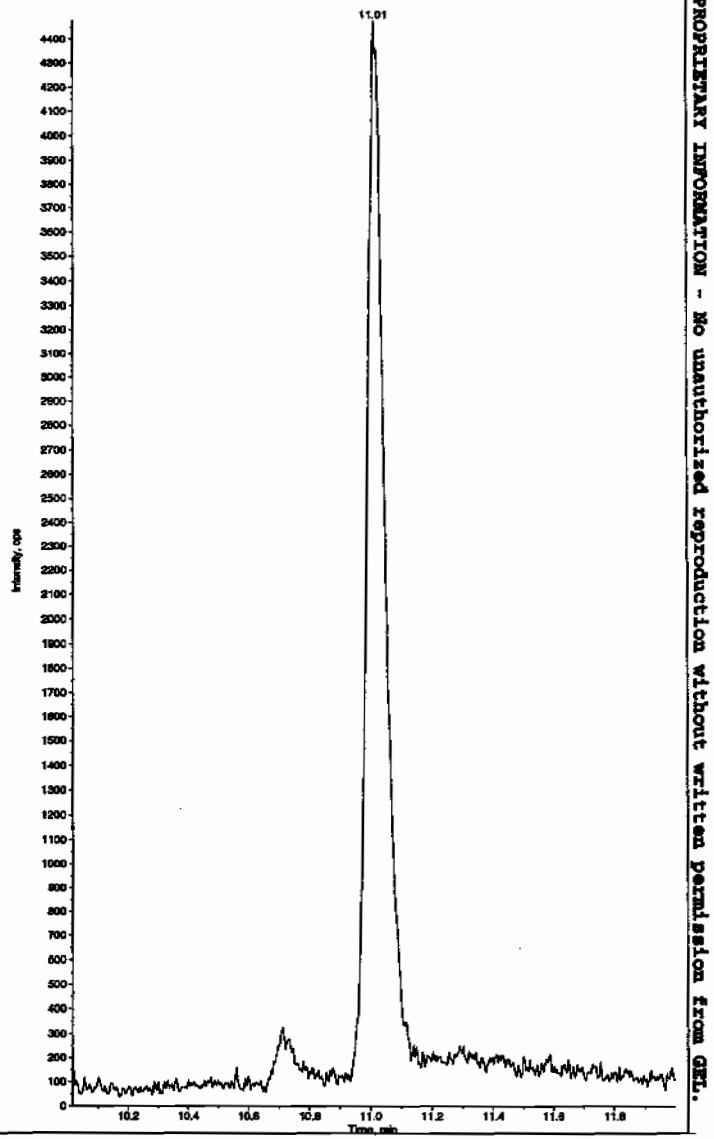

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7935

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208198a

Date Analyzed: 12-FEB-10 15:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4--Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	576	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o--Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m--Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208198a
Date: 12-Feb-2010
Time: 15:38:59
ID: 245686009
Vial: 4:6,B

| LANL | 947078 | Soil | 2 |

MOT 2/13/10

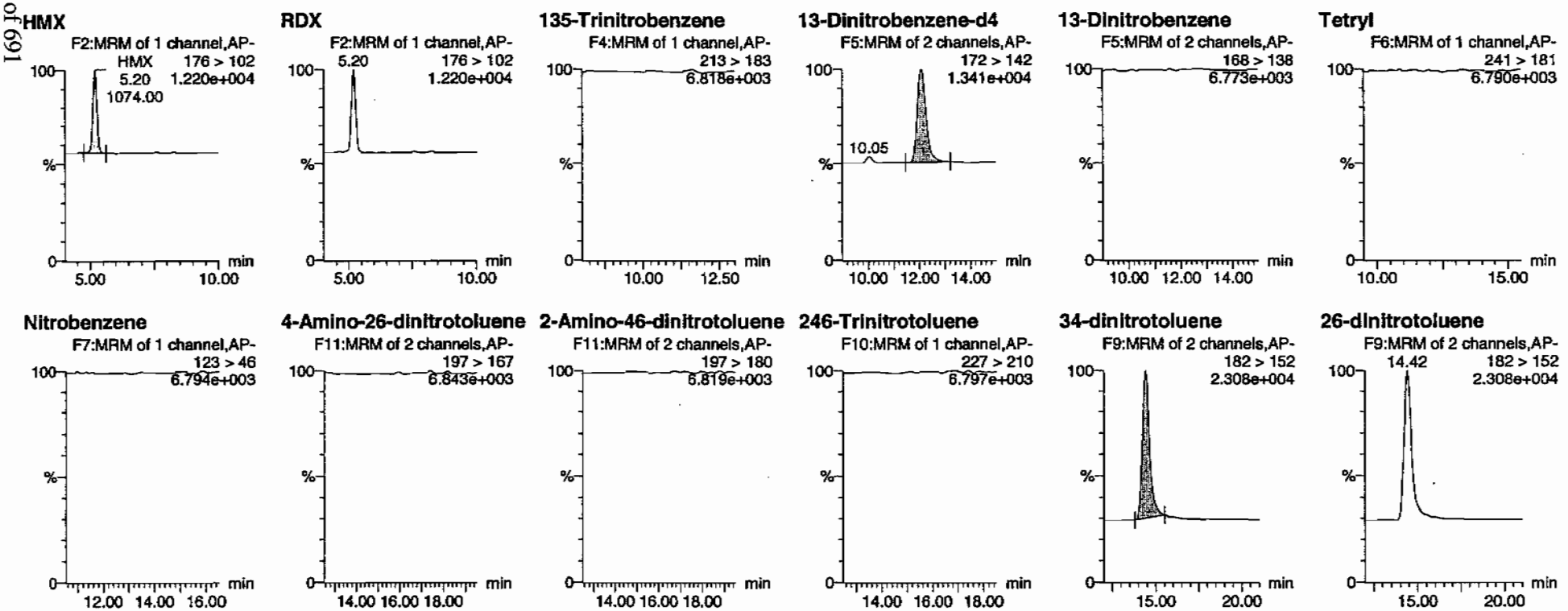

HMN 02/13/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

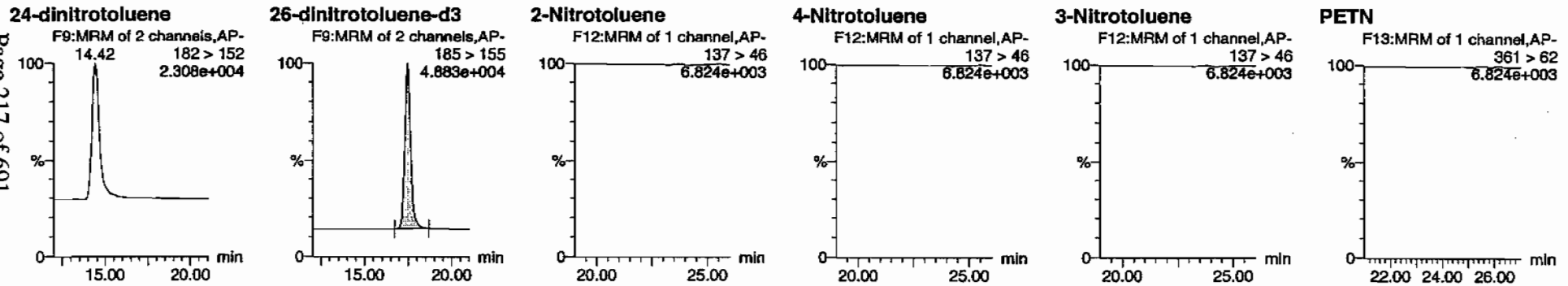

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
245686009	HMX	176 > 102	5.20	1074.001	2683.224	1074.001	200.133	bb			57.6285			220.0
245686009	RDX	176 > 102			2683.224									
245686009	135-Trinitrobenzene	213 > 183			2683.224									
245686009	13-Dinitrobenzene-d4	172 > 142	12.07	2683.224		2683.224	2683.224	bb			417.3530	83.5	-16.5	315.8
245686009	13-Dinitrobenzene	168 > 138			2683.224									
245686009	Tetryl	241 > 181			2683.224									
245686009	Nitrobenzene	123 > 46			2683.224									
245686009	4-Amino-26-dinitrotoluene	197 > 167			16712.588									
245686009	2-Amino-46-dinitrotoluene	197 > 180			16712.588									
245686009	246-Trinitrotoluene	227 > 210			16712.588									
245686009	34-dinitrotoluene	182 > 152	14.42	7731.390	16712.588	7731.390	231.304	bb			257.0071	102.8	2.8	408.1
245686009	26-dinitrotoluene	182 > 152			16712.588									
245686009	24-dinitrotoluene	182 > 152			16712.588									
245686009	26-dinitrotoluene-d3	185 > 155	17.47	16712.588		16712.588	16712.588	bb			452.6781	90.5	-9.5	1475.4
245686009	2-Nitrotoluene	137 > 46			16712.588									
245686009	4-Nitrotoluene	137 > 46			16712.588									
245686009	3-Nitrotoluene	137 > 46			16712.588									
245686009	PETN	361 > 62			16712.588									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7935

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130030.wiff

Date Analyzed: 13-FEB-10 17:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCW 2/15/10

Sample Name: "245686009" Sample ID: "947076|2|LER" File: "EXS02130030.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 15.9 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:48:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.18 min
Area: 2.02e+004 counts
Height: 4622.607 cps
Start Time: 7.07 min
End Time: 7.36 min

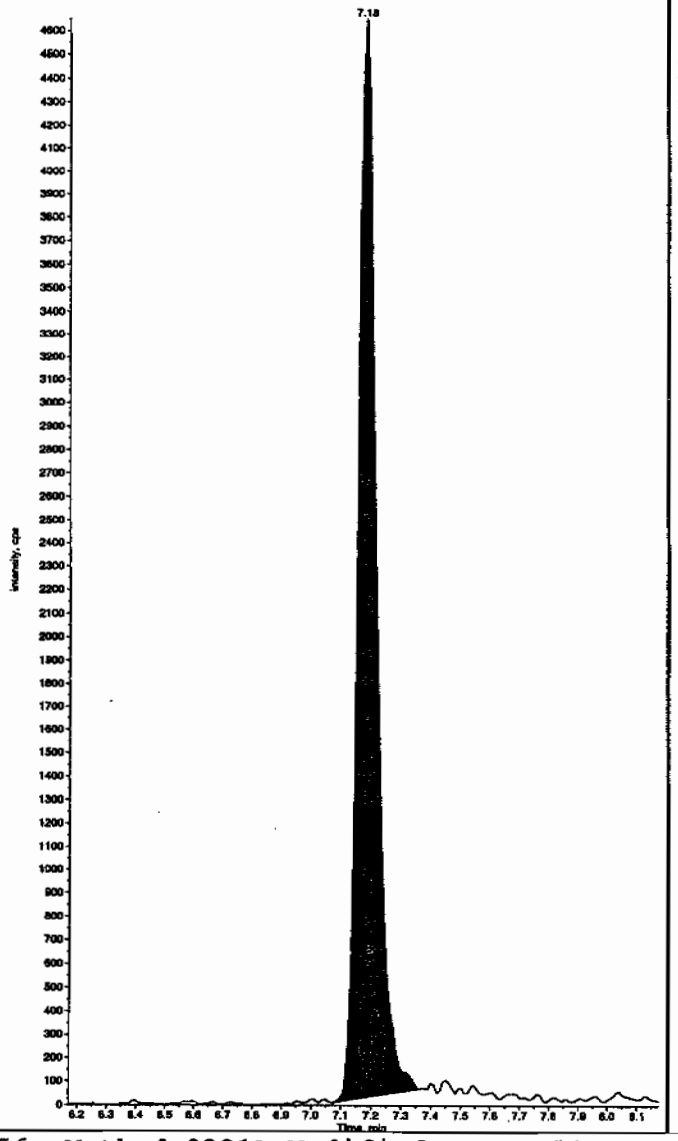

Sample Name: "245686009" Sample ID: "947076|2|LER" File: "EXS02130030.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:48:12 PM

Modified: No

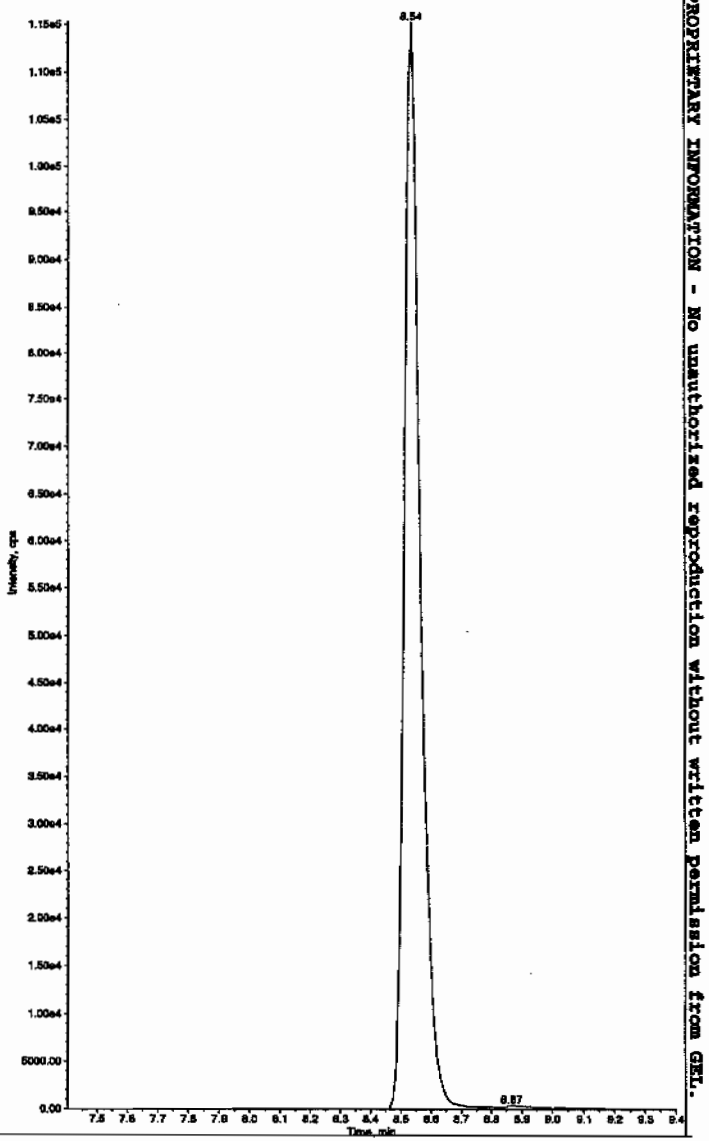

HMM 02/16/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245686009" Sample ID: "947078[2]LER" File: "EXS02130030.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 346. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:48:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1660.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.54 min
Area: 4.07e+006 counts
Height: 1013853.516 cps
Start Time: 8.43 min
End Time: 8.89 min

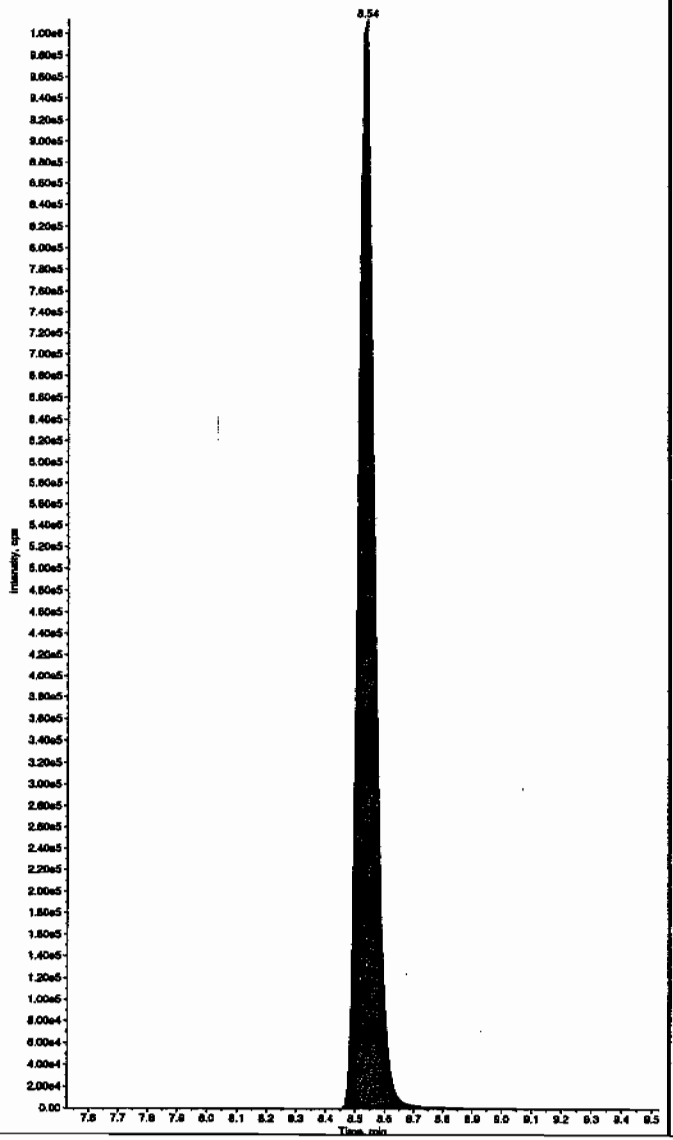

Sample Name: "245686009" Sample ID: "947078[2]LER" File: "EXS02130030.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:48:12 PM

Modified: No

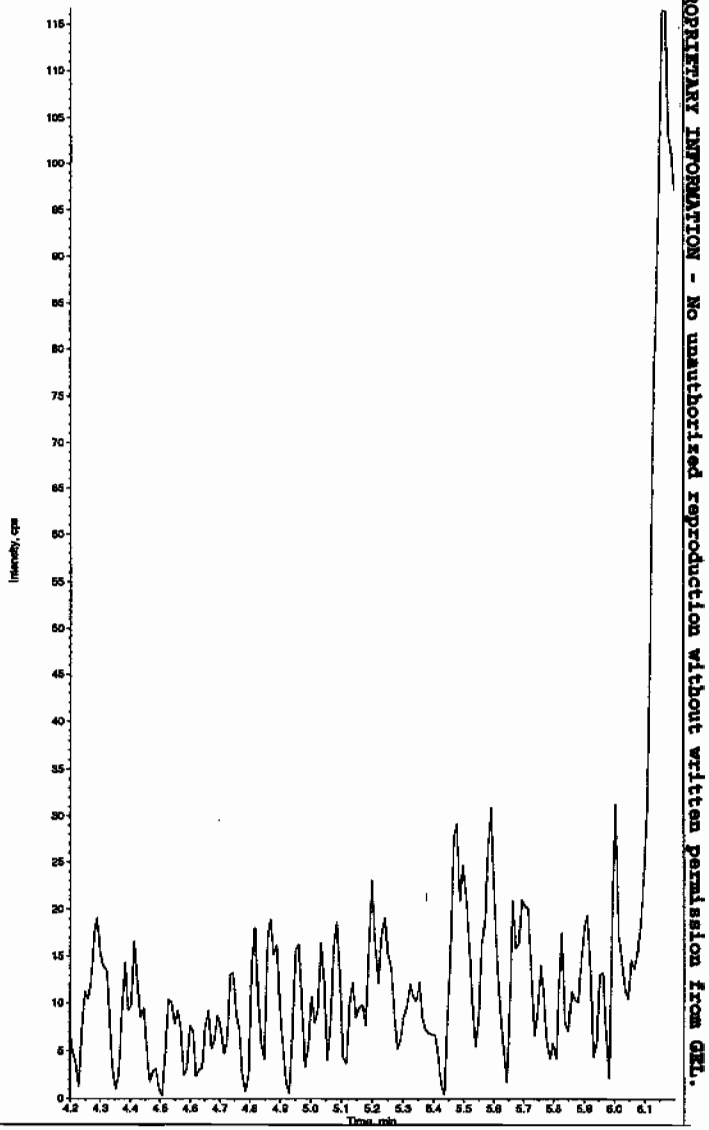

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686009" Sample ID: "947078|2|LER" File: "EXS02130030.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:48:12 PM

Modified: No

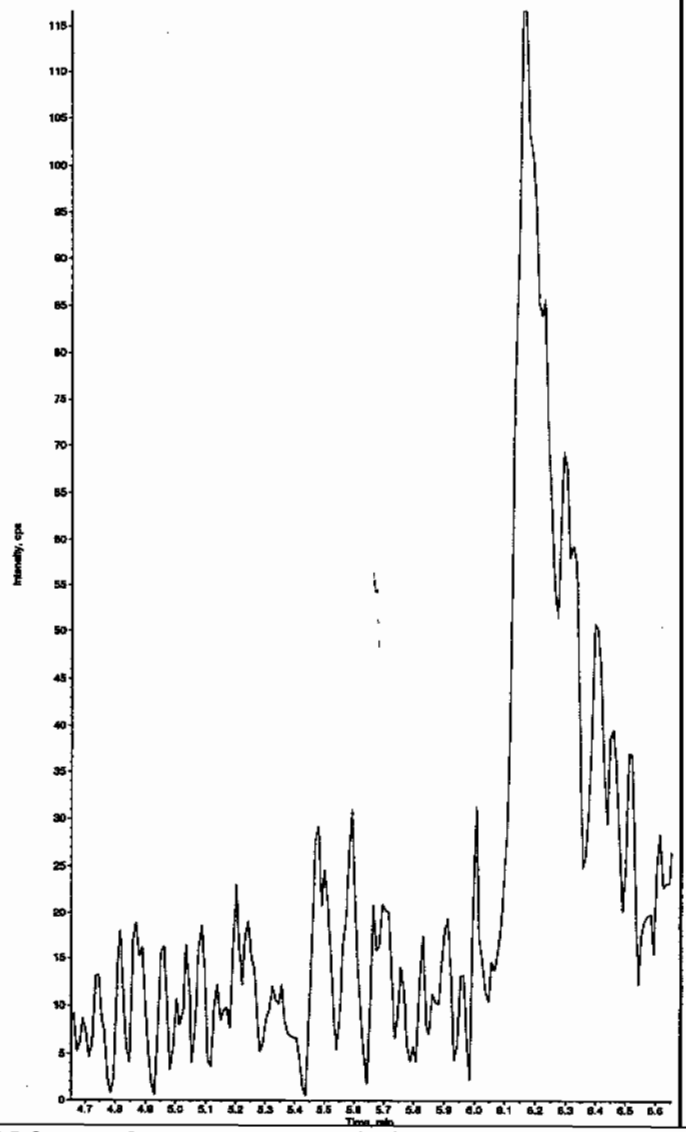

Sample Name: "245686009" Sample ID: "947078|2|LER" File: "EXS02130030.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:48:12 PM

Modified: No

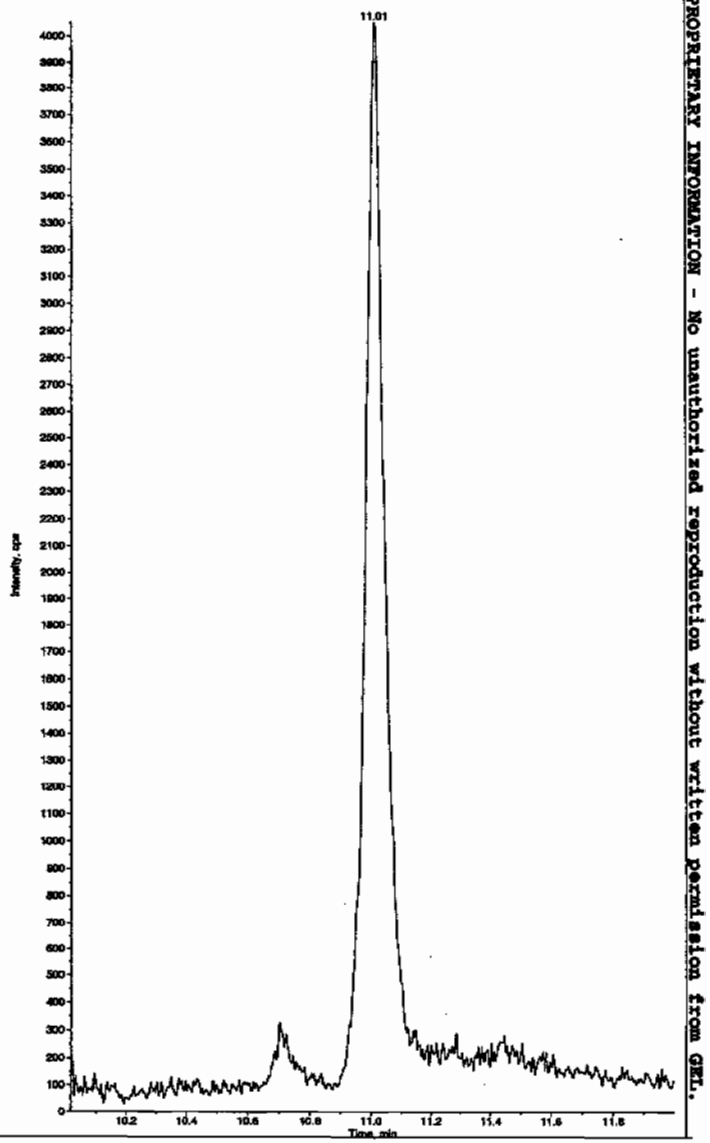

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7934

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208199a

Date Analyzed: 12-FEB-10 16:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208199a
Date: 12-Feb-2010
Time: 16:08:30
ID: 245686010
Vial: 4:6,C

| LANC | 947078 | Solid | 2 |

2/13/10

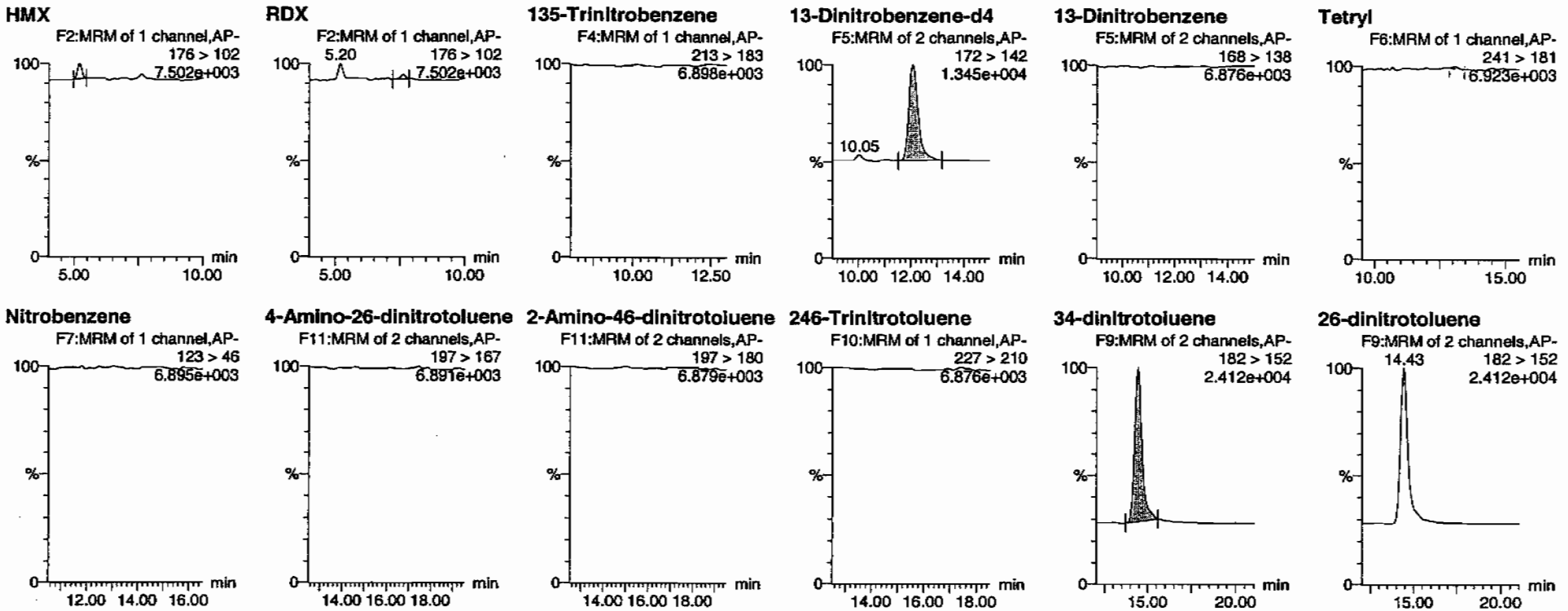

HMC 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

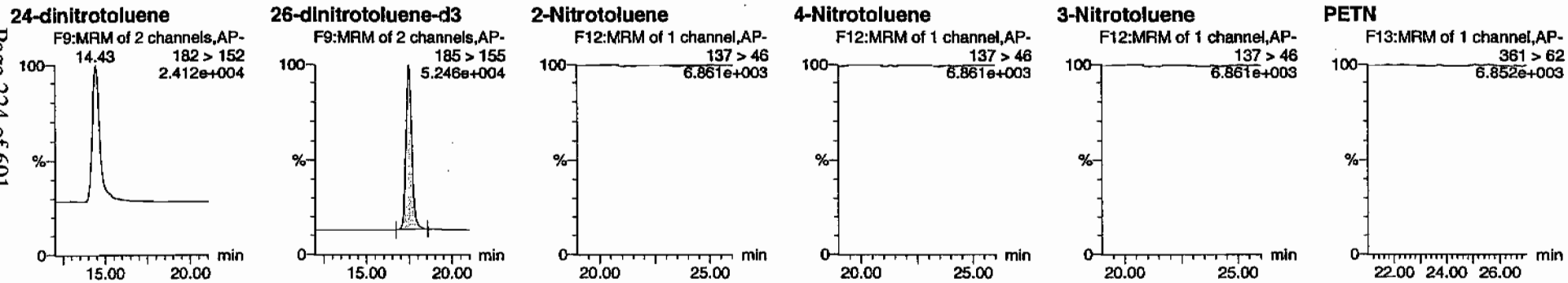

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	µg/mL	%Rec	%Dev	S/N
245686010	HMX	176 > 102	5.20	119.554	2773.364	119.554	21.554	bb			6.2065			23.1
245686010	RDX	176 > 102	7.61	43.456	2773.364	43.456	7.835	bb			3.2266			7.1
245686010	135-Trinitrobenzene	213 > 183			2773.364									
245686010	13-Dinitrobenzene-d4	172 > 142	12.07	2773.364		2773.364	2773.364	bb			431.3735	86.3	-13.7	158.3
245686010	13-Dinitrobenzene	168 > 138			2773.364									
245686010	Tetryl	241 > 181			2773.364			MM-	13-Feb-10	09:17:37				
245686010	Nitrobenzene	123 > 46			2773.364									
245686010	4-Amino-26-dinitrotoluene	197 > 167			18369.016									
245686010	2-Amino-46-dinitrotoluene	197 > 180			18369.016									
245686010	246-Trinitrotoluene	227 > 210			18369.016									
245686010	34-dinitrotoluene	182 > 152	14.43	8334.503	18369.016	8334.503	226.863	bb			252.0723	100.8	0.8	933.4
245686010	26-dinitrotoluene	182 > 152			18369.016									
245686010	24-dinitrotoluene	182 > 152			18369.016									
245686010	26-dinitrotoluene-d3	185 > 155	17.47	18369.016		18369.016	18369.016	bb			497.5442	99.5	-0.5	986.8
245686010	2-Nitrotoluene	137 > 46			18369.016									
245686010	4-Nitrotoluene	137 > 46			18369.016									
245686010	3-Nitrotoluene	137 > 46			18369.016									
245686010	PETN	361 > 62			18369.016									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7934

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130031.wiff

Date Analyzed: 13-FEB-10 18:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/15/10

Sample Name: "245586010" Sample ID: "947078[2]LER" File: "EXS02130031.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:03:53 PM
Modified: No

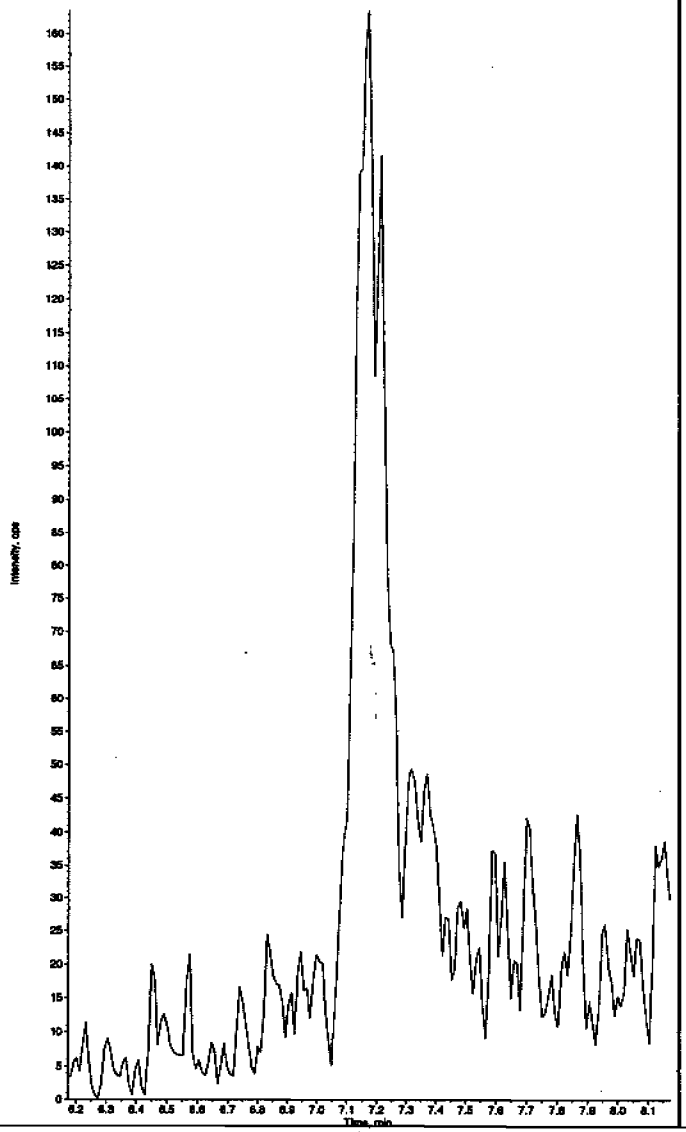

Sample Name: "245586010" Sample ID: "947078[2]LER" File: "EXS02130031.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:03:53 PM
Modified: No

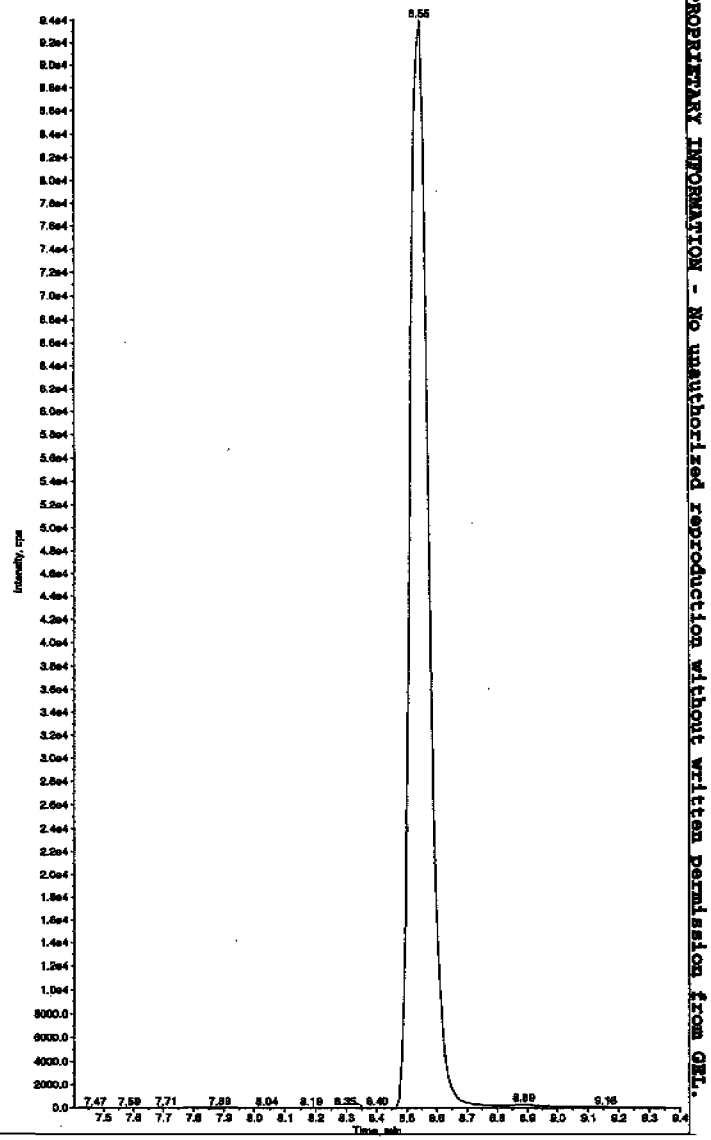

HMM 02/16/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245686010" Sample ID: "947078|2|LER" File: "EXS02130031.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 345. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:03:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.54 min
Area: 4.06e+006 counts
Height: 987523.804 cps
Start Time: 8.41 min
End Time: 9.05 min

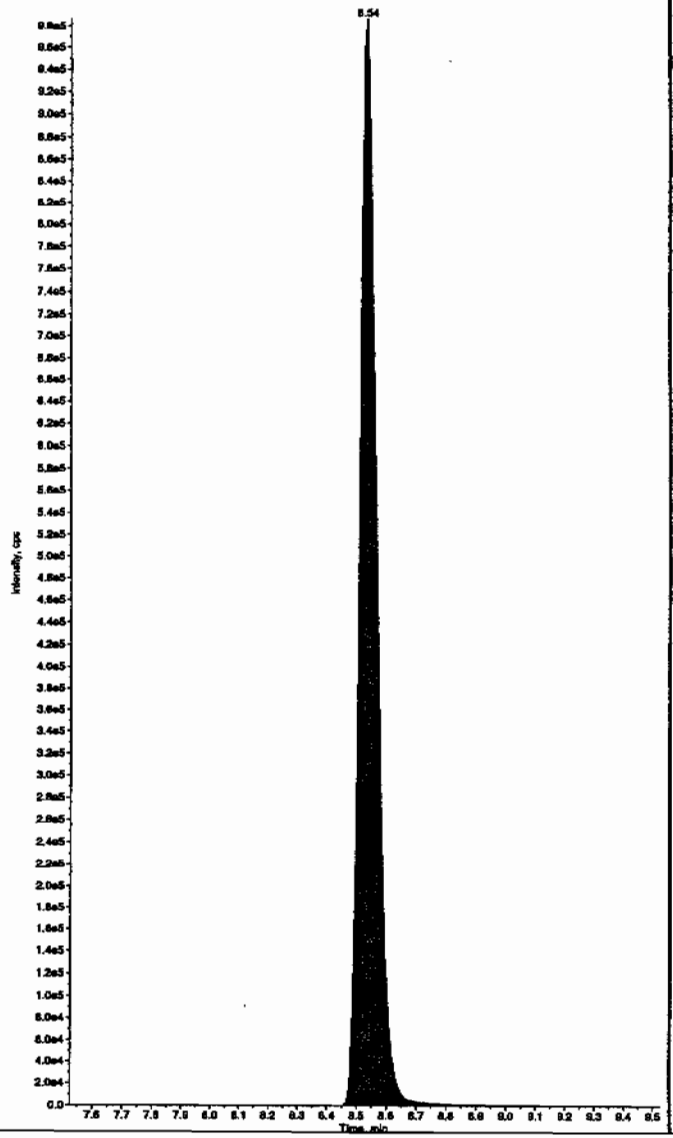

Sample Name: "245686010" Sample ID: "947078|2|LER" File: "EXS02130031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:03:53 PM

Modified: No

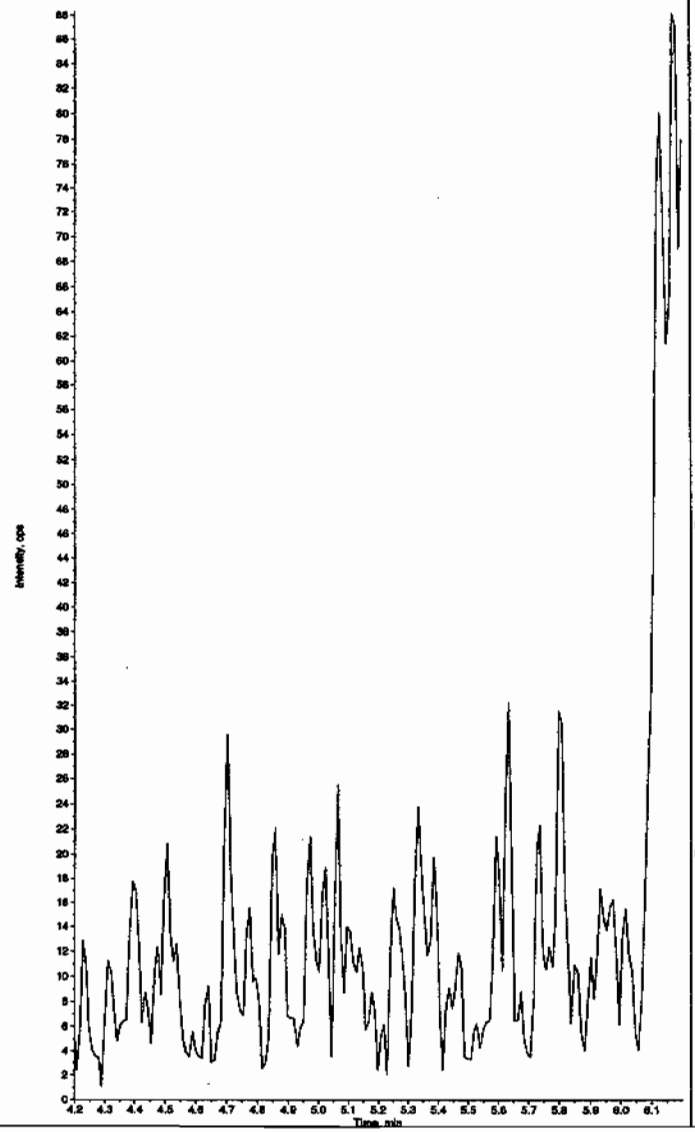

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686010" Sample ID: "947078[2]LER" File: "EXS02130031.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:03:53 PM

Modified: No

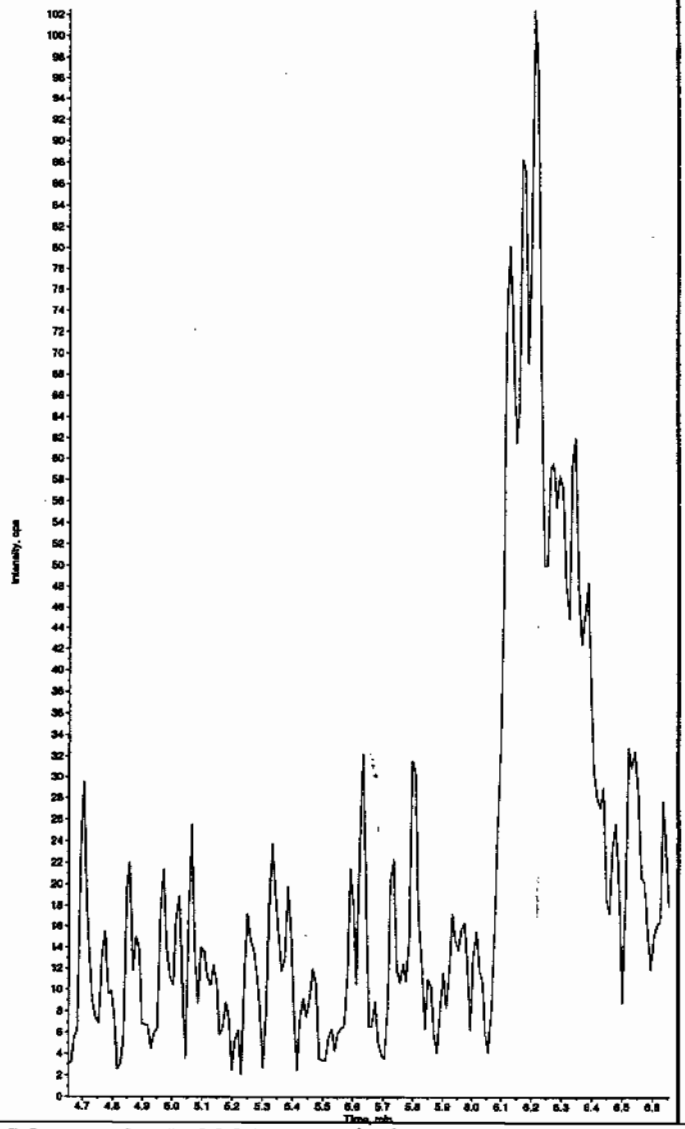

Sample Name: "245686010" Sample ID: "947078[2]LER" File: "EXS02130031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:03:53 PM

Modified: No

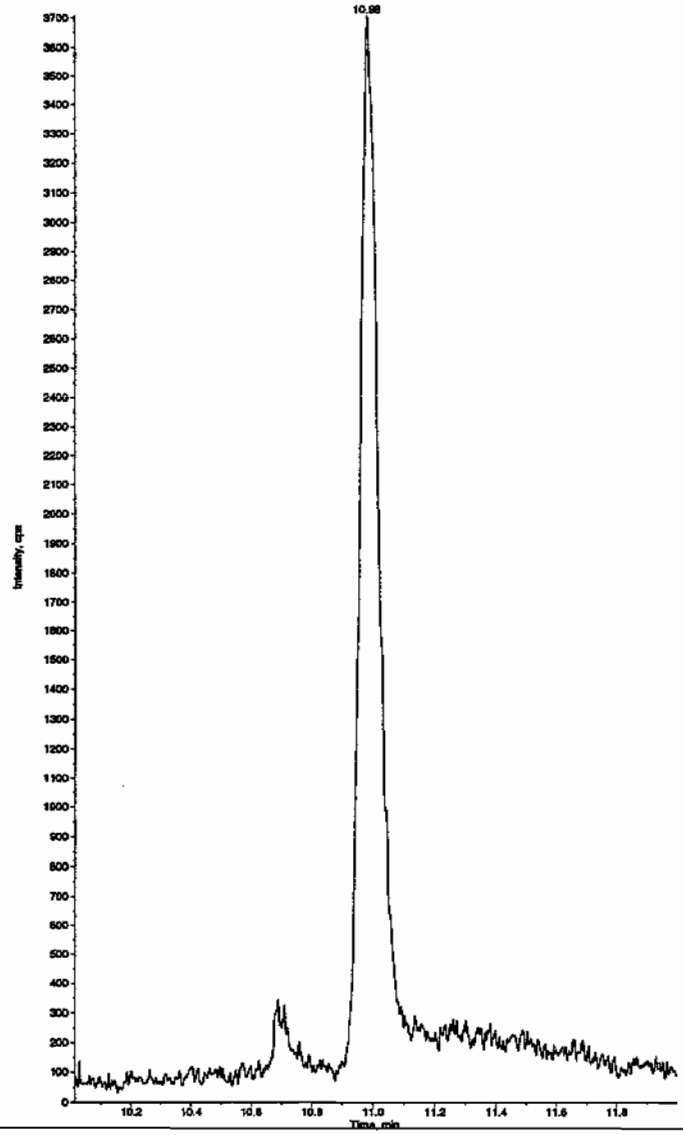

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7940

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208200a

Date Analyzed: 12-FEB-10 16:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208200a
Date: 12-Feb-2010
Time: 16:38:00
ID: 245686011
Vial: 4:6,D

| LANU | 947078 | Solids | 2 |

MM 2/13/10

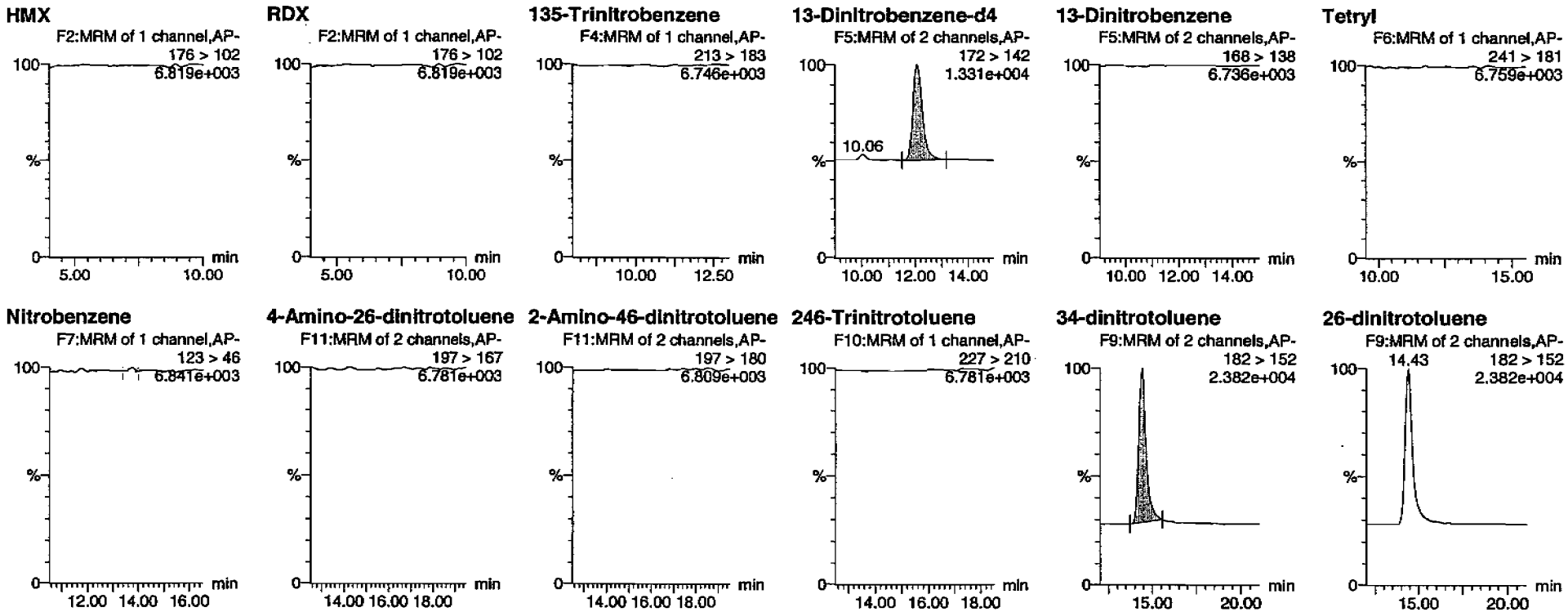

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

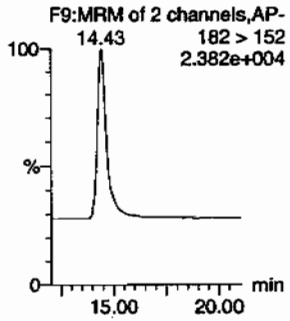

26-dinitrotoluene-d3

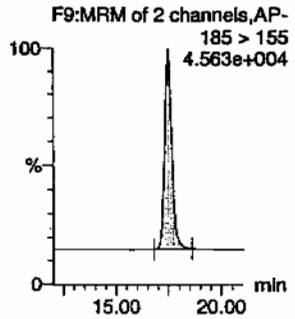

2-Nitrotoluene

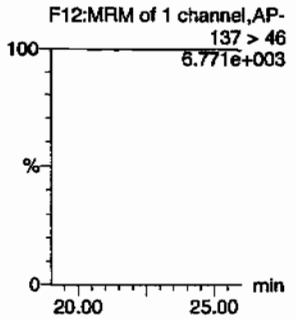

4-Nitrotoluene

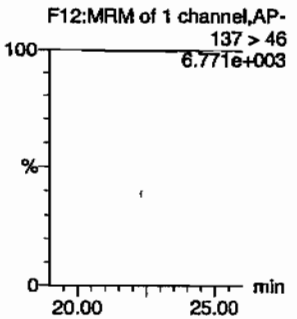

3-Nitrotoluene

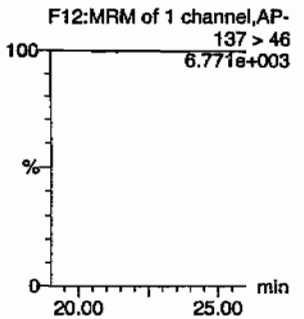

PETN

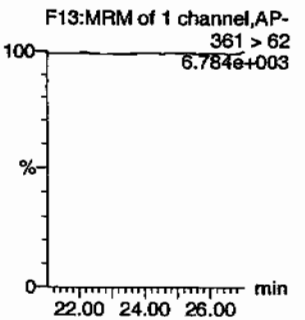

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245686011	HMX	176 > 102			2749.128									
245686011	RDX	176 > 102			2749.128									
245686011	135-Trinitrobenzene	213 > 183			2749.128									
245686011	13-Dinitrobenzene-d4	172 > 142	12.07	2749.128		2749.128	2749.128	bb			427.6038	85.5	-14.5	348.7
245686011	13-Dinitrobenzene	168 > 138			2749.128									
245686011	Tetryl	241 > 181			2749.128									
245686011	Nitrobenzene	123 > 46			2749.128			MM-	13-Feb-10	09:18:51				
245686011	4-Amino-26-dinitrotoluene	197 > 167			15534.250									
245686011	2-Amino-46-dinitrotoluene	197 > 180			15534.250									
245686011	246-Trinitrotoluene	227 > 210			15534.250									
245686011	34-dinitrotoluene	182 > 152	14.43	8243.722	15534.250	8243.722	265.340	bb			294.8250	117.9	17.9	452.1
245686011	26-dinitrotoluene	182 > 152			15534.250									
245686011	24-dinitrotoluene	182 > 152			15534.250									
245686011	26-dinitrotoluene-d3	185 > 155	17.46	15534.250		15534.250	15534.250	bb			420.7616	84.2	-15.8	1257.5
245686011	2-Nitrotoluene	137 > 46			15534.250									
245686011	4-Nitrotoluene	137 > 46			15534.250									
245686011	3-Nitrotoluene	137 > 46			15534.250									
245686011	PETN	361 > 62			15534.250									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7940

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130032.wiff

Date Analyzed: 13-FEB-10 18:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 2/15/10

Sample Name: "245686011" Sample ID: "947078[2]LER" File: "EXS02130032.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:19:34 PM

Modified: No

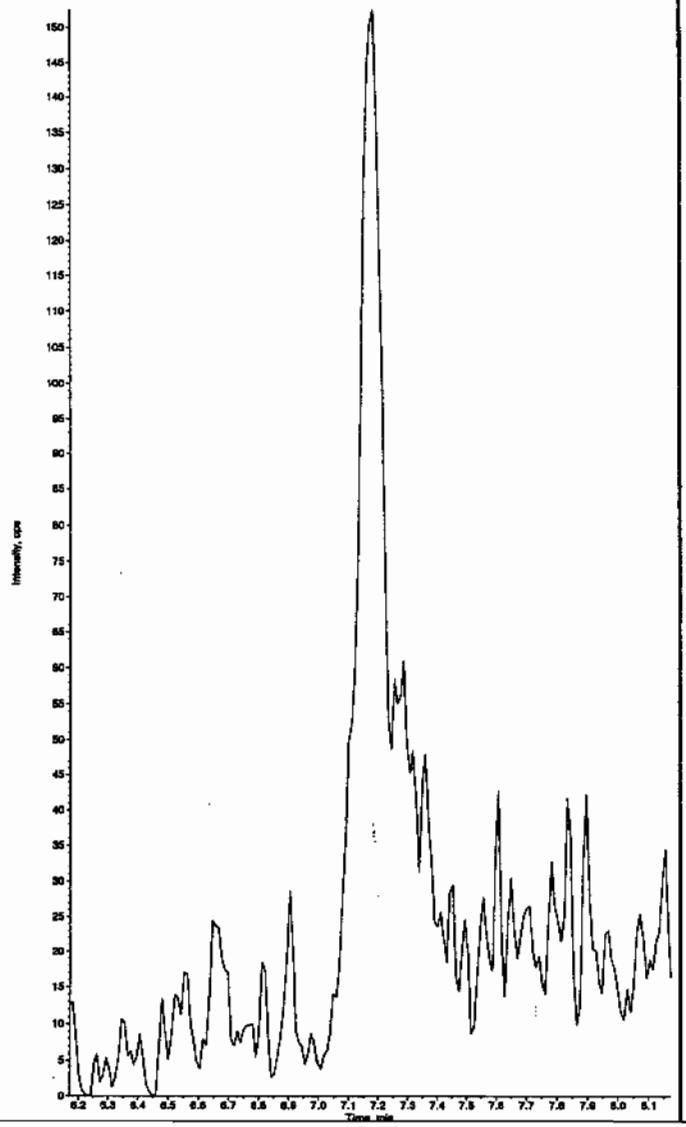

Sample Name: "245686011" Sample ID: "947078[2]LER" File: "EXS02130032.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:19:34 PM

Modified: No

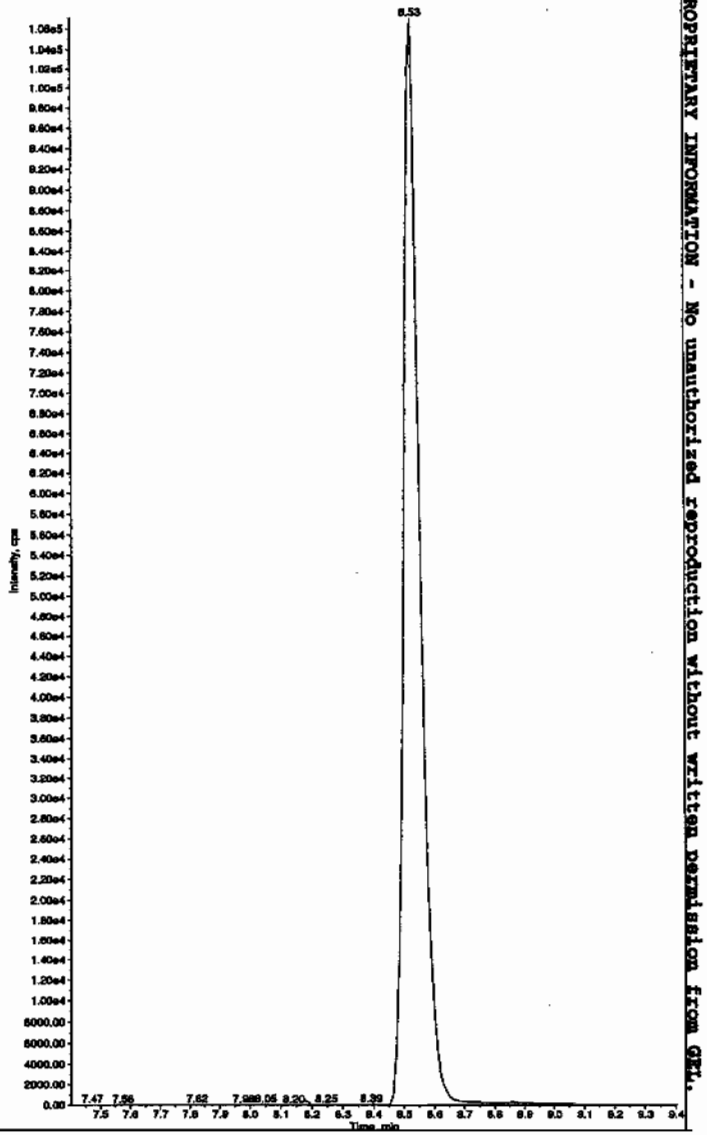

Hnm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686011" Sample ID: "947078|2|LER" File: "EXS02130032.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 335. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:19:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.95e+006 counts
Height: 965598.999 cps
Start Time: 8.38 min
End Time: 9.00 min

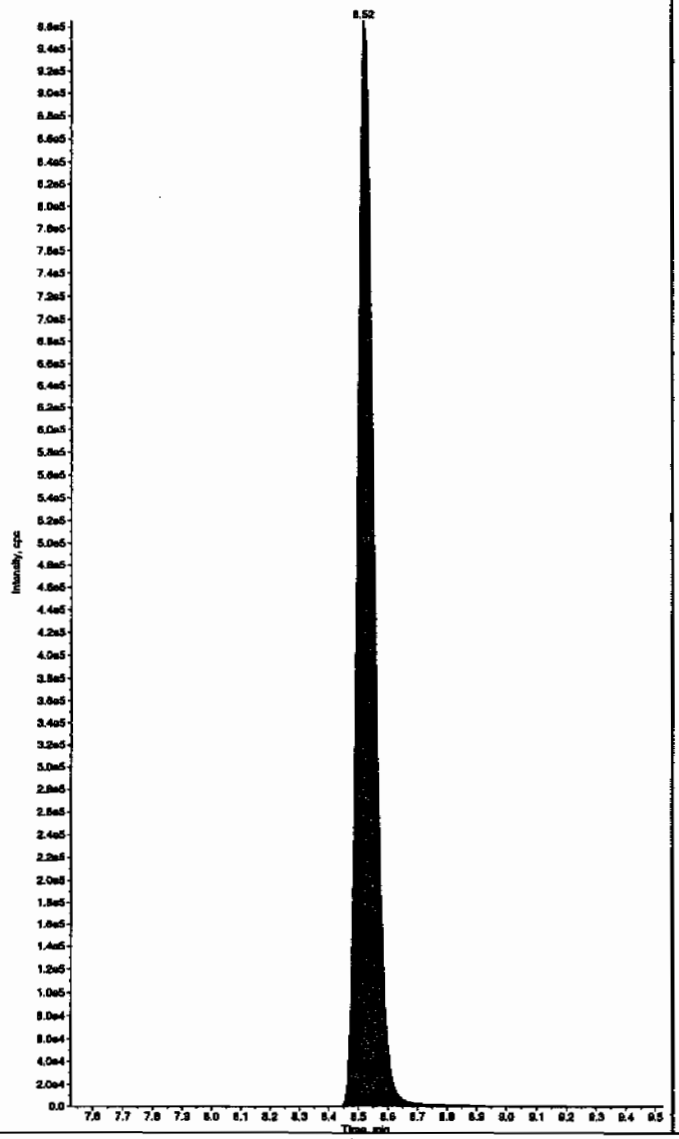

Sample Name: "245686011" Sample ID: "947078|2|LER" File: "EXS02130032.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:19:34 PM

Modified: No

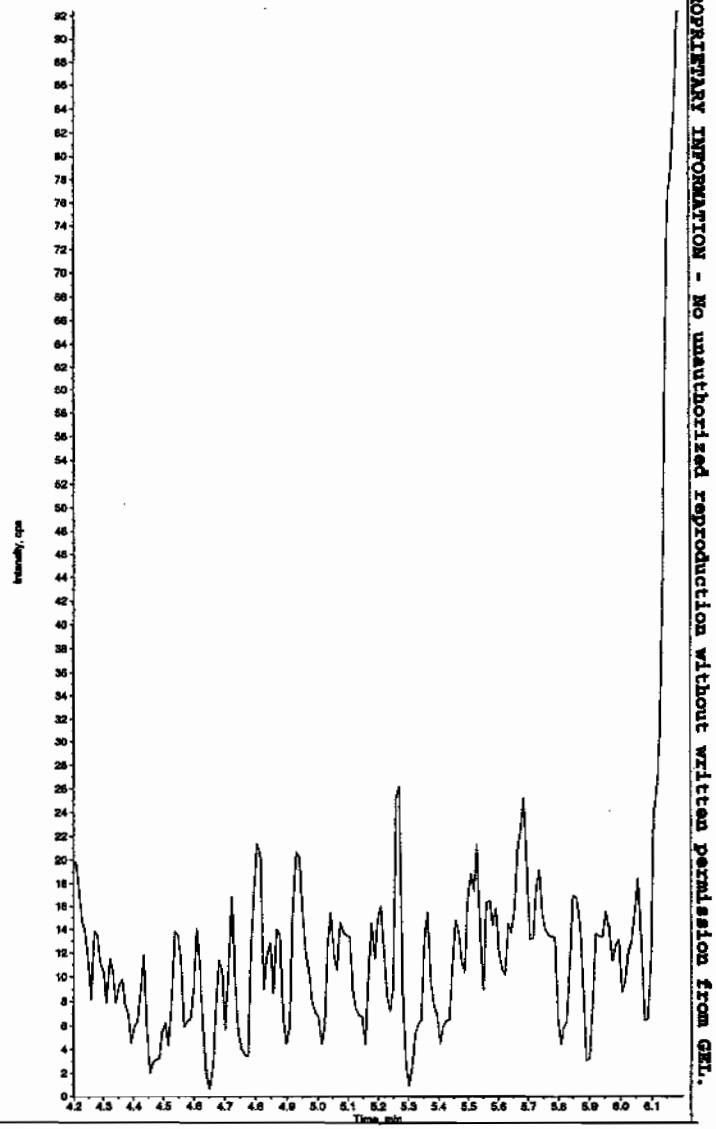

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245686011" Sample ID: "947078[2]LER" File: "EXS02130032.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:19:34 PM

Modified: No

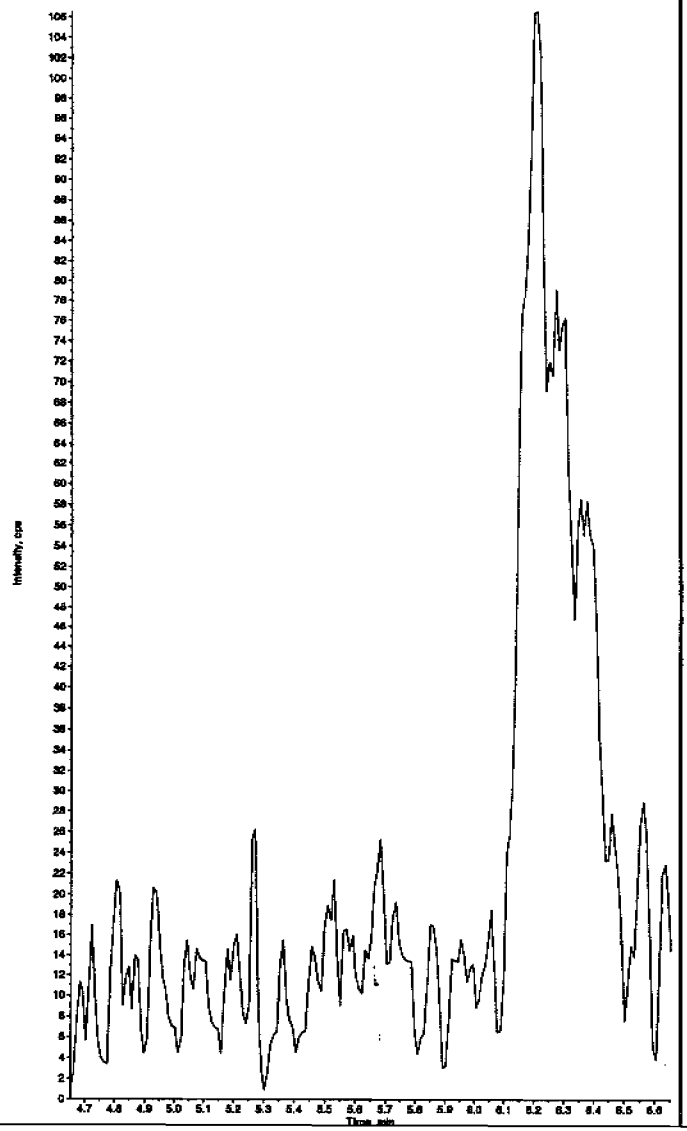

Sample Name: "245686011" Sample ID: "947078[2]LER" File: "EXS02130032.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:19:34 PM

Modified: No

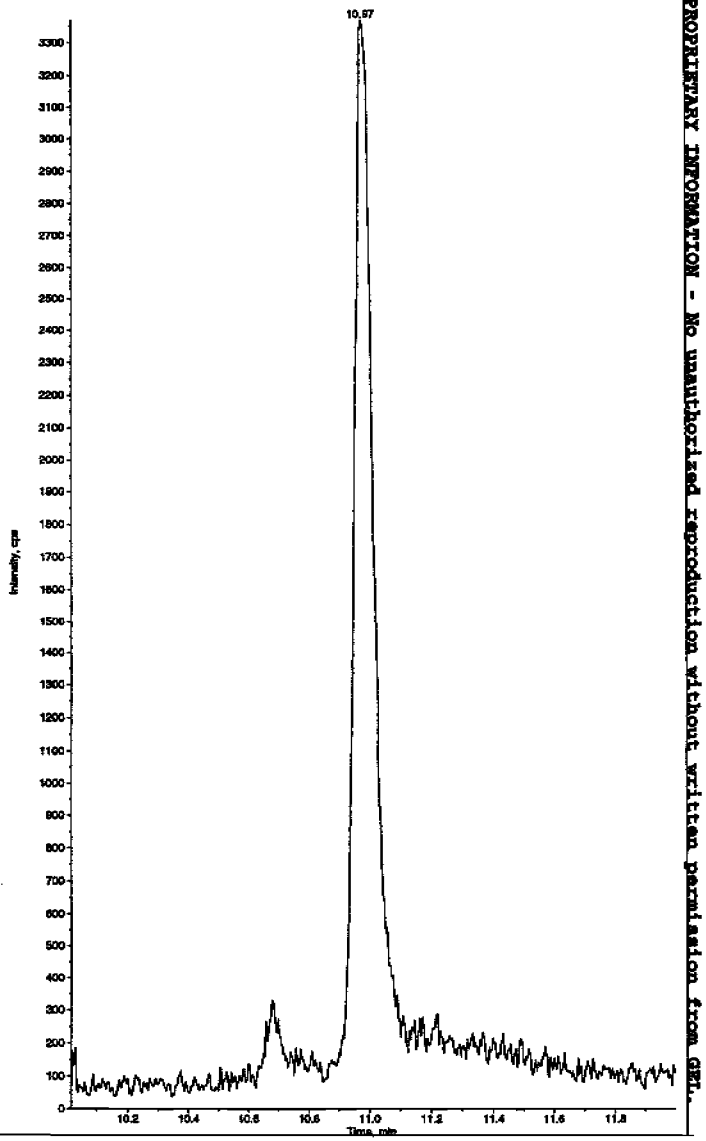

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7937

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208201a

Date Analyzed: 12-FEB-10 17:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208201a
Date: 12-Feb-2010
Time: 17:07:30
ID: 245686012 | LANC | 947078 | Solids | 21
Vial: 4:6,E

MAP 4/13/10

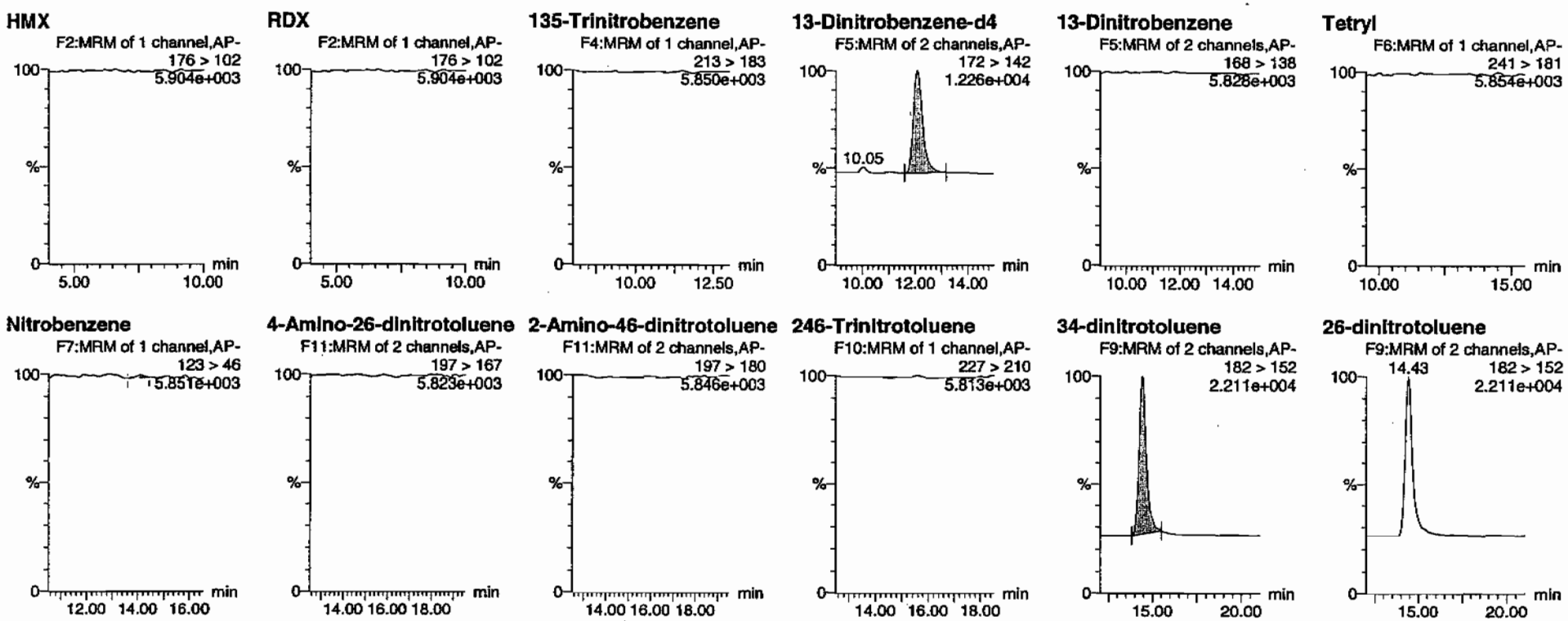

AMIK 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

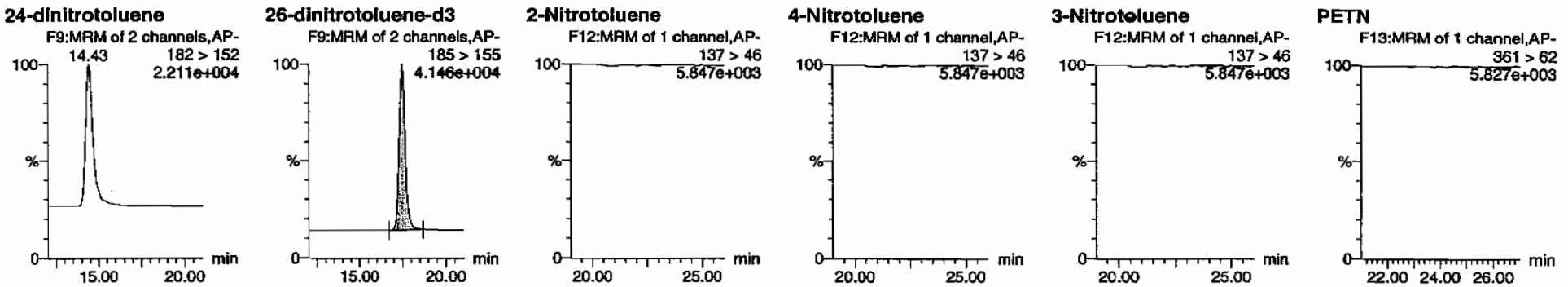

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245686012	HMX	176 > 102			2664.556									
245686012	RDX	176 > 102			2664.556									
245686012	135-Trinitrobenzene	213 > 183			2664.556									
245686012	13-Dinitrobenzene-d4	172 > 142	12.07	2664.556		2664.556	2664.556	bb			414.4494	82.9	-17.1	159.5
245686012	13-Dinitrobenzene	168 > 138			2664.556									
245686012	Tetryl	241 > 181			2664.556									
245686012	Nitrobenzene	123 > 46			2664.556			MM-	13-Feb-10	09:18:55				
245686012	4-Amino-26-dinitrotoluene	197 > 167			14384.502									
245686012	2-Amino-46-dinitrotoluene	197 > 180			14384.502									
245686012	246-Trinitrotoluene	227 > 210			14384.502									
245686012	34-dinitrotoluene	182 > 152	14.43	7747.882	14384.502	7747.882	269.314	bb			299.2399	119.7	19.7	574.7
245686012	26-dinitrotoluene	182 > 152			14384.502									
245686012	24-dinitrotoluene	182 > 152			14384.502									
245686012	26-dinitrotoluene-d3	185 > 155	17.46	14384.502		14384.502	14384.502	bb			389.6195	77.9	-22.1	2141.0
245686012	2-Nitrotoluene	137 > 46			14384.502									
245686012	4-Nitrotoluene	137 > 46			14384.502									
245686012	3-Nitrotoluene	137 > 46			14384.502									
245686012	PETN	361 > 62			14384.502									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7937

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130033.wiff

Date Analyzed: 13-FEB-10 18:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcw 2/16/10

Sample Name: "245686012" Sample ID: "947078|2|LER" File: "EXS02130033.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:35:16 PM

Modified: No

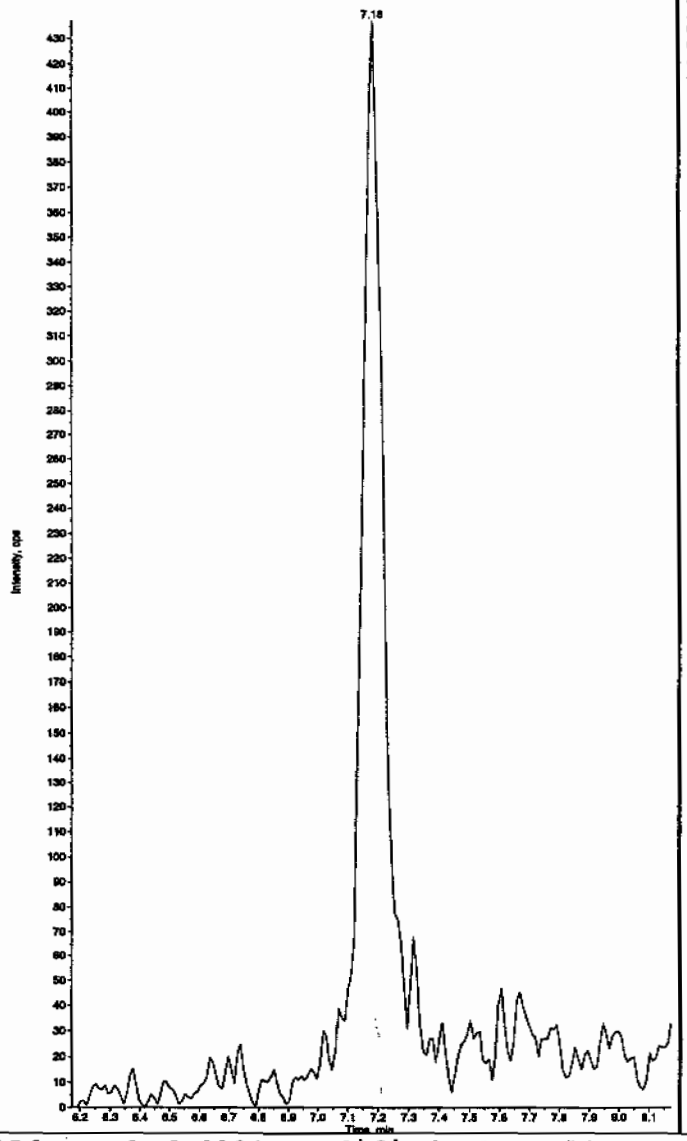

Sample Name: "245686012" Sample ID: "947078|2|LER" File: "EXS02130033.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:35:16 PM

Modified: Yes

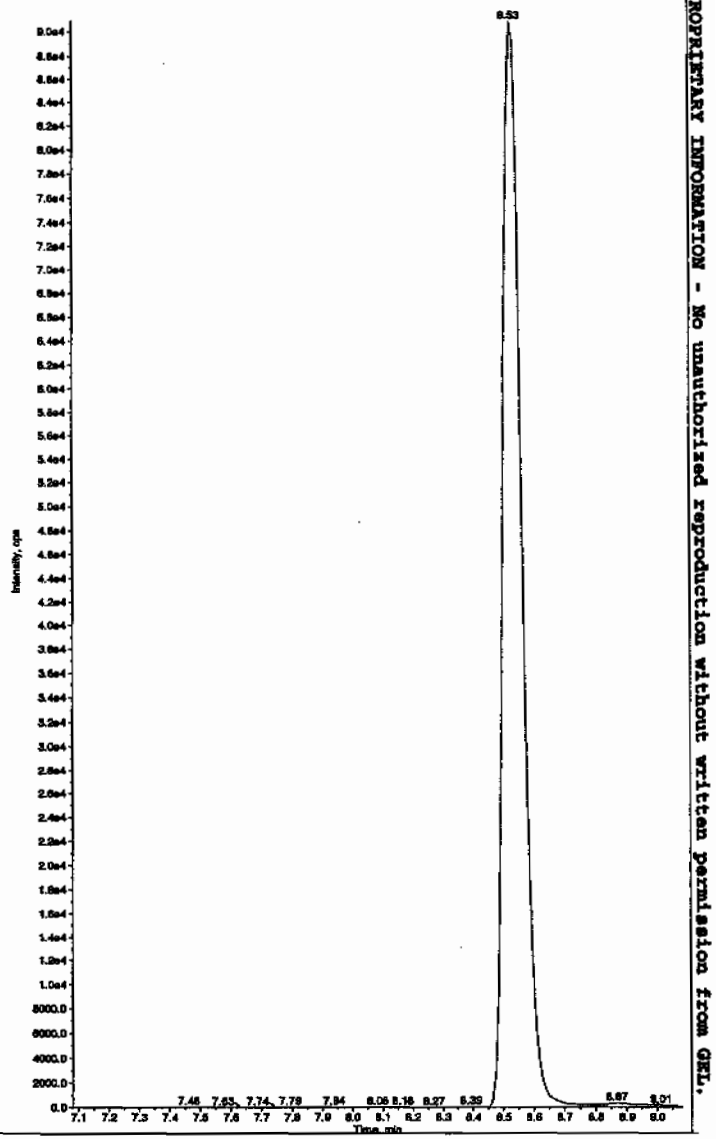

Hnm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686012" Sample ID: "947076[2]LER" File: "EXS02130033.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 347. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:35:16 PM

Modified: No
Assoc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 4.08e+006 counts
Height: 1007810.242 cps
Start Time: 8.39 min
End Time: 8.89 min

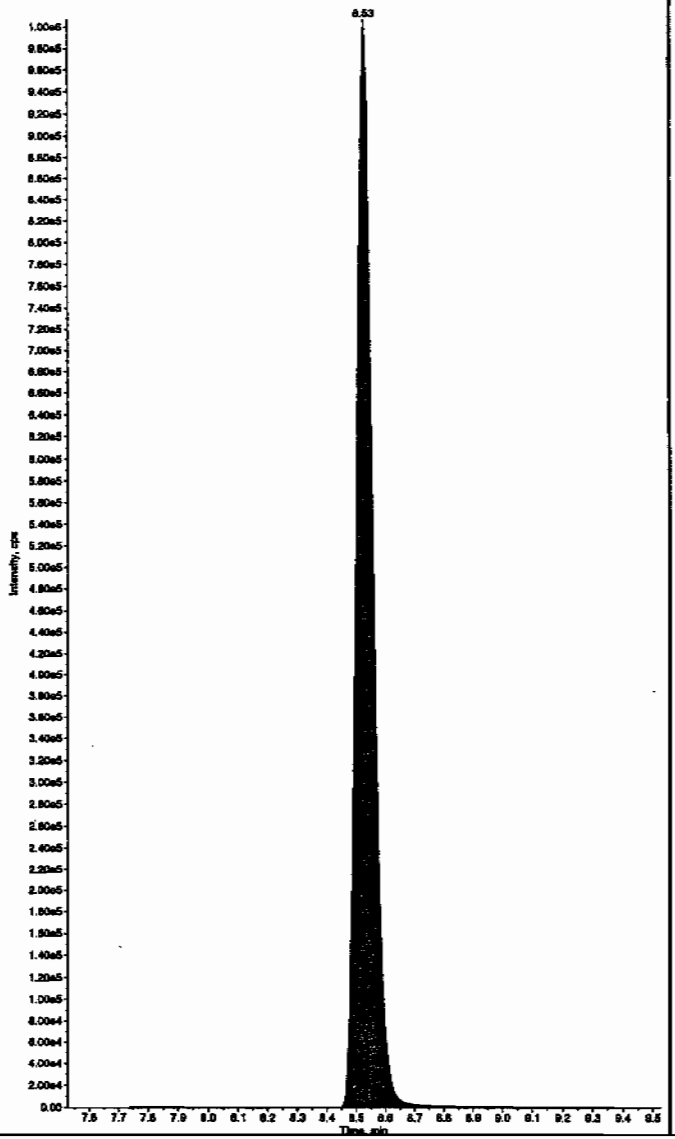

Sample Name: "245686012" Sample ID: "947076[2]LER" File: "EXS02130033.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 5:35:16 PM

Modified: No

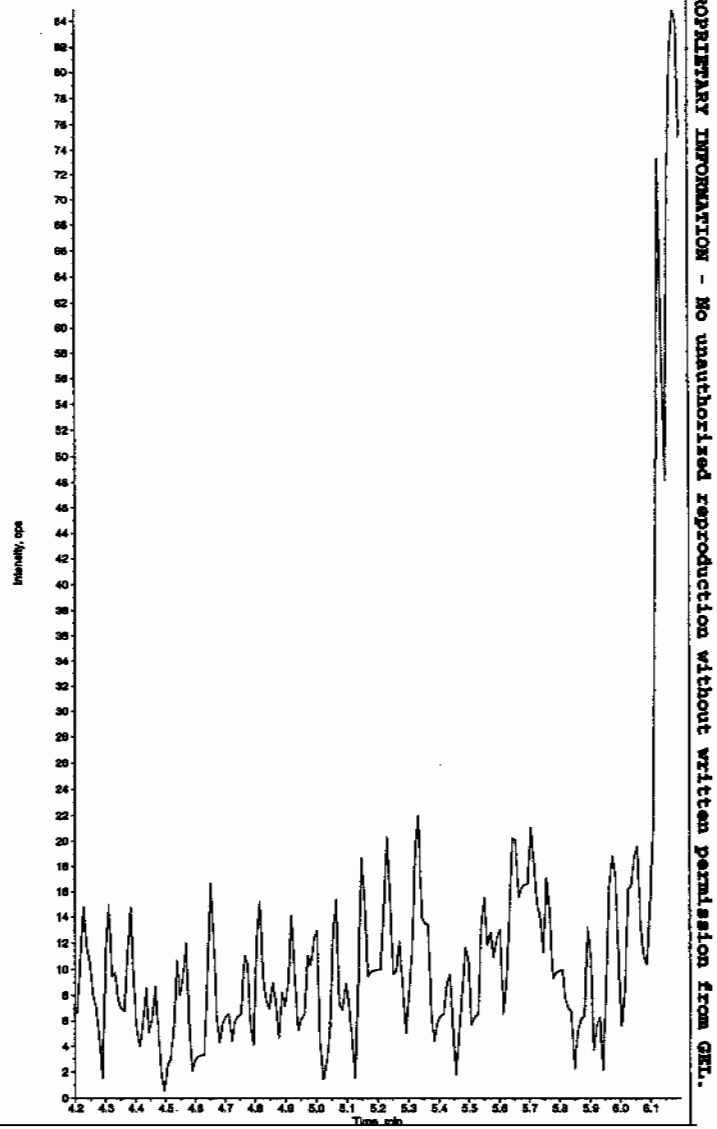

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245686012" Sample ID: "947078[2]LER" File: "EXS02130033.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:35:16 PM

Modified: No

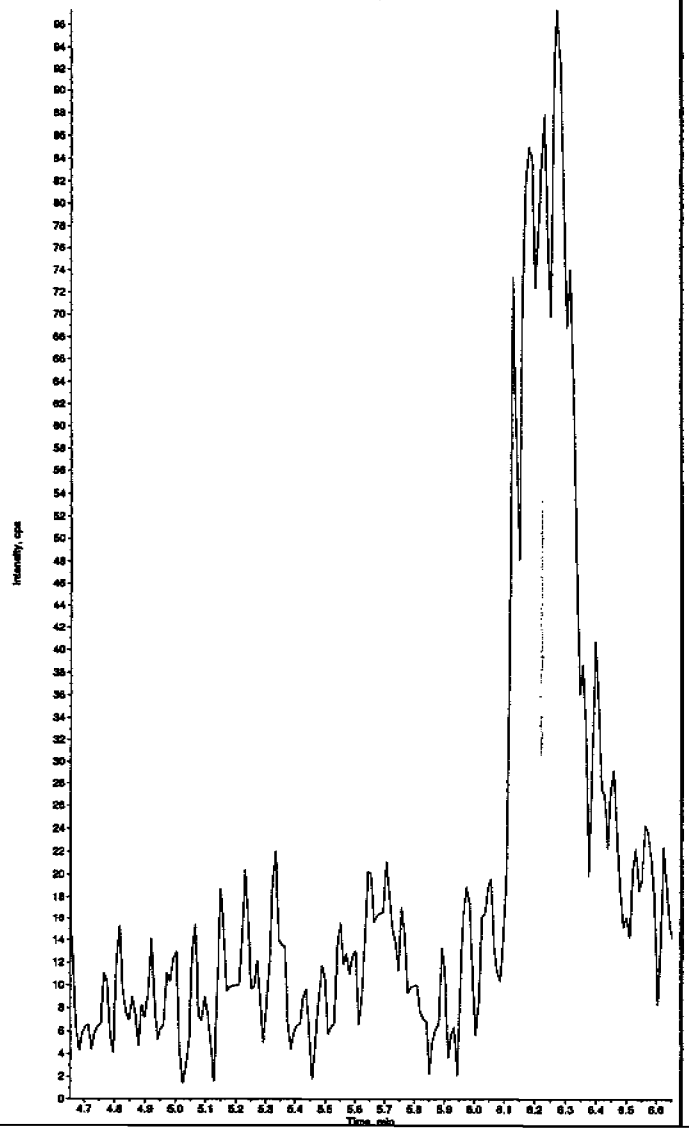

Sample Name: "245686012" Sample ID: "947078[2]LER" File: "EXS02130033.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:35:16 PM

Modified: No

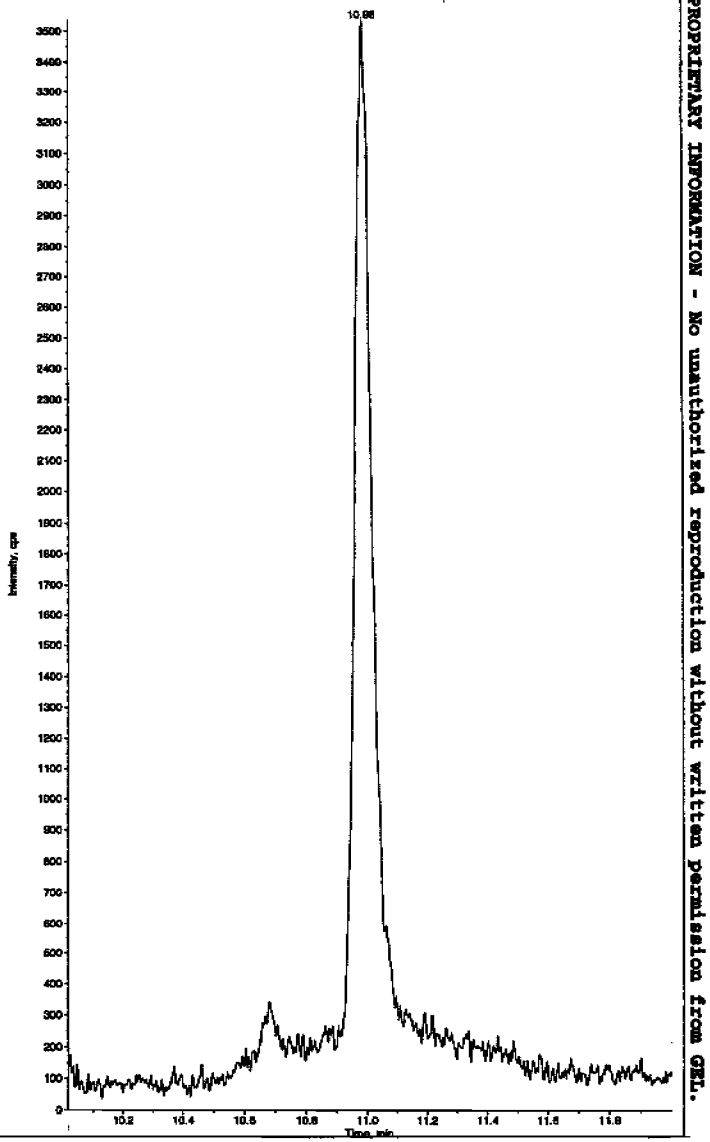

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8056

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686013

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208202a

Date Analyzed: 12-FEB-10 17:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208202a
Date: 12-Feb-2010
Time: 17:36:59
ID: 245686013 | LANU | 947098 | Solids | 2 |
Vial: 4:6,F

MOP 4/13/10

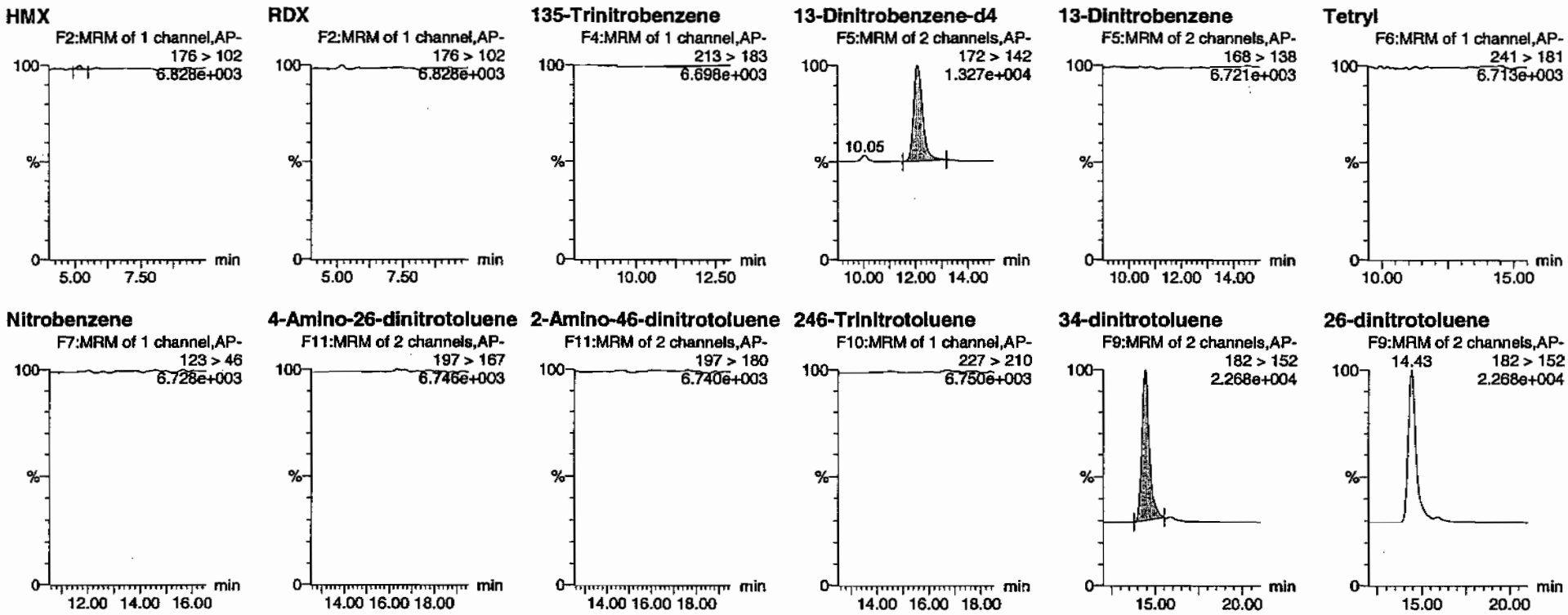

HMW 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

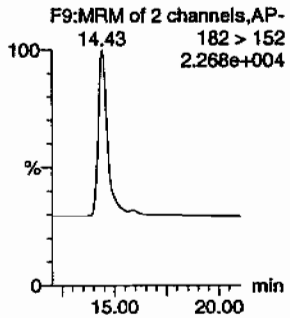

26-dinitrotoluene-d3

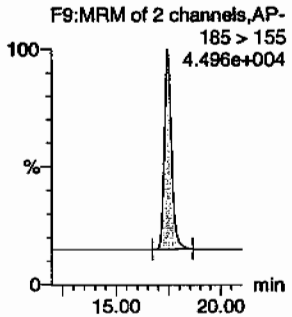

2-Nitrotoluene

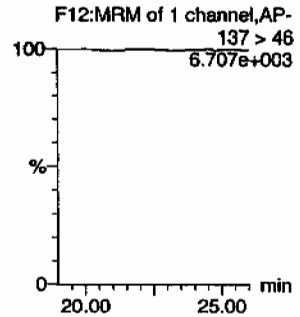

4-Nitrotoluene

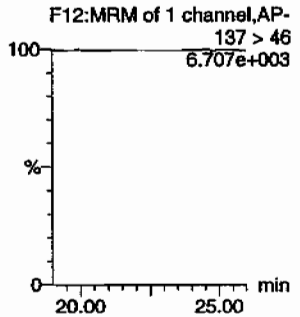

3-Nitrotoluene

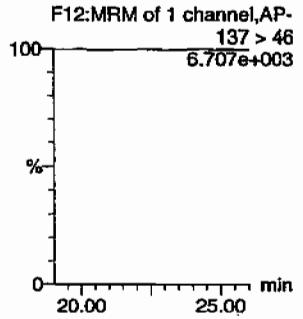

PETN

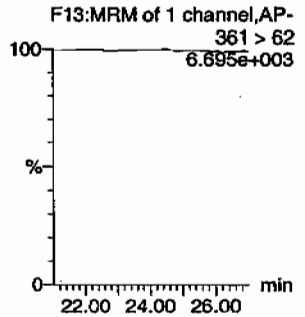

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245686013	HMX	176 > 102	5.19	33.036	2664.821	33.036	6.199	bb			1.7849			6.4
245686013	RDX	176 > 102			2664.821									
245686013	135-Trinitrobenzene	213 > 183			2664.821									
245686013	13-Dinitrobenzene-d4	172 > 142	12.07	2664.821		2664.821	2664.821	bb			414.4906	82.9	-17.1	273.3
245686013	13-Dinitrobenzene	168 > 138			2664.821									
245686013	Tetryl	241 > 181			2664.821									
245686013	Nitrobenzene	123 > 46			2664.821									
245686013	4-Amino-26-dinitrotoluene	197 > 167			15262.868									
245686013	2-Amino-46-dinitrotoluene	197 > 180			15262.868									
245686013	246-Trinitrotoluene	227 > 210			15262.868									
245686013	34-dinitrotoluene	182 > 152	14.43	7691.452	15262.868	7691.452	251.966	bb			279.9649	112.0	12.0	793.0
245686013	26-dinitrotoluene	182 > 152			15262.868									
245686013	24-dinitrotoluene	182 > 152			15262.868									
245686013	26-dinitrotoluene-d3	185 > 155	17.47	15262.868		15262.868	15262.868	bb			413.4109	82.7	-17.3	1891.3
245686013	2-Nitrotoluene	137 > 46			15262.868									
245686013	4-Nitrotoluene	137 > 46			15262.868									
245686013	3-Nitrotoluene	137 > 46			15262.868									
245686013	PETN	361 > 62			15262.868									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8056

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686013

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130034.wiff

Date Analyzed: 13-FEB-10 18:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/18/10

Sample Name: "245686013" Sample ID: "947078[2]LER" File: "EXS02130034.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX832125" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:50:58 PM

Modified: No

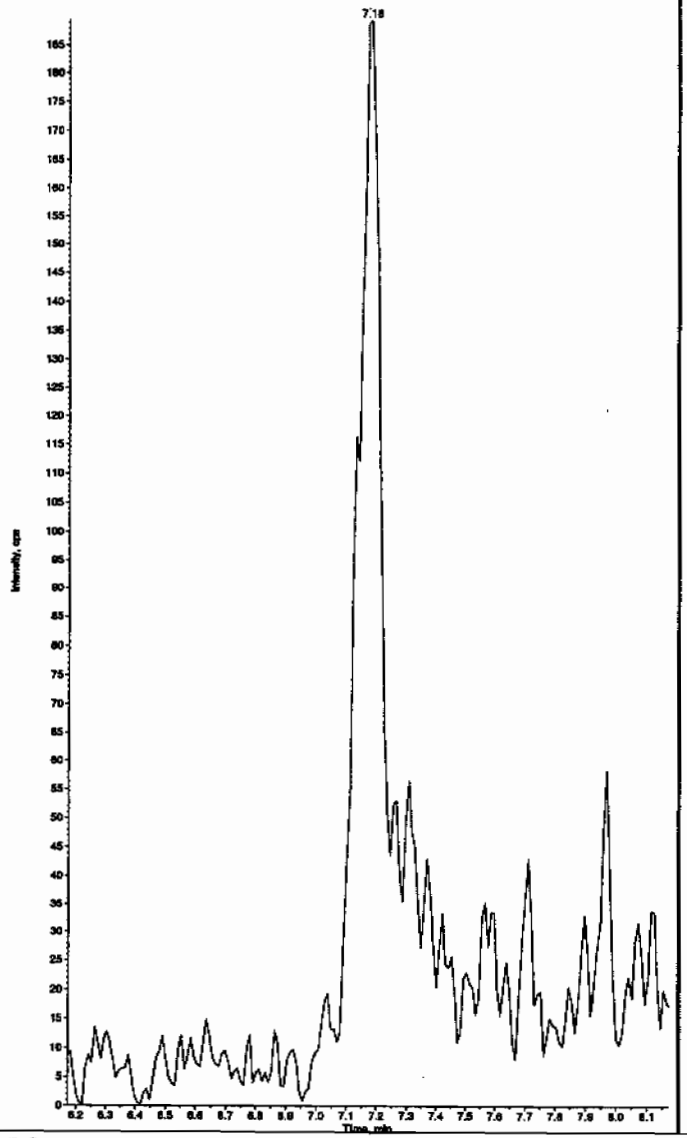

Sample Name: "245686013" Sample ID: "947078[2]LER" File: "EXS02130034.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX832125" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:50:58 PM

Modified: No

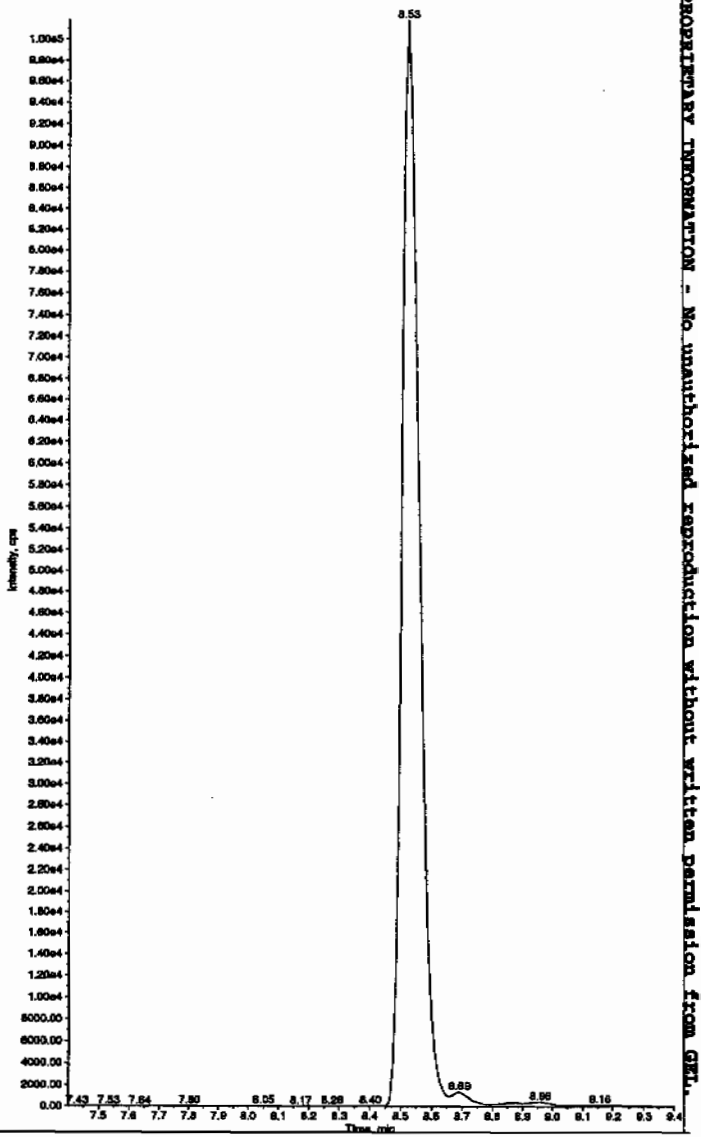

Hmm 02/16/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245686013" Sample ID: "947078[2]LER" File: "EXS02130034.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 335. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:50:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.94e+006 counts
Height: 966002.502 cps
Start Time: 8.41 min
End Time: 8.88 min

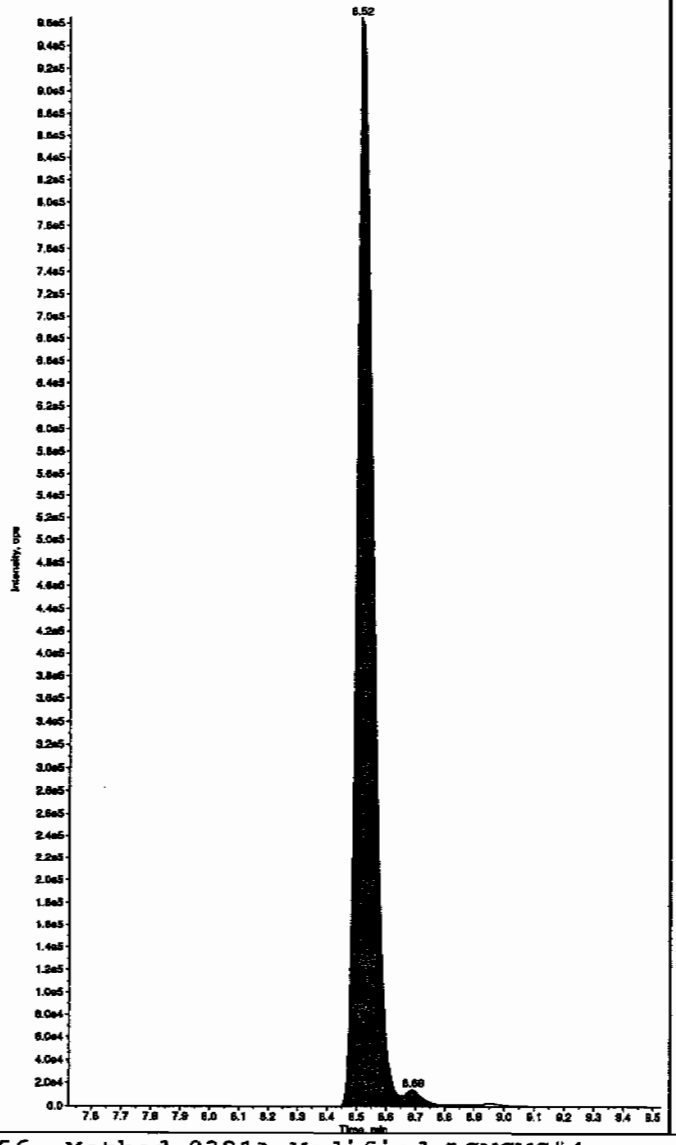

Sample Name: "245686013" Sample ID: "947078[2]LER" File: "EXS02130034.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:50:58 PM

Modified: No

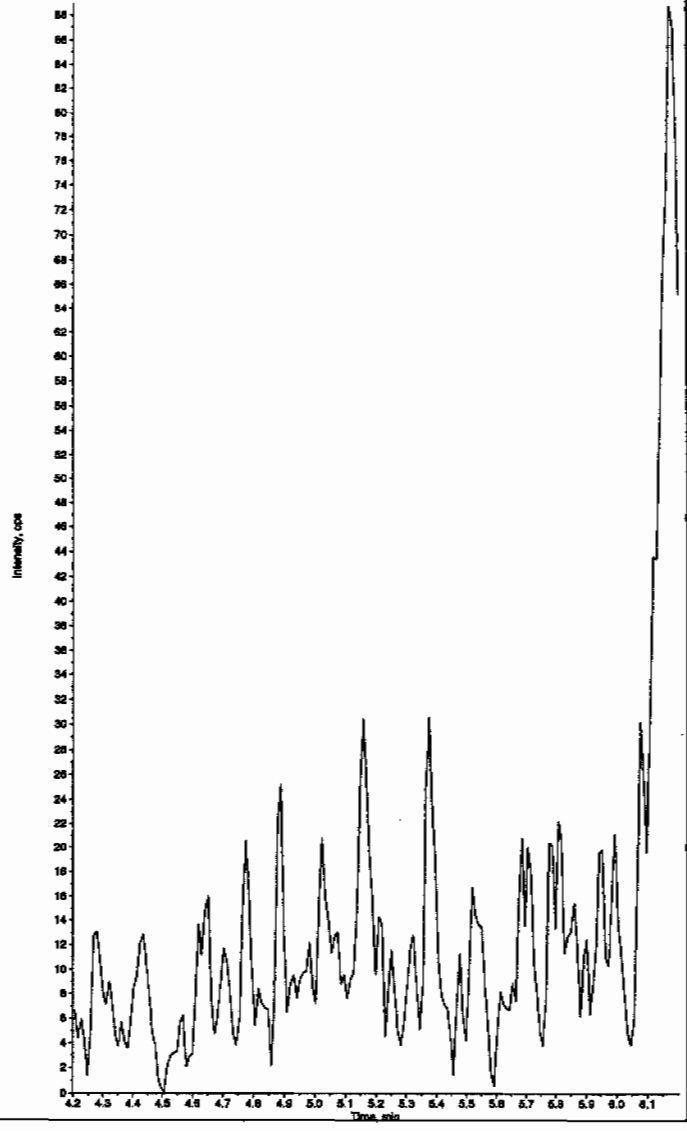

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245686013" Sample ID: "947078[2]LER" File: "EXS02130034.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:50:58 PM

Modified: No

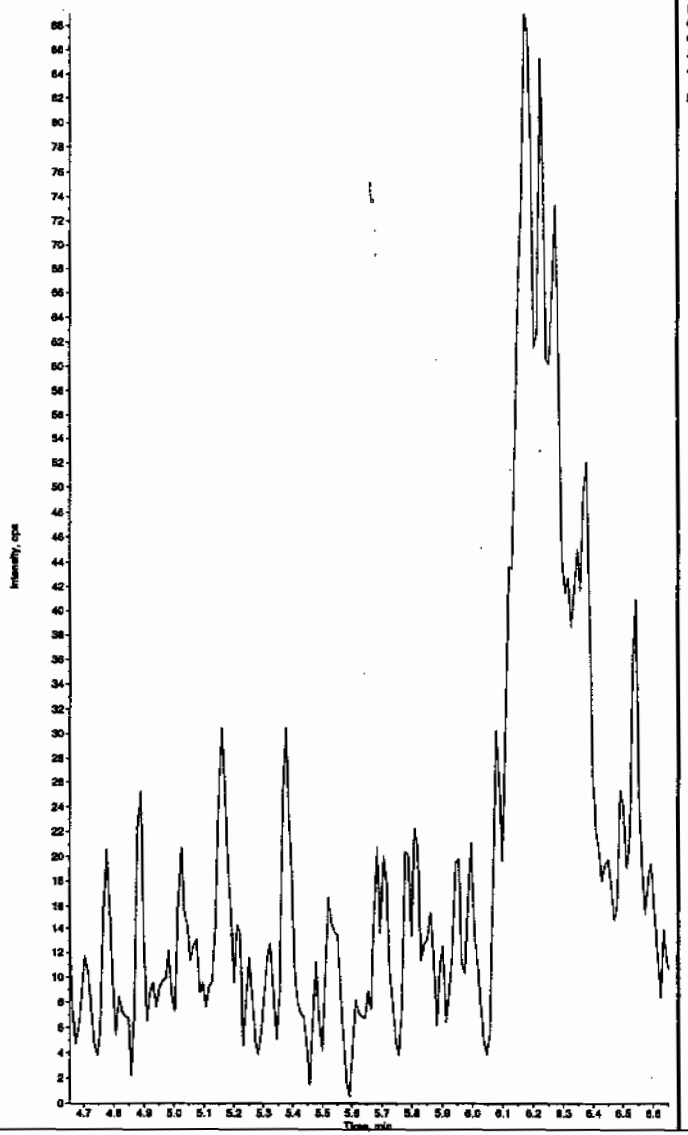

Sample Name: "245686013" Sample ID: "947078[2]LER" File: "EXS02130034.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 6:50:58 PM

Modified: No

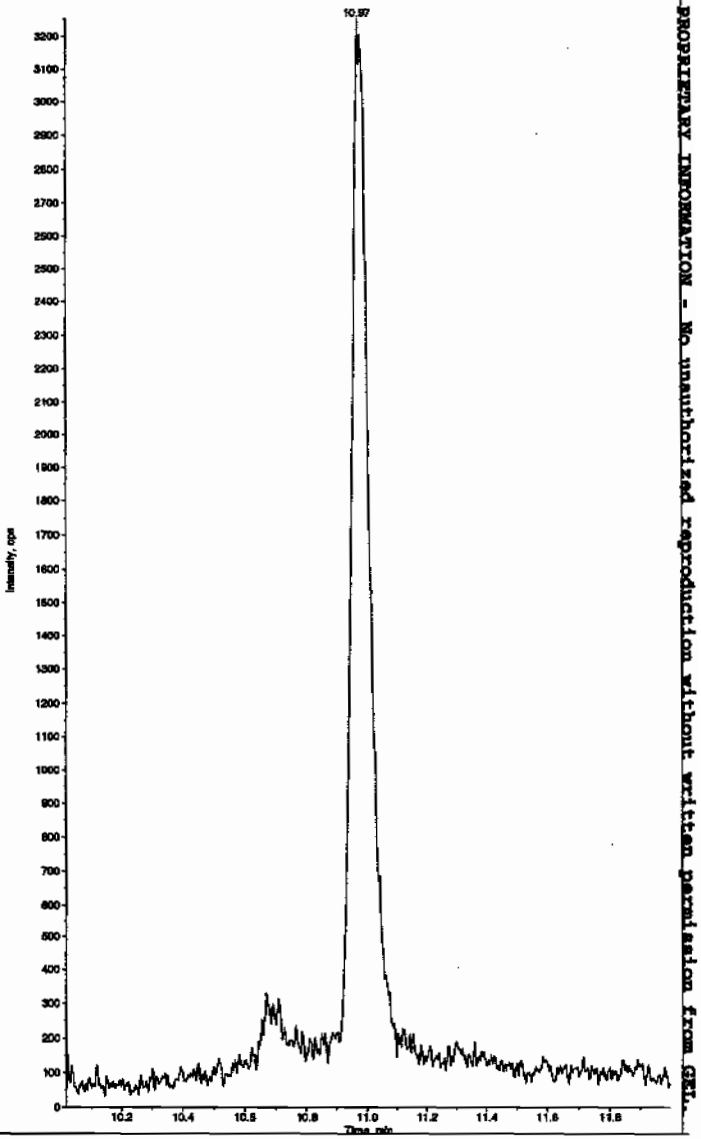

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8057

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686014

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208203a

Date Analyzed: 12-FEB-10 18:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208203a
Date: 12-Feb-2010
Time: 18:06:28
ID: 245686014
Vial: 4:7,A

| LANL | 947078 | SOLID | 21

MMP 2/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.776e+003

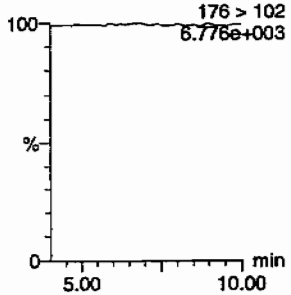

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.776e+003

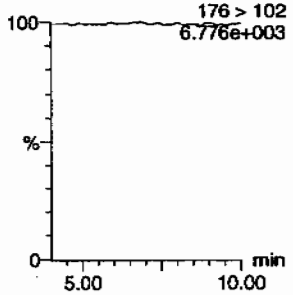

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.708e+003

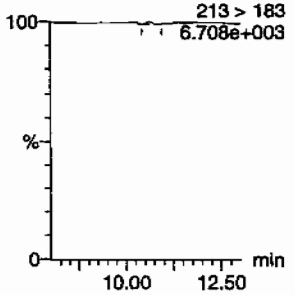

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.326e+004

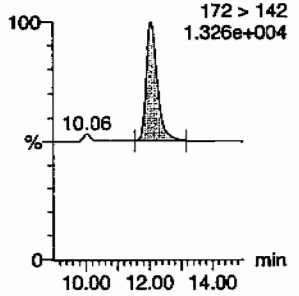

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.710e+003

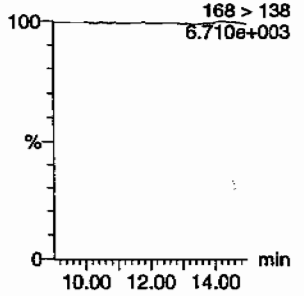

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.704e+003

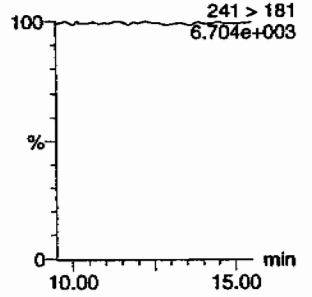

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.714e+003

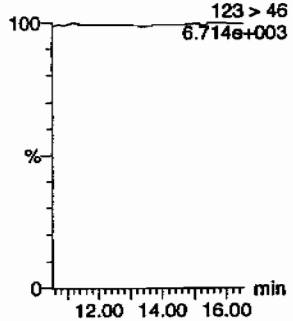

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.723e+003

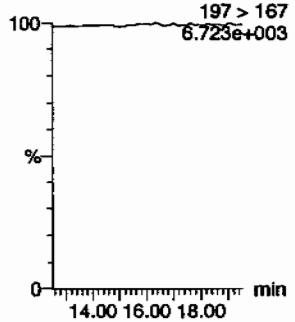

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.720e+003

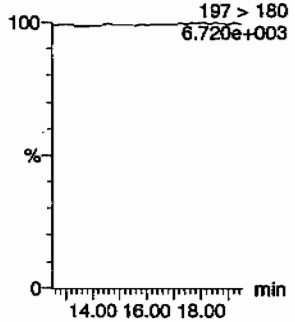

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.717e+003

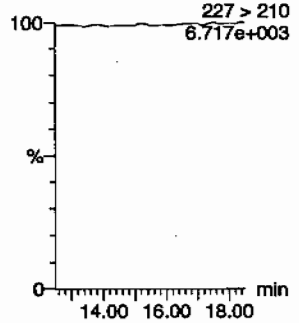

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.325e+004

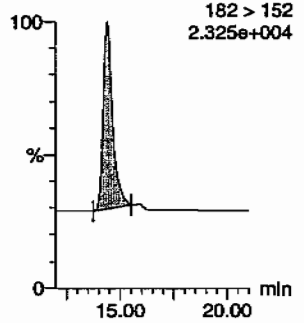

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.325e+004

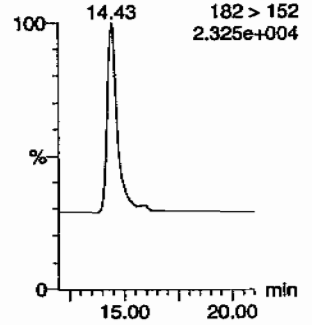

AMM 02/13/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

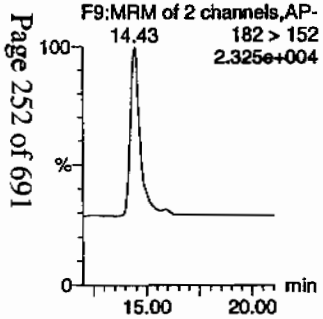

26-dinitrotoluene-d3

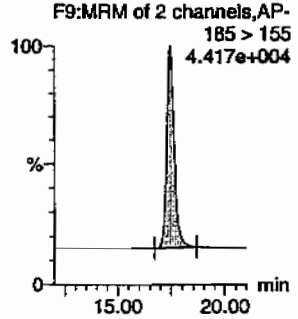

2-Nitrotoluene

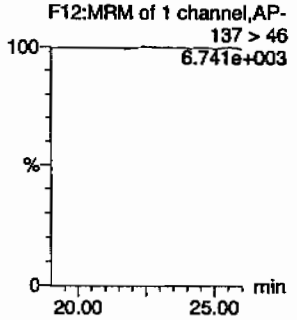

4-Nitrotoluene

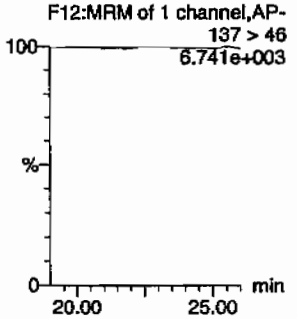

3-Nitrotoluene

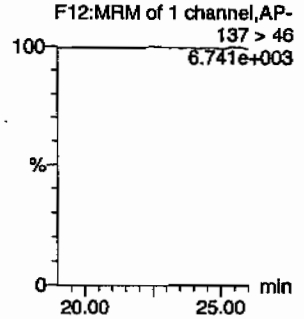

PETN

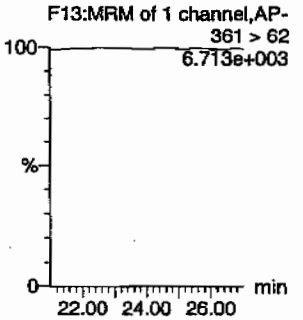

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245686014	HMX	176 > 102			2723.031									
245686014	RDX	176 > 102			2723.031									
245686014	135-Trinitrobenzene	213 > 183			2723.031			MM-	13-Feb-10	09:16:12				
245686014	13-Dinitrobenzene-d4	172 > 142	12.07	2723.031		2723.031	2723.031	bb			423.5447	84.7	-15.3	180.8
245686014	13-Dinitrobenzene	168 > 138			2723.031									
245686014	Tetryl	241 > 181			2723.031									
245686014	Nitrobenzene	123 > 46			2723.031									
245686014	4-Amino-26-dinitrotoluene	197 > 167			15060.316									
245686014	2-Amino-46-dinitrotoluene	197 > 180			15060.316									
245686014	246-Trinitrotoluene	227 > 210			15060.316									
245686014	34-dinitrotoluene	182 > 152	14.43	8175.587	15060.316	8175.587	271.428	bb			301.5895	120.6	20.6	658.5
245686014	26-dinitrotoluene	182 > 152			15060.316									
245686014	24-dinitrotoluene	182 > 152			15060.316									
245686014	26-dinitrotoluene-d3	185 > 155	17.47	15060.316		15060.316	15060.316	bb			407.9246	81.6	-18.4	921.1
245686014	2-Nitrotoluene	137 > 46			15060.316									
245686014	4-Nitrotoluene	137 > 46			15060.316									
245686014	3-Nitrotoluene	137 > 46			15060.316									
245686014	PETN	361 > 62			15060.316									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8057

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 245686014

Sample Amount 2

Moisture: 29.8

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130035.wiff

Date Analyzed: 13-FEB-10 19:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

PCW 2/15/10

Sample Name: "245686014" Sample ID: "947078[2]LER" File: "EXS02130035.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCXB32125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:06:38 PM

Modified: No

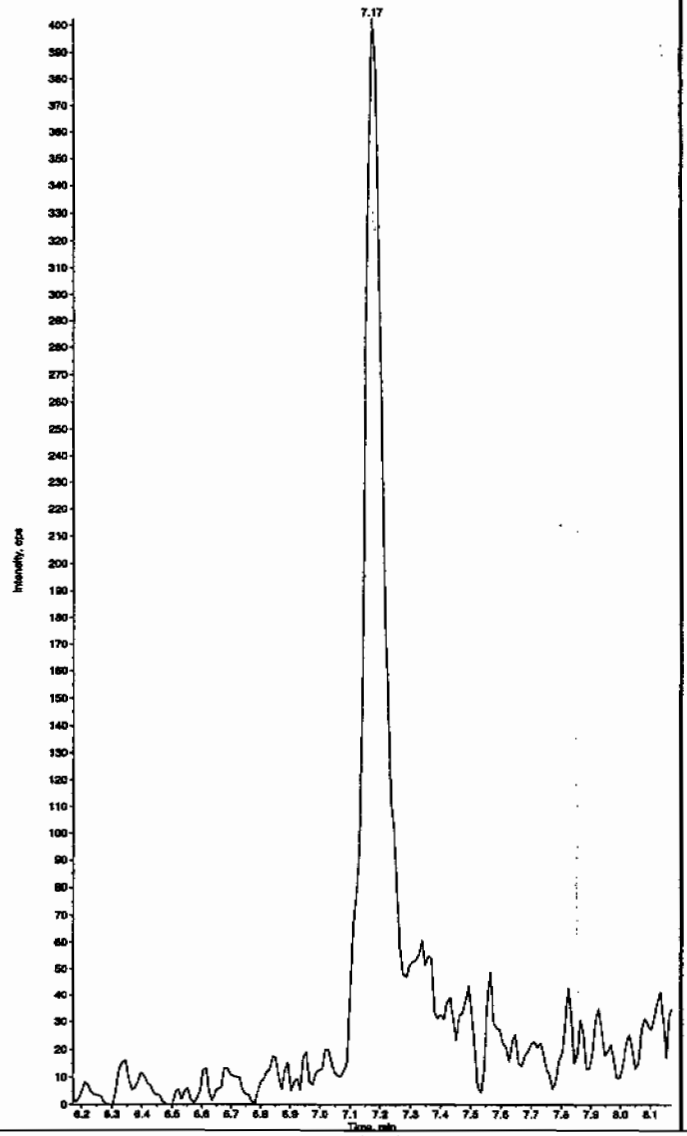

Sample Name: "245686014" Sample ID: "947078[2]LER" File: "EXS02130035.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB32125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:06:38 PM

Modified: Yes

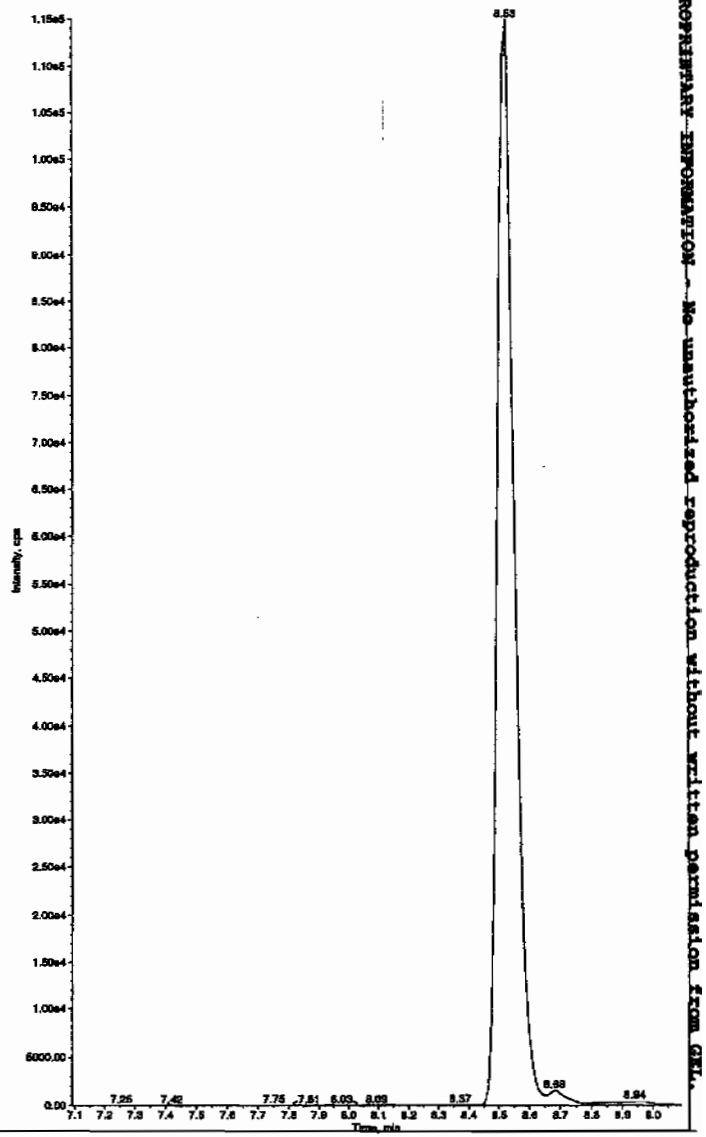

HMM 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245686014" Sample ID: "947078|2|LER" File: "EXS02130035.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 373. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:06:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 4.37e+006 counts
Height: 1111569.702 cps
Start Time: 8.37 min
End Time: 8.85 min

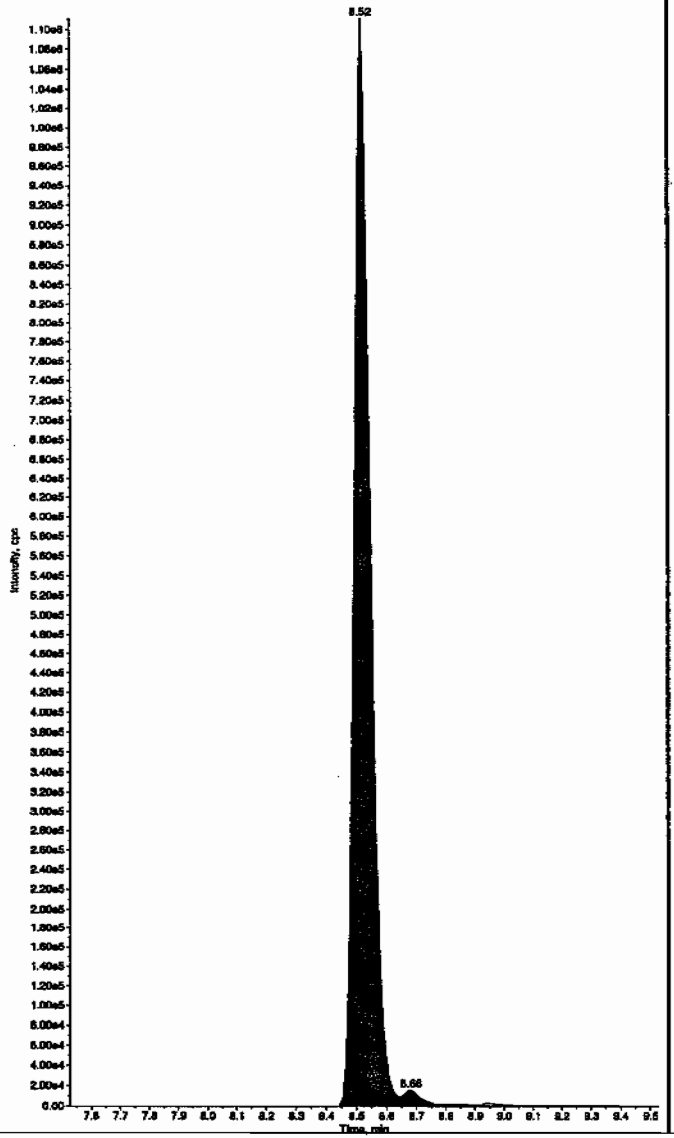

Sample Name: "245686014" Sample ID: "947078|2|LER" File: "EXS02130035.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:06:38 PM

Modified: No

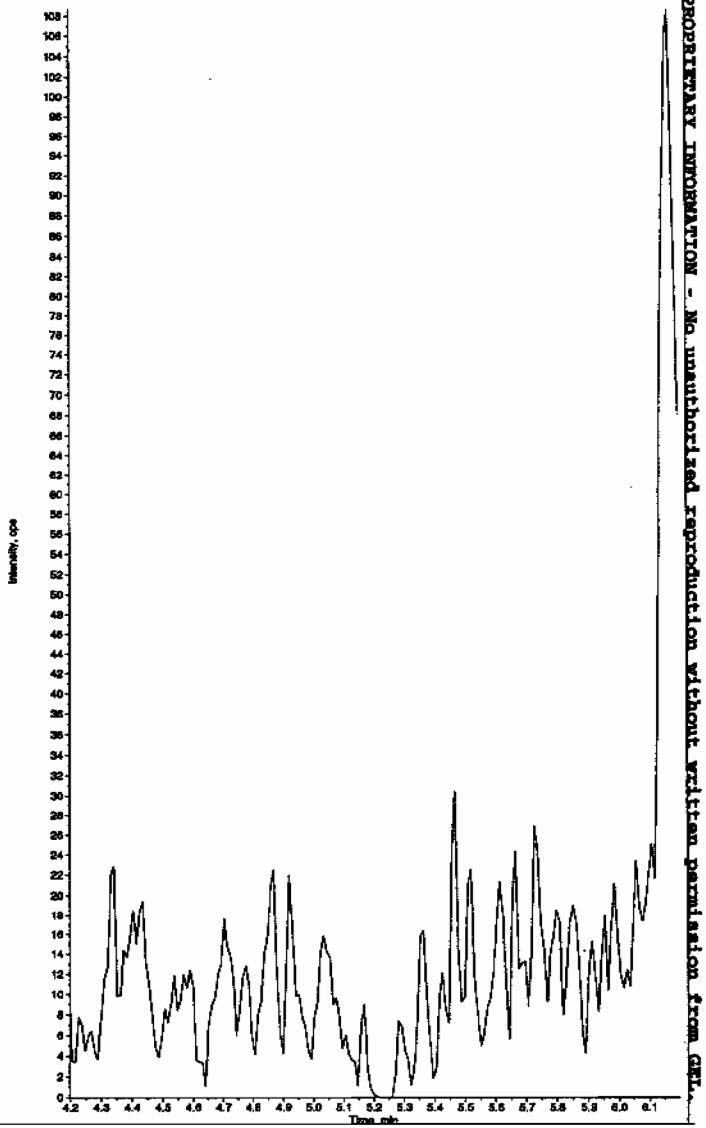

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245686014" Sample ID: "947078|2|LER" File: "EXS02130035.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:06:38 PM

Modified: No

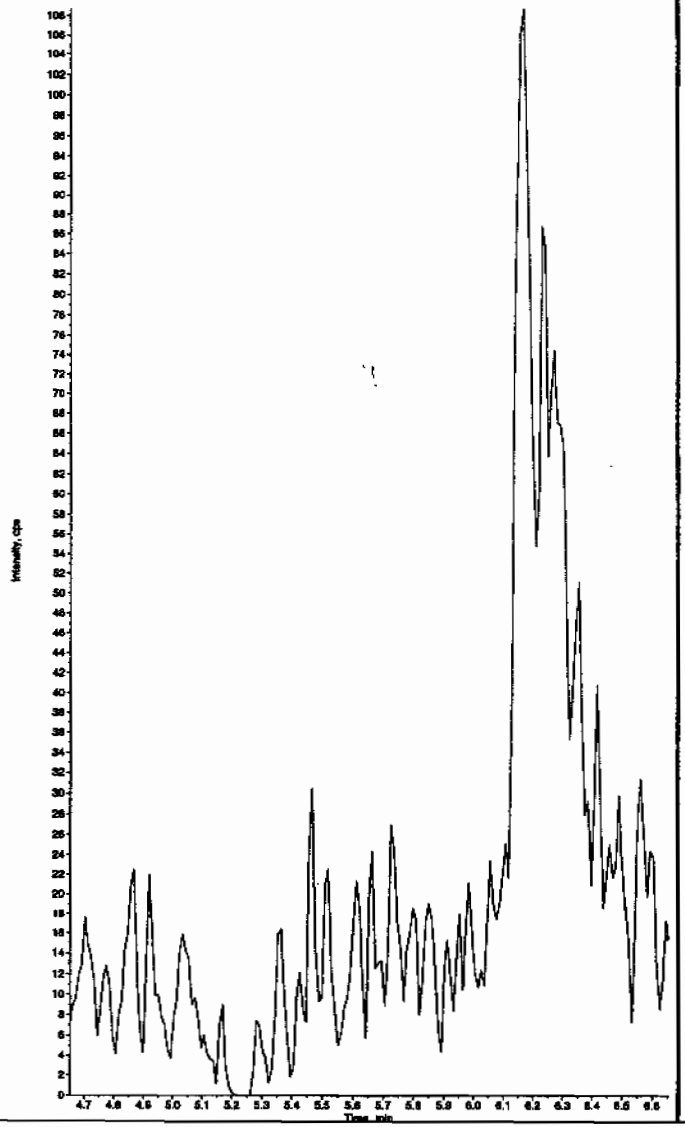

Sample Name: "245686014" Sample ID: "947078|2|LER" File: "EXS02130035.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:06:38 PM

Modified: No

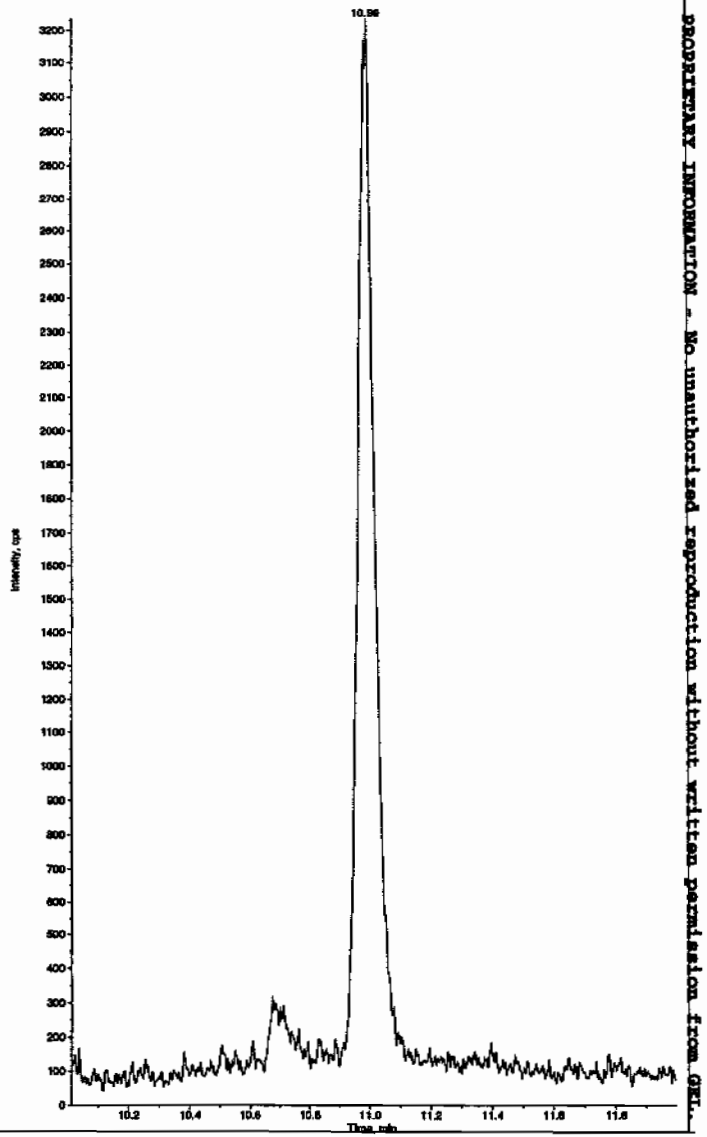

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1432

Lab Code: GEL

Run Date: 08-FEB-10.13-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0208003a	EXP0208004a	EXP0208005a	EXP0208006a	EXP0208007a	EXP0208008a			
Parmname									
1,3,5-Trinitrobenzene	3.548	3.943	4.247	3.451	3.361	3.547	3.683	9.244	
1,3-Dinitrobenzene-d4	6.149	6.436	6.465	6.633	6.717	6.174	6.429	3.612	
2,4,6-Trinitrotoluene	.299	.308	.311	.323	.348	.347	0.323	6.431	
2,4-Dinitrotoluene	.243	.236	.232	.24	.256	.258	0.244	4.271	
2,6-Dinitrotoluene	1.071	1.092	1.008	1.066	1.112	1.095	1.074	3.4	
2,6-Dinitrotoluene-d3	34.376	37.613	37.768	39.993	37.032	34.734	36.919	5.669	
2-Amino-4,6-dinitrotoluene	.361	.359	.391	.411	.422	.432	0.396	7.897	
3,4-Dinitrotoluene	.793	.884	.838	.907	.976	1	0.900	8.794	
4-Amino-2,6-dinitrotoluene	.279	.278	.264	.289	.311	.303	0.287	6.027	
HMX	3.402	3.005	4.021	3.584	3.432	3.392	3.473	9.511	
Nitrobenzene	.773	.761	.821	.856	.825	.812	0.808	4.332	
RDX	2.405	2.171	2.783	2.361	2.379	2.47	2.428	8.269	
m-Dinitrobenzene	1.257	1.065	1.193	1.226	1.214	1.259	1.202	5.994	
m-Nitrotoluene	.103	.107	.082	.087	.09	.089	0.093	10.689	
o-Nitrotoluene	.173	.148	.144	.152	.156	.157	0.155	6.405	
p-Nitrotoluene	.071	.091	.069	.074	.076	.075	0.076	10.145	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1432

Lab Code: GEL

Run Date: 08-FEB-10,13-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0208003a	EXP0208004a	EXP0208005a	EXP0208006a	EXP0208007a	EXP0208008a					
Parmname:											
PETN	1686.42	3643.3	12841.7	23262.7	39238.6	44182	1.544	-.0002977	21.056	.9994	
Tetryl	213.659	359.657	1210.76	2567.13	4763.44	5400.44	.962	-.0000981	8.004	.9996	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\020810expa.mdb, Time: Tue Feb 09 09:17:48 2010
Calibration: Untitled, Time: Tue Feb 09 10:19:05 2010

Compound name: HMX
Response Factor: 3.4728
RRF SD: 0.330307, % Relative SD: 9.51126
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

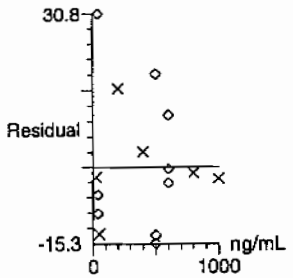

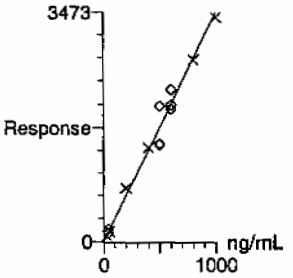

MAP
2/9/10

Compound name: RDX
Response Factor: 2.42814
RRF SD: 0.200785, % Relative SD: 8.26908
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

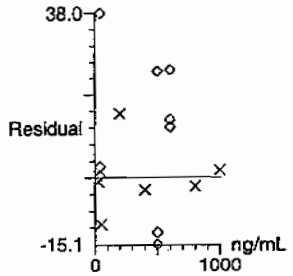

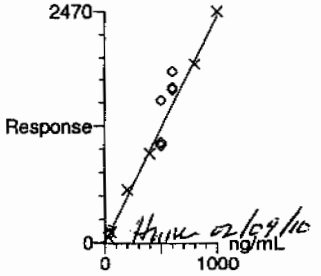

[illegible] 02/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.68306
RRF SD: 0.340458, % Relative SD: 9.2439
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

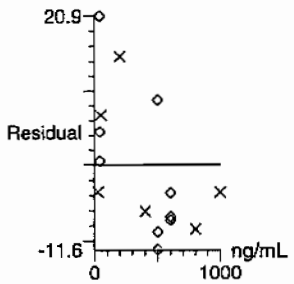

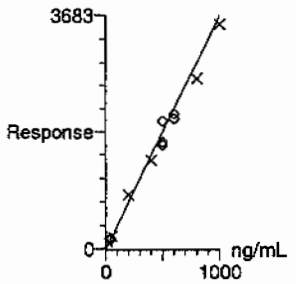

Compound name: 13-Dinitrobenzene-d4
Response Factor: 6.42915
RRF SD: 0.232214, % Relative SD: 3.6119
Response type: External Std, Area
Curve type: RF

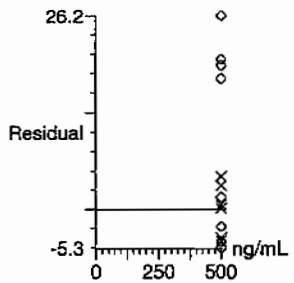

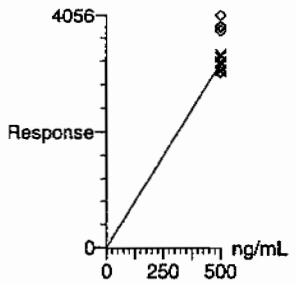

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.2024
RRF SD: 0.0720671, % Relative SD: 5.99362
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

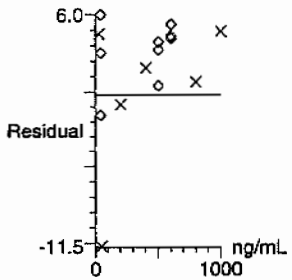

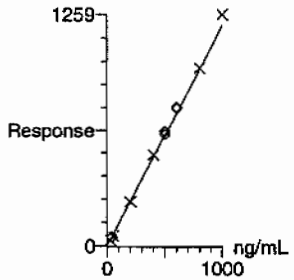

Compound name: Tetryl
Coefficient of Determination: 0.999624
Calibration curve: -9.80877e-005 * x^2 + 0.962233 * x + 8.00395
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

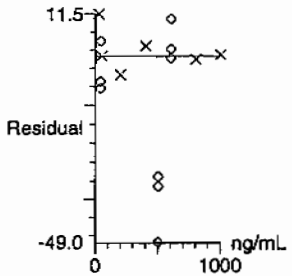

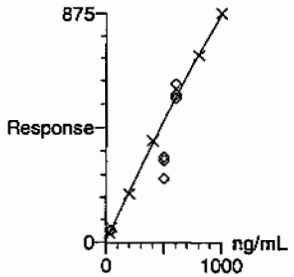

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: Nitrobenzene
Response Factor: 0.807771
RRF SD: 0.034992, % Relative SD: 4.33192
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

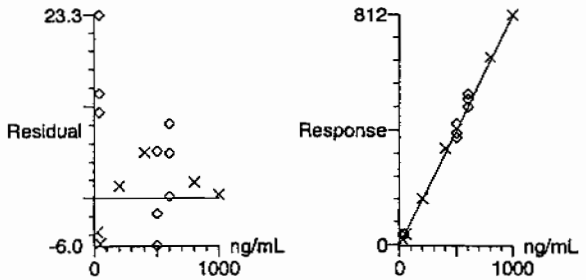

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.287245
RRF SD: 0.0173125, % Relative SD: 6.02707
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

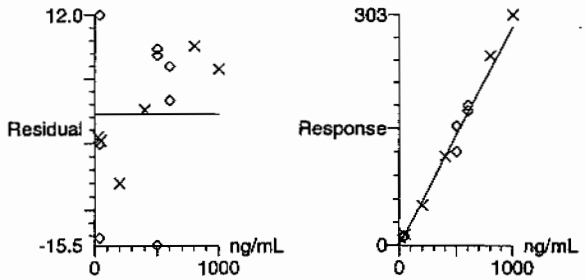

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.39603
RRF SD: 0.0312733, % Relative SD: 7.8967
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

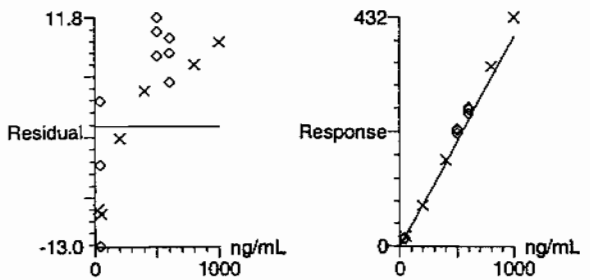

Compound name: 246-Trinitrotoluene
Response Factor: 0.322663
RRF SD: 0.0207501, % Relative SD: 6.43088
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

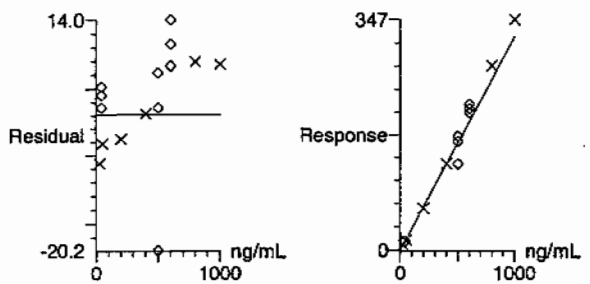

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.899992
RRF SD: 0.0791463, % Relative SD: 8.79411
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

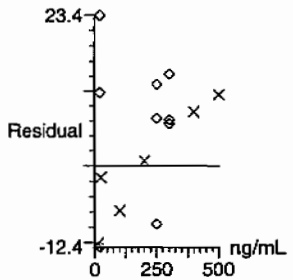

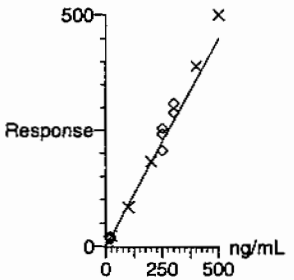

Compound name: 26-dinitrotoluene
Response Factor: 1.07409
RRF SD: 0.0365192, % Relative SD: 3.40002
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

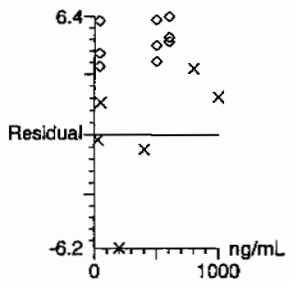

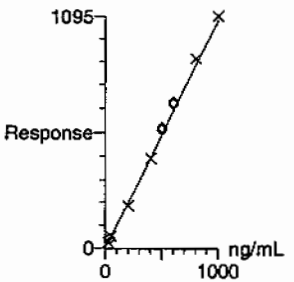

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.244052
RRF SD: 0.010423, % Relative SD: 4.27082
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

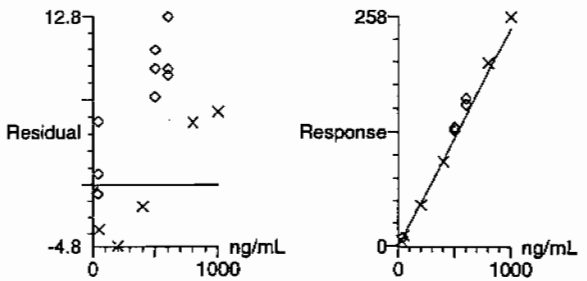

Compound name: 26-dinitrotoluene-d3
Response Factor: 36.9194
RRF SD: 2.09302, % Relative SD: 5.66917
Response type: External Std, Area
Curve type: RF

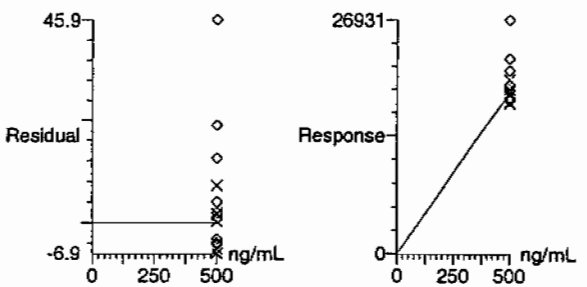

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.155048
RRF SD: 0.00993156, % Relative SD: 6.40546
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

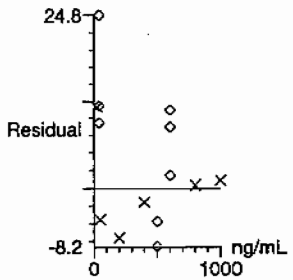

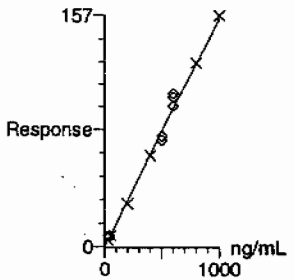

Compound name: 4-Nitrotoluene
Response Factor: 0.0760026
RRF SD: 0.00771034, % Relative SD: 10.1448
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

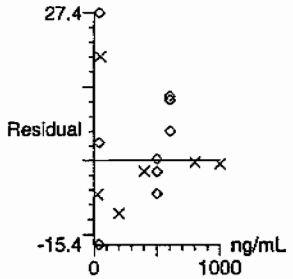

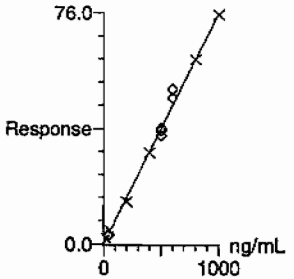

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0931713
RRF SD: 0.0099588, % Relative SD: 10.6887
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

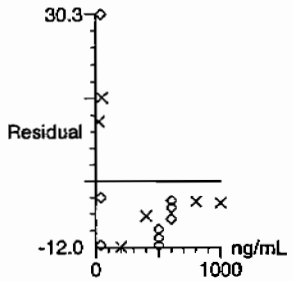

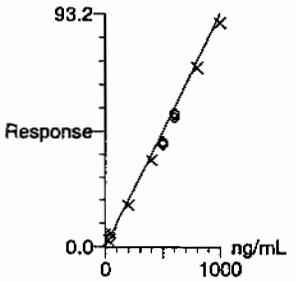

Compound name: PETN
Coefficient of Determination: 0.999420
Calibration curve: -0.000297734 * x^2 + 1.54409 * x + 21.0556
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

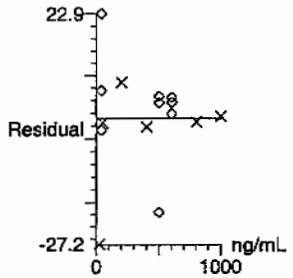

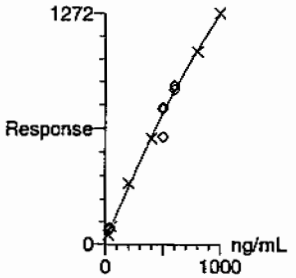

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0208010a

Analysis Date: 08-FEB-10 19:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	600	634.828	106	
PETN	600	620.504	103	
RDX	600	679.292	113	
Tetryl	600	611.62	102	
m-Dinitrobenzene	600	625.274	104	
m-Nitrotoluene	600	570.29	95	
o-Nitrotoluene	600	651.604	109	
p-Nitrotoluene	600	672.143	112	
1,3,5-Trinitrobenzene	600	577.44	96	
1,3-Dinitrobenzene-d4	500	477.774	96	
2,4,6-Trinitrotoluene	600	643.695	107	
2,4-Dinitrotoluene	600	652.405	109	
2,6-Dinitrotoluene	600	631.529	105	
2,6-Dinitrotoluene-d3	500	481.745	96	
2-Amino-4,6-dinitrotoluene	600	657.981	110	
3,4-Dinitrotoluene	300	321.546	107	
4-Amino-2,6-dinitrotoluene	600	609.28	102	
HMX	600	598.223	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208010a
Date: 08-Feb-2010
Time: 19:10:05
ID: WXX100208-07ICV
Vial: 1:1,B

MAP 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.167e+004
7.66

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.167e+004
5.22
RDX
7.66
10132.95

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.149e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.383e+004
10.13

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.800e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.589e+004
Tetryl
12.87
3439.25

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.530e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.144e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.036e+004
15.65

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.351e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.910e+004
17.88
18.57

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.910e+004
14.65
18.57

MMM 02/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

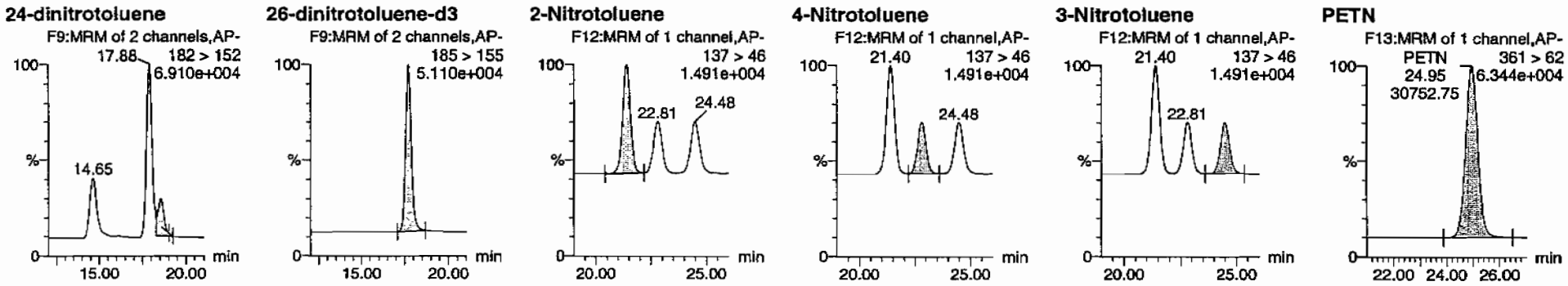

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07ICV	HMX	176 > 102	5.22	12762.877	3071.677	12762.877	2077.510	bb			598.2226	99.7	-0.3	901.4
WXX100208-07ICV	RDX	176 > 102	7.66	10132.953	3071.677	10132.953	1649.417	bb			679.2915	113.2	13.2	602.3
WXX100208-07ICV	135-Trinitrobenzene	213 > 183	10.30	13065.338	3071.677	13065.338	2126.743	bb			577.4399	96.2	-3.8	1489.3
WXX100208-07ICV	13-Dinitrobenzene-d4	172 > 142	12.21	3071.677		3071.677	3071.677	bb			477.7736	95.6	-4.4	264.9
WXX100208-07ICV	13-Dinitrobenzene	168 > 138	12.34	4618.735	3071.677	4618.735	751.826	bb			625.2737	104.2	4.2	460.8
WXX100208-07ICV	Tetryl	241 > 181	12.87	3439.246	3071.677	3439.246	559.832	bb			611.6196	101.9	1.9	207.7
WXX100208-07ICV	Nitrobenzene	123 > 46	13.76	3150.282	3071.677	3150.282	512.795	bb			634.8275	105.8	5.8	437.9
WXX100208-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.95	6225.456	17785.730	6225.456	175.013	MM	09-Feb-10	10:07:09	609.2803	101.5	1.5	219.6
WXX100208-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9269.226	17785.730	9269.226	260.580	bb			657.9810	109.7	9.7	257.1
WXX100208-07ICV	246-Trinitrotoluene	227 > 210	15.64	7388.070	17785.730	7388.070	207.697	bb			643.6946	107.3	7.3	286.9
WXX100208-07ICV	34-dinitrotoluene	182 > 152	14.65	10293.978	17785.730	10293.978	289.389	bb			321.5458	107.2	7.2	346.9
WXX100208-07ICV	26-dinitrotoluene	182 > 152	17.88	24128.742	17785.730	24128.742	678.317	MM	09-Feb-10	10:13:53	631.5288	105.3	5.3	1020.2
WXX100208-07ICV	24-dinitrotoluene	182 > 152	18.57	5663.705	17785.730	5663.705	159.220	MM	09-Feb-10	10:16:51	652.4052	108.7	8.7	223.1
WXX100208-07ICV	26-dinitrotoluene-d3	185 > 155	17.71	17785.730		17785.730	17785.730	bb			481.7453	96.3	-3.7	1501.7
WXX100208-07ICV	2-Nitrotoluene	137 > 46	21.40	3593.784	17785.730	3593.784	101.030	bb			651.6036	108.6	8.6	770.9
WXX100208-07ICV	4-Nitrotoluene	137 > 46	22.81	1817.156	17785.730	1817.156	51.085	bb			672.1432	112.0	12.0	368.6
WXX100208-07ICV	3-Nitrotoluene	137 > 46	24.48	1890.078	17785.730	1890.078	53.135	bb			570.2904	95.0	-5.0	366.4
WXX100208-07ICV	PETN	361 > 62	24.95	30752.746	17785.730	30752.746	864.534	bb			620.5038	103.4	3.4	4586.8

✓

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/08/10
Time of Injection: 1910
Standard Number: WXX100208-07ICV
Data File: EXP0208010a

HMX		99.7
RDX		113.2
135-TNB		96.2
13-DNB		104.2
Tetryl		101.9
Nitrobenzene		105.8
4A-26-DNT		101.5
2A-46-DNT		109.7
246-TNT		107.3
34-DNT(surr)		107.2
26-DNT		105.3
24-DNT		108.7
2-NT		108.6
4-NT		112.0
3-NT		95.0
PETN		103.4
Total		1679.7
Average		105.0

HJM 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10–1432

Lab Code: GEL

Run Date: 08–FEB–10,13–FEB–10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J–Sphere ODS–H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02130003.wifl	EXS02130004.wifl	EXS02130005.wifl	EXS02130006.wifl	EXS02130007.wifl	EXS02130008.wifl	EXS02130009.wifl					
Parmname:												
2,4–Diamino–6–nitrotoluene	69200	161000	406000	857000	1260000	1740000	3150000	–35800	1870	–.139	.9998	
2,6–Diamino–4–nitrotoluene	124000	261000	621000	1330000	1880000	2670000	5260000	–12700	2620	.009	.9997	
3,4–Dinitrotoluene	300000	580000	1420000	2730000	4160000	5660000	10400000	–67600	12700	–2.26	.9988	
3,5–Dinitroaniline	334000	612000	1410000	2880000	4620000	5850000	10700000	–60100	6420	–.509	.9996	
TATB	79400	155000	384000	753000	1200000	1510000	2940000	–5110	1600	–.063	.9997	
tris(o–cresyl) phosphate	1230000	2370000	5560000	10600000	15300000	19600000	31300000	36900	23300	–3.82	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.11e+003			
a1	1.6e+003			
a2	-0.0629			

Correlation coefficient 0.9997
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-6.01e+004			
a1	6.42e+003			
a2	-0.509			

Correlation coefficient 0.9996
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-6.76e+004			
a1	1.27e+004			
a2	-2.26			

Correlation coefficient 0.9988
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.27e+004			
a1	2.62e+003			
a2	0.00918			

Correlation coefficient 0.9997
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Lan 2/15/10

Hmm 02/15/10

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Fit	Quadratic	Weighting	None	Iterate No
a0	-3.58e+004			
a1	1.87e+003			
a2	-0.139			

Correlation coefficient 0.9998
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	3.69e+004			
a1	2.33e+004			
a2	-3.82			

Correlation coefficient 1.0000
Use Area

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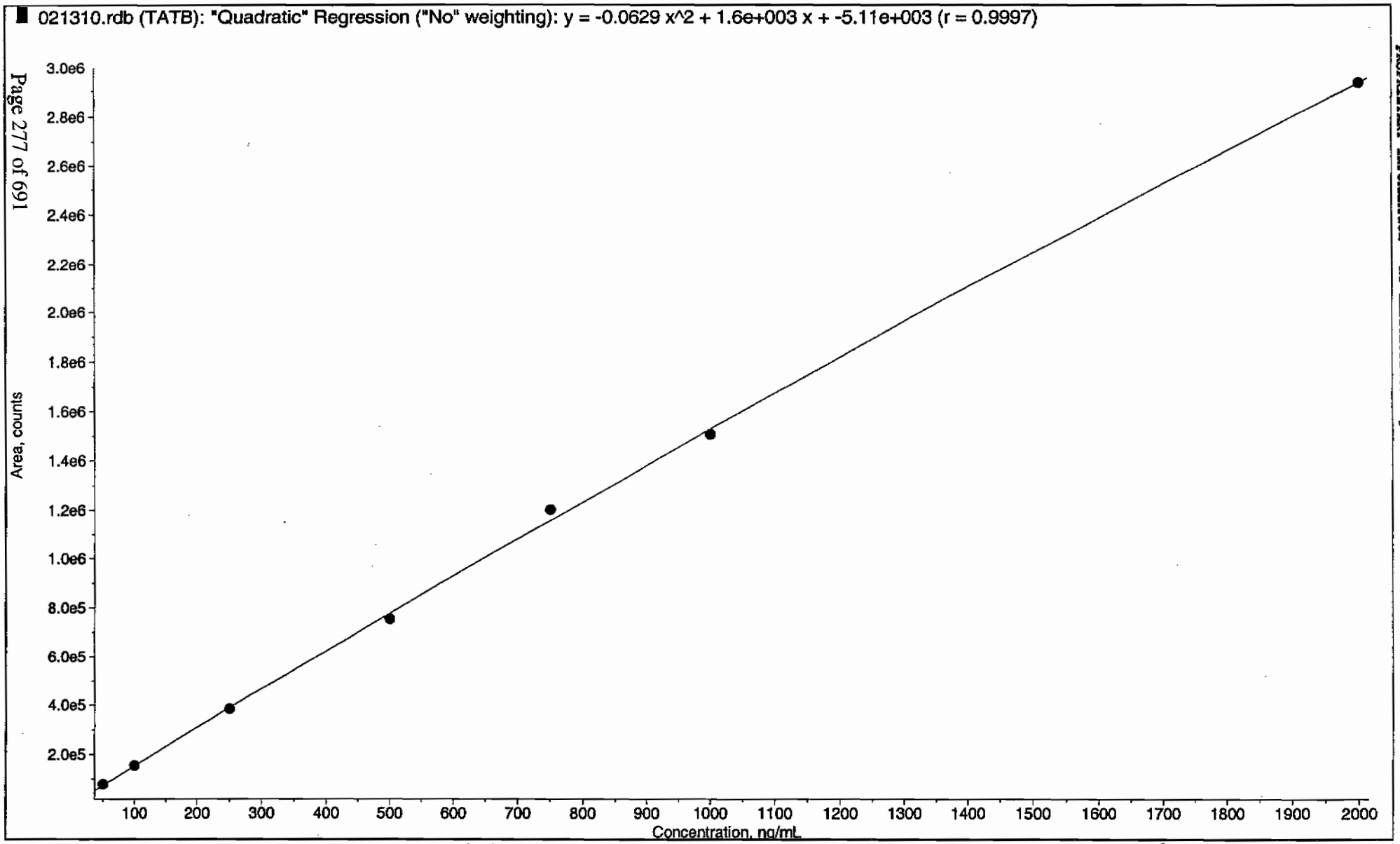

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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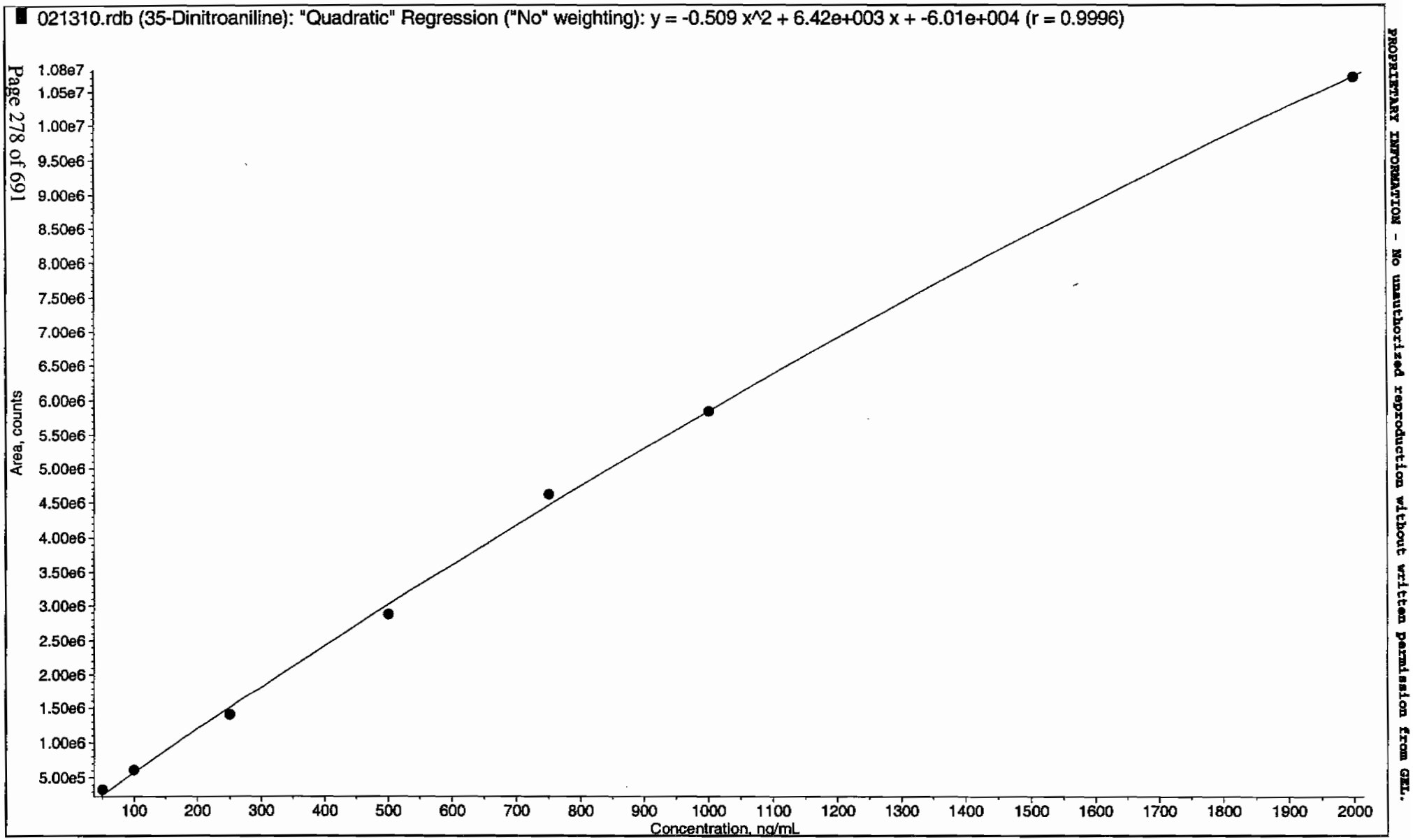

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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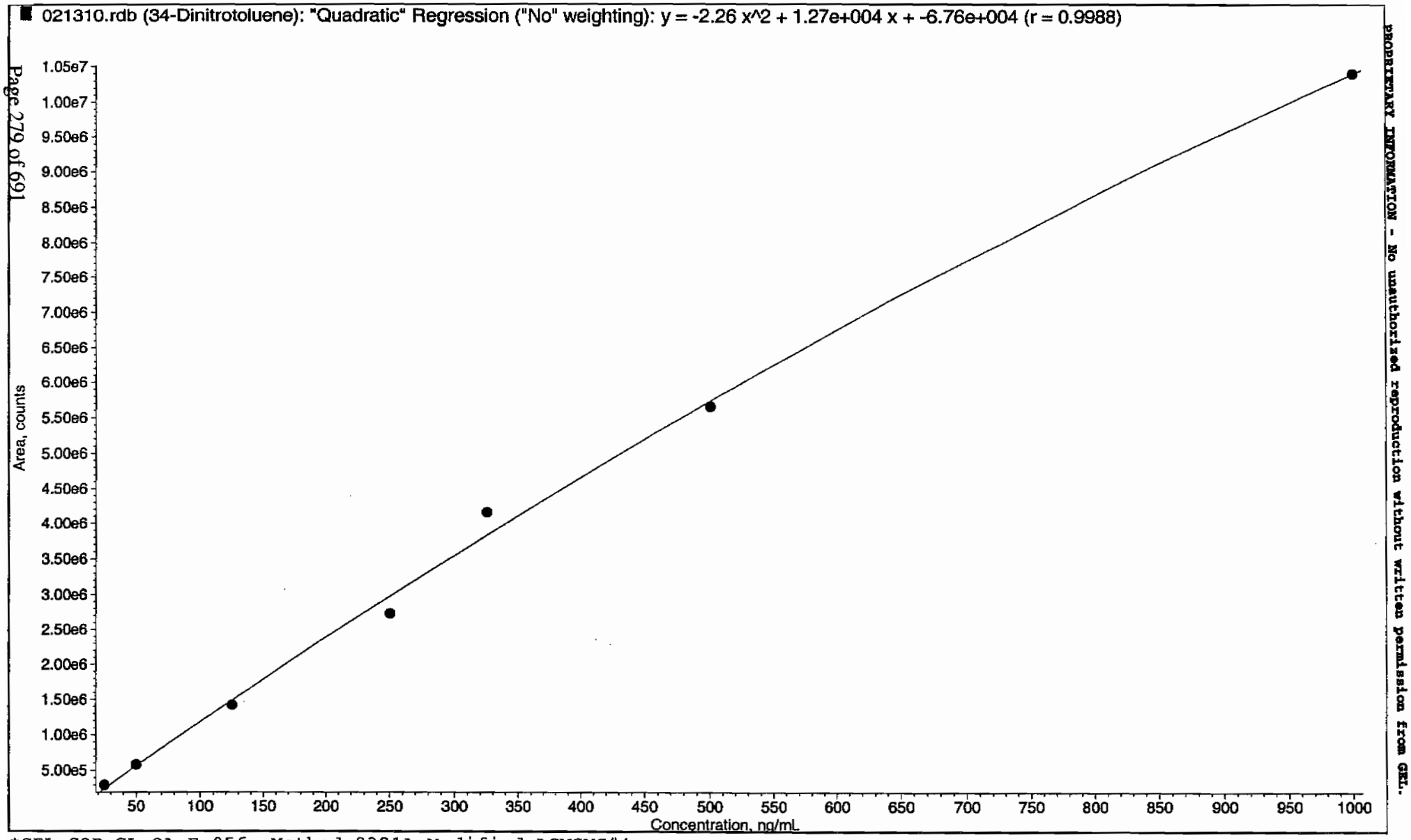

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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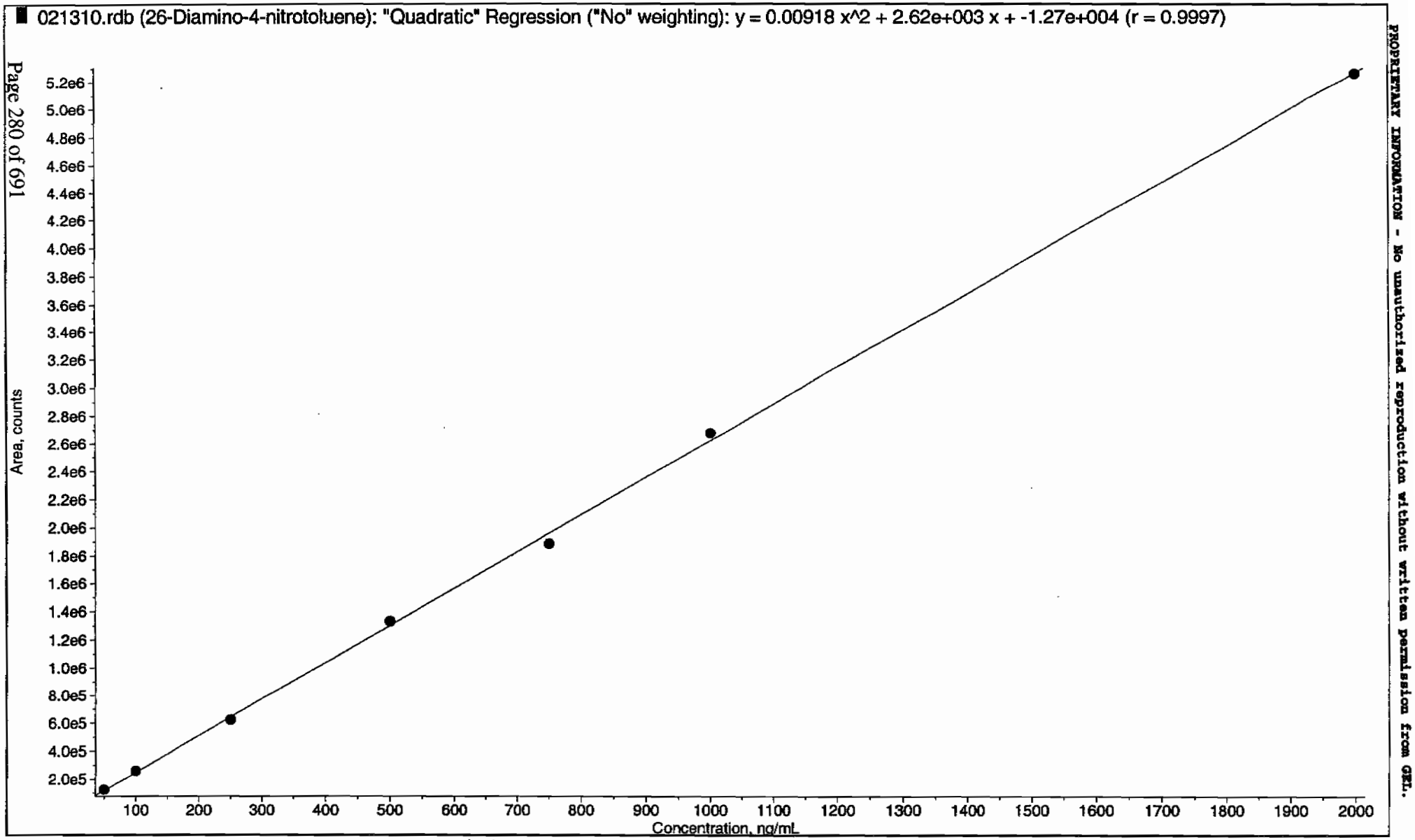

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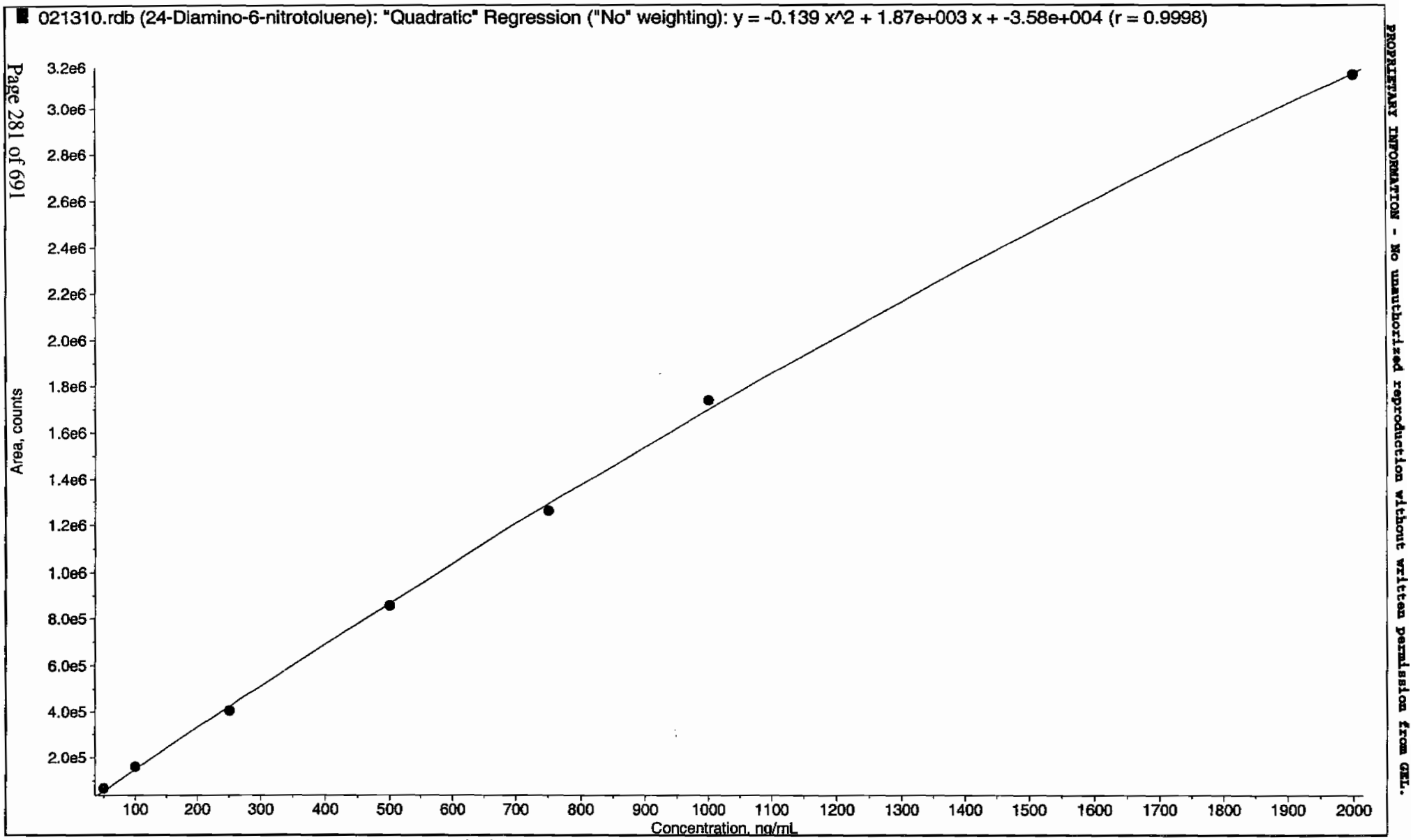

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

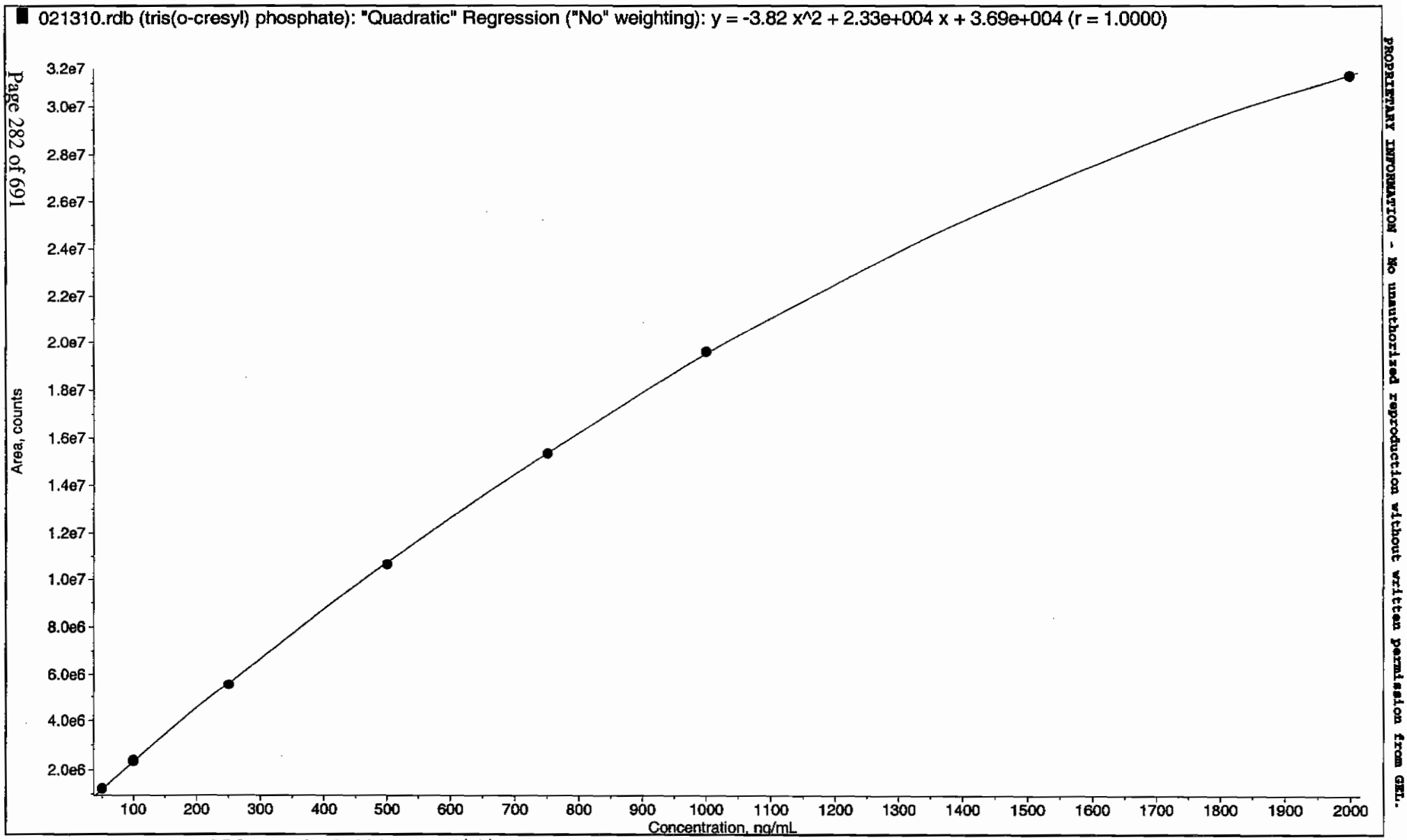

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEI

GEL Sample ID: WXXICV

GEL Data File EXS02130011.wiff

Analysis Date: 13–FEB–10 12:49

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	503	101	
2,6–Diamino–4–nitrotoluene	500	509	102	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	503	101	
TATB	500	514	103	
tris(o–cresyl) phosphate	500	501	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Clean 2/15/10

Sample Name: "WXX100213-26ICV" Sample ID: "[1]LER" File: "EXS02130011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 514. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:49:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.17 min
Area: 7.99e+005 counts
Height: 180853.271 cps
Start Time: 7.05 min
End Time: 7.69 min

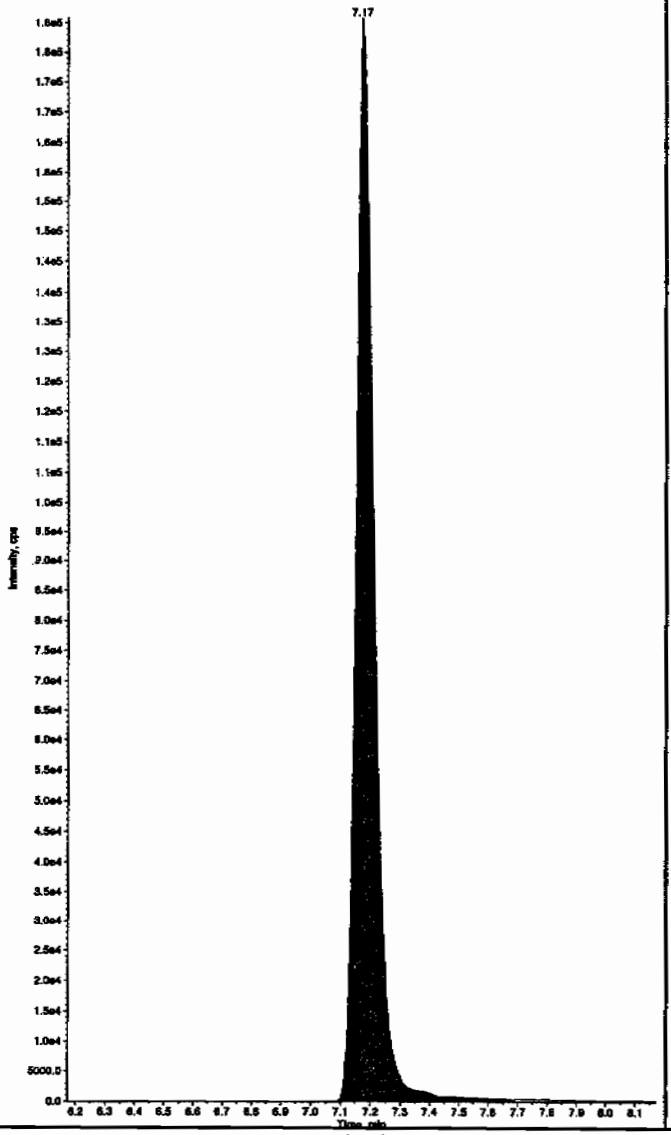

Sample Name: "WXX100213-26ICV" Sample ID: "[1]LER" File: "EXS02130011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 565. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:49:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 3.40e+006 counts
Height: 743256.653 cps
Start Time: 8.28 min
End Time: 8.82 min

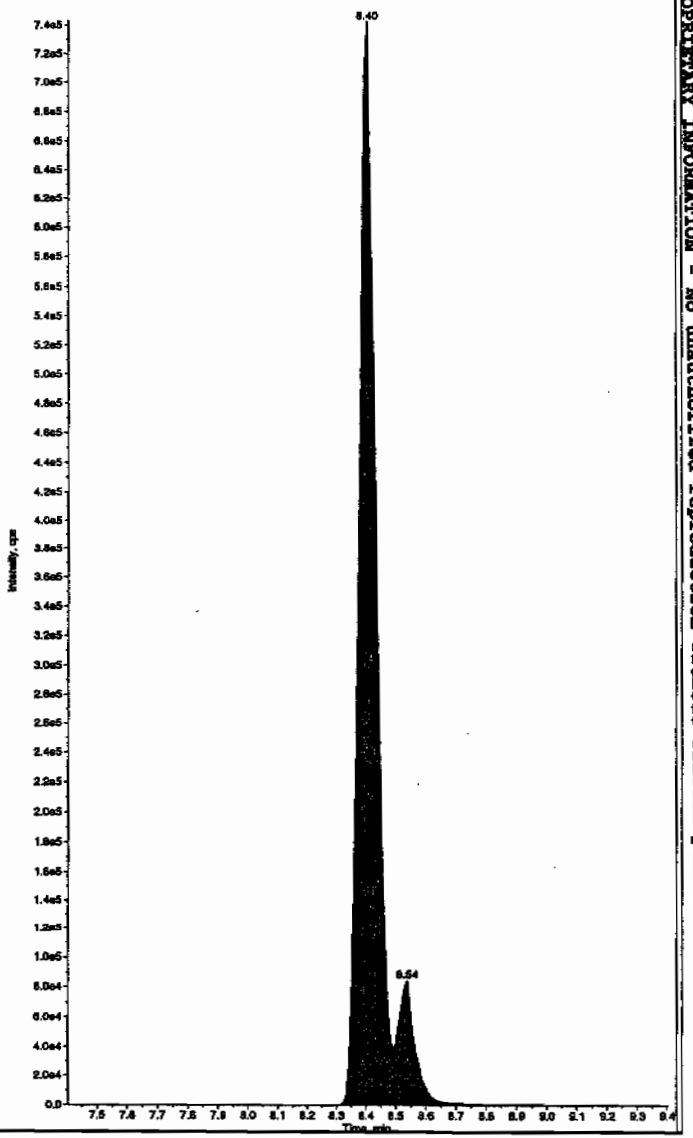

HM 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Scan 2/15/10

Sample Name: "WXX100213-26ICV" Sample ID: "[1]LER" File: "EXS02130011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 514. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:49:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.17 min
Area: 7.99e+005 counts
Height: 180853.271 cps
Start Time: 7.05 min
End Time: 7.69 min

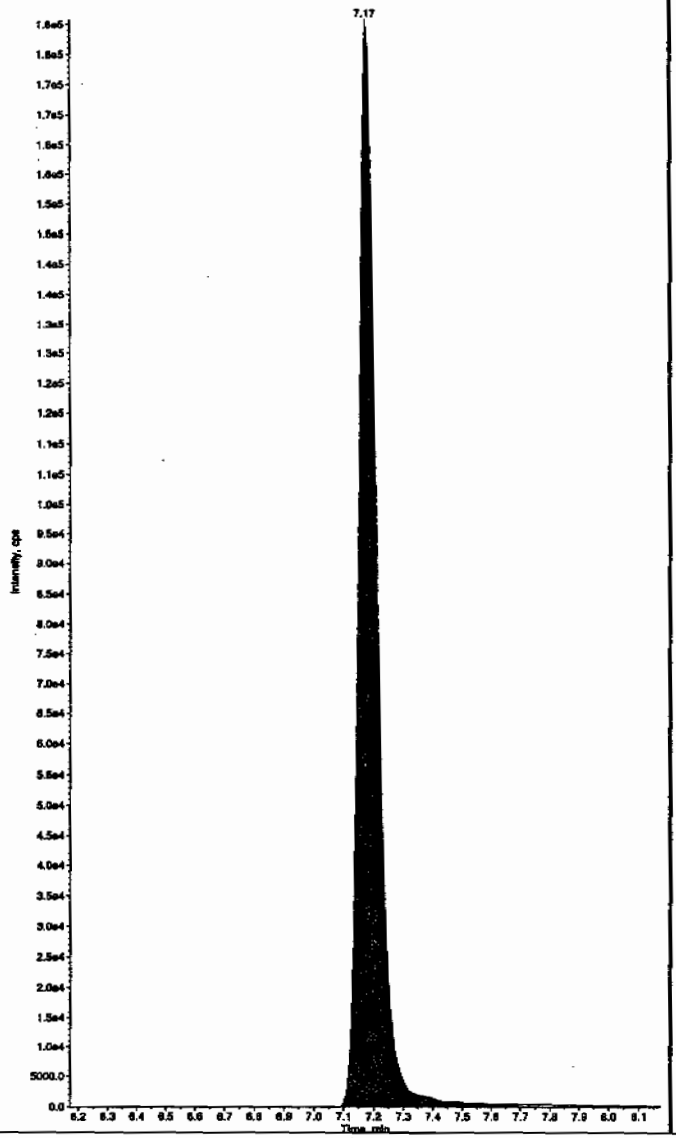

Sample Name: "WXX100213-26ICV" Sample ID: "[1]LER" File: "EXS02130011.wiff"
Peak Name: "3S-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:49:53 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.40 min
Area: 3.04e+006 counts
Height: 745932.363 cps
Start Time: 8.32 min
End Time: 8.50 min

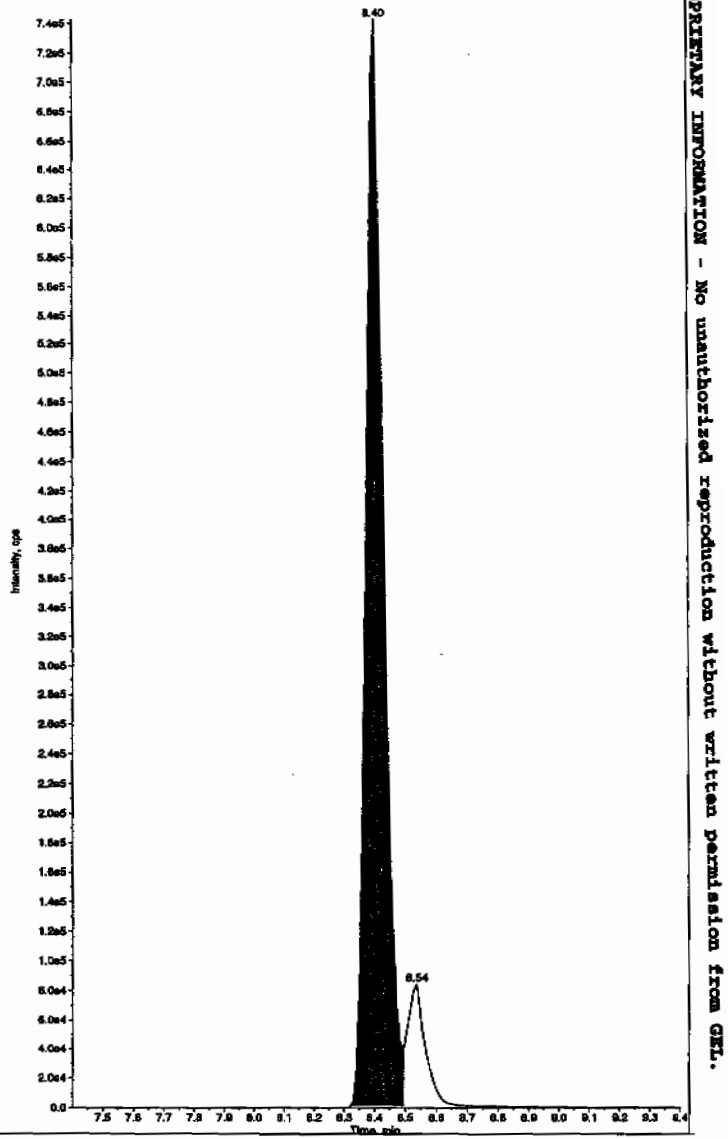

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100213-26ICV" Sample ID: "[1]LER" File: "EXS02130011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 232. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:49:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 2.77e+006 counts
Height: 740331.238 cps
Start Time: 8.45 min
End Time: 8.69 min

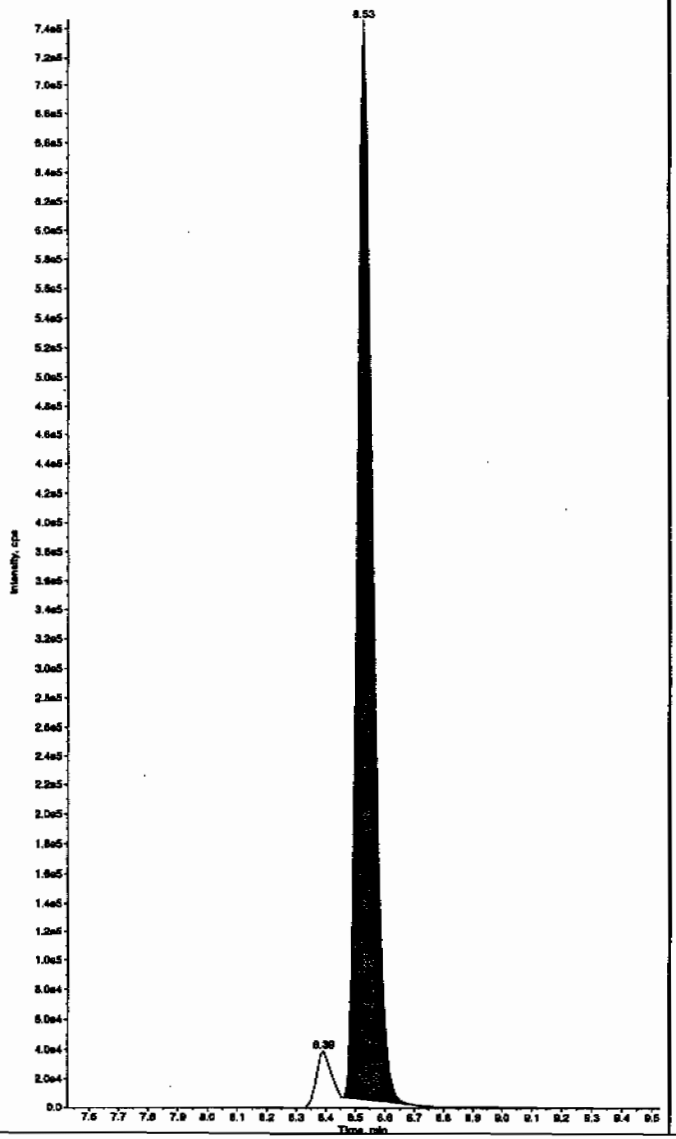

Sample Name: "WXX100213-26ICV" Sample ID: "[1]LER" File: "EXS02130011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:49:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.20 min
Area: 1.32e+006 counts
Height: 315228.943 cps
Start Time: 5.08 min
End Time: 5.49 min

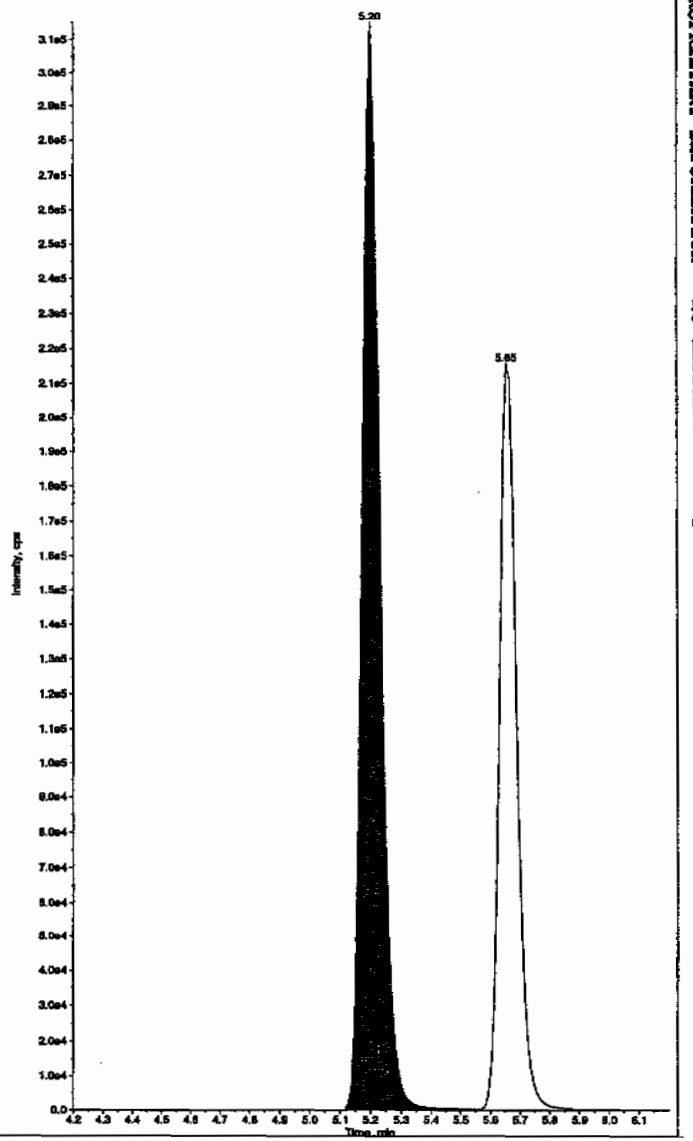

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100213-26ICV" Sample ID: "[1]LER" File: "EXS02130011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:49:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.65 min
Area: 8.72e+005 counts
Height: 215602.386 cps
Start Time: 5.57 min
End Time: 5.98 min

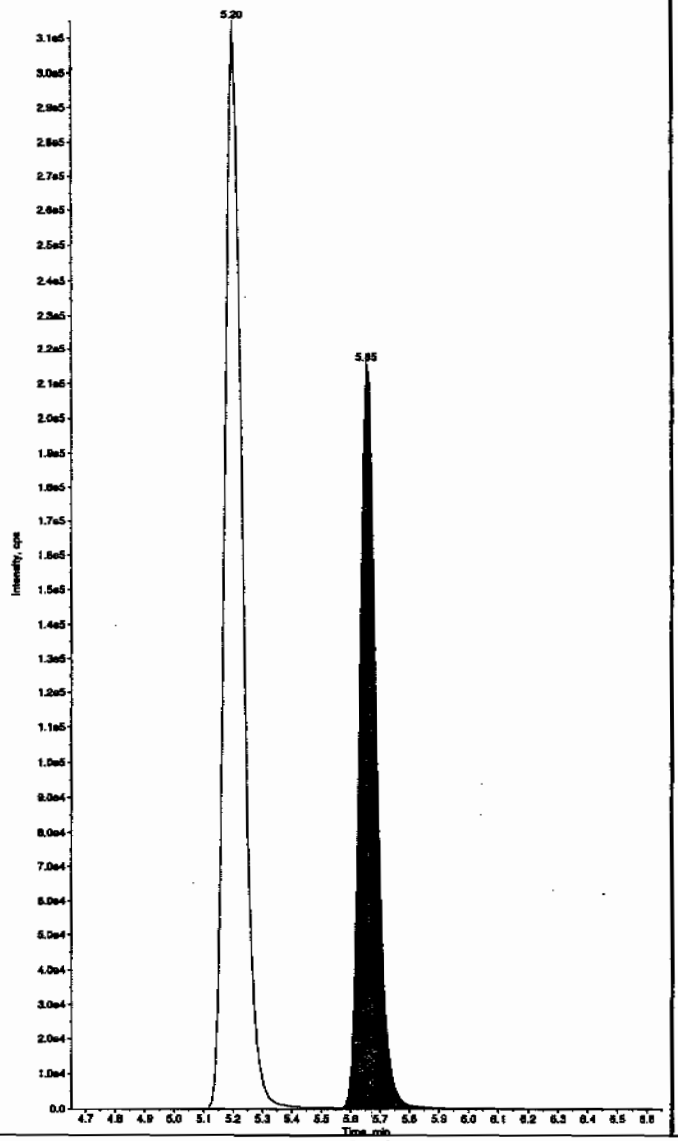

Sample Name: "WXX100213-26ICV" Sample ID: "[1]LER" File: "EXS02130011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 12:49:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.08e+007 counts
Height: 2553403.809 cps
Start Time: 10.9 min
End Time: 11.3 min

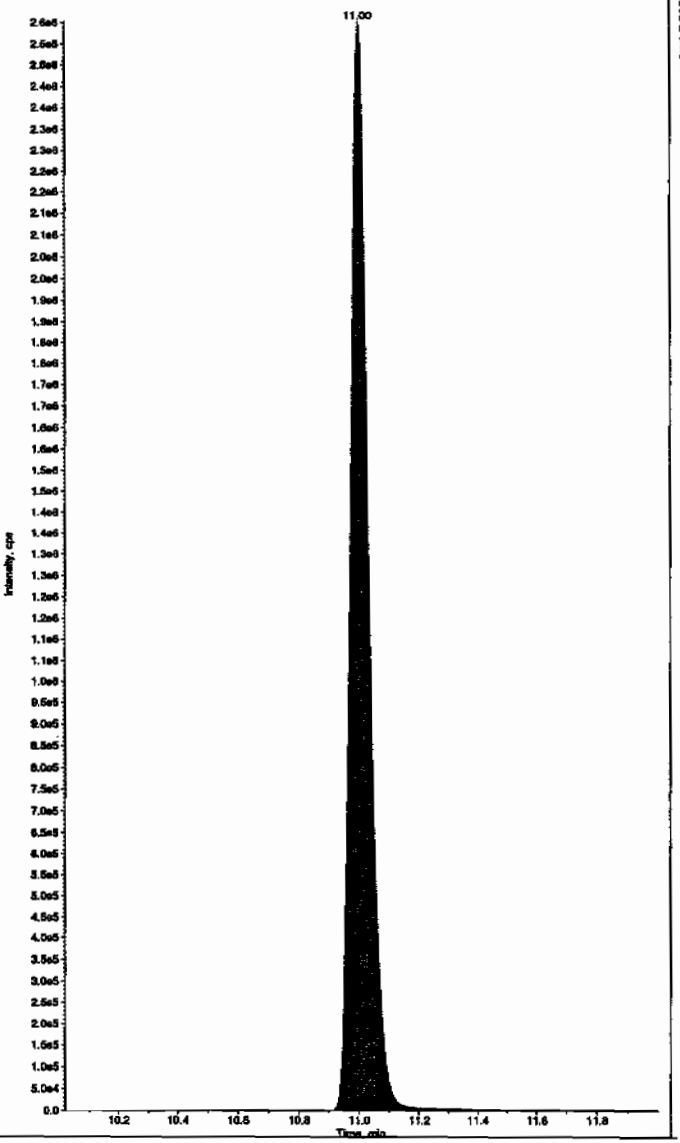

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208012a

Analysis Date: 08-FEB-10 20:09

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.21	101	
1,3-Dinitrobenzene-d4	500	487.883	98	
2,4,6-Trinitrotoluene	40	41.689	104	
2,4-Dinitrotoluene	40	40.338	101	
2,6-Dinitrotoluene	40	41.76	104	
2,6-Dinitrotoluene-d3	500	475.508	95	
2-Amino-4,6-dinitrotoluene	40	38.358	96	
3,4-Dinitrotoluene	20	17.528	88	
4-Amino-2,6-dinitrotoluene	40	38.578	96	
HMX	40	37.759	94	
Nitrobenzene	40	49.333	123	
PETN	40	39.026	98	
RDX	40	41.043	103	
Tetryl	40	37.278	93	
m-Dinitrobenzene	40	39.387	98	
m-Nitrotoluene	40	35.357	88	
o-Nitrotoluene	40	44.694	112	
p-Nitrotoluene	40	41.348	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208012a
Date: 08-Feb-2010
Time: 20:09:03
ID: WXX100208-08CRI
Vial: 1:1,C

MJP 2/9/10

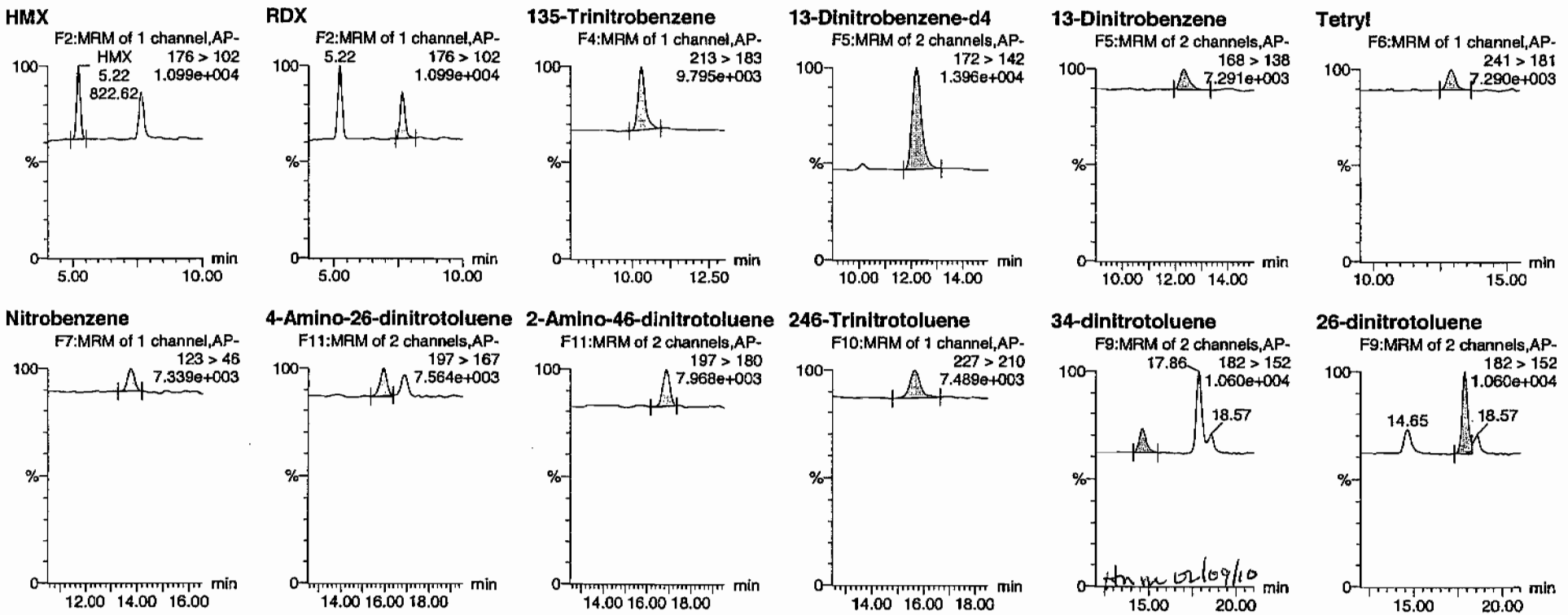

Page 289 of 691

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

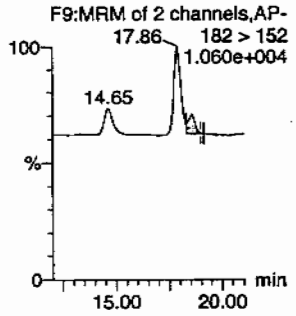

26-dinitrotoluene-d3

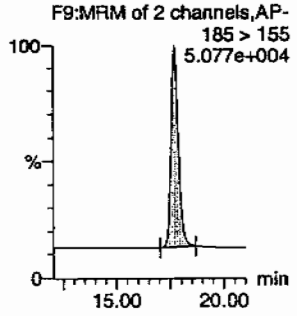

2-Nitrotoluene

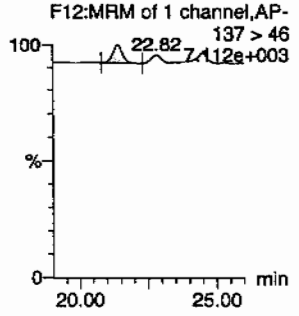

4-Nitrotoluene

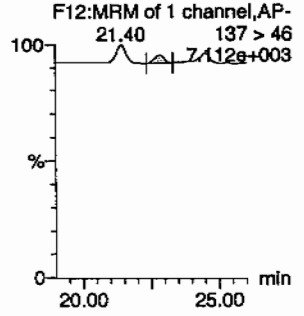

3-Nitrotoluene

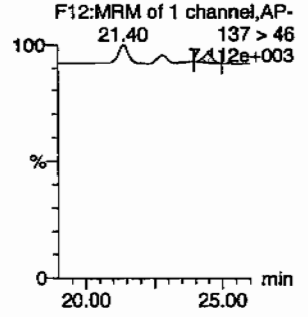

PETN

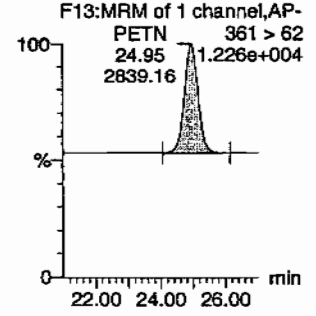

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	822.619	3136.673	822.619	131.129	bb			37.7589	94.4	-5.6	95.4
WXX100208-08CRI	RDX	176 > 102	7.66	625.184	3136.673	625.184	99.657	bb			41.0425	102.6	2.6	61.5
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.30	929.059	3136.673	929.059	148.096	bb			40.2102	100.5	0.5	111.3
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3136.673		3136.673	3136.673	bb			487.8832	97.6	-2.4	122.8
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	297.097	3136.673	297.097	47.359	bb			39.3869	98.5	-1.5	19.3
WXX100208-08CRI	Tetryl	241 > 181	12.92	274.384	3136.673	274.384	43.738	bb			37.2783	93.2	-6.8	24.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.76	249.993	3136.673	249.993	39.850	bb			49.3333	123.3	23.3	23.5
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	389.077	17555.461	389.077	11.081	MM	09-Feb-10	10:07:17	38.5781	96.4	-3.6	24.6
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.86	533.368	17555.461	533.368	15.191	bb			38.3580	95.9	-4.1	43.1
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	472.299	17555.461	472.299	13.452	bb			41.6894	104.2	4.2	65.7
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	553.874	17555.461	553.874	15.775	bb			17.5279	87.6	-12.4	33.8
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.86	1574.877	17555.461	1574.877	44.854	MM	09-Feb-10	10:14:02	41.7604	104.4	4.4	116.4
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.57	345.648	17555.461	345.648	9.844	MM	09-Feb-10	10:17:05	40.3376	100.8	0.8	25.5
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	17555.461		17555.461	17555.461	bb			475.5082	95.1	-4.9	2857.9
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	243.311	17555.461	243.311	6.930	bb			44.6944	111.7	11.7	27.5
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.82	110.338	17555.461	110.338	3.143	bb			41.3480	103.4	3.4	12.6
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.51	115.663	17555.461	115.663	3.294	bb			35.3566	88.4	-11.6	14.1
WXX100208-08CRI	PETN	361 > 62	24.95	2839.157	17555.461	2839.157	80.863	bb			39.0264	97.6	-2.4	1037.0

✓

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/08/10
Time of Injection	2009
Standard Number	WXX100208-08CRI
Data File	EXP0208012a

HMX	94.4
RDX	102.6
135-TNB	100.5
13-DNB	98.5
Tetryl	93.2
Nitrobenzene	123.3
4A-26-DNT	96.4
2A-46-DNT	95.9
246-TNT	104.2
34-DNT(surr)	87.6
26-DNT	104.4
24-DNT	100.8
2-NT	111.7
4-NT	103.4
3-NT	88.4
PETN	97.6
Total	1602.9
Average	100.2

HMW 2/9/10

HMW 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208023a

Analysis Date: 09-FEB-10 01:33

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	662.759	110	
Nitrobenzene	600	657.025	110	
PETN	600	606.078	101	
RDX	600	749.058	125	*
Tetryl	600	660.942	110	
m-Dinitrobenzene	600	626.395	104	
m-Nitrotoluene	600	578.428	96	
o-Nitrotoluene	600	666.647	111	
p-Nitrotoluene	600	667.754	111	
1,3,5-Trinitrobenzene	600	554.897	92	
1,3-Dinitrobenzene-d4	500	508.101	102	
2,4,6-Trinitrotoluene	600	663.13	111	
2,4-Dinitrotoluene	600	649.62	108	
2,6-Dinitrotoluene	600	630.157	105	
2,6-Dinitrotoluene-d3	500	523.831	105	
2-Amino-4,6-dinitrotoluene	600	647.652	108	
3,4-Dinitrotoluene	300	319.699	107	
4-Amino-2,6-dinitrotoluene	600	634.612	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208023a
Date: 09-Feb-2010
Time: 01:33:25
ID: WXX100208-07CCV
Vial: 1:1,B

MMT 2/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.120e+004

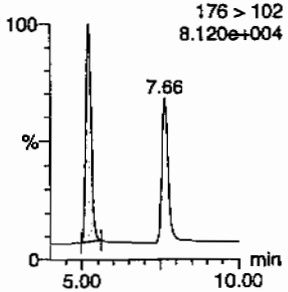

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
8.120e+004

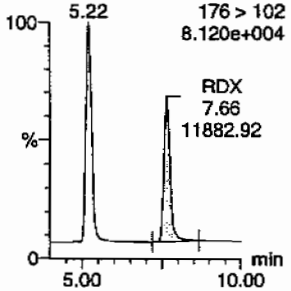

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.216e+004

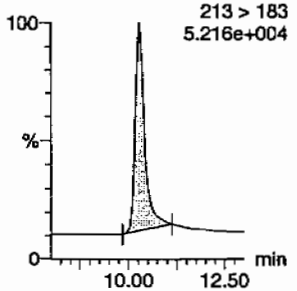

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.312e+004

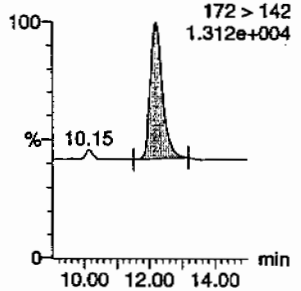

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.785e+004

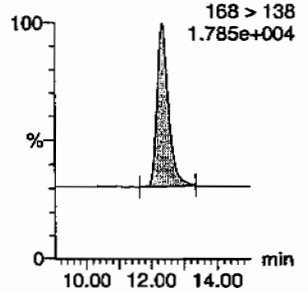

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.632e+004

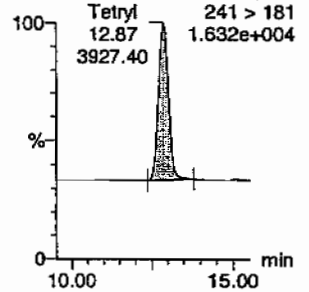

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.546e+004

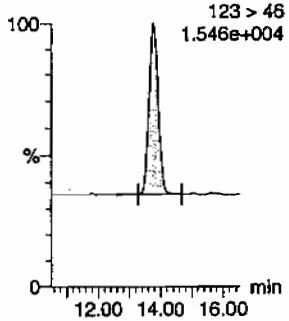

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.235e+004

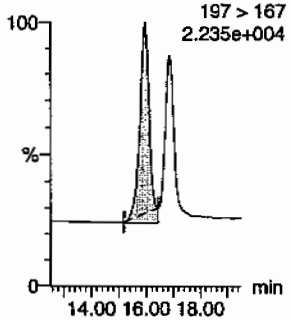

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.097e+004

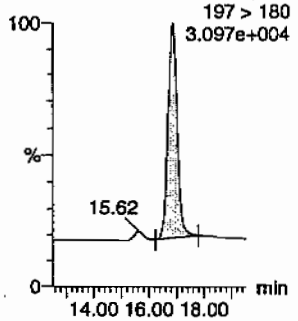

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.437e+004

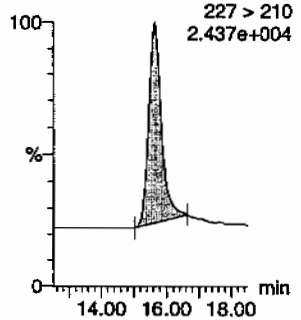

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.460e+004

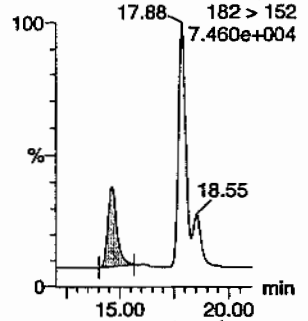

Hm m 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.460e+004

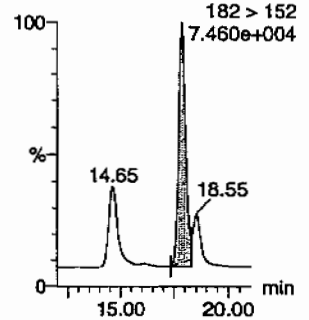

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

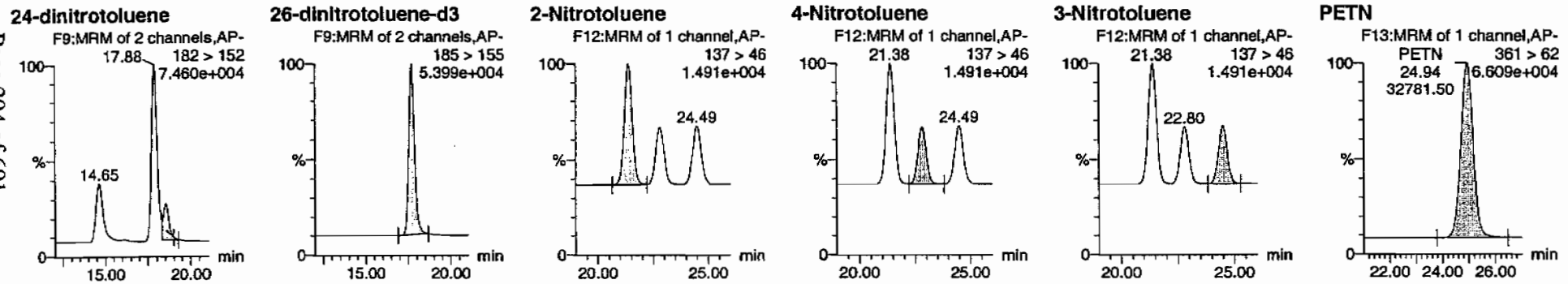

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	15037.290	3266.656	15037.290	2301.634	bb			662.7595	110.5	10.5	1639.6
WXX100208-07CCV	RDX	176 > 102	7.66	11882.921	3266.656	11882.921	1818.820	bb			749.0581	124.8	24.8	1082.1
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	13352.233	3266.656	13352.233	2043.716	bb			554.8968	92.5	-7.5	1376.9
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3266.656		3266.656	3266.656	bb			508.1010	101.6	1.6	605.5
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	4920.726	3266.656	4920.726	753.175	bb			626.3952	104.4	4.4	650.7
WXX100208-07CCV	Tetryl	241 > 181	12.87	3927.402	3266.656	3927.402	601.135	bb			660.9418	110.2	10.2	338.7
WXX100208-07CCV	Nitrobenzene	123 > 46	13.76	3467.394	3266.656	3467.394	530.725	bb			657.0246	109.5	9.5	301.8
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.95	7050.759	19339.496	7050.759	182.289	MM	09-Feb-10	10:08:16	634.6121	105.8	5.8	309.2
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9920.775	19339.496	9920.775	256.490	bb			647.6525	107.9	7.9	941.2
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	8276.058	19339.496	8276.058	213.968	bb			663.1304	110.5	10.5	495.8
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.65	11128.977	19339.496	11128.977	287.727	bb			319.6991	106.6	6.6	327.6
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.88	26179.654	19339.496	26179.654	676.844	MM	09-Feb-10	10:14:49	630.1572	105.0	5.0	989.4
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.55	6132.196	19339.496	6132.196	158.541	MM	09-Feb-10	10:18:07	649.6200	108.3	8.3	212.0
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	19339.496		19339.496	19339.496	bb			523.8307	104.8	4.8	1406.1
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.38	3997.954	19339.496	3997.954	103.362	bb			666.6469	111.1	11.1	1102.1
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.80	1963.000	19339.496	1963.000	50.751	bb			667.7539	111.3	11.3	513.0
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.49	2084.521	19339.496	2084.521	53.893	bb			578.4278	96.4	-3.6	524.4
WXX100208-07CCV	PETN	361 > 62	24.94	32781.500	19339.496	32781.500	847.527	bb			606.0775	101.0	1.0	5719.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/09/10
Time of Injection: 0133
Standard Number: WXX100208-07CCV
Data File: EXP0208023a

HMX		110.5
RDX		124.8
135-TNB		92.5
13-DNB		104.4
Tetryl		110.2
Nitrobenzene		109.5
4A-26-DNT		105.8
2A-46-DNT		107.9
246-TNT		110.5
34-DNT(surr)		106.6
26-DNT		105.0
24-DNT		108.3
2-NT		111.1
4-NT		111.3
3-NT		96.4
PETN		101.0
Total		1715.8
Average		107.2

MJT 2/9/10

thm 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208025a

Analysis Date: 09–FEB–10 02:32

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	48.344	121	
1,3–Dinitrobenzene–d4	500	473.5	95	
2,4,6–Trinitrotoluene	40	40.42	101	
2,4–Dinitrotoluene	40	41.928	105	
2,6–Dinitrotoluene	40	42.477	106	
2,6–Dinitrotoluene–d3	500	478.268	96	
2–Amino–4,6–dinitrotoluene	40	34.805	87	
3,4–Dinitrotoluene	20	22.301	112	
4–Amino–2,6–dinitrotoluene	40	34.146	85	
HMX	40	52.317	131	*
Nitrobenzene	40	45.327	113	
PETN	40	49.164	123	
RDX	40	55.212	138	*
Tetryl	40	41.653	104	
m–Dinitrobenzene	40	42.381	106	
m–Nitrotoluene	40	52.115	130	*
o–Nitrotoluene	40	49.924	125	
p–Nitrotoluene	40	50.961	127	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208025a
Date: 09-Feb-2010
Time: 02:32:22
ID: WXX100208-08CRI
Vial: 1:1,C

HMM 2/9/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.22 1.194e+004
1106.17 7.66

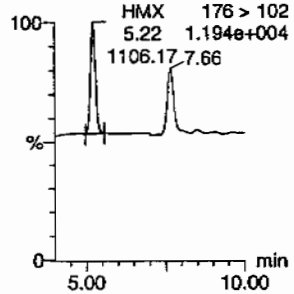

RDX
F2:MRM of 1 channel,AP-
5.22 176 > 102
1.194e+004
RDX
7.66
816.23

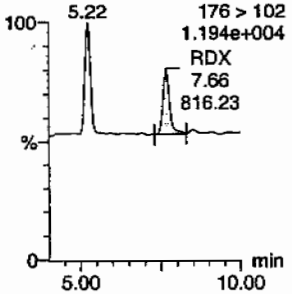

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.036e+004

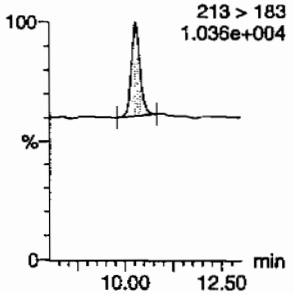

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.343e+004

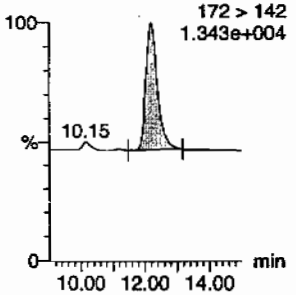

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.068e+003

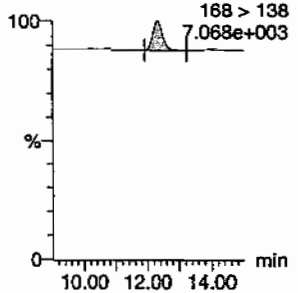

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.030e+003

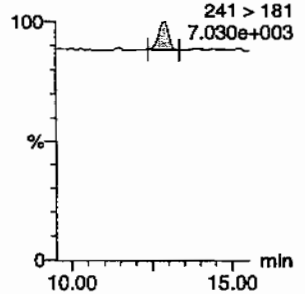

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.785e+003

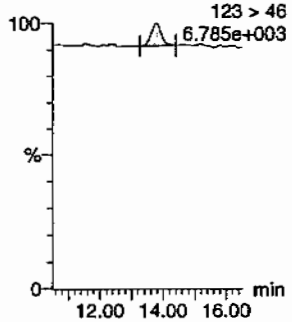

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.185e+003

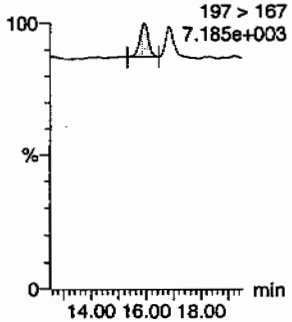

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.587e+003

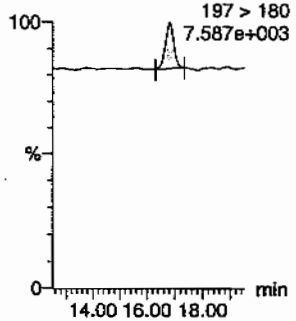

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.293e+003

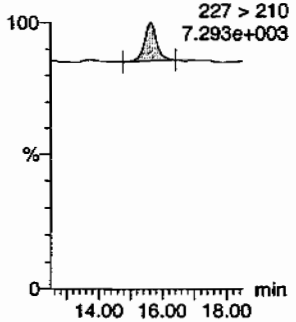

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.86 182 > 152
1.041e+004
18.53

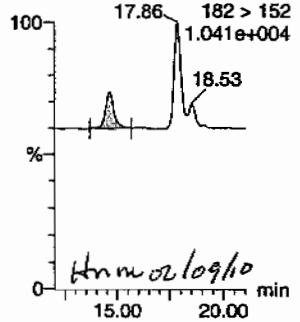

Hmm 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.041e+004
14.65
18.53

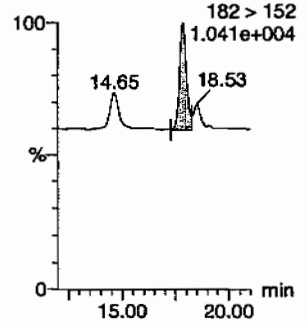

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

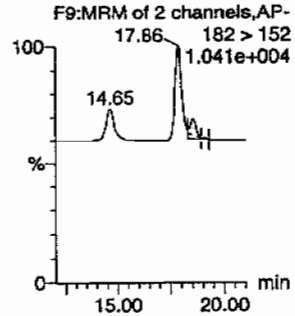

26-dinitrotoluene-d3

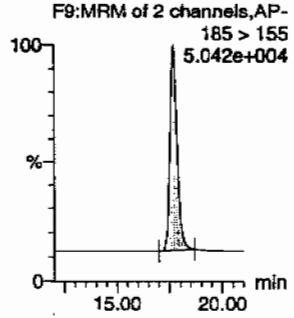

2-Nitrotoluene

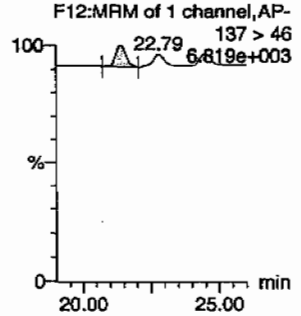

4-Nitrotoluene

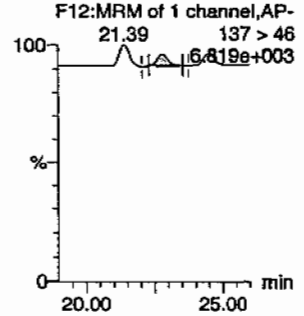

3-Nitrotoluene

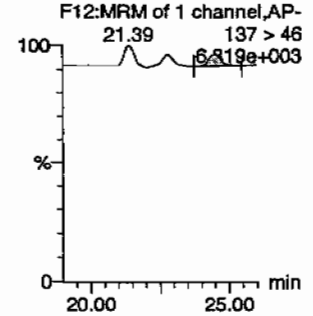

PETN

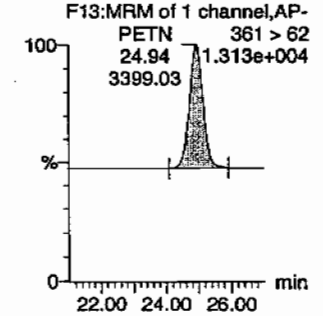

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1106.172	3044.203	1106.172	181.685	bb			52.3165	130.8	30.8	145.7
WXX100208-08CRI	RDX	176 > 102	7.66	816.232	3044.203	816.232	134.063	bb			55.2123	138.0	38.0	85.9
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1084.060	3044.203	1084.060	178.053	bb			48.3439	120.9	20.9	161.9
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3044.203		3044.203	3044.203	bb			473.5003	94.7	-5.3	257.8
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	310.255	3044.203	310.255	50.958	bb			42.3807	106.0	6.0	45.2
WXX100208-08CRI	Tetryl	241 > 181	12.87	291.717	3044.203	291.717	47.914	bb			41.6529	104.1	4.1	19.9
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	222.919	3044.203	222.919	36.614	bb			45.3268	113.3	13.3	14.9
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	346.380	17657.348	346.380	9.808	bb			34.1464	85.4	-14.6	22.4
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	486.778	17657.348	486.778	13.784	bb			34.8054	87.0	-13.0	49.4
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	460.576	17657.348	460.576	13.042	bb			40.4200	101.1	1.1	89.9
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	708.785	17657.348	708.785	20.071	bb			22.3008	111.5	11.5	40.3
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.86	1611.184	17657.348	1611.184	45.624	MM	09-Feb-10	10:14:57	42.4766	106.2	6.2	118.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.53	361.362	17657.348	361.362	10.233	MM	09-Feb-10	10:18:19	41.9281	104.8	4.8	26.4
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.68	17657.348		17657.348	17657.348	bb			478.2680	95.7	-4.3	1801.9
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.39	273.359	17657.348	273.359	7.741	bb			49.9242	124.8	24.8	22.3
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.79	136.781	17657.348	136.781	3.873	MM	09-Feb-10	10:12:02	50.9614	127.4	27.4	11.4
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.49	171.475	17657.348	171.475	4.856	bb			52.1151	130.3	30.3	12.0
WXX100208-08CRI	PETN	361 > 62	24.94	3399.029	17657.348	3399.029	96.250	bb			49.1641	122.9	22.9	286.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/09/10
Time of Injection	0232
Standard Number	WXX100208-08CRI
Data File	EXP0208025a

HMX	130.8
RDX	138.0
135-TNB	120.9
13-DNB	106.0
Tetryl	104.1
Nitrobenzene	113.3
4A-26-DNT	85.4
2A-46-DNT	87.0
246-TNT	101.1
34-DNT(surr)	111.5
26-DNT	106.2
24-DNT	104.8
2-NT	124.8
4-NT	127.4
3-NT	130.3
PETN	122.9
Total	1814.5
Average	113.4

HMK 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208036a

Analysis Date: 09–FEB–10 07:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	557.726	93	
1,3–Dinitrobenzene–d4	500	507.978	102	
2,4,6–Trinitrotoluene	600	683.818	114	
2,4–Dinitrotoluene	600	677.06	113	
2,6–Dinitrotoluene	600	638.573	106	
2,6–Dinitrotoluene–d3	500	505.031	101	
2–Amino–4,6–dinitrotoluene	600	628.37	105	
3,4–Dinitrotoluene	300	343.206	114	
4–Amino–2,6–dinitrotoluene	600	610.088	102	
HMX	600	580.276	97	
Nitrobenzene	600	601.509	100	
PETN	600	627.319	105	
RDX	600	669.645	112	
Tetryl	600	596.357	99	
m–Dinitrobenzene	600	631.512	105	
m–Nitrotoluene	600	558.007	93	
o–Nitrotoluene	600	611.096	102	
p–Nitrotoluene	600	633.085	106	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208036a
Date: 09-Feb-2010
Time: 07:57:19
ID: WXX100208-07CCV
Vial: 1:1,B

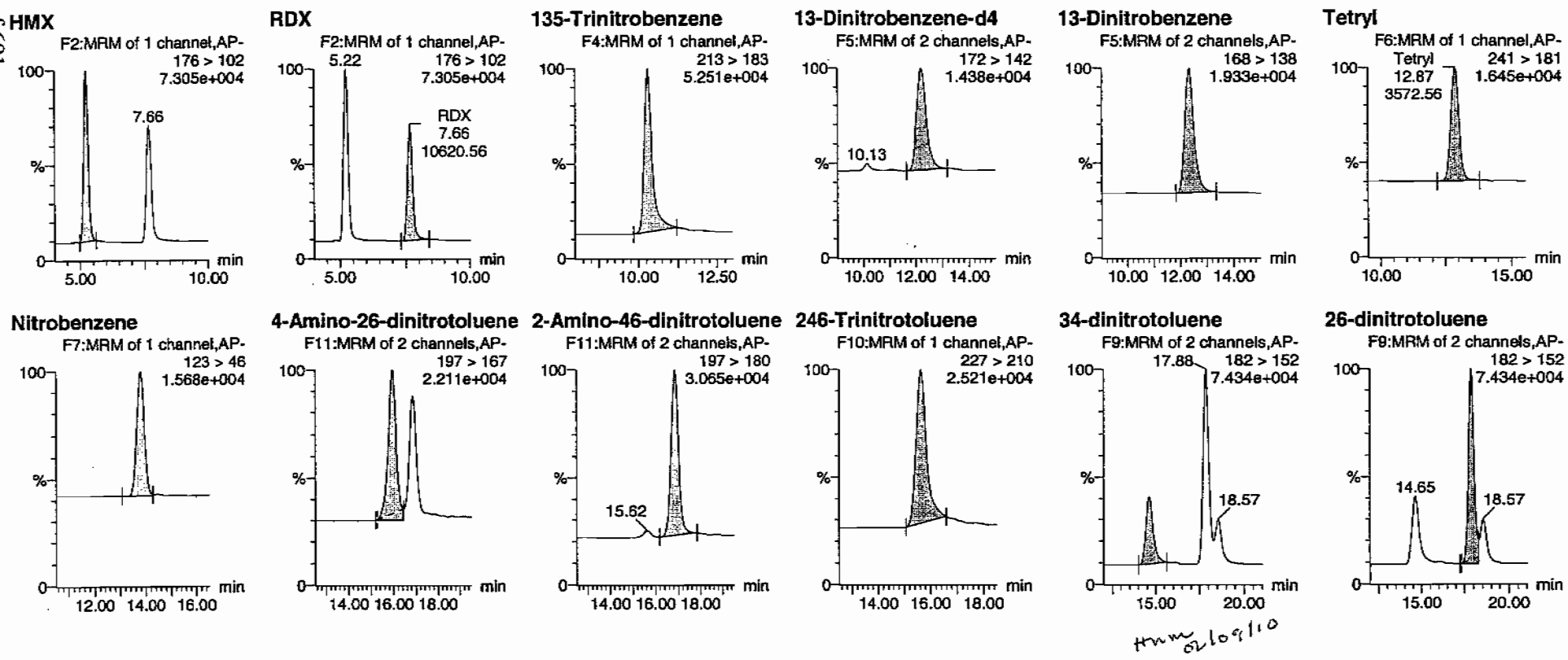

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

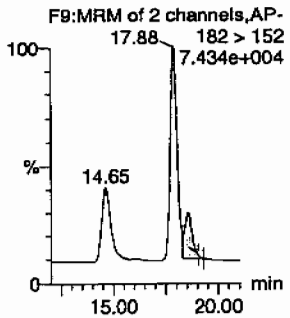

26-dinitrotoluene-d3

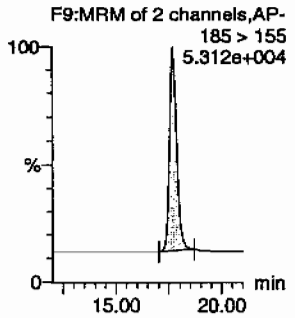

2-Nitrotoluene

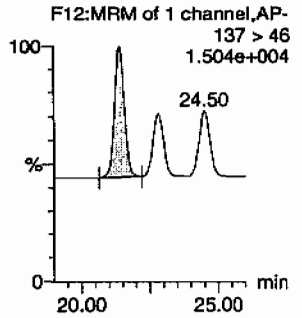

4-Nitrotoluene

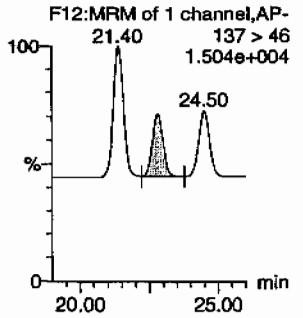

3-Nitrotoluene

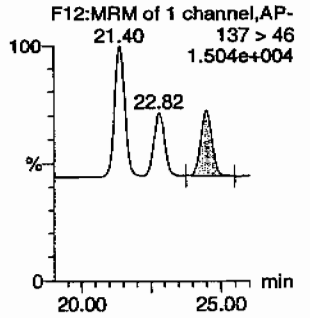

PETN

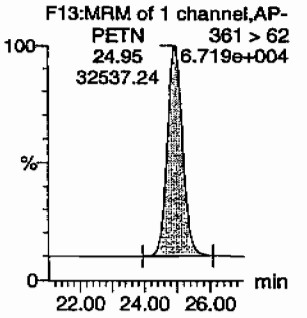

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	13162.657	3265.867	13162.657	2015.186	bb			580.2763	96.7	-3.3	1346.4
WXX100208-07CCV	RDX	176 > 102	7.66	10620.564	3265.867	10620.564	1625.995	bb			669.6453	111.6	11.6	912.9
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.30	13417.060	3265.867	13417.060	2054.134	bb			557.7256	93.0	-7.0	1689.0
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3265.867		3265.867	3265.867	bb			507.9782	101.6	1.6	605.7
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	4959.725	3265.867	4959.725	759.327	bb			631.5122	105.3	5.3	605.8
WXX100208-07CCV	Tetryl	241 > 181	12.87	3572.560	3265.867	3572.560	546.954	bb			596.3571	99.4	-0.6	266.7
WXX100208-07CCV	Nitrobenzene	123 > 46	13.80	3173.647	3265.867	3173.647	485.881	bd			601.5088	100.3	0.3	397.7
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.95	6535.022	18645.436	6535.022	175.245	MM	09-Feb-10	10:08:38	610.0875	101.7	1.7	220.1
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9279.965	18645.436	9279.965	248.854	bb			628.3699	104.7	4.7	600.3
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	8227.966	18645.436	8227.966	220.643	bb			683.8179	114.0	14.0	212.5
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.65	11518.506	18645.436	11518.506	308.883	bb			343.2061	114.4	14.4	186.4
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.88	25577.211	18645.436	25577.211	685.884	MM	09-Feb-10	10:15:19	638.5734	106.4	6.4	536.5
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.57	6161.852	18645.436	6161.852	165.238	MM	09-Feb-10	10:18:29	677.0601	112.8	12.8	117.9
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	18645.436		18645.436	18645.436	bb			505.0314	101.0	1.0	1377.3
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.40	3533.284	18645.436	3533.284	94.749	bb			611.0957	101.8	1.8	676.4
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.82	1794.293	18645.436	1794.293	48.116	bb			633.0852	105.5	5.5	322.7
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.50	1938.759	18645.436	1938.759	51.990	bb			558.0066	93.0	-7.0	336.8
WXX100208-07CCV	PETN	361 > 62	24.95	32537.242	18645.436	32537.242	872.526	bb			627.3190	104.6	4.6	16599.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/09/10
Time of Injection: 0757
Standard Number: WXX100208-07CCV
Data File: EXP0208036a

HMX		96.7
RDX		111.6
135-TNB		93.0
13-DNB		105.3
Tetryl		99.4
Nitrobenzene		100.3
4A-26-DNT		101.7
2A-46-DNT		104.7
246-TNT		114.0
34-DNT(surr)		114.4
26-DNT		106.4
24-DNT		112.8
2-NT		101.8
4-NT		105.5
3-NT		93.0
PETN		104.6
Total		1665.2
Average		104.1

MTT 2/9/10

Hmm 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208038a

Analysis Date: 09-FEB-10 08:56

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	44.383	111	
PETN	40	42.434	106	
RDX	40	40.143	100	
Tetryl	40	36.6	92	
m-Dinitrobenzene	40	41.257	103	
m-Nitrotoluene	40	38.786	97	
o-Nitrotoluene	40	43.692	109	
p-Nitrotoluene	40	33.849	85	
1,3,5-Trinitrobenzene	40	41.878	105	
1,3-Dinitrobenzene-d4	500	600.974	120	
2,4,6-Trinitrotoluene	40	41.161	103	
2,4-Dinitrotoluene	40	39.718	99	
2,6-Dinitrotoluene	40	41.46	104	
2,6-Dinitrotoluene-d3	500	511.208	102	
2-Amino-4,6-dinitrotoluene	40	41.059	103	
3,4-Dinitrotoluene	20	24.686	123	
4-Amino-2,6-dinitrotoluene	40	44.787	112	
HMX	40	36.25	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208038a
Date: 09-Feb-2010
Time: 08:56:17
ID: WXX100208-08CRI
Vial: 1:1,C

MTT 2/9/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.22 1.192e+004
972.80

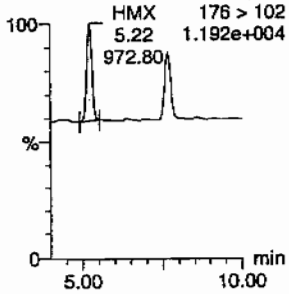

RDX
F2:MRM of 1 channel,AP-
5.22 176 > 102
1.192e+004

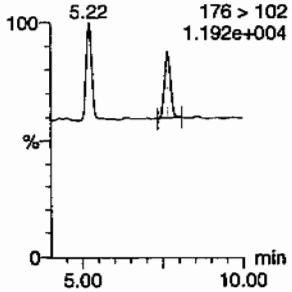

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.112e+004

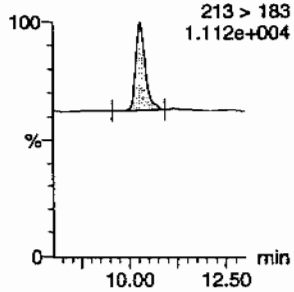

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.616e+004

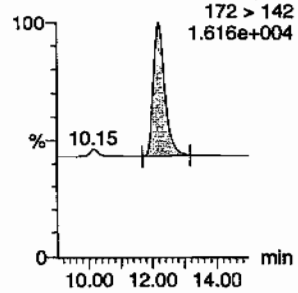

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.908e+003

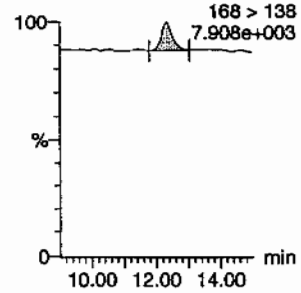

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.874e+003

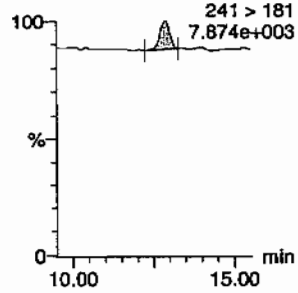

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.716e+003

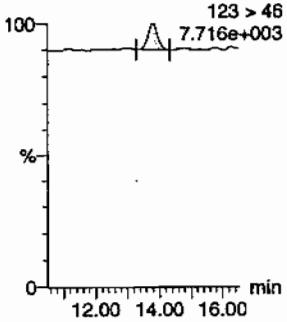

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.128e+003

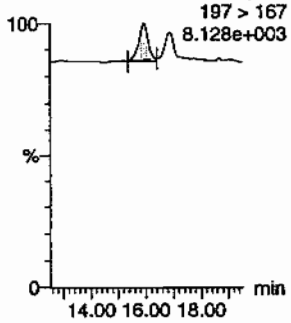

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.695e+003

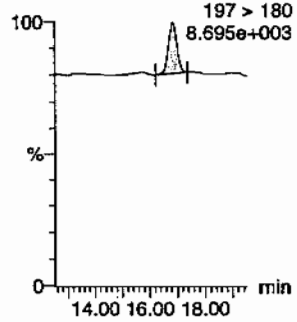

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
8.228e+003

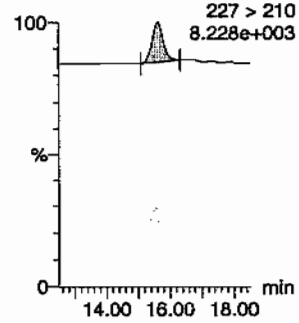

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.88 182 > 152
1.128e+004

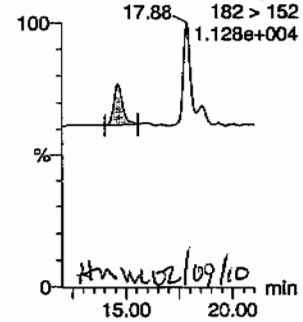

HMW 02/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.128e+004

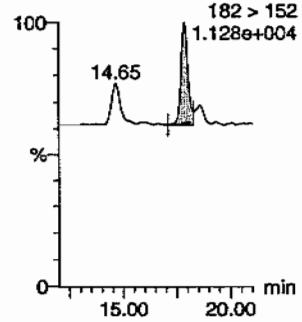

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA.qld, Time: Tue Feb 09 10:19:05 2010

24-dinitrotoluene

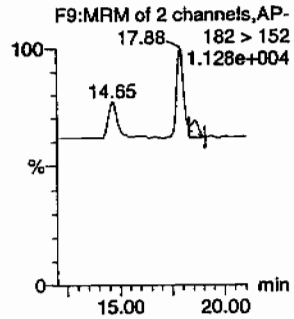

26-dinitrotoluene-d3

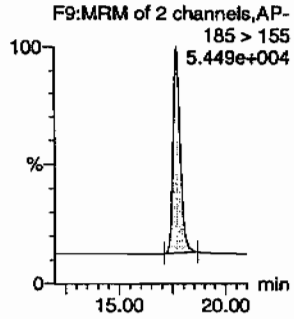

2-Nitrotoluene

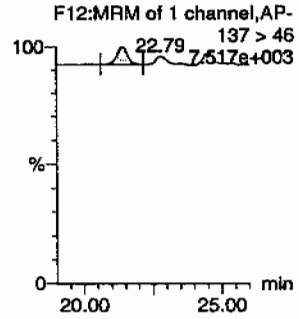

4-Nitrotoluene

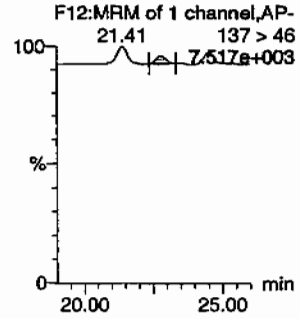

3-Nitrotoluene

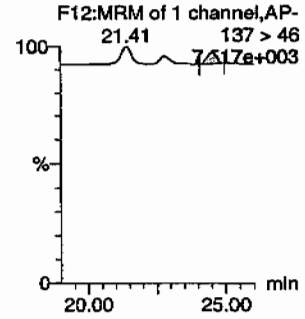

PETN

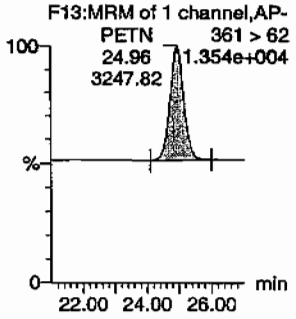

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	972.801	3863.752	972.801	125.888	bb			36.2497	90.6	-9.4	111.9
WXX100208-08CRI	RDX	176 > 102	7.66	753.223	3863.752	753.223	97.473	bb			40.1430	100.4	0.4	77.4
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1191.883	3863.752	1191.883	154.239	bb			41.8780	104.7	4.7	118.4
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3863.752		3863.752	3863.752	bb			600.9743	120.2	20.2	435.6
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	383.336	3863.752	383.336	49.607	bb			41.2566	103.1	3.1	20.7
WXX100208-08CRI	Tetryl	241 > 181	12.87	332.982	3863.752	332.982	43.090	bb			36.6002	91.5	-8.5	27.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	277.043	3863.752	277.043	35.852	bb			44.3833	111.0	11.0	19.4
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.92	485.610	18873.490	485.610	12.865	MM	09-Feb-10	10:08:44	44.7871	112.0	12.0	52.7
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	613.793	18873.490	613.793	16.261	bb			41.0593	102.6	2.6	87.6
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	501.319	18873.490	501.319	13.281	bb			41.1607	102.9	2.9	66.2
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	838.618	18873.490	838.618	22.217	bb			24.6856	123.4	23.4	48.7
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1680.954	18873.490	1680.954	44.532	MM	09-Feb-10	10:15:31	41.4604	103.7	3.7	121.8
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.59	365.888	18873.490	365.888	9.693	MM	09-Feb-10	10:18:38	39.7177	99.3	-0.7	22.8
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	18873.490		18873.490	18873.490	bb			511.2084	102.2	2.2	1598.8
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.41	255.711	18873.490	255.711	6.774	bb			43.6918	109.2	9.2	36.6
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.79	97.109	18873.490	97.109	2.573	bb			33.8492	84.6	-15.4	15.6
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.53	136.407	18873.490	136.407	3.614	bb			38.7858	97.0	-3.0	22.9
WXX100208-08CRI	PETN	361 > 62	24.96	3247.825	18873.490	3247.825	86.042	bb			42.4344	106.1	6.1	522.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/09/10
Time of Injection	0856
Standard Number	WXX100208-08CRI
Data File	EXP0208038a

HMX	90.6
RDX	100.4
135-TNB	104.7
13-DNB	103.1
Tetryl	91.5
Nitrobenzene	111.0
4A-26-DNT	112.0
2A-46-DNT	102.6
246-TNT	102.9
34-DNT(surr)	123.4
26-DNT	103.7
24-DNT	99.3
2-NT	109.2
4-NT	84.6
3-NT	97.0
PETN	106.1
Total	1642.1
Average	102.6

MPP 2/9/10

thm 02/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1432

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0208049a **Analysis Date:** 09-FEB-10 14:20

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	549.978	110	
2,4,6-Trinitrotoluene	600	711.282	119	
2,4-Dinitrotoluene	600	646.244	108	
2,6-Dinitrotoluene	600	631.864	105	
2,6-Dinitrotoluene-d3	500	554.109	111	
2-Amino-4,6-dinitrotoluene	600	637.752	106	
3,4-Dinitrotoluene	300	327.767	109	
4-Amino-2,6-dinitrotoluene	600	652.073	109	
HMX	600	648.743	108	
Nitrobenzene	600	534.529	89	
PETN	600	566.64	94	
RDX	600	721.033	120	*
Tetryl	600	576.02	96	
m-Dinitrobenzene	600	635.781	106	
m-Nitrotoluene	600	523.672	87	
o-Nitrotoluene	600	534.766	89	
p-Nitrotoluene	600	557.168	93	
1,3,5-Trinitrobenzene	600	581.172	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208049a
Date: 09-Feb-2010
Time: 14:20:41
ID: WXX100208-07CCV
Vial: 1:1,B

MMT 2/10/10

HMX

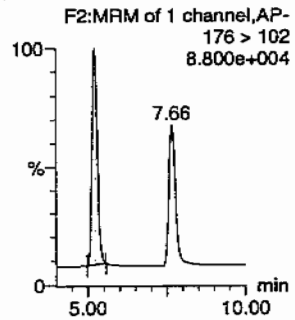

RDX

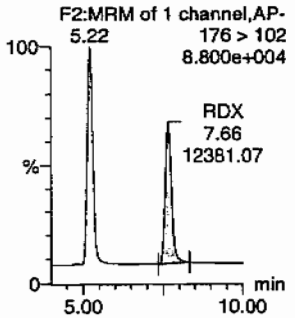

135-Trinitrobenzene

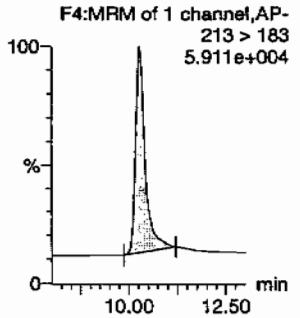

13-Dinitrobenzene-d4

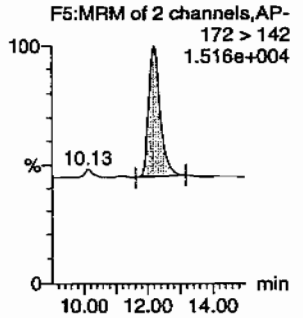

13-Dinitrobenzene

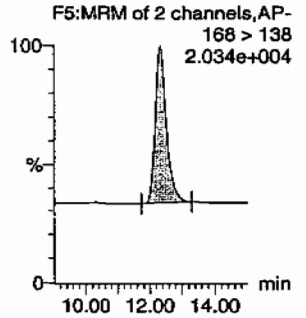

Tetryl

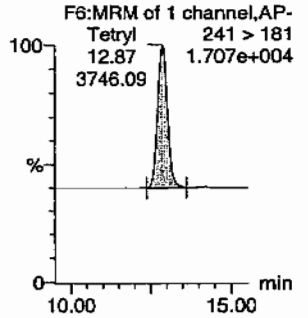

Nitrobenzene

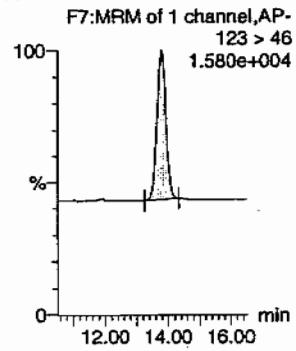

4-Amino-26-dinitrotoluene

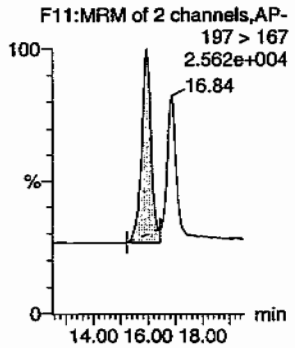

2-Amino-46-dinitrotoluene

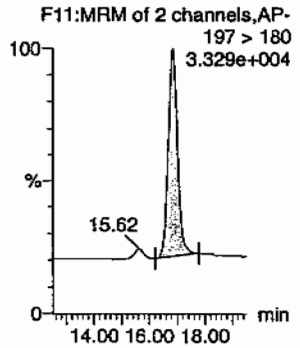

246-Trinitrotoluene

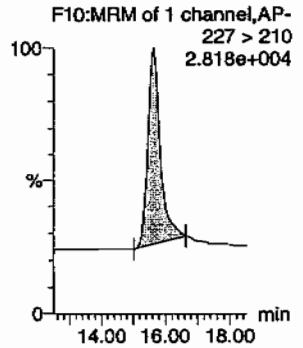

34-dinitrotoluene

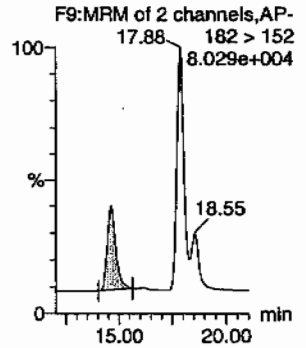

26-dinitrotoluene

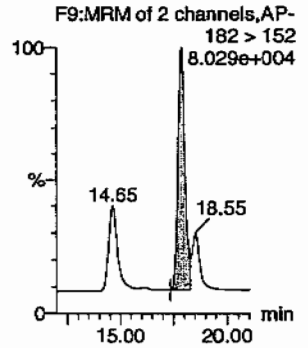

Hmm 02/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

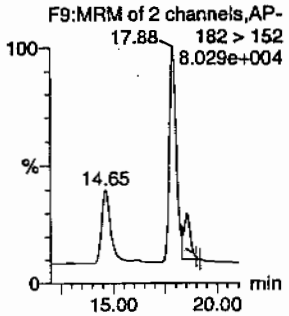

26-dinitrotoluene-d3

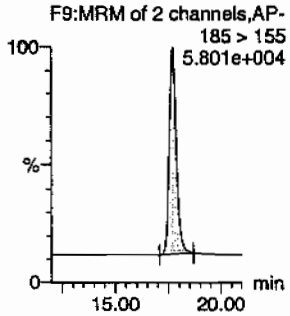

2-Nitrotoluene

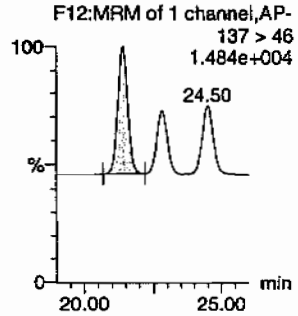

4-Nitrotoluene

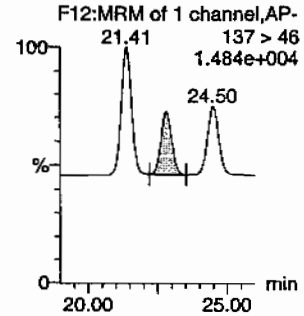

3-Nitrotoluene

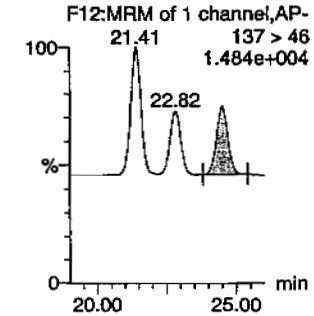

PETN

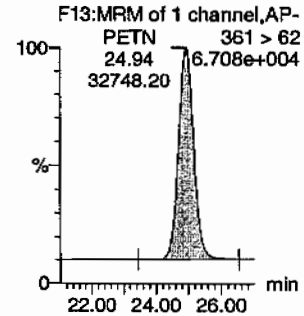

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	15932.405	3535.888	15932.405	2252.957	bb			648.7429	108.1	8.1	4227.8
WXX100208-07CCV	RDX	176 > 102	7.66	12381.069	3535.888	12381.069	1750.772	bb			721.0334	120.2	20.2	2779.7
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.30	15137.054	3535.888	15137.054	2140.488	bb			581.1718	96.9	-3.1	1149.7
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3535.888		3535.888	3535.888	bb			549.9778	110.0	10.0	208.7
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5406.091	3535.888	5406.091	764.460	bb			635.7809	106.0	6.0	279.1
WXX100208-07CCV	Tetryl	241 > 181	12.87	3746.090	3535.888	3746.090	529.724	bb			576.0201	96.0	-4.0	563.4
WXX100208-07CCV	Nitrobenzene	123 > 46	13.76	3053.430	3535.888	3053.430	431.777	bb			534.5291	89.1	-10.9	367.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.95	7663.504	20457.336	7663.504	187.305	MM	10-Feb-10	09:16:05	652.0726	108.7	8.7	438.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	10333.780	20457.336	10333.780	252.569	bb			637.7518	106.3	6.3	558.7
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	9390.103	20457.336	9390.103	229.505	bb			711.2820	118.5	18.5	550.7
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.65	12069.317	20457.336	12069.317	294.988	bb			327.7668	109.3	9.3	305.7
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.88	27767.875	20457.336	27767.875	678.678	MM	10-Feb-10	09:11:31	631.8642	105.3	5.3	893.5
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.55	6452.933	20457.336	6452.933	157.717	MM	10-Feb-10	09:09:39	646.2441	107.7	7.7	198.3
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	20457.336		20457.336	20457.336	bb			554.1086	110.8	10.8	1772.0
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.41	3392.420	20457.336	3392.420	82.915	bb			534.7660	89.1	-10.9	387.8
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.82	1732.583	20457.336	1732.583	42.346	bb			557.1681	92.9	-7.1	191.1
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.50	1996.277	20457.336	1996.277	48.791	bb			523.6725	87.3	-12.7	205.6
WXX100208-07CCV	PETN	361 > 62	24.94	32748.201	20457.336	32748.201	800.402	bb			566.6402	94.4	-5.6	6960.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/09/10
Time of Injection: 1420
Standard Number: WXX100208-07CCV
Data File: EXP0208049a

HMX	108.1
RDX	120.2
135-TNB	96.9
13-DNB	106.0
Tetryl	96.0
Nitrobenzene	89.1
4A-26-DNT	108.7
2A-46-DNT	106.3
246-TNT	118.5
34-DNT(surr)	109.3
26-DNT	105.3
24-DNT	107.7
2-NT	89.1
4-NT	92.9
3-NT	87.3
PETN	94.4
Total	1635.8
Average	102.2

MAT 2/10/10

Hme 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0208051a

Analysis Date: 09-FEB-10 15:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.499	109	
1,3-Dinitrobenzene-d4	500	575.339	115	
2,4,6-Trinitrotoluene	40	37.174	93	
2,4-Dinitrotoluene	40	39.545	99	
2,6-Dinitrotoluene	40	44.458	111	
2,6-Dinitrotoluene-d3	500	556.656	111	
2-Amino-4,6-dinitrotoluene	40	44.445	111	
3,4-Dinitrotoluene	20	22.823	114	
4-Amino-2,6-dinitrotoluene	40	42.665	107	
HMX	40	42.028	105	
Nitrobenzene	40	40.451	101	
PETN	40	36.261	91	
RDX	40	37.937	95	
Tetryl	40	44.71	112	
m-Dinitrobenzene	40	44.913	112	
m-Nitrotoluene	40	32.902	82	
o-Nitrotoluene	40	39.318	98	
p-Nitrotoluene	40	38.91	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208051a
Date: 09-Feb-2010
Time: 15:19:46
ID: WXX100208-08CRI
Vial: 1:1,C

MM 2/10/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.22 1.168e+004
1079.75 7.66

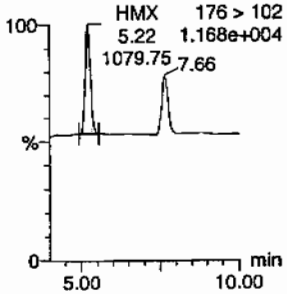

RDX
F2:MRM of 1 channel,AP-
5.22 176 > 102
1.168e+004
RDX
7.66
681.46

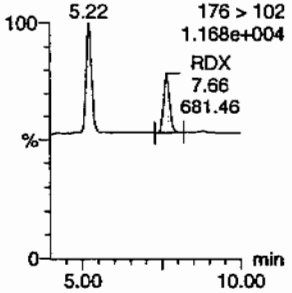

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.038e+004

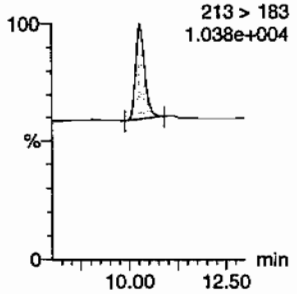

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.497e+004

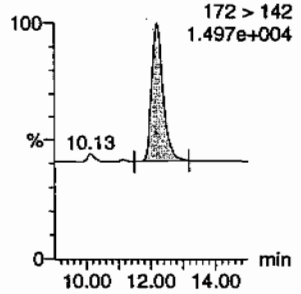

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.103e+003

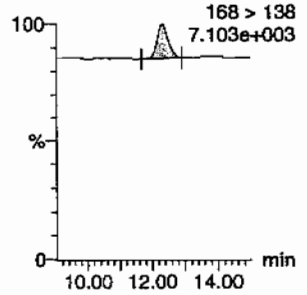

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.071e+003

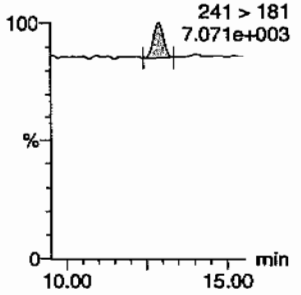

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.772e+003

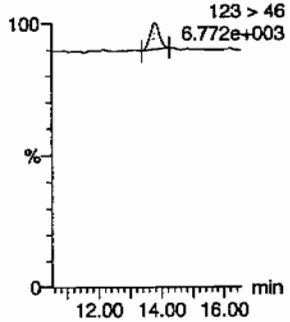

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.324e+003

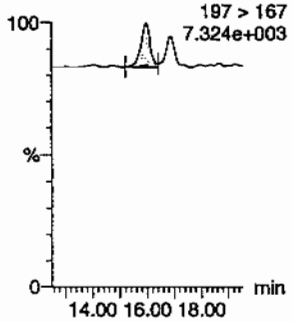

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.897e+003

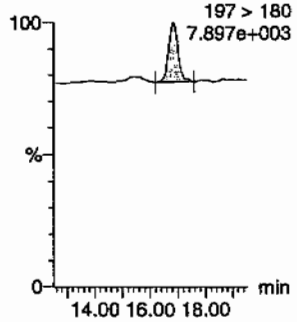

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.353e+003

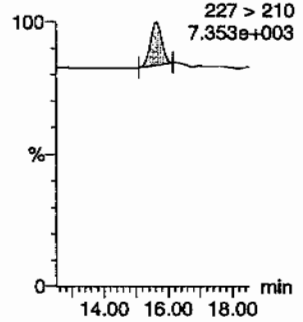

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.88 182 > 152
1.141e+004
18.55

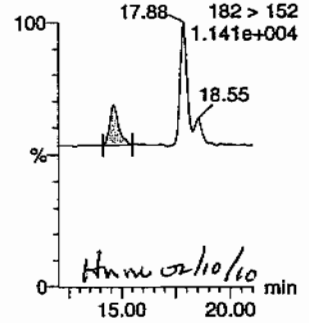

Hmm 02/10/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.141e+004
14.65
18.55

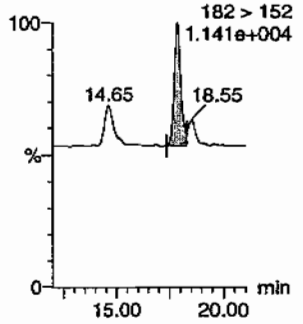

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

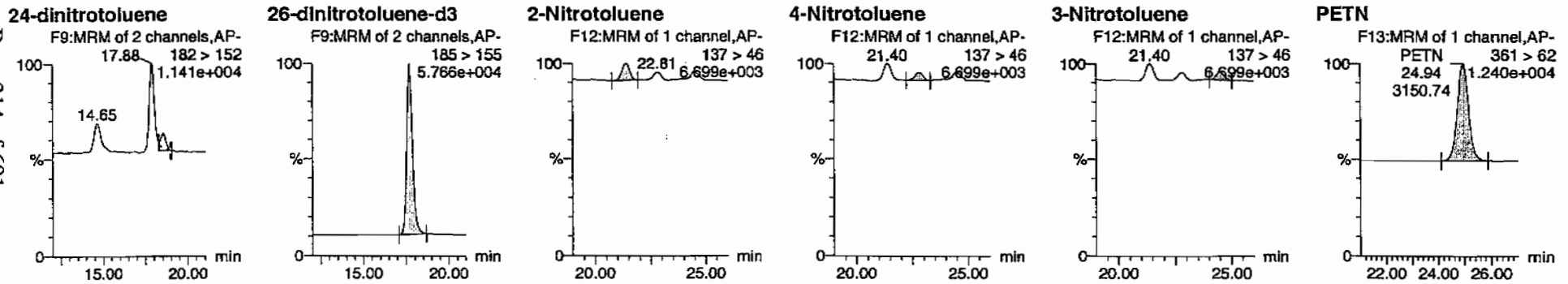

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1079.752	3698.938	1079.752	145.954	bb			42.0278	105.1	5.1	142.2
WXX100208-08CRI	RDX	176 > 102	7.66	681.462	3698.938	681.462	92.116	bb			37.9368	94.8	-5.2	77.8
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1185.200	3698.938	1185.200	160.208	bb			43.4987	108.7	8.7	112.1
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3698.938		3698.938	3698.938	bb			575.3388	115.1	15.1	520.0
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	399.509	3698.938	399.509	54.003	bb			44.9130	112.3	12.3	46.9
WXX100208-08CRI	Tetryl	241 > 181	12.87	376.028	3698.938	376.028	50.829	bb			44.7099	111.8	11.8	36.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.76	241.726	3698.938	241.726	32.675	bb			40.4509	101.1	1.1	30.0
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.95	503.725	20551.385	503.725	12.255	MM	10-Feb-10	09:15:53	42.6648	106.7	6.7	25.0
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	723.475	20551.385	723.475	17.602	bb			44.4451	111.1	11.1	30.7
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	493.014	20551.385	493.014	11.995	bb			37.1739	92.9	-7.1	37.3
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	844.283	20551.385	844.283	20.541	bb			22.8233	114.1	14.1	68.4
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1962.747	20551.385	1962.747	47.752	MM	10-Feb-10	09:11:38	44.4584	111.1	11.1	212.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.55	396.684	20551.385	396.684	9.651	MM	10-Feb-10	09:09:28	39.5450	98.9	-1.1	42.0
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	20551.385		20551.385	20551.385	bb			556.6560	111.3	11.3	1207.4
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	250.572	20551.385	250.572	6.096	bb			39.3183	98.3	-1.7	41.5
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.81	121.550	20551.385	121.550	2.957	bb			38.9095	97.3	-2.7	20.1
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.48	126.001	20551.385	126.001	3.066	bb			32.9019	82.3	-17.7	20.8
WXX100208-08CRI	PETN	361 > 62	24.94	3150.736	20551.385	3150.736	76.655	bb			36.2614	90.7	-9.3	631.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/09/10
Time of Injection	1519
Standard Number	WXX100208-08CRI
Data File	EXP0208051a

HMX	105.1
RDX	94.8
135-TNB	108.7
13-DNB	112.3
Tetryl	111.8
Nitrobenzene	101.1
4A-26-DNT	106.7
2A-46-DNT	111.1
246-TNT	92.9
34-DNT(surr)	114.1
26-DNT	111.1
24-DNT	98.9
2-NT	98.3
4-NT	97.3
3-NT	82.3
PETN	90.7
Total	1637.2
Average	102.3

MTT 2/10/10

HMK 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208062a

Analysis Date: 09–FEB–10 20:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	580.031	97	
RDX	600	625.098	104	
Tetryl	600	563.424	94	
m–Dinitrobenzene	600	616.138	103	
m–Nitrotoluene	600	563.078	94	
o–Nitrotoluene	600	586.398	98	
p–Nitrotoluene	600	590.193	98	
1,3,5–Trinitrobenzene	600	547.737	91	
1,3–Dinitrobenzene–d4	500	567.181	113	
2,4,6–Trinitrotoluene	600	715.292	119	
2,4–Dinitrotoluene	600	646.614	108	
2,6–Dinitrotoluene	600	637.73	106	
2,6–Dinitrotoluene–d3	500	528.196	106	
2–Amino–4,6–dinitrotoluene	600	658.061	110	
3,4–Dinitrotoluene	300	330.267	110	
4–Amino–2,6–dinitrotoluene	600	627.96	105	
HMX	600	599.91	100	
Nitrobenzene	600	551.5	92	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208062a
Date: 09-Feb-2010
Time: 20:44:30
ID: WXX100208-07CCV
Vial: 1:1,B

MM 2/10/10

HMX

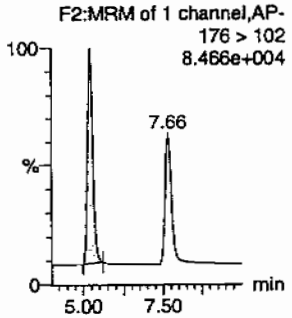

RDX

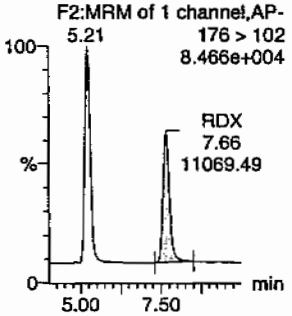

135-Trinitrobenzene

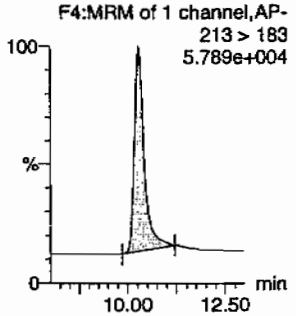

13-Dinitrobenzene-d4

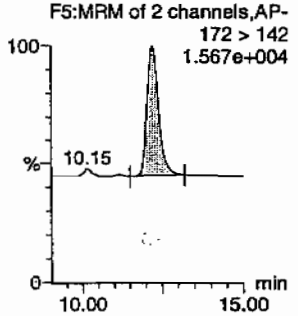

13-Dinitrobenzene

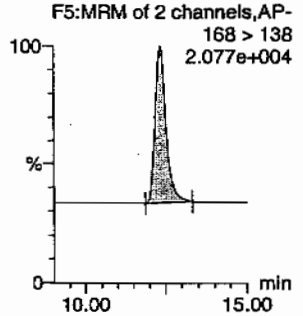

Tetryl

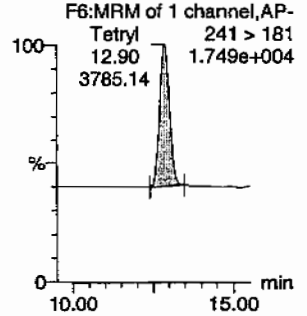

Nitrobenzene

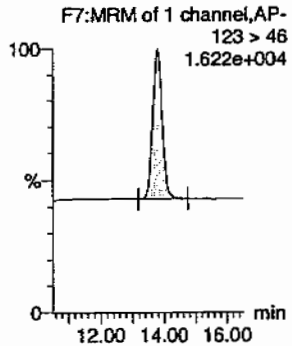

4-Amino-26-dinitrotoluene

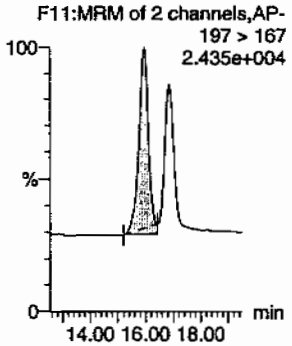

2-Amino-46-dinitrotoluene

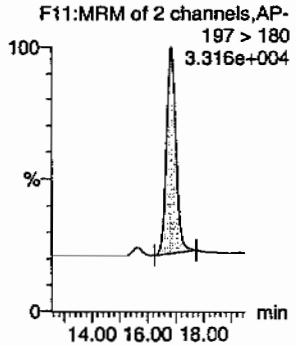

246-Trinitrotoluene

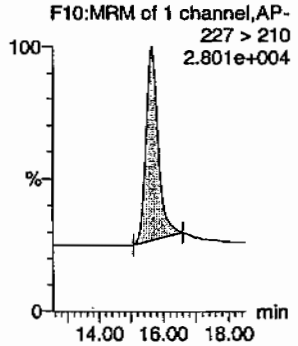

34-dinitrotoluene

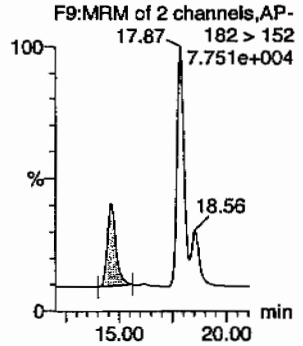

26-dinitrotoluene

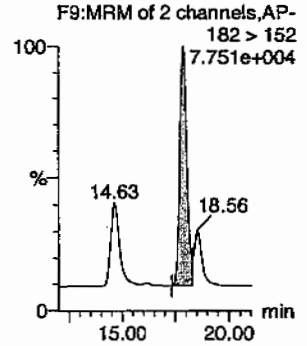

HMW 02/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

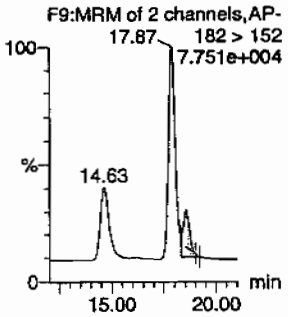

26-dinitrotoluene-d3

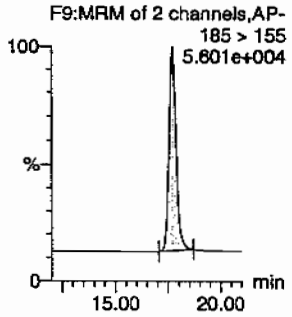

2-Nitrotoluene

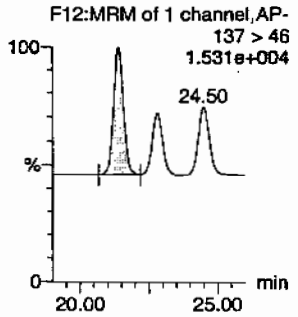

4-Nitrotoluene

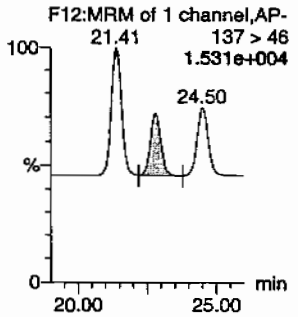

3-Nitrotoluene

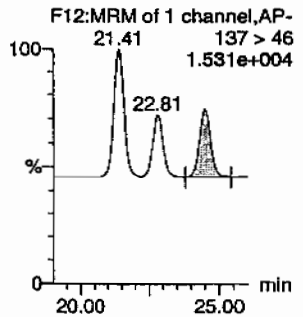

PETN

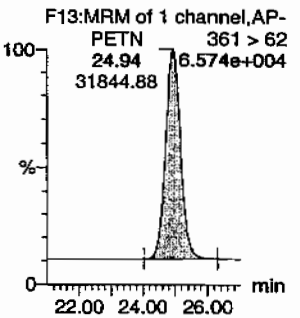

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.21	15193.972	3646.489	15193.972	2083.370	bb			599.9101	100.0	-0.0	2159.2
WXX100208-07CCV	RDX	176 > 102	7.66	11069.486	3646.489	11069.486	1517.828	bb			625.0982	104.2	4.2	1309.8
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.30	14712.466	3646.489	14712.466	2017.347	bb			547.7372	91.3	-8.7	911.4
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3646.489		3646.489	3646.489	bb			567.1808	113.4	13.4	245.8
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5402.941	3646.489	5402.941	740.842	bb			616.1379	102.7	2.7	784.8
WXX100208-07CCV	Tetryl	241 > 181	12.90	3785.138	3646.489	3785.138	519.011	bb			563.4238	93.9	-6.1	224.4
WXX100208-07CCV	Nitrobenzene	123 > 46	13.79	3248.918	3646.489	3248.918	445.486	bb			551.5002	91.9	-8.1	291.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.94	7034.992	19500.662	7034.992	180.378	MM	10-Feb-10	09:14:42	627.9599	104.7	4.7	282.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.83	10164.215	19500.662	10164.215	260.612	bb			658.0609	109.7	9.7	492.6
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.63	9001.442	19500.662	9001.442	230.798	bb			715.2919	119.2	19.2	634.3
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.63	11592.679	19500.662	11592.679	297.238	bb			330.2675	110.1	10.1	650.3
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.87	26715.053	19500.662	26715.053	684.978	MM	10-Feb-10	09:12:13	637.7300	106.3	6.3	1878.4
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.56	6154.682	19500.662	6154.682	157.807	MM	10-Feb-10	09:08:50	646.6135	107.8	7.8	424.9
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.70	19500.662		19500.662	19500.662	bb			528.1961	105.6	5.6	929.9
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.41	3546.001	19500.662	3546.001	90.920	bb			586.3983	97.7	-2.3	592.3
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.81	1749.453	19500.662	1749.453	44.856	bb			590.1932	98.4	-1.6	284.2
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.50	2046.115	19500.662	2046.115	52.463	bb			563.0782	93.8	-6.2	310.9
WXX100208-07CCV	PETN	361 > 62	24.94	31844.883	19500.662	31844.883	816.508	bb			580.0314	96.7	-3.3	6751.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/09/10
Time of Injection: 2044
Standard Number: WXX100208-07CCV
Data File: EXP0208062a

HMX	100.0
RDX	104.2
135-TNB	91.3
13-DNB	102.7
Tetryl	93.9
Nitrobenzene	91.9
4A-26-DNT	104.7
2A-46-DNT	109.7
246-TNT	119.2
34-DNT(surr)	110.1
26-DNT	106.3
24-DNT	107.8
2-NT	97.7
4-NT	98.4
3-NT	93.8
PETN	96.7
Total	1628.4
Average	101.8

MJH 2/10/10

Hmm 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208064a

Analysis Date: 09-FEB-10 21:43

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	40	39.085	98	
2,6-Dinitrotoluene	40	43.106	108	
2,6-Dinitrotoluene-d3	500	567.8	114	
2-Amino-4,6-dinitrotoluene	40	39.591	99	
3,4-Dinitrotoluene	20	24.084	120	
4-Amino-2,6-dinitrotoluene	40	41.143	103	
HMX	40	39.239	98	
Nitrobenzene	40	38.933	97	
PETN	40	36.686	92	
RDX	40	36.427	91	
Tetryl	40	34.123	85	
m-Dinitrobenzene	40	38.756	97	
m-Nitrotoluene	40	38.95	97	
o-Nitrotoluene	40	40.457	101	
p-Nitrotoluene	40	34.567	86	
1,3,5-Trinitrobenzene	40	43.241	108	
1,3-Dinitrobenzene-d4	500	602.61	121	
2,4,6-Trinitrotoluene	40	38.148	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208064a
Date: 09-Feb-2010
Time: 21:43:27
ID: WXX100208-08CRI
Vial: 1:1,C

MMT 2/10/10

HMX

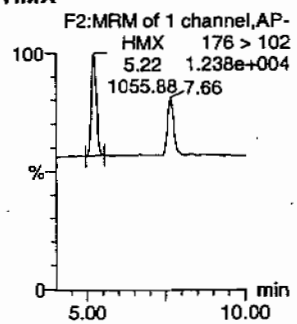

RDX

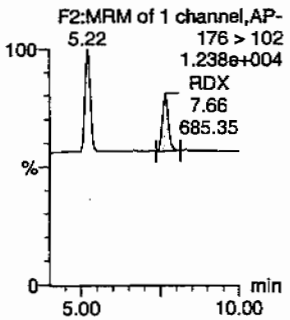

135-Trinitrobenzene

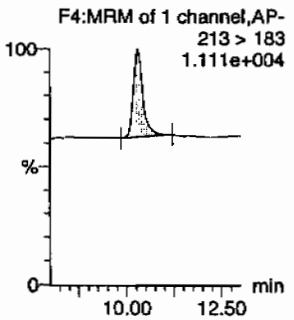

13-Dinitrobenzene-d4

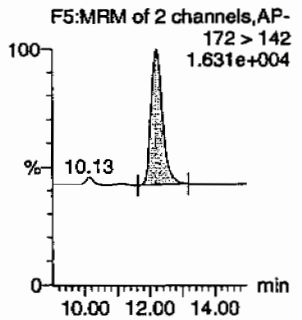

13-Dinitrobenzene

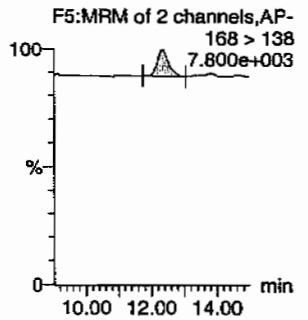

Tetryl

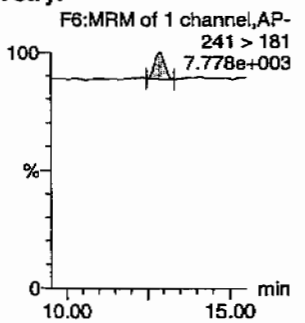

Nitrobenzene

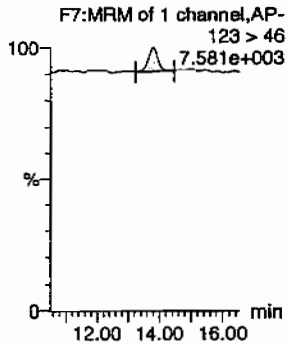

4-Amino-26-dinitrotoluene

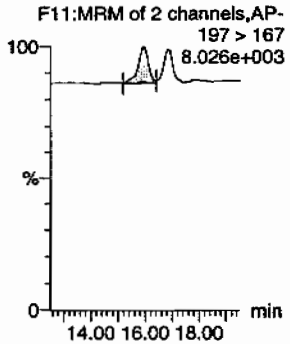

2-Amino-46-dinitrotoluene

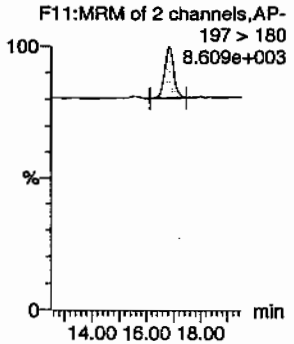

246-Trinitrotoluene

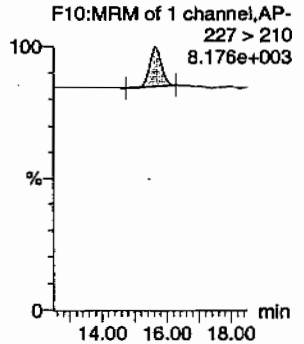

34-dinitrotoluene

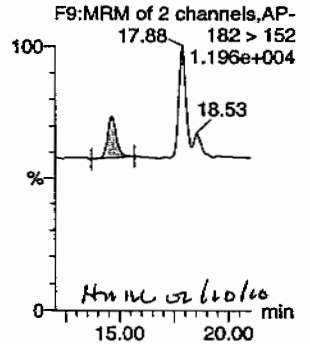

26-dinitrotoluene

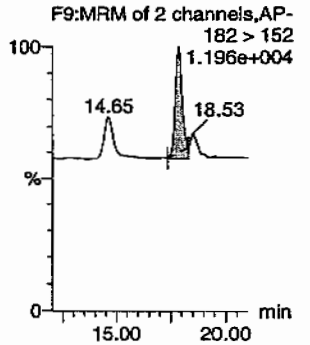

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

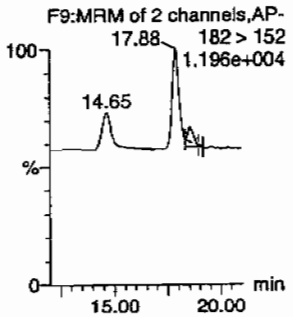

26-dinitrotoluene-d3

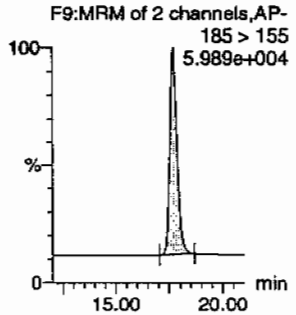

2-Nitrotoluene

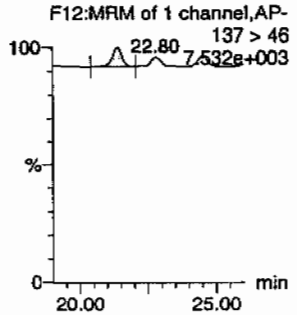

4-Nitrotoluene

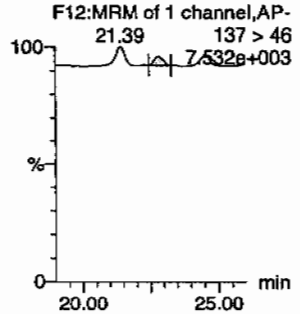

3-Nitrotoluene

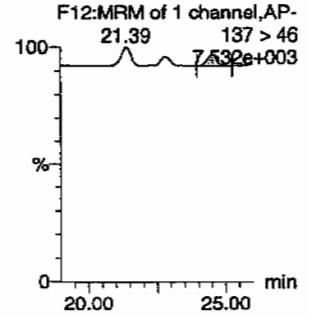

PETN

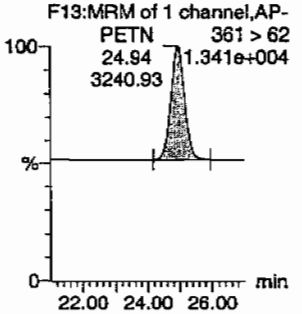

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1055.883	3874.267	1055.883	136.269	bb			39.2388	98.1	-1.9	268.1
WXX100208-08CRI	RDX	176 > 102	7.66	685.352	3874.267	685.352	88.449	bb			36.4267	91.1	-8.9	148.4
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.30	1234.027	3874.267	1234.027	159.259	bb			43.2411	108.1	8.1	146.8
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3874.267		3874.267	3874.267	bb			602.6098	120.5	20.5	308.3
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	361.083	3874.267	361.083	46.600	bb			38.7561	96.9	-3.1	29.4
WXX100208-08CRI	Tetryl	241 > 181	12.92	315.552	3874.267	315.552	40.724	bb			34.1231	85.3	-14.7	25.2
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	243.681	3874.267	243.681	31.449	bb			38.9327	97.3	-2.7	18.5
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.95	495.481	20962.824	495.481	11.818	MM	10-Feb-10	09:14:32	41.1429	102.9	2.9	52.0
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	657.359	20962.824	657.359	15.679	bb			39.5908	99.0	-1.0	64.0
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	516.055	20962.824	516.055	12.309	bb			38.1476	95.4	-4.6	49.9
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.65	908.764	20962.824	908.764	21.676	bb			24.0842	120.4	20.4	46.7
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.88	1941.125	20962.824	1941.125	46.299	MM	10-Feb-10	09:12:20	43.1056	107.8	7.8	126.2
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.53	399.918	20962.824	399.918	9.539	MM	10-Feb-10	09:08:33	39.0850	97.7	-2.3	25.9
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.71	20962.824		20962.824	20962.824	bb			567.8003	113.6	13.6	2300.0
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.39	262.989	20962.824	262.989	6.273	bb			40.4568	101.1	1.1	52.2
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.80	110.147	20962.824	110.147	2.627	bb			34.5672	86.4	-13.6	23.8
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.53	152.150	20962.824	152.150	3.629	bb			38.9502	97.4	-2.6	30.6
WXX100208-08CRI	PETN	361 > 62	24.94	3240.928	20962.824	3240.928	77.302	bb			36.6863	91.7	-8.3	1151.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/09/10
Time of Injection	2143
Standard Number	WXX100208-08CRI
Data File	EXP0208064a

HMX	98.1
RDX	91.1
135-TNB	108.1
13-DNB	96.9
Tetryl	85.3
Nitrobenzene	97.3
4A-26-DNT	102.9
2A-46-DNT	99.0
246-TNT	95.4
34-DNT(surr)	120.4
26-DNT	107.8
24-DNT	97.7
2-NT	101.1
4-NT	86.4
3-NT	97.4
PETN	91.7
Total	1576.6
Average	98.5

MEH 2/10/10

Amm 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208075a

Analysis Date: 10-FEB-10 03:07

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	550.541	92	
1,3-Dinitrobenzene-d4	500	536.255	107	
2,4,6-Trinitrotoluene	600	692.977	115	
2,4-Dinitrotoluene	600	649.004	108	
2,6-Dinitrotoluene	600	623.523	104	
2,6-Dinitrotoluene-d3	500	505.287	101	
2-Amino-4,6-dinitrotoluene	600	658.154	110	
3,4-Dinitrotoluene	300	327.707	109	
4-Amino-2,6-dinitrotoluene	600	625.18	104	
HMX	600	619.895	103	
Nitrobenzene	600	588.662	98	
PETN	600	650.959	108	
RDX	600	712.542	119	
Tetryl	600	559.722	93	
m-Dinitrobenzene	600	613.819	102	
m-Nitrotoluene	600	614.037	102	
o-Nitrotoluene	600	663.004	111	
p-Nitrotoluene	600	675.946	113	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208075a
Date: 10-Feb-2010
Time: 03:07:54
ID: WXX100208-07CCV
Vial: 1:1,B

MAP 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.196e+004
7.66

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.196e+004
5.22
RDX
7.66
11929.98

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.563e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.530e+004
10.13

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.987e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.693e+004
Tetryl
12.87
3557.00

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.640e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.316e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.214e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.606e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.328e+004
17.86
18.55

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.328e+004
14.60
18.55

Hmm 02/10/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

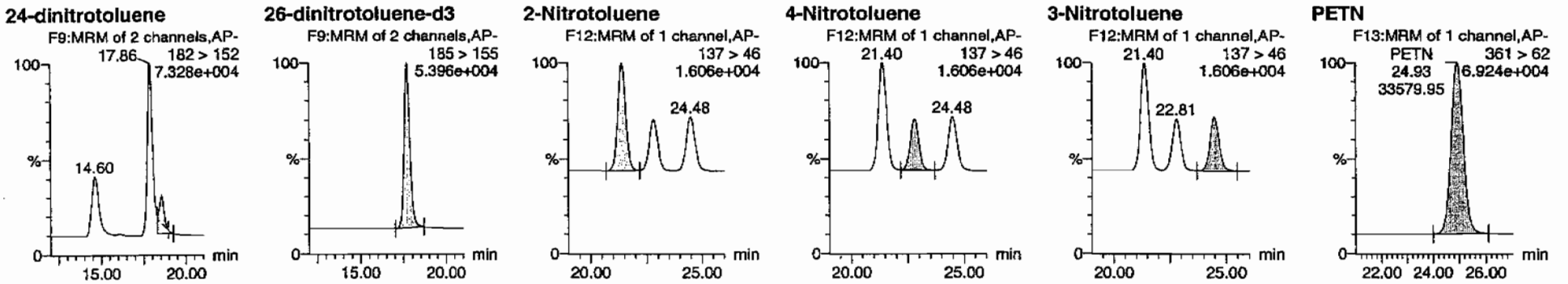

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	14844.065	3447.663	14844.065	2152.772	bb			619.8946	103.3	3.3	1246.9
WXX100208-07CCV	RDX	176 > 102	7.66	11929.981	3447.663	11929.981	1730.155	bb			712.5423	118.8	18.8	827.0
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	13981.463	3447.663	13981.463	2027.673	bb			550.5408	91.8	-8.2	944.0
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3447.663		3447.663	3447.663	bb			536.2551	107.3	7.3	275.6
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5089.118	3447.663	5089.118	738.053	bb			613.8190	102.3	2.3	369.5
WXX100208-07CCV	Tetryl	241 > 181	12.87	3557.003	3447.663	3557.003	515.857	bb			559.7220	93.3	-6.7	295.2
WXX100208-07CCV	Nitrobenzene	123 > 46	13.76	3278.754	3447.663	3278.754	475.504	bb			588.6618	98.1	-1.9	218.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.92	6700.083	18654.883	6700.083	179.580	MM	10-Feb-10	09:13:53	625.1803	104.2	4.2	198.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.84	9724.758	18654.883	9724.758	260.649	bb			658.1545	109.7	9.7	633.0
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.64	8342.395	18654.883	8342.395	223.598	bb			692.9769	115.5	15.5	738.6
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.60	11003.918	18654.883	11003.918	294.934	bb			327.7073	109.2	9.2	449.6
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.86	24987.027	18654.883	24987.027	669.718	MM	10-Feb-10	09:12:57	623.5227	103.9	3.9	1289.9
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.55	5909.508	18654.883	5909.508	158.390	MM	10-Feb-10	09:07:37	649.0039	108.2	8.2	295.3
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.71	18654.883		18654.883	18654.883	bb			505.2872	101.1	1.1	2644.3
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.40	3835.353	18654.883	3835.353	102.798	bb			663.0038	110.5	10.5	650.4
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.81	1916.741	18654.883	1916.741	51.374	bb			675.9463	112.7	12.7	309.9
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.48	2134.515	18654.883	2134.515	57.211	bb			614.0372	102.3	2.3	323.7
WXX100208-07CCV	PETN	361 > 62	24.93	33579.945	18654.883	33579.945	900.031	bb			650.9591	108.5	8.5	11066.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/10/10
Time of Injection: 0307
Standard Number: WXX100208-07CCV
Data File: EXP0208075a

HMX		103.3
RDX		118.8
135-TNB		91.8
13-DNB		102.3
Tetryl		93.3
Nitrobenzene		98.1
4A-26-DNT		104.2
2A-46-DNT		109.7
246-TNT		115.5
34-DNT(surr)		109.2
26-DNT		103.9
24-DNT		108.2
2-NT		110.5
4-NT		112.7
3-NT		102.3
PETN		108.5
Total		1692.3
Average		105.8

MJT 2/10/10

HMM 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208077a

Analysis Date: 10-FEB-10 04:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	42.442	106	
m-Nitrotoluene	40	42.653	107	
o-Nitrotoluene	40	37.743	94	
p-Nitrotoluene	40	39.09	98	
1,3,5-Trinitrobenzene	40	43.814	110	
1,3-Dinitrobenzene-d4	500	565.719	113	
2,4,6-Trinitrotoluene	40	37.653	94	
2,4-Dinitrotoluene	40	39.671	99	
2,6-Dinitrotoluene	40	41.489	104	
2,6-Dinitrotoluene-d3	500	565.139	113	
2-Amino-4,6-dinitrotoluene	40	39.866	100	
3,4-Dinitrotoluene	20	21.452	107	
4-Amino-2,6-dinitrotoluene	40	37.145	93	
HMX	40	44.845	112	
Nitrobenzene	40	36.774	92	
PETN	40	41.094	103	
RDX	40	40.397	101	
Tetryl	40	40.051	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208077a
Date: 10-Feb-2010
Time: 04:06:59
ID: WXX100208-08CRI
Vial: 1:1,C

MAT 2/10/10

HMX

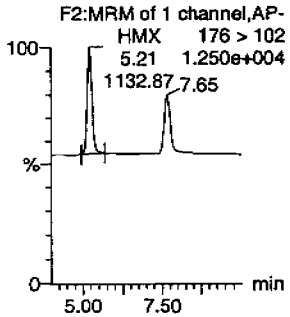

RDX

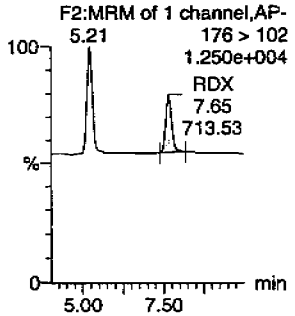

135-Trinitrobenzene

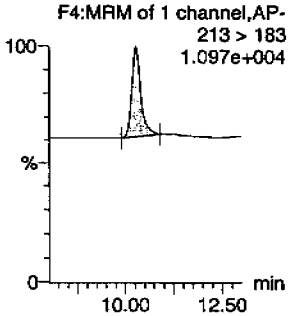

13-Dinitrobenzene-d4

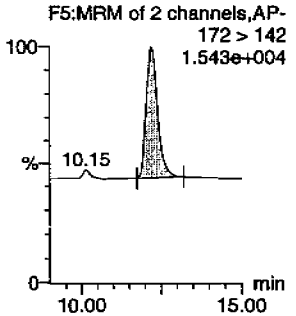

13-Dinitrobenzene

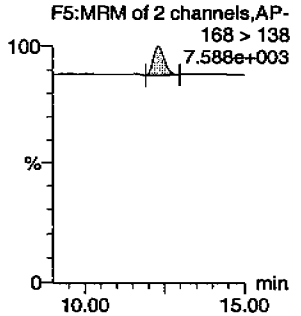

Tetryl

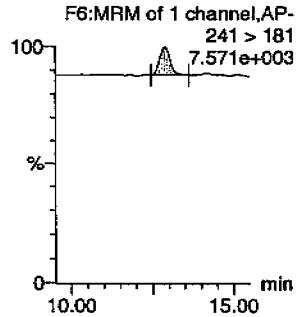

Nitrobenzene

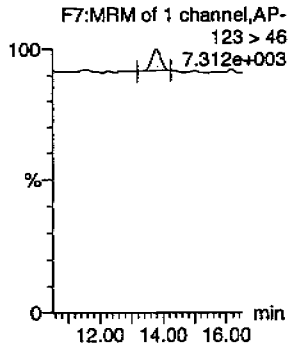

4-Amino-26-dinitrotoluene

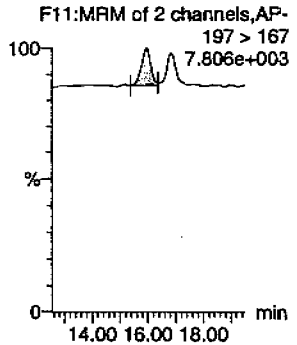

2-Amino-46-dinitrotoluene

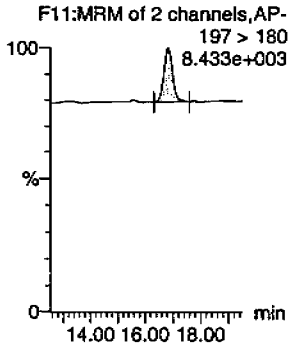

246-Trinitrotoluene

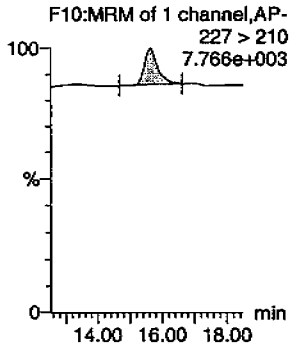

34-dinitrotoluene

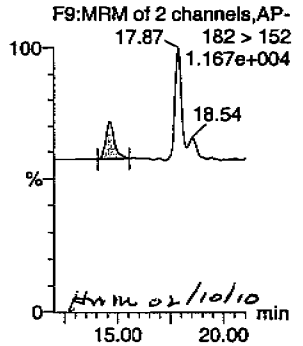

26-dinitrotoluene

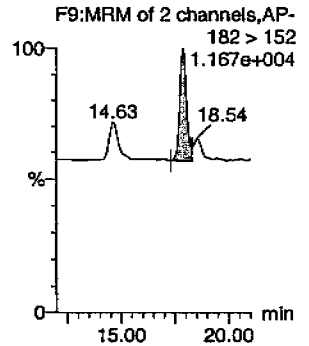

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA1.qld, Time: Wed Feb 10 09:19:53 2010

24-dinitrotoluene

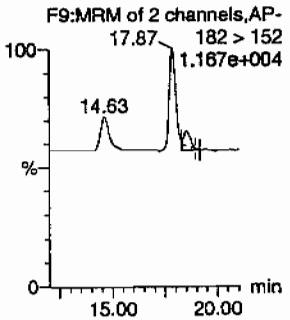

26-dinitrotoluene-d3

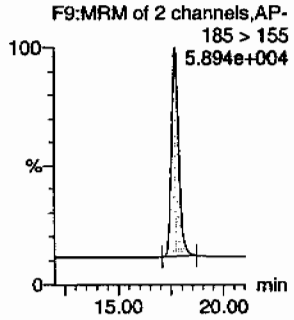

2-Nitrotoluene

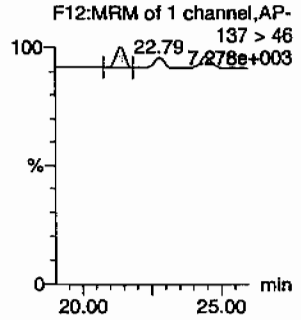

4-Nitrotoluene

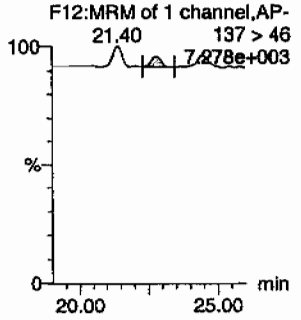

3-Nitrotoluene

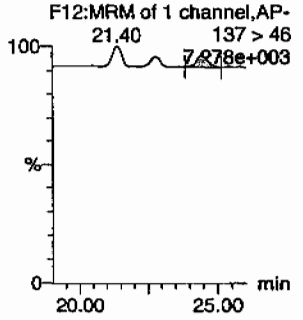

PETN

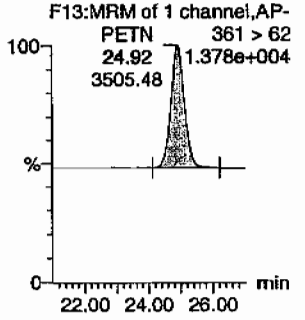

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.21	1132.865	3637.088	1132.865	155.738	bb			44.8450	112.1	12.1	170.9
WXX100208-08CRI	RDX	176 > 102	7.65	713.529	3637.088	713.529	98.091	bb			40.3974	101.0	1.0	93.3
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1173.815	3637.088	1173.815	161.367	bb			43.8135	109.5	9.5	193.8
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.20	3637.088		3637.088	3637.088	bb			565.7186	113.1	13.1	278.8
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.34	371.218	3637.088	371.218	51.032	bb			42.4422	106.1	6.1	32.1
WXX100208-08CRI	Tetryl	241 > 181	12.85	337.410	3637.088	337.410	46.385	bb			40.0506	100.1	0.1	25.8
WXX100208-08CRI	Nitrobenzene	123 > 46	13.79	216.078	3637.088	216.078	29.705	bb			36.7738	91.9	-8.1	17.3
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.94	445.232	20864.584	445.232	10.670	MM	10-Feb-10	09:13:47	37.1445	92.9	-7.1	24.2
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.83	658.821	20864.584	658.821	15.788	bb			39.8657	99.7	-0.3	32.7
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.63	506.976	20864.584	506.976	12.149	bb			37.6529	94.1	-5.9	22.7
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.63	805.661	20864.584	805.661	19.307	bb			21.4523	107.3	7.3	51.9
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.87	1859.565	20864.584	1859.565	44.563	MM	10-Feb-10	09:13:03	41.4889	103.7	3.7	155.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.54	404.009	20864.584	404.009	9.682	MM	10-Feb-10	09:07:27	39.6707	99.2	-0.8	29.4
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.70	20864.584		20864.584	20864.584	bb			565.1393	113.0	13.0	1872.1
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	244.201	20864.584	244.201	5.852	bb			37.7434	94.4	-5.6	60.9
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.79	123.975	20864.584	123.975	2.971	bb			39.0900	97.7	-2.3	29.1
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.45	165.831	20864.584	165.831	3.974	bb			42.6525	106.6	6.6	33.9
WXX100208-08CRI	PETN	361 > 62	24.92	3505.484	20864.584	3505.484	84.006	bb			41.0940	102.7	2.7	796.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/10/10
Time of Injection	0406
Standard Number	WXX100208-08CRI
Data File	EXP0208077a

HMX	112.1
RDX	101.0
135-TNB	109.5
13-DNB	106.1
Tetryl	100.1
Nitrobenzene	91.9
4A-26-DNT	92.9
2A-46-DNT	99.7
246-TNT	94.1
34-DNT(surr)	107.3
26-DNT	103.7
24-DNT	99.2
2-NT	94.4
4-NT	97.7
3-NT	106.6
PETN	102.7
Total	1619.0
Average	101.2

MOTT 2/10/10

Hmw 02/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208088a

Analysis Date: 10-FEB-10 09:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	606.731	101	
2,6-Dinitrotoluene	600	600.008	100	
2,6-Dinitrotoluene-d3	500	520.615	104	
2-Amino-4,6-dinitrotoluene	600	614.083	102	
3,4-Dinitrotoluene	300	347.135	116	
4-Amino-2,6-dinitrotoluene	600	606.995	101	
HMX	600	579.88	97	
Nitrobenzene	600	606.863	101	
PETN	600	627.526	105	
RDX	600	633.367	106	
Tetryl	600	602.321	100	
m-Dinitrobenzene	600	605.649	101	
m-Nitrotoluene	600	598.093	100	
o-Nitrotoluene	600	665.518	111	
p-Nitrotoluene	600	667.409	111	
1,3,5-Trinitrobenzene	600	541.95	90	
1,3-Dinitrobenzene-d4	500	565.857	113	
2,4,6-Trinitrotoluene	600	708.706	118	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208088a
Date: 10-Feb-2010
Time: 09:31:30
ID: WXX100208-07CCV
Vial: 1:1,B

MM 2/11/10

HMX

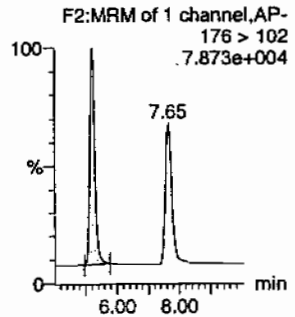

RDX

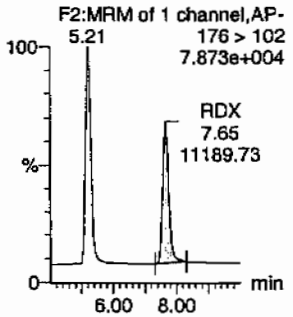

135-Trinitrobenzene

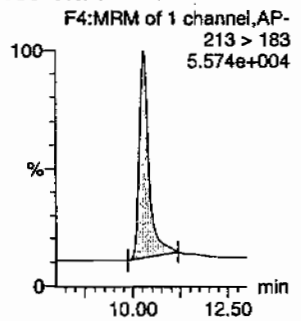

13-Dinitrobenzene-d4

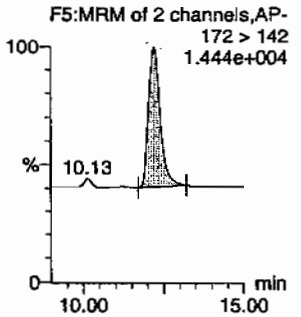

13-Dinitrobenzene

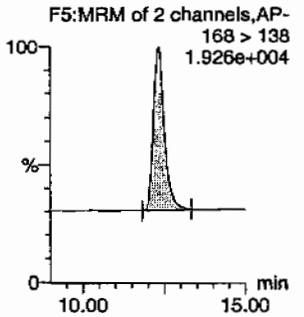

Tetryl

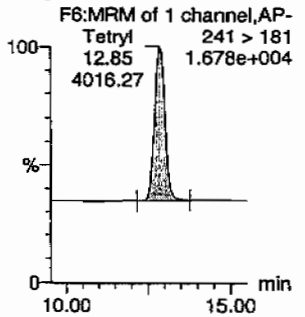

Nitrobenzene

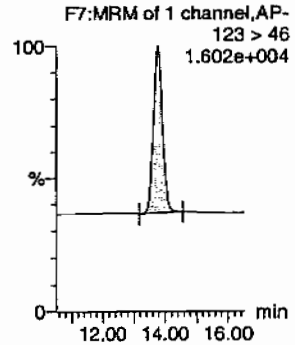

4-Amino-26-dinitrotoluene

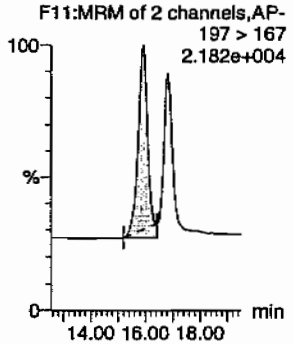

2-Amino-46-dinitrotoluene

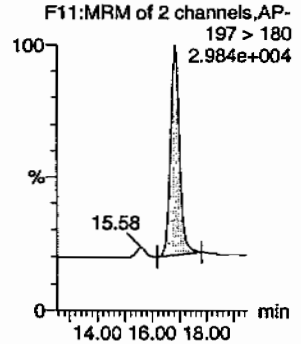

246-Trinitrotoluene

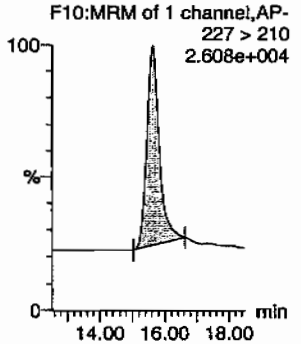

34-dinitrotoluene

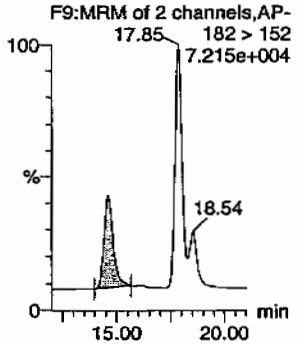

Hmc 02/11/10

26-dinitrotoluene

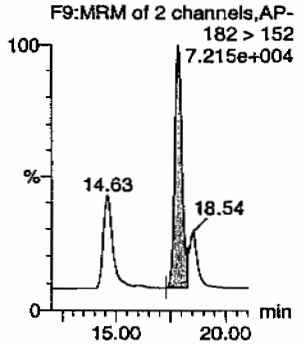

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

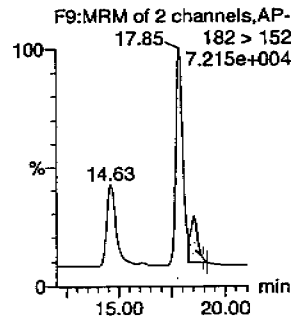

26-dinitrotoluene-d3

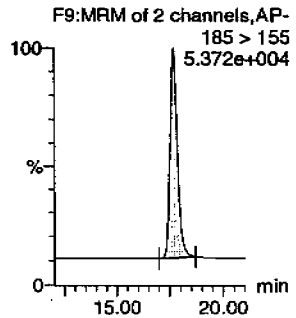

2-Nitrotoluene

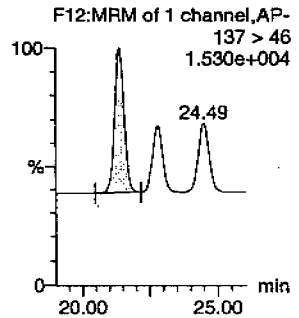

4-Nitrotoluene

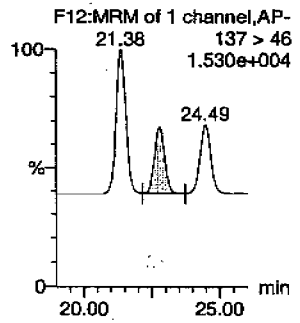

3-Nitrotoluene

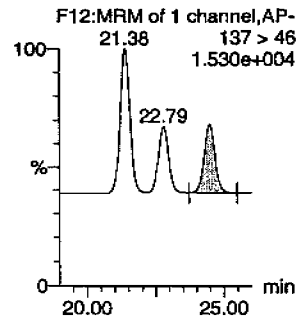

PETN

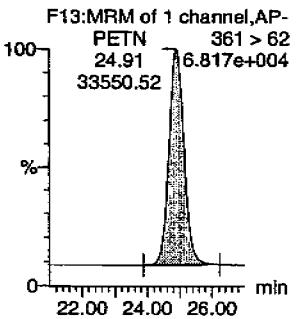

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.21	14652.377	3637.978	14652.377	2013.808	bb			579.8796	96.6	-3.4	2714.8
WXX100208-07CCV	RDX	176 > 102	7.65	11189.726	3637.978	11189.726	1537.905	bb			633.3665	105.6	5.6	1781.0
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	14523.040	3637.978	14523.040	1996.032	bb			541.9499	90.3	-9.7	563.5
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.20	3637.978		3637.978	3637.978	bb			565.8570	113.2	13.2	469.5
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	5298.564	3637.978	5298.564	728.229	bb			605.6486	100.9	0.9	921.9
WXX100208-07CCV	Tetryl	241 > 181	12.85	4016.270	3637.978	4016.270	551.992	bb			602.3214	100.4	0.4	449.6
WXX100208-07CCV	Nitrobenzene	123 > 46	13.79	3566.716	3637.978	3566.716	490.206	bb			606.8625	101.1	1.1	460.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.91	6702.521	19220.766	6702.521	174.356	MM	11-Feb-10	09:29:59	606.9950	101.2	1.2	645.3
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.83	9348.814	19220.766	9348.814	243.196	bb			614.0835	102.3	2.3	822.4
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.63	8790.558	19220.766	8790.558	228.673	bb			708.7063	118.1	18.1	490.0
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.63	12009.858	19220.766	12009.858	312.419	bb			347.1351	115.7	15.7	266.6
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.85	24774.061	19220.766	24774.061	644.461	MM	11-Feb-10	09:56:51	600.0075	100.0	0.0	715.2
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.54	5692.178	19220.766	5692.178	148.074	MM	11-Feb-10	10:04:27	606.7311	101.1	1.1	152.1
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.70	19220.766		19220.766	19220.766	bb			520.6148	104.1	4.1	1918.1
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.38	3966.684	19220.766	3966.684	103.187	bb			665.5185	110.9	10.9	439.7
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.79	1949.940	19220.766	1949.940	50.725	bb			667.4087	111.2	11.2	203.9
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.49	2142.158	19220.766	2142.158	55.725	bb			598.0932	99.7	-0.3	213.4
WXX100208-07CCV	PETN	361 > 62	24.91	33550.523	19220.766	33550.523	872.768	bb			627.5257	104.6	4.6	5599.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/10/10
Time of Injection: 0931
Standard Number: WXX100208-07CCV
Data File: EXP0208088a

HMX	96.6
RDX	105.6
135-TNB	90.3
13-DNB	100.9
Tetryl	100.4
Nitrobenzene	101.1
4A-26-DNT	101.2
2A-46-DNT	102.3
246-TNT	118.1
34-DNT(surr)	115.7
26-DNT	100.0
24-DNT	101.1
2-NT	110.9
4-NT	111.2
3-NT	99.7
PETN	104.6
Total	1659.7
Average	103.7

HMK 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208090a

Analysis Date: 10-FEB-10 10:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	39.025	98	
1,3-Dinitrobenzene-d4	500	604.965	121	
2,4,6-Trinitrotoluene	40	40.552	101	
2,4-Dinitrotoluene	40	36.402	91	
2,6-Dinitrotoluene	40	40.121	100	
2,6-Dinitrotoluene-d3	500	599.331	120	
2-Amino-4,6-dinitrotoluene	40	39.239	98	
3,4-Dinitrotoluene	20	21.64	108	
4-Amino-2,6-dinitrotoluene	40	37.109	93	
HMX	40	43.322	108	
Nitrobenzene	40	42.181	105	
PETN	40	34.532	86	
RDX	40	50.422	126	
Tetryl	40	35.418	89	
m-Dinitrobenzene	40	44.912	112	
m-Nitrotoluene	40	42.094	105	
o-Nitrotoluene	40	35.885	90	
p-Nitrotoluene	40	39.742	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208090a
Date: 10-Feb-2010
Time: 10:30:41
ID: WXX100208-08CRI
Vial: 1:1,C

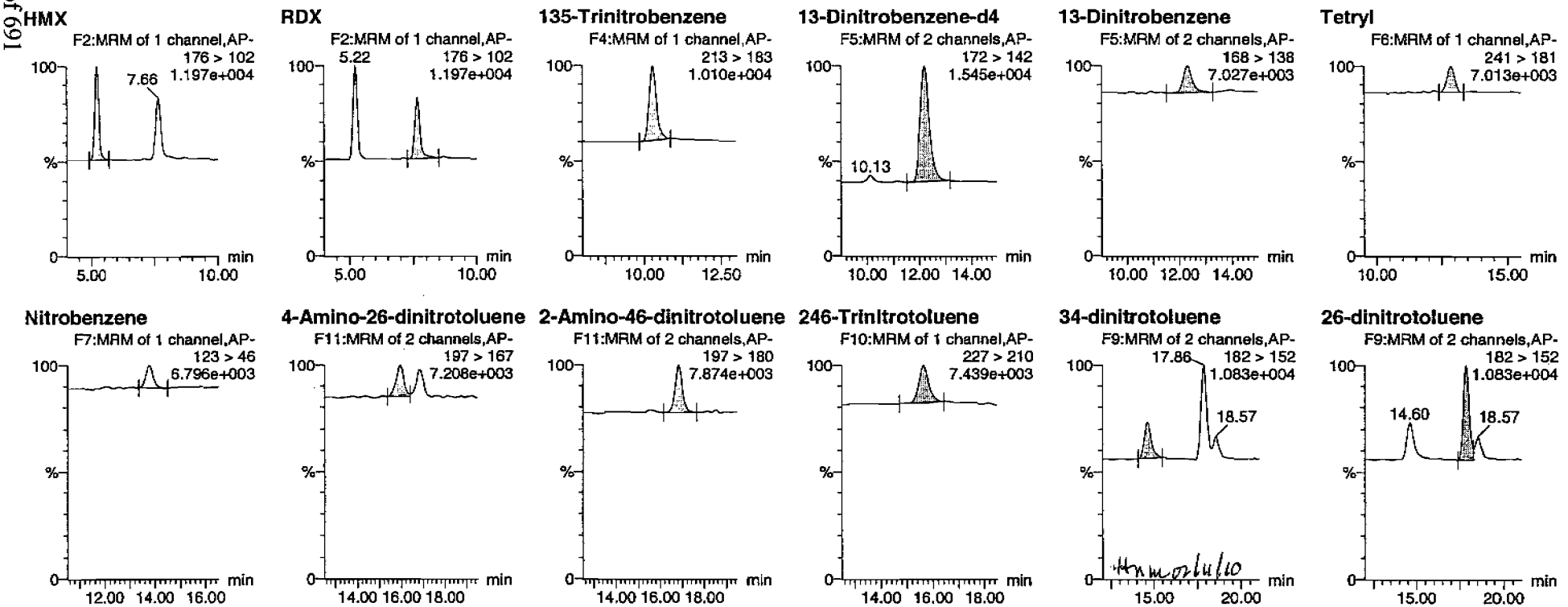

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

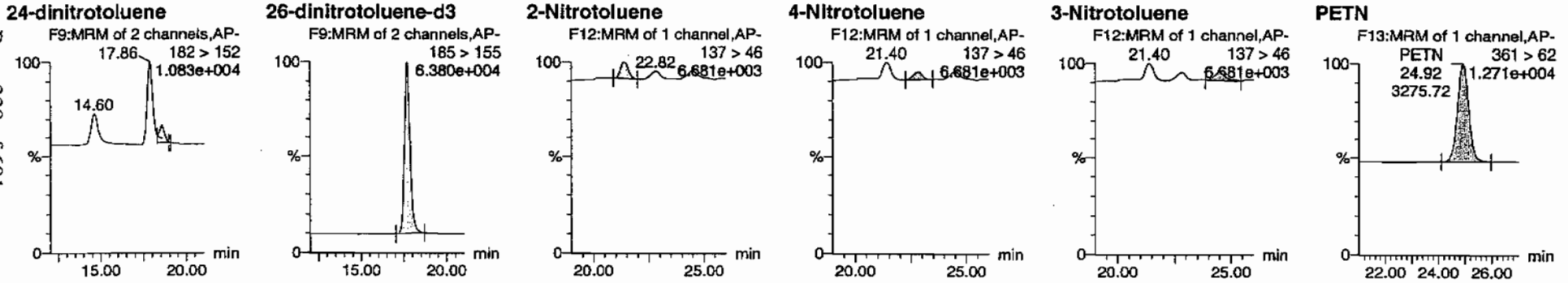

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.22	1170.302	3889.412	1170.302	150.447	bb			43.3215	108.3	8.3	180.4
WXX100208-08CRI	RDX	176 > 102	7.66	952.380	3889.412	952.380	122.432	bb			50.4222	126.1	26.1	117.0
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.28	1118.047	3889.412	1118.047	143.730	bb			39.0245	97.6	-2.4	121.4
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.21	3889.412		3889.412	3889.412	bb			604.9654	121.0	21.0	317.4
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.31	420.071	3889.412	420.071	54.002	bb			44.9119	112.3	12.3	59.5
WXX100208-08CRI	Tetryl	241 > 181	12.87	326.408	3889.412	326.408	41.961	bb			35.4178	88.5	-11.5	30.5
WXX100208-08CRI	Nitrobenzene	123 > 46	13.80	265.042	3889.412	265.042	34.072	bb			42.1806	105.5	5.5	27.2
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.95	471.715	22126.934	471.715	10.659	MM	11-Feb-10	09:29:49	37.1087	92.8	-7.2	31.2
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.84	687.696	22126.934	687.696	15.540	bb			39.2389	98.1	-1.9	58.8
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.64	579.040	22126.934	579.040	13.085	bb			40.5516	101.4	1.4	19.2
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.60	861.880	22126.934	861.880	19.476	bb			21.6400	108.2	8.2	20.7
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.86	1907.043	22126.934	1907.043	43.093	MM	11-Feb-10	09:57:00	40.1208	100.3	0.3	55.2
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.57	393.149	22126.934	393.149	8.884	MM	11-Feb-10	10:04:19	36.4019	91.0	-9.0	12.3
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.69	22126.934		22126.934	22126.934	bb			599.3314	119.9	19.9	1771.2
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.40	246.227	22126.934	246.227	5.564	bb			35.8854	89.7	-10.3	58.2
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.82	133.668	22126.934	133.668	3.020	bb			39.7418	99.4	-0.6	27.5
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.48	173.561	22126.934	173.561	3.922	bb			42.0939	105.2	5.2	29.3
WXX100208-08CRI	PETN	361 > 62	24.92	3275.725	22126.934	3275.725	74.021	bb			34.5321	86.3	-13.7	1180.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/10/10
Time of Injection	1030
Standard Number	WXX100208-08CRI
Data File	EXP0208090a

HMX	108.3
RDX	126.1
135-TNB	97.6
13-DNB	112.3
Tetryl	88.5
Nitrobenzene	105.5
4A-26-DNT	92.8
2A-46-DNT	98.1
246-TNT	101.4
34-DNT(surr)	108.2
26-DNT	100.3
24-DNT	91.0
2-NT	89.7
4-NT	99.4
3-NT	105.2
PETN	86.3
Total	1610.7
Average	100.7

HMW 2/11/10

HMW 2/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208100a

Analysis Date: 10-FEB-10 15:26

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	638.511	106	
m-Dinitrobenzene	600	612.801	102	
m-Nitrotoluene	600	608.261	101	
o-Nitrotoluene	600	723.623	121	*
p-Nitrotoluene	600	679.247	113	
1,3,5-Trinitrobenzene	600	588.141	98	
1,3-Dinitrobenzene-d4	500	493.709	99	
2,4,6-Trinitrotoluene	600	720.831	120	*
2,4-Dinitrotoluene	600	626.987	104	
2,6-Dinitrotoluene	600	612.193	102	
2,6-Dinitrotoluene-d3	500	468.676	94	
2-Amino-4,6-dinitrotoluene	600	680.607	113	
3,4-Dinitrotoluene	300	353.233	118	
4-Amino-2,6-dinitrotoluene	600	676.006	113	
HMX	600	642.868	107	
Nitrobenzene	600	663.429	111	
PETN	600	712.886	119	
RDX	600	779.218	130	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208100a
Date: 10-Feb-2010
Time: 15:26:15
ID: WXX100208-07CCV
Vial: 1:1,B

MMP 2/11/10

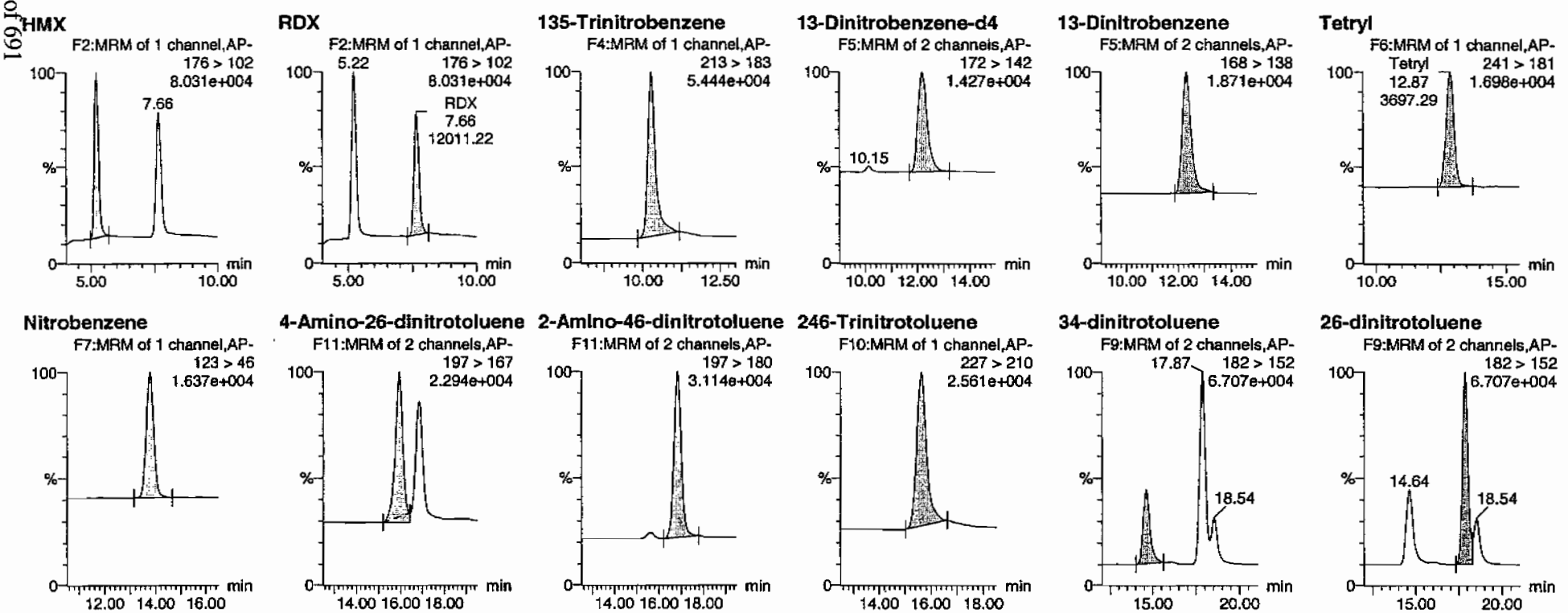

Hmw 02/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

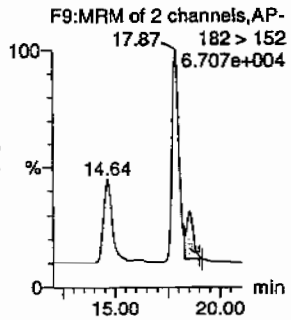

26-dinitrotoluene-d3

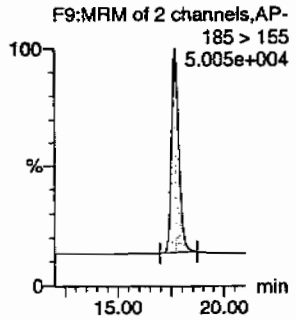

2-Nitrotoluene

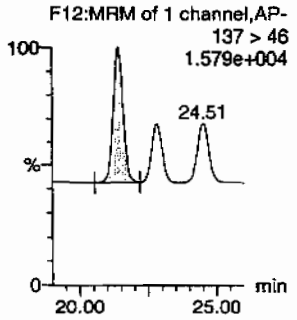

4-Nitrotoluene

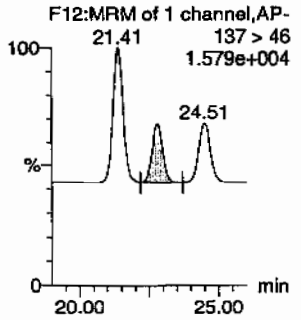

3-Nitrotoluene

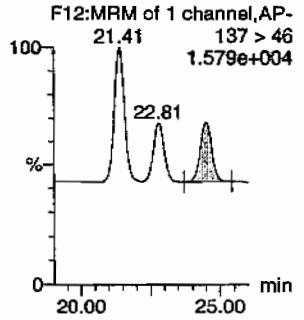

PETN

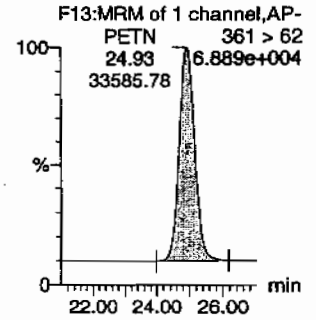

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.22	14172.824	3174.126	14172.824	2232.555	bb			642.8683	107.1	7.1	391.5
WXX100208-07CCV	RDX	176 > 102	7.66	12011.224	3174.126	12011.224	1892.052	bb			779.2177	129.9	29.9	292.2
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.28	13751.309	3174.126	13751.309	2166.157	bb			588.1412	98.0	-2.0	1601.3
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.21	3174.126		3174.126	3174.126	bb			493.7087	98.7	-1.3	212.7
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.34	4677.580	3174.126	4677.580	736.830	bb			612.8013	102.1	2.1	238.3
WXX100208-07CCV	Tetryl	241 > 181	12.87	3697.288	3174.126	3697.288	582.410	bb			638.5111	106.4	6.4	239.2
WXX100208-07CCV	Nitrobenzene	123 > 46	13.80	3402.021	3174.126	3402.021	535.899	bb			663.4293	110.6	10.6	356.5
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.94	6719.862	17303.232	6719.862	194.179	MM	11-Feb-10	09:29:13	676.0063	112.7	12.7	276.8
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.83	9327.860	17303.232	9327.860	269.541	bb			680.6069	113.4	13.4	465.7
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.63	8048.966	17303.232	8048.966	232.586	bb			720.8309	120.1	20.1	368.6
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.64	11001.619	17303.232	11001.619	317.906	bb			353.2325	117.7	17.7	332.1
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.87	22755.434	17303.232	22755.434	657.549	MM	11-Feb-10	09:57:14	612.1926	102.0	2.0	869.5
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.54	5295.381	17303.232	5295.381	153.017	MM	11-Feb-10	10:03:46	626.9869	104.5	4.5	195.9
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.70	17303.232		17303.232	17303.232	bb			468.6763	93.7	-6.3	1751.0
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.41	3882.721	17303.232	3882.721	112.196	bb			723.6227	120.6	20.6	173.9
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.81	1786.544	17303.232	1786.544	51.625	bb			679.2471	113.2	13.2	77.1
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.51	1961.233	17303.232	1961.233	56.672	bb			608.2610	101.4	1.4	77.5
WXX100208-07CCV	PETN	361 > 62	24.93	33585.777	17303.232	33585.777	970.506	bb			712.8864	118.8	18.8	9746.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/10/10
Time of Injection: 1526
Standard Number: WXX100208-07CCV
Data File: EXP0208100a

HMX	107.1
RDX	129.9
135-TNB	98.0
13-DNB	102.1
Tetryl	106.4
Nitrobenzene	110.6
4A-26-DNT	112.7
2A-46-DNT	113.4
246-TNT	120.1
34-DNT(surr)	117.7
26-DNT	102.0
24-DNT	104.5
2-NT	120.6
4-NT	113.2
3-NT	101.4
PETN	118.8
Total	1778.5
Average	111.2

MMP 2/11/10

Hmacon 2/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208102a

Analysis Date: 10–FEB–10 16:25

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2–Amino–4,6–dinitrotoluene	40	39.187	98	
3,4–Dinitrotoluene	20	23.623	118	
4–Amino–2,6–dinitrotoluene	40	45.282	113	
HMX	40	50.098	125	
Nitrobenzene	40	41.549	104	
PETN	40	52.922	132	*
RDX	40	49.375	123	
Tetryl	40	43.062	108	
m–Dinitrobenzene	40	46.526	116	
m–Nitrotoluene	40	50.438	126	
o–Nitrotoluene	40	44.438	111	
p–Nitrotoluene	40	54.684	137	*
1,3,5–Trinitrobenzene	40	51.131	128	
1,3–Dinitrobenzene–d4	500	552.166	110	
2,4,6–Trinitrotoluene	40	40.399	101	
2,4–Dinitrotoluene	40	39.25	98	
2,6–Dinitrotoluene	40	40.673	102	
2,6–Dinitrotoluene–d3	500	556.942	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208102a
Date: 10-Feb-2010
Time: 16:25:24
ID: WXX100208-08CRI
Vial: 1:1,C

MMT 2/11/10

HMX

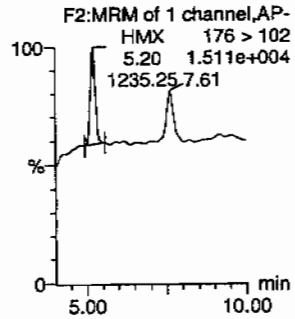

RDX

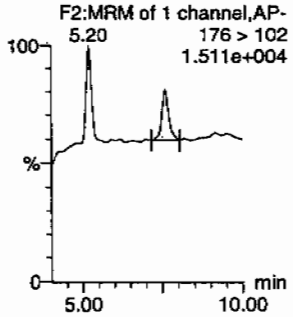

135-Trinitrobenzene

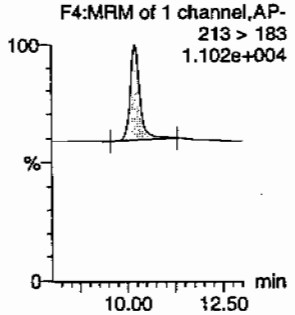

13-Dinitrobenzene-d4

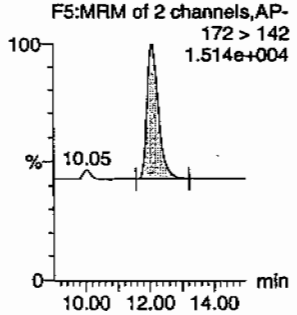

13-Dinitrobenzene

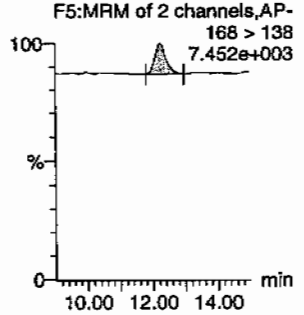

Tetryl

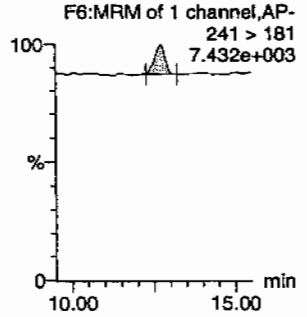

Nitrobenzene

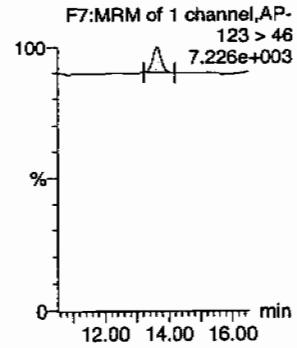

4-Amino-26-dinitrotoluene

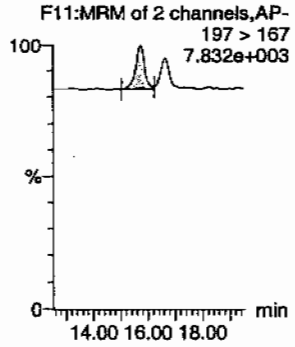

2-Amino-46-dinitrotoluene

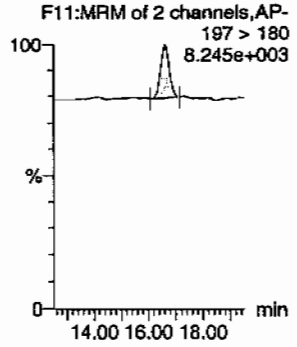

246-Trinitrotoluene

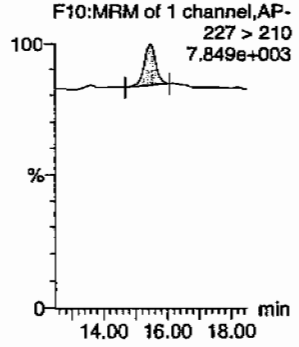

34-dinitrotoluene

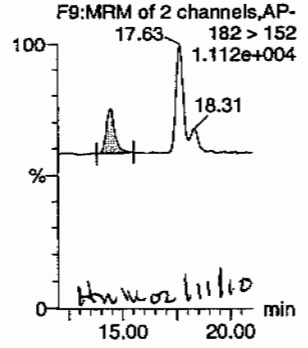

26-dinitrotoluene

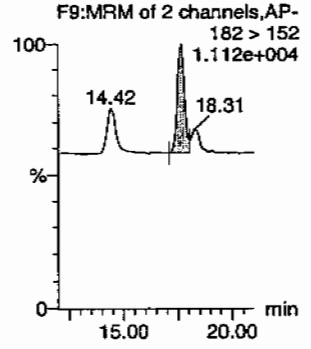

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

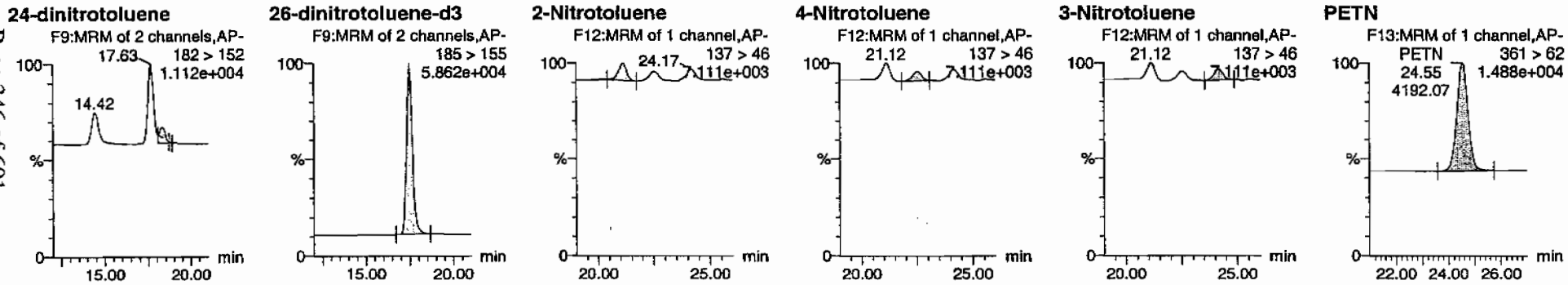

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%dDev	S/N
WXX100208-08CRI	HMX	176 > 102	5.20	1235.246	3549.957	1235.246	173.980	bb			50.0980	125.2	25.2	49.5
WXX100208-08CRI	RDX	176 > 102	7.61	851.198	3549.957	851.198	119.888	bb			49.3746	123.4	23.4	25.8
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.21	1337.041	3549.957	1337.041	188.318	bb			51.1309	127.8	27.8	114.5
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.10	3549.957		3549.957	3549.957	bb			552.1661	110.4	10.4	439.4
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.24	397.188	3549.957	397.188	55.943	bb			46.5260	116.3	16.3	33.2
WXX100208-08CRI	Tetryl	241 > 181	12.73	349.726	3549.957	349.726	49.258	bb			43.0620	107.7	7.7	8.0
WXX100208-08CRI	Nitrobenzene	123 > 46	13.62	238.288	3549.957	238.288	33.562	bb			41.5490	103.9	3.9	23.1
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	534.904	20561.957	534.904	13.007	MM	11-Feb-10	09:29:08	45.2824	113.2	13.2	36.3
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	638.216	20561.957	638.216	15.519	bb			39.1873	98.0	-2.0	70.0
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.48	536.058	20561.957	536.058	13.035	bb			40.3987	101.0	1.0	34.2
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.42	874.296	20561.957	874.296	21.260	bb			23.6225	118.1	18.1	53.8
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.63	1796.544	20561.957	1796.544	43.686	MM	11-Feb-10	09:57:21	40.6728	101.7	1.7	132.7
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.31	393.929	20561.957	393.929	9.579	MM	11-Feb-10	10:03:38	39.2502	98.1	-1.9	27.1
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	20561.957		20561.957	20561.957	bb			556.9424	111.4	11.4	1502.8
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.12	283.344	20561.957	283.344	6.890	bb			44.4378	111.1	11.1	16.6
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.52	170.915	20561.957	170.915	4.156	bb			54.6836	136.7	36.7	8.9
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.17	193.256	20561.957	193.256	4.699	bb			50.4379	126.1	26.1	10.4
WXX100208-08CRI	PETN	361 > 62	24.55	4192.072	20561.957	4192.072	101.938	bb			52.9217	132.3	32.3	95.8

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/10/10
Time of Injection	1625
Standard Number	WXX100208-08CRI
Data File	EXP0208102a

HMX	125.2
RDX	123.4
135-TNB	127.8
13-DNB	116.3
Tetryl	107.7
Nitrobenzene	103.9
4A-26-DNT	113.2
2A-46-DNT	98.0
246-TNT	101.0
34-DNT(surr)	118.1
26-DNT	101.7
24-DNT	98.1
2-NT	111.1
4-NT	136.7
3-NT	126.1
PETN	132.3
Total	1840.6
Average	115.0

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208113a

Analysis Date: 10–FEB–10 21:49

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	530.336	88	
1,3–Dinitrobenzene–d4	500	544.446	109	
2,4,6–Trinitrotoluene	600	662.584	110	
2,4–Dinitrotoluene	600	622.26	104	
2,6–Dinitrotoluene	600	605.94	101	
2,6–Dinitrotoluene–d3	500	509.3	102	
2–Amino–4,6–dinitrotoluene	600	677.413	113	
3,4–Dinitrotoluene	300	360.847	120	*
4–Amino–2,6–dinitrotoluene	600	606.515	101	
HMX	600	457.053	76	*
Nitrobenzene	600	682.529	114	
PETN	600	766.444	128	*
RDX	600	531.11	89	
Tetryl	600	667.741	111	
m–Dinitrobenzene	600	605.726	101	
m–Nitrotoluene	600	571.845	95	
o–Nitrotoluene	600	710.721	118	
p–Nitrotoluene	600	645.626	108	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208113a
Date: 10-Feb-2010
Time: 21:49:41
ID: WXX100208-07CCV
Vial: 1:1,B

MMP 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.201e+004

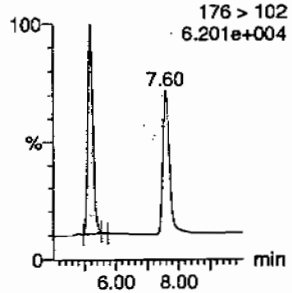

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.201e+004

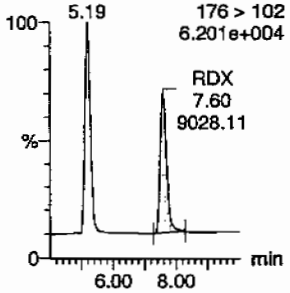

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.387e+004

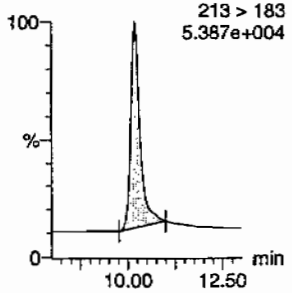

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.446e+004

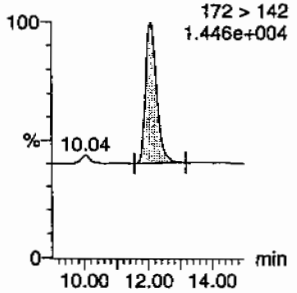

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.905e+004

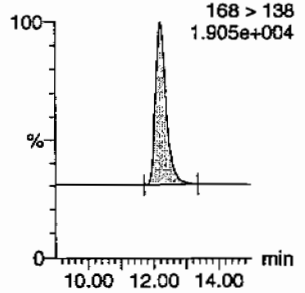

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.760e+004

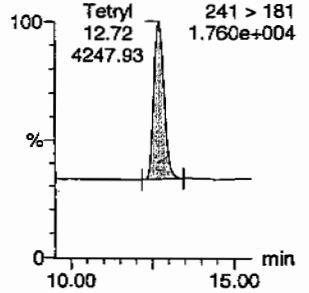

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.682e+004

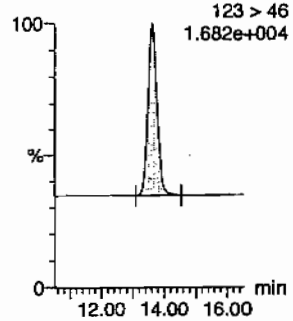

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.218e+004

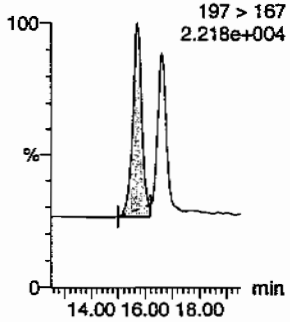

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.130e+004

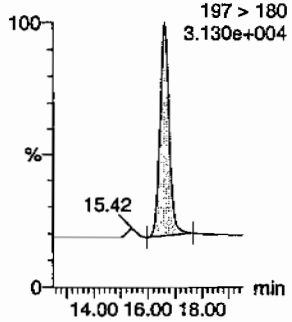

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.365e+004

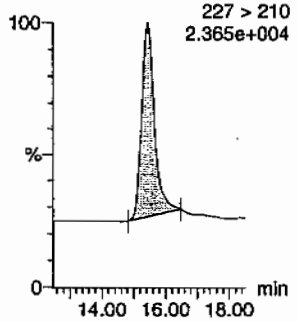

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.099e+004

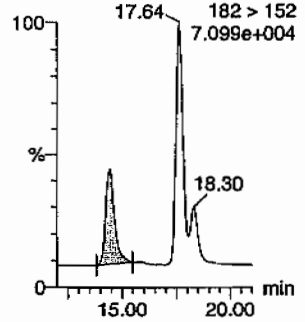

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.099e+004

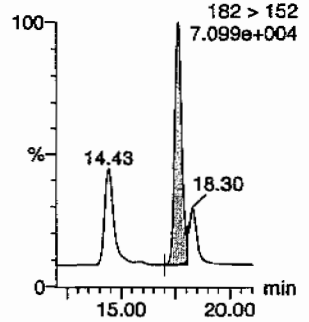

HMM 02/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

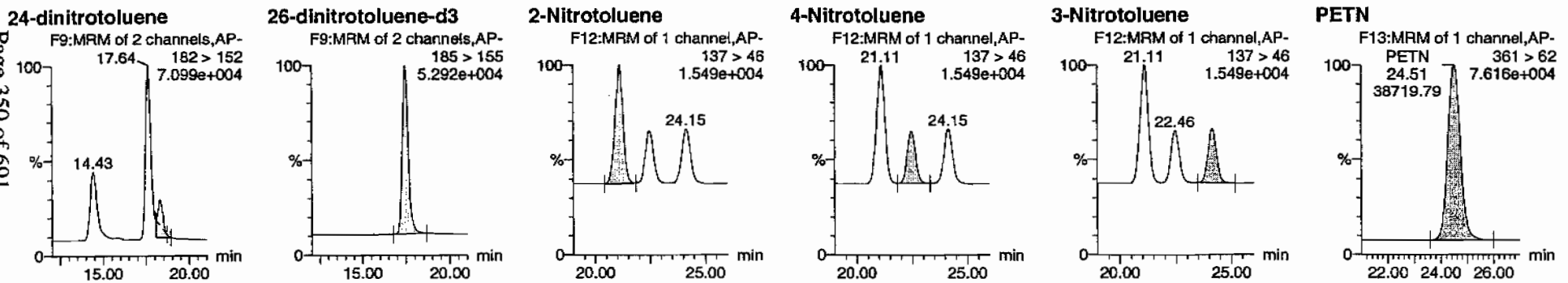

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.19	11111.813	3500.323	11111.813	1587.255	MM	11-Feb-10	09:22:41	457.0530	76.2	-23.8	909.8
WXX100208-07CCV	RDX	176 > 102	7.60	9028.113	3500.323	9028.113	1289.611	bb			531.1101	88.5	-11.5	624.4
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.19	13674.052	3500.323	13674.052	1953.256	bb			530.3356	88.4	-11.6	1522.7
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3500.323		3500.323	3500.323	bb			544.4459	108.9	8.9	256.5
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.20	5098.727	3500.323	5098.727	728.322	bb			605.7261	101.0	1.0	348.3
WXX100208-07CCV	Tetryl	241 > 181	12.72	4247.931	3500.323	4247.931	606.791	bb			667.7411	111.3	11.3	340.8
WXX100208-07CCV	Nitrobenzene	123 > 46	13.63	3859.643	3500.323	3859.643	551.327	bb			682.5286	113.8	13.8	424.7
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	6551.677	18803.047	6551.677	174.218	MM	11-Feb-10	09:28:18	606.5155	101.1	1.1	227.0
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	10088.809	18803.047	10088.809	268.276	bb			677.4125	112.9	12.9	1285.0
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.45	8039.858	18803.047	8039.858	213.791	bb			662.5836	110.4	10.4	1020.2
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.43	12212.950	18803.047	12212.950	324.760	bb			360.8475	120.3	20.3	403.2
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.64	24475.283	18803.047	24475.283	650.833	MM	11-Feb-10	09:58:14	605.9401	101.0	1.0	1031.4
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.30	5710.992	18803.047	5710.992	151.863	MM	11-Feb-10	10:02:38	622.2599	103.7	3.7	227.7
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	18803.047		18803.047	18803.047	bb			509.3004	101.9	1.9	2065.5
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.11	4144.045	18803.047	4144.045	110.196	bb			710.7215	118.5	18.5	1154.1
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.46	1845.305	18803.047	1845.305	49.069	bb			645.6263	107.6	7.6	501.6
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.15	2003.635	18803.047	2003.635	53.280	bb			571.8451	95.3	-4.7	521.6
WXX100208-07CCV	PETN	361 > 62	24.51	38719.785	18803.047	38719.785	1029.615	bb			766.4443	127.7	27.7	6959.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/10/10
Time of Injection: 2149
Standard Number: WXX100208-07CCV
Data File: EXP0208113a

HMX	76.2
RDX	88.5
135-TNB	88.4
13-DNB	101.0
Tetryl	111.3
Nitrobenzene	113.8
4A-26-DNT	101.1
2A-46-DNT	112.9
246-TNT	110.4
34-DNT(surr)	120.3
26-DNT	101.0
24-DNT	103.7
2-NT	118.5
4-NT	107.6
3-NT	95.3
PETN	127.7
Total	1677.7
Average	104.9

MJT 2/11/10

HM 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208115a

Analysis Date: 10-FEB-10 22:48

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	44.813	112	
1,3,5-Trinitrobenzene	40	53.258	133	*
1,3-Dinitrobenzene-d4	500	607.853	122	
2,4,6-Trinitrotoluene	40	34.757	87	
2,4-Dinitrotoluene	40	40.974	102	
2,6-Dinitrotoluene	40	39.436	99	
2,6-Dinitrotoluene-d3	500	647.378	129	
2-Amino-4,6-dinitrotoluene	40	50.465	126	
3,4-Dinitrotoluene	20	21.441	107	
4-Amino-2,6-dinitrotoluene	40	44.161	110	
HMX	40	41.129	103	
Nitrobenzene	40	45.384	113	
PETN	40	35.443	89	
RDX	40	28.151	70	
Tetryl	40	44.571	111	
m-Dinitrobenzene	40	32.285	81	
m-Nitrotoluene	40	41.138	103	
o-Nitrotoluene	40	42.41	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208115a
Date: 10-Feb-2010
Time: 22:48:43
ID: WXX100208-08CRI
Vial: 1:1,C

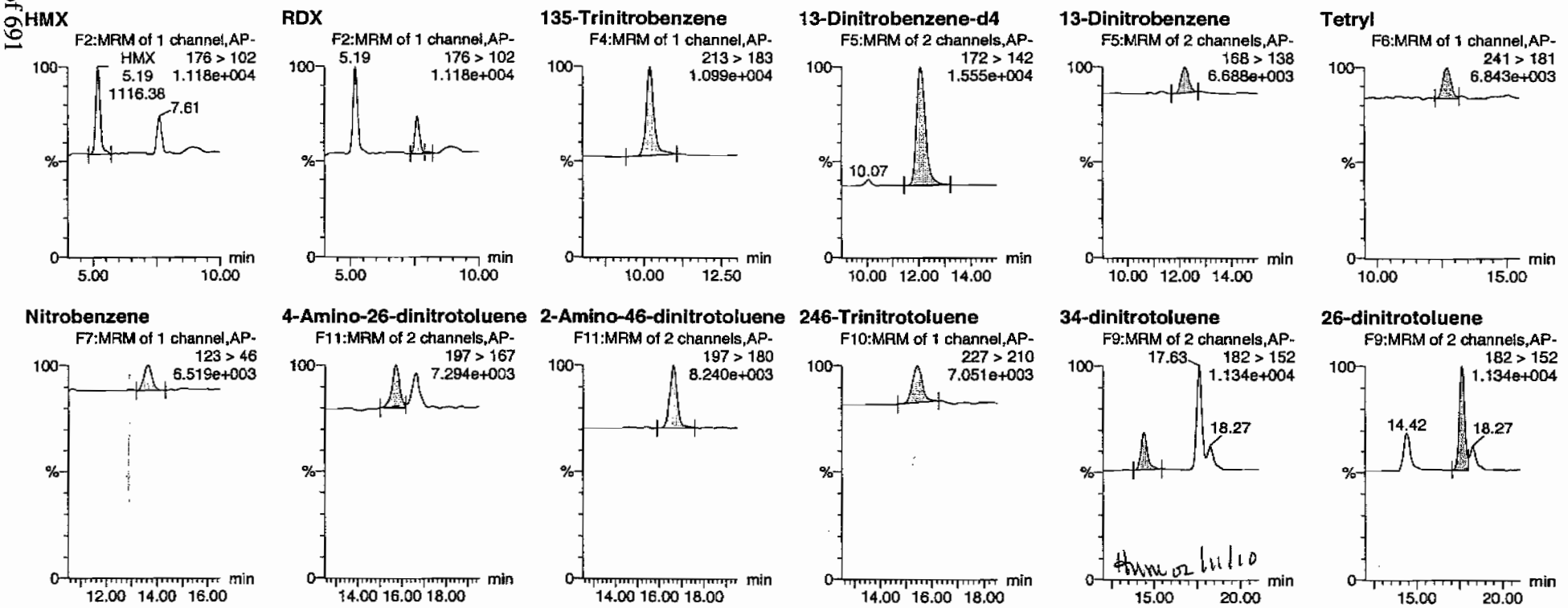

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

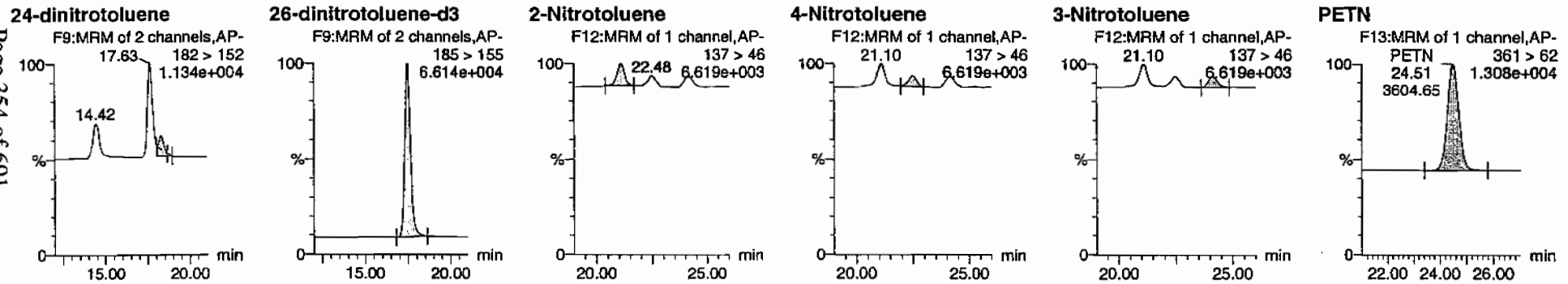

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.19	1116.380	3907.975	1116.380	142.834	bb			41.1292	102.8	2.8	133.9
WXX100208-08CRI	RDX	176 > 102	7.61	534.263	3907.975	534.263	68.355	MM	11-Feb-10	09:23:36	28.1513	70.4	-29.6	58.7
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.20	1533.123	3907.975	1533.123	196.153	bb			53.2583	133.1	33.1	211.6
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3907.975		3907.975	3907.975	bb			607.8528	121.6	21.6	220.2
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.21	303.410	3907.975	303.410	38.819	bb			32.2850	80.7	-19.3	49.5
WXX100208-08CRI	Tetryl	241 > 181	12.73	396.242	3907.975	396.242	50.697	bd			44.5708	111.4	11.4	33.5
WXX100208-08CRI	Nitrobenzene	123 > 46	13.62	286.530	3907.975	286.530	36.660	bb			45.3837	113.5	13.5	28.8
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	606.369	23900.779	606.369	12.685	MM	11-Feb-10	09:28:06	44.1614	110.4	10.4	46.6
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	955.349	23900.779	955.349	19.986	bb			50.4651	126.2	26.2	164.9
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.44	536.077	23900.779	536.077	11.215	bb			34.7565	86.9	-13.1	34.5
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.42	922.433	23900.779	922.433	19.297	bb			21.4414	107.2	7.2	73.6
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.63	2024.771	23900.779	2024.771	42.358	MM	11-Feb-10	09:58:21	39.4361	98.6	-1.4	202.5
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.27	478.002	23900.779	478.002	10.000	MM	11-Feb-10	10:02:28	40.9738	102.4	2.4	43.1
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.46	23900.779		23900.779	23900.779	bb			647.3779	129.5	29.5	4032.5
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.10	314.324	23900.779	314.324	6.576	bb			42.4100	106.0	6.0	34.3
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.48	162.806	23900.779	162.806	3.406	bb			44.8126	112.0	12.0	17.1
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.15	183.219	23900.779	183.219	3.833	bb			41.1383	102.8	2.8	16.7
WXX100208-08CRI	PETN	361 > 62	24.51	3604.646	23900.779	3604.646	75.409	bb			35.4428	88.6	-11.4	670.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/10/10
Time of Injection	2248
Standard Number	WXX100208-08CRI
Data File	EXP0208115a

HMX	102.8
RDX	70.4
135-TNB	133.1
13-DNB	80.7
Tetryl	111.4
Nitrobenzene	113.5
4A-26-DNT	110.4
2A-46-DNT	126.2
246-TNT	86.9
34-DNT(surr)	107.2
26-DNT	98.6
24-DNT	102.4
2-NT	106.0
4-NT	112.0
3-NT	102.8
PETN	88.6
Total	1653.0
Average	103.3

MAT 2/11/10

Hmm 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208120a

Analysis Date: 11-FEB-10 01:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	584.444	117	
2-Amino-4,6-dinitrotoluene	600	681.8	114	
3,4-Dinitrotoluene	300	325.104	108	
4-Amino-2,6-dinitrotoluene	600	602.251	100	
HMX	600	566.092	94	
Nitrobenzene	600	695.908	116	
PETN	600	664	111	
RDX	600	639.449	107	
Tetryl	600	673.554	112	
m-Dinitrobenzene	600	598.675	100	
m-Nitrotoluene	600	443.701	74	*
o-Nitrotoluene	600	445.632	74	*
p-Nitrotoluene	600	466.419	78	*
1,3,5-Trinitrobenzene	600	597.957	100	
1,3-Dinitrobenzene-d4	500	521.607	104	
2,4,6-Trinitrotoluene	600	672.377	112	
2,4-Dinitrotoluene	600	600.43	100	
2,6-Dinitrotoluene	600	601.181	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208120a
Date: 11-Feb-2010
Time: 01:16:10
ID: WXX100208-07CCV
Vial: 1:1,B

MM 4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.014e+004

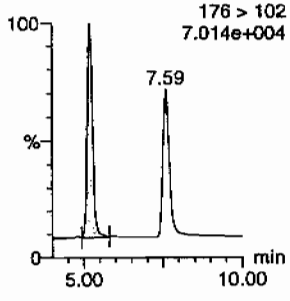

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.014e+004

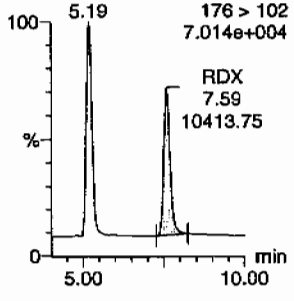

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.766e+004

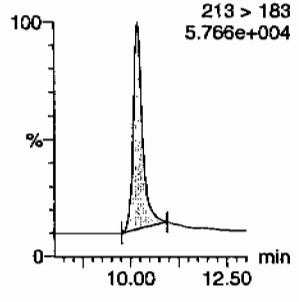

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.371e+004

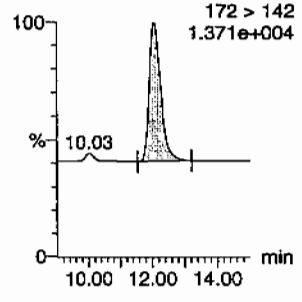

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.831e+004

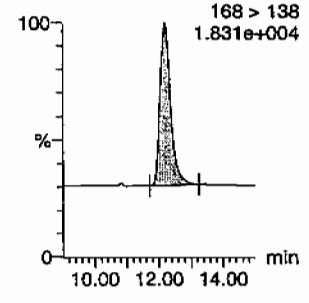

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.683e+004

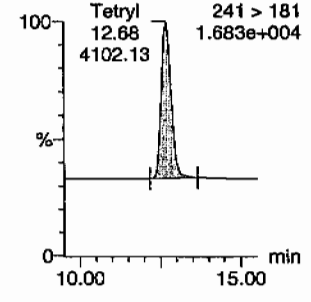

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.645e+004

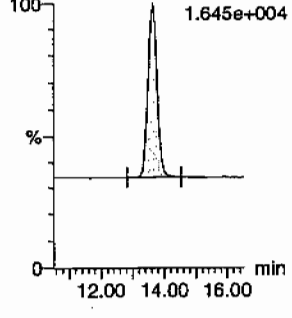

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.354e+004

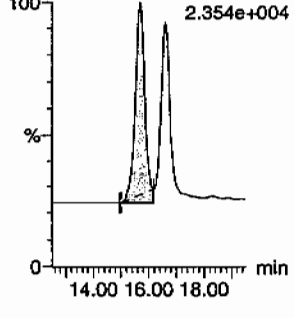

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.553e+004

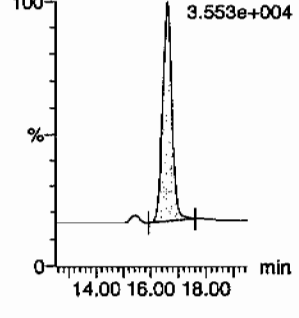

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.675e+004

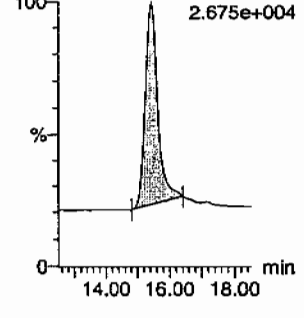

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.941e+004

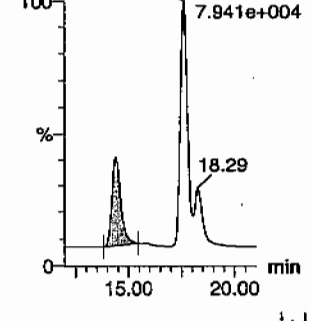

HMW 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.941e+004

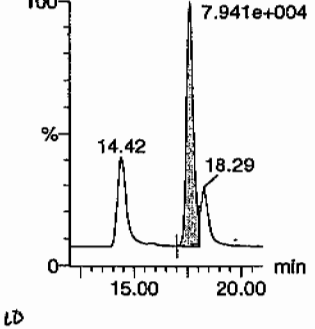

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

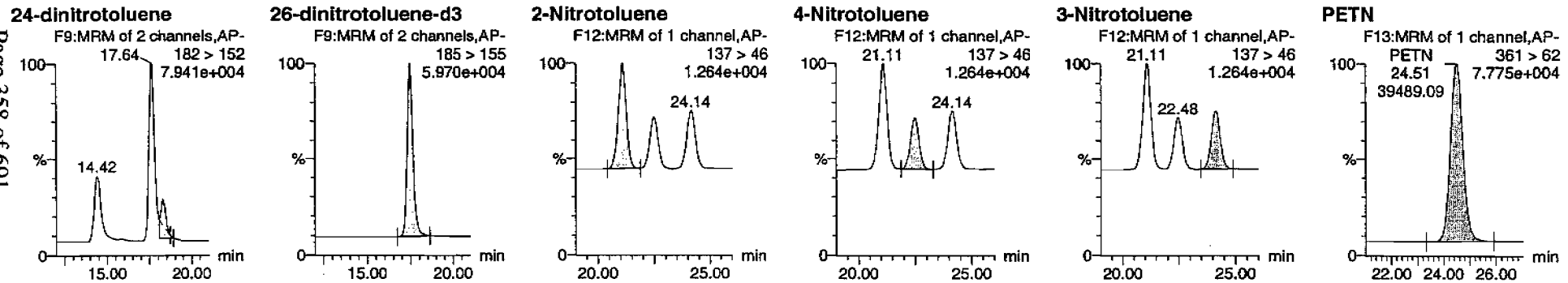

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.19	13185.422	3353.490	13185.422	1965.925	dd			566.0917	94.3	-5.7	1010.4
WXX100208-07CCV	RDX	176 > 102	7.59	10413.745	3353.490	10413.745	1552.673	bb			639.4486	106.6	6.6	694.8
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.20	14770.832	3353.490	14770.832	2202.307	bb			597.9566	99.7	-0.3	1118.6
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3353.490		3353.490	3353.490	bb			521.6073	104.3	4.3	344.2
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.21	4827.981	3353.490	4827.981	719.844	bb			598.6751	99.8	-0.2	372.3
WXX100208-07CCV	Tetryl	241 > 181	12.68	4102.125	3353.490	4102.125	611.620	bb			673.5545	112.3	12.3	228.0
WXX100208-07CCV	Nitrobenzene	123 > 46	13.62	3770.225	3353.490	3770.225	562.135	bb			695.9084	116.0	16.0	468.0
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	7465.469	21577.291	7465.469	172.994	MM	11-Feb-10	09:27:53	602.2514	100.4	0.4	1334.8
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11652.317	21577.291	11652.317	270.013	bb			681.7999	113.6	13.6	680.2
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.44	9362.438	21577.291	9362.438	216.951	bb			672.3766	112.1	12.1	499.2
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.42	12626.653	21577.291	12626.653	292.591	bb			325.1043	108.4	8.4	639.4
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.64	27865.813	21577.291	27865.813	645.721	MM	11-Feb-10	09:58:30	601.1806	100.2	0.2	1762.8
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.29	6323.689	21577.291	6323.689	146.536	MM	11-Feb-10	10:02:17	600.4296	100.1	0.1	383.4
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	21577.291		21577.291	21577.291	bb			584.4438	116.9	16.9	1252.0
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.11	2981.742	21577.291	2981.742	69.094	bb			445.6320	74.3	-25.7	863.7
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.48	1529.789	21577.291	1529.789	35.449	bb			466.4187	77.7	-22.3	428.9
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.14	1784.019	21577.291	1784.019	41.340	bb			443.7012	74.0	-26.0	480.8
WXX100208-07CCV	PETN	361 > 62	24.51	39489.086	21577.291	39489.086	915.061	bb			663.9997	110.7	10.7	8570.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/11/10
Time of Injection: 0116
Standard Number: WXX100208-07CCV
Data File: EXP0208120a

HMX	94.3
RDX	106.6
135-TNB	99.7
13-DNB	99.8
Tetryl	112.3
Nitrobenzene	116.0
4A-26-DNT	100.4
2A-46-DNT	113.6
246-TNT	112.1
34-DNT(surr)	108.4
26-DNT	100.2
24-DNT	100.1
2-NT	74.3
4-NT	77.7
3-NT	74.0
PETN	110.7
Total	1600.2
Average	100.0

MH 2/11/10

HMW 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208122a

Analysis Date: 11–FEB–10 02:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	54.242	136	*
1,3–Dinitrobenzene–d4	500	481.604	96	
2,4,6–Trinitrotoluene	40	39.518	99	
2,4–Dinitrotoluene	40	34.151	85	
2,6–Dinitrotoluene	40	39.253	98	
2,6–Dinitrotoluene–d3	500	559.761	112	
2–Amino–4,6–dinitrotoluene	40	40.238	101	
3,4–Dinitrotoluene	20	23.425	117	
4–Amino–2,6–dinitrotoluene	40	39.856	100	
HMX	40	45.073	113	
Nitrobenzene	40	45.235	113	
PETN	40	55.232	138	*
RDX	40	38.842	97	
Tetryl	40	46.548	116	
m–Dinitrobenzene	40	42.593	106	
m–Nitrotoluene	40	29.791	74	
o–Nitrotoluene	40	36.689	92	
p–Nitrotoluene	40	37.057	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208122a
Date: 11-Feb-2010
Time: 02:15:12
ID: WXX100208-08CRI
Vial: 1:1,C

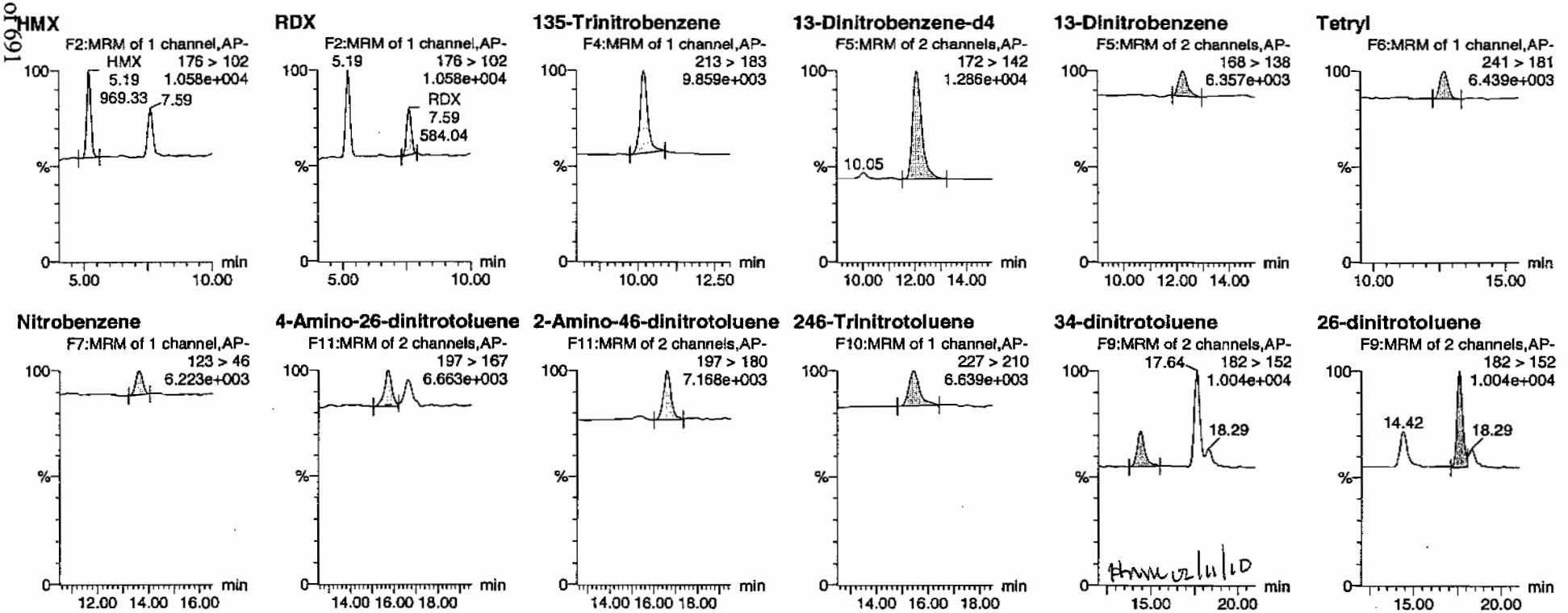

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Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

24-dinitrotoluene

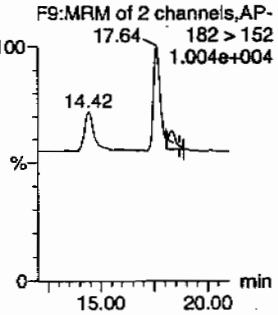

26-dinitrotoluene-d3

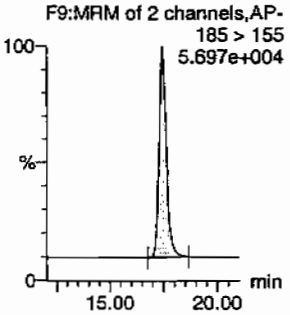

2-Nitrotoluene

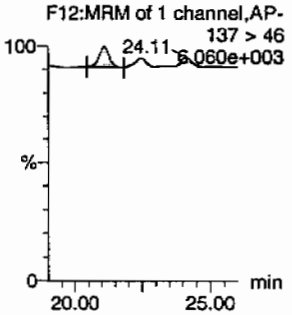

4-Nitrotoluene

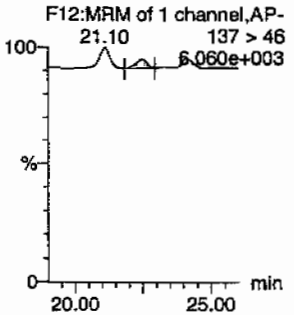

3-Nitrotoluene

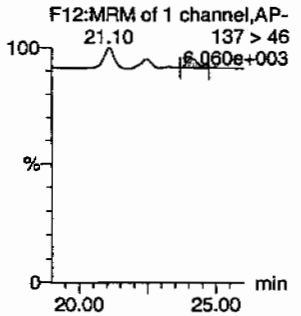

PETN

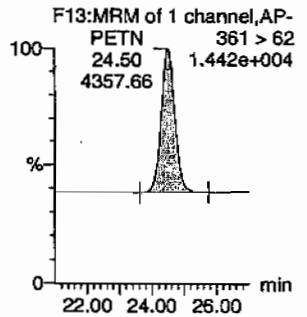

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.19	969.325	3096.302	969.325	156.529	bb			45.0729	112.7	12.7	123.6
WXX100208-08CRI	RDX	176 > 102	7.59	584.042	3096.302	584.042	94.313	bb			38.8415	97.1	-2.9	66.7
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.18	1237.129	3096.302	1237.129	199.775	bb			54.2417	135.6	35.6	118.4
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3096.302		3096.302	3096.302	bb			481.6038	96.3	-3.7	264.7
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.24	317.146	3096.302	317.146	51.214	bb			42.5930	106.5	6.5	61.6
WXX100208-08CRI	Tetryl	241 > 181	12.68	325.616	3096.302	325.616	52.581	bb			46.5480	116.4	16.4	51.6
WXX100208-08CRI	Nitrobenzene	123 > 46	13.62	226.274	3096.302	226.274	36.539	bb			45.2349	113.1	13.1	18.5
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	473.189	20666.025	473.189	11.448	MM	11-Feb-10	09:27:41	39.8561	99.6	-0.4	30.6
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	658.648	20666.025	658.648	15.936	bb			40.2381	100.6	0.6	63.8
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.44	527.022	20666.025	527.022	12.751	bb			39.5178	98.8	-1.2	64.8
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.42	871.385	20666.025	871.385	21.083	bb			23.4253	117.1	17.1	39.2
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.64	1742.586	20666.025	1742.586	42.161	MM	11-Feb-10	09:58:36	39.2525	98.1	-1.9	102.8
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.29	344.484	20666.025	344.484	8.335	MM	11-Feb-10	10:02:04	34.1508	85.4	-14.6	18.6
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.46	20666.025		20666.025	20666.025	bb			559.7612	112.0	12.0	1670.7
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.10	235.119	20666.025	235.119	5.689	bb			36.6888	91.7	-8.3	23.5
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.46	116.410	20666.025	116.410	2.816	bb			37.0574	92.6	-7.4	10.4
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.11	114.724	20666.025	114.724	2.776	bb			29.7910	74.5	-25.5	10.6
WXX100208-08CRI	PETN	361 > 62	24.50	4357.663	20666.025	4357.663	105.431	bb			55.2320	138.1	38.1	1085.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/11/10
Time of Injection	0215
Standard Number	WXX100208-08CRI
Data File	EXP0208122a

HMX	112.7
RDX	97.1
135-TNB	135.6
13-DNB	106.5
Tetryl	116.4
Nitrobenzene	113.1
4A-26-DNT	99.6
2A-46-DNT	100.6
246-TNT	98.8
34-DNT(surr)	117.1
26-DNT	98.1
24-DNT	85.4
2-NT	91.7
4-NT	92.6
3-NT	74.5
PETN	138.1
Total	1677.9
Average	104.9

MAT 2/11/10

HMM 2/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208133a

Analysis Date: 11-FEB-10 07:39

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	582.434	97	
o-Nitrotoluene	600	639.153	107	
p-Nitrotoluene	600	652.124	109	
1,3,5-Trinitrobenzene	600	561.952	94	
1,3-Dinitrobenzene-d4	500	523.69	105	
2,4,6-Trinitrotoluene	600	625.562	104	
2,4-Dinitrotoluene	600	646.957	108	
2,6-Dinitrotoluene	600	613.147	102	
2,6-Dinitrotoluene-d3	500	492.682	99	
2-Amino-4,6-dinitrotoluene	600	615.832	103	
3,4-Dinitrotoluene	300	315.478	105	
4-Amino-2,6-dinitrotoluene	600	605.241	101	
HMX	600	599.884	100	
Nitrobenzene	600	602.444	100	
PETN	600	821.24	137	*
RDX	600	656.741	109	
Tetryl	600	623.813	104	
m-Dinitrobenzene	600	590.781	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208133a
Date: 11-Feb-2010
Time: 07:39:41
ID: WXX100208-07CCV
Vial: 1:1,B

HMX 2/11/10

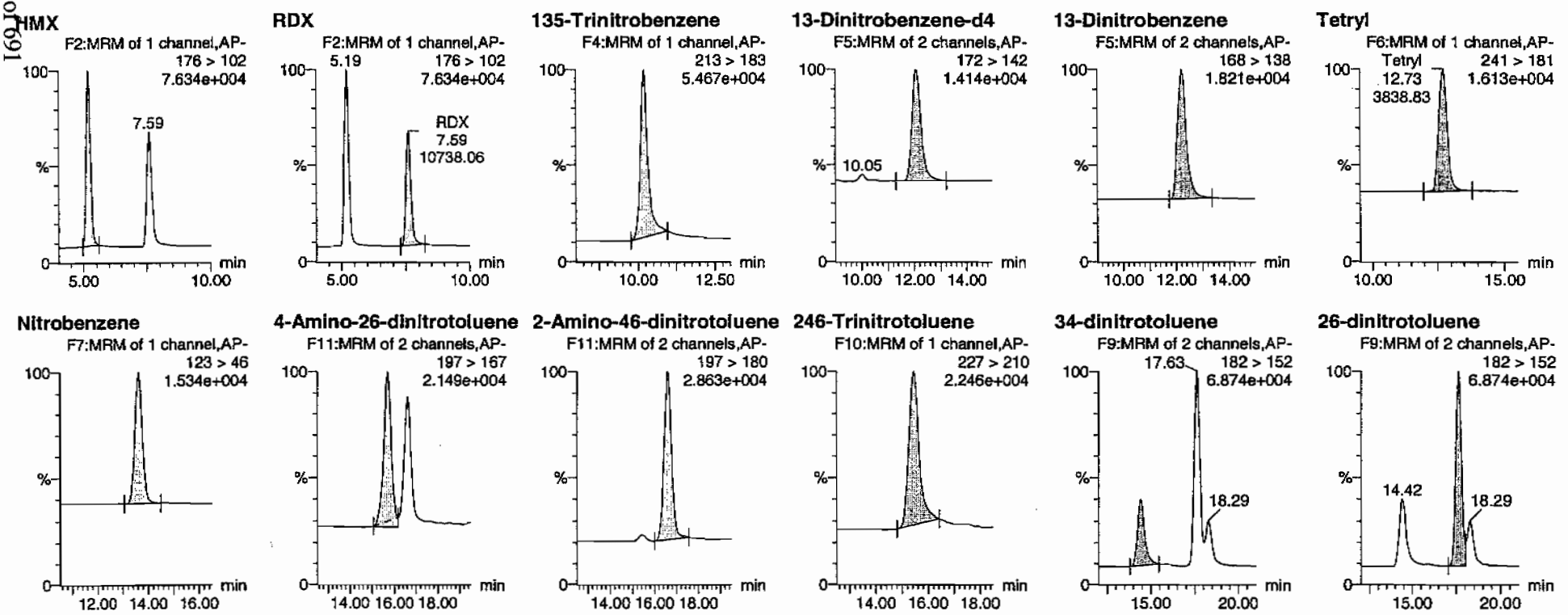

HMM 02/11/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

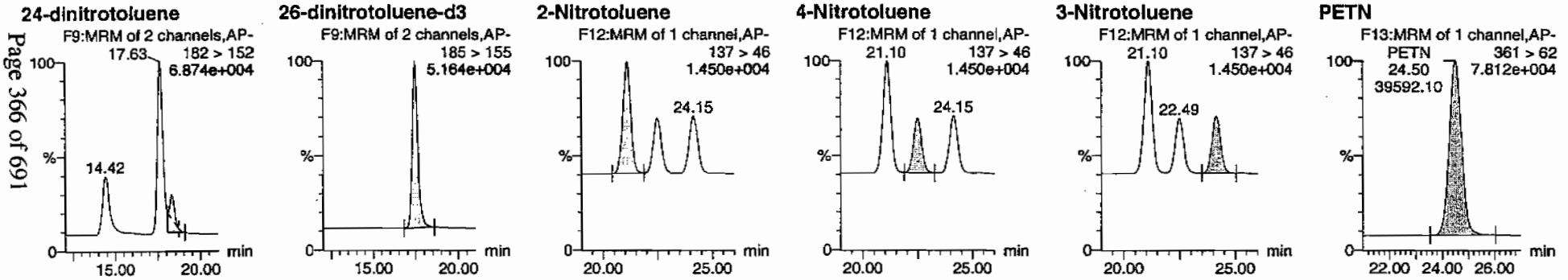

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100208-07CCV	HMX	176 > 102	5.19	14028.293	3366.877	14028.293	2083.280	bb			599.8841	100.0	-0.0	1870.4
WXX100208-07CCV	RDX	176 > 102	7.59	10738.060	3366.877	10738.060	1594.662	bb			656.7412	109.5	9.5	1227.8
WXX100208-07CCV	135-Trinitrobenzene	213 > 183	10.20	13936.843	3366.877	13936.843	2069.699	bb			561.9515	93.7	-6.3	1128.0
WXX100208-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3366.877		3366.877	3366.877	bb			523.6895	104.7	4.7	476.6
WXX100208-07CCV	13-Dinitrobenzene	168 > 138	12.21	4783.337	3366.877	4783.337	710.352	bb			590.7808	98.5	-1.5	349.3
WXX100208-07CCV	Tetryl	241 > 181	12.73	3838.826	3366.877	3838.826	570.087	bb			623.8127	104.0	4.0	399.7
WXX100208-07CCV	Nitrobenzene	123 > 46	13.62	3276.893	3366.877	3276.893	486.637	bb			602.4442	100.4	0.4	323.7
WXX100208-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6324.586	18189.516	6324.586	173.853	MM	11-Feb-10	09:26:54	605.2414	100.9	0.9	419.6
WXX100208-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	8872.409	18189.516	8872.409	243.888	bb			615.8316	102.6	2.6	508.9
WXX100208-07CCV	246-Trinitrotoluene	227 > 210	15.44	7342.954	18189.516	7342.954	201.846	bb			625.5618	104.3	4.3	106.1
WXX100208-07CCV	34-dinitrotoluene	182 > 152	14.42	10329.003	18189.516	10329.003	283.927	bb			315.4776	105.2	5.2	286.0
WXX100208-07CCV	26-dinitrotoluene	182 > 152	17.63	23958.285	18189.516	23958.285	658.574	MM	11-Feb-10	09:59:27	613.1472	102.2	2.2	840.7
WXX100208-07CCV	24-dinitrotoluene	182 > 152	18.29	5743.919	18189.516	5743.919	157.891	MM	11-Feb-10	10:01:23	646.9574	107.8	7.8	189.5
WXX100208-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	18189.516		18189.516	18189.516	bb			492.6823	98.5	-1.5	3079.6
WXX100208-07CCV	2-Nitrotoluene	137 > 46	21.10	3605.144	18189.516	3605.144	99.100	bb			639.1528	106.5	6.5	358.7
WXX100208-07CCV	4-Nitrotoluene	137 > 46	22.49	1803.060	18189.516	1803.060	49.563	bb			652.1242	108.7	8.7	173.2
WXX100208-07CCV	3-Nitrotoluene	137 > 46	24.15	1974.147	18189.516	1974.147	54.266	bb			582.4335	97.1	-2.9	180.9
WXX100208-07CCV	PETN	361 > 62	24.50	39592.102	18189.516	39592.102	1088.322	bb			821.2402	136.9	36.9	10580.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/11/10
Time of Injection: 0739
Standard Number: WXX100208-07CCV
Data File: EXP0208133a

HMX	100.0
RDX	109.5
135-TNB	93.7
13-DNB	98.5
Tetryl	104.0
Nitrobenzene	100.4
4A-26-DNT	100.9
2A-46-DNT	102.6
246-TNT	104.3
34-DNT(surr)	105.2
26-DNT	102.2
24-DNT	107.8
2-NT	106.5
4-NT	108.7
3-NT	97.1
PETN	136.9
Total	1678.3
Average	104.9

HMT 2/11/10

Hmc 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208135a

Analysis Date: 11-FEB-10 08:38

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	48.07	120	
Nitrobenzene	40	41.966	105	
PETN	40	55.176	138	*
RDX	40	47.02	118	
Tetryl	40	49.996	125	
m-Dinitrobenzene	40	42.077	105	
m-Nitrotoluene	40	34.831	87	
o-Nitrotoluene	40	41.028	103	
p-Nitrotoluene	40	39.414	99	
1,3,5-Trinitrobenzene	40	53.251	133	*
1,3-Dinitrobenzene-d4	500	496.238	99	
2,4,6-Trinitrotoluene	40	32.077	80	
2,4-Dinitrotoluene	40	41.206	103	
2,6-Dinitrotoluene	40	39.051	98	
2,6-Dinitrotoluene-d3	500	591.836	118	
2-Amino-4,6-dinitrotoluene	40	38.537	96	
3,4-Dinitrotoluene	20	20.304	102	
4-Amino-2,6-dinitrotoluene	40	41.968	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208135a
Date: 11-Feb-2010
Time: 08:38:44
ID: WXX100208-08CRI
Vial: 1:1,C

MMP 2/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.146e+004

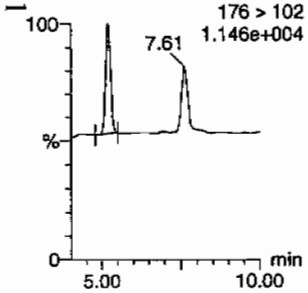

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.146e+004

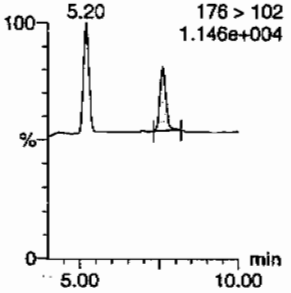

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.019e+004

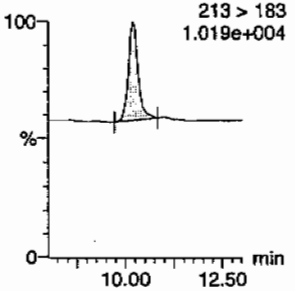

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.354e+004

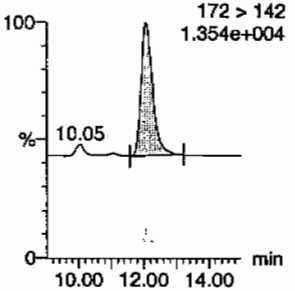

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.710e+003

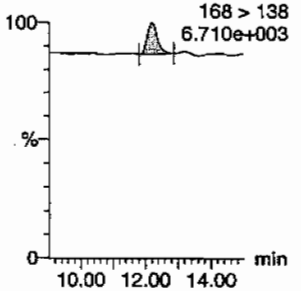

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.823e+003

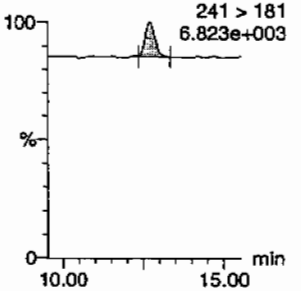

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.393e+003

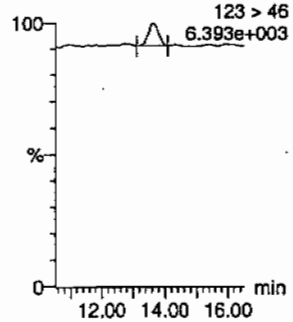

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.127e+003

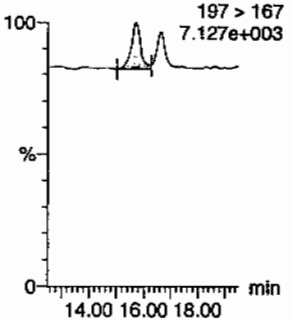

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.690e+003

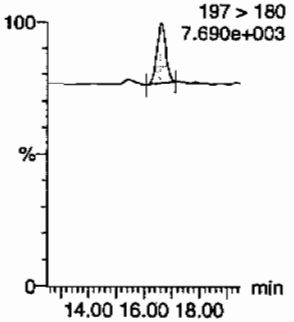

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.919e+003

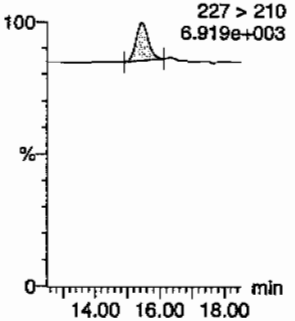

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.051e+004

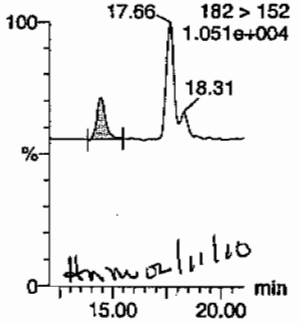

HMW 02/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.051e+004

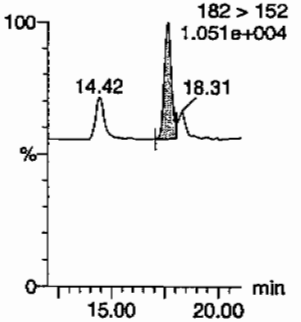

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA2.qld, Time: Thu Feb 11 10:06:10 2010

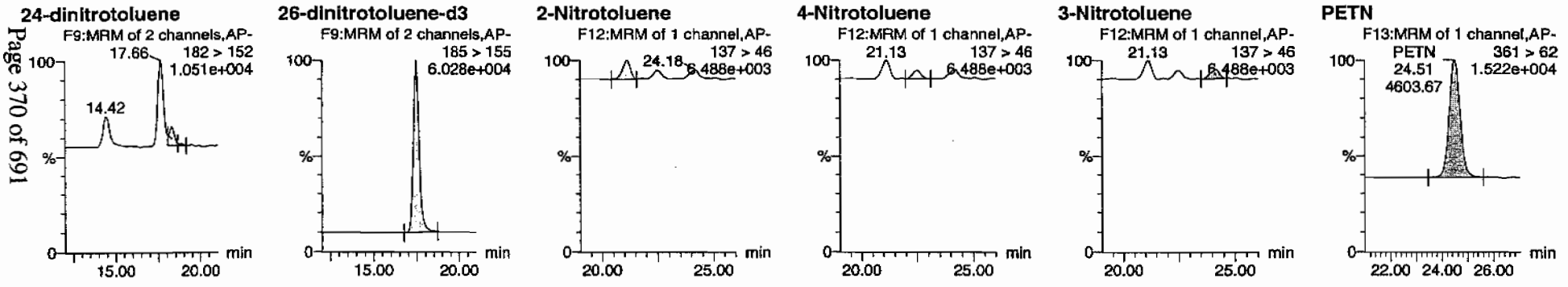

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100208-08CRI	HMX	176 > 102	5.20	1065.193	3190.386	1065.193	166.938	bb			48.0701	120.2	20.2	123.2
WXX100208-08CRI	RDX	176 > 102	7.61	728.502	3190.386	728.502	114.171	bb			47.0201	117.6	17.6	72.9
WXX100208-08CRI	135-Trinitrobenzene	213 > 183	10.20	1251.430	3190.386	1251.430	196.125	bb			53.2507	133.1	33.1	453.1
WXX100208-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3190.386		3190.386	3190.386	bb			496.2378	99.2	-0.8	601.5
WXX100208-08CRI	13-Dinitrobenzene	168 > 138	12.21	322.827	3190.386	322.827	50.594	bb			42.0774	105.2	5.2	32.7
WXX100208-08CRI	Tetryl	241 > 181	12.73	356.470	3190.386	356.470	55.866	bb			49.9957	125.0	25.0	24.8
WXX100208-08CRI	Nitrobenzene	123 > 46	13.62	216.302	3190.386	216.302	33.899	bb			41.9662	104.9	4.9	17.6
WXX100208-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	526.807	21850.213	526.807	12.055	MM	11-Feb-10	09:26:46	41.9675	104.9	4.9	25.3
WXX100208-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	666.954	21850.213	666.954	15.262	bb			38.5373	96.3	-3.7	113.0
WXX100208-08CRI	246-Trinitrotoluene	227 > 210	15.44	452.304	21850.213	452.304	10.350	bb			32.0771	80.2	-19.8	83.9
WXX100208-08CRI	34-dinitrotoluene	182 > 152	14.42	798.569	21850.213	798.569	18.274	bb			20.3043	101.5	1.5	44.1
WXX100208-08CRI	26-dinitrotoluene	182 > 152	17.66	1832.985	21850.213	1832.985	41.944	MM	11-Feb-10	09:59:36	39.0511	97.6	-2.4	123.9
WXX100208-08CRI	24-dinitrotoluene	182 > 152	18.31	439.472	21850.213	439.472	10.056	MM	11-Feb-10	10:01:11	41.2063	103.0	3.0	27.8
WXX100208-08CRI	26-dinitrotoluene-d3	185 > 155	17.46	21850.213		21850.213	21850.213	bb			591.8361	118.4	18.4	1782.6
WXX100208-08CRI	2-Nitrotoluene	137 > 46	21.13	277.990	21850.213	277.990	6.361	bb			41.0277	102.6	2.6	61.2
WXX100208-08CRI	4-Nitrotoluene	137 > 46	22.50	130.906	21850.213	130.906	2.996	bb			39.4135	98.5	-1.5	27.6
WXX100208-08CRI	3-Nitrotoluene	137 > 46	24.18	141.817	21850.213	141.817	3.245	bb			34.8306	87.1	-12.9	29.5
WXX100208-08CRI	PETN	361 > 62	24.51	4603.666	21850.213	4603.666	105.346	bb			55.1761	137.9	37.9	894.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/11/10
Time of Injection	0838
Standard Number	WXX100208-08CRI
Data File	EXP0208135a

HMX	120.2
RDX	117.6
135-TNB	133.1
13-DNB	105.2
Tetryl	125.0
Nitrobenzene	104.9
4A-26-DNT	104.9
2A-46-DNT	96.3
246-TNT	80.2
34-DNT(surr)	101.5
26-DNT	97.6
24-DNT	103.0
2-NT	102.6
4-NT	98.5
3-NT	87.1
PETN	137.9
Total	1715.6
Average	107.2

MTP 2/11/10

Hmm 02/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208145a

Analysis Date: 11-FEB-10 13:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	559.95	93	
1,3-Dinitrobenzene-d4	500	507.071	101	
2,4,6-Trinitrotoluene	600	636.938	106	
2,4-Dinitrotoluene	600	643.853	107	
2,6-Dinitrotoluene	600	629.897	105	
2,6-Dinitrotoluene-d3	500	498.486	100	
2-Amino-4,6-dinitrotoluene	600	648.791	108	
3,4-Dinitrotoluene	300	324.255	108	
4-Amino-2,6-dinitrotoluene	600	603.46	101	
HMX	600	583.237	97	
Nitrobenzene	600	623.611	104	
PETN	600	723.874	121	*
RDX	600	637.14	106	
Tetryl	600	617.261	103	
m-Dinitrobenzene	600	611.284	102	
m-Nitrotoluene	600	566.246	94	
o-Nitrotoluene	600	608.792	101	
p-Nitrotoluene	600	612.602	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208145a
Date: 11-Feb-2010
Time: 13:34:04
ID: WXX100211-07CCV
Vial: 1:1,B

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.368e+004
7.61

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.368e+004
5.20
RDX
7.61
10086.99

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.412e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.451e+004
10.05

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.892e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.669e+004
Tetryl
12.73
3681.10

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.602e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.225e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.060e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.363e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.324e+004
17.64
18.29

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.324e+004
14.42
18.29

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

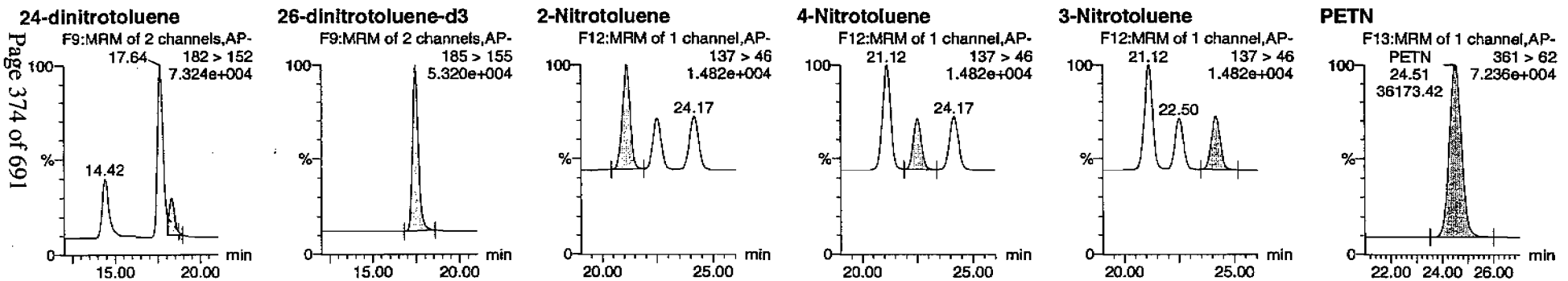

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.20	13206.193	3260.034	13206.193	2025.469	bb			583.2373	97.2	-2.8	1086.6
WXX100211-07CCV	RDX	176 > 102	7.61	10086.988	3260.034	10086.988	1547.068	bb			637.1403	106.2	6.2	710.7
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	13446.518	3260.034	13446.518	2062.328	bb			559.9502	93.3	-6.7	910.8
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3260.034		3260.034	3260.034	bb			507.0710	101.4	1.4	524.7
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	4792.287	3260.034	4792.287	735.006	bb			611.2844	101.9	1.9	606.8
WXX100211-07CCV	Tetryl	241 > 181	12.73	3681.104	3260.034	3681.104	564.581	bb			617.2613	102.9	2.9	367.3
WXX100211-07CCV	Nitrobenzene	123 > 46	13.62	3284.383	3260.034	3284.383	503.734	bb			623.6106	103.9	3.9	221.1
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6380.259	18403.783	6380.259	173.341	MM	12-Feb-10	07:58:23	603.4605	100.6	0.6	365.3
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	9457.366	18403.783	9457.366	256.941	bb			648.7908	108.1	8.1	402.1
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.44	7564.563	18403.783	7564.563	205.517	bb			636.9382	106.2	6.2	330.4
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.42	10741.435	18403.783	10741.435	291.827	bb			324.2549	108.1	8.1	440.5
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	24902.684	18403.783	24902.684	676.564	MM	12-Feb-10	08:04:29	629.8966	105.0	5.0	1301.6
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.29	5783.696	18403.783	5783.696	157.133	MM	12-Feb-10	08:08:48	643.8532	107.3	7.3	278.8
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	18403.783		18403.783	18403.783	bb			498.4859	99.7	-0.3	1269.0
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.12	3474.344	18403.783	3474.344	94.392	bb			608.7920	101.5	1.5	892.5
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.50	1713.738	18403.783	1713.738	46.559	bb			612.6023	102.1	2.1	429.0
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.17	1941.887	18403.783	1941.887	52.758	bb			566.2457	94.4	-5.6	450.7
WXX100211-07CCV	PETN	361 > 62	24.51	36173.418	18403.783	36173.418	982.771	bb			723.8738	120.6	20.6	5612.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/11/10
Time of Injection: 1334
Standard Number: WXX100211-07CCV
Data File: EXP0208145a

HMX	97.2
RDX	106.2
135-TNB	93.3
13-DNB	101.9
Tetryl	102.9
Nitrobenzene	103.9
4A-26-DNT	100.6
2A-46-DNT	108.1
246-TNT	106.2
34-DNT(surr)	108.1
26-DNT	105.0
24-DNT	107.3
2-NT	101.5
4-NT	102.1
3-NT	94.4
PETN	120.6
Total	1659.3
Average	103.7

HMW 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208147a

Analysis Date: 11-FEB-10 14:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.729	124	
1,3-Dinitrobenzene-d4	500	516.222	103	
2,4,6-Trinitrotoluene	40	38.92	97	
2,4-Dinitrotoluene	40	33.223	83	
2,6-Dinitrotoluene	40	40.948	102	
2,6-Dinitrotoluene-d3	500	573.135	115	
2-Amino-4,6-dinitrotoluene	40	40.905	102	
3,4-Dinitrotoluene	20	16.725	84	
4-Amino-2,6-dinitrotoluene	40	42.799	107	
HMX	40	40.54	101	
Nitrobenzene	40	39.412	99	
PETN	40	46.221	116	
RDX	40	36.181	90	
Tetryl	40	36.32	91	
m-Dinitrobenzene	40	41.498	104	
m-Nitrotoluene	40	36.824	92	
o-Nitrotoluene	40	43.119	108	
p-Nitrotoluene	40	43.135	108	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208147a
Date: 11-Feb-2010
Time: 14:33:07
ID: WXX100211-08CRI
Vial: 1:1,C

MM 2/12/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.141e+004
934.51 7.59

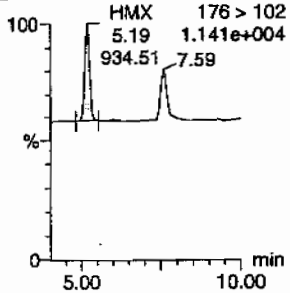

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.141e+004
RDX
7.59
583.14

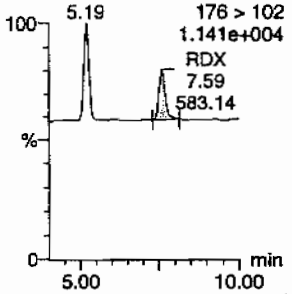

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.058e+004

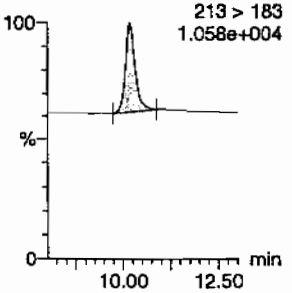

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.454e+004

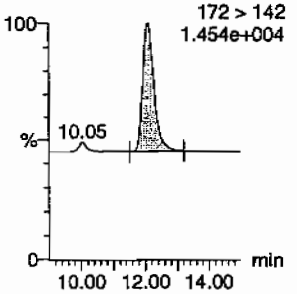

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.376e+003

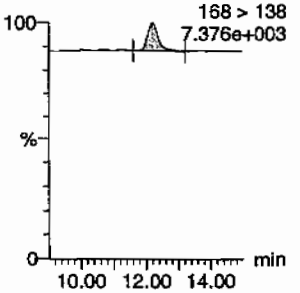

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.331e+003

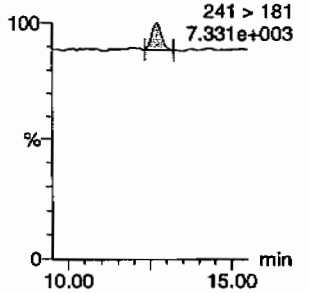

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.096e+003

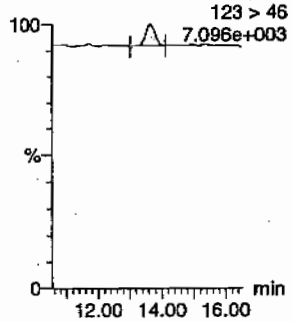

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.799e+003

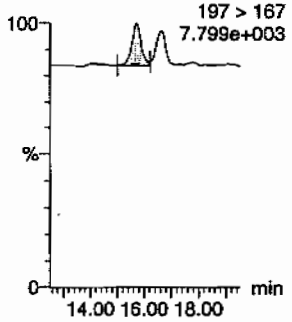

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.395e+003

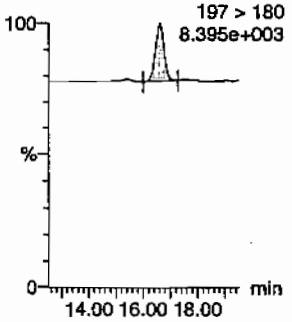

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.815e+003

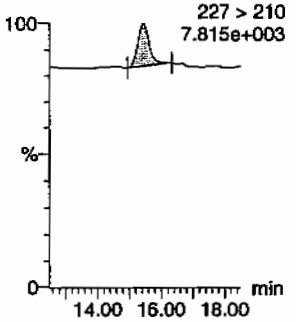

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.139e+004
17.64
18.29

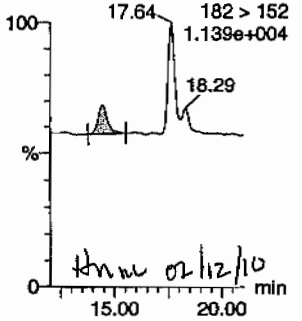

tkm 02/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.139e+004
14.42
18.29

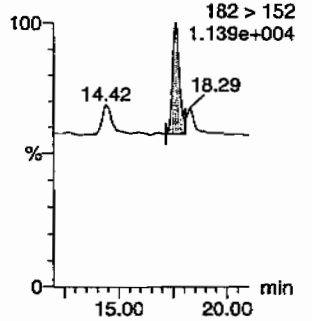

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

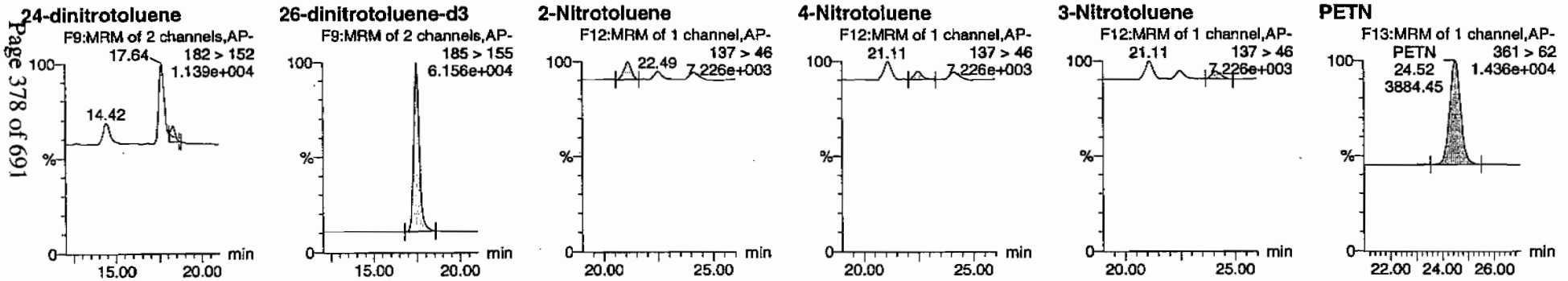

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.19	934.513	3318.865	934.513	140.788	bb			40.5402	101.4	1.4	86.8
WXX100211-08CRI	RDX	176 > 102	7.59	583.138	3318.865	583.138	87.852	bb			36.1807	90.5	-9.5	45.2
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	1215.719	3318.865	1215.719	183.153	bb			49.7285	124.3	24.3	178.3
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3318.865		3318.865	3318.865	bb			516.2216	103.2	3.2	212.4
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.21	331.204	3318.865	331.204	49.897	bb			41.4981	103.7	3.7	33.5
WXX100211-08CRI	Tetryl	241 > 181	12.73	284.245	3318.865	284.245	42.823	bb			36.3198	90.8	-9.2	42.7
WXX100211-08CRI	Nitrobenzene	123 > 46	13.62	211.320	3318.865	211.320	31.836	bb			39.4124	98.5	-1.5	17.7
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	520.271	21159.785	520.271	12.294	MM	12-Feb-10	07:58:28	42.7992	107.0	7.0	30.6
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	685.557	21159.785	685.557	16.200	bb			40.9048	102.3	2.3	141.2
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.44	531.456	21159.785	531.456	12.558	bb			38.9203	97.3	-2.7	51.3
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.42	636.993	21159.785	636.993	15.052	bb			16.7246	83.6	-16.4	15.4
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.64	1861.279	21159.785	1861.279	43.982	MM	12-Feb-10	08:04:42	40.9478	102.4	2.4	59.0
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.29	343.129	21159.785	343.129	8.108	MM	12-Feb-10	08:08:34	33.2227	83.1	-16.9	12.0
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	21159.785		21159.785	21159.785	bb			573.1352	114.6	14.6	1815.2
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.11	282.928	21159.785	282.928	6.686	bb			43.1189	107.8	7.8	36.1
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.49	138.739	21159.785	138.739	3.278	bb			43.1349	107.8	7.8	16.7
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.13	145.196	21159.785	145.196	3.431	bb			36.8240	92.1	-7.9	15.1
WXX100211-08CRI	PETN	361 > 62	24.52	3884.447	21159.785	3884.447	91.788	bb			46.2207	115.6	15.6	728.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/11/10
Time of Injection	1433
Standard Number	WXX100211-08CRI
Data File	EXP0208147a

HMX	101.4
RDX	90.5
135-TNB	124.3
13-DNB	103.7
Tetryl	90.8
Nitrobenzene	98.5
4A-26-DNT	107.0
2A-46-DNT	102.3
246-TNT	97.3
34-DNT(surr)	83.6
26-DNT	102.4
24-DNT	83.1
2-NT	107.8
4-NT	107.8
3-NT	92.1
PETN	115.6
Total	1608.2
Average	100.5

HMM 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208155a

Analysis Date: 11–FEB–10 18:29

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	300	341.269	114	
4–Amino–2,6–dinitrotoluene	600	641.093	107	
HMX	600	758.397	126	*
Nitrobenzene	600	633.981	106	
PETN	600	627.004	105	
RDX	600	775.743	129	*
Tetryl	600	659.589	110	
m–Dinitrobenzene	600	643.098	107	
m–Nitrotoluene	600	479.616	80	*
o–Nitrotoluene	600	649.003	108	
p–Nitrotoluene	600	642.036	107	
1,3,5–Trinitrobenzene	600	584.955	97	
1,3–Dinitrobenzene–d4	500	537.834	108	
2,4,6–Trinitrotoluene	600	672.091	112	
2,4–Dinitrotoluene	600	651.546	109	
2,6–Dinitrotoluene	600	630.785	105	
2,6–Dinitrotoluene–d3	500	539.361	108	
2–Amino–4,6–dinitrotoluene	600	714.872	119	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208155a
Date: 11-Feb-2010
Time: 18:29:30
ID: WXX100211-07CCV
Vial: 1:1,B

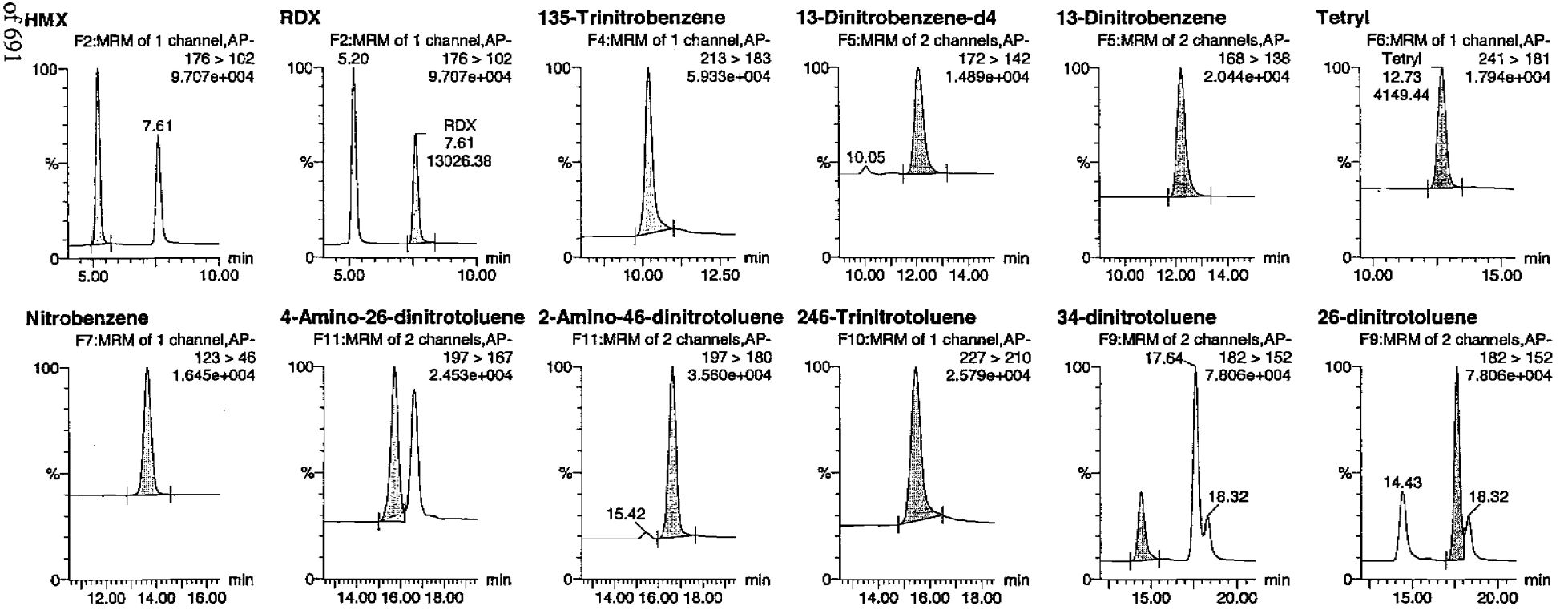

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

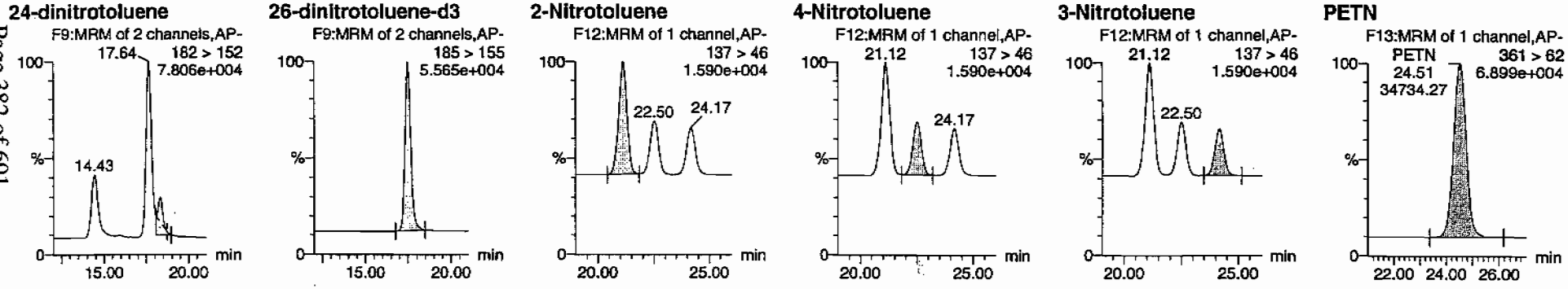

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.20	18214.146	3457.815	18214.146	2633.765	db			758.3974	126.4	26.4	912.7
WXX100211-07CCV	RDX	176 > 102	7.61	13026.384	3457.815	13026.384	1883.615	bb			775.7429	129.3	29.3	565.6
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	14899.180	3457.815	14899.180	2154.421	bb			584.9548	97.5	-2.5	1756.5
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3457.815		3457.815	3457.815	bb			537.8342	107.6	7.6	307.1
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	5347.566	3457.815	5347.566	773.258	bb			643.0978	107.2	7.2	382.2
WXX100211-07CCV	Tetryl	241 > 181	12.73	4149.437	3457.815	4149.437	600.009	bb			659.5891	109.9	9.9	617.4
WXX100211-07CCV	Nitrobenzene	123 > 46	13.63	3541.570	3457.815	3541.570	512.111	bb			633.9805	105.7	5.7	393.8
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7333.929	19912.854	7333.929	184.151	MM	12-Feb-10	07:59:47	641.0927	106.8	6.8	220.1
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	11275.101	19912.854	11275.101	283.111	bb			714.8724	119.1	19.1	499.5
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.45	8636.564	19912.854	8636.564	216.859	bb			672.0909	112.0	12.0	224.4
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.43	12232.050	19912.854	12232.050	307.140	bb			341.2692	113.8	13.8	375.9
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	26982.646	19912.854	26982.646	677.518	MM	12-Feb-10	08:05:15	630.7848	105.1	5.1	1049.0
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.32	6332.720	19912.854	6332.720	159.011	MM	12-Feb-10	08:07:53	651.5463	108.6	8.6	232.0
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	19912.854		19912.854	19912.854	bb			539.3607	107.9	7.9	3140.5
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.12	4007.529	19912.854	4007.529	100.627	bb			649.0025	108.2	8.2	957.4
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.50	1943.352	19912.854	1943.352	48.796	bb			642.0358	107.0	7.0	444.9
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.17	1779.667	19912.854	1779.667	44.686	bb			479.6156	79.9	-20.1	392.5
WXX100211-07CCV	PETN	361 > 62	24.51	34734.266	19912.854	34734.266	872.157	bb			627.0040	104.5	4.5	10028.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/11/10
Time of Injection: 1829
Standard Number: WXX100211-07CCV
Data File: EXP0208155a

HMX		126.4
RDX		129.3
135-TNB		97.5
13-DNB		107.2
Tetryl		109.9
Nitrobenzene		105.7
4A-26-DNT		106.8
2A-46-DNT		119.1
246-TNT		112.0
34-DNT(surr)		113.8
26-DNT		105.1
24-DNT		108.6
2-NT		108.2
4-NT		107.0
3-NT		79.9
PETN		104.5
Total		1741.0
Average		108.8

MATT 2/12/10

HMM 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208157a

Analysis Date: 11–FEB–10 19:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6–Trinitrotoluene	40	45.464	114	
2,4–Dinitrotoluene	40	32.491	81	
2,6–Dinitrotoluene	40	37.857	95	
2,6–Dinitrotoluene–d3	500	465.184	93	
2–Amino–4,6–dinitrotoluene	40	40.427	101	
3,4–Dinitrotoluene	20	22.689	113	
4–Amino–2,6–dinitrotoluene	40	32.487	81	
HMX	40	40.09	100	
Nitrobenzene	40	44.282	111	
PETN	40	48.308	121	
RDX	40	38.585	96	
Tetryl	40	36.534	91	
m–Dinitrobenzene	40	35.416	89	
m–Nitrotoluene	40	47.307	118	
o–Nitrotoluene	40	45.523	114	
p–Nitrotoluene	40	40.92	102	
1,3,5–Trinitrobenzene	40	47.938	120	
1,3–Dinitrobenzene–d4	500	474.289	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208157a
Date: 11-Feb-2010
Time: 19:28:28
ID: WXX100211-08CRI
Vial: 1:1,C

MAT 2/12/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 1.096e+004
849.06

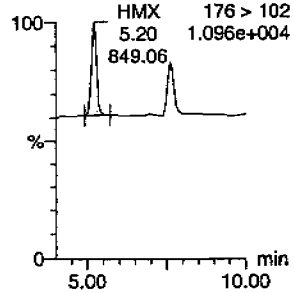

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
1.096e+004

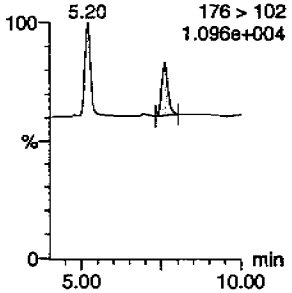

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.028e+004

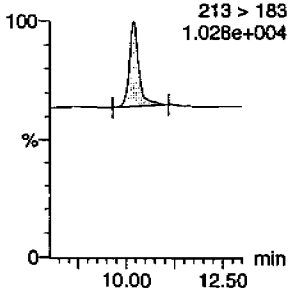

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.406e+004

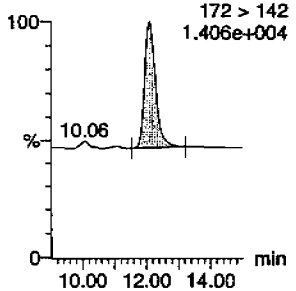

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.299e+003

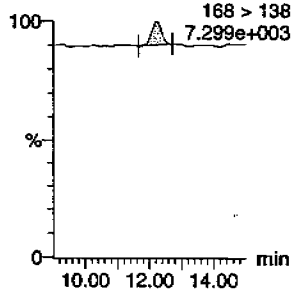

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.261e+003

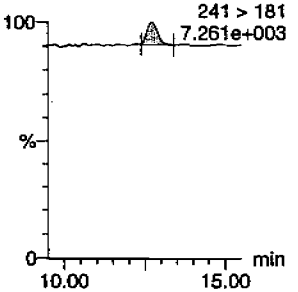

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.077e+003

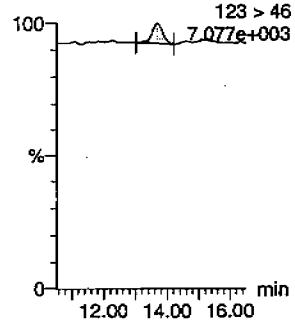

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.416e+003

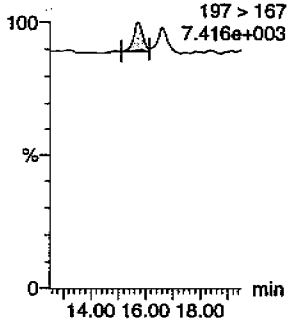

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.952e+003

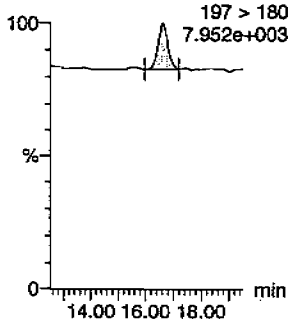

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.554e+003

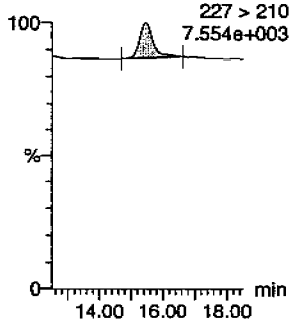

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.66 182 > 152
1.009e+004
18.31

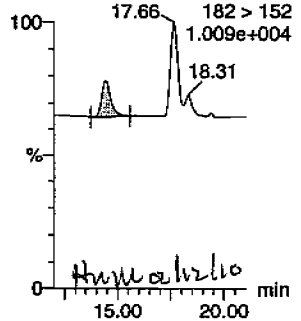

Hmoalizlio

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.009e+004
14.42 18.31

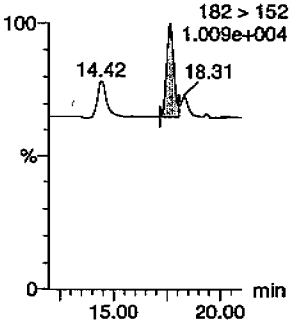

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

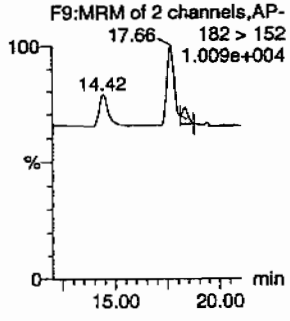

26-dinitrotoluene-d3

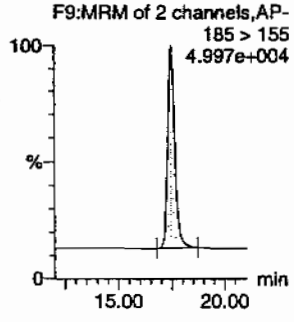

2-Nitrotoluene

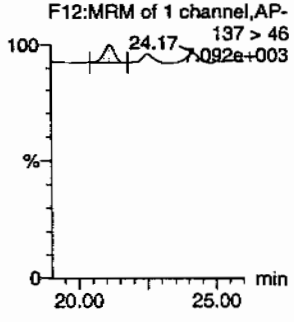

4-Nitrotoluene

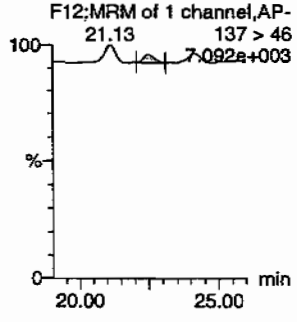

3-Nitrotoluene

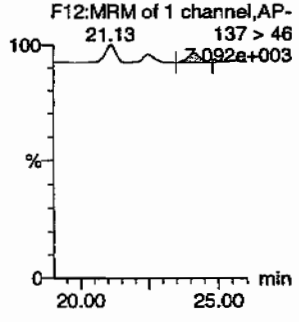

PETN

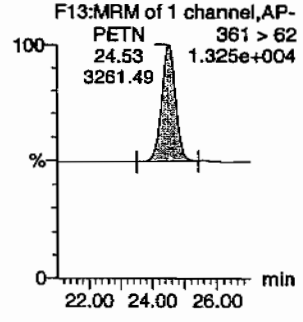

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.20	849.064	3049.273	849.064	139.224	bb			40.0898	100.2	0.2	97.7
WXX100211-08CRI	RDX	176 > 102	7.61	571.377	3049.273	571.377	93.691	bb			38.5853	96.5	-3.5	55.9
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	1076.750	3049.273	1076.750	176.558	bb			47.9380	119.8	19.8	129.4
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.10	3049.273		3049.273	3049.273	bb			474.2889	94.9	-5.1	448.0
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.24	259.700	3049.273	259.700	42.584	bb			35.4159	88.5	-11.5	24.1
WXX100211-08CRI	Tetryl	241 > 181	12.73	262.402	3049.273	262.402	43.027	bb			36.5337	91.3	-8.7	29.2
WXX100211-08CRI	Nitrobenzene	123 > 46	13.67	218.144	3049.273	218.144	35.770	bb			44.2822	110.7	10.7	15.8
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	320.534	17174.301	320.534	9.332	MM	12-Feb-10	07:59:55	32.4872	81.2	-18.8	44.2
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	549.935	17174.301	549.935	16.010	bb			40.4272	101.1	1.1	55.9
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.48	503.879	17174.301	503.879	14.670	bb			45.4640	113.7	13.7	34.5
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.42	701.380	17174.301	701.380	20.419	bb			22.6885	113.4	13.4	52.1
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.66	1396.673	17174.301	1396.673	40.662	MM	12-Feb-10	08:05:22	37.8570	94.6	-5.4	132.2
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.31	272.364	17174.301	272.364	7.929	MM	12-Feb-10	08:07:44	32.4907	81.2	-18.8	27.3
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	17174.301		17174.301	17174.301	bb			465.1841	93.0	-7.0	1502.3
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.13	242.443	17174.301	242.443	7.058	bb			45.5233	113.8	13.8	59.2
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.49	106.825	17174.301	106.825	3.110	bb			40.9200	102.3	2.3	27.1
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.17	151.398	17174.301	151.398	4.408	bb			47.3074	118.3	18.3	32.4
WXX100211-08CRI	PETN	361 > 62	24.53	3261.487	17174.301	3261.487	94.953	bb			48.3079	120.8	20.8	460.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/11/10
Time of Injection	1928
Standard Number	WXX100211-08CRI
Data File	EXP0208157a

HMX	100.2
RDX	96.5
135-TNB	119.8
13-DNB	88.5
Tetryl	91.3
Nitrobenzene	110.7
4A-26-DNT	81.2
2A-46-DNT	101.1
246-TNT	113.7
34-DNT(surr)	113.4
26-DNT	94.6
24-DNT	81.2
2-NT	113.8
4-NT	102.3
3-NT	118.3
PETN	120.8
Total	1647.4
Average	103.0

MAP 2/12/10

ttmc 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208168a

Analysis Date: 12–FEB–10 00:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p–Nitrotoluene	600	575.749	96	
1,3,5–Trinitrobenzene	600	649.814	108	
1,3–Dinitrobenzene–d4	500	363.136	73	*
2,4,6–Trinitrotoluene	600	704.394	117	
2,4–Dinitrotoluene	600	605.971	101	
2,6–Dinitrotoluene	600	613.961	102	
2,6–Dinitrotoluene–d3	500	365.062	73	*
2–Amino–4,6–dinitrotoluene	600	635.413	106	
3,4–Dinitrotoluene	300	319.507	107	
4–Amino–2,6–dinitrotoluene	600	605.937	101	
HMX	600	616.353	103	
Nitrobenzene	600	690.95	115	
PETN	600	937.241	156	*
RDX	600	667.229	111	
Tetryl	600	719.32	120	
m–Dinitrobenzene	600	637.964	106	
m–Nitrotoluene	600	612.02	102	
o–Nitrotoluene	600	573.693	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208168a
Date: 12-Feb-2010
Time: 00:52:53
ID: WXX100211-07CCV
Vial: 1:1,B

MAT 2/12/10

HMX

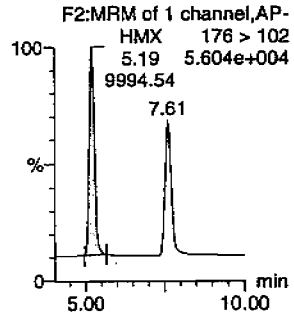

RDX

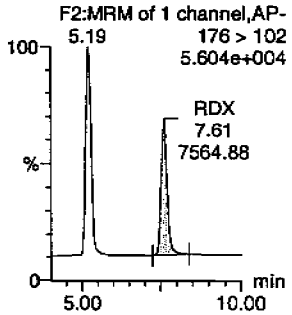

135-Trinitrobenzene

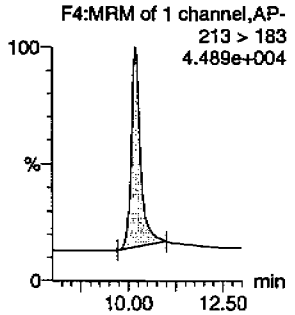

13-Dinitrobenzene-d4

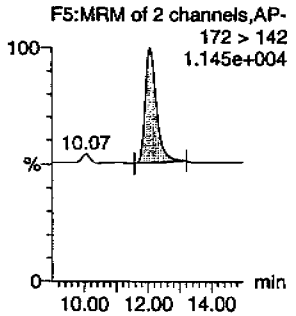

13-Dinitrobenzene

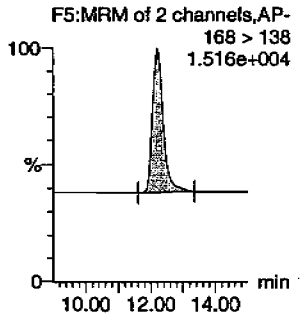

Tetryl

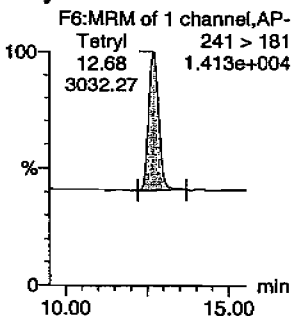

Nitrobenzene

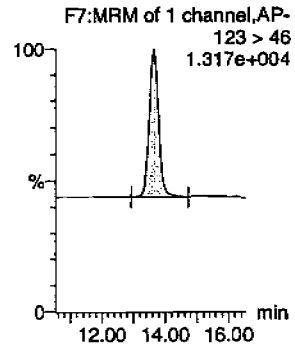

4-Amino-26-dinitrotoluene

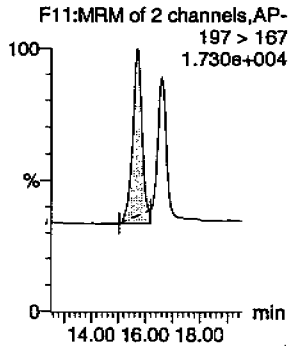

2-Amino-46-dinitrotoluene

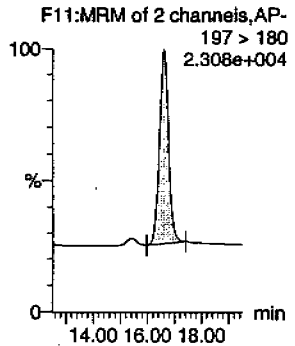

246-Trinitrotoluene

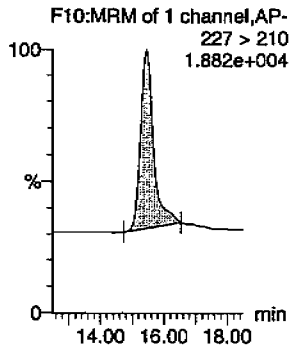

34-dinitrotoluene

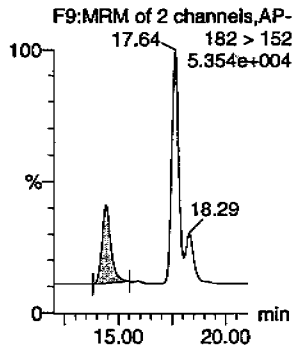

26-dinitrotoluene

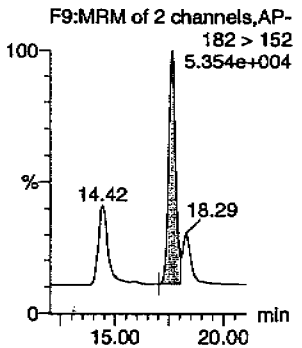

thme 02/12/10

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

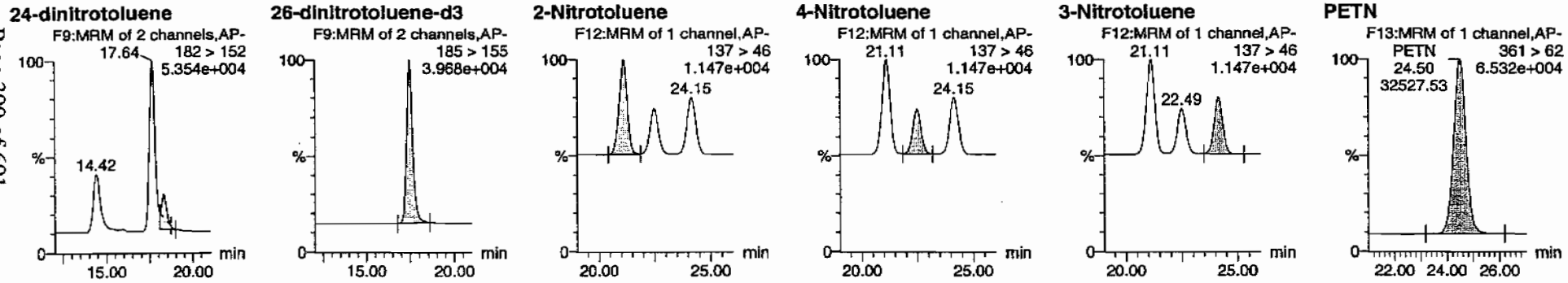

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ug/mL	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.19	9994.540	2334.658	9994.540	2140.472	bb			616.3527	102.7	2.7	1103.1
WXX100211-07CCV	RDX	176 > 102	7.61	7564.883	2334.658	7564.883	1620.127	bb			667.2286	111.2	11.2	720.2
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	11175.075	2334.658	11175.075	2393.300	bb			649.8137	108.3	8.3	1242.6
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2334.658		2334.658	2334.658	bb			363.1365	72.6	-27.4	326.8
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	3581.761	2334.658	3581.761	767.085	bb			637.9637	106.3	6.3	394.6
WXX100211-07CCV	Tetryl	241 > 181	12.68	3032.274	2334.658	3032.274	649.404	bb			719.3195	119.9	19.9	305.9
WXX100211-07CCV	Nitrobenzene	123 > 46	13.62	2606.083	2334.658	2606.083	558.129	bb			690.9503	115.2	15.2	209.6
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	4691.699	13477.839	4691.699	174.052	MM	12-Feb-10	08:00:48	605.9371	101.0	1.0	235.4
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	6783.207	13477.839	6783.207	251.643	bb			635.4134	105.9	5.9	358.1
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.45	6126.539	13477.839	6126.539	227.282	bb			704.3937	117.4	17.4	372.1
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.42	7751.206	13477.839	7751.206	287.554	bb			319.5070	106.5	6.5	336.0
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	17775.865	13477.839	17775.865	659.448	MM	12-Feb-10	08:05:48	613.9608	102.3	2.3	993.9
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.29	3986.427	13477.839	3986.427	147.888	MM	12-Feb-10	08:07:01	605.9713	101.0	1.0	208.0
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	13477.839		13477.839	13477.839	bb			365.0615	73.0	-27.0	812.6
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.11	2397.708	13477.839	2397.708	88.950	bb			573.6926	95.6	-4.4	416.7
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.49	1179.539	13477.839	1179.539	43.758	bb			575.7492	96.0	-4.0	198.1
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.15	1537.085	13477.839	1537.085	57.023	bb			612.0200	102.0	2.0	247.7
WXX100211-07CCV	PETN	361 > 62	24.50	32527.529	13477.839	32527.529	1206.704	bb			937.2408	156.2	56.2	4271.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/12/10
Time of Injection: 0052
Standard Number: WXX100211-07CCV
Data File: EXP0208168a

HMX	102.7
RDX	111.2
135-TNB	108.3
13-DNB	106.3
Tetryl	119.9
Nitrobenzene	115.2
4A-26-DNT	101.0
2A-46-DNT	105.9
246-TNT	117.4
34-DNT(surr)	106.5
26-DNT	102.3
24-DNT	101.0
2-NT	95.6
4-NT	96.0
3-NT	102.0
PETN	156.2
Total	1747.5
Average	109.2

HMT 2/12/10

HMT 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208170a

Analysis Date: 12–FEB–10 01:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	40	41.479	104	
m–Dinitrobenzene	40	37.812	95	
m–Nitrotoluene	40	36.746	92	
o–Nitrotoluene	40	42.552	106	
p–Nitrotoluene	40	43.248	108	
1,3,5–Trinitrobenzene	40	54.58	136	*
1,3–Dinitrobenzene–d4	500	414.79	83	
2,4,6–Trinitrotoluene	40	31.941	80	
2,4–Dinitrotoluene	40	36.526	91	
2,6–Dinitrotoluene	40	39.901	100	
2,6–Dinitrotoluene–d3	500	419.808	84	
2–Amino–4,6–dinitrotoluene	40	41.208	103	
3,4–Dinitrotoluene	20	18.972	95	
4–Amino–2,6–dinitrotoluene	40	36.002	90	
HMX	40	41.297	103	
Nitrobenzene	40	42.737	107	
PETN	40	58.979	147	*
RDX	40	33.84	85	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208170a
Date: 12-Feb-2010
Time: 01:51:53
ID: WXX100211-08CRI
Vial: 1:1,C

MMP 2/12/10

HMX

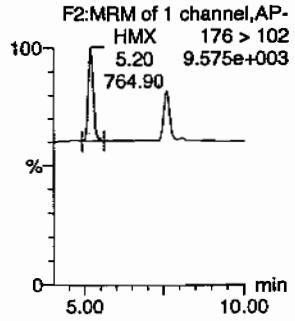

RDX

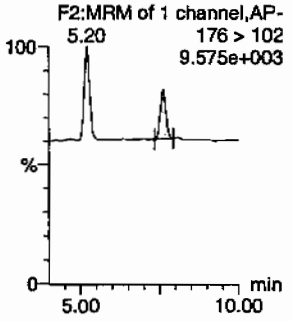

135-Trinitrobenzene

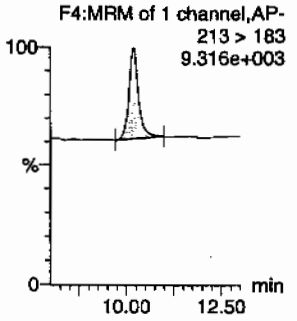

13-Dinitrobenzene-d4

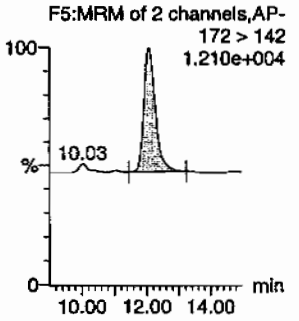

13-Dinitrobenzene

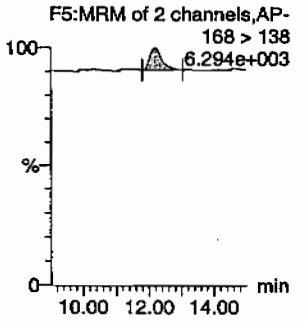

Tetryl

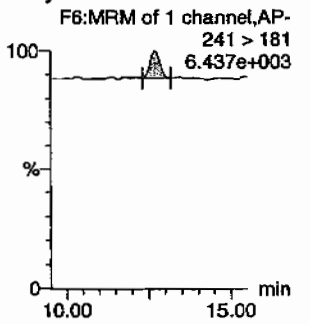

Nitrobenzene

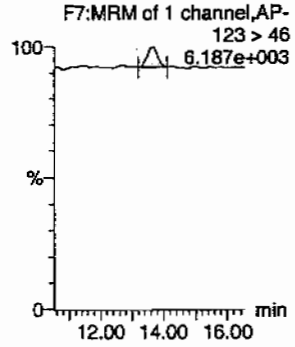

4-Amino-26-dinitrotoluene

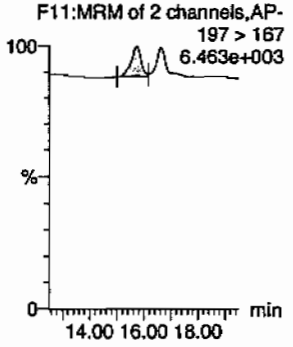

2-Amino-46-dinitrotoluene

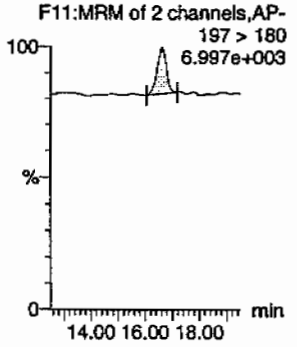

246-Trinitrotoluene

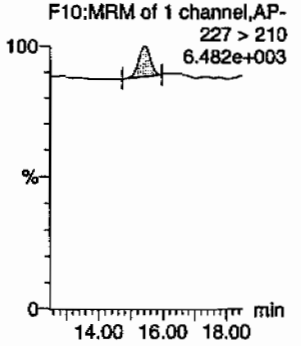

34-dinitrotoluene

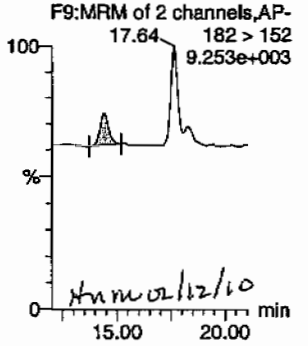

Hmm 02/12/10

26-dinitrotoluene

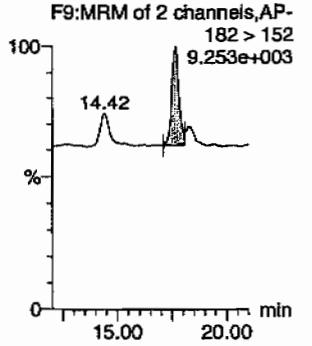

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

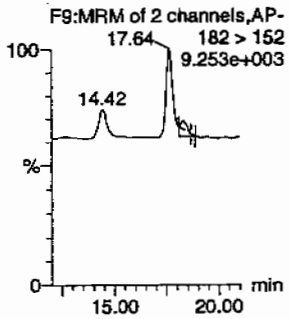

26-dinitrotoluene-d3

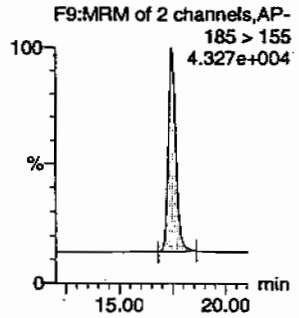

2-Nitrotoluene

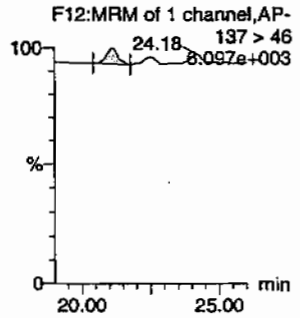

4-Nitrotoluene

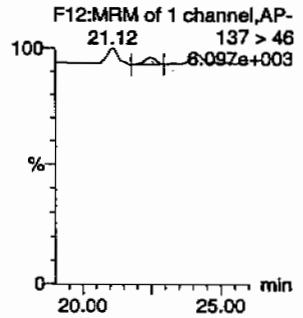

3-Nitrotoluene

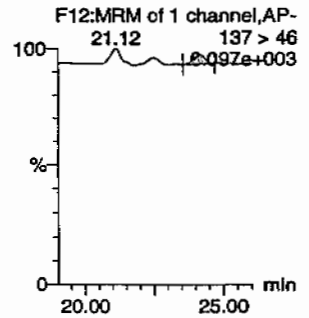

PETN

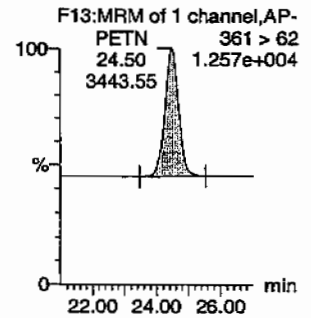

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.20	764.902	2666.746	764.902	143.415	bb			41.2966	103.2	3.2	84.1
WXX100211-08CRI	RDX	176 > 102	7.61	438.238	2666.746	438.238	82.167	bb			33.8395	84.6	-15.4	44.7
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	1072.145	2666.746	1072.145	201.021	bb			54.5800	136.5	36.5	119.3
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2666.746		2666.746	2666.746	bb			414.7900	83.0	-17.0	202.1
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.21	242.490	2666.746	242.490	45.466	bb			37.8124	94.5	-5.5	27.0
WXX100211-08CRI	Tetryl	241 > 181	12.68	254.659	2666.746	254.659	47.747	bb			41.4785	103.7	3.7	19.1
WXX100211-08CRI	Nitrobenzene	123 > 46	13.62	184.121	2666.746	184.121	34.522	bb			42.7369	106.8	6.8	21.3
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	320.565	15499.035	320.565	10.341	MM	12-Feb-10	08:00:59	36.0022	90.0	-10.0	38.6
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	505.872	15499.035	505.872	16.319	bb			41.2076	103.0	3.0	42.8
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.41	319.476	15499.035	319.476	10.306	bb			31.9414	79.9	-20.1	38.8
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.42	529.277	15499.035	529.277	17.075	bb			18.9719	94.9	-5.1	42.0
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.64	1328.482	15499.035	1328.482	42.857	MM	12-Feb-10	08:05:54	39.9008	99.8	-0.2	130.8
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.29	276.327	15499.035	276.327	8.914	MM	12-Feb-10	08:06:52	36.5264	91.3	-8.7	23.6
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.46	15499.035		15499.035	15499.035	bb			419.8078	84.0	-16.0	2320.2
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.12	204.514	15499.035	204.514	6.598	bb			42.5522	106.4	6.4	28.1
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.50	101.890	15499.035	101.890	3.287	bb			43.2482	108.1	8.1	13.0
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.18	106.126	15499.035	106.126	3.424	bb			36.7456	91.9	-8.1	15.4
WXX100211-08CRI	PETN	361 > 62	24.50	3443.553	15499.035	3443.553	111.089	bb			58.9793	147.4	47.4	2261.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/12/10
Time of Injection	0151
Standard Number	WXX100211-08CRI
Data File	EXP0208170a

HMX	103.2
RDX	84.6
135-TNB	136.5
13-DNB	94.5
Tetryl	103.7
Nitrobenzene	106.8
4A-26-DNT	90.0
2A-46-DNT	103.0
246-TNT	79.9
34-DNT(surr)	94.9
26-DNT	99.8
24-DNT	91.3
2-NT	106.4
4-NT	108.1
3-NT	91.9
PETN	147.4
Total	1642.0
Average	102.6

MMT 2/12/10

Hmm 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208179a

Analysis Date: 12–FEB–10 06:17

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	587.089	98	
1,3–Dinitrobenzene–d4	500	399.529	80	*
2,4,6–Trinitrotoluene	600	750.342	125	*
2,4–Dinitrotoluene	600	599.438	100	
2,6–Dinitrotoluene	600	606.259	101	
2,6–Dinitrotoluene–d3	500	413.212	83	
2–Amino–4,6–dinitrotoluene	600	595.295	99	
3,4–Dinitrotoluene	300	330.75	110	
4–Amino–2,6–dinitrotoluene	600	578.418	96	
HMX	600	534.328	89	
Nitrobenzene	600	626.915	104	
PETN	600	774.197	129	*
RDX	600	606.847	101	
Tetryl	600	700.204	117	
m–Dinitrobenzene	600	629.509	105	
m–Nitrotoluene	600	504.3	84	
o–Nitrotoluene	600	541.966	90	
p–Nitrotoluene	600	543.447	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208179a
Date: 12-Feb-2010
Time: 06:17:31
ID: WXX100211-07CCV
Vial: 1:1,B

MDT 2/12/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 5.311e+004
9532.78
7.61

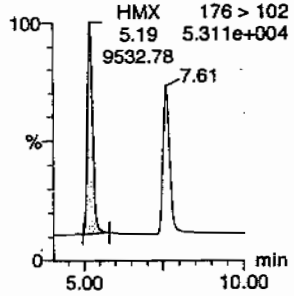

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
5.311e+004
RDX
7.61
7.569.80

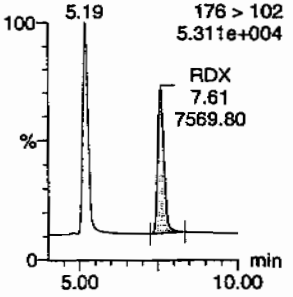

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.391e+004

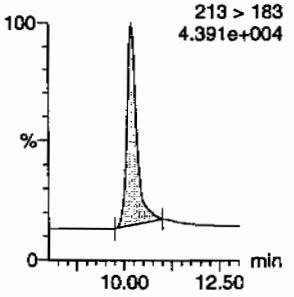

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.216e+004
10.07

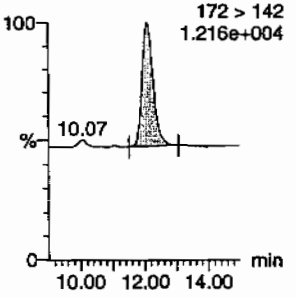

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.587e+004

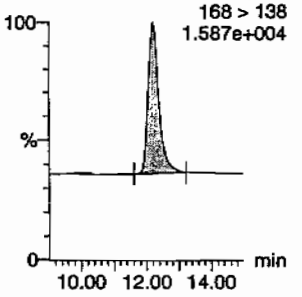

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.68 1.466e+004
3255.34

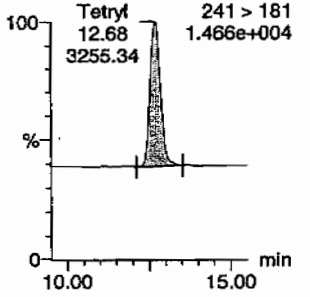

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.317e+004

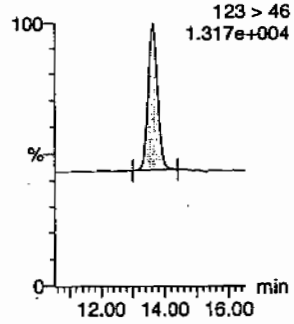

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.810e+004

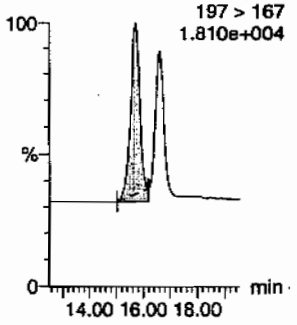

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.428e+004

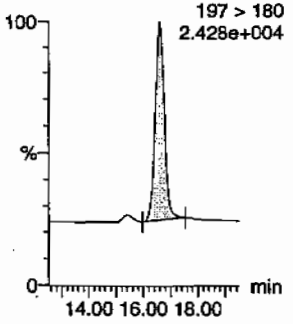

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.201e+004

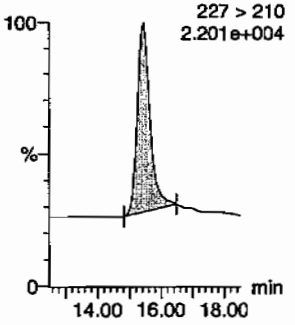

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64 182 > 152
5.755e+004
18.30

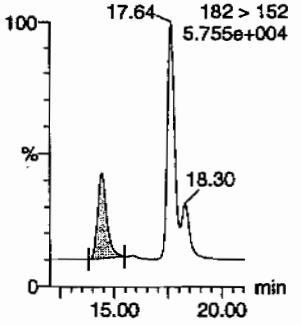

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.755e+004
14.42
18.30

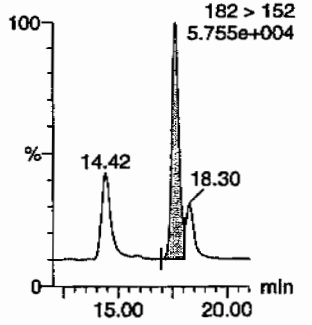

Hme 02/12/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

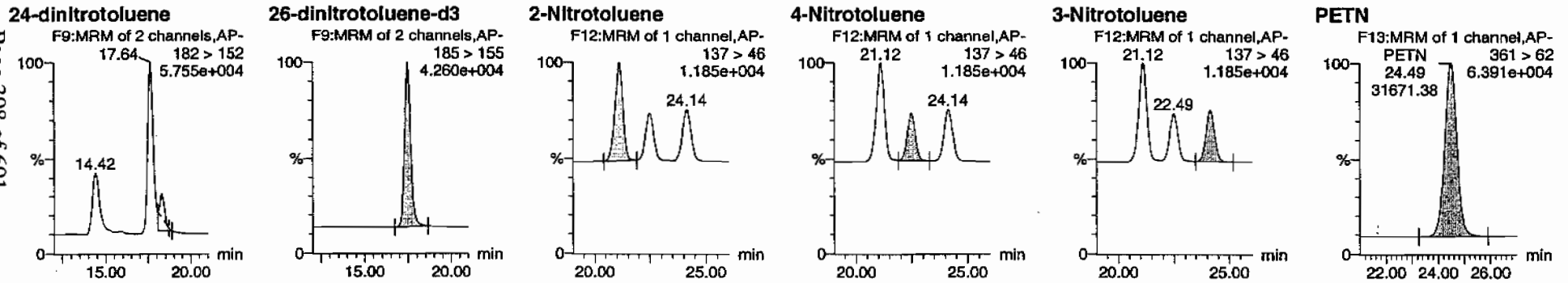

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.19	9532.778	2568.628	9532.778	1855.617	bb			534.3281	89.1	-10.9	1213.9
WXX100211-07CCV	RDX	176 > 102	7.61	7569.802	2568.628	7569.802	1473.511	bb			606.8467	101.1	1.1	843.2
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	11108.188	2568.628	11108.188	2162.280	bb			587.0887	97.8	-2.2	1301.5
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2568.628		2568.628	2568.628	bb			399.5286	79.9	-20.1	228.2
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	3888.488	2568.628	3888.488	756.919	bb			629.5094	104.9	4.9	516.5
WXX100211-07CCV	Tetryl	241 > 181	12.68	3255.336	2568.628	3255.336	633.672	bb			700.2038	116.7	16.7	330.8
WXX100211-07CCV	Nitrobenzene	123 > 46	13.62	2601.525	2568.628	2601.525	506.404	bb			626.9150	104.5	4.5	286.0
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	5069.339	15255.532	5069.339	166.148	MM	12-Feb-10	08:01:12	578.4178	96.4	-3.6	314.5
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	7193.136	15255.532	7193.136	235.755	bb			595.2953	99.2	-0.8	526.8
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.45	7386.962	15255.532	7386.962	242.108	bb			750.3417	125.1	25.1	135.1
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.42	9082.291	15255.532	9082.291	297.672	bb			330.7496	110.2	10.2	318.1
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	19868.055	15255.532	19868.055	651.175	MM	12-Feb-10	08:06:04	606.2590	101.0	1.0	880.1
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.30	4463.577	15255.532	4463.577	146.294	MM	12-Feb-10	08:06:38	599.4379	99.9	-0.1	193.7
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	15255.532		15255.532	15255.532	bb			413.2122	82.6	-17.4	2125.6
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.12	2563.873	15255.532	2563.873	84.031	bb			541.9664	90.3	-9.7	631.8
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.49	1260.210	15255.532	1260.210	41.303	bb			543.4466	90.6	-9.4	304.6
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.14	1433.602	15255.532	1433.602	46.986	bb			504.3003	84.1	-15.9	329.9
WXX100211-07CCV	PETN	361 > 62	24.49	31671.375	15255.532	31671.375	1038.029	bb			774.1968	129.0	29.0	4193.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/12/10
Time of Injection: 0617
Standard Number: WXX100211-07CCV
Data File: EXP0208179a

HMX		89.1
RDX		101.1
135-TNB		97.8
13-DNB		104.9
Tetryl		116.7
Nitrobenzene		104.5
4A-26-DNT		96.4
2A-46-DNT		99.2
246-TNT		125.1
34-DNT(surr)		110.2
26-DNT		101.0
24-DNT		99.9
2-NT		90.3
4-NT		90.6
3-NT		84.1
PETN		129.0
Total		1639.9
Average		102.5

MATT 2/12/10

Hmc 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208181a

Analysis Date: 12-FEB-10 07:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.012	110	
1,3-Dinitrobenzene-d4	500	438.92	88	
2,4,6-Trinitrotoluene	40	42.728	107	
2,4-Dinitrotoluene	40	42.259	106	
2,6-Dinitrotoluene	40	37.113	93	
2,6-Dinitrotoluene-d3	500	442.662	89	
2-Amino-4,6-dinitrotoluene	40	36.972	92	
3,4-Dinitrotoluene	20	20.284	101	
4-Amino-2,6-dinitrotoluene	40	36.006	90	
HMX	40	39.857	100	
Nitrobenzene	40	38.793	97	
PETN	40	48.869	122	
RDX	40	40.155	100	
Tetryl	40	38.51	96	
m-Dinitrobenzene	40	38.974	97	
m-Nitrotoluene	40	31.524	79	
o-Nitrotoluene	40	36.982	92	
p-Nitrotoluene	40	35.364	88	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208181a
Date: 12-Feb-2010
Time: 07:16:32
ID: WXX100211-08CRI
Vial: 1:1,C

MMT 2/12/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 9.573e+003
781.18

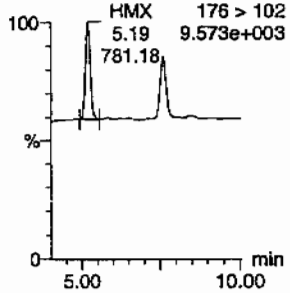

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
9.573e+003

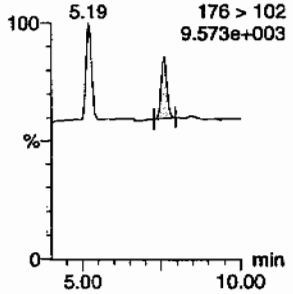

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
8.696e+003

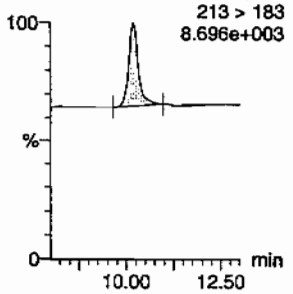

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.245e+004

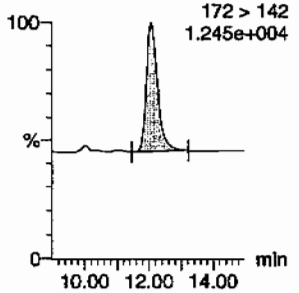

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.330e+003

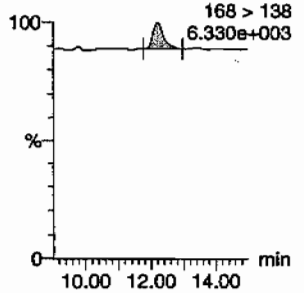

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.338e+003

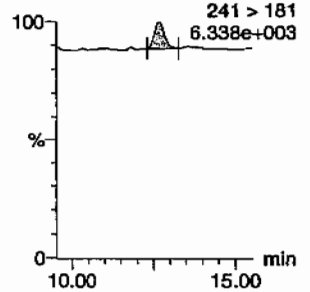

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.108e+003

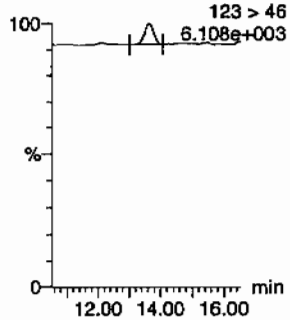

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.460e+003

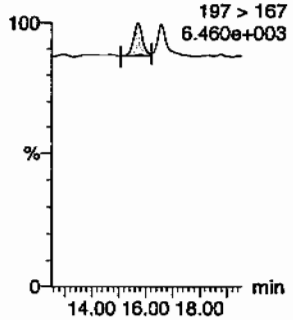

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.906e+003

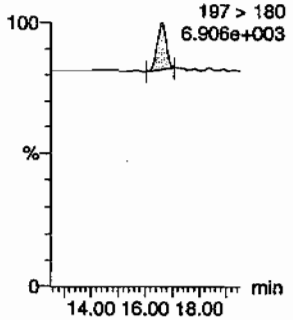

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.724e+003

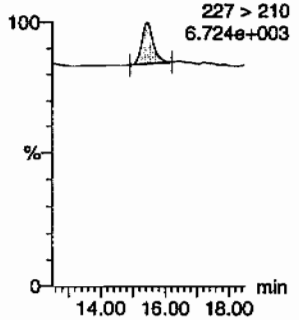

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.62 182 > 152
8.899e+003
18.30

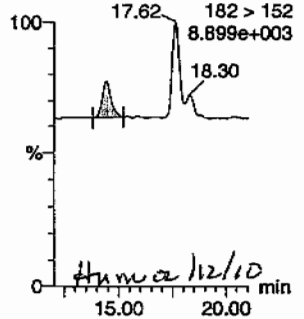

Hmw 2/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.899e+003
14.42 18.30

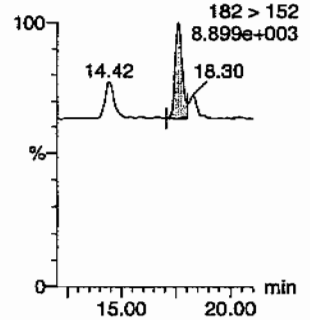

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA3.qld, Time: Fri Feb 12 08:08:48 2010

24-dinitrotoluene

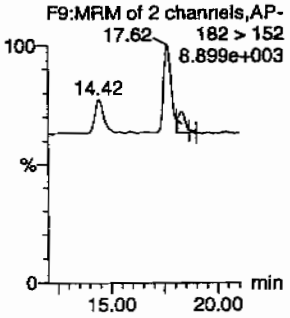

26-dinitrotoluene-d3

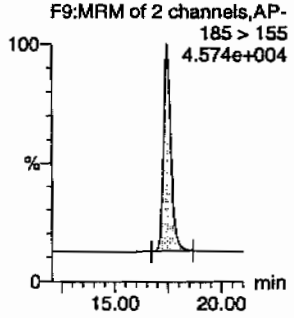

2-Nitrotoluene

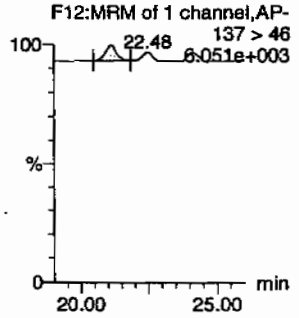

4-Nitrotoluene

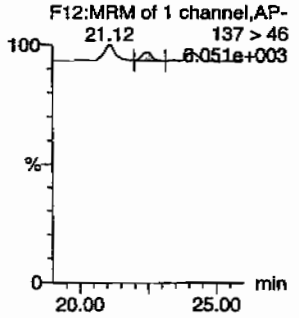

3-Nitrotoluene

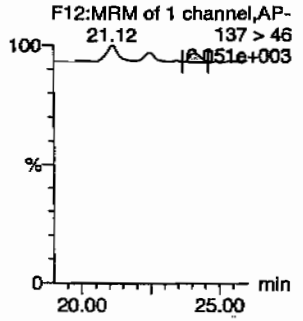

PETN

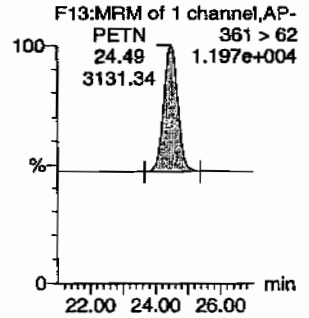

ID	Name	Trace	RT	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.19	781.177	2821.884	781.177	138.414	bb			39.8566	99.6	-0.4	330.6
WXX100211-08CRI	RDX	176 > 102	7.61	550.278	2821.884	550.278	97.502	bb			40.1549	100.4	0.4	210.1
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	914.840	2821.884	914.840	162.097	bb			44.0117	110.0	10.0	114.8
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2821.884		2821.884	2821.884	bb			438.9204	87.8	-12.2	126.3
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.21	264.481	2821.884	264.481	46.862	bb			38.9743	97.4	-2.6	18.2
WXX100211-08CRI	Tetryl	241 > 181	12.68	253.485	2821.884	253.485	44.914	bb			38.5101	96.3	-3.7	23.7
WXX100211-08CRI	Nitrobenzene	123 > 46	13.62	176.851	2821.884	176.851	31.336	bb			38.7927	97.0	-3.0	19.1
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	338.056	16342.797	338.056	10.343	MM	12-Feb-10	08:01:18	36.0064	90.0	-10.0	17.2
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	478.583	16342.797	478.583	14.642	bb			36.9720	92.4	-7.6	39.1
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.45	450.624	16342.797	450.624	13.787	bb			42.7276	106.8	6.8	19.3
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.42	596.692	16342.797	596.692	18.256	bb			20.2841	101.4	1.4	43.6
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.62	1302.923	16342.797	1302.923	39.862	MM	12-Feb-10	08:06:11	37.1127	92.8	-7.2	114.1
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.30	337.100	16342.797	337.100	10.313	MM	12-Feb-10	08:06:28	42.2592	105.6	5.6	28.0
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	16342.797		16342.797	16342.797	bb			442.6619	88.5	-11.5	1289.8
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.12	187.421	16342.797	187.421	5.734	bb			36.9824	92.5	-7.5	44.6
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.48	87.852	16342.797	87.852	2.688	bb			35.3644	88.4	-11.6	23.0
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.12	96.001	16342.797	96.001	2.937	bb			31.5237	78.8	-21.2	24.1
WXX100211-08CRI	PETN	361 > 62	24.49	3131.342	16342.797	3131.342	95.802	bb			48.8685	122.2	22.2	1383.8

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/12/10
Time of Injection	0716
Standard Number	WXX100211-08CRI
Data File	EXP0208181a

HMX	99.6
RDX	100.4
135-TNB	110.0
13-DNB	97.4
Tetryl	96.3
Nitrobenzene	97.0
4A-26-DNT	90.0
2A-46-DNT	92.4
246-TNT	106.8
34-DNT(surr)	101.4
26-DNT	92.8
24-DNT	105.6
2-NT	92.5
4-NT	88.4
3-NT	78.8
PETN	122.2
Total	1571.6
Average	98.2

MJP 2/12/10

tbm 02/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208192a

Analysis Date: 12-FEB-10 12:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	564.023	94	
Nitrobenzene	600	588.695	98	
PETN	600	747.991	125	*
RDX	600	606.121	101	
Tetryl	600	602.12	100	
m-Dinitrobenzene	600	601.495	100	
m-Nitrotoluene	600	572.783	95	
o-Nitrotoluene	600	603.62	101	
p-Nitrotoluene	600	632.671	105	
1,3,5-Trinitrobenzene	600	579.335	97	
1,3-Dinitrobenzene-d4	500	455.62	91	
2,4,6-Trinitrotoluene	600	762.635	127	*
2,4-Dinitrotoluene	600	680.358	113	
2,6-Dinitrotoluene	600	624.359	104	
2,6-Dinitrotoluene-d3	500	419.676	84	
2-Amino-4,6-dinitrotoluene	600	687.213	115	
3,4-Dinitrotoluene	300	326.396	109	
4-Amino-2,6-dinitrotoluene	600	642.053	107	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208192a
Date: 12-Feb-2010
Time: 12:41:56
ID: WXX100211-07CCV
Vial: 1:1,B

MMP 2/13/10

HMX

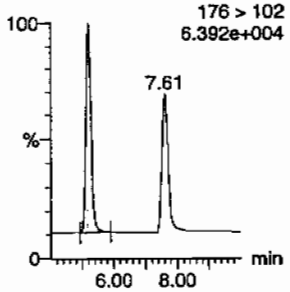

RDX

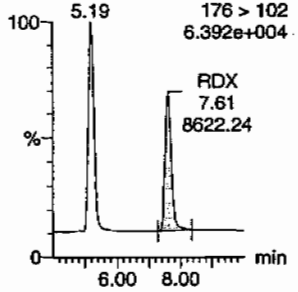

135-Trinitrobenzene

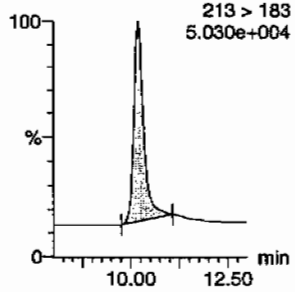

13-Dinitrobenzene-d4

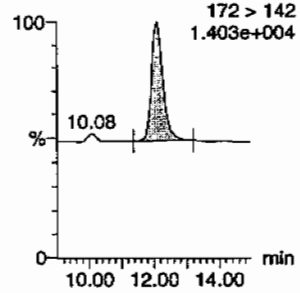

13-Dinitrobenzene

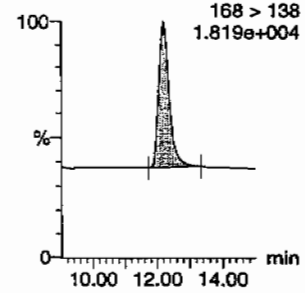

Tetryl

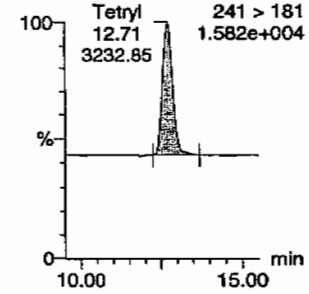

Nitrobenzene

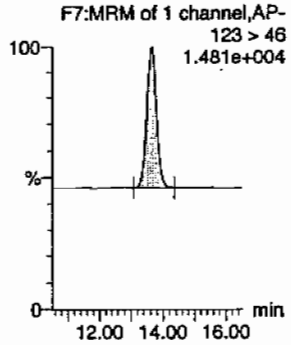

4-Amino-26-dinitrotoluene

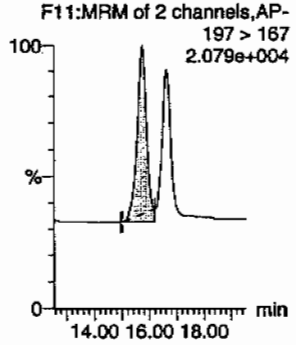

2-Amino-46-dinitrotoluene

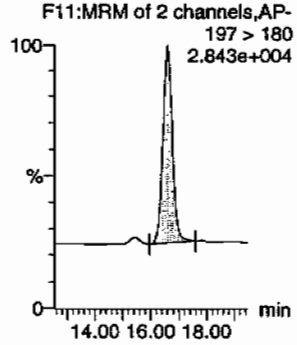

246-Trinitrotoluene

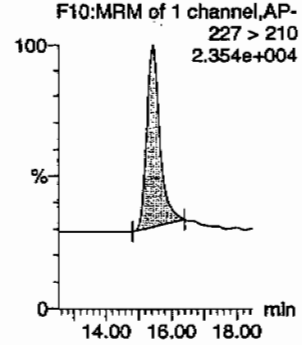

34-dinitrotoluene

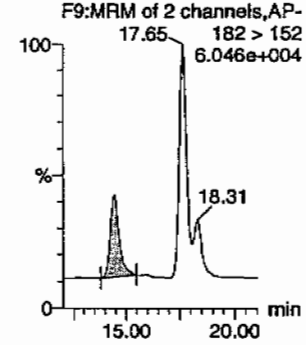

26-dinitrotoluene

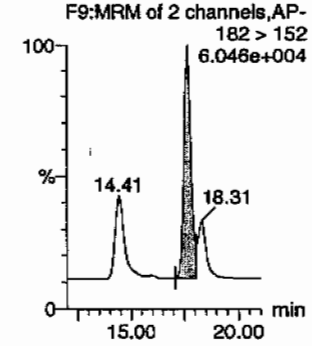

HMU 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

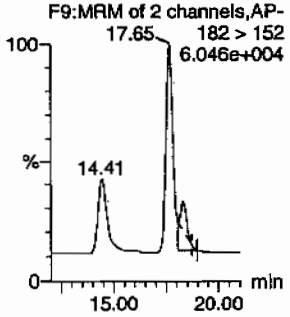

26-dinitrotoluene-d3

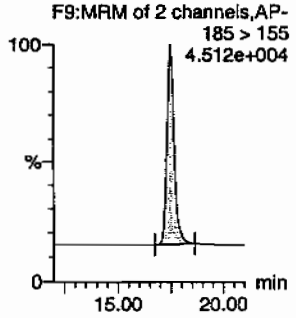

2-Nitrotoluene

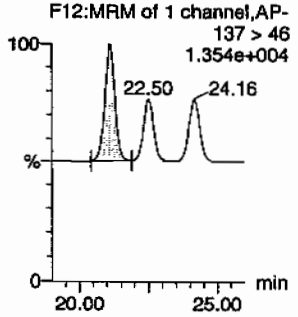

4-Nitrotoluene

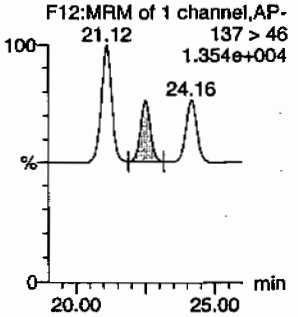

3-Nitrotoluene

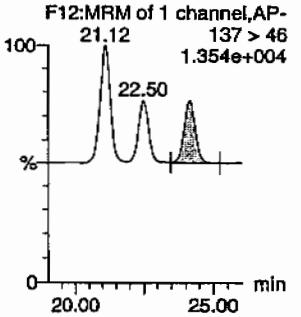

PETN

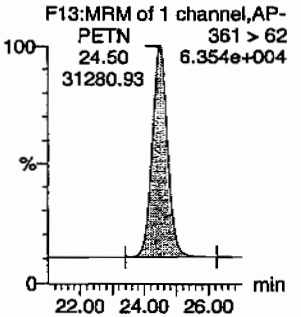

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.19	11475.284	2929.250	11475.284	1958.741	db			564.0230	94.0	-6.0	1104.0
WXX100211-07CCV	RDX	176 > 102	7.61	8622.236	2929.250	8622.236	1471.748	bb			606.1208	101.0	1.0	721.7
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.21	12500.419	2929.250	12500.419	2133.723	bb			579.3351	96.6	-3.4	2459.6
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.10	2929.250		2929.250	2929.250	bb			455.6203	91.1	-8.9	197.3
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.20	4237.073	2929.250	4237.073	723.235	bb			601.4952	100.2	0.2	417.8
WXX100211-07CCV	Tetryl	241 > 181	12.71	3232.850	2929.250	3232.850	551.822	bb			602.1200	100.4	0.4	271.2
WXX100211-07CCV	Nitrobenzene	123 > 46	13.66	2785.898	2929.250	2785.898	475.531	bb			588.6954	98.1	-1.9	223.5
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	5715.073	15494.170	5715.073	184.427	MM	13-Feb-10	09:20:30	642.0533	107.0	7.0	270.2
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	8433.699	15494.170	8433.699	272.157	bb			687.2130	114.5	14.5	421.0
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.44	7625.437	15494.170	7625.437	246.074	bb			762.6354	127.1	27.1	224.2
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.41	9102.950	15494.170	9102.950	293.754	bb			326.3963	108.8	8.8	411.4
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.65	20781.283	15494.170	20781.283	670.616	MM	13-Feb-10	09:24:45	624.3588	104.1	4.1	1180.1
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.31	5145.382	15494.170	5145.382	166.043	MM	13-Feb-10	09:27:53	680.3585	113.4	13.4	273.9
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	15494.170		15494.170	15494.170	bb			419.6760	83.9	-16.1	1197.5
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.12	2900.203	15494.170	2900.203	93.590	bb			603.6196	100.6	0.6	508.3
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.50	1490.065	15494.170	1490.065	48.085	bb			632.6714	105.4	5.4	267.4
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.16	1653.753	15494.170	1653.753	53.367	bb			572.7833	95.5	-4.5	270.1
WXX100211-07CCV	PETN	361 > 62	24.50	31280.934	15494.170	31280.934	1009.442	bb			747.9914	124.7	24.7	6999.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/12/10
Time of Injection: 1241
Standard Number: WXX100211-07CCV
Data File: EXP0208192a

HMX		94.0
RDX		101.0
135-TNB		96.6
13-DNB		100.2
Tetryl		100.4
Nitrobenzene		98.1
4A-26-DNT		107.0
2A-46-DNT		114.5
246-TNT		127.1
34-DNT(surr)		108.8
26-DNT		104.1
24-DNT		113.4
2-NT		100.6
4-NT		105.4
3-NT		95.5
PETN		124.7
Total		1691.4
Average		105.7

MDP 2/13/10

Hmc 02/13/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0208194a

Analysis Date: 12-FEB-10 13:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	448.123	90	
2-Amino-4,6-dinitrotoluene	40	35.812	90	
3,4-Dinitrotoluene	20	22.544	113	
4-Amino-2,6-dinitrotoluene	40	35.549	89	
HMX	40	41.613	104	
Nitrobenzene	40	42.541	106	
PETN	40	46.553	116	
RDX	40	36.544	91	
Tetryl	40	28.746	72	
m-Dinitrobenzene	40	44.616	112	
m-Nitrotoluene	40	34.967	87	
o-Nitrotoluene	40	35.126	88	
p-Nitrotoluene	40	40.053	100	
1,3,5-Trinitrobenzene	40	45.517	114	
1,3-Dinitrobenzene-d4	500	469.519	94	
2,4,6-Trinitrotoluene	40	55.709	139	*
2,4-Dinitrotoluene	40	40.988	102	
2,6-Dinitrotoluene	40	42.306	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208194a
Date: 12-Feb-2010
Time: 13:40:57
ID: WXX100211-08CRi
Vial: 1:1,C

MAP 2/13/10

HMX

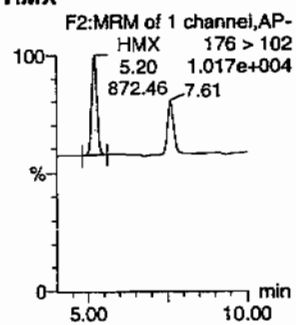

RDX

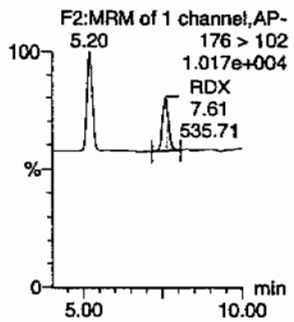

135-Trinitrobenzene

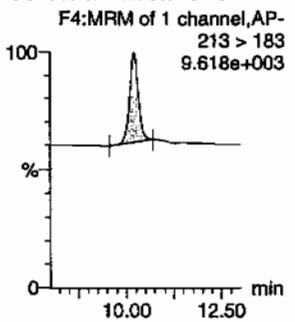

13-Dinitrobenzene-d4

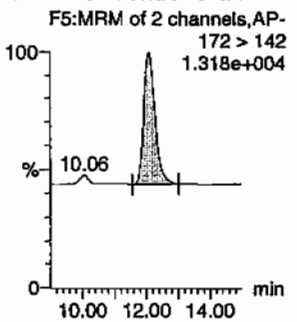

13-Dinitrobenzene

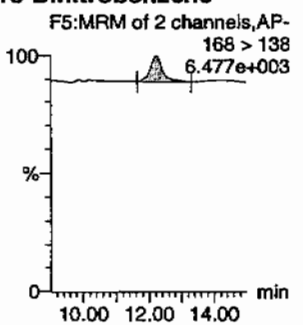

Tetryl

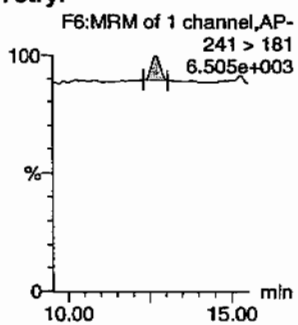

Nitrobenzene

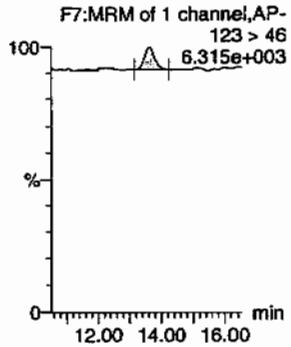

4-Amino-26-dinitrotoluene

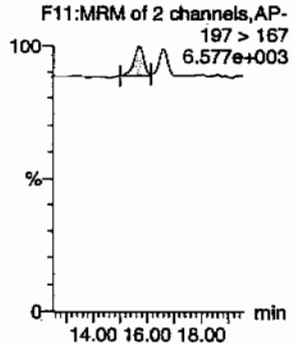

2-Amino-46-dinitrotoluene

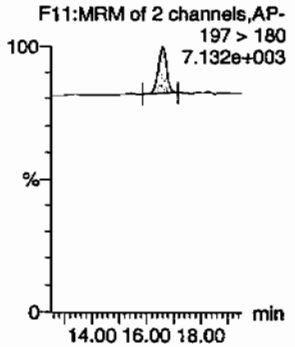

246-Trinitrotoluene

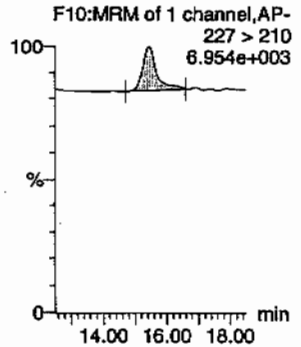

34-dinitrotoluene

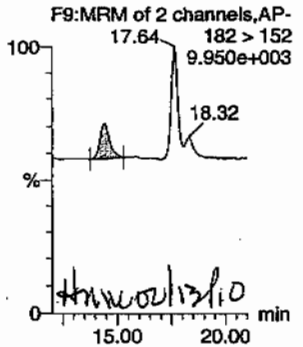

26-dinitrotoluene

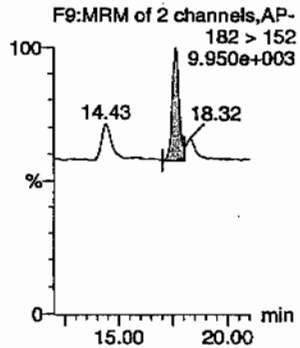

HMW 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

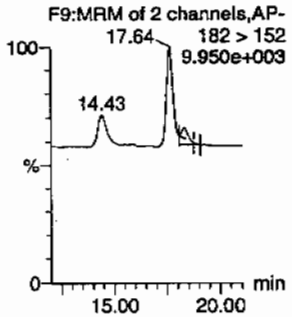

26-dinitrotoluene-d3

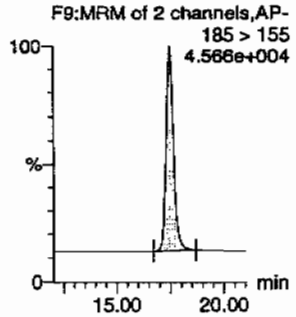

2-Nitrotoluene

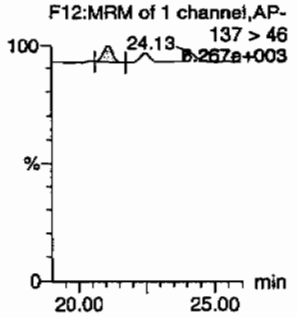

4-Nitrotoluene

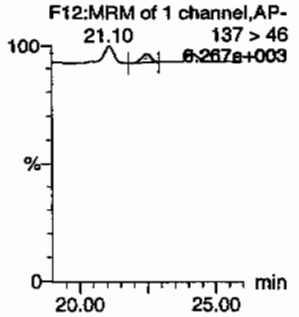

3-Nitrotoluene

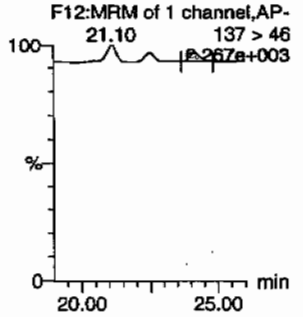

PETN

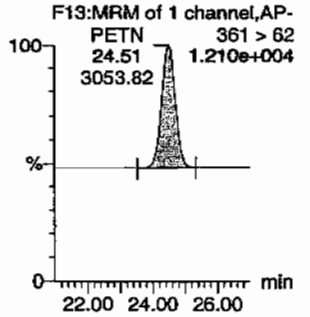

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.20	872.460	3018.608	872.460	144.514	bb			41.6130	104.0	4.0	136.9
WXX100211-08CRI	RDX	176 > 102	7.61	535.712	3018.608	535.712	88.735	bb			36.5444	91.4	-8.6	73.0
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.20	1012.093	3018.608	1012.093	167.642	bb			45.5172	113.8	13.8	222.1
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3018.608		3018.608	3018.608	bb			469.5192	93.9	-6.1	271.9
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.24	323.873	3018.608	323.873	53.646	bb			44.6160	111.5	11.5	48.0
WXX100211-08CRI	Tetryl	241 > 181	12.68	214.825	3018.608	214.825	35.583	bb			28.7462	71.9	-28.1	38.1
WXX100211-08CRI	Nitrobenzene	123 > 46	13.63	207.461	3018.608	207.461	34.364	bb			42.5414	106.4	6.4	18.2
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	337.881	16544.398	337.881	10.211	MM	13-Feb-10	09:20:36	35.5492	88.9	-11.1	15.9
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	469.280	16544.398	469.280	14.182	bb			35.8115	89.5	-10.5	49.9
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.45	594.783	16544.398	594.783	17.975	bb			55.7094	139.3	39.3	43.7
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.43	671.349	16544.398	671.349	20.289	bb			22.5439	112.7	12.7	59.4
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.64	1503.567	16544.398	1503.567	45.440	MM	13-Feb-10	09:24:36	42.3060	105.8	5.8	191.5
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.32	330.995	16544.398	330.995	10.003	MM	13-Feb-10	09:28:10	40.9882	102.5	2.5	32.9
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	16544.398		16544.398	16544.398	bb			448.1225	89.6	-10.4	1121.6
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.10	180.211	16544.398	180.211	5.446	bb			35.1264	87.8	-12.2	70.7
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.48	100.726	16544.398	100.726	3.044	bb			40.0527	100.1	0.1	37.4
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.13	107.801	16544.398	107.801	3.258	bb			34.9671	87.4	-12.6	36.3
WXX100211-08CRI	PETN	361 > 62	24.51	3053.823	16544.398	3053.823	92.292	bb			46.5526	116.4	16.4	569.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/12/10
Time of Injection	1340
Standard Number	WXX100211-08CRI
Data File	EXP0208194a

HMX		104.0
RDX		91.4
135-TNB		113.8
13-DNB		111.5
Tetryl		71.9
Nitrobenzene		106.4
4A-26-DNT		88.9
2A-46-DNT		89.5
246-TNT		139.3
34-DNT(surr)		112.7
26-DNT		105.8
24-DNT		102.5
2-NT		87.8
4-NT		100.1
3-NT		87.4
PETN		116.4
Total		1629.4
Average		101.8

MTT 2/13/10

Hmc 02/13/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0208204a

Analysis Date: 12–FEB–10 18:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	573.104	96	
1,3–Dinitrobenzene–d4	500	406.534	81	
2,4,6–Trinitrotoluene	600	676.945	113	
2,4–Dinitrotoluene	600	732.781	122	*
2,6–Dinitrotoluene	600	616.675	103	
2,6–Dinitrotoluene–d3	500	391.437	78	*
2–Amino–4,6–dinitrotoluene	600	635.563	106	
3,4–Dinitrotoluene	300	328.615	110	
4–Amino–2,6–dinitrotoluene	600	609.488	102	
HMX	600	608.517	101	
Nitrobenzene	600	610.084	102	
PETN	600	833.891	139	*
RDX	600	650.563	108	
Tetryl	600	631.091	105	
m–Dinitrobenzene	600	614.184	102	
m–Nitrotoluene	600	625.894	104	
o–Nitrotoluene	600	613.904	102	
p–Nitrotoluene	600	627.116	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208204a
Date: 12-Feb-2010
Time: 18:36:13
ID: WXX100211-07CCV
Vial: 1:1,B

MM 2/13/10

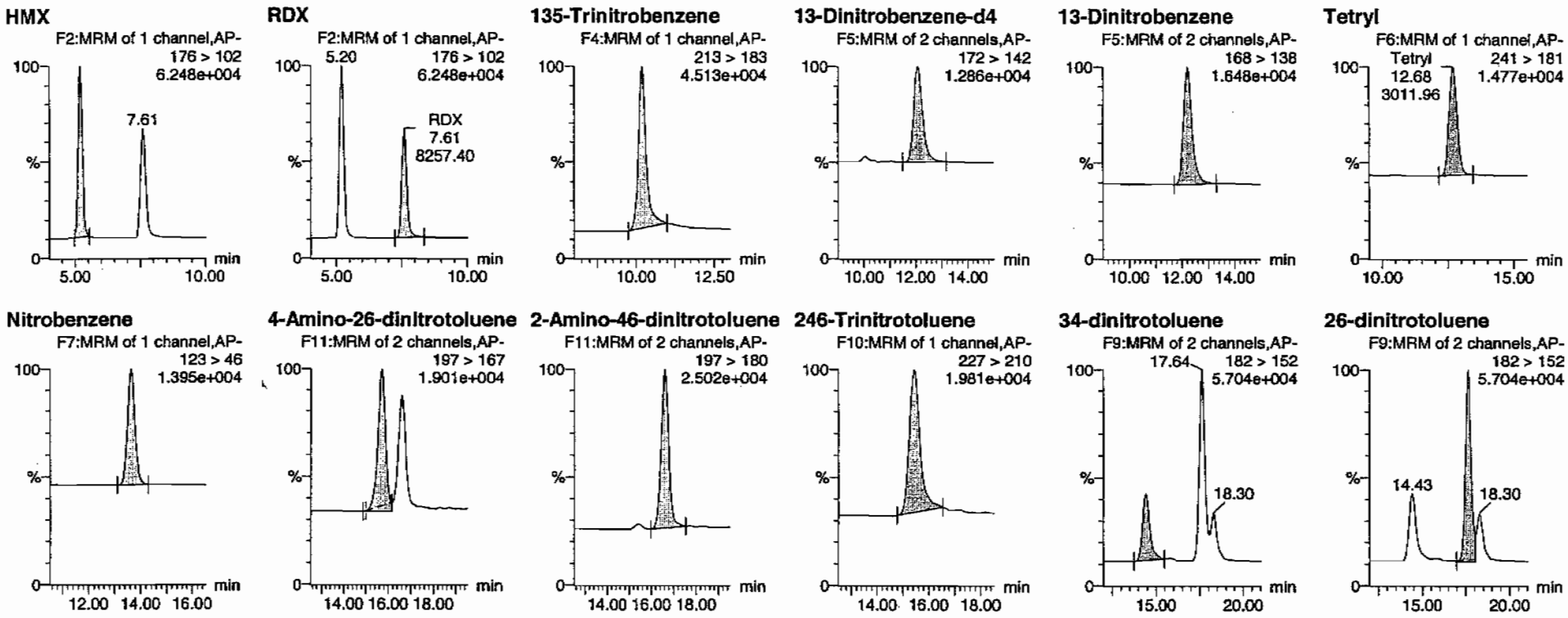

Hane 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

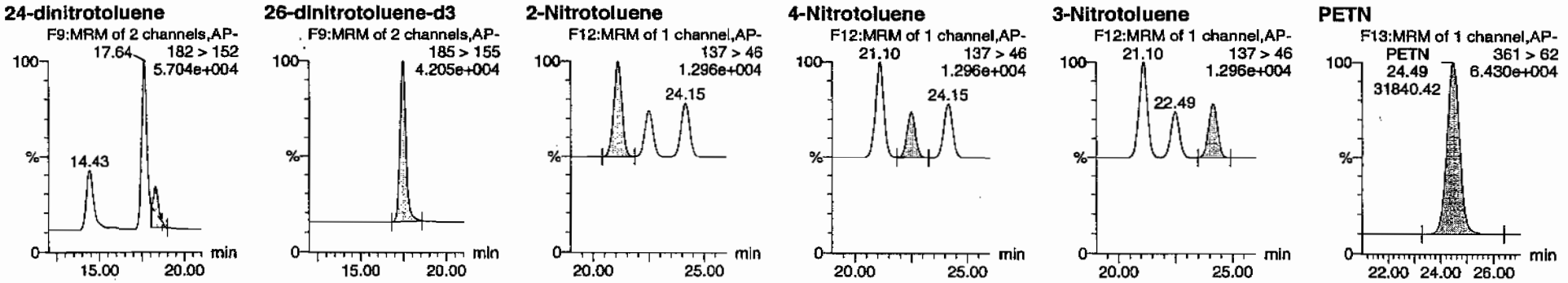

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ug/mL	%Rec	%Dev	S/N
WXX100211-07CCV	HMX	176 > 102	5.20	11046.710	2613.664	11046.710	2113.261	bb			608.5174	101.4	1.4	1850.2
WXX100211-07CCV	RDX	176 > 102	7.61	8257.402	2613.664	8257.402	1579.660	bb			650.5630	108.4	8.4	1173.8
WXX100211-07CCV	135-Trinitrobenzene	213 > 183	10.20	11033.706	2613.664	11033.706	2110.774	bb			573.1039	95.5	-4.5	1230.4
WXX100211-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2613.664		2613.664	2613.664	bb			406.5335	81.3	-18.7	438.4
WXX100211-07CCV	13-Dinitrobenzene	168 > 138	12.21	3860.341	2613.664	3860.341	738.492	bb			614.1841	102.4	2.4	621.9
WXX100211-07CCV	Tetryl	241 > 181	12.68	3011.958	2613.664	3011.958	576.195	bb			631.0910	105.2	5.2	296.6
WXX100211-07CCV	Nitrobenzene	123 > 46	13.63	2576.068	2613.664	2576.068	492.808	bb			610.0837	101.7	1.7	230.2
WXX100211-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	5060.151	14451.611	5060.151	175.072	MM	13-Feb-10	09:20:50	609.4876	101.6	1.6	80.1
WXX100211-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	7275.005	14451.611	7275.005	251.702	bb			635.5630	105.9	5.9	345.7
WXX100211-07CCV	246-Trinitrotoluene	227 > 210	15.45	6313.196	14451.611	6313.196	218.425	bb			676.9453	112.8	12.8	597.4
WXX100211-07CCV	34-dinitrotoluene	182 > 152	14.43	8548.145	14451.611	8548.145	295.751	bb			328.6147	109.5	9.5	549.8
WXX100211-07CCV	26-dinitrotoluene	182 > 152	17.64	19144.428	14451.611	19144.428	662.363	MM	13-Feb-10	09:24:27	616.6750	102.8	2.8	1576.9
WXX100211-07CCV	24-dinitrotoluene	182 > 152	18.30	5168.947	14451.611	5168.947	178.836	MM	13-Feb-10	09:28:28	732.7812	122.1	22.1	381.2
WXX100211-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	14451.611		14451.611	14451.611	bb			391.4372	78.3	-21.7	1564.2
WXX100211-07CCV	2-Nitrotoluene	137 > 46	21.10	2751.146	14451.611	2751.146	95.185	bb			613.9042	102.3	2.3	343.4
WXX100211-07CCV	4-Nitrotoluene	137 > 46	22.49	1377.598	14451.611	1377.598	47.662	bb			627.1155	104.5	4.5	165.5
WXX100211-07CCV	3-Nitrotoluene	137 > 46	24.15	1685.502	14451.611	1685.502	58.315	bb			625.8944	104.3	4.3	193.3
WXX100211-07CCV	PETN	361 > 62	24.49	31840.416	14451.611	31840.416	1101.622	bb			833.8909	139.0	39.0	8324.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/12/10
Time of Injection: 1836
Standard Number: WXX100211-07CCV
Data File: EXP0208204a

HMX	101.4
RDX	108.4
135-TNB	95.5
13-DNB	102.4
Tetryl	105.2
Nitrobenzene	101.7
4A-26-DNT	101.6
2A-46-DNT	105.9
246-TNT	112.8
34-DNT(surr)	109.5
26-DNT	102.8
24-DNT	122.1
2-NT	102.3
4-NT	104.5
3-NT	104.3
PETN	139.0
Total	1719.4
Average	107.5

JCV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0208206a

Analysis Date: 12-FEB-10 19:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	40	44.859	112	
p-Nitrotoluene	40	50.729	127	
1,3,5-Trinitrobenzene	40	51.365	128	
1,3-Dinitrobenzene-d4	500	423.168	85	
2,4,6-Trinitrotoluene	40	44.639	112	
2,4-Dinitrotoluene	40	35.699	89	
2,6-Dinitrotoluene	40	39.836	100	
2,6-Dinitrotoluene-d3	500	422.416	84	
2-Amino-4,6-dinitrotoluene	40	41.793	104	
3,4-Dinitrotoluene	20	20.845	104	
4-Amino-2,6-dinitrotoluene	40	37.746	94	
HMX	40	44.962	112	
Nitrobenzene	40	30.167	75	
PETN	40	59.642	149	*
RDX	40	40.853	102	
Tetryl	40	43.184	108	
m-Dinitrobenzene	40	41.433	104	
m-Nitrotoluene	40	55.505	139	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208206a
Date: 12-Feb-2010
Time: 19:35:13
ID: WXX100211-08CRI
Vial: 1:1,C

MMP 2/13/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.065e+004
849.61

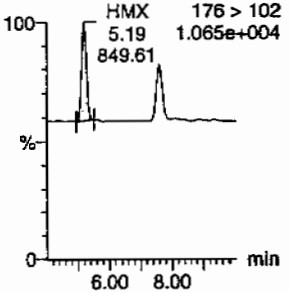

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.065e+004

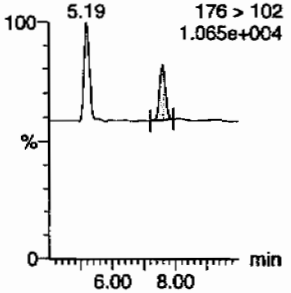

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.939e+003

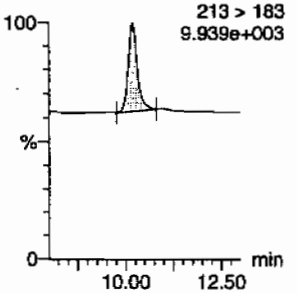

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.285e+004

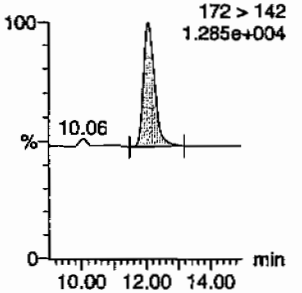

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.812e+003

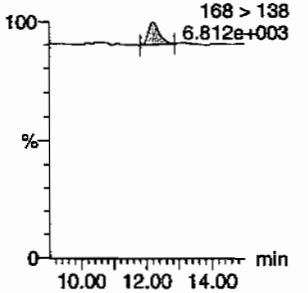

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.823e+003

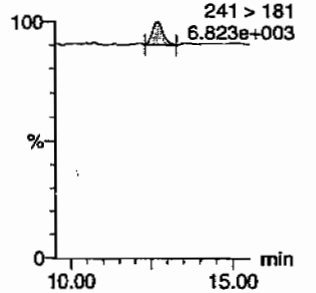

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.606e+003

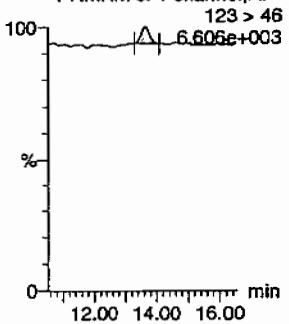

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.032e+003

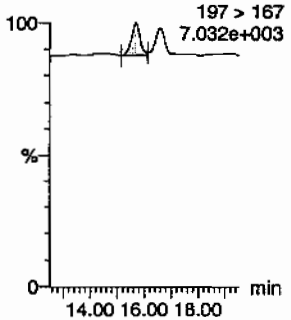

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.456e+003

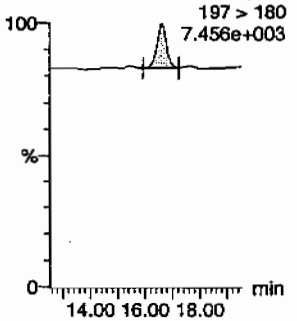

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.248e+003

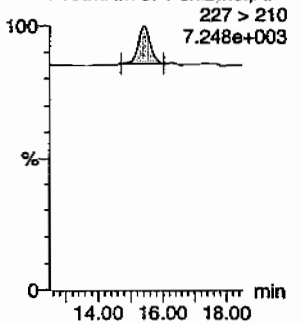

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.689e+003

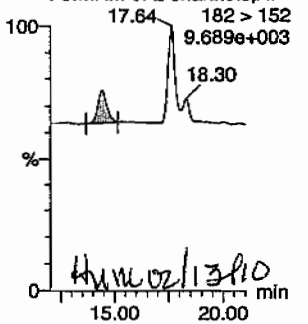

HMM 02/13/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.689e+003

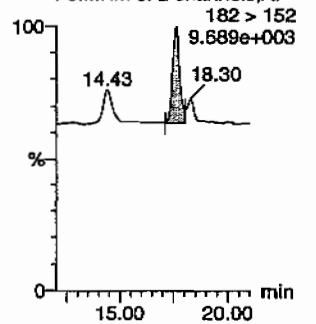

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

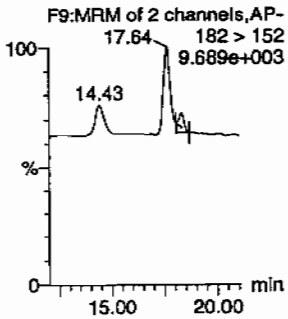

26-dinitrotoluene-d3

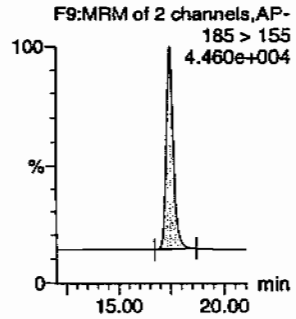

2-Nitrotoluene

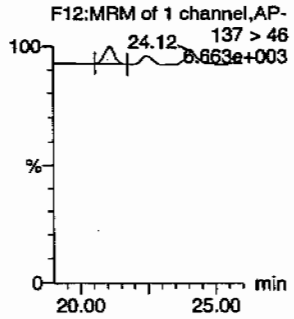

4-Nitrotoluene

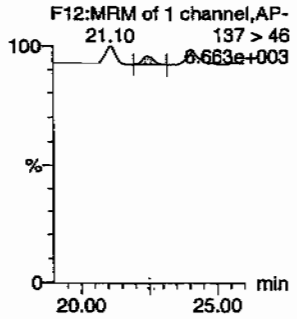

3-Nitrotoluene

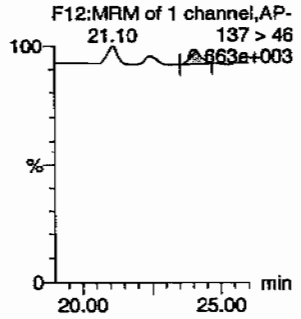

PETN

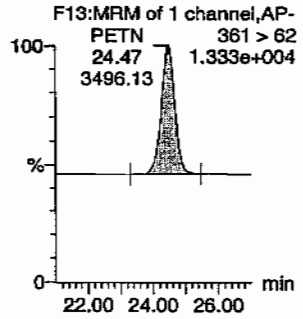

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100211-08CRI	HMX	176 > 102	5.19	849.611	2720.612	849.611	156.143	bb			44.9618	112.4	12.4	237.7
WXX100211-08CRI	RDX	176 > 102	7.60	539.750	2720.612	539.750	99.196	bb			40.8528	102.1	2.1	132.6
WXX100211-08CRI	135-Trinitrobenzene	213 > 183	10.19	1029.363	2720.612	1029.363	189.179	bb			51.3646	128.4	28.4	156.9
WXX100211-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2720.612		2720.612	2720.612	bb			423.1684	84.6	-15.4	204.6
WXX100211-08CRI	13-Dinitrobenzene	168 > 138	12.21	271.075	2720.612	271.075	49.819	bb			41.4329	103.6	3.6	18.9
WXX100211-08CRI	Tetryl	241 > 181	12.73	268.655	2720.612	268.655	49.374	bb			43.1839	108.0	8.0	18.6
WXX100211-08CRI	Nitrobenzene	123 > 46	13.63	132.592	2720.612	132.592	24.368	bb			30.1670	75.4	-24.6	14.0
WXX100211-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	338.182	15595.316	338.182	10.842	MM	13-Feb-10	09:20:57	37.7463	94.4	-5.6	16.1
WXX100211-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	516.244	15595.316	516.244	16.551	bb			41.7929	104.5	4.5	52.9
WXX100211-08CRI	246-Trinitrotoluene	227 > 210	15.42	449.253	15595.316	449.253	14.403	bb			44.6393	111.6	11.6	40.0
WXX100211-08CRI	34-dinitrotoluene	182 > 152	14.43	585.154	15595.316	585.154	18.761	bb			20.8453	104.2	4.2	33.1
WXX100211-08CRI	26-dinitrotoluene	182 > 152	17.64	1334.560	15595.316	1334.560	42.787	MM	13-Feb-10	09:24:20	39.8359	99.6	-0.4	98.4
WXX100211-08CRI	24-dinitrotoluene	182 > 152	18.30	271.745	15595.316	271.745	8.712	MM	13-Feb-10	09:28:39	35.6990	89.2	-10.8	22.4
WXX100211-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	15595.316		15595.316	15595.316	bb			422.4156	84.5	-15.5	1228.0
WXX100211-08CRI	2-Nitrotoluene	137 > 46	21.10	216.941	15595.316	216.941	6.955	bb			44.8591	112.1	12.1	79.5
WXX100211-08CRI	4-Nitrotoluene	137 > 46	22.45	120.257	15595.316	120.257	3.856	bb			50.7291	126.8	26.8	37.4
WXX100211-08CRI	3-Nitrotoluene	137 > 46	24.12	161.301	15595.316	161.301	5.171	bb			55.5048	138.8	38.8	52.5
WXX100211-08CRI	PETN	361 > 62	24.47	3496.129	15595.316	3496.129	112.089	bb			59.6419	149.1	49.1	1430.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/12/10
Time of Injection	1935
Standard Number	WXX100211-08CRI
Data File	EXP0208206a

HMX	112.4
RDX	102.1
135-TNB	128.4
13-DNB	103.6
Tetryl	108.0
Nitrobenzene	75.4
4A-26-DNT	94.4
2A-46-DNT	104.5
246-TNT	111.6
34-DNT(surr)	104.2
26-DNT	99.6
24-DNT	89.2
2-NT	112.1
4-NT	126.8
3-NT	138.8
PETN	149.1
Total	1760.2
Average	110.0

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02130013.wiff

Analysis Date: 13–FEB–10 13:21

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	114	114	
2,6–Diamino–4–nitrotoluene	100	111	111	
3,4–Dinitrotoluene	50	54.6	109	
3,5–Dinitroaniline	100	118	118	
TATB	100	106	106	
tris(o–cresyl) phosphate	100	105	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Stan 2/15/10

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:21:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.17 min
Area: 1.64e+005 counts
Height: 35494.713 cps
Start Time: 7.03 min
End Time: 7.71 min

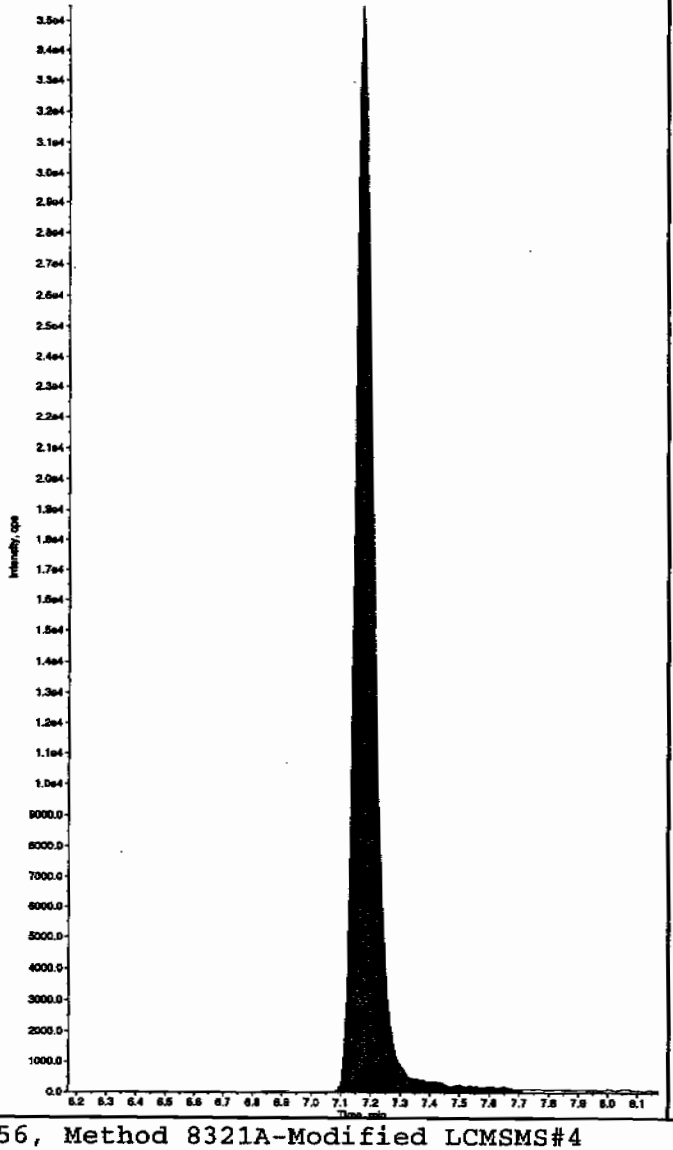

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 132. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:21:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 7.81e+005 counts
Height: 170448.990 cps
Start Time: 8.26 min
End Time: 8.78 min

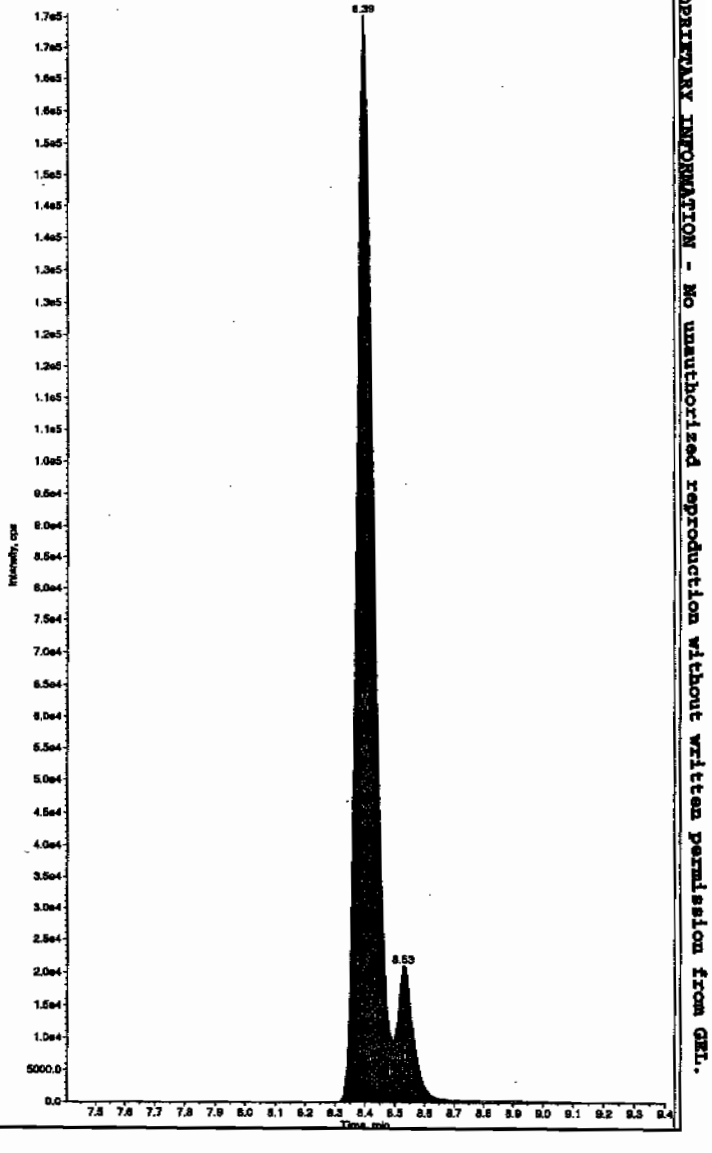

Hnm 02/15/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Dan 2/15/10

Sample Name: "WXX100213-27CRI" Sample ID: "|1|LER" File: "EXS02130013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:21:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.17 min
Area: 1.64e+005 counts
Height: 35494.713 cps
Start Time: 7.03 min
End Time: 7.71 min

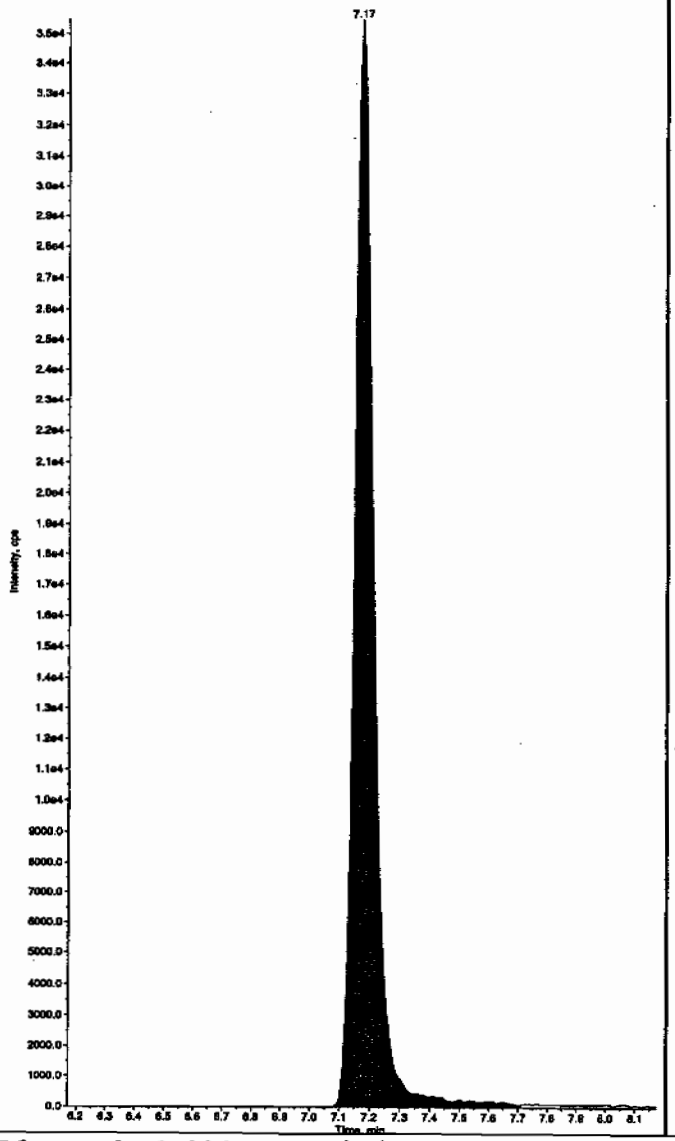

Sample Name: "WXX100213-27CRI" Sample ID: "|1|LER" File: "EXS02130013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 118. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:21:17 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.39 min
Area: 6.92e+005 counts
Height: 170158.882 cps
Start Time: 8.32 min
End Time: 8.50 min

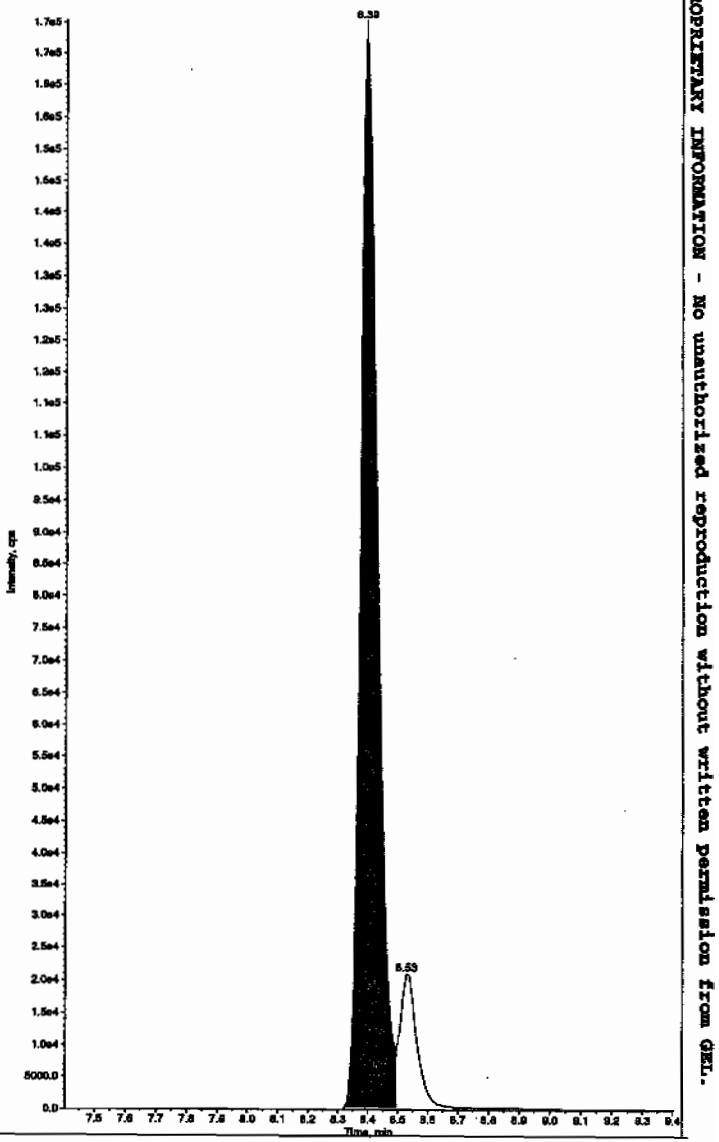

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 54.6 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:21:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 6.21e+005 counts
Height: 154539.307 cps
Start Time: 8.45 min
End Time: 8.69 min

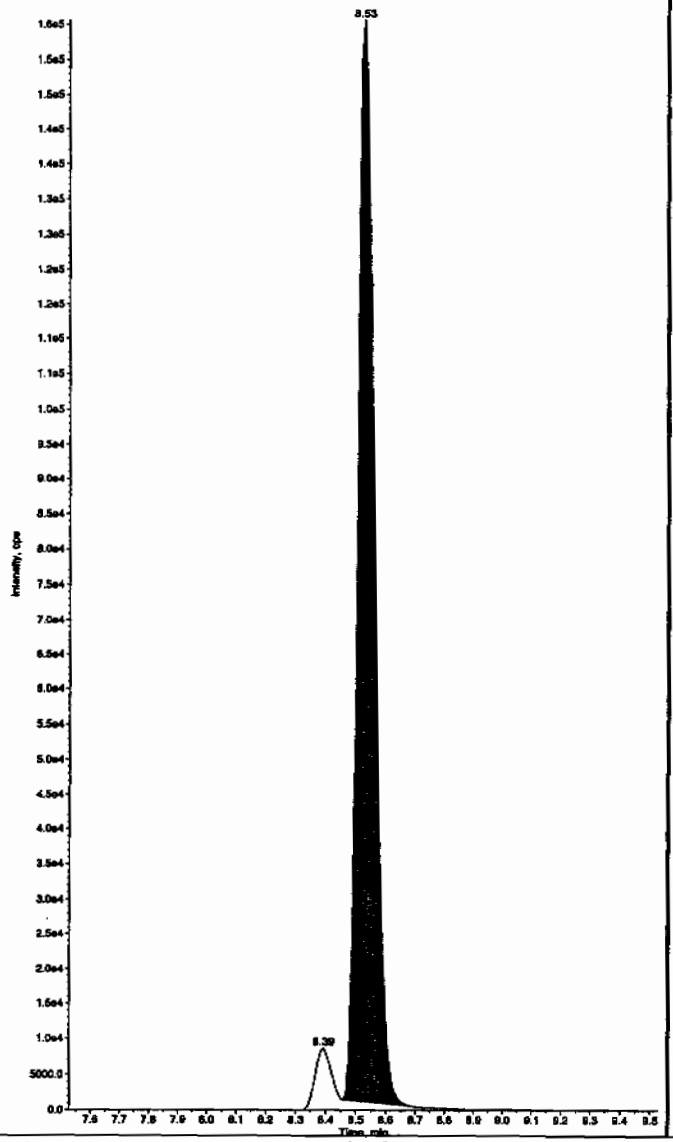

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:21:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.20 min
Area: 2.78e+005 counts
Height: 67664.299 cps
Start Time: 5.08 min
End Time: 5.47 min

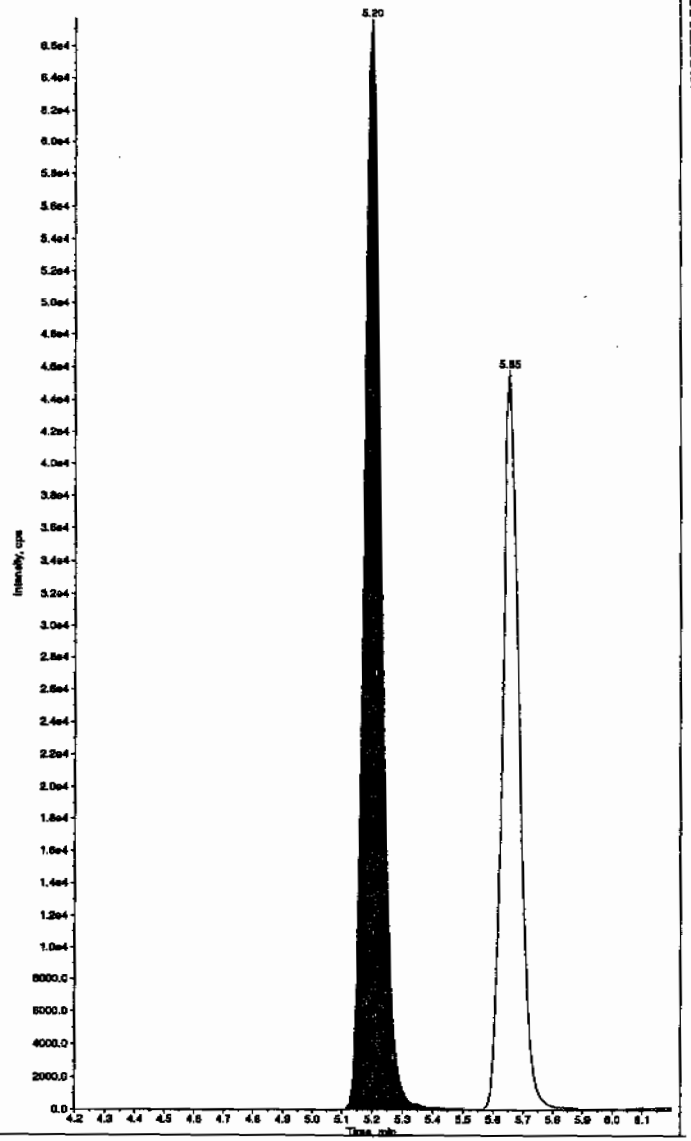

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:21:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.65 min
Area: 1.76e+005 counts
Height: 45553.951 cps
Start Time: 5.58 min
End Time: 5.79 min

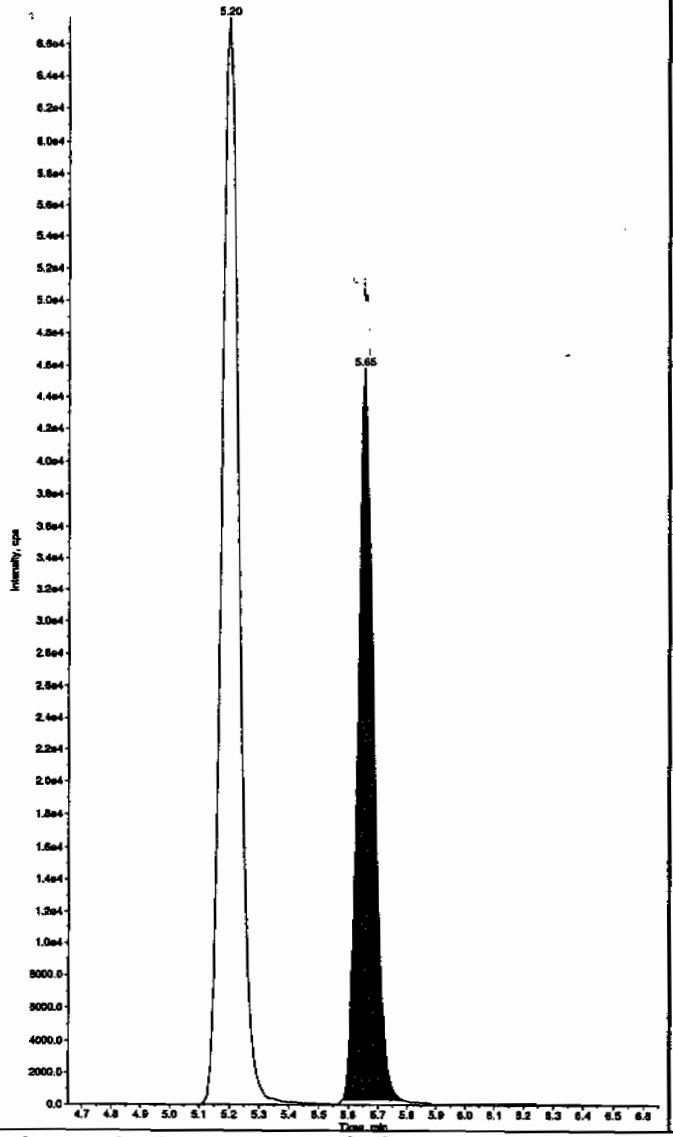

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:21:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.44e+006 counts
Height: 610304.504 cps
Start Time: 10.9 min
End Time: 11.3 min

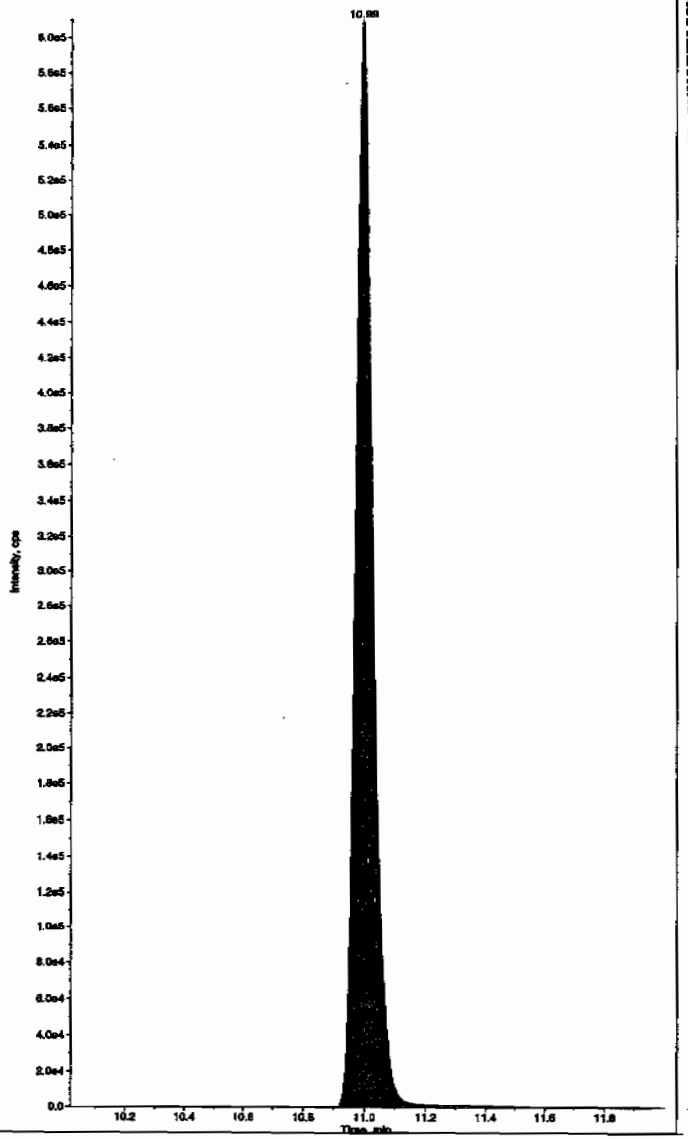

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02130024.wiff

Analysis Date: 13-FEB-10 16:14

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	500	517	103	
3,4-Dinitrotoluene	250	268	107	
3,5-Dinitroaniline	500	576	115	
TATB	500	506	101	
tris(o-cresyl) phosphate	500	513	103	
2,4-Diamino-6-nitrotoluene	500	505	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/15/10

Sample Name: "WXX100213-26CCV" Sample ID: "|1|LER" File: "EXS02130024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 506. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:14:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.16 min
Area: 7.86e+005 counts
Height: 176596.573 cps
Start Time: 7.03 min
End Time: 7.71 min

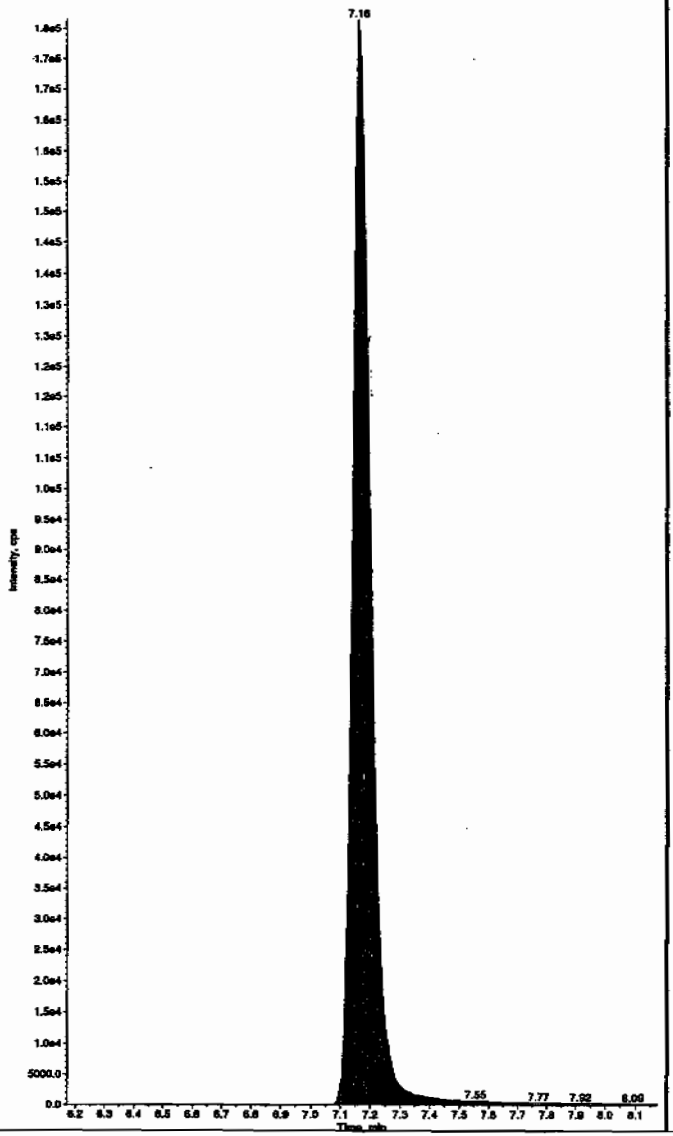

Sample Name: "WXX100213-26CCV" Sample ID: "|1|LER" File: "EXS02130024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 576. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:14:02 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.37 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 3.47e+006 counts
Height: 850072.388 cps
Start Time: 8.29 min
End Time: 8.48 min

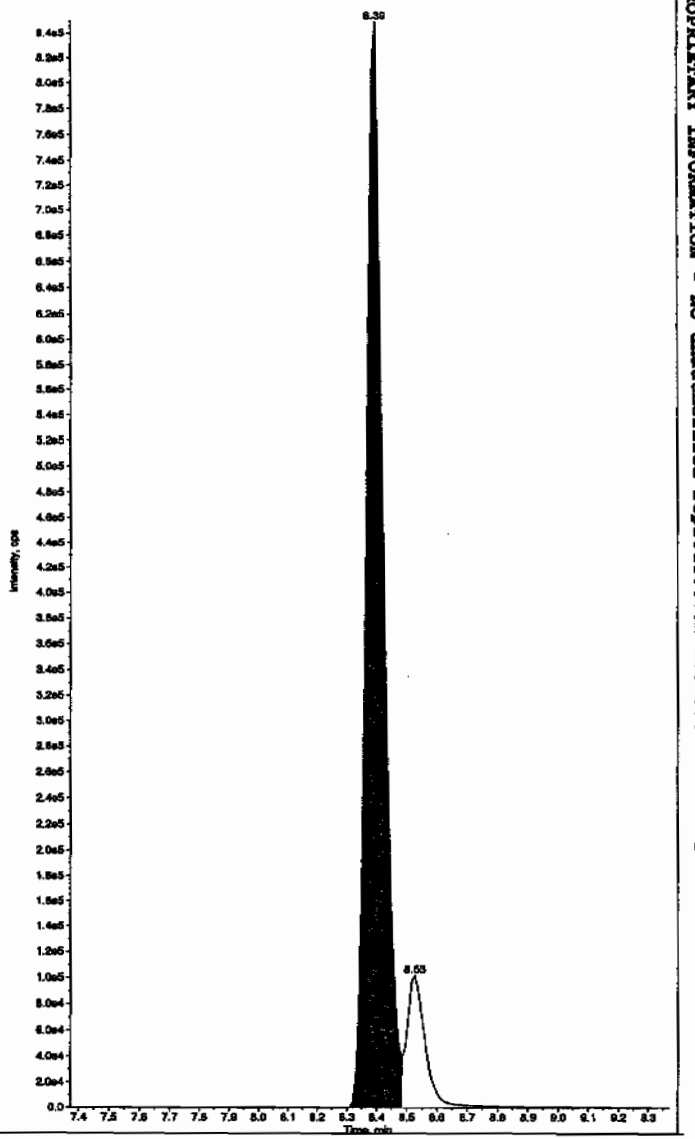

HMM 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100213-26CCV" Sample ID: "[1]LER" File: "EXS02130024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 268. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:14:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 3.18e+006 counts
Height: 821762.817 cps
Start Time: 8.45 min
End Time: 8.69 min

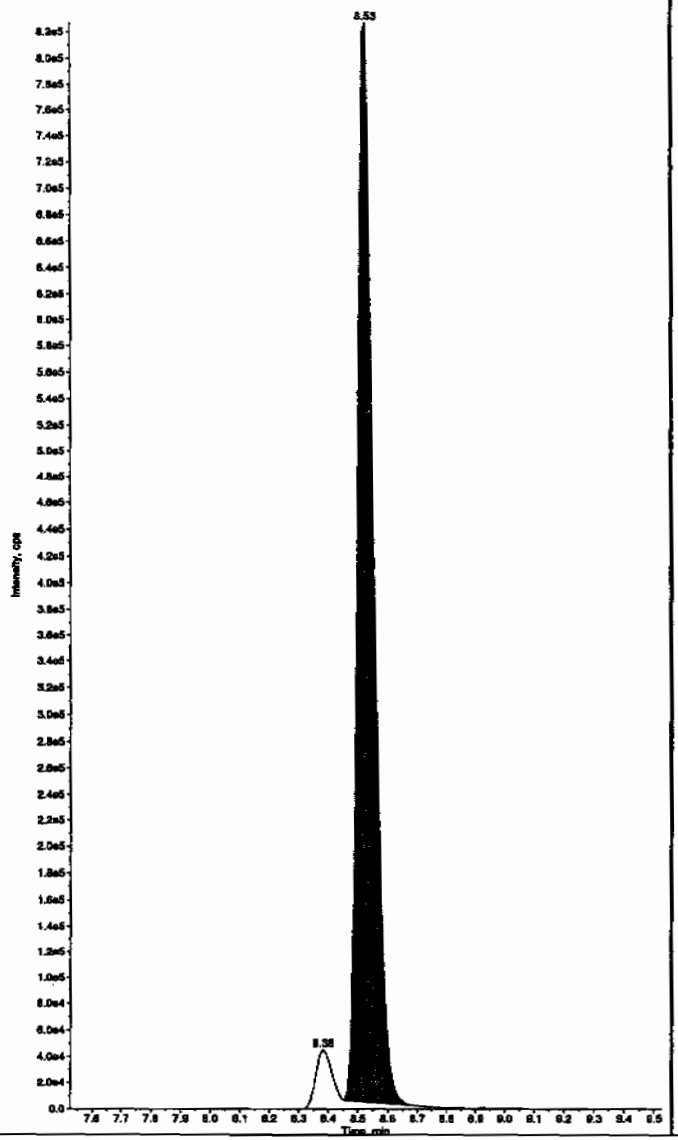

Sample Name: "WXX100213-26CCV" Sample ID: "[1]LER" File: "EXS02130024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 517. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:14:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.19 min
Area: 1.35e+006 counts
Height: 298130.981 cps
Start Time: 5.08 min
End Time: 5.45 min

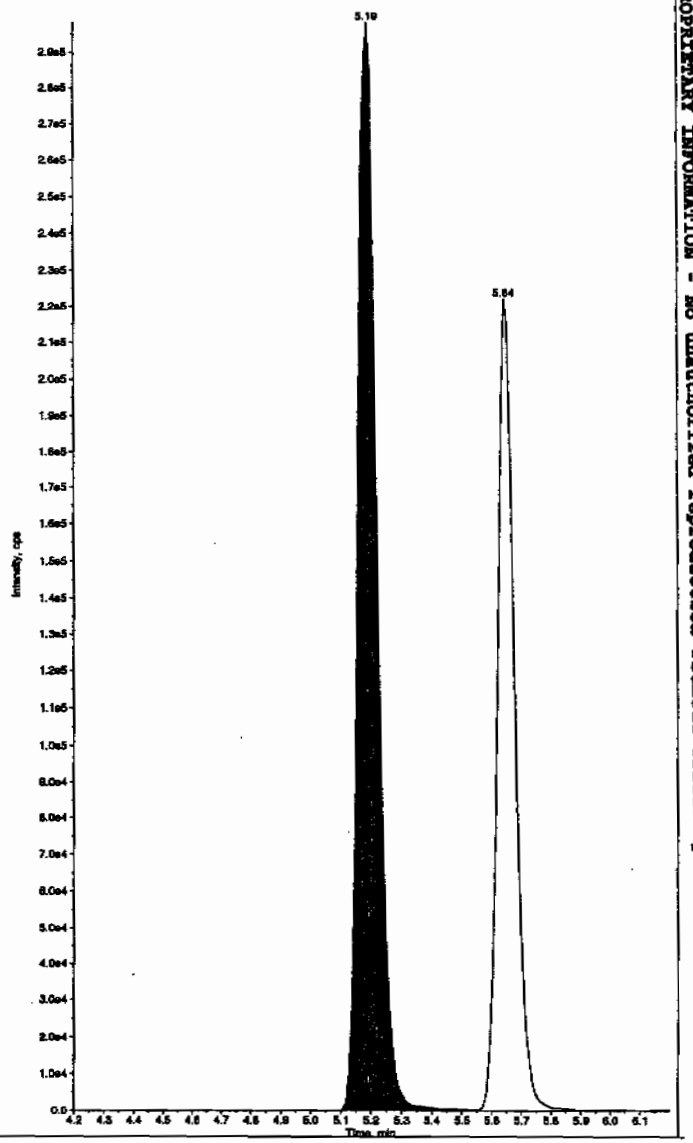

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100213-26CCV" Sample ID: "[1]LER" File: "EXS02130024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:14:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.64 min
Area: 8.75e+005 counts
Height: 221092.178 cps
Start Time: 5.57 min
End Time: 5.80 min

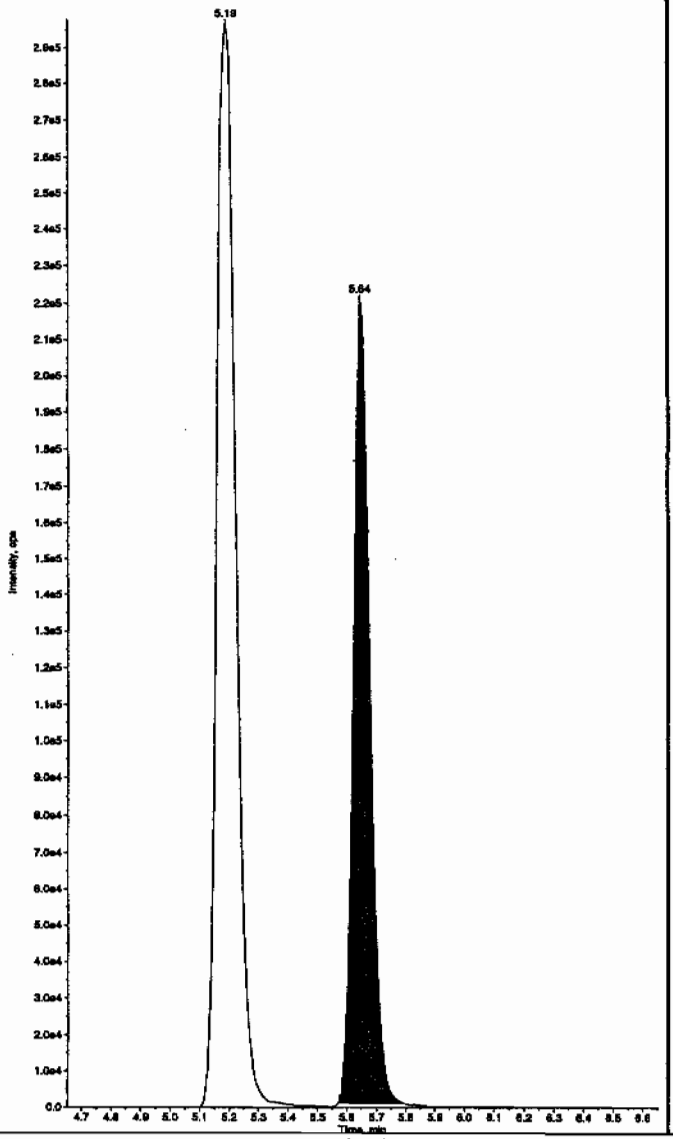

Sample Name: "WXX100213-26CCV" Sample ID: "[1]LER" File: "EXS02130024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 513. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:14:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.10e+007 counts
Height: 2499876.465 cps
Start Time: 10.9 min
End Time: 11.3 min

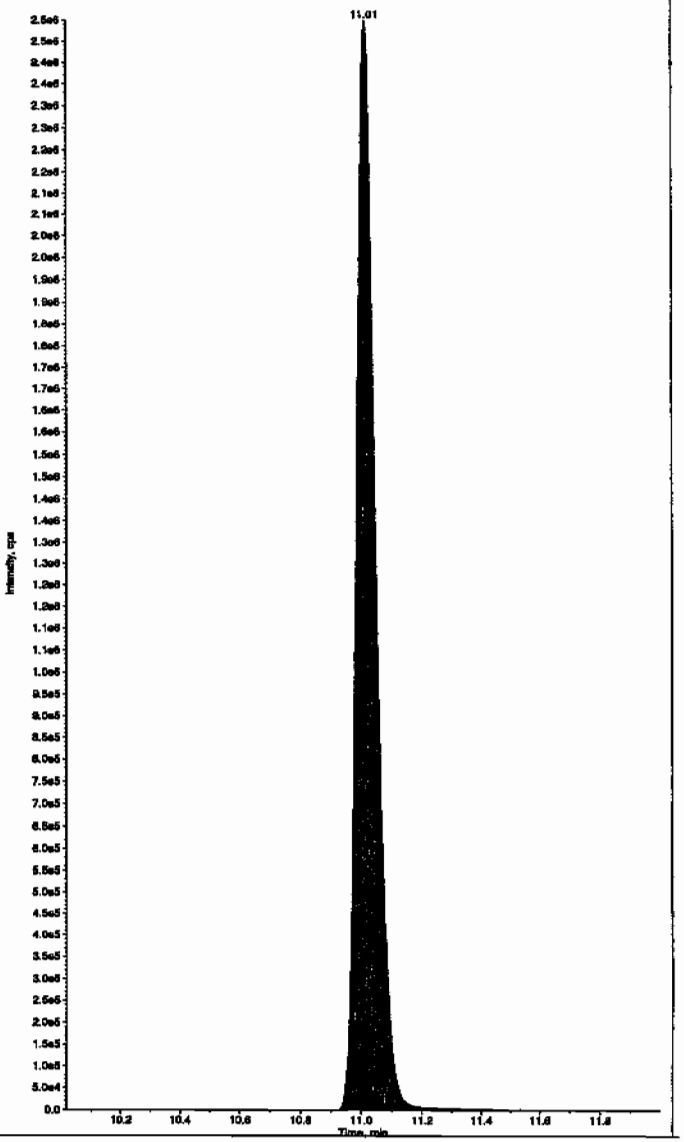

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02130026.wiff

Analysis Date: 13–FEB–10 16:45

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	116	116	
2,6–Diamino–4–nitrotoluene	100	109	109	
3,4–Dinitrotoluene	50	56.6	113	
3,5–Dinitroaniline	100	115	115	
TATB	100	105	105	
tris(o–cresyl) phosphate	100	105	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sar 2/15/10

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:45:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.16 min
Area: 1.62e+005 counts
Height: 35741.764 cps
Start Time: 7.01 min
End Time: 7.68 min

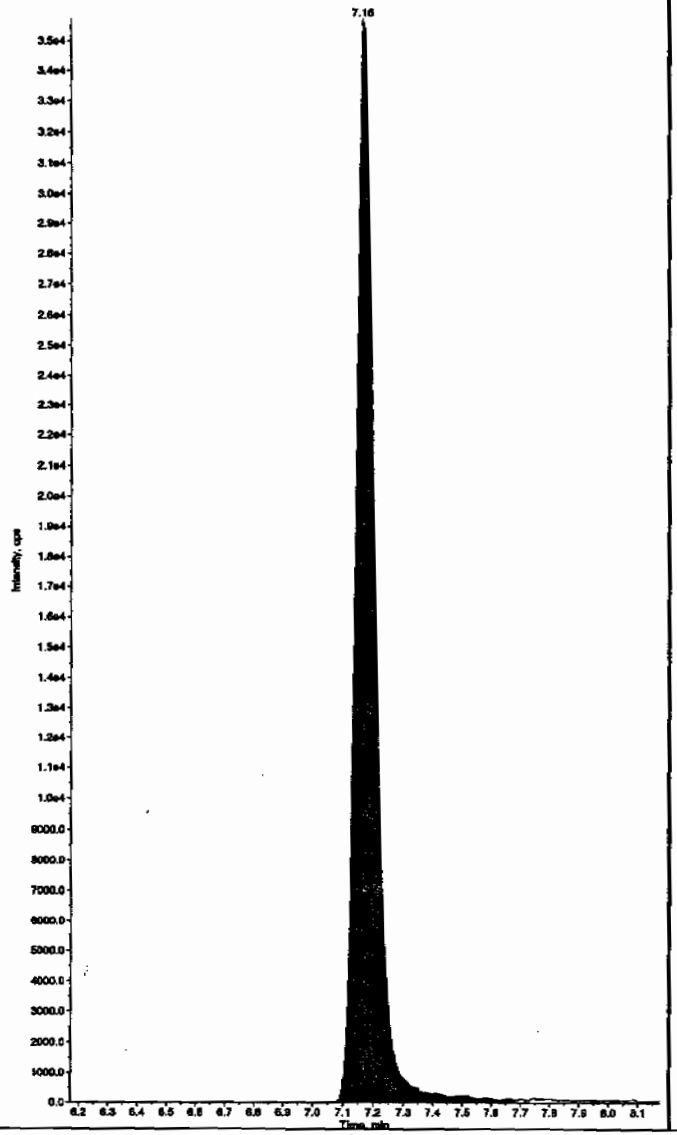

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 115. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:45:25 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.35 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 6.69e+005 counts
Height: 171701.492 cps
Start Time: 8.29 min
End Time: 8.48 min

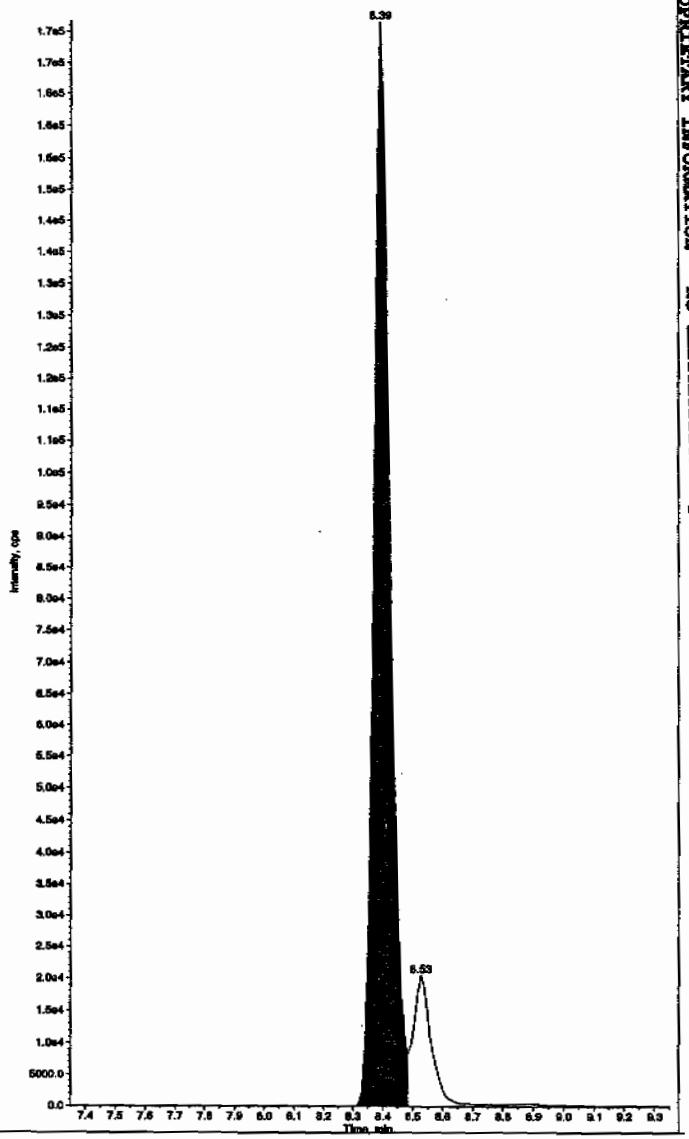

Hnm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 56.6 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:45:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 6.46e+005 counts
Height: 174294.678 cps
Start Time: 8.45 min
End Time: 8.71 min

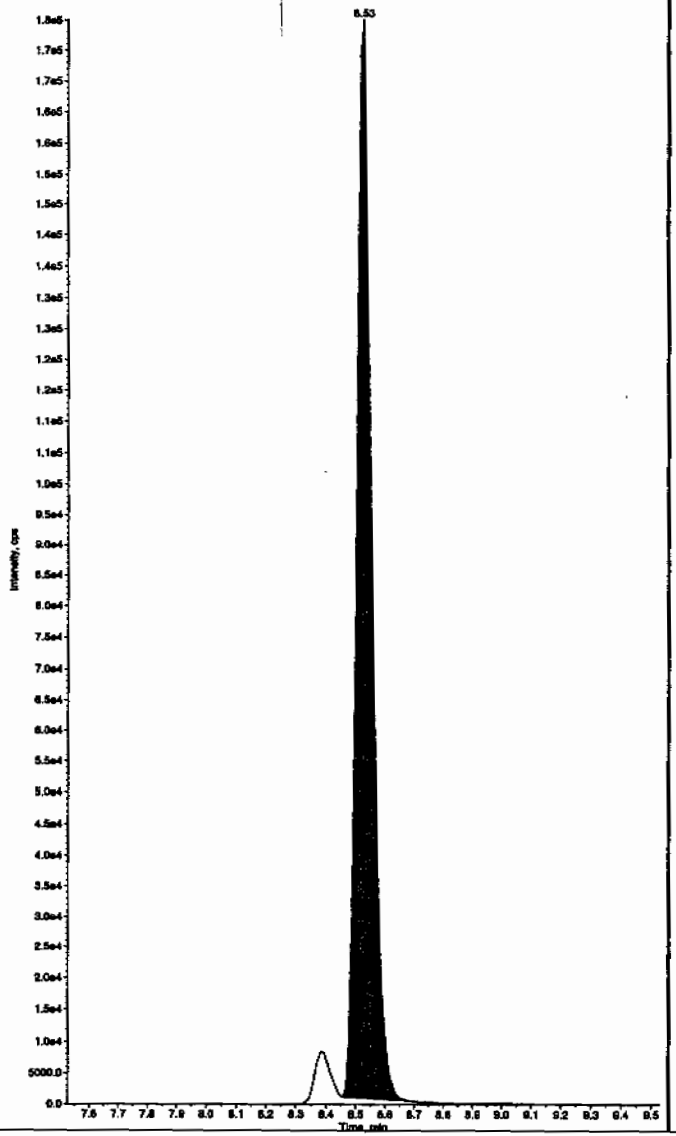

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:45:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.19 min
Area: 2.74e+005 counts
Height: 67367.584 cps
Start Time: 5.03 min
End Time: 5.49 min

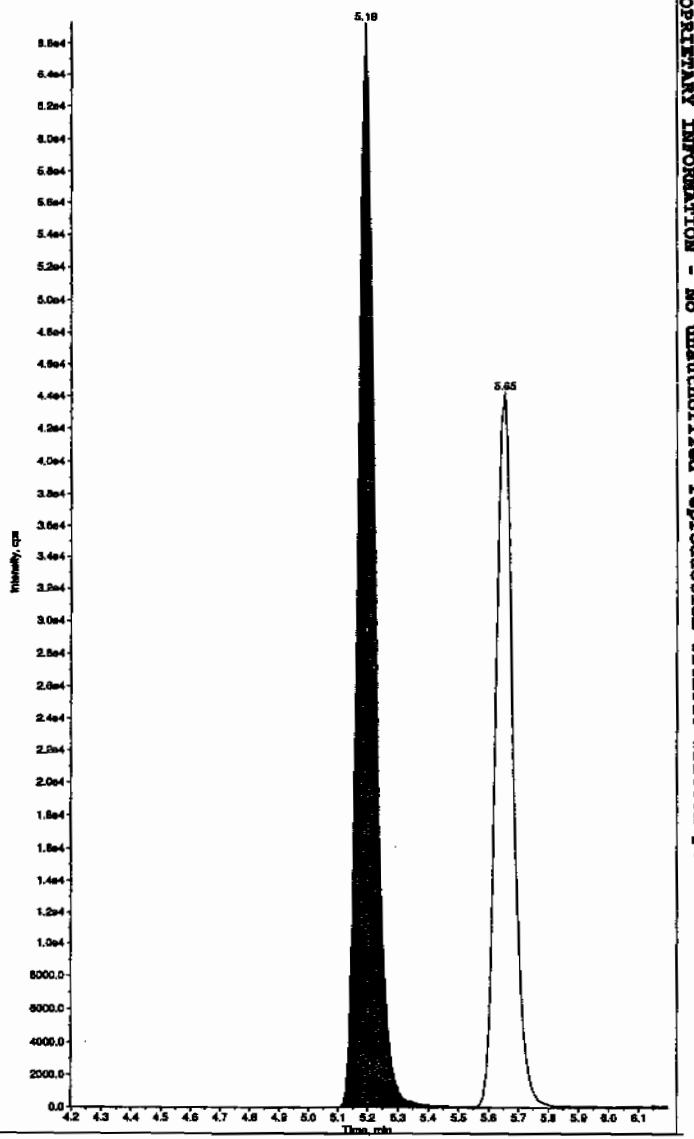

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 116. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:45:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.65 min
Area: 1.80e+005 counts
Height: 44292.934 cps
Start Time: 5.56 min
End Time: 5.93 min

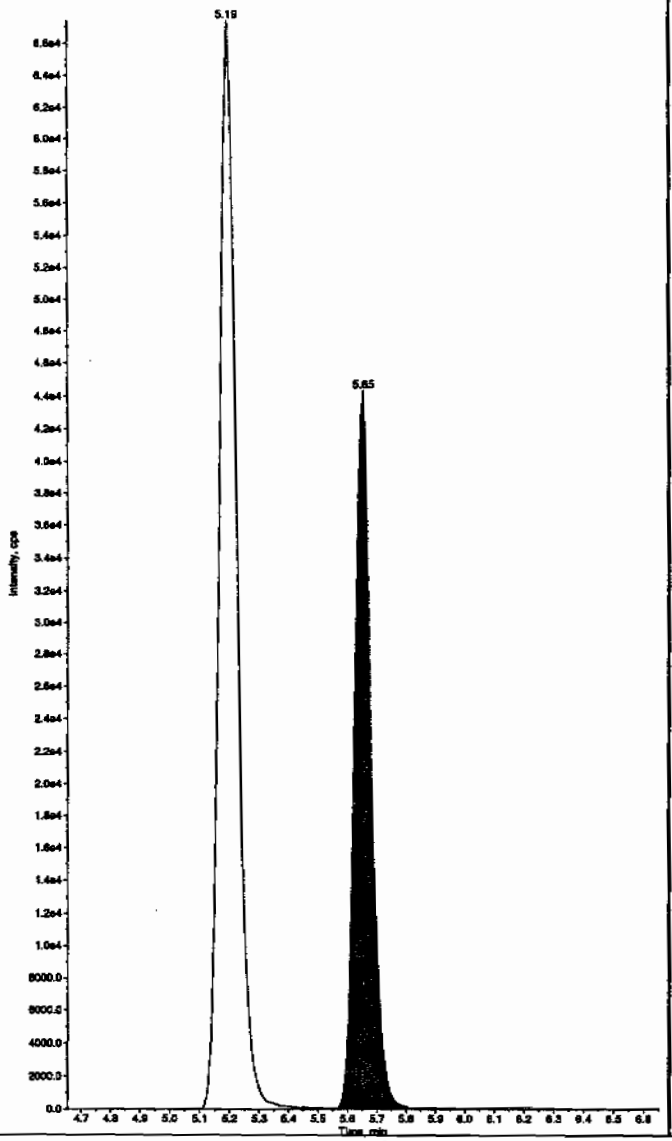

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 4:45:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.44e+006 counts
Height: 576848.450 cps
Start Time: 10.9 min
End Time: 11.4 min

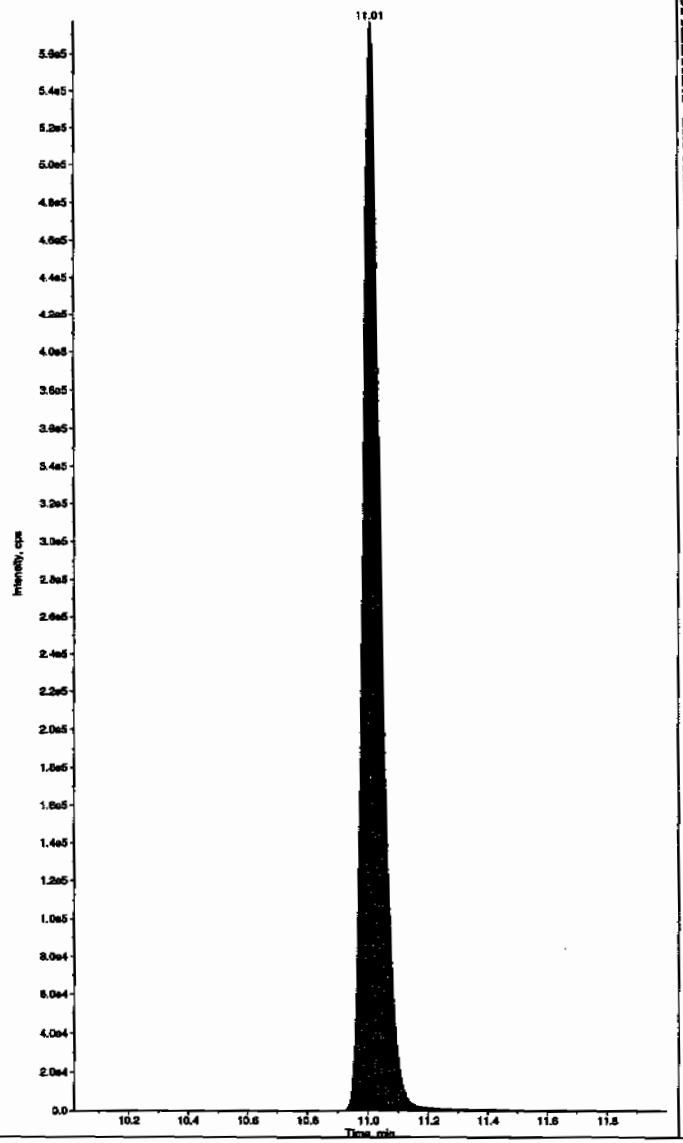

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02130036.wiff

Analysis Date: 13–FEB–10 19:22

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	579	116	
2,6–Diamino–4–nitrotoluene	500	606	121	
3,4–Dinitrotoluene	250	251	101	
3,5–Dinitroaniline	500	609	122	
TATB	500	511	102	
tris(o–cresyl) phosphate	500	517	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Dan 2/15/10

Sample Name: "WXX100213-26CCV" Sample ID: "[1]LER" File: "EXS02130036.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 511. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:22:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.17 min
Area: 7.94e+005 counts
Height: 170471.252 cps
Start Time: 7.06 min
End Time: 7.95 min

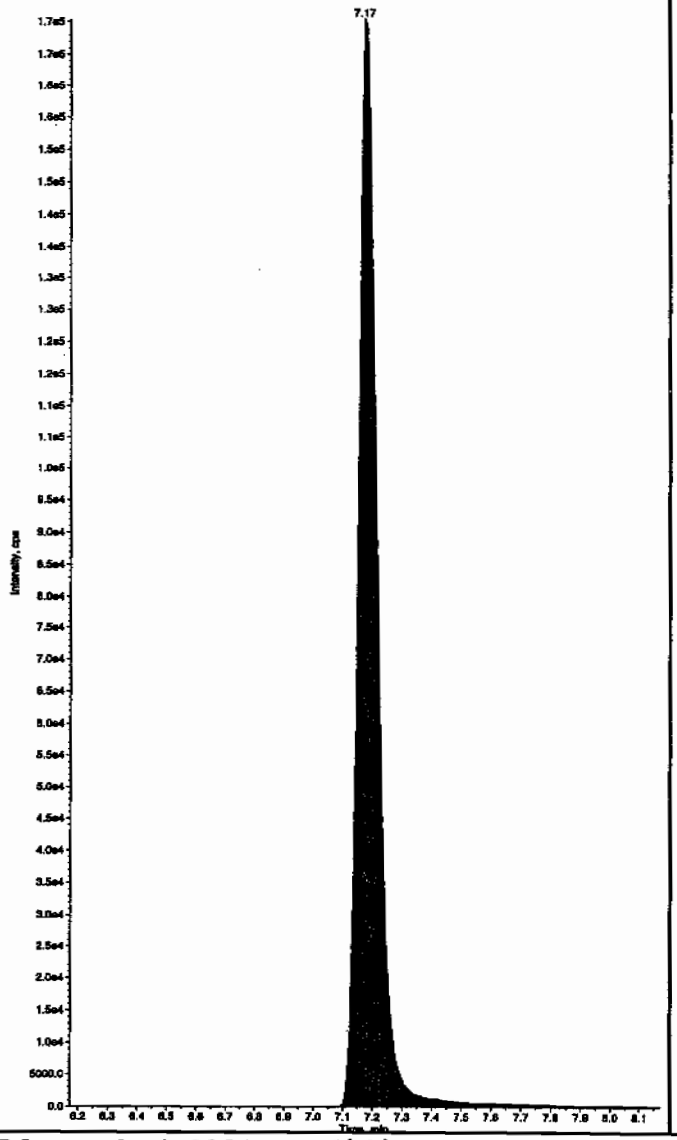

Sample Name: "WXX100213-26CCV" Sample ID: "[1]LER" File: "EXS02130036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 678. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:22:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 4.06e+006 counts
Height: 914572.998 cps
Start Time: 8.30 min
End Time: 8.95 min

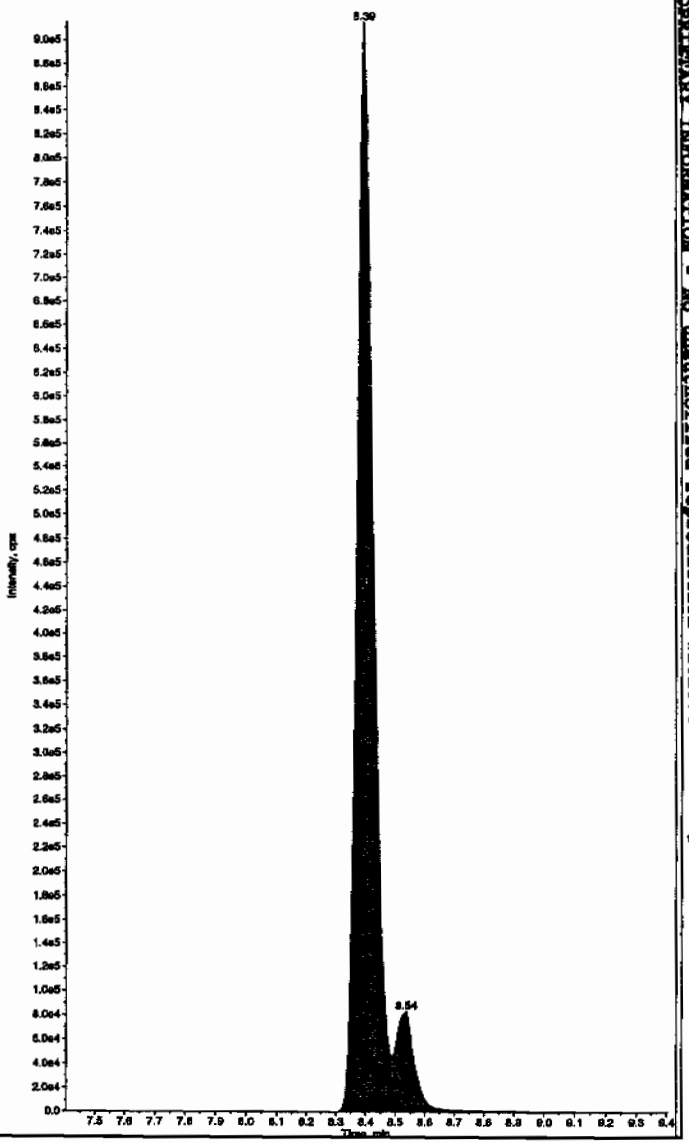

Hmm 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Scan 2/15/10

Sample Name: "WXX100213-26CCV" Sample ID: "|1|LER" File: "EXS02130036.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 511. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:22:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.17 min
Area: 7.94e+005 counts
Height: 170471.252 cps
Start Time: 7.06 min
End Time: 7.95 min

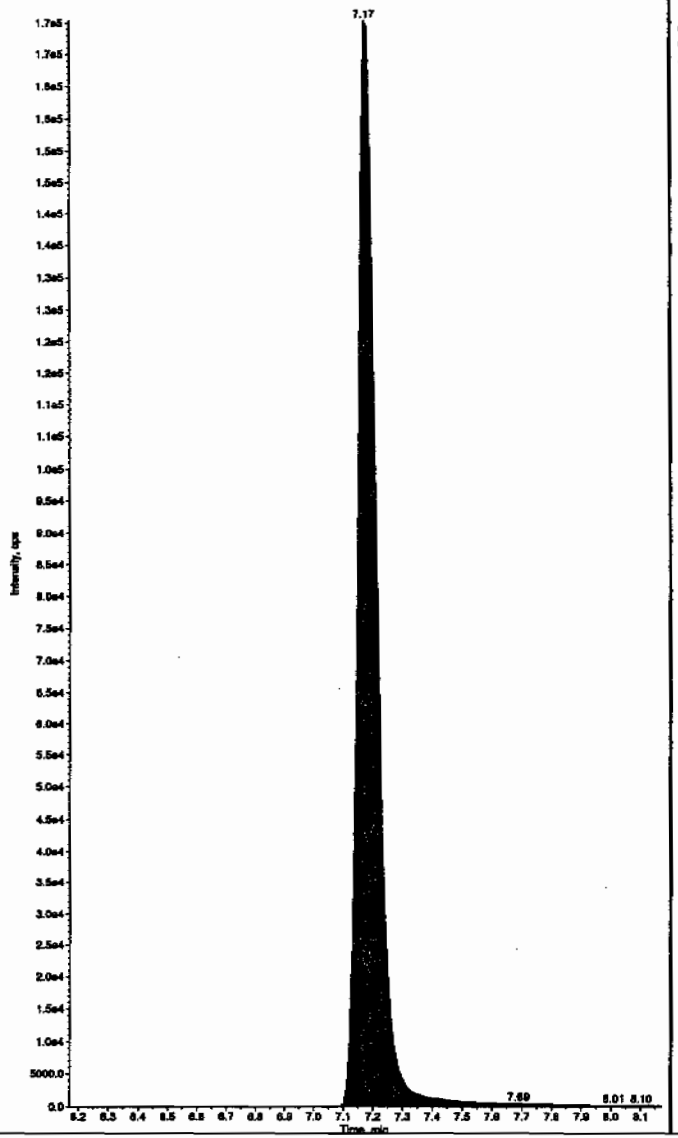

Sample Name: "WXX100213-26CCV" Sample ID: "|1|LER" File: "EXS02130036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 609. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:22:20 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.39 min
Area: 3.66e+006 counts
Height: 912724.007 cps
Start Time: 8.32 min
End Time: 8.50 min

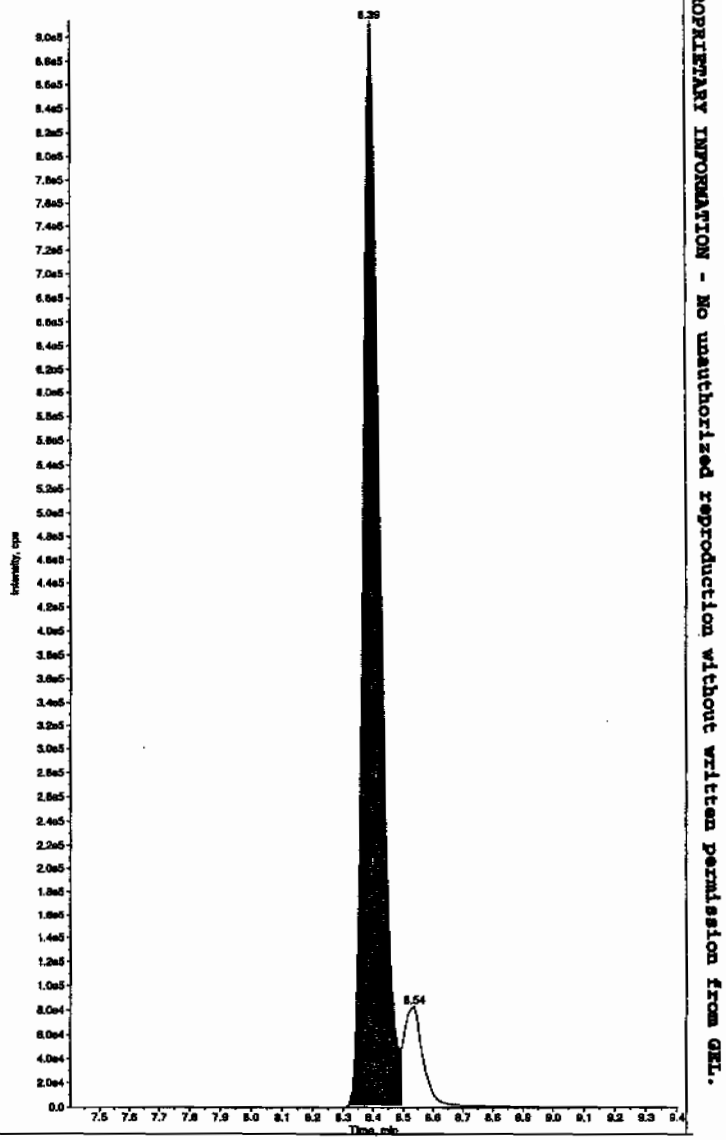

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100213-26CCV" Sample ID: "|1|LER" File: "EXS02130036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 251. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:22:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 2.99e+006 counts
Height: 729522.339 cps
Start Time: 8.45 min
End Time: 8.68 min

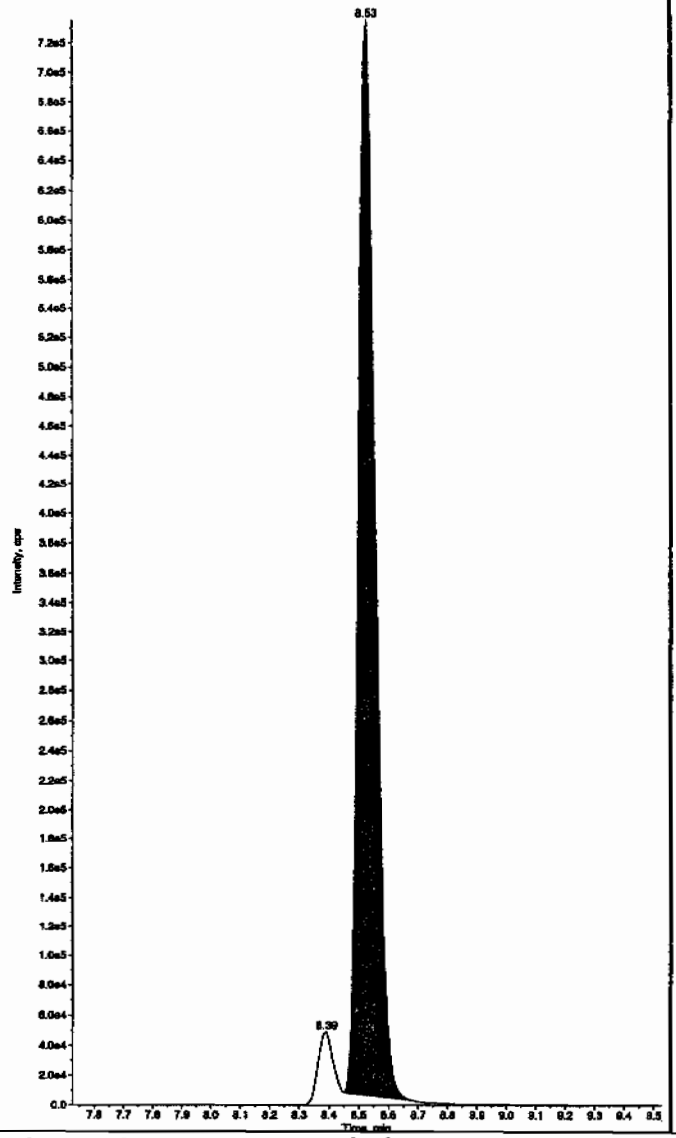

Sample Name: "WXX100213-26CCV" Sample ID: "|1|LER" File: "EXS02130036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 506. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:22:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.20 min
Area: 1.58e+006 counts
Height: 400582.001 cps
Start Time: 5.07 min
End Time: 5.50 min

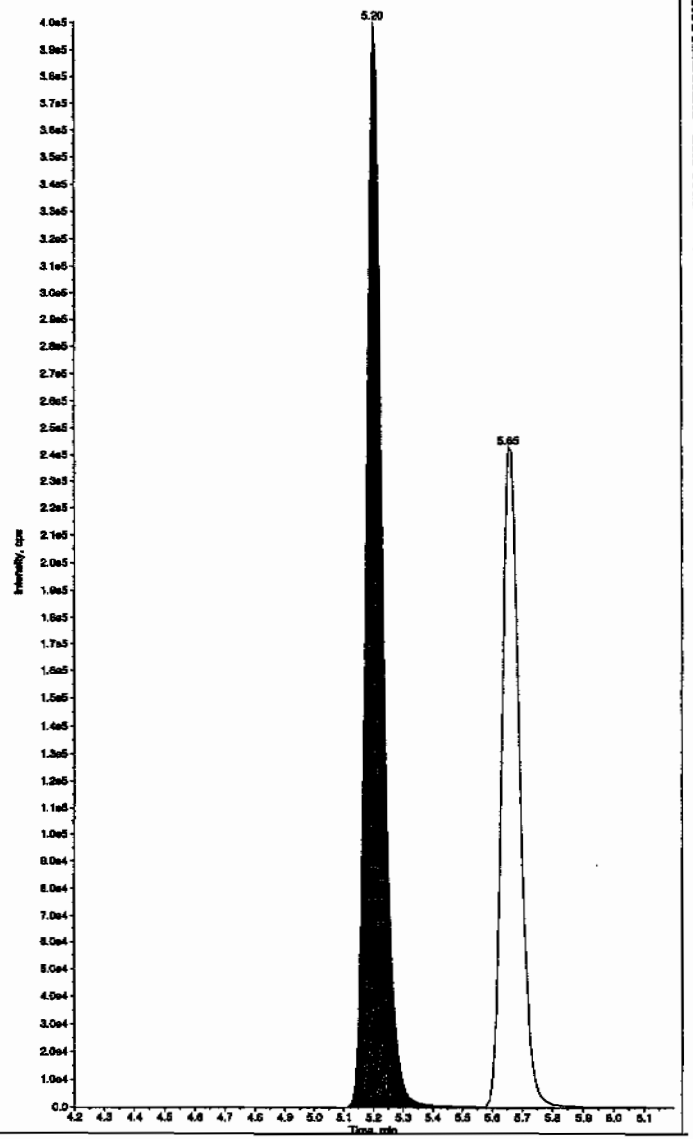

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100213-26CCV" Sample ID: "[1]LER" File: "EXS02130036.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 579. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:22:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.65 min
Area: 1.00e+006 counts
Height: 243375.397 cps
Start Time: 5.55 min
End Time: 5.99 min

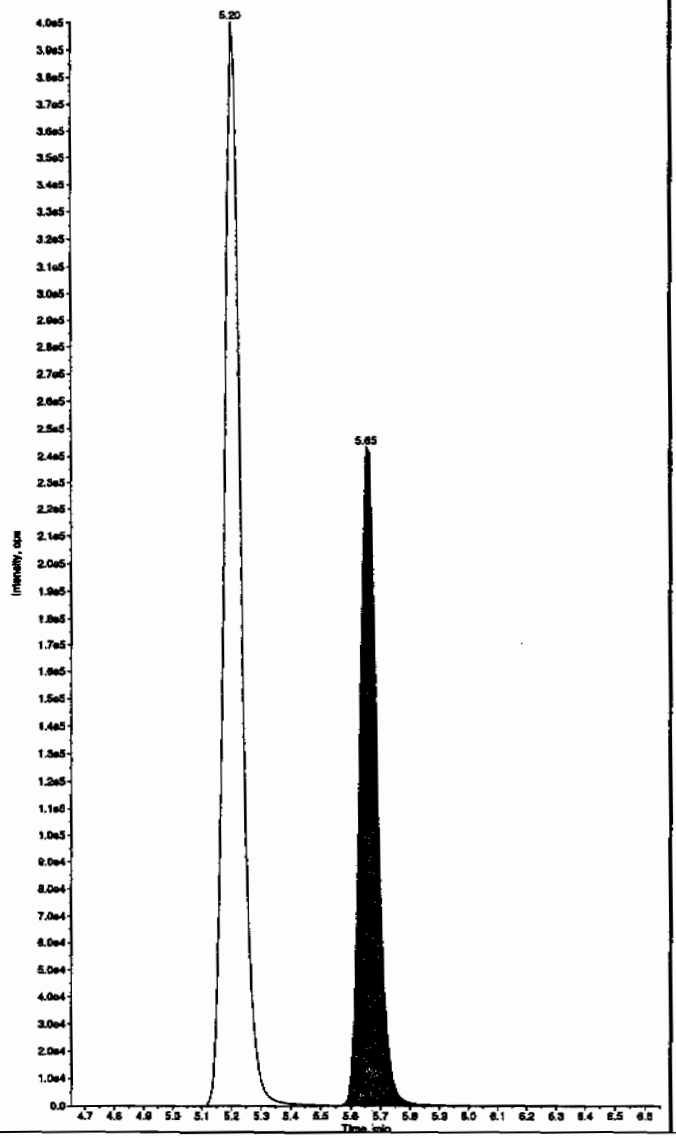

Sample Name: "WXX100213-26CCV" Sample ID: "[1]LER" File: "EXS02130036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 517. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:22:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.11e+007 counts
Height: 2516471.191 cps
Start Time: 10.9 min
End Time: 11.3 min

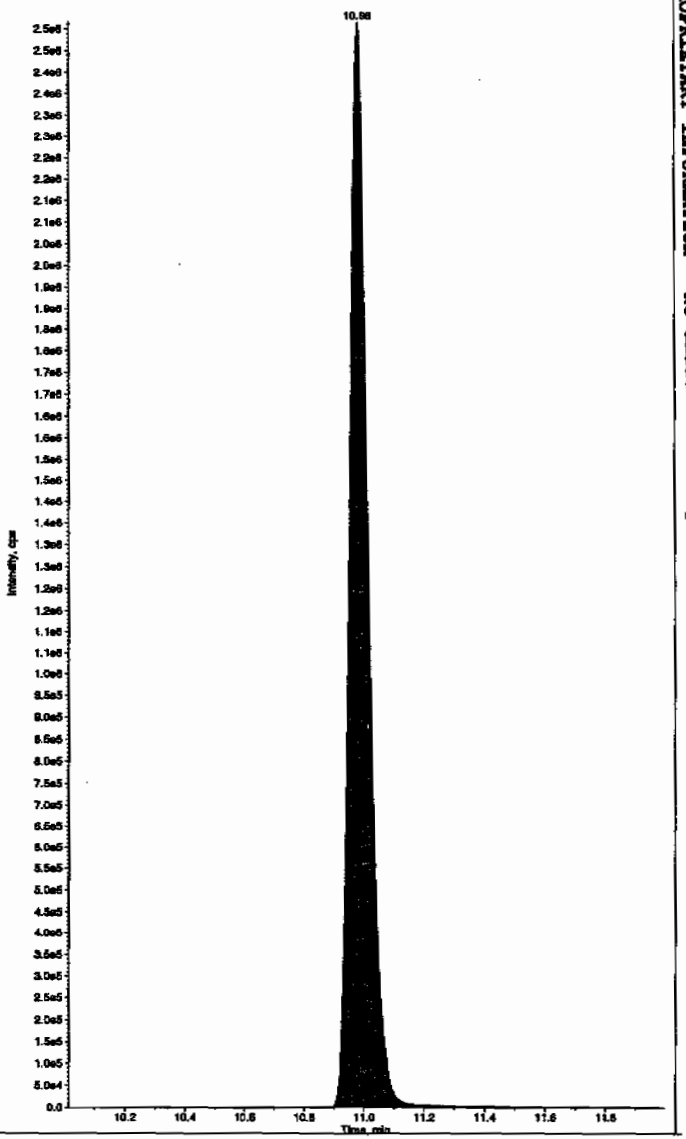

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1432

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02130038.wiff

Analysis Date: 13–FEB–10 19:53

LCMSMS ID: 1358

Column ID JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	130	130	
2,6–Diamino–4–nitrotoluene	100	123	123	
3,4–Dinitrotoluene	50	59.6	119	
3,5–Dinitroaniline	100	133	133	
TATB	100	104	104	
tris(o–cresyl) phosphate	100	107	107	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Clean 2/15/10

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:53:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.18 min
Area: 1.59e+005 counts
Height: 35701.225 cps
Start Time: 7.05 min
End Time: 7.75 min

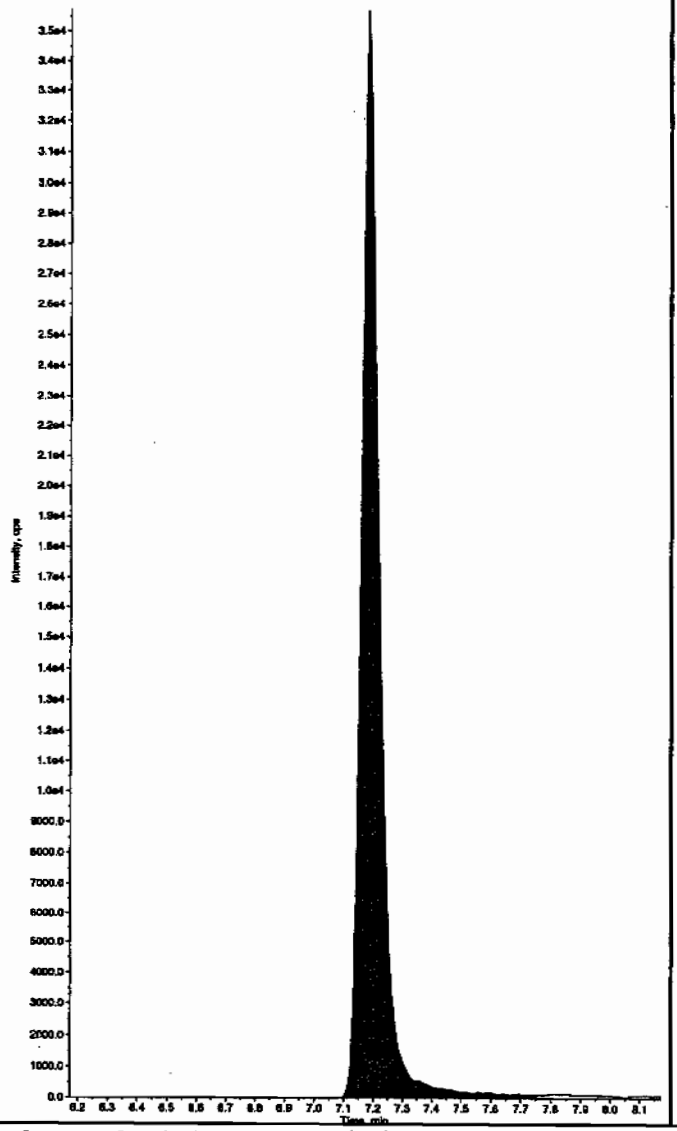

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 149. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:53:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 8.66e+005 counts
Height: 190221.069 cps
Start Time: 8.29 min
End Time: 8.79 min

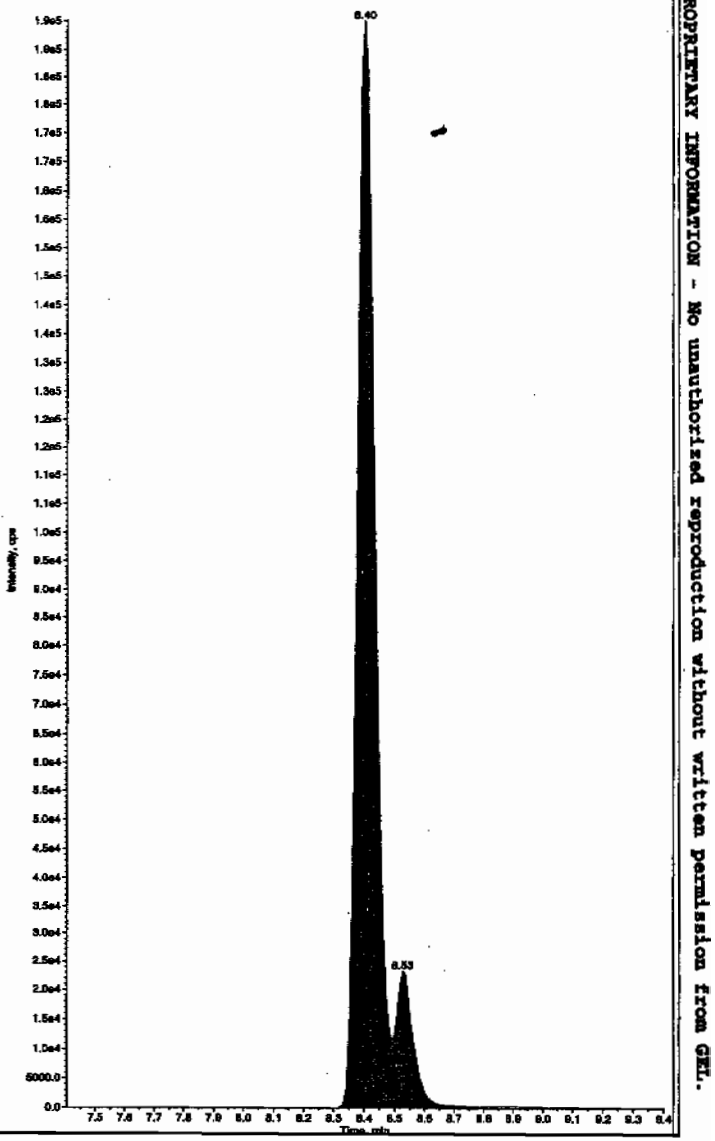

HMM 02/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Scan 2/15/10

Sample Name: "WXX100213-27CRI" Sample ID: "|1|LER" File: "EXS02130038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:53:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.18 min
Area: 1.59e+005 counts
Height: 35701.225 cps
Start Time: 7.05 min
End Time: 7.75 min

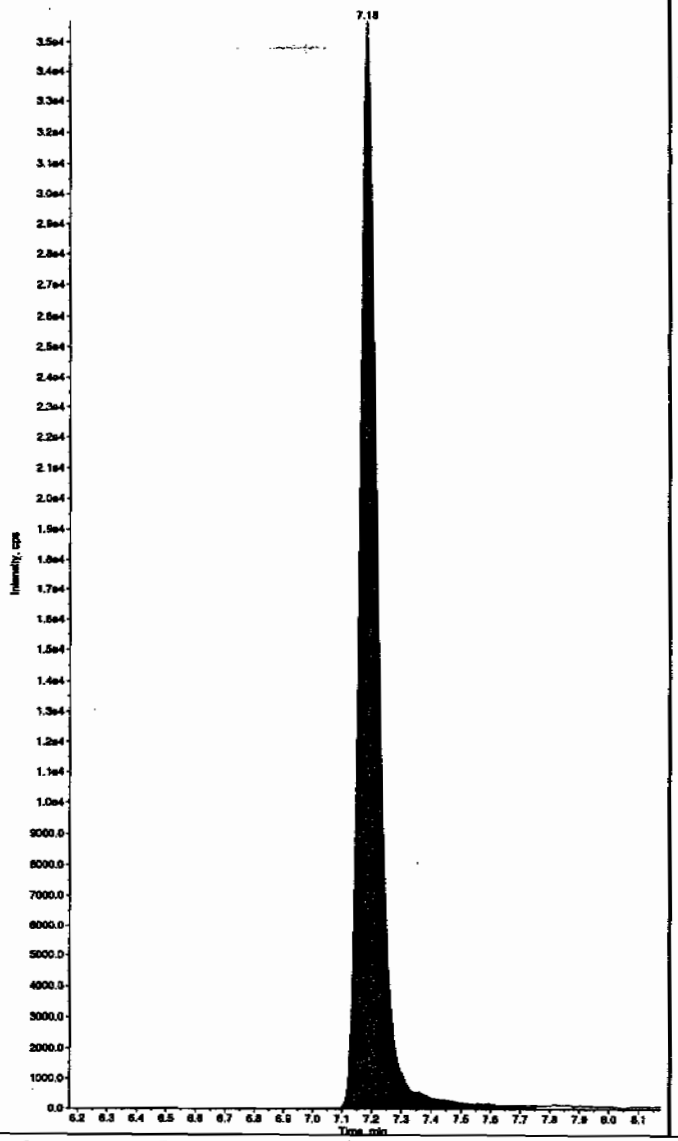

Sample Name: "WXX100213-27CRI" Sample ID: "|1|LER" File: "EXS02130038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 133. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:53:43 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.40 min
Area: 7.86e+005 counts
Height: 189893.730 cps
Start Time: 8.32 min
End Time: 8.50 min

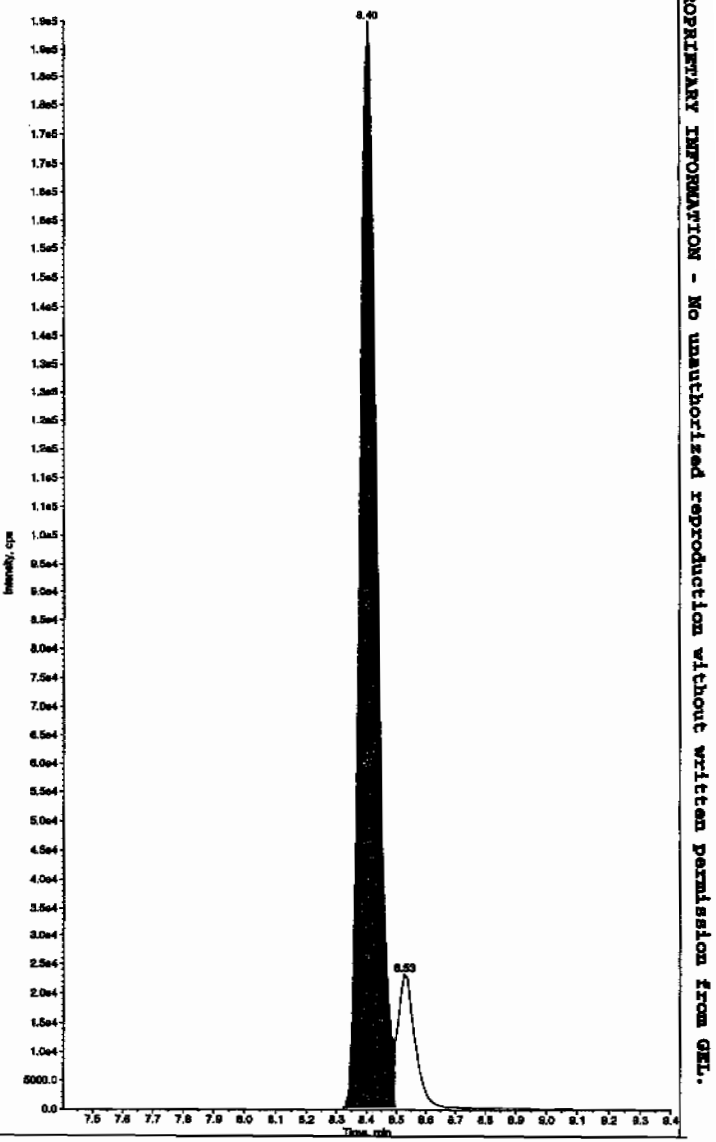

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100213-27CR\" Sample ID: "[1]LER" File: "EXS02130038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 59.6 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:53:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.53 min
Area: 6.83e+005 counts
Height: 186256.088 cps
Start Time: 8.45 min
End Time: 8.69 min

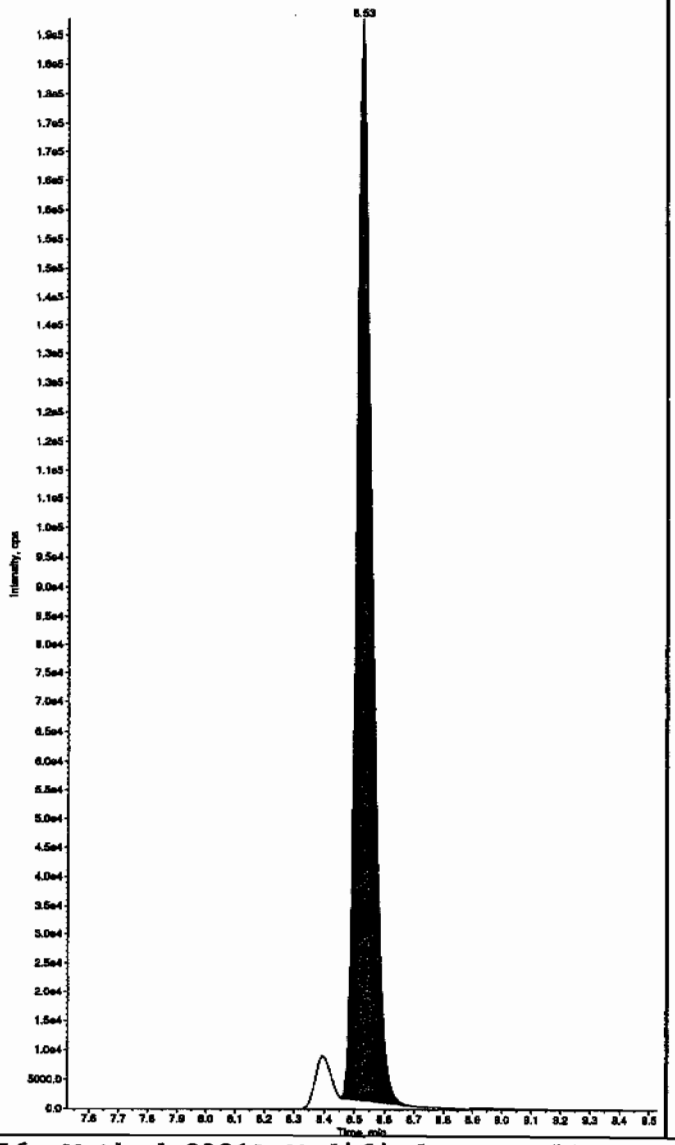

Sample Name: "WXX100213-27CR\" Sample ID: "[1]LER" File: "EXS02130038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 123. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:53:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.21 min
Area: 3.11e+005 counts
Height: 79513.390 cps
Start Time: 5.09 min
End Time: 5.47 min

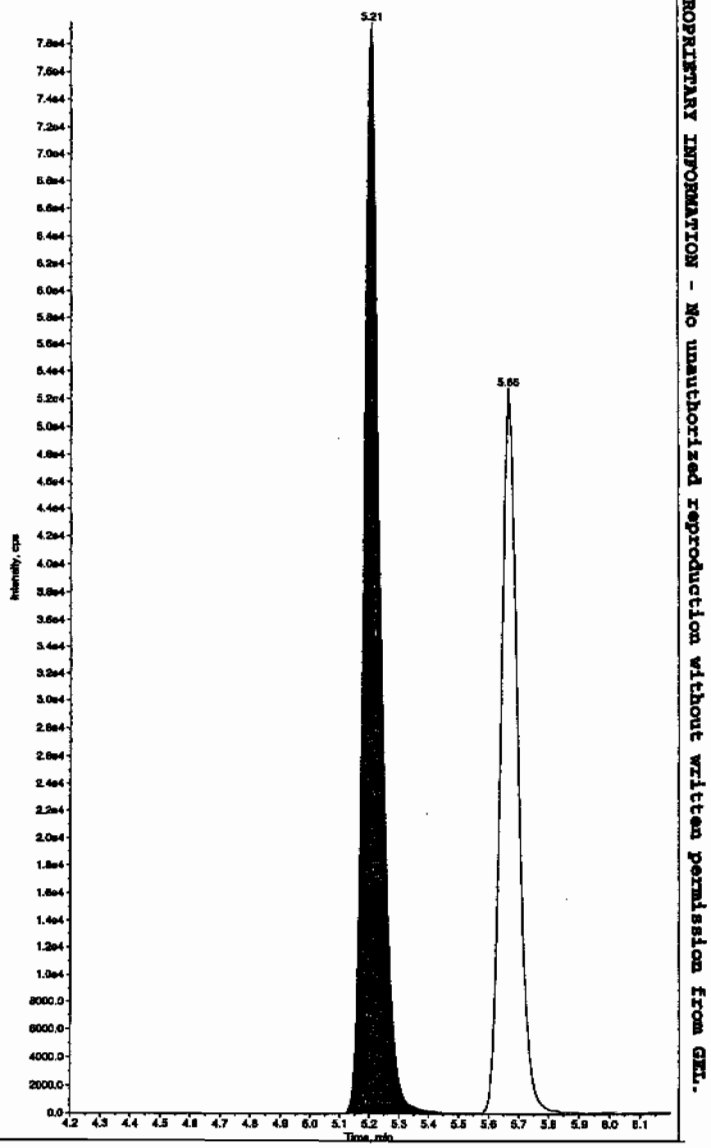

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 130. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:53:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.66 min
Area: 2.06e+005 counts
Height: 52651.608 cps
Start Time: 5.58 min
End Time: 5.82 min

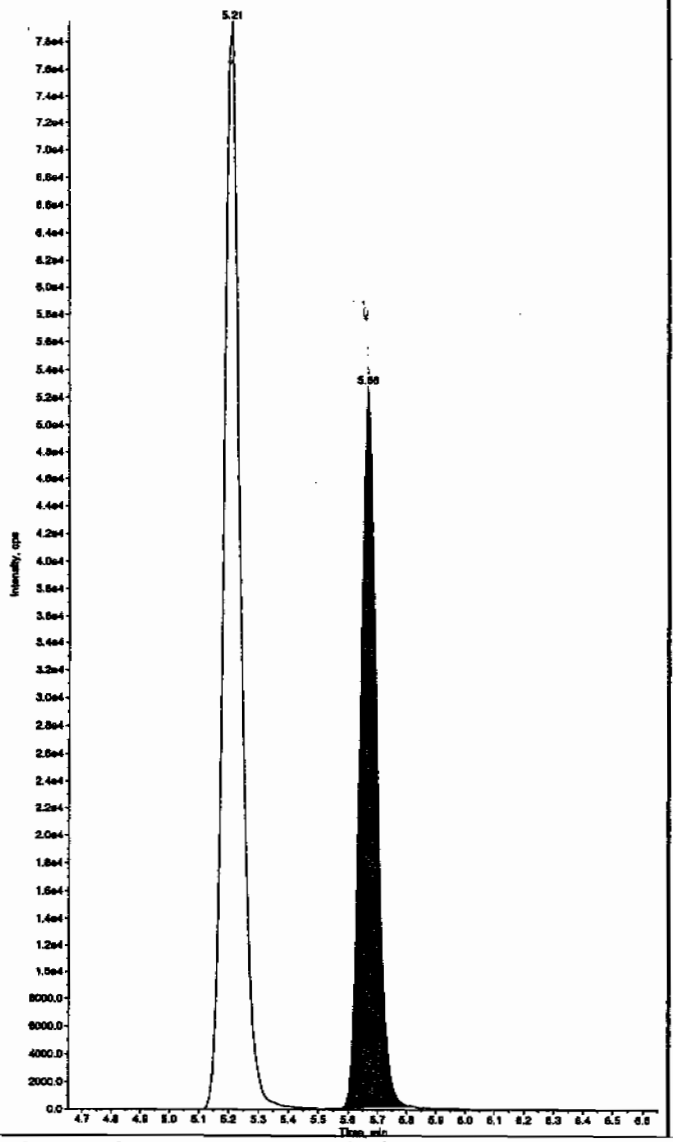

Sample Name: "WXX100213-27CRI" Sample ID: "[1]LER" File: "EXS02130038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 7:53:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.48e+006 counts
Height: 613552.246 cps
Start Time: 10.9 min
End Time: 11.3 min

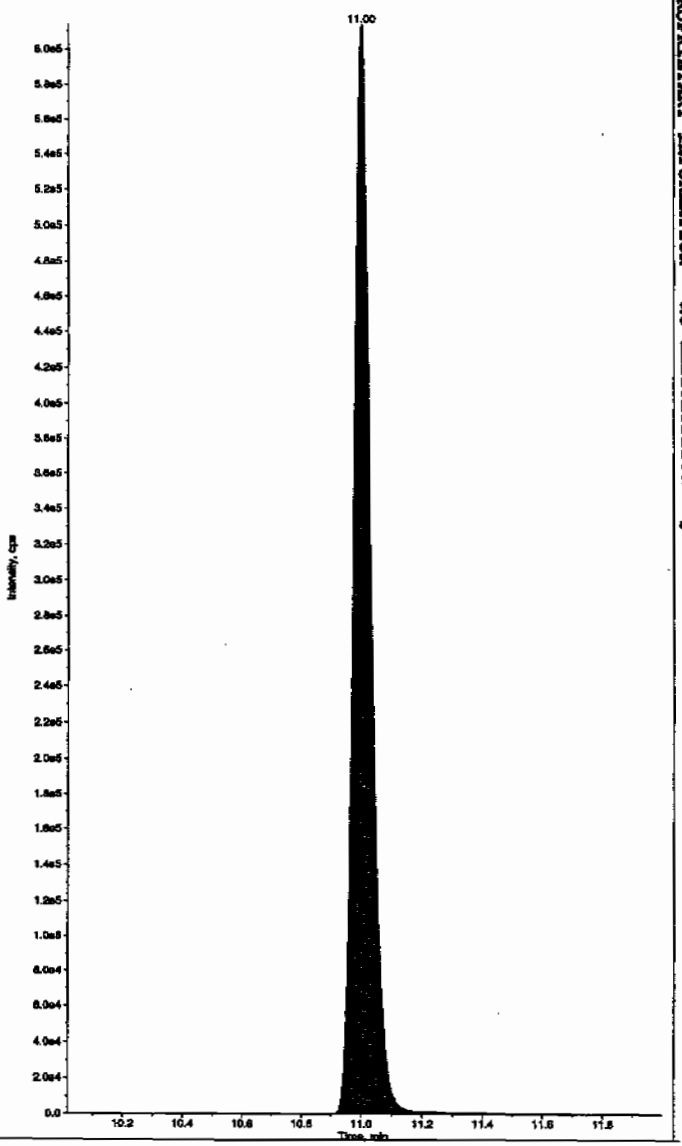

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 947076

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 1202028672

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208182a

Date Analyzed: 12-FEB-10 07:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\020810expa.mdb, Time: Tue Feb 09 09:17:48 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\020810expa.cdb, Time: Sat Feb 13 09:18:21 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208182a
Date: 12-Feb-2010
Time: 07:46:02
ID: 1202028672 | LANL | 942078 | Solid | MB | 2 |
Vial: 4:4,A

MMT 2/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.783e+003

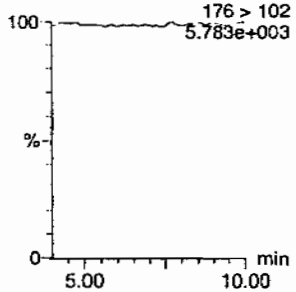

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.783e+003

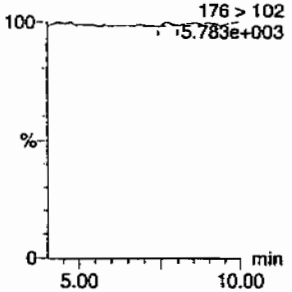

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.694e+003

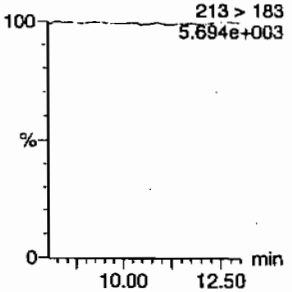

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.229e+004

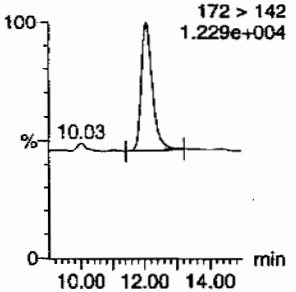

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.699e+003

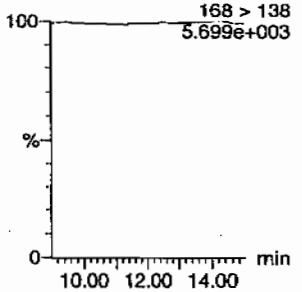

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.715e+003

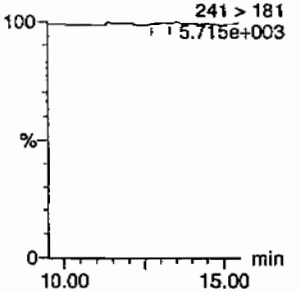

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.707e+003

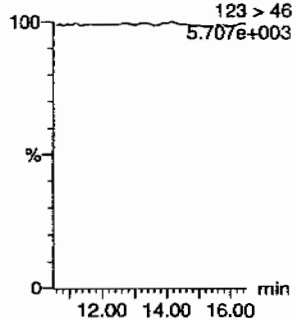

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.715e+003

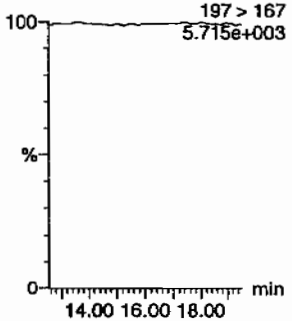

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.731e+003

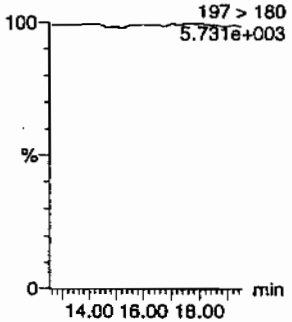

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.702e+003

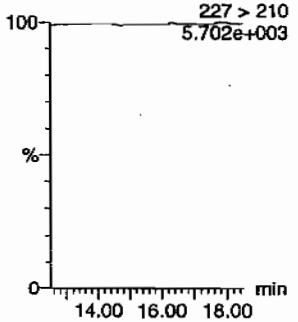

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.274e+004

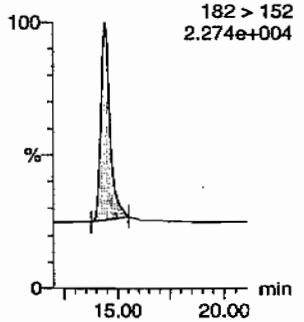

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.42
182 > 152
2.274e+004

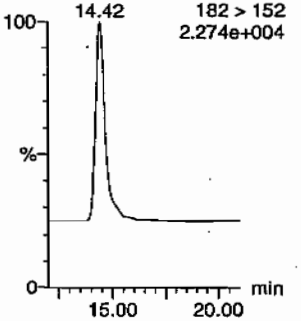

HMC 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

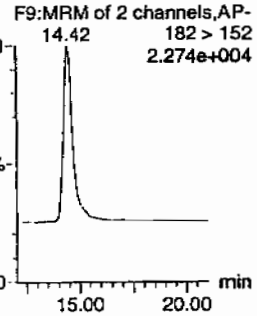

26-dinitrotoluene-d3

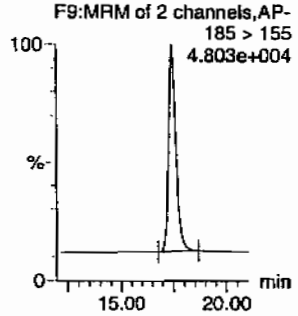

2-Nitrotoluene

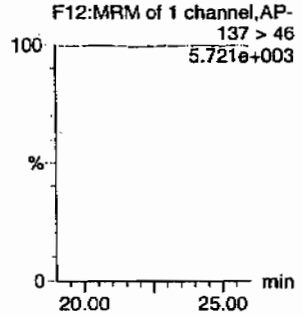

4-Nitrotoluene

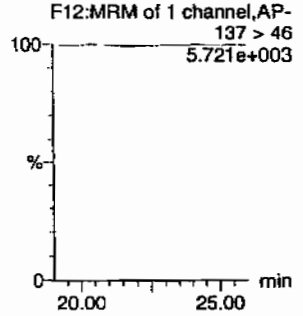

3-Nitrotoluene

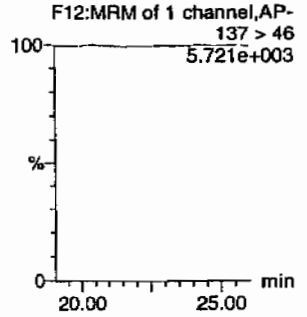

PETN

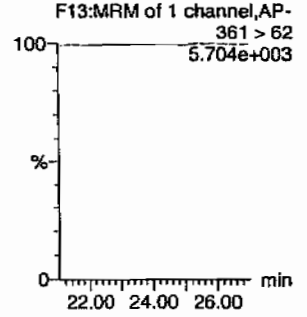

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202028672	HMX	176 > 102			2731.762									
1202028672	RDX	176 > 102			2731.762			MM-	13-Feb-10	09:16:03				
1202028672	135-Trinitrobenzene	213 > 183			2731.762									
1202028672	13-Dinitrobenzene-d4	172 > 142	12.07	2731.762		2731.762	2731.762	bb			424.9027	85.0	-15.0	89.7
1202028672	13-Dinitrobenzene	168 > 138			2731.762									
1202028672	Tetryl	241 > 181			2731.762			MM-	13-Feb-10	09:17:44				
1202028672	Nitrobenzene	123 > 46			2731.762									
1202028672	4-Amino-26-dinitrotoluene	197 > 167			17376.613									
1202028672	2-Amino-46-dinitrotoluene	197 > 180			17376.613									
1202028672	246-Trinitrotoluene	227 > 210			17376.613									
1202028672	34-dinitrotoluene	182 > 152	14.42	8324.583	17376.613	8324.583	239.534	bb			266.1514	106.5	6.5	510.3
1202028672	26-dinitrotoluene	182 > 152			17376.613									
1202028672	24-dinitrotoluene	182 > 152			17376.613									
1202028672	26-dinitrotoluene-d3	185 > 155	17.46	17376.613		17376.613	17376.613	bb			470.6639	94.1	-5.9	727.7
1202028672	2-Nitrotoluene	137 > 46			17376.613									
1202028672	4-Nitrotoluene	137 > 46			17376.613									
1202028672	3-Nitrotoluene	137 > 46			17376.613									
1202028672	PETN	361 > 62			17376.613									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 947076

Lab Code: GEL

GEL Job No (SDG) 10–1432

Matrix: SOIL

GEL Sample ID: 1202028672

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29–JAN–10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130014.wiff

Date Analyzed: 13–FEB–10 13:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	1000	U
59229–75–3	2,6–Diamino–4–nitrotoluene	2000	U
618–87–1	3,5–Dinitroaniline	1000	U
6629–29–4	2,4–Diamino–6–nitrotoluene	2000	U
78–30–8	tris(o–cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sam 2/15/10

Sample Name: "1202028672" Sample ID: "947078[2]LER" File: "EXS02130014.wiff"
Peak Name: "TATS" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:36:59 PM

Modified: No

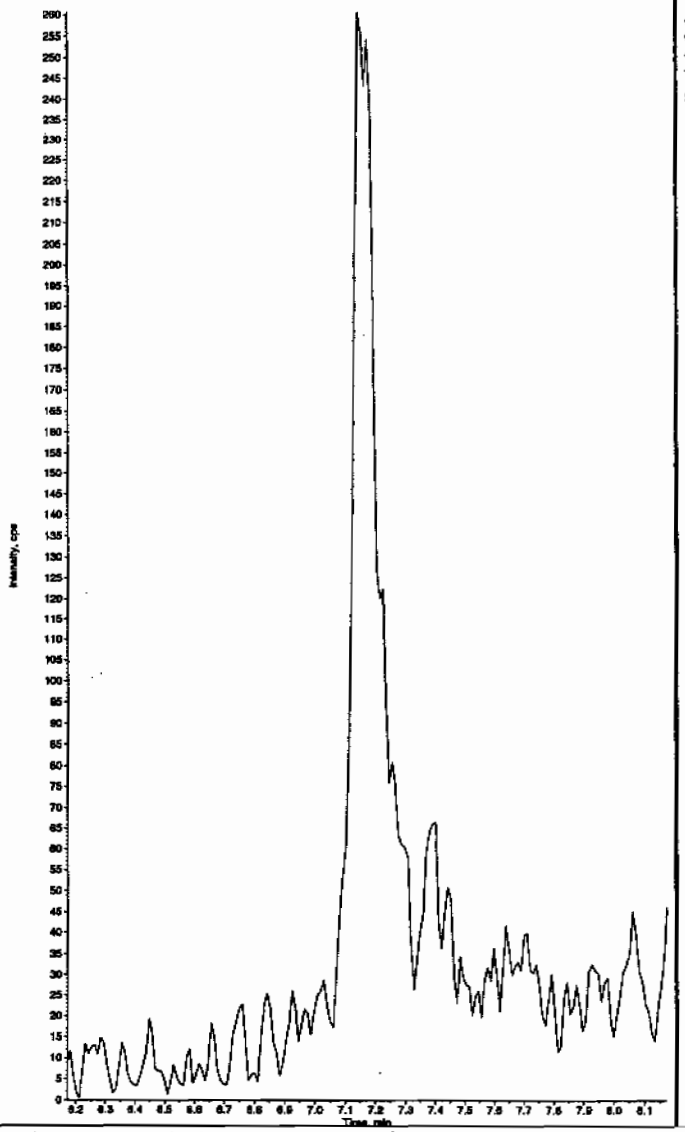

Sample Name: "1202028672" Sample ID: "947078[2]LER" File: "EXS02130014.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:36:59 PM

Modified: Yes

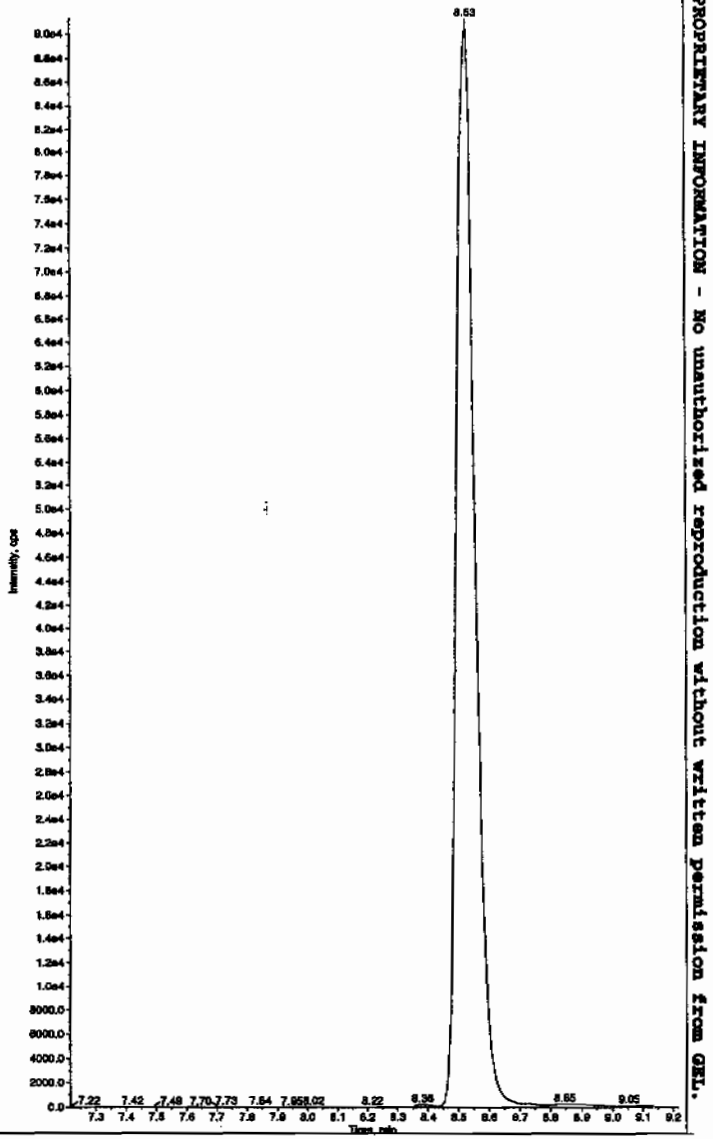

Hmm 02/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028672" Sample ID: "947078[2]LER" File: "EXS02130014.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 308. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:36:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.64e+006 counts
Height: 941911.865 cps
Start Time: 8.42 min
End Time: 8.98 min

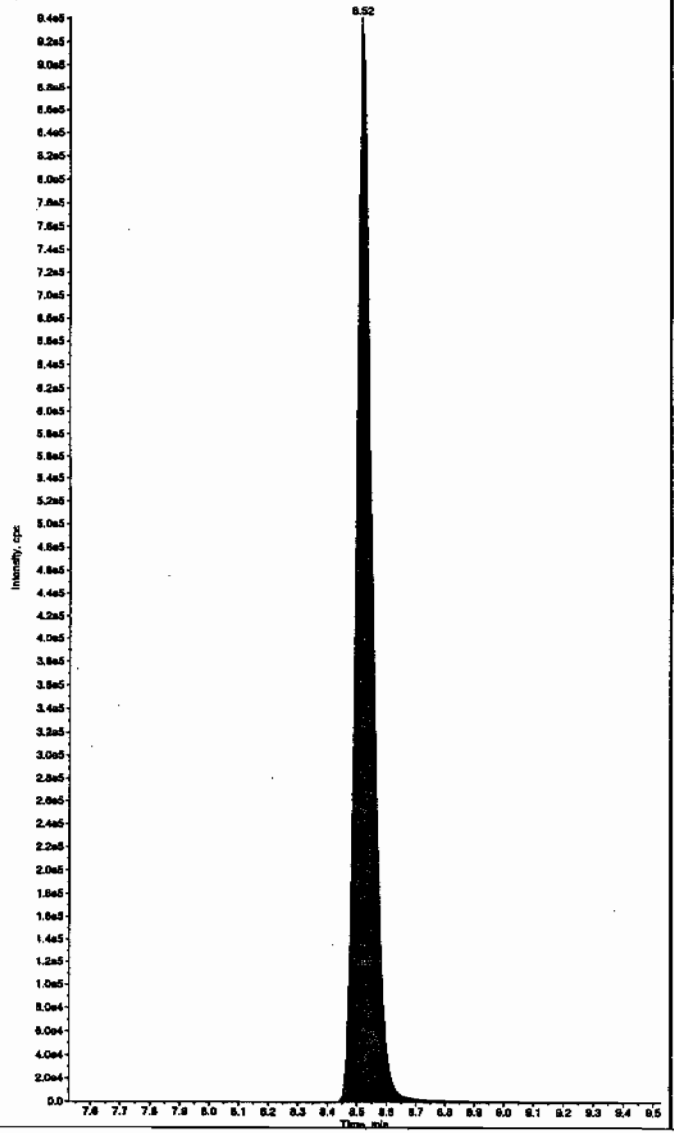

Sample Name: "1202028672" Sample ID: "947078[2]LER" File: "EXS02130014.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:36:59 PM

Modified: No

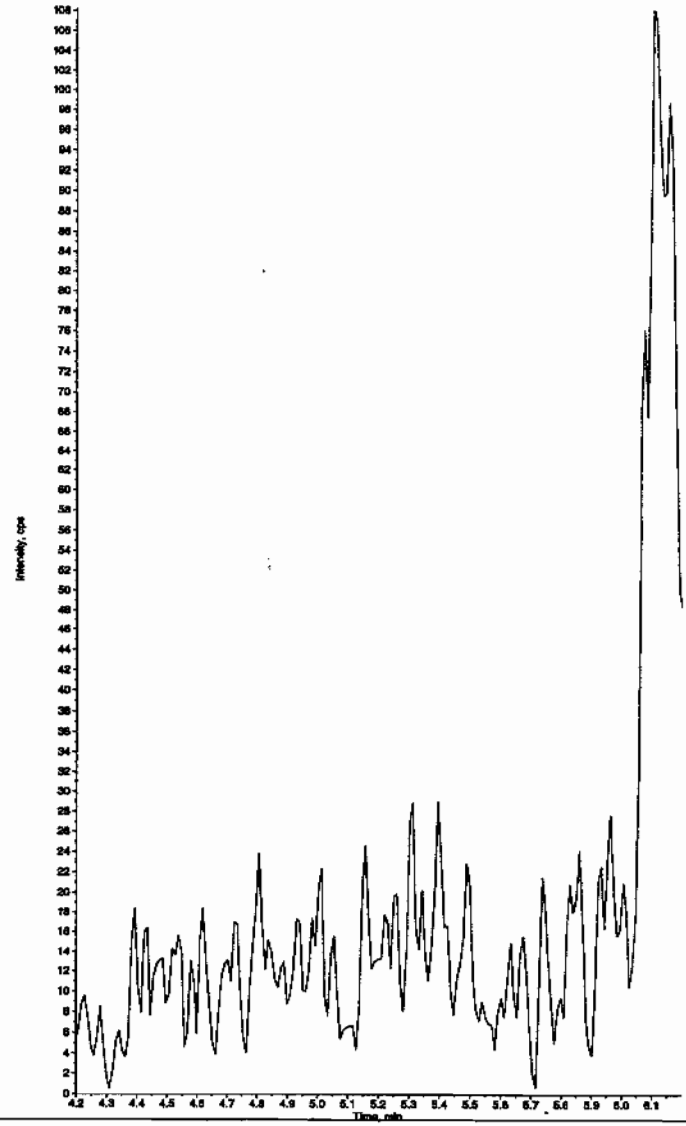

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202028672" Sample ID: "947078[2]LER" File: "EXS02130014.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc:   0.00     ng/mL
Acq. Date:       2/13/2010
Acq. Time:       1:36:59 PM

Modified:          No
```

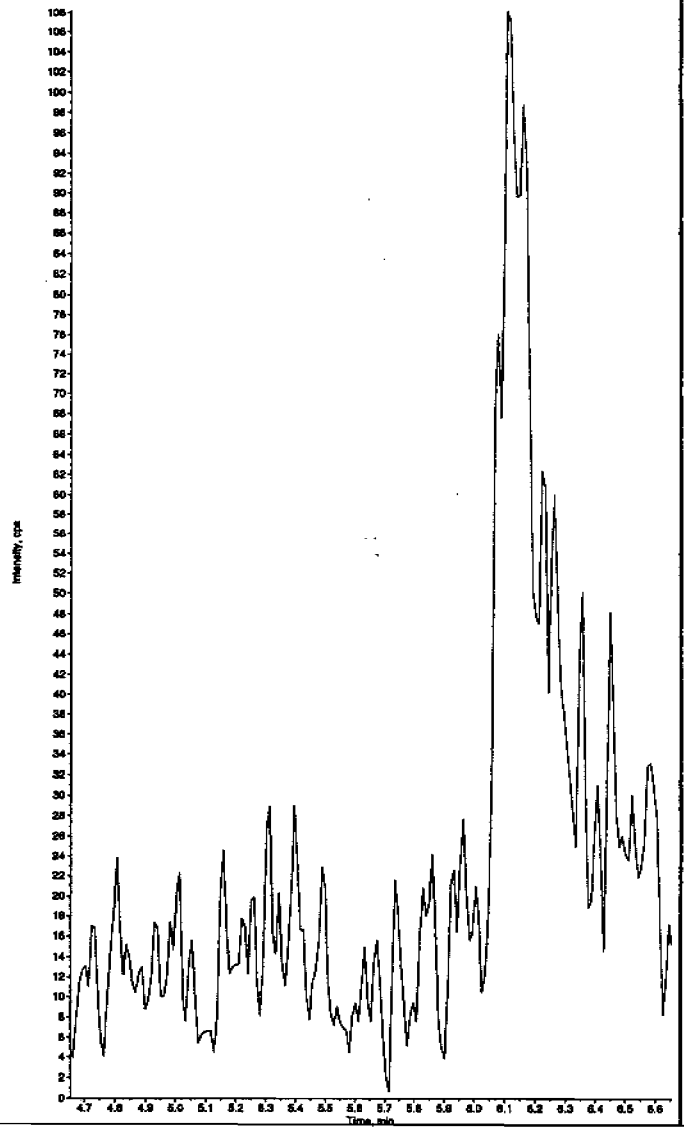

Sample Name: "1202028672" Sample ID: "947078[2]LER" File: "EXS02130014.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc:   0.703    ng/mL
Acq. Date:       2/13/2010
Acq. Time:       1:36:59 PM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       11.0     min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    11.0     min
Area:        5.33e+004    counts
Height:      11959.649    cps
Start Time:        10.9     min
End Time:          11.2     min
```

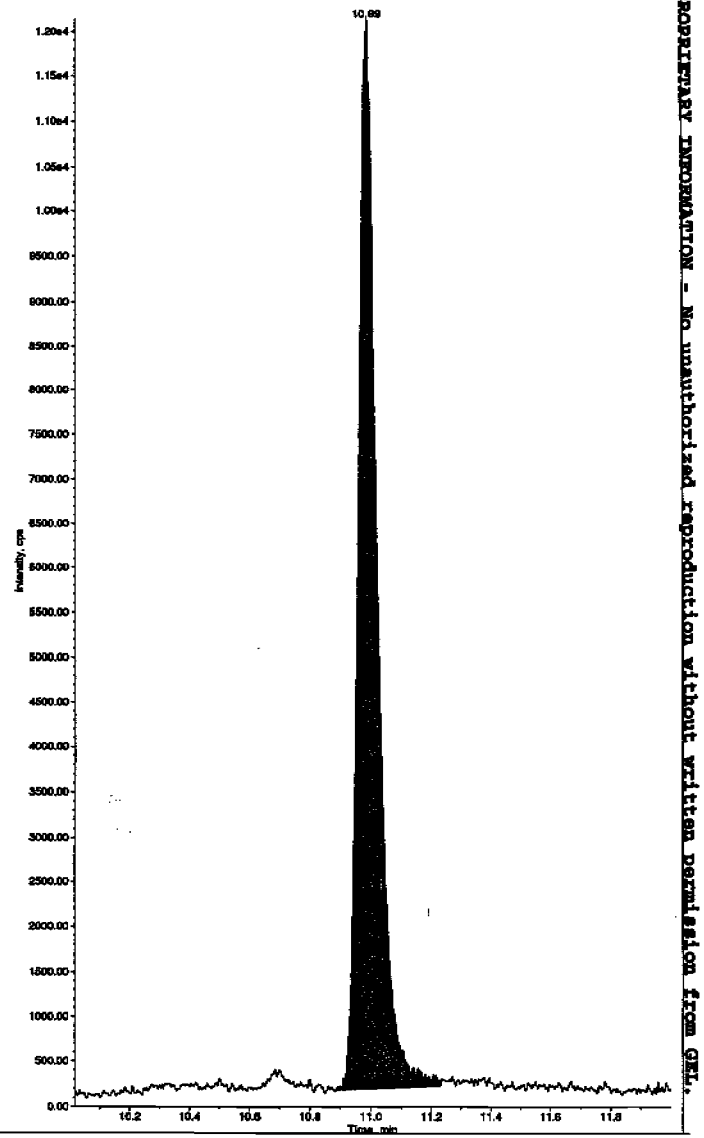

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 947076

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 1202028673

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208183a

Date Analyzed: 12-FEB-10 08:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5840	
121-14-2	2,4-Dinitrotoluene	5210	
121-82-4	RDX	4260	
19406-51-0	4-Amino-2,6-dinitrotoluene	4660	
2691-41-0	HMX	3970	
35572-78-2	2-Amino-4,6-dinitrotoluene	5190	
479-45-8	Tetryl	2430	
606-20-2	2,6-Dinitrotoluene	4990	
78-11-5	PETN	6230	
88-72-2	o-Nitrotoluene	4650	
98-95-3	Nitrobenzene	4570	
99-08-1	m-Nitrotoluene	4470	
99-35-4	1,3,5-Trinitrobenzene	3850	
99-65-0	m-Dinitrobenzene	5000	
99-99-0	p-Nitrotoluene	4580	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208183a
Date: 12-Feb-2010
Time: 08:15:42
ID: 1202028673
Vial: 4:4,B

LANL | 947078 | SOLID | LCS | 21

MAP 2/13/10

HMX

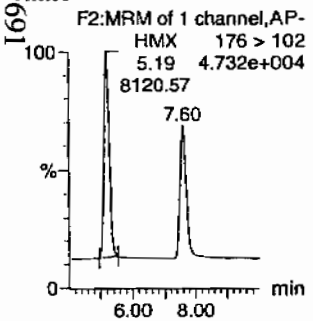

RDX

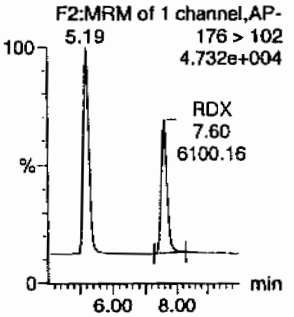

135-Trinitrobenzene

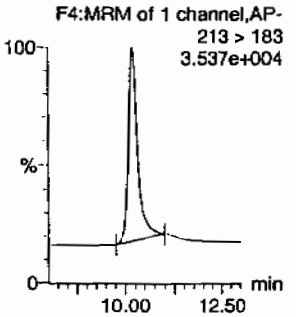

13-Dinitrobenzene-d4

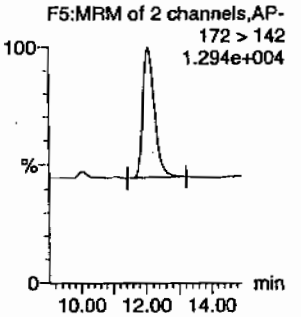

13-Dinitrobenzene

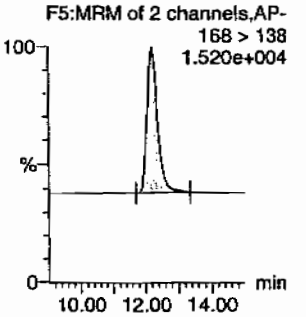

Tetryl

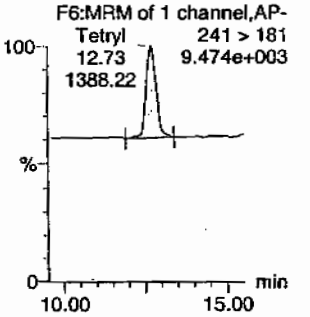

Nitrobenzene

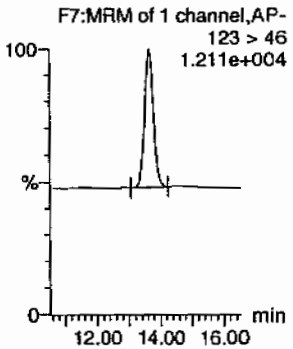

4-Amino-26-dinitrotoluene

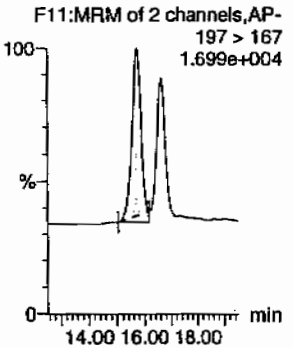

2-Amino-46-dinitrotoluene

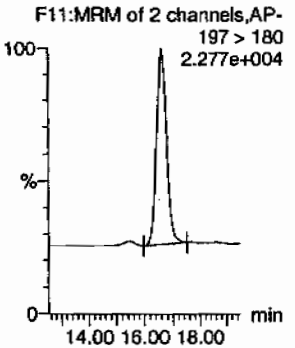

246-Trinitrotoluene

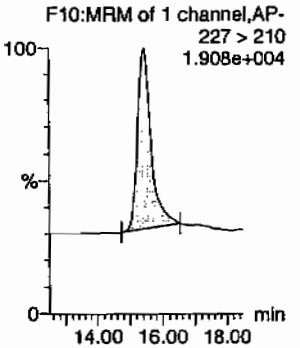

34-dinitrotoluene

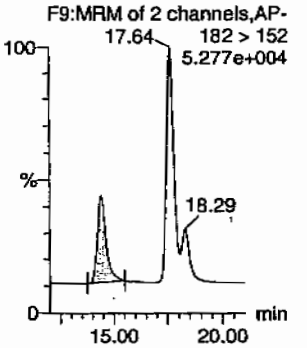

26-dinitrotoluene

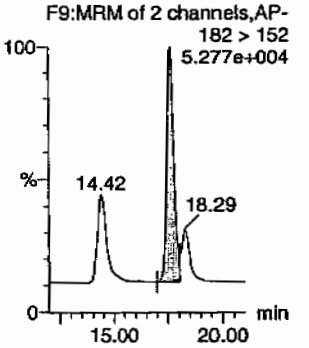

dmm 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

24-dinitrotoluene

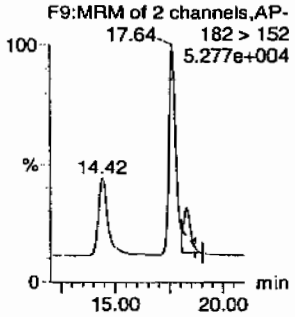

26-dinitrotoluene-d3

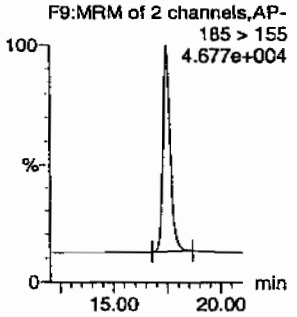

2-Nitrotoluene

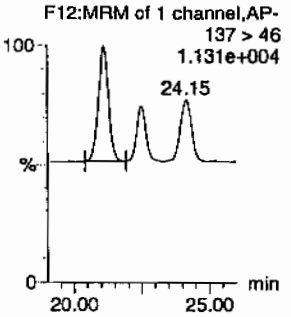

4-Nitrotoluene

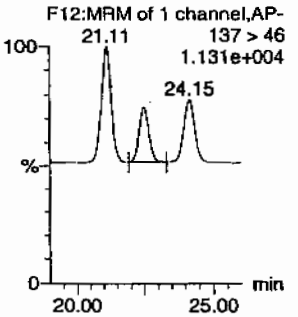

3-Nitrotoluene

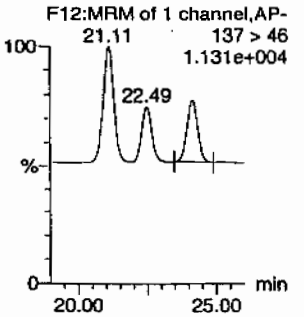

PETN

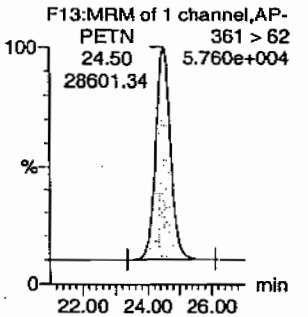

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202028673	HMX	176 > 102	5.19	8120.573	2945.593	8120.573	1378.428	bb			396.9207	79.4	-20.6	1239.8
1202028673	RDX	176 > 102	7.60	6100.156	2945.593	6100.156	1035.472	bb			426.4459	85.3	-14.7	798.4
1202028673	135-Trinitrobenzene	213 > 183	10.20	8347.845	2945.593	8347.845	1417.006	bb			384.7365	76.9	-23.1	904.7
1202028673	13-Dinitrobenzene-d4	172 > 142	12.07	2945.593		2945.593	2945.593	bb			458.1623	91.6	-8.4	308.1
1202028673	13-Dinitrobenzene	168 > 138	12.21	3539.871	2945.593	3539.871	600.876	bb			499.7322	99.9	-0.1	382.4
1202028673	Tetryl	241 > 181	12.73	1388.224	2945.593	1388.224	235.644	bb			242.5732	48.5	-51.5	71.5
1202028673	Nitrobenzene	123 > 46	13.62	2175.756	2945.593	2175.756	369.324	bb			457.2138	91.4	-8.6	184.1
1202028673	4-Amino-26-dinitrotoluene	197 > 167	15.73	4408.101	16481.695	4408.101	133.727	MM	13-Feb-10	09:19:57	465.5510	93.1	-6.9	380.0
1202028673	2-Amino-46-dinitrotoluene	197 > 180	16.60	6775.812	16481.695	6775.812	205.556	bb			519.0403	103.8	3.8	364.7
1202028673	246-Trinitrotoluene	227 > 210	15.44	6215.970	16481.695	6215.970	188.572	bb			584.4234	116.9	16.9	444.5
1202028673	34-dinitrotoluene	182 > 152	14.42	8473.784	16481.695	8473.784	257.067	bb			285.6320	114.3	14.3	529.7
1202028673	26-dinitrotoluene	182 > 152	17.64	17667.385	16481.695	17667.385	535.970	MM	13-Feb-10	09:25:16	499.0000	99.8	-0.2	1428.2
1202028673	24-dinitrotoluene	182 > 152	18.29	4189.585	16481.695	4189.585	127.098	MM	13-Feb-10	09:27:19	520.7840	104.2	4.2	309.9
1202028673	26-dinitrotoluene-d3	185 > 155	17.46	16481.695		16481.695	16481.695	bb			446.4241	89.3	-10.7	1661.9
1202028673	2-Nitrotoluene	137 > 46	21.11	2376.145	16481.695	2376.145	72.084	bb			464.9158	93.0	-7.0	439.1
1202028673	4-Nitrotoluene	137 > 46	22.49	1146.631	16481.695	1146.631	34.785	bb			457.6812	91.5	-8.5	213.2
1202028673	3-Nitrotoluene	137 > 46	24.15	1372.784	16481.695	1372.784	41.646	bb			446.9803	89.4	-10.6	237.4
1202028673	PETN	361 > 62	24.50	28601.338	16481.695	28601.338	867.670	bb			623.1750	124.6	24.6	7753.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 947076

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 1202028673

Sample Amount 2

Moisture:

Amount Units g

Date Received: 29-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130015.wiff

Date Analyzed: 13-FEB-10 13:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7100	
59229-75-3	2,6-Diamino-4-nitrotoluene	5210	
618-87-1	3,5-Dinitroaniline	5530	
6629-29-4	2,4-Diamino-6-nitrotoluene	4660	
78-30-8	tris(o-cresyl) phosphate	5200	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Clean 2/15/10

Sample Name: "1202028673" Sample ID: "947078|2|LER" File: "EXS02130015.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 710. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:52:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.15 min
Area: 1.10e+006 counts
Height: 239441.803 cps
Start Time: 7.05 min
End Time: 7.70 min

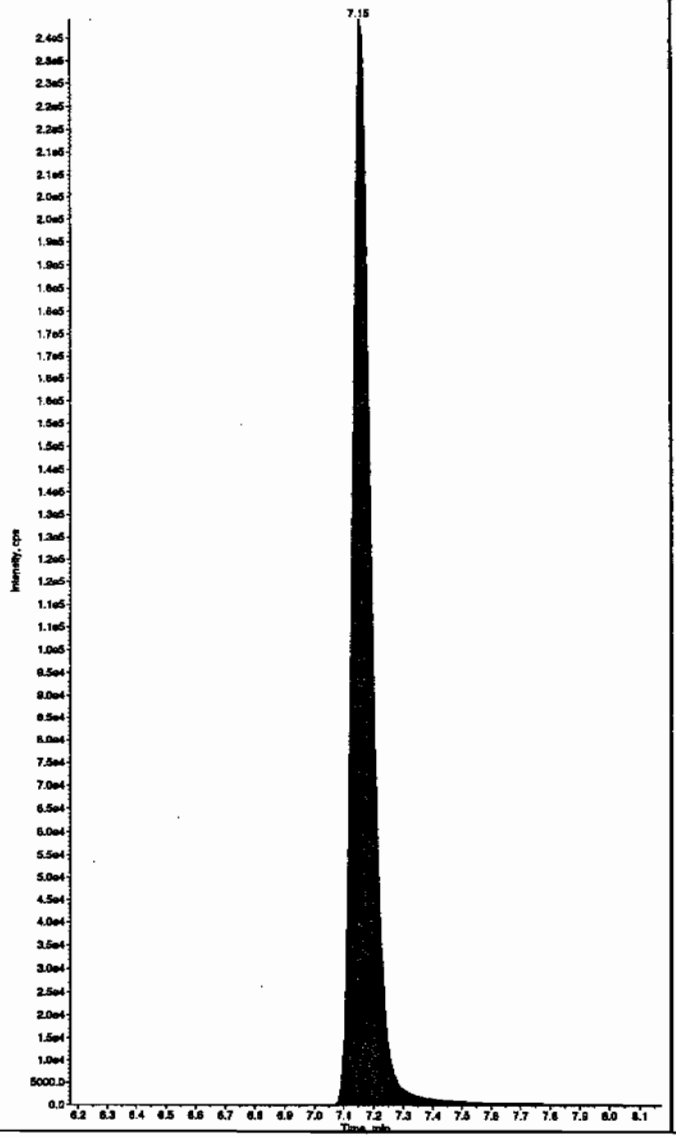

Sample Name: "1202028673" Sample ID: "947078|2|LER" File: "EXS02130015.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 592. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:52:42 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.39 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 3.56e+006 counts
Height: 740371.582 cps
Start Time: 8.31 min
End Time: 8.60 min

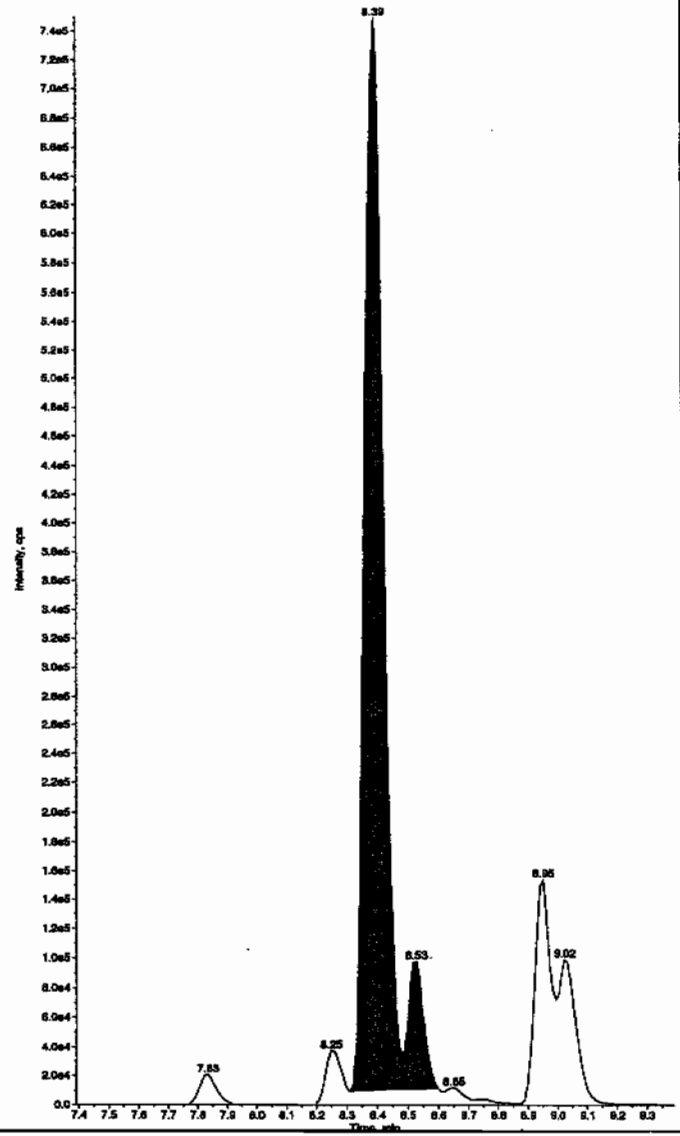

Hmcorlleto

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Dan 2/15/10

Sample Name: "1202028673" Sample ID: "947078[2]LER" File: "EXS02130015.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 710. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:52:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.15 min
Area: 1.10e+006 counts
Height: 239441.803 cps
Start Time: 7.05 min
End Time: 7.70 min

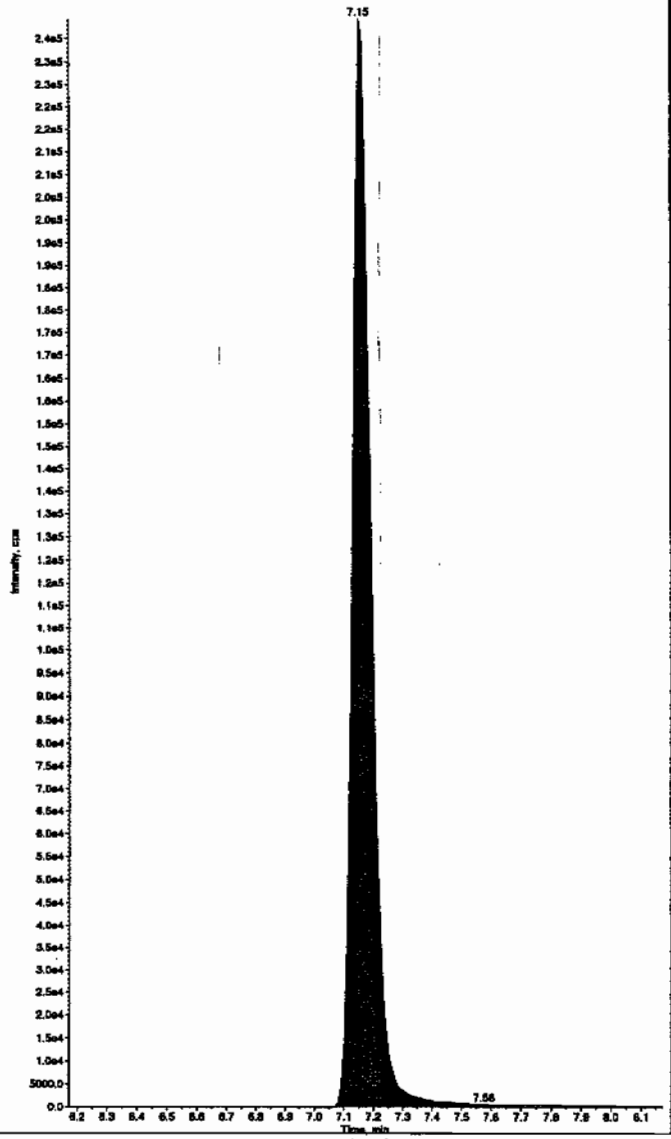

Sample Name: "1202028673" Sample ID: "947078[2]LER" File: "EXS02130015.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 553. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:52:42 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.39 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.39 min
Area: 3.33e+006 counts
Height: 748752.665 cps
Start Time: 8.31 min
End Time: 8.48 min

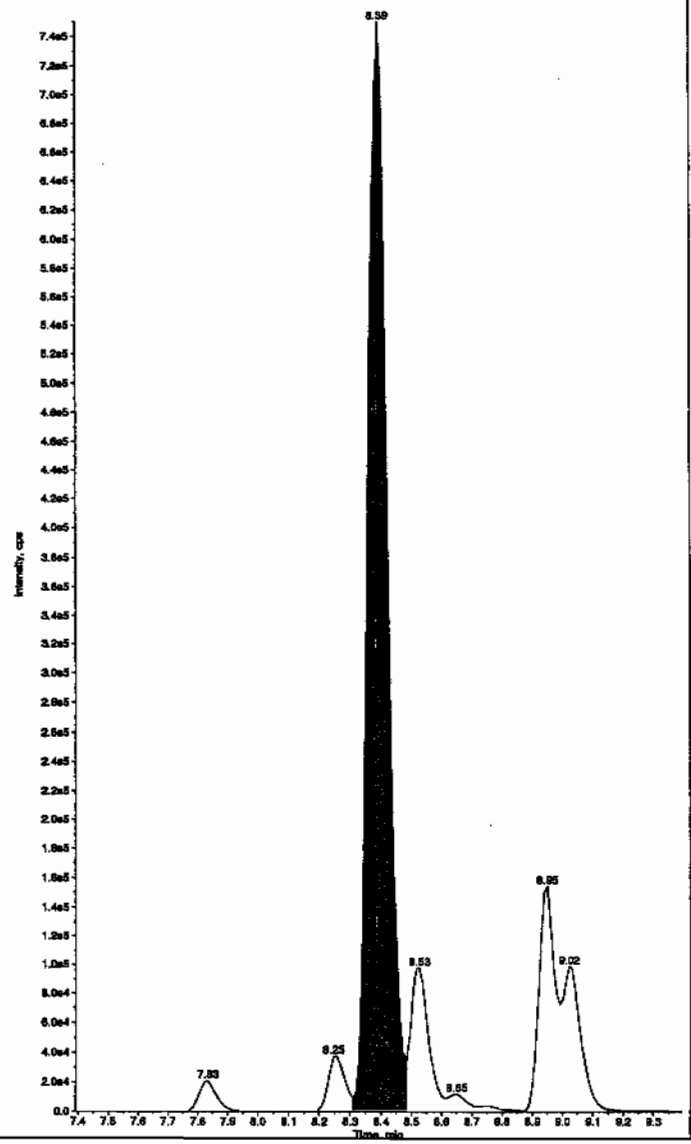

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028673" Sample ID: "947078|2|LER" File: "EXS02130015.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 295. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:52:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.50e+006 counts
Height: 855713.135 cps
Start Time: 8.44 min
End Time: 8.71 min

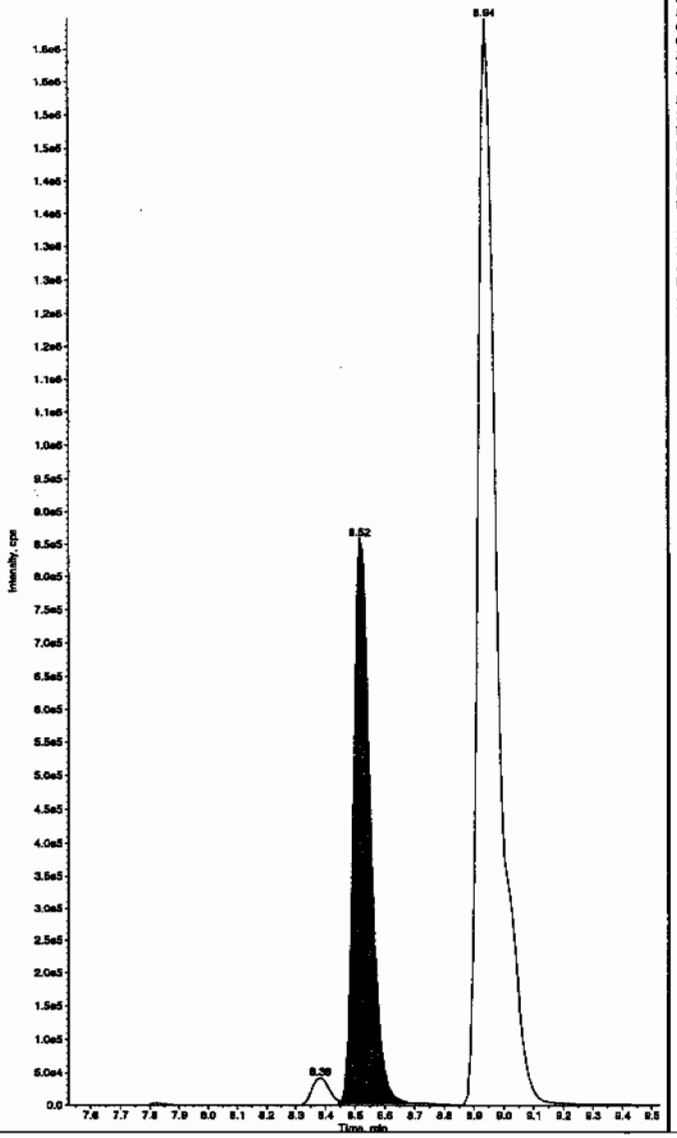

Sample Name: "1202028673" Sample ID: "947078|2|LER" File: "EXS02130015.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 521. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:52:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.19 min
Area: 1.36e+006 counts
Height: 328724.609 cps
Start Time: 5.08 min
End Time: 5.47 min

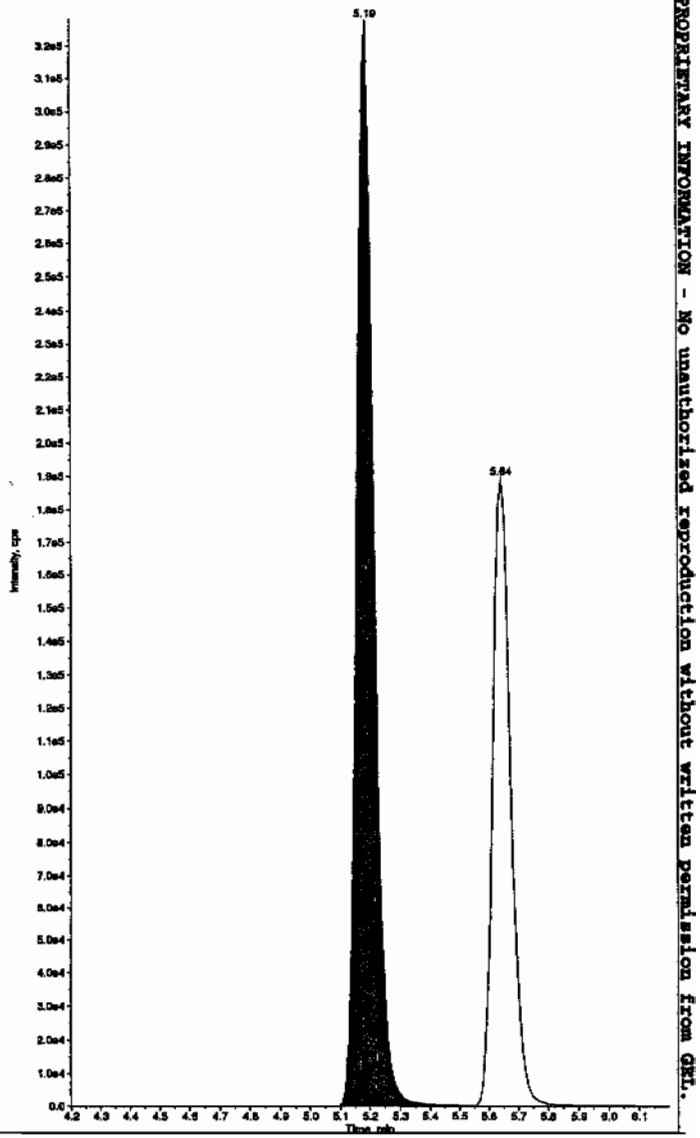

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028673" Sample ID: "947078[2]LER" File: "EXS02130015.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 466. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:52:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.64 min
Area: 8.07e+005 counts
Height: 189887.833 cps
Start Time: 5.55 min
End Time: 6.04 min

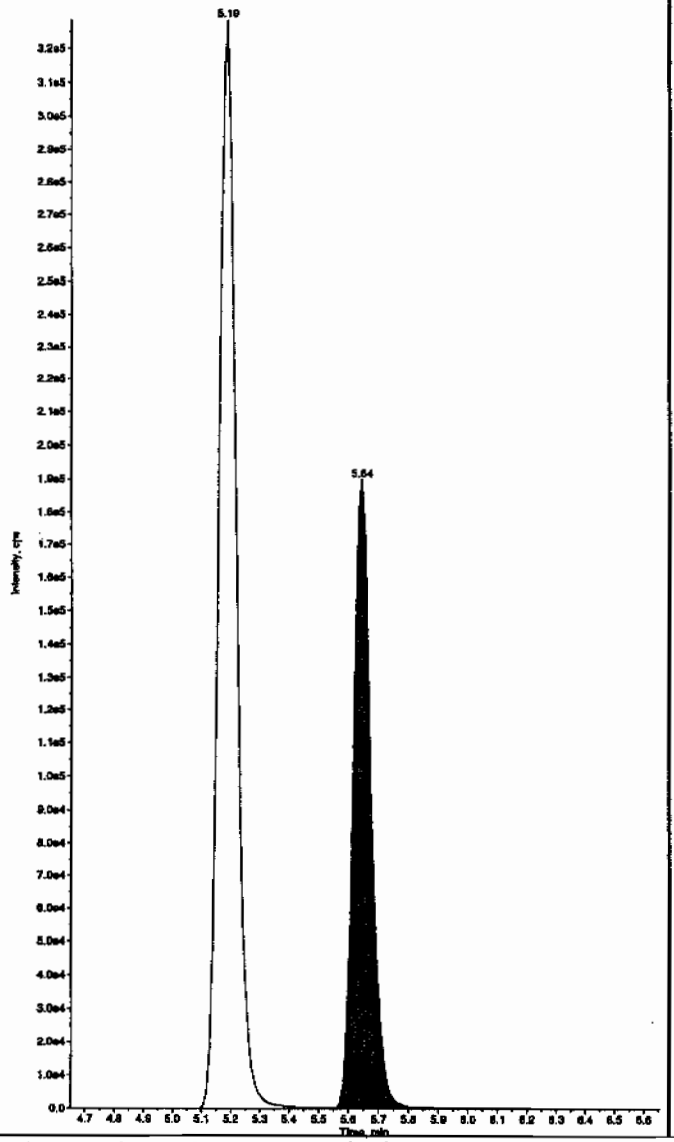

Sample Name: "1202028673" Sample ID: "947078[2]LER" File: "EXS02130015.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 520. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 1:52:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.11e+007 counts
Height: 2616611.328 cps
Start Time: 10.9 min
End Time: 11.3 min

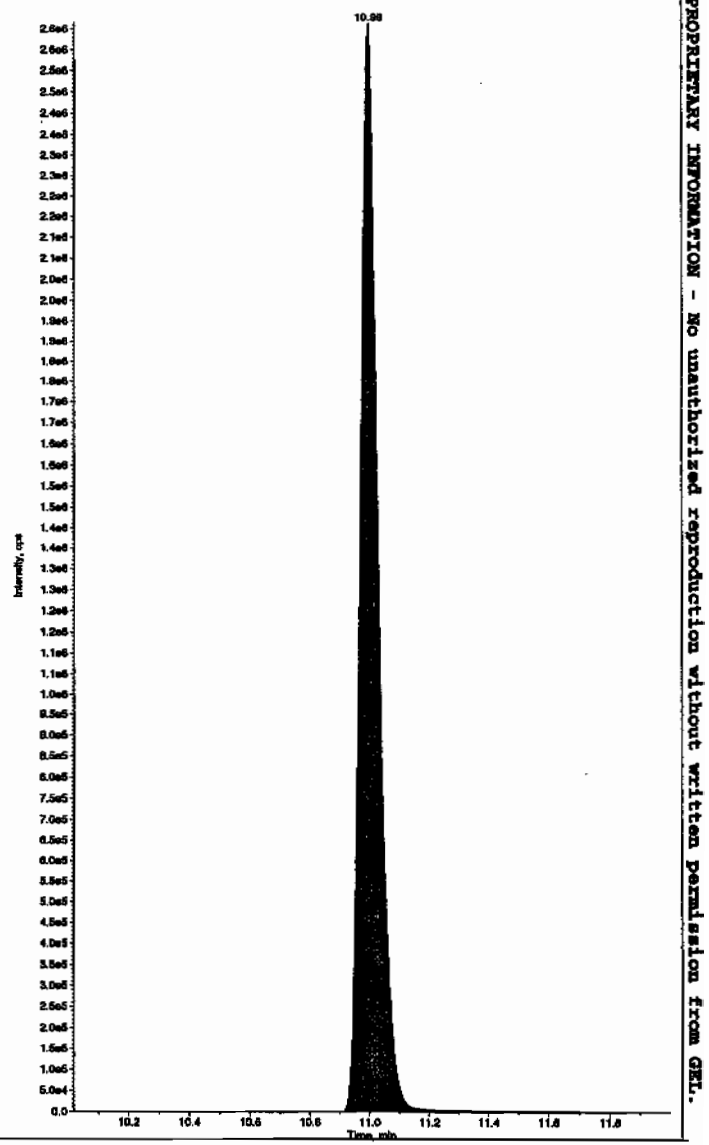

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883(245686001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 1202028674

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208186a

Date Analyzed: 12-FEB-10 09:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	6410	
121-14-2	2,4-Dinitrotoluene	5010	
121-82-4	RDX	4730	
19406-51-0	4-Amino-2,6-dinitrotoluene	4900	
2691-41-0	HMX	4280	
35572-78-2	2-Amino-4,6-dinitrotoluene	5200	
479-45-8	Tetryl	3490	
606-20-2	2,6-Dinitrotoluene	5070	
78-11-5	PETN	6370	
88-72-2	o-Nitrotoluene	4650	
98-95-3	Nitrobenzene	5030	
99-08-1	m-Nitrotoluene	4420	
99-35-4	1,3,5-Trinitrobenzene	4350	
99-65-0	m-Dinitrobenzene	5040	
99-99-0	p-Nitrotoluene	4860	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208186a
Date: 12-Feb-2010
Time: 09:44:16
ID: 1202028674 | LANL | 947078 | Soil | 245286001 MS | 2 |
Vial: 4:4,E

MM 2/13/10

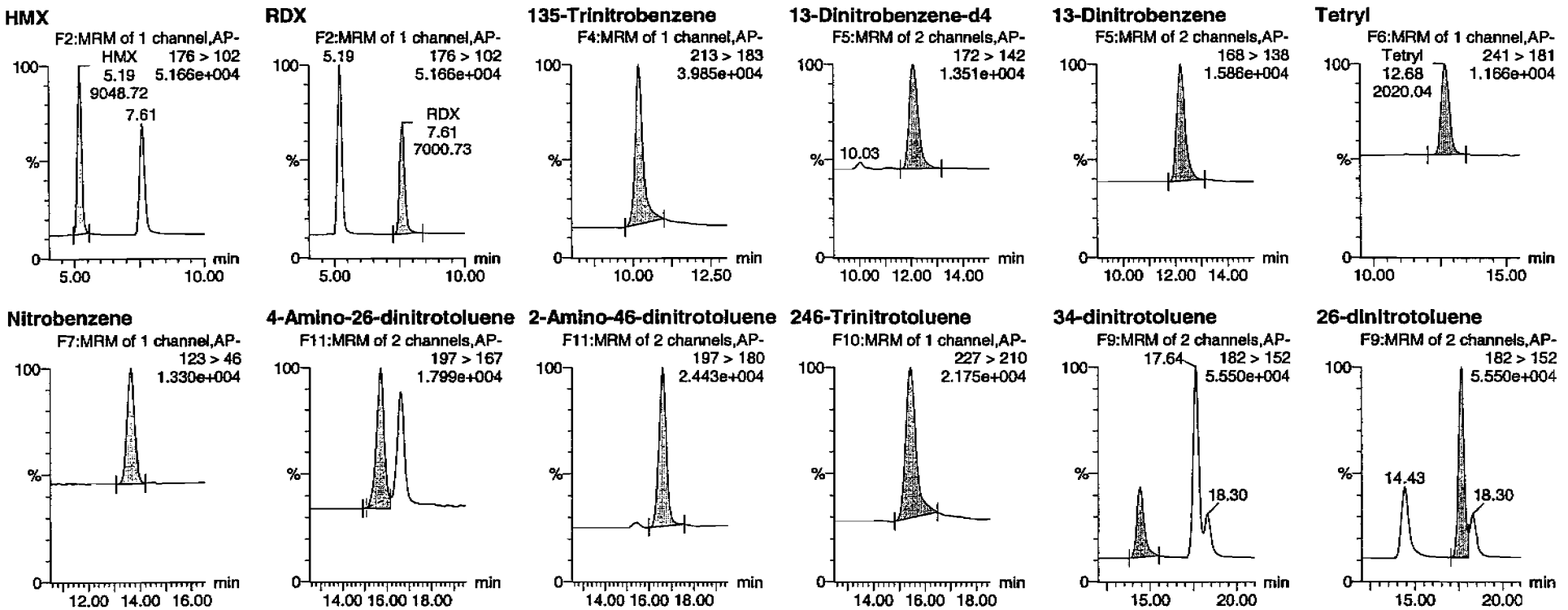

MM 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

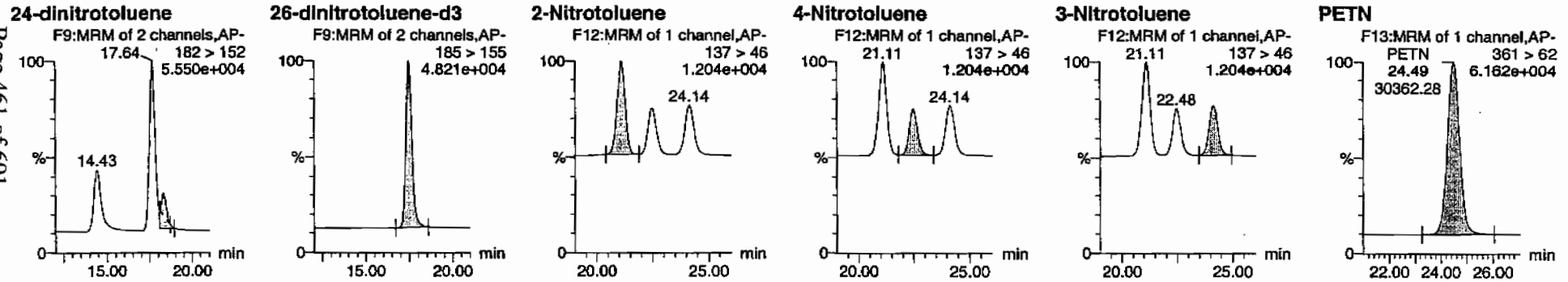

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202028674	HMX	176 > 102	5.19	9048.720	3045.194	9048.720	1485.738	bb			427.8209	85.6	-14.4	1883.4
1202028674	RDX	176 > 102	7.61	7000.728	3045.194	7000.728	1149.472	bb			473.3953	94.7	-5.3	1243.6
1202028674	135-Trinitrobenzene	213 > 183	10.20	9746.757	3045.194	9746.757	1600.351	bb			434.5171	86.9	-13.1	1464.5
1202028674	13-Dinitrobenzene-d4	172 > 142	12.07	3045.194		3045.194	3045.194	bb			473.6544	94.7	-5.3	212.1
1202028674	13-Dinitrobenzene	168 > 138	12.21	3687.896	3045.194	3687.896	605.527	bb			503.6007	100.7	0.7	426.0
1202028674	Tetryl	241 > 181	12.68	2020.036	3045.194	2020.036	331.676	bb			348.7762	69.8	-30.2	179.2
1202028674	Nitrobenzene	123 > 46	13.63	2476.291	3045.194	2476.291	406.590	bb			503.3483	100.7	0.7	178.2
1202028674	4-Amino-26-dinitrotoluene	197 > 167	15.71	4831.155	17171.072	4831.155	140.677	MM	13-Feb-10	09:20:09	489.7463	97.9	-2.1	301.4
1202028674	2-Amino-46-dinitrotoluene	197 > 180	16.60	7072.670	17171.072	7072.670	205.947	bb			520.0290	104.0	4.0	441.5
1202028674	246-Trinitrotoluene	227 > 210	15.45	7107.364	17171.072	7107.364	206.957	bb			641.4041	128.3	28.3	508.0
1202028674	34-dinitrotoluene	182 > 152	14.43	8852.771	17171.072	8852.771	257.782	bb			286.4265	114.6	14.6	200.3
1202028674	26-dinitrotoluene	182 > 152	17.64	18698.400	17171.072	18698.400	544.474	MM	13-Feb-10	09:25:05	506.9174	101.4	1.4	550.8
1202028674	24-dinitrotoluene	182 > 152	18.30	4200.726	17171.072	4200.726	122.320	MM	13-Feb-10	09:27:28	501.2051	100.2	0.2	115.7
1202028674	26-dinitrotoluene-d3	185 > 155	17.47	17171.072		17171.072	17171.072	bb			465.0967	93.0	-7.0	1182.1
1202028674	2-Nitrotoluene	137 > 46	21.11	2477.262	17171.072	2477.262	72.135	bb			465.2408	93.0	-7.0	909.9
1202028674	4-Nitrotoluene	137 > 46	22.48	1267.992	17171.072	1267.992	36.922	bb			485.8032	97.2	-2.8	447.1
1202028674	3-Nitrotoluene	137 > 46	24.14	1415.451	17171.072	1415.451	41.216	bb			442.3698	88.5	-11.5	473.2
1202028674	PETN	361 > 62	24.49	30362.279	17171.072	30362.279	884.111	bb			637.2418	127.4	27.4	7874.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883(245686001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 1202028674

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130018.wiff

Date Analyzed: 13-FEB-10 14:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	9430	
59229-75-3	2,6-Diamino-4-nitrotoluene	5350	
618-87-1	3,5-Dinitroaniline	6110	
6629-29-4	2,4-Diamino-6-nitrotoluene	4520	
78-30-8	tris(o-cresyl) phosphate	5320	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Clan 2/15/10

Sample Name: "1202028674" Sample ID: "947078|2|LER" File: "EXS02130016.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 943. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:39:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.15 min
Area: 1.44e+006 counts
Height: 314680.542 cps
Start Time: 7.03 min
End Time: 7.71 min

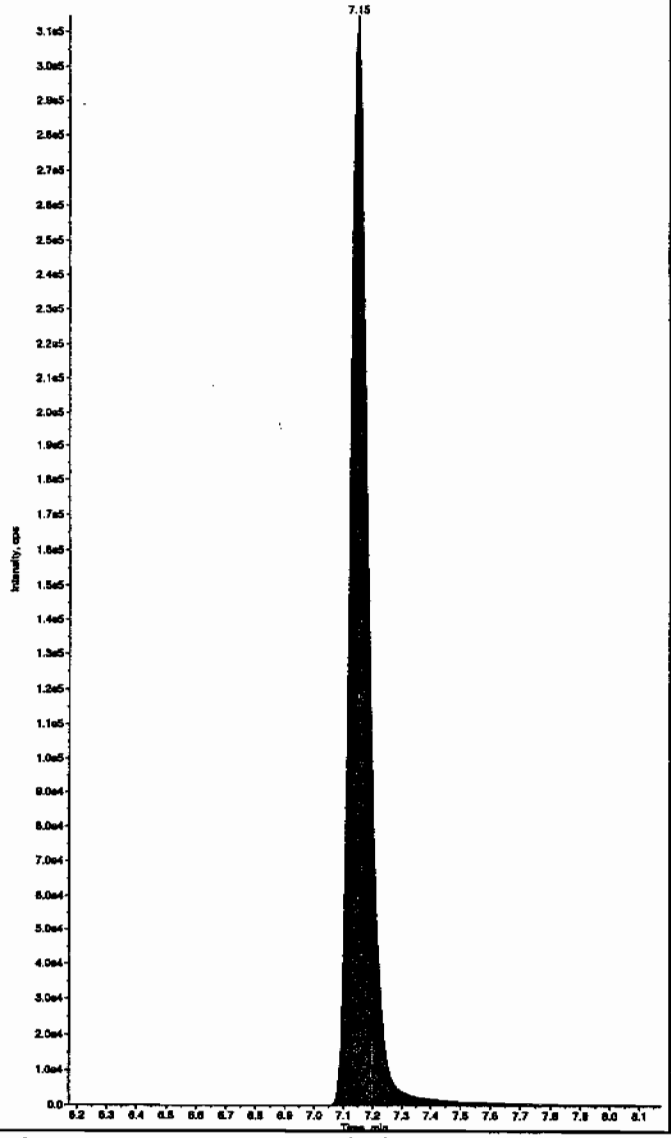

Sample Name: "1202028674" Sample ID: "947078|2|LER" File: "EXS02130016.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 651. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:39:51 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.37 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.90e+006 counts
Height: 918492.004 cps
Start Time: 8.30 min
End Time: 8.60 min

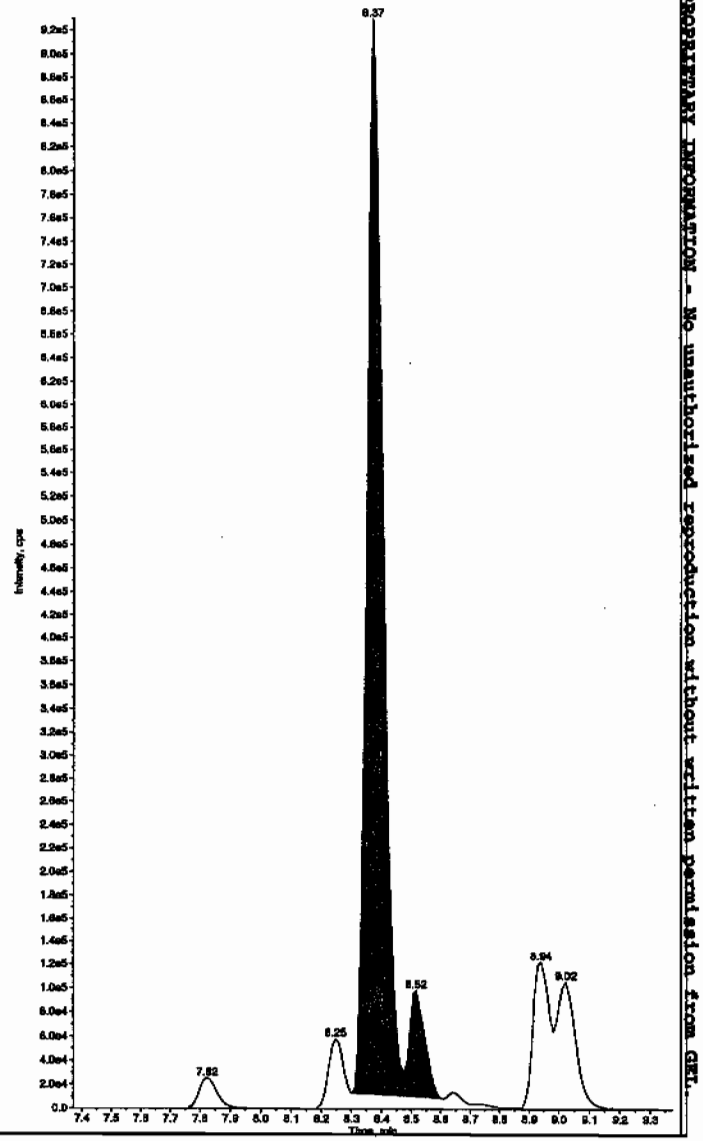

Hmc 02/16/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Sar 2/15/10

Sample Name: "1202028674" Sample ID: "947078[2]LER" File: "EXS02130016.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 943. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:39:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.15 min
Area: 1.44e+006 counts
Height: 314680.542 cps
Start Time: 7.03 min
End Time: 7.71 min

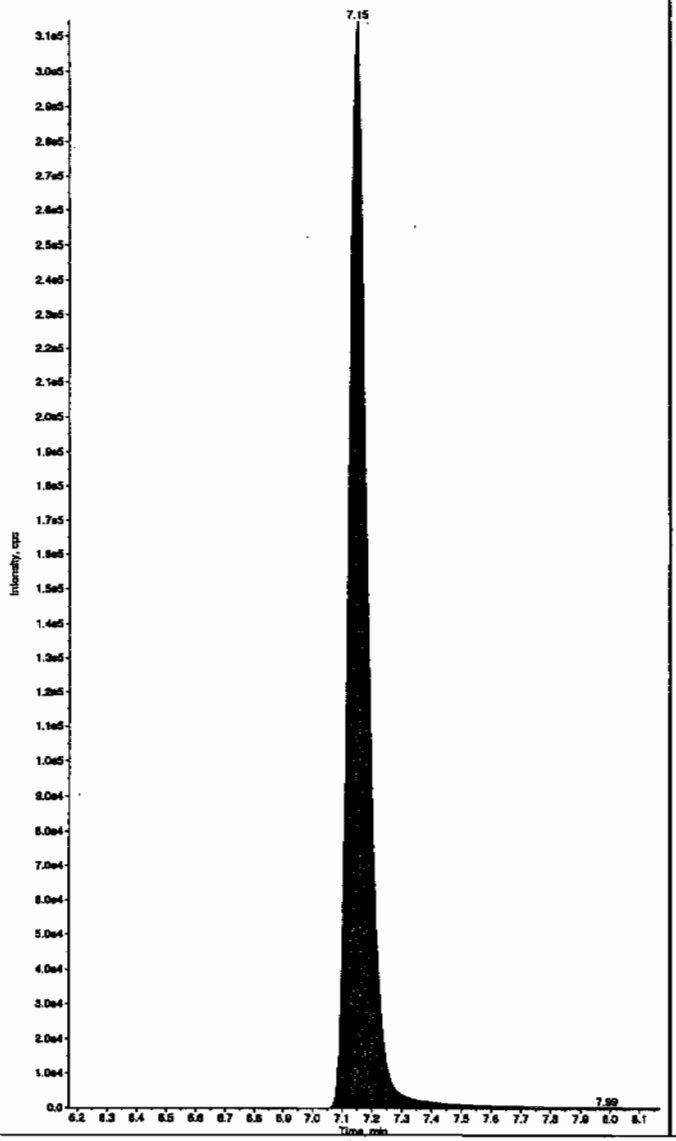

Sample Name: "1202028674" Sample ID: "947078[2]LER" File: "EXS02130018.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 611. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:39:51 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.37 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.37 min
Area: 3.67e+006 counts
Height: 930523.423 cps
Start Time: 8.30 min
End Time: 8.47 min

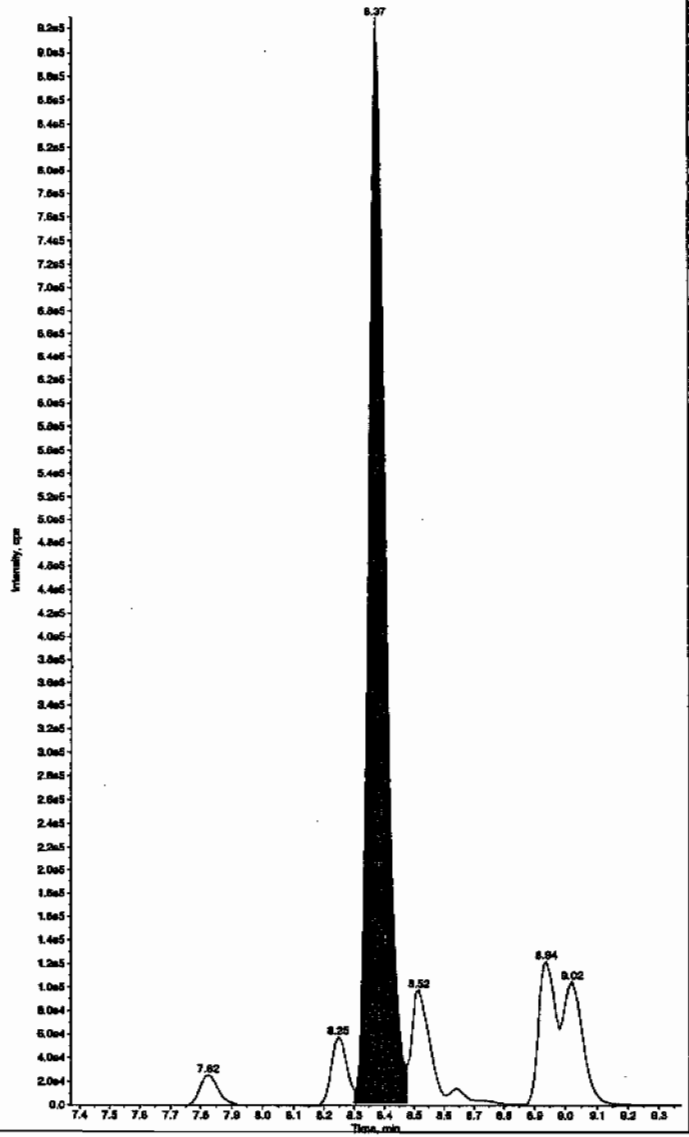

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202028674" Sample ID: "947078|2|LER" File: "EXS02130018.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 314. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:39:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.52 min
Area: 3.72e+006 counts
Height: 935629.395 cps
Start Time: 8.44 min
End Time: 8.70 min

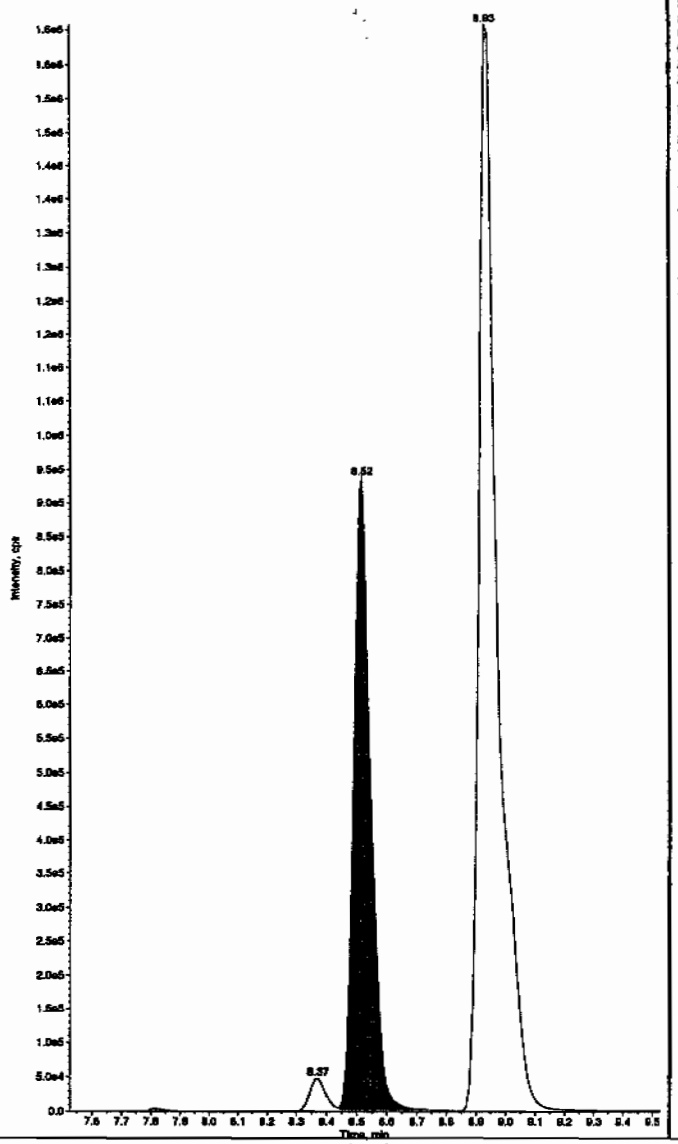

Sample Name: "1202028674" Sample ID: "947078|2|LER" File: "EXS02130018.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 535. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:39:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 1.39e+006 counts
Height: 337470.978 cps
Start Time: 5.05 min
End Time: 5.44 min

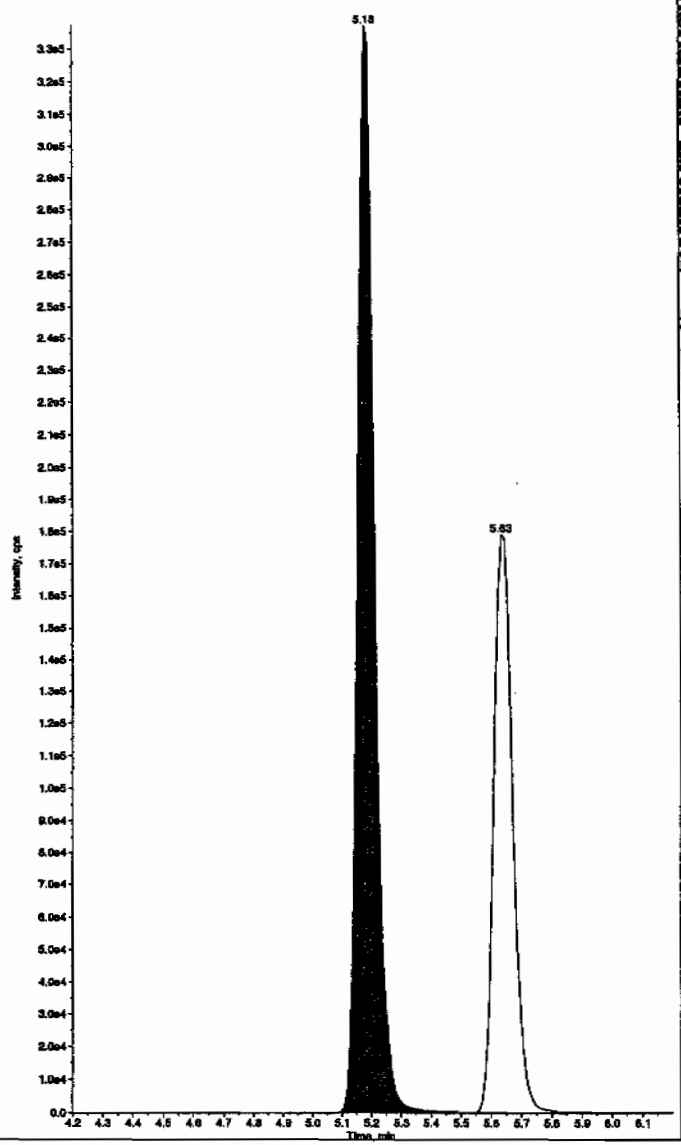

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028674" Sample ID: "947078|2|LER" File: "EXS02130018.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 452. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:39:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.63 min
Area: 7.82e+005 counts
Height: 179076.508 cps
Start Time: 5.52 min
End Time: 5.98 min

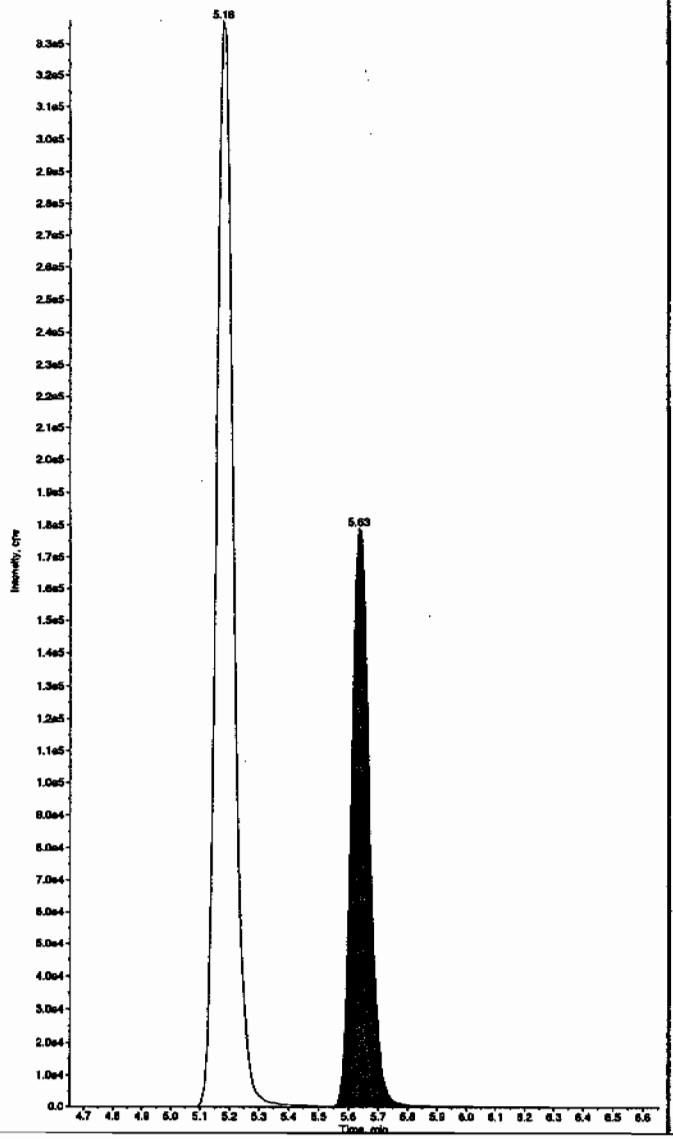

Sample Name: "1202028674" Sample ID: "947078|2|LER" File: "EXS02130018.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 532. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:39:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.14e+007 counts
Height: 2556080.566 cps
Start Time: 10.9 min
End Time: 11.3 min

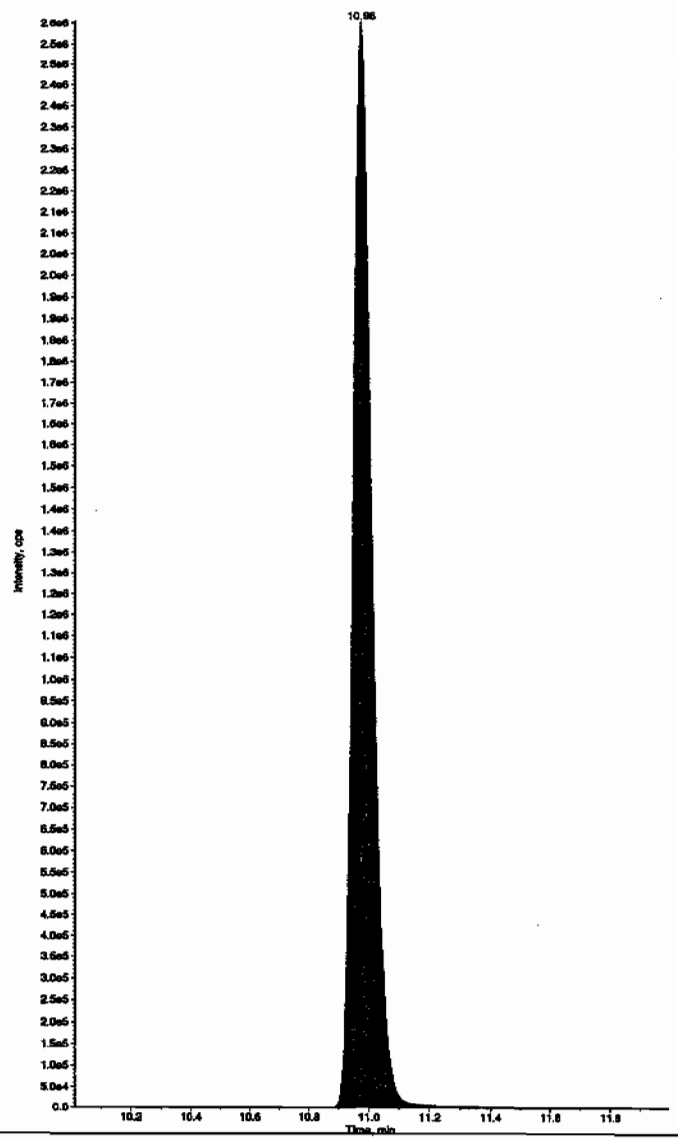

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883(245686001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 1202028675

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0208187a

Date Analyzed: 12-FEB-10 10:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5050	
121-14-2	2,4-Dinitrotoluene	5510	
121-82-4	RDX	5370	
19406-51-0	4-Amino-2,6-dinitrotoluene	4720	
2691-41-0	HMX	4890	
35572-78-2	2-Amino-4,6-dinitrotoluene	5100	
479-45-8	Tetryl	3450	
606-20-2	2,6-Dinitrotoluene	5060	
78-11-5	PETN	5850	
88-72-2	o-Nitrotoluene	4500	
98-95-3	Nitrobenzene	5120	
99-08-1	m-Nitrotoluene	4090	
99-35-4	1,3,5-Trinitrobenzene	4710	
99-65-0	m-Dinitrobenzene	5380	
99-99-0	p-Nitrotoluene	4430	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0208187a
Date: 12-Feb-2010
Time: 10:13:44
ID: 1202028675 | LANL | 947078 | Soils | 24568600 | MSD | 21
Vial: 4:4,F

MAT 4/13/10

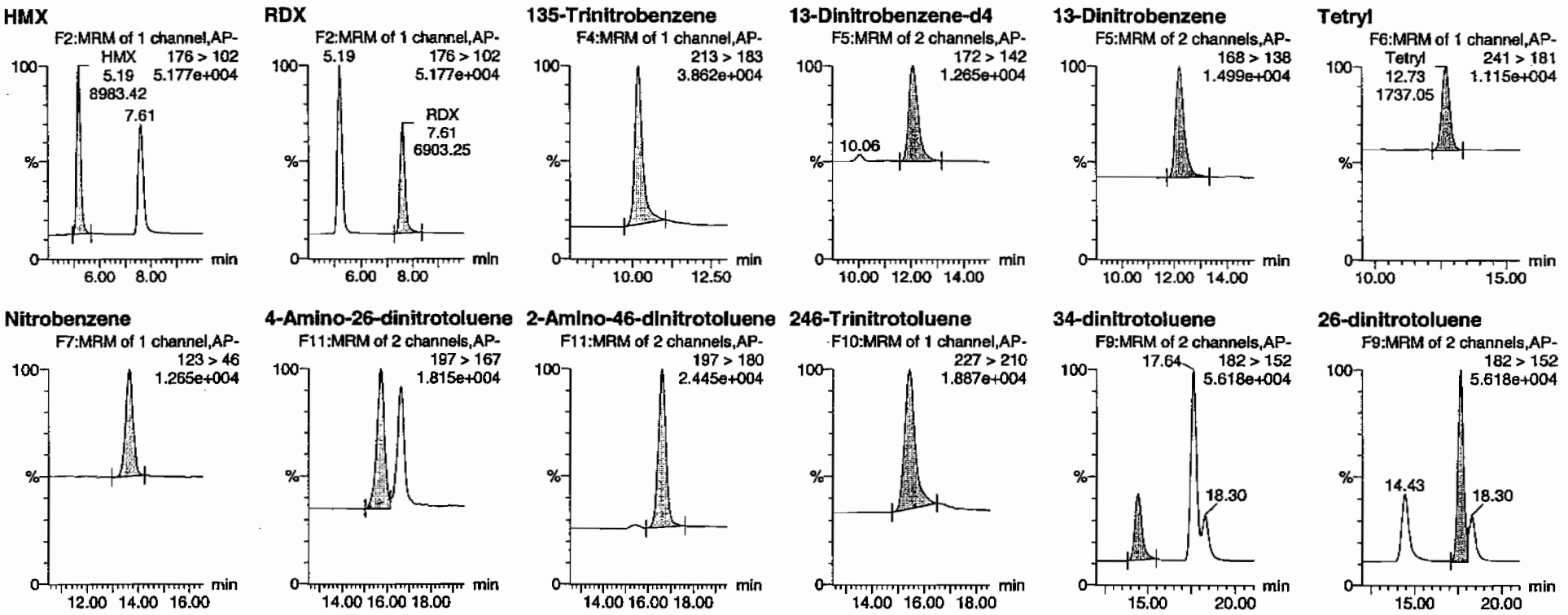

HNW 02/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\020810expA4.qld, Time: Sat Feb 13 09:30:34 2010

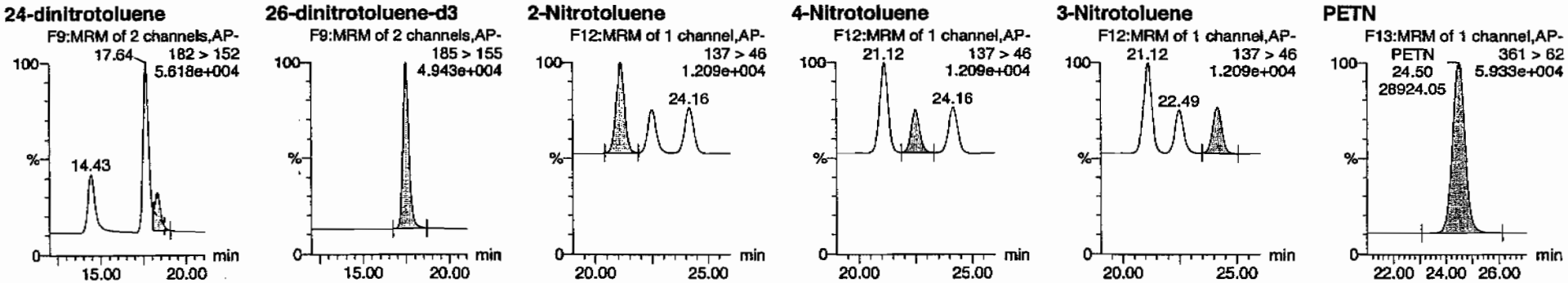

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	[ng/ml]	%Rec	%Dev	S/N
1202028675	HMX	176 > 102	5.19	8983.422	2646.461	8983.422	1697.252	bb			488.7267	97.7	-2.3	911.8
1202028675	RDX	176 > 102	7.61	6903.254	2646.461	6903.254	1304.243	bb			537.1358	107.4	7.4	596.2
1202028675	135-Trinitrobenzene	213 > 183	10.19	9186.083	2646.461	9186.083	1735.541	bb			471.2231	94.2	-5.8	579.1
1202028675	13-Dinitrobenzene-d4	172 > 142	12.10	2646.461		2646.461	2646.461	bb			411.6348	82.3	-17.7	226.4
1202028675	13-Dinitrobenzene	168 > 138	12.21	3421.943	2646.461	3421.943	646.513	bb			537.6875	107.5	7.5	351.8
1202028675	Tetryl	241 > 181	12.73	1737.049	2646.461	1737.049	328.183	bb			344.8703	69.0	-31.0	125.7
1202028675	Nitrobenzene	123 > 46	13.63	2189.648	2646.461	2189.648	413.694	bb			512.1423	102.4	2.4	160.4
1202028675	4-Amino-26-dinitrotoluene	197 > 167	15.71	4770.499	17593.500	4770.499	135.576	MM	13-Feb-10	09:20:20	471.9861	94.4	-5.6	118.3
1202028675	2-Amino-46-dinitrotoluene	197 > 180	16.60	7108.845	17593.500	7108.845	202.030	bb			510.1388	102.0	2.0	653.7
1202028675	246-Trinitrotoluene	227 > 210	15.45	5732.267	17593.500	5732.267	162.909	bb			504.8876	101.0	1.0	745.4
1202028675	34-dinitrotoluene	182 > 152	14.43	8238.457	17593.500	8238.457	234.134	bb			260.1507	104.1	4.1	258.7
1202028675	26-dinitrotoluene	182 > 152	17.64	19125.213	17593.500	19125.213	543.531	MM	13-Feb-10	09:24:54	506.0393	101.2	1.2	754.0
1202028675	24-dinitrotoluene	182 > 152	18.30	4735.646	17593.500	4735.646	134.585	MM	13-Feb-10	09:27:40	551.4619	110.3	10.3	170.7
1202028675	26-dinitrotoluene-d3	185 > 155	17.47	17593.500		17593.500	17593.500	bb			476.5386	95.3	-4.7	1423.8
1202028675	2-Nitrotoluene	137 > 46	21.12	2453.010	17593.500	2453.010	69.714	bb			449.6248	89.9	-10.1	402.1
1202028675	4-Nitrotoluene	137 > 46	22.49	1184.741	17593.500	1184.741	33.670	bb			443.0089	88.6	-11.4	187.9
1202028675	3-Nitrotoluene	137 > 46	24.16	1342.122	17593.500	1342.122	38.143	bb			409.3811	81.9	-18.1	199.6
1202028675	PETN	361 > 62	24.50	28924.047	17593.500	28924.047	822.009	bb			584.6264	116.9	16.9	4236.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7883(245686001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1432

Matrix: SOIL

GEL Sample ID: 1202028675

Sample Amount 2

Moisture: 31.1

Amount Units g

Date Received: 28-JAN-10

Extraction Type Sonication

Extraction Batch ID: 947076

Concentrated Extract Volume (mL) 10

Date Extracted: 04-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02130019.wiff

Date Analyzed: 13-FEB-10 14:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7460	
59229-75-3	2,6-Diamino-4-nitrotoluene	4780	
618-87-1	3,5-Dinitroaniline	5530	
6629-29-4	2,4-Diamino-6-nitrotoluene	4330	
78--30-8	tris(o-cresyl) phosphate	5130	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Clean 2/15/10

Sample Name: "1202028675" Sample ID: "947078[2]LER" File: "EXS02130019.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 746. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:55:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.14 min
Area: 1.15e+006 counts
Height: 255641.098 cps
Start Time: 7.00 min
End Time: 7.79 min

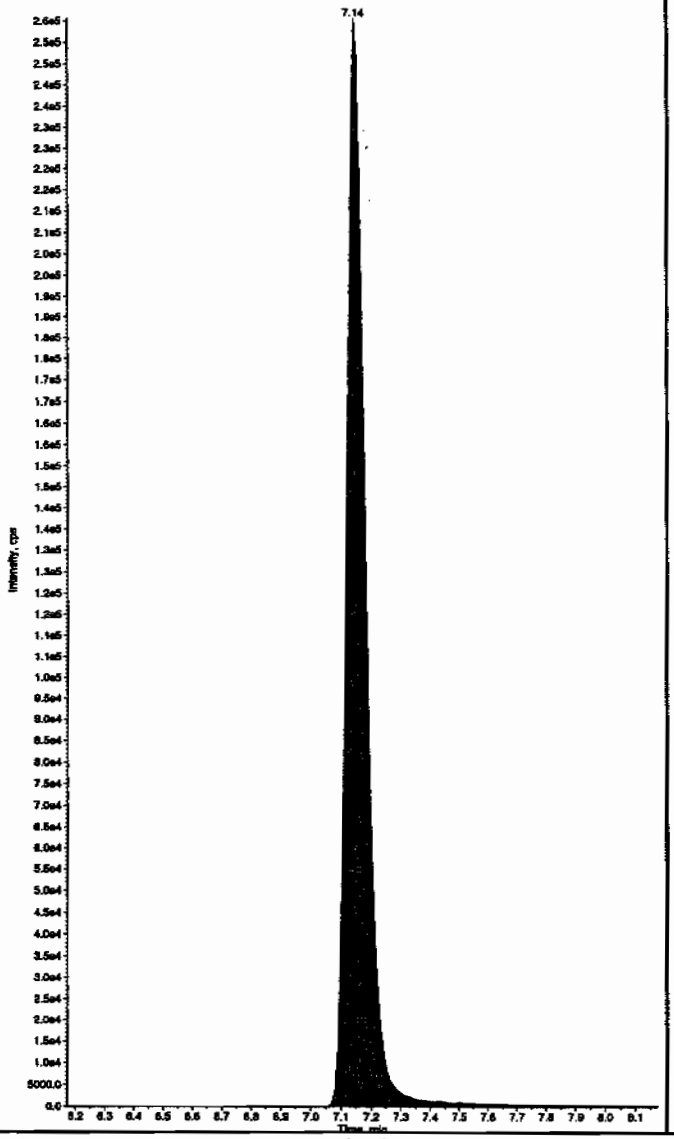

Sample Name: "1202028675" Sample ID: "947078[2]LER" File: "EXS02130019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 604. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:55:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.63e+006 counts
Height: 818157.898 cps
Start Time: 8.30 min
End Time: 8.70 min

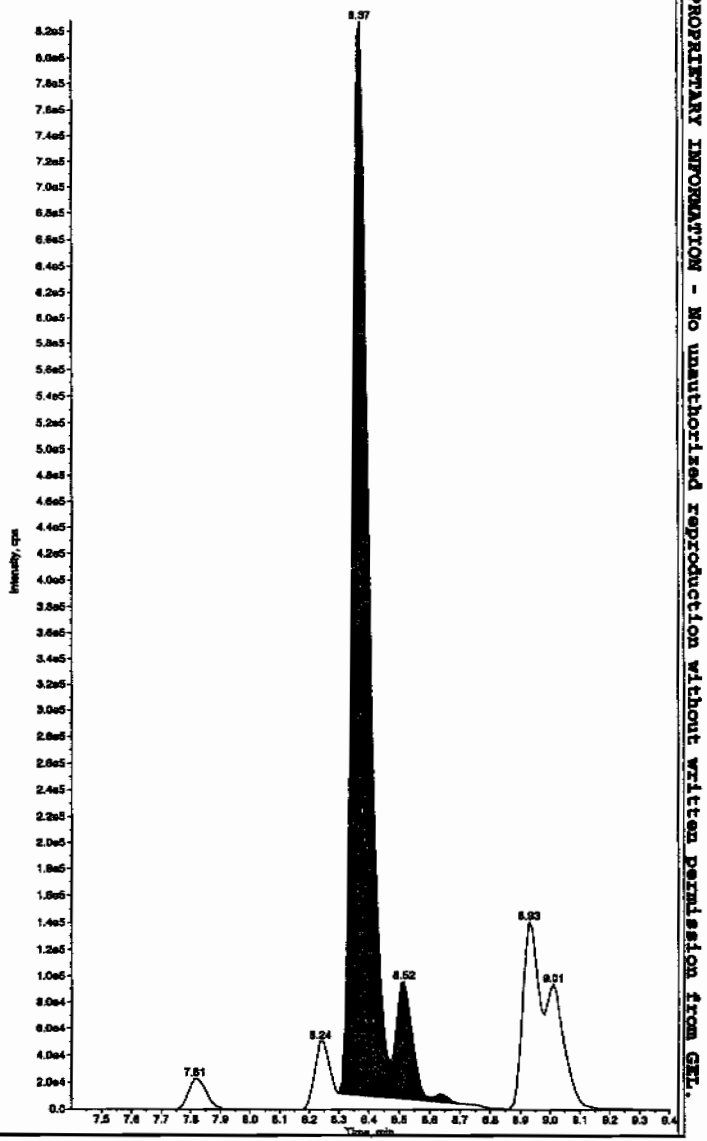

Hmm 2/16/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Clean 2/15/10

Sample Name: "1202028675" Sample ID: "947078[2]LER" File: "EXS02130019.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 746. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:55:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.14 min
Area: 1.15e+006 counts
Height: 255641.098 cps
Start Time: 7.00 min
End Time: 7.79 min

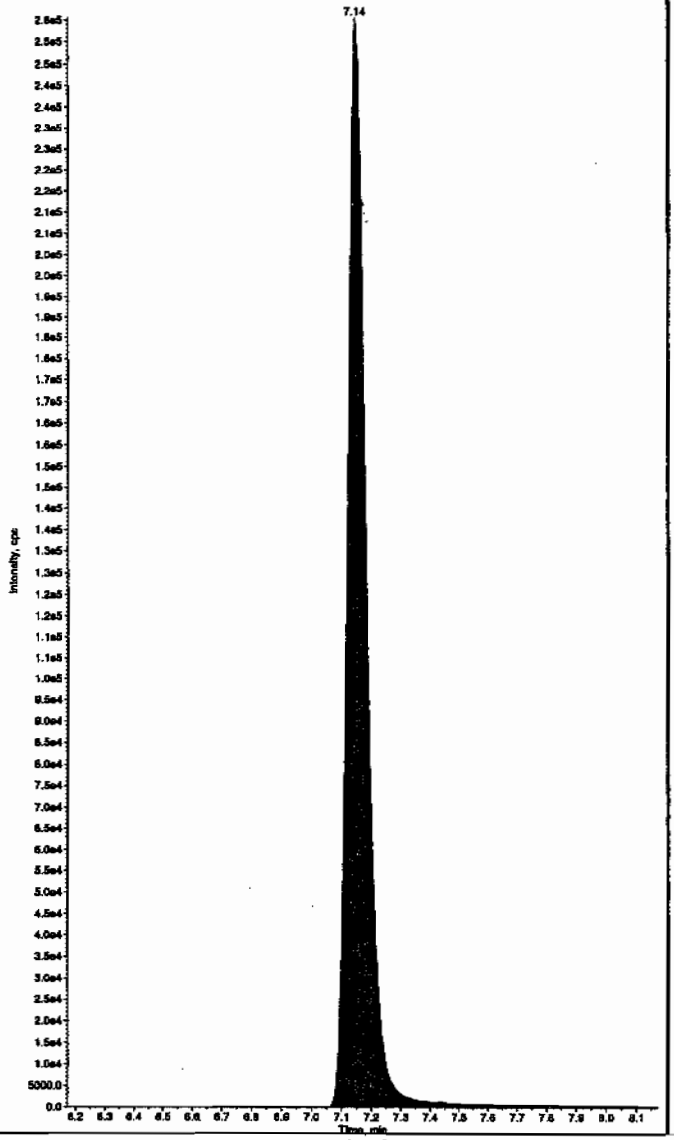

Sample Name: "1202028675" Sample ID: "947078[2]LER" File: "EXS02130019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 553. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:55:34 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.37 min
Area: 3.33e+006 counts
Height: 835212.329 cps
Start Time: 8.30 min
End Time: 8.46 min

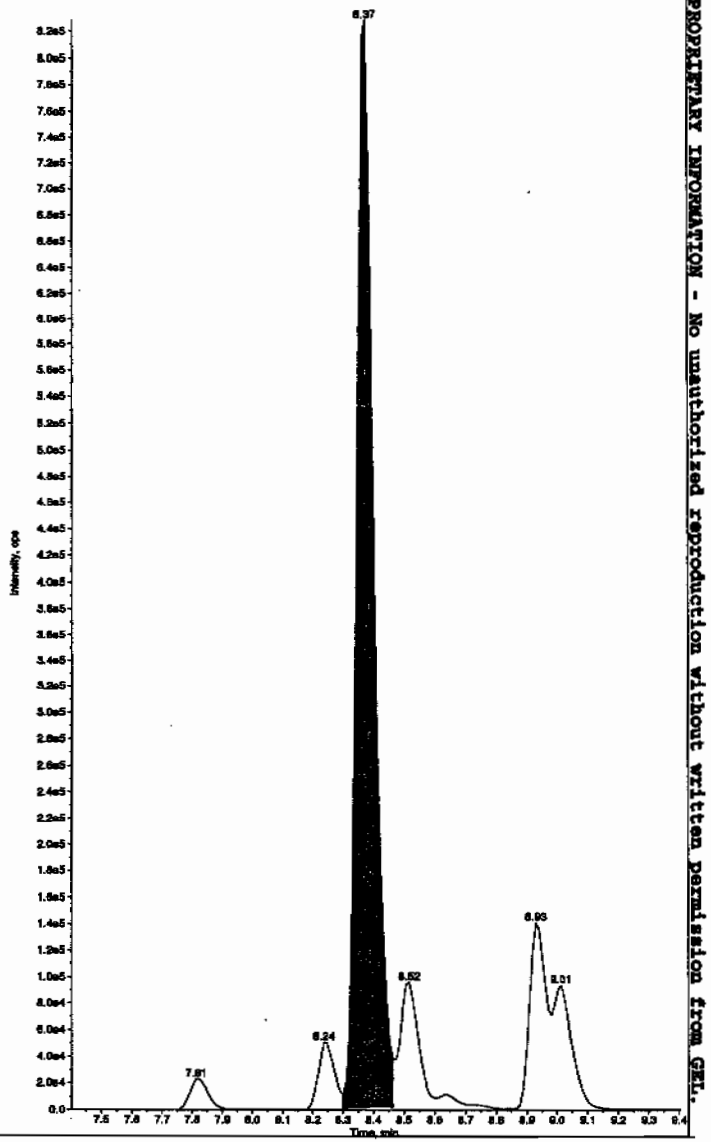

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202028675" Sample ID: "947078[2]LER" File: "EXS02130019.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 312. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:55:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.53 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.51 min
Area: 3.69e+006 counts
Height: 954845.825 cps
Start Time: 8.43 min
End Time: 8.69 min

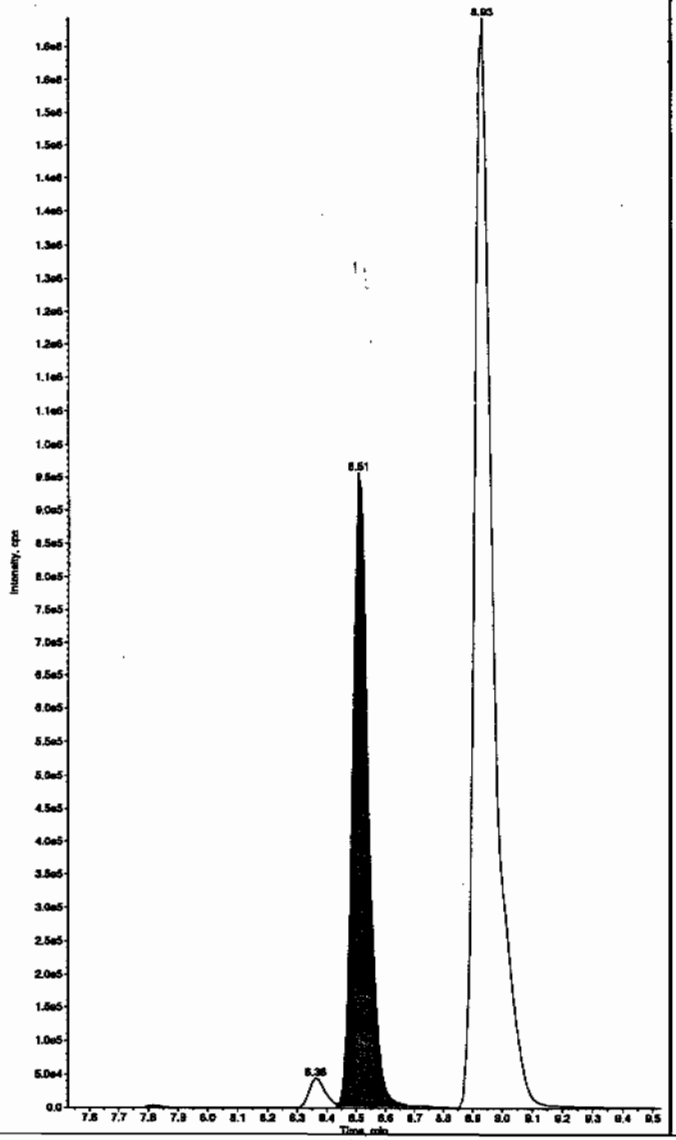

Sample Name: "1202028675" Sample ID: "947078[2]LER" File: "EXS02130019.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 478. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:55:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 1.24e+006 counts
Height: 295212.555 cps
Start Time: 5.06 min
End Time: 5.44 min

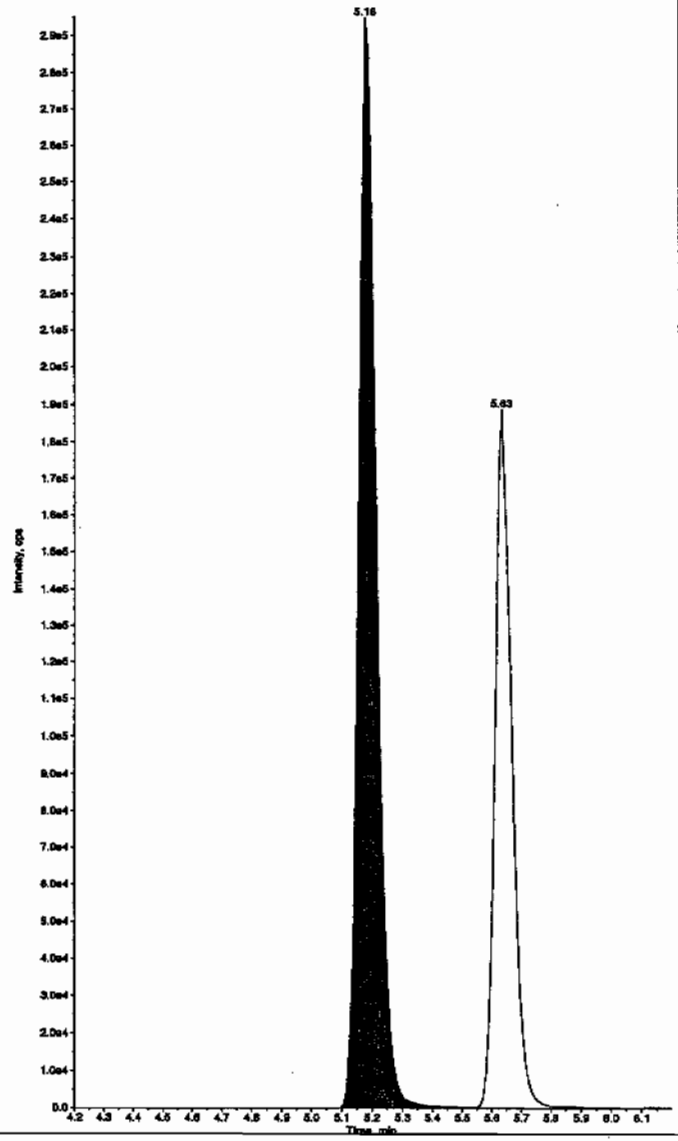

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202028675" Sample ID: "947078|2|LER" File: "EXS02130019.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 433. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:55:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.65 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.63 min
Area: 7.50e+005 counts
Height: 188968.826 cps
Start Time: 5.52 min
End Time: 5.97 min

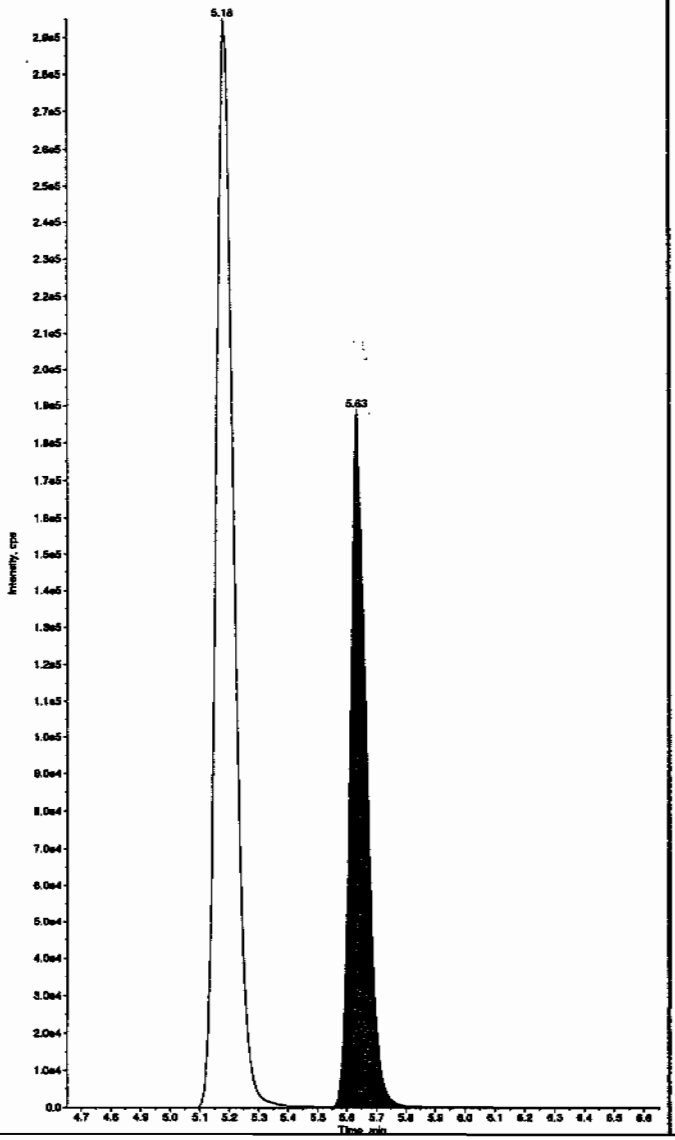

Sample Name: "1202028675" Sample ID: "947078|2|LER" File: "EXS02130019.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 513. ng/mL
Acq. Date: 2/13/2010
Acq. Time: 2:55:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.10e+007 counts
Height: 2562492.188 cps
Start Time: 10.9 min
End Time: 11.4 min

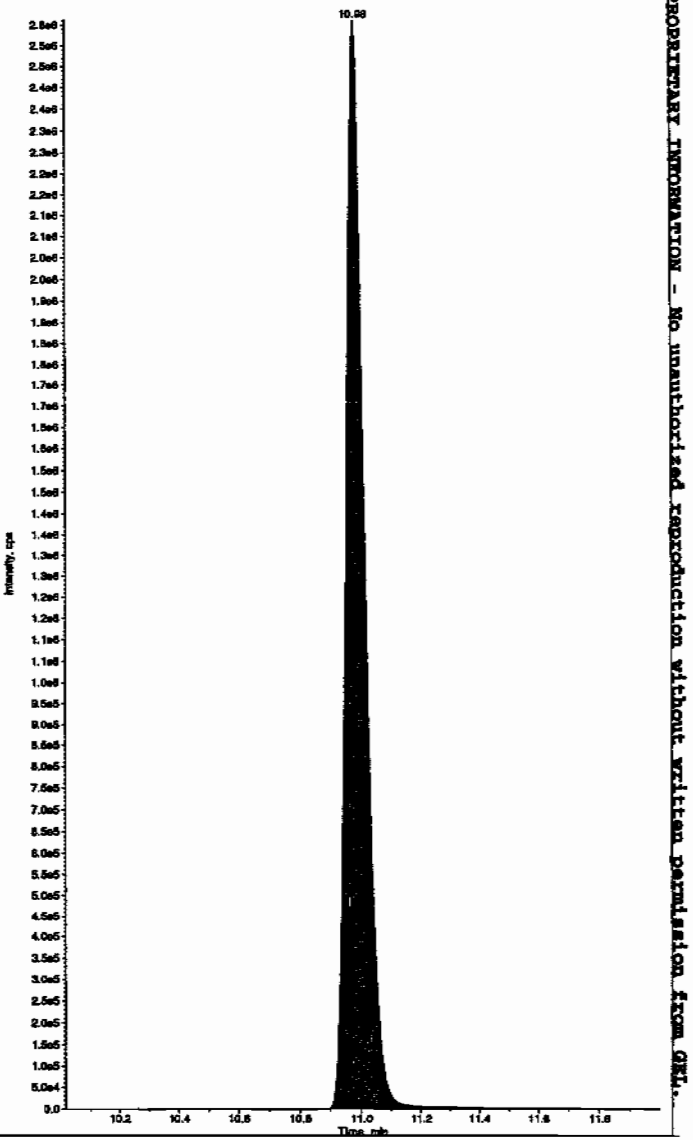

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 947076 **Verified by:** _____
Analyst: Sirena White
Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202028672 MB	04-FEB-2010 13:16:00	2	10	5
1202028673 LCS	04-FEB-2010 13:16:00	2	10	5
245661001	04-FEB-2010 13:16:00	2	10	5
245686001	04-FEB-2010 13:16:00	2	10	5
1202028674 MS (245686001)	04-FEB-2010 13:16:00	2	10	5
1202028675 MSD (245686001)	04-FEB-2010 13:16:00	2	10	5
245686002	04-FEB-2010 13:16:00	2	10	5
245686003	04-FEB-2010 13:16:00	2	10	5
245686004	04-FEB-2010 13:16:00	2	10	5
245686005	04-FEB-2010 13:16:00	2	10	5
245686006	04-FEB-2010 13:16:00	2	10	5
245686007	04-FEB-2010 13:16:00	2	10	5
245686008	04-FEB-2010 13:16:00	2	10	5
245686009	04-FEB-2010 13:16:00	2	10	5
245686010	04-FEB-2010 13:16:00	2	10	5
245686011	04-FEB-2010 13:16:00	2	10	5
245686012	04-FEB-2010 13:16:00	2	10	5
245686013	04-FEB-2010 13:16:00	2	10	5
245686014	04-FEB-2010 13:16:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202028673	8321 Explosives LCS	DXX100125-03	.1	mL
LCS	1202028673	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MS	1202028674	8321 Explosives LCS	DXX100125-03	.1	mL
MS	1202028674	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MSD	1202028675	8321 Explosives LCS	DXX100125-03	.1	mL
MSD	1202028675	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	DXP100125-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 02/08/10
Extr. Injection Volume: 50uL
Sequence Number: 020810expA
Initial Calibration Date: 02/08/10

Method: SW846 8321A-Modified
Int. Std.: UXX100128-01.1
Mobile Phase Lot#: 1265885, 1250738
Standard-Samp Reagent Lot#: 1260901, 1246195

Reviewed BY: HMC
Date: 02/13/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100208-07 & WXX100211-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0208001a	XIBLK01	MAP	2/8/10 14:44			1		USE	B
EXP0208002a	XIBLK01	MAP	2/8/10 15:13			1		USE	B
EXP0208003a	WXXICAL-01	MAP	2/8/10 15:43			1		USE	I
EXP0208004a	WXXICAL-02	MAP	2/8/10 16:12			1		USE	I
EXP0208005a	WXXICAL-03	MAP	2/8/10 16:42			1		USE	I
EXP0208006a	WXXICAL-04	MAP	2/8/10 17:11			1		USE	I
EXP0208007a	WXXICAL-05	MAP	2/8/10 17:41			1		USE	I
EXP0208008a	WXXICAL-06	MAP	2/8/10 18:11			1		USE	I
EXP0208009a	XIBLK02	MAP	2/8/10 18:40			1		USE	B
EXP0208010a	WXXICV	MAP	2/8/10 19:10			1		USE	C
EXP0208011a	XIBLK03	MAP	2/8/10 19:39			1		USE	B
EXP0208012a	WXXCRI	MAP	2/8/10 20:09			1		USE	C
EXP0208013a	1202021906	MAP	2/8/10 20:38	944246	10-1304	2	LANL	DUSE-RA	S
EXP0208014a	1202021907	MAP	2/8/10 21:08	944246	10-1304	2	LANL	DUSE-RA	S
EXP0208015a	245106001	MAP	2/8/10 21:37	944246	10-1304	2	LANL	USE	S
EXP0208016a	1202021908	MAP	2/8/10 22:07	944246	10-1304	2	LANL	USE	S
EXP0208017a	1202021909	MAP	2/8/10 22:36	944246	10-1304	2	LANL	USE	S
EXP0208018a	245106002	MAP	2/8/10 23:05	944246	10-1304	2	LANL	USE	S
EXP0208019a	245106003	MAP	2/8/10 23:35	944246	10-1304	2	LANL	USE	S
EXP0208020a	245106004	MAP	2/9/10 0:04	944246	10-1304	2	LANL	USE	S
EXP0208021a	245106005	MAP	2/9/10 0:34	944246	10-1304	2	LANL	USE	S
EXP0208022a	245106006	MAP	2/9/10 1:03	944246	10-1304	2	LANL	USE	S
EXP0208023a	WXXCCV	MAP	2/9/10 1:33			1		USE	C
EXP0208024a	XIBLK04	MAP	2/9/10 2:02			1		USE	B
EXP0208025a	WXXCRI	MAP	2/9/10 2:32			1		USE	C
EXP0208026a	245106007	MAP	2/9/10 3:01	944246	10-1304	2	LANL	USE	S
EXP0208027a	245106008	MAP	2/9/10 3:31	944246	10-1304	2	LANL	USE	S
EXP0208028a	245106009	MAP	2/9/10 4:00	944246	10-1304	2	LANL	USE	S
EXP0208029a	245106010	MAP	2/9/10 4:30	944246	10-1304	2	LANL	USE	S

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EXP0208030a	245106011	MAP	2/9/10 4:59	944246	10-1304	2	LANL	USE	S
EXP0208031a	245106012	MAP	2/9/10 5:29	944246	10-1304	2	LANL	USE	S
EXP0208032a	245106013	MAP	2/9/10 5:58	944246	10-1304	2	LANL	USE	S
EXP0208033a	245106014	MAP	2/9/10 6:28	944246	10-1304	2	LANL	USE	S
EXP0208034a	245106015	MAP	2/9/10 6:58	944246	10-1304	2	LANL	USE	S
EXP0208035a	245106016	MAP	2/9/10 7:27	944246	10-1304	2	LANL	USE	S
EXP0208036a	WXXCCV	MAP	2/9/10 7:57			1		USE	C
EXP0208037a	XIBLK05	MAP	2/9/10 8:26			1		USE	B
EXP0208038a	WXXCRI	MAP	2/9/10 8:56			1		USE	C
EXP0208039a	1202021914	MAP	2/9/10 9:25	944250	10-1324	2	LANL	USE	S
EXP0208040a	1202021915	MAP	2/9/10 9:55	944250	10-1324	2	LANL	USE	S
EXP0208041a	245114002	MAP	2/9/10 10:24	944250	10-1324	2	LANL	USE	S
EXP0208042a	1202021916	MAP	2/9/10 10:54	944250	10-1324	2	LANL	USE	S
EXP0208043a	1202021917	MAP	2/9/10 11:23	944250	10-1324	2	LANL	USE	S
EXP0208044a	245114003	MAP	2/9/10 11:53	944250	10-1324	2	LANL	USE	S
EXP0208045a	245114004	MAP	2/9/10 12:22	944250	10-1324	2	LANL	USE	S
EXP0208046a	245114005	MAP	2/9/10 12:52	944250	10-1324	2	LANL	USE	S
EXP0208047a	245114006	MAP	2/9/10 13:21	944250	10-1324	2	LANL	USE	S
EXP0208048a	245114007	MAP	2/9/10 13:51	944250	10-1324	2	LANL	USE	S
EXP0208049a	WXXCCV	MAP	2/9/10 14:20			1		USE	C
EXP0208050a	XIBLK06	MAP	2/9/10 14:50			1		USE	B
EXP0208051a	WXXCRI	MAP	2/9/10 15:19			1		USE	C
EXP0208052a	245114008	MAP	2/9/10 15:49	944250	10-1324	2	LANL	USE	S
EXP0208053a	245114009	MAP	2/9/10 16:18	944250	10-1324	2	LANL	USE	S
EXP0208054a	245114010	MAP	2/9/10 16:48	944250	10-1324	2	LANL	USE	S
EXP0208055a	245114011	MAP	2/9/10 17:17	944250	10-1324	2	LANL	USE	S
EXP0208056a	245114012	MAP	2/9/10 17:47	944250	10-1324	2	LANL	USE	S
EXP0208057a	245114013	MAP	2/9/10 18:16	944250	10-1324	2	LANL	USE	S
EXP0208058a	245114014	MAP	2/9/10 18:46	944250	10-1324	2	LANL	USE	S
EXP0208059a	245114015	MAP	2/9/10 19:15	944250	10-1324	2	LANL	USE	S
EXP0208060a	1202021906	MAP	2/9/10 19:45	944246	10-1304	2	LANL	USE	S
EXP0208061a	1202021907	MAP	2/9/10 20:14	944246	10-1304	2	LANL	USE	S
EXP0208062a	WXXCCV	MAP	2/9/10 20:44			1		USE	C
EXP0208063a	XIBLK07	MAP	2/9/10 21:13			1		USE	B
EXP0208064a	WXXCRI	MAP	2/9/10 21:43			1		USE	C
EXP0208065a	1202023096	MAP	2/9/10 22:12	944718	Various	2	LANL	USE	S
EXP0208066a	1202023097	MAP	2/9/10 22:42	944718	Various	2	LANL	USE	S

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EXP0208067a	245116001	MAP	2/9/10 23:12	944718	10-1327	2	LANL	USE	S
EXP0208068a	1202023098	MAP	2/9/10 23:41	944718	10-1327	2	LANL	USE	S
EXP0208069a	1202023099	MAP	2/10/10 0:10	944718	10-1327	2	LANL	USE	S
EXP0208070a	245116002	MAP	2/10/10 0:40	944718	10-1327	2	LANL	DUSE-RA	S
EXP0208071a	245116003	MAP	2/10/10 1:09	944718	10-1327	2	LANL	USE	S
EXP0208072a	245116004	MAP	2/10/10 1:39	944718	10-1327	2	LANL	USE	S
EXP0208073a	245116005	MAP	2/10/10 2:08	944718	10-1327	2	LANL	DUSE-RA	S
EXP0208074a	245116006	MAP	2/10/10 2:38	944718	10-1327	2	LANL	USE	S
EXP0208075a	WXXCCV	MAP	2/10/10 3:07			1		USE	C
EXP0208076a	XIBLK08	MAP	2/10/10 3:37			1		USE	B
EXP0208077a	WXXCRI	MAP	2/10/10 4:06			1		USE	C
EXP0208078a	245116007	MAP	2/10/10 4:36	944718	10-1327	2	LANL	USE	S
EXP0208079a	245116008	MAP	2/10/10 5:06	944718	10-1327	2	LANL	USE	S
EXP0208080a	245116009	MAP	2/10/10 5:35	944718	10-1327	2	LANL	USE	S
EXP0208081a	245116010	MAP	2/10/10 6:04	944718	10-1327	2	LANL	USE	S
EXP0208082a	245116011	MAP	2/10/10 6:34	944718	10-1327	2	LANL	USE	S
EXP0208083a	245116012	MAP	2/10/10 7:03	944718	10-1327	2	LANL	USE	S
EXP0208084a	245116013	MAP	2/10/10 7:33	944718	10-1327	2	LANL	USE	S
EXP0208085a	245116014	MAP	2/10/10 8:02	944718	10-1327	2	LANL	USE	S
EXP0208086a	245116015	MAP	2/10/10 8:32	944718	10-1327	2	LANL	USE	S
EXP0208087a	245116016	MAP	2/10/10 9:01	944718	10-1327	2	LANL	USE	S
EXP0208088a	WXXCCV	MAP	2/10/10 9:31			1		USE	C
EXP0208089a	XIBLK09	MAP	2/10/10 10:01			1		USE	B
EXP0208090a	WXXCRI	MAP	2/10/10 10:30			1		USE	C
EXP0208091a	245226001	MAP	2/10/10 11:00	944718	10-1342	250	LANL	USE	S
EXP0208092a	245226001	MAP	2/10/10 11:29	944718	10-1342	2	LANL	USE	S
EXP0208093a	XIBLK10	MAP	2/10/10 11:59			1		USE	B
EXP0208094a	245226003	MAP	2/10/10 12:28	944718	10-1342	250	LANL	DUSE	S
EXP0208095a	245226003	MAP	2/10/10 12:58	944718	10-1342	2	LANL	USE	S
EXP0208096a	XIBLK11	MAP	2/10/10 13:28			1		USE	B
EXP0208097a	245116002	MAP	2/10/10 13:57	944718	10-1327	2	LANL	USE	S
EXP0208098a	245116005	MAP	2/10/10 14:27	944718	10-1327	2	LANL	USE	S
EXP0208099a	245226003	MAP	2/10/10 14:56	944718	10-1342	500	LANL	USE	S
EXP0208100a	WXXCCV	MAP	2/10/10 15:26			1		USE	C
EXP0208101a	XIBLK12	MAP	2/10/10 15:55			1		USE	B
EXP0208102a	WXXCRI	MAP	2/10/10 16:25			1		USE	C
EXP0208103a	1202027262	MAP	2/10/10 16:54	946483	10-1408	2	LANL	USE	S

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EXP0208104a	1202027263	MAP	2/10/10 17:24	946483	10-1408	2	LANL	USE	S
EXP0208105a	245597002	MAP	2/10/10 17:53	946483	10-1408	2	LANL	USE	S
EXP0208106a	1202027264	MAP	2/10/10 18:23	946483	10-1408	2	LANL	USE	S
EXP0208107a	1202027265	MAP	2/10/10 18:52	946483	10-1408	2	LANL	USE	S
EXP0208108a	245597003	MAP	2/10/10 19:22	946483	10-1408	2	LANL	USE	S
EXP0208109a	245597004	MAP	2/10/10 19:51	946483	10-1408	2	LANL	USE	S
EXP0208110a	245597005	MAP	2/10/10 20:21	946483	10-1408	2	LANL	USE	S
EXP0208111a	245597006	MAP	2/10/10 20:50	946483	10-1408	2	LANL	USE	S
EXP0208112a	245597007	MAP	2/10/10 21:20	946483	10-1408	2	LANL	USE	S
EXP0208113a	WXXCCV	MAP	2/10/10 21:49			1		USE	C
EXP0208114a	XIBLK13	MAP	2/10/10 22:19			1		USE	B
EXP0208115a	WXXCRI	MAP	2/10/10 22:48			1		USE	C
EXP0208116a	245597008	MAP	2/10/10 23:18	946483	10-1408	2	LANL	USE	S
EXP0208117a	245597009	MAP	2/10/10 23:47	946483	10-1408	2	LANL	USE	S
EXP0208118a	245597010	MAP	2/11/10 0:17	946483	10-1408	2	LANL	USE	S
EXP0208119a	245597011	MAP	2/11/10 0:46	946483	10-1408	2	LANL	USE	S
EXP0208120a	WXXCCV	MAP	2/11/10 1:16			1		USE	C
EXP0208121a	XIBLK14	MAP	2/11/10 1:45			1		USE	B
EXP0208122a	WXXCRI	MAP	2/11/10 2:15			1		USE	C
EXP0208123a	1202027274	MAP	2/11/10 2:44	946488	Various	2	LANL	USE	S
EXP0208124a	1202027275	MAP	2/11/10 3:14	946488	Various	2	LANL	DUSE-RA	S
EXP0208125a	245621002	MAP	2/11/10 3:43	946488	10-1424	2	LANL	DUSE-RA	S
EXP0208126a	1202027276	MAP	2/11/10 4:13	946488	10-1424	2	LANL	DUSE-RA	S
EXP0208127a	1202027277	MAP	2/11/10 4:42	946488	10-1424	2	LANL	USE	S
EXP0208128a	245621003	MAP	2/11/10 5:12	946488	10-1424	2	LANL	USE	S
EXP0208129a	245621004	MAP	2/11/10 5:41	946488	10-1424	2	LANL	USE	S
EXP0208130a	245621005	MAP	2/11/10 6:11	946488	10-1424	2	LANL	USE	S
EXP0208131a	245621006	MAP	2/11/10 6:40	946488	10-1424	2	LANL	USE	S
EXP0208132a	245621007	MAP	2/11/10 7:10	946488	10-1424	2	LANL	USE	S
EXP0208133a	WXXCCV	MAP	2/11/10 7:39			1		USE	C
EXP0208134a	XIBLK15	MAP	2/11/10 8:09			1		USE	B
EXP0208135a	WXXCRI	MAP	2/11/10 8:38			1		USE	C
EXP0208136a	245621008	MAP	2/11/10 9:08	946488	10-1424	2	LANL	USE	S
EXP0208137a	245621009	MAP	2/11/10 9:37	946488	10-1424	2	LANL	USE	S
EXP0208138a	245621010	MAP	2/11/10 10:07	946488	10-1424	2	LANL	USE	S
EXP0208139a	245621011	MAP	2/11/10 10:36	946488	10-1424	2	LANL	USE	S
EXP0208140a	245628002	MAP	2/11/10 11:06	946488	10-1427	2	LANL	USE	S

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EXP0208141a	245628003	MAP	2/11/10 11:36	946488	10-1427	2	LANL	USE	S
EXP0208142a	245628004	MAP	2/11/10 12:05	946488	10-1427	2	LANL	USE	S
EXP0208143a	245631002	MAP	2/11/10 12:35	946488	10-1428	2	LANL	USE	S
EXP0208144a	245631003	MAP	2/11/10 13:04	946488	10-1428	2	LANL	USE	S
EXP0208145a	WXXCCV	MAP	2/11/10 13:34			1		USE	C
EXP0208146a	XIBLK16	MAP	2/11/10 14:03			1		USE	B
EXP0208147a	WXXCRI	MAP	2/11/10 14:33			1		USE	C
EXP0208148a	245597002	MAP	2/11/10 15:02	946483	10-1408	25	LANL	DUSE	S
EXP0208149a	245597002	MAP	2/11/10 15:32	946483	10-1408	25	LANL	USE	S
EXP0208150a	1202027275	MAP	2/11/10 16:01	946488	Various	2	LANL	USE	S
EXP0208151a	245621002	MAP	2/11/10 16:31	946488	10-1424	2	LANL	USE	S
EXP0208152a	1202027276	MAP	2/11/10 17:00	946488	10-1424	2	LANL	USE	S
EXP0208153a	IXP100210-02	MAP	2/11/10 17:30	SCREEN	NA	1	GEL	USE	S
EXP0208154a	IXX100208-03	MAP	2/11/10 18:00	SCREEN	NA	1	GEL	USE	S
EXP0208155a	WXXCCV	MAP	2/11/10 18:29			1		USE	C
EXP0208156a	XIBLK17	MAP	2/11/10 18:58			1		USE	B
EXP0208157a	WXXCRI	MAP	2/11/10 19:28			1		USE	C
EXP0208158a	1202028676	MAP	2/11/10 19:57	947084	Various	2	LANL	USE	S
EXP0208159a	1202028677	MAP	2/11/10 20:27	947084	Various	2	LANL	USE	S
EXP0208160a	245663001	MAP	2/11/10 20:57	947084	10-1436	2	LANL	USE	S
EXP0208161a	1202028678	MAP	2/11/10 21:26	947084	10-1436	2	LANL	USE	S
EXP0208162a	1202028679	MAP	2/11/10 21:55	947084	10-1436	2	LANL	USE	S
EXP0208163a	245663002	MAP	2/11/10 22:25	947084	10-1436	2	LANL	USE	S
EXP0208164a	245663003	MAP	2/11/10 22:54	947084	10-1436	2	LANL	USE	S
EXP0208165a	245663004	MAP	2/11/10 23:24	947084	10-1436	2	LANL	USE	S
EXP0208166a	245663005	MAP	2/11/10 23:53	947084	10-1436	2	LANL	USE	S
EXP0208167a	245663006	MAP	2/12/10 0:23	947084	10-1436	2	LANL	USE	S
EXP0208168a	WXXCCV	MAP	2/12/10 0:52			1		USE	C
EXP0208169a	XIBLK18	MAP	2/12/10 1:22			1		USE	B
EXP0208170a	WXXCRI	MAP	2/12/10 1:51			1		USE	C
EXP0208171a	245803001	MAP	2/12/10 2:21	947084	10-1473	2	LANL	USE	S
EXP0208172a	245803002	MAP	2/12/10 2:50	947084	10-1473	2	LANL	USE	S
EXP0208173a	245803003	MAP	2/12/10 3:20	947084	10-1473	2	LANL	USE	S
EXP0208174a	245803004	MAP	2/12/10 3:50	947084	10-1473	2	LANL	USE	S
EXP0208175a	245803005	MAP	2/12/10 4:19	947084	10-1473	2	LANL	USE	S
EXP0208176a	245803006	MAP	2/12/10 4:49	947084	10-1473	2	LANL	USE	S
EXP0208177a	245803007	MAP	2/12/10 5:18	947084	10-1473	2	LANL	USE	S

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EXP0208178a	245803008	MAP	2/12/10 5:48	947084	10-1473	2	LANL	USE	S
EXP0208179a	WXXCCV	MAP	2/12/10 6:17			1		USE	C
EXP0208180a	XIBLK19	MAP	2/12/10 6:47			1		USE	B
EXP0208181a	WXXCRI	MAP	2/12/10 7:16			1		USE	C
EXP0208182a	1202028672	MAP	2/12/10 7:46	947078	Various	2	LANL	USE	S
EXP0208183a	1202028673	MAP	2/12/10 8:15	947078	Various	2	LANL	USE	S
EXP0208184a	245661001	MAP	2/12/10 8:45	947078	10-1435	2	LANL	USE	S
EXP0208185a	245686001	MAP	2/12/10 9:14	947078	10-1432	2	LANL	USE	S
EXP0208186a	1202028674	MAP	2/12/10 9:44	947078	10-1432	2	LANL	USE	S
EXP0208187a	1202028675	MAP	2/12/10 10:13	947078	10-1432	2	LANL	USE	S
EXP0208188a	245686002	MAP	2/12/10 10:43	947078	10-1432	2	LANL	USE	S
EXP0208189a	245686003	MAP	2/12/10 11:13	947078	10-1432	2	LANL	USE	S
EXP0208190a	245686004	MAP	2/12/10 11:42	947078	10-1432	2	LANL	USE	S
EXP0208191a	245686005	MAP	2/12/10 12:12	947078	10-1432	2	LANL	USE	S
EXP0208192a	WXXCCV	MAP	2/12/10 12:41			1		USE	C
EXP0208193a	XIBLK20	MAP	2/12/10 13:11			1		USE	B
EXP0208194a	WXXCRI	MAP	2/12/10 13:40			1		USE	C
EXP0208195a	245686006	MAP	2/12/10 14:10	947078	10-1432	2	LANL	USE	S
EXP0208196a	245686007	MAP	2/12/10 14:40	947078	10-1432	2	LANL	USE	S
EXP0208197a	245686008	MAP	2/12/10 15:09	947078	10-1432	2	LANL	USE	S
EXP0208198a	245686009	MAP	2/12/10 15:38	947078	10-1432	2	LANL	USE	S
EXP0208199a	245686010	MAP	2/12/10 16:08	947078	10-1432	2	LANL	USE	S
EXP0208200a	245686011	MAP	2/12/10 16:38	947078	10-1432	2	LANL	USE	S
EXP0208201a	245686012	MAP	2/12/10 17:07	947078	10-1432	2	LANL	USE	S
EXP0208202a	245686013	MAP	2/12/10 17:36	947078	10-1432	2	LANL	USE	S
EXP0208203a	245686014	MAP	2/12/10 18:06	947078	10-1432	2	LANL	USE	S
EXP0208204a	WXXCCV	MAP	2/12/10 18:36			1		USE	C
EXP0208205a	XIBLK21	MAP	2/12/10 19:05			1		USE	B
EXP0208206a	WXXCRI	MAP	2/12/10 19:35			1		USE	C
EXP0208207a	1202023542	MAP	2/12/10 20:04	944900	10-1382	2	LANL	USE	S
EXP0208208a	1202023543	MAP	2/12/10 20:34	944900	10-1382	2	LANL	USE	S
EXP0208209a	245384001	MAP	2/12/10 21:03	944900	10-1382	2	LANL	USE	S
EXP0208210a	1202023544	MAP	2/12/10 21:33	944900	10-1382	2	LANL	USE	S
EXP0208211a	1202023545	MAP	2/12/10 22:02	944900	10-1382	2	LANL	DUSE-RA	S
EXP0208212a	245384002	MAP	2/12/10 22:32	944900	10-1382	2	LANL	USE	S
EXP0208213a	245384003	MAP	2/12/10 23:01	944900	10-1382	2	LANL	USE	S
EXP0208214a	245384004	MAP	2/12/10 23:31	944900	10-1382	2	LANL	USE	S

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EXP0208215a	245384005	MAP	2/13/10 0:00	944900	10-1382	2	LANL	USE	S
EXP0208216a	245384006	MAP	2/13/10 0:30	944900	10-1382	2	LANL	USE	S
EXP0208217a	WXXCCV	MAP	2/13/10 0:59			1		USE	C
EXP0208218a	XIBLK22	MAP	2/13/10 1:29			1		USE	B
EXP0208219a	WXXCRI	MAP	2/13/10 1:58			1		USE	C
EXP0208220a	245384007	MAP	2/13/10 2:28	944900	10-1382	2	LANL	USE	S
EXP0208221a	245384008	MAP	2/13/10 2:57	944900	10-1382	2	LANL	USE	S
EXP0208222a	245384009	MAP	2/13/10 3:27	944900	10-1382	2	LANL	USE	S
EXP0208223a	245384010	MAP	2/13/10 3:56	944900	10-1382	2	LANL	USE	S
EXP0208224a	245384012	MAP	2/13/10 4:26	944900	10-1382	2	LANL	USE	S
EXP0208225a	WXXCCV	MAP	2/13/10 4:56			1		USE	C
EXP0208226a	XIBLK23	MAP	2/13/10 5:25			1		USE	B
EXP0208227a	WXXCRI	MAP	2/13/10 5:55			1		USE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/13/10
Extr. Injection Volume: 10uL
Sequence Number: 021310exs
Initial Calibration Date: 021310

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1263794, 1258141
Standard-Samp Reagent Lot# :1246195, 1253092

Reviewed By: [illegible]
Date: 02/16/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100213-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02130001.wiff	XIBLK01	LER	2/13/2010 10:12			1		USE	B
EXS02130002.wiff	XIBLK01	LER	2/13/2010 10:28			1		USE	B
EXS02130003.wiff	WXXICAL-19	LER	2/13/2010 10:44			1		USE	I
EXS02130004.wiff	WXXICAL-20	LER	2/13/2010 11:00			1		USE	I
EXS02130005.wiff	WXXICAL-21	LER	2/13/2010 11:15			1		USE	I
EXS02130006.wiff	WXXICAL-22	LER	2/13/2010 11:31			1		USE	I
EXS02130007.wiff	WXXICAL-23	LER	2/13/2010 11:47			1		USE	I
EXS02130008.wiff	WXXICAL-24	LER	2/13/2010 12:02			1		USE	I
EXS02130009.wiff	WXXICAL-25	LER	2/13/2010 12:18			1		USE	I
EXS02130010.wiff	XIBLK02	LER	2/13/2010 12:34			1		USE	B
EXS02130011.wiff	WXXICV	LER	2/13/2010 12:49			1		USE	C
EXS02130012.wiff	XIBLK03	LER	2/13/2010 13:05			1		USE	B
EXS02130013.wiff	WXXCRI	LER	2/13/2010 13:21			1		USE	C
EXS02130014.wiff	1202028672	LER	2/13/2010 13:36	947078	VARIOUS	2	LANL	USE	S
EXS02130015.wiff	1202028673	LER	2/13/2010 13:52	947078	VARIOUS	2	LANL	USE	S
EXS02130016.wiff	245661001	LER	2/13/2010 14:08	947078	10-1435	2	LANL	USE	S
EXS02130017.wiff	245686001	LER	2/13/2010 14:24	947078	10-1432	2	LANL	USE	S
EXS02130018.wiff	1202028674	LER	2/13/2010 14:39	947078	10-1432	2	LANL	USE	S
EXS02130019.wiff	1202028675	LER	2/13/2010 14:55	947078	10-1432	2	LANL	USE	S
EXS02130020.wiff	245686002	LER	2/13/2010 15:11	947078	10-1432	2	LANL	USE	S
EXS02130021.wiff	245686003	LER	2/13/2010 15:26	947078	10-1432	2	LANL	USE	S
EXS02130022.wiff	245686004	LER	2/13/2010 15:42	947078	10-1432	2	LANL	USE	S
EXS02130023.wiff	245686005	LER	2/13/2010 15:58	947078	10-1432	2	LANL	USE	S
EXS02130024.wiff	WXXCCV	LER	2/13/2010 16:14			1		USE	C
EXS02130025.wiff	XIBLK04	LER	2/13/2010 16:29			1		USE	B
EXS02130026.wiff	WXXCRI	LER	2/13/2010 16:45			1		USE	C
EXS02130027.wiff	245686006	LER	2/13/2010 17:01	947078	10-1432	2	LANL	USE	S
EXS02130028.wiff	245686007	LER	2/13/2010 17:16	947078	10-1432	2	LANL	USE	S

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EXS02130029.wiff	245686008	LER	2/13/2010 17:32	947078	10-1432	2	LANL	USE	S
EXS02130030.wiff	245686009	LER	2/13/2010 17:48	947078	10-1432	2	LANL	USE	S
EXS02130031.wiff	245686010	LER	2/13/2010 18:03	947078	10-1432	2	LANL	USE	S
EXS02130032.wiff	245686011	LER	2/13/2010 18:19	947078	10-1432	2	LANL	USE	S
EXS02130033.wiff	245686012	LER	2/13/2010 18:35	947078	10-1432	2	LANL	USE	S
EXS02130034.wiff	245686013	LER	2/13/2010 18:50	947078	10-1432	2	LANL	USE	S
EXS02130035.wiff	245686014	LER	2/13/2010 19:06	947078	10-1432	2	LANL	USE	S
EXS02130036.wiff	WXXCCV	LER	2/13/2010 19:22			1		USE	C
EXS02130037.wiff	XIBLK05	LER	2/13/2010 19:38			1		USE	B
EXS02130038.wiff	WXXCRI	LER	2/13/2010 19:53			1		USE	C
EXS02130039.wiff	UXX100122-01.2	LER	2/13/2010 20:09	SCREEN	LIQUID	2	O2SI	USE	S
EXS02130040.wiff	XIBLK06	LER	2/13/2010 20:25			1		USE	B
EXS02130041.wiff	1202023542	LER	2/13/2010 20:40	944900	10-1382	2	LANL	USE	S
EXS02130042.wiff	1202023543	LER	2/13/2010 20:56	944900	10-1382	2	LANL	USE	S
EXS02130043.wiff	245384001	LER	2/13/2010 21:12	944900	10-1382	2	LANL	USE	S
EXS02130044.wiff	1202023544	LER	2/13/2010 21:28	944900	10-1382	2	LANL	USE	S
EXS02130045.wiff	1202023545	LER	2/13/2010 21:43	944900	10-1382	2	LANL	USE	S
EXS02130046.wiff	245384002	LER	2/13/2010 21:59	944900	10-1382	2	LANL	USE	S
EXS02130047.wiff	245384003	LER	2/13/2010 22:15	944900	10-1382	2	LANL	USE	S
EXS02130048.wiff	245384004	LER	2/13/2010 22:30	944900	10-1382	2	LANL	USE	S
EXS02130049.wiff	WXXCCV	LER	2/13/2010 22:46			1		USE	C
EXS02130050.wiff	XIBLK07	LER	2/13/2010 23:02			1		USE	B
EXS02130051.wiff	WXXCRI	LER	2/13/2010 23:17			1		USE	C
EXS02130052.wiff	245384005	LER	2/13/2010 23:33	944900	10-1382	2	LANL	USE	S
EXS02130053.wiff	245384006	LER	2/13/2010 23:49	944900	10-1382	2	LANL	USE	S
EXS02130054.wiff	245384007	LER	2/14/2010 0:04	944900	10-1382	2	LANL	USE	S
EXS02130055.wiff	245384008	LER	2/14/2010 0:20	944900	10-1382	2	LANL	USE	S
EXS02130056.wiff	245384009	LER	2/14/2010 0:36	944900	10-1382	2	LANL	USE	S
EXS02130057.wiff	245384010	LER	2/14/2010 0:52	944900	10-1382	2	LANL	USE	S
EXS02130058.wiff	245384012	LER	2/14/2010 1:07	944900	10-1382	2	LANL	USE	S
EXS02130059.wiff	XIBLK08	LER	2/14/2010 1:23			1		USE	B
EXS02130060.wiff	245621005	LER	2/14/2010 1:39	946488	10-1424	2	LANL	USE	S
EXS02130061.wiff	WXXCCV	LER	2/14/2010 1:54			1		USE	C
EXS02130062.wiff	XIBLK09	LER	2/14/2010 2:10			1		USE	B
EXS02130063.wiff	WXXCRI	LER	2/14/2010 2:26			1		USE	C
EXS02130064.wiff	1202023571	LER	2/14/2010 2:42	944907	10-1384	2	LANL	USE	S
EXS02130065.wiff	1202023572	LER	2/14/2010 2:57	944907	10-1384	2	LANL	USE	S

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EXS02130066.wiff	245387001	LER	2/14/2010 3:13	944907	10-1384	2	LANL	USE	S
EXS02130067.wiff	1202023573	LER	2/14/2010 3:29	944907	10-1384	2	LANL	USE	S
EXS02130068.wiff	1202023574	LER	2/14/2010 3:44	944907	10-1384	2	LANL	USE	S
EXS02130069.wiff	245387002	LER	2/14/2010 4:00	944907	10-1384	2	LANL	USE	S
EXS02130070.wiff	245387003	LER	2/14/2010 4:16	944907	10-1384	2	LANL	USE	S
EXS02130071.wiff	245387004	LER	2/14/2010 4:31	944907	10-1384	2	LANL	USE	S
EXS02130072.wiff	245387005	LER	2/14/2010 4:47	944907	10-1384	2	LANL	USE	S
EXS02130073.wiff	245387006	LER	2/14/2010 5:03	944907	10-1384	2	LANL	USE	S
EXS02130074.wiff	WXXCCV	LER	2/14/2010 5:19			1		USE	C
EXS02130075.wiff	XIBLK10	LER	2/14/2010 5:34			1		USE	B
EXS02130076.wiff	WXXCRI	LER	2/14/2010 5:50			1		USE	C
EXS02130077.wiff	245387007	LER	2/14/2010 6:06	944907	10-1384	2	LANL	USE	S
EXS02130078.wiff	245387008	LER	2/14/2010 6:21	944907	10-1384	2	LANL	DUSE-RA	S
EXS02130079.wiff	245387009	LER	2/14/2010 6:37	944907	10-1384	2	LANL	DUSE-RA	S
EXS02130080.wiff	245387010	LER	2/14/2010 6:53	944907	10-1384	2	LANL	DUSE-RA	S
EXS02130081.wiff	245387011	LER	2/14/2010 7:08	944907	10-1384	2	LANL	USE	S
EXS02130082.wiff	WXXCCV	LER	2/14/2010 7:24			1		USE	C
EXS02130083.wiff	XIBLK11	LER	2/14/2010 7:40			1		USE	B
EXS02130084.wiff	WXXCRI	LER	2/14/2010 7:56			1		USE	C
EXS02130085.wiff	1202023615	LER	2/14/2010 8:11	944929	10-1390	2	LANL	USE	S
EXS02130086.wiff	1202023616	LER	2/14/2010 8:27	944929	10-1390	2	LANL	USE	S
EXS02130087.wiff	245391001	LER	2/14/2010 8:43	944929	10-1390	2	LANL	USE	S
EXS02130088.wiff	1202023617	LER	2/14/2010 8:58	944929	10-1390	2	LANL	USE	S
EXS02130089.wiff	1202023618	LER	2/14/2010 9:14	944929	10-1390	2	LANL	USE	S
EXS02130090.wiff	245391002	LER	2/14/2010 9:30	944929	10-1390	2	LANL	USE	S
EXS02130091.wiff	245391003	LER	2/14/2010 9:45	944929	10-1390	2	LANL	USE	S
EXS02130092.wiff	245391004	LER	2/14/2010 10:01	944929	10-1390	2	LANL	USE	S
EXS02130093.wiff	245391005	LER	2/14/2010 10:17	944929	10-1390	2	LANL	USE	S
EXS02130094.wiff	245391006	LER	2/14/2010 10:33	944929	10-1390	2	LANL	USE	S
EXS02130095.wiff	WXXCCV	LER	2/14/2010 10:48			1		USE	C
EXS02130096.wiff	XIBLK12	LER	2/14/2010 11:04			1		USE	B
EXS02130097.wiff	WXXCRI	LER	2/14/2010 11:20			1		USE	C
EXS02130098.wiff	245391007	LER	2/14/2010 11:35	944929	10-1390	2	LANL	USE	S
EXS02130099.wiff	245391008	LER	2/14/2010 11:51	944929	10-1390	2	LANL	USE	S
EXS02130100.wiff	245391009	LER	2/14/2010 12:07	944929	10-1390	2	LANL	USE	S
EXS02130101.wiff	245391010	LER	2/14/2010 12:22	944929	10-1390	2	LANL	USE	S
EXS02130102.wiff	245391011	LER	2/14/2010 12:38	944929	10-1390	2	LANL	USE	S

EXS02130103.wiff	WXXCCV	LER	2/14/2010 12:54	1	USE	C
EXS02130104.wiff	XIBLK13	LER	2/14/2010 13:10	1	USE	B
EXS02130105.wiff	WXXCRI	LER	2/14/2010 13:26	1	USE	C

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
947078	See Below		

Potentially affected work order(s)(SDG): 245661(10-1435),245686(10-1432)

Application Issues:

Failed Recovery for LCS/LCSD

Failed Recovery for MS/PS

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 245686014 did not meet acceptance criteria for surrogate recovery in the Secondary analyte analysis at 149%. The limits are 70-144%.	1. The sample had a passing surrogate recovery of 121% in the Primary analyte analysis. The sample did have any detects of target analytes. The data are considered unaffected and are reported.
2. The LCS(1202028673) did not meet acceptance criteria for the recovery of Tetryl at 48.5%. The limits are 51-112%.	2. The MS(1202028674) and MSD(1202028675) both have passing recoveries for Tetryl at 69.8% and 69% respectively. The data are reported.
3. The MS(1202028674) did not meet acceptance criteria for the recovery of TATB at 189%. The limits are 29-155%.	3. The LCS(1202028673) and MSD(1202028675) have passing recoveries for TATB at 142% and 149% respectively. TATB was not detected in the parent sample. The data are considered unaffected and are reported.

Originator's Name:

Lynne Russell 16-FEB-10

Data Validator/Group Leader:

Herbert Maier 16-FEB-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1432

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	947574
Prep Batch Number:	947573

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
245686001	RE15-10-7883
245686002	RE15-10-7884
245686013	RE15-10-8056
245686014	RE15-10-8057
1202029843	Method Blank (MB)
1202029844	Laboratory Control Sample (LCS)
1202029845	245679002(RE46-10-11901) Matrix Spike (MS)
1202029846	245679002(RE46-10-11901) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been

independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards(CVS, ICV, or CCV) requirements have not been met for this SDG.

The bracketing standards failed acceptance criteria with a positive bias. The positive bias for the analytical data is a result of the instrument response increasing after the initial calibration. There were no target compounds detected at concentrations above the PQL; therefore, the non-compliance has no adverse effects on the data.

One or more peaks recovered outside the accepted limits in the bracketing check standards analyzed for this SDG; however, the average concentration of all five quantitated peaks was with in the accepted recovery limit.

Surrogate recovery did not meet the acceptance criteria in the standards bracketing the samples in this SDG; however, this non-compliance has no adverse effects on the data as the surrogate recovery was well within the acceptance range in the samples in this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1449) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data is included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation

Data exception reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whitlock Date: 2-23-2010

Roadmap for LANL 10-1432 PCB

This roadmap was analyzed by jen01212 on 02-04-2010, 09:45.
This roadmap was reviewed by rob01090 on 02-08-2010, 16:30.
This roadmap was packaged by yml on 02-23-2010, 17:47.
This roadmap was validated by rob01090 on 02-23-2010, 20:26.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd8a.i/020210.b/048f4801.d	245686001	sample	02-FEB-2010	21:41	10-1432.sub	RE15-10-7883	1.00000	947574	DUSE, RE-RUN WITH PASSING CHECK
□	N	/chem/ecd8a.i/020310a.b/058f5801.d	245686001	sample	03-FEB-2010	21:57	10-1432.sub	RE15-10-7883	1.00000	947574	UPLOAD BOTH, USE HIGHER
□	N	/chem/ecd8a.i/020210.b/049f4901.d	245686002	sample	02-FEB-2010	21:53	10-1432.sub	RE15-10-7884	1.00000	947574	UPLOAD BOTH, USE HIGHER
□	N	/chem/ecd8a.i/020210.b/050f5001.d	245686013	sample	02-FEB-2010	22:06	10-1432.sub	RE15-10-8056	1.00000	947574	UPLOAD BOTH, USE HIGHER
□	N	/chem/ecd8a.i/020210.b/051f5101.d	245686014	sample	02-FEB-2010	22:18	10-1432.sub	RE15-10-8057	1.00000	947574	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd8a.i/020210.b/048b4801.d	245686001	sample	02-FEB-2010	21:41	10-1432.sub	RE15-10-7883	1.00000	947574	DUSE, RE-RUN WITH PASSING CHECK
□	N	/chem/ecd8a.i/020310a.b/058b5801.d	245686001	sample	03-FEB-2010	21:57	10-1432.sub	RE15-10-7883	1.00000	947574	UPLOAD BOTH, USE HIGHER
□	N	/chem/ecd8a.i/020210.b/049b4901.d	245686002	sample	02-FEB-2010	21:53	10-1432.sub	RE15-10-7884	1.00000	947574	UPLOAD BOTH, USE HIGHER
□	N	/chem/ecd8a.i/020210.b/050b5001.d	245686013	sample	02-FEB-2010	22:06	10-1432.sub	RE15-10-8056	1.00000	947574	UPLOAD BOTH, USE HIGHER
□	N	/chem/ecd8a.i/020210.b/051b5101.d	245686014	sample	02-FEB-2010	22:18	10-1432.sub	RE15-10-8057	1.00000	947574	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd8a.i/020210.b/032f3201.d	1202029843	mb	02-FEB-2010	18:18	10-1432.sub	PBLK01	1.00000	947574	UPLOAD BOTH, USE HIGHER
□	N	/chem/ecd8a.i/020210.b/033f3301.d	1202029844	lcs	02-FEB-2010	18:31	10-1432.sub	PBLK01LCS	1.00000	947574	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd8a.i/020210.b/032b3201.d	1202029843	mb	02-FEB-2010	18:18	10-1432.sub	PBLK01	1.00000	947574	UPLOAD BOTH, USE HIGHER
□	N	/chem/ecd8a.i/020210.b/033b3301.d	1202029844	lcs	02-FEB-2010	18:31	10-1432.sub	PBLK01LCS	1.00000	947574	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686001	**Date Received:**	01/28/2010 08:45	**%Moisture:**	31.1
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7883	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/03/2010 21:57	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.83	ug/kg	1.61	4.83	1
11104–28–2	Aroclor–1221	U	4.83	ug/kg	1.61	4.83	1
11141–16–5	Aroclor–1232	U	4.83	ug/kg	1.61	4.83	1
53469–21–9	Aroclor–1242	U	4.83	ug/kg	1.61	4.83	1
12672–29–6	Aroclor–1248	U	4.83	ug/kg	1.61	4.83	1
11097–69–1	Aroclor–1254	J	3.90	ug/kg	1.61	4.83	2
11096–82–5	Aroclor–1260	U	4.83	ug/kg	1.61	4.83	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1432**	**Date Collected:**	**01/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245686002**	**Date Received:**	**01/28/2010 08:45**	**%Moisture:**	**5.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7884**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**947574**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/02/2010 21:53**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/01/2010 19:57**	**Aliquot:**	**30.08 g**	**Final Volume:**	**1 mL**
Data File:	**049f4901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	049b4901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.53	ug/kg	1.18	3.53	1
11104-28-2	Aroclor-1221	U	3.53	ug/kg	1.18	3.53	1
11141-16-5	Aroclor-1232	U	3.53	ug/kg	1.18	3.53	1
53469-21-9	Aroclor-1242	U	3.53	ug/kg	1.18	3.53	1
12672-29-6	Aroclor-1248	U	3.53	ug/kg	1.18	3.53	1
11097-69-1	Aroclor-1254	U	3.53	ug/kg	1.18	3.53	1
11096-82-5	Aroclor-1260	U	3.53	ug/kg	1.18	3.53	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686013	**Date Received:**	01/28/2010 08:45	**%Moisture:**	3.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8056	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/02/2010 22:06	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	050f5001.d	**Column:**	1 CLP1	**Level:**	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.45	ug/kg	1.15	3.45	1
11104-28-2	Aroclor-1221	U	3.45	ug/kg	1.15	3.45	1
11141-16-5	Aroclor-1232	U	3.45	ug/kg	1.15	3.45	1
53469-21-9	Aroclor-1242	U	3.45	ug/kg	1.15	3.45	1
12672-29-6	Aroclor-1248	U	3.45	ug/kg	1.15	3.45	1
11097-69-1	Aroclor-1254	U	3.45	ug/kg	1.15	3.45	1
11096-82-5	Aroclor-1260	U	3.45	ug/kg	1.15	3.45	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686014	**Date Received:**	01/28/2010 08:45	**%Moisture:**	29.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8057	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/02/2010 22:18	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	051f5101.d	**Column:**	1 CLP1	**Level:**	LOW
	051b5101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.72	ug/kg	1.57	4.72	1
11104–28–2	Aroclor–1221	U	4.72	ug/kg	1.57	4.72	1
11141–16–5	Aroclor–1232	U	4.72	ug/kg	1.57	4.72	1
53469–21–9	Aroclor–1242	U	4.72	ug/kg	1.57	4.72	1
12672–29–6	Aroclor–1248	U	4.72	ug/kg	1.57	4.72	1
11097–69–1	Aroclor–1254	U	4.72	ug/kg	1.57	4.72	1
11096–82–5	Aroclor–1260	U	4.72	ug/kg	1.57	4.72	1

QUALITY CONTROL SUMMARY

Surrogate Recovery Report

SDG Number: 10-1432

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202029843	MB for batch 947573	64	67	72	75
1202029844	LCS for batch 947573	55	58	64	66
245686002	RE15-10-7884	73	80	82	85
245686013	RE15-10-8056	64	71	73	73
245686014	RE15-10-8057	71	79	86	88
245686001	RE15-10-7883	89	96	91	97

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1432
Client ID: LCS for batch 947573
Lab Sample ID: 1202029844
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/02/2010 18:31
Dilution: 1
Prep Batch ID: 947573
Batch ID: 947574

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	18.4	55	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	23.2	70	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1449**	**Sample Type:**	**Matrix Spike**	
Client ID:	**RE46-10-11901MS**	**Matrix:**	**S**	
Lab Sample ID:	**1202029845**	**%Moisture:**	**9.1**	
Instrument:	**ECD8A.I**	**Analysis Date:**	**02/02/2010 18:56**	**Dilution: 10**
Analyst:	**JAOC**	**Prep Batch ID:**	**947573**	
Inj. Vol:	**1 uL**	**Batch ID:**	**947574**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	36.5	0.00	U	36.3	99	23-119
11096-82-5	MS	Aroclor-1260	36.5	0.00	U	35.6	97	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–1449**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE46–10–11901MSD**	**Matrix:**	**S**
Lab Sample ID:	**1202029846**	**%Moisture:**	**9.1**
Instrument:	**ECD8A.I**	**Analysis Date:**	**02/02/2010 19:08**
Analyst:	**JAOC**	**Prep Batch ID:**	**947573**
Inj. Vol:	**1 uL**	**Batch ID:**	**947574**

Dilution: 10

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	36.4	0.00	U	32.5	89	23–119	11	0–28
11096–82–5	MSD Aroclor–1260	36.4	0.00	U	33.3	91	28–124	7	0–30

Method Blank Summary

SDG Number:	10-1432	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 947573	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	032b3201-1.d 032f3201-1.d
Lab Sample ID:	1202029843				
Column:	CLP2 CLP1	Prep Date:	02/01/2010 19:57	Analyzed:	02/02/10 18:18
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 947573	1202029844	033f3301-1.d 033b3301-1.d	02/02/10	1831
04 RE15-10-7884	245686002	049f4901.d 049b4901.d	02/02/10	2153
05 RE15-10-8056	245686013	050f5001.d 050b5001.d	02/02/10	2206
06 RE15-10-8057	245686014	051f5101.d 051b5101.d	02/02/10	2218
07 RE15-10-7883	245686001	058f5801.d 058b5801.d	02/03/10	2157

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1432**	**Date Collected:**	**01/25/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245686001**	**Date Received:**	**01/28/2010 08:45**	**%Moisture:**	**31.1**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–7883**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**947574**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/03/2010 21:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/01/2010 19:57**	**Aliquot:**	**30.01 g**	**Final Volume:**	**1 mL**
Data File:	**058f5801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	058b5801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.83	ug/kg	1.61	4.83	1
11104–28–2	Aroclor–1221	U	4.83	ug/kg	1.61	4.83	1
11141–16–5	Aroclor–1232	U	4.83	ug/kg	1.61	4.83	1
53469–21–9	Aroclor–1242	U	4.83	ug/kg	1.61	4.83	1
12672–29–6	Aroclor–1248	U	4.83	ug/kg	1.61	4.83	1
11097–69–1	Aroclor–1254	J	3.90	ug/kg	1.61	4.83	2
11096–82–5	Aroclor–1260	U	4.83	ug/kg	1.61	4.83	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/058f5801.d
Lab Smp Id: 245686001 Client Smp ID: RE15-10-7883
Inj Date : 03-FEB-2010 21:57
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |245686001|1|
Misc Info : |ECD82P_1S|947574|SVA|LANL|SOIL|RE15-10-7883|||
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 04-Feb-2010 07:01 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 58
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	31.07460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.256	2.257	-0.001	23473405	178.633	8.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.248	-0.002	18121607	181.250	8.8	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
3.839	3.839	0.000	333046	69.6025	3.4	80.00- 120.00	100.00(aM)
4.027	4.026	0.001	451019	68.6545	3.3	116.04- 156.04	135.42
4.223	4.222	0.001	345873	67.3150	3.2	87.24- 127.24	103.85
4.308	4.309	-0.001	532662	60.5484	2.9	166.19- 206.19	159.94
4.503	4.504	-0.001	447900	64.7850	3.1	125.45- 165.45	134.49
			Average of Peak Concentrations =		3.2		

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/020310a.b/058f5801.d
Date : 03-FEB-2010 21:57
Client ID: RE15-10-7883
Sample Info: |245686001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

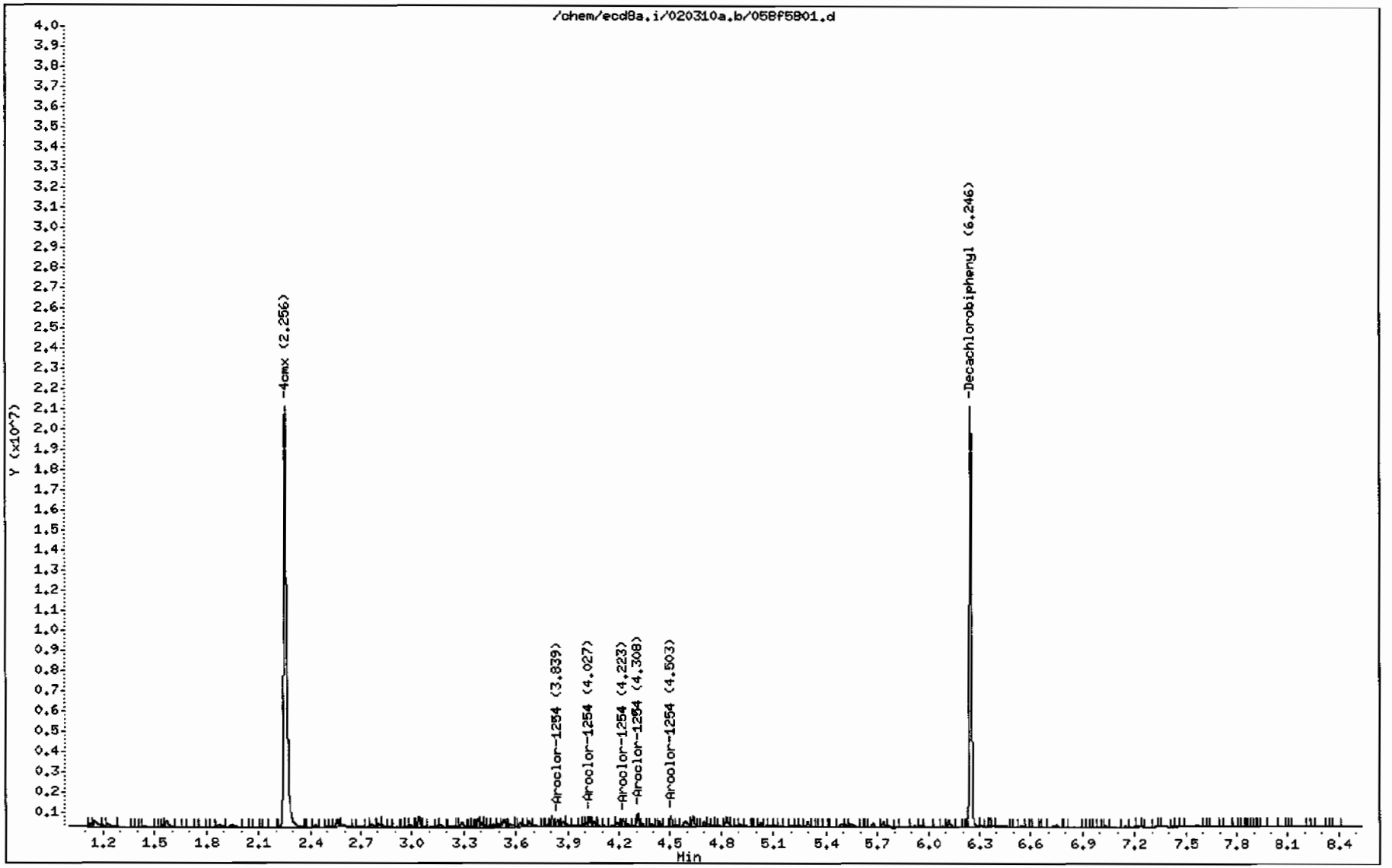

Comment: Manually Integrated
Data File: /chem/ecd8a.i/020310a.b/058f5801.d
Operator: JAOC
Injection Date: 03-FEB-2010 21:57
Instrument: ecd8a.i
Client Sample ID: RE15-10-7883

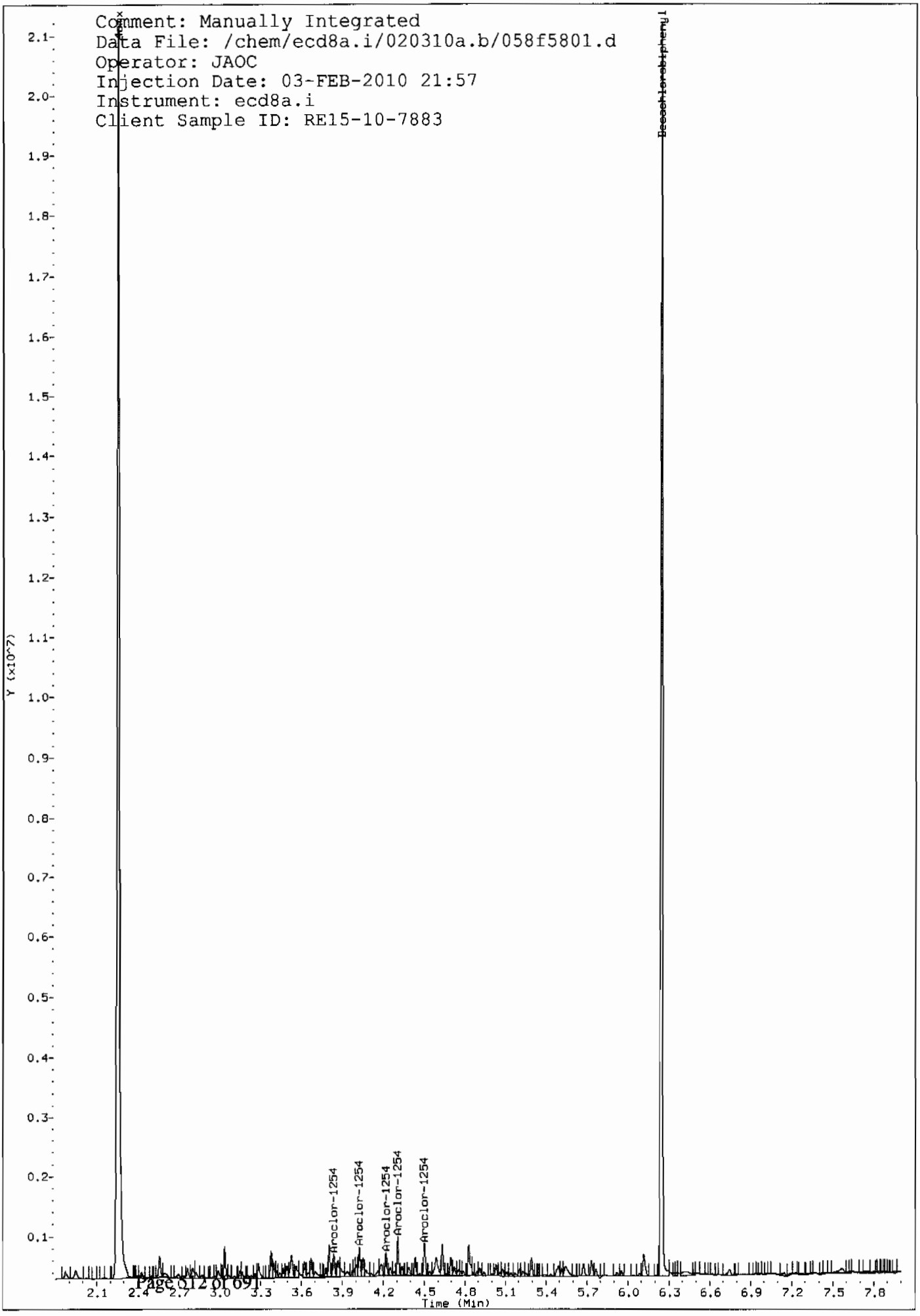

Comment: Before manual integration
Data File: /chem/ecd8a.i/020310a.b/orig-058f5801.d
Operator: JAOC
Injection Date: 03-FEB-2010 21:57
Instrument: ecd8a.i
Client Sample ID: RE15-10-7883

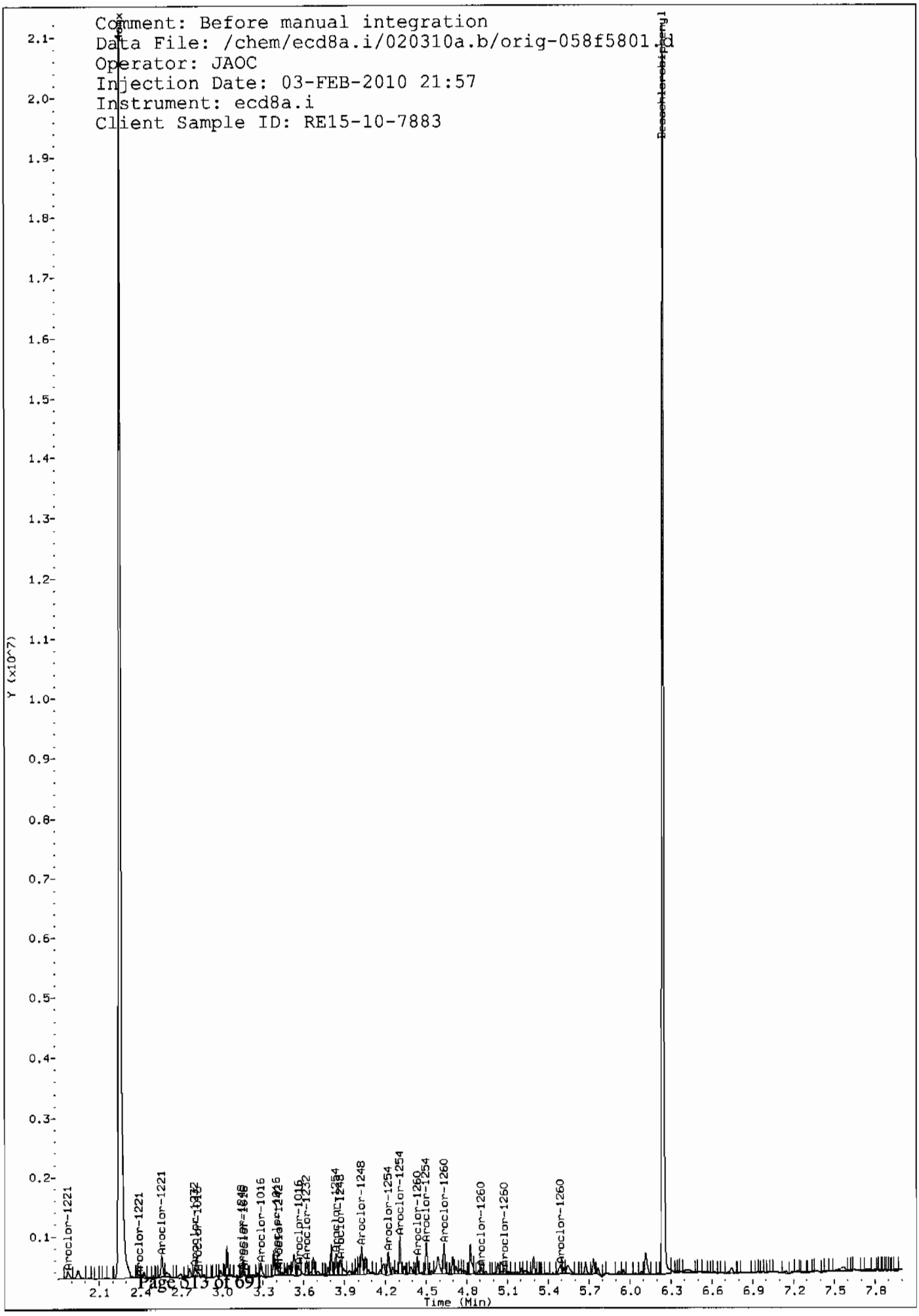

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/058b5801.d
Lab Smp Id: 245686001 Client Smp ID: RE15-10-7883
Inj Date : 03-FEB-2010 21:57
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |245686001|1|
Misc Info : |ECD82P_1S|947574|SVA|LANL|SOIL|RE15-10-7883|||
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 04-Feb-2010 06:58 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 58
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	31.07460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.489	2.490	-0.001	16593535	191.074	9.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.839	6.840	-0.001	12603934	194.374	9.4	80.00- 120.00	100.00(M)
6 Aroclor-1254					CAS #: 11097-69-1		
4.317	4.316	0.001	270378	78.3690	3.8	80.00- 120.00	100.00(aM)
4.455	4.455	0.000	362706	92.7612	4.5	93.02- 133.02	134.15
4.784	4.784	0.000	339262	61.6845	3.0	140.53- 180.53	125.48
4.946	4.946	0.000	318838	79.4963	3.8	96.60- 136.60	117.92
5.071	5.072	-0.001	239590	93.9985	4.5	52.89- 92.89	88.61

Average of Peak Concentrations = 3.9

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Data File: /chem/ecd8a.i/020310a.b/058b5801.d
Date : 03-FEB-2010 21:57
Client ID: RE15-10-7883
Sample Info: 1245686001|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

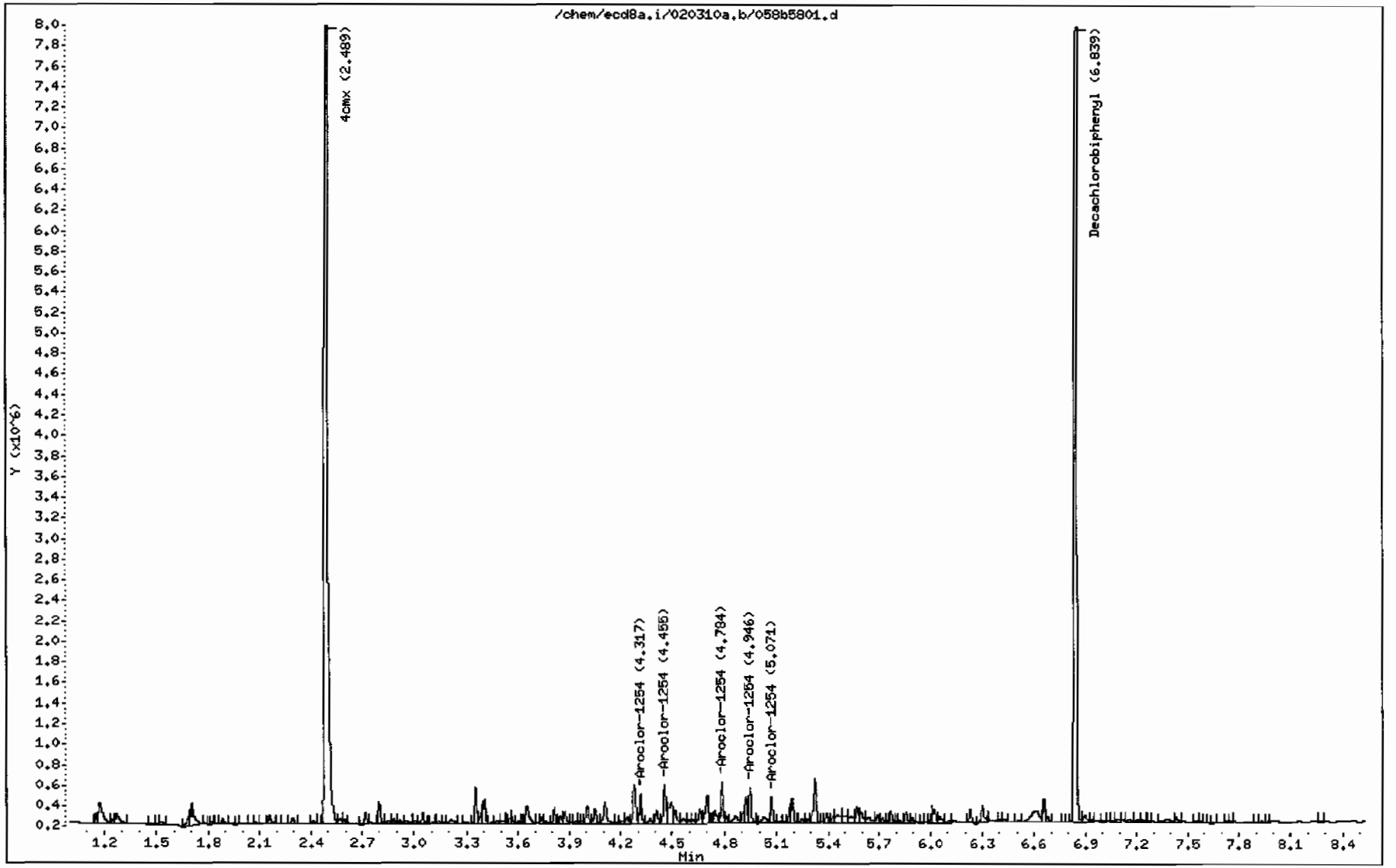

Comment: Manually Integrated
Data File: /chem/ecd8a.i/020310a.b/058b5801.d
Operator: JAOC
Injection Date: 03-FEB-2010 21:57
Instrument: ecd8a.i
Client Sample ID: RE15-10-7883

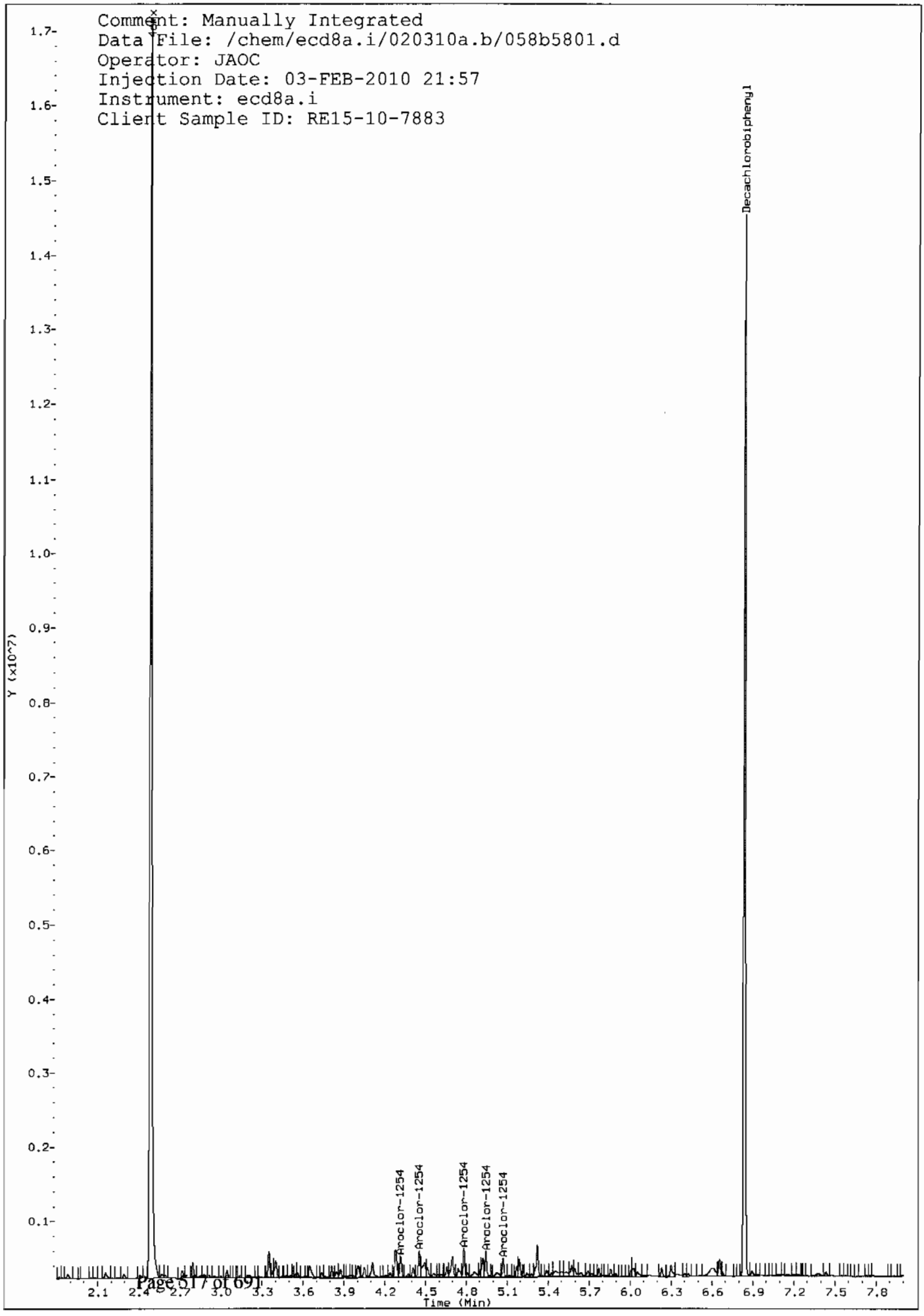

Comment: Before manual integration
Data File: /chem/ecd8a.i/020310a.b/orig-058b5801.d
Operator: JAOC
Injection Date: 03-FEB-2010 21:57
Instrument: ecd8a.i
Client Sample ID: RE15-10-7883

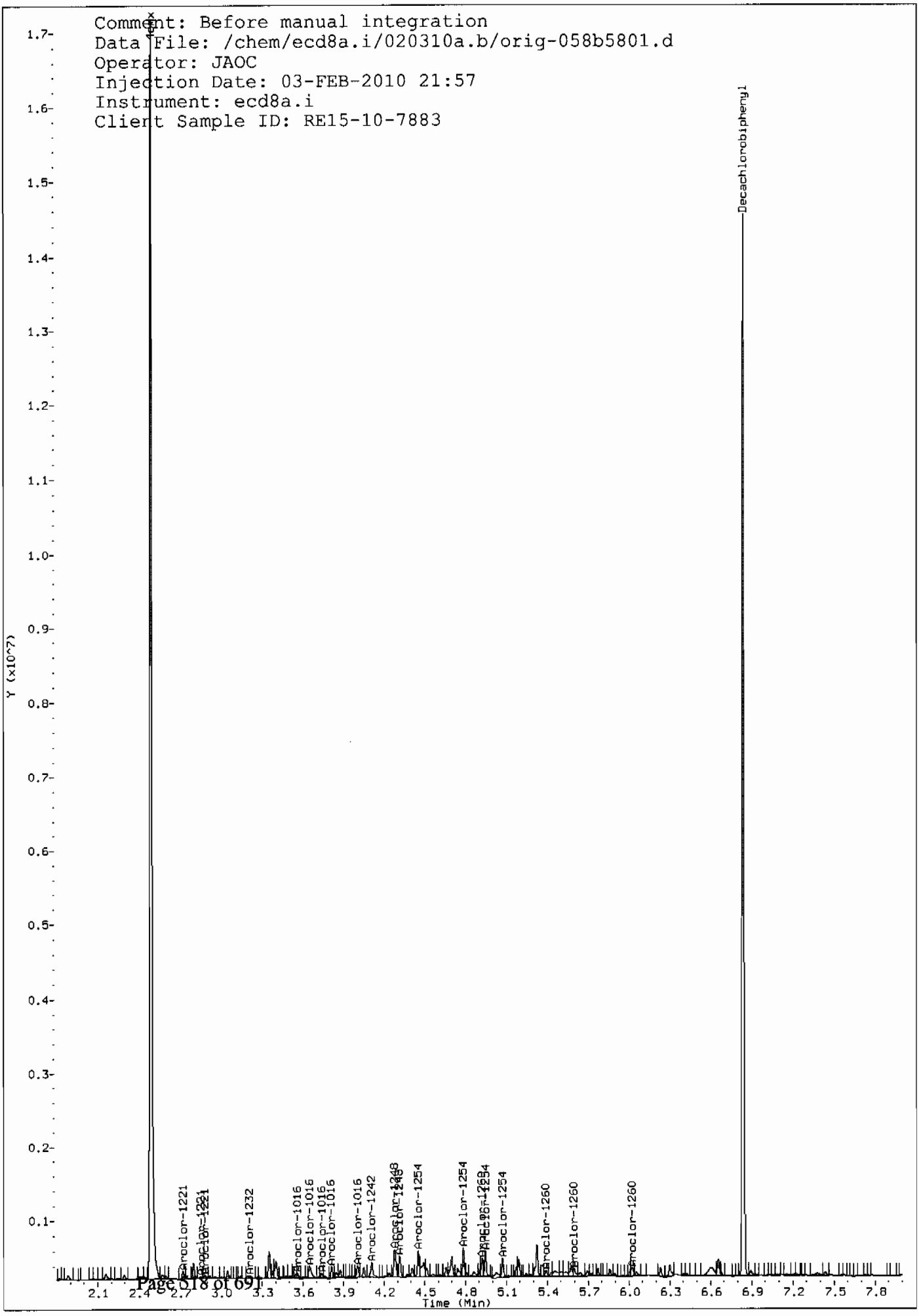

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686002	**Date Received:**	01/28/2010 08:45	**%Moisture:**	5.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7884	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/02/2010 21:53	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.08 g	**Final Volume:**	1 mL
Data File:	049f4901.d	**Column:**	1 CLP1	**Level:**	LOW
	049b4901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.53	ug/kg	1.18	3.53	1
11104–28–2	Aroclor–1221	U	3.53	ug/kg	1.18	3.53	1
11141–16–5	Aroclor–1232	U	3.53	ug/kg	1.18	3.53	1
53469–21–9	Aroclor–1242	U	3.53	ug/kg	1.18	3.53	1
12672–29–6	Aroclor–1248	U	3.53	ug/kg	1.18	3.53	1
11097–69–1	Aroclor–1254	U	3.53	ug/kg	1.18	3.53	1
11096–82–5	Aroclor–1260	U	3.53	ug/kg	1.18	3.53	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/049f4901.d
Lab Smp Id: 245686002 Client Smp ID: RE15-10-7884
Inj Date : 02-FEB-2010 21:53
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |245686002|1|
Misc Info : |ECD82P_1S|947574|SVA|LANL|SOIL|RE15-10-7884|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	5.81950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.257	2.257	0.000	19006069	145.089	5.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.249	-0.001	14540141	164.428	5.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/020210.b/049f4901.d

Page 1

Date : 02-FEB-2010 21:53

Client ID: RE15-10-7884

Instrument: ecd8a.i

Sample Info: 1245686002111

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

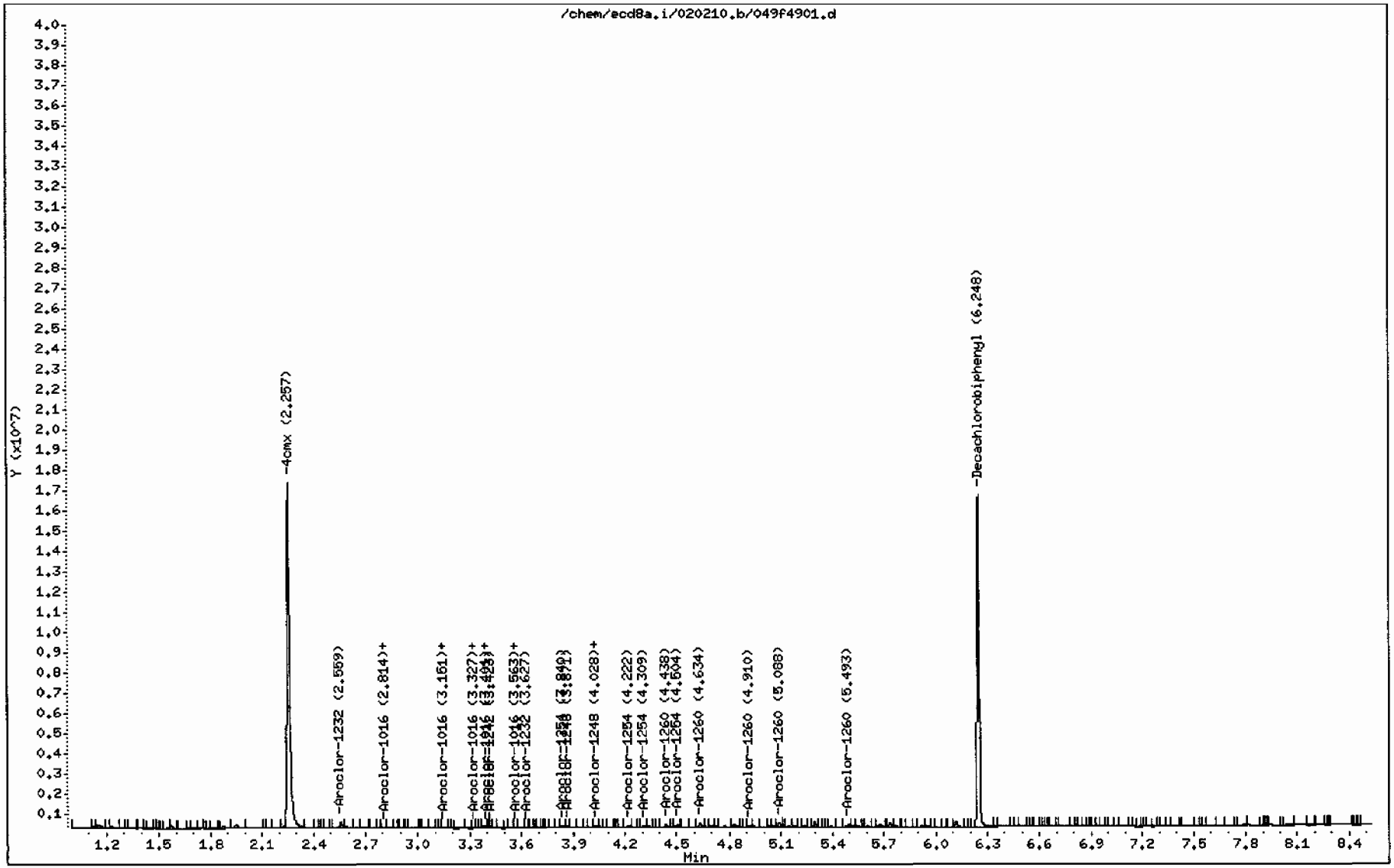

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/049b4901.d
Lab Smp Id: 245686002 Client Smp ID: RE15-10-7884
Inj Date : 02-FEB-2010 21:53
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |245686002|1|
Misc Info : |ECD82P_1S|947574|SVA|LANL|SOIL|RE15-10-7884|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 49
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.08000	Weight of sample extracted (g)
M	5.81950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	13023457	159.577	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.841	6.841	0.000	9878284	169.017	6.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/020210.b/049b4901.d

Date : 02-FEB-2010 21:53

Client ID: RE15-10-7884

Sample Info: |245686002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

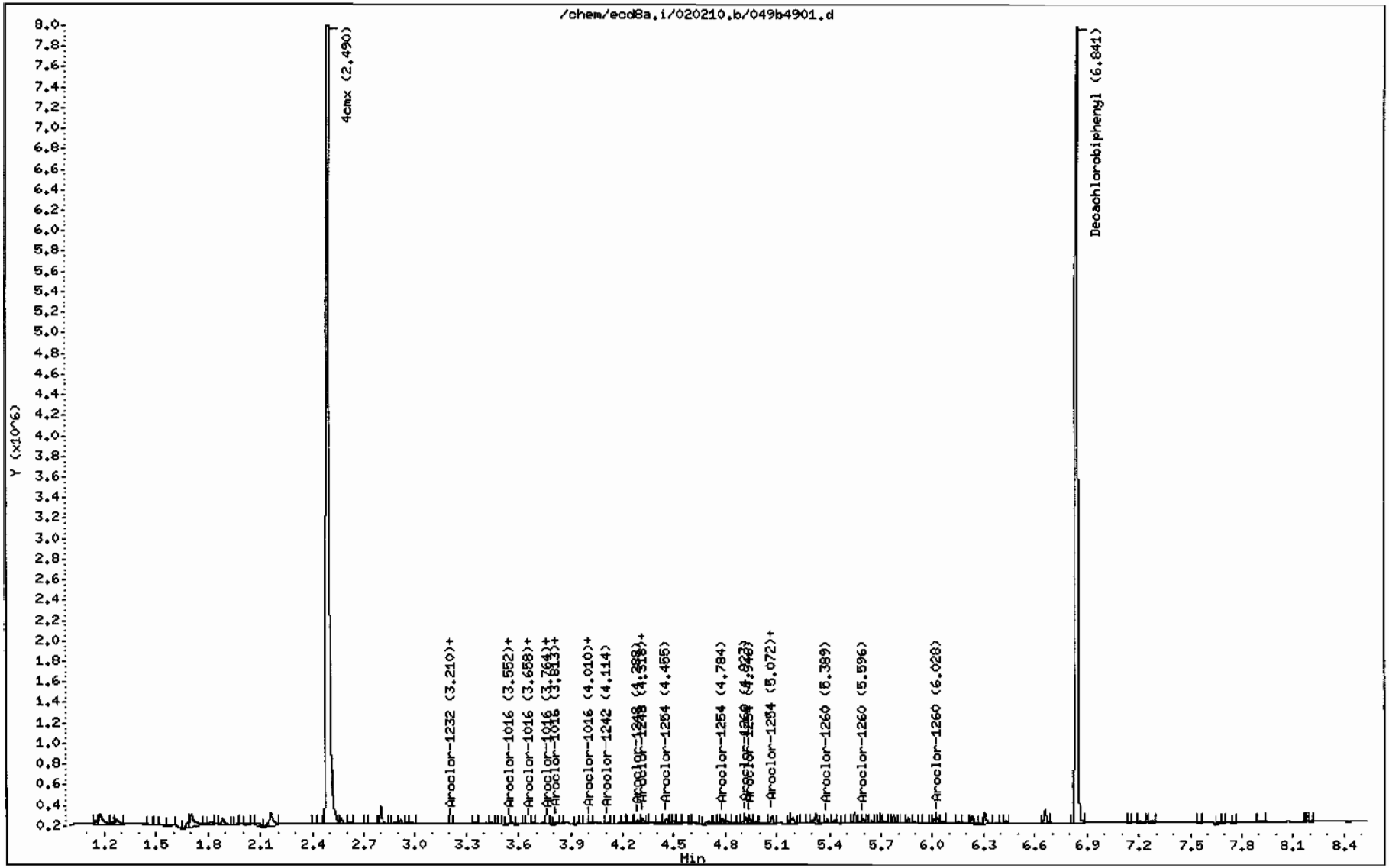

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686013	**Date Received:**	01/28/2010 08:45	**%Moisture:**	3.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8056	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/02/2010 22:06	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	050f5001.d	**Column:**	1 CLP1	**Level:**	LOW
	050b5001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.45	ug/kg	1.15	3.45	1
11104–28–2	Aroclor–1221	U	3.45	ug/kg	1.15	3.45	1
11141–16–5	Aroclor–1232	U	3.45	ug/kg	1.15	3.45	1
53469–21–9	Aroclor–1242	U	3.45	ug/kg	1.15	3.45	1
12672–29–6	Aroclor–1248	U	3.45	ug/kg	1.15	3.45	1
11097–69–1	Aroclor–1254	U	3.45	ug/kg	1.15	3.45	1
11096–82–5	Aroclor–1260	U	3.45	ug/kg	1.15	3.45	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/050f5001.d
Lab Smp Id: 245686013 Client Smp ID: RE15-10-8056
Inj Date : 02-FEB-2010 22:06
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |245686013|1|
Misc Info : |ECD82P_1S|947574|SVA|LANL|SOIL|RE15-10-8056|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 50
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	3.56420	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.256	2.257	-0.001	16785627	128.138	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.249	-0.001	12826705	145.051	5.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/020210.b/050f5001.d

Date : 02-FEB-2010 22:06

Client ID: RE15-10-8056

Sample Info: |245686013:1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

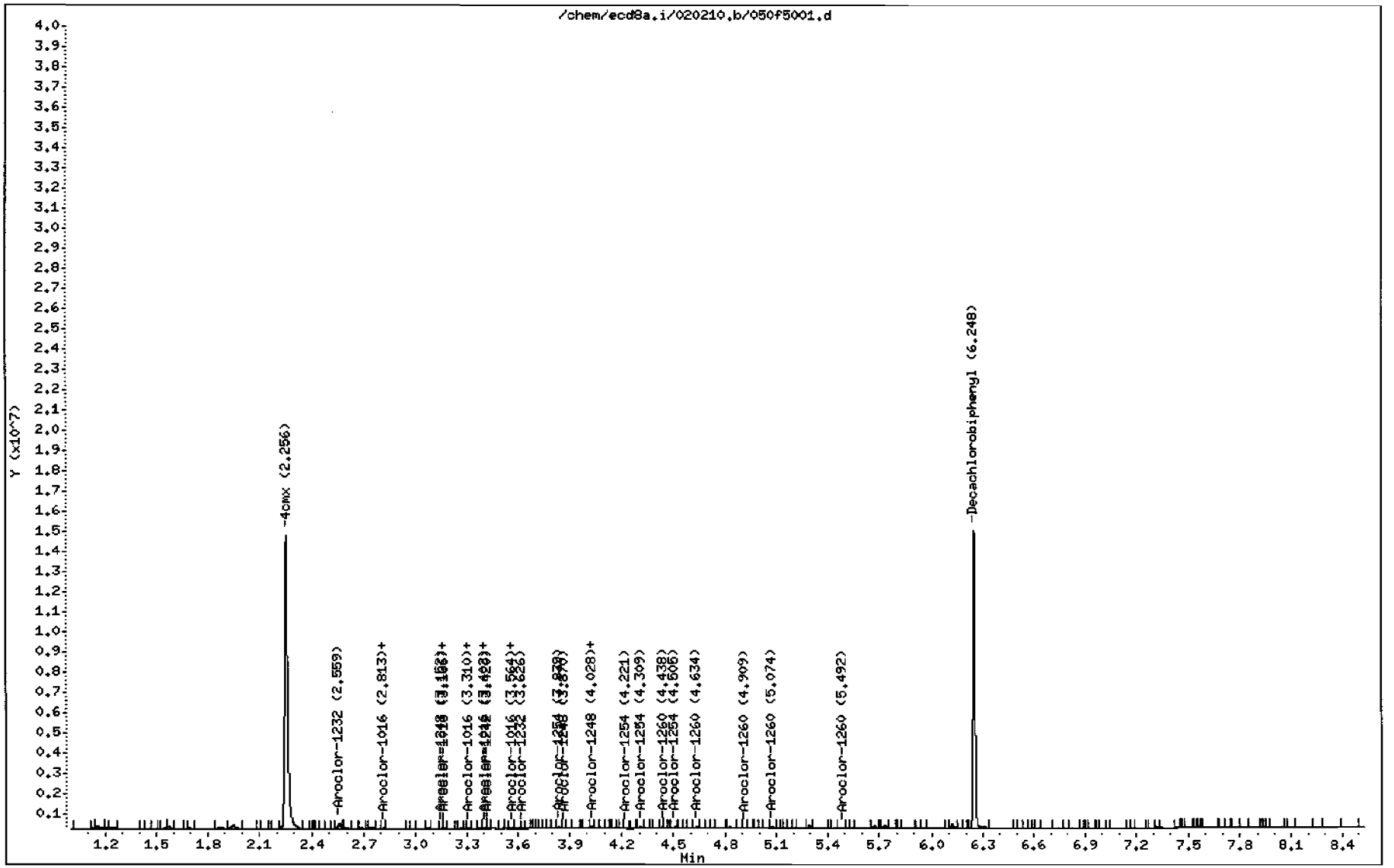

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/050b5001.d
Lab Smp Id: 245686013 Client Smp ID: RE15-10-8056
Inj Date : 02-FEB-2010 22:06
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |245686013|1|
Misc Info : |ECD82P_1S|947574|SVA|LANL|SOIL|RE15-10-8056|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 50
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	3.56420	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.489	2.490	-0.001	11598716	142.119	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.841	6.841	0.000	8571630	146.660	5.1	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/020210.b/050b5001.d

Date : 02-FEB-2010 22:06

Client ID: RE15-10-8056

Sample Info: |245686013|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

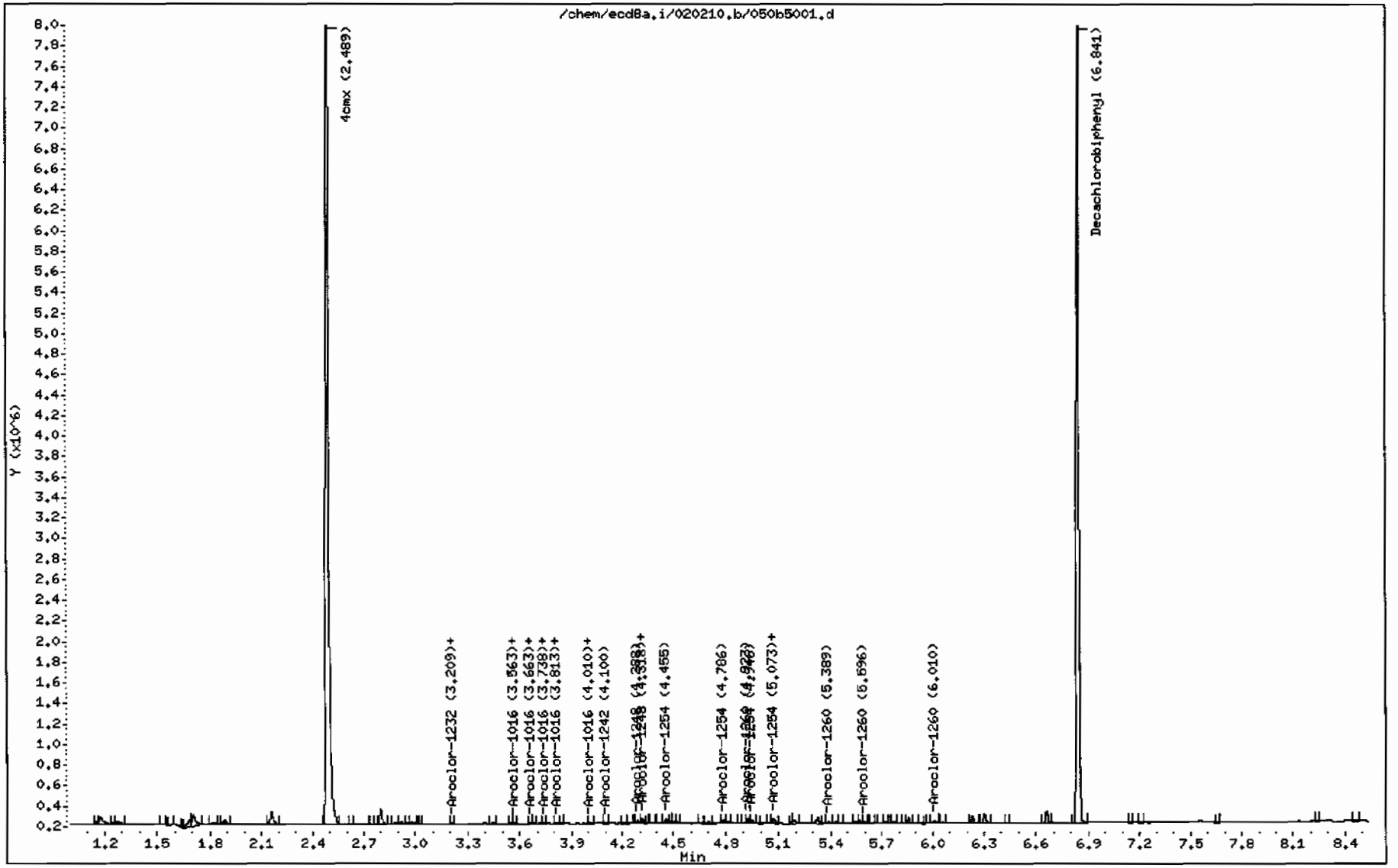

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1432	**Date Collected:**	01/25/2010 12:00	**Matrix:**	R
Lab Sample ID:	245686014	**Date Received:**	01/28/2010 08:45	**%Moisture:**	29.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8057	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	947574	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/02/2010 22:18	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/01/2010 19:57	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	051f5101.d	**Column:**	1 CLP1	**Level:**	LOW
	051b5101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.72	ug/kg	1.57	4.72	1
11104–28–2	Aroclor–1221	U	4.72	ug/kg	1.57	4.72	1
11141–16–5	Aroclor–1232	U	4.72	ug/kg	1.57	4.72	1
53469–21–9	Aroclor–1242	U	4.72	ug/kg	1.57	4.72	1
12672–29–6	Aroclor–1248	U	4.72	ug/kg	1.57	4.72	1
11097–69–1	Aroclor–1254	U	4.72	ug/kg	1.57	4.72	1
11096–82–5	Aroclor–1260	U	4.72	ug/kg	1.57	4.72	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/051f5101.d
Lab Smp Id: 245686014 Client Smp ID: RE15-10-8057
Inj Date : 02-FEB-2010 22:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |245686014|1|
Misc Info : |ECD82P_1S|947574|SVA|LANL|SOIL|RE15-10-8057|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 51
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	29.79500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.257	2.257	0.000	18569733	141.758	6.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.249	-0.001	15287134	172.875	8.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/020210.b/051f5101.d

Date : 02-FEB-2010 22:18

Client ID: RE15-10-8057

Sample Info: |245686014|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

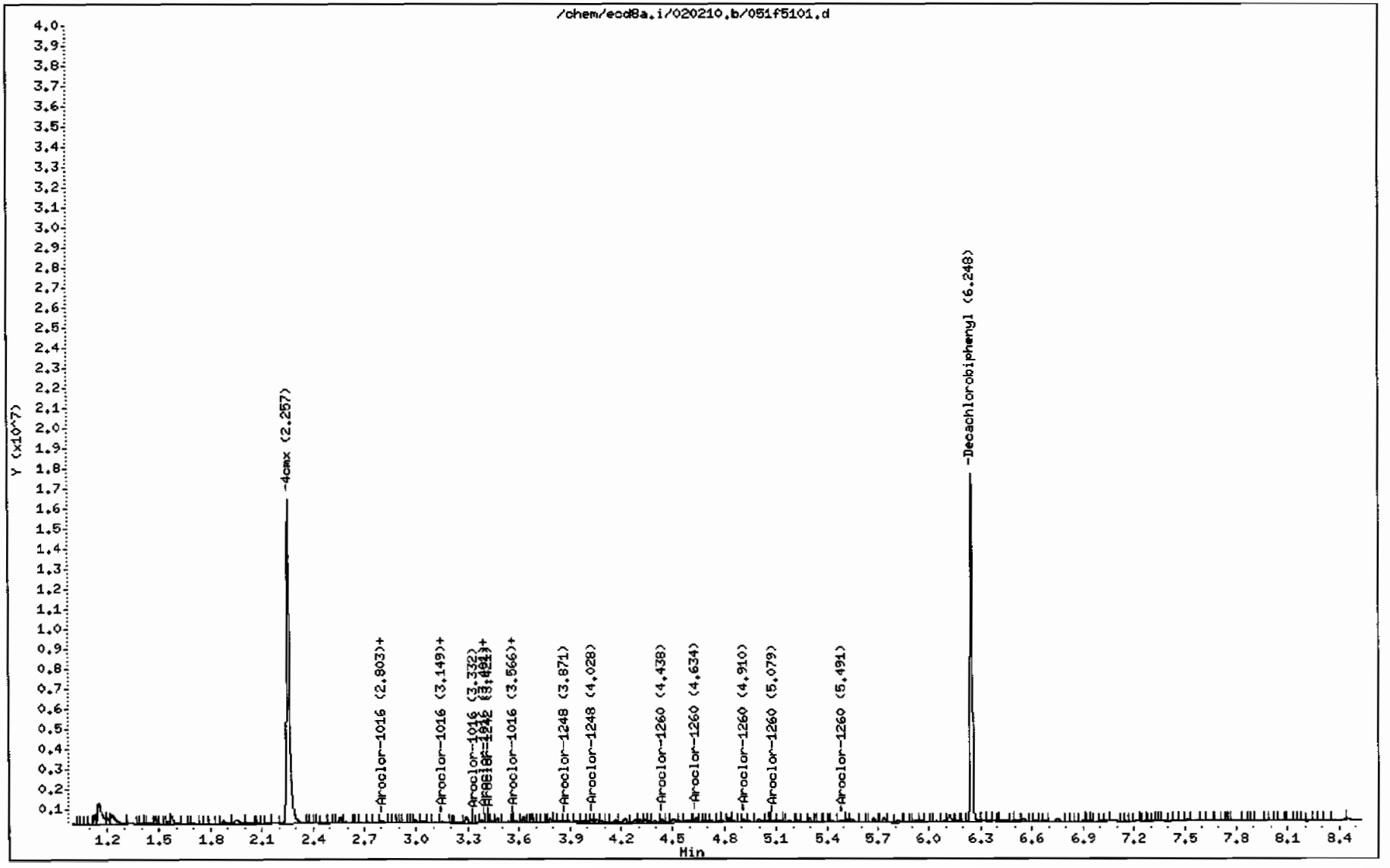

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/051b5101.d
Lab Smp Id: 245686014 Client Smp ID: RE15-10-8057
Inj Date : 02-FEB-2010 22:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |245686014|1|
Misc Info : |ECD82P_1S|947574|SVA|LANL|SOIL|RE15-10-8057|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 51
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	29.79500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	12862837	157.609	7.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.841	-0.001	10293409	176.120	8.3	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/020210.b/051b5101.d

Date : 02-FEB-2010 22:18

Client ID: RE15-10-8057

Sample Info: |245686014|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

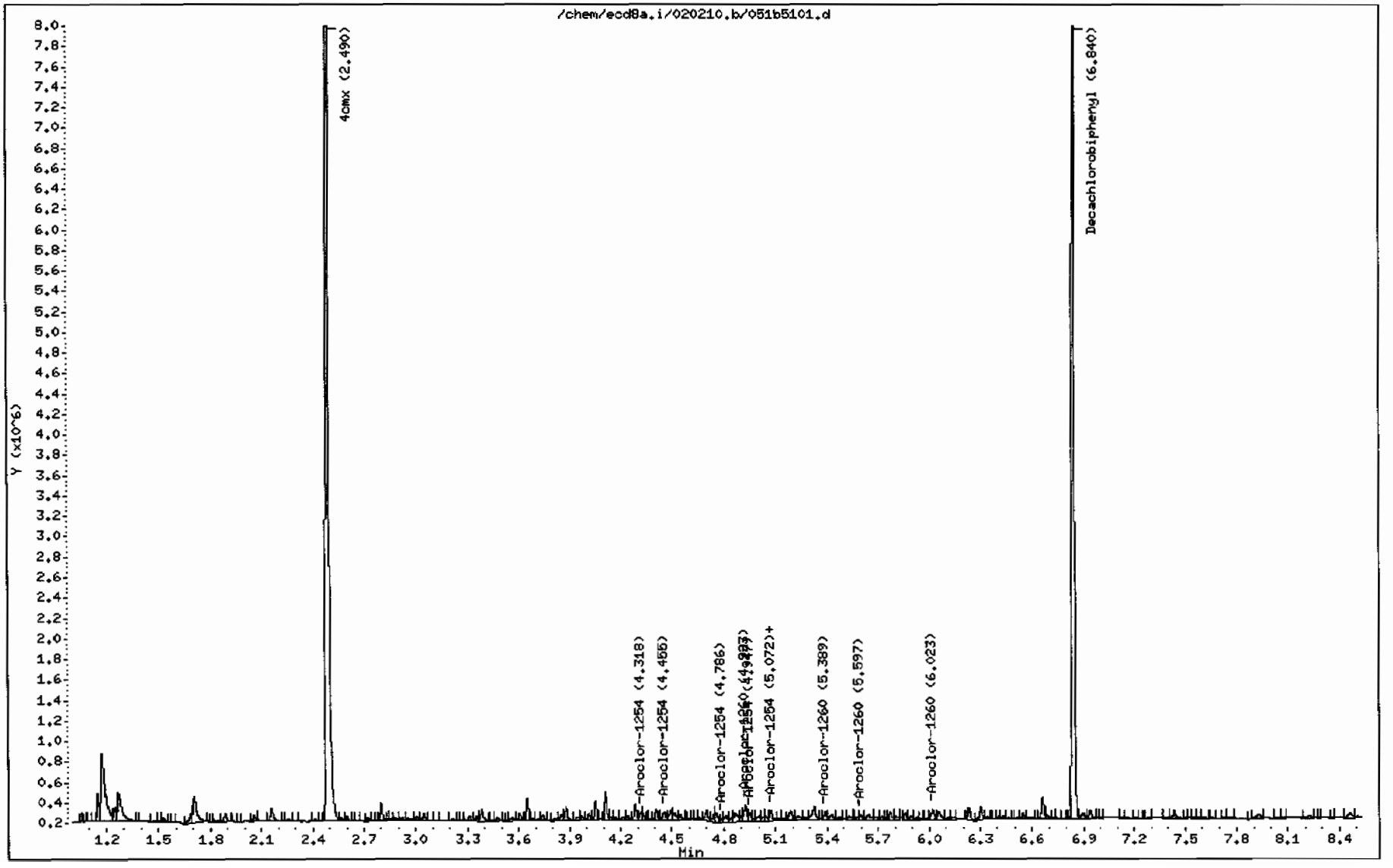

STANDARDS DATA

Report Date: 10-Feb-2010 08:39

Calibration History

Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Start Cal Date: 11-JAN-2010 13:59
End Cal Date : 22-JAN-2010 07:45

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 06:55	AR1268	/chem/ecd8a.i/012210.b/003f0301.d
20-JAN-2010 09:30	AR1232	/chem/ecd8a.i/012010.b/006f0601.d
11-JAN-2010 17:42	AR1248	/chem/ecd8a.i/011110a.b/020f2001.d
19-JAN-2010 09:24	AR1242	/chem/ecd8a.i/011910.b/004f0401.d
11-JAN-2010 15:13	AR1254	/chem/ecd8a.i/011110a.b/008f0801.d
21-JAN-2010 09:43	AR1660	/chem/ecd8a.i/012110.b/005f0501.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 07:08	AR1268	/chem/ecd8a.i/012210.b/004f0401.d
20-JAN-2010 09:42	AR1232	/chem/ecd8a.i/012010.b/007f0701.d
11-JAN-2010 17:54	AR1248	/chem/ecd8a.i/011110a.b/021f2101.d
19-JAN-2010 09:36	AR1242	/chem/ecd8a.i/011910.b/005f0501.d
11-JAN-2010 15:26	AR1254	/chem/ecd8a.i/011110a.b/009f0901.d
21-JAN-2010 09:56	AR1660	/chem/ecd8a.i/012110.b/006f0601.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 07:20	AR1268	/chem/ecd8a.i/012210.b/005f0501.d
20-JAN-2010 09:54	AR1232	/chem/ecd8a.i/012010.b/008f0801.d
11-JAN-2010 18:07	AR1248	/chem/ecd8a.i/011110a.b/022f2201.d
19-JAN-2010 09:49	AR1242	/chem/ecd8a.i/011910.b/006f0601.d
11-JAN-2010 15:38	AR1254	/chem/ecd8a.i/011110a.b/010f1001.d
21-JAN-2010 10:08	AR1660	/chem/ecd8a.i/012110.b/007f0701.d
Cal Level: 4 , Cal Amount: 1000.00000		
11-JAN-2010 19:45	DDT	/chem/ecd8a.i/011110a.b/030f3001.d
22-JAN-2010 07:33	AR1268	/chem/ecd8a.i/012210.b/006f0601.d
11-JAN-2010 19:21	AR1262	/chem/ecd8a.i/011110a.b/028f2801.d
11-JAN-2010 19:08	AR1221	/chem/ecd8a.i/011110a.b/027f2701.d
20-JAN-2010 10:07	AR1232	/chem/ecd8a.i/012010.b/009f0901.d
11-JAN-2010 18:19	AR1248	/chem/ecd8a.i/011110a.b/023f2301.d
19-JAN-2010 10:01	AR1242	/chem/ecd8a.i/011910.b/007f0701.d
11-JAN-2010 15:51	AR1254	/chem/ecd8a.i/011110a.b/011f1101.d
21-JAN-2010 10:21	AR1660	/chem/ecd8a.i/012110.b/008f0801.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 07:45	AR1268	/chem/ecd8a.i/012210.b/007f0701.d
20-JAN-2010 10:19	AR1232	/chem/ecd8a.i/012010.b/010f1001.d
11-JAN-2010 18:31	AR1248	/chem/ecd8a.i/011110a.b/024f2401.d

19-JAN-2010 10:13	AR1242	/chem/ecd8a.i/011910.b/008f0801.d
11-JAN-2010 16:03	AR1254	/chem/ecd8a.i/011110a.b/012f1201.d
21-JAN-2010 10:33	AR1660	/chem/ecd8a.i/012110.b/009f0901.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 22:34	AR1660	/chem/ecd8a.i/020210.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 20:26	AR1660	/chem/ecd8a.i/020210.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 17:54	AR1660	/chem/ecd8a.i/020210.b/030f3001.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 16:27	AR1660	/chem/ecd8a.i/020210.b/023f2301.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 13:45	AR1268	/chem/ecd8a.i/020210.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 13:32	AR1262	/chem/ecd8a.i/020210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 13:20	AR1221	/chem/ecd8a.i/020210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 13:08	AR1232	/chem/ecd8a.i/020210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:43	AR1248	/chem/ecd8a.i/020210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:30	AR1242	/chem/ecd8a.i/020210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:18	AR1254	/chem/ecd8a.i/020210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:55	AR1660	/chem/ecd8a.i/020210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:06	AR1660	/chem/ecd8a.i/020210.b/002f0201.d

Report Date: 03-Feb-2010 11:27

Calibration History

Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Start Cal Date: 11-JAN-2010 13:59
End Cal Date : 22-JAN-2010 07:45

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 06:55	AR1268	/chem/ecd8a.i/012210.b/003b0301.d
20-JAN-2010 09:30	AR1232	/chem/ecd8a.i/012010.b/006b0601.d
11-JAN-2010 17:42	AR1248	/chem/ecd8a.i/011110a.b/020b2001.d
19-JAN-2010 09:24	AR1242	/chem/ecd8a.i/011910.b/004b0401.d
11-JAN-2010 15:13	AR1254	/chem/ecd8a.i/011110a.b/008b0801.d
21-JAN-2010 09:43	AR1660	/chem/ecd8a.i/012110.b/005b0501.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 07:08	AR1268	/chem/ecd8a.i/012210.b/004b0401.d
20-JAN-2010 09:42	AR1232	/chem/ecd8a.i/012010.b/007b0701.d
11-JAN-2010 17:54	AR1248	/chem/ecd8a.i/011110a.b/021b2101.d
19-JAN-2010 09:36	AR1242	/chem/ecd8a.i/011910.b/005b0501.d
11-JAN-2010 15:26	AR1254	/chem/ecd8a.i/011110a.b/009b0901.d
21-JAN-2010 09:56	AR1660	/chem/ecd8a.i/012110.b/006b0601.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 07:20	AR1268	/chem/ecd8a.i/012210.b/005b0501.d
20-JAN-2010 09:54	AR1232	/chem/ecd8a.i/012010.b/008b0801.d
11-JAN-2010 18:07	AR1248	/chem/ecd8a.i/011110a.b/022b2201.d
19-JAN-2010 09:49	AR1242	/chem/ecd8a.i/011910.b/006b0601.d
11-JAN-2010 15:38	AR1254	/chem/ecd8a.i/011110a.b/010b1001.d
21-JAN-2010 10:08	AR1660	/chem/ecd8a.i/012110.b/007b0701.d
Cal Level: 4 , Cal Amount: 1000.00000		
11-JAN-2010 19:45	DDT	/chem/ecd8a.i/011110a.b/030b3001.d
22-JAN-2010 07:33	AR1268	/chem/ecd8a.i/012210.b/006b0601.d
11-JAN-2010 19:21	AR1262	/chem/ecd8a.i/011110a.b/028b2801.d
11-JAN-2010 19:08	AR1221	/chem/ecd8a.i/011110a.b/027b2701.d
20-JAN-2010 10:07	AR1232	/chem/ecd8a.i/012010.b/009b0901.d
11-JAN-2010 18:19	AR1248	/chem/ecd8a.i/011110a.b/023b2301.d
19-JAN-2010 10:01	AR1242	/chem/ecd8a.i/011910.b/007b0701.d
11-JAN-2010 15:51	AR1254	/chem/ecd8a.i/011110a.b/011b1101.d
21-JAN-2010 10:21	AR1660	/chem/ecd8a.i/012110.b/008b0801.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 07:45	AR1268	/chem/ecd8a.i/012210.b/007b0701.d
20-JAN-2010 10:19	AR1232	/chem/ecd8a.i/012010.b/010b1001.d
11-JAN-2010 18:31	AR1248	/chem/ecd8a.i/011110a.b/024b2401.d
19-JAN-2010 10:13	AR1242	/chem/ecd8a.i/011910.b/008b0801.d
11-JAN-2010 16:03	AR1254	/chem/ecd8a.i/011110a.b/012b1201.d
21-JAN-2010 10:33	AR1660	/chem/ecd8a.i/012110.b/009b0901.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 22:34	AR1660	/chem/ecd8a.i/020210.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 20:26	AR1660	/chem/ecd8a.i/020210.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 17:54	AR1660	/chem/ecd8a.i/020210.b/030b3001.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 16:27	AR1660	/chem/ecd8a.i/020210.b/023b2301.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 13:45	AR1268	/chem/ecd8a.i/020210.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 13:32	AR1262	/chem/ecd8a.i/020210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 13:20	AR1221	/chem/ecd8a.i/020210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 13:08	AR1232	/chem/ecd8a.i/020210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:43	AR1248	/chem/ecd8a.i/020210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:30	AR1242	/chem/ecd8a.i/020210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:18	AR1254	/chem/ecd8a.i/020210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:55	AR1660	/chem/ecd8a.i/020210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
02-FEB-2010 12:06	AR1660	/chem/ecd8a.i/020210.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 03-Feb-2010 08:20 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.814	2.784-2.844	4.573e+03
	3.166	3.136-3.196	5.280e+03
	3.310	3.280-3.340	2.359e+03
	3.402	3.372-3.432	2.088e+03
	3.564	3.534-3.594	2.933e+03
2 Aroclor-1221	1.858	1.828-1.888	8.650e+02
	2.398	2.368-2.428	1.243e+03
	2.543	2.513-2.573	2.843e+03
3 Aroclor-1232	2.544	2.514-2.574	2.718e+03
	2.814	2.784-2.844	2.177e+03
	3.309	3.279-3.339	1.122e+03
	3.564	3.534-3.594	1.266e+03
	3.625	3.595-3.655	8.091e+02
4 Aroclor-1242	2.814	2.784-2.844	3.662e+03
	3.166	3.136-3.196	4.257e+03
	3.402	3.372-3.432	1.680e+03
	3.419	3.389-3.449	1.712e+03
	3.564	3.534-3.594	2.409e+03
5 Aroclor-1248	3.151	3.121-3.181	2.476e+03
	3.402	3.372-3.432	3.201e+03
	3.564	3.534-3.594	4.148e+03
	3.871	3.841-3.901	4.922e+03
	4.030	4.000-4.060	3.980e+03

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COMPOUND LISTING

Method file : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.840	3.810-3.870	4.179e+03
		4.027	3.997-4.057	5.560e+03
		4.222	4.192-4.252	4.239e+03
		4.309	4.279-4.339	7.260e+03
		4.505	4.475-4.535	5.739e+03
	7 Aroclor-1260	4.438	4.408-4.468	5.758e+03
		4.635	4.604-4.665	8.705e+03
		4.910	4.880-4.939	5.334e+03
		5.082	5.052-5.112	5.551e+03
		5.493	5.463-5.523	5.896e+03
	8 Aroclor-1262	4.340	4.310-4.370	2.695e+03
		4.438	4.408-4.468	4.257e+03
		4.633	4.603-4.663	5.776e+03
		4.909	4.879-4.939	7.175e+03
		5.081	5.051-5.111	6.892e+03
	9 Aroclor-1268	5.517	5.487-5.547	1.692e+04
		5.543	5.513-5.573	1.583e+04
		5.677	5.647-5.707	1.194e+04
		5.923	5.893-5.953	5.447e+03
		6.118	6.088-6.148	3.313e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.257	2.227-2.287	1.310e+05
$	12 Decachlorobiphenyl	6.249	6.219-6.279	8.843e+04
	13 4,4'-DDT	4.857	4.837-4.877	1.511e+04
	14 4,4'-DDD	4.663	4.643-4.683	1.054e+05
	15 4,4'-DDE	4.239	4.219-4.259	1.013e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 03-Feb-2010 08:24 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.564	3.534-3.594	3.201e+03
	3.663	3.633-3.693	2.277e+03
	3.739	3.709-3.769	1.308e+03
	3.814	3.784-3.844	1.286e+03
	4.010	3.980-4.040	1.781e+03
2 Aroclor-1221	2.731	2.701-2.761	8.451e+02
	2.843	2.813-2.873	4.968e+02
	2.892	2.862-2.922	1.754e+03
3 Aroclor-1232	3.209	3.179-3.239	1.409e+03
	3.563	3.533-3.593	1.442e+03
	3.663	3.633-3.693	1.060e+03
	3.739	3.709-3.769	6.007e+02
	3.814	3.784-3.844	5.125e+02
4 Aroclor-1242	3.209	3.179-3.239	2.299e+03
	3.563	3.533-3.593	2.562e+03
	3.662	3.632-3.692	1.814e+03
	4.010	3.980-4.040	1.435e+03
	4.100	4.070-4.130	1.344e+03
5 Aroclor-1248	3.661	3.631-3.691	1.365e+03
	3.813	3.783-3.843	2.060e+03
	4.011	3.981-4.041	2.569e+03
	4.288	4.258-4.318	2.990e+03
	4.321	4.291-4.351	3.278e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	4.317	4.287-4.347	2.859e+03
		4.456	4.426-4.486	3.187e+03
		4.785	4.755-4.815	4.447e+03
		4.947	4.917-4.977	3.180e+03
		5.072	5.042-5.102	2.064e+03
	7 Aroclor-1260	4.924	4.894-4.954	3.534e+03
		5.073	5.043-5.103	4.220e+03
		5.389	5.359-5.419	3.241e+03
		5.596	5.566-5.626	3.364e+03
		6.027	5.997-6.057	5.336e+03
	8 Aroclor-1262	4.923	4.893-4.953	2.646e+03
		5.072	5.042-5.102	3.071e+03
		5.389	5.359-5.419	4.384e+03
		5.597	5.567-5.627	3.992e+03
		6.025	5.995-6.055	5.646e+03
	9 Aroclor-1268	6.023	5.993-6.053	1.172e+04
		6.055	6.025-6.085	1.043e+04
		6.233	6.203-6.263	8.058e+03
		6.430	6.400-6.460	3.558e+03
		6.659	6.629-6.689	2.249e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.490	2.460-2.520	8.161e+04
$	12 Decachlorobiphenyl	6.841	6.811-6.871	5.845e+04
	13 4,4'-DDT	5.332	5.312-5.352	9.076e+03
	14 4,4'-DDD	5.111	5.091-5.131	6.676e+04
	15 4,4'-DDE	4.699	4.679-4.719	6.568e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-JAN-2010 13:59
End Cal Date : 22-JAN-2010 07:45
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Cal Date : 03-Feb-2010 08:20 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/012210.b/003f0301.d
Level 2: /chem/ecd8a.i/012210.b/004f0401.d
Level 3: /chem/ecd8a.i/012210.b/005f0501.d
Level 4: /chem/ecd8a.i/011110a.b/030f3001.d
Level 5: /chem/ecd8a.i/012210.b/007f0701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5544	4992	4516	4238	3574	4573	16.336
(2)	6126	5568	5171	5042	4495	5280	11.528
(3)	2814	2522	2278	2206	1975	2359	13.594
(4)	2524	2272	2039	1932	1674	2088	15.553
(5)	3515	3125	2831	2763	2432	2933	13.907
2 Aroclor-1221(1)	+++++	+++++	+++++	865	+++++	865	0.000
(2)	+++++	+++++	+++++	1243	+++++	1243	0.000
(3)	+++++	+++++	+++++	2843	+++++	2843	0.000
3 Aroclor-1232(1)	3374	2949	2717	2521	2030	2718	18.355
(2)	2747	2363	2169	1992	1614	2177	19.347
(3)	1428	1210	1099	1021	853	1122	19.142
(4)	1605	1376	1232	1159	957	1266	19.160
(5)	1010	876	800	749	609	809	18.402
4 Aroclor-1242(1)	4444	4013	3705	3398	2752	3662	17.453
(2)	4821	4512	4363	4076	3514	4257	11.621
(3)	2011	1844	1676	1558	1310	1680	15.986
(4)	2071	1856	1718	1577	1340	1712	16.160
(5)	2857	2618	2419	2238	1913	2409	14.958
5 Aroclor-1248(1)	2877	2625	2462	2354	2062	2476	12.283
(2)	3817	3429	3154	3079	2526	3201	14.851
(3)	4809	4448	4150	3963	3367	4148	13.052
(4)	5603	5300	4879	4801	4026	4922	12.135
(5)	4596	4254	3935	3846	3269	3980	12.435
6 Aroclor-1254(1)	4923	4409	4235	3959	3371	4179	13.702
(2)	6509	5809	5629	5295	4557	5560	12.856
(3)	4825	4413	4321	4080	3558	4239	10.999
(4)	8248	7532	7424	7038	6056	7260	11.056
(5)	6584	5916	5833	5556	4804	5739	11.235

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INITIAL CALIBRATION DATA

Start Cal Date : 11-JAN-2010 13:59
End Cal Date : 22-JAN-2010 07:45
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Cal Date : 03-Feb-2010 08:20 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	6689	6169	5571	5537	4822	5758	12.265
	(2)	10032	9214	8419	8445	7416	8705	11.243
	(3)	6226	5622	5156	5122	4544	5334	11.780
	(4)	6431	5836	5374	5354	4761	5551	11.209
	(5)	6696	6086	5816	5707	5176	5896	9.434
	8 Aroclor-1262(1)	+++++	+++++	+++++	2695	+++++	2695	0.000
	(2)	+++++	+++++	+++++	4257	+++++	4257	0.000
	(3)	+++++	+++++	+++++	5776	+++++	5776	0.000
	(4)	+++++	+++++	+++++	7175	+++++	7175	0.000
	(5)	+++++	+++++	+++++	6892	+++++	6892	0.000
	9 Aroclor-1268(1)	19129	17786	17158	16465	14077	16923	11.044
	(2)	18037	16539	15911	15524	13152	15833	11.228
	(3)	13598	12481	12014	11658	9950	11940	11.148
	(4)	6323	5687	5412	5231	4582	5447	11.686
	(5)	36900	34949	33689	32469	27624	33126	10.521
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	15109	+++++	15109	0.000
	14 4,4'-DDD	+++++	+++++	+++++	105424	+++++	105424	0.000
	15 4,4'-DDE	+++++	+++++	+++++	101308	+++++	101308	0.000
$	11 4cmx	143888	137730	130646	127780	114936	130996	8.362
$	12 Decachlorobiphenyl	100777	91181	89544	84910	75731	88429	10.348

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-JAN-2010 13:59
End Cal Date : 22-JAN-2010 07:45
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Cal Date : 03-Feb-2010 08:24 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/012210.b/003b0301.d
Level 2: /chem/ecd8a.i/012210.b/004b0401.d
Level 3: /chem/ecd8a.i/012210.b/005b0501.d
Level 4: /chem/ecd8a.i/011110a.b/030b3001.d
Level 5: /chem/ecd8a.i/012210.b/007b0701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3343	3254	3228	3190	2989	3201	4.095
(2)	2489	2360	2269	2224	2042	2277	7.272
(3)	1397	1328	1287	1291	1238	1308	4.502
(4)	1431	1340	1271	1239	1151	1286	8.198
(5)	1936	1832	1770	1743	1621	1781	6.511
2 Aroclor-1221(1)	+++++	+++++	+++++	845	+++++	845	0.000
(2)	+++++	+++++	+++++	497	+++++	497	0.000
(3)	+++++	+++++	+++++	1754	+++++	1754	0.000
3 Aroclor-1232(1)	1633	1480	1410	1347	1173	1409	12.019
(2)	1587	1462	1439	1409	1315	1442	6.819
(3)	1208	1100	1054	1020	916	1060	10.088
(4)	671	619	594	581	538	601	8.169
(5)	601	537	509	486	430	513	12.277
4 Aroclor-1242(1)	2594	2446	2343	2220	1891	2299	11.575
(2)	2719	2619	2607	2545	2321	2562	5.798
(3)	1991	1907	1845	1772	1553	1814	9.171
(4)	1562	1496	1455	1401	1262	1435	7.884
(5)	1443	1420	1355	1311	1194	1344	7.381
5 Aroclor-1248(1)	1504	1452	1354	1333	1180	1365	9.137
(2)	2264	2189	2066	2024	1756	2060	9.470
(3)	2768	2701	2581	2572	2225	2569	8.164
(4)	3163	3131	3011	3011	2635	2990	7.032
(5)	3436	3437	3307	3307	2902	3278	6.709
6 Aroclor-1254(1)	3090	2969	2903	2826	2508	2859	7.649
(2)	3491	3306	3222	3140	2776	3187	8.279
(3)	4768	4581	4513	4427	3943	4447	6.925
(4)	3396	3258	3207	3166	2874	3180	6.042
(5)	2263	2129	2059	2016	1850	2064	7.335

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-JAN-2010 13:59
End Cal Date : 22-JAN-2010 07:45
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Cal Date : 03-Feb-2010 08:24 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	3799	3646	3539	3488	3199	3534	6.279
(2)	4510	4334	4225	4198	3834	4220	5.885
(3)	3473	3318	3232	3208	2976	3241	5.583
(4)	3572	3432	3356	3349	3110	3364	4.989
(5)	5579	5396	5332	5363	5008	5336	3.871
8 Aroclor-1262(1)	+++++	+++++	+++++	2646	+++++	2646	0.000
(2)	+++++	+++++	+++++	3071	+++++	3071	0.000
(3)	+++++	+++++	+++++	4384	+++++	4384	0.000
(4)	+++++	+++++	+++++	3992	+++++	3992	0.000
(5)	+++++	+++++	+++++	5646	+++++	5646	0.000
9 Aroclor-1268(1)	12629	12158	11921	11709	10194	11722	7.852
(2)	11134	10709	10558	10464	9270	10427	6.673
(3)	8595	8269	8154	8086	7188	8058	6.506
(4)	3782	3641	3564	3549	3251	3558	5.470
(5)	23838	23265	22979	22594	19795	22494	7.006
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	9076	+++++	9076	0.000
14 4,4'-DDD	+++++	+++++	+++++	66761	+++++	66761	0.000
15 4,4'-DDE	+++++	+++++	+++++	65679	+++++	65679	0.000
$ 11 4cmx	82030	82634	82486	82685	78228	81612	2.339
$ 12 Decachlorobiphenyl	62868	59530	58162	58128	53540	58445	5.737

Report Date: 04-Feb-2010 07:55

Calibration History

Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020f2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008f0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021f2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009f0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022f2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010f1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027f2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023f2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011f1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024f2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012f1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 23:49	AR1660	/chem/ecd8a.i/020310a.b/067f6701.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 22:10	AR1660	/chem/ecd8a.i/020310a.b/059f5901.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 21:08	AR1660	/chem/ecd8a.i/020310a.b/054f5401.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 19:54	AR1660	/chem/ecd8a.i/020310a.b/048f4801.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027f2701.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 17:13	AR1248	/chem/ecd8a.i/020310a.b/035f3501.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 16:48	AR1262	/chem/ecd8a.i/020310a.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 15:09	AR1248	/chem/ecd8a.i/020310a.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023f2301.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 13:55	AR1242	/chem/ecd8a.i/020310a.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 12:40	AR1254	/chem/ecd8a.i/020310a.b/013f1301.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 11:26	AR1660	/chem/ecd8a.i/020310a.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005f0501.d

Report Date: 04-Feb-2010 07:55

Calibration History

Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020b2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008b0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021b2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009b0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022b2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010b1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027b2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023b2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011b1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024b2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012b1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

03-FEB-2010 23:49	AR1660	/chem/ecd8a.i/020310a.b/067b6701.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 22:10	AR1660	/chem/ecd8a.i/020310a.b/059b5901.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 21:08	AR1660	/chem/ecd8a.i/020310a.b/054b5401.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 19:54	AR1660	/chem/ecd8a.i/020310a.b/048b4801.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027b2701.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 17:13	AR1248	/chem/ecd8a.i/020310a.b/035b3501.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 16:48	AR1262	/chem/ecd8a.i/020310a.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 15:09	AR1248	/chem/ecd8a.i/020310a.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023b2301.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 13:55	AR1242	/chem/ecd8a.i/020310a.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 12:40	AR1254	/chem/ecd8a.i/020310a.b/013b1301.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 11:26	AR1660	/chem/ecd8a.i/020310a.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005b0501.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 04-Feb-2010 07:01 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.814	2.784-2.844	4.665e+03
	3.166	3.136-3.196	5.770e+03
	3.309	3.279-3.339	2.454e+03
	3.402	3.372-3.432	2.198e+03
	3.564	3.534-3.594	3.142e+03
2 Aroclor-1221	1.857	1.827-1.887	1.100e+03
	2.397	2.367-2.427	1.460e+03
	2.542	2.512-2.572	3.385e+03
3 Aroclor-1232	2.542	2.512-2.572	2.601e+03
	2.813	2.783-2.843	2.261e+03
	3.309	3.279-3.339	1.243e+03
	3.564	3.534-3.594	1.479e+03
	3.625	3.595-3.655	9.227e+02
4 Aroclor-1242	2.814	2.784-2.844	3.974e+03
	3.165	3.135-3.195	4.796e+03
	3.402	3.372-3.432	1.805e+03
	3.418	3.388-3.448	1.889e+03
	3.563	3.533-3.593	2.645e+03
5 Aroclor-1248	3.151	3.121-3.181	2.990e+03
	3.401	3.371-3.431	3.823e+03
	3.564	3.534-3.594	5.000e+03
	3.870	3.840-3.900	5.990e+03
	4.029	3.999-4.059	4.826e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.839	3.809-3.869	4.785e+03
		4.026	3.996-4.056	6.569e+03
		4.222	4.192-4.252	5.138e+03
		4.309	4.279-4.339	8.797e+03
		4.504	4.474-4.534	6.914e+03
	7 Aroclor-1260	4.438	4.408-4.468	6.739e+03
		4.634	4.604-4.664	1.026e+04
		4.908	4.878-4.938	6.130e+03
		5.081	5.051-5.111	6.386e+03
		5.493	5.463-5.523	6.860e+03
	8 Aroclor-1262	4.340	4.310-4.370	3.367e+03
		4.437	4.407-4.467	5.243e+03
		4.633	4.603-4.663	7.103e+03
		4.910	4.880-4.940	8.580e+03
		5.081	5.051-5.111	7.966e+03
	9 Aroclor-1268	5.517	5.487-5.547	1.632e+04
		5.542	5.512-5.572	1.572e+04
		5.677	5.647-5.707	1.207e+04
		5.922	5.892-5.952	6.023e+03
		6.118	6.088-6.148	3.601e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.257	2.227-2.287	1.314e+05
$	12 Decachlorobiphenyl	6.248	6.218-6.278	9.998e+04
	13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
	14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
	15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 04-Feb-2010 06:58 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.563	3.533-3.593	3.766e+03
	3.663	3.633-3.693	2.494e+03
	3.738	3.708-3.768	1.515e+03
	3.813	3.783-3.843	1.493e+03
	4.010	3.980-4.040	2.036e+03
2 Aroclor-1221	2.730	2.700-2.760	8.949e+02
	2.842	2.812-2.872	5.569e+02
	2.891	2.861-2.921	2.060e+03
3 Aroclor-1232	3.209	3.179-3.239	1.515e+03
	3.562	3.532-3.592	1.744e+03
	3.661	3.631-3.691	1.176e+03
	3.738	3.708-3.768	7.101e+02
	3.812	3.782-3.842	6.182e+02
4 Aroclor-1242	3.209	3.179-3.239	2.677e+03
	3.563	3.533-3.593	3.126e+03
	3.662	3.632-3.692	2.127e+03
	4.009	3.979-4.039	1.703e+03
	4.098	4.068-4.128	1.567e+03
5 Aroclor-1248	3.661	3.631-3.691	1.427e+03
	3.813	3.783-3.843	2.467e+03
	4.010	3.980-4.040	3.089e+03
	4.287	4.257-4.317	3.647e+03
	4.320	4.290-4.350	4.004e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.316	4.286-4.346	3.450e+03
	4.455	4.425-4.485	3.910e+03
	4.784	4.754-4.814	5.500e+03
	4.946	4.916-4.976	4.011e+03
	5.072	5.042-5.102	2.549e+03
7 Aroclor-1260	4.923	4.893-4.953	4.084e+03
	5.073	5.043-5.103	4.969e+03
	5.388	5.358-5.418	3.788e+03
	5.596	5.566-5.626	3.953e+03
	6.027	5.997-6.057	6.227e+03
8 Aroclor-1262	4.924	4.894-4.954	3.276e+03
	5.071	5.041-5.101	3.827e+03
	5.388	5.358-5.418	5.446e+03
	5.596	5.566-5.626	5.047e+03
	6.025	5.995-6.055	7.196e+03
9 Aroclor-1268	6.022	5.992-6.052	1.138e+04
	6.054	6.024-6.084	1.041e+04
	6.232	6.202-6.262	8.192e+03
	6.430	6.400-6.460	4.057e+03
	6.658	6.628-6.688	2.464e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.490	2.460-2.520	8.684e+04
$ 12 Decachlorobiphenyl	6.840	6.810-6.870	6.484e+04
13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Cal Date : 04-Feb-2010 07:01 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028f2801.d
Level 2: /chem/ecd8a.i/020310a.b/029f2901.d
Level 3: /chem/ecd8a.i/020310a.b/030f3001.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/020310a.b/032f3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5614	5138	4704	4321	3545	4665	16.943
(2)	6383	6264	5935	5475	4791	5770	11.275
(3)	2817	2639	2454	2319	2042	2454	12.124
(4)	2629	2406	2216	2019	1720	2198	15.914
(5)	3708	3411	3117	2938	2537	3142	14.248
2 Aroclor-1221(1)	+++++	+++++	+++++	1100	+++++	1100	0.000
(2)	+++++	+++++	+++++	1460	+++++	1460	0.000
(3)	+++++	+++++	+++++	3385	+++++	3385	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3599	3150	2999	2805	2397	2990	14.793
(2)	4688	4030	3804	3549	3043	3823	15.884
(3)	6028	5281	4903	4737	4053	5000	14.533
(4)	7068	6330	5909	5676	4965	5990	13.024
(5)	5743	5075	4737	4591	3986	4826	13.394
6 Aroclor-1254(1)	5857	5096	4715	4450	3806	4785	15.921
(2)	7961	7038	6468	6172	5208	6569	15.558
(3)	6032	5571	5105	4741	4242	5138	13.582
(4)	10107	9649	8877	8173	7180	8797	13.271
(5)	7953	7619	6996	6322	5678	6914	13.452

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Cal Date : 04-Feb-2010 07:01 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	7706	7225	6868	6425	5470	6739	12.628
	(2)	11735	10983	10481	9771	8329	10260	12.630
	(3)	7075	6577	6171	5792	5035	6130	12.657
	(4)	7317	6857	6397	6058	5301	6386	12.066
	(5)	7655	7335	6855	6540	5914	6860	9.924
	8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
	(2)	5935	5551	5239	5102	4386	5243	10.995
	(3)	7996	7523	7022	6963	6012	7103	10.414
	(4)	9555	9028	8567	8433	7318	8580	9.694
	(5)	8875	8357	7946	7802	6850	7966	9.421
	9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
	(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
	(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
	(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
	(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
	14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
	15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$	11 4cmx	141196	137660	133177	129355	115643	131406	7.521
$	12 Decachlorobiphenyl	111693	106508	99006	96244	86457	99981	9.718

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Cal Date : 04-Feb-2010 06:58 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028b2801.d
Level 2: /chem/ecd8a.i/020310a.b/029b2901.d
Level 3: /chem/ecd8a.i/020310a.b/030b3001.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/020310a.b/032b3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3955	3879	3768	3829	3401	3766	5.726
(2)	2683	2623	2522	2463	2181	2494	7.814
(3)	1588	1565	1522	1510	1392	1515	5.000
(4)	1644	1573	1498	1453	1297	1493	8.812
(5)	2161	2107	2068	2025	1817	2036	6.473
2 Aroclor-1221(1)	+++++	+++++	+++++	895	+++++	895	0.000
(2)	+++++	+++++	+++++	557	+++++	557	0.000
(3)	+++++	+++++	+++++	2060	+++++	2060	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1621	1511	1422	1366	1213	1427	10.773
(2)	2779	2594	2491	2383	2090	2467	10.392
(3)	3403	3233	3131	3022	2657	3089	9.043
(4)	3964	3788	3692	3588	3204	3647	7.785
(5)	4333	4155	4060	3948	3526	4004	7.553
6 Aroclor-1254(1)	3700	3695	3475	3389	2993	3450	8.395
(2)	4204	4194	3940	3836	3377	3910	8.648
(3)	5766	5885	5570	5452	4827	5500	7.494
(4)	4254	4252	4044	3942	3562	4011	7.104
(5)	2775	2711	2546	2462	2250	2549	8.187

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Cal Date : 04-Feb-2010 06:58 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4328	4278	4140	4064	3611	4084	6.976
	(2)	5221	5198	5036	4963	4428	4969	6.467
	(3)	3970	3947	3809	3790	3427	3788	5.744
	(4)	4121	4108	3975	3957	3605	3953	5.268
	(5)	6395	6455	6249	6250	5789	6227	4.190
	8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
	(2)	4038	3929	3844	3825	3498	3827	5.277
	(3)	5683	5613	5515	5463	4958	5446	5.255
	(4)	5266	5178	5090	5067	4633	5047	4.838
	(5)	7327	7356	7286	7270	6740	7196	3.572
	9 Aroclor-1268(1)	++++++	++++++	++++++	11384	++++++	11384	0.000
	(2)	++++++	++++++	++++++	10412	++++++	10412	0.000
	(3)	++++++	++++++	++++++	8192	++++++	8192	0.000
	(4)	++++++	++++++	++++++	4057	++++++	4057	0.000
	(5)	++++++	++++++	++++++	24640	++++++	24640	0.000
M	10 Aroclor-Total	++++++	++++++	++++++	++++++	++++++	++++++	++++++
	13 4,4'-DDT	++++++	++++++	++++++	14596	++++++	14596	0.000
	14 4,4'-DDD	++++++	++++++	++++++	100145	++++++	100145	0.000
	15 4,4'-DDE	++++++	++++++	++++++	88982	++++++	88982	0.000
$	11 4cmx	86244	88409	88291	88885	82388	86843	3.097
$	12 Decachlorobiphenyl	68541	67257	64616	64263	59541	64844	5.342

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/02/10 Time: 1255

Lab File ID: 006F0601 Init. Calib. Date(s): 01/21/10 01/21/10

Heated Purge: (Y/N) N Init. Calib. Times: 0943 1033

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	4572.785	3820.951	0.01	-16.4	15.0	<-
(2)	5280.406	4586.304	0.01	-13.1	15.0	
(3)	2359.115	1971.860	0.01	-16.4	15.0	<-
(4)	2088.071	1775.538	0.01	-15.0	15.0	
(5)	2933.246	2566.060	0.01	-12.5	15.0	
Aroclor-1260	5757.649	5383.152	0.01	-6.5	15.0	
(2)	8705.293	8170.895	0.01	-6.1	15.0	
(3)	5333.977	4816.452	0.01	-9.7	15.0	
(4)	5551.052	5065.050	0.01	-8.8	15.0	
(5)	5895.963	5446.295	0.01	-7.6	15.0	
4cmx	130996.17	116394.69	0.01	-11.1	15.0	
Decachlorobiphenyl	88428.633	82695.490	0.01	-6.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/02/10 Time: 1255

Lab File ID: 006B0601 Init. Calib. Date(s): 01/21/10 01/21/10

Heated Purge: (Y/N) N Init. Calib. Times: 0943 1033

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3201.010	3036.982	0.01	-5.1	15.0
(2)	2276.677	2093.859	0.01	-8.0	15.0
(3)	1308.219	1241.427	0.01	-5.1	15.0
(4)	1286.400	1199.102	0.01	-6.8	15.0
(5)	1780.524	1681.818	0.01	-5.5	15.0
Aroclor-1260	3534.278	3445.569	0.01	-2.5	15.0
(2)	4220.272	4147.304	0.01	-1.7	15.0
(3)	3241.372	3178.471	0.01	-1.9	15.0
(4)	3363.772	3301.898	0.01	-1.8	15.0
(5)	5335.520	5203.793	0.01	-2.5	15.0
4cmx	81612.458	77919.880	0.01	-4.5	15.0
Decachlorobiphenyl	58445.490	54701.350	0.01	-6.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/02/10 Time: 1754

Lab File ID: 030F3001 Init. Calib. Date(s): 01/21/10 01/21/10

Heated Purge: (Y/N) N Init. Calib. Times: 0943 1033

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4572.785	4155.409	0.01	-9.1	15.0
(2)	5280.406	4998.354	0.01	-5.3	15.0
(3)	2359.115	2116.429	0.01	-10.3	15.0
(4)	2088.071	1902.938	0.01	-8.9	15.0
(5)	2933.246	2738.580	0.01	-6.6	15.0
Aroclor-1260	5757.649	5770.875	0.01	0.2	15.0
(2)	8705.293	8797.881	0.01	1.1	15.0
(3)	5333.977	5145.542	0.01	-3.5	15.0
(4)	5551.052	5414.646	0.01	-2.4	15.0
(5)	5895.963	5884.491	0.01	-0.2	15.0
4cmx	130996.17	128397.46	0.01	-2.0	15.0
Decachlorobiphenyl	88428.633	88487.430	0.01	0.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/02/10 Time: 1754

Lab File ID: 030B3001 Init. Calib. Date(s): 01/21/10 01/21/10

Heated Purge: (Y/N) N Init. Calib. Times: 0943 1033

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3201.010	3269.473	0.01	2.1	15.0
(2)	2276.677	2269.968	0.01	-0.3	15.0
(3)	1308.219	1330.464	0.01	1.7	15.0
(4)	1286.400	1285.017	0.01	-0.1	15.0
(5)	1780.524	1801.185	0.01	1.2	15.0
Aroclor-1260	3534.278	3681.805	0.01	4.2	15.0
(2)	4220.272	4428.757	0.01	4.9	15.0
(3)	3241.372	3390.846	0.01	4.6	15.0
(4)	3363.772	3507.932	0.01	4.3	15.0
(5)	5335.520	5628.928	0.01	5.5	15.0
4cmx	81612.458	86555.350	0.01	6.0	15.0
Decachlorobiphenyl	58445.490	59798.580	0.01	2.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/02/10 Time: 2026

Lab File ID: 042F4201 Init. Calib. Date(s): 01/21/10 01/21/10

Heated Purge: (Y/N) N Init. Calib. Times: 0943 1033

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	4572.785	4553.970	0.01	-0.4	15.0	
(2)	5280.406	5931.842	0.01	12.3	15.0	
(3)	2359.115	2487.932	0.01	5.5	15.0	
(4)	2088.071	2168.502	0.01	3.8	15.0	
(5)	2933.246	3155.557	0.01	7.6	15.0	
Aroclor-1260	5757.649	6933.068	0.01	20.4	15.0	<-
(2)	8705.293	10522.037	0.01	20.9	15.0	<-
(3)	5333.977	6214.536	0.01	16.5	15.0	<-
(4)	5551.052	6490.995	0.01	16.9	15.0	<-
(5)	5895.963	7088.233	0.01	20.2	15.0	<-
4cmx	130996.17	138490.45	0.01	5.7	15.0	
Decachlorobiphenyl	88428.633	97698.810	0.01	10.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/02/10 Time: 2026

Lab File ID: 042B4201 Init. Calib. Date(s): 01/21/10 01/21/10

Heated Purge: (Y/N) N Init. Calib. Times: 0943 1033

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3201.010	4029.385	0.01	25.9	15.0	<-
(2)	2276.677	2579.792	0.01	13.3	15.0	
(3)	1308.219	1594.091	0.01	21.8	15.0	<-
(4)	1286.400	1524.746	0.01	18.5	15.0	<-
(5)	1780.524	2126.997	0.01	19.4	15.0	<-
Aroclor-1260	3534.278	4266.787	0.01	20.7	15.0	<-
(2)	4220.272	5238.641	0.01	24.1	15.0	<-
(3)	3241.372	3962.443	0.01	22.2	15.0	<-
(4)	3363.772	4141.861	0.01	23.1	15.0	<-
(5)	5335.520	6478.502	0.01	21.4	15.0	<-
4cmx	81612.458	94337.020	0.01	15.6	15.0	<-
Decachlorobiphenyl	58445.490	65219.050	0.01	11.6	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/02/10 Time: 2234

Lab File ID: 052F5201 Init. Calib. Date(s): 01/21/10 01/21/10

Heated Purge: (Y/N) N Init. Calib. Times: 0943 1033

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	4572.785	4518.954	0.01	-1.2	15.0	
(2)	5280.406	5910.755	0.01	11.9	15.0	
(3)	2359.115	2474.369	0.01	4.9	15.0	
(4)	2088.071	2151.360	0.01	3.0	15.0	
(5)	2933.246	3136.493	0.01	6.9	15.0	
Aroclor-1260	5757.649	6995.043	0.01	21.5	15.0	<-
(2)	8705.293	10447.560	0.01	20.0	15.0	<-
(3)	5333.977	6175.380	0.01	15.8	15.0	<-
(4)	5551.052	6456.231	0.01	16.3	15.0	<-
(5)	5895.963	7121.994	0.01	20.8	15.0	<-
4cmx	130996.17	137657.58	0.01	5.1	15.0	
Decachlorobiphenyl	88428.633	99241.560	0.01	12.2	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/02/10 Time: 2234

Lab File ID: 052B5201 Init. Calib. Date(s): 01/21/10 01/21/10

Heated Purge: (Y/N) N Init. Calib. Times: 0943 1033

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3201.010	4123.240	0.01	28.8	15.0	<-
(2)	2276.677	2618.960	0.01	15.0	15.0	<-
(3)	1308.219	1624.063	0.01	24.1	15.0	<-
(4)	1286.400	1548.464	0.01	20.4	15.0	<-
(5)	1780.524	2167.158	0.01	21.7	15.0	<-
Aroclor-1260	3534.278	4407.862	0.01	24.7	15.0	<-
(2)	4220.272	5402.505	0.01	28.0	15.0	<-
(3)	3241.372	4072.041	0.01	25.6	15.0	<-
(4)	3363.772	4234.763	0.01	25.9	15.0	<-
(5)	5335.520	6670.063	0.01	25.0	15.0	<-
4cmx	81612.458	95253.850	0.01	16.7	15.0	<-
Decachlorobiphenyl	58445.490	65770.820	0.01	12.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/03/10 Time: 1126

Lab File ID: 007F0701 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4277.770	0.01	-8.3	15.0
(2)	5769.588	5635.008	0.01	-2.3	15.0
(3)	2454.201	2314.378	0.01	-5.7	15.0
(4)	2198.179	2048.621	0.01	-6.8	15.0
(5)	3142.156	2954.258	0.01	-6.0	15.0
Aroclor-1260	6738.969	6940.360	0.01	3.0	15.0
(2)	10259.796	10464.391	0.01	2.0	15.0
(3)	6129.851	6152.446	0.01	0.4	15.0
(4)	6385.867	6446.332	0.01	0.9	15.0
(5)	6859.759	7013.767	0.01	2.2	15.0
4cmx	131406.10	128237.58	0.01	-2.4	15.0
Decachlorobiphenyl	99981.358	96061.630	0.01	-3.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/03/10 Time: 1126

Lab File ID: 007B0701 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3759.740	0.01	-0.2	15.0
(2)	2494.427	2456.818	0.01	-1.5	15.0
(3)	1515.492	1505.984	0.01	-0.6	15.0
(4)	1493.163	1449.782	0.01	-2.9	15.0
(5)	2035.618	2022.528	0.01	-0.6	15.0
Aroclor-1260	4084.417	4368.854	0.01	7.0	15.0
(2)	4968.902	5338.100	0.01	7.4	15.0
(3)	3788.418	4079.050	0.01	7.7	15.0
(4)	3953.106	4256.949	0.01	7.7	15.0
(5)	6227.437	6753.611	0.01	8.4	15.0
4cmx	86843.352	88063.630	0.01	1.4	15.0
Decachlorobiphenyl	64843.758	64350.620	0.01	-0.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/03/10 Time: 1240

Lab File ID: 013F1301 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1139 1228

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	4784.971	4412.624	0.01	-7.8	15.0
(2)	6569.400	6002.955	0.01	-8.6	15.0
(3)	5138.123	4732.103	0.01	-7.9	15.0
(4)	8797.294	8215.771	0.01	-6.6	15.0
(5)	6913.634	6418.148	0.01	-7.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/03/10 Time: 1240

Lab File ID: 013B1301 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1139 1228

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	3450.063	3383.977	0.01	-1.9	15.0
(2)	3910.106	3824.713	0.01	-2.2	15.0
(3)	5499.957	5432.437	0.01	-1.2	15.0
(4)	4010.730	3945.818	0.01	-1.6	15.0
(5)	2548.871	2466.733	0.01	-3.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/03/10 Time: 2108

Lab File ID: 054F5401 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4430.815	0.01	-5.0	15.0
(2)	5769.588	5538.731	0.01	-4.0	15.0
(3)	2454.201	2274.819	0.01	-7.3	15.0
(4)	2198.179	1973.855	0.01	-10.2	15.0
(5)	3142.156	2868.131	0.01	-8.7	15.0
Aroclor-1260	6738.969	6358.628	0.01	-5.6	15.0
(2)	10259.796	9555.820	0.01	-6.9	15.0
(3)	6129.851	5614.137	0.01	-8.4	15.0
(4)	6385.867	5990.813	0.01	-6.2	15.0
(5)	6859.759	6779.117	0.01	-1.2	15.0
4cmx	131406.10	134833.64	0.01	2.6	15.0
Decachlorobiphenyl	99981.358	98513.540	0.01	-1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/03/10 Time: 2108

Lab File ID: 054B5401 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3977.789	0.01	5.6	15.0
(2)	2494.427	2548.790	0.01	2.2	15.0
(3)	1515.492	1551.142	0.01	2.4	15.0
(4)	1493.163	1491.736	0.01	-0.1	15.0
(5)	2035.618	2077.623	0.01	2.1	15.0
Aroclor-1260	4084.417	4494.588	0.01	10.0	15.0
(2)	4968.902	5425.430	0.01	9.2	15.0
(3)	3788.418	4143.600	0.01	9.4	15.0
(4)	3953.106	4240.391	0.01	7.3	15.0
(5)	6227.437	6861.458	0.01	10.2	15.0
4cmx	86843.352	91994.630	0.01	5.9	15.0
Decachlorobiphenyl	64843.758	65923.130	0.01	1.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/03/10 Time: 2210

Lab File ID: 059F5901 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4437.937	0.01	-4.8	15.0
(2)	5769.588	5723.246	0.01	-0.8	15.0
(3)	2454.201	2401.635	0.01	-2.1	15.0
(4)	2198.179	2086.847	0.01	-5.1	15.0
(5)	3142.156	3035.369	0.01	-3.4	15.0
Aroclor-1260	6738.969	6481.792	0.01	-3.8	15.0
(2)	10259.796	9824.814	0.01	-4.2	15.0
(3)	6129.851	5815.369	0.01	-5.1	15.0
(4)	6385.867	6083.821	0.01	-4.7	15.0
(5)	6859.759	6826.367	0.01	-0.5	15.0
4cmx	131406.10	134664.78	0.01	2.5	15.0
Decachlorobiphenyl	99981.358	95475.810	0.01	-4.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

Instrument ID: ECD8A Calibration Date: 02/03/10 Time: 2210

Lab File ID: 059B5901 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3983.951	0.01	5.8	15.0
(2)	2494.427	2580.314	0.01	3.4	15.0
(3)	1515.492	1595.964	0.01	5.3	15.0
(4)	1493.163	1528.981	0.01	2.4	15.0
(5)	2035.618	2125.198	0.01	4.4	15.0
Aroclor-1260	4084.417	4540.152	0.01	11.2	15.0
(2)	4968.902	5546.195	0.01	11.6	15.0
(3)	3788.418	4197.430	0.01	10.8	15.0
(4)	3953.106	4385.016	0.01	10.9	15.0
(5)	6227.437	6935.867	0.01	11.4	15.0
4cmx	86843.352	93740.120	0.01	7.9	15.0
Decachlorobiphenyl	64843.758	65661.400	0.01	1.3	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/003f0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 02-FEB-2010 12:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 02-Feb-2010 14:22 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.840	3.840	0.000	3603929	1000.00	862	80.00- 120.00	100.00
4.027	4.027	0.000	4965420	1000.00	893	117.78- 157.78	137.78
4.222	4.222	0.000	3815137	1000.00	900	85.86- 125.86	105.86
4.309	4.309	0.000	6659487	1000.00	917	164.78- 204.78	184.78
4.505	4.505	0.000	5318321	1000.00	927	127.57- 167.57	147.57
Average of Peak Amounts =					900		

Data File: /chem/ecd8a.i/020210.b/003f0301.d

Page 1

Date : 02-FEB-2010 12:18

Client ID: AR125401

Instrument: ecd8a.i

Sample Info: IWAR100201-54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

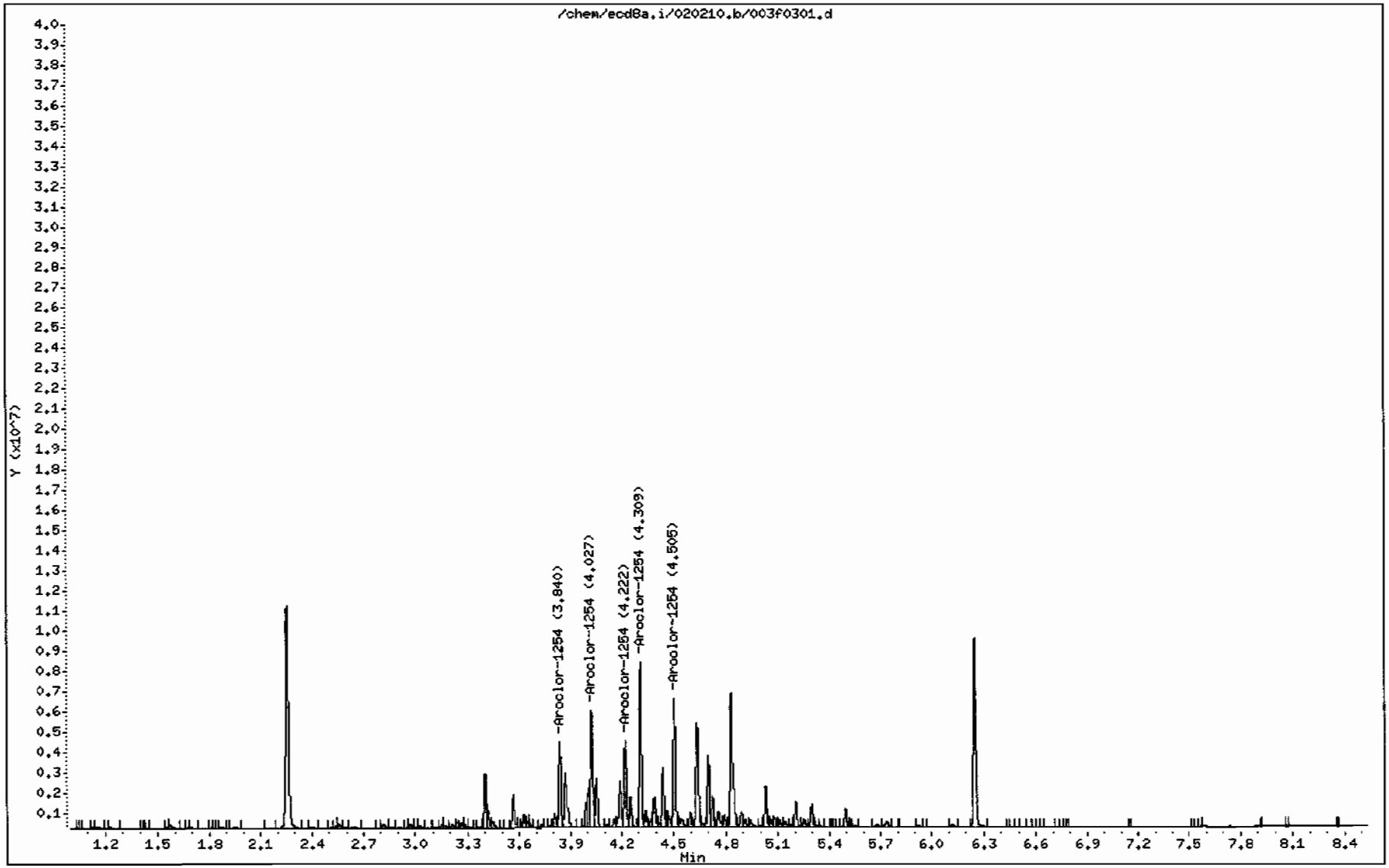

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/003b0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 02-FEB-2010 12:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 02-Feb-2010 14:23 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.317	4.317	0.000	2689120	1000.00	940	80.00- 120.00	100.00
4.456	4.456	0.000	3027862	1000.00	950	92.60- 132.60	112.60
4.785	4.785	0.000	4299282	1000.00	967	139.88- 179.88	159.88
4.947	4.947	0.000	3105824	1000.00	976	95.50- 135.50	115.50
5.072	5.072	0.000	1969331	1000.00	954	53.23- 93.23	73.23
			Average of Peak Amounts =		958		

Data File: /chem/ecd8a.i/020210.b/003b0301.d

Date : 02-FEB-2010 12:18

Client ID: AR125401

Sample Info: IWAR100201-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

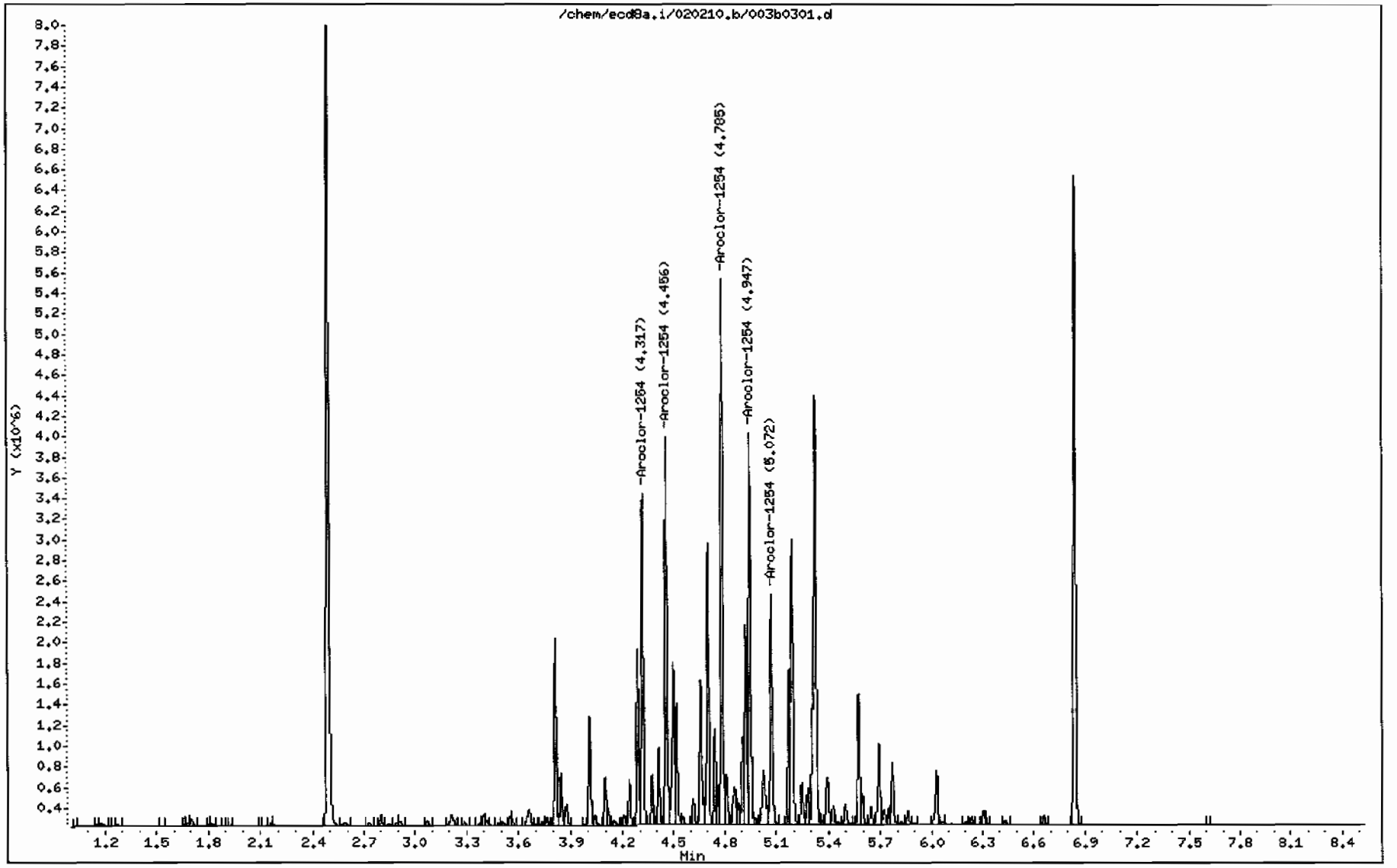

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 02-FEB-2010 12:30
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 02-Feb-2010 14:22 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.814	2.814	0.000	3201578	1000.00	874	80.00- 120.00	100.00
3.166	3.166	0.000	3867075	1000.00	908	100.79- 140.79	120.79
3.402	3.402	0.000	1458767	1000.00	868	25.56- 65.56	45.56
3.419	3.419	0.000	1476906	1000.00	862	26.13- 66.13	46.13
3.564	3.564	0.000	2139899	1000.00	888	46.84- 86.84	66.84
Average of Peak Amounts =					880		

Data File: /chem/ecd8a.i/020210.b/004f0401.d
Date : 02-FEB-2010 12:30
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

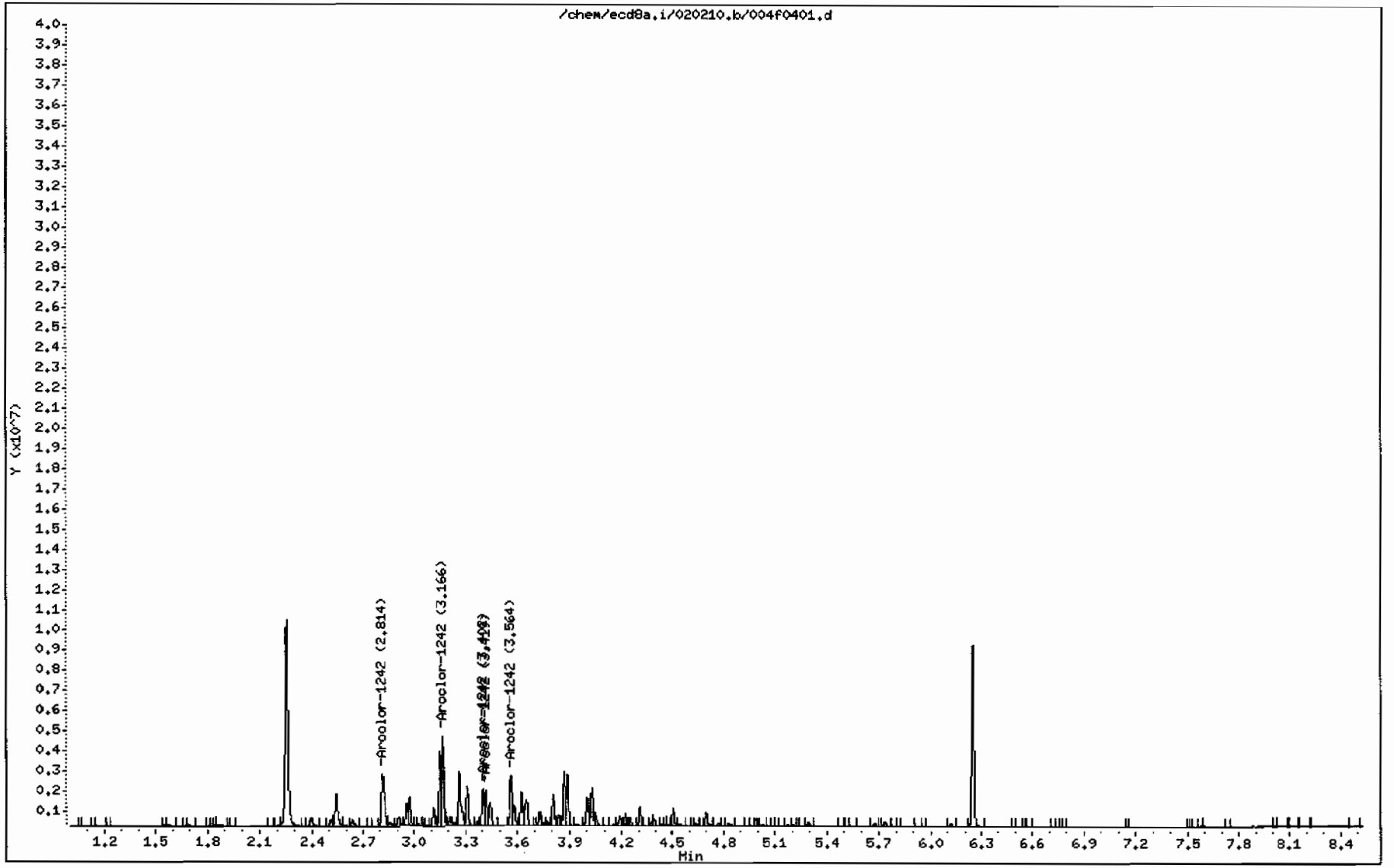

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 02-FEB-2010 12:30
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 02-Feb-2010 14:23 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.209	3.209	0.000	2178813	1000.00	948	80.00- 120.00	100.00
3.563	3.563	0.000	2559327	1000.00	999	97.46- 137.46	117.46
3.662	3.662	0.000	1736728	1000.00	957	59.71- 99.71	79.71
4.010	4.010	0.000	1389010	1000.00	968	43.75- 83.75	63.75
4.100	4.100	0.000	1283725	1000.00	955	38.92- 78.92	58.92
			Average of Peak Amounts =		965		

Data File: /chem/ecd8a.i/020210.b/004b0401.d

Page 1

Date : 02-FEB-2010 12:30

Client ID: AR124201

Instrument: ecd8a.i

Sample Info: IWAR091217-42

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

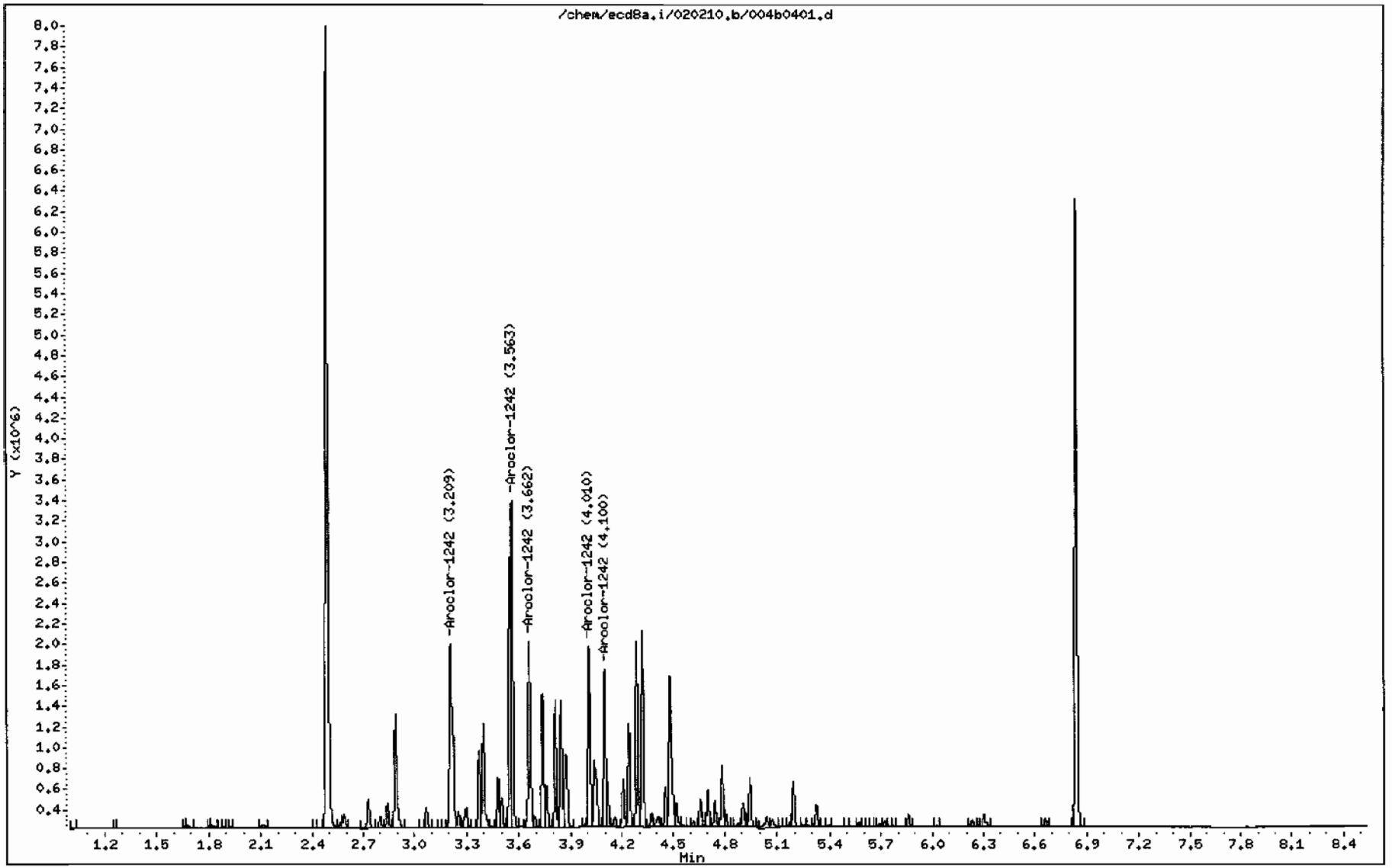

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 02-FEB-2010 12:43
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 02-Feb-2010 14:22 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.151	3.151	0.000	2151298	1000.00	869	80.00- 120.00	100.00
3.402	3.402	0.000	2772538	1000.00	866	108.88- 148.88	128.88
3.564	3.564	0.000	3580500	1000.00	863	146.43- 186.43	166.43
3.871	3.871	0.000	4280720	1000.00	870	178.98- 218.98	198.98
4.030	4.030	0.000	3406658	1000.00	856	138.35- 178.35	158.35
		Average of Peak Amounts =			865		

Data File: /chem/ecd8a.i/020210.b/005f0501.d

Date : 02-FEB-2010 12:43

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

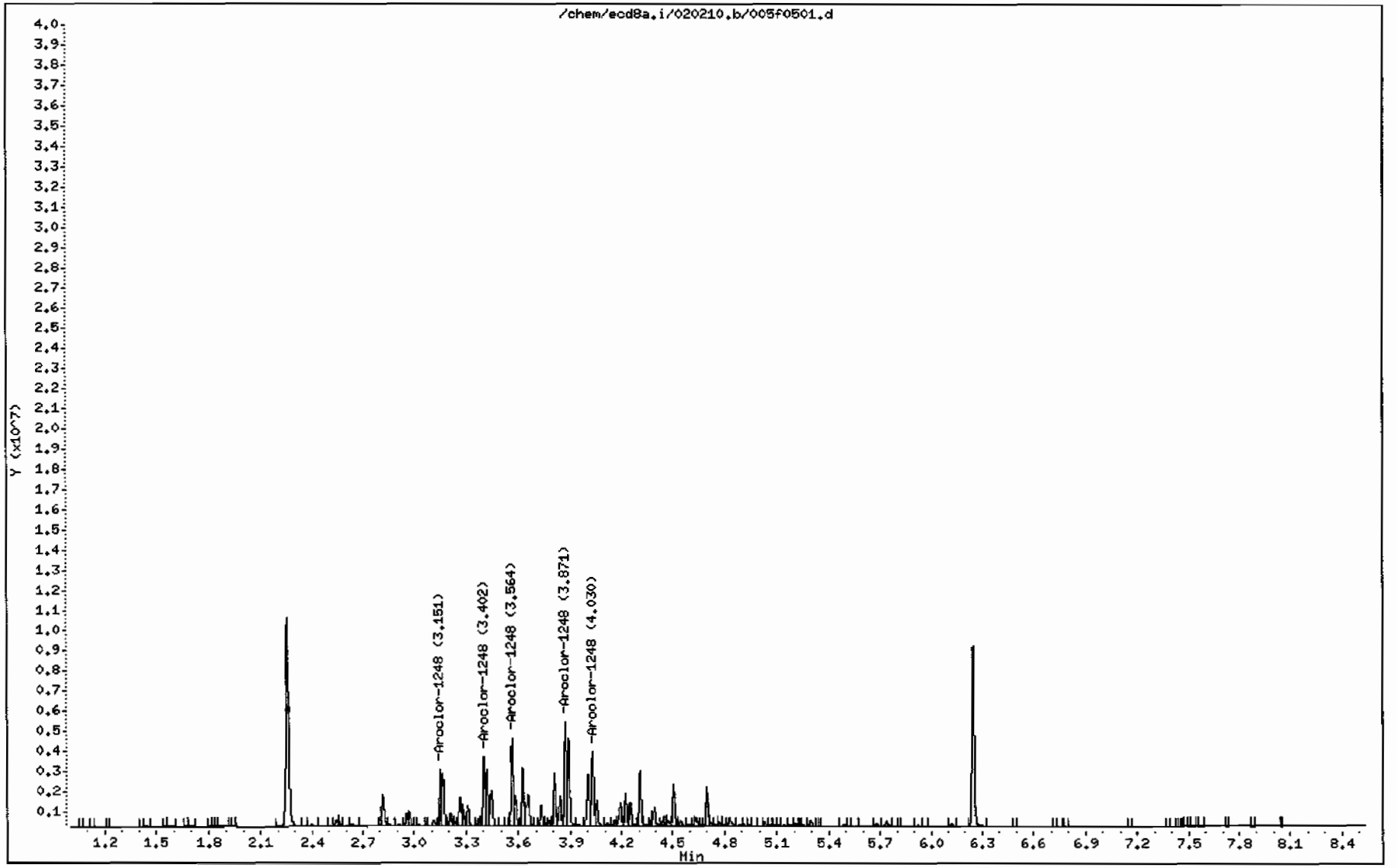

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 02-FEB-2010 12:43
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 02-Feb-2010 14:23 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.661	3.661	0.000	1093077	1000.00	801	80.00- 120.00	100.00
3.813	3.813	0.000	1889509	1000.00	917	152.86- 192.86	172.86
4.011	4.011	0.000	2376529	1000.00	925	197.42- 237.42	217.42
4.288	4.288	0.000	2788806	1000.00	933	235.13- 275.13	255.13
4.321	4.321	0.000	3034543	1000.00	926	257.61- 297.61	277.61
Average of Peak Amounts =					900		

Data File: /chem/ecd8a.i/020210.b/005b0501.d
Date : 02-FEB-2010 12:43
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JADC
Column diameter: 0.25

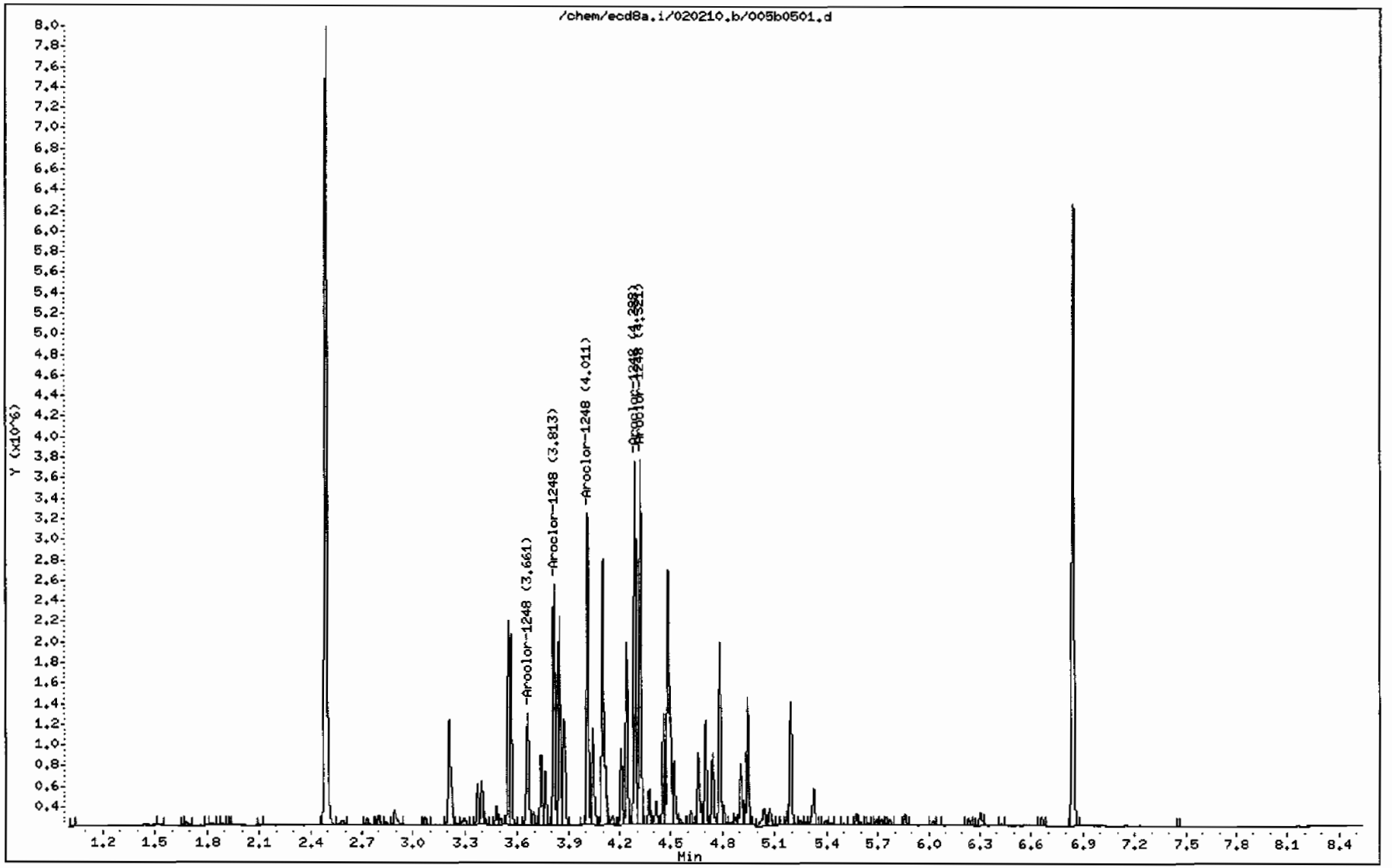

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/006f0601.d
Lab Smp Id: WAR100104-60 01 Client Smp ID: AR166001
Inj Date : 02-FEB-2010 12:55
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 02-Feb-2010 14:22 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.257	2.257	0.000	11639469	100.000	88.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.249	6.249	0.000	8269549	100.000	93.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.814	2.814	0.000	3820950	1000.00	836	80.00- 120.00	100.00
3.166	3.166	0.000	4586304	1000.00	868	100.03- 140.03	120.03
3.310	3.310	0.000	1971859	1000.00	836	31.61- 71.61	51.61
3.402	3.402	0.000	1775538	1000.00	850	26.47- 66.47	46.47
3.564	3.564	0.000	2566060	1000.00	875	47.16- 87.16	67.16
Average of Peak Amounts =					853		
7 Aroclor-1260					CAS #: 11096-82-5		
4.438	4.438	0.000	5383152	1000.00	935	80.00- 120.00	100.00
4.635	4.635	0.000	8170895	1000.00	939	131.79- 171.79	151.79
4.910	4.910	0.000	4816451	1000.00	903	69.47- 109.47	89.47
5.082	5.082	0.000	5065050	1000.00	912	74.09- 114.09	94.09
5.493	5.493	0.000	5446295	1000.00	924	81.17- 121.17	101.17
Average of Peak Amounts =					923		

Data File: /chem/ecd8a.i/020210.b/006f0601.d

Date : 02-FEB-2010 12:55

Client ID: AR166001

Sample Info: IWAR100104-60 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

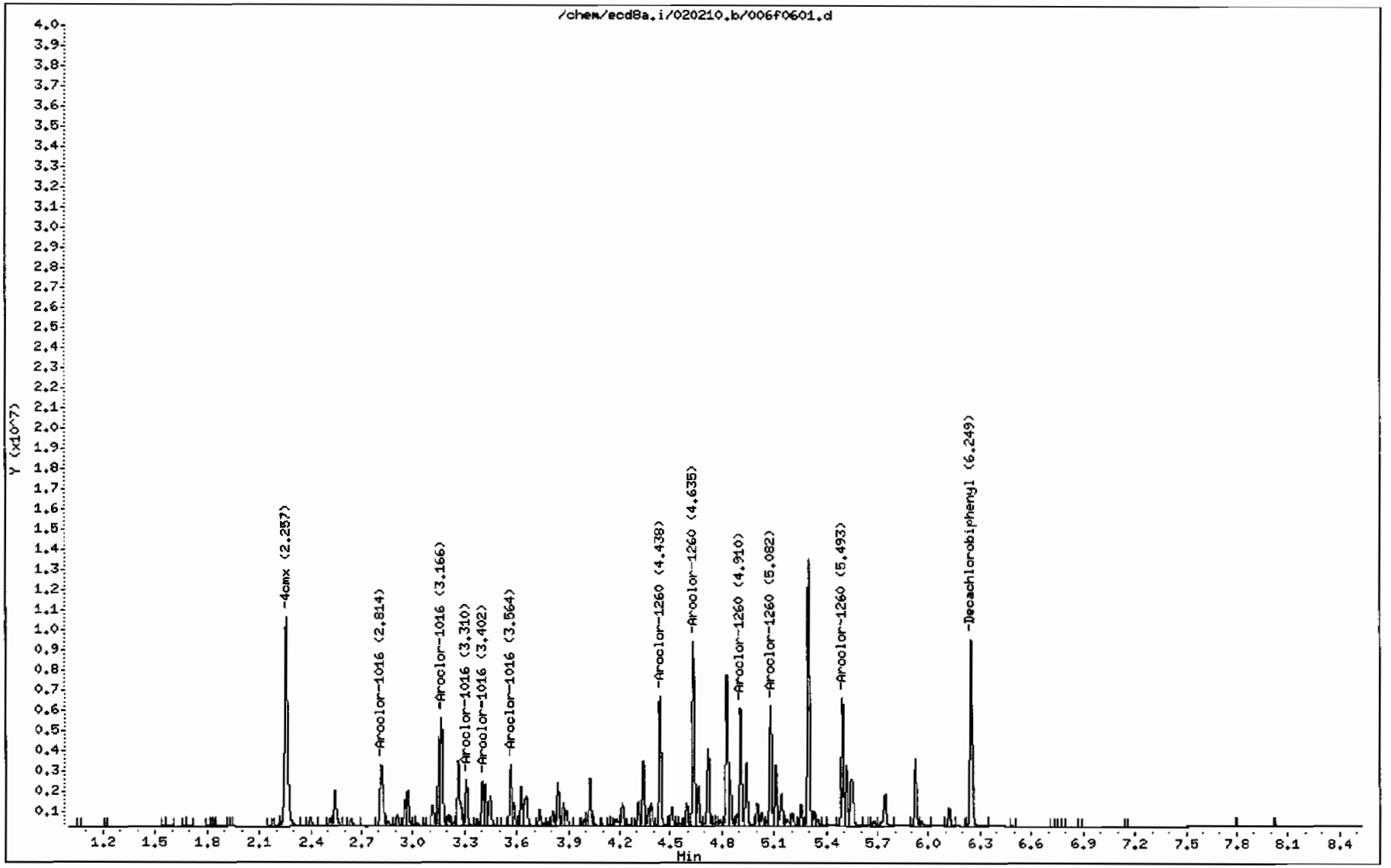

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/006b0601.d
Lab Smp Id: WAR100104-60 01 Client Smp ID: AR166001
Inj Date : 02-FEB-2010 12:55
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 02-Feb-2010 14:23 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	7791988	100.000	95.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.841	6.841	0.000	5470135	100.000	93.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.564	3.564	0.000	3036981	1000.00	949	80.00- 120.00	100.00
3.663	3.663	0.000	2093859	1000.00	920	48.95- 88.95	68.95
3.739	3.739	0.000	1241427	1000.00	949	20.88- 60.88	40.88
3.814	3.814	0.000	1199101	1000.00	932	19.48- 59.48	39.48
4.010	4.010	0.000	1681817	1000.00	944	35.38- 75.38	55.38
Average of Peak Amounts =					939		
7 Aroclor-1260					CAS #: 11096-82-5		
4.924	4.924	0.000	3445568	1000.00	975	80.00- 120.00	100.00
5.073	5.073	0.000	4147304	1000.00	983	100.37- 140.37	120.37
5.389	5.389	0.000	3178471	1000.00	980	72.25- 112.25	92.25
5.596	5.596	0.000	3301897	1000.00	982	75.83- 115.83	95.83
6.027	6.027	0.000	5203792	1000.00	975	131.03- 171.03	151.03
Average of Peak Amounts =					979		

Data File: /chem/ecd8a.i/020210.b/006b0601.d
Date : 02-FEB-2010 12:55
Client ID: AR166001
Sample Info: IWAR100104-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

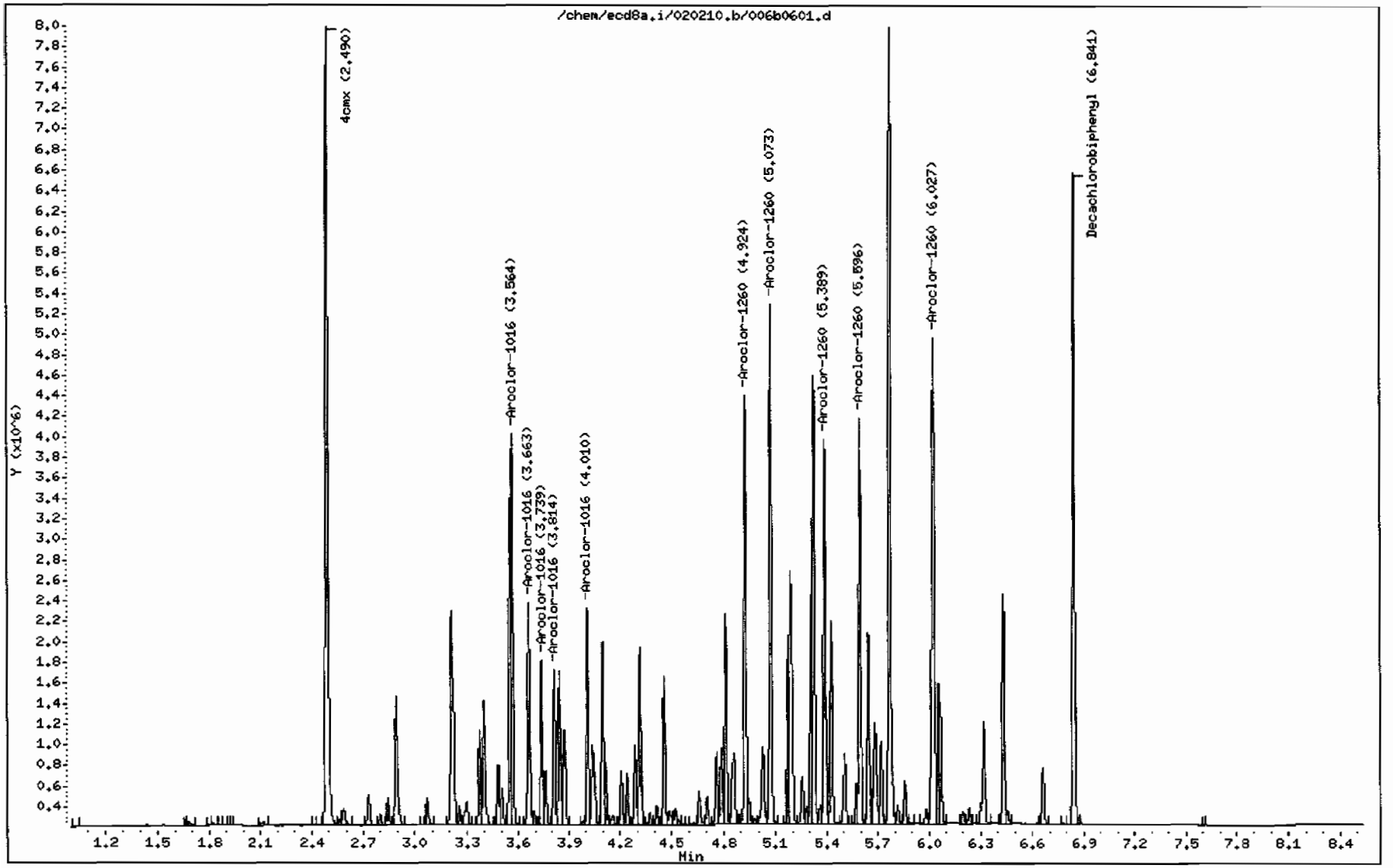

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 02-FEB-2010 13:08
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 02-Feb-2010 14:22 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.544	2.544	0.000	2214014	1000.00	814	80.00- 120.00	100.00
2.814	2.814	0.000	1960835	1000.00	901	68.56- 108.56	88.56
3.309	3.309	0.000	1034651	1000.00	922	26.73- 66.73	46.73
3.564	3.564	0.000	1241871	1000.00	981	36.09- 76.09	56.09
3.625	3.625	0.000	778450	1000.00	962	15.16- 55.16	35.16
Average of Peak Amounts =					916		

Data File: /chem/ecd8a.i/020210.b/007f0701.d

Date : 02-FEB-2010 13:08

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

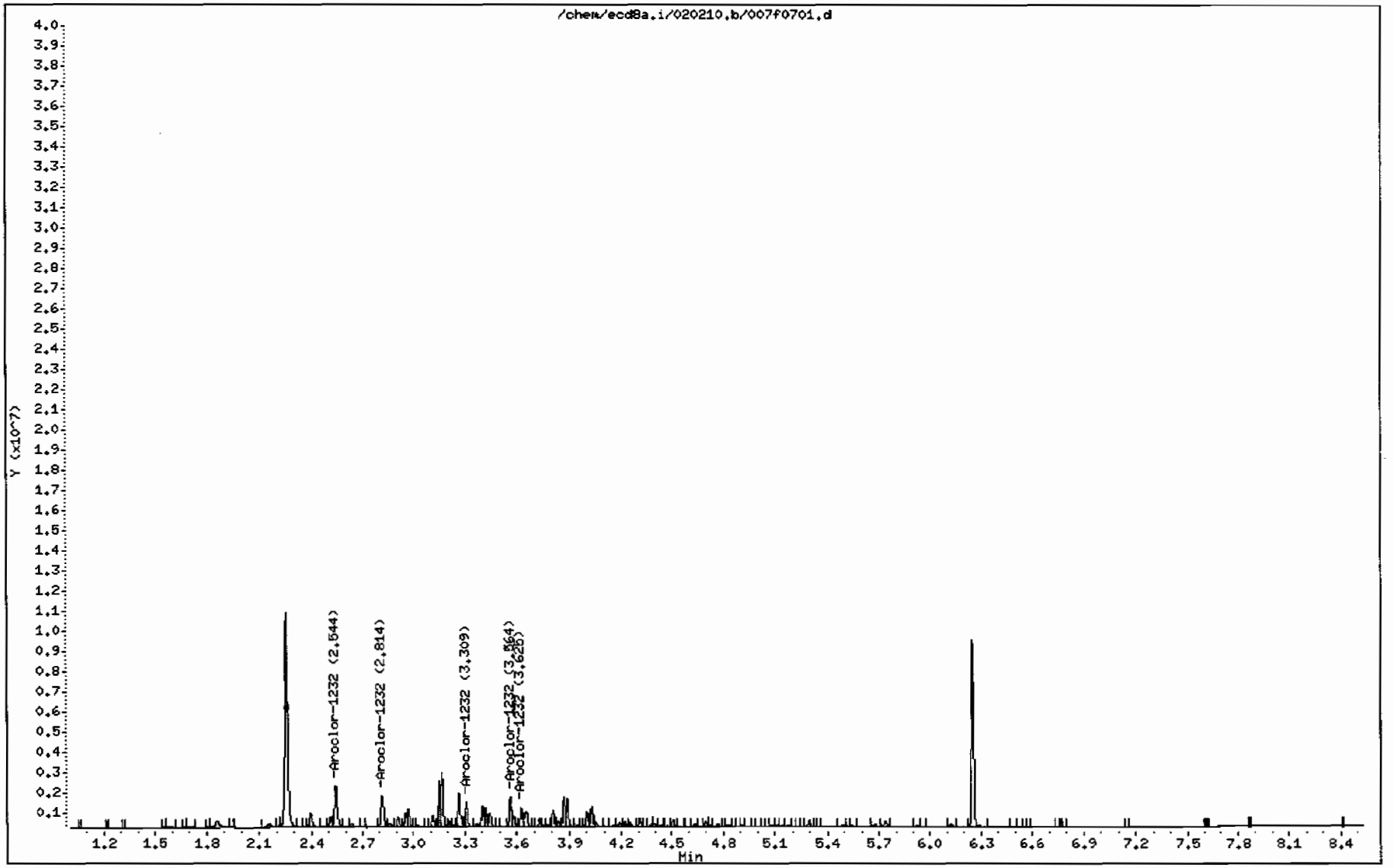

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 02-FEB-2010 13:08
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 02-Feb-2010 14:23 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.209	3.209	0.000	1354357	1000.00	961	80.00- 120.00	100.00
3.563	3.563	0.000	1476162	1000.00	1020	88.99- 128.99	108.99
3.663	3.663	0.000	1050590	1000.00	991	57.57- 97.57	77.57
3.739	3.739	0.000	625501	1000.00	1040	26.18- 66.18	46.18
3.814	3.814	0.000	543640	1000.00	1060	20.14- 60.14	40.14

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd8a.i/020210.b/007b0701.d

Page 1

Date : 02-FEB-2010 13:08

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

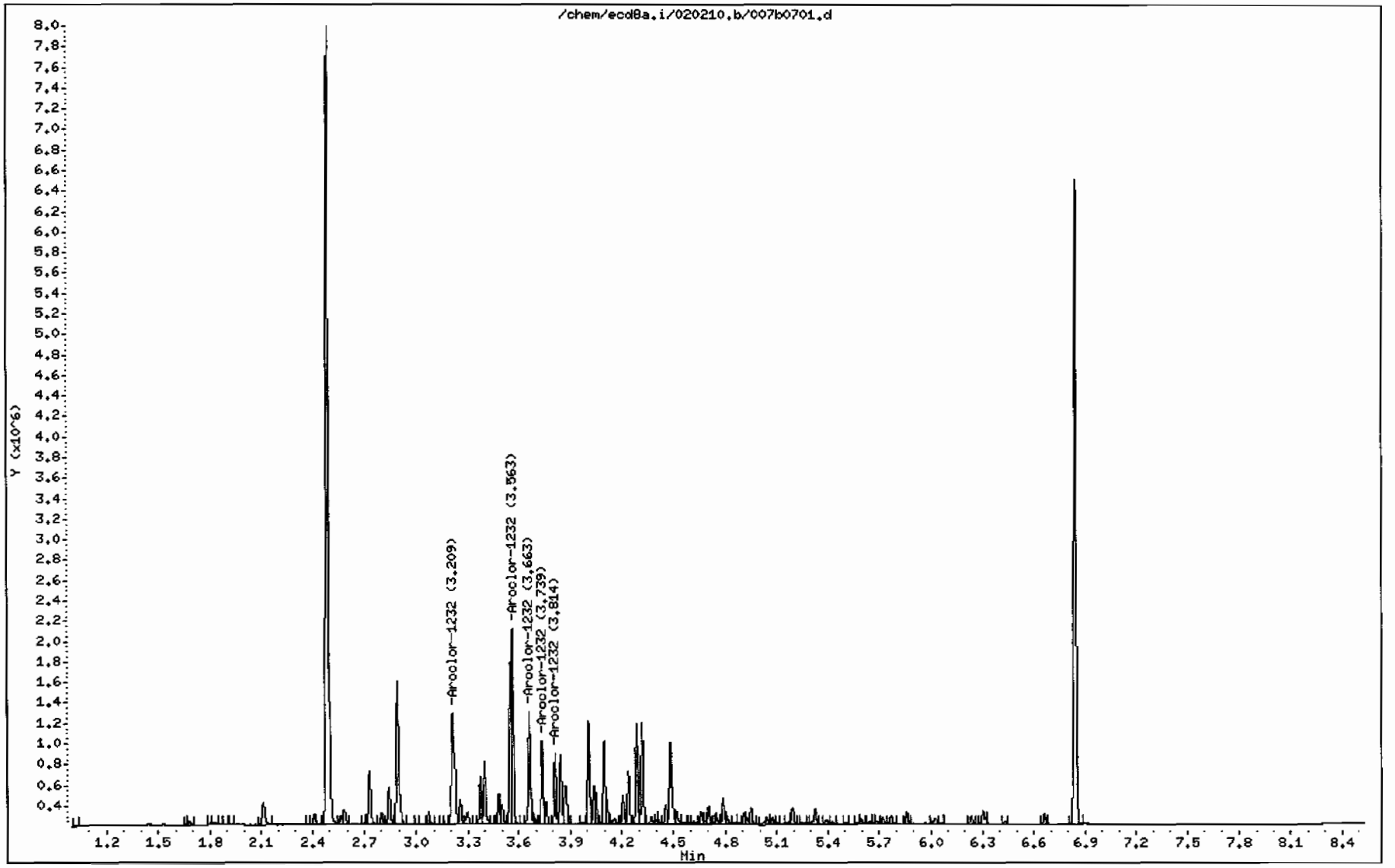

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 02-FEB-2010 13:20
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 02-Feb-2010 14:22 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
1.858	1.858	0.000	1002183	1000.00	1160	80.00- 120.00	100.00
2.398	2.398	0.000	1218995	1000.00	981	101.63- 141.63	121.63
2.543	2.543	0.000	2800141	1000.00	985	259.40- 299.40	279.40

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd8a.i/020210.b/008f0801.d

Page 1

Date : 02-FEB-2010 13:20

Client ID: AR122101

Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

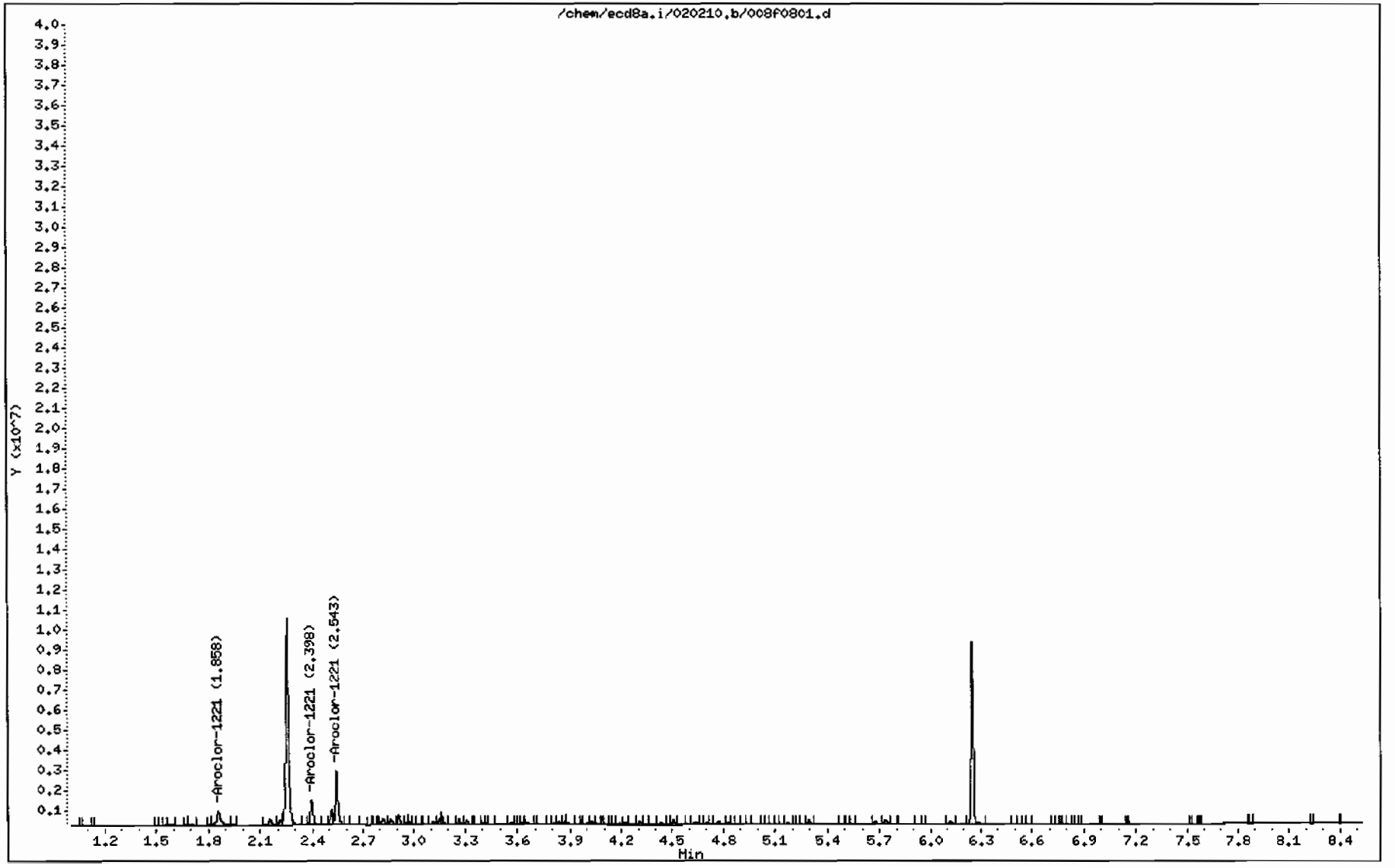

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 02-FEB-2010 13:20
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 02-Feb-2010 14:23 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.731	2.731	0.000	812060	1000.00	961	80.00- 120.00	100.00
2.843	2.843	0.000	493244	1000.00	993	40.74- 80.74	60.74
2.892	2.892	0.000	1774709	1000.00	1010	198.54- 238.54	218.54
Average of Peak Amounts =					989		

Data File: /chem/ecd8a.i/020210.b/008b0801.d

Date : 02-FEB-2010 13:20

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

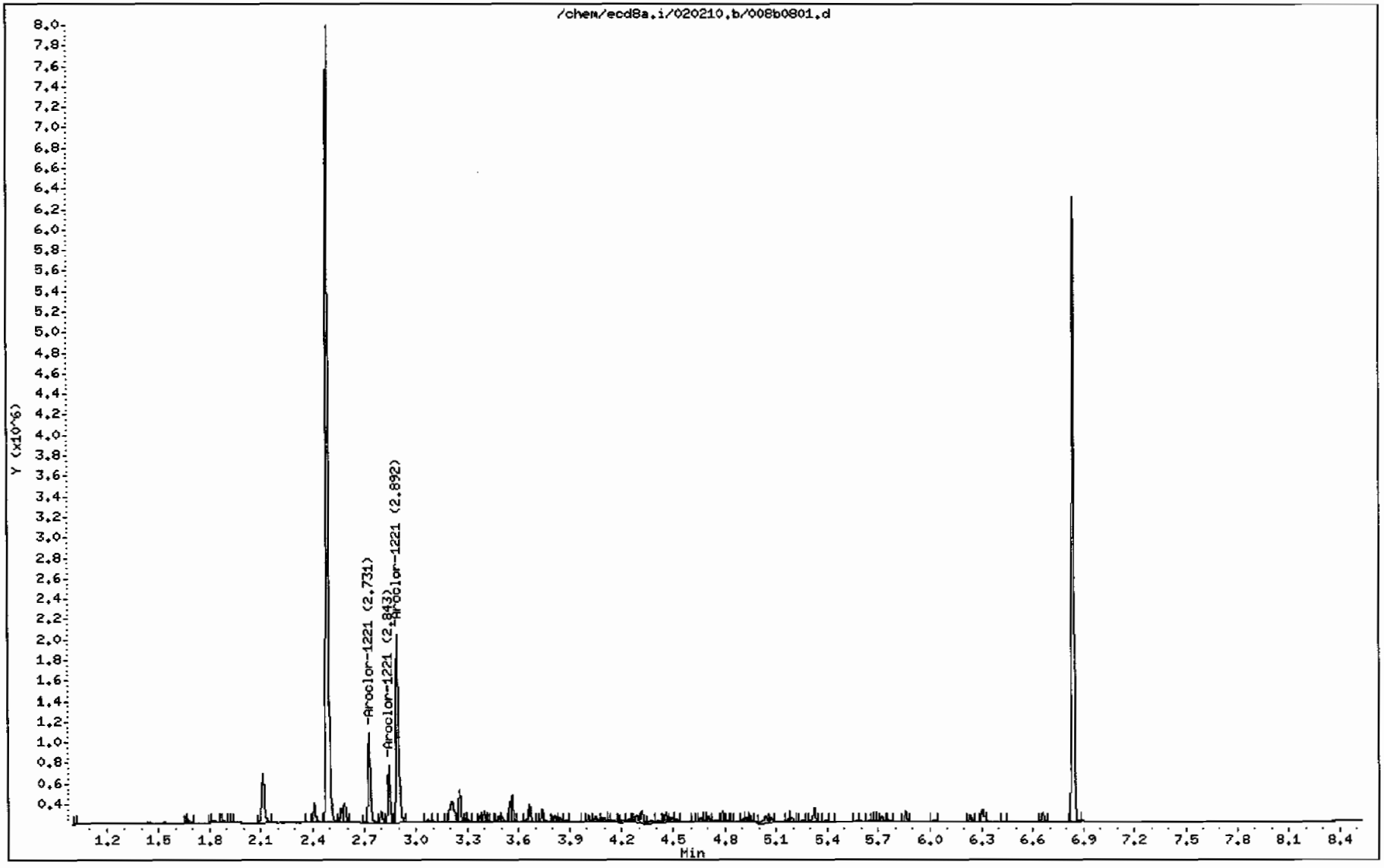

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/030f3001.d
Lab Smp Id: WAR100104-60 03 Client Smp ID: AR166003
Inj Date : 02-FEB-2010 17:54
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.257	-0.002	12839746	100.000	98.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.249	-0.002	8848743	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.814	-0.001	4155408	1000.00	909	80.00- 120.00	100.00
3.165	3.166	-0.001	4998354	1000.00	946	110.80- 150.80	120.29
3.309	3.310	-0.001	2116429	1000.00	897	34.76- 74.76	50.93
3.401	3.402	-0.001	1902937	1000.00	911	27.61- 67.61	45.79
3.563	3.564	-0.001	2738579	1000.00	934	49.41- 89.41	65.90
Average of Peak Amounts =					919		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	5770874	1000.00	1000	80.00- 120.00	100.00
4.633	4.635	-0.002	8797880	1000.00	1010	129.36- 169.36	152.45
4.909	4.910	-0.001	5145542	1000.00	965	68.28- 108.28	89.16
5.080	5.082	-0.002	5414645	1000.00	975	72.30- 112.30	93.83
5.492	5.493	-0.001	5884491	1000.00	998	81.81- 121.81	101.97
Average of Peak Amounts =					990		

Data File: /chem/ecd8a.i/020210.b/030f3001.d

Date : 02-FEB-2010 17:54

Client ID: AR166003

Sample Info: IWAR100104-60 03

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

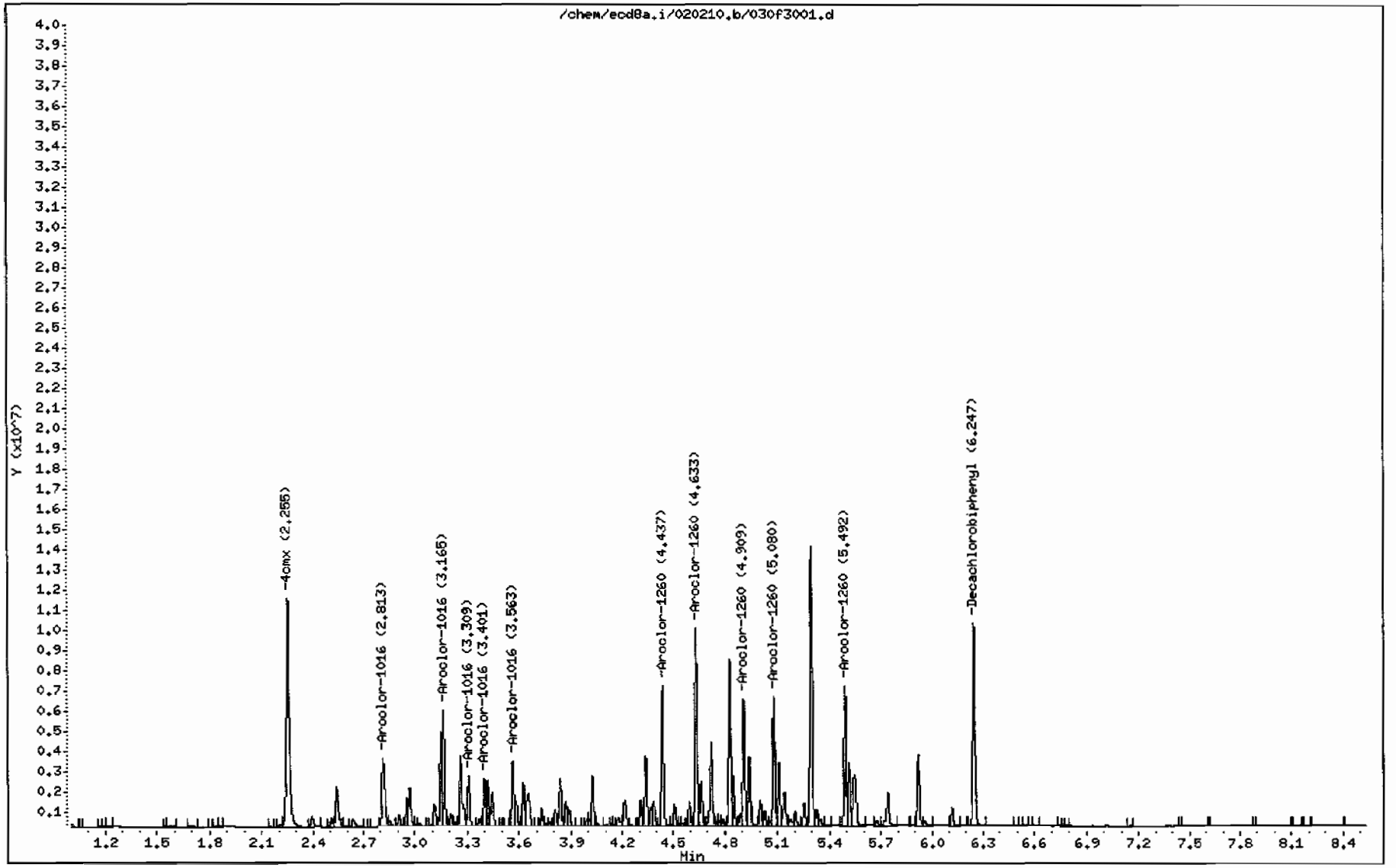

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/030b3001.d
Lab Smp Id: WAR100104-60 03 Client Smp ID: AR166003
Inj Date : 02-FEB-2010 17:54
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.488	2.490	-0.002	8655535	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.841	-0.001	5979858	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.561	3.564	-0.003	3269473	1000.00	1020	80.00- 120.00	100.00
3.661	3.663	-0.002	2269968	1000.00	997	43.52- 83.52	69.43
3.737	3.739	-0.002	1330464	1000.00	1020	19.39- 59.39	40.69
3.812	3.814	-0.002	1285017	1000.00	999	17.55- 57.55	39.30
4.009	4.010	-0.001	1801184	1000.00	1010	32.56- 72.56	55.09
Average of Peak Amounts =					1.01e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.924	-0.001	3681805	1000.00	1040	80.00- 120.00	100.00
5.071	5.073	-0.002	4428757	1000.00	1050	102.57- 142.57	120.29
5.388	5.389	-0.001	3390845	1000.00	1050	72.38- 112.38	92.10
5.596	5.596	0.000	3507932	1000.00	1040	76.07- 116.07	95.28
6.027	6.027	0.000	5628928	1000.00	1050	131.32- 171.32	152.89
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd8a.i/020210.b/030b3001.d
Date : 02-FEB-2010 17:54
Client ID: AR166003
Sample Info: IWAR100104-60 03

Column phase: CLP2

Instrument: ecd8a.i

Operator: JADC
Column diameter: 0.25

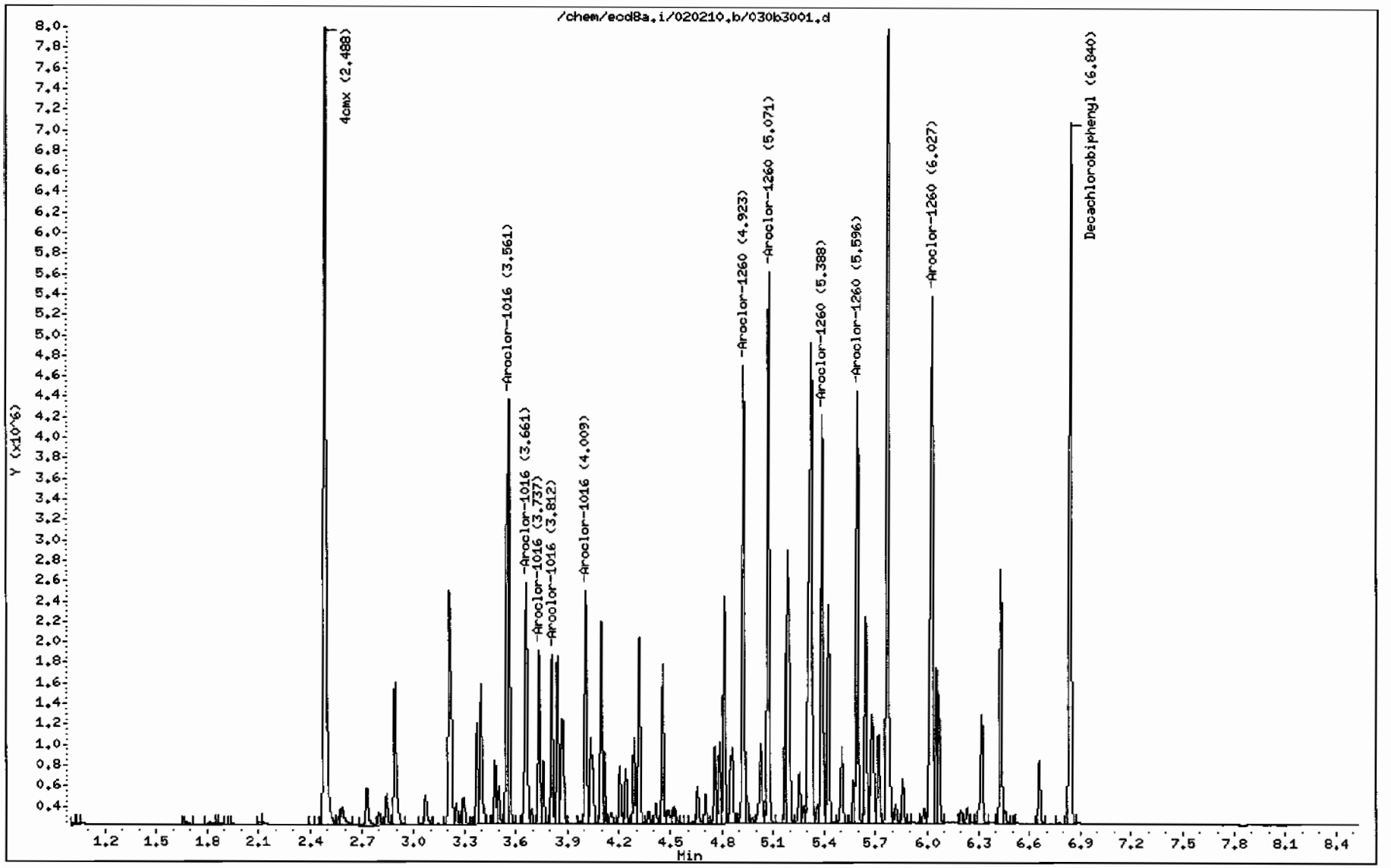

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/042f4201.d
Lab Smp Id: WAR100104-60 04 Client Smp ID: AR166004
Inj Date : 02-FEB-2010 20:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-60 04
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 42 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.257	-0.002	13849045	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.249	-0.002	9769881	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.814	-0.001	4553970	1000.00	996	80.00- 120.00	100.00
3.165	3.166	-0.001	5931842	1000.00	1120	110.80- 150.80	130.26
3.308	3.310	-0.002	2487932	1000.00	1050	34.76- 74.76	54.63
3.400	3.402	-0.002	2168501	1000.00	1040	27.61- 67.61	47.62
3.563	3.564	-0.001	3155556	1000.00	1080	49.41- 89.41	69.29
Average of Peak Amounts =					1.06e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	6933068	1000.00	1200	80.00- 120.00	100.00
4.632	4.635	-0.003	10522037	1000.00	1210	129.36- 169.36	151.77
4.907	4.910	-0.003	6214535	1000.00	1160	68.28- 108.28	89.64
5.080	5.082	-0.002	6490995	1000.00	1170	72.30- 112.30	93.62
5.492	5.493	-0.001	7088232	1000.00	1200	81.81- 121.81	102.24
Average of Peak Amounts =					1.19e+03		

Data File: /chem/ecd8a.i/020210.b/042f4201.d

Page 1

Date : 02-FEB-2010 20:26

Client ID: AR166004

Instrument: ecd8a.i

Sample Info: IWAR100104-60 04

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

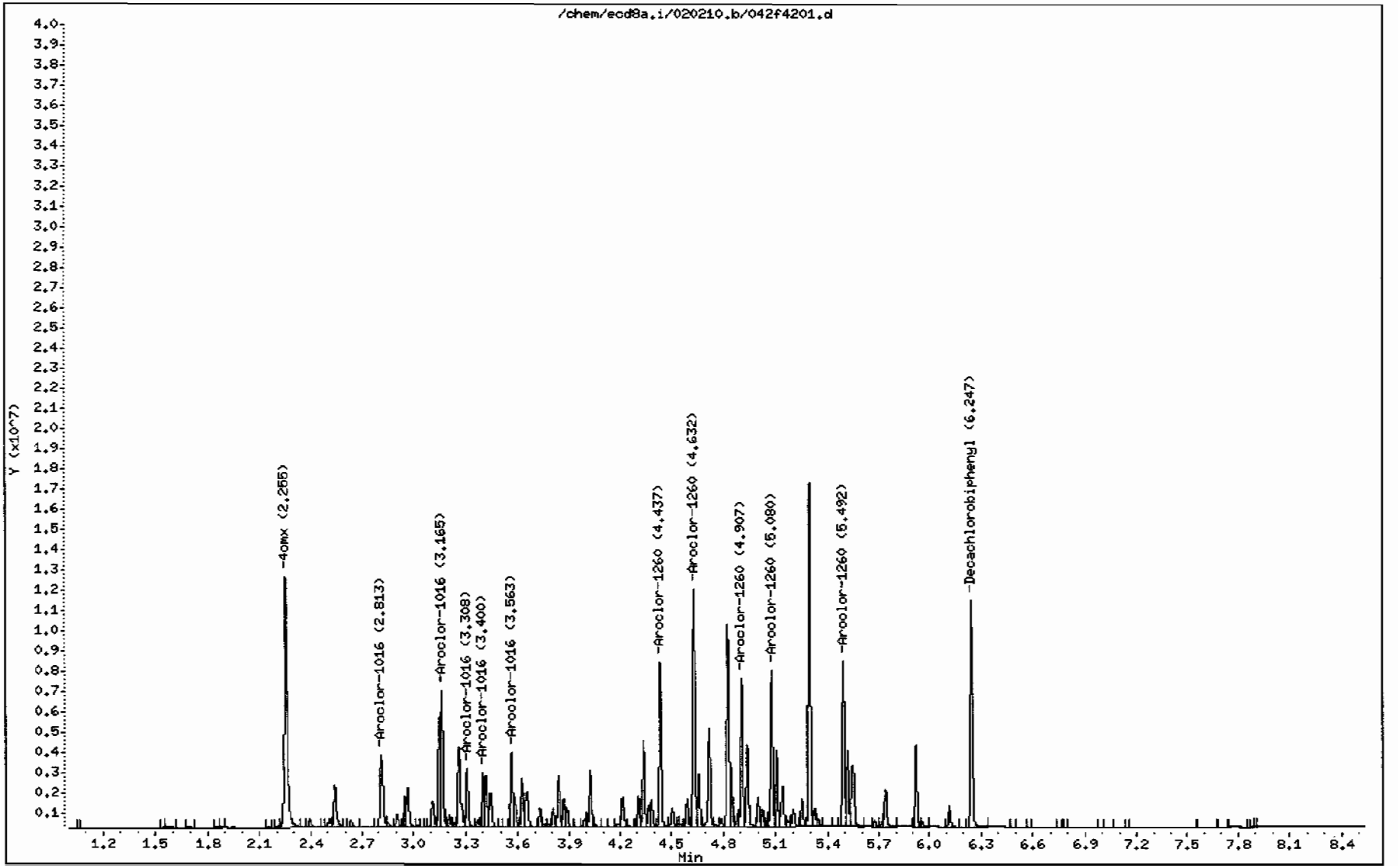

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/042b4201.d
Lab Smp Id: WAR100104-60 04 Client Smp ID: AR166004
Inj Date : 02-FEB-2010 20:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-60 04
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 42 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.489	2.490	-0.001	9433702	100.000	116	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.841	-0.001	6521905	100.000	112	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.562	3.564	-0.002	4029385	1000.00	1260	80.00- 120.00	100.00
3.662	3.663	-0.001	2579791	1000.00	1130	43.52- 83.52	64.02
3.738	3.739	-0.001	1594090	1000.00	1220	19.39- 59.39	39.56
3.812	3.814	-0.002	1524745	1000.00	1180	17.55- 57.55	37.84
4.009	4.010	-0.001	2126997	1000.00	1190	32.56- 72.56	52.79
Average of Peak Amounts =					1.2e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.922	4.924	-0.002	4266786	1000.00	1210	80.00- 120.00	100.00
5.072	5.073	-0.001	5238640	1000.00	1240	102.57- 142.57	122.78
5.388	5.389	-0.001	3962442	1000.00	1220	72.38- 112.38	92.87
5.596	5.596	0.000	4141860	1000.00	1230	76.07- 116.07	97.07
6.027	6.027	0.000	6478501	1000.00	1210	131.32- 171.32	151.84
Average of Peak Amounts =					1.22e+03		

Data File: /chem/ecd8a.i/020210.b/042b4201.d

Date : 02-FEB-2010 20:26

Client ID: AR166004

Sample Info: IWAR100104-60 04

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

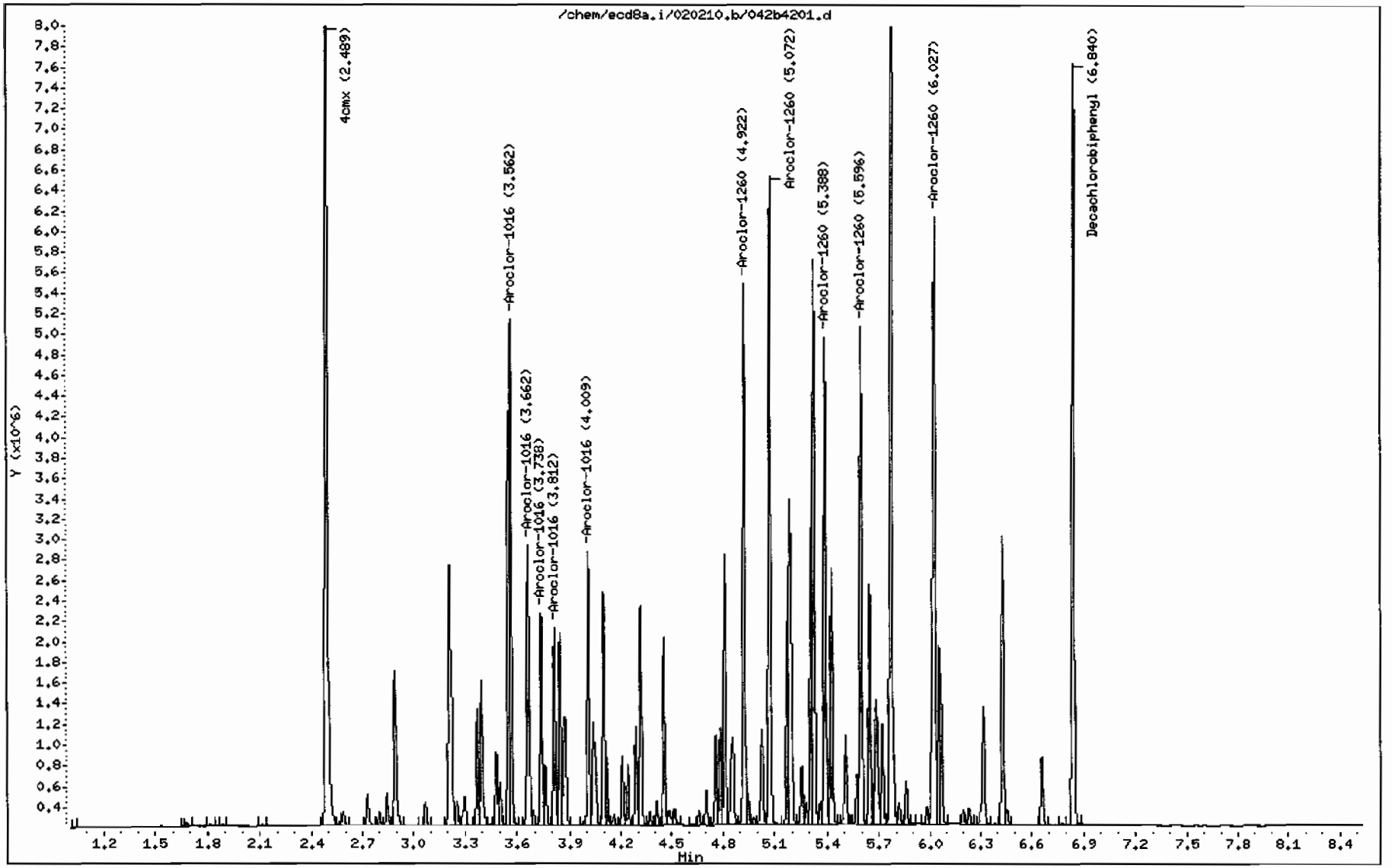

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/052f5201.d
Lab Smp Id: WAR100104-60 05 Client Smp ID: AR166005
Inj Date : 02-FEB-2010 22:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-60 05
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.257	-0.003	13765758	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.249	-0.002	9924156	100.000	112	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.814	-0.001	4518954	1000.00	988	80.00- 120.00	100.00
3.164	3.166	-0.002	5910755	1000.00	1120	110.80- 150.80	130.80
3.308	3.310	-0.002	2474369	1000.00	1050	34.76- 74.76	54.76
3.400	3.402	-0.002	2151360	1000.00	1030	27.61- 67.61	47.61
3.562	3.564	-0.002	3136492	1000.00	1070	49.41- 89.41	69.41
Average of Peak Amounts =					1.05e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.438	-0.002	6995042	1000.00	1210	80.00- 120.00	100.00
4.632	4.635	-0.003	10447560	1000.00	1200	129.36- 169.36	149.36
4.907	4.910	-0.003	6175379	1000.00	1160	68.28- 108.28	88.28
5.079	5.082	-0.003	6456231	1000.00	1160	72.30- 112.30	92.30
5.490	5.493	-0.003	7121994	1000.00	1210	81.81- 121.81	101.81
Average of Peak Amounts =					1.19e+03		

Data File: /chem/ecd8a.i/020210.b/052f5201.d

Date : 02-FEB-2010 22:34

Client ID: AR166005

Sample Info: IWAR100104-60 05

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

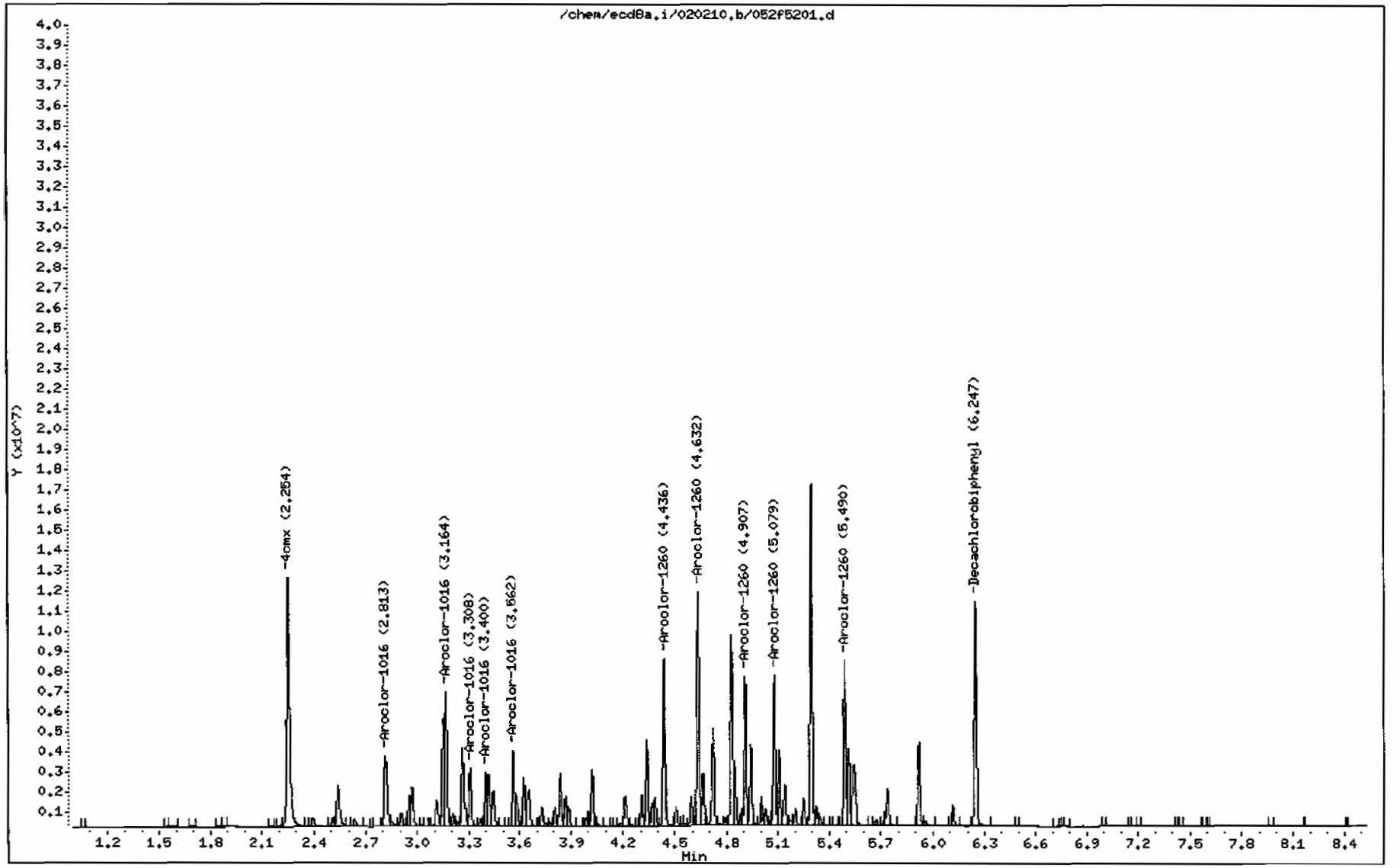

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/052b5201.d
Lab Smp Id: WAR100104-60 05 Client Smp ID: AR166005
Inj Date : 02-FEB-2010 22:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-60 05
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.489	2.490	-0.001	9525385	100.000	117	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.839	6.841	-0.002	6577082	100.000	112	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.562	3.564	-0.002	4123239	1000.00	1290	80.00- 120.00	100.00
3.661	3.663	-0.002	2618959	1000.00	1150	43.52- 83.52	63.52
3.738	3.739	-0.001	1624063	1000.00	1240	19.39- 59.39	39.39
3.812	3.814	-0.002	1548463	1000.00	1200	17.55- 57.55	37.55
4.009	4.010	-0.001	2167158	1000.00	1220	32.56- 72.56	52.56
Average of Peak Amounts =					1.22e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.924	-0.001	4407862	1000.00	1250	80.00- 120.00	100.00
5.071	5.073	-0.002	5402505	1000.00	1280	102.57- 142.57	122.57
5.388	5.389	-0.001	4072041	1000.00	1260	72.38- 112.38	92.38
5.594	5.596	-0.002	4234762	1000.00	1260	76.07- 116.07	96.07
6.026	6.027	-0.001	6670062	1000.00	1250	131.32- 171.32	151.32
Average of Peak Amounts =					1.26e+03		

Data File: /chem/ecd8a.i/020210.b/052b5201.d
Date : 02-FEB-2010 22:34
Client ID: AR166005
Sample Info: IWAR100104-60 05

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

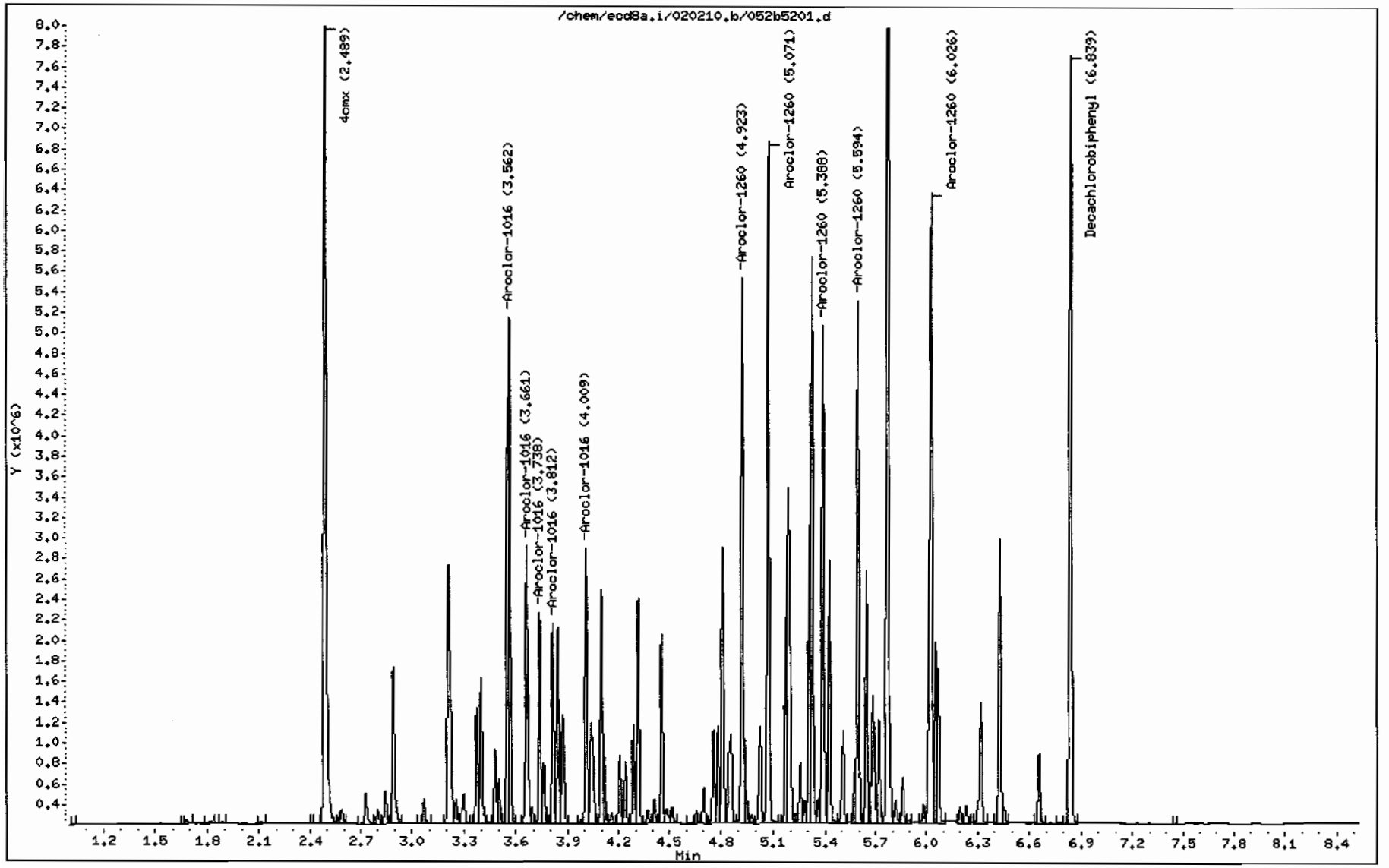

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/007f0701.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 03-FEB-2010 11:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 11:14 Cal File: 006f0601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.257	2.257	0.000	12823758	100.000	97.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.248	0.000	9606163	100.000	96.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.814	2.814	0.000	4277769	1000.00	917	80.00- 120.00	100.00
3.166	3.166	0.000	5635007	1000.00	977	111.73- 151.73	131.73
3.309	3.309	0.000	2314377	1000.00	943	34.10- 74.10	54.10
3.402	3.402	0.000	2048620	1000.00	932	27.89- 67.89	47.89
3.564	3.564	0.000	2954258	1000.00	940	49.06- 89.06	69.06
Average of Peak Amounts =					942		
7 Aroclor-1260					CAS #: 11096-82-5		
4.438	4.438	0.000	6940360	1000.00	1030	80.00- 120.00	100.00
4.634	4.634	0.000	10464390	1000.00	1020	130.78- 170.78	150.78
4.908	4.908	0.000	6152446	1000.00	1000	68.65- 108.65	88.65
5.081	5.081	0.000	6446331	1000.00	1010	72.88- 112.88	92.88
5.493	5.493	0.000	7013767	1000.00	1020	81.06- 121.06	101.06
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd8a.i/020310a.b/007f0701.d

Date : 03-FEB-2010 11:26

Client ID: AR166001

Sample Info: !WAR100203-60 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

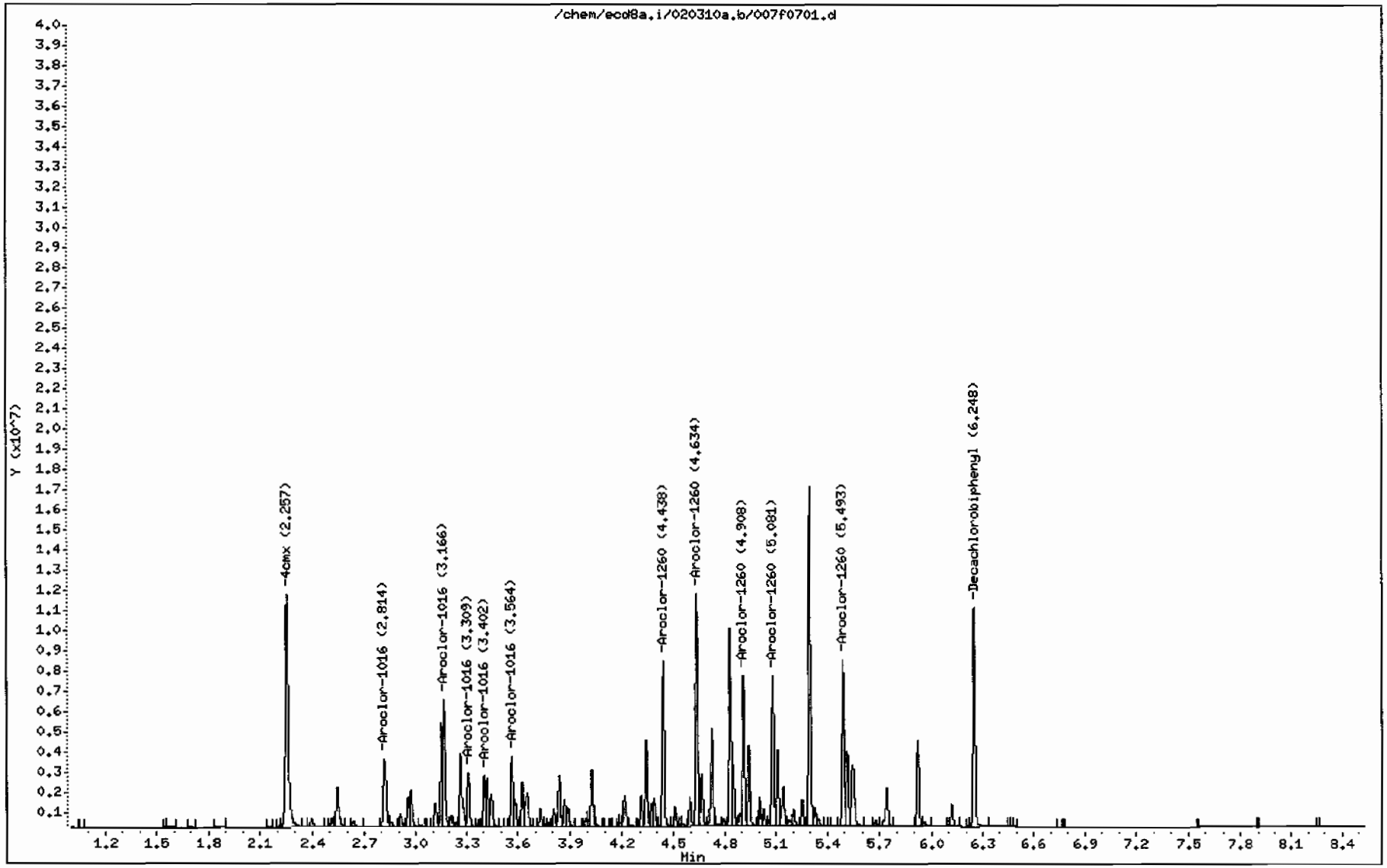

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/007b0701.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 03-FEB-2010 11:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 11:14 Cal File: 006b0601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	8806363	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.840	0.000	6435062	100.000	99.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.563	3.563	0.000	3759740	1000.00	998	80.00- 120.00	100.00
3.663	3.663	0.000	2456818	1000.00	985	45.35- 85.35	65.35
3.738	3.738	0.000	1505983	1000.00	994	20.06- 60.06	40.06
3.813	3.813	0.000	1449781	1000.00	971	18.56- 58.56	38.56
4.010	4.010	0.000	2022528	1000.00	994	33.79- 73.79	53.79
Average of Peak Amounts =					988		
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.923	0.000	4368853	1000.00	1070	80.00- 120.00	100.00
5.073	5.073	0.000	5338099	1000.00	1070	102.19- 142.19	122.19
5.388	5.388	0.000	4079050	1000.00	1080	73.37- 113.37	93.37
5.596	5.596	0.000	4256948	1000.00	1080	77.44- 117.44	97.44
6.027	6.027	0.000	6753610	1000.00	1080	134.59- 174.59	154.59
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd8a.i/020310a.b/007b0701.d

Date : 03-FEB-2010 11:26

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

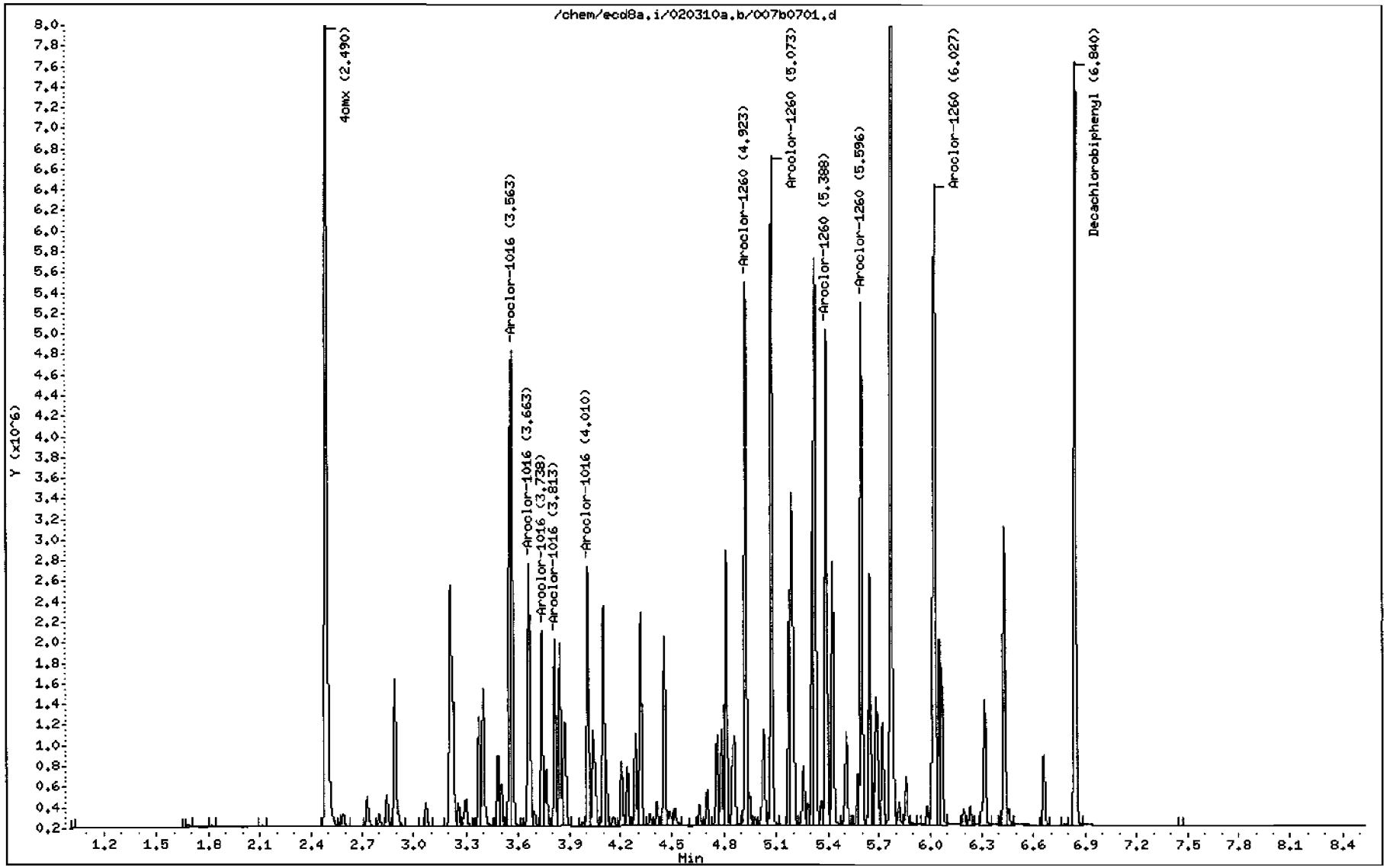

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/013f1301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 03-FEB-2010 12:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091216-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 05-Feb-2010 09:47 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.839	3.839	0.000	4412624	1000.00	922	80.00- 120.00	100.00
4.026	4.026	0.000	6002955	1000.00	914	116.04- 156.04	136.04
4.222	4.222	0.000	4732103	1000.00	921	87.24- 127.24	107.24
4.309	4.309	0.000	8215771	1000.00	934	166.19- 206.19	186.19
4.504	4.504	0.000	6418148	1000.00	928	125.45- 165.45	145.45
Average of Peak Amounts =					924		

Data File: /chem/ecd8a.i/020310a.b/013f1301.d

Date : 03-FEB-2010 12:40

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JADC

Column diameter: 0.25

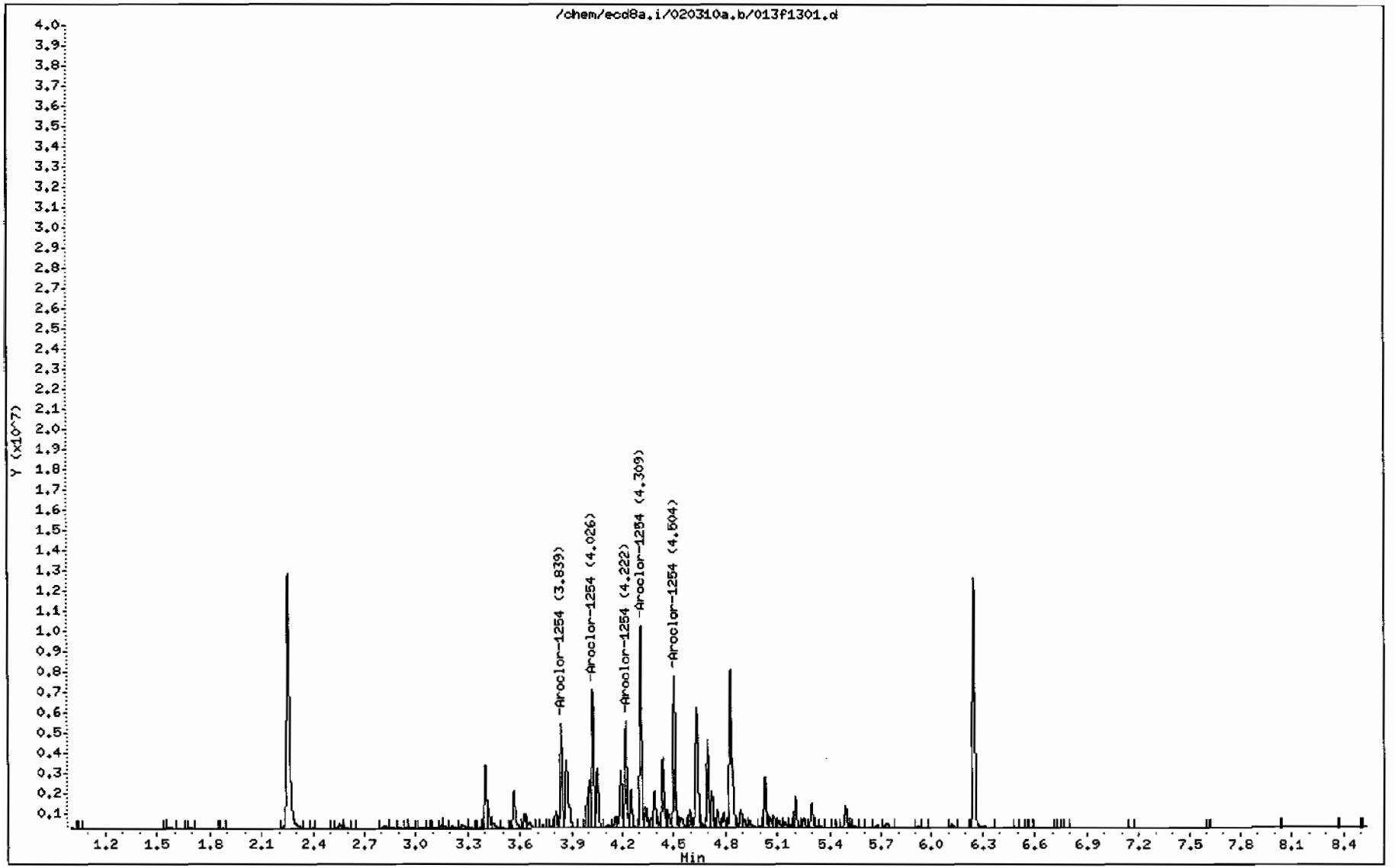

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/013b1301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 03-FEB-2010 12:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091216-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 05-Feb-2010 09:47 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.316	4.316	0.000	3383977	1000.00	981	80.00- 120.00	100.00
4.455	4.455	0.000	3824713	1000.00	978	93.02- 133.02	113.02
4.784	4.784	0.000	5432437	1000.00	988	140.53- 180.53	160.53
4.946	4.946	0.000	3945818	1000.00	984	96.60- 136.60	116.60
5.072	5.072	0.000	2466733	1000.00	968	52.89- 92.89	72.89
			Average of Peak Amounts =		980		

Data File: /chem/ecd8a.i/020310a.b/013b1301.d
Date : 03-FEB-2010 12:40
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

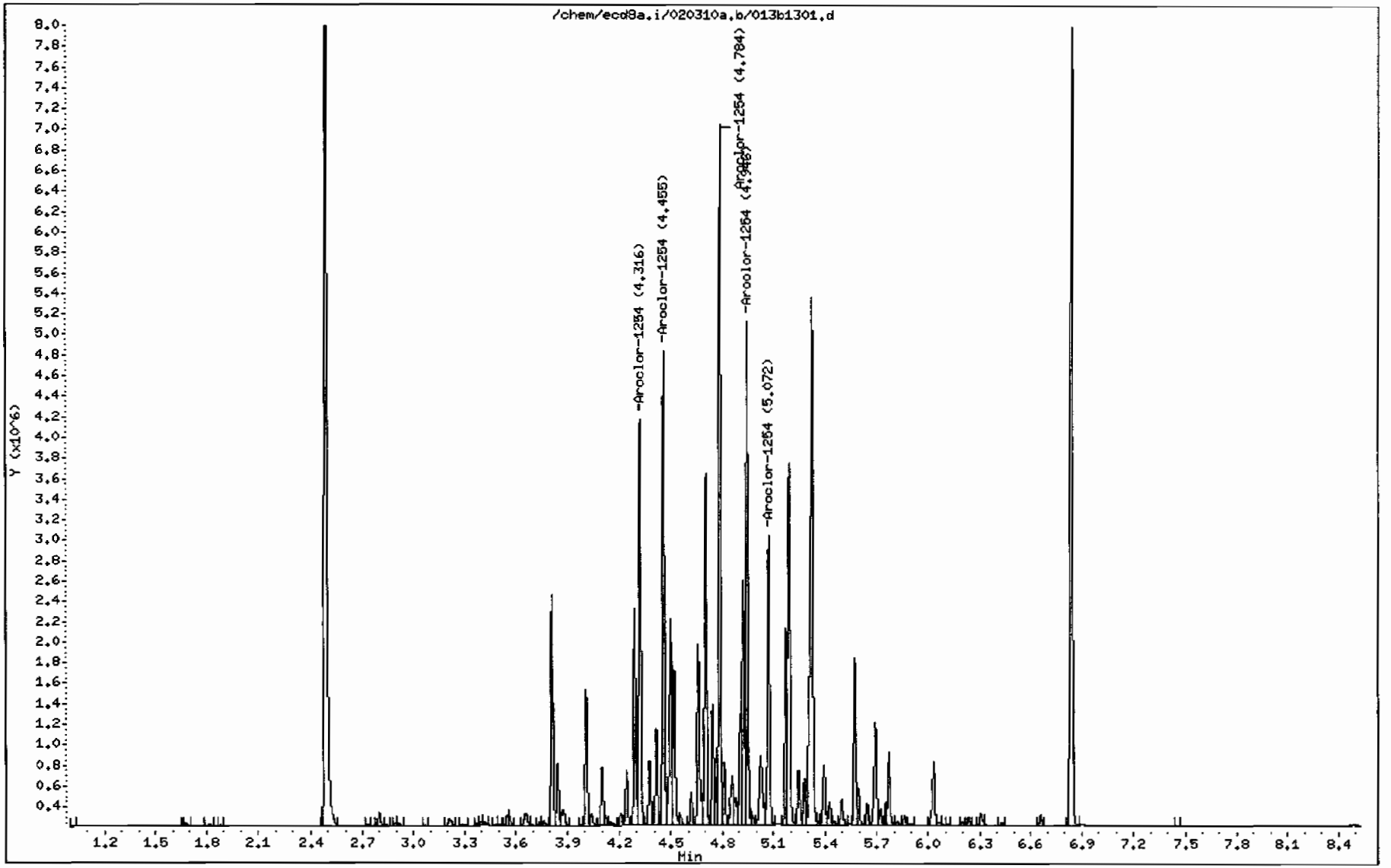

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/019f1901.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 03-FEB-2010 13:55
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 13:42 Cal File: 018f1801.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.814	2.814	0.000	3804197	1000.00	957	80.00- 120.00	100.00
3.165	3.165	0.000	4813012	1000.00	1000	106.52- 146.52	126.52
3.402	3.402	0.000	1755194	1000.00	972	26.14- 66.14	46.14
3.418	3.418	0.000	1836921	1000.00	972	28.29- 68.29	48.29
3.563	3.563	0.000	2616854	1000.00	989	48.79- 88.79	68.79
Average of Peak Amounts =					979		

Data File: /chem/ecd8a.i/020310a.b/019f1901.d

Page 1

Date : 03-FEB-2010 13:55

Client ID: AR124201

Instrument: ecd8a.i

Sample Info: IWAR091217-42

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

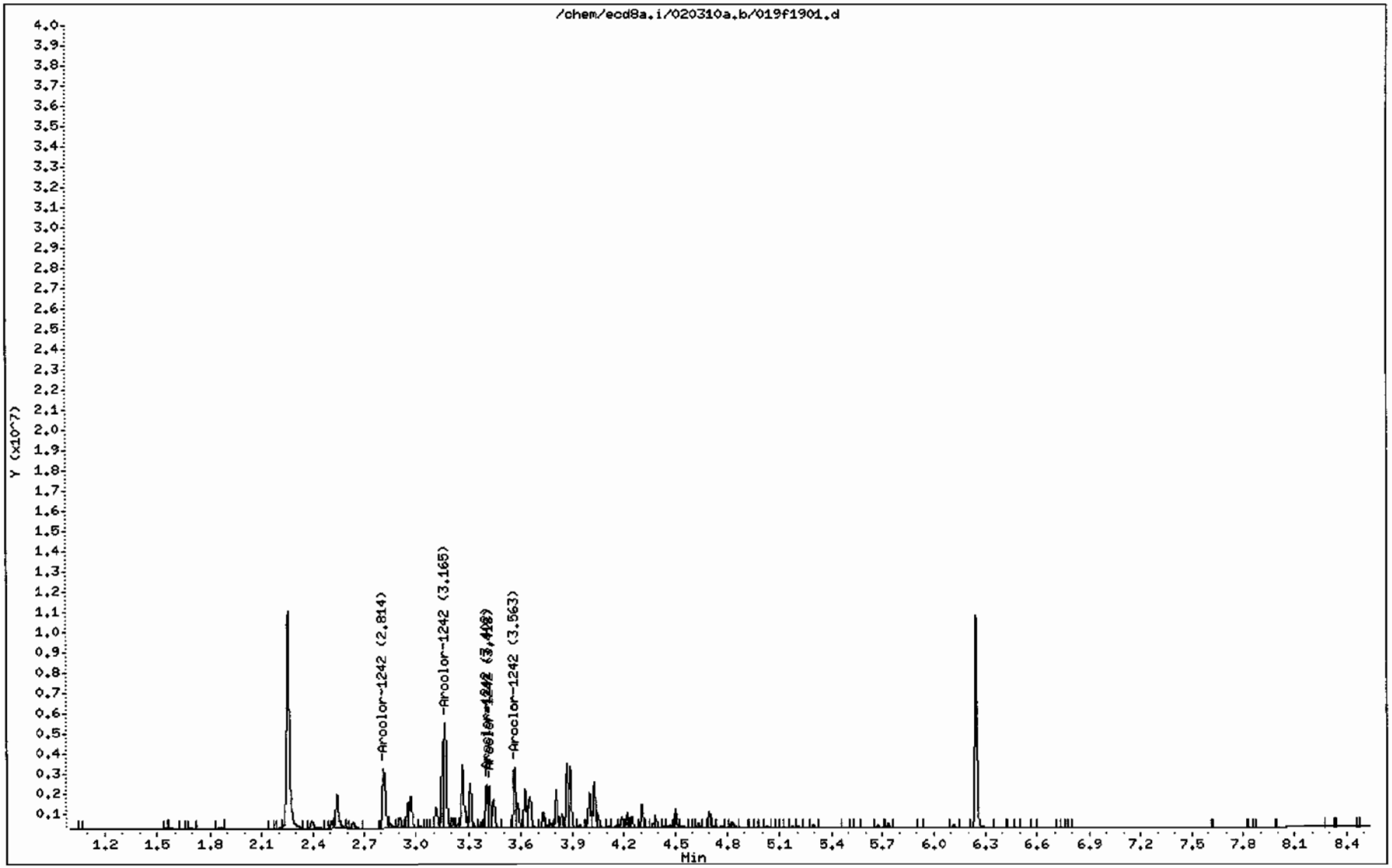

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/019b1901.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 03-FEB-2010 13:55
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 13:42 Cal File: 018b1801.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.209	3.209	0.000	2456147	1000.00	917	80.00- 120.00	100.00
3.563	3.563	0.000	2898645	1000.00	927	98.02- 138.02	118.02
3.662	3.662	0.000	1965823	1000.00	924	60.04- 100.04	80.04
4.009	4.009	0.000	1573004	1000.00	923	44.04- 84.04	64.04
4.098	4.098	0.000	1481878	1000.00	946	40.33- 80.33	60.33
Average of Peak Amounts =					928		

Data File: /chem/ecd8a.i/020310a.b/019b1901.d
Date : 03-FEB-2010 13:55
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

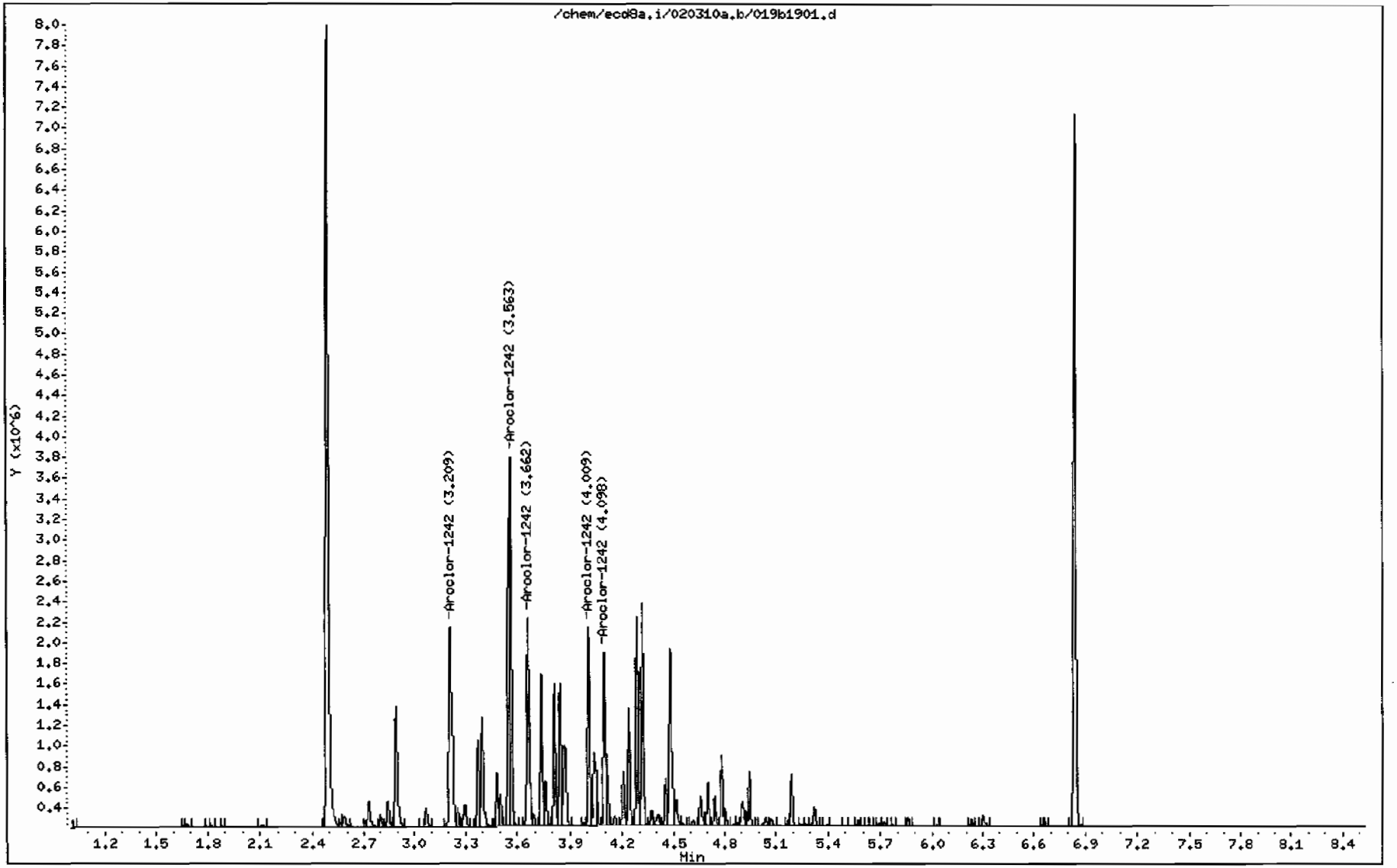

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/026f2601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 03-FEB-2010 15:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 04-Feb-2010 07:01 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

				AMOUNTS			
				CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.542	2.542	0.000	2600507	1000.00	1000	80.00- 120.00	100.00
2.813	2.813	0.000	2260587	1000.00	1000	66.93- 106.93	86.93
3.309	3.309	0.000	1243474	1000.00	1000	27.82- 67.82	47.82
3.564	3.564	0.000	1478913	1000.00	1000	36.87- 76.87	56.87
3.625	3.625	0.000	922690	1000.00	1000	15.48- 55.48	35.48
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd8a.i/020310a.b/026f2601.d
Date : 03-FEB-2010 15:21
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

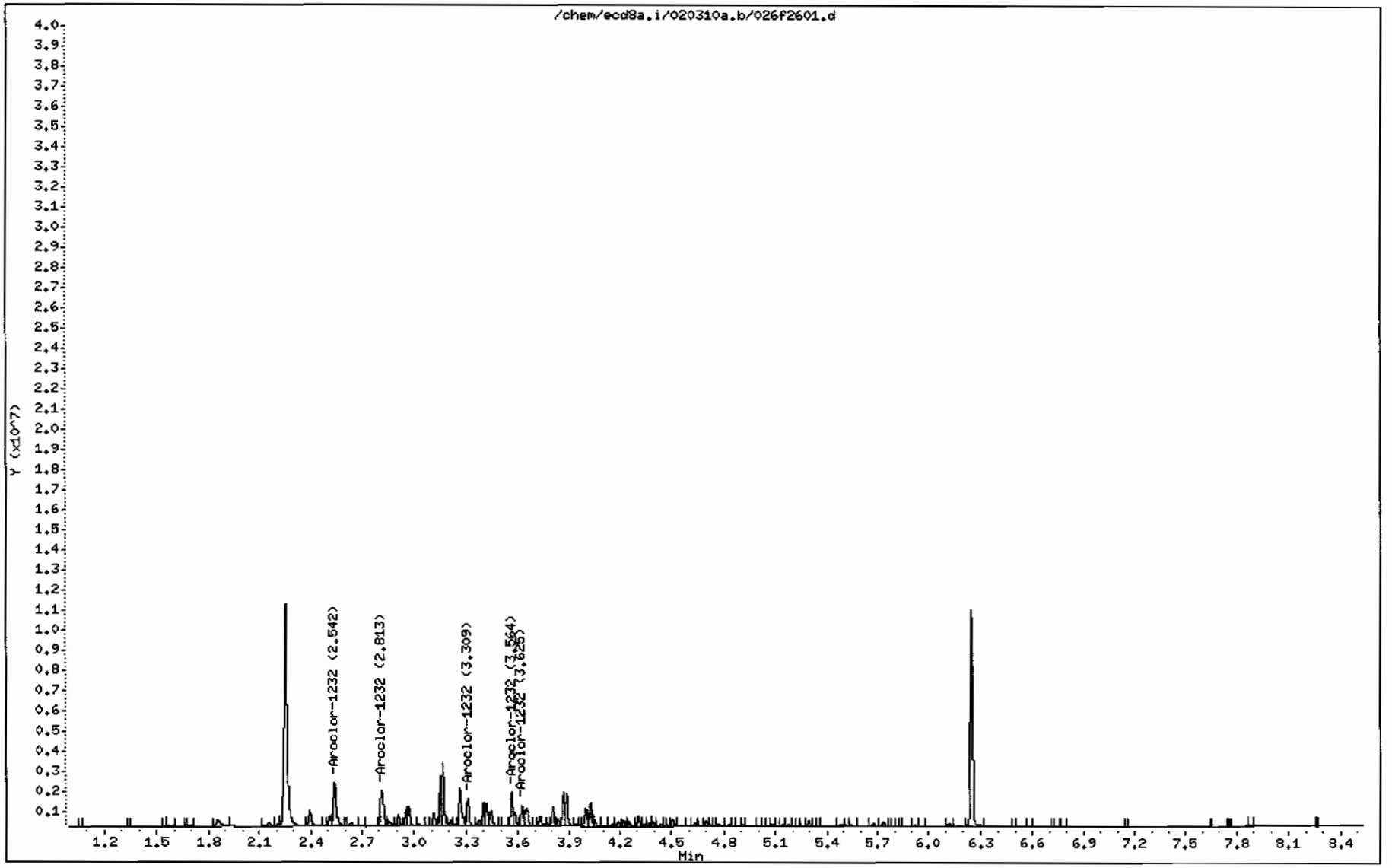

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/026b2601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 03-FEB-2010 15:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 04-Feb-2010 06:58 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.209	3.209	0.000	1514867	1000.00	1000	80.00- 120.00	100.00
3.562	3.562	0.000	1744376	1000.00	1000	95.15- 135.15	115.15
3.661	3.661	0.000	1176499	1000.00	1000	57.66- 97.66	77.66
3.738	3.738	0.000	710092	1000.00	1000	26.87- 66.87	46.87
3.812	3.812	0.000	618175	1000.00	1000	20.81- 60.81	40.81
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd8a.i/020310a.b/026b2601.d

Date : 03-FEB-2010 15:21

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

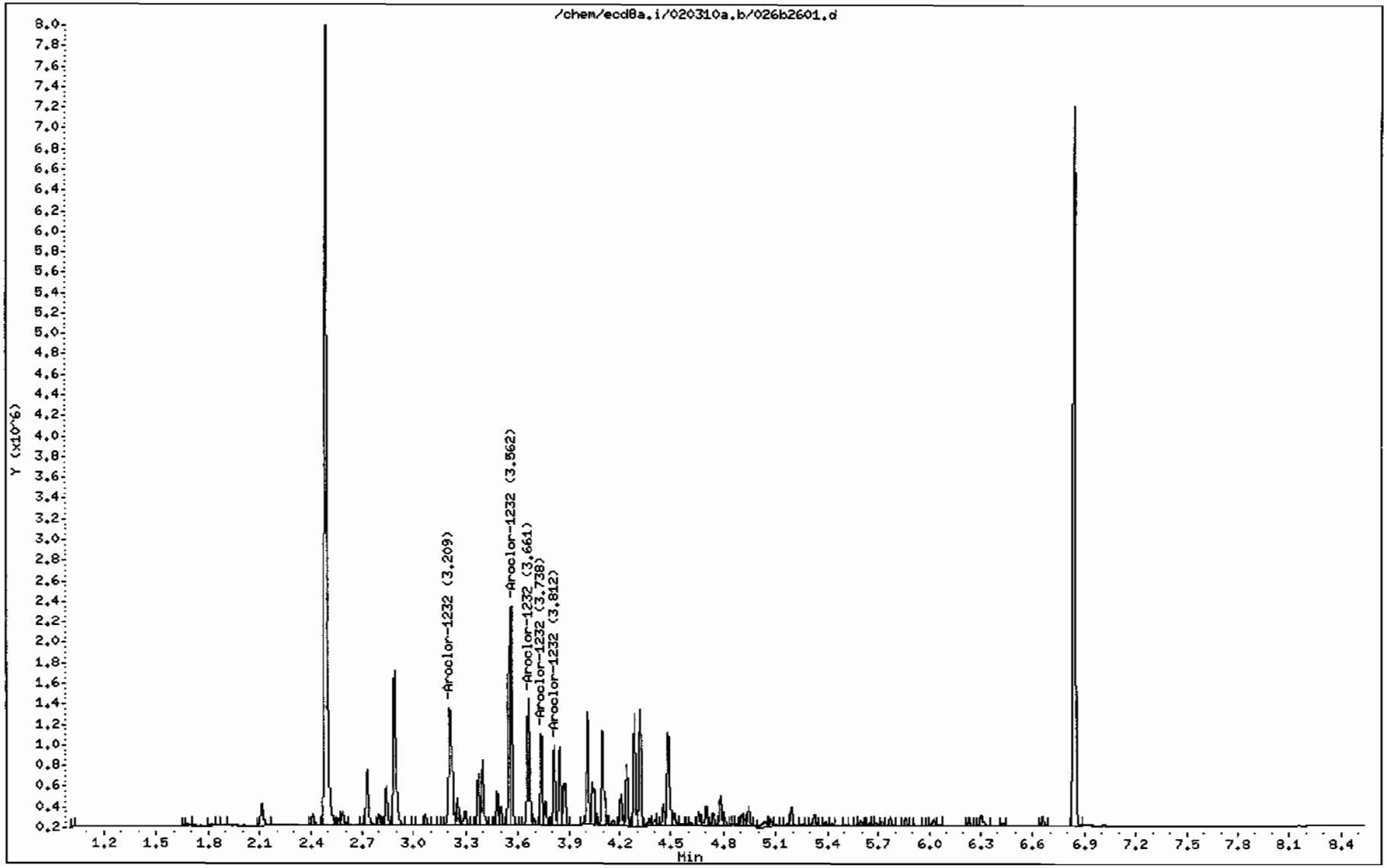

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/027f2701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 03-FEB-2010 15:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 04-Feb-2010 07:01 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
1.857	1.857	0.000	1099987	1000.00	1000	80.00- 120.00	100.00
2.397	2.397	0.000	1459820	1000.00	1000	112.71- 152.71	132.71
2.542	2.542	0.000	3385283	1000.00	1000	287.76- 327.76	307.76

Average of Peak Amounts = 1e+03

Data File: /chem/ecd8a.i/020310a.b/027f2701.d

Date : 03-FEB-2010 15:34

Client ID: AR122101

Sample Info: !WAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

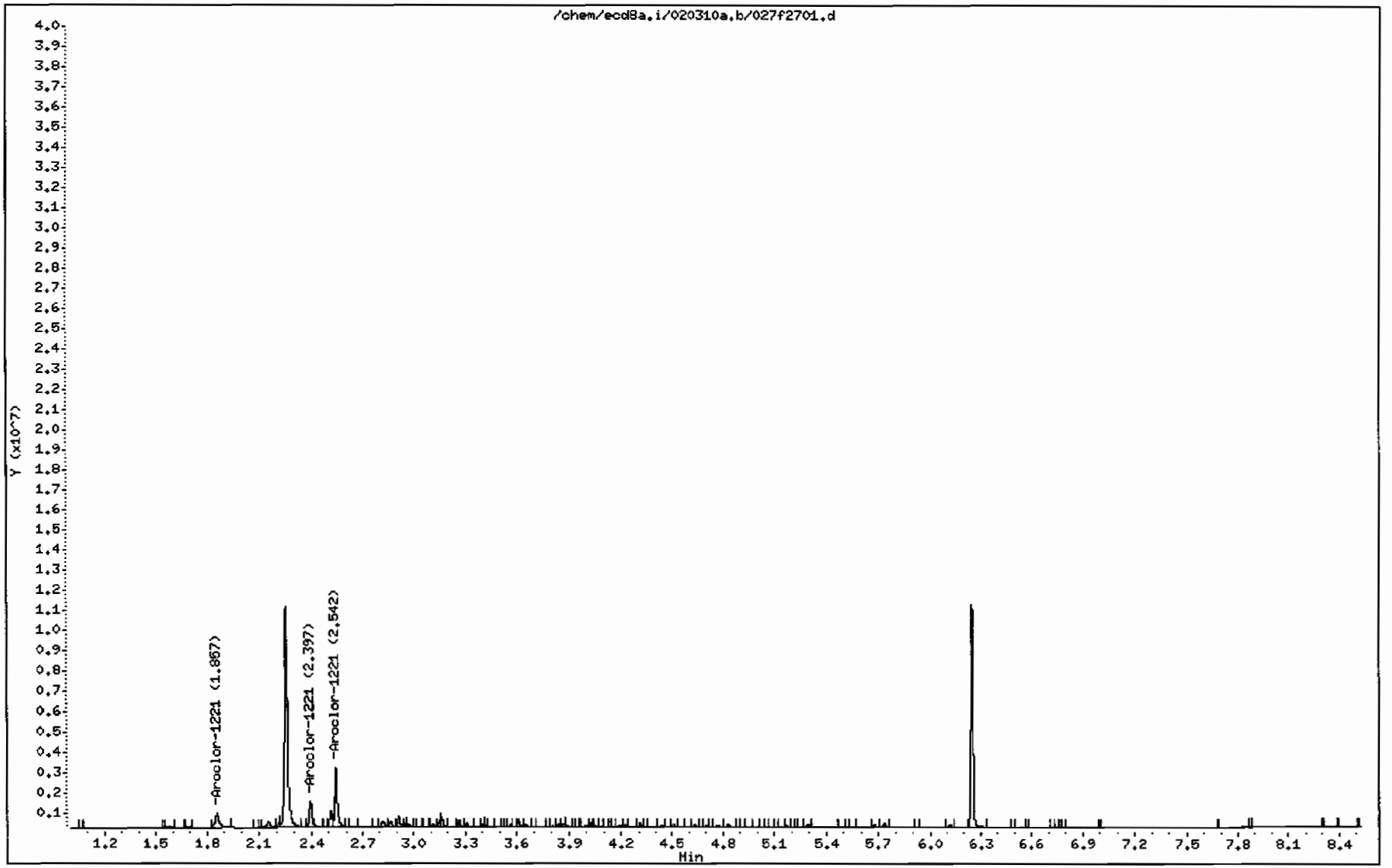

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/027b2701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 03-FEB-2010 15:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 04-Feb-2010 06:58 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.730	2.730	0.000	894889	1000.00	1000	80.00- 120.00	100.00
2.842	2.842	0.000	556917	1000.00	1000	42.23- 82.23	62.23
2.891	2.891	0.000	2060292	1000.00	1000	210.23- 250.23	230.23
		Average of Peak Amounts =			1e+03		

Data File: /chem/ecd8a.i/020310a.b/027b2701.d
Date : 03-FEB-2010 15:34
Client ID: AR122101
Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

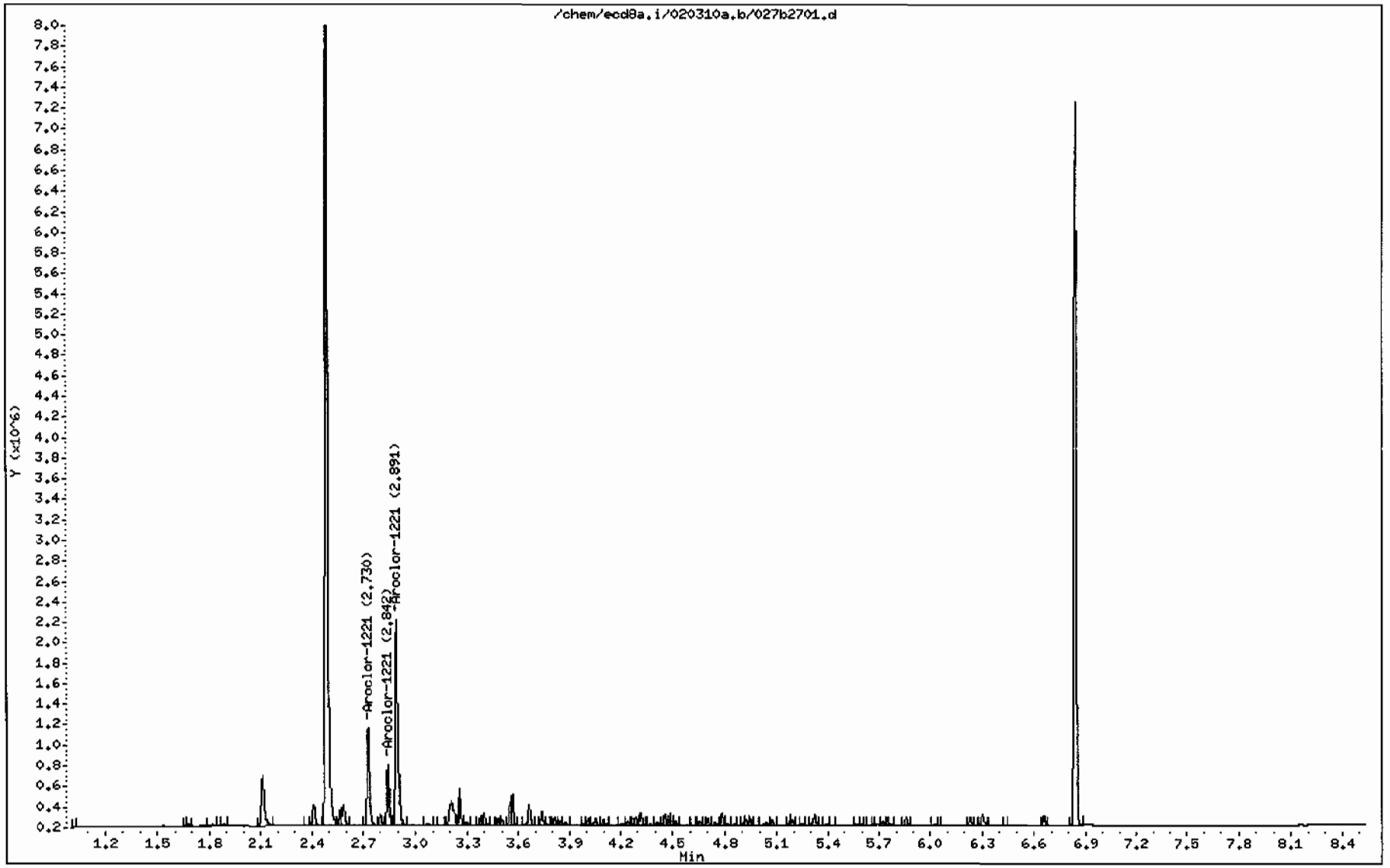

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/035f3501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 03-FEB-2010 17:13
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 04-Feb-2010 07:01 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:00 Cal File: 034f3401.d
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.151	3.151	0.000	2560109	1000.00	856	80.00- 120.00	100.00
3.401	3.401	0.000	3322762	1000.00	869	109.79- 149.79	129.79
3.564	3.564	0.000	4389330	1000.00	878	151.45- 191.45	171.45
3.870	3.870	0.000	5328031	1000.00	890	188.12- 228.12	208.12
4.029	4.029	0.000	4200914	1000.00	870	144.09- 184.09	164.09
Average of Peak Amounts =					873		

Data File: /chem/ecd8a.i/020310a.b/035f3501.d
Date : 03-FEB-2010 17:13
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

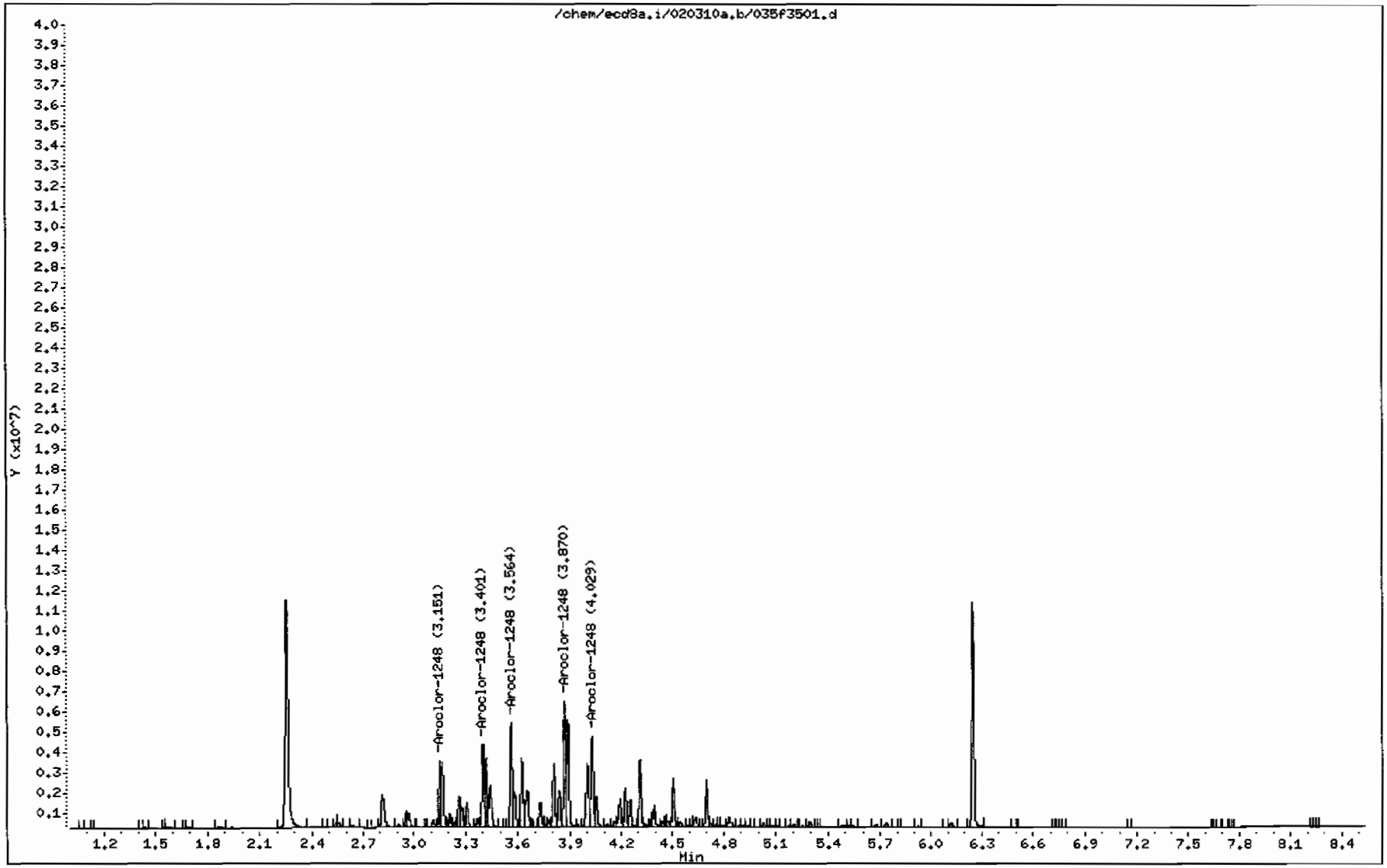

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/035b3501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 03-FEB-2010 17:13
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 04-Feb-2010 06:58 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:00 Cal File: 034b3401.d
Als bottle: 35 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.661	3.661	0.000	1238028	1000.00	868	80.00- 120.00	100.00
3.813	3.813	0.000	2242985	1000.00	909	161.17- 201.17	181.17
4.010	4.010	0.000	2846238	1000.00	921	209.90- 249.90	229.90
4.287	4.287	0.000	3333868	1000.00	914	249.29- 289.29	269.29
4.320	4.320	0.000	3619424	1000.00	904	272.35- 312.35	292.35
Average of Peak Amounts =					903		

Data File: /chem/ecd8a.i/020310a.b/035b3501.d
Date : 03-FEB-2010 17:13
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

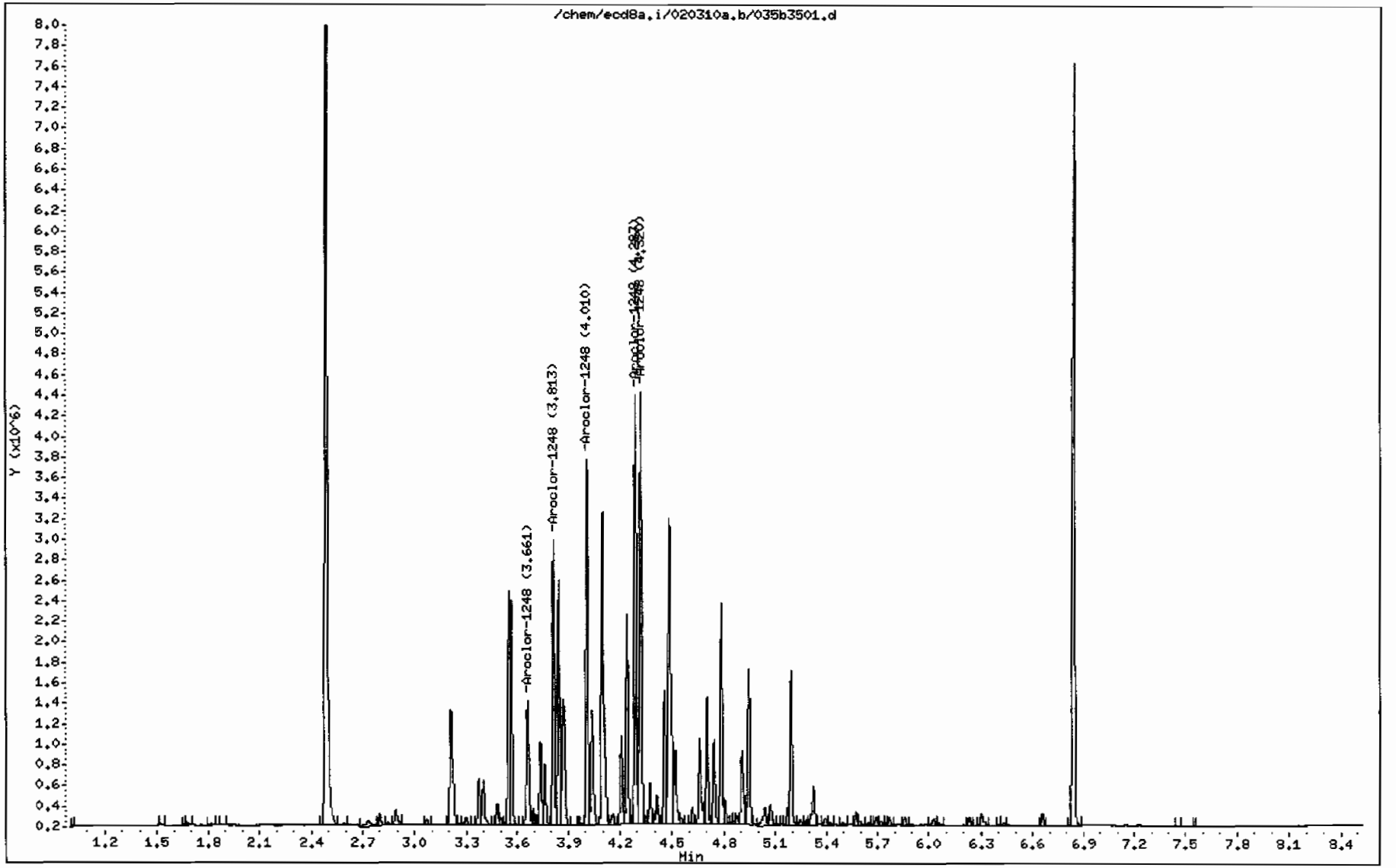

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/054f5401.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 03-FEB-2010 21:08
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 04-Feb-2010 07:01 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 54 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.256	2.257	-0.001	13483364	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.248	-0.001	9851354	100.000	98.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.814	2.814	0.000	4430815	1000.00	950	80.00- 120.00	100.00
3.166	3.166	0.000	5538730	1000.00	960	105.75- 145.75	125.00
3.309	3.309	0.000	2274818	1000.00	927	32.69- 72.69	51.34
3.402	3.402	0.000	1973855	1000.00	898	25.81- 65.81	44.55
3.563	3.564	-0.001	2868130	1000.00	913	46.60- 86.60	64.73
Average of Peak Amounts =					930		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	6358628	1000.00	944	80.00- 120.00	100.00
4.633	4.634	-0.001	9555819	1000.00	931	135.59- 175.59	150.28
4.908	4.908	0.000	5614137	1000.00	916	68.69- 108.69	88.29
5.080	5.081	-0.001	5990813	1000.00	938	74.13- 114.13	94.22
5.492	5.493	-0.001	6779117	1000.00	988	85.62- 125.62	106.61
Average of Peak Amounts =					943		

Data File: /chem/ecd8a.i/020310a.b/054f5401.d
Date : 03-FEB-2010 21:08
Client ID: AR166003
Sample Info: IWAR100203-60 03

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

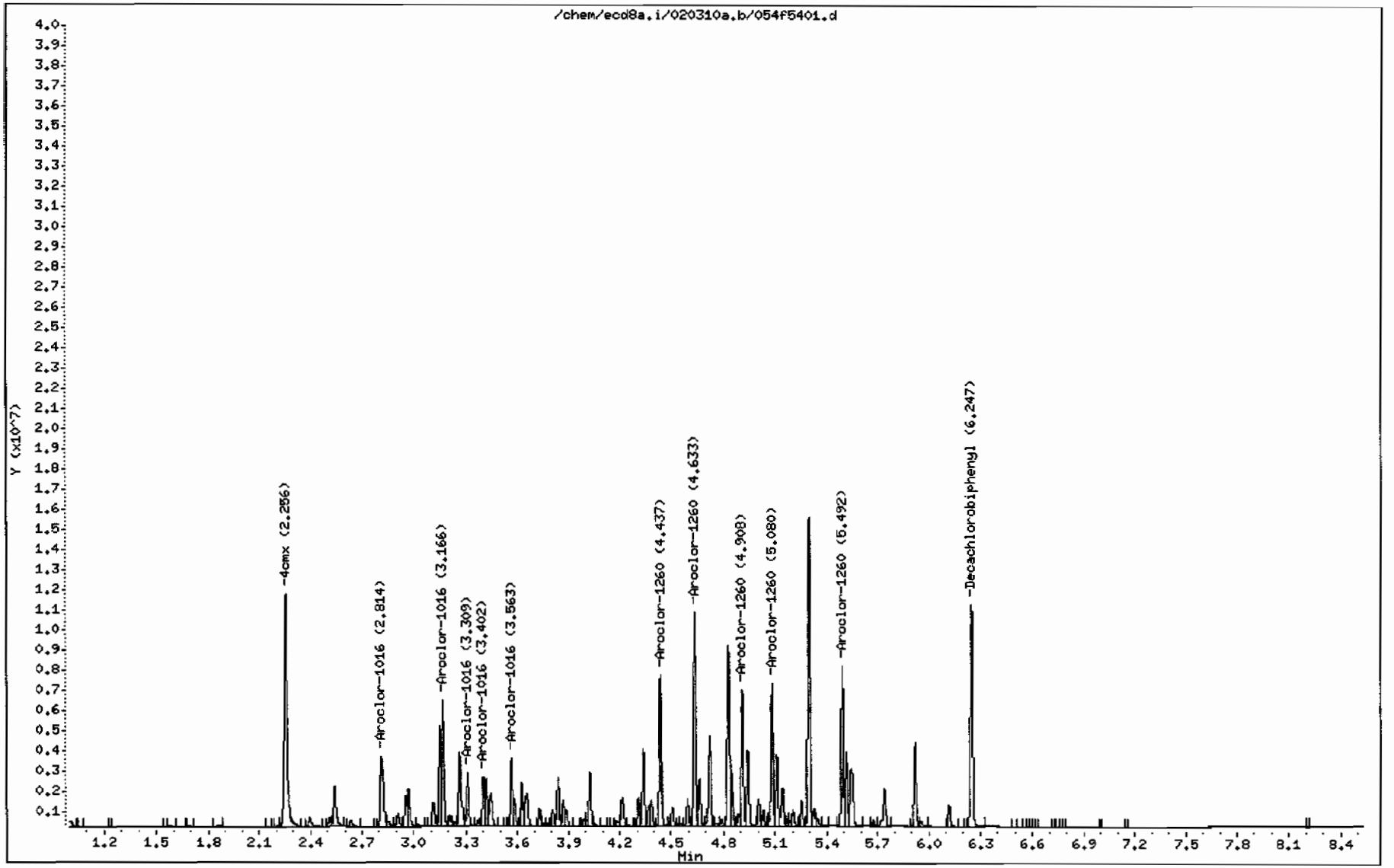

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/054b5401.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 03-FEB-2010 21:08
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 04-Feb-2010 06:58 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 54 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.489	2.490	-0.001	9199463	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.839	6.840	-0.001	6592313	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.562	3.563	-0.001	3977789	1000.00	1060	80.00- 120.00	100.00
3.662	3.663	-0.001	2548789	1000.00	1020	45.18- 85.18	64.08
3.737	3.738	-0.001	1551142	1000.00	1020	19.90- 59.90	39.00
3.812	3.813	-0.001	1491735	1000.00	999	18.28- 58.28	37.50
4.009	4.010	-0.001	2077623	1000.00	1020	33.27- 73.27	52.23
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.922	4.923	-0.001	4494587	1000.00	1100	80.00- 120.00	100.00
5.071	5.073	-0.002	5425429	1000.00	1090	101.67- 141.67	120.71
5.387	5.388	-0.001	4143600	1000.00	1090	71.47- 111.47	92.19
5.595	5.596	-0.001	4240390	1000.00	1070	76.19- 116.19	94.34
6.027	6.027	0.000	6861458	1000.00	1100	134.43- 174.43	152.66
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd8a.i/020310a.b/054b5401.d

Date : 03-FEB-2010 21:08

Client ID: AR166003

Sample Info: IWAR100203-60 03

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

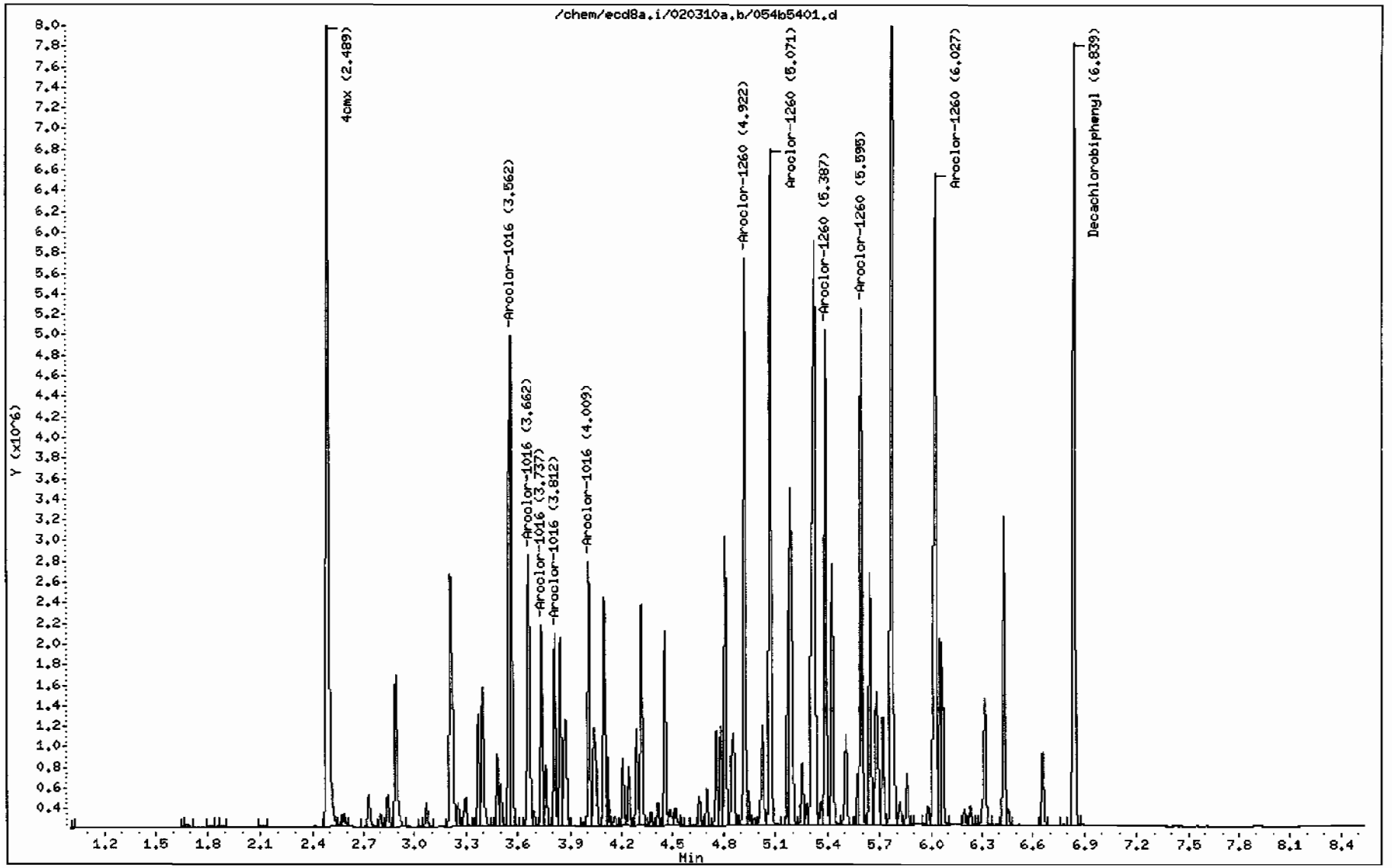

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/059f5901.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 03-FEB-2010 22:10
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 04
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 04-Feb-2010 07:01 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 59 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.257	-0.002	13466478	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.248	0.000	9547581	100.000	95.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.814	2.814	0.000	4437936	1000.00	951	80.00- 120.00	100.00
3.166	3.166	0.000	5723246	1000.00	992	105.75- 145.75	128.96
3.309	3.309	0.000	2401634	1000.00	978	32.69- 72.69	54.12
3.402	3.402	0.000	2086847	1000.00	949	25.81- 65.81	47.02
3.563	3.564	-0.001	3035368	1000.00	966	46.60- 86.60	68.40
Average of Peak Amounts =					967		
7 Aroclor-1260					CAS #: 11096-82-5		
4.438	4.438	0.000	6481791	1000.00	962	80.00- 120.00	100.00
4.633	4.634	-0.001	9824814	1000.00	958	135.59- 175.59	151.58
4.908	4.908	0.000	5815368	1000.00	949	68.69- 108.69	89.72
5.080	5.081	-0.001	6083821	1000.00	953	74.13- 114.13	93.86
5.491	5.493	-0.002	6826367	1000.00	995	85.62- 125.62	105.32
Average of Peak Amounts =					963		

Data File: /chem/ecd8a.i/020310a.b/059f5901.d
Date : 03-FEB-2010 22:10
Client ID: AR166004
Sample Info: IWAR100203-60 04

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

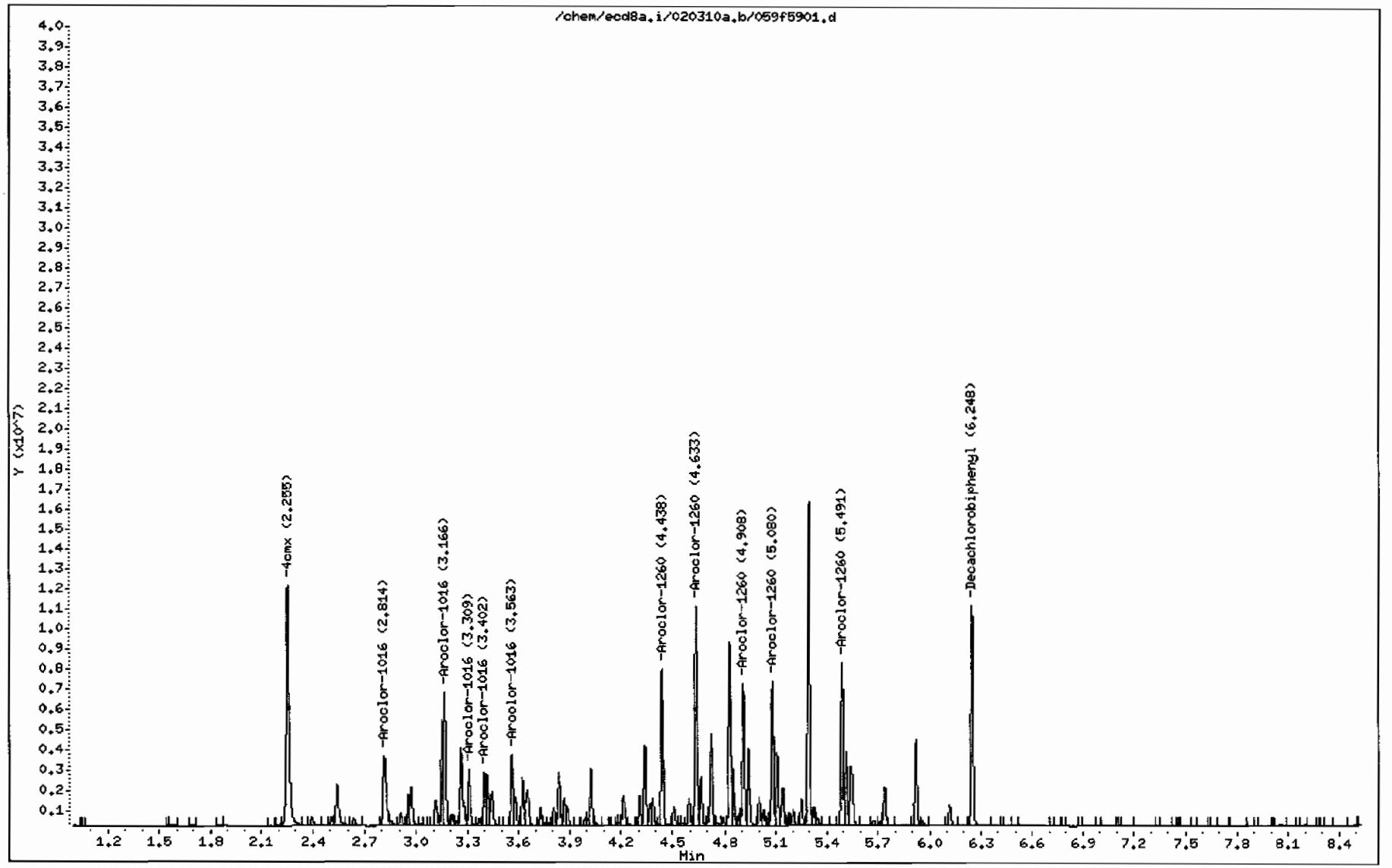

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/059b5901.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 03-FEB-2010 22:10
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 04
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 04-Feb-2010 06:58 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 59 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.489	2.490	-0.001	9374012	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.838	6.840	-0.002	6566140	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.563	3.563	0.000	3983951	1000.00	1060	80.00- 120.00	100.00
3.662	3.663	-0.001	2580314	1000.00	1030	45.18- 85.18	64.77
3.738	3.738	0.000	1595963	1000.00	1050	19.90- 59.90	40.06
3.813	3.813	0.000	1528980	1000.00	1020	18.28- 58.28	38.38
4.009	4.010	-0.001	2125198	1000.00	1040	33.27- 73.27	53.34
Average of Peak Amounts =					1.04e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.923	0.000	4540151	1000.00	1110	80.00- 120.00	100.00
5.071	5.073	-0.002	5546194	1000.00	1120	101.67- 141.67	122.16
5.388	5.388	0.000	4197430	1000.00	1110	71.47- 111.47	92.45
5.594	5.596	-0.002	4385015	1000.00	1110	76.19- 116.19	96.58
6.026	6.027	-0.001	6935866	1000.00	1110	134.43- 174.43	152.77
Average of Peak Amounts =					1.11e+03		

Data File: /chem/ecd8a.i/020310a.b/059b5901.d
Date : 03-FEB-2010 22:10
Client ID: AR166004
Sample Info: !WAR100203-60 04

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

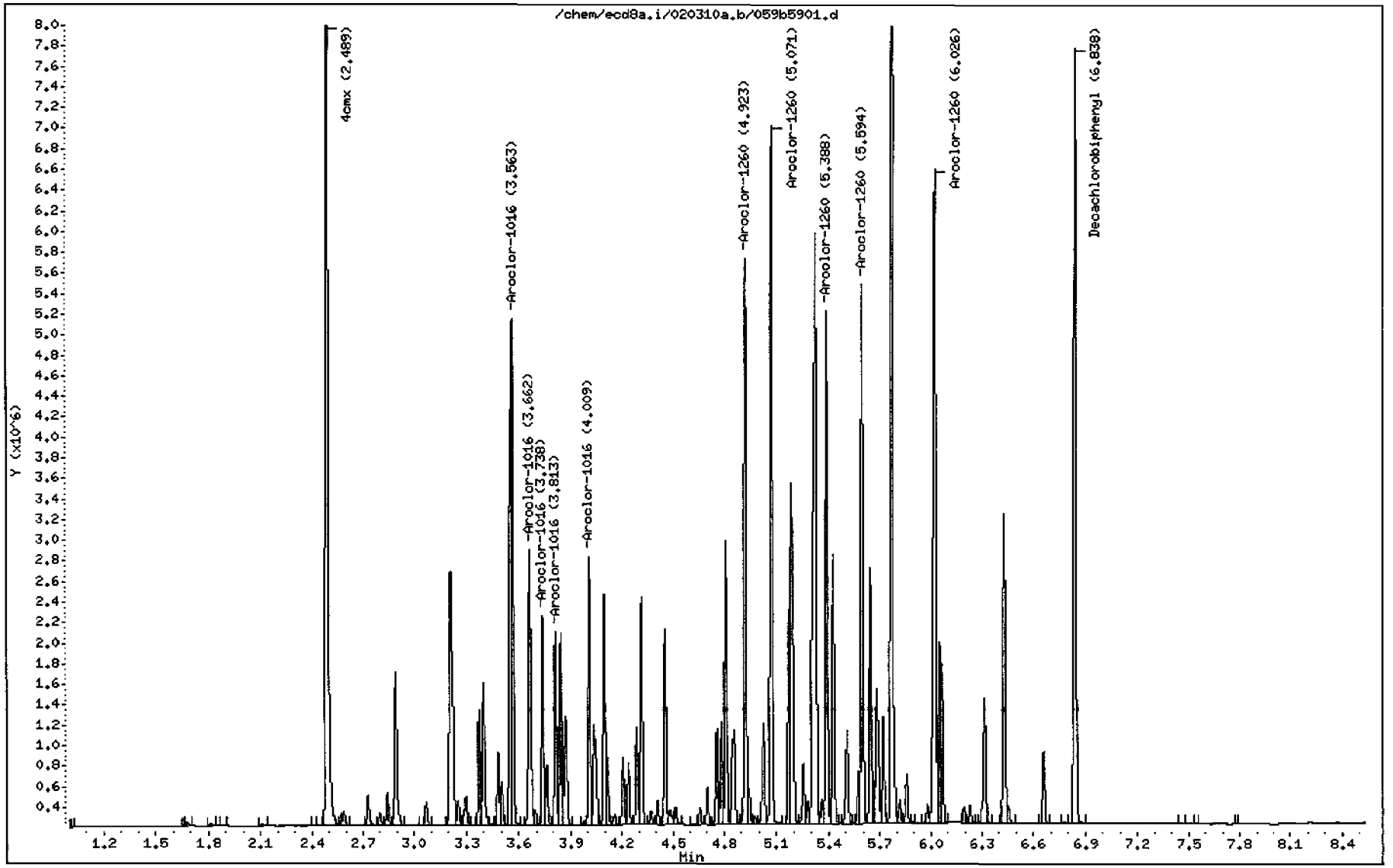

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/21/10 01/21/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/21/10	0836	2.26	6.26
02	ZZZZZ	ZZZZZ	01/21/10	0848	2.26	6.25
03	AR124801	WAR091217-48	01/21/10	0919		
04	AR123201	WAR100104-32	01/21/10	0931		
05	AR166001	WAR100121-01	01/21/10	0943	2.26	6.25
06	AR166002	WAR100121-02	01/21/10	0956	2.26	6.25
07	AR166003	WAR100121-03	01/21/10	1008	2.26	6.25
08	AR166004	WAR100121-04	01/21/10	1021	2.26	6.25
09	AR166005	WAR100104-01	01/21/10	1033	2.26	6.25
10	AR166001	WAR100104-60	01/21/10	1045	2.26	6.25
11	DDTANALOGSTD	WAR091219-DD	01/21/10	1058		
12	PIBLK02	WAR091130-99	01/21/10	1110	2.26	6.25
13	ZZZZZ	ZZZZZ	01/21/10	1123	2.26	6.25
14	ZZZZZ	ZZZZZ	01/21/10	1135	2.26	6.25
15	ZZZZZ	ZZZZZ	01/21/10	1148	2.26	6.25
16	ZZZZZ	ZZZZZ	01/21/10	1200	2.26	6.25
17	ZZZZZ	ZZZZZ	01/21/10	1212	2.26	6.25
18	ZZZZZ	ZZZZZ	01/21/10	1225	2.26	6.25
19	ZZZZZ	ZZZZZ	01/21/10	1237	2.26	6.25
20	ZZZZZ	ZZZZZ	01/21/10	1250	2.26	6.25
21	ZZZZZ	ZZZZZ	01/21/10	1302	2.26	6.25
22	ZZZZZ	ZZZZZ	01/21/10	1314	2.26	6.25
23	AR166002	WAR100104-60	01/21/10	1327	2.26	6.25
24	PIBLK03	WAR091130-99	01/21/10	1339	2.26	6.25
25	ZZZZZ	ZZZZZ	01/21/10	1357	2.26	6.25
26	ZZZZZ	ZZZZZ	01/21/10	1409	2.26	6.25
27	ZZZZZ	ZZZZZ	01/21/10	1422	2.26	6.25
28	ZZZZZ	ZZZZZ	01/21/10	1434	2.26	6.25
29	AR166003	WAR100104-60	01/21/10	1447	2.26	6.25
30	PIBLK04	WAR091130-99	01/21/10	1459	2.26	6.25
31	ZZZZZ	ZZZZZ	01/21/10	1511	2.26	6.25
32	ZZZZZ	ZZZZZ	01/21/10	1524	2.26	6.25

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/21/10 01/21/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/21/10	0836	2.49	6.85
02	ZZZZZ	ZZZZZ	01/21/10	0848	2.49	6.85
03	AR124801	WAR091217-48	01/21/10	0919		
04	AR123201	WAR100104-32	01/21/10	0931		
05	AR166001	WAR100121-01	01/21/10	0943	2.49	6.85
06	AR166002	WAR100121-02	01/21/10	0956	2.49	6.84
07	AR166003	WAR100121-03	01/21/10	1008	2.49	6.84
08	AR166004	WAR100121-04	01/21/10	1021	2.49	6.84
09	AR166005	WAR100104-01	01/21/10	1033	2.49	6.85
10	AR166001	WAR100104-60	01/21/10	1045	2.49	6.84
11	DDTANALOGSTD	WAR091219-DD	01/21/10	1058		
12	PIBLK02	WAR091130-99	01/21/10	1110	2.49	6.84
13	ZZZZZ	ZZZZZ	01/21/10	1123	2.49	6.84
14	ZZZZZ	ZZZZZ	01/21/10	1135	2.49	6.84
15	ZZZZZ	ZZZZZ	01/21/10	1148	2.49	6.84
16	ZZZZZ	ZZZZZ	01/21/10	1200	2.49	6.84
17	ZZZZZ	ZZZZZ	01/21/10	1212	2.49	6.84
18	ZZZZZ	ZZZZZ	01/21/10	1225	2.49	6.84
19	ZZZZZ	ZZZZZ	01/21/10	1237	2.49	6.84
20	ZZZZZ	ZZZZZ	01/21/10	1250	2.49	6.84
21	ZZZZZ	ZZZZZ	01/21/10	1302	2.49	6.84
22	ZZZZZ	ZZZZZ	01/21/10	1314	2.49	6.84
23	AR166002	WAR100104-60	01/21/10	1327	2.49	6.84
24	PIBLK03	WAR091130-99	01/21/10	1339	2.49	6.84
25	ZZZZZ	ZZZZZ	01/21/10	1357	2.49	6.85
26	ZZZZZ	ZZZZZ	01/21/10	1409	2.49	6.84
27	ZZZZZ	ZZZZZ	01/21/10	1422	2.49	6.84
28	ZZZZZ	ZZZZZ	01/21/10	1434	2.49	6.85
29	AR166003	WAR100104-60	01/21/10	1447	2.49	6.84
30	PIBLK04	WAR091130-99	01/21/10	1459	2.49	6.85
31	ZZZZZ	ZZZZZ	01/21/10	1511	2.49	6.84
32	ZZZZZ	ZZZZZ	01/21/10	1524	2.49	6.84

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/21/10 01/21/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/02/10	1153	2.26	6.25
02	ZZZZZ	ZZZZZ	02/02/10	1206	2.26	6.25
03	AR125401	WAR100201-54	02/02/10	1218		
04	AR124201	WAR091217-42	02/02/10	1230		
05	AR124801	WAR091217-48	02/02/10	1243		
06	AR166001	WAR100104-60	02/02/10	1255	2.26	6.25
07	AR123201	WAR100104-32	02/02/10	1308		
08	AR122101	WAR100104-21	02/02/10	1320		
09	AR126201	WAR100104-62	02/02/10	1332		
10	AR126801	WAR091107-68	02/02/10	1345		
11	DDTANALOGSTD	WAR091219-DD	02/02/10	1357		
12	PIBLK02	WAR091130-99	02/02/10	1410	2.26	6.25
13	ZZZZZ	ZZZZZ	02/02/10	1422	2.26	6.25
14	ZZZZZ	ZZZZZ	02/02/10	1434	2.26	6.25
15	ZZZZZ	ZZZZZ	02/02/10	1447	2.26	6.25
16	ZZZZZ	ZZZZZ	02/02/10	1459		
17	ZZZZZ	ZZZZZ	02/02/10	1512		
18	ZZZZZ	ZZZZZ	02/02/10	1524		
19	ZZZZZ	ZZZZZ	02/02/10	1536	2.26	6.25
20	ZZZZZ	ZZZZZ	02/02/10	1549	2.26	6.25
21	ZZZZZ	ZZZZZ	02/02/10	1601	2.26	6.25
22	ZZZZZ	ZZZZZ	02/02/10	1615	2.26	6.25
23	AR166002	WAR100104-60	02/02/10	1627	2.26	6.25
24	PIBLK03	WAR091130-99	02/02/10	1639	2.25	6.25
25	ZZZZZ	ZZZZZ	02/02/10	1652	2.26	6.25
26	ZZZZZ	ZZZZZ	02/02/10	1704	2.26	6.25
27	ZZZZZ	ZZZZZ	02/02/10	1716	2.26	6.25
28	ZZZZZ	ZZZZZ	02/02/10	1729	2.26	6.25
29	ZZZZZ	ZZZZZ	02/02/10	1741	2.26	6.25
30	AR166003	WAR100104-60	02/02/10	1754	2.25	6.25
31	PIBLK04	WAR091130-99	02/02/10	1806	2.25	6.25
32	PBLK01	1202029843	02/02/10	1818	2.25	6.25

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/21/10 01/21/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01LCS	1202029844	02/02/10	1831	2.25	6.25
02	ZZZZZ	ZZZZZ	02/02/10	1843	2.25	6.25
03	ZZZZZ	ZZZZZ	02/02/10	1856	2.26	6.25
04	ZZZZZ	ZZZZZ	02/02/10	1908	2.26	6.25
05	ZZZZZ	ZZZZZ	02/02/10	1920	2.26	6.25
06	ZZZZZ	ZZZZZ	02/02/10	1933	2.26	6.25
07	ZZZZZ	ZZZZZ	02/02/10	1945	2.26	6.25
08	ZZZZZ	ZZZZZ	02/02/10	1958	2.26	6.25
09	ZZZZZ	ZZZZZ	02/02/10	2010	2.26	6.25
10	AR166004	WAR100104-60	02/02/10	2026	2.25	6.25
11	PIBLK05	WAR091130-99	02/02/10	2039	2.26	6.25
12	ZZZZZ	ZZZZZ	02/02/10	2051	2.26	6.25
13	ZZZZZ	ZZZZZ	02/02/10	2104	2.26	6.25
14	ZZZZZ	ZZZZZ	02/02/10	2116	2.26	6.25
15	ZZZZZ	ZZZZZ	02/02/10	2128	2.26	6.25
16	ZZZZZ	ZZZZZ	02/02/10	2141	2.26	6.25
17	RE15-10-7884	245686002	02/02/10	2153	2.26	6.25
18	RE15-10-8056	245686013	02/02/10	2206	2.26	6.25
19	RE15-10-8057	245686014	02/02/10	2218	2.26	6.25
20	AR166005	WAR100104-60	02/02/10	2234	2.25	6.25
21	PIBLK06	WAR091130-99	02/02/10	2247	2.26	6.25
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/21/10 01/21/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/02/10	1153	2.49	6.84
02	ZZZZZ	ZZZZZ	02/02/10	1206	2.49	6.84
03	AR125401	WAR100201-54	02/02/10	1218		
04	AR124201	WAR091217-42	02/02/10	1230		
05	AR124801	WAR091217-48	02/02/10	1243		
06	AR166001	WAR100104-60	02/02/10	1255	2.49	6.84
07	AR123201	WAR100104-32	02/02/10	1308		
08	AR122101	WAR100104-21	02/02/10	1320		
09	AR126201	WAR100104-62	02/02/10	1332		
10	AR126801	WAR091107-68	02/02/10	1345		
11	DDTANALOGSTD	WAR091219-DD	02/02/10	1357		
12	PIBLK02	WAR091130-99	02/02/10	1410	2.49	6.84
13	ZZZZZ	ZZZZZ	02/02/10	1422	2.49	6.84
14	ZZZZZ	ZZZZZ	02/02/10	1434	2.49	6.84
15	ZZZZZ	ZZZZZ	02/02/10	1447	2.49	6.84
16	ZZZZZ	ZZZZZ	02/02/10	1459		
17	ZZZZZ	ZZZZZ	02/02/10	1512		
18	ZZZZZ	ZZZZZ	02/02/10	1524		
19	ZZZZZ	ZZZZZ	02/02/10	1536	2.49	6.84
20	ZZZZZ	ZZZZZ	02/02/10	1549	2.49	6.84
21	ZZZZZ	ZZZZZ	02/02/10	1601	2.49	6.84
22	ZZZZZ	ZZZZZ	02/02/10	1615	2.49	6.84
23	AR166002	WAR100104-60	02/02/10	1627	2.49	6.84
24	PIBLK03	WAR091130-99	02/02/10	1639	2.49	6.84
25	ZZZZZ	ZZZZZ	02/02/10	1652	2.49	6.84
26	ZZZZZ	ZZZZZ	02/02/10	1704	2.49	6.84
27	ZZZZZ	ZZZZZ	02/02/10	1716	2.49	6.84
28	ZZZZZ	ZZZZZ	02/02/10	1729	2.49	6.84
29	ZZZZZ	ZZZZZ	02/02/10	1741	2.49	6.84
30	AR166003	WAR100104-60	02/02/10	1754	2.49	6.84
31	PIBLK04	WAR091130-99	02/02/10	1806	2.49	6.84
32	PBLK01	1202029843	02/02/10	1818	2.49	6.84

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/21/10 01/21/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01LCS	1202029844	02/02/10	1831	2.49	6.84
02	ZZZZZ	ZZZZZ	02/02/10	1843	2.49	6.84
03	ZZZZZ	ZZZZZ	02/02/10	1856	2.49	6.84
04	ZZZZZ	ZZZZZ	02/02/10	1908	2.49	6.84
05	ZZZZZ	ZZZZZ	02/02/10	1920	2.49	6.84
06	ZZZZZ	ZZZZZ	02/02/10	1933	2.49	6.84
07	ZZZZZ	ZZZZZ	02/02/10	1945	2.49	6.84
08	ZZZZZ	ZZZZZ	02/02/10	1958	2.49	6.84
09	ZZZZZ	ZZZZZ	02/02/10	2010	2.49	6.84
10	AR166004	WAR100104-60	02/02/10	2026	2.49	6.84
11	PIBLK05	WAR091130-99	02/02/10	2039	2.49	6.84
12	ZZZZZ	ZZZZZ	02/02/10	2051	2.49	6.84
13	ZZZZZ	ZZZZZ	02/02/10	2104	2.49	6.84
14	ZZZZZ	ZZZZZ	02/02/10	2116	2.49	6.84
15	ZZZZZ	ZZZZZ	02/02/10	2128	2.49	6.84
16	ZZZZZ	ZZZZZ	02/02/10	2141	2.49	6.84
17	RE15-10-7884	245686002	02/02/10	2153	2.49	6.84
18	RE15-10-8056	245686013	02/02/10	2206	2.49	6.84
19	RE15-10-8057	245686014	02/02/10	2218	2.49	6.84
20	AR166005	WAR100104-60	02/02/10	2234	2.49	6.84
21	PIBLK06	WAR091130-99	02/02/10	2247	2.49	6.84
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.25	6.24
02	AR166001	WAR100203-01	02/03/10	1024	2.26	6.25
03	AR166002	WAR100203-02	02/03/10	1037	2.26	6.25
04	AR166003	WAR100203-03	02/03/10	1049	2.26	6.25
05	AR166004	WAR100203-04	02/03/10	1101	2.26	6.25
06	AR166005	IAR100104-01	02/03/10	1114	2.26	6.25
07	AR166001	WAR100203-60	02/03/10	1126	2.26	6.25
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.26	6.25
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.26	6.25
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.26	6.25
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.26	6.25
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.26	6.25
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.26	6.25
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.26	6.25
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.26	6.25
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.26	6.25
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.26	6.25
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.26	6.25
16	AR166002	WAR100203-60	02/03/10	1954	2.26	6.25
17	PIBLK03	WAR091130-99	02/03/10	2006	2.26	6.25
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.26	6.25
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.26	6.25
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.26	6.25
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.26	6.25
22	AR166003	WAR100203-60	02/03/10	2108	2.26	6.25
23	PIBLK04	WAR091130-99	02/03/10	2120	2.26	6.25
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.26	6.25
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.26	6.25
26	RE15-10-7883	245686001	02/03/10	2157	2.26	6.25
27	AR166004	WAR100203-60	02/03/10	2210	2.26	6.25
28	PIBLK05	WAR091130-99	02/03/10	2222	2.26	6.25
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.26	6.25
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.26	6.25
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.49	6.84
02	AR166001	WAR100203-01	02/03/10	1024	2.49	6.84
03	AR166002	WAR100203-02	02/03/10	1037	2.49	6.84
04	AR166003	WAR100203-03	02/03/10	1049	2.49	6.84
05	AR166004	WAR100203-04	02/03/10	1101	2.49	6.84
06	AR166005	IAR100104-01	02/03/10	1114	2.49	6.84
07	AR166001	WAR100203-60	02/03/10	1126	2.49	6.84
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1432

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.49	6.84
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.49	6.84
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.49	6.84
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.49	6.84
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.49	6.84
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.49	6.84
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.49	6.84
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.49	6.84
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.49	6.84
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.49	6.84
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.49	6.84
16	AR166002	WAR100203-60	02/03/10	1954	2.49	6.84
17	PIBLK03	WAR091130-99	02/03/10	2006	2.49	6.84
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.49	6.84
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.49	6.84
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.49	6.84
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.49	6.84
22	AR166003	WAR100203-60	02/03/10	2108	2.49	6.84
23	PIBLK04	WAR091130-99	02/03/10	2120	2.49	6.84
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.49	6.84
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.49	6.84
26	RE15-10-7883	245686001	02/03/10	2157	2.49	6.84
27	AR166004	WAR100203-60	02/03/10	2210	2.49	6.84
28	PIBLK05	WAR091130-99	02/03/10	2222	2.49	6.84
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.49	6.84
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.49	6.84
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1432

Client ID: LCS for batch 947573

Lab Sample ID: 1202029844

Data File:	033f3301.d	**Data File:**	033b3301.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	02–FEB–10 18:31	**Analyzed:**	02–FEB–10 18:31

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.749
Column 1	1	2.81	2.78 – 2.84	18		ug/kg	
	2	3.17	3.14 – 3.2	18.5		ug/kg	
	3	3.31	3.28 – 3.34	17.4		ug/kg	
	4	3.4	3.37 – 3.43	19		ug/kg	
	5	3.56	3.53 – 3.59	18.3		ug/kg	
					18.2		
Column 2	1	3.56	3.53 – 3.59	18.7		ug/kg	
	2	3.66	3.63 – 3.69	18.3		ug/kg	
	3	3.74	3.71 – 3.77	17.8		ug/kg	
	4	3.81	3.78 – 3.84	18.4		ug/kg	
	5	4.01	3.98 – 4.04	18.6		ug/kg	
					18.4		
Aroclor–1260							2
Column 1	1	4.44	4.41 – 4.47	21.9		ug/kg	
	2	4.63	4.6 – 4.66	23		ug/kg	
	3	4.91	4.88 – 4.94	22.7		ug/kg	
	4	5.08	5.05 – 5.11	22.6		ug/kg	
	5	5.49	5.46 – 5.52	23.4		ug/kg	
					22.7		
Column 2	1	4.92	4.89 – 4.95	22.1		ug/kg	
	2	5.07	5.04 – 5.1	23.2		ug/kg	
	3	5.39	5.36 – 5.42	23.5		ug/kg	
	4	5.6	5.57 – 5.63	23.1		ug/kg	
	5	6.03	6 – 6.06	24.1		ug/kg	
					23.2		

Identification Summary

SDG Number: 10–1432 **Client ID:** RE15–10–7883

Lab Sample ID: 245686001

Data File:	058f5801.d	**Data File:**	058b5801.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	03–FEB–10 21:57	**Analyzed:**	03–FEB–10 21:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							20.5
Column 1	1	3.84	3.81 – 3.87	3.36		ug/kg	
	2	4.03	4 – 4.06	3.32		ug/kg	
	3	4.22	4.19 – 4.25	3.25		ug/kg	
	4	4.31	4.28 – 4.34	2.93		ug/kg	
	5	4.5	4.47 – 4.53	3.13		ug/kg	
					3.2		
Column 2	1	4.32	4.29 – 4.35	3.79		ug/kg	
	2	4.46	4.43 – 4.49	4.48		ug/kg	
	3	4.78	4.75 – 4.81	2.98		ug/kg	
	4	4.95	4.92 – 4.98	3.84		ug/kg	
	5	5.07	5.04 – 5.1	4.54		ug/kg	
					3.93		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1432**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202029843**				
Client Sample:	**QC for batch 947573**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 947573**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**947574**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/02/2010 18:18**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/01/2010 19:57**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**032f3201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/032f3201.d
Lab Smp Id: 1202029843 Client Smp ID: PBLK01
Inj Date : 02-FEB-2010 18:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202029843|1|
Misc Info : |ECD82P_1S|947574|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.257	-0.002	16738046	127.775	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.249	-0.002	12813638	144.904	4.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/020210.b/032f3201.d
Date : 02-FEB-2010 18:18
Client ID: PBLK01
Sample Info: 1120202984311
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

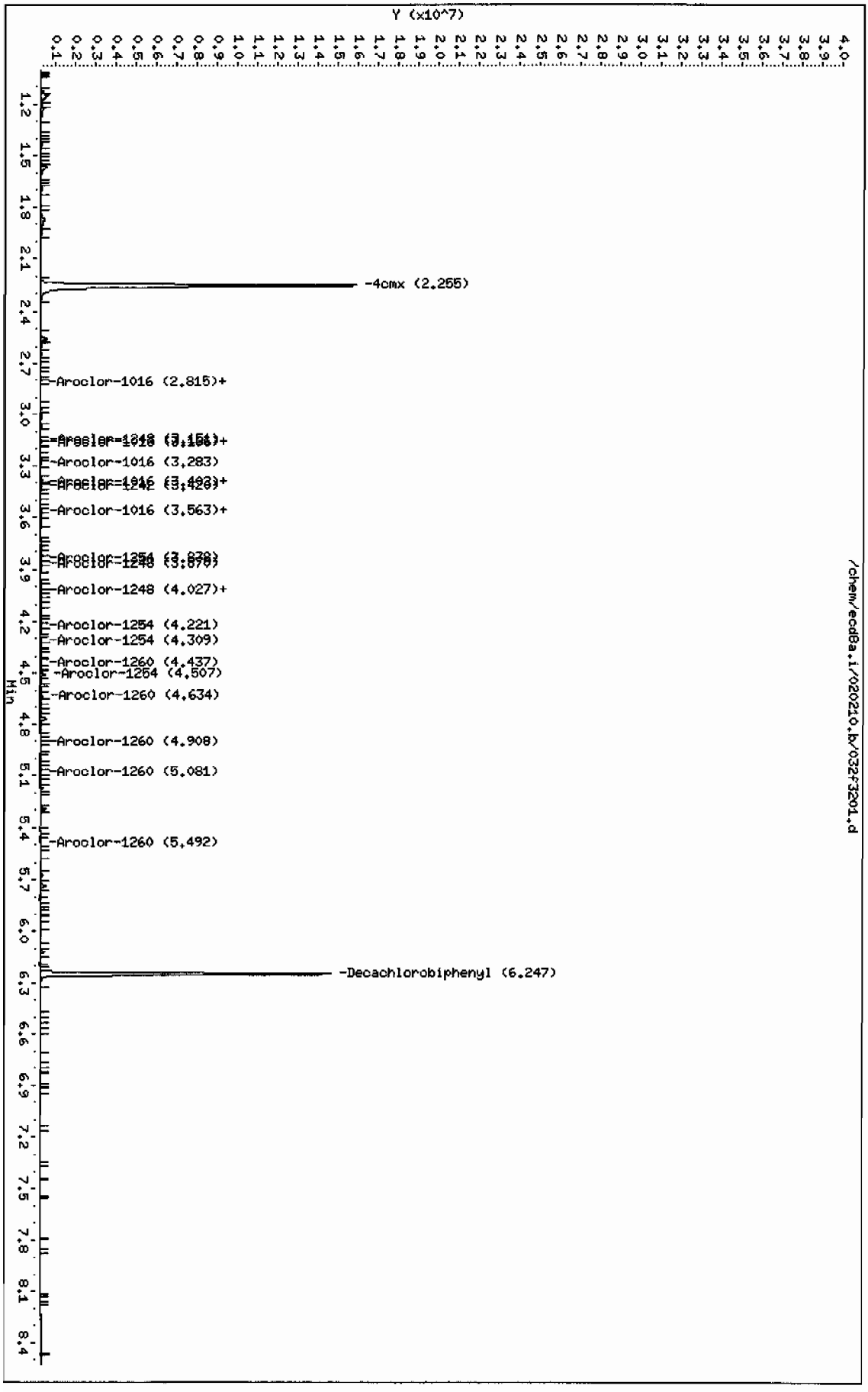

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/032b3201.d
Lab Smp Id: 1202029843 Client Smp ID: PBLK01
Inj Date : 02-FEB-2010 18:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202029843|1|
Misc Info : |ECD82P_1S|947574|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 32 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.488	2.490	-0.002	10894485	133.490	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.841	-0.001	8759052	149.867	5.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/020210.b/032b3201.d

Date : 02-FEB-2010 18:18

Client ID: PBLK01

Sample Info: |12020298431|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

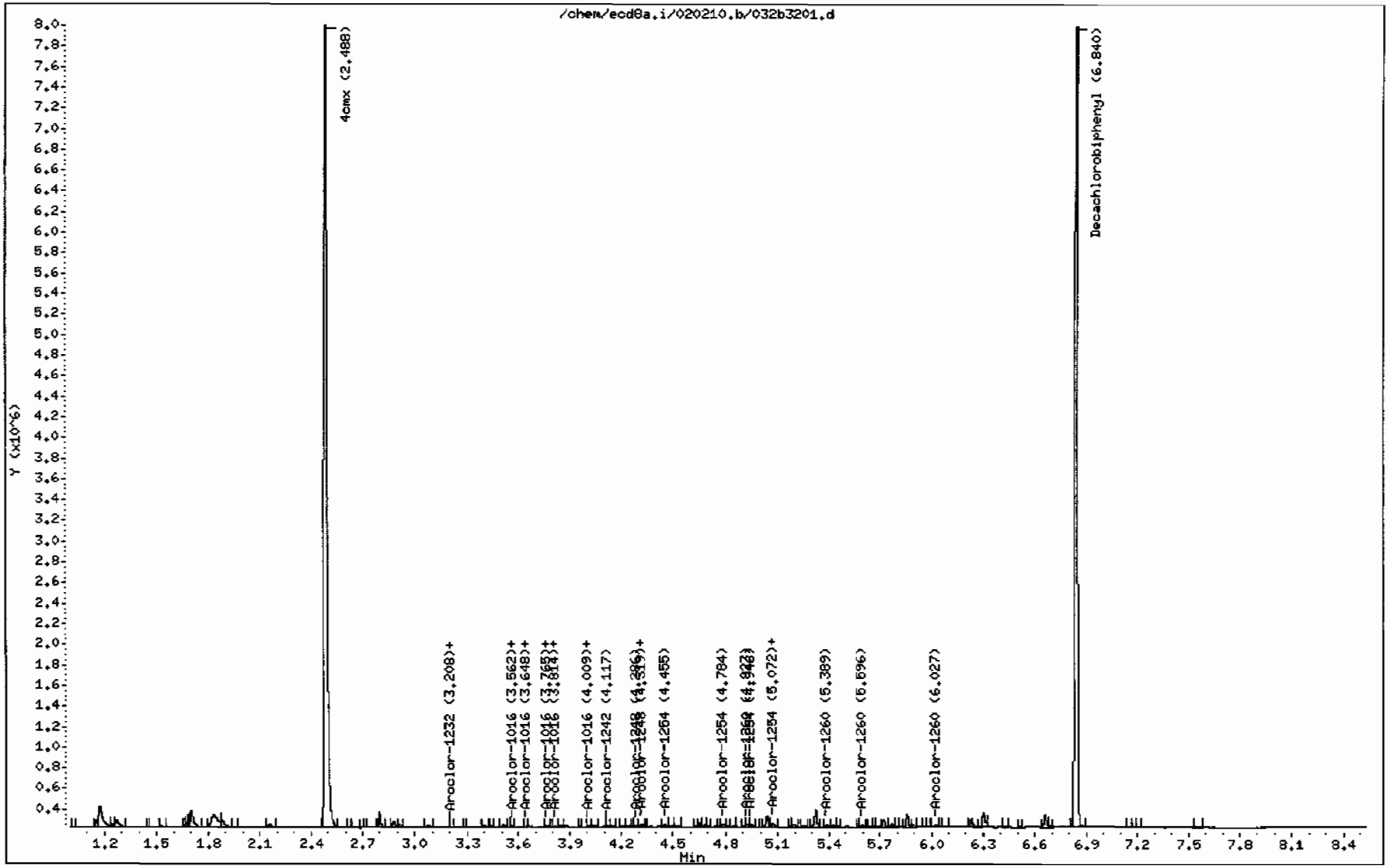

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1432**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202029844**				
Client Sample:	**QC for batch 947573**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 947573**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**947574**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/02/2010 18:31**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/01/2010 19:57**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**033f3301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		18.4	ug/kg	1.11	3.33	2
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		23.2	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/033f3301.d
Lab Smp Id: 1202029844 Client Smp ID: PBLK01LCS
Inj Date : 02-FEB-2010 18:31
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202029844|1|
Misc Info : |ECD82P_1S|947574|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 33 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.257	-0.002	14494780	110.650	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.249	-0.002	11357547	128.437	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.814	-0.001	2469736	540.094	18.0	80.00- 120.00	100.00
3.166	3.166	0.000	2927202	554.352	18.5	110.80- 150.80	118.52
3.309	3.310	-0.001	1228422	520.713	17.4	34.76- 74.76	49.74
3.402	3.402	0.000	1190629	570.205	19.0	27.61- 67.61	48.21

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.564	3.564	0.000	1612717	549.806	18.3	49.41- 89.41	65.30
Average of Peak Concentrations =					18.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.438	4.438	0.000	3788362	657.970	21.9	80.00- 120.00	100.00
4.633	4.635	-0.002	6007042	690.045	23.0	129.36- 169.36	158.57
4.909	4.910	-0.001	3638037	682.050	22.7	68.28- 108.28	96.03
5.081	5.082	-0.001	3762838	677.860	22.6	72.30- 112.30	99.33
5.492	5.493	-0.001	4132718	700.940	23.4	81.81- 121.81	109.09
Average of Peak Concentrations =					22.7		

Data File: /chem/ecd8a.i/020210.b/033f3301.d
Date : 02-FEB-2010 18:31
Client ID: PBLK01LCS
Sample Info: !1202029844!1!
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

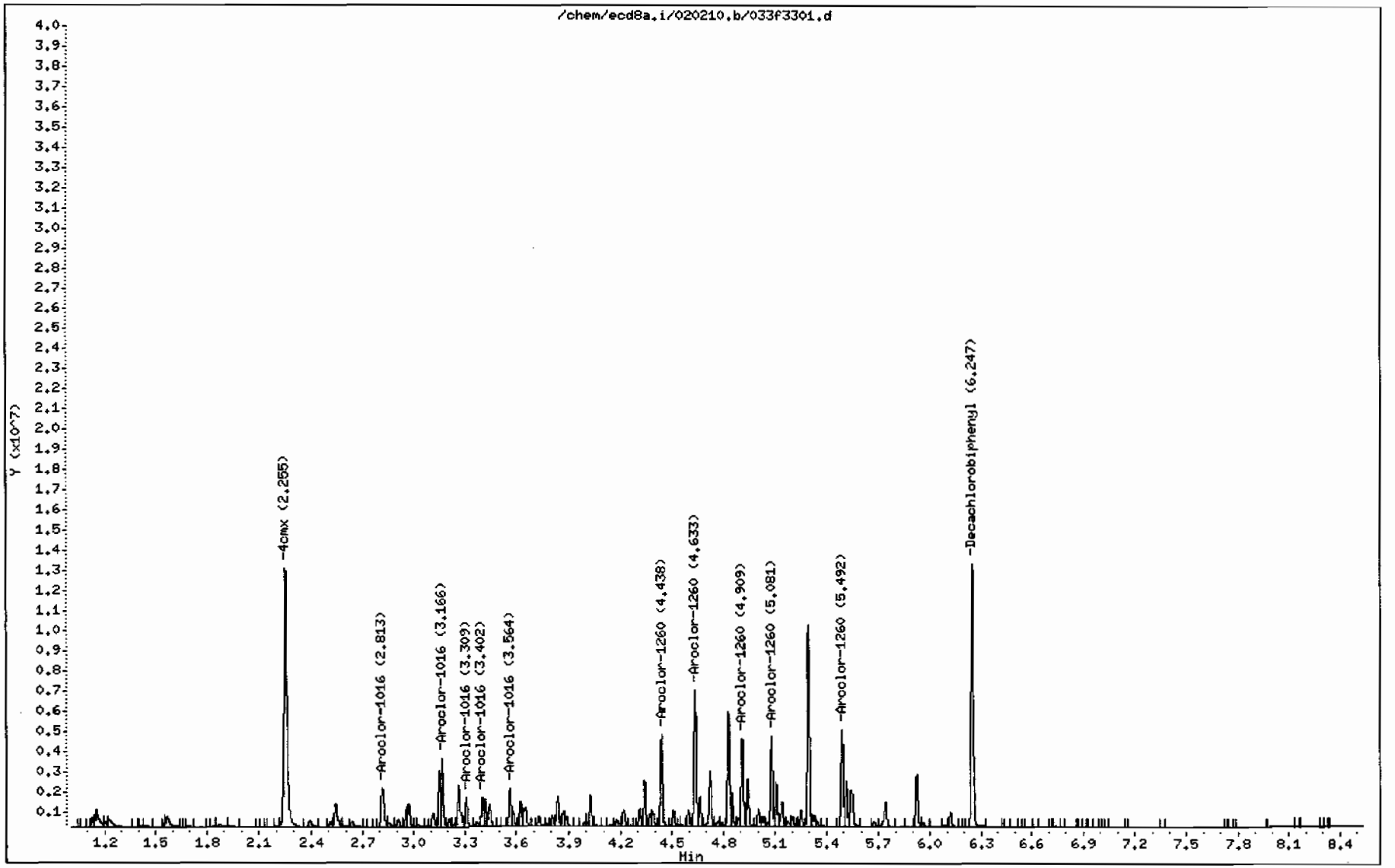

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/033b3301.d
Lab Smp Id: 1202029844 Client Smp ID: PBLK01LCS
Inj Date : 02-FEB-2010 18:31
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202029844|1|
Misc Info : |ECD82P_1S|947574|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 33 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1432.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.488	2.490	-0.002	9522807	116.683	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.841	6.841	0.000	7727426	132.216	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.563	3.564	-0.001	1798539	561.866	18.7	80.00- 120.00	100.00
3.662	3.663	-0.001	1252739	550.249	18.3	43.52- 83.52	69.65
3.738	3.739	-0.001	700466	535.435	17.8	19.39- 59.39	38.95
3.813	3.814	-0.001	709559	551.585	18.4	17.55- 57.55	39.45
4.010	4.010	0.000	991053	556.608	18.6	32.56- 72.56	55.10

Average of Peak Concentrations = 18.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.924	4.924	0.000	2338179	661.572	22.0	80.00- 120.00	100.00
5.072	5.073	-0.001	2932320	694.818	23.2	102.57- 142.57	125.41
5.388	5.389	-0.001	2283282	704.418	23.5	72.38- 112.38	97.65
5.596	5.596	0.000	2329900	692.645	23.1	76.07- 116.07	99.65
6.027	6.027	0.000	3864570	724.310	24.1	131.32- 171.32	165.28
			Average of Peak Concentrations =		23.2		

Data File: /chem/ecd8a.i/020210.b/033b3301.d

Date : 02-FEB-2010 18:31

Client ID: PBLK01LCS

Sample Info: !1202029844!1!

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

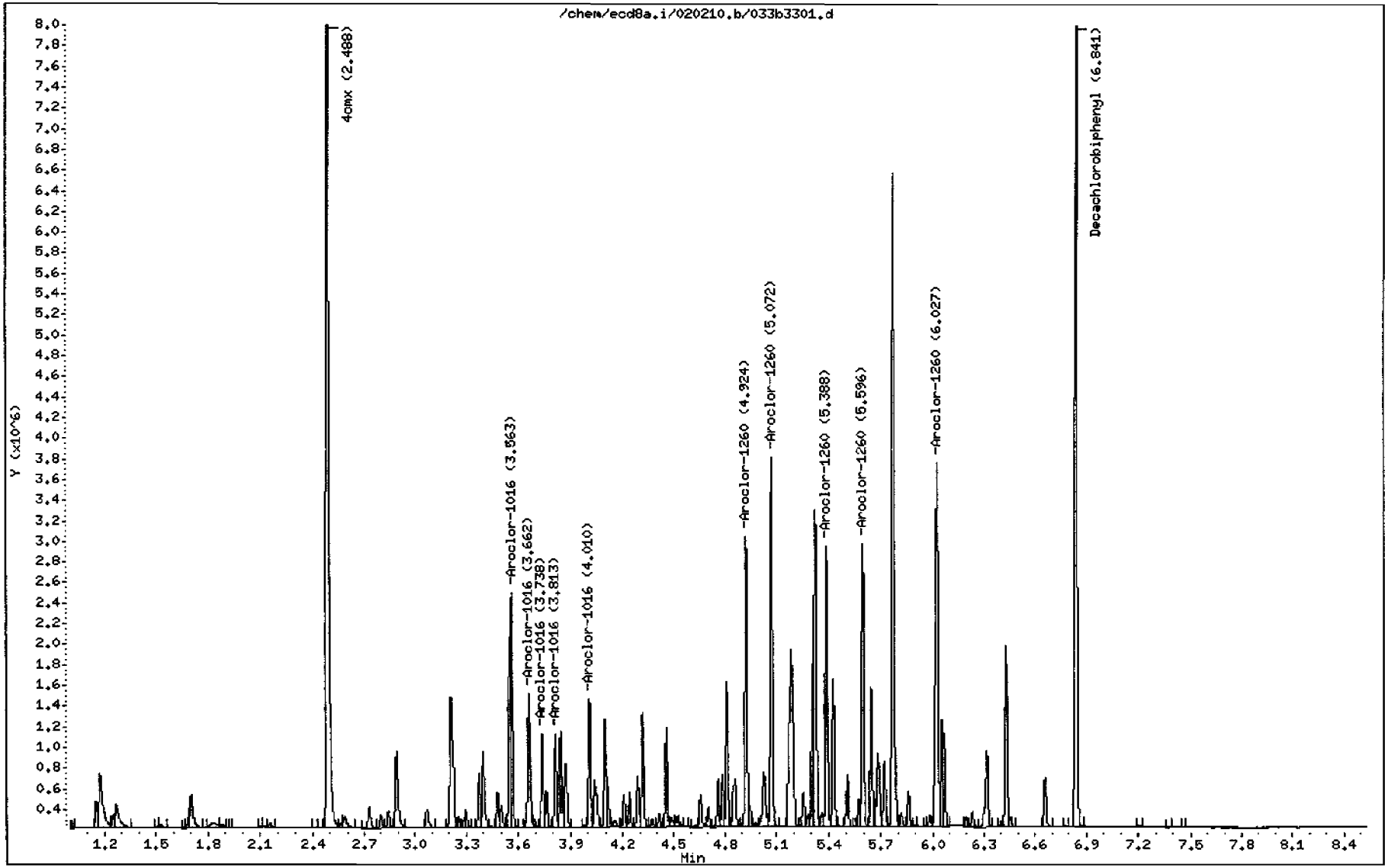

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 01/22/2010 METHOD: ECD8-F-8082-011110a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/012110.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	21-JAN-2010 08:36		012110	1.0		CLEAN
002f0201.d	WAR100104-60 01	JAOC	21-JAN-2010 08:48		012110	1.0		DUSE
003f0301.d	WAR091217-48	JAOC	21-JAN-2010 09:19		012110	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR100104-32	JAOC	21-JAN-2010 09:31		012110	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR100121-01 60	JAOC	21-JAN-2010 09:43		012110	1.0		1660 LEVEL 1
006f0601.d	WAR100121-02 60	JAOC	21-JAN-2010 09:56		012110	1.0		1660 LEVEL 2
007f0701.d	WAR100121-03 60	JAOC	21-JAN-2010 10:08		012110	1.0		1660 LEVEL 3
008f0801.d	WAR100121-04 60	JAOC	21-JAN-2010 10:21		012110	1.0		1660 LEVEL 4
009f0901.d	WAR100104-0160	JAOC	21-JAN-2010 10:33		012110	1.0		1660 LEVEL 5
010f1001.d	WAR100104-60 01	JAOC	21-JAN-2010 10:45		012110	1.0		PASSES BOTH COLUMNS
011f1101.d	WAR091219-DDT	JAOC	21-JAN-2010 10:58		012110	1.0		DDT
012f1201.d	WAR091130-99 02	JAOC	21-JAN-2010 11:10		012110	1.0		CLEAN
013f1301.d	1202019929	JAOC	21-JAN-2010 11:23	943396	2010AR1232MDL-S	1.0	QC A	DUSE, MDL STUDY FAILS
014f1401.d	1202019930	JAOC	21-JAN-2010 11:35	943396	2010AR1232MDL-S	1.0	QC A	DUSE, MDL STUDY FAILS
015f1501.d	244432001	JAOC	21-JAN-2010 11:48	943396	2010AR1232MDL-S	1.0	QCQA	DUSE, MDL STUDY FAILS

Instrument Batch: /chem/ecd8a.i/012110.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	244432002	JAOC	21-JAN-2010 12:00	943396	2010AR1232MDL-S	1.0	QCQA	DUSE, MDL STUDY FAILS
017f1701.d	244432003	JAOC	21-JAN-2010 12:12	943396	2010AR1232MDL-S	1.0	QCQA	DUSE, MDL STUDY FAILS

018f1801.d	244432004	JAOC	21-JAN-2010 12:25	943396	2010AR1232MDL-S	1.0	QCQA	DUSE, MDL STUDY FAILS
019f1901.d	244432005	JAOC	21-JAN-2010 12:37	943396	2010AR1232MDL-S	1.0	QCQA	DUSE, MDL STUDY FAILS
020f2001.d	244432006	JAOC	21-JAN-2010 12:50	943396	2010AR1232MDL-S	1.0	QCQA	DUSE, MDL STUDY FAILS
021f2101.d	244432007	JAOC	21-JAN-2010 13:02	943396	2010AR1232MDL-S	1.0	QCQA	DUSE, MDL STUDY FAILS
022f2201.d	244432008	JAOC	21-JAN-2010 13:14	943396	2010AR1232MDL-S	1.0	QCQA	DUSE, MDL STUDY FAILS
023f2301.d	WAR100104-60 02	JAOC	21-JAN-2010 13:27		012110	1.0		PASSES BOTH COLUMNS
024f2401.d	WAR091130-99 03	JAOC	21-JAN-2010 13:39		012110	1.0		CLEAN
025f2501.d	244386001	JAOC	21-JAN-2010 13:57	943396	2010MDLVECD81232-S	1.0	QCQA	DUSE, MDL STUDY FAILS
026f2601.d	244386002	JAOC	21-JAN-2010 14:09	943396	2010MDLVECD81232-S	1.0	QCQA	DUSE, MDL STUDY FAILS
027f2701.d	244386003	JAOC	21-JAN-2010 14:22	943396	2010MDLVECD81232-S	1.0	QCQA	DUSE, MDL STUDY FAILS
028f2801.d	244386004	JAOC	21-JAN-2010 14:34	943396	2010MDLVECD81232-S	1.0	QCQA	DUSE, MDL STUDY FAILS
029f2901.d	WAR100104-60 03	JAOC	21-JAN-2010 14:47		012110	1.0		PASSES BOTH COLUMNS
030f3001.d	WAR091130-99 04	JAOC	21-JAN-2010 14:59		012110	1.0		CLEAN
031f3101.d	1202020656	JAOC	21-JAN-2010 15:11	943705	2010AR1248MDL-S	1.0	QC A	UPLOAD BOTH, USE BOTH
032f3201.d	1202020657	JAOC	21-JAN-2010 15:24	943705	2010AR1248MDL-S	1.0	QC A	UPLOAD BOTH, USE BOTH
033f3301.d	244434001	JAOC	21-JAN-2010 15:36	943705	2010AR1248MDL-S	1.0	QCQA	UPLOAD BOTH, USE BOTH
034f3401.d	244434002	JAOC	21-JAN-2010 15:48	943705	2010AR1248MDL-S	1.0	QCQA	UPLOAD BOTH, USE BOTH
035f3501.d	244434003	JAOC	21-JAN-2010 16:01	943705	2010AR1248MDL-S	1.0	QCQA	UPLOAD BOTH, USE BOTH

Instrument Batch: /chem/ecd8a.i/012110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	244434004	JAOC	21-JAN-2010 16:13	943705	2010AR1248MDL-S	1.0	QCQA	UPLOAD BOTH, USE BOTH
037f3701.d	244434005	JAOC	21-JAN-2010 16:26	943705	2010AR1248MDL-S	1.0	QCQA	UPLOAD BOTH, USE BOTH
038f3801.d	244434006	JAOC	21-JAN-2010 16:38	943705	2010AR1248MDL-S	1.0	QCQA	UPLOAD BOTH, USE BOTH
039f3901.d	244434007	JAOC	21-JAN-2010 16:50	943705	2010AR1248MDL-S	1.0	QCQA	UPLOAD BOTH, USE BOTH
040f4001.d	244434008	JAOC	21-JAN-2010 17:03	943705	2010AR1248MDL-S	1.0	QCQA	UPLOAD BOTH, USE BOTH
041f4101.d	WAR100104-60 04	JAOC	21-JAN-2010 17:15		012110	1.0		PASSES BOTH COLUMNS

042f4201.d	WAR091130-99 05	JAOC	21-JAN-2010 17:28		012110		1.0		CLEAN
043f4301.d	244392001	JAOC	21-JAN-2010 17:40	943705	2010MDLVECD81248-S		1.0	QCQA	UPLOAD BOTH, USE BOTH
044f4401.d	244392002	JAOC	21-JAN-2010 17:52	943705	2010MDLVECD81248-S		1.0	QCQA	UPLOAD BOTH, USE BOTH
045f4501.d	244392003	JAOC	21-JAN-2010 18:05	943705	2010MDLVECD81248-S		1.0	QCQA	UPLOAD BOTH, USE BOTH
046f4601.d	244392004	JAOC	21-JAN-2010 18:17	943705	2010MDLVECD81248-S		1.0	QCQA	UPLOAD BOTH, USE BOTH
047f4701.d	WAR100104-60 05	JAOC	21-JAN-2010 18:30		012110		1.0		PASSES BOTH COLUMNS
048f4801.d	WAR091130-99 06	JAOC	21-JAN-2010 18:42		012110		1.0		CLEAN
049f4901.d	1202019878	JAOC	21-JAN-2010 18:55	943378	2010AR1248MDL-L		1.0	QC A	UPLOAD BOTH, USE BOTH
050f5001.d	1202019879	JAOC	21-JAN-2010 19:07	943378	2010AR1248MDL-L		1.0	QC A	UPLOAD BOTH, USE BOTH
051f5101.d	243854001	JAOC	21-JAN-2010 19:19	943378	2010AR1248MDL-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
052f5201.d	243854002	JAOC	21-JAN-2010 19:32	943378	2010AR1248MDL-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
053f5301.d	243854003	JAOC	21-JAN-2010 19:44	943378	2010AR1248MDL-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
054f5401.d	243854004	JAOC	21-JAN-2010 19:57	943378	2010AR1248MDL-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
055f5501.d	243854005	JAOC	21-JAN-2010 20:09	943378	2010AR1248MDL-L		1.0	QCQA	UPLOAD BOTH, USE BOTH

Instrument Batch: /chem/ecd8a.i/012110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	243854006	JAOC	21-JAN-2010 20:22	943378	2010AR1248MDL-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
057f5701.d	243854007	JAOC	21-JAN-2010 20:34	943378	2010AR1248MDL-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
058f5801.d	243854008	JAOC	21-JAN-2010 20:46	943378	2010AR1248MDL-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
059f5901.d	WAR100104-60 06	JAOC	21-JAN-2010 20:59		012110		1.0		PASSES BOTH COLUMNS
060f6001.d	WAR091130-99 07	JAOC	21-JAN-2010 21:11		012110		1.0		CLEAN
061f6101.d	243858001	JAOC	21-JAN-2010 21:24	943378	2010MDLVECD81248-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
062f6201.d	243858002	JAOC	21-JAN-2010 21:36	943378	2010MDLVECD81248-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
063f6301.d	243858003	JAOC	21-JAN-2010 21:48	943378	2010MDLVECD81248-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
064f6401.d	243858004	JAOC	21-JAN-2010 22:01	943378	2010MDLVECD81248-L		1.0	QCQA	UPLOAD BOTH, USE BOTH
065f6501.d	WAR100104-60 07	JAOC	21-JAN-2010 22:13		012110		1.0		PASSES BOTH COLUMNS
066f6601.d	WAR091130-99 08	JAOC	21-JAN-2010 22:26		012110		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/03/2010 METHOD: ECD8-F-8082-011110a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/020210.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	02-FEB-2010 11:53		020210	1.0		CLEAN
002f0201.d	WAR100104-60 01	JAOC	02-FEB-2010 12:06		020210	1.0		DUSE
003f0301.d	WAR100201-54	JAOC	02-FEB-2010 12:18		020210	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	02-FEB-2010 12:30		020210	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	02-FEB-2010 12:43		020210	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-60 01	JAOC	02-FEB-2010 12:55		020210	1.0		PASSES BOTH COLUMNS
007f0701.d	WAR100104-32	JAOC	02-FEB-2010 13:08		020210	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	JAOC	02-FEB-2010 13:20		020210	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	JAOC	02-FEB-2010 13:32		020210	1.0		PATTERN ONLY
010f1001.d	WAR091107-68	JAOC	02-FEB-2010 13:45		020210	1.0		PATTERN ONLY
011f1101.d	WAR091219-DDT	JAOC	02-FEB-2010 13:57		020210	1.0		DDT
012f1201.d	WAR091130-99 02	JAOC	02-FEB-2010 14:10		020210	1.0		CLEAN
013f1301.d	1202028920	JAOC	02-FEB-2010 14:22	947177	EUI-7485	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	1202028921	JAOC	02-FEB-2010 14:34	947177	EUI-7485	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	1202028924	JAOC	02-FEB-2010 14:47	947177	EUI-7485	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/020210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	245703001	JAOC	02-FEB-2010 14:59	947177	EUI-7485	100000.0	CARE	UPLOAD BOTH, USE HIGHER
017f1701.d	1202028922	JAOC	02-FEB-2010 15:12	947177	EUI-7485	100000.0	QC A	UPLOAD BOTH, USE HIGHER

018f1801.d	1202028923	JAOC	02-FEB-2010 15:24	947177	EUI-7485	100000.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	245721001	JAOC	02-FEB-2010 15:36	947177	EUI-7489	50.0	CARE	DUSE, RUN AT LOWER DILUTION
020f2001.d	245764001	JAOC	02-FEB-2010 15:49	947177	EUI-7494	10.0	CARE	DUSE, RUN AT LOWER DILUTION
021f2101.d	245721001	JAOC	02-FEB-2010 16:01	947177	EUI-7489	10.0	CARE	UPLOAD BOTH, USE HIGHER
022f2201.d	245764001	JAOC	02-FEB-2010 16:15	947177	EUI-7494	1.0	CARE	UPLOAD BOTH, USE HIGHER
023f2301.d	WAR100104-60 02	JAOC	02-FEB-2010 16:27		020210	1.0		PASSES BOTH COLUMNS
024f2401.d	WAR091130-99 03	JAOC	02-FEB-2010 16:39		020210	1.0		CLEAN
025f2501.d	1202028928	JAOC	02-FEB-2010 16:52	947182	245512	1.0	QC A	UPLOAD BOTH, USE HIGHER
026f2601.d	1202028929	JAOC	02-FEB-2010 17:04	947182	245512	1.0	QC A	UPLOAD BOTH, USE HIGHER
027f2701.d	245512001	JAOC	02-FEB-2010 17:16	947182	245512	1.0	DSSI	UPLOAD BOTH, USE HIGHER
028f2801.d	1202028930	JAOC	02-FEB-2010 17:29	947182	245512	1.0	QC A	UPLOAD BOTH, USE HIGHER
029f2901.d	1202028931	JAOC	02-FEB-2010 17:41	947182	245512	1.0	QC A	UPLOAD BOTH, USE HIGHER
030f3001.d	WAR100104-60 03	JAOC	02-FEB-2010 17:54		020210	1.0		PASSES BOTH COLUMNS
031f3101.d	WAR091130-99 04	JAOC	02-FEB-2010 18:06		020210	1.0		CLEAN
032f3201.d	1202029843	JAOC	02-FEB-2010 18:18	947574	10-1432	1.0	QC A	UPLOAD BOTH, USE HIGHER
033f3301.d	1202029844	JAOC	02-FEB-2010 18:31	947574	00-1432	1.0	QC A	UPLOAD BOTH, USE HIGHER
034f3401.d	245679002	JAOC	02-FEB-2010 18:43	947574	10-1449	10.0	LANL	UPLOAD BOTH, USE HIGHER
035f3501.d	1202029845	JAOC	02-FEB-2010 18:56	947574	10-1449	10.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/020210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202029846	JAOC	02-FEB-2010 19:08	947574	10-1449	10.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	245679003	JAOC	02-FEB-2010 19:20	947574	10-1449	5.0	LANL	UPLOAD BOTH, USE HIGHER
038f3801.d	245679004	JAOC	02-FEB-2010 19:33	947574	10-1449	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	245679005	JAOC	02-FEB-2010 19:45	947574	10-1449	1.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	245679006	JAOC	02-FEB-2010 19:58	947574	10-1449	10.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	245679007	JAOC	02-FEB-2010 20:10	947574	10-1449	5.0	LANL	UPLOAD BOTH, USE HIGHER

042f4201.d	WAR100104-60 04	JAOC	02-FEB-2010 20:26			020210		1.0		FAILS HIGH, REPORT SAMPLE WITH NO HITS
043f4301.d	WAR091130-99 05	JAOC	02-FEB-2010 20:39			020210		1.0		CLEAN
044f4401.d	245679008	JAOC	02-FEB-2010 20:51	947574	10-1449			5.0	LANL	DUSE, RE-RUN WITH PASSING CHECK
045f4501.d	245679009	JAOC	02-FEB-2010 21:04	947574	10-1449			10.0	LANL	UPLOAD BOTH, USE HIGHER
046f4601.d	245679010	JAOC	02-FEB-2010 21:16	947574	10-1449			5.0	LANL	UPLOAD BOTH, USE HIGHER
047f4701.d	245679011	JAOC	02-FEB-2010 21:28	947574	10-1449			10.0	LANL	DUSE, RE-RUN WITH PASSING CHECK
048f4801.d	245686001	JAOC	02-FEB-2010 21:41	947574	10-1432			1.0	LANL	DUSE, RE-RUN WITH PASSING CHECK
049f4901.d	245686002	JAOC	02-FEB-2010 21:53	947574	10-1432			1.0	LANL	UPLOAD BOTH, USE HIGHER
050f5001.d	245686013	JAOC	02-FEB-2010 22:06	947574	10-1432			1.0	LANL	UPLOAD BOTH, USE HIGHER
051f5101.d	245686014	JAOC	02-FEB-2010 22:18	947574	10-1432			1.0	LANL	UPLOAD BOTH, USE HIGHER
052f5201.d	WAR100104-60 05	JAOC	02-FEB-2010 22:34			020210		1.0		FAILS HIGH, REPORT SAMPLE WITH NO HITS
053f5301.d	WAR091130-99 06	JAOC	02-FEB-2010 22:47			020210		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/04/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/020310a.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	03-FEB-2010 10:12		020310a	1.0		CLEAN
002f0201.d	WAR100203-01 60	JAOC	03-FEB-2010 10:24		020310a	1.0		1660 LEVEL 1
003f0301.d	WAR100203-02 60	JAOC	03-FEB-2010 10:37		020310a	1.0		1660 LEVEL 2
004f0401.d	WAR100203-03 60	JAOC	03-FEB-2010 10:49		020310a	1.0		1660 LEVEL 3
005f0501.d	WAR100203-04 60	JAOC	03-FEB-2010 11:01		020310a	1.0		1660 LEVEL 4
006f0601.d	IAR100104-01 60	JAOC	03-FEB-2010 11:14		020310a	1.0		1660 LEVEL 5
007f0701.d	WAR100203-60 01	JAOC	03-FEB-2010 11:26		020310a	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100203-05 54	JAOC	03-FEB-2010 11:39		020310a	1.0		1254 LEVEL 1
009f0901.d	WAR100203-06 54	JAOC	03-FEB-2010 11:51		020310a	1.0		1254 LEVEL 2
010f1001.d	WAR100203-07 54	JAOC	03-FEB-2010 12:03		020310a	1.0		1254 LEVEL 3
011f1101.d	WAR100203-08 54	JAOC	03-FEB-2010 12:16		020310a	1.0		1254 LEVEL 4
012f1201.d	IAR091027-01 54	JAOC	03-FEB-2010 12:28		020310a	1.0		1254 LEVEL 5
013f1301.d	WAR100201-54	JAOC	03-FEB-2010 12:40		020310a	1.0		PASSES BOTH COLUMNS
014f1401.d	WAR100203-09 42	JAOC	03-FEB-2010 12:53		020310a	1.0		1242 LEVEL 1
015f1501.d	WAR100203-10 42	JAOC	03-FEB-2010 13:05		020310a	1.0		1242 LEVEL 2

Instrument Batch: /chem/ecd8a.i/020310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100203-11 42	JAOC	03-FEB-2010 13:18		020310a	1.0		1242 LEVEL 3
017f1701.d	WAR100203-12 42	JAOC	03-FEB-2010 13:30		020310a	1.0		1242 LEVEL 4

018f1801.d	IAR091111-01 42	JAOC	03-FEB-2010 13:42		020310a	1.0		1242 LEVEL 5
019f1901.d	WAR091217-42	JAOC	03-FEB-2010 13:55		020310a	1.0		PASSES BOTH COLUMNS
020f2001.d	WAR100203-13 48	JAOC	03-FEB-2010 14:07		020310a	1.0		1248 LEVEL 1
021f2101.d	WAR100203-14 48	JAOC	03-FEB-2010 14:19		020310a	1.0		1248 LEVEL 2
022f2201.d	WAR100203-15 48	JAOC	03-FEB-2010 14:32		020310a	1.0		1248 LEVEL 3
023f2301.d	WAR100203-16 48	JAOC	03-FEB-2010 14:44		020310a	1.0		1248 LEVEL 4
024f2401.d	IAR091027-02 48	JAOC	03-FEB-2010 14:57		020310a	1.0		1248 LEVEL 5
025f2501.d	WAR091217-48	JAOC	03-FEB-2010 15:09		020310a	1.0		DUSE RE-RUN
026f2601.d	WAR100104-32	JAOC	03-FEB-2010 15:21		020310a	1.0		PATTERN ONLY
027f2701.d	WAR100104-21	JAOC	03-FEB-2010 15:34		020310a	1.0		PATTERN ONLY
028f2801.d	WAR100203-17 62	JAOC	03-FEB-2010 15:46		020310a	1.0		1262 LEVEL 1
029f2901.d	WAR100203-18 62	JAOC	03-FEB-2010 15:58		020310a	1.0		1262 LEVEL 2
030f3001.d	WAR100203-19 62	JAOC	03-FEB-2010 16:11		020310a	1.0		1262 LEVEL 3
031f3101.d	WAR100203-20 62	JAOC	03-FEB-2010 16:23		020310a	1.0		1262 LEVEL 4
032f3201.d	IAR100104-04 62	JAOC	03-FEB-2010 16:36		020310a	1.0		1262 LEVEL 5
033f3301.d	WAR100104-62	JAOC	03-FEB-2010 16:48		020310a	1.0		PASSES BOTH COLUMNS
034f3401.d	WAR091107-68	JAOC	03-FEB-2010 17:00		020310a	1.0		PATTERN ONLY
035f3501.d	WAR091217-48	JAOC	03-FEB-2010 17:13		020310a	1.0		PASSES BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091219-DDT	JAOC	03-FEB-2010 17:25		020310a	1.0		DDT
037f3701.d	WAR091130-99 02	JAOC	03-FEB-2010 17:38		020310a	1.0		CLEAN
038f3801.d	1202026314	JAOC	03-FEB-2010 17:50	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
039f3901.d	1202026315	JAOC	03-FEB-2010 18:02	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
040f4001.d	243859001	JAOC	03-FEB-2010 18:15	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
041f4101.d	243859002	JAOC	03-FEB-2010 18:27	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH

042f4201.d	243859003	JAOC	03-FEB-2010 18:39	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
043f4301.d	243859004	JAOC	03-FEB-2010 18:52	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
044f4401.d	243859005	JAOC	03-FEB-2010 19:04	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
045f4501.d	243859006	JAOC	03-FEB-2010 19:16	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
046f4601.d	243859007	JAOC	03-FEB-2010 19:29	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
047f4701.d	243859008	JAOC	03-FEB-2010 19:41	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
048f4801.d	WAR100203-60 02	JAOC	03-FEB-2010 19:54		020310a	1.0		PASSES BOTH COLUMNS
049f4901.d	WAR091130-99 03	JAOC	03-FEB-2010 20:06		020310a	1.0		CLEAN
050f5001.d	243865001	JAOC	03-FEB-2010 20:18	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
051f5101.d	243865002	JAOC	03-FEB-2010 20:31	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
052f5201.d	243865003	JAOC	03-FEB-2010 20:43	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
053f5301.d	243865004	JAOC	03-FEB-2010 20:55	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
054f5401.d	WAR100203-60 03	JAOC	03-FEB-2010 21:08		020310a	1.0		PASSES BOTH COLUMNS
055f5501.d	WAR091130-99 04	JAOC	03-FEB-2010 21:20		020310a	1.0		CLEAN

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245679008	JAOC	03-FEB-2010 21:33	947574	10-1449	5.0	LANL	UPLOAD BOTH, USE HIGHER
057f5701.d	245679011	JAOC	03-FEB-2010 21:45	947574	10-1449	10.0	LANL	UPLOAD BOTH, USE HIGHER
058f5801.d	245686001	JAOC	03-FEB-2010 21:57	947574	10-1432	1.0	LANL	UPLOAD BOTH, USE HIGHER
059f5901.d	WAR100203-60 04	JAOC	03-FEB-2010 22:10		020310a	1.0		PASSES BOTH COLUMNS
060f6001.d	WAR091130-99 05	JAOC	03-FEB-2010 22:22		020310a	1.0		CLEAN
061f6101.d	1202030643	JAOC	03-FEB-2010 22:34	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
062f6201.d	1202030644	JAOC	03-FEB-2010 22:47	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
063f6301.d	245873001	JAOC	03-FEB-2010 22:59	947944	245873	50.0	GEEL	UPLOAD BOTH, USE HIGHER
064f6401.d	1202030645	JAOC	03-FEB-2010 23:12	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
065f6501.d	1202030646	JAOC	03-FEB-2010 23:24	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
066f6601.d	245873002	JAOC	03-FEB-2010 23:36	947944	245873	1.0	GEEL	UPLOAD BOTH, USE HIGHER

067f6701.d	WAR100203-60 05	JAOC	03-FEB-2010 23:49	020310a	1.0	PASSES BOTH COLUMNS
068f6801.d	WAR091130-99 06	JAOC	04-FEB-2010 00:01	020310a	1.0	CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/035b3501.d
Lab Smp Id: 1202029845 Client Smp ID: RE46-10-11901MS
Inj Date : 02-FEB-2010 18:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202029845|10|
Misc Info : |ECD82P_1S|947574|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 35 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-1449.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weight of sample extracted (g)
M	9.05010	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	1253508	15.3593	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.841	-0.001	893722	15.2915	5.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.563	3.564	-0.001	291035	90.9197	33.2	80.00- 120.00	100.00(a)
3.662	3.663	-0.001	212729	93.4384	34.1	43.52- 83.52	73.09
3.739	3.739	0.000	114824	87.7713	32.1	19.39- 59.39	39.45
3.814	3.814	0.000	127875	99.4053	36.3	17.55- 57.55	43.94
4.010	4.010	0.000	159373	89.5091	32.7	32.56- 72.56	54.76

Average of Peak Concentrations = 33.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.924	-0.001	364967	103.265	37.7	80.00- 120.00	100.00(a)
5.071	5.073	-0.002	425290	100.773	36.8	102.57- 142.57	116.53
5.388	5.389	-0.001	310448	95.7767	35.0	72.38- 112.38	85.06
5.595	5.596	-0.001	317702	94.4481	34.5	76.07- 116.07	87.05
6.027	6.027	0.000	492401	92.2873	33.7	131.32- 171.32	134.92
Average of Peak Concentrations =					35.5		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd8a.i/020210.b/035b3501.d

Date : 02-FEB-2010 18:56

Client ID: RE46-10-11901MS

Sample Info: |1202029845|10|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

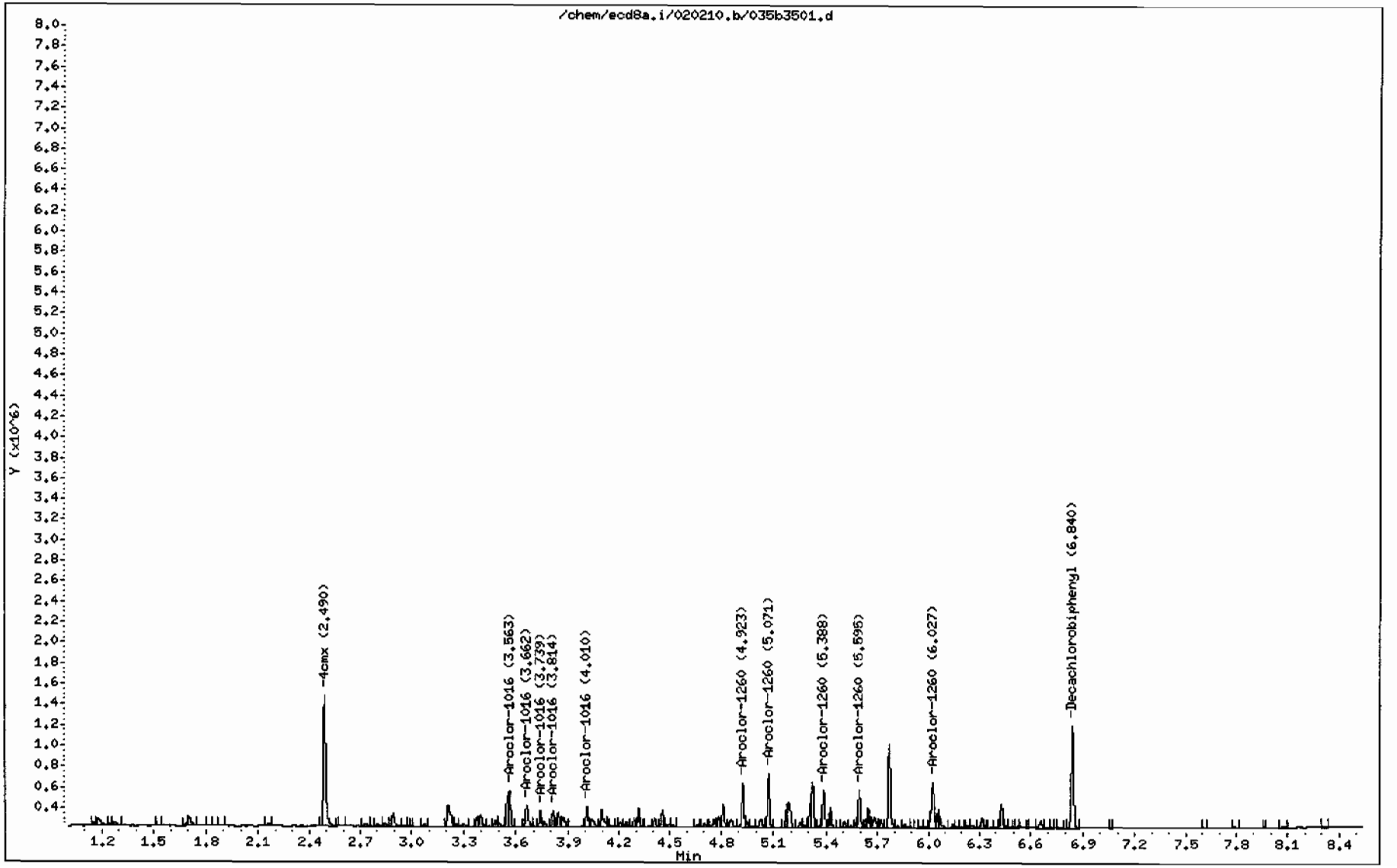

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/035f3501.d
Lab Smp Id: 1202029845 Client Smp ID: RE46-10-11901MS
Inj Date : 02-FEB-2010 18:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202029845|10|
Misc Info : |ECD82P_1S|947574|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 35 QC Sample: MS
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-1449.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weight of sample extracted (g)
M	9.05010	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.256	2.257	-0.001	2070292	15.8042	5.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.249	-0.002	1239940	14.0219	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.815	2.814	0.001	454918	99.4838	36.3	80.00- 120.00	100.00(a)
3.166	3.166	0.000	515419	97.6097	35.6	110.80- 150.80	113.30
3.310	3.310	0.000	220196	93.3384	34.1	34.76- 74.76	48.40
3.402	3.402	0.000	222580	106.596	38.9	27.61- 67.61	48.93
3.565	3.564	0.001	294237	100.311	36.6	49.41- 89.41	64.68

Average of Peak Concentrations = 36.3

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	593259	103.038	37.6	80.00- 120.00	100.00(a)
4.633	4.635	-0.002	895313	102.847	37.6	129.36- 169.36	150.91
4.908	4.910	-0.002	506492	94.9558	34.7	68.28- 108.28	85.37
5.080	5.082	-0.002	517679	93.2578	34.1	72.30- 112.30	87.26
5.490	5.493	-0.003	551438	93.5281	34.2	81.81- 121.81	92.95
		Average of Peak Concentrations =			35.6		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd8a.i/020210.b/035f3501.d

Date : 02-FEB-2010 18:56

Client ID: RE46-10-11901MS

Sample Info: |1202029845|10|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

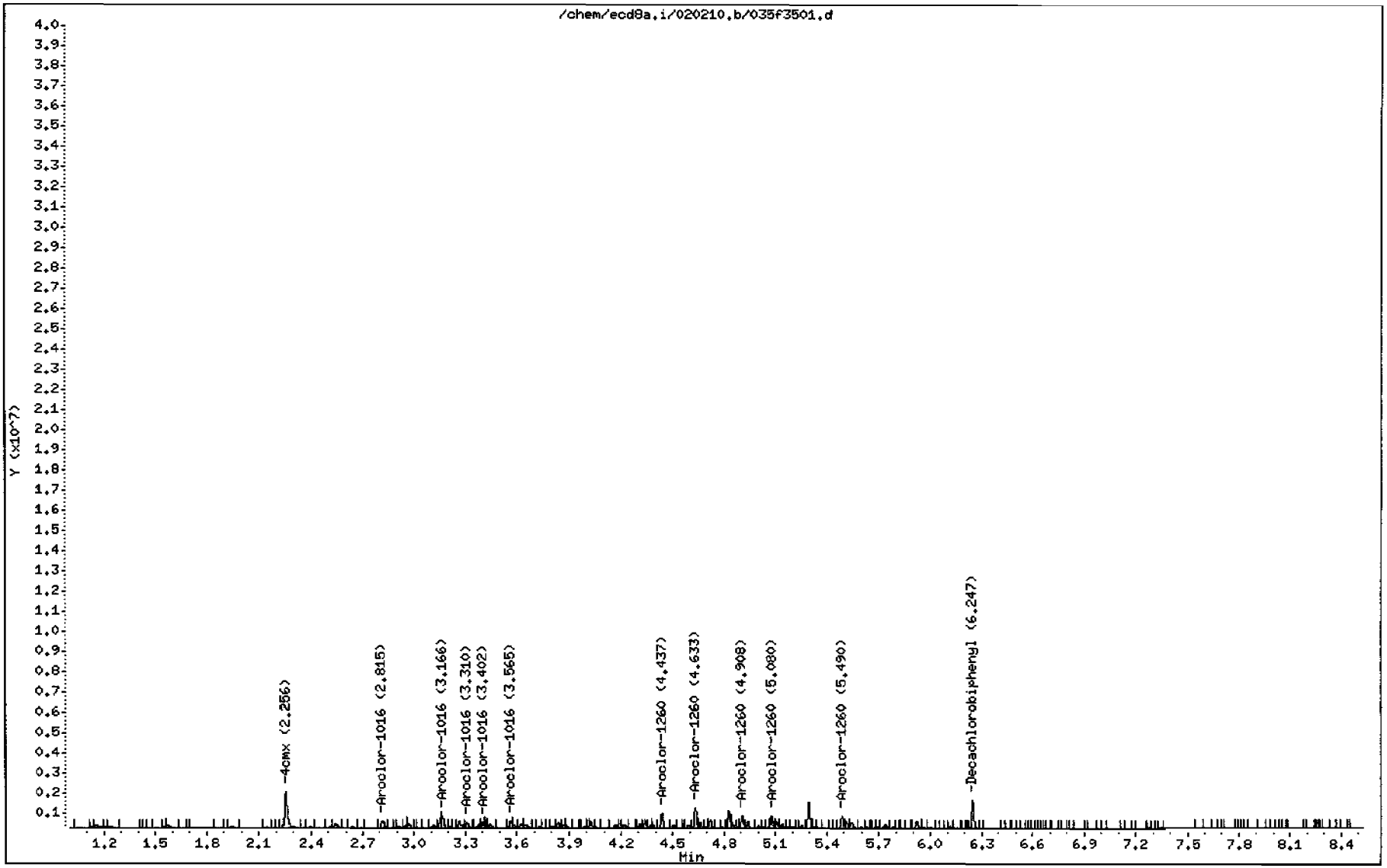

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/036b3601.d
Lab Smp Id: 1202029846 Client Smp ID: RE46-10-11901MSD
Inj Date : 02-FEB-2010 19:08
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202029846|10|
Misc Info : |ECD82P_1S|947574|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-B-8082-011110a.m
Meth Date : 03-Feb-2010 08:24 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007b0701.d
Als bottle: 36 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-1449.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	9.05010	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	1080913	13.2445	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.841	-0.001	775782	13.2736	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.562	3.564	-0.002	258321	80.6998	29.4	80.00- 120.00	100.00(a)
3.662	3.663	-0.001	190463	83.6583	30.5	43.52- 83.52	73.73
3.738	3.739	-0.001	101168	77.3326	28.2	19.39- 59.39	39.16
3.813	3.814	-0.001	110584	85.9639	31.3	17.55- 57.55	42.81
4.010	4.010	0.000	141006	79.1936	28.9	32.56- 72.56	54.59

Average of Peak Concentrations = 29.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.924	-0.001	322863	91.3519	33.3	80.00- 120.00	100.00(a)
5.072	5.073	-0.001	380439	90.1456	32.8	102.57- 142.57	117.83
5.388	5.389	-0.001	278713	85.9861	31.3	72.38- 112.38	86.33
5.596	5.596	0.000	284431	84.5572	30.8	76.07- 116.07	88.10
6.027	6.027	0.000	441420	82.7323	30.2	131.32- 171.32	136.72
Average of Peak Concentrations =					31.7		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd8a.i/020210.b/036b3601.d

Page 1

Date : 02-FEB-2010 19:08

Client ID: RE46-10-11901MSD

Instrument: ecd8a.i

Sample Info: |12020298461101|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

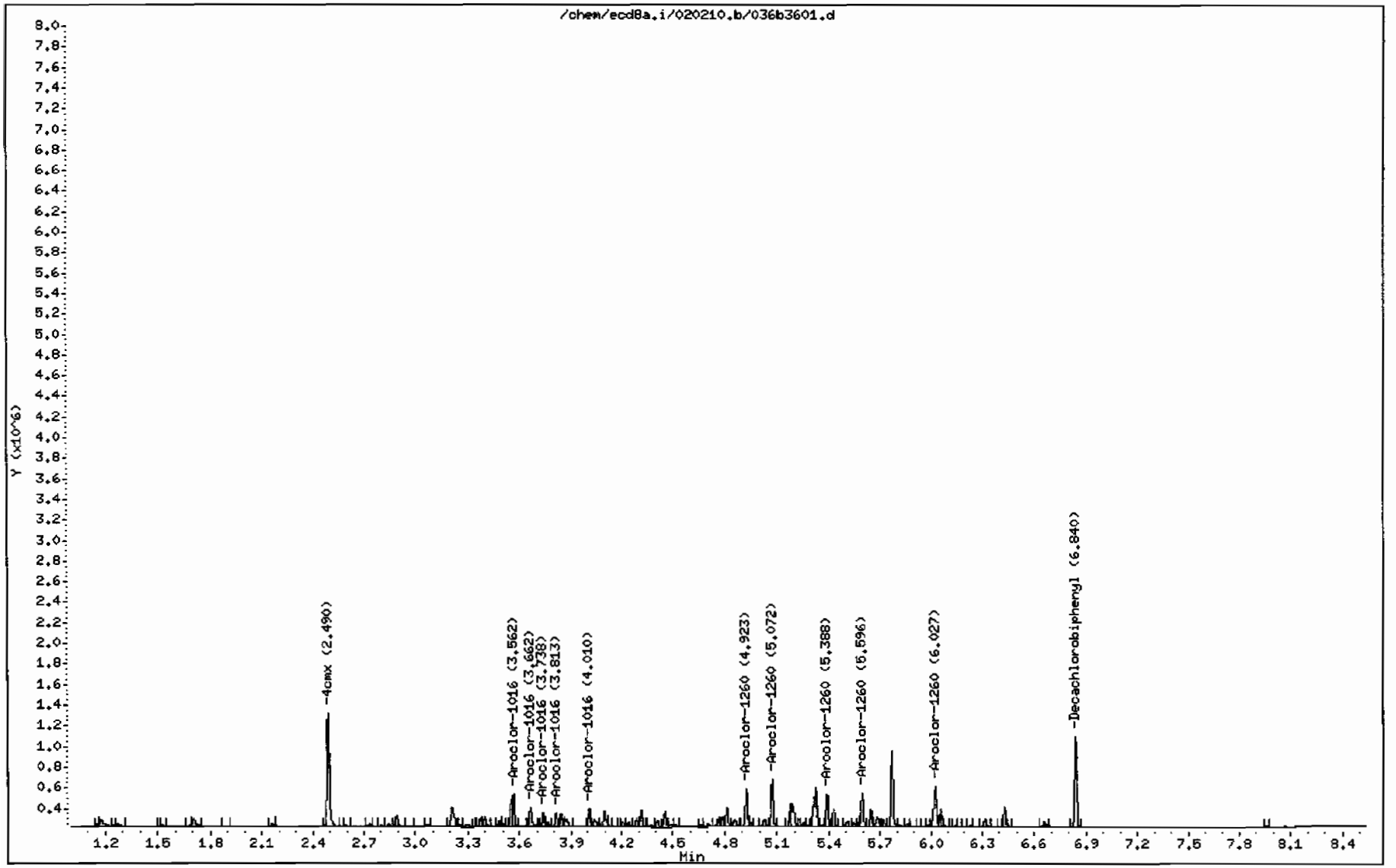

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020210.b/036f3601.d
Lab Smp Id: 1202029846 Client Smp ID: RE46-10-11901MSD
Inj Date : 02-FEB-2010 19:08
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202029846|10|
Misc Info : |ECD82P_1S|947574|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/020210.b/ECD8-F-8082-011110a.m
Meth Date : 03-Feb-2010 08:20 jen01212 Quant Type: ESTD
Cal Date : 22-JAN-2010 07:45 Cal File: 007f0701.d
Als bottle: 36 QC Sample: MSD
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-1449.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.17000	Weight of sample extracted (g)
M	9.05010	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.257	2.257	0.000	1816532	13.8671	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.249	-0.002	1114798	12.6068	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.814	2.814	0.000	407611	89.1385	32.5	80.00- 120.00	100.00(a)
3.166	3.166	0.000	466427	88.3317	32.2	110.80- 150.80	114.43
3.309	3.310	-0.001	199488	84.5605	30.8	34.76- 74.76	48.94
3.402	3.402	0.000	198359	94.9963	34.6	27.61- 67.61	48.66
3.564	3.564	0.000	261810	89.2561	32.5	49.41- 89.41	64.23

Average of Peak Concentrations = 32.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	550248	95.5682	34.8	80.00- 120.00	100.00(a)
4.633	4.635	-0.002	821587	94.3779	34.4	129.36- 169.36	149.31
4.908	4.910	-0.002	485055	90.9368	33.1	68.28- 108.28	88.15
5.081	5.082	-0.001	493137	88.8367	32.4	72.30- 112.30	89.62
5.492	5.493	-0.001	512039	86.8457	31.6	81.81- 121.81	93.06
Average of Peak Concentrations =					33.3		

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd8a.i/020210.b/036f3601.d

Date : 02-FEB-2010 19:08

Client ID: RE46-10-11901MSD

Sample Info: |1202029846|10|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

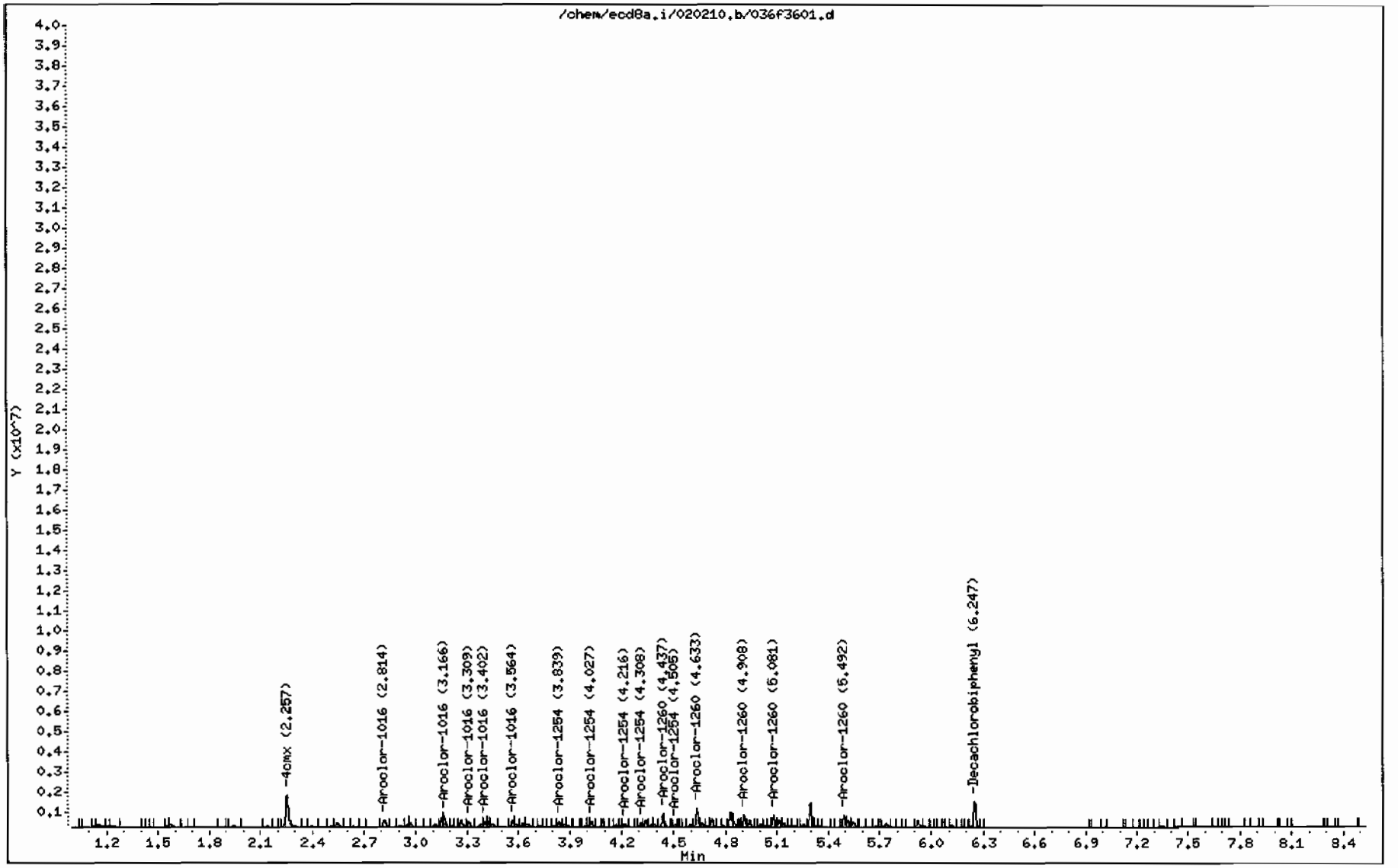

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 947573 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202029843 MB	01-FEB-2010 19:57:00	30	H2SO4/KMn2		2	9	1	0.03333
1202029844 LCS	01-FEB-2010 19:57:00	30	H2SO4/KMn2		2	9	1	0.03333
245679002	01-FEB-2010 19:57:00	30.19	H2SO4/KMn2		2	9	1	0.03312
1202029845 MS (245679002)	01-FEB-2010 19:57:00	30.1	H2SO4/KMn2		2	9	1	0.03322
1202029846 MSD (245679002)	01-FEB-2010 19:57:00	30.17	H2SO4/KMn2		2	9	1	0.03315
245679003	01-FEB-2010 19:57:00	30.03	H2SO4/KMn2		2	9	1	0.0333
245679004	01-FEB-2010 19:57:00	30.07	H2SO4/KMn2		2	9	1	0.03326
245679005	01-FEB-2010 19:57:00	30.09	H2SO4/KMn2		2	9	1	0.03323
245679006	01-FEB-2010 19:57:00	30.01	H2SO4/KMn2		2	9	1	0.03332
245679007	01-FEB-2010 19:57:00	30.04	H2SO4/KMn2		2	9	1	0.03329
245679008	01-FEB-2010 19:57:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245679009	01-FEB-2010 19:57:00	30.16	H2SO4/KMn2		2	9	1	0.03316
245679010	01-FEB-2010 19:57:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245679011	01-FEB-2010 19:57:00	30.12	H2SO4/KMn2		2	9	1	0.0332
245686001	01-FEB-2010 19:57:00	30.01	H2SO4/KMn2		2	9	1	0.03332
245686002	01-FEB-2010 19:57:00	30.08	H2SO4/KMn2		2	9	1	0.03324
245686013	01-FEB-2010 19:57:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245686014	01-FEB-2010 19:57:00	30.18	H2SO4/KMn2		2	9	1	0.03313

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202029844	PCB Laboratory Control	WE100126-07	1	mL
MS	1202029845	PCB Laboratory Control	WE100126-07	1	mL
MSD	1202029846	PCB Laboratory Control	WE100126-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100108-15	1	mL
REGNT	All	Acetone	1259670	150	mL
REGNT	All	Hexane	1259672-B2	150	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	100127	30	g

Comments:

Clean up Date: 2/1/10
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1394

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/22/2010

TURNAROUND/REPORT DUE: 2/21/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	EPA:906.0	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:AM-241	1	RE15-10-7927	R	1/21/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:ISOPU	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:ISOU	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:6020	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:6850	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:7471A	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:8321A_MOD	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:9012A	1	RE15-10-7927	R	1/21/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	

Final Page of REQUEST NUMBER 10-1394

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1394C

REQUEST NUMBER: 10-1394

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/21/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7928	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7928	1	POLY	H3	Ice	R
RE15-10-7928	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7928	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7929	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7929	1	POLY	H3	Ice	R
RE15-10-7929	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7929	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7927	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7927	1	POLY	H3	Ice	R
RE15-10-7927	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7927	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7930	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7930	1	POLY	H3	Ice	R
RE15-10-7930	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7930	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	1/22/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time**

Printed Name Signature

Remarks:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7929 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/21/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		0950	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610734	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown soil, some rock and roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-31 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2030 dpm

HE Neg

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A Lopez	01/21/2010	(Printed Name)	1/21/10
(Signature)	1135	(Signature)	1135
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7927 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/21/2010	MEDIA:	OBT3	All h
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610733	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, rocks, wire, pine needles

SAMPLE COMMENTS: NA

LOCATION DESC: 86-32, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

[redacted] ≤ 16 dpm
[redacted] Gamma ≤ 2280 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) Tim Fosland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. Lopez	01/21/2010 12:35	(Printed Name)	1/21/10 1735
(Signature) Larry A. Lopez		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7930 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/21/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1016	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610734	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.5	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: grey tuff - wet

SAMPLE COMMENTS: NA

LOCATION DESC: 86-31, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 dpm
Beta/Gamma ≤ 2240 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A. Lopez	01/21/2010 11:35	(Printed Name) Lisa Martin	1/21/10 1231
(Signature) Larry A. Lopez		(Signature)	
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7928 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/21/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		0920	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610733	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-32 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 dpm
Beta/Gamma ≤ 2210 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Larry A Lopez	01/21/2010 12:35	(Printed Name)	1/21/10 1135
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00019	Request or PO Number:	
Client Sample ID:	RE15-10-7927	ARS Sample ID:	ARS2-10-00019-001
Sample Collection Date:	01/21/10 08:55	Date Received:	01/21/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/22/10 08:22

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	30.53	27.75	36.09	28.00		pCi/g	EPA 900.0M	1/21/2010	ME	N/A
GROSS BETA	74.19	18.68	18.22	20.77		pCi/g	EPA 900.0M	1/21/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
K-40	22.72	8.95	1.98	8.97		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CO-60	0.00	12.97	0.13	12.97		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CS-134	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CS-137	0.01	0.11	0.14	0.11		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
EU-152	1.02	0.67	0.15	0.67		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
PB-212	1.50	0.64	0.24	0.64		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
RA-228	0.50	0.71	0.35	0.71		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
U-235	2.72	1.73	0.70	1.73		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
U-238	28.13	7.30	2.17	9.72		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
AM-241	0.57	0.38	0.12	0.38		pCi/g	EPA 901.1M	1/21/2010	ME	N/A

NOTES: % Moisture: 2.74

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00019	Request or PO Number:	
Client Sample ID:	RE15-10-7928	ARS Sample ID:	ARS2-10-00019-002
Sample Collection Date:	01/21/10 09:20	Date Received:	01/21/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/22/10 08:22

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.52	25.69	32.15	25.95		pCi/g	EPA 900.0M	1/21/2010	ME	N/A
GROSS BETA	27.75	13.99	18.14	14.39		pCi/g	EPA 900.0M	1/21/2010	ME	N/A
NA-22	0.10	0.19	0.16	0.19		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
K-40	26.76	10.97	2.51	11.00		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CO-60	0.17	0.21	0.17	0.21		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CS-134	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CS-137	-0.01	21.53	0.10	21.53		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
EU-152	0.00	17.11	0.19	17.11		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
PB-212	1.41	0.69	0.26	0.69		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
RA-228	1.69	0.98	0.44	0.98		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
U-235	2.03	1.18	0.26	1.18		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
U-238	2.37	3.92	1.87	3.96		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
AM-241	0.93	0.56	0.17	0.56		pCi/g	EPA 901.1M	1/21/2010	ME	N/A

NOTES: % Moisture: 0.42

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00019	Request or PO Number:	
Client Sample ID:	RE15-10-7929	ARS Sample ID:	ARS2-10-00019-003
Sample Collection Date:	01/21/10 09:50	Date Received:	01/21/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/22/10 08:22

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	26.54	25.23	33.24	25.44		pCi/g	EPA 900.0M	1/21/2010	ME	N/A
GROSS BETA	45.93	17.08	19.93	17.98		pCi/g	EPA 900.0M	1/21/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
K-40	14.32	7.18	1.95	7.20		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CO-60	0.00	12.76	0.13	12.76		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CS-134	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CS-137	0.43	0.29	0.08	0.29		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
EU-152	0.00	13.26	0.15	13.26		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
PB-212	0.83	0.52	0.23	0.52		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
RA-228	2.33	1.00	0.34	1.00		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
U-235	2.10	1.15	0.51	1.15		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
U-238	6.78	3.92	1.54	4.22		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
AM-241	-0.01	26.61	0.06	26.61		pCi/g	EPA 901.1M	1/21/2010	ME	N/A

NOTES: % Moisture: 2.52

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00019	Request or PO Number:	
Client Sample ID:	RE15-10-7930	ARS Sample ID:	ARS2-10-00019-004
Sample Collection Date:	01/21/10 10:16	Date Received:	01/21/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	01/22/10 08:22

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	31.30	27.26	35.54	27.52		pCi/g	EPA 900.0M	1/21/2010	ME	N/A
GROSS BETA	47.32	16.37	18.46	17.37		pCi/g	EPA 900.0M	1/21/2010	ME	N/A
NA-22	0.09	0.19	0.16	0.19		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
K-40	-1.19	-27.35	5.06	-27.35		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CO-60	0.00	16.12	0.16	16.12		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CS-134	0.46	0.22	0.12	0.22		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
CS-137	-0.01	50.07	0.11	50.07		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
EU-152	1.07	0.68	0.19	0.68		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
PB-212	1.37	0.65	0.23	0.65		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
RA-228	1.64	1.38	0.43	1.38		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
U-235	1.21	1.13	0.43	1.13		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
U-238	10.61	6.96	2.72	7.36		pCi/g	EPA 901.1M	1/21/2010	ME	N/A
AM-241	0.31	0.44	0.20	0.44		pCi/g	EPA 901.1M	1/21/2010	ME	N/A

NOTES: % Moisture: 1.00

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number): RE15-10-7927
7928
7929
7930

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

Reason:

Print Last Name Lopez Signature [signature] Date 01/21/2010

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1394 VALIDATION DATE: 03/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/04/10

VALIDATOR'S SIGNATURE: Monica Dymerski DATE: 03/03/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7928

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396001

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	09-FEB-10 21:21	per0209080a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:21	per0209080a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	09-FEB-10 21:21	per0209080a
	Perchlorate-O(18)			5.34	ug/kg		1	09-FEB-10 21:21	per0209080a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7929

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396002

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.689	2.76	0.689	ug/kg	U	1	09-FEB-10 21:28	per0209081a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:28	per0209081a
14797-73-0	Perchlorate-101	.689	2.76	0.689	ug/kg	U	1	09-FEB-10 21:28	per0209081a
	Perchlorate-O(18)			7.62	ug/kg		1	09-FEB-10 21:28	per0209081a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7927

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396003

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.662	2.65	0.662	ug/kg	U	1	09-FEB-10 21:34	per0209082a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:34	per0209082a
14797-73-0	Perchlorate-101	.662	2.65	0.662	ug/kg	U	1	09-FEB-10 21:34	per0209082a
	Perchlorate-O(18)			7.59	ug/kg		1	09-FEB-10 21:34	per0209082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7930

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396004

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	09-FEB-10 21:41	per0209083a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:41	per0209083a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	09-FEB-10 21:41	per0209083a
	Perchlorate-O(18)			5.89	ug/kg		1	09-FEB-10 21:41	per0209083a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

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Section I.

REQUEST NUMBER: 10-1394 VALIDATION DATE: 03/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The samples were extracted beyond the method prescribed HT but within 2X the HT. All associated sample results were NDs and, thus, were qualified UJ,HE9.
2. The bracketing CCV %Ds were >20% with positive bias for RDX; o-nitrotoluene; and PETN. The associated sample results were NDs and, thus, were not qualified.
3. The LCS %R was < the laboratory LAL but ≥10% for 4-amino-2,6-dinitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE12a.

Reviewed by: Mary Donivan Level: I Date: 03/04/10

VALIDATOR'S SIGNATURE: Monica Dymerski DATE: 03/03/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☒	☐	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☒	☐	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396001

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216119a

Date Analyzed: 19-FEB-10 03:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE9	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396001

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170119.wiff

Date Analyzed: 18-FEB-10 16:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE9	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/03/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7929

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396002

Sample Amount 2

Moisture: 27.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216122a

Date Analyzed: 19-FEB-10 04:52

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	UJ,HE9	500	Uh
121-14-2	2,4-Dinitrotoluene		500	Uh
121-82-4	RDX		500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene		500	Uh
2691-41-0	HMX		500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene		500	Uh
479-45-8	Tetryl		500	Uh
606-20-2	2,6-Dinitrotoluene		500	Uh
78-11-5	PETN		1000	Uh
88-72-2	o-Nitrotoluene		500	Uh
98-95-3	Nitrobenzene		500	Uh
99-08-1	m-Nitrotoluene		500	Uh
99-35-4	1,3,5-Trinitrobenzene		500	Uh
99-65-0	m-Dinitrobenzene		500	Uh
99-99-0	p-Nitrotoluene		500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/03/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7929

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396002

Sample Amount 2

Moisture: 27.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170122.wiff

Date Analyzed: 18-FEB-10 17:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE9	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/03/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7927

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396003

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216123a

Date Analyzed: 19-FEB-10 05:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE9	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/03/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7927

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396003

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170123.wiff

Date Analyzed: 18-FEB-10 17:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE9	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/03/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7930

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396004

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216124a

Date Analyzed: 19-FEB-10 05:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene UJ,HE9	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/03/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7930

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396004

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170124.wiff

Date Analyzed: 18-FEB-10 17:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE9	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/03/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1394 VALIDATION DATE: 03/03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Target analyte Pb was detected in the MB. The Pb result for sample RE15-10-7928 was a detect >5X but ≤50X the MB concentration and, thus, was qualified J,I4a. The remaining associated sample results were detects >50X the MB concentration and, thus, were not qualified based on professional judgment.
2. The MS %Rs were > the laboratory UAL for Al, K, Fe, and Mn. The associated Al and K sample results were detects and, thus, were qualified J+,I6b. The Fe and Mn parent sample concentrations were >4X the spike concentrations; thus, those sample results were not qualified, based on professional judgment.
3. The sample duplicate RPD was >35% for Cr, and the sample and duplicate concentrations were ≥5X the PQL. The associated sample results were detects and, thus, were qualified J,I10a.

Reviewed by: Mary Donivan Level: I Date: 03/04/10

VALIDATOR'S SIGNATURE: Monica L Dymerski DATE: 03/03/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1394 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245396001 **BASIS:** Dry Weight **DATE COLLECTED** 21-JAN-10

CLIENT ID: RE15-10-7928 **LEVEL:** Low **DATE RECEIVED** 23-JAN-10

MATRIX: SOIL **%SOLIDS:** 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	935000	ug/Kg	N	6880	20200	20200	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-36-0	Antimony	1010	ug/Kg	U	334	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-38-2	Arsenic	0.709	mg/kg	J	0.207	1.04	1.04	2	MS	BAJ	02/15/10 00:51	100214-8	945396
7440-39-3	Barium	18400	ug/Kg		101	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-41-7	Beryllium	0.360	mg/kg		0.0207	0.104	0.104	2	MS	BAJ	02/14/10 01:04	100213-4	945396
7440-43-9	Cadmium	506	ug/Kg	U	101	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-70-2	Calcium	328000	ug/Kg	*	8090	25300	25300	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-47-3	Chromium J,I10a	8030	ug/Kg	*	152	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-48-4	Cobalt	1800	ug/Kg		152	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-50-8	Copper	5690	ug/Kg		303	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-89-6	Iron	7680000	ug/Kg		8090	25300	25300	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-92-1	Lead J,I4a	5490	ug/Kg		253	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-95-4	Magnesium	205000	ug/Kg		8600	30300	30300	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-96-5	Manganese	238000	ug/Kg		202	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-97-6	Mercury	9.91	ug/kg	J	3.96	11.7	11.7	1	AV	ETL	02/10/10 10:51	021010S1-9	945628
7440-02-0	Nickel	2.57	mg/kg	*	0.104	0.415	0.415	2	MS	BAJ	02/14/10 01:04	100213-4	945396
7440-09-7	Potassium J+,I6b	225000	ug/Kg	N	6470	25300	25300	1	P	HSC	02/12/10 00:38	021110-1	945399
7782-49-2	Selenium	1.04	mg/kg	U	0.519	1.04	1.04	2	MS	BAJ	02/15/10 00:51	100214-8	945396
7440-22-4	Silver	396	ug/Kg	J	101	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-23-5	Sodium	134000	ug/Kg		7080	25300	25300	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-28-0	Thallium	0.207	mg/kg	U	0.0622	0.207	0.207	2	MS	BAJ	02/14/10 15:41	100214-5	945396
7440-61-1	Uranium	1.37	mg/kg	*	0.0137	0.0415	0.0415	2	MS	BAJ	02/14/10 09:00	100213-2	945396
7440-62-2	Vanadium	2860	ug/Kg		101	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-66-6	Zinc	32700	ug/Kg		334	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
945396	945392	SW846 3050B	0.5	g	50	mL	02/04/10	FGA
945399	945398	SW846 3050B	0.513	g	50	mL	02/04/10	FGA
945628	945627	SW846 7471A Prep	0.534	g	30	mL	02/09/10	TXB3

MLD
03/03/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1394 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245396002 **BASIS:** Dry Weight **DATE COLLECTED** 21-JAN-10

CLIENT ID: RE15-10-7929 **LEVEL:** Low **DATE RECEIVED** 23-JAN-10

MATRIX: SOIL **%SOLIDS:** 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	10400000	ug/Kg	N	9300	27300	27300	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-36-0	Antimony	1370	ug/Kg	U	451	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-38-2	Arsenic	2.81	mg/kg		0.258	1.29	1.29	2	MS	BAJ	02/15/10 01:07	100214-8	945396
7440-39-3	Barium	157000	ug/Kg		137	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-41-7	Beryllium	2.06	mg/kg		0.0258	0.129	0.129	2	MS	BAJ	02/14/10 01:35	100213-4	945396
7440-43-9	Cadmium	1600	ug/Kg		137	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-70-2	Calcium	4070000	ug/Kg	*	10900	34200	34200	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-47-3	Chromium J,I10a	10800	ug/Kg	*	205	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-48-4	Cobalt	7190	ug/Kg		205	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-50-8	Copper	73300	ug/Kg		410	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-89-6	Iron	12500000	ug/Kg		10900	34200	34200	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-92-1	Lead	102000	ug/Kg		342	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-95-4	Magnesium	2150000	ug/Kg		11600	41000	41000	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-96-5	Manganese	419000	ug/Kg		273	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-97-6	Mercury	24.9	ug/kg		5.54	16.3	16.3	1	AV	ETL	02/10/10 11:00	021010S1-9	945628
7440-02-0	Nickel	8.61	mg/kg	*	0.129	0.516	0.516	2	MS	BAJ	02/14/10 01:35	100213-4	945396
7440-09-7	Potassium J+,I6b	1870000	ug/Kg	N	8750	34200	34200	1	P	HSC	02/12/10 01:12	021110-1	945399
7782-49-2	Selenium	0.696	mg/kg	J	0.645	1.29	1.29	2	MS	BAJ	02/15/10 01:07	100214-8	945396
7440-22-4	Silver	748	ug/Kg		137	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-23-5	Sodium	70000	ug/Kg		9570	34200	34200	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-28-0	Thallium	0.240	mg/kg	J	0.0774	0.258	0.258	2	MS	BAJ	02/14/10 16:04	100214-5	945396
7440-61-1	Uranium	31.8	mg/kg	*	0.17	0.516	0.516	20	MS	BAJ	02/14/10 12:28	100214-3	945396
7440-62-2	Vanadium	24200	ug/Kg		137	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-66-6	Zinc	41700	ug/Kg		451	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
945396	945392	SW846 3050B	0.534	g	50	mL	02/04/10	FGA
945399	945398	SW846 3050B	0.504	g	50	mL	02/04/10	FGA
945628	945627	SW846 7471A Prep	0.508	g	30	mL	02/09/10	TXB3

MLD
03/03/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1394 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245396003 **BASIS:** Dry Weight **DATE COLLECTED** 21-JAN-10

CLIENT ID: RE15-10-7927 **LEVEL:** Low **DATE RECEIVED** 23-JAN-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	7000000	ug/Kg	N	8020	23600	23600	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-36-0	Antimony	778	ug/Kg	J	389	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-38-2	Arsenic	2.43	mg/kg		0.265	1.32	1.32	2	MS	BAJ	02/15/10 01:10	100214-8	945396
7440-39-3	Barium	97600	ug/Kg		118	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-41-7	Beryllium	5.83	mg/kg		0.0265	0.132	0.132	2	MS	BAJ	02/14/10 01:41	100213-4	945396
7440-43-9	Cadmium	1170	ug/Kg		118	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-70-2	Calcium	2120000	ug/Kg	*	9440	29500	29500	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-47-3	Chromium J,I10a	12600	ug/Kg	*	177	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-48-4	Cobalt	3750	ug/Kg		177	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-50-8	Copper	526000	ug/Kg		354	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-89-6	Iron	9560000	ug/Kg		9440	29500	29500	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-92-1	Lead	102000	ug/Kg		295	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-95-4	Magnesium	1230000	ug/Kg		10000	35400	35400	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-96-5	Manganese	282000	ug/Kg		236	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-97-6	Mercury	15.3	ug/kg		5.08	15	15	1	AV	ETL	02/10/10 11:01	021010S1-9	945628
7440-02-0	Nickel	7.08	mg/kg	*	0.132	0.529	0.529	2	MS	BAJ	02/14/10 01:41	100213-4	945396
7440-09-7	Potassium J+,I6b	1250000	ug/Kg	N	7550	29500	29500	1	P	HSC	02/12/10 01:20	021110-1	945399
7782-49-2	Selenium	1.32	mg/kg	U	0.662	1.32	1.32	2	MS	BAJ	02/15/10 01:10	100214-8	945396
7440-22-4	Silver	771	ug/Kg		118	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-23-5	Sodium	63800	ug/Kg		8260	29500	29500	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-28-0	Thallium	0.127	mg/kg	J	0.0794	0.265	0.265	2	MS	BAJ	02/14/10 16:08	100214-5	945396
7440-61-1	Uranium	84.6	mg/kg	*	0.175	0.529	0.529	20	MS	BAJ	02/14/10 12:29	100214-3	945396
7440-62-2	Vanadium	16100	ug/Kg		118	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-66-6	Zinc	56800	ug/Kg		389	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
945396	945392	SW846 3050B	0.5	g	50	mL	02/04/10	FGA
945399	945398	SW846 3050B	0.561	g	50	mL	02/04/10	FGA
945628	945627	SW846 7471A Prep	0.531	g	30	mL	02/09/10	TXB3

MLD
03/03/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1394 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245396004 **BASIS:** Dry Weight **DATE COLLECTED** 21-JAN-10

CLIENT ID: RE15-10-7930 **LEVEL:** Low **DATE RECEIVED** 23-JAN-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	2300000	ug/Kg	N	7650	22500	22500	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-36-0	Antimony	1130	ug/Kg	U	371	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-38-2	Arsenic	1.37	mg/kg		0.214	1.07	1.07	2	MS	BAJ	02/15/10 01:12	100214-8	945396
7440-39-3	Barium	47300	ug/Kg		113	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-41-7	Beryllium	0.857	mg/kg		0.0214	0.107	0.107	2	MS	BAJ	02/14/10 01:47	100213-4	945396
7440-43-9	Cadmium	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-70-2	Calcium	525000	ug/Kg	*	9000	28100	28100	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-47-3	Chromium J,I10a	14100	ug/Kg	*	169	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-48-4	Cobalt	6480	ug/Kg		169	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-50-8	Copper	44700	ug/Kg		338	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-89-6	Iron	15900000	ug/Kg		9000	28100	28100	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-92-1	Lead	15800	ug/Kg		281	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-95-4	Magnesium	388000	ug/Kg		9560	33800	33800	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-96-5	Manganese	279000	ug/Kg		225	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-97-6	Mercury	11.4	ug/kg	J	3.96	11.6	11.6	1	AV	ETL	02/10/10 11:03	021010S1-9	945628
7440-02-0	Nickel	3.84	mg/kg	*	0.107	0.428	0.428	2	MS	BAJ	02/14/10 01:47	100213-4	945396
7440-09-7	Potassium J+,I6b	508000	ug/Kg	N	7200	28100	28100	1	P	HSC	02/12/10 01:27	021110-1	945399
7782-49-2	Selenium	1.07	mg/kg	U	0.535	1.07	1.07	2	MS	BAJ	02/15/10 01:12	100214-8	945396
7440-22-4	Silver	722	ug/Kg		113	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-23-5	Sodium	222000	ug/Kg		7880	28100	28100	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-28-0	Thallium	0.214	mg/kg	U	0.0642	0.214	0.214	2	MS	BAJ	02/14/10 16:13	100214-5	945396
7440-61-1	Uranium	8.68	mg/kg	*	0.0141	0.0428	0.0428	2	MS	BAJ	02/14/10 09:15	100213-2	945396
7440-62-2	Vanadium	4510	ug/Kg		113	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-66-6	Zinc	33800	ug/Kg		371	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
945396	945392	SW846 3050B	0.528	g	50	mL	02/04/10	FGA
945399	945398	SW846 3050B	0.502	g	50	mL	02/04/10	FGA
945628	945627	SW846 7471A Prep	0.582	g	30	mL	02/09/10	TXB3

MLD
03/03/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1394 VALIDATION DATE: 03/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses were performed on LANL samples from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/04/10

VALIDATOR'S SIGNATURE: Monica L Dymerski DATE: 03/03/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only_____

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 10, 2010

Client SDG: 10-1394

Client Sample ID:	RE15-10-7928	Project:	LANL01004
Sample ID:	245396001	Client ID:	LANL010
Matrix:	R		
Collect Date:	21-JAN-10 12:00		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	3.61%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	78.3	70.5	259	ug/kg	1	AXC2 02/03/10	1056	944845	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/02/10	1533	944844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

MLD
03/03/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 10, 2010

Client SDG: 10-1394

Client Sample ID:	RE15-10-7929	Project:	LANL01004
Sample ID:	245396002	Client ID:	LANL010
Matrix:	R		
Collect Date:	21-JAN-10 12:00		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	27.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	232	80.8	297	ug/kg	1	AXC2 02/03/10	1057	944845	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/02/10	1533	944844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

MLD
03/03/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 10, 2010

Client SDG: 10-1394

Client Sample ID:	RE15-10-7927	Project:	LANL01004
Sample ID:	245396003	Client ID:	LANL010
Matrix:	R		
Collect Date:	21-JAN-10 12:00		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	24.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	141	86.5	318	ug/kg	1	AXC2 02/03/10	1058	944845	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/02/10	1533	944844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

MLD
03/03/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 10, 2010

Client SDG: 10-1394

Client Sample ID:	RE15-10-7930	Project:	LANL01004
Sample ID:	245396004	Client ID:	LANL010
Matrix:	R		
Collect Date:	21-JAN-10 12:00		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	11.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	206	75.3	277	ug/kg	1	AXC2 02/03/10	1102	944845	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/02/10	1533	944844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

MLD
03/03/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1394 VALIDATION DATE: 03/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec sample results that were rejected by the laboratory due to low abundance or interference were qualified R,R5a. Some gamma spec results from QC samples were also rejected by the laboratory. No sample data were qualified as a result.
2. An MS analysis was not performed for tritium. An LCS analysis was performed and met QC acceptance criteria. No sample data were qualified as a result.
3. It should be noted that the gamma spec sample duplicate was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/04/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/03/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7928
Sample ID: 245396001
Matrix: R
Collect Date: 21-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 3.61%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0168		0.0232	+/-0.00521	0.050	pCi/g		CXM2	02/11/10	2103	944974	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0028		0.0229	+/-0.00199	0.050	pCi/g		CXM2	02/12/10	1251	944976	3
Plutonium-239/240	U	0.0126		0.0172	+/-0.00546	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.863		0.134	+/-0.0897	0.100	pCi/g		CXM2	02/01/10	1309	944978	4
Uranium-235/236	U	0.0267		0.083	+/-0.0233	0.100	pCi/g						
Uranium-238		1.19		0.0775	+/-0.114	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0193		0.157	+/-0.0494	0.200	pCi/g		MXR1	02/04/10	2255	944962	5
Bismuth-211	UI	4.03	R,R5a	0.216	+/-0.279		pCi/g						
Bismuth-214		1.18		0.0751	+/-0.0832	0.200	pCi/g						
Cadmium-109	UI	4.31	R,R5a	0.766	+/-0.405		pCi/g						
Cerium-139	U	-0.024		0.0337	+/-0.0101	0.050	pCi/g						
Cesium-134	UI	0.106	R,R5a	0.0553	+/-0.0217	0.100	pCi/g						
Cesium-137	U	0.00594		0.0405	+/-0.012	0.100	pCi/g						
Cobalt-60	U	0.00777		0.0406	+/-0.0121	0.100	pCi/g						
Europium-152	U	-0.0887		0.101	+/-0.0419	0.200	pCi/g						
Lanthanum-140	U	-0.0817		0.0792	+/-0.0268		pCi/g						
Lead-212		1.85		0.0629	+/-0.128	0.100	pCi/g						
Lead-214		1.40		0.0754	+/-0.104	0.100	pCi/g						
Mercury-203	U	0.0377		0.0459	+/-0.0154	0.100	pCi/g						
Potassium-40		39.6		0.337	+/-1.91	1.00	pCi/g						
Radium-223	U	0.323		0.756	+/-0.249		pCi/g						
Radium-224	UI	5.04	R,R5a	0.715	+/-0.529		pCi/g						
Radium-226		1.18		0.0751	+/-0.0832		pCi/g						
Radium-228		1.78		0.138	+/-0.150	0.500	pCi/g						
Ruthenium-106	U	-0.0524		0.338	+/-0.102	0.800	pCi/g						

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03/03/10

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7928
Sample ID: 245396001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Sodium-22	U	-0.0217		0.0478	+/-0.0149	0.080	pCi/g						
Strontium-85	UI	0.131	R,R5a	0.0474	+/-0.0153		pCi/g						
Thallium-208		0.605		0.0366	+/-0.0421	0.080	pCi/g						
Thorium-227	U	0.140		0.442	+/-0.132		pCi/g						
Thorium-231	U	0.323		0.756	+/-0.249		pCi/g						
Thorium-234		2.06		1.30	+/-0.588	2.00	pCi/g						
Tin-113	U	-0.0238		0.0465	+/-0.0142	0.100	pCi/g						
Uranium-235	U	0.069		0.249	+/-0.0744	0.500	pCi/g						
Yttrium-88	U	0.0133		0.0335	+/-0.0106	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		2960		212	+/-233	250	pCi/L		KXK2	02/06/10	1138	948401	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	80.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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03/03/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7929
Sample ID: 245396002
Matrix: R
Collect Date: 21-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 27.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00347		0.021	+/-0.00754	0.050	pCi/g		CXM2	02/04/10	1450	944974	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00625		0.0341	+/-0.00626	0.050	pCi/g		CXM2	02/04/10	1450	944976	3
Plutonium-239/240		0.0333		0.0256	+/-0.00905	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		3.02		0.207	+/-0.293	0.100	pCi/g		CXM2	02/10/10	1057	949620	4
Uranium-235/236		0.138		0.134	+/-0.0413	0.100	pCi/g						
Uranium-238		11.1		0.142	+/-0.940	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.263		0.398	+/-0.131	0.200	pCi/g		MXR1	02/05/10	1859	944962	7
Bismuth-211	UI	4.39	R,R5a	0.446	+/-0.390		pCi/g						
Bismuth-214		1.34		0.157	+/-0.131	0.200	pCi/g						
Cadmium-109	UI	2.59	R,R5a	2.15	+/-0.799		pCi/g						
Cerium-139	U	-0.0279		0.0652	+/-0.020	0.050	pCi/g						
Cesium-134	UI	0.150	R,R5a	0.125	+/-0.0325	0.100	pCi/g						
Cesium-137		0.435		0.0796	+/-0.065	0.100	pCi/g						
Cobalt-60	U	0.0132		0.0917	+/-0.027	0.100	pCi/g						
Europium-152	U	-0.00485		0.211	+/-0.0744	0.200	pCi/g						
Lanthanum-140	U	-0.134		0.148	+/-0.0587		pCi/g						
Lead-212		1.87		0.114	+/-0.121	0.100	pCi/g						
Lead-214		1.53		0.156	+/-0.141	0.100	pCi/g						
Mercury-203	U	0.0461		0.0947	+/-0.0276	0.100	pCi/g						
Potassium-40		25.6		0.716	+/-1.53	1.00	pCi/g						
Radium-223	U	-0.0223		1.44	+/-0.443		pCi/g						
Radium-224	UI	4.62	R,R5a	1.30	+/-0.780		pCi/g						
Radium-226		1.34		0.157	+/-0.131		pCi/g						
Radium-228		1.80		0.266	+/-0.218	0.500	pCi/g						
Ruthenium-106	U	-0.327		0.658	+/-0.213	0.800	pCi/g						
Sodium-22	U	-0.00298		0.0929	+/-0.0282	0.080	pCi/g						

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03/03/10

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7929
Sample ID: 245396002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.104	R,R5a	0.103	+/-0.0292		pCi/g						
Thallium-208		0.453		0.0752	+/-0.0636	0.080	pCi/g						
Thorium-227	U	-0.355		0.860	+/-0.272		pCi/g						
Thorium-231	U	-0.0223		1.44	+/-0.443		pCi/g						
Thorium-234		13.6		3.07	+/-1.99	2.00	pCi/g						
Tin-113	U	-0.00635		0.0945	+/-0.0295	0.100	pCi/g						
Uranium-235	U	0.265		0.467	+/-0.230	0.500	pCi/g						
Yttrium-88	U	-0.00688		0.0674	+/-0.0218	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		977		212	+/-105	250	pCi/L		KXK2	02/06/10	1316	948401	8

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R
8	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	51.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	78.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

MLD
03/03/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7927
Sample ID: 245396003
Matrix: R
Collect Date: 21-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 24.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00919		0.0219	+/-0.00453	0.050	pCi/g		CXM2	02/16/10	1433	944974	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0137		0.032	+/-0.00762	0.050	pCi/g		CXM2	02/04/10	1450	944976	3
Plutonium-239/240		0.0352		0.0241	+/-0.00854	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		8.62		0.255	+/-0.783	0.100	pCi/g		CXM2	02/10/10	1057	949620	4
Uranium-235/236		1.01		0.165	+/-0.146	0.100	pCi/g						
Uranium-238		43.6		0.176	+/-3.70	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.231		0.306	+/-0.0921	0.200	pCi/g		MXR1	02/05/10	1900	944962	6
Bismuth-211	UI	3.32	R,R5a	0.295	+/-0.265		pCi/g						
Bismuth-214		0.954		0.101	+/-0.0812	0.200	pCi/g						
Cadmium-109	U	-2.58		1.84	+/-0.812		pCi/g						
Cerium-139	U	-0.00713		0.0498	+/-0.0162	0.050	pCi/g						
Cesium-134	UI	0.108	R,R5a	0.0704	+/-0.0258	0.100	pCi/g						
Cesium-137		0.523		0.0604	+/-0.0429	0.100	pCi/g						
Cobalt-60	U	-0.0169		0.0472	+/-0.015	0.100	pCi/g						
Europium-152	U	-0.0665		0.141	+/-0.052	0.200	pCi/g						
Lanthanum-140	U	-0.14		0.103	+/-0.0381		pCi/g						
Lead-212		1.53		0.0894	+/-0.111	0.100	pCi/g						
Lead-214		1.16		0.103	+/-0.0971	0.100	pCi/g						
Mercury-203	U	0.0222		0.0655	+/-0.0193	0.100	pCi/g						
Potassium-40		24.7		0.440	+/-1.30	1.00	pCi/g						
Radium-223	U	0.373		1.02	+/-0.331		pCi/g						
Radium-224	UI	3.79	R,R5a	1.02	+/-0.577		pCi/g						
Radium-226		0.954		0.101	+/-0.0812		pCi/g						
Radium-228		1.38		0.187	+/-0.157	0.500	pCi/g						
Ruthenium-106	U	0.000502		0.474	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0181		0.0525	+/-0.0164	0.080	pCi/g						

MLD
03/03/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7927
Sample ID: 245396003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.120	R,R5a	0.0639	+/-0.0196		pCi/g						
Thallium-208		0.443		0.0518	+/-0.0426	0.080	pCi/g						
Thorium-227	U	-0.332		0.595	+/-0.186		pCi/g						
Thorium-231	U	0.373		1.02	+/-0.331		pCi/g						
Thorium-234		34.2		2.38	+/-3.28	2.00	pCi/g						
Tin-113	U	0.00196		0.0651	+/-0.0191	0.100	pCi/g						
Uranium-235		0.927		0.356	+/-0.192	0.500	pCi/g						
Yttrium-88	U	-0.00146		0.0391	+/-0.012	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		1890		211	+/-162	250	pCi/L		KXK2	02/06/10	1454	948401	7

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	57.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	60.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

MLD
03/03/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7930
Sample ID: 245396004
Matrix: R
Collect Date: 21-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 11.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00203		0.0204	+/-0.00538	0.050	pCi/g		CXM2	02/04/10	1450	944974	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00137		0.0225	+/-0.00138	0.050	pCi/g		CXM2	02/04/10	1450	944976	3
Plutonium-239/240	U	0.00687		0.0169	+/-0.00414	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.60		0.138	+/-0.145	0.100	pCi/g		CXM2	02/01/10	1309	944978	4
Uranium-235/236	U	0.077		0.0856	+/-0.0213	0.100	pCi/g						
Uranium-238		4.97		0.080	+/-0.394	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0442		0.225	+/-0.0732	0.200	pCi/g		MXR1	02/05/10	1914	944962	5
Bismuth-211	UI	3.49	R,R5a	0.315	+/-0.244		pCi/g						
Bismuth-214		1.13		0.112	+/-0.0914	0.200	pCi/g						
Cadmium-109	UI	2.51	R,R5a	1.35	+/-0.443		pCi/g						
Cerium-139	U	-0.00221		0.0494	+/-0.0148	0.050	pCi/g						
Cesium-134	UI	0.0907	R,R5a	0.0889	+/-0.0316	0.100	pCi/g						
Cesium-137		0.0918		0.0632	+/-0.0403	0.100	pCi/g						
Cobalt-60	U	-0.00333		0.063	+/-0.0193	0.100	pCi/g						
Europium-152	U	-0.0602		0.161	+/-0.0649	0.200	pCi/g						
Lanthanum-140	U	-0.00694		0.124	+/-0.0385		pCi/g						
Lead-212		1.71		0.0916	+/-0.0837	0.100	pCi/g						
Lead-214		1.21		0.110	+/-0.0905	0.100	pCi/g						
Mercury-203	U	0.00404		0.0673	+/-0.0222	0.100	pCi/g						
Potassium-40		38.3		0.528	+/-1.67	1.00	pCi/g						
Radium-223	U	0.0488		1.07	+/-0.356		pCi/g						
Radium-224	UI	3.69	R,R5a	1.04	+/-0.497		pCi/g						
Radium-226		1.13		0.112	+/-0.0914		pCi/g						
Radium-228		1.54		0.218	+/-0.169	0.500	pCi/g						
Ruthenium-106	U	0.174		0.517	+/-0.150	0.800	pCi/g						
Sodium-22	U	0.0018		0.0753	+/-0.0226	0.080	pCi/g						

MLD
03/03/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7930
Sample ID: 245396004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.0983	R,R5a	0.0706	+/-0.0207		pCi/g						
Thallium-208		0.505		0.0561	+/-0.0404	0.080	pCi/g						
Thorium-227	U	-0.0474		0.623	+/-0.180		pCi/g						
Thorium-231	U	0.0488		1.07	+/-0.356		pCi/g						
Thorium-234		4.77		1.95	+/-0.970	2.00	pCi/g						
Tin-113	U	0.0106		0.0698	+/-0.0202	0.100	pCi/g						
Uranium-235	U	-0.0464		0.358	+/-0.107	0.500	pCi/g						
Yttrium-88	U	-0.0062		0.0481	+/-0.0156	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		2710		211	+/-215	250	pCi/L		KXK2	02/06/10	1632	948401	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	79.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

MLD
03/03/10

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1394C

REQUEST NUMBER: 10-1394

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/21/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245396 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7928	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7928	1	POLY	H3	Ice	R
RE15-10-7928	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7928	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7929	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7929	1	POLY	H3	Ice	R
RE15-10-7929	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7929	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7927	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7927	1	POLY	H3	Ice	R
RE15-10-7927	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7927	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7930	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7930	1	POLY	H3	Ice	R
RE15-10-7930	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7930	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	1/22/10	3:00	Patricia Dorse-Dent P. Dorse-Dent	1-23-10	09:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1394
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/22/2010
TURNAROUND/REPORT DUE: 2/21/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	EPA:906.0	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:AM-241	1	RE15-10-7927	R	1/21/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:ISOPU	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:ISOU	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:6020	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:6850	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:7471A	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:8321A_MOD	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:9012A	1	RE15-10-7927	R	1/21/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	

Final Page of REQUEST NUMBER 10-1394

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 27, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245396
SDG: 10-1394

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 23, 2010, and analyzed for Explosives by LCMSMS, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1394
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245396
SDG: 10-1394

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 4

Data Review Qualifier Flag Definition Sheet..... 15

LC/MS/MS Perchlorate Analysis..... 17
- Sample Data Summary.....22
- Quality Control Summary.....27
- Sample Data..... 56
- Standards Data.....65
- Quality Control..... 89
- Miscellaneous Data.....94

LC/MS/MS Explosives Analysis.....102
- Sample Data Summary.....108
- Quality Control Summary.....117
- Sample Data..... 237
- Standards Data.....266
- Quality Control Data.....466
- Miscellaneous Data.....495

Metals Analysis..... 506
- Case Narrative..... 507
- Sample Data Summary.....513
- Quality Control Summary.....518
- Standards.....589
- Raw Data..... 602
- Miscellaneous..... 1041

General Chemistry Analysis..... 1085
- Case Narrative..... 1086

Sample Data Summary.....1091
Quality Control Summary.....1097
Instrument QC Data Summary.....1100
Cyanide, Total.....1102

Radiological Analysis 1112
Sample Data Summary.....1125
Quality Control Data.....1139
Raw Data.....1147
Background and Efficiency Data.....1576
Standards Data.....1657
Runlogs.....1692

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245396
SDG # : 10-1394

January 27, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 23, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The original chain of custody was received on 1/26/10. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 12,13,15C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 27 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, January 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1394C

REQUEST NUMBER: 10-1394

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 2/21/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245396 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7928	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7928	1	POLY	H3	Ice	R
RE15-10-7928	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7928	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7929	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7929	1	POLY	H3	Ice	R
RE15-10-7929	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7929	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7927	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7927	1	POLY	H3	Ice	R
RE15-10-7927	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7927	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7930	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7930	1	POLY	H3	Ice	R
RE15-10-7930	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7930	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	1/22/10	3:00	Patricia Dorsey-Dent [signature]	1-23-10	09:20
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1394

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 1/22/2010

TURNAROUND/REPORT DUE: 2/21/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	EPA:906.0	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:AM-241	1	RE15-10-7927	R	1/21/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:ISOPU	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	HASL-300:ISOU	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:6020	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:6850	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:7471A	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:8321A_MOD	1	RE15-10-7927	R	1/21/2010	
		1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	
	SW-846:9012A	1	RE15-10-7927	R	1/21/2010	

Friday, January 22, 2010

REQUEST NUMBER: 10-1394

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-7928	R	1/21/2010	
		1	RE15-10-7929	R	1/21/2010	
		1	RE15-10-7930	R	1/21/2010	

Final Page of REQUEST NUMBER 10-1394

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1394**
Received By: Patricia Dover-Dent	**Date Received: January 23, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **1-4** **12,13,15C**
3	Chain of custody documents included with shipment?			X	**Original COC was received 01/26/10**
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 6695 1C	**7209 7849 6560 4C**
7209 7849 6776 1C	**7209 7849 6559 4C**
7209 7849 6526 2C	**7209 7849 6684 4C**
7209 7849 6700 2C	**7209 7849 6732 12C**
7209 7849 6710 2C	**7209 7849 6504 13C**
7209 7849 6548 2C	**7209 7849 6743 13C**
7209 7849 6537 3C	**7209 7849 6765 13C**
7209 7849 6570 3C	**7209 7849 6754 15C**
7209 7849 6515 4C	

PM (or PMA) review: Initials VSD Date 1/26/10

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

1°

FedEx Express

2 of 2
MPS# 0263 7209 7849 6695
Matr# 7209 7849 6684 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
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CHS

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Part # 156149-434 NRT V3 04-09

ORIGIN ID:
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD:

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4 of 4
MPS# 0263 7209 7849 6526
Matr# 7209 7849 6490 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
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LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

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SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

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Part # 156149-434 NRT V3 04-09

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

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SATURDAY ### A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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Part # 156148-434 NRT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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REF: 6B010AMR2A0515BYD0

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SATURDAY ### A1
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Part # 156148-434 NRT V3 04-09

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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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SATURDAY ### A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

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UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 46.0 LB MAN
CAD: 6014176/CAFE2449

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REF: 6B010AMR2A0515BYD0

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Mstr# 7209 7849 6537 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

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D: SAFA (505) 665-9968
VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 53.0 LB MAN
CAD: 6014176/CAFE2449

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1 of 2
MPS# 0263 7209 7849 6684
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SATURDAY ### A1
PRIORITY OVERNIGHT

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
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SHIP DATE: 22JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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SATURDAY ### A1
PRIORITY OVERNIGHT

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TA00 BLDG 1237 DPU 03

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CAD: 0014176/CAFE2449

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2 of 4
MPS# 0263 7209 7849 6504
Mstr# 7209 7849 6390 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 60.0 LB MAN
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MPS# 0263 7209 7849 6743
Mstr# 7209 7849 6732 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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Mstr# 7209 7849 6754 0201

SATURDAY ### A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
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TRAD BLDG 1287 DPU 83

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UNITED STATES US

SHIP DATE: 22JAN10
ACTWGT: 22.0 LB MAN
CAD: 0014178/CAFE2449

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1 of 2

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SATURDAY ### A1 2

PRIORITY OVERNIGH

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1394

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	945236
Prep Batch Number:	945234

Sample Analysis

Sample ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202024414	Interference Check Sample (ICS)
1202024410	Method Blank (MB)
1202024411	Laboratory Control Sample (LCS)
1202024412	245385002(RE15-10-7305) Matrix Spike (MS)
1202024413	245385002(RE15-10-7305) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

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CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245385002 (RE15-10-7305) from SDG 10-1383 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

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Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

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Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K Maue **Date:** 02/11/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7928

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396001

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	09-FEB-10 21:21	per0209080a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:21	per0209080a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	09-FEB-10 21:21	per0209080a
	Perchlorate-O(18)			5.34	ug/kg		1	09-FEB-10 21:21	per0209080a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7929

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396002

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.689	2.76	0.689	ug/kg	U	1	09-FEB-10 21:28	per0209081a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:28	per0209081a
14797-73-0	Perchlorate-101	.689	2.76	0.689	ug/kg	U	1	09-FEB-10 21:28	per0209081a
	Perchlorate-O(18)			7.62	ug/kg		1	09-FEB-10 21:28	per0209081a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7927

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396003

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.662	2.65	0.662	ug/kg	U	1	09-FEB-10 21:34	per0209082a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:34	per0209082a
14797-73-0	Perchlorate-101	.662	2.65	0.662	ug/kg	U	1	09-FEB-10 21:34	per0209082a
	Perchlorate-O(18)			7.59	ug/kg		1	09-FEB-10 21:34	per0209082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7930

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396004

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	09-FEB-10 21:41	per0209083a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:41	per0209083a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	09-FEB-10 21:41	per0209083a
	Perchlorate-O(18)			5.89	ug/kg		1	09-FEB-10 21:41	per0209083a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1394

Extract Batch Code: 945234

Date Filtered: 05–FEB–10

Matrix: SOIL

Sample ID: 1202024411

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.15	ug/kg	107		70 – 130
Perchlorate Isotope Ratio		3				–
Perchlorate–101	2.00	2.21	ug/kg	111		70 – 130
Perchlorate–O(18)		5.28	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1394

Extract Batch Code: 945234

Date Filtered: 05–FEB–10

Matrix: SOIL

Sample ID: 1202024414

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.24	ug/kg	112		70 – 130
Perchlorate Isotope Ratio		3				
Perchlorate–101	2.00	2.3	ug/kg	115		70 – 130
Perchlorate–O(18)		5.28	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209063a
Date: 09-Feb-2010
Time: 19:30:07
ID: 1202024414
Vial: 2:2,C

|LANL|945236|5020|ICS|1|

WWS 02-10-10

Perchlorate

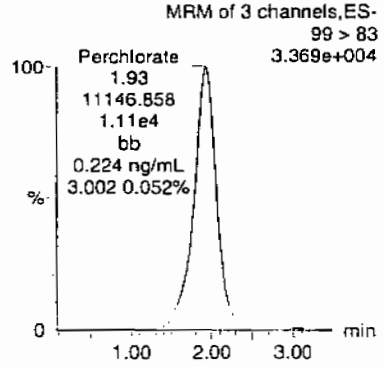

Perchlorate

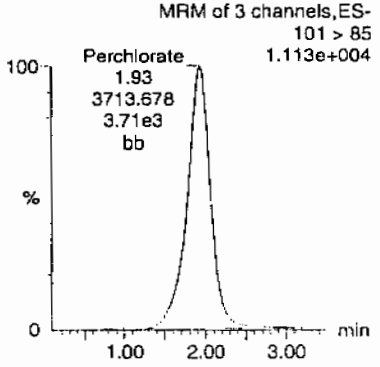

Perchlorate-101

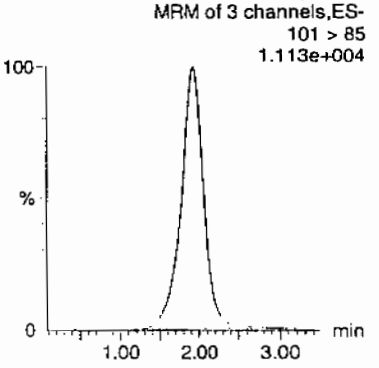

Perchlorate-O(18)

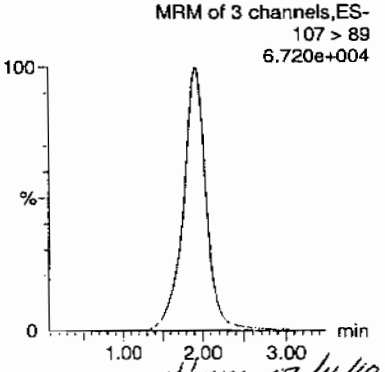

Hmw 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202024414	Perchlorate	99 > 83	1.93	11146.858	11146.858	bb			0.2242	112.10	12.10	1177.6...	3.00
1202024414	Perchlorate-101	101 > 85	1.93	3713.678	3713.678	bb			0.2304	115.19	15.19	2178.0...	
1202024414	Perchlorate-O(18)	107 > 89	1.92	21710.908	21710.908	bb			0.5281	105.61	5.61	7936.1...	

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1394

Extract Batch Code: 945234

Date Extracted: 05–FEB–10

GEL MS/PS ID: 1202024412

Client ID: RE15–10–7305

GEL MSD/PSD ID: 1202024413

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.82	0.404	ug/kg	3.54	111	3.33	104	5.86	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.06		3.14		0		–
Perchlorate–101	2.82	0.408	ug/kg	3.56	112	3.28	102	8.36	30	75 – 125
Perchlorate–O(18)	0	7.12	ug/kg	7.23		7.27		.485		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1394

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	09–FEB–10	per0209001a	IPB001
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209001a	IPB001
Perchlorate	0.00	0	NA	09–FEB–10	per0209002a	IPB001
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209002a	IPB001

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020910a.mdb 10 Feb 2010 11:45:47
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020910a.cdb 10 Feb 2010 11:47:15

Name: per0209001a
Date: 09-Feb-2010
Time: 12:32:38
ID: IPB001
Vial: 1:1,A

Cwc
02-10-10

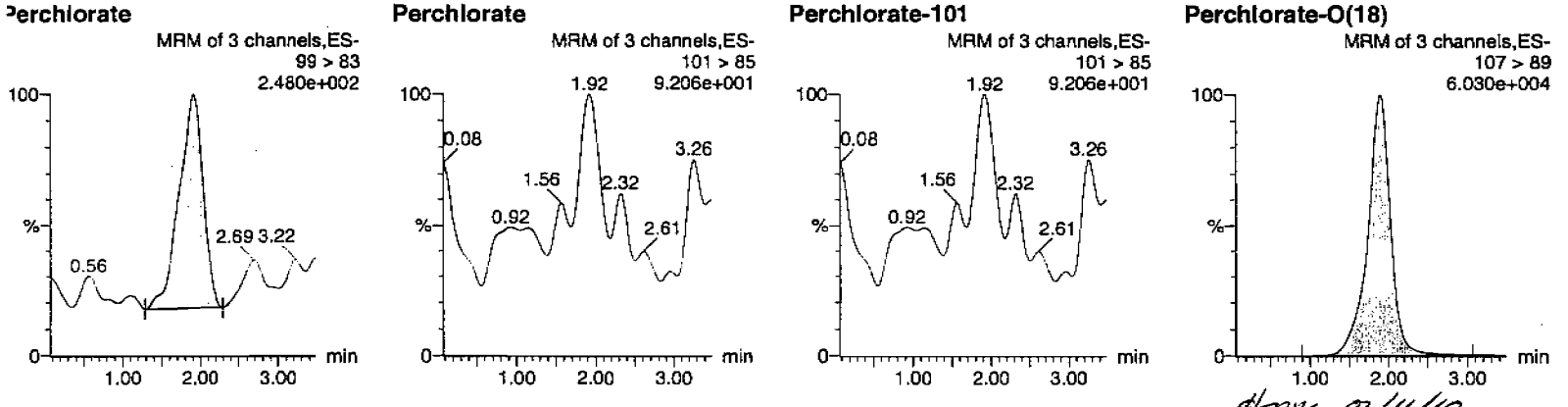

Hmc 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	1.91	74.661	74.661	bb			0.0015			39.975	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.89	20230.795	20230.795	bb			0.4921	98.41	-1.59	2813.9...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209002a
Date: 09-Feb-2010
Time: 12:39:20
ID: IPB001
Vial: 1:1,A

CWW
02-10-10

Perchlorate

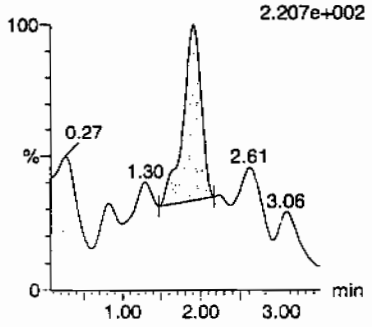

Perchlorate

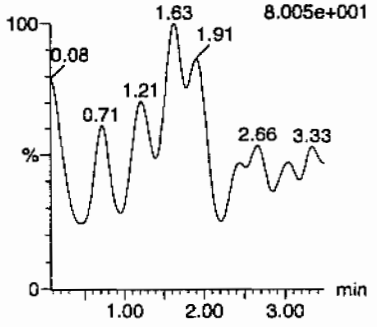

Perchlorate-101

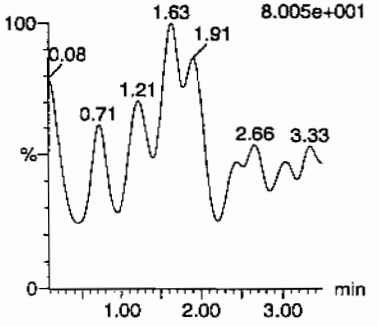

Perchlorate-O(18)

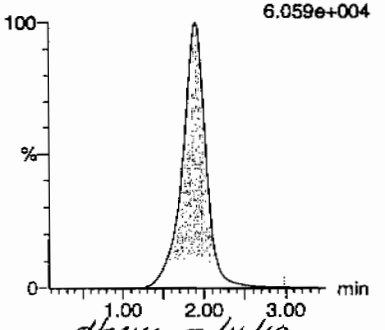

HMC 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	1.92	40.009	40.009	bb			0.0008			4.195	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.91	20195.441	20195.441	bb			0.4912	98.24	-1.76	3163.4...	

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1394

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	09–FEB–10	per0209008a	IPB002
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209008a	IPB002
Perchlorate	0.00	0	NA	09–FEB–10	per0209010a	IPB003
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209010a	IPB003
Perchlorate	0.00	0	NA	09–FEB–10	per0209022a	IPB004
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209022a	IPB004
Perchlorate	0.00	0	NA	09–FEB–10	per0209026a	IPB005
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209026a	IPB005
Perchlorate	0.00	0	NA	09–FEB–10	per0209034a	IPB006
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209034a	IPB006
Perchlorate	0.00	0	NA	09–FEB–10	per0209046a	IPB007
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209046a	IPB007
Perchlorate	0.00	0	NA	09–FEB–10	per0209055a	IPB008

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1394

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209055a	IPB008
Perchlorate	0.00	0	NA	09–FEB–10	per0209059a	IPB009
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209059a	IPB009
Perchlorate	0.00	0	NA	09–FEB–10	per0209072a	IPB010
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209072a	IPB010
Perchlorate	0.00	0	NA	09–FEB–10	per0209085a	IPB011
Perchlorate–101	0.00	0	NA	09–FEB–10	per0209085a	IPB011

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209008a
Date: 09-Feb-2010
Time: 13:18:28
ID: IPB002
Vial: 1:1,A

CWW
02-10-10

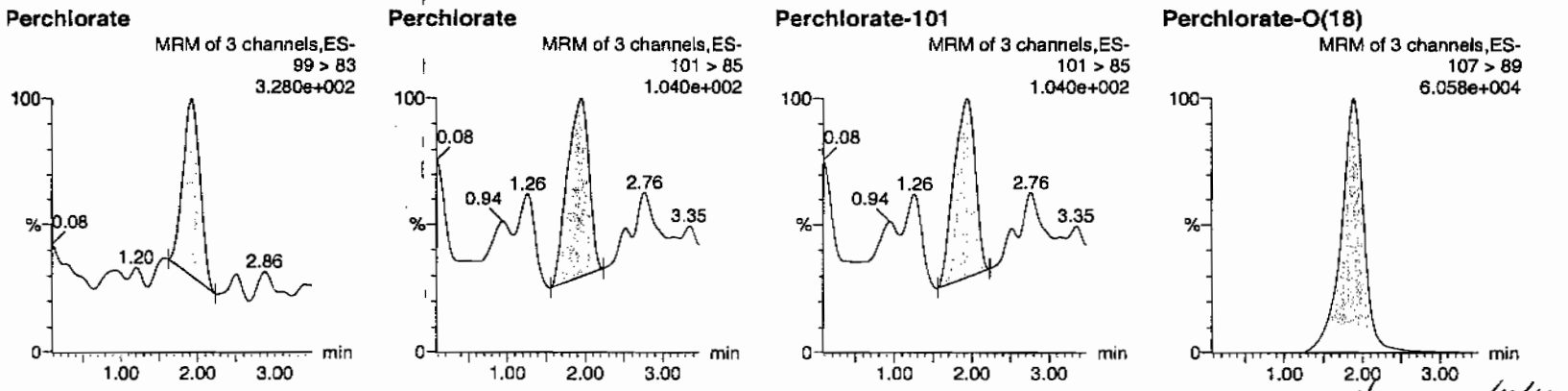

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	1.92	59.767	59.767	bb			0.0012			5.668	2.55
IPB002	Perchlorate-101	101 > 85	1.94	23.411	23.411	bb			0.0015			18.041	
IPB002	Perchlorate-O(18)	107 > 89	1.88	20395.850	20395.850	bb			0.4961	99.22	-0.78	2103.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209010a
Date: 09-Feb-2010
Time: 13:31:32
ID: IPB003
Vial: 1:1,A

CWW 02-10-10

Perchlorate

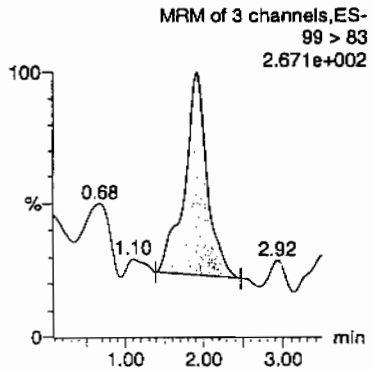

Perchlorate

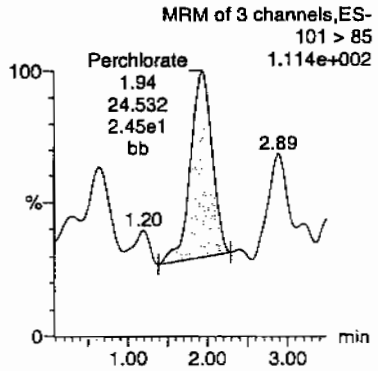

Perchlorate-101

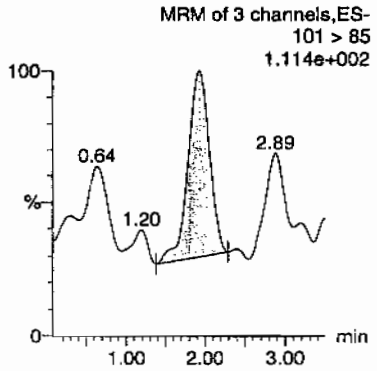

Perchlorate-O(18)

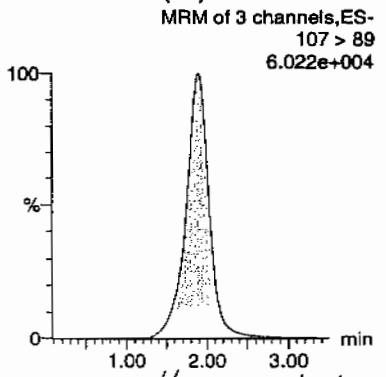

HMW 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	1.92	68.754	68.754	bb			0.0014			13.111	2.80
IPB003	Perchlorate-101	101 > 85	1.94	24.532	24.532	bb			0.0015			10.267	
IPB003	Perchlorate-O(18)	107 > 89	1.89	20143.693	20143.693	bb			0.4899	97.99	-2.01	900.944	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209022a
Date: 09-Feb-2010
Time: 14:50:03
ID: IPB004
Vial: 1:1,A

cwo
02-10-10

Perchlorate

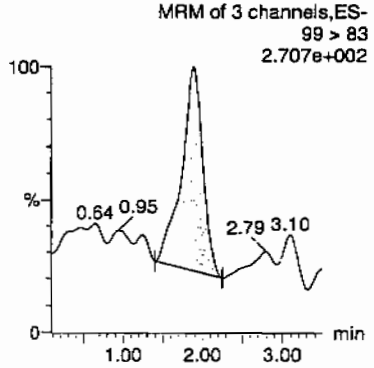

Perchlorate

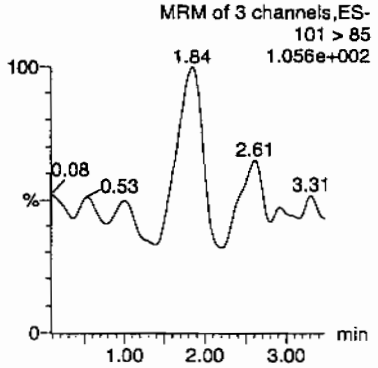

Perchlorate-101

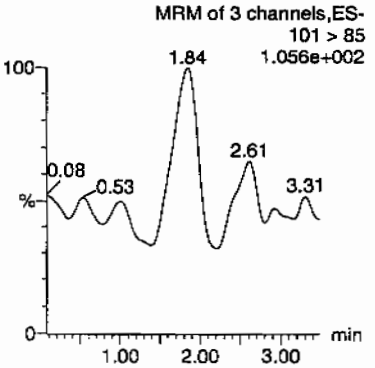

Perchlorate-O(18)

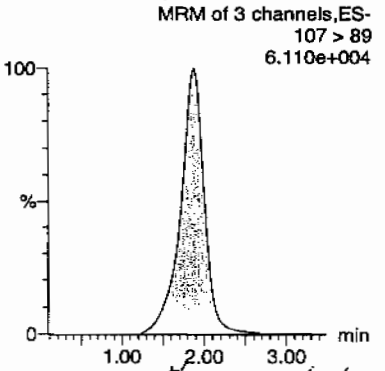

#mlw 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	1.89	66.141	66.141	bb			0.0013			55.297	0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	1.88	20327.338	20327.338	bb			0.4944	98.88	-1.12	2266.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209026a
Date: 09-Feb-2010
Time: 15:16:11
ID: IPB005
Vial: 1:1,A

CWW
02-10-10

Perchlorate

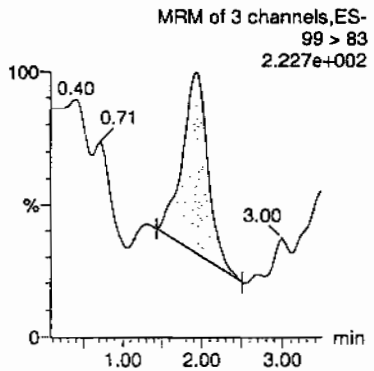

Perchlorate

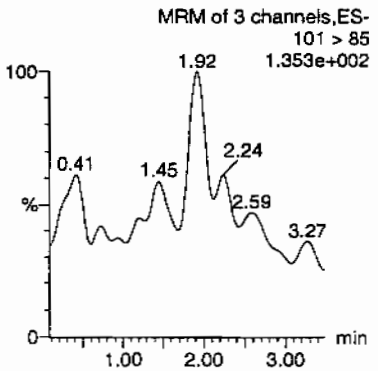

Perchlorate-101

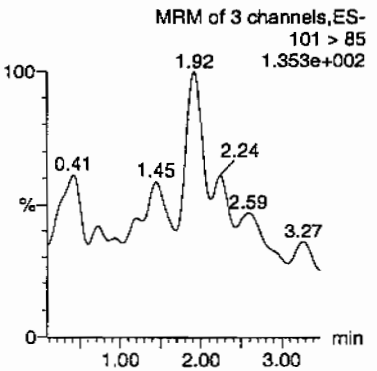

Perchlorate-O(18)

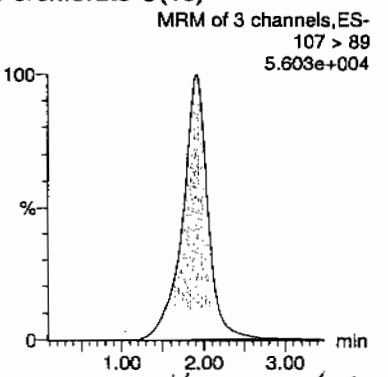

HMM 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83	1.93	57.697	57.697	bb			0.0012			35.475	0.00
PB005	Perchlorate-101	101 > 85											
PB005	Perchlorate-O(18)	107 > 89	1.91	19950.926	19950.926	bb			0.4853	97.05	-2.95	1958.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209034a
Date: 09-Feb-2010
Time: 16:08:32
ID: IPB006
Vial: 1:1,A

CWW 02-10-10

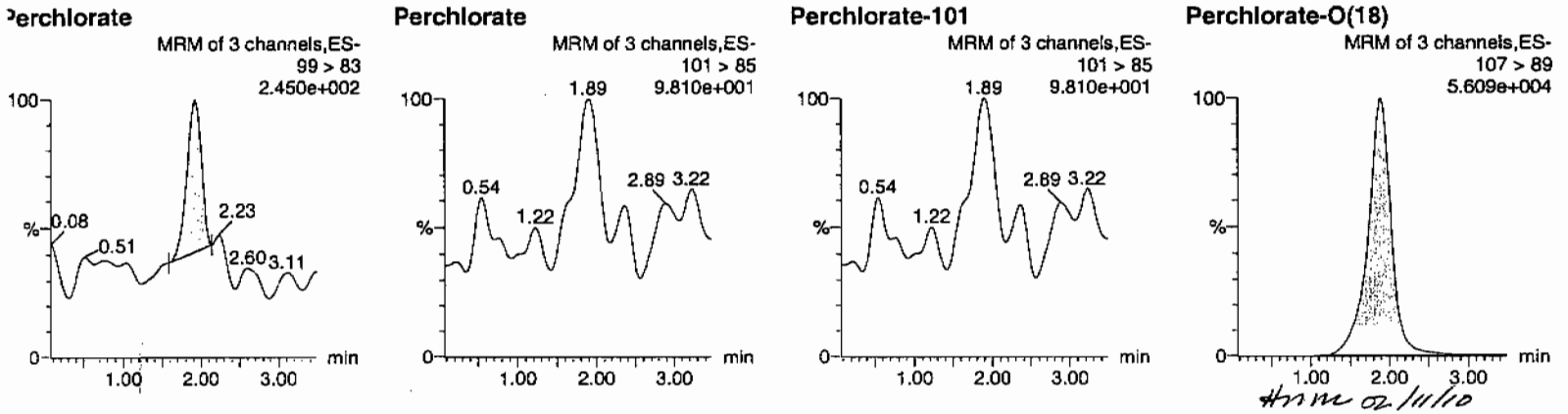

HMM 02/11/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB006	Perchlorate	99 > 83	1.92	31.827	31.827	bb			0.0006			11.537	0.00
PB006	Perchlorate-101	101 > 85											
PB006	Perchlorate-O(18)	107 > 89	1.89	19229.414	19229.414	bb			0.4677	93.54	-6.46	3120.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209046a
Date: 09-Feb-2010
Time: 17:34:58
ID: IPB007
Vial: 1:1,A

CWW
02-10-10

Perchlorate

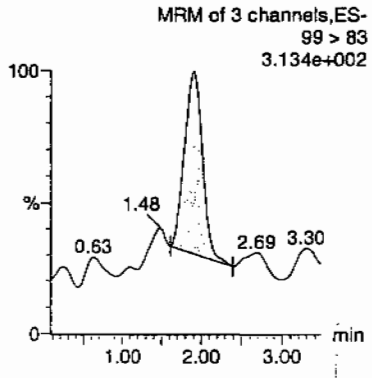

Perchlorate

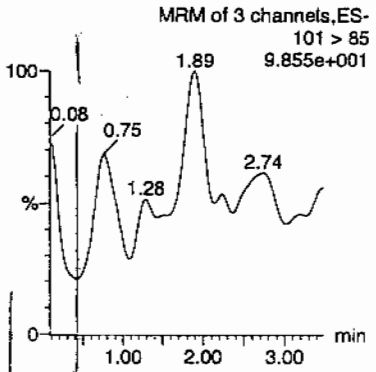

Perchlorate-101

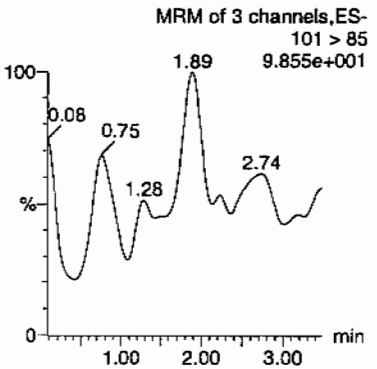

Perchlorate-O(18)

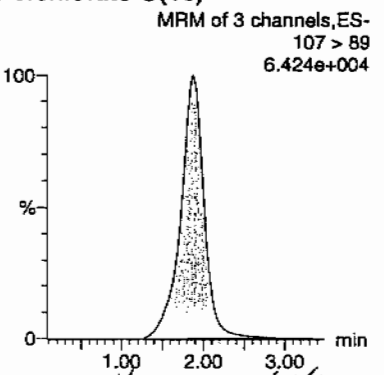

Amm 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	1.91	58.020	58.020	bb			0.0012			19.658	0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	1.88	21385.982	21385.982	bb			0.5202	104.03	4.03	4812.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209055a
Date: 09-Feb-2010
Time: 18:36:54
ID: IPB008
Vial: 1:1,A

CWW
02-10-10

Perchlorate

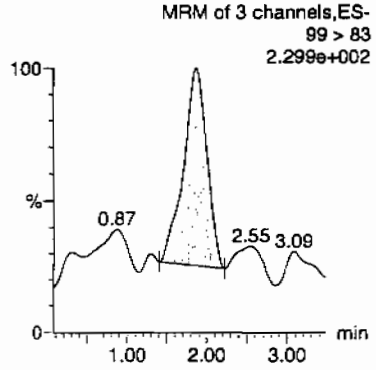

Perchlorate

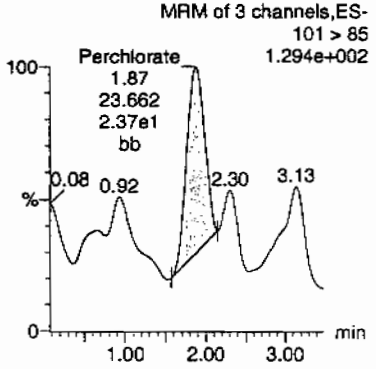

Perchlorate-101

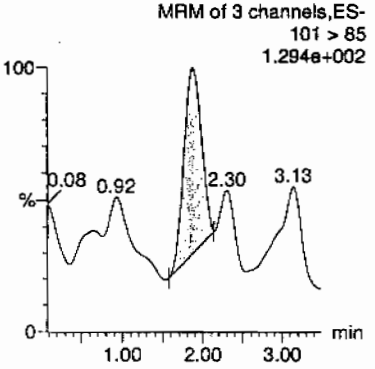

Perchlorate-O(18)

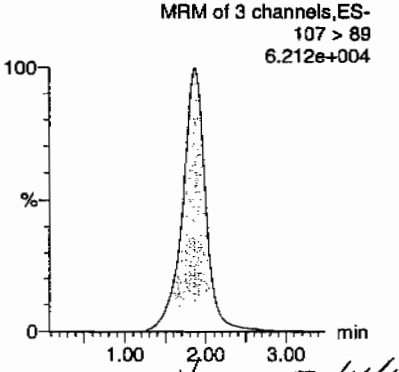

HMW 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	1.87	58.819	58.819	bb			0.0012			29.016	2.49
IPB008	Perchlorate-101	101 > 85	1.87	23.662	23.662	bb			0.0015			10.330	
IPB008	Perchlorate-O(18)	107 > 89	1.87	20546.270	20546.270	bb			0.4997	99.95	-0.05	2120.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209059a
Date: 09-Feb-2010
Time: 19:03:37
ID: IPB009
Vial: 1:1,A

CWW 02-10-10

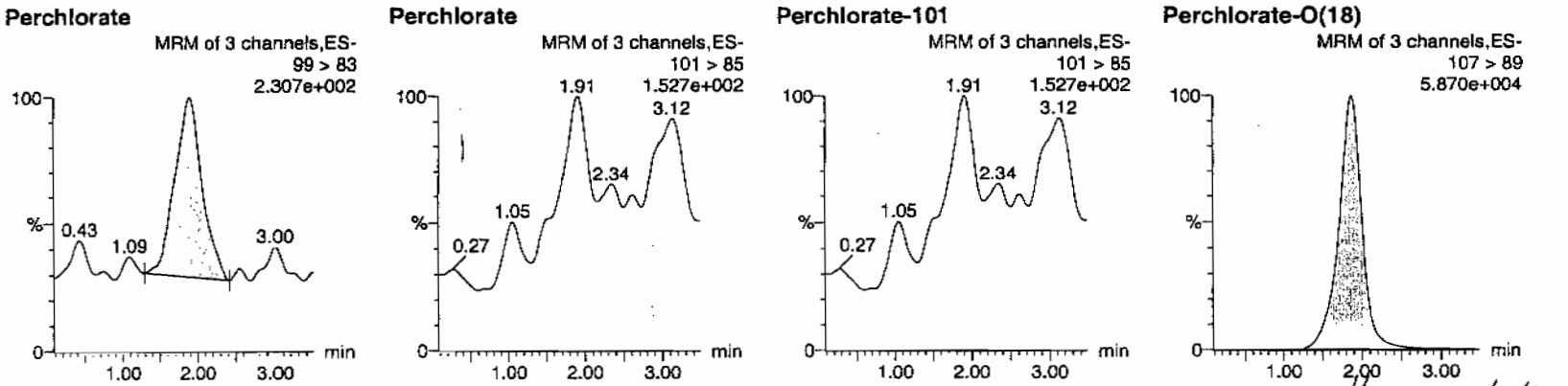

Hmm 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83	1.89	68.724	68.724	bb			0.0014			12.893	0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	1.87	19855.797	19855.797	bb			0.4829	96.59	-3.41	4495.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209072a
Date: 09-Feb-2010
Time: 20:29:10
ID: IPB010
Vial: 1:1,A

CW 02-10-10

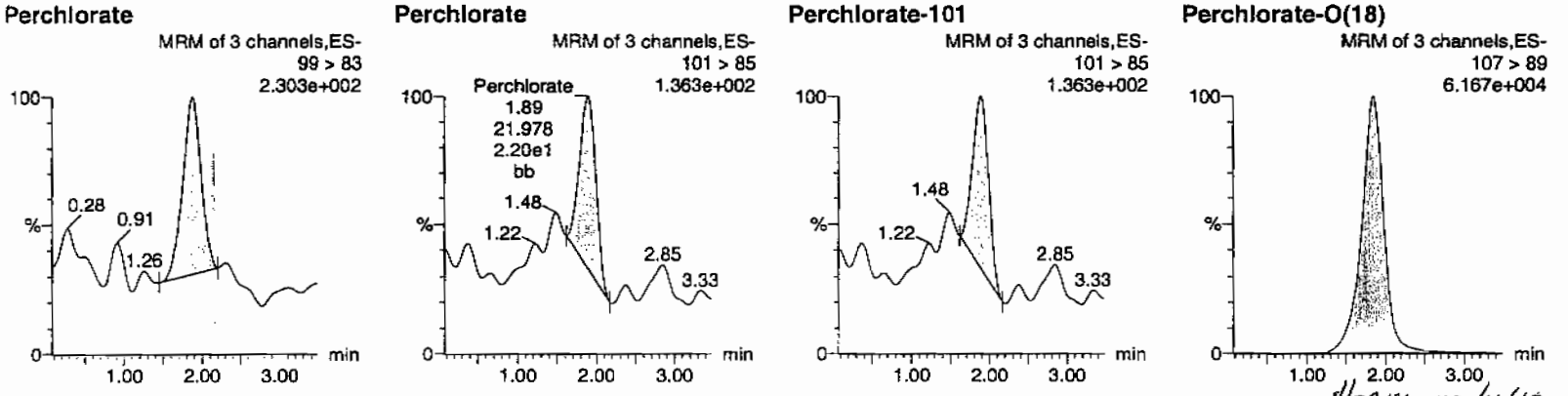

HM 02/11/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB010	Perchlorate	99 > 83	1.87	44.041	44.041	bb			0.0009			19.567	2.00
PB010	Perchlorate-101	101 > 85	1.89	21.978	21.978	bb			0.0014			10.135	
PB010	Perchlorate-O(18)	107 > 89	1.84	20254.883	20254.883	bb			0.4927	98.53	-1.47	1038.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209085a
Date: 09-Feb-2010
Time: 21:54:36
ID: IPB011
Vial: 1:1,A

CWW
02-10-10

Perchlorate

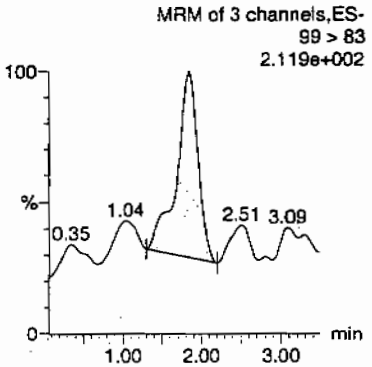

Perchlorate

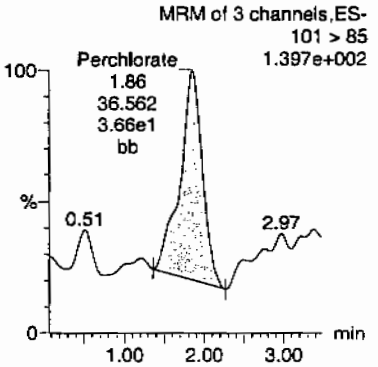

Perchlorate-101

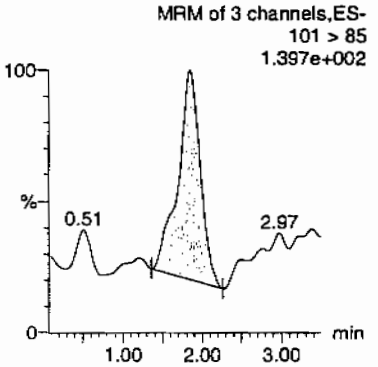

Perchlorate-O(18)

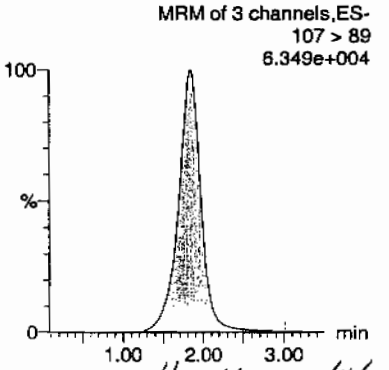

HMM 02/11/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB011	Perchlorate	99 > 83	1.84	48.113	48.113	bb			0.0010			7.858	1.32
PB011	Perchlorate-101	101 > 85	1.86	36.562	36.562	bb			0.0023			12.055	
PB011	Perchlorate-O(18)	107 > 89	1.84	20754.672	20754.672	bb			0.5048	100.96	0.96	1676.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY [illegible] 01-09-08

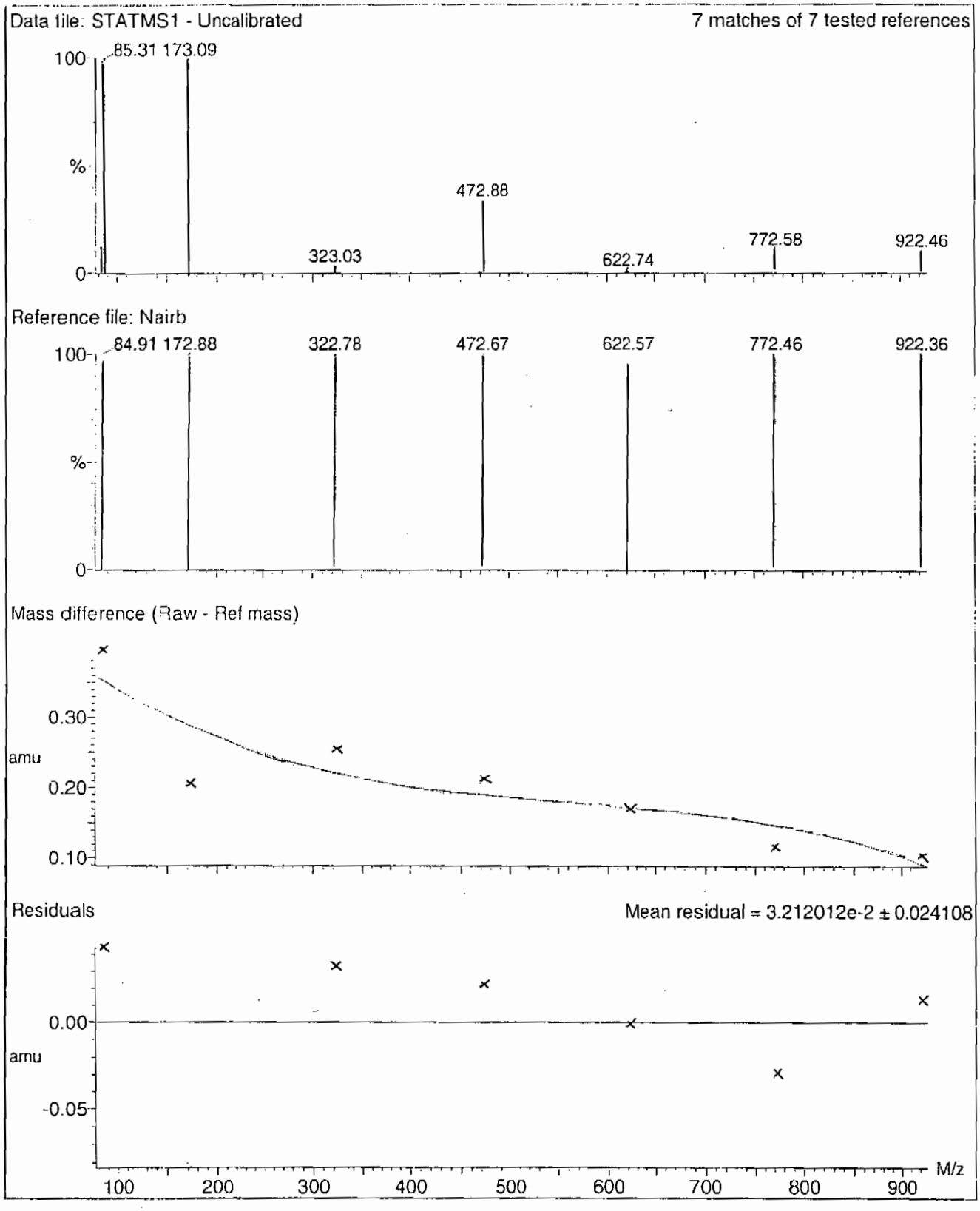

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

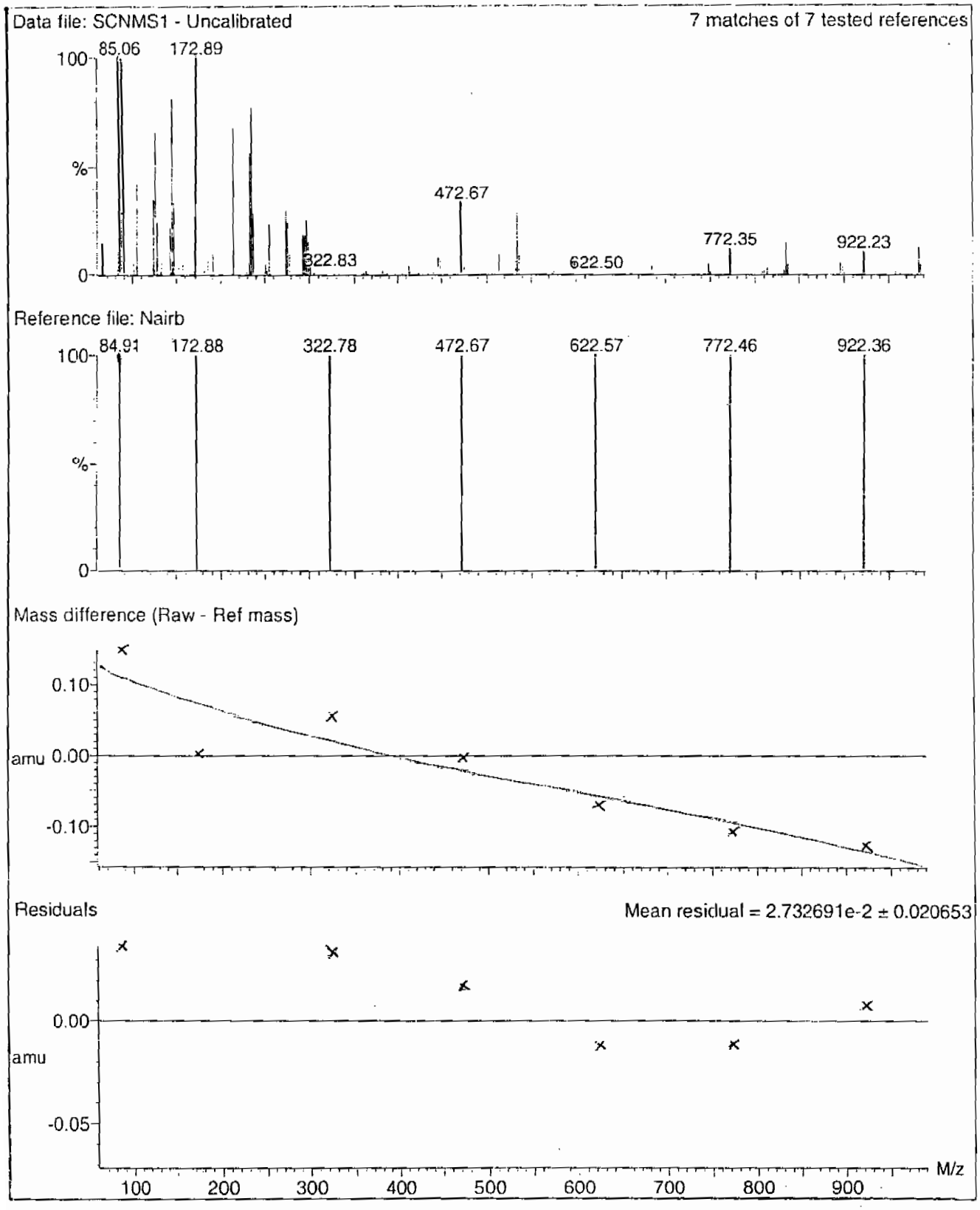

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

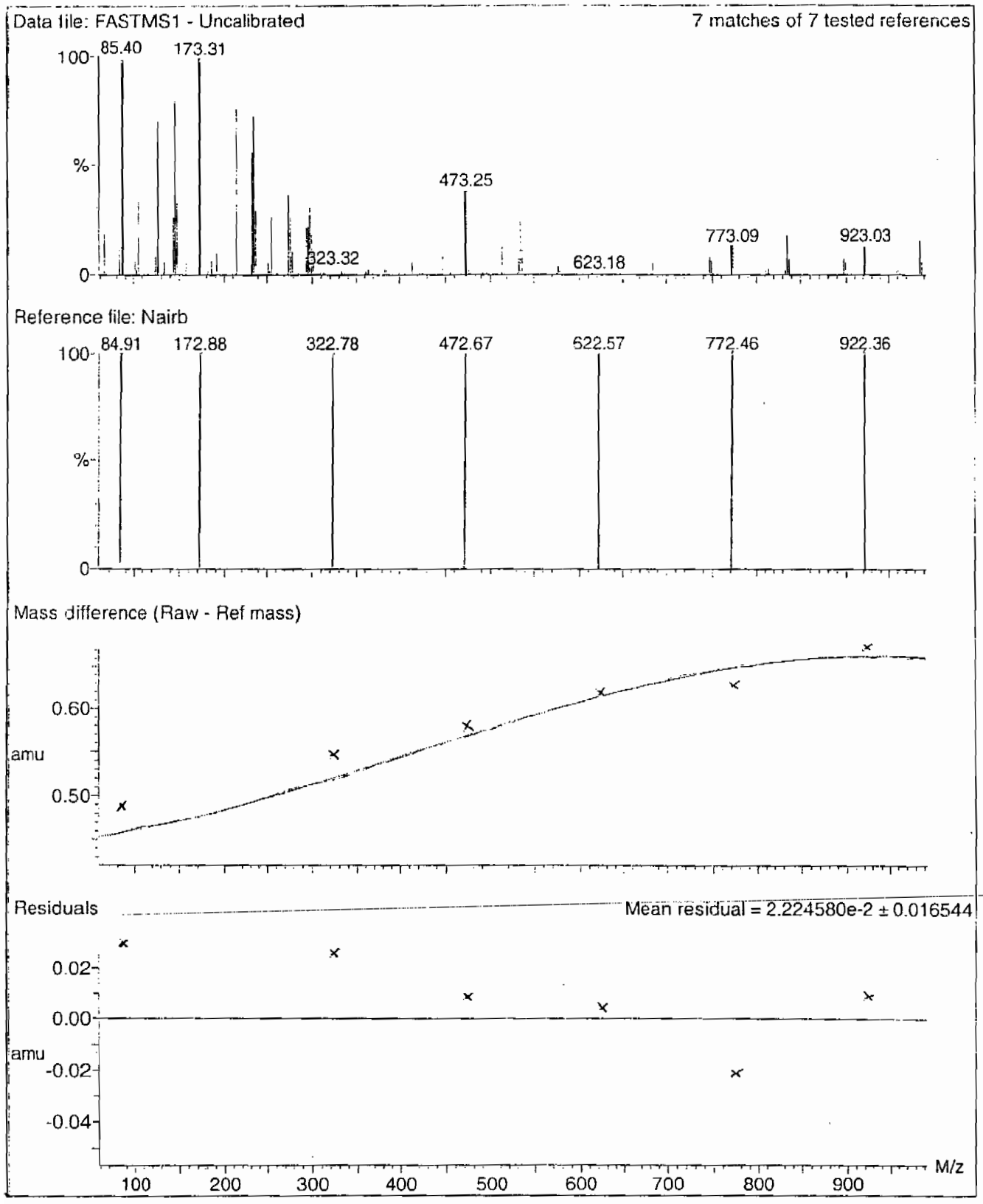

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

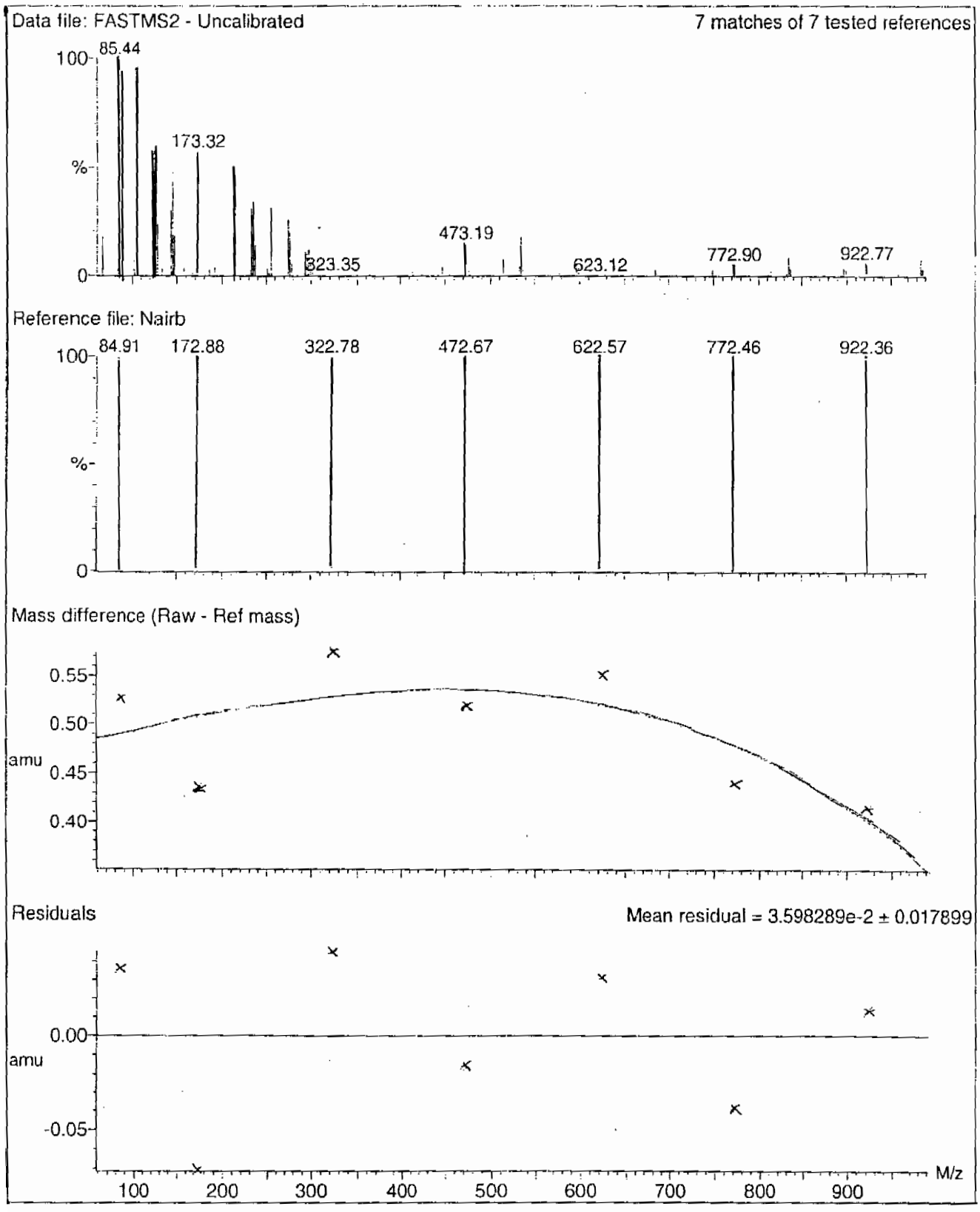

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

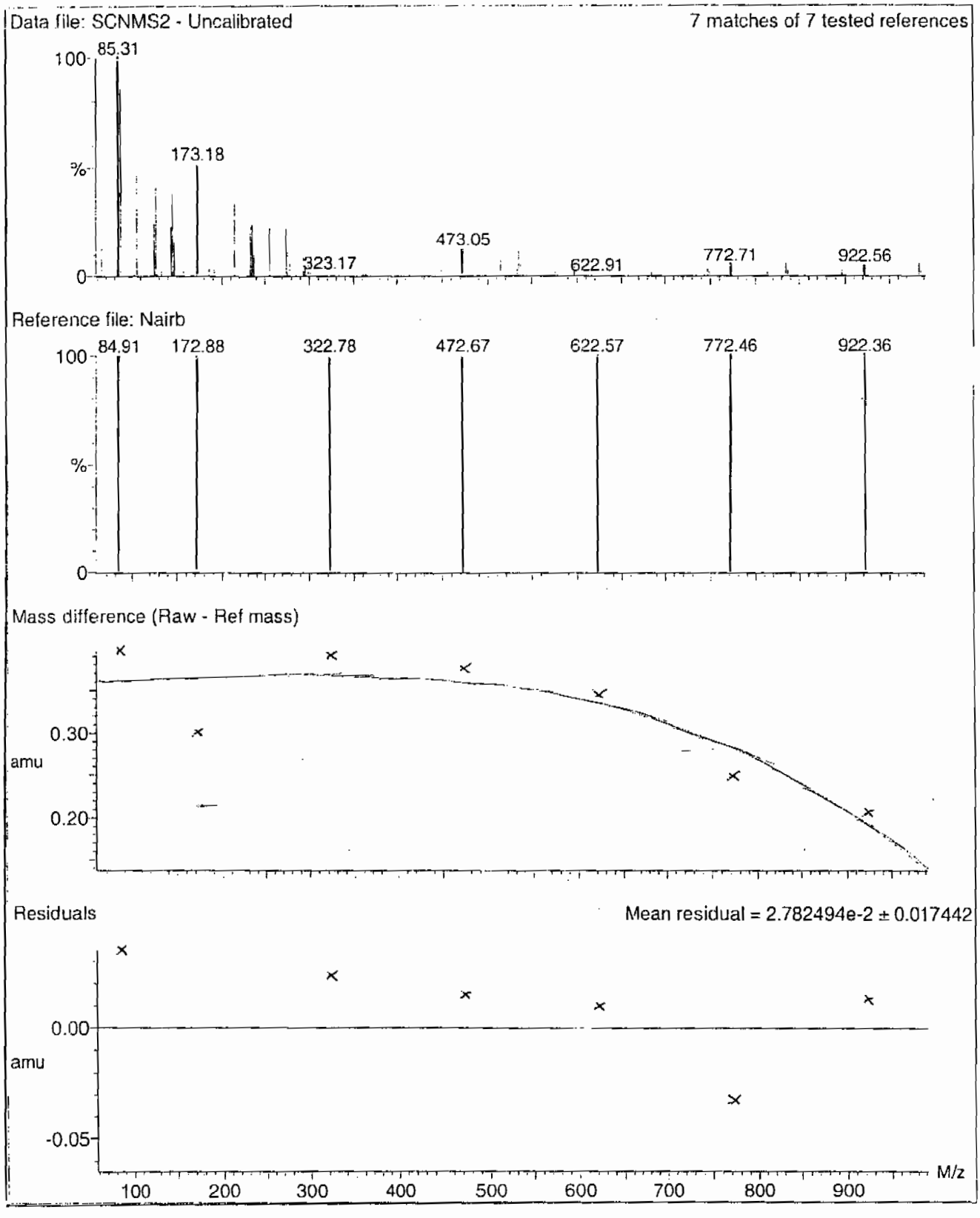

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

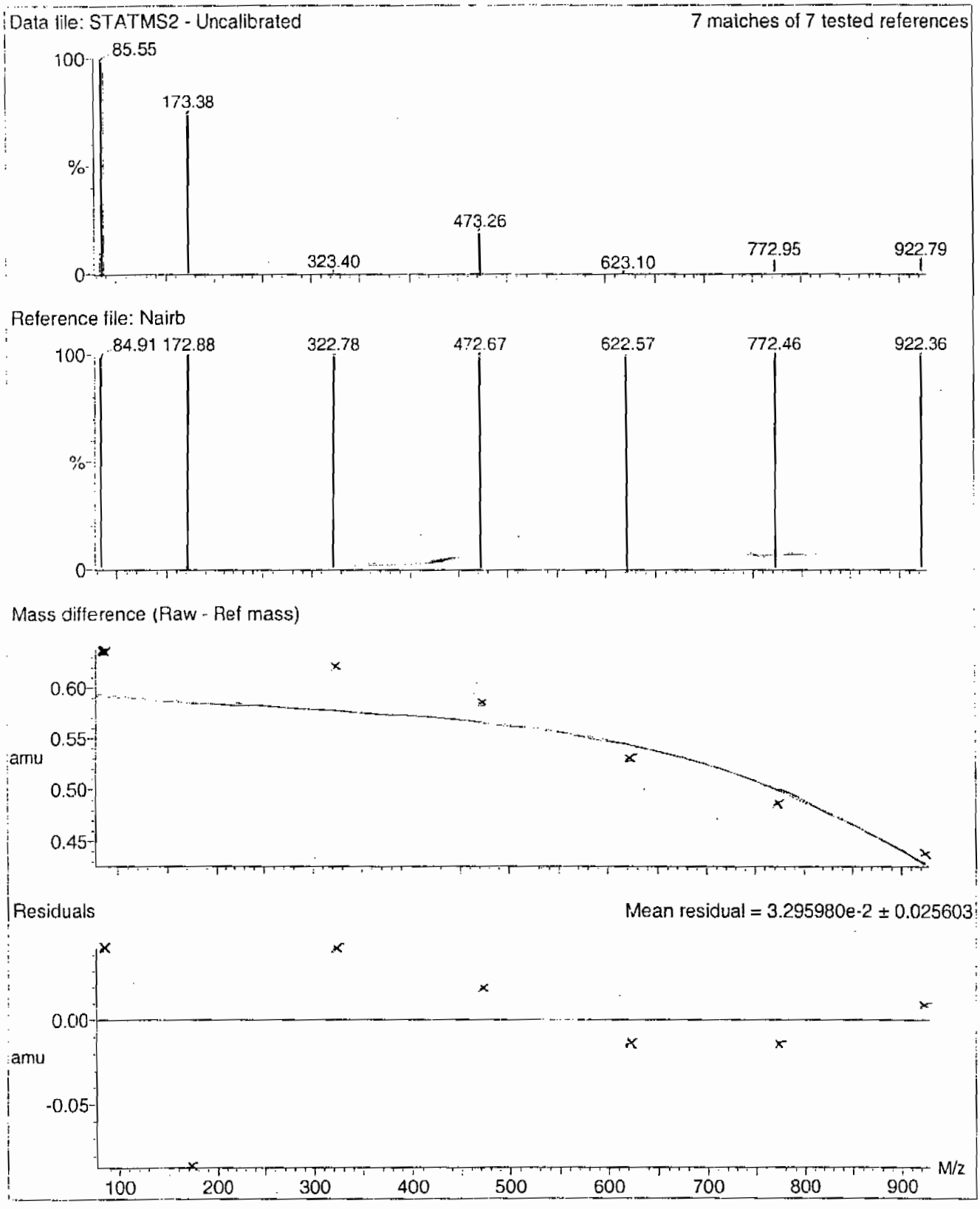

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, February 09, 2010 11:13:33 Eastern Standard Time

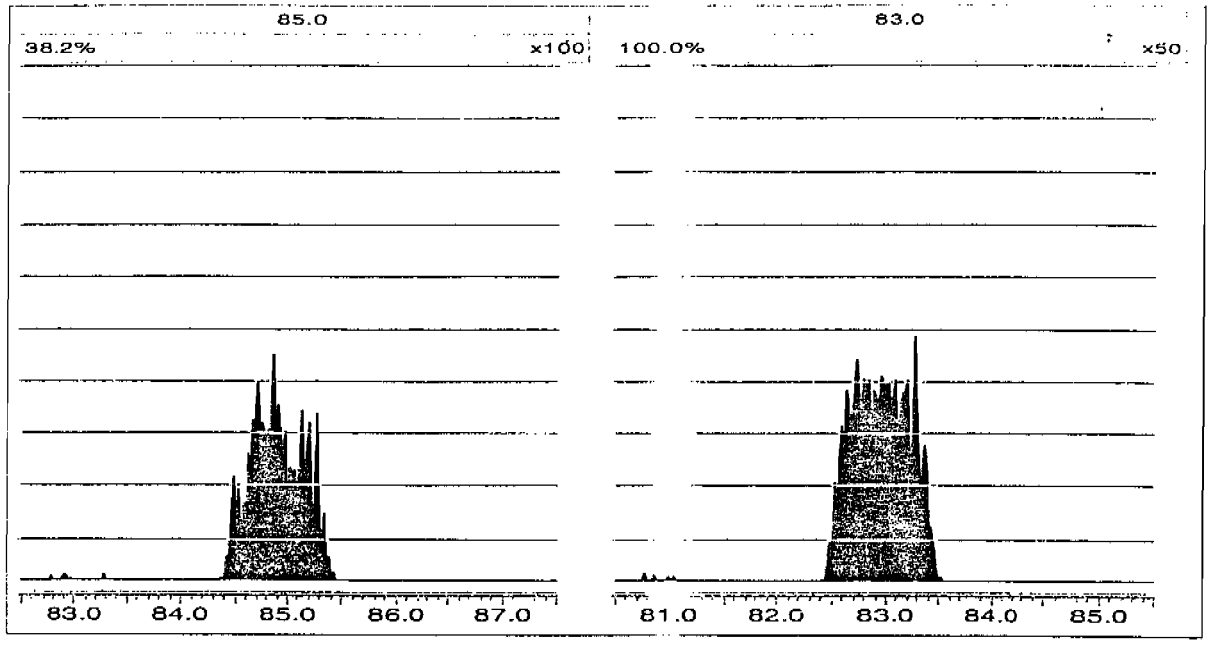

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1394

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0209006a**	**09–FEB–10**	**20537.5**				
Lower Area Limit			**10268.75**				
Upper Area Limit			**41075**				
1202024410	per0209061a	09–FEB–10 19:16	19710.7	1.87	1.86795	.999	
1202024411	per0209062a	09–FEB–10 19:23	21717.6	1.86	1.86793	1.004	
1202024414	per0209063a	09–FEB–10 19:30	21710.9	1.92	1.93003	1.005	
245396001	per0209080a	09–FEB–10 21:21	21167.2	1.84	1.84302	1.002	
245396002	per0209081a	09–FEB–10 21:28	22716.4	1.84	1.85548	1.008	
245396003	per0209082a	09–FEB–10 21:34	23585.7	1.83	1.84302	1.007	
245396004	per0209083a	09–FEB–10 21:41	21451.2	1.83	1.83068	1	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7928

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396001

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 96.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.07	0.519	ug/kg	U	1	09-FEB-10 21:21	per0209080a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:21	per0209080a
14797-73-0	Perchlorate-101	.519	2.07	0.519	ug/kg	U	1	09-FEB-10 21:21	per0209080a
	Perchlorate-O(18)			5.34	ug/kg		1	09-FEB-10 21:21	per0209080a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209080a
Date: 09-Feb-2010
Time: 21:21:39
ID: 245396001
Vial: 2:4,E

|LANL|945236|50120|1|

02-10-10

Perchlorate

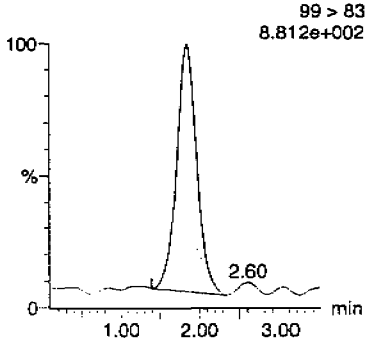

Perchlorate

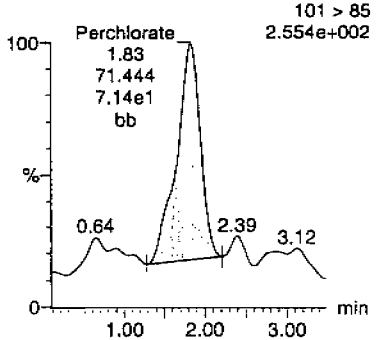

Perchlorate-101

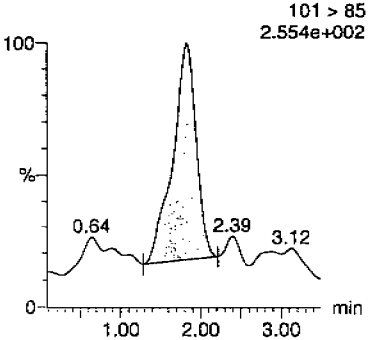

Perchlorate-O(18)

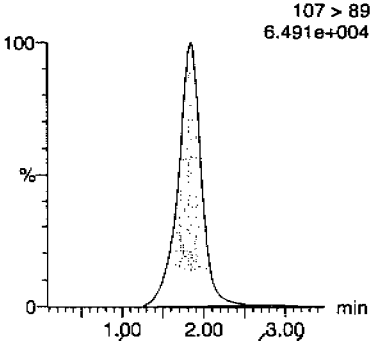

HMM 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245396001	Perchlorate	99 > 83	1.84	245.754	245.754	bb			0.0049			31.810	3.44
245396001	Perchlorate-101	101 > 85	1.83	71.444	71.444	bb			0.0044			27.542	
245396001	Perchlorate-O(18)	107 > 89	1.84	21167.150	21167.150	bb			0.5148	102.97	2.97	5679.0...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7929

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396002

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.689	2.76	0.689	ug/kg	U	1	09-FEB-10 21:28	per0209081a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:28	per0209081a
14797-73-0	Perchlorate-101	.689	2.76	0.689	ug/kg	U	1	09-FEB-10 21:28	per0209081a
	Perchlorate-O(18)			7.62	ug/kg		1	09-FEB-10 21:28	per0209081a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209081a
Date: 09-Feb-2010
Time: 21:28:10
ID: 245396002
Vial: 2:4,F

|LANL|945236|50620|1|

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02-10-10

Perchlorate

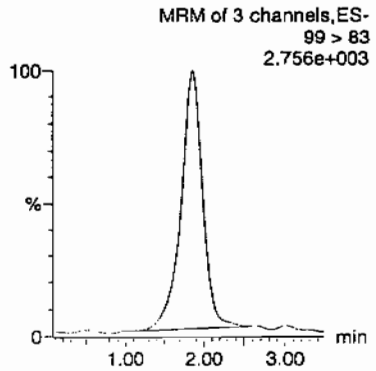

Perchlorate

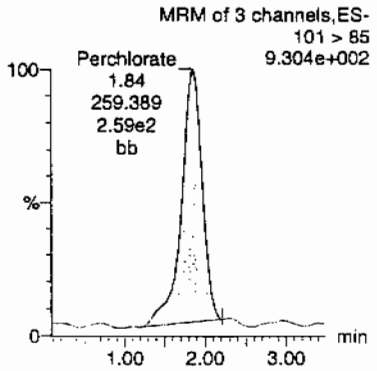

Perchlorate-101

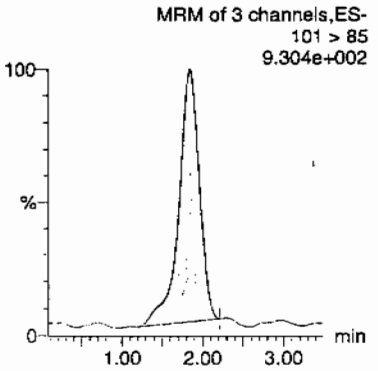

Perchlorate-O(18)

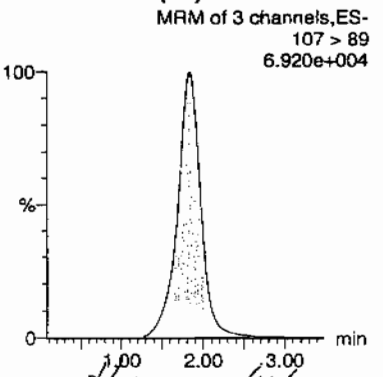

HMW 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245396002	Perchlorate	99 > 83	1.86	858.804	858.804	bb			0.0173			407.972	3.31
245396002	Perchlorate-101	101 > 85	1.84	259.389	259.389	bb			0.0161			187.550	
245396002	Perchlorate-O(18)	107 > 89	1.84	22716.381	22716.381	bb			0.5525	110.50	10.50	1819.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7927

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396003

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.662	2.65	0.662	ug/kg	U	1	09-FEB-10 21:34	per0209082a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:34	per0209082a
14797-73-0	Perchlorate-101	.662	2.65	0.662	ug/kg	U	1	09-FEB-10 21:34	per0209082a
	Perchlorate-O(18)			7.59	ug/kg		1	09-FEB-10 21:34	per0209082a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209082a
Date: 09-Feb-2010
Time: 21:34:42
ID: 245396003
Vial: 2:5,A

| LANL | 943236 | 50625 | 11 |

GWO
02-10-10

Perchlorate

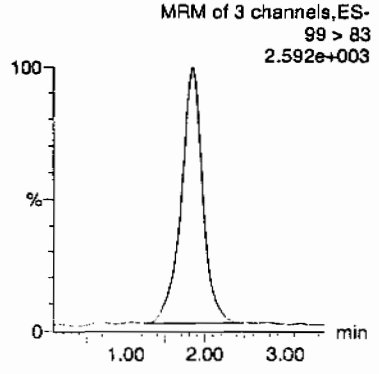

Perchlorate

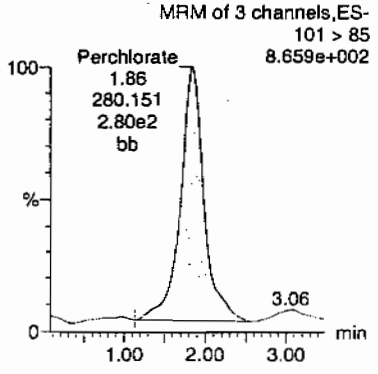

Perchlorate-101

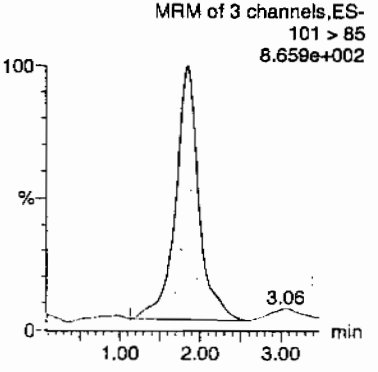

Perchlorate-O(18)

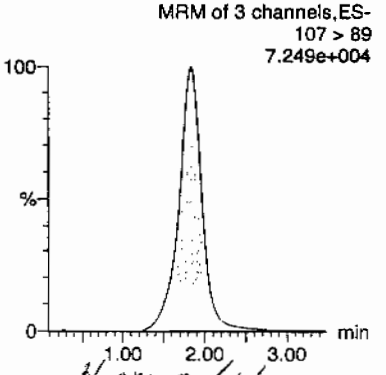

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245396003	Perchlorate	99 > 83	1.84	800.246	800.246	bb			0.0161			205.117	2.86
245396003	Perchlorate-101	101 > 85	1.86	280.151	280.151	bb			0.0174			242.599	
245396003	Perchlorate-O(18)	107 > 89	1.83	23585.658	23585.658	bb			0.5737	114.73	14.73	9547.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7930

Date Received: 23-JAN-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 245396004

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	09-FEB-10 21:41	per0209083a
	Perchlorate Isotope Ratio						1	09-FEB-10 21:41	per0209083a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	09-FEB-10 21:41	per0209083a
	Perchlorate-O(18)			5.89	ug/kg		1	09-FEB-10 21:41	per0209083a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209083a
Date: 09-Feb-2010
Time: 21:41:16
ID: 245396004
Vial: 2:5,B

|LAIC|945236|5020|11

GW
02-10-10

Perchlorate
MRM of 3 channels,ES-
99 > 83
1.244e+003

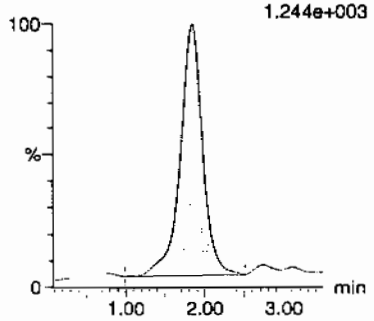

Perchlorate
MRM of 3 channels,ES-
101 > 85
4.297e+002

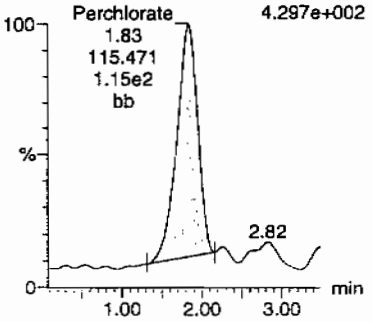

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
4.297e+002

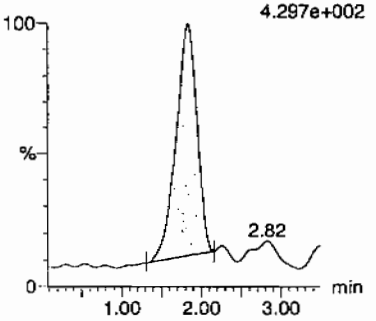

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
6.597e+004

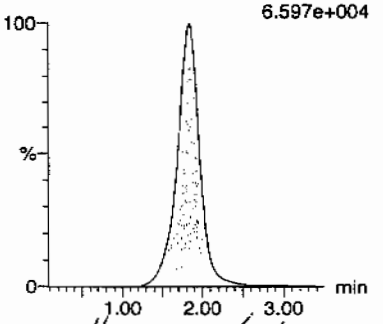

Hmc 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245396004	Perchlorate	99 > 83	1.83	394.170	394.170	bb			0.0079			62.649	3.41
245396004	Perchlorate-101	101 > 85	1.83	115.471	115.471	bb			0.0072			16.497	
245396004	Perchlorate-O(18)	107 > 89	1.83	21451.172	21451.172	bb			0.5218	104.35	4.35	1829.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1394

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 09–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 49719.52

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1394

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 09–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 16119.76

Response Type: External Standard

Curve Type: RF

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020910a.mdb 10 Feb 2010 11:45:47
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020910a.cdb 10 Feb 2010 11:47:15

Compound name: Perchlorate
Response Factor: 49719.5
RRF SD: 1652.68, % Relative SD: 3.324
Response type: External Std, Area
Curve type: RF

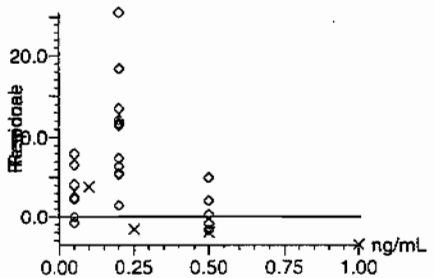

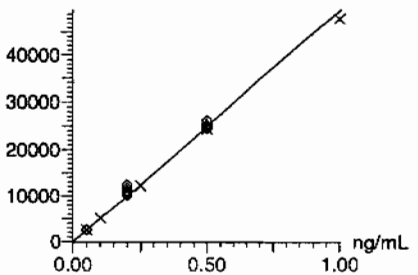

CWW
02-10-10

Compound name: Perchlorate-101
Response Factor: 16119.7
RRF SD: 729.686, % Relative SD: 4.52667
Response type: External Std, Area
Curve type: RF

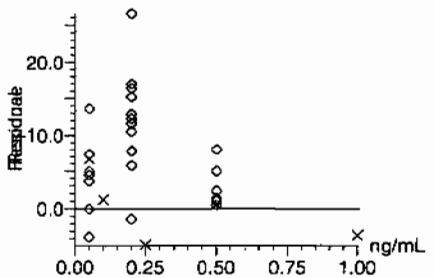

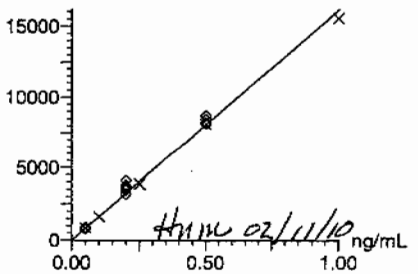

tmw 02/11/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 41113.8
RRF SD: 474.905, % Relative SD: 1.1551
Response type: External Std, Area
Curve type: RF

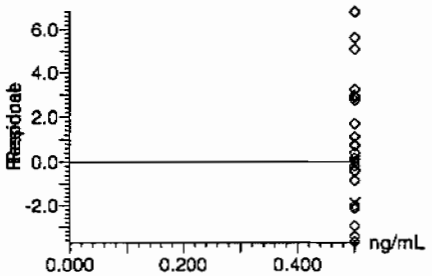

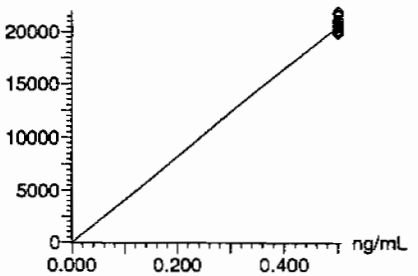

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1394

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.03	09–FEB–10 13:25	per0209009a
Perchlorate Isotope Ratio		3.09		09–FEB–10 13:25	per0209009a
Perchlorate–101	.5	.52	104.99	09–FEB–10 13:25	per0209009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qid

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209009a
Date: 09-Feb-2010
Time: 13:25:00
ID: WCL100128-06ICV
Vial: 1:2,A

Pass
02-10-10

Perchlorate

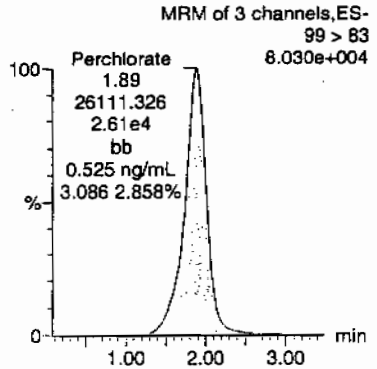

Perchlorate

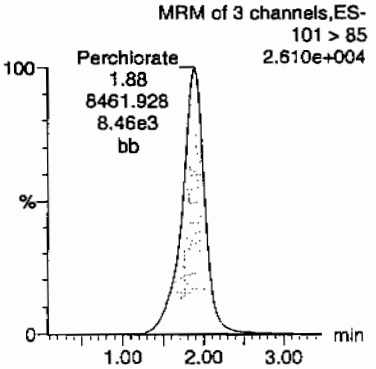

Perchlorate-101

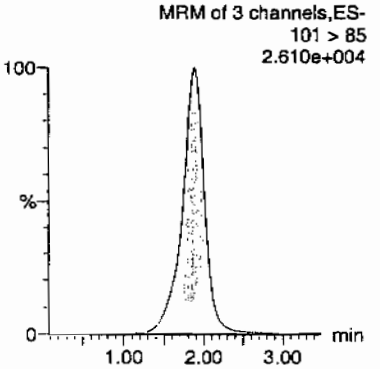

Perchlorate-O(18)

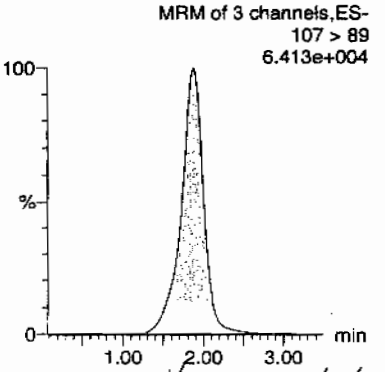

KMW 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	1.89	26111.326	26111.326	bb			0.5252	105.03	5.03	897.151	3.09
WCL100128-06ICV	Perchlorate-101	101 > 85	1.88	8461.928	8461.928	bb			0.5249	104.99	4.99	912.402	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	1.87	20709.299	20709.299	bb			0.5037	100.74	0.74	764.944	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1394

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.1	09-FEB-10 14:43	per0209021a
Perchlorate Isotope Ratio		3.02		09-FEB-10 14:43	per0209021a
Perchlorate-101	.5	.51	101.26	09-FEB-10 14:43	per0209021a
Perchlorate	.5	.49	98.27	09-FEB-10 16:01	per0209033a
Perchlorate Isotope Ratio		3		09-FEB-10 16:01	per0209033a
Perchlorate-101	.5	.5	100.96	09-FEB-10 16:01	per0209033a
Perchlorate	.5	.51	102.06	09-FEB-10 17:27	per0209045a
Perchlorate Isotope Ratio		3.08		09-FEB-10 17:27	per0209045a
Perchlorate-101	.5	.51	102.35	09-FEB-10 17:27	per0209045a
Perchlorate	.5	.51	102.11	09-FEB-10 18:56	per0209058a
Perchlorate Isotope Ratio		3.11		09-FEB-10 18:56	per0209058a
Perchlorate-101	.5	.51	101.41	09-FEB-10 18:56	per0209058a
Perchlorate	.5	.5	100.23	09-FEB-10 20:22	per0209071a

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1394

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.08		09–FEB–10 20:22	per0209071a
Perchlorate–101	.5	.5	100.46	09–FEB–10 20:22	per0209071a
Perchlorate	.5	.52	104.89	09–FEB–10 21:47	per0209084a
Perchlorate Isotope Ratio		2.99		09–FEB–10 21:47	per0209084a
Perchlorate–101	.5	.54	108.05	09–FEB–10 21:47	per0209084a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209021a
Date: 09-Feb-2010
Time: 14:43:30
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-10-10

Perchlorate

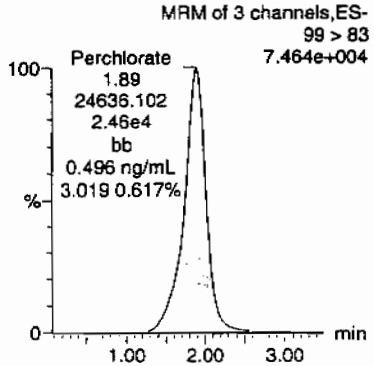

Perchlorate

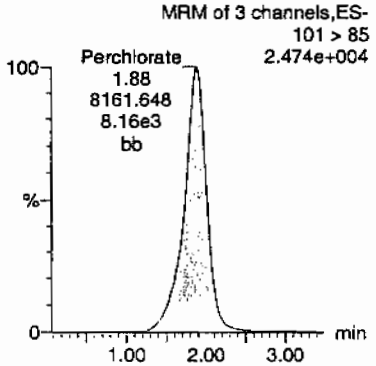

Perchlorate-101

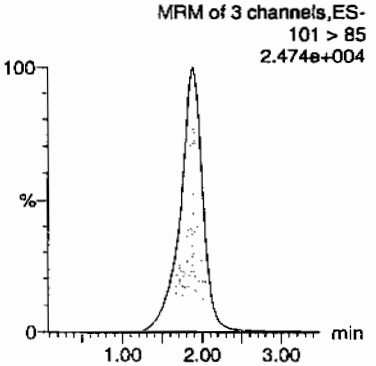

Perchlorate-O(18)

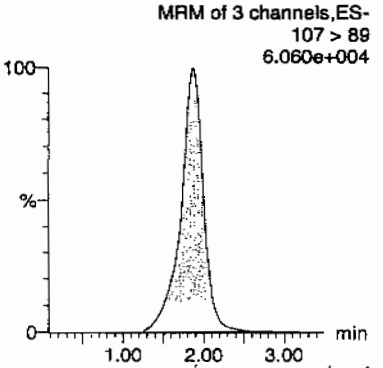

AMW 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	24636.102	24636.102	bb			0.4955	99.10	-0.90	3259.5...	3.02
WCL100128-06CCV	Perchlorate-101	101 > 85	1.88	8161.648	8161.648	bb			0.5063	101.26	1.26	4524.4...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.88	19801.271	19801.271	bb			0.4816	96.32	-3.68	3313.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209033a
Date: 09-Feb-2010
Time: 16:01:59
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
OWO
02-10-10

Perchlorate

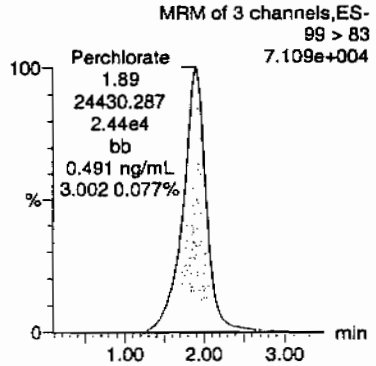

Perchlorate

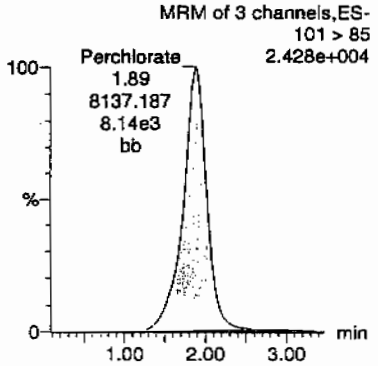

Perchlorate-101

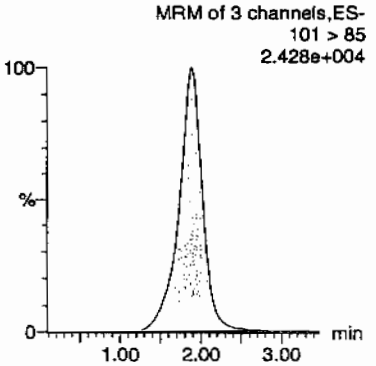

Perchlorate-O(18)

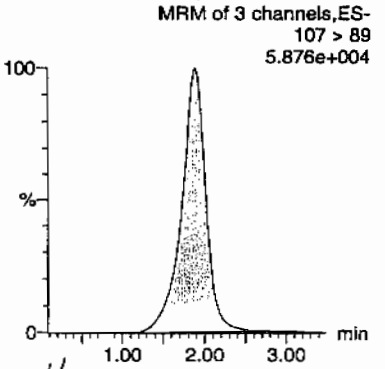

Hmm 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	24430.287	24430.287	bb			0.4914	98.27	-1.73	2691.6...	3.00
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	8137.187	8137.187	bb			0.5048	100.96	0.96	1283.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.88	19851.232	19851.232	bb			0.4828	96.57	-3.43	814.183	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209045a
Date: 09-Feb-2010
Time: 17:27:41
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-10-10

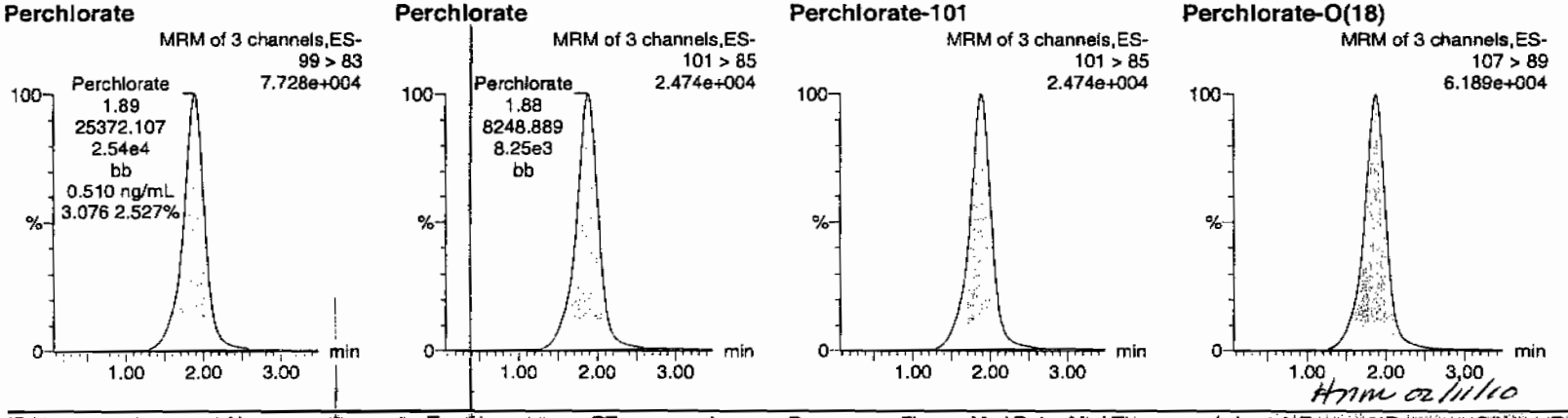

HMM 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	25372.107	25372.107	bb			0.5103	102.06	2.06	10187....	3.08
WCL100128-06CCV	Perchlorate-101	101 > 85	1.88	8248.889	8248.889	bb			0.5117	102.35	2.35	918.186	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.88	20718.590	20718.590	bb			0.5039	100.79	0.79	2229.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209058a
Date: 09-Feb-2010
Time: 18:56:51
ID: WCL100128-06CCV
Vial: 1:2,A

Pwo
ow
2-10-10

Perchlorate

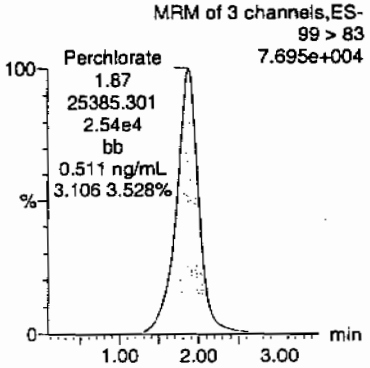

Perchlorate

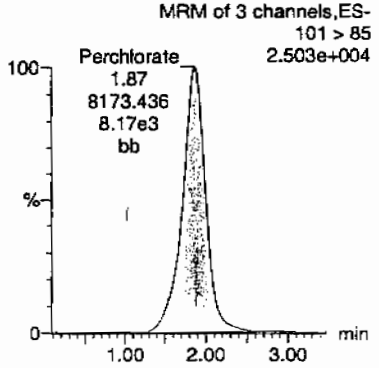

Perchlorate-101

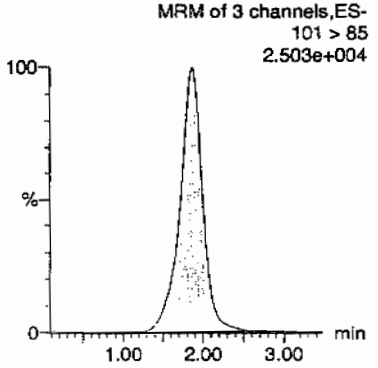

Perchlorate-O(18)

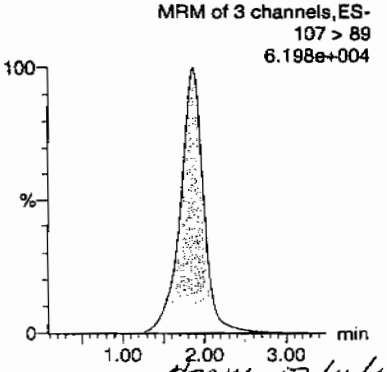

Anne 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.87	25385.301	25385.301	bb			0.5106	102.11	2.11	2757.4...	3.11
WCL100128-06CCV	Perchlorate-101	101 > 85	1.87	8173.436	8173.436	bb			0.5070	101.41	1.41	1537.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.86	20467.355	20467.355	bb			0.4978	99.56	-0.44	5091.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209071a
Date: 09-Feb-2010
Time: 20:22:23
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-10-10

Perchlorate

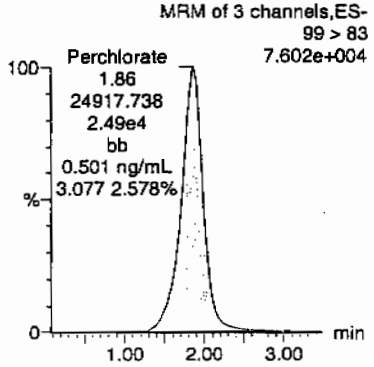

Perchlorate

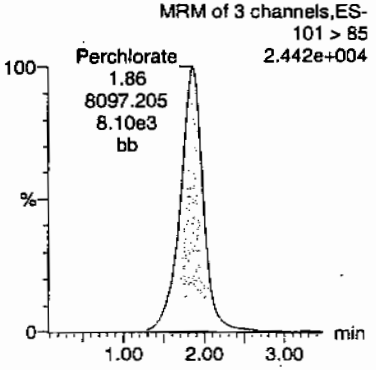

Perchlorate-101

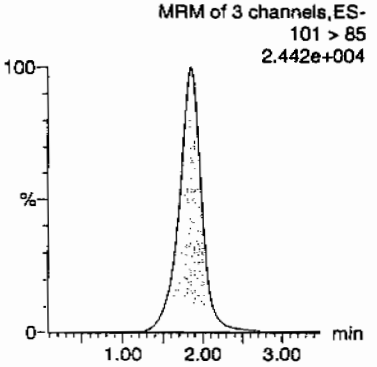

Perchlorate-O(18)

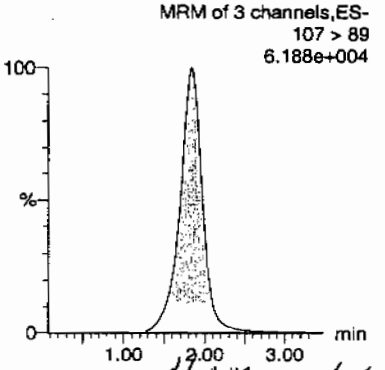

HM 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.86	24917.738	24917.738	bb			0.5012	100.23	0.23	522.587	3.08
WCL100128-06CCV	Perchlorate-101	101 > 85	1.86	8097.205	8097.205	bb			0.5023	100.46	0.46	561.442	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.84	20150.564	20150.564	bb			0.4901	98.02	-1.98	724.132	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209084a
Date: 09-Feb-2010
Time: 21:47:50
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
cw
02-10-10

Perchlorate

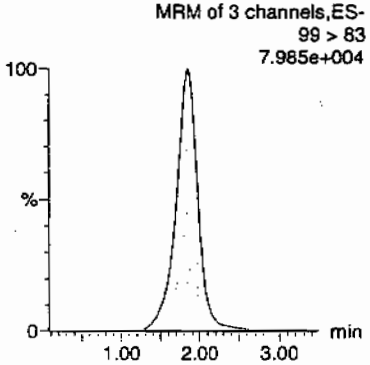

Perchlorate

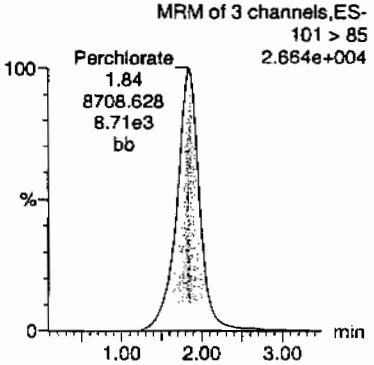

Perchlorate-101

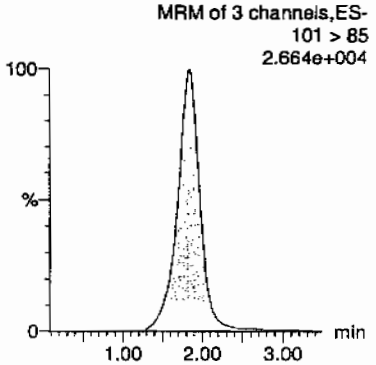

Perchlorate-O(18)

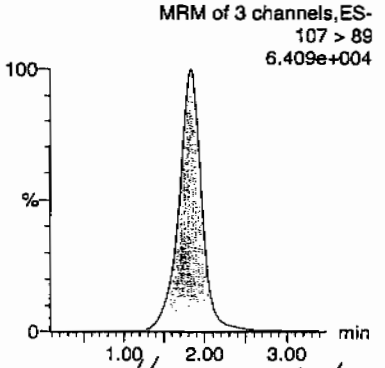

hmm 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.84	26074.250	26074.250	bb			0.5244	104.89	4.89	5389.9...	2.99
WCL100128-06CCV	Perchlorate-101	101 > 85	1.84	8708.628	8708.628	bb			0.5402	108.05	8.05	148.125	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.83	20905.199	20905.199	bb			0.5085	101.69	1.69	1069.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1394

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	104.14	09–FEB–10 13:38	per0209011a
Perchlorate Isotope Ratio		2.83		09–FEB–10 13:38	per0209011a
Perchlorate–101	.05	.06	113.58	09–FEB–10 13:38	per0209011a
Perchlorate	.05	.05	99.99	09–FEB–10 14:56	per0209023a
Perchlorate Isotope Ratio		2.87		09–FEB–10 14:56	per0209023a
Perchlorate–101	.05	.05	107.4	09–FEB–10 14:56	per0209023a
Perchlorate	.05	.05	102.52	09–FEB–10 16:15	per0209035a
Perchlorate Isotope Ratio		3.29		09–FEB–10 16:15	per0209035a
Perchlorate–101	.05	.05	96.23	09–FEB–10 16:15	per0209035a
Perchlorate	.05	.05	102.28	09–FEB–10 17:41	per0209047a
Perchlorate Isotope Ratio		3.16		09–FEB–10 17:41	per0209047a

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1394

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	99.97	09–FEB–10 17:41	per0209047a
Perchlorate	.05	.05	106.65	09–FEB–10 19:10	per0209060a
Perchlorate Isotope Ratio		3.17		09–FEB–10 19:10	per0209060a
Perchlorate–101	.05	.05	103.64	09–FEB–10 19:10	per0209060a
Perchlorate	.05	.05	99.23	09–FEB–10 20:35	per0209073a
Perchlorate Isotope Ratio		2.93		09–FEB–10 20:35	per0209073a
Perchlorate–101	.05	.05	104.44	09–FEB–10 20:35	per0209073a
Perchlorate	.05	.05	107.98	09–FEB–10 22:01	per0209086a
Perchlorate Isotope Ratio		3.17		09–FEB–10 22:01	per0209086a
Perchlorate–101	.05	.05	104.91	09–FEB–10 22:01	per0209086a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209011a
Date: 09-Feb-2010
Time: 13:38:05
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
CWW
02-10-10

Perchlorate

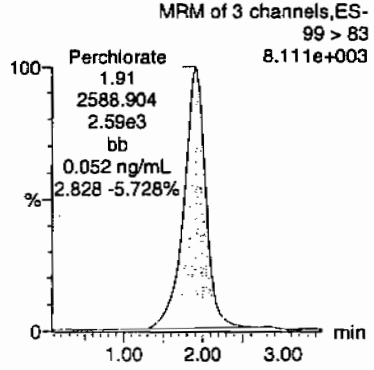

Perchlorate

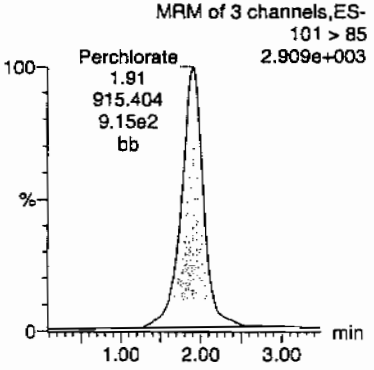

Perchlorate-101

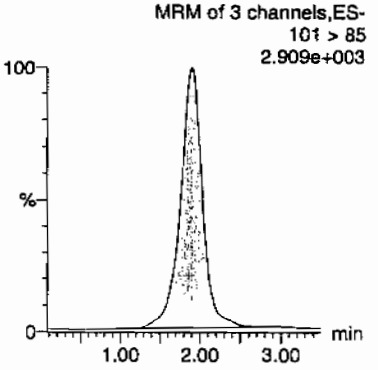

Perchlorate-O(18)

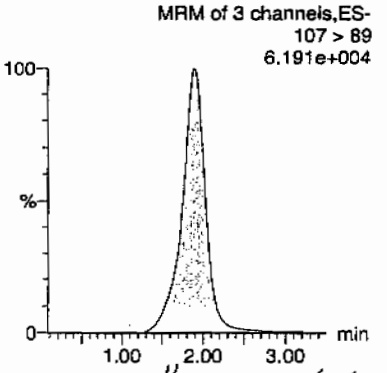

HMW 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	2588.904	2588.904	bb			0.0521	104.14	4.14	174.258	2.83
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	915.404	915.404	bb			0.0568	113.58	13.58	940.309	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	20588.137	20588.137	bb			0.5008	100.15	0.15	3127.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209023a
Date: 09-Feb-2010
Time: 14:56:36
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02-10-10

Perchlorate

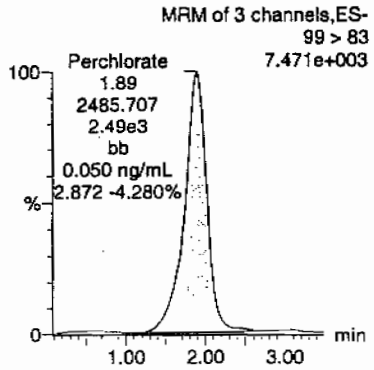

Perchlorate

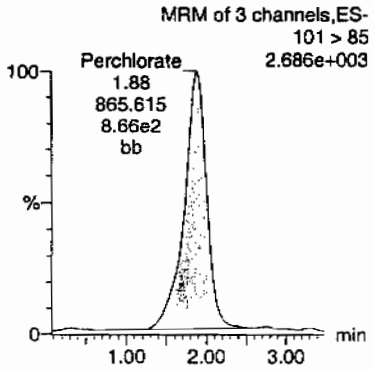

Perchlorate-101

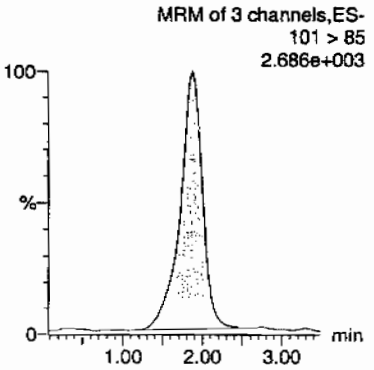

Perchlorate-O(18)

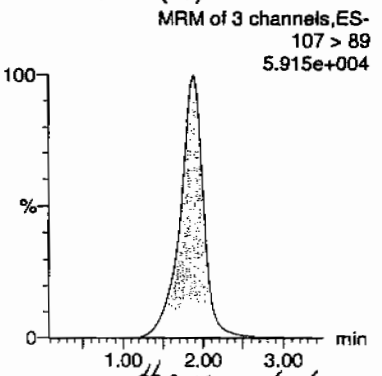

MM 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.89	2485.707	2485.707	bb			0.0500	99.99	-0.01	167.072	2.87
WCL100128-07CRI	Perchlorate-101	101 > 85	1.88	865.615	865.615	bb			0.0537	107.40	7.40	282.934	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.88	20113.150	20113.150	bb			0.4892	97.84	-2.16	3501.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209035a
Date: 09-Feb-2010
Time: 16:15:05
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02-10-10

Perchlorate

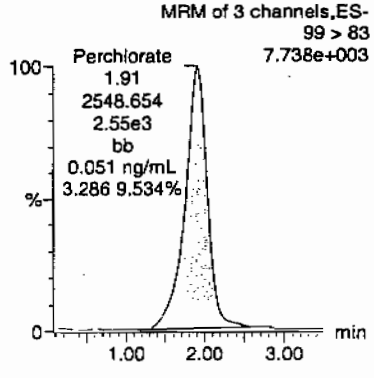

Perchlorate

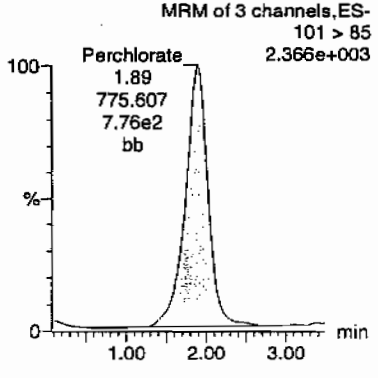

Perchlorate-101

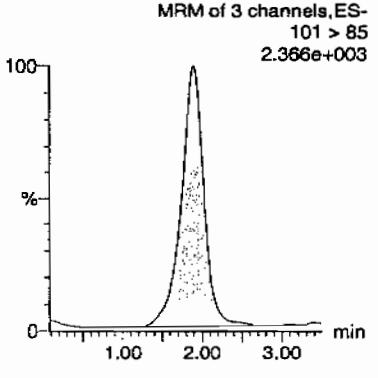

Perchlorate-O(18)

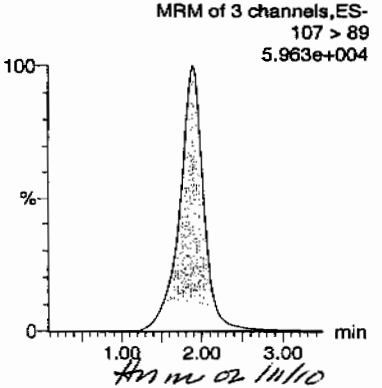

AM m 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	2548.654	2548.654	bb			0.0513	102.52	2.52	540.657	3.29
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	775.607	775.607	bb			0.0481	96.23	-3.77	633.797	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	20520.305	20520.305	bb			0.4991	99.82	-0.18	2097.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209047a
Date: 09-Feb-2010
Time: 17:41:43
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
and
02-10-10

Perchlorate

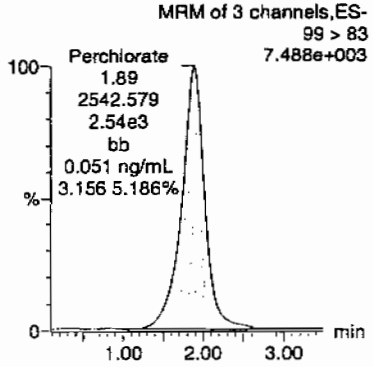

Perchlorate

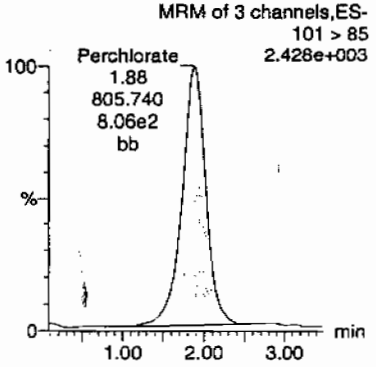

Perchlorate-101

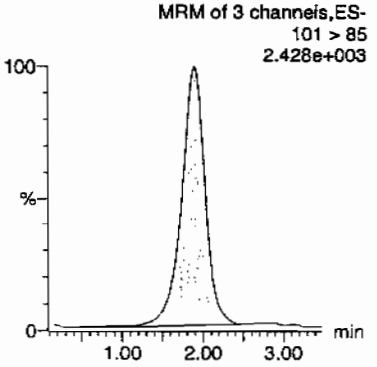

Perchlorate-O(18)

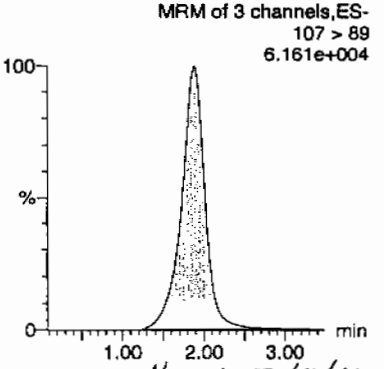

HMM 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.89	2542.579	2542.579	bb			0.0511	102.28	2.28	245.608	3.16
WCL100128-07CRI	Perchlorate-101	101 > 85	1.88	805.740	805.740	bb			0.0500	99.97	-0.03	287.803	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.88	20644.211	20644.211	bb			0.5021	100.42	0.42	2287.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209060a
Date: 09-Feb-2010
Time: 19:10:10
ID: WCL100128-07CRI
Vial: 1:2,B

Pwp
aw
02-10-10

Perchlorate

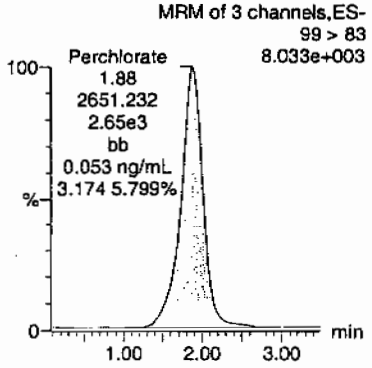

Perchlorate

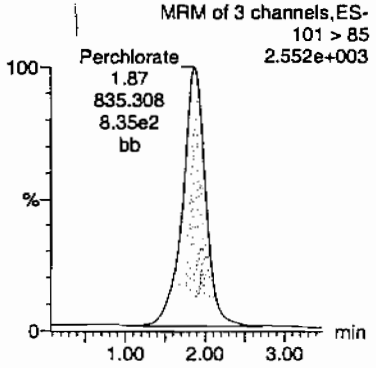

Perchlorate-101

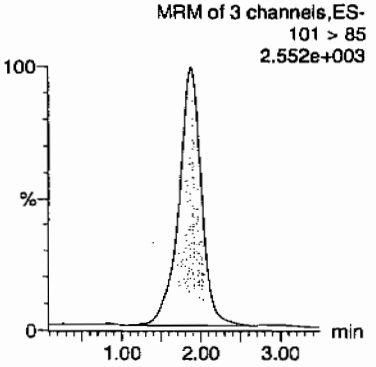

Perchlorate-O(18)

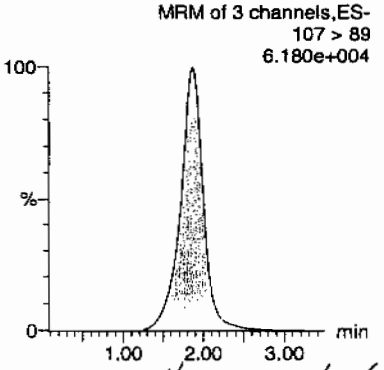

HMM 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.88	2651.232	2651.232	bb			0.0533	106.65	6.65	591.630	3.17
WCL100128-07CRI	Perchlorate-101	101 > 85	1.87	835.308	835.308	bb			0.0518	103.64	3.64	259.980	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.87	20480.260	20480.260	bb			0.4981	99.63	-0.37	2193.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209073a
Date: 09-Feb-2010
Time: 20:35:42
ID: WCL100128-07CRI
Vial: 1:2,B

CW
02-10-10

Perchlorate

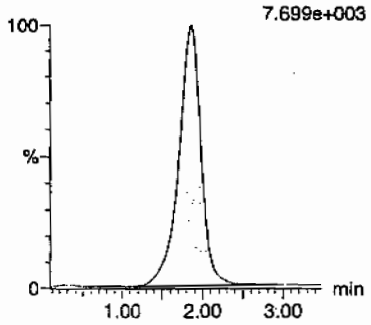

Perchlorate

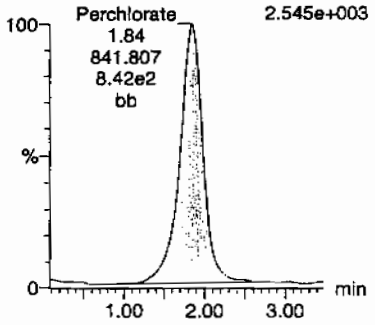

Perchlorate-101

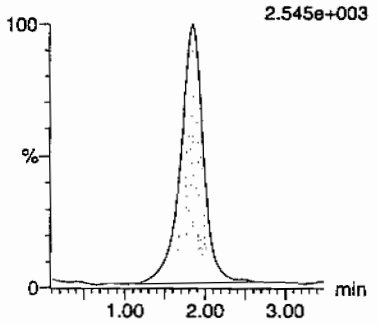

Perchlorate-O(18)

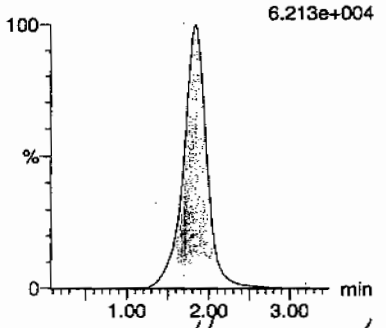

Hnm 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.86	2466.833	2466.833	bb			0.0496	99.23	-0.77	742.490	2.93
WCL100128-07CRI	Perchlorate-101	101 > 85	1.84	841.807	841.807	bb			0.0522	104.44	4.44	139.478	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.84	20387.275	20387.275	bb			0.4959	99.17	-0.83	808.677	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209086a
Date: 09-Feb-2010
Time: 22:01:09
ID: WCL100128-07CRI
Vial: 1:2,B

Pwp
CWW
02-10-10

Perchlorate

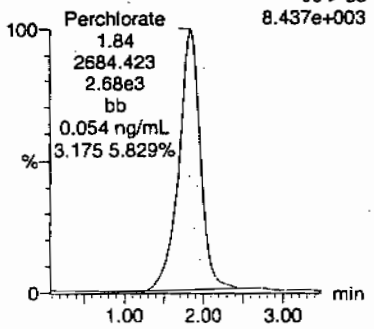

Perchlorate

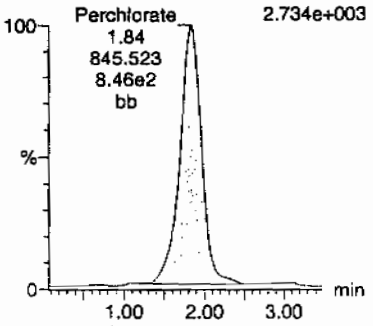

Perchlorate-101

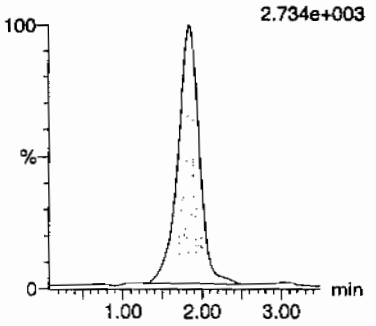

Perchlorate-O(18)

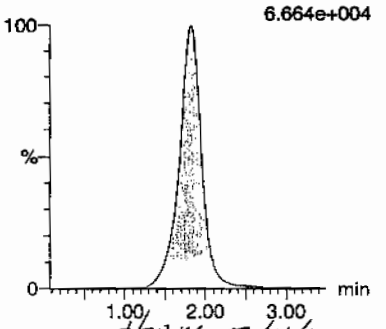

HMM 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.84	2684.423	2684.423	bb			0.0540	107.98	7.98	444.573	3.17
WCL100128-07CRI	Perchlorate-101	101 > 85	1.84	845.523	845.523	bb			0.0525	104.91	4.91	218.998	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.83	21604.939	21604.939	bb			0.5255	105.10	5.10	3257.5...	

iEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

MB

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 1202024410

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	09-FEB-10 19:16	per0209061a
	Perchlorate Isotope Ratio						1	09-FEB-10 19:16	per0209061a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	09-FEB-10 19:16	per0209061a
	Perchlorate-O(18)			4.79	ug/kg		1	09-FEB-10 19:16	per0209061a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209061a
Date: 09-Feb-2010
Time: 19:16:44
ID: 1202024410
Vial: 2:2,A

| LANL | 945236 | 30120 | MB | 1 |

CWJ 02-10-10

Perchlorate

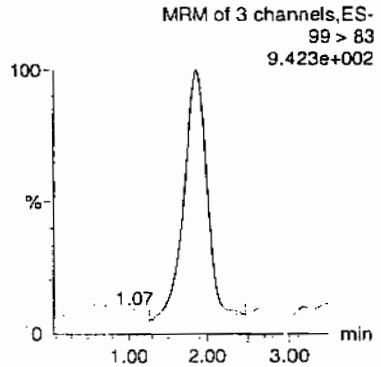

Perchlorate

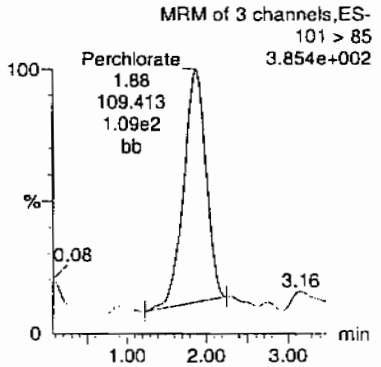

Perchlorate-101

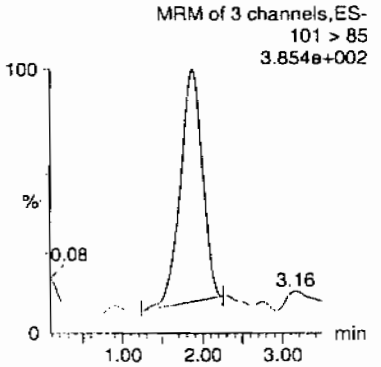

Perchlorate-O(18)

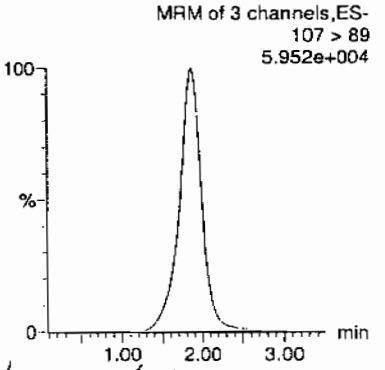

Hme 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202024410	Perchlorate	99 > 83	1.87	299.268	299.268	bb			0.0060			22.505	2.74
1202024410	Perchlorate-101	101 > 85	1.88	109.413	109.413	bb			0.0068			60.399	
1202024410	Perchlorate-O(18)	107 > 89	1.87	19710.719	19710.719	bb			0.4794	95.88	-4.12	1760.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 945234

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.

LCS

Date Received: 05-FEB-10

GEL Job No (SDG): 10-1394

GEL Sample ID: 1202024411

Date Filtered: 05-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.15	ug/kg		1	09-FEB-10 19:23	per0209062a
	Perchlorate Isotope Ratio			3			1	09-FEB-10 19:23	per0209062a
14797-73-0	Perchlorate-101	.5	2	2.21	ug/kg		1	09-FEB-10 19:23	per0209062a
	Perchlorate-O(18)			5.28	ug/kg		1	09-FEB-10 19:23	per0209062a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209062a
Date: 09-Feb-2010
Time: 19:23:35
ID: 1202024411
Vial: 2:2,B

|LANL|945236|5020|LCS|1|

02-10-10

Perchlorate

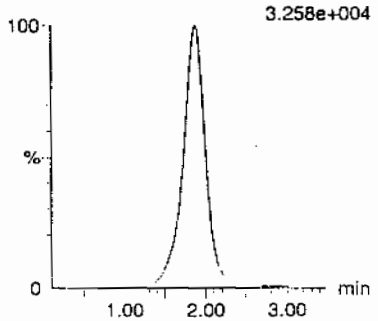

Perchlorate

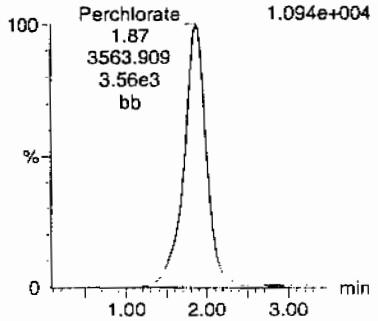

Perchlorate-101

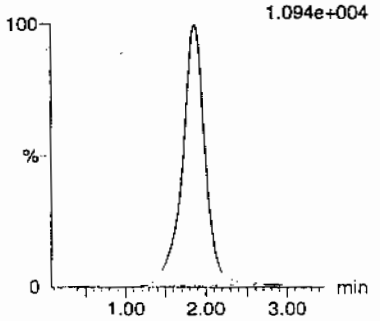

Perchlorate-O(18)

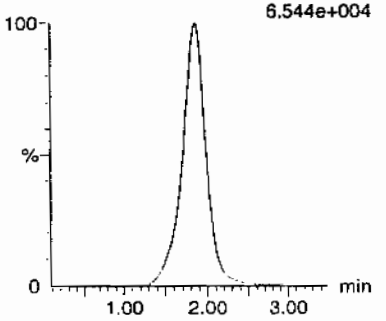

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202024411	Perchlorate	99 > 83	1.87	10681.772	10681.772	bb			0.2148	107.42	7.42	4043.6...	3.00
1202024411	Perchlorate-101	101 > 85	1.87	3563.909	3563.909	bb			0.2211	110.54	10.54	382.883	
1202024411	Perchlorate-O(18)	107 > 89	1.86	21717.555	21717.555	bb			0.5282	105.65	5.65	1299.5...	

$\frac{10681.772}{49719.5} = 0.21488$

HMW 02/11/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 945234 **Verified by:**
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202024410 MB	05-FEB-2010 11:49:17	2	20	10
1202024411 LCS	05-FEB-2010 11:49:17	2	20	10
245385001	05-FEB-2010 11:49:17	2	20	10
245385002	05-FEB-2010 11:49:17	2	20	10
1202024412 MS (245385002)	05-FEB-2010 11:49:17	2	20	10
1202024413 MSD (245385002)	05-FEB-2010 11:49:17	2	20	10
245385003	05-FEB-2010 11:49:17	2	20	10
245385004	05-FEB-2010 11:49:17	2	20	10
245385005	05-FEB-2010 11:49:17	2	20	10
245385006	05-FEB-2010 11:49:17	2	20	10
245385007	05-FEB-2010 11:49:17	2	20	10
245385008	05-FEB-2010 11:49:17	2	20	10
245385009	05-FEB-2010 11:49:17	2	20	10
245385010	05-FEB-2010 11:49:17	2	20	10
245385011	05-FEB-2010 11:49:17	2	20	10
245396001	05-FEB-2010 11:49:17	2	20	10
245396002	05-FEB-2010 11:49:17	2	20	10
245396003	05-FEB-2010 11:49:17	2	20	10
245396004	05-FEB-2010 11:49:17	2	20	10
1202024414 ICS	05-FEB-2010 11:49:17	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
ICS	1202024414	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL	Desalting cartridges used: 090812-1-Ba & 091230-1-H
LCS	1202024411	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL	
MS	1202024412	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL	
MSD	1202024413	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.4	mL	

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 02/09/10
Extr. Injection Volume: 20uL
Sequence Number: per020910a
Initial Calibration Date: 02/09/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 02/11/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0209001a	IPB001	CWW	2/9/2010 12:32			1		USE	B
per0209002a	IPB001	CWW	2/9/2010 12:39			1		USE	B
per0209003a	WCLICAL-01	CWW	2/9/2010 12:45			1		USE	I
per0209004a	WCLICAL-02	CWW	2/9/2010 12:52			1		USE	I
per0209005a	WCLICAL-03	CWW	2/9/2010 12:58			1		USE	I
per0209006a	WCLICAL-04	CWW	2/9/2010 13:05			1		USE	I
per0209007a	WCLICAL-05	CWW	2/9/2010 13:11			1		USE	I
per0209008a	IPB002	CWW	2/9/2010 13:18			1		USE	B
per0209009a	WCLICV	CWW	2/9/2010 13:25			1		USE	C
per0209010a	IPB003	CWW	2/9/2010 13:31			1		USE	B
per0209011a	WCLCRI	CWW	2/9/2010 13:38			1		USE	C
per0209012a	1202037492	CWW	2/9/2010 13:44	950760	VARIOUS	1	LANL	USE	S
per0209013a	1202037493	CWW	2/9/2010 13:51	950760	VARIOUS	1	LANL	USE	S
per0209014a	1202037496	CWW	2/9/2010 13:57	950760	VARIOUS	1	LANL	USE	S
per0209015a	246431001	CWW	2/9/2010 14:04	950760	10-1650	1	LANL	USE	S
per0209016a	1202037494	CWW	2/9/2010 14:10	950760	10-1650	1	LANL	USE	S
per0209017a	1202037495	CWW	2/9/2010 14:17	950760	10-1650	1	LANL	USE	S
per0209018a	246431002	CWW	2/9/2010 14:23	950760	10-1650	1	LANL	USE	S
per0209019a	246431003	CWW	2/9/2010 14:30	950760	10-1650	1	LANL	USE	S
per0209020a	246431004	CWW	2/9/2010 14:36	950760	10-1650	1	LANL	USE	S
per0209021a	WCLCCV	CWW	2/9/2010 14:43			1		USE	C
per0209022a	IPB004	CWW	2/9/2010 14:50			1		USE	B
per0209023a	WCLCRI	CWW	2/9/2010 14:56			1		USE	C
per0209024a	246472001	CWW	2/9/2010 15:03	950760	10-1640	1	LANL	USE	S
per0209025a	246472002	CWW	2/9/2010 15:09	950760	10-1640	1	LANL	USE	S
per0209026a	IPB005	CWW	2/9/2010 15:16			1		USE	B
per0209027a	1202024400	CWW	2/9/2010 15:22	945231	VARIOUS	1	LANL	USE	S
per0209028a	1202024401	CWW	2/9/2010 15:29	945231	VARIOUS	1	LANL	USE	S
per0209029a	1202024404	CWW	2/9/2010 15:35	945231	VARIOUS	1	LANL	USE	S

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per0209030a	245374001	CWW	2/9/2010 15:42	945231	10-1373	1	LANL	USE	S
per0209031a	245374002	CWW	2/9/2010 15:48	945231	10-1373	1	LANL	USE	S
per0209032a	245374003	CWW	2/9/2010 15:55	945231	10-1373	1	LANL	USE	S
per0209033a	WCLCCV	CWW	2/9/2010 16:01			1		USE	C
per0209034a	IPB006	CWW	2/9/2010 16:08			1		USE	B
per0209035a	WCLCRI	CWW	2/9/2010 16:15			1		USE	C
per0209036a	245374004	CWW	2/9/2010 16:21	945231	10-1373	1	LANL	USE	S
per0209037a	245374005	CWW	2/9/2010 16:28	945231	10-1373	1	LANL	USE	S
per0209038a	245374006	CWW	2/9/2010 16:36	945231	10-1373	1	LANL	USE	S
per0209039a	245374007	CWW	2/9/2010 16:43	945231	10-1373	1	LANL	USE	S
per0209040a	245377001	CWW	2/9/2010 16:50	945231	10-1378	1	LANL	USE	S
per0209041a	1202024402	CWW	2/9/2010 16:57	945231	10-1378	1	LANL	USE	S
per0209042a	1202024403	CWW	2/9/2010 17:05	945231	10-1378	1	LANL	USE	S
per0209043a	245377002	CWW	2/9/2010 17:12	945231	10-1378	1	LANL	USE	S
per0209044a	245377003	CWW	2/9/2010 17:20	945231	10-1378	1	LANL	USE	S
per0209045a	WCLCCV	CWW	2/9/2010 17:27			1		USE	C
per0209046a	IPB007	CWW	2/9/2010 17:34			1		USE	B
per0209047a	WCLCRI	CWW	2/9/2010 17:41			1		USE	C
per0209048a	245377004	CWW	2/9/2010 17:48	945231	10-1378	1	LANL	USE	S
per0209049a	245377005	CWW	2/9/2010 17:55	945231	10-1378	1	LANL	USE	S
per0209050a	245377006	CWW	2/9/2010 18:03	945231	10-1378	1	LANL	USE	S
per0209051a	245377007	CWW	2/9/2010 18:10	945231	10-1378	1	LANL	USE	S
per0209052a	245377008	CWW	2/9/2010 18:17	945231	10-1378	1	LANL	USE	S
per0209053a	245377009	CWW	2/9/2010 18:23	945231	10-1378	1	LANL	USE	S
per0209054a	245377010	CWW	2/9/2010 18:30	945231	10-1378	1	LANL	USE	S
per0209055a	IPB008	CWW	2/9/2010 18:36			1		USE	B
per0209056a	245934001	CWW	2/9/2010 18:43	950028	10-1502	5	LANL	USE	S
per0209057a	245934004	CWW	2/9/2010 18:50	950028	10-1502	1	LANL	USE	S
per0209058a	WCLCCV	CWW	2/9/2010 18:56			1		USE	C
per0209059a	IPB009	CWW	2/9/2010 19:03			1		USE	B
per0209060a	WCLCRI	CWW	2/9/2010 19:10			1		USE	C
per0209061a	1202024410	CWW	2/9/2010 19:16	945236	VARIOUS	1	LANL	USE	S
per0209062a	1202024411	CWW	2/9/2010 19:23	945236	VARIOUS	1	LANL	USE	S
per0209063a	1202024414	CWW	2/9/2010 19:30	945236	VARIOUS	1	LANL	USE	S
per0209064a	245385001	CWW	2/9/2010 19:36	945236	10-1383	1	LANL	USE	S
per0209065a	245385002	CWW	2/9/2010 19:43	945236	10-1383	1	LANL	USE	S
per0209066a	1202024412	CWW	2/9/2010 19:49	945236	10-1383	1	LANL	USE	S

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per0209067a	1202024413	CWW	2/9/2010 19:56	945236	10-1383	1	LANL	USE	S
per0209068a	245385003	CWW	2/9/2010 20:02	945236	10-1383	1	LANL	USE	S
per0209069a	245385004	CWW	2/9/2010 20:09	945236	10-1383	1	LANL	USE	S
per0209070a	245385005	CWW	2/9/2010 20:15	945236	10-1383	1	LANL	USE	S
per0209071a	WCLCCV	CWW	2/9/2010 20:22			1		USE	C
per0209072a	IPB010	CWW	2/9/2010 20:29			1		USE	B
per0209073a	WCLCRI	CWW	2/9/2010 20:35			1		USE	C
per0209074a	245385006	CWW	2/9/2010 20:42	945236	10-1383	1	LANL	USE	S
per0209075a	245385007	CWW	2/9/2010 20:48	945236	10-1383	1	LANL	USE	S
per0209076a	245385008	CWW	2/9/2010 20:55	945236	10-1383	1	LANL	USE	S
per0209077a	245385009	CWW	2/9/2010 21:02	945236	10-1383	1	LANL	USE	S
per0209078a	245385010	CWW	2/9/2010 21:08	945236	10-1383	1	LANL	USE	S
per0209079a	245385011	CWW	2/9/2010 21:15	945236	10-1383	1	LANL	USE	S
per0209080a	245396001	CWW	2/9/2010 21:21	945236	10-1394	1	LANL	USE	S
per0209081a	245396002	CWW	2/9/2010 21:28	945236	10-1394	1	LANL	USE	S
per0209082a	245396003	CWW	2/9/2010 21:34	945236	10-1394	1	LANL	USE	S
per0209083a	245396004	CWW	2/9/2010 21:41	945236	10-1394	1	LANL	USE	S
per0209084a	WCLCCV	CWW	2/9/2010 21:47			1		USE	C
per0209085a	IPB011	CWW	2/9/2010 21:54			1		USE	B
per0209086a	WCLCRI	CWW	2/9/2010 22:01			1		USE	C

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209066a
Date: 09-Feb-2010
Time: 19:49:42
ID: 1202024412
Vial: 2:2,F

|LANL|945236|50120|MS|1|

02-10-10

Perchlorate

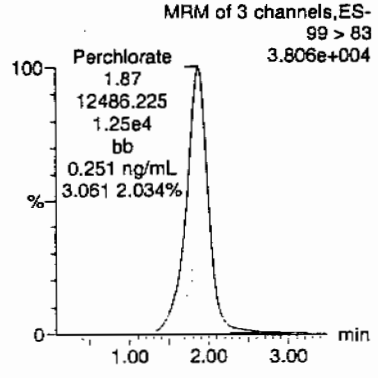

Perchlorate

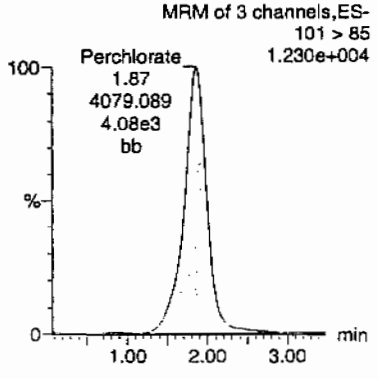

Perchlorate-101

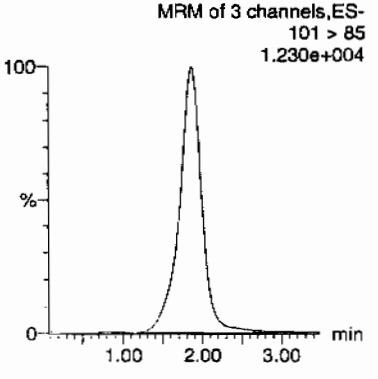

Perchlorate-O(18)

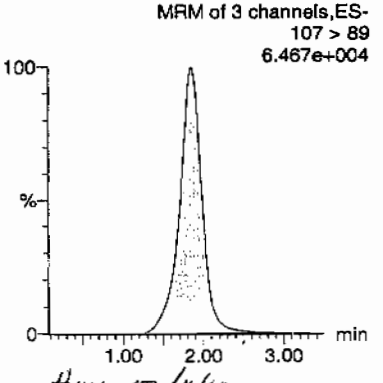

Hume 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202024412	Perchlorate	99 > 83	1.87	12486.225	12486.225	bb			0.2511	125.57	25.57	1600.5...	3.06
1202024412	Perchlorate-101	101 > 85	1.87	4079.089	4079.089	bb			0.2530	126.52	26.52	97.534	
1202024412	Perchlorate-O(18)	107 > 89	1.86	21122.029	21122.029	bb			0.5137	102.75	2.75	13742....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020910a.qld

Last Altered: Wednesday, February 10, 2010 11:47:17 AM Eastern Standard Time
Printed: Wednesday, February 10, 2010 12:00:02 PM Eastern Standard Time

Name: per0209067a
Date: 09-Feb-2010
Time: 19:56:13
ID: 1202024413
Vial: 2:3,A

|LANL|945236|5020|MSO|1|

Cwo
02-10-10

Perchlorate

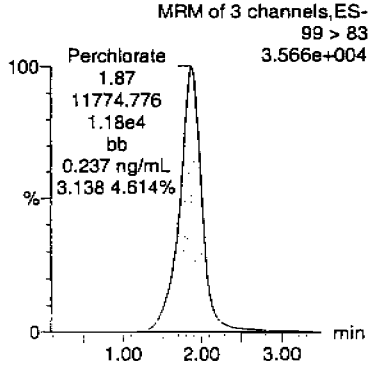

Perchlorate

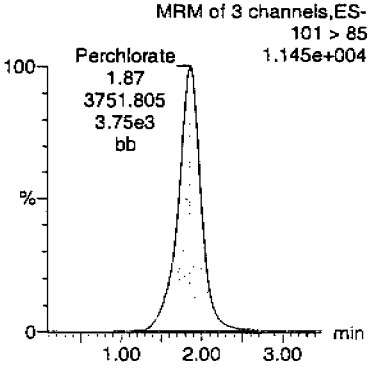

Perchlorate-101

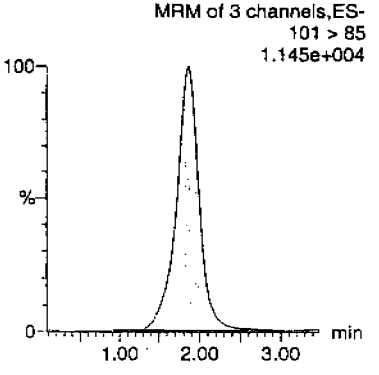

Perchlorate-O(18)

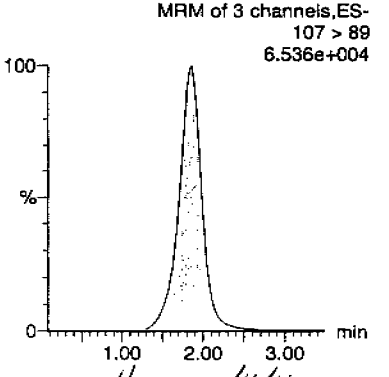

Hm 02/11/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202024413	Perchlorate	99 > 83	1.87	11774.776	11774.776	bb			0.2368	118.41	18.41	1877.7...	3.14
1202024413	Perchlorate-101	101 > 85	1.87	3751.805	3751.805	bb			0.2327	116.37	16.37	1373.9...	
1202024413	Perchlorate-O(18)	107 > 89	1.86	21224.742	21224.742	bb			0.5162	103.25	3.25	4460.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1394

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	944915
Prep Batch Number:	944913

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202023589	Method Blank (MB)
1202023590	Laboratory Control Sample (LCS)
1202023591	245396001(RE15-10-7928) Matrix Spike (MS)
1202023592	245396001(RE15-10-7928) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

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Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered 4-Amino-2,6-dinitrotoluene at 81.8%. The limits are 84-130%. Both the MS and MSD had passing recoveries for 4-Amino-2,6-dinitrotoluene at 95% and 90.1% respectively. The data are reported. Please see data exception report 793186.

QC Sample Designation
Sample 245396001 (RE15-10-7928) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

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Technical Information

Holding Time Specifications
Samples 1202023591(RE15-10-7928MS), 1202023592(RE15-10-7928MSD), 245396001 (RE15-10-7928), 245396002 (RE15-10-7929), 245396003 (RE15-10-7927) and 245396004 (RE15-10-7930) were extracted out of holding due to prep analyst oversight. The samples were extracted within two times the holding period. The data are reported. Please see data exception report 793186. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Sample 245396001 (RE15-10-7928) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
Samples 1202023591(RE15-10-7928MS), 1202023592(RE15-10-7928MSD), 245396001 (RE15-10-7928), 245396002 (RE15-10-7929), 245396003 (RE15-10-7927) and 245396004 (RE15-10-7930) were extracted out of holding due to prep analyst oversight. The samples were extracted within two times the holding period. The data are reported. Please see data exception report 793186. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 793186 was generated for this SDG.

The LCS recovered 4-Amino-2,6-dinitrotoluene at 81.8%. The limits are 84-130%. Both the MS and MSD had passing recoveries for 4-Amino-2,6-dinitrotoluene at 95% and 90.1% respectively. The data are reported.

Samples 1202023591(RE15-10-7928MS), 1202023592(RE15-10-7928MSD), 245396001 (RE15-10-7928), 245396002 (RE15-10-7929), 245396003 (RE15-10-7927) and 245396004 (RE15-10-7930) were extracted out of holding due to prep analyst oversight. The samples were extracted within two times the holding period. The data are reported.

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Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Herbert T. Mauer **Date:** 02/19/16

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396001

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216119a

Date Analyzed: 19-FEB-10 03:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396001

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170119.wiff

Date Analyzed: 18-FEB-10 16:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7929

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396002

Sample Amount 2

Moisture: 27.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216122a

Date Analyzed: 19-FEB-10 04:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7929

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396002

Sample Amount 2

Moisture: 27.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170122.wiff

Date Analyzed: 18-FEB-10 17:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7927

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396003

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216123a

Date Analyzed: 19-FEB-10 05:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7927

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396003

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170123.wiff

Date Analyzed: 18-FEB-10 17:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7930

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396004

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216124a

Date Analyzed: 19-FEB-10 05:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7930

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396004

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170124.wiff

Date Analyzed: 18-FEB-10 17:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1394

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245396001	RE15–10–7928	105	70 – 144	
245396001	RE15–10–7928	110	70 – 144	
245396002	RE15–10–7929	108	70 – 144	
245396002	RE15–10–7929	107	70 – 144	
245396003	RE15–10–7927	108	70 – 144	
245396003	RE15–10–7927	124	70 – 144	
245396004	RE15–10–7930	112	70 – 144	
245396004	RE15–10–7930	119	70 – 144	
1202023589	MB for batch 944913	105	70 – 144	
1202023589	MB for batch 944913	111	70 – 144	
1202023590	LCS for batch 944913	86.8	70 – 144	
1202023590	LCS for batch 944913	119	70 – 144	
1202023591	RE15–10–7928(245396001MS)	116	70 – 144	
1202023591	RE15–10–7928(245396001MS)	108	70 – 144	
1202023592	RE15–10–7928(245396001MSD)	110	70 – 144	
1202023592	RE15–10–7928(245396001MSD)	112	70 – 144	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1394

Extract Batch Code: 944913

Date Extracted: 17–FEB–10

GEL LCS ID: 1202023590

GEL LCSDUP ID:

Analysis Date/Time: 18–FEB–10 20:29

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5–Trinitrobenzene	5000	3990	79.7					69 – 126
2,4,6–Trinitrotoluene	5000	4010	80.1					73 – 149
2,4–Dinitrotoluene	5000	4990	99.9					87 – 137
2,6–Dinitrotoluene	5000	4640	92.9					89 – 120
2–Amino–4,6–dinitrotoluene	5000	5150	103					90 – 130
4–Amino–2,6–dinitrotoluene	5000	4090	81.8 *					84 – 130
HMX	5000	4480	89.6					58 – 138
Nitrobenzene	5000	4280	85.6					71 – 122
PETN	5000	4430	88.7					64 – 137
RDX	5000	4580	91.7					81 – 137
Tetryl	5000	2810	56.2					51 – 112
m–Dinitrobenzene	5000	4790	95.8					83 – 122
m–Nitrotoluene	5000	4280	85.5					73 – 118
o–Nitrotoluene	5000	3840	76.8					72 – 119
p–Nitrotoluene	5000	4080	81.6					67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1394

Extract Batch Code: 944913

Date Extracted: 17–FEB–10

GEL LCS ID: 1202023590

GEL LCSDUP ID:

Analysis Date/Time: 18–FEB–10 12:39

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4–Diamino–6–nitrotoluene	5000	4980	99.6					52 – 114
2,6–Diamino–4–nitrotoluene	5000	5620	112					64 – 122
3,5–Dinitroaniline	5000	5080	102					70 – 127
tris(o–cresyl) phosphate	5000	5030	101					84 – 119
TATB	5000	7190	144					28 – 162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7928

Lab Code: GEL

GEL Job No (SDG) 10-1394

Extract Batch Code: 944913

Date Extracted: 17-FEB-10

GEL Spike ID: 1202023591

GEL SpikeDup ID: 1202023592

Analysis Date/Time: 19-FEB-10 03:52

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4680	93.6	4920	98.3	4.96	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	5540	111	5290	106	4.75	30	76 – 144
2,4-Dinitrotoluene	5000	0	5430	109	4960	99.2	9.1	30	86 – 135
2,6-Dinitrotoluene	5000	0	5130	103	5110	102	.452	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	4950	99	4930	98.5	.49	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	4750	95	4500	90.1	5.34	30	72 – 143
HMX	5000	0	5620	112	5050	101	10.6	30	51 – 144
Nitrobenzene	5000	0	4560	91.2	4310	86.2	5.64	30	70 – 122
PETN	5000	0	6640	133	6200	124	6.87	30	60 – 140
RDX	5000	0	5930	119	5510	110	7.32	30	59 – 152
Tetryl	5000	0	4230	84.5	3870	77.3	8.9	30	36 – 124
m-Dinitrobenzene	5000	0	5140	103	5390	108	4.79	30	85 – 118
m-Nitrotoluene	5000	0	4920	98.3	4500	90.1	8.79	30	70 – 120
o-Nitrotoluene	5000	0	5230	105	4770	95.5	9.21	30	69 – 123
p-Nitrotoluene	5000	0	5110	102	4580	91.5	11.1	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7928

Lab Code: GEL

GEL Job No (SDG) 10-1394

Extract Batch Code: 944913

Date Extracted: 17-FEB-10

GEL Spike ID: 1202023591

GEL SpikeDup ID: 1202023592

Analysis Date/Time: 18-FEB-10 16:35

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	5050	101	5410	108	6.88	26	34 – 135
2,6-Diamino-4-nitrotoluene	5000	0	5530	111	5840	117	5.45	30	55 – 130
3,5-Dinitroaniline	5000	0	4890	97.8	4710	94.2	3.75	30	73 – 129
tris(o-cresyl) phosphate	5000	0	4900	98	4850	97	1.03	30	72 – 127
TATB	5000	0	6300	126	5650	113	10.9	30	29 – 155

#Column to be used to flag recovery and RPD values with an asterisk

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:07

GEL Data File: EXP0216001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	509.816
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	531.163
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: Untitled, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216001a
Date: 16-Feb-2010
Time: 17:07:38
ID: XIBLK01
Vial: 1:1,A

MMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
7.62 176 > 102
5.968e+003

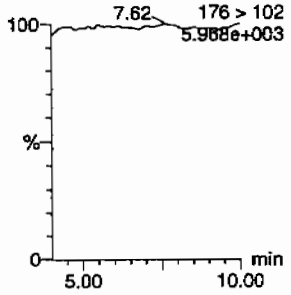

RDX
F2:MRM of 1 channel,AP-
7.62 176 > 102
5.968e+003

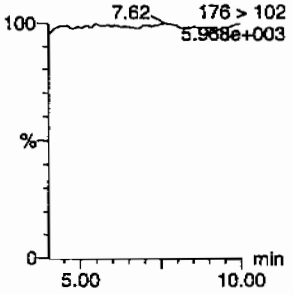

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.610e+003

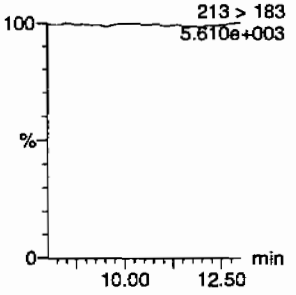

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.311e+004

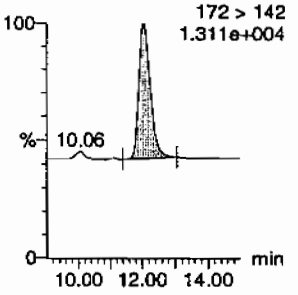

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.598e+003

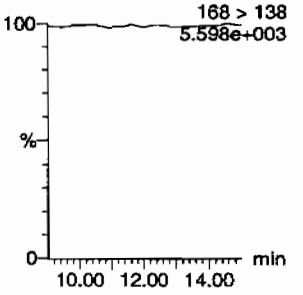

Tetryl
F6:MRM of 1 channel,AP
241 > 18
5.812e+00

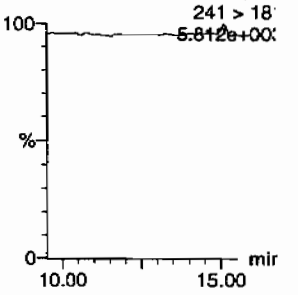

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.650e+003

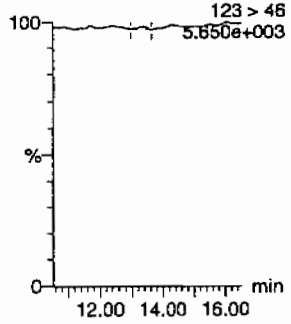

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.747e+003

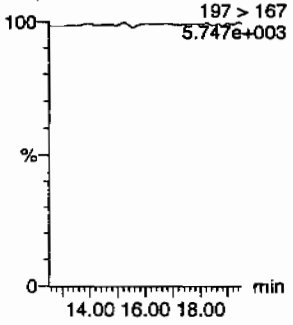

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.769e+003

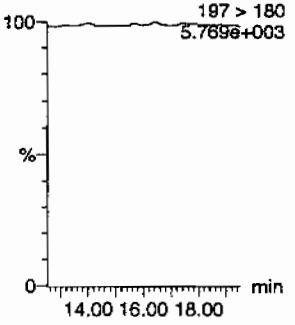

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.631e+003

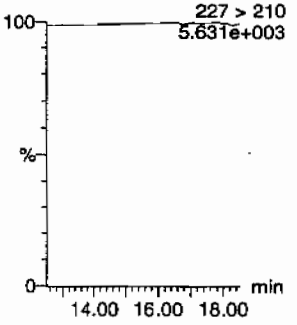

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.641e+003

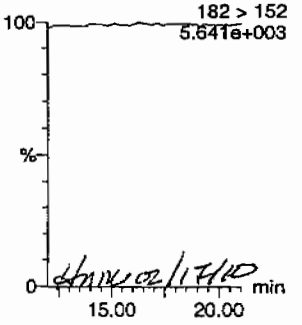

26-dinitrotoluene
F9:MRM of 2 channels,AP
182 > 15
5.641e+00

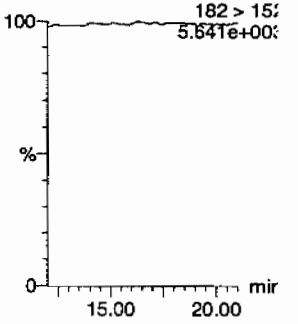

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

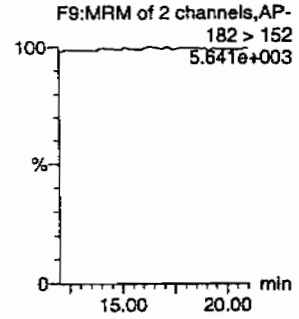

26-dinitrotoluene-d3

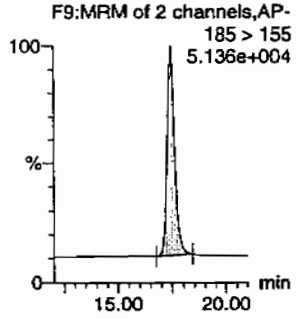

2-Nitrotoluene

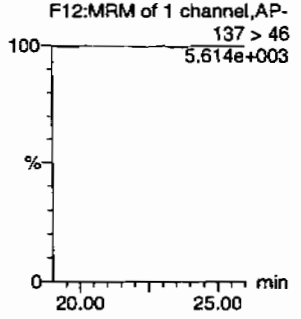

4-Nitrotoluene

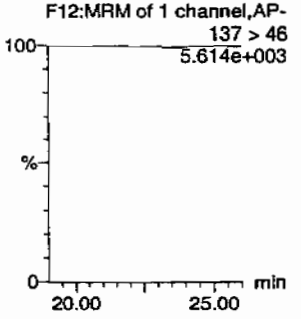

3-Nitrotoluene

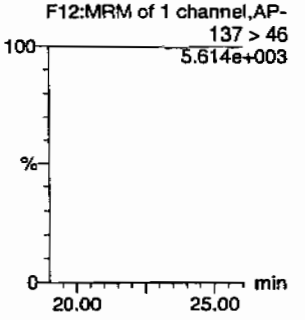

PETN

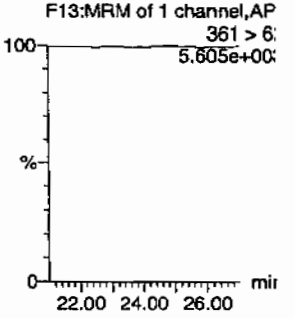

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3071.556									
XIBLK01	RDX	176 > 102			3071.556									
XIBLK01	135-Trinitrobenzene	213 > 183			3071.556									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	3071.556		3071.556	3071.556	bb			509.8160	102.0	2.0	413.3
XIBLK01	13-Dinitrobenzene	168 > 138			3071.556									
XIBLK01	Tetryl	241 > 181			3071.556									
XIBLK01	Nitrobenzene	123 > 46			3071.556			MM-	17-Feb-10	09:21:37				
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18493.566									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18493.566									
XIBLK01	246-Trinitrotoluene	227 > 210			18493.566									
XIBLK01	34-dinitrotoluene	182 > 152			18493.566									
XIBLK01	26-dinitrotoluene	182 > 152			18493.566									
XIBLK01	24-dinitrotoluene	182 > 152			18493.566									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.42	18493.566		18493.566	18493.566	bb			531.1631	106.2	6.2	1741.8
XIBLK01	2-Nitrotoluene	137 > 46			18493.566									
XIBLK01	4-Nitrotoluene	137 > 46			18493.566									
XIBLK01	3-Nitrotoluene	137 > 46			18493.566									
XIBLK01	PETN	361 > 62			18493.566									

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:37

GEL Data File: EXP0216002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	540.968
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.887
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216002a
Date: 16-Feb-2010
Time: 17:37:26
ID: XIBLK01
Vial: 1:1,A

MDT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

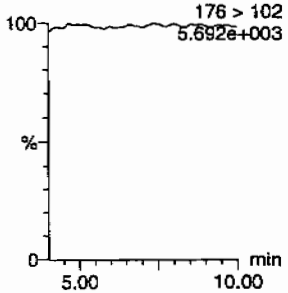

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

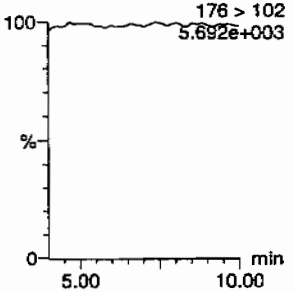

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.395e+003

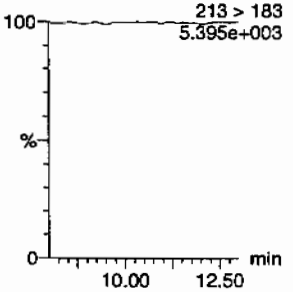

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.342e+004

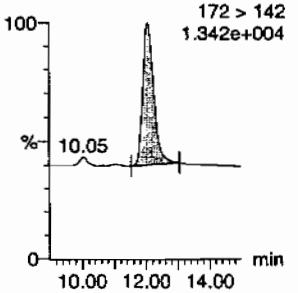

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.400e+003

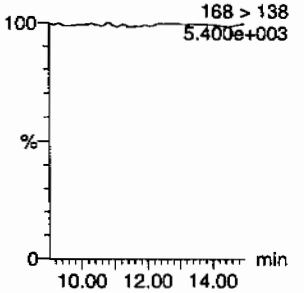

Tetryl
F6:MRM of 1 channel,AP
241 > 18
5.394e+00

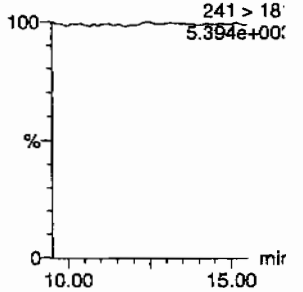

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.387e+003

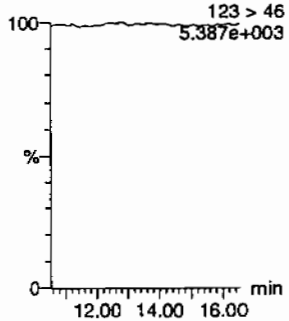

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.503e+003

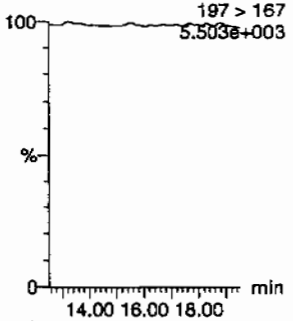

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.496e+003

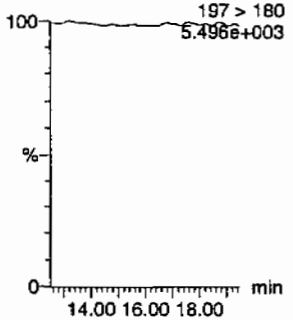

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.402e+003

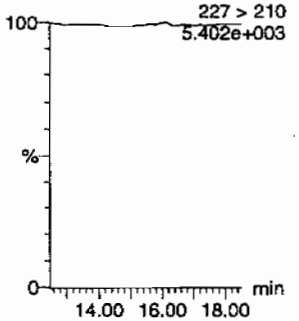

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.473e+003

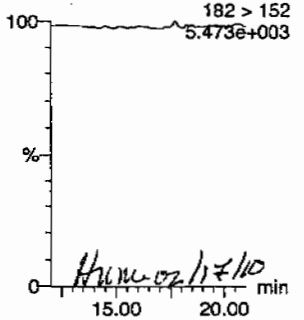

HMM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP
182 > 15
5.473e+00

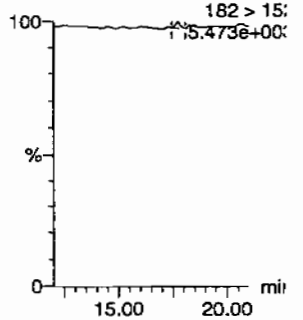

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

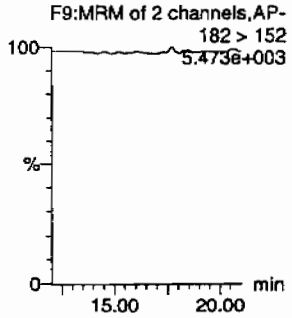

26-dinitrotoluene-d3

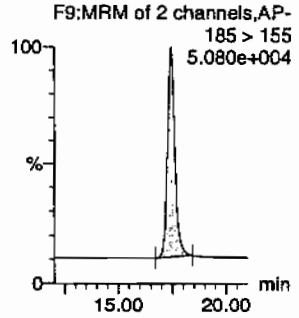

2-Nitrotoluene

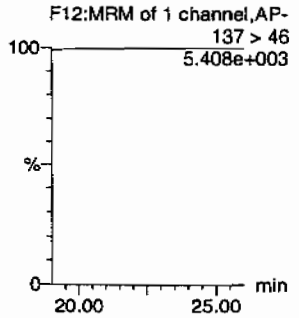

4-Nitrotoluene

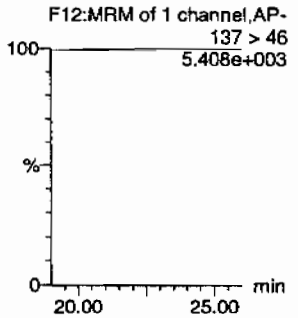

3-Nitrotoluene

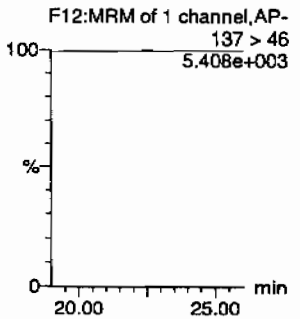

PETN

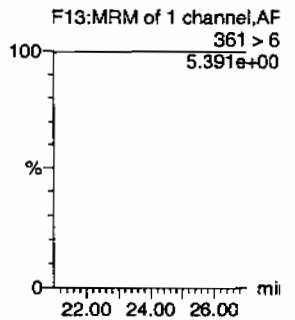

ID	Name	Tracet	RT	Area	IS Area	Abs Resp	% Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3259.244									
XIBLK01	RDX	176 > 102			3259.244									
XIBLK01	135-Trinitrobenzene	213 > 183			3259.244									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	3259.244		3259.244	3259.244	bb			540.9684	108.2	8.2	243.5
XIBLK01	13-Dinitrobenzene	168 > 138			3259.244									
XIBLK01	Tetryl	241 > 181			3259.244									
XIBLK01	Nitrobenzene	123 > 46			3259.244									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18483.965									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18483.965									
XIBLK01	246-Trinitrotoluene	227 > 210			18483.965									
XIBLK01	34-dinitrotoluene	182 > 152			18483.965									
XIBLK01	26-dinitrotoluene	182 > 152			18483.965			MM-	17-Feb-10	09:24:48				
XIBLK01	24-dinitrotoluene	182 > 152			18483.965									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.44	18483.965		18483.965	18483.965	bb			530.8874	106.2	6.2	1863.8
XIBLK01	2-Nitrotoluene	137 > 46			18483.965									
XIBLK01	4-Nitrotoluene	137 > 46			18483.965									
XIBLK01	3-Nitrotoluene	137 > 46			18483.965									
XIBLK01	PETN	361 > 62			18483.965									

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 17–FEB–10 09:26

GEL Data File: EXS02170001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.59
TATB	0	0

Ken 2/19/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM
Modified: No

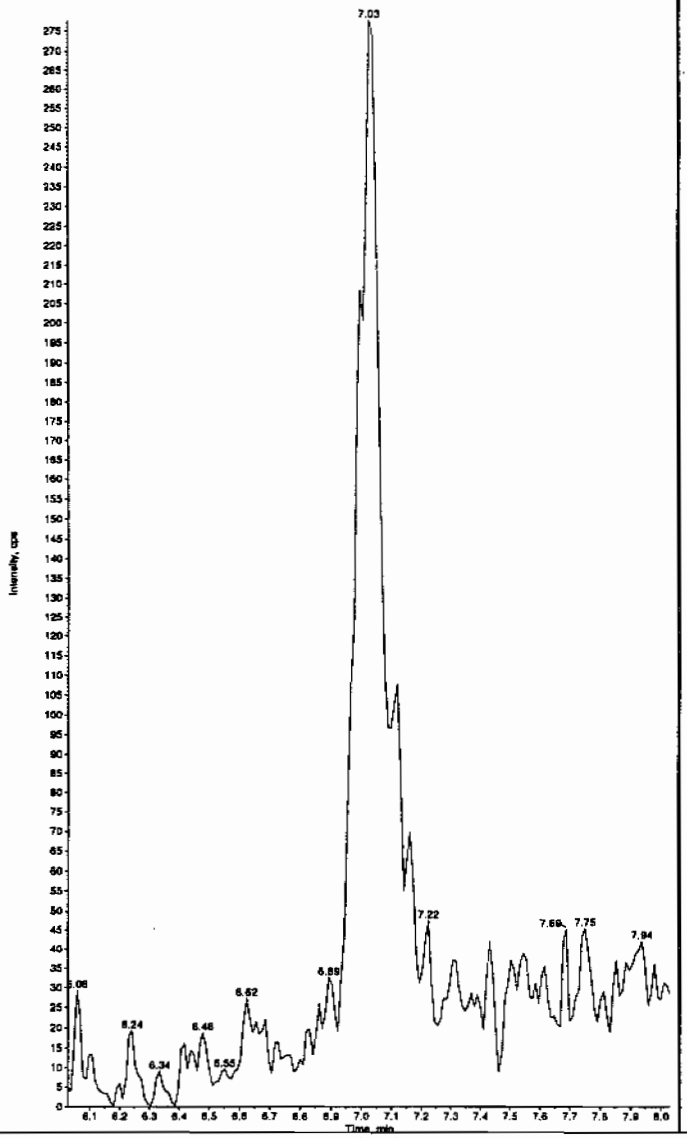

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM
Modified: No

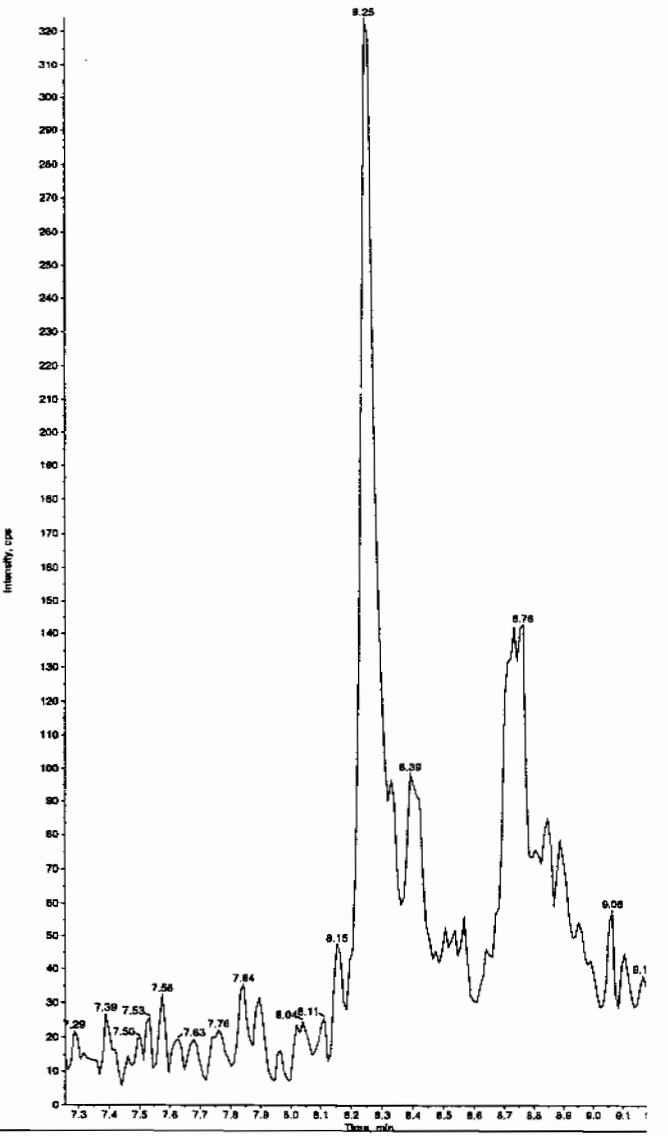

Hum 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170001.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 9:26:16 AM

ified: No

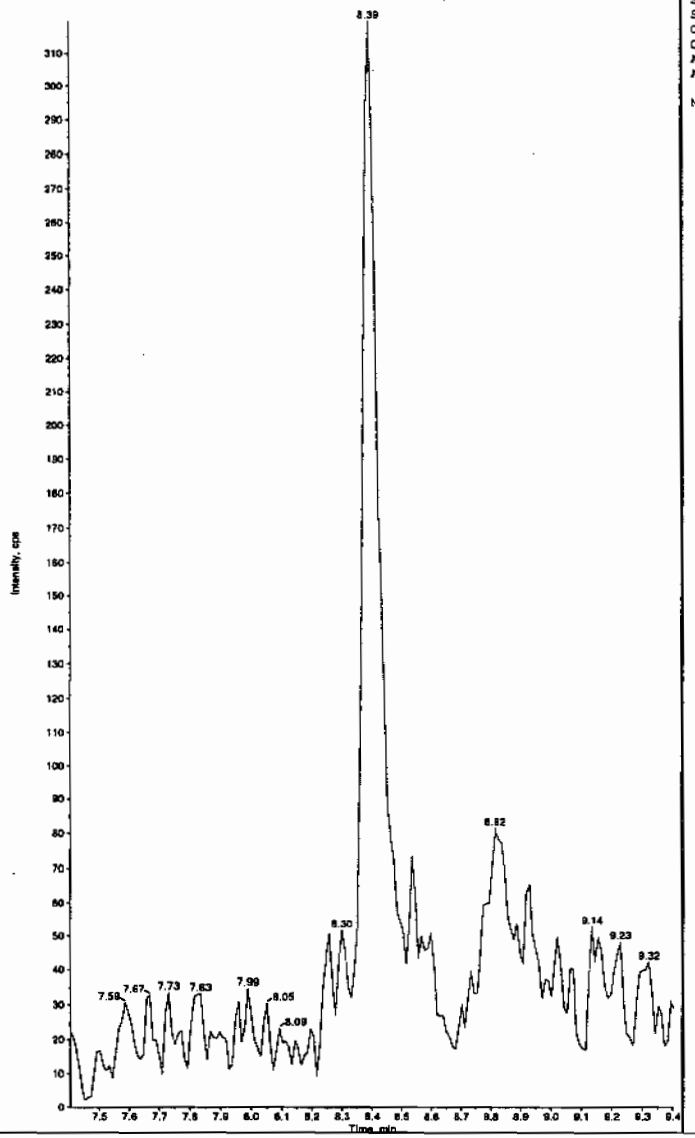

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:26:16 AM

Modified: No

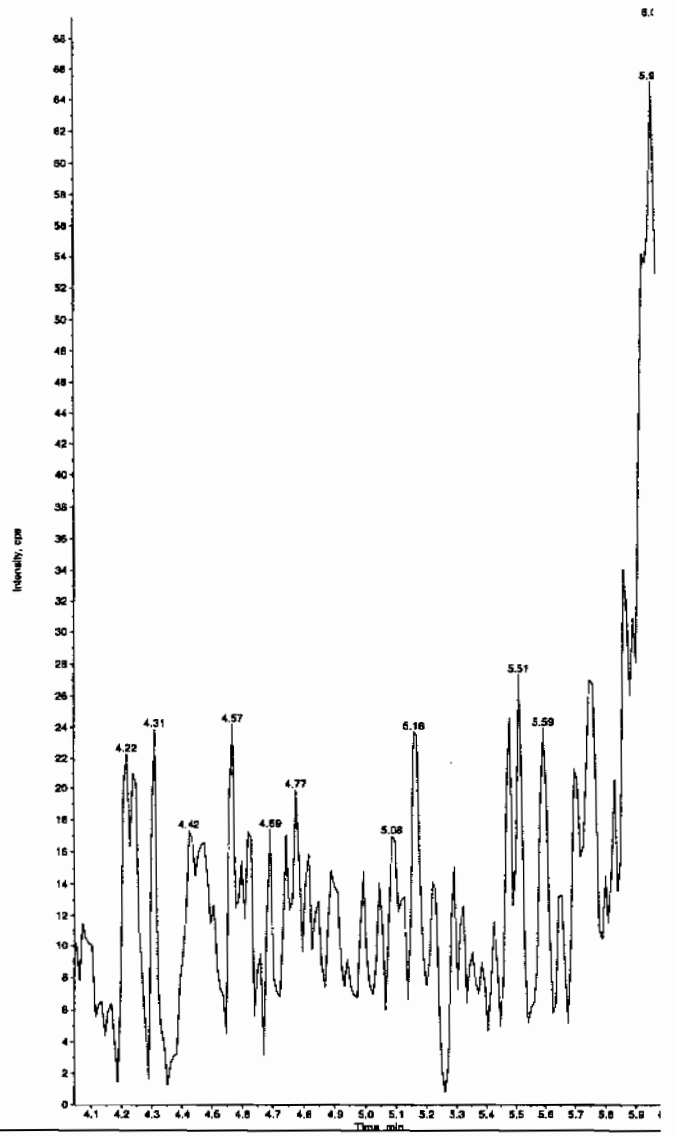

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170001.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00     ng/mL
. Date:         2/17/2010
. Time:         9:26:16 AM

ified:            No
```

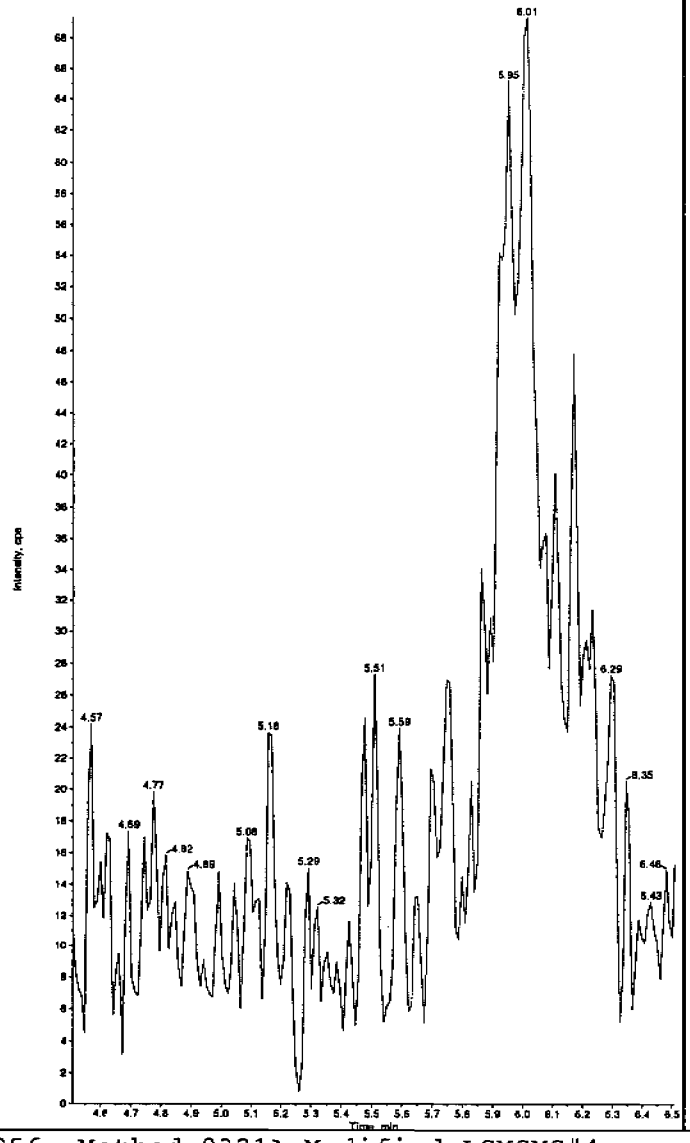

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     1.59     ng/mL
Acq. Date:         2/17/2010
Acq. Time:         9:26:16 AM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height: 8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3          points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:     10.9     min
Area:          3.47e+004    counts
Height:         8467.519    cps
Start Time:         10.8     min
End Time:           11.1     min
```

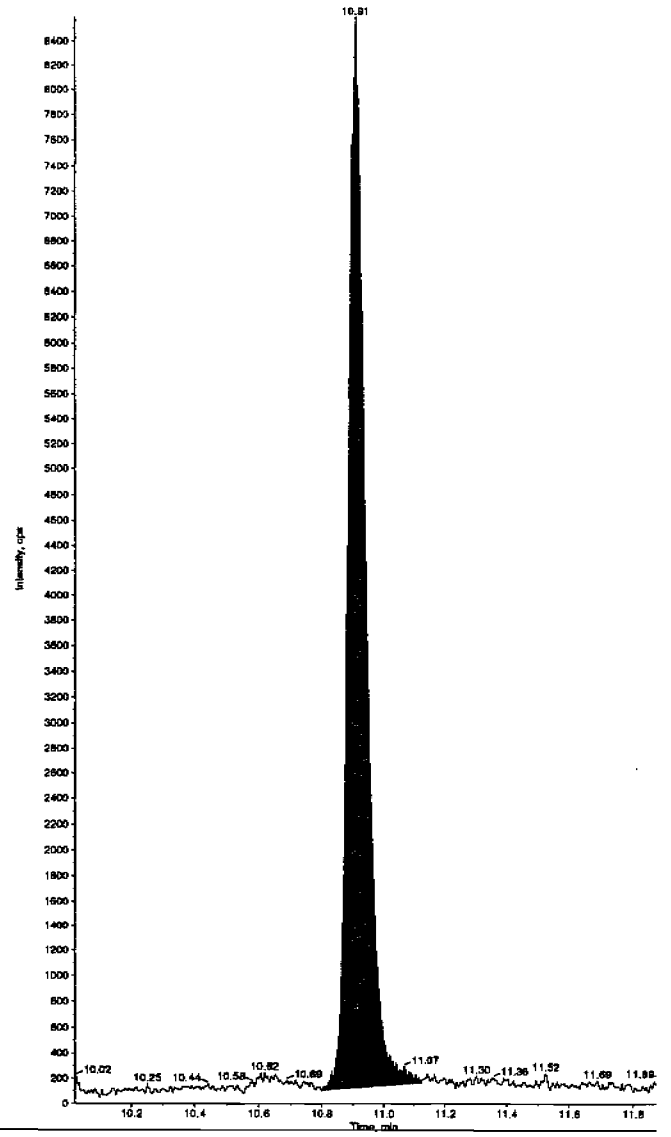

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 17–FEB–10 09:42

GEL Data File: EXS02170002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcr 2/19/10

ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170002.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 9:42:02 AM

ified: No

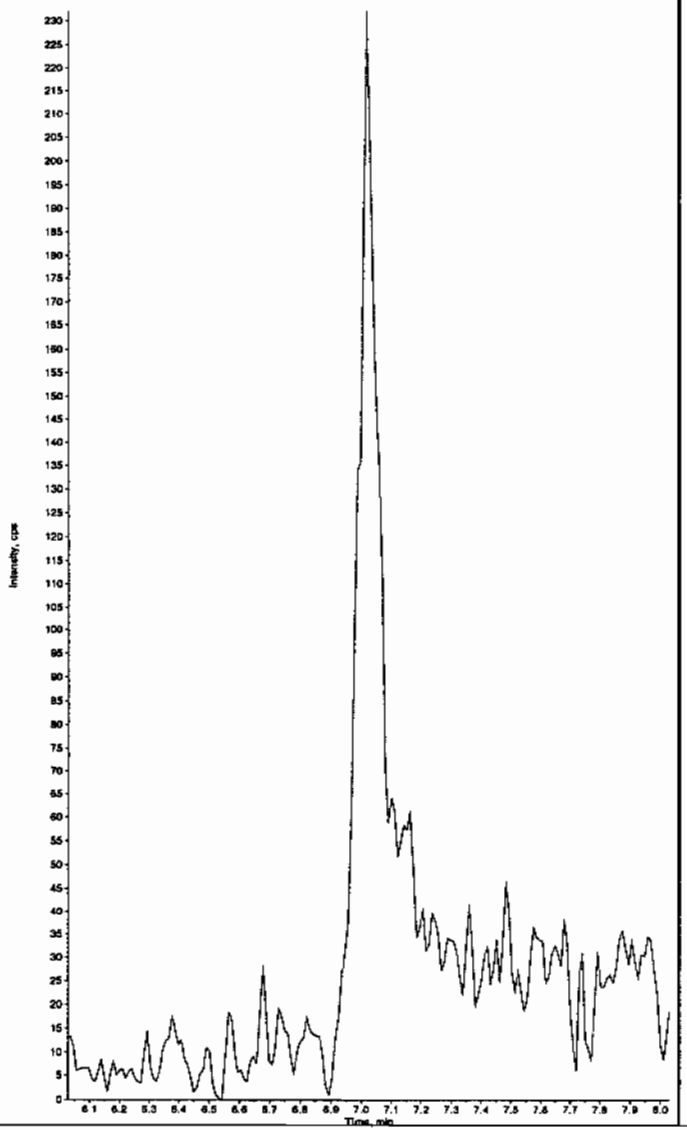

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

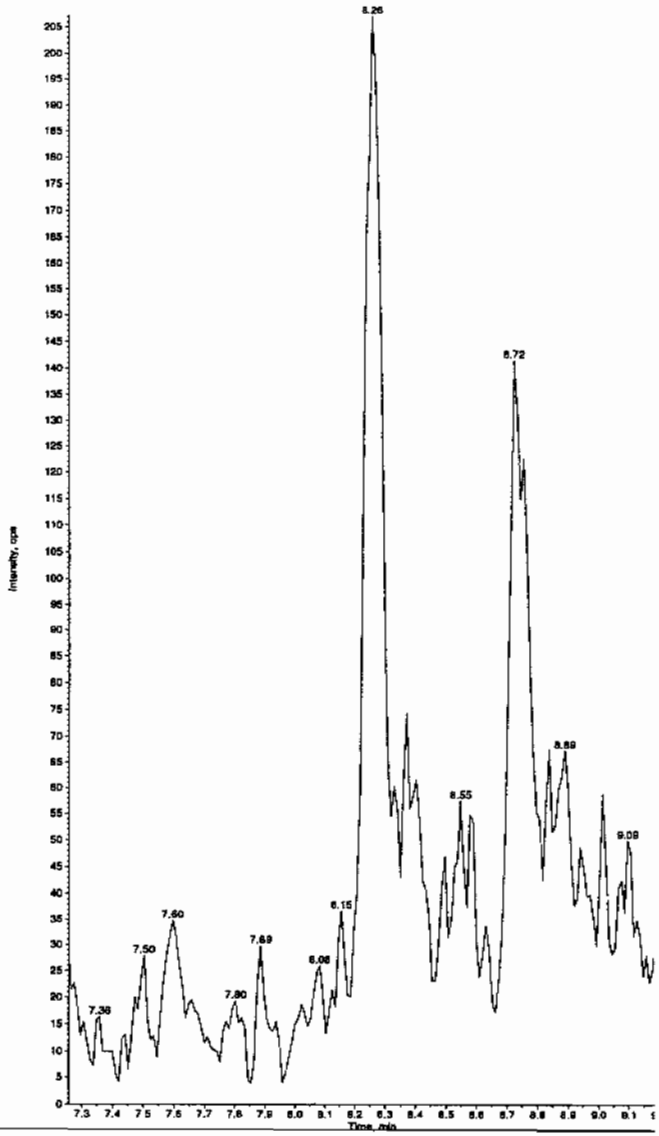

Hnm 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170002.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 9:42:02 AM
lified: No

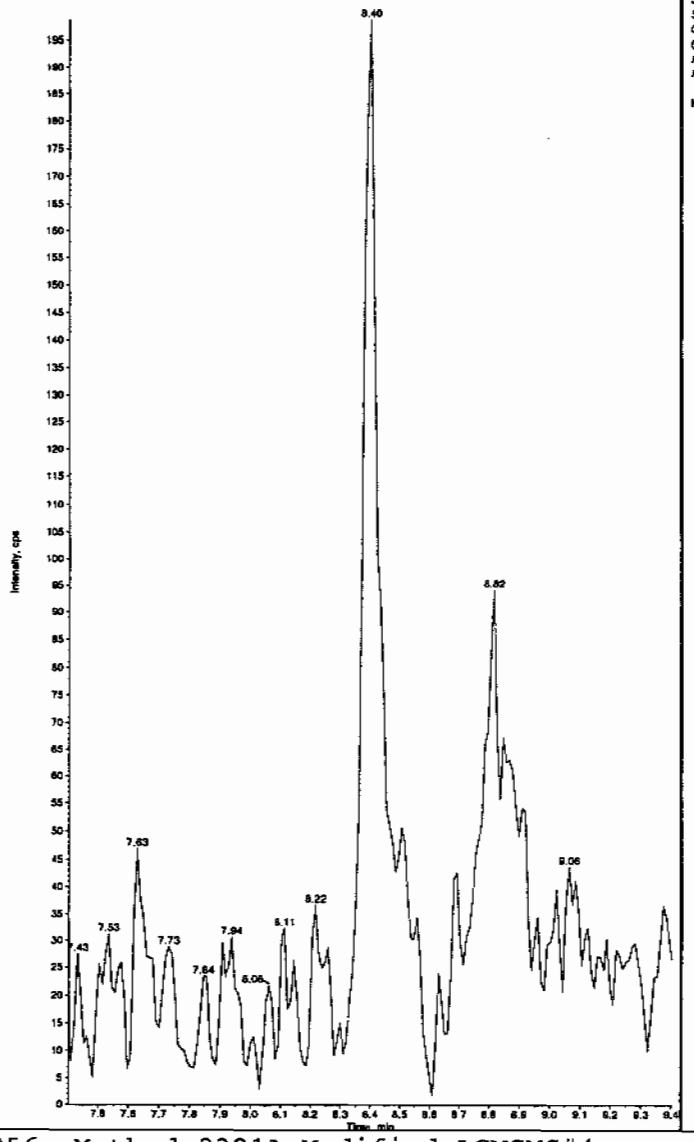

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02170002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

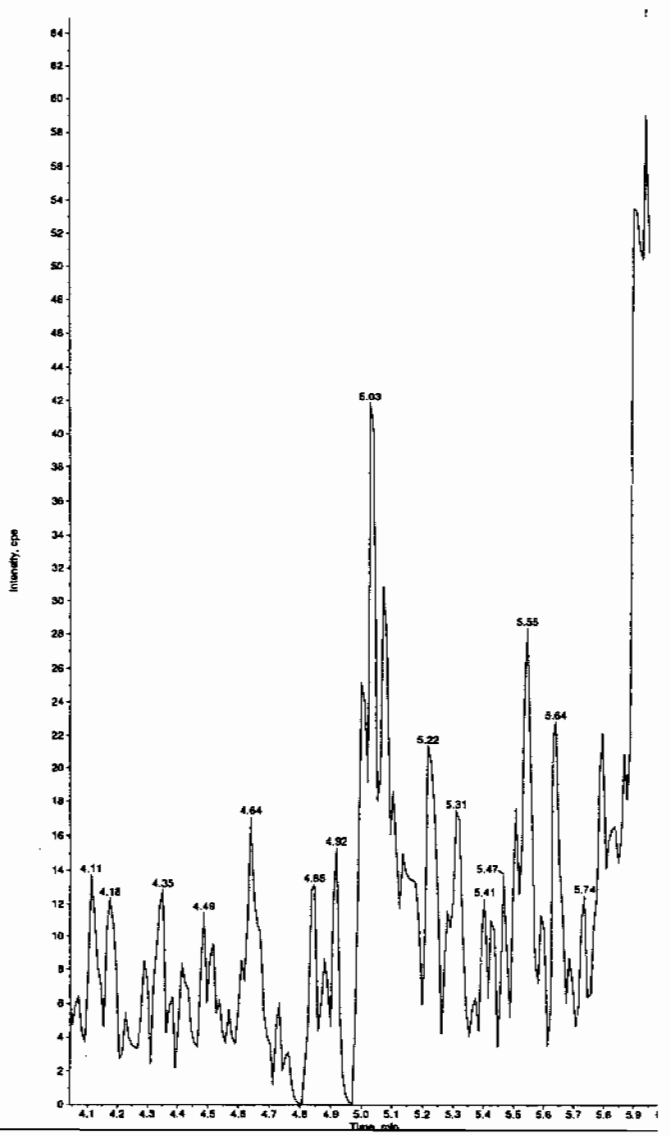

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

umple Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170002.wiff"
ıak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 9:42:02 AM
ıfied: No

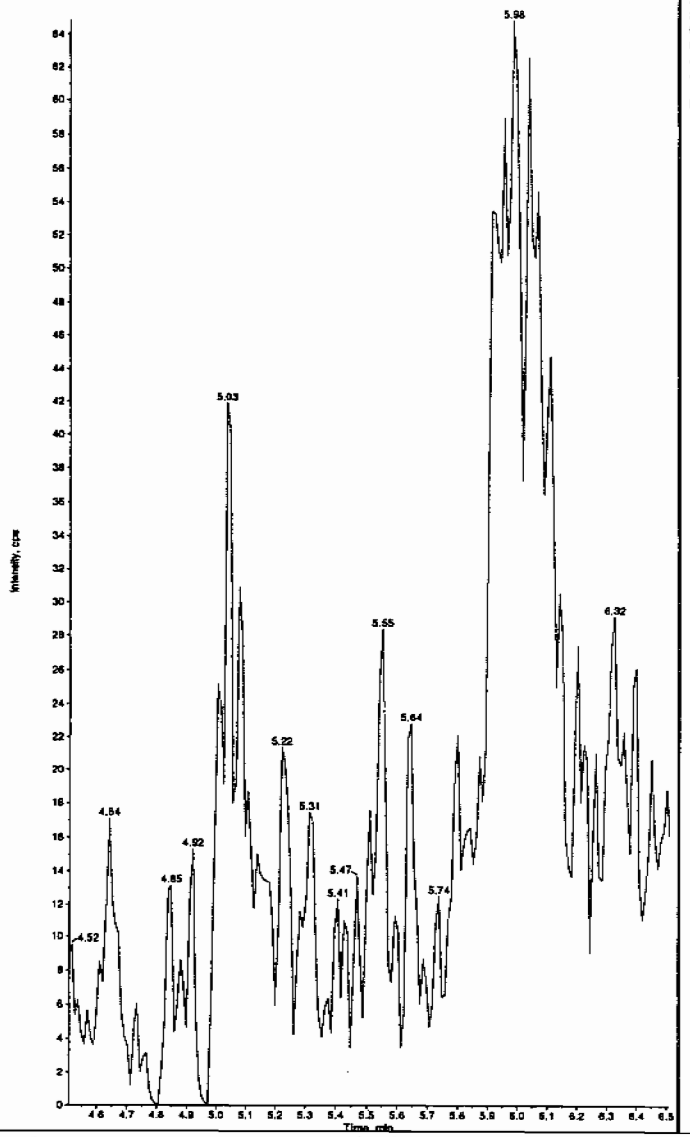

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02170002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 9:42:02 AM

Modified: No

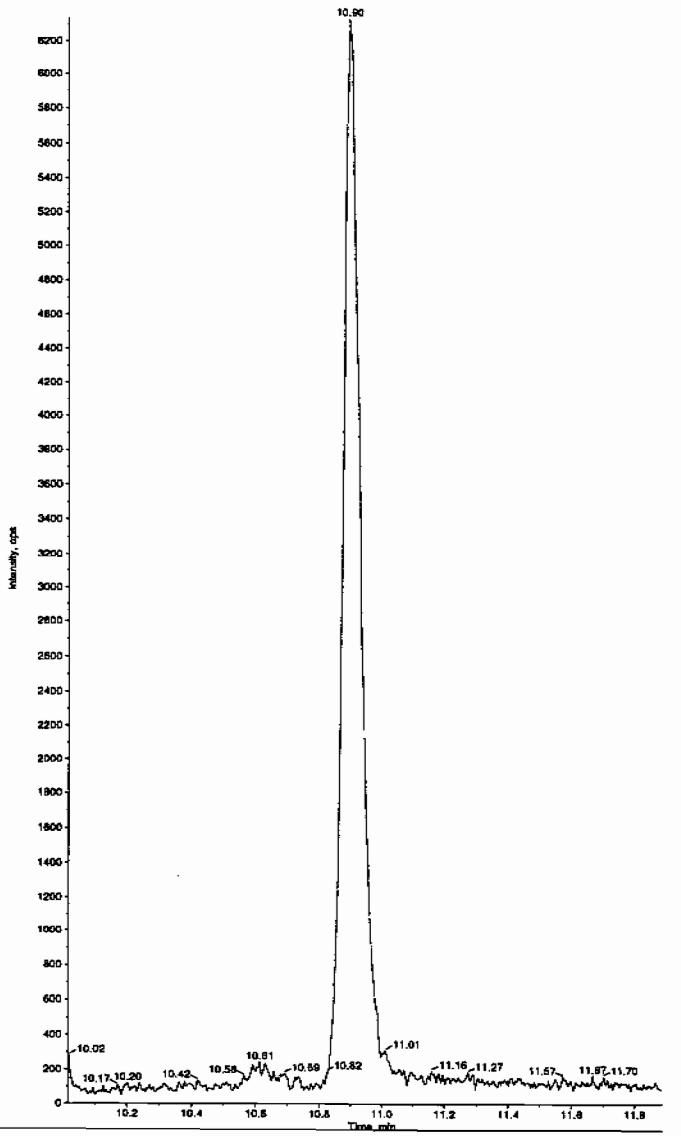

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 16-FEB-10 21:04

GEL Data File: EXP0216009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	570.463
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	494.232
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216009a
Date: 16-Feb-2010
Time: 21:04:59
ID: XIBLK02
Vial: 1:1,A

WTP 2/17/10

HMX
F2:MRM of 1 channel,AP-
6.65 176 > 102
6.056e+003

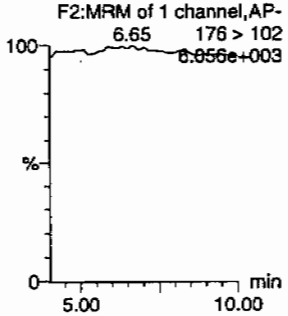

RDX
F2:MRM of 1 channel,AP-
6.65 176 > 102
6.056e+003

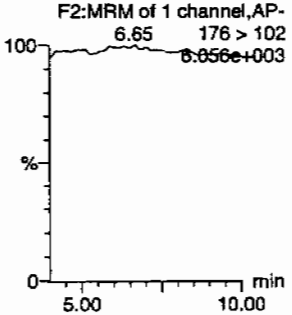

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.678e+003

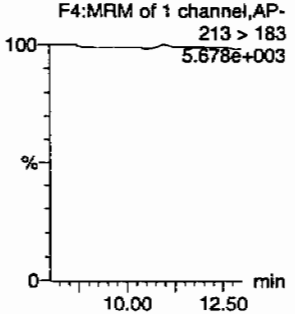

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.420e+004

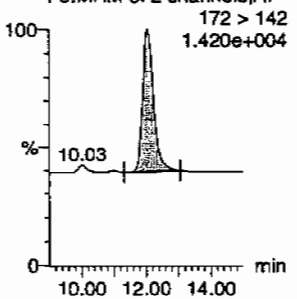

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.641e+003

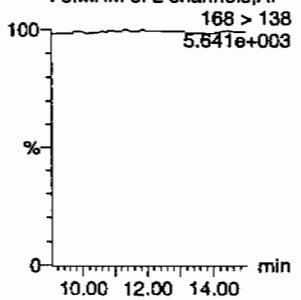

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.642e+003

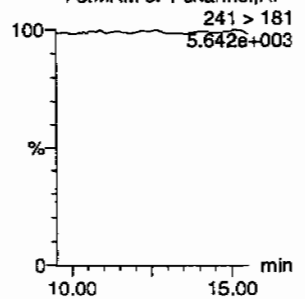

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.644e+003

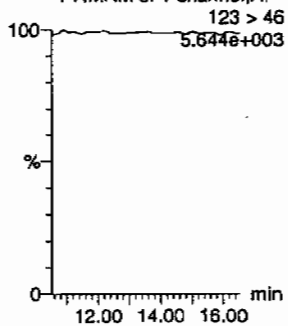

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.637e+003

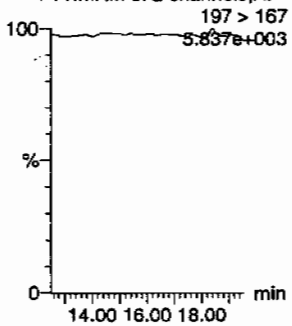

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.730e+003

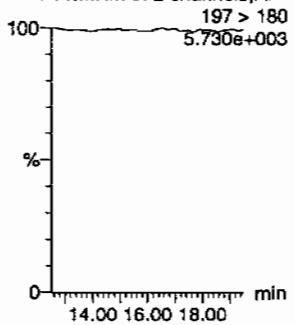

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.639e+003

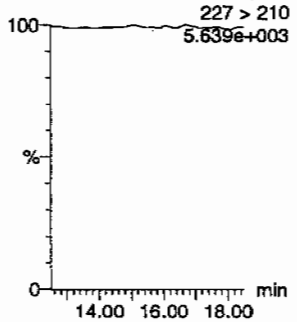

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.674e+003

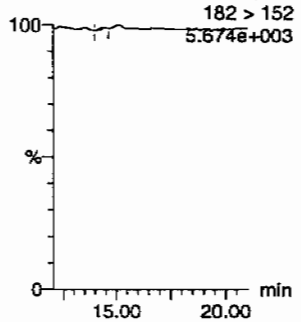

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.674e+003

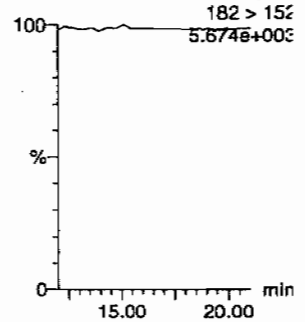

MM 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

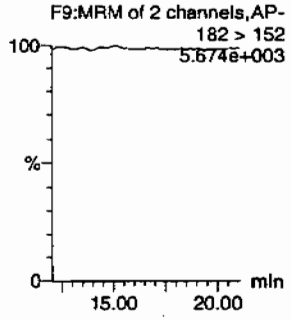

26-dinitrotoluene-d3

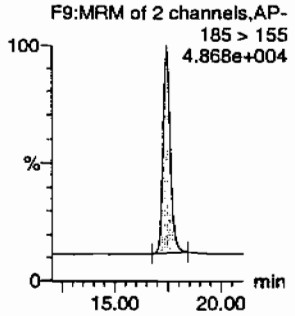

2-Nitrotoluene

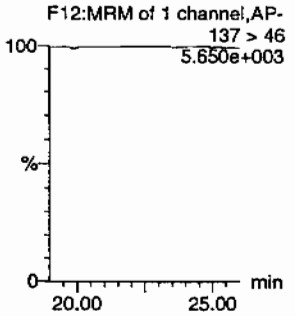

4-Nitrotoluene

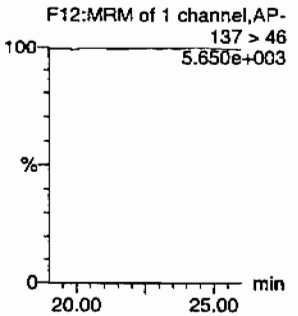

3-Nitrotoluene

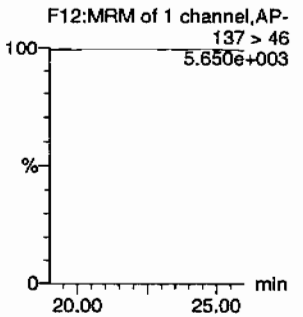

PETN

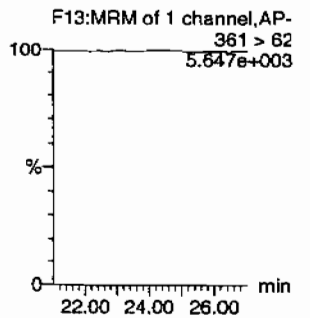

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3436.941									
XIBLK02	RDX	176 > 102			3436.941									
XIBLK02	135-Trinitrobenzene	213 > 183			3436.941									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.03	3436.941		3436.941	3436.941	bb			570.4625	114.1	14.1	178.7
XIBLK02	13-Dinitrobenzene	168 > 138			3436.941									
XIBLK02	Tetryl	241 > 181			3436.941									
XIBLK02	Nitrobenzene	123 > 46			3436.941									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			17207.732									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			17207.732									
XIBLK02	246-Trinitrotoluene	227 > 210			17207.732									
XIBLK02	34-dinitrotoluene	182 > 152			17207.732			MM-	17-Feb-10	09:24:35				
XIBLK02	26-dinitrotoluene	182 > 152			17207.732									
XIBLK02	24-dinitrotoluene	182 > 152			17207.732									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.42	17207.732		17207.732	17207.732	bb			494.2320	98.8	-1.2	2636.1
XIBLK02	2-Nitrotoluene	137 > 46			17207.732									
XIBLK02	4-Nitrotoluene	137 > 46			17207.732									
XIBLK02	3-Nitrotoluene	137 > 46			17207.732									
XIBLK02	PETN	361 > 62			17207.732									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 16–FEB–10 22:04

GEL Data File: EXP0216011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	445.165
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	575.243
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216011a
Date: 16-Feb-2010
Time: 22:04:12
ID: XIBLK03
Vial: 1:1,A

MMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.929e+003

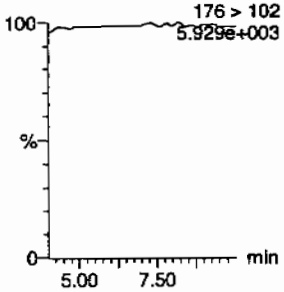

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.929e+003

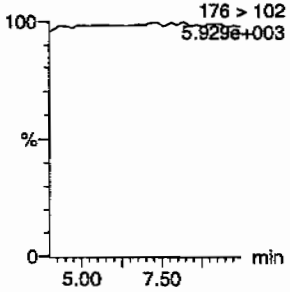

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.731e+003

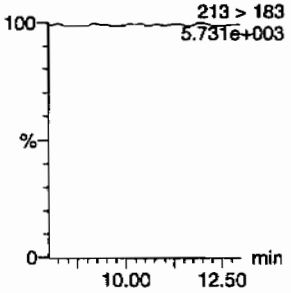

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.226e+004

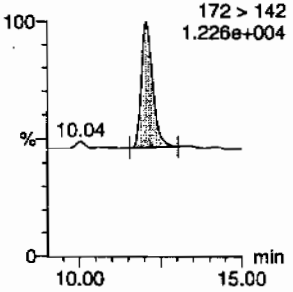

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.708e+003

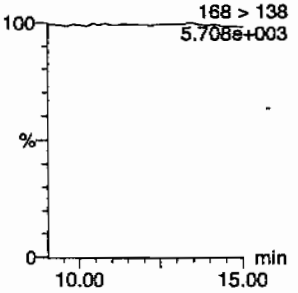

Tetryl
F6:MRM of 1 channel,AP
241 > 18
5.756e+00

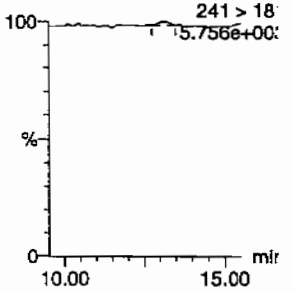

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.719e+003

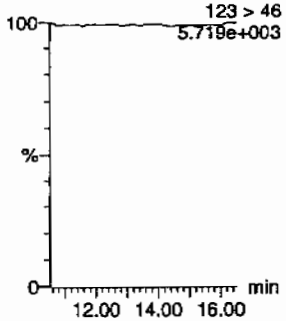

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.833e+003

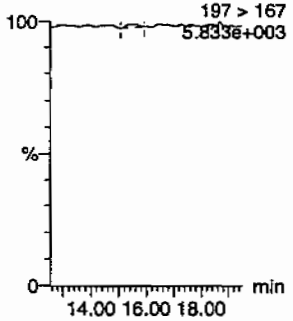

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.836e+003

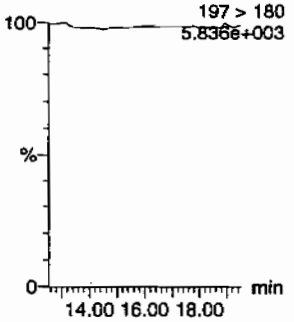

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.700e+003

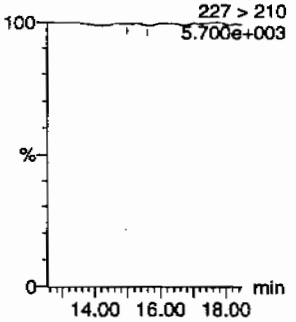

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.716e+003

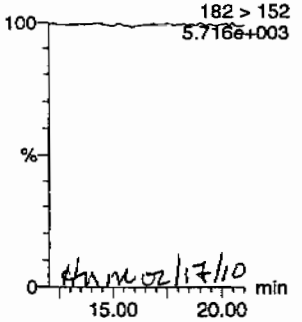

26-dinitrotoluene
F9:MRM of 2 channels,AP
182 > 15
5.716e+00

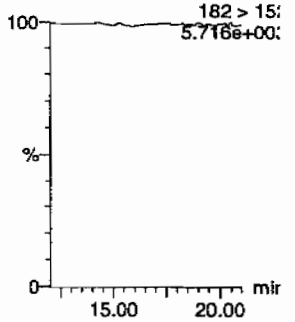

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

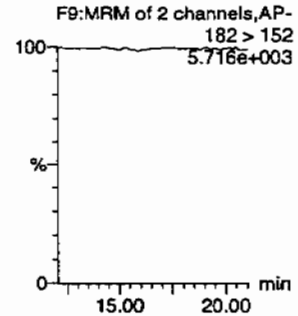

26-dinitrotoluene-d3

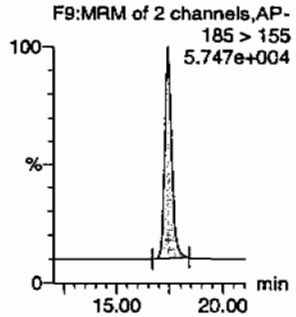

2-Nitrotoluene

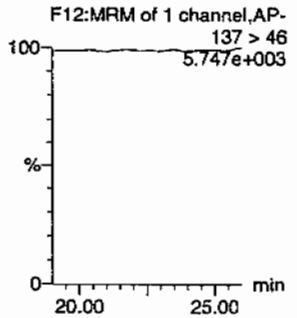

4-Nitrotoluene

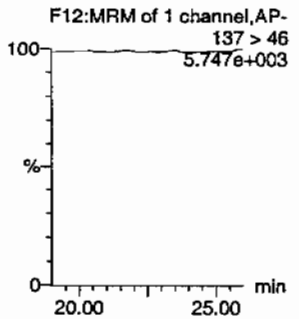

3-Nitrotoluene

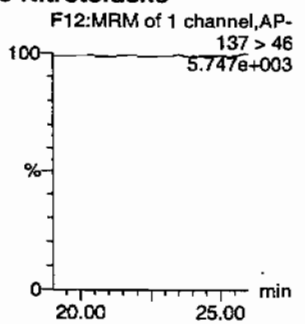

PETN

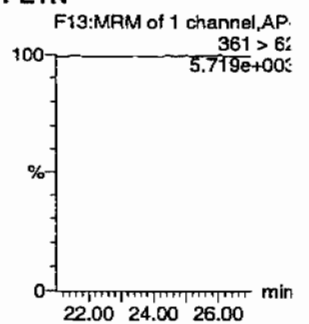

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			2682.047									
XIBLK03	RDX	176 > 102			2682.047									
XIBLK03	135-Trinitrobenzene	213 > 183			2682.047									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.06	2682.047		2682.047	2682.047	bb			445.1654	89.0	-11.0	160.3
XIBLK03	13-Dinitrobenzene	168 > 138			2682.047									
XIBLK03	Tetryl	241 > 181			2682.047			MM-	17-Feb-10	09:21:24				
XIBLK03	Nitrobenzene	123 > 46			2682.047									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			20028.289			MM-	17-Feb-10	09:22:49				
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			20028.289									
XIBLK03	246-Trinitrotoluene	227 > 210			20028.289			MM-	17-Feb-10	09:24:30				
XIBLK03	34-dinitrotoluene	182 > 152			20028.289									
XIBLK03	26-dinitrotoluene	182 > 152			20028.289									
XIBLK03	24-dinitrotoluene	182 > 152			20028.289									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.43	20028.289		20028.289	20028.289	bb			575.2427	115.0	15.0	1997.4
XIBLK03	2-Nitrotoluene	137 > 46			20028.289									
XIBLK03	4-Nitrotoluene	137 > 46			20028.289									
XIBLK03	3-Nitrotoluene	137 > 46			20028.289									
XIBLK03	PETN	361 > 62			20028.289									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1394
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 17-FEB-10 03:30
GEL Data File: EXP0216022a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	470.843
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.456
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216022a
Date: 17-Feb-2010
Time: 03:30:28
ID: XIBLK04
Vial: 1:1,A

MATT 2/17/10

HMX

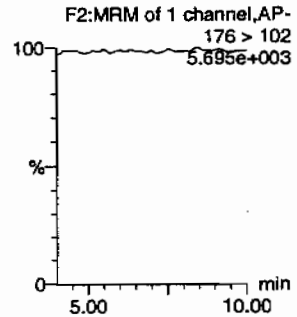

RDX

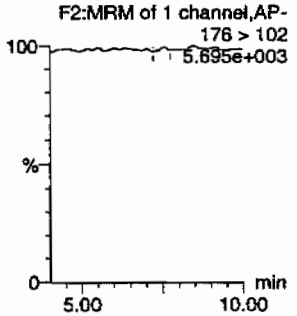

135-Trinitrobenzene

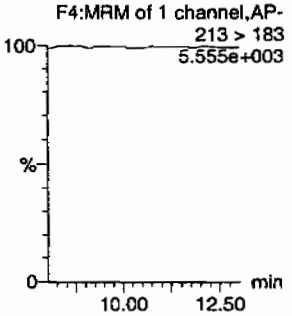

13-Dinitrobenzene-d4

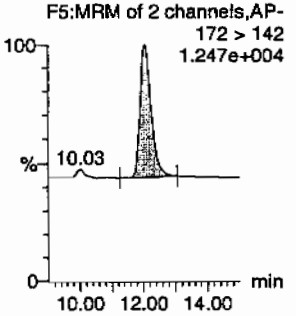

13-Dinitrobenzene

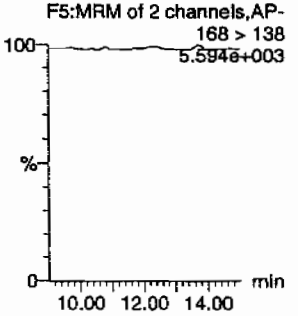

Tetryl

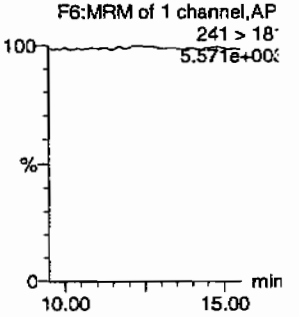

Nitrobenzene

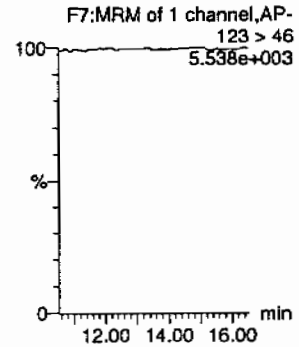

4-Amino-26-dinitrotoluene

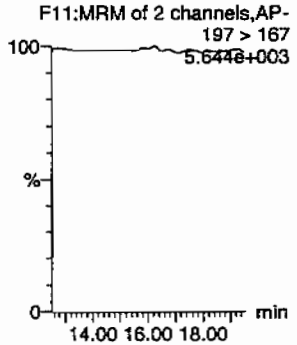

2-Amino-46-dinitrotoluene

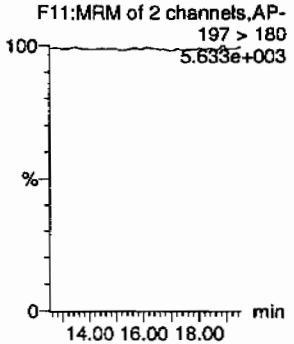

246-Trinitrotoluene

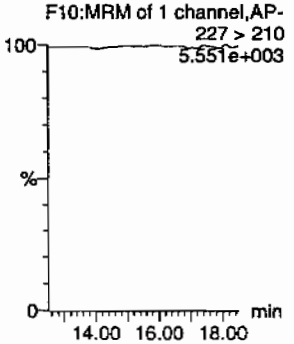

34-dinitrotoluene

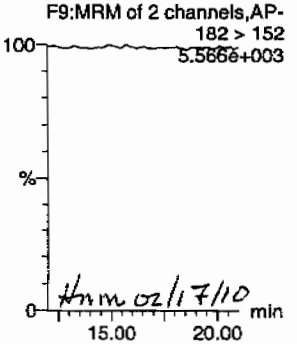

HMM 02/17/10

26-dinitrotoluene

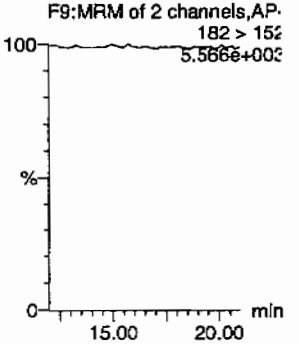

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.566e+003

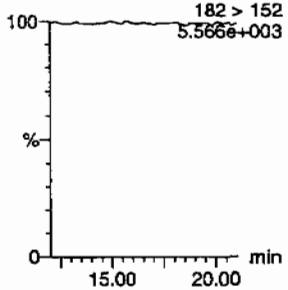

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.631e+004

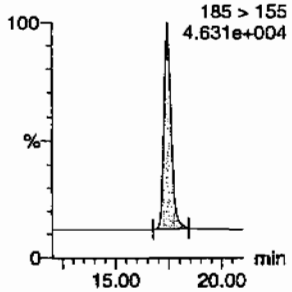

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.543e+003

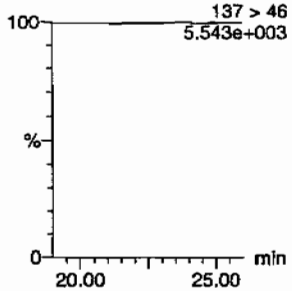

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.543e+003

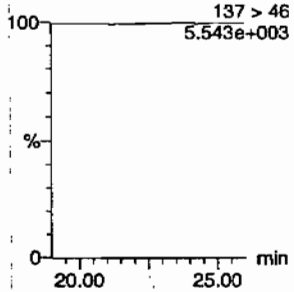

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.543e+003

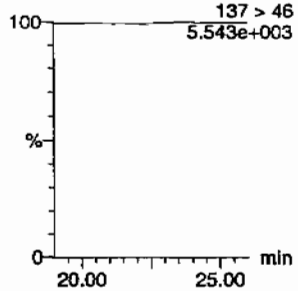

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.538e+003

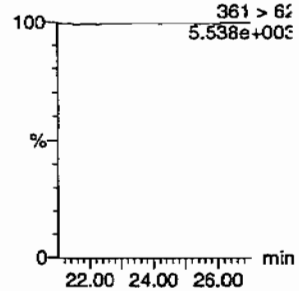

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			2836.752									
XIBLK04	RDX	176 > 102			2836.752			MM-	17-Feb-10	09:20:42				
XIBLK04	135-Trinitrobenzene	213 > 183			2836.752									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.07	2836.752		2836.752	2836.752	bb			470.8433	94.2	-5.8	187.3
XIBLK04	13-Dinitrobenzene	168 > 138			2836.752									
XIBLK04	Tetryl	241 > 181			2836.752									
XIBLK04	Nitrobenzene	123 > 46			2836.752									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			16310.284									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			16310.284									
XIBLK04	246-Trinitrotoluene	227 > 210			16310.284									
XIBLK04	34-dinitrotoluene	182 > 152			16310.284									
XIBLK04	26-dinitrotoluene	182 > 152			16310.284									
XIBLK04	24-dinitrotoluene	182 > 152			16310.284									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.44	16310.284		16310.284	16310.284	bb			468.4560	93.7	-6.3	1281.5
XIBLK04	2-Nitrotoluene	137 > 46			16310.284									
XIBLK04	4-Nitrotoluene	137 > 46			16310.284									
XIBLK04	3-Nitrotoluene	137 > 46			16310.284									
XIBLK04	PETN	361 > 62			16310.284									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1394
Lab Code: GEL
Lab Sample ID: XIBLK05
Analysis Date: 17-FEB-10 06:28
GEL Data File: EXP0216028a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	443.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	440.83
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216028a
Date: 17-Feb-2010
Time: 06:28:06
ID: XIBLK05
Vial: 1:1,A

MM 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.774e+003

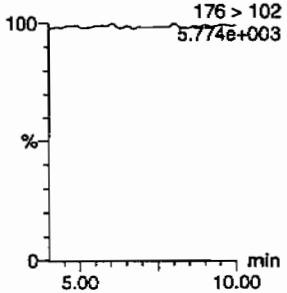

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.774e+003

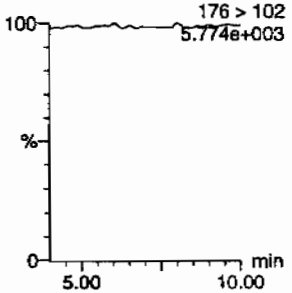

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.638e+003

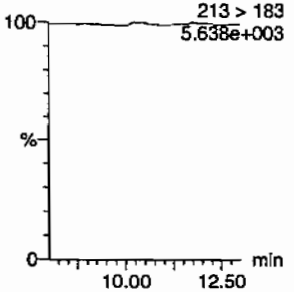

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.231e+004

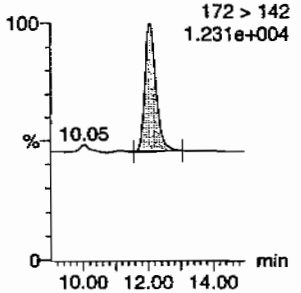

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.607e+003

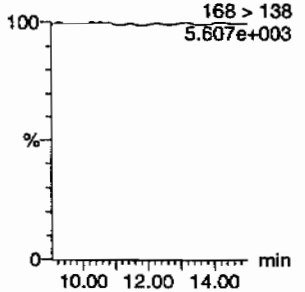

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.623e+003

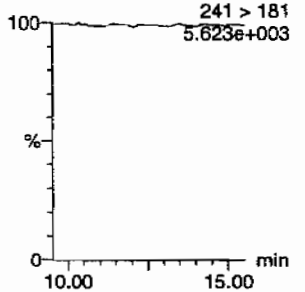

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.619e+003

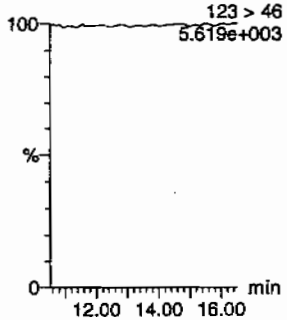

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.715e+003

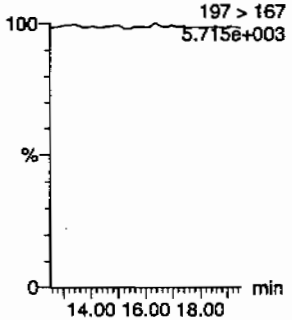

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.688e+003

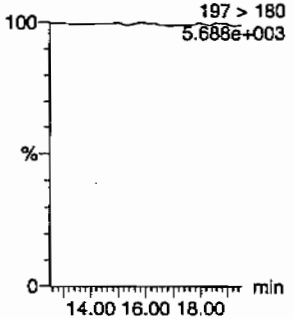

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.630e+003

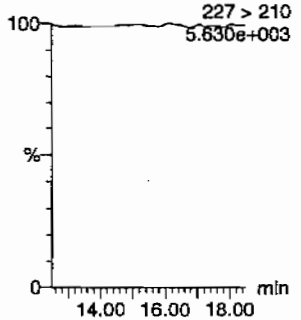

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.642e+003

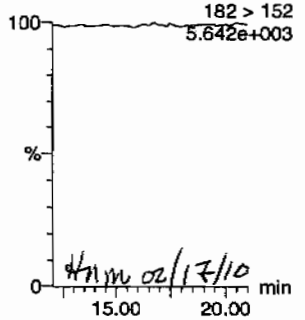

MM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.642e+003

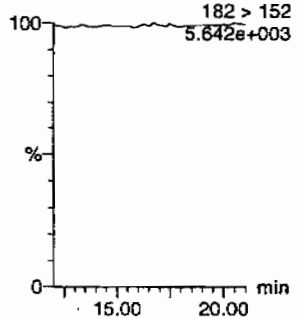

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

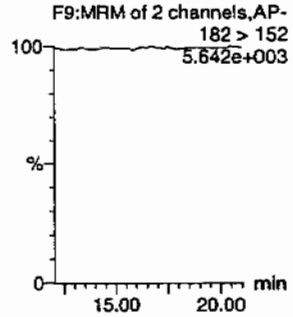

26-dinitrotoluene-d3

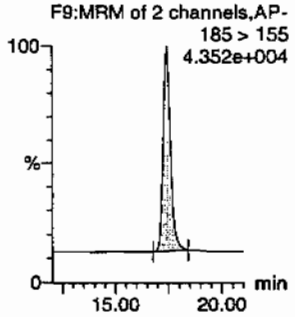

2-Nitrotoluene

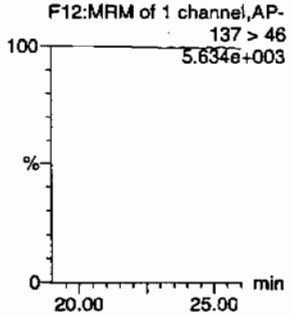

4-Nitrotoluene

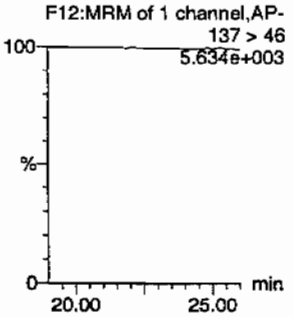

3-Nitrotoluene

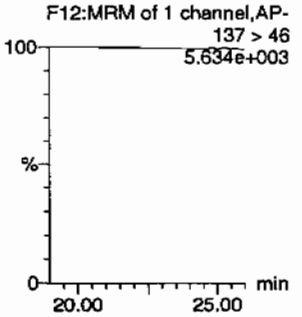

PETN

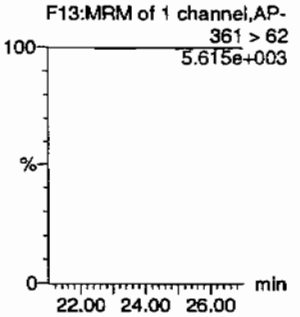

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			2670.289									
XIBLK05	RDX	176 > 102			2670.289									
XIBLK05	135-Trinitrobenzene	213 > 183			2670.289									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.07	2670.289		2670.289	2670.289	bb			443.2139	88.6	-11.4	203.6
XIBLK05	13-Dinitrobenzene	168 > 138			2670.289									
XIBLK05	Tetryl	241 > 181			2670.289									
XIBLK05	Nitrobenzene	123 > 46			2670.289									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			15348.437									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			15348.437									
XIBLK05	246-Trinitrotoluene	227 > 210			15348.437									
XIBLK05	34-dinitrotoluene	182 > 152			15348.437									
XIBLK05	26-dinitrotoluene	182 > 152			15348.437									
XIBLK05	24-dinitrotoluene	182 > 152			15348.437									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.44	15348.437		15348.437	15348.437	bb			440.8303	88.2	-11.8	1328.0
XIBLK05	2-Nitrotoluene	137 > 46			15348.437									
XIBLK05	4-Nitrotoluene	137 > 46			15348.437									
XIBLK05	3-Nitrotoluene	137 > 46			15348.437									
XIBLK05	PETN	361 > 62			15348.437									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 17-FEB-10 12:24

GEL Data File: EXP0216040a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	431.007
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	413.713
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216040a
Date: 17-Feb-2010
Time: 12:24:42
ID: XIBLK06
Vial: 1:1,A

MMP 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.698e+003

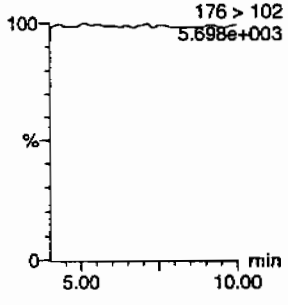

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.698e+003

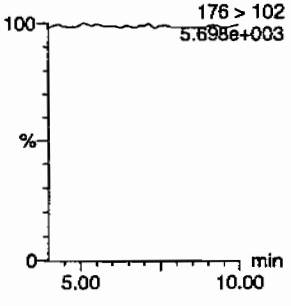

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.591e+003

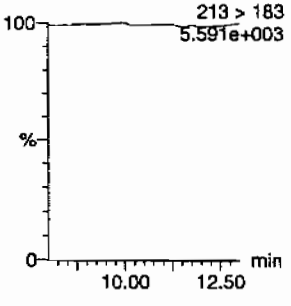

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.197e+004

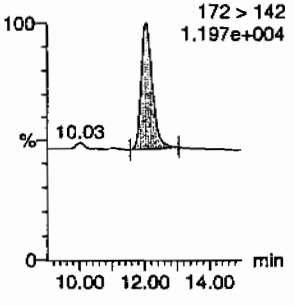

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.563e+003

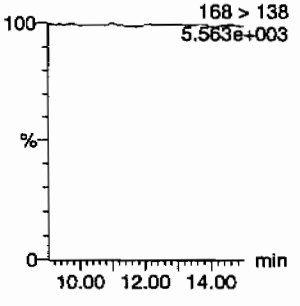

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.591e+003

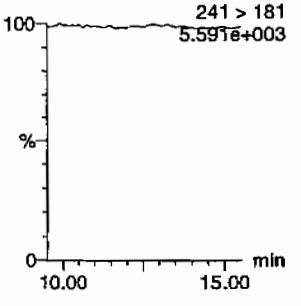

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.573e+003

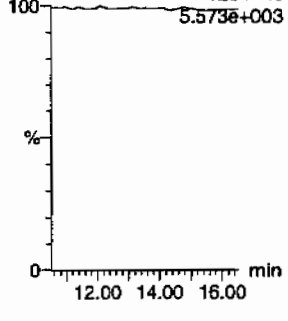

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.641e+003

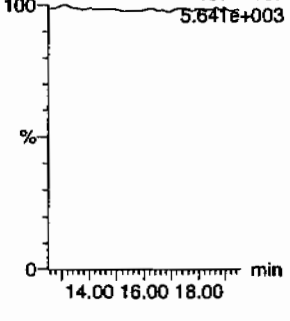

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.586e+003

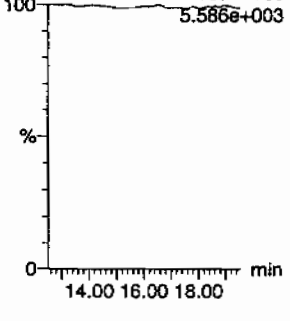

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.553e+003

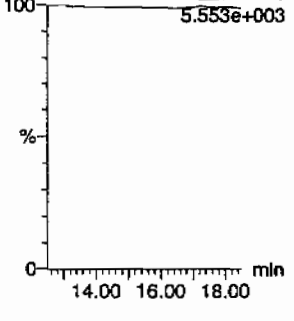

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.553e+003

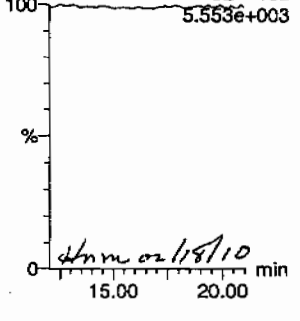

dhm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.553e+003

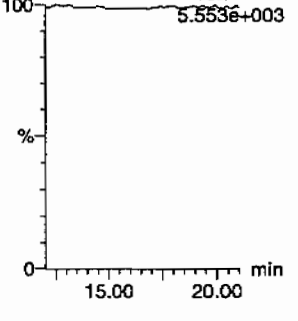

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

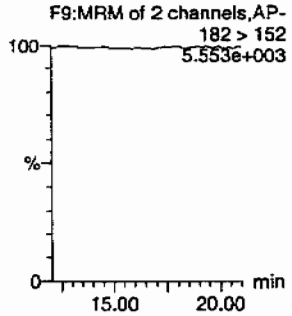

26-dinitrotoluene-d3

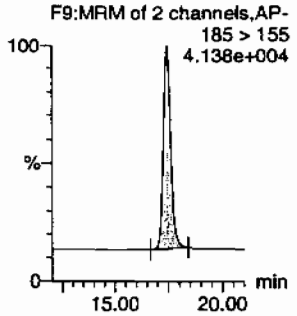

2-Nitrotoluene

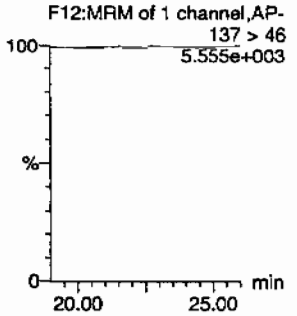

4-Nitrotoluene

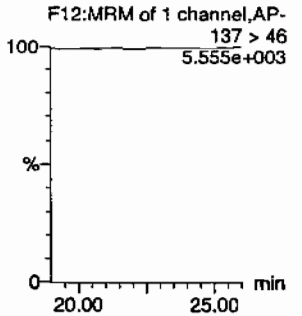

3-Nitrotoluene

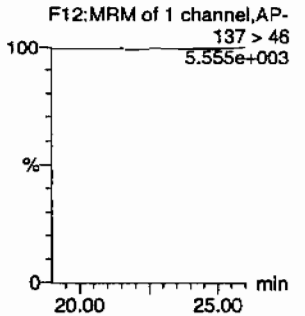

PETN

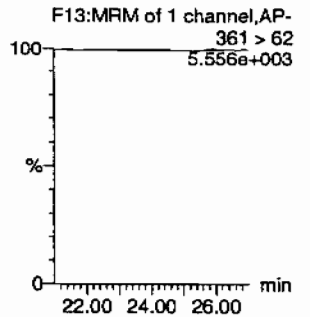

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			2596.742									
XIBLK06	RDX	176 > 102			2596.742									
XIBLK06	135-Trinitrobenzene	213 > 183			2596.742									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.03	2596.742		2596.742	2596.742	bb			431.0065	86.2	-13.8	277.6
XIBLK06	13-Dinitrobenzene	168 > 138			2596.742									
XIBLK06	Tetryl	241 > 181			2596.742									
XIBLK06	Nitrobenzene	123 > 46			2596.742									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			14404.283									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			14404.283									
XIBLK06	246-Trinitrotoluene	227 > 210			14404.283									
XIBLK06	34-dinitrotoluene	182 > 152			14404.283									
XIBLK06	26-dinitrotoluene	182 > 152			14404.283									
XIBLK06	24-dinitrotoluene	182 > 152			14404.283									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.44	14404.283		14404.283	14404.283	bb			413.7128	82.7	-17.3	1514.9
XIBLK06	2-Nitrotoluene	137 > 46			14404.283									
XIBLK06	4-Nitrotoluene	137 > 46			14404.283									
XIBLK06	3-Nitrotoluene	137 > 46			14404.283									
XIBLK06	PETN	361 > 62			14404.283									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 17–FEB–10 18:50

GEL Data File: EXP0216053a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	517.203
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	500.527
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216053a
Date: 17-Feb-2010
Time: 18:50:03
ID: XIBLK07
Vial: 1:1,A

MM 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.667e+003

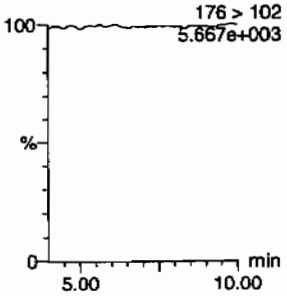

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.667e+003

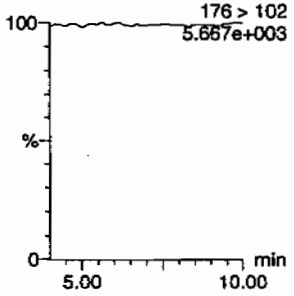

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.582e+003

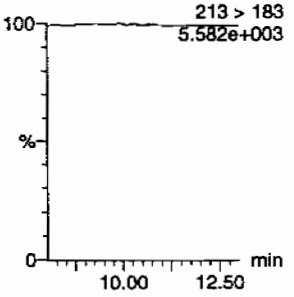

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.296e+004

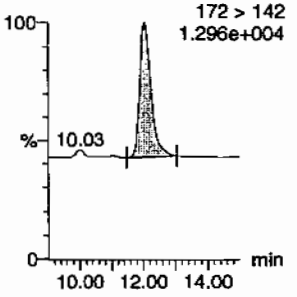

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.566e+003

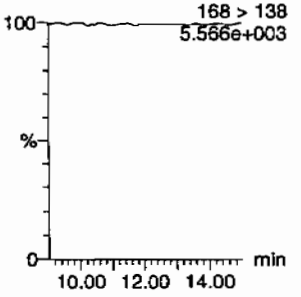

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.574e+003

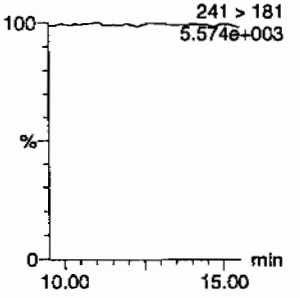

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.569e+003

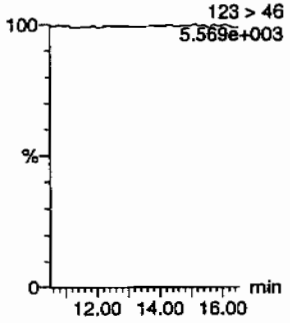

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.629e+003

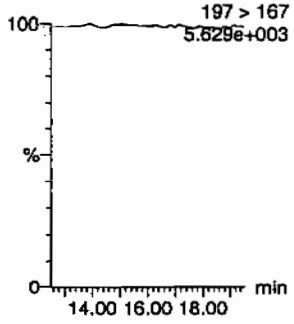

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.615e+003

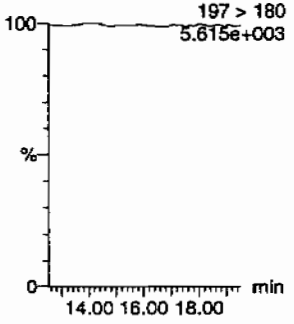

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.567e+003

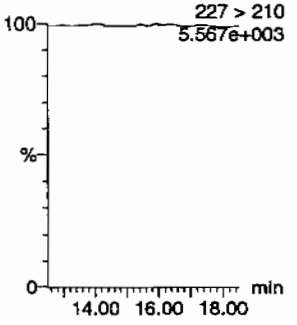

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

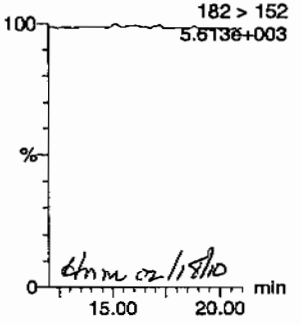

dmm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

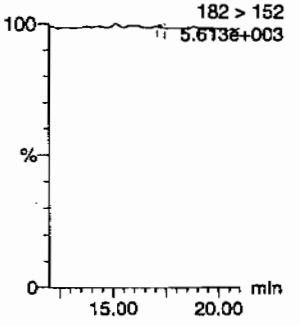

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

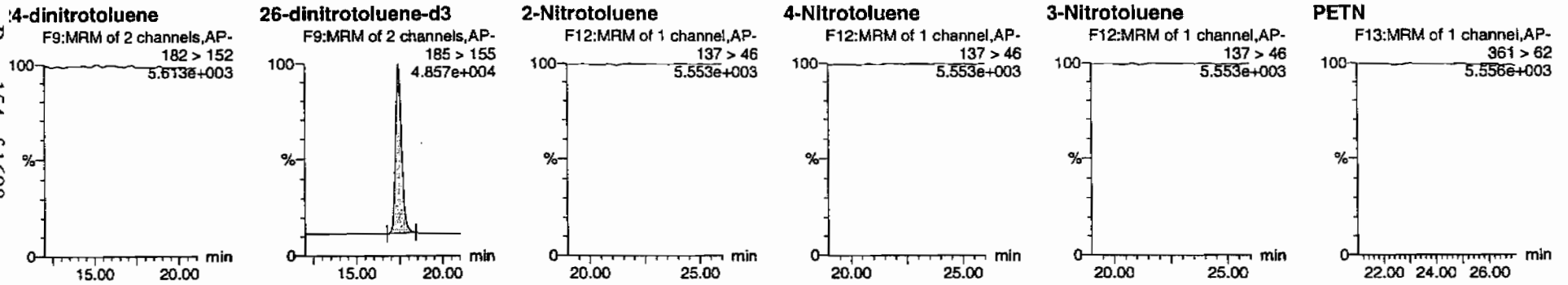

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3116.063									
XIBLK07	RDX	176 > 102			3116.063									
XIBLK07	135-Trinitrobenzene	213 > 183			3116.063									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.03	3116.063		3116.063	3116.063	bb			517.2033	103.4	3.4	364.9
XIBLK07	13-Dinitrobenzene	168 > 138			3116.063									
XIBLK07	Tetryl	241 > 181			3116.063									
XIBLK07	Nitrobenzene	123 > 46			3116.063									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			17426.895									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			17426.895									
XIBLK07	246-Trinitrotoluene	227 > 210			17426.895									
XIBLK07	34-dinitrotoluene	182 > 152			17426.895									
XIBLK07	26-dinitrotoluene	182 > 152			17426.895			MM-	18-Feb-10	08:48:46				
XIBLK07	24-dinitrotoluene	182 > 152			17426.895									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.42	17426.895		17426.895	17426.895	bb			500.5267	100.1	0.1	1075.7
XIBLK07	2-Nitrotoluene	137 > 46			17426.895									
XIBLK07	4-Nitrotoluene	137 > 46			17426.895									
XIBLK07	3-Nitrotoluene	137 > 46			17426.895									
XIBLK07	PETN	361 > 62			17426.895									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 18-FEB-10 01:14

GEL Data File: EXP0216066a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.508
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	477.827
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216066a
Date: 18-Feb-2010
Time: 01:14:55
ID: XIBLK08
Vial: 1:1,A

MMT 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

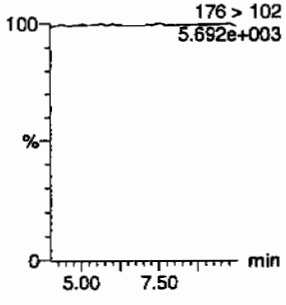

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

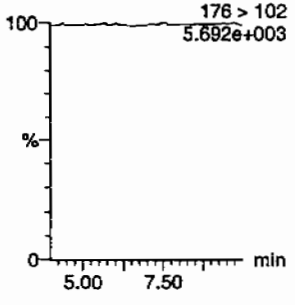

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.674e+003

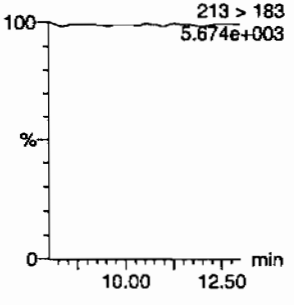

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.398e+004

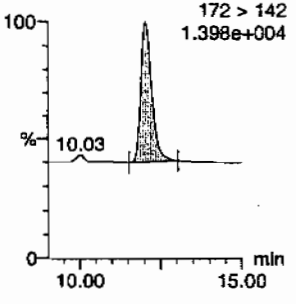

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.652e+003

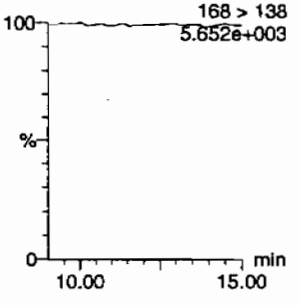

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.636e+003

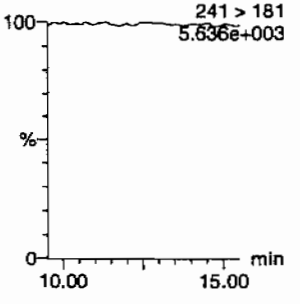

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.659e+003

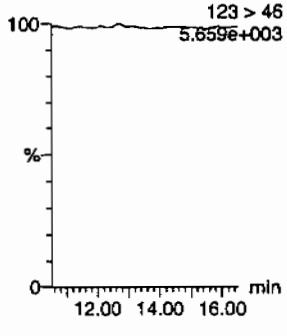

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
16.70
197 > 167
5.759e+003

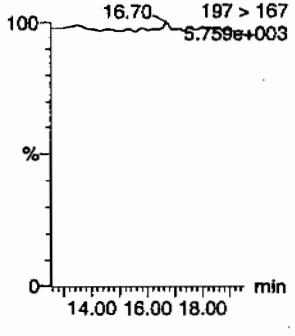

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.677e+003

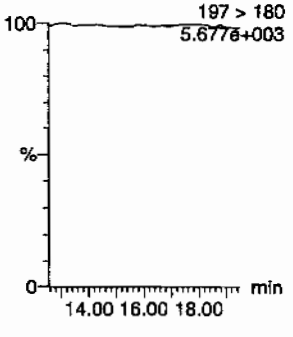

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.610e+003

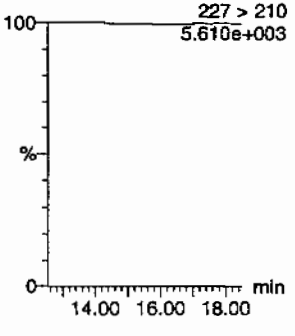

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.646e+003

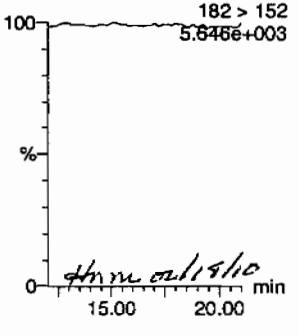

MMT 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.646e+003

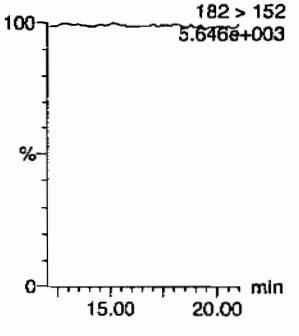

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

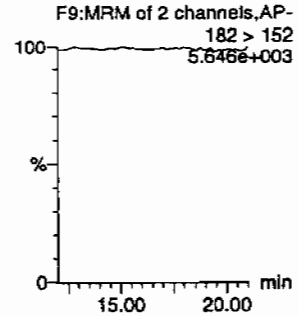

26-dinitrotoluene-d3

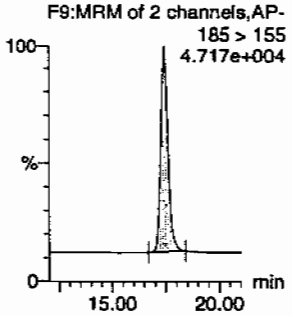

2-Nitrotoluene

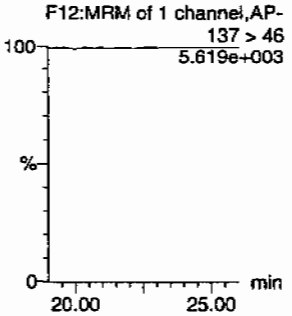

4-Nitrotoluene

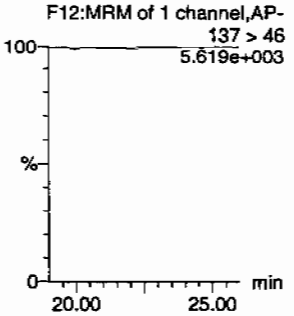

3-Nitrotoluene

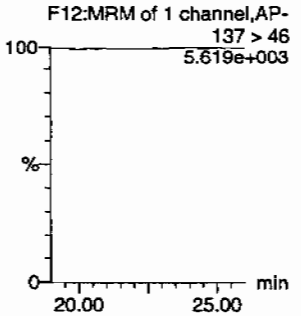

PETN

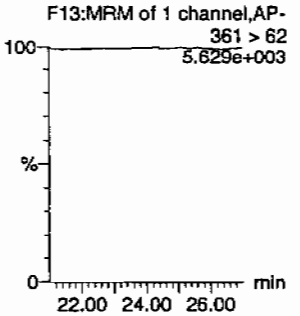

ID	Name	Traces	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3346.844									
XIBLK08	RDX	176 > 102			3346.844									
XIBLK08	135-Trinitrobenzene	213 > 183			3346.844									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.03	3346.844		3346.844	3346.844	bb			555.5083	111.1	11.1	89.0
XIBLK08	13-Dinitrobenzene	168 > 138			3346.844									
XIBLK08	Tetryl	241 > 181			3346.844									
XIBLK08	Nitrobenzene	123 > 46			3346.844									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			16636.555									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			16636.555									
XIBLK08	246-Trinitrotoluene	227 > 210			16636.555									
XIBLK08	34-dinitrotoluene	182 > 152			16636.555									
XIBLK08	26-dinitrotoluene	182 > 152			16636.555									
XIBLK08	24-dinitrotoluene	182 > 152			16636.555									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.43	16636.555		16636.555	16636.555	bb			477.8270	95.6	-4.4	925.6
XIBLK08	2-Nitrotoluene	137 > 46			16636.555									
XIBLK08	4-Nitrotoluene	137 > 46			16636.555									
XIBLK08	3-Nitrotoluene	137 > 46			16636.555									
XIBLK08	PETN	361 > 62			16636.555									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 18–FEB–10 02:43

GEL Data File: EXP0216069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
PETN	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	533.187
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	509.45
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216069a
Date: 18-Feb-2010
Time: 02:43:41
ID: XIBLK09
Vial: 1:1,F

MMT 4/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.664e+003

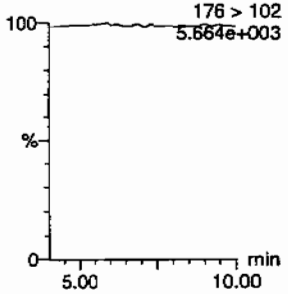

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.664e+003

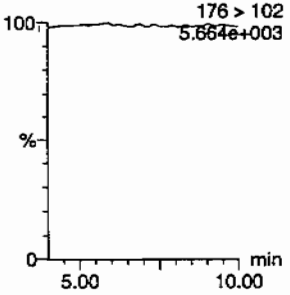

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.609e+003

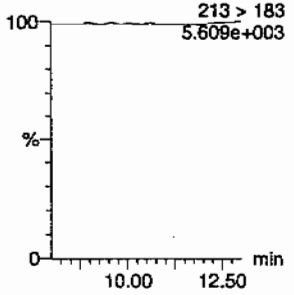

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.341e+004

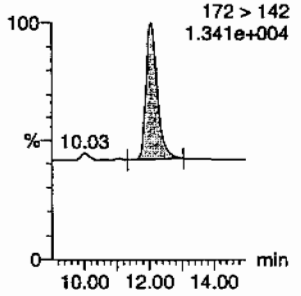

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.606e+003

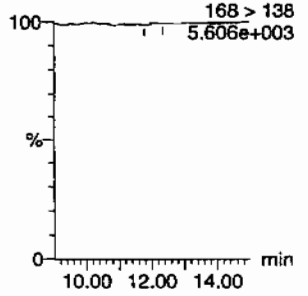

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.617e+003

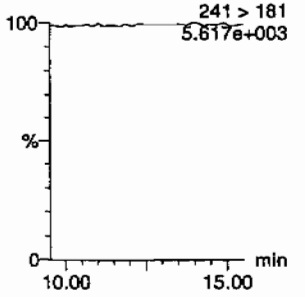

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.666e+003

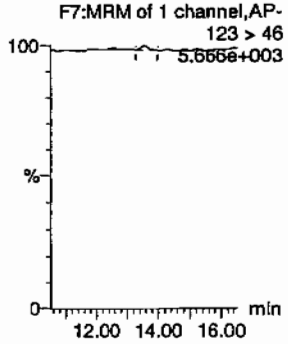

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.651e+003

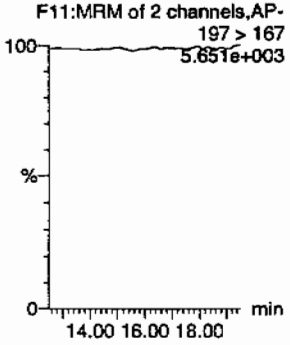

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.659e+003

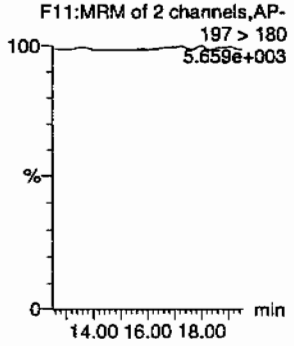

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.604e+003

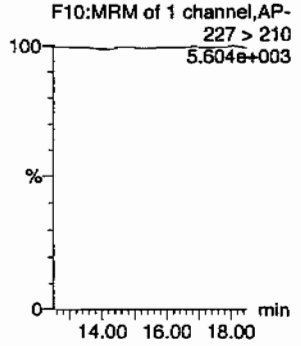

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.629e+003

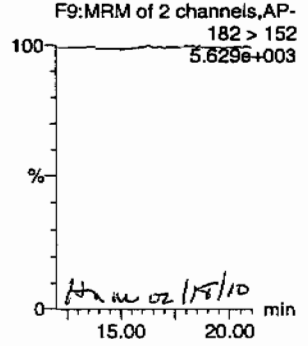

HM 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.629e+003

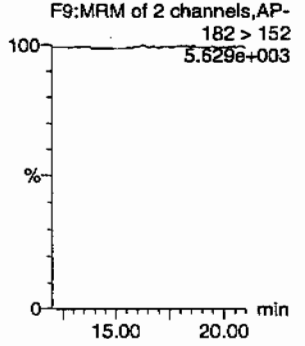

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

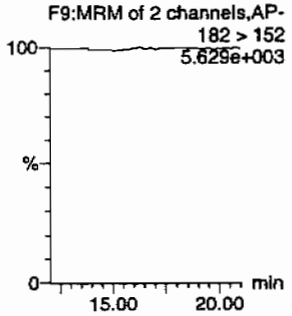

26-dinitrotoluene-d3

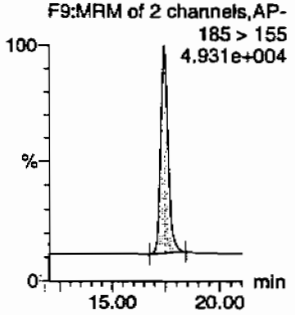

2-Nitrotoluene

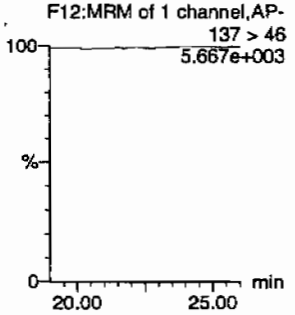

4-Nitrotoluene

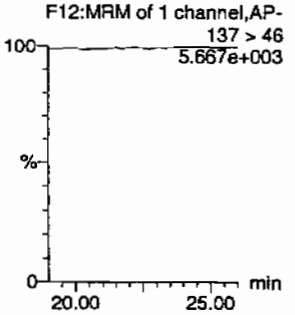

3-Nitrotoluene

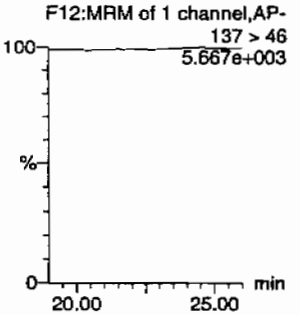

PETN

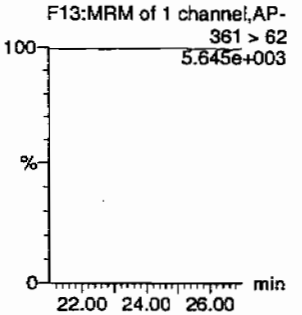

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3212.361									
XIBLK09	RDX	176 > 102			3212.361									
XIBLK09	135-Trinitrobenzene	213 > 183			3212.361									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.07	3212.361		3212.361	3212.361	bb			533.1868	106.6	6.6	611.4
XIBLK09	13-Dinitrobenzene	168 > 138			3212.361			MM-	18-Feb-10	08:42:49				
XIBLK09	Tetryl	241 > 181			3212.361									
XIBLK09	Nitrobenzene	123 > 46			3212.361			MM-	18-Feb-10	08:43:35				
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			17737.570									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			17737.570									
XIBLK09	246-Trinitrotoluene	227 > 210			17737.570									
XIBLK09	34-dinitrotoluene	182 > 152			17737.570									
XIBLK09	26-dinitrotoluene	182 > 152			17737.570									
XIBLK09	24-dinitrotoluene	182 > 152			17737.570									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.44	17737.570		17737.570	17737.570	bb			509.4498	101.9	1.9	1474.7
XIBLK09	2-Nitrotoluene	137 > 46			17737.570									
XIBLK09	4-Nitrotoluene	137 > 46			17737.570									
XIBLK09	3-Nitrotoluene	137 > 46			17737.570									
XIBLK09	PETN	361 > 62			17737.570									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 18–FEB–10 07:40

GEL Data File: EXP0216079a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	480.33
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	458.446
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216079a
Date: 18-Feb-2010
Time: 07:40:00
ID: XIBLK10
Vial: 1:1,A

MP 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.828e+003

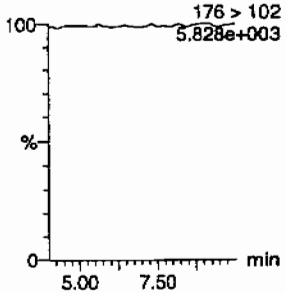

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.828e+003

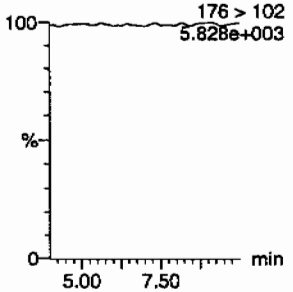

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.789e+003

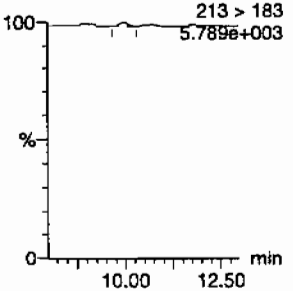

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.289e+004

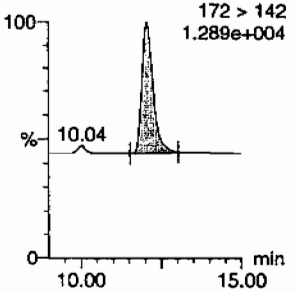

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.737e+003

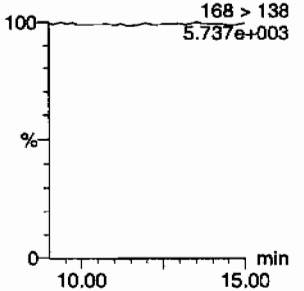

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.744e+003

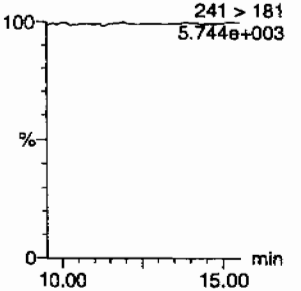

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.761e+003

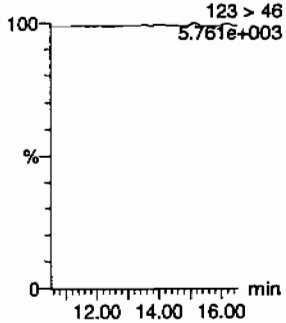

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.802e+003

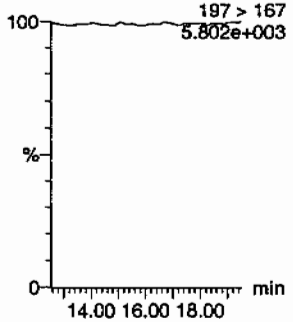

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.805e+003

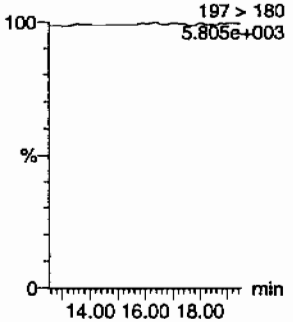

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.736e+003

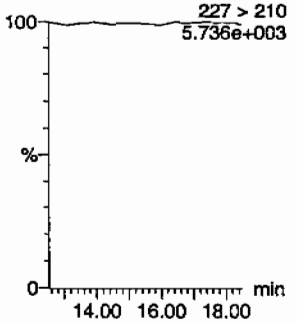

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

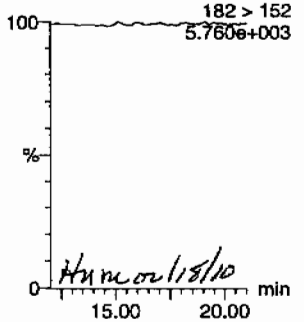

HM 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

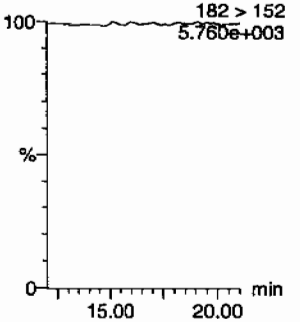

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

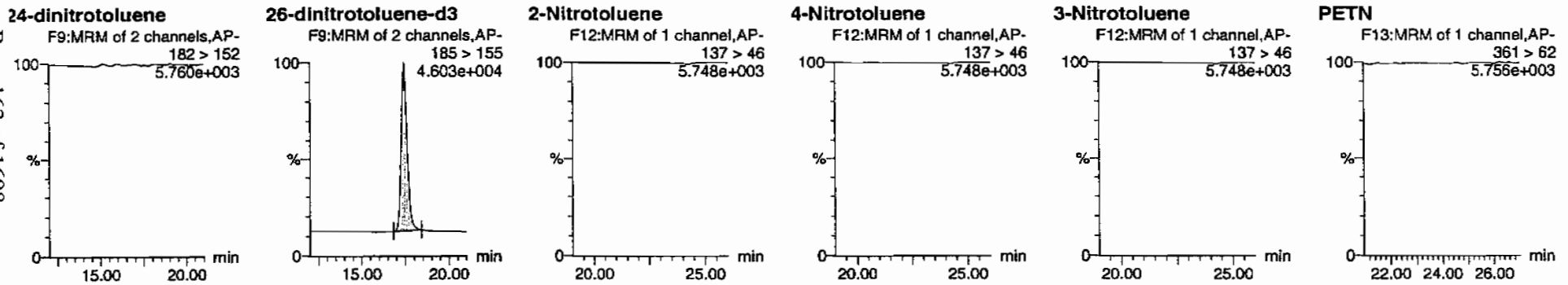

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			2893.907									
XIBLK10	RDX	176 > 102			2893.907									
XIBLK10	135-Trinitrobenzene	213 > 183			2893.907			MM-	18-Feb-10	08:42:38				
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.06	2893.907		2893.907	2893.907	bb			480.3299	96.1	-3.9	382.0
XIBLK10	13-Dinitrobenzene	168 > 138			2893.907									
XIBLK10	Tetryl	241 > 181			2893.907									
XIBLK10	Nitrobenzene	123 > 46			2893.907									
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			15961.760									
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			15961.760									
XIBLK10	246-Trinitrotoluene	227 > 210			15961.760									
XIBLK10	34-dinitrotoluene	182 > 152			15961.760									
XIBLK10	26-dinitrotoluene	182 > 152			15961.760									
XIBLK10	24-dinitrotoluene	182 > 152			15961.760									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.43	15961.760		15961.760	15961.760	bb			458.4458	91.7	-8.3	1442.8
XIBLK10	2-Nitrotoluene	137 > 46			15961.760									
XIBLK10	4-Nitrotoluene	137 > 46			15961.760									
XIBLK10	3-Nitrotoluene	137 > 46			15961.760									
XIBLK10	PETN	361 > 62			15961.760									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 18-FEB-10 13:05

GEL Data File: EXP0216090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	434.95
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	455.405
2,4,6-Trinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216090a
Date: 18-Feb-2010
Time: 13:05:54
ID: XIBLK11
Vial: 1:1,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.534e+003

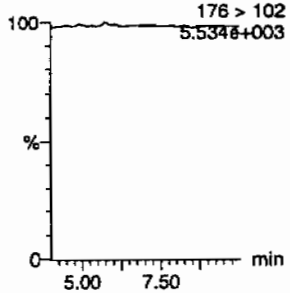

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.534e+003

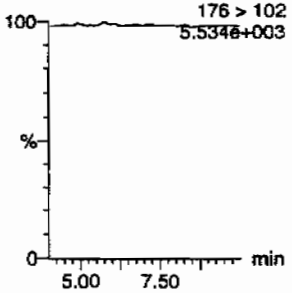

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.407e+003

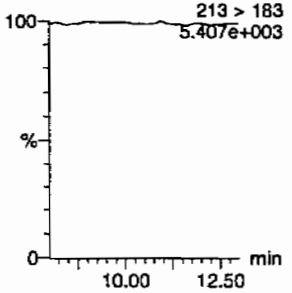

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.211e+004

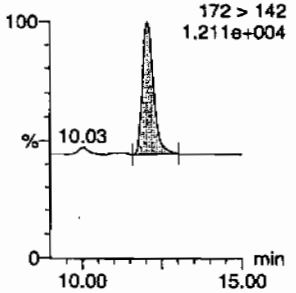

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.398e+003

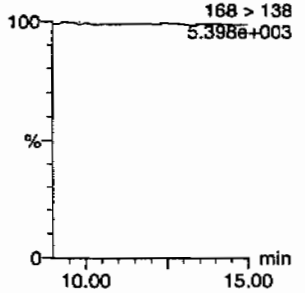

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.385e+003

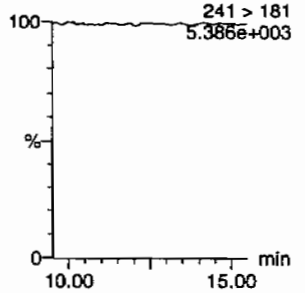

Nitrobenzene
F7:MRM of 1 channel,AP-
11.35
123 > 46
5.486e+003

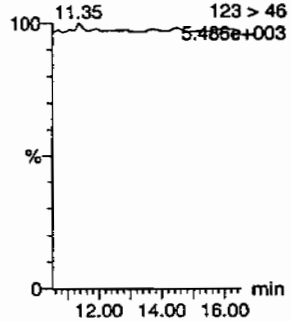

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.445e+003

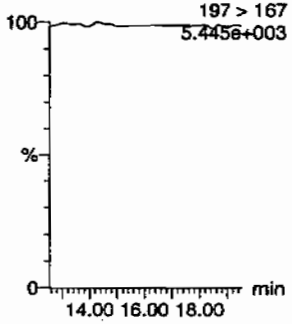

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.410e+003

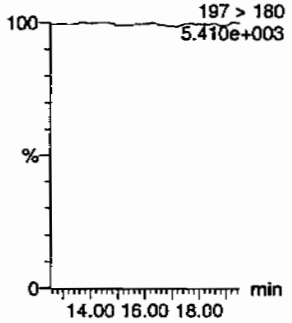

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.366e+003

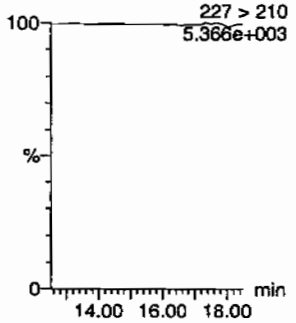

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.462e+003

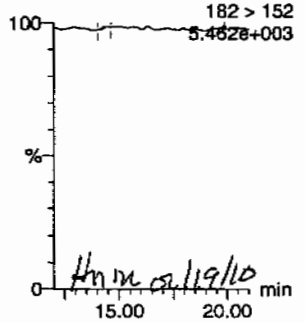

HM 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.462e+003

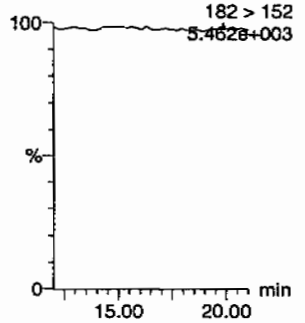

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

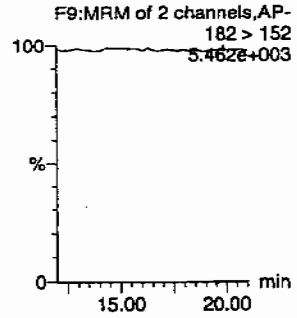

26-dinitrotoluene-d3

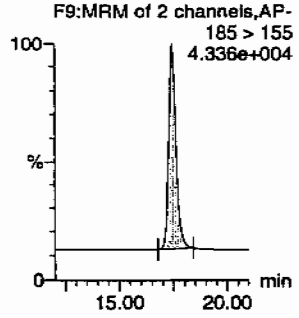

2-Nitrotoluene

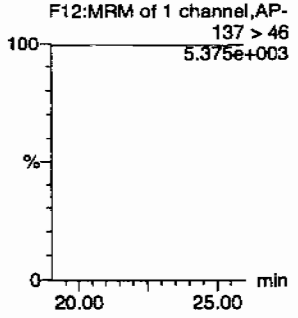

4-Nitrotoluene

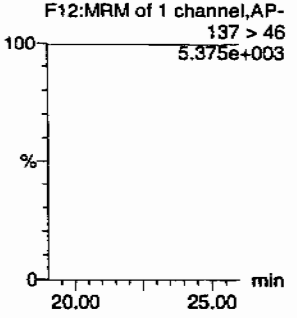

3-Nitrotoluene

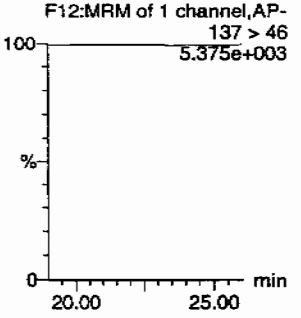

PETN

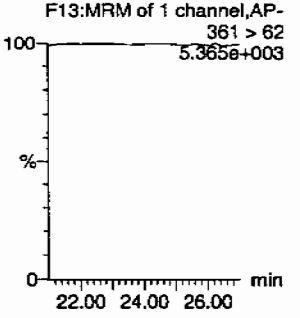

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	IS Response	Flags	Mod.Date	Mod.Time	mg/ml	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			2743.740									
XIBLK11	RDX	176 > 102			2743.740									
XIBLK11	135-Trinitrobenzene	213 > 183			2743.740									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.06	2743.740		2743.740	2743.740	bb			455.4052	91.1	-8.9	327.5
XIBLK11	13-Dinitrobenzene	168 > 138			2743.740									
XIBLK11	Tetryl	241 > 181			2743.740									
XIBLK11	Nitrobenzene	123 > 46			2743.740									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			15143.687									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			15143.687									
XIBLK11	246-Trinitrotoluene	227 > 210			15143.687									
XIBLK11	34-dinitrotoluene	182 > 152			15143.687			MM-	19-Feb-10	08:42:41				
XIBLK11	26-dinitrotoluene	182 > 152			15143.687									
XIBLK11	24-dinitrotoluene	182 > 152			15143.687									
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.43	15143.687		15143.687	15143.687	bb			434.9496	87.0	-13.0	1161.5
XIBLK11	2-Nitrotoluene	137 > 46			15143.687									
XIBLK11	4-Nitrotoluene	137 > 46			15143.687									
XIBLK11	3-Nitrotoluene	137 > 46			15143.687									
XIBLK11	PETN	361 > 62			15143.687									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 18–FEB–10 19:00

GEL Data File: EXP0216102a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	463.109
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	440.854
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216102a
Date: 18-Feb-2010
Time: 19:00:50
ID: XIBLK12
Vial: 1:1,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.623e+003

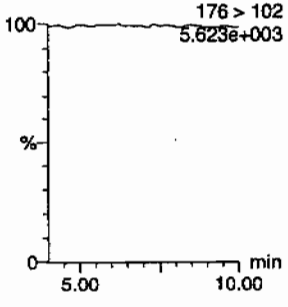

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.623e+003

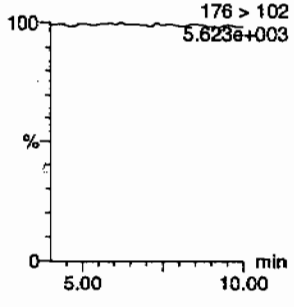

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.551e+003

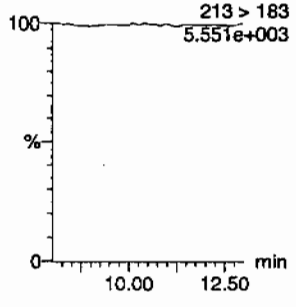

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.224e+004

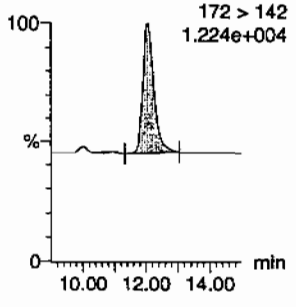

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.533e+003

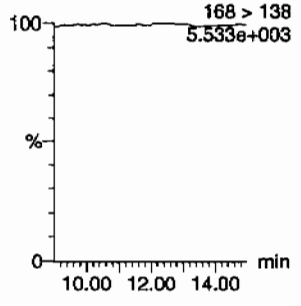

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.536e+003

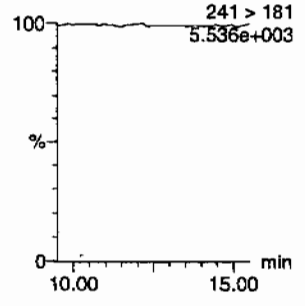

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.558e+003

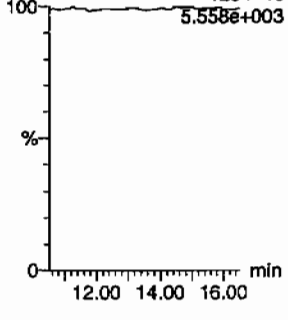

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.572e+003

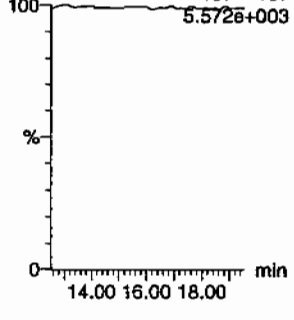

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.589e+003

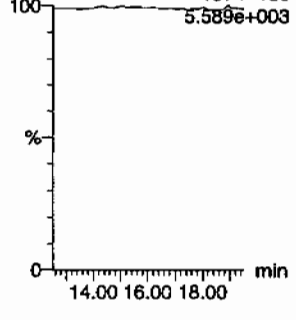

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.529e+003

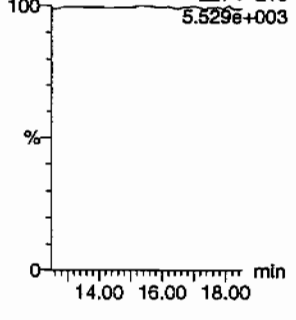

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.573e+003

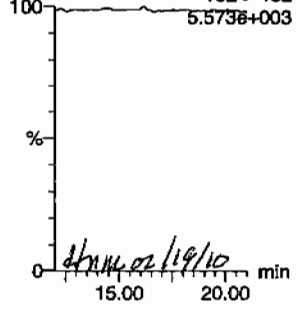

dhm 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.573e+003

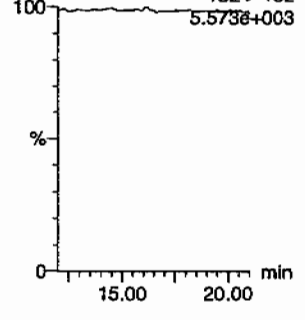

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

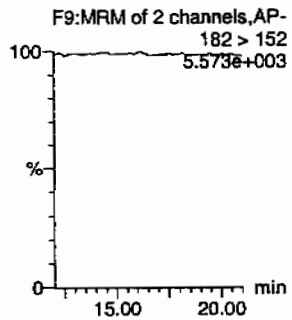

26-dinitrotoluene-d3

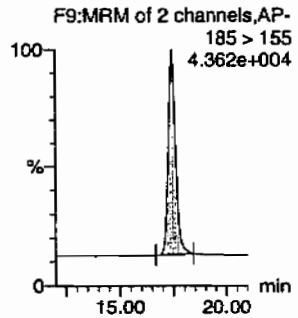

2-Nitrotoluene

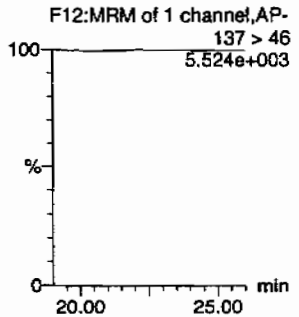

4-Nitrotoluene

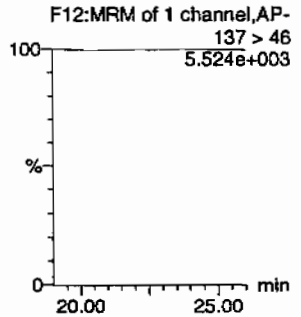

3-Nitrotoluene

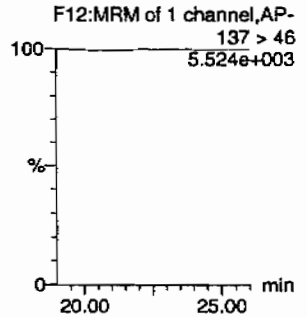

PETN

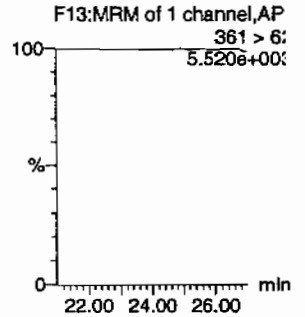

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			2790.156									
XIBLK12	RDX	176 > 102			2790.156									
XIBLK12	135-Trinitrobenzene	213 > 183			2790.156									
XIBLK12	13-Dinitrobenzene-d4	172 > 142	12.03	2790.156		2790.156	2790.156	bb			463.1093	92.6	-7.4	580.1
XIBLK12	13-Dinitrobenzene	168 > 138			2790.156									
XIBLK12	Tetryl	241 > 181			2790.156									
XIBLK12	Nitrobenzene	123 > 46			2790.156									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			15349.260									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			15349.260									
XIBLK12	246-Trinitrotoluene	227 > 210			15349.260									
XIBLK12	34-dinitrotoluene	182 > 152			15349.260									
XIBLK12	26-dinitrotoluene	182 > 152			15349.260									
XIBLK12	24-dinitrotoluene	182 > 152			15349.260									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.42	15349.260		15349.260	15349.260	bb			440.8539	88.2	-11.8	1191.0
XIBLK12	2-Nitrotoluene	137 > 46			15349.260									
XIBLK12	4-Nitrotoluene	137 > 46			15349.260									
XIBLK12	3-Nitrotoluene	137 > 46			15349.260									
XIBLK12	PETN	361 > 62			15349.260									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 19-FEB-10 01:24

GEL Data File: EXP0216115a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	485.557
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	480.924

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216115a
Date: 19-Feb-2010
Time: 01:24:51
ID: XIBLK13
Vial: 1:1,A

MATT 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.626e+003

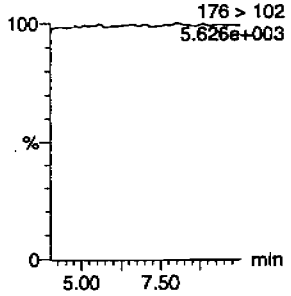

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.626e+003

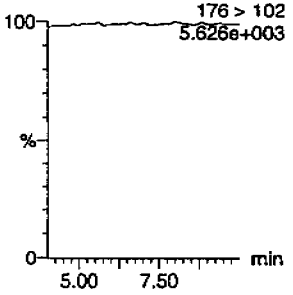

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.562e+003

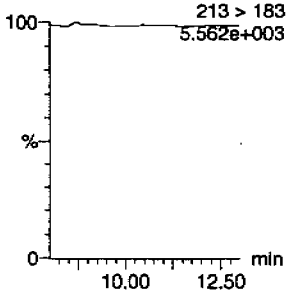

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.247e+004

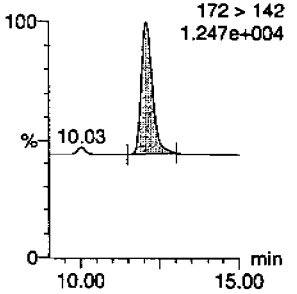

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.520e+003

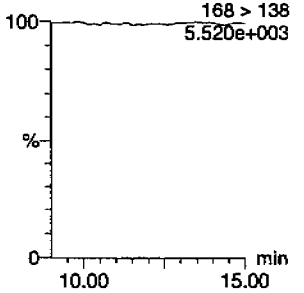

Tetryl
F6:MRM of 1 channel,AP
241 > 18
5.521e+00

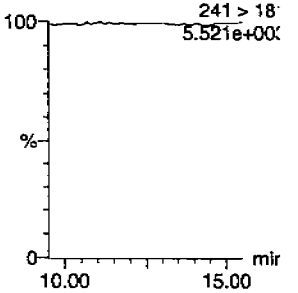

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.515e+003

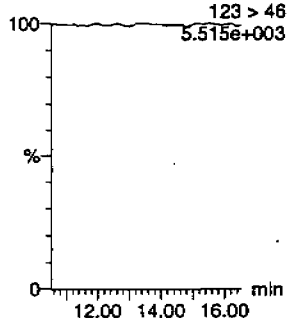

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.593e+003

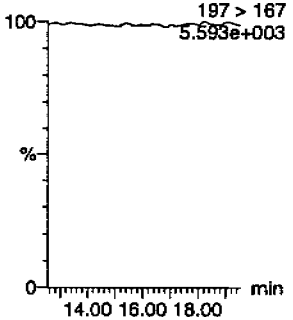

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.580e+003

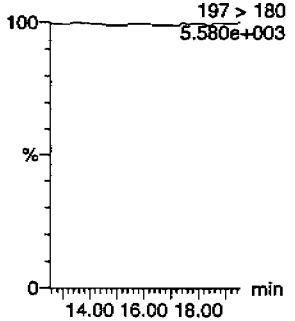

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.523e+003

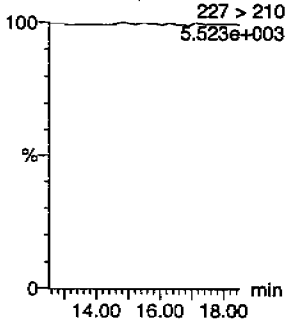

34-dinitrotoluene
F9:MRM of 2 channels,AP-
12.82
182 > 152
5.659e+003

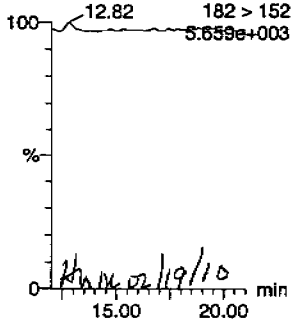

KMM 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
12.82
182 > 15
5.659e+00

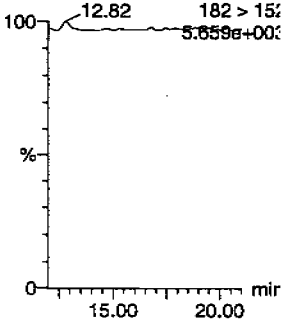

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

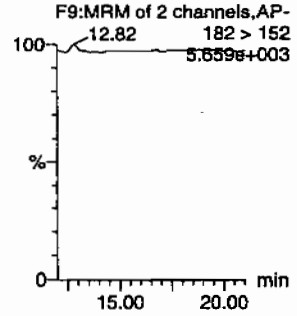

26-dinitrotoluene-d3

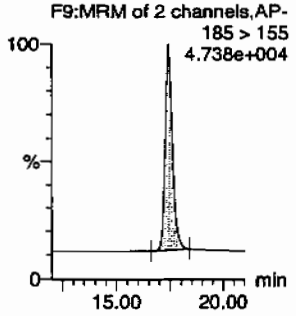

2-Nitrotoluene

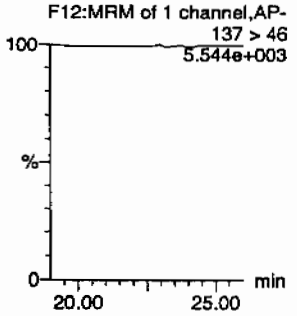

4-Nitrotoluene

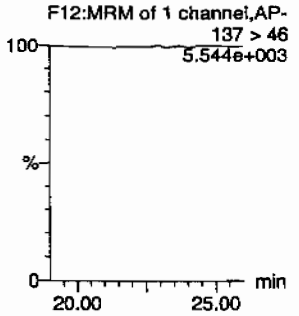

3-Nitrotoluene

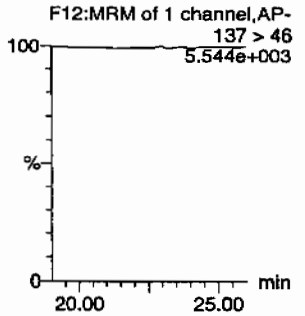

PETN

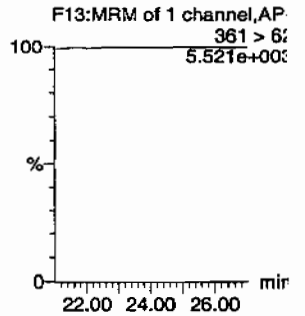

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			2897.485									
XIBLK13	RDX	176 > 102			2897.485									
XIBLK13	135-Trinitrobenzene	213 > 183			2897.485									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	12.06	2897.485		2897.485	2897.485	bb			480.9238	96.2	-3.8	308.6
XIBLK13	13-Dinitrobenzene	168 > 138			2897.485									
XIBLK13	Tetryl	241 > 181			2897.485									
XIBLK13	Nitrobenzene	123 > 46			2897.485									
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			16905.705									
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			16905.705									
XIBLK13	246-Trinitrotoluene	227 > 210			16905.705									
XIBLK13	34-dinitrotoluene	182 > 152			16905.705									
XIBLK13	26-dinitrotoluene	182 > 152			16905.705									
XIBLK13	24-dinitrotoluene	182 > 152			16905.705									
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.43	16905.705		16905.705	16905.705	bb			485.5574	97.1	-2.9	1789.3
XIBLK13	2-Nitrotoluene	137 > 46			16905.705									
XIBLK13	4-Nitrotoluene	137 > 46			16905.705									
XIBLK13	3-Nitrotoluene	137 > 46			16905.705									
XIBLK13	PETN	361 > 62			16905.705									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 19-FEB-10 07:21

GEL Data File: EXP0216127a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	437.668
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	437.697
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216127a
Date: 19-Feb-2010
Time: 07:21:28
ID: XIBLK14
Vial: 1:1,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.654e+003

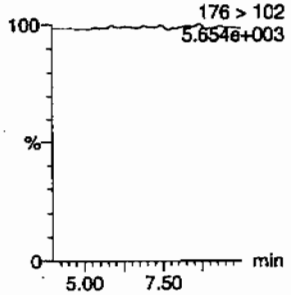

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.654e+003

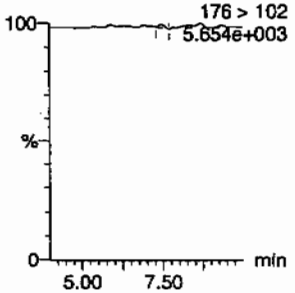

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.556e+003

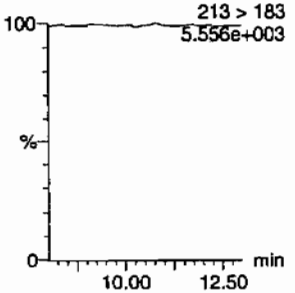

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.197e+004

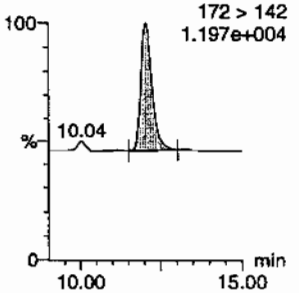

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.535e+003

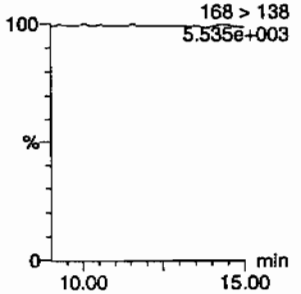

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.533e+003

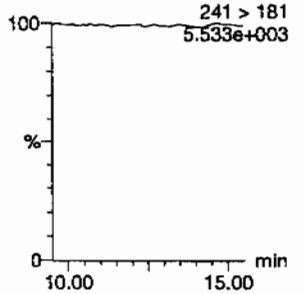

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.551e+003

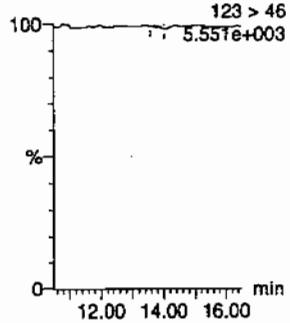

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.574e+003

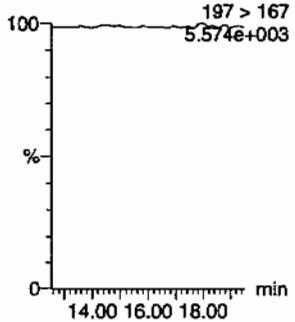

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.598e+003

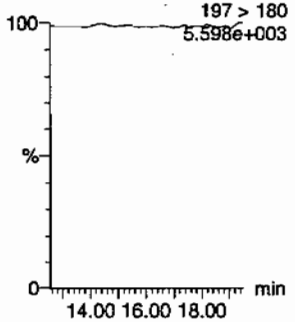

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.505e+003

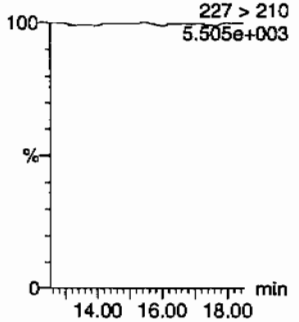

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.569e+003

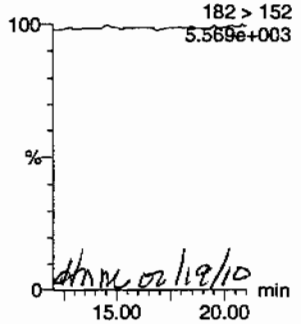

dhm 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.569e+003

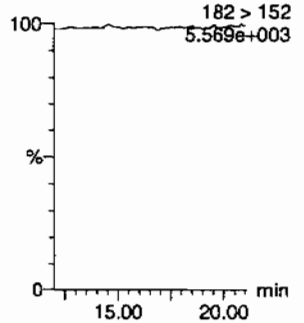

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

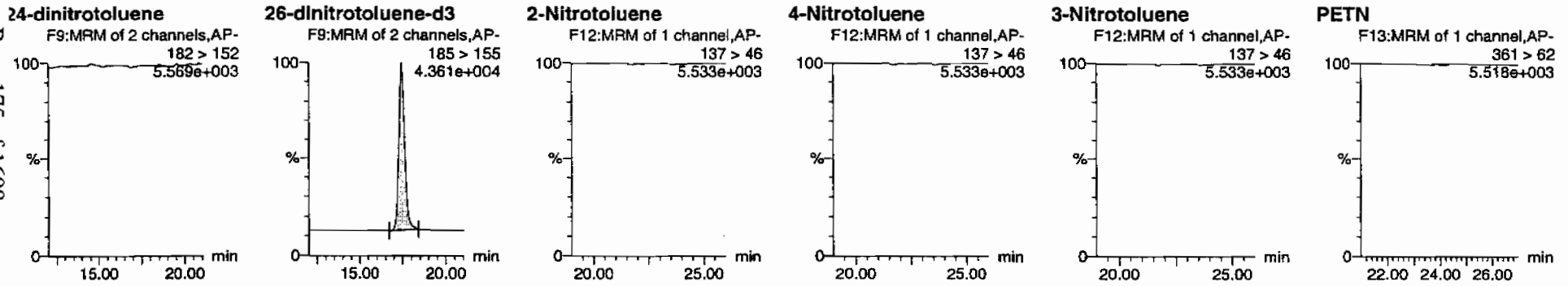

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK14	HMX	176 > 102			2636.874									
XIBLK14	RDX	176 > 102			2636.874			MM-	19-Feb-10	08:36:15				
XIBLK14	135-Trinitrobenzene	213 > 183			2636.874									
XIBLK14	13-Dinitrobenzene-d4	172 > 142	12.06	2636.874		2636.874	2636.874	bb			437.6676	87.5	-12.5	334.8
XIBLK14	13-Dinitrobenzene	168 > 138			2636.874									
XIBLK14	Tetryl	241 > 181			2636.874									
XIBLK14	Nitrobenzene	123 > 46			2636.874			MM-	19-Feb-10	08:37:38				
XIBLK14	4-Amino-26-dinitrotoluene	197 > 167			15239.334									
XIBLK14	2-Amino-46-dinitrotoluene	197 > 180			15239.334									
XIBLK14	246-Trinitrotoluene	227 > 210			15239.334									
XIBLK14	34-dinitrotoluene	182 > 152			15239.334									
XIBLK14	26-dinitrotoluene	182 > 152			15239.334									
XIBLK14	24-dinitrotoluene	182 > 152			15239.334									
XIBLK14	26-dinitrotoluene-d3	185 > 155	17.43	15239.334		15239.334	15239.334	bb			437.6967	87.5	-12.5	1090.2
XIBLK14	2-Nitrotoluene	137 > 46			15239.334									
XIBLK14	4-Nitrotoluene	137 > 46			15239.334									
XIBLK14	3-Nitrotoluene	137 > 46			15239.334									
XIBLK14	PETN	361 > 62			15239.334									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 17–FEB–10 11:47

GEL Data File: EXS02170010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	11.1
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rcn 2/19/10

ample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02170010.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: "
ple Index: 1
ple Type: Unknown
icentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 11:47:37 AM
lified: No

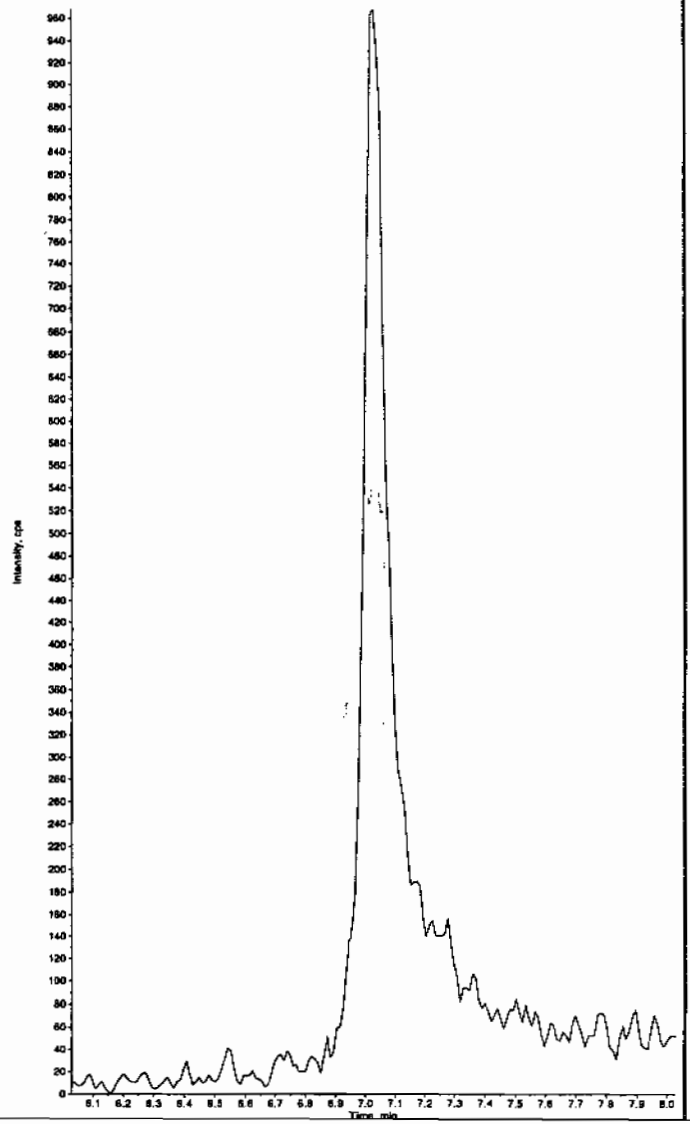

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02170010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 11:47:37 AM

Modified: No

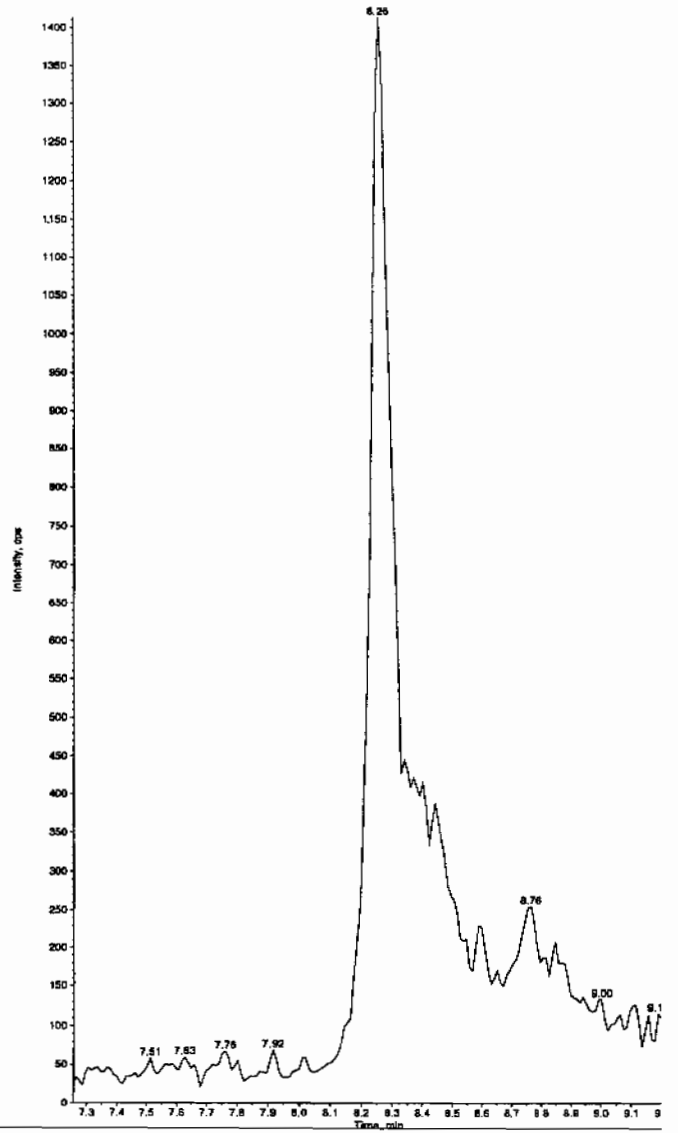

Hu in cr 2/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02170010.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_8" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 11:47:37 AM
ified: No

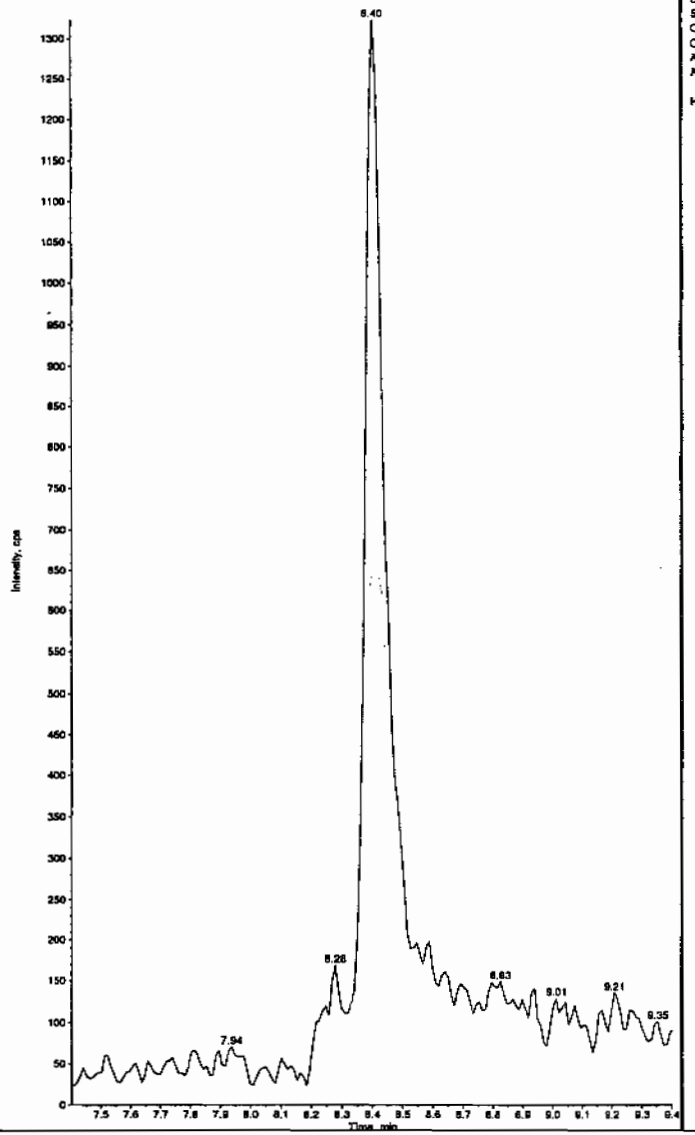

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02170010.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 11:47:37 AM
Modified: No

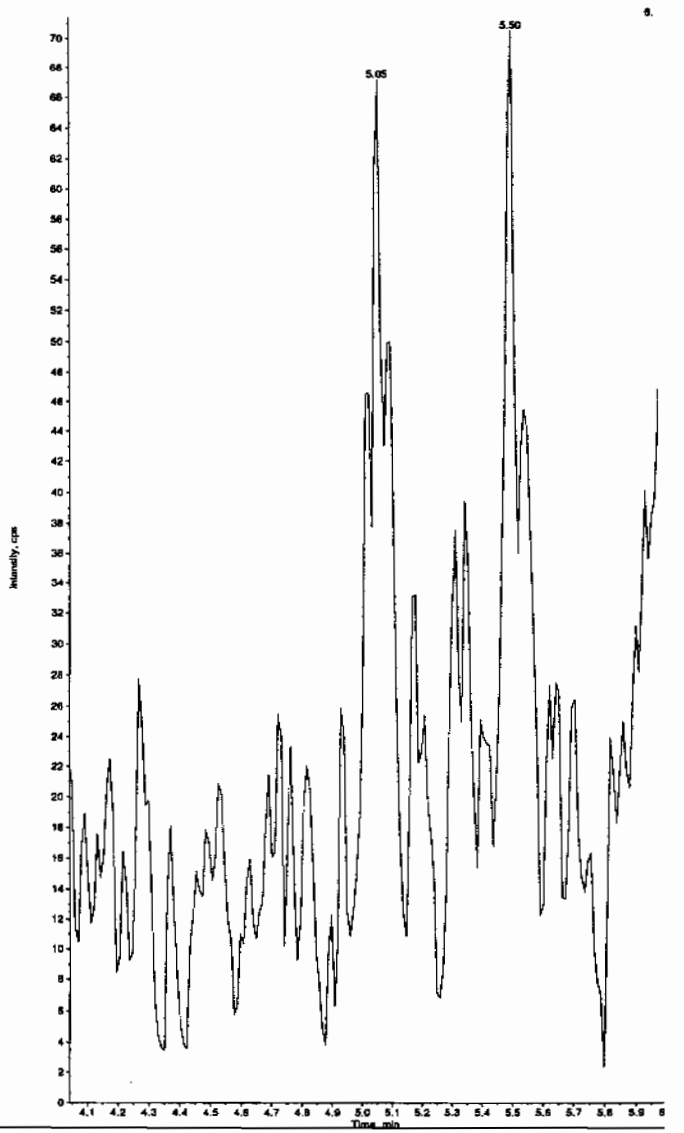

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02170010.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 11:47:37 AM

ified: No

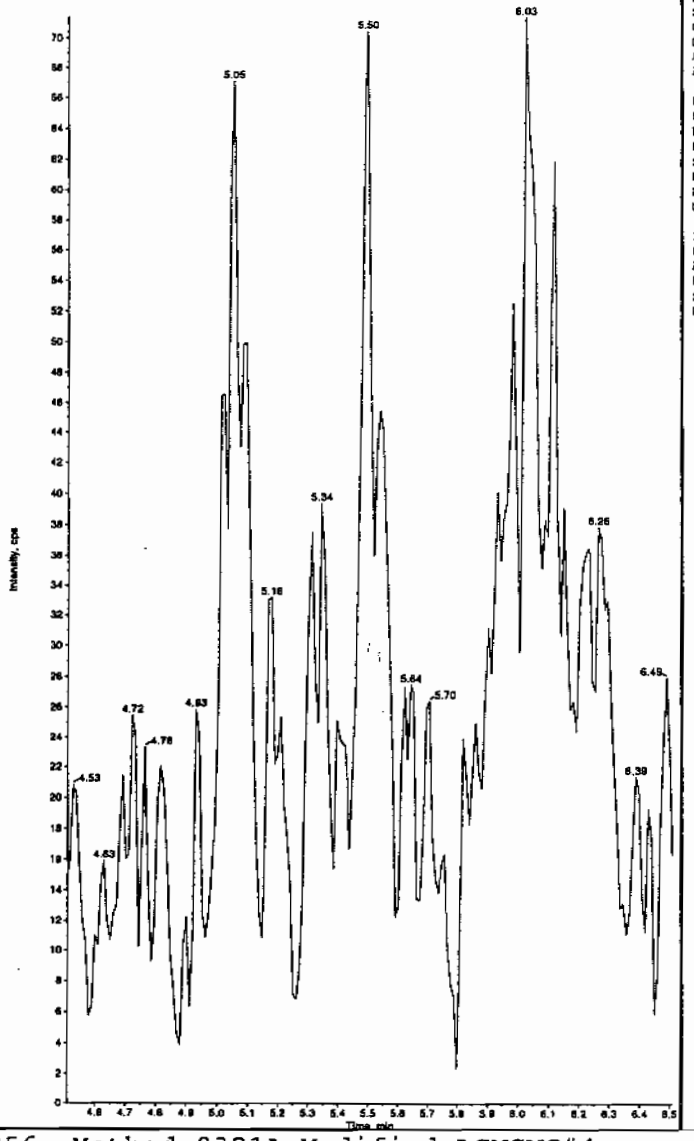

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02170010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	11.1	ng/mL
Acq. Date:	2/17/2010	
Acq. Time:	11:47:37 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	2.42e+005	counts
Height:	57788.788	cps
Start Time:	10.8	min
End Time:	11.3	min

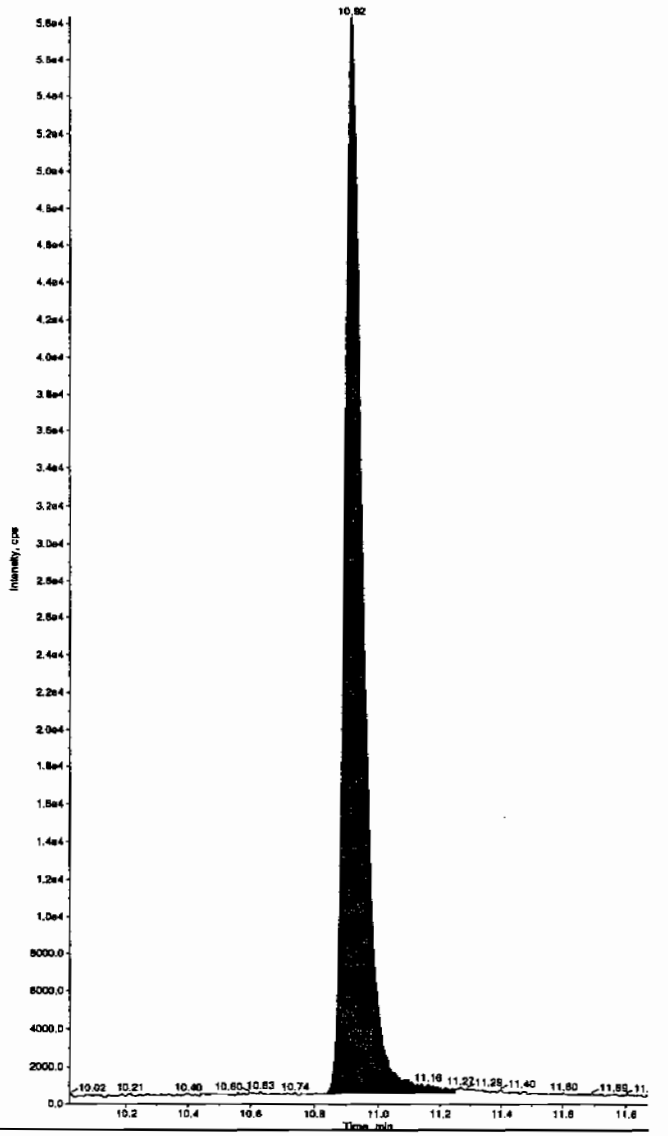

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 17–FEB–10 12:19

GEL Data File: EXS02170012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.28
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/19/10

sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02170012.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 12:19:01 PM

ified: No

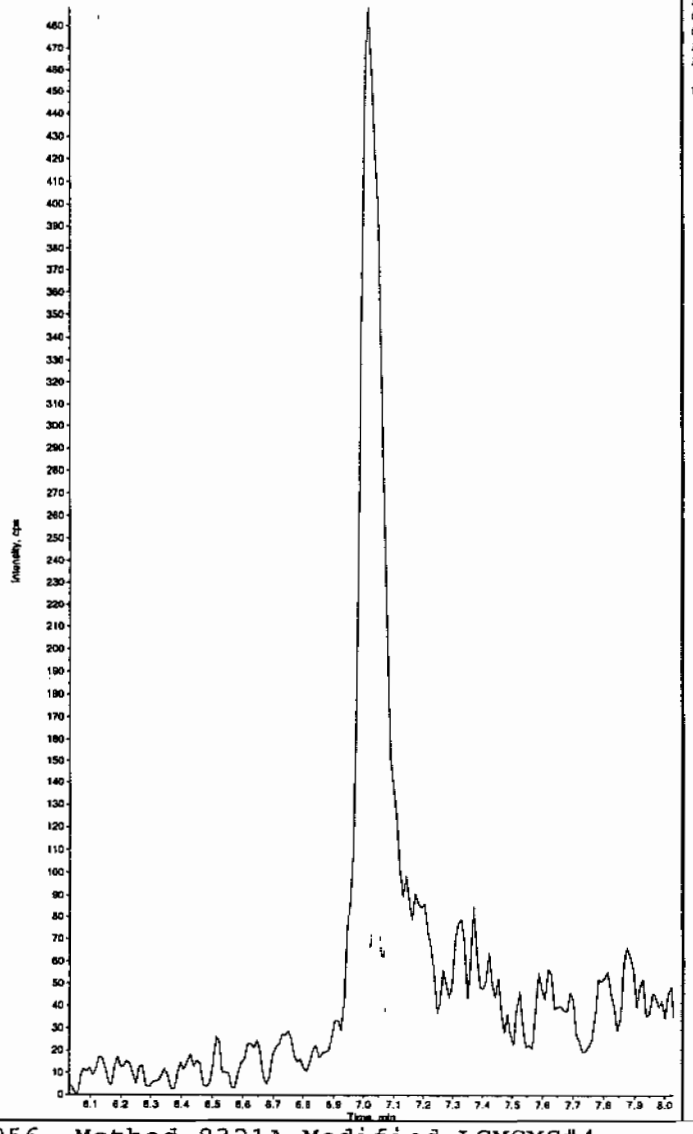

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02170012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:19:01 PM

Modified: No

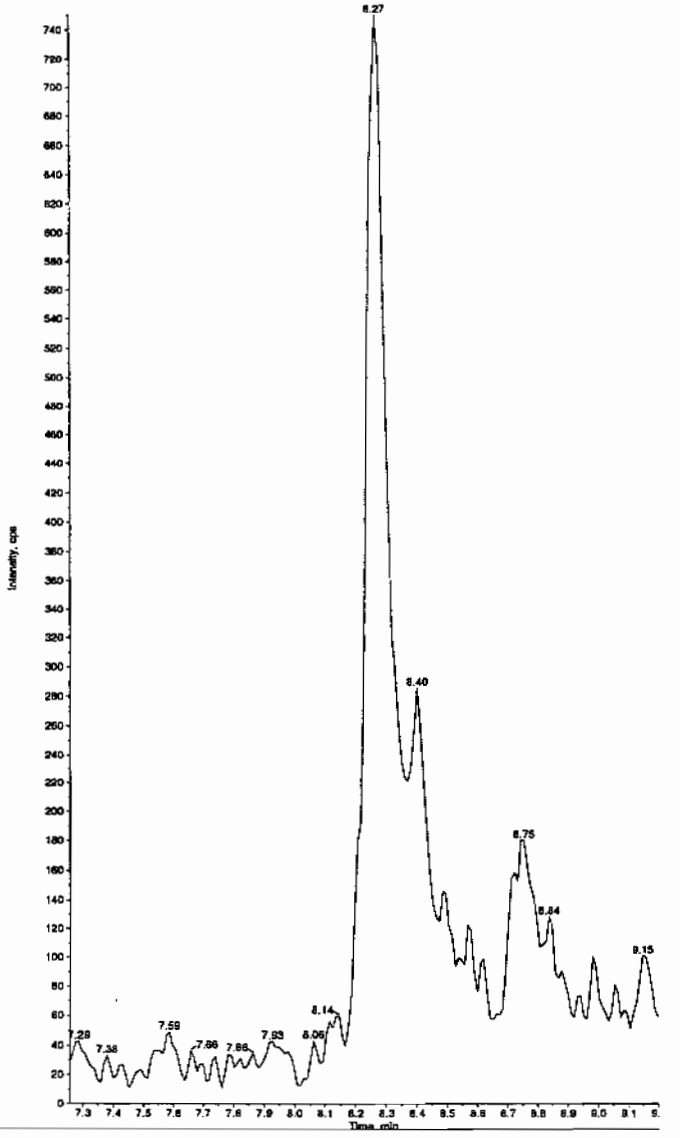

Hnm 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK03" Sample ID: "j1|LER" File: "EXS02170012.wiff"
ask Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 12:19:01 PM

ified: No

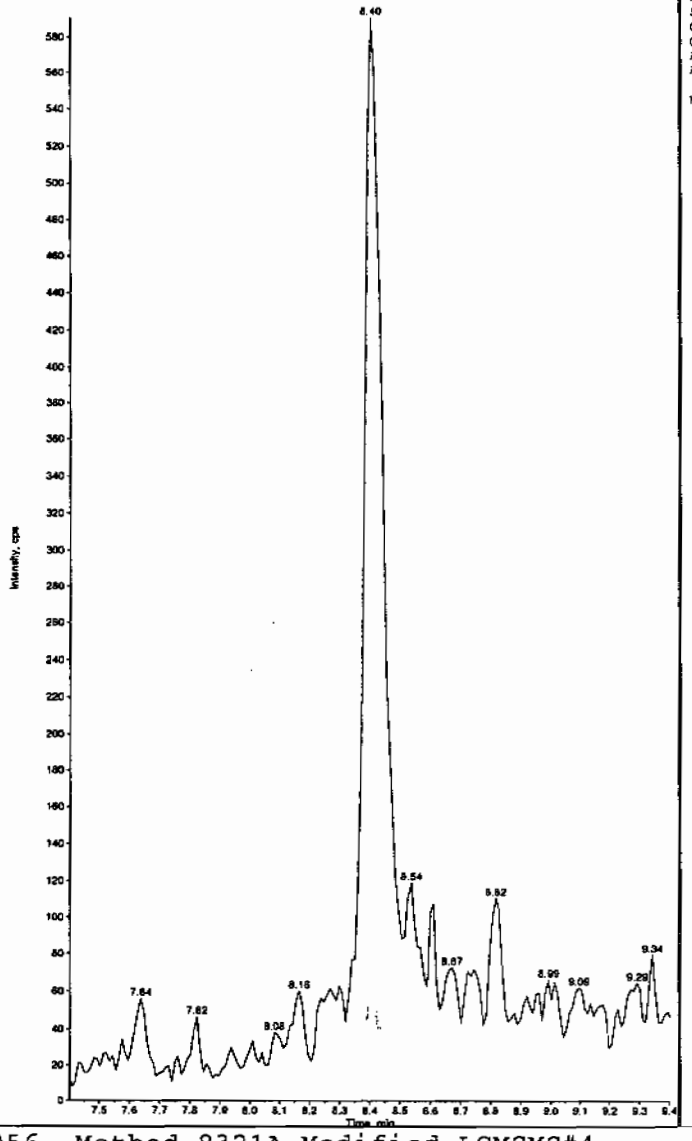

Sample Name: "XIBLK03" Sample ID: "j1|LER" File: "EXS02170012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:19:01 PM

Modified: No

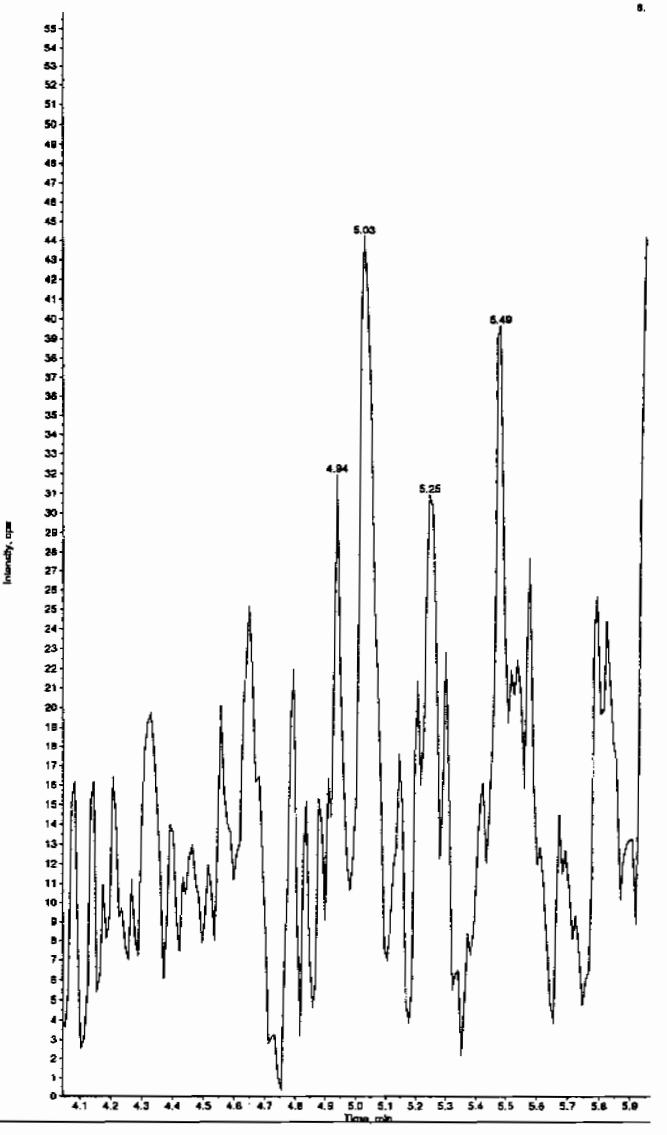

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ample Name: "XIBLK03" Sample ID: "]1]LER" File: "EXS02170012.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00     ng/mL
. Date:         2/17/2010
. Time:         12:19:01 PM

ified:            No
```

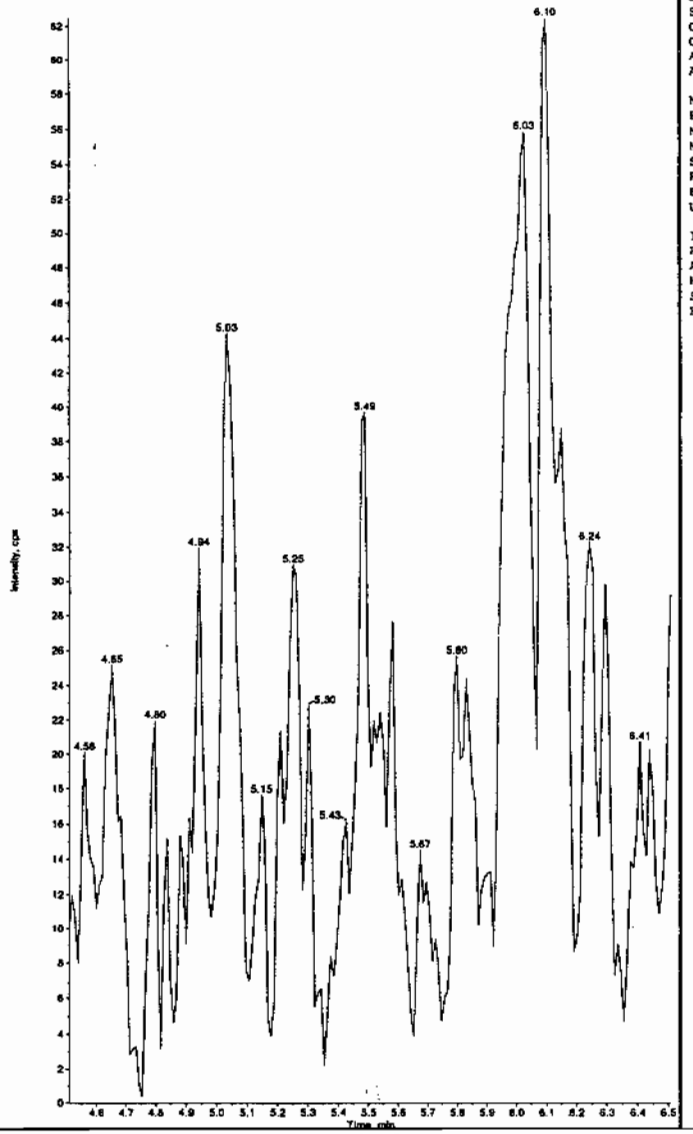

Sample Name: "XIBLK03" Sample ID: "]1]LER" File: "EXS02170012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     5.28     ng/mL
Acq. Date:         2/17/2010
Acq. Time:         12:19:01 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3         points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9     min
Area:          1.15e+005    counts
Height:        27372.225    cps
Start Time:         10.6     min
End Time:           11.2     min
```

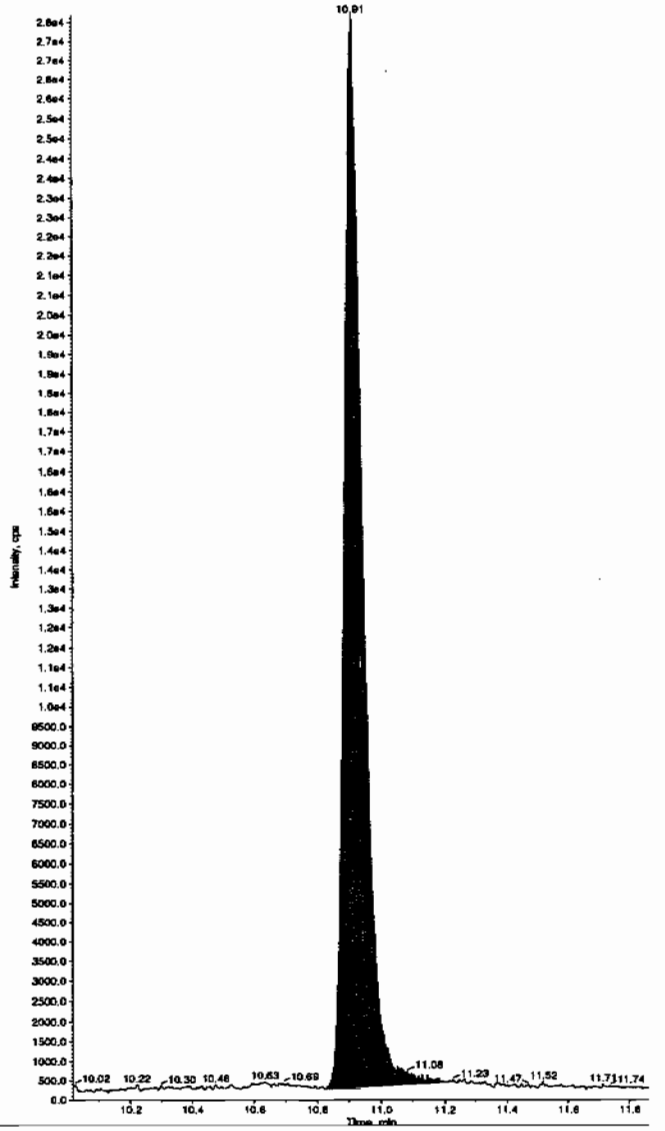

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 17–FEB–10 15:43

GEL Data File: EXS02170025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.23
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/19/10

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02170025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM
Modified: No

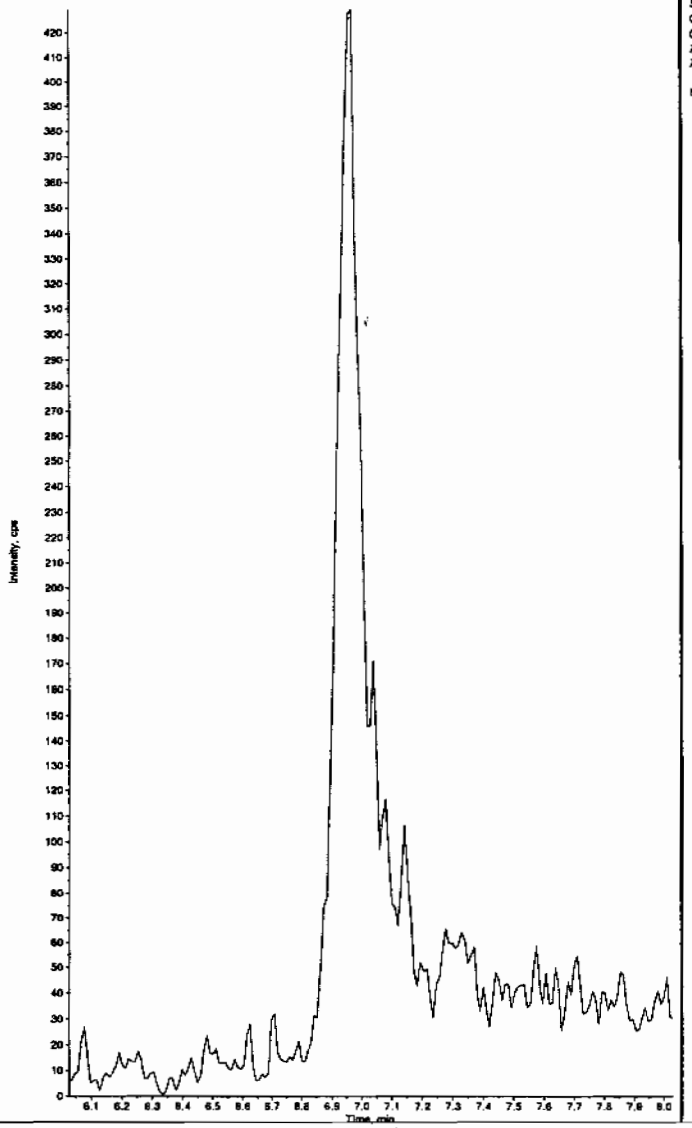

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02170025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM
Modified: No

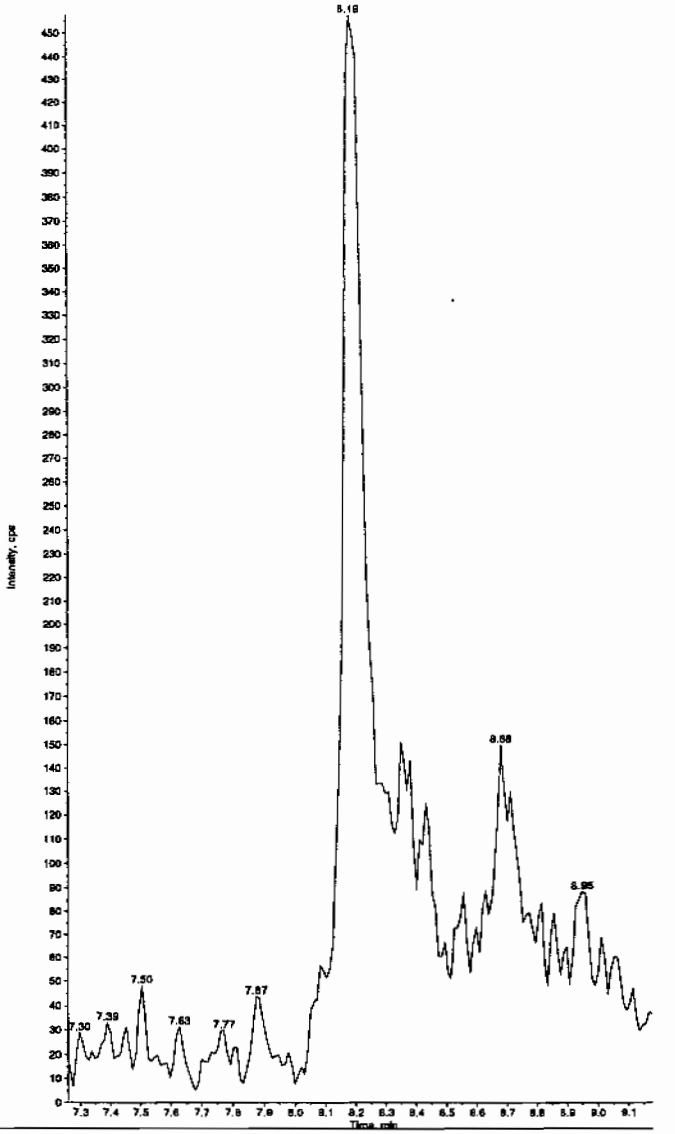

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02170025.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 3:43:08 PM

ified: No

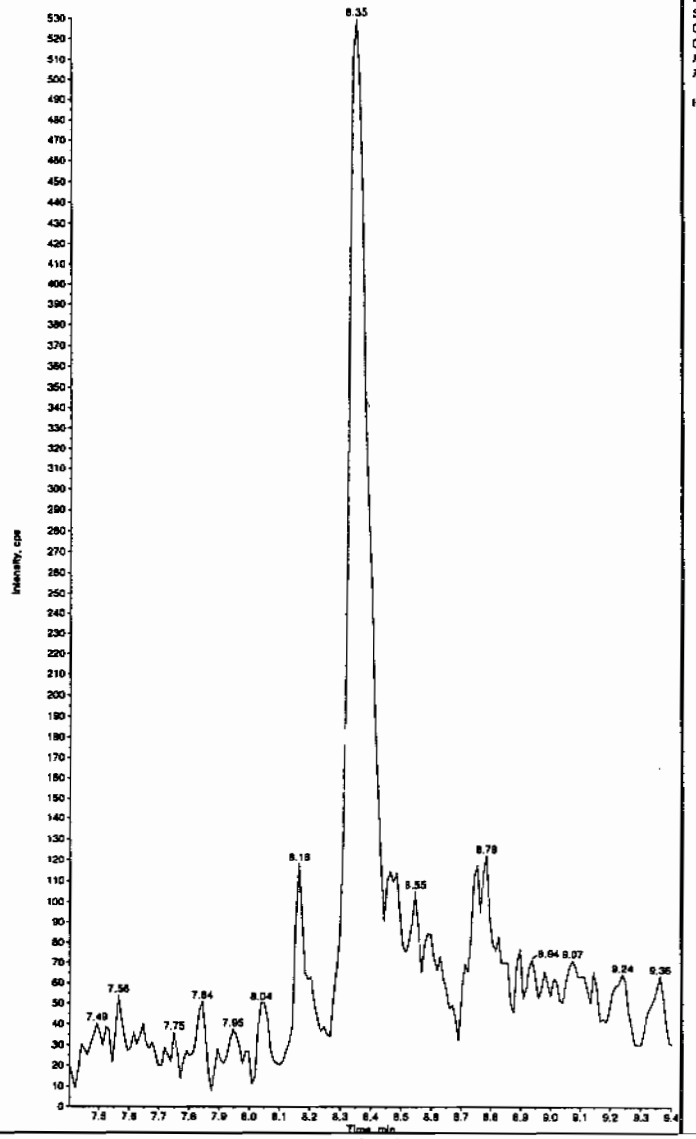

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02170025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM

Modified: No

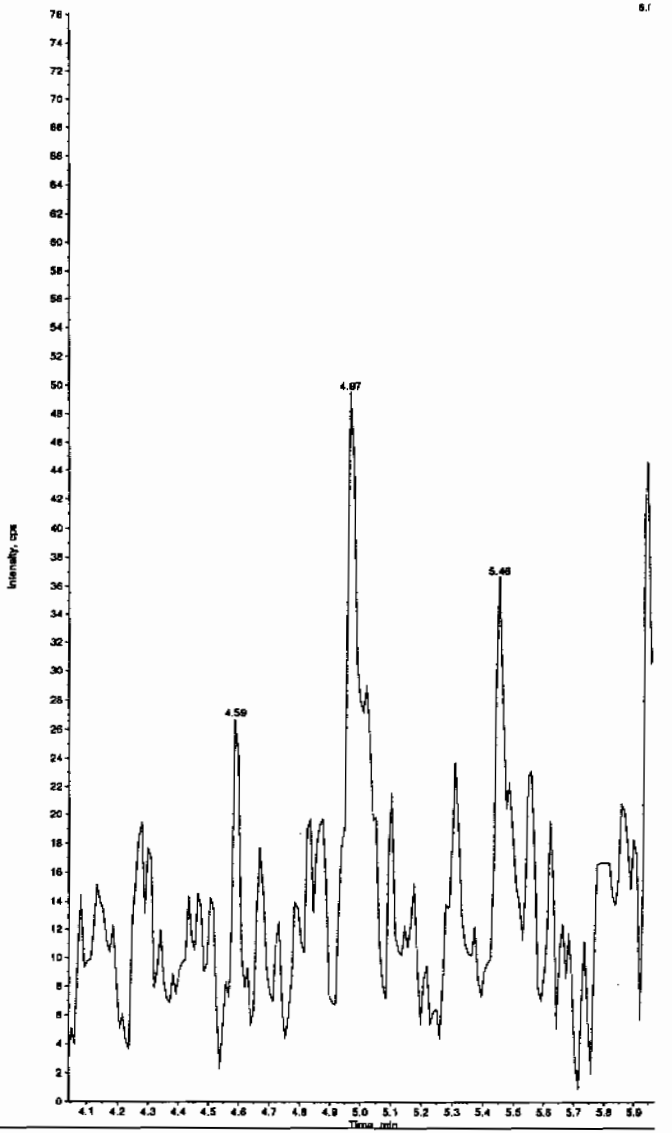

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02170025.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 3:43:08 PM

ified: No

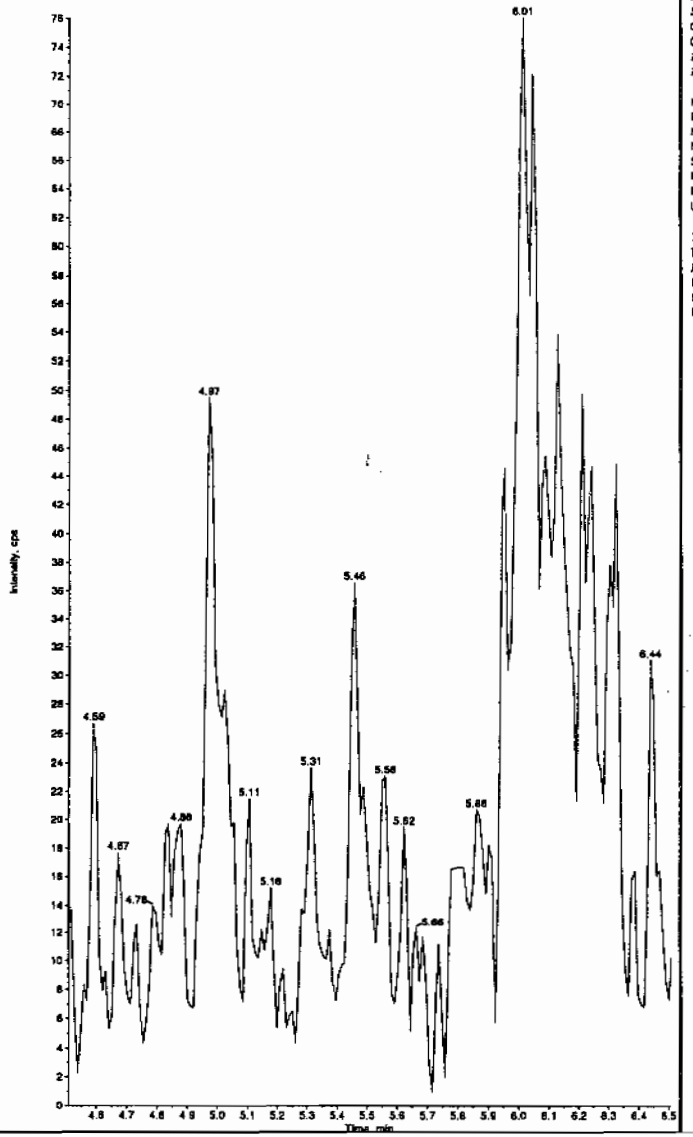

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02170025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.23 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:43:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.04e+004 counts
Height: 17063.232 cps
Start Time: 10.7 min
End Time: 11.2 min

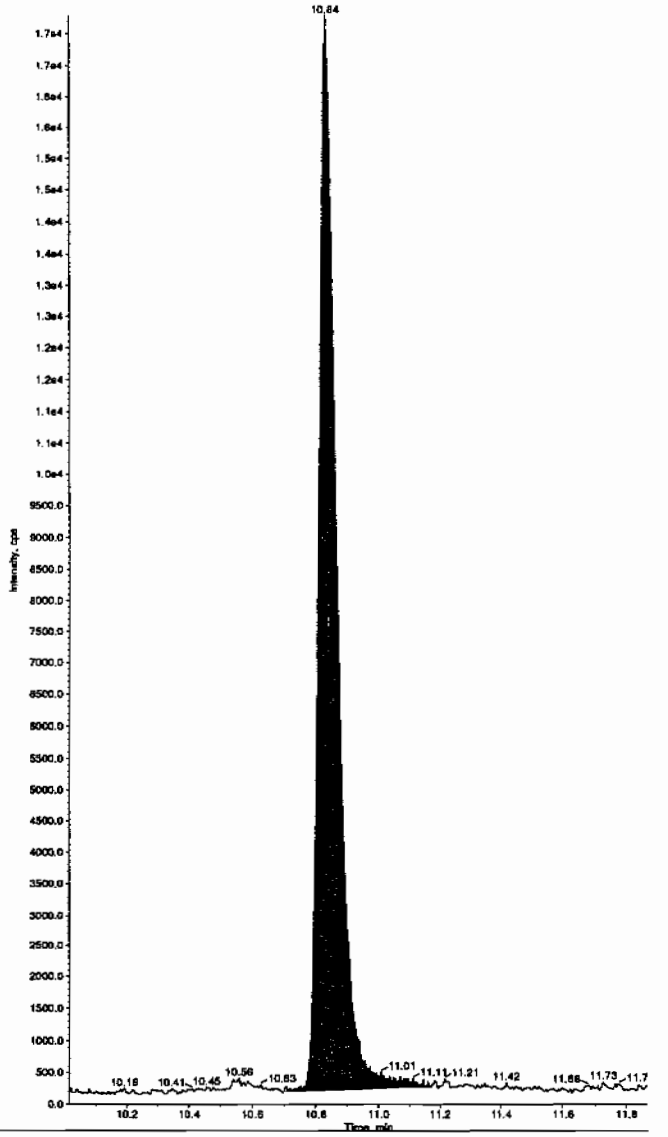

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 17-FEB-10 19:07

GEL Data File: EXS02170038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.34
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ler 2/19/10

ample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02170038.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 7:07:17 PM
ified: No

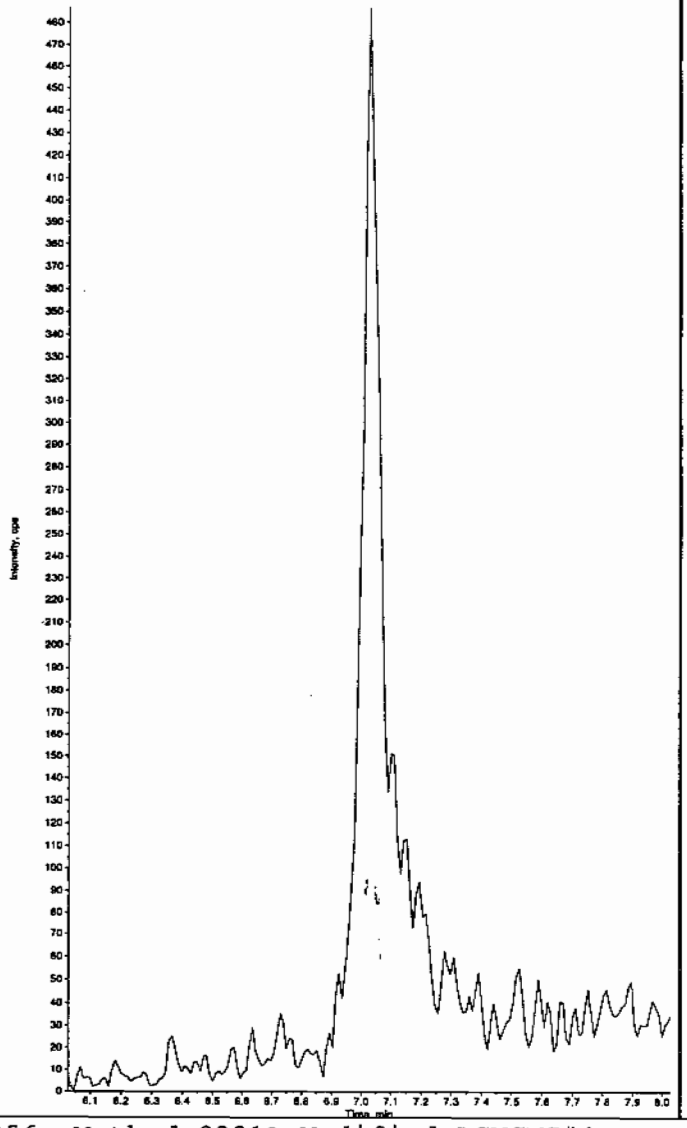

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02170038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:07:17 PM

Modified: No

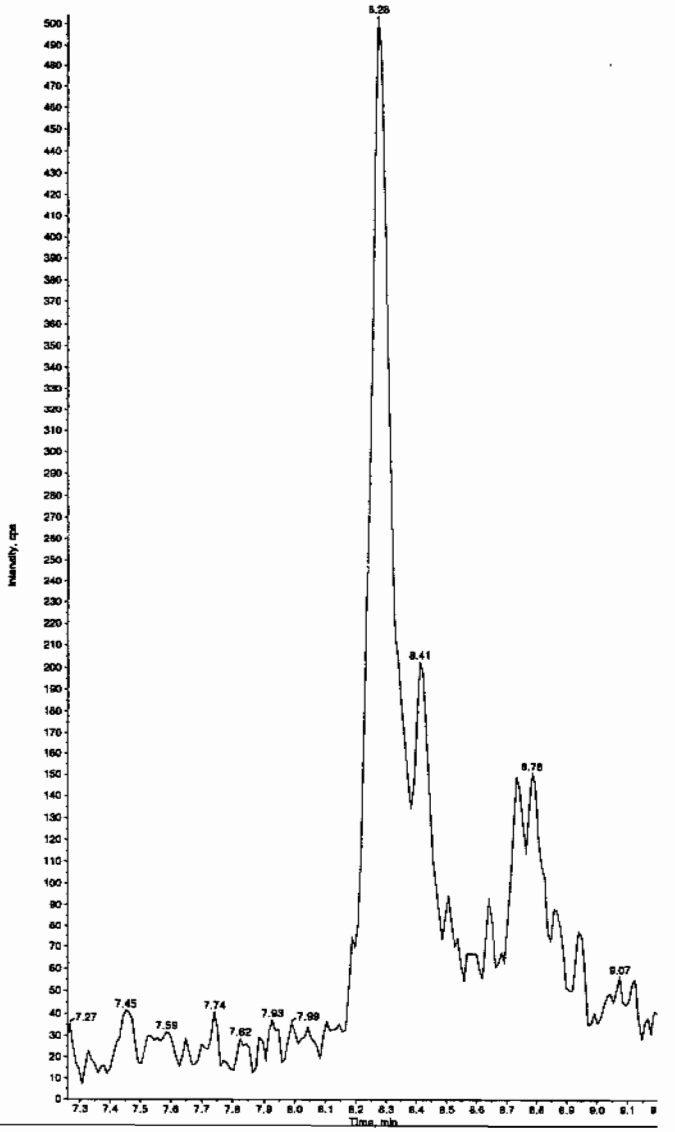

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "X1BLK05" Sample ID: "[1]LER" File: "EXS02170038.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 7:07:17 PM

ified: No

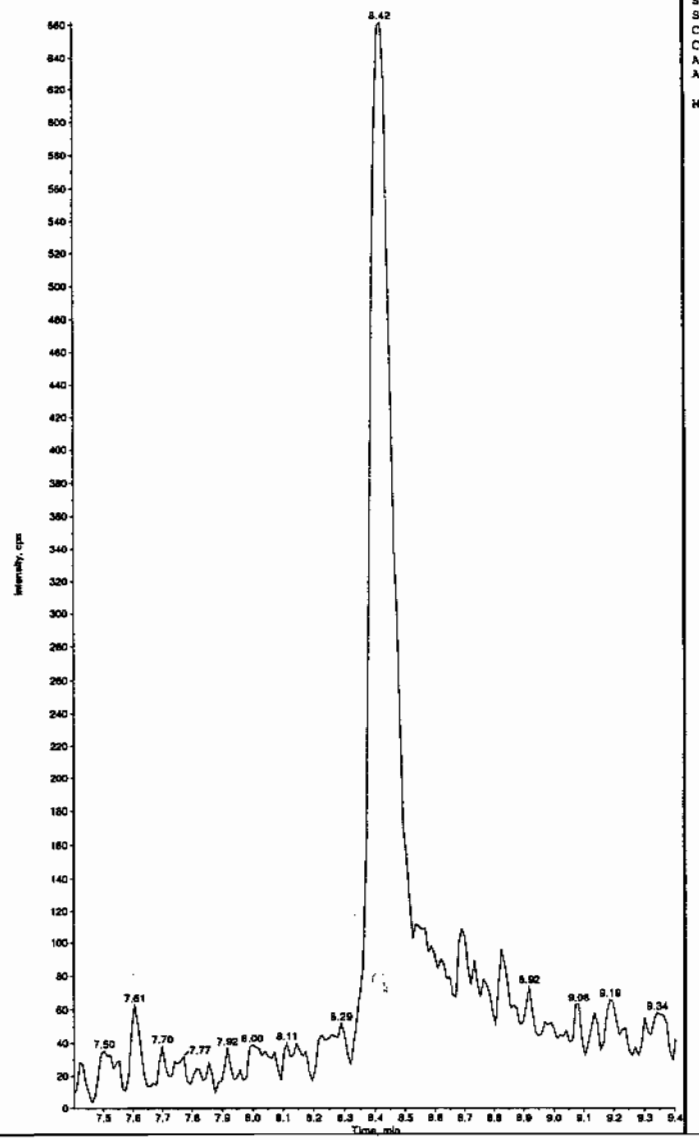

Sample Name: "X1BLK05" Sample ID: "[1]LER" File: "EXS02170038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:07:17 PM

Modified: No

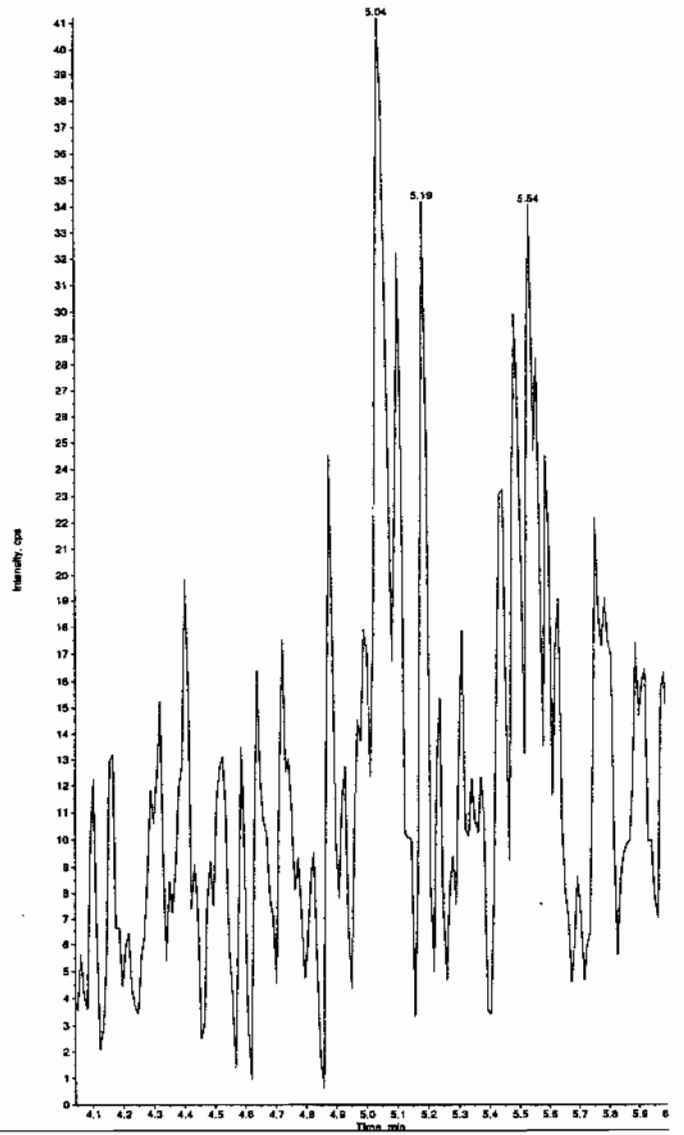

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02170038.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: "

le Index:	1
le Type:	Unknown
entration:	N/A
ulated Conc:	0.00 ng/mL
Date:	2/17/2010
Time:	7:07:17 PM
fied:	No

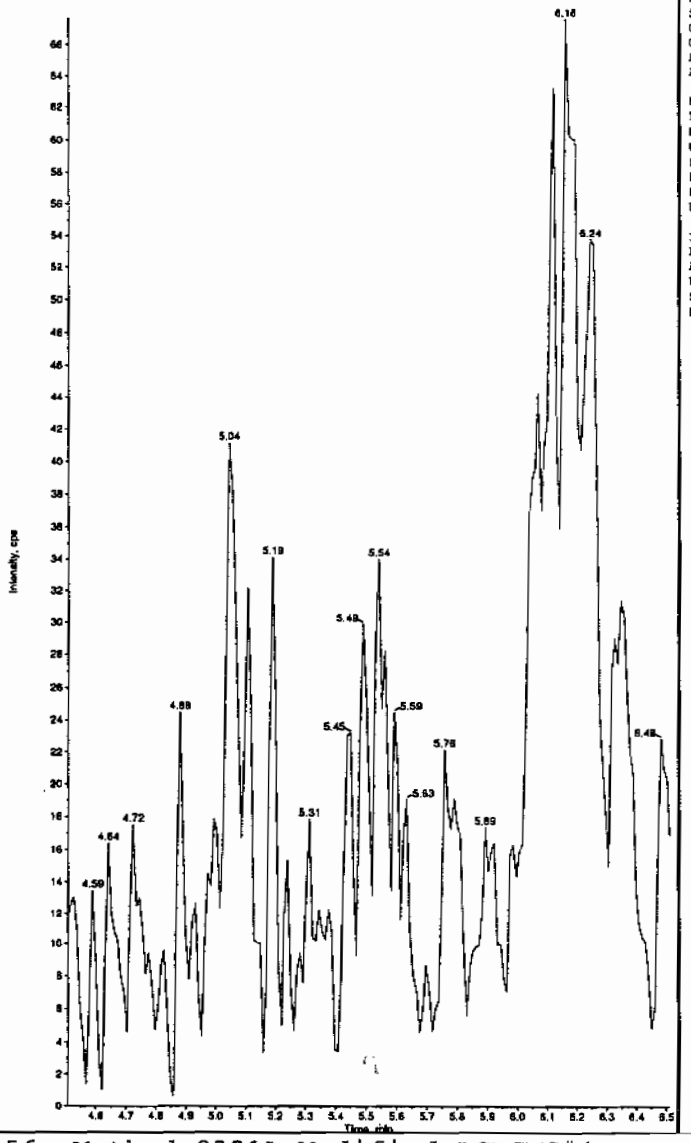

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02170038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	3.34 ng/mL
Acq. Date:	2/17/2010
Acq. Time:	7:07:17 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	7.28e+004 counts
Height:	17382.101 cps
Start Time:	10.8 min
End Time:	11.1 min

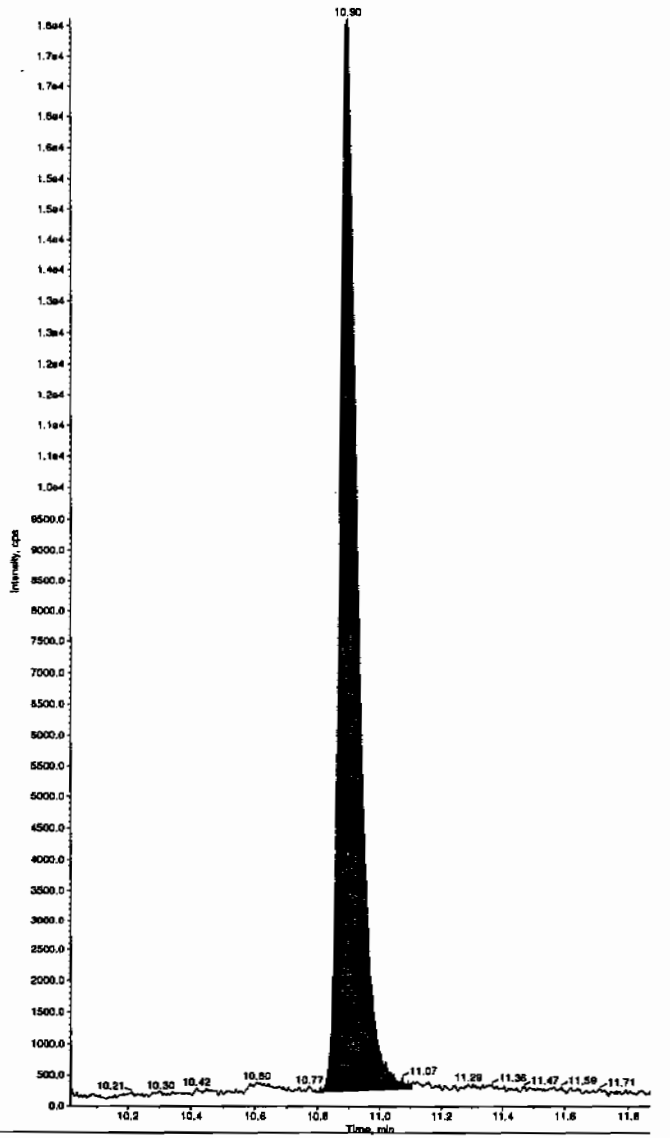

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 17–FEB–10 20:41

GEL Data File: EXS02170044.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.52
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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ample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 8:41:29 PM

ified: No

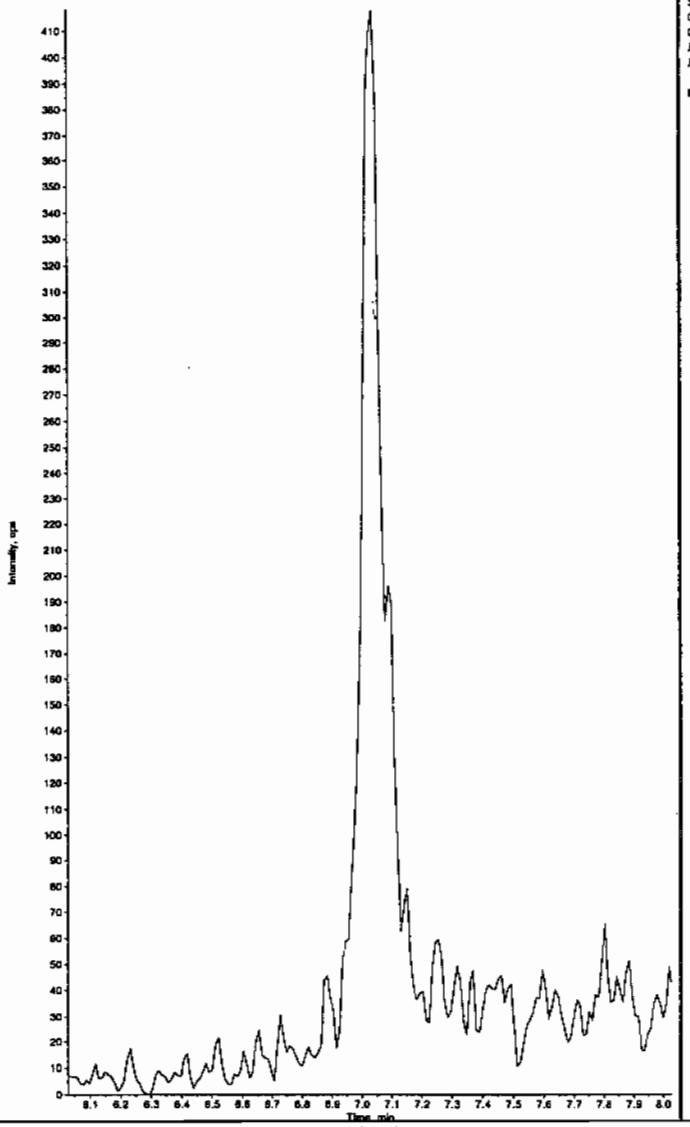

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
Peak Name: "35-Dinitroanilins" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No

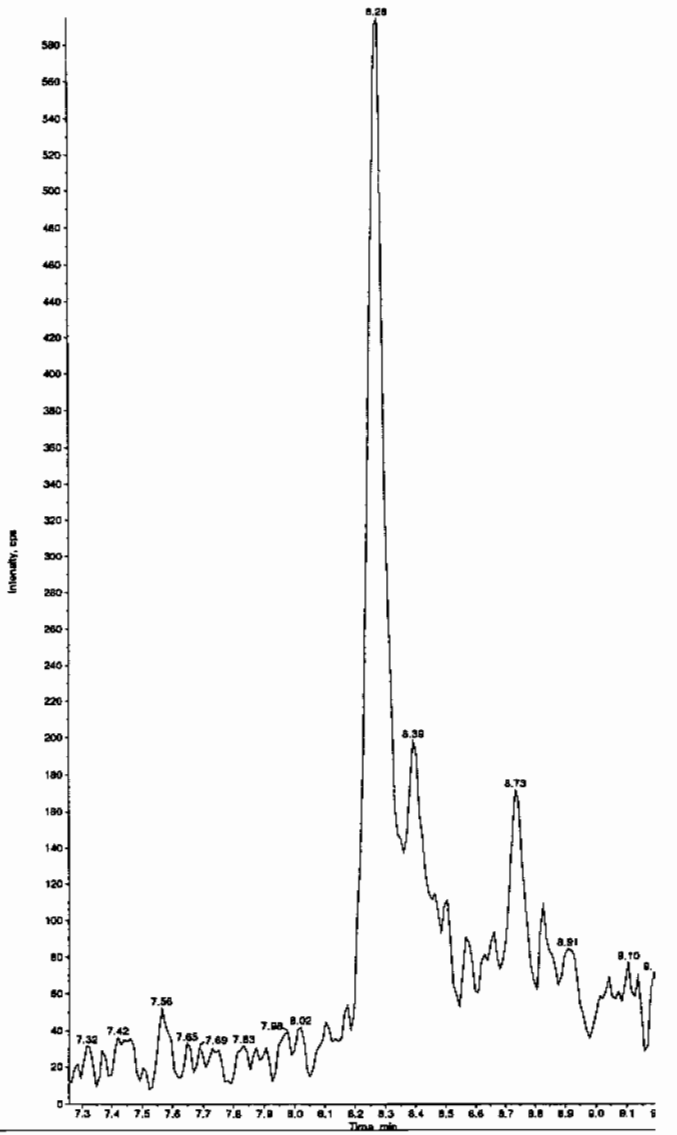

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02170044.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 8:41:29 PM

ified: No

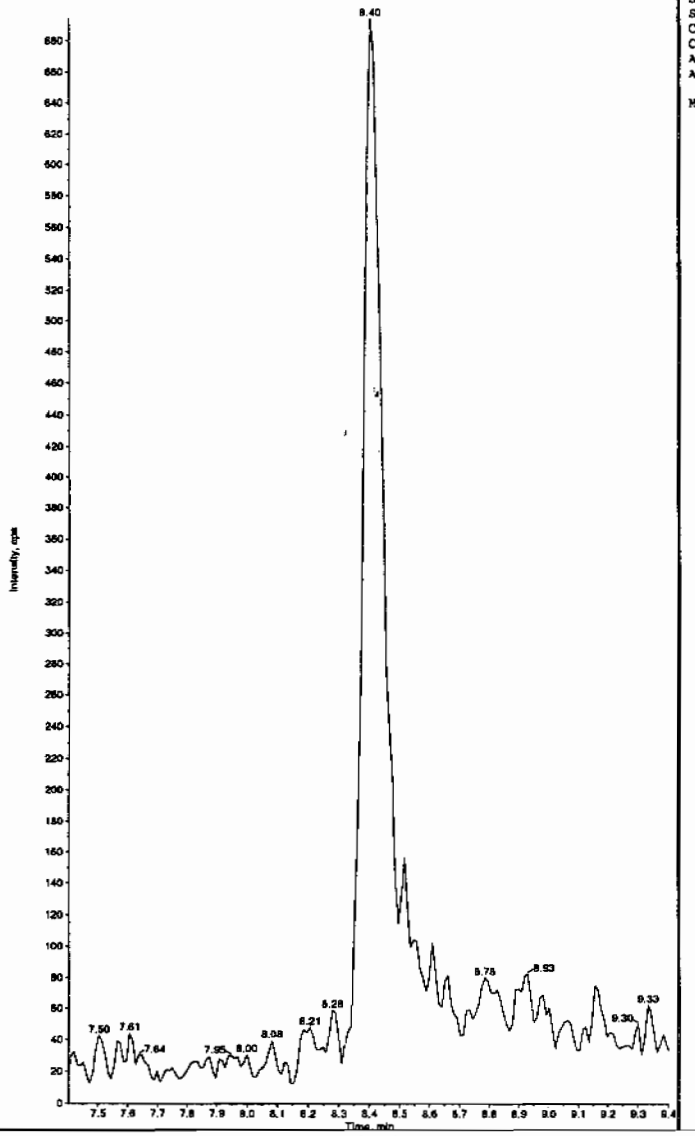

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02170044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No

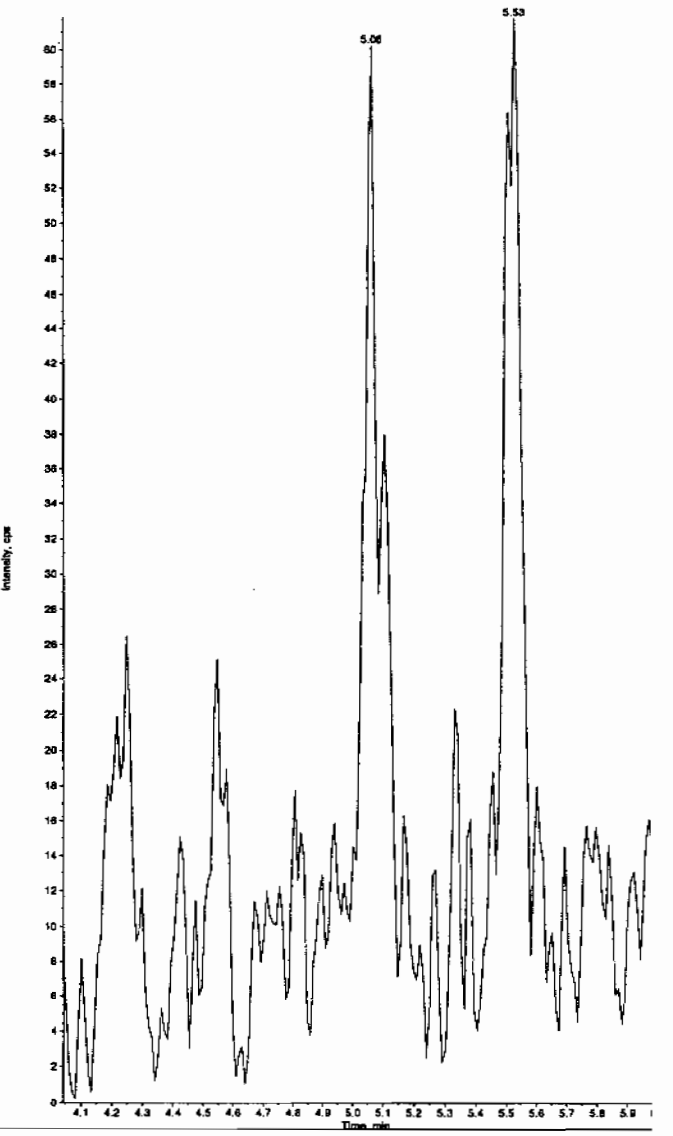

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/17/2010
. Time: 8:41:29 PM

ified: No

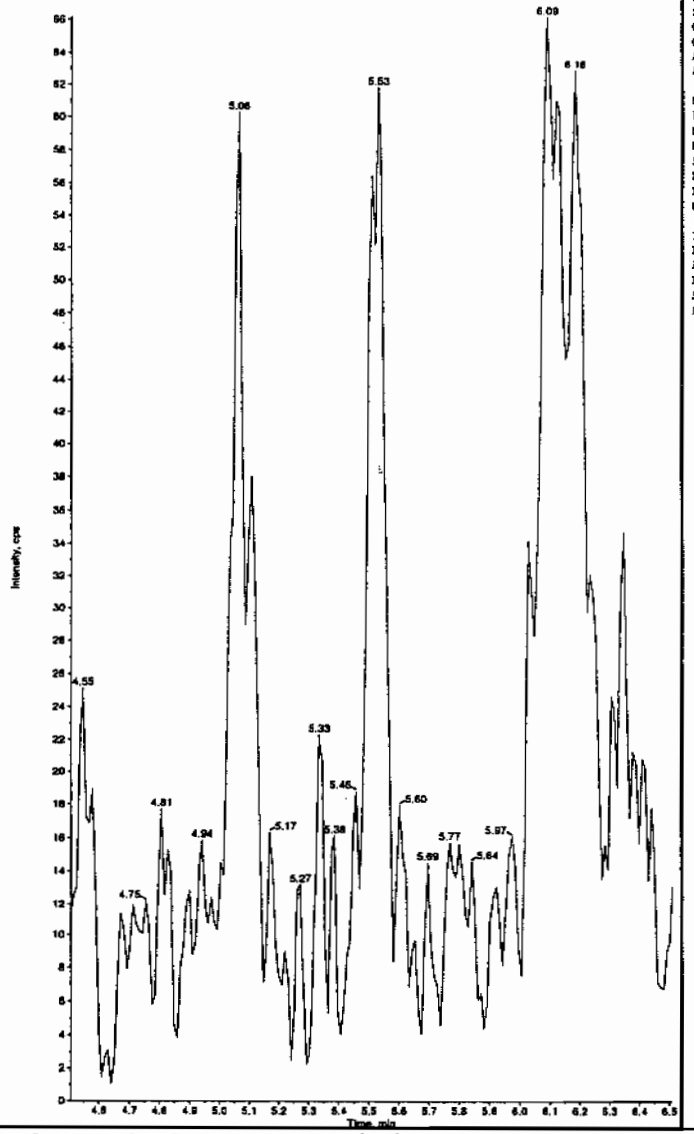

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02170044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.52 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:41:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.67e+004 counts
Height: 18487.440 cps
Start Time: 10.8 min
End Time: 11.2 min

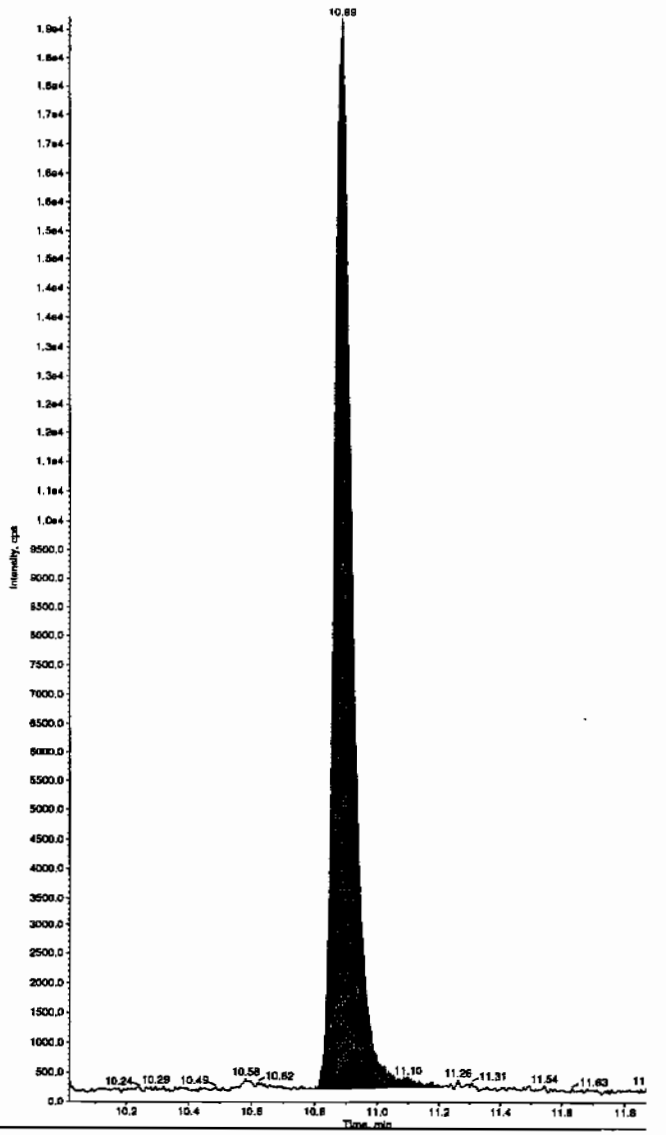

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 18–FEB–10 00:05

GEL Data File: EXS02170057.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.94
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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ample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02170057.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
icentration: N/A
culated Conc: 0.00 ng/mL
|. Date: 2/18/2010
|. Time: 12:05:40 AM

lified: No

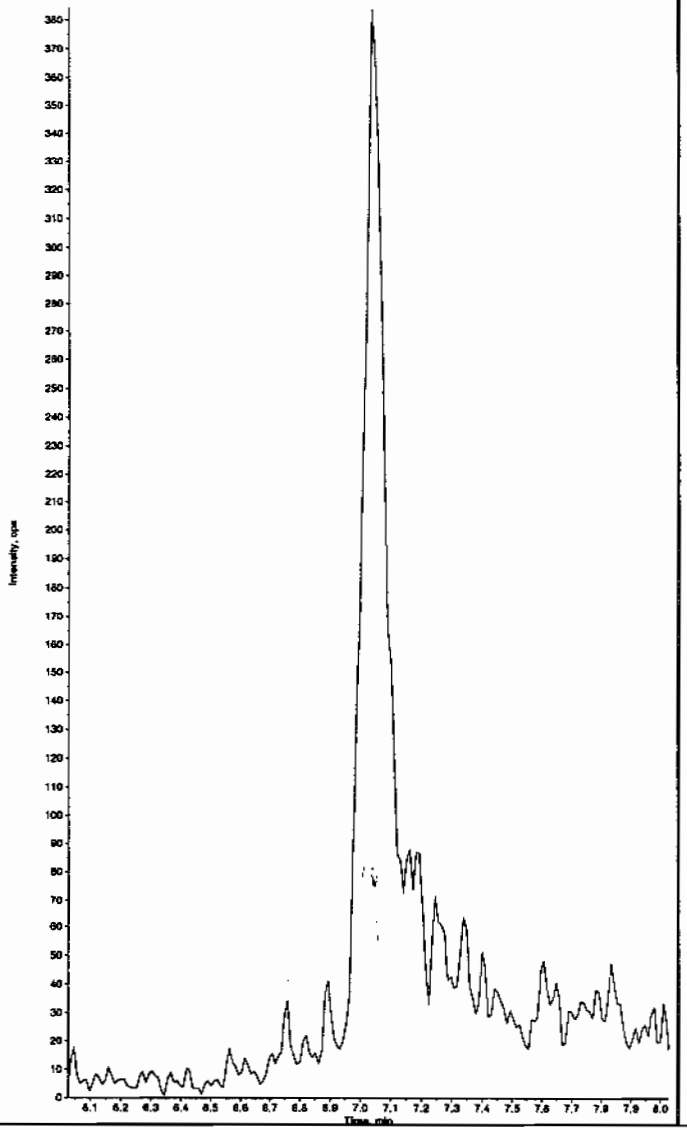

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02170057.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:05:40 AM

Modified: No

Hum 02/19/10

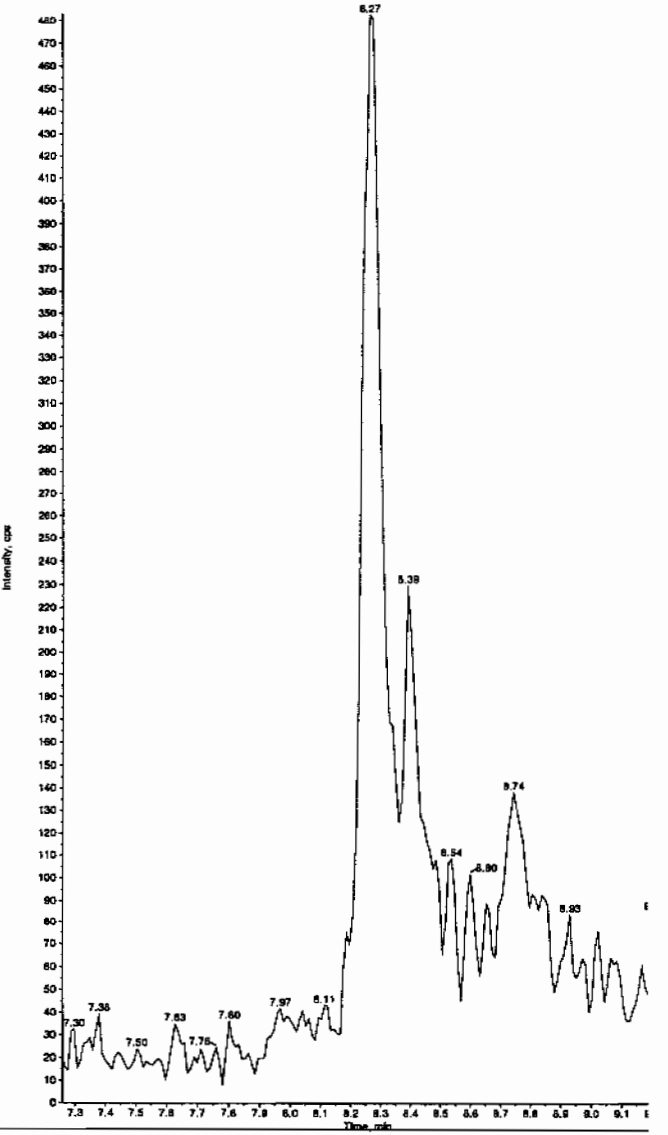

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02170057.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 12:05:40 AM

ified: No

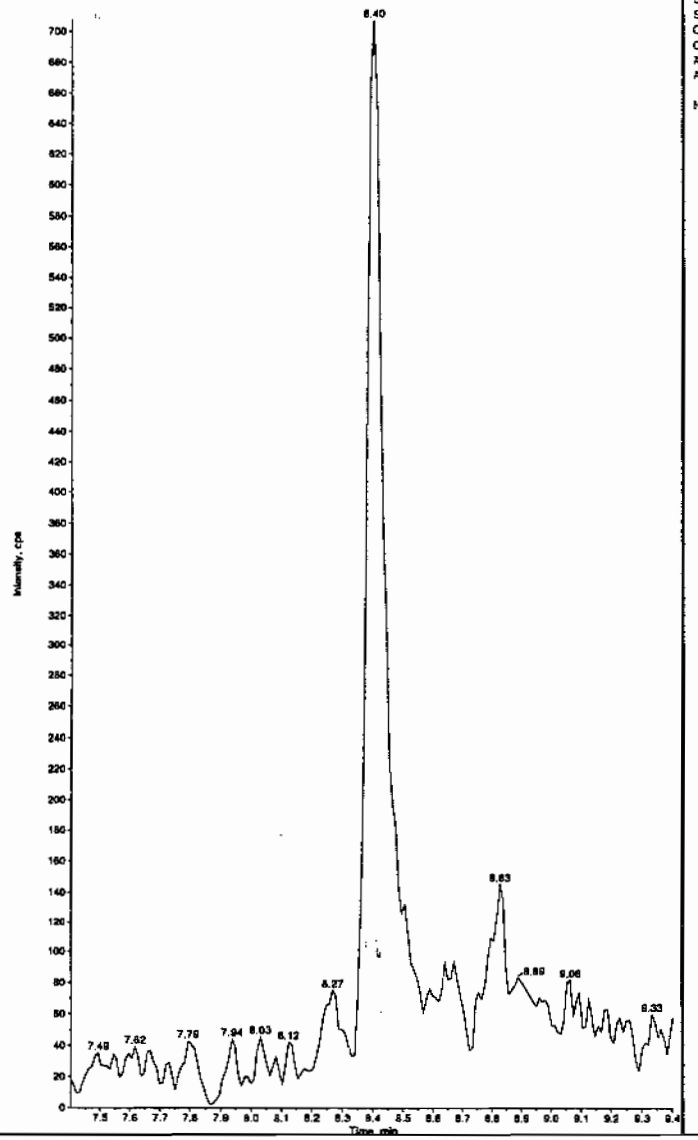

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02170057.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:05:40 AM

Modified: No

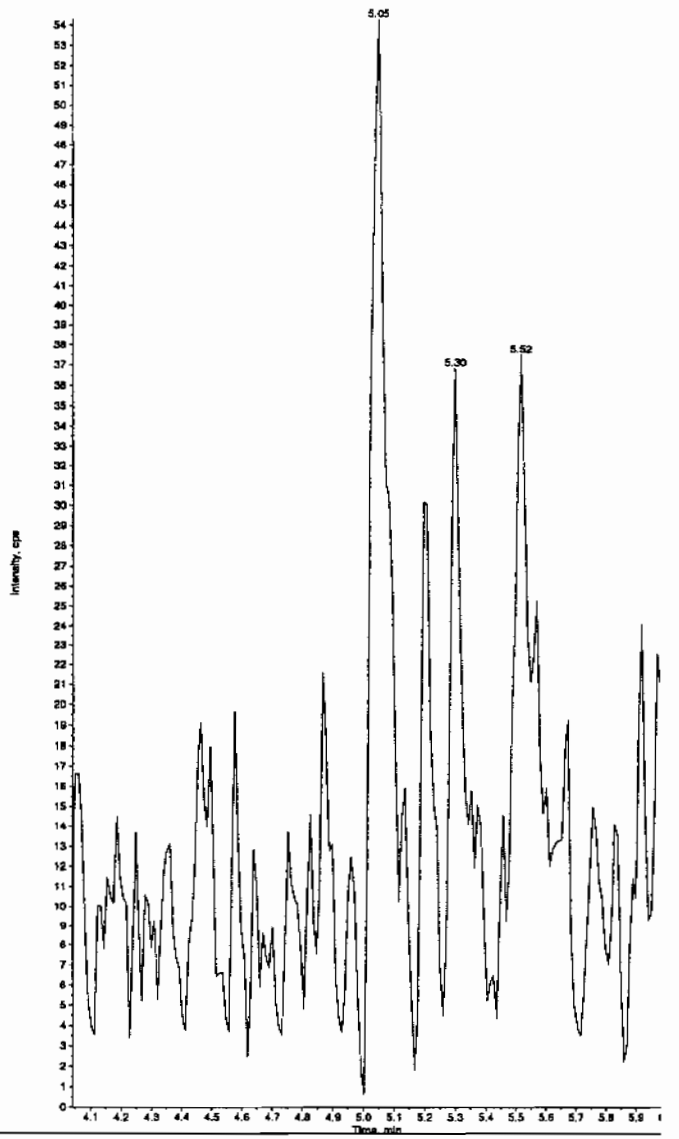

ample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02170057.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 12:05:40 AM

ified: No

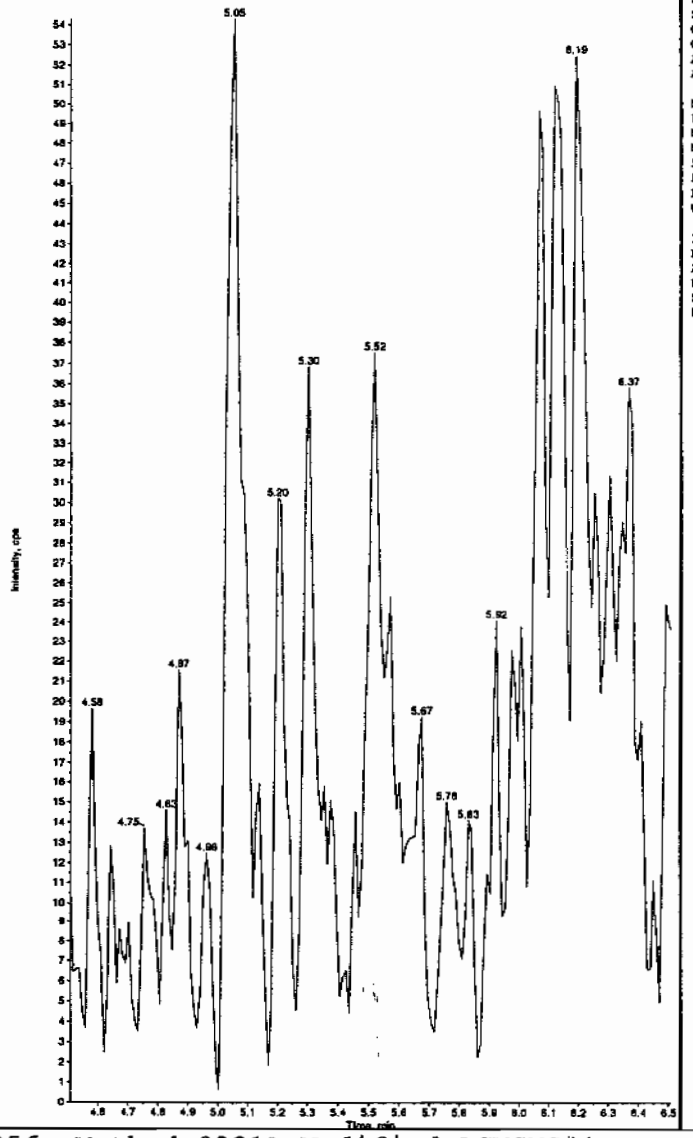

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02170057.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	3.94 ng/mL
Acq. Date:	2/18/2010
Acq. Time:	12:05:40 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	8.59e+004 counts
Height:	21027.483 cps
Start Time:	10.8 min
End Time:	11.1 min

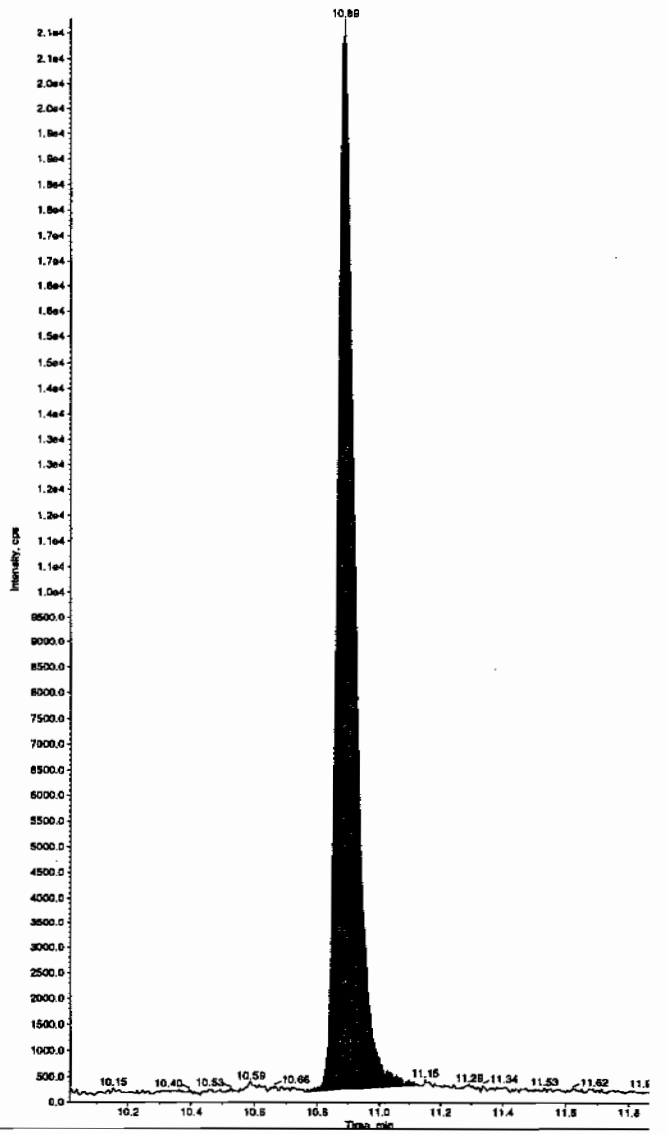

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 18-FEB-10 03:29

GEL Data File: EXS02170070.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.66
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lcn 2/19/10

ample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02170070.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 3:29:48 AM

ified: No

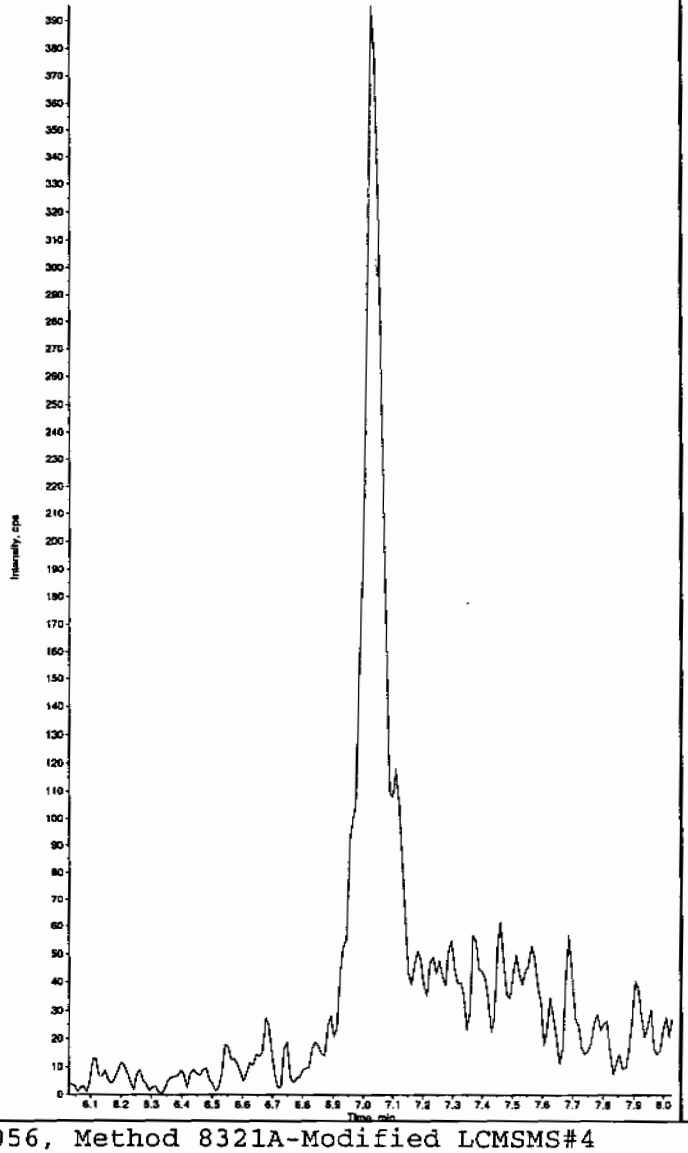

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02170070.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:29:48 AM

Modified: No

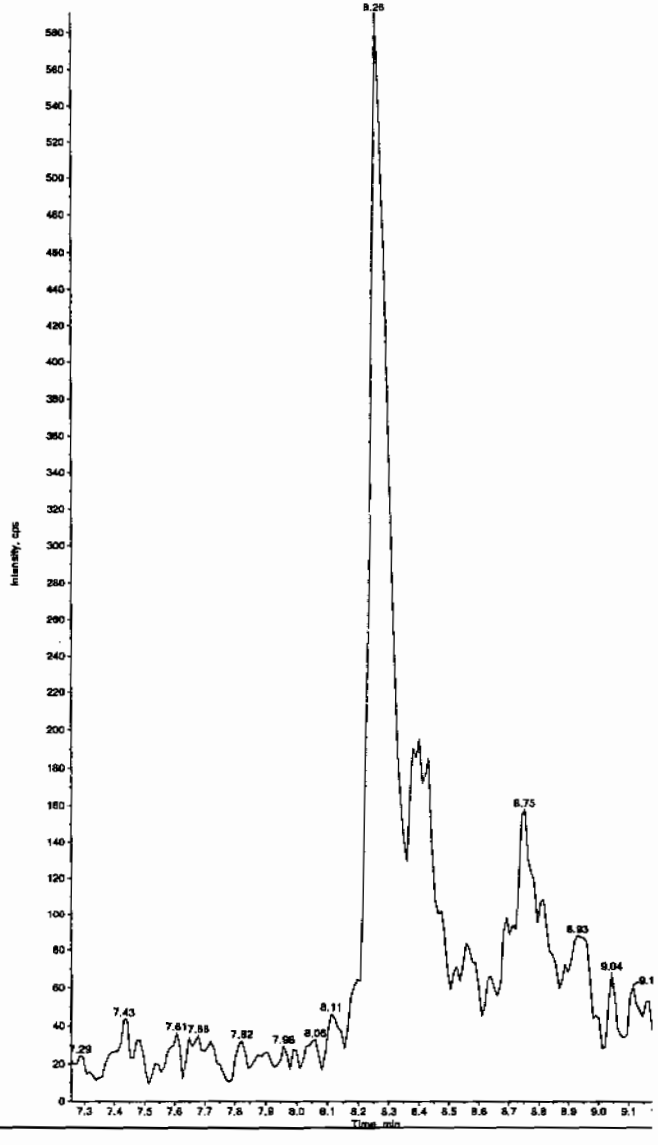

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02170070.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 3:29:48 AM

lified: No

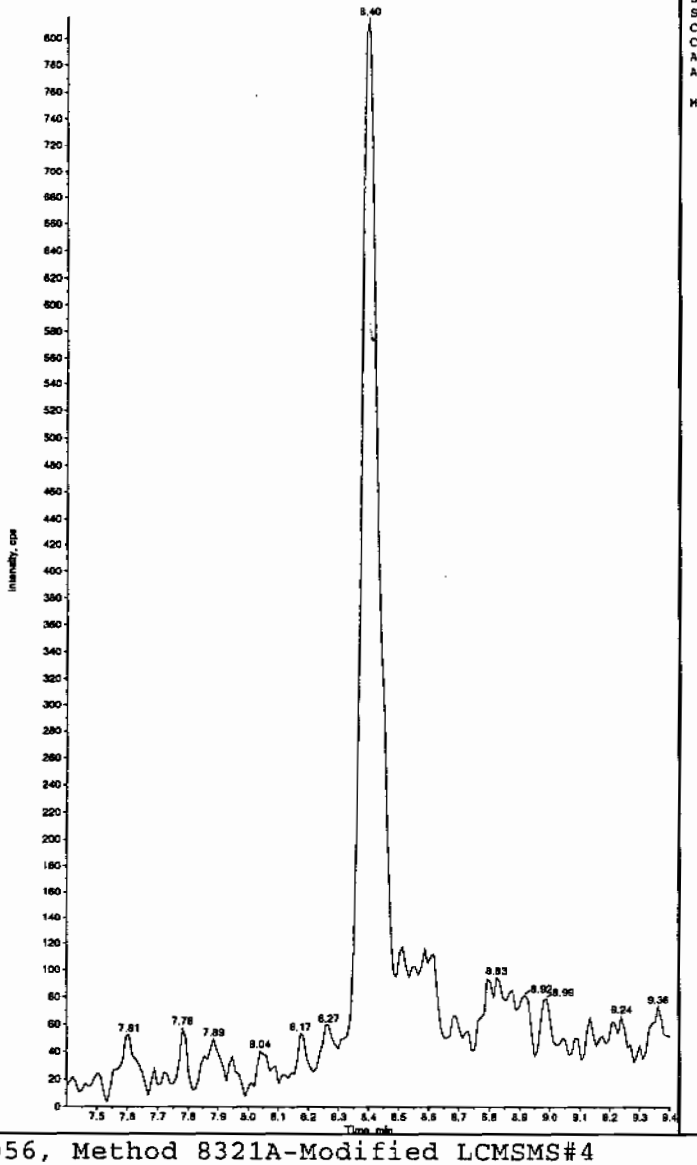

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02170070.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:29:48 AM

Modified: No

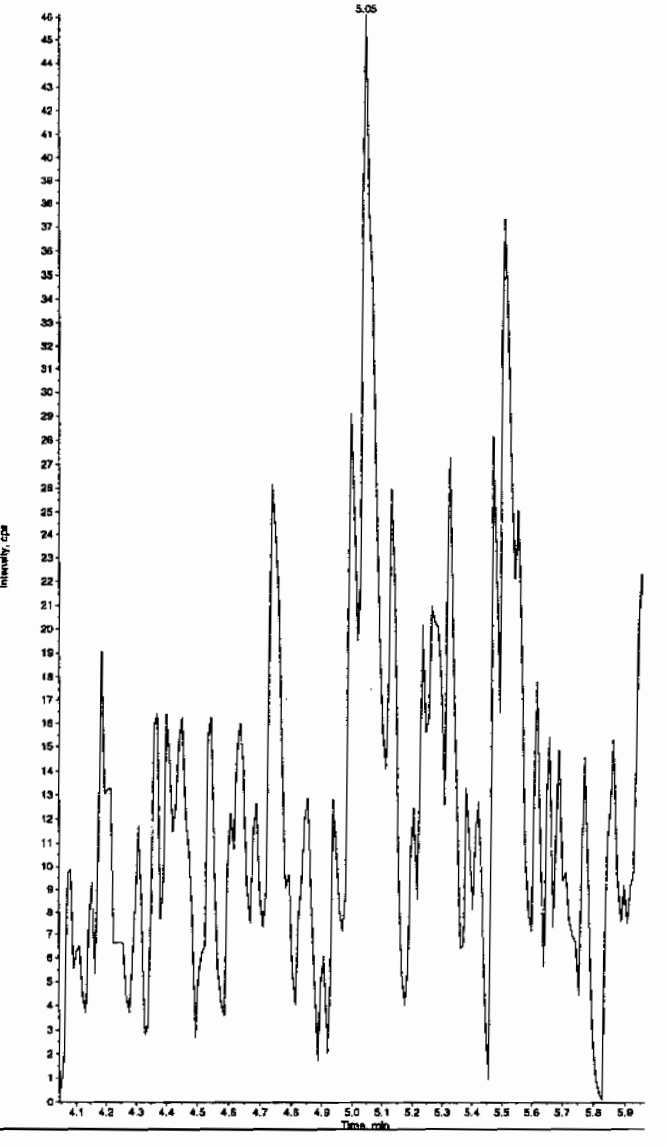

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Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02170070.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/18/2010
Acq. Time:	3:29:48 AM
Modified:	No

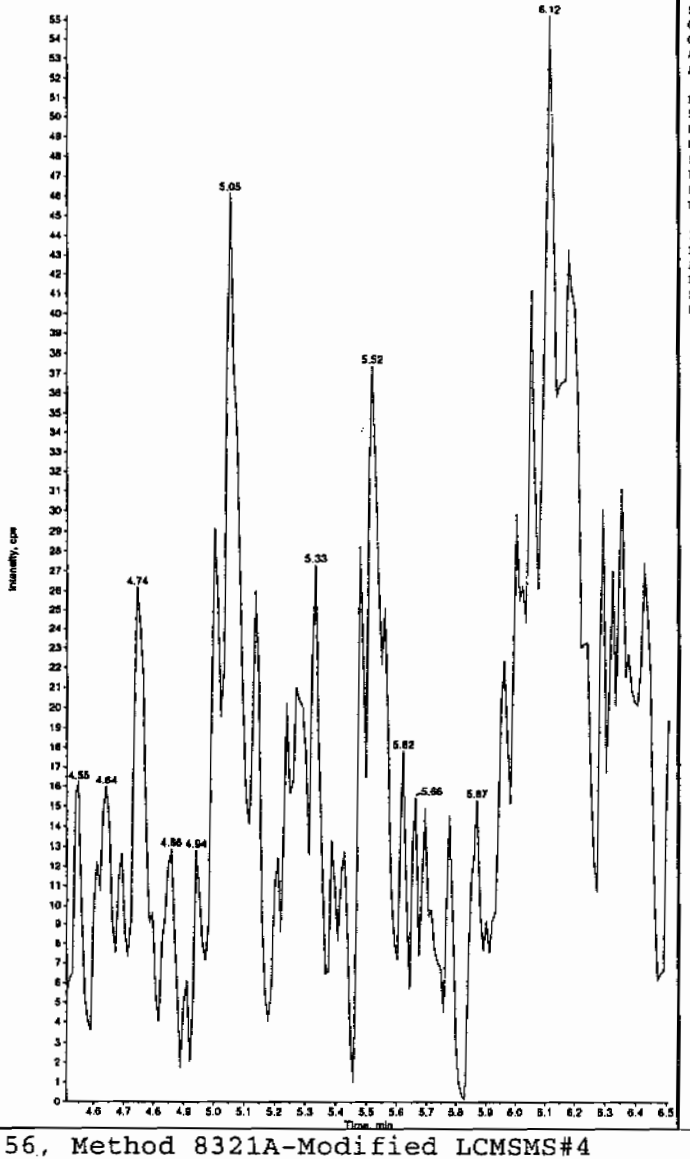

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02170070.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	3.66 ng/mL
Acq. Date:	2/18/2010
Acq. Time:	3:29:48 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	7.97e+004 counts
Height:	18599.430 cps
Start Time:	10.8 min
End Time:	11.2 min

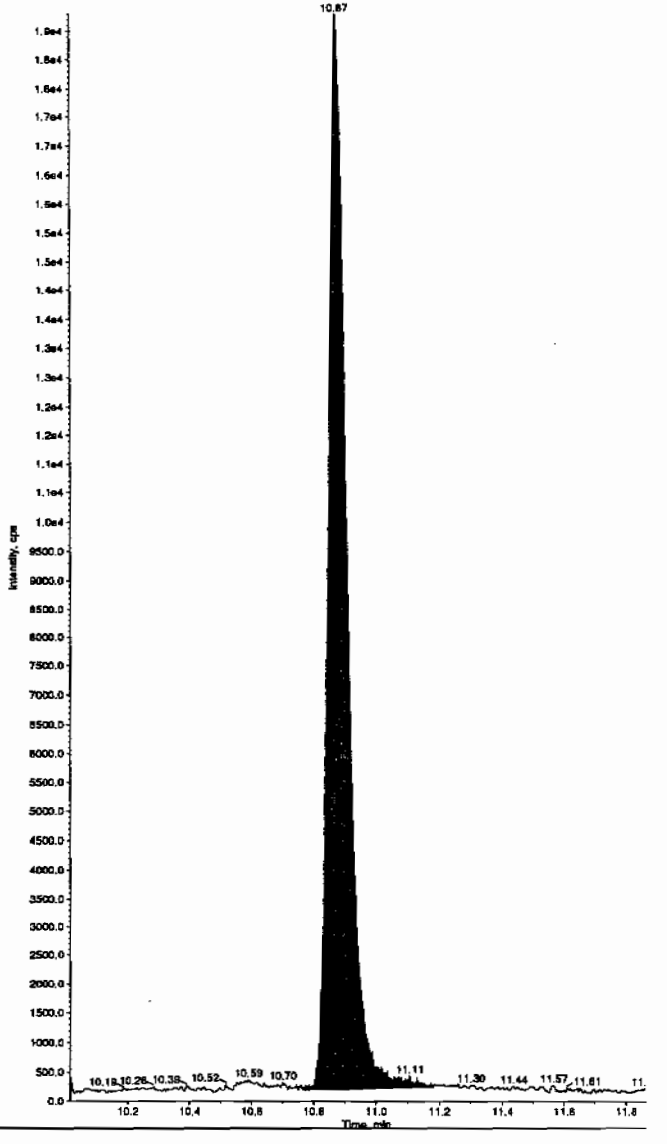

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 18-FEB-10 04:16

GEL Data File: EXS02170073.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.94
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ler 2/19/10

ample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02170073.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
oncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 4:16:55 AM

ified: No

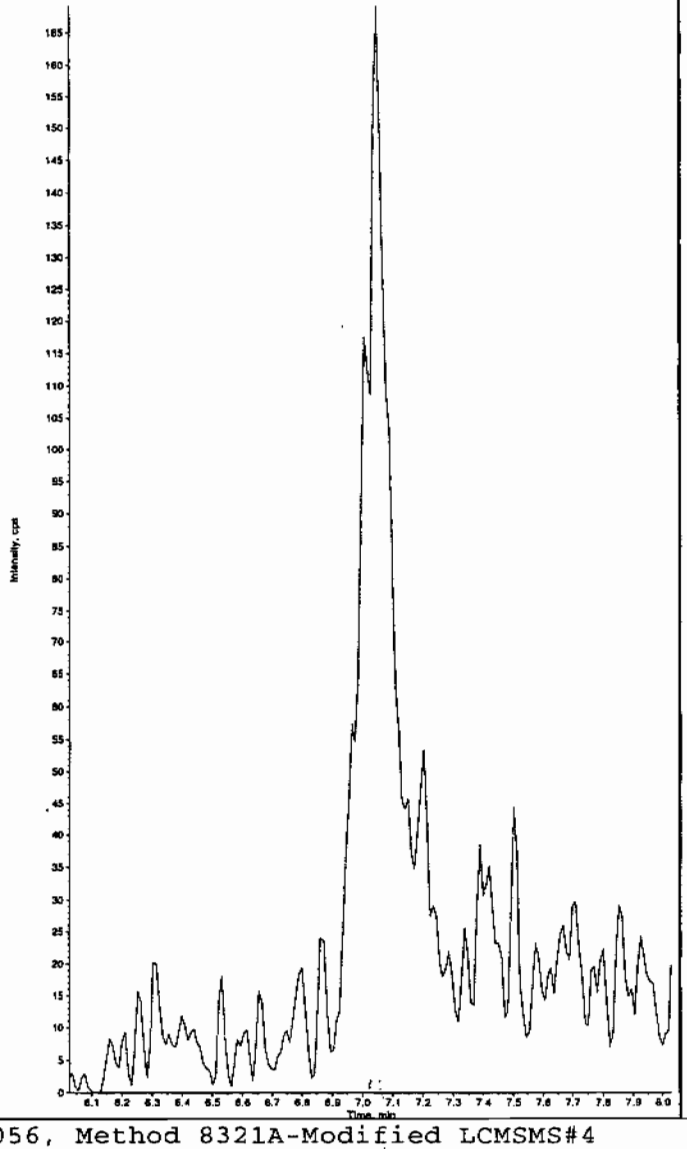

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02170073.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:16:55 AM

Modified: No

Hnm 02/19/10

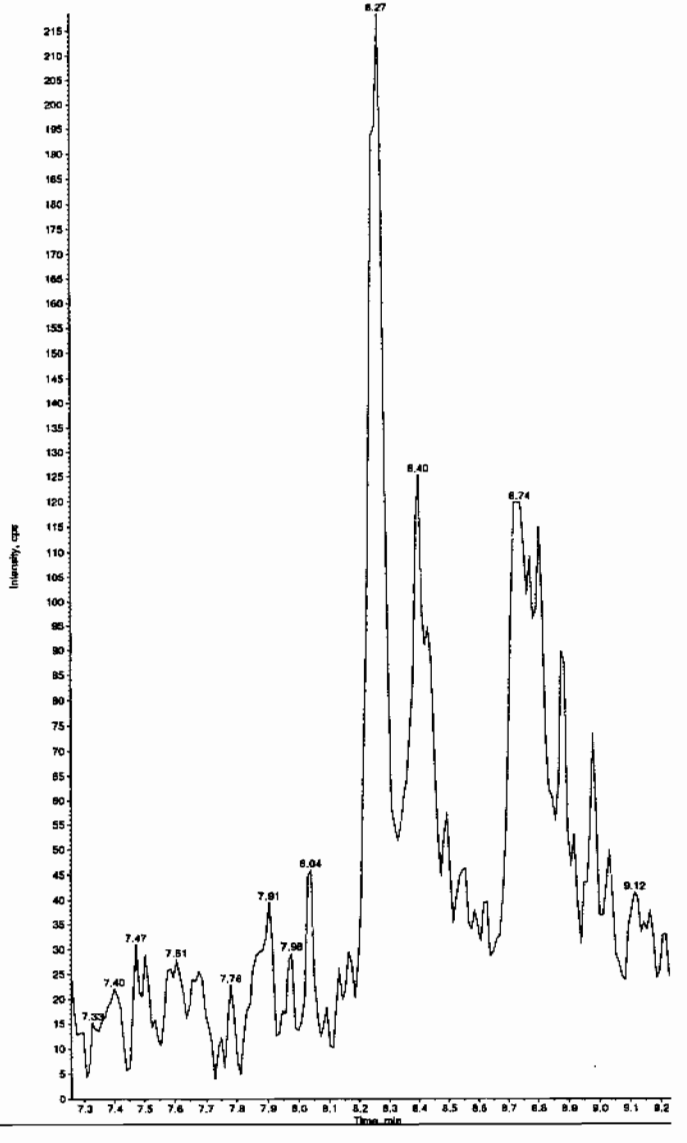

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02170073.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 4:16:55 AM

fied: No

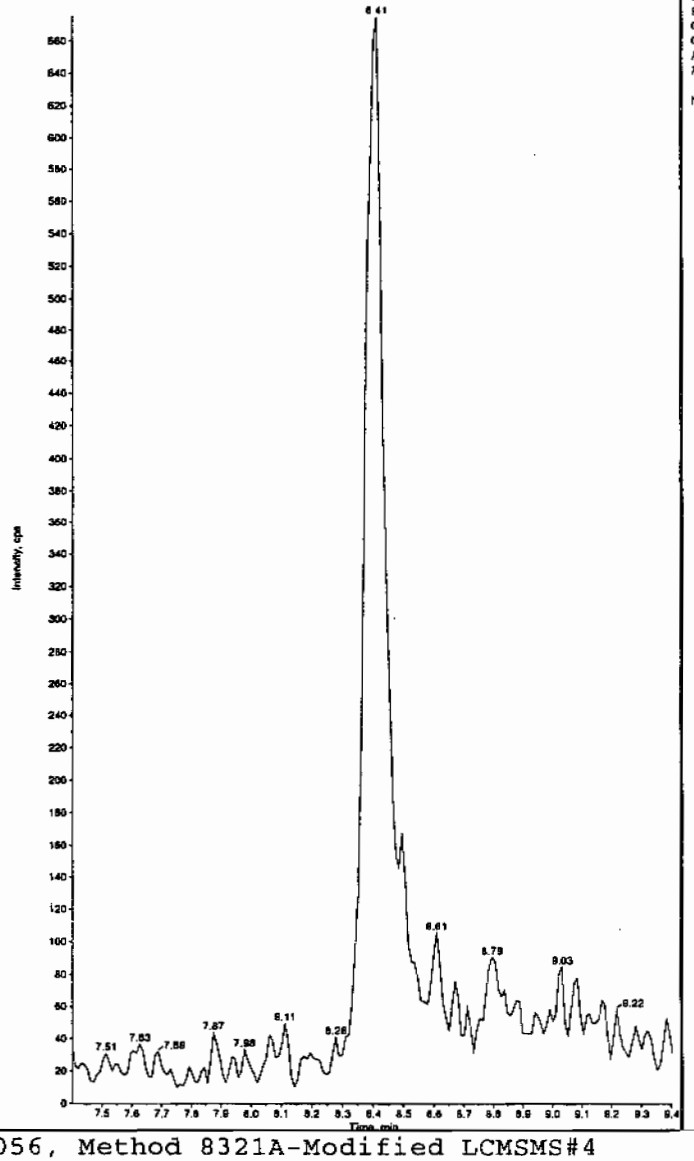

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02170073.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:16:55 AM

Modified: No

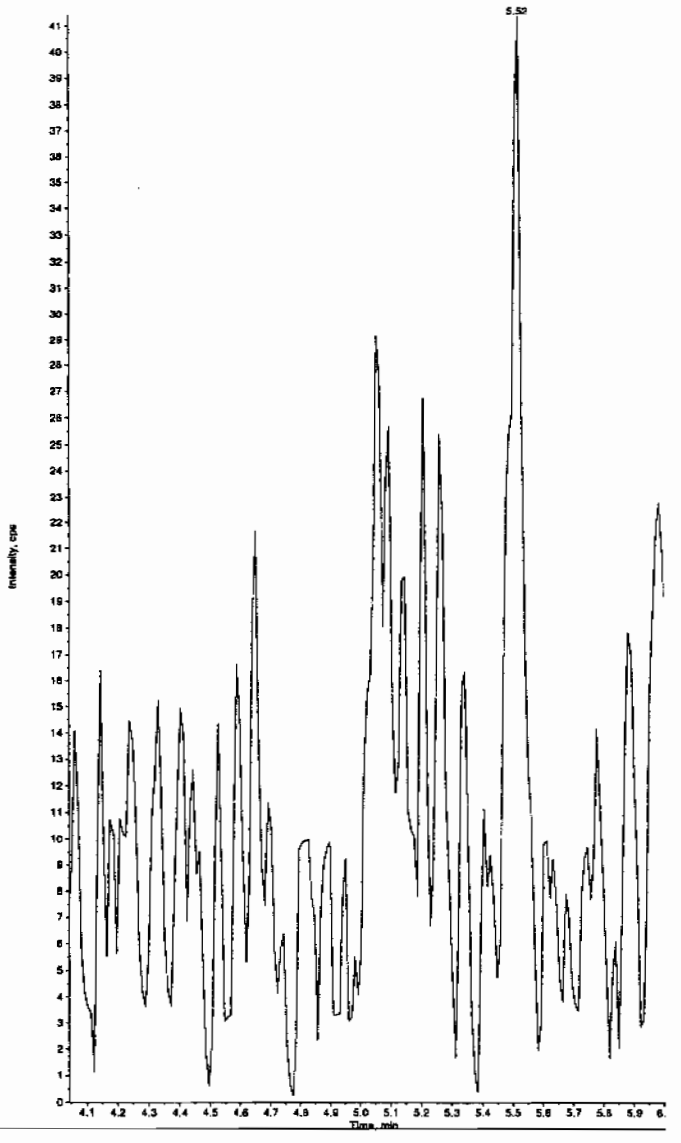

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mple Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02170073.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 2/18/2010
Time: 4:16:55 AM

fied: No

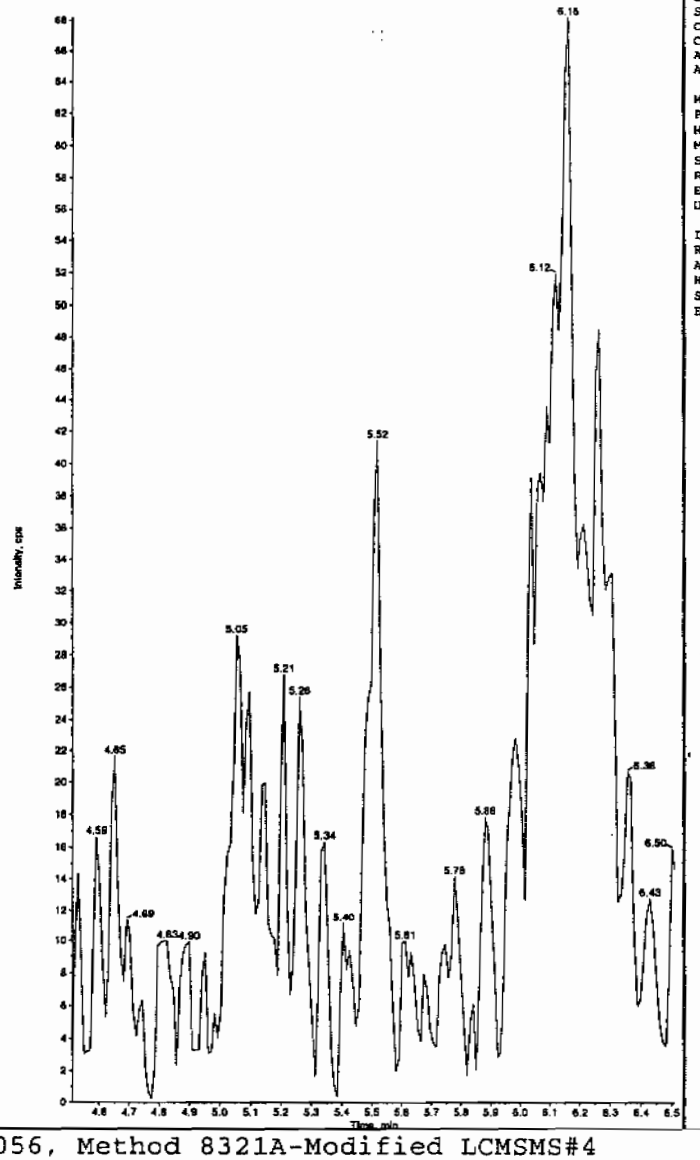

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02170073.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	1.94	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	4:16:55 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	4.23e+004	counts
Height:	10442.022	cps
Start Time:	10.7	min
End Time:	11.1	min

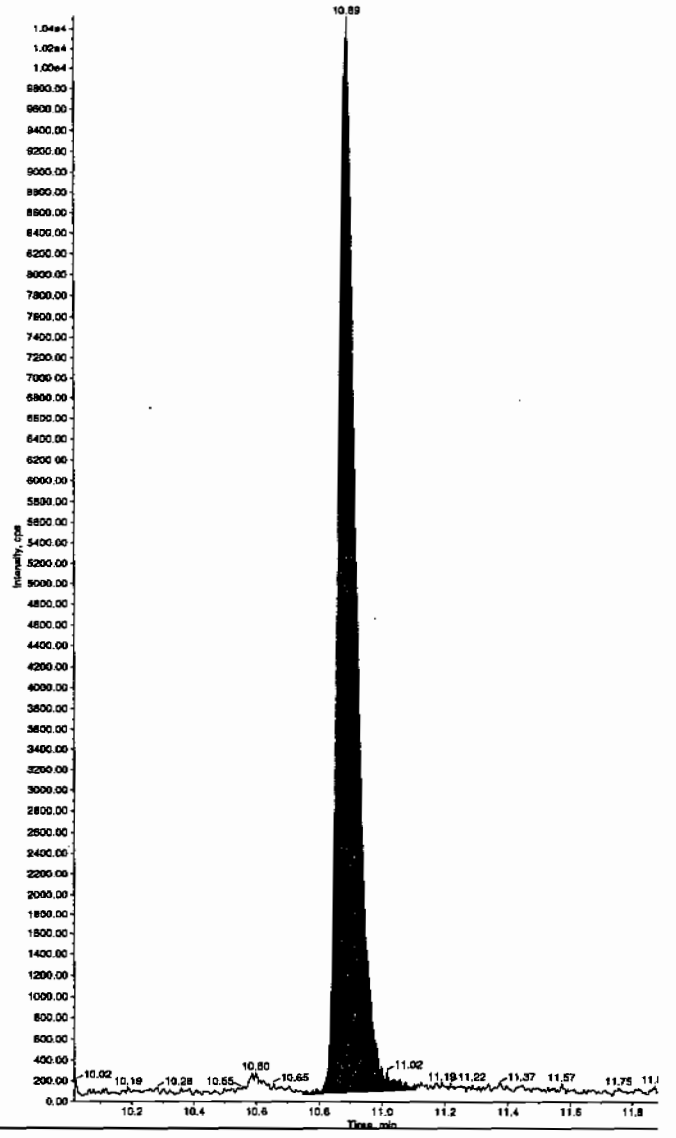

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1394
Lab Code: GEL
Lab Sample ID: XIBLK10
Analysis Date: 18–FEB–10 06:53
GEL Data File: EXS02170083.wiff
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.23
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/19/10

mple Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS02170083.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/18/2010
Time: 6:53:59 AM

fied: No

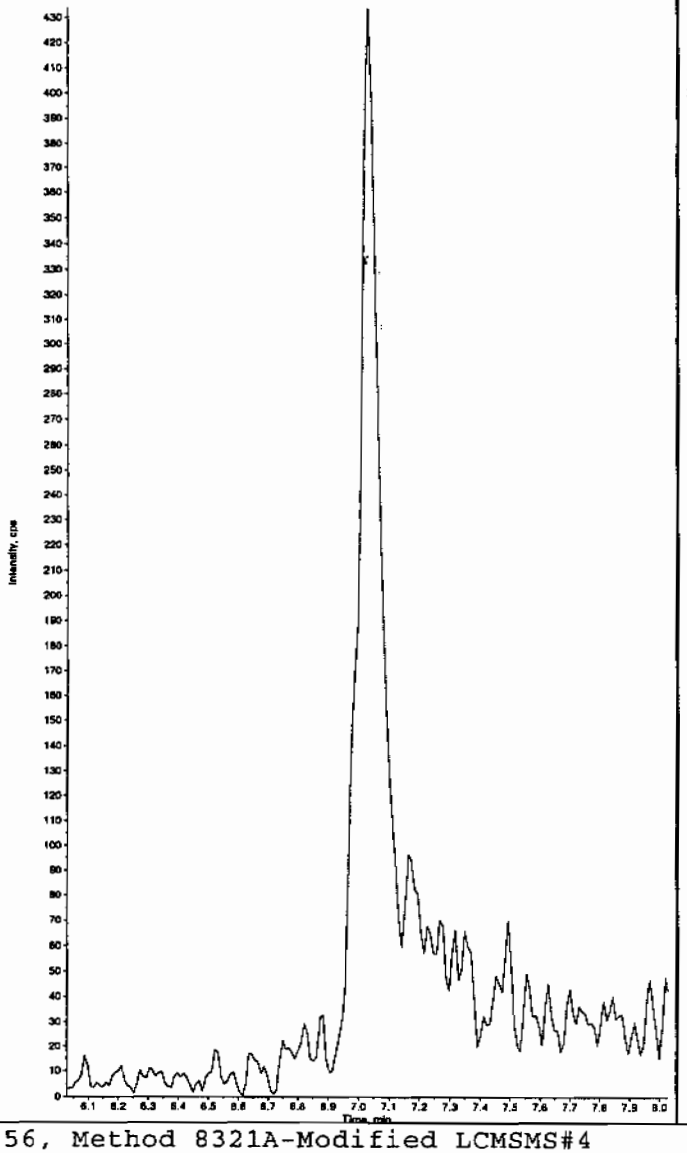

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS02170083.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 6:53:59 AM

Modified: No

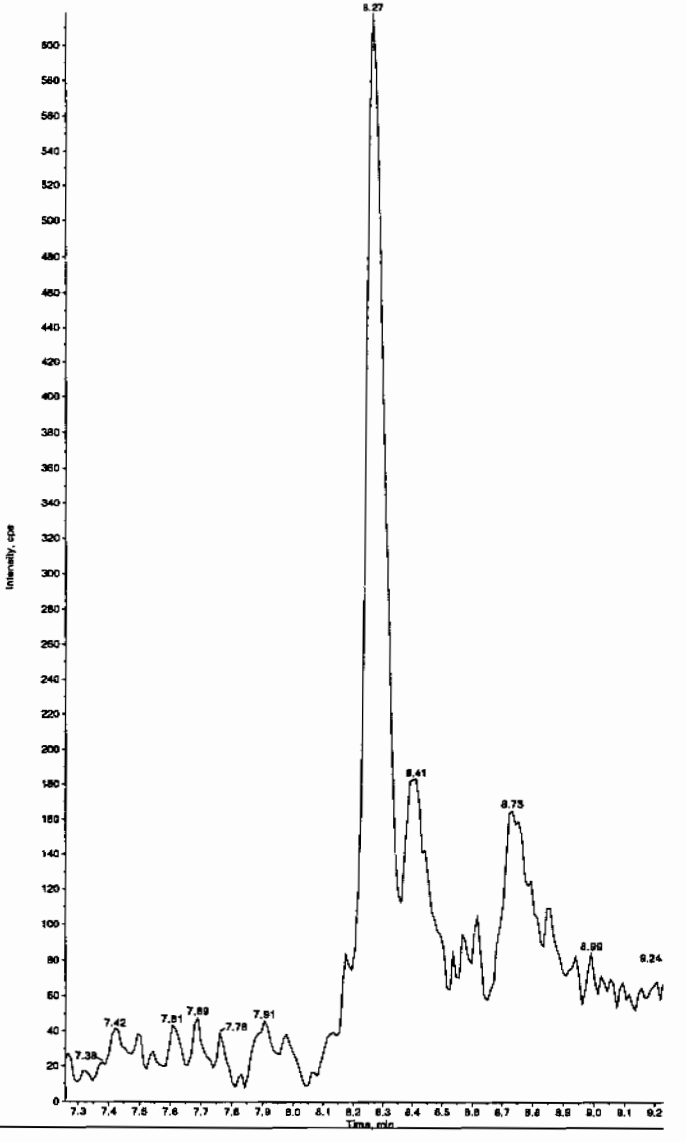

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02170083.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 0.00 ng/mL
Date: 2/18/2010
Time: 6:53:59 AM
fied: No

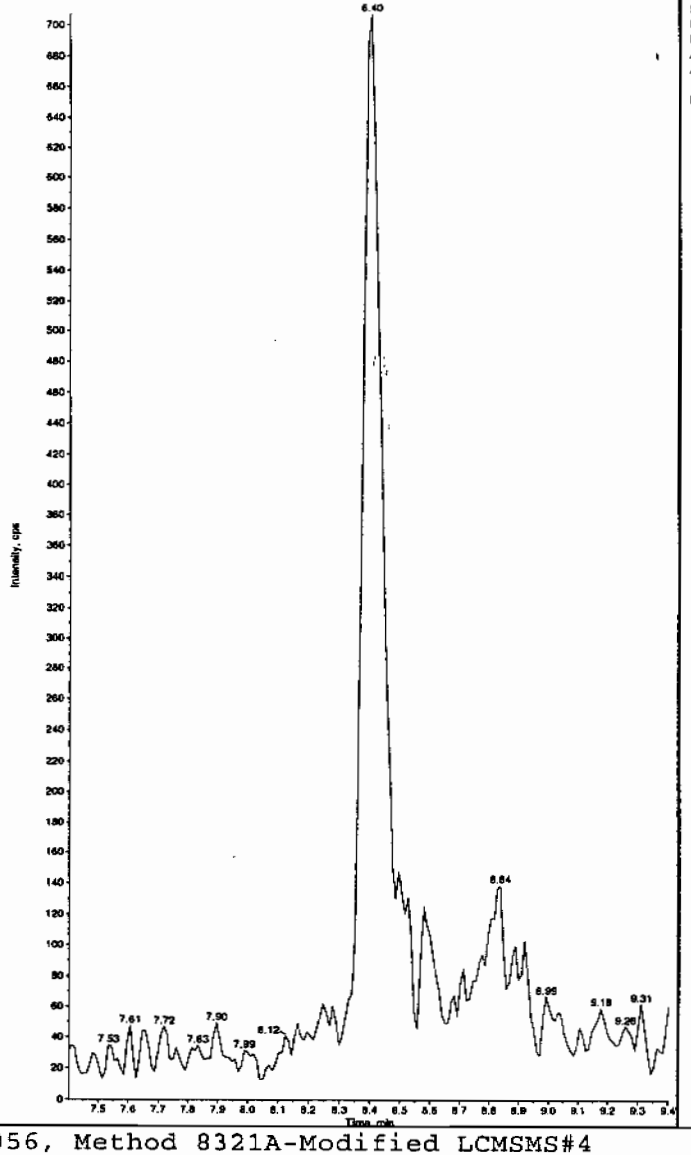

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02170083.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 6:53:59 AM

Modified: No

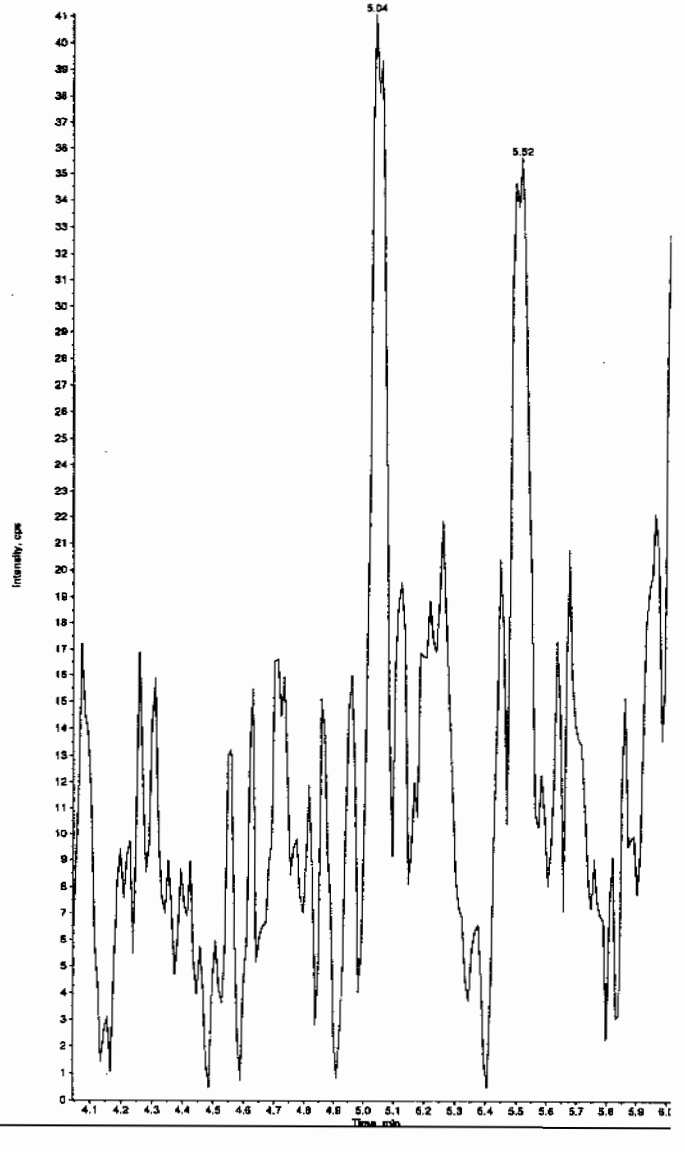

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02170083.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 6:53:59 AM
ified: No

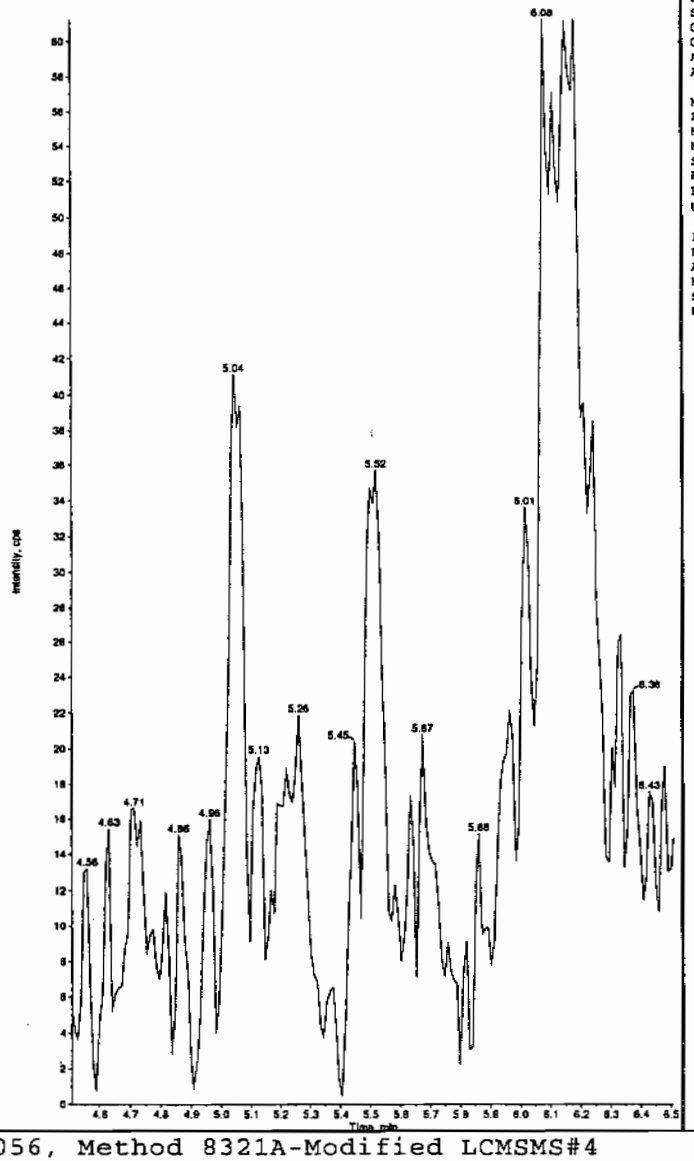

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02170083.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	5.23	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	6:53:59 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.14e+005	counts
Height:	27569.943	cps
Start Time:	10.8	min
End Time:	11.2	min

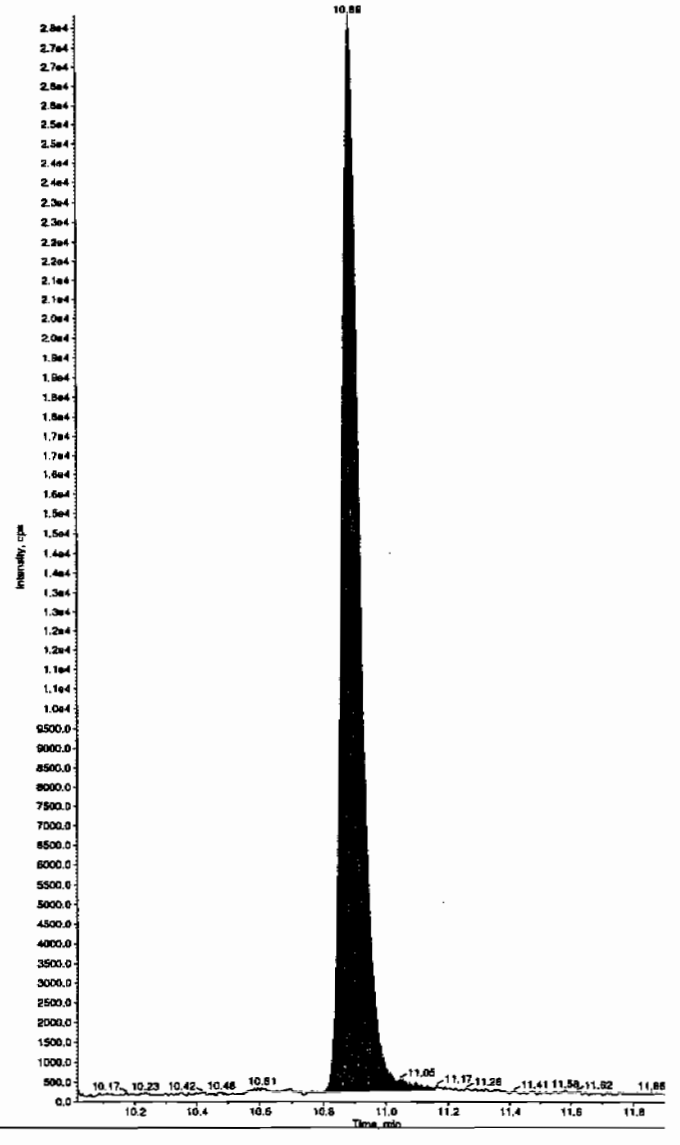

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1394

Lab Code: GEL

Lab Sample ID: XTBLK11

Analysis Date: 18–FEB–10 10:18

GEL Data File: EXS02170096.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.82
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rcn 2/19/10

ample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02170096.wiff"
esk Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 10:18:09 AM

ified: No

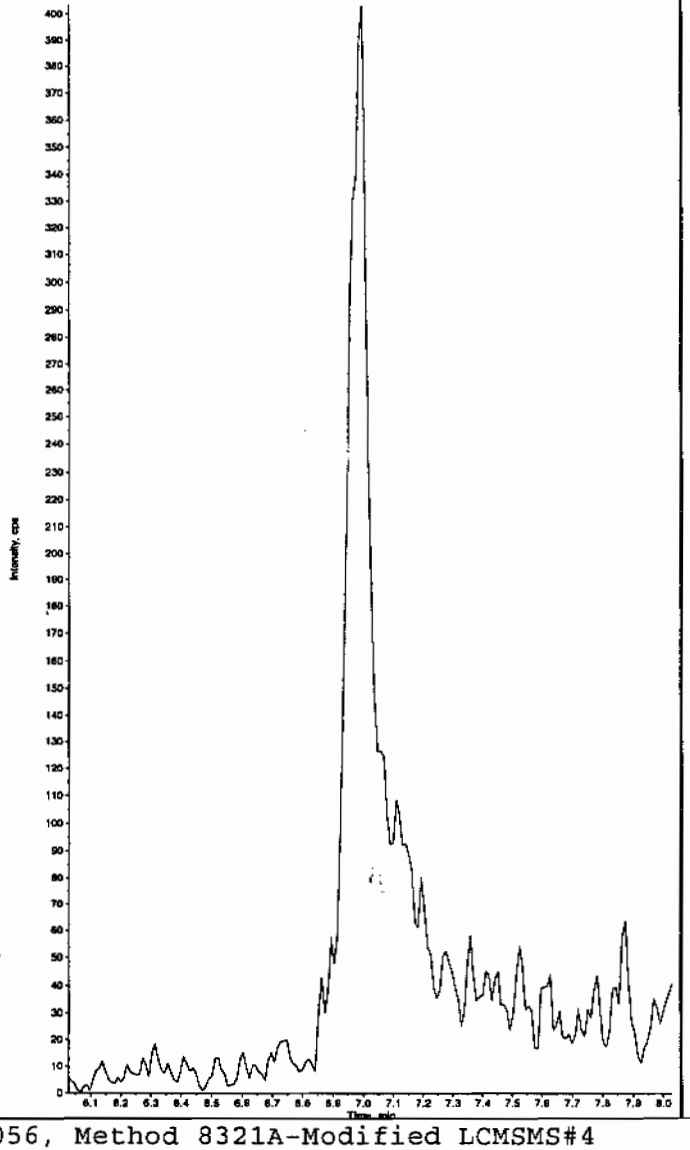

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02170096.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 10:18:09 AM

Modified: No

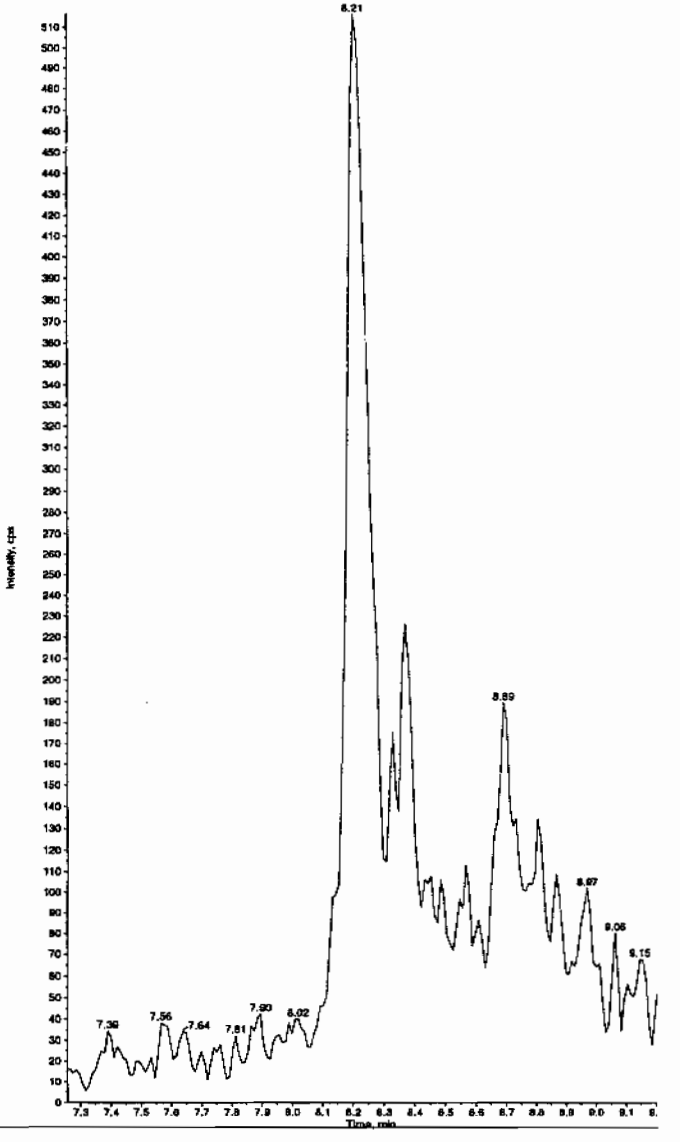

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02170096.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 10:18:09 AM
ified: No

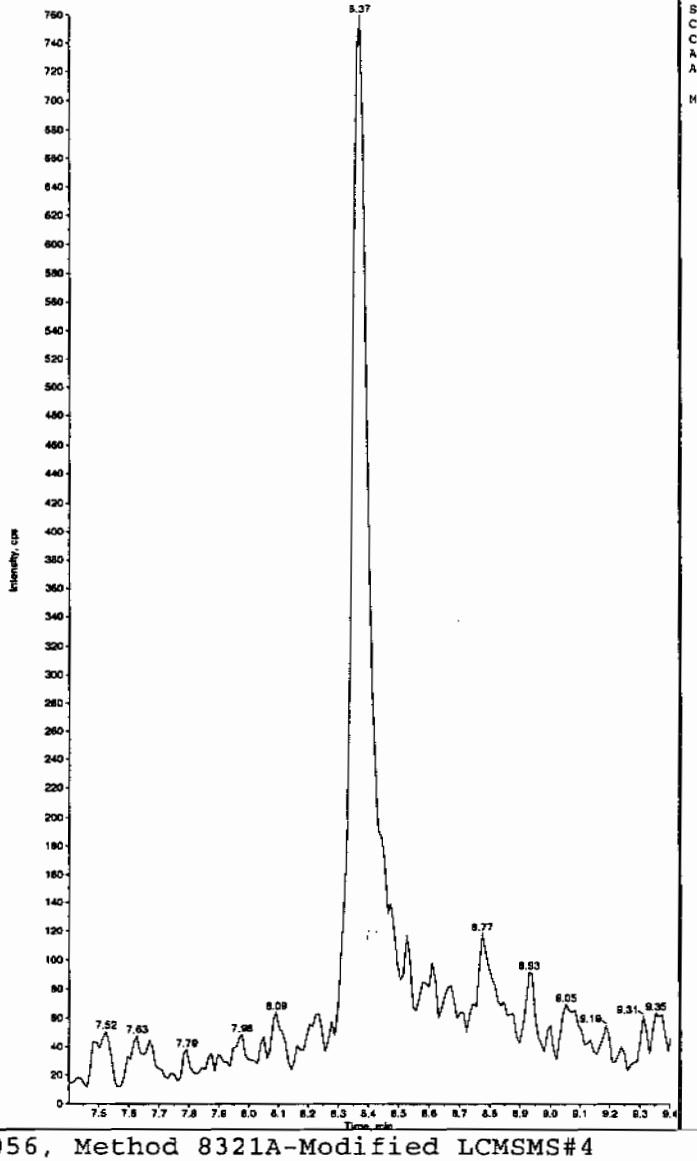

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02170096.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 10:18:09 AM

Modified: No

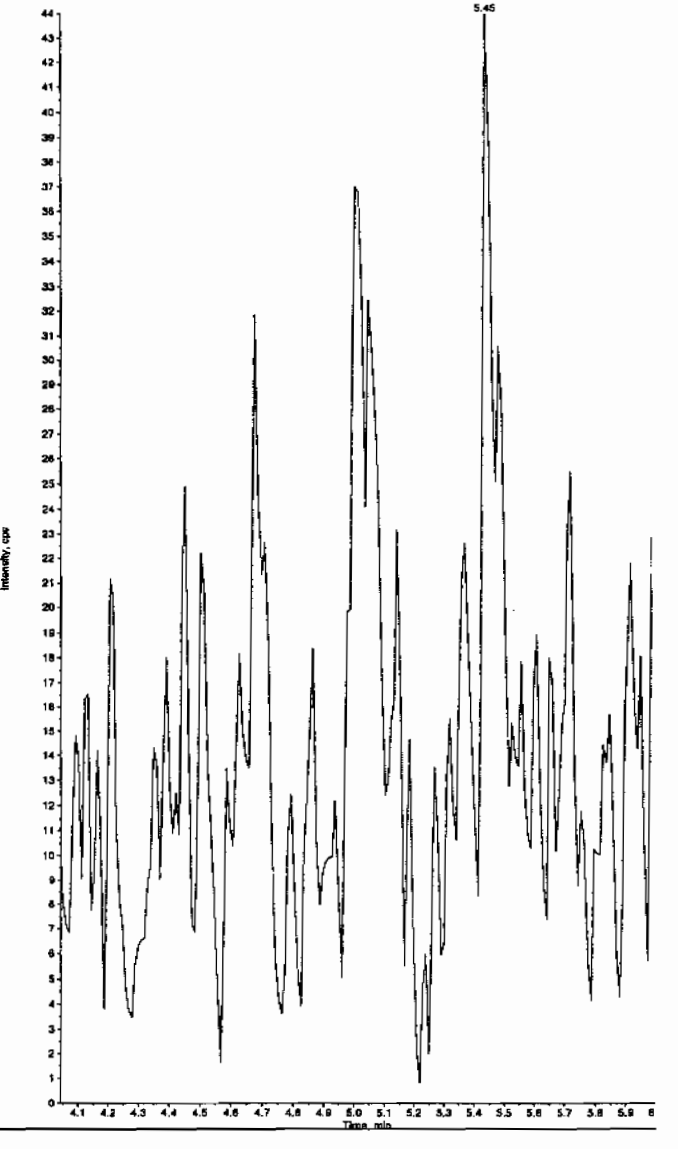

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mple Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02170096.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00     ng/mL
. Date:         2/18/2010
. Time:         10:18:09 AM

ified:            No
```

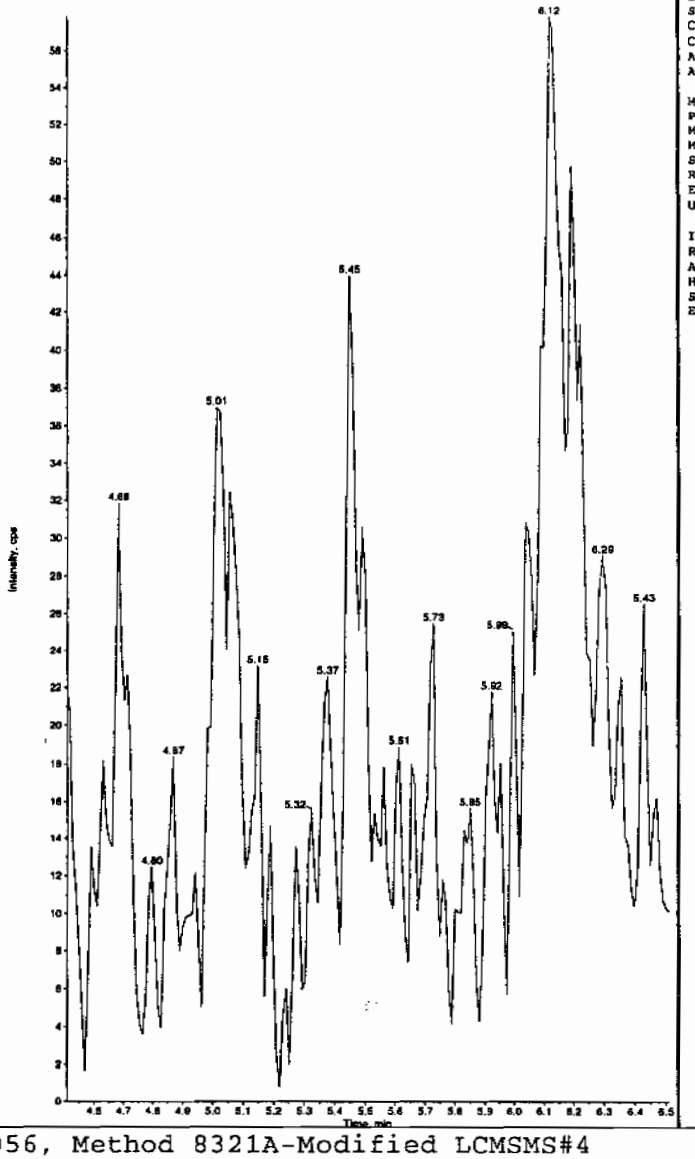

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02170096.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     3.82     ng/mL
Acq. Date:         2/18/2010
Acq. Time:         10:18:09 AM

Modified:            No
Proc. Algorithm:  IntelliQuan - IOA
Min. Peak Height: 8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3          points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:     10.9     min
Area:          8.33e+004    counts
Height:        20769.810    cps
Start Time:         10.7     min
End Time:           11.1     min
```

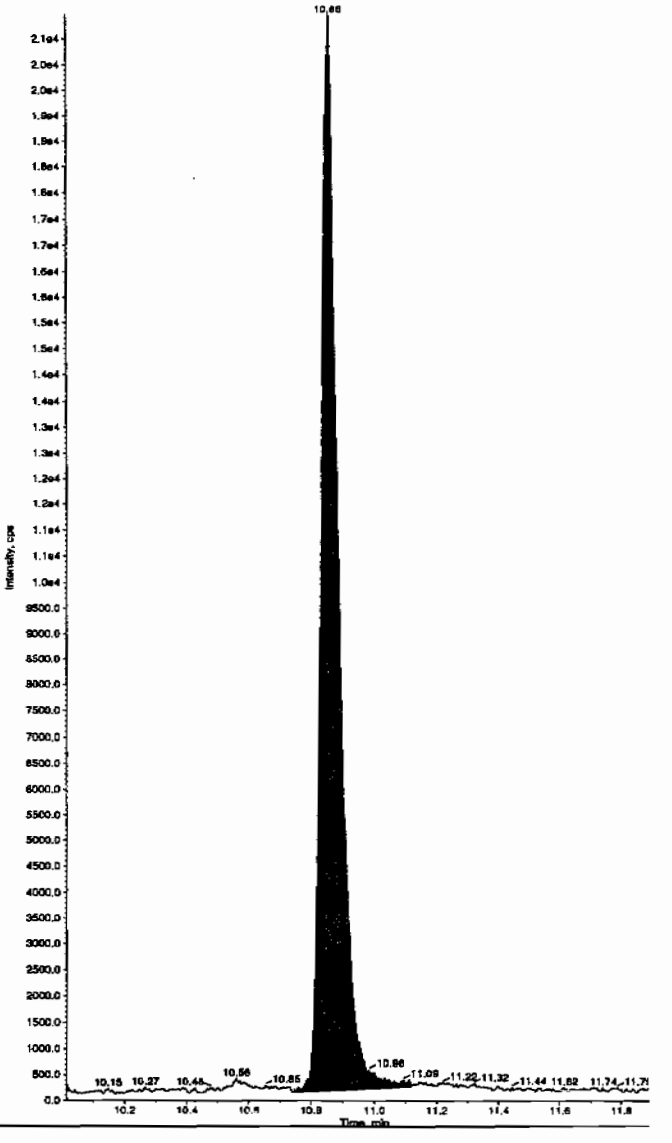

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 18-FEB-10 11:52

GEL Data File: EXS02170102.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	4.35
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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mple Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02170102.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 2/18/2010
Time: 11:52:26 AM
fied: No

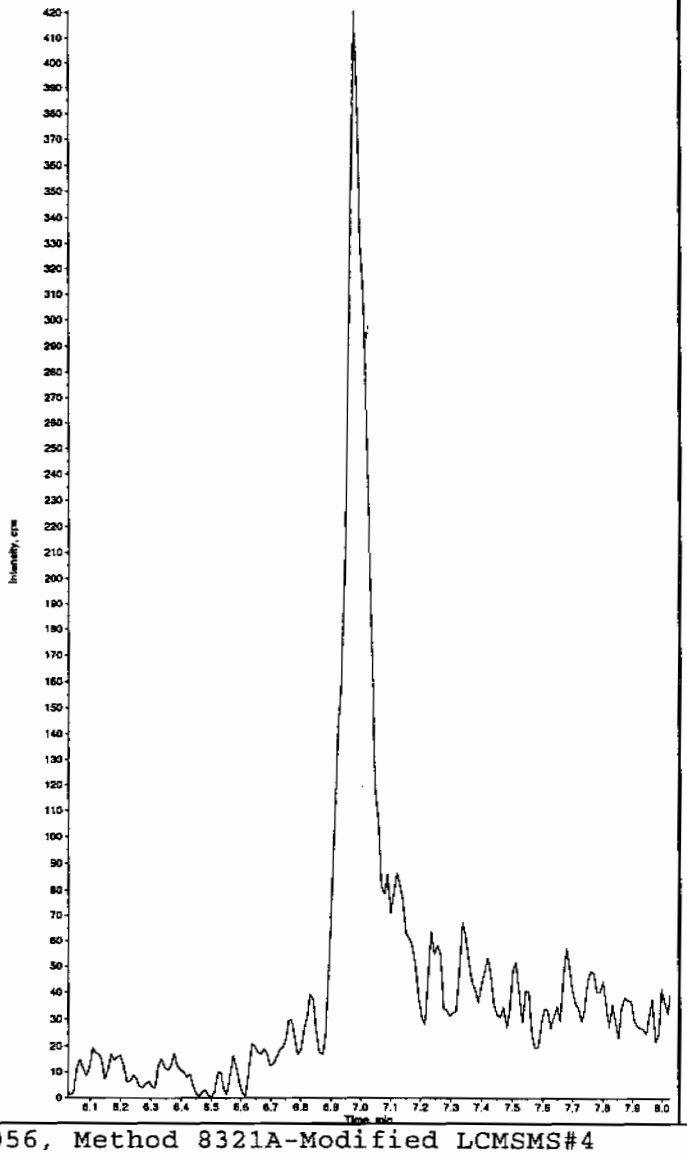

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02170102.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 11:52:26 AM

Modified: No

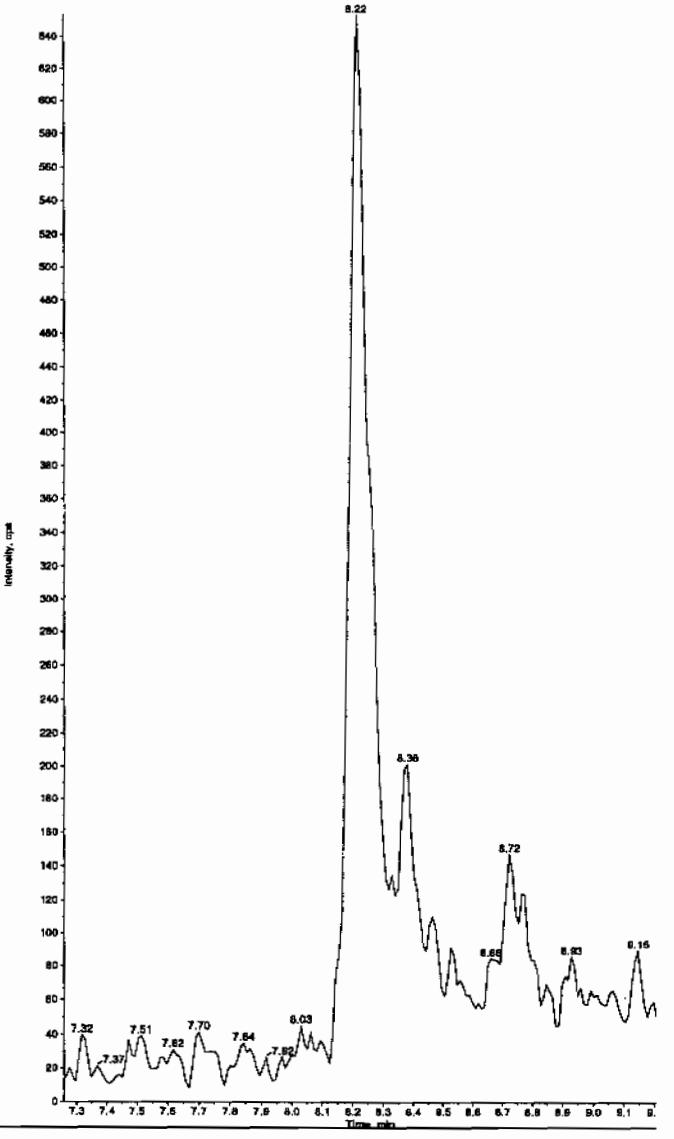

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GL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02170102.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 11:52:26 AM
ified: No

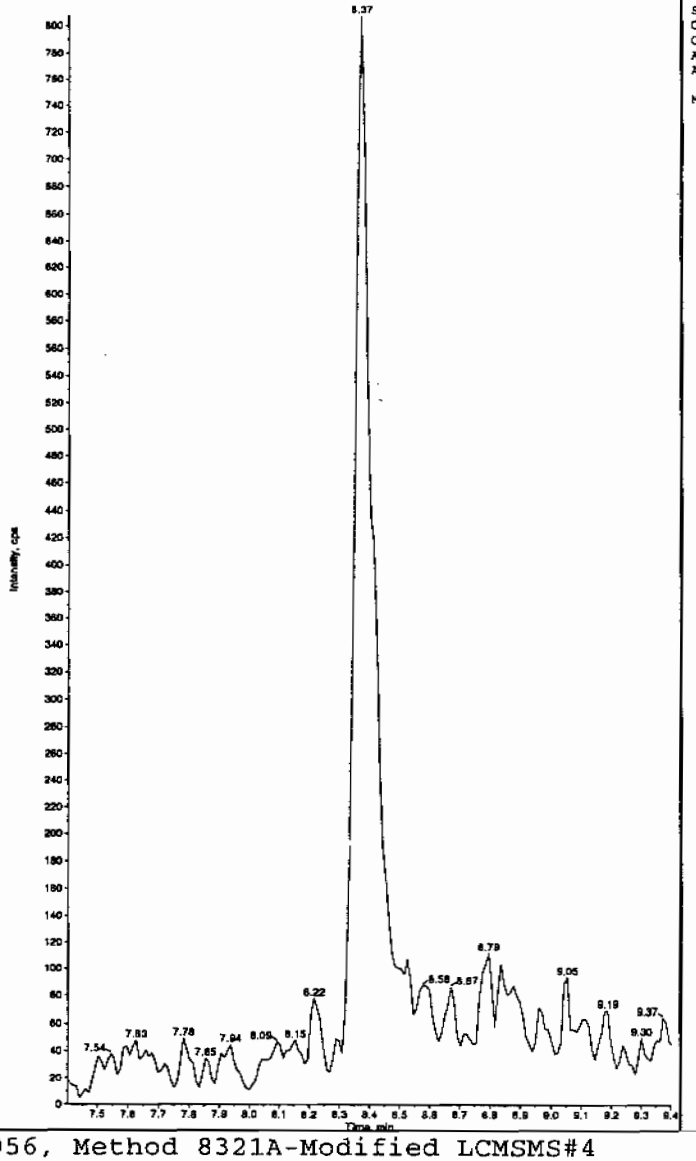

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02170102.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 11:52:26 AM

Modified: No

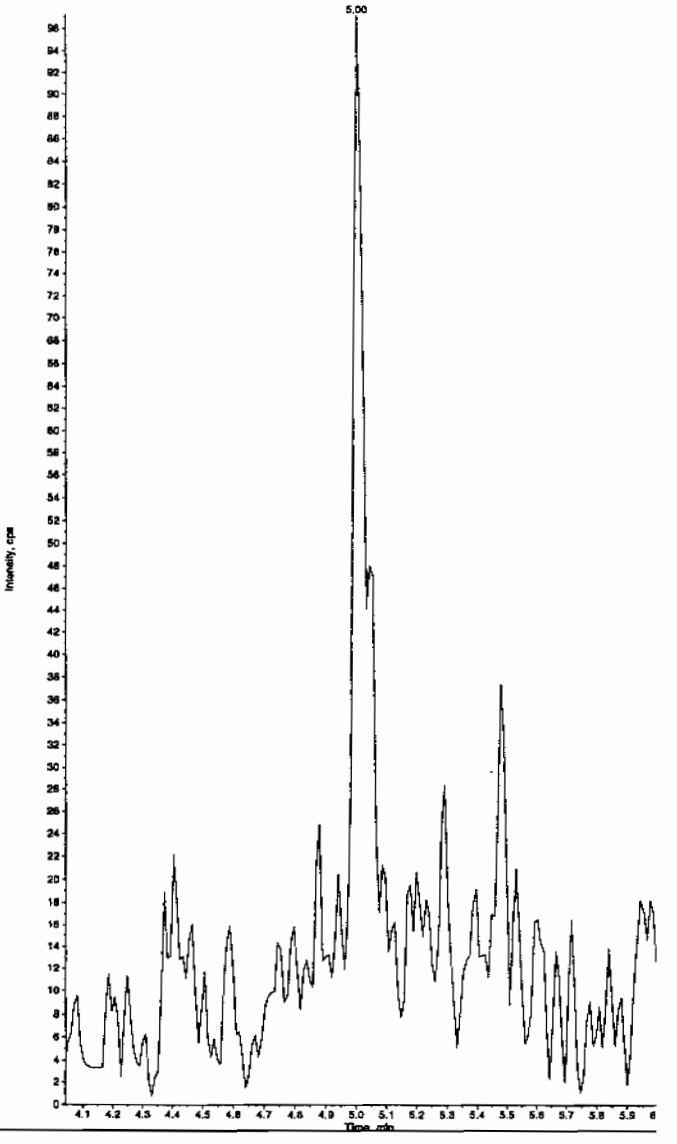

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS02170102.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 11:52:26 AM
ified: No

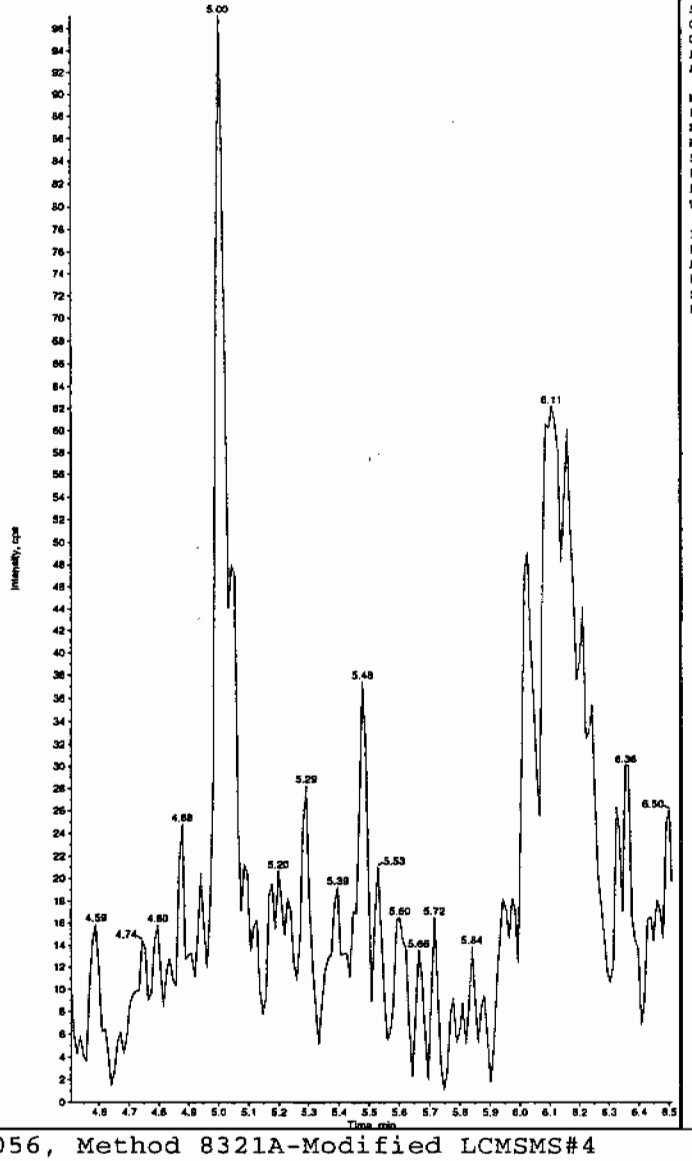

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS02170102.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	4.35	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	11:52:26 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	9.47e+004	counts
Height:	23169.621	cps
Start Time:	10.7	min
End Time:	11.2	min

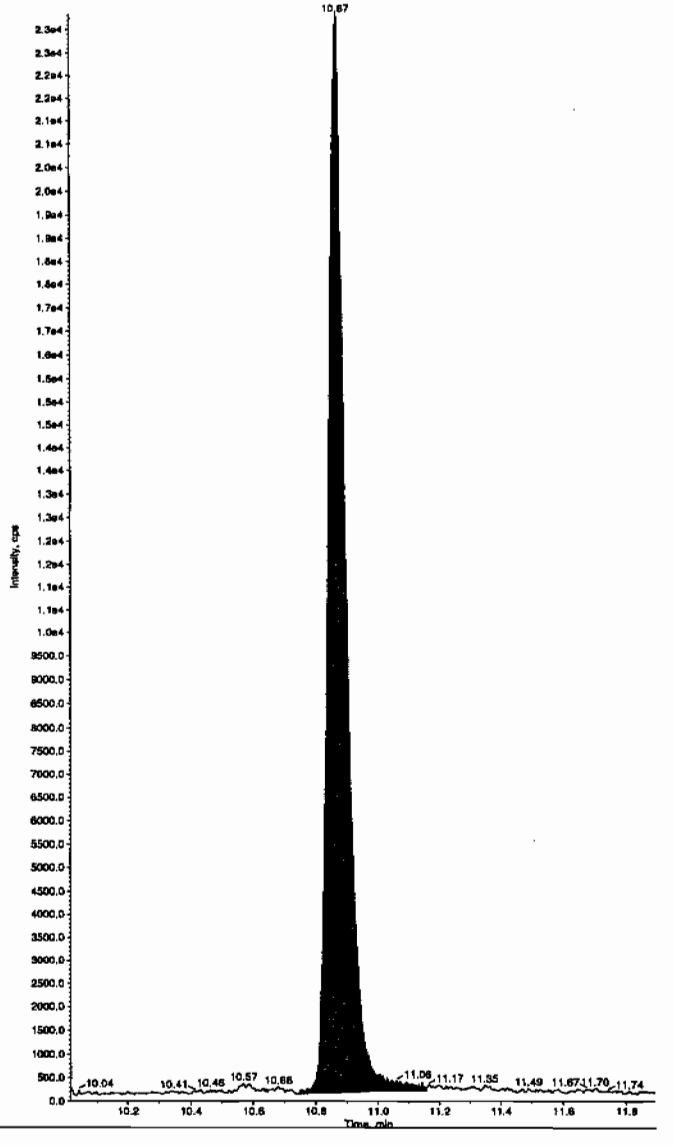

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 18-FEB-10 15:16

GEL Data File: EXS02170115.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.88
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Scan 2/19/10

ample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02170115.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 3:16:58 PM

ified: No

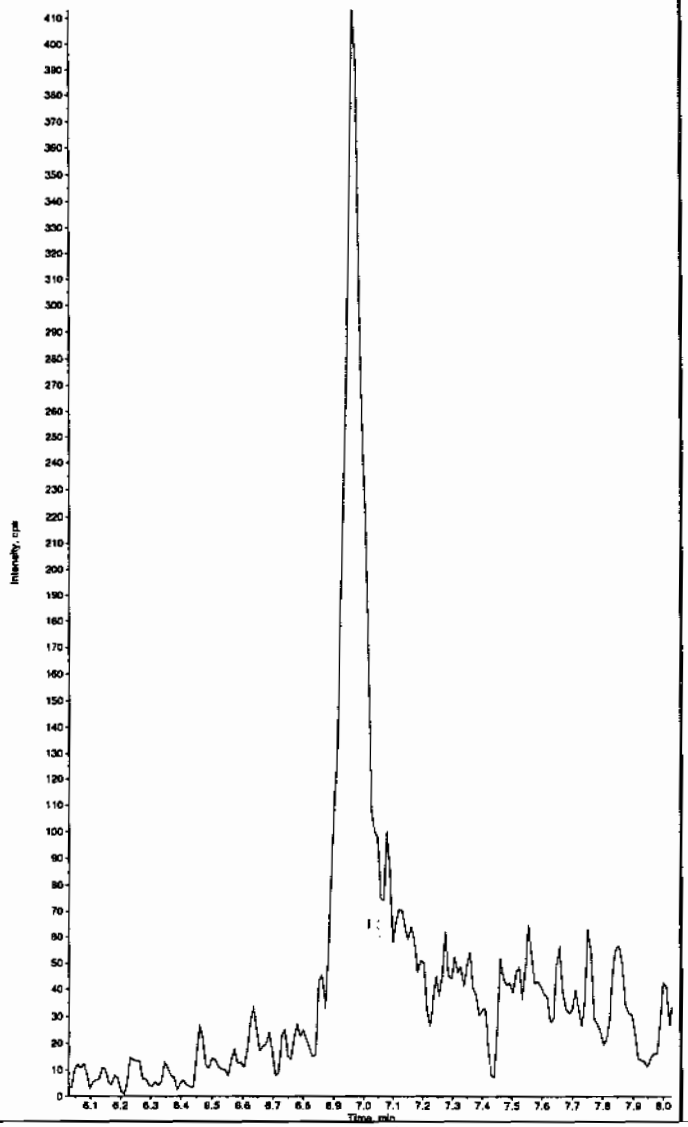

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02170115.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:16:58 PM

Modified: No

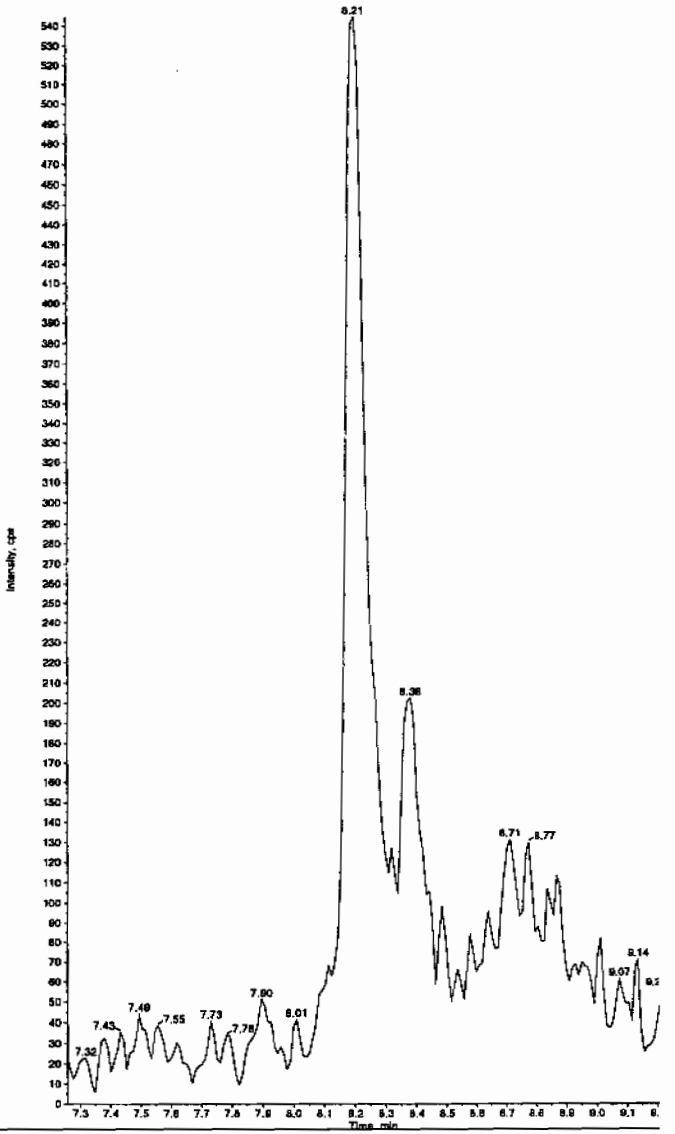

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02170115.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 3:16:58 PM
ified: No

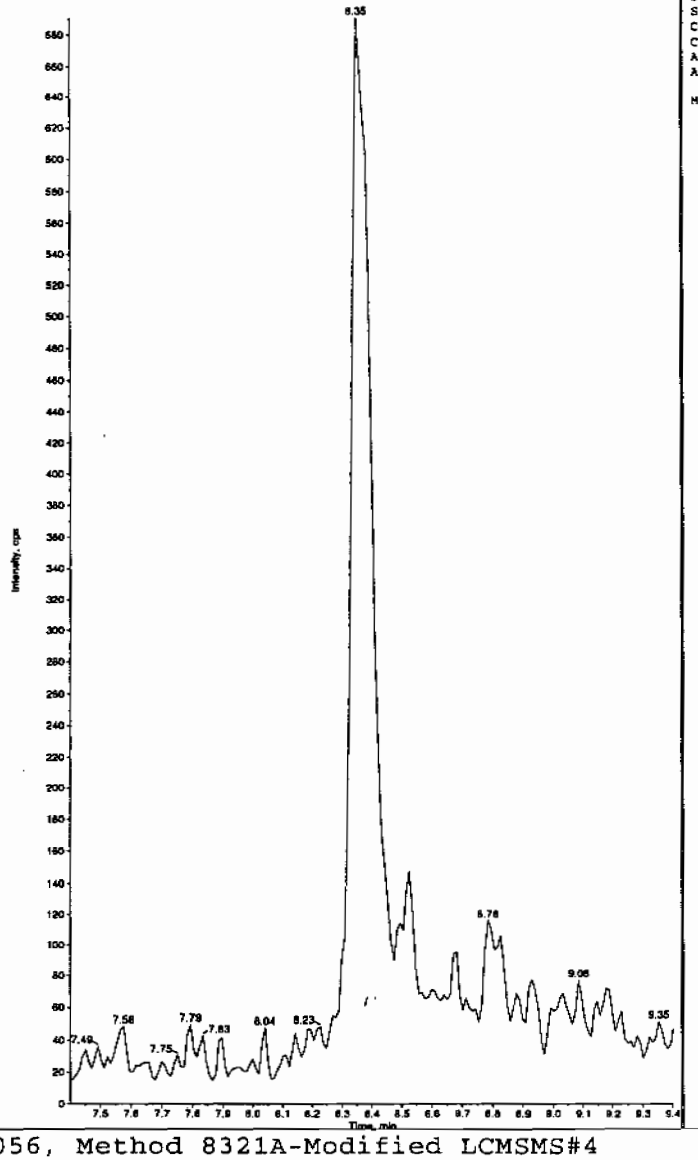

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02170115.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:16:58 PM
Modified: No

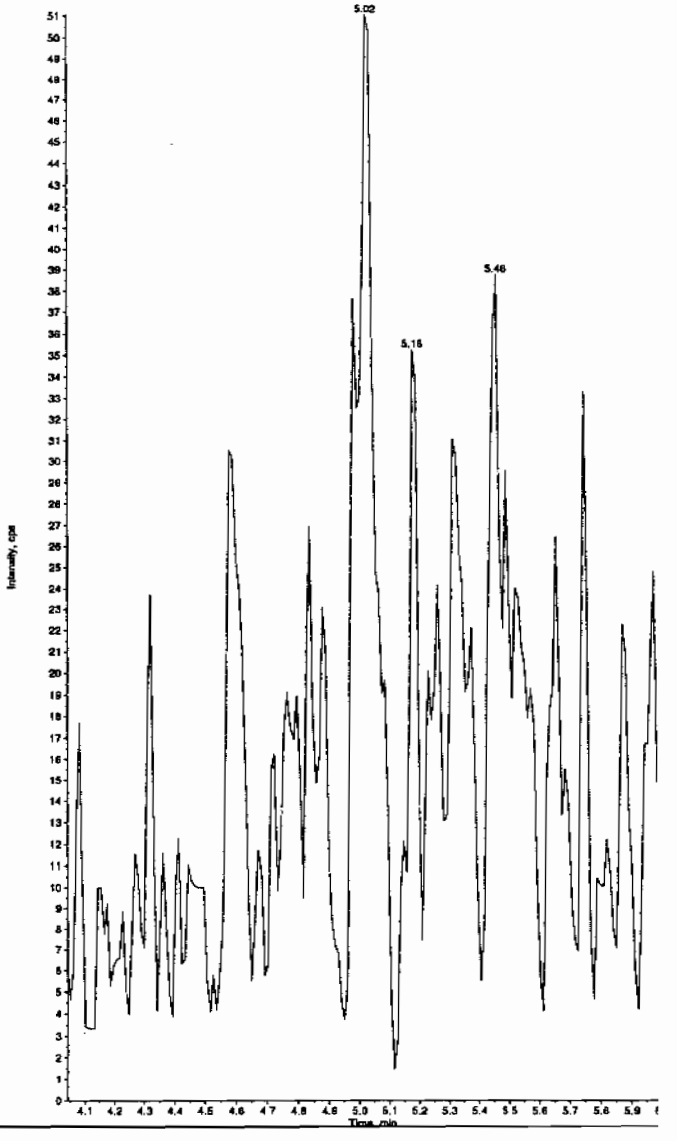

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02170115.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/18/2010
q. Time: 3:16:58 PM

dified: No

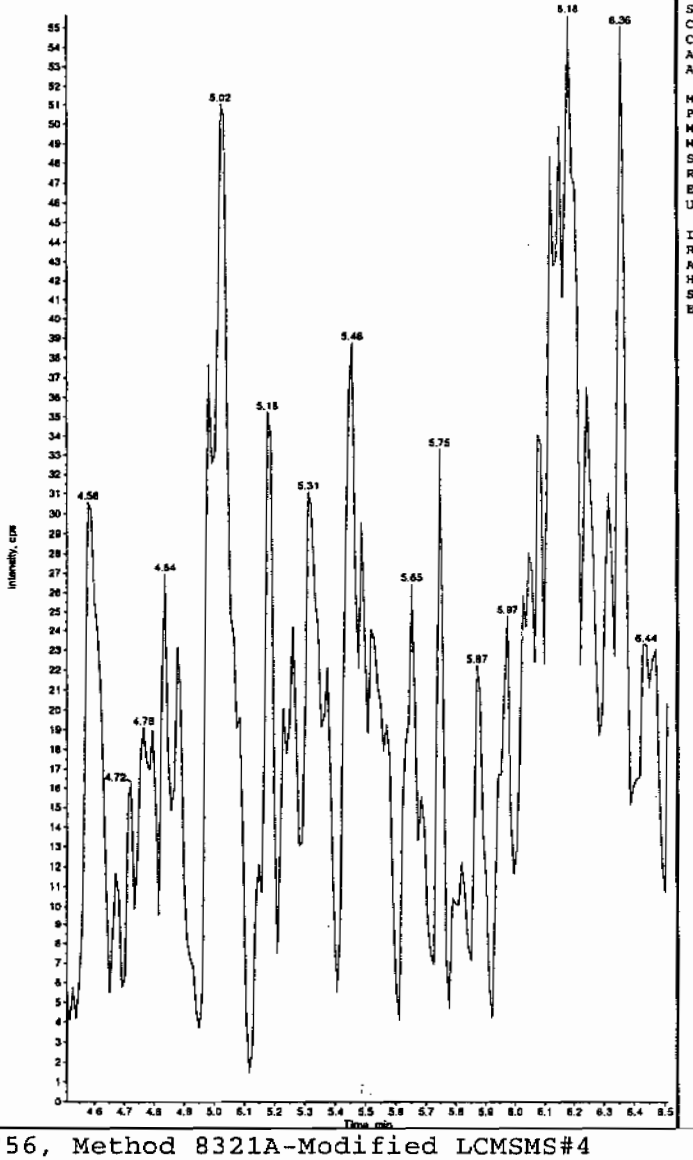

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02170115.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.88 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:16:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.46e+004 counts
Height: 20604.862 cps
Start Time: 10.7 min
End Time: 11.1 min

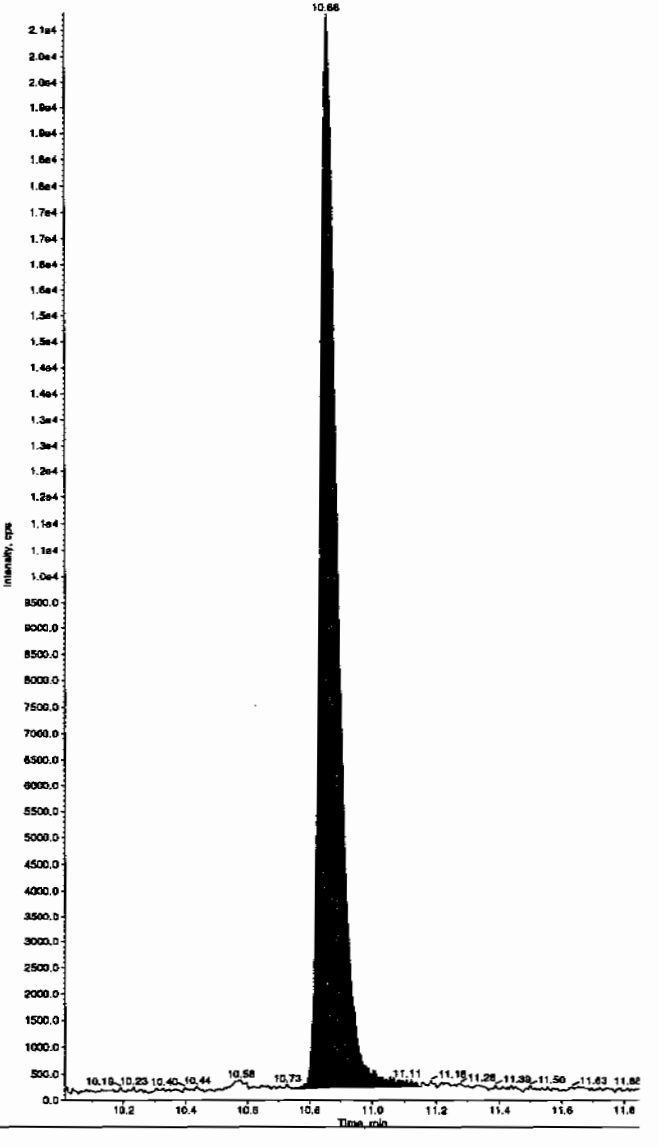

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1394

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 18-FEB-10 18:25

GEL Data File: EXS02170127.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.7
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 2/19/10

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02170127.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/18/2010
q. Time: 6:25:41 PM

dified: No

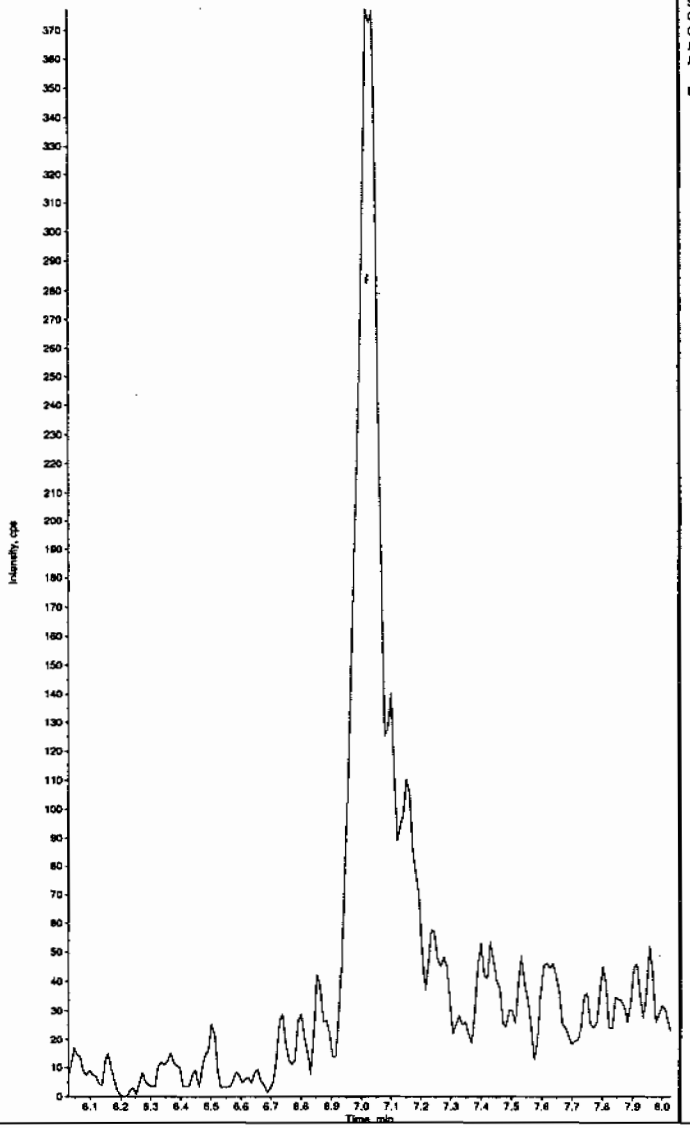

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02170127.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 6:25:41 PM

Modified: No

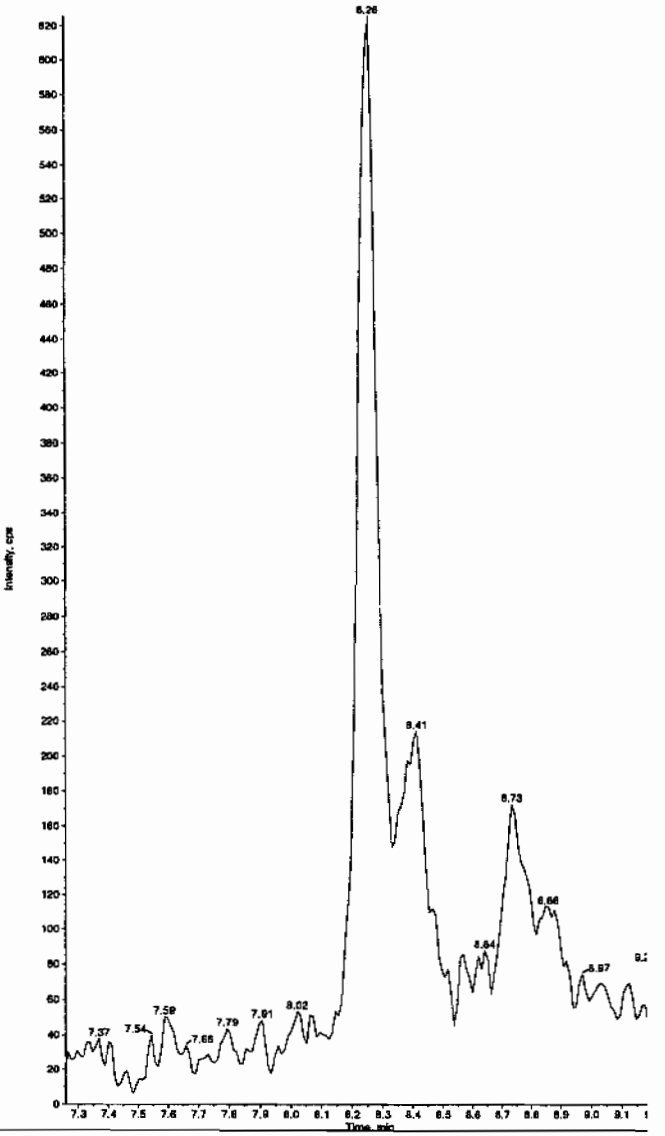

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS02170127.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_8" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 6:25:41 PM
ified: No

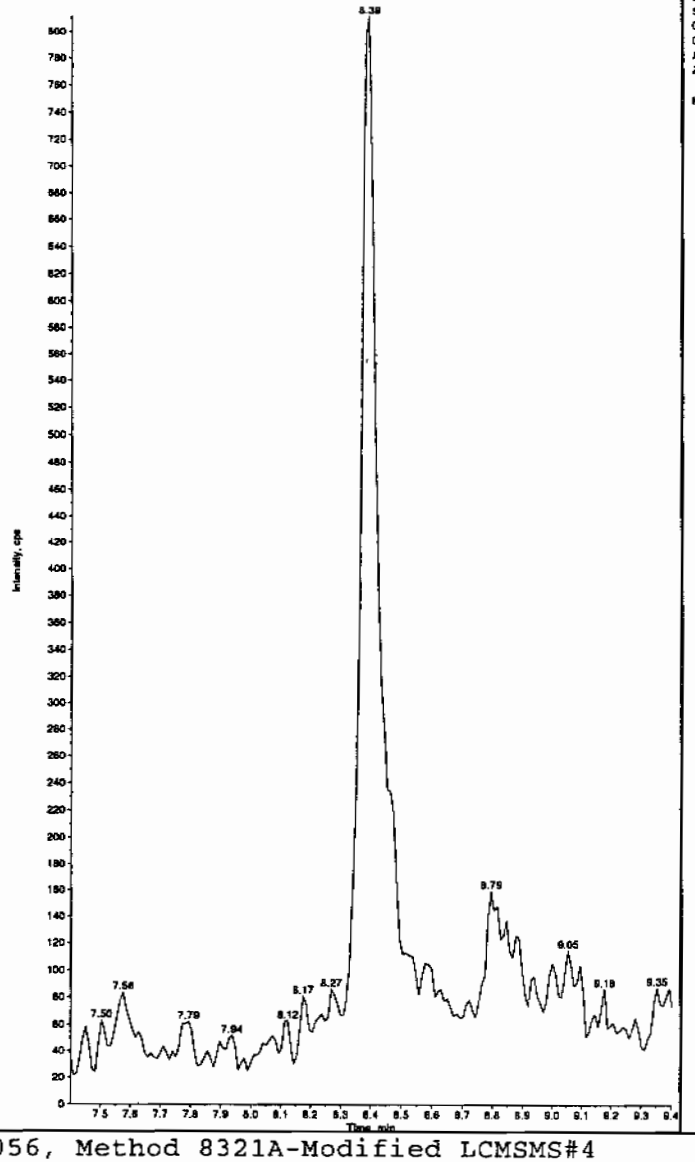

Sample Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS02170127.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 6:25:41 PM

Modified: No

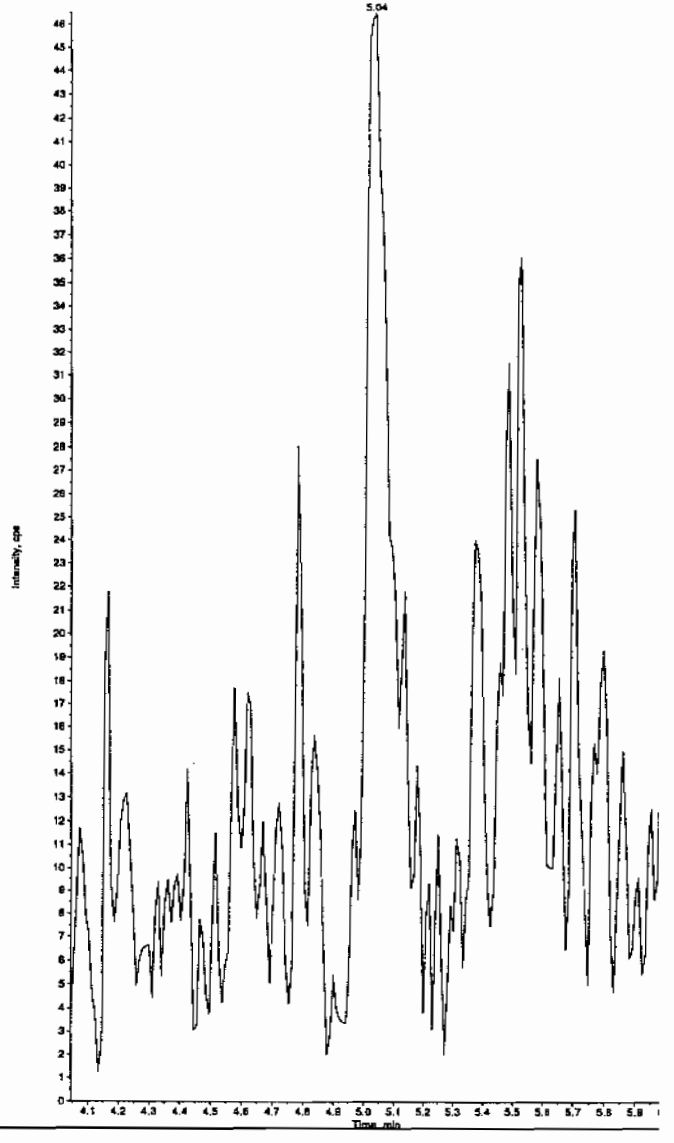

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ample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02170127.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 6:25:41 PM

ified: No

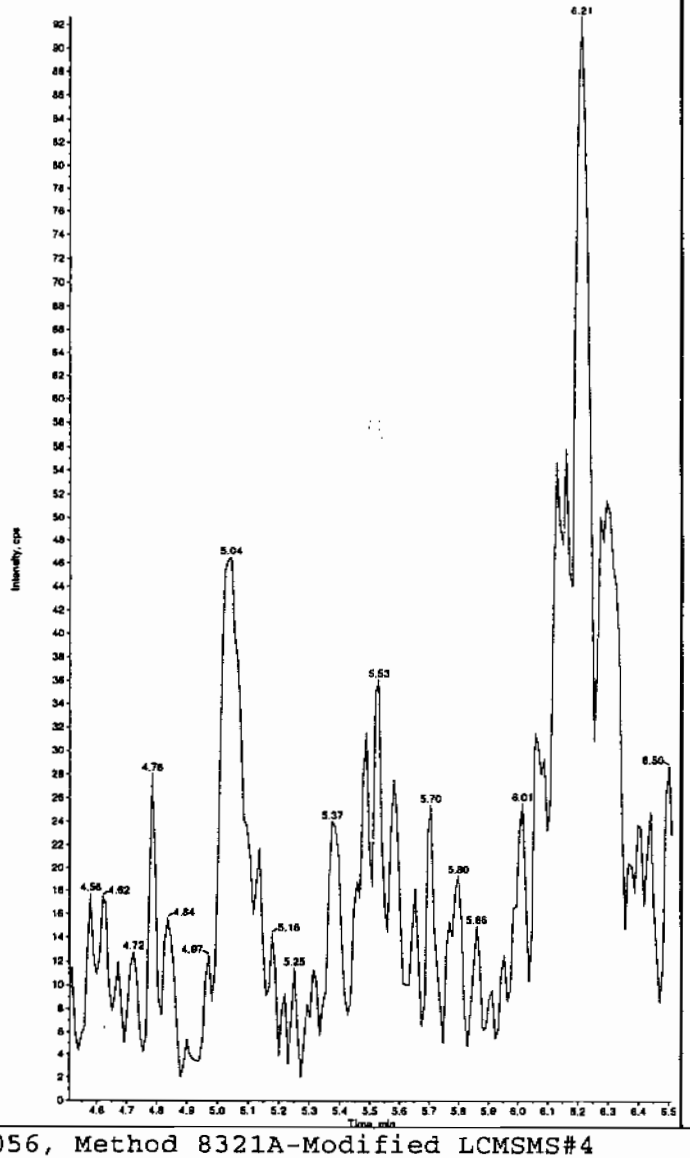

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02170127.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	2.70	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	6:25:41 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	6000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	5.87e+004	counts
Height:	13994.064	cps
Start Time:	10.8	min
End Time:	11.1	min

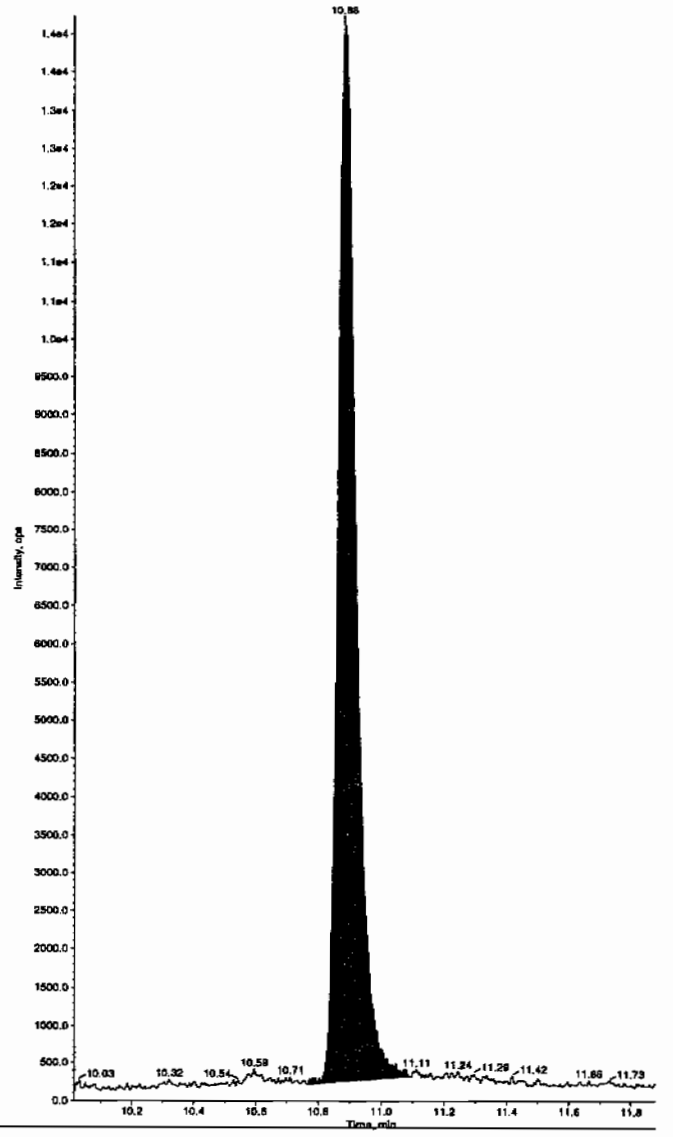

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

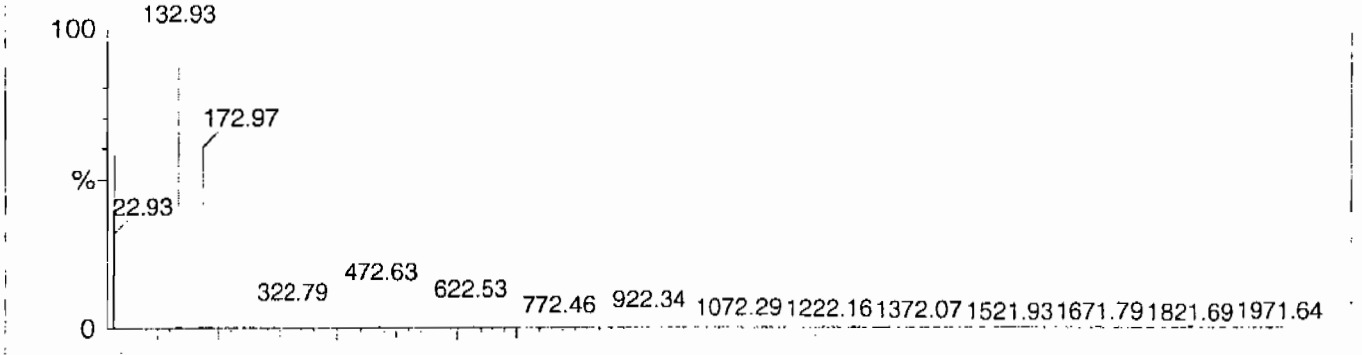

Reference file: Naics2

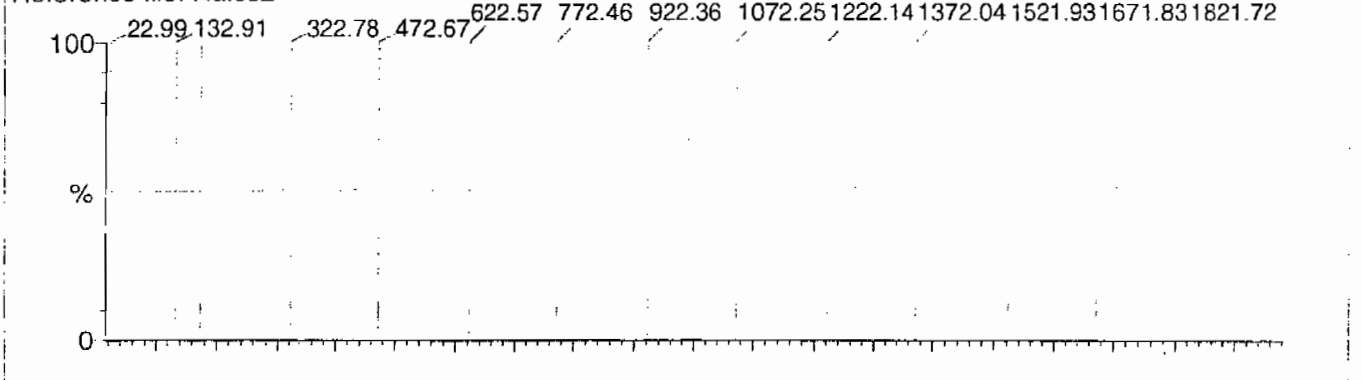

Mass difference (Raw - Ref mass)

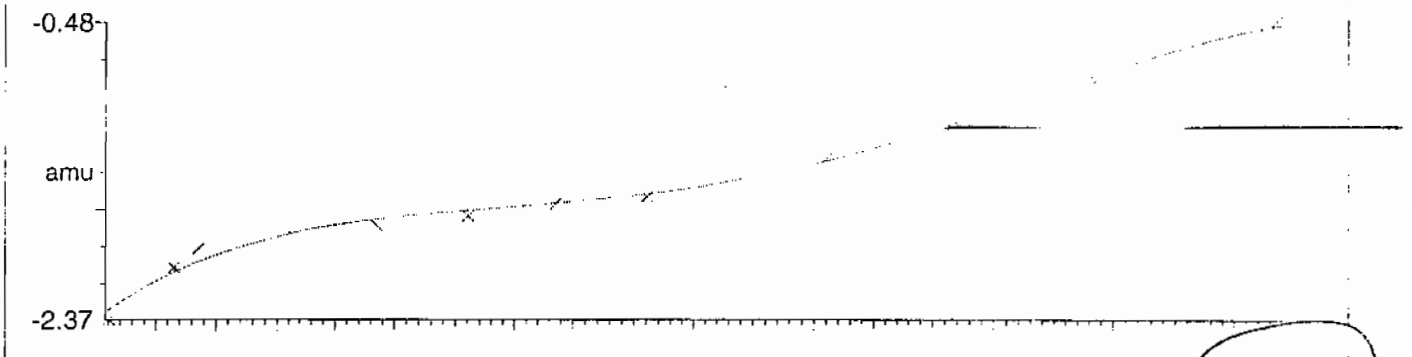

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

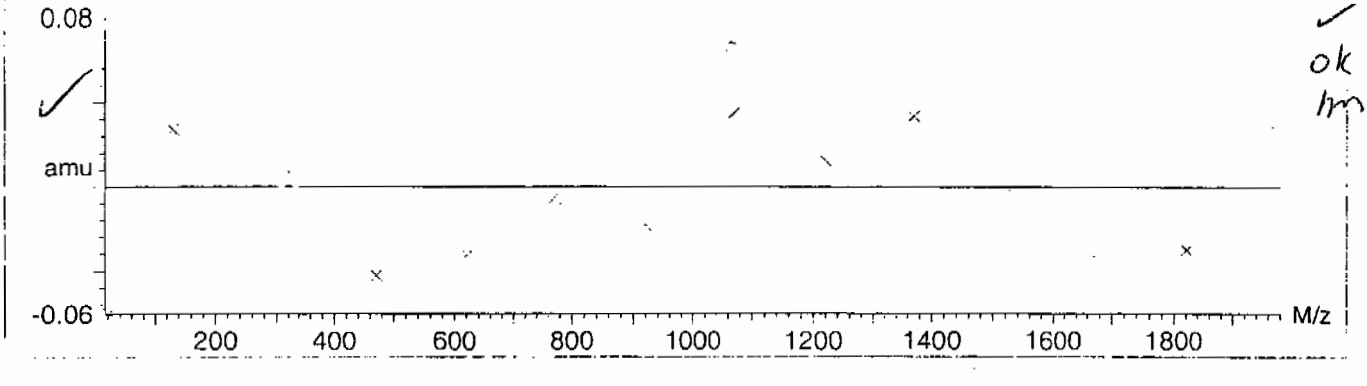

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

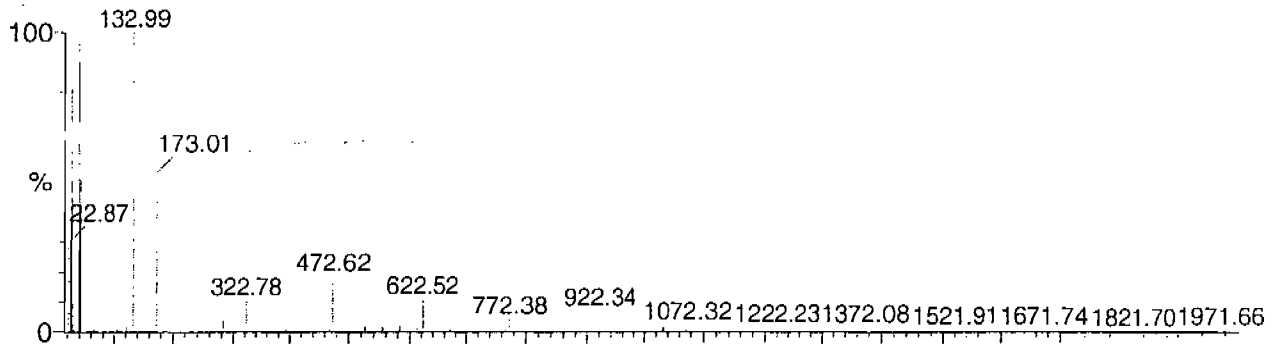

Reference file: Naics2

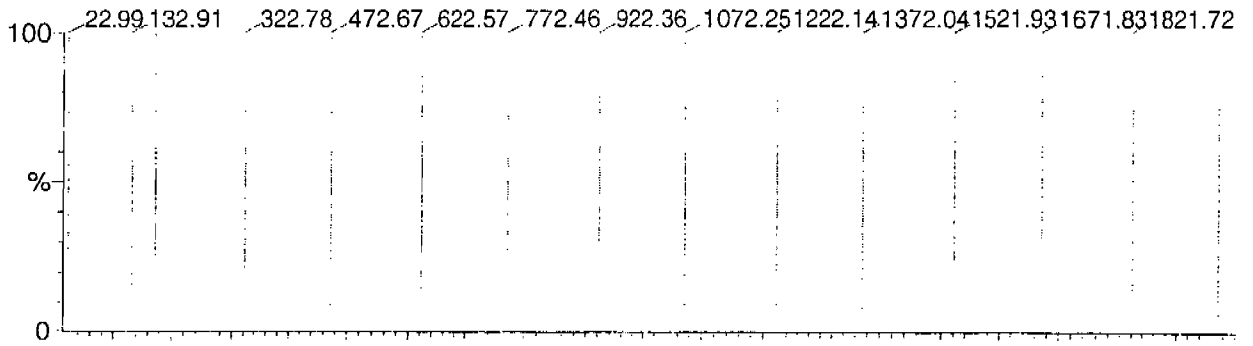

Mass difference (Raw - Ref mass)

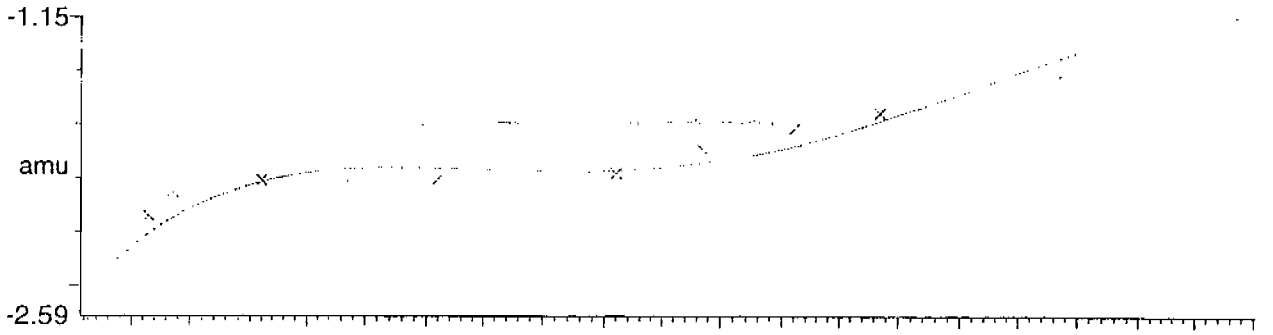

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

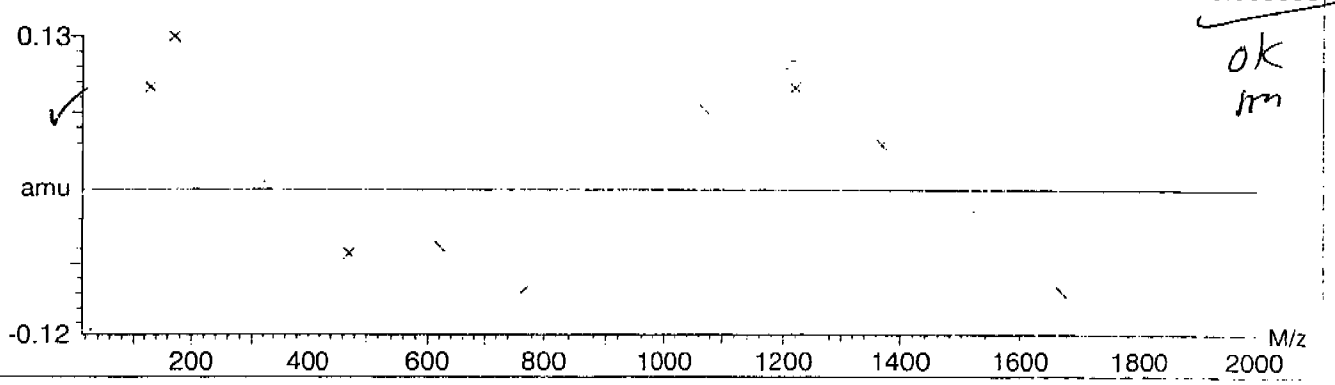

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

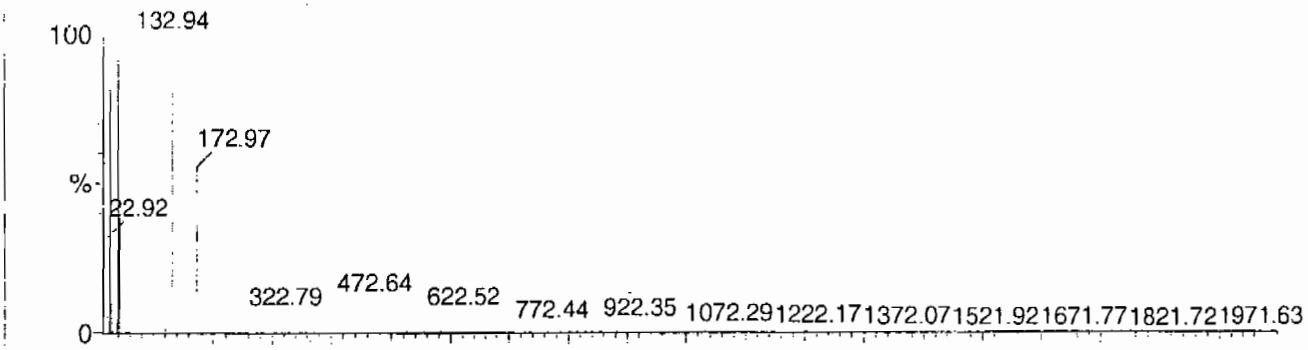

Reference file: Naics2

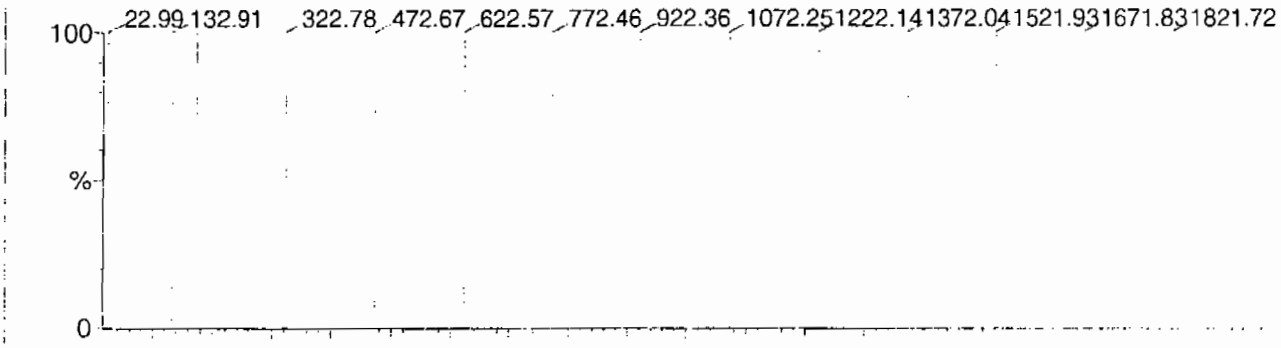

Mass difference (Raw - Ref mass)

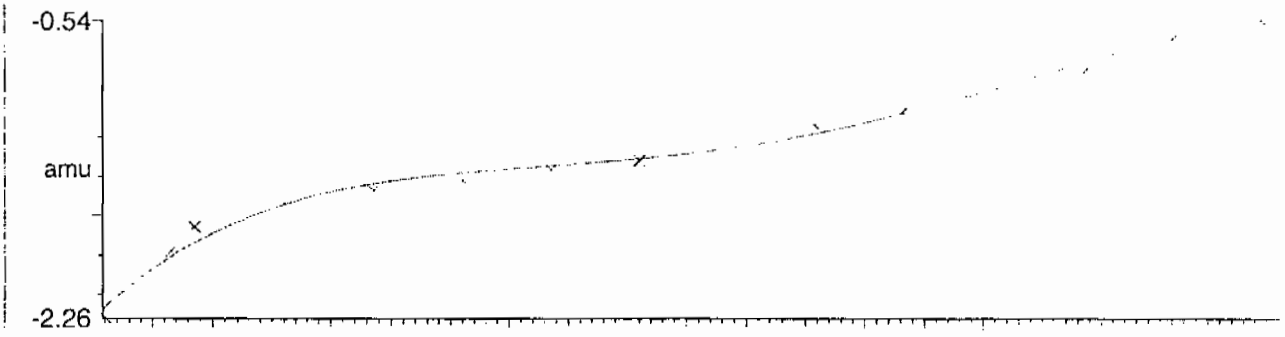

Residuals

Mean residual = 3.486639e-9 ± 0.040487

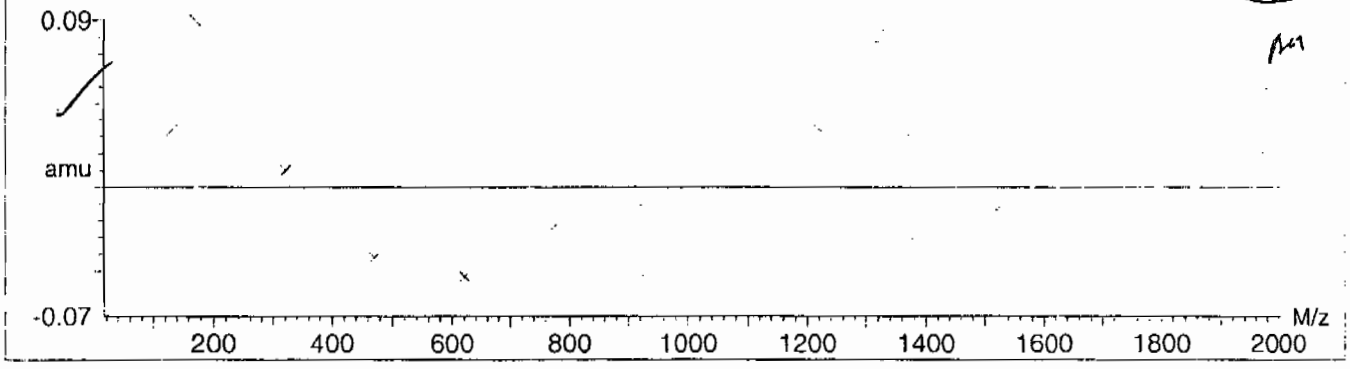

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

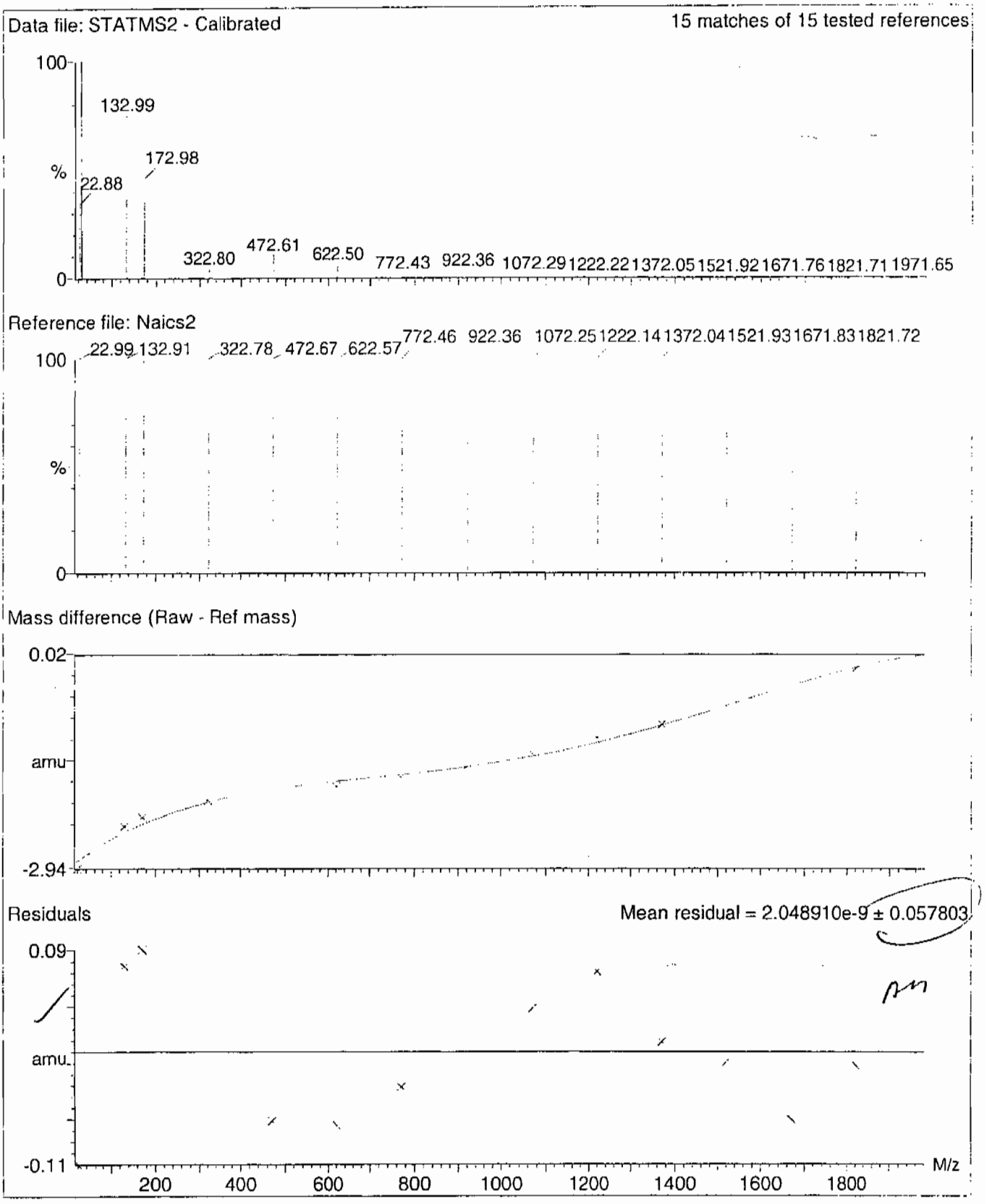

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

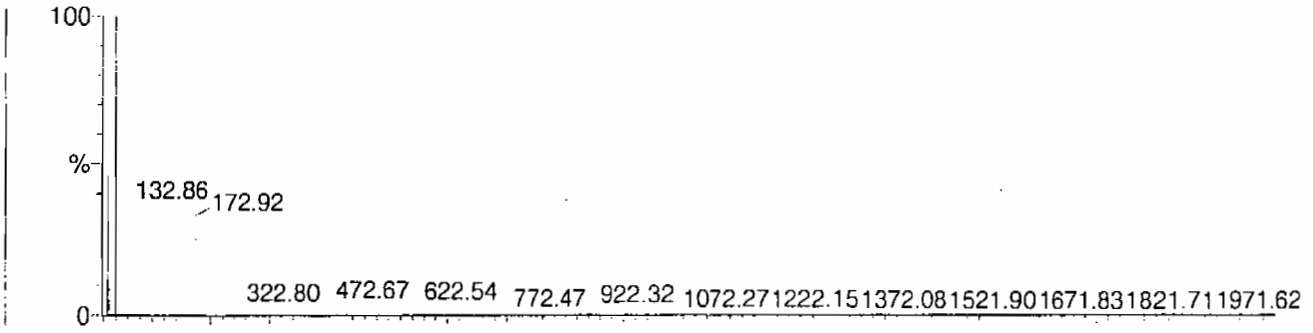

Reference file: Naics2

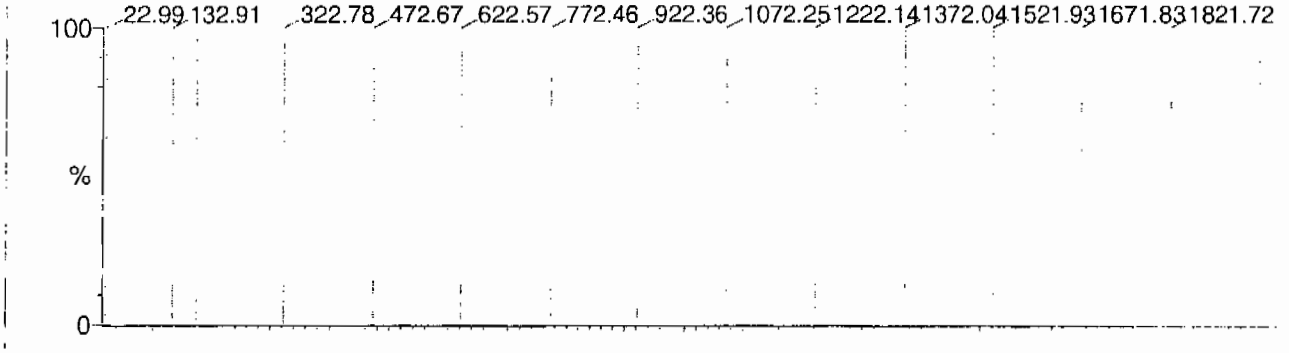

Mass difference (Raw - Ref mass)

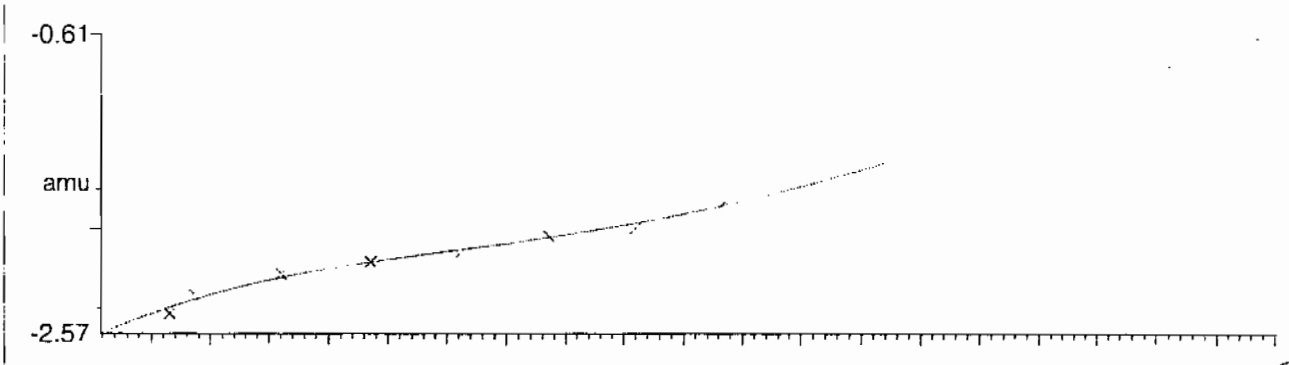

Residuals

Mean residual = -2.623502e-9 ± 0.025622

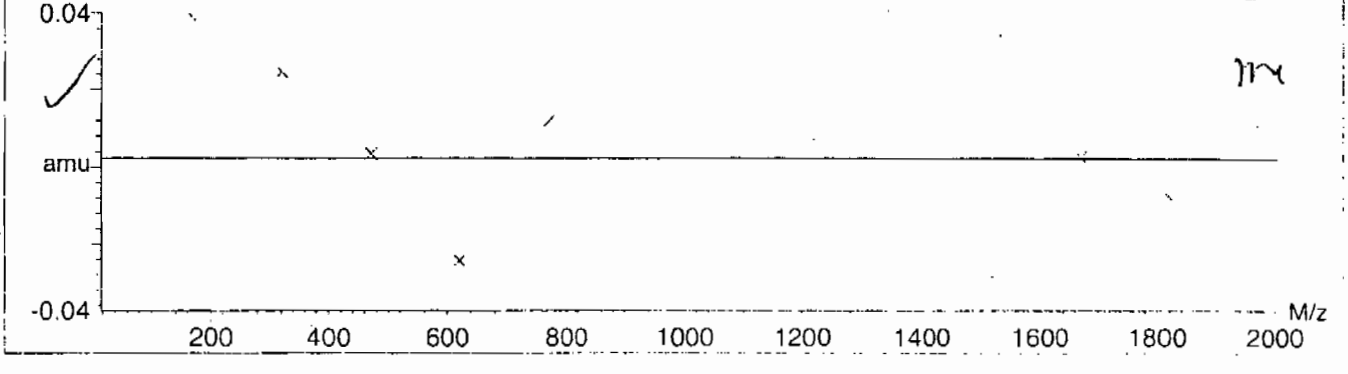

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

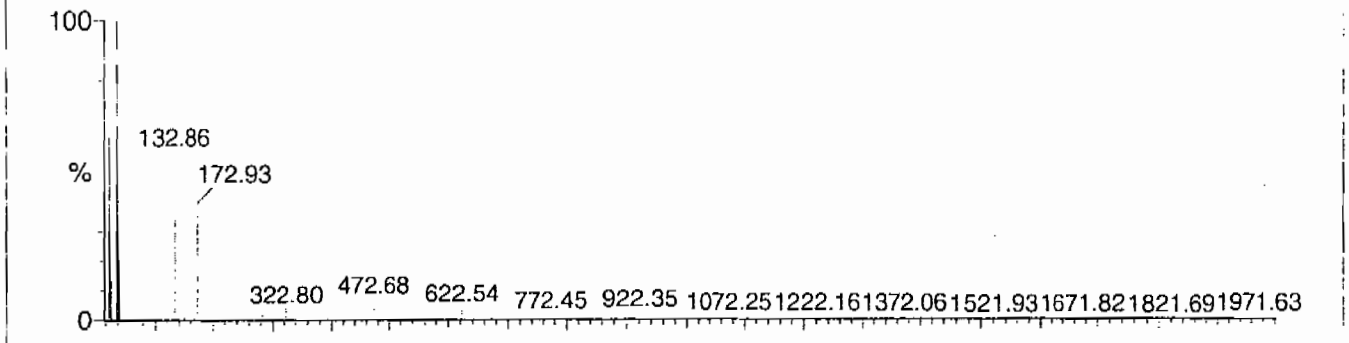

Reference file: Naics2

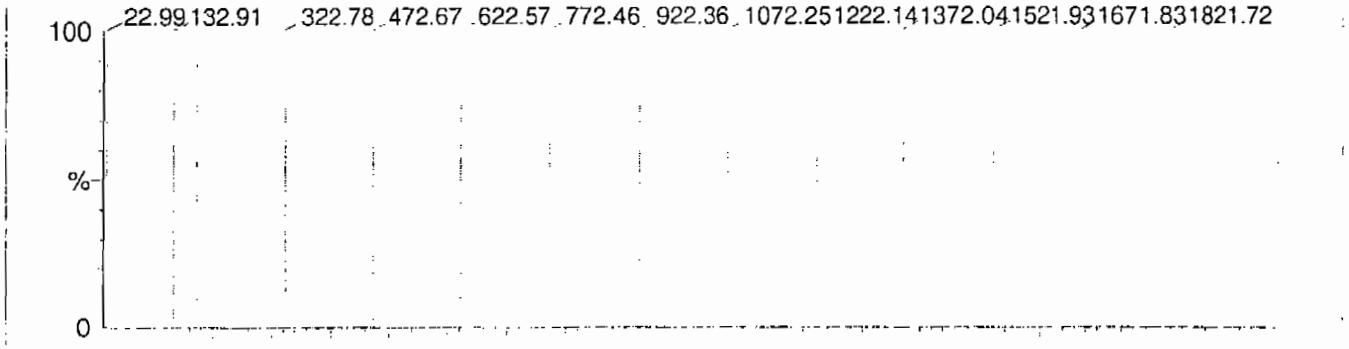

Mass difference (Raw - Ref mass)

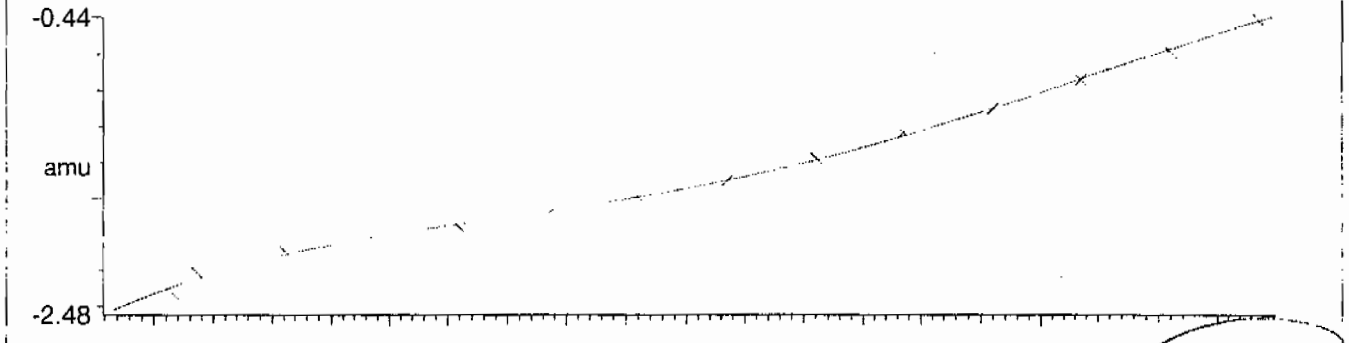

Residuals

Mean residual = -6.785350e-9 ± 0.023134

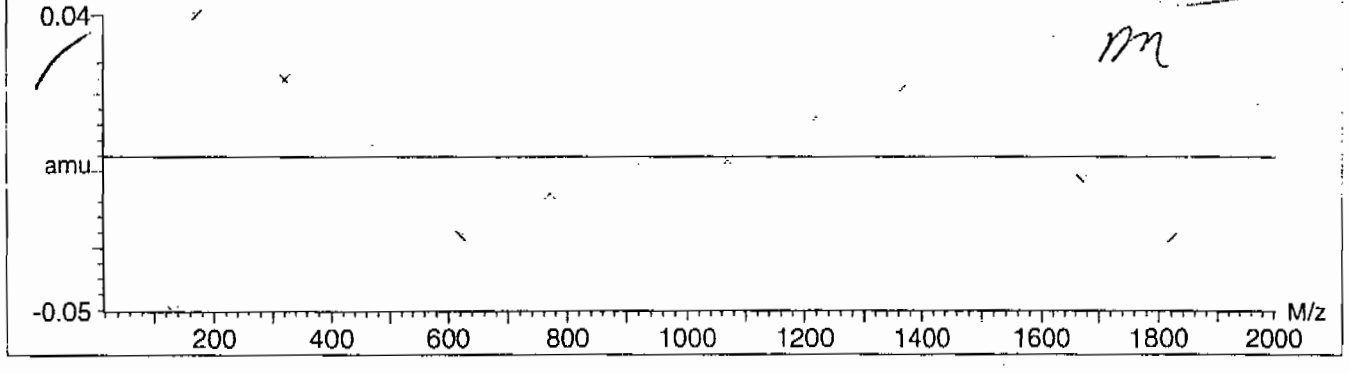

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Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Tue Feb 16 13:37:41 2010

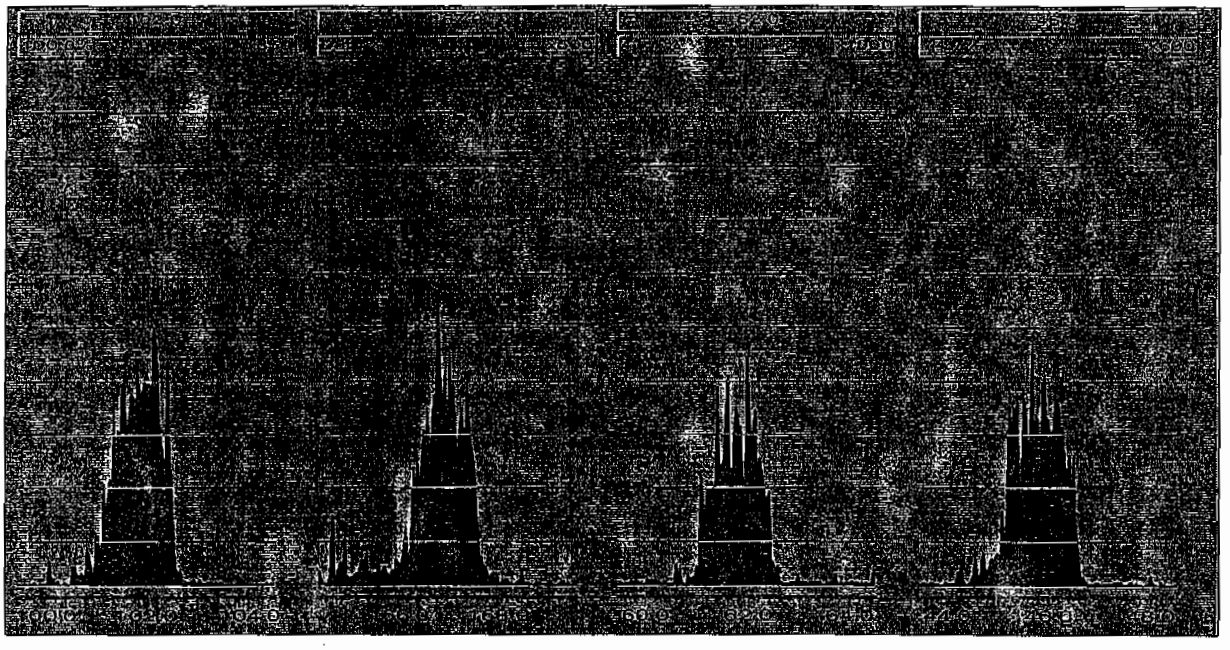

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1394

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3012.417	12.049	17408.567	17.428
Upper Limit			3916.1421	12.549	22631.1371	17.928
Lower Limit			2108.6919	11.549	12185.9969	16.928
MB for batch 944913	18–feb–10 19:59	EXP0216104a	2912.39	12.033	16431.2	17.419
LCS for batch 944913	18–feb–10 20:29	EXP0216105a	3552.89	12.033	19999.7	17.423
RE15–10–7928	19–feb–10 03:23	EXP0216119a	2585.34	12.067	15761.4	17.422
RE15–10–7928(245396001MS)	19–feb–10 03:52	EXP0216120a	2522.96	12.067	13794.2	17.422
RE15–10–7928(245396001MSD)	19–feb–10 04:22	EXP0216121a	2755.35	12.064	14582.7	17.433
RE15–10–7929	19–feb–10 04:52	EXP0216122a	2408.14	12.067	14479.6	17.423
RE15–10–7927	19–feb–10 05:22	EXP0216123a	2429.9	12.033	13730.1	17.423
RE15–10–7930	19–feb–10 05:51	EXP0216124a	2377.8	12.067	13095.4	17.422

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396001

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216119a

Date Analyzed: 19-FEB-10 03:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216119a
Date: 19-Feb-2010
Time: 03:23:06
ID: 245396001
Vial: 3:7,A

LAW | 944915 | Solid | 2 |

MAT 2/19/10

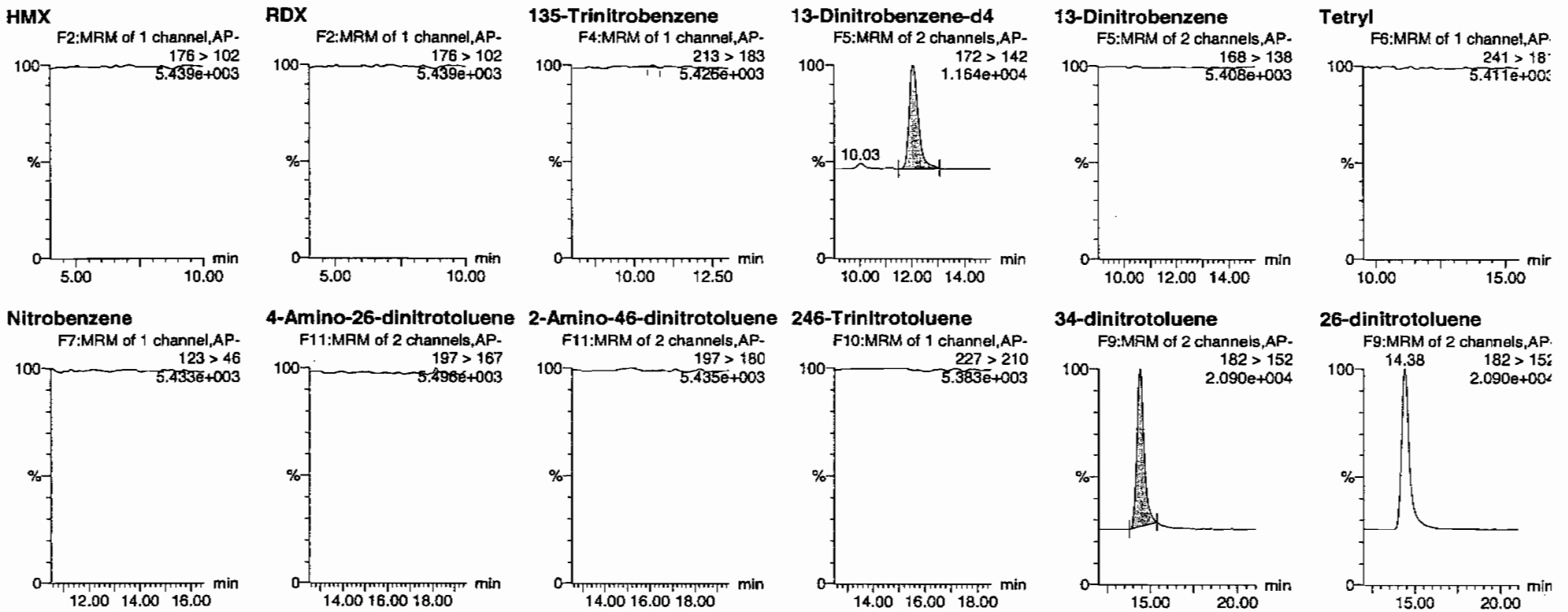

Hmm 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

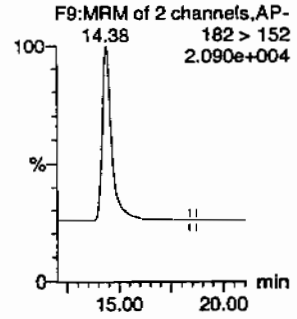

26-dinitrotoluene-d3

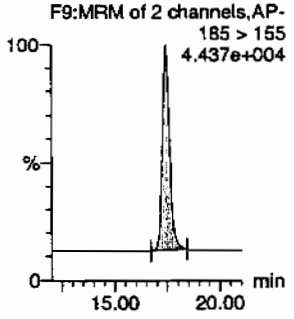

2-Nitrotoluene

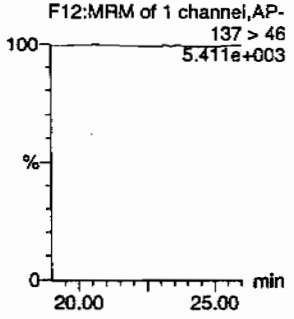

4-Nitrotoluene

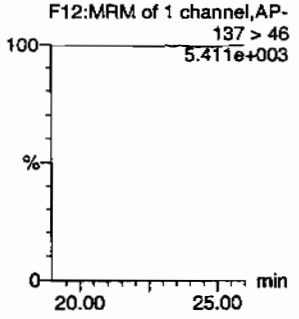

3-Nitrotoluene

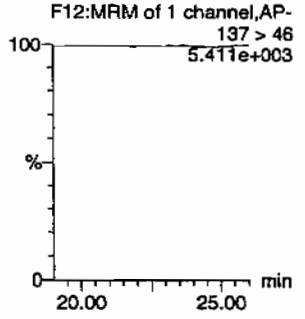

PETN

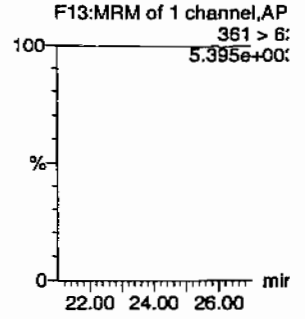

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
245396001	HMX	176 > 102			2585.335									
245396001	RDX	176 > 102			2585.335									
245396001	135-Trinitrobenzene	213 > 183			2585.335			MM-	19-Feb-10	08:36:25				
245396001	13-Dinitrobenzene-d4	172 > 142	12.07	2585.335		2585.335	2585.335	bb			429.1132	85.8	-14.2	420.7
245396001	13-Dinitrobenzene	168 > 138			2585.335									
245396001	Tetryl	241 > 181			2585.335									
245396001	Nitrobenzene	123 > 46			2585.335									
245396001	4-Amino-26-dinitrotoluene	197 > 167			15761.367									
245396001	2-Amino-46-dinitrotoluene	197 > 180			15761.367									
245396001	246-Trinitrotoluene	227 > 210			15761.367									
245396001	34-dinitrotoluene	182 > 152	14.38	7493.472	15761.367	7493.472	237.716	bb			262.3799	105.0	5.0	381.2
245396001	26-dinitrotoluene	182 > 152			15761.367									
245396001	24-dinitrotoluene	182 > 152			15761.367			MM-	19-Feb-10	08:45:21				
245396001	26-dinitrotoluene-d3	185 > 155	17.42	15761.367		15761.367	15761.367	bb			452.6903	90.5	-9.5	3193.5
245396001	2-Nitrotoluene	137 > 46			15761.367									
245396001	4-Nitrotoluene	137 > 46			15761.367									
245396001	3-Nitrotoluene	137 > 46			15761.367									
245396001	PETN	361 > 62			15761.367									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396001

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170119.wiff

Date Analyzed: 18-FEB-10 16:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dan 2/19/10

ample Name: "245396001" Sample ID: "944915|2|LER" File: "EXS02170119.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX63212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 4:19:53 PM

ified: No

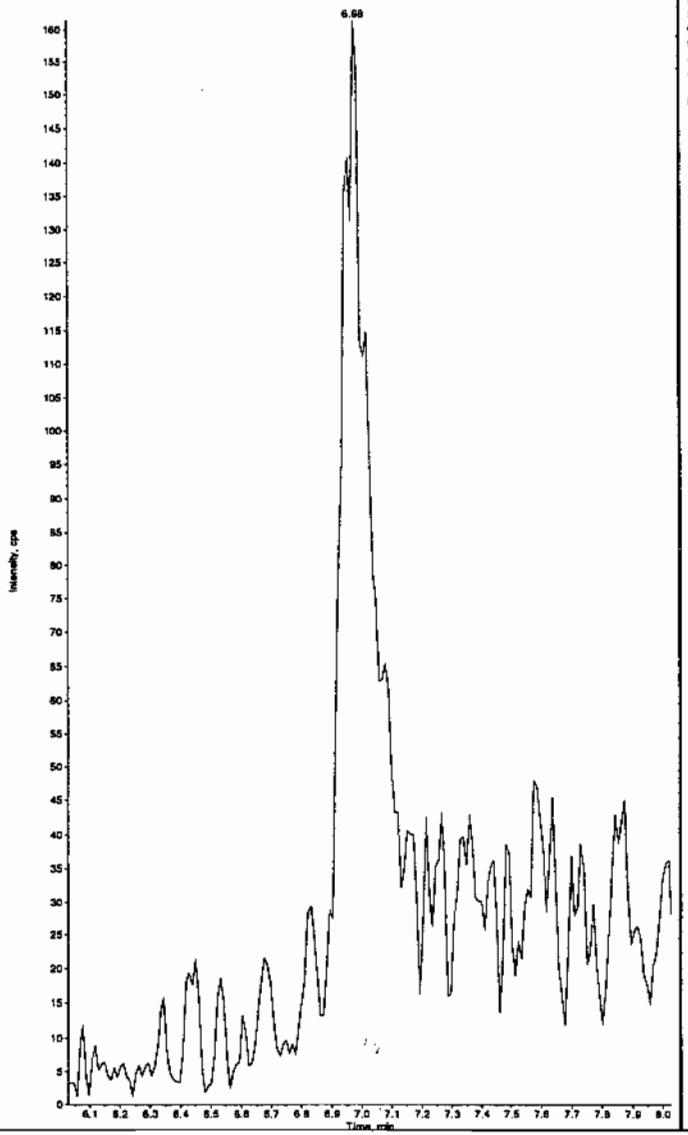

Sample Name: "245396001" Sample ID: "944915|2|LER" File: "EXS02170119.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX63212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:19:53 PM

Modified: Yes

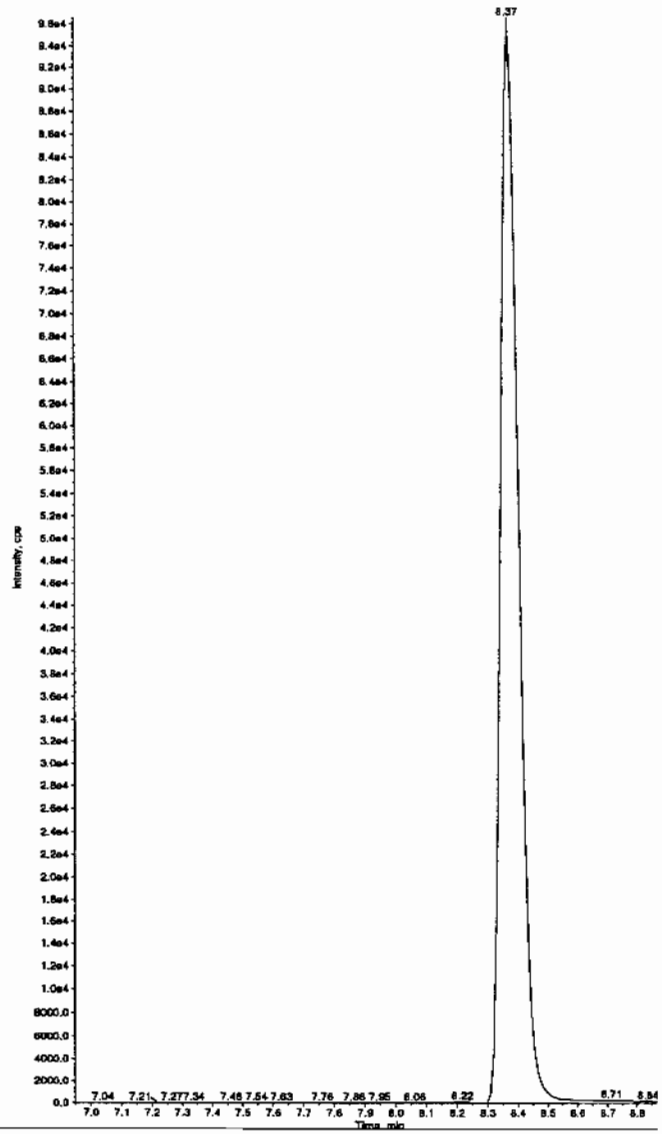

HMM 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "245396001" Sample ID: "944915|2|LER" File: "EXS02170119.wiff"
eak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1	
ple Type:	Unknown	
centration:	N/A	
culated Conc:	275.	ng/mL
. Date:	2/18/2010	
. Time:	4:19:53 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.40	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.36	min
a:	3.66e+006	counts
ght:	966834.290	cps
rt Time:	8.26	min .
. Time:	8.75	min

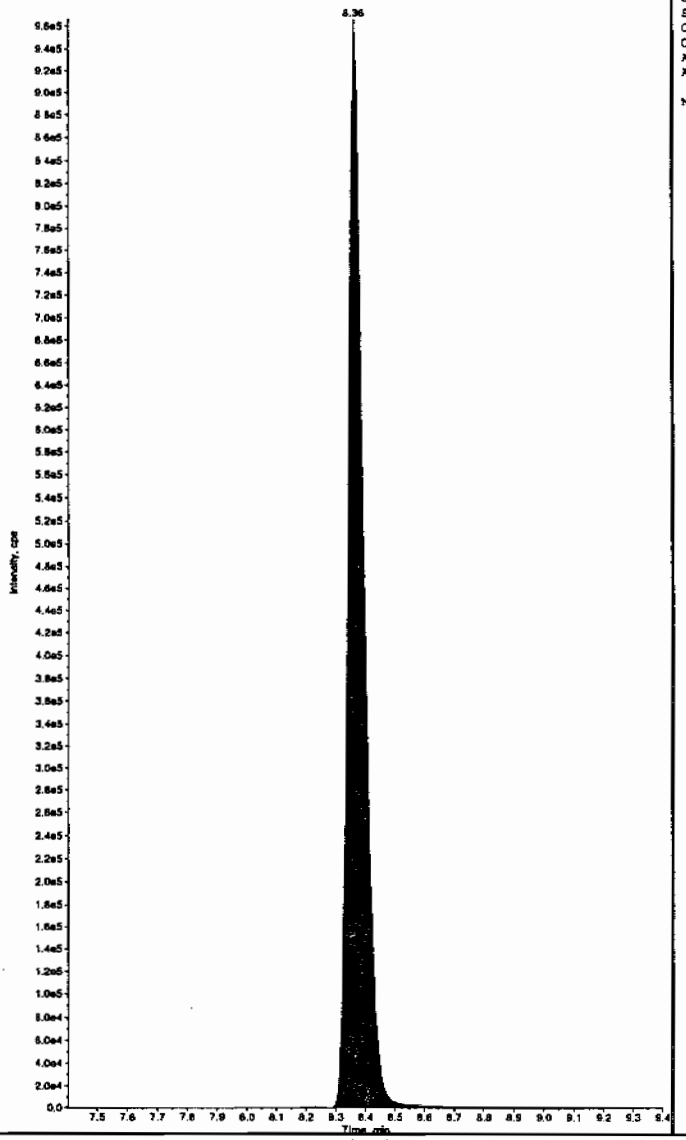

Sample Name: "245396001" Sample ID: "944915|2|LER" File: "EXS02170119.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	0.00	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	4:19:53 PM	
Modified:	No	

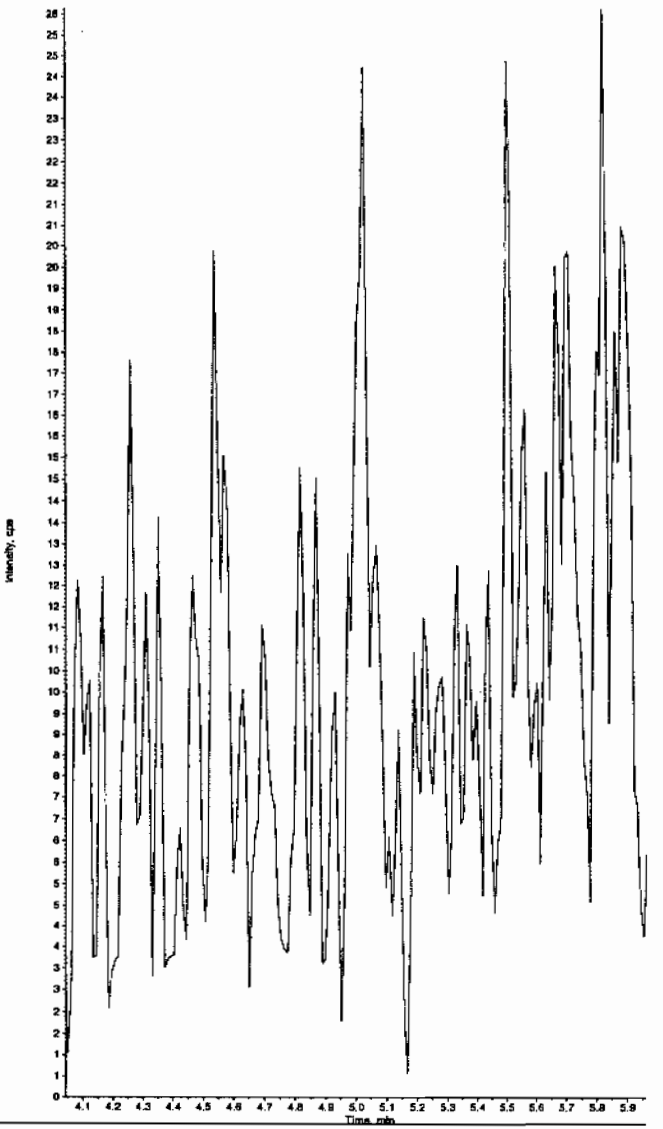

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ample Name: "245396001" Sample ID: "944915|2|LER" File: "EXS02170119.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 4:19:53 PM

ified: No

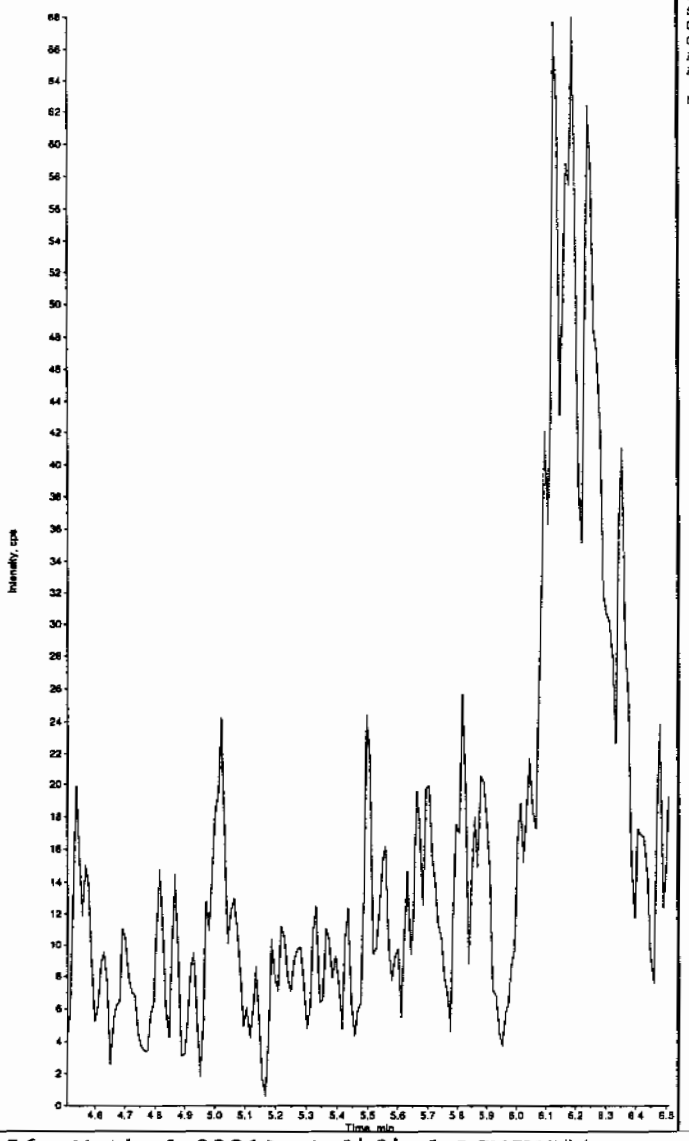

Sample Name: "245396001" Sample ID: "944915|2|LER" File: "EXS02170119.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:19:53 PM

Modified: No

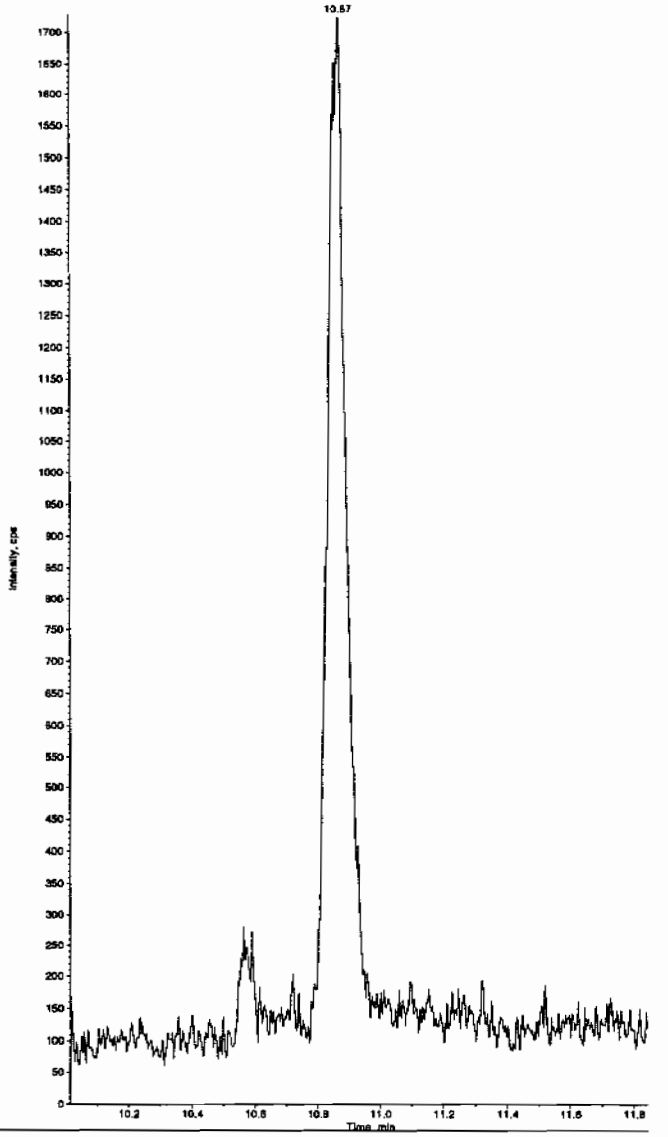

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7929

Lab Code: GEI

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396002

Sample Amount 2

Moisture: 27.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216122a

Date Analyzed: 19-FEB-10 04:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216122a
Date: 19-Feb-2010
Time: 04:52:23
ID: 245396002
Vial: 3:7,D

| LANL | 944915 | Soil | 21

MAP 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.565e+003

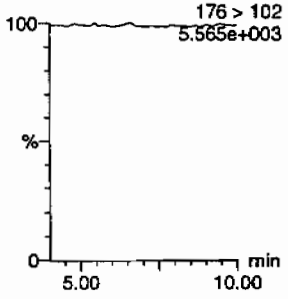

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.565e+003

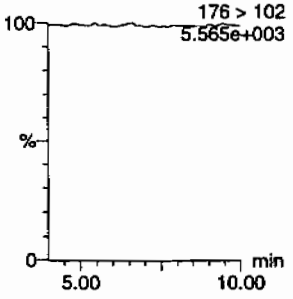

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.521e+003

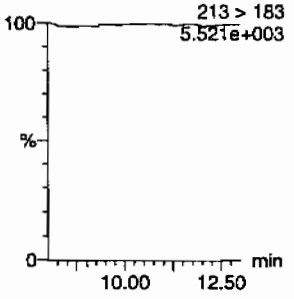

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.140e+004

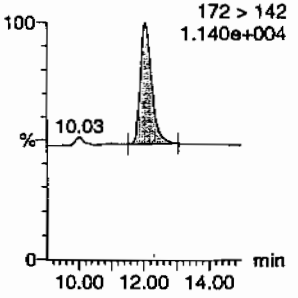

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.515e+003

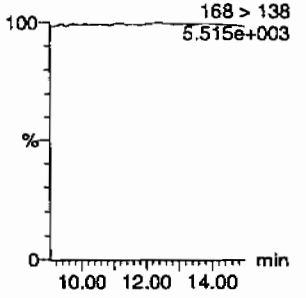

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.525e+003

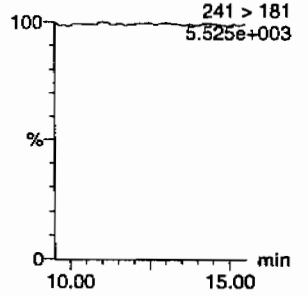

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.520e+003

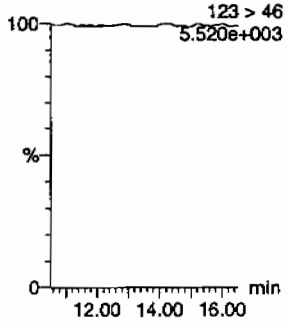

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.547e+003

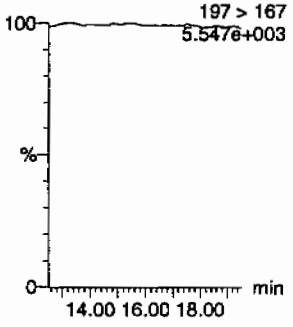

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.548e+003

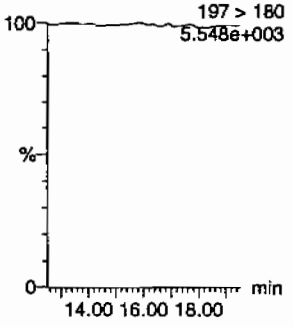

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.531e+003

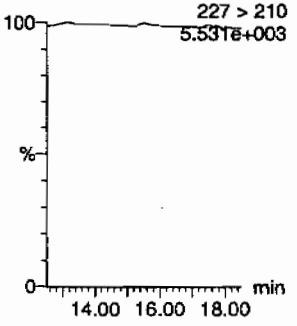

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.038e+004

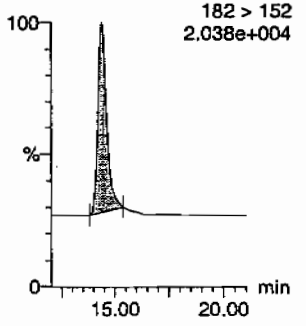

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.038e+004

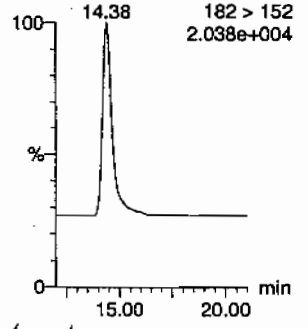

MM 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

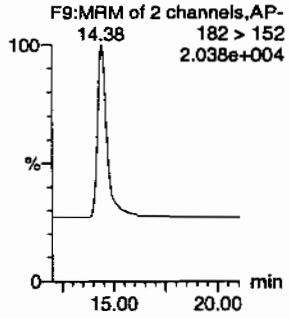

26-dinitrotoluene-d3

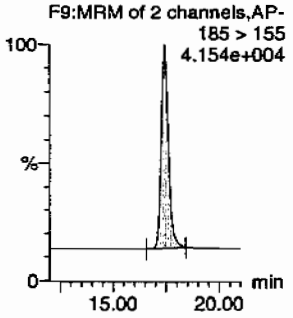

2-Nitrotoluene

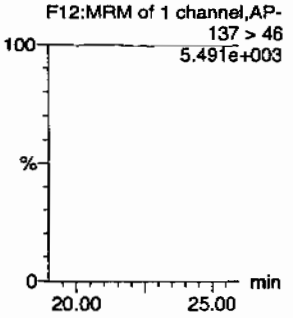

4-Nitrotoluene

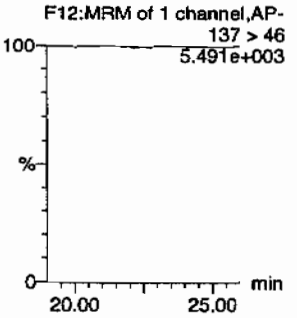

3-Nitrotoluene

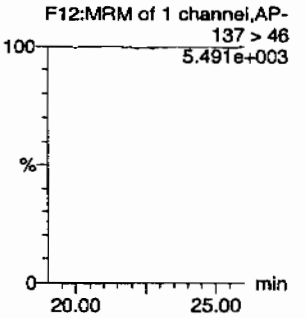

PETN

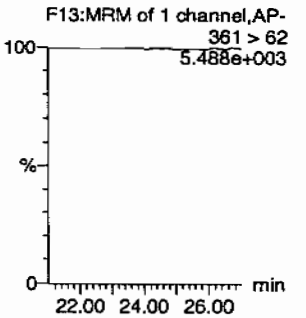

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245396002	HMX	176 > 102			2408.137									
245396002	RDX	176 > 102			2408.137									
245396002	135-Trinitrobenzene	213 > 183			2408.137									
245396002	13-Dinitrobenzene-d4	172 > 142	12.07	2408.137		2408.137	2408.137	bb			399.7019	79.9	-20.1	331.4
245396002	13-Dinitrobenzene	168 > 138			2408.137									
245396002	Tetryl	241 > 181			2408.137									
245396002	Nitrobenzene	123 > 46			2408.137									
245396002	4-Amino-26-dinitrotoluene	197 > 167			14479.552									
245396002	2-Amino-46-dinitrotoluene	197 > 180			14479.552									
245396002	246-Trinitrotoluene	227 > 210			14479.552									
245396002	34-dinitrotoluene	182 > 152	14.38	7056.713	14479.552	7056.713	243.679	bb			268.9606	107.6	7.6	534.4
245396002	26-dinitrotoluene	182 > 152			14479.552									
245396002	24-dinitrotoluene	182 > 152			14479.552									
245396002	26-dinitrotoluene-d3	185 > 155	17.42	14479.552		14479.552	14479.552	bb			415.8746	83.2	-16.8	1351.4
245396002	2-Nitrotoluene	137 > 46			14479.552									
245396002	4-Nitrotoluene	137 > 46			14479.552									
245396002	3-Nitrotoluene	137 > 46			14479.552									
245396002	PETN	361 > 62			14479.552									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7929

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396002

Sample Amount 2

Moisture: 27.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170122.wiff

Date Analyzed: 18-FEB-10 17:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lar 2/19/10

mple Name: "245396002" Sample ID: "944915|2|LER" File: "EXS02170122.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 5:06:59 PM

ified: No

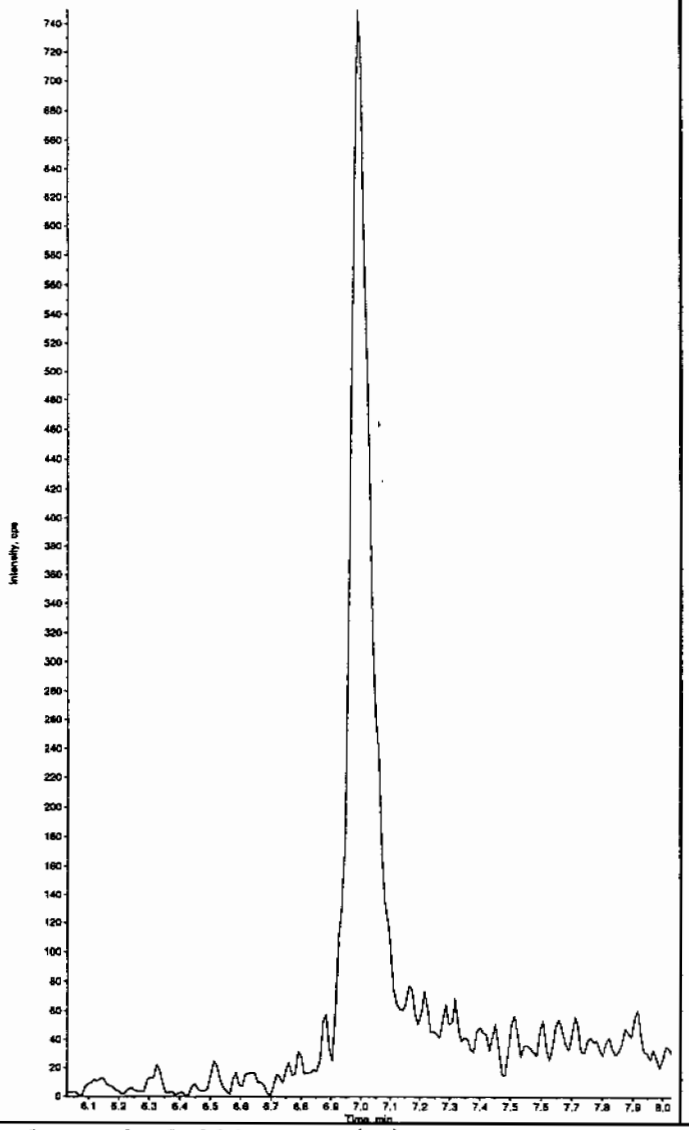

Sample Name: "245396002" Sample ID: "944915|2|LER" File: "EXS02170122.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:06:59 PM

Modified: Yes

Hmm 02/19/10

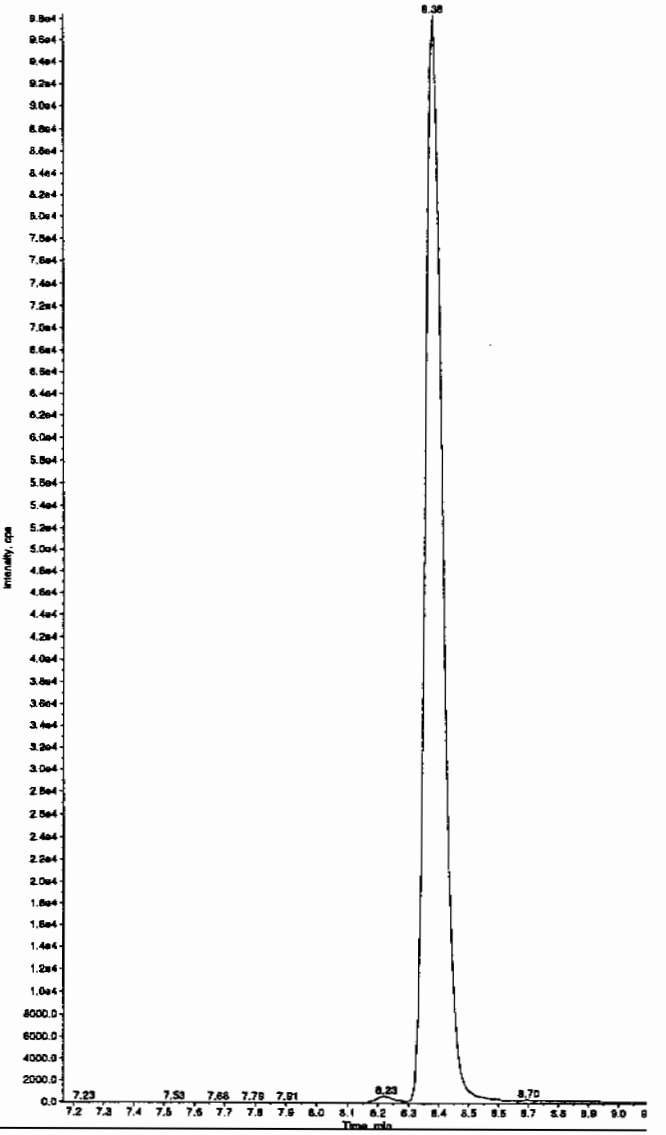

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Sample Name: "245396002" Sample ID: "944915|2|LER" File: "EXS02170122.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
icentration:	N/A
lculated Conc:	268. ng/mL
. Date:	2/18/2010
. Time:	5:06:59 PM
lified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	1460.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	15.0 sec
ected RT:	8.40 min
Relative RT:	No
. Type:	Valley
ention Time:	8.37 min
a:	3.58e+006 counts
ight:	979914.063 cps
rt Time:	8.24 min
Time:	8.73 min

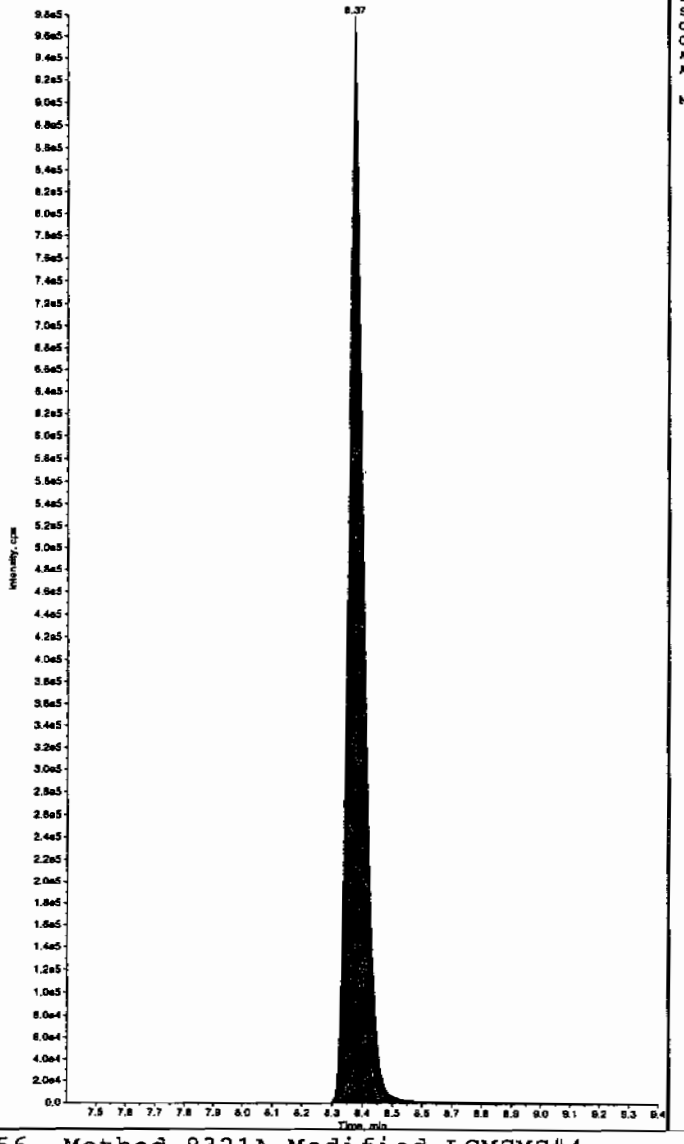

Sample Name: "245396002" Sample ID: "944915|2|LER" File: "EXS02170122.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/18/2010
Acq. Time:	5:06:59 PM
Modified:	No

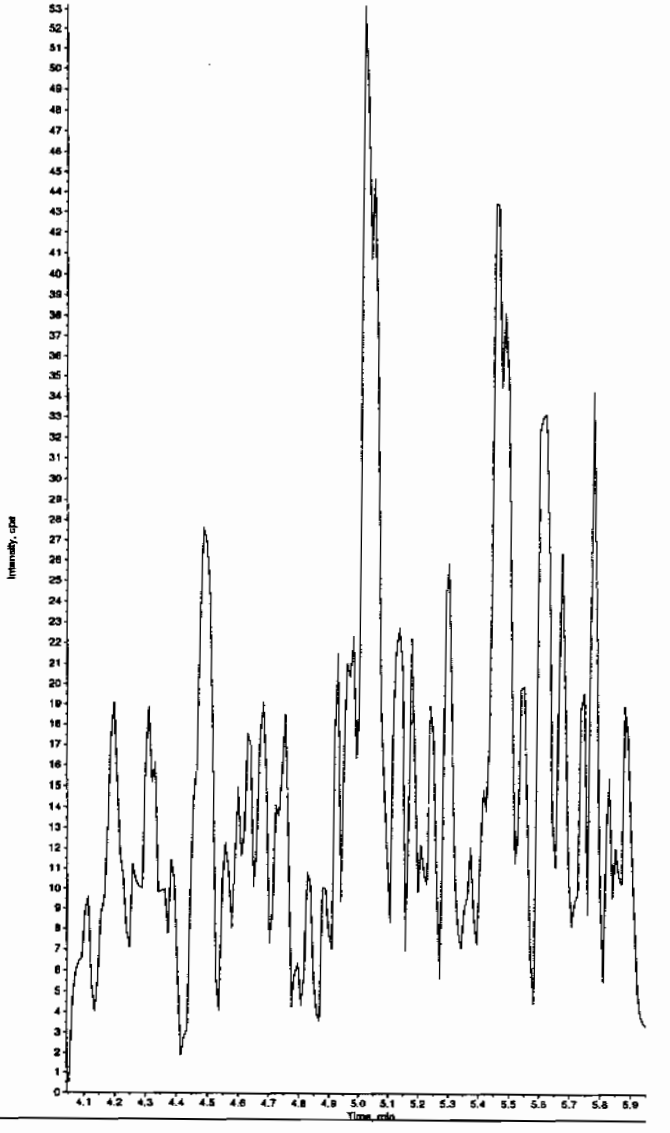

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ample Name: "245396002" Sample ID: "944915|2|LER" File: "EXS02170122.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
icentration: N/A
.culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 5:06:59 PM
ified: No

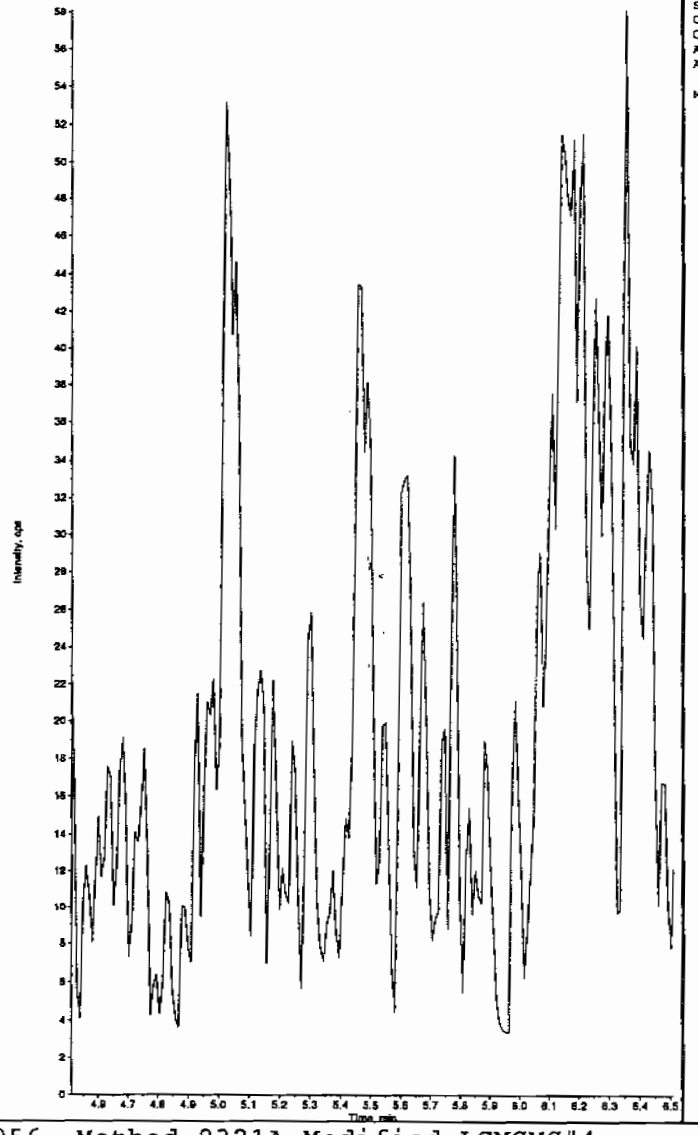

Sample Name: "245396002" Sample ID: "944915|2|LER" File: "EXS02170122.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:06:59 PM
Modified: No

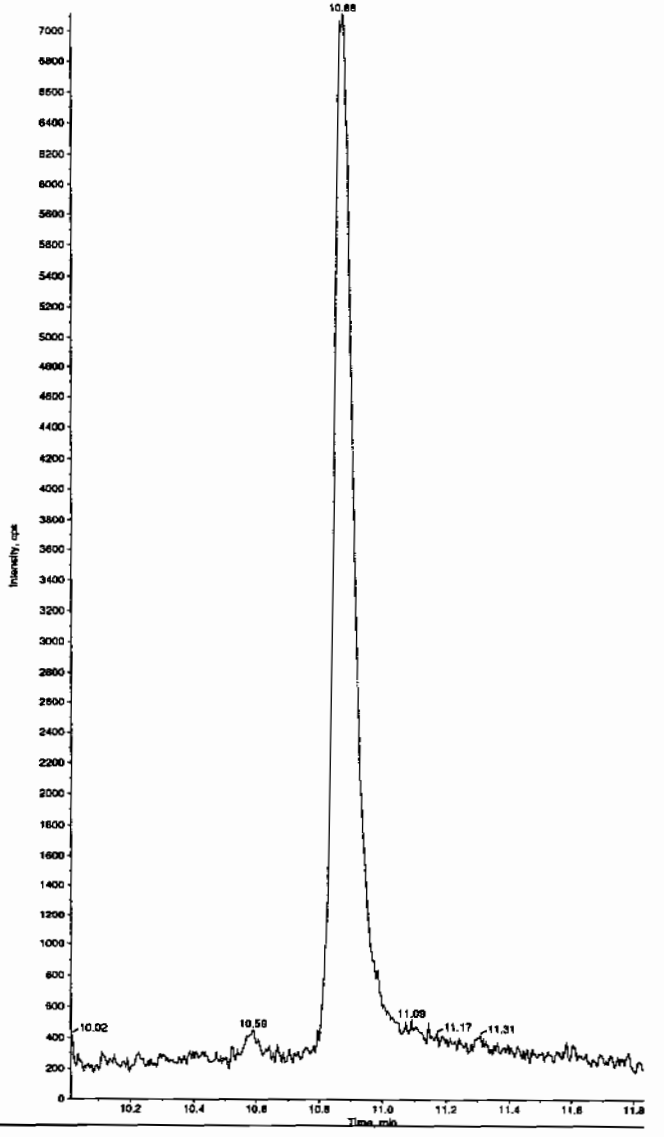

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7927

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396003

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216123a

Date Analyzed: 19-FEB-10 05:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216123a
Date: 19-Feb-2010
Time: 05:22:09
ID: 245396003 | LANC | 944915 | Solid | 2 |
Vial: 3:7,E

MAP 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.520e+003

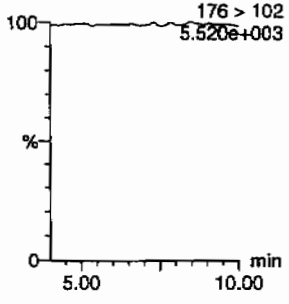

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.520e+003

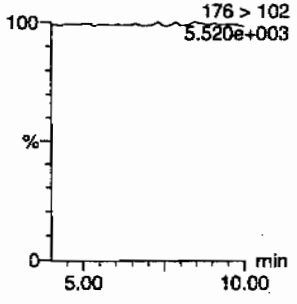

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.484e+003

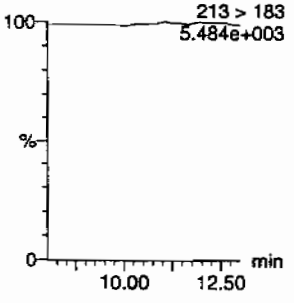

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.147e+004

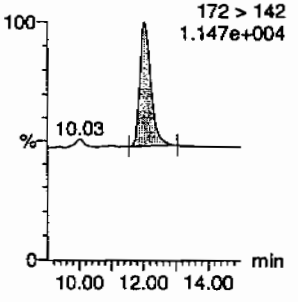

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.481e+003

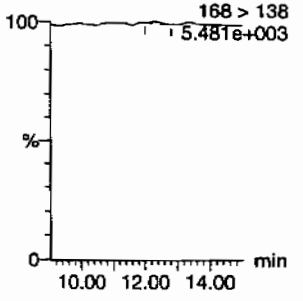

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.501e+003

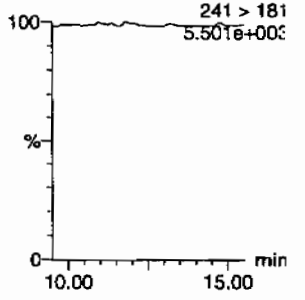

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.489e+003

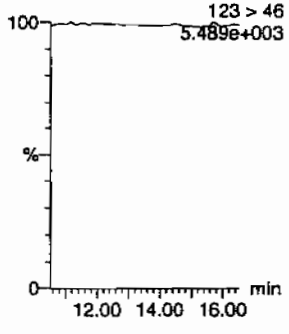

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.479e+003

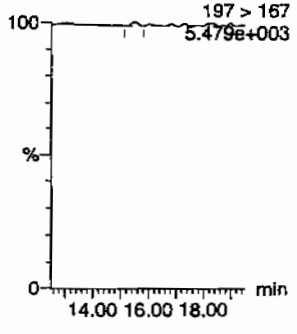

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.491e+003

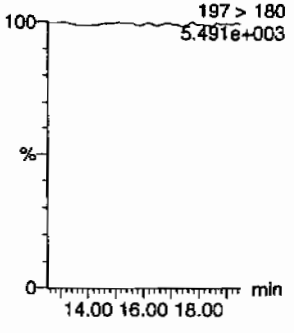

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.442e+003

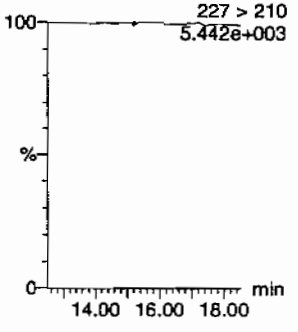

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.999e+004

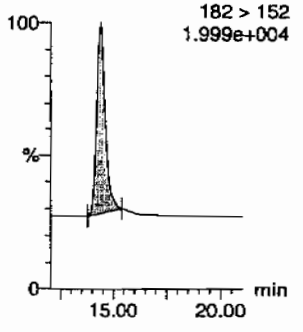

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
1.999e+004

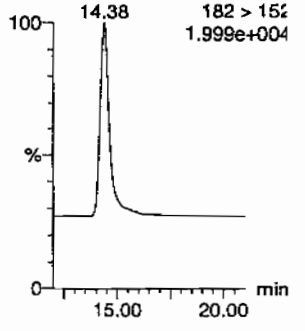

MM 2/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

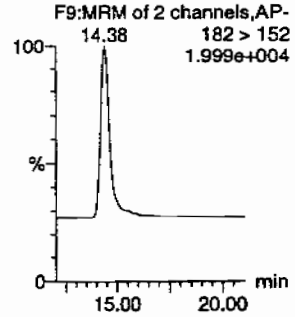

26-dinitrotoluene-d3

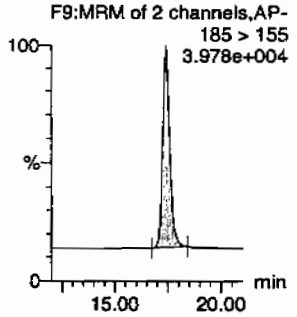

2-Nitrotoluene

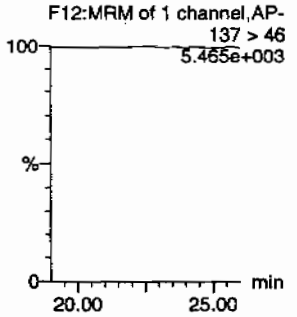

4-Nitrotoluene

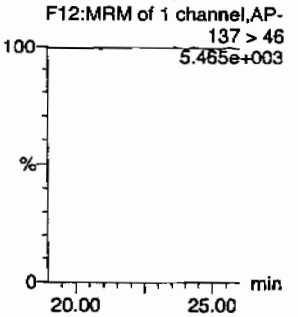

3-Nitrotoluene

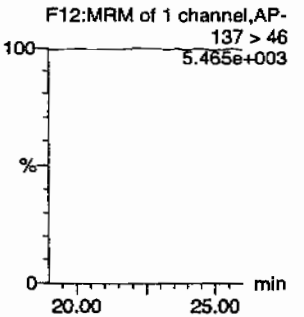

PETN

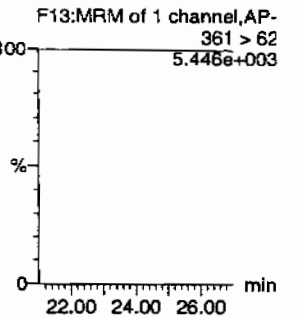

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245396003	HMX	176 > 102			2429.899									
245396003	RDX	176 > 102			2429.899									
245396003	135-Trinitrobenzene	213 > 183			2429.899									
245396003	13-Dinitrobenzene-d4	172 > 142	12.03	2429.899		2429.899	2429.899	bb			403.3140	80.7	-19.3	197.3
245396003	13-Dinitrobenzene	168 > 138			2429.899			MM-	19-Feb-10	08:36:56				
245396003	Tetryl	241 > 181			2429.899									
245396003	Nitrobenzene	123 > 46			2429.899									
245396003	4-Amino-26-dinitrotoluene	197 > 167			13730.130			MM-	19-Feb-10	08:40:28				
245396003	2-Amino-46-dinitrotoluene	197 > 180			13730.130									
245396003	246-Trinitrotoluene	227 > 210			13730.130									
245396003	34-dinitrotoluene	182 > 152	14.38	6737.633	13730.130	6737.633	245.359	bb			270.8158	108.3	8.3	504.7
245396003	26-dinitrotoluene	182 > 152			13730.130									
245396003	24-dinitrotoluene	182 > 152			13730.130									
245396003	26-dinitrotoluene-d3	185 > 155	17.42	13730.130		13730.130	13730.130	bb			394.3501	78.9	-21.1	921.4
245396003	2-Nitrotoluene	137 > 46			13730.130									
245396003	4-Nitrotoluene	137 > 46			13730.130									
245396003	3-Nitrotoluene	137 > 46			13730.130									
245396003	PETN	361 > 62			13730.130									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7927

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396003

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170123.wiff

Date Analyzed: 18-FEB-10 17:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lur 2/19/10

Sample Name: "245396003" Sample ID: "944915|2|LER" File: "EXS02170123.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:22:42 PM
Modified: No

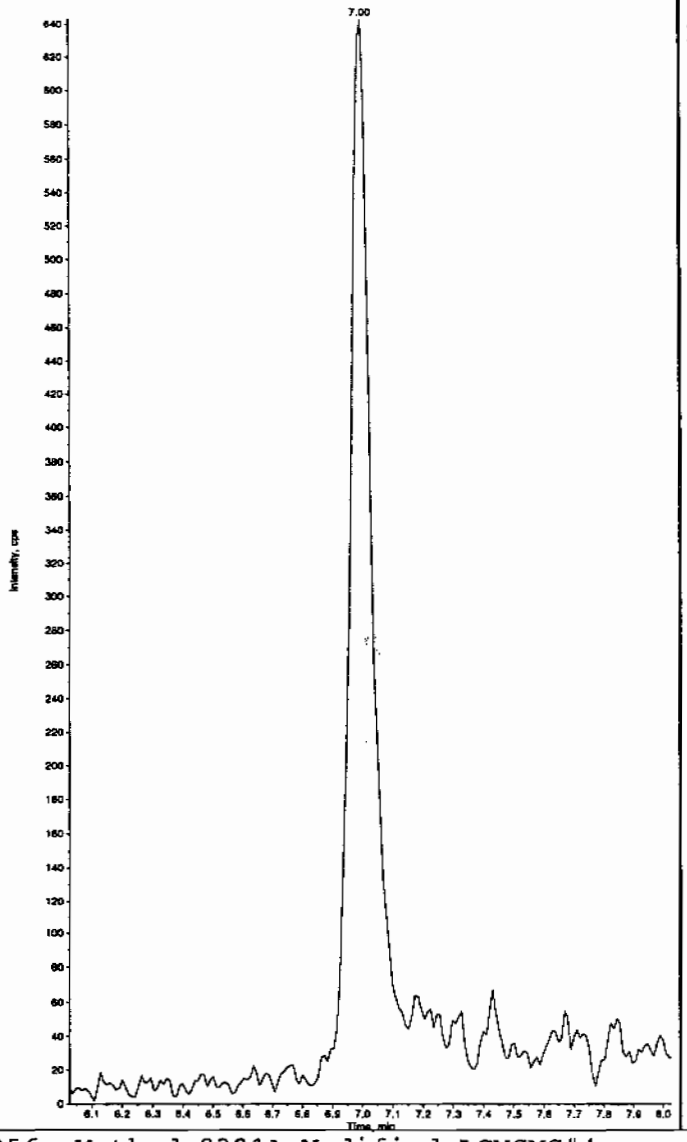

Sample Name: "245396003" Sample ID: "944915|2|LER" File: "EXS02170123.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:22:42 PM
Modified: Yes

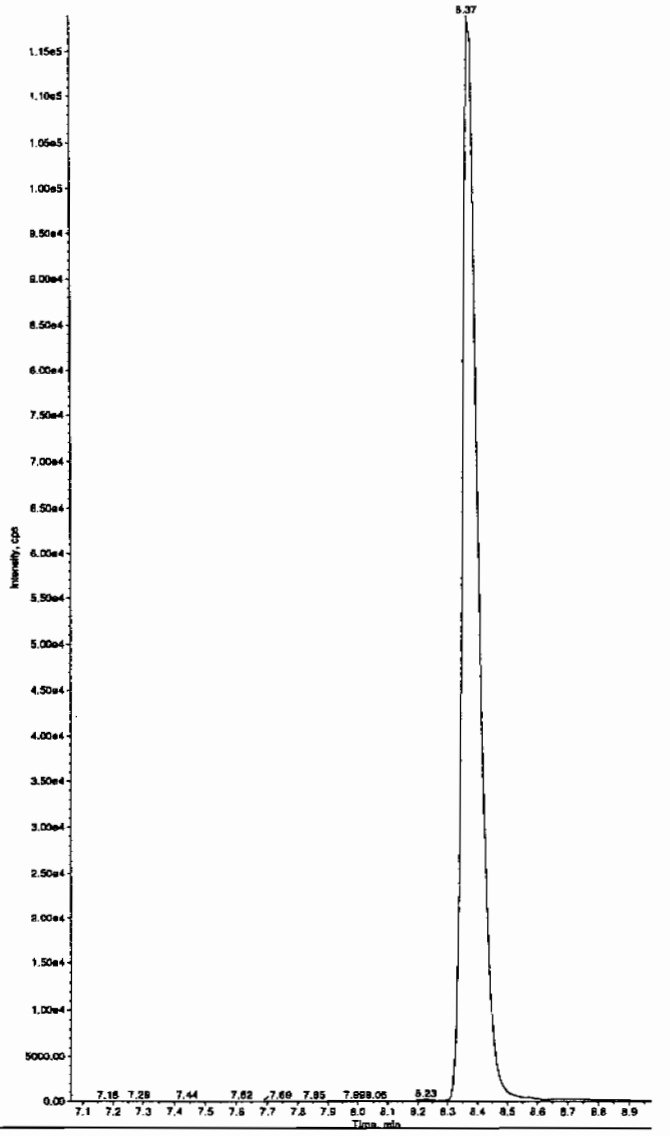

Hm 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "245396003" Sample ID: "944915|2|LER" File: "EXS02170123.wiff"
'eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
:omment: "LCX83212S" Annotation: ""
nple Index: 1
nple Type: Unknown
ncentration: N/A
culated Conc: 310. ng/mL
. Date: 2/18/2010
. Time: 5:22:42 PM

dified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

. Type: Valley
ention Time: 8.37 min
a: 4.13e+006 counts
ght: 1130215.698 cps
rt Time: 8.22 min
Time: 8.89 min

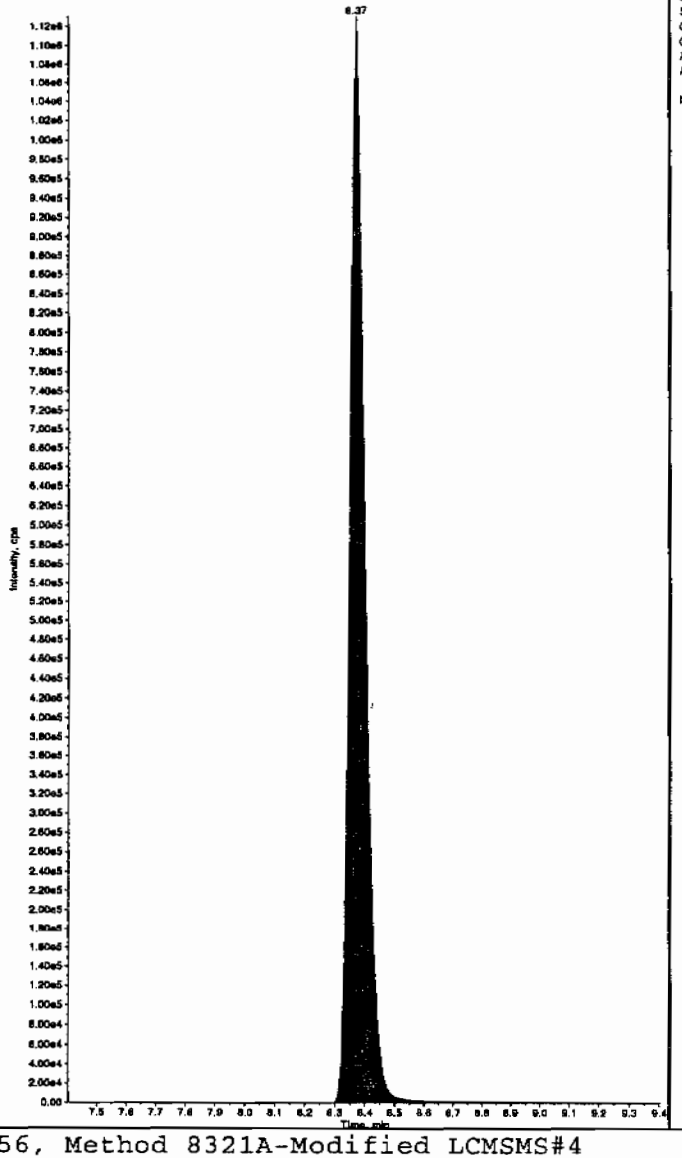

Sample Name: "245396003" Sample ID: "944915|2|LER" File: "EXS02170123.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:22:42 PM

Modified: No

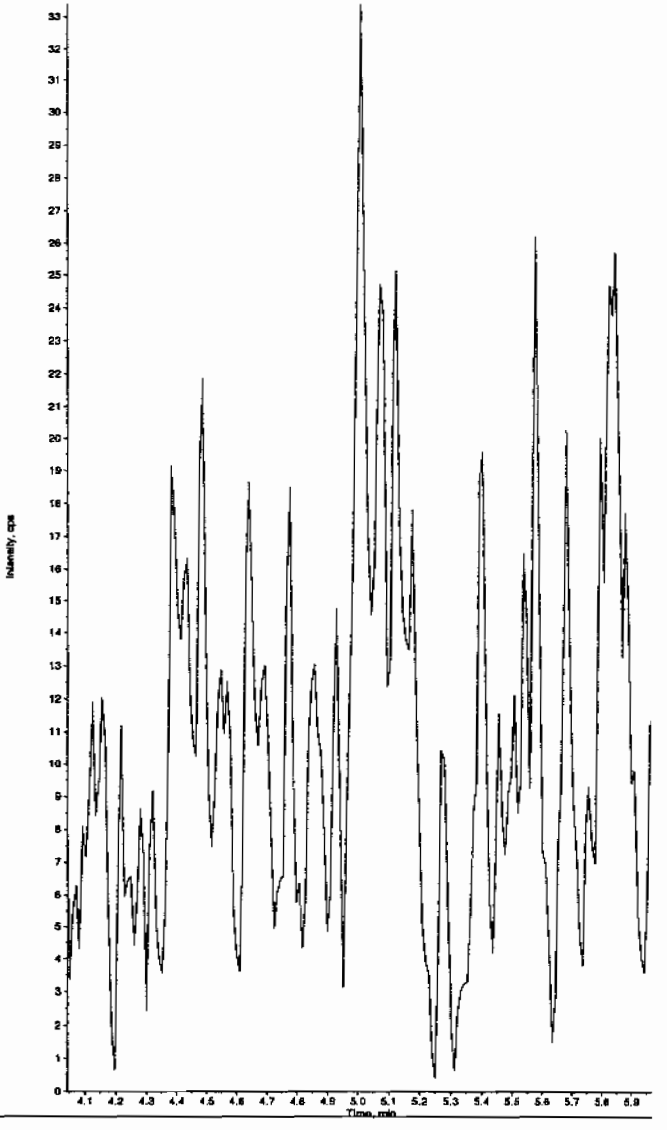

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ample Name: "245396003" Sample ID: "944915[2]LER" File: "EXS02170123.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 5:22:42 PM

ified: No

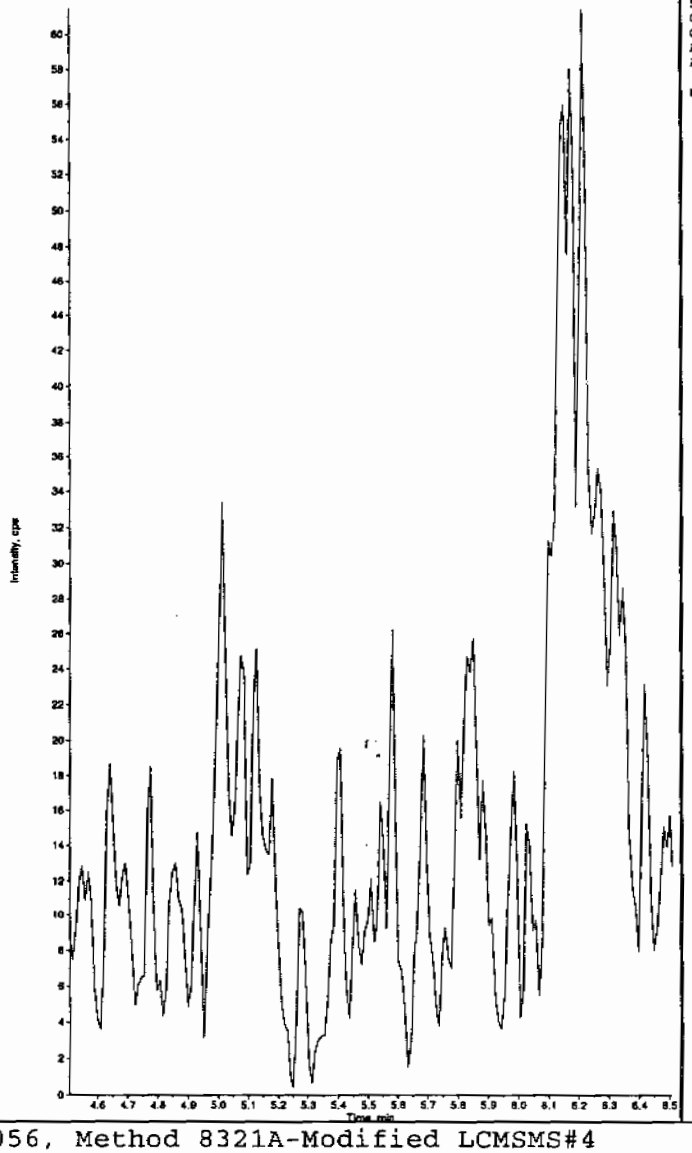

Sample Name: "245396003" Sample ID: "944915[2]LER" File: "EXS02170123.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:22:42 PM

Modified: No

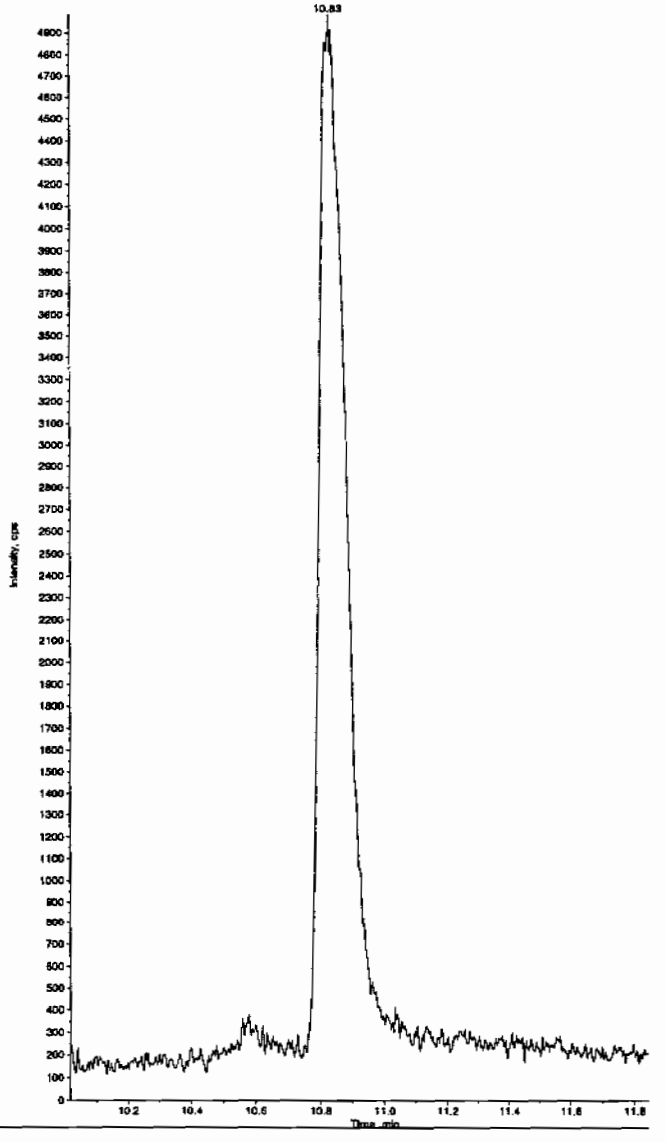

:EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7930

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396004

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216124a

Date Analyzed: 19-FEB-10 05:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	Uh
121-14-2	2,4-Dinitrotoluene	500	Uh
121-82-4	RDX	500	Uh
19406-51-0	4-Amino-2,6-dinitrotoluene	500	Uh
2691-41-0	HMX	500	Uh
35572-78-2	2-Amino-4,6-dinitrotoluene	500	Uh
479-45-8	Tetryl	500	Uh
606-20-2	2,6-Dinitrotoluene	500	Uh
78-11-5	PETN	1000	Uh
88-72-2	o-Nitrotoluene	500	Uh
98-95-3	Nitrobenzene	500	Uh
99-08-1	m-Nitrotoluene	500	Uh
99-35-4	1,3,5-Trinitrobenzene	500	Uh
99-65-0	m-Dinitrobenzene	500	Uh
99-99-0	p-Nitrotoluene	500	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216124a
Date: 19-Feb-2010
Time: 05:51:53
ID: 245396004
Vial: 3:7,F

| LANL | 944915 | Soil | 2 |

MAP 2/19/10

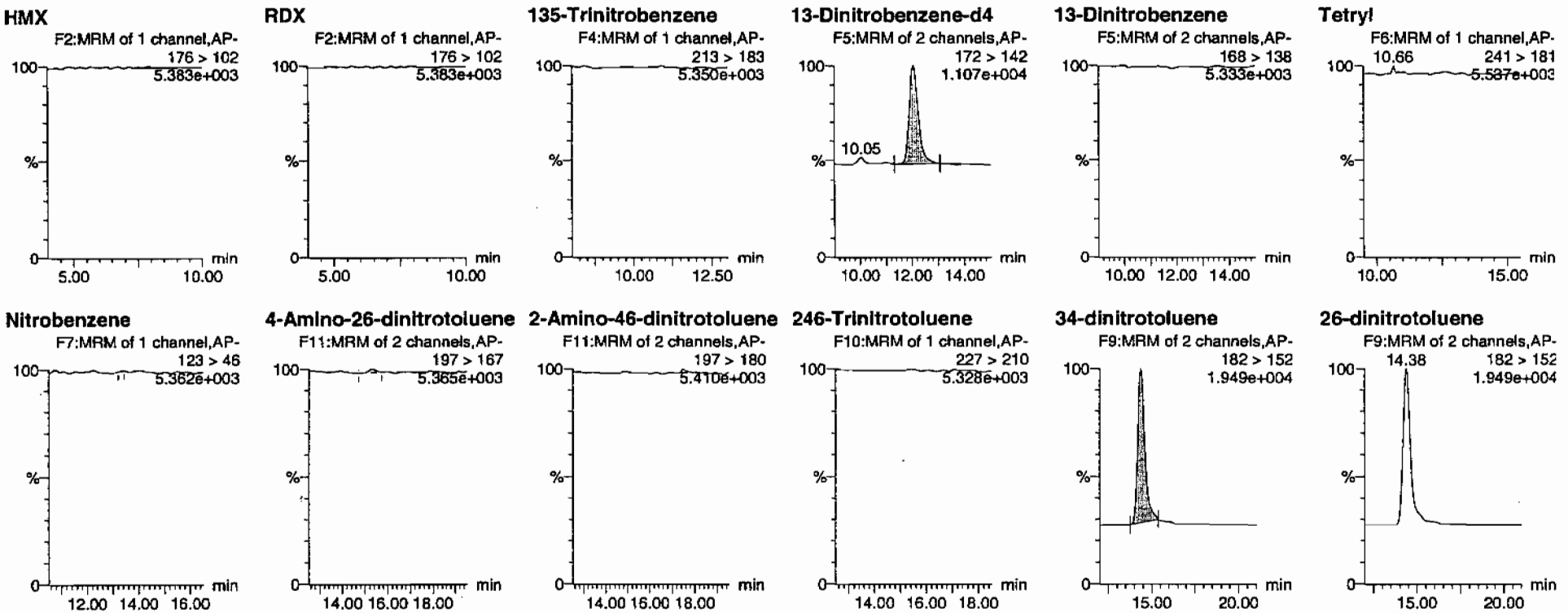

HMM 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

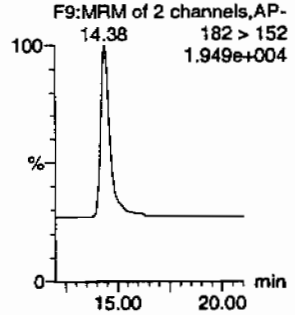

26-dinitrotoluene-d3

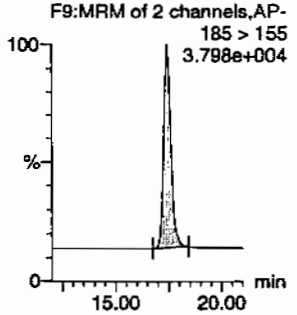

2-Nitrotoluene

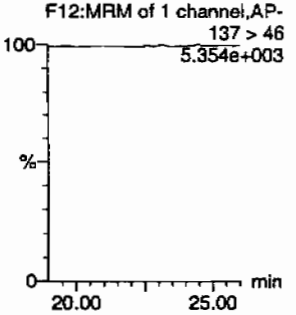

4-Nitrotoluene

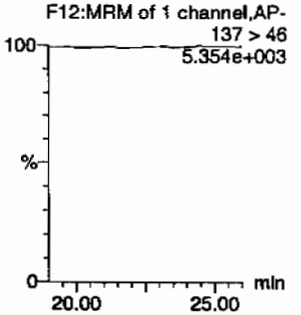

3-Nitrotoluene

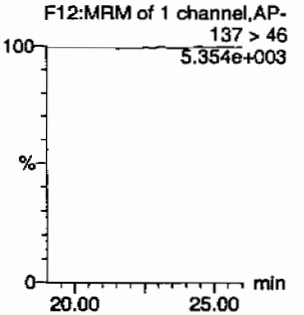

PETN

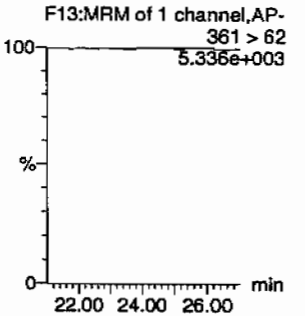

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245396004	HMX	176 > 102			2377.796									
245396004	RDX	176 > 102			2377.796									
245396004	135-Trinitrobenzene	213 > 183			2377.796									
245396004	13-Dinitrobenzene-d4	172 > 142	12.07	2377.796		2377.796	2377.796	bb			394.6659	78.9	-21.1	540.9
245396004	13-Dinitrobenzene	168 > 138			2377.796									
245396004	Tetryl	241 > 181			2377.796									
245396004	Nitrobenzene	123 > 46			2377.796			MM-	19-Feb-10	08:37:42				
245396004	4-Amino-26-dinitrotoluene	197 > 167			13095.445			MM-	19-Feb-10	08:40:31				
245396004	2-Amino-46-dinitrotoluene	197 > 180			13095.445									
245396004	246-Trinitrotoluene	227 > 210			13095.445									
245396004	34-dinitrotoluene	182 > 152	14.38	6636.437	13095.445	6636.437	253.387	bb			279.6765	111.9	11.9	529.8
245396004	26-dinitrotoluene	182 > 152			13095.445									
245396004	24-dinitrotoluene	182 > 152			13095.445									
245396004	26-dinitrotoluene-d3	185 > 155	17.42	13095.445		13095.445	13095.445	bb			376.1210	75.2	-24.8	1205.0
245396004	2-Nitrotoluene	137 > 46			13095.445									
245396004	4-Nitrotoluene	137 > 46			13095.445									
245396004	3-Nitrotoluene	137 > 46			13095.445									
245396004	PETN	361 > 62			13095.445									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7930

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 245396004

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170124.wiff

Date Analyzed: 18-FEB-10 17:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	Uh
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	Uh
618-87-1	3,5-Dinitroaniline	1000	Uh
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	Uh
78-30-8	tris(o-cresyl) phosphate	1000	Uh

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcm 2/19/10

ample Name: "245396004" Sample ID: "944915|2|LER" File: "EXS02170124.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
icentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 5:38:25 PM

lified: No

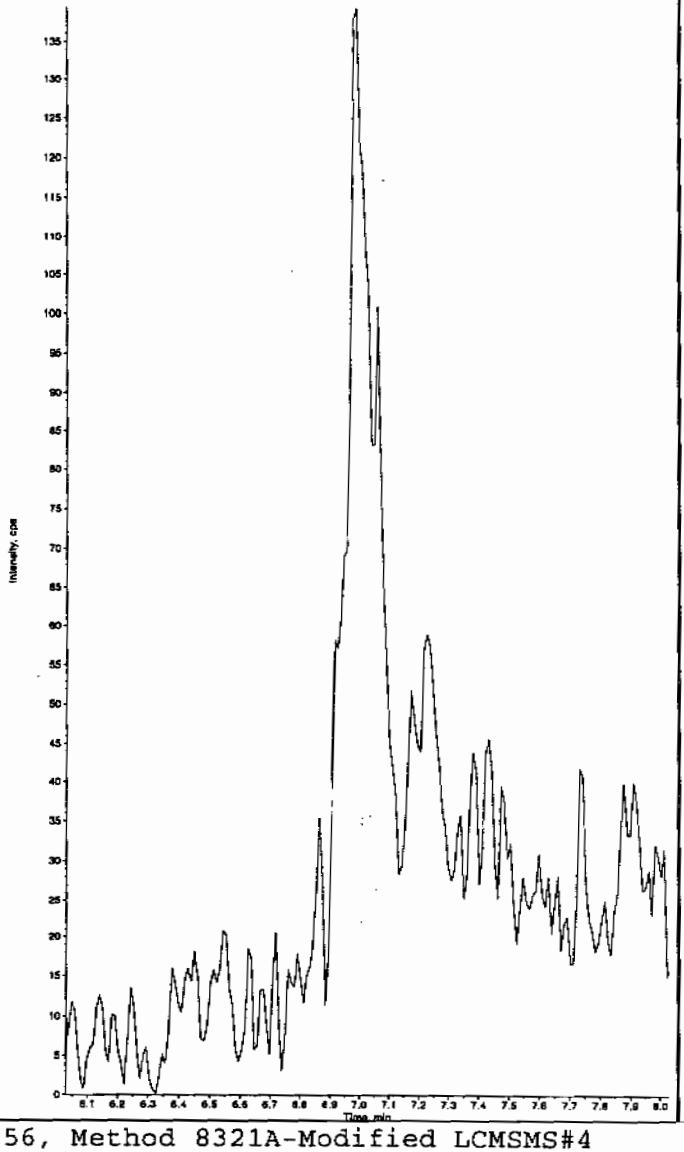

Sample Name: "245396004" Sample ID: "944915|2|LER" File: "EXS02170124.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:38:25 PM

Modified: Yes

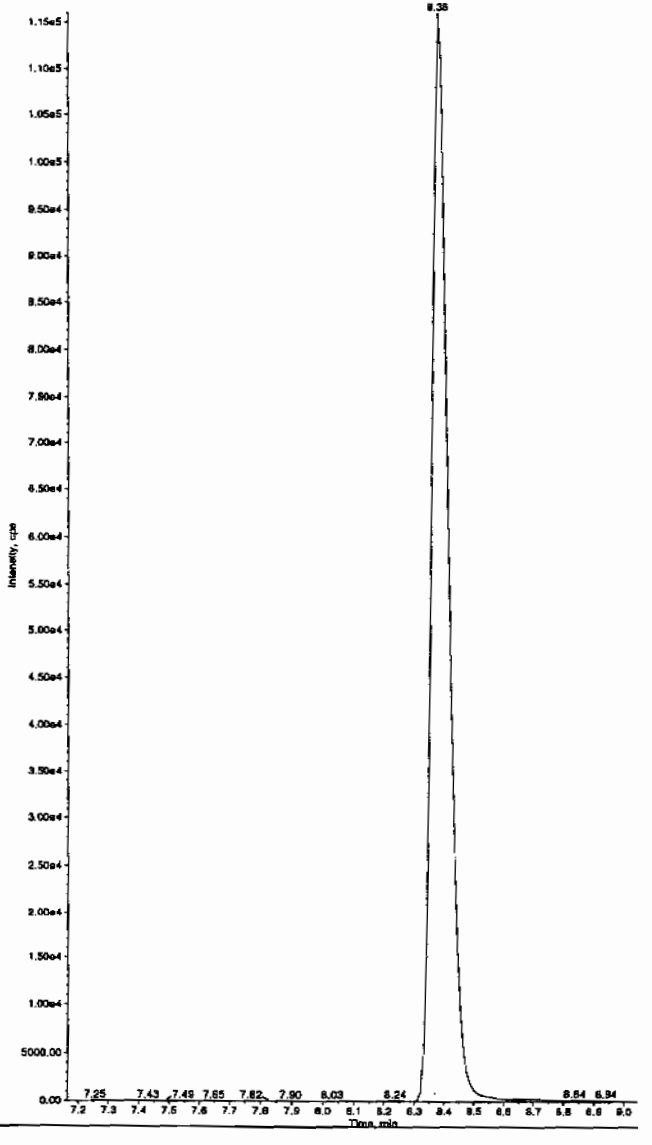

Hnm 02/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "245396004" Sample ID: "944915|2|LER" File: "EXS02170124.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
lculated Conc: 298. ng/mL
. Date: 2/18/2010
. Time: 5:38:25 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

. Type: Valley
ention Time: 8.37 min
a: 3.97e+006 counts
ght: 998775.818 cps
rt Time: 8.22 min
Time: 8.90 min

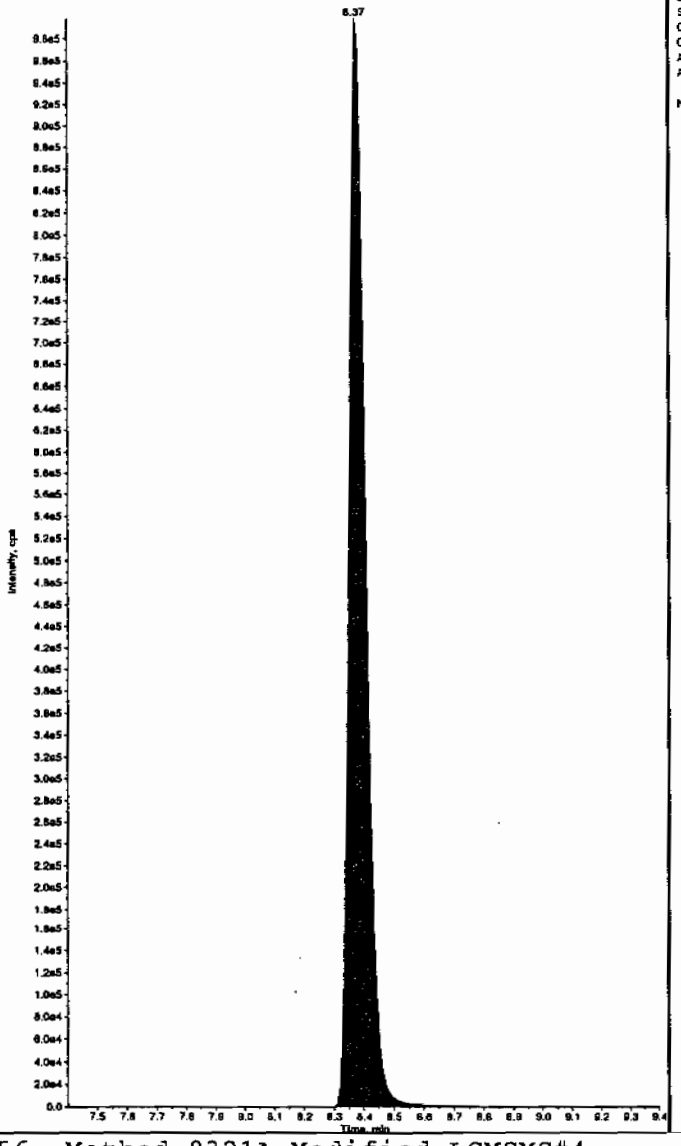

Sample Name: "245396004" Sample ID: "944915|2|LER" File: "EXS02170124.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:38:25 PM

Modified: No

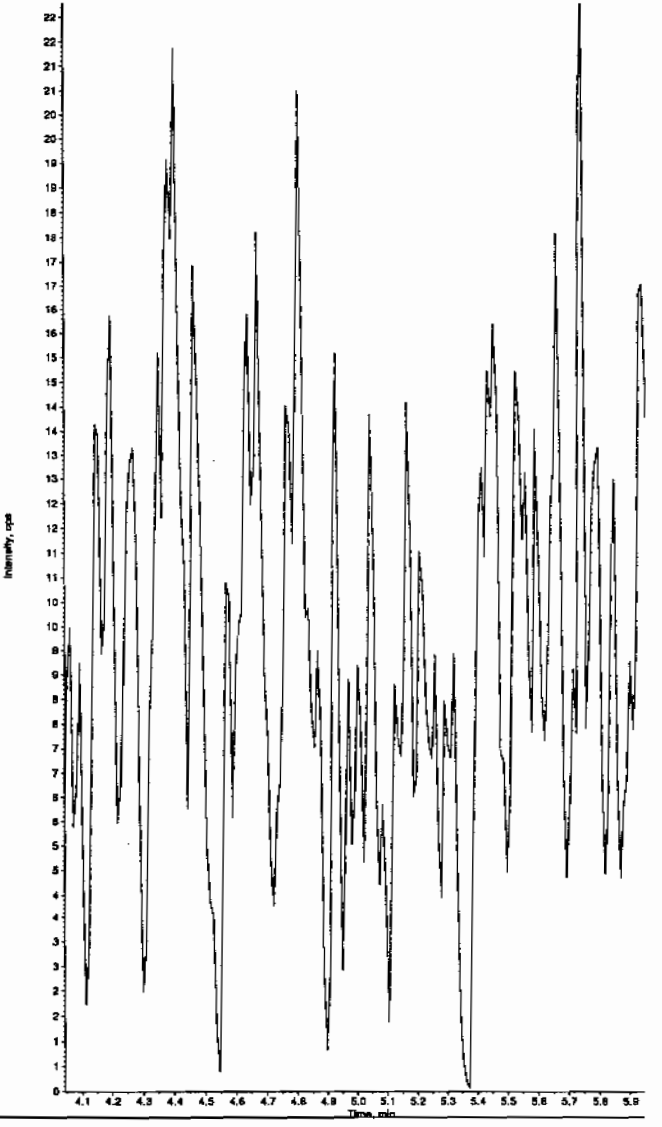

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "245396004" Sample ID: "944915|2|LER" File: "EXS02170124.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 5:38:25 PM
ified: No

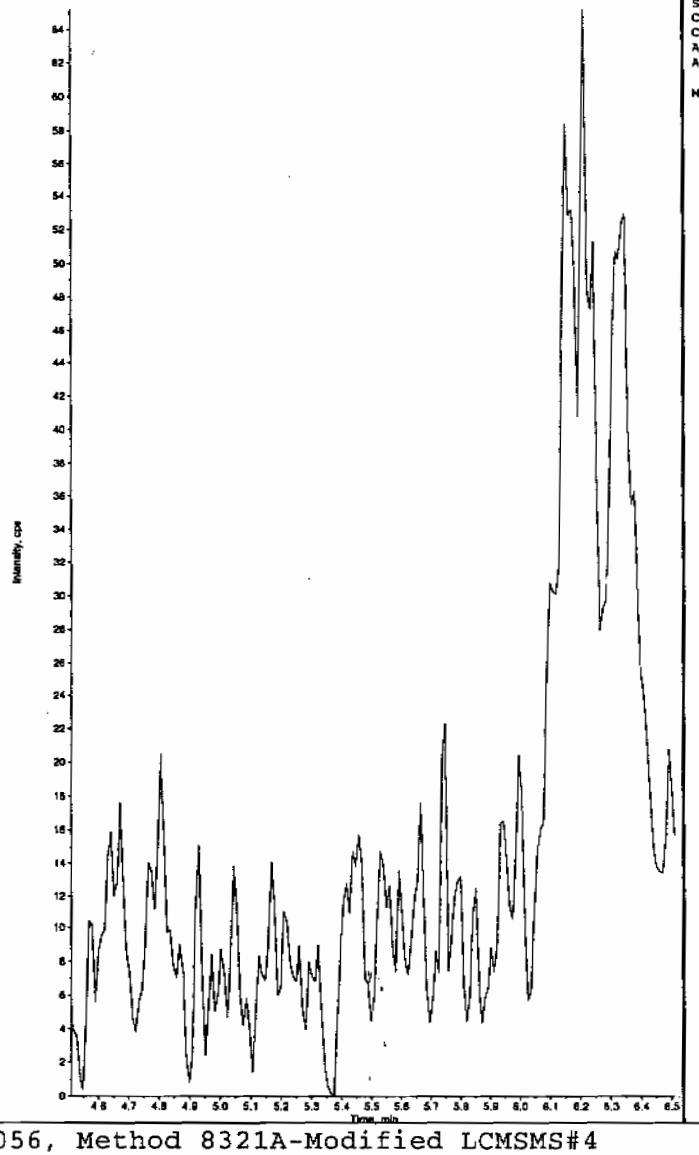

Sample Name: "245396004" Sample ID: "944915|2|LER" File: "EXS02170124.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 5:38:25 PM

Modified: No

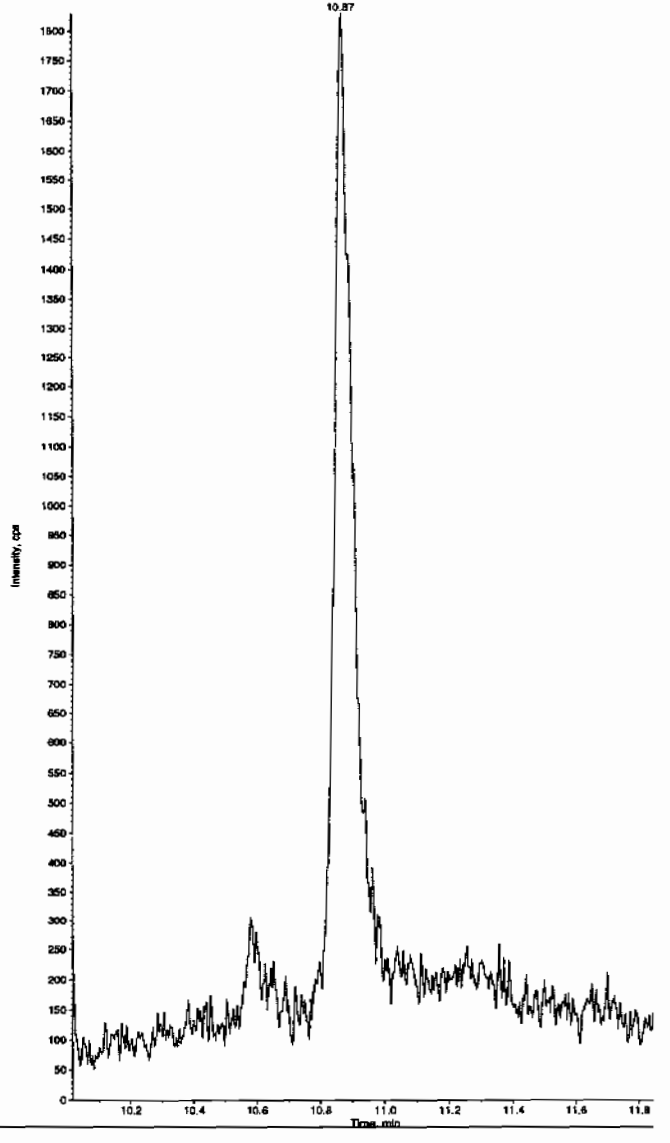

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1394

Lab Code: GEL

Run Date: 16-FEB-10,17-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a			
Parmname									
1,3,5-Trinitrobenzene	3.974	4.275	3.998	3.443	3.801	3.743	3.872	7.253	
1,3-Dinitrobenzene-d4	6.479	6.269	6.407	6.397	5.489	5.109	6.025	9.613	
2,4,6-Trinitrotoluene	.311	.331	.325	.38	.335	.329	0.335	7.003	
2,4-Dinitrotoluene	.22	.247	.233	.258	.258	.262	0.246	6.788	
2,6-Dinitrotoluene	.926	1.085	1.036	1.071	1.113	1.126	1.060	6.868	
2,6-Dinitrotoluene-d3	37.517	35.811	37.549	35.639	32.457	29.93	34.817	8.699	
2-Amino-4,6-dinitrotoluene	.4	.452	.421	.427	.458	.435	0.432	4.923	
3,4-Dinitrotoluene	.812	.944	.904	1.008	.893	.876	0.906	7.276	
4-Amino-2,6-dinitrotoluene	.35	.323	.285	.352	.298	.312	0.320	8.491	
HMX	3.59	3.564	3.729	3.903	4.47	3.894	3.858	8.619	
Nitrobenzene	.831	.943	.785	.911	.849	.831	0.858	6.765	
RDX	2.28	2.16	2.79	2.593	3.02	2.717	2.593	12.46	
Tetryl	1.117	1.386	1.084	1.014	.989	.952	1.090	14.415	
m-Dinitrobenzene	.991	1.315	1.169	1.17	1.25	1.236	1.189	9.364	
m-Nitrotoluene	.078	.09	.083	.1	.095	.091	0.090	8.99	
o-Nitrotoluene	.139	.156	.146	.153	.159	.159	0.152	5.121	
p-Nitrotoluene	.072	.072	.076	.082	.083	.076	0.077	6.293	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1394

Lab Code: GEL

Run Date: 16-FEB-10,17-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a					
Parmname:											
PETN	2110.32	4458.8	14532.6	25000.7	38622.3	42985.8	1.84	-.0004443	26.645	.9992	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: Untitled, Time: Wed Feb 17 10:00:06 2010

Compound name: HMX
Response Factor: 3.85837
RRF SD: 0.33256, % Relative SD: 8.61918
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

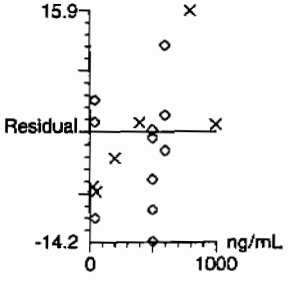

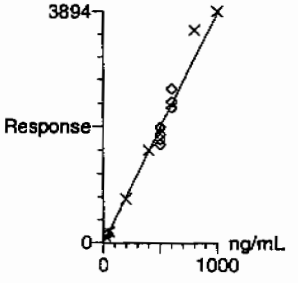

MMT 2/17/10

Compound name: RDX
Response Factor: 2.59344
RRF SD: 0.323138, % Relative SD: 12.4598
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

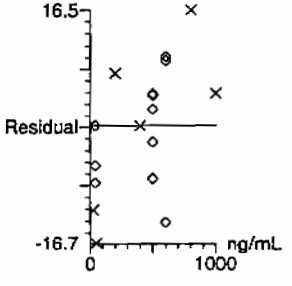

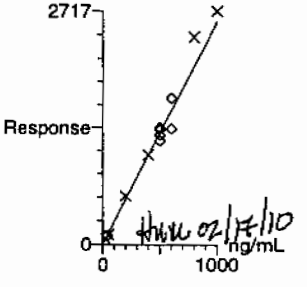

HWW 02/17/10

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 135-Trinitrobenzene
esponse Factor: 3.87255
RF SD: 0.280856, % Relative SD: 7.2525
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

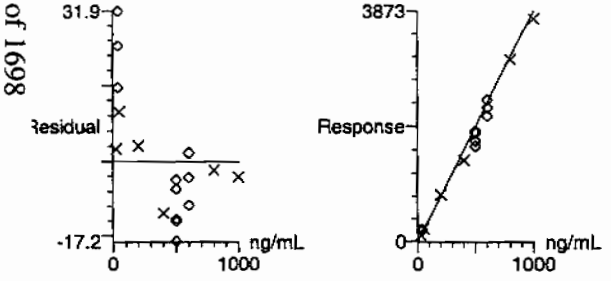

ompound name: 13-Dinitrobenzene-d4
esponse Factor: 6.02483
RF SD: 0.579171, % Relative SD: 9.61306
esponse type: External Std, Area
urve type: RF

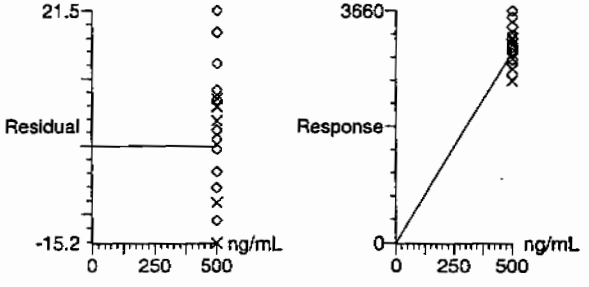

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 13-Dinitrobenzene
esponse Factor: 1.18852
RF SD: 0.111292, % Relative SD: 9.36391
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

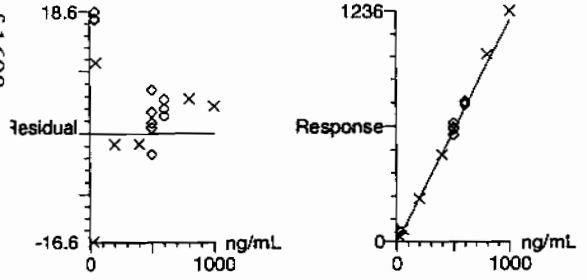

ompound name: Tetryl
esponse Factor: 1.09023
RF SD: 0.157158, % Relative SD: 14.4151
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

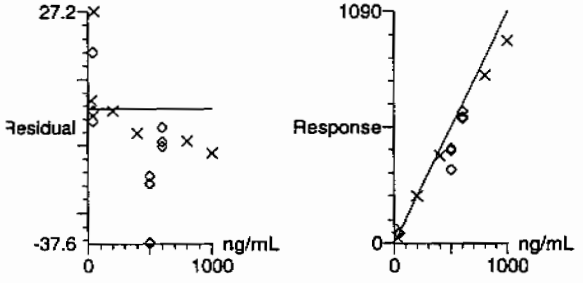

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uantify Calibration Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ıtaset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: Nitrobenzene
esponse Factor: 0.858509
RF SD: 0.0580797, % Relative SD: 6.76517
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

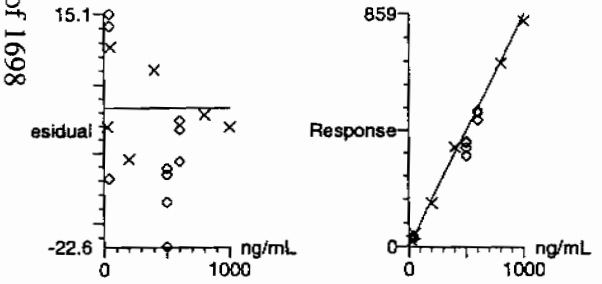

ompound name: 4-Amino-26-dinitrotoluene
esponse Factor: 0.320217
RF SD: 0.0271885, % Relative SD: 8.49063
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

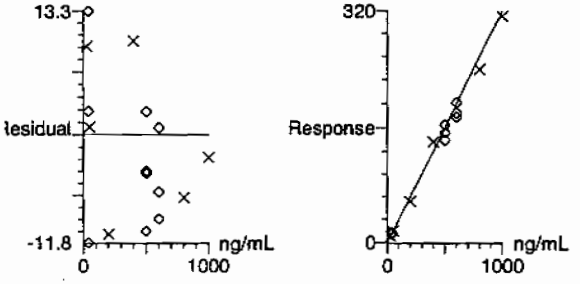

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.432055
RRF SD: 0.0212718, % Relative SD: 4.9234
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

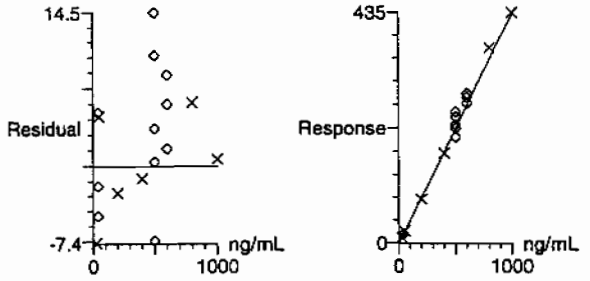

Compound name: 246-Trinitrotoluene
Response Factor: 0.335255
RRF SD: 0.0234791, % Relative SD: 7.00337
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

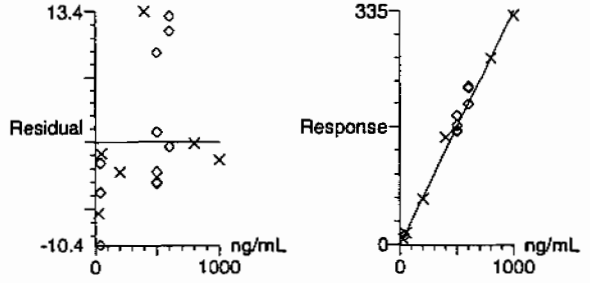

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.906001
RRF SD: 0.0659248, % Relative SD: 7.27646
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

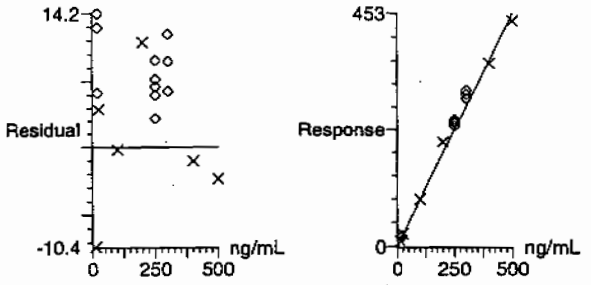

Compound name: 26-dinitrotoluene
Response Factor: 1.05944
RRF SD: 0.0727574, % Relative SD: 6.86754
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

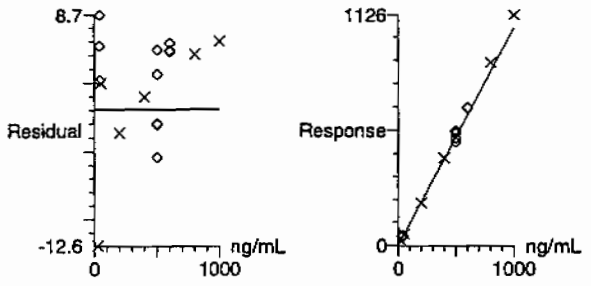

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.24651
RRF SD: 0.0167341, % Relative SD: 6.78841
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

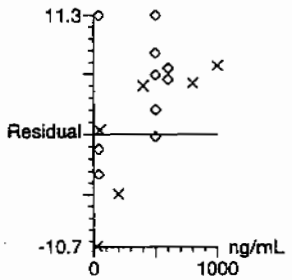

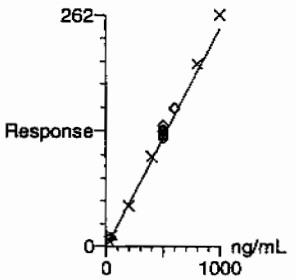

Compound name: 26-dinitrotoluene-d3
Response Factor: 34.8171
RRF SD: 3.02888, % Relative SD: 8.6994
Response type: External Std, Area
Curve type: RF

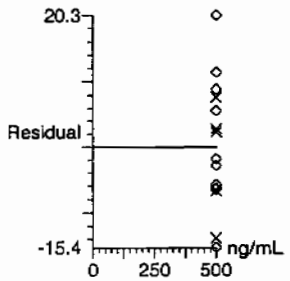

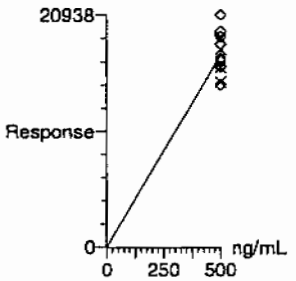

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qid, Time: Wed Feb 17 10:00:06 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.152194
RRF SD: 0.0077939, % Relative SD: 5.12103
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

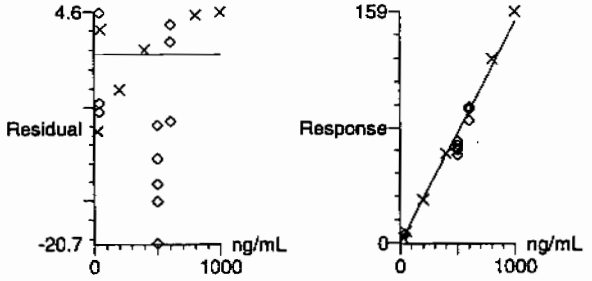

Compound name: 4-Nitrotoluene
Response Factor: 0.0766512
RRF SD: 0.00482394, % Relative SD: 6.29336
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

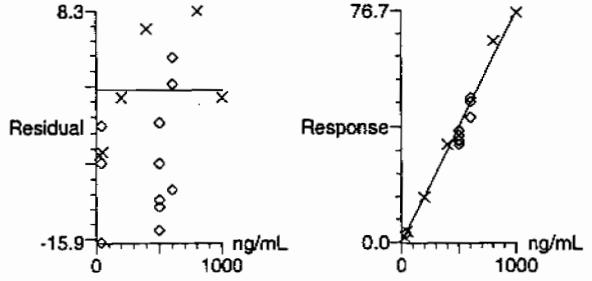

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0894891
RRF SD: 0.0080453, % Relative SD: 8.99027
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

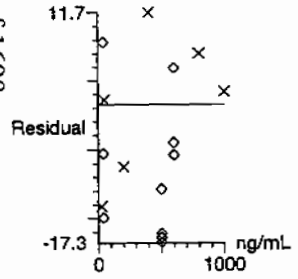

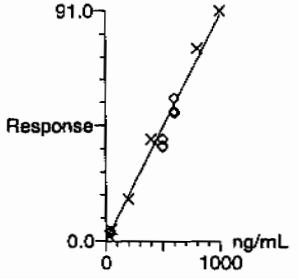

Compound name: PETN
Coefficient of Determination: 0.999195
Calibration curve: -0.000444334 * x^2 + 1.84022 * x + 26.6447
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

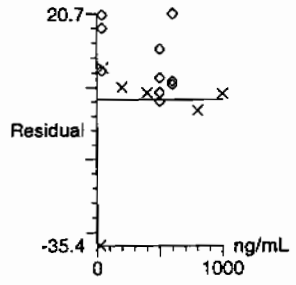

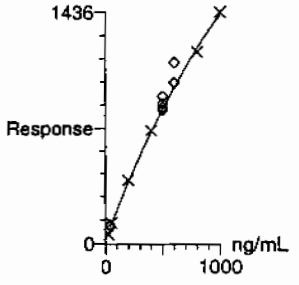

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0216010a

Analysis Date: 16-FEB-10 21:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	544.138	91	
1,3-Dinitrobenzene-d4	500	505.15	101	
2,4,6-Trinitrotoluene	600	596.996	99	
2,4-Dinitrotoluene	600	637.037	106	
2,6-Dinitrotoluene	600	631.497	105	
2,6-Dinitrotoluene-d3	500	470.813	94	
2-Amino-4,6-dinitrotoluene	600	609.733	102	
3,4-Dinitrotoluene	300	318.405	106	
4-Amino-2,6-dinitrotoluene	600	544.592	91	
HMX	600	667.211	111	
Nitrobenzene	600	546.753	91	
PETN	600	622.003	104	
RDX	600	517.279	86	
Tetryl	600	535.085	89	
m-Dinitrobenzene	600	615.667	103	
m-Nitrotoluene	600	571.306	95	
o-Nitrotoluene	600	619.132	103	
p-Nitrotoluene	600	620.215	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qid, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216010a
Date: 16-Feb-2010
Time: 21:34:44
ID: WXX100216-07ICV
Vial: 1:1,B

MM 2/17/10

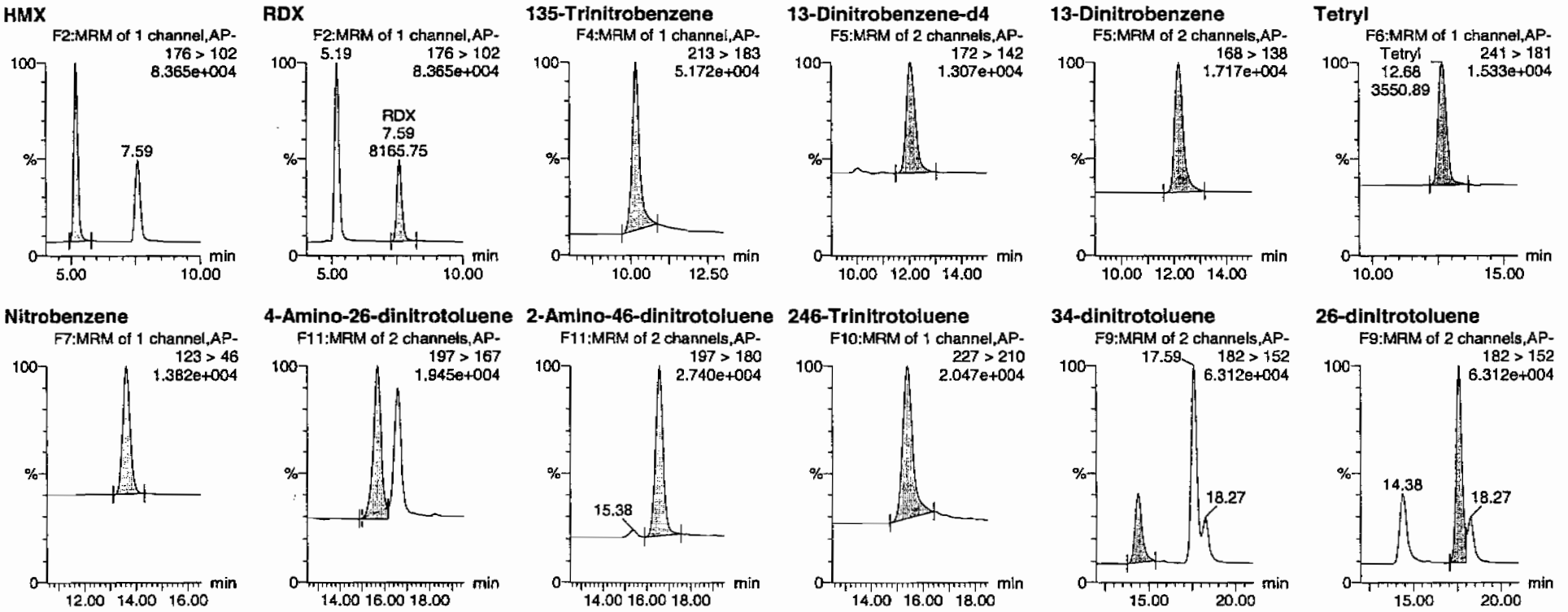

HMW 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

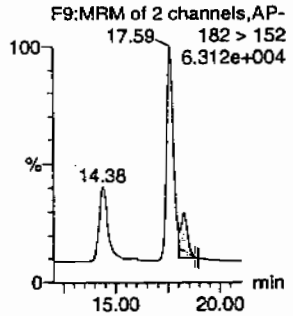

26-dinitrotoluene-d3

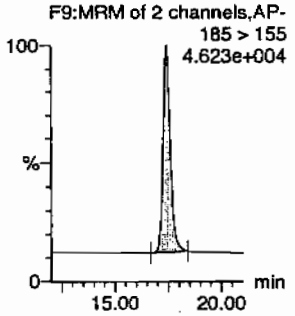

2-Nitrotoluene

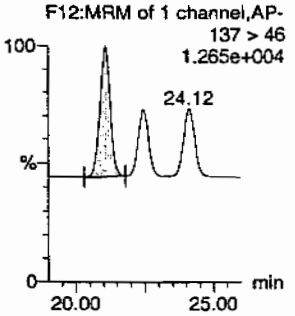

4-Nitrotoluene

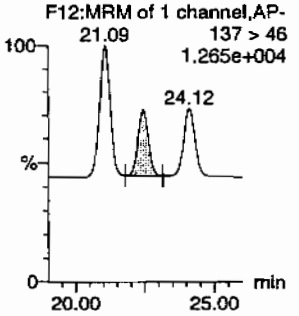

3-Nitrotoluene

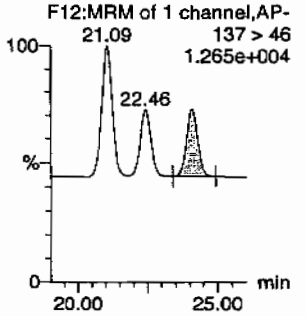

PETN

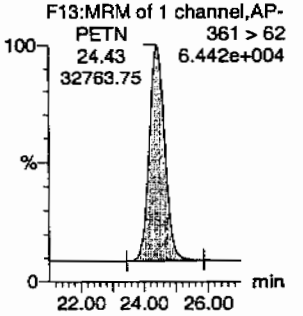

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07ICV	HMX	176 > 102	5.19	15669.772	3043.441	15669.772	2574.351	db			667.2113	111.2	11.2	1616.5
WXX100216-07ICV	RDX	176 > 102	7.59	8165.754	3043.441	8165.754	1341.533	bb			517.2788	86.2	-13.8	736.8
WXX100216-07ICV	135-Trinitrobenzene	213 > 183	10.16	12826.263	3043.441	12826.263	2107.198	bb			544.1376	90.7	-9.3	1038.4
WXX100216-07ICV	13-Dinitrobenzene-d4	172 > 142	12.07	3043.441		3043.441	3043.441	bb			505.1495	101.0	1.0	83.9
WXX100216-07ICV	13-Dinitrobenzene	168 > 138	12.17	4453.971	3043.441	4453.971	731.733	bb			615.6672	102.6	2.6	397.6
WXX100216-07ICV	Tetryl	241 > 181	12.68	3550.885	3043.441	3550.885	583.367	bb			535.0850	89.2	-10.8	465.9
WXX100216-07ICV	Nitrobenzene	123 > 46	13.62	2857.135	3043.441	2857.135	469.392	bb			546.7525	91.1	-8.9	251.4
WXX100216-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.67	5717.246	16392.348	5717.246	174.388	MM	17-Feb-10	09:22:45	544.5918	90.8	-9.2	292.7
WXX100216-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.57	8636.743	16392.348	8636.743	263.438	bb			609.7334	101.6	1.6	597.0
WXX100216-07ICV	246-Trinitrotoluene	227 > 210	15.41	6561.721	16392.348	6561.721	200.146	bb			596.9963	99.5	-0.5	153.4
WXX100216-07ICV	34-dinitrotoluene	182 > 152	14.38	9457.581	16392.348	9457.581	288.475	bb			318.4052	106.1	6.1	368.9
WXX100216-07ICV	26-dinitrotoluene	182 > 152	17.59	21934.039	16392.348	21934.039	669.033	MM	17-Feb-10	09:25:41	631.4965	105.2	5.2	1072.7
WXX100216-07ICV	24-dinitrotoluene	182 > 152	18.27	5148.389	16392.348	5148.389	157.036	MM	17-Feb-10	09:54:19	637.0375	106.2	6.2	230.6
WXX100216-07ICV	26-dinitrotoluene-d3	185 > 155	17.42	16392.348		16392.348	16392.348	bb			470.8130	94.2	-5.8	1428.4
WXX100216-07ICV	2-Nitrotoluene	137 > 46	21.09	3089.247	16392.348	3089.247	94.228	bb			619.1324	103.2	3.2	357.3
WXX100216-07ICV	4-Nitrotoluene	137 > 46	22.46	1558.593	16392.348	1558.593	47.540	bb			620.2153	103.4	3.4	179.8
WXX100216-07ICV	3-Nitrotoluene	137 > 46	24.12	1676.139	16392.348	1676.139	51.126	bb			571.3062	95.2	-4.8	182.7
WXX100216-07ICV	PETN	361 > 62	24.43	32763.752	16392.348	32763.752	999.361	bb			622.0025	103.7	3.7	5170.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/16/10
Time of Injection: 2134
Standard Number: WXX100216-07ICV
Data File: EXP0216010a

HMX	111.2
RDX	86.2
135-TNB	90.7
13-DNB	102.6
Tetryl	89.2
Nitrobenzene	91.1
4A-26-DNT	90.8
2A-46-DNT	101.6
246-TNT	99.5
34-DNT(surr)	106.1
26-DNT	105.2
24-DNT	106.2
2-NT	103.2
4-NT	103.4
3-NT	95.2
PETN	103.7
Total	1585.9
Average	99.1

KMT 2/17/10

HMM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1394

Lab Code: GEL

Run Date: 16-FEB-10,17-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: Average RF

Calibration Level:	19	20	21	22	23	24	25	Ave RF	RSD	Q
Data File:	EXS02170003.w	EXS02170004.w	EXS02170005.w	EXS02170006.w	EXS02170007.w	EXS02170008.w	EXS02170009.w			
Parmname										
2,4-Diamino-6-nitrotoluene	1240	1340	1270	1220	1250	1240	1090	1235.714	6.03	
2,6-Diamino-4-nitrotoluene	2010	2030	2100	1920	1730	2070	1920	1968.571	6.42	
3,4-Dinitrotoluene	14000	13200	13200	12400	15900	12700	11800	13314.286	9.91	
3,5-Dinitroaniline	8310	7580	7260	7390	7380	7150	6410	7354.286	7.67	
TATB	1770	1730	1760	1710	1710	1650	1550	1697.143	4.42	
tris(o-cresyl) phosphate	25700	24600	23700	22100	21200	19500	15500	21757.143	16	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.7e+003
Standard deviation 75.1
%RSD 4.42
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 7.36e+003
Standard deviation 564
%RSD 7.67
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.33e+004
Standard deviation 1.32e+003
%RSD 9.91
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.97e+003
Standard deviation 126
%RSD 6.42
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Scan 2/19/10

Hmm 02/18/10

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Fit Mean Response Factor Weighting None Iterate No
Factor 1.24e+003
Standard deviation 74.5
%RSD 6.03
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.18e+004
Standard deviation 3.47e+003
%RSD 16
Use Area

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021710.rdb (TATB): "Mean Response Factor" Regression ("No" weighting): y = 1.7e+003 x (std. dev. = 75.1)

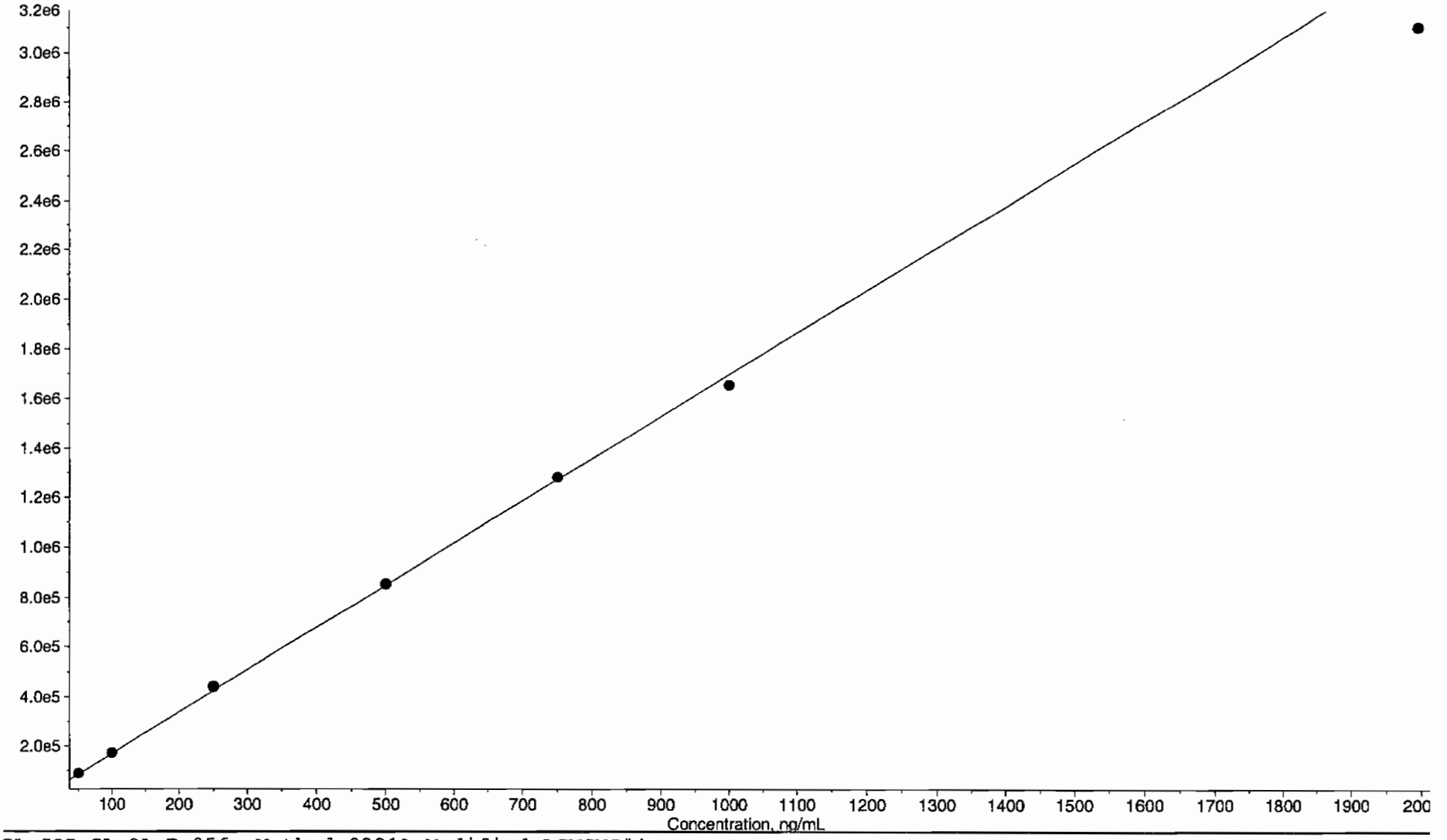

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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021710.rdb (35-Dinitroaniline): "Mean Response Factor" Regression ("No" weighting): y = 7.36e+003 x (std. dev. = 564)

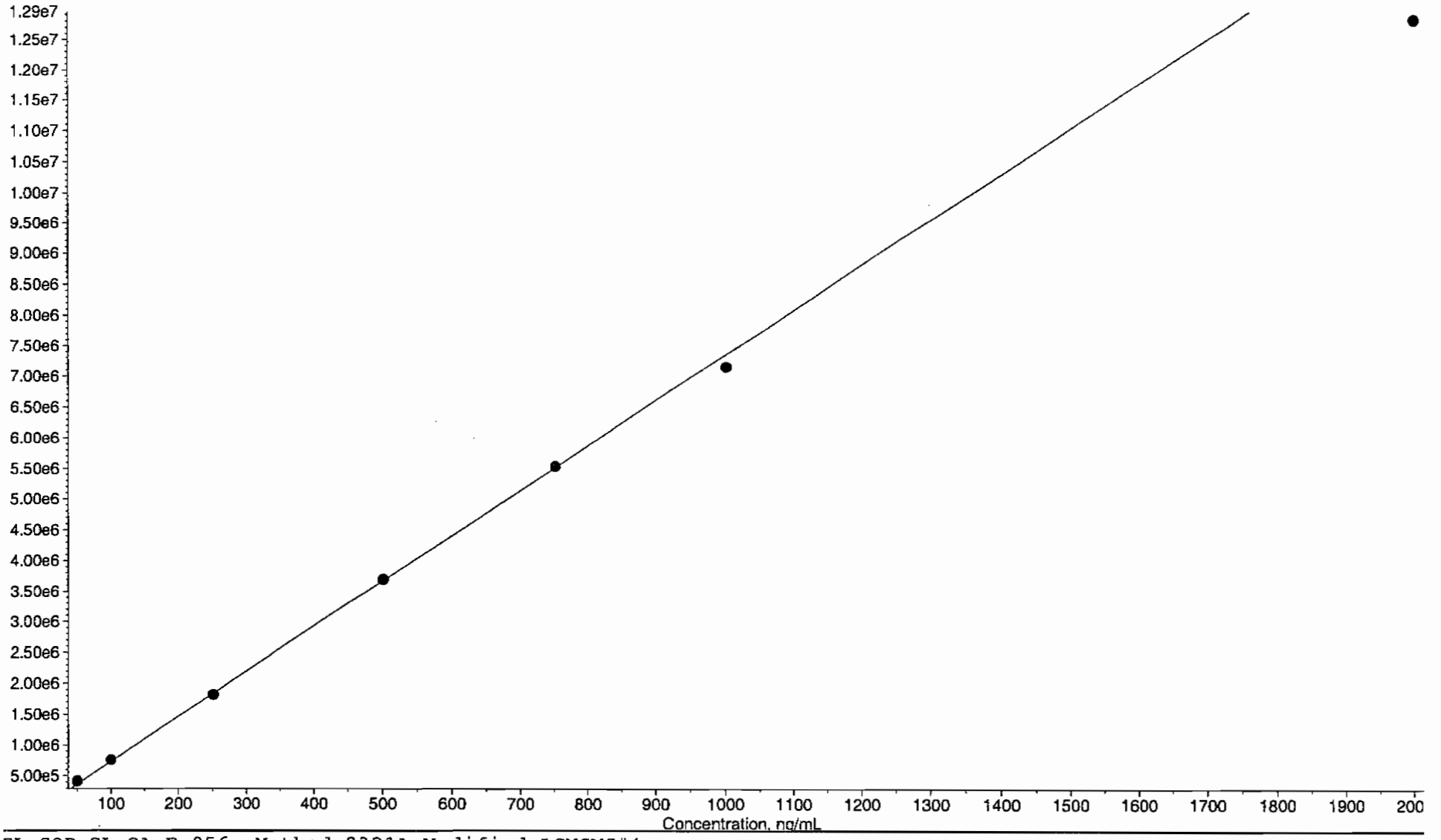

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021710.rdb (34-Dinitrotoluene): "Mean Response Factor" Regression ("No" weighting): y = 1.33e+004 x (std. dev. = 1.32e+003)

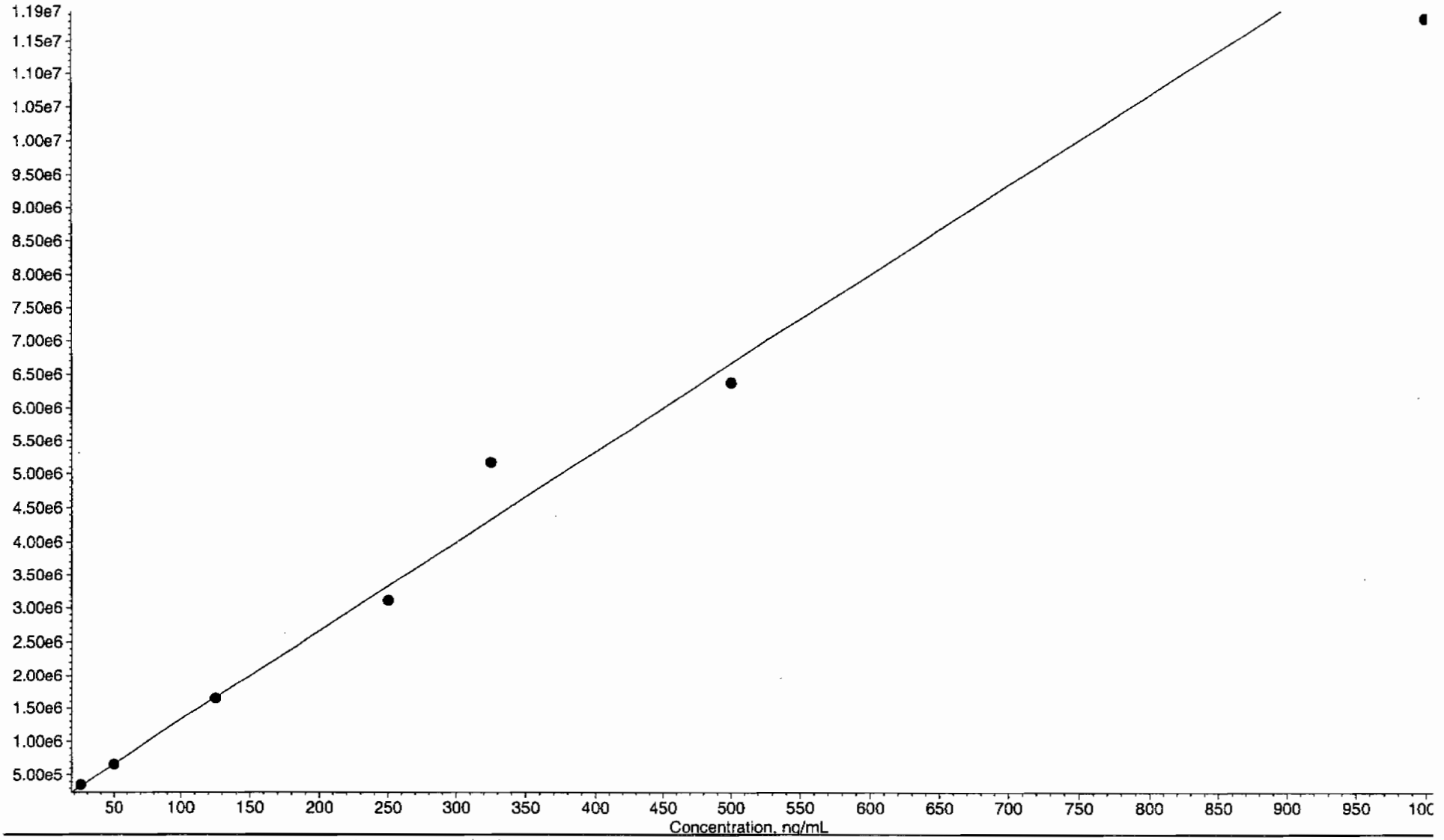

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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021710.rdb (26-Diamino-4-nitrotoluene): "Mean Response Factor" Regression ("No" weighting): y = 1.97e+003 x (std. dev. = 126)

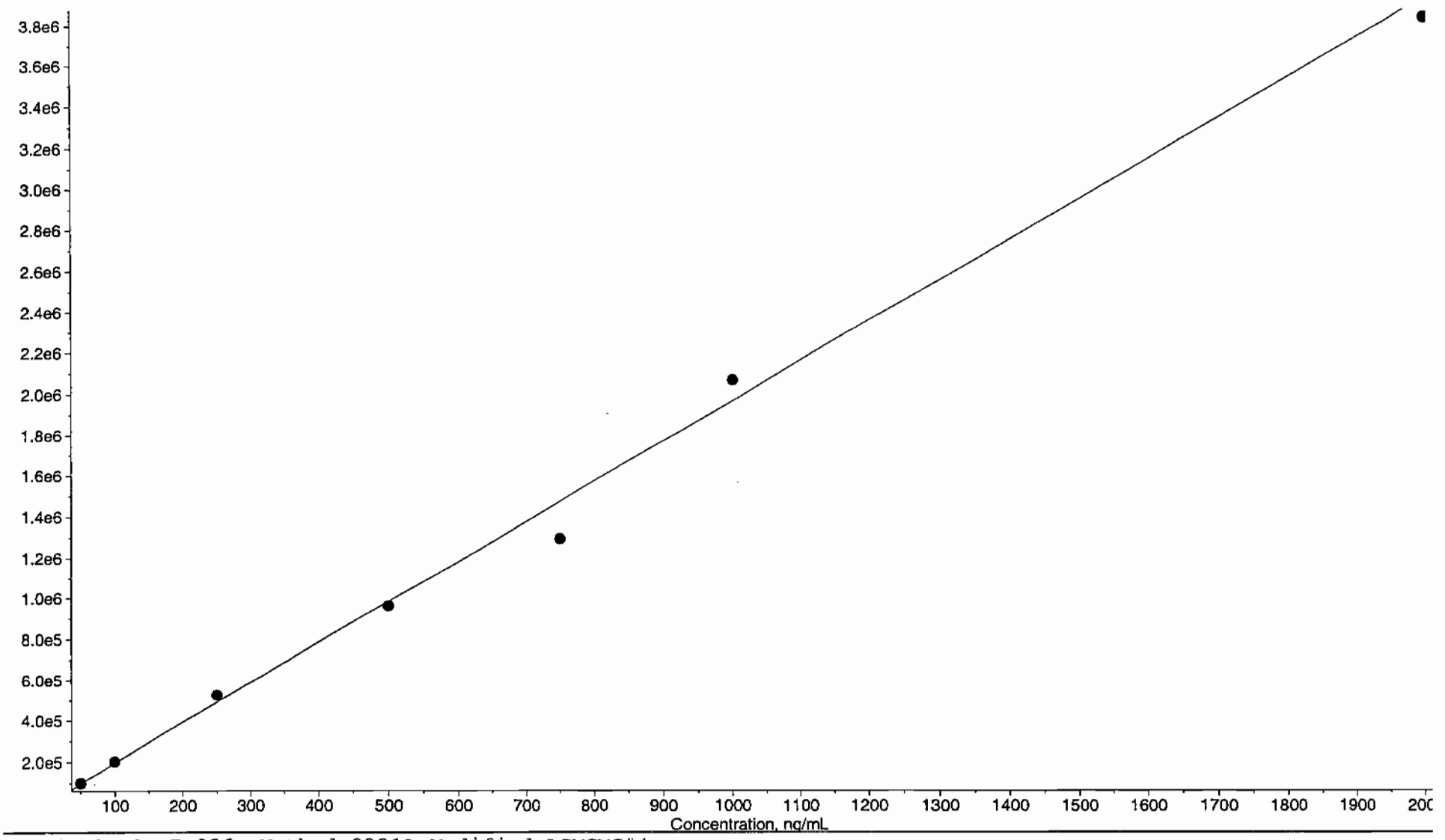

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

021710.rdb (24-Diamino-6-nitrotoluene): "Mean Response Factor" Regression ("No" weighting): y = 1.24e+003 x (std. dev. = 74.5)

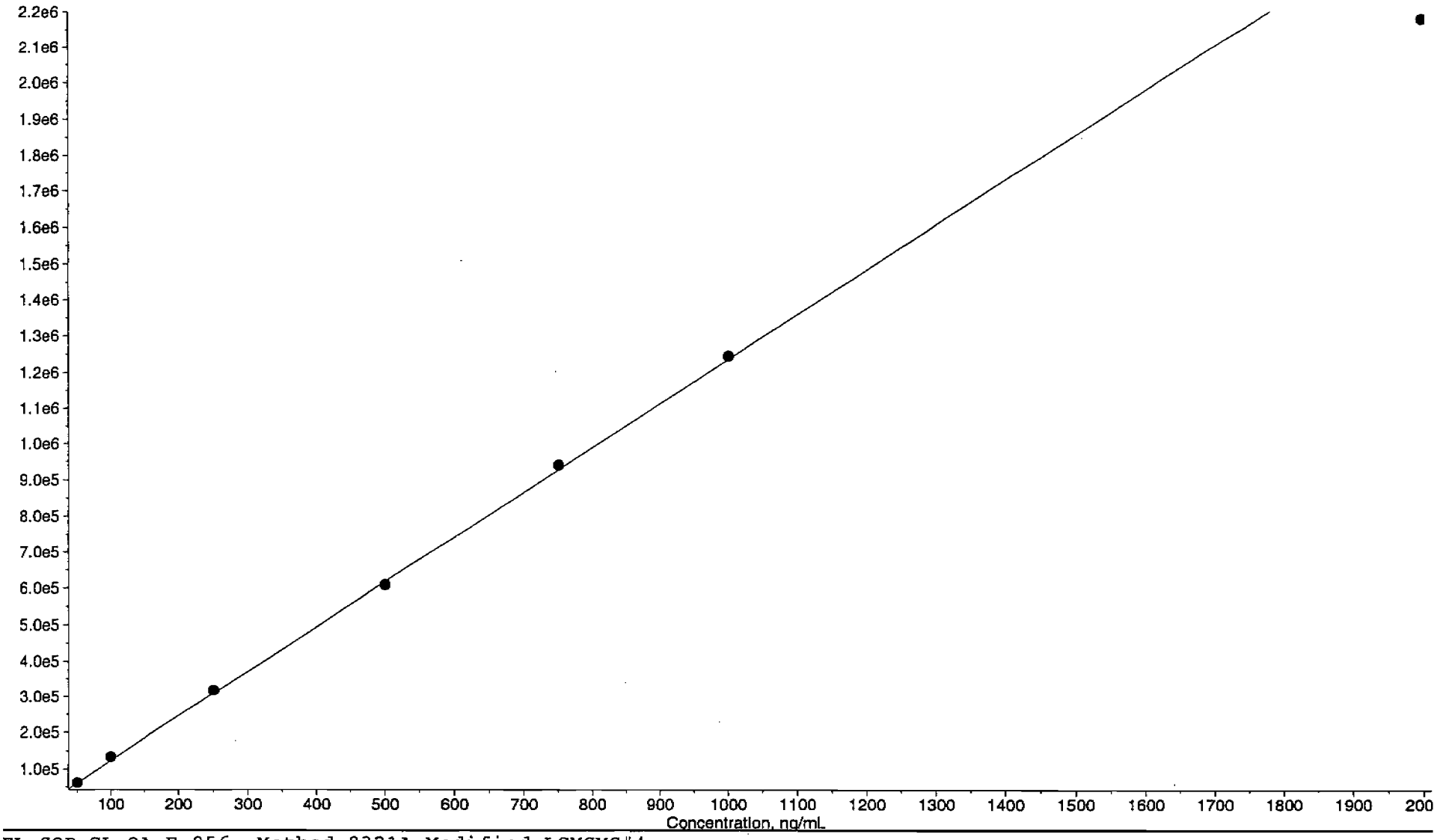

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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021710.rdb (tris(o-cresyl) phosphate): "Mean Response Factor" Regression ("No" weighting): y = 2.18e+004 x (std. dev. = 3.47e+003)

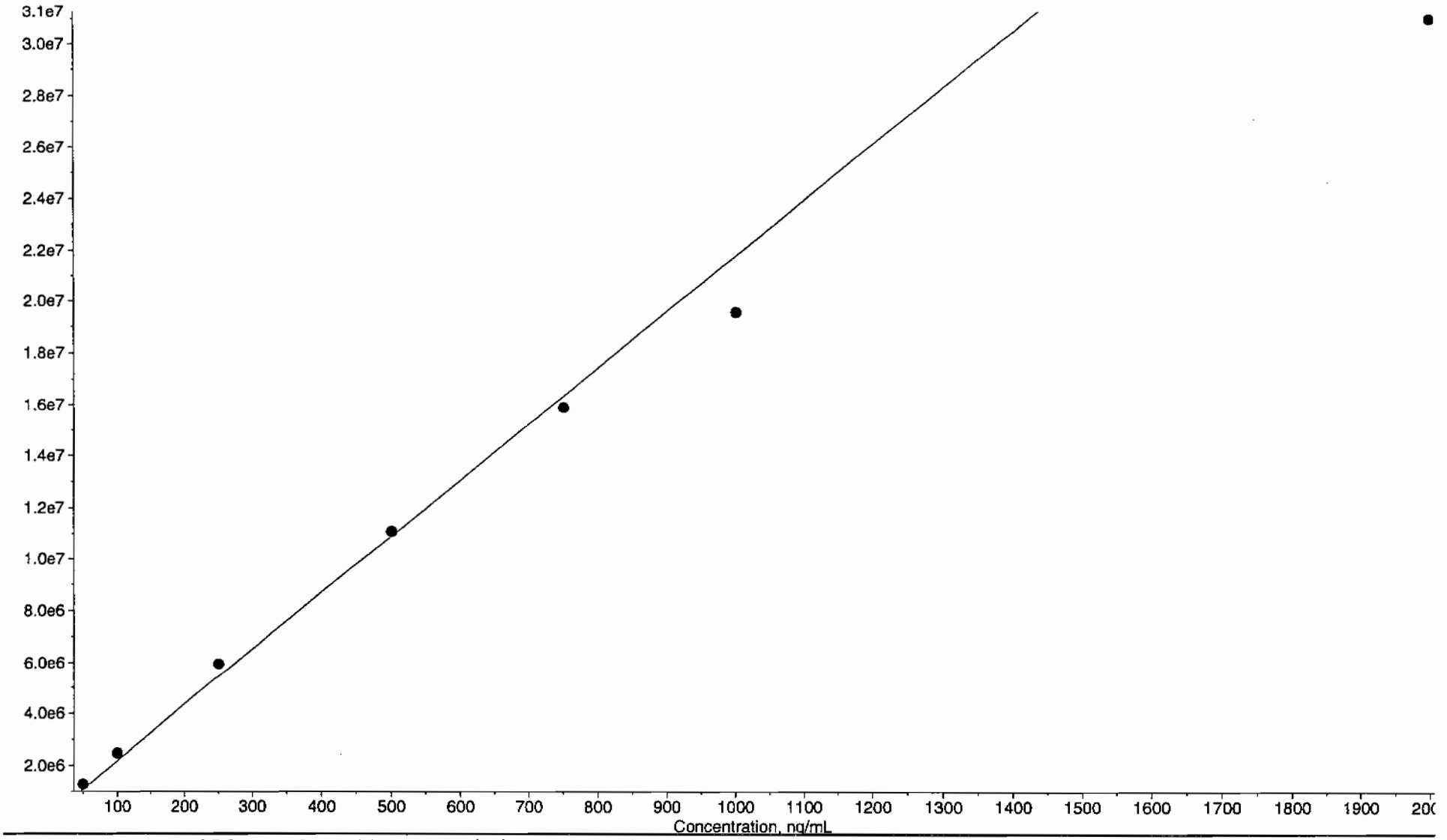

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10--1394

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02170011.wiff

Analysis Date: 17-FEB-10 12:03

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino--6-nitrotoluene	500	434	87	
2,6-Diamino-4-nitrotoluene	500	522	104	
3,4-Dinitrotoluene	250	238	95	
3,5--Dinitroaniline	500	521	104	
TATB	500	485	97	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5--Dinitroaniline, 2,6-Diamino--4-nitrotoluene , 2,4-Diamino--6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/19/10

Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 500. ng/mL
alculated Conc: 485. ng/mL
cq. Date: 2/17/2010
cq. Time: 12:03:20 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 7.03 min
se Relative RT: No

nt. Type: Valley
etention Time: 7.03 min
rea: 8.23e+005 counts
eight: 178808.243 cps
tart Time: 6.89 min
nd Time: 7.72 min

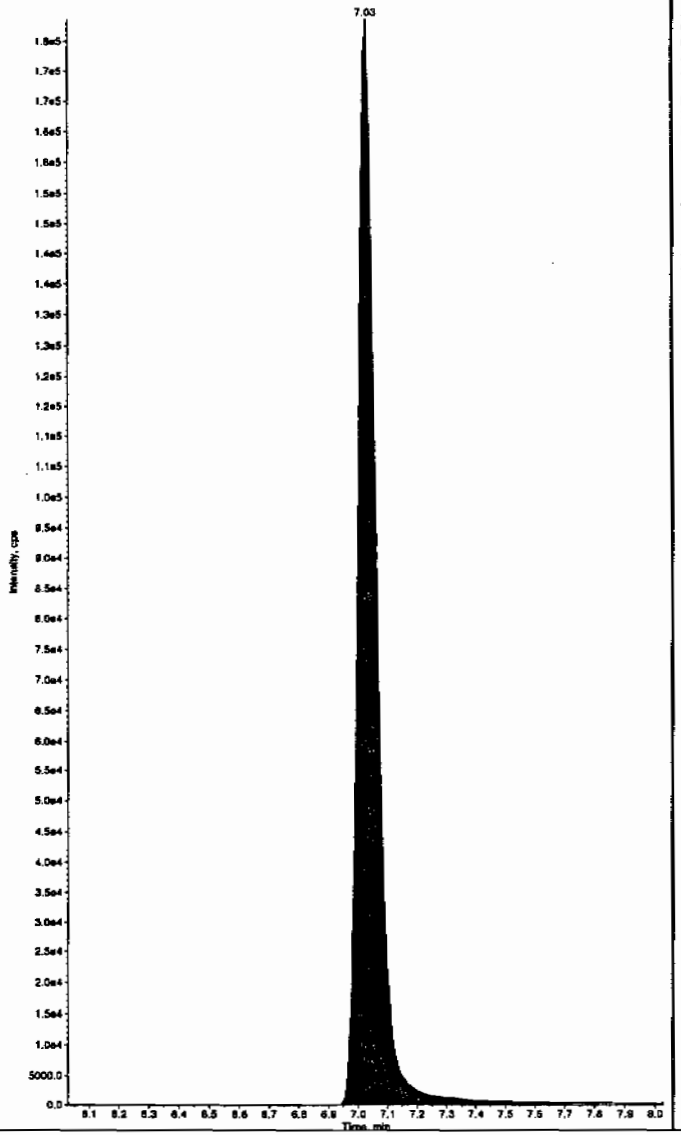

Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 521. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:03:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.26 min
Area: 3.83e+006 counts
Height: 981809.998 cps
Start Time: 8.14 min
End Time: 8.36 min

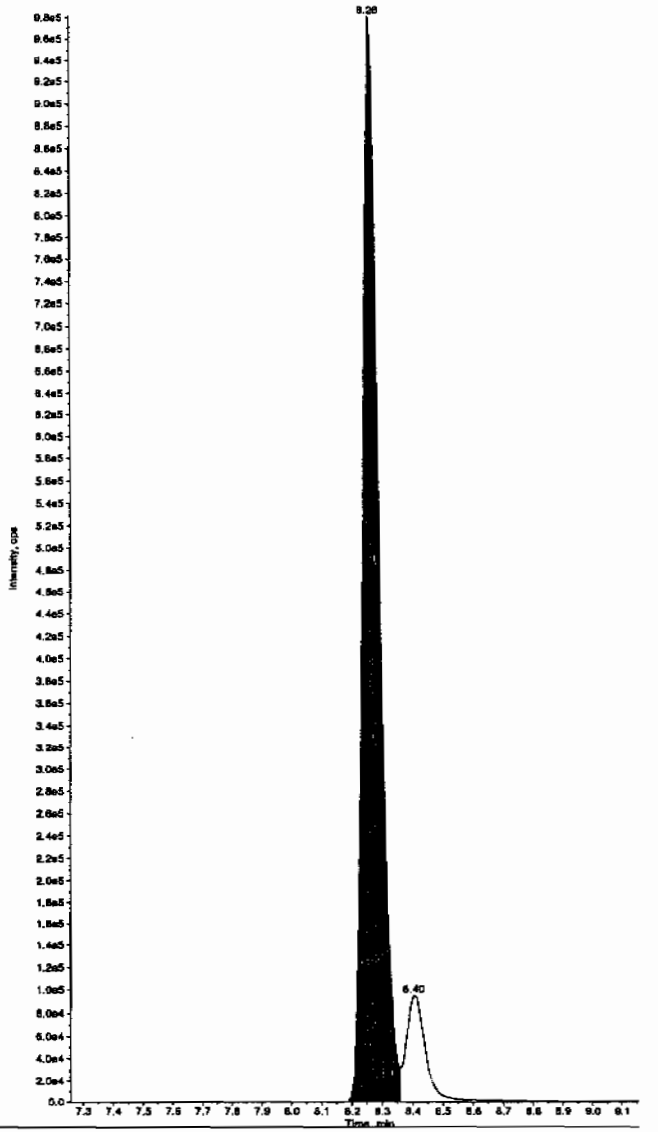

Hm 02/19/10

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Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index:	1
ample Type:	QC
ncentration:	250. ng/mL
lculated Conc:	238. ng/mL
q. Date:	2/17/2010
q. Time:	12:03:20 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1450.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.40 min
e Relative RT:	No
t. Type:	Valley
tention Time:	8.40 min
ea:	3.17e+006 counts
ight:	806022.278 cps
art Time:	8.33 min
d Time:	8.62 min

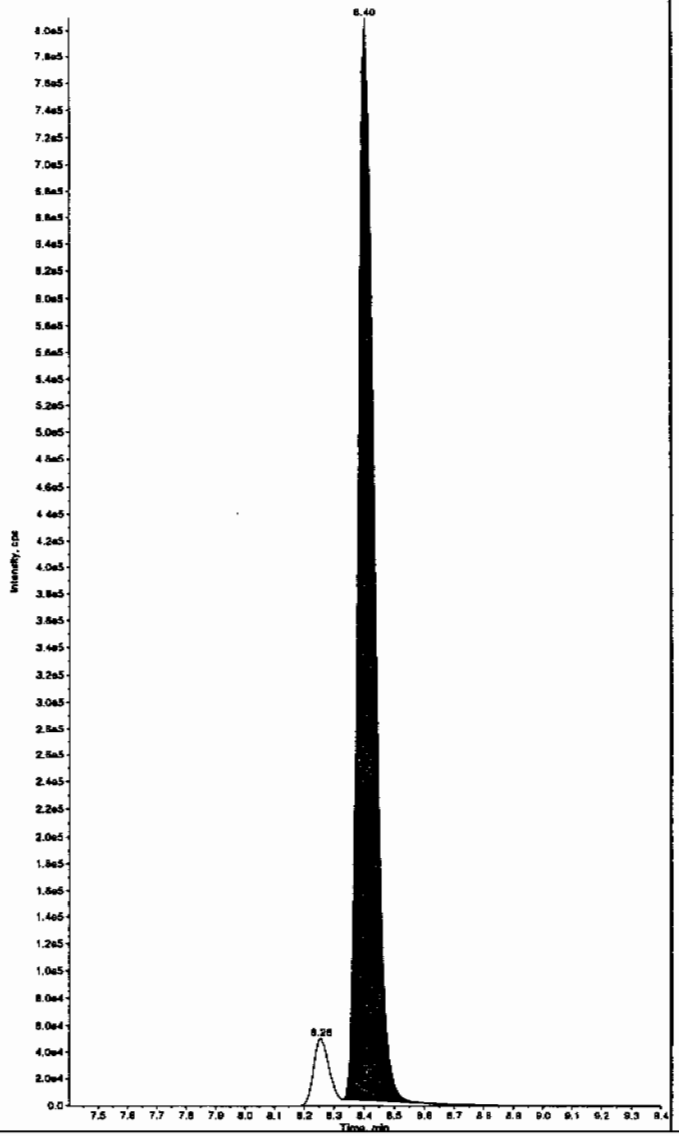

Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	522. ng/mL
Acq. Date:	2/17/2010
Acq. Time:	12:03:20 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	650.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.04 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.04 min
Area:	1.03e+006 counts
Height:	252953.461 cps
Start Time:	4.92 min
End Time:	5.34 min

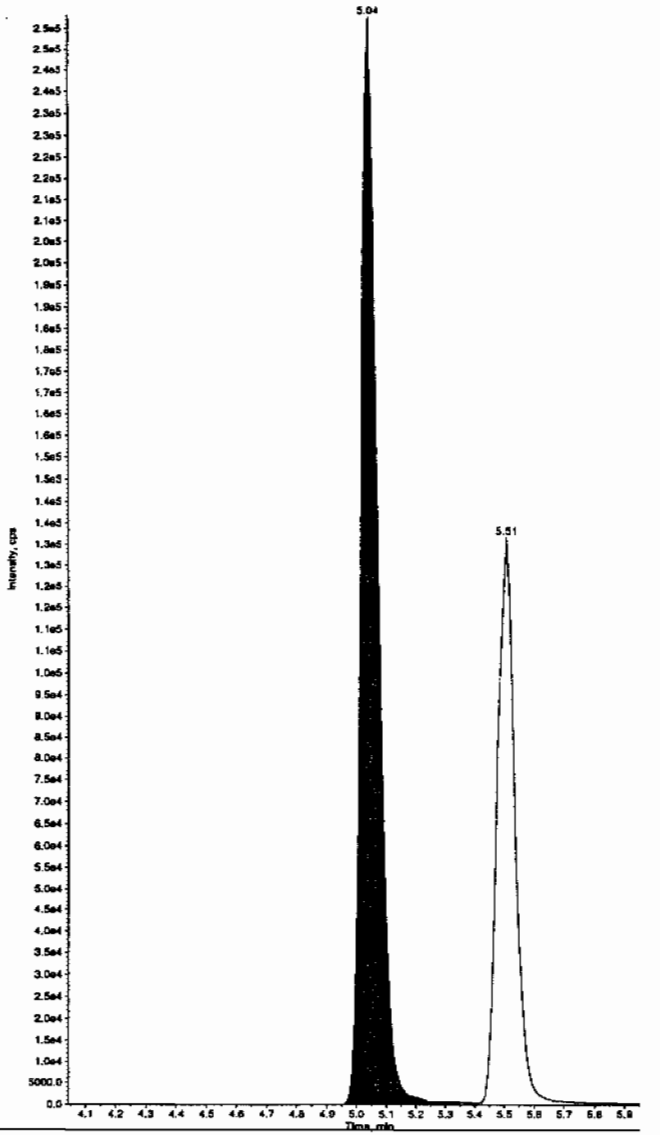

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ample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
ask Name: "24-Diamino-6-nitrotoluene" Mass(es): '166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         500.     ng/mL
culated Conc:       434.     ng/mL
. Date:         2/17/2010
. Time:         12:03:20 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3         points
Window:          30.0    sec
ected RT:         5.51   min
Relative RT:     No

. Type:         Valley
ention Time:      5.51   min
a:          5.37e+005   counts
ght:        131656.830   cps
rt Time:          5.41   min
. Time:           5.86   min
```

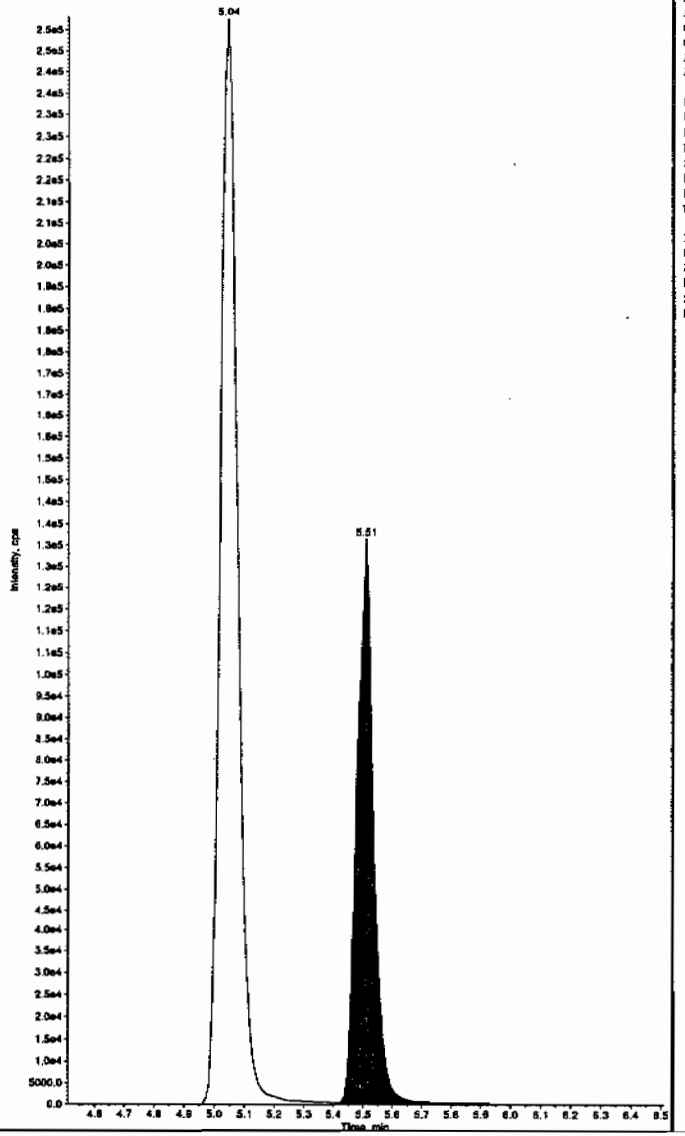

Sample Name: "WXX100217-26ICV" Sample ID: "[1]LER" File: "EXS02170011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): '369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       498.     ng/mL
Acq. Date:         2/17/2010
Acq. Time:         12:03:20 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9    min
Area:          1.08e+007    counts
Height:        2574622.314  cps
Start Time:         10.8    min
End Time:           11.3    min
```

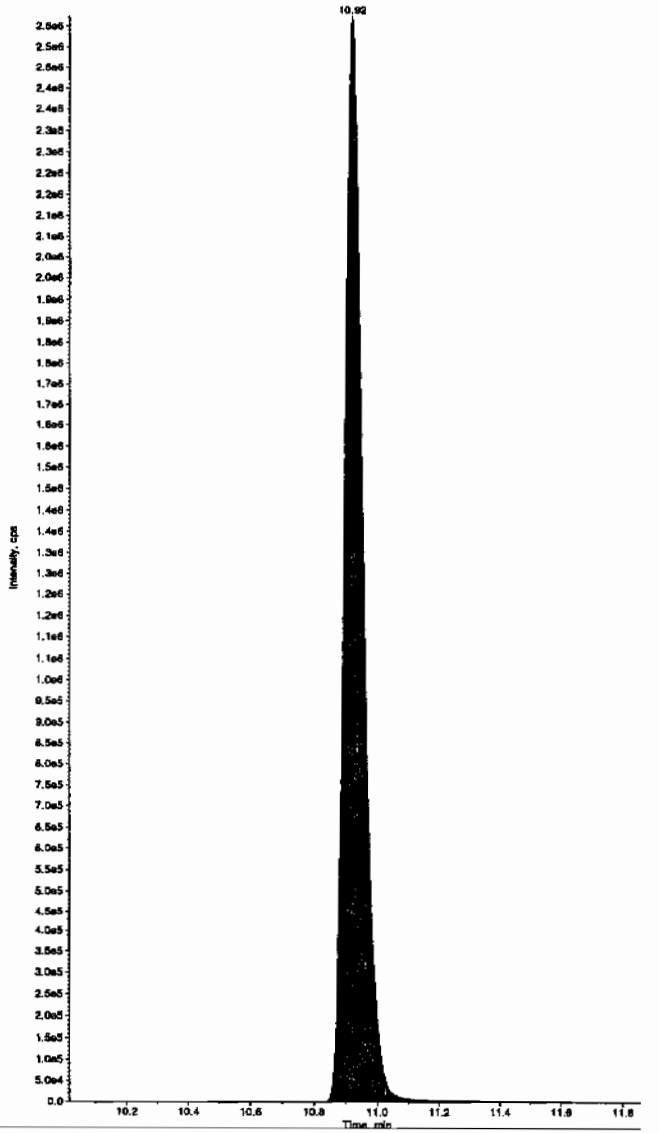

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216012a

Analysis Date: 16–FEB–10 22:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	52.773	132	*
1,3–Dinitrobenzene–d4	500	467.275	93	
2,4,6–Trinitrotoluene	40	39.143	98	
2,4–Dinitrotoluene	40	38.529	96	
2,6–Dinitrotoluene	40	43.494	109	
2,6–Dinitrotoluene–d3	500	466.982	93	
2–Amino–4,6–dinitrotoluene	40	39.227	98	
3,4–Dinitrotoluene	20	22.552	113	
4–Amino–2,6–dinitrotoluene	40	41.012	103	
HMX	40	41.651	104	
Nitrobenzene	40	45.259	113	
PETN	40	42.843	107	
RDX	40	36.749	92	
Tetryl	40	39.776	99	
m–Dinitrobenzene	40	46.913	117	
m–Nitrotoluene	40	43.185	108	
o–Nitrotoluene	40	41.818	105	
p–Nitrotoluene	40	36.985	92	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216012a
Date: 16-Feb-2010
Time: 22:33:56
ID: WXX100216-08CRI
Vial: 1:1,C

MM 2/17/10

HMX

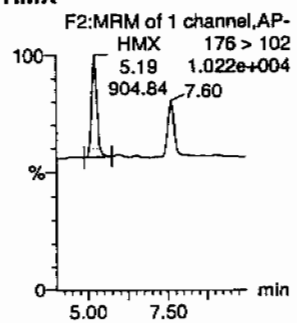

RDX

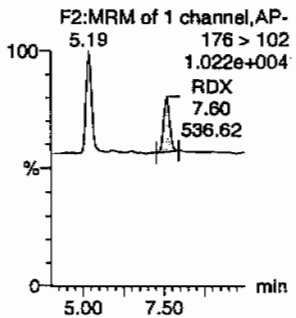

135-Trinitrobenzene

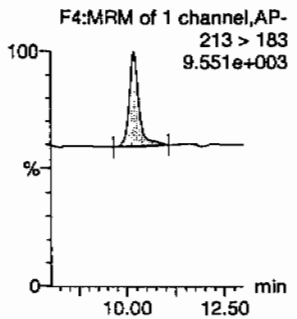

13-Dinitrobenzene-d4

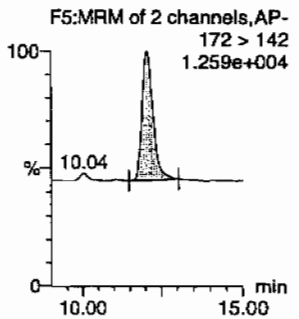

13-Dinitrobenzene

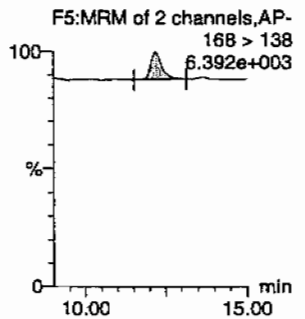

Tetryl

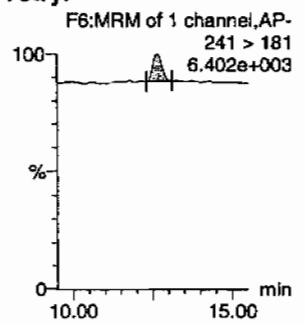

Nitrobenzene

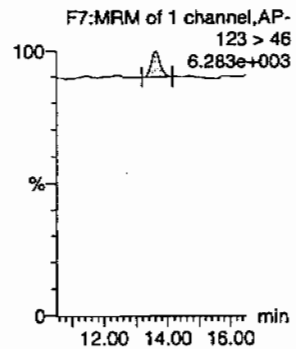

4-Amino-26-dinitrotoluene

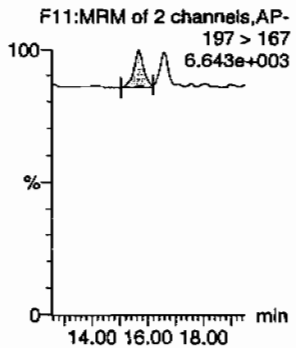

2-Amino-46-dinitrotoluene

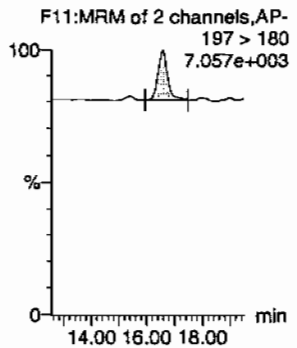

246-Trinitrotoluene

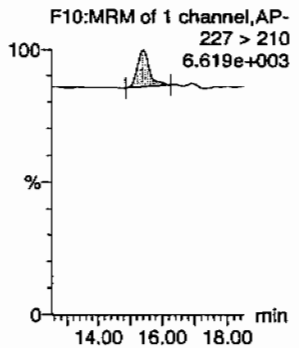

34-dinitrotoluene

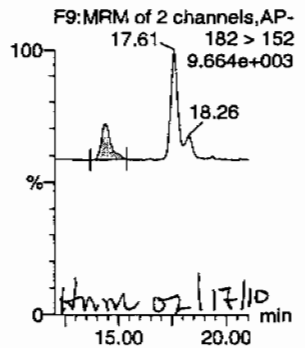

hmm 02/17/10

26-dinitrotoluene

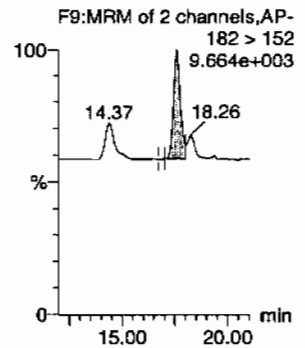

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

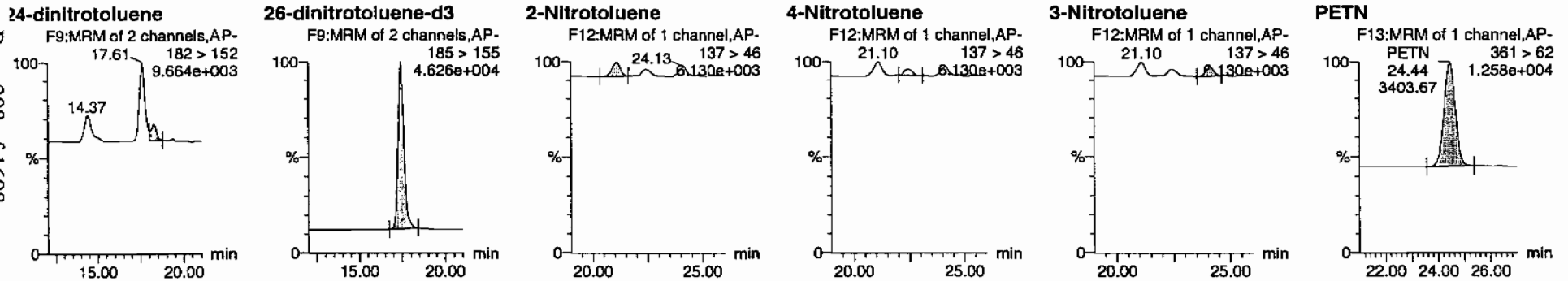

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ug/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	904.843	2815.255	904.843	160.704	bb			41.6506	104.1	4.1	146.1
WXX100216-08CRI	RDX	176 > 102	7.60	536.624	2815.255	536.624	95.306	bb			36.7490	91.9	-8.1	78.6
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1150.692	2815.255	1150.692	204.367	bb			52.7734	131.9	31.9	153.3
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2815.255		2815.255	2815.255	bb			467.2753	93.5	-6.5	116.9
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	313.940	2815.255	313.940	55.757	bb			46.9129	117.3	17.3	56.5
WXX100216-08CRI	Tetryl	241 > 181	12.66	244.166	2815.255	244.166	43.365	bb			39.7758	99.4	-0.6	26.2
WXX100216-08CRI	Nitrobenzene	123 > 46	13.61	218.774	2815.255	218.774	38.855	bb			45.2588	113.1	13.1	13.8
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.67	427.054	16258.972	427.054	13.133	MM	17-Feb-10	09:22:56	41.0124	102.5	2.5	29.2
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	551.120	16258.972	551.120	16.948	bb			39.2269	98.1	-1.9	56.9
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.40	426.730	16258.972	426.730	13.123	bb			39.1431	97.9	-2.1	30.4
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	664.397	16258.972	664.397	20.432	bb			22.5515	112.8	12.8	21.1
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1498.403	16258.972	1498.403	46.079	MM	17-Feb-10	09:25:53	43.4940	108.7	8.7	65.6
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.26	308.850	16258.972	308.850	9.498	MM	17-Feb-10	09:54:26	38.5291	96.3	-3.7	13.0
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16258.972		16258.972	16258.972	bb			466.9822	93.4	-6.6	1321.7
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	206.957	16258.972	206.957	6.364	bb			41.8176	104.5	4.5	61.3
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.41	92.186	16258.972	92.186	2.835	bb			36.9848	92.5	-7.5	27.2
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.13	125.667	16258.972	125.667	3.865	bb			43.1845	108.0	8.0	39.5
WXX100216-08CRI	PETN	361 > 62	24.44	3403.665	16258.972	3403.665	104.670	bb			42.8433	107.1	7.1	656.3

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/16/10
Time of Injection	2233
Standard Number	WXX100216-08CRI
Data File	EXP0216012a

HMX	104.1
RDX	91.9
135-TNB	131.9
13-DNB	117.3
Tetryl	99.4
Nitrobenzene	113.1
4A-26-DNT	102.5
2A-46-DNT	98.1
246-TNT	97.9
34-DNT(surr)	112.8
26-DNT	108.7
24-DNT	96.3
2-NT	104.5
4-NT	92.5
3-NT	108.0
PETN	107.1
Total	1686.1
Average	105.4

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEI **GEL Sample ID:** WXXCCV

GEL Data File EXP0216021a **Analysis Date:** 17-FEB-10 03:00

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	579.243	97	
1,3-Dinitrobenzene-d4	500	497.509	100	
2,4,6-Trinitrotoluene	600	668.453	111	
2,4-Dinitrotoluene	600	630.739	105	
2,6-Dinitrotoluene	600	632.433	105	
2,6-Dinitrotoluene-d3	500	485.976	97	
2-Amino-4,6-dinitrotoluene	600	634.785	106	
3,4-Dinitrotoluene	300	327.796	109	
4-Amino-2,6-dinitrotoluene	600	562.441	94	
HMX	600	585.906	98	
Nitrobenzene	600	587.781	98	
PETN	600	627.186	105	
RDX	600	656.37	109	
Tetryl	600	543.324	91	
m-Dinitrobenzene	600	630.615	105	
m-Nitrotoluene	600	562.285	94	
o-Nitrotoluene	600	556.59	93	
p-Nitrotoluene	600	538.033	90	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216021a
Date: 17-Feb-2010
Time: 03:00:59
ID: WXX100216-07CCV
Vial: 1:1,B

HMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.504e+004

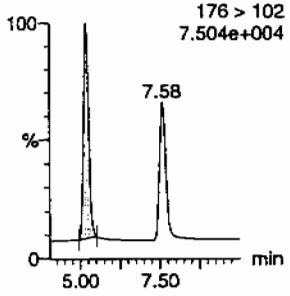

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
7.504e+004

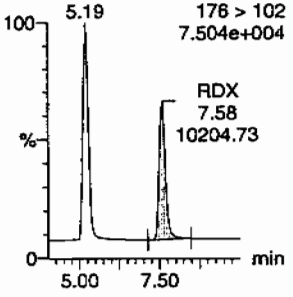

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.347e+004

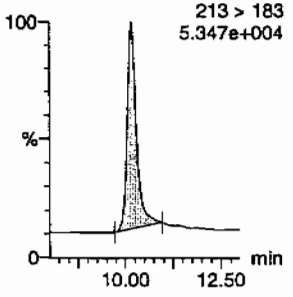

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.312e+004

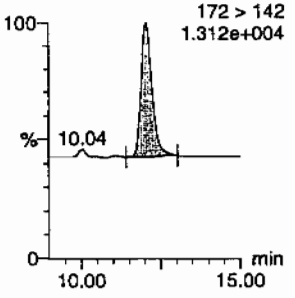

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.704e+004

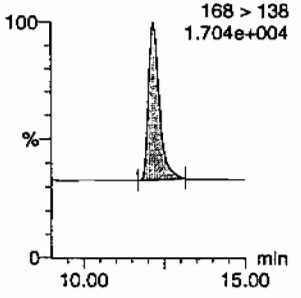

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.66
3551.03
241 > 181
1.544e+004

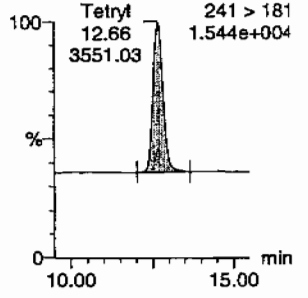

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.448e+004

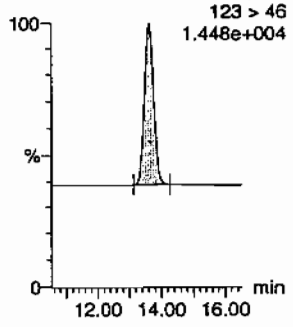

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.092e+004

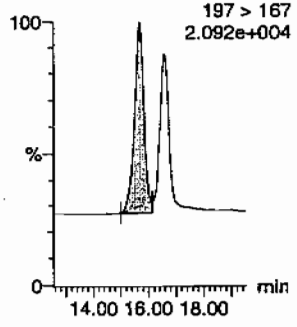

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.917e+004

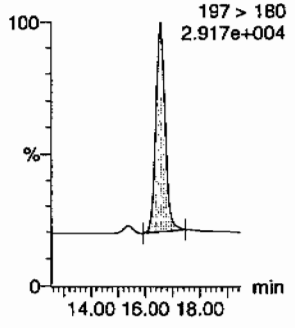

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.263e+004

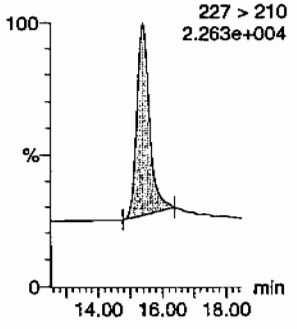

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.59
182 > 152
6.531e+004

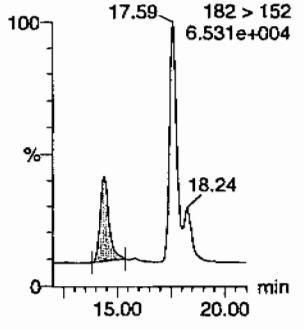

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.531e+004

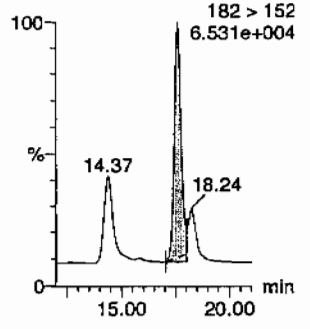

HMM 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

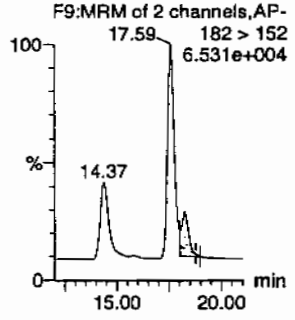

26-dinitrotoluene-d3

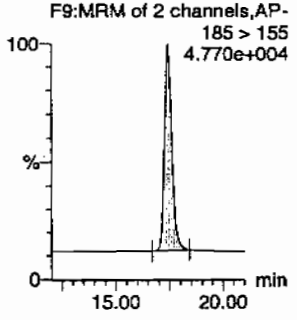

2-Nitrotoluene

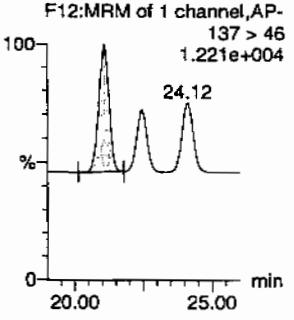

4-Nitrotoluene

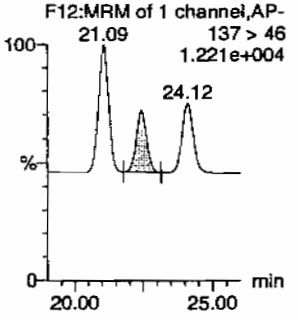

3-Nitrotoluene

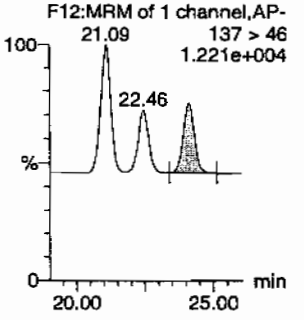

PETN

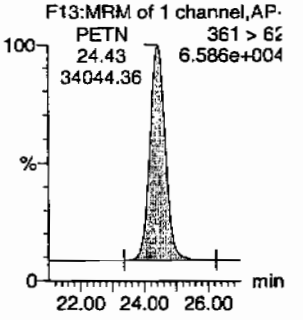

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	13552.134	2997.406	13552.134	2260.644	bb			585.9057	97.7	-2.3	2331.3
WXX100216-07CCV	RDX	176 > 102	7.58	10204.725	2997.406	10204.725	1702.259	bb			656.3705	109.4	9.4	1478.9
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13447.239	2997.406	13447.239	2243.146	bb			579.2434	96.5	-3.5	1192.4
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	2997.406		2997.406	2997.406	bb			497.5086	99.5	-0.5	158.4
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4493.104	2997.406	4493.104	749.499	bb			630.6152	105.1	5.1	503.7
WXX100216-07CCV	Tetryl	241 > 181	12.66	3551.025	2997.406	3551.025	592.350	bb			543.3244	90.6	-9.4	473.6
WXX100216-07CCV	Nitrobenzene	123 > 46	13.61	3025.073	2997.406	3025.073	504.615	bb			587.7805	98.0	-2.0	278.1
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	6094.788	16920.273	6094.788	180.103	MM	17-Feb-10	09:23:30	562.4405	93.7	-6.3	422.1
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9281.178	16920.273	9281.178	274.262	bb			634.7853	105.8	5.8	337.8
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7583.733	16920.273	7583.733	224.102	bb			668.4527	111.4	11.4	213.3
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10050.091	16920.273	10050.091	296.984	bb			327.7962	109.3	9.3	453.5
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.59	22674.004	16920.273	22674.004	670.025	MM	17-Feb-10	09:26:18	632.4328	105.4	5.4	1271.5
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.24	5261.653	16920.273	5261.653	155.484	MM	17-Feb-10	09:58:25	630.7389	105.1	5.1	273.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16920.273		16920.273	16920.273	bb			485.9758	97.2	-2.8	2036.1
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	2866.625	16920.273	2866.625	84.710	bb			556.5902	92.8	-7.2	705.7
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1395.615	16920.273	1395.615	41.241	bb			538.0334	89.7	-10.3	337.1
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1702.802	16920.273	1702.802	50.318	bb			562.2854	93.7	-6.3	379.3
WXX100216-07CCV	PETN	361 > 62	24.43	34044.359	16920.273	34044.359	1006.023	bb			627.1860	104.5	4.5	7276.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 0300
Standard Number: WXX100216-07CCV
Data File: EXP0216021a

HMX	97.7
RDX	109.4
135-TNB	96.5
13-DNB	105.1
Tetryl	90.6
Nitrobenzene	98.0
4A-26-DNT	93.7
2A-46-DNT	105.8
246-TNT	111.4
34-DNT(surr)	109.3
26-DNT	105.4
24-DNT	105.1
2-NT	92.8
4-NT	89.7
3-NT	93.7
PETN	104.5
Total	1608.7
Average	100.5

LMT 2/19/10

Hmc 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216023a **Analysis Date:** 17-FEB-10 03:59

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	46.027	115	
PETN	40	46.88	117	
RDX	40	40.003	100	
Tetryl	40	46.382	116	
m-Dinitrobenzene	40	47.022	118	
m-Nitrotoluene	40	34.333	86	
o-Nitrotoluene	40	37.918	95	
p-Nitrotoluene	40	33.624	84	
1,3,5-Trinitrobenzene	40	49.744	124	
1,3-Dinitrobenzene-d4	500	479.66	96	
2,4,6-Trinitrotoluene	40	35.851	90	
2,4-Dinitrotoluene	40	39.455	99	
2,6-Dinitrotoluene	40	41.064	103	
2,6-Dinitrotoluene-d3	500	491.1	98	
2-Amino-4,6-dinitrotoluene	40	38.066	95	
3,4-Dinitrotoluene	20	21.18	106	
4-Amino-2,6-dinitrotoluene	40	45.31	113	
HMX	40	40.495	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216023a
Date: 17-Feb-2010
Time: 03:59:56
ID: WXX100216-08CRI
Vial: 1:1,C

HMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.016e+004
903.05 7.58

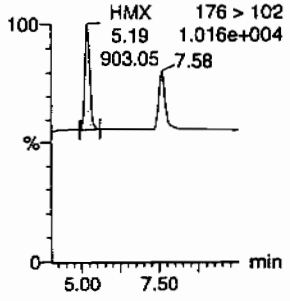

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.016e+004
RDX
7.58
599.62

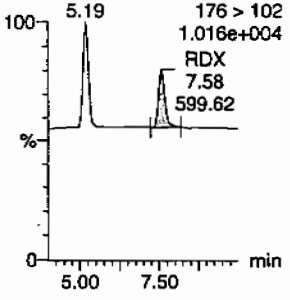

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.592e+003

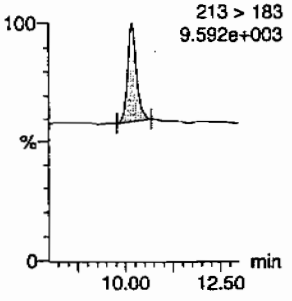

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.270e+004

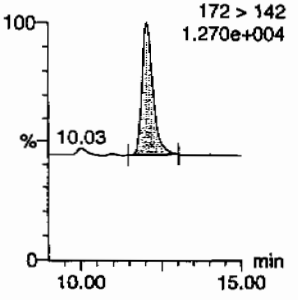

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.403e+003

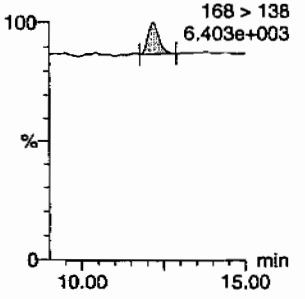

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.399e+003

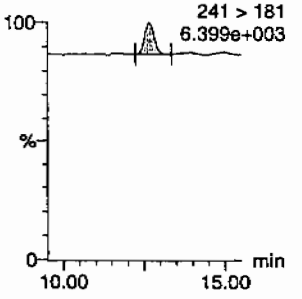

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.267e+003

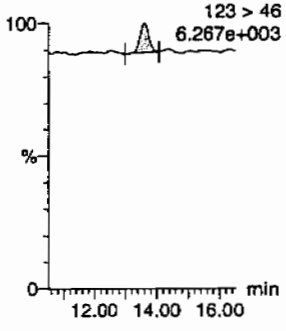

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.805e+003

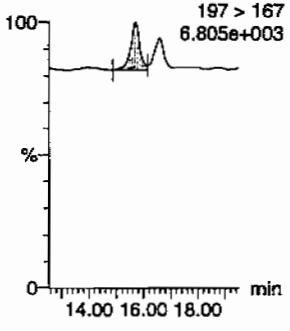

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.123e+003

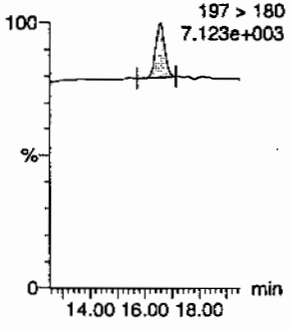

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.472e+003

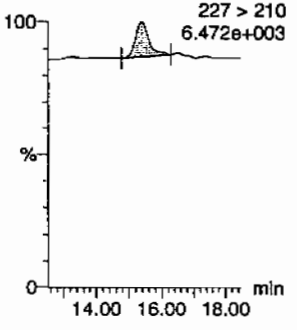

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.59 182 > 152
9.688e+003
18.24

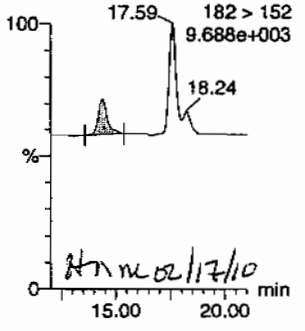

HMM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.688e+003
14.37
18.24

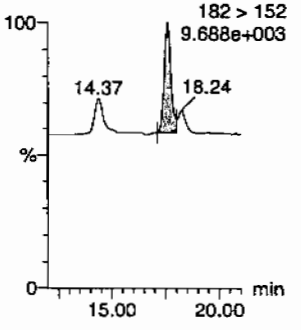

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

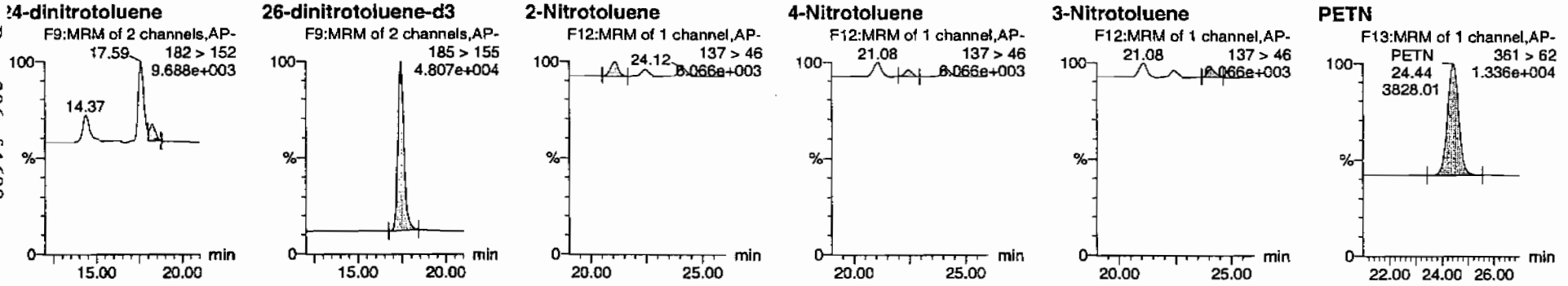

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	903.051	2889.872	903.051	156.244	bb			40.4948	101.2	1.2	129.0
WXX100216-08CRI	RDX	176 > 102	7.58	599.618	2889.872	599.618	103.745	bb			40.0027	100.0	0.0	71.5
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1113.391	2889.872	1113.391	192.637	bb			49.7442	124.4	24.4	149.0
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2889.872		2889.872	2889.872	bb			479.6602	95.9	-4.1	417.1
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	323.009	2889.872	323.009	55.886	bb			47.0218	117.6	17.6	49.9
WXX100216-08CRI	Tetryl	241 > 181	12.66	292.267	2889.872	292.267	50.567	bb			46.3823	116.0	16.0	23.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.61	228.386	2889.872	228.386	39.515	bb			46.0273	115.1	15.1	23.5
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	496.172	17098.684	496.172	14.509	MM	17-Feb-10	09:23:37	45.3101	113.3	13.3	43.7
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	562.424	17098.684	562.424	16.446	bb			38.0656	95.2	-4.8	54.4
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.37	411.028	17098.684	411.028	12.019	bb			35.8512	89.6	-10.4	34.7
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	656.211	17098.684	656.211	19.189	bb			21.1798	105.9	5.9	25.2
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.59	1487.743	17098.684	1487.743	43.505	MM	17-Feb-10	09:26:28	41.0638	102.7	2.7	76.0
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.24	332.609	17098.684	332.609	9.726	MM	17-Feb-10	09:58:34	39.4554	98.6	-1.4	15.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	17098.684		17098.684	17098.684	bb			491.1000	98.2	-1.8	1844.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	197.351	17098.684	197.351	5.771	bb			37.9183	94.8	-5.2	50.3
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	88.137	17098.684	88.137	2.577	bb			33.6238	84.1	-15.9	24.1
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.12	105.069	17098.684	105.069	3.072	bb			34.3330	85.8	-14.2	27.3
WXX100216-08CRI	PETN	361 > 62	24.44	3828.005	17098.684	3828.005	111.939	bb			46.8804	117.2	17.2	698.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	0359
Standard Number	WXX100216-08CRI
Data File	EXP0216023a

HMX	101.2
RDX	100.0
135-TNB	124.4
13-DNB	117.6
Tetryl	116.0
Nitrobenzene	115.1
4A-26-DNT	113.3
2A-46-DNT	95.2
246-TNT	89.6
34-DNT(surr)	105.9
26-DNT	102.7
24-DNT	98.6
2-NT	94.8
4-NT	84.1
3-NT	85.8
PETN	117.2
Total	1661.5
Average	103.8

MTP 4/7/10

HM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1394

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216027a **Analysis Date:** 17–FEB–10 05:58

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene	600	636.41	106	
2,6–Dinitrotoluene–d3	500	422.753	85	
2–Amino–4,6–dinitrotoluene	600	651.036	109	
3,4–Dinitrotoluene	300	336.279	112	
4–Amino–2,6–dinitrotoluene	600	604.644	101	
HMX	600	612.626	102	
Nitrobenzene	600	578.267	96	
PETN	600	723.944	121	*
RDX	600	659.537	110	
Tetryl	600	567.895	95	
m–Dinitrobenzene	600	622.089	104	
m–Nitrotoluene	600	628.032	105	
o–Nitrotoluene	600	608.219	101	
p–Nitrotoluene	600	603.723	101	
1,3,5–Trinitrobenzene	600	611.171	102	
1,3–Dinitrobenzene–d4	500	441.467	88	
2,4,6–Trinitrotoluene	600	677.667	113	
2,4–Dinitrotoluene	600	637.719	106	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216027a
Date: 17-Feb-2010
Time: 05:58:23
ID: WXX100216-07CCV
Vial: 1:1,B

HMX 2/17/10

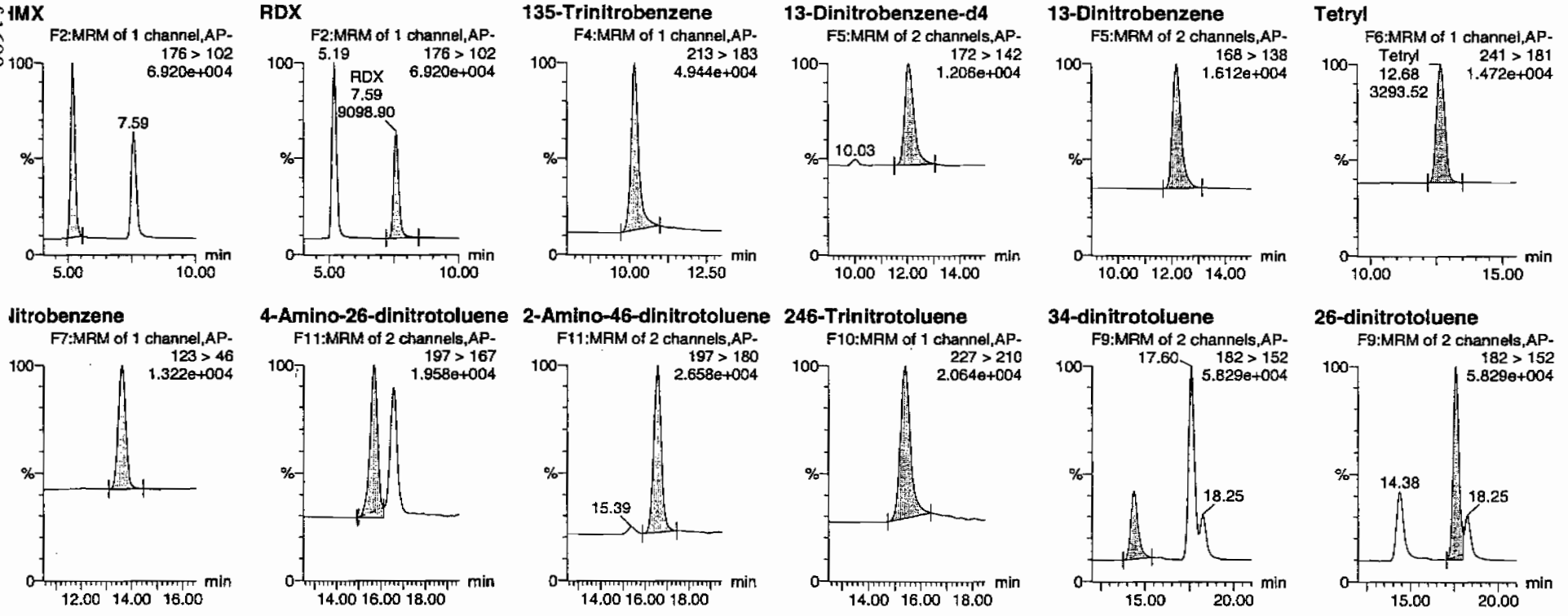

HMW 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

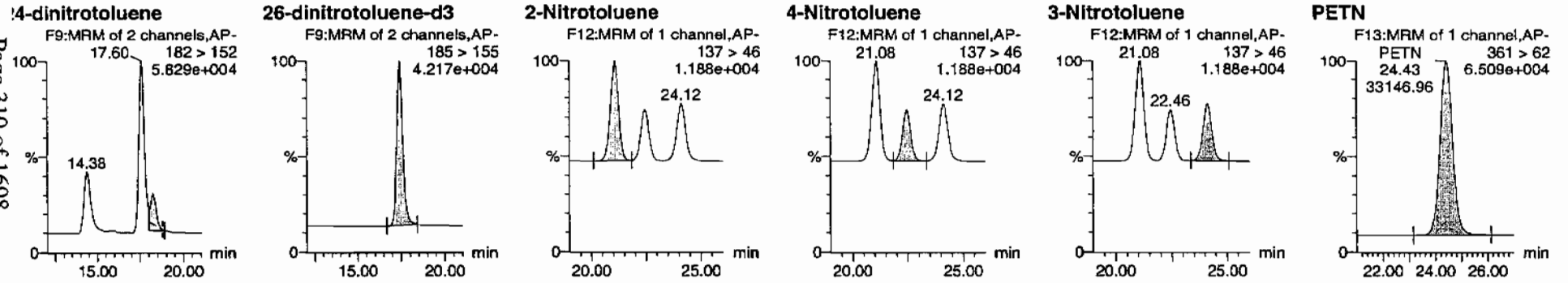

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	12573.983	2659.764	12573.983	2363.740	bb			612.6259	102.1	2.1	1867.4
WXX100216-07CCV	RDX	176 > 102	7.59	9098.897	2659.764	9098.897	1710.471	bb			659.5367	109.9	9.9	1136.2
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12590.188	2659.764	12590.188	2366.787	bb			611.1709	101.9	1.9	720.5
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2659.764		2659.764	2659.764	bb			441.4669	88.3	-11.7	384.7
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3933.075	2659.764	3933.075	739.365	bb			622.0892	103.7	3.7	572.6
WXX100216-07CCV	Tetryl	241 > 181	12.68	3293.519	2659.764	3293.519	619.137	bb			567.8951	94.6	-5.4	186.1
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2640.866	2659.764	2640.866	496.447	bb			578.2667	96.4	-3.6	244.7
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5699.717	14719.028	5699.717	193.617	MM	17-Feb-10	09:24:07	604.6437	100.8	0.8	191.5
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8280.438	14719.028	8280.438	281.283	bb			651.0364	108.5	8.5	208.4
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	6688.060	14719.028	6688.060	227.191	bb			677.6666	112.9	12.9	176.3
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8968.860	14719.028	8968.860	304.669	bb			336.2788	112.1	12.1	355.9
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	19848.275	14719.028	19848.275	674.239	MM	17-Feb-10	09:27:00	636.4103	106.1	6.1	997.2
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4627.791	14719.028	4627.791	157.204	MM	17-Feb-10	09:59:44	637.7191	106.3	6.3	221.0
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14719.028		14719.028	14719.028	bb			422.7527	84.6	-15.4	873.5
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2725.003	14719.028	2725.003	92.567	bb			608.2189	101.4	1.4	310.4
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1362.278	14719.028	1362.278	46.276	bb			603.7228	100.6	0.6	155.4
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1654.478	14719.028	1654.478	56.202	bb			628.0322	104.7	4.7	174.3
WXX100216-07CCV	PETN	361 > 62	24.43	33146.961	14719.028	33146.961	1125.990	bb			723.9440	120.7	20.7	4875.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 0558
Standard Number: WXX100216-07CCV
Data File: EXP0216027a

HMX	102.1
RDX	109.9
135-TNB	101.9
13-DNB	103.7
Tetryl	94.6
Nitrobenzene	96.4
4A-26-DNT	100.8
2A-46-DNT	108.5
246-TNT	112.9
34-DNT(surr)	112.1
26-DNT	106.1
24-DNT	106.3
2-NT	101.4
4-NT	100.6
3-NT	104.7
PETN	120.7
Total	1682.7
Average	105.2

KMP 2/17/10

KMM on 1/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216029a **Analysis Date:** 17-FEB-10 06:57

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	46.171	115	
1,3-Dinitrobenzene-d4	500	512.607	103	
2,4,6-Trinitrotoluene	40	37.982	95	
2,4-Dinitrotoluene	40	44.51	111	
2,6-Dinitrotoluene	40	42.325	106	
2,6-Dinitrotoluene-d3	500	468.417	94	
2-Amino-4,6-dinitrotoluene	40	42.003	105	
3,4-Dinitrotoluene	20	22.85	114	
4-Amino-2,6-dinitrotoluene	40	35.28	88	
HMX	40	35.563	89	
Nitrobenzene	40	35.31	88	
PETN	40	48.188	120	
RDX	40	37.715	94	
Tetryl	40	38.583	96	
m-Dinitrobenzene	40	47.424	119	
m-Nitrotoluene	40	37.561	94	
o-Nitrotoluene	40	37.519	94	
p-Nitrotoluene	40	38.529	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qid, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216029a
Date: 17-Feb-2010
Time: 06:57:50
ID: WXX100216-08CRI
Vial: 1:1,C

MTP 2/17/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.009e+004
847.55

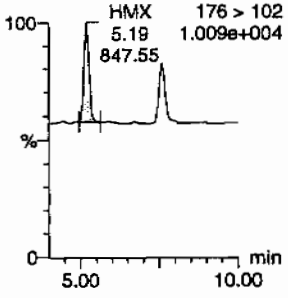

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.009e+004

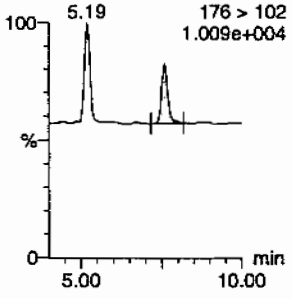

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.609e+003

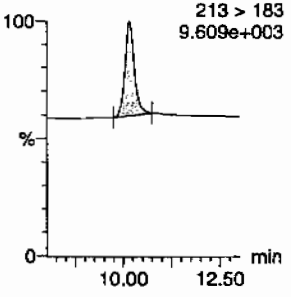

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.317e+004

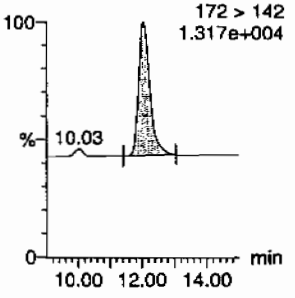

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.483e+003

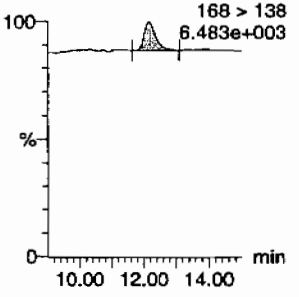

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.465e+003

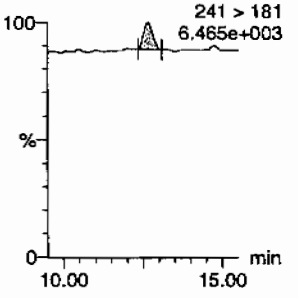

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.184e+003

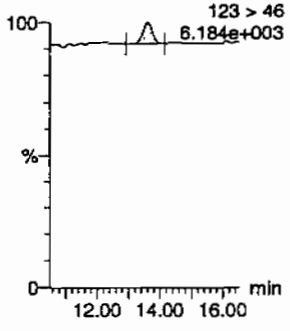

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.673e+003

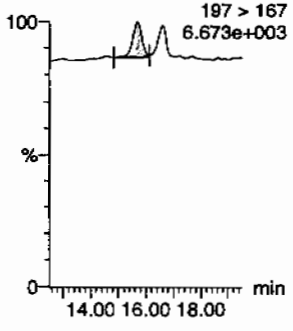

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.151e+003

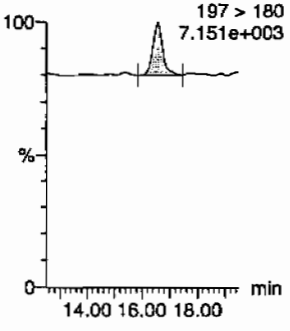

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.660e+003

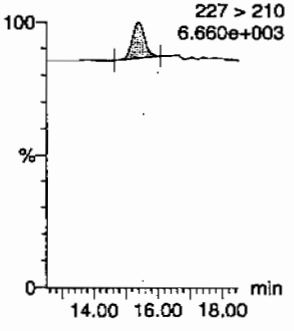

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.60 182 > 152
9.572e+003
18.27

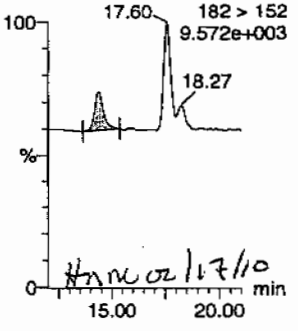

HMW 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.572e+003
14.38
18.27

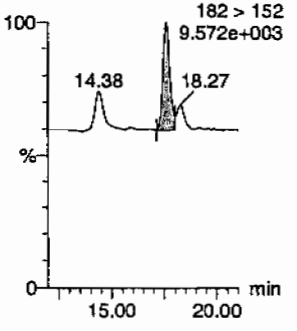

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

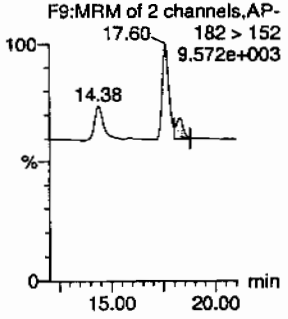

26-dinitrotoluene-d3

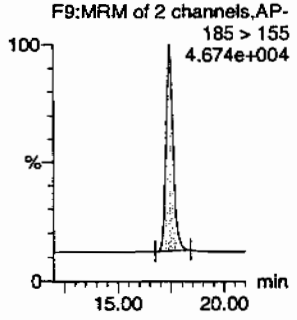

2-Nitrotoluene

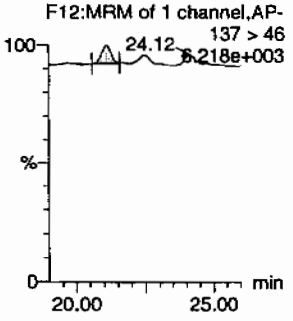

4-Nitrotoluene

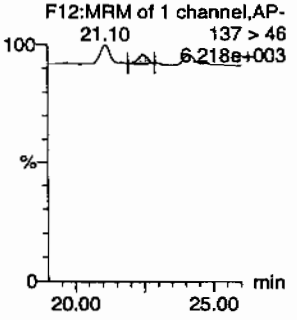

3-Nitrotoluene

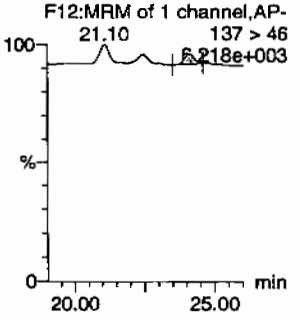

PETN

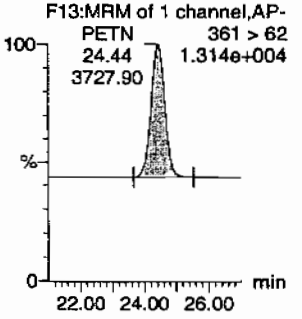

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	847.548	3088.373	847.548	137.216	bb			35.5631	88.9	-11.1	67.2
WXX100216-08CRI	RDX	176 > 102	7.59	604.150	3088.373	604.150	97.810	bb			37.7145	94.3	-5.7	40.2
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1104.404	3088.373	1104.404	178.800	bb			46.1713	115.4	15.4	242.0
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3088.373		3088.373	3088.373	bb			512.6073	102.5	2.5	183.7
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	348.146	3088.373	348.146	56.364	bb			47.4237	118.6	18.6	32.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	259.818	3088.373	259.818	42.064	bb			38.5825	96.5	-3.5	17.3
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	187.241	3088.373	187.241	30.314	bb			35.3099	88.3	-11.7	24.4
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	368.489	16308.923	368.489	11.297	MM	17-Feb-10	09:24:15	35.2797	88.2	-11.8	20.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	591.929	16308.923	591.929	18.147	bb			42.0025	105.0	5.0	42.9
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	415.344	16308.923	415.344	12.734	bb			37.9820	95.0	-5.0	34.9
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	675.250	16308.923	675.250	20.702	bb			22.8497	114.2	14.2	40.8
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1462.626	16308.923	1462.626	44.841	MM	17-Feb-10	09:27:06	42.3254	105.8	5.8	114.5
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.27	357.891	16308.923	357.891	10.972	MM	17-Feb-10	09:59:53	44.5103	111.3	11.3	25.2
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16308.923		16308.923	16308.923	bb			468.4169	93.7	-6.3	1631.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	186.251	16308.923	186.251	5.710	bb			37.5185	93.8	-6.2	60.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	96.329	16308.923	96.329	2.953	bb			38.5286	96.3	-3.7	29.1
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.12	109.637	16308.923	109.637	3.361	bb			37.5605	93.9	-6.1	32.5
WXX100216-08CRI	PETN	361 > 62	24.44	3727.896	16308.923	3727.896	114.290	bb			48.1882	120.5	20.5	1683.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	0657
Standard Number	WXX100216-08CRI
Data File	EXP0216029a

HMX	88.9
RDX	94.3
135-TNB	115.4
13-DNB	118.6
Tetryl	96.5
Nitrobenzene	88.3
4A-26-DNT	88.2
2A-46-DNT	105.0
246-TNT	95.0
34-DNT(surr)	114.2
26-DNT	105.8
24-DNT	111.3
2-NT	93.8
4-NT	96.3
3-NT	93.9
PETN	120.5
Total	1626.0
Average	101.6

MAP 2/17/10

HMM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1394

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216039a **Analysis Date:** 17–FEB–10 11:55

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o–Nitrotoluene	600	662.654	110	
p–Nitrotoluene	600	651.214	109	
1,3,5–Trinitrobenzene	600	585.479	98	
1,3–Dinitrobenzene–d4	500	387.961	78	*
2,4,6–Trinitrotoluene	600	707.346	118	
2,4–Dinitrotoluene	600	645.209	108	
2,6–Dinitrotoluene	600	613.479	102	
2,6–Dinitrotoluene–d3	500	403.474	81	
2–Amino–4,6–dinitrotoluene	600	628.06	105	
3,4–Dinitrotoluene	300	337.542	113	
4–Amino–2,6–dinitrotoluene	600	652.842	109	
HMX	600	593.956	99	
Nitrobenzene	600	632.339	105	
PETN	600	805.557	134	*
RDX	600	659.382	110	
Tetryl	600	551.825	92	
m–Dinitrobenzene	600	625.313	104	
m–Nitrotoluene	600	627.48	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

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Date: 17-Feb-2010
Time: 11:55:13
ID: WXX100216-07CCV
Vial: 1:1,B

MM 2/18/10

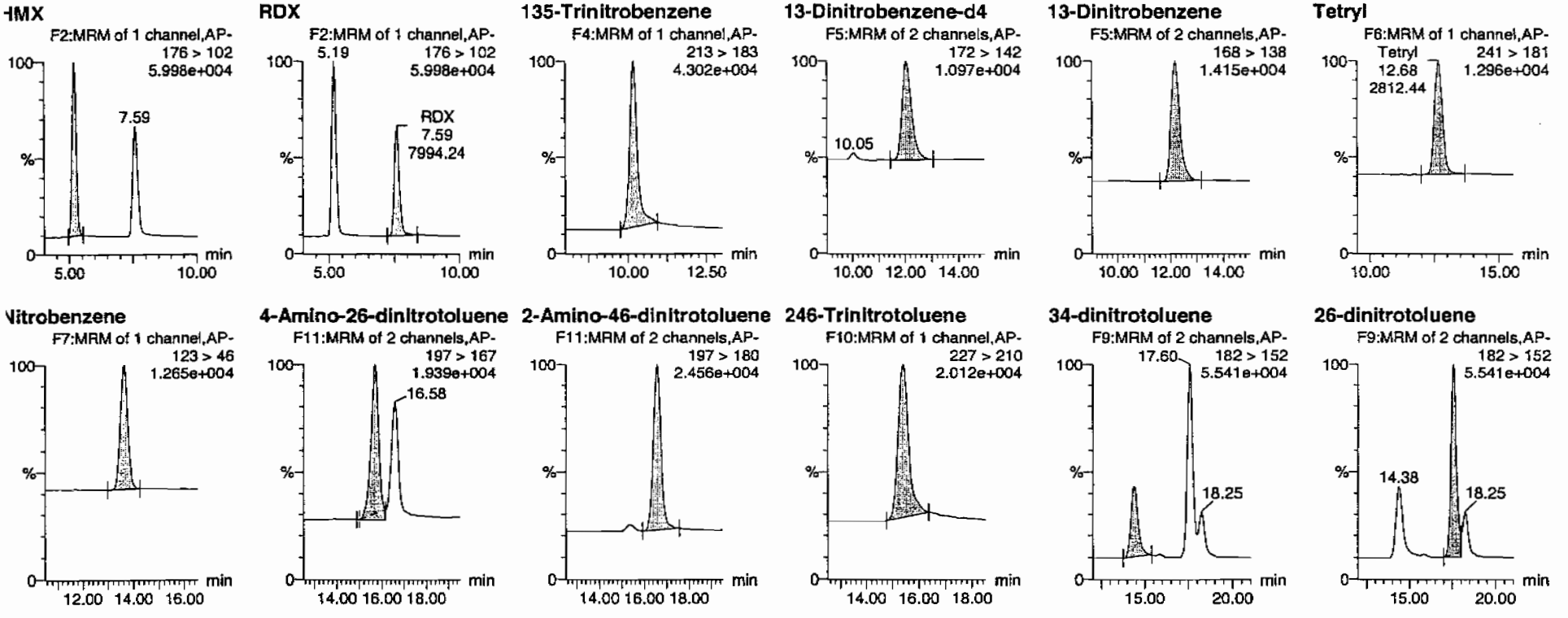

Hmm 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

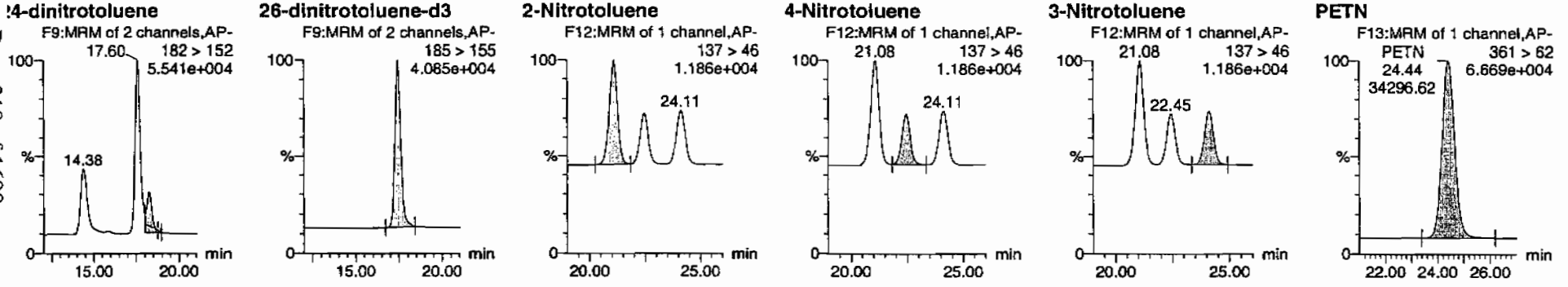

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
NXX100216-07CCV	HMX	176 > 102	5.19	10713.271	2337.401	10713.271	2291.706	bb			593.9562	99.0	-1.0	1627.0
NXX100216-07CCV	RDX	176 > 102	7.59	7994.240	2337.401	7994.240	1710.070	bb			659.3823	109.9	9.9	1027.0
NXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	10599.146	2337.401	10599.146	2267.293	bb			585.4788	97.6	-2.4	1024.7
NXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2337.401		2337.401	2337.401	bb			387.9612	77.6	-22.4	133.1
NXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3474.301	2337.401	3474.301	743.197	bb			625.3134	104.2	4.2	284.5
NXX100216-07CCV	Tetryl	241 > 181	12.68	2812.442	2337.401	2812.442	601.617	bb			551.8250	92.0	-8.0	285.9
NXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2537.805	2337.401	2537.805	542.869	bb			632.3390	105.4	5.4	222.2
NXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5873.420	14047.796	5873.420	209.051	MM	18-Feb-10	08:44:27	652.8422	108.8	8.8	505.6
NXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7623.921	14047.796	7623.921	271.356	bb			628.0603	104.7	4.7	448.6
NXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.38	6662.623	14047.796	6662.623	237.141	bb			707.3463	117.9	17.9	323.1
NXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8592.021	14047.796	8592.021	305.814	bb			337.5425	112.5	12.5	393.2
NXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18260.570	14047.796	18260.570	649.944	MM	18-Feb-10	08:47:58	613.4790	102.2	2.2	1068.9
NXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4468.623	14047.796	4468.623	159.051	MM	18-Feb-10	08:52:01	645.2089	107.5	7.5	245.7
NXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14047.796		14047.796	14047.796	bb			403.4739	80.7	-19.3	1385.8
NXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2833.500	14047.796	2833.500	100.852	bb			662.6544	110.4	10.4	243.8
NXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1402.429	14047.796	1402.429	49.916	bb			651.2139	108.5	8.5	120.3
NXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1577.640	14047.796	1577.640	56.153	bb			627.4798	104.6	4.6	127.1
NXX100216-07CCV	PETN	361 > 62	24.44	34296.621	14047.796	34296.621	1220.712	bb			805.5575	134.3	34.3	5120.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 1155
Standard Number: WXX100216-07CCV
Data File: EXP0216039a

HMX	99.0
RDX	109.9
135-TNB	97.6
13-DNB	104.2
Tetryl	92.0
Nitrobenzene	105.4
4A-26-DNT	108.8
2A-46-DNT	104.7
246-TNT	117.9
34-DNT(surr)	112.5
26-DNT	102.2
24-DNT	107.5
2-NT	110.4
4-NT	108.5
3-NT	104.6
PETN	134.3
Total	1719.5
Average	107.5

HOT 2/18/10

Hnm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0216041a

Analysis Date: 17–FEB–10 12:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4–Dinitrotoluene	40	48.789	122	
2,6–Dinitrotoluene	40	42.876	107	
2,6–Dinitrotoluene–d3	500	442.639	89	
2–Amino–4,6–dinitrotoluene	40	38.248	96	
3,4–Dinitrotoluene	20	20.64	103	
4–Amino–2,6–dinitrotoluene	40	36.085	90	
HMX	40	43.087	108	
Nitrobenzene	40	41.223	103	
PETN	40	49.973	125	
RDX	40	39.872	100	
Tetryl	40	51.62	129	
m–Dinitrobenzene	40	47.407	119	
m–Nitrotoluene	40	45.574	114	
o–Nitrotoluene	40	37.868	95	
p–Nitrotoluene	40	46.625	117	
1,3,5–Trinitrobenzene	40	49.958	125	
1,3–Dinitrobenzene–d4	500	436.567	87	
2,4,6–Trinitrotoluene	40	33.868	85	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216041a
Date: 17-Feb-2010
Time: 12:54:26
ID: WXX100216-08CRI
Vial: 1:1,C

MT 2/18/10

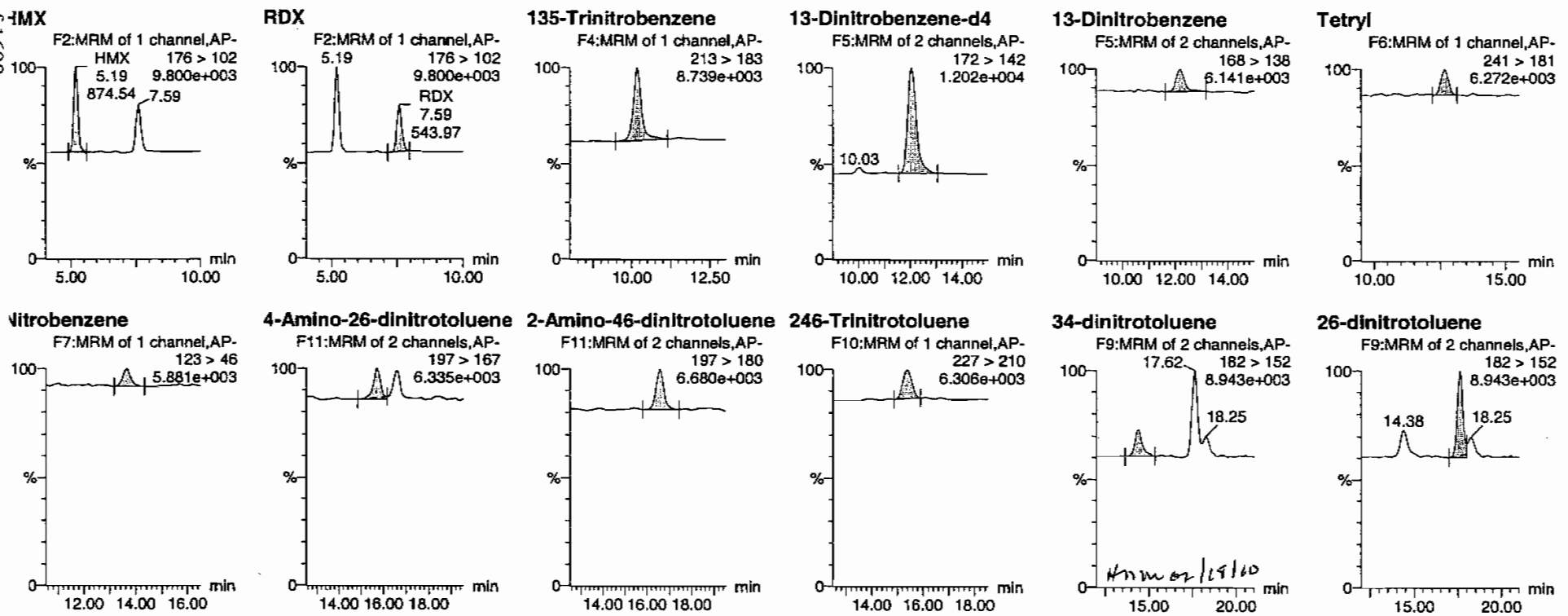

HMM 02/19/10

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luantify Sample Report
;EL Laboratories, LLC / Analyst : Michael A. Penny

!ataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

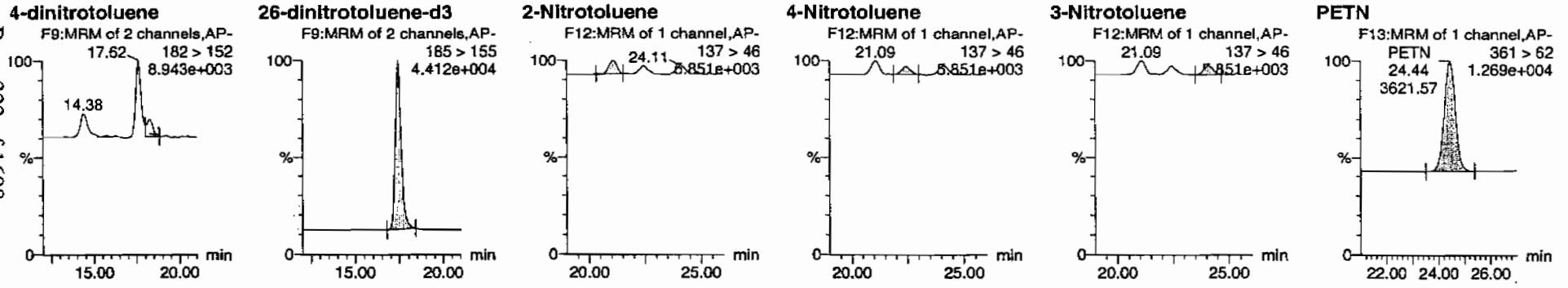

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	µg/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	874.541	2630.245	874.541	166.247	bb			43.0873	107.7	7.7	143.8
WXX100216-08CRI	RDX	176 > 102	7.59	543.971	2630.245	543.971	103.407	bb			39.8724	99.7	-0.3	77.7
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1017.727	2630.245	1017.727	193.466	bb			49.9584	124.9	24.9	42.9
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2630.245		2630.245	2630.245	bb			436.5674	87.3	-12.7	269.0
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	296.395	2630.245	296.395	56.344	bb			47.4065	118.5	18.5	27.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	296.048	2630.245	296.048	56.278	bb			51.6199	129.0	29.0	24.9
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	186.169	2630.245	186.169	35.390	bb			41.2227	103.1	3.1	18.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	356.159	15411.399	356.159	11.555	MM	18-Feb-10	08:44:35	36.0850	90.2	-9.8	23.5
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	509.352	15411.399	509.352	16.525	bb			38.2479	95.6	-4.4	62.5
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	349.977	15411.399	349.977	11.354	bb			33.8682	84.7	-15.3	59.5
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	576.394	15411.399	576.394	18.700	bb			20.6404	103.2	3.2	14.6
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1400.108	15411.399	1400.108	45.424	MM	18-Feb-10	08:48:09	42.8759	107.2	7.2	47.1
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.25	370.708	15411.399	370.708	12.027	MM	18-Feb-10	08:51:46	48.7893	122.0	22.0	10.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15411.399		15411.399	15411.399	bb			442.6386	88.5	-11.5	1346.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	177.640	15411.399	177.640	5.763	bb			37.8679	94.7	-5.3	32.4
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	110.157	15411.399	110.157	3.574	bb			46.6252	116.6	16.6	18.9
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	125.706	15411.399	125.706	4.078	bb			45.5737	113.9	13.9	20.0
WXX100216-08CRI	PETN	361 > 62	24.44	3621.569	15411.399	3621.569	117.496	bb			49.9729	124.9	24.9	470.4

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	1254
Standard Number	WXX100216-08CRI
Data File	EXP0216041a

HMX	107.7
RDX	99.7
135-TNB	124.9
13-DNB	118.5
Tetryl	129.0
Nitrobenzene	103.1
4A-26-DNT	90.2
2A-46-DNT	95.6
246-TNT	84.7
34-DNT(surr)	103.2
26-DNT	107.2
24-DNT	122.0
2-NT	94.7
4-NT	116.6
3-NT	113.9
PETN	124.9
Total	1735.9
Average	108.5

MMT 2/18/10

Hnm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216052a **Analysis Date:** 17-FEB-10 18:20

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	614.714	102	
m-Nitrotoluene	600	522.1	87	
o-Nitrotoluene	600	521.805	87	
p-Nitrotoluene	600	528.568	88	
1,3,5-Trinitrobenzene	600	586.393	98	
1,3-Dinitrobenzene-d4	500	469.603	94	
2,4,6-Trinitrotoluene	600	667.732	111	
2,4-Dinitrotoluene	600	640.278	107	
2,6-Dinitrotoluene	600	617.89	103	
2,6-Dinitrotoluene-d3	500	472.936	95	
2-Amino-4,6-dinitrotoluene	600	700.294	117	
3,4-Dinitrotoluene	300	322.55	108	
4-Amino-2,6-dinitrotoluene	600	558.036	93	
HMX	600	526.292	88	
Nitrobenzene	600	561.562	94	
PETN	600	685.593	114	
RDX	600	615.154	103	
Tetryl	600	581.072	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216052a
Date: 17-Feb-2010
Time: 18:20:28
ID: WXX100216-07CCV
Vial: 1:1,B

MMT 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.346e+004

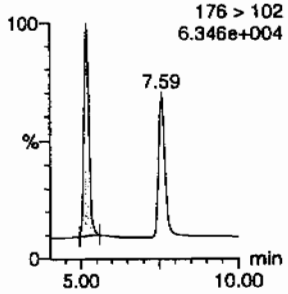

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.346e+004

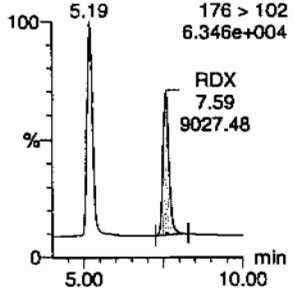

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.120e+004

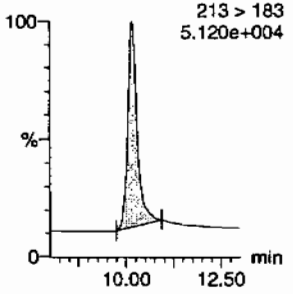

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.253e+004

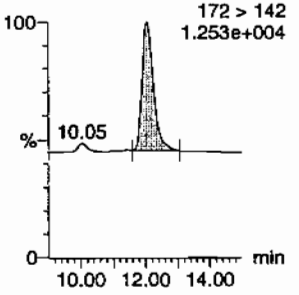

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.651e+004

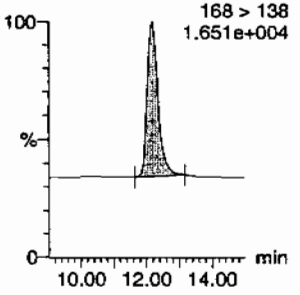

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.562e+004

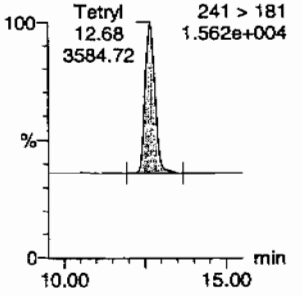

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.357e+004

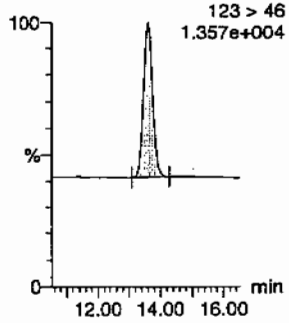

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.035e+004

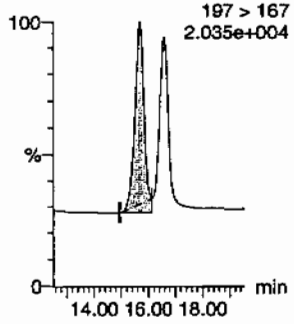

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.118e+004

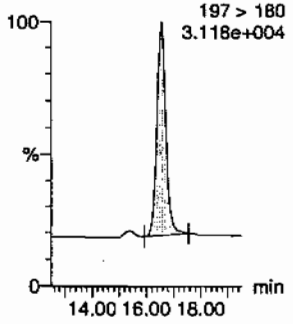

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.184e+004

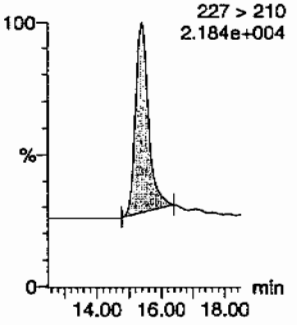

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.173e+004

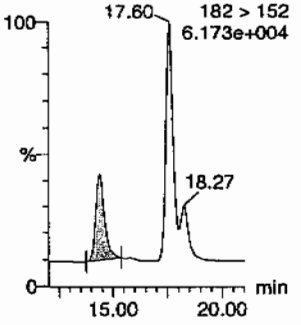

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.173e+004

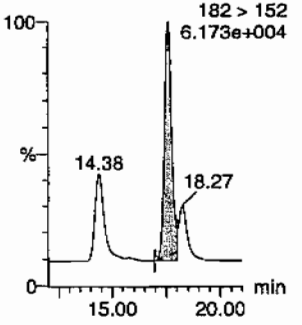

HMM 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

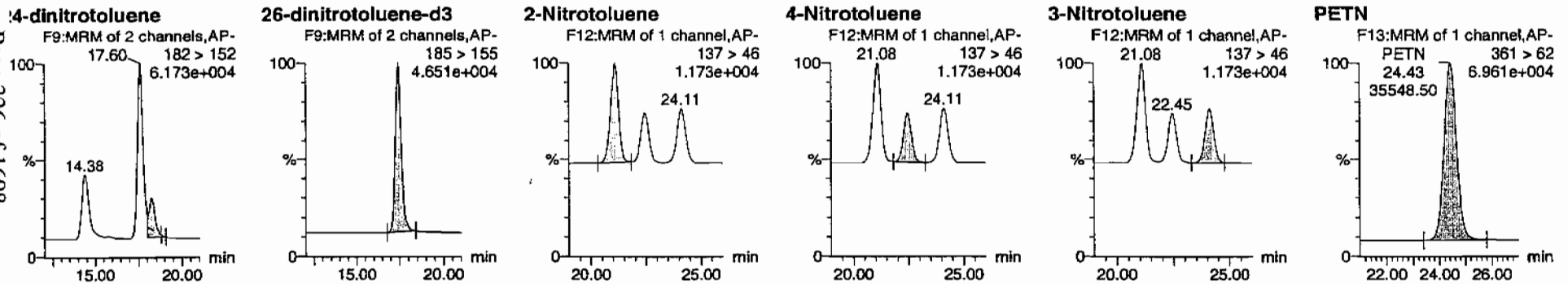

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
NXX100216-07CCV	HMX	176 > 102	5.19	11490.467	2829.281	11490.467	2030.634	bb			526.2925	87.7	-12.3	815.5
NXX100216-07CCV	RDX	176 > 102	7.59	9027.476	2829.281	9027.476	1595.366	bb			615.1536	102.5	2.5	550.4
NXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12849.643	2829.281	12849.643	2270.832	bb			586.3926	97.7	-2.3	1070.5
NXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2829.281		2829.281	2829.281	bb			469.6033	93.9	-6.1	279.7
NXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.21	4134.145	2829.281	4134.145	730.600	bb			614.7141	102.5	2.5	343.4
NXX100216-07CCV	Tetryl	241 > 181	12.68	3584.717	2829.281	3584.717	633.503	bb			581.0719	96.8	-3.2	310.8
NXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2728.030	2829.281	2728.030	482.107	bb			561.5623	93.6	-6.4	278.0
NXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5884.796	16466.256	5884.796	178.693	MM	18-Feb-10	08:45:27	558.0356	93.0	-7.0	329.4
NXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	9964.233	16466.256	9964.233	302.565	bb			700.2936	116.7	16.7	436.1
NXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7372.284	16466.256	7372.284	223.860	bb			667.7320	111.3	11.3	133.4
NXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	9623.878	16466.256	9623.878	292.230	bb			322.5496	107.5	7.5	471.5
NXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	21558.193	16466.256	21558.193	654.617	MM	18-Feb-10	08:48:43	617.8898	103.0	3.0	1307.8
NXX100216-07CCV	24-dinitrotoluene	182 > 152	18.27	5197.906	16466.256	5197.906	157.835	MM	18-Feb-10	08:50:57	640.2777	106.7	6.7	288.4
NXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	16466.256		16466.256	16466.256	bb			472.9357	94.6	-5.4	1834.5
NXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2615.357	16466.256	2615.357	79.416	bb			521.8049	87.0	-13.0	493.9
NXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1334.272	16466.256	1334.272	40.515	bb			528.5675	88.1	-11.9	245.7
NXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1538.681	16466.256	1538.681	46.722	bb			522.1001	87.0	-13.0	271.2
NXX100216-07CCV	PETN	361 > 62	24.43	35548.496	16466.256	35548.496	1079.435	bb			685.5926	114.3	14.3	8100.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 1820
Standard Number: WXX100216-07CCV
Data File: EXP0216052a

HMX	87.7
RDX	102.5
135-TNB	97.7
13-DNB	102.5
Tetryl	96.8
Nitrobenzene	93.6
4A-26-DNT	93.0
2A-46-DNT	116.7
246-TNT	111.3
34-DNT(surr)	107.5
26-DNT	103.0
24-DNT	106.7
2-NT	87.0
4-NT	88.1
3-NT	87.0
PETN	114.3
Total	1595.4
Average	99.7

MJT 2/18/10

Hm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216054a **Analysis Date:** 17-FEB-10 19:19

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	46.393	116	
m-Nitrotoluene	40	35.588	89	
o-Nitrotoluene	40	43.751	109	
p-Nitrotoluene	40	34.462	86	
1,3,5-Trinitrobenzene	40	49.067	123	
1,3-Dinitrobenzene-d4	500	526.622	105	
2,4,6-Trinitrotoluene	40	45.215	113	
2,4-Dinitrotoluene	40	38.588	96	
2,6-Dinitrotoluene	40	43.371	108	
2,6-Dinitrotoluene-d3	500	482.623	97	
2-Amino-4,6-dinitrotoluene	40	45.806	115	
3,4-Dinitrotoluene	20	22.123	111	
4-Amino-2,6-dinitrotoluene	40	49.639	124	
HMX	40	43.201	108	
Nitrobenzene	40	41.456	104	
PETN	40	47.927	120	
RDX	40	45.793	114	
Tetryl	40	38.525	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216054a
Date: 17-Feb-2010
Time: 19:19:47
ID: WXX100216-08CRI
Vial: 1:1,C

MMT 2/18/10

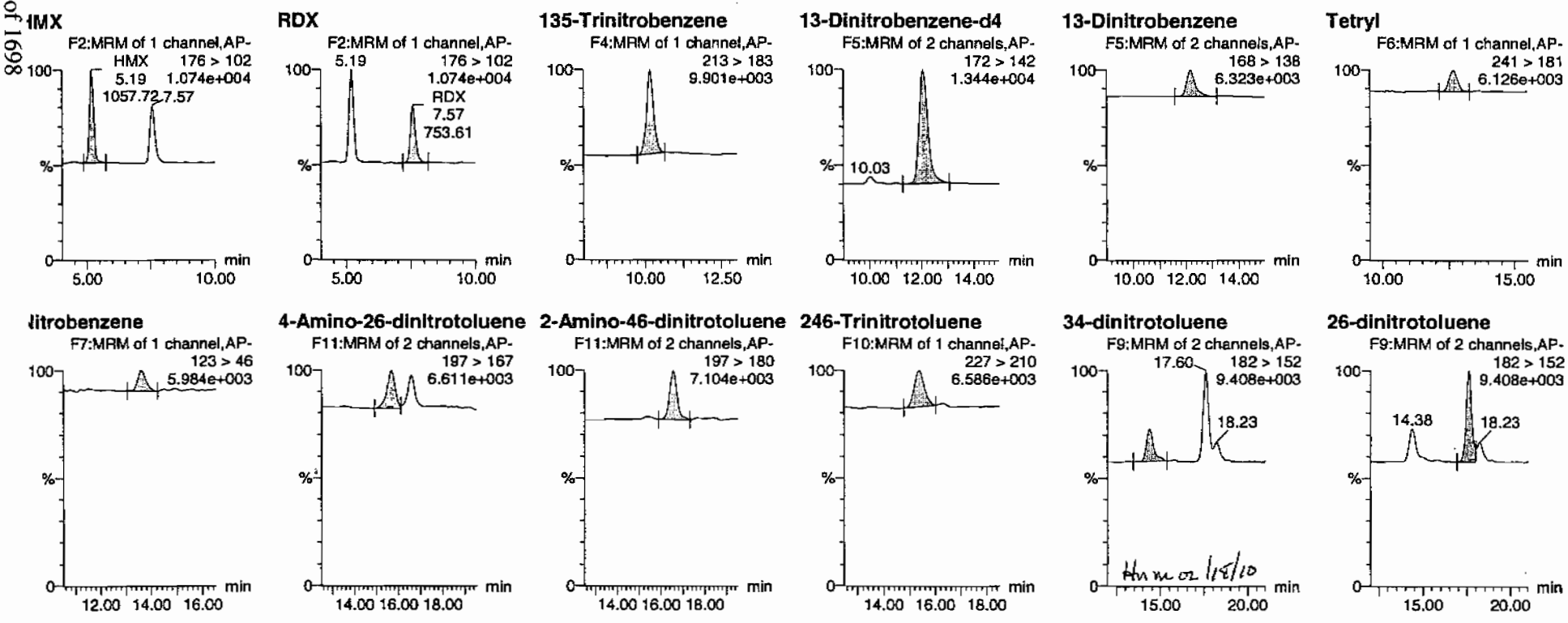

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

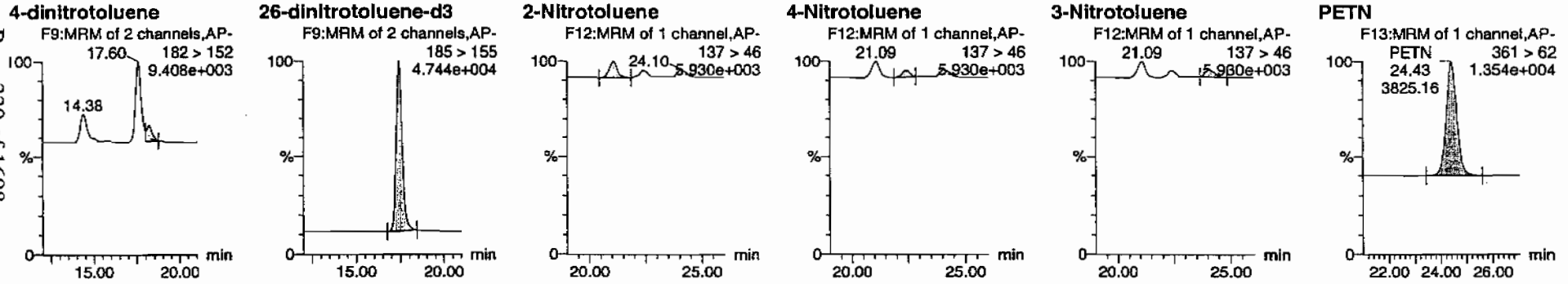

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1057.724	3172.809	1057.724	166.686	bb			43.2010	108.0	8.0	337.5
WXX100216-08CRI	RDX	176 > 102	7.57	753.607	3172.809	753.607	118.760	bb			45.7925	114.5	14.5	206.1
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1205.768	3172.809	1205.768	190.016	bb			49.0674	122.7	22.7	83.7
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3172.809		3172.809	3172.809	bb			526.6220	105.3	5.3	217.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	349.888	3172.809	349.888	55.139	bb			46.3926	116.0	16.0	58.6
WXX100216-08CRI	Tetryl	241 > 181	12.68	266.522	3172.809	266.522	42.001	bb			38.5248	96.3	-3.7	16.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	225.843	3172.809	225.843	35.590	bb			41.4560	103.6	3.6	30.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	534.191	16803.529	534.191	15.895	MM	18-Feb-10	08:45:35	49.6388	124.1	24.1	30.5
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	665.112	16803.529	665.112	19.791	bb			45.8063	114.5	14.5	84.8
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	509.430	16803.529	509.430	15.158	bb			45.2146	113.0	13.0	71.3
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	673.596	16803.529	673.596	20.043	bb			22.1228	110.6	10.6	46.6
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1544.212	16803.529	1544.212	45.949	MM	18-Feb-10	08:48:53	43.3711	108.4	8.4	133.2
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	319.681	16803.529	319.681	9.512	MM	18-Feb-10	08:50:42	38.5879	96.5	-3.5	27.1
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16803.529		16803.529	16803.529	bb			482.6227	96.5	-3.5	1788.6
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	223.779	16803.529	223.779	6.659	bb			43.7513	109.4	9.4	29.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.42	88.774	16803.529	88.774	2.642	bb			34.4617	86.2	-13.8	12.3
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	107.030	16803.529	107.030	3.185	bb			35.5881	89.0	-11.0	12.7
WXX100216-08CRI	PETN	361 > 62	24.43	3825.164	16803.529	3825.164	113.820	bb			47.9269	119.8	19.8	958.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	1919
Standard Number	WXX100216-08CRI
Data File	EXP0216054a

HMX	108.0
RDX	114.5
135-TNB	122.7
13-DNB	116.0
Tetryl	96.3
Nitrobenzene	103.6
4A-26-DNT	124.1
2A-46-DNT	114.5
246-TNT	113.0
34-DNT(surr)	110.6
26-DNT	108.4
24-DNT	96.5
2-NT	109.4
4-NT	86.2
3-NT	89.0
PETN	119.8
Total	1732.6
Average	108.3

HMM 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216065a **Analysis Date:** 18-FEB-10 00:45

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	589.98	98	
1,3-Dinitrobenzene-d4	500	503.448	101	
2,4,6-Trinitrotoluene	600	674.628	112	
2,4-Dinitrotoluene	600	646.389	108	
2,6-Dinitrotoluene	600	642.938	107	
2,6-Dinitrotoluene-d3	500	484.848	97	
2-Amino-4,6-dinitrotoluene	600	685.308	114	
3,4-Dinitrotoluene	300	332.023	111	
4-Amino-2,6-dinitrotoluene	600	595.679	99	
HMX	600	685.513	114	
Nitrobenzene	600	619.311	103	
PETN	600	592.614	99	
RDX	600	694.615	116	
Tetryl	600	564.648	94	
m-Dinitrobenzene	600	607.21	101	
m-Nitrotoluene	600	591.803	99	
o-Nitrotoluene	600	604.859	101	
p-Nitrotoluene	600	605.824	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216065a
Date: 18-Feb-2010
Time: 00:45:20
ID: WXX100216-07CCV
Vial: 1:1,B

HMT 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.593e+004
7.58

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.593e+004
5.19
RDX
7.58
10928.25

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.475e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.293e+004
10.04

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.687e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.629e+004
Tetryl
12.66
3734.45

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.463e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.138e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.160e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.280e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.563e+004
17.61
18.26

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.563e+004
14.37
18.26

Hmm 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

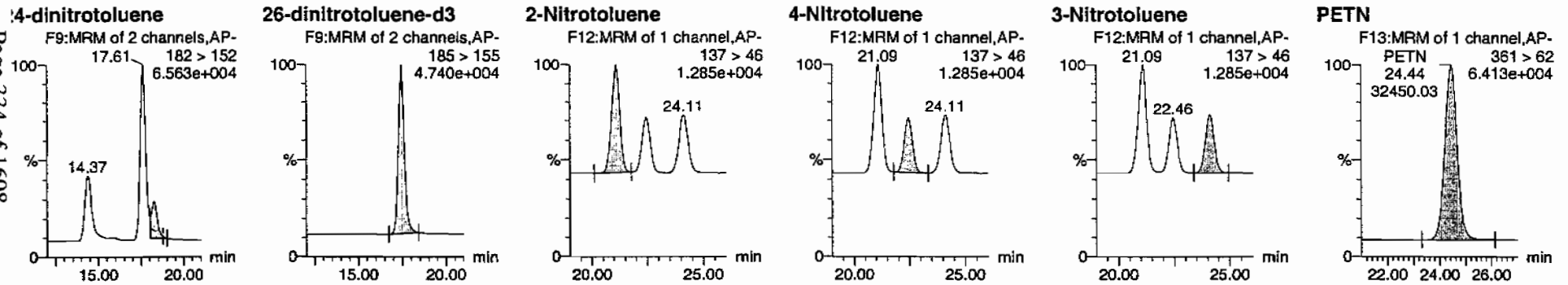

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	16045.377	3033.191	16045.377	2644.966	bb			685.5131	114.3	14.3	4796.8
WXX100216-07CCV	RDX	176 > 102	7.58	10928.254	3033.191	10928.254	1801.445	bb			694.6153	115.8	15.8	2791.9
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13860.002	3033.191	13860.002	2284.723	bb			589.9797	98.3	-1.7	651.9
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3033.191		3033.191	3033.191	bb			503.4482	100.7	0.7	211.0
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4377.993	3033.191	4377.993	721.681	bb			607.2099	101.2	1.2	1168.9
WXX100216-07CCV	Tetryl	241 > 181	12.66	3734.446	3033.191	3734.446	615.597	bb			564.6476	94.1	-5.9	245.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.61	3225.402	3033.191	3225.402	531.685	bb			619.3113	103.2	3.2	203.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6439.984	16881.000	6439.984	190.747	MM	18-Feb-10	08:45:48	595.6786	99.3	-0.7	289.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9996.612	16881.000	9996.612	296.091	bb			685.3080	114.2	14.2	311.7
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7636.027	16881.000	7636.027	226.172	bb			674.6279	112.4	12.4	330.2
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10156.054	16881.000	10156.054	300.813	bb			332.0230	110.7	10.7	270.1
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.61	22997.145	16881.000	22997.145	681.155	MM	18-Feb-10	08:49:12	642.9383	107.2	7.2	748.4
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.26	5379.695	16881.000	5379.695	159.342	MM	18-Feb-10	08:50:31	646.3895	107.7	7.7	160.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16881.000		16881.000	16881.000	bb			484.8478	97.0	-3.0	2282.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	3107.994	16881.000	3107.994	92.056	bb			604.8589	100.8	0.8	698.8
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1567.810	16881.000	1567.810	46.437	bb			605.8236	101.0	1.0	345.9
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1788.032	16881.000	1788.032	52.960	bb			591.8030	98.6	-1.4	366.6
WXX100216-07CCV	PETN	361 > 62	24.44	32450.031	16881.000	32450.031	961.141	bb			592.6141	98.8	-1.2	10378.5

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 0045
Standard Number: WXX100216-07CCV
Data File: EXP0216065a

HMX		114.3
RDX		115.8
135-TNB		98.3
13-DNB		101.2
Tetryl		94.1
Nitrobenzene		103.2
4A-26-DNT		99.3
2A-46-DNT		114.2
246-TNT		112.4
34-DNT(surr)		110.7
26-DNT		107.2
24-DNT		107.7
2-NT		100.8
4-NT		101.0
3-NT		98.6
PETN		98.8
Total		1677.6
Average		104.9

MDT 2/18/10

HNM 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216067a

Analysis Date: 18-FEB-10 01:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	50.874	127	
1,3-Dinitrobenzene-d4	500	574.253	115	
2,4,6-Trinitrotoluene	40	44.52	111	
2,4-Dinitrotoluene	40	35.748	89	
2,6-Dinitrotoluene	40	41.094	103	
2,6-Dinitrotoluene-d3	500	534.755	107	
2-Amino-4,6-dinitrotoluene	40	37.567	94	
3,4-Dinitrotoluene	20	20.903	105	
4-Amino-2,6-dinitrotoluene	40	37.482	94	
HMX	40	31.977	80	
Nitrobenzene	40	28.466	71	
PETN	40	44.163	110	
RDX	40	37.7	94	
Tetryl	40	40.159	100	
m-Dinitrobenzene	40	38.48	96	
m-Nitrotoluene	40	33.219	83	
o-Nitrotoluene	40	44.575	111	
p-Nitrotoluene	40	37.562	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216067a
Date: 18-Feb-2010
Time: 01:44:38
ID: WXX100216-08CRI
Vial: 1:1,C

MM 2/18/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 9.740e+003
853.72

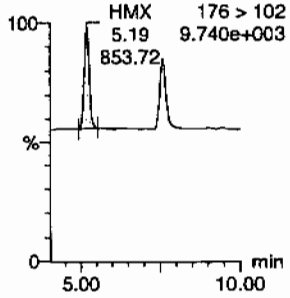

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
9.740e+003

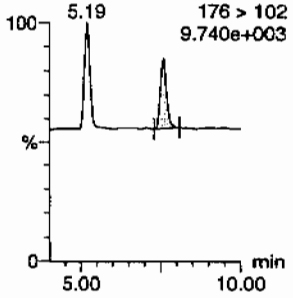

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.033e+004

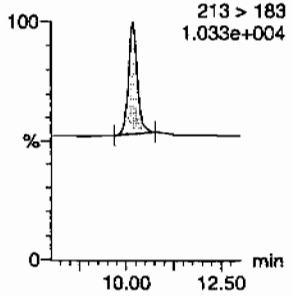

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.395e+004

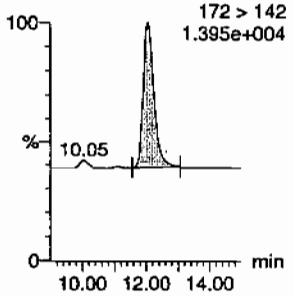

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.294e+003

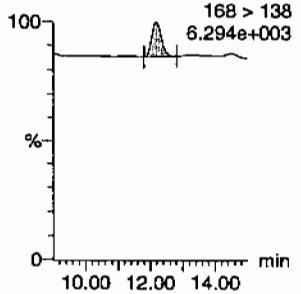

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.212e+003

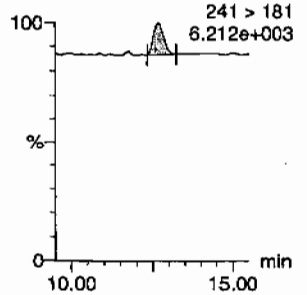

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.962e+003

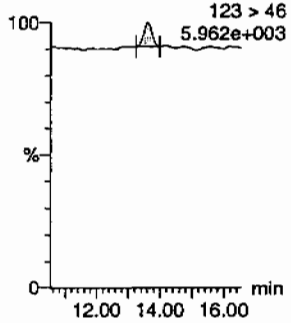

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.466e+003

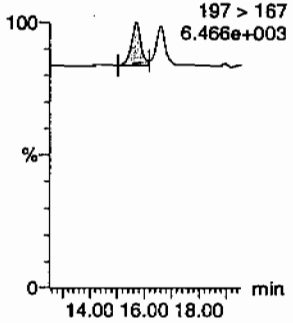

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.996e+003

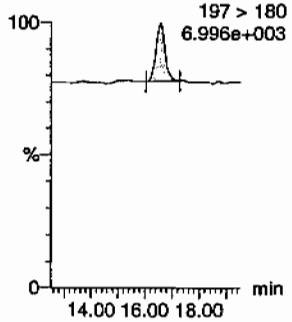

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.576e+003

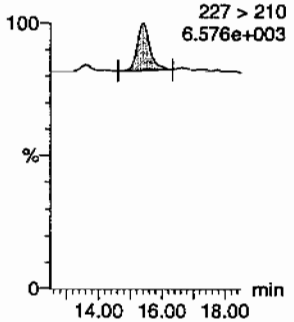

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.774e+003

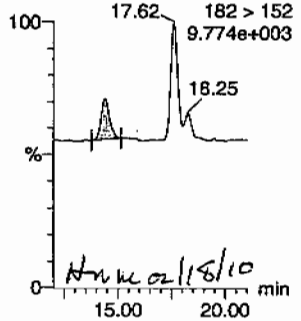

HMM 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.774e+003

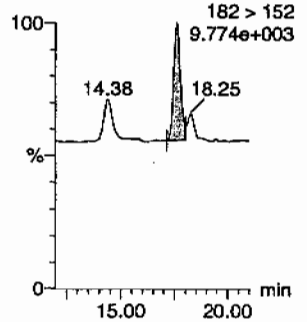

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

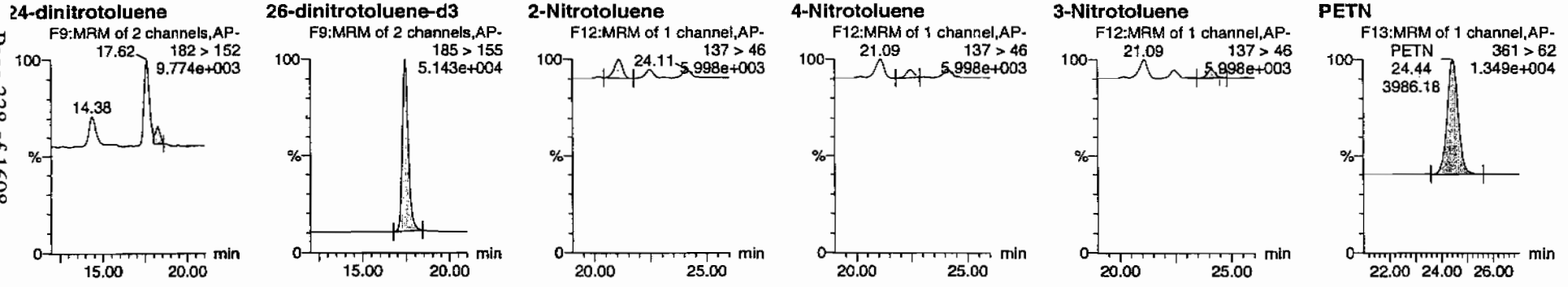

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	% Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	853.724	3459.779	853.724	123.378	bb			31.9768	79.9	-20.1	197.3
WXX100216-08CRI	RDX	176 > 102	7.59	676.552	3459.779	676.552	97.774	bb			37.7004	94.3	-5.7	132.5
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1363.239	3459.779	1363.239	197.012	bb			50.8741	127.2	27.2	225.1
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3459.779		3459.779	3459.779	bb			574.2532	114.9	14.9	215.0
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	316.458	3459.779	316.458	45.734	bb			38.4797	96.2	-3.8	49.6
WXX100216-08CRI	Tetryl	241 > 181	12.68	302.953	3459.779	302.953	43.782	bb			40.1585	100.4	0.4	45.9
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	169.101	3459.779	169.101	24.438	bb			28.4658	71.2	-28.8	16.7
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	446.929	18618.615	446.929	12.002	MM	18-Feb-10	08:46:00	37.4815	93.7	-6.3	9.9
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	604.400	18618.615	604.400	16.231	bb			37.5671	93.9	-6.1	115.4
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	555.791	18618.615	555.791	14.926	bb			44.5204	111.3	11.3	29.1
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	705.192	18618.615	705.192	18.938	bb			20.9026	104.5	4.5	30.4
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1621.167	18618.615	1621.167	43.536	MM	18-Feb-10	08:49:18	41.0936	102.7	2.7	86.4
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.25	328.140	18618.615	328.140	8.812	MM	18-Feb-10	08:50:18	35.7476	89.4	-10.6	18.8
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	18618.615		18618.615	18618.615	bb			534.7547	107.0	7.0	729.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	252.621	18618.615	252.621	6.784	bb			44.5753	111.4	11.4	39.4
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	107.213	18618.615	107.213	2.879	bb			37.5622	93.9	-6.1	17.2
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	110.695	18618.615	110.695	2.973	MM	18-Feb-10	08:53:07	33.2186	83.0	-17.0	17.0
WXX100216-08CRI	PETN	361 > 62	24.44	3986.175	18618.615	3986.175	107.048	bb			44.1631	110.4	10.4	1704.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	0144
Standard Number	WXX100216-08CRI
Data File	EXP0216067a

HMX	79.9
RDX	94.3
135-TNB	127.2
13-DNB	96.2
Tetryl	100.4
Nitrobenzene	71.2
4A-26-DNT	93.7
2A-46-DNT	93.9
246-TNT	111.3
34-DNT(surr)	104.5
26-DNT	102.7
24-DNT	89.4
2-NT	111.4
4-NT	93.9
3-NT	83.0
PETN	110.4
Total	1563.4
Average	97.7

MTT 2/18/10

Hxm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1394

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216078a **Analysis Date:** 18–FEB–10 07:10

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2–Amino–4,6–dinitrotoluene	600	615.257	103	
3,4–Dinitrotoluene	300	357.759	119	
4–Amino–2,6–dinitrotoluene	600	549.787	92	
HMX	600	519.274	87	
Nitrobenzene	600	504.757	84	
PETN	600	715.342	119	
RDX	600	628.868	105	
Tetryl	600	541.018	90	
m–Dinitrobenzene	600	590.189	98	
m–Nitrotoluene	600	537.034	90	
o–Nitrotoluene	600	576.847	96	
p–Nitrotoluene	600	589.034	98	
1,3,5–Trinitrobenzene	600	520.611	87	
1,3–Dinitrobenzene–d4	500	542.41	108	
2,4,6–Trinitrotoluene	600	648.856	108	
2,4–Dinitrotoluene	600	647.037	108	
2,6–Dinitrotoluene	600	629.886	105	
2,6–Dinitrotoluene–d3	500	468.716	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216078a
Date: 18-Feb-2010
Time: 07:10:32
ID: WXX100216-07CCV
Vial: 1:1,B

MMT 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.193e+004
7.59

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.193e+004
5.19
RDX
7.59
10659.56

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.315e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.353e+004
10.05

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.776e+004

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
241 > 181
12.68
1.616e+004
3855.08

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.382e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.017e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.788e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.142e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.225e+004
17.62
18.25

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.225e+004
14.38
18.25

MM 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

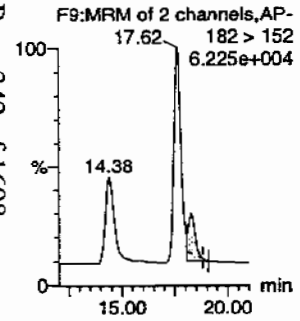

26-dinitrotoluene-d3

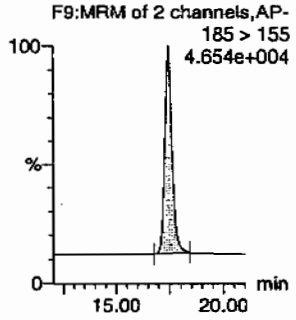

2-Nitrotoluene

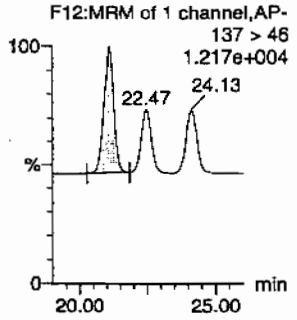

4-Nitrotoluene

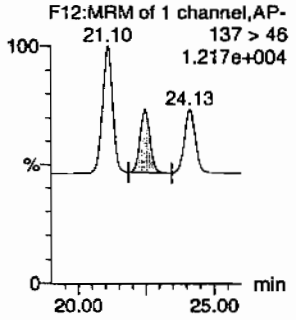

3-Nitrotoluene

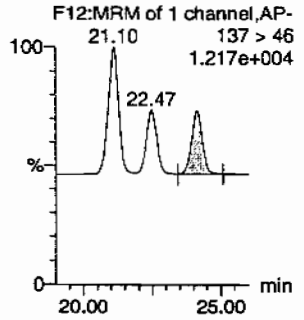

PETN

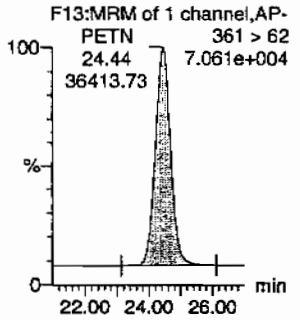

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	13094.961	3267.932	13094.961	2003.555	bb			519.2742	86.5	-13.5	2314.4
WXX100216-07CCV	RDX	176 > 102	7.59	10659.564	3267.932	10659.564	1630.934	bb			628.8683	104.8	4.8	1607.8
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13176.895	3267.932	13176.895	2016.091	bb			520.6113	86.8	-13.2	844.8
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3267.932		3267.932	3267.932	bb			542.4105	108.5	8.5	247.9
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.21	4584.592	3267.932	4584.592	701.452	bb			590.1891	98.4	-1.6	710.8
WXX100216-07CCV	Tetryl	241 > 181	12.68	3855.081	3267.932	3855.081	589.835	bb			541.0178	90.2	-9.8	423.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2832.244	3267.932	2832.244	433.339	bb			504.7572	84.1	-15.9	236.8
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5746.081	16319.334	5746.081	176.051	MM	18-Feb-10	08:46:17	549.7873	91.6	-8.4	542.5
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8676.166	16319.334	8676.166	265.825	bb			615.2570	102.5	2.5	836.2
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7099.956	16319.334	7099.956	217.532	bb			648.8559	108.1	8.1	417.5
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	10579.176	16319.334	10579.176	324.130	bb			357.7591	119.3	19.3	478.8
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.62	21780.637	16319.334	21780.637	667.326	MM	18-Feb-10	08:49:35	629.8856	105.0	5.0	1206.0
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	5205.910	16319.334	5205.910	159.501	MM	18-Feb-10	08:50:07	647.0369	107.8	7.8	267.1
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	16319.334		16319.334	16319.334	bb			468.7159	93.7	-6.3	1228.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.10	2865.436	16319.334	2865.436	87.793	bb			576.8466	96.1	-3.9	675.9
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.47	1473.642	16319.334	1473.642	45.150	bb			589.0342	98.2	-1.8	344.1
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.13	1568.570	16319.334	1568.570	48.059	bb			537.0337	89.5	-10.5	344.9
WXX100216-07CCV	PETN	361 > 62	24.44	36413.730	16319.334	36413.730	1115.662	bb			715.3425	119.2	19.2	7773.8

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 0710
Standard Number: WXX100216-07CCV
Data File: EXP0216078a

HMX	86.5
RDX	104.8
135-TNB	86.8
13-DNB	98.4
Tetryl	90.2
Nitrobenzene	84.1
4A-26-DNT	91.6
2A-46-DNT	102.5
246-TNT	108.1
34-DNT(surr)	119.3
26-DNT	105.0
24-DNT	107.8
2-NT	96.1
4-NT	98.2
3-NT	89.5
PETN	119.2
Total	1588.1
Average	99.3

MTT 2/18/10

Hmc 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216080a

Analysis Date: 18-FEB-10 08:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	41.233	103	
3,4-Dinitrotoluene	20	22.678	113	
4-Amino-2,6-dinitrotoluene	40	37.418	94	
HMX	40	43.826	110	
Nitrobenzene	40	37.223	93	
PETN	40	54.239	136	*
RDX	40	42.015	105	
Tetryl	40	39.964	100	
m-Dinitrobenzene	40	45.818	115	
m-Nitrotoluene	40	40.759	102	
o-Nitrotoluene	40	45.987	115	
p-Nitrotoluene	40	51.62	129	
1,3,5-Trinitrobenzene	40	48.403	121	
1,3-Dinitrobenzene-d4	500	494.727	99	
2,4,6-Trinitrotoluene	40	41.136	103	
2,4-Dinitrotoluene	40	38.771	97	
2,6-Dinitrotoluene	40	44.76	112	
2,6-Dinitrotoluene-d3	500	481.497	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216080a
Date: 18-Feb-2010
Time: 08:10:12
ID: WXX100216-08CRI
Vial: 1:1,C

MMT 2/18/10

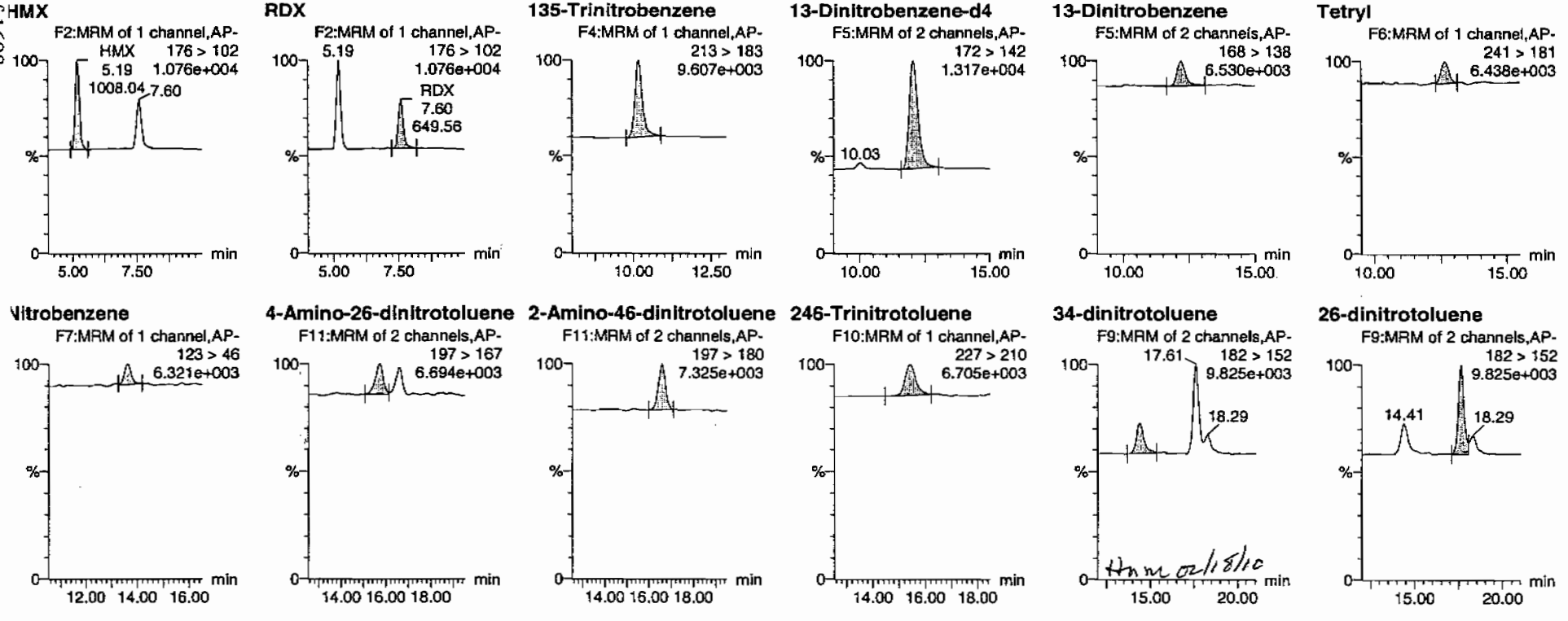

Hnm 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

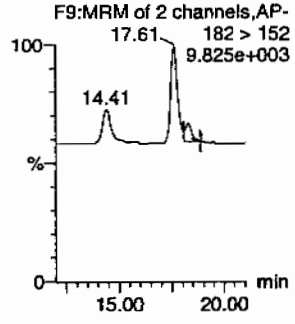

26-dinitrotoluene-d3

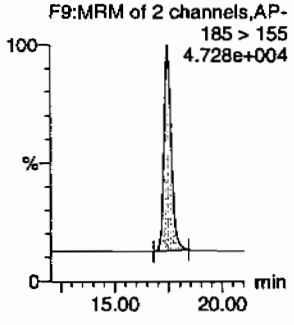

2-Nitrotoluene

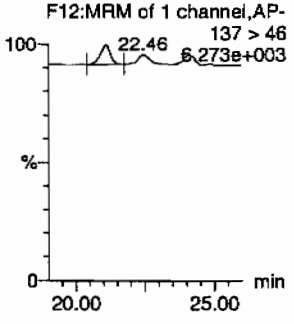

4-Nitrotoluene

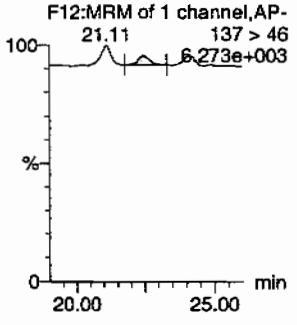

3-Nitrotoluene

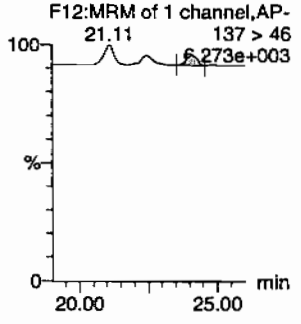

PETN

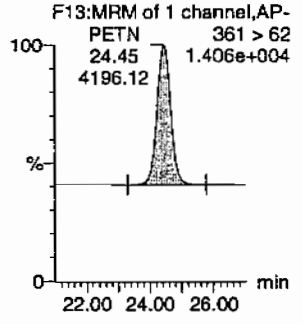

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1008.036	2980.646	1008.036	169.097	bb			43.8259	109.6	9.6	201.4
WXX100216-08CRI	RDX	176 > 102	7.60	649.563	2980.646	649.563	108.963	bb			42.0150	105.0	5.0	111.9
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1117.398	2980.646	1117.398	187.442	bb			48.4029	121.0	21.0	143.8
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2980.646		2980.646	2980.646	bb			494.7268	98.9	-1.1	450.8
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	324.627	2980.646	324.627	54.456	bb			45.8182	114.5	14.5	34.8
WXX100216-08CRI	Tetryl	241 > 181	12.66	259.731	2980.646	259.731	43.570	db			39.9636	99.9	-0.1	29.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.61	190.499	2980.646	190.499	31.956	db			37.2226	93.1	-6.9	28.0
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	401.731	16764.338	401.731	11.982	MM	18-Feb-10	08:46:24	37.4175	93.5	-6.5	26.2
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.59	597.310	16764.338	597.310	17.815	bb			41.2330	103.1	3.1	68.2
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.44	462.397	16764.338	462.397	13.791	bb			41.1361	102.8	2.8	49.8
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.41	688.876	16764.338	688.876	20.546	bb			22.6775	113.4	13.4	28.8
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1589.948	16764.338	1589.948	47.421	MM	18-Feb-10	08:49:42	44.7600	111.9	11.9	83.5
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.29	320.451	16764.338	320.451	9.558	MM	18-Feb-10	08:50:00	38.7713	96.9	-3.1	15.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16764.338		16764.338	16764.338	bb			481.4971	96.3	-3.7	1198.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.11	234.663	16764.338	234.663	6.999	bb			45.9865	115.0	15.0	54.3
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	132.665	16764.338	132.665	3.957	bb			51.6203	129.1	29.1	25.9
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	122.295	16764.338	122.295	3.647	bb			40.7589	101.9	1.9	25.8
WXX100216-08CRI	PETN	361 > 62	24.45	4196.118	16764.338	4196.118	125.150	bb			54.2394	135.6	35.6	1668.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	0810
Standard Number	WXX100216-08CRI
Data File	EXP0216080a

HMX	109.6
RDX	105.0
135-TNB	121.0
13-DNB	114.5
Tetryl	99.9
Nitrobenzene	93.1
4A-26-DNT	93.5
2A-46-DNT	103.1
246-TNT	102.8
34-DNT(surr)	113.4
26-DNT	111.9
24-DNT	96.9
2-NT	115.0
4-NT	129.1
3-NT	101.9
PETN	135.6
Total	1746.3
Average	109.1

MTT 2/18/10

Hmc 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216089a

Analysis Date: 18–FEB–10 12:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	600	570.735	95	
PETN	600	765.325	128	*
RDX	600	762.426	127	*
Tetryl	600	584.833	97	
m–Dinitrobenzene	600	636.337	106	
m–Nitrotoluene	600	573.92	96	
o–Nitrotoluene	600	648.456	108	
p–Nitrotoluene	600	589.135	98	
1,3,5–Trinitrobenzene	600	575.828	96	
1,3–Dinitrobenzene–d4	500	495.598	99	
2,4,6–Trinitrotoluene	600	691.665	115	
2,4–Dinitrotoluene	600	659.229	110	
2,6–Dinitrotoluene	600	644.249	107	
2,6–Dinitrotoluene–d3	500	461.757	92	
2–Amino–4,6–dinitrotoluene	600	655.311	109	
3,4–Dinitrotoluene	300	351.733	117	
4–Amino–2,6–dinitrotoluene	600	586.497	98	
HMX	600	695.878	116	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216089a
Date: 18-Feb-2010
Time: 12:36:18
ID: WXX100216-07CCV
Vial: 1:1,B

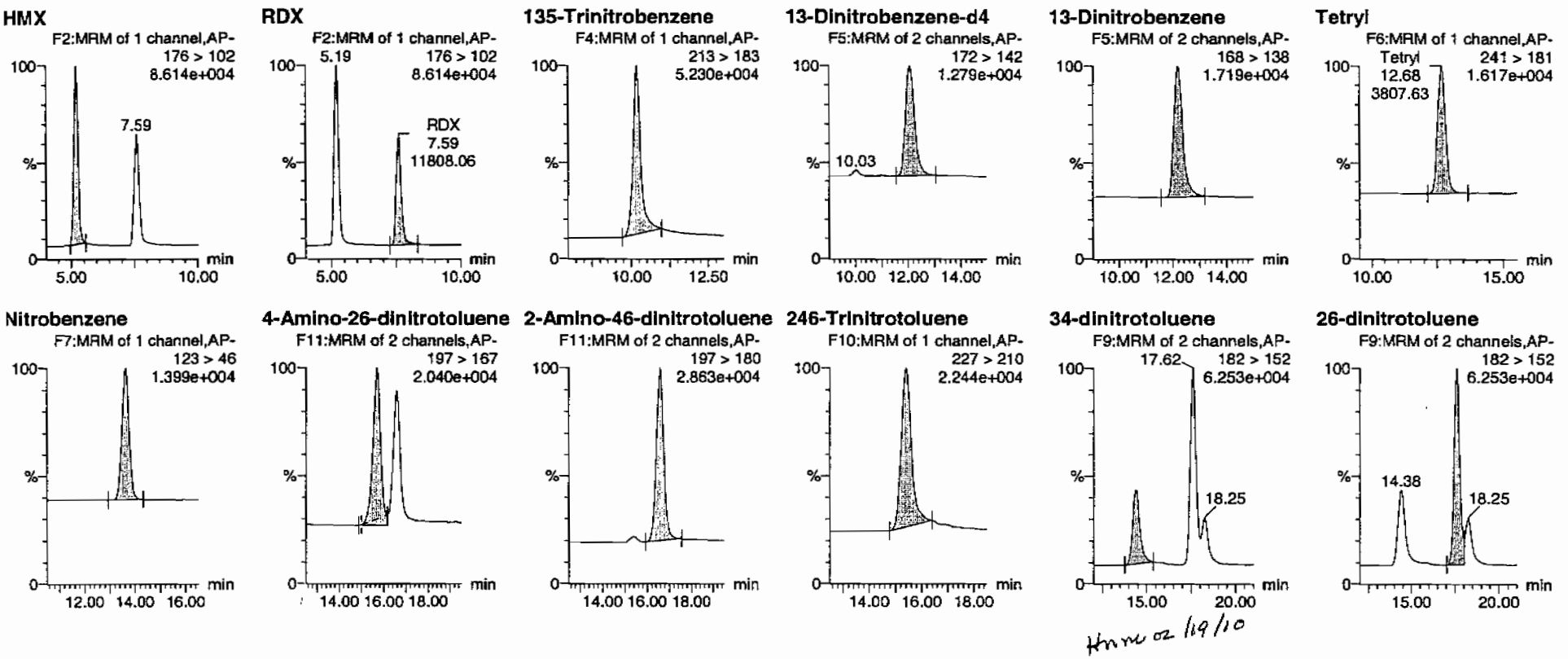

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

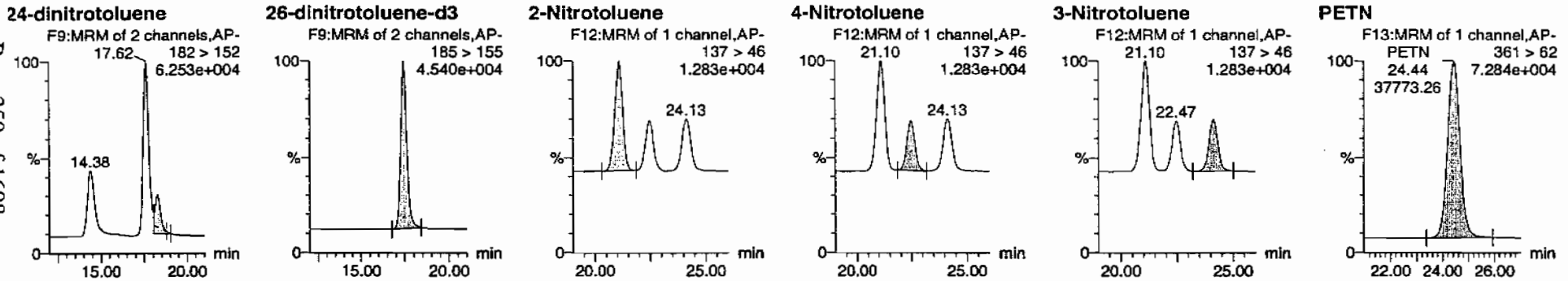

ID	Name	Trace	RT	Area	IS Area	%Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	16034.003	2985.895	16034.003	2684.958	bb			695.8778	116.0	16.0	2037.0
WXX100216-07CCV	RDX	176 > 102	7.59	11808.064	2985.895	11808.064	1977.307	bb			762.4256	127.1	27.1	1280.5
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13316.616	2985.895	13316.616	2229.920	bb			575.8281	96.0	-4.0	890.3
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2985.895		2985.895	2985.895	bb			495.5981	99.1	-0.9	653.7
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4516.458	2985.895	4516.458	756.299	bb			636.3367	106.1	6.1	360.2
WXX100216-07CCV	Tetryl	241 > 181	12.68	3807.633	2985.895	3807.633	637.603	bb			584.8326	97.5	-2.5	267.7
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2926.067	2985.895	2926.067	489.982	bb			570.7352	95.1	-4.9	316.4
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	6038.745	16077.056	6038.745	187.806	MM	19-Feb-10	08:38:58	586.4966	97.7	-2.3	179.9
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	9103.798	16077.056	9103.798	283.130	bb			655.3106	109.2	9.2	218.0
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7456.020	16077.056	7456.020	231.884	bb			691.6646	115.3	15.3	356.6
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	10246.576	16077.056	10246.576	318.671	bb			351.7334	117.2	17.2	267.6
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.62	21946.574	16077.056	21946.574	682.543	MM	19-Feb-10	08:43:11	644.2490	107.4	7.4	711.3
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	5225.263	16077.056	5225.263	162.507	MM	19-Feb-10	08:46:54	659.2292	109.9	9.9	160.9
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	16077.056		16077.056	16077.056	bb			461.7573	92.4	-7.6	850.8
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.10	3173.327	16077.056	3173.327	98.691	bb			648.4558	108.1	8.1	417.7
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.47	1452.012	16077.056	1452.012	45.158	bb			589.1347	98.2	-1.8	190.0
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.13	1651.421	16077.056	1651.421	51.360	bb			573.9200	95.7	-4.3	197.5
WXX100216-07CCV	PETN	361 > 62	24.44	37773.258	16077.056	37773.258	1174.757	bb			765.3245	127.6	27.6	10691.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 1236
Standard Number: WXX100216-07CCV
Data File: EXP0216089a

HMX		116.0
RDX		127.1
135-TNB		96.0
13-DNB		106.1
Tetryl		97.5
Nitrobenzene		95.1
4A-26-DNT		97.7
2A-46-DNT		109.2
246-TNT		115.3
34-DNT(surr)		117.2
26-DNT		107.4
24-DNT		109.9
2-NT		108.1
4-NT		98.2
3-NT		95.7
PETN		127.6
Total		1724.1
Average		107.8

MTP 2/9/10

tkm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEI **GEL Sample ID:** WXXCRI

GEL Data File EXP0216091a **Analysis Date:** 18-FEB-10 13:35

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	40	44.164	110	
m-Dinitrobenzene	40	38.138	95	
m-Nitrotoluene	40	37.355	93	
o-Nitrotoluene	40	34.55	86	
p-Nitrotoluene	40	31.551	79	
1,3,5-Trinitrobenzene	40	49.419	124	
1,3-Dinitrobenzene-d4	500	495.095	99	
2,4,6-Trinitrotoluene	40	63.823	160	*
2,4-Dinitrotoluene	40	44.759	112	
2,6-Dinitrotoluene	40	43.488	109	
2,6-Dinitrotoluene-d3	500	500.11	100	
2-Amino-4,6-dinitrotoluene	40	42.691	107	
3,4-Dinitrotoluene	20	22.924	115	
4-Amino-2,6-dinitrotoluene	40	39.308	98	
HMX	40	45.096	113	
Nitrobenzene	40	40.389	101	
PETN	40	50.626	127	
RDX	40	44.527	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216091a
Date: 18-Feb-2010
Time: 13:35:23
ID: WXX100216-08CRI
Vial: 1:1,C

MM 4/19/10

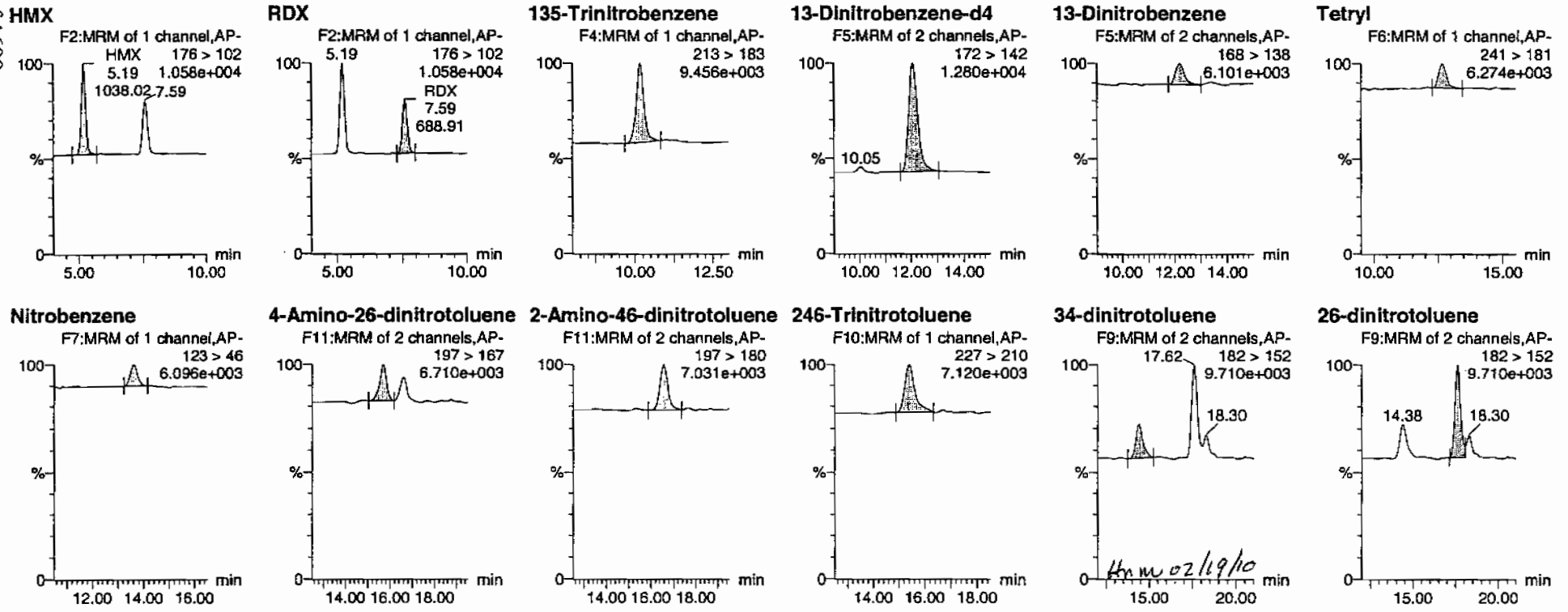

Hmw 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

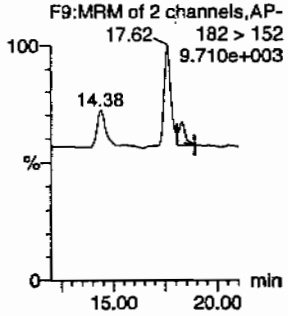

26-dinitrotoluene-d3

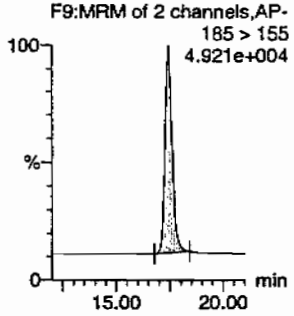

2-Nitrotoluene

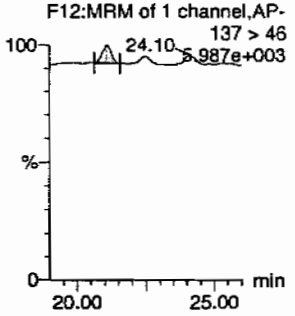

4-Nitrotoluene

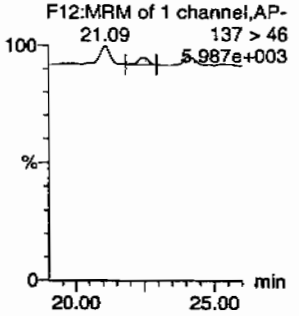

3-Nitrotoluene

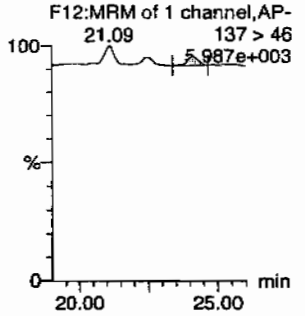

PETN

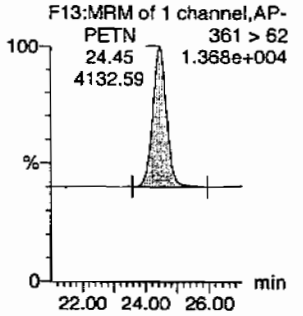

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1038.023	2982.866	1038.023	173.998	bb			45.0961	112.7	12.7	166.4
WXX100216-08CRI	RDX	176 > 102	7.59	688.912	2982.866	688.912	115.478	bb			44.5270	111.3	11.3	97.9
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1141.707	2982.866	1141.707	191.378	bb			49.4191	123.5	23.5	56.1
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2982.866		2982.866	2982.866	bb			495.0953	99.0	-1.0	121.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	270.413	2982.866	270.413	45.328	bb			38.1380	95.3	-4.7	27.2
WXX100216-08CRI	Tetryl	241 > 181	12.68	287.244	2982.866	287.244	48.149	bb			44.1640	110.4	10.4	28.0
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	206.859	2982.866	206.859	34.675	bb			40.3892	101.0	1.0	31.0
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	438.338	17412.377	438.338	12.587	bb			39.3076	98.3	-1.7	36.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	642.342	17412.377	642.342	18.445	bb			42.6913	106.7	6.7	109.0
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	745.148	17412.377	745.148	21.397	bb			63.8233	159.6	59.6	80.8
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	723.283	17412.377	723.283	20.769	bb			22.9241	114.6	14.6	41.3
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1604.459	17412.377	1604.459	46.072	MM	19-Feb-10	08:43:19	43.4875	108.7	8.7	115.7
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.30	384.242	17412.377	384.242	11.034	MM	19-Feb-10	08:46:31	44.7591	111.9	11.9	26.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	17412.377		17412.377	17412.377	bb			500.1098	100.0	0.0	2498.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	183.120	17412.377	183.120	5.258	bb			34.5501	86.4	-13.6	48.1
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.47	84.222	17412.377	84.222	2.418	bb			31.5514	78.9	-21.1	19.4
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	116.415	17412.377	116.415	3.343	bb			37.3552	93.4	-6.6	24.4
WXX100216-08CRI	PETN	361 > 62	24.45	4132.593	17412.377	4132.593	118.668	bb			50.6256	126.6	26.6	818.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	1335
Standard Number	WXX100216-08CRI
Data File	EXP0216091a

HMX	112.7
RDX	111.3
135-TNB	123.5
13-DNB	95.3
Tetryl	110.4
Nitrobenzene	101.0
4A-26-DNT	98.3
2A-46-DNT	106.7
246-TNT	159.6
34-DNT(surr)	114.6
26-DNT	108.7
24-DNT	111.9
2-NT	86.4
4-NT	78.9
3-NT	93.4
PETN	126.6
Total	1739.3
Average	108.7

MAP 2/9/10

HM 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216101a

Analysis Date: 18-FEB-10 18:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	636.536	106	
1,3-Dinitrobenzene-d4	500	417.68	84	
2,4,6-Trinitrotoluene	600	691.126	115	
2,4--Dinitrotoluene	600	637.013	106	
2,6-Dinitrotoluene	600	619.323	103	
2,6-Dinitrotoluene-d3	500	397.466	79	*
2-Amino-4,6-dinitrotoluene	600	648.012	108	
3,4-Dinitrotoluene	300	329.226	110	
4-Amino-2,6-dinitrotoluene	600	589.342	98	
HMX	600	661.47	110	
Nitrobenzene	600	556.503	93	
PETN	600	838.314	140	*
RDX	600	788.92	131	*
Tetryl	600	597.56	100	
m-Dinitrobenzene	600	622.496	104	
m-Nitrotoluene	600	569.513	95	
o-Nitrotoluene	600	604.641	101	
p-Nitrotoluene	600	614.496	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216101a
Date: 18-Feb-2010
Time: 18:31:14
ID: WXX100216-07CCV
Vial: 1:1,B

MMT 2/19/10

HMX

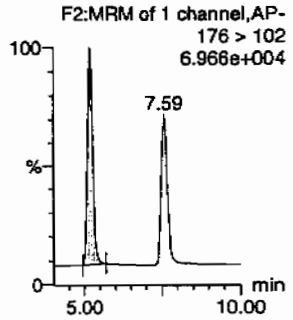

RDX

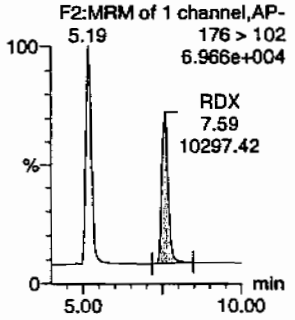

135-Trinitrobenzene

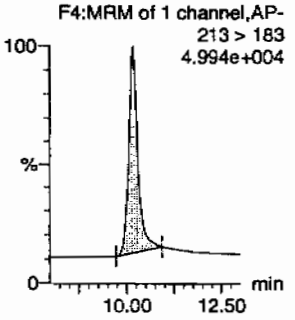

13-Dinitrobenzene-d4

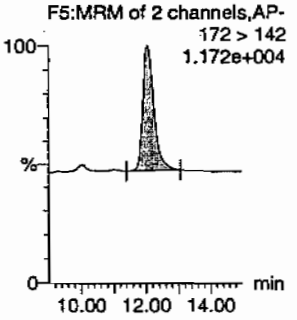

13-Dinitrobenzene

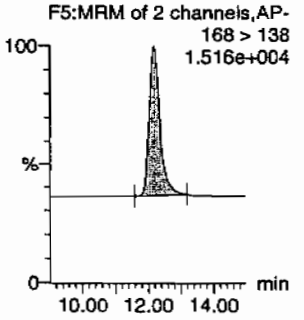

Tetryl

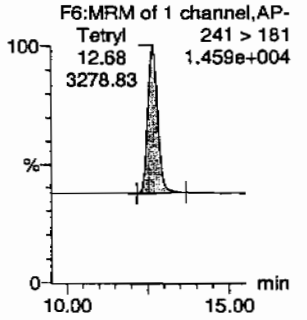

Nitrobenzene

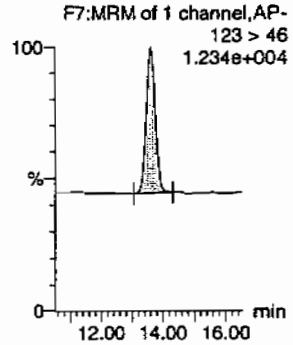

4-Amino-26-dinitrotoluene

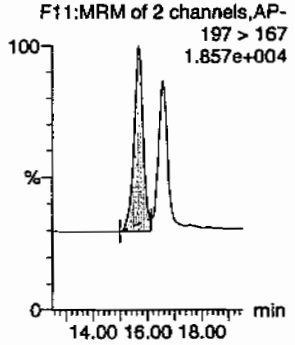

2-Amino-46-dinitrotoluene

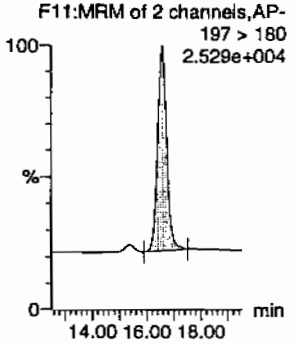

246-Trinitrotoluene

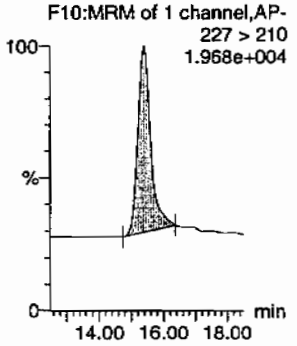

34-dinitrotoluene

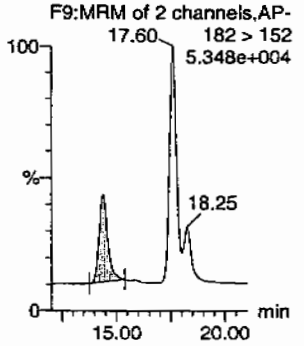

26-dinitrotoluene

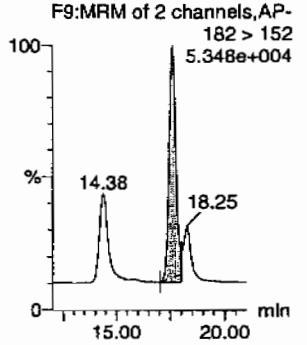

Hmc 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

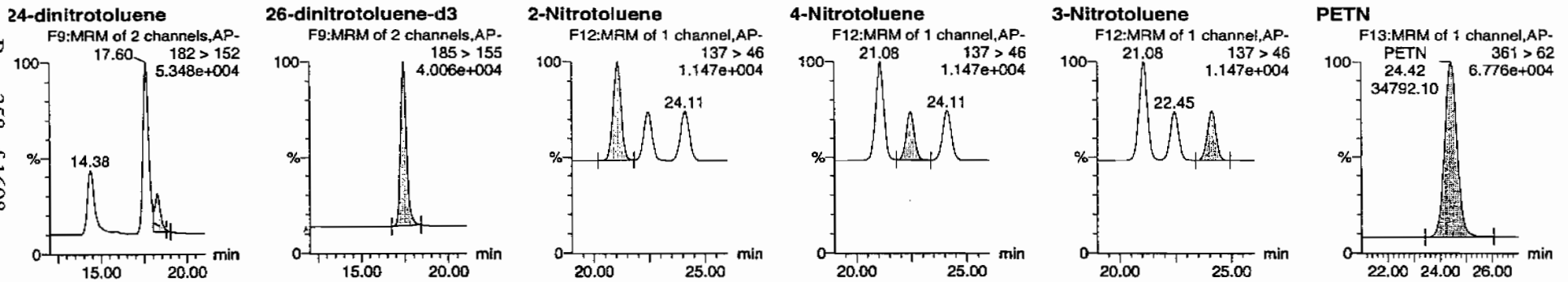

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	12844.975	2516.453	12844.975	2552.198	bb			661.4698	110.2	10.2	805.0
WXX100216-07CCV	RDX	176 > 102	7.59	10297.420	2516.453	10297.420	2046.019	bb			788.9199	131.5	31.5	562.4
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12406.179	2516.453	12406.179	2465.013	bb			636.5357	106.1	6.1	424.6
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2516.453		2516.453	2516.453	bb			417.6802	83.5	-16.5	330.0
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3723.589	2516.453	3723.589	739.849	bb			622.4958	103.7	3.7	190.3
WXX100216-07CCV	Tetryl	241 > 181	12.68	3278.833	2516.453	3278.833	651.479	bb			597.5600	99.6	-0.4	372.1
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2404.535	2516.453	2404.535	477.763	bb			556.5026	92.8	-7.2	198.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5223.180	13838.627	5223.180	188.717	MM	19-Feb-10	08:39:12	589.3419	98.2	-1.8	189.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7748.987	13838.627	7748.987	279.977	bb			648.0120	108.0	8.0	493.7
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.38	6412.913	13838.627	6412.913	231.703	bb			691.1262	115.2	15.2	120.2
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8255.552	13838.627	8255.552	298.279	bb			329.2262	109.7	9.7	337.2
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18160.029	13838.627	18160.029	656.136	MM	19-Feb-10	08:43:33	619.3228	103.2	3.2	922.8
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4346.167	13838.627	4346.167	157.030	MM	19-Feb-10	08:46:08	637.0129	106.2	6.2	207.3
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	13838.627		13838.627	13838.627	bb			397.4663	79.5	-20.5	1774.9
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2546.937	13838.627	2546.937	92.023	bb			604.6405	100.8	0.8	226.0
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1303.650	13838.627	1303.650	47.102	bb			614.4959	102.4	2.4	112.4
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1410.576	13838.627	1410.576	50.965	bb			569.5129	94.9	-5.1	114.8
WXX100216-07CCV	PETN	361 > 62	24.42	34792.098	13838.627	34792.098	1257.065	bb			838.3138	139.7	39.7	7852.2

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 1831
Standard Number: WXX100216-07CCV
Data File: EXP0216101a

HMX	110.2
RDX	131.5
135-TNB	106.1
13-DNB	109.7
Tetryl	99.6
Nitrobenzene	92.8
4A-26-DNT	98.2
2A-46-DNT	108.0
246-TNT	115.2
34-DNT(surr)	109.7
26-DNT	103.2
24-DNT	106.2
2-NT	100.8
4-NT	102.4
3-NT	94.9
PETN	139.7
Total	1728.2
Average	108.0

MJP 2/19/10

Hbm 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1394

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216103a **Analysis Date:** 18–FEB–10 19:30

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	58.779	147	*
1,3–Dinitrobenzene–d4	500	457.386	91	
2,4,6–Trinitrotoluene	40	46.527	116	
2,4–Dinitrotoluene	40	46.8	117	
2,6–Dinitrotoluene	40	41.187	103	
2,6–Dinitrotoluene–d3	500	451.82	90	
2–Amino–4,6–dinitrotoluene	40	40.759	102	
3,4–Dinitrotoluene	20	21.612	108	
4–Amino–2,6–dinitrotoluene	40	34.649	87	
HMX	40	46.441	116	
Nitrobenzene	40	31.128	78	
PETN	40	54.273	136	*
RDX	40	41.533	104	
Tetryl	40	53.24	133	*
m–Dinitrobenzene	40	46.745	117	
m–Nitrotoluene	40	40.745	102	
o–Nitrotoluene	40	34.511	86	
p–Nitrotoluene	40	26.865	67	*

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216103a
Date: 18-Feb-2010
Time: 19:30:18
ID: WXX100216-08CRI
Vial: 1:1,C

MPT 2/19/10

HMX

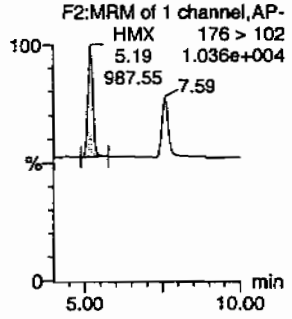

RDX

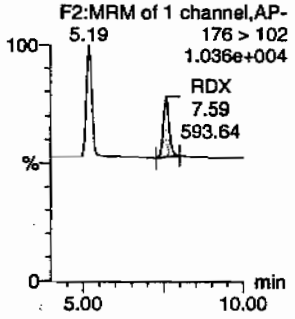

135-Trinitrobenzene

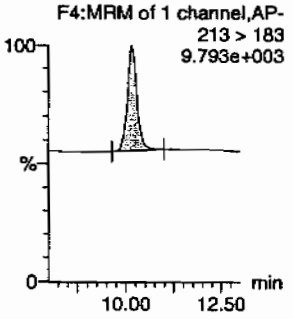

13-Dinitrobenzene-d4

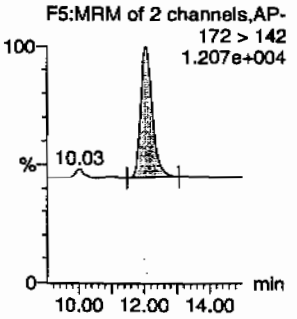

13-Dinitrobenzene

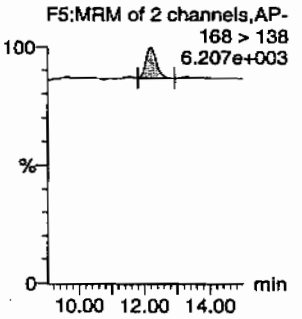

Tetryl

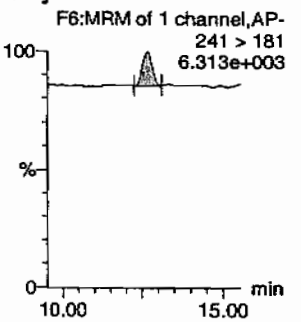

Nitrobenzene

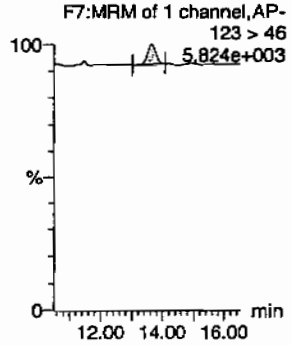

4-Amino-26-dinitrotoluene

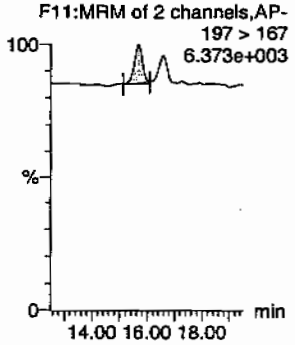

2-Amino-46-dinitrotoluene

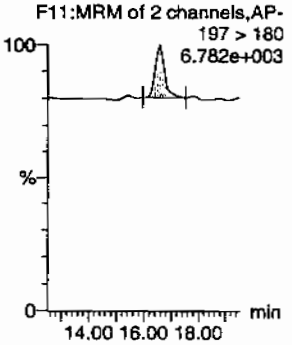

246-Trinitrotoluene

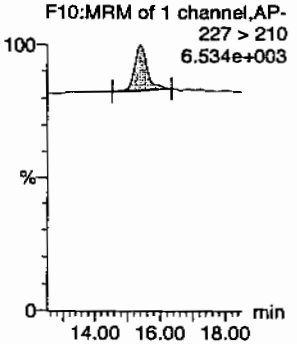

34-dinitrotoluene

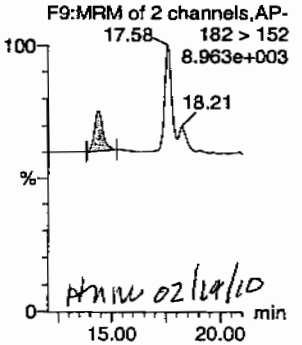

MMW 02/24/10

26-dinitrotoluene

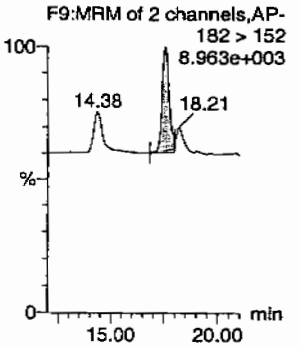

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

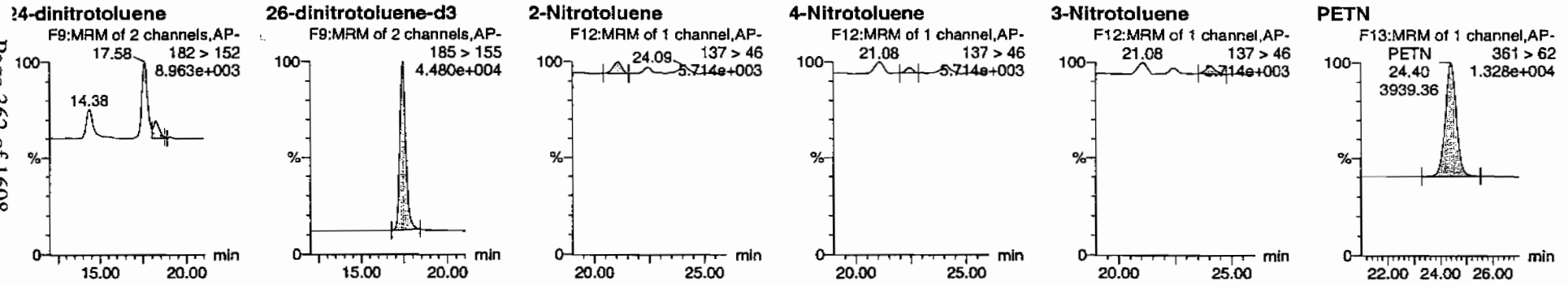

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	987.551	2755.674	987.551	179.185	bb			46.4405	116.1	16.1	119.3
WXX100216-08CRI	RDX	176 > 102	7.59	593.639	2755.674	593.639	107.712	bb			41.5325	103.8	3.8	63.3
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1254.523	2755.674	1254.523	227.625	bb			58.7793	146.9	46.9	350.7
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2755.674		2755.674	2755.674	bb			457.3860	91.5	-8.5	182.7
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.21	306.197	2755.674	306.197	55.558	bb			46.7452	116.9	16.9	25.3
WXX100216-08CRI	Tetryl	241 > 181	12.68	319.900	2755.674	319.900	58.044	bd			53.2399	133.1	33.1	42.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	147.282	2755.674	147.282	26.723	bb			31.1277	77.8	-22.2	24.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	349.075	15731.055	349.075	11.095	MM	19-Feb-10	08:39:18	34.6486	86.6	-13.4	44.9
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	554.050	15731.055	554.050	17.610	bb			40.7589	101.9	1.9	110.5
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	490.756	15731.055	490.756	15.598	bb			46.5268	116.3	16.3	47.2
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	616.030	15731.055	616.030	19.580	bb			21.6115	108.1	8.1	45.2
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.58	1372.843	15731.055	1372.843	43.635	MM	19-Feb-10	08:43:46	41.1867	103.0	3.0	119.6
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.21	362.966	15731.055	362.966	11.537	MM	19-Feb-10	08:46:00	46.7997	117.0	17.0	29.0
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15731.055		15731.055	15731.055	bb			451.8197	90.4	-9.6	848.8
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	165.251	15731.055	165.251	5.252	bb			34.5111	86.3	-13.7	27.1
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.43	64.787	15731.055	64.787	2.059	bb			26.8646	67.2	-32.8	12.7
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.09	114.719	15731.055	114.719	3.646	bb			40.7453	101.9	1.9	17.0
WXX100216-08CRI	PETN	361 > 62	24.40	3939.359	15731.055	3939.359	125.210	bb			54.2726	135.7	35.7	757.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	1930
Standard Number	WXX100216-08CRI
Data File	EXP0216103a

HMX	116.1
RDX	103.8
135-TNB	146.9
13-DNB	116.9
Tetryl	133.1
Nitrobenzene	77.8
4A-26-DNT	86.6
2A-46-DNT	101.9
246-TNT	116.3
34-DNT(surr)	108.1
26-DNT	103.0
24-DNT	117.0
2-NT	86.3
4-NT	67.2
3-NT	101.9
PETN	135.7
Total	1718.6
Average	107.4

MTP 4/01/10

Hmc 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216114a

Analysis Date: 19–FEB–10 00:55

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6–Trinitrotoluene	600	690.895	115	
2,4–Dinitrotoluene	600	648.45	108	
2,6–Dinitrotoluene	600	627.387	105	
2,6–Dinitrotoluene–d3	500	447.599	90	
2–Amino–4,6–dinitrotoluene	600	606.475	101	
3,4–Dinitrotoluene	300	332.84	111	
4–Amino–2,6–dinitrotoluene	600	583.14	97	
HMX	600	691.106	115	
Nitrobenzene	600	588.13	98	
PETN	600	649.5	108	
RDX	600	760.723	127	*
Tetryl	600	549.314	92	
m–Dinitrobenzene	600	621.892	104	
m–Nitrotoluene	600	658.774	110	
o–Nitrotoluene	600	731.578	122	*
p–Nitrotoluene	600	638.105	106	
1,3,5–Trinitrobenzene	600	571.409	95	
1,3–Dinitrobenzene–d4	500	465.878	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216114a
Date: 19-Feb-2010
Time: 00:55:04
ID: WXX100216-07CCV
Vial: 1:1,B

MAP 2/19/10

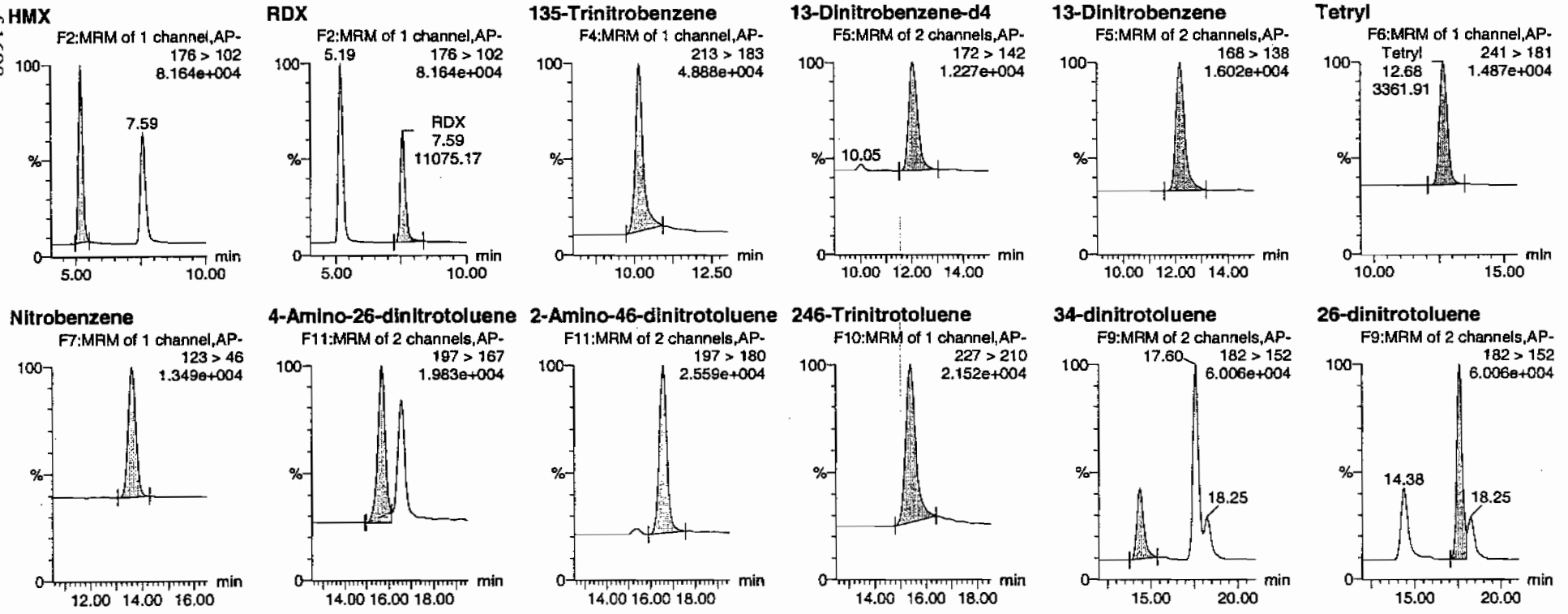

Kmm 02/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

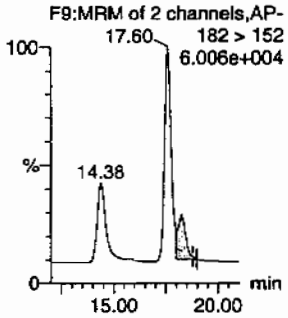

26-dinitrotoluene-d3

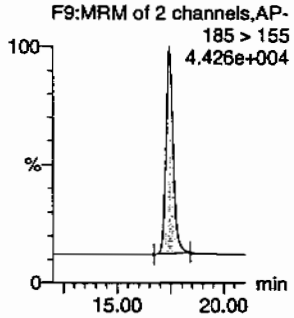

2-Nitrotoluene

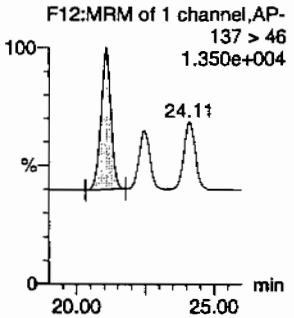

4-Nitrotoluene

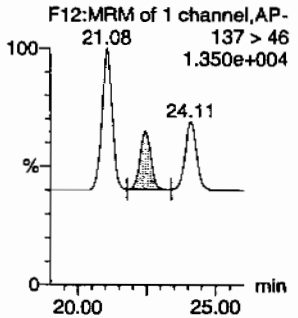

3-Nitrotoluene

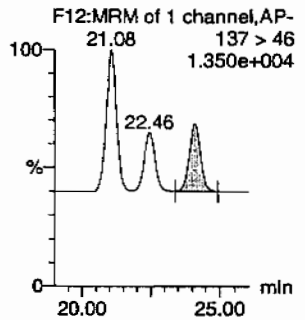

PETN

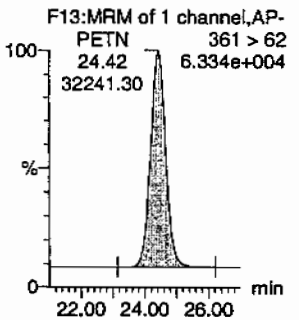

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	14969.111	2806.837	14969.111	2666.544	bb			691.1056	115.2	15.2	1193.4
WXX100216-07CCV	RDX	176 > 102	7.59	11075.168	2806.837	11075.168	1972.891	bb			760.7228	126.8	26.8	742.0
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12421.971	2806.837	12421.971	2212.806	bb			571.4087	95.2	-4.8	748.6
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2806.837		2806.837	2806.837	bb			465.8781	93.2	-6.8	619.5
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.20	4149.243	2806.837	4149.243	739.131	bb			621.8923	103.6	3.6	930.8
WXX100216-07CCV	Tetryl	241 > 181	12.68	3361.914	2806.837	3361.914	598.879	bb			549.3137	91.6	-8.4	206.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2834.431	2806.837	2834.431	504.915	bb			588.1304	98.0	-2.0	310.1
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5820.088	15584.121	5820.088	186.731	MM	19-Feb-10	08:39:50	583.1397	97.2	-2.8	247.4
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8167.027	15584.121	8167.027	262.030	bb			606.4749	101.1	1.1	560.1
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7219.366	15584.121	7219.366	231.626	bb			690.8946	115.1	15.1	540.5
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	9398.891	15584.121	9398.891	301.553	bb			332.8401	110.9	10.9	291.8
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	20716.889	15584.121	20716.889	664.679	MM	19-Feb-10	08:44:03	627.3874	104.6	4.6	804.4
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4982.229	15584.121	4982.229	159.850	MM	19-Feb-10	08:45:40	648.4495	108.1	8.1	168.8
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	15584.121		15584.121	15584.121	bb			447.5995	89.5	-10.5	1930.1
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	3470.329	15584.121	3470.329	111.342	bb			731.5776	121.9	21.9	122.3
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1524.486	15584.121	1524.486	48.912	bb			638.1049	106.4	6.4	49.8
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1837.464	15584.121	1837.464	58.953	bb			658.7742	109.8	9.8	58.5
WXX100216-07CCV	PETN	361 > 62	24.42	32241.301	15584.121	32241.301	1034.428	bb			649.5005	108.3	8.3	10805.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 0055
Standard Number: WXX100216-07CCV
Data File: EXP0216114a

HMX		115.2
RDX		126.8
135-TNB		95.2
13-DNB		103.6
Tetryl		91.6
Nitrobenzene		98.0
4A-26-DNT		97.2
2A-46-DNT		101.1
246-TNT		115.1
34-DNT(surr)		110.9
26-DNT		104.6
24-DNT		108.1
2-NT		121.9
4-NT		106.4
3-NT		109.8
PETN		108.3
Total		1713.8
Average		107.1

MJT 2/19/10

Hm 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216116a **Analysis Date:** 19-FEB-10 01:54

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	447.67	90	
2-Amino-4,6-dinitrotoluene	40	36.207	91	
3,4-Dinitrotoluene	20	19.336	97	
4-Amino-2,6-dinitrotoluene	40	36.956	92	
HMX	40	44.381	111	
Nitrobenzene	40	40.08	100	
PETN	40	50.067	125	
RDX	40	41.692	104	
Tetryl	40	48.261	121	
m-Dinitrobenzene	40	44.048	110	
m-Nitrotoluene	40	38.744	97	
o-Nitrotoluene	40	45.248	113	
p-Nitrotoluene	40	44.246	111	
1,3,5-Trinitrobenzene	40	54.134	135	*
1,3-Dinitrobenzene-d4	500	470.242	94	
2,4,6-Trinitrotoluene	40	41.446	104	
2,4-Dinitrotoluene	40	40.654	102	
2,6-Dinitrotoluene	40	43.246	108	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216116a
Date: 19-Feb-2010
Time: 01:54:19
ID: WXX100216-08CRI
Vial: 1:1,C

MMP 4/9/10

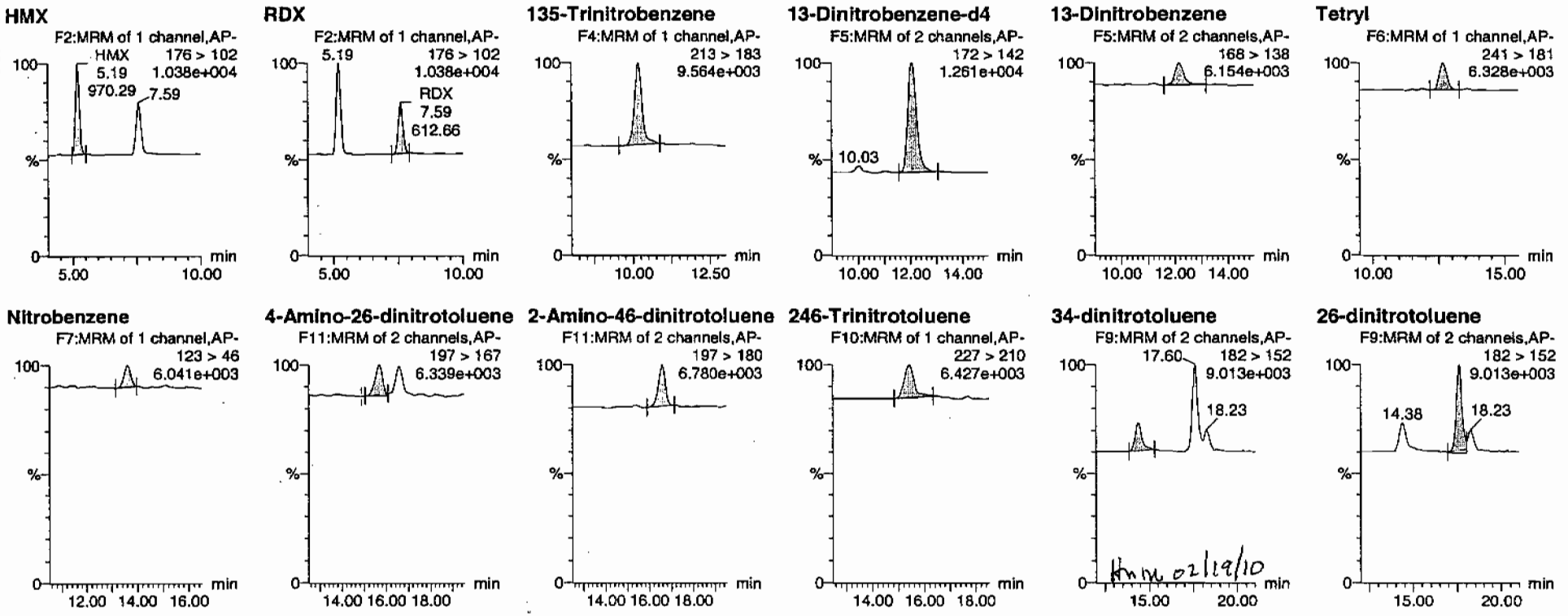

KMM 02/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

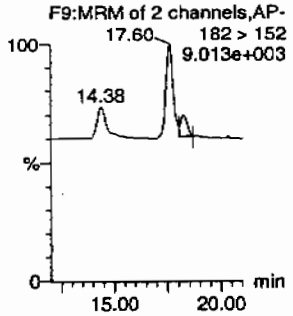

26-dinitrotoluene-d3

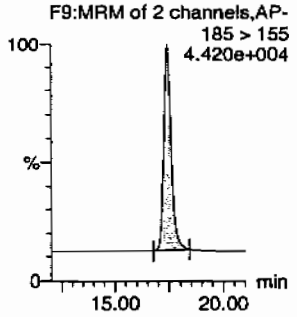

2-Nitrotoluene

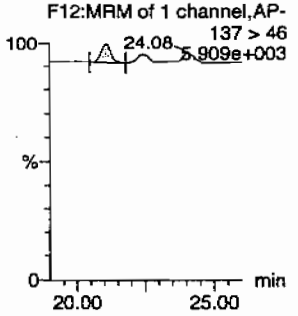

4-Nitrotoluene

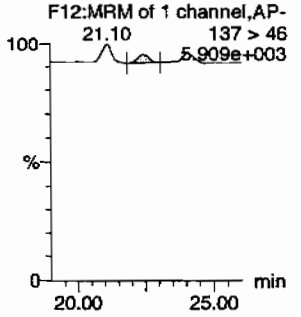

3-Nitrotoluene

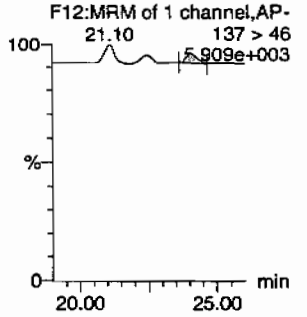

PETN

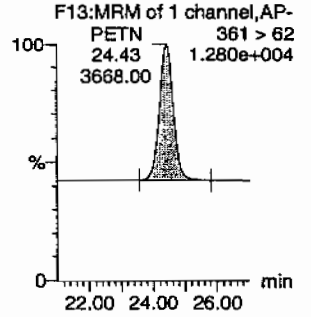

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	970.289	2833.130	970.289	171.240	bb			44.3813	111.0	11.0	149.0
WXX100216-08CRI	RDX	176 > 102	7.59	612.665	2833.130	612.665	108.125	bb			41.6917	104.2	4.2	82.7
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1187.855	2833.130	1187.855	209.637	bb			54.1340	135.3	35.3	146.8
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2833.130		2833.130	2833.130	bb			470.2422	94.0	-6.0	767.4
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	296.639	2833.130	296.639	52.352	bb			44.0479	110.1	10.1	43.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	298.134	2833.130	298.134	52.616	bb			48.2610	120.7	20.7	37.3
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	194.969	2833.130	194.969	34.409	bb			40.0797	100.2	0.2	15.5
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	368.902	15586.563	368.902	11.834	MM	19-Feb-10	08:40:08	36.9561	92.4	-7.6	33.0
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	487.656	15586.563	487.656	15.643	bb			36.2071	90.5	-9.5	37.9
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	433.146	15586.563	433.146	13.895	bb			41.4457	103.6	3.6	86.2
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	546.092	15586.563	546.092	17.518	bb			19.3356	96.7	-3.3	50.2
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1428.232	15586.563	1428.232	45.816	MM	19-Feb-10	08:44:14	43.2456	108.1	8.1	158.9
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	312.408	15586.563	312.408	10.022	MM	19-Feb-10	08:45:32	40.6543	101.6	1.6	37.0
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15586.563		15586.563	15586.563	bb			447.6696	89.5	-10.5	3275.7
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	214.671	15586.563	214.671	6.886	bb			45.2476	113.1	13.1	114.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	105.725	15586.563	105.725	3.392	bb			44.2464	110.6	10.6	49.1
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.08	108.083	15586.563	108.083	3.467	bb			38.7442	96.9	-3.1	54.6
WXX100216-08CRI	PETN	361 > 62	24.43	3668.000	15586.563	3668.000	117.665	bb			50.0670	125.2	25.2	1125.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	0154
Standard Number	WXX100216-08CRI
Data File	EXP0216116a

HMX	111.0
RDX	104.2
135-TNB	135.3
13-DNB	110.1
Tetryl	120.7
Nitrobenzene	100.2
4A-26-DNT	92.4
2A-46-DNT	90.5
246-TNT	103.6
34-DNT(surr)	96.7
26-DNT	108.1
24-DNT	101.6
2-NT	113.1
4-NT	110.6
3-NT	96.9
PETN	125.2
Total	1720.2
Average	107.5

KAP 2/19/10

Hmc 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216126a **Analysis Date:** 19-FEB-10 06:51

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	664.439	111	
Tetryl	600	546.113	91	
m-Dinitrobenzene	600	654.383	109	
m-Nitrotoluene	600	546.709	91	
o-Nitrotoluene	600	565.725	94	
p-Nitrotoluene	600	596.095	99	
1,3,5-Trinitrobenzene	600	602.103	100	
1,3-Dinitrobenzene-d4	500	399.789	80	*
2,4,6-Trinitrotoluene	600	636.088	106	
2,4-Dinitrotoluene	600	631.293	105	
2,6-Dinitrotoluene	600	639.245	107	
2,6-Dinitrotoluene-d3	500	397.902	80	*
2-Amino-4,6-dinitrotoluene	600	620.207	103	
3,4-Dinitrotoluene	300	328.459	109	
4-Amino-2,6-dinitrotoluene	600	549.091	92	
HMX	600	579.088	97	
Nitrobenzene	600	570.011	95	
PETN	600	752.558	125	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216126a
Date: 19-Feb-2010
Time: 06:51:55
ID: WXX100216-07CCV
Vial: 1:1,B

MAP 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.007e+004

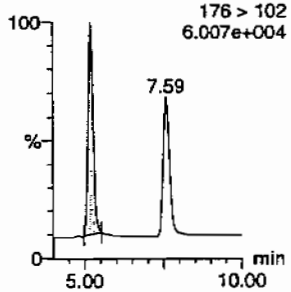

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.007e+004

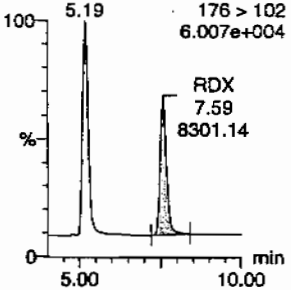

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.485e+004

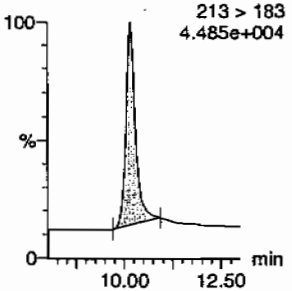

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.134e+004

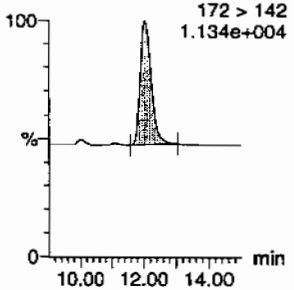

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.520e+004

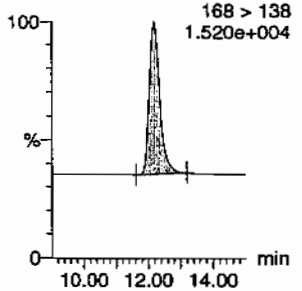

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.351e+004

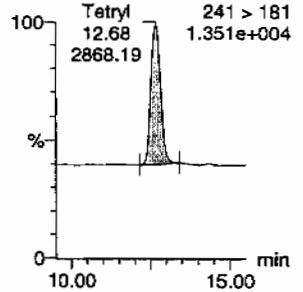

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.208e+004

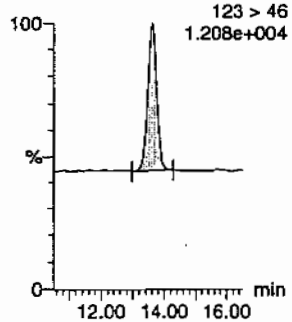

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.757e+004

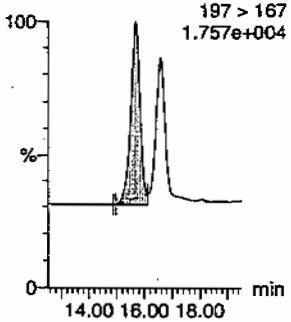

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.451e+004

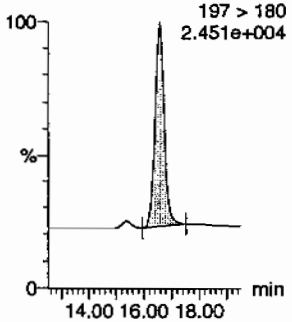

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
1.863e+004

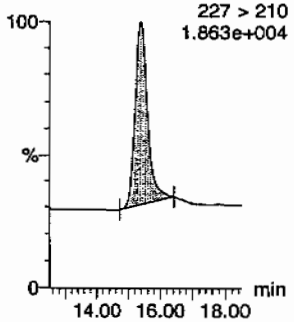

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.498e+004

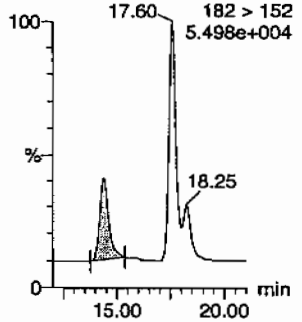

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.498e+004

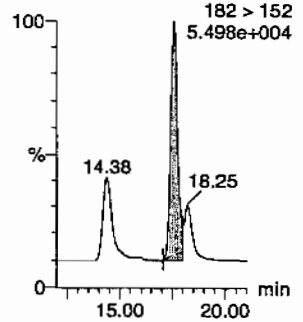

HMC 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst.: Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

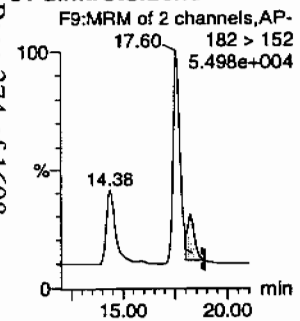

26-dinitrotoluene-d3

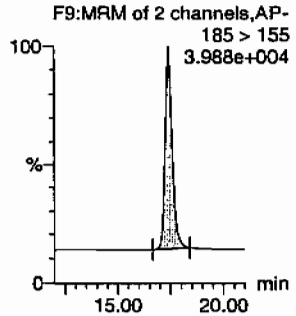

2-Nitrotoluene

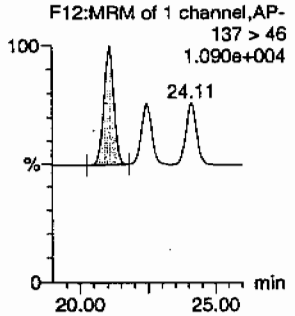

4-Nitrotoluene

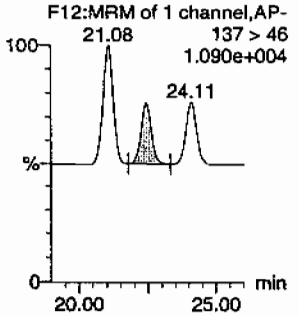

3-Nitrotoluene

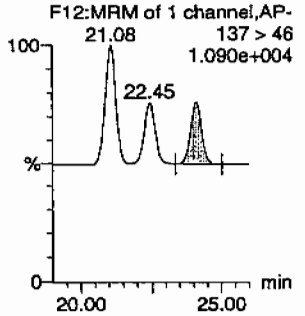

PETN

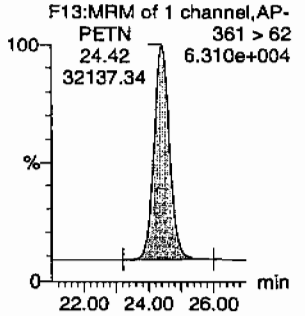

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	10763.521	2408.661	10763.521	2234.337	bb			579.0876	96.5	-3.5	1447.4
WXX100216-07CCV	RDX	176 > 102	7.59	8301.136	2408.661	8301.136	1723.185	bb			664.4390	110.7	10.7	948.0
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	11232.409	2408.661	11232.409	2331.671	bb			602.1029	100.4	0.4	594.9
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2408.661		2408.661	2408.661	bb			399.7889	80.0	-20.0	410.6
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3746.660	2408.661	3746.660	777.747	bb			654.3832	109.1	9.1	625.2
WXX100216-07CCV	Tetryl	241 > 181	12.68	2868.187	2408.661	2868.187	595.390	bb			546.1134	91.0	-9.0	233.9
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2357.406	2408.661	2357.406	489.360	bb			570.0115	95.0	-5.0	201.3
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	4871.783	13853.808	4871.783	175.828	MM	19-Feb-10	08:40:41	549.0908	91.5	-8.5	722.8
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7424.633	13853.808	7424.633	267.964	bb			620.2074	103.4	3.4	998.6
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	5908.694	13853.808	5908.694	213.252	bb			636.0882	106.0	6.0	440.8
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8245.339	13853.808	8245.339	297.584	bb			328.4586	109.5	9.5	217.5
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18764.768	13853.808	18764.768	677.242	MM	19-Feb-10	08:44:36	639.2453	106.5	6.5	633.1
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4311.870	13853.808	4311.870	155.620	MM	19-Feb-10	08:45:00	631.2935	105.2	5.2	137.2
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	13853.808		13853.808	13853.808	bb			397.9023	79.6	-20.4	1755.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2385.626	13853.808	2385.626	86.100	bb			565.7249	94.3	-5.7	842.5
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1266.000	13853.808	1266.000	45.691	bb			596.0950	99.3	-0.7	436.0
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1355.580	13853.808	1355.580	48.924	bb			546.7088	91.1	-8.9	445.0
WXX100216-07CCV	PETN	361 > 62	24.42	32137.336	13853.808	32137.336	1159.874	bb			752.5580	125.4	25.4	6987.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 0651
Standard Number: WXX100216-07CCV
Data File: EXP0216126a

HMX		96.5
RDX		110.7
135-TNB		100.4
13-DNB		109.1
Tetryl		91.0
Nitrobenzene		95.0
4A-26-DNT		91.5
2A-46-DNT		103.4
246-TNT		106.0
34-DNT(surr)		109.5
26-DNT		106.5
24-DNT		105.2
2-NT		94.3
4-NT		99.3
3-NT		91.1
PETN		125.4
Total		1634.9
Average		102.2

MJT 2/19/10

Hmc 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216128a

Analysis Date: 19-FEB-10 07:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	40	39.368	98	
p-Nitrotoluene	40	54.772	137	*
1,3,5-Trinitrobenzene	40	55.601	139	*
1,3-Dinitrobenzene-d4	500	449.803	90	
2,4,6-Trinitrotoluene	40	55.731	139	*
2,4-Dinitrotoluene	40	40.622	102	
2,6-Dinitrotoluene	40	39.408	99	
2,6-Dinitrotoluene-d3	500	428.152	86	
2-Amino-4,6-dinitrotoluene	40	37.221	93	
3,4-Dinitrotoluene	20	25.924	130	
4-Amino-2,6-dinitrotoluene	40	38.795	97	
HMX	40	51.235	128	
Nitrobenzene	40	44.876	112	
PETN	40	54.004	135	*
RDX	40	44.767	112	
Tetryl	40	41.893	105	
m-Dinitrobenzene	40	46.8	117	
m-Nitrotoluene	40	44.528	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216128a
ate: 19-Feb-2010
ime: 07:51:13
): WXX100216-08CRI
ial: 1:1,C

MM 2/19/10

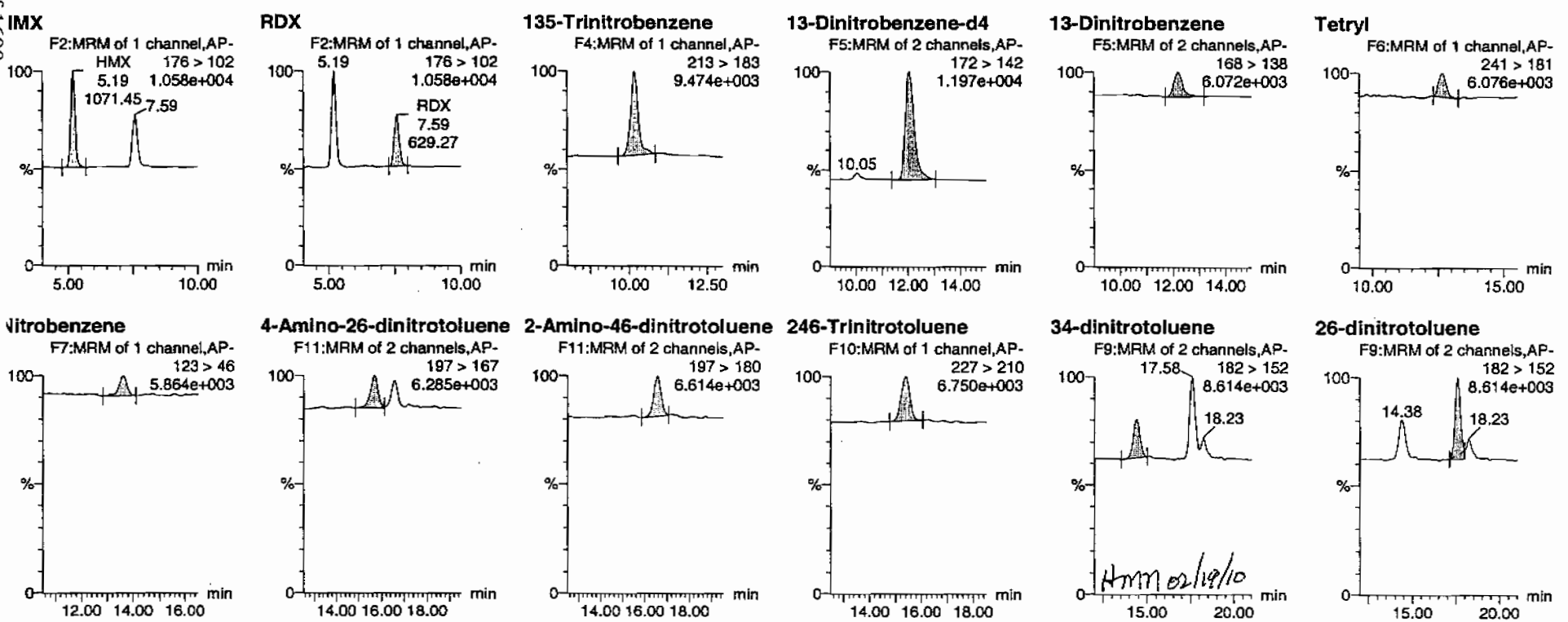

HMM 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

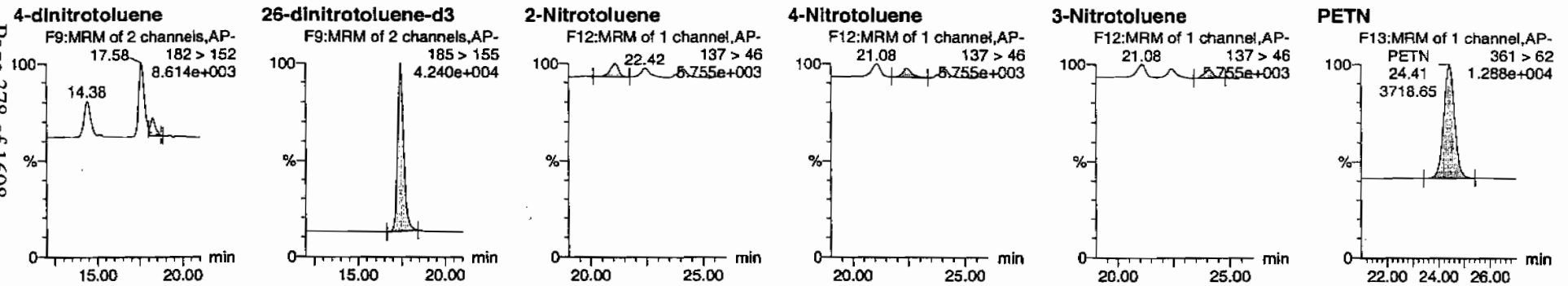

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1071.448	2709.986	1071.448	197.685	bb			51.2353	128.1	28.1	254.9
WXX100216-08CRI	RDX	176 > 102	7.59	629.268	2709.986	629.268	116.102	bb			44.7674	111.9	11.9	136.1
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1167.005	2709.986	1167.005	215.316	bb			55.6006	139.0	39.0	134.4
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2709.986		2709.986	2709.986	bb			449.8027	90.0	-10.0	92.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	301.476	2709.986	301.476	55.623	bb			46.8004	117.0	17.0	31.1
WXX100216-08CRI	Tetryl	241 > 181	12.68	247.547	2709.986	247.547	45.673	bb			41.8930	104.7	4.7	23.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	208.814	2709.986	208.814	38.527	bb			44.8763	112.2	12.2	15.4
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	370.375	14907.007	370.375	12.423	MM	19-Feb-10	08:40:47	38.7951	97.0	-3.0	37.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	479.459	14907.007	479.459	16.082	bb			37.2214	93.1	-6.9	51.1
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	557.049	14907.007	557.049	18.684	bb			55.7311	139.3	39.3	59.0
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	700.235	14907.007	700.235	23.487	bb			25.9236	129.6	29.6	54.4
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.58	1244.735	14907.007	1244.735	41.750	MM	19-Feb-10	08:44:46	39.4076	98.5	-1.5	115.4
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	298.548	14907.007	298.548	10.014	MM	19-Feb-10	08:44:53	40.6217	101.6	1.6	28.4
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	14907.007		14907.007	14907.007	bb			428.1517	85.6	-14.4	1997.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	178.632	14907.007	178.632	5.992	bb			39.3678	98.4	-1.6	20.2
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.42	125.170	14907.007	125.170	4.198	bb			54.7723	136.9	36.9	13.4
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	118.801	14907.007	118.801	3.985	bb			44.5276	111.3	11.3	12.6
WXX100216-08CRI	PETN	361 > 62	24.41	3718.648	14907.007	3718.648	124.728	bb			54.0040	135.0	35.0	1127.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	0751
Standard Number	WXX100216-08CRI
Data File	EXP0216128a

HMX	128.1
RDX	111.9
135-TNB	139.0
13-DNB	117.0
Tetryl	104.7
Nitrobenzene	112.2
4A-26-DNT	97.0
2A-46-DNT	93.1
246-TNT	139.3
34-DNT(surr)	129.6
26-DNT	98.5
24-DNT	101.6
2-NT	98.4
4-NT	136.9
3-NT	111.3
PETN	135.0
Total	1853.6
Average	115.9

HMM 2/19/10

HMM 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170013.wiff

Analysis Date: 17-FEB-10 12:34

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	91.2	91	
2,6-Diamino-4-nitrotoluene	100	82.2	82	
3,4-Dinitrotoluene	50	49.3	99	
3,5-Dinitroaniline	100	97.1	97	
TATB	100	96.4	96	
tris(o-cresyl) phosphate	100	112	112	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 2/19/10

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 96.4 ng/mL
. Date: 2/17/2010
. Time: 12:34:44 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.03 min
Relative RT: No

. Type: Valley
ention Time: 7.00 min
a: 1.64e+005 counts
ght: 36377.789 cps
rt Time: 6.86 min
Time: 7.43 min

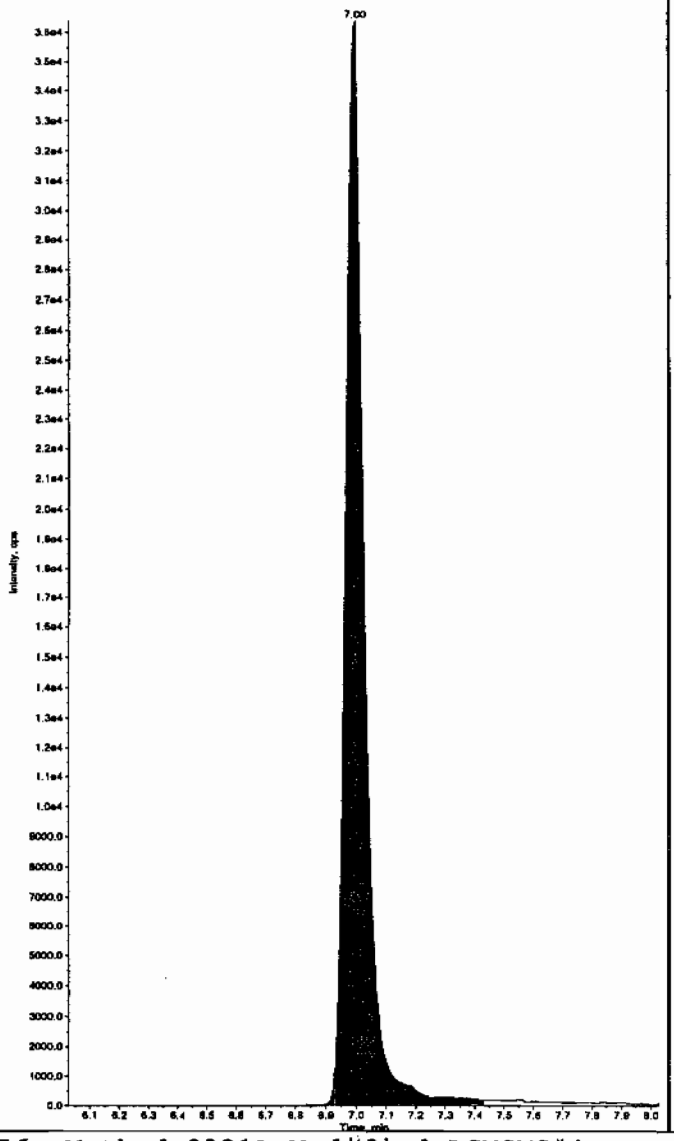

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.1 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:34:44 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 7.14e+005 counts
Height: 178003.189 cps
Start Time: 8.09 min
End Time: 8.32 min

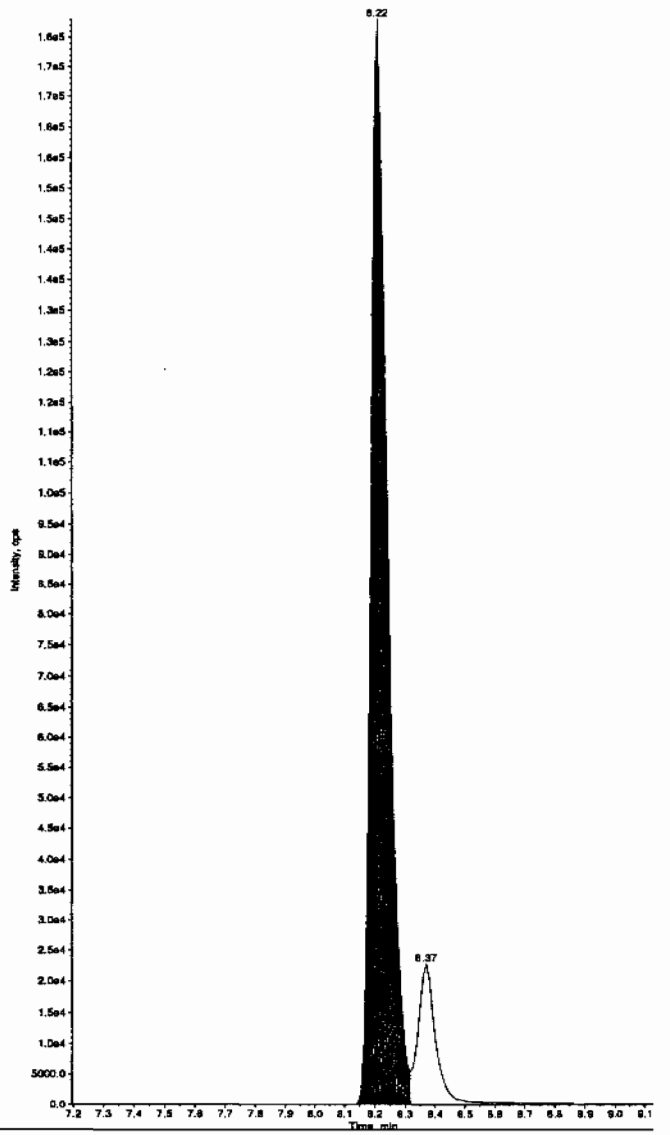

Hum 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         50.0     ng/mL
culated Conc:       49.3     ng/mL
. Date:          2/17/2010
. Time:          12:34:44 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00   sec
oothing Width:  3        points
Window:          15.0    sec
ected RT:         8.40   min
 Relative RT:    No

. Type:          Valley
ention Time:      8.36   min
a:          6.57e+005   counts
ght:          178358.765  cps
rt Time:          8.29   min
 Time:            8.60   min
```

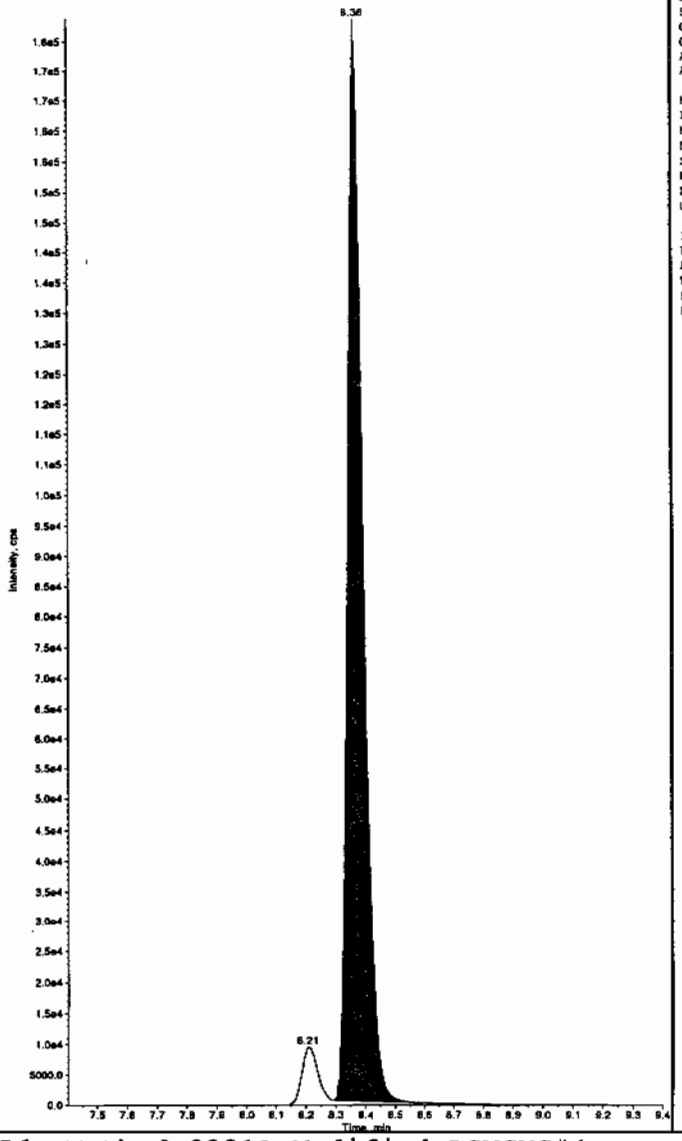

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       82.2     ng/mL
Acq. Date:          2/17/2010
Acq. Time:          12:34:44 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        5.04    min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:     5.02    min
Area:          1.62e+005   counts
Height:        45664.162   cps
Start Time:         4.93    min
End Time:           5.30    min
```

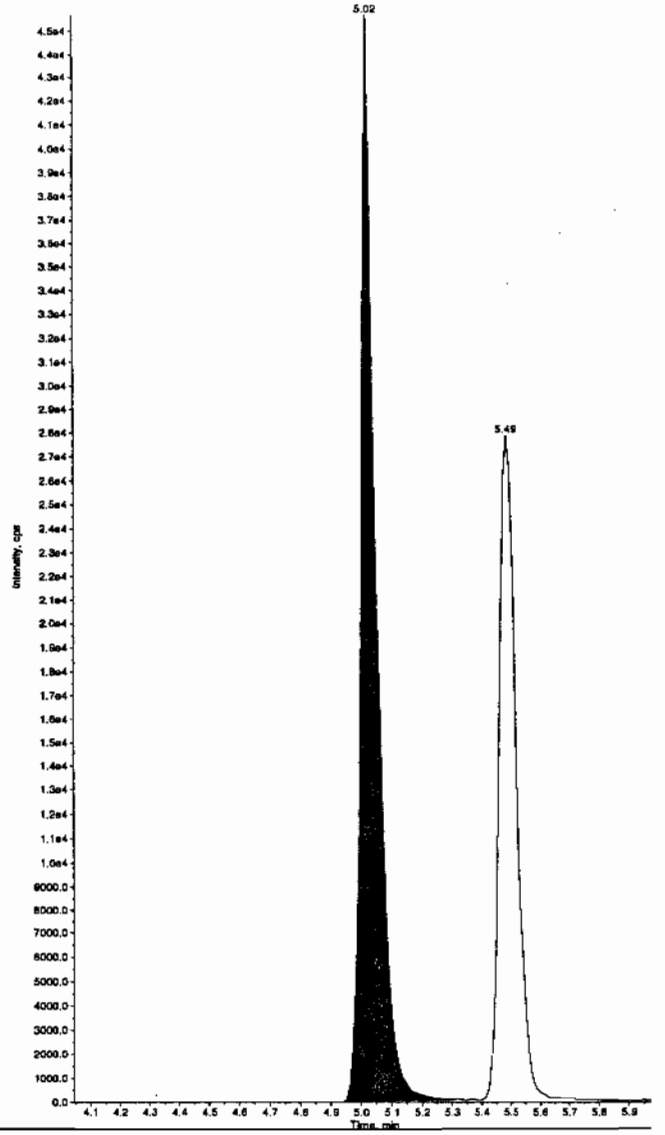

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 91.2 ng/mL
. Date: 2/17/2010
. Time: 12:34:44 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.51 min
Relative RT: No

. Type: Valley
ention Time: 5.49 min
a: 1.13e+005 counts
ght: 27769.400 cps
rt Time: 5.40 min
Time: 5.82 min

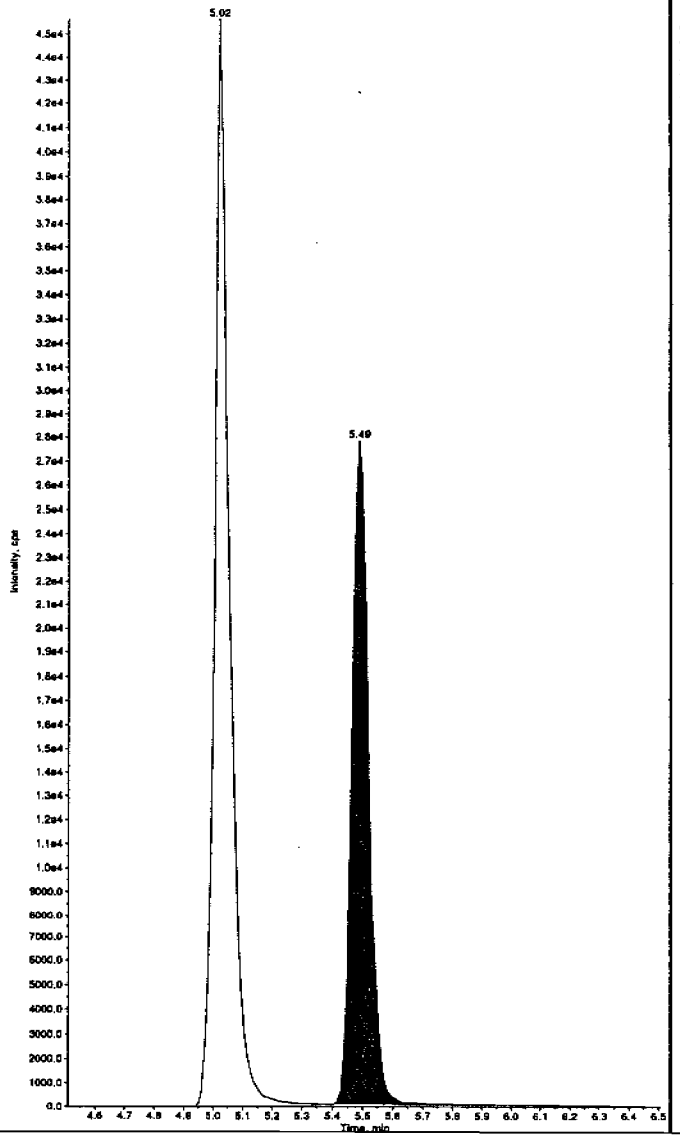

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 12:34:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.43e+006 counts
Height: 616631.775 cps
Start Time: 10.8 min
End Time: 11.2 min

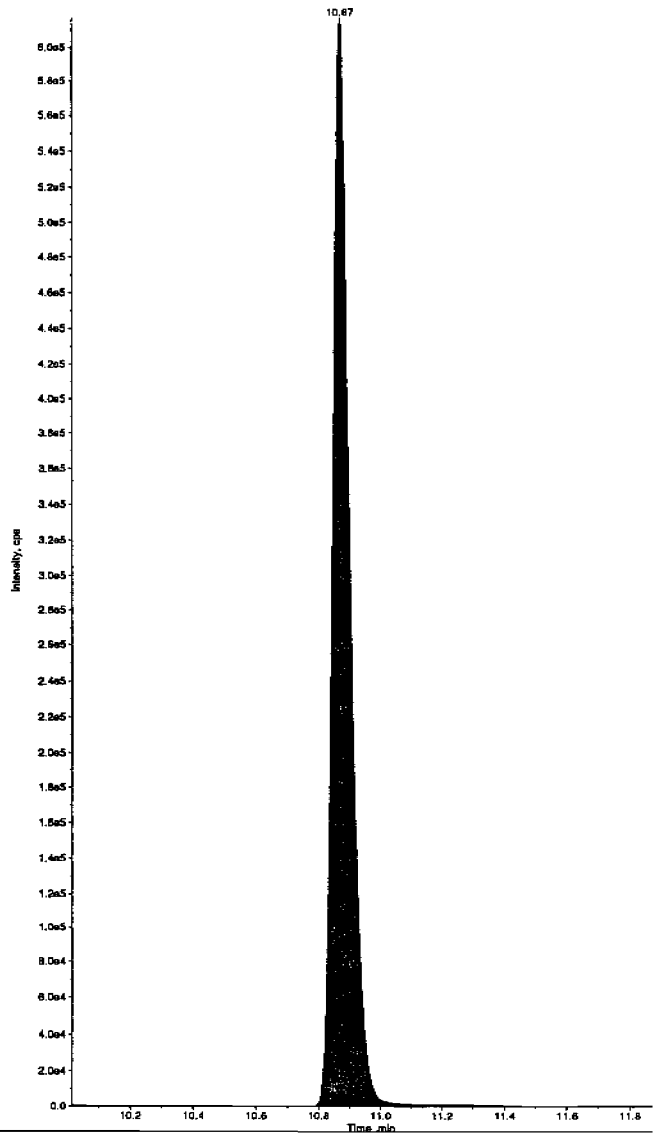

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170024.wiff

Analysis Date: 17-FEB-10 15:27

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	456	91	
2,6-Diamino-4-nitrotoluene	500	464	93	
3,4-Dinitrotoluene	250	257	103	
3,5-Dinitroaniline	500	497	100	
TATB	500	470	94	
tris(o-cresyl) phosphate	500	488	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/19/10

Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	470. ng/mL
Acq. Date:	2/17/2010
Acq. Time:	3:27:27 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2500.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	7.03 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	6.97 min
Area:	7.99e+005 counts
Height:	176526.779 cps
Start Time:	6.85 min
End Time:	7.55 min

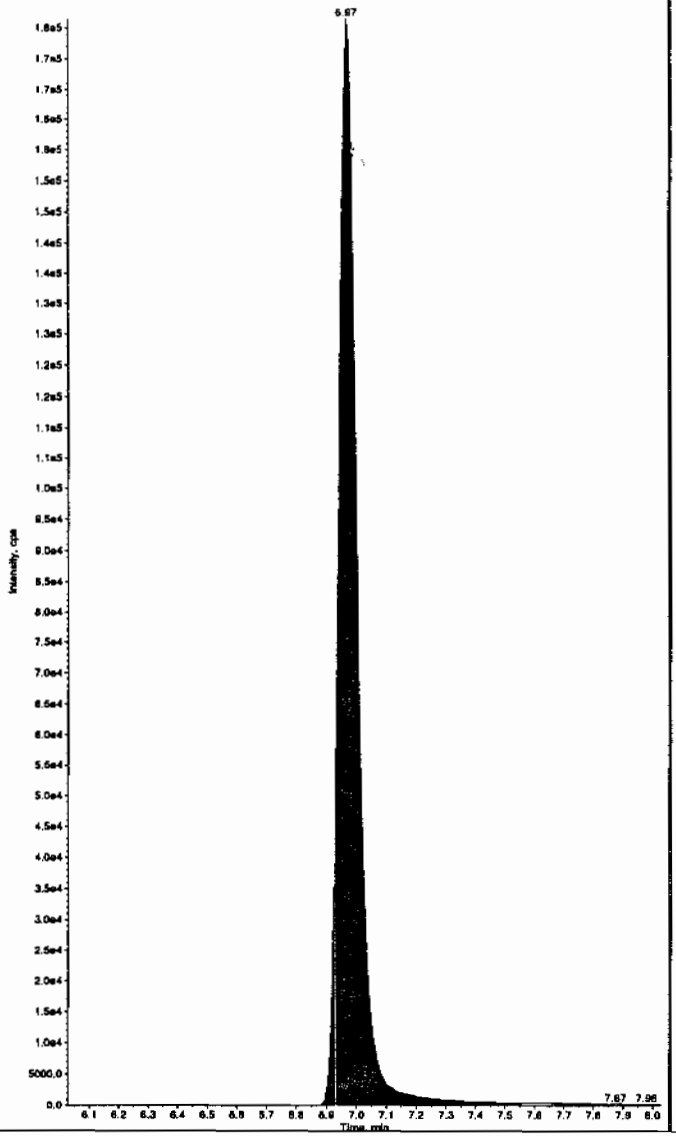

Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	497. ng/mL
Acq. Date:	2/17/2010
Acq. Time:	3:27:27 PM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.17 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.20 min
Area:	3.66e+006 counts
Height:	898610.413 cps
Start Time:	8.10 min
End Time:	8.31 min

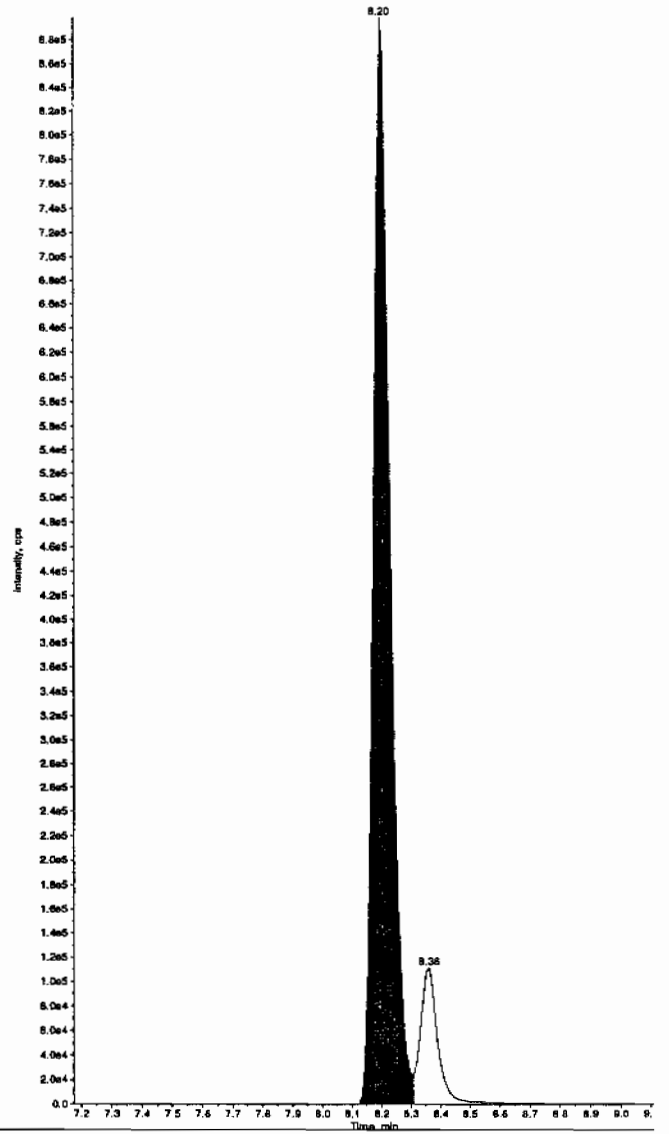

Hnm 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170024.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 257. ng/mL
. Date: 2/17/2010
. Time: 3:27:27 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

. Type: Valley
ention Time: 8.35 min
a: 3.42e+006 counts
ght: 921489.441 cps
rt Time: 8.28 min
Time: 8.52 min

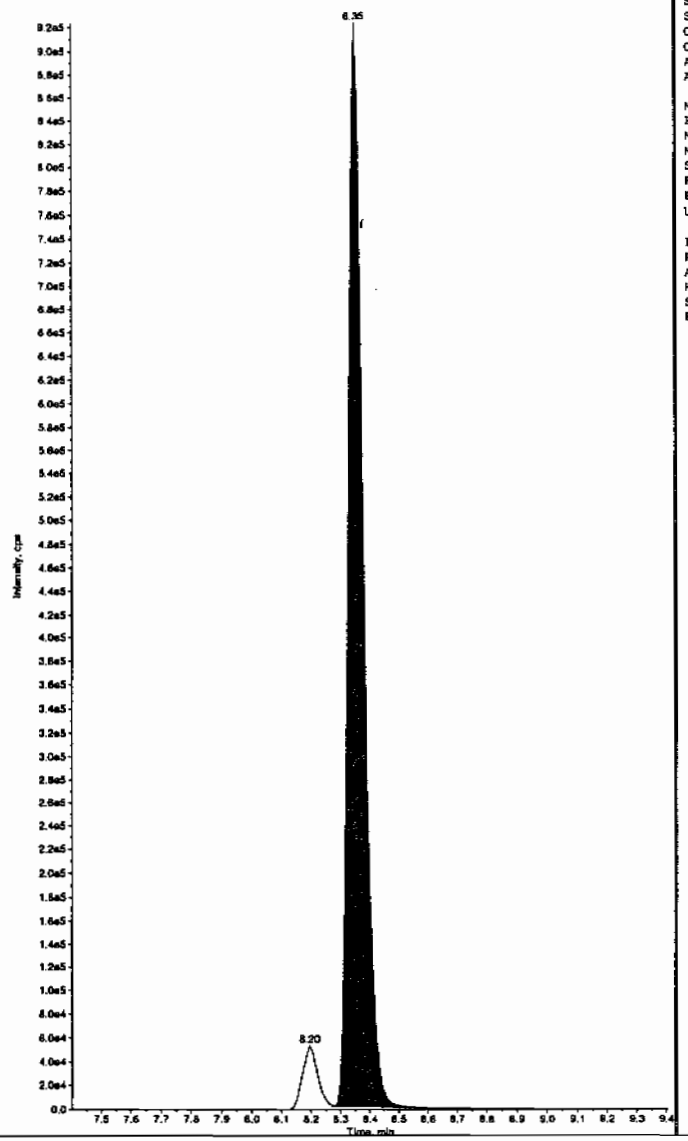

Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 464. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:27:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 9.14e+005 counts
Height: 231902.298 cps
Start Time: 4.90 min
End Time: 5.30 min

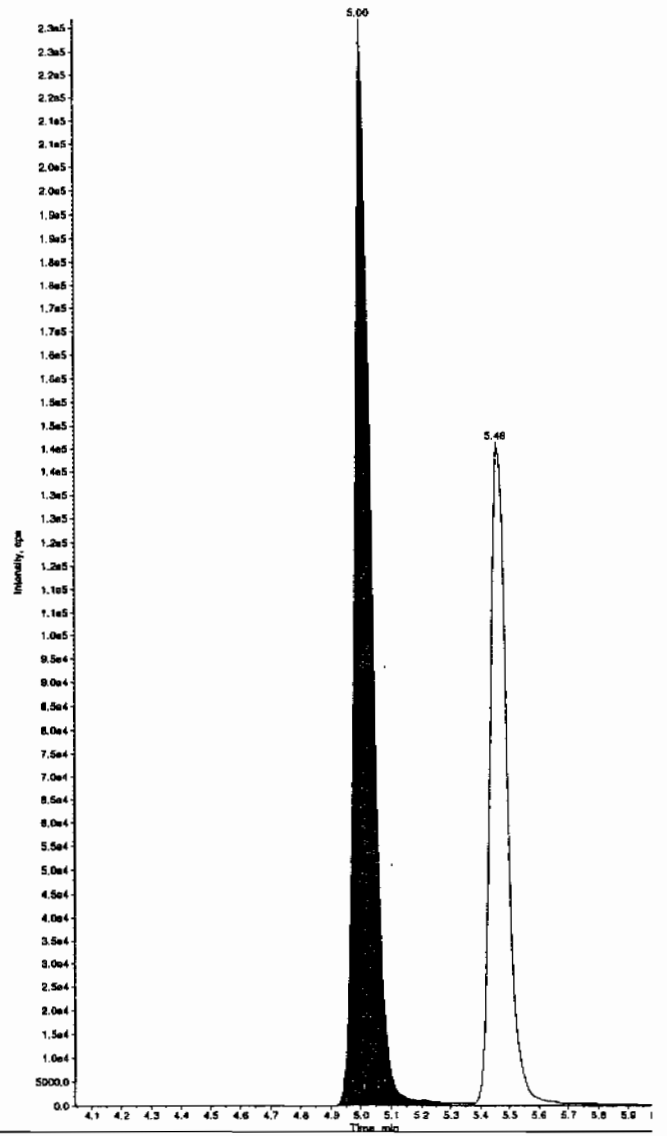

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Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
icentration: 500. ng/mL
.culated Conc: 456. ng/mL
. Date: 2/17/2010
. Time: 3:27:27 PM

lified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.51 min
Relative RT: No

. Type: Valley
ention Time: 5.46 min
a: 5.63e+005 counts
ght: 141389.374 cps
rt Time: 5.35 min
Time: 5.83 min

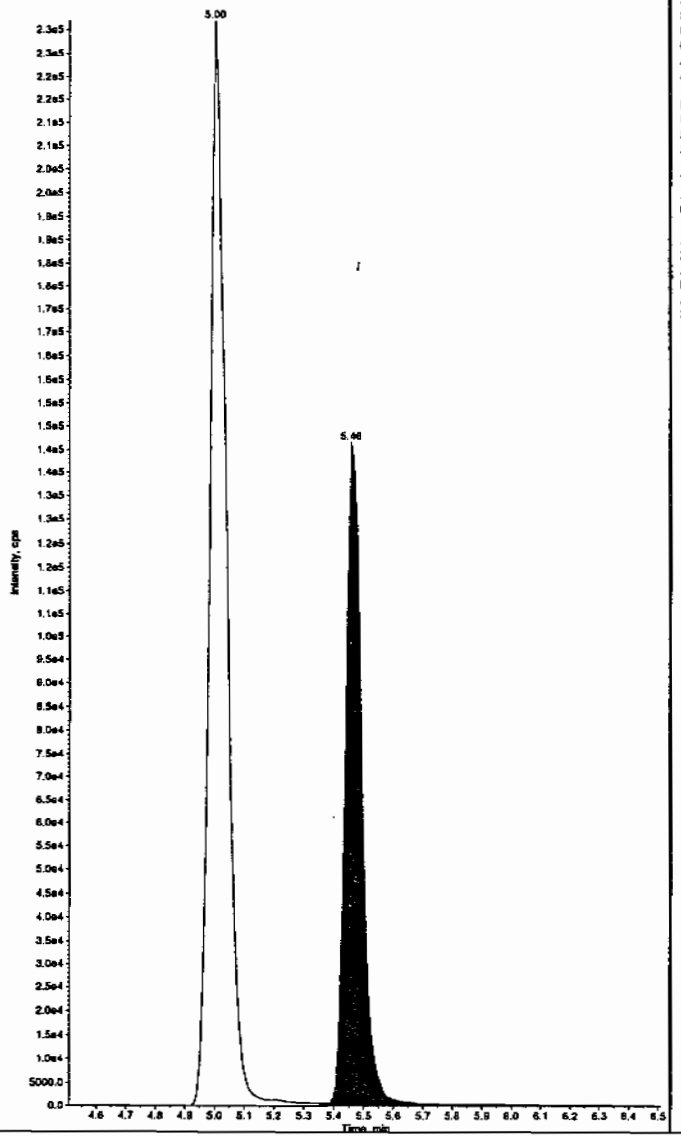

Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:27:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.06e+007 counts
Height: 2651478.027 cps
Start Time: 10.7 min
End Time: 11.2 min

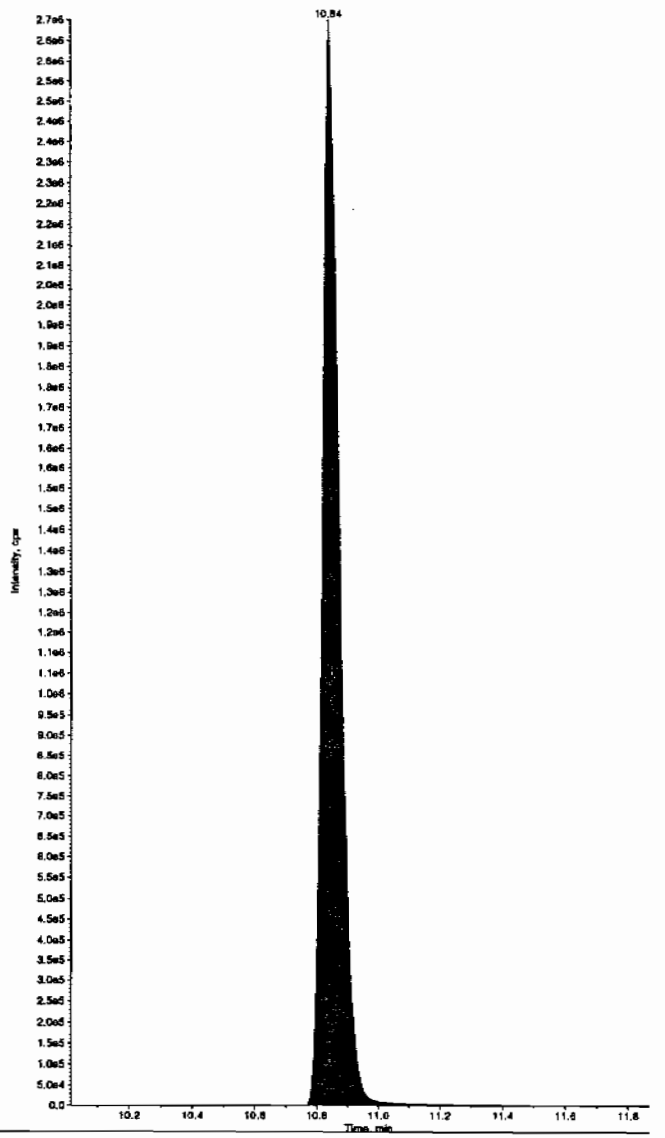

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170026.wiff

Analysis Date: 17–FEB–10 15:58

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	79.7	80	
2,6–Diamino–4–nitrotoluene	100	104	104	
3,4–Dinitrotoluene	50	51	102	
3,5–Dinitroaniline	100	114	114	
TATB	100	97.5	98	
tris(o–cresyl) phosphate	100	111	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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mple Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170026.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 97.5 ng/mL
. Date: 2/17/2010
. Time: 3:58:51 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.03 min
Relative RT: No

. Type: Valley
ention Time: 6.99 min
s: 1.66e+005 counts
ght: 36459.801 cps
rt Time: 6.88 min
Time: 7.41 min

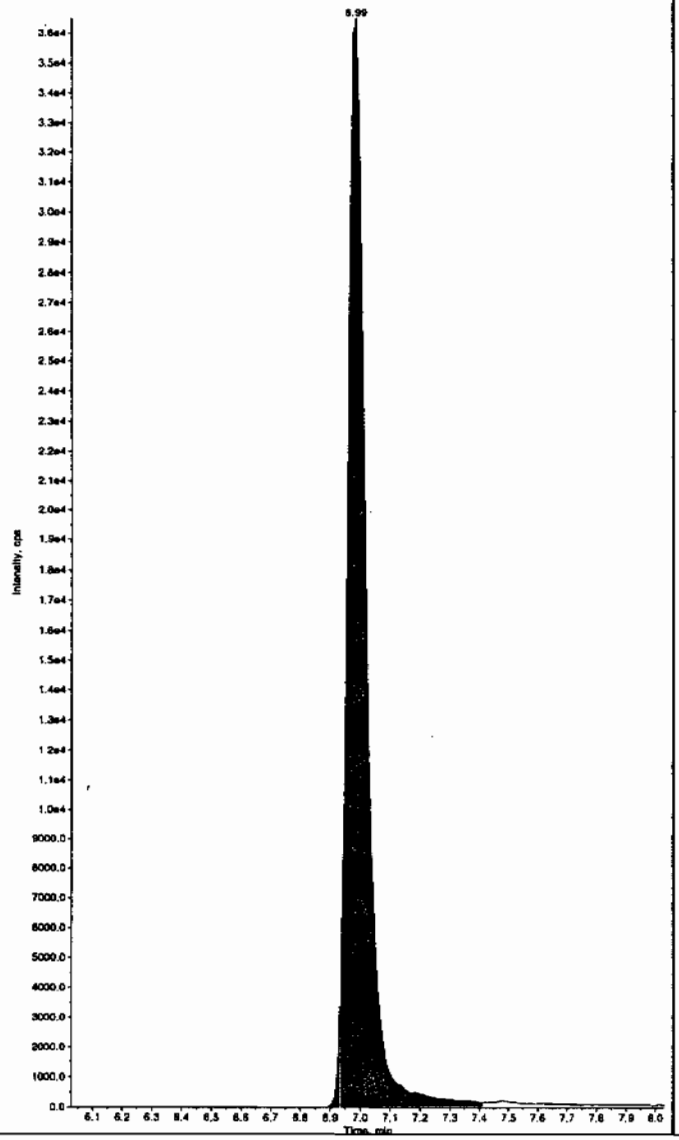

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 3:58:51 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 8.40e+005 counts
Height: 206971.222 cps
Start Time: 8.07 min
End Time: 8.32 min

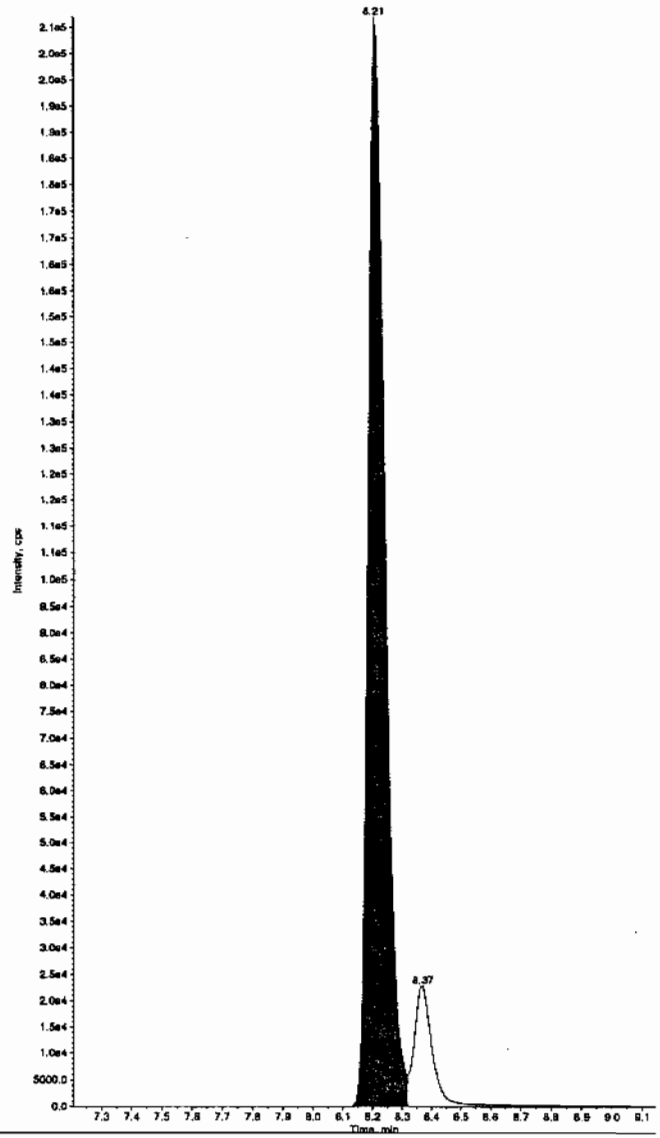

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170026.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         50.0     ng/mL
culated Conc:       51.0     ng/mL
:. Date:          2/17/2010
:. Time:          3:58:51 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  3        points
Window:          15.0     sec
ected RT:         8.40    min
 Relative RT:     No

. Type:          Valley
ention Time:      8.36    min
a:          5.79e+005    counts
ght:          189974.213  cps
rt Time:          8.29    min
 Time:            8.64    min
```

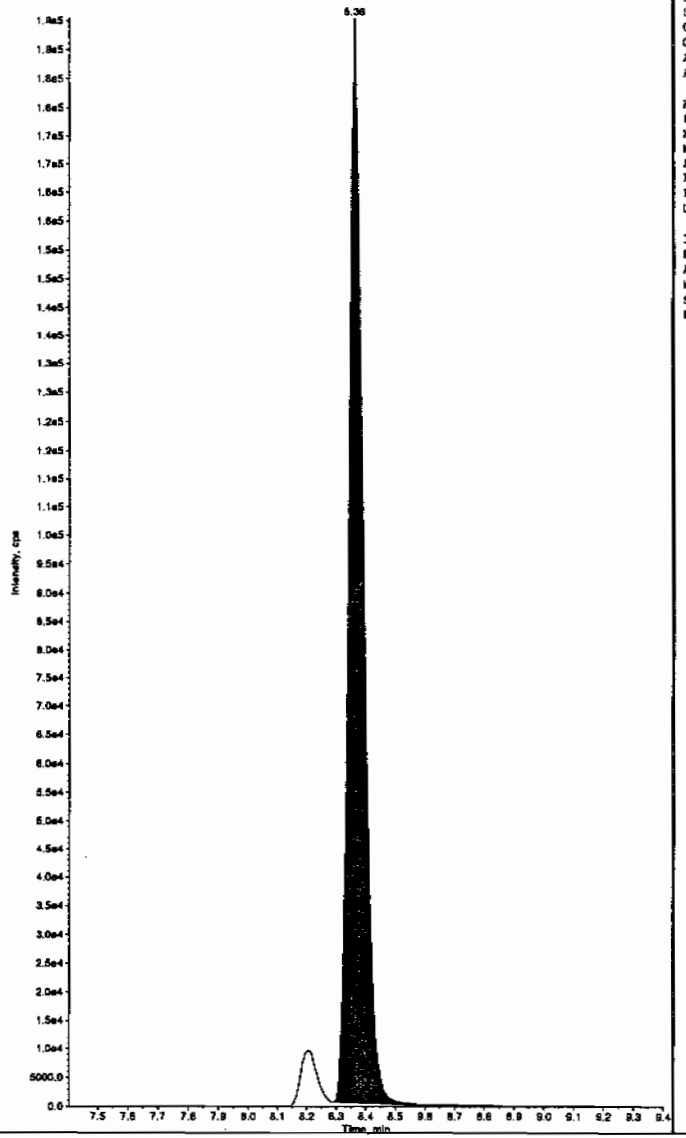

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       104.     ng/mL
Acq. Date:          2/17/2010
Acq. Time:          3:58:51 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         5.04   min
Use Relative RT:     No

Int. Type:          Valley
Retention Time:      5.02   min
Area:          2.04e+005    counts
Height:          51492.031  cps
Start Time:          4.86   min
End Time:            5.28   min
```

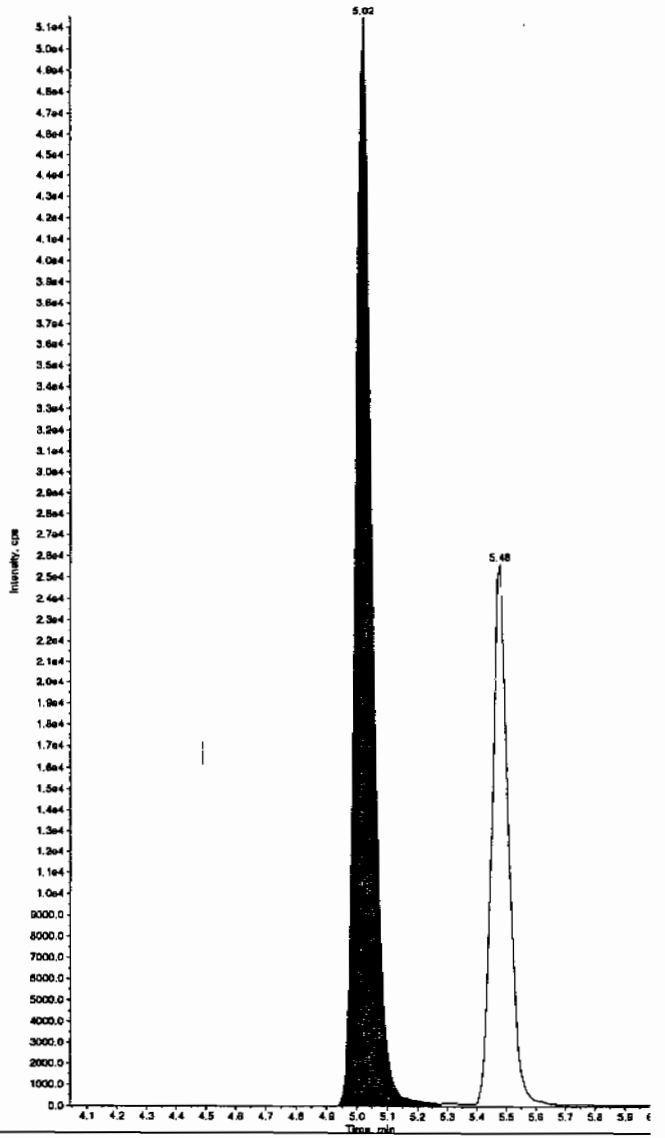

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ample Name: "WXX100217-27CRI" Sample ID: "1|LER" File: "EXS02170026.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         100.     ng/mL
culated Conc:       79.7     ng/mL
. Date:         2/17/2010
. Time:         3:58:51 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
oothing Width:  3        points
Window:         30.0     sec
ected RT:        5.51    min
 Relative RT:    No

. Type:         Valley
ention Time:     5.48    min
a:          9.85e+004    counts
ght:        25549.866    cps
rt Time:         5.39    min
 Time:           5.70    min
```

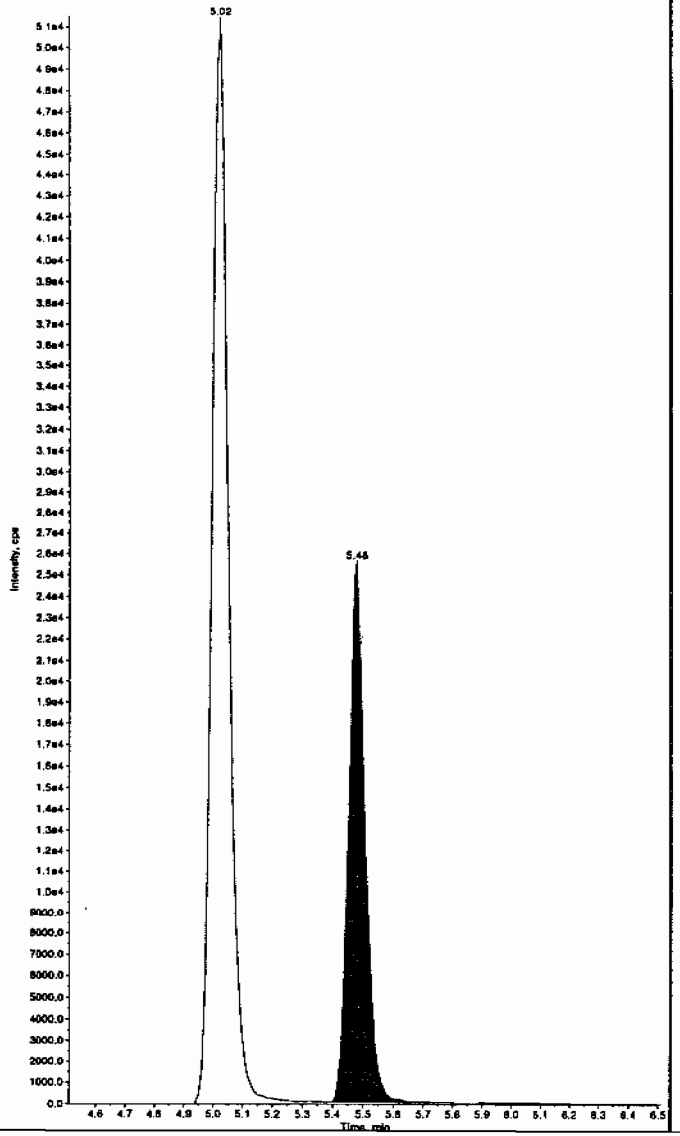

Sample Name: "WXX100217-27CRI" Sample ID: "1|LER" File: "EXS02170026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       111.     ng/mL
Acq. Date:         2/17/2010
Acq. Time:         3:58:51 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.8     min
Area:          2.41e+006    counts
Height:        634995.117   cps
Start Time:        10.7     min
End Time:          11.2     min
```

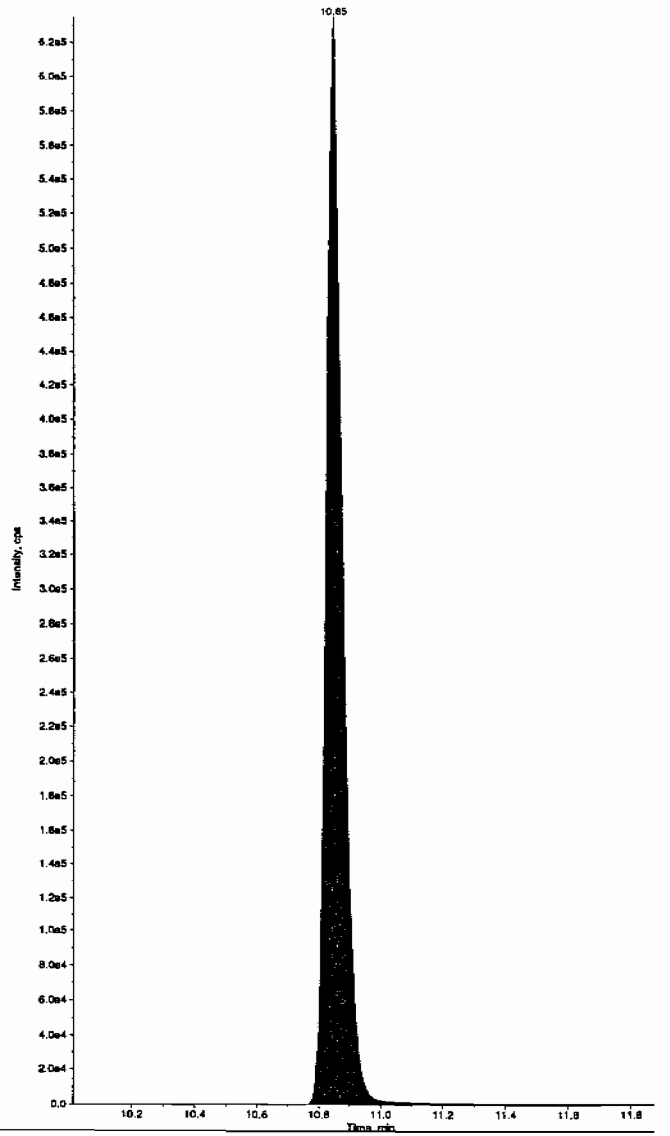

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170037.wiff

Analysis Date: 17–FEB–10 18:51

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	351	70	
2,6–Diamino–4–nitrotoluene	500	477	95	
3,4–Dinitrotoluene	250	253	101	
3,5–Dinitroaniline	500	506	101	
TATB	500	509	102	
tris(o–cresyl) phosphate	500	502	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scer 2/19/10

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
'eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
ncentration: 500. ng/mL
culated Conc: 509. ng/mL
. Date: 2/17/2010
. Time: 6:51:36 PM

lified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.03 min
Relative RT: No

. Type: Valley
ention Time: 7.03 min
a: 8.64e+005 counts
ght: 195147.095 cps
rt Time: 6.92 min
Time: 7.85 min

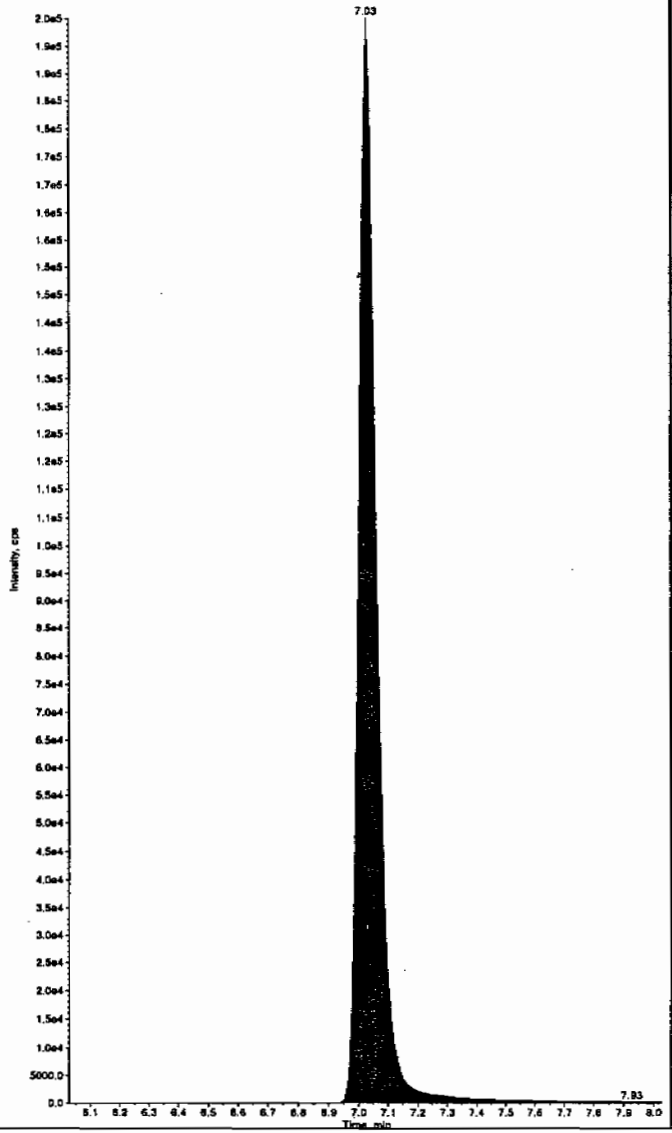

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 506. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 3.72e+006 counts
Height: 977664.917 cps
Start Time: 8.17 min
End Time: 8.37 min

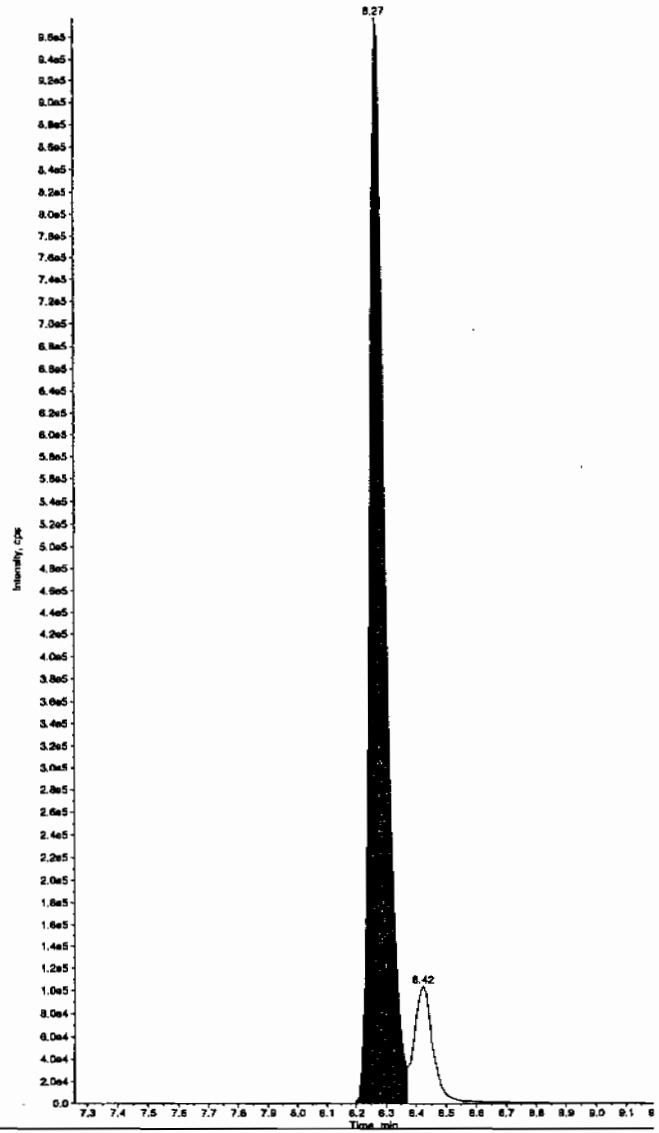

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 253. ng/mL
. Date: 2/17/2010
. Time: 6:51:36 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

. Type: Valley
ention Time: 8.41 min
a: 3.37e+006 counts
ght: 888978.943 cps
rt Time: 8.34 min
Time: 8.66 min

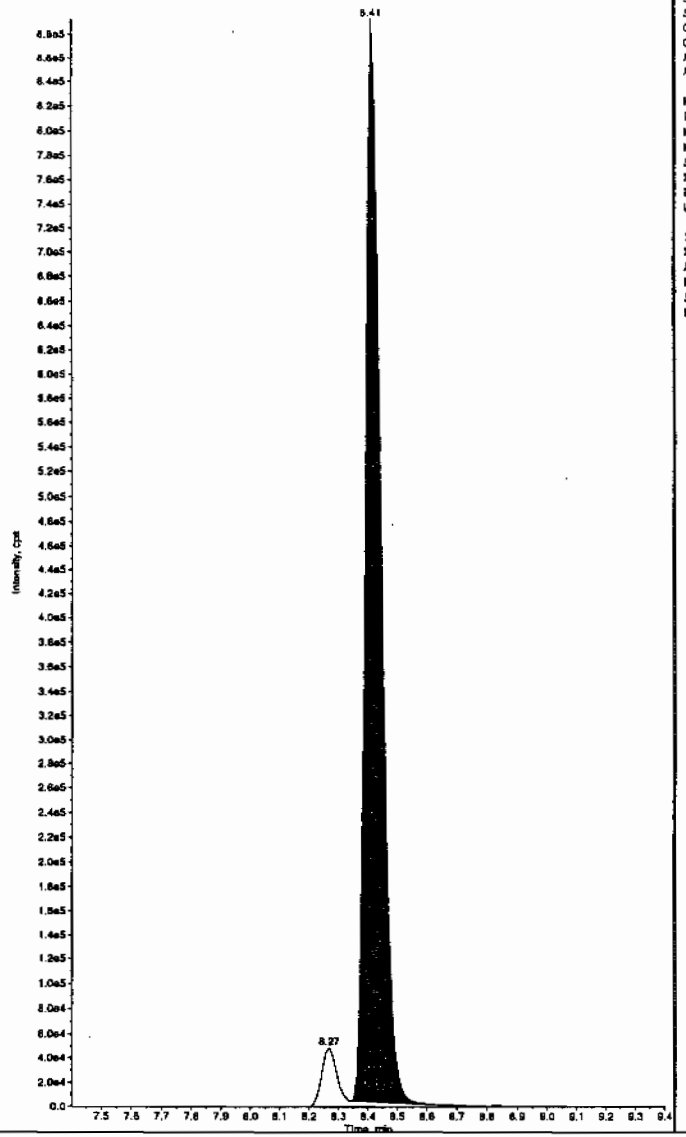

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 477. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 9.39e+005 counts
Height: 222264.755 cps
Start Time: 4.92 min
End Time: 5.34 min

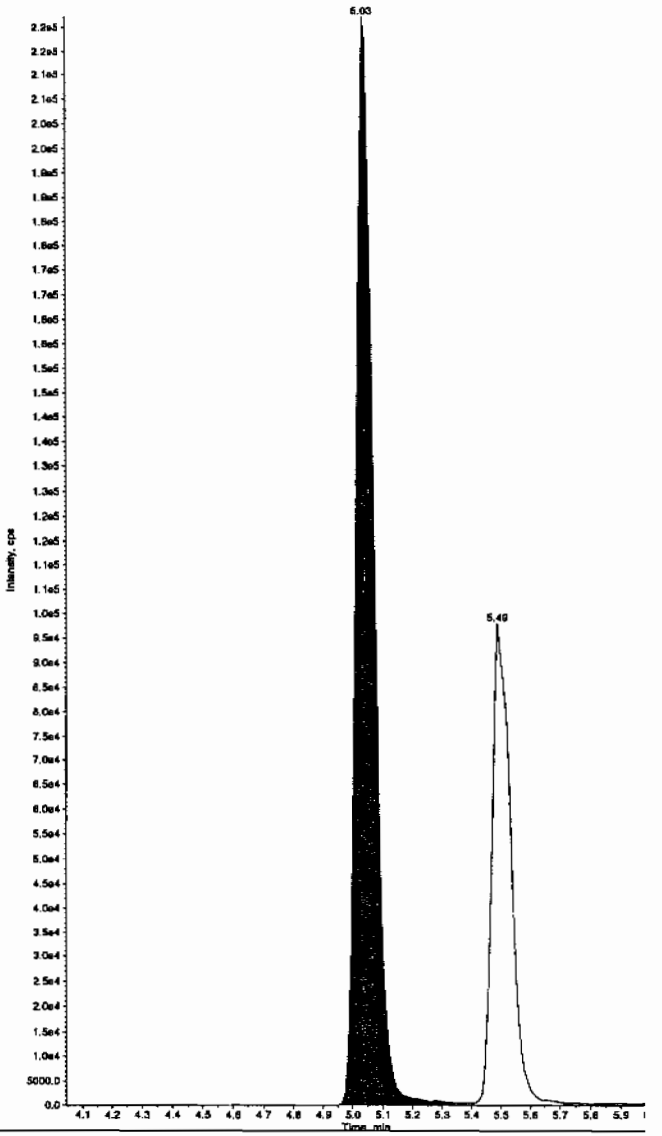

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ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 351. ng/mL
. Date: 2/17/2010
. Time: 6:51:36 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.51 min
Relative RT: No

. Type: Valley
ention Time: 5.49 min
a: 4.34e+005 counts
ght: 97745.071 cps
rt Time: 5.36 min
Time: 5.80 min

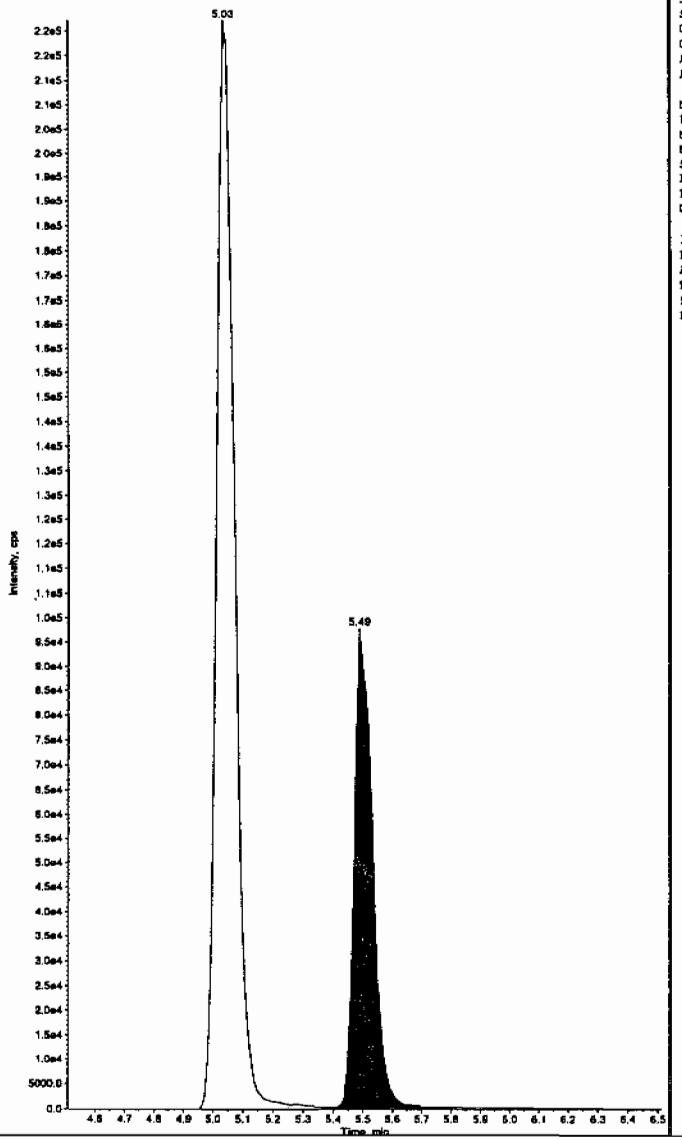

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 6:51:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.09e+007 counts
Height: 2590401.855 cps
Start Time: 10.8 min
End Time: 11.2 min

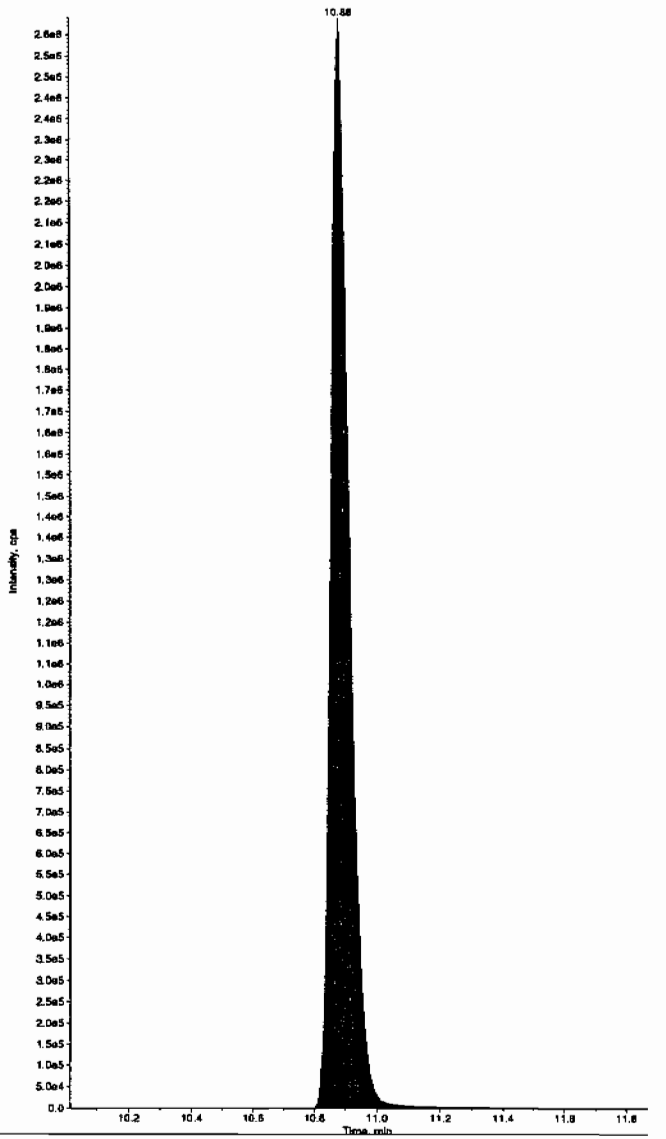

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170039.wiff

Analysis Date: 17-FEB-10 19:23

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	87.9	88	
2,6-Diamino-4-nitrotoluene	100	98.8	99	
3,4-Dinitrotoluene	50	53.1	106	
3,5-Dinitroaniline	100	104	104	
TATB	100	97.2	97	
tris(o-cresyl) phosphate	100	111	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4--nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 2/19/10

ample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170039.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	97.2	ng/mL
. Date:	2/17/2010	
. Time:	7:23:00 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	7.03	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.03	min
a:	1.65e+005	counts
ght:	36261.650	cps
rt Time:	6.86	min
Time:	7.49	min

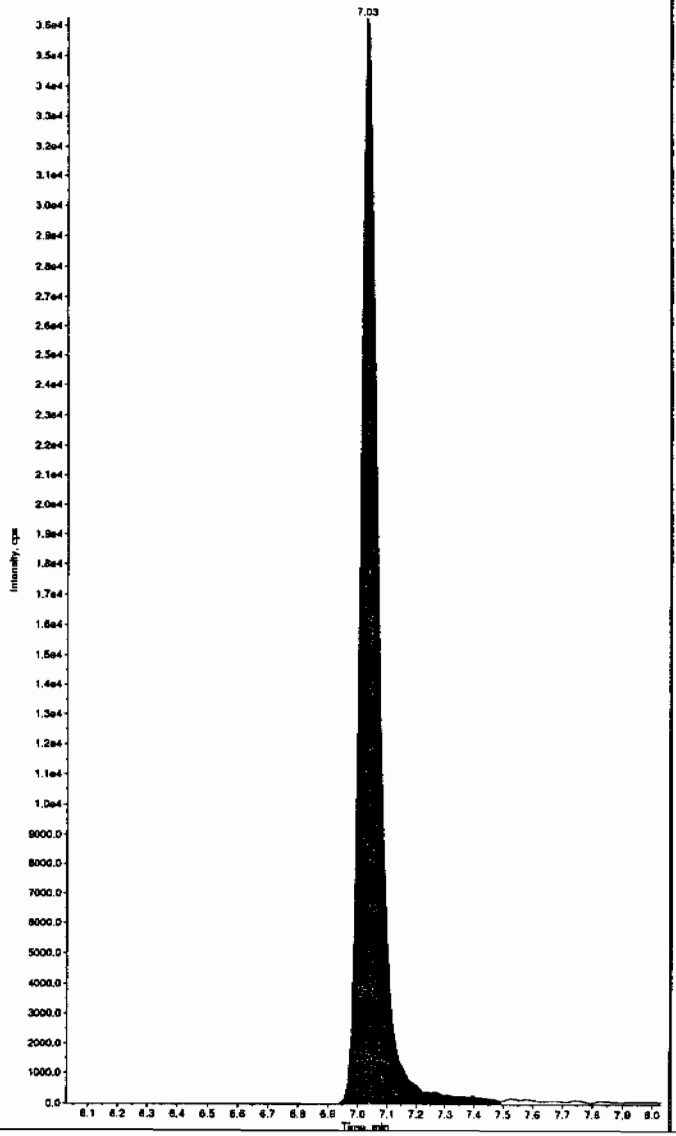

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	104.	ng/mL
Acq. Date:	2/17/2010	
Acq. Time:	7:23:00 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.26	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.27	min
Area:	7.62e+005	counts
Height:	185758.255	cps
Start Time:	8.17	min
End Time:	8.37	min

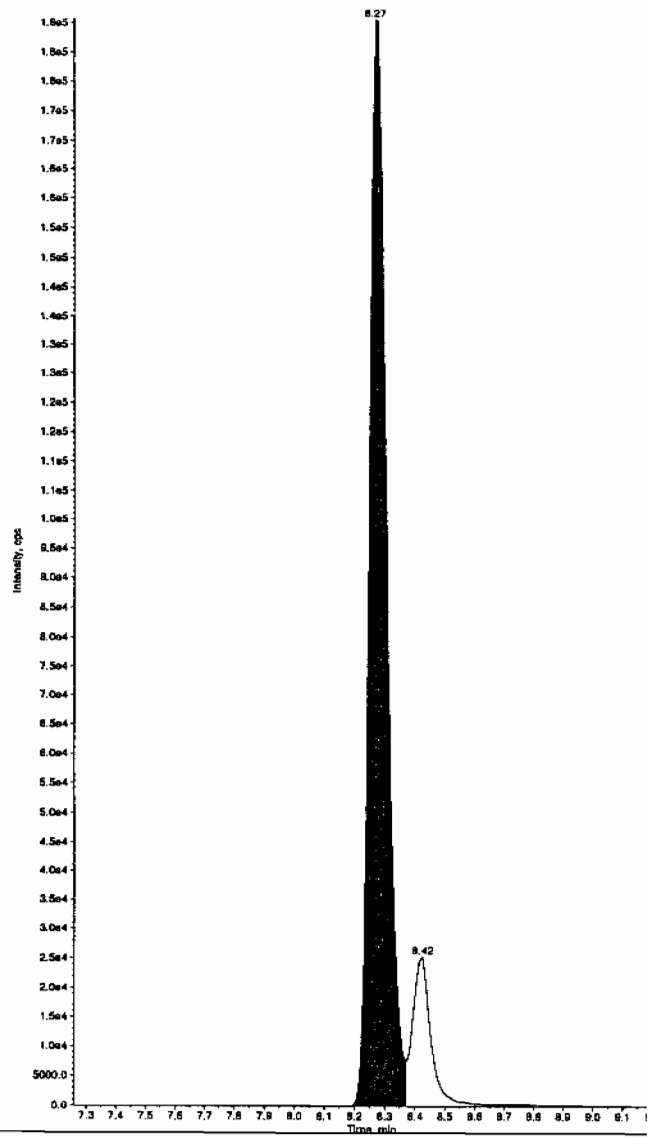

Hnm 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170039.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 50.0 ng/mL
culated Conc: 53.1 ng/mL
. Date: 2/17/2010
. Time: 7:23:00 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

. Type: Valley
ention Time: 8.41 min
a: 7.07e+005 counts
ght: 198498.306 cps
rt Time: 8.34 min
Time: 8.65 min

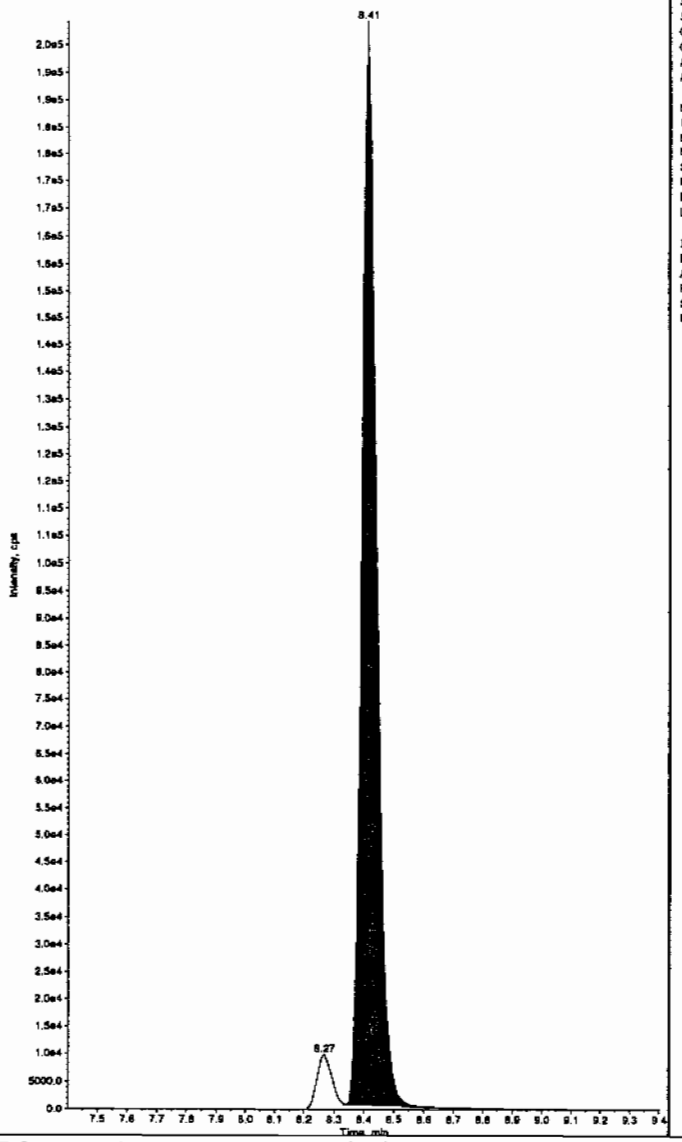

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.8 ng/mL
Acq. Date: 2/17/2010
Acq. Time: 7:23:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 1.95e+005 counts
Height: 48939.819 cps
Start Time: 4.95 min
End Time: 5.35 min

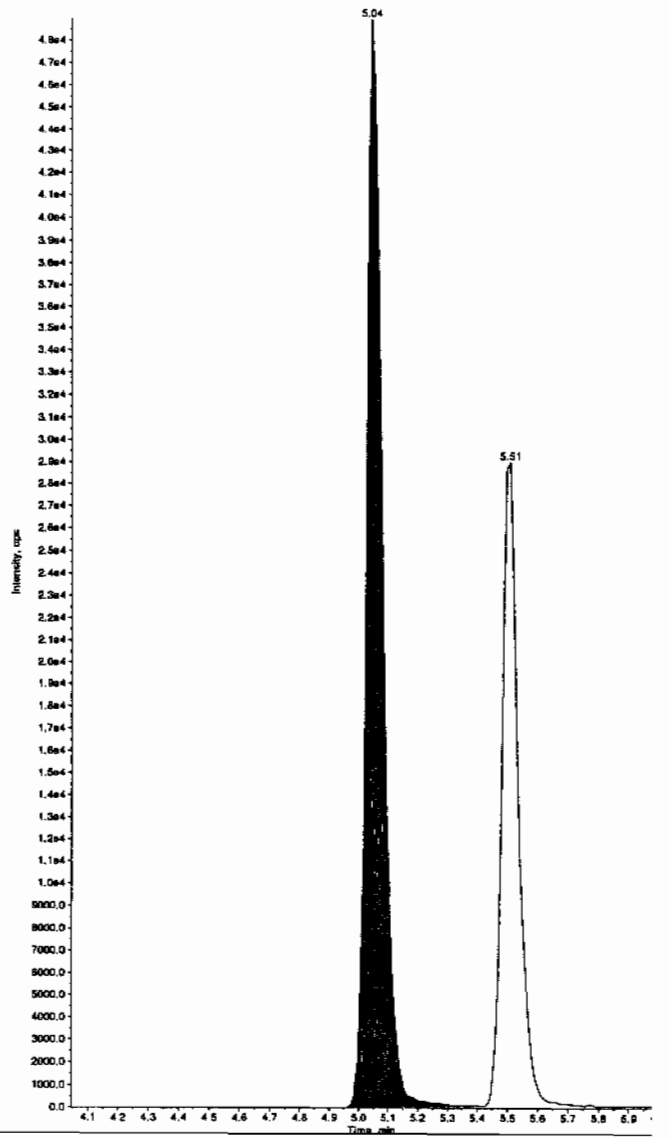

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170039.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
icentration:        100.     ng/mL
culated Conc:       87.9     ng/mL
. Date:         2/17/2010
. Time:         7:23:00 PM

lified:             No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00   cps
. Peak Width:    0.00   sec
othing Width:  3        points
Window:          30.0   sec
ected RT:         5.51  min
Relative RT:     No

. Type:         Valley
ention Time:      5.51  min
a:          1.09e+005   counts
ght:          28936.251 cps
rt Time:          5.42  min
Time:             5.79  min
```

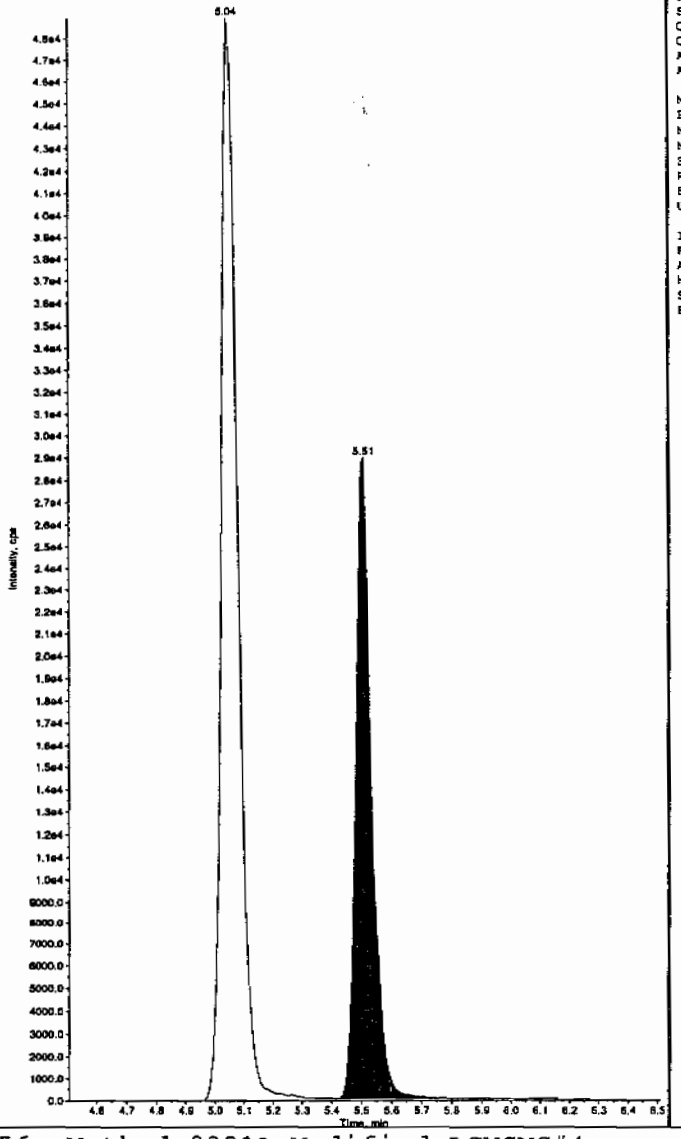

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       111.     ng/mL
Acq. Date:         2/17/2010
Acq. Time:         7:23:00 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:     0.00  sec
Smoothing Width:  3        points
RT Window:           30.0  sec
Expected RT:         10.9  min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.9  min
Area:          2.41e+006   counts
Height:        590095.642  cps
Start Time:          10.8  min
End Time:            11.3  min
```

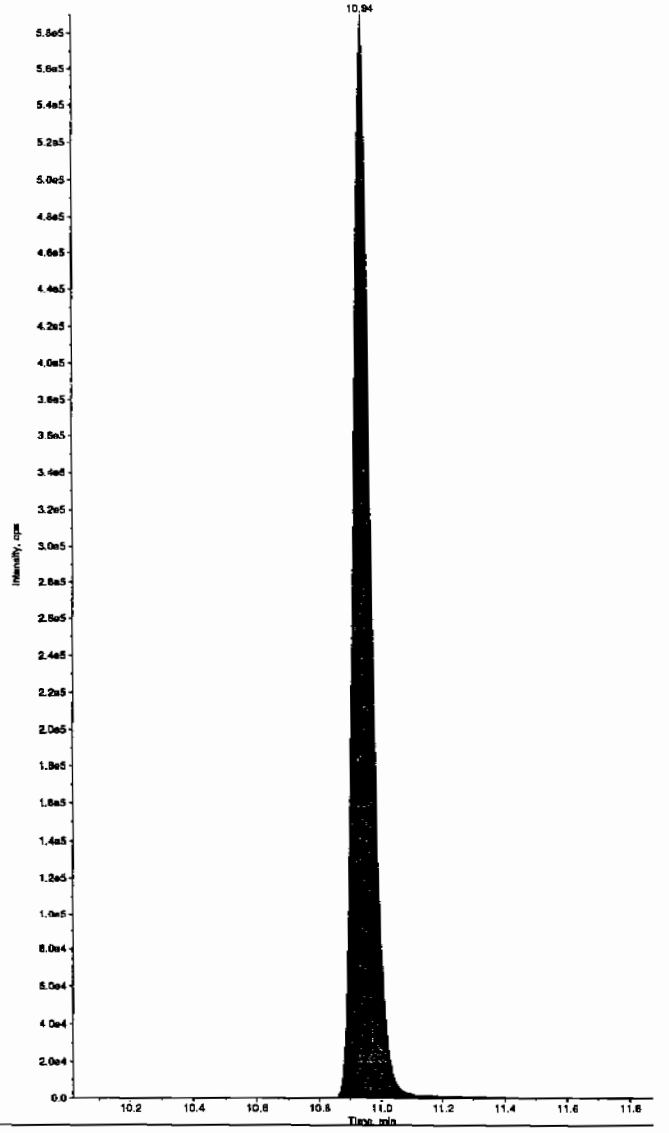

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS02170043.wiff

Analysis Date: 17-FEB-10 20:25

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	500	100	
2,6-Diamino-4-nitrotoluene	500	503	101	
3,4-Dinitrotoluene	250	250	100	
3,5-Dinitroaniline	500	509	102	
TATB	500	483	97	
tris(o-cresyl) phosphate	500	502	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 2/19/10

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
icentration: 500. ng/mL
culated Conc: 483. ng/mL
. Date: 2/17/2010
. Time: 8:25:47 PM

lified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.03 min
Relative RT: No

. Type: Valley
ention Time: 7.04 min
a: 8.21e+005 counts
ght: 160905.807 cps
rt Time: 6.87 min
Time: 7.67 min

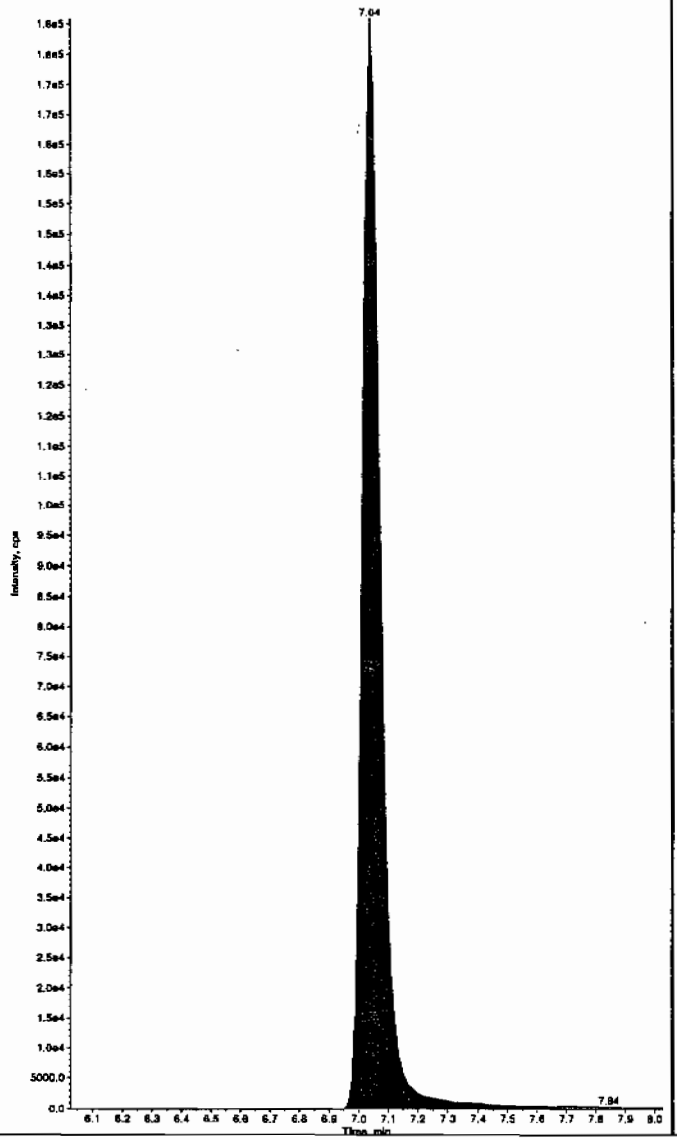

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:25:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.28 min
Area: 3.74e+006 counts
Height: 968300.720 cps
Start Time: 8.19 min
End Time: 8.37 min

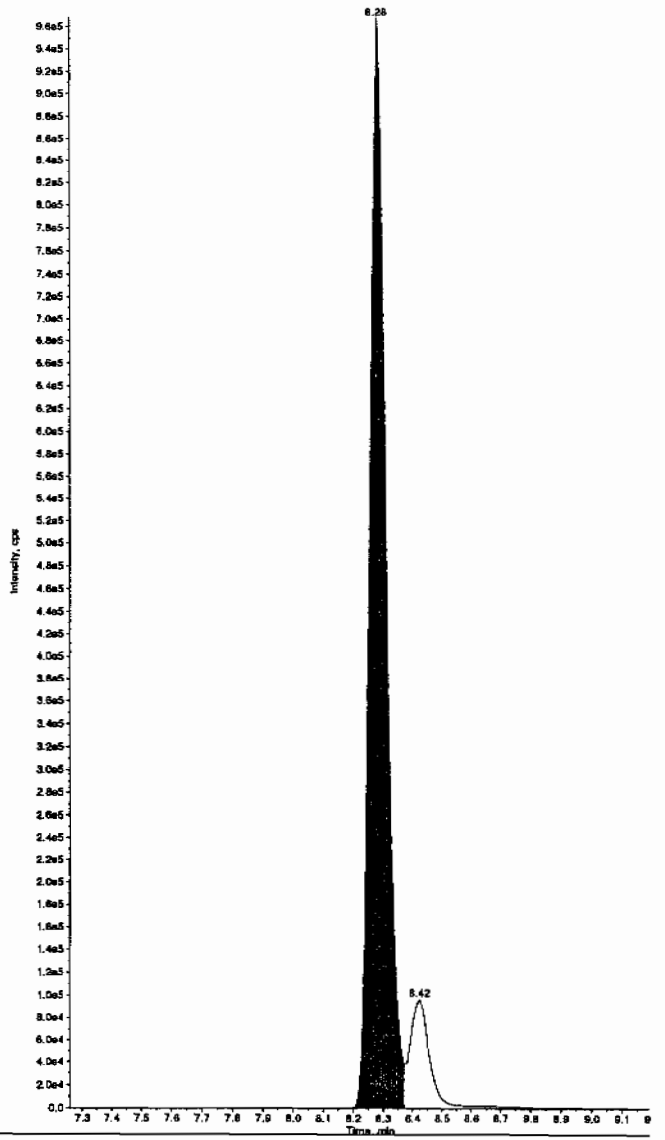

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         250.     ng/mL
culated Conc:       250.     ng/mL
. Date:          2/17/2010
. Time:          8:25:47 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00   sec
oothing Width:  3        points
Window:          15.0    sec
ected RT:         8.40   min
 Relative RT:     No

. Type:          Valley
ention Time:      8.41   min
a:          3.33e+006   counts
ght:          899135.742  cps
rt Time:          8.34   min
 Time:            8.62   min
```

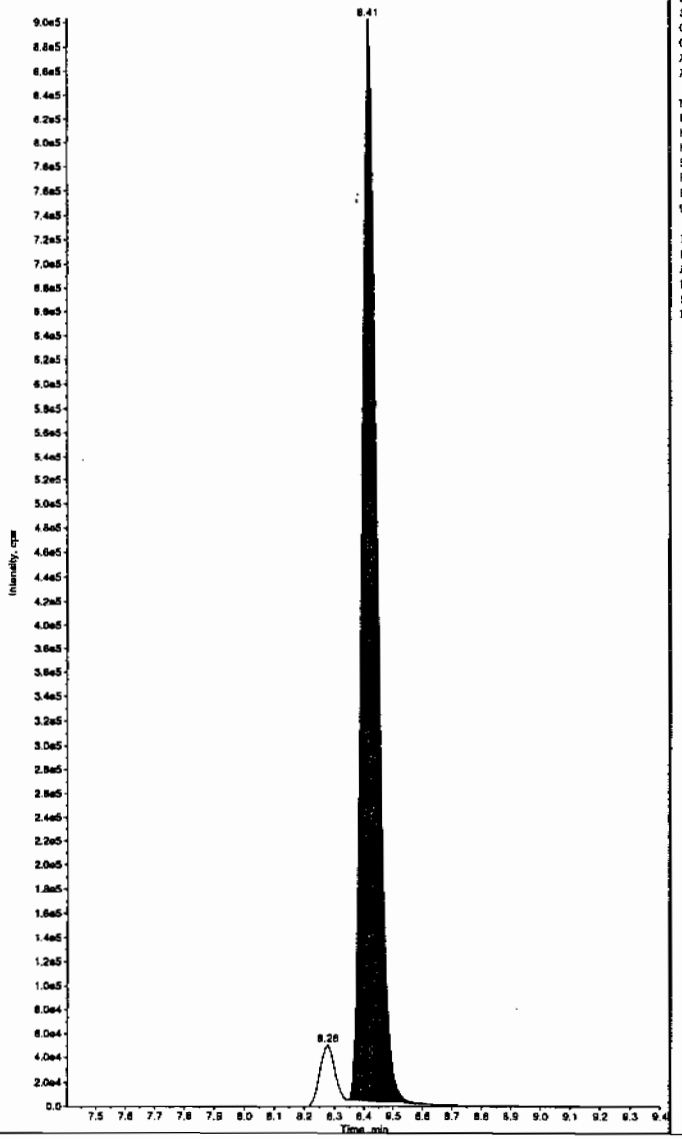

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       503.     ng/mL
Acq. Date:          2/17/2010
Acq. Time:          8:25:47 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:         5.04   min
Use Relative RT:     No

Int. Type:          Valley
Retention Time:      5.04   min
Area:          9.90e+005   counts
Height:          228248.566  cps
Start Time:          4.94   min
End Time:            5.34   min
```

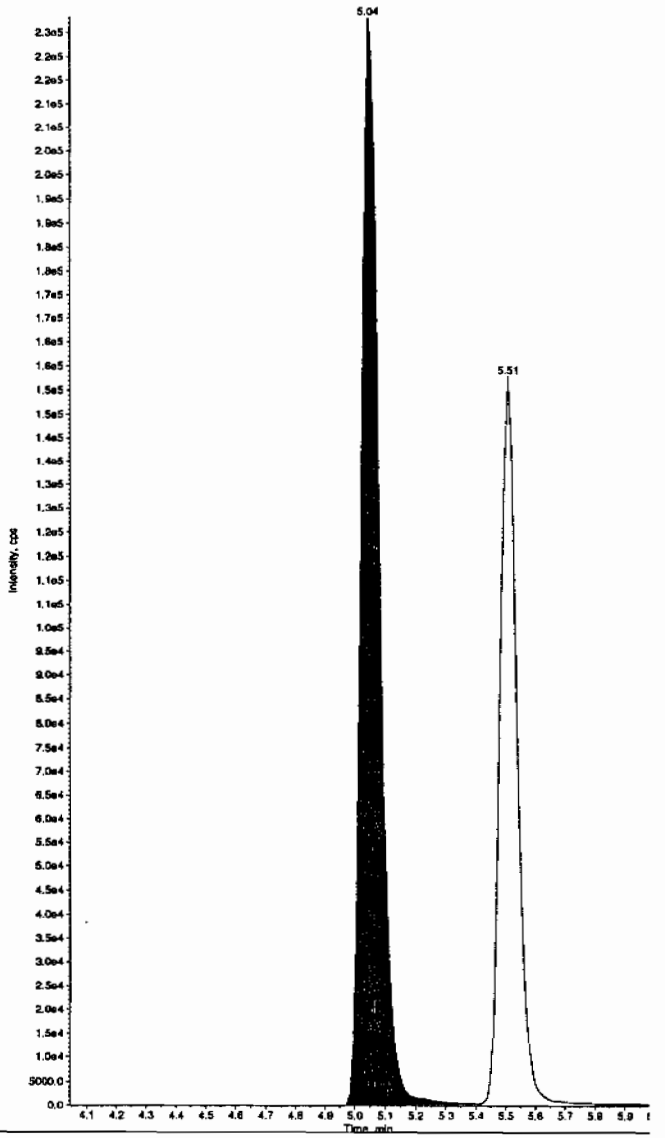

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ample Name: "WXX100217-25CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ıple Index:	1	
ıple Type:	QC	
ıcentration:	500.	ng/mL
.culated Conc:	500.	ng/mL
ı. Date:	2/17/2010	
ı. Time:	8:25:47 PM	
ıified:	No	
ıc. Algorithm:	IntelliQuan - IQA	
ı. Peak Height:	350.00	cps
ı. Peak Width:	0.00	sec
ıothing Width:	3	points
Window:	30.0	sec
ıected RT:	5.51	min
: Relative RT:	No	
. Type:	Valley	
.ention Time:	5.51	min
ıa:	6.18e+005	counts
ght:	152685.837	cps
.rt Time:	5.40	min
l Time:	5.87	min

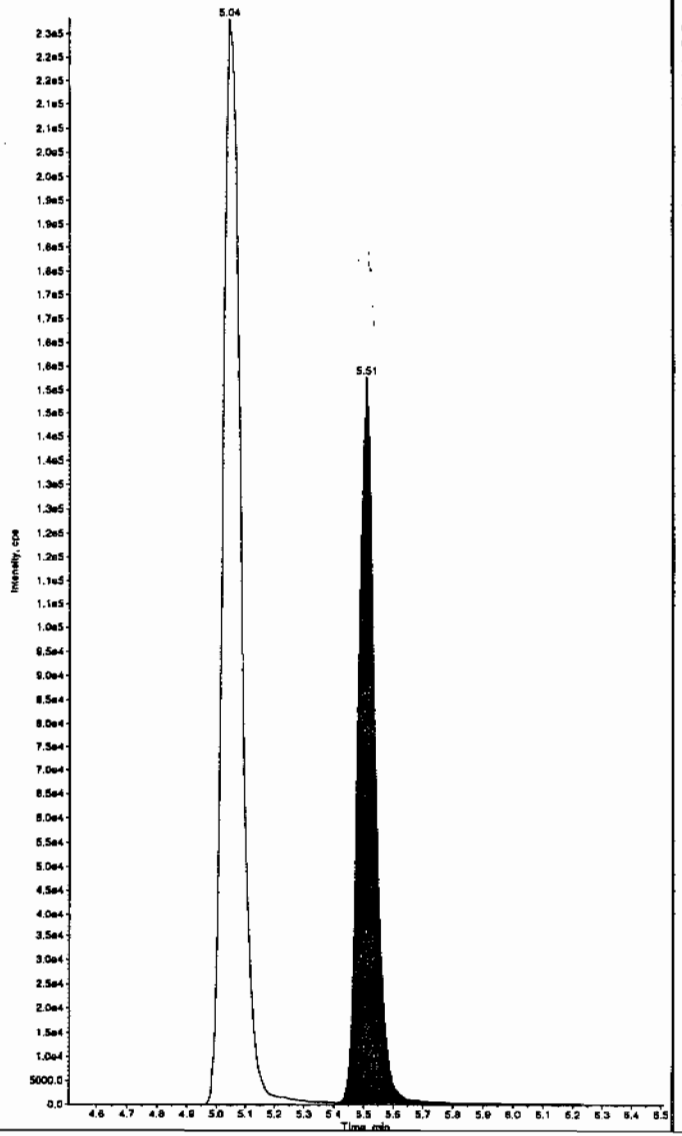

Sample Name: "WXX100217-25CCV" Sample ID: "[1]LER" File: "EXS02170043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	502.	ng/mL
Acq. Date:	2/17/2010	
Acq. Time:	8:25:47 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.09e+007	counts
Height:	2649898.682	cps
Start Time:	10.8	min
End Time:	11.3	min

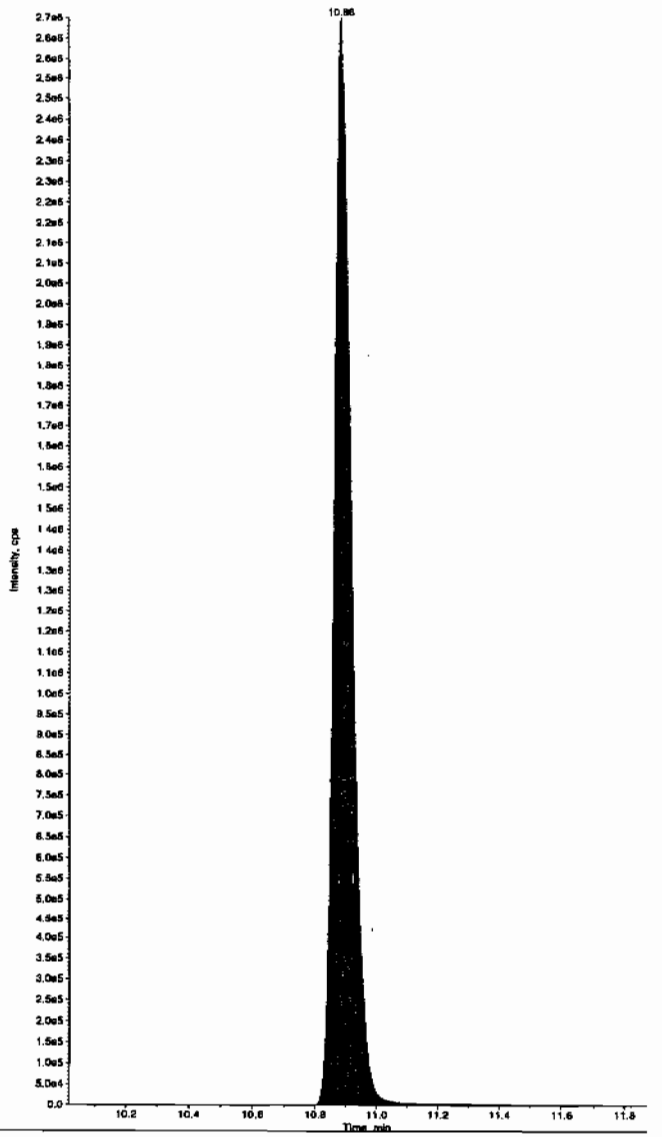

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170045.wiff

Analysis Date: 17-FEB-10 20:57

LCMSMS ID: 1358

Column ID: JSphere ODS--H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	50.3	101	
3,5-Dinitroaniline	100	108	108	
TATB	100	98.9	99	
tris(o-cresyl) phosphate	100	112	112	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/19/10

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 98.9 ng/mL
. Date: 2/17/2010
. Time: 8:57:12 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 7.03 min
Relative RT: No

. Type: Valley
ention Time: 7.03 min
a: 1.68e+005 counts
ght: 37732.765 cps
rt Time: 6.93 min
Time: 7.68 min

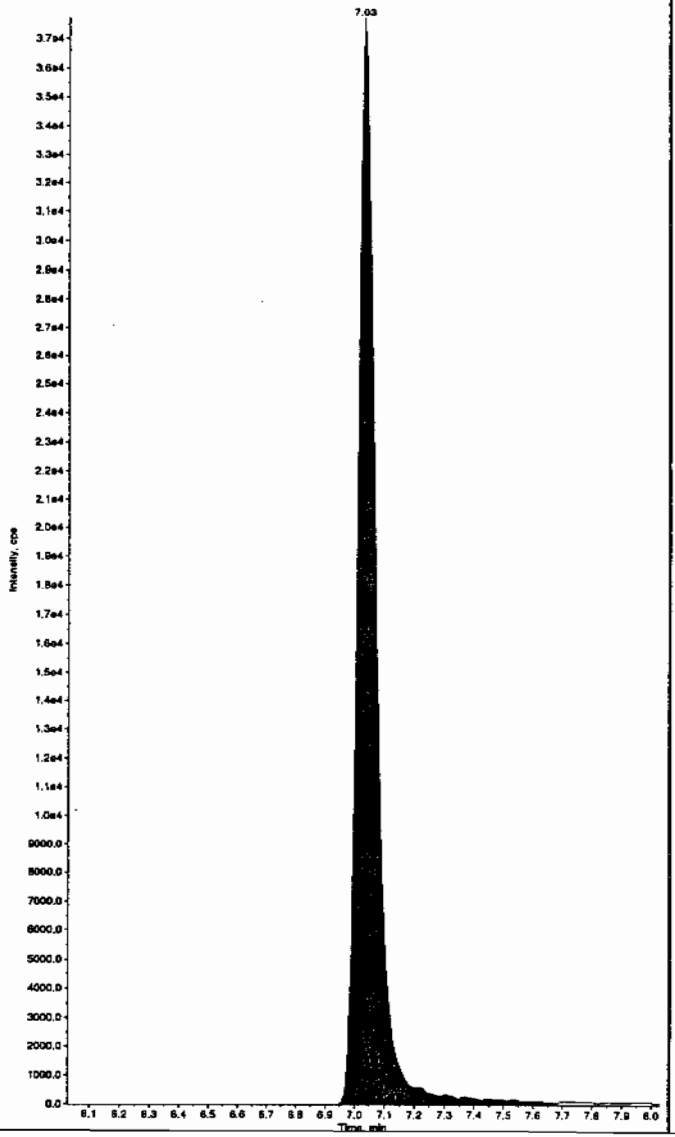

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 2/17/2010
Acq. Time: 8:57:12 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 7.94e+005 counts
Height: 197506.607 cps
Start Time: 8.17 min
End Time: 8.36 min

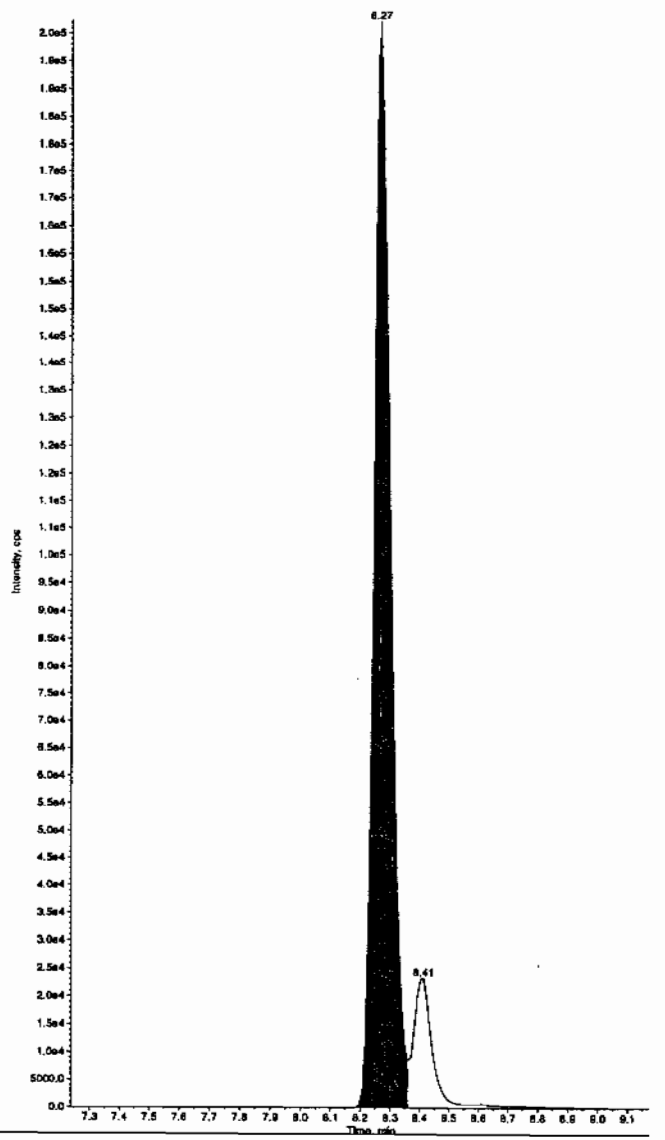

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
centration:      50.0    ng/mL
culated Conc:    50.3    ng/mL
. Date:       2/17/2010
. Time:       8:57:12 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00   cps
. Peak Width:    0.00   sec
oothing Width:  3       points
Window:         15.0    sec
ected RT:        8.40   min
 Relative RT:    No

. Type:        Valley
ention Time:     8.40   min
a:          6.71e+005   counts
ght:         188689.957  cps
rt Time:         8.33   min
 Time:           8.58   min
```

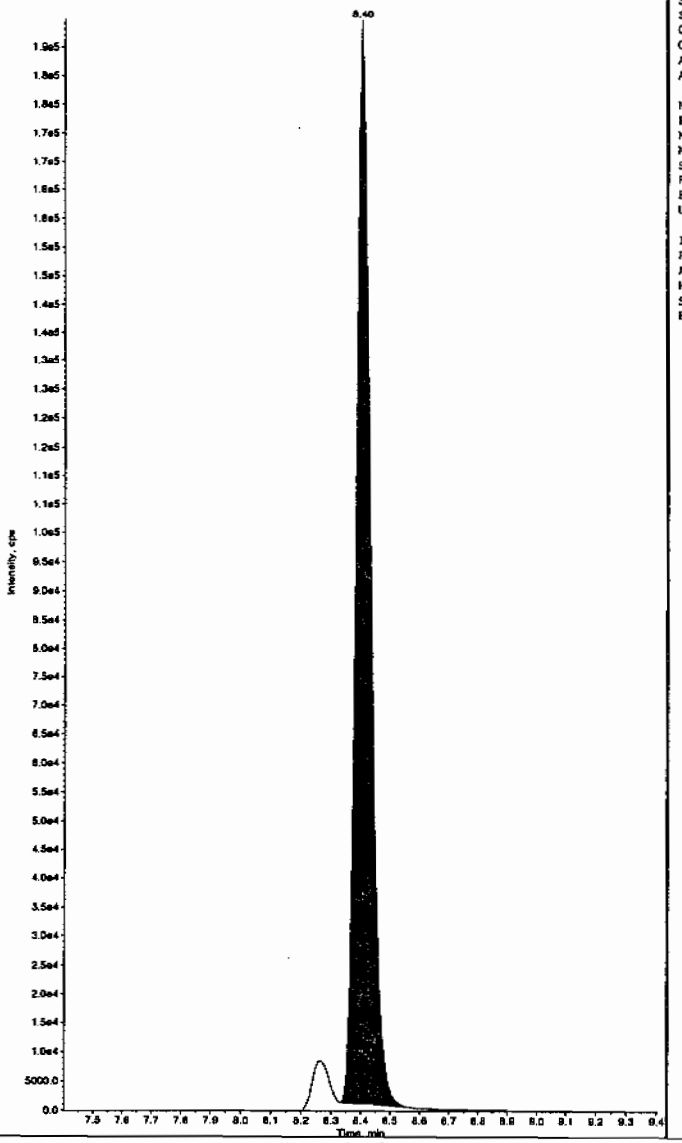

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.    ng/mL
Calculated Conc:    109.    ng/mL
Acq. Date:       2/17/2010
Acq. Time:       8:57:12 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.04   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.05   min
Area:         2.14e+005   counts
Height:        53865.376  cps
Start Time:         4.95   min
End Time:           5.31   min
```

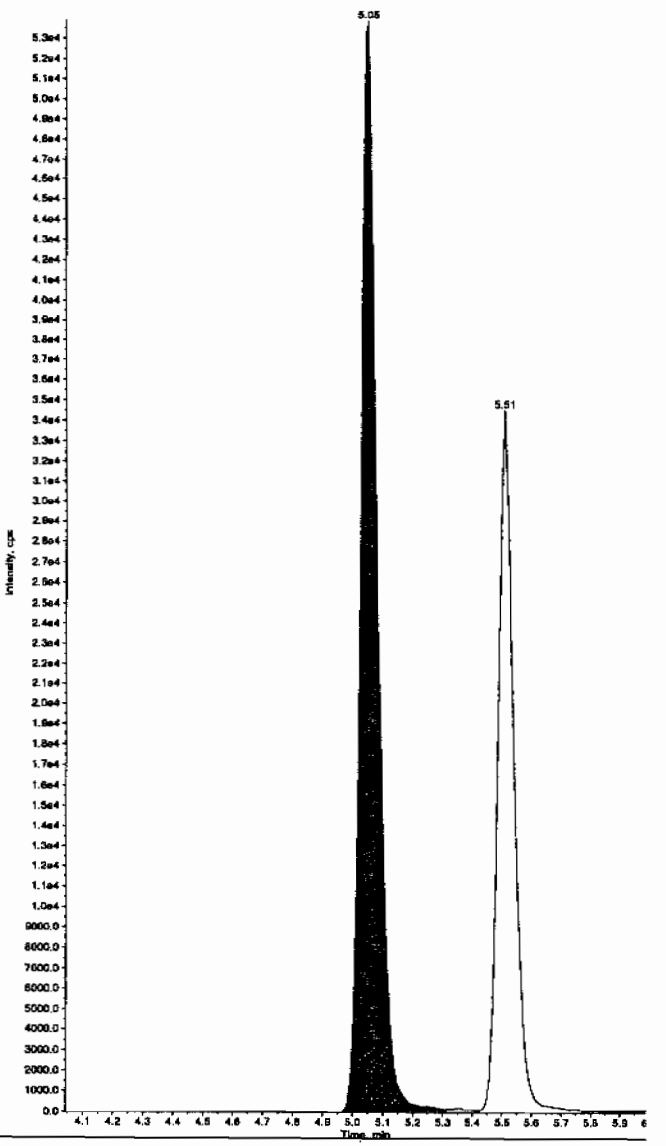

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
centration:       100.     ng/mL
culated Conc:     101.     ng/mL
. Date:        2/17/2010
. Time:        8:57:12 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:          30.0    sec
ected RT:         5.51   min
 Relative RT:     No

. Type:         Valley
ention Time:      5.51   min
a:          1.25e+005   counts
ght:          34412.647 cps
rt Time:          5.43   min
 Time:            5.78   min
```

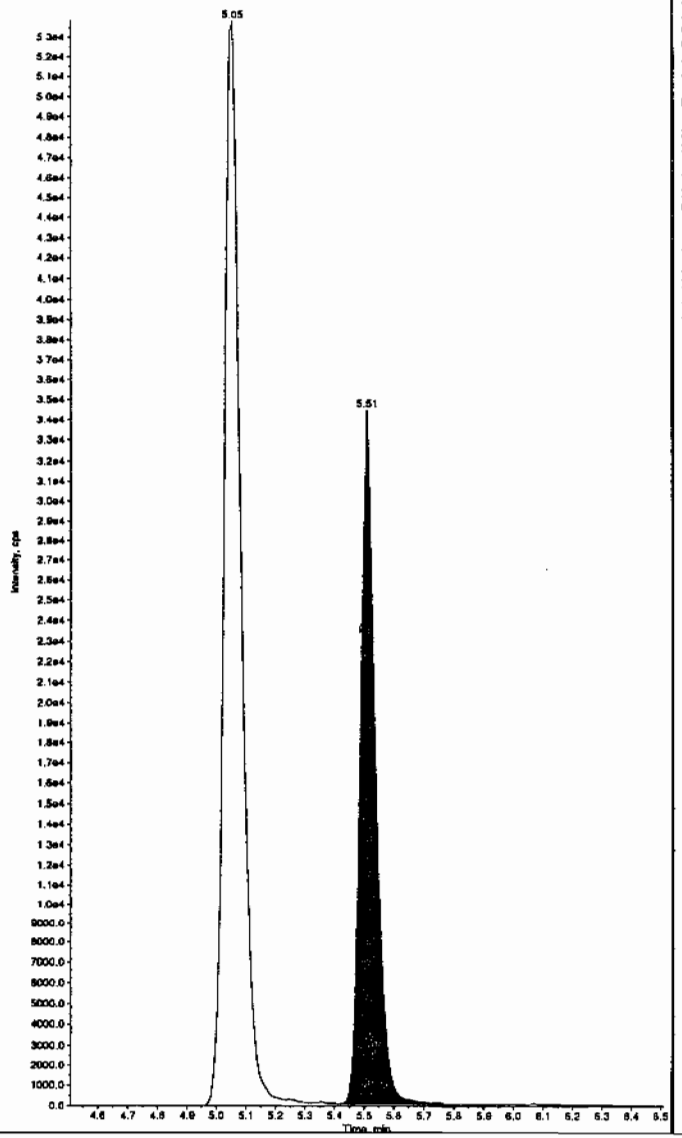

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     112.     ng/mL
Acq. Date:        2/17/2010
Acq. Time:        8:57:12 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.9   min
Area:          2.44e+006   counts
Height:        610908.875  cps
Start Time:          10.8   min
End Time:            11.3   min
```

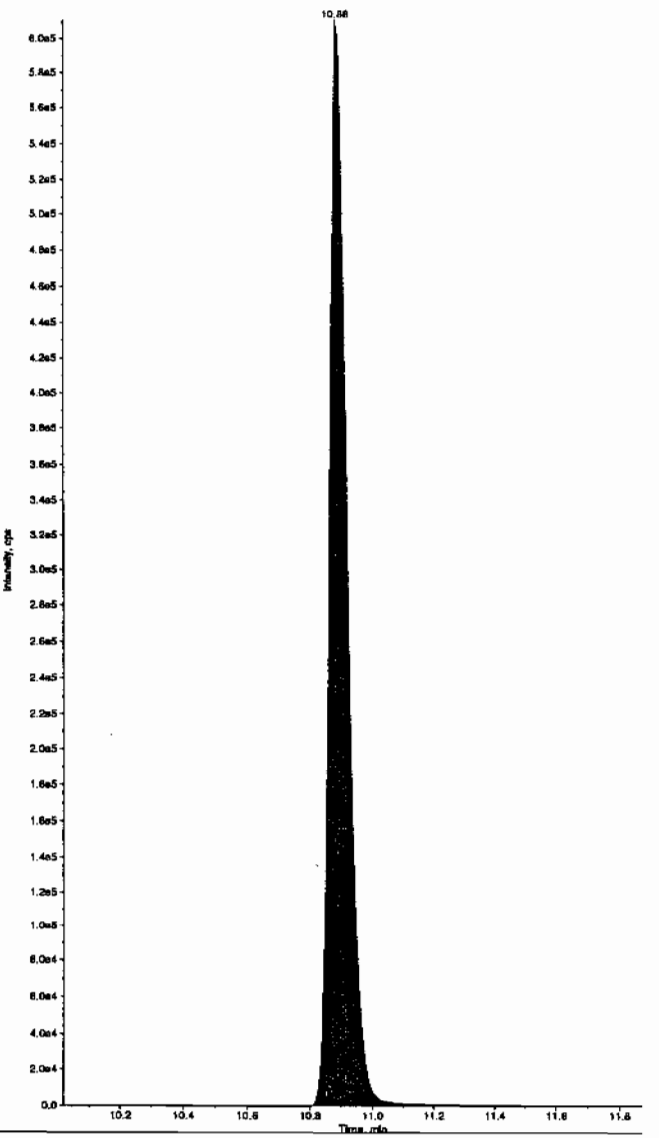

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170056.wiff

Analysis Date: 17-FEB-10 23:49

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	551	110	
2,6-Diamino-4-nitrotoluene	500	526	105	
3,4-Dinitrotoluene	250	242	97	
3,5-Dinitroaniline	500	470	94	
TATB	500	477	96	
tris(o-cresyl) phosphate	500	504	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80--120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcr 2/19/10

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170056.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	477.	ng/mL
q. Date:	2/17/2010	
q. Time:	11:49:58 PM	
ified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	7.03	min
Relative RT:	No	
. Type:	Valley	
tention Time:	7.03	min
ea:	8.10e+005	counts
ight:	180553.406	cps
art Time:	6.93	min
d Time:	7.60	min

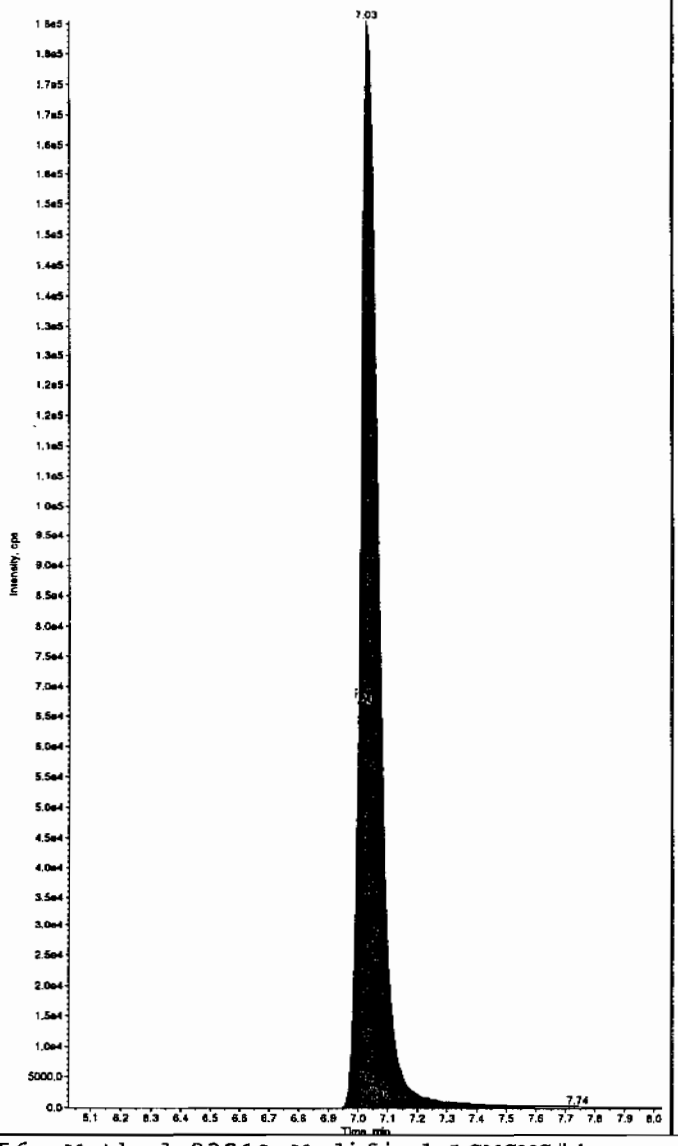

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170056.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	470.	ng/mL
Acq. Date:	2/17/2010	
Acq. Time:	11:49:58 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.26	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.27	min
Area:	3.46e+006	counts
Height:	882102.539	cps
Start Time:	8.17	min
End Time:	8.37	min

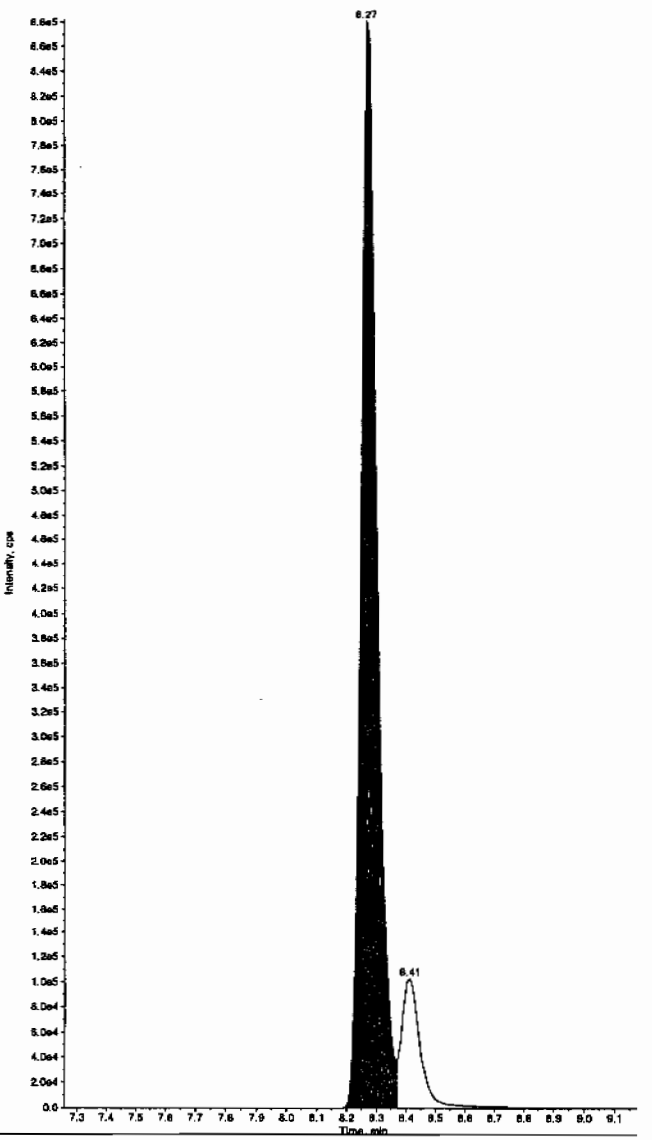

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Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170056.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	250. ng/mL
Calculated Conc:	242. ng/mL
Acq. Date:	2/17/2010
Acq. Time:	11:49:58 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1460.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.40 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.40 min
Area:	3.22e+006 counts
Height:	842500.488 cps
Start Time:	8.34 min
End Time:	8.59 min

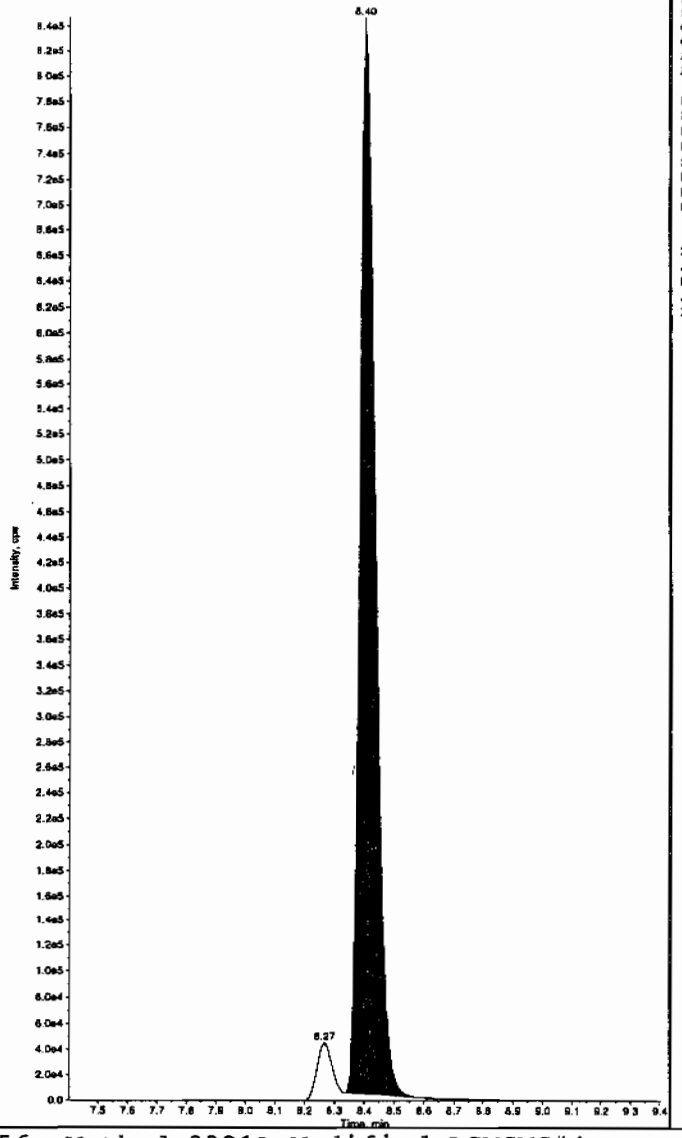

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170056.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	526. ng/mL
Acq. Date:	2/17/2010
Acq. Time:	11:49:58 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.04 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.05 min
Area:	1.04e+006 counts
Height:	233768.555 cps
Start Time:	4.94 min
End Time:	5.34 min

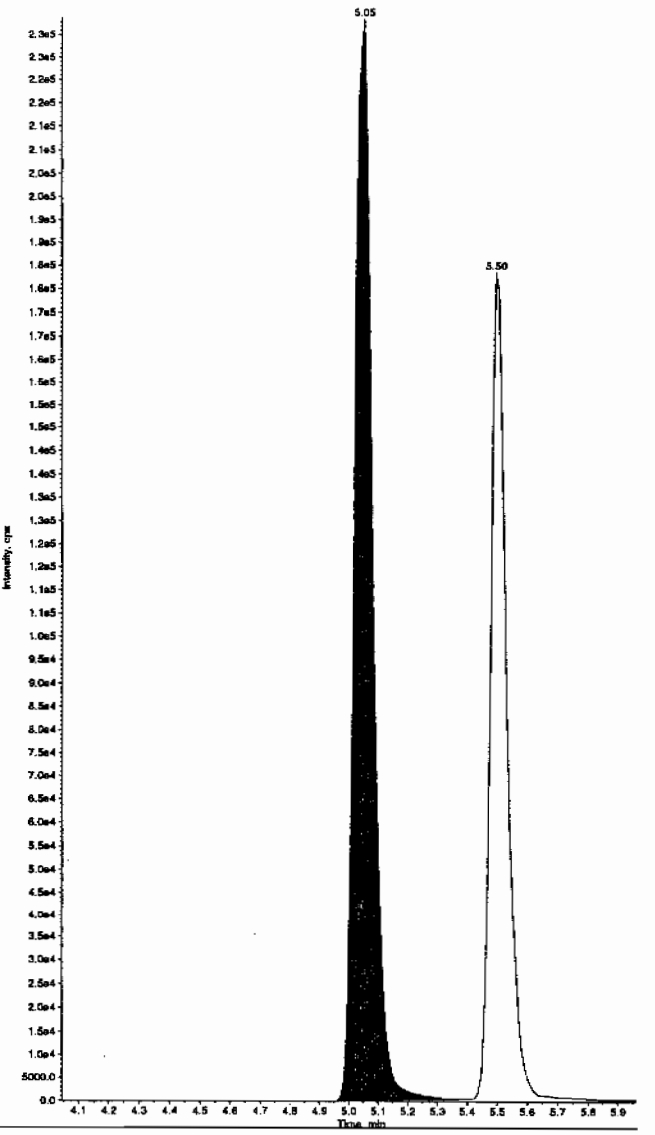

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ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170056.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

ple Index:	1	
ple Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	551.	ng/mL
. Date:	2/17/2010	
. Time:	11:49:58 PM	
lified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.51	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.50	min
a:	6.81e+005	counts
ght:	178639.633	cps
rt Time:	5.41	min
Time:	5.98	min

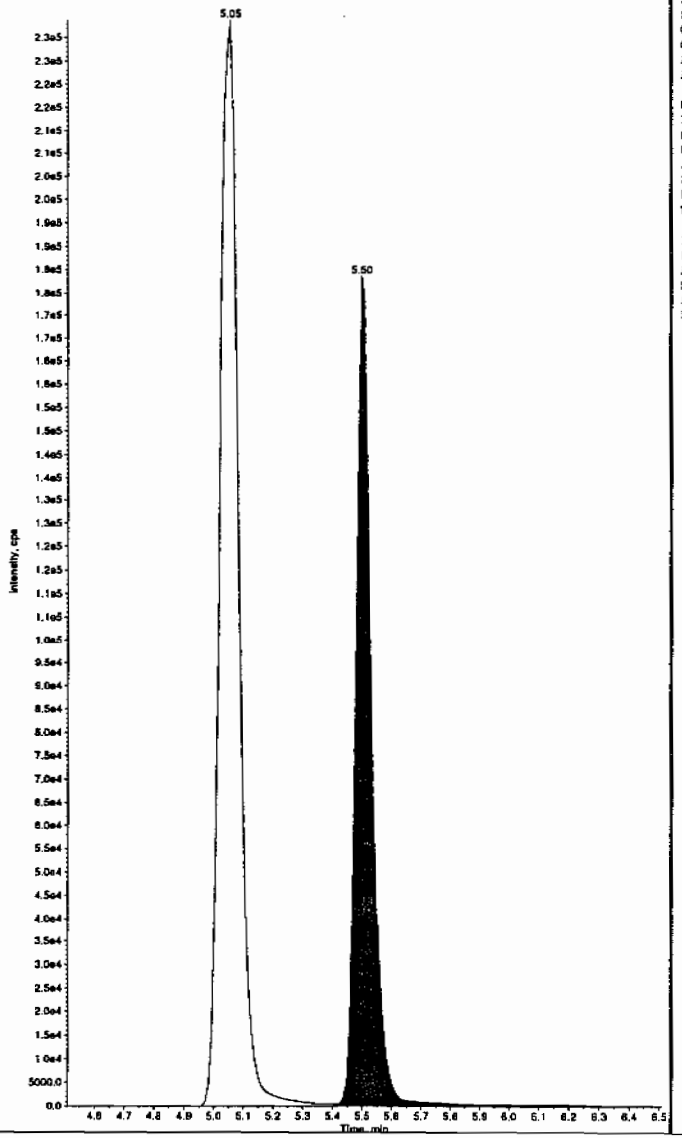

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170056.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	504.	ng/mL
Acq. Date:	2/17/2010	
Acq. Time:	11:49:58 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.10e+007	counts
Height:	2565485.352	cps
Start Time:	10.8	min
End Time:	11.2	min

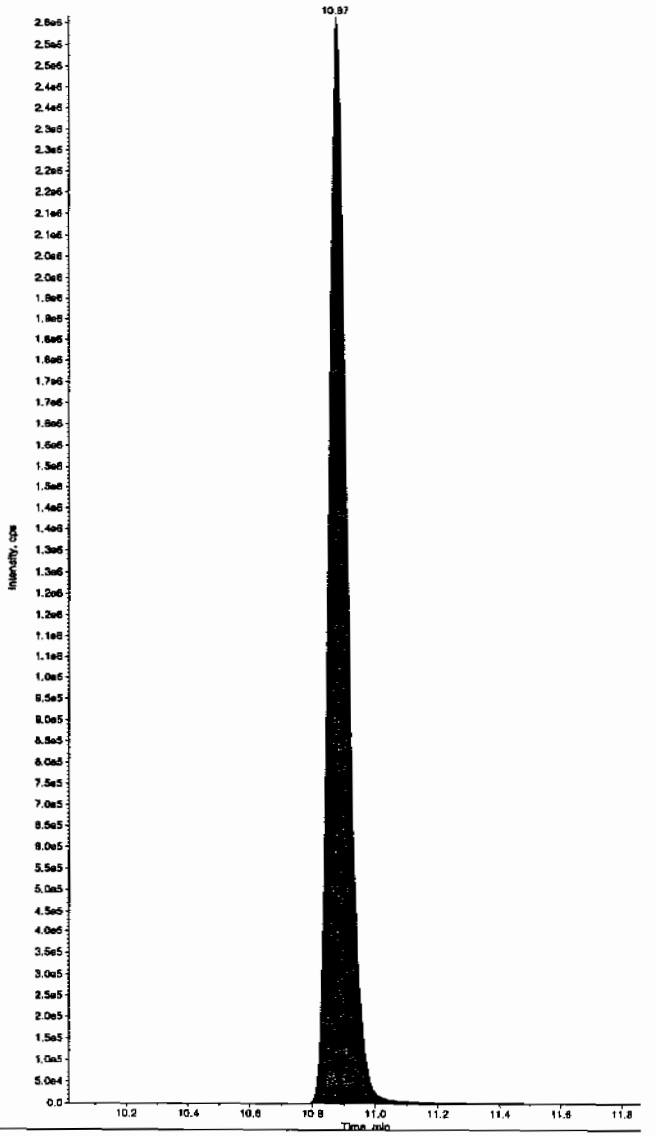

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170058.wiff

Analysis Date: 18-FEB-10 00:21

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	102	102	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	53.4	107	
3,5-Dinitroaniline	100	104	104	
TATB	100	95.1	95	
tris(o-cresyl) phosphate	100	111	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170058.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
ncentration: 100. ng/mL
lculated Conc: 95.1 ng/mL
q. Date: 2/18/2010
q. Time: 12:21:23 AM

ified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.03 min
e Relative RT: No

t. Type: Valley
tention Time: 7.05 min
ea: 1.61e+005 counts
ight: 35665.794 cps
art Time: 6.91 min
d Time: 7.47 min

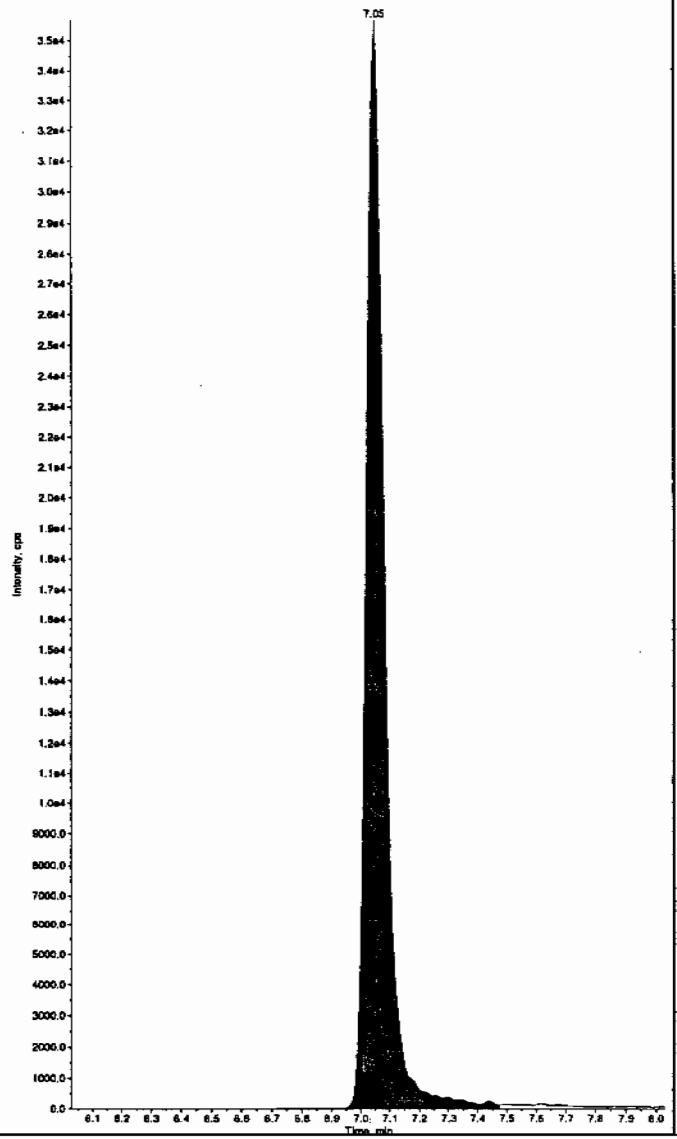

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170058.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:21:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.28 min
Area: 7.62e+005 counts
Height: 195450.287 cps
Start Time: 8.17 min
End Time: 8.37 min

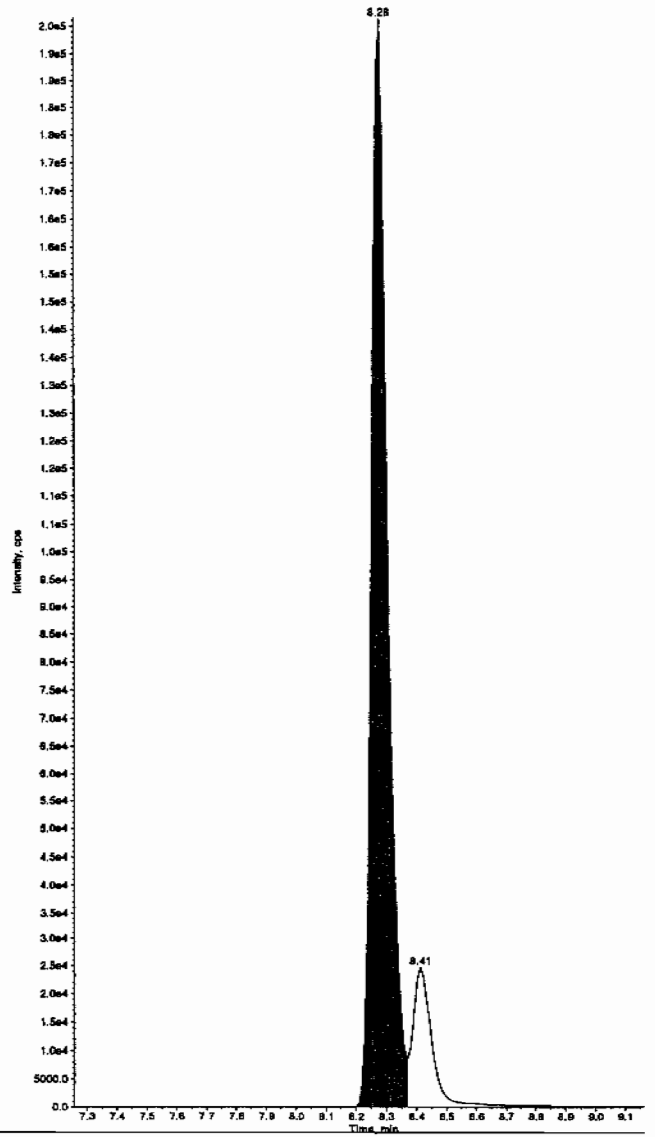

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Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170058.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 50.0 ng/mL
lculated Conc: 53.4 ng/mL
. Date: 2/18/2010
. Time: 12:21:23 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

. Type: Valley
ention Time: 8.40 min
a: 7.11e+005 counts
ight: 200507.797 cps
rt Time: 8.34 min
Time: 8.65 min

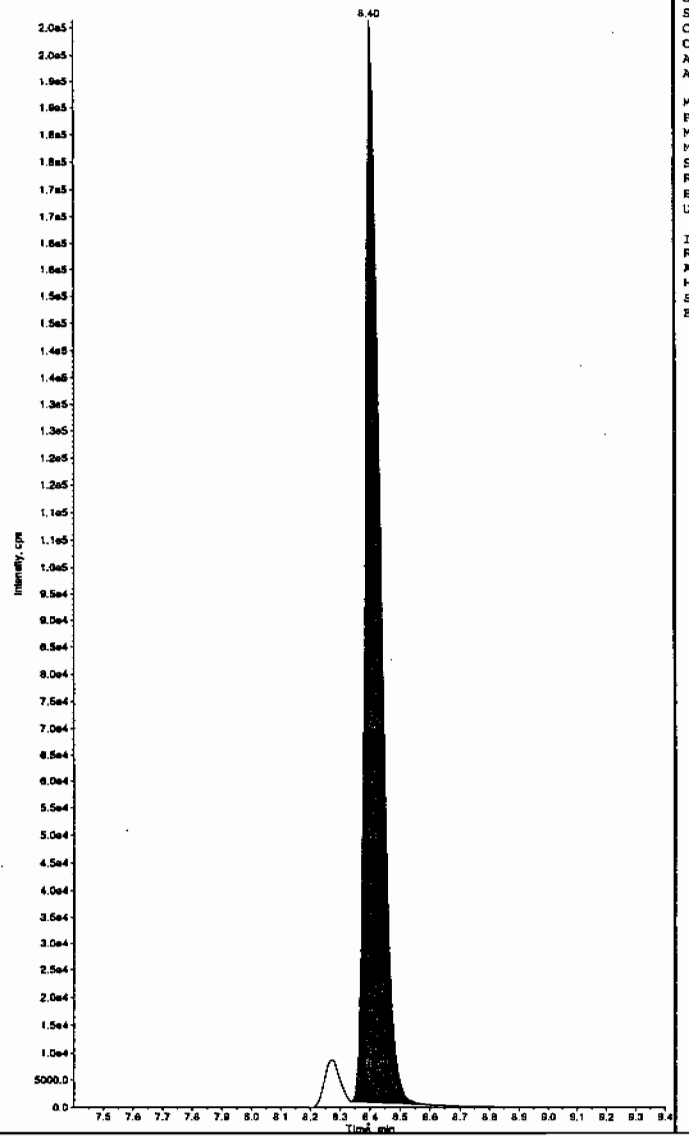

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170058.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:21:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 2.14e+005 counts
Height: 51121.384 cps
Start Time: 4.95 min
End Time: 5.35 min

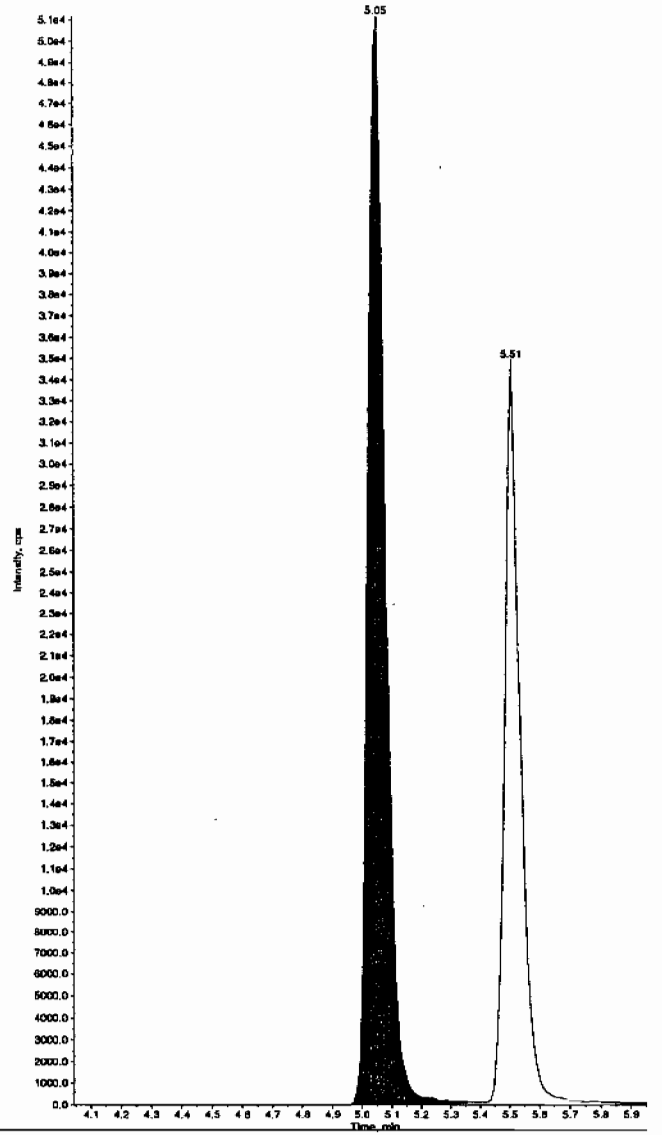

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ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170058.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 102. ng/mL
. Date: 2/18/2010
. Time: 12:21:23 AM

ified: No
c. Algoritha: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.51 min
Relative RT: No

. Type: Valley
ention Time: 5.51 min
a: 1.26e+005 counts
ght: 34795.456 cps
rt Time: 5.42 min
Time: 5.76 min

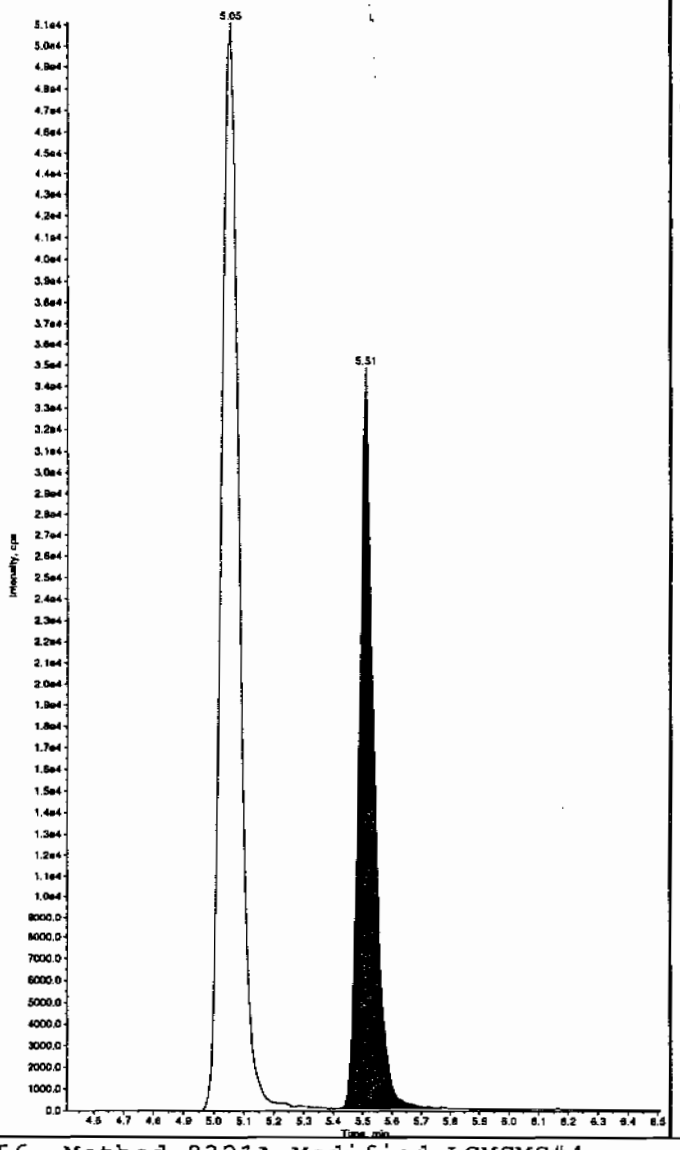

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170058.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:21:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.43e+006 counts
Height: 599281.067 cps
Start Time: 10.8 min
End Time: 11.2 min

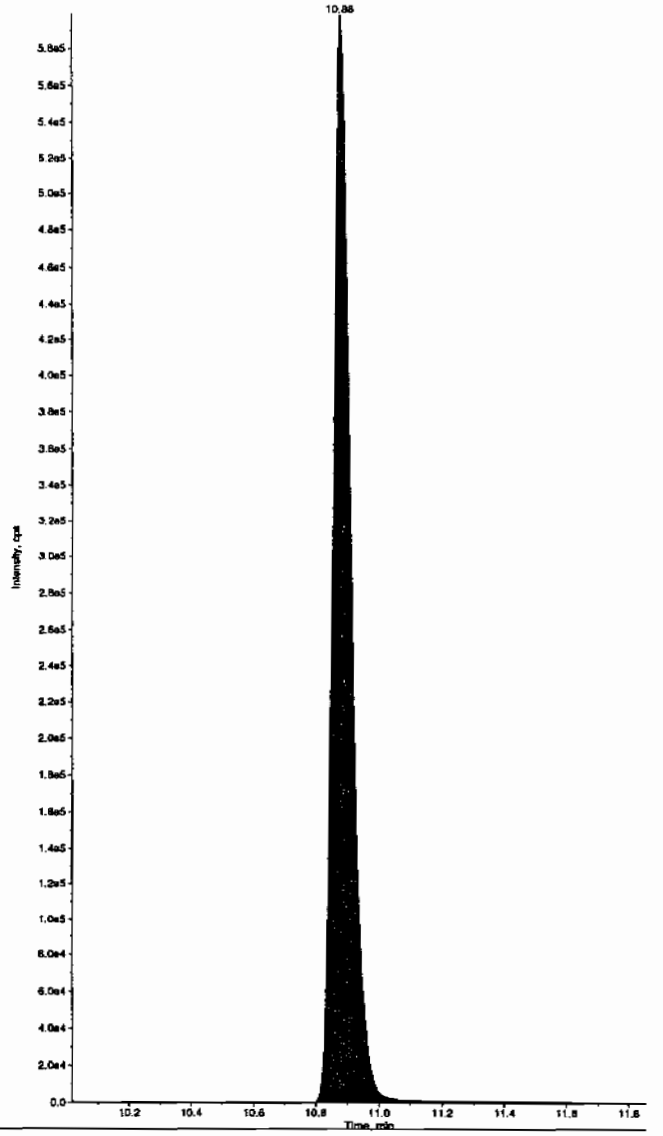

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1394

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXS02170069.wiff **Analysis Date:** 18–FEB–10 03:14

LCMSMS ID: 1358 **Column ID:** JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	513	103	
2,6–Diamino–4–nitrotoluene	500	510	102	
3,4–Dinitrotoluene	250	240	96	
3,5–Dinitroaniline	500	485	97	
TATB	500	477	95	
tris(o–cresyl) phosphate	500	503	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Clan 2/19/10

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170069.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: "

ample Index:	1
ample Type:	QC
ncentration:	500. ng/mL
lculated Conc:	477. ng/mL
q. Date:	2/18/2010
q. Time:	3:14:06 AM
ified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.03 min
Relative RT:	No
t. Type:	Valley
etention Time:	7.04 min
ea:	8.09e+005 counts
ght:	177810.471 cps
art Time:	6.91 min
d Time:	7.74 min

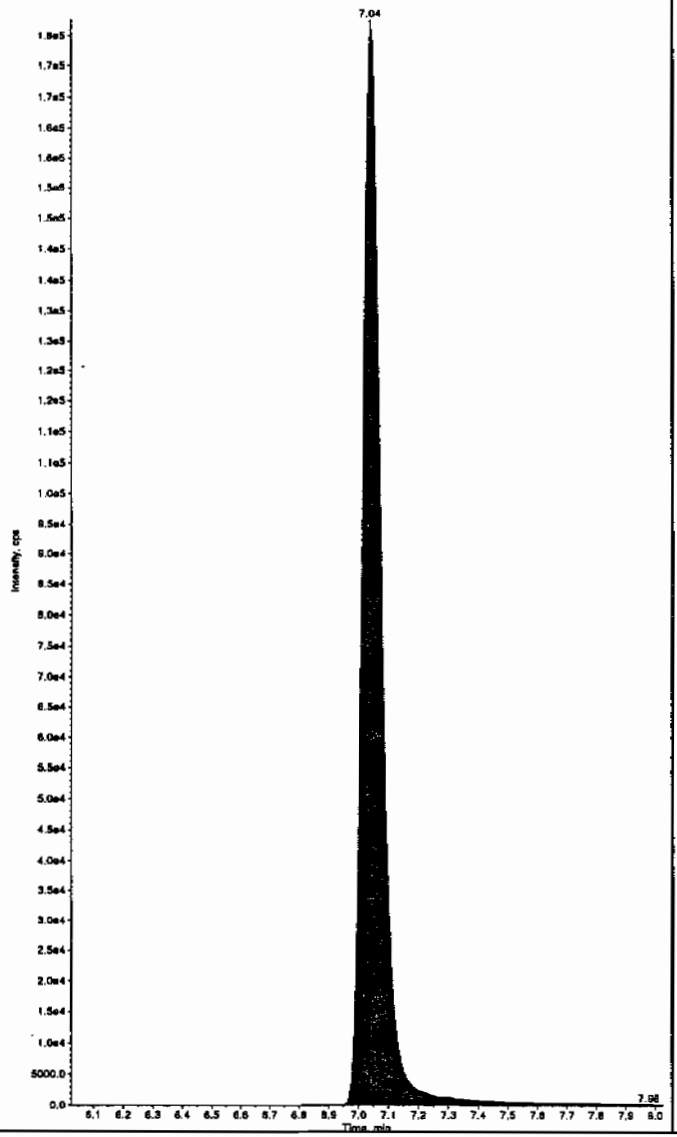

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170069.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	485. ng/mL
Acq. Date:	2/18/2010
Acq. Time:	3:14:06 AM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.21 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.27 min
Area:	3.57e+006 counts
Height:	858460.327 cps
Start Time:	8.17 min
End Time:	8.36 min

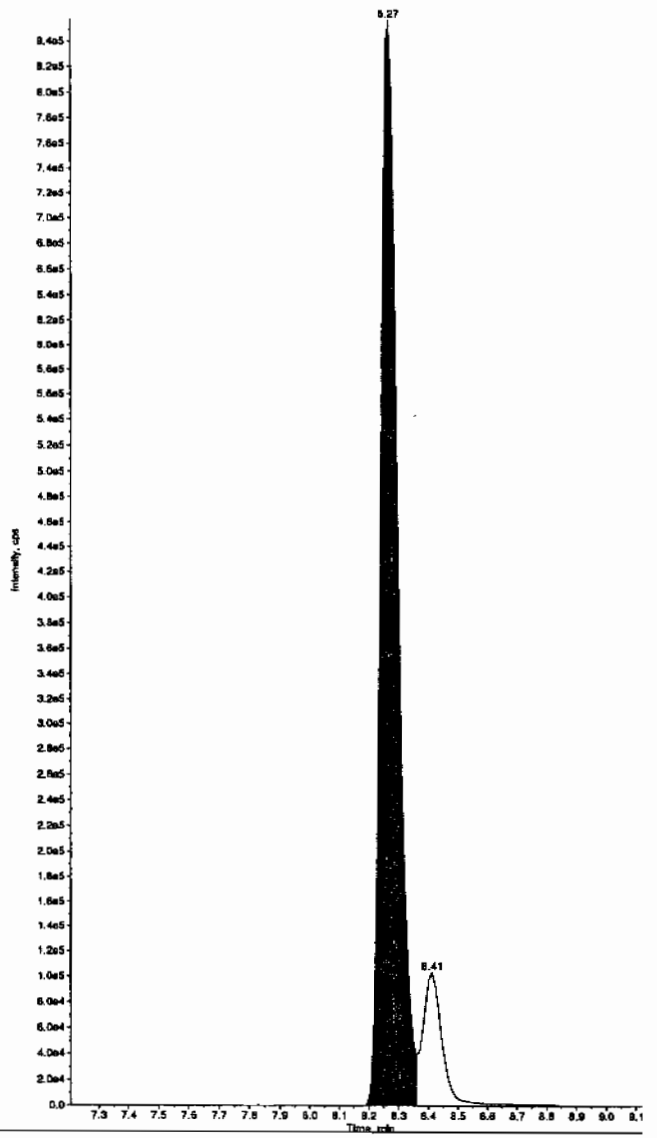

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Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170069.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 250. ng/mL
lculated Conc: 240. ng/mL
q. Date: 2/18/2010
q. Time: 3:14:06 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.40 min
e Relative RT: No

t. Type: Valley
tention Time: 8.40 min
ea: 3.19e+006 counts
ight: 818028.687 cps
art Time: 8.33 min
d Time: 8.63 min

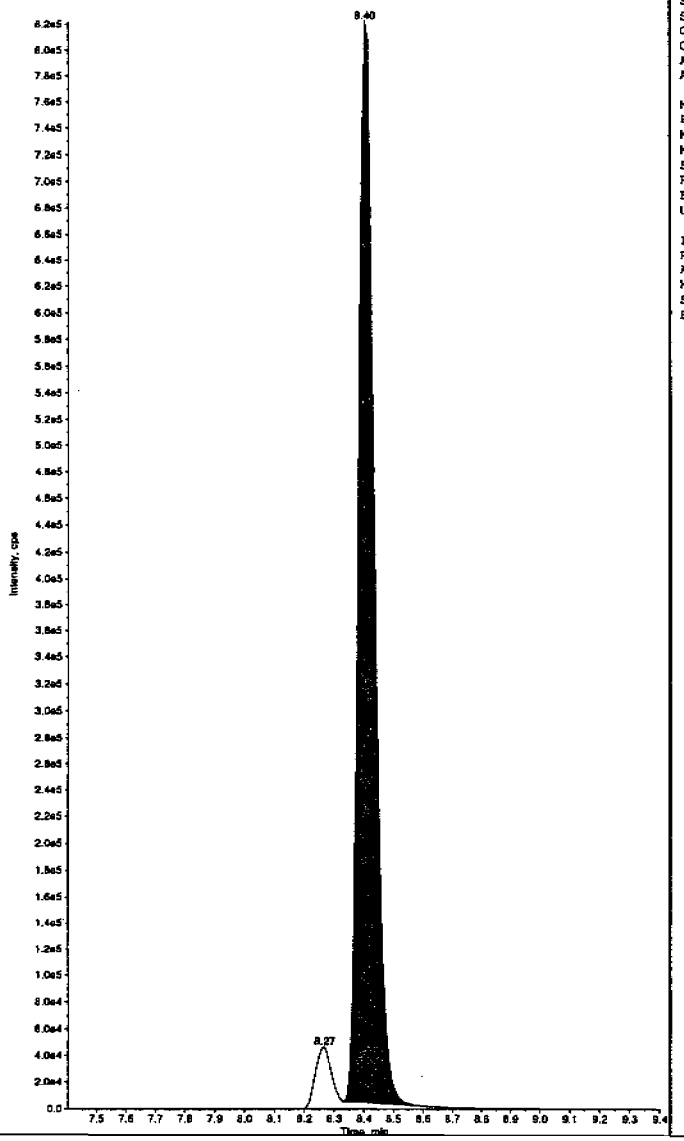

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170069.wiff"
Peak Name: "26-Diamino-4-Nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 510. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:14:06 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 1.00e+006 counts
Height: 228814.056 cps
Start Time: 4.95 min
End Time: 5.29 min

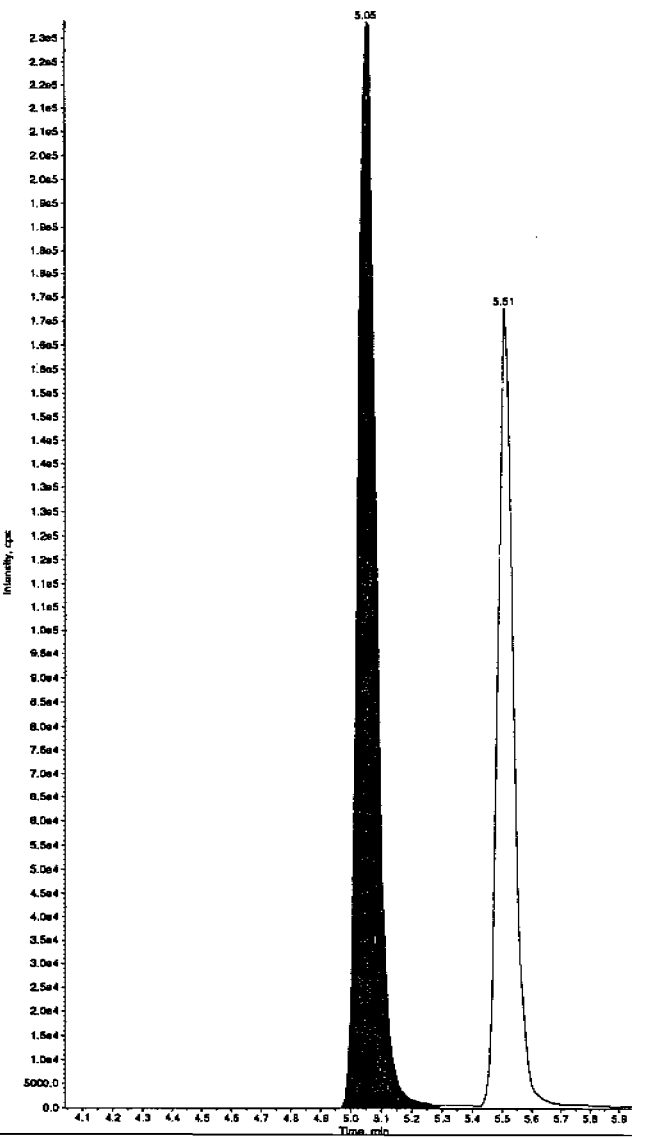

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170069.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	513.	ng/mL
q. Date:	2/18/2010	
q. Time:	3:14:06 AM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	350.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.51	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	5.51	min
ea:	6.33e+005	counts
ight:	167898.727	cps
art Time:	5.43	min
d Time:	6.06	min

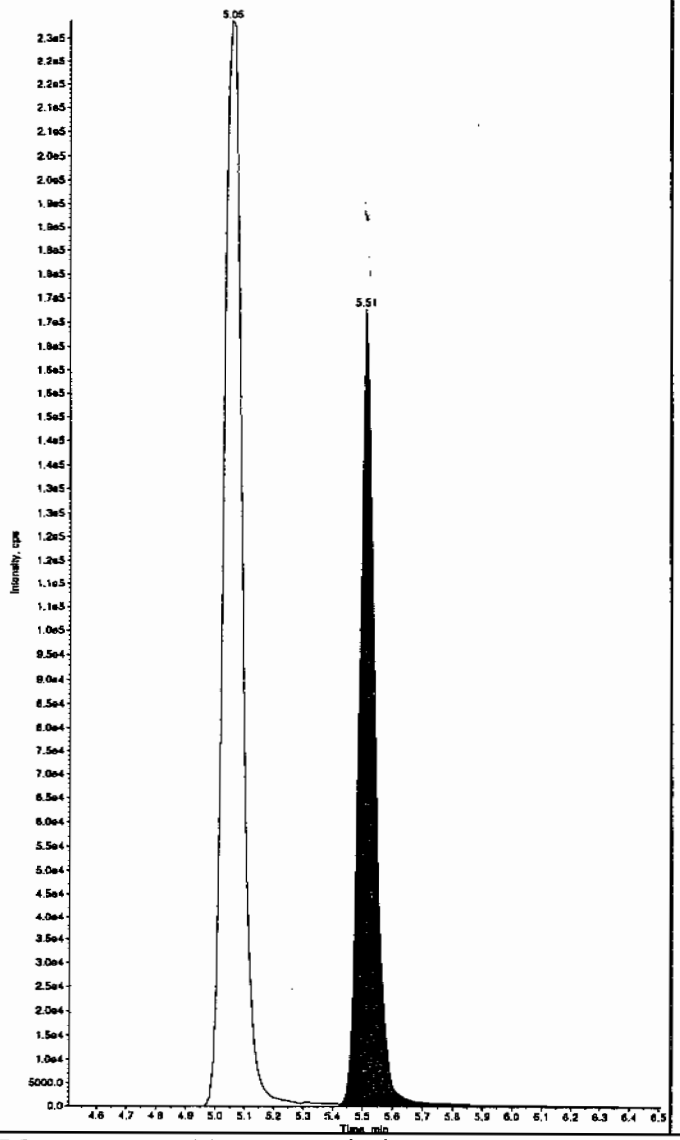

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170069.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	503.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	3:14:06 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.10e+007	counts
Height:	2616970.215	cps
Start Time:	10.8	min
End Time:	11.3	min

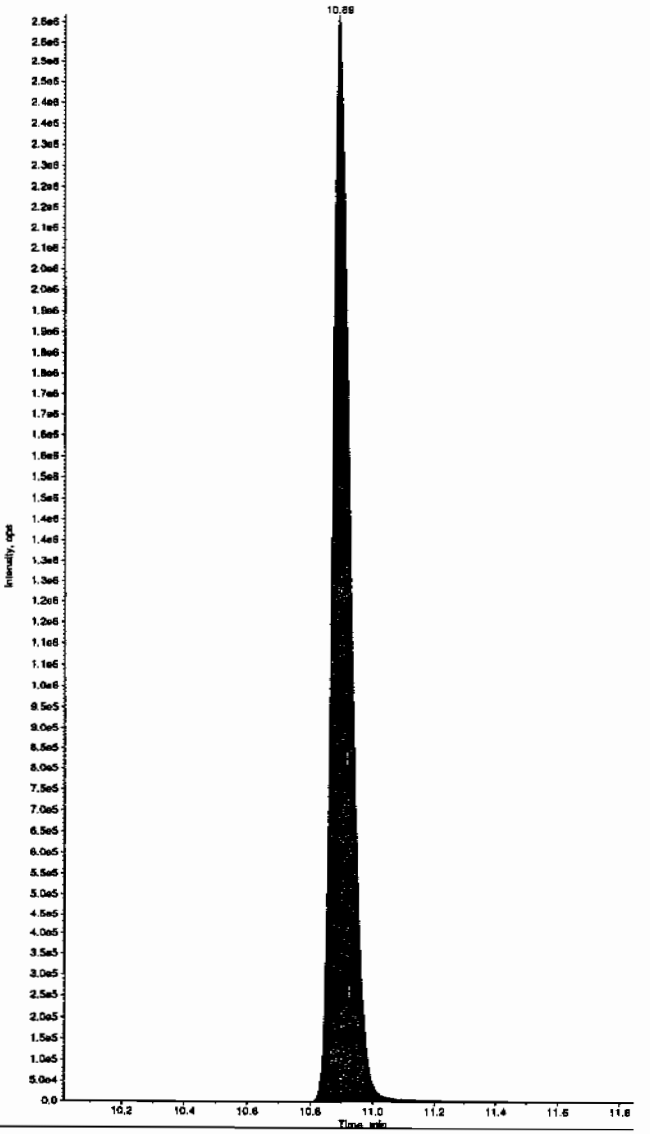

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXS02170071.wiff **Analysis Date:** 18-FEB-10 03:45

LCMSMS ID: 1358 **Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	94.3	94	
2,6-Diamino-4-nitrotoluene	100	110	110	
3,4-Dinitrotoluene	50	49	98	
3,5-Dinitroaniline	100	103	103	
TATB	100	95.3	95	
tris(o-cresyl) phosphate	100	113	113	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170071.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	95.3	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	3:45:31 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2500.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	7.03	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	7.03	min
Area:	1.62e+005	counts
Height:	36692.650	cps
Start Time:	6.89	min
End Time:	7.70	min

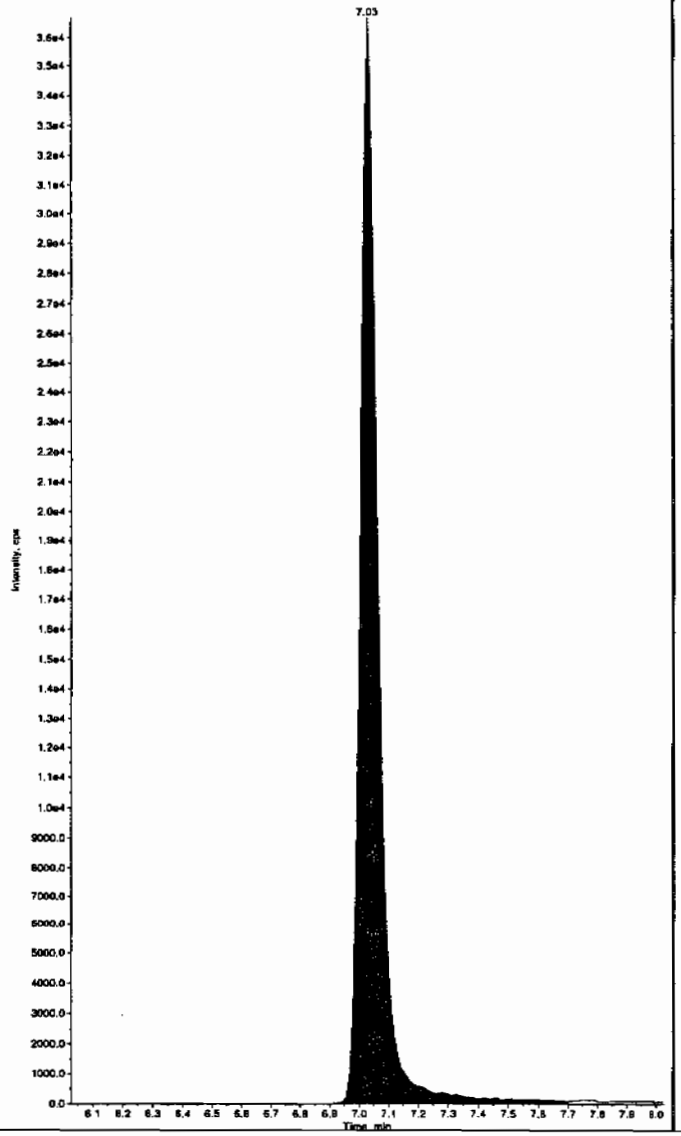

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170071.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	103.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	3:45:31 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.21	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.26	min
Area:	7.59e+005	counts
Height:	192539.337	cps
Start Time:	8.14	min
End Time:	8.36	min

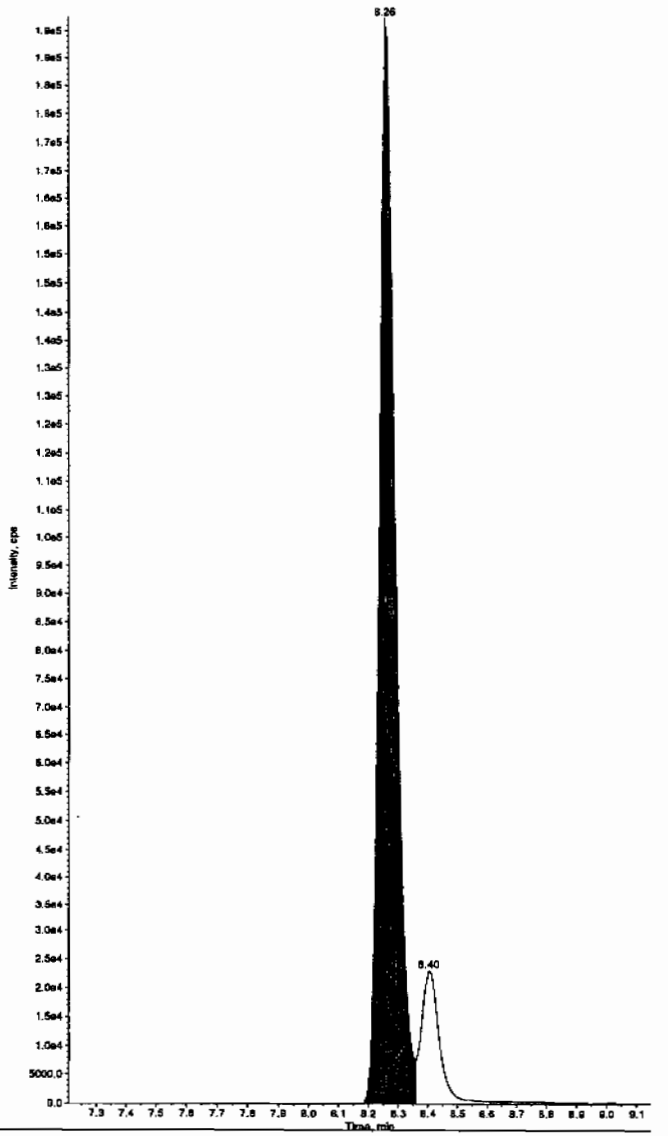

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ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170071.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	50.0	ng/mL
culated Conc:	49.0	ng/mL
. Date:	2/18/2010	
. Time:	3:45:31 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.40	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.40	min
s:	6.52e+005	counts
ght:	179557.709	cps
rt Time:	8.33	min
Time:	8.61	min

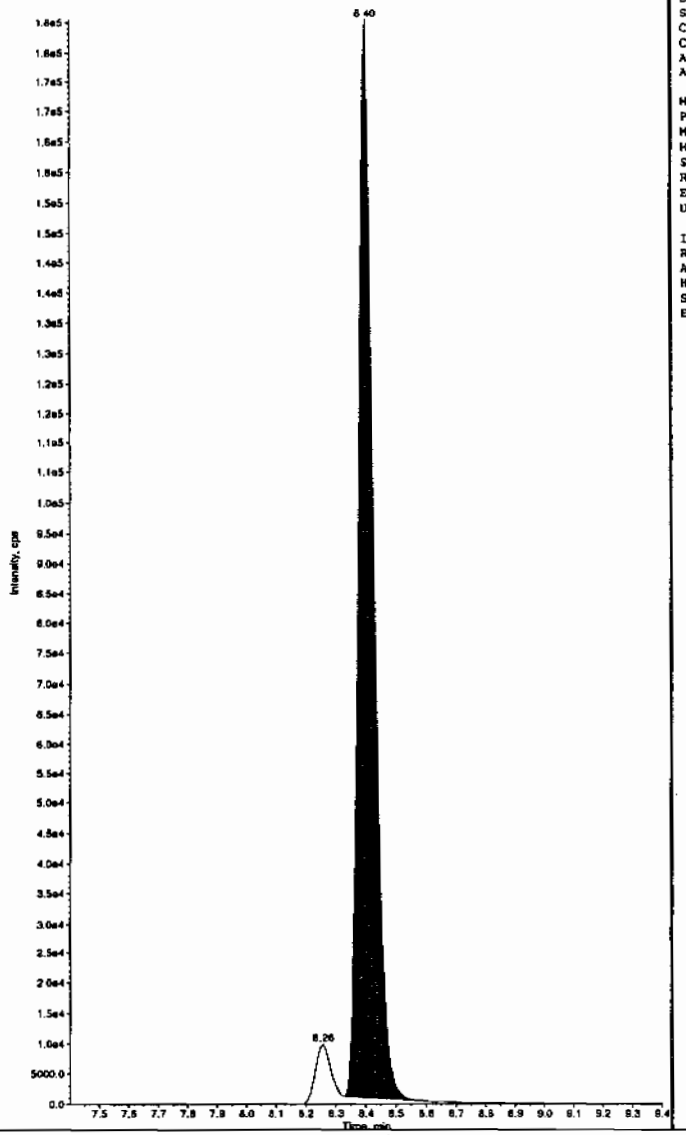

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170071.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	110.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	3:45:31 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.04	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.05	min
Area:	2.16e+005	counts
Height:	51120.190	cps
Start Time:	4.92	min
End Time:	5.32	min

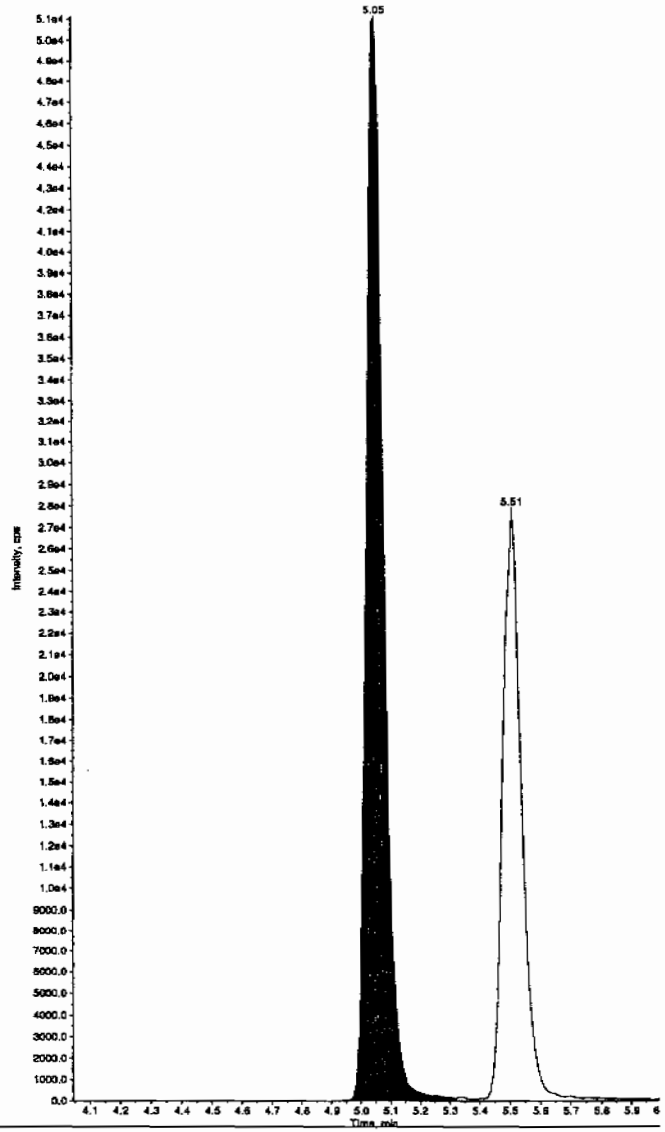

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ample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170071.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	94.3	ng/mL
. Date:	2/18/2010	
. Time:	3:45:31 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.51	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.51	min
a:	1.17e+005	counts
ght:	27704.666	cps
rt Time:	5.43	min
Time:	5.67	min

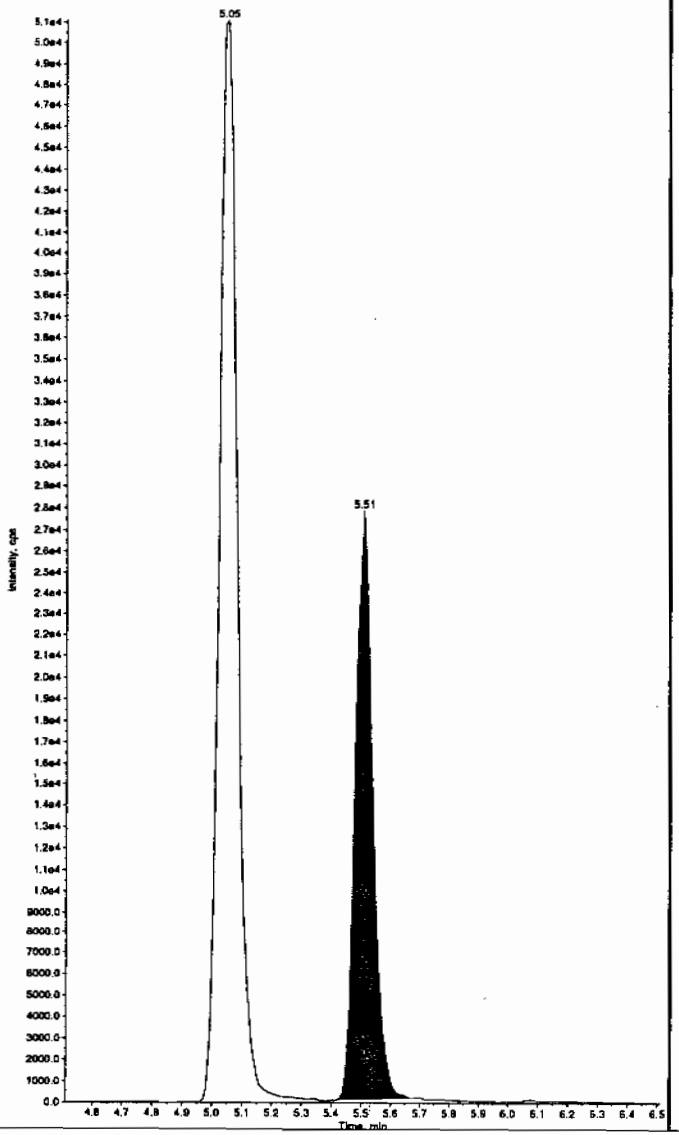

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170071.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	113.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	3:45:31 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	2.47e+006	counts
Height:	617310.425	cps
Start Time:	10.8	min
End Time:	11.2	min

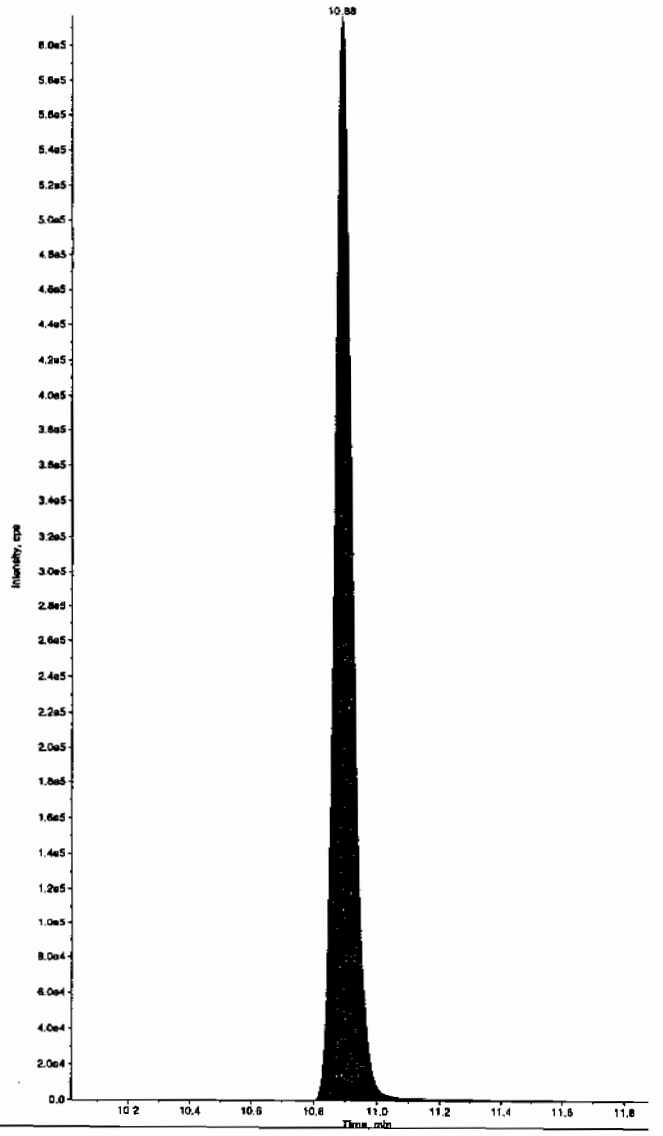

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170082.wiff

Analysis Date: 18-FEB-10 06:38

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	597	119	
2,6-Diamino-4-nitrotoluene	500	553	111	
3,4-Dinitrotoluene	250	249	100	
3,5-Dinitroaniline	500	509	102	
TATB	500	513	103	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lar 2/19/10

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170082.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 513. ng/mL
. Date: 2/18/2010
. Time: 6:38:17 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.03 min
Relative RT: No

. Type: Valley
ention Time: 7.03 min
a: 8.71e+005 counts
ght: 192849.243 cps
rt Time: 6.92 min
Time: 7.78 min

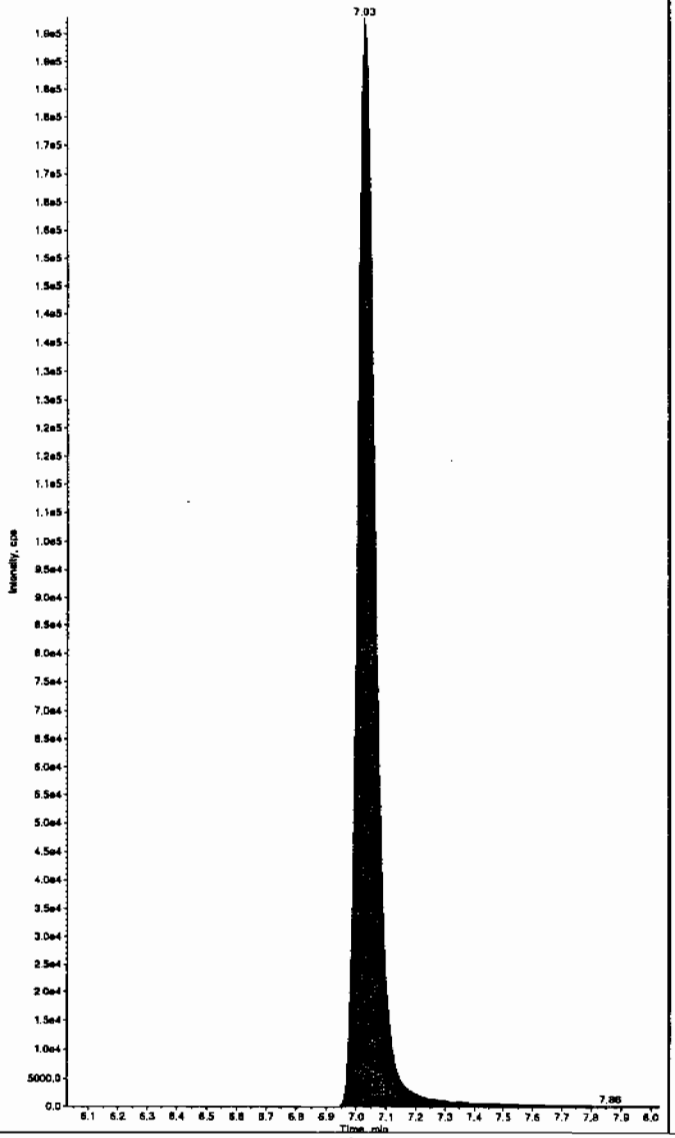

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170082.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 6:38:17 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.26 min
Area: 3.74e+006 counts
Height: 972303.528 cps
Start Time: 8.15 min
End Time: 8.35 min

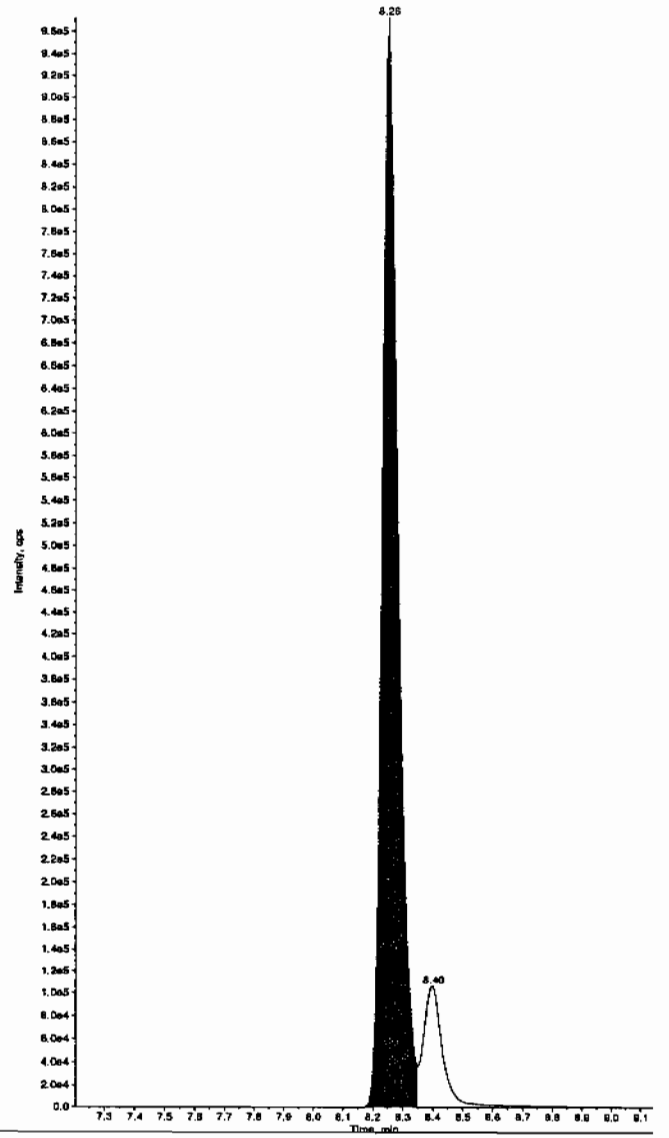

Hm 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-26CCV" Sample ID: "1|LER" File: "EXS02170082.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
ncentration: 250. ng/mL
culated Conc: 249. ng/mL
. Date: 2/18/2010
. Time: 6:38:17 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

. Type: Valley
ention Time: 8.39 min
a: 3.32e+006 counts
ght: 930615.784 cps
rt Time: 8.32 min
Time: 8.58 min

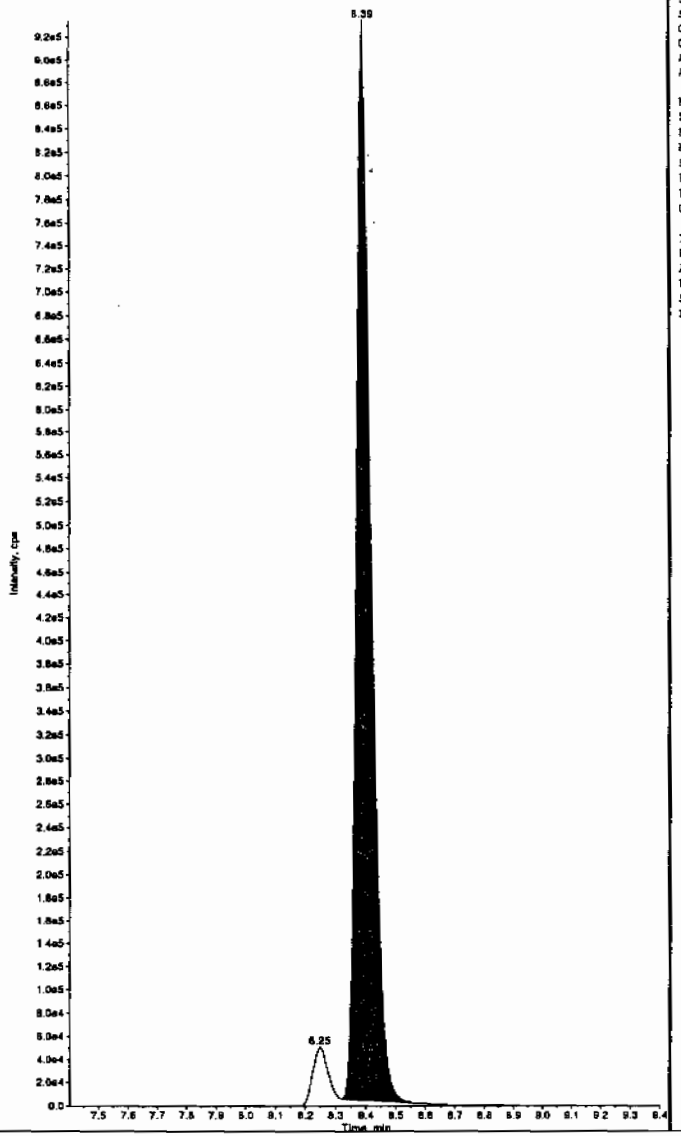

Sample Name: "WXX100217-26CCV" Sample ID: "1|1|LER" File: "EXS02170082.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 553. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 6:38:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 1.09e+006 counts
Height: 269166.534 cps
Start Time: 4.94 min
End Time: 5.30 min

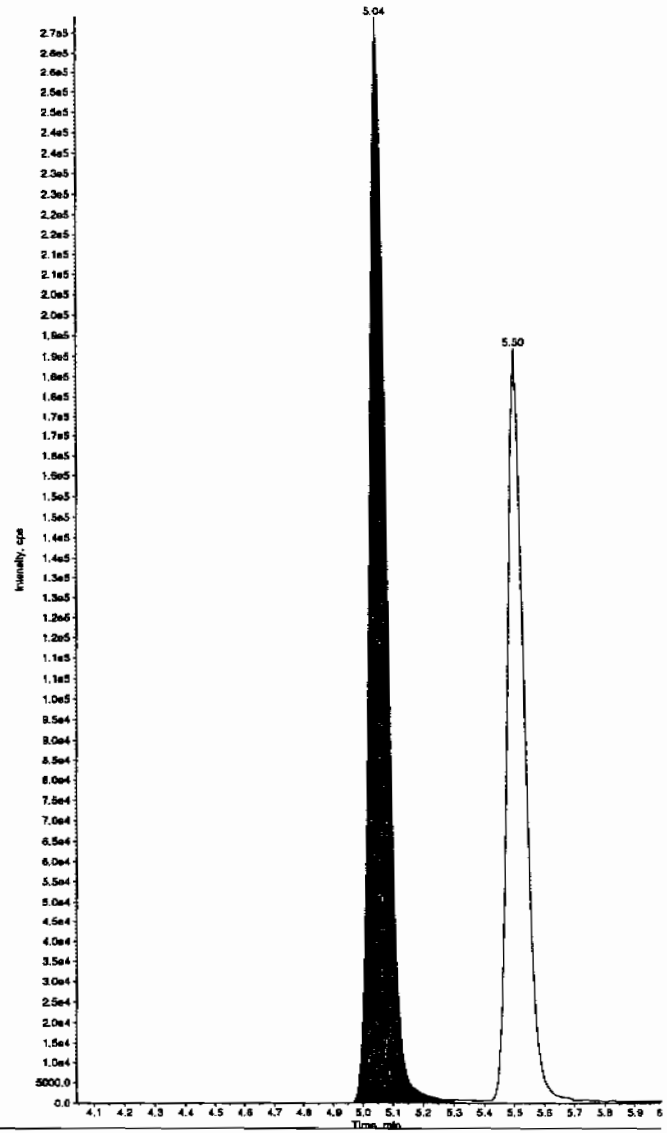

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mple Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170082.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         500.     ng/mL
culated Conc:       597.     ng/mL
. Date:          2/18/2010
. Time:          6:38:17 AM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3         points
Window:         30.0     sec
ected RT:        5.51    min
Relative RT:    No

Type:           Valley
ention Time:     5.50    min
a:          7.37e+005    counts
ght:        186468.750   cps
t Time:          5.39    min
Time:            5.81    min
```

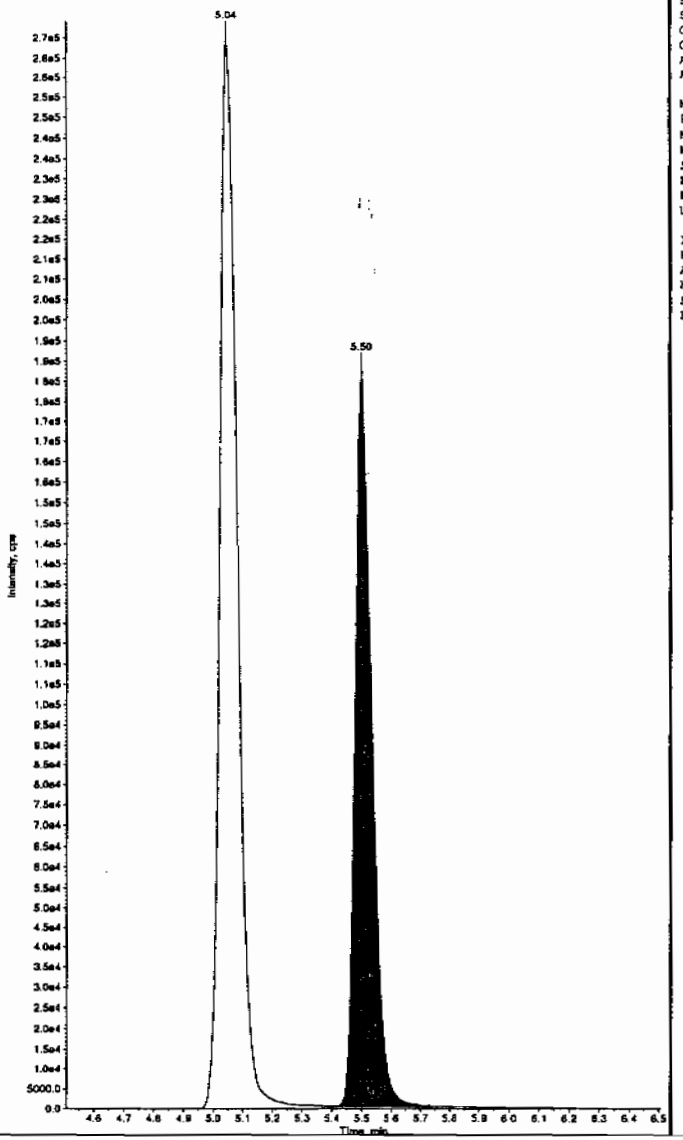

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170082.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       498.     ng/mL
Acq. Date:          2/18/2010
Acq. Time:          6:38:17 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.9     min
Area:          1.08e+007    counts
Height:        2579725.098  cps
Start Time:        10.8     min
End Time:          11.3     min
```

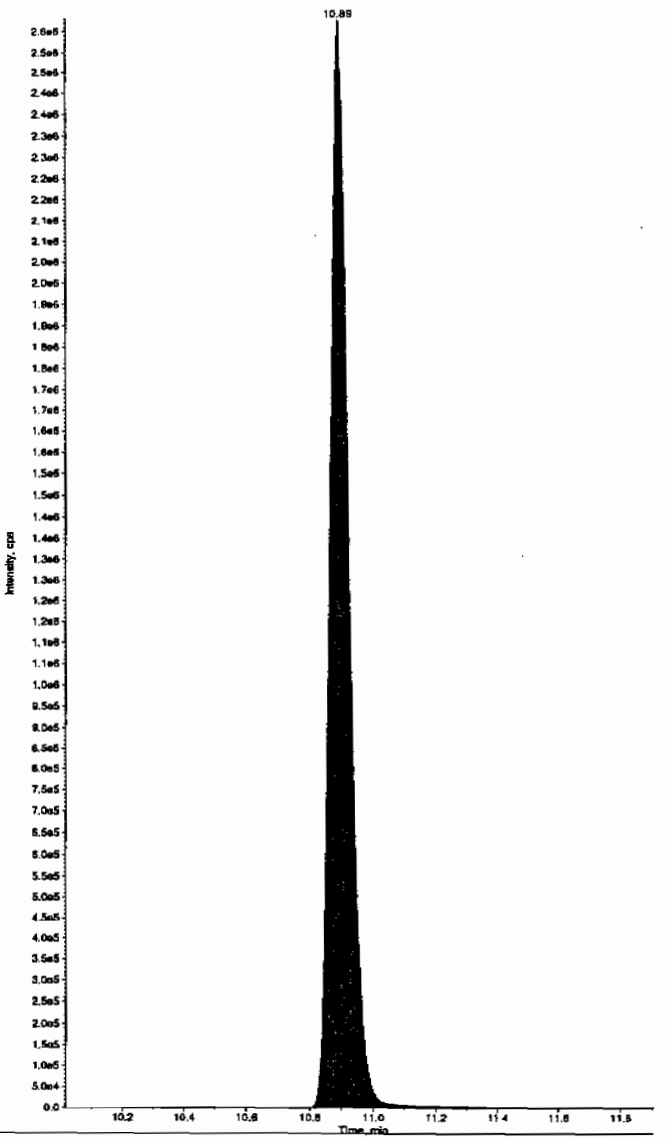

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170084.wiff

Analysis Date: 18-FEB-10 07:09

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	87.8	88	
2,6-Diamino-4-nitrotoluene	100	107	107	
3,4-Dinitrotoluene	50	51.1	102	
3,5-Dinitroaniline	100	107	107	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	112	112	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sam 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170084.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 100. ng/mL
lculated Conc: 104. ng/mL
q. Date: 2/18/2010
q. Time: 7:09:42 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.03 min
e Relative RT: No

t. Type: Valley
tention Time: 7.03 min
ea: 1.76e+005 counts
ight: 40695.309 cps
art Time: 6.90 min
d Time: 7.71 min

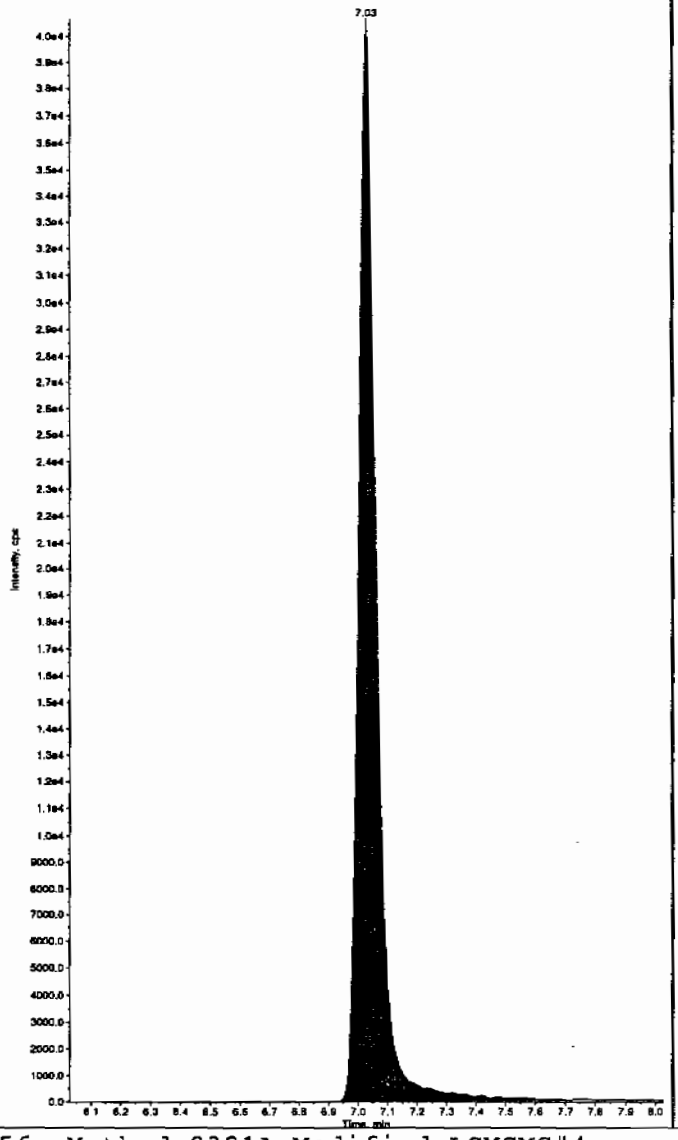

Sample Name: "WXX100217-27CRI" Sample ID: "|1|LER" File: "EXS02170084.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 7:09:42 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 7.85e+005 counts
Height: 199861.481 cps
Start Time: 8.15 min
End Time: 8.36 min

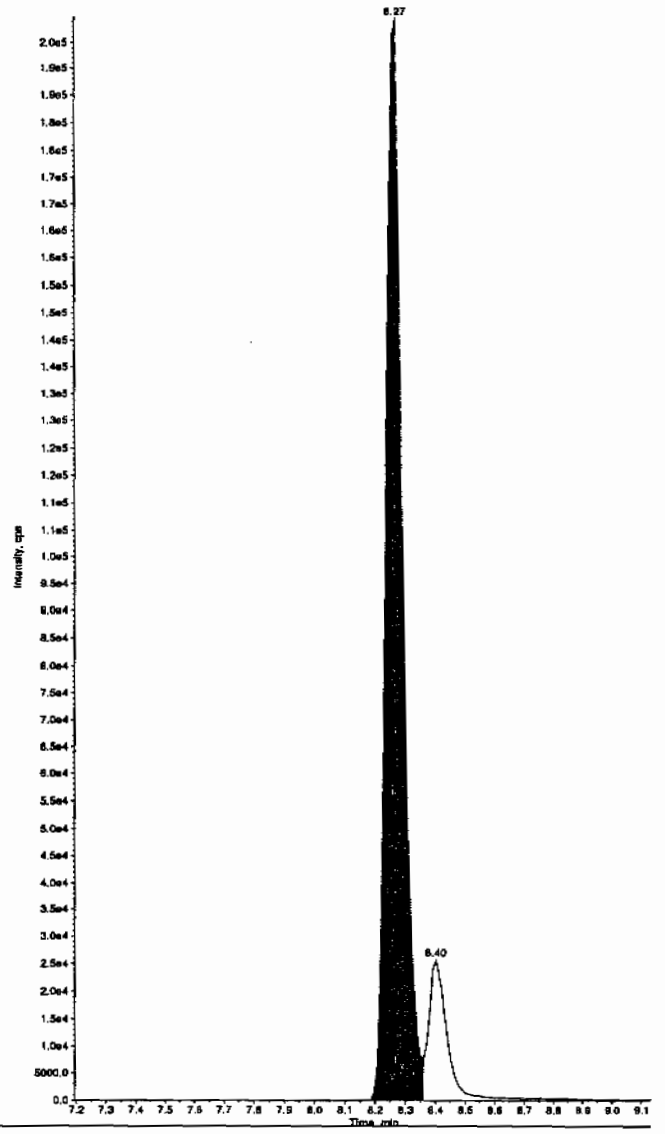

HMM 02/19/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170084.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
icentration: 50.0 ng/mL
lculated Conc: 51.1 ng/mL
. Date: 2/18/2010
. Time: 7:09:42 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

.. Type: Valley
ention Time: 8.40 min
a: 6.80e+005 counts
ght: 176276.535 cps
rt Time: 8.33 min
Time: 8.64 min

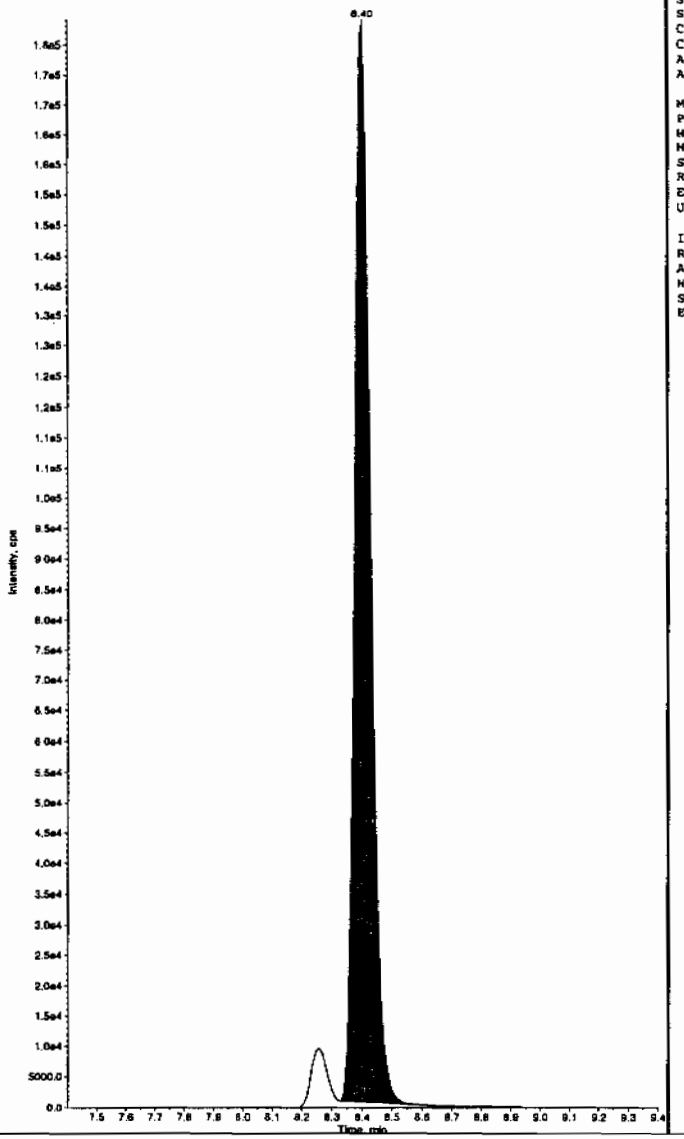

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170084.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 7:09:42 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 2.10e+005 counts
Height: 49391.941 cps
Start Time: 4.94 min
End Time: 5.30 min

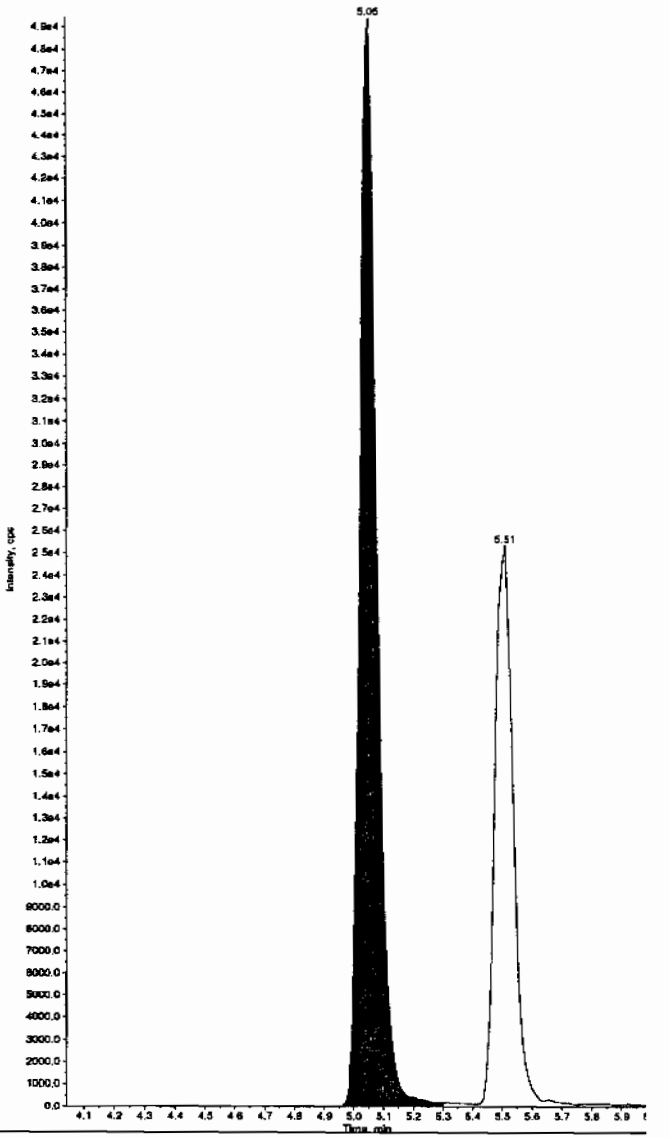

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mpls Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170084.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 87.8 ng/mL
Date: 2/18/2010
Time: 7:09:42 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.51 min
Relative RT: No

Type: Valley
ntion Time: 5.51 min
: 1.08e+005 counts
ht: 25220.182 cps
t Time: 5.42 min
Time: 5.76 min

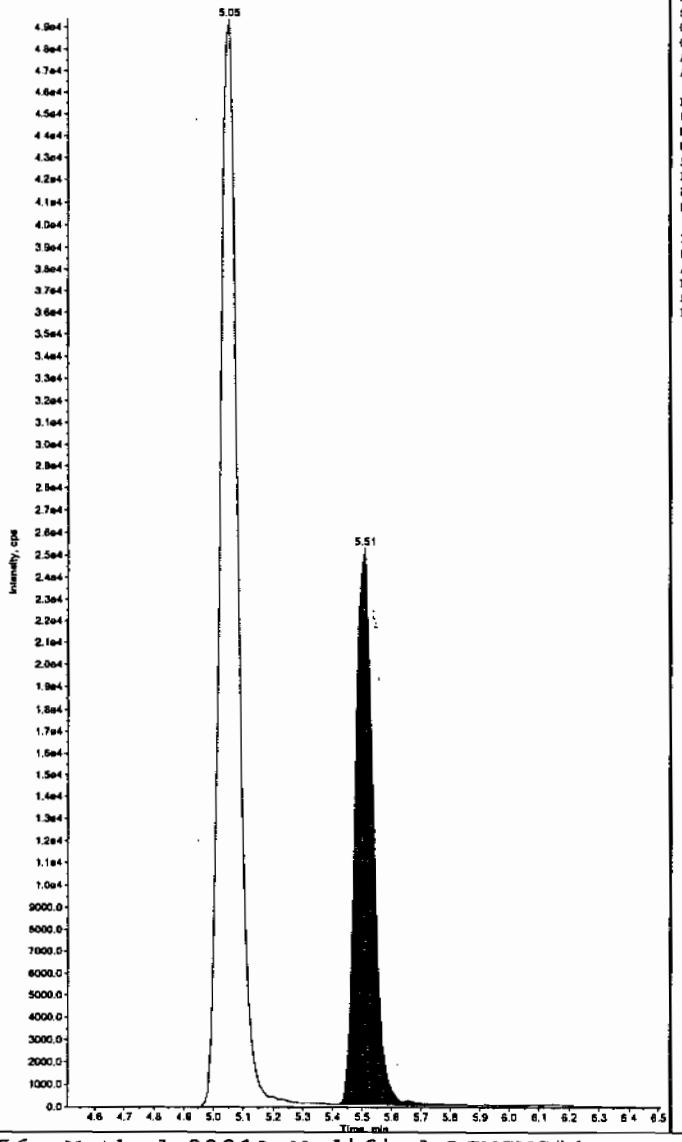

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170084.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 7:09:42 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.43e+006 counts
Height: 606573.914 cps
Start Time: 10.8 min
End Time: 11.2 min

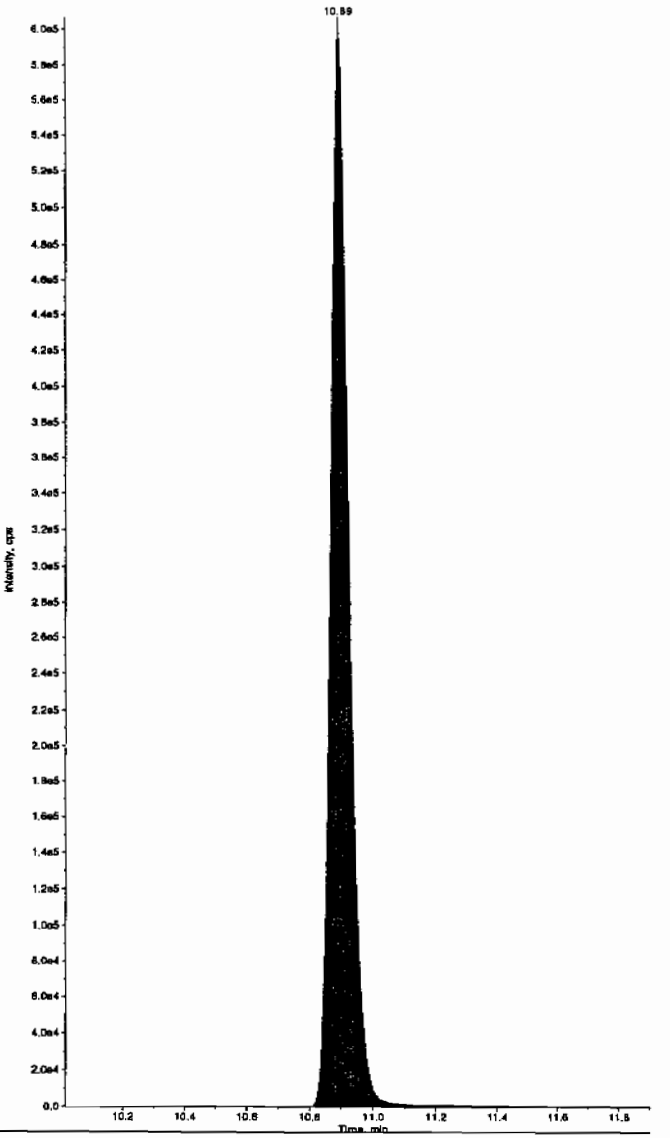

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170095.wiff

Analysis Date: 18–FEB–10 10:02

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	500	100	
2,6–Diamino–4–nitrotoluene	500	536	107	
3,4–Dinitrotoluene	250	240	96	
3,5–Dinitroaniline	500	462	92	
TATB	500	488	98	
tris(o–cresyl) phosphate	500	497	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/19/10

ample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170095.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	488.	ng/mL
. Date:	2/18/2010	
. Time:	10:02:26 AM	
ified:	No	
:. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
cted RT:	7.03	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.99	min
a:	8.29e+005	counts
ght:	185559.464	cps
t Time:	6.84	min
Time:	7.62	min

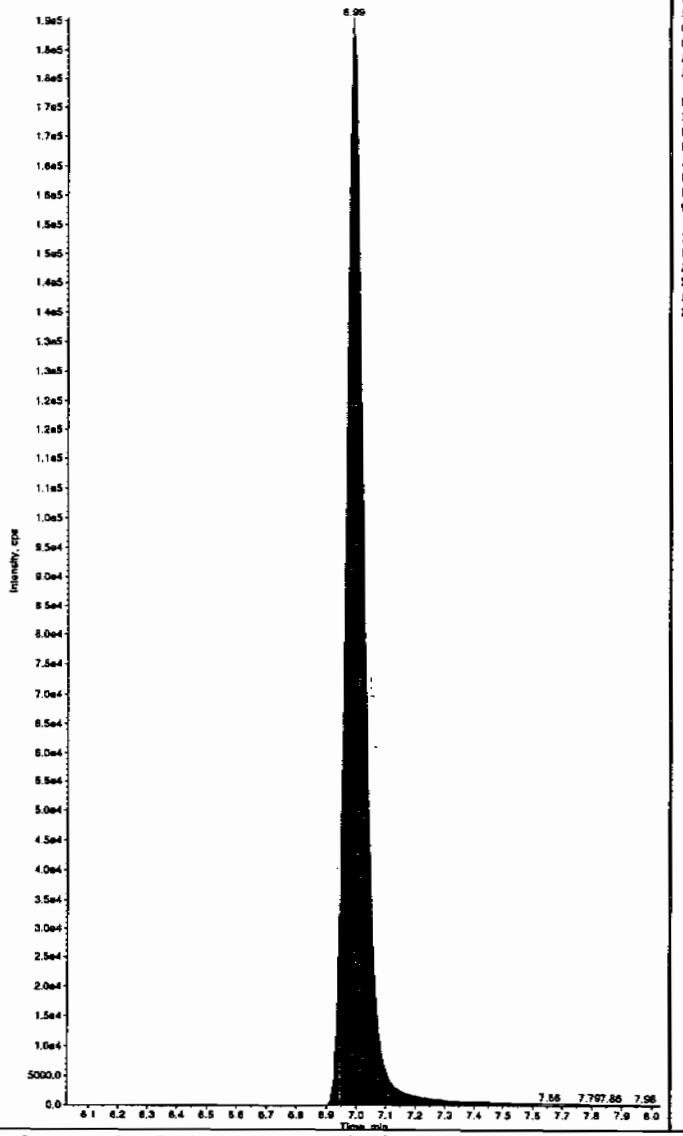

Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170095.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	462.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	10:02:26 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.19	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.22	min
Area:	3.40e+006	counts
Height:	799763.916	cps
Start Time:	8.12	min
End Time:	8.32	min

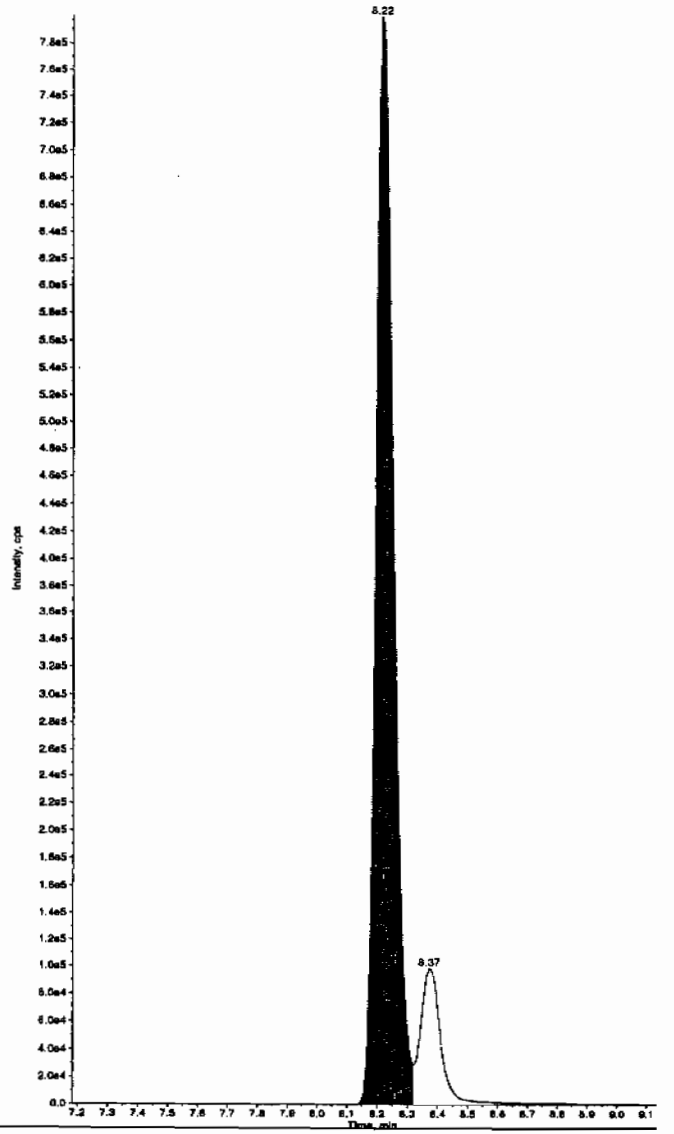

Hmm-02 1/19/10

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mple Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170095.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	250.	ng/mL
culated Conc:	240.	ng/mL
. Date:	2/18/2010	
. Time:	10:02:26 AM	
lfied:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.40	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.37	min
a:	3.20e+006	counts
ght:	855227.478	cps
t Time:	8.29	min
Time:	8.62	min

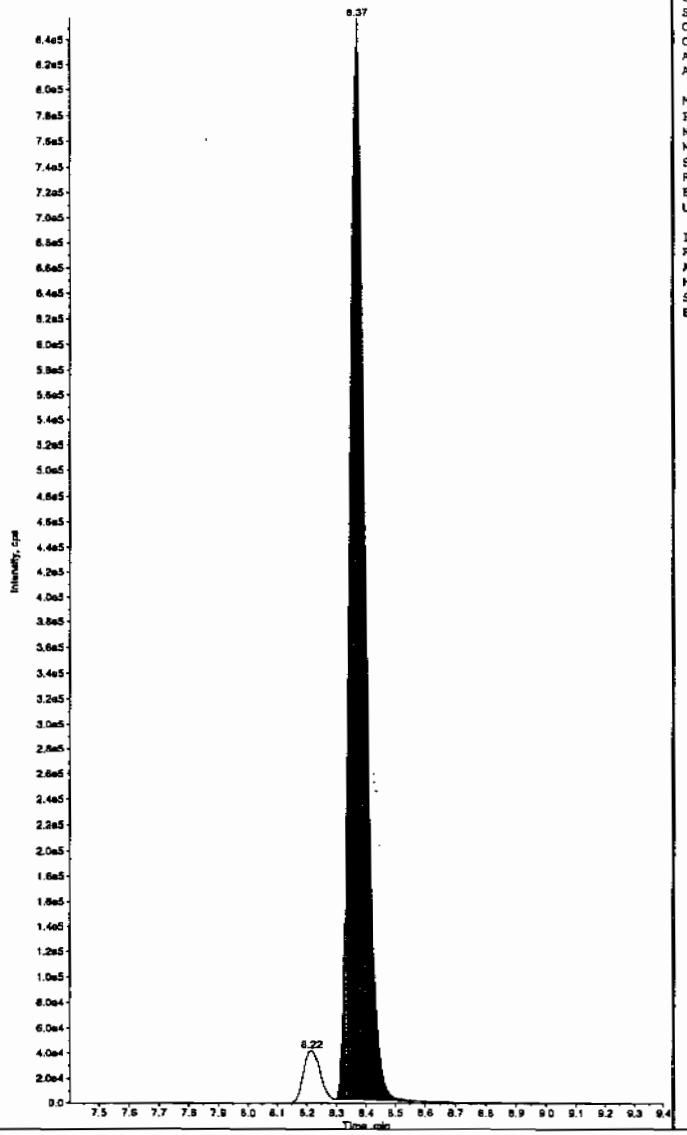

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170095.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	536.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	10:02:26 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.04	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.01	min
Area:	1.05e+006	counts
Height:	260275.391	cps
Start Time:	4.92	min
End Time:	5.32	min

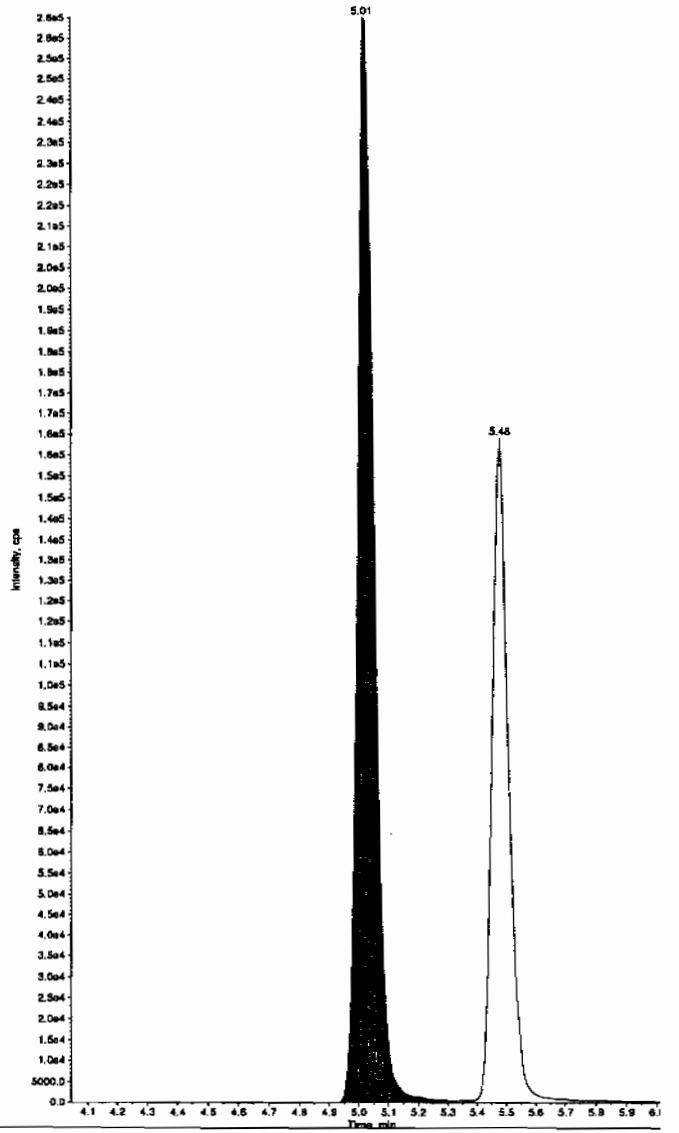

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170095.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	500.	ng/mL
. Date:	2/18/2010	
. Time:	10:02:26 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.51	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.48	min
a:	6.18e+005	counts
ght:	158903.000	cps
rt Time:	5.37	min
Time:	5.79	min

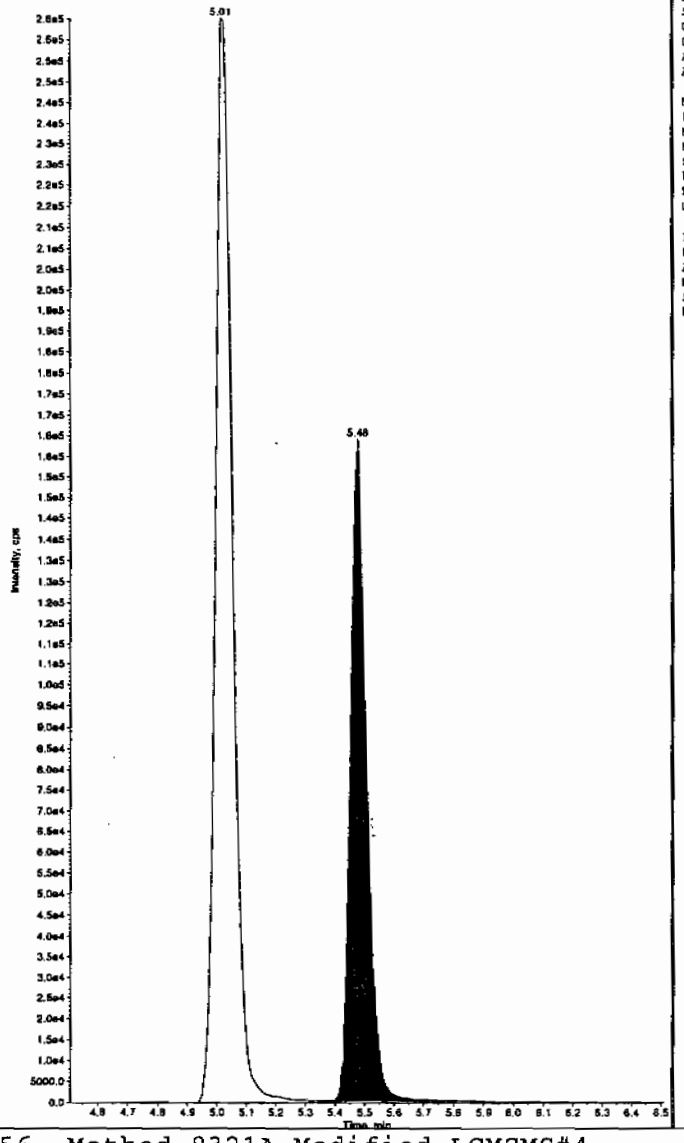

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170095.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	497.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	10:02:26 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.08e+007	counts
Height:	2569781.738	cps
Start Time:	10.8	min
End Time:	11.3	min

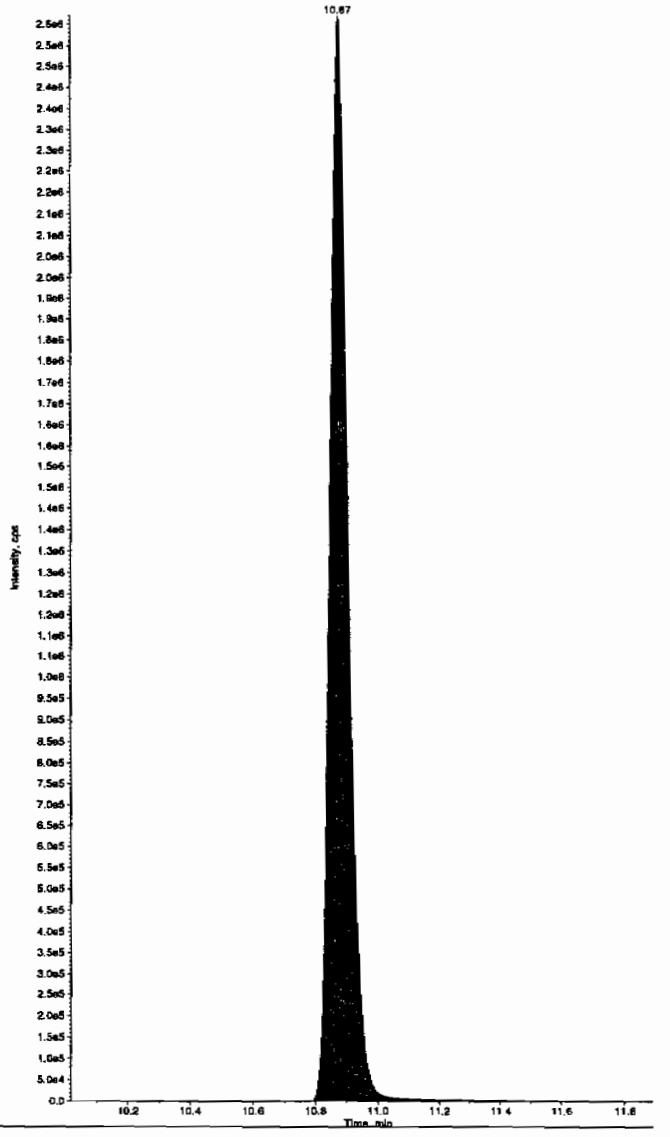

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02170097.wiff

Analysis Date: 18-FEB-10 10:33

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	93.5	94	
2,6-Diamino-4-nitrotoluene	100	94.7	95	
3,4-Dinitrotoluene	50	50.6	101	
3,5-Dinitroaniline	100	104	104	
TATB	100	99.2	99	
tris(o-cresyl) phosphate	100	111	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/19/10

umple Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170097.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: "

ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 99.2 ng/mL
. Date: 2/18/2010
. Time: 10:33:52 AM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.03 min
Relative RT: No

. Type: Valley
ention Time: 7.00 min
: 1.68e+005 counts
ght: 37760.742 cps
rt Time: 6.81 min
Time: 7.78 min

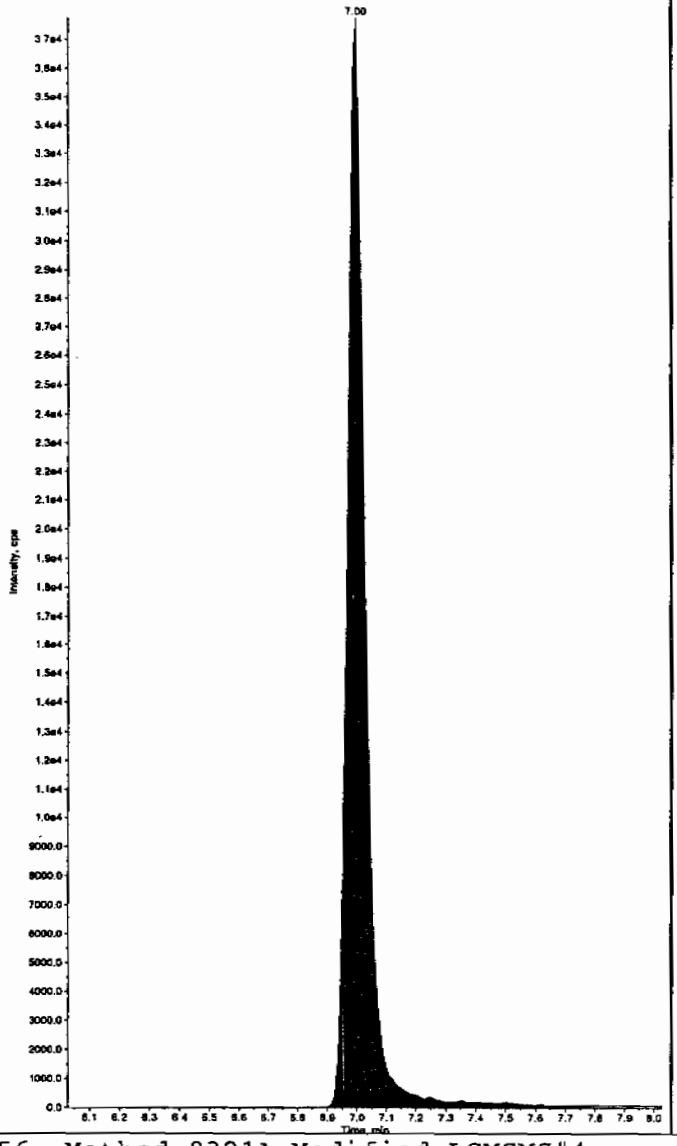

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 10:33:52 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 7.63e+005 counts
Height: 196186.676 cps
Start Time: 8.13 min
End Time: 8.33 min

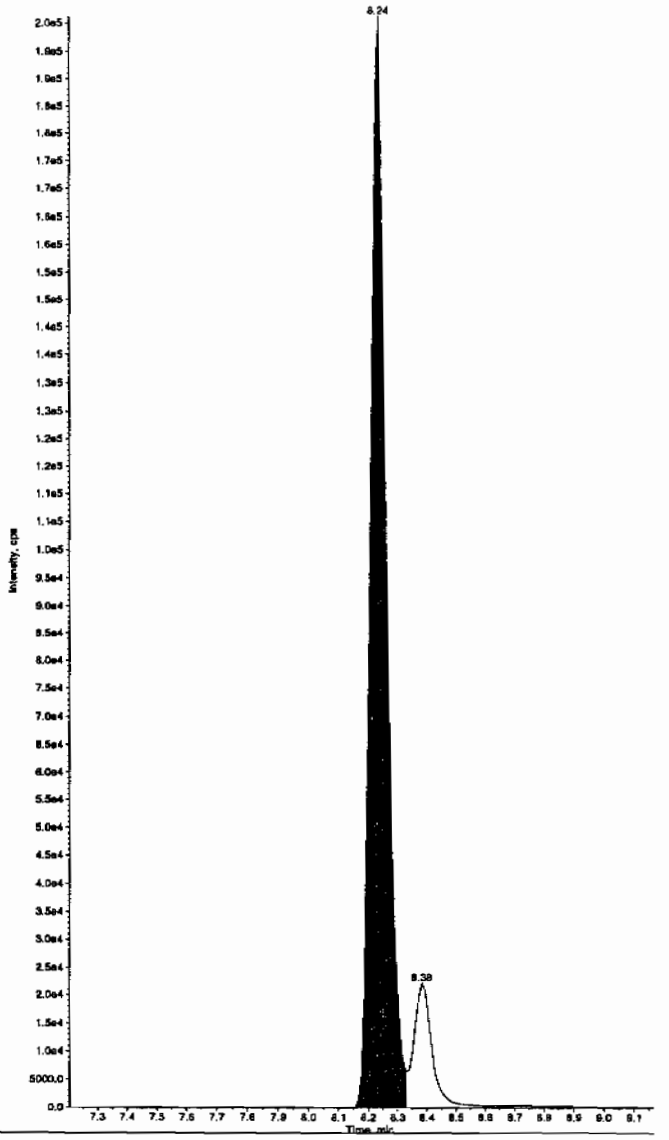

Hmm 02/19/10

CL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170097.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 50.0 ng/mL
culated Conc: 50.6 ng/mL
. Date: 2/18/2010
. Time: 10:33:52 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.40 min
Relative RT: No

. Type: Valley
ention Time: 8.38 min
a: 6.74e+005 counts
ght: 178247.406 cps
rt Time: 8.30 min
Time: 8.65 min

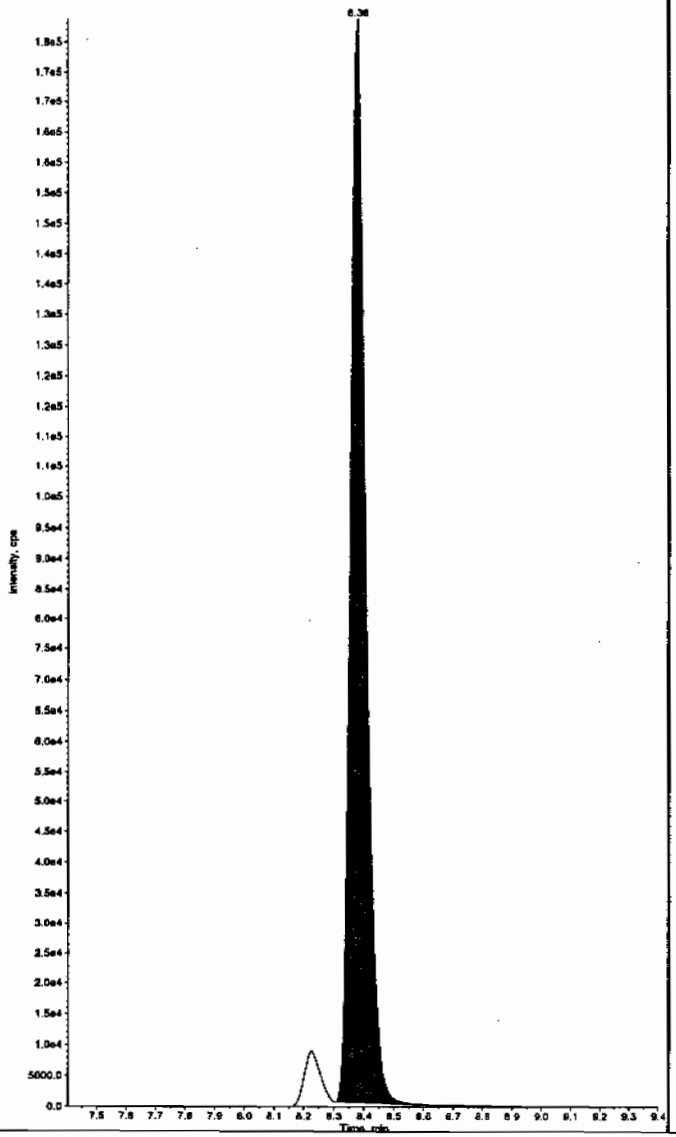

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170097.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.7 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 10:33:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.87e+005 counts
Height: 46862.755 cps
Start Time: 4.92 min
End Time: 5.29 min

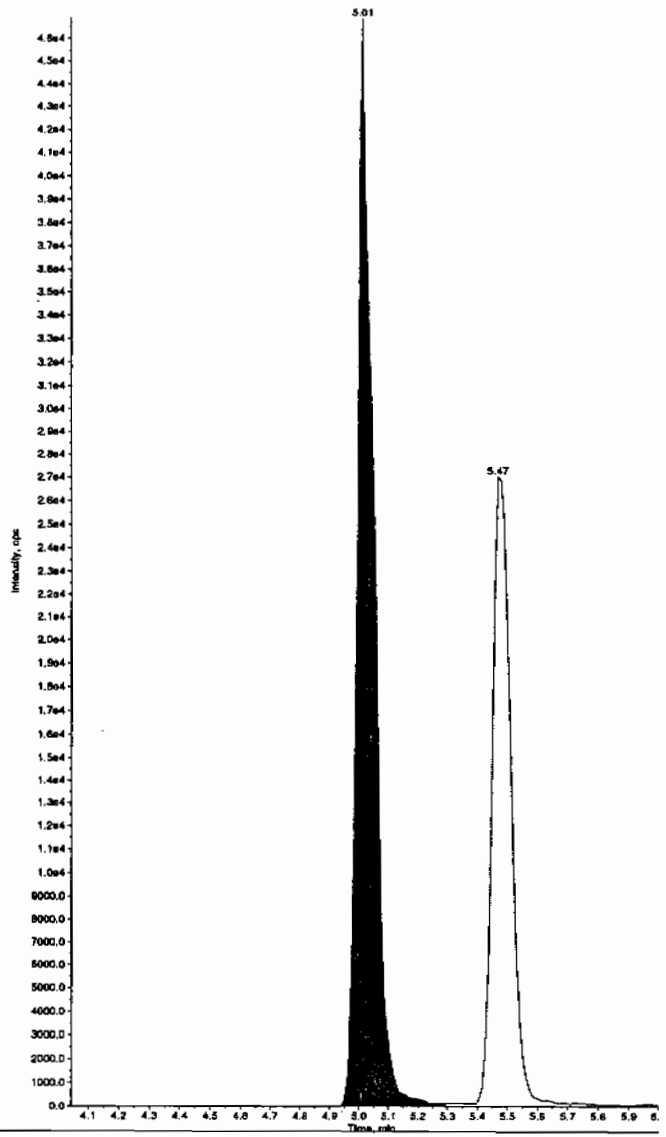

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EX502170097.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
culated Conc:	93.5	ng/mL
I. Date:	2/18/2010	
I. Time:	10:33:52 AM	
Ified:	No	
c. Algorithm:	IntelliQuan - IQA	
I. Peak Height:	350.00	cps
I. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.51	min
Relative RT:	No	
Type:	Valley	
ention Time:	5.47	min
a:	1.15e+005	counts
ght:	26913.677	cps
rt Time:	5.38	min
Time:	5.70	min

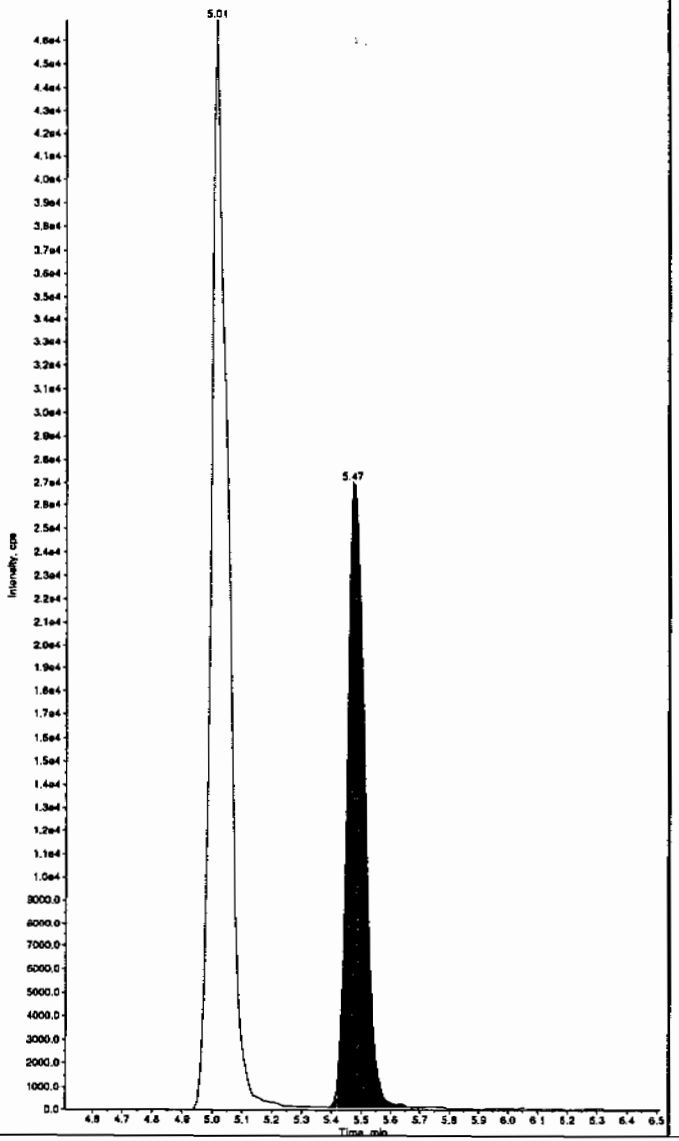

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EX502170097.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	111.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	10:33:52 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	2.42e+006	counts
Height:	601916.992	cps
Start Time:	10.8	min
End Time:	11.2	min

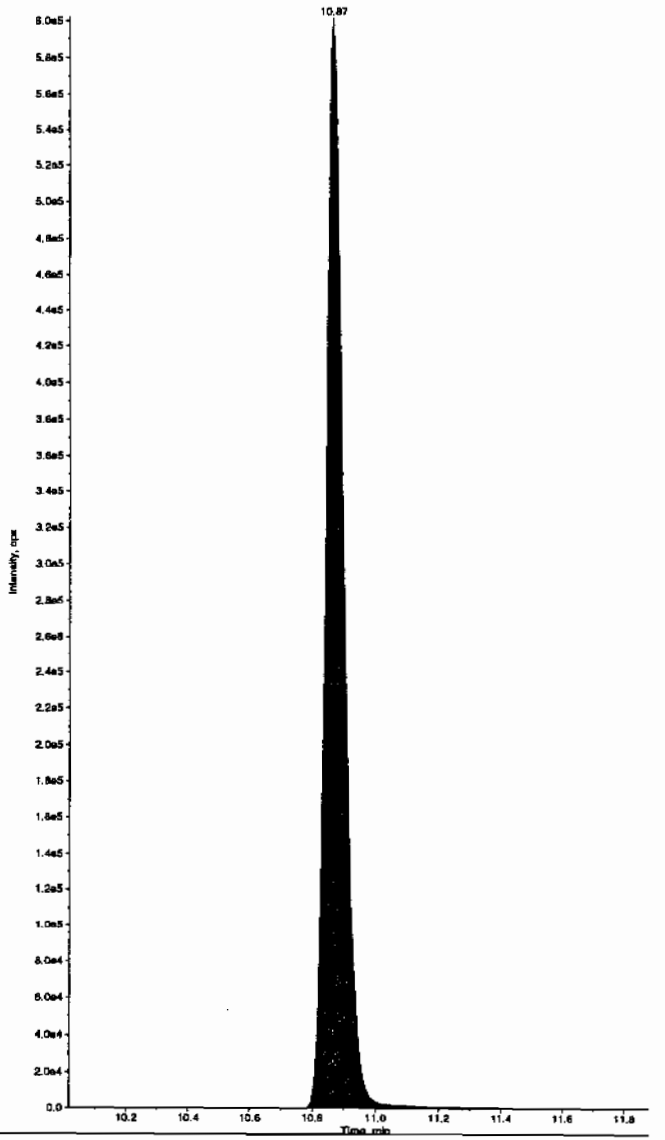

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170101.wiff

Analysis Date: 18–FEB–10 11:36

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	518	104	
2,6–Diamino–4–nitrotoluene	500	536	107	
3,4–Dinitrotoluene	250	236	94	
3,5–Dinitroaniline	500	491	98	
TATB	500	488	98	
tris(o–cresyl) phosphate	500	489	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Chan 2/19/10

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170101.wiff"
'eak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
icentration:	500.	ng/mL
culated Conc:	488.	ng/mL
. Date:	2/18/2010	
. Time:	11:36:44 AM	
lified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
ected RT:	7.03	min
Relative RT:	No	
Type:	Valley	
ention Time:	6.99	min
a:	8.29e+005	counts
ght:	186070.328	cps
rt Time:	6.86	min
Time:	7.55	min

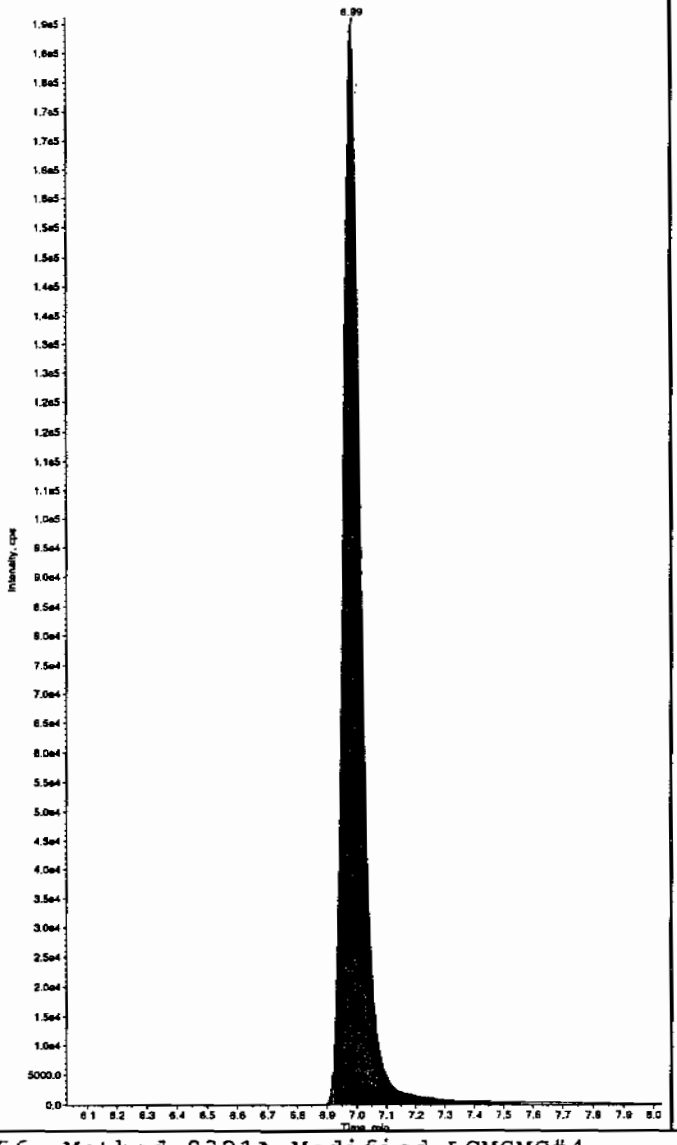

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	475.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	11:36:44 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.17	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.23	min
Area:	3.49e+006	counts
Height:	869306.030	cps
Start Time:	8.14	min
End Time:	8.33	min

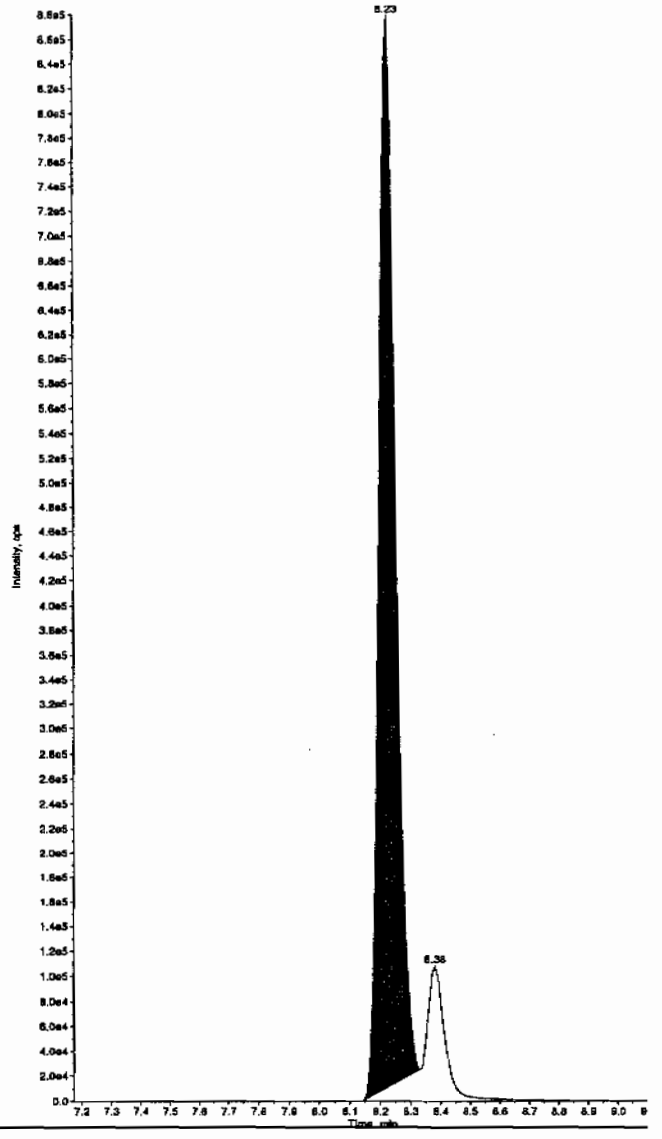

HNM 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Lan 2/19/10

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170101.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	488.	ng/mL
q. Date:	2/18/2010	
q. Time:	11:36:44 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
ected RT:	7.03	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.99	min
a:	8.29e+005	counts
ght:	186070.328	cps
rt Time:	6.86	min
Time:	7.55	min

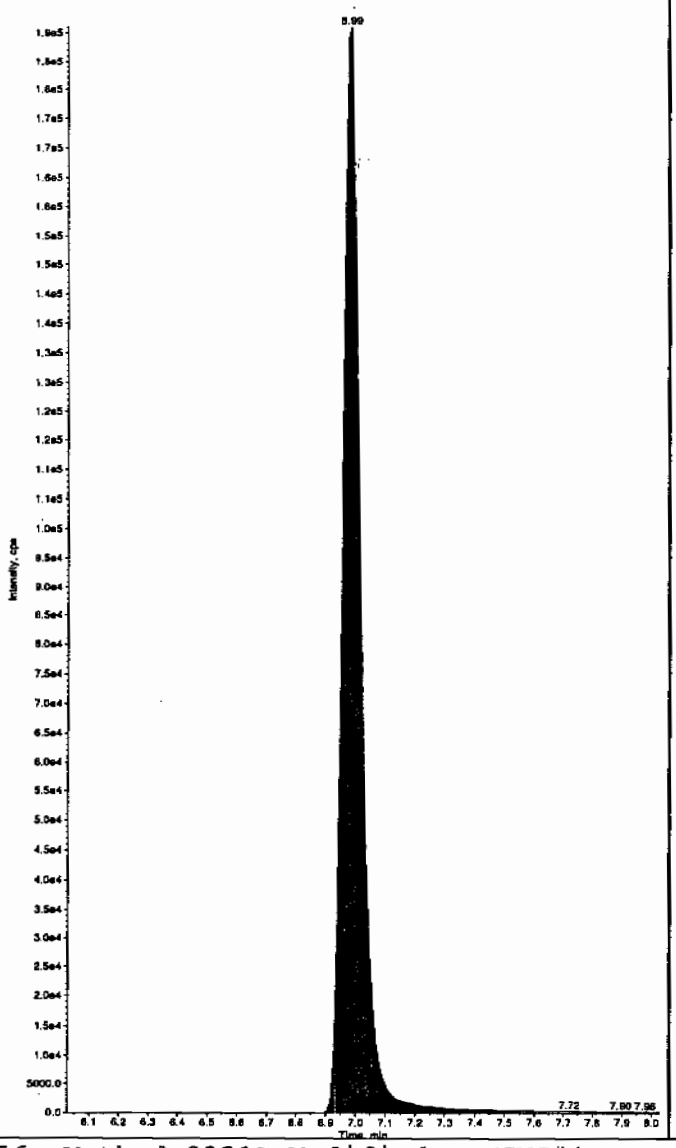

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	491.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	11:36:44 AM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.17	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.22	min
Area:	3.61e+006	counts
Height:	882163.882	cps
Start Time:	8.14	min
End Time:	8.33	min

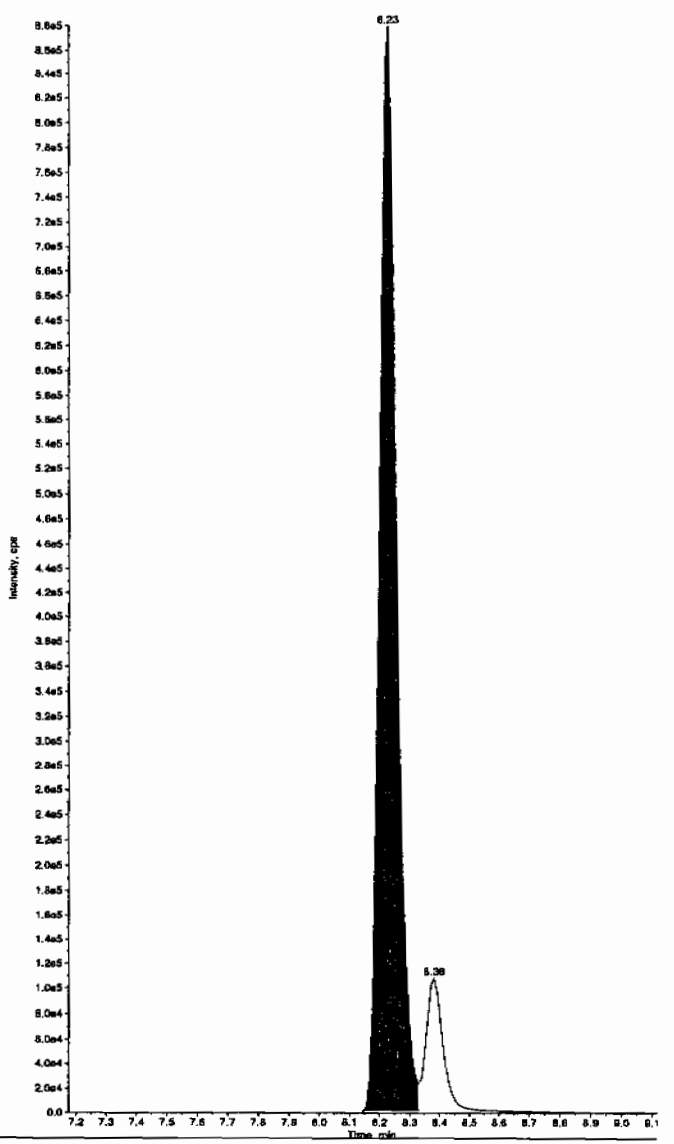

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-25CCV" Sample ID: "|1|LER" File: "EXS02170101.wiff"
ask Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:       250.     ng/mL
culated Conc:     236.     ng/mL
. Date:        2/18/2010
. Time:        11:36:44 AM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  3        points
Window:          15.0     sec
ected RT:         8.40    min
 Relative RT:     No

. Type:         Valley
ention Time:      8.37    min
a:          3.14e+006    counts
ght:          803609.863  cps
rt Time:          8.30    min
 Time:            8.62    min
```

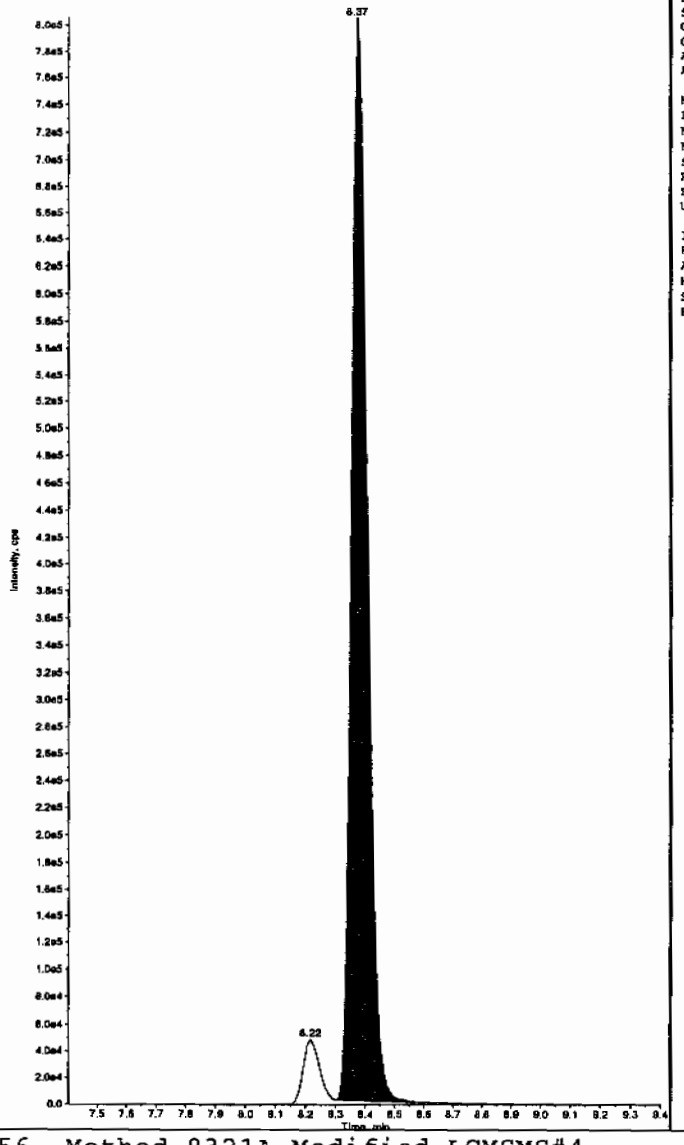

Sample Name: "WXX100217-25CCV" Sample ID: "|1|LER" File: "EXS02170101.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     536.     ng/mL
Acq. Date:        2/18/2010
Acq. Time:        11:36:44 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        5.04    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.02    min
Area:          1.06e+006    counts
Height:        268848.663   cps
Start Time:         4.91    min
End Time:           5.31    min
```

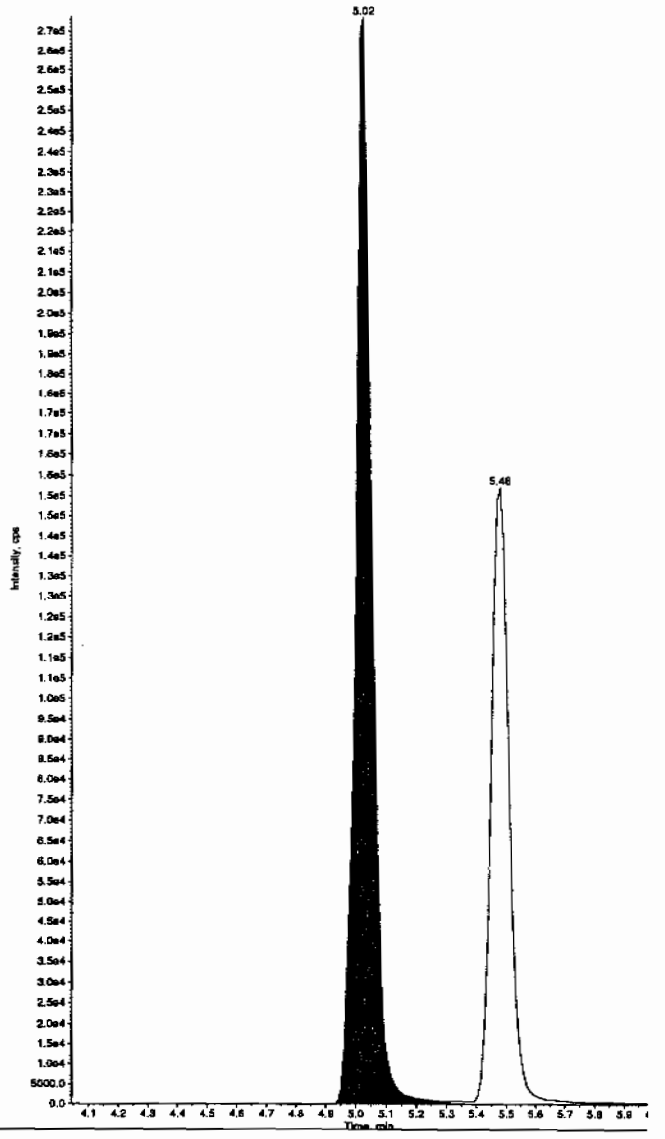

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170101.wiff"
ask Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 518. ng/mL
. Date: 2/18/2010
. Time: 11:36:44 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.51 min
Relative RT: No

. Type: Valley
ention Time: 5.48 min
a: 6.40e+005 counts
ght: 151731.628 cps
rt Time: 5.37 min
Time: 5.76 min

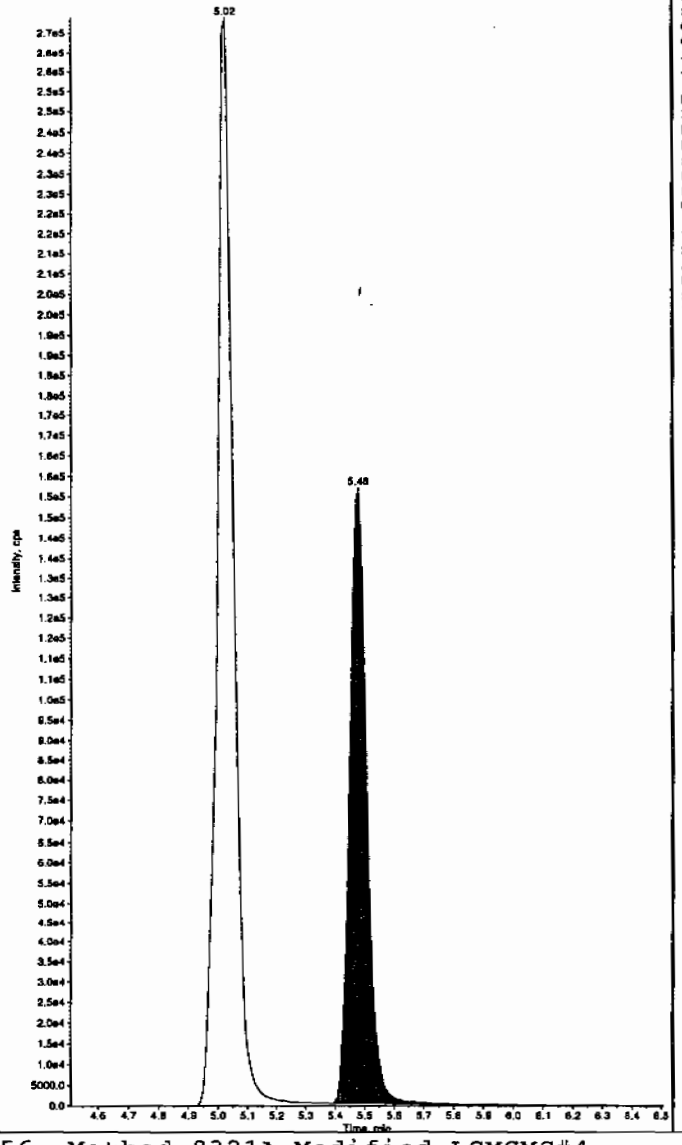

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170101.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 11:36:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.06e+007 counts
Height: 2513449.219 cps
Start Time: 10.8 min
End Time: 11.2 min

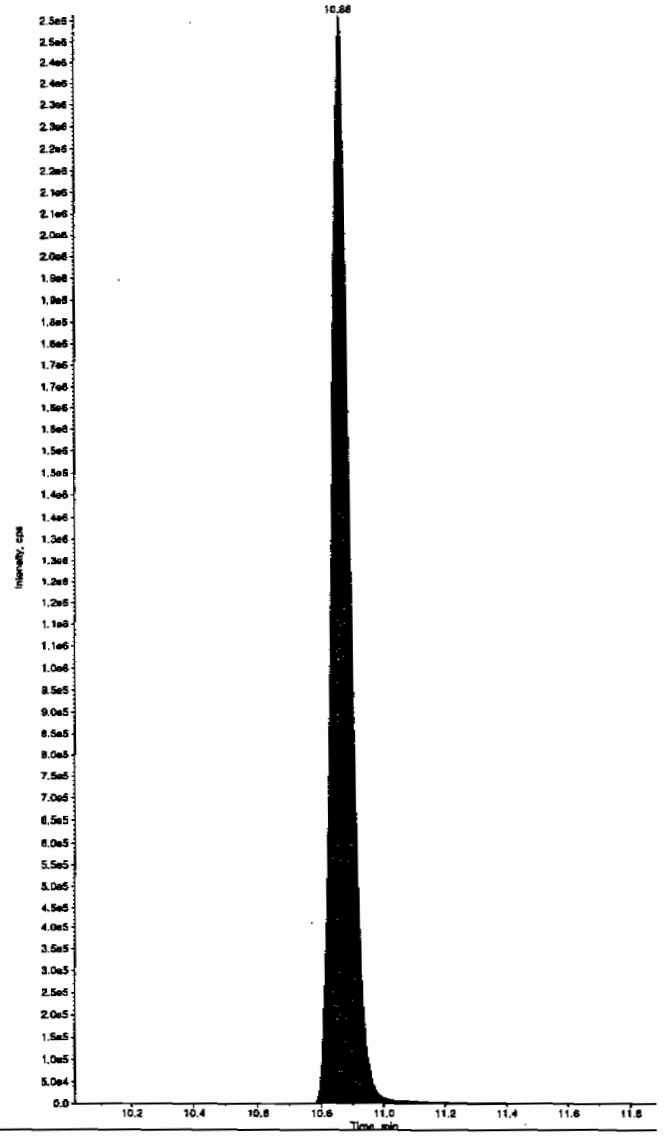

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170103.wiff

Analysis Date: 18–FEB–10 12:08

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,6–Diamino–4–nitrotoluene	100	105	105	
3,4–Dinitrotoluene	50	47.7	96	
3,5–Dinitroaniline	100	95.8	96	
TATB	100	98.6	99	
tris(o–cresyl) phosphate	100	111	111	
2,4–Diamino–6–nitrotoluene	100	93.3	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Chen 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170103.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	98.6	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	12:08:07 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2500.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	7.03	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	6.99	min
Area:	1.67e+005	counts
Height:	36667.931	cps
Start Time:	6.84	min
End Time:	7.62	min

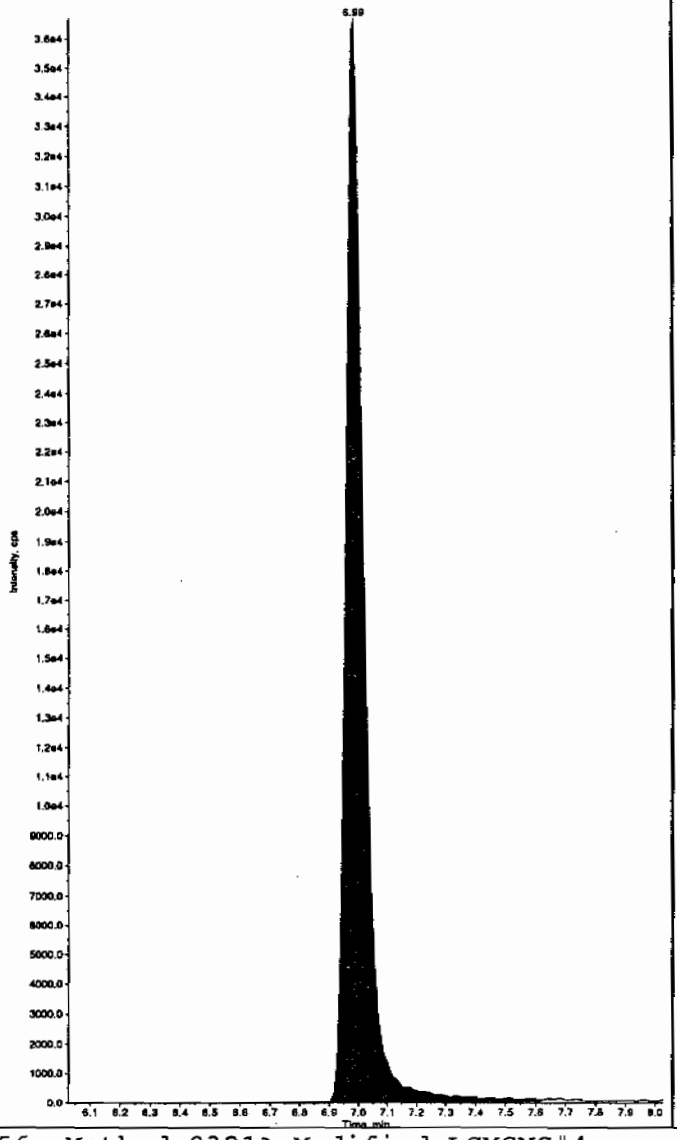

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170103.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	95.8	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	12:08:07 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.16	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.23	min
Area:	7.04e+005	counts
Height:	172513.306	cps
Start Time:	8.07	min
End Time:	8.33	min

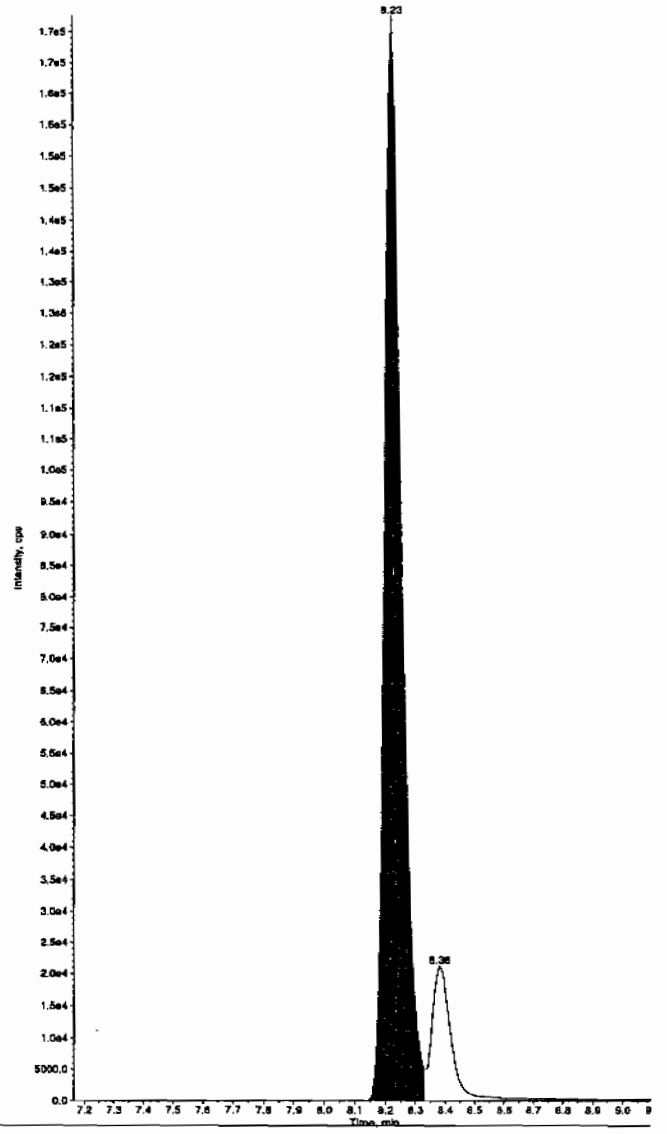

Hmm 02/19/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170103.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1
ple Type:	QC
centration:	50.0 ng/mL
culated Conc:	47.7 ng/mL
. Date:	2/18/2010
. Time:	12:08:07 PM
ified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	1460.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	15.0 sec
ected RT:	8.40 min
Relative RT:	No
. Type:	Valley
ention Time:	8.37 min
a:	6.36e+005 counts
ght:	170216.095 cps
rt Time:	8.30 min
Time:	8.62 min

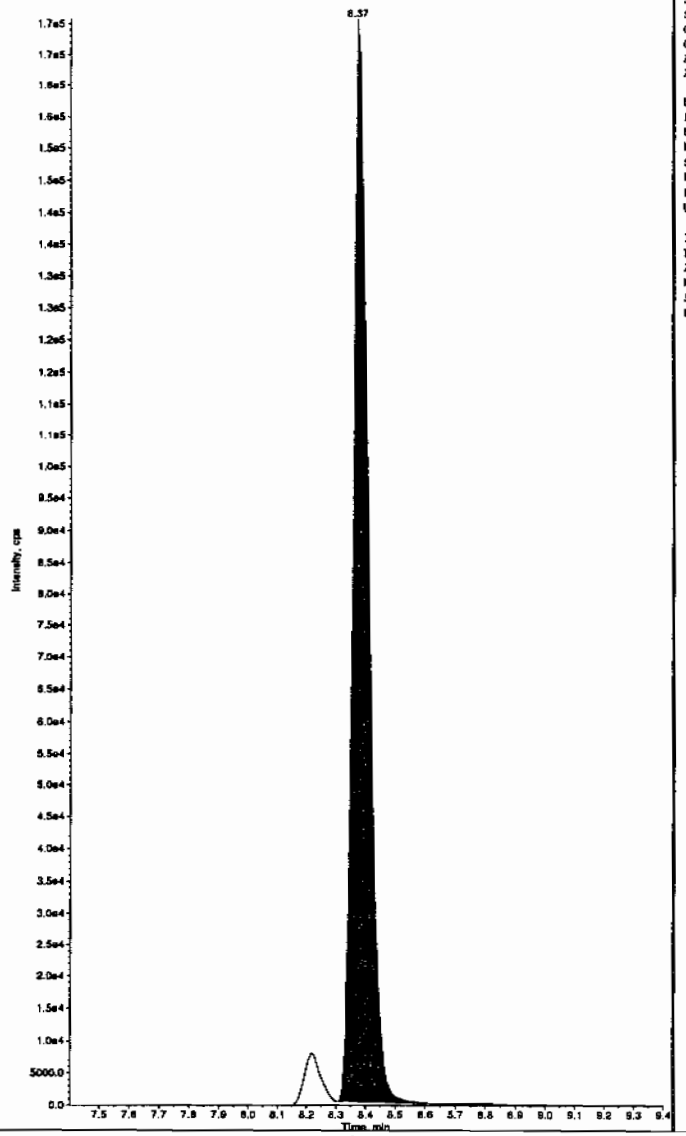

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170103.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	105. ng/mL
Acq. Date:	2/18/2010
Acq. Time:	12:08:07 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.04 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.01 min
Area:	2.07e+005 counts
Height:	52564.037 cps
Start Time:	4.90 min
End Time:	5.28 min

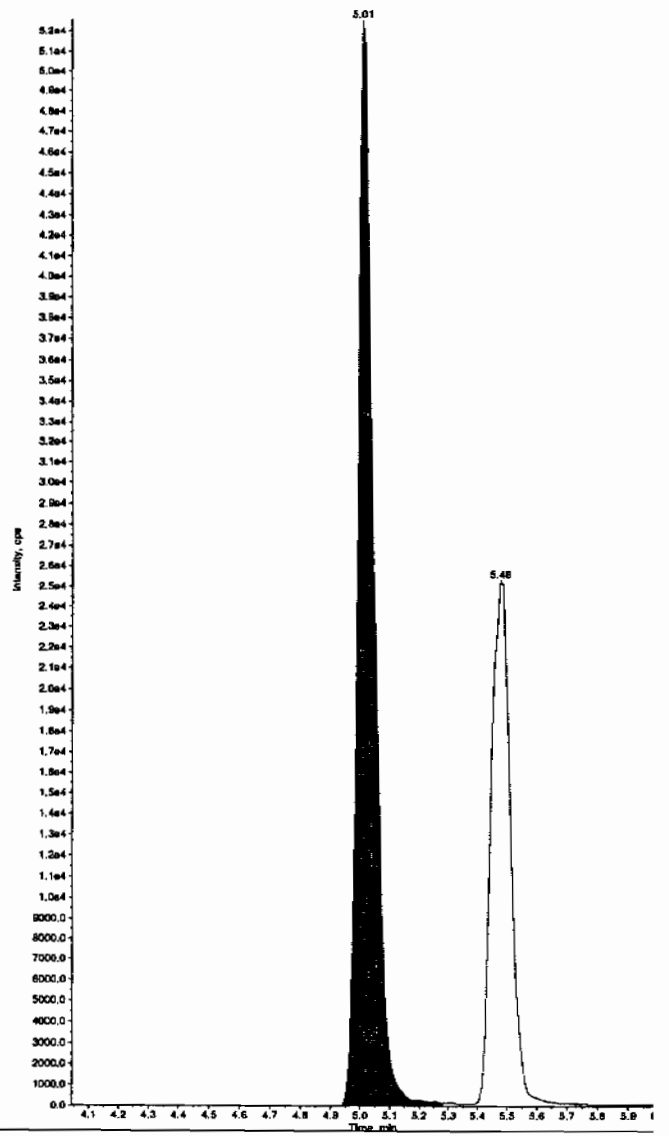

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Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170103.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
ncentration:        100.      ng/mL
lculated Conc:      93.3      ng/mL
q. Date:        2/18/2010
q. Time:        12:08:07 PM

ified:              No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00    cps
n. Peak Width:    0.00    sec
oothing Width:  3         points
Window:          30.0     sec
pected RT:        5.51    min
e Relative RT:    No

. Type:         Valley
ention Time:      5.48    min
a:          1.15e+005    counts
ght:          25263.706  cps
rt Time:          5.34    min
d Time:           5.79    min
```

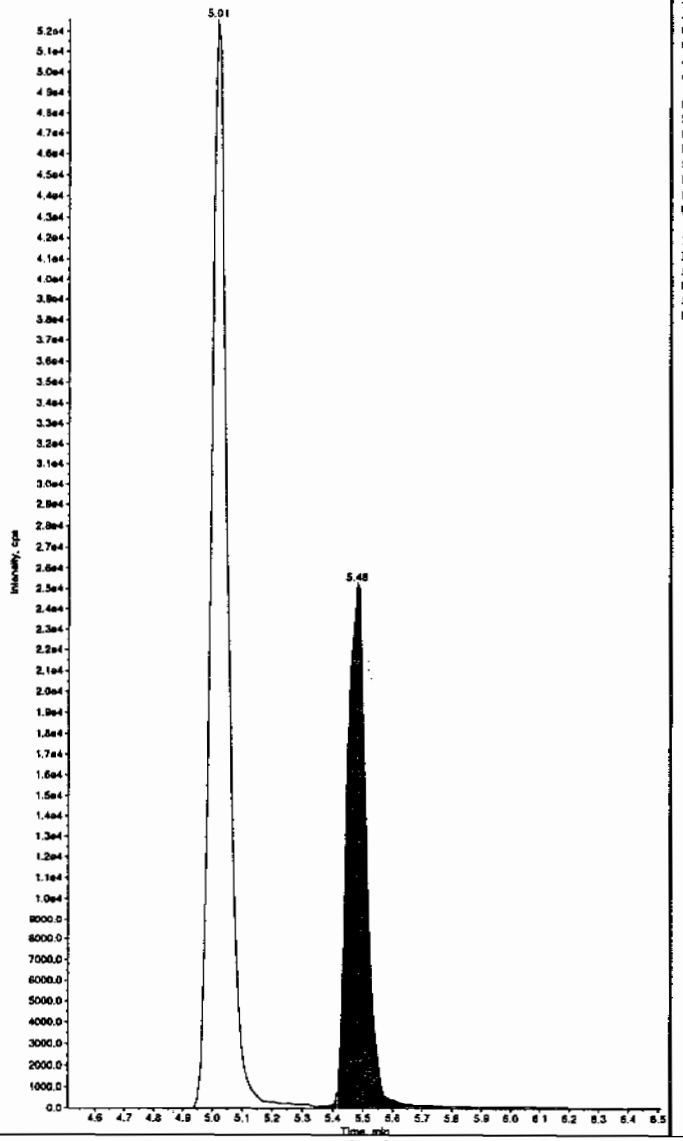

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170103.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.      ng/mL
Calculated Conc:       111.      ng/mL
Acq. Date:         2/18/2010
Acq. Time:         12:08:07 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9    min
Area:          2.41e+006    counts
Height:        606509.399   cps
Start Time:         10.8    min
End Time:           11.2    min
```

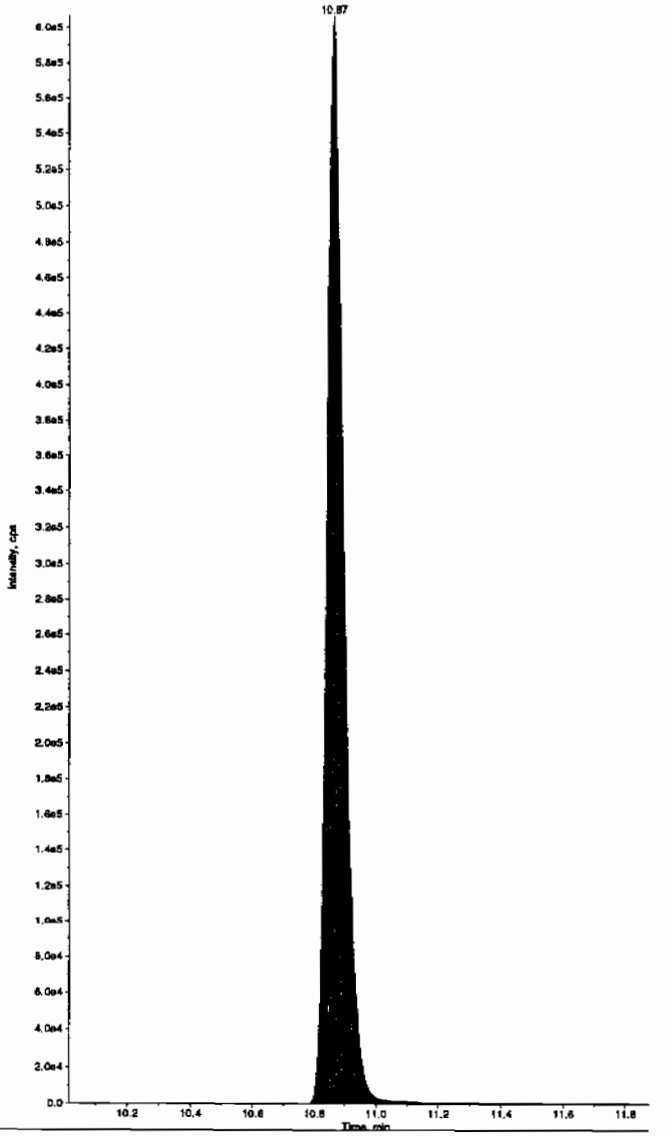

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1394

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02170114.wiff

Analysis Date: 18–FEB–10 15:01

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	480	96	
2,6–Diamino–4–nitrotoluene	500	551	110	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	505	101	
TATB	500	481	96	
tris(o–cresyl) phosphate	500	489	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Ion 2/19/10

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170114.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
ncentration:	500.	ng/mL
culated Conc:	481.	ng/mL
. Date:	2/18/2010	
. Time:	3:01:06 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	7.03	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.98	min
a:	8.17e+005	counts
ght:	181948.135	cps
rt Time:	6.85	min
Time:	7.48	min

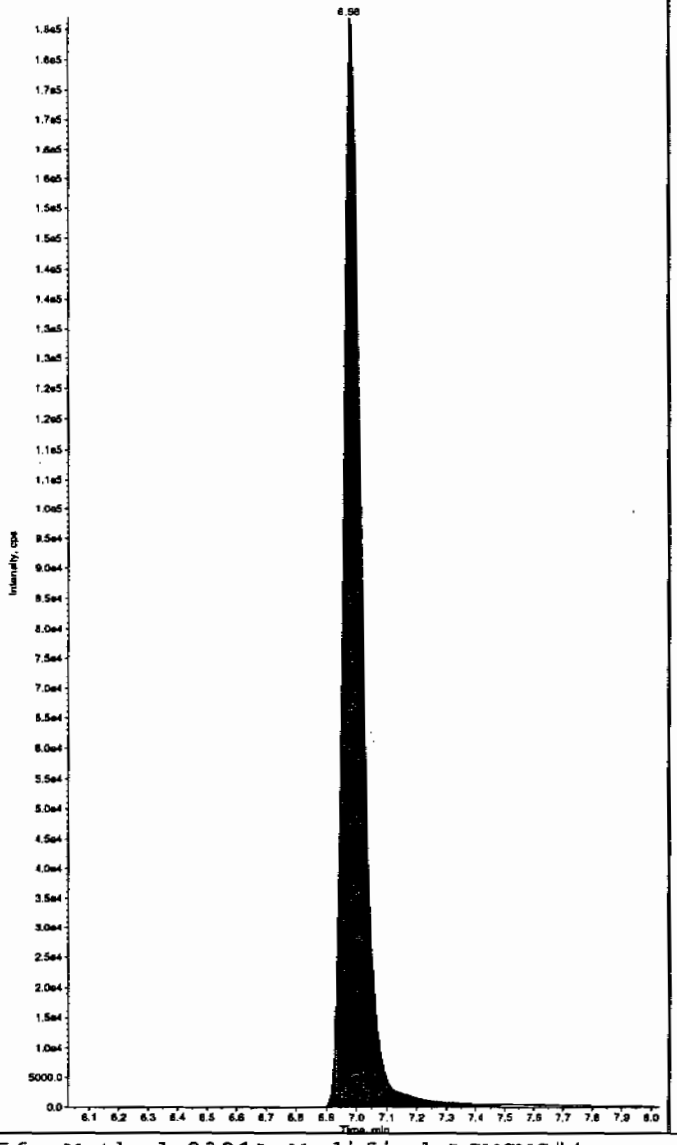

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170114.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	489.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	3:01:06 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.21	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.21	min
Area:	3.59e+006	counts
Height:	892793.884	cps
Start Time:	8.13	min
End Time:	8.32	min

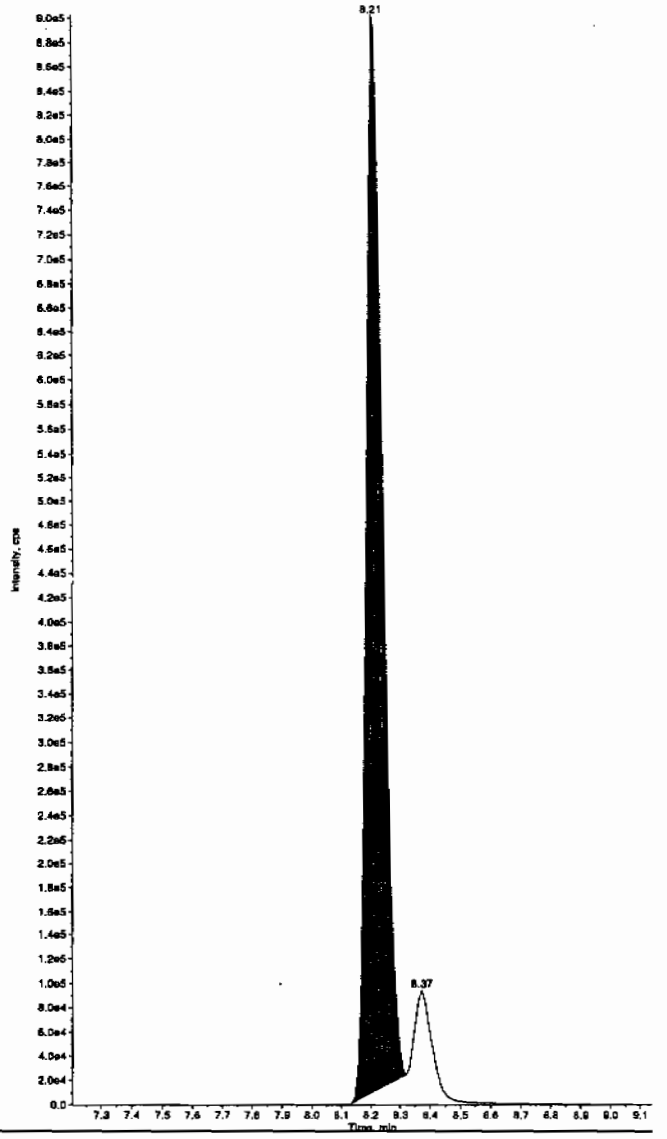

HMM 02/19/10

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Clean 2/19/10

ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170114.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 481. ng/mL
. Date: 2/18/2010
. Time: 3:01:06 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.03 min
Relative RT: No

. Type: Valley
ention Time: 6.98 min
a: 8.17e+005 counts
ght: 181948.135 cps
rt Time: 6.85 min
Time: 7.48 min

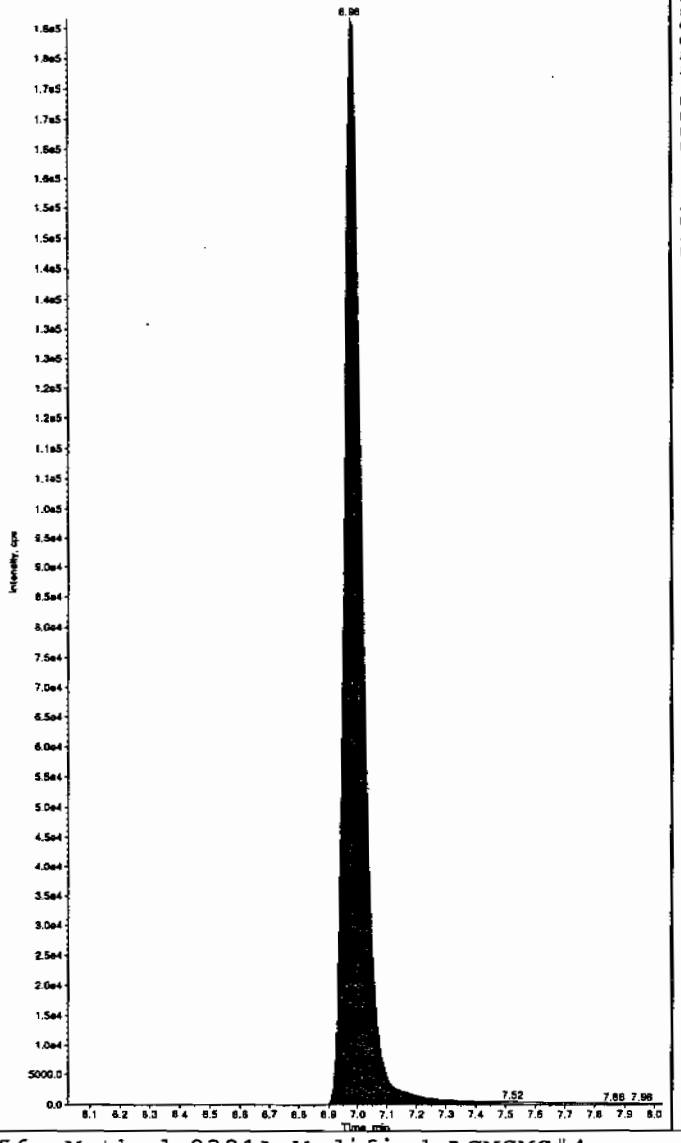

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170114.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:01:06 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.21 min
Area: 3.71e+006 counts
Height: 915254.727 cps
Start Time: 8.13 min
End Time: 8.32 min

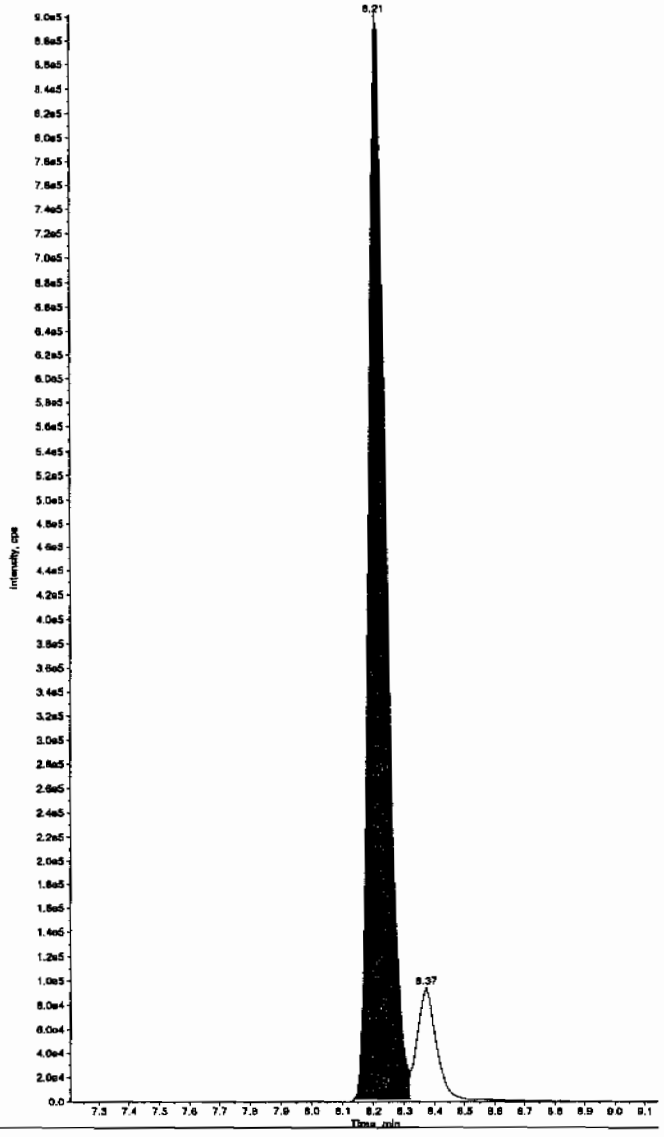

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170114.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "

mple Index: 1
mple Type: QC
ncentration: 250. ng/mL
lculated Conc: 232. ng/mL
q. Date: 2/18/2010
q. Time: 3:01:06 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.40 min
e Relative RT: No

t. Type: Valley
tention Time: 8.36 min
ea: 3.10e+006 counts
ight: 775933.411 cps
art Time: 8.29 min
d Time: 8.68 min

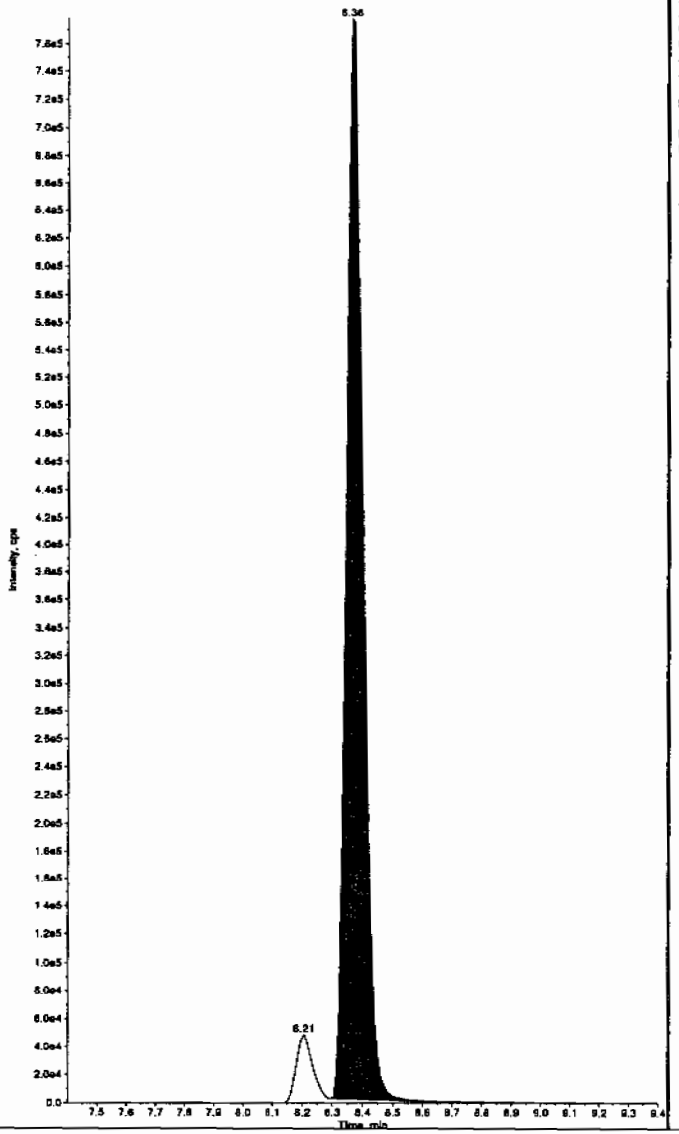

Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170114.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 551. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:01:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.08e+006 counts
Height: 266801.270 cps
Start Time: 4.92 min
End Time: 5.30 min

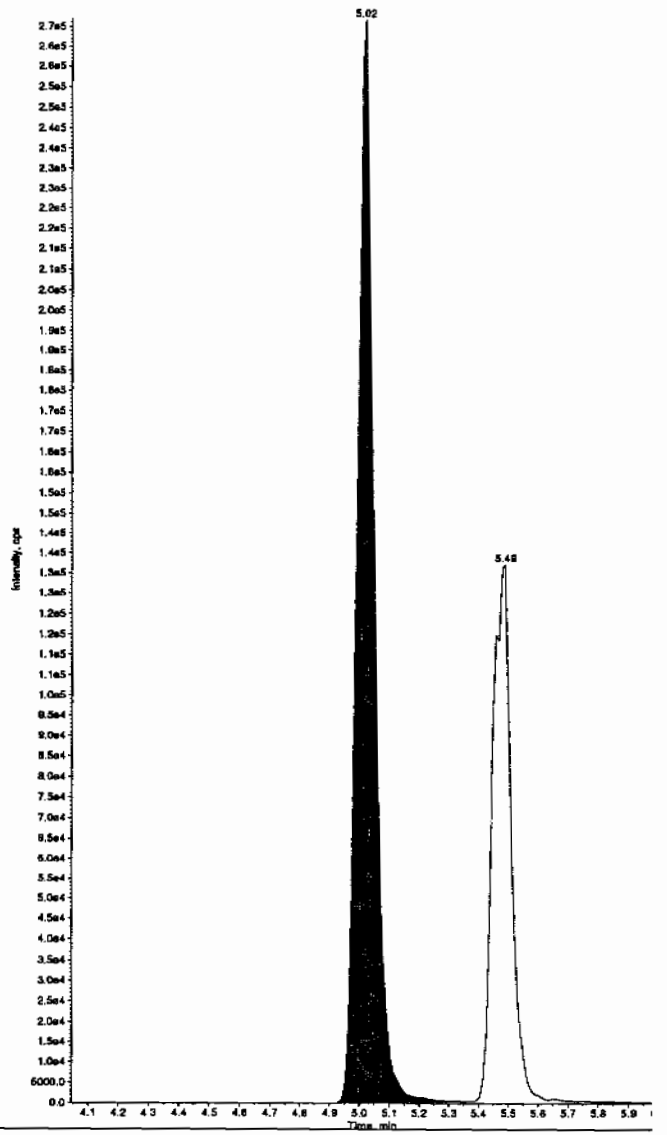

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ample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170114.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
'omment: "LCMSEXP_C" Annotation: ""

ıple Index:	1	
ıple Type:	QC	
ıcentration:	500.	ng/mL
.culated Conc:	480.	ng/mL
ı. Date:	2/18/2010	
ı. Time:	3:01:06 PM	
lified:	No	
ıc. Algorithm:	IntelliQuan - IQA	
ı. Peak Height:	350.00	cps
ı. Peak Width:	0.00	sec
ıothing Width:	3	points
Window:	30.0	sec
ıected RT:	5.51	min
Relative RT:	No	
.. Type:	Valley	
ıention Time:	5.49	min
ıa:	5.93e+005	counts
ght:	132259.293	cps
.rt Time:	5.34	min
Time:	6.07	min

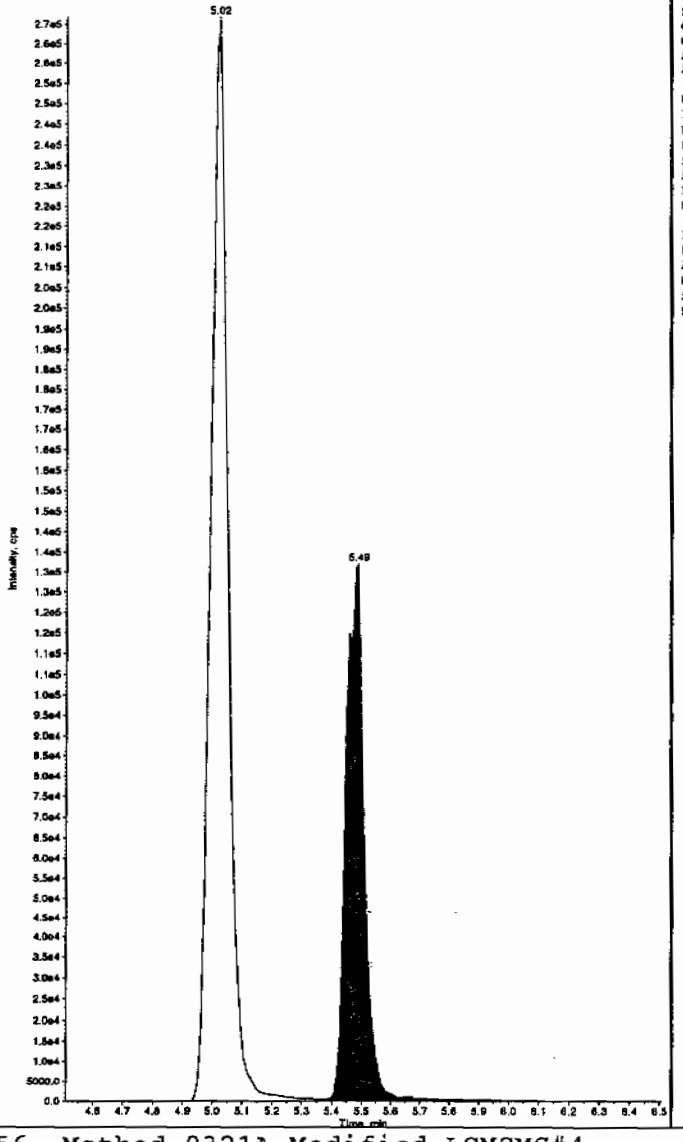

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170114.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	489.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	3:01:06 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.07e+007	counts
Height:	2530549.072	cps
Start Time:	10.8	min
End Time:	11.3	min

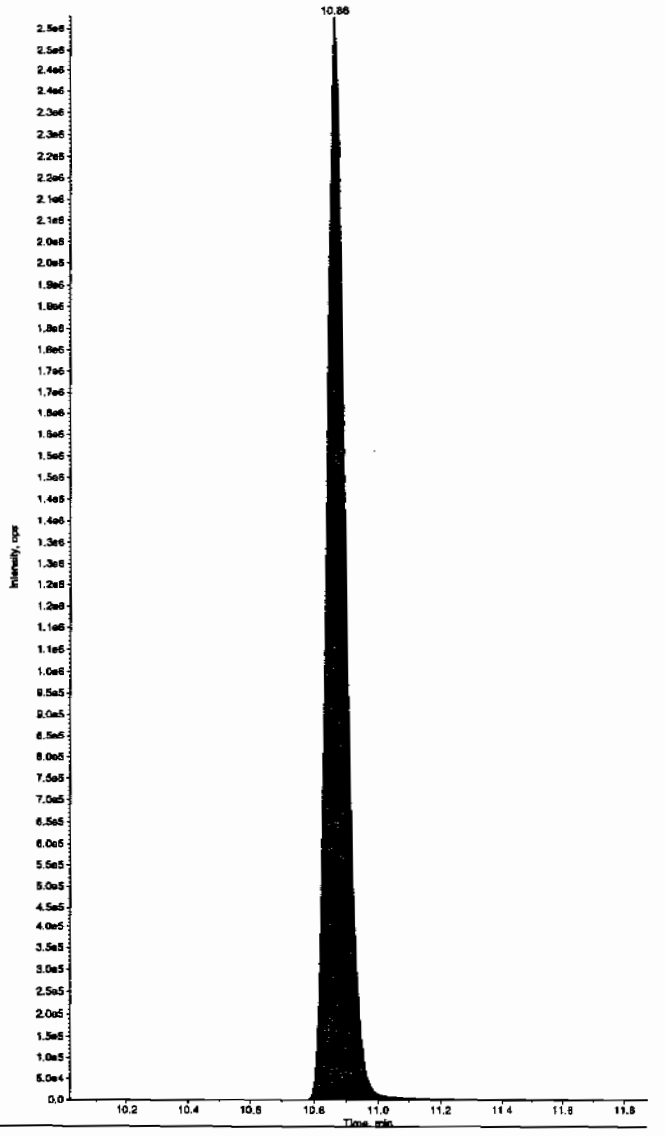

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1394

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXS02170116.wiff **Analysis Date:** 18-FEB-10 15:32

LCMSMS ID: 1358 **Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	108	108	
3,4-Dinitrotoluene	50	49	98	
3,5-Dinitroaniline	100	105	105	
TATB	100	97.4	97	
tris(o-cresyl) phosphate	100	108	108	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Stan 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170116.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 100. ng/mL
lculated Conc: 97.4 ng/mL
q. Date: 2/18/2010
q. Time: 3:32:39 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.03 min
e Relative RT: No

t. Type: Valley
tention Time: 6.97 min
ea: 1.65e+005 counts
ight: 37108.150 cps
art Time: 6.84 min
d Time: 7.48 min

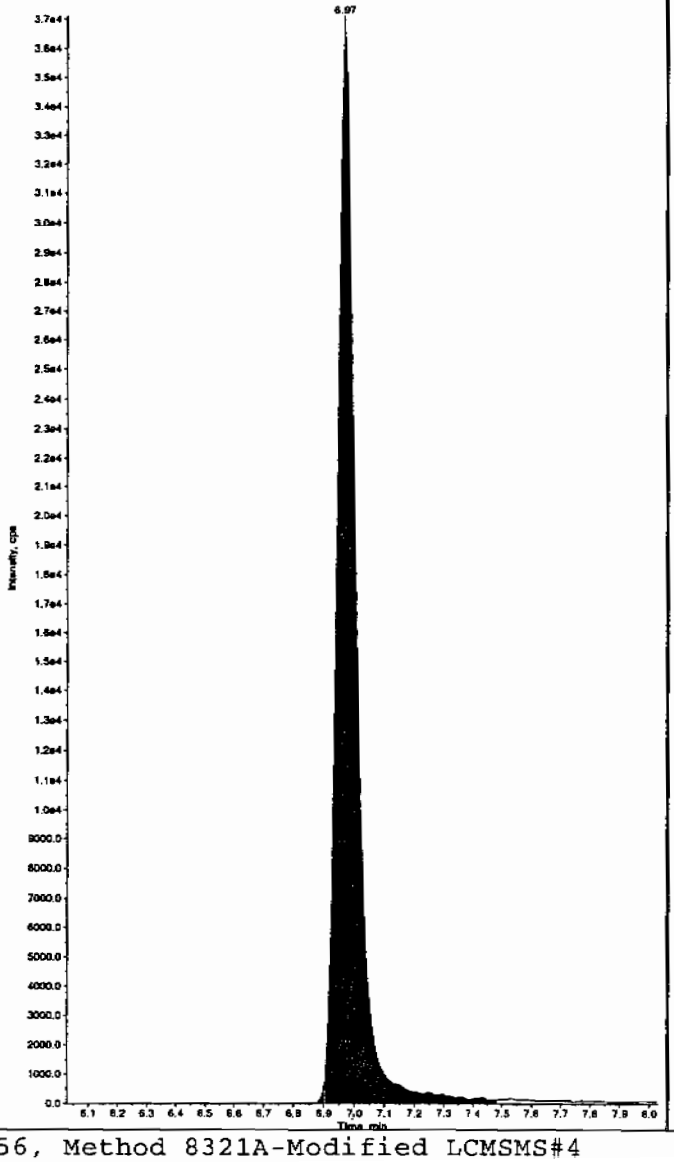

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170116.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:32:39 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 7.71e+005 counts
Height: 185077.347 cps
Start Time: 8.10 min
End Time: 8.31 min

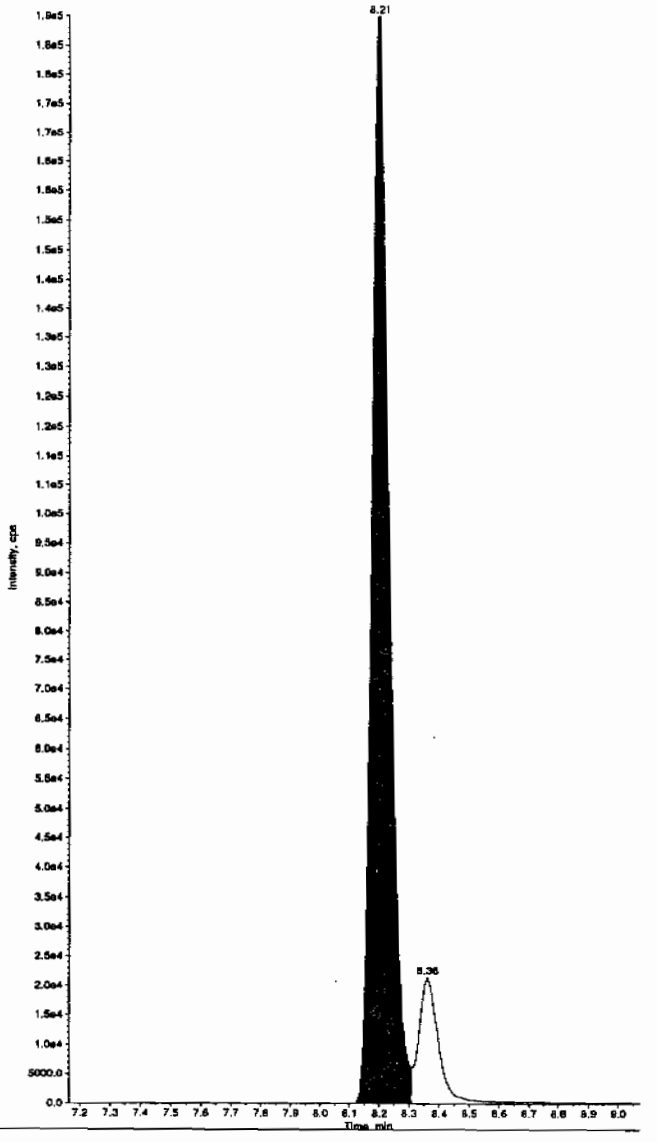

Hmm 02/19/10

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Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170116.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 50.0 ng/mL
lculated Conc: 49.0 ng/mL
q. Date: 2/18/2010
q. Time: 3:32:39 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.40 min
e Relative RT: No

t. Type: Valley
tention Time: 8.35 min
ea: 6.52e+005 counts
ight: 176904.800 cps
art Time: 8.28 min
d Time: 8.64 min

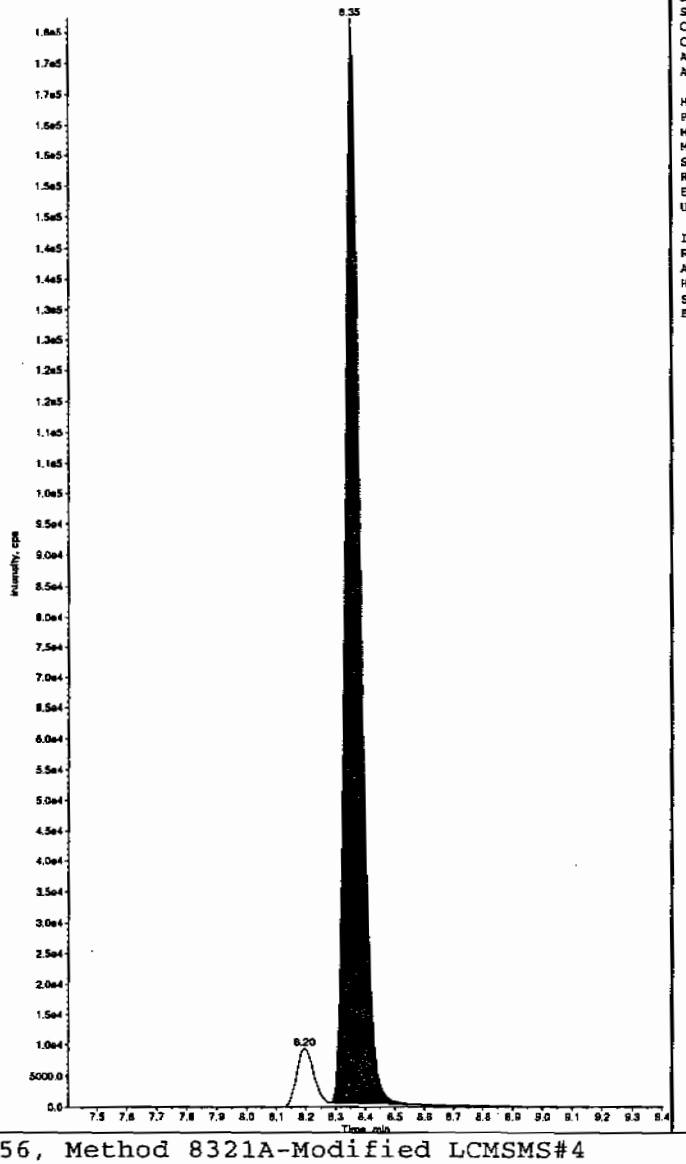

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170116.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 3:32:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 2.11e+005 counts
Height: 53498.497 cps
Start Time: 4.83 min
End Time: 5.31 min

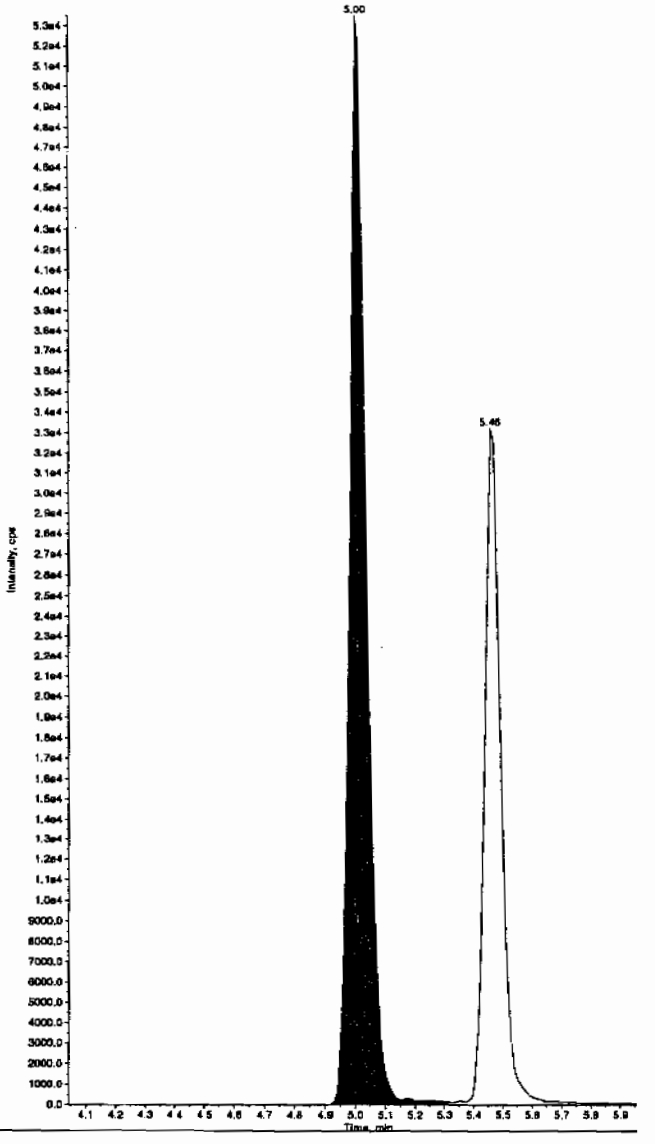

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Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170116.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
lculated Conc:	103.	ng/mL
q. Date:	2/18/2010	
q. Time:	3:32:39 PM	
ified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	350.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.51	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	5.46	min
ea:	1.27e+005	counts
ight:	33169.159	cps
art Time:	5.32	min
d Time:	5.80	min

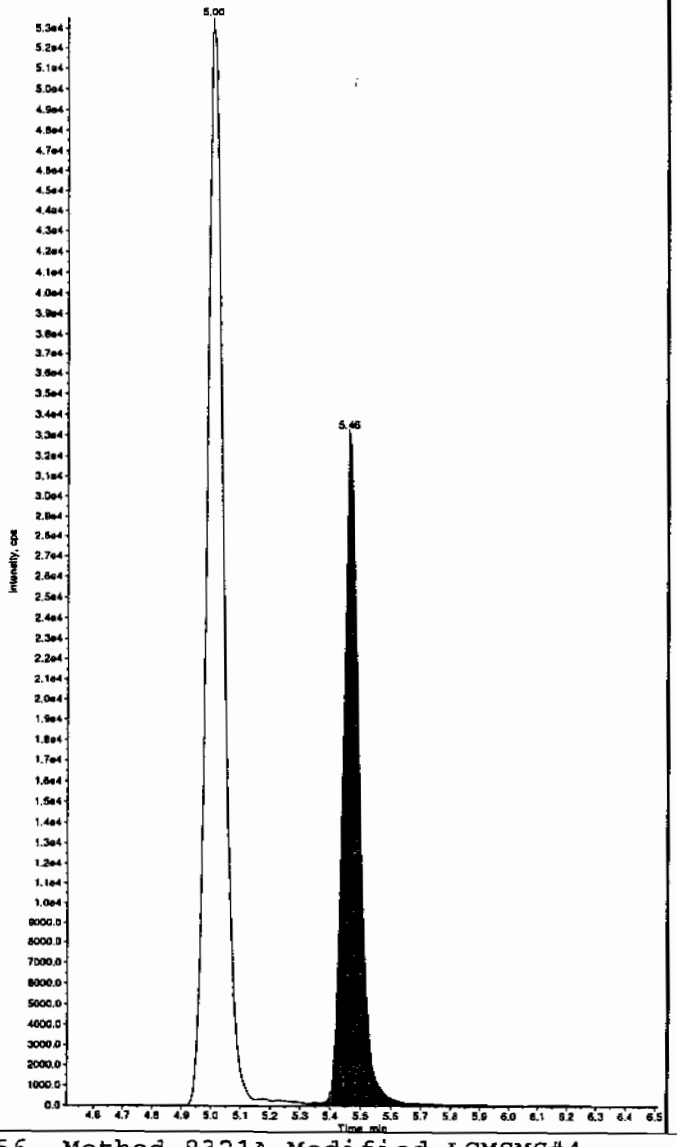

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170116.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	108.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	3:32:39 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	2.36e+006	counts
Height:	594395.142	cps
Start Time:	10.6	min
End Time:	11.1	min

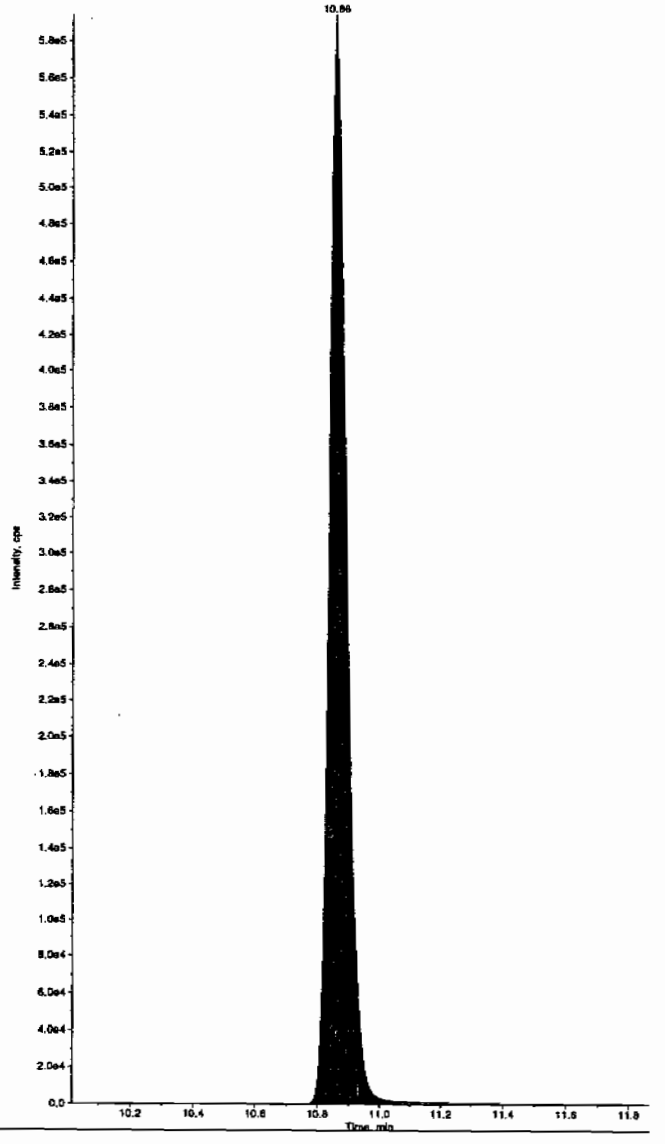

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS02170126.wiff

Analysis Date: 18-FEB-10 18:09

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	544	109	
2,6-Diamino-4-nitrotoluene	500	580	116	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	503	101	
TATB	500	484	97	
tris(o-cresyl) phosphate	500	495	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/19/10

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170126.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	484.	ng/mL
q. Date:	2/18/2010	
q. Time:	6:09:50 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	7.03	min
Relative RT:	No	
t. Type:	Valley	
tention Time:	7.01	min
ea:	8.22e+005	counts
ight:	181541.122	cps
art Time:	6.84	min
d Time:	7.76	min

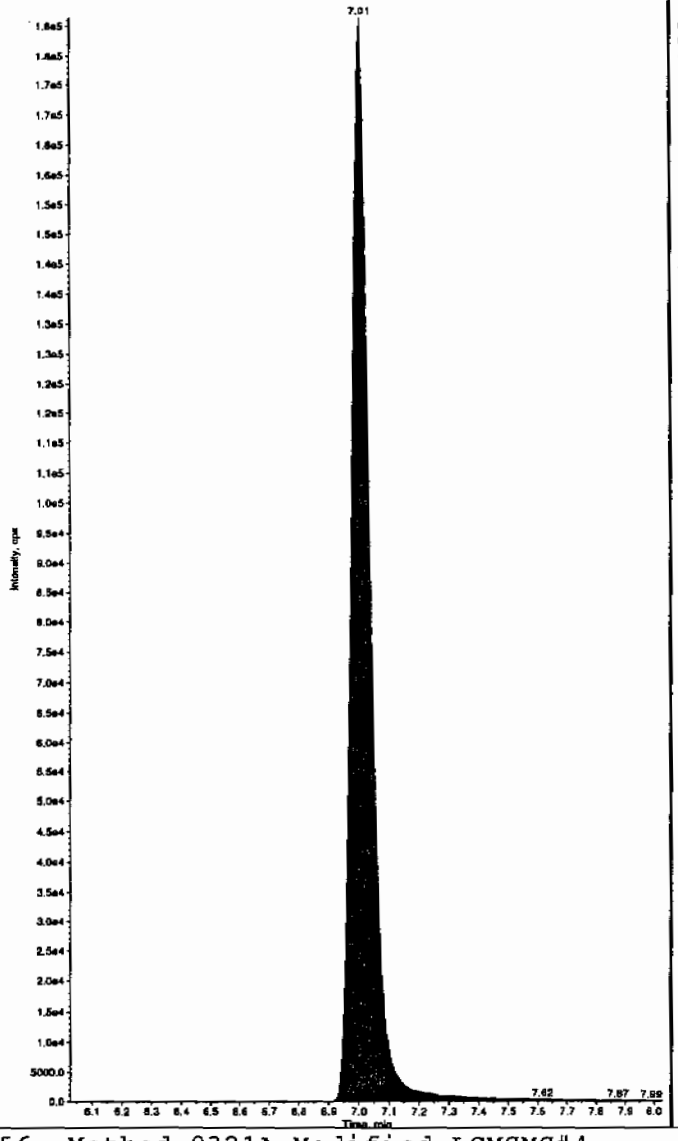

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170126.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	503.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	6:09:50 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.21	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.24	min
Area:	3.70e+006	counts
Height:	875189.514	cps
Start Time:	8.13	min
End Time:	8.34	min

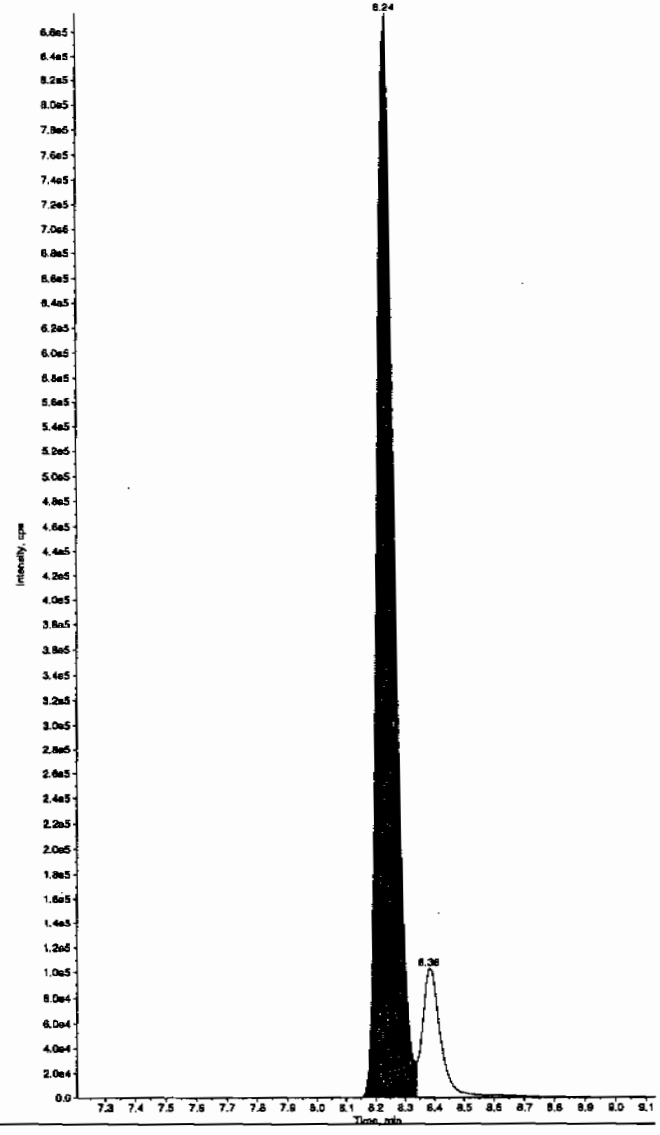

Hmm 02/19/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170126.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
ncentration:	250.	ng/mL
lculated Conc:	232.	ng/mL
q. Date:	2/18/2010	
q. Time:	6:09:50 PM	
ified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	1460.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	15.0	sec
pected RT:	8.40	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	8.38	min
ea:	3.09e+006	counts
ight:	790799.316	cps
art Time:	8.31	min
d Time:	8.59	min

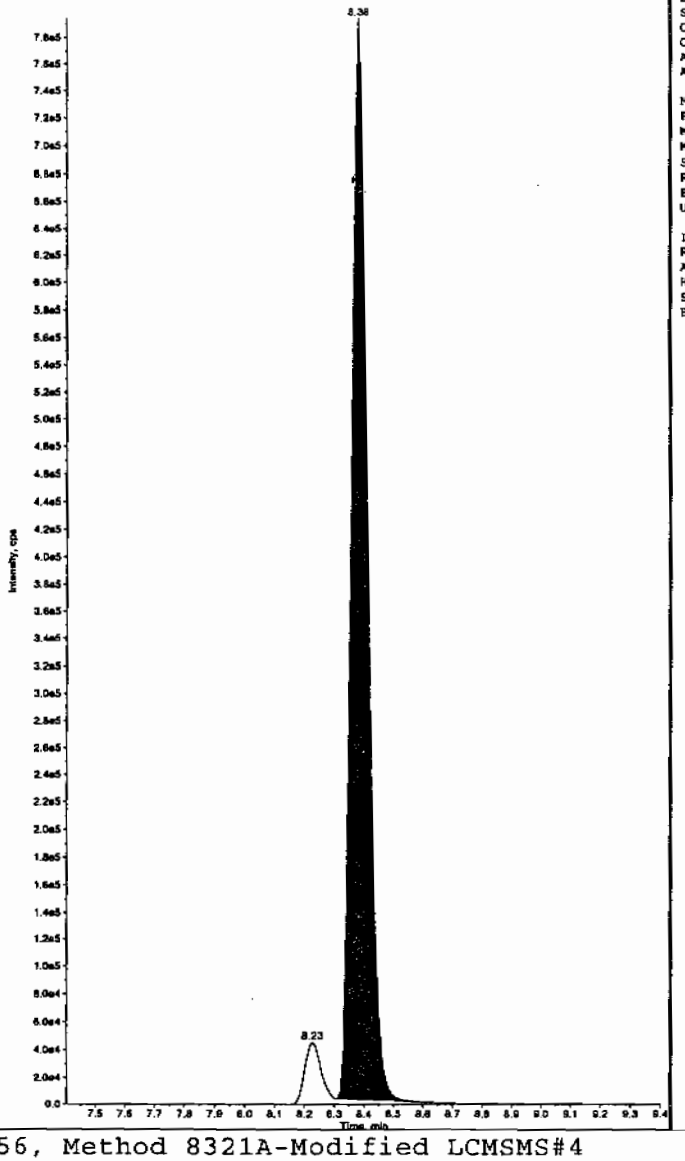

Sample Name: "WXX100217-26CCV" Sample ID: "|1|LER" File: "EXS02170126.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	580.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	6:09:50 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.04	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.02	min
Area:	1.14e+006	counts
Height:	265656.128	cps
Start Time:	4.91	min
End Time:	5.27	min

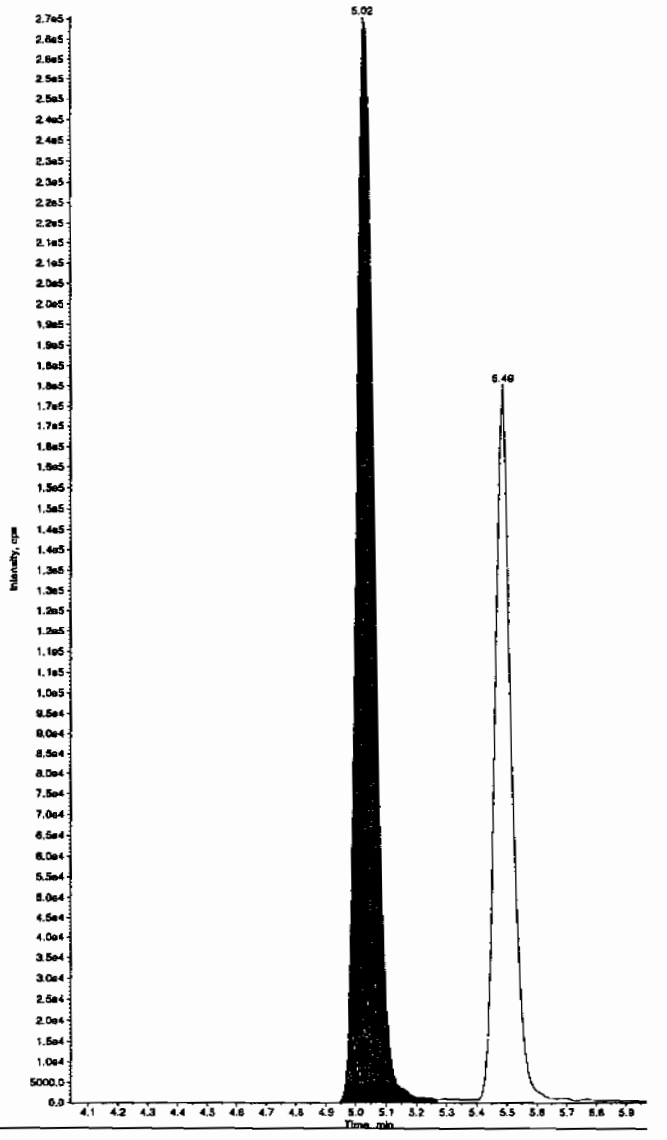

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Sample Name: "WXX100217-25CCV" Sample ID: "[1]LER" File: "EXS02170126.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	544.	ng/mL
q. Date:	2/18/2010	
q. Time:	6:09:50 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	350.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.51	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	5.49	min
ea:	6.72e+005	counts
ight:	175233.734	cps
art Time:	5.36	min
d Time:	5.73	min

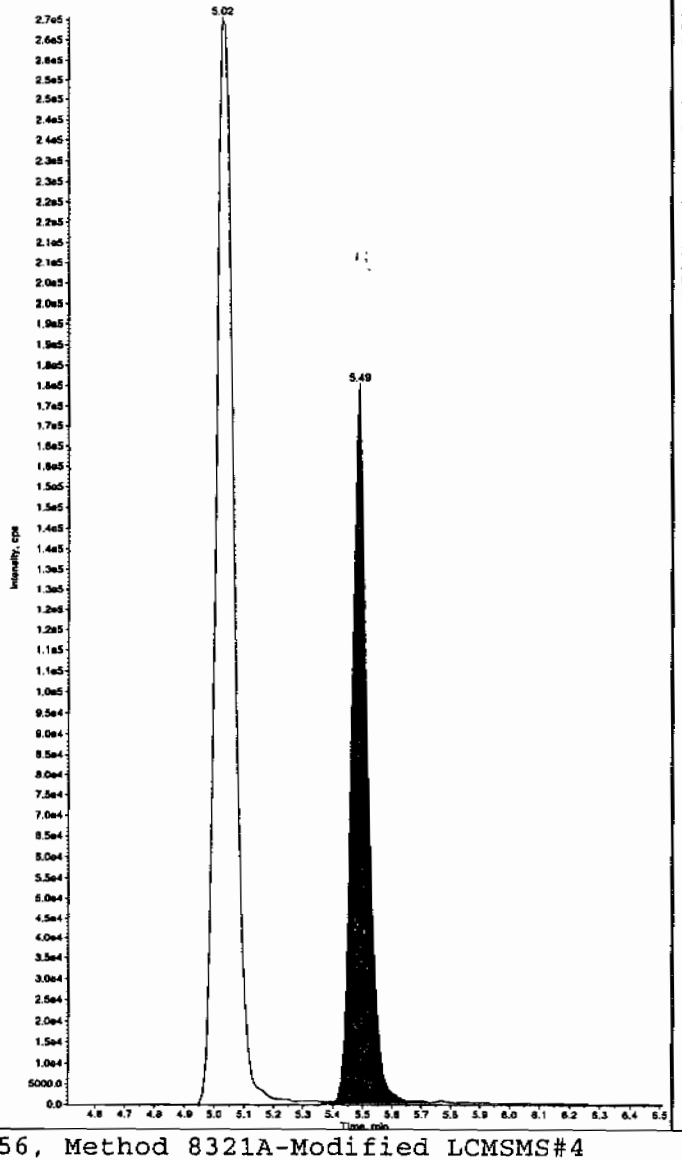

Sample Name: "WXX100217-26CCV" Sample ID: "[1]LER" File: "EXS02170126.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	495.	ng/mL
Acq. Date:	2/18/2010	
Acq. Time:	6:09:50 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.08e+007	counts
Height:	2563522.217	cps
Start Time:	10.8	min
End Time:	11.2	min

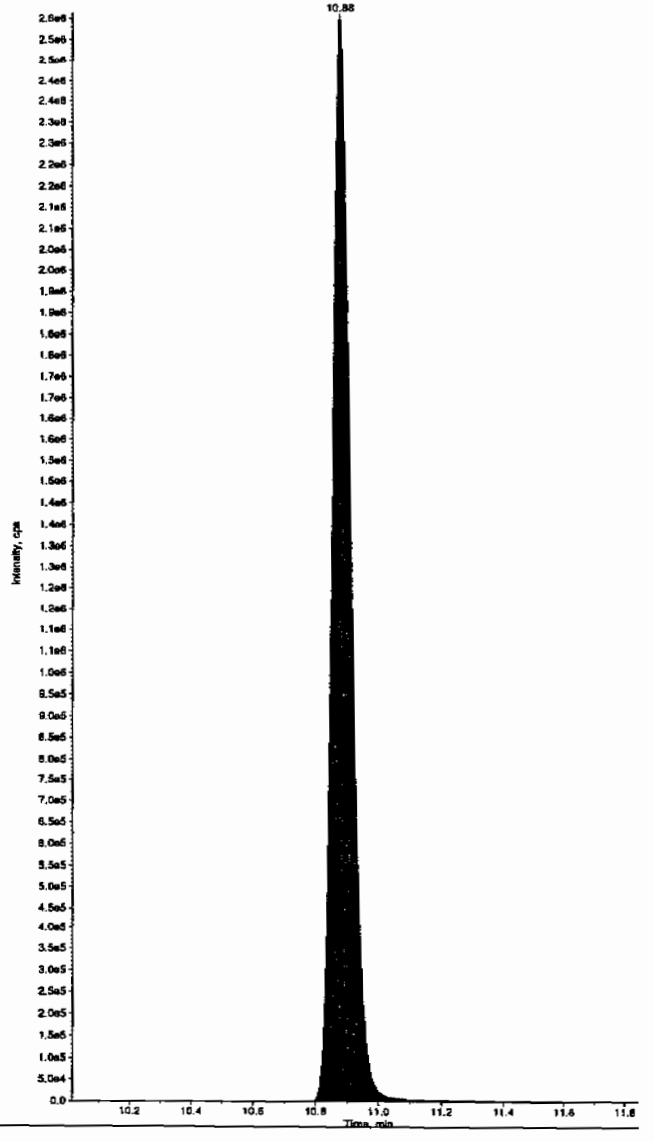

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1394

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02170128.wiff

Analysis Date: 18-FEB-10 18:41

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	119	119	
3,4-Dinitrotoluene	50	47.3	95	
3,5-Dinitroaniline	100	99.7	100	
TATB	100	97.8	98	
tris(o-cresyl) phosphate	100	109	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/19/10

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170128.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 100. ng/mL
lculated Conc: 97.8 ng/mL
q. Date: 2/18/2010
q. Time: 6:41:23 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.03 min
e Relative RT: No

t. Type: Valley
tention Time: 7.03 min
ea: 1.66e+005 counts
ight: 37473.293 cps
art Time: 6.87 min
d Time: 7.42 min

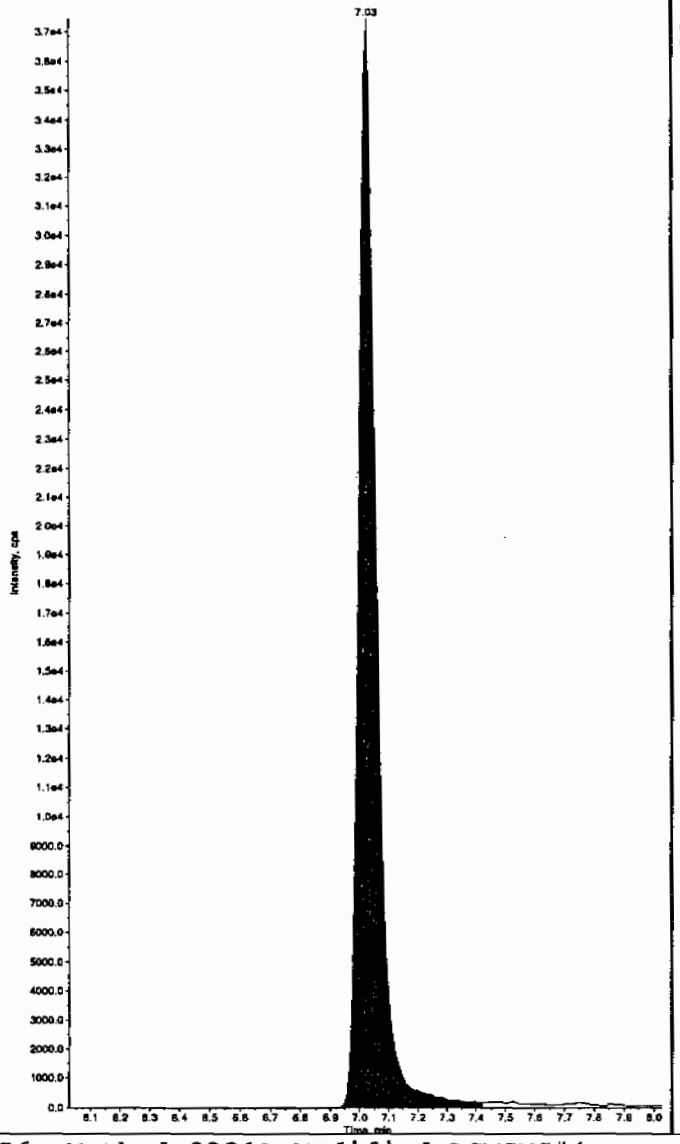

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170128.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.7 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 6:41:23 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.26 min
Area: 7.33e+005 counts
Height: 185696.503 cps
Start Time: 8.15 min
End Time: 8.35 min

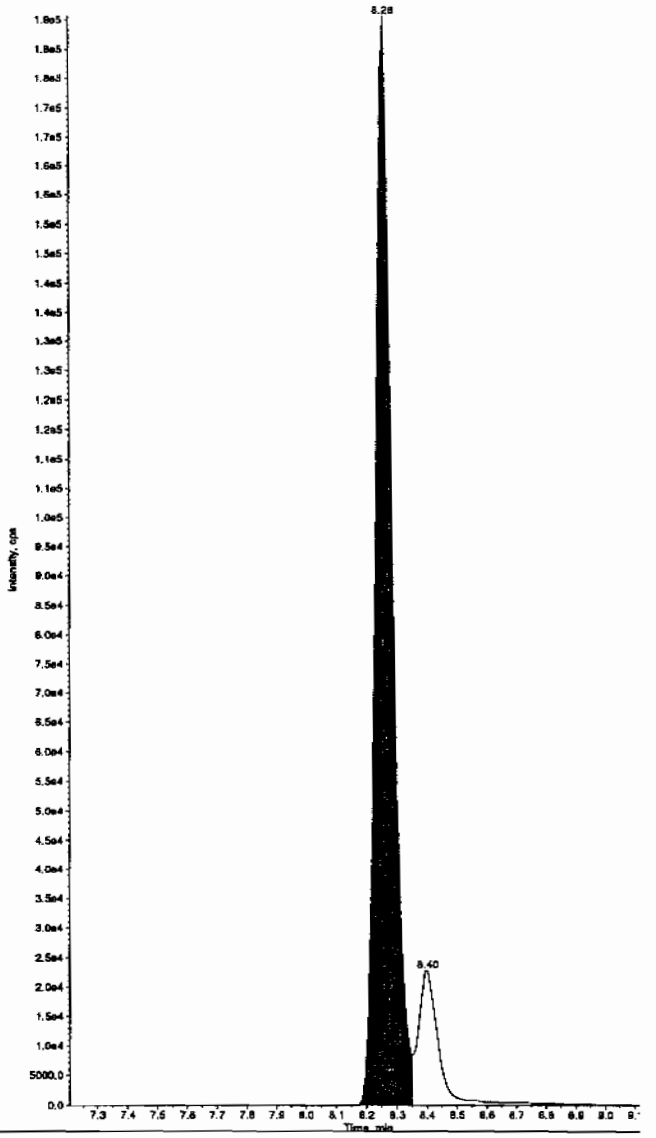

Hnm 02/19/10

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Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170128.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "

```
mple Index:        1
mple Type:        QC
ncentration:      50.0    ng/mL
lculated Conc:    47.3    ng/mL
q. Date:       2/18/2010
q. Time:       6:41:23 PM

dified:           No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:1460.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3        points
 Window:         15.0    sec
pected RT:        8.40   min
e Relative RT:    No

t. Type:        Valley
tention Time:     8.39   min
ea:         6.30e+005   counts
ight:        168486.542  cps
art Time:         8.32   min
d Time:           8.59   min
```

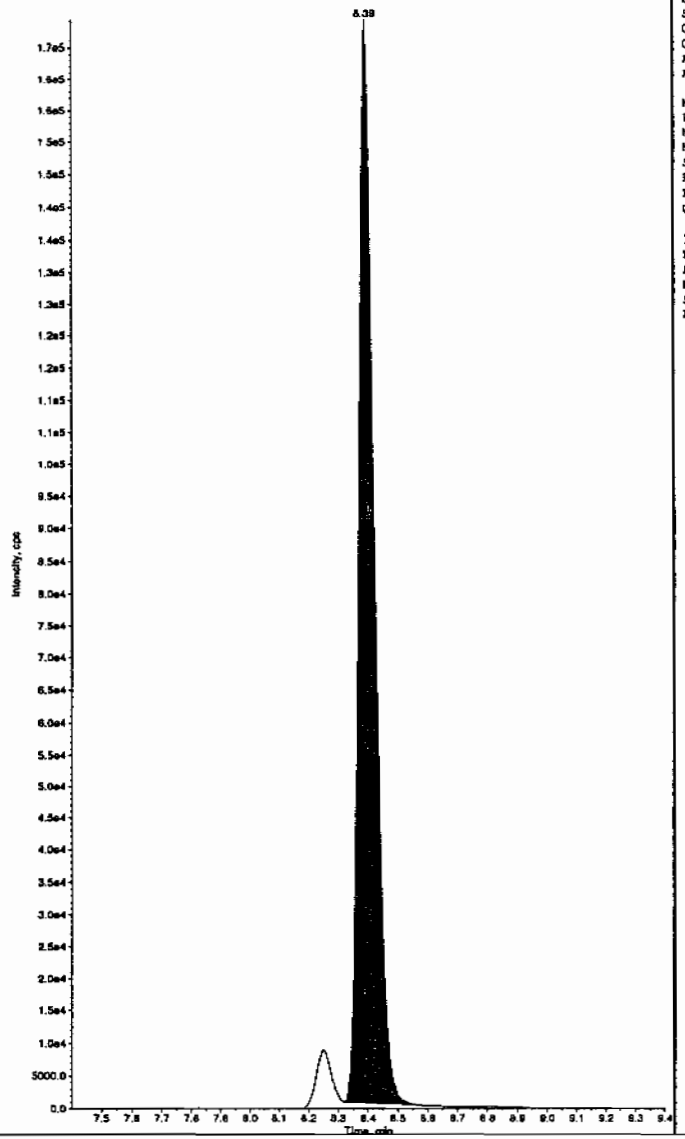

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170128.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.    ng/mL
Calculated Conc:    119.    ng/mL
Acq. Date:       2/18/2010
Acq. Time:       6:41:23 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.04   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.04   min
Area:         2.35e+005   counts
Height:        59159.916  cps
Start Time:         4.95   min
End Time:           5.34   min
```

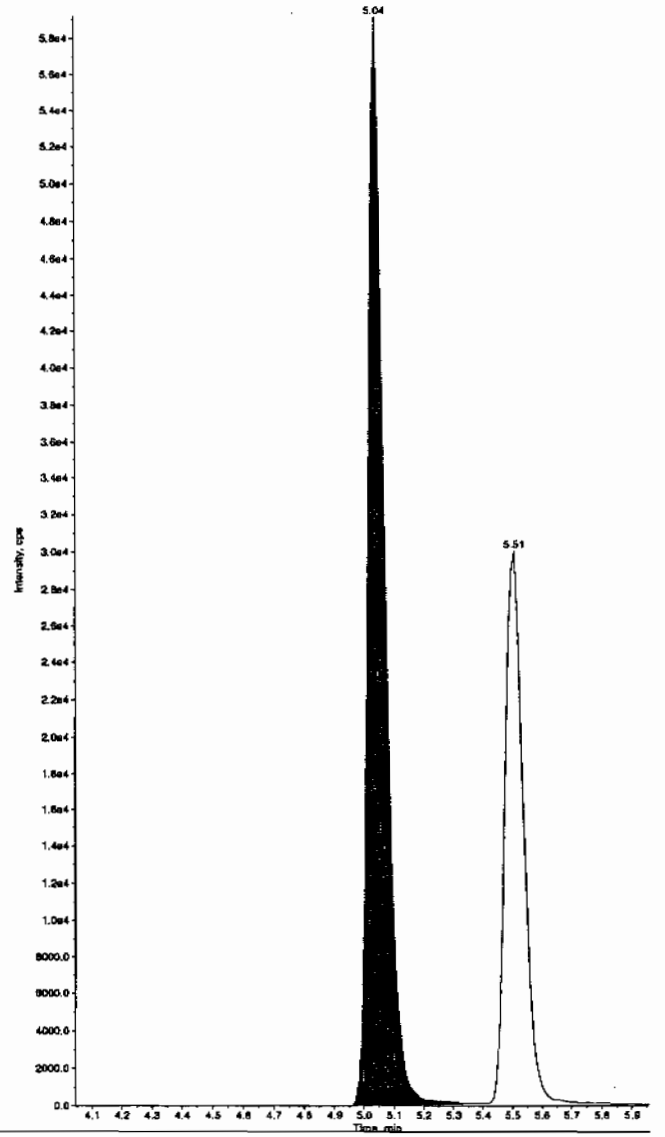

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170128.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:          1
mple Type:           QC
ncentration:       100.     ng/mL
lculated Conc:     103.     ng/mL
q. Date:        2/18/2010
q. Time:        6:41:23 PM

dified:            No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3        points
' Window:         30.0   sec
pected RT:         5.51  min
e Relative RT:    No

t. Type:         Valley
tention Time:      5.51  min
ea:          1.28e+005  counts
ight:        29853.479  cps
art Time:          5.43  min
d Time:            5.68  min
```

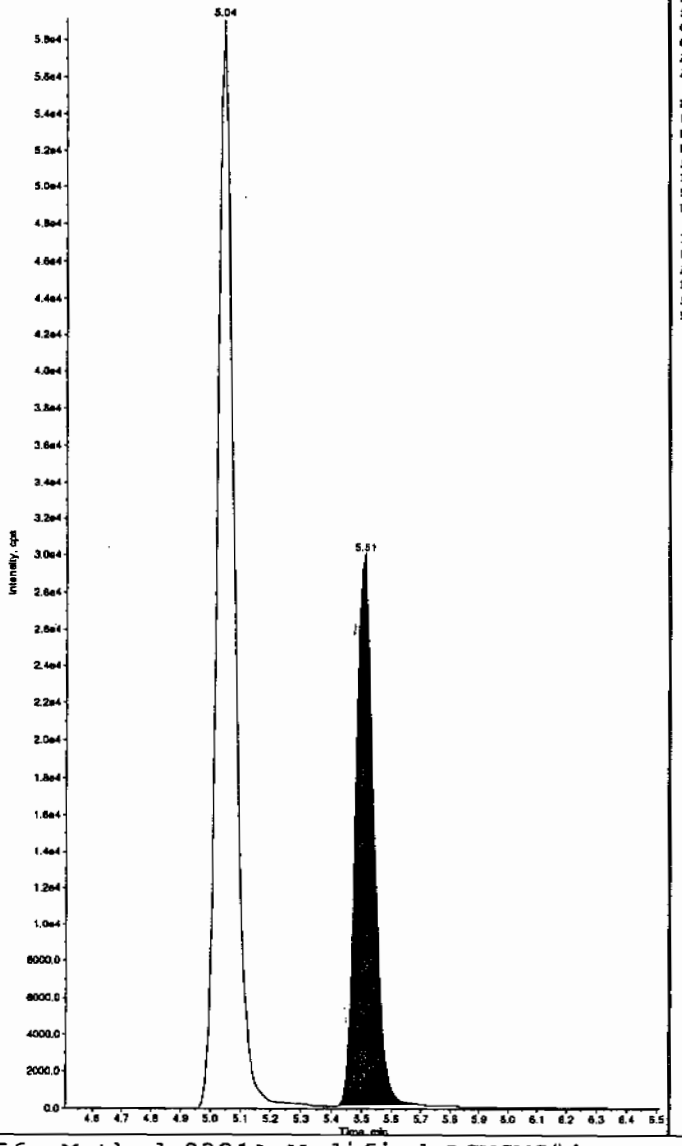

Sample Name: "WXX100217-27CRI" Sample ID: "[1]LER" File: "EXS02170128.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     100.     ng/mL
Calculated Conc:   109.     ng/mL
Acq. Date:      2/18/2010
Acq. Time:      6:41:23 PM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:   0.00    sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.9    min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    10.9    min
Area:        2.37e+006   counts
Height:      580794.861  cps
Start Time:        10.8    min
End Time:          11.2    min
```

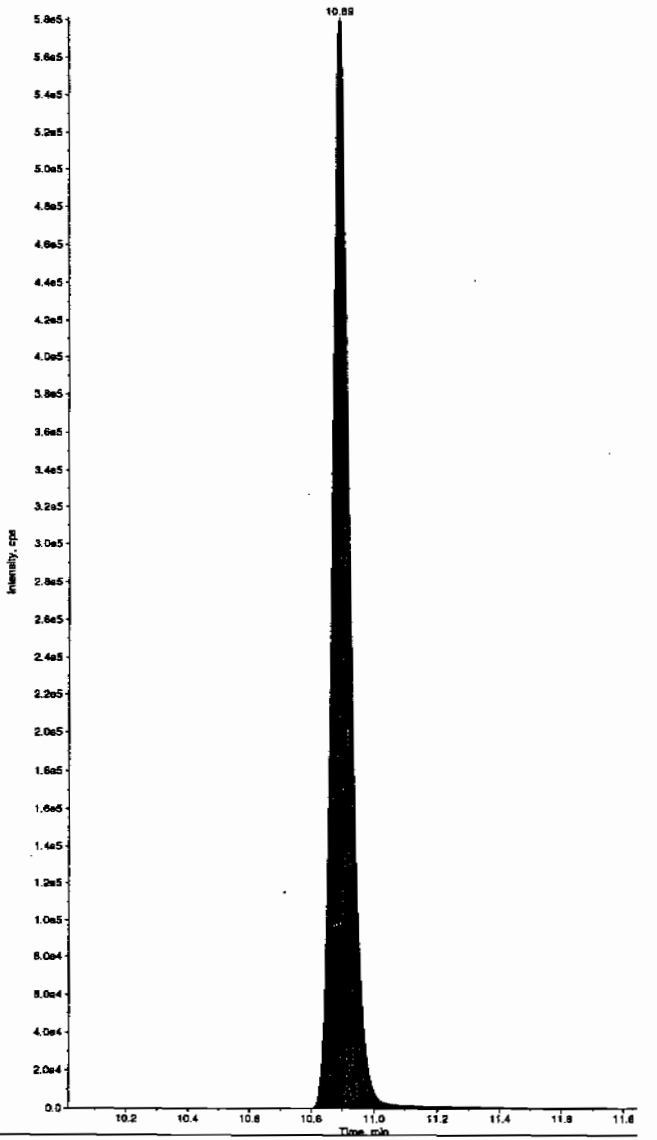

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QUALITY CONTROL DATA

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 944913

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 1202023589

Sample Amount 2

Moisture:

Amount Units g

Date Received: 25-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216104a

Date Analyzed: 18-FEB-10 19:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216104a
Date: 18-Feb-2010
Time: 19:59:48
ID: 1202023589 | LANL | 944915 | Solid | MB | 2 |
Vial: 3:5,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.409e+003

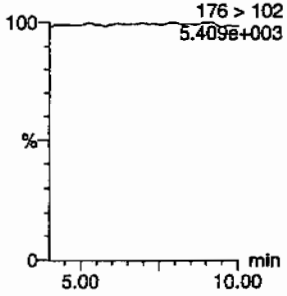

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.409e+003

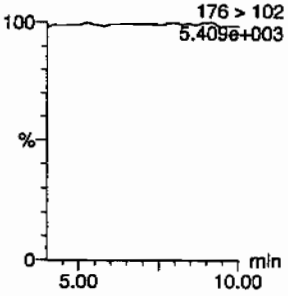

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.349e+003

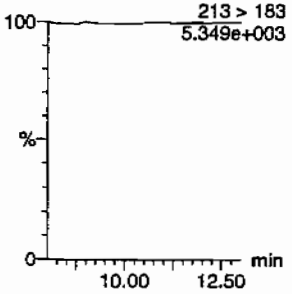

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.250e+004

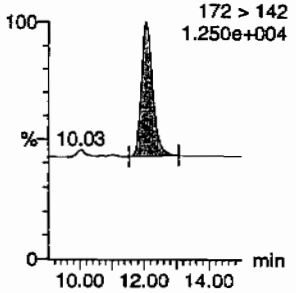

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.340e+003

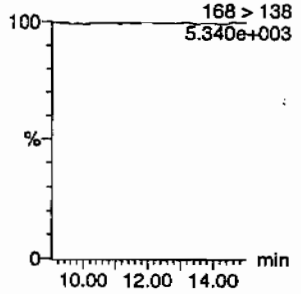

Tetryl
F6:MRM of 1 channel,AP
241 > 18
5.364e+00

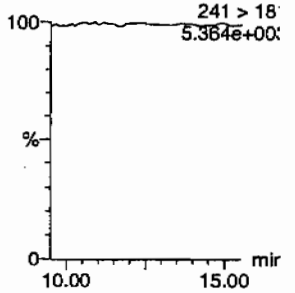

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.392e+003

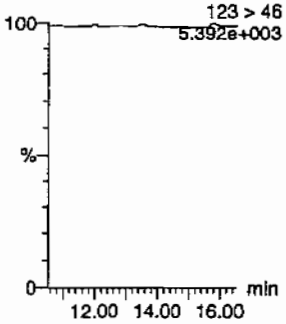

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.430e+003

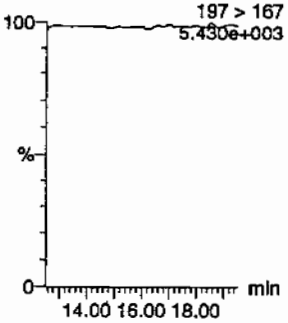

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.411e+003

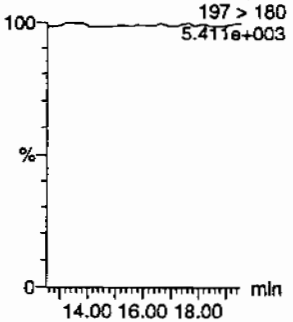

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.358e+003

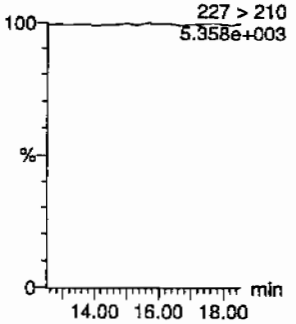

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.193e+004

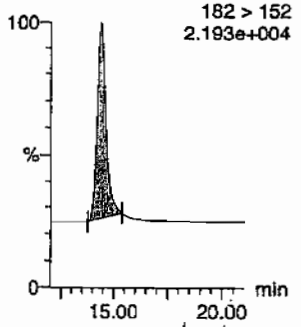

MMW 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 15
2.193e+00

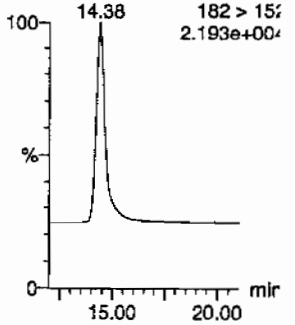

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

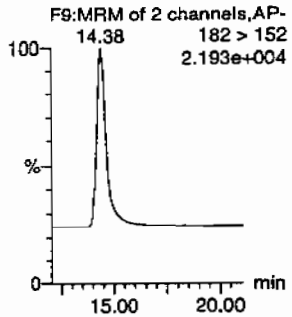

26-dinitrotoluene-d3

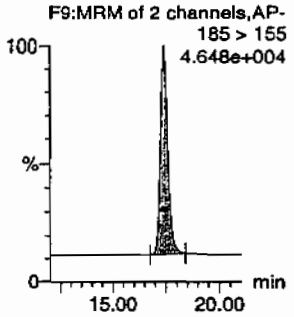

2-Nitrotoluene

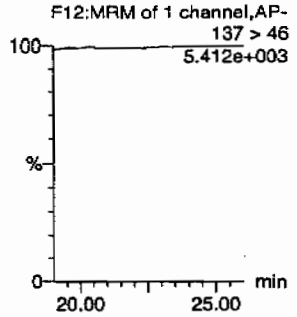

4-Nitrotoluene

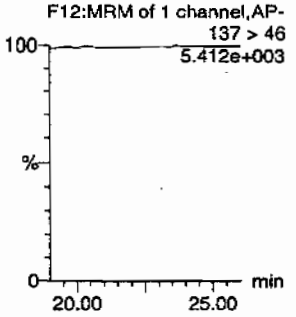

3-Nitrotoluene

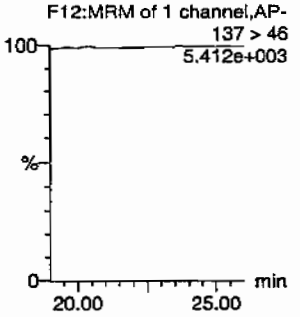

PETN

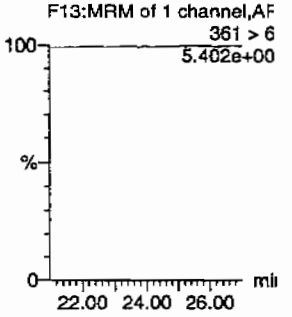

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	ModDate	ModTime	ng/mL	%Rec	%RSD	S/N
1202023589	HMX	176 > 102			2912.389									
1202023589	RDX	176 > 102			2912.389									
1202023589	135-Trinitrobenzene	213 > 183			2912.389									
1202023589	13-Dinitrobenzene-d4	172 > 142	12.03	2912.389		2912.389	2912.389	bb			483.3975	96.7	-3.3	106.0
1202023589	13-Dinitrobenzene	168 > 138			2912.389									
1202023589	Tetryl	241 > 181			2912.389									
1202023589	Nitrobenzene	123 > 46			2912.389									
1202023589	4-Amino-26-dinitrotoluene	197 > 167			16431.217									
1202023589	2-Amino-46-dinitrotoluene	197 > 180			16431.217									
1202023589	246-Trinitrotoluene	227 > 210			16431.217									
1202023589	34-dinitrotoluene	182 > 152	14.38	7850.580	16431.217	7850.580	238.892	bb			263.6777	105.5	5.5	515.7
1202023589	26-dinitrotoluene	182 > 152			16431.217									
1202023589	24-dinitrotoluene	182 > 152			16431.217									
1202023589	26-dinitrotoluene-d3	185 > 155	17.42	16431.217		16431.217	16431.217	bb			471.9294	94.4	-5.6	2583.1
1202023589	2-Nitrotoluene	137 > 46			16431.217									
1202023589	4-Nitrotoluene	137 > 46			16431.217									
1202023589	3-Nitrotoluene	137 > 46			16431.217									
1202023589	PETN	361 > 62			16431.217									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 944913

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 1202023589

Sample Amount 2

Moisture:

Amount Units g

Date Received: 25-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170104.wiff

Date Analyzed: 18-FEB-10 12:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dan 2/19/10

Sample Name: "1202023589" Sample ID: "944915|2|LER" File: "EXS02170104.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/18/2010
cq. Time: 12:23:50 PM

odified: No

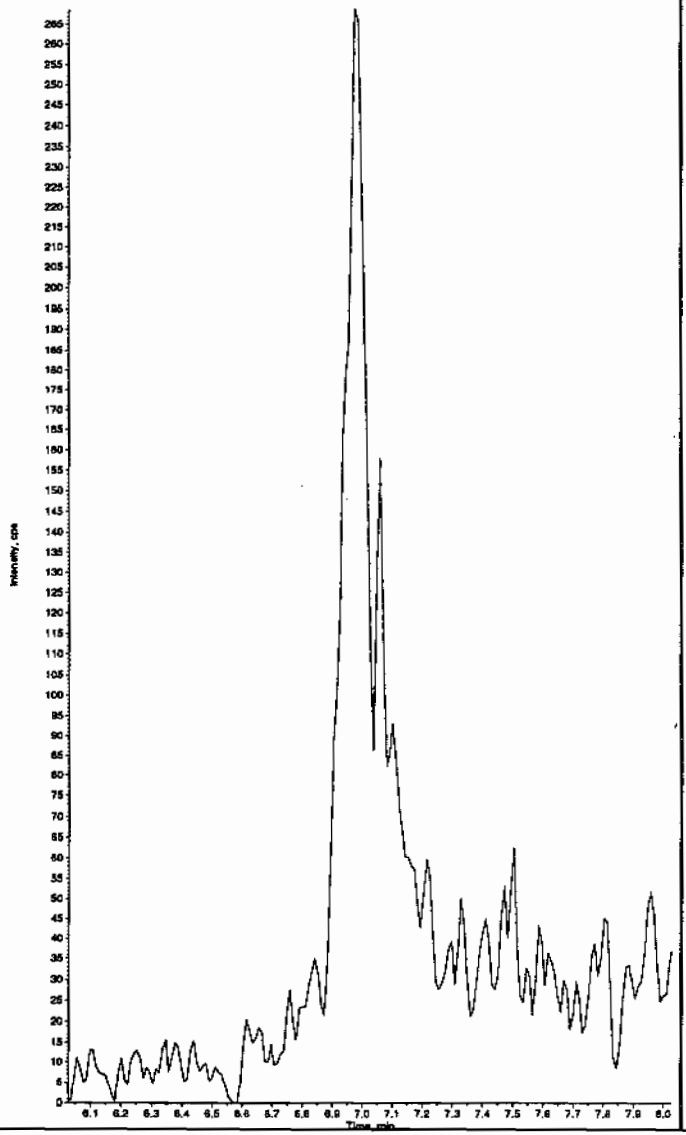

Sample Name: "1202023589" Sample ID: "944915|2|LER" File: "EXS02170104.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:23:50 PM

Modified: Yes

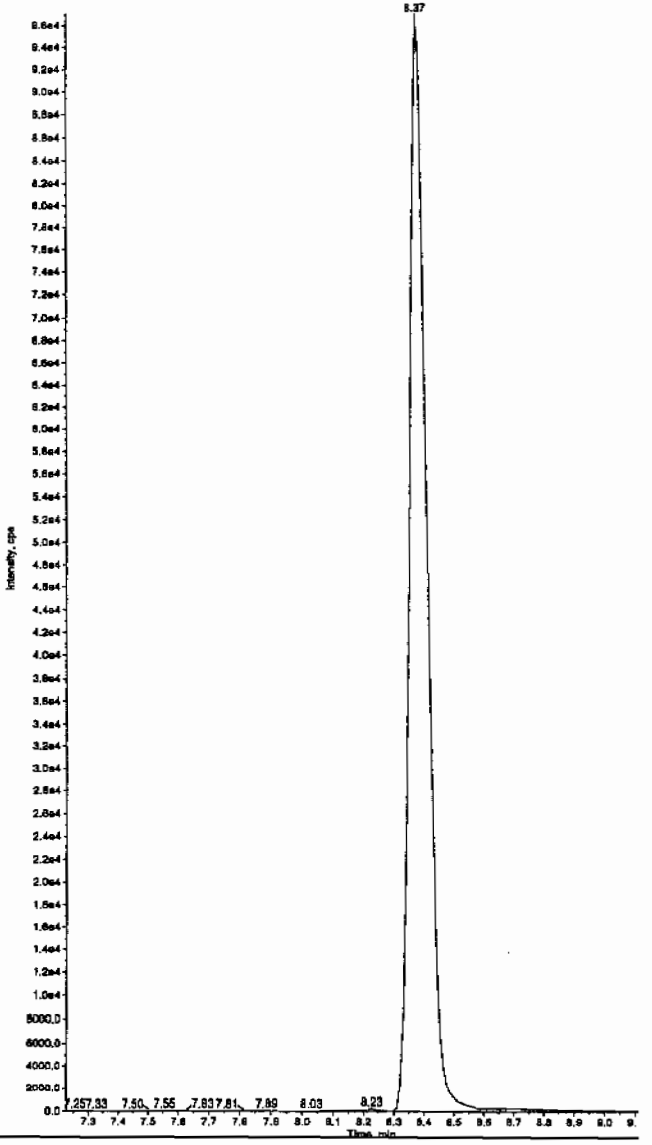

Hmc 02/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202023589" Sample ID: "944915|2|LER" File: "EXS02170104.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 277. ng/mL
cq. Date: 2/18/2010
cq. Time: 12:23:50 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.40 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.37 min
rea: 3.70e+006 counts
eight: 927743.958 cps
tart Time: 8.28 min
nd Time: 8.78 min

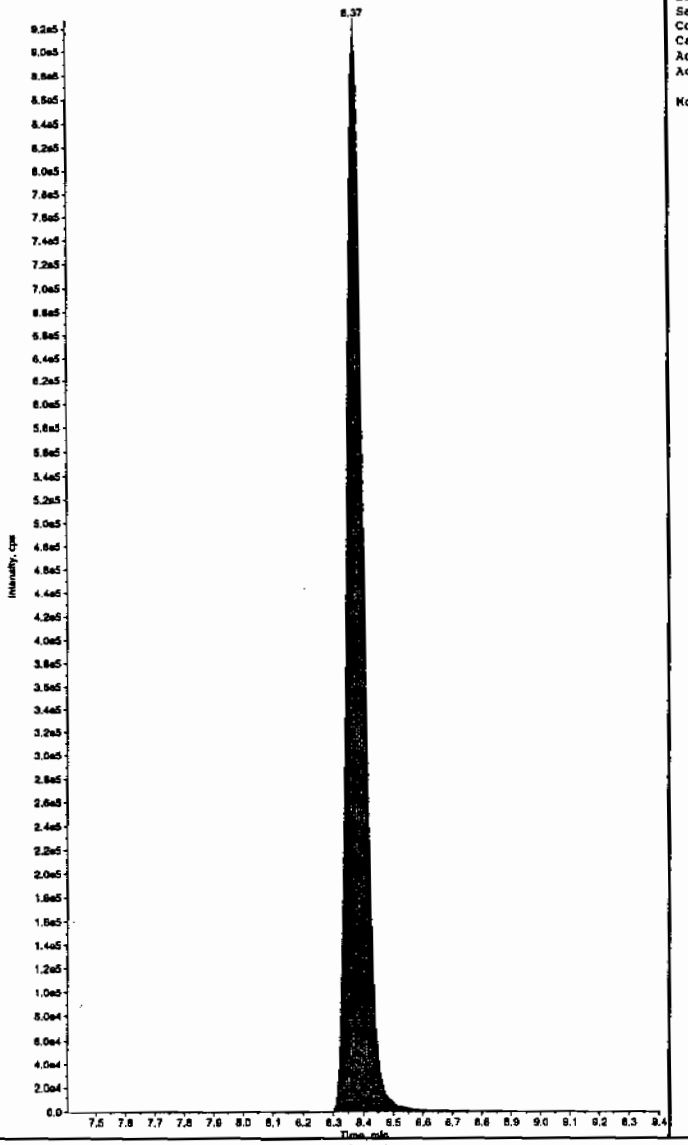

Sample Name: "1202023589" Sample ID: "944915|2|LER" File: "EXS02170104.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:23:50 PM

Modified: No

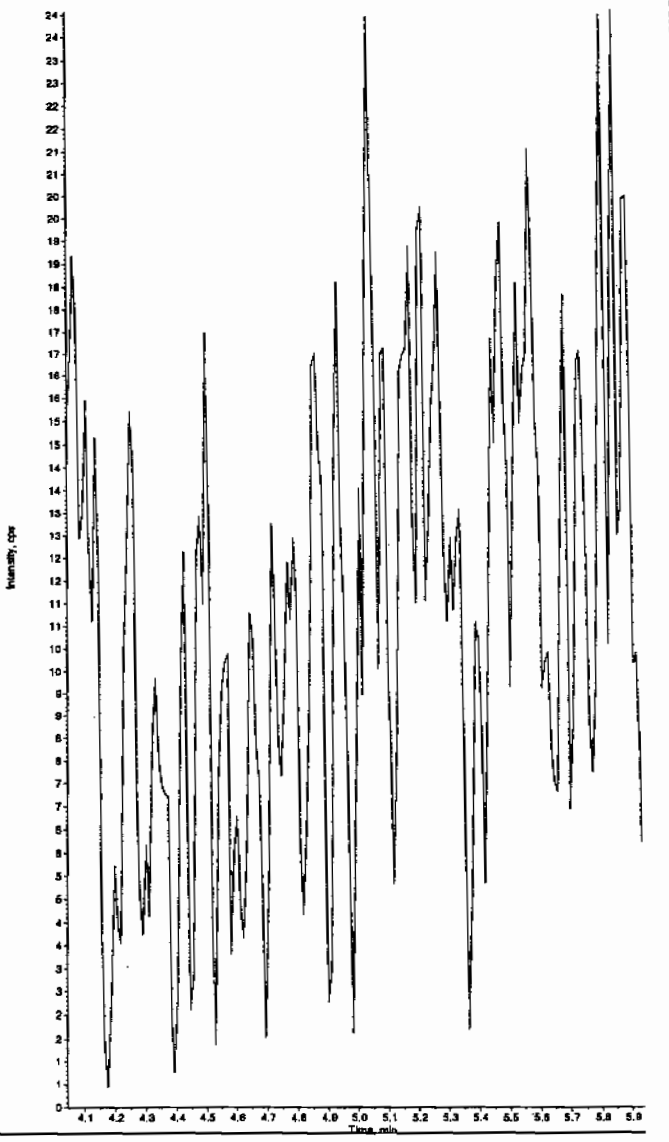

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mple Name: "1202023589" Sample ID: "944915[2]LER" File: "EXS02170104.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/18/2010
. Time: 12:23:50 PM

ified: No

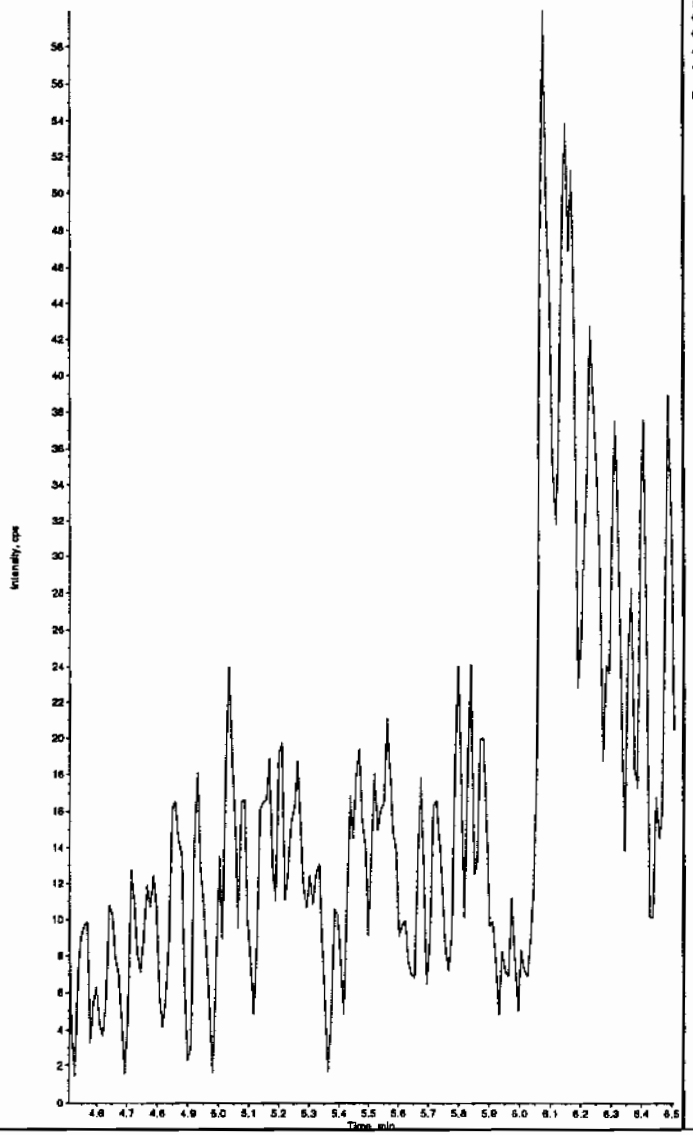

Sample Name: "1202023589" Sample ID: "944915[2]LER" File: "EXS02170104.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:23:50 PM

Modified: No

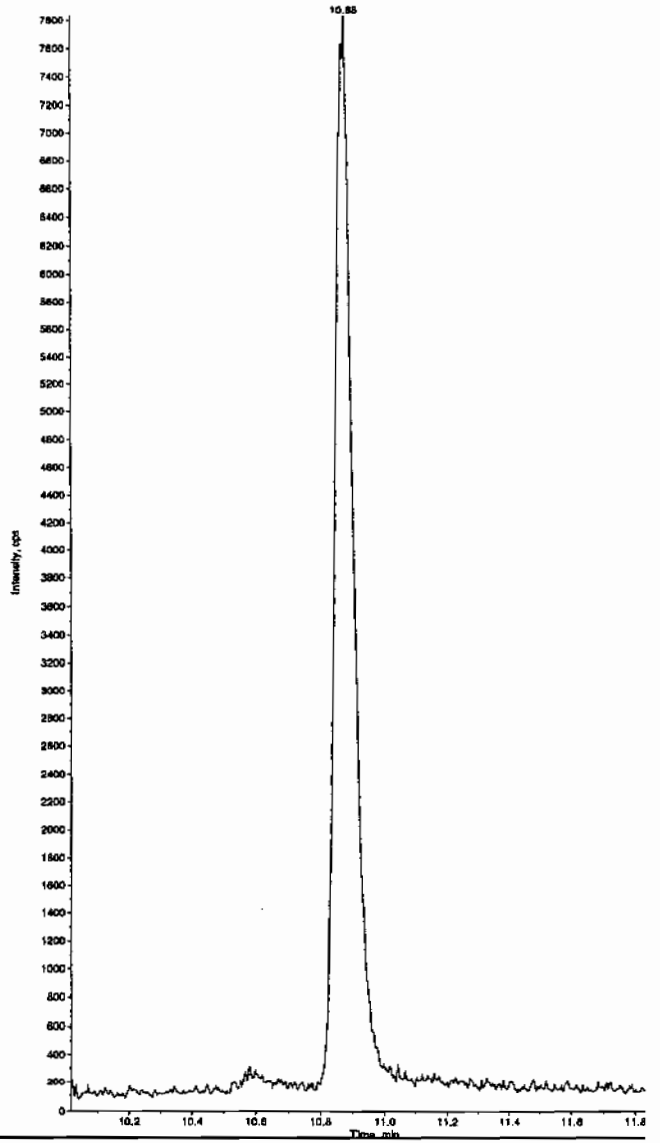

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 944913

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 1202023590

Sample Amount 2

Moisture:

Amount Units g

Date Received: 25-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216105a

Date Analyzed: 18-FEB-10 20:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4010	
121-14-2	2,4-Dinitrotoluene	4990	
121-82-4	RDX	4580	
19406-51-0	4-Amino-2,6-dinitrotoluene	4090	
2691-41-0	HMX	4480	
35572-78-2	2-Amino-4,6-dinitrotoluene	5150	
479-45-8	Tetryl	2810	
606-20-2	2,6-Dinitrotoluene	4640	
78-11-5	PETN	4430	
88-72-2	o-Nitrotoluene	3840	
98-95-3	Nitrobenzene	4280	
99-08-1	m-Nitrotoluene	4280	
99-35-4	1,3,5-Trinitrobenzene	3990	
99-65-0	m-Dinitrobenzene	4790	
99-99-0	p-Nitrotoluene	4080	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216105a
Date: 18-Feb-2010
Time: 20:29:23
ID: 1202023590 | LANC | 944915 | Soil | LCS | 2 |
Vial: 3:5,B

4/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.821e+004
7.59

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.821e+004
5.19
RDX
7.59
8445.39

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.433e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.441e+004
10.03

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.616e+004

Tetryl
F6:MRM of 1 channel,AF
Tetryl
241 > 18
12.68
1.156e+00
2177.49

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.293e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.902e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.866e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
1.759e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.669e+004
17.60
18.25

26-dinitrotoluene
F9:MRM of 2 channels,AF
182 > 15
5.669e+00
14.38
18.25

HMM 02 1/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

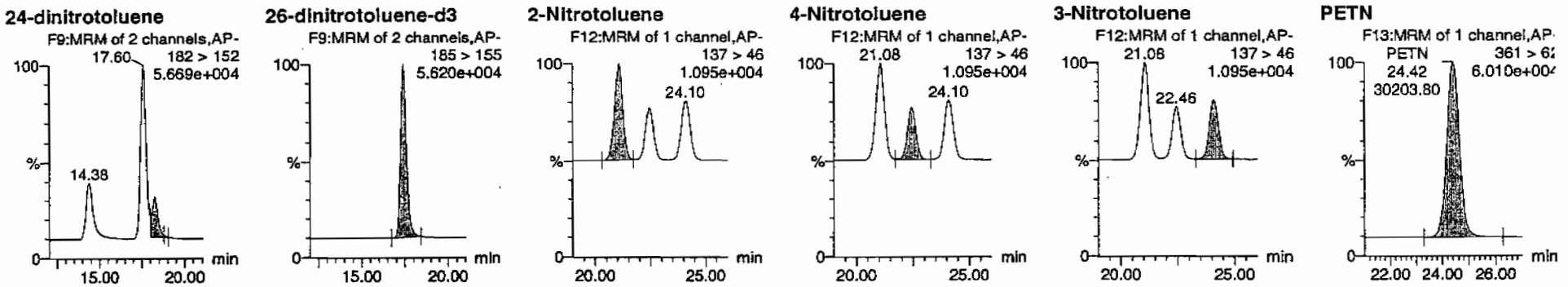

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc	%Rec	%Dev	S/N
1202023590	HMX	176 > 102	5.19	12284.813	3552.893	12284.813	1728.846	bb			448.0763	89.6	-10.4	3752.7
1202023590	RDX	176 > 102	7.59	8445.393	3552.893	8445.393	1188.523	bb			458.2801	91.7	-8.3	2171.3
1202023590	135-Trinitrobenzene	213 > 183	10.18	10970.005	3552.893	10970.005	1543.813	bb			398.6559	79.7	-20.3	667.2
1202023590	13-Dinitrobenzene-d4	172 > 142	12.03	3552.893		3552.893	3552.893	bb			589.7082	117.9	17.9	293.0
1202023590	13-Dinitrobenzene	168 > 138	12.17	4043.304	3552.893	4043.304	569.016	bb			478.7599	95.8	-4.2	508.4
1202023590	Tetryl	241 > 181	12.68	2177.488	3552.893	2177.488	306.439	bb			281.0766	56.2	-43.8	177.0
1202023590	Nitrobenzene	123 > 46	13.58	2610.688	3552.893	2610.688	367.403	bb			427.9547	85.6	-14.4	307.8
1202023590	4-Amino-26-dinitrotoluene	197 > 167	15.68	5238.454	19999.727	5238.454	130.963	MM	19-Feb-10	08:39:36	408.9822	81.8	-18.2	303.4
1202023590	2-Amino-46-dinitrotoluene	197 > 180	16.58	8896.946	19999.727	8896.946	222.427	bb			514.8112	103.0	3.0	387.0
1202023590	246-Trinitrotoluene	227 > 210	15.38	5372.197	19999.727	5372.197	134.307	bb			400.6110	80.1	-19.9	459.1
1202023590	34-dinitrotoluene	182 > 152	14.38	7859.865	19999.727	7859.865	196.499	bb			216.8864	86.8	-13.2	352.7
1202023590	26-dinitrotoluene	182 > 152	17.60	19676.021	19999.727	19676.021	491.907	MM	19-Feb-10	08:43:53	464.3086	92.9	-7.1	1086.2
1202023590	24-dinitrotoluene	182 > 152	18.25	4925.190	19999.727	4925.190	123.131	MM	19-Feb-10	08:45:50	499.4980	99.9	-0.1	256.9
1202023590	26-dinitrotoluene-d3	185 > 155	17.42	19999.727		19999.727	19999.727	bb			574.4224	114.9	14.9	2108.5
1202023590	2-Nitrotoluene	137 > 46	21.08	2337.503	19999.727	2337.503	58.438	bb			383.9726	76.8	-23.2	401.1
1202023590	4-Nitrotoluene	137 > 46	22.46	1250.192	19999.727	1250.192	31.255	bb			407.7590	81.6	-18.4	212.7
1202023590	3-Nitrotoluene	137 > 46	24.10	1530.812	19999.727	1530.812	38.271	bb			427.6592	85.5	-14.5	243.0
1202023590	PETN	361 > 62	24.42	30203.797	19999.727	30203.797	755.105	bb			443.3054	88.7	-11.3	7687.4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 944913

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 1202023590

Sample Amount 2

Moisture:

Amount Units g

Date Received: 25-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170105.wiff

Date Analyzed: 18-FEB-10 12:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7190	
59229-75-3	2,6-Diamino-4-nitrotoluene	5620	
618-87-1	3,5-Dinitroaniline	5080	
6629-29-4	2,4-Diamino-6-nitrotoluene	4980	
78-30-8	tris(o-cresyl) phosphate	5030	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 2/19/10

Sample Name: "1202023590" Sample ID: "944915|2|LER" File: "EXS02170105.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 719. ng/mL
cq. Date: 2/18/2010
cq. Time: 12:39:39 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 7.03 min
se Relative RT: No

nt. Type: Valley
etention Time: 6.97 min
rea: 1.22e+006 counts
eight: 272526.245 cps
tart Time: 6.84 min
nd Time: 7.50 min

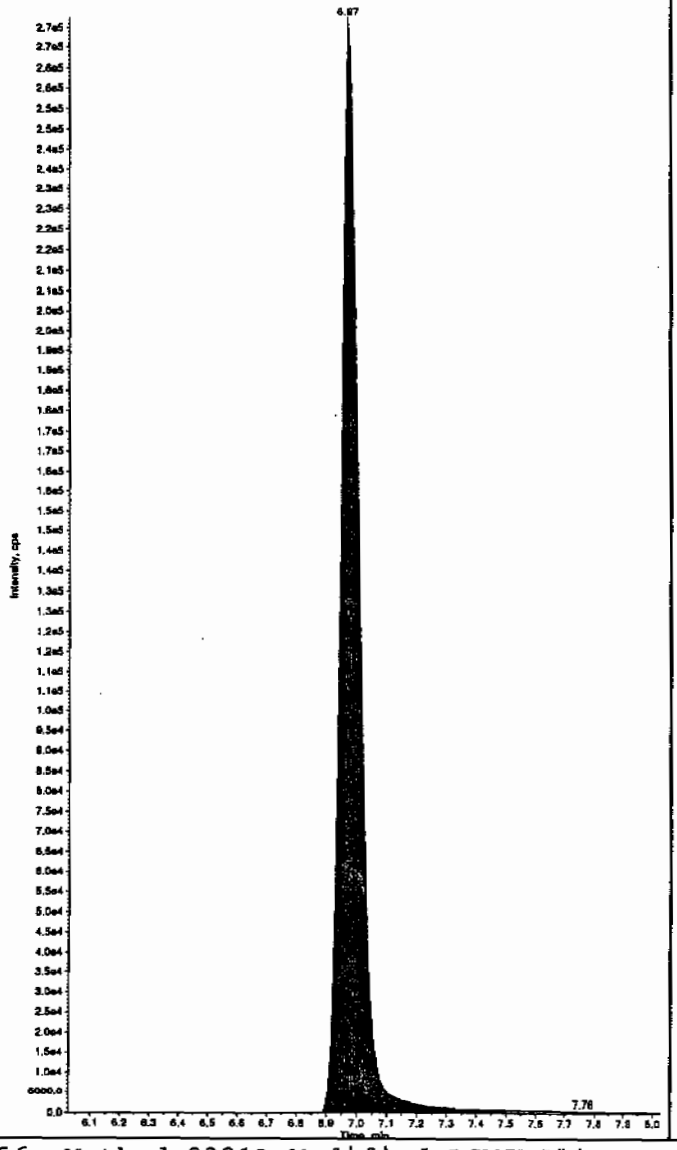

Sample Name: "1202023590" Sample ID: "944915|2|LER" File: "EXS02170105.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 508. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:39:39 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 3.74e+006 counts
Height: 909239.319 cps
Start Time: 8.13 min
End Time: 8.32 min

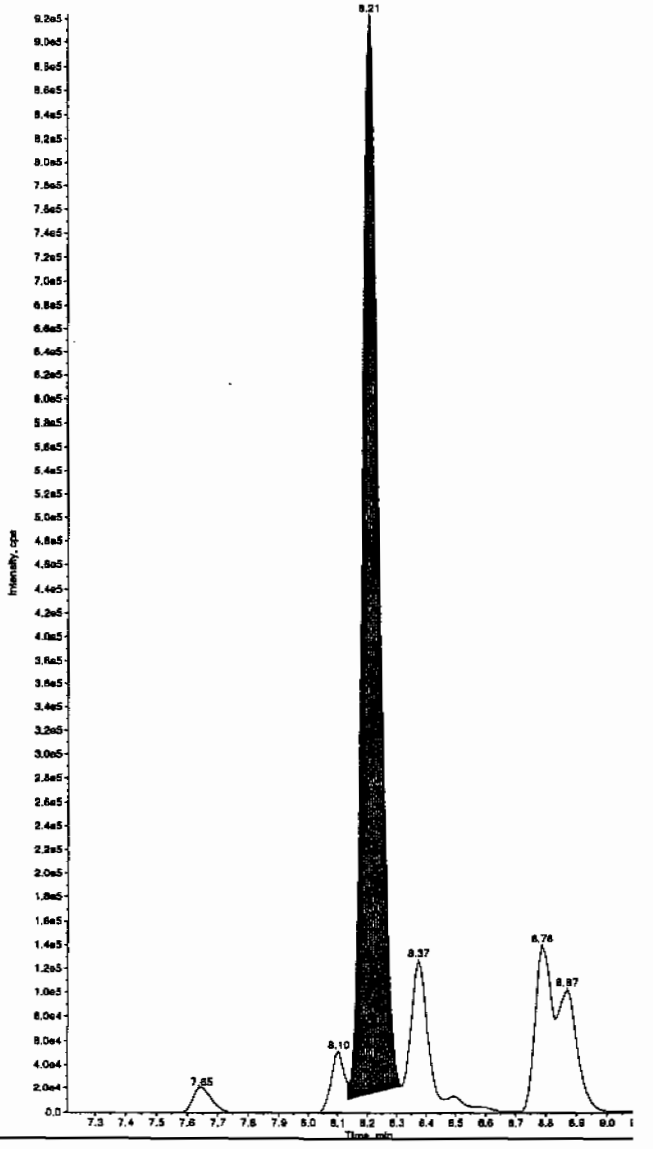

Hmm 02/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202023590" Sample ID: "944915[2]LER" File: "EXS02170105.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 298. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:39:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.40 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 3.97e+006 counts
Height: 1007558.289 cps
Start Time: 8.29 min
End Time: 8.59 min

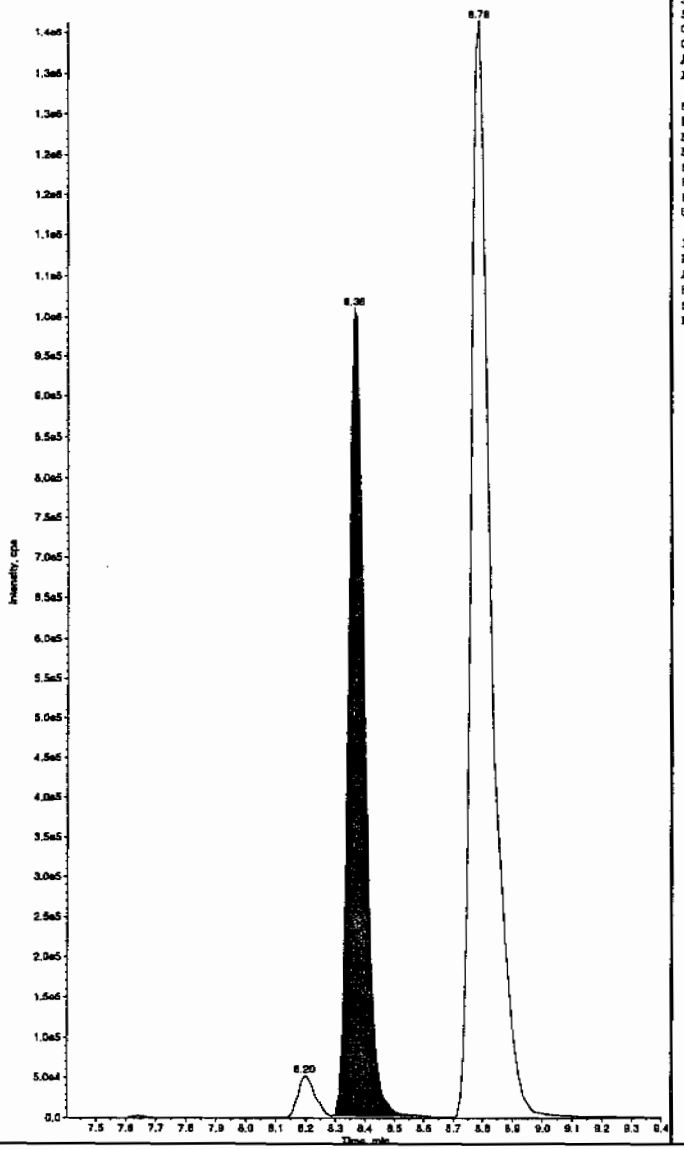

Sample Name: "1202023590" Sample ID: "944915[2]LER" File: "EXS02170105.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 562. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:39:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 1.11e+006 counts
Height: 271408.386 cps
Start Time: 4.90 min
End Time: 5.27 min

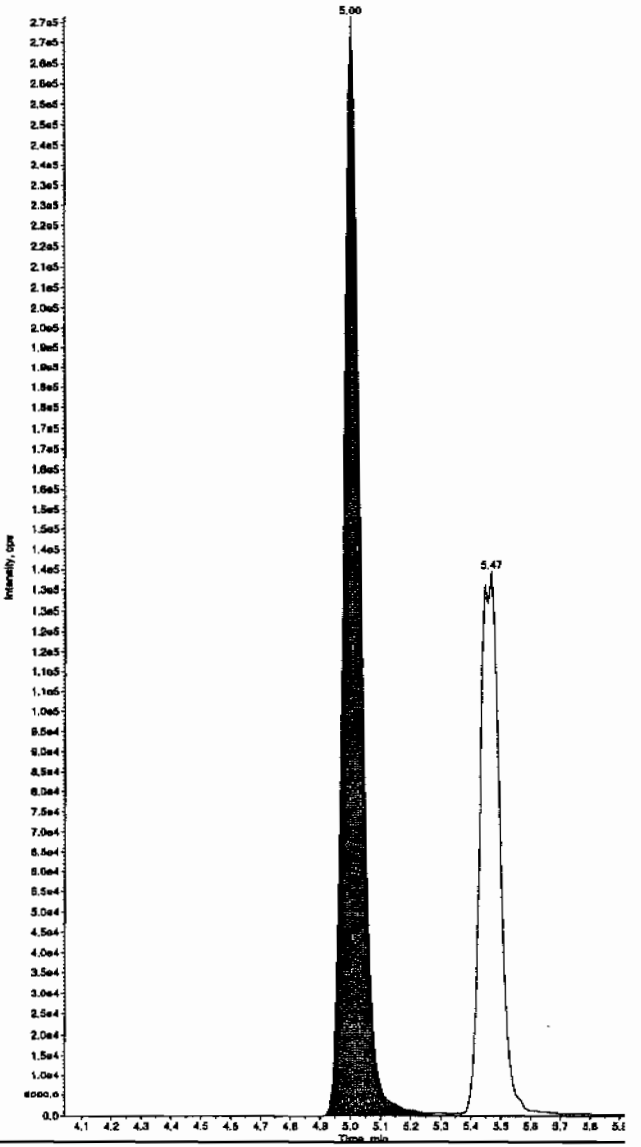

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Sample Name: "1202023590" Sample ID: "944915|2|LER" File: "EXS02170105.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 498. ng/mL
cq. Date: 2/18/2010
cq. Time: 12:39:39 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.51 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.47 min
rea: 6.15e+005 counts
eight: 134145.996 cps
tart Time: 5.36 min
nd Time: 5.89 min

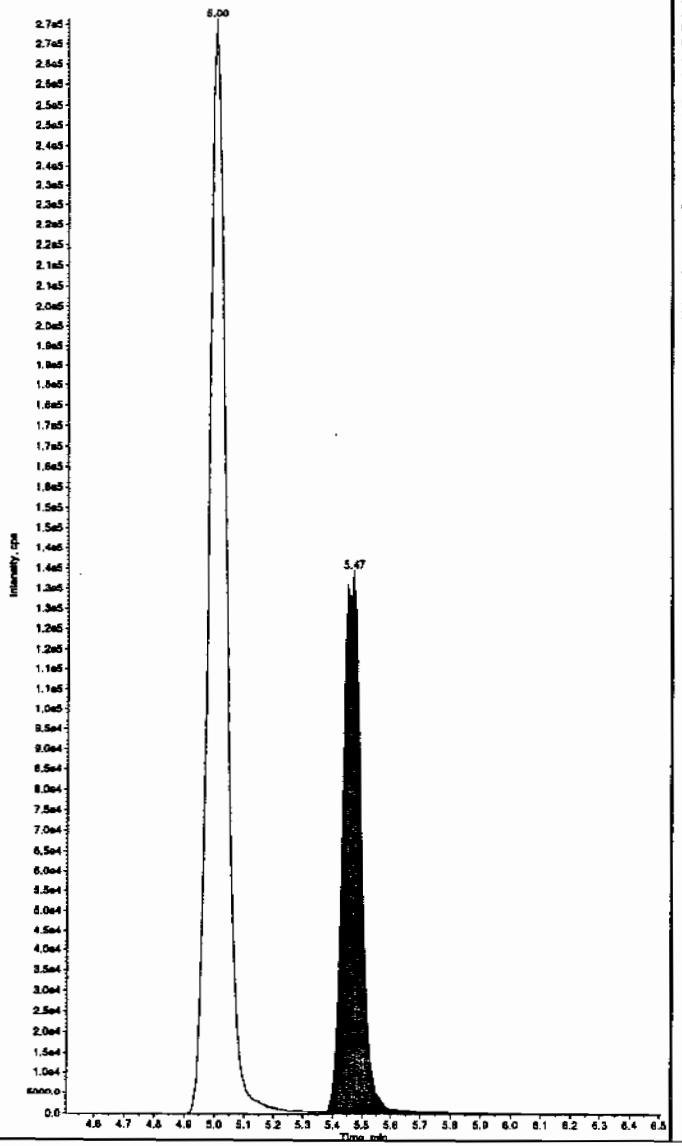

Sample Name: "1202023590" Sample ID: "944915|2|LER" File: "EXS02170105.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 503. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 12:39:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.10e+007 counts
Height: 2598498.291 cps
Start Time: 10.8 min
End Time: 11.2 min

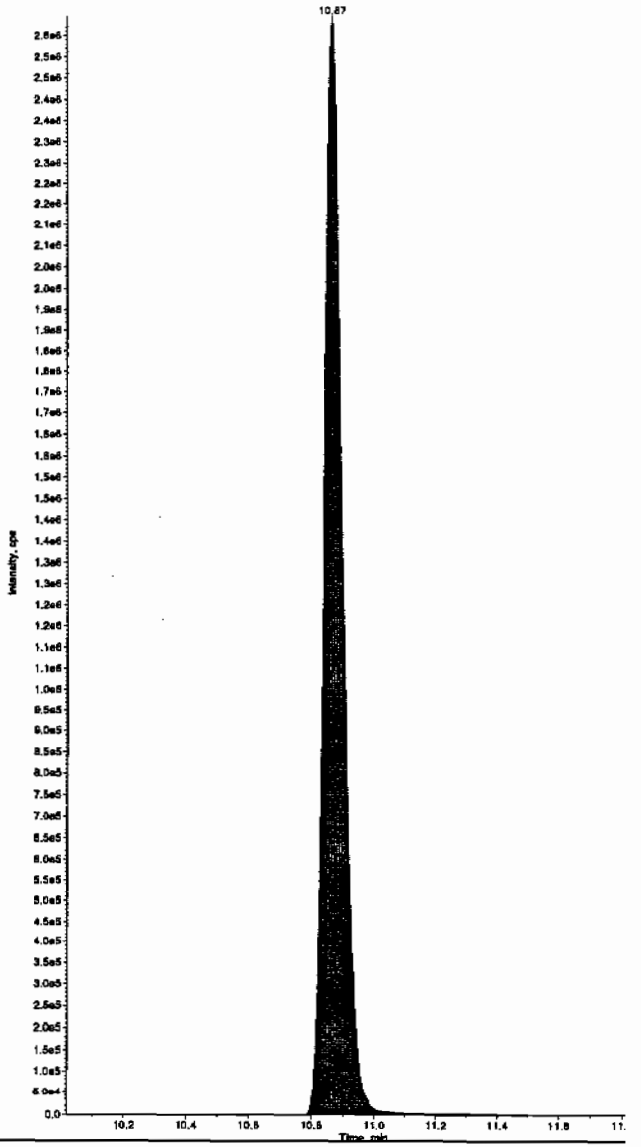

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928(245396001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 1202023591

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216120a

Date Analyzed: 19-FEB-10 03:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5540	h
121-14-2	2,4-Dinitrotoluene	5430	h
121-82-4	RDX	5930	h
19406-51-0	4-Amino-2,6-dinitrotoluene	4750	h
2691-41-0	HMX	5620	h
35572-78-2	2-Amino-4,6-dinitrotoluene	4950	h
479-45-8	Tetryl	4230	h
606-20-2	2,6-Dinitrotoluene	5130	h
78-11-5	PETN	6640	h
88-72-2	o-Nitrotoluene	5230	h
98-95-3	Nitrobenzene	4560	h
99-08-1	m-Nitrotoluene	4920	h
99-35-4	1,3,5-Trinitrobenzene	4680	h
99-65-0	m-Dinitrobenzene	5140	h
99-99-0	p-Nitrotoluene	5110	h

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216120a
Date: 19-Feb-2010
Time: 03:52:52
ID: 1202023591
Vial: 3:7,B

| LANL | 944915 | SOLID | 245396001 MS | 21

MAP 2/19/10

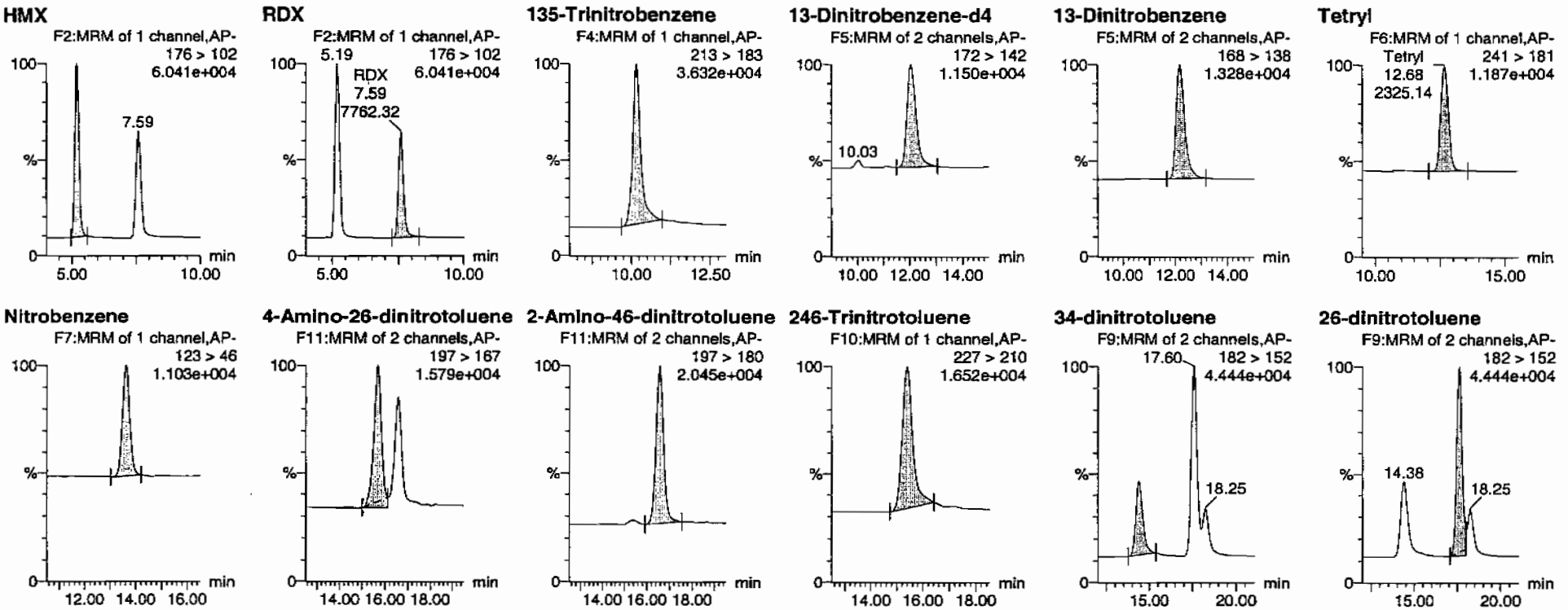

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

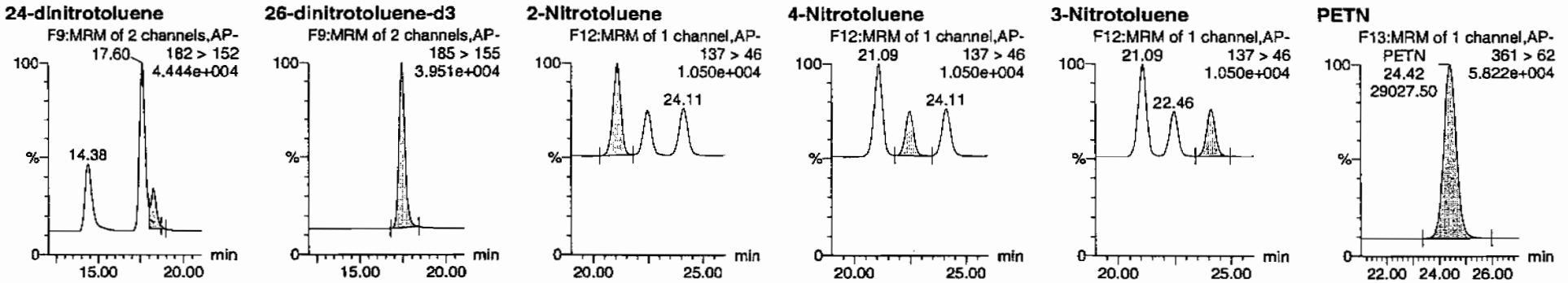

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202023591	HMX	176 > 102	5.19	10937.339	2522.961	10937.339	2167.560	bb			561.7806	112.4	12.4	1012.0
1202023591	RDX	176 > 102	7.59	7762.318	2522.961	7762.318	1538.335	bb			593.1632	118.6	18.6	623.7
1202023591	135-Trinitrobenzene	213 > 183	10.18	9142.329	2522.961	9142.329	1811.825	bb			467.8642	93.6	-6.4	1079.8
1202023591	13-Dinitrobenzene-d4	172 > 142	12.07	2522.961		2522.961	2522.961	bb			418.7604	83.8	-16.2	203.2
1202023591	13-Dinitrobenzene	168 > 138	12.20	3080.637	2522.961	3080.637	610.520	bb			513.6810	102.7	2.7	573.8
1202023591	Tetryl	241 > 181	12.68	2325.144	2522.961	2325.144	460.797	bb			422.6592	84.5	-15.5	227.3
1202023591	Nitrobenzene	123 > 46	13.63	1975.333	2522.961	1975.333	391.471	bb			455.9893	91.2	-8.8	248.9
1202023591	4-Amino-26-dinitrotoluene	197 > 167	15.68	4197.221	13794.217	4197.221	152.137	MM	19-Feb-10	08:40:15	475.1056	95.0	-5.0	275.6
1202023591	2-Amino-46-dinitrotoluene	197 > 180	16.58	5901.878	13794.217	5901.878	213.926	bb			495.1358	99.0	-1.0	601.3
1202023591	246-Trinitrotoluene	227 > 210	15.41	5126.349	13794.217	5126.349	185.815	bb			554.2506	110.9	10.9	306.4
1202023591	34-dinitrotoluene	182 > 152	14.38	7222.563	13794.217	7222.563	261.797	bb			288.9586	115.6	15.6	681.5
1202023591	26-dinitrotoluene	182 > 152	17.60	15002.553	13794.217	15002.553	543.799	MM	19-Feb-10	08:44:21	513.2886	102.7	2.7	1756.4
1202023591	24-dinitrotoluene	182 > 152	18.25	3696.199	13794.217	3696.199	133.976	MM	19-Feb-10	08:45:17	543.4919	108.7	8.7	417.3
1202023591	26-dinitrotoluene-d3	185 > 155	17.42	13794.217		13794.217	13794.217	bb			396.1907	79.2	-20.8	866.2
1202023591	2-Nitrotoluene	137 > 46	21.09	2198.044	13794.217	2198.044	79.673	bb			523.4936	104.7	4.7	799.9
1202023591	4-Nitrotoluene	137 > 46	22.46	1081.318	13794.217	1081.318	39.195	bb			511.3371	102.3	2.3	387.9
1202023591	3-Nitrotoluene	137 > 46	24.11	1213.850	13794.217	1213.850	43.999	bb			491.6636	98.3	-1.7	409.5
1202023591	PETN	361 > 62	24.42	29027.498	13794.217	29027.498	1052.162	bb			663.6113	132.7	32.7	3214.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928(245396001MS)

Lab Code: GEI

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 1202023591

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170120.wiff

Date Analyzed: 18-FEB-10 16:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6300	h
59229-75-3	2,6-Diamino-4-nitrotoluene	5530	h
618-87-1	3,5-Dinitroaniline	4890	h
6629-29-4	2,4-Diamino-6-nitrotoluene	5050	h
78-30-8	tris(o-cresyl) phosphate	4900	h

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/19/10

Sample Name: "1202023591" Sample ID: "944915[2]LER" File: "EXS02170120.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 630. ng/mL
cq. Date: 2/18/2010
cq. Time: 4:35:34 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 7.03 min
se Relative RT: No

nt. Type: Valley
etention Time: 6.99 min
rea: 1.07e+006 counts
eight: 238969.177 cps
tart Time: 6.87 min
nd Time: 7.62 min

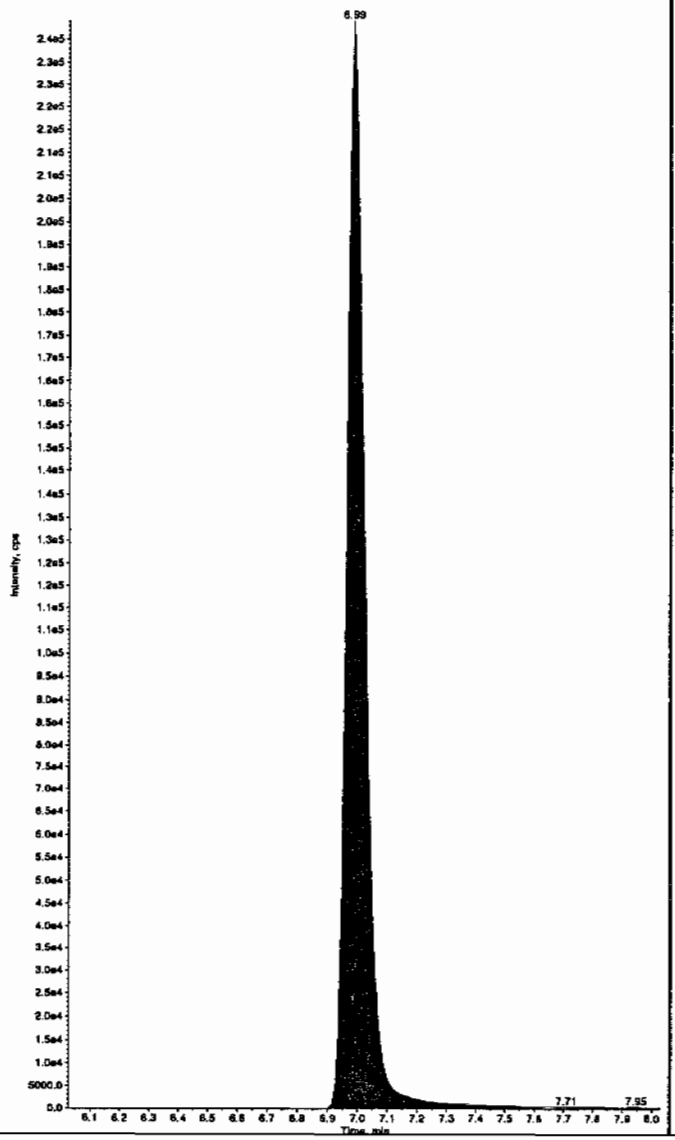

Sample Name: "1202023591" Sample ID: "944915[2]LER" File: "EXS02170120.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 489. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:35:34 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 3.60e+006 counts
Height: 967185.669 cps
Start Time: 8.15 min
End Time: 8.33 min

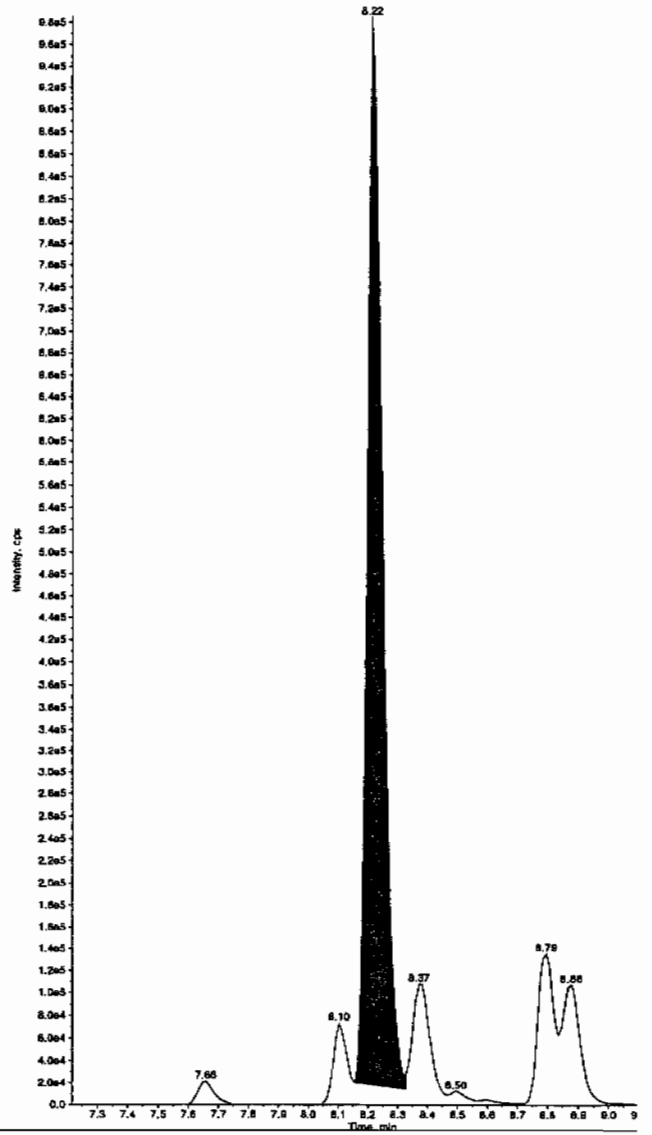

Hmm 02/19/10

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Sample Name: "1202023591" Sample ID: "944915|2|LER" File: "EXS02170120.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

```
ample Index:        1
ample Type:      Unknown
oncentration:       N/A
alculated Conc:     271.     ng/mL
cq. Date:        2/18/2010
cq. Time:        4:35:34 PM

odified:            No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height:1460.00    cps
in. Peak Width:     0.00    sec
moothing Width:  3        points
T Window:          15.0     sec
xpected RT:        8.40     min
se Relative RT:     No

nt. Type:        Valley
etention Time:      8.37    min
rea:          3.61e+006   counts
eight:        969867.798   cps
tart Time:          8.30    min
nd Time:            8.61    min
```

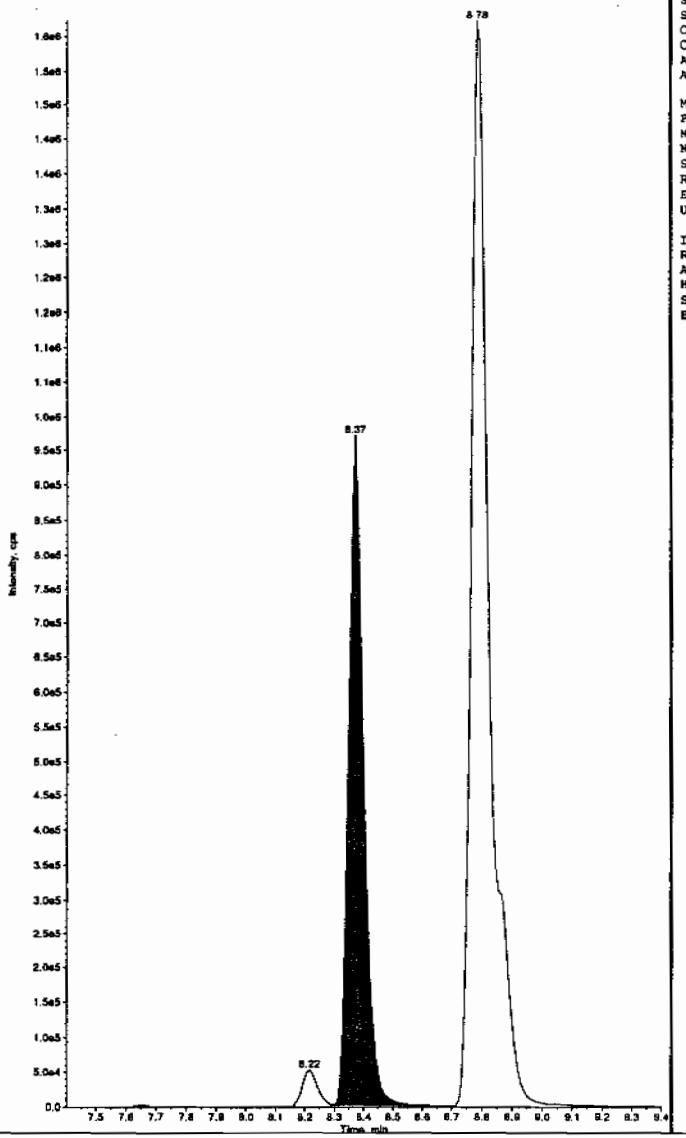

Sample Name: "1202023591" Sample ID: "944915|2|LER" File: "EXS02170120.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     553.     ng/mL
Acq. Date:        2/18/2010
Acq. Time:        4:35:34 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        5.04     min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.02     min
Area:         1.09e+006   counts
Height:       264204.010   cps
Start Time:         4.91     min
End Time:           5.29     min
```

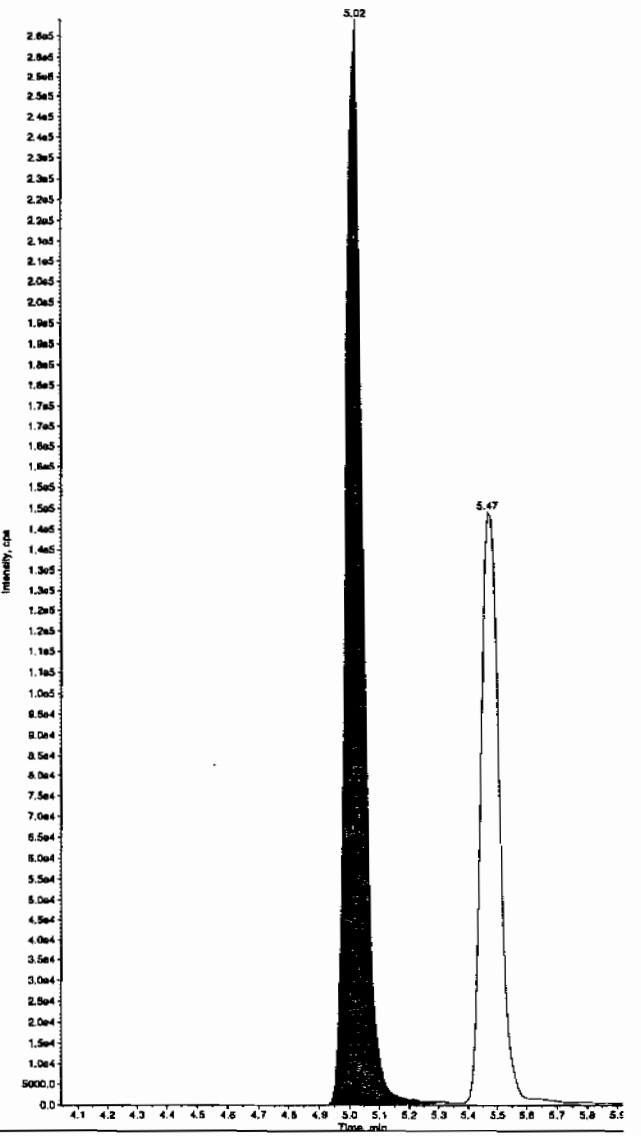

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Sample Name: "1202023591" Sample ID: "944915|2|LER" File: "EXS02170120.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 505. ng/mL
cq. Date: 2/18/2010
cq. Time: 4:35:34 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.51 min
se Relative RT: No

nt. Type: Valley
atention Time: 5.47 min
rea: 6.24e+005 counts
eight: 143387.192 cps
tart Time: 5.39 min
nd Time: 5.73 min

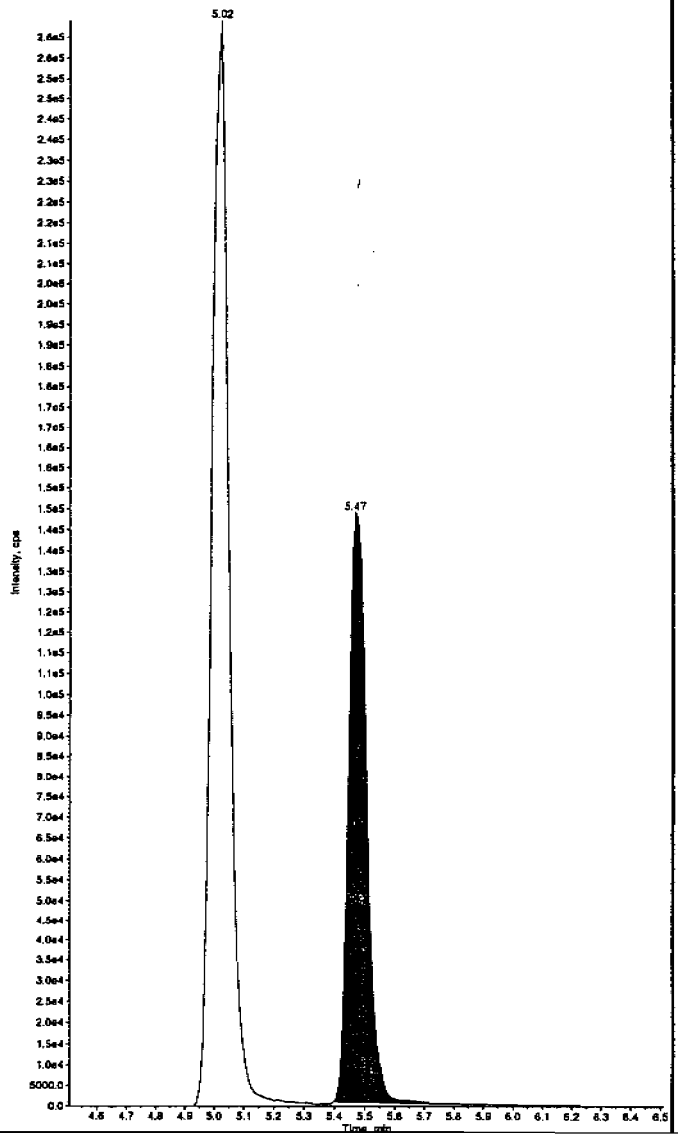

Sample Name: "1202023591" Sample ID: "944915|2|LER" File: "EXS02170120.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 490. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:35:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.07e+007 counts
Height: 2561375.000 cps
Start Time: 10.8 min
End Time: 11.2 min

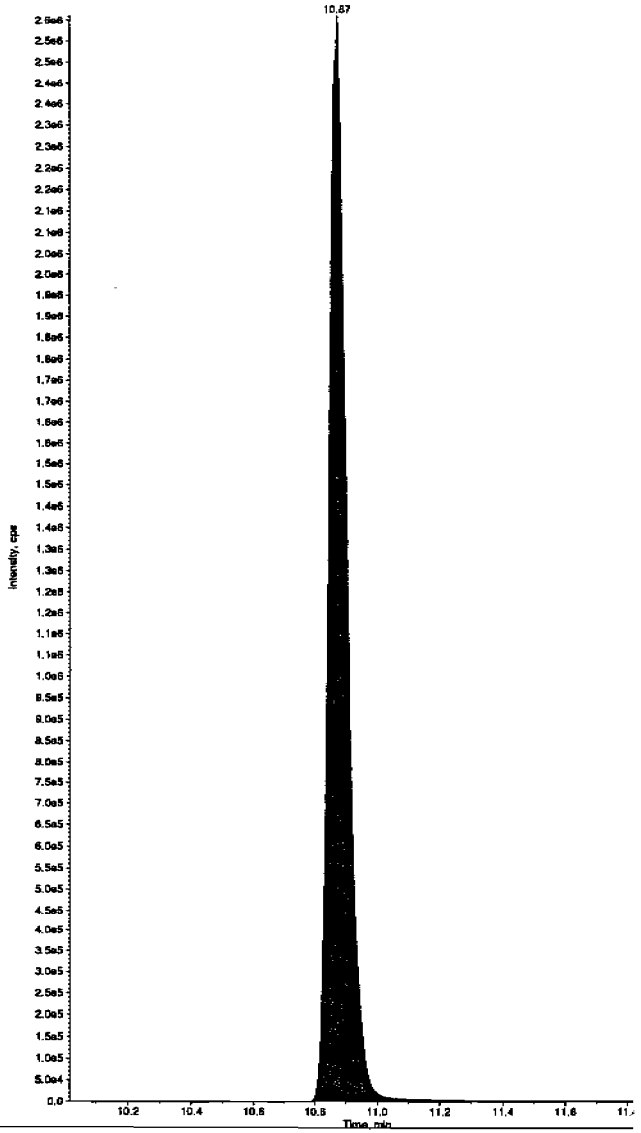

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928(245396001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 1202023592

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216121a

Date Analyzed: 19-FEB-10 04:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5290	h
121-14-2	2,4-Dinitrotoluene	4960	h
121-82-4	RDX	5510	h
19406-51-0	4-Amino-2,6-dinitrotoluene	4500	h
2691-41-0	HMX	5050	h
35572-78-2	2-Amino-4,6-dinitrotoluene	4930	h
479-45-8	Tetryl	3870	h
606-20-2	2,6-Dinitrotoluene	5110	h
78-11-5	PETN	6200	h
88-72-2	o-Nitrotoluene	4770	h
98-95-3	Nitrobenzene	4310	h
99-08-1	m-Nitrotoluene	4500	h
99-35-4	1,3,5-Trinitrobenzene	4920	h
99-65-0	m-Dinitrobenzene	5390	h
99-99-0	p-Nitrotoluene	4580	h

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216121a
Date: 19-Feb-2010
Time: 04:22:38
ID: 1202023592
Vial: 3:7,C

/ LANL / 944915 / SOLID / 245396001 MSD / 2 /

MAP 2/19/10

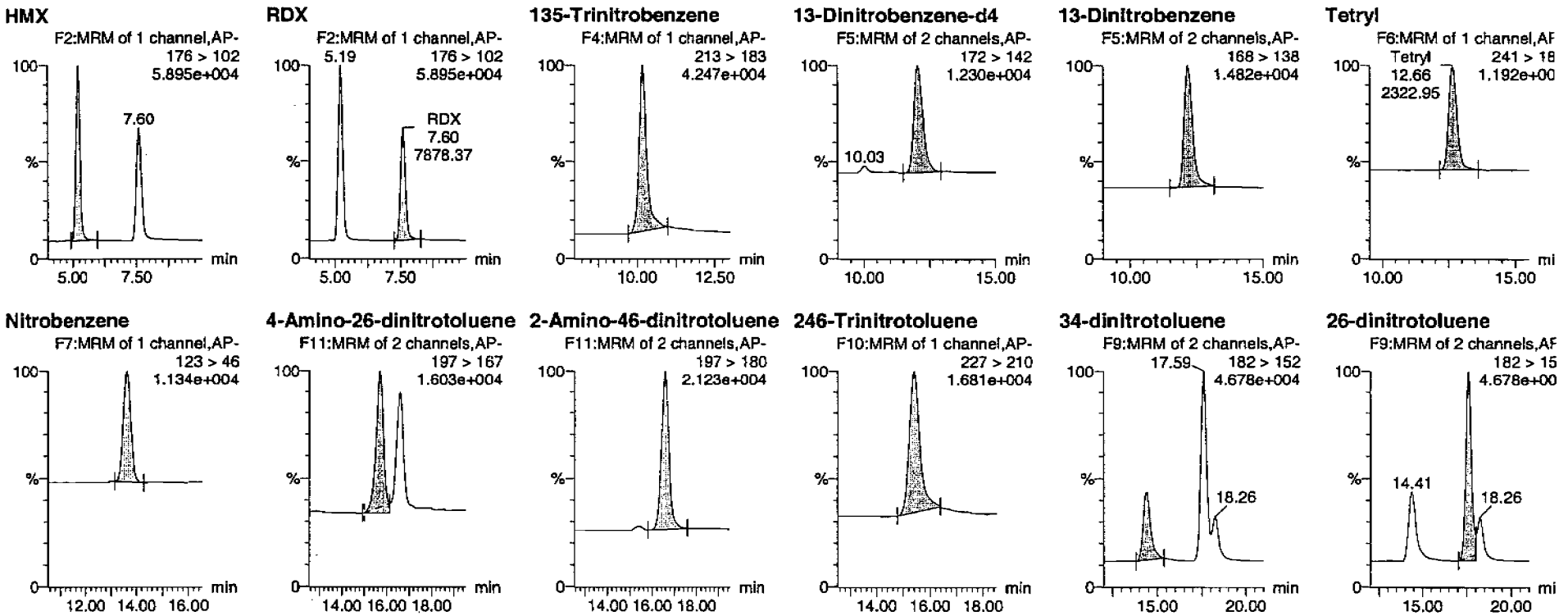

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

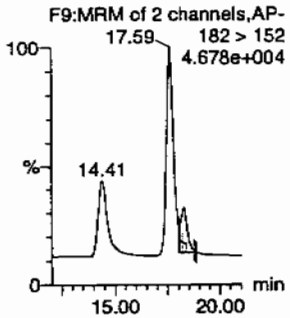

26-dinitrotoluene-d3

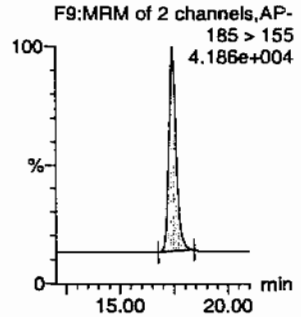

2-Nitrotoluene

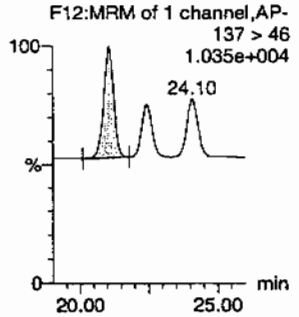

4-Nitrotoluene

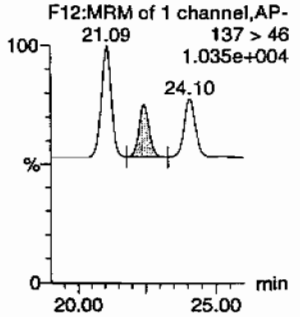

3-Nitrotoluene

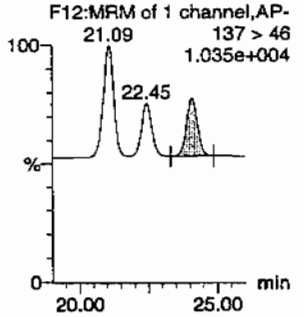

PETN

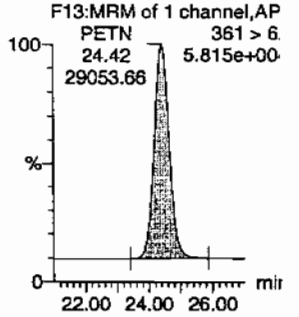

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	pg/mL	%Rec	%Dev	S/N
1202023592	HMX	176 > 102	5.19	10744.720	2755.347	10744.720	1949.794	db			505.3408	101.1	1.1	1398.1
1202023592	RDX	176 > 102	7.60	7878.368	2755.347	7878.368	1429.651	bb			551.2559	110.3	10.3	890.6
1202023592	135-Trinitrobenzene	213 > 183	10.18	10491.957	2755.347	10491.957	1903.927	bb			491.6474	98.3	-1.7	654.8
1202023592	13-Dinitrobenzene-d4	172 > 142	12.06	2755.347		2755.347	2755.347	bb			457.3318	91.5	-8.5	253.3
1202023592	13-Dinitrobenzene	168 > 138	12.17	3529.425	2755.347	3529.425	640.468	bb			538.8789	107.8	7.8	327.8
1202023592	Tetryl	241 > 181	12.66	2322.946	2755.347	2322.946	421.534	bb			386.6463	77.3	-22.7	192.2
1202023592	Nitrobenzene	123 > 46	13.61	2038.910	2755.347	2038.910	369.992	bb			430.9696	86.2	-13.8	211.0
1202023592	4-Amino-26-dinitrotoluene	197 > 167	15.70	4206.437	14582.673	4206.437	144.227	MM	19-Feb-10	08:40:25	450.4044	90.1	-9.9	210.1
1202023592	2-Amino-46-dinitrotoluene	197 > 180	16.57	6208.738	14582.673	6208.738	212.881	bb			492.7167	98.5	-1.5	381.8
1202023592	246-Trinitrotoluene	227 > 210	15.40	5167.873	14582.673	5167.873	177.192	bb			528.5301	105.7	5.7	379.0
1202023592	34-dinitrotoluene	182 > 152	14.41	7257.926	14582.673	7257.926	248.854	bb			274.6735	109.9	9.9	460.8
1202023592	26-dinitrotoluene	182 > 152	17.59	15788.612	14582.673	15788.612	541.348	MM	19-Feb-10	08:44:29	510.9758	102.2	2.2	1283.0
1202023592	24-dinitrotoluene	182 > 152	18.26	3567.305	14582.673	3567.305	122.313	MM	19-Feb-10	08:45:10	496.1785	99.2	-0.8	279.8
1202023592	26-dinitrotoluene-d3	185 > 155	17.43	14582.673		14582.673	14582.673	bb			418.8364	83.8	-16.2	1788.1
1202023592	2-Nitrotoluene	137 > 46	21.09	2119.011	14582.673	2119.011	72.655	bb			477.3843	95.5	-4.5	696.7
1202023592	4-Nitrotoluene	137 > 46	22.45	1023.172	14582.673	1023.172	35.082	bb			457.6806	91.5	-8.5	331.0
1202023592	3-Nitrotoluene	137 > 46	24.10	1175.179	14582.673	1175.179	40.294	bb			450.2637	90.1	-9.9	362.3
1202023592	PETN	361 > 62	24.42	29053.658	14582.673	29053.658	996.171	bb			619.5264	123.9	23.9	4365.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7928(245396001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1394

Matrix: SOIL

GEL Sample ID: 1202023592

Sample Amount 2

Moisture: 3.6

Amount Units g

Date Received: 23-JAN-10

Extraction Type Sonication

Extraction Batch ID: 944913

Concentrated Extract Volume (mL) 10

Date Extracted: 17-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02170121.wiff

Date Analyzed: 18-FEB-10 16:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5650	h
59229-75-3	2,6-Diamino-4-nitrotoluene	5840	h
618-87-1	3,5-Dinitroaniline	4710	h
6629-29-4	2,4-Diamino-6-nitrotoluene	5410	h
78-30-8	tris(o-cresyl) phosphate	4850	h

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/19/10

Sample Name: "1202023592" Sample ID: "944915|2|LER" File: "EXS02170121.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 565. ng/mL
cq. Date: 2/18/2010
cq. Time: 4:51:16 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 7.03 min
se Relative RT: No

nt. Type: Valley
etention Time: 7.01 min
rea: 9.58e+005 counts
eight: 210571.091 cps
tart Time: 6.86 min
nd Time: 7.79 min

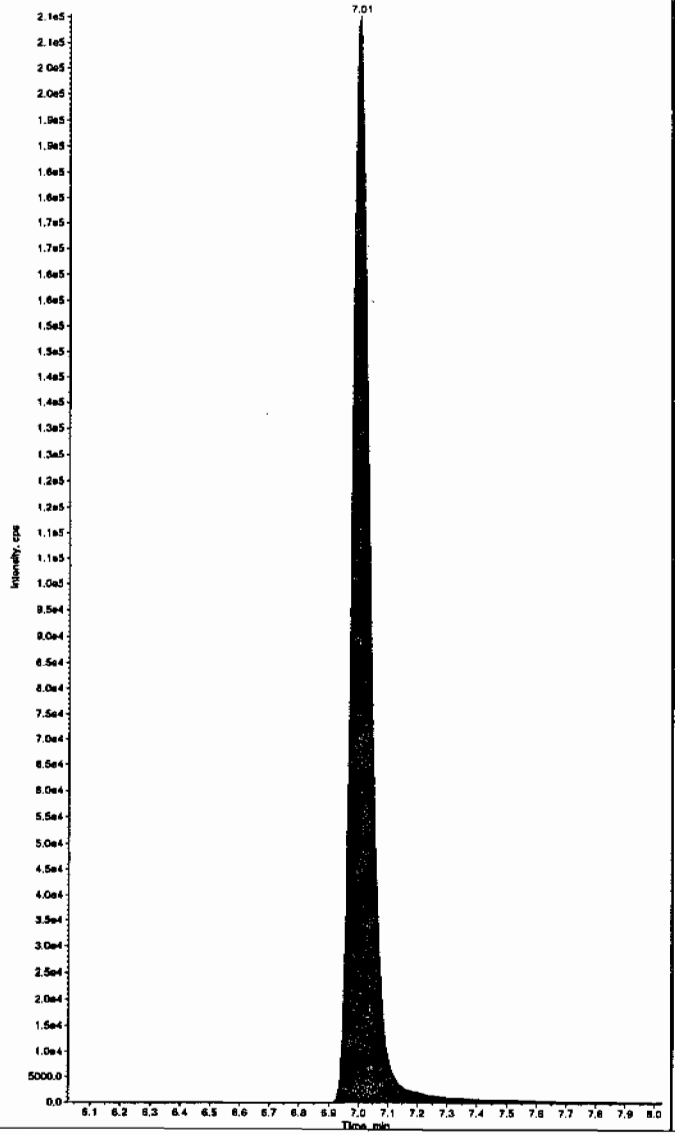

Sample Name: "1202023592" Sample ID: "944915|2|LER" File: "EXS02170121.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 471. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:51:16 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 3.46e+006 counts
Height: 830705.688 cps
Start Time: 8.16 min
End Time: 8.33 min

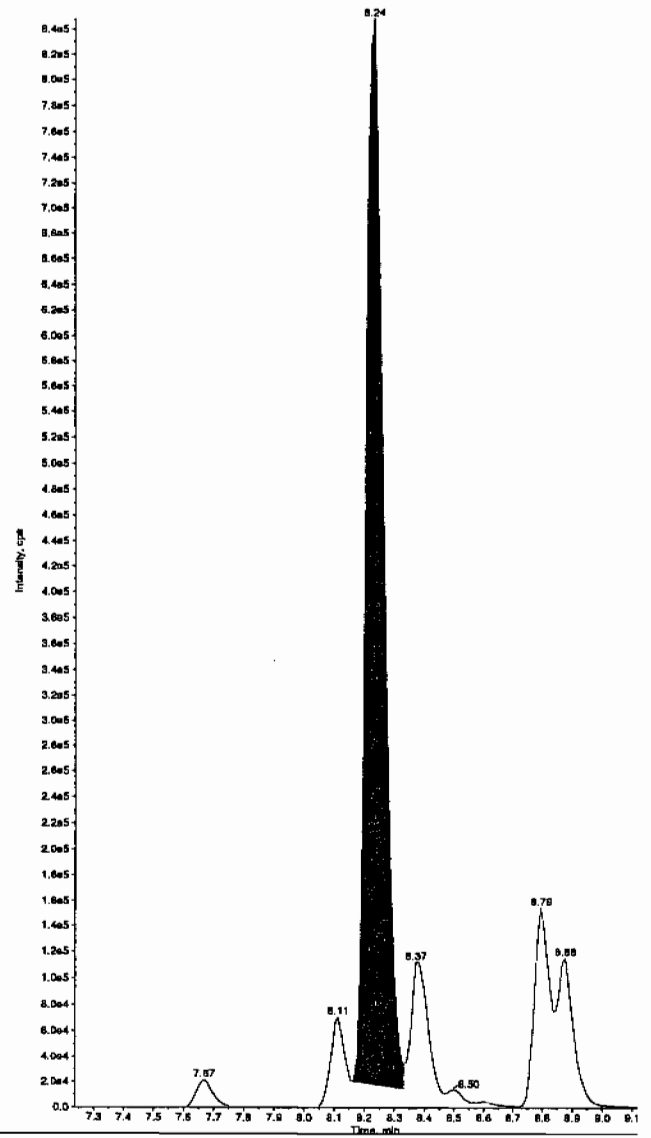

Hrm 02/19/10

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Sample Name: "1202023592" Sample ID: "944915[2]LER" File: "EXS02170121.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 281. ng/mL
cq. Date: 2/18/2010
cq. Time: 4:51:16 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.40 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.37 min
rea: 3.75e+006 counts
eight: 985860.474 cps
tart Time: 8.30 min
nd Time: 8.57 min

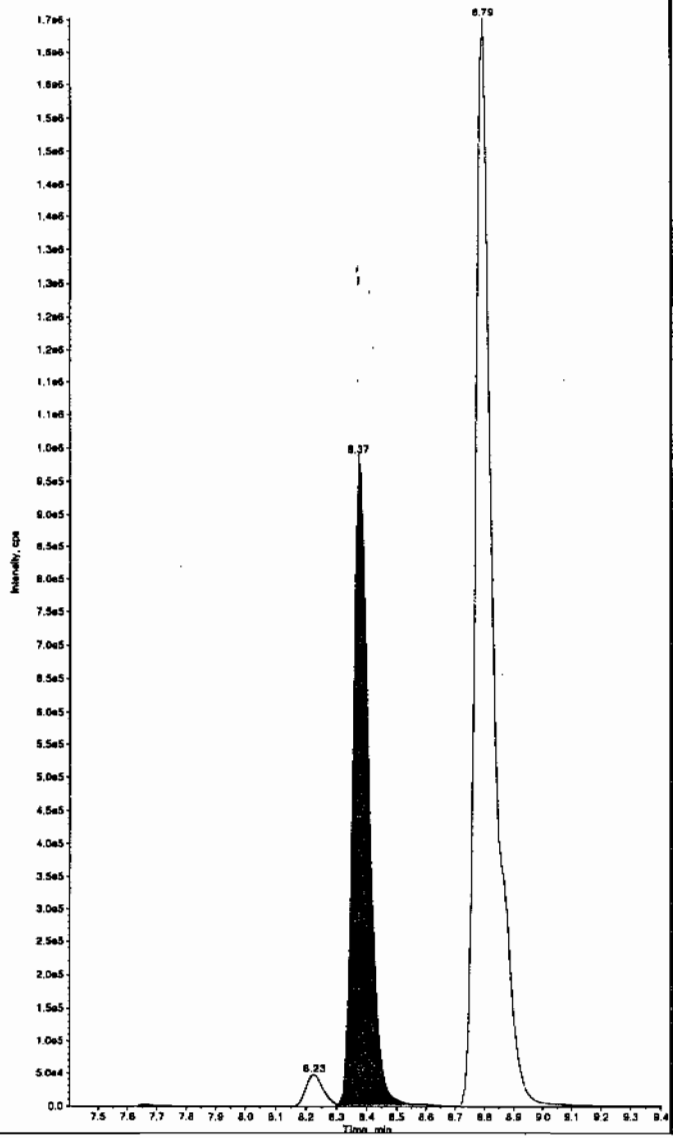

Sample Name: "1202023592" Sample ID: "944915[2]LER" File: "EXS02170121.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 584. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:51:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.04 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.15e+006 counts
Height: 282424.255 cps
Start Time: 4.93 min
End Time: 5.33 min

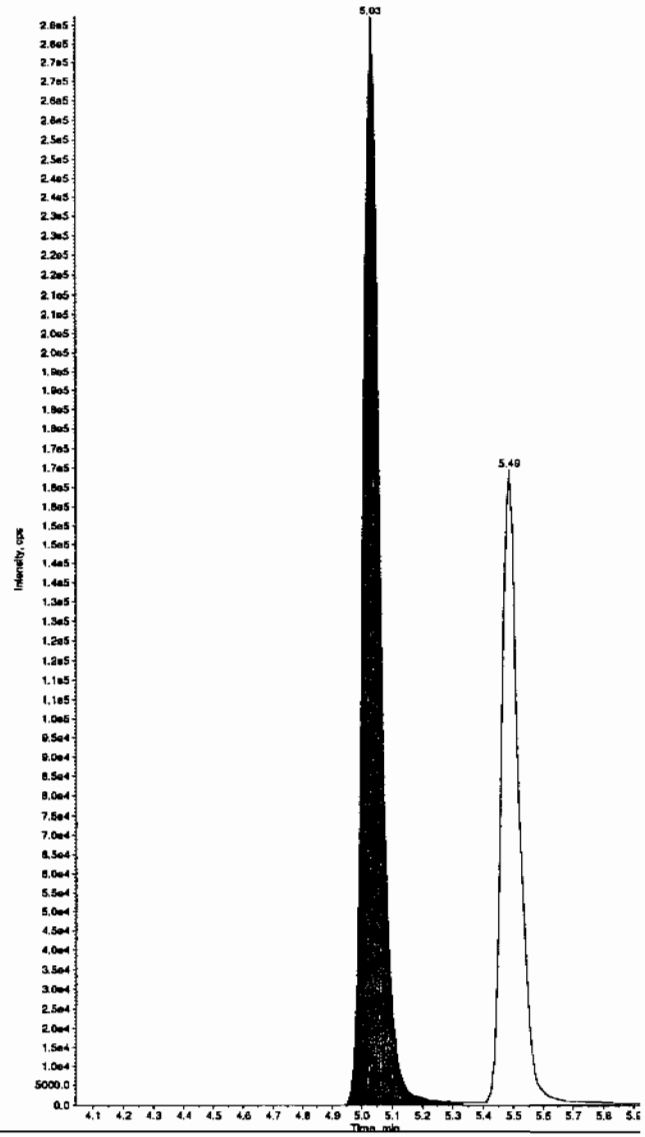

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Sample Name: "1202023592" Sample ID: "944915|2|LER" File: "EXS02170121.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 541. ng/mL
q. Date: 2/18/2010
q. Time: 4:51:16 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.51 min
e Relative RT: No

t. Type: Valley
tention Time: 5.49 min
ea: 6.68e+005 counts
ight: 164435.226 cps
art Time: 5.38 min
d Time: 5.87 min

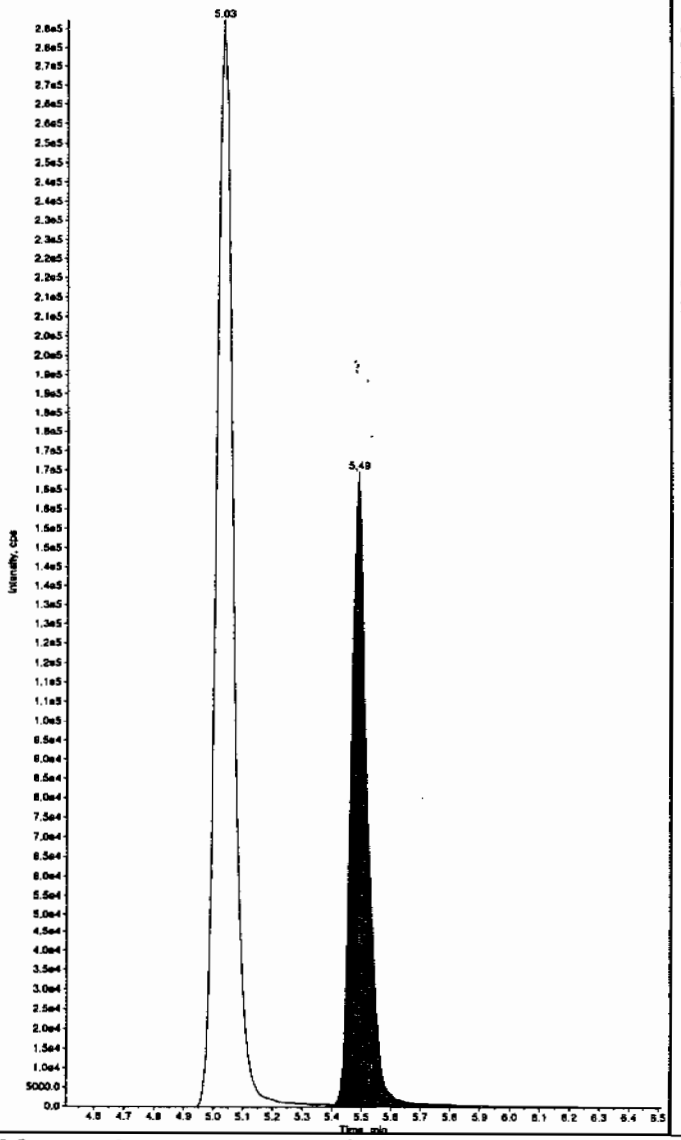

Sample Name: "1202023592" Sample ID: "944915|2|LER" File: "EXS02170121.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 485. ng/mL
Acq. Date: 2/18/2010
Acq. Time: 4:51:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.06e+007 counts
Height: 2502656.250 cps
Start Time: 10.8 min
End Time: 11.2 min

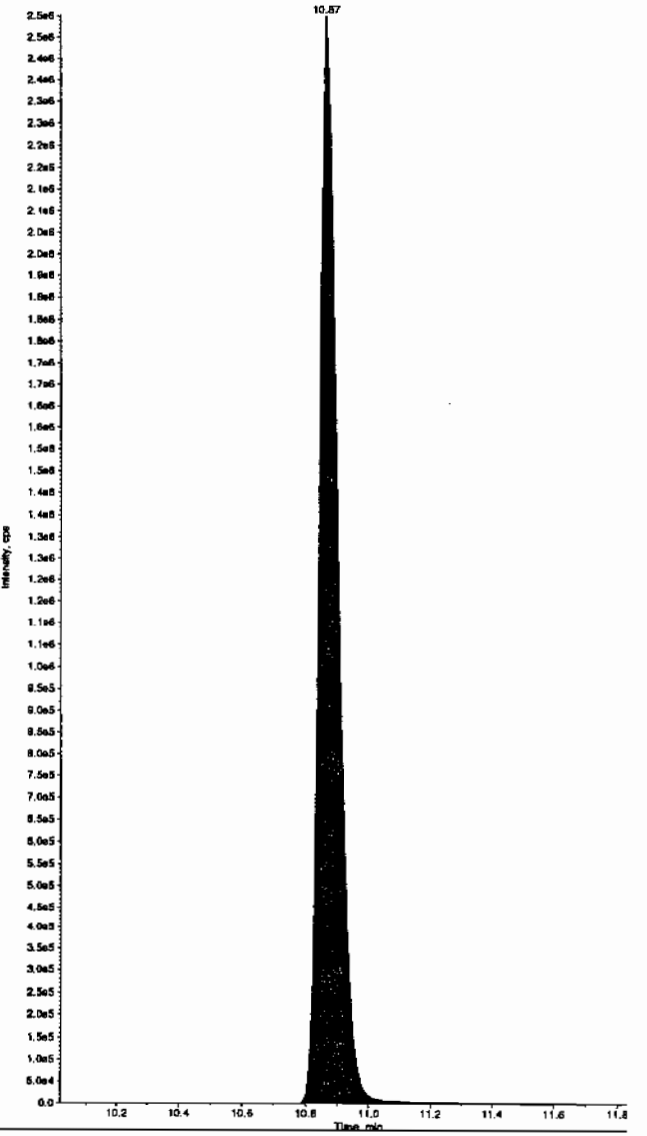

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 944913 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202023589 MB	17-FEB-2010 17:08:00	2	10	5
1202023590 LCS	17-FEB-2010 17:08:00	2	10	5
245377001	17-FEB-2010 17:08:00	2	10	5
245377002	17-FEB-2010 17:08:00	2	10	5
245377003	17-FEB-2010 17:08:00	2	10	5
245377004	17-FEB-2010 17:08:00	2	10	5
245377005	17-FEB-2010 17:08:00	2	10	5
245377006	17-FEB-2010 17:08:00	2	10	5
245377007	17-FEB-2010 17:08:00	2	10	5
245377008	17-FEB-2010 17:08:00	2	10	5
245377009	17-FEB-2010 17:08:00	2	10	5
245377010	17-FEB-2010 17:08:00	2	10	5
245396001	17-FEB-2010 17:08:00	2	10	5
1202023591 MS (245396001)	17-FEB-2010 17:08:00	2	10	5
1202023592 MSD (245396001)	17-FEB-2010 17:08:00	2	10	5
245396002	17-FEB-2010 17:08:00	2	10	5
245396003	17-FEB-2010 17:08:00	2	10	5
245396004	17-FEB-2010 17:08:00	2	10	5
247033002	17-FEB-2010 17:08:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202023590	8321 Explosives LCS	IXX100208-03	.1	mL
LCS	1202023590	8321 LANL Explosives Mix 10mg/L	UXX100210-02.2	1	mL
MS	1202023591	8321 Explosives LCS	IXX100208-03	.1	mL
MS	1202023591	8321 LANL Explosives Mix 10mg/L	UXX100210-02.2	1	mL
MSD	1202023592	8321 Explosives LCS	IXX100208-03	.1	mL
MSD	1202023592	8321 LANL Explosives Mix 10mg/L	UXX100210-02.2	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100215-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 02/16/10
Extr. Injection Volume: 50uL
Sequence Number: 021610expA
Initial Calibration Date: 02/16/10

Method: SW846 8321A-Modified
Int. Std.: UXX100128-01.3
Mobile Phase Lot#: 1269631, 1263794
Standard-Samp Reagent Lot#: 1260901, 1261217

Reviewed BY: Hmc
Date: 02/19/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100216-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0216001a	XIBLK01	MAP	2/16/10 17:07			1		USE	B
EXP0216002a	XIBLK01	MAP	2/16/10 17:37			1		USE	B
EXP0216003a	WXXICAL-01	MAP	2/16/10 18:07			1		USE	I
EXP0216004a	WXXICAL-02	MAP	2/16/10 18:36			1		USE	I
EXP0216005a	WXXICAL-03	MAP	2/16/10 19:06			1		USE	I
EXP0216006a	WXXICAL-04	MAP	2/16/10 19:35			1		USE	I
EXP0216007a	WXXICAL-05	MAP	2/16/10 20:05			1		USE	I
EXP0216008a	WXXICAL-06	MAP	2/16/10 20:35			1		USE	I
EXP0216009a	XIBLK02	MAP	2/16/10 21:04			1		USE	B
EXP0216010a	WXXICV	MAP	2/16/10 21:34			1		USE	C
EXP0216011a	XIBLK03	MAP	2/16/10 22:04			1		USE	B
EXP0216012a	WXXCRI	MAP	2/16/10 22:33			1		USE	C
EXP0216013a	1202038759	MAP	2/16/10 23:03	951342	Various	2	LANL	USE	S
EXP0216014a	1202038760	MAP	2/16/10 23:33	951342	Various	2	LANL	USE	S
EXP0216015a	246569007	MAP	2/17/10 0:02	951342	10-1669	2	LANL	USE	S
EXP0216016a	1202038761	MAP	2/17/10 0:32	951342	10-1669	2	LANL	USE	S
EXP0216017a	1202038762	MAP	2/17/10 1:02	951342	10-1669	2	LANL	USE	S
EXP0216018a	246572005	MAP	2/17/10 1:32	951342	10-1678	2	LANL	USE	S
EXP0216019a	246580002	MAP	2/17/10 2:01	951342	10-1683	2	LANL	USE	S
EXP0216020a	246580003	MAP	2/17/10 2:31	951342	10-1683	2	LANL	USE	S
EXP0216021a	WXXCCV	MAP	2/17/10 3:00			1		USE	C
EXP0216022a	XIBLK04	MAP	2/17/10 3:30			1		USE	B
EXP0216023a	WXXCRI	MAP	2/17/10 3:59			1		USE	C
EXP0216024a	246595004	MAP	2/17/10 4:29	951342	10-1694	2	LANL	USE	S
EXP0216025a	1202038763	MAP	2/17/10 4:58	951342	10-1694	2	LANL	USE	S
EXP0216026a	1202038764	MAP	2/17/10 5:28	951342	10-1694	2	LANL	USE	S
EXP0216027a	WXXCCV	MAP	2/17/10 5:58			1		USE	C
EXP0216028a	XIBLK05	MAP	2/17/10 6:28			1		USE	B
EXP0216029a	WXXCRI	MAP	2/17/10 6:57			1		USE	C

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EXP0216030a	1202030577	MAP	2/17/10 7:27	947919	Various	2	LANL	USE	S
EXP0216031a	1202030578	MAP	2/17/10 7:57	947919	Various	2	LANL	USE	S
EXP0216032a	245908001	MAP	2/17/10 8:27	947919	10-1486	2	LANL	USE	S
EXP0216033a	1202030579	MAP	2/17/10 8:56	947919	10-1486	2	LANL	USE	S
EXP0216034a	1202030580	MAP	2/17/10 9:26	947919	10-1486	2	LANL	USE	S
EXP0216035a	245908002	MAP	2/17/10 9:56	947919	10-1486	2	LANL	USE	S
EXP0216036a	245908005	MAP	2/17/10 10:25	947919	10-1486	2	LANL	USE	S
EXP0216037a	245908006	MAP	2/17/10 10:55	947919	10-1486	2	LANL	USE	S
EXP0216038a	245912003	MAP	2/17/10 11:25	947919	10-1488	2	LANL	USE	S
EXP0216039a	WXXCCV	MAP	2/17/10 11:55			1		USE	C
EXP0216040a	XIBLK06	MAP	2/17/10 12:24			1		USE	B
EXP0216041a	WXXCRI	MAP	2/17/10 12:54			1		USE	C
EXP0216042a	1202038769	MAP	2/17/10 13:23	951349	Various	2	LANL	USE	S
EXP0216043a	1202038770	MAP	2/17/10 13:53	951349	Various	2	LANL	USE	S
EXP0216044a	246554001	MAP	2/17/10 14:23	951349	10-1665	2	LANL	USE	S
EXP0216045a	1202038771	MAP	2/17/10 14:52	951349	10-1665	2	LANL	USE	S
EXP0216046a	1202038772	MAP	2/17/10 15:22	951349	10-1665	2	LANL	USE	S
EXP0216047a	246554002	MAP	2/17/10 15:52	951349	10-1665	2	LANL	USE	S
EXP0216048a	246554003	MAP	2/17/10 16:21	951349	10-1665	2	LANL	USE	S
EXP0216049a	246554004	MAP	2/17/10 16:51	951349	10-1665	2	LANL	USE	S
EXP0216050a	246554005	MAP	2/17/10 17:20	951349	10-1665	2	LANL	USE	S
EXP0216051a	246554006	MAP	2/17/10 17:50	951349	10-1665	2	LANL	USE	S
EXP0216052a	WXXCCV	MAP	2/17/10 18:20			1		USE	C
EXP0216053a	XIBLK07	MAP	2/17/10 18:50			1		USE	B
EXP0216054a	WXXCRI	MAP	2/17/10 19:19			1		USE	C
EXP0216055a	246557001	MAP	2/17/10 19:49	951349	10-1666	2	LANL	USE	S
EXP0216056a	246562001	MAP	2/17/10 20:19	951349	10-1668	2	LANL	USE	S
EXP0216057a	246575003	MAP	2/17/10 20:49	951349	10-1675	2	LANL	USE	S
EXP0216058a	246575004	MAP	2/17/10 21:18	951349	10-1675	2	LANL	USE	S
EXP0216059a	246582002	MAP	2/17/10 21:48	951349	10-1685	2	LANL	USE	S
EXP0216060a	246582003	MAP	2/17/10 22:17	951349	10-1685	2	LANL	USE	S
EXP0216061a	246582004	MAP	2/17/10 22:47	951349	10-1685	2	LANL	USE	S
EXP0216062a	246582005	MAP	2/17/10 23:16	951349	10-1685	2	LANL	USE	S
EXP0216063a	246582006	MAP	2/17/10 23:46	951349	10-1685	2	LANL	USE	S
EXP0216064a	246582007	MAP	2/18/10 0:15	951349	10-1685	2	LANL	USE	S
EXP0216065a	WXXCCV	MAP	2/18/10 0:45			1		USE	C
EXP0216066a	XIBLK08	MAP	2/18/10 1:14			1		USE	B

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EXP0216067a	WXXCRI	MAP	2/18/10 1:44			1		USE	C
EXP0216068a	246582008	MAP	2/18/10 2:14	951349	10-1685	2	LANL	USE	S
EXP0216069a	XIBLK09	MAP	2/18/10 2:43			1		USE	B
EXP0216070a	1202032097	MAP	2/18/10 3:13	948572	Various	2	LANL	DUSE	S
EXP0216071a	1202032098	MAP	2/18/10 3:43	948572	Various	2	LANL	DUSE	S
EXP0216072a	245955001	MAP	2/18/10 4:12	948572	10-1509	2	LANL	DUSE	S
EXP0216073a	245955002	MAP	2/18/10 4:42	948572	10-1509	2	LANL	DUSE	S
EXP0216074a	245959001	MAP	2/18/10 5:12	948572	10-1510	2	LANL	DUSE	S
EXP0216075a	1202032099	MAP	2/18/10 5:42	948572	10-1510	2	LANL	DUSE	S
EXP0216076a	1202032100	MAP	2/18/10 6:11	948572	10-1510	2	LANL	DUSE	S
EXP0216077a	245959002	MAP	2/18/10 6:41	948572	10-1510	2	LANL	DUSE	S
EXP0216078a	WXXCCV	MAP	2/18/10 7:10			1		USE	C
EXP0216079a	XIBLK10	MAP	2/18/10 7:40			1		USE	B
EXP0216080a	WXXCRI	MAP	2/18/10 8:10			1		USE	C
EXP0216081a	1202032097	MAP	18/02/2010 08:39	948572	Various	2	LANL	USE	S
EXP0216082a	1202032098	MAP	18/02/2010 09:09	948572	Various	2	LANL	USE	S
EXP0216083a	245955001	MAP	18/02/2010 09:38	948572	10-1509	2	LANL	USE	S
EXP0216084a	245955002	MAP	18/02/2010 10:08	948572	10-1509	2	LANL	USE	S
EXP0216085a	245959001	MAP	18/02/2010 10:37	948572	10-1510	2	LANL	USE	S
EXP0216086a	1202032099	MAP	18/02/2010 11:07	948572	10-1510	2	LANL	USE	S
EXP0216087a	1202032100	MAP	18/02/2010 11:36	948572	10-1510	2	LANL	USE	S
EXP0216088a	245959002	MAP	18/02/2010 12:06	948572	10-1510	2	LANL	USE	S
EXP0216089a	WXXCCV	MAP	18/02/2010 12:36			1		USE	C
EXP0216090a	XIBLK11	MAP	18/02/2010 13:05			1		USE	B
EXP0216091a	WXXCRI	MAP	18/02/2010 13:35			1		USE	C
EXP0216092a	245959003	MAP	18/02/2010 14:04	948572	10-1510	2	LANL	USE	S
EXP0216093a	245959004	MAP	18/02/2010 14:34	948572	10-1510	2	LANL	USE	S
EXP0216094a	245959005	MAP	18/02/2010 15:03	948572	10-1510	2	LANL	USE	S
EXP0216095a	245959006	MAP	18/02/2010 15:33	948572	10-1510	2	LANL	USE	S
EXP0216096a	245959007	MAP	18/02/2010 16:03	948572	10-1510	2	LANL	USE	S
EXP0216097a	245959008	MAP	18/02/2010 16:32	948572	10-1510	2	LANL	USE	S
EXP0216098a	245959009	MAP	18/02/2010 17:02	948572	10-1510	2	LANL	USE	S
EXP0216099a	245959010	MAP	18/02/2010 17:32	948572	10-1510	2	LANL	USE	S
EXP0216100a	245959012	MAP	18/02/2010 18:01	948572	10-1510	2	LANL	USE	S
EXP0216101a	WXXCCV	MAP	18/02/2010 18:31			1		USE	C
EXP0216102a	XIBLK12	MAP	18/02/2010 19:00			1		USE	B
EXP0216103a	WXXCRI	MAP	18/02/2010 19:30			1		USE	C

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EXP0216104a	1202023589	MAP	18/02/2010 19:59	944915	Various	2	LANL	USE	S
EXP0216105a	1202023590	MAP	18/02/2010 20:29	944915	Various	2	LANL	USE	S
EXP0216106a	245377001	MAP	18/02/2010 20:58	944915	10-1378	2	LANL	USE	S
EXP0216107a	245377002	MAP	18/02/2010 21:28	944915	10-1378	2	LANL	USE	S
EXP0216108a	245377003	MAP	18/02/2010 21:57	944915	10-1378	2	LANL	USE	S
EXP0216109a	245377004	MAP	18/02/2010 22:27	944915	10-1378	2	LANL	USE	S
EXP0216110a	245377005	MAP	18/02/2010 22:56	944915	10-1378	2	LANL	USE	S
EXP0216111a	245377006	MAP	18/02/2010 23:26	944915	10-1378	2	LANL	USE	S
EXP0216112a	245377007	MAP	18/02/2010 23:56	944915	10-1378	2	LANL	USE	S
EXP0216113a	245377008	MAP	19/02/2010 00:25	944915	10-1378	2	LANL	USE	S
EXP0216114a	WXXCCV	MAP	19/02/2010 00:55			1		USE	C
EXP0216115a	XIBLK13	MAP	19/02/2010 01:24			1		USE	B
EXP0216116a	WXXCRI	MAP	19/02/2010 01:54			1		USE	C
EXP0216117a	245377009	MAP	19/02/2010 02:23	944915	10-1378	2	LANL	USE	S
EXP0216118a	245377010	MAP	19/02/2010 02:53	944915	10-1378	2	LANL	USE	S
EXP0216119a	245396001	MAP	19/02/2010 03:23	944915	10-1394	2	LANL	USE	S
EXP0216120a	1202023591	MAP	19/02/2010 03:52	944915	10-1394	2	LANL	USE	S
EXP0216121a	1202023592	MAP	19/02/2010 04:22	944915	10-1394	2	LANL	USE	S
EXP0216122a	245396002	MAP	19/02/2010 04:52	944915	10-1394	2	LANL	USE	S
EXP0216123a	245396003	MAP	19/02/2010 05:22	944915	10-1394	2	LANL	USE	S
EXP0216124a	245396004	MAP	19/02/2010 05:51	944915	10-1394	2	LANL	USE	S
EXP0216125a	247033002	MAP	19/02/2010 06:21	944915	10-1821	2	LANL	USE	S
EXP0216126a	WXXCCV	MAP	19/02/2010 06:51			1		USE	C
EXP0216127a	XIBLK14	MAP	19/02/2010 07:21			1		USE	B
EXP0216128a	WXXCRI	MAP	19/02/2010 07:51			1		USE	C

GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/17/10
Extr. Injection Volume: 10uL
Sequence Number: 021710exs
Initial Calibration Date: 021710

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1263794, 1258141
Standard-Samp Reagent Lot# :1260901, 1261217

Reviewed By: HMM
Date: 02/19/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100217-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02170001.wiff	XIBLK01	LER	2/17/2010 9:26			1		USE	B
EXS02170002.wiff	XIBLK01	LER	2/17/2010 9:42			1		USE	B
EXS02170003.wiff	WXXICAL-19	LER	2/17/2010 9:57			1		USE	I
EXS02170004.wiff	WXXICAL-20	LER	2/17/2010 10:13			1		USE	I
EXS02170005.wiff	WXXICAL-21	LER	2/17/2010 10:29			1		USE	I
EXS02170006.wiff	WXXICAL-22	LER	2/17/2010 10:44			1		USE	I
EXS02170007.wiff	WXXICAL-23	LER	2/17/2010 11:00			1		USE	I
EXS02170008.wiff	WXXICAL-24	LER	2/17/2010 11:16			1		USE	I
EXS02170009.wiff	WXXICAL-25	LER	2/17/2010 11:31			1		USE	I
EXS02170010.wiff	XIBLK02	LER	2/17/2010 11:47			1		USE	B
EXS02170011.wiff	WXXICV	LER	2/17/2010 12:03			1		USE	C
EXS02170012.wiff	XIBLK03	LER	2/17/2010 12:19			1		USE	B
EXS02170013.wiff	WXXCRI	LER	2/17/2010 12:34			1		USE	C
EXS02170014.wiff	1202028685	LER	2/17/2010 12:50	947089	10-1470	2	LANL	USE	S
EXS02170015.wiff	1202028686	LER	2/17/2010 13:06	947089	10-1470	2	LANL	USE	S
EXS02170016.wiff	245795001	LER	2/17/2010 13:21	947089	10-1470	2	LANL	USE	S
EXS02170017.wiff	1202028687	LER	2/17/2010 13:37	947089	10-1470	2	LANL	USE	S
EXS02170018.wiff	1202028688	LER	2/17/2010 13:53	947089	10-1470	2	LANL	USE	S
EXS02170019.wiff	245795002	LER	2/17/2010 14:08	947089	10-1470	2	LANL	USE	S
EXS02170020.wiff	245795003	LER	2/17/2010 14:24	947089	10-1470	2	LANL	USE	S
EXS02170021.wiff	245795004	LER	2/17/2010 14:40	947089	10-1470	2	LANL	USE	S
EXS02170022.wiff	245795005	LER	2/17/2010 14:56	947089	10-1470	2	LANL	USE	S
EXS02170023.wiff	245795006	LER	2/17/2010 15:11	947089	10-1470	2	LANL	USE	S
EXS02170024.wiff	WXXCCV	LER	2/17/2010 15:27			1		USE	C
EXS02170025.wiff	XIBLK04	LER	2/17/2010 15:43			1		USE	B
EXS02170026.wiff	WXXCRI	LER	2/17/2010 15:58			1		USE	C
EXS02170027.wiff	245795007	LER	2/17/2010 16:14	947089	10-1470	2	LANL	USE	S
EXS02170028.wiff	245795008	LER	2/17/2010 16:30	947089	10-1470	2	LANL	USE	S
EXS02170029.wiff	245795009	LER	2/17/2010 16:45	947089	10-1470	2	LANL	USE	S
EXS02170030.wiff	245795010	LER	2/17/2010 17:01	947089	10-1470	2	LANL	USE	S

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EXS02170031.wiff	245795011	LER	2/17/2010 17:17	947089	10-1470	2	LANL	USE	S
EXS02170032.wiff	245795012	LER	2/17/2010 17:33	947089	10-1470	2	LANL	USE	S
EXS02170033.wiff	245795013	LER	2/17/2010 17:48	947089	10-1470	2	LANL	USE	S
EXS02170034.wiff	245795014	LER	2/17/2010 18:04	947089	10-1470	2	LANL	USE	S
EXS02170035.wiff	245795015	LER	2/17/2010 18:20	947089	10-1470	2	LANL	USE	S
EXS02170036.wiff	245795016	LER	2/17/2010 18:35	947089	10-1470	2	LANL	USE	S
EXS02170037.wiff	WXXCCV	LER	2/17/2010 18:51			1		USE	C
EXS02170038.wiff	XIBLK05	LER	2/17/2010 19:07			1		USE	B
EXS02170039.wiff	WXXCRI	LER	2/17/2010 19:23			1		USE	C
EXS02170040.wiff	245795017	LER	2/17/2010 19:38	947089	10-1470	2	LANL	USE	S
EXS02170041.wiff	245795018	LER	2/17/2010 19:54	947089	10-1470	2	LANL	USE	S
EXS02170042.wiff	245795019	LER	2/17/2010 20:10	947089	10-1470	2	LANL	USE	S
EXS02170043.wiff	WXXCCV	LER	2/17/2010 20:25			1		USE	C
EXS02170044.wiff	XIBLK06	LER	2/17/2010 20:41			1		USE	B
EXS02170045.wiff	WXXCRI	LER	2/17/2010 20:57			1		USE	C
EXS02170046.wiff	1202035656	LER	2/17/2010 21:12	950070	VARIOUS	2	LANL	USE	S
EXS02170047.wiff	1202035657	LER	2/17/2010 21:28	950070	VARIOUS	2	LANL	USE	S
EXS02170048.wiff	246266001	LER	2/17/2010 21:44	950070	10-1547	2	LANL	USE	S
EXS02170049.wiff	1202035658	LER	2/17/2010 22:00	950070	10-1547	2	LANL	USE	S
EXS02170050.wiff	1202035659	LER	2/17/2010 22:15	950070	10-1547	2	LANL	USE	S
EXS02170051.wiff	246266002	LER	2/17/2010 22:31	950070	10-1547	2	LANL	USE	S
EXS02170052.wiff	246266003	LER	2/17/2010 22:47	950070	10-1547	2	LANL	USE	S
EXS02170053.wiff	246266004	LER	2/17/2010 23:02	950070	10-1547	2	LANL	USE	S
EXS02170054.wiff	246266005	LER	2/17/2010 23:18	950070	10-1547	2	LANL	USE	S
EXS02170055.wiff	246266006	LER	2/17/2010 23:34	950070	10-1547	2	LANL	USE	S
EXS02170056.wiff	WXXCCV	LER	2/17/2010 23:49			1		USE	C
EXS02170057.wiff	XIBLK07	LER	2/18/2010 0:05			1		USE	B
EXS02170058.wiff	WXXCRI	LER	2/18/2010 0:21			1		USE	C
EXS02170059.wiff	246273002	LER	2/18/2010 0:37	950070	10-1550	2	LANL	USE	S
EXS02170060.wiff	246273003	LER	2/18/2010 0:52	950070	10-1550	2	LANL	USE	S
EXS02170061.wiff	246273004	LER	2/18/2010 1:08	950070	10-1550	2	LANL	USE	S
EXS02170062.wiff	246273005	LER	2/18/2010 1:24	950070	10-1550	2	LANL	USE	S
EXS02170063.wiff	246273006	LER	2/18/2010 1:39	950070	10-1550	2	LANL	USE	S
EXS02170064.wiff	246273007	LER	2/18/2010 1:55	950070	10-1550	2	LANL	USE	S
EXS02170065.wiff	246273008	LER	2/18/2010 2:11	950070	10-1550	2	LANL	USE	S
EXS02170066.wiff	246273009	LER	2/18/2010 2:26	950070	10-1550	2	LANL	USE	S
EXS02170067.wiff	246273010	LER	2/18/2010 2:42	950070	10-1550	2	LANL	USE	S

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EXS02170068.wiff	246273011	LER	2/18/2010 2:58	950070	10-1550	2	LANL	USE	S
EXS02170069.wiff	WXXCCV	LER	2/18/2010 3:14			1		USE	C
EXS02170070.wiff	XIBLK08	LER	2/18/2010 3:29			1		USE	B
EXS02170071.wiff	WXXCRI	LER	2/18/2010 3:45			1		USE	C
EXS02170072.wiff	246273012	LER	2/18/2010 4:01	950070	10-1550	2	LANL	USE	S
EXS02170073.wiff	XIBLK09	LER	2/18/2010 4:16			1		USE	B
EXS02170074.wiff	1202035670	LER	2/18/2010 4:32	950077	VARIOUS	2	LANL	USE	S
EXS02170075.wiff	1202035671	LER	2/18/2010 4:48	950077	VARIOUS	2	LANL	USE	S
EXS02170076.wiff	246287001	LER	2/18/2010 5:04	950077	10-1553	2	LANL	USE	S
EXS02170077.wiff	1202035672	LER	2/18/2010 5:19	950077	10-1553	2	LANL	USE	S
EXS02170078.wiff	1202035673	LER	2/18/2010 5:35	950077	10-1553	2	LANL	USE	S
EXS02170079.wiff	246287002	LER	2/18/2010 5:51	950077	10-1553	2	LANL	USE	S
EXS02170080.wiff	246287003	LER	2/18/2010 6:06	950077	10-1553	2	LANL	USE	S
EXS02170081.wiff	246287004	LER	2/18/2010 6:22	950077	10-1553	2	LANL	USE	S
EXS02170082.wiff	WXXCCV	LER	2/18/2010 6:38			1		USE	C
EXS02170083.wiff	XIBLK10	LER	2/18/2010 6:53			1		USE	B
EXS02170084.wiff	WXXCRI	LER	2/18/2010 7:09			1		USE	C
EXS02170085.wiff	246287005	LER	2/18/2010 7:25	950077	10-1553	2	LANL	USE	S
EXS02170086.wiff	246287006	LER	2/18/2010 7:41	950077	10-1553	2	LANL	USE	S
EXS02170087.wiff	246287007	LER	2/18/2010 7:56	950077	10-1553	2	LANL	USE	S
EXS02170088.wiff	246287008	LER	2/18/2010 8:12	950077	10-1553	2	LANL	USE	S
EXS02170089.wiff	246287010	LER	2/18/2010 8:28	950077	10-1553	2	LANL	USE	S
EXS02170090.wiff	246297002	LER	2/18/2010 8:43	950077	10-1556	2	LANL	USE	S
EXS02170091.wiff	246297003	LER	2/18/2010 8:59	950077	10-1556	2	LANL	USE	S
EXS02170092.wiff	246297004	LER	2/18/2010 9:15	950077	10-1556	2	LANL	USE	S
EXS02170093.wiff	246302001	LER	2/18/2010 9:31	950077	10-1558	2	LANL	USE	S
EXS02170094.wiff	246302002	LER	2/18/2010 9:46	950077	10-1558	2	LANL	USE	S
EXS02170095.wiff	WXXCCV	LER	2/18/2010 10:02			1		USE	C
EXS02170096.wiff	XIBLK11	LER	2/18/2010 10:18			1		USE	B
EXS02170097.wiff	WXXCRI	LER	2/18/2010 10:33			1		USE	C
EXS02170098.wiff	246302003	LER	2/18/2010 10:49	950077	10-1558	2	LANL	USE	S
EXS02170099.wiff	246302004	LER	2/18/2010 11:05	950077	10-1558	2	LANL	USE	S
EXS02170100.wiff	246312001	LER	2/18/2010 11:21	950077	10-1561	2	LANL	USE	S
EXS02170101.wiff	WXXCCV	LER	2/18/2010 11:36			1		USE	C
EXS02170102.wiff	XIBLK12	LER	2/18/2010 11:52			1		USE	B
EXS02170103.wiff	WXXCRI	LER	2/18/2010 12:08			1		USE	C
EXS02170104.wiff	1202023589	LER	2/18/2010 12:23	944915	VARIOUS	2	LANL	USE	S

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EXS02170105.wiff	1202023590	LER	2/18/2010 12:39	944915	VARIOUS	2	LANL	USE	S
EXS02170106.wiff	245377001	LER	2/18/2010 12:55	944915	10-1378	2	LANL	USE	S
EXS02170107.wiff	245377002	LER	2/18/2010 13:11	944915	10-1378	2	LANL	USE	S
EXS02170108.wiff	245377003	LER	2/18/2010 13:26	944915	10-1378	2	LANL	USE	S
EXS02170109.wiff	245377004	LER	2/18/2010 13:42	944915	10-1378	2	LANL	USE	S
EXS02170110.wiff	245377005	LER	2/18/2010 13:58	944915	10-1378	2	LANL	USE	S
EXS02170111.wiff	245377006	LER	2/18/2010 14:13	944915	10-1378	2	LANL	USE	S
EXS02170112.wiff	245377007	LER	2/18/2010 14:29	944915	10-1378	2	LANL	USE	S
EXS02170113.wiff	245377008	LER	2/18/2010 14:45	944915	10-1378	2	LANL	USE	S
EXS02170114.wiff	WXXCCV	LER	2/18/2010 15:01			1		USE	C
EXS02170115.wiff	XIBLK13	LER	2/18/2010 15:16			1		USE	B
EXS02170116.wiff	WXXCRI	LER	2/18/2010 15:32			1		USE	C
EXS02170117.wiff	245377009	LER	2/18/2010 15:48	944915	10-1378	2	LANL	USE	S
EXS02170118.wiff	245377010	LER	2/18/2010 16:04	944915	10-1378	2	LANL	USE	S
EXS02170119.wiff	245396001	LER	2/18/2010 16:19	944915	10-1394	2	LANL	USE	S
EXS02170120.wiff	1202023591	LER	2/18/2010 16:35	944915	10-1394	2	LANL	USE	S
EXS02170121.wiff	1202023592	LER	2/18/2010 16:51	944915	10-1394	2	LANL	USE	S
EXS02170122.wiff	245396002	LER	2/18/2010 17:06	944915	10-1394	2	LANL	USE	S
EXS02170123.wiff	245396003	LER	2/18/2010 17:22	944915	10-1394	2	LANL	USE	S
EXS02170124.wiff	245396004	LER	2/18/2010 17:38	944915	10-1394	2	LANL	USE	S
EXS02170125.wiff	247033002	LER	2/18/2010 17:54	944915	10-1821	2	LANL	USE	S
EXS02170126.wiff	WXXCCV	LER	2/18/2010 18:09			1		USE	C
EXS02170127.wiff	XIBLK14	LER	2/18/2010 18:25			1		USE	B
EXS02170128.wiff	WXXCRI	LER	2/18/2010 18:41			1		USE	C
EXS02170129.wiff	1202035674	LER	2/18/2010 18:57	950079	10-1562	2	LANL	USE	S
EXS02170130.wiff	1202035675	LER	2/18/2010 19:12	950079	10-1562	2	LANL	USE	S
EXS02170131.wiff	246316001	LER	2/18/2010 19:28	950079	10-1562	2	LANL	USE	S
EXS02170132.wiff	1202035676	LER	2/18/2010 19:44	950079	10-1562	2	LANL	USE	S
EXS02170133.wiff	1202035677	LER	2/18/2010 19:59	950079	10-1562	2	LANL	USE	S
EXS02170134.wiff	246316002	LER	2/18/2010 20:15	950079	10-1562	2	LANL	USE	S
EXS02170135.wiff	246316003	LER	2/18/2010 20:31	950079	10-1562	2	LANL	USE	S
EXS02170136.wiff	246316004	LER	2/18/2010 20:47	950079	10-1562	2	LANL	USE	S
EXS02170137.wiff	246316005	LER	2/18/2010 21:02	950079	10-1562	2	LANL	USE	S
EXS02170138.wiff	WXXCCV	LER	2/18/2010 21:18			1		USE	C
EXS02170139.wiff	XIBLK15	LER	2/18/2010 21:34			1		USE	B
EXS02170140.wiff	WXXCRI	LER	2/18/2010 21:50			1		USE	C

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-FEB-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
944915	See Below		

Potentially affected work order(s)(SDG): 245377(10-1378),245396(10-1394),247033(10-1821)

Application Issues:

Other

Specification and Requirements Exception Description:	DER Disposition:
1. The following samples were extracted out of holding due to prep analyst oversight: 245377001, 245377002, 245377003, 245377004, 245377005, 245377006, 245377007, 245377008, 245377009, 245377010, 245396001, 245396002, 245396003, and 245396004.	1. The samples were extractped within two times the holding period. The data are reported.
2. The LCS(1202023590) did not meet acceptance criteria for the recovery of 4-Amino-2,6-dinitrotoluene at 81.8%. The limits are 84-130%.	2. Both the MS(1202023591) and MSD(1202023592) had passing recoveries for 4-Amino-2,6-dinitrotoluene at 95% and 90.1% respectively. The data are reported.

Originator's Name:

Lynne Russell 19-FEB-10

Data Validator/Group Leader:

Herbert Maier 19-FEB-10

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1394

Sample Analysis

Sample ID	**Client ID**
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202024773	Method Blank (MB) **ICP**
1202024774	Laboratory Control Sample (LCS)
1202024777	245396001(RE15-10-7928L) Serial Dilution (SD)
1202024775	245396001(RE15-10-7928D) Sample Duplicate (DUP)
1202024776	245396001(RE15-10-7928S) Matrix Spike (MS)
1202024778	245396001(RE15-10-7928SD) Matrix Spike Duplicate (MSD)
1202024764	Method Blank (MB) **ICP-MS**
1202024765	Laboratory Control Sample (LCS)
1202024768	245396001(RE15-10-7928L) Serial Dilution (SD)
1202024766	245396001(RE15-10-7928D) Sample Duplicate (DUP)
1202024767	245396001(RE15-10-7928S) Matrix Spike (MS)
1202024772	245396001(RE15-10-7928SD) Matrix Spike Duplicate (MSD)
1202025301	Method Blank (MB) **CVAA**
1202025302	Laboratory Control Sample (LCS)
1202025305	245396001(RE15-10-7928L) Serial Dilution (SD)
1202025303	245396001(RE15-10-7928D) Sample Duplicate (DUP)

1202025304	245396001(RE15-10-7928S) Matrix Spike (MS)
1202025306	245396001(RE15-10-7928SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	945399, 945396 and 945628
Prep Batch :	945398, 945392 and 945627
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-

7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 245396001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of aluminum and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of aluminum, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of nickel, uranium, calcium and chromium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. The samples 245396002 and 245396003 required dilutions for uranium in order to bring over range concentrations within the linear calibration range of the instrument.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 791120 and 791123. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 2/19/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1394 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245396001 **BASIS:** Dry Weight **DATE COLLECTED** 21-JAN-10

CLIENT ID: RE15-10-7928 **LEVEL:** Low **DATE RECEIVED** 23-JAN-10

MATRIX: SOIL **%SOLIDS:** 96.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	935000	ug/Kg	N	6880	20200	20200	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-36-0	Antimony	1010	ug/Kg	U	334	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-38-2	Arsenic	0.709	mg/kg	J	0.207	1.04	1.04	2	MS	BAJ	02/15/10 00:51	100214-8	945396
7440-39-3	Barium	18400	ug/Kg		101	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-41-7	Beryllium	0.360	mg/kg		0.0207	0.104	0.104	2	MS	BAJ	02/14/10 01:04	100213-4	945396
7440-43-9	Cadmium	506	ug/Kg	U	101	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-70-2	Calcium	328000	ug/Kg	*	8090	25300	25300	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-47-3	Chromium	8030	ug/Kg	*	152	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-48-4	Cobalt	1800	ug/Kg		152	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-50-8	Copper	5690	ug/Kg		303	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-89-6	Iron	7680000	ug/Kg		8090	25300	25300	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-92-1	Lead	5490	ug/Kg		253	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-95-4	Magnesium	205000	ug/Kg		8600	30300	30300	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-96-5	Manganese	238000	ug/Kg		202	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399
7439-97-6	Mercury	9.91	ug/kg	J	3.96	11.7	11.7	1	AV	ETL	02/10/10 10:51	021010S1-9	945628
7440-02-0	Nickel	2.57	mg/kg	*	0.104	0.415	0.415	2	MS	BAJ	02/14/10 01:04	100213-4	945396
7440-09-7	Potassium	225000	ug/Kg	N	6470	25300	25300	1	P	HSC	02/12/10 00:38	021110-1	945399
7782-49-2	Selenium	1.04	mg/kg	U	0.519	1.04	1.04	2	MS	BAJ	02/15/10 00:51	100214-8	945396
7440-22-4	Silver	396	ug/Kg	J	101	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-23-5	Sodium	134000	ug/Kg		7080	25300	25300	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-28-0	Thallium	0.207	mg/kg	U	0.0622	0.207	0.207	2	MS	BAJ	02/14/10 15:41	100214-5	945396
7440-61-1	Uranium	1.37	mg/kg	*	0.0137	0.0415	0.0415	2	MS	BAJ	02/14/10 09:00	100213-2	945396
7440-62-2	Vanadium	2860	ug/Kg		101	506	506	1	P	HSC	02/12/10 00:38	021110-1	945399
7440-66-6	Zinc	32700	ug/Kg		334	1010	1010	1	P	HSC	02/12/10 00:38	021110-1	945399

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
945396	945392	SW846 3050B	0.5	g	50	mL	02/04/10	FGA
945399	945398	SW846 3050B	0.513	g	50	mL	02/04/10	FGA
945628	945627	SW846 7471A Prep	0.534	g	30	mL	02/09/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1394 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245396002 **BASIS:** Dry Weight **DATE COLLECTED** 21-JAN-10

CLIENT ID: RE15-10-7929 **LEVEL:** Low **DATE RECEIVED** 23-JAN-10

MATRIX: SOIL **%SOLIDS:** 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10400000	ug/Kg	N	9300	27300	27300	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-36-0	Antimony	1370	ug/Kg	U	451	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-38-2	Arsenic	2.81	mg/kg		0.258	1.29	1.29	2	MS	BAJ	02/15/10 01:07	100214-8	945396
7440-39-3	Barium	157000	ug/Kg		137	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-41-7	Beryllium	2.06	mg/kg		0.0258	0.129	0.129	2	MS	BAJ	02/14/10 01:35	100213-4	945396
7440-43-9	Cadmium	1600	ug/Kg		137	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-70-2	Calcium	4070000	ug/Kg	*	10900	34200	34200	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-47-3	Chromium	10800	ug/Kg	*	205	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-48-4	Cobalt	7190	ug/Kg		205	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-50-8	Copper	73300	ug/Kg		410	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-89-6	Iron	12500000	ug/Kg		10900	34200	34200	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-92-1	Lead	102000	ug/Kg		342	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-95-4	Magnesium	2150000	ug/Kg		11600	41000	41000	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-96-5	Manganese	419000	ug/Kg		273	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399
7439-97-6	Mercury	24.9	ug/kg		5.54	16.3	16.3	1	AV	ETL	02/10/10 11:00	021010S1-9	945628
7440-02-0	Nickel	8.61	mg/kg	*	0.129	0.516	0.516	2	MS	BAJ	02/14/10 01:35	100213-4	945396
7440-09-7	Potassium	1870000	ug/Kg	N	8750	34200	34200	1	P	HSC	02/12/10 01:12	021110-1	945399
7782-49-2	Selenium	0.696	mg/kg	J	0.645	1.29	1.29	2	MS	BAJ	02/15/10 01:07	100214-8	945396
7440-22-4	Silver	748	ug/Kg		137	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-23-5	Sodium	70000	ug/Kg		9570	34200	34200	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-28-0	Thallium	0.240	mg/kg	J	0.0774	0.258	0.258	2	MS	BAJ	02/14/10 16:04	100214-5	945396
7440-61-1	Uranium	31.8	mg/kg	*	0.17	0.516	0.516	20	MS	BAJ	02/14/10 12:28	100214-3	945396
7440-62-2	Vanadium	24200	ug/Kg		137	684	684	1	P	HSC	02/12/10 01:12	021110-1	945399
7440-66-6	Zinc	41700	ug/Kg		451	1370	1370	1	P	HSC	02/12/10 01:12	021110-1	945399

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
945396	945392	SW846 3050B	0.534	g	50	mL	02/04/10	FGA
945399	945398	SW846 3050B	0.504	g	50	mL	02/04/10	FGA
945628	945627	SW846 7471A Prep	0.508	g	30	mL	02/09/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1394 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245396003 **BASIS:** Dry Weight **DATE COLLECTED** 21-JAN-10

CLIENT ID: RE15-10-7927 **LEVEL:** Low **DATE RECEIVED** 23-JAN-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7000000	ug/Kg	N	8020	23600	23600	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-36-0	Antimony	778	ug/Kg	J	389	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-38-2	Arsenic	2.43	mg/kg		0.265	1.32	1.32	2	MS	BAJ	02/15/10 01:10	100214-8	945396
7440-39-3	Barium	97600	ug/Kg		118	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-41-7	Beryllium	5.83	mg/kg		0.0265	0.132	0.132	2	MS	BAJ	02/14/10 01:41	100213-4	945396
7440-43-9	Cadmium	1170	ug/Kg		118	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-70-2	Calcium	2120000	ug/Kg	*	9440	29500	29500	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-47-3	Chromium	12600	ug/Kg	*	177	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-48-4	Cobalt	3750	ug/Kg		177	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-50-8	Copper	526000	ug/Kg		354	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-89-6	Iron	9560000	ug/Kg		9440	29500	29500	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-92-1	Lead	102000	ug/Kg		295	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-95-4	Magnesium	1230000	ug/Kg		10000	35400	35400	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-96-5	Manganese	282000	ug/Kg		236	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399
7439-97-6	Mercury	15.3	ug/kg		5.08	15	15	1	AV	ETL	02/10/10 11:01	021010S1-9	945628
7440-02-0	Nickel	7.08	mg/kg	*	0.132	0.529	0.529	2	MS	BAJ	02/14/10 01:41	100213-4	945396
7440-09-7	Potassium	1250000	ug/Kg	N	7550	29500	29500	1	P	HSC	02/12/10 01:20	021110-1	945399
7782-49-2	Selenium	1.32	mg/kg	U	0.662	1.32	1.32	2	MS	BAJ	02/15/10 01:10	100214-8	945396
7440-22-4	Silver	771	ug/Kg		118	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-23-5	Sodium	63800	ug/Kg		8260	29500	29500	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-28-0	Thallium	0.127	mg/kg	J	0.0794	0.265	0.265	2	MS	BAJ	02/14/10 16:08	100214-5	945396
7440-61-1	Uranium	84.6	mg/kg	*	0.175	0.529	0.529	20	MS	BAJ	02/14/10 12:29	100214-3	945396
7440-62-2	Vanadium	16100	ug/Kg		118	590	590	1	P	HSC	02/12/10 01:20	021110-1	945399
7440-66-6	Zinc	56800	ug/Kg		389	1180	1180	1	P	HSC	02/12/10 01:20	021110-1	945399

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
945396	945392	SW846 3050B	0.5	g	50	mL	02/04/10	FGA
945399	945398	SW846 3050B	0.561	g	50	mL	02/04/10	FGA
945628	945627	SW846 7471A Prep	0.531	g	30	mL	02/09/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1394 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245396004 **BASIS:** Dry Weight **DATE COLLECTED** 21-JAN-10

CLIENT ID: RE15-10-7930 **LEVEL:** Low **DATE RECEIVED** 23-JAN-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2300000	ug/Kg	N	7650	22500	22500	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-36-0	Antimony	1130	ug/Kg	U	371	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-38-2	Arsenic	1.37	mg/kg		0.214	1.07	1.07	2	MS	BAJ	02/15/10 01:12	100214-8	945396
7440-39-3	Barium	47300	ug/Kg		113	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-41-7	Beryllium	0.857	mg/kg		0.0214	0.107	0.107	2	MS	BAJ	02/14/10 01:47	100213-4	945396
7440-43-9	Cadmium	563	ug/Kg	U	113	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-70-2	Calcium	525000	ug/Kg	*	9000	28100	28100	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-47-3	Chromium	14100	ug/Kg	*	169	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-48-4	Cobalt	6480	ug/Kg		169	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-50-8	Copper	44700	ug/Kg		338	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-89-6	Iron	15900000	ug/Kg		9000	28100	28100	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-92-1	Lead	15800	ug/Kg		281	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-95-4	Magnesium	388000	ug/Kg		9560	33800	33800	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-96-5	Manganese	279000	ug/Kg		225	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399
7439-97-6	Mercury	11.4	ug/kg	J	3.96	11.6	11.6	1	AV	ETL	02/10/10 11:03	021010S1-9	945628
7440-02-0	Nickel	3.84	mg/kg	*	0.107	0.428	0.428	2	MS	BAJ	02/14/10 01:47	100213-4	945396
7440-09-7	Potassium	508000	ug/Kg	N	7200	28100	28100	1	P	HSC	02/12/10 01:27	021110-1	945399
7782-49-2	Selenium	1.07	mg/kg	U	0.535	1.07	1.07	2	MS	BAJ	02/15/10 01:12	100214-8	945396
7440-22-4	Silver	722	ug/Kg		113	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-23-5	Sodium	222000	ug/Kg		7880	28100	28100	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-28-0	Thallium	0.214	mg/kg	U	0.0642	0.214	0.214	2	MS	BAJ	02/14/10 16:13	100214-5	945396
7440-61-1	Uranium	8.68	mg/kg	*	0.0141	0.0428	0.0428	2	MS	BAJ	02/14/10 09:15	100213-2	945396
7440-62-2	Vanadium	4510	ug/Kg		113	563	563	1	P	HSC	02/12/10 01:27	021110-1	945399
7440-66-6	Zinc	33800	ug/Kg		371	1130	1130	1	P	HSC	02/12/10 01:27	021110-1	945399

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
945396	945392	SW846 3050B	0.528	g	50	mL	02/04/10	FGA
945399	945398	SW846 3050B	0.502	g	50	mL	02/04/10	FGA
945628	945627	SW846 7471A Prep	0.582	g	30	mL	02/09/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.23	ug/L	5	ug/L	104.6	90.0 – 110.0	AV	10–FEB–10 09:01	021010S1–9
	Aluminum	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Antimony	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Barium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Cadmium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Iron	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Lead	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Magnesium	5450	ug/L	5000	ug/L	109	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Potassium	2500	ug/L	2500	ug/L	100	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Silver	265	ug/L	250	ug/L	106.1	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Sodium	2500	ug/L	2500	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Vanadium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Zinc	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	11–FEB–10 08:54	021110–1
	Beryllium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	13–FEB–10 21:36	100213–4
	Nickel	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	13–FEB–10 21:36	100213–4
	Uranium	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	14–FEB–10 08:10	100213–2
	Uranium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	14–FEB–10 12:12	100214–3
	Thallium	54.9	ug/L	50	ug/L	109.7	90.0 – 110.0	MS	14–FEB–10 13:20	100214–5
	Arsenic	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	15–FEB–10 00:29	100214–8
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	15–FEB–10 00:29	100214–8
CCV01										
	Mercury	5.07	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	10–FEB–10 09:06	021010S1–9
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Antimony	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Barium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 09:39	021110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Copper	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Lead	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Manganese	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Potassium	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Silver	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Zinc	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11–FEB–10 09:39	021110–1
	Beryllium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	13–FEB–10 22:07	100213–4
	Nickel	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	13–FEB–10 22:07	100213–4
	Uranium	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	14–FEB–10 08:19	100213–2
	Uranium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	14–FEB–10 12:21	100214–3
	Thallium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	14–FEB–10 13:42	100214–5
	Arsenic	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	15–FEB–10 00:41	100214–8
	Selenium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	15–FEB–10 00:41	100214–8
CCV02										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	10–FEB–10 09:26	021010S1–9
	Aluminum	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Antimony	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Cadmium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Calcium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11–FEB–10 10:04	021110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Iron	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Lead	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Potassium	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Sodium	9490	ug/L	10000	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Zinc	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 10:04	021110–1
	Beryllium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	13–FEB–10 22:25	100213–4
	Nickel	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	13–FEB–10 22:25	100213–4
	Uranium	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	14–FEB–10 08:36	100213–2
	Uranium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	14–FEB–10 12:31	100214–3
	Thallium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	14–FEB–10 14:25	100214–5
	Arsenic	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	15–FEB–10 01:02	100214–8
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	15–FEB–10 01:02	100214–8
CCV03										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	10–FEB–10 09:46	021010S1–9
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Antimony	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Cadmium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Cobalt	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Iron	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Lead	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Magnesium	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	11–FEB–10 11:23	021110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Potassium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Silver	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Vanadium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11–FEB–10 11:23	021110–1
	Beryllium	53.4	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	13–FEB–10 23:20	100213–4
	Nickel	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	13–FEB–10 23:20	100213–4
	Uranium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	14–FEB–10 08:53	100213–2
	Thallium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	14–FEB–10 15:05	100214–5
	Arsenic	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	15–FEB–10 01:14	100214–8
	Selenium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	15–FEB–10 01:14	100214–8
CCV04										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	10–FEB–10 10:06	021010S1–9
	Aluminum	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Cadmium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Chromium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Cobalt	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Copper	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Lead	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Potassium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Silver	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	11–FEB–10 11:57	021110–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11–FEB–10 11:57	021110–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 11:57	021110-1
	Beryllium	52.5	ug/L	50	ug/L	104.9	90.0 - 110.0	MS	14-FEB-10 00:15	100213-4
	Nickel	51.3	ug/L	50	ug/L	102.6	90.0 - 110.0	MS	14-FEB-10 00:15	100213-4
	Uranium	52	ug/L	50	ug/L	104	90.0 - 110.0	MS	14-FEB-10 09:08	100213-2
	Thallium	51.8	ug/L	50	ug/L	103.6	90.0 - 110.0	MS	14-FEB-10 15:32	100214-5
CCV05										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 - 120.0	AV	10-FEB-10 10:26	021010S1-9
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Antimony	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Barium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Cadmium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Chromium	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Cobalt	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Copper	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Iron	5080	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Lead	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Potassium	4970	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Silver	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Vanadium	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Zinc	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	11-FEB-10 12:53	021110-1
	Beryllium	54.1	ug/L	50	ug/L	108.2	90.0 - 110.0	MS	14-FEB-10 00:52	100213-4
	Nickel	52	ug/L	50	ug/L	104.1	90.0 - 110.0	MS	14-FEB-10 00:52	100213-4
	Uranium	52.4	ug/L	50	ug/L	104.8	90.0 - 110.0	MS	14-FEB-10 09:17	100213-2
	Thallium	52.5	ug/L	50	ug/L	105	90.0 - 110.0	MS	14-FEB-10 16:17	100214-5
CCV06										
	Mercury	4.93	ug/L	5	ug/L	98.6	80.0 - 120.0	AV	10-FEB-10 10:46	021010S1-9

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Aluminum	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Cadmium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Iron	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Lead	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Magnesium	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Potassium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Sodium	9920	ug/L	10000	ug/L	99.2	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Vanadium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Zinc	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	11–FEB–10 13:39	021110–1
	Beryllium	54.8	ug/L	50	ug/L	109.5	90.0 – 110.0	MS	14–FEB–10 01:53	100213–4
	Nickel	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	14–FEB–10 01:53	100213–4
CCV07										
	Mercury	4.02	ug/L	5	ug/L	80.4	80.0 – 120.0	AV	10–FEB–10 11:06	021010S1–9
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Antimony	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Barium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Calcium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Chromium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Cobalt	520	ug/L	500	ug/L	104.1	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Copper	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Iron	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	11–FEB–10 14:59	021110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	11–FEB–10 14:59	021110–1
CCV08										
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Antimony	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Barium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Cadmium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Chromium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Cobalt	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Copper	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Iron	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Lead	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Magnesium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Manganese	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Potassium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
	Zinc	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11–FEB–10 16:06	021110–1
CCV09										
	Aluminum	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Antimony	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	11–FEB–10 16:26	021110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Chromium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Cobalt	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Lead	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Magnesium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Manganese	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Potassium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Silver	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Sodium	9840	ug/L	10000	ug/L	98.5	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	11–FEB–10 16:26	021110–1
CCV10										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Antimony	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Barium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Cadmium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Cobalt	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Copper	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Lead	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Manganese	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Potassium	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	11–FEB–10 17:35	021110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11–FEB–10 17:35	021110–1
CCV11										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Antimony	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Barium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Cadmium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Calcium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Cobalt	518	ug/L	500	ug/L	103.7	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Copper	505	ug/L	500	ug/L	101	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Lead	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Silver	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Vanadium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11–FEB–10 18:43	021110–1
CCV12										
	Aluminum	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	11–FEB–10 19:44	021110–1
	Antimony	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	11–FEB–10 19:44	021110–1
	Barium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	11–FEB–10 19:44	021110–1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11–FEB–10 19:44	021110–1
	Calcium	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	11–FEB–10 19:44	021110–1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 19:44	021110–1
	Cobalt	515	ug/L	500	ug/L	103	90.0 – 110.0	P	11–FEB–10 19:44	021110–1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11–FEB–10 19:44	021110–1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	11–FEB–10 19:44	021110–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11-FEB-10 19:44	021110-1
	Magnesium	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	11-FEB-10 19:44	021110-1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	11-FEB-10 19:44	021110-1
	Potassium	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11-FEB-10 19:44	021110-1
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11-FEB-10 19:44	021110-1
	Sodium	10200	ug/L	10000	ug/L	102.3	90.0 – 110.0	P	11-FEB-10 19:44	021110-1
	Vanadium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11-FEB-10 19:44	021110-1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11-FEB-10 19:44	021110-1
CCV13										
	Aluminum	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Antimony	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Cadmium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Chromium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Cobalt	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Copper	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Iron	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Lead	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Potassium	4680	ug/L	5000	ug/L	93.7	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Silver	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Sodium	9630	ug/L	10000	ug/L	96.3	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-FEB-10 20:48	021110-1
CCV14										
	Aluminum	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	11-FEB-10 21:50	021110-1
	Antimony	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	11-FEB-10 21:50	021110-1
	Barium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	11-FEB-10 21:50	021110-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	490	ug/L	500	ug/L	98	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Calcium	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Cobalt	511	ug/L	500	ug/L	102.3	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Copper	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Iron	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Lead	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Manganese	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Potassium	4860	ug/L	5000	ug/L	97.2	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Silver	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	11-FEB-10 21:50	021110-1
CCV15										
	Aluminum	5020	ug/L	5000	ug/L	100.4	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Antimony	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Barium	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Cadmium	490	ug/L	500	ug/L	98	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Calcium	5030	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Chromium	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Cobalt	513	ug/L	500	ug/L	102.5	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Copper	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Iron	5020	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Lead	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Magnesium	5230	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Potassium	4830	ug/L	5000	ug/L	96.6	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Silver	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	11-FEB-10 23:07	021110-1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 23:07	021110-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–FEB–10 23:07	021110–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–FEB–10 23:07	021110–1
CCV16										
	Aluminum	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Antimony	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Cadmium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Chromium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Cobalt	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Lead	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Potassium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Silver	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	12–FEB–10 00:24	021110–1
CCV17										
	Aluminum	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Antimony	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Barium	525	ug/L	500	ug/L	104.9	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Cadmium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Calcium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Chromium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Cobalt	534	ug/L	500	ug/L	106.7	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Copper	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Iron	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	12–FEB–10 01:34	021110–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Magnesium	5440	ug/L	5000	ug/L	108.7	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Manganese	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Potassium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Silver	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Vanadium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	12–FEB–10 01:34	021110–1
	Zinc	515	ug/L	500	ug/L	103	90.0 – 110.0	P	12–FEB–10 01:34	021110–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1394

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.17	ug/L	.2	ug/L	85	70.0 - 130.0	AV	10-FEB-10 09:04	021010S1-9
	Nickel	2.32	ug/L	2	ug/L	116.1	70.0 - 130.0	MS	13-FEB-10 21:49	100213-4
	Beryllium	.592	ug/L	.5	ug/L	118.4	70.0 - 130.0	MS	13-FEB-10 21:49	100213-4
	Uranium	.253	ug/L	.2	ug/L	126.5	70.0 - 130.0	MS	14-FEB-10 08:13	100213-2
	Uranium	.254	ug/L	.2	ug/L	127	70.0 - 130.0	MS	14-FEB-10 12:16	100214-3
	Thallium	1.21	ug/L	1	ug/L	121.4	70.0 - 130.0	MS	14-FEB-10 13:29	100214-5
	Arsenic	5.61	ug/L	5	ug/L	112.1	70.0 - 130.0	MS	15-FEB-10 00:34	100214-8
	Selenium	5.8	ug/L	5	ug/L	116.1	70.0 - 130.0	MS	15-FEB-10 00:34	100214-8
PQL01										
	Silver	5.44	ug/L	5	ug/L	108.8	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Sodium	304	ug/L	300	ug/L	101.2	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Antimony	9.09	ug/L	10	ug/L	91	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Barium	5.16	ug/L	5	ug/L	103.2	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Manganese	10.5	ug/L	10	ug/L	105.4	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Magnesium	365	ug/L	300	ug/L	121.7	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Lead	10.3	ug/L	10	ug/L	102.6	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Iron	86.7	ug/L	100	ug/L	86.7	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Aluminum	196	ug/L	200	ug/L	98.1	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Potassium	143	ug/L	150	ug/L	95	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Cadmium	5.19	ug/L	5	ug/L	103.7	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Chromium	5.14	ug/L	5	ug/L	102.7	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Cobalt	5.1	ug/L	5	ug/L	102	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Copper	10.7	ug/L	10	ug/L	106.5	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Vanadium	5.31	ug/L	5	ug/L	106.2	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Zinc	10.5	ug/L	10	ug/L	104.6	70.0 - 130.0	P	11-FEB-10 09:08	021110-1
	Calcium	201	ug/L	200	ug/L	100.7	70.0 - 130.0	P	11-FEB-10 09:08	021110-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	10–FEB–10 09:03	021010S1–9
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 09:01	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 09:01	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 09:01	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 09:01	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 09:01	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 09:01	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 09:01	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 09:01	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 09:01	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 09:01	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–FEB–10 09:01	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 09:01	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 09:01	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 09:01	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 09:01	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 09:01	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 09:01	021110–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–FEB–10 21:42	100213–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–FEB–10 21:42	100213–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–FEB–10 08:12	100213–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–FEB–10 12:14	100214–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–FEB–10 13:24	100214–5
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	15–FEB–10 00:32	100214–8
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	15–FEB–10 00:32	100214–8
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	10–FEB–10 09:08	021010S1–9
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 09:46	021110–1
	Antimony	3.47	+/–10	J	3.3	10.0	SOL	P	11–FEB–10 09:46	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 09:46	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 09:46	021110–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 09:46	021110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 09:46	021110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 09:46	021110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-FEB-10 09:46	021110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 09:46	021110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-FEB-10 09:46	021110-1
	Magnesium	92.13	+/-300	J	85.0	300	SOL	P	11-FEB-10 09:46	021110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-FEB-10 09:46	021110-1
	Potassium	120.39	+/-250	J	64.0	250	SOL	P	11-FEB-10 09:46	021110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 09:46	021110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-FEB-10 09:46	021110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 09:46	021110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 09:46	021110-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	13-FEB-10 22:13	100213-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-FEB-10 22:13	100213-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	14-FEB-10 08:20	100213-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	14-FEB-10 12:22	100214-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	14-FEB-10 13:47	100214-5
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	15-FEB-10 00:43	100214-8
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	15-FEB-10 00:43	100214-8
CCB02										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	10-FEB-10 09:28	021010S1-9
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-FEB-10 10:11	021110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 10:11	021110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 10:11	021110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 10:11	021110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 10:11	021110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 10:11	021110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 10:11	021110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-FEB-10 10:11	021110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 10:11	021110-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-FEB-10 10:11	021110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-FEB-10 10:11	021110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-FEB-10 10:11	021110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-FEB-10 10:11	021110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 10:11	021110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-FEB-10 10:11	021110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 10:11	021110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 10:11	021110-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	13-FEB-10 22:31	100213-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	13-FEB-10 22:31	100213-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	14-FEB-10 08:37	100213-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	14-FEB-10 12:33	100214-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	14-FEB-10 14:29	100214-5
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	15-FEB-10 01:05	100214-8
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	15-FEB-10 01:05	100214-8
CCB03										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	10-FEB-10 09:48	021010S1-9
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-FEB-10 11:30	021110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 11:30	021110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 11:30	021110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 11:30	021110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 11:30	021110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 11:30	021110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 11:30	021110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-FEB-10 11:30	021110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 11:30	021110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-FEB-10 11:30	021110-1
	Magnesium	108.47	+/-300	J	85.0	300	SOL	P	11-FEB-10 11:30	021110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-FEB-10 11:30	021110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-FEB-10 11:30	021110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 11:30	021110-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 11:30	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 11:30	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 11:30	021110–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	13–FEB–10 23:26	100213–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	13–FEB–10 23:26	100213–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–FEB–10 08:55	100213–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–FEB–10 15:10	100214–5
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	15–FEB–10 01:17	100214–8
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	15–FEB–10 01:17	100214–8
CCB04										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	10–FEB–10 10:08	021010S1–9
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 12:04	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 12:04	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 12:04	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 12:04	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 12:04	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 12:04	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 12:04	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 12:04	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 12:04	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 12:04	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–FEB–10 12:04	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 12:04	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 12:04	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 12:04	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 12:04	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 12:04	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 12:04	021110–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–FEB–10 00:21	100213–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–FEB–10 00:21	100213–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–FEB–10 09:10	100213–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1394

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–FEB–10 15:37	100214–5
CCB05										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	10–FEB–10 10:28	021010S1–9
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 13:00	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 13:00	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 13:00	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 13:00	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 13:00	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 13:00	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 13:00	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 13:00	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 13:00	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 13:00	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–FEB–10 13:00	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 13:00	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 13:00	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 13:00	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 13:00	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 13:00	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 13:00	021110–1
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	14–FEB–10 00:58	100213–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	14–FEB–10 00:58	100213–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	14–FEB–10 09:19	100213–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	14–FEB–10 16:22	100214–5
CCB06										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	10–FEB–10 10:48	021010S1–9
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 13:46	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 13:46	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 13:46	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 13:46	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 13:46	021110–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 13:46	021110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 13:46	021110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-FEB-10 13:46	021110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 13:46	021110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-FEB-10 13:46	021110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-FEB-10 13:46	021110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-FEB-10 13:46	021110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-FEB-10 13:46	021110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 13:46	021110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-FEB-10 13:46	021110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 13:46	021110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 13:46	021110-1
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	14-FEB-10 02:00	100213-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	14-FEB-10 02:00	100213-4
CCB07										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	10-FEB-10 11:08	021010S1-9
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-FEB-10 15:06	021110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 15:06	021110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 15:06	021110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 15:06	021110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 15:06	021110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 15:06	021110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 15:06	021110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-FEB-10 15:06	021110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 15:06	021110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-FEB-10 15:06	021110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-FEB-10 15:06	021110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-FEB-10 15:06	021110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-FEB-10 15:06	021110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 15:06	021110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-FEB-10 15:06	021110-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 15:06	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 15:06	021110–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 16:13	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 16:13	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 16:13	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 16:13	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 16:13	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 16:13	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 16:13	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 16:13	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 16:13	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 16:13	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–FEB–10 16:13	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 16:13	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 16:13	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 16:13	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 16:13	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 16:13	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 16:13	021110–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 16:33	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 16:33	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 16:33	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 16:33	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 16:33	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 16:33	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 16:33	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 16:33	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 16:33	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 16:33	021110–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	127.2	+/–300	J	85.0	300	SOL	P	11–FEB–10 16:33	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 16:33	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 16:33	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 16:33	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 16:33	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 16:33	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 16:33	021110–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 17:42	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 17:42	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 17:42	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 17:42	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 17:42	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 17:42	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 17:42	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 17:42	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 17:42	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 17:42	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–FEB–10 17:42	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 17:42	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 17:42	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 17:42	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 17:42	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 17:42	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 17:42	021110–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 18:50	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 18:50	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 18:50	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 18:50	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 18:50	021110–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 18:50	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 18:50	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 18:50	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 18:50	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 18:50	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–FEB–10 18:50	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 18:50	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 18:50	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 18:50	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 18:50	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 18:50	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 18:50	021110–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 19:51	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 19:51	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 19:51	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 19:51	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 19:51	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 19:51	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 19:51	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 19:51	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 19:51	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 19:51	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–FEB–10 19:51	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 19:51	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 19:51	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 19:51	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 19:51	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 19:51	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 19:51	021110–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 20:55	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 20:55	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 20:55	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 20:55	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 20:55	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 20:55	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 20:55	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 20:55	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 20:55	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 20:55	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	11–FEB–10 20:55	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 20:55	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 20:55	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 20:55	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	11–FEB–10 20:55	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 20:55	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 20:55	021110–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	11–FEB–10 21:57	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	11–FEB–10 21:57	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 21:57	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	11–FEB–10 21:57	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 21:57	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 21:57	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	11–FEB–10 21:57	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	11–FEB–10 21:57	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	11–FEB–10 21:57	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	11–FEB–10 21:57	021110–1
	Magnesium	127.05	+/–300	J	85.0	300	SOL	P	11–FEB–10 21:57	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	11–FEB–10 21:57	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	11–FEB–10 21:57	021110–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 21:57	021110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-FEB-10 21:57	021110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 21:57	021110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 21:57	021110-1
CCB15										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	11-FEB-10 23:14	021110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 23:14	021110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 23:14	021110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 23:14	021110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 23:14	021110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 23:14	021110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	11-FEB-10 23:14	021110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	11-FEB-10 23:14	021110-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	11-FEB-10 23:14	021110-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	11-FEB-10 23:14	021110-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	11-FEB-10 23:14	021110-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	11-FEB-10 23:14	021110-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	11-FEB-10 23:14	021110-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 23:14	021110-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	11-FEB-10 23:14	021110-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	11-FEB-10 23:14	021110-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	11-FEB-10 23:14	021110-1
CCB16										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	12-FEB-10 00:31	021110-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	12-FEB-10 00:31	021110-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 00:31	021110-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	12-FEB-10 00:31	021110-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	12-FEB-10 00:31	021110-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 00:31	021110-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	12-FEB-10 00:31	021110-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	12-FEB-10 00:31	021110-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1394

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 00:31	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–FEB–10 00:31	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–FEB–10 00:31	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–FEB–10 00:31	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–FEB–10 00:31	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 00:31	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–FEB–10 00:31	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 00:31	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 00:31	021110–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	12–FEB–10 01:41	021110–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 01:41	021110–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 01:41	021110–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 01:41	021110–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 01:41	021110–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 01:41	021110–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	12–FEB–10 01:41	021110–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	12–FEB–10 01:41	021110–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	12–FEB–10 01:41	021110–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	12–FEB–10 01:41	021110–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	12–FEB–10 01:41	021110–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	12–FEB–10 01:41	021110–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	12–FEB–10 01:41	021110–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 01:41	021110–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	12–FEB–10 01:41	021110–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	12–FEB–10 01:41	021110–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	12–FEB–10 01:41	021110–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1394
Contract: LANL01004
Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202024764								
	Arsenic	0.187	mg/kg	+/–0.936	U	MS	0.187	0.936
	Beryllium	0.0187	mg/kg	+/–0.0936	U	MS	0.0187	0.0936
	Nickel	0.0936	mg/kg	+/–0.375	U	MS	0.0936	0.375
	Thallium	0.0562	mg/kg	+/–0.187	U	MS	0.0562	0.187
	Uranium	0.0124	mg/kg	+/–0.0375	U	MS	0.0124	0.0375
	Selenium	0.468	mg/kg	+/–0.936	U	MS	0.468	0.936
1202024773								
	Calcium	7630	ug/Kg	+/–23900	U	P	7630	23900
	Chromium	143	ug/Kg	+/–477	U	P	143	477
	Cobalt	143	ug/Kg	+/–477	U	P	143	477
	Copper	286	ug/Kg	+/–954	U	P	286	954
	Iron	7630	ug/Kg	+/–23900	U	P	7630	23900
	Lead	265	ug/Kg	+/–954	J	P	239	954
	Magnesium	8110	ug/Kg	+/–28600	U	P	8110	28600
	Manganese	191	ug/Kg	+/–954	U	P	191	954
	Barium	95.4	ug/Kg	+/–477	U	P	95.4	477
	Antimony	315	ug/Kg	+/–954	U	P	315	954
	Aluminum	6490	ug/Kg	+/–19100	U	P	6490	19100
	Cadmium	95.4	ug/Kg	+/–477	U	P	95.4	477
	Potassium	6110	ug/Kg	+/–23900	U	P	6110	23900
	Silver	95.4	ug/Kg	+/–477	U	P	95.4	477
	Sodium	6680	ug/Kg	+/–23900	U	P	6680	23900
	Vanadium	95.4	ug/Kg	+/–477	U	P	95.4	477
	Zinc	315	ug/Kg	+/–954	U	P	315	954
1202025301								
	Mercury	3.93	ug/kg	+/–11.6	U	AV	3.93	11.6

METALS
–4–
Interference Check Sample

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	532000	ug/L	500000	ug/L	106	80.0 – 120.0	11–FEB–10 09:14	021110–1
	Antimony	–1.13	ug/L					11–FEB–10 09:14	021110–1
	Barium	0.324	ug/L					11–FEB–10 09:14	021110–1
	Cadmium	–1.46	ug/L					11–FEB–10 09:14	021110–1
	Calcium	492000	ug/L	500000	ug/L	98.4	80.0 – 120.0	11–FEB–10 09:14	021110–1
	Chromium	1.62	ug/L					11–FEB–10 09:14	021110–1
	Cobalt	–1.46	ug/L					11–FEB–10 09:14	021110–1
	Copper	2.03	ug/L					11–FEB–10 09:14	021110–1
	Iron	189000	ug/L	200000	ug/L	94.8	80.0 – 120.0	11–FEB–10 09:14	021110–1
	Lead	0.191	ug/L					11–FEB–10 09:14	021110–1
	Magnesium	495000	ug/L	500000	ug/L	99	80.0 – 120.0	11–FEB–10 09:14	021110–1
	Manganese	–2.29	ug/L					11–FEB–10 09:14	021110–1
	Potassium	–180.0	ug/L					11–FEB–10 09:14	021110–1
	Silver	4.34	ug/L					11–FEB–10 09:14	021110–1
	Sodium	27.3	ug/L					11–FEB–10 09:14	021110–1
	Vanadium	–2.41	ug/L					11–FEB–10 09:14	021110–1
	Zinc	–1.31	ug/L					11–FEB–10 09:14	021110–1
ICSAB01									
	Aluminum	511000	ug/L	500000	ug/L	102	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Antimony	516	ug/L	500	ug/L	103	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Barium	483	ug/L	500	ug/L	96.7	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Cadmium	449	ug/L	500	ug/L	89.8	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Calcium	471000	ug/L	500000	ug/L	94.3	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Chromium	478	ug/L	500	ug/L	95.7	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Cobalt	441	ug/L	500	ug/L	88.1	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Copper	546	ug/L	500	ug/L	109	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Iron	183000	ug/L	200000	ug/L	91.6	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Lead	451	ug/L	500	ug/L	90.1	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Magnesium	481000	ug/L	500000	ug/L	96.2	80.0 – 120.0	11–FEB–10 09:20	021110–1

METALS
–4–
Interference Check Sample

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	468	ug/L	500	ug/L	93.5	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Potassium	5140	ug/L	5000	ug/L	103	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Silver	271	ug/L	250	ug/L	109	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Sodium	5260	ug/L	5000	ug/L	105	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Vanadium	498	ug/L	500	ug/L	99.6	80.0 – 120.0	11–FEB–10 09:20	021110–1
	Zinc	483	ug/L	500	ug/L	96.6	80.0 – 120.0	11–FEB–10 09:20	021110–1

METALS
–4–
Interference Check Sample

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	0.003	ug/L					14–FEB–10 08:15	100213–2
ICSAB01									
	Uranium	19.0	ug/L	20	ug/L	94.9	80.0 – 120.0	14–FEB–10 08:17	100213–2

METALS
–4–
Interference Check Sample

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	0.007	ug/L					14–FEB–10 12:17	100214–3
ICSAB01									
	Uranium	18.6	ug/L	20	ug/L	92.9	80.0 – 120.0	14–FEB–10 12:19	100214–3

METALS
-4-
Interference Check Sample

SDG No: 10-1394

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.112	ug/L					13-FEB-10 21:55	100213-4
	Nickel	3.3	ug/L					13-FEB-10 21:55	100213-4
ICSAB01									
	Beryllium	19.0	ug/L	20	ug/L	94.8	80.0 - 120.0	13-FEB-10 22:01	100213-4
	Nickel	23.1	ug/L	23.31	ug/L	99.2	80.0 - 120.0	13-FEB-10 22:01	100213-4

METALS
–4–
Interference Check Sample

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	–0.029	ug/L					14–FEB–10 13:33	100214–5
ICSAB01									
	Thallium	22.8	ug/L	20	ug/L	114	80.0 – 120.0	14–FEB–10 13:38	100214–5

METALS
–4–
Interference Check Sample

SDG No: 10–1394

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.099	ug/L					15–FEB–10 00:36	100214–8
	Selenium	–1.78	ug/L					15–FEB–10 00:36	100214–8
ICSAB01									
	Arsenic	21.0	ug/L	20	ug/L	105	80.0 – 120.0	15–FEB–10 00:39	100214–8
	Selenium	18.4	ug/L	20	ug/L	92.1	80.0 – 120.0	15–FEB–10 00:39	100214–8

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1394 **Client ID** RE15-10-7928S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.4

Sample ID: 245396001 **Spike ID:** 1202024767

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	6.93		0.709	J	7.59	82		MS
Beryllium	mg/kg	75-125	4.86		0.36		4.74	94.9		MS
Nickel	mg/kg	75-125	6.39		2.57		4.74	80.5		MS
Selenium	mg/kg	75-125	1.71		0.519	U	1.9	77.4		MS
Thallium	mg/kg	75-125	8.96		0.0622	U	9.48	93.8		MS
Uranium	mg/kg	75-125	5.88		1.37		4.74	95.2		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1394 **Client ID** RE15–10–7928SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.4

Sample ID: 245396001 **Spike ID:** 1202024772

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	7.64		0.709	J	7.95	87.2		MS
Beryllium	mg/kg	75–125	5.18		0.36		4.97	97		MS
Nickel	mg/kg	75–125	7.11		2.57		4.97	91.5		MS
Selenium	mg/kg	75–125	1.98		0.519	U	1.99	87.4		MS
Thallium	mg/kg	75–125	9.83		0.0622	U	9.94	98.3		MS
Uranium	mg/kg	75–125	6.3		1.37		4.97	99.2		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1394 **Client ID** RE15-10-7928S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 96.4

Sample ID: 245396001 **Spike ID:** 1202024776

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/Kg	75-125	47300		334	U	50900	93.1		P
Barium	ug/Kg	75-125	68400		18400		50900	98.4		P
Cadmium	ug/Kg	75-125	46900		101	U	50900	92.3		P
Calcium	ug/Kg	75-125	796000		328000		509000	91.9		P
Chromium	ug/Kg	75-125	59100		8030		50900	100		P
Cobalt	ug/Kg	75-125	50700		1800		50900	96.1		P
Copper	ug/Kg	75-125	59300		5690		50900	105		P
Iron	ug/Kg		9730000		7680000		509000	404	N/A	P
Lead	ug/Kg	75-125	55100		5490		50900	97.4		P
Magnesium	ug/Kg	75-125	768000		205000		509000	111		P
Manganese	ug/Kg		336000		238000		50900	192	N/A	P
Potassium	ug/Kg	75-125	911000		225000		509000	135	N	P
Silver	ug/Kg	75-125	50000		396	J	50900	97.6		P
Sodium	ug/Kg	75-125	715000		134000		509000	114		P
Vanadium	ug/Kg	75-125	51100		2860		50900	94.8		P
Zinc	ug/Kg	75-125	85500		32700		50900	104		P
Aluminum	ug/Kg	75-125	2070000		935000		509000	224	N	P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–1394	**Client ID**	RE15–10–7928SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	96.4
Sample ID:	245396001	**Spike ID:**	1202024778

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Vanadium	ug/Kg	75–125	49000		2860		49500	93.3		P
Zinc	ug/Kg	75–125	82400		32700		49500	101		P
Aluminum	ug/Kg	75–125	2050000		935000		495000	225	N	P
Antimony	ug/Kg	75–125	46000		334	U	49500	93		P
Barium	ug/Kg	75–125	64200		18400		49500	92.5		P
Cadmium	ug/Kg	75–125	45400		101	U	49500	91.6		P
Calcium	ug/Kg	75–125	805000		328000		495000	96.4		P
Chromium	ug/Kg	75–125	57400		8030		49500	99.7		P
Cobalt	ug/Kg	75–125	48700		1800		49500	94.7		P
Copper	ug/Kg	75–125	56600		5690		49500	103		P
Iron	ug/Kg		8960000		7680000		495000	259	N/A	P
Lead	ug/Kg	75–125	53500		5490		49500	97		P
Magnesium	ug/Kg	75–125	721000		205000		495000	104		P
Manganese	ug/Kg		289000		238000		49500	102	N/A	P
Potassium	ug/Kg	75–125	827000		225000		495000	121		P
Silver	ug/Kg	75–125	48300		396	J	49500	96.7		P
Sodium	ug/Kg	75–125	690000		134000		495000	112		P

METALS
-5a-

Matrix Spike Summary

SDG NO.	10-1394	**Client ID**	RE15-10-7928S
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	96.4
Sample ID:	245396001	**Spike ID:**	1202025304

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	129		9.91	J	115	103		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–1394	**Client ID**	RE15–10–7928SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	96.4
Sample ID:	245396001	**Spike ID:**	1202025306

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	128		9.91	J	116	102		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1394

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7928D

Sample ID: 245396001 **Duplicate ID:** 1202024766 **Percent Solids for Dup:** 96.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-.912	0.709	J	0.625	J	12.6		MS
Beryllium	mg/kg	+/-.0912	0.36		0.312		14.3		MS
Nickel	mg/kg	+/-20%	2.57		2.01		24.6	*	MS
Selenium	mg/kg		0.519	U	0.456	U			MS
Thallium	mg/kg		0.0622	U	0.0547	U			MS
Uranium	mg/kg	+/-20%	1.37		0.994		31.8	*	MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7928SD

Sample ID: 1202024767 **Duplicate ID:** 1202024772 **Percent Solids for Dup:** 96.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	6.93		7.64		9.69		MS
Beryllium	mg/kg	+/–20	4.86		5.18		6.3		MS
Nickel	mg/kg	+/–20	6.39		7.11		10.8		MS
Selenium	mg/kg	+/–20	1.71		1.98		14.6		MS
Thallium	mg/kg	+/–20	8.96		9.23		9.23		MS
Uranium	mg/kg	+/–20	5.88		6.3		6.79		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7928D

Sample ID: 245396001 **Duplicate ID:** 1202024775 **Percent Solids for Dup:** 96.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	935000		907000		3.1		P
Antimony	ug/Kg		334	U	316	U			P
Barium	ug/Kg	+/–20%	18400		15300		18.1		P
Cadmium	ug/Kg		101	U	95.7	U			P
Calcium	ug/Kg	+/–20%	328000		246000		28.7	*	P
Chromium	ug/Kg	+/–20%	8030		19100		81.7	*	P
Cobalt	ug/Kg	+/–479	1800		1640		9.21		P
Copper	ug/Kg	+/–20%	5690		5590		1.73		P
Iron	ug/Kg	+/–20%	7680000		8050000		4.73		P
Lead	ug/Kg	+/–20%	5490		5630		2.48		P
Magnesium	ug/Kg	+/–20%	205000		187000		9.44		P
Manganese	ug/Kg	+/–20%	238000		251000		5.22		P
Potassium	ug/Kg	+/–20%	225000		220000		2.25		P
Silver	ug/Kg	+/–479	396	J	296	J	29		P
Sodium	ug/Kg	+/–20%	134000		139000		3.95		P
Vanadium	ug/Kg	+/–20%	2860		2950		3.41		P
Zinc	ug/Kg	+/–20%	32700		37100		12.6		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7928SD

Sample ID: 1202024776 **Duplicate ID:** 1202024778 **Percent Solids for Dup:** 96.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	2070000		2050000		1.13		P
Antimony	ug/Kg	+/–20	47300		46000		2.8		P
Barium	ug/Kg	+/–20	68400		64200		6.46		P
Cadmium	ug/Kg	+/–20	46900		45400		3.41		P
Calcium	ug/Kg	+/–20	796000		805000		1.22		P
Chromium	ug/Kg	+/–20	59100		57400		2.89		P
Cobalt	ug/Kg	+/–20	50700		48700		4.02		P
Copper	ug/Kg	+/–20	59300		56600		4.66		P
Iron	ug/Kg	+/–20	9730000		8960000		8.23		P
Lead	ug/Kg	+/–20	55100		53500		2.83		P
Magnesium	ug/Kg	+/–20	768000		721000		6.29		P
Manganese	ug/Kg	+/–20	336000		289000		15		P
Potassium	ug/Kg	+/–20	911000		827000		9.72		P
Silver	ug/Kg	+/–20	50000		48300		3.56		P
Sodium	ug/Kg	+/–20	715000		690000		3.48		P
Vanadium	ug/Kg	+/–20	51100		49000		4.08		P
Zinc	ug/Kg	+/–20	85500		82400		3.67		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1394

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7928D

Sample ID: 245396001 **Duplicate ID:** 1202025303 **Percent Solids for Dup:** 96.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-10.9	9.91	J	10.9		9.87		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1394

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7928SD

Sample ID: 1202025304 **Duplicate ID:** 1202025306 **Percent Solids for Dup:** 96.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	129		128		.797		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1394

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202024765								
	Arsenic	mg/kg	104	103		99.5	78-123	MS
	Beryllium	mg/kg	77.6	77.5		99.9	84-116	MS
	Nickel	mg/kg	134	134		99.9	78-123	MS
	Selenium	mg/kg	286	275		96.1	77-123	MS
	Thallium	mg/kg	121	133		110	78-122	MS
	Uranium	mg/kg	2.13	2.1		98.6	73-127	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1394

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202024774								
	Aluminum	ug/Kg	10500000	8500000		81	56-144	P
	Antimony	ug/Kg	173000	126000		72.7	71-130	P
	Barium	ug/Kg	198000	177000		89.5	80-120	P
	Cadmium	ug/Kg	60700	50200		82.6	81-120	P
	Calcium	ug/Kg	9870000	9020000		91.4	83-117	P
	Chromium	ug/Kg	236000	200000		84.9	80-120	P
	Cobalt	ug/Kg	91200	81600		89.5	81-120	P
	Copper	ug/Kg	174000	163000		94	81-118	P
	Iron	ug/Kg	18000000	17100000		95.1	51-149	P
	Lead	ug/Kg	86000	87900		102	79-121	P
	Magnesium	ug/Kg	4000000	3620000		90.5	79-122	P
	Manganese	ug/Kg	558000	492000		88.1	81-119	P
	Potassium	ug/Kg	4300000	3770000		87.6	74-127	P
	Silver	ug/Kg	30100	28400		94.5	66-134	P
	Sodium	ug/Kg	1020000	928000		90.9	74-127	P
	Vanadium	ug/Kg	115000	108000		93.8	79-121	P
	Zinc	ug/Kg	594000	512000		86.3	80-121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1394

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202025302								
	Mercury	ug/kg	5150	5020		97.5	71.6–128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1394 **Client ID** RE15-10-7928L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245396001 **Serial Dilution ID:** 1202024768

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	3.42	J	5	U	100			MS
Beryllium	1.73		1.83	J	5.78			MS
Nickel	12.4		12.7		2.42			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	6.6		6.9		4.55		10	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1394 **Client ID** RE15-10-7928L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245396001 **Serial Dilution ID:** 1202024777

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	9250		9350		1.08		10	P
Antimony	3.3	U	16.5	U				P
Barium	182		191		4.67		10	P
Cadmium	1	U	5	U				P
Calcium	3250		3400		4.62			P
Chromium	79.4		80		.756		10	P
Cobalt	17.8		20.1	J	12.9			P
Copper	56.2		53.5		4.8			P
Iron	75900		80000		5.4		10	P
Lead	54.3		57		4.97			P
Magnesium	2030		2310		13.8			P
Manganese	2360		2500		5.93		10	P
Potassium	2230		2150		3.81			P
Silver	3.92	J	5	U	100			P
Sodium	1320		1570		18.6			P
Vanadium	28.2		28.1		.355			P
Zinc	323		331		2.48		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1394 **Client ID** RE15-10-7928L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245396001 **Serial Dilution ID:** 1202025305

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.17	J	.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1394 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	945398						
1202024773	MB for batch 945398	MB	S	04-FEB-10	.524g	50mL	
1202024774	LCS for batch 945398	LCS	S	04-FEB-10	.502g	50mL	
1202024776	RE15-10-7928S	MS	S	04-FEB-10	.51g	50mL	
1202024778	RE15-10-7928SD	MSD	S	04-FEB-10	.524g	50mL	
1202024775	RE15-10-7928D	DUP	S	04-FEB-10	.542g	50mL	
245396001	RE15-10-7928	SAMPLE	S	04-FEB-10	.513g	50mL	
245396002	RE15-10-7929	SAMPLE	S	04-FEB-10	.504g	50mL	
245396003	RE15-10-7927	SAMPLE	S	04-FEB-10	.561g	50mL	
245396004	RE15-10-7930	SAMPLE	S	04-FEB-10	.502g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1394 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	945392						
1202024764	MB for batch 945392	MB	S	04-FEB-10	.534g	50mL	
1202024765	LCS for batch 945392	LCS	S	04-FEB-10	.516g	50mL	
1202024767	RE15-10-7928S	MS	S	04-FEB-10	.547g	50mL	
1202024772	RE15-10-7928SD	MSD	S	04-FEB-10	.522g	50mL	
1202024766	RE15-10-7928D	DUP	S	04-FEB-10	.569g	50mL	
245396001	RE15-10-7928	SAMPLE	S	04-FEB-10	.5g	50mL	
245396002	RE15-10-7929	SAMPLE	S	04-FEB-10	.534g	50mL	
245396003	RE15-10-7927	SAMPLE	S	04-FEB-10	.5g	50mL	
245396004	RE15-10-7930	SAMPLE	S	04-FEB-10	.528g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1394 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	945627						
1202025301	MB for batch 945627	MB	S	09–FEB–10	.519g	30mL	
1202025302	LCS for batch 945627	LCS	S	09–FEB–10	.202g	30mL	
1202025304	RE15–10–7928S	MS	S	09–FEB–10	.54g	30mL	
1202025306	RE15–10–7928SD	MSD	S	09–FEB–10	.538g	30mL	
1202025303	RE15–10–7928D	DUP	S	09–FEB–10	.572g	30mL	
245396001	RE15–10–7928	SAMPLE	S	09–FEB–10	.534g	30mL	
245396002	RE15–10–7929	SAMPLE	S	09–FEB–10	.508g	30mL	
245396003	RE15–10–7927	SAMPLE	S	09–FEB–10	.531g	30mL	
245396004	RE15–10–7930	SAMPLE	S	09–FEB–10	.582g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 13–FEB–10 **End Date:** 14–FEB–10

Client Sdg: 10–1394
Method MS
Data File: 100213–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	21:18					X											X								
S10	1	21:24					X											X								
S100	1	21:30					X											X								
ICV01	1	21:36					X											X								
ICB01	1	21:42					X											X								
CRDL01	1	21:49					X											X								
ICSA01	1	21:55					X											X								
ICSAB01	1	22:01					X											X								
CCV01	1	22:07					X											X								
CCB01	1	22:13					X											X								
LR01	1	22:19					X											X								
CCV02	1	22:25					X											X								
CCB02	1	22:31					X											X								
1202024764	2	22:37					X											X								
1202024765	40	22:44					X											X								
ZZZZZZ	2	22:50																								
ZZZZZZ	2	22:56																								
ZZZZZZ	2	23:02																								
ZZZZZZ	2	23:08																								
ZZZZZZ	2	23:14																								
CCV03	1	23:20					X											X								
CCB03	1	23:26					X											X								
ZZZZZZ	2	23:32																								
ZZZZZZ	2	23:39																								
ZZZZZZ	2	23:45																								
ZZZZZZ	2	23:51																								
ZZZZZZ	2	23:57																								
ZZZZZZ	2	00:03																								
ZZZZZZ	2	00:09																								
CCV04	1	00:15					X											X								
CCB04	1	00:21					X											X								
ZZZZZZ	2	00:28																								
ZZZZZZ	2	00:34																								
ZZZZZZ	2	00:40																								
ZZZZZZ	2	00:46																								
CCV05	1	00:52					X											X								
CCB05	1	00:58					X											X								
245396001	2	01:04					X											X								
1202024766	2	01:11					X											X								
1202024767	2	01:17					X											X								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
1202024772	2	01:23					X										X								
1202024768	10	01:29					X										X								
245396002	2	01:35					X										X								
245396003	2	01:41					X										X								
245396004	2	01:47					X										X								
CCV06	1	01:53					X										X								
CCB06	1	02:00					X										X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 14–FEB–10 **End Date:** 15–FEB–10

Client Sdg: 10–1394
Method MS
Data File: 100214–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	13:07																					X			
S10	1	13:11																					X			
S100	1	13:15																					X			
ICV01	1	13:20																					X			
ICB01	1	13:24																					X			
CRDL01	1	13:29																					X			
ICSA01	1	13:33																					X			
ICSAB01	1	13:38																					X			
CCV01	1	13:42																					X			
CCB01	1	13:47																					X			
1202024764	2	13:53																					X			
1202024765	40	13:58																					X			
ZZZZZZ	2	14:02																								
ZZZZZZ	2	14:07																								
ZZZZZZ	2	14:11																								
ZZZZZZ	2	14:16																								
ZZZZZZ	2	14:20																								
CCV02	1	14:25																					X			
CCB02	1	14:29																					X			
ZZZZZZ	2	14:34																								
ZZZZZZ	2	14:38																								
ZZZZZZ	2	14:42																								
ZZZZZZ	2	14:47																								
ZZZZZZ	2	14:51																								
ZZZZZZ	2	14:56																								
ZZZZZZ	2	15:01																								
CCV03	1	15:05																					X			
CCB03	1	15:10																					X			
ZZZZZZ	2	15:14																								
ZZZZZZ	2	15:19																								
ZZZZZZ	2	15:23																								
ZZZZZZ	2	15:28																								
CCV04	1	15:32																					X			
CCB04	1	15:37																					X			
245396001	2	15:41																					X			
1202024766	2	15:46																					X			
1202024767	2	15:50																					X			
1202024772	2	15:55																					X			
1202024768	10	15:59																					X			
245396002	2	16:04																					X			

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
245396003	2	16:08																				X			
245396004	2	16:13																				X			
CCV05	1	16:17																				X			
CCB05	1	16:22																				X			

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 14–FEB–10 **End Date:** 15–FEB–10

Client Sdg: 10–1394
Method MS
Data File: 100214–8

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:22			X															X						
S10	1	00:25			X															X						
S100	1	00:27			X															X						
ICV01	1	00:29			X															X						
ICB01	1	00:32			X															X						
CRDL01	1	00:34			X															X						
ICSA01	1	00:36			X															X						
ICSAB01	1	00:39			X															X						
CCV01	1	00:41			X															X						
CCB01	1	00:43			X															X						
1202024764	2	00:46			X															X						
1202024765	40	00:48			X															X						
245396001	2	00:51			X															X						
1202024766	2	00:53			X															X						
1202024767	2	00:55			X															X						
1202024772	2	00:58			X															X						
1202024768	10	01:00			X															X						
CCV02	1	01:02			X															X						
CCB02	1	01:05			X															X						
245396002	2	01:07			X															X						
245396003	2	01:10			X															X						
245396004	2	01:12			X															X						
CCV03	1	01:14			X															X						
CCB03	1	01:17			X															X						

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 11–FEB–10 **End Date:** 12–FEB–10

Client Sdg: 10–1394
Method P
Data File: 021110–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	08:28		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	08:34	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	08:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	08:48	X						X				X		X							X				
ICV01	1	08:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	09:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	09:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	09:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	09:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	09:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	09:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	09:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	09:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	09:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	10:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	10:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	10:22																								
ZZZZZZ	1	10:28																								
ZZZZZZ	1	10:35																								
ZZZZZZ	1	10:42																								
ZZZZZZ	1	10:49																								
ZZZZZZ	1	10:56																								
ZZZZZZ	1	11:03																								
ZZZZZZ	1	11:10																								
ZZZZZZ	5	11:17																								
CCV03	1	11:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	11:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	11:44																								
ZZZZZZ	1	11:51																								
CCV04	1	11:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	12:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	12:11																								
ZZZZZZ	1	12:18																								
ZZZZZZ	1	12:25																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:39																								
ZZZZZZ	5	12:46																								
CCV05	1	12:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	13:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	13:06																							
ZZZZZZ	1	13:13																							
ZZZZZZ	5	13:20																							
ZZZZZZ	1	13:27																							
ZZZZZZ	1	13:33																							
CCV06	1	13:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	13:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	13:52																							
ZZZZZZ	1	13:59																							
ZZZZZZ	1	14:05																							
ZZZZZZ	1	14:12																							
ZZZZZZ	1	14:19																							
ZZZZZZ	1	14:26																							
ZZZZZZ	5	14:33																							
ZZZZZZ	1	14:40																							
ZZZZZZ	1	14:53																							
CCV07	1	14:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	15:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	15:19																							
ZZZZZZ	1	15:25																							
ZZZZZZ	1	15:32																							
ZZZZZZ	1	15:39																							
ZZZZZZ	1	15:46																							
ZZZZZZ	1	15:52																							
ZZZZZZ	5	15:59																							
CCV08	1	16:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	16:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV09	1	16:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	16:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	16:40																							
ZZZZZZ	1	16:47																							
ZZZZZZ	1	16:54																							
ZZZZZZ	1	17:00																							
ZZZZZZ	1	17:07																							
ZZZZZZ	1	17:14																							
ZZZZZZ	1	17:21																							
ZZZZZZ	1	17:28																							
CCV10	1	17:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	17:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:48																							

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	5	17:55																								
ZZZZZZ	1	18:02																								
ZZZZZZ	1	18:09																								
ZZZZZZ	1	18:16																								
ZZZZZZ	1	18:23																								
ZZZZZZ	1	18:29																								
ZZZZZZ	1	18:36																								
CCV11	1	18:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	18:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:57																								
ZZZZZZ	1	19:04																								
ZZZZZZ	1	19:10																								
ZZZZZZ	1	19:17																								
ZZZZZZ	1	19:24																								
ZZZZZZ	1	19:31																								
ZZZZZZ	5	19:37																								
CCV12	1	19:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	19:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:58																								
ZZZZZZ	1	20:05																								
ZZZZZZ	1	20:12																								
ZZZZZZ	1	20:19																								
ZZZZZZ	1	20:26																								
ZZZZZZ	1	20:34																								
ZZZZZZ	1	20:41																								
CCV13	1	20:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB13	1	20:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:02																								
ZZZZZZ	1	21:08																								
ZZZZZZ	1	21:15																								
ZZZZZZ	1	21:22																								
ZZZZZZ	1	21:29																								
ZZZZZZ	1	21:36																								
ZZZZZZ	1	21:43																								
CCV14	1	21:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB14	1	21:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202024773	1	22:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202024774	1	22:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:17																								
ZZZZZZ	1	22:24																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	22:31																							
ZZZZZZ	1	22:38																							
ZZZZZZ	1	22:45																							
ZZZZZZ	1	22:52																							
ZZZZZZ	1	22:59																							
CCV15	1	23:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB15	1	23:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:21																							
ZZZZZZ	1	23:27																							
ZZZZZZ	1	23:35																							
ZZZZZZ	1	23:42																							
ZZZZZZ	1	23:49																							
ZZZZZZ	1	23:56																							
ZZZZZZ	1	00:02																							
ZZZZZZ	1	00:10																							
ZZZZZZ	1	00:17																							
CCV16	1	00:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB16	1	00:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245396001	1	00:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202024775	1	00:45	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202024776	1	00:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202024778	1	00:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202024777	5	01:06	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245396002	1	01:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245396003	1	01:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245396004	1	01:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV17	1	01:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB17	1	01:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 10–FEB–10 **End Date:** 10–FEB–10

Client Sdg: 10–1394
Method AV
Data File: 021010S1–9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:51															X									
S0.2	1	08:53															X									
S0.5	1	08:54															X									
S2.0	1	08:56															X									
S5.0	1	08:58															X									
S10.0	1	08:59															X									
ICV01	1	09:01															X									
ICB01	1	09:03															X									
CRDL01	1	09:04															X									
CCV01	1	09:06															X									
CCB01	1	09:08															X									
ZZZZZZ	1	09:09																								
ZZZZZZ	10	09:11																								
ZZZZZZ	1	09:13																								
ZZZZZZ	1	09:14																								
ZZZZZZ	1	09:16																								
ZZZZZZ	1	09:18																								
ZZZZZZ	1	09:19																								
ZZZZZZ	1	09:21																								
ZZZZZZ	1	09:23																								
ZZZZZZ	1	09:24																								
CCV02	1	09:26															X									
CCB02	1	09:28															X									
ZZZZZZ	1	09:29																								
ZZZZZZ	1	09:31																								
ZZZZZZ	5	09:33																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:39																								
ZZZZZZ	1	09:41																								
ZZZZZZ	10	09:43																								
ZZZZZZ	1	09:44																								
CCV03	1	09:46															X									
CCB03	1	09:48															X									
ZZZZZZ	1	09:49																								
ZZZZZZ	1	09:51																								
ZZZZZZ	1	09:53																								
ZZZZZZ	1	09:54																								
ZZZZZZ	1	09:56																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	09:58																							
ZZZZZZ	1	09:59																							
ZZZZZZ	1	10:01																							
ZZZZZZ	1	10:03																							
ZZZZZZ	5	10:04																							
CCV04	1	10:06													X										
CCB04	1	10:08													X										
ZZZZZZ	1	10:09																							
ZZZZZZ	1	10:11																							
ZZZZZZ	1	10:13																							
ZZZZZZ	1	10:14																							
1202025301	1	10:16													X										
1202025302	10	10:18													X										
ZZZZZZ	1	10:19																							
ZZZZZZ	1	10:21																							
ZZZZZZ	1	10:23																							
ZZZZZZ	1	10:25																							
CCV05	1	10:26													X										
CCB05	1	10:28													X										
ZZZZZZ	1	10:30																							
ZZZZZZ	1	10:31																							
ZZZZZZ	1	10:33																							
ZZZZZZ	1	10:35																							
ZZZZZZ	1	10:36																							
ZZZZZZ	1	10:38																							
ZZZZZZ	1	10:40																							
ZZZZZZ	1	10:41																							
ZZZZZZ	1	10:43																							
ZZZZZZ	1	10:45																							
CCV06	1	10:46													X										
CCB06	1	10:48													X										
ZZZZZZ	1	10:50																							
245396001	1	10:51													X										
1202025303	1	10:53													X										
1202025304	1	10:55													X										
1202025306	1	10:56													X										
1202025305	5	10:58													X										
245396002	1	11:00													X										
245396003	1	11:01													X										
245396004	1	11:03													X										

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	11:05																								
CCV07	1	11:06															X									
CCB07	1	11:08															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 13-FEB-10 **End Date:** 14-FEB-10

Client Sdg: 10-1394
Method MS
Data File: 100213-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	08:05																						X		
S10	1	08:07																						X		
S100	1	08:08																						X		
ICV01	1	08:10																						X		
ICB01	1	08:12																						X		
CRDL01	1	08:13																						X		
ICSA01	1	08:15																						X		
ICSAB01	1	08:17																						X		
CCV01	1	08:19																						X		
CCB01	1	08:20																						X		
1202024764	2	08:22																						X		
1202024765	40	08:24																						X		
ZZZZZZ	2	08:25																								
ZZZZZZ	2	08:27																								
ZZZZZZ	2	08:29																								
ZZZZZZ	2	08:30																								
ZZZZZZ	2	08:32																								
ZZZZZZ	2	08:34																								
CCV02	1	08:36																						X		
CCB02	1	08:37																						X		
ZZZZZZ	2	08:39																								
ZZZZZZ	2	08:41																								
ZZZZZZ	2	08:42																								
ZZZZZZ	2	08:44																								
ZZZZZZ	2	08:46																								
ZZZZZZ	2	08:48																								
ZZZZZZ	2	08:49																								
ZZZZZZ	2	08:51																								
CCV03	1	08:53																						X		
CCB03	1	08:55																						X		
ZZZZZZ	2	08:56																								
ZZZZZZ	2	08:58																								
245396001	2	09:00																						X		
1202024766	2	09:01																						X		
1202024767	2	09:03																						X		
1202024772	2	09:05																						X		
1202024768	10	09:07																						X		
CCV04	1	09:08																						X		
CCB04	1	09:10																						X		
ZZZZZZ	2	09:12																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	2	09:14																							
245396004	2	09:15																					X		
CCV05	1	09:17																					X		
CCB05	1	09:19																					X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 14–FEB–10 **End Date:** 15–FEB–10

Client Sdg: 10–1394
Method MS
Data File: 100214–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	12:07																						X		
S10	1	12:09																						X		
S100	1	12:11																						X		
ICV01	1	12:12																						X		
ICB01	1	12:14																						X		
CRDL01	1	12:16																						X		
ICSA01	1	12:17																						X		
ICSAB01	1	12:19																						X		
CCV01	1	12:21																						X		
CCB01	1	12:22																						X		
ZZZZZZ	2	12:24																								
ZZZZZZ	40	12:26																								
245396002	20	12:28																						X		
245396003	20	12:29																						X		
CCV02	1	12:31																						X		
CCB02	1	12:33																						X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1394

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1394

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1394

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–1394
Effective Dates: 01–FEB–10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	–0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	–0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	–0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1394
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LAN1.01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1394
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1394
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1394
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1394
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1394

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-1394

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1394

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

Raw Data

Method: Hg_ReAlign
Result: 021910

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

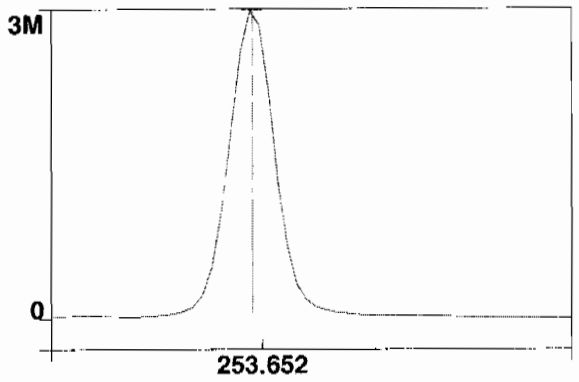

Intensity: 3280555.4 cps
Conc:

1

==========
2/11/2010 08:16:36 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -3
==========

==========
Analysis Begun

Start Time: 2/11/2010 08:21:47 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110
Results Library: C:\pe\Optima3\Results\Results.mdb

==========
Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/10/2010 09:09:46**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========
Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/11/2010 08:21:51**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4743.3	4743.3	98.7	%	08:23:44
1	Y RADIAL	4948.6	4948.6	98.96	%	08:23:44
1	Al 396.153Radial†	-158.5	-160.6	[0.00]	ug/L	08:23:44
1	Ca 317.933Radial†	16.8	17.0	[0.00]	ug/L	08:24:04
1	Fe 238.204 Radial†	11.9	12.0	[0.00]	ug/L	08:24:04
1	K 766.490 Radial†	2824.3	2862.1	[0.00]	ug/L	08:23:44
1	Mg 279.077 IEC†	1.7	1.7	[0.00]	ug/L	08:24:04
1	Na 589.592 Radial†	-1072.2	-1086.6	[0.00]	ug/L	08:23:44
1	Sr 421.552†	-1.9	-1.9	[0.00]	ug/L	08:23:44
1	Sc 361.383	858652.8	858652.8	99.601	%	08:25:00
1	Y 371.029	711640.1	711640.1	99.585	%	08:25:00
1	Ag 328.068†	210.9	211.7	[0.00]	ug/L	08:25:00
1	As 188.979†	-37.6	-37.8	[0.00]	ug/L	08:25:21
1	B 249.677†	-554.0	-556.3	[0.00]	ug/L	08:25:21
1	Ba 233.527†	-3.0	-3.0	[0.00]	ug/L	08:25:21
1	Be 313.107†	-4312.4	-4329.7	[0.00]	ug/L	08:25:00
1	Cd 226.502†	-217.4	-218.3	[0.00]	ug/L	08:25:21
1	Co 228.616†	-68.5	-68.8	[0.00]	ug/L	08:25:21
1	Cr 267.716†	70.9	71.1	[0.00]	ug/L	08:25:21
1	Cu 324.752†	5817.9	5841.2	[0.00]	ug/L	08:25:00
1	Mn 257.610†	462.6	464.5	[0.00]	ug/L	08:25:21
1	Mo 202.031†	15.3	15.4	[0.00]	ug/L	08:25:21
1	Ni 231.604†	106.3	106.7	[0.00]	ug/L	08:25:21
1	P 214.914†	228.5	229.5	[0.00]	ug/L	08:25:21
1	Pb 220.353†	-66.3	-66.6	[0.00]	ug/L	08:25:21
1	S 181.975 Axial†	39.5	39.7	[0.00]	ug/L	08:25:21
1	Sb 206.836†	48.0	48.2	[0.00]	ug/L	08:25:21
1	Se 196.026†	-19.7	-19.8	[0.00]	ug/L	08:25:21
1	Si 251.611†	564.3	566.5	[0.00]	ug/L	08:25:21
1	Sn 189.927†	1.1	1.1	[0.00]	ug/L	08:25:21
1	Ti 334.940†	-1245.2	-1250.2	[0.00]	ug/L	08:25:00
1	Tl 190.801†	-32.7	-32.8	[0.00]	ug/L	08:25:21
1	U 409.014†	-2877.1	-2888.7	[0.00]	ug/L	08:25:00
1	V 292.402†	-1591.1	-1597.5	[0.00]	ug/L	08:25:00
1	Zn 213.857†	709.5	712.4	[0.00]	ug/L	08:25:21
1	SiO2†	561.0	563.3	[0.00]	ug/L	08:26:17
2	Sc Radial	4842.9	4842.9	101	%	08:24:09
2	Y RADIAL	5035.0	5035.0	100.7	%	08:24:09
2	Al 396.153Radial†	-151.1	-150.0	[0.00]	ug/L	08:24:09
2	Ca 317.933Radial†	17.6	17.5	[0.00]	ug/L	08:24:29
2	Fe 238.204 Radial†	12.8	12.7	[0.00]	ug/L	08:24:29
2	K 766.490 Radial†	2875.3	2854.0	[0.00]	ug/L	08:24:09
2	Mg 279.077 IEC†	-0.9	-0.8	[0.00]	ug/L	08:24:29
2	Na 589.592 Radial†	-1052.7	-1044.8	[0.00]	ug/L	08:24:09
2	Sr 421.552†	-6.5	-6.5	[0.00]	ug/L	08:24:09
2	Sc 361.383	858338.4	858338.4	99.564	%	08:25:26
2	Y 371.029	711249.1	711249.1	99.531	%	08:25:26
2	Ag 328.068†	240.3	241.3	[0.00]	ug/L	08:25:26
2	As 188.979†	-40.6	-40.8	[0.00]	ug/L	08:25:46
2	B 249.677†	-518.0	-520.3	[0.00]	ug/L	08:25:46
2	Ba 233.527†	-17.7	-17.8	[0.00]	ug/L	08:25:46
2	Be 313.107†	-4336.6	-4355.6	[0.00]	ug/L	08:25:26
2	Cd 226.502†	-214.0	-214.9	[0.00]	ug/L	08:25:46
2	Co 228.616†	-77.5	-77.9	[0.00]	ug/L	08:25:46
2	Cr 267.716†	59.8	60.0	[0.00]	ug/L	08:25:46
2	Cu 324.752†	5781.8	5807.1	[0.00]	ug/L	08:25:26
2	Mn 257.610†	446.9	448.8	[0.00]	ug/L	08:25:46
2	Mo 202.031†	16.5	16.6	[0.00]	ug/L	08:25:46
2	Ni 231.604†	113.5	114.0	[0.00]	ug/L	08:25:46
2	P 214.914†	232.1	233.1	[0.00]	ug/L	08:25:46
2	Pb 220.353†	-54.8	-55.0	[0.00]	ug/L	08:25:46
2	S 181.975 Axial†	34.4	34.6	[0.00]	ug/L	08:25:46
2	Sb 206.836†	35.5	35.7	[0.00]	ug/L	08:25:46
2	Se 196.026†	-26.4	-26.5	[0.00]	ug/L	08:25:46
2	Si 251.611†	557.7	560.1	[0.00]	ug/L	08:25:46
2	Sn 189.927†	12.1	12.2	[0.00]	ug/L	08:25:46
2	Ti 334.940†	-1286.7	-1292.3	[0.00]	ug/L	08:25:26
2	Tl 190.801†	-33.0	-33.2	[0.00]	ug/L	08:25:46
2	U 409.014†	-2986.6	-2999.7	[0.00]	ug/L	08:25:26
2	V 292.402†	-1476.9	-1483.4	[0.00]	ug/L	08:25:26

2	Zn 213.857†	711.5	714.7	[0.00]	ug/L	08:25:46
2	SiO2†	597.8	600.4	[0.00]	ug/L	08:26:22
3	Sc Radial	4834.5	4834.5	101	%	08:24:34
3	Y RADIAL	5018.4	5018.4	100.4	%	08:24:34
3	Al 396.153Radial†	-145.0	-144.2	[0.00]	ug/L	08:24:34
3	Ca 317.933Radial†	15.7	15.7	[0.00]	ug/L	08:24:54
3	Fe 238.204 Radial†	9.8	9.7	[0.00]	ug/L	08:24:54
3	K 766.490 Radial†	2776.8	2760.9	[0.00]	ug/L	08:24:34
3	Mg 279.077 IEC†	0.3	0.3	[0.00]	ug/L	08:24:54
3	Na 589.592 Radial†	-1110.4	-1104.1	[0.00]	ug/L	08:24:34
3	Sr 421.552†	14.8	14.8	[0.00]	ug/L	08:24:34
3	Sc 361.383	869291.9	869291.9	100.83	%	08:25:52
3	Y 371.029	720919.8	720919.8	100.88	%	08:25:52
3	Ag 328.068†	235.2	233.3	[0.00]	ug/L	08:25:52
3	As 188.979†	-23.2	-23.0	[0.00]	ug/L	08:26:12
3	B 249.677†	-545.1	-540.6	[0.00]	ug/L	08:26:12
3	Ba 233.527†	-14.1	-13.9	[0.00]	ug/L	08:26:12
3	Be 313.107†	-4367.1	-4330.9	[0.00]	ug/L	08:25:52
3	Cd 226.502†	-204.2	-202.5	[0.00]	ug/L	08:26:12
3	Co 228.616†	-75.1	-74.5	[0.00]	ug/L	08:26:12
3	Cr 267.716†	69.7	69.2	[0.00]	ug/L	08:26:12
3	Cu 324.752†	5862.4	5813.9	[0.00]	ug/L	08:25:52
3	Mn 257.610†	446.1	442.4	[0.00]	ug/L	08:26:12
3	Mo 202.031†	14.8	14.7	[0.00]	ug/L	08:26:12
3	Ni 231.604†	104.3	103.4	[0.00]	ug/L	08:26:12
3	P 214.914†	223.5	221.7	[0.00]	ug/L	08:26:12
3	Pb 220.353†	-64.1	-63.6	[0.00]	ug/L	08:26:12
3	S 181.975 Axial†	44.2	43.8	[0.00]	ug/L	08:26:12
3	Sb 206.836†	42.9	42.6	[0.00]	ug/L	08:26:12
3	Se 196.026†	-20.3	-20.1	[0.00]	ug/L	08:26:12
3	Si 251.611†	564.8	560.2	[0.00]	ug/L	08:26:12
3	Sn 189.927†	12.9	12.8	[0.00]	ug/L	08:26:12
3	Ti 334.940†	-1378.5	-1367.1	[0.00]	ug/L	08:25:52
3	Tl 190.801†	-36.9	-36.6	[0.00]	ug/L	08:26:12
3	U 409.014†	-3077.3	-3051.8	[0.00]	ug/L	08:25:52
3	V 292.402†	-1596.3	-1583.1	[0.00]	ug/L	08:25:52
3	Zn 213.857†	718.7	712.7	[0.00]	ug/L	08:26:12
3	SiO2†	590.6	585.7	[0.00]	ug/L	08:26:27

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	862094.4	6235.22	0.72%	100.00	%
Sc Radial	4806.9	55.24	1.15%	100	%
Y 371.029	714603.0	5474.01	0.77%	100.00	%
Y RADIAL	5000.7	45.86	0.92%	100.0	%
Ag 328.068†	228.8	15.31	6.69%	[0.00]	ug/L
Al 396.153Radial†	-151.6	8.33	5.49%	[0.00]	ug/L
As 188.979†	-33.9	9.53	28.16%	[0.00]	ug/L
B 249.677†	-539.0	18.02	3.34%	[0.00]	ug/L
Ba 233.527†	-11.6	7.66	66.14%	[0.00]	ug/L
Be 313.107†	-4338.7	14.61	0.34%	[0.00]	ug/L
Ca 317.933Radial†	16.7	0.94	5.63%	[0.00]	ug/L
Cd 226.502†	-211.9	8.32	3.93%	[0.00]	ug/L
Co 228.616†	-73.7	4.60	6.24%	[0.00]	ug/L
Cr 267.716†	66.8	5.94	8.89%	[0.00]	ug/L
Cu 324.752†	5820.7	18.09	0.31%	[0.00]	ug/L
Fe 238.204 Radial†	11.5	1.57	13.67%	[0.00]	ug/L
K 766.490 Radial†	2825.7	56.23	1.99%	[0.00]	ug/L
Mg 279.077 IEC†	0.4	1.30	313.61%	[0.00]	ug/L
Mn 257.610†	451.9	11.35	2.51%	[0.00]	ug/L
Mo 202.031†	15.5	0.94	6.08%	[0.00]	ug/L
Na 589.592 Radial†	-1078.5	30.44	2.82%	[0.00]	ug/L
Ni 231.604†	108.0	5.41	5.01%	[0.00]	ug/L
P 214.914†	228.1	5.81	2.55%	[0.00]	ug/L
Pb 220.353†	-61.7	6.02	9.76%	[0.00]	ug/L
S 181.975 Axial†	39.3	4.63	11.76%	[0.00]	ug/L
Sb 206.836†	42.2	6.25	14.84%	[0.00]	ug/L
Se 196.026†	-22.1	3.78	17.07%	[0.00]	ug/L
Si 251.611†	562.3	3.70	0.66%	[0.00]	ug/L

Sn 189.927†	8.7	6.56	75.55%	[0.00]	ug/L
Sr 421.552†	2.1	11.18	531.03%	[0.00]	ug/L
Ti 334.940†	-1303.2	59.20	4.54%	[0.00]	ug/L
Tl 190.801†	-34.2	2.10	6.14%	[0.00]	ug/L
U 409.014†	-2980.0	83.33	2.80%	[0.00]	ug/L
V 292.402†	-1554.6	62.14	4.00%	[0.00]	ug/L
Zn 213.857†	713.3	1.23	0.17%	[0.00]	ug/L
SiO2†	583.1	18.69	3.20%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/11/2010 08:28:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4697.2	4697.2	97.7	%	08:30:36
1	Y RADIAL	4924.7	4924.7	98.48	%	08:30:36
1	K 766.490 Radial†	8419.1	5790.1	[1000]	ug/L	08:30:31
1	Sr 421.552†	14106.6	14434.0	[100]	ug/L	08:30:36
1	Sc 361.383	843091.5	843091.5	97.796	%	08:31:03
1	Y 371.029	696143.0	696143.0	97.417	%	08:31:03
1	Ag 328.068†	20987.8	21232.1	[100]	ug/L	08:31:03
1	As 188.979†	194.9	233.2	[100]	ug/L	08:31:23
1	B 249.677†	3337.5	3951.7	[100]	ug/L	08:31:03
1	Ba 233.527†	12126.5	12411.4	[100]	ug/L	08:31:03
1	Be 313.107†	255128.9	265218.1	[100]	ug/L	08:31:03
1	Cd 226.502†	8154.7	8550.4	[100]	ug/L	08:31:03
1	Co 228.616†	4501.8	4677.0	[100]	ug/L	08:31:23
1	Cr 267.716†	8496.4	8621.1	[100]	ug/L	08:31:03
1	Cu 324.752†	37658.7	32686.8	[100]	ug/L	08:31:03
1	Mn 257.610†	86804.4	88309.1	[100]	ug/L	08:31:03
1	Mo 202.031†	1312.4	1326.5	[100]	ug/L	08:31:23
1	Ni 231.604†	3858.2	3837.2	[100]	ug/L	08:31:23
1	P 214.914†	1004.2	798.7	[500]	ug/L	08:31:23
1	Pb 220.353†	734.4	812.6	[100]	ug/L	08:31:23
1	S 181.975 Axial†	173.5	138.0	[200]	ug/L	08:31:23
1	Sb 206.836†	307.5	272.3	[100]	ug/L	08:31:23
1	Se 196.026†	113.4	138.0	[100]	ug/L	08:31:23
1	Si 251.611†	15051.6	14828.5	[500]	ug/L	08:31:03
1	Sn 189.927†	530.8	534.1	[100]	ug/L	08:31:23
1	Ti 334.940†	59742.6	62392.4	[100]	ug/L	08:31:03
1	Tl 190.801†	267.2	307.4	[100]	ug/L	08:31:23
1	U 409.014†	349.1	3337.0	[100]	ug/L	08:31:03
1	V 292.402†	11820.6	13641.7	[100]	ug/L	08:31:03
1	Zn 213.857†	10728.8	10257.3	[100]	ug/L	08:31:03
1	SiO2†	15259.3	15020.1	[1069.5]	ug/L	08:32:20
2	Sc Radial	4770.0	4770.0	99.2	%	08:30:46
2	Y RADIAL	4972.7	4972.7	99.44	%	08:30:46
2	K 766.490 Radial†	8395.9	5635.1	[1000]	ug/L	08:30:41
2	Sr 421.552†	14289.0	14397.3	[100]	ug/L	08:30:46
2	Sc 361.383	841728.5	841728.5	97.638	%	08:31:29
2	Y 371.029	693980.4	693980.4	97.114	%	08:31:29
2	Ag 328.068†	20918.8	21196.1	[100]	ug/L	08:31:29
2	As 188.979†	191.4	229.9	[100]	ug/L	08:31:49
2	B 249.677†	3358.3	3978.6	[100]	ug/L	08:31:29
2	Ba 233.527†	12115.8	12420.6	[100]	ug/L	08:31:29
2	Be 313.107†	254704.9	265206.3	[100]	ug/L	08:31:29
2	Cd 226.502†	8061.2	8468.2	[100]	ug/L	08:31:29
2	Co 228.616†	4524.9	4708.1	[100]	ug/L	08:31:49
2	Cr 267.716†	8472.0	8610.2	[100]	ug/L	08:31:29
2	Cu 324.752†	37682.1	32773.1	[100]	ug/L	08:31:29
2	Mn 257.610†	86821.9	88470.7	[100]	ug/L	08:31:29
2	Mo 202.031†	1330.8	1347.5	[100]	ug/L	08:31:49
2	Ni 231.604†	3893.5	3879.7	[100]	ug/L	08:31:49
2	P 214.914†	1009.6	805.9	[500]	ug/L	08:31:49
2	Pb 220.353†	737.3	816.8	[100]	ug/L	08:31:49
2	S 181.975 Axial†	168.2	132.9	[200]	ug/L	08:31:49
2	Sb 206.836†	312.2	277.6	[100]	ug/L	08:31:49
2	Se 196.026†	110.6	135.3	[100]	ug/L	08:31:49
2	Si 251.611†	15081.3	14883.9	[500]	ug/L	08:31:29
2	Sn 189.927†	535.9	540.2	[100]	ug/L	08:31:49
2	Ti 334.940†	59954.2	62708.0	[100]	ug/L	08:31:29
2	Tl 190.801†	271.5	312.3	[100]	ug/L	08:31:49
2	U 409.014†	527.8	3520.6	[100]	ug/L	08:31:29

2	V 292.402†	11734.5	13573.0	[100]	ug/L	08:31:29
2	Zn 213.857†	10700.6	10246.2	[100]	ug/L	08:31:29
2	SiO2†	15136.0	14919.1	[1069.5]	ug/L	08:32:25
3	Sc Radial	4757.9	4757.9	99.0	%	08:30:57
3	Y RADIAL	4960.8	4960.8	99.20	%	08:30:57
3	K 766.490 Radial†	8337.2	5597.4	[1000]	ug/L	08:30:52
3	Sr 421.552†	14181.2	14325.1	[100]	ug/L	08:30:57
3	Sc 361.383	857711.3	857711.3	99.492	%	08:31:54
3	Y 371.029	708311.9	708311.9	99.120	%	08:31:54
3	Ag 328.068†	21304.0	21184.0	[100]	ug/L	08:31:54
3	As 188.979†	185.7	220.5	[100]	ug/L	08:32:15
3	B 249.677†	3475.9	4032.7	[100]	ug/L	08:31:54
3	Ba 233.527†	12344.0	12418.7	[100]	ug/L	08:31:54
3	Be 313.107†	259560.0	265225.1	[100]	ug/L	08:31:54
3	Cd 226.502†	8214.9	8468.8	[100]	ug/L	08:31:54
3	Co 228.616†	4492.9	4589.6	[100]	ug/L	08:32:15
3	Cr 267.716†	8624.8	8602.1	[100]	ug/L	08:31:54
3	Cu 324.752†	38368.9	32744.2	[100]	ug/L	08:31:54
3	Mn 257.610†	88164.5	88163.1	[100]	ug/L	08:31:54
3	Mo 202.031†	1319.1	1310.3	[100]	ug/L	08:32:15
3	Ni 231.604†	3850.0	3761.7	[100]	ug/L	08:32:15
3	P 214.914†	1005.0	782.0	[500]	ug/L	08:32:15
3	Pb 220.353†	740.2	805.7	[100]	ug/L	08:32:15
3	S 181.975 Axial†	171.3	132.8	[200]	ug/L	08:32:15
3	Sb 206.836†	307.2	266.6	[100]	ug/L	08:32:15
3	Se 196.026†	128.8	151.6	[100]	ug/L	08:32:15
3	Si 251.611†	15274.8	14790.6	[500]	ug/L	08:31:54
3	Sn 189.927†	537.8	531.8	[100]	ug/L	08:32:15
3	Ti 334.940†	60885.2	62499.6	[100]	ug/L	08:31:54
3	Tl 190.801†	274.4	310.0	[100]	ug/L	08:32:15
3	U 409.014†	511.9	3494.6	[100]	ug/L	08:31:54
3	V 292.402†	12083.6	13700.0	[100]	ug/L	08:31:54
3	Zn 213.857†	10828.2	10170.3	[100]	ug/L	08:31:54
3	SiO2†	15035.8	14529.5	[1069.5]	ug/L	08:32:30

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	847510.4	8860.47	1.05%	98.308	%
Sc Radial	4741.7	39.05	0.82%	98.6	%
Y 371.029	699478.4	7726.06	1.10%	97.884	%
Y RADIAL	4952.7	24.96	0.50%	99.04	%
Ag 328.068†	21204.1	24.98	0.12%	[100]	ug/L
As 188.979†	227.9	6.57	2.88%	[100]	ug/L
B 249.677†	3987.7	41.26	1.03%	[100]	ug/L
Ba 233.527†	12416.9	4.85	0.04%	[100]	ug/L
Be 313.107†	265216.5	9.52	0.00%	[100]	ug/L
Cd 226.502†	8495.8	47.31	0.56%	[100]	ug/L
Co 228.616†	4658.2	61.45	1.32%	[100]	ug/L
Cr 267.716†	8611.2	9.54	0.11%	[100]	ug/L
Cu 324.752†	32734.7	43.94	0.13%	[100]	ug/L
K 766.490 Radial†	5674.2	102.16	1.80%	[1000]	ug/L
Mn 257.610†	88314.3	153.88	0.17%	[100]	ug/L
Mo 202.031†	1328.1	18.64	1.40%	[100]	ug/L
Ni 231.604†	3826.2	59.74	1.56%	[100]	ug/L
P 214.914†	795.6	12.26	1.54%	[500]	ug/L
Pb 220.353†	811.7	5.63	0.69%	[100]	ug/L
S 181.975 Axial†	134.6	2.99	2.22%	[200]	ug/L
Sb 206.836†	272.2	5.48	2.01%	[100]	ug/L
Se 196.026†	141.6	8.69	6.14%	[100]	ug/L
Si 251.611†	14834.4	46.93	0.32%	[500]	ug/L
Sn 189.927†	535.4	4.34	0.81%	[100]	ug/L
Sr 421.552†	14385.5	55.40	0.39%	[100]	ug/L
Ti 334.940†	62533.3	160.47	0.26%	[100]	ug/L
Tl 190.801†	309.9	2.44	0.79%	[100]	ug/L
U 409.014†	3450.7	99.33	2.88%	[100]	ug/L
V 292.402†	13638.2	63.57	0.47%	[100]	ug/L
Zn 213.857†	10224.6	47.36	0.46%	[100]	ug/L
SiO2†	14822.9	259.04	1.75%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/11/2010 08:34:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4775.5	4775.5	99.3	%	08:36:34
1	Y RADIAL	4918.1	4918.1	98.35	%	08:36:34
1	Al 396.153Radial†	5173.8	5359.4	[5000]	ug/L	08:36:34
1	Ca 317.933Radial†	3032.3	3035.5	[5000]	ug/L	08:36:54
1	K 766.490 Radial†	31229.5	28609.1	[5000]	ug/L	08:36:34
1	Mg 279.077 IEC†	147.4	148.0	[5000]	ug/L	08:36:54
1	Sr 421.552†	72038.7	72510.1	[500]	ug/L	08:36:34
1	Sc 361.383	867807.9	867807.9	100.66	%	08:37:51
1	Y 371.029	707253.6	707253.6	98.972	%	08:37:51
1	Ag 328.068†	104951.0	104031.3	[500]	ug/L	08:37:56
1	As 188.979†	1075.9	1102.7	[500]	ug/L	08:38:16
1	B 249.677†	20164.1	20570.4	[500]	ug/L	08:37:56
1	Ba 233.527†	60905.4	60516.0	[500]	ug/L	08:37:56
1	Be 313.107†	1337671.9	1333203.6	[500]	ug/L	08:37:51
1	Cd 226.502†	41754.0	41691.0	[500]	ug/L	08:37:56
1	Co 228.616†	23152.6	23073.9	[500]	ug/L	08:37:56
1	Cr 267.716†	42883.4	42534.3	[500]	ug/L	08:37:56
1	Cu 324.752†	168304.3	161375.5	[500]	ug/L	08:37:56
1	Mn 257.610†	436371.5	433046.6	[500]	ug/L	08:37:51
1	Mo 202.031†	6633.2	6574.0	[500]	ug/L	08:38:16
1	Ni 231.604†	19401.1	19165.4	[500]	ug/L	08:37:56
1	P 214.914†	4235.9	3979.9	[2500]	ug/L	08:38:16
1	Pb 220.353†	3922.5	3958.4	[500]	ug/L	08:38:16
1	S 181.975 Axial†	718.0	673.9	[1000]	ug/L	08:38:16
1	Sb 206.836†	1456.3	1404.6	[500]	ug/L	08:38:16
1	Se 196.026†	724.3	741.7	[500]	ug/L	08:38:16
1	Si 251.611†	74231.4	73180.4	[2500]	ug/L	08:37:56
1	Sn 189.927†	2684.8	2658.4	[500]	ug/L	08:38:16
1	Ti 334.940†	302340.0	301652.6	[500]	ug/L	08:37:56
1	Tl 190.801†	1527.2	1551.3	[500]	ug/L	08:38:16
1	U 409.014†	14256.5	17142.7	[500]	ug/L	08:37:56
1	V 292.402†	66738.6	67853.8	[500]	ug/L	08:37:56
1	Zn 213.857†	51323.6	50272.4	[500]	ug/L	08:37:56
1	SiO2†	75000.0	73923.1	[5347.5]	ug/L	08:39:24
2	Sc Radial	4760.1	4760.1	99.0	%	08:36:59
2	Y RADIAL	4955.6	4955.6	99.10	%	08:36:59
2	Al 396.153Radial†	5216.3	5419.2	[5000]	ug/L	08:36:59
2	Ca 317.933Radial†	3024.1	3037.1	[5000]	ug/L	08:37:19
2	K 766.490 Radial†	31196.0	28677.0	[5000]	ug/L	08:36:59
2	Mg 279.077 IEC†	140.7	141.7	[5000]	ug/L	08:37:19
2	Sr 421.552†	71809.8	72513.7	[500]	ug/L	08:36:59
2	Sc 361.383	874027.1	874027.1	101.38	%	08:38:22
2	Y 371.029	713257.3	713257.3	99.812	%	08:38:22
2	Ag 328.068†	105300.4	103634.0	[500]	ug/L	08:38:27
2	As 188.979†	1073.3	1092.5	[500]	ug/L	08:38:47
2	B 249.677†	20291.9	20553.9	[500]	ug/L	08:38:27
2	Ba 233.527†	61086.4	60264.0	[500]	ug/L	08:38:27
2	Be 313.107†	1340300.8	1326340.9	[500]	ug/L	08:38:22
2	Cd 226.502†	41829.2	41470.0	[500]	ug/L	08:38:27
2	Co 228.616†	23238.4	22994.9	[500]	ug/L	08:38:27
2	Cr 267.716†	42880.0	42227.8	[500]	ug/L	08:38:27
2	Cu 324.752†	169024.2	160895.9	[500]	ug/L	08:38:27
2	Mn 257.610†	437207.3	430786.4	[500]	ug/L	08:38:22
2	Mo 202.031†	6579.5	6474.1	[500]	ug/L	08:38:47
2	Ni 231.604†	19438.2	19064.8	[500]	ug/L	08:38:27
2	P 214.914†	4208.9	3923.3	[2500]	ug/L	08:38:47
2	Pb 220.353†	3928.4	3936.5	[500]	ug/L	08:38:47
2	S 181.975 Axial†	712.8	663.8	[1000]	ug/L	08:38:47
2	Sb 206.836†	1435.7	1373.9	[500]	ug/L	08:38:47

2	Se 196.026†	716.2	728.6	[500]	ug/L	08:38:47
2	Si 251.611†	74403.2	72825.1	[2500]	ug/L	08:38:27
2	Sn 189.927†	2674.2	2629.0	[500]	ug/L	08:38:47
2	Ti 334.940†	303013.8	300180.0	[500]	ug/L	08:38:27
2	Tl 190.801†	1515.4	1528.9	[500]	ug/L	08:38:47
2	U 409.014†	14162.6	16949.3	[500]	ug/L	08:38:27
2	V 292.402†	66891.9	67533.3	[500]	ug/L	08:38:27
2	Zn 213.857†	51403.5	49988.5	[500]	ug/L	08:38:27
2	SiO2†	73924.8	72332.4	[5347.5]	ug/L	08:39:29
3	Sc Radial	4764.3	4764.3	99.1	%	08:37:24
3	Y RADIAL	4912.6	4912.6	98.24	%	08:37:24
3	Al 396.153Radial†	5214.9	5413.1	[5000]	ug/L	08:37:24
3	Ca 317.933Radial†	3031.1	3041.5	[5000]	ug/L	08:37:44
3	K 766.490 Radial†	31082.4	28534.7	[5000]	ug/L	08:37:24
3	Mg 279.077 IEC†	148.1	149.0	[5000]	ug/L	08:37:44
3	Sr 421.552†	71533.5	72171.1	[500]	ug/L	08:37:24
3	Sc 361.383	867676.4	867676.4	100.65	%	08:38:53
3	Y 371.029	709037.9	709037.9	99.221	%	08:38:53
3	Ag 328.068†	106402.4	105489.1	[500]	ug/L	08:38:58
3	As 188.979†	1067.1	1094.1	[500]	ug/L	08:39:18
3	B 249.677†	20536.8	20943.7	[500]	ug/L	08:38:58
3	Ba 233.527†	61737.6	61352.0	[500]	ug/L	08:38:58
3	Be 313.107†	1334189.2	1329944.7	[500]	ug/L	08:38:53
3	Cd 226.502†	42310.5	42250.2	[500]	ug/L	08:38:58
3	Co 228.616†	23441.9	23364.8	[500]	ug/L	08:38:58
3	Cr 267.716†	43382.0	43036.1	[500]	ug/L	08:38:58
3	Cu 324.752†	171172.5	164250.5	[500]	ug/L	08:38:58
3	Mn 257.610†	433515.4	430274.6	[500]	ug/L	08:38:53
3	Mo 202.031†	6604.8	6546.8	[500]	ug/L	08:39:18
3	Ni 231.604†	19593.1	19359.1	[500]	ug/L	08:38:58
3	P 214.914†	4204.9	3949.8	[2500]	ug/L	08:39:18
3	Pb 220.353†	3916.1	3952.6	[500]	ug/L	08:39:18
3	S 181.975 Axial†	711.9	668.0	[1000]	ug/L	08:39:18
3	Sb 206.836†	1438.7	1387.2	[500]	ug/L	08:39:18
3	Se 196.026†	709.4	727.0	[500]	ug/L	08:39:18
3	Si 251.611†	75276.2	74229.6	[2500]	ug/L	08:38:58
3	Sn 189.927†	2666.4	2640.6	[500]	ug/L	08:39:18
3	Ti 334.940†	306373.0	305705.2	[500]	ug/L	08:38:58
3	Tl 190.801†	1527.0	1551.4	[500]	ug/L	08:39:18
3	U 409.014†	14289.9	17178.0	[500]	ug/L	08:38:58
3	V 292.402†	67706.6	68825.6	[500]	ug/L	08:38:58
3	Zn 213.857†	51838.6	50791.9	[500]	ug/L	08:38:58
3	SiO2†	74542.2	73479.5	[5347.5]	ug/L	08:39:34

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	869837.1	3629.19	0.42%	100.90	%
Sc Radial	4766.6	7.97	0.17%	99.2	%
Y 371.029	709849.6	3083.04	0.43%	99.335	%
Y RADIAL	4928.8	23.43	0.48%	98.56	%
Ag 328.068†	104384.8	976.78	0.94%	[500]	ug/L
Al 396.153Radial†	5397.2	32.88	0.61%	[5000]	ug/L
As 188.979†	1096.4	5.49	0.50%	[500]	ug/L
B 249.677†	20689.3	220.47	1.07%	[500]	ug/L
Ba 233.527†	60710.7	569.54	0.94%	[500]	ug/L
Be 313.107†	1329829.7	3432.75	0.26%	[500]	ug/L
Ca 317.933Radial†	3038.1	3.10	0.10%	[5000]	ug/L
Cd 226.502†	41803.7	402.13	0.96%	[500]	ug/L
Co 228.616†	23144.5	194.83	0.84%	[500]	ug/L
Cr 267.716†	42599.4	408.09	0.96%	[500]	ug/L
Cu 324.752†	162174.0	1814.28	1.12%	[500]	ug/L
K 766.490 Radial†	28606.9	71.20	0.25%	[5000]	ug/L
Mg 279.077 IEC†	146.2	3.95	2.70%	[5000]	ug/L
Mn 257.610†	431369.2	1475.05	0.34%	[500]	ug/L
Mo 202.031†	6531.6	51.63	0.79%	[500]	ug/L
Ni 231.604†	19196.4	149.57	0.78%	[500]	ug/L
P 214.914†	3951.0	28.29	0.72%	[2500]	ug/L
Pb 220.353†	3949.2	11.37	0.29%	[500]	ug/L
S 181.975 Axial†	668.5	5.09	0.76%	[1000]	ug/L

Sb 206.836†	1388.6	15.36	1.11%	[500]	ug/L
Se 196.026†	732.4	8.07	1.10%	[500]	ug/L
Si 251.611†	73411.7	730.27	0.99%	[2500]	ug/L
Sn 189.927†	2642.7	14.81	0.56%	[500]	ug/L
Sr 421.552†	72398.3	196.74	0.27%	[500]	ug/L
Ti 334.940†	302512.6	2861.20	0.95%	[500]	ug/L
Tl 190.801†	1543.9	12.97	0.84%	[500]	ug/L
U 409.014†	17090.0	123.10	0.72%	[500]	ug/L
V 292.402†	68070.9	672.97	0.99%	[500]	ug/L
Zn 213.857†	50350.9	407.40	0.81%	[500]	ug/L
SiO2†	73245.0	820.85	1.12%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 08:41:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4754.8	4754.8	98.9	%	08:43:39
1	Y RADIAL	4929.2	4929.2	98.57	%	08:43:39
1	Al 396.153Radial†	10311.1	10575.8	[10000]	ug/L	08:43:39
1	Ca 317.933Radial†	6019.7	6069.0	[10000]	ug/L	08:43:39
1	Fe 238.204 Radial†	1090.5	1091.0	[10000]	ug/L	08:43:59
1	K 766.490 Radial†	58560.2	56376.6	[10000]	ug/L	08:43:39
1	Mg 279.077 IEC†	284.9	287.6	[10000]	ug/L	08:43:59
1	Na 589.592 Radial†	30863.2	32280.1	[10000]	ug/L	08:43:39
1	Sr 421.552†	140324.3	141860.9	[1000]	ug/L	08:43:39
1	Sc 361.383	845480.5	845480.5	98.073	%	08:45:02
1	Y 371.029	692547.9	692547.9	96.914	%	08:45:02
1	Ag 328.068†	209232.3	213115.0	[1000]	ug/L	08:45:02
1	As 188.979†	2138.2	2214.1	[1000]	ug/L	08:45:23
1	B 249.677†	40784.7	42125.2	[1000]	ug/L	08:45:02
1	Ba 233.527†	120350.2	122726.7	[1000]	ug/L	08:45:02
1	Be 313.107†	2642600.6	2698867.0	[1000]	ug/L	08:44:57
1	Cd 226.502†	82431.4	84263.1	[1000]	ug/L	08:45:02
1	Co 228.616†	44705.9	45658.1	[1000]	ug/L	08:45:23
1	Cr 267.716†	84442.5	86035.1	[1000]	ug/L	08:45:02
1	Cu 324.752†	330508.8	331182.7	[1000]	ug/L	08:45:02
1	Mn 257.610†	858191.6	874603.3	[1000]	ug/L	08:44:57
1	Mo 202.031†	13191.9	13435.6	[1000]	ug/L	08:45:23
1	Ni 231.604†	37999.6	38638.3	[1000]	ug/L	08:45:02
1	P 214.914†	8146.2	8078.2	[5000]	ug/L	08:45:23
1	Pb 220.353†	7872.9	8089.3	[1000]	ug/L	08:45:23
1	S 181.975 Axial†	1394.2	1382.2	[2000]	ug/L	08:45:23
1	Sb 206.836†	2882.5	2897.0	[1000]	ug/L	08:45:23
1	Se 196.026†	1435.4	1485.8	[1000]	ug/L	08:45:23
1	Si 251.611†	147800.1	150142.2	[5000]	ug/L	08:45:02
1	Sn 189.927†	5325.6	5421.6	[1000]	ug/L	08:45:23
1	Ti 334.940†	606347.9	619566.0	[1000]	ug/L	08:45:02
1	Tl 190.801†	3041.0	3134.9	[1000]	ug/L	08:45:23
1	U 409.014†	31065.3	34655.8	[1000]	ug/L	08:45:02
1	V 292.402†	133962.9	138149.9	[1000]	ug/L	08:45:02
1	Zn 213.857†	100276.7	101533.9	[1000]	ug/L	08:45:02
1	SiO2†	149487.5	151841.8	[10695]	ug/L	08:46:31
2	Sc Radial	4707.6	4707.6	97.9	%	08:44:04
2	Y RADIAL	4893.2	4893.2	97.85	%	08:44:04
2	Al 396.153Radial†	10292.8	10661.4	[10000]	ug/L	08:44:04
2	Ca 317.933Radial†	6027.4	6137.8	[10000]	ug/L	08:44:04
2	Fe 238.204 Radial†	1092.1	1103.6	[10000]	ug/L	08:44:24
2	K 766.490 Radial†	58258.3	56661.2	[10000]	ug/L	08:44:04
2	Mg 279.077 IEC†	282.6	288.1	[10000]	ug/L	08:44:24
2	Na 589.592 Radial†	30526.8	32249.1	[10000]	ug/L	08:44:04
2	Sr 421.552†	139526.7	142467.1	[1000]	ug/L	08:44:04
2	Sc 361.383	847483.2	847483.2	98.305	%	08:45:34
2	Y 371.029	695071.3	695071.3	97.267	%	08:45:34
2	Ag 328.068†	209668.9	213055.0	[1000]	ug/L	08:45:34
2	As 188.979†	2125.7	2196.2	[1000]	ug/L	08:45:54
2	B 249.677†	40934.7	42179.5	[1000]	ug/L	08:45:34
2	Ba 233.527†	120220.8	122305.1	[1000]	ug/L	08:45:34
2	Be 313.107†	2630315.5	2680002.7	[1000]	ug/L	08:45:29
2	Cd 226.502†	82319.2	83950.3	[1000]	ug/L	08:45:34
2	Co 228.616†	44605.9	45448.6	[1000]	ug/L	08:45:54
2	Cr 267.716†	84523.5	85913.9	[1000]	ug/L	08:45:34
2	Cu 324.752†	331081.1	330968.4	[1000]	ug/L	08:45:34
2	Mn 257.610†	852182.1	866422.4	[1000]	ug/L	08:45:29
2	Mo 202.031†	13166.6	13378.0	[1000]	ug/L	08:45:54
2	Ni 231.604†	38034.5	38582.2	[1000]	ug/L	08:45:34

2	P 214.914†	8123.0	8034.9	[5000]	ug/L	08:45:54
2	Pb 220.353†	7796.1	7992.3	[1000]	ug/L	08:45:54
2	S 181.975 Axial†	1391.5	1376.2	[2000]	ug/L	08:45:54
2	Sb 206.836†	2877.9	2885.4	[1000]	ug/L	08:45:54
2	Se 196.026†	1440.6	1487.6	[1000]	ug/L	08:45:54
2	Si 251.611†	147930.3	149918.4	[5000]	ug/L	08:45:34
2	Sn 189.927†	5315.4	5398.4	[1000]	ug/L	08:45:54
2	Ti 334.940†	606881.9	618648.1	[1000]	ug/L	08:45:34
2	Tl 190.801†	3034.3	3120.8	[1000]	ug/L	08:45:54
2	U 409.014†	30966.8	34480.8	[1000]	ug/L	08:45:34
2	V 292.402†	133992.3	137857.1	[1000]	ug/L	08:45:34
2	Zn 213.857†	100200.0	101214.3	[1000]	ug/L	08:45:34
2	SiO2†	148244.7	150217.4	[10695]	ug/L	08:46:36
3	Sc Radial	4726.0	4726.0	98.3	%	08:44:30
3	Y RADIAL	4894.5	4894.5	97.88	%	08:44:30
3	Al 396.153Radial†	10324.4	10652.6	[10000]	ug/L	08:44:30
3	Ca 317.933Radial†	6007.8	6093.9	[10000]	ug/L	08:44:30
3	Fe 238.204 Radial†	1093.8	1101.0	[10000]	ug/L	08:44:50
3	K 766.490 Radial†	58317.7	56489.9	[10000]	ug/L	08:44:30
3	Mg 279.077 IEC†	286.3	290.8	[10000]	ug/L	08:44:50
3	Na 589.592 Radial†	30496.2	32096.5	[10000]	ug/L	08:44:30
3	Sr 421.552†	139363.7	141746.0	[1000]	ug/L	08:44:30
3	Sc 361.383	842372.6	842372.6	97.712	%	08:46:06
3	Y 371.029	690532.3	690532.3	96.632	%	08:46:06
3	Ag 328.068†	208493.8	213146.4	[1000]	ug/L	08:46:06
3	As 188.979†	2124.1	2207.7	[1000]	ug/L	08:46:26
3	B 249.677†	40860.3	42356.0	[1000]	ug/L	08:46:06
3	Ba 233.527†	120205.6	123031.5	[1000]	ug/L	08:46:06
3	Be 313.107†	2629476.4	2695377.0	[1000]	ug/L	08:46:00
3	Cd 226.502†	82334.1	84473.6	[1000]	ug/L	08:46:06
3	Co 228.616†	44708.7	45829.2	[1000]	ug/L	08:46:26
3	Cr 267.716†	84347.2	86255.2	[1000]	ug/L	08:46:06
3	Cu 324.752†	328978.7	330860.1	[1000]	ug/L	08:46:06
3	Mn 257.610†	851417.5	870899.2	[1000]	ug/L	08:46:00
3	Mo 202.031†	13173.1	13466.0	[1000]	ug/L	08:46:26
3	Ni 231.604†	37963.9	38744.7	[1000]	ug/L	08:46:06
3	P 214.914†	8131.1	8093.4	[5000]	ug/L	08:46:26
3	Pb 220.353†	7807.9	8052.4	[1000]	ug/L	08:46:26
3	S 181.975 Axial†	1389.6	1382.8	[2000]	ug/L	08:46:26
3	Sb 206.836†	2872.5	2897.6	[1000]	ug/L	08:46:26
3	Se 196.026†	1440.2	1496.0	[1000]	ug/L	08:46:26
3	Si 251.611†	147526.0	150417.7	[5000]	ug/L	08:46:06
3	Sn 189.927†	5308.9	5424.5	[1000]	ug/L	08:46:26
3	Ti 334.940†	604327.6	619779.4	[1000]	ug/L	08:46:06
3	Tl 190.801†	3026.4	3131.5	[1000]	ug/L	08:46:26
3	U 409.014†	30851.3	34553.6	[1000]	ug/L	08:46:06
3	V 292.402†	133616.4	138299.3	[1000]	ug/L	08:46:06
3	Zn 213.857†	100180.6	101812.8	[1000]	ug/L	08:46:06
3	SiO2†	147502.0	150372.2	[10695]	ug/L	08:46:41

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	845112.1	2575.15	0.30%	98.030	%
Sc Radial	4729.5	23.76	0.50%	98.4	%
Y 371.029	692717.2	2274.22	0.33%	96.937	%
Y RADIAL	4905.6	20.43	0.42%	98.10	%
Ag 328.068†	213105.4	46.42	0.02%	[1000]	ug/L
Al 396.153Radial†	10630.0	47.11	0.44%	[10000]	ug/L
As 188.979†	2206.0	9.07	0.41%	[1000]	ug/L
B 249.677†	42220.2	120.67	0.29%	[1000]	ug/L
Ba 233.527†	122687.8	364.75	0.30%	[1000]	ug/L
Be 313.107†	2691415.6	10036.70	0.37%	[1000]	ug/L
Ca 317.933Radial†	6100.2	34.82	0.57%	[10000]	ug/L
Cd 226.502†	84229.0	263.30	0.31%	[1000]	ug/L
Co 228.616†	45645.3	190.60	0.42%	[1000]	ug/L
Cr 267.716†	86068.1	173.02	0.20%	[1000]	ug/L
Cu 324.752†	331003.7	164.17	0.05%	[1000]	ug/L
Fe 238.204 Radial†	1098.5	6.65	0.60%	[10000]	ug/L
K 766.490 Radial†	56509.2	143.28	0.25%	[10000]	ug/L

Mg 279.077 IEC†	288.8	1.73	0.60%	[10000]	ug/L
Mn 257.610†	870641.7	4096.52	0.47%	[1000]	ug/L
Mo 202.031†	13426.5	44.68	0.33%	[1000]	ug/L
Na 589.592 Radial†	32208.6	98.29	0.31%	[10000]	ug/L
Ni 231.604†	38655.1	82.53	0.21%	[1000]	ug/L
P 214.914†	8068.8	30.34	0.38%	[5000]	ug/L
Pb 220.353†	8044.7	48.99	0.61%	[1000]	ug/L
S 181.975 Axial†	1380.4	3.67	0.27%	[2000]	ug/L
Sb 206.836†	2893.3	6.89	0.24%	[1000]	ug/L
Se 196.026†	1489.8	5.47	0.37%	[1000]	ug/L
Si 251.611†	150159.4	250.07	0.17%	[5000]	ug/L
Sn 189.927†	5414.8	14.32	0.26%	[1000]	ug/L
Sr 421.552†	142024.7	387.43	0.27%	[1000]	ug/L
Ti 334.940†	619331.2	601.10	0.10%	[1000]	ug/L
Tl 190.801†	3129.1	7.36	0.24%	[1000]	ug/L
U 409.014†	34563.4	87.91	0.25%	[1000]	ug/L
V 292.402†	138102.1	224.94	0.16%	[1000]	ug/L
Zn 213.857†	101520.3	299.50	0.30%	[1000]	ug/L
SiO2†	150810.5	896.53	0.59%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 08:48:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4695.4	4695.4	97.7	%	08:51:07
1	Y RADIAL	4853.4	4853.4	97.05	%	08:51:07
1	Al 396.153Radial†	52499.6	53897.9	[50000]	ug/L	08:50:46
1	Ca 317.933Radial†	29421.5	30103.4	[50000]	ug/L	08:50:46
1	Fe 238.204 Radial†	2152.2	2191.8	[20000]	ug/L	08:51:07
1	Mg 279.077 IEC†	1379.4	1411.7	[50000]	ug/L	08:51:07
1	Na 589.592 Radial†	63880.6	66476.2	[20000]	ug/L	08:50:46
1	Sc 361.383	861192.5	861192.5	99.895	%	08:52:04
1	Y 371.029	701296.9	701296.9	98.138	%	08:52:04
2	Sc Radial	4646.8	4646.8	96.7	%	08:51:32
2	Y RADIAL	4806.8	4806.8	96.12	%	08:51:32
2	Al 396.153Radial†	52103.7	54050.3	[50000]	ug/L	08:51:12
2	Ca 317.933Radial†	29244.8	30235.6	[50000]	ug/L	08:51:12
2	Fe 238.204 Radial†	2139.5	2201.7	[20000]	ug/L	08:51:32
2	Mg 279.077 IEC†	1362.4	1409.0	[50000]	ug/L	08:51:32
2	Na 589.592 Radial†	63493.3	66759.2	[20000]	ug/L	08:51:12
2	Sc 361.383	847329.2	847329.2	98.287	%	08:52:09
2	Y 371.029	690150.1	690150.1	96.578	%	08:52:09
3	Sc Radial	4671.9	4671.9	97.2	%	08:51:57
3	Y RADIAL	4842.7	4842.7	96.84	%	08:51:57
3	Al 396.153Radial†	52096.6	53753.9	[50000]	ug/L	08:51:37
3	Ca 317.933Radial†	29286.2	30115.9	[50000]	ug/L	08:51:37
3	Fe 238.204 Radial†	2151.0	2201.7	[20000]	ug/L	08:51:57
3	Mg 279.077 IEC†	1366.9	1406.0	[50000]	ug/L	08:51:57
3	Na 589.592 Radial†	63513.3	66427.5	[20000]	ug/L	08:51:37
3	Sc 361.383	854367.2	854367.2	99.104	%	08:52:15
3	Y 371.029	695943.9	695943.9	97.389	%	08:52:15

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	854296.3	6931.89	0.81%	99.095	%
Sc Radial	4671.4	24.29	0.52%	97.2	%
Y 371.029	695797.0	5574.82	0.80%	97.368	%
Y RADIAL	4834.3	24.41	0.51%	96.67	%
Al 396.153Radial†	53900.7	148.22	0.27%	[50000]	ug/L
Ca 317.933Radial†	30151.6	72.95	0.24%	[50000]	ug/L
Fe 238.204 Radial†	2198.4	5.71	0.26%	[20000]	ug/L
Mg 279.077 IEC†	1408.9	2.86	0.20%	[50000]	ug/L
Na 589.592 Radial†	66554.3	179.12	0.27%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	212.2	0.00000	0.999967	
Al 396.153Radial	3	Lin Thru 0	0.0	1.077	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.204	0.00000	0.999993	
B 249.677	3	Lin Thru 0	0.0	42.03	0.00000	0.999958	
Ba 233.527	3	Lin Thru 0	0.0	122.4	0.00000	0.999991	
Be 313.107	3	Lin Thru 0	0.0	2685	0.00000	0.999988	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6033	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	84.11	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	45.78	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	85.90	0.00000	0.999992	
Cu 324.752	3	Lin Thru 0	0.0	329.7	0.00000	0.999967	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1099	0.00000	1.000000	
K 766.490 Radial	3	Lin Thru 0	0.0	5.665	0.00000	0.999988	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0282	0.00000	0.999982
Mn 257.610	3	Lin Thru 0	0.0	869.2	0.00000	0.999992
Mo 202.031	3	Lin Thru 0	0.0	13.35	0.00000	0.999941
Na 589.592 Radia	2	Lin Thru 0	0.0	3.306	0.00000	0.999916
Ni 231.604	3	Lin Thru 0	0.0	38.60	0.00000	0.999996
P 214.914	3	Lin Thru 0	0.0	1.607	0.00000	0.999965
Pb 220.353	3	Lin Thru 0	0.0	8.016	0.00000	0.999973
S 181.975 Axial	3	Lin Thru 0	0.0	0.6858	0.00000	0.999919
Sb 206.836	3	Lin Thru 0	0.0	2.869	0.00000	0.999859
Se 196.026	3	Lin Thru 0	0.0	1.484	0.00000	0.999969
Si 251.611	3	Lin Thru 0	0.0	29.90	0.00000	0.999960
Sn 189.927	3	Lin Thru 0	0.0	5.389	0.00000	0.999954
Sr 421.552	3	Lin Thru 0	0.0	142.6	0.00000	0.999970
Ti 334.940	3	Lin Thru 0	0.0	616.5	0.00000	0.999956
Tl 190.801	3	Lin Thru 0	0.0	3.121	0.00000	0.999986
U 409.014	3	Lin Thru 0	0.0	34.49	0.00000	0.999990
V 292.402	3	Lin Thru 0	0.0	137.7	0.00000	0.999984
Zn 213.857	3	Lin Thru 0	0.0	101.4	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	14.02	0.00000	0.999934

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 08:54:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4905.6	4905.6	102	%			08:56:19
1	Y RADIAL	5074.8	5074.8	101.5	%			08:56:19
1	Al 396.153Radial†	5302.9	5347.8	4937.0	ug/L	4937.0	ppb	08:56:19
1	Ca 317.933Radial†	3082.5	3003.8	4978.6	ug/L	4978.6	ppb	08:56:39
1	Fe 238.204 Radial†	588.6	565.2	5158.2	ug/L	5158.2	ppb	08:56:39
1	K 766.490 Radial†	17137.1	13966.5	2461.9	ug/L	2461.9	ppb	08:56:19
1	Mg 279.077 IEC†	155.9	152.3	5398.3	ug/L	5398.3	ppb	08:56:39
1	Na 589.592 Radial†	7253.3	8185.8	2475.8	ug/L	2475.8	ppb	08:56:19
1	Sr 421.552†	76953.4	75402.4	528.77	ug/L	528.77	ppb	08:56:19
1	Sc 361.383	873788.1	873788.1	101.36	%			08:57:36
1	Y 371.029	717234.1	717234.1	100.37	%			08:57:36
1	Ag 328.068†	56636.5	55649.7	265.54	ug/L	265.54	ppb	08:57:36
1	As 188.979†	1022.6	1042.8	477.49	ug/L	477.49	ppb	08:57:56
1	B 249.677†	21580.4	21830.7	517.05	ug/L	517.05	ppb	08:57:36
1	Ba 233.527†	63501.3	62663.0	513.04	ug/L	513.04	ppb	08:57:36
1	Be 313.107†	707030.2	701906.9	262.60	ug/L	262.60	ppb	08:57:36
1	Cd 226.502†	41562.2	41217.8	489.92	ug/L	489.92	ppb	08:57:56
1	Co 228.616†	23689.4	23446.0	512.28	ug/L	512.28	ppb	08:57:56
1	Cr 267.716†	42742.3	42103.5	490.80	ug/L	490.80	ppb	08:57:36
1	Cu 324.752†	176399.1	168217.7	510.28	ug/L	510.28	ppb	08:57:36
1	Mn 257.610†	455363.7	448817.8	516.66	ug/L	516.66	ppb	08:57:36
1	Mo 202.031†	7358.7	7244.6	542.99	ug/L	542.99	ppb	08:57:56
1	Ni 231.604†	19796.8	19423.8	502.90	ug/L	502.90	ppb	08:57:56
1	P 214.914†	4305.1	4019.4	2402.0	ug/L	2402.0	ppb	08:57:56
1	Pb 220.353†	3992.1	4000.4	500.75	ug/L	500.75	ppb	08:57:56
1	S 181.975 Axial†	1769.3	1706.2	2487.1	ug/L	2487.1	ppb	08:57:56
1	Sb 206.836†	1509.3	1446.9	523.82	ug/L	523.82	ppb	08:57:56
1	Se 196.026†	3817.3	3788.3	2570.7	ug/L	2570.7	ppb	08:57:56
1	Si 251.611†	148189.5	145644.1	4864.9	ug/L	4864.9	ppb	08:57:36
1	Sn 189.927†	2959.8	2911.5	541.14	ug/L	541.14	ppb	08:57:56
1	Ti 334.940†	320077.4	317097.1	514.15	ug/L	514.15	ppb	08:57:36
1	Tl 190.801†	1634.7	1647.1	531.33	ug/L	531.33	ppb	08:57:56
1	U 409.014†	14498.9	17284.9	499.52	ug/L	499.52	ppb	08:57:36
1	V 292.402†	70050.0	70667.2	520.45	ug/L	520.45	ppb	08:57:36
1	Zn 213.857†	53831.7	52398.0	512.27	ug/L	512.27	ppb	08:57:36
1	SiO2†	145824.7	143290.0	10206	ug/L	10206	ppb	08:58:54
2	Sc Radial	4811.9	4811.9	100	%			08:56:44
2	Y RADIAL	4975.9	4975.9	99.50	%			08:56:44
2	Al 396.153Radial†	5291.0	5437.1	5020.0	ug/L	5020.0	ppb	08:56:44
2	Ca 317.933Radial†	3050.9	3031.0	5023.7	ug/L	5023.7	ppb	08:57:04
2	Fe 238.204 Radial†	577.7	565.6	5161.6	ug/L	5161.6	ppb	08:57:04
2	K 766.490 Radial†	17103.1	14259.5	2513.6	ug/L	2513.6	ppb	08:56:44
2	Mg 279.077 IEC†	152.7	152.1	5391.7	ug/L	5391.7	ppb	08:57:04
2	Na 589.592 Radial†	7234.7	8305.6	2512.0	ug/L	2512.0	ppb	08:56:44
2	Sr 421.552†	76606.4	76524.0	536.64	ug/L	536.64	ppb	08:56:44
2	Sc 361.383	874400.4	874400.4	101.43	%			08:58:02
2	Y 371.029	716650.7	716650.7	100.29	%			08:58:02
2	Ag 328.068†	56642.2	55616.2	265.39	ug/L	265.39	ppb	08:58:02
2	As 188.979†	1029.0	1048.4	480.04	ug/L	480.04	ppb	08:58:22
2	B 249.677†	21625.1	21859.8	517.75	ug/L	517.75	ppb	08:58:02
2	Ba 233.527†	63717.7	62832.5	514.42	ug/L	514.42	ppb	08:58:02
2	Be 313.107†	708671.1	703036.1	263.03	ug/L	263.03	ppb	08:58:02
2	Cd 226.502†	41421.0	41049.9	487.93	ug/L	487.93	ppb	08:58:22
2	Co 228.616†	23660.7	23401.4	511.30	ug/L	511.30	ppb	08:58:22
2	Cr 267.716†	42839.7	42170.0	491.57	ug/L	491.57	ppb	08:58:02
2	Cu 324.752†	176507.0	168202.2	510.24	ug/L	510.24	ppb	08:58:02
2	Mn 257.610†	456480.6	449604.3	517.57	ug/L	517.57	ppb	08:58:02
2	Mo 202.031†	7331.5	7212.8	540.61	ug/L	540.61	ppb	08:58:22
2	Ni 231.604†	19758.4	19372.3	501.57	ug/L	501.57	ppb	08:58:22

2	P 214.914†	4308.7	4020.0	2402.4 ug/L	2402.4 ppb	08:58:22
2	Pb 220.353†	3972.4	3978.2	498.00 ug/L	498.00 ppb	08:58:22
2	S 181.975 Axial†	1774.7	1710.3	2493.1 ug/L	2493.1 ppb	08:58:22
2	Sb 206.836†	1488.2	1425.1	516.11 ug/L	516.11 ppb	08:58:22
2	Se 196.026†	3809.7	3778.2	2564.0 ug/L	2564.0 ppb	08:58:22
2	Si 251.611†	148461.9	145810.2	4870.5 ug/L	4870.5 ppb	08:58:02
2	Sn 189.927†	2945.4	2895.2	538.14 ug/L	538.14 ppb	08:58:22
2	Ti 334.940†	320677.0	317467.1	514.76 ug/L	514.76 ppb	08:58:02
2	Tl 190.801†	1622.3	1633.7	527.05 ug/L	527.05 ppb	08:58:22
2	U 409.014†	14225.6	17005.4	491.41 ug/L	491.41 ppb	08:58:02
2	V 292.402†	70052.8	70621.6	520.07 ug/L	520.07 ppb	08:58:02
2	Zn 213.857†	53923.1	52451.0	512.80 ug/L	512.80 ppb	08:58:02
2	SiO2†	147354.2	144697.2	10307 ug/L	10307 ppb	08:58:59
3	Sc Radial	4748.9	4748.9	98.8 %		08:57:09
3	Y RADIAL	4894.7	4894.7	97.88 %		08:57:09
3	Al 396.153Radial†	5232.4	5447.8	5029.8 ug/L	5029.8 ppb	08:57:09
3	Ca 317.933Radial†	3082.4	3103.3	5143.5 ug/L	5143.5 ppb	08:57:29
3	Fe 238.204 Radial†	583.7	579.3	5286.2 ug/L	5286.2 ppb	08:57:29
3	K 766.490 Radial†	16918.7	14299.5	2520.6 ug/L	2520.6 ppb	08:57:09
3	Mg 279.077 IEC†	155.2	156.7	5554.2 ug/L	5554.2 ppb	08:57:29
3	Na 589.592 Radial†	7120.5	8285.9	2506.1 ug/L	2506.1 ppb	08:57:09
3	Sr 421.552†	75948.0	76872.9	539.08 ug/L	539.08 ppb	08:57:09
3	Sc 361.383	869718.4	869718.4	100.88 %		08:58:28
3	Y 371.029	712306.4	712306.4	99.679 %		08:58:28
3	Ag 328.068†	56276.0	55553.9	265.13 ug/L	265.13 ppb	08:58:28
3	As 188.979†	1024.1	1049.0	480.31 ug/L	480.31 ppb	08:58:48
3	B 249.677†	21376.6	21728.2	514.59 ug/L	514.59 ppb	08:58:28
3	Ba 233.527†	63178.6	62636.4	512.82 ug/L	512.82 ppb	08:58:28
3	Be 313.107†	700526.7	698724.5	261.42 ug/L	261.42 ppb	08:58:28
3	Cd 226.502†	41512.2	41360.2	491.61 ug/L	491.61 ppb	08:58:48
3	Co 228.616†	23706.4	23572.3	515.04 ug/L	515.04 ppb	08:58:48
3	Cr 267.716†	42447.0	42008.1	489.68 ug/L	489.68 ppb	08:58:28
3	Cu 324.752†	175323.2	167965.5	509.52 ug/L	509.52 ppb	08:58:28
3	Mn 257.610†	453146.5	448722.3	516.56 ug/L	516.56 ppb	08:58:28
3	Mo 202.031†	7356.9	7276.8	545.42 ug/L	545.42 ppb	08:58:48
3	Ni 231.604†	19792.0	19510.5	505.14 ug/L	505.14 ppb	08:58:48
3	P 214.914†	4302.8	4037.0	2413.1 ug/L	2413.1 ppb	08:58:48
3	Pb 220.353†	3982.1	4008.9	501.83 ug/L	501.83 ppb	08:58:48
3	S 181.975 Axial†	1779.6	1724.6	2514.0 ug/L	2514.0 ppb	08:58:48
3	Sb 206.836†	1495.1	1439.8	521.41 ug/L	521.41 ppb	08:58:48
3	Se 196.026†	3808.7	3797.5	2577.4 ug/L	2577.4 ppb	08:58:48
3	Si 251.611†	147504.4	145649.0	4865.0 ug/L	4865.0 ppb	08:58:28
3	Sn 189.927†	2952.3	2917.8	542.33 ug/L	542.33 ppb	08:58:48
3	Ti 334.940†	318577.8	317088.3	514.14 ug/L	514.14 ppb	08:58:28
3	Tl 190.801†	1644.0	1663.8	536.68 ug/L	536.68 ppb	08:58:48
3	U 409.014†	14423.0	17276.6	499.27 ug/L	499.27 ppb	08:58:28
3	V 292.402†	69539.9	70484.9	519.15 ug/L	519.15 ppb	08:58:28
3	Zn 213.857†	53523.5	52341.0	511.67 ug/L	511.67 ppb	08:58:28
3	SiO2†	146121.4	144257.4	10275 ug/L	10275 ppb	08:59:04

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	872635.6	101.22	%	0.295				0.29%
Sc Radial	4822.2	100	%	1.6				1.64%
Y 371.029	715397.0	100.11	%	0.377				0.38%
Y RADIAL	4981.8	99.62	%	1.803				1.81%
Ag 328.068†	55606.6	265.35	ug/L	0.210	265.35	ppb	0.210	0.08%
QC value within limits for Ag 328.068 Recovery = 106.14%								
Al 396.153Radial†	5410.9	4995.6	ug/L	50.98	4995.6	ppb	50.98	1.02%
QC value within limits for Al 396.153Radial Recovery = 99.91%								
As 188.979†	1046.7	479.28	ug/L	1.556	479.28	ppb	1.556	0.32%
QC value within limits for As 188.979 Recovery = 95.86%								
B 249.677†	21806.2	516.46	ug/L	1.661	516.46	ppb	1.661	0.32%
QC value within limits for B 249.677 Recovery = 103.29%								
Ba 233.527†	62710.6	513.43	ug/L	0.868	513.43	ppb	0.868	0.17%
QC value within limits for Ba 233.527 Recovery = 102.69%								
Be 313.107†	701222.5	262.35	ug/L	0.833	262.35	ppb	0.833	0.32%
QC value within limits for Be 313.107 Recovery = 104.94%								
Ca 317.933Radial†	3046.0	5048.6	ug/L	85.23	5048.6	ppb	85.23	1.69%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.97%
Cd 226.502†            41209.3      489.82 ug/L         1.842      489.82 ppb          1.842   0.38%
   QC value within limits for Cd 226.502  Recovery = 97.96%
Co 228.616†            23473.2      512.88 ug/L         1.941      512.88 ppb          1.941   0.38%
   QC value within limits for Co 228.616  Recovery = 102.58%
Cr 267.716†            42093.9      490.68 ug/L         0.948      490.68 ppb          0.948   0.19%
   QC value within limits for Cr 267.716  Recovery = 98.14%
Cu 324.752†           168128.5      510.01 ug/L         0.426      510.01 ppb          0.426   0.08%
   QC value within limits for Cu 324.752  Recovery = 102.00%
Fe 238.204 Radial†       570.0      5202.0 ug/L         72.97      5202.0 ppb          72.97   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.04%
K 766.490 Radial†      14175.2      2498.7 ug/L         32.06      2498.7 ppb          32.06   1.28%
   QC value within limits for K 766.490 Radial  Recovery = 99.95%
Mg 279.077 IEC†          153.7      5448.0 ug/L         91.98      5448.0 ppb          91.98   1.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.96%
Mn 257.610†           449048.1      516.93 ug/L         0.555      516.93 ppb          0.555   0.11%
   QC value within limits for Mn 257.610  Recovery = 103.39%
Mo 202.031†             7244.8      543.01 ug/L         2.403      543.01 ppb          2.403   0.44%
   QC value within limits for Mo 202.031  Recovery = 108.60%
Na 589.592 Radial†      8259.1      2498.0 ug/L         19.43      2498.0 ppb          19.43   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 99.92%
Ni 231.604†            19435.5      503.20 ug/L         1.808      503.20 ppb          1.808   0.36%
   QC value within limits for Ni 231.604  Recovery = 100.64%
P 214.914†              4025.5      2405.9 ug/L          6.28      2405.9 ppb           6.28   0.26%
   QC value within limits for P 214.914  Recovery = 96.23%
Pb 220.353†             3995.8      500.20 ug/L         1.976      500.20 ppb          1.976   0.40%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†        1713.7      2498.1 ug/L         14.09      2498.1 ppb          14.09   0.56%
   QC value within limits for S 181.975 Axial  Recovery = 99.92%
Sb 206.836†             1437.3      520.45 ug/L         3.943      520.45 ppb          3.943   0.76%
   QC value within limits for Sb 206.836  Recovery = 104.09%
Se 196.026†             3788.0      2570.7 ug/L          6.70      2570.7 ppb           6.70   0.26%
   QC value within limits for Se 196.026  Recovery = 102.83%
Si 251.611†           145701.1      4866.8 ug/L          3.19      4866.8 ppb           3.19   0.07%
   QC value within limits for Si 251.611  Recovery = 97.34%
Sn 189.927†             2908.2      540.54 ug/L         2.164      540.54 ppb          2.164   0.40%
   QC value within limits for Sn 189.927  Recovery = 108.11%
Sr 421.552†            76266.4      534.83 ug/L         5.388      534.83 ppb          5.388   1.01%
   QC value within limits for Sr 421.552  Recovery = 106.97%
Ti 334.940†           317217.5      514.35 ug/L         0.353      514.35 ppb          0.353   0.07%
   QC value within limits for Ti 334.940  Recovery = 102.87%
Tl 190.801†             1648.2      531.69 ug/L         4.824      531.69 ppb          4.824   0.91%
   QC value within limits for Tl 190.801  Recovery = 106.34%
U 409.014†             17189.0      496.73 ug/L         4.609      496.73 ppb          4.609   0.93%
   QC value within limits for U 409.014  Recovery = 99.35%
V 292.402†             70591.2      519.89 ug/L         0.671      519.89 ppb          0.671   0.13%
   QC value within limits for V 292.402  Recovery = 103.98%
Zn 213.857†            52396.7      512.24 ug/L         0.563      512.24 ppb          0.563   0.11%
   QC value within limits for Zn 213.857  Recovery = 102.45%
SiO2†                 144081.5       10263 ug/L          51.4       10263 ppb           51.4   0.50%
   QC value within limits for SiO2  Recovery = 95.96%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 09:01:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4463.4	4463.4	92.9	%			09:03:28
1	Y RADIAL	4975.7	4975.7	99.50	%			09:03:08
1	Al 396.153Radial†	-156.5	-16.9	-15.754	ug/L	-15.754	ppb	09:03:08
1	Ca 317.933Radial†	11.9	-3.9	-6.4667	ug/L	-6.4667	ppb	09:03:28
1	Fe 238.204 Radial†	10.6	-0.1	-0.8067	ug/L	-0.8067	ppb	09:03:28
1	K 766.490 Radial†	2826.0	217.8	38.456	ug/L	38.456	ppb	09:03:08
1	Mg 279.077 IEC†	0.2	-0.2	-6.2996	ug/L	-6.2996	ppb	09:03:28
1	Na 589.592 Radial†	-1053.8	-56.3	-17.043	ug/L	-17.043	ppb	09:03:08
1	Sr 421.552†	-24.9	-28.9	-0.2027	ug/L	-0.2027	ppb	09:03:08
1	Sc 361.383	857807.6	857807.6	99.503	%			09:04:25
1	Y 371.029	712009.8	712009.8	99.637	%			09:04:25
1	Ag 328.068†	317.2	90.0	0.4255	ug/L	0.4255	ppb	09:04:25
1	As 188.979†	-27.3	6.4	2.9004	ug/L	2.9004	ppb	09:04:45
1	B 249.677†	-220.3	317.7	7.5577	ug/L	7.5577	ppb	09:04:45
1	Ba 233.527†	-9.1	2.4	0.0201	ug/L	0.0201	ppb	09:04:45
1	Be 313.107†	-4212.6	105.0	0.0392	ug/L	0.0392	ppb	09:04:25
1	Cd 226.502†	-191.9	19.1	0.2266	ug/L	0.2266	ppb	09:04:45
1	Co 228.616†	-69.7	3.6	0.0807	ug/L	0.0807	ppb	09:04:45
1	Cr 267.716†	73.5	7.1	0.0833	ug/L	0.0833	ppb	09:04:45
1	Cu 324.752†	5711.7	-80.5	-0.2432	ug/L	-0.2432	ppb	09:04:25
1	Mn 257.610†	467.4	17.8	0.0207	ug/L	0.0207	ppb	09:04:45
1	Mo 202.031†	24.4	9.0	0.6720	ug/L	0.6720	ppb	09:04:45
1	Ni 231.604†	118.2	10.8	0.2797	ug/L	0.2797	ppb	09:04:45
1	P 214.914†	238.1	11.2	7.0228	ug/L	7.0228	ppb	09:04:45
1	Pb 220.353†	-52.2	9.2	1.1474	ug/L	1.1474	ppb	09:04:45
1	S 181.975 Axial†	38.2	-0.9	-1.3462	ug/L	-1.3462	ppb	09:04:45
1	Sb 206.836†	42.0	0.0	0.0608	ug/L	0.0608	ppb	09:04:45
1	Se 196.026†	-11.6	10.4	7.0202	ug/L	7.0202	ppb	09:04:45
1	Si 251.611†	592.7	33.4	1.1087	ug/L	1.1087	ppb	09:04:45
1	Sn 189.927†	18.7	10.1	1.8668	ug/L	1.8668	ppb	09:04:45
1	Ti 334.940†	-1285.2	11.5	0.0191	ug/L	0.0191	ppb	09:04:25
1	Tl 190.801†	-32.7	1.3	0.4275	ug/L	0.4275	ppb	09:04:45
1	U 409.014†	-3025.0	-60.0	-1.7407	ug/L	-1.7407	ppb	09:04:25
1	V 292.402†	-1534.5	12.5	0.0969	ug/L	0.0969	ppb	09:04:25
1	Zn 213.857†	734.2	24.6	0.2411	ug/L	0.2411	ppb	09:04:45
1	SiO2†	597.5	17.4	1.2203	ug/L	1.2203	ppb	09:05:41
2	Sc Radial	4447.0	4447.0	92.5	%			09:03:53
2	Y RADIAL	5012.0	5012.0	100.2	%			09:03:33
2	Al 396.153Radial†	-160.5	-21.9	-20.358	ug/L	-20.358	ppb	09:03:33
2	Ca 317.933Radial†	8.4	-7.6	-12.558	ug/L	-12.558	ppb	09:03:53
2	Fe 238.204 Radial†	11.4	0.8	7.5755	ug/L	7.5755	ppb	09:03:53
2	K 766.490 Radial†	2879.4	286.8	50.636	ug/L	50.636	ppb	09:03:33
2	Mg 279.077 IEC†	2.9	2.8	98.302	ug/L	98.302	ppb	09:03:53
2	Na 589.592 Radial†	-1083.3	-92.5	-27.971	ug/L	-27.971	ppb	09:03:33
2	Sr 421.552†	7.8	6.4	0.0448	ug/L	0.0448	ppb	09:03:33
2	Sc 361.383	852551.0	852551.0	98.893	%			09:04:50
2	Y 371.029	706796.0	706796.0	98.908	%			09:04:50
2	Ag 328.068†	303.4	78.0	0.3677	ug/L	0.3677	ppb	09:04:50
2	As 188.979†	-27.4	6.2	2.8015	ug/L	2.8015	ppb	09:05:10
2	B 249.677†	-267.0	269.1	6.4009	ug/L	6.4009	ppb	09:05:10
2	Ba 233.527†	-2.6	8.9	0.0730	ug/L	0.0730	ppb	09:05:10
2	Be 313.107†	-4306.5	-16.0	-0.0057	ug/L	-0.0057	ppb	09:04:50
2	Cd 226.502†	-200.8	8.9	0.1051	ug/L	0.1051	ppb	09:05:10
2	Co 228.616†	-76.7	-3.9	-0.0842	ug/L	-0.0842	ppb	09:05:10
2	Cr 267.716†	55.4	-10.8	-0.1268	ug/L	-0.1268	ppb	09:05:10
2	Cu 324.752†	5786.9	30.9	0.0926	ug/L	0.0926	ppb	09:04:50
2	Mn 257.610†	465.2	18.5	0.0180	ug/L	0.0180	ppb	09:05:10
2	Mo 202.031†	17.5	2.1	0.1589	ug/L	0.1589	ppb	09:05:10
2	Ni 231.604†	99.4	-7.5	-0.1939	ug/L	-0.1939	ppb	09:05:10

2	P 214.914†	221.7	-3.9	-2.4313	ug/L	-2.4313 ppb	09:05:10
2	Pb 220.353†	-56.7	4.4	0.5401	ug/L	0.5401 ppb	09:05:10
2	S 181.975 Axial†	40.0	1.1	1.6221	ug/L	1.6221 ppb	09:05:10
2	Sb 206.836†	31.7	-10.0	-3.5083	ug/L	-3.5083 ppb	09:05:10
2	Se 196.026†	-16.2	5.7	3.8786	ug/L	3.8786 ppb	09:05:10
2	Si 251.611†	585.5	29.8	0.9939	ug/L	0.9939 ppb	09:05:10
2	Sn 189.927†	5.5	-3.1	-0.5828	ug/L	-0.5828 ppb	09:05:10
2	Ti 334.940†	-1211.4	78.2	0.1160	ug/L	0.1160 ppb	09:04:50
2	Tl 190.801†	-27.7	6.2	1.9824	ug/L	1.9824 ppb	09:05:10
2	U 409.014†	-2853.3	94.8	2.7475	ug/L	2.7475 ppb	09:04:50
2	V 292.402†	-1545.4	-8.0	-0.0500	ug/L	-0.0500 ppb	09:04:50
2	Zn 213.857†	713.3	8.1	0.0796	ug/L	0.0796 ppb	09:05:10
2	SiO2†	598.4	21.9	1.5600	ug/L	1.5600 ppb	09:05:46
3	Sc Radial	4475.5	4475.5	93.1	%		09:04:18
3	Y RADIAL	5015.8	5015.8	100.3	%		09:03:58
3	Al 396.153Radial†	-137.6	3.8	3.5080	ug/L	3.5080 ppb	09:03:58
3	Ca 317.933Radial†	18.6	3.2	5.3351	ug/L	5.3351 ppb	09:04:18
3	Fe 238.204 Radial†	12.0	1.4	12.650	ug/L	12.650 ppb	09:04:18
3	K 766.490 Radial†	2880.9	268.5	47.410	ug/L	47.410 ppb	09:03:58
3	Mg 279.077 IEC†	1.0	0.6	22.919	ug/L	22.919 ppb	09:04:18
3	Na 589.592 Radial†	-1130.6	-135.8	-41.067	ug/L	-41.067 ppb	09:03:58
3	Sr 421.552†	-25.0	-28.9	-0.2030	ug/L	-0.2030 ppb	09:03:58
3	Sc 361.383	861208.5	861208.5	99.897	%		09:05:15
3	Y 371.029	713423.0	713423.0	99.835	%		09:05:15
3	Ag 328.068†	278.9	50.4	0.2438	ug/L	0.2438 ppb	09:05:15
3	As 188.979†	-15.0	18.9	8.5754	ug/L	8.5754 ppb	09:05:36
3	B 249.677†	-286.4	252.4	6.0010	ug/L	6.0010 ppb	09:05:36
3	Ba 233.527†	2.0	13.6	0.1121	ug/L	0.1121 ppb	09:05:36
3	Be 313.107†	-4302.7	31.6	0.0116	ug/L	0.0116 ppb	09:05:15
3	Cd 226.502†	-200.1	11.6	0.1370	ug/L	0.1370 ppb	09:05:36
3	Co 228.616†	-61.8	11.9	0.2603	ug/L	0.2603 ppb	09:05:36
3	Cr 267.716†	73.8	7.1	0.0838	ug/L	0.0838 ppb	09:05:36
3	Cu 324.752†	5825.9	11.2	0.0349	ug/L	0.0349 ppb	09:05:15
3	Mn 257.610†	475.0	23.6	0.0275	ug/L	0.0275 ppb	09:05:36
3	Mo 202.031†	18.9	3.4	0.2523	ug/L	0.2523 ppb	09:05:36
3	Ni 231.604†	112.3	4.4	0.1144	ug/L	0.1144 ppb	09:05:36
3	P 214.914†	228.8	1.0	0.6167	ug/L	0.6167 ppb	09:05:36
3	Pb 220.353†	-60.4	1.3	0.1626	ug/L	0.1626 ppb	09:05:36
3	S 181.975 Axial†	44.2	4.9	7.1398	ug/L	7.1398 ppb	09:05:36
3	Sb 206.836†	38.4	-3.7	-1.2850	ug/L	-1.2850 ppb	09:05:36
3	Se 196.026†	-15.1	7.0	4.7421	ug/L	4.7421 ppb	09:05:36
3	Si 251.611†	586.3	24.6	0.8199	ug/L	0.8199 ppb	09:05:36
3	Sn 189.927†	12.2	3.5	0.6598	ug/L	0.6598 ppb	09:05:36
3	Ti 334.940†	-1333.3	-31.5	-0.0520	ug/L	-0.0520 ppb	09:05:15
3	Tl 190.801†	-25.1	9.1	2.9150	ug/L	2.9150 ppb	09:05:36
3	U 409.014†	-2998.1	-21.1	-0.6147	ug/L	-0.6147 ppb	09:05:15
3	V 292.402†	-1496.3	56.8	0.4134	ug/L	0.4134 ppb	09:05:15
3	Zn 213.857†	712.6	0.1	-0.0016	ug/L	-0.0016 ppb	09:05:36
3	SiO2†	614.9	32.4	2.3073	ug/L	2.3073 ppb	09:05:51

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857189.0	99.431	%	0.5059				0.51%
Sc Radial	4462.0	92.8	%	0.30				0.32%
Y 371.029	710743.0	99.460	%	0.4884				0.49%
Y RADIAL	5001.2	100.0	%	0.44				0.44%
Ag 328.068†	72.8	0.3457	ug/L	0.09286	0.3457	ppb	0.09286	26.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.7	-10.868	ug/L	12.6609	-10.868	ppb	12.6609	116.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	10.5	4.7591	ug/L	3.30538	4.7591	ppb	3.30538	69.45%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	279.7	6.6532	ug/L	0.80844	6.6532	ppb	0.80844	12.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.3	0.0684	ug/L	0.04618	0.0684	ppb	0.04618	67.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	40.2	0.0151	ug/L	0.02261	0.0151	ppb	0.02261	150.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.8	-4.5632	ug/L	9.09720	-4.5632	ppb	9.09720	199.36%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.2      0.1563 ug/L       0.06300      0.1563 ppb        0.06300  40.32%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.9      0.0856 ug/L       0.17231      0.0856 ppb        0.17231 201.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.1      0.0135 ug/L       0.12144      0.0135 ppb        0.12144 902.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -12.8     -0.0386 ug/L       0.17956     -0.0386 ppb        0.17956 465.74%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      6.4729 ug/L       6.79576      6.4729 ppb        6.79576 104.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         257.7     45.501 ug/L        6.3105     45.501 ppb         6.3105  13.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1     38.307 ug/L       53.9719     38.307 ppb        53.9719 140.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                20.0      0.0221 ug/L       0.00489      0.0221 ppb        0.00489  22.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.8      0.3611 ug/L       0.27332      0.3611 ppb        0.27332  75.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -94.9    -28.694 ug/L       12.0284    -28.694 ppb        12.0284  41.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.6      0.0667 ug/L       0.24039      0.0667 ppb        0.24039 360.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.8      1.7361 ug/L       4.82541      1.7361 ppb        4.82541 277.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.0      0.6167 ug/L       0.49687      0.6167 ppb        0.49687  80.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.7      2.4719 ug/L       4.30637      2.4719 ppb        4.30637 174.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.6     -1.5775 ug/L       1.80244     -1.5775 ppb        1.80244 114.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.7      5.2136 ug/L       1.62300      5.2136 ppb        1.62300  31.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.3      0.9742 ug/L       0.14539      0.9742 ppb        0.14539  14.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.6479 ug/L       1.22488      0.6479 ppb        1.22488 189.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -17.2     -0.1203 ug/L       0.14301     -0.1203 ppb        0.14301 118.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                19.4      0.0277 ug/L       0.08430      0.0277 ppb        0.08430 304.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.5      1.7750 ug/L       1.25664      1.7750 ppb        1.25664  70.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  4.5      0.1307 ug/L       2.33507      0.1307 ppb        2.33507 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.4      0.1534 ug/L       0.23680      0.1534 ppb        0.23680 154.34%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                10.9      0.1064 ug/L       0.12355      0.1064 ppb        0.12355 116.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      23.9      1.6959 ug/L       0.55610      1.6959 ppb        0.55610  32.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/11/2010 09:08:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4822.5	4822.5	100	%			09:09:56
1	Y RADIAL	5023.6	5023.6	100.5	%			09:09:56
1	Al 396.153Radial†	60.8	212.2	196.44	ug/L	196.44	ppb	09:09:56
1	Ca 317.933Radial†	140.1	122.9	203.75	ug/L	203.75	ppb	09:10:16
1	Fe 238.204 Radial†	22.7	11.2	101.69	ug/L	101.69	ppb	09:10:16
1	K 766.490 Radial†	3634.0	796.6	140.40	ug/L	140.40	ppb	09:09:56
1	Mg 279.077 IEC†	10.4	9.9	351.66	ug/L	351.66	ppb	09:10:16
1	Na 589.592 Radial†	-48.1	1030.5	311.68	ug/L	311.68	ppb	09:09:56
1	Sr 421.552†	720.1	715.6	5.0172	ug/L	5.0172	ppb	09:09:56
1	Sc 361.383	845854.5	845854.5	98.116	%			09:11:13
1	Y 371.029	711995.2	711995.2	99.635	%			09:11:13
1	Ag 328.068†	1392.8	1190.8	5.6181	ug/L	5.6181	ppb	09:11:13
1	As 188.979†	38.4	73.0	33.161	ug/L	33.161	ppb	09:11:33
1	B 249.677†	1668.3	2239.4	53.244	ug/L	53.244	ppb	09:11:13
1	Ba 233.527†	607.3	630.6	5.1636	ug/L	5.1636	ppb	09:11:33
1	Be 313.107†	8856.1	13364.9	4.9893	ug/L	4.9893	ppb	09:11:13
1	Cd 226.502†	217.7	433.8	5.1609	ug/L	5.1609	ppb	09:11:33
1	Co 228.616†	159.1	235.9	5.1655	ug/L	5.1655	ppb	09:11:33
1	Cr 267.716†	478.1	420.5	4.8831	ug/L	4.8831	ppb	09:11:33
1	Cu 324.752†	9191.8	3547.5	10.737	ug/L	10.737	ppb	09:11:13
1	Mn 257.610†	9505.9	9236.5	10.622	ug/L	10.622	ppb	09:11:13
1	Mo 202.031†	154.9	142.3	10.670	ug/L	10.670	ppb	09:11:33
1	Ni 231.604†	298.0	195.7	5.0674	ug/L	5.0674	ppb	09:11:33
1	P 214.914†	465.2	246.1	151.07	ug/L	151.07	ppb	09:11:33
1	Pb 220.353†	24.8	87.0	10.907	ug/L	10.907	ppb	09:11:33
1	S 181.975 Axial†	105.7	68.4	99.701	ug/L	99.701	ppb	09:11:33
1	Sb 206.836†	68.4	27.6	10.005	ug/L	10.005	ppb	09:11:33
1	Se 196.026†	30.6	53.3	36.307	ug/L	36.307	ppb	09:11:33
1	Si 251.611†	3421.7	2925.2	97.711	ug/L	97.711	ppb	09:11:33
1	Sn 189.927†	69.3	62.0	11.534	ug/L	11.534	ppb	09:11:33
1	Ti 334.940†	1750.6	3087.4	4.9811	ug/L	4.9811	ppb	09:11:13
1	Tl 190.801†	36.1	71.0	22.819	ug/L	22.819	ppb	09:11:33
1	U 409.014†	-1119.5	1839.1	53.304	ug/L	53.304	ppb	09:11:13
1	V 292.402†	-876.1	661.7	5.0428	ug/L	5.0428	ppb	09:11:13
1	Zn 213.857†	1733.3	1053.3	10.330	ug/L	10.330	ppb	09:11:33
1	SiO2†	3516.5	3000.9	213.77	ug/L	213.77	ppb	09:12:29
2	Sc Radial	4686.9	4686.9	97.5	%			09:10:21
2	Y RADIAL	4883.4	4883.4	97.65	%			09:10:21
2	Al 396.153Radial†	45.9	198.7	183.91	ug/L	183.91	ppb	09:10:21
2	Ca 317.933Radial†	135.0	121.8	201.83	ug/L	201.83	ppb	09:10:41
2	Fe 238.204 Radial†	21.2	10.3	93.435	ug/L	93.435	ppb	09:10:41
2	K 766.490 Radial†	3692.7	961.6	169.54	ug/L	169.54	ppb	09:10:21
2	Mg 279.077 IEC†	10.7	10.6	375.58	ug/L	375.58	ppb	09:10:41
2	Na 589.592 Radial†	-66.5	1010.3	305.56	ug/L	305.56	ppb	09:10:21
2	Sr 421.552†	705.2	721.2	5.0561	ug/L	5.0561	ppb	09:10:21
2	Sc 361.383	843797.3	843797.3	97.878	%			09:11:38
2	Y 371.029	708306.1	708306.1	99.119	%			09:11:38
2	Ag 328.068†	1414.5	1216.4	5.7439	ug/L	5.7439	ppb	09:11:38
2	As 188.979†	36.6	71.2	32.359	ug/L	32.359	ppb	09:11:58
2	B 249.677†	1656.1	2231.0	53.046	ug/L	53.046	ppb	09:11:38
2	Ba 233.527†	605.4	630.1	5.1602	ug/L	5.1602	ppb	09:11:58
2	Be 313.107†	8754.4	13282.9	4.9592	ug/L	4.9592	ppb	09:11:38
2	Cd 226.502†	222.3	439.0	5.2221	ug/L	5.2221	ppb	09:11:58
2	Co 228.616†	155.9	233.0	5.0992	ug/L	5.0992	ppb	09:11:58
2	Cr 267.716†	511.4	455.8	5.2970	ug/L	5.2970	ppb	09:11:58
2	Cu 324.752†	9154.0	3531.8	10.693	ug/L	10.693	ppb	09:11:38
2	Mn 257.610†	9361.9	9113.0	10.479	ug/L	10.479	ppb	09:11:38
2	Mo 202.031†	142.1	129.7	9.7192	ug/L	9.7192	ppb	09:11:58
2	Ni 231.604†	313.3	212.1	5.4916	ug/L	5.4916	ppb	09:11:58

2	P 214.914†	470.4	252.5	155.07 ug/L	155.07 ppb	09:11:58
2	Pb 220.353†	11.7	73.7	9.2442 ug/L	9.2442 ppb	09:11:58
2	S 181.975 Axial†	106.5	69.5	101.24 ug/L	101.24 ppb	09:11:58
2	Sb 206.836†	54.4	13.4	5.0308 ug/L	5.0308 ppb	09:11:58
2	Se 196.026†	29.1	51.9	35.283 ug/L	35.283 ppb	09:11:58
2	Si 251.611†	3426.7	2938.7	98.177 ug/L	98.177 ppb	09:11:58
2	Sn 189.927†	64.1	56.8	10.576 ug/L	10.576 ppb	09:11:58
2	Ti 334.940†	1840.2	3183.3	5.1376 ug/L	5.1376 ppb	09:11:38
2	Tl 190.801†	31.2	66.0	21.222 ug/L	21.222 ppb	09:11:58
2	U 409.014†	-1373.8	1576.5	45.691 ug/L	45.691 ppb	09:11:38
2	V 292.402†	-815.8	721.2	5.4482 ug/L	5.4482 ppb	09:11:38
2	Zn 213.857†	1742.6	1067.1	10.464 ug/L	10.464 ppb	09:11:58
2	SiO2†	3498.1	2990.8	213.07 ug/L	213.07 ppb	09:12:34
3	Sc Radial	4965.1	4965.1	103 %		09:10:46
3	Y RADIAL	5174.6	5174.6	103.5 %		09:10:46
3	Al 396.153Radial†	76.0	225.2	208.49 ug/L	208.49 ppb	09:10:46
3	Ca 317.933Radial†	141.0	119.8	198.50 ug/L	198.50 ppb	09:11:06
3	Fe 238.204 Radial†	19.2	7.1	64.842 ug/L	64.842 ppb	09:11:06
3	K 766.490 Radial†	3608.1	667.5	117.63 ug/L	117.63 ppb	09:10:46
3	Mg 279.077 IEC†	11.2	10.4	368.05 ug/L	368.05 ppb	09:11:06
3	Na 589.592 Radial†	-110.4	971.7	293.88 ug/L	293.88 ppb	09:10:46
3	Sr 421.552†	768.4	741.9	5.2013 ug/L	5.2013 ppb	09:10:46
3	Sc 361.383	838794.7	838794.7	97.297 %		09:12:04
3	Y 371.029	701118.5	701118.5	98.113 %		09:12:04
3	Ag 328.068†	1246.7	1052.6	4.9594 ug/L	4.9594 ppb	09:12:04
3	As 188.979†	33.1	67.9	30.824 ug/L	30.824 ppb	09:12:24
3	B 249.677†	1601.6	2185.1	51.959 ug/L	51.959 ppb	09:12:04
3	Ba 233.527†	601.2	629.5	5.1542 ug/L	5.1542 ppb	09:12:24
3	Be 313.107†	8736.0	13317.4	4.9714 ug/L	4.9714 ppb	09:12:04
3	Cd 226.502†	217.1	435.0	5.1785 ug/L	5.1785 ppb	09:12:24
3	Co 228.616†	152.0	229.9	5.0349 ug/L	5.0349 ppb	09:12:24
3	Cr 267.716†	502.8	450.0	5.2278 ug/L	5.2278 ppb	09:12:24
3	Cu 324.752†	9046.5	3477.1	10.524 ug/L	10.524 ppb	09:12:04
3	Mn 257.610†	9345.5	9153.2	10.522 ug/L	10.522 ppb	09:12:04
3	Mo 202.031†	146.5	135.1	10.122 ug/L	10.122 ppb	09:12:24
3	Ni 231.604†	312.8	213.4	5.5264 ug/L	5.5264 ppb	09:12:24
3	P 214.914†	473.4	258.4	158.79 ug/L	158.79 ppb	09:12:24
3	Pb 220.353†	22.3	84.6	10.621 ug/L	10.621 ppb	09:12:24
3	S 181.975 Axial†	107.8	71.5	104.16 ug/L	104.16 ppb	09:12:24
3	Sb 206.836†	74.3	34.2	12.248 ug/L	12.248 ppb	09:12:24
3	Se 196.026†	28.1	51.0	34.616 ug/L	34.616 ppb	09:12:24
3	Si 251.611†	3427.0	2959.9	98.881 ug/L	98.881 ppb	09:12:24
3	Sn 189.927†	46.9	39.6	7.3719 ug/L	7.3719 ppb	09:12:24
3	Ti 334.940†	1667.1	3016.6	4.8658 ug/L	4.8658 ppb	09:12:04
3	Tl 190.801†	24.2	59.1	18.988 ug/L	18.988 ppb	09:12:24
3	U 409.014†	-1242.4	1703.2	49.367 ug/L	49.367 ppb	09:12:04
3	V 292.402†	-814.4	717.6	5.4397 ug/L	5.4397 ppb	09:12:04
3	Zn 213.857†	1742.7	1077.9	10.574 ug/L	10.574 ppb	09:12:24
3	SiO2†	3544.6	3059.9	217.99 ug/L	217.99 ppb	09:12:39

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842815.5	97.764	%	0.4212				0.43%
Sc Radial	4824.8	100	%	2.9				2.88%
Y 371.029	707139.9	98.956	%	0.7740				0.78%
Y RADIAL	5027.2	100.5	%	2.91				2.90%
Ag 328.068†	1153.3	5.4405	ug/L	0.42133	5.4405	ppb	0.42133	7.74%
QC value within limits for Ag 328.068 Recovery = 108.81%								
Al 396.153Radial†	212.0	196.28	ug/L	12.289	196.28	ppb	12.289	6.26%
QC value within limits for Al 396.153Radial Recovery = 98.14%								
As 188.979†	70.7	32.115	ug/L	1.1878	32.115	ppb	1.1878	3.70%
QC value within limits for As 188.979 Recovery = 107.05%								
B 249.677†	2218.5	52.750	ug/L	0.6922	52.750	ppb	0.6922	1.31%
QC value within limits for B 249.677 Recovery = 105.50%								
Ba 233.527†	630.1	5.1594	ug/L	0.00474	5.1594	ppb	0.00474	0.09%
QC value within limits for Ba 233.527 Recovery = 103.19%								
Be 313.107†	13321.7	4.9733	ug/L	0.01517	4.9733	ppb	0.01517	0.31%
QC value within limits for Be 313.107 Recovery = 99.47%								
Ca 317.933Radial†	121.5	201.36	ug/L	2.655	201.36	ppb	2.655	1.32%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.68%
Cd 226.502†              436.0      5.1872 ug/L       0.03152      5.1872 ppb        0.03152   0.61%
   QC value within limits for Cd 226.502  Recovery = 103.74%
Co 228.616†              232.9      5.0999 ug/L       0.06531      5.0999 ppb        0.06531   1.28%
   QC value within limits for Co 228.616  Recovery = 102.00%
Cr 267.716†              442.1      5.1360 ug/L       0.22170      5.1360 ppb        0.22170   4.32%
   QC value within limits for Cr 267.716  Recovery = 102.72%
Cu 324.752†             3518.8      10.651 ug/L        0.1127      10.651 ppb         0.1127   1.06%
   QC value within limits for Cu 324.752  Recovery = 106.51%
Fe 238.204 Radial†         9.5      86.655 ug/L       19.3364      86.655 ppb        19.3364  22.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 86.66%
K 766.490 Radial†        808.5      142.52 ug/L        26.020      142.52 ppb         26.020  18.26%
   QC value within limits for K 766.490 Radial  Recovery = 95.01%
Mg 279.077 IEC†           10.3      365.10 ug/L        12.231      365.10 ppb         12.231   3.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 121.70%
Mn 257.610†             9167.6      10.541 ug/L        0.0738      10.541 ppb         0.0738   0.70%
   QC value within limits for Mn 257.610  Recovery = 105.41%
Mo 202.031†              135.7      10.170 ug/L        0.4772      10.170 ppb         0.4772   4.69%
   QC value within limits for Mo 202.031  Recovery = 101.70%
Na 589.592 Radial†      1004.2      303.71 ug/L         9.044      303.71 ppb          9.044   2.98%
   QC value within limits for Na 589.592 Radial  Recovery = 101.24%
Ni 231.604†              207.1      5.3618 ug/L       0.25553      5.3618 ppb        0.25553   4.77%
   QC value within limits for Ni 231.604  Recovery = 107.24%
P 214.914†               252.3      154.98 ug/L         3.862      154.98 ppb          3.862   2.49%
   QC value within limits for P 214.914  Recovery = 103.32%
Pb 220.353†               81.8      10.257 ug/L        0.8890      10.257 ppb         0.8890   8.67%
   QC value within limits for Pb 220.353  Recovery = 102.57%
S 181.975 Axial†          69.8      101.70 ug/L         2.262      101.70 ppb          2.262   2.22%
   QC value within limits for S 181.975 Axial  Recovery = 101.70%
Sb 206.836†               25.1      9.0946 ug/L       3.69377      9.0946 ppb        3.69377  40.61%
   QC value within limits for Sb 206.836  Recovery = 90.95%
Se 196.026†               52.1      35.402 ug/L        0.8518      35.402 ppb         0.8518   2.41%
   QC value within limits for Se 196.026  Recovery = 118.01%
Si 251.611†             2941.3      98.256 ug/L        0.5889      98.256 ppb         0.5889   0.60%
   QC value within limits for Si 251.611  Recovery = 98.26%
Sn 189.927†               52.8      9.8272 ug/L       2.17961      9.8272 ppb        2.17961  22.18%
   QC value within limits for Sn 189.927  Recovery = 98.27%
Sr 421.552†              726.2      5.0915 ug/L       0.09704      5.0915 ppb        0.09704   1.91%
   QC value within limits for Sr 421.552  Recovery = 101.83%
Ti 334.940†             3095.8      4.9948 ug/L       0.13641      4.9948 ppb        0.13641   2.73%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†               65.4      21.010 ug/L        1.9247      21.010 ppb         1.9247   9.16%
   QC value within limits for Tl 190.801  Recovery = 105.05%
U 409.014†              1706.3      49.454 ug/L        3.8076      49.454 ppb         3.8076   7.70%
   QC value within limits for U 409.014  Recovery = 98.91%
V 292.402†               700.2      5.3102 ug/L       0.23160      5.3102 ppb        0.23160   4.36%
   QC value within limits for V 292.402  Recovery = 106.20%
Zn 213.857†             1066.1      10.456 ug/L        0.1226      10.456 ppb         0.1226   1.17%
   QC value within limits for Zn 213.857  Recovery = 104.56%
SiO2†                   3017.2      214.94 ug/L         2.662      214.94 ppb          2.662   1.24%
   QC value within limits for SiO2  Recovery = 100.91%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/11/2010 09:14:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4326.5	4326.5	90.0	%			09:16:49
1	Y RADIAL	4511.2	4511.2	90.21	%			09:16:49
1	Al 396.153Radial†	503296.9	559331.5	519120	ug/L	519120	ppb	09:16:44
1	Ca 317.933Radial†	262031.1	291108.8	482490	ug/L	482490	ppb	09:16:44
1	Fe 238.204 Radial†	18673.8	20735.8	188670	ug/L	188670	ppb	09:16:49
1	K 766.490 Radial†	2498.4	-49.8	-170.18	ug/L	-170.18	ppb	09:16:44
1	Mg 279.077 IEC†	12536.8	13928.4	493450	ug/L	493450	ppb	09:16:49
1	Na 589.592 Radial†	-877.7	103.4	31.258	ug/L	31.258	ppb	09:16:49
1	Sr 421.552†	499.4	552.7	0.2735	ug/L	0.2735	ppb	09:16:49
1	Sc 361.383	756661.2	756661.2	87.770	%			09:17:16
1	Y 371.029	614842.6	614842.6	86.040	%			09:17:16
1	Ag 328.068†	-9783.5	-11375.5	3.5636	ug/L	3.5636	ppb	09:17:16
1	As 188.979†	-79.7	-57.0	18.184	ug/L	18.184	ppb	09:17:36
1	B 249.677†	428.7	1027.5	-6.1975	ug/L	-6.1975	ppb	09:17:16
1	Ba 233.527†	-574.5	-642.9	0.5243	ug/L	0.5243	ppb	09:17:36
1	Be 313.107†	-4762.2	-1087.1	-0.4615	ug/L	-0.4615	ppb	09:17:16
1	Cd 226.502†	1149.7	1521.8	-1.3855	ug/L	-1.3855	ppb	09:17:36
1	Co 228.616†	-17.9	53.3	-1.5563	ug/L	-1.5563	ppb	09:17:36
1	Cr 267.716†	-103.9	-185.2	1.5172	ug/L	1.5172	ppb	09:17:36
1	Cu 324.752†	2878.3	-2541.3	2.2550	ug/L	2.2550	ppb	09:17:16
1	Mn 257.610†	-120.4	-589.1	-2.2279	ug/L	-2.2279	ppb	09:17:16
1	Mo 202.031†	-219.4	-265.5	0.5037	ug/L	0.5037	ppb	09:17:36
1	Ni 231.604†	217.6	139.9	3.6229	ug/L	3.6229	ppb	09:17:36
1	P 214.914†	176.6	-26.9	-38.446	ug/L	-38.446	ppb	09:17:36
1	Pb 220.353†	-784.0	-831.5	-1.7906	ug/L	-1.7906	ppb	09:17:36
1	S 181.975 Axial†	48.9	16.3	-73.463	ug/L	-73.463	ppb	09:17:36
1	Sb 206.836†	74.6	42.8	-2.6229	ug/L	-2.6229	ppb	09:17:36
1	Se 196.026†	-908.7	-1013.2	-57.581	ug/L	-57.581	ppb	09:17:36
1	Si 251.611†	419.3	-84.6	-2.5834	ug/L	-2.5834	ppb	09:17:36
1	Sn 189.927†	-350.6	-408.1	0.7610	ug/L	0.7610	ppb	09:17:36
1	Ti 334.940†	-14629.1	-15364.3	-0.5425	ug/L	-0.5425	ppb	09:17:16
1	Tl 190.801†	-75.8	-52.1	-16.947	ug/L	-16.947	ppb	09:17:36
1	U 409.014†	-1407.2	1376.7	18.417	ug/L	18.417	ppb	09:17:16
1	V 292.402†	548.1	2179.1	-2.2965	ug/L	-2.2965	ppb	09:17:36
1	Zn 213.857†	3040.2	2750.6	-1.1107	ug/L	-1.1107	ppb	09:17:36
1	SiO2†	425.3	-98.5	-6.4871	ug/L	-6.4871	ppb	09:18:33
2	Sc Radial	4271.5	4271.5	88.9	%			09:16:59
2	Y RADIAL	4476.6	4476.6	89.52	%			09:16:59
2	Al 396.153Radial†	512980.6	577434.4	535930	ug/L	535930	ppb	09:16:54
2	Ca 317.933Radial†	265619.6	298898.4	495400	ug/L	495400	ppb	09:16:54
2	Fe 238.204 Radial†	18581.2	20898.9	190150	ug/L	190150	ppb	09:16:59
2	K 766.490 Radial†	2359.4	-170.5	-195.80	ug/L	-195.80	ppb	09:16:54
2	Mg 279.077 IEC†	12452.8	14013.4	496460	ug/L	496460	ppb	09:16:59
2	Na 589.592 Radial†	-912.1	52.0	15.737	ug/L	15.737	ppb	09:16:59
2	Sr 421.552†	480.6	538.7	0.0789	ug/L	0.0789	ppb	09:16:59
2	Sc 361.383	754714.5	754714.5	87.544	%			09:17:42
2	Y 371.029	615095.6	615095.6	86.075	%			09:17:42
2	Ag 328.068†	-9621.7	-11219.5	4.6281	ug/L	4.6281	ppb	09:17:42
2	As 188.979†	-90.1	-69.1	13.027	ug/L	13.027	ppb	09:18:02
2	B 249.677†	264.3	841.0	-10.877	ug/L	-10.877	ppb	09:17:42
2	Ba 233.527†	-619.6	-696.2	0.1342	ug/L	0.1342	ppb	09:18:02
2	Be 313.107†	-4764.6	-1103.8	-0.4669	ug/L	-0.4669	ppb	09:17:42
2	Cd 226.502†	1162.9	1540.2	-1.3211	ug/L	-1.3211	ppb	09:18:02
2	Co 228.616†	-17.6	53.6	-1.5760	ug/L	-1.5760	ppb	09:18:02
2	Cr 267.716†	-112.5	-195.2	1.4311	ug/L	1.4311	ppb	09:18:02
2	Cu 324.752†	2755.3	-2673.4	1.9361	ug/L	1.9361	ppb	09:17:42
2	Mn 257.610†	-225.9	-710.0	-2.3435	ug/L	-2.3435	ppb	09:17:42
2	Mo 202.031†	-239.3	-288.8	-0.9757	ug/L	-0.9757	ppb	09:18:02
2	Ni 231.604†	194.4	114.0	2.9532	ug/L	2.9532	ppb	09:18:02

2	P 214.914†	170.5	-33.3	-39.381 ug/L	-39.381 ppb	09:18:02
2	Pb 220.353†	-772.0	-820.1	3.3215 ug/L	3.3215 ppb	09:18:02
2	S 181.975 Axial†	56.3	25.0	-64.046 ug/L	-64.046 ppb	09:18:02
2	Sb 206.836†	83.8	53.5	0.5867 ug/L	0.5867 ppb	09:18:02
2	Se 196.026†	-902.9	-1009.2	-49.581 ug/L	-49.581 ppb	09:18:02
2	Si 251.611†	461.2	-35.5	-0.9207 ug/L	-0.9207 ppb	09:18:02
2	Sn 189.927†	-353.7	-412.8	1.8855 ug/L	1.8855 ppb	09:18:02
2	Ti 334.940†	-14406.9	-15153.5	1.2878 ug/L	1.2878 ppb	09:17:42
2	Tl 190.801†	-66.8	-42.1	-13.742 ug/L	-13.742 ppb	09:18:02
2	U 409.014†	-1586.2	1168.1	12.200 ug/L	12.200 ppb	09:17:42
2	V 292.402†	513.6	2141.3	-2.7653 ug/L	-2.7653 ppb	09:18:02
2	Zn 213.857†	3036.5	2755.3	-1.2816 ug/L	-1.2816 ppb	09:18:02
2	SiO2†	470.7	-45.5	-2.6559 ug/L	-2.6559 ppb	09:18:38
3	Sc Radial	4258.1	4258.1	88.6 %		09:17:10
3	Y RADIAL	4456.2	4456.2	89.11 %		09:17:10
3	Al 396.153Radial†	515024.4	581552.3	539750 ug/L	539750 ppb	09:17:05
3	Ca 317.933Radial†	266059.5	300332.5	497780 ug/L	497780 ppb	09:17:05
3	Fe 238.204 Radial†	18473.9	20843.3	189650 ug/L	189650 ppb	09:17:10
3	K 766.490 Radial†	2466.4	-41.5	-173.82 ug/L	-173.82 ppb	09:17:05
3	Mg 279.077 IEC†	12393.1	13990.0	495630 ug/L	495630 ppb	09:17:10
3	Na 589.592 Radial†	-853.2	115.4	34.896 ug/L	34.896 ppb	09:17:10
3	Sr 421.552†	465.5	523.4	-0.0465 ug/L	-0.0465 ppb	09:17:10
3	Sc 361.383	755768.5	755768.5	87.667 %		09:18:07
3	Y 371.029	616708.1	616708.1	86.301 %		09:18:07
3	Ag 328.068†	-9560.5	-11134.3	4.8227 ug/L	4.8227 ppb	09:18:07
3	As 188.979†	-82.9	-60.7	16.730 ug/L	16.730 ppb	09:18:27
3	B 249.677†	288.5	868.1	-10.149 ug/L	-10.149 ppb	09:18:07
3	Ba 233.527†	-599.8	-672.6	0.3123 ug/L	0.3123 ppb	09:18:27
3	Be 313.107†	-4606.8	-916.2	-0.3960 ug/L	-0.3960 ppb	09:18:07
3	Cd 226.502†	1135.0	1506.6	-1.6662 ug/L	-1.6662 ppb	09:18:27
3	Co 228.616†	-5.3	67.6	-1.2588 ug/L	-1.2588 ppb	09:18:27
3	Cr 267.716†	-75.9	-153.4	1.9061 ug/L	1.9061 ppb	09:18:27
3	Cu 324.752†	2758.9	-2673.7	1.9044 ug/L	1.9044 ppb	09:18:07
3	Mn 257.610†	-175.5	-652.0	-2.2927 ug/L	-2.2927 ppb	09:18:07
3	Mo 202.031†	-216.1	-262.0	1.0217 ug/L	1.0217 ppb	09:18:27
3	Ni 231.604†	231.6	156.1	4.0441 ug/L	4.0441 ppb	09:18:27
3	P 214.914†	203.6	4.1	-14.688 ug/L	-14.688 ppb	09:18:27
3	Pb 220.353†	-809.6	-861.7	-0.9582 ug/L	-0.9582 ppb	09:18:27
3	S 181.975 Axial†	44.6	11.5	-84.346 ug/L	-84.346 ppb	09:18:27
3	Sb 206.836†	79.1	48.1	-1.3410 ug/L	-1.3410 ppb	09:18:27
3	Se 196.026†	-919.7	-1027.0	-63.050 ug/L	-63.050 ppb	09:18:27
3	Si 251.611†	454.2	-44.2	-1.2364 ug/L	-1.2364 ppb	09:18:27
3	Sn 189.927†	-345.5	-402.8	4.0886 ug/L	4.0886 ppb	09:18:27
3	Ti 334.940†	-14189.3	-14882.3	2.1109 ug/L	2.1109 ppb	09:18:07
3	Tl 190.801†	-60.0	-34.2	-11.215 ug/L	-11.215 ppb	09:18:27
3	U 409.014†	-1365.7	1422.3	19.625 ug/L	19.625 ppb	09:18:07
3	V 292.402†	574.2	2209.6	-2.1700 ug/L	-2.1700 ppb	09:18:27
3	Zn 213.857†	3012.1	2722.6	-1.5360 ug/L	-1.5360 ppb	09:18:27
3	SiO2†	481.6	-33.8	-1.8752 ug/L	-1.8752 ppb	09:18:43

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	755714.7	87.660	%	0.1130				0.13%
Sc Radial	4285.4	89.2	%	0.75				0.85%
Y 371.029	615548.8	86.139	%	0.1416				0.16%
Y RADIAL	4481.4	89.62	%	0.556				0.62%
Ag 328.068†	-11243.1	4.3381	ug/L	0.67777	4.3381	ppb	0.67777	15.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	572772.7	531600	ug/L	10971.3	531600	ppb	10971.3	2.06%
QC value within limits for Al 396.153Radial Recovery = 106.32%								
As 188.979†	-62.2	15.980	ug/L	2.6589	15.980	ppb	2.6589	16.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	912.2	-9.0743	ug/L	2.51784	-9.0743	ppb	2.51784	27.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-670.6	0.3236	ug/L	0.19527	0.3236	ppb	0.19527	60.34%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1035.7	-0.4415	ug/L	0.03944	-0.4415	ppb	0.03944	8.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	296779.9	491890	ug/L	8226.5	491890	ppb	8226.5	1.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.38%
Cd 226.502†            1522.9     -1.4576 ug/L      0.18350     -1.4576 ppb       0.18350  12.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              58.2     -1.4637 ug/L      0.17773     -1.4637 ppb       0.17773  12.14%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -178.0      1.6181 ug/L      0.25308      1.6181 ppb       0.25308  15.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2629.5      2.0318 ug/L      0.19389      2.0318 ppb       0.19389   9.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    20826.0      189490 ug/L        754.5      189490 ppb         754.5   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.74%
K 766.490 Radial†       -87.3     -179.93 ug/L       13.858     -179.93 ppb        13.858   7.70%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       13977.3      495180 ug/L       1554.3      495180 ppb        1554.3   0.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.04%
Mn 257.610†            -650.4     -2.2880 ug/L      0.05795     -2.2880 ppb       0.05795   2.53%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -272.1      0.1832 ug/L      1.03653      0.1832 ppb       1.03653 565.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       90.3      27.297 ug/L      10.1754      27.297 ppb       10.1754  37.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             136.7      3.5401 ug/L      0.55015      3.5401 ppb       0.55015  15.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -18.7     -30.838 ug/L      13.9943     -30.838 ppb       13.9943  45.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -837.8      0.1909 ug/L      2.74297      0.1909 ppb       2.74297 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         17.6     -73.952 ug/L      10.1589     -73.952 ppb       10.1589  13.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              48.2     -1.1258 ug/L      1.61558     -1.1258 ppb       1.61558 143.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1016.5     -56.738 ug/L       6.7740     -56.738 ppb        6.7740  11.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -54.7     -1.5802 ug/L      0.88305     -1.5802 ppb       0.88305  55.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -407.9      2.2451 ug/L      1.69268      2.2451 ppb       1.69268  75.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             538.3      0.1020 ug/L      0.16126      0.1020 ppb       0.16126 158.13%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -15133.3      0.9521 ug/L      1.35820      0.9521 ppb       1.35820 142.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -42.8     -13.968 ug/L       2.8728     -13.968 ppb        2.8728  20.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1322.4      16.747 ug/L       3.9841      16.747 ppb        3.9841  23.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2176.7     -2.4106 ug/L      0.31365     -2.4106 ppb       0.31365  13.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2742.8     -1.3094 ug/L      0.21398     -1.3094 ppb       0.21398  16.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -59.3     -3.6728 ug/L      2.46839     -3.6728 ppb       2.46839  67.21%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/11/2010 09:20:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4396.9	4396.9	91.5	%			09:22:52
1	Y RADIAL	4610.6	4610.6	92.20	%			09:22:52
1	Al 396.153Radial†	506685.4	554079.7	514230	ug/L	514230	ppb	09:22:47
1	Ca 317.933Radial†	261800.7	286194.0	474350	ug/L	474350	ppb	09:22:47
1	Fe 238.204 Radial†	18412.4	20117.6	183060	ug/L	183060	ppb	09:22:52
1	K 766.490 Radial†	30129.7	30113.2	5154.1	ug/L	5154.1	ppb	09:22:47
1	Mg 279.077 IEC†	12405.8	13562.1	480480	ug/L	480480	ppb	09:22:52
1	Na 589.592 Radial†	14834.9	17296.5	5231.3	ug/L	5231.3	ppb	09:22:52
1	Sr 421.552†	66068.1	72226.1	502.99	ug/L	502.99	ppb	09:22:47
1	Sc 361.383	772772.6	772772.6	89.639	%			09:23:20
1	Y 371.029	628033.3	628033.3	87.886	%			09:23:20
1	Ag 328.068†	40946.5	45450.6	271.13	ug/L	271.13	ppb	09:23:20
1	As 188.979†	891.5	1028.4	512.59	ug/L	512.59	ppb	09:23:40
1	B 249.677†	19385.3	22165.0	496.31	ug/L	496.31	ppb	09:23:20
1	Ba 233.527†	52316.8	58375.5	483.43	ug/L	483.43	ppb	09:23:20
1	Be 313.107†	574171.6	644876.5	241.29	ug/L	241.29	ppb	09:23:20
1	Cd 226.502†	35085.2	39352.5	449.33	ug/L	449.33	ppb	09:23:40
1	Co 228.616†	18112.6	20279.9	440.41	ug/L	440.41	ppb	09:23:40
1	Cr 267.716†	36591.2	40753.8	478.53	ug/L	478.53	ppb	09:23:20
1	Cu 324.752†	163531.5	176612.7	545.16	ug/L	545.16	ppb	09:23:20
1	Mn 257.610†	366154.8	408025.3	467.87	ug/L	467.87	ppb	09:23:20
1	Mo 202.031†	5497.6	6117.5	477.98	ug/L	477.98	ppb	09:23:40
1	Ni 231.604†	15356.6	17023.6	440.76	ug/L	440.76	ppb	09:23:40
1	P 214.914†	3739.4	3943.6	2332.2	ug/L	2332.2	ppb	09:23:40
1	Pb 220.353†	2446.7	2791.2	450.35	ug/L	450.35	ppb	09:23:40
1	S 181.975 Axial†	1625.7	1774.2	2490.8	ug/L	2490.8	ppb	09:23:40
1	Sb 206.836†	1370.0	1486.2	518.08	ug/L	518.08	ppb	09:23:40
1	Se 196.026†	2363.9	2659.3	2399.9	ug/L	2399.9	ppb	09:23:40
1	Si 251.611†	137825.4	153193.9	5118.5	ug/L	5118.5	ppb	09:23:20
1	Sn 189.927†	1983.7	2204.3	484.24	ug/L	484.24	ppb	09:23:40
1	Ti 334.940†	266479.3	298583.8	508.25	ug/L	508.25	ppb	09:23:20
1	Tl 190.801†	1155.1	1322.8	427.27	ug/L	427.27	ppb	09:23:40
1	U 409.014†	13233.0	17742.6	492.55	ug/L	492.55	ppb	09:23:20
1	V 292.402†	61400.5	70052.2	498.13	ug/L	498.13	ppb	09:23:20
1	Zn 213.857†	47401.4	52167.1	483.73	ug/L	483.73	ppb	09:23:20
1	SiO2†	137069.3	152329.4	10853	ug/L	10853	ppb	09:24:38
2	Sc Radial	4421.7	4421.7	92.0	%			09:23:03
2	Y RADIAL	4650.4	4650.4	93.00	%			09:23:03
2	Al 396.153Radial†	505026.4	549169.2	509670	ug/L	509670	ppb	09:22:58
2	Ca 317.933Radial†	260692.2	283383.5	469690	ug/L	469690	ppb	09:22:58
2	Fe 238.204 Radial†	18454.7	20050.7	182450	ug/L	182450	ppb	09:23:03
2	K 766.490 Radial†	30107.0	29903.9	5118.7	ug/L	5118.7	ppb	09:22:58
2	Mg 279.077 IEC†	12417.0	13498.2	478220	ug/L	478220	ppb	09:23:03
2	Na 589.592 Radial†	14964.9	17346.9	5246.6	ug/L	5246.6	ppb	09:23:03
2	Sr 421.552†	65690.1	71410.0	497.30	ug/L	497.30	ppb	09:22:58
2	Sc 361.383	764739.9	764739.9	88.707	%			09:23:46
2	Y 371.029	621595.5	621595.5	86.985	%			09:23:46
2	Ag 328.068†	40590.0	45528.5	271.35	ug/L	271.35	ppb	09:23:46
2	As 188.979†	889.2	1036.2	515.99	ug/L	515.99	ppb	09:24:06
2	B 249.677†	19258.0	22248.6	498.39	ug/L	498.39	ppb	09:23:46
2	Ba 233.527†	51845.8	58457.6	484.08	ug/L	484.08	ppb	09:23:46
2	Be 313.107†	566394.6	642837.6	240.54	ug/L	240.54	ppb	09:23:46
2	Cd 226.502†	35086.9	39765.5	454.31	ug/L	454.31	ppb	09:24:06
2	Co 228.616†	18134.0	20516.3	445.59	ug/L	445.59	ppb	09:24:06
2	Cr 267.716†	36251.6	40799.8	479.05	ug/L	479.05	ppb	09:23:46
2	Cu 324.752†	162008.2	176811.7	545.73	ug/L	545.73	ppb	09:23:46
2	Mn 257.610†	362408.4	408092.5	467.98	ug/L	467.98	ppb	09:23:46
2	Mo 202.031†	5494.0	6177.9	482.40	ug/L	482.40	ppb	09:24:06
2	Ni 231.604†	15385.0	17235.5	446.25	ug/L	446.25	ppb	09:24:06

2	P 214.914†	3735.3	3982.7	2355.8 ug/L	2355.8 ppb	09:24:06
2	Pb 220.353†	2463.6	2839.0	455.32 ug/L	455.32 ppb	09:24:06
2	S 181.975 Axial†	1635.9	1804.8	2536.2 ug/L	2536.2 ppb	09:24:06
2	Sb 206.836†	1363.5	1494.9	521.30 ug/L	521.30 ppb	09:24:06
2	Se 196.026†	2372.3	2696.4	2422.8 ug/L	2422.8 ppb	09:24:06
2	Si 251.611†	136413.4	153217.1	5119.2 ug/L	5119.2 ppb	09:23:46
2	Sn 189.927†	1955.7	2196.0	481.97 ug/L	481.97 ppb	09:24:06
2	Ti 334.940†	264346.3	299301.9	508.98 ug/L	508.98 ppb	09:23:46
2	Tl 190.801†	1161.7	1343.8	433.96 ug/L	433.96 ppb	09:24:06
2	U 409.014†	13093.8	17740.8	492.56 ug/L	492.56 ppb	09:23:46
2	V 292.402†	60740.6	70027.7	498.06 ug/L	498.06 ppb	09:23:46
2	Zn 213.857†	46852.4	52103.7	483.16 ug/L	483.16 ppb	09:23:46
2	SiO2†	136656.7	153470.5	10935 ug/L	10935 ppb	09:24:43
3	Sc Radial	4483.7	4483.7	93.3 %		09:23:13
3	Y RADIAL	4690.0	4690.0	93.79 %		09:23:13
3	Al 396.153Radial†	512382.5	549473.1	509950 ug/L	509950 ppb	09:23:08
3	Ca 317.933Radial†	264386.7	283430.3	469770 ug/L	469770 ppb	09:23:08
3	Fe 238.204 Radial†	18884.1	20234.0	184110 ug/L	184110 ppb	09:23:13
3	K 766.490 Radial†	30633.6	30016.3	5138.5 ug/L	5138.5 ppb	09:23:08
3	Mg 279.077 IEC†	12744.8	13663.2	484060 ug/L	484060 ppb	09:23:13
3	Na 589.592 Radial†	15367.6	17554.0	5309.2 ug/L	5309.2 ppb	09:23:13
3	Sr 421.552†	66790.6	71603.6	498.66 ug/L	498.66 ppb	09:23:08
3	Sc 361.383	773931.5	773931.5	89.773 %		09:24:12
3	Y 371.029	628740.5	628740.5	87.985 %		09:24:12
3	Ag 328.068†	41068.9	45518.5	271.87 ug/L	271.87 ppb	09:24:12
3	As 188.979†	889.9	1025.2	511.37 ug/L	511.37 ppb	09:24:32
3	B 249.677†	19510.9	22272.5	498.71 ug/L	498.71 ppb	09:24:12
3	Ba 233.527†	52312.7	58283.5	482.70 ug/L	482.70 ppb	09:24:12
3	Be 313.107†	573158.4	642788.7	240.52 ug/L	240.52 ppb	09:24:12
3	Cd 226.502†	34724.6	38892.2	443.75 ug/L	443.75 ppb	09:24:32
3	Co 228.616†	17941.8	20059.3	435.56 ug/L	435.56 ppb	09:24:32
3	Cr 267.716†	36580.1	40680.3	477.69 ug/L	477.69 ppb	09:24:12
3	Cu 324.752†	164653.0	177588.8	548.17 ug/L	548.17 ppb	09:24:12
3	Mn 257.610†	366043.8	407290.0	466.98 ug/L	466.98 ppb	09:24:12
3	Mo 202.031†	5447.0	6052.0	473.10 ug/L	473.10 ppb	09:24:32
3	Ni 231.604†	15217.0	16842.4	436.07 ug/L	436.07 ppb	09:24:32
3	P 214.914†	3695.9	3888.9	2295.6 ug/L	2295.6 ppb	09:24:32
3	Pb 220.353†	2426.8	2765.0	445.97 ug/L	445.97 ppb	09:24:32
3	S 181.975 Axial†	1615.7	1760.4	2471.4 ug/L	2471.4 ppb	09:24:32
3	Sb 206.836†	1350.7	1462.4	509.61 ug/L	509.61 ppb	09:24:32
3	Se 196.026†	2320.9	2607.4	2368.2 ug/L	2368.2 ppb	09:24:32
3	Si 251.611†	138009.6	153168.8	5117.7 ug/L	5117.7 ppb	09:24:12
3	Sn 189.927†	1937.3	2149.4	473.35 ug/L	473.35 ppb	09:24:32
3	Ti 334.940†	266979.3	298695.6	507.53 ug/L	507.53 ppb	09:24:12
3	Tl 190.801†	1132.8	1296.0	418.69 ug/L	418.69 ppb	09:24:32
3	U 409.014†	13256.7	17746.9	492.55 ug/L	492.55 ppb	09:24:12
3	V 292.402†	61377.1	69923.5	497.04 ug/L	497.04 ppb	09:24:12
3	Zn 213.857†	47365.2	52047.6	482.41 ug/L	482.41 ppb	09:24:12
3	SiO2†	136694.3	151682.8	10807 ug/L	10807 ppb	09:24:48

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	770481.4	89.373	%	0.5807				0.65%
Sc Radial	4434.1	92.2	%	0.93				1.01%
Y 371.029	626123.1	87.618	%	0.5509				0.63%
Y RADIAL	4650.4	92.99	%	0.794				0.85%
Ag 328.068†	45499.2	271.45	ug/L	0.377	271.45	ppb	0.377	0.14%
QC value within limits for Ag 328.068 Recovery = 108.58%								
Al 396.153Radial†	550907.4	511280	ug/L	2553.8	511280	ppb	2553.8	0.50%
QC value within limits for Al 396.153Radial Recovery = 102.26%								
As 188.979†	1029.9	513.31	ug/L	2.393	513.31	ppb	2.393	0.47%
QC value within limits for As 188.979 Recovery = 102.66%								
B 249.677†	22228.7	497.80	ug/L	1.301	497.80	ppb	1.301	0.26%
QC value within limits for B 249.677 Recovery = 99.56%								
Ba 233.527†	58372.2	483.40	ug/L	0.687	483.40	ppb	0.687	0.14%
QC value within limits for Ba 233.527 Recovery = 96.68%								
Be 313.107†	643500.9	240.78	ug/L	0.443	240.78	ppb	0.443	0.18%
QC value within limits for Be 313.107 Recovery = 96.31%								
Ca 317.933Radial†	284335.9	471270	ug/L	2667.3	471270	ppb	2667.3	0.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 94.25%
Cd 226.502†            39336.8      449.13 ug/L         5.284      449.13 ppb          5.284   1.18%
   QC value within limits for Cd 226.502  Recovery = 89.83%
Co 228.616†            20285.2      440.52 ug/L         5.014      440.52 ppb          5.014   1.14%
   QC value within limits for Co 228.616  Recovery = 88.10%
Cr 267.716†            40744.7      478.42 ug/L         0.686      478.42 ppb          0.686   0.14%
   QC value within limits for Cr 267.716  Recovery = 95.68%
Cu 324.752†           177004.4      546.35 ug/L         1.603      546.35 ppb          1.603   0.29%
   QC value within limits for Cu 324.752  Recovery = 109.27%
Fe 238.204 Radial†     20134.1      183210 ug/L         843.7      183210 ppb          843.7   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.60%
K 766.490 Radial†      30011.2      5137.1 ug/L         17.75      5137.1 ppb          17.75   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 102.74%
Mg 279.077 IEC†        13574.5      480920 ug/L        2948.0      480920 ppb         2948.0   0.61%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.18%
Mn 257.610†           407802.6      467.61 ug/L         0.547      467.61 ppb          0.547   0.12%
   QC value within limits for Mn 257.610  Recovery = 93.52%
Mo 202.031†             6115.8      477.83 ug/L         4.651      477.83 ppb          4.651   0.97%
   QC value within limits for Mo 202.031  Recovery = 95.57%
Na 589.592 Radial†     17399.2      5262.4 ug/L         41.27      5262.4 ppb          41.27   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 105.25%
Ni 231.604†            17033.9      441.03 ug/L         5.094      441.03 ppb          5.094   1.15%
   QC value within limits for Ni 231.604  Recovery = 88.21%
P 214.914†              3938.4      2327.9 ug/L         30.33      2327.9 ppb          30.33   1.30%
   QC value within limits for P 214.914  Recovery = 93.12%
Pb 220.353†             2798.4      450.55 ug/L         4.678      450.55 ppb          4.678   1.04%
   QC value within limits for Pb 220.353  Recovery = 90.11%
S 181.975 Axial†        1779.8      2499.5 ug/L         33.27      2499.5 ppb          33.27   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 99.98%
Sb 206.836†             1481.2      516.33 ug/L         6.036      516.33 ppb          6.036   1.17%
   QC value within limits for Sb 206.836  Recovery = 103.27%
Se 196.026†             2654.4      2397.0 ug/L         27.43      2397.0 ppb          27.43   1.14%
   QC value within limits for Se 196.026  Recovery = 95.88%
Si 251.611†           153193.2      5118.5 ug/L          0.75      5118.5 ppb           0.75   0.01%
   QC value within limits for Si 251.611  Recovery = 102.37%
Sn 189.927†             2183.2      479.85 ug/L         5.743      479.85 ppb          5.743   1.20%
   QC value within limits for Sn 189.927  Recovery = 95.97%
Sr 421.552†            71746.5      499.65 ug/L         2.971      499.65 ppb          2.971   0.59%
   QC value within limits for Sr 421.552  Recovery = 99.93%
Ti 334.940†           298860.4      508.25 ug/L         0.725      508.25 ppb          0.725   0.14%
   QC value within limits for Ti 334.940  Recovery = 101.65%
Tl 190.801†             1320.9      426.64 ug/L         7.653      426.64 ppb          7.653   1.79%
   QC value within limits for Tl 190.801  Recovery = 85.33%
U 409.014†             17743.4      492.55 ug/L         0.008      492.55 ppb          0.008   0.00%
   QC value within limits for U 409.014  Recovery = 98.51%
V 292.402†             70001.2      497.74 ug/L         0.609      497.74 ppb          0.609   0.12%
   QC value within limits for V 292.402  Recovery = 99.55%
Zn 213.857†            52106.1      483.10 ug/L         0.658      483.10 ppb          0.658   0.14%
   QC value within limits for Zn 213.857  Recovery = 96.62%
SiO2†                 152494.3       10865 ug/L          64.4       10865 ppb           64.4   0.59%
   QC value within limits for SiO2  Recovery = 101.59%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/11/2010 09:26:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4347.3	4347.3	90.4	%			09:28:57
1	Y RADIAL	4521.2	4521.2	90.41	%			09:28:57
1	Al 396.153Radial†	489004.3	540851.8	501970	ug/L	501970	ppb	09:28:52
1	Ca 317.933Radial†	256021.7	283070.7	469170	ug/L	469170	ppb	09:28:52
1	Fe 238.204 Radial†	43293.2	47858.6	435450	ug/L	435450	ppb	09:28:57
1	K 766.490 Radial†	3051.6	548.5	-258.43	ug/L	-258.43	ppb	09:28:52
1	Mg 279.077 IEC†	12226.8	13519.0	478680	ug/L	478680	ppb	09:28:57
1	Na 589.592 Radial†	1519647.4	1681377.9	508530	ug/L	508530	ppb	09:28:52
1	Sr 421.552†	733.2	808.6	2.1678	ug/L	2.1678	ppb	09:28:57
1	Sc 361.383	750316.7	750316.7	87.034	%			09:29:25
1	Y 371.029	611296.0	611296.0	85.543	%			09:29:25
1	Ag 328.068†	-22360.4	-25920.3	7.6759	ug/L	7.6759	ppb	09:29:25
1	As 188.979†	-189.1	-183.4	18.724	ug/L	18.724	ppb	09:29:45
1	B 249.677†	1106.7	1810.6	-27.660	ug/L	-27.660	ppb	09:29:25
1	Ba 233.527†	-1542.6	-1760.8	-1.0734	ug/L	-1.0734	ppb	09:29:45
1	Be 313.107†	-10095.0	-7260.1	-2.7412	ug/L	-2.7412	ppb	09:29:25
1	Cd 226.502†	3076.9	3747.2	2.1814	ug/L	2.1814	ppb	09:29:45
1	Co 228.616†	201.4	305.2	0.3152	ug/L	0.3152	ppb	09:29:45
1	Cr 267.716†	-14.1	-82.9	2.2310	ug/L	2.2310	ppb	09:29:45
1	Cu 324.752†	169.3	-5626.3	-1.4253	ug/L	-1.4253	ppb	09:29:25
1	Mn 257.610†	-22883.6	-26744.6	-7.3534	ug/L	-7.3534	ppb	09:29:25
1	Mo 202.031†	-431.2	-511.0	1.1160	ug/L	1.1160	ppb	09:29:45
1	Ni 231.604†	343.0	286.1	7.4087	ug/L	7.4087	ppb	09:29:45
1	P 214.914†	571.1	428.1	43.527	ug/L	43.527	ppb	09:29:45
1	Pb 220.353†	-484.2	-494.6	12.703	ug/L	12.703	ppb	09:29:45
1	S 181.975 Axial†	87.6	61.3	-4.6955	ug/L	-4.6955	ppb	09:29:45
1	Sb 206.836†	83.5	53.8	-1.4746	ug/L	-1.4746	ppb	09:29:45
1	Se 196.026†	-2120.9	-2414.7	-207.36	ug/L	-207.36	ppb	09:29:45
1	Si 251.611†	-139.3	-722.4	-23.691	ug/L	-23.691	ppb	09:29:45
1	Sn 189.927†	-351.0	-411.9	2.1771	ug/L	2.1771	ppb	09:29:45
1	Ti 334.940†	-9901.0	-10072.8	1.5803	ug/L	1.5803	ppb	09:29:25
1	Tl 190.801†	-75.4	-52.5	-17.178	ug/L	-17.178	ppb	09:29:45
1	U 409.014†	398970.0	461386.2	13329	ug/L	13329	ppb	09:29:25
1	V 292.402†	1819.1	3644.8	-2.6158	ug/L	-2.6158	ppb	09:29:45
1	Zn 213.857†	5754.2	5898.2	-7.0000	ug/L	-7.0000	ppb	09:29:45
1	SiO2†	-561.3	-1228.1	-86.557	ug/L	-86.557	ppb	09:30:42
2	Sc Radial	4319.7	4319.7	89.9	%			09:29:07
2	Y RADIAL	4515.1	4515.1	90.29	%			09:29:07
2	Al 396.153Radial†	488967.7	544267.8	505140	ug/L	505140	ppb	09:29:02
2	Ca 317.933Radial†	253798.3	282406.3	468070	ug/L	468070	ppb	09:29:02
2	Fe 238.204 Radial†	42961.6	47795.6	434870	ug/L	434870	ppb	09:29:07
2	K 766.490 Radial†	2851.4	347.3	-293.37	ug/L	-293.37	ppb	09:29:02
2	Mg 279.077 IEC†	12150.8	13520.8	478750	ug/L	478750	ppb	09:29:07
2	Na 589.592 Radial†	1508482.9	1679696.5	508020	ug/L	508020	ppb	09:29:02
2	Sr 421.552†	684.7	759.8	1.8337	ug/L	1.8337	ppb	09:29:07
2	Sc 361.383	752895.9	752895.9	87.333	%			09:29:51
2	Y 371.029	613943.5	613943.5	85.914	%			09:29:51
2	Ag 328.068†	-21490.2	-24835.8	12.608	ug/L	12.608	ppb	09:29:51
2	As 188.979†	-177.3	-169.2	25.061	ug/L	25.061	ppb	09:30:11
2	B 249.677†	1167.2	1875.5	-26.019	ug/L	-26.019	ppb	09:29:51
2	Ba 233.527†	-1648.7	-1876.2	-2.0328	ug/L	-2.0328	ppb	09:30:11
2	Be 313.107†	-8181.7	-5029.6	-1.9109	ug/L	-1.9109	ppb	09:29:51
2	Cd 226.502†	3019.0	3668.8	1.3074	ug/L	1.3074	ppb	09:30:11
2	Co 228.616†	168.2	266.3	-0.5350	ug/L	-0.5350	ppb	09:30:11
2	Cr 267.716†	-39.9	-112.5	1.8767	ug/L	1.8767	ppb	09:30:11
2	Cu 324.752†	3630.1	-1664.2	10.564	ug/L	10.564	ppb	09:29:51
2	Mn 257.610†	-19761.1	-23079.0	-3.1954	ug/L	-3.1954	ppb	09:29:51
2	Mo 202.031†	-475.4	-559.9	-2.6030	ug/L	-2.6030	ppb	09:30:11
2	Ni 231.604†	289.6	223.5	5.7879	ug/L	5.7879	ppb	09:30:11

2	P 214.914†	562.6	416.1	34.892	ug/L	34.892 ppb	09:30:11
2	Pb 220.353†	-547.2	-564.9	4.6358	ug/L	4.6358 ppb	09:30:11
2	S 181.975 Axial†	83.4	56.2	-12.737	ug/L	-12.737 ppb	09:30:11
2	Sb 206.836†	88.3	59.0	0.1380	ug/L	0.1380 ppb	09:30:11
2	Se 196.026†	-2116.4	-2401.3	-200.06	ug/L	-200.06 ppb	09:30:11
2	Si 251.611†	-519.1	-1156.6	-38.171	ug/L	-38.171 ppb	09:30:11
2	Sn 189.927†	-362.9	-424.2	-0.2790	ug/L	-0.2790 ppb	09:30:11
2	Ti 334.940†	-10032.5	-10184.4	1.2469	ug/L	1.2469 ppb	09:29:51
2	Tl 190.801†	-87.3	-65.8	-21.418	ug/L	-21.418 ppb	09:30:11
2	U 409.014†	400317.4	461358.7	13328	ug/L	13328 ppb	09:29:51
2	V 292.402†	1851.8	3675.1	-2.3640	ug/L	-2.3640 ppb	09:30:11
2	Zn 213.857†	5420.0	5492.9	-10.919	ug/L	-10.919 ppb	09:30:11
2	SiO2†	-492.8	-1147.4	-80.702	ug/L	-80.702 ppb	09:30:47
3	Sc Radial	4286.5	4286.5	89.2	%		09:29:18
3	Y RADIAL	4491.7	4491.7	89.82	%		09:29:18
3	Al 396.153Radial†	487236.0	546543.4	507260	ug/L	507260 ppb	09:29:13
3	Ca 317.933Radial†	253808.7	284607.1	471720	ug/L	471720 ppb	09:29:13
3	Fe 238.204 Radial†	42617.9	47780.7	434740	ug/L	434740 ppb	09:29:18
3	K 766.490 Radial†	2862.5	384.4	-288.63	ug/L	-288.63 ppb	09:29:13
3	Mg 279.077 IEC†	12064.9	13529.3	479050	ug/L	479050 ppb	09:29:18
3	Na 589.592 Radial†	1501252.5	1684599.7	509510	ug/L	509510 ppb	09:29:13
3	Sr 421.552†	701.9	785.0	1.9830	ug/L	1.9830 ppb	09:29:18
3	Sc 361.383	749846.5	749846.5	86.980	%		09:30:16
3	Y 371.029	610956.0	610956.0	85.496	%		09:30:16
3	Ag 328.068†	-22316.8	-25886.3	7.5572	ug/L	7.5572 ppb	09:30:16
3	As 188.979†	-185.0	-178.8	20.672	ug/L	20.672 ppb	09:30:36
3	B 249.677†	1074.6	1774.5	-28.401	ug/L	-28.401 ppb	09:30:16
3	Ba 233.527†	-1700.5	-1943.5	-2.5842	ug/L	-2.5842 ppb	09:30:36
3	Be 313.107†	-10036.7	-7200.5	-2.7212	ug/L	-2.7212 ppb	09:30:16
3	Cd 226.502†	3001.2	3662.4	1.2484	ug/L	1.2484 ppb	09:30:36
3	Co 228.616†	168.0	266.8	-0.5205	ug/L	-0.5205 ppb	09:30:36
3	Cr 267.716†	-29.3	-100.5	2.0096	ug/L	2.0096 ppb	09:30:36
3	Cu 324.752†	314.4	-5459.3	-0.9628	ug/L	-0.9628 ppb	09:30:16
3	Mn 257.610†	-22476.5	-26293.0	-6.9189	ug/L	-6.9189 ppb	09:30:16
3	Mo 202.031†	-477.8	-564.8	-2.9394	ug/L	-2.9394 ppb	09:30:36
3	Ni 231.604†	305.9	243.7	6.3100	ug/L	6.3100 ppb	09:30:36
3	P 214.914†	553.6	408.4	33.018	ug/L	33.018 ppb	09:30:36
3	Pb 220.353†	-569.0	-592.5	1.7311	ug/L	1.7311 ppb	09:30:36
3	S 181.975 Axial†	84.3	57.5	-11.185	ug/L	-11.185 ppb	09:30:36
3	Sb 206.836†	80.0	49.8	-3.0915	ug/L	-3.0915 ppb	09:30:36
3	Se 196.026†	-2111.2	-2405.2	-203.04	ug/L	-203.04 ppb	09:30:36
3	Si 251.611†	-476.2	-1109.7	-36.598	ug/L	-36.598 ppb	09:30:36
3	Sn 189.927†	-356.7	-418.8	1.2746	ug/L	1.2746 ppb	09:30:36
3	Ti 334.940†	-10401.3	-10655.1	0.9425	ug/L	0.9425 ppb	09:30:16
3	Tl 190.801†	-109.3	-91.4	-29.659	ug/L	-29.659 ppb	09:30:36
3	U 409.014†	399065.3	461783.3	13341	ug/L	13341 ppb	09:30:16
3	V 292.402†	1948.4	3794.7	-1.4509	ug/L	-1.4509 ppb	09:30:36
3	Zn 213.857†	5409.8	5506.3	-10.754	ug/L	-10.754 ppb	09:30:36
3	SiO2†	-505.8	-1164.7	-81.925	ug/L	-81.925 ppb	09:30:52

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	751019.7	87.116	%	0.1904				0.22%
Sc Radial	4317.8	89.8	%	0.63				0.71%
Y 371.029	612065.1	85.651	%	0.2289				0.27%
Y RADIAL	4509.3	90.17	%	0.312				0.35%
Ag 328.068†	-25547.5	9.2805	ug/L	2.88268	9.2805	ppb	2.88268	31.06%
Al 396.153Radial†	543887.7	504790	ug/L	2659.0	504790	ppb	2659.0	0.53%
QC value within limits for Al 396.153Radial Recovery = 100.96%								
As 188.979†	-177.1	21.486	ug/L	3.2460	21.486	ppb	3.2460	15.11%
B 249.677†	1820.2	-27.360	ug/L	1.2190	-27.360	ppb	1.2190	4.46%
Ba 233.527†	-1860.2	-1.8968	ug/L	0.76456	-1.8968	ppb	0.76456	40.31%
Be 313.107†	-6496.7	-2.4578	ug/L	0.47372	-2.4578	ppb	0.47372	19.27%
Ca 317.933Radial†	283361.4	469650	ug/L	1871.0	469650	ppb	1871.0	0.40%
QC value within limits for Ca 317.933Radial Recovery = 93.93%								
Cd 226.502†	3692.8	1.5791	ug/L	0.52249	1.5791	ppb	0.52249	33.09%
Co 228.616†	279.4	-0.2468	ug/L	0.48674	-0.2468	ppb	0.48674	197.25%
Cr 267.716†	-98.6	2.0391	ug/L	0.17900	2.0391	ppb	0.17900	8.78%
Cu 324.752†	-4249.9	2.7252	ug/L	6.79225	2.7252	ppb	6.79225	249.24%

Fe 238.204 Radial†	47811.6	435020	ug/L	376.2	435020	ppb	376.2	0.09%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.00%								
K 766.490 Radial†	426.7	-280.15	ug/L	18.953	-280.15	ppb	18.953	6.77%
Mg 279.077 IEC†	13523.0	478830	ug/L	196.1	478830	ppb	196.1	0.04%
QC value within limits for Mg 279.077 IEC Recovery = 95.77%								
Mn 257.610†	-25372.2	-5.8226	ug/L	2.28557	-5.8226	ppb	2.28557	39.25%
Mo 202.031†	-545.3	-1.4755	ug/L	2.25058	-1.4755	ppb	2.25058	152.53%
Na 589.592 Radial†	1681891.4	508690	ug/L	753.6	508690	ppb	753.6	0.15%
QC value within limits for Na 589.592 Radial Recovery = 101.74%								
Ni 231.604†	251.1	6.5022	ug/L	0.82734	6.5022	ppb	0.82734	12.72%
P 214.914†	417.5	37.146	ug/L	5.6054	37.146	ppb	5.6054	15.09%
Pb 220.353†	-550.6	6.3566	ug/L	5.68472	6.3566	ppb	5.68472	89.43%
S 181.975 Axial†	58.3	-9.5392	ug/L	4.26602	-9.5392	ppb	4.26602	44.72%
Sb 206.836†	54.2	-1.4761	ug/L	1.61473	-1.4761	ppb	1.61473	109.39%
Se 196.026†	-2407.1	-203.49	ug/L	3.672	-203.49	ppb	3.672	1.80%
Si 251.611†	-996.2	-32.820	ug/L	7.9450	-32.820	ppb	7.9450	24.21%
Sn 189.927†	-418.3	1.0575	ug/L	1.24235	1.0575	ppb	1.24235	117.48%
Sr 421.552†	784.5	1.9948	ug/L	0.16737	1.9948	ppb	0.16737	8.39%
Ti 334.940†	-10304.1	1.2566	ug/L	0.31902	1.2566	ppb	0.31902	25.39%
Tl 190.801†	-69.9	-22.752	ug/L	6.3461	-22.752	ppb	6.3461	27.89%
U 409.014†	461509.4	13333	ug/L	6.9	13333	ppb	6.9	0.05%
QC value less than the lower limit for U 409.014 Recovery = 88.88%								
V 292.402†	3704.8	-2.1435	ug/L	0.61293	-2.1435	ppb	0.61293	28.59%
Zn 213.857†	5632.5	-9.5576	ug/L	2.21654	-9.5576	ppb	2.21654	23.19%
SiO2†	-1180.0	-83.062	ug/L	3.0883	-83.062	ppb	3.0883	3.72%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/11/2010 09:33:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4650.9	4650.9	96.8	%			09:35:00
1	Y RADIAL	4783.5	4783.5	95.66	%			09:35:00
1	Al 396.153Radial†	333.6	496.4	0.7108	ug/L	0.7108	ppb	09:35:00
1	Ca 317.933Radial†	23.7	7.8	12.862	ug/L	12.862	ppb	09:35:20
1	Fe 238.204 Radial†	-14.4	-26.3	36.152	ug/L	36.152	ppb	09:35:20
1	K 766.490 Radial†	1611190.8	1662413.1	293430	ug/L	293430	ppb	09:34:55
1	Mg 279.077 IEC†	-5.0	-5.6	-98.127	ug/L	-98.127	ppb	09:35:20
1	Na 589.592 Radial†	-585.2	473.6	143.25	ug/L	143.25	ppb	09:35:00
1	Sr 421.552†	1340172.7	1385127.1	9714.1	ug/L	9714.1	ppb	09:34:55
1	Sc 361.383	830480.9	830480.9	96.333	%			09:36:38
1	Y 371.029	671491.8	671491.8	93.967	%			09:36:38
1	Ag 328.068†	-6762.9	-7249.1	5.4086	ug/L	5.4086	ppb	09:36:43
1	As 188.979†	20200.0	21002.8	9593.7	ug/L	9593.7	ppb	09:36:43
1	B 249.677†	196689.0	204715.3	4843.9	ug/L	4843.9	ppb	09:36:38
1	Ba 233.527†	1600343.8	1661274.8	13589	ug/L	13589	ppb	09:36:38
1	Be 313.107†	7265166.3	7546064.4	2833.5	ug/L	2833.5	ppb	09:36:31
1	Cd 226.502†	755144.3	784101.9	9328.1	ug/L	9328.1	ppb	09:36:38
1	Co 228.616†	406593.6	422144.9	9218.3	ug/L	9218.3	ppb	09:36:43
1	Cr 267.716†	1932202.1	2005687.5	23364	ug/L	23364	ppb	09:36:38
1	Cu 324.752†	6365638.9	6602135.7	20027	ug/L	20027	ppb	09:36:31
1	Mn 257.610†	7763667.0	8058750.7	9271.7	ug/L	9271.7	ppb	09:36:31
1	Mo 202.031†	122028.6	126658.3	9485.1	ug/L	9485.1	ppb	09:36:43
1	Ni 231.604†	344682.0	357694.9	9261.2	ug/L	9261.2	ppb	09:36:43
1	P 214.914†	26983.0	27782.1	13404	ug/L	13404	ppb	09:36:43
1	Pb 220.353†	180598.4	187534.9	23407	ug/L	23407	ppb	09:36:43
1	S 181.975 Axial†	33933.7	35186.1	51309	ug/L	51309	ppb	09:36:43
1	Sb 206.836†	28522.8	29566.4	10656	ug/L	10656	ppb	09:36:43
1	Se 196.026†	14083.5	14641.8	9893.2	ug/L	9893.2	ppb	09:36:43
1	Si 251.611†	1364633.1	1416017.6	47247	ug/L	47247	ppb	09:36:38
1	Sn 189.927†	51351.7	53297.8	9890.8	ug/L	9890.8	ppb	09:36:43
1	Ti 334.940†	5971468.8	6200084.9	10048	ug/L	10048	ppb	09:36:31
1	Tl 190.801†	27850.2	28944.6	9344.2	ug/L	9344.2	ppb	09:36:43
1	U 409.014†	-1666.1	1250.5	-15.966	ug/L	-15.966	ppb	09:36:43
1	V 292.402†	1299912.8	1350950.5	9925.7	ug/L	9925.7	ppb	09:36:38
1	Zn 213.857†	1324301.5	1373999.8	13469	ug/L	13469	ppb	09:36:38
1	SiO2†	1387661.4	1439901.6	102450	ug/L	102450	ppb	09:37:29
2	Sc Radial	4697.1	4697.1	97.7	%			09:35:31
2	Y RADIAL	4897.2	4897.2	97.93	%			09:35:31
2	Al 396.153Radial†	338.3	497.8	0.4691	ug/L	0.4691	ppb	09:35:31
2	Ca 317.933Radial†	31.7	15.7	26.032	ug/L	26.032	ppb	09:35:51
2	Fe 238.204 Radial†	-16.6	-28.4	17.783	ug/L	17.783	ppb	09:35:51
2	K 766.490 Radial†	1593050.7	1627452.8	287260	ug/L	287260	ppb	09:35:26
2	Mg 279.077 IEC†	-5.5	-6.1	-114.98	ug/L	-114.98	ppb	09:35:51
2	Na 589.592 Radial†	-558.2	507.3	153.44	ug/L	153.44	ppb	09:35:31
2	Sr 421.552†	1321540.4	1352421.2	9484.7	ug/L	9484.7	ppb	09:35:26
2	Sc 361.383	843181.2	843181.2	97.806	%			09:36:57
2	Y 371.029	682273.7	682273.7	95.476	%			09:36:57
2	Ag 328.068†	-6938.2	-7322.6	4.9778	ug/L	4.9778	ppb	09:37:03
2	As 188.979†	20654.0	21151.2	9659.4	ug/L	9659.4	ppb	09:37:03
2	B 249.677†	200176.9	205206.0	4855.5	ug/L	4855.5	ppb	09:36:57
2	Ba 233.527†	1620078.9	1656430.0	13549	ug/L	13549	ppb	09:36:57
2	Be 313.107†	7256909.8	7424026.1	2787.6	ug/L	2787.6	ppb	09:36:51
2	Cd 226.502†	764766.7	782132.8	9304.7	ug/L	9304.7	ppb	09:36:57
2	Co 228.616†	413805.0	423160.7	9240.9	ug/L	9240.9	ppb	09:37:03
2	Cr 267.716†	1954235.5	1998003.6	23275	ug/L	23275	ppb	09:36:57
2	Cu 324.752†	6350118.1	6486735.0	19677	ug/L	19677	ppb	09:36:51
2	Mn 257.610†	7738091.4	7911210.3	9102.0	ug/L	9102.0	ppb	09:36:51
2	Mo 202.031†	124307.1	127079.8	9516.7	ug/L	9516.7	ppb	09:37:03
2	Ni 231.604†	350664.5	358422.1	9280.0	ug/L	9280.0	ppb	09:37:03

2	P 214.914†	27516.2	27905.4	13550	ug/L	13550 ppb	09:37:03
2	Pb 220.353†	183977.4	188165.8	23486	ug/L	23486 ppb	09:37:03
2	S 181.975 Axial†	34674.3	35412.7	51639	ug/L	51639 ppb	09:37:03
2	Sb 206.836†	29160.7	29772.7	10729	ug/L	10729 ppb	09:37:03
2	Se 196.026†	14370.3	14714.7	9942.4	ug/L	9942.4 ppb	09:37:03
2	Si 251.611†	1385670.7	1416190.0	47252	ug/L	47252 ppb	09:36:57
2	Sn 189.927†	52228.9	53391.7	9908.2	ug/L	9908.2 ppb	09:37:03
2	Ti 334.940†	5953376.9	6088218.5	9866.4	ug/L	9866.4 ppb	09:36:51
2	Tl 190.801†	28344.1	29014.1	9364.1	ug/L	9364.1 ppb	09:37:03
2	U 409.014†	-1704.1	1237.7	-16.135	ug/L	-16.135 ppb	09:37:03
2	V 292.402†	1317190.3	1348290.4	9907.1	ug/L	9907.1 ppb	09:36:57
2	Zn 213.857†	1340432.9	1369786.5	13428	ug/L	13428 ppb	09:36:57
2	SiO2†	1381582.9	1411989.6	100460	ug/L	100460 ppb	09:37:35
3	Sc Radial	4719.4	4719.4	98.2	%		09:36:01
3	Y RADIAL	4867.3	4867.3	97.33	%		09:36:01
3	Al 396.153Radial†	379.3	537.9	37.057	ug/L	37.057 ppb	09:36:01
3	Ca 317.933Radial†	30.1	13.9	23.111	ug/L	23.111 ppb	09:36:21
3	Fe 238.204 Radial†	-15.3	-27.1	30.834	ug/L	30.834 ppb	09:36:21
3	K 766.490 Radial†	1634353.5	1661813.6	293330	ug/L	293330 ppb	09:35:56
3	Mg 279.077 IEC†	-7.0	-7.5	-165.80	ug/L	-165.80 ppb	09:36:21
3	Na 589.592 Radial†	-523.3	545.5	164.99	ug/L	164.99 ppb	09:36:01
3	Sr 421.552†	1365024.9	1390317.7	9750.5	ug/L	9750.5 ppb	09:35:56
3	Sc 361.383	838614.3	838614.3	97.276	%		09:37:17
3	Y 371.029	678129.6	678129.6	94.896	%		09:37:17
3	Ag 328.068†	-6966.0	-7389.9	4.6620	ug/L	4.6620 ppb	09:37:22
3	As 188.979†	20579.2	21189.3	9677.8	ug/L	9677.8 ppb	09:37:22
3	B 249.677†	199331.9	205452.0	4861.3	ug/L	4861.3 ppb	09:37:17
3	Ba 233.527†	1612295.6	1657449.3	13557	ug/L	13557 ppb	09:37:17
3	Be 313.107†	7301723.8	7510501.0	2820.1	ug/L	2820.1 ppb	09:37:11
3	Cd 226.502†	760235.1	781732.6	9300.0	ug/L	9300.0 ppb	09:37:17
3	Co 228.616†	412652.0	424279.4	9265.1	ug/L	9265.1 ppb	09:37:22
3	Cr 267.716†	1944080.4	1998445.3	23280	ug/L	23280 ppb	09:37:17
3	Cu 324.752†	6411990.8	6585697.2	19978	ug/L	19978 ppb	09:37:11
3	Mn 257.610†	7803218.9	8021246.7	9228.6	ug/L	9228.6 ppb	09:37:11
3	Mo 202.031†	123822.2	127273.6	9531.2	ug/L	9531.2 ppb	09:37:22
3	Ni 231.604†	349393.8	359068.3	9296.7	ug/L	9296.7 ppb	09:37:22
3	P 214.914†	27410.8	27950.2	13519	ug/L	13519 ppb	09:37:22
3	Pb 220.353†	183260.8	188453.6	23521	ug/L	23521 ppb	09:37:22
3	S 181.975 Axial†	34522.5	35449.7	51693	ug/L	51693 ppb	09:37:22
3	Sb 206.836†	29057.7	29829.2	10749	ug/L	10749 ppb	09:37:22
3	Se 196.026†	14316.1	14739.1	9958.9	ug/L	9958.9 ppb	09:37:22
3	Si 251.611†	1378793.9	1416836.0	47274	ug/L	47274 ppb	09:37:17
3	Sn 189.927†	52112.1	53562.5	9939.9	ug/L	9939.9 ppb	09:37:22
3	Ti 334.940†	6003889.3	6173293.3	10004	ug/L	10004 ppb	09:37:11
3	Tl 190.801†	28160.2	28982.8	9355.7	ug/L	9355.7 ppb	09:37:22
3	U 409.014†	-1709.0	1223.2	-16.569	ug/L	-16.569 ppb	09:37:22
3	V 292.402†	1309937.5	1348168.6	9906.2	ug/L	9906.2 ppb	09:37:17
3	Zn 213.857†	1334404.9	1371053.2	13440	ug/L	13440 ppb	09:37:17
3	SiO2†	1364075.6	1401684.8	99725	ug/L	99725 ppb	09:37:41

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	837425.5	97.138	%	0.7462				0.77%
Sc Radial	4689.2	97.6	%	0.73				0.75%
Y 371.029	677298.4	94.780	%	0.7611				0.80%
Y RADIAL	4849.3	96.97	%	1.178				1.21%
Ag 328.068†	-7320.5	5.0161	ug/L	0.37476	5.0161	ppb	0.37476	7.47%
Al 396.153Radial†	510.7	12.746	ug/L	21.0546	12.746	ppb	21.0546	165.19%
As 188.979†	21114.4	9643.6	ug/L	44.20	9643.6	ppb	44.20	0.46%
QC value within limits for As 188.979 Recovery = 96.44%								
B 249.677†	205124.4	4853.5	ug/L	8.86	4853.5	ppb	8.86	0.18%
QC value within limits for B 249.677 Recovery = 97.07%								
Ba 233.527†	1658384.7	13565	ug/L	20.9	13565	ppb	20.9	0.15%
QC value within limits for Ba 233.527 Recovery = 90.43%								
Be 313.107†	7493530.5	2813.8	ug/L	23.59	2813.8	ppb	23.59	0.84%
QC value within limits for Be 313.107 Recovery = 93.79%								
Ca 317.933Radial†	12.5	20.668	ug/L	6.9165	20.668	ppb	6.9165	33.46%
Cd 226.502†	782655.8	9310.9	ug/L	15.07	9310.9	ppb	15.07	0.16%
QC value within limits for Cd 226.502 Recovery = 93.11%								

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Co 228.616†          423195.0      9241.4 ug/L        23.43      9241.4 ppb        23.43   0.25%
   QC value within limits for Co 228.616  Recovery = 92.41%
Cr 267.716†         2000712.1       23306 ug/L         50.2       23306 ppb         50.2   0.22%
   QC value within limits for Cr 267.716  Recovery = 93.22%
Cu 324.752†         6558189.3       19894 ug/L        189.4       19894 ppb        189.4   0.95%
   QC value within limits for Cu 324.752  Recovery = 99.47%
Fe 238.204 Radial†      -27.3      28.256 ug/L       9.4518      28.256 ppb       9.4518  33.45%
K 766.490 Radial†    1650559.8      291340 ug/L       3532.7      291340 ppb       3532.7   1.21%
   QC value within limits for K 766.490 Radial  Recovery = 97.11%
Mg 279.077 IEC†          -6.4     -126.30 ug/L       35.229     -126.30 ppb       35.229  27.89%
Mn 257.610†         7997069.2      9200.8 ug/L        88.23      9200.8 ppb        88.23   0.96%
   QC value within limits for Mn 257.610  Recovery = 92.01%
Mo 202.031†          127003.9      9511.0 ug/L        23.56      9511.0 ppb        23.56   0.25%
   QC value within limits for Mo 202.031  Recovery = 95.11%
Na 589.592 Radial†       508.8      153.89 ug/L       10.878      153.89 ppb       10.878   7.07%
Ni 231.604†          358395.1      9279.3 ug/L        17.79      9279.3 ppb        17.79   0.19%
   QC value within limits for Ni 231.604  Recovery = 92.79%
P 214.914†            27879.2       13491 ug/L         77.1       13491 ppb         77.1   0.57%
   QC value less than the lower limit for P 214.914  Recovery = 89.94%
Pb 220.353†          188051.4       23471 ug/L         58.7       23471 ppb         58.7   0.25%
   QC value within limits for Pb 220.353  Recovery = 93.88%
S 181.975 Axial†      35349.5       51547 ug/L        208.1       51547 ppb        208.1   0.40%
   QC value within limits for S 181.975 Axial  Recovery = 103.09%
Sb 206.836†           29722.7       10711 ug/L         49.2       10711 ppb         49.2   0.46%
   QC value within limits for Sb 206.836  Recovery = 107.11%
Se 196.026†           14698.5      9931.5 ug/L        34.17      9931.5 ppb        34.17   0.34%
   QC value within limits for Se 196.026  Recovery = 99.31%
Si 251.611†         1416347.9       47258 ug/L         14.2       47258 ppb         14.2   0.03%
   QC value within limits for Si 251.611  Recovery = 94.52%
Sn 189.927†           53417.3      9913.0 ug/L        24.90      9913.0 ppb        24.90   0.25%
   QC value within limits for Sn 189.927  Recovery = 99.13%
Sr 421.552†         1375955.3      9649.8 ug/L       144.09      9649.8 ppb       144.09   1.49%
   QC value within limits for Sr 421.552  Recovery = 96.50%
Ti 334.940†         6153865.6      9972.9 ug/L        94.72      9972.9 ppb        94.72   0.95%
   QC value within limits for Ti 334.940  Recovery = 99.73%
Tl 190.801†           28980.5      9354.6 ug/L         9.99      9354.6 ppb         9.99   0.11%
   QC value within limits for Tl 190.801  Recovery = 93.55%
U 409.014†             1237.2     -16.223 ug/L       0.3110     -16.223 ppb       0.3110   1.92%
V 292.402†          1349136.5      9913.0 ug/L        11.01      9913.0 ppb        11.01   0.11%
   QC value within limits for V 292.402  Recovery = 99.13%
Zn 213.857†         1371613.1       13446 ug/L         21.2       13446 ppb         21.2   0.16%
   QC value less than the lower limit for Zn 213.857  Recovery = 89.64%
SiO2†               1417858.7      100880 ug/L       1411.1      100880 ppb       1411.1   1.40%
   QC value within limits for SiO2  Recovery = 94.28%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 09:39:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4670.4	4670.4	97.2	%			09:41:42
1	Y RADIAL	4823.4	4823.4	96.46	%			09:41:42
1	Al 396.153Radial†	5123.5	5424.7	5011.1	ug/L	5011.1	ppb	09:41:42
1	Ca 317.933Radial†	3015.0	3086.3	5115.4	ug/L	5115.4	ppb	09:42:02
1	Fe 238.204 Radial†	565.0	570.1	5202.1	ug/L	5202.1	ppb	09:42:02
1	K 766.490 Radial†	31539.8	29635.5	5224.9	ug/L	5224.9	ppb	09:41:42
1	Mg 279.077 IEC†	144.2	148.0	5243.8	ug/L	5243.8	ppb	09:42:02
1	Na 589.592 Radial†	30750.2	32727.1	9898.3	ug/L	9898.3	ppb	09:41:42
1	Sr 421.552†	71023.6	73096.4	512.60	ug/L	512.60	ppb	09:41:42
1	Sc 361.383	861497.2	861497.2	99.931	%			09:43:00
1	Y 371.029	702306.5	702306.5	98.279	%			09:43:00
1	Ag 328.068†	105494.3	105338.6	499.61	ug/L	499.61	ppb	09:43:05
1	As 188.979†	1102.8	1137.5	520.44	ug/L	520.44	ppb	09:43:25
1	B 249.677†	21775.9	22330.0	528.94	ug/L	528.94	ppb	09:43:05
1	Ba 233.527†	61166.3	61220.3	501.22	ug/L	501.22	ppb	09:43:05
1	Be 313.107†	1303101.7	1308343.7	488.45	ug/L	488.45	ppb	09:43:00
1	Cd 226.502†	41552.9	41793.6	496.76	ug/L	496.76	ppb	09:43:05
1	Co 228.616†	23177.2	23267.0	508.27	ug/L	508.27	ppb	09:43:05
1	Cr 267.716†	42798.2	42761.1	498.43	ug/L	498.43	ppb	09:43:05
1	Cu 324.752†	171474.0	165772.1	502.86	ug/L	502.86	ppb	09:43:05
1	Mn 257.610†	425443.4	425286.4	489.60	ug/L	489.60	ppb	09:43:00
1	Mo 202.031†	6534.4	6523.4	488.99	ug/L	488.99	ppb	09:43:25
1	Ni 231.604†	19280.3	19185.6	496.73	ug/L	496.73	ppb	09:43:05
1	P 214.914†	4111.5	3886.3	2320.2	ug/L	2320.2	ppb	09:43:25
1	Pb 220.353†	3850.2	3914.5	489.93	ug/L	489.93	ppb	09:43:25
1	S 181.975 Axial†	717.2	678.4	988.26	ug/L	988.26	ppb	09:43:25
1	Sb 206.836†	1459.7	1418.6	512.05	ug/L	512.05	ppb	09:43:25
1	Se 196.026†	717.2	739.8	516.83	ug/L	516.83	ppb	09:43:25
1	Si 251.611†	75036.2	74526.0	2486.8	ug/L	2486.8	ppb	09:43:05
1	Sn 189.927†	2646.0	2639.1	490.62	ug/L	490.62	ppb	09:43:25
1	Ti 334.940†	305681.5	307196.6	498.12	ug/L	498.12	ppb	09:43:05
1	Tl 190.801†	1506.2	1541.5	497.27	ug/L	497.27	ppb	09:43:25
1	U 409.014†	14331.4	17321.4	500.56	ug/L	500.56	ppb	09:43:05
1	V 292.402†	66956.5	68557.5	504.38	ug/L	504.38	ppb	09:43:05
1	Zn 213.857†	51424.0	50746.4	496.01	ug/L	496.01	ppb	09:43:05
1	SiO2†	74219.5	73687.8	5243.0	ug/L	5243.0	ppb	09:44:33
2	Sc Radial	4885.8	4885.8	102	%			09:42:08
2	Y RADIAL	5063.3	5063.3	101.3	%			09:42:08
2	Al 396.153Radial†	5273.5	5340.0	4932.5	ug/L	4932.5	ppb	09:42:08
2	Ca 317.933Radial†	3042.0	2976.2	4932.8	ug/L	4932.8	ppb	09:42:28
2	Fe 238.204 Radial†	571.6	550.9	5027.6	ug/L	5027.6	ppb	09:42:28
2	K 766.490 Radial†	32442.3	29092.8	5129.2	ug/L	5129.2	ppb	09:42:08
2	Mg 279.077 IEC†	147.0	144.2	5111.5	ug/L	5111.5	ppb	09:42:28
2	Na 589.592 Radial†	31888.4	32451.9	9815.1	ug/L	9815.1	ppb	09:42:08
2	Sr 421.552†	73180.6	71996.8	504.89	ug/L	504.89	ppb	09:42:08
2	Sc 361.383	864633.3	864633.3	100.29	%			09:43:31
2	Y 371.029	705630.1	705630.1	98.744	%			09:43:31
2	Ag 328.068†	104840.4	104303.7	494.67	ug/L	494.67	ppb	09:43:36
2	As 188.979†	1105.7	1136.3	519.84	ug/L	519.84	ppb	09:43:56
2	B 249.677†	21597.8	22073.4	522.87	ug/L	522.87	ppb	09:43:36
2	Ba 233.527†	60847.9	60680.8	496.80	ug/L	496.80	ppb	09:43:36
2	Be 313.107†	1314109.6	1314589.5	490.76	ug/L	490.76	ppb	09:43:31
2	Cd 226.502†	41341.7	41432.2	492.48	ug/L	492.48	ppb	09:43:36
2	Co 228.616†	23086.0	23091.9	504.45	ug/L	504.45	ppb	09:43:36
2	Cr 267.716†	42557.5	42365.8	493.82	ug/L	493.82	ppb	09:43:36
2	Cu 324.752†	170015.5	163695.5	496.56	ug/L	496.56	ppb	09:43:36
2	Mn 257.610†	427958.4	426249.9	490.69	ug/L	490.69	ppb	09:43:31
2	Mo 202.031†	6526.9	6492.2	486.63	ug/L	486.63	ppb	09:43:56
2	Ni 231.604†	19245.0	19080.5	494.01	ug/L	494.01	ppb	09:43:36

2	P 214.914†	4117.3	3877.1	2315.8 ug/L	2315.8 ppb	09:43:56
2	Pb 220.353†	3853.2	3903.6	488.56 ug/L	488.56 ppb	09:43:56
2	S 181.975 Axial†	715.0	673.6	981.29 ug/L	981.29 ppb	09:43:56
2	Sb 206.836†	1453.1	1406.7	507.80 ug/L	507.80 ppb	09:43:56
2	Se 196.026†	705.8	725.9	506.87 ug/L	506.87 ppb	09:43:56
2	Si 251.611†	74374.4	73593.8	2455.6 ug/L	2455.6 ppb	09:43:36
2	Sn 189.927†	2633.2	2616.7	486.44 ug/L	486.44 ppb	09:43:56
2	Ti 334.940†	303051.3	303464.6	492.06 ug/L	492.06 ppb	09:43:36
2	Tl 190.801†	1510.8	1540.5	496.95 ug/L	496.95 ppb	09:43:56
2	U 409.014†	14033.6	16972.5	490.47 ug/L	490.47 ppb	09:43:36
2	V 292.402†	66533.7	67893.0	499.53 ug/L	499.53 ppb	09:43:36
2	Zn 213.857†	51089.5	50226.2	490.93 ug/L	490.93 ppb	09:43:36
2	SiO2†	74415.2	73613.6	5237.8 ug/L	5237.8 ppb	09:44:38
3	Sc Radial	4806.3	4806.3	100.0 %		09:42:33
3	Y RADIAL	4987.4	4987.4	99.73 %		09:42:33
3	Al 396.153Radial†	5274.4	5426.7	5013.0 ug/L	5013.0 ppb	09:42:33
3	Ca 317.933Radial†	3039.9	3023.5	5011.3 ug/L	5011.3 ppb	09:42:53
3	Fe 238.204 Radial†	566.3	554.9	5063.6 ug/L	5063.6 ppb	09:42:53
3	K 766.490 Radial†	32341.8	29519.9	5204.5 ug/L	5204.5 ppb	09:42:33
3	Mg 279.077 IEC†	145.5	145.1	5142.1 ug/L	5142.1 ppb	09:42:53
3	Na 589.592 Radial†	32007.4	33089.7	10008 ug/L	10008 ppb	09:42:33
3	Sr 421.552†	73573.8	73580.3	515.99 ug/L	515.99 ppb	09:42:33
3	Sc 361.383	866646.2	866646.2	100.53 %		09:44:02
3	Y 371.029	705779.0	705779.0	98.765 %		09:44:02
3	Ag 328.068†	105067.1	104286.4	494.59 ug/L	494.59 ppb	09:44:07
3	As 188.979†	1098.0	1126.1	515.24 ug/L	515.24 ppb	09:44:27
3	B 249.677†	21681.5	22106.7	523.65 ug/L	523.65 ppb	09:44:07
3	Ba 233.527†	61108.1	60798.7	497.76 ug/L	497.76 ppb	09:44:07
3	Be 313.107†	1304278.6	1301767.0	485.98 ug/L	485.98 ppb	09:44:02
3	Cd 226.502†	41405.1	41399.5	492.09 ug/L	492.09 ppb	09:44:07
3	Co 228.616†	23181.2	23133.1	505.35 ug/L	505.35 ppb	09:44:07
3	Cr 267.716†	42560.1	42269.8	492.70 ug/L	492.70 ppb	09:44:07
3	Cu 324.752†	170405.3	163689.6	496.54 ug/L	496.54 ppb	09:44:07
3	Mn 257.610†	427104.0	424408.9	488.58 ug/L	488.58 ppb	09:44:02
3	Mo 202.031†	6540.3	6490.4	486.50 ug/L	486.50 ppb	09:44:27
3	Ni 231.604†	19295.9	19086.5	494.17 ug/L	494.17 ppb	09:44:07
3	P 214.914†	4134.2	3884.4	2320.4 ug/L	2320.4 ppb	09:44:27
3	Pb 220.353†	3830.3	3871.9	484.63 ug/L	484.63 ppb	09:44:27
3	S 181.975 Axial†	703.2	660.1	961.69 ug/L	961.69 ppb	09:44:27
3	Sb 206.836†	1440.7	1390.9	502.33 ug/L	502.33 ppb	09:44:27
3	Se 196.026†	715.8	734.1	512.54 ug/L	512.54 ppb	09:44:27
3	Si 251.611†	74658.3	73703.9	2459.3 ug/L	2459.3 ppb	09:44:07
3	Sn 189.927†	2648.3	2625.7	488.11 ug/L	488.11 ppb	09:44:27
3	Ti 334.940†	304012.2	303718.7	492.47 ug/L	492.47 ppb	09:44:07
3	Tl 190.801†	1513.4	1539.6	496.66 ug/L	496.66 ppb	09:44:27
3	U 409.014†	14198.9	17104.4	494.29 ug/L	494.29 ppb	09:44:07
3	V 292.402†	66536.1	67741.3	498.43 ug/L	498.43 ppb	09:44:07
3	Zn 213.857†	51169.4	50187.4	490.54 ug/L	490.54 ppb	09:44:07
3	SiO2†	73541.8	72572.5	5163.5 ug/L	5163.5 ppb	09:44:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864258.9	100.25	%	0.301				0.30%
Sc Radial	4787.5	99.6	%	2.27				2.27%
Y 371.029	704571.9	98.596	%	0.2747				0.28%
Y RADIAL	4958.0	99.15	%	2.452				2.47%
Ag 328.068†	104642.9	496.29	ug/L	2.877	496.29	ppb	2.877	0.58%
QC value within limits for Ag 328.068 Recovery = 99.26%								
Al 396.153Radial†	5397.1	4985.5	ug/L	45.91	4985.5	ppb	45.91	0.92%
QC value within limits for Al 396.153Radial Recovery = 99.71%								
As 188.979†	1133.3	518.51	ug/L	2.850	518.51	ppb	2.850	0.55%
QC value within limits for As 188.979 Recovery = 103.70%								
B 249.677†	22170.0	525.15	ug/L	3.299	525.15	ppb	3.299	0.63%
QC value within limits for B 249.677 Recovery = 105.03%								
Ba 233.527†	60899.9	498.60	ug/L	2.325	498.60	ppb	2.325	0.47%
QC value within limits for Ba 233.527 Recovery = 99.72%								
Be 313.107†	1308233.4	488.40	ug/L	2.388	488.40	ppb	2.388	0.49%
QC value within limits for Be 313.107 Recovery = 97.68%								
Ca 317.933Radial†	3028.7	5019.8	ug/L	91.58	5019.8	ppb	91.58	1.82%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.40%
Cd 226.502†            41541.8      493.78 ug/L         2.593      493.78 ppb          2.593   0.53%
   QC value within limits for Cd 226.502  Recovery = 98.76%
Co 228.616†            23164.0      506.03 ug/L         1.994      506.03 ppb          1.994   0.39%
   QC value within limits for Co 228.616  Recovery = 101.21%
Cr 267.716†            42465.5      494.98 ug/L         3.036      494.98 ppb          3.036   0.61%
   QC value within limits for Cr 267.716  Recovery = 99.00%
Cu 324.752†           164385.7      498.66 ug/L         3.644      498.66 ppb          3.644   0.73%
   QC value within limits for Cu 324.752  Recovery = 99.73%
Fe 238.204 Radial†       558.6      5097.8 ug/L        92.12      5097.8 ppb         92.12   1.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.96%
K 766.490 Radial†      29416.1      5186.2 ug/L        50.41      5186.2 ppb         50.41   0.97%
   QC value within limits for K 766.490 Radial  Recovery = 103.72%
Mg 279.077 IEC†          145.8      5165.8 ug/L        69.27      5165.8 ppb         69.27   1.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           425315.0      489.62 ug/L         1.058      489.62 ppb          1.058   0.22%
   QC value within limits for Mn 257.610  Recovery = 97.92%
Mo 202.031†             6502.0      487.37 ug/L         1.399      487.37 ppb          1.399   0.29%
   QC value within limits for Mo 202.031  Recovery = 97.47%
Na 589.592 Radial†     32756.2      9907.1 ug/L        96.74      9907.1 ppb         96.74   0.98%
   QC value within limits for Na 589.592 Radial  Recovery = 99.07%
Ni 231.604†            19117.5      494.97 ug/L         1.528      494.97 ppb          1.528   0.31%
   QC value within limits for Ni 231.604  Recovery = 98.99%
P 214.914†              3882.6      2318.8 ug/L          2.58      2318.8 ppb          2.58   0.11%
   QC value within limits for P 214.914  Recovery = 92.75%
Pb 220.353†             3896.7      487.70 ug/L         2.753      487.70 ppb          2.753   0.56%
   QC value within limits for Pb 220.353  Recovery = 97.54%
S 181.975 Axial†         670.7      977.08 ug/L        13.777      977.08 ppb         13.777   1.41%
   QC value within limits for S 181.975 Axial  Recovery = 97.71%
Sb 206.836†             1405.4      507.39 ug/L         4.872      507.39 ppb          4.872   0.96%
   QC value within limits for Sb 206.836  Recovery = 101.48%
Se 196.026†              733.3      512.08 ug/L         4.996      512.08 ppb          4.996   0.98%
   QC value within limits for Se 196.026  Recovery = 102.42%
Si 251.611†            73941.2      2467.2 ug/L         17.02      2467.2 ppb         17.02   0.69%
   QC value within limits for Si 251.611  Recovery = 98.69%
Sn 189.927†             2627.2      488.39 ug/L         2.107      488.39 ppb          2.107   0.43%
   QC value within limits for Sn 189.927  Recovery = 97.68%
Sr 421.552†            72891.2      511.16 ug/L         5.691      511.16 ppb          5.691   1.11%
   QC value within limits for Sr 421.552  Recovery = 102.23%
Ti 334.940†           304793.3      494.22 ug/L         3.385      494.22 ppb          3.385   0.68%
   QC value within limits for Ti 334.940  Recovery = 98.84%
Tl 190.801†             1540.5      496.96 ug/L         0.305      496.96 ppb          0.305   0.06%
   QC value within limits for Tl 190.801  Recovery = 99.39%
U 409.014†             17132.8      495.11 ug/L         5.093      495.11 ppb          5.093   1.03%
   QC value within limits for U 409.014  Recovery = 99.02%
V 292.402†             68063.9      500.78 ug/L         3.165      500.78 ppb          3.165   0.63%
   QC value within limits for V 292.402  Recovery = 100.16%
Zn 213.857†            50386.6      492.50 ug/L         3.051      492.50 ppb          3.051   0.62%
   QC value within limits for Zn 213.857  Recovery = 98.50%
SiO2†                  73291.3      5214.7 ug/L         44.46      5214.7 ppb         44.46   0.85%
   QC value within limits for SiO2  Recovery = 97.52%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 09:46:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4734.7	4734.7	98.5	%			09:48:47
1	Y RADIAL	4964.3	4964.3	99.27	%			09:48:47
1	Al 396.153Radial†	-150.8	-1.5	-1.4646	ug/L	-1.4646	ppb	09:48:47
1	Ca 317.933Radial†	16.3	-0.2	-0.2671	ug/L	-0.2671	ppb	09:49:07
1	Fe 238.204 Radial†	13.4	2.2	19.695	ug/L	19.695	ppb	09:49:07
1	K 766.490 Radial†	3573.3	802.1	141.56	ug/L	141.56	ppb	09:48:47
1	Mg 279.077 IEC†	2.9	2.5	89.003	ug/L	89.003	ppb	09:49:07
1	Na 589.592 Radial†	-923.5	140.9	42.627	ug/L	42.627	ppb	09:48:47
1	Sr 421.552†	14.6	12.7	0.0891	ug/L	0.0891	ppb	09:48:47
1	Sc 361.383	859259.9	859259.9	99.671	%			09:50:03
1	Y 371.029	711240.7	711240.7	99.529	%			09:50:03
1	Ag 328.068†	295.5	67.7	0.3243	ug/L	0.3243	ppb	09:50:03
1	As 188.979†	-10.2	23.7	10.734	ug/L	10.734	ppb	09:50:23
1	B 249.677†	398.8	939.1	22.338	ug/L	22.338	ppb	09:50:23
1	Ba 233.527†	-5.1	6.4	0.0524	ug/L	0.0524	ppb	09:50:23
1	Be 313.107†	-4186.5	138.4	0.0516	ug/L	0.0516	ppb	09:50:03
1	Cd 226.502†	-173.0	38.3	0.4537	ug/L	0.4537	ppb	09:50:23
1	Co 228.616†	-65.0	8.5	0.1893	ug/L	0.1893	ppb	09:50:23
1	Cr 267.716†	87.0	20.5	0.2382	ug/L	0.2382	ppb	09:50:23
1	Cu 324.752†	5846.5	45.1	0.1379	ug/L	0.1379	ppb	09:50:03
1	Mn 257.610†	465.9	15.6	0.0162	ug/L	0.0162	ppb	09:50:23
1	Mo 202.031†	43.0	27.6	2.0667	ug/L	2.0667	ppb	09:50:23
1	Ni 231.604†	114.3	6.7	0.1731	ug/L	0.1731	ppb	09:50:23
1	P 214.914†	224.2	-3.1	-1.9524	ug/L	-1.9524	ppb	09:50:23
1	Pb 220.353†	-34.1	27.5	3.4373	ug/L	3.4373	ppb	09:50:23
1	S 181.975 Axial†	43.3	4.1	5.9263	ug/L	5.9263	ppb	09:50:23
1	Sb 206.836†	53.8	11.8	4.2181	ug/L	4.2181	ppb	09:50:23
1	Se 196.026†	-15.9	6.2	4.2299	ug/L	4.2299	ppb	09:50:23
1	Si 251.611†	629.8	69.6	2.3014	ug/L	2.3014	ppb	09:50:23
1	Sn 189.927†	31.9	23.4	4.3362	ug/L	4.3362	ppb	09:50:23
1	Ti 334.940†	-1288.0	11.0	0.0105	ug/L	0.0105	ppb	09:50:03
1	Tl 190.801†	-26.8	7.4	2.3554	ug/L	2.3554	ppb	09:50:23
1	U 409.014†	-2976.1	-5.9	-0.1744	ug/L	-0.1744	ppb	09:50:03
1	V 292.402†	-1594.5	-45.1	-0.3003	ug/L	-0.3003	ppb	09:50:03
1	Zn 213.857†	722.7	11.9	0.1128	ug/L	0.1128	ppb	09:50:23
1	SiO2†	668.2	87.2	6.1665	ug/L	6.1665	ppb	09:51:19
2	Sc Radial	4851.7	4851.7	101	%			09:49:12
2	Y RADIAL	5095.2	5095.2	101.9	%			09:49:12
2	Al 396.153Radial†	-115.2	37.5	34.701	ug/L	34.701	ppb	09:49:12
2	Ca 317.933Radial†	20.4	3.5	5.7726	ug/L	5.7726	ppb	09:49:32
2	Fe 238.204 Radial†	9.9	-1.7	-15.375	ug/L	-15.375	ppb	09:49:32
2	K 766.490 Radial†	3498.8	640.8	113.10	ug/L	113.10	ppb	09:49:12
2	Mg 279.077 IEC†	1.1	0.6	22.595	ug/L	22.595	ppb	09:49:32
2	Na 589.592 Radial†	-919.4	167.6	50.696	ug/L	50.696	ppb	09:49:12
2	Sr 421.552†	-17.5	-19.4	-0.1361	ug/L	-0.1361	ppb	09:49:12
2	Sc 361.383	850504.8	850504.8	98.656	%			09:50:29
2	Y 371.029	704312.6	704312.6	98.560	%			09:50:29
2	Ag 328.068†	269.4	44.3	0.2043	ug/L	0.2043	ppb	09:50:29
2	As 188.979†	-5.5	28.3	12.834	ug/L	12.834	ppb	09:50:49
2	B 249.677†	398.0	942.4	22.422	ug/L	22.422	ppb	09:50:49
2	Ba 233.527†	5.5	17.2	0.1409	ug/L	0.1409	ppb	09:50:49
2	Be 313.107†	-4196.2	85.3	0.0320	ug/L	0.0320	ppb	09:50:29
2	Cd 226.502†	-160.9	48.8	0.5818	ug/L	0.5818	ppb	09:50:49
2	Co 228.616†	-66.1	6.7	0.1493	ug/L	0.1493	ppb	09:50:49
2	Cr 267.716†	89.3	23.7	0.2759	ug/L	0.2759	ppb	09:50:49
2	Cu 324.752†	5914.7	174.6	0.5279	ug/L	0.5279	ppb	09:50:29
2	Mn 257.610†	480.8	35.5	0.0384	ug/L	0.0384	ppb	09:50:49
2	Mo 202.031†	33.8	18.7	1.3991	ug/L	1.3991	ppb	09:50:49
2	Ni 231.604†	104.7	-1.9	-0.0499	ug/L	-0.0499	ppb	09:50:49

2	P 214.914†	217.6	-7.5	-4.7167	ug/L	-4.7167 ppb	09:50:49
2	Pb 220.353†	-72.0	-11.2	-1.3885	ug/L	-1.3885 ppb	09:50:49
2	S 181.975 Axial†	40.6	1.8	2.6265	ug/L	2.6265 ppb	09:50:49
2	Sb 206.836†	55.3	13.9	4.9567	ug/L	4.9567 ppb	09:50:49
2	Se 196.026†	-11.7	10.2	6.8372	ug/L	6.8372 ppb	09:50:49
2	Si 251.611†	635.7	82.1	2.7283	ug/L	2.7283 ppb	09:50:49
2	Sn 189.927†	31.9	23.7	4.3979	ug/L	4.3979 ppb	09:50:49
2	Ti 334.940†	-1236.2	50.2	0.0794	ug/L	0.0794 ppb	09:50:29
2	Tl 190.801†	-15.5	18.5	5.9356	ug/L	5.9356 ppb	09:50:49
2	U 409.014†	-2878.5	62.4	1.8098	ug/L	1.8098 ppb	09:50:29
2	V 292.402†	-1456.7	78.1	0.5928	ug/L	0.5928 ppb	09:50:29
2	Zn 213.857†	720.1	16.6	0.1658	ug/L	0.1658 ppb	09:50:49
2	SiO2†	636.8	62.4	4.4121	ug/L	4.4121 ppb	09:51:25
3	Sc Radial	4898.6	4898.6	102	%		09:49:37
3	Y RADIAL	5106.9	5106.9	102.1	%		09:49:37
3	Al 396.153Radial†	-161.5	-6.9	-6.4540	ug/L	-6.4540 ppb	09:49:37
3	Ca 317.933Radial†	17.4	0.4	0.6105	ug/L	0.6105 ppb	09:49:57
3	Fe 238.204 Radial†	9.8	-1.8	-16.496	ug/L	-16.496 ppb	09:49:57
3	K 766.490 Radial†	3494.7	603.6	106.52	ug/L	106.52 ppb	09:49:37
3	Mg 279.077 IEC†	5.2	4.6	164.80	ug/L	164.80 ppb	09:49:57
3	Na 589.592 Radial†	-899.8	195.5	59.140	ug/L	59.140 ppb	09:49:37
3	Sr 421.552†	-13.1	-15.0	-0.1052	ug/L	-0.1052 ppb	09:49:37
3	Sc 361.383	860144.3	860144.3	99.774	%		09:50:54
3	Y 371.029	710750.2	710750.2	99.461	%		09:50:54
3	Ag 328.068†	277.0	48.8	0.2220	ug/L	0.2220 ppb	09:50:54
3	As 188.979†	-12.7	21.1	9.5787	ug/L	9.5787 ppb	09:51:14
3	B 249.677†	366.7	906.6	21.570	ug/L	21.570 ppb	09:51:14
3	Ba 233.527†	-6.7	4.9	0.0413	ug/L	0.0413 ppb	09:51:14
3	Be 313.107†	-4270.9	58.2	0.0219	ug/L	0.0219 ppb	09:50:54
3	Cd 226.502†	-176.5	35.0	0.4193	ug/L	0.4193 ppb	09:51:14
3	Co 228.616†	-61.1	12.5	0.2766	ug/L	0.2766 ppb	09:51:14
3	Cr 267.716†	65.6	-1.1	-0.0145	ug/L	-0.0145 ppb	09:51:14
3	Cu 324.752†	5926.2	118.9	0.3561	ug/L	0.3561 ppb	09:50:54
3	Mn 257.610†	480.0	29.2	0.0252	ug/L	0.0252 ppb	09:51:14
3	Mo 202.031†	35.4	20.0	1.4940	ug/L	1.4940 ppb	09:51:14
3	Ni 231.604†	120.4	12.6	0.3272	ug/L	0.3272 ppb	09:51:14
3	P 214.914†	228.5	0.9	0.5462	ug/L	0.5462 ppb	09:51:14
3	Pb 220.353†	-48.2	13.5	1.6824	ug/L	1.6824 ppb	09:51:14
3	S 181.975 Axial†	45.2	5.9	8.6472	ug/L	8.6472 ppb	09:51:14
3	Sb 206.836†	45.3	3.3	1.2402	ug/L	1.2402 ppb	09:51:14
3	Se 196.026†	-18.1	3.9	2.5947	ug/L	2.5947 ppb	09:51:14
3	Si 251.611†	625.1	64.3	2.1319	ug/L	2.1319 ppb	09:51:14
3	Sn 189.927†	33.5	24.9	4.6269	ug/L	4.6269 ppb	09:51:14
3	Ti 334.940†	-1241.1	59.3	0.0798	ug/L	0.0798 ppb	09:50:54
3	Tl 190.801†	-33.1	1.1	0.3403	ug/L	0.3403 ppb	09:51:14
3	U 409.014†	-2737.0	236.9	6.8701	ug/L	6.8701 ppb	09:50:54
3	V 292.402†	-1447.1	104.3	0.7969	ug/L	0.7969 ppb	09:50:54
3	Zn 213.857†	729.7	18.2	0.1790	ug/L	0.1790 ppb	09:51:14
3	SiO2†	623.0	41.2	2.9005	ug/L	2.9005 ppb	09:51:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856636.3	99.367	%	0.6181				0.62%
Sc Radial	4828.3	100	%	1.8				1.75%
Y 371.029	708767.8	99.183	%	0.5410				0.55%
Y RADIAL	5055.5	101.1	%	1.58				1.57%
Ag 328.068†	53.6	0.2502	ug/L	0.06479	0.2502	ppb	0.06479	25.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.7	8.9274	ug/L	22.45943	8.9274	ppb	22.45943	251.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	24.4	11.049	ug/L	1.6506	11.049	ppb	1.6506	14.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	929.4	22.110	ug/L	0.4696	22.110	ppb	0.4696	2.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.0782	ug/L	0.05461	0.0782	ppb	0.05461	69.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	93.9	0.0351	ug/L	0.01510	0.0351	ppb	0.01510	42.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.2	2.0386	ug/L	3.26333	2.0386	ppb	3.26333	160.07%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                40.7      0.4849 ug/L       0.08560      0.4849 ppb        0.08560  17.65%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.2      0.2051 ug/L       0.06510      0.2051 ppb        0.06510  31.74%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.4      0.1666 ug/L       0.15791      0.1666 ppb        0.15791  94.81%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               112.9      0.3406 ug/L       0.19547      0.3406 ppb        0.19547  57.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -4.0589 ug/L      20.57911     -4.0589 ppb       20.57911 507.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         682.2      120.39 ug/L        18.626      120.39 ppb         18.626  15.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.6      92.132 ug/L       71.1522      92.132 ppb        71.1522  77.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.7      0.0266 ug/L       0.01114      0.0266 ppb        0.01114  41.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.1      1.6533 ug/L       0.36118      1.6533 ppb        0.36118  21.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        168.0      50.821 ug/L        8.2576      50.821 ppb         8.2576  16.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.8      0.1501 ug/L       0.18956      0.1501 ppb        0.18956 126.26%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.2     -2.0410 ug/L       2.63255     -2.0410 ppb        2.63255 128.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.9      1.2437 ug/L       2.44260      1.2437 ppb        2.44260 196.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.9      5.7333 ug/L       3.01498      5.7333 ppb        3.01498  52.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.7      3.4717 ug/L       1.96747      3.4717 ppb        1.96747  56.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.8      4.5540 ug/L       2.13969      4.5540 ppb        2.13969  46.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                72.0      2.3872 ug/L       0.30731      2.3872 ppb        0.30731  12.87%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                24.0      4.4537 ug/L       0.15317      4.4537 ppb        0.15317   3.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -7.2     -0.0508 ug/L       0.12207     -0.0508 ppb        0.12207 240.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                40.2      0.0566 ug/L       0.03991      0.0566 ppb        0.03991  70.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.0      2.8771 ug/L       2.83391      2.8771 ppb        2.83391  98.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 97.8      2.8352 ug/L       3.63242      2.8352 ppb        3.63242 128.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 45.7      0.3632 ug/L       0.58355      0.3632 ppb        0.58355 160.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.5      0.1525 ug/L       0.03500      0.1525 ppb        0.03500  22.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      63.6      4.4930 ug/L       1.63450      4.4930 ppb        1.63450  36.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/11/2010 09:57:43 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/11/2010 08:26:30**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 2/11/2010 09:57:45**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4740.4	4740.4	98.6	%			09:59:38
1	Y RADIAL	4954.0	4954.0	99.07	%			09:59:38
1	Al 396.153Radial†	-161.0	-11.7	-9.5398	ug/L	-9.5398	ppb	09:59:38

1	Ca 317.933Radial†	13.8	-2.7	-4.5259 ug/L	-4.5259 ppb	09:59:58
1	Fe 238.204 Radial†	40798.3	41359.2	376310 ug/L	376310 ppb	09:59:38
1	K 766.490 Radial†	2921.2	136.5	24.135 ug/L	24.135 ppb	09:59:38
1	Mg 279.077 IEC†	12.9	12.6	53.575 ug/L	53.575 ppb	09:59:58
1	Na 589.592 Radial†	-991.0	73.6	22.272 ug/L	22.272 ppb	09:59:38
1	Sr 421.552†	83.8	82.8	0.5809 ug/L	0.5809 ppb	09:59:38
1	Sc 361.383	841857.2	841857.2	97.653 %		10:00:56
1	Y 371.029	690958.1	690958.1	96.691 %		10:00:56
1	Ag 328.068†	-22044.7	-22803.4	11.385 ug/L	11.385 ppb	10:00:56
1	As 188.979†	-193.9	-164.7	13.504 ug/L	13.504 ppb	10:01:16
1	B 249.677†	1489.3	2064.1	-12.024 ug/L	-12.024 ppb	10:00:56
1	Ba 233.527†	-1870.2	-1903.6	-4.0237 ug/L	-4.0237 ppb	10:00:56
1	Be 313.107†	-8962.5	-4839.3	-1.7921 ug/L	-1.7921 ppb	10:00:56
1	Cd 226.502†	2605.3	2879.8	-2.6405 ug/L	-2.6405 ppb	10:00:56
1	Co 228.616†	221.9	300.9	1.0590 ug/L	1.0590 ppb	10:01:16
1	Cr 267.716†	-206.6	-278.3	0.0691 ug/L	0.0691 ppb	10:00:56
1	Cu 324.752†	363.0	-5449.0	-2.2683 ug/L	-2.2683 ppb	10:00:56
1	Mn 257.610†	-32822.7	-34063.6	-2.0423 ug/L	-2.0423 ppb	10:00:56
1	Mo 202.031†	-337.5	-361.1	2.1689 ug/L	2.1689 ppb	10:00:56
1	Ni 231.604†	222.7	120.0	3.1056 ug/L	3.1056 ppb	10:01:16
1	P 214.914†	742.4	532.2	31.347 ug/L	31.347 ppb	10:01:16
1	Pb 220.353†	208.6	275.3	-1.6678 ug/L	-1.6678 ppb	10:01:16
1	S 181.975 Axial†	53.4	15.4	22.398 ug/L	22.398 ppb	10:01:16
1	Sb 206.836†	32.5	-8.9	-7.8066 ug/L	-7.8066 ppb	10:01:16
1	Se 196.026†	-1827.5	-1849.3	-33.554 ug/L	-33.554 ppb	10:01:16
1	Si 251.611†	-790.8	-1372.1	-45.561 ug/L	-45.561 ppb	10:00:56
1	Sn 189.927†	-9.2	-18.1	2.9662 ug/L	2.9662 ppb	10:01:16
1	Ti 334.940†	1468.4	2806.9	0.0292 ug/L	0.0292 ppb	10:00:56
1	Tl 190.801†	-59.4	-26.6	-8.7646 ug/L	-8.7646 ppb	10:01:16
1	U 409.014†	341229.2	352411.9	10176 ug/L	10176 ppb	10:00:56
1	V 292.402†	2962.3	4588.2	-2.3071 ug/L	-2.3071 ppb	10:00:56
1	Zn 213.857†	4255.8	3644.9	-20.354 ug/L	-20.354 ppb	10:01:16
1	SiO2†	-781.0	-1382.9	-97.911 ug/L	-97.911 ppb	10:02:13
2	Sc Radial	4799.6	4799.6	99.8 %		10:00:04
2	Y RADIAL	4986.2	4986.2	99.71 %		10:00:04
2	Al 396.153Radial†	-155.5	-4.2	-2.5135 ug/L	-2.5135 ppb	10:00:04
2	Ca 317.933Radial†	10.9	-5.7	-9.5149 ug/L	-9.5149 ppb	10:00:24
2	Fe 238.204 Radial†	40906.3	40957.3	372650 ug/L	372650 ppb	10:00:04
2	K 766.490 Radial†	2915.1	93.9	16.624 ug/L	16.624 ppb	10:00:04
2	Mg 279.077 IEC†	13.9	13.5	87.007 ug/L	87.007 ppb	10:00:24
2	Na 589.592 Radial†	-1103.9	-27.1	-8.1850 ug/L	-8.1850 ppb	10:00:04
2	Sr 421.552†	90.7	88.7	0.6220 ug/L	0.6220 ppb	10:00:04
2	Sc 361.383	851531.7	851531.7	98.775 %		10:01:22
2	Y 371.029	698630.5	698630.5	97.765 %		10:01:22
2	Ag 328.068†	-22367.3	-22873.5	9.7911 ug/L	9.7911 ppb	10:01:22
2	As 188.979†	-185.5	-153.9	17.566 ug/L	17.566 ppb	10:01:42
2	B 249.677†	1539.8	2097.9	-10.624 ug/L	-10.624 ppb	10:01:22
2	Ba 233.527†	-1889.9	-1901.8	-4.1196 ug/L	-4.1196 ppb	10:01:22
2	Be 313.107†	-9012.3	-4785.4	-1.7717 ug/L	-1.7717 ppb	10:01:22
2	Cd 226.502†	2595.3	2839.4	-2.7352 ug/L	-2.7352 ppb	10:01:22
2	Co 228.616†	191.4	267.5	0.3810 ug/L	0.3810 ppb	10:01:42
2	Cr 267.716†	-220.3	-289.8	-0.1494 ug/L	-0.1494 ppb	10:01:22
2	Cu 324.752†	326.7	-5490.0	-2.6060 ug/L	-2.6060 ppb	10:01:22
2	Mn 257.610†	-33186.7	-34050.3	-2.3894 ug/L	-2.3894 ppb	10:01:22
2	Mo 202.031†	-348.8	-368.6	1.3235 ug/L	1.3235 ppb	10:01:22
2	Ni 231.604†	271.9	167.3	4.3309 ug/L	4.3309 ppb	10:01:42
2	P 214.914†	758.9	540.3	39.344 ug/L	39.344 ppb	10:01:42
2	Pb 220.353†	209.9	274.2	-1.4575 ug/L	-1.4575 ppb	10:01:42
2	S 181.975 Axial†	50.2	11.5	16.709 ug/L	16.709 ppb	10:01:42
2	Sb 206.836†	20.6	-21.3	-12.080 ug/L	-12.080 ppb	10:01:42
2	Se 196.026†	-1866.2	-1867.2	-57.422 ug/L	-57.422 ppb	10:01:42
2	Si 251.611†	-781.2	-1353.2	-44.923 ug/L	-44.923 ppb	10:01:22
2	Sn 189.927†	-2.4	-11.1	4.2059 ug/L	4.2059 ppb	10:01:42
2	Ti 334.940†	1586.6	2909.5	0.1768 ug/L	0.1768 ppb	10:01:22
2	Tl 190.801†	-46.6	-13.0	-4.4054 ug/L	-4.4054 ppb	10:01:42
2	U 409.014†	346369.6	353646.1	10212 ug/L	10212 ppb	10:01:22
2	V 292.402†	3008.2	4600.1	-1.6264 ug/L	-1.6264 ppb	10:01:22
2	Zn 213.857†	4300.7	3640.8	-19.854 ug/L	-19.854 ppb	10:01:42
2	SiO2†	-743.7	-1336.1	-94.555 ug/L	-94.555 ppb	10:02:19
3	Sc Radial	4766.9	4766.9	99.2 %		10:00:29
3	Y RADIAL	4992.1	4992.1	99.83 %		10:00:29

3	Al 396.153Radial†	-148.2	2.2	3.2739 ug/L	3.2739 ppb	10:00:29
3	Ca 317.933Radial†	11.0	-5.6	-9.2419 ug/L	-9.2419 ppb	10:00:49
3	Fe 238.204 Radial†	40736.1	41066.8	373650 ug/L	373650 ppb	10:00:29
3	K 766.490 Radial†	2797.3	-4.9	-0.8049 ug/L	-0.8049 ppb	10:00:29
3	Mg 279.077 IEC†	12.3	12.0	34.252 ug/L	34.252 ppb	10:00:49
3	Na 589.592 Radial†	-1089.5	-20.1	-6.0932 ug/L	-6.0932 ppb	10:00:29
3	Sr 421.552†	131.8	130.8	0.9172 ug/L	0.9172 ppb	10:00:29
3	Sc 361.383	853653.1	853653.1	99.021 %		10:01:48
3	Y 371.029	701510.8	701510.8	98.168 %		10:01:48
3	Ag 328.068†	-22423.9	-22874.4	10.117 ug/L	10.117 ppb	10:01:48
3	As 188.979†	-209.9	-178.1	6.8005 ug/L	6.8005 ppb	10:02:08
3	B 249.677†	1519.7	2073.8	-11.362 ug/L	-11.362 ppb	10:01:48
3	Ba 233.527†	-1904.9	-1912.1	-4.1757 ug/L	-4.1757 ppb	10:01:48
3	Be 313.107†	-8926.7	-4676.3	-1.7310 ug/L	-1.7310 ppb	10:01:48
3	Cd 226.502†	2606.6	2844.3	-2.7796 ug/L	-2.7796 ppb	10:01:48
3	Co 228.616†	201.1	276.8	0.5733 ug/L	0.5733 ppb	10:02:08
3	Cr 267.716†	-229.8	-298.8	-0.2376 ug/L	-0.2376 ppb	10:01:48
3	Cu 324.752†	309.1	-5508.5	-2.6116 ug/L	-2.6116 ppb	10:01:48
3	Mn 257.610†	-33209.7	-33990.0	-2.2195 ug/L	-2.2195 ppb	10:01:48
3	Mo 202.031†	-328.7	-347.5	2.9804 ug/L	2.9804 ppb	10:01:48
3	Ni 231.604†	248.6	143.0	3.7011 ug/L	3.7011 ppb	10:02:08
3	P 214.914†	737.6	516.9	23.984 ug/L	23.984 ppb	10:02:08
3	Pb 220.353†	231.0	295.0	1.0487 ug/L	1.0487 ppb	10:02:08
3	S 181.975 Axial†	45.6	6.7	9.7874 ug/L	9.7874 ppb	10:02:08
3	Sb 206.836†	35.1	-6.7	-6.9963 ug/L	-6.9963 ppb	10:02:08
3	Se 196.026†	-1853.1	-1849.3	-42.132 ug/L	-42.132 ppb	10:02:08
3	Si 251.611†	-842.4	-1413.0	-46.942 ug/L	-46.942 ppb	10:01:48
3	Sn 189.927†	-4.1	-12.8	3.9007 ug/L	3.9007 ppb	10:02:08
3	Ti 334.940†	1591.6	2910.5	0.1812 ug/L	0.1812 ppb	10:01:48
3	Tl 190.801†	-50.7	-17.0	-5.6701 ug/L	-5.6701 ppb	10:02:08
3	U 409.014†	347355.3	353770.1	10216 ug/L	10216 ppb	10:01:48
3	V 292.402†	2901.2	4484.6	-2.5827 ug/L	-2.5827 ppb	10:01:48
3	Zn 213.857†	4272.2	3601.2	-20.390 ug/L	-20.390 ppb	10:02:08
3	SiO2†	-805.2	-1396.3	-98.891 ug/L	-98.891 ppb	10:02:24

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849014.0	98.483	%	0.7294				0.74%
Sc Radial	4768.9	99.2	%	0.62				0.62%
Y 371.029	697033.1	97.541	%	0.7633				0.78%
Y RADIAL	4977.4	99.54	%	0.410				0.41%
Ag 328.068†	-22850.5	10.431	ug/L	0.8418	10.431	ppb	0.8418	8.07%
Al 396.153Radial†	-4.6	-2.9265	ug/L	6.41681	-2.9265	ppb	6.41681	219.27%
As 188.979†	-165.6	12.624	ug/L	5.4366	12.624	ppb	5.4366	43.07%
B 249.677†	2078.6	-11.337	ug/L	0.7005	-11.337	ppb	0.7005	6.18%
Ba 233.527†	-1905.8	-4.1063	ug/L	0.07691	-4.1063	ppb	0.07691	1.87%
Be 313.107†	-4767.0	-1.7649	ug/L	0.03110	-1.7649	ppb	0.03110	1.76%
Ca 317.933Radial†	-4.7	-7.7609	ug/L	2.80494	-7.7609	ppb	2.80494	36.14%
Cd 226.502†	2854.5	-2.7184	ug/L	0.07108	-2.7184	ppb	0.07108	2.61%
Co 228.616†	281.7	0.6711	ug/L	0.34944	0.6711	ppb	0.34944	52.07%
Cr 267.716†	-289.0	-0.1060	ug/L	0.15789	-0.1060	ppb	0.15789	148.95%
Cu 324.752†	-5482.5	-2.4953	ug/L	0.19663	-2.4953	ppb	0.19663	7.88%
Fe 238.204 Radial†	41127.8	374210	ug/L	1890.5	374210	ppb	1890.5	0.51%
K 766.490 Radial†	75.2	13.318	ug/L	12.7946	13.318	ppb	12.7946	96.07%
Mg 279.077 IEC†	12.7	58.278	ug/L	26.6898	58.278	ppb	26.6898	45.80%
Mn 257.610†	-34034.6	-2.2171	ug/L	0.17356	-2.2171	ppb	0.17356	7.83%
Mo 202.031†	-359.1	2.1576	ug/L	0.82852	2.1576	ppb	0.82852	38.40%
Na 589.592 Radial†	8.8	2.6645	ug/L	17.01254	2.6645	ppb	17.01254	638.49%
Ni 231.604†	143.4	3.7125	ug/L	0.61273	3.7125	ppb	0.61273	16.50%
P 214.914†	529.8	31.558	ug/L	7.6824	31.558	ppb	7.6824	24.34%
Pb 220.353†	281.5	-0.6922	ug/L	1.51134	-0.6922	ppb	1.51134	218.34%
S 181.975 Axial†	11.2	16.298	ug/L	6.3151	16.298	ppb	6.3151	38.75%
Sb 206.836†	-12.3	-8.9610	ug/L	2.73143	-8.9610	ppb	2.73143	30.48%
Se 196.026†	-1855.3	-44.369	ug/L	12.0904	-44.369	ppb	12.0904	27.25%
Si 251.611†	-1379.4	-45.809	ug/L	1.0318	-45.809	ppb	1.0318	2.25%
Sn 189.927†	-14.0	3.6909	ug/L	0.64592	3.6909	ppb	0.64592	17.50%
Sr 421.552†	100.8	0.7067	ug/L	0.18347	0.7067	ppb	0.18347	25.96%
Ti 334.940†	2875.6	0.1291	ug/L	0.08649	0.1291	ppb	0.08649	67.02%
Tl 190.801†	-18.9	-6.2800	ug/L	2.24271	-6.2800	ppb	2.24271	35.71%

U 409.014†	353276.0	10201 ug/L	22.0	10201 ppb	22.0	0.22%
V 292.402†	4557.6	-2.1721 ug/L	0.49225	-2.1721 ppb	0.49225	22.66%
Zn 213.857†	3629.0	-20.200 ug/L	0.2995	-20.200 ppb	0.2995	1.48%
SiO2†	-1371.8	-97.119 ug/L	2.2742	-97.119 ppb	2.2742	2.34%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 10:04:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5033.7	5033.7	105	%			10:06:28
1	Y RADIAL	5190.7	5190.7	103.8	%			10:06:28
1	Al 396.153Radial†	5070.4	4993.5	4611.1	ug/L	4611.1	ppb	10:06:28
1	Ca 317.933Radial†	2993.3	2841.7	4709.9	ug/L	4709.9	ppb	10:06:48
1	Fe 238.204 Radial†	557.9	521.3	4757.9	ug/L	4757.9	ppb	10:06:48
1	K 766.490 Radial†	30624.0	26418.4	4657.4	ug/L	4657.4	ppb	10:06:28
1	Mg 279.077 IEC†	143.2	136.3	4831.5	ug/L	4831.5	ppb	10:06:48
1	Na 589.592 Radial†	30619.8	30318.6	9169.8	ug/L	9169.8	ppb	10:06:28
1	Sr 421.552†	70551.5	67370.3	472.44	ug/L	472.44	ppb	10:06:28
1	Sc 361.383	875140.1	875140.1	101.51	%			10:07:45
1	Y 371.029	712431.5	712431.5	99.696	%			10:07:45
1	Ag 328.068†	104626.9	102838.5	487.65	ug/L	487.65	ppb	10:07:51
1	As 188.979†	1069.7	1087.7	497.65	ug/L	497.65	ppb	10:08:11
1	B 249.677†	20615.4	20847.1	493.76	ug/L	493.76	ppb	10:07:51
1	Ba 233.527†	60826.3	59931.1	490.66	ug/L	490.66	ppb	10:07:51
1	Be 313.107†	1320921.4	1305569.2	487.38	ug/L	487.38	ppb	10:07:45
1	Cd 226.502†	41286.4	40882.9	485.97	ug/L	485.97	ppb	10:07:51
1	Co 228.616†	23107.5	22836.7	498.89	ug/L	498.89	ppb	10:07:51
1	Cr 267.716†	42485.5	41785.4	487.05	ug/L	487.05	ppb	10:07:51
1	Cu 324.752†	169439.3	161092.7	488.65	ug/L	488.65	ppb	10:07:51
1	Mn 257.610†	431681.5	424794.6	489.01	ug/L	489.01	ppb	10:07:45
1	Mo 202.031†	6556.9	6443.6	482.97	ug/L	482.97	ppb	10:08:11
1	Ni 231.604†	19213.2	18818.8	487.23	ug/L	487.23	ppb	10:07:51
1	P 214.914†	4153.9	3863.9	2309.3	ug/L	2309.3	ppb	10:08:11
1	Pb 220.353†	3864.4	3868.5	484.13	ug/L	484.13	ppb	10:08:11
1	S 181.975 Axial†	711.3	661.4	963.56	ug/L	963.56	ppb	10:08:11
1	Sb 206.836†	1435.4	1371.8	495.53	ug/L	495.53	ppb	10:08:11
1	Se 196.026†	706.7	718.3	500.84	ug/L	500.84	ppb	10:08:11
1	Si 251.611†	74142.6	72475.1	2418.3	ug/L	2418.3	ppb	10:07:51
1	Sn 189.927†	2645.9	2597.7	482.87	ug/L	482.87	ppb	10:08:11
1	Ti 334.940†	302446.2	299240.8	485.20	ug/L	485.20	ppb	10:07:51
1	Tl 190.801†	1517.2	1528.8	493.16	ug/L	493.16	ppb	10:08:11
1	U 409.014†	14048.8	16819.4	486.08	ug/L	486.08	ppb	10:07:51
1	V 292.402†	66425.6	66990.0	492.95	ug/L	492.95	ppb	10:07:51
1	Zn 213.857†	50993.4	49519.9	484.06	ug/L	484.06	ppb	10:07:51
1	SiO2†	73971.9	72286.1	5143.2	ug/L	5143.2	ppb	10:09:18
2	Sc Radial	4797.7	4797.7	99.8	%			10:06:53
2	Y RADIAL	4973.1	4973.1	99.45	%			10:06:53
2	Al 396.153Radial†	5127.7	5289.1	4885.3	ug/L	4885.3	ppb	10:06:53
2	Ca 317.933Radial†	3041.8	3030.9	5023.6	ug/L	5023.6	ppb	10:07:13
2	Fe 238.204 Radial†	568.3	557.9	5091.2	ug/L	5091.2	ppb	10:07:13
2	K 766.490 Radial†	30671.4	27904.5	4919.5	ug/L	4919.5	ppb	10:06:53
2	Mg 279.077 IEC†	145.2	145.1	5140.9	ug/L	5140.9	ppb	10:07:13
2	Na 589.592 Radial†	30730.1	31867.5	9638.3	ug/L	9638.3	ppb	10:06:53
2	Sr 421.552†	71251.9	71386.3	500.61	ug/L	500.61	ppb	10:06:53
2	Sc 361.383	859789.1	859789.1	99.733	%			10:08:16
2	Y 371.029	700429.0	700429.0	98.017	%			10:08:16
2	Ag 328.068†	104789.7	104841.9	497.22	ug/L	497.22	ppb	10:08:22
2	As 188.979†	1044.9	1081.5	495.02	ug/L	495.02	ppb	10:08:42
2	B 249.677†	20530.3	21124.4	500.28	ug/L	500.28	ppb	10:08:22
2	Ba 233.527†	60771.1	60945.6	498.97	ug/L	498.97	ppb	10:08:22
2	Be 313.107†	1298645.1	1306465.7	487.74	ug/L	487.74	ppb	10:08:16
2	Cd 226.502†	41169.2	41491.5	493.18	ug/L	493.18	ppb	10:08:22
2	Co 228.616†	23068.0	23203.5	506.89	ug/L	506.89	ppb	10:08:22
2	Cr 267.716†	42432.0	42479.0	495.14	ug/L	495.14	ppb	10:08:22
2	Cu 324.752†	169837.7	164472.4	498.92	ug/L	498.92	ppb	10:08:22
2	Mn 257.610†	426224.0	426914.9	491.46	ug/L	491.46	ppb	10:08:16
2	Mo 202.031†	6481.1	6482.9	485.95	ug/L	485.95	ppb	10:08:42
2	Ni 231.604†	19164.1	19107.5	494.71	ug/L	494.71	ppb	10:08:22

2	P 214.914†	4110.0	3893.0	2325.2 ug/L	2325.2 ppb	10:08:42
2	Pb 220.353†	3838.0	3910.0	489.34 ug/L	489.34 ppb	10:08:42
2	S 181.975 Axial†	701.2	663.7	966.96 ug/L	966.96 ppb	10:08:42
2	Sb 206.836†	1435.5	1397.2	504.49 ug/L	504.49 ppb	10:08:42
2	Se 196.026†	701.7	725.7	506.93 ug/L	506.93 ppb	10:08:42
2	Si 251.611†	74186.3	73822.9	2463.3 ug/L	2463.3 ppb	10:08:22
2	Sn 189.927†	2622.8	2621.1	487.27 ug/L	487.27 ppb	10:08:42
2	Ti 334.940†	302992.5	305108.0	494.73 ug/L	494.73 ppb	10:08:22
2	Tl 190.801†	1504.8	1543.0	497.77 ug/L	497.77 ppb	10:08:42
2	U 409.014†	14225.0	17243.2	498.31 ug/L	498.31 ppb	10:08:22
2	V 292.402†	66351.4	68083.9	500.91 ug/L	500.91 ppb	10:08:22
2	Zn 213.857†	50879.3	50302.5	491.67 ug/L	491.67 ppb	10:08:22
2	SiO2†	74527.3	74144.0	5275.6 ug/L	5275.6 ppb	10:09:23
3	Sc Radial	4817.1	4817.1	100 %		10:07:18
3	Y RADIAL	5011.0	5011.0	100.2 %		10:07:18
3	Al 396.153Radial†	5190.0	5330.6	4924.0 ug/L	4924.0 ppb	10:07:18
3	Ca 317.933Radial†	3050.1	3026.9	5016.9 ug/L	5016.9 ppb	10:07:38
3	Fe 238.204 Radial†	565.9	553.2	5048.6 ug/L	5048.6 ppb	10:07:38
3	K 766.490 Radial†	30992.2	28101.0	4954.2 ug/L	4954.2 ppb	10:07:18
3	Mg 279.077 IEC†	148.9	148.1	5249.6 ug/L	5249.6 ppb	10:07:38
3	Na 589.592 Radial†	30969.3	31982.3	9673.0 ug/L	9673.0 ppb	10:07:18
3	Sr 421.552†	71857.6	71703.5	502.83 ug/L	502.83 ppb	10:07:18
3	Sc 361.383	868044.0	868044.0	100.69 %		10:08:47
3	Y 371.029	707440.4	707440.4	98.998 %		10:08:47
3	Ag 328.068†	105006.1	104057.6	493.51 ug/L	493.51 ppb	10:08:53
3	As 188.979†	1050.2	1076.9	492.88 ug/L	492.88 ppb	10:09:13
3	B 249.677†	20753.2	21150.0	500.90 ug/L	500.90 ppb	10:08:53
3	Ba 233.527†	60917.8	60511.8	495.42 ug/L	495.42 ppb	10:08:53
3	Be 313.107†	1312769.6	1308110.5	488.34 ug/L	488.34 ppb	10:08:47
3	Cd 226.502†	41368.6	41297.0	490.87 ug/L	490.87 ppb	10:08:53
3	Co 228.616†	23144.3	23059.4	503.74 ug/L	503.74 ppb	10:08:53
3	Cr 267.716†	42512.9	42154.7	491.36 ug/L	491.36 ppb	10:08:53
3	Cu 324.752†	170360.9	163372.5	495.58 ug/L	495.58 ppb	10:08:53
3	Mn 257.610†	428585.8	425196.4	489.48 ug/L	489.48 ppb	10:08:47
3	Mo 202.031†	6504.1	6443.9	483.02 ug/L	483.02 ppb	10:09:13
3	Ni 231.604†	19280.9	19040.7	492.98 ug/L	492.98 ppb	10:08:53
3	P 214.914†	4111.0	3854.8	2302.0 ug/L	2302.0 ppb	10:09:13
3	Pb 220.353†	3826.2	3861.7	483.33 ug/L	483.33 ppb	10:09:13
3	S 181.975 Axial†	706.5	662.3	964.86 ug/L	964.86 ppb	10:09:13
3	Sb 206.836†	1433.2	1381.3	498.78 ug/L	498.78 ppb	10:09:13
3	Se 196.026†	701.2	718.5	501.93 ug/L	501.93 ppb	10:09:13
3	Si 251.611†	74462.0	73389.3	2448.8 ug/L	2448.8 ppb	10:08:53
3	Sn 189.927†	2613.2	2586.6	480.85 ug/L	480.85 ppb	10:09:13
3	Ti 334.940†	303715.2	302936.7	491.20 ug/L	491.20 ppb	10:08:53
3	Tl 190.801†	1498.8	1522.7	491.24 ug/L	491.24 ppb	10:09:13
3	U 409.014†	14120.1	17003.4	491.37 ug/L	491.37 ppb	10:08:53
3	V 292.402†	66675.1	67772.7	498.61 ug/L	498.61 ppb	10:08:53
3	Zn 213.857†	51123.1	50059.5	489.29 ug/L	489.29 ppb	10:08:53
3	SiO2†	74434.3	73341.0	5218.4 ug/L	5218.4 ppb	10:09:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867657.7	100.65	%	0.891				0.89%
Sc Radial	4882.8	102	%	2.7				2.68%
Y 371.029	706766.9	98.903	%	0.8438				0.85%
Y RADIAL	5058.3	101.2	%	2.32				2.30%
Ag 328.068†	103912.7	492.79	ug/L	4.825	492.79	ppb	4.825	0.98%
QC value within limits for Ag 328.068 Recovery = 98.56%								
Al 396.153Radial†	5204.4	4806.8	ug/L	170.56	4806.8	ppb	170.56	3.55%
QC value within limits for Al 396.153Radial Recovery = 96.14%								
As 188.979†	1082.0	495.18	ug/L	2.391	495.18	ppb	2.391	0.48%
QC value within limits for As 188.979 Recovery = 99.04%								
B 249.677†	21040.5	498.31	ug/L	3.957	498.31	ppb	3.957	0.79%
QC value within limits for B 249.677 Recovery = 99.66%								
Ba 233.527†	60462.8	495.02	ug/L	4.171	495.02	ppb	4.171	0.84%
QC value within limits for Ba 233.527 Recovery = 99.00%								
Be 313.107†	1306715.2	487.82	ug/L	0.485	487.82	ppb	0.485	0.10%
QC value within limits for Be 313.107 Recovery = 97.56%								
Ca 317.933Radial†	2966.5	4916.8	ug/L	179.19	4916.8	ppb	179.19	3.64%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.34%
Cd 226.502†            41223.8      490.01 ug/L         3.681      490.01 ppb          3.681   0.75%
   QC value within limits for Cd 226.502  Recovery = 98.00%
Co 228.616†            23033.2      503.17 ug/L         4.028      503.17 ppb          4.028   0.80%
   QC value within limits for Co 228.616  Recovery = 100.63%
Cr 267.716†            42139.7      491.18 ug/L         4.046      491.18 ppb          4.046   0.82%
   QC value within limits for Cr 267.716  Recovery = 98.24%
Cu 324.752†           162979.2      494.38 ug/L         5.235      494.38 ppb          5.235   1.06%
   QC value within limits for Cu 324.752  Recovery = 98.88%
Fe 238.204 Radial†       544.1      4965.9 ug/L        181.36      4965.9 ppb         181.36   3.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.32%
K 766.490 Radial†      27474.6      4843.7 ug/L        162.23      4843.7 ppb         162.23   3.35%
   QC value within limits for K 766.490 Radial  Recovery = 96.87%
Mg 279.077 IEC†          143.2      5074.0 ug/L        216.91      5074.0 ppb         216.91   4.27%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.48%
Mn 257.610†           425635.3      489.98 ug/L         1.305      489.98 ppb          1.305   0.27%
   QC value within limits for Mn 257.610  Recovery = 98.00%
Mo 202.031†             6456.8      483.98 ug/L         1.703      483.98 ppb          1.703   0.35%
   QC value within limits for Mo 202.031  Recovery = 96.80%
Na 589.592 Radial†     31389.5      9493.7 ug/L        281.03      9493.7 ppb         281.03   2.96%
   QC value within limits for Na 589.592 Radial  Recovery = 94.94%
Ni 231.604†            18989.0      491.64 ug/L         3.913      491.64 ppb          3.913   0.80%
   QC value within limits for Ni 231.604  Recovery = 98.33%
P 214.914†              3870.6      2312.2 ug/L        11.83      2312.2 ppb          11.83   0.51%
   QC value within limits for P 214.914  Recovery = 92.49%
Pb 220.353†             3880.1      485.60 ug/L         3.263      485.60 ppb          3.263   0.67%
   QC value within limits for Pb 220.353  Recovery = 97.12%
S 181.975 Axial†         662.5      965.13 ug/L         1.712      965.13 ppb          1.712   0.18%
   QC value within limits for S 181.975 Axial  Recovery = 96.51%
Sb 206.836†             1383.4      499.60 ug/L         4.536      499.60 ppb          4.536   0.91%
   QC value within limits for Sb 206.836  Recovery = 99.92%
Se 196.026†              720.8      503.24 ug/L         3.244      503.24 ppb          3.244   0.64%
   QC value within limits for Se 196.026  Recovery = 100.65%
Si 251.611†            73229.1      2443.5 ug/L        23.00      2443.5 ppb          23.00   0.94%
   QC value within limits for Si 251.611  Recovery = 97.74%
Sn 189.927†             2601.8      483.66 ug/L         3.280      483.66 ppb          3.280   0.68%
   QC value within limits for Sn 189.927  Recovery = 96.73%
Sr 421.552†            70153.4      491.96 ug/L        16.938      491.96 ppb         16.938   3.44%
   QC value within limits for Sr 421.552  Recovery = 98.39%
Ti 334.940†           302428.5      490.38 ug/L         4.816      490.38 ppb          4.816   0.98%
   QC value within limits for Ti 334.940  Recovery = 98.08%
Tl 190.801†             1531.5      494.05 ug/L         3.354      494.05 ppb          3.354   0.68%
   QC value within limits for Tl 190.801  Recovery = 98.81%
U 409.014†             17022.0      491.92 ug/L         6.134      491.92 ppb          6.134   1.25%
   QC value within limits for U 409.014  Recovery = 98.38%
V 292.402†             67615.5      497.49 ug/L         4.093      497.49 ppb          4.093   0.82%
   QC value within limits for V 292.402  Recovery = 99.50%
Zn 213.857†            49960.6      488.34 ug/L         3.893      488.34 ppb          3.893   0.80%
   QC value within limits for Zn 213.857  Recovery = 97.67%
SiO2†                  73257.0      5212.4 ug/L        66.43      5212.4 ppb          66.43   1.27%
   QC value within limits for SiO2  Recovery = 97.47%
All analyte(s) passed QC.
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Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 10:11:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4887.7	4887.7	102	%			10:13:31
1	Y RADIAL	5083.6	5083.6	101.7	%			10:13:31
1	Al 396.153Radial†	-139.2	14.7	13.593	ug/L	13.593	ppb	10:13:51
1	Ca 317.933Radial†	16.5	-0.5	-0.8146	ug/L	-0.8146	ppb	10:13:51
1	Fe 238.204 Radial†	9.7	-1.9	-17.279	ug/L	-17.279	ppb	10:13:51
1	K 766.490 Radial†	2989.4	114.3	20.154	ug/L	20.154	ppb	10:13:31
1	Mg 279.077 IEC†	1.5	1.1	39.318	ug/L	39.318	ppb	10:13:51
1	Na 589.592 Radial†	-915.7	177.9	53.818	ug/L	53.818	ppb	10:13:31
1	Sr 421.552†	22.2	19.7	0.1382	ug/L	0.1382	ppb	10:13:31
1	Sc 361.383	857373.3	857373.3	99.452	%			10:14:48
1	Y 371.029	709211.7	709211.7	99.246	%			10:14:48
1	Ag 328.068†	260.0	32.7	0.1462	ug/L	0.1462	ppb	10:14:48
1	As 188.979†	-17.5	16.3	7.3951	ug/L	7.3951	ppb	10:15:08
1	B 249.677†	38.1	577.3	13.736	ug/L	13.736	ppb	10:15:08
1	Ba 233.527†	-3.5	8.1	0.0666	ug/L	0.0666	ppb	10:15:08
1	Be 313.107†	-4234.6	80.8	0.0305	ug/L	0.0305	ppb	10:14:48
1	Cd 226.502†	-196.1	14.8	0.1783	ug/L	0.1783	ppb	10:15:08
1	Co 228.616†	-64.7	8.7	0.1907	ug/L	0.1907	ppb	10:15:08
1	Cr 267.716†	87.8	21.5	0.2492	ug/L	0.2492	ppb	10:15:08
1	Cu 324.752†	5832.5	43.9	0.1294	ug/L	0.1294	ppb	10:14:48
1	Mn 257.610†	461.4	12.0	0.0105	ug/L	0.0105	ppb	10:15:08
1	Mo 202.031†	23.2	7.8	0.5830	ug/L	0.5830	ppb	10:15:08
1	Ni 231.604†	106.9	-0.6	-0.0147	ug/L	-0.0147	ppb	10:15:08
1	P 214.914†	221.8	-5.1	-3.1474	ug/L	-3.1474	ppb	10:15:08
1	Pb 220.353†	-69.6	-8.2	-1.0227	ug/L	-1.0227	ppb	10:15:08
1	S 181.975 Axial†	46.5	7.5	10.878	ug/L	10.878	ppb	10:15:08
1	Sb 206.836†	42.6	0.6	0.2593	ug/L	0.2593	ppb	10:15:08
1	Se 196.026†	-21.1	0.9	0.5784	ug/L	0.5784	ppb	10:15:08
1	Si 251.611†	580.8	21.7	0.7192	ug/L	0.7192	ppb	10:15:08
1	Sn 189.927†	16.0	7.4	1.3691	ug/L	1.3691	ppb	10:15:08
1	Ti 334.940†	-1188.8	107.8	0.1692	ug/L	0.1692	ppb	10:14:48
1	Tl 190.801†	-26.1	8.0	2.5607	ug/L	2.5607	ppb	10:15:08
1	U 409.014†	-2789.8	174.9	5.0727	ug/L	5.0727	ppb	10:14:48
1	V 292.402†	-1471.7	74.8	0.5643	ug/L	0.5643	ppb	10:14:48
1	Zn 213.857†	707.6	-1.8	-0.0150	ug/L	-0.0150	ppb	10:15:08
1	SiO2†	598.8	19.0	1.3373	ug/L	1.3373	ppb	10:16:04
2	Sc Radial	4935.7	4935.7	103	%			10:13:56
2	Y RADIAL	5173.6	5173.6	103.5	%			10:13:56
2	Al 396.153Radial†	-153.8	1.8	1.6952	ug/L	1.6952	ppb	10:14:16
2	Ca 317.933Radial†	13.4	-3.7	-6.1155	ug/L	-6.1155	ppb	10:14:16
2	Fe 238.204 Radial†	10.2	-1.6	-14.151	ug/L	-14.151	ppb	10:14:16
2	K 766.490 Radial†	3003.4	99.3	17.522	ug/L	17.522	ppb	10:13:56
2	Mg 279.077 IEC†	0.7	0.2	8.7505	ug/L	8.7505	ppb	10:14:16
2	Na 589.592 Radial†	-963.3	140.3	42.445	ug/L	42.445	ppb	10:13:56
2	Sr 421.552†	-18.9	-20.5	-0.1438	ug/L	-0.1438	ppb	10:13:56
2	Sc 361.383	861043.1	861043.1	99.878	%			10:15:13
2	Y 371.029	712178.9	712178.9	99.661	%			10:15:13
2	Ag 328.068†	235.4	6.9	0.0295	ug/L	0.0295	ppb	10:15:13
2	As 188.979†	-11.8	22.1	10.023	ug/L	10.023	ppb	10:15:33
2	B 249.677†	17.6	556.6	13.244	ug/L	13.244	ppb	10:15:33
2	Ba 233.527†	-17.7	-6.1	-0.0490	ug/L	-0.0490	ppb	10:15:33
2	Be 313.107†	-4216.1	117.5	0.0440	ug/L	0.0440	ppb	10:15:13
2	Cd 226.502†	-177.9	33.8	0.4028	ug/L	0.4028	ppb	10:15:33
2	Co 228.616†	-62.8	10.8	0.2365	ug/L	0.2365	ppb	10:15:33
2	Cr 267.716†	80.5	13.8	0.1606	ug/L	0.1606	ppb	10:15:33
2	Cu 324.752†	5893.9	80.3	0.2424	ug/L	0.2424	ppb	10:15:13
2	Mn 257.610†	443.1	-8.2	-0.0112	ug/L	-0.0112	ppb	10:15:33
2	Mo 202.031†	21.1	5.6	0.4198	ug/L	0.4198	ppb	10:15:33
2	Ni 231.604†	100.0	-7.9	-0.2043	ug/L	-0.2043	ppb	10:15:33

2	P 214.914†	216.6	-11.2	-7.0124 ug/L	-7.0124 ppb	10:15:33
2	Pb 220.353†	-75.1	-13.4	-1.6734 ug/L	-1.6734 ppb	10:15:33
2	S 181.975 Axial†	35.2	-4.1	-5.9630 ug/L	-5.9630 ppb	10:15:33
2	Sb 206.836†	40.8	-1.3	-0.4062 ug/L	-0.4062 ppb	10:15:33
2	Se 196.026†	-16.3	5.8	3.8379 ug/L	3.8379 ppb	10:15:33
2	Si 251.611†	591.9	30.3	1.0096 ug/L	1.0096 ppb	10:15:33
2	Sn 189.927†	16.1	7.5	1.3854 ug/L	1.3854 ppb	10:15:33
2	Ti 334.940†	-1249.0	52.7	0.0835 ug/L	0.0835 ppb	10:15:13
2	Tl 190.801†	-32.4	1.8	0.5744 ug/L	0.5744 ppb	10:15:33
2	U 409.014†	-2942.4	34.0	0.9879 ug/L	0.9879 ppb	10:15:13
2	V 292.402†	-1461.7	91.1	0.6718 ug/L	0.6718 ppb	10:15:13
2	Zn 213.857†	705.7	-6.7	-0.0630 ug/L	-0.0630 ppb	10:15:33
2	SiO2†	582.0	-0.5	-0.0443 ug/L	-0.0443 ppb	10:16:09
3	Sc Radial	4780.6	4780.6	99.5 %		10:14:21
3	Y RADIAL	5061.5	5061.5	101.2 %		10:14:21
3	Al 396.153Radial†	-146.5	4.3	3.9252 ug/L	3.9252 ppb	10:14:41
3	Ca 317.933Radial†	12.6	-4.0	-6.6076 ug/L	-6.6076 ppb	10:14:41
3	Fe 238.204 Radial†	10.1	-1.4	-12.453 ug/L	-12.453 ppb	10:14:41
3	K 766.490 Radial†	2938.7	129.2	22.794 ug/L	22.794 ppb	10:14:21
3	Mg 279.077 IEC†	1.3	0.9	31.312 ug/L	31.312 ppb	10:14:41
3	Na 589.592 Radial†	-1013.4	59.5	17.997 ug/L	17.997 ppb	10:14:21
3	Sr 421.552†	27.6	25.6	0.1799 ug/L	0.1799 ppb	10:14:21
3	Sc 361.383	856303.6	856303.6	99.328 %		10:15:39
3	Y 371.029	709481.5	709481.5	99.283 %		10:15:39
3	Ag 328.068†	336.5	110.0	0.5151 ug/L	0.5151 ppb	10:15:39
3	As 188.979†	-23.5	10.2	4.6390 ug/L	4.6390 ppb	10:15:59
3	B 249.677†	19.1	558.3	13.282 ug/L	13.282 ppb	10:15:59
3	Ba 233.527†	1.2	12.8	0.1059 ug/L	0.1059 ppb	10:15:59
3	Be 313.107†	-4122.9	187.9	0.0703 ug/L	0.0703 ppb	10:15:39
3	Cd 226.502†	-194.4	16.2	0.1941 ug/L	0.1941 ppb	10:15:59
3	Co 228.616†	-62.7	10.6	0.2333 ug/L	0.2333 ppb	10:15:59
3	Cr 267.716†	71.1	4.8	0.0552 ug/L	0.0552 ppb	10:15:59
3	Cu 324.752†	5747.4	-34.4	-0.1067 ug/L	-0.1067 ppb	10:15:39
3	Mn 257.610†	454.6	5.8	0.0041 ug/L	0.0041 ppb	10:15:59
3	Mo 202.031†	31.2	15.9	1.1913 ug/L	1.1913 ppb	10:15:59
3	Ni 231.604†	112.5	5.3	0.1366 ug/L	0.1366 ppb	10:15:59
3	P 214.914†	233.0	6.5	4.0950 ug/L	4.0950 ppb	10:15:59
3	Pb 220.353†	-58.4	2.9	0.3671 ug/L	0.3671 ppb	10:15:59
3	S 181.975 Axial†	44.5	5.4	7.8993 ug/L	7.8993 ppb	10:15:59
3	Sb 206.836†	49.7	7.9	2.8047 ug/L	2.8047 ppb	10:15:59
3	Se 196.026†	-15.9	6.1	4.0634 ug/L	4.0634 ppb	10:15:59
3	Si 251.611†	580.8	22.5	0.7377 ug/L	0.7377 ppb	10:15:59
3	Sn 189.927†	19.3	10.7	1.9885 ug/L	1.9885 ppb	10:15:59
3	Ti 334.940†	-1211.8	83.2	0.1302 ug/L	0.1302 ppb	10:15:39
3	Tl 190.801†	-20.3	13.8	4.4177 ug/L	4.4177 ppb	10:15:59
3	U 409.014†	-2863.7	97.0	2.8130 ug/L	2.8130 ppb	10:15:39
3	V 292.402†	-1430.7	114.3	0.8545 ug/L	0.8545 ppb	10:15:39
3	Zn 213.857†	717.6	9.2	0.0921 ug/L	0.0921 ppb	10:15:59
3	SiO2†	599.0	19.9	1.3879 ug/L	1.3879 ppb	10:16:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858240.0	99.553	%	0.2883				0.29%
Sc Radial	4868.0	101	%	1.7				1.63%
Y 371.029	710290.7	99.397	%	0.2296				0.23%
Y RADIAL	5106.2	102.1	%	1.19				1.16%
Ag 328.068†	49.8	0.2303	ug/L	0.25348	0.2303	ppb	0.25348	110.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.9	6.4043	ug/L	6.32427	6.4043	ppb	6.32427	98.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	16.2	7.3523	ug/L	2.69211	7.3523	ppb	2.69211	36.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	564.1	13.421	ug/L	0.2739	13.421	ppb	0.2739	2.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.9	0.0412	ug/L	0.08052	0.0412	ppb	0.08052	195.61%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	128.7	0.0483	ug/L	0.02025	0.0483	ppb	0.02025	41.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-4.5126	ug/L	3.21196	-4.5126	ppb	3.21196	71.18%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 21.6      0.2584 ug/L       0.12529      0.2584 ppb        0.12529  48.48%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 10.0      0.2202 ug/L       0.02557      0.2202 ppb        0.02557  11.61%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 13.4      0.1550 ug/L       0.09711      0.1550 ppb        0.09711  62.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 29.9      0.0883 ug/L       0.17812      0.0883 ppb        0.17812 201.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          -1.6     -14.628 ug/L        2.4482     -14.628 ppb         2.4482  16.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          114.3      20.157 ug/L        2.6362      20.157 ppb         2.6362  13.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†              0.7      26.460 ug/L       15.8507      26.460 ppb        15.8507  59.90%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                  3.2      0.0011 ug/L       0.01115      0.0011 ppb        0.01115 982.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                  9.8      0.7314 ug/L       0.40658      0.7314 ppb        0.40658  55.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         125.9      38.087 ug/L       18.3042      38.087 ppb        18.3042  48.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 -1.1     -0.0275 ug/L       0.17083     -0.0275 ppb        0.17083 621.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  -3.3     -2.0216 ug/L       5.63861     -2.0216 ppb        5.63861 278.92%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 -6.3     -0.7763 ug/L       1.04230     -0.7763 ppb        1.04230 134.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             2.9      4.2715 ug/L       8.98759      4.2715 ppb        8.98759 210.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                  2.4      0.8860 ug/L       1.69471      0.8860 ppb        1.69471 191.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                  4.3      2.8266 ug/L       1.95027      2.8266 ppb        1.95027  69.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 24.8      0.8222 ug/L       0.16257      0.8222 ppb        0.16257  19.77%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                  8.5      1.5810 ug/L       0.35302      1.5810 ppb        0.35302  22.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                  8.3      0.0581 ug/L       0.17606      0.0581 ppb        0.17606 302.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 81.2      0.1276 ug/L       0.04293      0.1276 ppb        0.04293  33.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  7.9      2.5176 ug/L       1.92203      2.5176 ppb        1.92203  76.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 102.0      2.9579 ug/L       2.04626      2.9579 ppb        2.04626  69.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  93.4      0.6969 ug/L       0.14672      0.6969 ppb        0.14672  21.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                  0.3      0.0047 ug/L       0.07938      0.0047 ppb        0.07938 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       12.8      0.8936 ug/L       0.81267      0.8936 ppb        0.81267  90.94%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 11:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4828.3	4828.3	100	%			11:25:43
1	Y RADIAL	5053.5	5053.5	101.1	%			11:25:43
1	Al 396.153Radial†	5185.0	5313.7	4908.2	ug/L	4908.2	ppb	11:25:43
1	Ca 317.933Radial†	3061.8	3031.5	5024.5	ug/L	5024.5	ppb	11:26:03
1	Fe 238.204 Radial†	574.7	560.7	5116.6	ug/L	5116.6	ppb	11:26:03
1	K 766.490 Radial†	31120.6	28157.1	4964.0	ug/L	4964.0	ppb	11:25:43
1	Mg 279.077 IEC†	146.9	145.8	5168.7	ug/L	5168.7	ppb	11:26:03
1	Na 589.592 Radial†	31358.4	32297.9	9768.5	ug/L	9768.5	ppb	11:25:43
1	Sr 421.552†	72440.0	72116.9	505.73	ug/L	505.73	ppb	11:25:43
1	Sc 361.383	873372.0	873372.0	101.31	%			11:27:01
1	Y 371.029	713104.8	713104.8	99.790	%			11:27:01
1	Ag 328.068†	104829.8	103247.4	489.69	ug/L	489.69	ppb	11:27:06
1	As 188.979†	1061.7	1081.8	495.10	ug/L	495.10	ppb	11:27:26
1	B 249.677†	22865.4	23109.2	547.51	ug/L	547.51	ppb	11:27:06
1	Ba 233.527†	60836.9	60062.9	491.75	ug/L	491.75	ppb	11:27:06
1	Be 313.107†	1332646.8	1319777.3	492.68	ug/L	492.68	ppb	11:27:01
1	Cd 226.502†	41148.7	40829.3	485.30	ug/L	485.30	ppb	11:27:06
1	Co 228.616†	23051.6	22827.6	498.69	ug/L	498.69	ppb	11:27:06
1	Cr 267.716†	42494.2	41878.7	488.14	ug/L	488.14	ppb	11:27:06
1	Cu 324.752†	169724.5	161712.2	490.55	ug/L	490.55	ppb	11:27:06
1	Mn 257.610†	434299.2	428239.3	492.99	ug/L	492.99	ppb	11:27:01
1	Mo 202.031†	6561.1	6460.8	484.29	ug/L	484.29	ppb	11:27:26
1	Ni 231.604†	19238.2	18881.7	488.86	ug/L	488.86	ppb	11:27:06
1	P 214.914†	4150.1	3868.4	2311.5	ug/L	2311.5	ppb	11:27:26
1	Pb 220.353†	3893.0	3904.4	488.65	ug/L	488.65	ppb	11:27:26
1	S 181.975 Axial†	711.9	663.4	966.46	ug/L	966.46	ppb	11:27:26
1	Sb 206.836†	1443.9	1383.1	499.46	ug/L	499.46	ppb	11:27:26
1	Se 196.026†	721.0	733.8	512.50	ug/L	512.50	ppb	11:27:26
1	Si 251.611†	74121.6	72602.2	2422.5	ug/L	2422.5	ppb	11:27:06
1	Sn 189.927†	2633.4	2590.7	481.61	ug/L	481.61	ppb	11:27:26
1	Ti 334.940†	302699.2	300093.7	486.60	ug/L	486.60	ppb	11:27:06
1	Tl 190.801†	1518.2	1532.8	494.48	ug/L	494.48	ppb	11:27:26
1	U 409.014†	14342.1	17136.9	495.24	ug/L	495.24	ppb	11:27:06
1	V 292.402†	66423.3	67120.2	493.89	ug/L	493.89	ppb	11:27:06
1	Zn 213.857†	50984.6	49612.9	484.91	ug/L	484.91	ppb	11:27:06
1	SiO2†	74354.2	72810.9	5180.6	ug/L	5180.6	ppb	11:28:33
2	Sc Radial	4762.6	4762.6	99.1	%			11:26:08
2	Y RADIAL	4925.2	4925.2	98.49	%			11:26:08
2	Al 396.153Radial†	5174.9	5374.5	4964.1	ug/L	4964.1	ppb	11:26:08
2	Ca 317.933Radial†	3057.3	3069.0	5086.7	ug/L	5086.7	ppb	11:26:28
2	Fe 238.204 Radial†	566.1	559.9	5109.2	ug/L	5109.2	ppb	11:26:28
2	K 766.490 Radial†	30888.5	28349.8	4998.0	ug/L	4998.0	ppb	11:26:08
2	Mg 279.077 IEC†	148.7	149.6	5302.8	ug/L	5302.8	ppb	11:26:28
2	Na 589.592 Radial†	31158.5	32526.6	9837.6	ug/L	9837.6	ppb	11:26:08
2	Sr 421.552†	71741.8	72406.4	507.76	ug/L	507.76	ppb	11:26:08
2	Sc 361.383	861194.4	861194.4	99.896	%			11:27:32
2	Y 371.029	703870.3	703870.3	98.498	%			11:27:32
2	Ag 328.068†	104530.9	104411.3	495.20	ug/L	495.20	ppb	11:27:37
2	As 188.979†	1067.7	1102.7	504.57	ug/L	504.57	ppb	11:27:57
2	B 249.677†	22872.7	23435.6	555.27	ug/L	555.27	ppb	11:27:37
2	Ba 233.527†	60700.0	60775.1	497.57	ug/L	497.57	ppb	11:27:37
2	Be 313.107†	1315447.9	1321161.2	493.21	ug/L	493.21	ppb	11:27:32
2	Cd 226.502†	41134.3	41389.2	491.96	ug/L	491.96	ppb	11:27:37
2	Co 228.616†	22966.8	23064.5	503.88	ug/L	503.88	ppb	11:27:37
2	Cr 267.716†	42501.3	42479.0	495.14	ug/L	495.14	ppb	11:27:37
2	Cu 324.752†	169103.5	163459.5	495.85	ug/L	495.85	ppb	11:27:37
2	Mn 257.610†	428755.6	428751.7	493.57	ug/L	493.57	ppb	11:27:32
2	Mo 202.031†	6628.6	6620.0	496.22	ug/L	496.22	ppb	11:27:57
2	Ni 231.604†	19144.5	19056.5	493.39	ug/L	493.39	ppb	11:27:37

2	P 214.914†	4202.5	3978.8	2379.3 ug/L	2379.3 ppb	11:27:57
2	Pb 220.353†	3925.2	3991.0	499.49 ug/L	499.49 ppb	11:27:57
2	S 181.975 Axial†	709.5	670.9	977.39 ug/L	977.39 ppb	11:27:57
2	Sb 206.836†	1450.4	1409.7	509.17 ug/L	509.17 ppb	11:27:57
2	Se 196.026†	727.7	750.6	523.80 ug/L	523.80 ppb	11:27:57
2	Si 251.611†	73992.2	73507.2	2452.6 ug/L	2452.6 ppb	11:27:37
2	Sn 189.927†	2664.2	2658.3	494.17 ug/L	494.17 ppb	11:27:57
2	Ti 334.940†	301943.1	303561.8	492.22 ug/L	492.22 ppb	11:27:37
2	Tl 190.801†	1515.8	1551.6	500.52 ug/L	500.52 ppb	11:27:57
2	U 409.014†	14022.8	17017.5	491.76 ug/L	491.76 ppb	11:27:37
2	V 292.402†	66186.1	67809.9	499.05 ug/L	499.05 ppb	11:27:37
2	Zn 213.857†	50873.4	50213.4	490.80 ug/L	490.80 ppb	11:27:37
2	SiO2†	74670.5	74165.4	5276.9 ug/L	5276.9 ppb	11:28:38
3	Sc Radial	4825.2	4825.2	100 %		11:26:33
3	Y RADIAL	5028.7	5028.7	100.6 %		11:26:33
3	Al 396.153Radial†	5226.9	5358.6	4949.7 ug/L	4949.7 ppb	11:26:33
3	Ca 317.933Radial†	3065.6	3037.2	5033.9 ug/L	5033.9 ppb	11:26:54
3	Fe 238.204 Radial†	571.8	558.1	5093.3 ug/L	5093.3 ppb	11:26:54
3	K 766.490 Radial†	31227.3	28282.8	4986.2 ug/L	4986.2 ppb	11:26:33
3	Mg 279.077 IEC†	149.5	148.5	5263.3 ug/L	5263.3 ppb	11:26:54
3	Na 589.592 Radial†	31627.8	32586.0	9855.6 ug/L	9855.6 ppb	11:26:33
3	Sr 421.552†	72870.4	72591.1	509.06 ug/L	509.06 ppb	11:26:33
3	Sc 361.383	870385.3	870385.3	100.96 %		11:28:03
3	Y 371.029	709166.2	709166.2	99.239 %		11:28:03
3	Ag 328.068†	104482.3	103258.2	489.73 ug/L	489.73 ppb	11:28:08
3	As 188.979†	1055.5	1079.4	493.96 ug/L	493.96 ppb	11:28:28
3	B 249.677†	22912.5	23233.3	550.46 ug/L	550.46 ppb	11:28:08
3	Ba 233.527†	60704.1	60137.4	492.35 ug/L	492.35 ppb	11:28:08
3	Be 313.107†	1328694.1	1320376.3	492.90 ug/L	492.90 ppb	11:28:03
3	Cd 226.502†	41279.1	41097.8	488.50 ug/L	488.50 ppb	11:28:08
3	Co 228.616†	23136.4	22989.8	502.24 ug/L	502.24 ppb	11:28:08
3	Cr 267.716†	42479.2	42007.8	489.64 ug/L	489.64 ppb	11:28:08
3	Cu 324.752†	168864.0	161434.7	489.70 ug/L	489.70 ppb	11:28:08
3	Mn 257.610†	434328.2	429739.1	494.71 ug/L	494.71 ppb	11:28:03
3	Mo 202.031†	6595.0	6516.6	488.47 ug/L	488.47 ppb	11:28:28
3	Ni 231.604†	19220.3	18929.2	490.09 ug/L	490.09 ppb	11:28:08
3	P 214.914†	4160.9	3893.2	2327.1 ug/L	2327.1 ppb	11:28:28
3	Pb 220.353†	3875.6	3900.4	488.17 ug/L	488.17 ppb	11:28:28
3	S 181.975 Axial†	716.3	670.2	976.33 ug/L	976.33 ppb	11:28:28
3	Sb 206.836†	1446.5	1390.6	502.20 ug/L	502.20 ppb	11:28:28
3	Se 196.026†	719.2	734.5	512.88 ug/L	512.88 ppb	11:28:28
3	Si 251.611†	73946.4	72679.8	2425.0 ug/L	2425.0 ppb	11:28:08
3	Sn 189.927†	2645.6	2611.7	485.51 ug/L	485.51 ppb	11:28:28
3	Ti 334.940†	301882.4	300310.0	486.94 ug/L	486.94 ppb	11:28:08
3	Tl 190.801†	1504.5	1524.4	491.77 ug/L	491.77 ppb	11:28:28
3	U 409.014†	14354.5	17197.8	497.00 ug/L	497.00 ppb	11:28:08
3	V 292.402†	66191.4	67115.5	493.92 ug/L	493.92 ppb	11:28:08
3	Zn 213.857†	50864.3	49666.6	485.44 ug/L	485.44 ppb	11:28:08
3	SiO2†	74094.3	72805.3	5180.1 ug/L	5180.1 ppb	11:28:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868317.2	100.72	%	0.736				0.73%
Sc Radial	4805.4	100.0	%	0.77				0.77%
Y 371.029	708713.8	99.176	%	0.6484				0.65%
Y RADIAL	5002.5	100.0	%	1.36				1.36%
Ag 328.068†	103639.0	491.54	ug/L	3.166	491.54	ppb	3.166	0.64%
QC value within limits for Ag 328.068 Recovery = 98.31%								
Al 396.153Radial†	5348.9	4940.7	ug/L	29.04	4940.7	ppb	29.04	0.59%
QC value within limits for Al 396.153Radial Recovery = 98.81%								
As 188.979†	1088.0	497.88	ug/L	5.824	497.88	ppb	5.824	1.17%
QC value within limits for As 188.979 Recovery = 99.58%								
B 249.677†	23259.4	551.08	ug/L	3.913	551.08	ppb	3.913	0.71%
QC value greater than the upper limit for B 249.677 Recovery = 110.22%								
Ba 233.527†	60325.1	493.89	ug/L	3.203	493.89	ppb	3.203	0.65%
QC value within limits for Ba 233.527 Recovery = 98.78%								
Be 313.107†	1320438.3	492.93	ug/L	0.265	492.93	ppb	0.265	0.05%
QC value within limits for Be 313.107 Recovery = 98.59%								
Ca 317.933Radial†	3045.9	5048.4	ug/L	33.50	5048.4	ppb	33.50	0.66%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.97%
Cd 226.502†            41105.4      488.58 ug/L         3.331      488.58 ppb          3.331   0.68%
   QC value within limits for Cd 226.502  Recovery = 97.72%
Co 228.616†            22960.6      501.60 ug/L         2.653      501.60 ppb          2.653   0.53%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†            42121.8      490.98 ug/L         3.683      490.98 ppb          3.683   0.75%
   QC value within limits for Cr 267.716  Recovery = 98.20%
Cu 324.752†           162202.1      492.03 ug/L         3.331      492.03 ppb          3.331   0.68%
   QC value within limits for Cu 324.752  Recovery = 98.41%
Fe 238.204 Radial†       559.6      5106.4 ug/L        11.95      5106.4 ppb          11.95   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.13%
K 766.490 Radial†      28263.3      4982.7 ug/L        17.24      4982.7 ppb          17.24   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 99.65%
Mg 279.077 IEC†          148.0      5244.9 ug/L        68.91      5244.9 ppb          68.91   1.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.90%
Mn 257.610†           428910.0      493.76 ug/L         0.874      493.76 ppb          0.874   0.18%
   QC value within limits for Mn 257.610  Recovery = 98.75%
Mo 202.031†             6532.5      489.66 ug/L         6.050      489.66 ppb          6.050   1.24%
   QC value within limits for Mo 202.031  Recovery = 97.93%
Na 589.592 Radial†     32470.2      9820.6 ug/L        46.01      9820.6 ppb          46.01   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 98.21%
Ni 231.604†            18955.8      490.78 ug/L         2.339      490.78 ppb          2.339   0.48%
   QC value within limits for Ni 231.604  Recovery = 98.16%
P 214.914†              3913.5      2339.3 ug/L        35.51      2339.3 ppb          35.51   1.52%
   QC value within limits for P 214.914  Recovery = 93.57%
Pb 220.353†             3931.9      492.10 ug/L         6.402      492.10 ppb          6.402   1.30%
   QC value within limits for Pb 220.353  Recovery = 98.42%
S 181.975 Axial†         668.2      973.39 ug/L         6.025      973.39 ppb          6.025   0.62%
   QC value within limits for S 181.975 Axial  Recovery = 97.34%
Sb 206.836†             1394.5      503.61 ug/L         5.009      503.61 ppb          5.009   0.99%
   QC value within limits for Sb 206.836  Recovery = 100.72%
Se 196.026†              739.6      516.39 ug/L         6.416      516.39 ppb          6.416   1.24%
   QC value within limits for Se 196.026  Recovery = 103.28%
Si 251.611†            72929.7      2433.4 ug/L        16.71      2433.4 ppb          16.71   0.69%
   QC value within limits for Si 251.611  Recovery = 97.34%
Sn 189.927†             2620.2      487.10 ug/L         6.428      487.10 ppb          6.428   1.32%
   QC value within limits for Sn 189.927  Recovery = 97.42%
Sr 421.552†            72371.5      507.51 ug/L         1.676      507.51 ppb          1.676   0.33%
   QC value within limits for Sr 421.552  Recovery = 101.50%
Ti 334.940†           301321.8      488.58 ug/L         3.151      488.58 ppb          3.151   0.64%
   QC value within limits for Ti 334.940  Recovery = 97.72%
Tl 190.801†             1536.3      495.59 ug/L         4.477      495.59 ppb          4.477   0.90%
   QC value within limits for Tl 190.801  Recovery = 99.12%
U 409.014†             17117.4      494.67 ug/L         2.667      494.67 ppb          2.667   0.54%
   QC value within limits for U 409.014  Recovery = 98.93%
V 292.402†             67348.6      495.62 ug/L         2.973      495.62 ppb          2.973   0.60%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            49831.0      487.05 ug/L         3.259      487.05 ppb          3.259   0.67%
   QC value within limits for Zn 213.857  Recovery = 97.41%
SiO2†                  73260.6      5212.5 ug/L        55.74      5212.5 ppb          55.74   1.07%
   QC value within limits for SiO2  Recovery = 97.48%
QC Failed.  Continue with analysis.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 11:30:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4937.2	4937.2	103	%			11:32:46
1	Y RADIAL	5172.4	5172.4	103.4	%			11:32:46
1	Al 396.153Radial†	-147.6	7.8	7.2517	ug/L	7.2517	ppb	11:33:06
1	Ca 317.933Radial†	20.4	3.1	5.2039	ug/L	5.2039	ppb	11:33:06
1	Fe 238.204 Radial†	12.5	0.7	6.4065	ug/L	6.4065	ppb	11:33:06
1	K 766.490 Radial†	2878.3	-23.4	-4.1430	ug/L	-4.1430	ppb	11:32:46
1	Mg 279.077 IEC†	2.1	1.6	57.919	ug/L	57.919	ppb	11:33:06
1	Na 589.592 Radial†	-967.4	136.7	41.337	ug/L	41.337	ppb	11:32:46
1	Sr 421.552†	4.2	2.0	0.0142	ug/L	0.0142	ppb	11:32:46
1	Sc 361.383	864522.7	864522.7	100.28	%			11:34:03
1	Y 371.029	716030.2	716030.2	100.20	%			11:34:03
1	Ag 328.068†	351.5	121.7	0.5768	ug/L	0.5768	ppb	11:34:03
1	As 188.979†	-23.8	10.1	4.5992	ug/L	4.5992	ppb	11:34:23
1	B 249.677†	2037.7	2571.0	61.163	ug/L	61.163	ppb	11:34:03
1	Ba 233.527†	-9.8	1.9	0.0166	ug/L	0.0166	ppb	11:34:23
1	Be 313.107†	-4302.3	48.5	0.0181	ug/L	0.0181	ppb	11:34:03
1	Cd 226.502†	-204.6	7.9	0.0938	ug/L	0.0938	ppb	11:34:23
1	Co 228.616†	-66.3	7.6	0.1678	ug/L	0.1678	ppb	11:34:23
1	Cr 267.716†	72.9	5.9	0.0691	ug/L	0.0691	ppb	11:34:23
1	Cu 324.752†	5955.1	117.6	0.3563	ug/L	0.3563	ppb	11:34:03
1	Mn 257.610†	450.3	-2.9	-0.0051	ug/L	-0.0051	ppb	11:34:23
1	Mo 202.031†	23.3	7.7	0.5770	ug/L	0.5770	ppb	11:34:23
1	Ni 231.604†	122.2	13.8	0.3579	ug/L	0.3579	ppb	11:34:23
1	P 214.914†	223.5	-5.2	-3.2925	ug/L	-3.2925	ppb	11:34:23
1	Pb 220.353†	-51.8	10.0	1.2538	ug/L	1.2538	ppb	11:34:23
1	S 181.975 Axial†	44.0	4.5	6.5563	ug/L	6.5563	ppb	11:34:23
1	Sb 206.836†	36.8	-5.5	-1.8812	ug/L	-1.8812	ppb	11:34:23
1	Se 196.026†	-18.9	3.2	2.1962	ug/L	2.1962	ppb	11:34:23
1	Si 251.611†	551.2	-12.6	-0.4297	ug/L	-0.4297	ppb	11:34:23
1	Sn 189.927†	14.3	5.6	1.0426	ug/L	1.0426	ppb	11:34:23
1	Ti 334.940†	-1309.7	-2.9	-0.0093	ug/L	-0.0093	ppb	11:34:03
1	Tl 190.801†	-23.3	11.0	3.5275	ug/L	3.5275	ppb	11:34:23
1	U 409.014†	-2941.7	46.6	1.3496	ug/L	1.3496	ppb	11:34:03
1	V 292.402†	-1481.7	77.1	0.5706	ug/L	0.5706	ppb	11:34:03
1	Zn 213.857†	749.2	33.8	0.3297	ug/L	0.3297	ppb	11:34:23
1	SiO2†	573.5	-11.2	-0.8180	ug/L	-0.8180	ppb	11:35:19
2	Sc Radial	4929.8	4929.8	103	%			11:33:11
2	Y RADIAL	5097.9	5097.9	101.9	%			11:33:11
2	Al 396.153Radial†	-144.1	11.1	10.276	ug/L	10.276	ppb	11:33:31
2	Ca 317.933Radial†	20.9	3.7	6.1384	ug/L	6.1384	ppb	11:33:31
2	Fe 238.204 Radial†	10.3	-1.4	-12.938	ug/L	-12.938	ppb	11:33:31
2	K 766.490 Radial†	2925.6	27.0	4.7477	ug/L	4.7477	ppb	11:33:11
2	Mg 279.077 IEC†	3.2	2.7	95.257	ug/L	95.257	ppb	11:33:31
2	Na 589.592 Radial†	-964.7	137.9	41.705	ug/L	41.705	ppb	11:33:11
2	Sr 421.552†	15.0	12.5	0.0877	ug/L	0.0877	ppb	11:33:11
2	Sc 361.383	862469.3	862469.3	100.04	%			11:34:28
2	Y 371.029	713778.4	713778.4	99.885	%			11:34:28
2	Ag 328.068†	267.4	38.5	0.1767	ug/L	0.1767	ppb	11:34:28
2	As 188.979†	-28.7	5.2	2.3475	ug/L	2.3475	ppb	11:34:48
2	B 249.677†	2011.8	2550.0	60.665	ug/L	60.665	ppb	11:34:28
2	Ba 233.527†	-7.5	4.1	0.0351	ug/L	0.0351	ppb	11:34:48
2	Be 313.107†	-4199.6	141.0	0.0527	ug/L	0.0527	ppb	11:34:28
2	Cd 226.502†	-177.7	34.3	0.4099	ug/L	0.4099	ppb	11:34:48
2	Co 228.616†	-64.3	9.4	0.2076	ug/L	0.2076	ppb	11:34:48
2	Cr 267.716†	67.7	0.9	0.0093	ug/L	0.0093	ppb	11:34:48
2	Cu 324.752†	5892.4	69.1	0.2066	ug/L	0.2066	ppb	11:34:28
2	Mn 257.610†	479.6	27.5	0.0264	ug/L	0.0264	ppb	11:34:48
2	Mo 202.031†	26.9	11.3	0.8479	ug/L	0.8479	ppb	11:34:48
2	Ni 231.604†	97.9	-10.1	-0.2630	ug/L	-0.2630	ppb	11:34:48

2	P 214.914†	226.0	-2.2	-1.3741 ug/L	-1.3741 ppb	11:34:48
2	Pb 220.353†	-71.3	-9.6	-1.1898 ug/L	-1.1898 ppb	11:34:48
2	S 181.975 Axial†	45.9	6.5	9.5141 ug/L	9.5141 ppb	11:34:48
2	Sb 206.836†	46.8	4.7	1.6745 ug/L	1.6745 ppb	11:34:48
2	Se 196.026†	-12.5	9.6	6.4469 ug/L	6.4469 ppb	11:34:48
2	Si 251.611†	558.3	-4.2	-0.1510 ug/L	-0.1510 ppb	11:34:48
2	Sn 189.927†	18.6	9.9	1.8436 ug/L	1.8436 ppb	11:34:48
2	Ti 334.940†	-1238.3	65.4	0.0971 ug/L	0.0971 ppb	11:34:28
2	Tl 190.801†	-22.2	12.0	3.8314 ug/L	3.8314 ppb	11:34:48
2	U 409.014†	-2826.0	155.3	4.5041 ug/L	4.5041 ppb	11:34:28
2	V 292.402†	-1439.5	115.8	0.8649 ug/L	0.8649 ppb	11:34:28
2	Zn 213.857†	755.8	42.2	0.4199 ug/L	0.4199 ppb	11:34:48
2	SiO2†	576.7	-6.7	-0.5029 ug/L	-0.5029 ppb	11:35:24
3	Sc Radial	4866.7	4866.7	101 %		11:33:36
3	Y RADIAL	5074.7	5074.7	101.5 %		11:33:36
3	Al 396.153Radial†	-138.6	14.7	13.640 ug/L	13.640 ppb	11:33:56
3	Ca 317.933Radial†	21.9	4.9	8.2040 ug/L	8.2040 ppb	11:33:56
3	Fe 238.204 Radial†	12.3	0.7	6.1455 ug/L	6.1455 ppb	11:33:56
3	K 766.490 Radial†	2778.8	-81.0	-14.316 ug/L	-14.316 ppb	11:33:36
3	Mg 279.077 IEC†	5.3	4.9	172.22 ug/L	172.22 ppb	11:33:56
3	Na 589.592 Radial†	-1014.5	76.5	23.125 ug/L	23.125 ppb	11:33:36
3	Sr 421.552†	10.4	8.1	0.0570 ug/L	0.0570 ppb	11:33:36
3	Sc 361.383	857245.8	857245.8	99.438 %		11:34:53
3	Y 371.029	708885.4	708885.4	99.200 %		11:34:53
3	Ag 328.068†	235.7	8.3	0.0423 ug/L	0.0423 ppb	11:34:53
3	As 188.979†	-30.5	3.2	1.4520 ug/L	1.4520 ppb	11:35:13
3	B 249.677†	2009.3	2559.7	60.893 ug/L	60.893 ppb	11:34:53
3	Ba 233.527†	4.4	16.1	0.1323 ug/L	0.1323 ppb	11:35:13
3	Be 313.107†	-4201.1	113.8	0.0424 ug/L	0.0424 ppb	11:34:53
3	Cd 226.502†	-188.4	22.4	0.2659 ug/L	0.2659 ppb	11:35:13
3	Co 228.616†	-72.1	1.2	0.0277 ug/L	0.0277 ppb	11:35:13
3	Cr 267.716†	68.7	2.4	0.0280 ug/L	0.0280 ppb	11:35:13
3	Cu 324.752†	5827.9	40.2	0.1218 ug/L	0.1218 ppb	11:34:53
3	Mn 257.610†	484.4	35.2	0.0341 ug/L	0.0341 ppb	11:35:13
3	Mo 202.031†	23.0	7.6	0.5689 ug/L	0.5689 ppb	11:35:13
3	Ni 231.604†	89.2	-18.3	-0.4744 ug/L	-0.4744 ppb	11:35:13
3	P 214.914†	225.9	-0.9	-0.5751 ug/L	-0.5751 ppb	11:35:13
3	Pb 220.353†	-76.0	-14.7	-1.8261 ug/L	-1.8261 ppb	11:35:13
3	S 181.975 Axial†	38.6	-0.5	-0.7679 ug/L	-0.7679 ppb	11:35:13
3	Sb 206.836†	40.7	-1.2	-0.4006 ug/L	-0.4006 ppb	11:35:13
3	Se 196.026†	-18.8	3.2	2.1685 ug/L	2.1685 ppb	11:35:13
3	Si 251.611†	565.8	6.7	0.2179 ug/L	0.2179 ppb	11:35:13
3	Sn 189.927†	7.5	-1.2	-0.2145 ug/L	-0.2145 ppb	11:35:13
3	Ti 334.940†	-1290.1	5.8	-0.0038 ug/L	-0.0038 ppb	11:34:53
3	Tl 190.801†	-31.4	2.6	0.8376 ug/L	0.8376 ppb	11:35:13
3	U 409.014†	-2940.4	23.1	0.6679 ug/L	0.6679 ppb	11:34:53
3	V 292.402†	-1481.1	65.2	0.4850 ug/L	0.4850 ppb	11:34:53
3	Zn 213.857†	760.6	51.6	0.5113 ug/L	0.5113 ppb	11:35:13
3	SiO2†	617.5	37.8	2.6843 ug/L	2.6843 ppb	11:35:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861412.6	99.921	%	0.4352				0.44%
Sc Radial	4911.3	102	%	0.8				0.79%
Y 371.029	712898.0	99.761	%	0.5112				0.51%
Y RADIAL	5115.0	102.3	%	1.02				1.00%
Ag 328.068†	56.2	0.2653	ug/L	0.27805	0.2653	ppb	0.27805	104.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.2	10.389	ug/L	3.1957	10.389	ppb	3.1957	30.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.2	2.7996	ug/L	1.62157	2.7996	ppb	1.62157	57.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	2560.2	60.907	ug/L	0.2493	60.907	ppb	0.2493	0.41%
QC value greater than the upper limit for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.0613	ug/L	0.06216	0.0613	ppb	0.06216	101.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	101.1	0.0377	ug/L	0.01781	0.0377	ppb	0.01781	47.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.9	6.5155	ug/L	1.53515	6.5155	ppb	1.53515	23.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 21.5      0.2565 ug/L       0.15823      0.2565 ppb        0.15823  61.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                  6.1      0.1344 ug/L       0.09448      0.1344 ppb        0.09448  70.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                  3.0      0.0355 ug/L       0.03060      0.0355 ppb        0.03060  86.27%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 75.6      0.2282 ug/L       0.11873      0.2282 ppb        0.11873  52.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          -0.0     -0.1285 ug/L      11.09372     -0.1285 ppb       11.09372 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -25.8     -4.5704 ug/L       9.53904     -4.5704 ppb        9.53904 208.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†              3.1      108.47 ug/L        58.285      108.47 ppb         58.285  53.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 19.9      0.0185 ug/L       0.02076      0.0185 ppb        0.02076 112.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                  8.9      0.6646 ug/L       0.15877      0.6646 ppb        0.15877  23.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         117.0      35.389 ug/L       10.6226      35.389 ppb        10.6226  30.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 -4.9     -0.1265 ug/L       0.43260     -0.1265 ppb        0.43260 342.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  -2.8     -1.7472 ug/L       1.39662     -1.7472 ppb        1.39662  79.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 -4.7     -0.5874 ug/L       1.62590     -0.5874 ppb        1.62590 276.81%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             3.5      5.1008 ug/L       5.29327      5.1008 ppb        5.29327 103.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 -0.7     -0.2024 ug/L       1.78611     -0.2024 ppb        1.78611 882.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                  5.3      3.6039 ug/L       2.46220      3.6039 ppb        2.46220  68.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 -3.4     -0.1209 ug/L       0.32486     -0.1209 ppb        0.32486 268.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                  4.8      0.8906 ug/L       1.03745      0.8906 ppb        1.03745 116.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                  7.6      0.0530 ug/L       0.03696      0.0530 ppb        0.03696  69.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 22.8      0.0280 ug/L       0.05992      0.0280 ppb        0.05992 214.01%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  8.5      2.7322 ug/L       1.64777      2.7322 ppb        1.64777  60.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  75.0      2.1739 ug/L       2.04663      2.1739 ppb        2.04663  94.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  86.0      0.6402 ug/L       0.19925      0.6402 ppb        0.19925  31.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 42.6      0.4203 ug/L       0.09078      0.4203 ppb        0.09078  21.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                        6.6      0.4545 ug/L       1.93751      0.4545 ppb        1.93751 426.31%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 11:57:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4863.6	4863.6	101	%			11:59:40
1	Y RADIAL	5063.0	5063.0	101.2	%			11:59:40
1	Al 396.153Radial†	5272.9	5363.0	4954.1	ug/L	4954.1	ppb	11:59:40
1	Ca 317.933Radial†	3065.9	3013.5	4994.6	ug/L	4994.6	ppb	12:00:00
1	Fe 238.204 Radial†	571.4	553.2	5048.5	ug/L	5048.5	ppb	12:00:00
1	K 766.490 Radial†	31053.2	27865.6	4912.5	ug/L	4912.5	ppb	11:59:40
1	Mg 279.077 IEC†	150.0	147.8	5237.9	ug/L	5237.9	ppb	12:00:00
1	Na 589.592 Radial†	31966.2	32672.1	9881.6	ug/L	9881.6	ppb	11:59:40
1	Sr 421.552†	73656.0	72795.3	510.49	ug/L	510.49	ppb	11:59:40
1	Sc 361.383	865780.2	865780.2	100.43	%			12:00:57
1	Y 371.029	704855.3	704855.3	98.636	%			12:00:57
1	Ag 328.068†	104469.3	103795.8	492.26	ug/L	492.26	ppb	12:01:03
1	As 188.979†	1038.1	1067.6	488.65	ug/L	488.65	ppb	12:01:23
1	B 249.677†	21482.5	21930.1	519.46	ug/L	519.46	ppb	12:01:03
1	Ba 233.527†	60644.3	60397.7	494.48	ug/L	494.48	ppb	12:01:03
1	Be 313.107†	1313026.3	1311775.1	489.71	ug/L	489.71	ppb	12:00:57
1	Cd 226.502†	40937.1	40974.7	487.04	ug/L	487.04	ppb	12:01:03
1	Co 228.616†	22997.1	22972.9	501.85	ug/L	501.85	ppb	12:01:03
1	Cr 267.716†	42220.4	41973.9	489.25	ug/L	489.25	ppb	12:01:03
1	Cu 324.752†	169875.2	163331.3	495.45	ug/L	495.45	ppb	12:01:03
1	Mn 257.610†	429898.4	427616.3	492.26	ug/L	492.26	ppb	12:00:57
1	Mo 202.031†	6482.8	6439.6	482.70	ug/L	482.70	ppb	12:01:23
1	Ni 231.604†	19102.2	18912.9	489.67	ug/L	489.67	ppb	12:01:03
1	P 214.914†	4094.5	3849.0	2298.4	ug/L	2298.4	ppb	12:01:23
1	Pb 220.353†	3821.4	3866.8	483.97	ug/L	483.97	ppb	12:01:23
1	S 181.975 Axial†	703.8	661.4	963.56	ug/L	963.56	ppb	12:01:23
1	Sb 206.836†	1419.9	1371.7	495.40	ug/L	495.40	ppb	12:01:23
1	Se 196.026†	699.1	718.3	501.80	ug/L	501.80	ppb	12:01:23
1	Si 251.611†	74136.2	73258.3	2444.5	ug/L	2444.5	ppb	12:01:03
1	Sn 189.927†	2598.8	2579.1	479.45	ug/L	479.45	ppb	12:01:23
1	Ti 334.940†	303081.9	303094.7	491.45	ug/L	491.45	ppb	12:01:03
1	Tl 190.801†	1490.6	1518.5	489.90	ug/L	489.90	ppb	12:01:23
1	U 409.014†	14191.1	17110.7	494.48	ug/L	494.48	ppb	12:01:03
1	V 292.402†	66124.7	67397.9	495.89	ug/L	495.89	ppb	12:01:03
1	Zn 213.857†	50782.0	49852.6	487.27	ug/L	487.27	ppb	12:01:03
1	SiO2†	74764.1	73862.6	5255.6	ug/L	5255.6	ppb	12:02:30
2	Sc Radial	4864.4	4864.4	101	%			12:00:05
2	Y RADIAL	5042.3	5042.3	100.8	%			12:00:05
2	Al 396.153Radial†	5221.6	5311.4	4906.0	ug/L	4906.0	ppb	12:00:05
2	Ca 317.933Radial†	3055.3	3002.4	4976.3	ug/L	4976.3	ppb	12:00:25
2	Fe 238.204 Radial†	570.3	552.1	5038.3	ug/L	5038.3	ppb	12:00:25
2	K 766.490 Radial†	31030.4	27837.6	4907.6	ug/L	4907.6	ppb	12:00:05
2	Mg 279.077 IEC†	149.0	146.8	5202.8	ug/L	5202.8	ppb	12:00:25
2	Na 589.592 Radial†	31972.6	32672.8	9881.9	ug/L	9881.9	ppb	12:00:05
2	Sr 421.552†	73355.0	72485.0	508.31	ug/L	508.31	ppb	12:00:05
2	Sc 361.383	864784.3	864784.3	100.31	%			12:01:28
2	Y 371.029	703923.4	703923.4	98.506	%			12:01:28
2	Ag 328.068†	104641.1	104086.8	493.63	ug/L	493.63	ppb	12:01:34
2	As 188.979†	1052.0	1082.6	495.47	ug/L	495.47	ppb	12:01:54
2	B 249.677†	21546.5	22018.5	521.57	ug/L	521.57	ppb	12:01:34
2	Ba 233.527†	60673.4	60496.3	495.29	ug/L	495.29	ppb	12:01:34
2	Be 313.107†	1314706.7	1314956.0	490.89	ug/L	490.89	ppb	12:01:28
2	Cd 226.502†	40864.1	40948.9	486.73	ug/L	486.73	ppb	12:01:34
2	Co 228.616†	22946.7	22949.0	501.34	ug/L	501.34	ppb	12:01:34
2	Cr 267.716†	42172.0	41974.0	489.25	ug/L	489.25	ppb	12:01:34
2	Cu 324.752†	169790.6	163441.7	495.79	ug/L	495.79	ppb	12:01:34
2	Mn 257.610†	430196.1	428406.0	493.17	ug/L	493.17	ppb	12:01:28
2	Mo 202.031†	6529.7	6493.8	486.76	ug/L	486.76	ppb	12:01:54
2	Ni 231.604†	19066.5	18899.1	489.31	ug/L	489.31	ppb	12:01:34

2	P 214.914†	4144.9	3903.9	2332.5 ug/L	2332.5 ppb	12:01:54
2	Pb 220.353†	3859.0	3908.7	489.19 ug/L	489.19 ppb	12:01:54
2	S 181.975 Axial†	702.6	661.1	963.04 ug/L	963.04 ppb	12:01:54
2	Sb 206.836†	1428.4	1381.8	499.01 ug/L	499.01 ppb	12:01:54
2	Se 196.026†	710.4	730.3	509.85 ug/L	509.85 ppb	12:01:54
2	Si 251.611†	74130.0	73337.2	2447.0 ug/L	2447.0 ppb	12:01:34
2	Sn 189.927†	2597.4	2580.6	479.74 ug/L	479.74 ppb	12:01:54
2	Ti 334.940†	302855.7	303216.8	491.65 ug/L	491.65 ppb	12:01:34
2	Tl 190.801†	1519.4	1548.9	499.65 ug/L	499.65 ppb	12:01:54
2	U 409.014†	14189.6	17125.5	494.91 ug/L	494.91 ppb	12:01:34
2	V 292.402†	66189.7	67538.5	496.97 ug/L	496.97 ppb	12:01:34
2	Zn 213.857†	50708.1	49837.1	487.13 ug/L	487.13 ppb	12:01:34
2	SiO2†	72948.2	72138.2	5132.5 ug/L	5132.5 ppb	12:02:35
3	Sc Radial	4881.5	4881.5	102 %		12:00:30
3	Y RADIAL	5076.4	5076.4	101.5 %		12:00:30
3	Al 396.153Radial†	5284.4	5355.3	4946.2 ug/L	4946.2 ppb	12:00:30
3	Ca 317.933Radial†	3085.8	3022.0	5008.7 ug/L	5008.7 ppb	12:00:50
3	Fe 238.204 Radial†	576.1	555.8	5072.5 ug/L	5072.5 ppb	12:00:50
3	K 766.490 Radial†	31093.2	27792.5	4899.6 ug/L	4899.6 ppb	12:00:30
3	Mg 279.077 IEC†	151.8	149.1	5283.8 ug/L	5283.8 ppb	12:00:50
3	Na 589.592 Radial†	32246.6	32832.5	9930.2 ug/L	9930.2 ppb	12:00:30
3	Sr 421.552†	74049.8	72916.6	511.34 ug/L	511.34 ppb	12:00:30
3	Sc 361.383	846229.6	846229.6	98.160 %		12:01:59
3	Y 371.029	688392.1	688392.1	96.332 %		12:01:59
3	Ag 328.068†	104067.2	105789.5	501.69 ug/L	501.69 ppb	12:02:05
3	As 188.979†	1048.0	1101.5	504.11 ug/L	504.11 ppb	12:02:25
3	B 249.677†	21430.2	22371.0	529.92 ug/L	529.92 ppb	12:02:05
3	Ba 233.527†	60435.3	61579.9	504.16 ug/L	504.16 ppb	12:02:05
3	Be 313.107†	1303086.4	1331854.9	497.21 ug/L	497.21 ppb	12:01:59
3	Cd 226.502†	40625.8	41599.4	494.47 ug/L	494.47 ppb	12:02:05
3	Co 228.616†	22966.7	23471.0	512.74 ug/L	512.74 ppb	12:02:05
3	Cr 267.716†	42103.4	42825.9	499.18 ug/L	499.18 ppb	12:02:05
3	Cu 324.752†	168984.1	166331.4	504.55 ug/L	504.55 ppb	12:02:05
3	Mn 257.610†	427731.1	435298.2	501.10 ug/L	501.10 ppb	12:01:59
3	Mo 202.031†	6540.3	6647.4	498.26 ug/L	498.26 ppb	12:02:25
3	Ni 231.604†	18990.4	19238.4	498.09 ug/L	498.09 ppb	12:02:05
3	P 214.914†	4123.6	3972.8	2373.8 ug/L	2373.8 ppb	12:02:25
3	Pb 220.353†	3839.7	3973.4	497.29 ug/L	497.29 ppb	12:02:25
3	S 181.975 Axial†	696.5	670.3	976.45 ug/L	976.45 ppb	12:02:25
3	Sb 206.836†	1442.5	1427.4	515.39 ug/L	515.39 ppb	12:02:25
3	Se 196.026†	705.5	740.8	517.12 ug/L	517.12 ppb	12:02:25
3	Si 251.611†	73755.9	74576.4	2488.3 ug/L	2488.3 ppb	12:02:05
3	Sn 189.927†	2626.9	2667.5	495.87 ug/L	495.87 ppb	12:02:25
3	Ti 334.940†	301978.5	308943.1	500.93 ug/L	500.93 ppb	12:02:05
3	Tl 190.801†	1501.9	1564.3	504.64 ug/L	504.64 ppb	12:02:25
3	U 409.014†	14209.4	17455.9	504.47 ug/L	504.47 ppb	12:02:05
3	V 292.402†	65720.7	68507.4	504.17 ug/L	504.17 ppb	12:02:05
3	Zn 213.857†	50591.3	50826.5	496.81 ug/L	496.81 ppb	12:02:05
3	SiO2†	73409.4	74202.6	5279.5 ug/L	5279.5 ppb	12:02:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858931.4	99.633	%	1.2773				1.28%
Sc Radial	4869.8	101	%	0.2				0.21%
Y 371.029	699057.0	97.825	%	1.2941				1.32%
Y RADIAL	5060.6	101.2	%	0.34				0.34%
Ag 328.068†	104557.4	495.86	ug/L	5.092	495.86	ppb	5.092	1.03%
QC value within limits for Ag 328.068 Recovery = 99.17%								
Al 396.153Radial†	5343.2	4935.4	ug/L	25.77	4935.4	ppb	25.77	0.52%
QC value within limits for Al 396.153Radial Recovery = 98.71%								
As 188.979†	1083.9	496.08	ug/L	7.748	496.08	ppb	7.748	1.56%
QC value within limits for As 188.979 Recovery = 99.22%								
B 249.677†	22106.5	523.65	ug/L	5.529	523.65	ppb	5.529	1.06%
QC value within limits for B 249.677 Recovery = 104.73%								
Ba 233.527†	60824.6	497.98	ug/L	5.367	497.98	ppb	5.367	1.08%
QC value within limits for Ba 233.527 Recovery = 99.60%								
Be 313.107†	1319528.6	492.60	ug/L	4.032	492.60	ppb	4.032	0.82%
QC value within limits for Be 313.107 Recovery = 98.52%								
Ca 317.933Radial†	3012.6	4993.2	ug/L	16.24	4993.2	ppb	16.24	0.33%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.86%
Cd 226.502†            41174.3      489.41 ug/L         4.382      489.41 ppb          4.382   0.90%
   QC value within limits for Cd 226.502  Recovery = 97.88%
Co 228.616†            23131.0      505.31 ug/L         6.444      505.31 ppb          6.444   1.28%
   QC value within limits for Co 228.616  Recovery = 101.06%
Cr 267.716†            42257.9      492.56 ug/L         5.731      492.56 ppb          5.731   1.16%
   QC value within limits for Cr 267.716  Recovery = 98.51%
Cu 324.752†           164368.1      498.60 ug/L         5.158      498.60 ppb          5.158   1.03%
   QC value within limits for Cu 324.752  Recovery = 99.72%
Fe 238.204 Radial†       553.7      5053.1 ug/L        17.54      5053.1 ppb         17.54   0.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.06%
K 766.490 Radial†      27831.9      4906.6 ug/L         6.53      4906.6 ppb          6.53   0.13%
   QC value within limits for K 766.490 Radial  Recovery = 98.13%
Mg 279.077 IEC†          147.9      5241.5 ug/L        40.63      5241.5 ppb         40.63   0.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.83%
Mn 257.610†           430440.2      495.51 ug/L         4.862      495.51 ppb          4.862   0.98%
   QC value within limits for Mn 257.610  Recovery = 99.10%
Mo 202.031†             6527.0      489.24 ug/L         8.073      489.24 ppb          8.073   1.65%
   QC value within limits for Mo 202.031  Recovery = 97.85%
Na 589.592 Radial†     32725.8      9897.9 ug/L        27.94      9897.9 ppb         27.94   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 98.98%
Ni 231.604†            19016.8      492.36 ug/L         4.971      492.36 ppb          4.971   1.01%
   QC value within limits for Ni 231.604  Recovery = 98.47%
P 214.914†              3908.6      2334.9 ug/L        37.74      2334.9 ppb         37.74   1.62%
   QC value within limits for P 214.914  Recovery = 93.40%
Pb 220.353†             3916.3      490.15 ug/L         6.711      490.15 ppb          6.711   1.37%
   QC value within limits for Pb 220.353  Recovery = 98.03%
S 181.975 Axial†         664.2      967.68 ug/L         7.600      967.68 ppb          7.600   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 96.77%
Sb 206.836†             1393.6      503.27 ug/L        10.651      503.27 ppb         10.651   2.12%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†              729.8      509.59 ug/L         7.663      509.59 ppb          7.663   1.50%
   QC value within limits for Se 196.026  Recovery = 101.92%
Si 251.611†            73723.9      2459.9 ug/L        24.63      2459.9 ppb         24.63   1.00%
   QC value within limits for Si 251.611  Recovery = 98.40%
Sn 189.927†             2609.1      485.02 ug/L         9.395      485.02 ppb          9.395   1.94%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            72732.3      510.05 ug/L         1.561      510.05 ppb          1.561   0.31%
   QC value within limits for Sr 421.552  Recovery = 102.01%
Ti 334.940†           305084.9      494.68 ug/L         5.415      494.68 ppb          5.415   1.09%
   QC value within limits for Ti 334.940  Recovery = 98.94%
Tl 190.801†             1543.9      498.07 ug/L         7.494      498.07 ppb          7.494   1.50%
   QC value within limits for Tl 190.801  Recovery = 99.61%
U 409.014†             17230.7      497.96 ug/L         5.644      497.96 ppb          5.644   1.13%
   QC value within limits for U 409.014  Recovery = 99.59%
V 292.402†             67814.6      499.01 ug/L         4.502      499.01 ppb          4.502   0.90%
   QC value within limits for V 292.402  Recovery = 99.80%
Zn 213.857†            50172.1      490.40 ug/L         5.551      490.40 ppb          5.551   1.13%
   QC value within limits for Zn 213.857  Recovery = 98.08%
SiO2†                  73401.1      5222.5 ug/L        78.86      5222.5 ppb         78.86   1.51%
   QC value within limits for SiO2  Recovery = 97.66%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 12:04:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4952.7	4952.7	103	%			12:06:43
1	Y RADIAL	5184.7	5184.7	103.7	%			12:06:43
1	Al 396.153Radial†	-140.8	15.0	13.887	ug/L	13.887	ppb	12:07:04
1	Ca 317.933Radial†	26.3	8.8	14.648	ug/L	14.648	ppb	12:07:04
1	Fe 238.204 Radial†	11.9	0.1	1.0274	ug/L	1.0274	ppb	12:07:04
1	K 766.490 Radial†	2818.4	-90.3	-15.956	ug/L	-15.956	ppb	12:06:43
1	Mg 279.077 IEC†	3.0	2.5	88.527	ug/L	88.527	ppb	12:07:04
1	Na 589.592 Radial†	-990.1	117.6	35.556	ug/L	35.556	ppb	12:06:43
1	Sr 421.552†	32.1	29.1	0.2037	ug/L	0.2037	ppb	12:06:43
1	Sc 361.383	850678.4	850678.4	98.676	%			12:08:00
1	Y 371.029	703357.8	703357.8	98.426	%			12:08:00
1	Ag 328.068†	284.5	59.6	0.2781	ug/L	0.2781	ppb	12:08:00
1	As 188.979†	-23.1	10.5	4.7624	ug/L	4.7624	ppb	12:08:20
1	B 249.677†	882.5	1433.4	34.099	ug/L	34.099	ppb	12:08:00
1	Ba 233.527†	-14.9	-3.5	-0.0276	ug/L	-0.0276	ppb	12:08:20
1	Be 313.107†	-4192.5	90.0	0.0343	ug/L	0.0343	ppb	12:08:00
1	Cd 226.502†	-194.0	15.3	0.1824	ug/L	0.1824	ppb	12:08:20
1	Co 228.616†	-59.7	13.2	0.2880	ug/L	0.2880	ppb	12:08:20
1	Cr 267.716†	74.7	8.9	0.1020	ug/L	0.1020	ppb	12:08:20
1	Cu 324.752†	5873.5	131.6	0.3963	ug/L	0.3963	ppb	12:08:00
1	Mn 257.610†	494.8	49.6	0.0535	ug/L	0.0535	ppb	12:08:20
1	Mo 202.031†	15.2	-0.1	-0.0071	ug/L	-0.0071	ppb	12:08:20
1	Ni 231.604†	103.5	-3.2	-0.0823	ug/L	-0.0823	ppb	12:08:20
1	P 214.914†	227.8	2.8	1.6550	ug/L	1.6550	ppb	12:08:20
1	Pb 220.353†	-53.2	7.8	0.9778	ug/L	0.9778	ppb	12:08:20
1	S 181.975 Axial†	32.8	-6.1	-8.9045	ug/L	-8.9045	ppb	12:08:20
1	Sb 206.836†	48.2	6.7	2.3436	ug/L	2.3436	ppb	12:08:20
1	Se 196.026†	-17.8	4.1	2.7571	ug/L	2.7571	ppb	12:08:20
1	Si 251.611†	535.5	-19.6	-0.6563	ug/L	-0.6563	ppb	12:08:20
1	Sn 189.927†	12.9	4.4	0.8125	ug/L	0.8125	ppb	12:08:20
1	Ti 334.940†	-1066.4	222.5	0.3531	ug/L	0.3531	ppb	12:08:00
1	Tl 190.801†	-30.3	3.5	1.1327	ug/L	1.1327	ppb	12:08:20
1	U 409.014†	-2750.8	192.3	5.5754	ug/L	5.5754	ppb	12:08:00
1	V 292.402†	-1470.6	64.3	0.4787	ug/L	0.4787	ppb	12:08:00
1	Zn 213.857†	763.6	60.5	0.5972	ug/L	0.5972	ppb	12:08:20
1	SiO2†	547.7	-28.1	-2.0064	ug/L	-2.0064	ppb	12:09:16
2	Sc Radial	4884.6	4884.6	102	%			12:07:09
2	Y RADIAL	5089.2	5089.2	101.8	%			12:07:09
2	Al 396.153Radial†	-144.1	9.8	9.0326	ug/L	9.0326	ppb	12:07:29
2	Ca 317.933Radial†	24.0	6.9	11.493	ug/L	11.493	ppb	12:07:29
2	Fe 238.204 Radial†	10.1	-1.5	-13.969	ug/L	-13.969	ppb	12:07:29
2	K 766.490 Radial†	2882.9	11.3	1.9838	ug/L	1.9838	ppb	12:07:09
2	Mg 279.077 IEC†	2.3	1.9	66.818	ug/L	66.818	ppb	12:07:29
2	Na 589.592 Radial†	-989.5	104.8	31.688	ug/L	31.688	ppb	12:07:09
2	Sr 421.552†	64.1	61.0	0.4278	ug/L	0.4278	ppb	12:07:09
2	Sc 361.383	854144.5	854144.5	99.078	%			12:08:26
2	Y 371.029	706080.3	706080.3	98.807	%			12:08:26
2	Ag 328.068†	259.7	33.4	0.1510	ug/L	0.1510	ppb	12:08:26
2	As 188.979†	-25.8	7.9	3.5587	ug/L	3.5587	ppb	12:08:46
2	B 249.677†	924.6	1472.3	35.026	ug/L	35.026	ppb	12:08:26
2	Ba 233.527†	-9.3	2.2	0.0182	ug/L	0.0182	ppb	12:08:46
2	Be 313.107†	-4188.9	110.8	0.0415	ug/L	0.0415	ppb	12:08:26
2	Cd 226.502†	-195.4	14.7	0.1764	ug/L	0.1764	ppb	12:08:46
2	Co 228.616†	-59.7	13.5	0.2965	ug/L	0.2965	ppb	12:08:46
2	Cr 267.716†	82.0	16.0	0.1853	ug/L	0.1853	ppb	12:08:46
2	Cu 324.752†	5724.6	-42.9	-0.1325	ug/L	-0.1325	ppb	12:08:26
2	Mn 257.610†	470.5	22.9	0.0223	ug/L	0.0223	ppb	12:08:46
2	Mo 202.031†	25.7	10.4	0.7758	ug/L	0.7758	ppb	12:08:46
2	Ni 231.604†	101.7	-5.4	-0.1402	ug/L	-0.1402	ppb	12:08:46

2	P 214.914†	224.5	-1.5	-0.8906 ug/L	-0.8906 ppb	12:08:46
2	Pb 220.353†	-60.4	0.8	0.1045 ug/L	0.1045 ppb	12:08:46
2	S 181.975 Axial†	39.9	1.0	1.3920 ug/L	1.3920 ppb	12:08:46
2	Sb 206.836†	46.1	4.4	1.5566 ug/L	1.5566 ppb	12:08:46
2	Se 196.026†	-15.8	6.2	4.1072 ug/L	4.1072 ppb	12:08:46
2	Si 251.611†	553.5	-3.6	-0.1290 ug/L	-0.1290 ppb	12:08:46
2	Sn 189.927†	14.8	6.3	1.1642 ug/L	1.1642 ppb	12:08:46
2	Ti 334.940†	-1231.8	59.9	0.0919 ug/L	0.0919 ppb	12:08:26
2	Tl 190.801†	-29.0	4.9	1.5666 ug/L	1.5666 ppb	12:08:46
2	U 409.014†	-2853.0	100.5	2.9164 ug/L	2.9164 ppb	12:08:26
2	V 292.402†	-1505.9	34.7	0.2721 ug/L	0.2721 ppb	12:08:26
2	Zn 213.857†	776.5	70.5	0.6983 ug/L	0.6983 ppb	12:08:46
2	SiO2†	573.1	-4.7	-0.3547 ug/L	-0.3547 ppb	12:09:21
3	Sc Radial	4949.7	4949.7	103 %		12:07:34
3	Y RADIAL	5151.5	5151.5	103.0 %		12:07:34
3	Al 396.153Radial†	-143.9	11.9	11.030 ug/L	11.030 ppb	12:07:54
3	Ca 317.933Radial†	19.5	2.2	3.6841 ug/L	3.6841 ppb	12:07:54
3	Fe 238.204 Radial†	10.4	-1.4	-12.958 ug/L	-12.958 ppb	12:07:54
3	K 766.490 Radial†	2843.5	-64.2	-11.350 ug/L	-11.350 ppb	12:07:34
3	Mg 279.077 IEC†	2.6	2.1	74.351 ug/L	74.351 ppb	12:07:54
3	Na 589.592 Radial†	-1005.4	102.1	30.891 ug/L	30.891 ppb	12:07:34
3	Sr 421.552†	22.3	19.6	0.1374 ug/L	0.1374 ppb	12:07:34
3	Sc 361.383	851001.9	851001.9	98.713 %		12:08:51
3	Y 371.029	701869.4	701869.4	98.218 %		12:08:51
3	Ag 328.068†	202.9	-23.3	-0.1159 ug/L	-0.1159 ppb	12:08:51
3	As 188.979†	-23.8	9.7	4.4032 ug/L	4.4032 ppb	12:09:11
3	B 249.677†	896.5	1447.2	34.430 ug/L	34.430 ppb	12:08:51
3	Ba 233.527†	-17.8	-6.5	-0.0517 ug/L	-0.0517 ppb	12:09:11
3	Be 313.107†	-4258.4	24.8	0.0097 ug/L	0.0097 ppb	12:08:51
3	Cd 226.502†	-190.1	19.3	0.2322 ug/L	0.2322 ppb	12:09:11
3	Co 228.616†	-68.4	4.5	0.0964 ug/L	0.0964 ppb	12:09:11
3	Cr 267.716†	63.0	-2.9	-0.0354 ug/L	-0.0354 ppb	12:09:11
3	Cu 324.752†	5761.0	15.4	0.0429 ug/L	0.0429 ppb	12:08:51
3	Mn 257.610†	465.3	19.4	0.0180 ug/L	0.0180 ppb	12:09:11
3	Mo 202.031†	10.6	-4.8	-0.3577 ug/L	-0.3577 ppb	12:09:11
3	Ni 231.604†	123.2	16.8	0.4357 ug/L	0.4357 ppb	12:09:11
3	P 214.914†	231.3	6.2	3.9035 ug/L	3.9035 ppb	12:09:11
3	Pb 220.353†	-57.4	3.6	0.4533 ug/L	0.4533 ppb	12:09:11
3	S 181.975 Axial†	38.9	0.1	0.0794 ug/L	0.0794 ppb	12:09:11
3	Sb 206.836†	41.4	-0.2	-0.0400 ug/L	-0.0400 ppb	12:09:11
3	Se 196.026†	-6.9	15.1	10.123 ug/L	10.123 ppb	12:09:11
3	Si 251.611†	535.6	-19.7	-0.6530 ug/L	-0.6530 ppb	12:09:11
3	Sn 189.927†	16.9	8.5	1.5697 ug/L	1.5697 ppb	12:09:11
3	Ti 334.940†	-1154.7	133.4	0.2083 ug/L	0.2083 ppb	12:08:51
3	Tl 190.801†	-38.7	-5.0	-1.6100 ug/L	-1.6100 ppb	12:09:11
3	U 409.014†	-2750.2	194.0	5.6283 ug/L	5.6283 ppb	12:08:51
3	V 292.402†	-1441.6	94.2	0.6932 ug/L	0.6932 ppb	12:08:51
3	Zn 213.857†	765.0	61.8	0.6083 ug/L	0.6083 ppb	12:09:11
3	SiO2†	555.8	-20.1	-1.4224 ug/L	-1.4224 ppb	12:09:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851941.6	98.822	%	0.2221				0.22%
Sc Radial	4929.0	103	%	0.8				0.78%
Y 371.029	703769.1	98.484	%	0.2988				0.30%
Y RADIAL	5141.8	102.8	%	0.97				0.94%
Ag 328.068†	23.2	0.1044	ug/L	0.20113	0.1044	ppb	0.20113	192.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.2	11.317	ug/L	2.4398	11.317	ppb	2.4398	21.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.3	4.2415	ug/L	0.61795	4.2415	ppb	0.61795	14.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1450.9	34.518	ug/L	0.4700	34.518	ppb	0.4700	1.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.6	-0.0204	ug/L	0.03550	-0.0204	ppb	0.03550	174.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	75.2	0.0285	ug/L	0.01666	0.0285	ppb	0.01666	58.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.0	9.9418	ug/L	5.64420	9.9418	ppb	5.64420	56.77%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.1970 ug/L       0.03065      0.1970 ppb        0.03065  15.56%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                10.4      0.2269 ug/L       0.11316      0.2269 ppb        0.11316  49.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.3      0.0840 ug/L       0.11146      0.0840 ppb        0.11146 132.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                34.7      0.1022 ug/L       0.26931      0.1022 ppb        0.26931 263.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.9     -8.6331 ug/L       8.38145     -8.6331 ppb        8.38145  97.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -47.7     -8.4407 ug/L       9.31702     -8.4407 ppb        9.31702 110.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.2     76.565 ug/L       11.0227      76.565 ppb        11.0227  14.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.7      0.0313 ug/L       0.01938      0.0313 ppb        0.01938  61.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.8      0.1370 ug/L       0.58036      0.1370 ppb        0.58036 423.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        108.2     32.712 ug/L        2.4953     32.712 ppb         2.4953   7.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.7      0.0711 ug/L       0.31708      0.0711 ppb        0.31708 446.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      1.5559 ug/L       2.39858      1.5559 ppb        2.39858 154.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.1      0.5119 ug/L       0.43955      0.5119 ppb        0.43955  85.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.7     -2.4777 ug/L       5.60430     -2.4777 ppb        5.60430 226.19%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.6      1.2867 ug/L       1.21454      1.2867 ppb        1.21454  94.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.4      5.6624 ug/L       3.92140      5.6624 ppb        3.92140  69.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -14.3     -0.4794 ug/L       0.30344     -0.4794 ppb        0.30344  63.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.4      1.1822 ug/L       0.37893      1.1822 ppb        0.37893  32.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                36.6      0.2563 ug/L       0.15219      0.2563 ppb        0.15219  59.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               138.6      0.2178 ug/L       0.13086      0.2178 ppb        0.13086  60.09%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.1      0.3631 ug/L       1.72245      0.3631 ppb        1.72245 474.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                162.3      4.7067 ug/L       1.55071      4.7067 ppb        1.55071  32.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 64.4      0.4813 ug/L       0.21059      0.4813 ppb        0.21059  43.75%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                64.3      0.6346 ug/L       0.05545      0.6346 ppb        0.05545   8.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -17.6     -1.2612 ug/L       0.83758     -1.2612 ppb        0.83758  66.41%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 12:53:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4837.9	4837.9	101	%			12:54:57
1	Y RADIAL	5017.8	5017.8	100.3	%			12:54:57
1	Al 396.153Radial†	5274.7	5392.5	4981.2	ug/L	4981.2	ppb	12:54:57
1	Ca 317.933Radial†	3065.4	3029.1	5020.5	ug/L	5020.5	ppb	12:55:17
1	Fe 238.204 Radial†	576.3	561.1	5120.5	ug/L	5120.5	ppb	12:55:17
1	K 766.490 Radial†	31192.3	28166.6	4965.7	ug/L	4965.7	ppb	12:54:57
1	Mg 279.077 IEC†	150.4	149.0	5282.2	ug/L	5282.2	ppb	12:55:17
1	Na 589.592 Radial†	31816.2	32690.7	9887.3	ug/L	9887.3	ppb	12:54:57
1	Sr 421.552†	73457.9	72984.8	511.82	ug/L	511.82	ppb	12:54:57
1	Sc 361.383	868818.6	868818.6	100.78	%			12:56:14
1	Y 371.029	706341.6	706341.6	98.844	%			12:56:14
1	Ag 328.068†	103196.2	102168.7	484.60	ug/L	484.60	ppb	12:56:20
1	As 188.979†	1057.3	1083.0	495.59	ug/L	495.59	ppb	12:56:40
1	B 249.677†	21059.0	21435.0	507.69	ug/L	507.69	ppb	12:56:20
1	Ba 233.527†	60094.6	59641.1	488.29	ug/L	488.29	ppb	12:56:20
1	Be 313.107†	1325883.0	1319960.0	492.74	ug/L	492.74	ppb	12:56:14
1	Cd 226.502†	40531.4	40429.7	480.54	ug/L	480.54	ppb	12:56:20
1	Co 228.616†	22814.5	22711.7	496.17	ug/L	496.17	ppb	12:56:20
1	Cr 267.716†	41797.6	41407.3	482.65	ug/L	482.65	ppb	12:56:20
1	Cu 324.752†	167171.2	160056.6	485.53	ug/L	485.53	ppb	12:56:20
1	Mn 257.610†	435580.9	431757.9	497.03	ug/L	497.03	ppb	12:56:14
1	Mo 202.031†	6579.6	6513.1	488.21	ug/L	488.21	ppb	12:56:40
1	Ni 231.604†	18915.2	18660.8	483.14	ug/L	483.14	ppb	12:56:20
1	P 214.914†	4176.7	3916.3	2342.4	ug/L	2342.4	ppb	12:56:40
1	Pb 220.353†	3889.5	3921.1	490.76	ug/L	490.76	ppb	12:56:40
1	S 181.975 Axial†	715.3	670.4	976.69	ug/L	976.69	ppb	12:56:40
1	Sb 206.836†	1455.6	1402.2	506.26	ug/L	506.26	ppb	12:56:40
1	Se 196.026†	724.6	741.1	517.45	ug/L	517.45	ppb	12:56:40
1	Si 251.611†	73289.1	72159.6	2407.6	ug/L	2407.6	ppb	12:56:20
1	Sn 189.927†	2650.0	2620.8	487.20	ug/L	487.20	ppb	12:56:40
1	Ti 334.940†	299376.6	298362.8	483.78	ug/L	483.78	ppb	12:56:20
1	Tl 190.801†	1529.3	1551.7	500.54	ug/L	500.54	ppb	12:56:40
1	U 409.014†	13997.9	16869.6	487.50	ug/L	487.50	ppb	12:56:20
1	V 292.402†	65379.8	66428.4	488.91	ug/L	488.91	ppb	12:56:20
1	Zn 213.857†	50226.3	49124.3	480.13	ug/L	480.13	ppb	12:56:20
1	SiO2†	74473.5	73314.0	5216.3	ug/L	5216.3	ppb	12:57:47
2	Sc Radial	4811.3	4811.3	100	%			12:55:22
2	Y RADIAL	5012.3	5012.3	100.2	%			12:55:22
2	Al 396.153Radial†	5241.2	5388.0	4977.1	ug/L	4977.1	ppb	12:55:22
2	Ca 317.933Radial†	3093.3	3073.8	5094.6	ug/L	5094.6	ppb	12:55:42
2	Fe 238.204 Radial†	574.8	562.8	5136.0	ug/L	5136.0	ppb	12:55:42
2	K 766.490 Radial†	31082.1	28228.2	4976.5	ug/L	4976.5	ppb	12:55:22
2	Mg 279.077 IEC†	151.6	151.1	5354.7	ug/L	5354.7	ppb	12:55:42
2	Na 589.592 Radial†	31591.0	32640.9	9872.2	ug/L	9872.2	ppb	12:55:22
2	Sr 421.552†	73056.5	72988.1	511.84	ug/L	511.84	ppb	12:55:22
2	Sc 361.383	869935.0	869935.0	100.91	%			12:56:45
2	Y 371.029	707378.5	707378.5	98.989	%			12:56:45
2	Ag 328.068†	106246.4	105060.1	498.26	ug/L	498.26	ppb	12:56:51
2	As 188.979†	1055.6	1080.0	494.34	ug/L	494.34	ppb	12:57:11
2	B 249.677†	21912.3	22253.8	527.13	ug/L	527.13	ppb	12:56:51
2	Ba 233.527†	61719.2	61174.6	500.84	ug/L	500.84	ppb	12:56:51
2	Be 313.107†	1326025.6	1318412.9	492.19	ug/L	492.19	ppb	12:56:45
2	Cd 226.502†	41567.2	41404.4	492.14	ug/L	492.14	ppb	12:56:51
2	Co 228.616†	23446.2	23308.6	509.18	ug/L	509.18	ppb	12:56:51
2	Cr 267.716†	42876.6	42423.3	494.49	ug/L	494.49	ppb	12:56:51
2	Cu 324.752†	172710.7	165333.3	501.53	ug/L	501.53	ppb	12:56:51
2	Mn 257.610†	435993.6	431612.2	496.86	ug/L	496.86	ppb	12:56:45
2	Mo 202.031†	6563.2	6488.5	486.37	ug/L	486.37	ppb	12:57:11
2	Ni 231.604†	19385.2	19102.5	494.58	ug/L	494.58	ppb	12:56:51

2	P 214.914†	4175.4	3909.7	2335.0 ug/L	2335.0 ppb	12:57:11
2	Pb 220.353†	3873.5	3900.3	488.15 ug/L	488.15 ppb	12:57:11
2	S 181.975 Axial†	718.3	672.5	979.65 ug/L	979.65 ppb	12:57:11
2	Sb 206.836†	1443.4	1388.3	501.33 ug/L	501.33 ppb	12:57:11
2	Se 196.026†	713.2	728.9	509.24 ug/L	509.24 ppb	12:57:11
2	Si 251.611†	75301.3	74060.4	2471.2 ug/L	2471.2 ppb	12:56:51
2	Sn 189.927†	2634.7	2602.3	483.78 ug/L	483.78 ppb	12:57:11
2	Ti 334.940†	307990.4	306517.7	497.00 ug/L	497.00 ppb	12:56:51
2	Tl 190.801†	1527.4	1547.8	499.33 ug/L	499.33 ppb	12:57:11
2	U 409.014†	14702.9	17550.4	507.21 ug/L	507.21 ppb	12:56:51
2	V 292.402†	67186.8	68135.9	501.30 ug/L	501.30 ppb	12:56:51
2	Zn 213.857†	51523.6	50346.0	492.09 ug/L	492.09 ppb	12:56:51
2	SiO2†	74498.7	73244.1	5211.4 ug/L	5211.4 ppb	12:57:52
3	Sc Radial	4939.1	4939.1	103 %		12:55:47
3	Y RADIAL	5135.1	5135.1	102.7 %		12:55:47
3	Al 396.153Radial†	5339.9	5348.6	4940.2 ug/L	4940.2 ppb	12:55:47
3	Ca 317.933Radial†	3086.8	2987.4	4951.5 ug/L	4951.5 ppb	12:56:07
3	Fe 238.204 Radial†	573.8	547.0	4991.9 ug/L	4991.9 ppb	12:56:07
3	K 766.490 Radial†	31771.0	28094.7	4953.0 ug/L	4953.0 ppb	12:55:47
3	Mg 279.077 IEC†	147.4	143.1	5070.6 ug/L	5070.6 ppb	12:56:07
3	Na 589.592 Radial†	32218.7	32434.7	9809.8 ug/L	9809.8 ppb	12:55:47
3	Sr 421.552†	74536.5	72538.9	508.69 ug/L	508.69 ppb	12:55:47
3	Sc 361.383	857830.8	857830.8	99.505 %		12:57:16
3	Y 371.029	697229.1	697229.1	97.569 %		12:57:16
3	Ag 328.068†	105007.3	105300.4	499.35 ug/L	499.35 ppb	12:57:22
3	As 188.979†	1060.9	1100.1	503.43 ug/L	503.43 ppb	12:57:42
3	B 249.677†	21554.1	22200.2	525.88 ug/L	525.88 ppb	12:57:22
3	Ba 233.527†	61004.2	61318.9	502.02 ug/L	502.02 ppb	12:57:22
3	Be 313.107†	1307439.3	1318276.1	492.15 ug/L	492.15 ppb	12:57:16
3	Cd 226.502†	41171.3	41587.8	494.34 ug/L	494.34 ppb	12:57:22
3	Co 228.616†	23181.0	23369.9	510.53 ug/L	510.53 ppb	12:57:22
3	Cr 267.716†	42400.0	42543.9	495.89 ug/L	495.89 ppb	12:57:22
3	Cu 324.752†	170509.4	165536.1	502.13 ug/L	502.13 ppb	12:57:22
3	Mn 257.610†	429959.0	431644.1	496.90 ug/L	496.90 ppb	12:57:16
3	Mo 202.031†	6557.4	6574.4	492.79 ug/L	492.79 ppb	12:57:42
3	Ni 231.604†	19176.7	19164.0	496.17 ug/L	496.17 ppb	12:57:22
3	P 214.914†	4164.3	3957.0	2364.5 ug/L	2364.5 ppb	12:57:42
3	Pb 220.353†	3870.6	3951.5	494.56 ug/L	494.56 ppb	12:57:42
3	S 181.975 Axial†	713.1	677.3	986.73 ug/L	986.73 ppb	12:57:42
3	Sb 206.836†	1444.5	1409.6	508.98 ug/L	508.98 ppb	12:57:42
3	Se 196.026†	708.9	734.6	512.62 ug/L	512.62 ppb	12:57:42
3	Si 251.611†	74405.0	74212.5	2476.2 ug/L	2476.2 ppb	12:57:22
3	Sn 189.927†	2631.7	2636.1	490.04 ug/L	490.04 ppb	12:57:42
3	Ti 334.940†	304414.8	307230.9	498.16 ug/L	498.16 ppb	12:57:22
3	Tl 190.801†	1510.5	1552.2	500.75 ug/L	500.75 ppb	12:57:42
3	U 409.014†	14397.7	17449.3	504.29 ug/L	504.29 ppb	12:57:22
3	V 292.402†	66407.6	68292.3	502.54 ug/L	502.54 ppb	12:57:22
3	Zn 213.857†	50925.6	50465.4	493.28 ug/L	493.28 ppb	12:57:22
3	SiO2†	74841.4	74630.2	5310.1 ug/L	5310.1 ppb	12:57:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865528.2	100.40	%	0.776				0.77%
Sc Radial	4862.8	101	%	1.4				1.39%
Y 371.029	703649.7	98.467	%	0.7815				0.79%
Y RADIAL	5055.1	101.1	%	1.39				1.37%
Ag 328.068†	104176.4	494.07	ug/L	8.221	494.07	ppb	8.221	1.66%
QC value within limits for Ag 328.068 Recovery = 98.81%								
Al 396.153Radial†	5376.4	4966.2	ug/L	22.59	4966.2	ppb	22.59	0.45%
QC value within limits for Al 396.153Radial Recovery = 99.32%								
As 188.979†	1087.7	497.79	ug/L	4.923	497.79	ppb	4.923	0.99%
QC value within limits for As 188.979 Recovery = 99.56%								
B 249.677†	21963.0	520.23	ug/L	10.879	520.23	ppb	10.879	2.09%
QC value within limits for B 249.677 Recovery = 104.05%								
Ba 233.527†	60711.5	497.05	ug/L	7.609	497.05	ppb	7.609	1.53%
QC value within limits for Ba 233.527 Recovery = 99.41%								
Be 313.107†	1318883.0	492.36	ug/L	0.330	492.36	ppb	0.330	0.07%
QC value within limits for Be 313.107 Recovery = 98.47%								
Ca 317.933Radial†	3030.1	5022.2	ug/L	71.56	5022.2	ppb	71.56	1.42%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.44%
Cd 226.502†            41140.6      489.01 ug/L         7.412      489.01 ppb          7.412   1.52%
   QC value within limits for Cd 226.502  Recovery = 97.80%
Co 228.616†            23130.1      505.29 ug/L         7.929      505.29 ppb          7.929   1.57%
   QC value within limits for Co 228.616  Recovery = 101.06%
Cr 267.716†            42124.9      491.01 ug/L         7.274      491.01 ppb          7.274   1.48%
   QC value within limits for Cr 267.716  Recovery = 98.20%
Cu 324.752†           163642.0      496.40 ug/L         9.416      496.40 ppb          9.416   1.90%
   QC value within limits for Cu 324.752  Recovery = 99.28%
Fe 238.204 Radial†       557.0      5082.8 ug/L         79.12      5082.8 ppb          79.12   1.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.66%
K 766.490 Radial†      28163.2      4965.1 ug/L         11.76      4965.1 ppb          11.76   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 99.30%
Mg 279.077 IEC†          147.7      5235.8 ug/L        147.63      5235.8 ppb         147.63   2.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.72%
Mn 257.610†           431671.4      496.93 ug/L         0.089      496.93 ppb          0.089   0.02%
   QC value within limits for Mn 257.610  Recovery = 99.39%
Mo 202.031†             6525.4      489.12 ug/L         3.307      489.12 ppb          3.307   0.68%
   QC value within limits for Mo 202.031  Recovery = 97.82%
Na 589.592 Radial†     32588.7      9856.4 ug/L         41.06      9856.4 ppb          41.06   0.42%
   QC value within limits for Na 589.592 Radial  Recovery = 98.56%
Ni 231.604†            18975.8      491.30 ug/L         7.107      491.30 ppb          7.107   1.45%
   QC value within limits for Ni 231.604  Recovery = 98.26%
P 214.914†              3927.7      2347.3 ug/L         15.32      2347.3 ppb          15.32   0.65%
   QC value within limits for P 214.914  Recovery = 93.89%
Pb 220.353†             3924.3      491.15 ug/L         3.222      491.15 ppb          3.222   0.66%
   QC value within limits for Pb 220.353  Recovery = 98.23%
S 181.975 Axial†         673.4      981.02 ug/L         5.160      981.02 ppb          5.160   0.53%
   QC value within limits for S 181.975 Axial  Recovery = 98.10%
Sb 206.836†             1400.0      505.52 ug/L         3.879      505.52 ppb          3.879   0.77%
   QC value within limits for Sb 206.836  Recovery = 101.10%
Se 196.026†              734.9      513.10 ug/L         4.127      513.10 ppb          4.127   0.80%
   QC value within limits for Se 196.026  Recovery = 102.62%
Si 251.611†            73477.5      2451.7 ug/L         38.25      2451.7 ppb          38.25   1.56%
   QC value within limits for Si 251.611  Recovery = 98.07%
Sn 189.927†             2619.7      487.00 ug/L         3.136      487.00 ppb          3.136   0.64%
   QC value within limits for Sn 189.927  Recovery = 97.40%
Sr 421.552†            72837.3      510.78 ug/L         1.812      510.78 ppb          1.812   0.35%
   QC value within limits for Sr 421.552  Recovery = 102.16%
Ti 334.940†           304037.1      492.98 ug/L         7.988      492.98 ppb          7.988   1.62%
   QC value within limits for Ti 334.940  Recovery = 98.60%
Tl 190.801†             1550.6      500.20 ug/L         0.767      500.20 ppb          0.767   0.15%
   QC value within limits for Tl 190.801  Recovery = 100.04%
U 409.014†             17289.8      499.67 ug/L        10.639      499.67 ppb         10.639   2.13%
   QC value within limits for U 409.014  Recovery = 99.93%
V 292.402†             67618.9      497.59 ug/L         7.537      497.59 ppb          7.537   1.51%
   QC value within limits for V 292.402  Recovery = 99.52%
Zn 213.857†            49978.6      488.50 ug/L         7.270      488.50 ppb          7.270   1.49%
   QC value within limits for Zn 213.857  Recovery = 97.70%
SiO2†                  73729.4      5246.0 ug/L         55.61      5246.0 ppb          55.61   1.06%
   QC value within limits for SiO2  Recovery = 98.10%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 13:00:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4548.3	4548.3	94.6	%			13:02:00
1	Y RADIAL	4743.9	4743.9	94.87	%			13:02:00
1	Al 396.153Radial†	-139.3	4.3	4.0280	ug/L	4.0280	ppb	13:02:20
1	Ca 317.933Radial†	23.9	8.6	14.252	ug/L	14.252	ppb	13:02:20
1	Fe 238.204 Radial†	11.6	0.8	7.0309	ug/L	7.0309	ppb	13:02:20
1	K 766.490 Radial†	2723.3	52.5	9.2430	ug/L	9.2430	ppb	13:02:00
1	Mg 279.077 IEC†	3.7	3.5	125.24	ug/L	125.24	ppb	13:02:20
1	Na 589.592 Radial†	-923.1	103.0	31.145	ug/L	31.145	ppb	13:02:00
1	Sr 421.552†	-13.6	-16.4	-0.1153	ug/L	-0.1153	ppb	13:02:00
1	Sc 361.383	847002.2	847002.2	98.249	%			13:03:17
1	Y 371.029	698147.9	698147.9	97.697	%			13:03:17
1	Ag 328.068†	298.3	74.9	0.3573	ug/L	0.3573	ppb	13:03:17
1	As 188.979†	-24.6	8.8	4.0094	ug/L	4.0094	ppb	13:03:37
1	B 249.677†	694.4	1245.8	29.635	ug/L	29.635	ppb	13:03:17
1	Ba 233.527†	-9.1	2.4	0.0205	ug/L	0.0205	ppb	13:03:37
1	Be 313.107†	-4286.8	-24.5	-0.0093	ug/L	-0.0093	ppb	13:03:17
1	Cd 226.502†	-178.7	30.0	0.3557	ug/L	0.3557	ppb	13:03:37
1	Co 228.616†	-55.4	17.3	0.3773	ug/L	0.3773	ppb	13:03:37
1	Cr 267.716†	68.3	2.8	0.0334	ug/L	0.0334	ppb	13:03:37
1	Cu 324.752†	5795.8	78.4	0.2386	ug/L	0.2386	ppb	13:03:17
1	Mn 257.610†	493.2	50.1	0.0532	ug/L	0.0532	ppb	13:03:37
1	Mo 202.031†	11.5	-3.8	-0.2874	ug/L	-0.2874	ppb	13:03:37
1	Ni 231.604†	90.9	-15.5	-0.4024	ug/L	-0.4024	ppb	13:03:37
1	P 214.914†	233.9	10.0	6.1762	ug/L	6.1762	ppb	13:03:37
1	Pb 220.353†	-54.0	6.8	0.8449	ug/L	0.8449	ppb	13:03:37
1	S 181.975 Axial†	35.6	-3.1	-4.4745	ug/L	-4.4745	ppb	13:03:37
1	Sb 206.836†	45.0	3.7	1.2850	ug/L	1.2850	ppb	13:03:37
1	Se 196.026†	-20.5	1.2	0.8373	ug/L	0.8373	ppb	13:03:37
1	Si 251.611†	526.3	-26.6	-0.8846	ug/L	-0.8846	ppb	13:03:37
1	Sn 189.927†	10.9	2.4	0.4489	ug/L	0.4489	ppb	13:03:37
1	Ti 334.940†	-1321.7	-42.0	-0.0761	ug/L	-0.0761	ppb	13:03:17
1	Tl 190.801†	-33.7	-0.1	-0.0453	ug/L	-0.0453	ppb	13:03:37
1	U 409.014†	-2959.8	-32.5	-0.9428	ug/L	-0.9428	ppb	13:03:17
1	V 292.402†	-1470.8	57.6	0.4142	ug/L	0.4142	ppb	13:03:17
1	Zn 213.857†	754.4	54.6	0.5400	ug/L	0.5400	ppb	13:03:37
1	SiO2†	563.6	-9.5	-0.6720	ug/L	-0.6720	ppb	13:04:33
2	Sc Radial	4884.9	4884.9	102	%			13:02:25
2	Y RADIAL	5114.2	5114.2	102.3	%			13:02:25
2	Al 396.153Radial†	-144.6	9.3	8.6095	ug/L	8.6095	ppb	13:02:45
2	Ca 317.933Radial†	22.9	5.9	9.7348	ug/L	9.7348	ppb	13:02:45
2	Fe 238.204 Radial†	8.8	-2.9	-26.064	ug/L	-26.064	ppb	13:02:45
2	K 766.490 Radial†	2719.8	-149.3	-26.382	ug/L	-26.382	ppb	13:02:25
2	Mg 279.077 IEC†	-0.6	-1.0	-34.444	ug/L	-34.444	ppb	13:02:45
2	Na 589.592 Radial†	-910.4	182.6	55.232	ug/L	55.232	ppb	13:02:25
2	Sr 421.552†	1.0	-1.2	-0.0082	ug/L	-0.0082	ppb	13:02:25
2	Sc 361.383	853156.3	853156.3	98.963	%			13:03:42
2	Y 371.029	702857.6	702857.6	98.356	%			13:03:42
2	Ag 328.068†	266.1	40.1	0.1804	ug/L	0.1804	ppb	13:03:42
2	As 188.979†	-29.0	4.6	2.0800	ug/L	2.0800	ppb	13:04:02
2	B 249.677†	680.4	1226.5	29.183	ug/L	29.183	ppb	13:03:42
2	Ba 233.527†	-7.2	4.3	0.0353	ug/L	0.0353	ppb	13:04:02
2	Be 313.107†	-4348.3	-55.2	-0.0202	ug/L	-0.0202	ppb	13:03:42
2	Cd 226.502†	-179.7	30.3	0.3633	ug/L	0.3633	ppb	13:04:02
2	Co 228.616†	-69.3	3.7	0.0805	ug/L	0.0805	ppb	13:04:02
2	Cr 267.716†	83.1	17.2	0.1992	ug/L	0.1992	ppb	13:04:02
2	Cu 324.752†	5831.0	71.4	0.2141	ug/L	0.2141	ppb	13:03:42
2	Mn 257.610†	500.8	54.1	0.0611	ug/L	0.0611	ppb	13:04:02
2	Mo 202.031†	19.2	3.8	0.2847	ug/L	0.2847	ppb	13:04:02
2	Ni 231.604†	116.8	10.0	0.2599	ug/L	0.2599	ppb	13:04:02

2	P 214.914†	233.6	8.0	4.9772 ug/L	4.9772 ppb	13:04:02
2	Pb 220.353†	-53.8	7.3	0.9178 ug/L	0.9178 ppb	13:04:02
2	S 181.975 Axial†	39.1	0.2	0.2567 ug/L	0.2567 ppb	13:04:02
2	Sb 206.836†	32.8	-9.0	-3.1010 ug/L	-3.1010 ppb	13:04:02
2	Se 196.026†	-9.0	13.1	8.7217 ug/L	8.7217 ppb	13:04:02
2	Si 251.611†	544.4	-12.2	-0.4120 ug/L	-0.4120 ppb	13:04:02
2	Sn 189.927†	17.0	8.5	1.5735 ug/L	1.5735 ppb	13:04:02
2	Ti 334.940†	-1194.3	96.4	0.1595 ug/L	0.1595 ppb	13:03:42
2	Tl 190.801†	-33.6	0.3	0.0814 ug/L	0.0814 ppb	13:04:02
2	U 409.014†	-2885.0	64.8	1.8822 ug/L	1.8822 ppb	13:03:42
2	V 292.402†	-1478.4	60.8	0.4520 ug/L	0.4520 ppb	13:03:42
2	Zn 213.857†	734.2	28.6	0.2844 ug/L	0.2844 ppb	13:04:02
2	SiO2†	573.3	-3.8	-0.2803 ug/L	-0.2803 ppb	13:04:38
3	Sc Radial	4790.8	4790.8	99.7 %		13:02:50
3	Y RADIAL	5005.5	5005.5	100.1 %		13:02:50
3	Al 396.153Radial†	-142.2	8.9	8.2874 ug/L	8.2874 ppb	13:03:10
3	Ca 317.933Radial†	25.4	8.7	14.487 ug/L	14.487 ppb	13:03:10
3	Fe 238.204 Radial†	9.3	-2.2	-19.960 ug/L	-19.960 ppb	13:03:10
3	K 766.490 Radial†	2799.8	-16.5	-2.9244 ug/L	-2.9244 ppb	13:02:50
3	Mg 279.077 IEC†	1.0	0.6	19.738 ug/L	19.738 ppb	13:03:10
3	Na 589.592 Radial†	-957.5	117.8	35.639 ug/L	35.639 ppb	13:02:50
3	Sr 421.552†	1.1	-1.0	-0.0069 ug/L	-0.0069 ppb	13:02:50
3	Sc 361.383	853117.9	853117.9	98.959 %		13:04:07
3	Y 371.029	703548.6	703548.6	98.453 %		13:04:07
3	Ag 328.068†	274.7	48.8	0.2197 ug/L	0.2197 ppb	13:04:07
3	As 188.979†	-27.6	5.9	2.6852 ug/L	2.6852 ppb	13:04:27
3	B 249.677†	663.8	1209.8	28.784 ug/L	28.784 ppb	13:04:07
3	Ba 233.527†	-14.5	-3.0	-0.0248 ug/L	-0.0248 ppb	13:04:27
3	Be 313.107†	-4356.7	-63.8	-0.0236 ug/L	-0.0236 ppb	13:04:07
3	Cd 226.502†	-181.3	28.7	0.3443 ug/L	0.3443 ppb	13:04:27
3	Co 228.616†	-65.5	7.6	0.1644 ug/L	0.1644 ppb	13:04:27
3	Cr 267.716†	74.2	8.2	0.0935 ug/L	0.0935 ppb	13:04:27
3	Cu 324.752†	5863.5	104.5	0.3131 ug/L	0.3131 ppb	13:04:07
3	Mn 257.610†	491.9	45.1	0.0492 ug/L	0.0492 ppb	13:04:27
3	Mo 202.031†	12.4	-3.0	-0.2287 ug/L	-0.2287 ppb	13:04:27
3	Ni 231.604†	98.2	-8.8	-0.2278 ug/L	-0.2278 ppb	13:04:27
3	P 214.914†	235.4	9.8	6.0982 ug/L	6.0982 ppb	13:04:27
3	Pb 220.353†	-62.0	-0.9	-0.1097 ug/L	-0.1097 ppb	13:04:27
3	S 181.975 Axial†	44.8	5.9	8.6415 ug/L	8.6415 ppb	13:04:27
3	Sb 206.836†	34.3	-7.5	-2.5735 ug/L	-2.5735 ppb	13:04:27
3	Se 196.026†	-10.1	11.9	7.9259 ug/L	7.9259 ppb	13:04:27
3	Si 251.611†	512.1	-44.8	-1.4962 ug/L	-1.4962 ppb	13:04:27
3	Sn 189.927†	18.5	10.0	1.8651 ug/L	1.8651 ppb	13:04:27
3	Ti 334.940†	-1232.5	57.7	0.0917 ug/L	0.0917 ppb	13:04:07
3	Tl 190.801†	-30.9	3.0	0.9621 ug/L	0.9621 ppb	13:04:27
3	U 409.014†	-2779.6	171.2	4.9652 ug/L	4.9652 ppb	13:04:07
3	V 292.402†	-1510.0	28.7	0.2181 ug/L	0.2181 ppb	13:04:07
3	Zn 213.857†	745.4	40.0	0.3988 ug/L	0.3988 ppb	13:04:27
3	SiO2†	546.1	-31.3	-2.2239 ug/L	-2.2239 ppb	13:04:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851092.1	98.724	%	0.4109				0.42%
Sc Radial	4741.3	98.6	%	3.61				3.66%
Y 371.029	701518.0	98.169	%	0.4113				0.42%
Y RADIAL	4954.6	99.08	%	3.806				3.84%
Ag 328.068†	54.6	0.2525	ug/L	0.09292	0.2525	ppb	0.09292	36.80%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.5	6.9750	ug/L	2.55723	6.9750	ppb	2.55723	36.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.5	2.9249	ug/L	0.98678	2.9249	ppb	0.98678	33.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1227.4	29.201	ug/L	0.4258	29.201	ppb	0.4258	1.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.2	0.0103	ug/L	0.03130	0.0103	ppb	0.03130	303.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-47.8	-0.0177	ug/L	0.00746	-0.0177	ppb	0.00746	42.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.7	12.824	ug/L	2.6783	12.824	ppb	2.6783	20.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                29.7      0.3544 ug/L       0.00956      0.3544 ppb        0.00956   2.70%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.5      0.2074 ug/L       0.15299      0.2074 ppb        0.15299  73.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.4      0.1087 ug/L       0.08394      0.1087 ppb        0.08394  77.25%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                84.7      0.2553 ug/L       0.05154      0.2553 ppb        0.05154  20.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.4    -12.998 ug/L       17.6119     -12.998 ppb        17.6119 135.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -37.8     -6.6879 ug/L      18.10839     -6.6879 ppb       18.10839 270.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.0      36.844 ug/L       81.2036      36.844 ppb        81.2036 220.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                49.8      0.0545 ug/L       0.00609      0.0545 ppb        0.00609  11.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.0     -0.0771 ug/L       0.31472     -0.0771 ppb        0.31472 408.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        134.5      40.672 ug/L       12.8082      40.672 ppb        12.8082  31.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.8     -0.1234 ug/L       0.34324     -0.1234 ppb        0.34324 278.06%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  9.3      5.7505 ug/L       0.67086      5.7505 ppb        0.67086  11.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.4      0.5510 ug/L       0.57339      0.5510 ppb        0.57339 104.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.0      1.4746 ug/L       6.64232      1.4746 ppb        6.64232 450.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.3     -1.4632 ug/L       2.39454     -1.4632 ppb        2.39454 163.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.7      5.8283 ug/L       4.34060      5.8283 ppb        4.34060  74.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -27.9     -0.9309 ug/L       0.54361     -0.9309 ppb        0.54361  58.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.0      1.2959 ug/L       0.74781      1.2959 ppb        0.74781  57.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.2     -0.0435 ug/L       0.06225     -0.0435 ppb        0.06225 143.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                37.4      0.0584 ug/L       0.12128      0.0584 ppb        0.12128 207.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      0.3327 ug/L       0.54872      0.3327 ppb        0.54872 164.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 67.8      1.9682 ug/L       2.95493      1.9682 ppb        2.95493 150.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 49.1      0.3615 ug/L       0.12557      0.3615 ppb        0.12557  34.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                41.1      0.4077 ug/L       0.12804      0.4077 ppb        0.12804  31.40%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -14.9     -1.0587 ug/L       1.02790     -1.0587 ppb        1.02790  97.09%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 13:39:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4812.3	4812.3	100	%			13:41:31
1	Y RADIAL	5017.3	5017.3	100.3	%			13:41:31
1	Al 396.153Radial†	5264.3	5410.0	4997.5	ug/L	4997.5	ppb	13:41:31
1	Ca 317.933Radial†	3040.0	3019.9	5005.3	ug/L	5005.3	ppb	13:41:51
1	Fe 238.204 Radial†	567.4	555.3	5067.6	ug/L	5067.6	ppb	13:41:51
1	K 766.490 Radial†	31070.8	28210.6	4973.4	ug/L	4973.4	ppb	13:41:31
1	Mg 279.077 IEC†	149.7	149.1	5285.1	ug/L	5285.1	ppb	13:41:51
1	Na 589.592 Radial†	31729.1	32772.2	9911.9	ug/L	9911.9	ppb	13:41:31
1	Sr 421.552†	73574.0	73490.0	515.36	ug/L	515.36	ppb	13:41:31
1	Sc 361.383	852595.3	852595.3	98.898	%			13:42:48
1	Y 371.029	689759.4	689759.4	96.523	%			13:42:48
1	Ag 328.068†	104866.7	105806.3	501.75	ug/L	501.75	ppb	13:42:53
1	As 188.979†	1035.7	1081.1	494.88	ug/L	494.88	ppb	13:43:13
1	B 249.677†	20739.6	21509.7	509.43	ug/L	509.43	ppb	13:42:53
1	Ba 233.527†	61059.4	61751.3	505.55	ug/L	505.55	ppb	13:42:53
1	Be 313.107†	1299347.2	1318162.4	492.11	ug/L	492.11	ppb	13:42:48
1	Cd 226.502†	40857.8	41524.9	493.58	ug/L	493.58	ppb	13:42:53
1	Co 228.616†	23184.9	23516.9	513.72	ug/L	513.72	ppb	13:42:53
1	Cr 267.716†	41996.2	42397.3	494.19	ug/L	494.19	ppb	13:42:53
1	Cu 324.752†	170932.2	167015.9	506.63	ug/L	506.63	ppb	13:42:53
1	Mn 257.610†	429793.8	434130.4	499.76	ug/L	499.76	ppb	13:42:48
1	Mo 202.031†	6428.4	6484.4	486.06	ug/L	486.06	ppb	13:43:13
1	Ni 231.604†	19001.9	19105.5	494.65	ug/L	494.65	ppb	13:42:53
1	P 214.914†	4116.5	3934.3	2349.3	ug/L	2349.3	ppb	13:43:13
1	Pb 220.353†	3795.7	3899.7	488.08	ug/L	488.08	ppb	13:43:13
1	S 181.975 Axial†	696.2	664.6	968.24	ug/L	968.24	ppb	13:43:13
1	Sb 206.836†	1422.2	1395.9	503.96	ug/L	503.96	ppb	13:43:13
1	Se 196.026†	700.8	730.7	510.24	ug/L	510.24	ppb	13:43:13
1	Si 251.611†	74636.5	74905.8	2499.5	ug/L	2499.5	ppb	13:42:53
1	Sn 189.927†	2584.4	2604.5	484.19	ug/L	484.19	ppb	13:43:13
1	Ti 334.940†	305255.6	309959.8	502.58	ug/L	502.58	ppb	13:42:53
1	Tl 190.801†	1512.4	1563.4	504.38	ug/L	504.38	ppb	13:43:13
1	U 409.014†	14229.2	17367.8	501.92	ug/L	501.92	ppb	13:42:53
1	V 292.402†	65755.0	68042.2	500.61	ug/L	500.61	ppb	13:42:53
1	Zn 213.857†	50866.6	50720.1	495.78	ug/L	495.78	ppb	13:42:53
1	SiO2†	74829.2	75079.8	5342.4	ug/L	5342.4	ppb	13:44:21
2	Sc Radial	4831.8	4831.8	101	%			13:41:56
2	Y RADIAL	5022.3	5022.3	100.4	%			13:41:56
2	Al 396.153Radial†	5251.2	5375.7	4965.7	ug/L	4965.7	ppb	13:41:56
2	Ca 317.933Radial†	3051.3	3018.9	5003.6	ug/L	5003.6	ppb	13:42:16
2	Fe 238.204 Radial†	570.4	556.0	5073.8	ug/L	5073.8	ppb	13:42:16
2	K 766.490 Radial†	31107.8	28121.9	4957.8	ug/L	4957.8	ppb	13:41:56
2	Mg 279.077 IEC†	144.2	143.1	5070.2	ug/L	5070.2	ppb	13:42:16
2	Na 589.592 Radial†	31857.7	32772.1	9911.9	ug/L	9911.9	ppb	13:41:56
2	Sr 421.552†	73844.7	73462.1	515.16	ug/L	515.16	ppb	13:41:56
2	Sc 361.383	861113.8	861113.8	99.886	%			13:43:19
2	Y 371.029	697366.9	697366.9	97.588	%			13:43:19
2	Ag 328.068†	105212.6	105103.6	498.44	ug/L	498.44	ppb	13:43:24
2	As 188.979†	1046.4	1081.4	495.02	ug/L	495.02	ppb	13:43:44
2	B 249.677†	20785.0	21347.7	505.58	ug/L	505.58	ppb	13:43:24
2	Ba 233.527†	61445.8	61527.4	503.71	ug/L	503.71	ppb	13:43:24
2	Be 313.107†	1309585.4	1315415.4	491.08	ug/L	491.08	ppb	13:43:19
2	Cd 226.502†	41094.2	41352.9	491.53	ug/L	491.53	ppb	13:43:24
2	Co 228.616†	23340.1	23440.4	512.05	ug/L	512.05	ppb	13:43:24
2	Cr 267.716†	42265.8	42247.1	492.44	ug/L	492.44	ppb	13:43:24
2	Cu 324.752†	171252.4	165626.7	502.42	ug/L	502.42	ppb	13:43:24
2	Mn 257.610†	431649.3	431689.0	496.96	ug/L	496.96	ppb	13:43:19
2	Mo 202.031†	6480.2	6472.0	485.13	ug/L	485.13	ppb	13:43:44
2	Ni 231.604†	19128.8	19042.5	493.02	ug/L	493.02	ppb	13:43:24

2	P 214.914†	4157.9	3934.5	2350.3 ug/L	2350.3 ppb	13:43:44
2	Pb 220.353†	3838.5	3904.6	488.68 ug/L	488.68 ppb	13:43:44
2	S 181.975 Axial†	707.4	668.9	974.41 ug/L	974.41 ppb	13:43:44
2	Sb 206.836†	1420.2	1379.7	498.30 ug/L	498.30 ppb	13:43:44
2	Se 196.026†	704.0	726.9	507.68 ug/L	507.68 ppb	13:43:44
2	Si 251.611†	74996.0	74519.1	2486.6 ug/L	2486.6 ppb	13:43:24
2	Sn 189.927†	2606.8	2601.0	483.53 ug/L	483.53 ppb	13:43:44
2	Ti 334.940†	306340.1	307992.2	499.41 ug/L	499.41 ppb	13:43:24
2	Tl 190.801†	1506.5	1542.4	497.62 ug/L	497.62 ppb	13:43:44
2	U 409.014†	14259.4	17255.7	498.68 ug/L	498.68 ppb	13:43:24
2	V 292.402†	66127.2	67757.1	498.52 ug/L	498.52 ppb	13:43:24
2	Zn 213.857†	51066.3	50411.2	492.75 ug/L	492.75 ppb	13:43:24
2	SiO2†	73633.8	73134.5	5203.6 ug/L	5203.6 ppb	13:44:26
3	Sc Radial	4734.2	4734.2	98.5 %		13:42:21
3	Y RADIAL	4890.0	4890.0	97.79 %		13:42:21
3	Al 396.153Radial†	5197.4	5428.9	5015.0 ug/L	5015.0 ppb	13:42:21
3	Ca 317.933Radial†	3054.8	3085.0	5113.2 ug/L	5113.2 ppb	13:42:41
3	Fe 238.204 Radial†	566.7	563.9	5146.2 ug/L	5146.2 ppb	13:42:41
3	K 766.490 Radial†	30646.3	28291.6	4987.7 ug/L	4987.7 ppb	13:42:21
3	Mg 279.077 IEC†	145.0	146.8	5201.7 ug/L	5201.7 ppb	13:42:41
3	Na 589.592 Radial†	31331.0	32890.9	9947.8 ug/L	9947.8 ppb	13:42:21
3	Sr 421.552†	72815.8	73932.6	518.46 ug/L	518.46 ppb	13:42:21
3	Sc 361.383	860146.3	860146.3	99.774 %		13:43:50
3	Y 371.029	695624.9	695624.9	97.344 %		13:43:50
3	Ag 328.068†	103414.9	103420.4	490.51 ug/L	490.51 ppb	13:43:55
3	As 188.979†	1039.1	1075.4	492.21 ug/L	492.21 ppb	13:44:16
3	B 249.677†	20576.8	21162.5	501.18 ug/L	501.18 ppb	13:43:55
3	Ba 233.527†	60397.6	60546.0	495.69 ug/L	495.69 ppb	13:43:55
3	Be 313.107†	1312530.2	1319841.6	492.71 ug/L	492.71 ppb	13:43:50
3	Cd 226.502†	40397.4	40700.8	483.77 ug/L	483.77 ppb	13:43:55
3	Co 228.616†	22961.5	23087.2	504.35 ug/L	504.35 ppb	13:43:55
3	Cr 267.716†	41594.9	41622.4	485.16 ug/L	485.16 ppb	13:43:55
3	Cu 324.752†	168463.3	163024.1	494.53 ug/L	494.53 ppb	13:43:55
3	Mn 257.610†	433802.6	434333.2	500.00 ug/L	500.00 ppb	13:43:50
3	Mo 202.031†	6488.3	6487.4	486.29 ug/L	486.29 ppb	13:44:16
3	Ni 231.604†	18820.9	18755.5	485.59 ug/L	485.59 ppb	13:43:55
3	P 214.914†	4140.9	3922.2	2344.2 ug/L	2344.2 ppb	13:44:16
3	Pb 220.353†	3843.9	3914.3	489.91 ug/L	489.91 ppb	13:44:16
3	S 181.975 Axial†	709.1	671.4	978.03 ug/L	978.03 ppb	13:44:16
3	Sb 206.836†	1435.7	1396.8	504.29 ug/L	504.29 ppb	13:44:16
3	Se 196.026†	714.8	738.6	515.81 ug/L	515.81 ppb	13:44:16
3	Si 251.611†	73817.3	73422.2	2449.9 ug/L	2449.9 ppb	13:43:55
3	Sn 189.927†	2605.9	2603.2	483.95 ug/L	483.95 ppb	13:44:16
3	Ti 334.940†	301248.8	303234.2	491.70 ug/L	491.70 ppb	13:43:55
3	Tl 190.801†	1506.4	1544.0	498.13 ug/L	498.13 ppb	13:44:16
3	U 409.014†	13927.8	16939.4	489.51 ug/L	489.51 ppb	13:43:55
3	V 292.402†	65054.3	66756.3	491.25 ug/L	491.25 ppb	13:43:55
3	Zn 213.857†	50366.7	49767.5	486.45 ug/L	486.45 ppb	13:43:55
3	SiO2†	74022.0	73606.5	5237.3 ug/L	5237.3 ppb	13:44:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857951.8	99.519	%	0.5410				0.54%
Sc Radial	4792.7	99.7	%	1.07				1.08%
Y 371.029	694250.4	97.152	%	0.5577				0.57%
Y RADIAL	4976.5	99.52	%	1.500				1.51%
Ag 328.068†	104776.8	496.90	ug/L	5.778	496.90	ppb	5.778	1.16%
QC value within limits for Ag 328.068 Recovery = 99.38%								
Al 396.153Radial†	5404.9	4992.8	ug/L	25.00	4992.8	ppb	25.00	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.86%								
As 188.979†	1079.3	494.03	ug/L	1.585	494.03	ppb	1.585	0.32%
QC value within limits for As 188.979 Recovery = 98.81%								
B 249.677†	21340.0	505.39	ug/L	4.126	505.39	ppb	4.126	0.82%
QC value within limits for B 249.677 Recovery = 101.08%								
Ba 233.527†	61274.9	501.65	ug/L	5.245	501.65	ppb	5.245	1.05%
QC value within limits for Ba 233.527 Recovery = 100.33%								
Be 313.107†	1317806.5	491.97	ug/L	0.825	491.97	ppb	0.825	0.17%
QC value within limits for Be 313.107 Recovery = 98.39%								
Ca 317.933Radial†	3041.3	5040.7	ug/L	62.83	5040.7	ppb	62.83	1.25%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.81%
Cd 226.502†            41192.8      489.63 ug/L         5.177      489.63 ppb          5.177   1.06%
   QC value within limits for Cd 226.502  Recovery = 97.93%
Co 228.616†            23348.1      510.04 ug/L         4.996      510.04 ppb          4.996   0.98%
   QC value within limits for Co 228.616  Recovery = 102.01%
Cr 267.716†            42088.9      490.59 ug/L         4.788      490.59 ppb          4.788   0.98%
   QC value within limits for Cr 267.716  Recovery = 98.12%
Cu 324.752†           165222.2      501.19 ug/L         6.141      501.19 ppb          6.141   1.23%
   QC value within limits for Cu 324.752  Recovery = 100.24%
Fe 238.204 Radial†       558.4      5095.9 ug/L        43.73      5095.9 ppb         43.73   0.86%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.92%
K 766.490 Radial†      28208.0      4972.9 ug/L        14.95      4972.9 ppb         14.95   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 99.46%
Mg 279.077 IEC†          146.3      5185.7 ug/L       108.37      5185.7 ppb        108.37   2.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.71%
Mn 257.610†           433384.2      498.91 ug/L         1.691      498.91 ppb          1.691   0.34%
   QC value within limits for Mn 257.610  Recovery = 99.78%
Mo 202.031†             6481.3      485.83 ug/L         0.615      485.83 ppb          0.615   0.13%
   QC value within limits for Mo 202.031  Recovery = 97.17%
Na 589.592 Radial†     32811.8      9923.9 ug/L        20.73      9923.9 ppb         20.73   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 99.24%
Ni 231.604†            18967.9      491.09 ug/L         4.830      491.09 ppb          4.830   0.98%
   QC value within limits for Ni 231.604  Recovery = 98.22%
P 214.914†              3930.3      2347.9 ug/L         3.31      2347.9 ppb          3.31   0.14%
   QC value within limits for P 214.914  Recovery = 93.92%
Pb 220.353†             3906.2      488.89 ug/L         0.933      488.89 ppb          0.933   0.19%
   QC value within limits for Pb 220.353  Recovery = 97.78%
S 181.975 Axial†         668.3      973.56 ug/L         4.949      973.56 ppb          4.949   0.51%
   QC value within limits for S 181.975 Axial  Recovery = 97.36%
Sb 206.836†             1390.8      502.18 ug/L         3.370      502.18 ppb          3.370   0.67%
   QC value within limits for Sb 206.836  Recovery = 100.44%
Se 196.026†              732.0      511.24 ug/L         4.158      511.24 ppb          4.158   0.81%
   QC value within limits for Se 196.026  Recovery = 102.25%
Si 251.611†            74282.4      2478.7 ug/L        25.75      2478.7 ppb         25.75   1.04%
   QC value within limits for Si 251.611  Recovery = 99.15%
Sn 189.927†             2602.9      483.89 ug/L         0.330      483.89 ppb          0.330   0.07%
   QC value within limits for Sn 189.927  Recovery = 96.78%
Sr 421.552†            73628.2      516.33 ug/L         1.851      516.33 ppb          1.851   0.36%
   QC value within limits for Sr 421.552  Recovery = 103.27%
Ti 334.940†           307062.1      497.90 ug/L         5.595      497.90 ppb          5.595   1.12%
   QC value within limits for Ti 334.940  Recovery = 99.58%
Tl 190.801†             1550.0      500.04 ug/L         3.765      500.04 ppb          3.765   0.75%
   QC value within limits for Tl 190.801  Recovery = 100.01%
U 409.014†             17187.6      496.71 ug/L         6.436      496.71 ppb          6.436   1.30%
   QC value within limits for U 409.014  Recovery = 99.34%
V 292.402†             67518.5      496.80 ug/L         4.912      496.80 ppb          4.912   0.99%
   QC value within limits for V 292.402  Recovery = 99.36%
Zn 213.857†            50299.6      491.66 ug/L         4.762      491.66 ppb          4.762   0.97%
   QC value within limits for Zn 213.857  Recovery = 98.33%
SiO2†                  73940.3      5261.1 ug/L        72.37      5261.1 ppb         72.37   1.38%
   QC value within limits for SiO2  Recovery = 98.38%
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 13:46:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4874.5	4874.5	101	%			13:48:34
1	Y RADIAL	5064.1	5064.1	101.3	%			13:48:34
1	Al 396.153Radial†	-166.8	-12.9	-12.005	ug/L	-12.005	ppb	13:48:34
1	Ca 317.933Radial†	26.4	9.4	15.527	ug/L	15.527	ppb	13:48:54
1	Fe 238.204 Radial†	10.8	-0.9	-7.9116	ug/L	-7.9116	ppb	13:48:54
1	K 766.490 Radial†	2847.0	-18.2	-3.2495	ug/L	-3.2495	ppb	13:48:34
1	Mg 279.077 IEC†	1.4	0.9	32.877	ug/L	32.877	ppb	13:48:54
1	Na 589.592 Radial†	-863.1	227.4	68.768	ug/L	68.768	ppb	13:48:34
1	Sr 421.552†	-9.0	-11.0	-0.0774	ug/L	-0.0774	ppb	13:48:34
1	Sc 361.383	832976.5	832976.5	96.622	%			13:49:51
1	Y 371.029	682037.9	682037.9	95.443	%			13:49:51
1	Ag 328.068†	258.2	38.5	0.1764	ug/L	0.1764	ppb	13:49:51
1	As 188.979†	-35.5	-2.8	-1.2900	ug/L	-1.2900	ppb	13:50:11
1	B 249.677†	62.3	603.5	14.359	ug/L	14.359	ppb	13:50:11
1	Ba 233.527†	-16.5	-5.5	-0.0449	ug/L	-0.0449	ppb	13:50:11
1	Be 313.107†	-4119.6	75.1	0.0279	ug/L	0.0279	ppb	13:49:51
1	Cd 226.502†	-192.4	12.8	0.1527	ug/L	0.1527	ppb	13:50:11
1	Co 228.616†	-63.7	7.8	0.1706	ug/L	0.1706	ppb	13:50:11
1	Cr 267.716†	74.2	10.0	0.1157	ug/L	0.1157	ppb	13:50:11
1	Cu 324.752†	5623.0	-1.2	-0.0054	ug/L	-0.0054	ppb	13:49:51
1	Mn 257.610†	488.1	53.3	0.0592	ug/L	0.0592	ppb	13:50:11
1	Mo 202.031†	18.5	3.6	0.2705	ug/L	0.2705	ppb	13:50:11
1	Ni 231.604†	83.1	-22.0	-0.5711	ug/L	-0.5711	ppb	13:50:11
1	P 214.914†	224.5	4.2	2.6473	ug/L	2.6473	ppb	13:50:11
1	Pb 220.353†	-59.5	0.1	0.0174	ug/L	0.0174	ppb	13:50:11
1	S 181.975 Axial†	43.3	5.5	8.0487	ug/L	8.0487	ppb	13:50:11
1	Sb 206.836†	46.9	6.4	2.2505	ug/L	2.2505	ppb	13:50:11
1	Se 196.026†	-18.0	3.4	2.2925	ug/L	2.2925	ppb	13:50:11
1	Si 251.611†	538.0	-5.5	-0.1872	ug/L	-0.1872	ppb	13:50:11
1	Sn 189.927†	8.7	0.3	0.0618	ug/L	0.0618	ppb	13:50:11
1	Ti 334.940†	-1270.2	-11.4	-0.0203	ug/L	-0.0203	ppb	13:49:51
1	Tl 190.801†	-38.2	-5.3	-1.7045	ug/L	-1.7045	ppb	13:50:11
1	U 409.014†	-2791.0	91.5	2.6548	ug/L	2.6548	ppb	13:49:51
1	V 292.402†	-1494.0	8.4	0.0718	ug/L	0.0718	ppb	13:49:51
1	Zn 213.857†	744.4	57.2	0.5692	ug/L	0.5692	ppb	13:50:11
1	SiO2†	575.5	12.5	0.8848	ug/L	0.8848	ppb	13:51:07
2	Sc Radial	4847.5	4847.5	101	%			13:48:59
2	Y RADIAL	5075.6	5075.6	101.5	%			13:48:59
2	Al 396.153Radial†	-145.6	7.2	6.6259	ug/L	6.6259	ppb	13:48:59
2	Ca 317.933Radial†	26.0	9.1	15.116	ug/L	15.116	ppb	13:49:19
2	Fe 238.204 Radial†	12.5	0.9	8.1458	ug/L	8.1458	ppb	13:49:19
2	K 766.490 Radial†	2722.1	-126.4	-22.332	ug/L	-22.332	ppb	13:48:59
2	Mg 279.077 IEC†	3.6	3.2	113.13	ug/L	113.13	ppb	13:49:19
2	Na 589.592 Radial†	-906.2	179.9	54.413	ug/L	54.413	ppb	13:48:59
2	Sr 421.552†	13.4	11.2	0.0782	ug/L	0.0782	ppb	13:48:59
2	Sc 361.383	848163.2	848163.2	98.384	%			13:50:16
2	Y 371.029	695647.6	695647.6	97.347	%			13:50:16
2	Ag 328.068†	192.4	-33.2	-0.1570	ug/L	-0.1570	ppb	13:50:16
2	As 188.979†	-24.4	9.0	4.1041	ug/L	4.1041	ppb	13:50:36
2	B 249.677†	66.5	606.7	14.431	ug/L	14.431	ppb	13:50:36
2	Ba 233.527†	-15.7	-4.4	-0.0343	ug/L	-0.0343	ppb	13:50:36
2	Be 313.107†	-4165.2	105.1	0.0389	ug/L	0.0389	ppb	13:50:16
2	Cd 226.502†	-185.6	23.2	0.2762	ug/L	0.2762	ppb	13:50:36
2	Co 228.616†	-70.9	1.7	0.0390	ug/L	0.0390	ppb	13:50:36
2	Cr 267.716†	72.7	7.1	0.0814	ug/L	0.0814	ppb	13:50:36
2	Cu 324.752†	5525.7	-204.3	-0.6228	ug/L	-0.6228	ppb	13:50:16
2	Mn 257.610†	492.3	48.4	0.0519	ug/L	0.0519	ppb	13:50:36
2	Mo 202.031†	26.8	11.7	0.8800	ug/L	0.8800	ppb	13:50:36
2	Ni 231.604†	79.4	-27.4	-0.7086	ug/L	-0.7086	ppb	13:50:36

2	P 214.914†	235.9	11.7	7.4195 ug/L	7.4195 ppb	13:50:36
2	Pb 220.353†	-43.6	17.4	2.1700 ug/L	2.1700 ppb	13:50:36
2	S 181.975 Axial†	36.3	-2.5	-3.6299 ug/L	-3.6299 ppb	13:50:36
2	Sb 206.836†	43.7	2.3	0.8571 ug/L	0.8571 ppb	13:50:36
2	Se 196.026†	-13.8	8.0	5.4522 ug/L	5.4522 ppb	13:50:36
2	Si 251.611†	540.5	-12.9	-0.4410 ug/L	-0.4410 ppb	13:50:36
2	Sn 189.927†	20.5	12.2	2.2582 ug/L	2.2582 ppb	13:50:36
2	Ti 334.940†	-1335.4	-54.1	-0.0978 ug/L	-0.0978 ppb	13:50:16
2	Tl 190.801†	-28.6	5.1	1.6350 ug/L	1.6350 ppb	13:50:36
2	U 409.014†	-2721.6	213.7	6.1957 ug/L	6.1957 ppb	13:50:16
2	V 292.402†	-1462.3	68.4	0.5218 ug/L	0.5218 ppb	13:50:16
2	Zn 213.857†	765.5	64.8	0.6437 ug/L	0.6437 ppb	13:50:36
2	SiO2†	569.3	-4.4	-0.3402 ug/L	-0.3402 ppb	13:51:12
3	Sc Radial	4980.3	4980.3	104 %		13:49:24
3	Y RADIAL	5191.0	5191.0	103.8 %		13:49:24
3	Al 396.153Radial†	-157.1	-0.0	-0.0682 ug/L	-0.0682 ppb	13:49:24
3	Ca 317.933Radial†	21.6	4.1	6.7953 ug/L	6.7953 ppb	13:49:44
3	Fe 238.204 Radial†	10.0	-1.9	-16.921 ug/L	-16.921 ppb	13:49:44
3	K 766.490 Radial†	2769.5	-152.6	-26.974 ug/L	-26.974 ppb	13:49:24
3	Mg 279.077 IEC†	1.5	1.0	35.623 ug/L	35.623 ppb	13:49:44
3	Na 589.592 Radial†	-841.7	266.1	80.470 ug/L	80.470 ppb	13:49:24
3	Sr 421.552†	-7.1	-9.0	-0.0631 ug/L	-0.0631 ppb	13:49:24
3	Sc 361.383	851237.6	851237.6	98.741 %		13:50:42
3	Y 371.029	697709.8	697709.8	97.636 %		13:50:42
3	Ag 328.068†	203.8	-22.4	-0.1059 ug/L	-0.1059 ppb	13:50:42
3	As 188.979†	-27.3	6.2	2.8281 ug/L	2.8281 ppb	13:51:02
3	B 249.677†	48.6	588.2	13.996 ug/L	13.996 ppb	13:51:02
3	Ba 233.527†	-7.3	4.2	0.0360 ug/L	0.0360 ppb	13:51:02
3	Be 313.107†	-4222.6	62.3	0.0234 ug/L	0.0234 ppb	13:50:42
3	Cd 226.502†	-206.5	2.8	0.0340 ug/L	0.0340 ppb	13:51:02
3	Co 228.616†	-68.7	4.2	0.0933 ug/L	0.0933 ppb	13:51:02
3	Cr 267.716†	72.6	6.8	0.0806 ug/L	0.0806 ppb	13:51:02
3	Cu 324.752†	5564.8	-185.0	-0.5612 ug/L	-0.5612 ppb	13:50:42
3	Mn 257.610†	492.0	46.4	0.0502 ug/L	0.0502 ppb	13:51:02
3	Mo 202.031†	28.8	13.6	1.0180 ug/L	1.0180 ppb	13:51:02
3	Ni 231.604†	88.0	-18.8	-0.4883 ug/L	-0.4883 ppb	13:51:02
3	P 214.914†	230.4	5.2	3.4251 ug/L	3.4251 ppb	13:51:02
3	Pb 220.353†	-47.7	13.4	1.6819 ug/L	1.6819 ppb	13:51:02
3	S 181.975 Axial†	33.9	-5.0	-7.2357 ug/L	-7.2357 ppb	13:51:02
3	Sb 206.836†	39.8	-1.9	-0.5664 ug/L	-0.5664 ppb	13:51:02
3	Se 196.026†	-18.7	3.1	2.0674 ug/L	2.0674 ppb	13:51:02
3	Si 251.611†	544.8	-10.6	-0.3661 ug/L	-0.3661 ppb	13:51:02
3	Sn 189.927†	27.5	19.2	3.5660 ug/L	3.5660 ppb	13:51:02
3	Ti 334.940†	-1245.0	42.3	0.0673 ug/L	0.0673 ppb	13:50:42
3	Tl 190.801†	-23.5	10.4	3.3198 ug/L	3.3198 ppb	13:51:02
3	U 409.014†	-2996.5	-54.7	-1.5842 ug/L	-1.5842 ppb	13:50:42
3	V 292.402†	-1394.4	142.5	1.0490 ug/L	1.0490 ppb	13:50:42
3	Zn 213.857†	755.8	52.2	0.5210 ug/L	0.5210 ppb	13:51:02
3	SiO2†	579.8	4.0	0.2589 ug/L	0.2589 ppb	13:51:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844125.8	97.916	%	1.1341				1.16%
Sc Radial	4900.8	102	%	1.5				1.43%
Y 371.029	691798.4	96.809	%	1.1916				1.23%
Y RADIAL	5110.2	102.2	%	1.40				1.37%
Ag 328.068†	-5.7	-0.0288	ug/L	0.17960	-0.0288	ppb	0.17960	622.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.9	-1.8156	ug/L	9.43731	-1.8156	ppb	9.43731	519.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.2	1.8807	ug/L	2.81909	1.8807	ppb	2.81909	149.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	599.5	14.262	ug/L	0.2331	14.262	ppb	0.2331	1.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.9	-0.0144	ug/L	0.04397	-0.0144	ppb	0.04397	304.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	80.8	0.0301	ug/L	0.00800	0.0301	ppb	0.00800	26.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.5	12.479	ug/L	4.9268	12.479	ppb	4.9268	39.48%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                12.9      0.1543 ug/L       0.12111      0.1543 ppb        0.12111  78.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.5      0.1010 ug/L       0.06616      0.1010 ppb        0.06616  65.51%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.0      0.0926 ug/L       0.02004      0.0926 ppb        0.02004  21.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -130.1     -0.3964 ug/L       0.34006     -0.3964 ppb        0.34006  85.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -5.5622 ug/L      12.69730     -5.5622 ppb       12.69730 228.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -99.1     -17.519 ug/L       12.5736     -17.519 ppb        12.5736  71.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7      60.545 ug/L       45.5643      60.545 ppb        45.5643  75.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                49.4      0.0538 ug/L       0.00475      0.0538 ppb        0.00475   8.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      0.7228 ug/L       0.39774      0.7228 ppb        0.39774  55.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        224.4      67.884 ug/L       13.0513      67.884 ppb        13.0513  19.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -22.7     -0.5894 ug/L       0.11128     -0.5894 ppb        0.11128  18.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  7.1      4.4973 ug/L       2.56043      4.4973 ppb        2.56043  56.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.3      1.2898 ug/L       1.12860      1.2898 ppb        1.12860  87.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6     -0.9390 ug/L       7.98962     -0.9390 ppb        7.98962 850.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.3      0.8471 ug/L       1.40844      0.8471 ppb        1.40844 166.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.9      3.2707 ug/L       1.89256      3.2707 ppb        1.89256  57.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -9.6     -0.3314 ug/L       0.13040     -0.3314 ppb        0.13040  39.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.6      1.9620 ug/L       1.77078      1.9620 ppb        1.77078  90.25%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.9     -0.0207 ug/L       0.08597     -0.0207 ppb        0.08597 414.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -7.8     -0.0169 ug/L       0.08260     -0.0169 ppb        0.08260 487.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.4      1.0834 ug/L       2.55714      1.0834 ppb        2.55714 236.03%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 83.5      2.4221 ug/L       3.89514      2.4221 ppb        3.89514 160.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 73.1      0.5476 ug/L       0.48909      0.5476 ppb        0.48909  89.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                58.1      0.5780 ug/L       0.06183      0.5780 ppb        0.06183  10.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       4.0      0.2678 ug/L       0.61252      0.2678 ppb        0.61252 228.69%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 14:59:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4896.9	4896.9	102	%			15:01:33
1	Y RADIAL	5064.3	5064.3	101.3	%			15:01:33
1	Al 396.153Radial†	5362.8	5415.8	5002.8	ug/L	5002.8	ppb	15:01:33
1	Ca 317.933Radial†	3076.8	3003.5	4978.2	ug/L	4978.2	ppb	15:01:53
1	Fe 238.204 Radial†	567.7	545.8	4981.4	ug/L	4981.4	ppb	15:01:53
1	K 766.490 Radial†	31444.5	28040.8	4943.4	ug/L	4943.4	ppb	15:01:33
1	Mg 279.077 IEC†	144.9	141.8	5026.7	ug/L	5026.7	ppb	15:01:53
1	Na 589.592 Radial†	32560.6	33040.7	9993.1	ug/L	9993.1	ppb	15:01:33
1	Sr 421.552†	75675.9	74282.9	520.92	ug/L	520.92	ppb	15:01:33
1	Sc 361.383	855266.4	855266.4	99.208	%			15:02:50
1	Y 371.029	690506.7	690506.7	96.628	%			15:02:50
1	Ag 328.068†	105333.1	105945.2	502.39	ug/L	502.39	ppb	15:02:55
1	As 188.979†	1043.7	1085.9	497.05	ug/L	497.05	ppb	15:03:15
1	B 249.677†	20778.5	21483.5	508.80	ug/L	508.80	ppb	15:02:55
1	Ba 233.527†	61683.7	62187.7	509.11	ug/L	509.11	ppb	15:02:55
1	Be 313.107†	1311373.8	1326181.8	495.10	ug/L	495.10	ppb	15:02:50
1	Cd 226.502†	41257.9	41799.2	496.85	ug/L	496.85	ppb	15:02:55
1	Co 228.616†	23451.2	23712.1	517.98	ug/L	517.98	ppb	15:02:55
1	Cr 267.716†	42320.1	42591.2	496.45	ug/L	496.45	ppb	15:02:55
1	Cu 324.752†	171769.0	167319.6	507.55	ug/L	507.55	ppb	15:02:55
1	Mn 257.610†	435123.8	438145.7	504.38	ug/L	504.38	ppb	15:02:50
1	Mo 202.031†	6473.5	6509.6	487.94	ug/L	487.94	ppb	15:03:15
1	Ni 231.604†	19245.0	19290.6	499.45	ug/L	499.45	ppb	15:02:55
1	P 214.914†	4150.0	3955.0	2362.1	ug/L	2362.1	ppb	15:03:15
1	Pb 220.353†	3807.0	3899.2	488.02	ug/L	488.02	ppb	15:03:15
1	S 181.975 Axial†	705.5	671.8	978.66	ug/L	978.66	ppb	15:03:15
1	Sb 206.836†	1426.2	1395.5	503.86	ug/L	503.86	ppb	15:03:15
1	Se 196.026†	699.5	727.2	507.58	ug/L	507.58	ppb	15:03:15
1	Si 251.611†	75576.4	75617.5	2523.3	ug/L	2523.3	ppb	15:02:55
1	Sn 189.927†	2594.2	2606.2	484.49	ug/L	484.49	ppb	15:03:15
1	Ti 334.940†	307425.7	311183.2	504.58	ug/L	504.58	ppb	15:02:55
1	Tl 190.801†	1509.1	1555.4	501.82	ug/L	501.82	ppb	15:03:15
1	U 409.014†	14058.7	17151.0	495.64	ug/L	495.64	ppb	15:02:55
1	V 292.402†	66247.2	68330.7	502.73	ug/L	502.73	ppb	15:02:55
1	Zn 213.857†	51389.5	51086.5	499.38	ug/L	499.38	ppb	15:02:55
1	SiO2†	74555.9	74568.0	5305.8	ug/L	5305.8	ppb	15:04:23
2	Sc Radial	4831.8	4831.8	101	%			15:01:58
2	Y RADIAL	5051.5	5051.5	101.0	%			15:01:58
2	Al 396.153Radial†	5389.0	5512.8	5092.5	ug/L	5092.5	ppb	15:01:58
2	Ca 317.933Radial†	3110.2	3077.4	5100.6	ug/L	5100.6	ppb	15:02:18
2	Fe 238.204 Radial†	572.2	557.7	5090.2	ug/L	5090.2	ppb	15:02:18
2	K 766.490 Radial†	31116.0	28130.1	4959.2	ug/L	4959.2	ppb	15:01:58
2	Mg 279.077 IEC†	150.7	149.5	5297.6	ug/L	5297.6	ppb	15:02:18
2	Na 589.592 Radial†	31875.7	32790.0	9917.3	ug/L	9917.3	ppb	15:01:58
2	Sr 421.552†	74806.6	74419.1	521.87	ug/L	521.87	ppb	15:01:58
2	Sc 361.383	844722.4	844722.4	97.985	%			15:03:21
2	Y 371.029	682760.1	682760.1	95.544	%			15:03:21
2	Ag 328.068†	104784.6	106710.7	506.05	ug/L	506.05	ppb	15:03:26
2	As 188.979†	1057.1	1112.7	509.26	ug/L	509.26	ppb	15:03:47
2	B 249.677†	20588.7	21551.2	510.39	ug/L	510.39	ppb	15:03:26
2	Ba 233.527†	61277.4	62549.2	512.08	ug/L	512.08	ppb	15:03:26
2	Be 313.107†	1295669.2	1326653.8	495.29	ug/L	495.29	ppb	15:03:21
2	Cd 226.502†	40938.2	41992.0	499.14	ug/L	499.14	ppb	15:03:26
2	Co 228.616†	23279.8	23832.3	520.62	ug/L	520.62	ppb	15:03:26
2	Cr 267.716†	42080.8	42879.5	499.81	ug/L	499.81	ppb	15:03:26
2	Cu 324.752†	170708.1	168398.0	510.82	ug/L	510.82	ppb	15:03:26
2	Mn 257.610†	428929.0	437298.2	503.40	ug/L	503.40	ppb	15:03:21
2	Mo 202.031†	6474.5	6592.1	494.12	ug/L	494.12	ppb	15:03:47
2	Ni 231.604†	19121.0	19406.2	502.44	ug/L	502.44	ppb	15:03:26

2	P 214.914†	4157.0	4014.4	2398.5 ug/L	2398.5 ppb	15:03:47
2	Pb 220.353†	3816.0	3956.2	495.16 ug/L	495.16 ppb	15:03:47
2	S 181.975 Axial†	702.0	677.1	986.38 ug/L	986.38 ppb	15:03:47
2	Sb 206.836†	1428.1	1415.3	511.03 ug/L	511.03 ppb	15:03:47
2	Se 196.026†	701.8	738.3	515.47 ug/L	515.47 ppb	15:03:47
2	Si 251.611†	74822.9	75799.4	2529.3 ug/L	2529.3 ppb	15:03:26
2	Sn 189.927†	2609.1	2654.1	493.39 ug/L	493.39 ppb	15:03:47
2	Ti 334.940†	305426.0	313010.3	507.54 ug/L	507.54 ppb	15:03:26
2	Tl 190.801†	1502.3	1567.3	505.65 ug/L	505.65 ppb	15:03:47
2	U 409.014†	14046.2	17315.1	500.38 ug/L	500.38 ppb	15:03:26
2	V 292.402†	65892.7	68802.5	506.23 ug/L	506.23 ppb	15:03:26
2	Zn 213.857†	51083.3	51420.6	502.64 ug/L	502.64 ppb	15:03:26
2	SiO2†	74890.6	75847.6	5396.9 ug/L	5396.9 ppb	15:04:28
3	Sc Radial	4861.1	4861.1	101 %		15:02:23
3	Y RADIAL	5095.8	5095.8	101.9 %		15:02:23
3	Al 396.153Radial†	5342.4	5434.4	5019.9 ug/L	5019.9 ppb	15:02:23
3	Ca 317.933Radial†	3064.7	3013.9	4995.3 ug/L	4995.3 ppb	15:02:43
3	Fe 238.204 Radial†	570.0	552.1	5039.4 ug/L	5039.4 ppb	15:02:43
3	K 766.490 Radial†	31421.8	28245.8	4979.6 ug/L	4979.6 ppb	15:02:23
3	Mg 279.077 IEC†	148.1	146.0	5174.3 ug/L	5174.3 ppb	15:02:43
3	Na 589.592 Radial†	32126.6	32846.9	9934.5 ug/L	9934.5 ppb	15:02:23
3	Sr 421.552†	75217.1	74376.3	521.58 ug/L	521.58 ppb	15:02:23
3	Sc 361.383	854008.1	854008.1	99.062 %		15:03:52
3	Y 371.029	691507.2	691507.2	96.768 %		15:03:52
3	Ag 328.068†	106127.9	106904.0	506.95 ug/L	506.95 ppb	15:03:57
3	As 188.979†	1056.6	1100.4	503.69 ug/L	503.69 ppb	15:04:18
3	B 249.677†	21061.8	21800.3	516.32 ug/L	516.32 ppb	15:03:57
3	Ba 233.527†	62128.7	62728.5	513.54 ug/L	513.54 ppb	15:03:57
3	Be 313.107†	1313718.8	1330496.6	496.72 ug/L	496.72 ppb	15:03:52
3	Cd 226.502†	41590.7	42196.4	501.57 ug/L	501.57 ppb	15:03:57
3	Co 228.616†	23635.8	23933.3	522.81 ug/L	522.81 ppb	15:03:57
3	Cr 267.716†	42682.2	43019.6	501.44 ug/L	501.44 ppb	15:03:57
3	Cu 324.752†	173224.8	169044.3	512.78 ug/L	512.78 ppb	15:03:57
3	Mn 257.610†	432964.7	436612.4	502.62 ug/L	502.62 ppb	15:03:52
3	Mo 202.031†	6524.6	6570.9	492.53 ug/L	492.53 ppb	15:04:18
3	Ni 231.604†	19378.9	19454.4	503.69 ug/L	503.69 ppb	15:03:57
3	P 214.914†	4194.6	4006.3	2393.0 ug/L	2393.0 ppb	15:04:18
3	Pb 220.353†	3840.2	3938.3	492.91 ug/L	492.91 ppb	15:04:18
3	S 181.975 Axial†	715.7	683.1	995.16 ug/L	995.16 ppb	15:04:18
3	Sb 206.836†	1436.0	1407.5	508.21 ug/L	508.21 ppb	15:04:18
3	Se 196.026†	726.4	755.4	526.83 ug/L	526.83 ppb	15:04:18
3	Si 251.611†	76128.3	76286.8	2545.6 ug/L	2545.6 ppb	15:03:57
3	Sn 189.927†	2616.6	2632.6	489.40 ug/L	489.40 ppb	15:04:18
3	Ti 334.940†	309943.9	314181.8	509.43 ug/L	509.43 ppb	15:03:57
3	Tl 190.801†	1530.4	1579.1	509.42 ug/L	509.42 ppb	15:04:18
3	U 409.014†	14182.3	17296.7	499.85 ug/L	499.85 ppb	15:03:57
3	V 292.402†	66801.0	68988.1	507.56 ug/L	507.56 ppb	15:03:57
3	Zn 213.857†	51777.5	51554.5	503.95 ug/L	503.95 ppb	15:03:57
3	SiO2†	75058.2	75185.8	5349.7 ug/L	5349.7 ppb	15:04:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851332.3	98.752	%	0.6680				0.68%
Sc Radial	4863.3	101	%	0.7				0.67%
Y 371.029	688258.0	96.313	%	0.6700				0.70%
Y RADIAL	5070.6	101.4	%	0.46				0.45%
Ag 328.068†	106520.0	505.13	ug/L	2.411	505.13	ppb	2.411	0.48%
QC value within limits for Ag 328.068 Recovery = 101.03%								
Al 396.153Radial†	5454.3	5038.4	ug/L	47.64	5038.4	ppb	47.64	0.95%
QC value within limits for Al 396.153Radial Recovery = 100.77%								
As 188.979†	1099.7	503.33	ug/L	6.113	503.33	ppb	6.113	1.21%
QC value within limits for As 188.979 Recovery = 100.67%								
B 249.677†	21611.6	511.84	ug/L	3.960	511.84	ppb	3.960	0.77%
QC value within limits for B 249.677 Recovery = 102.37%								
Ba 233.527†	62488.5	511.58	ug/L	2.256	511.58	ppb	2.256	0.44%
QC value within limits for Ba 233.527 Recovery = 102.32%								
Be 313.107†	1327777.4	495.70	ug/L	0.886	495.70	ppb	0.886	0.18%
QC value within limits for Be 313.107 Recovery = 99.14%								
Ca 317.933Radial†	3031.6	5024.7	ug/L	66.33	5024.7	ppb	66.33	1.32%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.49%
Cd 226.502†            41995.9      499.19 ug/L         2.360      499.19 ppb          2.360   0.47%
   QC value within limits for Cd 226.502  Recovery = 99.84%
Co 228.616†            23825.9      520.47 ug/L         2.419      520.47 ppb          2.419   0.46%
   QC value within limits for Co 228.616  Recovery = 104.09%
Cr 267.716†            42830.1      499.23 ug/L         2.546      499.23 ppb          2.546   0.51%
   QC value within limits for Cr 267.716  Recovery = 99.85%
Cu 324.752†           168253.9      510.38 ug/L         2.644      510.38 ppb          2.644   0.52%
   QC value within limits for Cu 324.752  Recovery = 102.08%
Fe 238.204 Radial†       551.9      5037.0 ug/L        54.44      5037.0 ppb         54.44   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.74%
K 766.490 Radial†      28138.9      4960.7 ug/L        18.14      4960.7 ppb         18.14   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 99.21%
Mg 279.077 IEC†          145.8      5166.2 ug/L       135.63      5166.2 ppb        135.63   2.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           437352.1      503.47 ug/L         0.884      503.47 ppb          0.884   0.18%
   QC value within limits for Mn 257.610  Recovery = 100.69%
Mo 202.031†             6557.5      491.53 ug/L         3.213      491.53 ppb          3.213   0.65%
   QC value within limits for Mo 202.031  Recovery = 98.31%
Na 589.592 Radial†     32892.5      9948.3 ug/L        39.75      9948.3 ppb         39.75   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 99.48%
Ni 231.604†            19383.8      501.86 ug/L         2.179      501.86 ppb          2.179   0.43%
   QC value within limits for Ni 231.604  Recovery = 100.37%
P 214.914†              3991.9      2384.5 ug/L        19.59      2384.5 ppb         19.59   0.82%
   QC value within limits for P 214.914  Recovery = 95.38%
Pb 220.353†             3931.2      492.03 ug/L         3.647      492.03 ppb          3.647   0.74%
   QC value within limits for Pb 220.353  Recovery = 98.41%
S 181.975 Axial†         677.3      986.73 ug/L         8.255      986.73 ppb          8.255   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 98.67%
Sb 206.836†             1406.1      507.70 ug/L         3.610      507.70 ppb          3.610   0.71%
   QC value within limits for Sb 206.836  Recovery = 101.54%
Se 196.026†              740.3      516.63 ug/L         9.677      516.63 ppb          9.677   1.87%
   QC value within limits for Se 196.026  Recovery = 103.33%
Si 251.611†            75901.2      2532.7 ug/L        11.56      2532.7 ppb         11.56   0.46%
   QC value within limits for Si 251.611  Recovery = 101.31%
Sn 189.927†             2631.0      489.09 ug/L         4.460      489.09 ppb          4.460   0.91%
   QC value within limits for Sn 189.927  Recovery = 97.82%
Sr 421.552†            74359.5      521.46 ug/L         0.488      521.46 ppb          0.488   0.09%
   QC value within limits for Sr 421.552  Recovery = 104.29%
Ti 334.940†           312791.8      507.19 ug/L         2.444      507.19 ppb          2.444   0.48%
   QC value within limits for Ti 334.940  Recovery = 101.44%
Tl 190.801†             1567.3      505.63 ug/L         3.799      505.63 ppb          3.799   0.75%
   QC value within limits for Tl 190.801  Recovery = 101.13%
U 409.014†             17254.2      498.63 ug/L         2.597      498.63 ppb          2.597   0.52%
   QC value within limits for U 409.014  Recovery = 99.73%
V 292.402†             68707.1      505.51 ug/L         2.498      505.51 ppb          2.498   0.49%
   QC value within limits for V 292.402  Recovery = 101.10%
Zn 213.857†            51353.9      501.99 ug/L         2.355      501.99 ppb          2.355   0.47%
   QC value within limits for Zn 213.857  Recovery = 100.40%
SiO2†                  75200.5      5350.8 ug/L        45.56      5350.8 ppb         45.56   0.85%
   QC value within limits for SiO2  Recovery = 100.06%
All analyte(s) passed QC.
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Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:06:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4794.0	4794.0	99.7	%			15:08:36
1	Y RADIAL	5035.1	5035.1	100.7	%			15:08:36
1	Al 396.153Radial†	-145.2	6.0	5.5428	ug/L	5.5428	ppb	15:08:56
1	Ca 317.933Radial†	24.3	7.6	12.669	ug/L	12.669	ppb	15:08:56
1	Fe 238.204 Radial†	9.1	-2.3	-21.361	ug/L	-21.361	ppb	15:08:56
1	K 766.490 Radial†	2777.9	-40.3	-7.1527	ug/L	-7.1527	ppb	15:08:36
1	Mg 279.077 IEC†	4.7	4.3	152.14	ug/L	152.14	ppb	15:08:56
1	Na 589.592 Radial†	-843.1	233.2	70.516	ug/L	70.516	ppb	15:08:36
1	Sr 421.552†	4.6	2.5	0.0172	ug/L	0.0172	ppb	15:08:36
1	Sc 361.383	838391.8	838391.8	97.251	%			15:09:53
1	Y 371.029	685807.8	685807.8	95.970	%			15:09:53
1	Ag 328.068†	302.1	81.8	0.3787	ug/L	0.3787	ppb	15:09:53
1	As 188.979†	-24.1	9.1	4.1108	ug/L	4.1108	ppb	15:10:13
1	B 249.677†	-17.6	521.0	12.396	ug/L	12.396	ppb	15:10:13
1	Ba 233.527†	3.5	15.2	0.1227	ug/L	0.1227	ppb	15:10:13
1	Be 313.107†	-4135.9	85.9	0.0316	ug/L	0.0316	ppb	15:09:53
1	Cd 226.502†	-163.7	43.5	0.5196	ug/L	0.5196	ppb	15:10:13
1	Co 228.616†	-62.2	9.7	0.2140	ug/L	0.2140	ppb	15:10:13
1	Cr 267.716†	100.5	36.6	0.4262	ug/L	0.4262	ppb	15:10:13
1	Cu 324.752†	5755.3	97.2	0.2948	ug/L	0.2948	ppb	15:09:53
1	Mn 257.610†	791.9	362.4	0.4087	ug/L	0.4087	ppb	15:10:13
1	Mo 202.031†	23.8	8.9	0.6649	ug/L	0.6649	ppb	15:10:13
1	Ni 231.604†	117.6	12.9	0.3344	ug/L	0.3344	ppb	15:10:13
1	P 214.914†	227.9	6.3	3.9073	ug/L	3.9073	ppb	15:10:13
1	Pb 220.353†	-53.4	6.8	0.8586	ug/L	0.8586	ppb	15:10:13
1	S 181.975 Axial†	37.6	-0.7	-1.0104	ug/L	-1.0104	ppb	15:10:13
1	Sb 206.836†	44.6	3.7	1.3246	ug/L	1.3246	ppb	15:10:13
1	Se 196.026†	-22.5	-1.0	-0.7575	ug/L	-0.7575	ppb	15:10:13
1	Si 251.611†	628.9	84.4	2.8152	ug/L	2.8152	ppb	15:10:13
1	Sn 189.927†	18.0	9.8	1.8216	ug/L	1.8216	ppb	15:10:13
1	Ti 334.940†	-1361.6	-96.9	-0.1673	ug/L	-0.1673	ppb	15:09:53
1	Tl 190.801†	-30.1	3.3	1.0561	ug/L	1.0561	ppb	15:10:13
1	U 409.014†	-2955.8	-59.3	-1.7194	ug/L	-1.7194	ppb	15:09:53
1	V 292.402†	-1541.4	-30.3	-0.2081	ug/L	-0.2081	ppb	15:09:53
1	Zn 213.857†	812.4	122.1	1.2054	ug/L	1.2054	ppb	15:10:13
1	SiO2†	607.8	41.8	2.9645	ug/L	2.9645	ppb	15:11:09
2	Sc Radial	4926.1	4926.1	102	%			15:09:01
2	Y RADIAL	5152.4	5152.4	103.0	%			15:09:01
2	Al 396.153Radial†	-127.4	27.3	25.250	ug/L	25.250	ppb	15:09:21
2	Ca 317.933Radial†	24.1	6.8	11.280	ug/L	11.280	ppb	15:09:21
2	Fe 238.204 Radial†	12.1	0.4	3.3027	ug/L	3.3027	ppb	15:09:21
2	K 766.490 Radial†	2880.4	-15.0	-2.6793	ug/L	-2.6793	ppb	15:09:01
2	Mg 279.077 IEC†	0.7	0.2	8.0343	ug/L	8.0343	ppb	15:09:21
2	Na 589.592 Radial†	-899.9	200.4	60.618	ug/L	60.618	ppb	15:09:01
2	Sr 421.552†	3.6	1.4	0.0101	ug/L	0.0101	ppb	15:09:01
2	Sc 361.383	847669.0	847669.0	98.327	%			15:10:18
2	Y 371.029	693856.3	693856.3	97.097	%			15:10:18
2	Ag 328.068†	282.6	58.6	0.2791	ug/L	0.2791	ppb	15:10:18
2	As 188.979†	-31.7	1.6	0.7413	ug/L	0.7413	ppb	15:10:39
2	B 249.677†	-19.9	518.8	12.341	ug/L	12.341	ppb	15:10:39
2	Ba 233.527†	-14.6	-3.2	-0.0253	ug/L	-0.0253	ppb	15:10:39
2	Be 313.107†	-4136.7	131.7	0.0491	ug/L	0.0491	ppb	15:10:18
2	Cd 226.502†	-184.0	24.8	0.2937	ug/L	0.2937	ppb	15:10:39
2	Co 228.616†	-75.5	-3.1	-0.0649	ug/L	-0.0649	ppb	15:10:39
2	Cr 267.716†	67.8	2.2	0.0261	ug/L	0.0261	ppb	15:10:39
2	Cu 324.752†	5648.7	-75.9	-0.2296	ug/L	-0.2296	ppb	15:10:18
2	Mn 257.610†	548.6	106.0	0.1220	ug/L	0.1220	ppb	15:10:39
2	Mo 202.031†	27.7	12.6	0.9463	ug/L	0.9463	ppb	15:10:39
2	Ni 231.604†	88.2	-18.3	-0.4739	ug/L	-0.4739	ppb	15:10:39

2	P 214.914†	230.5	6.4	4.0139 ug/L	4.0139 ppb	15:10:39
2	Pb 220.353†	-48.3	12.6	1.5837 ug/L	1.5837 ppb	15:10:39
2	S 181.975 Axial†	37.2	-1.5	-2.1995 ug/L	-2.1995 ppb	15:10:39
2	Sb 206.836†	33.7	-7.8	-2.7173 ug/L	-2.7173 ppb	15:10:39
2	Se 196.026†	-8.0	14.0	9.4572 ug/L	9.4572 ppb	15:10:39
2	Si 251.611†	606.5	54.6	1.8141 ug/L	1.8141 ppb	15:10:39
2	Sn 189.927†	7.1	-1.4	-0.2669 ug/L	-0.2669 ppb	15:10:39
2	Ti 334.940†	-1276.1	5.3	0.0097 ug/L	0.0097 ppb	15:10:18
2	Tl 190.801†	-35.4	-1.9	-0.5931 ug/L	-0.5931 ppb	15:10:39
2	U 409.014†	-2947.9	-18.0	-0.5234 ug/L	-0.5234 ppb	15:10:18
2	V 292.402†	-1472.4	57.2	0.4275 ug/L	0.4275 ppb	15:10:18
2	Zn 213.857†	773.7	73.7	0.7295 ug/L	0.7295 ppb	15:10:39
2	SiO2†	601.4	28.5	2.0085 ug/L	2.0085 ppb	15:11:14
3	Sc Radial	4803.6	4803.6	99.9 %		15:09:26
3	Y RADIAL	5048.4	5048.4	101.0 %		15:09:26
3	Al 396.153Radial†	-141.3	10.2	9.4508 ug/L	9.4508 ppb	15:09:47
3	Ca 317.933Radial†	29.8	13.1	21.673 ug/L	21.673 ppb	15:09:47
3	Fe 238.204 Radial†	9.0	-2.5	-22.492 ug/L	-22.492 ppb	15:09:47
3	K 766.490 Radial†	2877.2	53.5	9.4037 ug/L	9.4037 ppb	15:09:26
3	Mg 279.077 IEC†	1.0	0.5	19.175 ug/L	19.175 ppb	15:09:47
3	Na 589.592 Radial†	-861.3	216.6	65.512 ug/L	65.512 ppb	15:09:26
3	Sr 421.552†	2.1	0.0	0.0001 ug/L	0.0001 ppb	15:09:26
3	Sc 361.383	839553.0	839553.0	97.385 %		15:10:44
3	Y 371.029	688242.3	688242.3	96.311 %		15:10:44
3	Ag 328.068†	291.8	70.8	0.3211 ug/L	0.3211 ppb	15:10:44
3	As 188.979†	-22.2	11.1	5.0377 ug/L	5.0377 ppb	15:11:04
3	B 249.677†	-54.6	482.9	11.492 ug/L	11.492 ppb	15:11:04
3	Ba 233.527†	-2.2	9.3	0.0744 ug/L	0.0744 ppb	15:11:04
3	Be 313.107†	-4146.9	80.5	0.0300 ug/L	0.0300 ppb	15:10:44
3	Cd 226.502†	-192.1	14.7	0.1774 ug/L	0.1774 ppb	15:11:04
3	Co 228.616†	-67.9	4.0	0.0875 ug/L	0.0875 ppb	15:11:04
3	Cr 267.716†	71.3	6.4	0.0723 ug/L	0.0723 ppb	15:11:04
3	Cu 324.752†	5642.7	-26.5	-0.0837 ug/L	-0.0837 ppb	15:10:44
3	Mn 257.610†	557.9	121.0	0.1362 ug/L	0.1362 ppb	15:11:04
3	Mo 202.031†	18.4	3.4	0.2496 ug/L	0.2496 ppb	15:11:04
3	Ni 231.604†	90.5	-15.1	-0.3902 ug/L	-0.3902 ppb	15:11:04
3	P 214.914†	246.5	25.0	15.602 ug/L	15.602 ppb	15:11:04
3	Pb 220.353†	-65.2	-5.2	-0.6436 ug/L	-0.6436 ppb	15:11:04
3	S 181.975 Axial†	36.9	-1.5	-2.1417 ug/L	-2.1417 ppb	15:11:04
3	Sb 206.836†	39.1	-2.0	-0.6724 ug/L	-0.6724 ppb	15:11:04
3	Se 196.026†	-14.8	6.9	4.5869 ug/L	4.5869 ppb	15:11:04
3	Si 251.611†	590.8	44.4	1.4808 ug/L	1.4808 ppb	15:11:04
3	Sn 189.927†	10.5	2.1	0.3867 ug/L	0.3867 ppb	15:11:04
3	Ti 334.940†	-1257.1	12.4	0.0197 ug/L	0.0197 ppb	15:10:44
3	Tl 190.801†	-36.3	-3.1	-0.9954 ug/L	-0.9954 ppb	15:11:04
3	U 409.014†	-2772.5	133.1	3.8629 ug/L	3.8629 ppb	15:10:44
3	V 292.402†	-1567.9	-55.3	-0.3872 ug/L	-0.3872 ppb	15:10:44
3	Zn 213.857†	786.0	93.8	0.9314 ug/L	0.9314 ppb	15:11:04
3	SiO2†	580.5	13.0	0.9174 ug/L	0.9174 ppb	15:11:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841871.3	97.654	%	0.5863				0.60%
Sc Radial	4841.2	101	%	1.5				1.52%
Y 371.029	689302.1	96.459	%	0.5776				0.60%
Y RADIAL	5078.6	101.6	%	1.28				1.27%
Ag 328.068†	70.4	0.3263	ug/L	0.04999	0.3263	ppb	0.04999	15.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.5	13.415	ug/L	10.4347	13.415	ppb	10.4347	77.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.3	3.2966	ug/L	2.26096	3.2966	ppb	2.26096	68.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	507.5	12.076	ug/L	0.5068	12.076	ppb	0.5068	4.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0573	ug/L	0.07550	0.0573	ppb	0.07550	131.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	99.3	0.0369	ug/L	0.01055	0.0369	ppb	0.01055	28.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	15.207	ug/L	5.6425	15.207	ppb	5.6425	37.10%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                27.7      0.3302 ug/L       0.17401      0.3302 ppb        0.17401  52.69%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.5      0.0789 ug/L       0.13964      0.0789 ppb        0.13964 177.06%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.1      0.1749 ug/L       0.21886      0.1749 ppb        0.21886 125.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -1.7     -0.0062 ug/L       0.27070     -0.0062 ppb        0.27070 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.5     -13.517 ug/L       14.5771     -13.517 ppb        14.5771 107.84%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -0.6     -0.1428 ug/L       8.56471     -0.1428 ppb        8.56471 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7      59.784 ug/L       80.1792      59.784 ppb        80.1792 134.11%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               196.5      0.2223 ug/L       0.16158      0.2223 ppb        0.16158  72.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.3      0.6203 ug/L       0.35046      0.6203 ppb        0.35046  56.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        216.7      65.549 ug/L        4.9491      65.549 ppb         4.9491   7.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.8     -0.1766 ug/L       0.44452     -0.1766 ppb        0.44452 251.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 12.6      7.8411 ug/L       6.72145      7.8411 ppb        6.72145  85.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.8      0.5996 ug/L       1.13603      0.5996 ppb        1.13603 189.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.2     -1.7839 ug/L       0.67046     -1.7839 ppb        0.67046  37.58%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.0     -0.6884 ug/L       2.02099     -0.6884 ppb        2.02099 293.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.6      4.4289 ug/L       5.10917      4.4289 ppb        5.10917 115.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                61.1      2.0367 ug/L       0.69447      2.0367 ppb        0.69447  34.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.6471 ug/L       1.06835      0.6471 ppb        1.06835 165.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 1.3      0.0091 ug/L       0.00859      0.0091 ppb        0.00859  94.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -26.4     -0.0459 ug/L       0.10520     -0.0459 ppb        0.10520 228.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.1775 ug/L       1.08708     -0.1775 ppb        1.08708 612.45%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 18.6      0.5400 ug/L       2.93919      0.5400 ppb        2.93919 544.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -9.5     -0.0559 ug/L       0.42814     -0.0559 ppb        0.42814 765.28%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                96.5      0.9555 ug/L       0.23884      0.9555 ppb        0.23884  25.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      27.8      1.9635 ug/L       1.02431      1.9635 ppb        1.02431  52.17%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 16:06:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4839.5	4839.5	101	%			16:08:29
1	Y RADIAL	5039.7	5039.7	100.8	%			16:08:29
1	Al 396.153Radial†	5231.8	5348.1	4940.2	ug/L	4940.2	ppb	16:08:29
1	Ca 317.933Radial†	3087.0	3049.5	5054.3	ug/L	5054.3	ppb	16:08:49
1	Fe 238.204 Radial†	567.8	552.5	5042.4	ug/L	5042.4	ppb	16:08:49
1	K 766.490 Radial†	30672.3	27639.8	4872.8	ug/L	4872.8	ppb	16:08:29
1	Mg 279.077 IEC†	150.4	148.9	5278.3	ug/L	5278.3	ppb	16:08:49
1	Na 589.592 Radial†	30733.4	31604.6	9558.8	ug/L	9558.8	ppb	16:08:29
1	Sr 421.552†	72707.2	72214.9	506.42	ug/L	506.42	ppb	16:08:29
1	Sc 361.383	863412.4	863412.4	100.15	%			16:09:46
1	Y 371.029	695489.8	695489.8	97.325	%			16:09:46
1	Ag 328.068†	105550.3	105160.4	498.70	ug/L	498.70	ppb	16:09:51
1	As 188.979†	1051.5	1083.7	496.07	ug/L	496.07	ppb	16:10:12
1	B 249.677†	20410.0	20917.9	495.34	ug/L	495.34	ppb	16:09:51
1	Ba 233.527†	61843.8	61760.9	505.62	ug/L	505.62	ppb	16:09:51
1	Be 313.107†	1332668.0	1334972.4	498.37	ug/L	498.37	ppb	16:09:46
1	Cd 226.502†	41343.1	41491.9	493.19	ug/L	493.19	ppb	16:09:51
1	Co 228.616†	23614.9	23652.5	516.68	ug/L	516.68	ppb	16:09:51
1	Cr 267.716†	42246.5	42115.2	490.90	ug/L	490.90	ppb	16:09:51
1	Cu 324.752†	171407.0	165324.6	501.50	ug/L	501.50	ppb	16:09:51
1	Mn 257.610†	441033.5	439908.4	506.40	ug/L	506.40	ppb	16:09:46
1	Mo 202.031†	6488.6	6463.2	484.46	ug/L	484.46	ppb	16:10:12
1	Ni 231.604†	19281.9	19144.4	495.66	ug/L	495.66	ppb	16:09:51
1	P 214.914†	4180.7	3946.2	2357.8	ug/L	2357.8	ppb	16:10:12
1	Pb 220.353†	3830.9	3886.8	486.46	ug/L	486.46	ppb	16:10:12
1	S 181.975 Axial†	713.8	673.4	980.97	ug/L	980.97	ppb	16:10:12
1	Sb 206.836†	1430.2	1385.9	500.39	ug/L	500.39	ppb	16:10:12
1	Se 196.026†	685.1	706.2	493.64	ug/L	493.64	ppb	16:10:12
1	Si 251.611†	75450.3	74772.8	2495.1	ug/L	2495.1	ppb	16:09:51
1	Sn 189.927†	2598.2	2585.6	480.67	ug/L	480.67	ppb	16:10:12
1	Ti 334.940†	307843.4	308676.7	500.51	ug/L	500.51	ppb	16:09:51
1	Tl 190.801†	1521.2	1553.1	501.07	ug/L	501.07	ppb	16:10:12
1	U 409.014†	14053.2	17011.8	491.61	ug/L	491.61	ppb	16:09:51
1	V 292.402†	66158.5	67612.1	497.45	ug/L	497.45	ppb	16:09:51
1	Zn 213.857†	51667.1	50874.9	497.31	ug/L	497.31	ppb	16:09:51
1	SiO2†	75160.3	74462.4	5298.4	ug/L	5298.4	ppb	16:11:19
2	Sc Radial	4920.7	4920.7	102	%			16:08:54
2	Y RADIAL	5089.7	5089.7	101.8	%			16:08:54
2	Al 396.153Radial†	5368.2	5395.6	4983.6	ug/L	4983.6	ppb	16:08:54
2	Ca 317.933Radial†	3088.7	3000.5	4973.2	ug/L	4973.2	ppb	16:09:14
2	Fe 238.204 Radial†	567.1	542.5	4951.5	ug/L	4951.5	ppb	16:09:14
2	K 766.490 Radial†	31705.8	28146.6	4962.2	ug/L	4962.2	ppb	16:08:54
2	Mg 279.077 IEC†	145.7	141.9	5028.3	ug/L	5028.3	ppb	16:09:14
2	Na 589.592 Radial†	31767.7	32111.3	9712.0	ug/L	9712.0	ppb	16:08:54
2	Sr 421.552†	75008.3	73270.9	513.82	ug/L	513.82	ppb	16:08:54
2	Sc 361.383	846133.9	846133.9	98.149	%			16:10:17
2	Y 371.029	682588.1	682588.1	95.520	%			16:10:17
2	Ag 328.068†	103780.6	105509.4	500.33	ug/L	500.33	ppb	16:10:22
2	As 188.979†	1072.6	1126.7	515.52	ug/L	515.52	ppb	16:10:43
2	B 249.677†	20021.1	20937.8	495.82	ug/L	495.82	ppb	16:10:22
2	Ba 233.527†	61141.7	62306.6	510.08	ug/L	510.08	ppb	16:10:22
2	Be 313.107†	1314584.2	1343719.7	501.63	ug/L	501.63	ppb	16:10:17
2	Cd 226.502†	40712.7	41692.6	495.59	ug/L	495.59	ppb	16:10:22
2	Co 228.616†	23293.1	23806.2	520.07	ug/L	520.07	ppb	16:10:22
2	Cr 267.716†	41622.9	42341.2	493.54	ug/L	493.54	ppb	16:10:22
2	Cu 324.752†	168700.8	166062.2	503.74	ug/L	503.74	ppb	16:10:22
2	Mn 257.610†	435057.5	442812.0	509.75	ug/L	509.75	ppb	16:10:17
2	Mo 202.031†	6541.8	6649.7	498.42	ug/L	498.42	ppb	16:10:43
2	Ni 231.604†	18975.9	19225.8	497.77	ug/L	497.77	ppb	16:10:22

2	P 214.914†	4235.7	4087.5	2445.5 ug/L	2445.5 ppb	16:10:43
2	Pb 220.353†	3888.0	4023.1	503.51 ug/L	503.51 ppb	16:10:43
2	S 181.975 Axial†	715.4	689.5	1004.5 ug/L	1004.5 ppb	16:10:43
2	Sb 206.836†	1445.1	1430.2	516.43 ug/L	516.43 ppb	16:10:43
2	Se 196.026†	715.7	751.3	523.78 ug/L	523.78 ppb	16:10:43
2	Si 251.611†	74199.1	75036.4	2503.7 ug/L	2503.7 ppb	16:10:22
2	Sn 189.927†	2652.3	2693.7	500.72 ug/L	500.72 ppb	16:10:43
2	Ti 334.940†	303314.9	310339.4	503.22 ug/L	503.22 ppb	16:10:22
2	Tl 190.801†	1539.6	1602.9	517.04 ug/L	517.04 ppb	16:10:43
2	U 409.014†	13719.5	16958.3	490.07 ug/L	490.07 ppb	16:10:22
2	V 292.402†	65406.0	68194.4	501.88 ug/L	501.88 ppb	16:10:22
2	Zn 213.857†	50850.9	51096.8	499.50 ug/L	499.50 ppb	16:10:22
2	SiO2†	75240.9	76077.1	5413.2 ug/L	5413.2 ppb	16:11:24
3	Sc Radial	4863.9	4863.9	101 %		16:09:19
3	Y RADIAL	5060.8	5060.8	101.2 %		16:09:19
3	Al 396.153Radial†	5365.5	5454.2	5037.9 ug/L	5037.9 ppb	16:09:19
3	Ca 317.933Radial†	3092.9	3040.0	5038.6 ug/L	5038.6 ppb	16:09:39
3	Fe 238.204 Radial†	569.6	551.5	5033.2 ug/L	5033.2 ppb	16:09:39
3	K 766.490 Radial†	31394.7	28201.0	4971.8 ug/L	4971.8 ppb	16:09:19
3	Mg 279.077 IEC†	148.4	146.3	5183.6 ug/L	5183.6 ppb	16:09:39
3	Na 589.592 Radial†	31542.7	32251.5	9754.4 ug/L	9754.4 ppb	16:09:19
3	Sr 421.552†	74407.8	73533.6	515.66 ug/L	515.66 ppb	16:09:19
3	Sc 361.383	844359.2	844359.2	97.943 %		16:10:48
3	Y 371.029	680157.7	680157.7	95.180 %		16:10:48
3	Ag 328.068†	105462.5	107448.9	509.51 ug/L	509.51 ppb	16:10:54
3	As 188.979†	1070.6	1127.0	515.76 ug/L	515.76 ppb	16:11:14
3	B 249.677†	20423.5	21391.5	506.58 ug/L	506.58 ppb	16:10:54
3	Ba 233.527†	61895.3	63206.9	517.45 ug/L	517.45 ppb	16:10:54
3	Be 313.107†	1316527.6	1348519.1	503.44 ug/L	503.44 ppb	16:10:48
3	Cd 226.502†	41310.4	42390.0	503.88 ug/L	503.88 ppb	16:10:54
3	Co 228.616†	23562.8	24131.4	527.15 ug/L	527.15 ppb	16:10:54
3	Cr 267.716†	42209.0	43028.8	501.55 ug/L	501.55 ppb	16:10:54
3	Cu 324.752†	171604.5	169388.2	513.82 ug/L	513.82 ppb	16:10:54
3	Mn 257.610†	436277.1	444988.9	512.25 ug/L	512.25 ppb	16:10:48
3	Mo 202.031†	6538.5	6660.3	499.22 ug/L	499.22 ppb	16:11:14
3	Ni 231.604†	19245.0	19541.2	505.93 ug/L	505.93 ppb	16:10:54
3	P 214.914†	4199.5	4059.6	2426.0 ug/L	2426.0 ppb	16:11:14
3	Pb 220.353†	3864.2	4007.1	501.52 ug/L	501.52 ppb	16:11:14
3	S 181.975 Axial†	716.0	691.7	1007.7 ug/L	1007.7 ppb	16:11:14
3	Sb 206.836†	1450.7	1439.0	519.44 ug/L	519.44 ppb	16:11:14
3	Se 196.026†	699.2	736.0	513.71 ug/L	513.71 ppb	16:11:14
3	Si 251.611†	75480.7	76503.9	2552.8 ug/L	2552.8 ppb	16:10:54
3	Sn 189.927†	2622.7	2669.1	496.16 ug/L	496.16 ppb	16:11:14
3	Ti 334.940†	307975.6	315747.6	511.98 ug/L	511.98 ppb	16:10:54
3	Tl 190.801†	1527.2	1593.4	514.06 ug/L	514.06 ppb	16:11:14
3	U 409.014†	14217.3	17496.0	505.63 ug/L	505.63 ppb	16:10:54
3	V 292.402†	66189.6	69134.5	508.73 ug/L	508.73 ppb	16:10:54
3	Zn 213.857†	51588.3	51958.7	507.93 ug/L	507.93 ppb	16:10:54
3	SiO2†	74095.5	75068.7	5341.2 ug/L	5341.2 ppb	16:11:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851301.8	98.748	%	1.2209				1.24%
Sc Radial	4874.7	101	%	0.9				0.85%
Y 371.029	686078.5	96.008	%	1.1532				1.20%
Y RADIAL	5063.4	101.3	%	0.50				0.50%
Ag 328.068†	106039.6	502.85	ug/L	5.829	502.85	ppb	5.829	1.16%
QC value within limits for Ag 328.068 Recovery = 100.57%								
Al 396.153Radial†	5399.3	4987.2	ug/L	48.98	4987.2	ppb	48.98	0.98%
QC value within limits for Al 396.153Radial Recovery = 99.74%								
As 188.979†	1112.5	509.11	ug/L	11.297	509.11	ppb	11.297	2.22%
QC value within limits for As 188.979 Recovery = 101.82%								
B 249.677†	21082.4	499.25	ug/L	6.355	499.25	ppb	6.355	1.27%
QC value within limits for B 249.677 Recovery = 99.85%								
Ba 233.527†	62424.8	511.05	ug/L	5.976	511.05	ppb	5.976	1.17%
QC value within limits for Ba 233.527 Recovery = 102.21%								
Be 313.107†	1342403.7	501.15	ug/L	2.570	501.15	ppb	2.570	0.51%
QC value within limits for Be 313.107 Recovery = 100.23%								
Ca 317.933Radial†	3030.0	5022.0	ug/L	43.02	5022.0	ppb	43.02	0.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.44%
Cd 226.502†            41858.2      497.55 ug/L        5.608      497.55 ppb        5.608   1.13%
   QC value within limits for Cd 226.502  Recovery = 99.51%
Co 228.616†            23863.4      521.30 ug/L        5.343      521.30 ppb        5.343   1.02%
   QC value within limits for Co 228.616  Recovery = 104.26%
Cr 267.716†            42495.1      495.33 ug/L        5.544      495.33 ppb        5.544   1.12%
   QC value within limits for Cr 267.716  Recovery = 99.07%
Cu 324.752†           166925.0      506.35 ug/L        6.563      506.35 ppb        6.563   1.30%
   QC value within limits for Cu 324.752  Recovery = 101.27%
Fe 238.204 Radial†       548.8      5009.0 ug/L       50.01      5009.0 ppb       50.01   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.18%
K 766.490 Radial†      27995.8      4935.6 ug/L       54.59      4935.6 ppb       54.59   1.11%
   QC value within limits for K 766.490 Radial  Recovery = 98.71%
Mg 279.077 IEC†          145.7      5163.4 ug/L      126.21      5163.4 ppb      126.21   2.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.27%
Mn 257.610†           442569.7      509.47 ug/L        2.934      509.47 ppb        2.934   0.58%
   QC value within limits for Mn 257.610  Recovery = 101.89%
Mo 202.031†             6591.0      494.04 ug/L        8.299      494.04 ppb        8.299   1.68%
   QC value within limits for Mo 202.031  Recovery = 98.81%
Na 589.592 Radial†     31989.2      9675.1 ug/L      102.93      9675.1 ppb      102.93   1.06%
   QC value within limits for Na 589.592 Radial  Recovery = 96.75%
Ni 231.604†            19303.8      499.79 ug/L        5.427      499.79 ppb        5.427   1.09%
   QC value within limits for Ni 231.604  Recovery = 99.96%
P 214.914†              4031.1      2409.8 ug/L       46.08      2409.8 ppb       46.08   1.91%
   QC value within limits for P 214.914  Recovery = 96.39%
Pb 220.353†             3972.3      497.16 ug/L        9.323      497.16 ppb        9.323   1.88%
   QC value within limits for Pb 220.353  Recovery = 99.43%
S 181.975 Axial†         684.8      997.72 ug/L       14.592      997.72 ppb       14.592   1.46%
   QC value within limits for S 181.975 Axial  Recovery = 99.77%
Sb 206.836†             1418.4      512.09 ug/L       10.243      512.09 ppb       10.243   2.00%
   QC value within limits for Sb 206.836  Recovery = 102.42%
Se 196.026†              731.1      510.38 ug/L       15.345      510.38 ppb       15.345   3.01%
   QC value within limits for Se 196.026  Recovery = 102.08%
Si 251.611†            75437.7      2517.2 ug/L       31.13      2517.2 ppb       31.13   1.24%
   QC value within limits for Si 251.611  Recovery = 100.69%
Sn 189.927†             2649.4      492.52 ug/L       10.510      492.52 ppb       10.510   2.13%
   QC value within limits for Sn 189.927  Recovery = 98.50%
Sr 421.552†            73006.5      511.97 ug/L        4.895      511.97 ppb        4.895   0.96%
   QC value within limits for Sr 421.552  Recovery = 102.39%
Ti 334.940†           311587.9      505.24 ug/L        5.993      505.24 ppb        5.993   1.19%
   QC value within limits for Ti 334.940  Recovery = 101.05%
Tl 190.801†             1583.1      510.73 ug/L        8.491      510.73 ppb        8.491   1.66%
   QC value within limits for Tl 190.801  Recovery = 102.15%
U 409.014†             17155.4      495.77 ug/L        8.573      495.77 ppb        8.573   1.73%
   QC value within limits for U 409.014  Recovery = 99.15%
V 292.402†             68313.7      502.69 ug/L        5.680      502.69 ppb        5.680   1.13%
   QC value within limits for V 292.402  Recovery = 100.54%
Zn 213.857†            51310.2      501.58 ug/L        5.603      501.58 ppb        5.603   1.12%
   QC value within limits for Zn 213.857  Recovery = 100.32%
SiO2†                  75202.7      5350.9 ug/L       58.01      5350.9 ppb       58.01   1.08%
   QC value within limits for SiO2  Recovery = 100.06%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:13:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4834.9	4834.9	101	%			16:15:32
1	Y RADIAL	5077.2	5077.2	101.5	%			16:15:32
1	Al 396.153Radial†	-146.6	5.8	5.3864	ug/L	5.3864	ppb	16:15:32
1	Ca 317.933Radial†	27.8	11.0	18.172	ug/L	18.172	ppb	16:15:52
1	Fe 238.204 Radial†	10.3	-1.2	-11.010	ug/L	-11.010	ppb	16:15:52
1	K 766.490 Radial†	2824.4	-17.6	-3.1337	ug/L	-3.1337	ppb	16:15:32
1	Mg 279.077 IEC†	2.0	1.6	56.120	ug/L	56.120	ppb	16:15:52
1	Na 589.592 Radial†	-931.7	152.2	46.030	ug/L	46.030	ppb	16:15:32
1	Sr 421.552†	49.6	47.2	0.3307	ug/L	0.3307	ppb	16:15:32
1	Sc 361.383	835341.4	835341.4	96.897	%			16:16:49
1	Y 371.029	684465.2	684465.2	95.783	%			16:16:49
1	Ag 328.068†	206.7	-15.5	-0.0794	ug/L	-0.0794	ppb	16:16:49
1	As 188.979†	-21.0	12.2	5.5376	ug/L	5.5376	ppb	16:17:09
1	B 249.677†	-185.0	348.1	8.2843	ug/L	8.2843	ppb	16:17:09
1	Ba 233.527†	4.4	16.1	0.1307	ug/L	0.1307	ppb	16:17:09
1	Be 313.107†	-4241.9	-39.0	-0.0147	ug/L	-0.0147	ppb	16:16:49
1	Cd 226.502†	-194.2	11.5	0.1382	ug/L	0.1382	ppb	16:17:09
1	Co 228.616†	-81.8	-10.7	-0.2324	ug/L	-0.2324	ppb	16:17:09
1	Cr 267.716†	97.6	33.9	0.3938	ug/L	0.3938	ppb	16:17:09
1	Cu 324.752†	5345.1	-304.5	-0.9250	ug/L	-0.9250	ppb	16:16:49
1	Mn 257.610†	563.6	129.7	0.1459	ug/L	0.1459	ppb	16:17:09
1	Mo 202.031†	19.9	5.0	0.3703	ug/L	0.3703	ppb	16:17:09
1	Ni 231.604†	112.3	7.9	0.2045	ug/L	0.2045	ppb	16:17:09
1	P 214.914†	231.5	10.8	6.9073	ug/L	6.9073	ppb	16:17:09
1	Pb 220.353†	-65.7	-6.1	-0.7553	ug/L	-0.7553	ppb	16:17:09
1	S 181.975 Axial†	38.0	-0.1	-0.2186	ug/L	-0.2186	ppb	16:17:09
1	Sb 206.836†	39.5	-1.4	-0.4831	ug/L	-0.4831	ppb	16:17:09
1	Se 196.026†	-19.4	2.1	1.3617	ug/L	1.3617	ppb	16:17:09
1	Si 251.611†	551.7	7.1	0.2315	ug/L	0.2315	ppb	16:17:09
1	Sn 189.927†	2.3	-6.3	-1.1653	ug/L	-1.1653	ppb	16:17:09
1	Ti 334.940†	-1311.0	-49.8	-0.0838	ug/L	-0.0838	ppb	16:16:49
1	Tl 190.801†	-40.7	-7.8	-2.4993	ug/L	-2.4993	ppb	16:17:09
1	U 409.014†	-2837.1	52.1	1.5119	ug/L	1.5119	ppb	16:16:49
1	V 292.402†	-1553.1	-48.2	-0.3389	ug/L	-0.3389	ppb	16:16:49
1	Zn 213.857†	774.8	86.4	0.8537	ug/L	0.8537	ppb	16:17:09
1	SiO2†	601.5	37.6	2.6750	ug/L	2.6750	ppb	16:18:05
2	Sc Radial	4870.8	4870.8	101	%			16:15:57
2	Y RADIAL	5116.7	5116.7	102.3	%			16:15:57
2	Al 396.153Radial†	-156.8	-3.2	-2.9618	ug/L	-2.9618	ppb	16:15:57
2	Ca 317.933Radial†	27.1	10.0	16.642	ug/L	16.642	ppb	16:16:17
2	Fe 238.204 Radial†	10.9	-0.7	-6.7136	ug/L	-6.7136	ppb	16:16:17
2	K 766.490 Radial†	2874.4	11.0	1.9214	ug/L	1.9214	ppb	16:15:57
2	Mg 279.077 IEC†	2.2	1.8	63.126	ug/L	63.126	ppb	16:16:17
2	Na 589.592 Radial†	-894.6	195.7	59.185	ug/L	59.185	ppb	16:15:57
2	Sr 421.552†	16.8	14.5	0.1016	ug/L	0.1016	ppb	16:15:57
2	Sc 361.383	832104.4	832104.4	96.521	%			16:17:14
2	Y 371.029	681312.8	681312.8	95.341	%			16:17:14
2	Ag 328.068†	198.3	-23.3	-0.1132	ug/L	-0.1132	ppb	16:17:14
2	As 188.979†	-14.8	18.6	8.4345	ug/L	8.4345	ppb	16:17:34
2	B 249.677†	-240.2	290.2	6.9038	ug/L	6.9038	ppb	16:17:34
2	Ba 233.527†	3.1	14.8	0.1216	ug/L	0.1216	ppb	16:17:34
2	Be 313.107†	-3747.4	456.3	0.1725	ug/L	0.1725	ppb	16:17:14
2	Cd 226.502†	-198.0	6.8	0.0818	ug/L	0.0818	ppb	16:17:34
2	Co 228.616†	-66.1	5.2	0.1129	ug/L	0.1129	ppb	16:17:34
2	Cr 267.716†	76.5	12.4	0.1438	ug/L	0.1438	ppb	16:17:34
2	Cu 324.752†	5448.2	-176.2	-0.5368	ug/L	-0.5368	ppb	16:17:14
2	Mn 257.610†	549.0	116.9	0.1312	ug/L	0.1312	ppb	16:17:34
2	Mo 202.031†	18.7	3.8	0.2878	ug/L	0.2878	ppb	16:17:34
2	Ni 231.604†	91.9	-12.8	-0.3310	ug/L	-0.3310	ppb	16:17:34

2	P 214.914†	229.2	9.4	5.9488 ug/L	5.9488 ppb	16:17:34
2	Pb 220.353†	-54.0	5.7	0.7184 ug/L	0.7184 ppb	16:17:34
2	S 181.975 Axial†	38.2	0.2	0.3097 ug/L	0.3097 ppb	16:17:34
2	Sb 206.836†	37.9	-2.9	-1.0201 ug/L	-1.0201 ppb	16:17:34
2	Se 196.026†	-23.7	-2.4	-1.6489 ug/L	-1.6489 ppb	16:17:34
2	Si 251.611†	555.3	13.1	0.4342 ug/L	0.4342 ppb	16:17:34
2	Sn 189.927†	5.5	-3.0	-0.5570 ug/L	-0.5570 ppb	16:17:34
2	Ti 334.940†	-590.8	691.1	1.1164 ug/L	1.1164 ppb	16:17:14
2	Tl 190.801†	-29.1	4.0	1.2979 ug/L	1.2979 ppb	16:17:34
2	U 409.014†	-2757.6	123.1	3.5697 ug/L	3.5697 ppb	16:17:14
2	V 292.402†	-1437.5	65.3	0.4861 ug/L	0.4861 ppb	16:17:14
2	Zn 213.857†	765.8	80.2	0.7950 ug/L	0.7950 ppb	16:17:34
2	SiO2†	592.8	31.1	2.2077 ug/L	2.2077 ppb	16:18:10
3	Sc Radial	4749.1	4749.1	98.8 %		16:16:22
3	Y RADIAL	4939.6	4939.6	98.78 %		16:16:22
3	Al 396.153Radial†	-136.5	13.4	12.445 ug/L	12.445 ppb	16:16:22
3	Ca 317.933Radial†	30.3	14.0	23.220 ug/L	23.220 ppb	16:16:42
3	Fe 238.204 Radial†	9.6	-1.8	-16.165 ug/L	-16.165 ppb	16:16:42
3	K 766.490 Radial†	2881.3	90.7	15.980 ug/L	15.980 ppb	16:16:22
3	Mg 279.077 IEC†	1.8	1.4	50.434 ug/L	50.434 ppb	16:16:42
3	Na 589.592 Radial†	-876.2	191.6	57.954 ug/L	57.954 ppb	16:16:22
3	Sr 421.552†	11.3	9.3	0.0654 ug/L	0.0654 ppb	16:16:22
3	Sc 361.383	834151.2	834151.2	96.759 %		16:17:39
3	Y 371.029	683233.3	683233.3	95.610 %		16:17:39
3	Ag 328.068†	198.0	-24.2	-0.1213 ug/L	-0.1213 ppb	16:17:39
3	As 188.979†	-28.4	4.5	2.0411 ug/L	2.0411 ppb	16:17:59
3	B 249.677†	-238.9	292.1	6.9526 ug/L	6.9526 ppb	16:17:59
3	Ba 233.527†	-20.1	-9.2	-0.0761 ug/L	-0.0761 ppb	16:17:59
3	Be 313.107†	-4119.8	80.9	0.0300 ug/L	0.0300 ppb	16:17:39
3	Cd 226.502†	-208.7	-3.8	-0.0432 ug/L	-0.0432 ppb	16:17:59
3	Co 228.616†	-69.5	1.9	0.0425 ug/L	0.0425 ppb	16:17:59
3	Cr 267.716†	67.2	2.6	0.0296 ug/L	0.0296 ppb	16:17:59
3	Cu 324.752†	5250.2	-394.7	-1.1986 ug/L	-1.1986 ppb	16:17:39
3	Mn 257.610†	518.8	84.2	0.0933 ug/L	0.0933 ppb	16:17:59
3	Mo 202.031†	23.6	8.8	0.6603 ug/L	0.6603 ppb	16:17:59
3	Ni 231.604†	107.9	3.5	0.0899 ug/L	0.0899 ppb	16:17:59
3	P 214.914†	242.1	22.1	14.051 ug/L	14.051 ppb	16:17:59
3	Pb 220.353†	-67.2	-7.8	-0.9610 ug/L	-0.9610 ppb	16:17:59
3	S 181.975 Axial†	34.4	-3.8	-5.5383 ug/L	-5.5383 ppb	16:17:59
3	Sb 206.836†	52.1	11.7	4.1275 ug/L	4.1275 ppb	16:17:59
3	Se 196.026†	-21.9	-0.6	-0.4228 ug/L	-0.4228 ppb	16:17:59
3	Si 251.611†	551.3	7.5	0.2414 ug/L	0.2414 ppb	16:17:59
3	Sn 189.927†	19.5	11.5	2.1293 ug/L	2.1293 ppb	16:17:59
3	Ti 334.940†	-1305.4	-45.9	-0.0759 ug/L	-0.0759 ppb	16:17:39
3	Tl 190.801†	-34.6	-1.5	-0.4919 ug/L	-0.4919 ppb	16:17:59
3	U 409.014†	-2851.8	32.8	0.9518 ug/L	0.9518 ppb	16:17:39
3	V 292.402†	-1531.5	-28.2	-0.1899 ug/L	-0.1899 ppb	16:17:39
3	Zn 213.857†	780.8	93.7	0.9280 ug/L	0.9280 ppb	16:17:59
3	SiO2†	590.7	27.3	1.9315 ug/L	1.9315 ppb	16:18:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	833865.7	96.726	%	0.1899				0.20%
Sc Radial	4818.3	100	%	1.3				1.30%
Y 371.029	683003.8	95.578	%	0.2223				0.23%
Y RADIAL	5044.5	100.9	%	1.86				1.84%
Ag 328.068†	-21.0	-0.1047	ug/L	0.02222	-0.1047	ppb	0.02222	21.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	4.9564	ug/L	7.71219	4.9564	ppb	7.71219	155.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.8	5.3377	ug/L	3.20139	5.3377	ppb	3.20139	59.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	310.1	7.3803	ug/L	0.78334	7.3803	ppb	0.78334	10.61%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.2	0.0587	ug/L	0.11686	0.0587	ppb	0.11686	198.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	166.0	0.0626	ug/L	0.09778	0.0626	ppb	0.09778	156.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.7	19.345	ug/L	3.4420	19.345	ppb	3.4420	17.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.8      0.0589 ug/L       0.09285      0.0589 ppb        0.09285 157.54%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.2     -0.0257 ug/L       0.18249     -0.0257 ppb        0.18249 710.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.3      0.1891 ug/L       0.18624      0.1891 ppb        0.18624  98.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -291.8     -0.8868 ug/L       0.33254     -0.8868 ppb        0.33254  37.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.2     -11.296 ug/L        4.7324     -11.296 ppb         4.7324  41.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          28.0      4.9224 ug/L       9.90373      4.9224 ppb        9.90373 201.20%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.6      56.560 ug/L        6.3571      56.560 ppb         6.3571  11.24%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               110.3      0.1234 ug/L       0.02715      0.1234 ppb        0.02715  22.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.9      0.4395 ug/L       0.19562      0.4395 ppb        0.19562  44.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        179.8      54.390 ug/L        7.2658      54.390 ppb         7.2658  13.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.5     -0.0122 ug/L       0.28202     -0.0122 ppb        0.28202 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 14.1      8.9691 ug/L       4.42718      8.9691 ppb        4.42718  49.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.7     -0.3327 ug/L       0.91600     -0.3327 ppb        0.91600 275.36%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.2     -1.8157 ug/L       3.23465     -1.8157 ppb        3.23465 178.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.5      0.8748 ug/L       2.82969      0.8748 ppb        2.82969 323.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.3     -0.2367 ug/L       1.51390     -0.2367 ppb        1.51390 639.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 9.2      0.3023 ug/L       0.11430      0.3023 ppb        0.11430  37.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.7      0.1357 ug/L       1.75315      0.1357 ppb        1.75315 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                23.7      0.1659 ug/L       0.14390      0.1659 ppb        0.14390  86.73%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               198.5      0.3189 ug/L       0.69068      0.3189 ppb        0.69068 216.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.8     -0.5644 ug/L       1.89964     -0.5644 ppb        1.89964 336.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 69.3      2.0111 ug/L       1.37849      2.0111 ppb        1.37849  68.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -3.7     -0.0142 ug/L       0.43969     -0.0142 ppb        0.43969 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                86.8      0.8589 ug/L       0.06661      0.8589 ppb        0.06661   7.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      32.0      2.2714 ug/L       0.37583      2.2714 ppb        0.37583  16.55%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/11/2010 16:26:41 **Plasma On Time: 2/8/2010 05:57:09**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/11/2010 16:26:42**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4857.9	4857.9	101	%			16:28:34
1	Y RADIAL	5069.8	5069.8	101.4	%			16:28:34
1	Al 396.153Radial†	5318.0	5413.8	5000.4	ug/L	5000.4	ppb	16:28:34
1	Ca 317.933Radial†	3087.1	3038.0	5035.3	ug/L	5035.3	ppb	16:28:54
1	Fe 238.204 Radial†	570.3	552.8	5045.6	ug/L	5045.6	ppb	16:28:54
1	K 766.490 Radial†	31421.1	28265.6	4983.1	ug/L	4983.1	ppb	16:28:34
1	Mg 279.077 IEC†	144.2	142.3	5043.2	ug/L	5043.2	ppb	16:28:54
1	Na 589.592 Radial†	31891.8	32635.5	9870.6	ug/L	9870.6	ppb	16:28:34
1	Sr 421.552†	74719.3	73932.8	518.46	ug/L	518.46	ppb	16:28:34
1	Sc 361.383	843251.6	843251.6	97.814	%			16:29:51
1	Y 371.029	678467.3	678467.3	94.943	%			16:29:51
1	Ag 328.068†	104603.8	106712.4	506.05	ug/L	506.05	ppb	16:29:57
1	As 188.979†	1055.9	1113.4	509.55	ug/L	509.55	ppb	16:30:17
1	B 249.677†	20290.2	21282.6	503.99	ug/L	503.99	ppb	16:29:57
1	Ba 233.527†	61839.0	63232.4	517.66	ug/L	517.66	ppb	16:29:57
1	Be 313.107†	1311684.8	1345333.6	502.25	ug/L	502.25	ppb	16:29:51
1	Cd 226.502†	41414.6	42551.9	505.80	ug/L	505.80	ppb	16:29:57
1	Co 228.616†	23585.2	24186.0	528.35	ug/L	528.35	ppb	16:29:57
1	Cr 267.716†	42147.4	43022.5	501.48	ug/L	501.48	ppb	16:29:57
1	Cu 324.752†	169418.4	167383.4	507.75	ug/L	507.75	ppb	16:29:57
1	Mn 257.610†	435097.3	444367.8	511.54	ug/L	511.54	ppb	16:29:51
1	Mo 202.031†	6531.1	6661.5	499.32	ug/L	499.32	ppb	16:30:17
1	Ni 231.604†	19276.6	19599.4	507.44	ug/L	507.44	ppb	16:29:57
1	P 214.914†	4221.3	4087.5	2444.6	ug/L	2444.6	ppb	16:30:17
1	Pb 220.353†	3867.9	4016.1	502.63	ug/L	502.63	ppb	16:30:17
1	S 181.975 Axial†	717.0	693.7	1010.6	ug/L	1010.6	ppb	16:30:17
1	Sb 206.836†	1449.9	1440.1	519.88	ug/L	519.88	ppb	16:30:17
1	Se 196.026†	705.8	743.7	518.96	ug/L	518.96	ppb	16:30:17
1	Si 251.611†	75093.0	76208.7	2542.9	ug/L	2542.9	ppb	16:29:57
1	Sn 189.927†	2628.0	2678.0	497.83	ug/L	497.83	ppb	16:30:17
1	Ti 334.940†	305801.7	313938.1	509.06	ug/L	509.06	ppb	16:29:57
1	Tl 190.801†	1525.9	1594.2	514.29	ug/L	514.29	ppb	16:30:17
1	U 409.014†	13736.2	17023.2	491.92	ug/L	491.92	ppb	16:29:57
1	V 292.402†	65857.2	68883.4	506.88	ug/L	506.88	ppb	16:29:57
1	Zn 213.857†	51465.9	51902.6	507.37	ug/L	507.37	ppb	16:29:57
1	SiO2†	74608.2	75692.2	5385.7	ug/L	5385.7	ppb	16:31:24
2	Sc Radial	4822.1	4822.1	100	%			16:28:59
2	Y RADIAL	5029.9	5029.9	100.6	%			16:28:59
2	Al 396.153Radial†	5326.4	5461.2	5044.4	ug/L	5044.4	ppb	16:28:59
2	Ca 317.933Radial†	3089.3	3062.8	5076.4	ug/L	5076.4	ppb	16:29:19
2	Fe 238.204 Radial†	568.7	555.5	5069.8	ug/L	5069.8	ppb	16:29:19
2	K 766.490 Radial†	31173.7	28249.9	4980.3	ug/L	4980.3	ppb	16:28:59
2	Mg 279.077 IEC†	147.0	146.1	5179.5	ug/L	5179.5	ppb	16:29:19
2	Na 589.592 Radial†	31430.1	32409.6	9802.3	ug/L	9802.3	ppb	16:28:59
2	Sr 421.552†	74214.9	73979.0	518.79	ug/L	518.79	ppb	16:28:59
2	Sc 361.383	844701.7	844701.7	97.983	%			16:30:22
2	Y 371.029	679861.8	679861.8	95.138	%			16:30:22

2	Ag 328.068†	104961.9	106894.4	506.90 ug/L	506.90 ppb	16:30:28
2	As 188.979†	1064.1	1119.9	512.50 ug/L	512.50 ppb	16:30:48
2	B 249.677†	20254.6	21210.7	502.28 ug/L	502.28 ppb	16:30:28
2	Ba 233.527†	61565.9	62845.2	514.49 ug/L	514.49 ppb	16:30:28
2	Be 313.107†	1311258.5	1342596.5	501.23 ug/L	501.23 ppb	16:30:22
2	Cd 226.502†	41187.7	42247.6	502.18 ug/L	502.18 ppb	16:30:28
2	Co 228.616†	23480.7	24037.9	525.12 ug/L	525.12 ppb	16:30:28
2	Cr 267.716†	42066.9	42866.2	499.65 ug/L	499.65 ppb	16:30:28
2	Cu 324.752†	170530.4	168221.0	510.28 ug/L	510.28 ppb	16:30:28
2	Mn 257.610†	435363.5	443875.8	510.98 ug/L	510.98 ppb	16:30:22
2	Mo 202.031†	6543.3	6662.5	499.39 ug/L	499.39 ppb	16:30:48
2	Ni 231.604†	19166.7	19453.4	503.66 ug/L	503.66 ppb	16:30:28
2	P 214.914†	4234.5	4093.6	2447.9 ug/L	2447.9 ppb	16:30:48
2	Pb 220.353†	3871.0	4012.4	502.18 ug/L	502.18 ppb	16:30:48
2	S 181.975 Axial†	724.5	700.1	1020.0 ug/L	1020.0 ppb	16:30:48
2	Sb 206.836†	1455.4	1443.3	520.98 ug/L	520.98 ppb	16:30:48
2	Se 196.026†	700.6	737.1	514.61 ug/L	514.61 ppb	16:30:48
2	Si 251.611†	75140.7	76125.6	2540.2 ug/L	2540.2 ppb	16:30:28
2	Sn 189.927†	2642.8	2688.6	499.79 ug/L	499.79 ppb	16:30:48
2	Ti 334.940†	306430.2	314042.9	509.22 ug/L	509.22 ppb	16:30:28
2	Tl 190.801†	1526.5	1592.1	513.62 ug/L	513.62 ppb	16:30:48
2	U 409.014†	14074.6	17344.4	501.24 ug/L	501.24 ppb	16:30:28
2	V 292.402†	65796.3	68705.7	505.61 ug/L	505.61 ppb	16:30:28
2	Zn 213.857†	51332.5	51676.2	505.15 ug/L	505.15 ppb	16:30:28
2	SiO2†	75451.8	76422.3	5437.8 ug/L	5437.8 ppb	16:31:29
3	Sc Radial	4822.9	4822.9	100 %		16:29:24
3	Y RADIAL	5024.6	5024.6	100.5 %		16:29:24
3	Al 396.153Radial†	5317.6	5451.6	5035.8 ug/L	5035.8 ppb	16:29:24
3	Ca 317.933Radial†	3099.3	3072.3	5092.2 ug/L	5092.2 ppb	16:29:44
3	Fe 238.204 Radial†	569.0	555.7	5071.1 ug/L	5071.1 ppb	16:29:44
3	K 766.490 Radial†	31404.4	28474.6	5020.0 ug/L	5020.0 ppb	16:29:24
3	Mg 279.077 IEC†	149.5	148.6	5267.2 ug/L	5267.2 ppb	16:29:44
3	Na 589.592 Radial†	31631.3	32605.0	9861.3 ug/L	9861.3 ppb	16:29:24
3	Sr 421.552†	74401.9	74153.2	520.01 ug/L	520.01 ppb	16:29:24
3	Sc 361.383	847014.9	847014.9	98.251 %		16:30:53
3	Y 371.029	683045.0	683045.0	95.584 %		16:30:53
3	Ag 328.068†	103039.4	104645.1	496.29 ug/L	496.29 ppb	16:30:59
3	As 188.979†	1063.5	1116.3	510.80 ug/L	510.80 ppb	16:31:19
3	B 249.677†	20021.8	20917.3	495.33 ug/L	495.33 ppb	16:30:59
3	Ba 233.527†	60697.0	61789.1	505.85 ug/L	505.85 ppb	16:30:59
3	Be 313.107†	1317194.8	1344983.7	502.09 ug/L	502.09 ppb	16:30:53
3	Cd 226.502†	40606.9	41541.7	493.78 ug/L	493.78 ppb	16:30:59
3	Co 228.616†	23104.3	23589.3	515.33 ug/L	515.33 ppb	16:30:59
3	Cr 267.716†	41480.5	42152.2	491.34 ug/L	491.34 ppb	16:30:59
3	Cu 324.752†	167048.0	164201.2	498.10 ug/L	498.10 ppb	16:30:59
3	Mn 257.610†	435966.1	443275.7	510.28 ug/L	510.28 ppb	16:30:53
3	Mo 202.031†	6493.1	6593.2	494.20 ug/L	494.20 ppb	16:31:19
3	Ni 231.604†	18879.1	19107.2	494.69 ug/L	494.69 ppb	16:30:59
3	P 214.914†	4186.0	4032.5	2412.2 ug/L	2412.2 ppb	16:31:19
3	Pb 220.353†	3865.2	3995.7	500.09 ug/L	500.09 ppb	16:31:19
3	S 181.975 Axial†	715.7	689.1	1003.9 ug/L	1003.9 ppb	16:31:19
3	Sb 206.836†	1447.3	1430.9	516.50 ug/L	516.50 ppb	16:31:19
3	Se 196.026†	696.1	730.6	510.24 ug/L	510.24 ppb	16:31:19
3	Si 251.611†	73836.5	74588.8	2488.8 ug/L	2488.8 ppb	16:30:59
3	Sn 189.927†	2621.2	2659.2	494.34 ug/L	494.34 ppb	16:31:19
3	Ti 334.940†	300835.6	307494.6	498.60 ug/L	498.60 ppb	16:30:59
3	Tl 190.801†	1531.2	1592.7	513.76 ug/L	513.76 ppb	16:31:19
3	U 409.014†	13553.7	16775.0	484.74 ug/L	484.74 ppb	16:30:59
3	V 292.402†	64958.1	67669.2	497.99 ug/L	497.99 ppb	16:30:59
3	Zn 213.857†	50665.2	50854.0	497.11 ug/L	497.11 ppb	16:30:59
3	SiO2†	75487.7	76248.5	5425.5 ug/L	5425.5 ppb	16:31:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844989.4	98.016	%	0.2202				0.22%
Sc Radial	4834.3	101	%	0.4				0.42%
Y 371.029	680458.0	95.222	%	0.3283				0.34%
Y RADIAL	5041.4	100.8	%	0.49				0.49%
Ag 328.068†	106084.0	503.08	ug/L	5.898	503.08	ppb	5.898	1.17%

```
   QC value within limits for Ag 328.068  Recovery = 100.62%
Al 396.153Radial†       5442.2      5026.9 ug/L         23.32      5026.9 ppb          23.32   0.46%
   QC value within limits for Al 396.153Radial  Recovery = 100.54%
As 188.979†             1116.5      510.95 ug/L         1.483      510.95 ppb          1.483   0.29%
   QC value within limits for As 188.979  Recovery = 102.19%
B 249.677†             21136.9      500.53 ug/L         4.586      500.53 ppb          4.586   0.92%
   QC value within limits for B 249.677  Recovery = 100.11%
Ba 233.527†            62622.2      512.67 ug/L         6.111      512.67 ppb          6.111   1.19%
   QC value within limits for Ba 233.527  Recovery = 102.53%
Be 313.107†          1344304.6      501.86 ug/L         0.549      501.86 ppb          0.549   0.11%
   QC value within limits for Be 313.107  Recovery = 100.37%
Ca 317.933Radial†       3057.7      5068.0 ug/L         29.38      5068.0 ppb          29.38   0.58%
   QC value within limits for Ca 317.933Radial  Recovery = 101.36%
Cd 226.502†            42113.8      500.58 ug/L         6.167      500.58 ppb          6.167   1.23%
   QC value within limits for Cd 226.502  Recovery = 100.12%
Co 228.616†            23937.7      522.93 ug/L         6.782      522.93 ppb          6.782   1.30%
   QC value within limits for Co 228.616  Recovery = 104.59%
Cr 267.716†            42680.3      497.49 ug/L         5.406      497.49 ppb          5.406   1.09%
   QC value within limits for Cr 267.716  Recovery = 99.50%
Cu 324.752†           166601.9      505.38 ug/L         6.429      505.38 ppb          6.429   1.27%
   QC value within limits for Cu 324.752  Recovery = 101.08%
Fe 238.204 Radial†       554.6      5062.2 ug/L         14.35      5062.2 ppb          14.35   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.24%
K 766.490 Radial†      28330.0      4994.5 ug/L         22.14      4994.5 ppb          22.14   0.44%
   QC value within limits for K 766.490 Radial  Recovery = 99.89%
Mg 279.077 IEC†          145.7      5163.3 ug/L        112.90      5163.3 ppb         112.90   2.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.27%
Mn 257.610†           443839.8      510.93 ug/L         0.633      510.93 ppb          0.633   0.12%
   QC value within limits for Mn 257.610  Recovery = 102.19%
Mo 202.031†             6639.1      497.64 ug/L         2.976      497.64 ppb          2.976   0.60%
   QC value within limits for Mo 202.031  Recovery = 99.53%
Na 589.592 Radial†     32550.0      9844.7 ug/L         37.07      9844.7 ppb          37.07   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 98.45%
Ni 231.604†            19386.6      501.93 ug/L         6.545      501.93 ppb          6.545   1.30%
   QC value within limits for Ni 231.604  Recovery = 100.39%
P 214.914†              4071.2      2434.9 ug/L         19.72      2434.9 ppb          19.72   0.81%
   QC value within limits for P 214.914  Recovery = 97.40%
Pb 220.353†             4008.1      501.63 ug/L         1.355      501.63 ppb          1.355   0.27%
   QC value within limits for Pb 220.353  Recovery = 100.33%
S 181.975 Axial†         694.3      1011.5 ug/L          8.08      1011.5 ppb           8.08   0.80%
   QC value within limits for S 181.975 Axial  Recovery = 101.15%
Sb 206.836†             1438.1      519.12 ug/L         2.337      519.12 ppb          2.337   0.45%
   QC value within limits for Sb 206.836  Recovery = 103.82%
Se 196.026†              737.1      514.60 ug/L         4.359      514.60 ppb          4.359   0.85%
   QC value within limits for Se 196.026  Recovery = 102.92%
Si 251.611†            75641.1      2524.0 ug/L         30.48      2524.0 ppb          30.48   1.21%
   QC value within limits for Si 251.611  Recovery = 100.96%
Sn 189.927†             2675.3      497.32 ug/L         2.759      497.32 ppb          2.759   0.55%
   QC value within limits for Sn 189.927  Recovery = 99.46%
Sr 421.552†            74021.7      519.09 ug/L         0.815      519.09 ppb          0.815   0.16%
   QC value within limits for Sr 421.552  Recovery = 103.82%
Ti 334.940†           311825.2      505.63 ug/L         6.083      505.63 ppb          6.083   1.20%
   QC value within limits for Ti 334.940  Recovery = 101.13%
Tl 190.801†             1593.0      513.89 ug/L         0.350      513.89 ppb          0.350   0.07%
   QC value within limits for Tl 190.801  Recovery = 102.78%
U 409.014†             17047.6      492.63 ug/L         8.269      492.63 ppb          8.269   1.68%
   QC value within limits for U 409.014  Recovery = 98.53%
V 292.402†             68419.4      503.49 ug/L         4.807      503.49 ppb          4.807   0.95%
   QC value within limits for V 292.402  Recovery = 100.70%
Zn 213.857†            51477.6      503.21 ug/L         5.396      503.21 ppb          5.396   1.07%
   QC value within limits for Zn 213.857  Recovery = 100.64%
SiO2†                  76121.0      5416.3 ug/L         27.23      5416.3 ppb          27.23   0.50%
   QC value within limits for SiO2  Recovery = 101.29%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:33:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4797.5	4797.5	99.8	%			16:35:37
1	Y RADIAL	5016.9	5016.9	100.3	%			16:35:37
1	Al 396.153Radial†	-155.3	-4.0	-3.7127	ug/L	-3.7127	ppb	16:35:37
1	Ca 317.933Radial†	23.4	6.8	11.224	ug/L	11.224	ppb	16:35:57
1	Fe 238.204 Radial†	8.9	-2.6	-23.635	ug/L	-23.635	ppb	16:35:57
1	K 766.490 Radial†	2737.9	-82.5	-14.576	ug/L	-14.576	ppb	16:35:37
1	Mg 279.077 IEC†	3.0	2.6	92.693	ug/L	92.693	ppb	16:35:57
1	Na 589.592 Radial†	-940.8	135.9	41.088	ug/L	41.088	ppb	16:35:37
1	Sr 421.552†	13.0	10.9	0.0767	ug/L	0.0767	ppb	16:35:37
1	Sc 361.383	785054.7	785054.7	91.064	%			16:36:54
1	Y 371.029	639674.3	639674.3	89.515	%			16:36:54
1	Ag 328.068†	286.1	85.4	0.4036	ug/L	0.4036	ppb	16:36:54
1	As 188.979†	-27.6	3.5	1.5915	ug/L	1.5915	ppb	16:37:14
1	B 249.677†	-233.4	282.7	6.7305	ug/L	6.7305	ppb	16:37:14
1	Ba 233.527†	-10.8	-0.3	-0.0040	ug/L	-0.0040	ppb	16:37:14
1	Be 313.107†	-4193.2	-266.0	-0.0997	ug/L	-0.0997	ppb	16:36:54
1	Cd 226.502†	-189.6	3.7	0.0443	ug/L	0.0443	ppb	16:37:14
1	Co 228.616†	-73.8	-7.4	-0.1584	ug/L	-0.1584	ppb	16:37:14
1	Cr 267.716†	77.1	17.9	0.2131	ug/L	0.2131	ppb	16:37:14
1	Cu 324.752†	5258.5	-46.2	-0.1340	ug/L	-0.1340	ppb	16:36:54
1	Mn 257.610†	523.4	122.9	0.1353	ug/L	0.1353	ppb	16:37:14
1	Mo 202.031†	21.4	7.9	0.5927	ug/L	0.5927	ppb	16:37:14
1	Ni 231.604†	109.5	12.3	0.3180	ug/L	0.3180	ppb	16:37:14
1	P 214.914†	237.8	33.1	20.632	ug/L	20.632	ppb	16:37:14
1	Pb 220.353†	-57.5	-1.5	-0.1789	ug/L	-0.1789	ppb	16:37:14
1	S 181.975 Axial†	42.7	7.5	10.991	ug/L	10.991	ppb	16:37:14
1	Sb 206.836†	44.5	6.7	2.3560	ug/L	2.3560	ppb	16:37:14
1	Se 196.026†	-15.1	5.5	3.6344	ug/L	3.6344	ppb	16:37:14
1	Si 251.611†	537.7	28.2	0.9354	ug/L	0.9354	ppb	16:37:14
1	Sn 189.927†	13.6	6.3	1.1657	ug/L	1.1657	ppb	16:37:14
1	Ti 334.940†	-1329.4	-156.7	-0.2543	ug/L	-0.2543	ppb	16:36:54
1	Tl 190.801†	-29.9	1.4	0.4402	ug/L	0.4402	ppb	16:37:14
1	U 409.014†	-3136.1	-463.9	-13.448	ug/L	-13.448	ppb	16:36:54
1	V 292.402†	-1472.8	-62.7	-0.4673	ug/L	-0.4673	ppb	16:36:54
1	Zn 213.857†	762.4	123.9	1.2242	ug/L	1.2242	ppb	16:37:14
1	SiO2†	560.8	32.7	2.3143	ug/L	2.3143	ppb	16:38:10
2	Sc Radial	4996.3	4996.3	104	%			16:36:02
2	Y RADIAL	5249.1	5249.1	105.0	%			16:36:02
2	Al 396.153Radial†	-148.3	8.9	8.2309	ug/L	8.2309	ppb	16:36:02
2	Ca 317.933Radial†	23.1	5.5	9.1639	ug/L	9.1639	ppb	16:36:22
2	Fe 238.204 Radial†	9.9	-2.0	-18.026	ug/L	-18.026	ppb	16:36:22
2	K 766.490 Radial†	2677.6	-249.6	-44.089	ug/L	-44.089	ppb	16:36:02
2	Mg 279.077 IEC†	3.8	3.3	115.93	ug/L	115.93	ppb	16:36:22
2	Na 589.592 Radial†	-874.5	237.1	71.718	ug/L	71.718	ppb	16:36:02
2	Sr 421.552†	10.6	8.1	0.0570	ug/L	0.0570	ppb	16:36:02
2	Sc 361.383	829730.0	829730.0	96.246	%			16:37:19
2	Y 371.029	676808.5	676808.5	94.711	%			16:37:19
2	Ag 328.068†	270.8	52.6	0.2440	ug/L	0.2440	ppb	16:37:19
2	As 188.979†	-20.5	12.6	5.7156	ug/L	5.7156	ppb	16:37:39
2	B 249.677†	-262.9	265.9	6.3300	ug/L	6.3300	ppb	16:37:39
2	Ba 233.527†	-4.9	6.5	0.0523	ug/L	0.0523	ppb	16:37:39
2	Be 313.107†	-4154.2	22.5	0.0084	ug/L	0.0084	ppb	16:37:19
2	Cd 226.502†	-196.8	7.4	0.0894	ug/L	0.0894	ppb	16:37:39
2	Co 228.616†	-81.0	-10.4	-0.2267	ug/L	-0.2267	ppb	16:37:39
2	Cr 267.716†	74.3	10.4	0.1222	ug/L	0.1222	ppb	16:37:39
2	Cu 324.752†	5231.7	-385.0	-1.1668	ug/L	-1.1668	ppb	16:37:19
2	Mn 257.610†	483.0	50.0	0.0510	ug/L	0.0510	ppb	16:37:39
2	Mo 202.031†	20.0	5.3	0.3948	ug/L	0.3948	ppb	16:37:39
2	Ni 231.604†	108.3	4.5	0.1158	ug/L	0.1158	ppb	16:37:39

2	P 214.914†	231.1	12.0	7.7445 ug/L	7.7445 ppb	16:37:39
2	Pb 220.353†	-42.8	17.2	2.1549 ug/L	2.1549 ppb	16:37:39
2	S 181.975 Axial†	42.5	4.8	7.0640 ug/L	7.0640 ppb	16:37:39
2	Sb 206.836†	33.5	-7.4	-2.5417 ug/L	-2.5417 ppb	16:37:39
2	Se 196.026†	-14.5	7.1	4.7251 ug/L	4.7251 ppb	16:37:39
2	Si 251.611†	558.5	18.0	0.5972 ug/L	0.5972 ppb	16:37:39
2	Sn 189.927†	13.3	5.1	0.9492 ug/L	0.9492 ppb	16:37:39
2	Ti 334.940†	-1253.8	0.5	-0.0059 ug/L	-0.0059 ppb	16:37:19
2	Tl 190.801†	-32.7	0.2	0.0603 ug/L	0.0603 ppb	16:37:39
2	U 409.014†	-2986.7	-123.1	-3.5685 ug/L	-3.5685 ppb	16:37:19
2	V 292.402†	-1514.1	-18.5	-0.1308 ug/L	-0.1308 ppb	16:37:19
2	Zn 213.857†	761.7	78.1	0.7742 ug/L	0.7742 ppb	16:37:39
2	SiO2†	506.9	-56.5	-4.0396 ug/L	-4.0396 ppb	16:38:15
3	Sc Radial	4930.9	4930.9	103 %		16:36:27
3	Y RADIAL	5185.3	5185.3	103.7 %		16:36:27
3	Al 396.153Radial†	-164.3	-8.6	-8.0552 ug/L	-8.0552 ppb	16:36:27
3	Ca 317.933Radial†	22.1	4.8	7.9444 ug/L	7.9444 ppb	16:36:47
3	Fe 238.204 Radial†	8.8	-2.9	-26.181 ug/L	-26.181 ppb	16:36:47
3	K 766.490 Radial†	2829.6	-67.2	-11.896 ug/L	-11.896 ppb	16:36:27
3	Mg 279.077 IEC†	5.4	4.9	172.99 ug/L	172.99 ppb	16:36:47
3	Na 589.592 Radial†	-875.6	225.0	68.042 ug/L	68.042 ppb	16:36:27
3	Sr 421.552†	10.2	7.8	0.0548 ug/L	0.0548 ppb	16:36:27
3	Sc 361.383	828758.2	828758.2	96.133 %		16:37:44
3	Y 371.029	677275.2	677275.2	94.776 %		16:37:44
3	Ag 328.068†	225.0	5.3	0.0201 ug/L	0.0201 ppb	16:37:44
3	As 188.979†	-28.8	3.9	1.7545 ug/L	1.7545 ppb	16:38:04
3	B 249.677†	-249.4	279.6	6.6554 ug/L	6.6554 ppb	16:38:04
3	Ba 233.527†	-5.7	5.6	0.0456 ug/L	0.0456 ppb	16:38:04
3	Be 313.107†	-4146.0	26.0	0.0096 ug/L	0.0096 ppb	16:37:44
3	Cd 226.502†	-194.0	10.1	0.1213 ug/L	0.1213 ppb	16:38:04
3	Co 228.616†	-65.2	5.9	0.1322 ug/L	0.1322 ppb	16:38:04
3	Cr 267.716†	89.2	26.1	0.3048 ug/L	0.3048 ppb	16:38:04
3	Cu 324.752†	5239.5	-370.5	-1.1229 ug/L	-1.1229 ppb	16:37:44
3	Mn 257.610†	516.9	85.8	0.0891 ug/L	0.0891 ppb	16:38:04
3	Mo 202.031†	28.1	13.7	1.0249 ug/L	1.0249 ppb	16:38:04
3	Ni 231.604†	92.5	-11.8	-0.3050 ug/L	-0.3050 ppb	16:38:04
3	P 214.914†	251.1	33.2	20.860 ug/L	20.860 ppb	16:38:04
3	Pb 220.353†	-38.8	21.4	2.6716 ug/L	2.6716 ppb	16:38:04
3	S 181.975 Axial†	36.3	-1.6	-2.2683 ug/L	-2.2683 ppb	16:38:04
3	Sb 206.836†	40.1	-0.4	-0.1528 ug/L	-0.1528 ppb	16:38:04
3	Se 196.026†	-19.4	1.9	1.2254 ug/L	1.2254 ppb	16:38:04
3	Si 251.611†	543.8	3.4	0.1003 ug/L	0.1003 ppb	16:38:04
3	Sn 189.927†	-0.1	-8.8	-1.6299 ug/L	-1.6299 ppb	16:38:04
3	Ti 334.940†	-1274.7	-22.7	-0.0483 ug/L	-0.0483 ppb	16:37:44
3	Tl 190.801†	-31.4	1.6	0.5000 ug/L	0.5000 ppb	16:38:04
3	U 409.014†	-3001.2	-141.9	-4.1109 ug/L	-4.1109 ppb	16:37:44
3	V 292.402†	-1465.6	30.1	0.2326 ug/L	0.2326 ppb	16:37:44
3	Zn 213.857†	762.2	79.6	0.7924 ug/L	0.7924 ppb	16:38:04
3	SiO2†	564.7	4.3	0.2771 ug/L	0.2771 ppb	16:38:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	814514.3	94.481	%	2.9599				3.13%
Sc Radial	4908.2	102	%	2.1				2.06%
Y 371.029	664586.0	93.001	%	3.0192				3.25%
Y RADIAL	5150.4	103.0	%	2.40				2.33%
Ag 328.068†	47.8	0.2225	ug/L	0.19263	0.2225	ppb	0.19263	86.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.2	-1.1790	ug/L	8.43354	-1.1790	ppb	8.43354	715.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.7	3.0205	ug/L	2.33542	3.0205	ppb	2.33542	77.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	276.1	6.5720	ug/L	0.21285	6.5720	ppb	0.21285	3.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.9	0.0313	ug/L	0.03079	0.0313	ppb	0.03079	98.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-72.5	-0.0272	ug/L	0.06273	-0.0272	ppb	0.06273	230.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.7	9.4442	ug/L	1.65784	9.4442	ppb	1.65784	17.55%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.1      0.0850 ug/L       0.03865      0.0850 ppb        0.03865  45.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.0     -0.0843 ug/L       0.19061     -0.0843 ppb        0.19061 226.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.1      0.2134 ug/L       0.09133      0.2134 ppb        0.09133  42.81%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -267.2     -0.8079 ug/L       0.58403     -0.8079 ppb        0.58403  72.29%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.5     -22.614 ug/L        4.1725     -22.614 ppb         4.1725  18.45%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -133.1     -23.520 ug/L       17.8634     -23.520 ppb        17.8634  75.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.6      127.20 ug/L        41.318      127.20 ppb         41.318  32.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                86.2      0.0918 ug/L       0.04220      0.0918 ppb        0.04220  45.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.0      0.6708 ug/L       0.32221      0.6708 ppb        0.32221  48.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       199.3      60.283 ug/L       16.7244      60.283 ppb        16.7244  27.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.7      0.0430 ug/L       0.31782      0.0430 ppb        0.31782 739.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 26.1      16.412 ug/L        7.5073      16.412 ppb         7.5073  45.74%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                12.4      1.5492 ug/L       1.51869      1.5492 ppb        1.51869  98.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.6      5.2624 ug/L       6.81101      5.2624 ppb        6.81101 129.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.4     -0.1128 ug/L       2.44909     -0.1128 ppb        2.44909 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.8      3.1950 ug/L       1.79074      3.1950 ppb        1.79074  56.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                16.5      0.5443 ug/L       0.42002      0.5443 ppb        0.42002  77.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.9      0.1617 ug/L       1.55534      0.1617 ppb        1.55534 962.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.0      0.0628 ug/L       0.01204      0.0628 ppb        0.01204  19.17%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -59.6     -0.1028 ug/L       0.13291     -0.1028 ppb        0.13291 129.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      0.3335 ug/L       0.23850      0.3335 ppb        0.23850  71.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -242.9     -7.0424 ug/L       5.55398     -7.0424 ppb        5.55398  78.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -17.0     -0.1218 ug/L       0.35004     -0.1218 ppb        0.35004 287.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                93.9      0.9303 ug/L       0.25470      0.9303 ppb        0.25470  27.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -6.5     -0.4827 ug/L       3.24436     -0.4827 ppb        3.24436 672.07%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 17:35:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4883.4	4883.4	102	%			17:36:54
1	Y RADIAL	5090.0	5090.0	101.8	%			17:36:54
1	Al 396.153Radial†	5290.9	5359.6	4951.1	ug/L	4951.1	ppb	17:36:54
1	Ca 317.933Radial†	3076.8	3011.9	4992.0	ug/L	4992.0	ppb	17:37:14
1	Fe 238.204 Radial†	567.9	547.5	4997.1	ug/L	4997.1	ppb	17:37:14
1	K 766.490 Radial†	30889.3	27579.5	4862.1	ug/L	4862.1	ppb	17:36:54
1	Mg 279.077 IEC†	148.9	146.2	5181.2	ug/L	5181.2	ppb	17:37:14
1	Na 589.592 Radial†	31339.6	31927.0	9656.3	ug/L	9656.3	ppb	17:36:54
1	Sr 421.552†	73601.4	72445.9	508.04	ug/L	508.04	ppb	17:36:54
1	Sc 361.383	867650.1	867650.1	100.64	%			17:38:11
1	Y 371.029	699059.3	699059.3	97.825	%			17:38:11
1	Ag 328.068†	104259.4	103363.1	490.19	ug/L	490.19	ppb	17:38:16
1	As 188.979†	1056.3	1083.4	495.82	ug/L	495.82	ppb	17:38:37
1	B 249.677†	20158.7	20568.7	487.07	ug/L	487.07	ppb	17:38:16
1	Ba 233.527†	61238.4	60857.9	498.23	ug/L	498.23	ppb	17:38:16
1	Be 313.107†	1320577.3	1316460.1	491.46	ug/L	491.46	ppb	17:38:11
1	Cd 226.502†	41132.7	41081.3	488.31	ug/L	488.31	ppb	17:38:16
1	Co 228.616†	23336.8	23261.1	508.14	ug/L	508.14	ppb	17:38:16
1	Cr 267.716†	41933.5	41598.2	484.87	ug/L	484.87	ppb	17:38:16
1	Cu 324.752†	169192.7	162288.5	492.29	ug/L	492.29	ppb	17:38:16
1	Mn 257.610†	435775.5	432533.2	497.92	ug/L	497.92	ppb	17:38:11
1	Mo 202.031†	6446.4	6389.6	478.95	ug/L	478.95	ppb	17:38:37
1	Ni 231.604†	19116.7	18886.3	488.98	ug/L	488.98	ppb	17:38:16
1	P 214.914†	4190.9	3936.0	2353.2	ug/L	2353.2	ppb	17:38:37
1	Pb 220.353†	3838.5	3875.7	485.07	ug/L	485.07	ppb	17:38:37
1	S 181.975 Axial†	718.4	674.5	982.63	ug/L	982.63	ppb	17:38:37
1	Sb 206.836†	1444.0	1392.6	502.57	ug/L	502.57	ppb	17:38:37
1	Se 196.026†	711.0	728.6	508.57	ug/L	508.57	ppb	17:38:37
1	Si 251.611†	75299.5	74255.1	2477.8	ug/L	2477.8	ppb	17:38:16
1	Sn 189.927†	2595.3	2570.0	477.78	ug/L	477.78	ppb	17:38:37
1	Ti 334.940†	304143.6	303499.3	492.12	ug/L	492.12	ppb	17:38:16
1	Tl 190.801†	1519.9	1544.4	498.23	ug/L	498.23	ppb	17:38:37
1	U 409.014†	13948.4	16839.2	486.63	ug/L	486.63	ppb	17:38:16
1	V 292.402†	65486.2	66621.5	490.19	ug/L	490.19	ppb	17:38:16
1	Zn 213.857†	51187.1	50146.1	490.19	ug/L	490.19	ppb	17:38:16
1	SiO2†	75433.0	74366.9	5291.7	ug/L	5291.7	ppb	17:39:44
2	Sc Radial	4874.4	4874.4	101	%			17:37:19
2	Y RADIAL	5086.8	5086.8	101.7	%			17:37:19
2	Al 396.153Radial†	5291.6	5369.8	4959.9	ug/L	4959.9	ppb	17:37:19
2	Ca 317.933Radial†	3092.2	3032.7	5026.5	ug/L	5026.5	ppb	17:37:39
2	Fe 238.204 Radial†	567.6	548.2	5003.6	ug/L	5003.6	ppb	17:37:39
2	K 766.490 Radial†	30996.2	27741.0	4890.6	ug/L	4890.6	ppb	17:37:19
2	Mg 279.077 IEC†	151.1	148.6	5267.7	ug/L	5267.7	ppb	17:37:39
2	Na 589.592 Radial†	31287.1	31932.0	9657.8	ug/L	9657.8	ppb	17:37:19
2	Sr 421.552†	73705.2	72681.8	509.69	ug/L	509.69	ppb	17:37:19
2	Sc 361.383	845811.7	845811.7	98.111	%			17:38:42
2	Y 371.029	680468.1	680468.1	95.223	%			17:38:42
2	Ag 328.068†	103771.4	105540.3	500.48	ug/L	500.48	ppb	17:38:47
2	As 188.979†	1063.2	1117.5	511.39	ug/L	511.39	ppb	17:39:08
2	B 249.677†	20110.1	21036.3	498.16	ug/L	498.16	ppb	17:38:47
2	Ba 233.527†	60935.9	62120.6	508.56	ug/L	508.56	ppb	17:38:47
2	Be 313.107†	1288464.0	1317606.9	491.91	ug/L	491.91	ppb	17:38:42
2	Cd 226.502†	40777.5	41774.5	496.55	ug/L	496.55	ppb	17:38:47
2	Co 228.616†	23206.8	23727.3	518.33	ug/L	518.33	ppb	17:38:47
2	Cr 267.716†	41495.0	42227.0	492.20	ug/L	492.20	ppb	17:38:47
2	Cu 324.752†	169070.2	166504.2	505.08	ug/L	505.08	ppb	17:38:47
2	Mn 257.610†	427634.3	435414.8	501.23	ug/L	501.23	ppb	17:38:42
2	Mo 202.031†	6479.7	6588.9	493.87	ug/L	493.87	ppb	17:39:08
2	Ni 231.604†	19011.8	19269.8	498.90	ug/L	498.90	ppb	17:38:47

2	P 214.914†	4198.4	4051.1	2422.5 ug/L	2422.5 ppb	17:39:08
2	Pb 220.353†	3845.6	3981.4	498.28 ug/L	498.28 ppb	17:39:08
2	S 181.975 Axial†	712.6	686.9	1000.7 ug/L	1000.7 ppb	17:39:08
2	Sb 206.836†	1446.7	1432.4	517.02 ug/L	517.02 ppb	17:39:08
2	Se 196.026†	718.7	754.6	526.18 ug/L	526.18 ppb	17:39:08
2	Si 251.611†	75014.4	75896.3	2532.6 ug/L	2532.6 ppb	17:38:47
2	Sn 189.927†	2624.5	2666.3	495.65 ug/L	495.65 ppb	17:39:08
2	Ti 334.940†	303028.2	310164.9	502.92 ug/L	502.92 ppb	17:38:47
2	Tl 190.801†	1526.1	1589.6	512.77 ug/L	512.77 ppb	17:39:08
2	U 409.014†	13886.3	17133.7	495.15 ug/L	495.15 ppb	17:38:47
2	V 292.402†	65108.8	67916.9	499.81 ug/L	499.81 ppb	17:38:47
2	Zn 213.857†	51000.2	51268.8	501.18 ug/L	501.18 ppb	17:38:47
2	SiO2†	74777.4	75633.8	5381.7 ug/L	5381.7 ppb	17:39:49
3	Sc Radial	4927.4	4927.4	103 %		17:37:44
3	Y RADIAL	5146.7	5146.7	102.9 %		17:37:44
3	Al 396.153Radial†	5342.4	5363.3	4954.0 ug/L	4954.0 ppb	17:37:44
3	Ca 317.933Radial†	3081.5	2989.4	4954.7 ug/L	4954.7 ppb	17:38:04
3	Fe 238.204 Radial†	562.3	537.0	4901.8 ug/L	4901.8 ppb	17:38:04
3	K 766.490 Radial†	31221.6	27632.2	4871.4 ug/L	4871.4 ppb	17:37:44
3	Mg 279.077 IEC†	145.2	141.2	5005.4 ug/L	5005.4 ppb	17:38:04
3	Na 589.592 Radial†	31391.6	31702.2	9588.3 ug/L	9588.3 ppb	17:37:44
3	Sr 421.552†	74447.1	72623.9	509.29 ug/L	509.29 ppb	17:37:44
3	Sc 361.383	849007.6	849007.6	98.482 %		17:39:13
3	Y 371.029	683415.1	683415.1	95.636 %		17:39:13
3	Ag 328.068†	104613.5	105997.2	502.60 ug/L	502.60 ppb	17:39:19
3	As 188.979†	1050.4	1100.5	503.66 ug/L	503.66 ppb	17:39:39
3	B 249.677†	20339.5	21192.1	501.88 ug/L	501.88 ppb	17:39:19
3	Ba 233.527†	61206.8	62161.8	508.90 ug/L	508.90 ppb	17:39:19
3	Be 313.107†	1293636.3	1317915.4	492.03 ug/L	492.03 ppb	17:39:13
3	Cd 226.502†	40971.1	41814.6	497.04 ug/L	497.04 ppb	17:39:19
3	Co 228.616†	23388.6	23822.8	520.41 ug/L	520.41 ppb	17:39:19
3	Cr 267.716†	41845.8	42424.1	494.50 ug/L	494.50 ppb	17:39:19
3	Cu 324.752†	170500.1	167307.4	507.51 ug/L	507.51 ppb	17:39:19
3	Mn 257.610†	427973.8	434118.8	499.74 ug/L	499.74 ppb	17:39:13
3	Mo 202.031†	6458.4	6542.4	490.38 ug/L	490.38 ppb	17:39:39
3	Ni 231.604†	19096.7	19283.0	499.25 ug/L	499.25 ppb	17:39:19
3	P 214.914†	4194.5	4031.1	2409.6 ug/L	2409.6 ppb	17:39:39
3	Pb 220.353†	3812.1	3932.6	492.20 ug/L	492.20 ppb	17:39:39
3	S 181.975 Axial†	708.9	680.5	991.31 ug/L	991.31 ppb	17:39:39
3	Sb 206.836†	1446.2	1426.4	514.77 ug/L	514.77 ppb	17:39:39
3	Se 196.026†	699.2	732.1	510.67 ug/L	510.67 ppb	17:39:39
3	Si 251.611†	75460.3	76061.2	2538.1 ug/L	2538.1 ppb	17:39:19
3	Sn 189.927†	2606.2	2637.7	490.32 ug/L	490.32 ppb	17:39:39
3	Ti 334.940†	305245.1	311253.4	504.70 ug/L	504.70 ppb	17:39:19
3	Tl 190.801†	1520.8	1578.4	509.16 ug/L	509.16 ppb	17:39:39
3	U 409.014†	14031.2	17227.5	497.87 ug/L	497.87 ppb	17:39:19
3	V 292.402†	65553.4	68118.5	501.24 ug/L	501.24 ppb	17:39:19
3	Zn 213.857†	51317.7	51395.5	502.44 ug/L	502.44 ppb	17:39:19
3	SiO2†	74501.0	75066.3	5341.3 ug/L	5341.3 ppb	17:39:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854156.5	99.079	%	1.3681				1.38%
Sc Radial	4895.1	102	%	0.6				0.58%
Y 371.029	687647.5	96.228	%	1.3983				1.45%
Y RADIAL	5107.8	102.1	%	0.67				0.66%
Ag 328.068†	104966.9	497.76	ug/L	6.640	497.76	ppb	6.640	1.33%
QC value within limits for Ag 328.068 Recovery = 99.55%								
Al 396.153Radial†	5364.3	4955.0	ug/L	4.48	4955.0	ppb	4.48	0.09%
QC value within limits for Al 396.153Radial Recovery = 99.10%								
As 188.979†	1100.5	503.62	ug/L	7.784	503.62	ppb	7.784	1.55%
QC value within limits for As 188.979 Recovery = 100.72%								
B 249.677†	20932.4	495.70	ug/L	7.706	495.70	ppb	7.706	1.55%
QC value within limits for B 249.677 Recovery = 99.14%								
Ba 233.527†	61713.4	505.23	ug/L	6.065	505.23	ppb	6.065	1.20%
QC value within limits for Ba 233.527 Recovery = 101.05%								
Be 313.107†	1317327.4	491.80	ug/L	0.301	491.80	ppb	0.301	0.06%
QC value within limits for Be 313.107 Recovery = 98.36%								
Ca 317.933Radial†	3011.3	4991.0	ug/L	35.91	4991.0	ppb	35.91	0.72%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.82%
Cd 226.502†            41556.8      493.97 ug/L         4.909      493.97 ppb          4.909   0.99%
   QC value within limits for Cd 226.502  Recovery = 98.79%
Co 228.616†            23603.7      515.63 ug/L         6.569      515.63 ppb          6.569   1.27%
   QC value within limits for Co 228.616  Recovery = 103.13%
Cr 267.716†            42083.1      490.52 ug/L         5.027      490.52 ppb          5.027   1.02%
   QC value within limits for Cr 267.716  Recovery = 98.10%
Cu 324.752†           165366.7      501.63 ug/L         8.173      501.63 ppb          8.173   1.63%
   QC value within limits for Cu 324.752  Recovery = 100.33%
Fe 238.204 Radial†       544.3      4967.5 ug/L        56.99      4967.5 ppb         56.99   1.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.35%
K 766.490 Radial†      27650.9      4874.7 ug/L        14.52      4874.7 ppb         14.52   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 97.49%
Mg 279.077 IEC†          145.4      5151.4 ug/L       133.69      5151.4 ppb        133.69   2.60%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.03%
Mn 257.610†           434022.3      499.63 ug/L         1.659      499.63 ppb          1.659   0.33%
   QC value within limits for Mn 257.610  Recovery = 99.93%
Mo 202.031†             6506.9      487.73 ug/L         7.808      487.73 ppb          7.808   1.60%
   QC value within limits for Mo 202.031  Recovery = 97.55%
Na 589.592 Radial†     31853.8      9634.1 ug/L        39.70      9634.1 ppb         39.70   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 96.34%
Ni 231.604†            19146.3      495.71 ug/L         5.834      495.71 ppb          5.834   1.18%
   QC value within limits for Ni 231.604  Recovery = 99.14%
P 214.914†              4006.1      2395.1 ug/L        36.84      2395.1 ppb         36.84   1.54%
   QC value within limits for P 214.914  Recovery = 95.80%
Pb 220.353†             3929.9      491.85 ug/L         6.615      491.85 ppb          6.615   1.34%
   QC value within limits for Pb 220.353  Recovery = 98.37%
S 181.975 Axial†         680.6      991.56 ug/L         9.059      991.56 ppb          9.059   0.91%
   QC value within limits for S 181.975 Axial  Recovery = 99.16%
Sb 206.836†             1417.1      511.45 ug/L         7.775      511.45 ppb          7.775   1.52%
   QC value within limits for Sb 206.836  Recovery = 102.29%
Se 196.026†              738.4      515.14 ug/L         9.618      515.14 ppb          9.618   1.87%
   QC value within limits for Se 196.026  Recovery = 103.03%
Si 251.611†            75404.2      2516.2 ug/L        33.31      2516.2 ppb         33.31   1.32%
   QC value within limits for Si 251.611  Recovery = 100.65%
Sn 189.927†             2624.7      487.92 ug/L         9.175      487.92 ppb          9.175   1.88%
   QC value within limits for Sn 189.927  Recovery = 97.58%
Sr 421.552†            72583.9      509.00 ug/L         0.862      509.00 ppb          0.862   0.17%
   QC value within limits for Sr 421.552  Recovery = 101.80%
Ti 334.940†           308305.9      499.91 ug/L         6.807      499.91 ppb          6.807   1.36%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†             1570.8      506.72 ug/L         7.572      506.72 ppb          7.572   1.49%
   QC value within limits for Tl 190.801  Recovery = 101.34%
U 409.014†             17066.8      493.22 ug/L         5.868      493.22 ppb          5.868   1.19%
   QC value within limits for U 409.014  Recovery = 98.64%
V 292.402†             67552.3      497.08 ug/L         6.009      497.08 ppb          6.009   1.21%
   QC value within limits for V 292.402  Recovery = 99.42%
Zn 213.857†            50936.8      497.94 ug/L         6.741      497.94 ppb          6.741   1.35%
   QC value within limits for Zn 213.857  Recovery = 99.59%
SiO2†                  75022.3      5338.2 ug/L        45.06      5338.2 ppb         45.06   0.84%
   QC value within limits for SiO2  Recovery = 99.83%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:42:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4864.0	4864.0	101	%			17:43:56
1	Y RADIAL	5099.9	5099.9	102.0	%			17:43:56
1	Al 396.153Radial†	-150.2	3.2	2.9438	ug/L	2.9438	ppb	17:43:56
1	Ca 317.933Radial†	20.1	3.1	5.1674	ug/L	5.1674	ppb	17:44:16
1	Fe 238.204 Radial†	9.1	-2.5	-22.690	ug/L	-22.690	ppb	17:44:16
1	K 766.490 Radial†	2933.8	73.6	12.968	ug/L	12.968	ppb	17:43:56
1	Mg 279.077 IEC†	2.0	1.6	54.973	ug/L	54.973	ppb	17:44:16
1	Na 589.592 Radial†	-851.9	236.7	71.578	ug/L	71.578	ppb	17:43:56
1	Sr 421.552†	-3.0	-5.1	-0.0357	ug/L	-0.0357	ppb	17:43:56
1	Sc 361.383	844454.4	844454.4	97.954	%			17:45:13
1	Y 371.029	688428.9	688428.9	96.337	%			17:45:13
1	Ag 328.068†	272.2	49.1	0.2215	ug/L	0.2215	ppb	17:45:13
1	As 188.979†	-31.4	1.8	0.7938	ug/L	0.7938	ppb	17:45:33
1	B 249.677†	-338.6	193.4	4.6028	ug/L	4.6028	ppb	17:45:33
1	Ba 233.527†	-12.8	-1.5	-0.0129	ug/L	-0.0129	ppb	17:45:33
1	Be 313.107†	-4226.3	24.1	0.0086	ug/L	0.0086	ppb	17:45:13
1	Cd 226.502†	-204.1	3.5	0.0444	ug/L	0.0444	ppb	17:45:33
1	Co 228.616†	-52.1	20.5	0.4491	ug/L	0.4491	ppb	17:45:33
1	Cr 267.716†	79.3	14.1	0.1630	ug/L	0.1630	ppb	17:45:33
1	Cu 324.752†	5448.9	-258.0	-0.7854	ug/L	-0.7854	ppb	17:45:13
1	Mn 257.610†	470.9	28.8	0.0287	ug/L	0.0287	ppb	17:45:33
1	Mo 202.031†	14.7	-0.5	-0.0418	ug/L	-0.0418	ppb	17:45:33
1	Ni 231.604†	102.0	-3.8	-0.0998	ug/L	-0.0998	ppb	17:45:33
1	P 214.914†	237.4	14.3	9.0844	ug/L	9.0844	ppb	17:45:33
1	Pb 220.353†	-56.8	3.7	0.4686	ug/L	0.4686	ppb	17:45:33
1	S 181.975 Axial†	34.9	-3.7	-5.4085	ug/L	-5.4085	ppb	17:45:33
1	Sb 206.836†	39.3	-2.0	-0.6995	ug/L	-0.6995	ppb	17:45:33
1	Se 196.026†	-12.3	9.6	6.4003	ug/L	6.4003	ppb	17:45:33
1	Si 251.611†	549.4	-1.4	-0.0474	ug/L	-0.0474	ppb	17:45:33
1	Sn 189.927†	8.1	-0.5	-0.0841	ug/L	-0.0841	ppb	17:45:33
1	Ti 334.940†	-1386.5	-112.3	-0.1872	ug/L	-0.1872	ppb	17:45:13
1	Tl 190.801†	-42.7	-9.4	-3.0004	ug/L	-3.0004	ppb	17:45:33
1	U 409.014†	-2824.2	96.9	2.8114	ug/L	2.8114	ppb	17:45:13
1	V 292.402†	-1519.9	3.0	0.0308	ug/L	0.0308	ppb	17:45:13
1	Zn 213.857†	727.7	29.7	0.2978	ug/L	0.2978	ppb	17:45:33
1	SiO2†	555.8	-15.8	-1.1229	ug/L	-1.1229	ppb	17:46:29
2	Sc Radial	4887.4	4887.4	102	%			17:44:21
2	Y RADIAL	5145.5	5145.5	102.9	%			17:44:21
2	Al 396.153Radial†	-132.7	21.0	19.504	ug/L	19.504	ppb	17:44:21
2	Ca 317.933Radial†	16.6	-0.4	-0.5969	ug/L	-0.5969	ppb	17:44:41
2	Fe 238.204 Radial†	10.7	-1.0	-9.0168	ug/L	-9.0168	ppb	17:44:41
2	K 766.490 Radial†	2783.2	-88.3	-15.621	ug/L	-15.621	ppb	17:44:21
2	Mg 279.077 IEC†	2.0	1.6	55.174	ug/L	55.174	ppb	17:44:41
2	Na 589.592 Radial†	-849.8	242.7	73.402	ug/L	73.402	ppb	17:44:21
2	Sr 421.552†	18.7	16.2	0.1139	ug/L	0.1139	ppb	17:44:21
2	Sc 361.383	838646.0	838646.0	97.280	%			17:45:38
2	Y 371.029	683833.3	683833.3	95.694	%			17:45:38
2	Ag 328.068†	335.6	116.2	0.5473	ug/L	0.5473	ppb	17:45:38
2	As 188.979†	-29.9	3.1	1.4002	ug/L	1.4002	ppb	17:45:58
2	B 249.677†	-374.7	153.9	3.6616	ug/L	3.6616	ppb	17:45:58
2	Ba 233.527†	-18.5	-7.4	-0.0604	ug/L	-0.0604	ppb	17:45:58
2	Be 313.107†	-4232.1	-11.7	-0.0047	ug/L	-0.0047	ppb	17:45:38
2	Cd 226.502†	-195.1	11.4	0.1354	ug/L	0.1354	ppb	17:45:58
2	Co 228.616†	-67.3	4.5	0.1000	ug/L	0.1000	ppb	17:45:58
2	Cr 267.716†	72.4	7.6	0.0898	ug/L	0.0898	ppb	17:45:58
2	Cu 324.752†	5275.1	-398.1	-1.2067	ug/L	-1.2067	ppb	17:45:38
2	Mn 257.610†	440.5	0.9	-0.0021	ug/L	-0.0021	ppb	17:45:58
2	Mo 202.031†	21.9	7.0	0.5244	ug/L	0.5244	ppb	17:45:58
2	Ni 231.604†	90.7	-14.8	-0.3838	ug/L	-0.3838	ppb	17:45:58

2	P 214.914†	234.1	12.6	8.0900 ug/L	8.0900 ppb	17:45:58
2	Pb 220.353†	-61.1	-1.0	-0.1239 ug/L	-0.1239 ppb	17:45:58
2	S 181.975 Axial†	40.5	2.3	3.3625 ug/L	3.3625 ppb	17:45:58
2	Sb 206.836†	40.3	-0.7	-0.2398 ug/L	-0.2398 ppb	17:45:58
2	Se 196.026†	-29.2	-7.9	-5.3352 ug/L	-5.3352 ppb	17:45:58
2	Si 251.611†	547.6	0.7	0.0165 ug/L	0.0165 ppb	17:45:58
2	Sn 189.927†	9.2	0.8	0.1496 ug/L	0.1496 ppb	17:45:58
2	Ti 334.940†	-1349.4	-83.9	-0.1395 ug/L	-0.1395 ppb	17:45:38
2	Tl 190.801†	-30.1	3.2	1.0352 ug/L	1.0352 ppb	17:45:58
2	U 409.014†	-2993.7	-97.4	-2.8228 ug/L	-2.8228 ppb	17:45:38
2	V 292.402†	-1497.2	15.5	0.1173 ug/L	0.1173 ppb	17:45:38
2	Zn 213.857†	727.4	34.5	0.3461 ug/L	0.3461 ppb	17:45:58
2	SiO2†	569.6	2.4	0.1594 ug/L	0.1594 ppb	17:46:34
3	Sc Radial	4815.3	4815.3	100 %		17:44:46
3	Y RADIAL	5028.0	5028.0	100.5 %		17:44:46
3	Al 396.153Radial†	-139.7	12.1	11.252 ug/L	11.252 ppb	17:44:46
3	Ca 317.933Radial†	19.5	2.8	4.6011 ug/L	4.6011 ppb	17:45:06
3	Fe 238.204 Radial†	7.6	-3.8	-35.006 ug/L	-35.006 ppb	17:45:06
3	K 766.490 Radial†	2871.0	40.4	7.1012 ug/L	7.1012 ppb	17:44:46
3	Mg 279.077 IEC†	2.5	2.1	74.990 ug/L	74.990 ppb	17:45:06
3	Na 589.592 Radial†	-874.3	205.7	62.219 ug/L	62.219 ppb	17:44:46
3	Sr 421.552†	-27.3	-29.4	-0.2062 ug/L	-0.2062 ppb	17:44:46
3	Sc 361.383	838695.6	838695.6	97.286 %		17:46:04
3	Y 371.029	683481.0	683481.0	95.645 %		17:46:04
3	Ag 328.068†	290.2	69.6	0.3139 ug/L	0.3139 ppb	17:46:04
3	As 188.979†	-23.3	9.9	4.4693 ug/L	4.4693 ppb	17:46:24
3	B 249.677†	-376.2	152.4	3.6303 ug/L	3.6303 ppb	17:46:24
3	Ba 233.527†	-22.5	-11.5	-0.0952 ug/L	-0.0952 ppb	17:46:24
3	Be 313.107†	-4293.1	-74.1	-0.0277 ug/L	-0.0277 ppb	17:46:04
3	Cd 226.502†	-185.5	21.2	0.2558 ug/L	0.2558 ppb	17:46:24
3	Co 228.616†	-68.7	3.1	0.0666 ug/L	0.0666 ppb	17:46:24
3	Cr 267.716†	57.9	-7.2	-0.0860 ug/L	-0.0860 ppb	17:46:24
3	Cu 324.752†	5315.2	-357.3	-1.0867 ug/L	-1.0867 ppb	17:46:04
3	Mn 257.610†	457.7	18.5	0.0148 ug/L	0.0148 ppb	17:46:24
3	Mo 202.031†	11.1	-4.1	-0.3120 ug/L	-0.3120 ppb	17:46:24
3	Ni 231.604†	95.7	-9.6	-0.2499 ug/L	-0.2499 ppb	17:46:24
3	P 214.914†	234.9	13.4	8.5848 ug/L	8.5848 ppb	17:46:24
3	Pb 220.353†	-54.6	5.6	0.7013 ug/L	0.7013 ppb	17:46:24
3	S 181.975 Axial†	38.7	0.4	0.6278 ug/L	0.6278 ppb	17:46:24
3	Sb 206.836†	42.2	1.3	0.4079 ug/L	0.4079 ppb	17:46:24
3	Se 196.026†	-18.3	3.4	2.1459 ug/L	2.1459 ppb	17:46:24
3	Si 251.611†	554.1	7.3	0.2469 ug/L	0.2469 ppb	17:46:24
3	Sn 189.927†	-0.4	-9.1	-1.6878 ug/L	-1.6878 ppb	17:46:24
3	Ti 334.940†	-1299.2	-32.3	-0.0587 ug/L	-0.0587 ppb	17:46:04
3	Tl 190.801†	-36.1	-2.9	-0.9291 ug/L	-0.9291 ppb	17:46:24
3	U 409.014†	-2832.5	68.6	1.9920 ug/L	1.9920 ppb	17:46:04
3	V 292.402†	-1522.0	-9.8	-0.0650 ug/L	-0.0650 ppb	17:46:04
3	Zn 213.857†	713.0	19.7	0.2023 ug/L	0.2023 ppb	17:46:24
3	SiO2†	572.4	5.3	0.3839 ug/L	0.3839 ppb	17:46:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	840598.7	97.507	%	0.3873				0.40%
Sc Radial	4855.6	101	%	0.8				0.76%
Y 371.029	685247.7	95.892	%	0.3863				0.40%
Y RADIAL	5091.2	101.8	%	1.18				1.16%
Ag 328.068†	78.3	0.3609	ug/L	0.16791	0.3609	ppb	0.16791	46.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.1	11.233	ug/L	8.2799	11.233	ppb	8.2799	73.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.9	2.2211	ug/L	1.97047	2.2211	ppb	1.97047	88.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	166.5	3.9649	ug/L	0.55267	3.9649	ppb	0.55267	13.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.8	-0.0562	ug/L	0.04132	-0.0562	ppb	0.04132	73.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-20.6	-0.0079	ug/L	0.01837	-0.0079	ppb	0.01837	231.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.8	3.0572	ug/L	3.17716	3.0572	ppb	3.17716	103.92%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                12.0      0.1452 ug/L       0.10606      0.1452 ppb        0.10606  73.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.4      0.2052 ug/L       0.21183      0.2052 ppb        0.21183 103.22%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.8      0.0556 ug/L       0.12796      0.0556 ppb        0.12796 230.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -337.8     -1.0263 ug/L       0.21702     -1.0263 ppb        0.21702  21.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.4     -22.237 ug/L       13.0005     -22.237 ppb       13.0005  58.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           8.6      1.4829 ug/L      15.09979      1.4829 ppb       15.09979 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.7      61.712 ug/L       11.4994      61.712 ppb        11.4994  18.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                16.1      0.0138 ug/L       0.01541      0.0138 ppb        0.01541 111.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.8      0.0569 ug/L       0.42683      0.0569 ppb        0.42683 750.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        228.4      69.066 ug/L        5.9995      69.066 ppb         5.9995   8.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.4     -0.2445 ug/L       0.14206     -0.2445 ppb        0.14206  58.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 13.4      8.5864 ug/L       0.49718      8.5864 ppb        0.49718   5.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.8      0.3487 ug/L       0.42548      0.3487 ppb        0.42548 122.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.3     -0.4727 ug/L       4.48787     -0.4727 ppb        4.48787 949.38%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.5     -0.1771 ug/L       0.55632     -0.1771 ppb        0.55632 314.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7      1.0703 ug/L       5.94121      1.0703 ppb        5.94121 555.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 2.2      0.0720 ug/L       0.15481      0.0720 ppb        0.15481 215.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.9     -0.5408 ug/L       1.00024     -0.5408 ppb        1.00024 184.96%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.1     -0.0426 ug/L       0.16018     -0.0426 ppb        0.16018 375.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -76.2     -0.1285 ug/L       0.06493     -0.1285 ppb        0.06493  50.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.0     -0.9647 ug/L       2.01802     -0.9647 ppb        2.01802 209.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 22.7      0.6602 ug/L       3.04404      0.6602 ppb        3.04404 461.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  2.9      0.0277 ug/L       0.09118      0.0277 ppb        0.09118 328.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                28.0      0.2821 ug/L       0.07321      0.2821 ppb        0.07321  25.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -2.7     -0.1932 ug/L       0.81291     -0.1932 ppb        0.81291 420.78%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:43:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4898.3	4898.3	102	%			18:45:24
1	Y RADIAL	5094.3	5094.3	101.9	%			18:45:24
1	Al 396.153Radial†	5321.6	5374.0	4963.7	ug/L	4963.7	ppb	18:45:24
1	Ca 317.933Radial†	3077.8	3003.6	4978.3	ug/L	4978.3	ppb	18:45:44
1	Fe 238.204 Radial†	562.6	540.6	4934.8	ug/L	4934.8	ppb	18:45:44
1	K 766.490 Radial†	31073.9	27668.6	4877.9	ug/L	4877.9	ppb	18:45:24
1	Mg 279.077 IEC†	148.1	145.0	5137.6	ug/L	5137.6	ppb	18:45:44
1	Na 589.592 Radial†	31287.8	31782.8	9612.7	ug/L	9612.7	ppb	18:45:24
1	Sr 421.552†	73908.0	72527.5	508.61	ug/L	508.61	ppb	18:45:24
1	Sc 361.383	841502.2	841502.2	97.611	%			18:46:41
1	Y 371.029	676715.5	676715.5	94.698	%			18:46:41
1	Ag 328.068†	104884.6	107222.4	508.41	ug/L	508.41	ppb	18:46:46
1	As 188.979†	1044.4	1103.8	505.21	ug/L	505.21	ppb	18:47:06
1	B 249.677†	20354.0	21391.1	506.59	ug/L	506.59	ppb	18:46:46
1	Ba 233.527†	61637.4	63157.3	517.04	ug/L	517.04	ppb	18:46:46
1	Be 313.107†	1306809.0	1343126.3	501.43	ug/L	501.43	ppb	18:46:41
1	Cd 226.502†	41253.9	42475.4	504.90	ug/L	504.90	ppb	18:46:46
1	Co 228.616†	23461.5	24109.4	526.66	ug/L	526.66	ppb	18:46:46
1	Cr 267.716†	41878.3	42836.3	499.30	ug/L	499.30	ppb	18:46:46
1	Cu 324.752†	171278.1	169648.7	514.61	ug/L	514.61	ppb	18:46:46
1	Mn 257.610†	432954.3	443097.1	510.07	ug/L	510.07	ppb	18:46:41
1	Mo 202.031†	6443.2	6585.3	493.60	ug/L	493.60	ppb	18:47:06
1	Ni 231.604†	19201.8	19563.6	506.51	ug/L	506.51	ppb	18:46:46
1	P 214.914†	4172.1	4046.1	2417.5	ug/L	2417.5	ppb	18:47:06
1	Pb 220.353†	3802.8	3957.6	495.32	ug/L	495.32	ppb	18:47:06
1	S 181.975 Axial†	712.2	690.3	1005.6	ug/L	1005.6	ppb	18:47:06
1	Sb 206.836†	1445.0	1438.2	518.99	ug/L	518.99	ppb	18:47:06
1	Se 196.026†	697.8	737.0	514.07	ug/L	514.07	ppb	18:47:06
1	Si 251.611†	76025.4	77323.6	2580.3	ug/L	2580.3	ppb	18:46:46
1	Sn 189.927†	2594.8	2649.6	492.55	ug/L	492.55	ppb	18:47:06
1	Ti 334.940†	306888.3	315701.2	511.90	ug/L	511.90	ppb	18:46:46
1	Tl 190.801†	1499.9	1570.8	506.81	ug/L	506.81	ppb	18:47:06
1	U 409.014†	14009.8	17332.7	500.91	ug/L	500.91	ppb	18:46:46
1	V 292.402†	65688.1	68850.2	506.59	ug/L	506.59	ppb	18:46:46
1	Zn 213.857†	51597.1	52146.4	509.79	ug/L	509.79	ppb	18:46:46
1	SiO2†	74932.5	76183.0	5420.9	ug/L	5420.9	ppb	18:48:14
2	Sc Radial	4871.6	4871.6	101	%			18:45:49
2	Y RADIAL	5050.9	5050.9	101.0	%			18:45:49
2	Al 396.153Radial†	5283.7	5365.1	4955.9	ug/L	4955.9	ppb	18:45:49
2	Ca 317.933Radial†	3092.2	3034.4	5029.3	ug/L	5029.3	ppb	18:46:09
2	Fe 238.204 Radial†	562.1	543.2	4957.7	ug/L	4957.7	ppb	18:46:09
2	K 766.490 Radial†	30985.4	27747.9	4891.9	ug/L	4891.9	ppb	18:45:49
2	Mg 279.077 IEC†	150.7	148.2	5254.0	ug/L	5254.0	ppb	18:46:09
2	Na 589.592 Radial†	30920.3	31587.8	9553.7	ug/L	9553.7	ppb	18:45:49
2	Sr 421.552†	73474.5	72495.9	508.39	ug/L	508.39	ppb	18:45:49
2	Sc 361.383	855235.2	855235.2	99.204	%			18:47:12
2	Y 371.029	687753.9	687753.9	96.243	%			18:47:12
2	Ag 328.068†	104084.4	104690.4	496.45	ug/L	496.45	ppb	18:47:17
2	As 188.979†	1051.1	1093.4	500.39	ug/L	500.39	ppb	18:47:37
2	B 249.677†	20099.2	20799.4	492.54	ug/L	492.54	ppb	18:47:17
2	Ba 233.527†	61148.7	61650.8	504.71	ug/L	504.71	ppb	18:47:17
2	Be 313.107†	1306033.3	1320846.7	493.10	ug/L	493.10	ppb	18:47:12
2	Cd 226.502†	40848.1	41387.6	491.96	ug/L	491.96	ppb	18:47:17
2	Co 228.616†	23316.3	23577.0	515.04	ug/L	515.04	ppb	18:47:17
2	Cr 267.716†	41676.0	41943.5	488.90	ug/L	488.90	ppb	18:47:17
2	Cu 324.752†	169333.5	164870.9	500.12	ug/L	500.12	ppb	18:47:17
2	Mn 257.610†	432295.6	435310.8	501.11	ug/L	501.11	ppb	18:47:12
2	Mo 202.031†	6445.0	6481.2	485.80	ug/L	485.80	ppb	18:47:37
2	Ni 231.604†	19034.1	19078.7	493.96	ug/L	493.96	ppb	18:47:17

2	P 214.914†	4157.9	3963.2	2368.7 ug/L	2368.7 ppb	18:47:37
2	Pb 220.353†	3799.6	3891.8	487.09 ug/L	487.09 ppb	18:47:37
2	S 181.975 Axial†	714.4	680.8	991.80 ug/L	991.80 ppb	18:47:37
2	Sb 206.836†	1434.0	1403.4	506.54 ug/L	506.54 ppb	18:47:37
2	Se 196.026†	698.1	725.8	506.60 ug/L	506.60 ppb	18:47:37
2	Si 251.611†	75242.4	75283.5	2512.2 ug/L	2512.2 ppb	18:47:17
2	Sn 189.927†	2585.1	2597.1	482.81 ug/L	482.81 ppb	18:47:37
2	Ti 334.940†	303903.6	307644.1	498.84 ug/L	498.84 ppb	18:47:17
2	Tl 190.801†	1503.1	1549.3	499.84 ug/L	499.84 ppb	18:47:37
2	U 409.014†	13894.4	16985.8	490.87 ug/L	490.87 ppb	18:47:17
2	V 292.402†	65279.8	67358.0	495.64 ug/L	495.64 ppb	18:47:17
2	Zn 213.857†	50994.7	50690.4	495.52 ug/L	495.52 ppb	18:47:17
2	SiO2†	74233.0	74245.2	5282.8 ug/L	5282.8 ppb	18:48:19
3	Sc Radial	4848.2	4848.2	101 %		18:46:14
3	Y RADIAL	5022.4	5022.4	100.4 %		18:46:14
3	Al 396.153Radial†	5286.8	5393.4	4982.4 ug/L	4982.4 ppb	18:46:14
3	Ca 317.933Radial†	3115.5	3072.3	5092.1 ug/L	5092.1 ppb	18:46:34
3	Fe 238.204 Radial†	572.1	555.7	5071.6 ug/L	5071.6 ppb	18:46:34
3	K 766.490 Radial†	30718.6	27631.5	4871.3 ug/L	4871.3 ppb	18:46:14
3	Mg 279.077 IEC†	148.6	146.9	5207.0 ug/L	5207.0 ppb	18:46:34
3	Na 589.592 Radial†	30664.8	31482.3	9521.8 ug/L	9521.8 ppb	18:46:14
3	Sr 421.552†	73012.9	72389.3	507.64 ug/L	507.64 ppb	18:46:14
3	Sc 361.383	857751.3	857751.3	99.496 %		18:47:43
3	Y 371.029	690942.7	690942.7	96.689 %		18:47:43
3	Ag 328.068†	104252.5	104551.5	495.83 ug/L	495.83 ppb	18:47:48
3	As 188.979†	1036.3	1075.4	492.28 ug/L	492.28 ppb	18:48:08
3	B 249.677†	20125.7	20766.7	491.75 ug/L	491.75 ppb	18:47:48
3	Ba 233.527†	61185.0	61506.4	503.54 ug/L	503.54 ppb	18:47:48
3	Be 313.107†	1312097.7	1323080.0	493.94 ug/L	493.94 ppb	18:47:43
3	Cd 226.502†	40954.4	41373.7	491.78 ug/L	491.78 ppb	18:47:48
3	Co 228.616†	23298.4	23490.1	513.13 ug/L	513.13 ppb	18:47:48
3	Cr 267.716†	41715.2	41859.7	487.92 ug/L	487.92 ppb	18:47:48
3	Cu 324.752†	169932.0	164971.7	500.43 ug/L	500.43 ppb	18:47:48
3	Mn 257.610†	432972.1	434712.4	500.43 ug/L	500.43 ppb	18:47:43
3	Mo 202.031†	6385.2	6402.0	479.89 ug/L	479.89 ppb	18:48:08
3	Ni 231.604†	19095.5	19084.2	494.10 ug/L	494.10 ppb	18:47:48
3	P 214.914†	4137.2	3930.1	2347.9 ug/L	2347.9 ppb	18:48:08
3	Pb 220.353†	3786.2	3867.1	484.00 ug/L	484.00 ppb	18:48:08
3	S 181.975 Axial†	710.8	675.1	983.46 ug/L	983.46 ppb	18:48:08
3	Sb 206.836†	1427.3	1392.4	502.49 ug/L	502.49 ppb	18:48:08
3	Se 196.026†	688.1	713.7	498.80 ug/L	498.80 ppb	18:48:08
3	Si 251.611†	75355.7	75175.0	2508.6 ug/L	2508.6 ppb	18:47:48
3	Sn 189.927†	2560.4	2564.7	476.80 ug/L	476.80 ppb	18:48:08
3	Ti 334.940†	304631.2	307476.8	498.58 ug/L	498.58 ppb	18:47:48
3	Tl 190.801†	1508.9	1550.8	500.30 ug/L	500.30 ppb	18:48:08
3	U 409.014†	13915.5	16966.0	490.29 ug/L	490.29 ppb	18:47:48
3	V 292.402†	65461.8	67347.9	495.47 ug/L	495.47 ppb	18:47:48
3	Zn 213.857†	51024.5	50569.6	494.31 ug/L	494.31 ppb	18:47:48
3	SiO2†	74357.9	74151.3	5276.3 ug/L	5276.3 ppb	18:48:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851496.2	98.771	%	1.0145				1.03%
Sc Radial	4872.7	101	%	0.5				0.51%
Y 371.029	685137.4	95.877	%	1.0447				1.09%
Y RADIAL	5055.9	101.1	%	0.72				0.72%
Ag 328.068†	105488.1	500.23	ug/L	7.089	500.23	ppb	7.089	1.42%
QC value within limits for Ag 328.068 Recovery = 100.05%								
Al 396.153Radial†	5377.5	4967.3	ug/L	13.63	4967.3	ppb	13.63	0.27%
QC value within limits for Al 396.153Radial Recovery = 99.35%								
As 188.979†	1090.8	499.30	ug/L	6.537	499.30	ppb	6.537	1.31%
QC value within limits for As 188.979 Recovery = 99.86%								
B 249.677†	20985.7	496.96	ug/L	8.348	496.96	ppb	8.348	1.68%
QC value within limits for B 249.677 Recovery = 99.39%								
Ba 233.527†	62104.8	508.43	ug/L	7.479	508.43	ppb	7.479	1.47%
QC value within limits for Ba 233.527 Recovery = 101.69%								
Be 313.107†	1329017.6	496.16	ug/L	4.587	496.16	ppb	4.587	0.92%
QC value within limits for Be 313.107 Recovery = 99.23%								
Ca 317.933Radial†	3036.8	5033.2	ug/L	56.98	5033.2	ppb	56.98	1.13%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.66%
Cd 226.502†            41745.5      496.21 ug/L         7.525      496.21 ppb          7.525   1.52%
   QC value within limits for Cd 226.502  Recovery = 99.24%
Co 228.616†            23725.5      518.28 ug/L         7.325      518.28 ppb          7.325   1.41%
   QC value within limits for Co 228.616  Recovery = 103.66%
Cr 267.716†            42213.1      492.04 ug/L         6.307      492.04 ppb          6.307   1.28%
   QC value within limits for Cr 267.716  Recovery = 98.41%
Cu 324.752†           166497.1      505.05 ug/L         8.275      505.05 ppb          8.275   1.64%
   QC value within limits for Cu 324.752  Recovery = 101.01%
Fe 238.204 Radial†       546.5      4988.0 ug/L         73.26      4988.0 ppb          73.26   1.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.76%
K 766.490 Radial†      27682.7      4880.4 ug/L         10.51      4880.4 ppb          10.51   0.22%
   QC value within limits for K 766.490 Radial  Recovery = 97.61%
Mg 279.077 IEC†          146.7      5199.5 ug/L         58.54      5199.5 ppb          58.54   1.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.99%
Mn 257.610†           437706.8      503.87 ug/L         5.379      503.87 ppb          5.379   1.07%
   QC value within limits for Mn 257.610  Recovery = 100.77%
Mo 202.031†             6489.5      486.43 ug/L         6.881      486.43 ppb          6.881   1.41%
   QC value within limits for Mo 202.031  Recovery = 97.29%
Na 589.592 Radial†     31617.6      9562.7 ug/L         46.11      9562.7 ppb          46.11   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 95.63%
Ni 231.604†            19242.2      498.19 ug/L         7.208      498.19 ppb          7.208   1.45%
   QC value within limits for Ni 231.604  Recovery = 99.64%
P 214.914†              3979.8      2378.0 ug/L         35.75      2378.0 ppb          35.75   1.50%
   QC value within limits for P 214.914  Recovery = 95.12%
Pb 220.353†             3905.5      488.80 ug/L         5.851      488.80 ppb          5.851   1.20%
   QC value within limits for Pb 220.353  Recovery = 97.76%
S 181.975 Axial†         682.0      993.62 ug/L        11.184      993.62 ppb         11.184   1.13%
   QC value within limits for S 181.975 Axial  Recovery = 99.36%
Sb 206.836†             1411.3      509.34 ug/L         8.597      509.34 ppb          8.597   1.69%
   QC value within limits for Sb 206.836  Recovery = 101.87%
Se 196.026†              725.5      506.49 ug/L         7.637      506.49 ppb          7.637   1.51%
   QC value within limits for Se 196.026  Recovery = 101.30%
Si 251.611†            75927.4      2533.7 ug/L         40.41      2533.7 ppb          40.41   1.59%
   QC value within limits for Si 251.611  Recovery = 101.35%
Sn 189.927†             2603.8      484.05 ug/L         7.948      484.05 ppb          7.948   1.64%
   QC value within limits for Sn 189.927  Recovery = 96.81%
Sr 421.552†            72470.9      508.21 ug/L         0.508      508.21 ppb          0.508   0.10%
   QC value within limits for Sr 421.552  Recovery = 101.64%
Ti 334.940†           310274.1      503.11 ug/L         7.618      503.11 ppb          7.618   1.51%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             1557.0      502.31 ug/L         3.899      502.31 ppb          3.899   0.78%
   QC value within limits for Tl 190.801  Recovery = 100.46%
U 409.014†             17094.8      494.02 ug/L         5.971      494.02 ppb          5.971   1.21%
   QC value within limits for U 409.014  Recovery = 98.80%
V 292.402†             67852.0      499.23 ug/L         6.373      499.23 ppb          6.373   1.28%
   QC value within limits for V 292.402  Recovery = 99.85%
Zn 213.857†            51135.5      499.87 ug/L         8.608      499.87 ppb          8.608   1.72%
   QC value within limits for Zn 213.857  Recovery = 99.97%
SiO2†                  74859.9      5326.7 ug/L         81.64      5326.7 ppb          81.64   1.53%
   QC value within limits for SiO2  Recovery = 99.61%
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:50:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4915.1	4915.1	102	%			18:52:26
1	Y RADIAL	5137.6	5137.6	102.7	%			18:52:26
1	Al 396.153Radial†	-147.0	7.8	7.2301	ug/L	7.2301	ppb	18:52:26
1	Ca 317.933Radial†	14.7	-2.3	-3.7949	ug/L	-3.7949	ppb	18:52:46
1	Fe 238.204 Radial†	11.3	-0.5	-4.2891	ug/L	-4.2891	ppb	18:52:46
1	K 766.490 Radial†	2739.2	-146.8	-25.934	ug/L	-25.934	ppb	18:52:26
1	Mg 279.077 IEC†	0.7	0.2	8.3574	ug/L	8.3574	ppb	18:52:46
1	Na 589.592 Radial†	-902.8	195.6	59.145	ug/L	59.145	ppb	18:52:26
1	Sr 421.552†	4.5	2.3	0.0164	ug/L	0.0164	ppb	18:52:26
1	Sc 361.383	841871.0	841871.0	97.654	%			18:53:43
1	Y 371.029	686186.9	686186.9	96.024	%			18:53:43
1	Ag 328.068†	202.9	-21.0	-0.1012	ug/L	-0.1012	ppb	18:53:43
1	As 188.979†	-31.9	1.2	0.5610	ug/L	0.5610	ppb	18:54:03
1	B 249.677†	-416.5	112.6	2.6783	ug/L	2.6783	ppb	18:54:03
1	Ba 233.527†	-31.0	-20.2	-0.1641	ug/L	-0.1641	ppb	18:54:03
1	Be 313.107†	-4253.5	-17.0	-0.0063	ug/L	-0.0063	ppb	18:53:43
1	Cd 226.502†	-196.0	11.2	0.1340	ug/L	0.1340	ppb	18:54:03
1	Co 228.616†	-67.7	4.4	0.0965	ug/L	0.0965	ppb	18:54:03
1	Cr 267.716†	79.1	14.2	0.1645	ug/L	0.1645	ppb	18:54:03
1	Cu 324.752†	5353.6	-338.5	-1.0285	ug/L	-1.0285	ppb	18:53:43
1	Mn 257.610†	451.3	10.2	0.0110	ug/L	0.0110	ppb	18:54:03
1	Mo 202.031†	18.7	3.7	0.2732	ug/L	0.2732	ppb	18:54:03
1	Ni 231.604†	91.4	-14.4	-0.3735	ug/L	-0.3735	ppb	18:54:03
1	P 214.914†	237.6	15.3	9.7069	ug/L	9.7069	ppb	18:54:03
1	Pb 220.353†	-57.8	2.6	0.3246	ug/L	0.3246	ppb	18:54:03
1	S 181.975 Axial†	37.7	-0.7	-1.0842	ug/L	-1.0842	ppb	18:54:03
1	Sb 206.836†	39.4	-1.8	-0.6343	ug/L	-0.6343	ppb	18:54:03
1	Se 196.026†	-15.0	6.8	4.5394	ug/L	4.5394	ppb	18:54:03
1	Si 251.611†	562.5	13.8	0.4578	ug/L	0.4578	ppb	18:54:03
1	Sn 189.927†	7.6	-0.9	-0.1755	ug/L	-0.1755	ppb	18:54:03
1	Ti 334.940†	-1260.0	12.9	0.0185	ug/L	0.0185	ppb	18:53:43
1	Tl 190.801†	-35.7	-2.4	-0.7588	ug/L	-0.7588	ppb	18:54:03
1	U 409.014†	-2818.8	93.5	2.7116	ug/L	2.7116	ppb	18:53:43
1	V 292.402†	-1469.4	49.9	0.3724	ug/L	0.3724	ppb	18:53:43
1	Zn 213.857†	725.7	29.9	0.2996	ug/L	0.2996	ppb	18:54:03
1	SiO2†	546.4	-23.6	-1.6935	ug/L	-1.6935	ppb	18:54:59
2	Sc Radial	4891.2	4891.2	102	%			18:52:51
2	Y RADIAL	5119.4	5119.4	102.4	%			18:52:51
2	Al 396.153Radial†	-149.9	4.2	3.9284	ug/L	3.9284	ppb	18:52:51
2	Ca 317.933Radial†	18.9	1.9	3.0853	ug/L	3.0853	ppb	18:53:11
2	Fe 238.204 Radial†	10.3	-1.4	-12.533	ug/L	-12.533	ppb	18:53:11
2	K 766.490 Radial†	2687.1	-184.9	-32.658	ug/L	-32.658	ppb	18:52:51
2	Mg 279.077 IEC†	2.4	2.0	69.586	ug/L	69.586	ppb	18:53:11
2	Na 589.592 Radial†	-915.3	179.0	54.137	ug/L	54.137	ppb	18:52:51
2	Sr 421.552†	22.6	20.1	0.1411	ug/L	0.1411	ppb	18:52:51
2	Sc 361.383	831442.5	831442.5	96.444	%			18:54:08
2	Y 371.029	677260.4	677260.4	94.774	%			18:54:08
2	Ag 328.068†	230.6	10.3	0.0531	ug/L	0.0531	ppb	18:54:08
2	As 188.979†	-17.1	16.2	7.3271	ug/L	7.3271	ppb	18:54:28
2	B 249.677†	-394.2	130.3	3.1026	ug/L	3.1026	ppb	18:54:28
2	Ba 233.527†	-6.4	5.0	0.0415	ug/L	0.0415	ppb	18:54:28
2	Be 313.107†	-4280.9	-100.0	-0.0377	ug/L	-0.0377	ppb	18:54:08
2	Cd 226.502†	-186.4	18.7	0.2213	ug/L	0.2213	ppb	18:54:28
2	Co 228.616†	-73.2	-2.2	-0.0466	ug/L	-0.0466	ppb	18:54:28
2	Cr 267.716†	88.9	25.4	0.2995	ug/L	0.2995	ppb	18:54:28
2	Cu 324.752†	5305.3	-319.9	-0.9664	ug/L	-0.9664	ppb	18:54:08
2	Mn 257.610†	450.3	15.0	0.0132	ug/L	0.0132	ppb	18:54:28
2	Mo 202.031†	15.2	0.2	0.0127	ug/L	0.0127	ppb	18:54:28
2	Ni 231.604†	89.5	-15.2	-0.3946	ug/L	-0.3946	ppb	18:54:28

2	P 214.914†	222.9	3.1	2.1172	ug/L	2.1172 ppb	18:54:28
2	Pb 220.353†	-60.4	-1.0	-0.1168	ug/L	-0.1168 ppb	18:54:28
2	S 181.975 Axial†	41.4	3.6	5.1964	ug/L	5.1964 ppb	18:54:28
2	Sb 206.836†	46.5	6.1	2.1364	ug/L	2.1364 ppb	18:54:28
2	Se 196.026†	-18.9	2.5	1.6554	ug/L	1.6554 ppb	18:54:28
2	Si 251.611†	553.9	12.1	0.4037	ug/L	0.4037 ppb	18:54:28
2	Sn 189.927†	10.0	1.7	0.3146	ug/L	0.3146 ppb	18:54:28
2	Ti 334.940†	-1363.6	-110.7	-0.1813	ug/L	-0.1813 ppb	18:54:08
2	Tl 190.801†	-35.8	-2.9	-0.9449	ug/L	-0.9449 ppb	18:54:28
2	U 409.014†	-3151.6	-287.7	-8.3413	ug/L	-8.3413 ppb	18:54:08
2	V 292.402†	-1434.0	67.8	0.4799	ug/L	0.4799 ppb	18:54:08
2	Zn 213.857†	705.8	18.6	0.1888	ug/L	0.1888 ppb	18:54:28
2	SiO2†	590.9	29.6	2.1092	ug/L	2.1092 ppb	18:55:04
3	Sc Radial	4909.9	4909.9	102	%		18:53:16
3	Y RADIAL	5151.7	5151.7	103.0	%		18:53:16
3	Al 396.153Radial†	-158.7	-3.7	-3.4925	ug/L	-3.4925 ppb	18:53:16
3	Ca 317.933Radial†	14.8	-2.2	-3.7084	ug/L	-3.7084 ppb	18:53:36
3	Fe 238.204 Radial†	9.3	-2.4	-21.859	ug/L	-21.859 ppb	18:53:36
3	K 766.490 Radial†	2818.7	-66.2	-11.701	ug/L	-11.701 ppb	18:53:16
3	Mg 279.077 IEC†	1.9	1.5	51.431	ug/L	51.431 ppb	18:53:36
3	Na 589.592 Radial†	-911.1	186.6	56.425	ug/L	56.425 ppb	18:53:16
3	Sr 421.552†	-2.1	-4.2	-0.0294	ug/L	-0.0294 ppb	18:53:16
3	Sc 361.383	834826.2	834826.2	96.837	%		18:54:33
3	Y 371.029	681258.3	681258.3	95.334	%		18:54:33
3	Ag 328.068†	210.3	-11.6	-0.0623	ug/L	-0.0623 ppb	18:54:33
3	As 188.979†	-27.8	5.1	2.3169	ug/L	2.3169 ppb	18:54:53
3	B 249.677†	-397.9	128.1	3.0510	ug/L	3.0510 ppb	18:54:53
3	Ba 233.527†	-13.4	-2.3	-0.0194	ug/L	-0.0194 ppb	18:54:53
3	Be 313.107†	-4230.8	-30.3	-0.0112	ug/L	-0.0112 ppb	18:54:33
3	Cd 226.502†	-201.4	3.9	0.0487	ug/L	0.0487 ppb	18:54:53
3	Co 228.616†	-64.1	7.5	0.1653	ug/L	0.1653 ppb	18:54:53
3	Cr 267.716†	83.1	19.0	0.2205	ug/L	0.2205 ppb	18:54:53
3	Cu 324.752†	5334.7	-311.8	-0.9473	ug/L	-0.9473 ppb	18:54:33
3	Mn 257.610†	434.1	-3.6	-0.0084	ug/L	-0.0084 ppb	18:54:53
3	Mo 202.031†	20.7	5.9	0.4371	ug/L	0.4371 ppb	18:54:53
3	Ni 231.604†	106.0	1.5	0.0386	ug/L	0.0386 ppb	18:54:53
3	P 214.914†	225.9	5.2	3.4380	ug/L	3.4380 ppb	18:54:53
3	Pb 220.353†	-60.1	-0.3	-0.0402	ug/L	-0.0402 ppb	18:54:53
3	S 181.975 Axial†	36.3	-1.9	-2.7843	ug/L	-2.7843 ppb	18:54:53
3	Sb 206.836†	38.5	-2.4	-0.7876	ug/L	-0.7876 ppb	18:54:53
3	Se 196.026†	-11.5	10.3	6.8501	ug/L	6.8501 ppb	18:54:53
3	Si 251.611†	543.1	-1.5	-0.0543	ug/L	-0.0543 ppb	18:54:53
3	Sn 189.927†	17.5	9.4	1.7400	ug/L	1.7400 ppb	18:54:53
3	Ti 334.940†	-1237.4	25.4	0.0361	ug/L	0.0361 ppb	18:54:33
3	Tl 190.801†	-36.8	-3.9	-1.2348	ug/L	-1.2348 ppb	18:54:53
3	U 409.014†	-2869.7	16.6	0.4847	ug/L	0.4847 ppb	18:54:33
3	V 292.402†	-1506.7	-1.3	0.0018	ug/L	0.0018 ppb	18:54:33
3	Zn 213.857†	714.3	24.4	0.2452	ug/L	0.2452 ppb	18:54:53
3	SiO2†	536.2	-29.4	-2.1068	ug/L	-2.1068 ppb	18:55:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	836046.6	96.979	%	0.6171				0.64%
Sc Radial	4905.4	102	%	0.3				0.26%
Y 371.029	681568.5	95.377	%	0.6257				0.66%
Y RADIAL	5136.2	102.7	%	0.32				0.32%
Ag 328.068†	-7.4	-0.0368	ug/L	0.08029	-0.0368	ppb	0.08029	218.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.8	2.5553	ug/L	5.49160	2.5553	ppb	5.49160	214.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.5	3.4017	ug/L	3.51107	3.4017	ppb	3.51107	103.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	123.7	2.9440	ug/L	0.23149	2.9440	ppb	0.23149	7.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.8	-0.0473	ug/L	0.10557	-0.0473	ppb	0.10557	223.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-49.1	-0.0184	ug/L	0.01688	-0.0184	ppb	0.01688	91.90%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.9	-1.4727	ug/L	3.94754	-1.4727	ppb	3.94754	268.05%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.3      0.1347 ug/L       0.08629      0.1347 ppb        0.08629  64.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.3      0.0717 ug/L       0.10808      0.0717 ppb        0.10808 150.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.5      0.2281 ug/L       0.06783      0.2281 ppb        0.06783  29.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -323.4     -0.9807 ug/L       0.04247     -0.9807 ppb        0.04247   4.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.4     -12.894 ug/L        8.7907     -12.894 ppb         8.7907  68.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -132.6     -23.431 ug/L       10.7004     -23.431 ppb        10.7004  45.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      43.125 ug/L       31.4483      43.125 ppb        31.4483  72.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 7.2      0.0052 ug/L       0.01190      0.0052 ppb        0.01190 226.83%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.2      0.2410 ug/L       0.21405      0.2410 ppb        0.21405  88.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        187.0      56.569 ug/L        2.5072      56.569 ppb         2.5072   4.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.4     -0.2432 ug/L       0.24428     -0.2432 ppb        0.24428 100.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  7.8      5.0874 ug/L       4.05476      5.0874 ppb        4.05476  79.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.4      0.0559 ug/L       0.23589      0.0559 ppb        0.23589 422.17%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.3      0.4426 ug/L       4.20376      0.4426 ppb        4.20376 949.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.6      0.2382 ug/L       1.64573      0.2382 ppb        1.64573 691.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.5      4.3483 ug/L       2.60263      4.3483 ppb        2.60263  59.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 8.1      0.2691 ug/L       0.28137      0.2691 ppb        0.28137 104.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.4      0.6263 ug/L       0.99508      0.6263 ppb        0.99508 158.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.1      0.0427 ug/L       0.08826      0.0427 ppb        0.08826 206.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -24.1     -0.0422 ug/L       0.12076     -0.0422 ppb        0.12076 286.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.1     -0.9795 ug/L       0.23985     -0.9795 ppb        0.23985  24.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -59.2     -1.7150 ug/L       5.84556     -1.7150 ppb        5.84556 340.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 38.8      0.2847 ug/L       0.25081      0.2847 ppb        0.25081  88.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.3      0.2445 ug/L       0.05540      0.2445 ppb        0.05540  22.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -7.8     -0.5637 ug/L       2.32398     -0.5637 ppb        2.32398 412.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 19:44:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4892.3	4892.3	102	%			19:46:38
1	Y RADIAL	5112.4	5112.4	102.2	%			19:46:38
1	Al 396.153Radial†	5389.9	5447.4	5032.1	ug/L	5032.1	ppb	19:46:38
1	Ca 317.933Radial†	3106.7	3035.7	5031.5	ug/L	5031.5	ppb	19:46:58
1	Fe 238.204 Radial†	582.8	561.1	5121.1	ug/L	5121.1	ppb	19:46:58
1	K 766.490 Radial†	30986.8	27620.3	4869.1	ug/L	4869.1	ppb	19:46:38
1	Mg 279.077 IEC†	151.9	148.9	5276.1	ug/L	5276.1	ppb	19:46:58
1	Na 589.592 Radial†	33473.1	33967.4	10273	ug/L	10273	ppb	19:46:38
1	Sr 421.552†	76828.8	75485.9	529.36	ug/L	529.36	ppb	19:46:38
1	Sc 361.383	844484.5	844484.5	97.957	%			19:47:55
1	Y 371.029	681689.6	681689.6	95.394	%			19:47:55
1	Ag 328.068†	103140.5	105062.5	498.27	ug/L	498.27	ppb	19:48:00
1	As 188.979†	1039.4	1095.0	501.16	ug/L	501.16	ppb	19:48:20
1	B 249.677†	20002.0	20958.2	496.29	ug/L	496.29	ppb	19:48:00
1	Ba 233.527†	60529.7	61803.5	505.97	ug/L	505.97	ppb	19:48:00
1	Be 313.107†	1301198.0	1332670.4	497.51	ug/L	497.51	ppb	19:47:55
1	Cd 226.502†	40393.4	41447.7	492.65	ug/L	492.65	ppb	19:48:00
1	Co 228.616†	23070.9	23625.7	516.11	ug/L	516.11	ppb	19:48:00
1	Cr 267.716†	41389.4	42185.7	491.73	ug/L	491.73	ppb	19:48:00
1	Cu 324.752†	167859.6	165539.2	502.16	ug/L	502.16	ppb	19:48:00
1	Mn 257.610†	428823.2	437313.5	503.43	ug/L	503.43	ppb	19:47:55
1	Mo 202.031†	6419.3	6537.7	490.05	ug/L	490.05	ppb	19:48:20
1	Ni 231.604†	18874.1	19159.7	496.05	ug/L	496.05	ppb	19:48:00
1	P 214.914†	4137.6	3995.8	2388.5	ug/L	2388.5	ppb	19:48:20
1	Pb 220.353†	3795.3	3936.2	492.64	ug/L	492.64	ppb	19:48:20
1	S 181.975 Axial†	700.3	675.5	984.14	ug/L	984.14	ppb	19:48:20
1	Sb 206.836†	1431.4	1419.1	512.14	ug/L	512.14	ppb	19:48:20
1	Se 196.026†	696.6	733.2	512.13	ug/L	512.13	ppb	19:48:20
1	Si 251.611†	74449.7	75439.9	2517.3	ug/L	2517.3	ppb	19:48:00
1	Sn 189.927†	2568.9	2613.8	485.91	ug/L	485.91	ppb	19:48:20
1	Ti 334.940†	301008.1	308588.2	500.37	ug/L	500.37	ppb	19:48:00
1	Tl 190.801†	1493.0	1558.3	502.73	ug/L	502.73	ppb	19:48:20
1	U 409.014†	13492.5	16753.9	484.12	ug/L	484.12	ppb	19:48:00
1	V 292.402†	64755.7	67660.7	497.86	ug/L	497.86	ppb	19:48:00
1	Zn 213.857†	50498.5	50838.3	496.94	ug/L	496.94	ppb	19:48:00
1	SiO2†	75442.2	76432.3	5438.7	ug/L	5438.7	ppb	19:49:28
2	Sc Radial	4782.0	4782.0	99.5	%			19:47:03
2	Y RADIAL	4979.5	4979.5	99.58	%			19:47:03
2	Al 396.153Radial†	5208.0	5386.8	4976.2	ug/L	4976.2	ppb	19:47:03
2	Ca 317.933Radial†	3091.1	3090.4	5122.2	ug/L	5122.2	ppb	19:47:23
2	Fe 238.204 Radial†	582.3	573.8	5236.4	ug/L	5236.4	ppb	19:47:23
2	K 766.490 Radial†	30491.7	27824.8	4905.2	ug/L	4905.2	ppb	19:47:03
2	Mg 279.077 IEC†	147.8	148.2	5251.0	ug/L	5251.0	ppb	19:47:23
2	Na 589.592 Radial†	32580.7	33828.9	10232	ug/L	10232	ppb	19:47:03
2	Sr 421.552†	74747.4	75134.6	526.89	ug/L	526.89	ppb	19:47:03
2	Sc 361.383	856895.4	856895.4	99.397	%			19:48:26
2	Y 371.029	690435.0	690435.0	96.618	%			19:48:26
2	Ag 328.068†	104436.2	104841.1	497.26	ug/L	497.26	ppb	19:48:31
2	As 188.979†	1044.1	1084.3	496.39	ug/L	496.39	ppb	19:48:51
2	B 249.677†	20451.7	21114.8	500.00	ug/L	500.00	ppb	19:48:31
2	Ba 233.527†	61609.6	61995.0	507.54	ug/L	507.54	ppb	19:48:31
2	Be 313.107†	1320688.0	1333039.6	497.65	ug/L	497.65	ppb	19:48:26
2	Cd 226.502†	41209.8	41671.7	495.31	ug/L	495.31	ppb	19:48:31
2	Co 228.616†	23425.5	23641.4	516.43	ug/L	516.43	ppb	19:48:31
2	Cr 267.716†	41989.6	42177.6	491.63	ug/L	491.63	ppb	19:48:31
2	Cu 324.752†	170215.1	165427.1	501.82	ug/L	501.82	ppb	19:48:31
2	Mn 257.610†	436421.0	438617.0	504.94	ug/L	504.94	ppb	19:48:26
2	Mo 202.031†	6405.2	6428.6	481.89	ug/L	481.89	ppb	19:48:51
2	Ni 231.604†	19185.4	19193.8	496.94	ug/L	496.94	ppb	19:48:31

2	P 214.914†	4158.5	3955.6	2363.4 ug/L	2363.4 ppb	19:48:51
2	Pb 220.353†	3773.7	3858.4	482.89 ug/L	482.89 ppb	19:48:51
2	S 181.975 Axial†	705.7	670.6	976.97 ug/L	976.97 ppb	19:48:51
2	Sb 206.836†	1426.4	1392.9	502.77 ug/L	502.77 ppb	19:48:51
2	Se 196.026†	687.9	714.1	499.62 ug/L	499.62 ppb	19:48:51
2	Si 251.611†	75761.2	75658.5	2524.7 ug/L	2524.7 ppb	19:48:31
2	Sn 189.927†	2569.5	2576.4	478.98 ug/L	478.98 ppb	19:48:51
2	Ti 334.940†	305617.9	308775.3	500.68 ug/L	500.68 ppb	19:48:31
2	Tl 190.801†	1491.7	1534.9	495.25 ug/L	495.25 ppb	19:48:51
2	U 409.014†	14066.9	17132.3	495.08 ug/L	495.08 ppb	19:48:31
2	V 292.402†	65675.9	67629.0	497.52 ug/L	497.52 ppb	19:48:31
2	Zn 213.857†	51346.8	50945.1	497.97 ug/L	497.97 ppb	19:48:31
2	SiO2†	75358.0	75232.1	5353.3 ug/L	5353.3 ppb	19:49:33
3	Sc Radial	4857.0	4857.0	101 %		19:47:28
3	Y RADIAL	5072.2	5072.2	101.4 %		19:47:28
3	Al 396.153Radial†	5263.2	5360.5	4951.5 ug/L	4951.5 ppb	19:47:28
3	Ca 317.933Radial†	3091.6	3043.0	5043.5 ug/L	5043.5 ppb	19:47:48
3	Fe 238.204 Radial†	582.0	564.5	5151.4 ug/L	5151.4 ppb	19:47:48
3	K 766.490 Radial†	30787.4	27644.1	4873.3 ug/L	4873.3 ppb	19:47:28
3	Mg 279.077 IEC†	151.1	149.1	5283.6 ug/L	5283.6 ppb	19:47:48
3	Na 589.592 Radial†	32913.7	33652.6	10178 ug/L	10178 ppb	19:47:28
3	Sr 421.552†	75619.1	74836.9	524.80 ug/L	524.80 ppb	19:47:28
3	Sc 361.383	846381.8	846381.8	98.177 %		19:48:57
3	Y 371.029	680808.1	680808.1	95.271 %		19:48:57
3	Ag 328.068†	102802.8	104482.5	495.53 ug/L	495.53 ppb	19:49:02
3	As 188.979†	1031.0	1084.0	496.19 ug/L	496.19 ppb	19:49:22
3	B 249.677†	19986.5	20896.6	494.83 ug/L	494.83 ppb	19:49:02
3	Ba 233.527†	60362.9	61495.1	503.44 ug/L	503.44 ppb	19:49:02
3	Be 313.107†	1301355.3	1329852.9	496.46 ug/L	496.46 ppb	19:48:57
3	Cd 226.502†	40284.5	41244.3	490.23 ug/L	490.23 ppb	19:49:02
3	Co 228.616†	22925.6	23424.9	511.72 ug/L	511.72 ppb	19:49:02
3	Cr 267.716†	41166.6	41864.1	487.98 ug/L	487.98 ppb	19:49:02
3	Cu 324.752†	167352.8	164638.8	499.43 ug/L	499.43 ppb	19:49:02
3	Mn 257.610†	430983.2	438532.3	504.83 ug/L	504.83 ppb	19:48:57
3	Mo 202.031†	6404.5	6507.9	487.82 ug/L	487.82 ppb	19:49:22
3	Ni 231.604†	18742.0	18981.9	491.45 ug/L	491.45 ppb	19:49:02
3	P 214.914†	4117.9	3966.2	2370.6 ug/L	2370.6 ppb	19:49:22
3	Pb 220.353†	3788.3	3920.3	490.64 ug/L	490.64 ppb	19:49:22
3	S 181.975 Axial†	704.0	677.7	987.32 ug/L	987.32 ppb	19:49:22
3	Sb 206.836†	1439.5	1424.0	513.80 ug/L	513.80 ppb	19:49:22
3	Se 196.026†	692.5	727.5	508.37 ug/L	508.37 ppb	19:49:22
3	Si 251.611†	74242.6	75058.6	2504.6 ug/L	2504.6 ppb	19:49:02
3	Sn 189.927†	2564.2	2603.1	483.92 ug/L	483.92 ppb	19:49:22
3	Ti 334.940†	300261.1	307138.4	498.02 ug/L	498.02 ppb	19:49:02
3	Tl 190.801†	1482.5	1544.3	498.24 ug/L	498.24 ppb	19:49:22
3	U 409.014†	13522.0	16753.1	484.10 ug/L	484.10 ppb	19:49:02
3	V 292.402†	64464.8	67216.2	494.60 ug/L	494.60 ppb	19:49:02
3	Zn 213.857†	50386.1	50608.2	494.70 ug/L	494.70 ppb	19:49:02
3	SiO2†	74726.5	75530.7	5374.5 ug/L	5374.5 ppb	19:49:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849253.9	98.511	%	0.7755				0.79%
Sc Radial	4843.8	101	%	1.2				1.16%
Y 371.029	684310.9	95.761	%	0.7447				0.78%
Y RADIAL	5054.7	101.1	%	1.36				1.35%
Ag 328.068†	104795.3	497.02	ug/L	1.383	497.02	ppb	1.383	0.28%
QC value within limits for Ag 328.068 Recovery = 99.40%								
Al 396.153Radial†	5398.2	4986.6	ug/L	41.26	4986.6	ppb	41.26	0.83%
QC value within limits for Al 396.153Radial Recovery = 99.73%								
As 188.979†	1087.8	497.91	ug/L	2.815	497.91	ppb	2.815	0.57%
QC value within limits for As 188.979 Recovery = 99.58%								
B 249.677†	20989.8	497.04	ug/L	2.663	497.04	ppb	2.663	0.54%
QC value within limits for B 249.677 Recovery = 99.41%								
Ba 233.527†	61764.5	505.65	ug/L	2.065	505.65	ppb	2.065	0.41%
QC value within limits for Ba 233.527 Recovery = 101.13%								
Be 313.107†	1331854.3	497.21	ug/L	0.653	497.21	ppb	0.653	0.13%
QC value within limits for Be 313.107 Recovery = 99.44%								
Ca 317.933Radial†	3056.4	5065.7	ug/L	49.26	5065.7	ppb	49.26	0.97%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.31%
Cd 226.502†            41454.5      492.73 ug/L         2.540      492.73 ppb          2.540   0.52%
   QC value within limits for Cd 226.502  Recovery = 98.55%
Co 228.616†            23564.0      514.75 ug/L         2.630      514.75 ppb          2.630   0.51%
   QC value within limits for Co 228.616  Recovery = 102.95%
Cr 267.716†            42075.8      490.44 ug/L         2.136      490.44 ppb          2.136   0.44%
   QC value within limits for Cr 267.716  Recovery = 98.09%
Cu 324.752†           165201.7      501.14 ug/L         1.488      501.14 ppb          1.488   0.30%
   QC value within limits for Cu 324.752  Recovery = 100.23%
Fe 238.204 Radial†       566.5      5169.6 ug/L         59.79      5169.6 ppb          59.79   1.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.39%
K 766.490 Radial†      27696.4      4882.5 ug/L         19.73      4882.5 ppb          19.73   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 97.65%
Mg 279.077 IEC†          148.7      5270.3 ug/L         17.06      5270.3 ppb          17.06   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.41%
Mn 257.610†           438154.2      504.40 ug/L         0.844      504.40 ppb          0.844   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.88%
Mo 202.031†             6491.4      486.59 ug/L         4.218      486.59 ppb          4.218   0.87%
   QC value within limits for Mo 202.031  Recovery = 97.32%
Na 589.592 Radial†     33816.3       10228 ug/L          47.7       10228 ppb           47.7   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 102.28%
Ni 231.604†            19111.8      494.81 ug/L         2.946      494.81 ppb          2.946   0.60%
   QC value within limits for Ni 231.604  Recovery = 98.96%
P 214.914†              3972.6      2374.2 ug/L         12.95      2374.2 ppb          12.95   0.55%
   QC value within limits for P 214.914  Recovery = 94.97%
Pb 220.353†             3904.9      488.73 ug/L         5.148      488.73 ppb          5.148   1.05%
   QC value within limits for Pb 220.353  Recovery = 97.75%
S 181.975 Axial†         674.6      982.81 ug/L         5.304      982.81 ppb          5.304   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 98.28%
Sb 206.836†             1412.0      509.57 ug/L         5.950      509.57 ppb          5.950   1.17%
   QC value within limits for Sb 206.836  Recovery = 101.91%
Se 196.026†              725.0      506.71 ug/L         6.419      506.71 ppb          6.419   1.27%
   QC value within limits for Se 196.026  Recovery = 101.34%
Si 251.611†            75385.7      2515.6 ug/L         10.19      2515.6 ppb          10.19   0.40%
   QC value within limits for Si 251.611  Recovery = 100.62%
Sn 189.927†             2597.7      482.93 ug/L         3.569      482.93 ppb          3.569   0.74%
   QC value within limits for Sn 189.927  Recovery = 96.59%
Sr 421.552†            75152.5      527.02 ug/L         2.278      527.02 ppb          2.278   0.43%
   QC value within limits for Sr 421.552  Recovery = 105.40%
Ti 334.940†           308167.3      499.69 ug/L         1.455      499.69 ppb          1.455   0.29%
   QC value within limits for Ti 334.940  Recovery = 99.94%
Tl 190.801†             1545.8      498.74 ug/L         3.770      498.74 ppb          3.770   0.76%
   QC value within limits for Tl 190.801  Recovery = 99.75%
U 409.014†             16879.8      487.77 ug/L         6.333      487.77 ppb          6.333   1.30%
   QC value within limits for U 409.014  Recovery = 97.55%
V 292.402†             67501.9      496.66 ug/L         1.792      496.66 ppb          1.792   0.36%
   QC value within limits for V 292.402  Recovery = 99.33%
Zn 213.857†            50797.2      496.53 ug/L         1.673      496.53 ppb          1.673   0.34%
   QC value within limits for Zn 213.857  Recovery = 99.31%
SiO2†                  75731.7      5388.8 ug/L         44.47      5388.8 ppb          44.47   0.83%
   QC value within limits for SiO2  Recovery = 100.77%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 19:51:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4852.6	4852.6	101	%			19:53:40
1	Y RADIAL	5104.9	5104.9	102.1	%			19:53:40
1	Al 396.153Radial†	-156.8	-3.7	-3.4672	ug/L	-3.4672	ppb	19:53:40
1	Ca 317.933Radial†	13.3	-3.5	-5.7723	ug/L	-5.7723	ppb	19:54:00
1	Fe 238.204 Radial†	11.1	-0.5	-4.3777	ug/L	-4.3777	ppb	19:54:00
1	K 766.490 Radial†	2923.7	70.5	12.423	ug/L	12.423	ppb	19:53:40
1	Mg 279.077 IEC†	4.4	3.9	139.91	ug/L	139.91	ppb	19:54:00
1	Na 589.592 Radial†	-915.0	172.1	52.065	ug/L	52.065	ppb	19:53:40
1	Sr 421.552†	-6.2	-8.2	-0.0577	ug/L	-0.0577	ppb	19:53:40
1	Sc 361.383	845000.9	845000.9	98.017	%			19:54:57
1	Y 371.029	690047.0	690047.0	96.564	%			19:54:57
1	Ag 328.068†	339.3	117.3	0.5487	ug/L	0.5487	ppb	19:54:57
1	As 188.979†	-28.0	5.3	2.4128	ug/L	2.4128	ppb	19:55:17
1	B 249.677†	-298.5	234.5	5.5805	ug/L	5.5805	ppb	19:55:17
1	Ba 233.527†	-12.0	-0.7	-0.0055	ug/L	-0.0055	ppb	19:55:17
1	Be 313.107†	-4157.8	96.8	0.0361	ug/L	0.0361	ppb	19:54:57
1	Cd 226.502†	-196.0	12.0	0.1432	ug/L	0.1432	ppb	19:55:17
1	Co 228.616†	-79.3	-7.1	-0.1547	ug/L	-0.1547	ppb	19:55:17
1	Cr 267.716†	74.4	9.1	0.1043	ug/L	0.1043	ppb	19:55:17
1	Cu 324.752†	5390.6	-321.1	-0.9765	ug/L	-0.9765	ppb	19:54:57
1	Mn 257.610†	508.7	67.1	0.0710	ug/L	0.0710	ppb	19:55:17
1	Mo 202.031†	23.3	8.3	0.6191	ug/L	0.6191	ppb	19:55:17
1	Ni 231.604†	92.1	-14.0	-0.3633	ug/L	-0.3633	ppb	19:55:17
1	P 214.914†	239.6	16.4	10.413	ug/L	10.413	ppb	19:55:17
1	Pb 220.353†	-62.4	-2.0	-0.2437	ug/L	-0.2437	ppb	19:55:17
1	S 181.975 Axial†	39.4	0.9	1.2460	ug/L	1.2460	ppb	19:55:17
1	Sb 206.836†	39.6	-1.7	-0.5625	ug/L	-0.5625	ppb	19:55:17
1	Se 196.026†	-21.7	-0.0	-0.0403	ug/L	-0.0403	ppb	19:55:17
1	Si 251.611†	638.1	88.8	2.9615	ug/L	2.9615	ppb	19:55:17
1	Sn 189.927†	16.1	7.7	1.4322	ug/L	1.4322	ppb	19:55:17
1	Ti 334.940†	-1251.8	26.1	0.0284	ug/L	0.0284	ppb	19:54:57
1	Tl 190.801†	-32.4	1.2	0.3822	ug/L	0.3822	ppb	19:55:17
1	U 409.014†	-2790.5	133.1	3.8593	ug/L	3.8593	ppb	19:54:57
1	V 292.402†	-1514.3	9.7	0.0897	ug/L	0.0897	ppb	19:54:57
1	Zn 213.857†	718.1	19.4	0.1959	ug/L	0.1959	ppb	19:55:17
1	SiO2†	634.2	63.9	4.5404	ug/L	4.5404	ppb	19:56:13
2	Sc Radial	4870.6	4870.6	101	%			19:54:05
2	Y RADIAL	5110.5	5110.5	102.2	%			19:54:05
2	Al 396.153Radial†	-132.3	21.0	19.477	ug/L	19.477	ppb	19:54:05
2	Ca 317.933Radial†	19.5	2.6	4.2675	ug/L	4.2675	ppb	19:54:25
2	Fe 238.204 Radial†	12.6	1.0	8.9535	ug/L	8.9535	ppb	19:54:25
2	K 766.490 Radial†	2956.4	92.0	16.228	ug/L	16.228	ppb	19:54:05
2	Mg 279.077 IEC†	1.4	1.0	35.252	ug/L	35.252	ppb	19:54:25
2	Na 589.592 Radial†	-939.4	151.4	45.801	ug/L	45.801	ppb	19:54:05
2	Sr 421.552†	6.8	4.6	0.0326	ug/L	0.0326	ppb	19:54:05
2	Sc 361.383	846282.8	846282.8	98.166	%			19:55:22
2	Y 371.029	690372.9	690372.9	96.609	%			19:55:22
2	Ag 328.068†	232.9	8.5	0.0439	ug/L	0.0439	ppb	19:55:22
2	As 188.979†	-24.3	9.1	4.1481	ug/L	4.1481	ppb	19:55:42
2	B 249.677†	-293.7	239.8	5.7033	ug/L	5.7033	ppb	19:55:42
2	Ba 233.527†	-8.8	2.6	0.0218	ug/L	0.0218	ppb	19:55:42
2	Be 313.107†	-4166.7	94.1	0.0352	ug/L	0.0352	ppb	19:55:22
2	Cd 226.502†	-202.2	5.9	0.0690	ug/L	0.0690	ppb	19:55:42
2	Co 228.616†	-64.1	8.4	0.1860	ug/L	0.1860	ppb	19:55:42
2	Cr 267.716†	68.4	2.9	0.0342	ug/L	0.0342	ppb	19:55:42
2	Cu 324.752†	5417.8	-301.7	-0.9143	ug/L	-0.9143	ppb	19:55:22
2	Mn 257.610†	481.7	38.8	0.0440	ug/L	0.0440	ppb	19:55:42
2	Mo 202.031†	25.6	10.5	0.7882	ug/L	0.7882	ppb	19:55:42
2	Ni 231.604†	80.0	-26.5	-0.6859	ug/L	-0.6859	ppb	19:55:42

2	P 214.914†	243.5	20.0	12.633 ug/L	12.633 ppb	19:55:42
2	Pb 220.353†	-66.6	-6.1	-0.7606 ug/L	-0.7606 ppb	19:55:42
2	S 181.975 Axial†	38.1	-0.5	-0.7480 ug/L	-0.7480 ppb	19:55:42
2	Sb 206.836†	46.1	4.9	1.7428 ug/L	1.7428 ppb	19:55:42
2	Se 196.026†	-16.5	5.3	3.6098 ug/L	3.6098 ppb	19:55:42
2	Si 251.611†	609.8	58.9	1.9608 ug/L	1.9608 ppb	19:55:42
2	Sn 189.927†	20.3	12.0	2.2248 ug/L	2.2248 ppb	19:55:42
2	Ti 334.940†	-1234.0	46.1	0.0729 ug/L	0.0729 ppb	19:55:22
2	Tl 190.801†	-28.0	5.7	1.8148 ug/L	1.8148 ppb	19:55:42
2	U 409.014†	-2955.9	-31.1	-0.9016 ug/L	-0.9016 ppb	19:55:22
2	V 292.402†	-1517.6	8.7	0.0716 ug/L	0.0716 ppb	19:55:22
2	Zn 213.857†	711.6	11.7	0.1193 ug/L	0.1193 ppb	19:55:42
2	SiO2†	637.5	66.3	4.7055 ug/L	4.7055 ppb	19:56:18
3	Sc Radial	4823.0	4823.0	100 %		19:54:30
3	Y RADIAL	5057.4	5057.4	101.1 %		19:54:30
3	Al 396.153Radial†	-142.5	9.6	8.8790 ug/L	8.8790 ppb	19:54:30
3	Ca 317.933Radial†	17.0	0.3	0.4427 ug/L	0.4427 ppb	19:54:50
3	Fe 238.204 Radial†	12.6	1.1	9.6699 ug/L	9.6699 ppb	19:54:50
3	K 766.490 Radial†	2863.2	27.9	4.9112 ug/L	4.9112 ppb	19:54:30
3	Mg 279.077 IEC†	-0.3	-0.7	-26.259 ug/L	-26.259 ppb	19:54:50
3	Na 589.592 Radial†	-955.9	125.8	38.039 ug/L	38.039 ppb	19:54:30
3	Sr 421.552†	16.6	14.5	0.1015 ug/L	0.1015 ppb	19:54:30
3	Sc 361.383	846616.8	846616.8	98.205 %		19:55:47
3	Y 371.029	689796.8	689796.8	96.529 %		19:55:47
3	Ag 328.068†	217.5	-7.3	-0.0282 ug/L	-0.0282 ppb	19:55:47
3	As 188.979†	-25.1	8.3	3.7642 ug/L	3.7642 ppb	19:56:07
3	B 249.677†	-307.9	225.5	5.3638 ug/L	5.3638 ppb	19:56:07
3	Ba 233.527†	-14.6	-3.3	-0.0260 ug/L	-0.0260 ppb	19:56:07
3	Be 313.107†	-4125.1	138.2	0.0511 ug/L	0.0511 ppb	19:55:47
3	Cd 226.502†	-201.9	6.4	0.0738 ug/L	0.0738 ppb	19:56:07
3	Co 228.616†	-70.2	2.2	0.0507 ug/L	0.0507 ppb	19:56:07
3	Cr 267.716†	71.7	6.3	0.0743 ug/L	0.0743 ppb	19:56:07
3	Cu 324.752†	5375.8	-346.7	-1.0501 ug/L	-1.0501 ppb	19:55:47
3	Mn 257.610†	478.6	35.5	0.0429 ug/L	0.0429 ppb	19:56:07
3	Mo 202.031†	25.7	10.6	0.7942 ug/L	0.7942 ppb	19:56:07
3	Ni 231.604†	84.5	-22.0	-0.5696 ug/L	-0.5696 ppb	19:56:07
3	P 214.914†	244.1	20.5	12.977 ug/L	12.977 ppb	19:56:07
3	Pb 220.353†	-60.1	0.6	0.0728 ug/L	0.0728 ppb	19:56:07
3	S 181.975 Axial†	36.6	-2.1	-3.0922 ug/L	-3.0922 ppb	19:56:07
3	Sb 206.836†	39.0	-2.5	-0.8359 ug/L	-0.8359 ppb	19:56:07
3	Se 196.026†	-16.8	5.1	3.4383 ug/L	3.4383 ppb	19:56:07
3	Si 251.611†	601.2	49.9	1.6596 ug/L	1.6596 ppb	19:56:07
3	Sn 189.927†	13.5	5.1	0.9382 ug/L	0.9382 ppb	19:56:07
3	Ti 334.940†	-1388.3	-110.5	-0.1763 ug/L	-0.1763 ppb	19:55:47
3	Tl 190.801†	-31.7	1.9	0.6171 ug/L	0.6171 ppb	19:56:07
3	U 409.014†	-2987.1	-61.6	-1.7881 ug/L	-1.7881 ppb	19:55:47
3	V 292.402†	-1484.1	43.4	0.3211 ug/L	0.3211 ppb	19:55:47
3	Zn 213.857†	720.5	20.4	0.2048 ug/L	0.2048 ppb	19:56:07
3	SiO2†	674.5	103.7	7.3722 ug/L	7.3722 ppb	19:56:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845966.8	98.129	%	0.0989				0.10%
Sc Radial	4848.7	101	%	0.5				0.50%
Y 371.029	690072.3	96.567	%	0.0404				0.04%
Y RADIAL	5090.9	101.8	%	0.58				0.57%
Ag 328.068†	39.5	0.1881	ug/L	0.31431	0.1881	ppb	0.31431	167.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.0	8.2962	ug/L	11.48308	8.2962	ppb	11.48308	138.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.6	3.4417	ug/L	0.91151	3.4417	ppb	0.91151	26.48%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	233.3	5.5492	ug/L	0.17189	5.5492	ppb	0.17189	3.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.5	-0.0032	ug/L	0.02400	-0.0032	ppb	0.02400	743.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	109.7	0.0408	ug/L	0.00890	0.0408	ppb	0.00890	21.80%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.2	-0.3541	ug/L	5.06709	-0.3541	ppb	5.06709	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.1      0.0953 ug/L       0.04151      0.0953 ppb        0.04151  43.54%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.2      0.0273 ug/L       0.17156      0.0273 ppb        0.17156 627.74%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.1      0.0709 ug/L       0.03516      0.0709 ppb        0.03516  49.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -323.2     -0.9803 ug/L       0.06800     -0.9803 ppb        0.06800   6.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      4.7485 ug/L       7.91170      4.7485 ppb        7.91170 166.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          63.5     11.188 ug/L        5.7588     11.188 ppb         5.7588  51.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.4     49.635 ug/L       84.0147     49.635 ppb        84.0147 169.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                47.1      0.0526 ug/L       0.01593      0.0526 ppb        0.01593  30.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.8      0.7338 ug/L       0.09940      0.7338 ppb        0.09940  13.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        149.8     45.302 ug/L        7.0264     45.302 ppb         7.0264  15.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -20.8     -0.5396 ug/L       0.16340     -0.5396 ppb        0.16340  30.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 19.0     12.008 ug/L        1.3913     12.008 ppb         1.3913  11.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.5     -0.3105 ug/L       0.42069     -0.3105 ppb        0.42069 135.47%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6     -0.8647 ug/L       2.17143     -0.8647 ppb        2.17143 251.11%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.2      0.1148 ug/L       1.41654      0.1148 ppb        1.41654 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      2.3359 ug/L       2.05969      2.3359 ppb        2.05969  88.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                65.9      2.1940 ug/L       0.68157      2.1940 ppb        0.68157  31.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.3      1.5317 ug/L       0.64906      1.5317 ppb        0.64906  42.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 3.6      0.0255 ug/L       0.07988      0.0255 ppb        0.07988 313.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -12.8     -0.0250 ug/L       0.13286     -0.0250 ppb        0.13286 531.34%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.9      0.9381 ug/L       0.76833      0.9381 ppb        0.76833  81.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 13.5      0.3899 ug/L       3.03713      0.3899 ppb        3.03713 778.98%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.6      0.1608 ug/L       0.13913      0.1608 ppb        0.13913  86.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                17.2      0.1733 ug/L       0.04702      0.1733 ppb        0.04702  27.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      77.9      5.5394 ug/L       1.58942      5.5394 ppb        1.58942  28.69%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 20:48:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4899.1	4899.1	102	%			20:50:08
1	Y RADIAL	5112.2	5112.2	102.2	%			20:50:08
1	Al 396.153Radial†	4741.7	4804.0	4435.2	ug/L	4435.2	ppb	20:50:08
1	Ca 317.933Radial†	3076.7	3002.1	4975.8	ug/L	4975.8	ppb	20:50:28
1	Fe 238.204 Radial†	575.5	553.1	5048.0	ug/L	5048.0	ppb	20:50:28
1	K 766.490 Radial†	28090.5	24736.2	4360.5	ug/L	4360.5	ppb	20:50:08
1	Mg 279.077 IEC†	148.4	145.2	5146.0	ug/L	5146.0	ppb	20:50:28
1	Na 589.592 Radial†	29278.3	29805.8	9014.7	ug/L	9014.7	ppb	20:50:08
1	Sr 421.552†	67832.8	66554.1	466.72	ug/L	466.72	ppb	20:50:08
1	Sc 361.383	861325.6	861325.6	99.911	%			20:51:26
1	Y 371.029	693563.4	693563.4	97.056	%			20:51:26
1	Ag 328.068†	103155.4	103018.7	488.58	ug/L	488.58	ppb	20:51:31
1	As 188.979†	1048.5	1083.3	495.78	ug/L	495.78	ppb	20:51:51
1	B 249.677†	19920.9	20477.8	484.90	ug/L	484.90	ppb	20:51:31
1	Ba 233.527†	60792.1	60858.0	498.22	ug/L	498.22	ppb	20:51:31
1	Be 313.107†	1321558.7	1327077.0	495.41	ug/L	495.41	ppb	20:51:26
1	Cd 226.502†	40605.2	40853.3	485.59	ug/L	485.59	ppb	20:51:31
1	Co 228.616†	23104.8	23199.1	506.80	ug/L	506.80	ppb	20:51:31
1	Cr 267.716†	41326.7	41296.8	481.36	ug/L	481.36	ppb	20:51:31
1	Cu 324.752†	167846.7	162175.8	491.95	ug/L	491.95	ppb	20:51:31
1	Mn 257.610†	437080.2	437018.4	503.08	ug/L	503.08	ppb	20:51:26
1	Mo 202.031†	6470.6	6460.9	484.29	ug/L	484.29	ppb	20:51:51
1	Ni 231.604†	18890.5	18799.3	486.72	ug/L	486.72	ppb	20:51:31
1	P 214.914†	4180.3	3956.0	2365.6	ug/L	2365.6	ppb	20:51:51
1	Pb 220.353†	3843.1	3908.2	489.03	ug/L	489.03	ppb	20:51:51
1	S 181.975 Axial†	707.4	668.7	974.26	ug/L	974.26	ppb	20:51:51
1	Sb 206.836†	1426.9	1386.1	500.48	ug/L	500.48	ppb	20:51:51
1	Se 196.026†	707.6	730.3	509.92	ug/L	509.92	ppb	20:51:51
1	Si 251.611†	74533.8	74038.0	2470.5	ug/L	2470.5	ppb	20:51:31
1	Sn 189.927†	2599.4	2593.0	482.04	ug/L	482.04	ppb	20:51:51
1	Ti 334.940†	301561.7	303134.1	491.53	ug/L	491.53	ppb	20:51:31
1	Tl 190.801†	1502.9	1538.4	496.34	ug/L	496.34	ppb	20:51:51
1	U 409.014†	13793.9	16786.2	485.09	ug/L	485.09	ppb	20:51:31
1	V 292.402†	64763.2	66375.7	488.47	ug/L	488.47	ppb	20:51:31
1	Zn 213.857†	50672.7	50004.7	488.80	ug/L	488.80	ppb	20:51:31
1	SiO2†	74868.3	74352.0	5290.5	ug/L	5290.5	ppb	20:52:58
2	Sc Radial	4892.8	4892.8	102	%			20:50:33
2	Y RADIAL	5100.9	5100.9	102.0	%			20:50:33
2	Al 396.153Radial†	5336.7	5394.6	4983.0	ug/L	4983.0	ppb	20:50:33
2	Ca 317.933Radial†	3058.0	2987.6	4951.8	ug/L	4951.8	ppb	20:50:53
2	Fe 238.204 Radial†	566.7	545.2	4976.2	ug/L	4976.2	ppb	20:50:53
2	K 766.490 Radial†	30754.6	27389.0	4828.4	ug/L	4828.4	ppb	20:50:33
2	Mg 279.077 IEC†	149.4	146.4	5188.0	ug/L	5188.0	ppb	20:50:53
2	Na 589.592 Radial†	32180.5	32694.0	9888.3	ug/L	9888.3	ppb	20:50:33
2	Sr 421.552†	75292.6	73968.5	518.72	ug/L	518.72	ppb	20:50:33
2	Sc 361.383	844206.4	844206.4	97.925	%			20:51:57
2	Y 371.029	679202.9	679202.9	95.046	%			20:51:57
2	Ag 328.068†	102741.0	104689.2	496.45	ug/L	496.45	ppb	20:52:02
2	As 188.979†	1053.5	1109.7	507.80	ug/L	507.80	ppb	20:52:22
2	B 249.677†	19810.9	20769.7	491.83	ug/L	491.83	ppb	20:52:02
2	Ba 233.527†	60434.9	61727.1	505.33	ug/L	505.33	ppb	20:52:02
2	Be 313.107†	1289243.1	1320899.8	493.13	ug/L	493.13	ppb	20:51:57
2	Cd 226.502†	40311.7	41377.7	491.84	ug/L	491.84	ppb	20:52:02
2	Co 228.616†	23015.3	23576.7	515.05	ug/L	515.05	ppb	20:52:02
2	Cr 267.716†	41179.5	41985.2	489.39	ug/L	489.39	ppb	20:52:02
2	Cu 324.752†	167315.2	165039.8	500.64	ug/L	500.64	ppb	20:52:02
2	Mn 257.610†	427878.7	436493.2	502.47	ug/L	502.47	ppb	20:51:57
2	Mo 202.031†	6441.8	6562.8	491.91	ug/L	491.91	ppb	20:52:22
2	Ni 231.604†	18780.4	19070.4	493.74	ug/L	493.74	ppb	20:52:02

2	P 214.914†	4164.6	4024.7	2407.0 ug/L	2407.0 ppb	20:52:22
2	Pb 220.353†	3795.0	3937.2	492.78 ug/L	492.78 ppb	20:52:22
2	S 181.975 Axial†	706.4	682.0	993.59 ug/L	993.59 ppb	20:52:22
2	Sb 206.836†	1441.2	1429.6	515.91 ug/L	515.91 ppb	20:52:22
2	Se 196.026†	700.2	737.1	514.29 ug/L	514.29 ppb	20:52:22
2	Si 251.611†	74215.9	75226.2	2510.2 ug/L	2510.2 ppb	20:52:02
2	Sn 189.927†	2592.0	2638.2	490.42 ug/L	490.42 ppb	20:52:22
2	Ti 334.940†	300363.3	308030.9	499.46 ug/L	499.46 ppb	20:52:02
2	Tl 190.801†	1504.6	1570.7	506.68 ug/L	506.68 ppb	20:52:22
2	U 409.014†	13438.4	16703.2	482.67 ug/L	482.67 ppb	20:52:02
2	V 292.402†	64334.6	67252.4	494.94 ug/L	494.94 ppb	20:52:02
2	Zn 213.857†	50349.3	50702.9	495.64 ug/L	495.64 ppb	20:52:02
2	SiO2†	74506.5	75502.1	5372.3 ug/L	5372.3 ppb	20:53:03
3	Sc Radial	4854.5	4854.5	101 %		20:50:58
3	Y RADIAL	5080.4	5080.4	101.6 %		20:50:58
3	Al 396.153Radial†	5329.3	5428.6	5014.9 ug/L	5014.9 ppb	20:50:58
3	Ca 317.933Radial†	3114.8	3067.5	5084.2 ug/L	5084.2 ppb	20:51:18
3	Fe 238.204 Radial†	577.4	560.3	5112.9 ug/L	5112.9 ppb	20:51:18
3	K 766.490 Radial†	30723.3	27596.2	4864.9 ug/L	4864.9 ppb	20:50:58
3	Mg 279.077 IEC†	146.8	144.9	5135.9 ug/L	5135.9 ppb	20:51:18
3	Na 589.592 Radial†	32229.4	32991.7	9978.3 ug/L	9978.3 ppb	20:50:58
3	Sr 421.552†	75312.8	74571.9	522.95 ug/L	522.95 ppb	20:50:58
3	Sc 361.383	856473.5	856473.5	99.348 %		20:52:28
3	Y 371.029	690691.2	690691.2	96.654 %		20:52:28
3	Ag 328.068†	103913.8	104367.0	494.98 ug/L	494.98 ppb	20:52:33
3	As 188.979†	1048.2	1088.9	498.41 ug/L	498.41 ppb	20:52:53
3	B 249.677†	20212.4	20884.1	494.54 ug/L	494.54 ppb	20:52:33
3	Ba 233.527†	61088.1	61500.6	503.49 ug/L	503.49 ppb	20:52:33
3	Be 313.107†	1307337.4	1320255.8	492.88 ug/L	492.88 ppb	20:52:28
3	Cd 226.502†	40820.8	41300.6	490.90 ug/L	490.90 ppb	20:52:33
3	Co 228.616†	23272.4	23498.8	513.33 ug/L	513.33 ppb	20:52:33
3	Cr 267.716†	41705.7	41912.6	488.54 ug/L	488.54 ppb	20:52:33
3	Cu 324.752†	169253.6	164543.7	499.14 ug/L	499.14 ppb	20:52:33
3	Mn 257.610†	431437.4	433816.9	499.41 ug/L	499.41 ppb	20:52:28
3	Mo 202.031†	6442.0	6468.7	484.88 ug/L	484.88 ppb	20:52:53
3	Ni 231.604†	19012.8	19029.6	492.69 ug/L	492.69 ppb	20:52:33
3	P 214.914†	4157.4	3956.6	2364.7 ug/L	2364.7 ppb	20:52:53
3	Pb 220.353†	3799.1	3885.7	486.34 ug/L	486.34 ppb	20:52:53
3	S 181.975 Axial†	700.5	665.8	969.89 ug/L	969.89 ppb	20:52:53
3	Sb 206.836†	1429.6	1396.8	504.20 ug/L	504.20 ppb	20:52:53
3	Se 196.026†	703.8	730.6	510.30 ug/L	510.30 ppb	20:52:53
3	Si 251.611†	75175.7	75106.8	2506.3 ug/L	2506.3 ppb	20:52:33
3	Sn 189.927†	2575.9	2584.1	480.41 ug/L	480.41 ppb	20:52:53
3	Ti 334.940†	303729.6	307026.1	497.85 ug/L	497.85 ppb	20:52:33
3	Tl 190.801†	1501.5	1545.6	498.63 ug/L	498.63 ppb	20:52:53
3	U 409.014†	13906.0	16977.3	490.61 ug/L	490.61 ppb	20:52:33
3	V 292.402†	65415.5	67399.5	495.90 ug/L	495.90 ppb	20:52:33
3	Zn 213.857†	50967.8	50589.0	494.51 ug/L	494.51 ppb	20:52:33
3	SiO2†	75069.8	74979.4	5335.2 ug/L	5335.2 ppb	20:53:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854001.8	99.061	%	1.0235				1.03%
Sc Radial	4882.1	102	%	0.5				0.49%
Y 371.029	687819.2	96.252	%	1.0634				1.10%
Y RADIAL	5097.8	101.9	%	0.32				0.32%
Ag 328.068†	104025.0	493.34	ug/L	4.186	493.34	ppb	4.186	0.85%
QC value within limits for Ag 328.068 Recovery = 98.67%								
Al 396.153Radial†	5209.1	4811.0	ug/L	325.83	4811.0	ppb	325.83	6.77%
QC value within limits for Al 396.153Radial Recovery = 96.22%								
As 188.979†	1094.0	500.66	ug/L	6.322	500.66	ppb	6.322	1.26%
QC value within limits for As 188.979 Recovery = 100.13%								
B 249.677†	20710.5	490.42	ug/L	4.971	490.42	ppb	4.971	1.01%
QC value within limits for B 249.677 Recovery = 98.08%								
Ba 233.527†	61361.9	502.35	ug/L	3.690	502.35	ppb	3.690	0.73%
QC value within limits for Ba 233.527 Recovery = 100.47%								
Be 313.107†	1322744.2	493.81	ug/L	1.394	493.81	ppb	1.394	0.28%
QC value within limits for Be 313.107 Recovery = 98.76%								
Ca 317.933Radial†	3019.1	5003.9	ug/L	70.59	5003.9	ppb	70.59	1.41%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.08%
Cd 226.502†            41177.2      489.44 ug/L         3.370      489.44 ppb          3.370   0.69%
   QC value within limits for Cd 226.502  Recovery = 97.89%
Co 228.616†            23424.9      511.73 ug/L         4.353      511.73 ppb          4.353   0.85%
   QC value within limits for Co 228.616  Recovery = 102.35%
Cr 267.716†            41731.6      486.43 ug/L         4.409      486.43 ppb          4.409   0.91%
   QC value within limits for Cr 267.716  Recovery = 97.29%
Cu 324.752†           163919.7      497.24 ug/L         4.642      497.24 ppb          4.642   0.93%
   QC value within limits for Cu 324.752  Recovery = 99.45%
Fe 238.204 Radial†       552.9      5045.7 ug/L        68.38      5045.7 ppb         68.38   1.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.91%
K 766.490 Radial†      26573.8      4684.6 ug/L       281.29      4684.6 ppb        281.29   6.00%
   QC value within limits for K 766.490 Radial  Recovery = 93.69%
Mg 279.077 IEC†          145.5      5156.6 ug/L        27.63      5156.6 ppb         27.63   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.13%
Mn 257.610†           435776.2      501.65 ug/L         1.970      501.65 ppb          1.970   0.39%
   QC value within limits for Mn 257.610  Recovery = 100.33%
Mo 202.031†             6497.5      487.03 ug/L         4.240      487.03 ppb          4.240   0.87%
   QC value within limits for Mo 202.031  Recovery = 97.41%
Na 589.592 Radial†     31830.5      9627.1 ug/L       532.23      9627.1 ppb        532.23   5.53%
   QC value within limits for Na 589.592 Radial  Recovery = 96.27%
Ni 231.604†            18966.4      491.05 ug/L         3.783      491.05 ppb          3.783   0.77%
   QC value within limits for Ni 231.604  Recovery = 98.21%
P 214.914†              3979.1      2379.1 ug/L        24.15      2379.1 ppb         24.15   1.01%
   QC value within limits for P 214.914  Recovery = 95.16%
Pb 220.353†             3910.4      489.38 ug/L         3.235      489.38 ppb          3.235   0.66%
   QC value within limits for Pb 220.353  Recovery = 97.88%
S 181.975 Axial†         672.2      979.25 ug/L        12.614      979.25 ppb         12.614   1.29%
   QC value within limits for S 181.975 Axial  Recovery = 97.92%
Sb 206.836†             1404.2      506.87 ug/L         8.055      506.87 ppb          8.055   1.59%
   QC value within limits for Sb 206.836  Recovery = 101.37%
Se 196.026†              732.7      511.50 ug/L         2.420      511.50 ppb          2.420   0.47%
   QC value within limits for Se 196.026  Recovery = 102.30%
Si 251.611†            74790.3      2495.6 ug/L        21.85      2495.6 ppb         21.85   0.88%
   QC value within limits for Si 251.611  Recovery = 99.83%
Sn 189.927†             2605.1      484.29 ug/L         5.375      484.29 ppb          5.375   1.11%
   QC value within limits for Sn 189.927  Recovery = 96.86%
Sr 421.552†            71698.2      502.79 ug/L        31.314      502.79 ppb         31.314   6.23%
   QC value within limits for Sr 421.552  Recovery = 100.56%
Ti 334.940†           306063.7      496.28 ug/L         4.194      496.28 ppb          4.194   0.85%
   QC value within limits for Ti 334.940  Recovery = 99.26%
Tl 190.801†             1551.6      500.55 ug/L         5.433      500.55 ppb          5.433   1.09%
   QC value within limits for Tl 190.801  Recovery = 100.11%
U 409.014†             16822.2      486.13 ug/L         4.068      486.13 ppb          4.068   0.84%
   QC value within limits for U 409.014  Recovery = 97.23%
V 292.402†             67009.2      493.10 ug/L         4.043      493.10 ppb          4.043   0.82%
   QC value within limits for V 292.402  Recovery = 98.62%
Zn 213.857†            50432.2      492.98 ug/L         3.667      492.98 ppb          3.667   0.74%
   QC value within limits for Zn 213.857  Recovery = 98.60%
SiO2†                  74944.5      5332.7 ug/L        40.98      5332.7 ppb         40.98   0.77%
   QC value within limits for SiO2  Recovery = 99.72%
All analyte(s) passed QC.
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Sequence No.: 40
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 20:55:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4905.0	4905.0	102	%			20:57:10
1	Y RADIAL	5153.1	5153.1	103.0	%			20:57:10
1	Al 396.153Radial†	-159.4	-4.6	-4.3047	ug/L	-4.3047	ppb	20:57:10
1	Ca 317.933Radial†	15.9	-1.2	-1.9207	ug/L	-1.9207	ppb	20:57:30
1	Fe 238.204 Radial†	10.3	-1.4	-12.348	ug/L	-12.348	ppb	20:57:30
1	K 766.490 Radial†	2839.9	-42.5	-7.5296	ug/L	-7.5296	ppb	20:57:10
1	Mg 279.077 IEC†	1.4	0.9	33.315	ug/L	33.315	ppb	20:57:30
1	Na 589.592 Radial†	-930.2	167.0	50.498	ug/L	50.498	ppb	20:57:10
1	Sr 421.552†	10.4	8.0	0.0564	ug/L	0.0564	ppb	20:57:10
1	Sc 361.383	839406.7	839406.7	97.368	%			20:58:27
1	Y 371.029	683831.9	683831.9	95.694	%			20:58:27
1	Ag 328.068†	289.4	68.4	0.3199	ug/L	0.3199	ppb	20:58:27
1	As 188.979†	-31.0	2.0	0.9209	ug/L	0.9209	ppb	20:58:47
1	B 249.677†	-405.3	122.8	2.9231	ug/L	2.9231	ppb	20:58:47
1	Ba 233.527†	-3.8	7.7	0.0640	ug/L	0.0640	ppb	20:58:47
1	Be 313.107†	-4149.5	77.1	0.0288	ug/L	0.0288	ppb	20:58:27
1	Cd 226.502†	-207.2	-0.9	-0.0093	ug/L	-0.0093	ppb	20:58:47
1	Co 228.616†	-67.0	4.9	0.1068	ug/L	0.1068	ppb	20:58:47
1	Cr 267.716†	89.2	24.9	0.2897	ug/L	0.2897	ppb	20:58:47
1	Cu 324.752†	5441.8	-231.9	-0.7048	ug/L	-0.7048	ppb	20:58:27
1	Mn 257.610†	526.7	89.0	0.0998	ug/L	0.0998	ppb	20:58:47
1	Mo 202.031†	17.2	2.2	0.1611	ug/L	0.1611	ppb	20:58:47
1	Ni 231.604†	97.8	-7.5	-0.1954	ug/L	-0.1954	ppb	20:58:47
1	P 214.914†	255.3	34.1	21.374	ug/L	21.374	ppb	20:58:47
1	Pb 220.353†	-51.7	8.7	1.0831	ug/L	1.0831	ppb	20:58:47
1	S 181.975 Axial†	34.7	-3.7	-5.3434	ug/L	-5.3434	ppb	20:58:47
1	Sb 206.836†	35.7	-5.5	-1.8771	ug/L	-1.8771	ppb	20:58:47
1	Se 196.026†	-14.6	7.1	4.7275	ug/L	4.7275	ppb	20:58:47
1	Si 251.611†	589.8	43.5	1.4515	ug/L	1.4515	ppb	20:58:47
1	Sn 189.927†	19.8	11.7	2.1643	ug/L	2.1643	ppb	20:58:47
1	Ti 334.940†	-1235.2	34.6	0.0525	ug/L	0.0525	ppb	20:58:27
1	Tl 190.801†	-33.5	-0.2	-0.0505	ug/L	-0.0505	ppb	20:58:47
1	U 409.014†	-2860.1	42.6	1.2366	ug/L	1.2366	ppb	20:58:27
1	V 292.402†	-1424.3	91.8	0.6738	ug/L	0.6738	ppb	20:58:27
1	Zn 213.857†	719.6	25.8	0.2583	ug/L	0.2583	ppb	20:58:47
1	SiO2†	564.4	-3.4	-0.2497	ug/L	-0.2497	ppb	20:59:43
2	Sc Radial	4950.9	4950.9	103	%			20:57:35
2	Y RADIAL	5207.9	5207.9	104.1	%			20:57:35
2	Al 396.153Radial†	-137.8	17.8	16.468	ug/L	16.468	ppb	20:57:35
2	Ca 317.933Radial†	18.8	1.5	2.5348	ug/L	2.5348	ppb	20:57:55
2	Fe 238.204 Radial†	10.0	-1.7	-15.739	ug/L	-15.739	ppb	20:57:55
2	K 766.490 Radial†	2767.1	-139.1	-24.566	ug/L	-24.566	ppb	20:57:35
2	Mg 279.077 IEC†	4.3	3.7	132.02	ug/L	132.02	ppb	20:57:55
2	Na 589.592 Radial†	-946.8	159.3	48.171	ug/L	48.171	ppb	20:57:35
2	Sr 421.552†	-16.4	-18.0	-0.1262	ug/L	-0.1262	ppb	20:57:35
2	Sc 361.383	831406.2	831406.2	96.440	%			20:58:52
2	Y 371.029	676589.7	676589.7	94.680	%			20:58:52
2	Ag 328.068†	242.5	22.6	0.1084	ug/L	0.1084	ppb	20:58:52
2	As 188.979†	-28.4	4.5	2.0204	ug/L	2.0204	ppb	20:59:12
2	B 249.677†	-382.0	143.0	3.4037	ug/L	3.4037	ppb	20:59:12
2	Ba 233.527†	-17.8	-6.8	-0.0553	ug/L	-0.0553	ppb	20:59:12
2	Be 313.107†	-4205.8	-22.4	-0.0087	ug/L	-0.0087	ppb	20:58:52
2	Cd 226.502†	-203.3	1.1	0.0130	ug/L	0.0130	ppb	20:59:12
2	Co 228.616†	-70.2	0.9	0.0221	ug/L	0.0221	ppb	20:59:12
2	Cr 267.716†	61.8	-2.7	-0.0282	ug/L	-0.0282	ppb	20:59:12
2	Cu 324.752†	5342.4	-281.1	-0.8500	ug/L	-0.8500	ppb	20:58:52
2	Mn 257.610†	513.8	80.8	0.0861	ug/L	0.0861	ppb	20:59:12
2	Mo 202.031†	21.4	6.7	0.4973	ug/L	0.4973	ppb	20:59:12
2	Ni 231.604†	70.6	-34.8	-0.9014	ug/L	-0.9014	ppb	20:59:12

2	P 214.914†	226.4	6.7	4.3619 ug/L	4.3619 ppb	20:59:12
2	Pb 220.353†	-52.6	7.2	0.9025 ug/L	0.9025 ppb	20:59:12
2	S 181.975 Axial†	37.2	-0.8	-1.1871 ug/L	-1.1871 ppb	20:59:12
2	Sb 206.836†	38.2	-2.5	-0.8466 ug/L	-0.8466 ppb	20:59:12
2	Se 196.026†	-21.3	-0.0	-0.0521 ug/L	-0.0521 ppb	20:59:12
2	Si 251.611†	570.7	29.5	0.9799 ug/L	0.9799 ppb	20:59:12
2	Sn 189.927†	18.5	10.5	1.9531 ug/L	1.9531 ppb	20:59:12
2	Ti 334.940†	-1349.4	-96.0	-0.1633 ug/L	-0.1633 ppb	20:58:52
2	Tl 190.801†	-39.4	-6.6	-2.1204 ug/L	-2.1204 ppb	20:59:12
2	U 409.014†	-3088.9	-222.9	-6.4602 ug/L	-6.4602 ppb	20:58:52
2	V 292.402†	-1440.2	61.2	0.4445 ug/L	0.4445 ppb	20:58:52
2	Zn 213.857†	706.2	19.0	0.1971 ug/L	0.1971 ppb	20:59:12
2	SiO2†	565.7	3.5	0.2360 ug/L	0.2360 ppb	20:59:48
3	Sc Radial	4675.0	4675.0	97.3 %		20:58:00
3	Y RADIAL	4942.0	4942.0	98.83 %		20:58:00
3	Al 396.153Radial†	-149.4	-2.1	-1.9227 ug/L	-1.9227 ppb	20:58:00
3	Ca 317.933Radial†	12.5	-3.9	-6.4160 ug/L	-6.4160 ppb	20:58:20
3	Fe 238.204 Radial†	12.5	1.4	12.520 ug/L	12.520 ppb	20:58:20
3	K 766.490 Radial†	2803.8	57.2	10.104 ug/L	10.104 ppb	20:58:00
3	Mg 279.077 IEC†	0.3	-0.1	-4.8546 ug/L	-4.8546 ppb	20:58:20
3	Na 589.592 Radial†	-1024.5	25.1	7.5929 ug/L	7.5929 ppb	20:58:00
3	Sr 421.552†	15.1	13.5	0.0945 ug/L	0.0945 ppb	20:58:00
3	Sc 361.383	834150.1	834150.1	96.759 %		20:59:18
3	Y 371.029	681290.2	681290.2	95.338 %		20:59:18
3	Ag 328.068†	295.3	76.4	0.3646 ug/L	0.3646 ppb	20:59:18
3	As 188.979†	-31.3	1.5	0.6920 ug/L	0.6920 ppb	20:59:38
3	B 249.677†	-388.4	137.6	3.2725 ug/L	3.2725 ppb	20:59:38
3	Ba 233.527†	-18.2	-7.2	-0.0584 ug/L	-0.0584 ppb	20:59:38
3	Be 313.107†	-4115.5	85.4	0.0316 ug/L	0.0316 ppb	20:59:18
3	Cd 226.502†	-201.3	3.8	0.0443 ug/L	0.0443 ppb	20:59:38
3	Co 228.616†	-80.6	-9.5	-0.2087 ug/L	-0.2087 ppb	20:59:38
3	Cr 267.716†	72.5	8.2	0.0957 ug/L	0.0957 ppb	20:59:38
3	Cu 324.752†	5247.7	-397.2	-1.2045 ug/L	-1.2045 ppb	20:59:18
3	Mn 257.610†	503.4	68.4	0.0801 ug/L	0.0801 ppb	20:59:38
3	Mo 202.031†	14.8	-0.3	-0.0209 ug/L	-0.0209 ppb	20:59:38
3	Ni 231.604†	111.5	7.3	0.1881 ug/L	0.1881 ppb	20:59:38
3	P 214.914†	235.8	15.6	9.9651 ug/L	9.9651 ppb	20:59:38
3	Pb 220.353†	-51.4	8.6	1.0662 ug/L	1.0662 ppb	20:59:38
3	S 181.975 Axial†	30.7	-7.6	-11.057 ug/L	-11.057 ppb	20:59:38
3	Sb 206.836†	38.7	-2.2	-0.7631 ug/L	-0.7631 ppb	20:59:38
3	Se 196.026†	-8.3	13.5	9.1365 ug/L	9.1365 ppb	20:59:38
3	Si 251.611†	572.7	29.7	0.9926 ug/L	0.9926 ppb	20:59:38
3	Sn 189.927†	9.1	0.7	0.1337 ug/L	0.1337 ppb	20:59:38
3	Ti 334.940†	-1305.9	-46.4	-0.0760 ug/L	-0.0760 ppb	20:59:18
3	Tl 190.801†	-29.2	4.0	1.2826 ug/L	1.2826 ppb	20:59:38
3	U 409.014†	-2870.8	13.0	0.3764 ug/L	0.3764 ppb	20:59:18
3	V 292.402†	-1486.4	18.5	0.1326 ug/L	0.1326 ppb	20:59:18
3	Zn 213.857†	713.7	24.3	0.2384 ug/L	0.2384 ppb	20:59:38
3	SiO2†	583.8	20.3	1.4460 ug/L	1.4460 ppb	20:59:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	834987.7	96.856	%	0.4716				0.49%
Sc Radial	4843.7	101	%	3.1				3.05%
Y 371.029	680570.6	95.238	%	0.5142				0.54%
Y RADIAL	5101.0	102.0	%	2.81				2.75%
Ag 328.068†	55.8	0.2643	ug/L	0.13682	0.2643	ppb	0.13682	51.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	3.7	3.4135	ug/L	11.36809	3.4135	ppb	11.36809	333.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.7	1.2111	ug/L	0.71017	1.2111	ppb	0.71017	58.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	134.5	3.1997	ug/L	0.24839	3.1997	ppb	0.24839	7.76%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.1	-0.0166	ug/L	0.06982	-0.0166	ppb	0.06982	421.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	46.7	0.0173	ug/L	0.02251	0.0173	ppb	0.02251	130.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.2	-1.9340	ug/L	4.47543	-1.9340	ppb	4.47543	231.41%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                1.3      0.0160 ug/L       0.02689      0.0160 ppb        0.02689 167.88%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -1.2     -0.0266 ug/L       0.16331     -0.0266 ppb        0.16331 613.40%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               10.1      0.1191 ug/L       0.16026      0.1191 ppb        0.16026 134.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -303.4     -0.9198 ug/L       0.25707     -0.9198 ppb        0.25707  27.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.6     -5.1892 ug/L      15.42983     -5.1892 ppb       15.42983 297.35%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -41.5     -7.3305 ug/L      17.33544     -7.3305 ppb       17.33544 236.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5      53.494 ug/L       70.6339      53.494 ppb        70.6339 132.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               79.4      0.0887 ug/L       0.01013      0.0887 ppb        0.01013  11.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.8      0.2125 ug/L       0.26288      0.2125 ppb        0.26288 123.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       117.1      35.421 ug/L       24.1275      35.421 ppb        24.1275  68.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -11.7     -0.3029 ug/L       0.55265     -0.3029 ppb        0.55265 182.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                18.8      11.900 ug/L        8.6694      11.900 ppb         8.6694  72.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                8.1      1.0172 ug/L       0.09972      1.0172 ppb        0.09972   9.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.0     -5.8625 ug/L       4.95538     -5.8625 ppb        4.95538  84.53%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.4     -1.1623 ug/L       0.62050     -1.1623 ppb        0.62050  53.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                6.9      4.6040 ug/L       4.59554      4.6040 ppb        4.59554  99.82%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               34.2      1.1413 ug/L       0.26872      1.1413 ppb        0.26872  23.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.6      1.4171 ug/L       1.11640      1.4171 ppb        1.11640  78.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                1.2      0.0083 ug/L       0.11796      0.0083 ppb        0.11796 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -35.9     -0.0623 ug/L       0.10857     -0.0623 ppb        0.10857 174.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.9     -0.2961 ug/L       1.71474     -0.2961 ppb        1.71474 579.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -55.7     -1.6157 ug/L       4.21744     -1.6157 ppb        4.21744 261.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                57.2      0.4170 ug/L       0.27163      0.4170 ppb        0.27163  65.15%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               23.0      0.2313 ug/L       0.03124      0.2313 ppb        0.03124  13.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      6.8      0.4774 ug/L       0.87326      0.4774 ppb        0.87326 182.90%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 21:50:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4818.4	4818.4	100	%			21:52:19
1	Y RADIAL	5049.0	5049.0	101.0	%			21:52:19
1	Al 396.153Radial†	5324.5	5463.4	5047.3	ug/L	5047.3	ppb	21:52:19
1	Ca 317.933Radial†	3059.4	3035.4	5030.9	ug/L	5030.9	ppb	21:52:39
1	Fe 238.204 Radial†	562.4	549.5	5015.2	ug/L	5015.2	ppb	21:52:39
1	K 766.490 Radial†	30562.5	27664.0	4876.9	ug/L	4876.9	ppb	21:52:19
1	Mg 279.077 IEC†	149.5	148.7	5269.4	ug/L	5269.4	ppb	21:52:39
1	Na 589.592 Radial†	31711.3	32714.3	9894.4	ug/L	9894.4	ppb	21:52:19
1	Sr 421.552†	75172.0	74990.8	525.88	ug/L	525.88	ppb	21:52:19
1	Sc 361.383	856638.5	856638.5	99.367	%			21:53:37
1	Y 371.029	690482.6	690482.6	96.625	%			21:53:37
1	Ag 328.068†	103159.9	103588.1	491.26	ug/L	491.26	ppb	21:53:42
1	As 188.979†	1044.7	1085.2	496.68	ug/L	496.68	ppb	21:54:02
1	B 249.677†	19861.7	20527.2	486.08	ug/L	486.08	ppb	21:53:42
1	Ba 233.527†	60643.2	61041.1	499.72	ug/L	499.72	ppb	21:53:42
1	Be 313.107†	1311744.6	1324437.7	494.43	ug/L	494.43	ppb	21:53:37
1	Cd 226.502†	40465.9	40935.5	486.57	ug/L	486.57	ppb	21:53:42
1	Co 228.616†	23046.1	23266.6	508.26	ug/L	508.26	ppb	21:53:42
1	Cr 267.716†	41380.5	41577.3	484.63	ug/L	484.63	ppb	21:53:42
1	Cu 324.752†	167757.1	163004.8	494.47	ug/L	494.47	ppb	21:53:42
1	Mn 257.610†	433444.6	435753.3	501.62	ug/L	501.62	ppb	21:53:37
1	Mo 202.031†	6420.6	6446.0	483.18	ug/L	483.18	ppb	21:54:02
1	Ni 231.604†	18854.8	18866.9	488.47	ug/L	488.47	ppb	21:53:42
1	P 214.914†	4132.1	3930.4	2349.4	ug/L	2349.4	ppb	21:54:02
1	Pb 220.353†	3798.4	3884.3	486.18	ug/L	486.18	ppb	21:54:02
1	S 181.975 Axial†	696.1	661.2	963.22	ug/L	963.22	ppb	21:54:02
1	Sb 206.836†	1441.4	1408.4	508.20	ug/L	508.20	ppb	21:54:02
1	Se 196.026†	697.3	723.8	505.42	ug/L	505.42	ppb	21:54:02
1	Si 251.611†	74450.8	74362.7	2481.4	ug/L	2481.4	ppb	21:53:42
1	Sn 189.927†	2579.0	2586.7	480.88	ug/L	480.88	ppb	21:54:02
1	Ti 334.940†	301277.3	304499.3	493.74	ug/L	493.74	ppb	21:53:42
1	Tl 190.801†	1515.4	1559.3	503.03	ug/L	503.03	ppb	21:54:02
1	U 409.014†	13711.9	16779.2	484.89	ug/L	484.89	ppb	21:53:42
1	V 292.402†	64692.1	66658.8	490.51	ug/L	490.51	ppb	21:53:42
1	Zn 213.857†	50509.1	50117.5	489.90	ug/L	489.90	ppb	21:53:42
1	SiO2†	75327.3	75224.0	5352.7	ug/L	5352.7	ppb	21:55:10
2	Sc Radial	4837.3	4837.3	101	%			21:52:45
2	Y RADIAL	5085.3	5085.3	101.7	%			21:52:45
2	Al 396.153Radial†	5334.4	5452.5	5036.7	ug/L	5036.7	ppb	21:52:45
2	Ca 317.933Radial†	3097.7	3061.5	5074.3	ug/L	5074.3	ppb	21:53:05
2	Fe 238.204 Radial†	572.3	557.3	5085.9	ug/L	5085.9	ppb	21:53:05
2	K 766.490 Radial†	30649.0	27630.8	4871.1	ug/L	4871.1	ppb	21:52:45
2	Mg 279.077 IEC†	149.1	147.8	5237.7	ug/L	5237.7	ppb	21:53:05
2	Na 589.592 Radial†	31441.4	32322.4	9775.9	ug/L	9775.9	ppb	21:52:45
2	Sr 421.552†	74721.7	74250.3	520.69	ug/L	520.69	ppb	21:52:45
2	Sc 361.383	845413.2	845413.2	98.065	%			21:54:08
2	Y 371.029	681907.2	681907.2	95.425	%			21:54:08
2	Ag 328.068†	103718.3	105536.0	500.50	ug/L	500.50	ppb	21:54:13
2	As 188.979†	1045.4	1099.8	503.39	ug/L	503.39	ppb	21:54:33
2	B 249.677†	19982.0	20915.3	495.28	ug/L	495.28	ppb	21:54:13
2	Ba 233.527†	60852.4	62064.7	508.11	ug/L	508.11	ppb	21:54:13
2	Be 313.107†	1298582.0	1328543.6	495.98	ug/L	495.98	ppb	21:54:08
2	Cd 226.502†	40560.7	41572.9	494.15	ug/L	494.15	ppb	21:54:13
2	Co 228.616†	23091.4	23620.7	516.00	ug/L	516.00	ppb	21:54:13
2	Cr 267.716†	41629.9	42384.5	494.04	ug/L	494.04	ppb	21:54:13
2	Cu 324.752†	169175.5	166692.9	505.66	ug/L	505.66	ppb	21:54:13
2	Mn 257.610†	428152.3	436148.5	502.08	ug/L	502.08	ppb	21:54:08
2	Mo 202.031†	6446.2	6557.8	491.55	ug/L	491.55	ppb	21:54:33
2	Ni 231.604†	18883.4	19148.0	495.75	ug/L	495.75	ppb	21:54:13

2	P 214.914†	4167.3	4021.5	2403.9	ug/L	2403.9 ppb	21:54:33
2	Pb 220.353†	3793.3	3929.9	491.87	ug/L	491.87 ppb	21:54:33
2	S 181.975 Axial†	714.0	688.8	1003.4	ug/L	1003.4 ppb	21:54:33
2	Sb 206.836†	1427.1	1413.1	510.15	ug/L	510.15 ppb	21:54:33
2	Se 196.026†	705.0	741.1	517.31	ug/L	517.31 ppb	21:54:33
2	Si 251.611†	74829.8	75744.0	2527.5	ug/L	2527.5 ppb	21:54:13
2	Sn 189.927†	2591.1	2633.6	489.58	ug/L	489.58 ppb	21:54:33
2	Ti 334.940†	302926.9	310207.2	503.00	ug/L	503.00 ppb	21:54:13
2	Tl 190.801†	1509.2	1573.2	507.50	ug/L	507.50 ppb	21:54:33
2	U 409.014†	13635.4	16884.5	487.91	ug/L	487.91 ppb	21:54:13
2	V 292.402†	65137.0	67976.9	500.18	ug/L	500.18 ppb	21:54:13
2	Zn 213.857†	50776.1	51064.7	499.17	ug/L	499.17 ppb	21:54:13
2	SiO2†	75217.2	76118.2	5416.3	ug/L	5416.3 ppb	21:55:15
3	Sc Radial	4860.5	4860.5	101	%		21:53:10
3	Y RADIAL	5063.8	5063.8	101.3	%		21:53:10
3	Al 396.153Radial†	5328.7	5421.5	5008.3	ug/L	5008.3 ppb	21:53:10
3	Ca 317.933Radial†	3086.8	3036.0	5032.0	ug/L	5032.0 ppb	21:53:30
3	Fe 238.204 Radial†	570.0	552.2	5039.6	ug/L	5039.6 ppb	21:53:30
3	K 766.490 Radial†	30598.2	27435.0	4836.6	ug/L	4836.6 ppb	21:53:10
3	Mg 279.077 IEC†	150.1	148.0	5245.2	ug/L	5245.2 ppb	21:53:30
3	Na 589.592 Radial†	31481.9	32213.0	9742.8	ug/L	9742.8 ppb	21:53:10
3	Sr 421.552†	74631.6	73806.2	517.58	ug/L	517.58 ppb	21:53:10
3	Sc 361.383	857496.4	857496.4	99.467	%		21:54:39
3	Y 371.029	690308.9	690308.9	96.600	%		21:54:39
3	Ag 328.068†	103856.3	104184.4	494.08	ug/L	494.08 ppb	21:54:44
3	As 188.979†	1046.0	1085.5	496.83	ug/L	496.83 ppb	21:55:04
3	B 249.677†	20024.6	20671.0	489.49	ug/L	489.49 ppb	21:54:44
3	Ba 233.527†	60994.7	61333.3	502.12	ug/L	502.12 ppb	21:54:44
3	Be 313.107†	1315302.5	1326694.0	495.28	ug/L	495.28 ppb	21:54:39
3	Cd 226.502†	40689.0	41119.1	488.75	ug/L	488.75 ppb	21:54:44
3	Co 228.616†	23123.5	23321.2	509.46	ug/L	509.46 ppb	21:54:44
3	Cr 267.716†	41600.5	41756.8	486.72	ug/L	486.72 ppb	21:54:44
3	Cu 324.752†	168637.8	163721.3	496.64	ug/L	496.64 ppb	21:54:44
3	Mn 257.610†	435169.2	437050.7	503.12	ug/L	503.12 ppb	21:54:39
3	Mo 202.031†	6458.3	6477.4	485.53	ug/L	485.53 ppb	21:55:04
3	Ni 231.604†	18967.1	18960.8	490.91	ug/L	490.91 ppb	21:54:44
3	P 214.914†	4179.0	3973.3	2375.6	ug/L	2375.6 ppb	21:55:04
3	Pb 220.353†	3839.9	3922.2	490.89	ug/L	490.89 ppb	21:55:04
3	S 181.975 Axial†	708.9	673.3	980.91	ug/L	980.91 ppb	21:55:04
3	Sb 206.836†	1440.5	1406.0	507.51	ug/L	507.51 ppb	21:55:04
3	Se 196.026†	703.2	729.1	509.08	ug/L	509.08 ppb	21:55:04
3	Si 251.611†	74807.6	74646.5	2490.9	ug/L	2490.9 ppb	21:54:44
3	Sn 189.927†	2609.4	2614.7	486.07	ug/L	486.07 ppb	21:55:04
3	Ti 334.940†	302813.4	305740.3	495.75	ug/L	495.75 ppb	21:54:44
3	Tl 190.801†	1519.2	1561.5	503.75	ug/L	503.75 ppb	21:55:04
3	U 409.014†	13822.1	16876.3	487.69	ug/L	487.69 ppb	21:54:44
3	V 292.402†	65050.1	66953.6	492.69	ug/L	492.69 ppb	21:54:44
3	Zn 213.857†	50913.0	50472.8	493.38	ug/L	493.38 ppb	21:54:44
3	SiO2†	75103.9	74923.5	5331.2	ug/L	5331.2 ppb	21:55:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	853182.7	98.966	%	0.7821				0.79%
Sc Radial	4838.7	101	%	0.4				0.44%
Y 371.029	687566.2	96.217	%	0.6859				0.71%
Y RADIAL	5066.0	101.3	%	0.37				0.36%
Ag 328.068†	104436.2	495.28	ug/L	4.733	495.28	ppb	4.733	0.96%
QC value within limits for Ag 328.068 Recovery = 99.06%								
Al 396.153Radial†	5445.8	5030.8	ug/L	20.17	5030.8	ppb	20.17	0.40%
QC value within limits for Al 396.153Radial Recovery = 100.62%								
As 188.979†	1090.2	498.97	ug/L	3.833	498.97	ppb	3.833	0.77%
QC value within limits for As 188.979 Recovery = 99.79%								
B 249.677†	20704.5	490.28	ug/L	4.650	490.28	ppb	4.650	0.95%
QC value within limits for B 249.677 Recovery = 98.06%								
Ba 233.527†	61479.7	503.32	ug/L	4.318	503.32	ppb	4.318	0.86%
QC value within limits for Ba 233.527 Recovery = 100.66%								
Be 313.107†	1326558.4	495.23	ug/L	0.776	495.23	ppb	0.776	0.16%
QC value within limits for Be 313.107 Recovery = 99.05%								
Ca 317.933Radial†	3044.3	5045.7	ug/L	24.73	5045.7	ppb	24.73	0.49%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.91%
Cd 226.502†            41209.2      489.82 ug/L         3.900      489.82 ppb          3.900   0.80%
   QC value within limits for Cd 226.502  Recovery = 97.96%
Co 228.616†            23402.8      511.24 ug/L         4.164      511.24 ppb          4.164   0.81%
   QC value within limits for Co 228.616  Recovery = 102.25%
Cr 267.716†            41906.2      488.47 ug/L         4.942      488.47 ppb          4.942   1.01%
   QC value within limits for Cr 267.716  Recovery = 97.69%
Cu 324.752†           164473.0      498.92 ug/L         5.933      498.92 ppb          5.933   1.19%
   QC value within limits for Cu 324.752  Recovery = 99.78%
Fe 238.204 Radial†       553.0      5046.9 ug/L        35.88      5046.9 ppb         35.88   0.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.94%
K 766.490 Radial†      27576.6      4861.5 ug/L        21.82      4861.5 ppb         21.82   0.45%
   QC value within limits for K 766.490 Radial  Recovery = 97.23%
Mg 279.077 IEC†          148.2      5250.7 ug/L        16.55      5250.7 ppb         16.55   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.01%
Mn 257.610†           436317.5      502.27 ug/L         0.766      502.27 ppb          0.766   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.45%
Mo 202.031†             6493.7      486.75 ug/L         4.322      486.75 ppb          4.322   0.89%
   QC value within limits for Mo 202.031  Recovery = 97.35%
Na 589.592 Radial†     32416.6      9804.4 ug/L        79.71      9804.4 ppb         79.71   0.81%
   QC value within limits for Na 589.592 Radial  Recovery = 98.04%
Ni 231.604†            18991.9      491.71 ug/L         3.704      491.71 ppb          3.704   0.75%
   QC value within limits for Ni 231.604  Recovery = 98.34%
P 214.914†              3975.1      2376.3 ug/L        27.26      2376.3 ppb         27.26   1.15%
   QC value within limits for P 214.914  Recovery = 95.05%
Pb 220.353†             3912.1      489.65 ug/L         3.043      489.65 ppb          3.043   0.62%
   QC value within limits for Pb 220.353  Recovery = 97.93%
S 181.975 Axial†         674.4      982.52 ug/L        20.162      982.52 ppb         20.162   2.05%
   QC value within limits for S 181.975 Axial  Recovery = 98.25%
Sb 206.836†             1409.2      508.62 ug/L         1.367      508.62 ppb          1.367   0.27%
   QC value within limits for Sb 206.836  Recovery = 101.72%
Se 196.026†              731.3      510.60 ug/L         6.085      510.60 ppb          6.085   1.19%
   QC value within limits for Se 196.026  Recovery = 102.12%
Si 251.611†            74917.7      2499.9 ug/L        24.35      2499.9 ppb         24.35   0.97%
   QC value within limits for Si 251.611  Recovery = 100.00%
Sn 189.927†             2611.7      485.51 ug/L         4.379      485.51 ppb          4.379   0.90%
   QC value within limits for Sn 189.927  Recovery = 97.10%
Sr 421.552†            74349.1      521.38 ug/L         4.197      521.38 ppb          4.197   0.81%
   QC value within limits for Sr 421.552  Recovery = 104.28%
Ti 334.940†           306815.6      497.50 ug/L         4.871      497.50 ppb          4.871   0.98%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†             1564.6      504.76 ug/L         2.399      504.76 ppb          2.399   0.48%
   QC value within limits for Tl 190.801  Recovery = 100.95%
U 409.014†             16846.7      486.83 ug/L         1.686      486.83 ppb          1.686   0.35%
   QC value within limits for U 409.014  Recovery = 97.37%
V 292.402†             67196.4      494.46 ug/L         5.075      494.46 ppb          5.075   1.03%
   QC value within limits for V 292.402  Recovery = 98.89%
Zn 213.857†            50551.7      494.15 ug/L         4.684      494.15 ppb          4.684   0.95%
   QC value within limits for Zn 213.857  Recovery = 98.83%
SiO2†                  75421.9      5366.7 ug/L        44.23      5366.7 ppb         44.23   0.82%
   QC value within limits for SiO2  Recovery = 100.36%
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 21:57:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4901.3	4901.3	102	%			21:59:21
1	Y RADIAL	5123.8	5123.8	102.5	%			21:59:21
1	Al 396.153Radial†	-162.2	-7.5	-6.9947	ug/L	-6.9947	ppb	21:59:21
1	Ca 317.933Radial†	20.2	3.1	5.1616	ug/L	5.1616	ppb	21:59:41
1	Fe 238.204 Radial†	11.9	0.2	1.8287	ug/L	1.8287	ppb	21:59:41
1	K 766.490 Radial†	2796.9	-82.6	-14.600	ug/L	-14.600	ppb	21:59:21
1	Mg 279.077 IEC†	3.7	3.2	114.76	ug/L	114.76	ppb	21:59:41
1	Na 589.592 Radial†	-977.5	119.8	36.248	ug/L	36.248	ppb	21:59:21
1	Sr 421.552†	-5.0	-7.0	-0.0493	ug/L	-0.0493	ppb	21:59:21
1	Sc 361.383	826935.4	826935.4	95.922	%			22:00:38
1	Y 371.029	675508.6	675508.6	94.529	%			22:00:38
1	Ag 328.068†	197.1	-23.3	-0.1067	ug/L	-0.1067	ppb	22:00:38
1	As 188.979†	-22.6	10.3	4.6755	ug/L	4.6755	ppb	22:00:58
1	B 249.677†	-421.6	99.5	2.3669	ug/L	2.3669	ppb	22:00:58
1	Ba 233.527†	-1.1	10.4	0.0829	ug/L	0.0829	ppb	22:00:58
1	Be 313.107†	-4153.5	8.6	0.0027	ug/L	0.0027	ppb	22:00:38
1	Cd 226.502†	-193.8	9.8	0.1149	ug/L	0.1149	ppb	22:00:58
1	Co 228.616†	-82.1	-11.8	-0.2581	ug/L	-0.2581	ppb	22:00:58
1	Cr 267.716†	80.0	16.6	0.1947	ug/L	0.1947	ppb	22:00:58
1	Cu 324.752†	5271.1	-325.6	-0.9832	ug/L	-0.9832	ppb	22:00:38
1	Mn 257.610†	518.7	88.9	0.0977	ug/L	0.0977	ppb	22:00:58
1	Mo 202.031†	16.4	1.6	0.1189	ug/L	0.1189	ppb	22:00:58
1	Ni 231.604†	94.8	-9.2	-0.2380	ug/L	-0.2380	ppb	22:00:58
1	P 214.914†	212.0	-7.0	-4.1809	ug/L	-4.1809	ppb	22:00:58
1	Pb 220.353†	-58.1	1.1	0.1406	ug/L	0.1406	ppb	22:00:58
1	S 181.975 Axial†	37.6	-0.2	-0.2305	ug/L	-0.2305	ppb	22:00:58
1	Sb 206.836†	43.8	3.5	1.2338	ug/L	1.2338	ppb	22:00:58
1	Se 196.026†	-26.4	-5.4	-3.6229	ug/L	-3.6229	ppb	22:00:58
1	Si 251.611†	565.7	27.5	0.9180	ug/L	0.9180	ppb	22:00:58
1	Sn 189.927†	12.9	4.8	0.8823	ug/L	0.8823	ppb	22:00:58
1	Ti 334.940†	-1394.7	-150.8	-0.2500	ug/L	-0.2500	ppb	22:00:38
1	Tl 190.801†	-31.2	1.6	0.5219	ug/L	0.5219	ppb	22:00:58
1	U 409.014†	-3111.3	-263.5	-7.6415	ug/L	-7.6415	ppb	22:00:38
1	V 292.402†	-1611.7	-125.6	-0.9231	ug/L	-0.9231	ppb	22:00:38
1	Zn 213.857†	711.8	28.8	0.2866	ug/L	0.2866	ppb	22:00:58
1	SiO2†	564.5	5.4	0.3796	ug/L	0.3796	ppb	22:01:54
2	Sc Radial	4804.1	4804.1	99.9	%			21:59:46
2	Y RADIAL	5034.1	5034.1	100.7	%			21:59:46
2	Al 396.153Radial†	-153.9	-2.4	-2.2158	ug/L	-2.2158	ppb	21:59:46
2	Ca 317.933Radial†	16.1	-0.6	-1.0129	ug/L	-1.0129	ppb	22:00:06
2	Fe 238.204 Radial†	10.7	-0.8	-7.0330	ug/L	-7.0330	ppb	22:00:06
2	K 766.490 Radial†	2799.6	-24.5	-4.3247	ug/L	-4.3247	ppb	21:59:46
2	Mg 279.077 IEC†	6.6	6.1	217.77	ug/L	217.77	ppb	22:00:06
2	Na 589.592 Radial†	-1005.4	72.5	21.935	ug/L	21.935	ppb	21:59:46
2	Sr 421.552†	12.5	10.4	0.0729	ug/L	0.0729	ppb	21:59:46
2	Sc 361.383	834710.7	834710.7	96.824	%			22:01:03
2	Y 371.029	682191.9	682191.9	95.464	%			22:01:03
2	Ag 328.068†	260.2	40.0	0.1882	ug/L	0.1882	ppb	22:01:03
2	As 188.979†	-32.6	0.2	0.0943	ug/L	0.0943	ppb	22:01:23
2	B 249.677†	-422.3	102.9	2.4480	ug/L	2.4480	ppb	22:01:23
2	Ba 233.527†	-9.0	2.3	0.0188	ug/L	0.0188	ppb	22:01:23
2	Be 313.107†	-4152.0	50.5	0.0188	ug/L	0.0188	ppb	22:01:03
2	Cd 226.502†	-197.2	8.3	0.0986	ug/L	0.0986	ppb	22:01:23
2	Co 228.616†	-60.7	11.0	0.2400	ug/L	0.2400	ppb	22:01:23
2	Cr 267.716†	61.3	-3.4	-0.0391	ug/L	-0.0391	ppb	22:01:23
2	Cu 324.752†	5347.8	-297.4	-0.9017	ug/L	-0.9017	ppb	22:01:03
2	Mn 257.610†	567.1	133.8	0.1444	ug/L	0.1444	ppb	22:01:23
2	Mo 202.031†	7.1	-8.2	-0.6172	ug/L	-0.6172	ppb	22:01:23
2	Ni 231.604†	94.3	-10.6	-0.2758	ug/L	-0.2758	ppb	22:01:23

2	P 214.914†	231.7	11.2	7.1477	ug/L	7.1477 ppb	22:01:23
2	Pb 220.353†	-64.8	-5.2	-0.6452	ug/L	-0.6452 ppb	22:01:23
2	S 181.975 Axial†	35.2	-3.0	-4.3060	ug/L	-4.3060 ppb	22:01:23
2	Sb 206.836†	45.1	4.5	1.5356	ug/L	1.5356 ppb	22:01:23
2	Se 196.026†	-17.4	4.1	2.7580	ug/L	2.7580 ppb	22:01:23
2	Si 251.611†	591.5	48.6	1.6333	ug/L	1.6333 ppb	22:01:23
2	Sn 189.927†	4.3	-4.3	-0.7930	ug/L	-0.7930 ppb	22:01:23
2	Ti 334.940†	-1263.4	-1.7	-0.0199	ug/L	-0.0199 ppb	22:01:03
2	Tl 190.801†	-32.8	0.3	0.0924	ug/L	0.0924 ppb	22:01:23
2	U 409.014†	-2944.3	-60.8	-1.7626	ug/L	-1.7626 ppb	22:01:03
2	V 292.402†	-1476.2	30.0	0.2112	ug/L	0.2112 ppb	22:01:03
2	Zn 213.857†	720.9	31.3	0.3127	ug/L	0.3127 ppb	22:01:23
2	SiO2†	527.8	-38.0	-2.6956	ug/L	-2.6956 ppb	22:01:59
3	Sc Radial	4819.3	4819.3	100	%		22:00:11
3	Y RADIAL	5081.5	5081.5	101.6	%		22:00:11
3	Al 396.153Radial†	-145.1	6.9	6.3659	ug/L	6.3659 ppb	22:00:11
3	Ca 317.933Radial†	16.8	0.1	0.1367	ug/L	0.1367 ppb	22:00:31
3	Fe 238.204 Radial†	9.2	-2.3	-20.793	ug/L	-20.793 ppb	22:00:31
3	K 766.490 Radial†	2842.7	9.6	1.6840	ug/L	1.6840 ppb	22:00:11
3	Mg 279.077 IEC†	1.8	1.4	48.625	ug/L	48.625 ppb	22:00:31
3	Na 589.592 Radial†	-923.4	157.5	47.621	ug/L	47.621 ppb	22:00:11
3	Sr 421.552†	35.2	33.0	0.2312	ug/L	0.2312 ppb	22:00:11
3	Sc 361.383	832657.6	832657.6	96.585	%		22:01:29
3	Y 371.029	679926.1	679926.1	95.147	%		22:01:29
3	Ag 328.068†	148.3	-75.2	-0.3588	ug/L	-0.3588 ppb	22:01:29
3	As 188.979†	-27.7	5.2	2.3716	ug/L	2.3716 ppb	22:01:49
3	B 249.677†	-439.1	84.4	2.0103	ug/L	2.0103 ppb	22:01:49
3	Ba 233.527†	-14.4	-3.3	-0.0282	ug/L	-0.0282 ppb	22:01:49
3	Be 313.107†	-4159.6	32.1	0.0122	ug/L	0.0122 ppb	22:01:29
3	Cd 226.502†	-200.8	4.0	0.0482	ug/L	0.0482 ppb	22:01:49
3	Co 228.616†	-64.7	6.7	0.1477	ug/L	0.1477 ppb	22:01:49
3	Cr 267.716†	47.0	-18.1	-0.2095	ug/L	-0.2095 ppb	22:01:49
3	Cu 324.752†	5219.5	-416.7	-1.2624	ug/L	-1.2624 ppb	22:01:29
3	Mn 257.610†	468.2	32.9	0.0338	ug/L	0.0338 ppb	22:01:49
3	Mo 202.031†	19.6	4.7	0.3525	ug/L	0.3525 ppb	22:01:49
3	Ni 231.604†	93.5	-11.2	-0.2894	ug/L	-0.2894 ppb	22:01:49
3	P 214.914†	223.0	2.8	2.0012	ug/L	2.0012 ppb	22:01:49
3	Pb 220.353†	-48.7	11.3	1.4200	ug/L	1.4200 ppb	22:01:49
3	S 181.975 Axial†	39.7	1.7	2.4938	ug/L	2.4938 ppb	22:01:49
3	Sb 206.836†	32.8	-8.2	-2.8484	ug/L	-2.8484 ppb	22:01:49
3	Se 196.026†	-20.5	0.9	0.5645	ug/L	0.5645 ppb	22:01:49
3	Si 251.611†	566.3	24.1	0.8017	ug/L	0.8017 ppb	22:01:49
3	Sn 189.927†	12.5	4.3	0.7934	ug/L	0.7934 ppb	22:01:49
3	Ti 334.940†	-1185.9	75.4	0.1205	ug/L	0.1205 ppb	22:01:29
3	Tl 190.801†	-25.6	7.7	2.4565	ug/L	2.4565 ppb	22:01:49
3	U 409.014†	-3038.4	-165.8	-4.8044	ug/L	-4.8044 ppb	22:01:29
3	V 292.402†	-1539.0	-38.8	-0.2820	ug/L	-0.2820 ppb	22:01:29
3	Zn 213.857†	720.8	33.1	0.3328	ug/L	0.3328 ppb	22:01:49
3	SiO2†	602.3	40.5	2.8802	ug/L	2.8802 ppb	22:02:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	831434.6	96.444	%	0.4674				0.48%
Sc Radial	4841.6	101	%	1.1				1.08%
Y 371.029	679208.8	95.047	%	0.4756				0.50%
Y RADIAL	5079.8	101.6	%	0.90				0.88%
Ag 328.068†	-19.5	-0.0924	ug/L	0.27379	-0.0924	ppb	0.27379	296.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.0	-0.9482	ug/L	6.76988	-0.9482	ppb	6.76988	713.97%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	2.3805	ug/L	2.29063	2.3805	ppb	2.29063	96.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	95.6	2.2751	ug/L	0.23289	2.2751	ppb	0.23289	10.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0245	ug/L	0.05577	0.0245	ppb	0.05577	227.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	30.4	0.0112	ug/L	0.00811	0.0112	ppb	0.00811	72.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	1.4285	ug/L	3.28372	1.4285	ppb	3.28372	229.87%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.4      0.0872 ug/L       0.03479      0.0872 ppb        0.03479  39.88%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                2.0      0.0432 ug/L       0.26496      0.0432 ppb        0.26496 613.21%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -1.6     -0.0179 ug/L       0.20293     -0.0179 ppb        0.20293 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -346.6     -1.0491 ug/L       0.18917     -1.0491 ppb        0.18917  18.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.0     -8.6658 ug/L      11.39899     -8.6658 ppb       11.39899 131.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -32.5     -5.7469 ug/L       8.23470     -5.7469 ppb        8.23470 143.29%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.6      127.05 ug/L        85.239      127.05 ppb         85.239  67.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               85.2      0.0920 ug/L       0.05551      0.0920 ppb        0.05551  60.35%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.6     -0.0486 ug/L       0.50611     -0.0486 ppb        0.50611 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       116.6      35.268 ug/L       12.8710      35.268 ppb        12.8710  36.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -10.3     -0.2677 ug/L       0.02666     -0.2677 ppb        0.02666   9.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.3      1.6560 ug/L       5.67215      1.6560 ppb        5.67215 342.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.4      0.3052 ug/L       1.04240      0.3052 ppb        1.04240 341.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.5     -0.6809 ug/L       3.42218     -0.6809 ppb        3.42218 502.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.1     -0.0264 ug/L       2.44866     -0.0264 ppb        2.44866 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.1     -0.1001 ug/L       3.24195     -0.1001 ppb        3.24195 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               33.4      1.1177 ug/L       0.45034      1.1177 ppb        0.45034  40.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.6      0.2942 ug/L       0.94265      0.2942 ppb        0.94265 320.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               12.1      0.0849 ug/L       0.14067      0.0849 ppb        0.14067 165.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -25.7     -0.0498 ug/L       0.18705     -0.0498 ppb        0.18705 375.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.2      1.0236 ug/L       1.25933      1.0236 ppb        1.25933 123.03%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -163.4     -4.7362 ug/L       2.94000     -4.7362 ppb        2.94000  62.08%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -44.8     -0.3313 ug/L       0.56877     -0.3313 ppb        0.56877 171.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               31.0      0.3107 ug/L       0.02314      0.3107 ppb        0.02314   7.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      2.6      0.1881 ug/L       2.79282      0.1881 ppb        2.79282 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: 1202024773|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 75
Date Collected: 2/11/2010 22:04:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202024773|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4925.9	4925.9	102	%			22:06:08
1	Y RADIAL	5197.0	5197.0	103.9	%			22:06:08
1	Al 396.153Radial†	-141.1	13.9	12.897	ug/L	12.897	ppb	22:06:08
1	Ca 317.933Radial†	40.5	22.8	37.743	ug/L	37.743	ppb	22:06:28
1	Fe 238.204 Radial†	17.1	5.2	47.080	ug/L	47.080	ppb	22:06:28
1	K 766.490 Radial†	2786.8	-106.2	-18.776	ug/L	-18.776	ppb	22:06:08
1	Mg 279.077 IEC†	2.7	2.2	77.576	ug/L	77.576	ppb	22:06:28
1	Na 589.592 Radial†	-904.7	195.7	59.190	ug/L	59.190	ppb	22:06:08
1	Sr 421.552†	17.8	15.2	0.1066	ug/L	0.1066	ppb	22:06:08
1	Sc 361.383	842828.9	842828.9	97.765	%			22:07:24
1	Y 371.029	687233.6	687233.6	96.170	%			22:07:24
1	Ag 328.068†	257.7	34.8	0.1797	ug/L	0.1797	ppb	22:07:24
1	As 188.979†	-29.5	3.7	1.6939	ug/L	1.6939	ppb	22:07:44
1	B 249.677†	-438.1	90.9	2.1544	ug/L	2.1544	ppb	22:07:44
1	Ba 233.527†	7.5	19.3	0.1596	ug/L	0.1596	ppb	22:07:44
1	Be 313.107†	-4128.6	115.8	0.0440	ug/L	0.0440	ppb	22:07:24
1	Cd 226.502†	-206.3	0.9	0.0057	ug/L	0.0057	ppb	22:07:44
1	Co 228.616†	-66.0	6.2	0.1361	ug/L	0.1361	ppb	22:07:44
1	Cr 267.716†	96.6	32.1	0.3744	ug/L	0.3744	ppb	22:07:44
1	Cu 324.752†	5482.9	-212.5	-0.6424	ug/L	-0.6424	ppb	22:07:24
1	Mn 257.610†	1060.3	632.7	0.7294	ug/L	0.7294	ppb	22:07:44
1	Mo 202.031†	24.0	9.0	0.6792	ug/L	0.6792	ppb	22:07:44
1	Ni 231.604†	103.9	-1.8	-0.0464	ug/L	-0.0464	ppb	22:07:44
1	P 214.914†	223.0	0.0	0.1545	ug/L	0.1545	ppb	22:07:44
1	Pb 220.353†	-39.4	21.4	2.6739	ug/L	2.6739	ppb	22:07:44
1	S 181.975 Axial†	53.2	15.0	21.902	ug/L	21.902	ppb	22:07:44
1	Sb 206.836†	36.9	-4.4	-1.4691	ug/L	-1.4691	ppb	22:07:44
1	Se 196.026†	-14.5	7.3	5.0600	ug/L	5.0600	ppb	22:07:44
1	Si 251.611†	807.7	263.9	8.8182	ug/L	8.8182	ppb	22:07:44
1	Sn 189.927†	27.7	19.6	3.6457	ug/L	3.6457	ppb	22:07:44
1	Ti 334.940†	-1047.4	231.9	0.3744	ug/L	0.3744	ppb	22:07:24
1	Tl 190.801†	-36.7	-3.3	-1.0600	ug/L	-1.0600	ppb	22:07:44
1	U 409.014†	-2891.9	22.1	0.6342	ug/L	0.6342	ppb	22:07:24
1	V 292.402†	-1490.4	30.2	0.2240	ug/L	0.2240	ppb	22:07:24
1	Zn 213.857†	924.2	232.1	2.2836	ug/L	2.2836	ppb	22:07:44
1	SiO2†	879.5	316.4	22.554	ug/L	22.554	ppb	22:08:40
2	Sc Radial	4823.0	4823.0	100	%			22:06:33
2	Y RADIAL	5068.3	5068.3	101.4	%			22:06:33
2	Al 396.153Radial†	-158.7	-6.6	-6.1130	ug/L	-6.1130	ppb	22:06:33
2	Ca 317.933Radial†	37.9	21.0	34.838	ug/L	34.838	ppb	22:06:53
2	Fe 238.204 Radial†	16.4	4.9	44.433	ug/L	44.433	ppb	22:06:53
2	K 766.490 Radial†	2819.6	-15.5	-2.7686	ug/L	-2.7686	ppb	22:06:33
2	Mg 279.077 IEC†	2.0	1.5	54.848	ug/L	54.848	ppb	22:06:53
2	Na 589.592 Radial†	-842.5	238.8	72.234	ug/L	72.234	ppb	22:06:33
2	Sr 421.552†	34.5	32.3	0.2265	ug/L	0.2265	ppb	22:06:33
2	Sc 361.383	850774.8	850774.8	98.687	%			22:07:50
2	Y 371.029	694063.8	694063.8	97.126	%			22:07:50
2	Ag 328.068†	294.2	69.3	0.3428	ug/L	0.3428	ppb	22:07:50
2	As 188.979†	-31.6	1.9	0.8615	ug/L	0.8615	ppb	22:08:10
2	B 249.677†	-482.6	50.0	1.1820	ug/L	1.1820	ppb	22:08:10
2	Ba 233.527†	13.3	25.1	0.2082	ug/L	0.2082	ppb	22:08:10
2	Be 313.107†	-4104.0	180.1	0.0678	ug/L	0.0678	ppb	22:07:50
2	Cd 226.502†	-196.1	13.2	0.1526	ug/L	0.1526	ppb	22:08:10
2	Co 228.616†	-65.9	6.9	0.1504	ug/L	0.1504	ppb	22:08:10
2	Cr 267.716†	112.4	47.1	0.5494	ug/L	0.5494	ppb	22:08:10
2	Cu 324.752†	5454.9	-293.3	-0.8888	ug/L	-0.8888	ppb	22:07:50
2	Mn 257.610†	1081.3	643.8	0.7429	ug/L	0.7429	ppb	22:08:10
2	Mo 202.031†	20.0	4.8	0.3607	ug/L	0.3607	ppb	22:08:10
2	Ni 231.604†	99.7	-6.9	-0.1800	ug/L	-0.1800	ppb	22:08:10

2	P 214.914†	235.2	10.3	6.5446	ug/L	6.5446 ppb	22:08:10
2	Pb 220.353†	-43.4	17.8	2.2114	ug/L	2.2114 ppb	22:08:10
2	S 181.975 Axial†	44.4	5.7	8.2411	ug/L	8.2411 ppb	22:08:10
2	Sb 206.836†	37.0	-4.7	-1.5962	ug/L	-1.5962 ppb	22:08:10
2	Se 196.026†	-18.3	3.6	2.5538	ug/L	2.5538 ppb	22:08:10
2	Si 251.611†	802.8	251.2	8.3985	ug/L	8.3985 ppb	22:08:10
2	Sn 189.927†	17.6	9.1	1.7017	ug/L	1.7017 ppb	22:08:10
2	Ti 334.940†	-1099.6	189.0	0.3053	ug/L	0.3053 ppb	22:07:50
2	Tl 190.801†	-32.2	1.6	0.5204	ug/L	0.5204 ppb	22:08:10
2	U 409.014†	-2845.9	96.3	2.7866	ug/L	2.7866 ppb	22:07:50
2	V 292.402†	-1403.7	132.2	0.9647	ug/L	0.9647 ppb	22:07:50
2	Zn 213.857†	942.1	241.4	2.3768	ug/L	2.3768 ppb	22:08:10
2	SiO2†	843.7	271.8	19.380	ug/L	19.380 ppb	22:08:45
3	Sc Radial	4945.8	4945.8	103	%		22:06:58
3	Y RADIAL	5168.6	5168.6	103.4	%		22:06:58
3	Al 396.153Radial†	-152.7	3.1	2.8459	ug/L	2.8459 ppb	22:06:58
3	Ca 317.933Radial†	34.8	17.1	28.389	ug/L	28.389 ppb	22:07:18
3	Fe 238.204 Radial†	14.8	2.9	26.741	ug/L	26.741 ppb	22:07:18
3	K 766.490 Radial†	2694.8	-206.5	-36.490	ug/L	-36.490 ppb	22:06:58
3	Mg 279.077 IEC†	0.5	0.1	2.2320	ug/L	2.2320 ppb	22:07:18
3	Na 589.592 Radial†	-920.8	183.6	55.529	ug/L	55.529 ppb	22:06:58
3	Sr 421.552†	55.3	51.7	0.3622	ug/L	0.3622 ppb	22:06:58
3	Sc 361.383	836082.3	836082.3	96.983	%		22:08:15
3	Y 371.029	681115.2	681115.2	95.314	%		22:08:15
3	Ag 328.068†	241.9	20.7	0.1079	ug/L	0.1079 ppb	22:08:15
3	As 188.979†	-32.9	-0.1	-0.0311	ug/L	-0.0311 ppb	22:08:35
3	B 249.677†	-447.0	78.2	1.8549	ug/L	1.8549 ppb	22:08:35
3	Ba 233.527†	15.2	27.3	0.2259	ug/L	0.2259 ppb	22:08:35
3	Be 313.107†	-4118.9	91.7	0.0351	ug/L	0.0351 ppb	22:08:15
3	Cd 226.502†	-200.6	5.1	0.0578	ug/L	0.0578 ppb	22:08:35
3	Co 228.616†	-69.5	2.0	0.0455	ug/L	0.0455 ppb	22:08:35
3	Cr 267.716†	99.7	36.0	0.4201	ug/L	0.4201 ppb	22:08:35
3	Cu 324.752†	5403.5	-249.1	-0.7557	ug/L	-0.7557 ppb	22:08:15
3	Mn 257.610†	1073.1	654.6	0.7557	ug/L	0.7557 ppb	22:08:35
3	Mo 202.031†	32.3	17.8	1.3350	ug/L	1.3350 ppb	22:08:35
3	Ni 231.604†	94.1	-11.0	-0.2857	ug/L	-0.2857 ppb	22:08:35
3	P 214.914†	236.1	15.4	9.7064	ug/L	9.7064 ppb	22:08:35
3	Pb 220.353†	-33.0	27.7	3.4597	ug/L	3.4597 ppb	22:08:35
3	S 181.975 Axial†	52.6	14.8	21.643	ug/L	21.643 ppb	22:08:35
3	Sb 206.836†	28.9	-12.4	-4.2614	ug/L	-4.2614 ppb	22:08:35
3	Se 196.026†	-27.3	-6.0	-3.9561	ug/L	-3.9561 ppb	22:08:35
3	Si 251.611†	796.4	258.9	8.6429	ug/L	8.6429 ppb	22:08:35
3	Sn 189.927†	16.8	8.6	1.6022	ug/L	1.6022 ppb	22:08:35
3	Ti 334.940†	-1003.4	268.6	0.4379	ug/L	0.4379 ppb	22:08:15
3	Tl 190.801†	-31.3	1.9	0.6095	ug/L	0.6095 ppb	22:08:35
3	U 409.014†	-2795.0	98.1	2.8392	ug/L	2.8392 ppb	22:08:15
3	V 292.402†	-1366.9	145.2	1.0743	ug/L	1.0743 ppb	22:08:15
3	Zn 213.857†	941.3	257.3	2.5375	ug/L	2.5375 ppb	22:08:35
3	SiO2†	836.6	279.5	19.900	ug/L	19.900 ppb	22:08:50

Mean Data: 1202024773|945399|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	843228.7	97.812	%	0.8531				0.87%
Sc Radial	4898.2	102	%	1.4				1.35%
Y 371.029	687470.9	96.203	%	0.9065				0.94%
Y RADIAL	5144.6	102.9	%	1.35				1.31%
Ag 328.068†	41.6	0.2101	ug/L	0.12036	0.2101	ppb	0.12036	57.28%
Al 396.153Radial†	3.5	3.2100	ug/L	9.51028	3.2100	ppb	9.51028	296.27%
As 188.979†	1.8	0.8414	ug/L	0.86270	0.8414	ppb	0.86270	102.53%
B 249.677†	73.0	1.7304	ug/L	0.49801	1.7304	ppb	0.49801	28.78%
Ba 233.527†	23.9	0.1979	ug/L	0.03433	0.1979	ppb	0.03433	17.35%
Be 313.107†	129.2	0.0490	ug/L	0.01688	0.0490	ppb	0.01688	34.48%
Ca 317.933Radial†	20.3	33.657	ug/L	4.7877	33.657	ppb	4.7877	14.23%
Cd 226.502†	6.4	0.0721	ug/L	0.07447	0.0721	ppb	0.07447	103.36%
Co 228.616†	5.0	0.1107	ug/L	0.05692	0.1107	ppb	0.05692	51.43%
Cr 267.716†	38.4	0.4480	ug/L	0.09077	0.4480	ppb	0.09077	20.26%
Cu 324.752†	-251.6	-0.7623	ug/L	0.12337	-0.7623	ppb	0.12337	16.18%
Fe 238.204 Radial†	4.3	39.418	ug/L	11.0578	39.418	ppb	11.0578	28.05%
K 766.490 Radial†	-109.4	-19.345	ug/L	16.8676	-19.345	ppb	16.8676	87.20%

Mg 279.077 IEC†	1.3	44.885	ug/L	38.6474	44.885	ppb	38.6474	86.10%
Mn 257.610†	643.7	0.7426	ug/L	0.01316	0.7426	ppb	0.01316	1.77%
Mo 202.031†	10.5	0.7916	ug/L	0.49679	0.7916	ppb	0.49679	62.76%
Na 589.592 Radial†	206.0	62.318	ug/L	8.7806	62.318	ppb	8.7806	14.09%
Ni 231.604†	-6.6	-0.1707	ug/L	0.11993	-0.1707	ppb	0.11993	70.26%
P 214.914†	8.6	5.4685	ug/L	4.86604	5.4685	ppb	4.86604	88.98%
Pb 220.353†	22.3	2.7817	ug/L	0.63108	2.7817	ppb	0.63108	22.69%
S 181.975 Axial†	11.8	17.262	ug/L	7.8133	17.262	ppb	7.8133	45.26%
Sb 206.836†	-7.2	-2.4422	ug/L	1.57672	-2.4422	ppb	1.57672	64.56%
Se 196.026†	1.6	1.2192	ug/L	4.65383	1.2192	ppb	4.65383	381.71%
Si 251.611†	258.0	8.6199	ug/L	0.21081	8.6199	ppb	0.21081	2.45%
Sn 189.927†	12.5	2.3165	ug/L	1.15216	2.3165	ppb	1.15216	49.74%
Sr 421.552†	33.1	0.2317	ug/L	0.12788	0.2317	ppb	0.12788	55.18%
Ti 334.940†	229.8	0.3725	ug/L	0.06632	0.3725	ppb	0.06632	17.80%
Tl 190.801†	0.1	0.0233	ug/L	0.93923	0.0233	ppb	0.93923	>999.9%
U 409.014†	72.2	2.0867	ug/L	1.25817	2.0867	ppb	1.25817	60.30%
V 292.402†	102.5	0.7543	ug/L	0.46253	0.7543	ppb	0.46253	61.32%
Zn 213.857†	243.6	2.3993	ug/L	0.12840	2.3993	ppb	0.12840	5.35%
SiO2†	289.3	20.611	ug/L	1.7025	20.611	ppb	1.7025	8.26%

Sequence No.: 51
Sample ID: 1202024774|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 76
Date Collected: 2/11/2010 22:11:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202024774|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5102.7	5102.7	106	%			22:13:15
1	Y RADIAL	5799.7	5799.7	116.0	%			22:13:15
1	Al 396.153Radial†	97823.5	92304.9	85648	ug/L	85648	ppb	22:12:55
1	Ca 317.933Radial†	58339.8	54941.5	91062	ug/L	91062	ppb	22:12:55
1	Fe 238.204 Radial†	20121.4	18943.6	172380	ug/L	172380	ppb	22:12:55
1	K 766.490 Radial†	231737.2	215479.3	38000	ug/L	38000	ppb	22:12:55
1	Mg 279.077 IEC†	1092.1	1028.4	36273	ug/L	36273	ppb	22:13:15
1	Na 589.592 Radial†	31651.7	30895.5	9344.3	ug/L	9344.3	ppb	22:12:55
1	Sr 421.552†	332071.3	312821.3	2193.2	ug/L	2193.2	ppb	22:12:55
1	Sc 361.383	871117.3	871117.3	101.05	%			22:14:16
1	Y 371.029	762453.1	762453.1	106.70	%			22:14:16
1	Ag 328.068†	48332.4	47603.0	285.85	ug/L	285.85	ppb	22:14:16
1	As 188.979†	1988.8	2002.1	996.93	ug/L	996.93	ppb	22:14:21
1	B 249.677†	56737.9	56689.2	1318.3	ug/L	1318.3	ppb	22:14:16
1	Ba 233.527†	219229.5	216970.4	1779.6	ug/L	1779.6	ppb	22:14:16
1	Be 313.107†	1862305.5	1847354.7	700.98	ug/L	700.98	ppb	22:14:16
1	Cd 226.502†	44258.9	44012.3	506.15	ug/L	506.15	ppb	22:14:21
1	Co 228.616†	38564.5	38238.8	821.85	ug/L	821.85	ppb	22:14:21
1	Cr 267.716†	174222.9	172351.5	2011.5	ug/L	2011.5	ppb	22:14:16
1	Cu 324.752†	549305.6	537795.3	1640.6	ug/L	1640.6	ppb	22:14:16
1	Mn 257.610†	4325880.8	4280622.1	4940.5	ug/L	4940.5	ppb	22:14:16
1	Mo 202.031†	5875.4	5799.0	448.74	ug/L	448.74	ppb	22:14:21
1	Ni 231.604†	44616.9	44046.7	1140.6	ug/L	1140.6	ppb	22:14:21
1	P 214.914†	12237.6	11882.8	6961.6	ug/L	6961.6	ppb	22:14:21
1	Pb 220.353†	7101.0	7089.2	888.05	ug/L	888.05	ppb	22:14:21
1	S 181.975 Axial†	2497.0	2431.8	3530.0	ug/L	3530.0	ppb	22:14:21
1	Sb 206.836†	3668.7	3588.6	1255.0	ug/L	1255.0	ppb	22:14:21
1	Se 196.026†	3087.5	3077.6	2633.0	ug/L	2633.0	ppb	22:14:21
1	Si 251.611†	766990.3	758483.7	25365	ug/L	25365	ppb	22:14:16
1	Sn 189.927†	4977.2	4917.0	929.20	ug/L	929.20	ppb	22:14:21
1	Ti 334.940†	3537886.7	3502545.0	5689.5	ug/L	5689.5	ppb	22:14:16
1	Tl 190.801†	3237.3	3238.0	1102.5	ug/L	1102.5	ppb	22:14:21
1	U 409.014†	-8343.0	-5276.5	-177.14	ug/L	-177.14	ppb	22:14:16
1	V 292.402†	152654.0	152627.5	1083.1	ug/L	1083.1	ppb	22:14:16
1	Zn 213.857†	531425.0	525207.3	5146.1	ug/L	5146.1	ppb	22:14:16
1	SiO2†	769515.6	760962.0	54269	ug/L	54269	ppb	22:14:56
2	Sc Radial	5096.4	5096.4	106	%			22:13:40
2	Y RADIAL	5781.2	5781.2	115.6	%			22:13:40
2	Al 396.153Radial†	95946.3	90647.8	84110	ug/L	84110	ppb	22:13:20
2	Ca 317.933Radial†	57181.8	53916.9	89364	ug/L	89364	ppb	22:13:20
2	Fe 238.204 Radial†	19785.1	18649.8	169710	ug/L	169710	ppb	22:13:20
2	K 766.490 Radial†	226577.5	210881.4	37189	ug/L	37189	ppb	22:13:20
2	Mg 279.077 IEC†	1090.2	1027.9	36257	ug/L	36257	ppb	22:13:40
2	Na 589.592 Radial†	31049.9	30364.6	9183.8	ug/L	9183.8	ppb	22:13:20
2	Sr 421.552†	325221.6	306745.7	2150.6	ug/L	2150.6	ppb	22:13:20
2	Sc 361.383	869436.9	869436.9	100.85	%			22:14:30
2	Y 371.029	762220.2	762220.2	106.66	%			22:14:30
2	Ag 328.068†	48164.9	47529.4	284.62	ug/L	284.62	ppb	22:14:30
2	As 188.979†	1985.4	2002.5	996.47	ug/L	996.47	ppb	22:14:35
2	B 249.677†	56632.2	56693.0	1318.8	ug/L	1318.8	ppb	22:14:30
2	Ba 233.527†	218576.8	216742.5	1777.7	ug/L	1777.7	ppb	22:14:30
2	Be 313.107†	1861908.4	1850523.1	702.15	ug/L	702.15	ppb	22:14:30
2	Cd 226.502†	44267.2	44105.3	507.54	ug/L	507.54	ppb	22:14:35
2	Co 228.616†	38680.3	38427.4	826.01	ug/L	826.01	ppb	22:14:35
2	Cr 267.716†	173867.7	172332.6	2011.2	ug/L	2011.2	ppb	22:14:30
2	Cu 324.752†	548305.2	537853.9	1640.6	ug/L	1640.6	ppb	22:14:30
2	Mn 257.610†	4313354.5	4276475.8	4935.4	ug/L	4935.4	ppb	22:14:30
2	Mo 202.031†	5878.7	5813.5	449.60	ug/L	449.60	ppb	22:14:35
2	Ni 231.604†	44644.7	44159.6	1143.5	ug/L	1143.5	ppb	22:14:35

2	P 214.914†	12234.2	11902.8	6975.7 ug/L	6975.7 ppb	22:14:35
2	Pb 220.353†	7077.5	7079.5	886.74 ug/L	886.74 ppb	22:14:35
2	S 181.975 Axial†	2508.9	2448.4	3554.5 ug/L	3554.5 ppb	22:14:35
2	Sb 206.836†	3719.6	3646.0	1275.0 ug/L	1275.0 ppb	22:14:35
2	Se 196.026†	3103.1	3099.0	2638.8 ug/L	2638.8 ppb	22:14:35
2	Si 251.611†	764417.2	757399.3	25329 ug/L	25329 ppb	22:14:30
2	Sn 189.927†	4929.9	4879.5	921.96 ug/L	921.96 ppb	22:14:35
2	Ti 334.940†	3529904.3	3501396.9	5687.5 ug/L	5687.5 ppb	22:14:30
2	Tl 190.801†	3237.9	3244.7	1104.6 ug/L	1104.6 ppb	22:14:35
2	U 409.014†	-8331.1	-5280.7	-176.96 ug/L	-176.96 ppb	22:14:30
2	V 292.402†	152381.5	152649.3	1083.7 ug/L	1083.7 ppb	22:14:30
2	Zn 213.857†	530307.4	525115.6	5145.6 ug/L	5145.6 ppb	22:14:30
2	SiO2†	763266.8	756237.7	53932 ug/L	53932 ppb	22:15:02
3	Sc Radial	5071.9	5071.9	106 %		22:14:05
3	Y RADIAL	5761.3	5761.3	115.2 %		22:14:05
3	Al 396.153Radial†	98052.2	93081.2	86369 ug/L	86369 ppb	22:13:45
3	Ca 317.933Radial†	58143.8	55089.5	91307 ug/L	91307 ppb	22:13:45
3	Fe 238.204 Radial†	20149.7	19085.6	173680 ug/L	173680 ppb	22:13:45
3	K 766.490 Radial†	231759.3	216825.8	38237 ug/L	38237 ppb	22:13:45
3	Mg 279.077 IEC†	1093.7	1036.2	36547 ug/L	36547 ppb	22:14:05
3	Na 589.592 Radial†	31695.2	31117.9	9411.6 ug/L	9411.6 ppb	22:13:45
3	Sr 421.552†	333678.6	316244.1	2217.2 ug/L	2217.2 ppb	22:13:45
3	Sc 361.383	874667.3	874667.3	101.46 %		22:14:45
3	Y 371.029	766591.4	766591.4	107.28 %		22:14:45
3	Ag 328.068†	48520.0	47593.7	286.24 ug/L	286.24 ppb	22:14:45
3	As 188.979†	1948.0	1953.9	975.40 ug/L	975.40 ppb	22:14:50
3	B 249.677†	57016.8	56736.2	1319.2 ug/L	1319.2 ppb	22:14:45
3	Ba 233.527†	220090.4	216938.3	1779.4 ug/L	1779.4 ppb	22:14:45
3	Be 313.107†	1873244.0	1850655.7	702.21 ug/L	702.21 ppb	22:14:45
3	Cd 226.502†	43686.5	43270.5	497.19 ug/L	497.19 ppb	22:14:50
3	Co 228.616†	38171.0	37696.1	809.96 ug/L	809.96 ppb	22:14:50
3	Cr 267.716†	174942.5	172361.1	2011.6 ug/L	2011.6 ppb	22:14:45
3	Cu 324.752†	552200.1	538441.8	1642.6 ug/L	1642.6 ppb	22:14:45
3	Mn 257.610†	4339916.5	4277080.2	4936.5 ug/L	4936.5 ppb	22:14:45
3	Mo 202.031†	5818.0	5718.8	442.84 ug/L	442.84 ppb	22:14:50
3	Ni 231.604†	43953.4	43213.6	1119.0 ug/L	1119.0 ppb	22:14:50
3	P 214.914†	12066.1	11664.6	6824.3 ug/L	6824.3 ppb	22:14:50
3	Pb 220.353†	7003.5	6964.6	872.52 ug/L	872.52 ppb	22:14:50
3	S 181.975 Axial†	2439.2	2364.8	3432.1 ug/L	3432.1 ppb	22:14:50
3	Sb 206.836†	3687.4	3592.3	1255.7 ug/L	1255.7 ppb	22:14:50
3	Se 196.026†	3037.7	3016.1	2595.8 ug/L	2595.8 ppb	22:14:50
3	Si 251.611†	769497.3	757873.9	25345 ug/L	25345 ppb	22:14:45
3	Sn 189.927†	4874.4	4795.6	906.74 ug/L	906.74 ppb	22:14:50
3	Ti 334.940†	3552595.8	3502832.0	5690.0 ug/L	5690.0 ppb	22:14:45
3	Tl 190.801†	3189.4	3177.7	1083.3 ug/L	1083.3 ppb	22:14:50
3	U 409.014†	-8261.6	-5162.8	-173.99 ug/L	-173.99 ppb	22:14:45
3	V 292.402†	153383.8	152733.6	1083.6 ug/L	1083.6 ppb	22:14:45
3	Zn 213.857†	533431.5	525050.4	5144.5 ug/L	5144.5 ppb	22:14:45
3	SiO2†	771072.2	759405.2	54158 ug/L	54158 ppb	22:15:08

Mean Data: 1202024774|945399|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871740.5	101.12	%	0.310				0.31%
Sc Radial	5090.3	106	%	0.3				0.32%
Y 371.029	763754.9	106.88	%	0.344				0.32%
Y RADIAL	5780.7	115.6	%	0.38				0.33%
Ag 328.068†	47575.4	285.57	ug/L	0.843	285.57	ppb	0.843	0.30%
Al 396.153Radial†	92011.3	85376	ug/L	1153.8	85376	ppb	1153.8	1.35%
As 188.979†	1986.1	989.60	ug/L	12.303	989.60	ppb	12.303	1.24%
B 249.677†	56706.2	1318.7	ug/L	0.47	1318.7	ppb	0.47	0.04%
Ba 233.527†	216883.7	1778.9	ug/L	1.06	1778.9	ppb	1.06	0.06%
Be 313.107†	1849511.1	701.78	ug/L	0.695	701.78	ppb	0.695	0.10%
Ca 317.933Radial†	54649.3	90578	ug/L	1058.4	90578	ppb	1058.4	1.17%
Cd 226.502†	43796.0	503.63	ug/L	5.619	503.63	ppb	5.619	1.12%
Co 228.616†	38120.7	819.27	ug/L	8.330	819.27	ppb	8.330	1.02%
Cr 267.716†	172348.4	2011.4	ug/L	0.21	2011.4	ppb	0.21	0.01%
Cu 324.752†	538030.3	1641.3	ug/L	1.16	1641.3	ppb	1.16	0.07%
Fe 238.204 Radial†	18893.0	171920	ug/L	2022.1	171920	ppb	2022.1	1.18%
K 766.490 Radial†	214395.5	37809	ug/L	549.8	37809	ppb	549.8	1.45%

Mg 279.077 IEC†	1030.8	36359	ug/L	162.9	36359	ppb	162.9	0.45%
Mn 257.610†	4278059.4	4937.5	ug/L	2.65	4937.5	ppb	2.65	0.05%
Mo 202.031†	5777.1	447.06	ug/L	3.682	447.06	ppb	3.682	0.82%
Na 589.592 Radial†	30792.7	9313.2	ug/L	117.05	9313.2	ppb	117.05	1.26%
Ni 231.604†	43806.6	1134.4	ug/L	13.38	1134.4	ppb	13.38	1.18%
P 214.914†	11816.7	6920.5	ug/L	83.61	6920.5	ppb	83.61	1.21%
Pb 220.353†	7044.4	882.44	ug/L	8.611	882.44	ppb	8.611	0.98%
S 181.975 Axial†	2415.0	3505.6	ug/L	64.77	3505.6	ppb	64.77	1.85%
Sb 206.836†	3609.0	1261.9	ug/L	11.34	1261.9	ppb	11.34	0.90%
Se 196.026†	3064.2	2622.5	ug/L	23.35	2622.5	ppb	23.35	0.89%
Si 251.611†	757918.9	25346	ug/L	18.2	25346	ppb	18.2	0.07%
Sn 189.927†	4864.0	919.30	ug/L	11.464	919.30	ppb	11.464	1.25%
Sr 421.552†	311937.0	2187.0	ug/L	33.73	2187.0	ppb	33.73	1.54%
Ti 334.940†	3502258.0	5689.0	ug/L	1.36	5689.0	ppb	1.36	0.02%
Tl 190.801†	3220.1	1096.8	ug/L	11.78	1096.8	ppb	11.78	1.07%
U 409.014†	-5240.0	-176.03	ug/L	1.768	-176.03	ppb	1.768	1.00%
V 292.402†	152670.1	1083.5	ug/L	0.31	1083.5	ppb	0.31	0.03%
Zn 213.857†	525124.4	5145.4	ug/L	0.82	5145.4	ppb	0.82	0.02%
SiO2†	758868.3	54120	ug/L	171.8	54120	ppb	171.8	0.32%

Sequence No.: 59
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 23:07:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4924.2	4924.2	102	%			23:08:53
1	Y RADIAL	5156.4	5156.4	103.1	%			23:08:53
1	Al 396.153Radial†	5392.9	5416.0	5003.4	ug/L	5003.4	ppb	23:08:53
1	Ca 317.933Radial†	3112.8	3022.0	5008.7	ug/L	5008.7	ppb	23:09:13
1	Fe 238.204 Radial†	569.1	544.1	4965.5	ug/L	4965.5	ppb	23:09:13
1	K 766.490 Radial†	30640.2	27084.7	4774.8	ug/L	4774.8	ppb	23:08:53
1	Mg 279.077 IEC†	152.0	148.0	5245.0	ug/L	5245.0	ppb	23:09:13
1	Na 589.592 Radial†	31630.6	31955.7	9665.0	ug/L	9665.0	ppb	23:08:53
1	Sr 421.552†	75228.3	73434.4	514.97	ug/L	514.97	ppb	23:08:53
1	Sc 361.383	859283.8	859283.8	99.674	%			23:10:11
1	Y 371.029	691376.9	691376.9	96.750	%			23:10:11
1	Ag 328.068†	103893.9	104004.9	493.21	ug/L	493.21	ppb	23:10:16
1	As 188.979†	1028.0	1065.3	487.65	ug/L	487.65	ppb	23:10:36
1	B 249.677†	20027.4	20632.0	488.57	ug/L	488.57	ppb	23:10:16
1	Ba 233.527†	61340.4	61552.6	503.91	ug/L	503.91	ppb	23:10:16
1	Be 313.107†	1291489.8	1300052.7	485.36	ug/L	485.36	ppb	23:10:11
1	Cd 226.502†	40861.4	41206.9	489.81	ug/L	489.81	ppb	23:10:16
1	Co 228.616†	23301.3	23451.2	512.29	ug/L	512.29	ppb	23:10:16
1	Cr 267.716†	41680.7	41750.2	486.64	ug/L	486.64	ppb	23:10:16
1	Cu 324.752†	169095.2	163827.6	496.96	ug/L	496.96	ppb	23:10:16
1	Mn 257.610†	428768.2	429718.7	494.67	ug/L	494.67	ppb	23:10:11
1	Mo 202.031†	6400.4	6405.8	480.16	ug/L	480.16	ppb	23:10:36
1	Ni 231.604†	19069.1	19023.5	492.53	ug/L	492.53	ppb	23:10:16
1	P 214.914†	4107.6	3893.0	2325.6	ug/L	2325.6	ppb	23:10:36
1	Pb 220.353†	3795.9	3870.0	484.38	ug/L	484.38	ppb	23:10:36
1	S 181.975 Axial†	693.5	656.4	956.25	ug/L	956.25	ppb	23:10:36
1	Sb 206.836†	1401.3	1363.7	492.53	ug/L	492.53	ppb	23:10:36
1	Se 196.026†	681.6	706.0	493.25	ug/L	493.25	ppb	23:10:36
1	Si 251.611†	75165.0	74848.5	2497.7	ug/L	2497.7	ppb	23:10:16
1	Sn 189.927†	2575.4	2575.1	478.72	ug/L	478.72	ppb	23:10:36
1	Ti 334.940†	304236.4	306534.7	497.04	ug/L	497.04	ppb	23:10:16
1	Tl 190.801†	1497.1	1536.2	495.61	ug/L	495.61	ppb	23:10:36
1	U 409.014†	13918.0	16943.6	489.65	ug/L	489.65	ppb	23:10:16
1	V 292.402†	65269.4	67037.5	493.23	ug/L	493.23	ppb	23:10:16
1	Zn 213.857†	51028.4	50482.1	493.48	ug/L	493.48	ppb	23:10:16
1	SiO2†	75271.4	74934.5	5332.2	ug/L	5332.2	ppb	23:11:43
2	Sc Radial	4791.6	4791.6	99.7	%			23:09:18
2	Y RADIAL	5042.9	5042.9	100.8	%			23:09:18
2	Al 396.153Radial†	5305.4	5473.9	5056.8	ug/L	5056.8	ppb	23:09:18
2	Ca 317.933Radial†	3096.1	3089.3	5120.3	ug/L	5120.3	ppb	23:09:38
2	Fe 238.204 Radial†	570.1	560.5	5114.9	ug/L	5114.9	ppb	23:09:38
2	K 766.490 Radial†	30443.2	27714.8	4885.9	ug/L	4885.9	ppb	23:09:18
2	Mg 279.077 IEC†	149.8	149.9	5312.5	ug/L	5312.5	ppb	23:09:38
2	Na 589.592 Radial†	31076.9	32254.7	9755.4	ug/L	9755.4	ppb	23:09:18
2	Sr 421.552†	74096.6	74331.1	521.26	ug/L	521.26	ppb	23:09:18
2	Sc 361.383	854571.6	854571.6	99.127	%			23:10:42
2	Y 371.029	689536.1	689536.1	96.492	%			23:10:42
2	Ag 328.068†	104206.3	104894.8	497.47	ug/L	497.47	ppb	23:10:47
2	As 188.979†	1044.2	1087.2	497.66	ug/L	497.66	ppb	23:11:07
2	B 249.677†	20097.4	20813.3	492.85	ug/L	492.85	ppb	23:10:47
2	Ba 233.527†	61154.8	61704.8	505.16	ug/L	505.16	ppb	23:10:47
2	Be 313.107†	1304755.0	1320579.5	493.01	ug/L	493.01	ppb	23:10:42
2	Cd 226.502†	40751.0	41321.6	491.15	ug/L	491.15	ppb	23:10:47
2	Co 228.616†	23283.2	23561.9	514.71	ug/L	514.71	ppb	23:10:47
2	Cr 267.716†	41736.6	42037.3	489.99	ug/L	489.99	ppb	23:10:47
2	Cu 324.752†	169565.9	165237.8	501.24	ug/L	501.24	ppb	23:10:47
2	Mn 257.610†	430488.3	433826.0	499.41	ug/L	499.41	ppb	23:10:42
2	Mo 202.031†	6462.7	6504.1	487.53	ug/L	487.53	ppb	23:11:07
2	Ni 231.604†	18966.2	19025.2	492.57	ug/L	492.57	ppb	23:10:47

2	P 214.914†	4143.4	3951.8	2361.3	ug/L	2361.3 ppb	23:11:07
2	Pb 220.353†	3819.5	3914.9	489.99	ug/L	489.99 ppb	23:11:07
2	S 181.975 Axial†	697.8	664.6	968.15	ug/L	968.15 ppb	23:11:07
2	Sb 206.836†	1435.8	1406.3	507.62	ug/L	507.62 ppb	23:11:07
2	Se 196.026†	701.6	729.9	509.88	ug/L	509.88 ppb	23:11:07
2	Si 251.611†	75225.7	75325.6	2513.5	ug/L	2513.5 ppb	23:10:47
2	Sn 189.927†	2599.4	2613.6	485.89	ug/L	485.89 ppb	23:11:07
2	Ti 334.940†	304149.0	308129.6	499.63	ug/L	499.63 ppb	23:10:47
2	Tl 190.801†	1514.2	1561.7	503.80	ug/L	503.80 ppb	23:11:07
2	U 409.014†	13843.2	16945.1	489.67	ug/L	489.67 ppb	23:10:47
2	V 292.402†	65337.1	67466.9	496.43	ug/L	496.43 ppb	23:10:47
2	Zn 213.857†	50992.9	50728.6	495.88	ug/L	495.88 ppb	23:10:47
2	SiO2†	74897.8	74974.0	5334.8	ug/L	5334.8 ppb	23:11:49
3	Sc Radial	4882.3	4882.3	102	%		23:09:44
3	Y RADIAL	5116.5	5116.5	102.3	%		23:09:44
3	Al 396.153Radial†	5344.3	5413.4	5000.7	ug/L	5000.7 ppb	23:09:44
3	Ca 317.933Radial†	3061.8	2997.8	4968.7	ug/L	4968.7 ppb	23:10:04
3	Fe 238.204 Radial†	564.4	544.2	4966.4	ug/L	4966.4 ppb	23:10:04
3	K 766.490 Radial†	30719.2	27419.1	4833.8	ug/L	4833.8 ppb	23:09:44
3	Mg 279.077 IEC†	147.2	144.6	5123.1	ug/L	5123.1 ppb	23:10:04
3	Na 589.592 Radial†	31504.7	32096.6	9707.6	ug/L	9707.6 ppb	23:09:44
3	Sr 421.552†	75082.1	73920.3	518.38	ug/L	518.38 ppb	23:09:44
3	Sc 361.383	860603.4	860603.4	99.827	%		23:11:13
3	Y 371.029	692926.0	692926.0	96.967	%		23:11:13
3	Ag 328.068†	103905.2	103856.5	492.51	ug/L	492.51 ppb	23:11:18
3	As 188.979†	1052.5	1088.2	498.04	ug/L	498.04 ppb	23:11:38
3	B 249.677†	20164.6	20738.6	491.11	ug/L	491.11 ppb	23:11:18
3	Ba 233.527†	61249.4	61367.1	502.39	ug/L	502.39 ppb	23:11:18
3	Be 313.107†	1316912.5	1323532.8	494.10	ug/L	494.10 ppb	23:11:13
3	Cd 226.502†	40848.0	41130.7	488.90	ug/L	488.90 ppb	23:11:18
3	Co 228.616†	23276.2	23390.2	510.97	ug/L	510.97 ppb	23:11:18
3	Cr 267.716†	41711.9	41717.4	486.26	ug/L	486.26 ppb	23:11:18
3	Cu 324.752†	168949.1	163421.1	495.73	ug/L	495.73 ppb	23:11:18
3	Mn 257.610†	435517.7	435820.3	501.70	ug/L	501.70 ppb	23:11:13
3	Mo 202.031†	6480.0	6475.7	485.40	ug/L	485.40 ppb	23:11:38
3	Ni 231.604†	18990.5	18915.3	489.73	ug/L	489.73 ppb	23:11:18
3	P 214.914†	4212.0	3991.2	2387.0	ug/L	2387.0 ppb	23:11:38
3	Pb 220.353†	3856.9	3925.4	491.29	ug/L	491.29 ppb	23:11:38
3	S 181.975 Axial†	713.8	675.7	984.37	ug/L	984.37 ppb	23:11:38
3	Sb 206.836†	1439.8	1400.1	505.44	ug/L	505.44 ppb	23:11:38
3	Se 196.026†	705.9	729.2	508.90	ug/L	508.90 ppb	23:11:38
3	Si 251.611†	75104.6	74672.4	2491.7	ug/L	2491.7 ppb	23:11:18
3	Sn 189.927†	2616.8	2612.6	485.68	ug/L	485.68 ppb	23:11:38
3	Ti 334.940†	303753.6	305583.0	495.50	ug/L	495.50 ppb	23:11:18
3	Tl 190.801†	1520.1	1556.9	502.26	ug/L	502.26 ppb	23:11:38
3	U 409.014†	13755.2	16759.1	484.30	ug/L	484.30 ppb	23:11:18
3	V 292.402†	65138.1	66805.5	491.61	ug/L	491.61 ppb	23:11:18
3	Zn 213.857†	51003.4	50378.5	492.47	ug/L	492.47 ppb	23:11:18
3	SiO2†	74871.3	74417.9	5295.2	ug/L	5295.2 ppb	23:11:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858152.9	99.543	%	0.3678				0.37%
Sc Radial	4866.0	101	%	1.4				1.39%
Y 371.029	691279.7	96.736	%	0.2375				0.25%
Y RADIAL	5105.3	102.1	%	1.15				1.13%
Ag 328.068†	104252.1	494.40	ug/L	2.682	494.40	ppb	2.682	0.54%
QC value within limits for Ag 328.068 Recovery = 98.88%								
Al 396.153Radial†	5434.4	5020.3	ug/L	31.64	5020.3	ppb	31.64	0.63%
QC value within limits for Al 396.153Radial Recovery = 100.41%								
As 188.979†	1080.2	494.45	ug/L	5.894	494.45	ppb	5.894	1.19%
QC value within limits for As 188.979 Recovery = 98.89%								
B 249.677†	20728.0	490.84	ug/L	2.154	490.84	ppb	2.154	0.44%
QC value within limits for B 249.677 Recovery = 98.17%								
Ba 233.527†	61541.5	503.82	ug/L	1.388	503.82	ppb	1.388	0.28%
QC value within limits for Ba 233.527 Recovery = 100.76%								
Be 313.107†	1314721.6	490.82	ug/L	4.764	490.82	ppb	4.764	0.97%
QC value within limits for Be 313.107 Recovery = 98.16%								
Ca 317.933Radial†	3036.4	5032.6	ug/L	78.58	5032.6	ppb	78.58	1.56%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.65%
Cd 226.502†            41219.8      489.95 ug/L         1.136      489.95 ppb          1.136   0.23%
   QC value within limits for Cd 226.502  Recovery = 97.99%
Co 228.616†            23467.8      512.65 ug/L         1.898      512.65 ppb          1.898   0.37%
   QC value within limits for Co 228.616  Recovery = 102.53%
Cr 267.716†            41835.0      487.63 ug/L         2.053      487.63 ppb          2.053   0.42%
   QC value within limits for Cr 267.716  Recovery = 97.53%
Cu 324.752†           164162.2      497.98 ug/L         2.896      497.98 ppb          2.896   0.58%
   QC value within limits for Cu 324.752  Recovery = 99.60%
Fe 238.204 Radial†       549.6      5015.6 ug/L        85.99      5015.6 ppb         85.99   1.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.31%
K 766.490 Radial†      27406.2      4831.5 ug/L        55.61      4831.5 ppb         55.61   1.15%
   QC value within limits for K 766.490 Radial  Recovery = 96.63%
Mg 279.077 IEC†          147.5      5226.9 ug/L        96.00      5226.9 ppb         96.00   1.84%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.54%
Mn 257.610†           433121.7      498.59 ug/L         3.583      498.59 ppb          3.583   0.72%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†             6461.9      484.36 ug/L         3.793      484.36 ppb          3.793   0.78%
   QC value within limits for Mo 202.031  Recovery = 96.87%
Na 589.592 Radial†     32102.3      9709.3 ug/L        45.23      9709.3 ppb         45.23   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 97.09%
Ni 231.604†            18988.0      491.61 ug/L         1.630      491.61 ppb          1.630   0.33%
   QC value within limits for Ni 231.604  Recovery = 98.32%
P 214.914†              3945.3      2358.0 ug/L        30.85      2358.0 ppb         30.85   1.31%
   QC value within limits for P 214.914  Recovery = 94.32%
Pb 220.353†             3903.4      488.55 ug/L         3.675      488.55 ppb          3.675   0.75%
   QC value within limits for Pb 220.353  Recovery = 97.71%
S 181.975 Axial†         665.6      969.59 ug/L        14.118      969.59 ppb         14.118   1.46%
   QC value within limits for S 181.975 Axial  Recovery = 96.96%
Sb 206.836†             1390.0      501.86 ug/L         8.156      501.86 ppb          8.156   1.63%
   QC value within limits for Sb 206.836  Recovery = 100.37%
Se 196.026†              721.7      504.01 ug/L         9.333      504.01 ppb          9.333   1.85%
   QC value within limits for Se 196.026  Recovery = 100.80%
Si 251.611†            74948.9      2501.0 ug/L        11.28      2501.0 ppb         11.28   0.45%
   QC value within limits for Si 251.611  Recovery = 100.04%
Sn 189.927†             2600.5      483.43 ug/L         4.077      483.43 ppb          4.077   0.84%
   QC value within limits for Sn 189.927  Recovery = 96.69%
Sr 421.552†            73895.3      518.20 ug/L         3.148      518.20 ppb          3.148   0.61%
   QC value within limits for Sr 421.552  Recovery = 103.64%
Ti 334.940†           306749.1      497.39 ug/L         2.088      497.39 ppb          2.088   0.42%
   QC value within limits for Ti 334.940  Recovery = 99.48%
Tl 190.801†             1551.6      500.56 ug/L         4.352      500.56 ppb          4.352   0.87%
   QC value within limits for Tl 190.801  Recovery = 100.11%
U 409.014†             16882.6      487.88 ug/L         3.094      487.88 ppb          3.094   0.63%
   QC value within limits for U 409.014  Recovery = 97.58%
V 292.402†             67103.3      493.76 ug/L         2.452      493.76 ppb          2.452   0.50%
   QC value within limits for V 292.402  Recovery = 98.75%
Zn 213.857†            50529.7      493.94 ug/L         1.750      493.94 ppb          1.750   0.35%
   QC value within limits for Zn 213.857  Recovery = 98.79%
SiO2†                  74775.4      5320.7 ug/L        22.15      5320.7 ppb         22.15   0.42%
   QC value within limits for SiO2  Recovery = 99.50%
All analyte(s) passed QC.
```

Sequence No.: 60
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 23:14:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4910.1	4910.1	102	%			23:15:56
1	Y RADIAL	5186.0	5186.0	103.7	%			23:15:56
1	Al 396.153Radial†	-113.6	40.3	37.432	ug/L	37.432	ppb	23:15:56
1	Ca 317.933Radial†	19.0	1.9	3.2057	ug/L	3.2057	ppb	23:16:16
1	Fe 238.204 Radial†	14.2	2.4	21.899	ug/L	21.899	ppb	23:16:16
1	K 766.490 Radial†	2842.0	-43.5	-7.6953	ug/L	-7.6953	ppb	23:15:56
1	Mg 279.077 IEC†	1.5	1.1	37.746	ug/L	37.746	ppb	23:16:16
1	Na 589.592 Radial†	-922.7	175.2	52.991	ug/L	52.991	ppb	23:15:56
1	Sr 421.552†	14.8	12.4	0.0866	ug/L	0.0866	ppb	23:15:56
1	Sc 361.383	847886.1	847886.1	98.352	%			23:17:12
1	Y 371.029	690960.9	690960.9	96.692	%			23:17:12
1	Ag 328.068†	200.0	-25.4	-0.1135	ug/L	-0.1135	ppb	23:17:17
1	As 188.979†	-29.0	4.4	1.9971	ug/L	1.9971	ppb	23:17:37
1	B 249.677†	-430.8	101.0	2.3973	ug/L	2.3973	ppb	23:17:37
1	Ba 233.527†	-2.6	9.0	0.0746	ug/L	0.0746	ppb	23:17:37
1	Be 313.107†	-4169.6	99.2	0.0376	ug/L	0.0376	ppb	23:17:17
1	Cd 226.502†	-196.1	12.5	0.1469	ug/L	0.1469	ppb	23:17:37
1	Co 228.616†	-50.0	22.8	0.4986	ug/L	0.4986	ppb	23:17:37
1	Cr 267.716†	79.0	13.6	0.1578	ug/L	0.1578	ppb	23:17:37
1	Cu 324.752†	5358.6	-372.3	-1.1300	ug/L	-1.1300	ppb	23:17:17
1	Mn 257.610†	509.1	65.7	0.0762	ug/L	0.0762	ppb	23:17:37
1	Mo 202.031†	18.6	3.4	0.2558	ug/L	0.2558	ppb	23:17:37
1	Ni 231.604†	98.3	-8.0	-0.2087	ug/L	-0.2087	ppb	23:17:37
1	P 214.914†	229.7	5.5	3.6540	ug/L	3.6540	ppb	23:17:37
1	Pb 220.353†	-61.7	-1.0	-0.1209	ug/L	-0.1209	ppb	23:17:37
1	S 181.975 Axial†	43.3	4.7	6.7752	ug/L	6.7752	ppb	23:17:37
1	Sb 206.836†	43.0	1.6	0.5760	ug/L	0.5760	ppb	23:17:37
1	Se 196.026†	-21.6	0.2	0.1774	ug/L	0.1774	ppb	23:17:37
1	Si 251.611†	569.7	17.0	0.5661	ug/L	0.5661	ppb	23:17:37
1	Sn 189.927†	13.6	5.1	0.9491	ug/L	0.9491	ppb	23:17:37
1	Ti 334.940†	-1118.9	165.6	0.2645	ug/L	0.2645	ppb	23:17:17
1	Tl 190.801†	-23.9	9.9	3.1660	ug/L	3.1660	ppb	23:17:37
1	U 409.014†	-2828.3	104.3	3.0226	ug/L	3.0226	ppb	23:17:12
1	V 292.402†	-1481.2	48.6	0.3598	ug/L	0.3598	ppb	23:17:17
1	Zn 213.857†	720.8	19.6	0.1928	ug/L	0.1928	ppb	23:17:37
1	SiO2†	646.1	73.8	5.2587	ug/L	5.2587	ppb	23:18:43
2	Sc Radial	4765.3	4765.3	99.1	%			23:16:21
2	Y RADIAL	4996.9	4996.9	99.92	%			23:16:21
2	Al 396.153Radial†	-148.5	1.8	1.6431	ug/L	1.6431	ppb	23:16:21
2	Ca 317.933Radial†	14.1	-2.5	-4.0960	ug/L	-4.0960	ppb	23:16:41
2	Fe 238.204 Radial†	10.0	-1.4	-12.298	ug/L	-12.298	ppb	23:16:41
2	K 766.490 Radial†	2881.2	80.7	14.234	ug/L	14.234	ppb	23:16:21
2	Mg 279.077 IEC†	3.2	2.9	101.20	ug/L	101.20	ppb	23:16:41
2	Na 589.592 Radial†	-1018.5	51.1	15.456	ug/L	15.456	ppb	23:16:21
2	Sr 421.552†	60.5	59.0	0.4136	ug/L	0.4136	ppb	23:16:21
2	Sc 361.383	855985.0	855985.0	99.291	%			23:17:43
2	Y 371.029	697938.4	697938.4	97.668	%			23:17:43
2	Ag 328.068†	193.5	-33.9	-0.1662	ug/L	-0.1662	ppb	23:17:48
2	As 188.979†	-24.6	9.1	4.1160	ug/L	4.1160	ppb	23:18:08
2	B 249.677†	-442.1	93.8	2.2327	ug/L	2.2327	ppb	23:18:08
2	Ba 233.527†	7.2	18.8	0.1538	ug/L	0.1538	ppb	23:18:08
2	Be 313.107†	-4176.4	132.5	0.0499	ug/L	0.0499	ppb	23:17:48
2	Cd 226.502†	-200.2	10.3	0.1242	ug/L	0.1242	ppb	23:18:08
2	Co 228.616†	-62.0	11.3	0.2479	ug/L	0.2479	ppb	23:18:08
2	Cr 267.716†	87.8	21.7	0.2507	ug/L	0.2507	ppb	23:18:08
2	Cu 324.752†	5318.6	-464.2	-1.4112	ug/L	-1.4112	ppb	23:17:48
2	Mn 257.610†	531.9	83.9	0.0911	ug/L	0.0911	ppb	23:18:08
2	Mo 202.031†	28.8	13.5	1.0075	ug/L	1.0075	ppb	23:18:08
2	Ni 231.604†	83.7	-23.7	-0.6145	ug/L	-0.6145	ppb	23:18:08

2	P 214.914†	235.4	9.0	5.8885 ug/L	5.8885 ppb	23:18:08
2	Pb 220.353†	-61.6	-0.3	-0.0319 ug/L	-0.0319 ppb	23:18:08
2	S 181.975 Axial†	38.3	-0.7	-1.0710 ug/L	-1.0710 ppb	23:18:08
2	Sb 206.836†	35.1	-6.8	-2.3425 ug/L	-2.3425 ppb	23:18:08
2	Se 196.026†	-22.0	-0.0	-0.0380 ug/L	-0.0380 ppb	23:18:08
2	Si 251.611†	555.8	-2.5	-0.0976 ug/L	-0.0976 ppb	23:18:08
2	Sn 189.927†	16.2	7.6	1.4130 ug/L	1.4130 ppb	23:18:08
2	Ti 334.940†	-1150.5	144.5	0.2235 ug/L	0.2235 ppb	23:17:48
2	Tl 190.801†	-44.7	-10.8	-3.4668 ug/L	-3.4668 ppb	23:18:08
2	U 409.014†	-2811.3	148.7	4.3136 ug/L	4.3136 ppb	23:17:43
2	V 292.402†	-1501.1	42.9	0.3371 ug/L	0.3371 ppb	23:17:48
2	Zn 213.857†	709.0	0.8	0.0159 ug/L	0.0159 ppb	23:18:08
2	SiO2†	617.0	38.3	2.7038 ug/L	2.7038 ppb	23:18:48
3	Sc Radial	4863.8	4863.8	101 %		23:16:46
3	Y RADIAL	5091.4	5091.4	101.8 %		23:16:46
3	Al 396.153Radial†	-140.0	13.2	12.244 ug/L	12.244 ppb	23:16:46
3	Ca 317.933Radial†	17.7	0.8	1.3825 ug/L	1.3825 ppb	23:17:06
3	Fe 238.204 Radial†	10.9	-0.7	-6.2996 ug/L	-6.2996 ppb	23:17:06
3	K 766.490 Radial†	2755.2	-102.7	-18.132 ug/L	-18.132 ppb	23:16:46
3	Mg 279.077 IEC†	3.0	2.6	91.904 ug/L	91.904 ppb	23:17:06
3	Na 589.592 Radial†	-1006.1	84.2	25.458 ug/L	25.458 ppb	23:16:46
3	Sr 421.552†	14.3	12.0	0.0845 ug/L	0.0845 ppb	23:16:46
3	Sc 361.383	859136.2	859136.2	99.657 %		23:18:13
3	Y 371.029	699340.5	699340.5	97.864 %		23:18:13
3	Ag 328.068†	303.9	76.2	0.3490 ug/L	0.3490 ppb	23:18:18
3	As 188.979†	-24.1	9.7	4.3769 ug/L	4.3769 ppb	23:18:38
3	B 249.677†	-392.0	145.7	3.4661 ug/L	3.4661 ppb	23:18:38
3	Ba 233.527†	-20.1	-8.5	-0.0699 ug/L	-0.0699 ppb	23:18:38
3	Be 313.107†	-4225.8	98.3	0.0367 ug/L	0.0367 ppb	23:18:18
3	Cd 226.502†	-190.2	21.1	0.2527 ug/L	0.2527 ppb	23:18:38
3	Co 228.616†	-71.8	1.6	0.0365 ug/L	0.0365 ppb	23:18:38
3	Cr 267.716†	38.7	-27.9	-0.3287 ug/L	-0.3287 ppb	23:18:38
3	Cu 324.752†	5413.3	-388.8	-1.1851 ug/L	-1.1851 ppb	23:18:18
3	Mn 257.610†	578.9	129.0	0.1440 ug/L	0.1440 ppb	23:18:38
3	Mo 202.031†	21.2	5.8	0.4310 ug/L	0.4310 ppb	23:18:38
3	Ni 231.604†	65.9	-41.9	-1.0863 ug/L	-1.0863 ppb	23:18:38
3	P 214.914†	240.9	13.7	8.7718 ug/L	8.7718 ppb	23:18:38
3	Pb 220.353†	-67.9	-6.4	-0.7977 ug/L	-0.7977 ppb	23:18:38
3	S 181.975 Axial†	39.2	-0.0	-0.0295 ug/L	-0.0295 ppb	23:18:38
3	Sb 206.836†	35.4	-6.6	-2.2827 ug/L	-2.2827 ppb	23:18:38
3	Se 196.026†	-18.3	3.8	2.5123 ug/L	2.5123 ppb	23:18:38
3	Si 251.611†	591.3	31.1	1.0349 ug/L	1.0349 ppb	23:18:38
3	Sn 189.927†	15.8	7.1	1.3254 ug/L	1.3254 ppb	23:18:38
3	Ti 334.940†	-1270.1	28.7	0.0352 ug/L	0.0352 ppb	23:18:18
3	Tl 190.801†	-37.2	-3.2	-1.0116 ug/L	-1.0116 ppb	23:18:38
3	U 409.014†	-2641.3	329.7	9.5604 ug/L	9.5604 ppb	23:18:13
3	V 292.402†	-1547.4	1.9	0.0410 ug/L	0.0410 ppb	23:18:18
3	Zn 213.857†	707.5	-3.4	-0.0236 ug/L	-0.0236 ppb	23:18:38
3	SiO2†	653.4	72.5	5.1578 ug/L	5.1578 ppb	23:18:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854335.8	99.100	%	0.6732				0.68%
Sc Radial	4846.4	101	%	1.5				1.53%
Y 371.029	696079.9	97.408	%	0.6281				0.64%
Y RADIAL	5091.4	101.8	%	1.89				1.86%
Ag 328.068†	5.6	0.0231	ug/L	0.28347	0.0231	ppb	0.28347	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.5	17.106	ug/L	18.3829	17.106	ppb	18.3829	107.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.7	3.4967	ug/L	1.30519	3.4967	ppb	1.30519	37.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	113.5	2.6987	ug/L	0.66965	2.6987	ppb	0.66965	24.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.4	0.0528	ug/L	0.11343	0.0528	ppb	0.11343	214.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.0	0.0414	ug/L	0.00737	0.0414	ppb	0.00737	17.80%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.1640	ug/L	3.80027	0.1640	ppb	3.80027	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                14.6      0.1746 ug/L       0.06856      0.1746 ppb        0.06856  39.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.9      0.2610 ug/L       0.23137      0.2610 ppb        0.23137  88.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.4      0.0266 ug/L       0.31119      0.0266 ppb        0.31119 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -408.5     -1.2421 ug/L       0.14900     -1.2421 ppb        0.14900  12.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      1.1005 ug/L      18.26002      1.1005 ppb       18.26002 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -21.8     -3.8646 ug/L      16.51960     -3.8646 ppb       16.51960 427.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.2      76.949 ug/L       34.2673      76.949 ppb        34.2673  44.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                92.8      0.1038 ug/L       0.03562      0.1038 ppb        0.03562  34.33%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.5      0.5648 ug/L       0.39328      0.5648 ppb        0.39328  69.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        103.5      31.302 ug/L       19.4382      31.302 ppb        19.4382  62.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -24.6     -0.6365 ug/L       0.43919     -0.6365 ppb        0.43919  69.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  9.4      6.1048 ug/L       2.56572      6.1048 ppb        2.56572  42.03%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.6     -0.3168 ug/L       0.41880     -0.3168 ppb        0.41880 132.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      1.8916 ug/L       4.26127      1.8916 ppb        4.26127 225.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.0     -1.3497 ug/L       1.66797     -1.3497 ppb        1.66797 123.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.3      0.8839 ug/L       1.41436      0.8839 ppb        1.41436 160.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                15.2      0.5011 ug/L       0.56903      0.5011 ppb        0.56903 113.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.6      1.2292 ug/L       0.24647      1.2292 ppb        0.24647  20.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                27.8      0.1949 ug/L       0.18938      0.1949 ppb        0.18938  97.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               112.9      0.1744 ug/L       0.12229      0.1744 ppb        0.12229  70.11%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.4     -0.4375 ug/L       3.35347     -0.4375 ppb        3.35347 766.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                194.2      5.6322 ug/L       3.46261      5.6322 ppb        3.46261  61.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 31.1      0.2460 ug/L       0.17784      0.2460 ppb        0.17784  72.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 5.7      0.0617 ug/L       0.11523      0.0617 ppb        0.11523 186.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      61.5      4.3734 ug/L       1.44680      4.3734 ppb        1.44680  33.08%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 70
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/12/2010 00:24:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4899.9	4899.9	102	%			00:26:08
1	Y RADIAL	5118.9	5118.9	102.4	%			00:26:08
1	Al 396.153Radial†	5423.3	5472.0	5054.9	ug/L	5054.9	ppb	00:26:08
1	Ca 317.933Radial†	3138.1	3061.8	5074.8	ug/L	5074.8	ppb	00:26:28
1	Fe 238.204 Radial†	579.9	557.4	5087.0	ug/L	5087.0	ppb	00:26:28
1	K 766.490 Radial†	30808.3	27398.1	4830.0	ug/L	4830.0	ppb	00:26:08
1	Mg 279.077 IEC†	151.5	148.2	5253.2	ug/L	5253.2	ppb	00:26:28
1	Na 589.592 Radial†	32251.2	32717.7	9895.4	ug/L	9895.4	ppb	00:26:08
1	Sr 421.552†	76570.0	75115.0	526.76	ug/L	526.76	ppb	00:26:08
1	Sc 361.383	850039.4	850039.4	98.602	%			00:27:25
1	Y 371.029	683944.0	683944.0	95.710	%			00:27:25
1	Ag 328.068†	104216.2	105465.4	500.16	ug/L	500.16	ppb	00:27:30
1	As 188.979†	1069.7	1118.7	511.97	ug/L	511.97	ppb	00:27:50
1	B 249.677†	20138.1	20962.7	496.40	ug/L	496.40	ppb	00:27:30
1	Ba 233.527†	61470.8	62354.2	510.47	ug/L	510.47	ppb	00:27:30
1	Be 313.107†	1316895.7	1339910.1	500.22	ug/L	500.22	ppb	00:27:25
1	Cd 226.502†	40990.0	41783.2	496.65	ug/L	496.65	ppb	00:27:30
1	Co 228.616†	23307.1	23711.3	517.97	ug/L	517.97	ppb	00:27:30
1	Cr 267.716†	41857.3	42384.1	494.04	ug/L	494.04	ppb	00:27:30
1	Cu 324.752†	169616.5	166201.2	504.17	ug/L	504.17	ppb	00:27:30
1	Mn 257.610†	434413.6	440122.4	506.66	ug/L	506.66	ppb	00:27:25
1	Mo 202.031†	6456.2	6532.2	489.64	ug/L	489.64	ppb	00:27:50
1	Ni 231.604†	19087.4	19250.1	498.40	ug/L	498.40	ppb	00:27:30
1	P 214.914†	4189.6	4020.9	2403.8	ug/L	2403.8	ppb	00:27:50
1	Pb 220.353†	3826.2	3942.2	493.40	ug/L	493.40	ppb	00:27:50
1	S 181.975 Axial†	717.1	687.9	1002.1	ug/L	1002.1	ppb	00:27:50
1	Sb 206.836†	1433.1	1411.3	509.46	ug/L	509.46	ppb	00:27:50
1	Se 196.026†	699.9	731.9	511.13	ug/L	511.13	ppb	00:27:50
1	Si 251.611†	75468.7	75976.7	2535.3	ug/L	2535.3	ppb	00:27:30
1	Sn 189.927†	2600.5	2628.7	488.67	ug/L	488.67	ppb	00:27:50
1	Ti 334.940†	305298.3	310931.1	504.17	ug/L	504.17	ppb	00:27:30
1	Tl 190.801†	1514.1	1569.8	506.45	ug/L	506.45	ppb	00:27:50
1	U 409.014†	13707.3	16881.7	487.83	ug/L	487.83	ppb	00:27:30
1	V 292.402†	65369.0	67850.6	499.24	ug/L	499.24	ppb	00:27:30
1	Zn 213.857†	51222.1	51235.3	500.84	ug/L	500.84	ppb	00:27:30
1	SiO2†	74800.7	75278.3	5356.4	ug/L	5356.4	ppb	00:28:58
2	Sc Radial	4854.6	4854.6	101	%			00:26:33
2	Y RADIAL	5068.3	5068.3	101.4	%			00:26:33
2	Al 396.153Radial†	5386.0	5484.7	5066.9	ug/L	5066.9	ppb	00:26:33
2	Ca 317.933Radial†	3127.2	3079.8	5104.5	ug/L	5104.5	ppb	00:26:53
2	Fe 238.204 Radial†	573.4	556.3	5077.3	ug/L	5077.3	ppb	00:26:53
2	K 766.490 Radial†	30655.7	27528.7	4853.0	ug/L	4853.0	ppb	00:26:33
2	Mg 279.077 IEC†	150.1	148.2	5251.5	ug/L	5251.5	ppb	00:26:53
2	Na 589.592 Radial†	32074.2	32837.4	9931.6	ug/L	9931.6	ppb	00:26:33
2	Sr 421.552†	76291.8	75539.7	529.73	ug/L	529.73	ppb	00:26:33
2	Sc 361.383	859242.6	859242.6	99.669	%			00:27:56
2	Y 371.029	691245.9	691245.9	96.731	%			00:27:56
2	Ag 328.068†	105383.6	105504.5	500.34	ug/L	500.34	ppb	00:28:01
2	As 188.979†	1056.3	1093.7	500.62	ug/L	500.62	ppb	00:28:21
2	B 249.677†	20497.3	21104.4	499.77	ug/L	499.77	ppb	00:28:01
2	Ba 233.527†	62134.0	62351.8	510.45	ug/L	510.45	ppb	00:28:01
2	Be 313.107†	1328769.5	1337518.4	499.33	ug/L	499.33	ppb	00:27:56
2	Cd 226.502†	41418.2	41767.5	496.46	ug/L	496.46	ppb	00:28:01
2	Co 228.616†	23587.7	23739.6	518.58	ug/L	518.58	ppb	00:28:01
2	Cr 267.716†	42247.0	42320.4	493.30	ug/L	493.30	ppb	00:28:01
2	Cu 324.752†	171927.6	166677.5	505.61	ug/L	505.61	ppb	00:28:01
2	Mn 257.610†	438787.0	439791.4	506.27	ug/L	506.27	ppb	00:27:56
2	Mo 202.031†	6461.5	6467.4	484.78	ug/L	484.78	ppb	00:28:21
2	Ni 231.604†	19208.6	19164.3	496.17	ug/L	496.17	ppb	00:28:01

2	P 214.914†	4177.6	3963.4	2367.7 ug/L	2367.7 ppb	00:28:21
2	Pb 220.353†	3825.3	3899.7	488.09 ug/L	488.09 ppb	00:28:21
2	S 181.975 Axial†	708.5	671.5	978.21 ug/L	978.21 ppb	00:28:21
2	Sb 206.836†	1431.6	1394.2	503.33 ug/L	503.33 ppb	00:28:21
2	Se 196.026†	701.4	725.9	507.02 ug/L	507.02 ppb	00:28:21
2	Si 251.611†	76576.2	76268.1	2545.1 ug/L	2545.1 ppb	00:28:01
2	Sn 189.927†	2604.0	2604.0	484.09 ug/L	484.09 ppb	00:28:21
2	Ti 334.940†	308937.9	311266.5	504.72 ug/L	504.72 ppb	00:28:01
2	Tl 190.801†	1519.0	1558.3	502.76 ug/L	502.76 ppb	00:28:21
2	U 409.014†	13822.6	16848.6	486.87 ug/L	486.87 ppb	00:28:01
2	V 292.402†	66119.0	67893.0	499.48 ug/L	499.48 ppb	00:28:01
2	Zn 213.857†	51831.0	51289.7	501.39 ug/L	501.39 ppb	00:28:01
2	SiO2†	75701.3	75369.4	5363.1 ug/L	5363.1 ppb	00:29:03
3	Sc Radial	4984.4	4984.4	104 %		00:26:58
3	Y RADIAL	5236.8	5236.8	104.7 %		00:26:58
3	Al 396.153Radial†	5535.7	5490.1	5071.8 ug/L	5071.8 ppb	00:26:58
3	Ca 317.933Radial†	3138.3	3009.9	4988.6 ug/L	4988.6 ppb	00:27:18
3	Fe 238.204 Radial†	578.9	546.8	4990.9 ug/L	4990.9 ppb	00:27:18
3	K 766.490 Radial†	31507.7	27559.9	4858.6 ug/L	4858.6 ppb	00:26:58
3	Mg 279.077 IEC†	150.4	144.6	5126.2 ug/L	5126.2 ppb	00:27:18
3	Na 589.592 Radial†	32704.8	32618.6	9865.4 ug/L	9865.4 ppb	00:26:58
3	Sr 421.552†	78155.6	75370.0	528.54 ug/L	528.54 ppb	00:26:58
3	Sc 361.383	847937.6	847937.6	98.358 %		00:28:27
3	Y 371.029	682156.0	682156.0	95.459 %		00:28:27
3	Ag 328.068†	103425.6	104923.5	497.57 ug/L	497.57 ppb	00:28:32
3	As 188.979†	1048.7	1100.1	503.49 ug/L	503.49 ppb	00:28:52
3	B 249.677†	20015.6	20888.9	494.66 ug/L	494.66 ppb	00:28:32
3	Ba 233.527†	61073.5	62104.8	508.43 ug/L	508.43 ppb	00:28:32
3	Be 313.107†	1310175.9	1336388.7	498.90 ug/L	498.90 ppb	00:28:27
3	Cd 226.502†	40601.4	41491.2	493.19 ug/L	493.19 ppb	00:28:32
3	Co 228.616†	23164.1	23624.6	516.08 ug/L	516.08 ppb	00:28:32
3	Cr 267.716†	41570.7	42197.9	491.86 ug/L	491.86 ppb	00:28:32
3	Cu 324.752†	168680.3	165675.8	502.56 ug/L	502.56 ppb	00:28:32
3	Mn 257.610†	433254.4	440035.9	506.55 ug/L	506.55 ppb	00:28:27
3	Mo 202.031†	6437.0	6528.9	489.38 ug/L	489.38 ppb	00:28:52
3	Ni 231.604†	18940.2	19148.4	495.76 ug/L	495.76 ppb	00:28:32
3	P 214.914†	4164.9	4006.4	2395.1 ug/L	2395.1 ppb	00:28:52
3	Pb 220.353†	3820.2	3945.7	493.85 ug/L	493.85 ppb	00:28:52
3	S 181.975 Axial†	707.1	679.6	990.04 ug/L	990.04 ppb	00:28:52
3	Sb 206.836†	1425.8	1407.4	508.09 ug/L	508.09 ppb	00:28:52
3	Se 196.026†	701.1	734.9	512.85 ug/L	512.85 ppb	00:28:52
3	Si 251.611†	74991.0	75680.8	2525.4 ug/L	2525.4 ppb	00:28:32
3	Sn 189.927†	2588.9	2623.4	487.68 ug/L	487.68 ppb	00:28:52
3	Ti 334.940†	303361.1	309729.1	502.22 ug/L	502.22 ppb	00:28:32
3	Tl 190.801†	1506.8	1566.1	505.27 ug/L	505.27 ppb	00:28:52
3	U 409.014†	13801.5	17011.9	491.62 ug/L	491.62 ppb	00:28:32
3	V 292.402†	65063.4	67704.3	498.20 ug/L	498.20 ppb	00:28:32
3	Zn 213.857†	50901.1	51037.6	498.93 ug/L	498.93 ppb	00:28:32
3	SiO2†	75462.4	76139.1	5417.8 ug/L	5417.8 ppb	00:29:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852406.5	98.876	%	0.6975				0.71%
Sc Radial	4913.0	102	%	1.4				1.34%
Y 371.029	685782.0	95.967	%	0.6739				0.70%
Y RADIAL	5141.4	102.8	%	1.73				1.68%
Ag 328.068†	105297.8	499.36	ug/L	1.552	499.36	ppb	1.552	0.31%
QC value within limits for Ag 328.068 Recovery = 99.87%								
Al 396.153Radial†	5482.3	5064.5	ug/L	8.70	5064.5	ppb	8.70	0.17%
QC value within limits for Al 396.153Radial Recovery = 101.29%								
As 188.979†	1104.2	505.36	ug/L	5.898	505.36	ppb	5.898	1.17%
QC value within limits for As 188.979 Recovery = 101.07%								
B 249.677†	20985.3	496.94	ug/L	2.597	496.94	ppb	2.597	0.52%
QC value within limits for B 249.677 Recovery = 99.39%								
Ba 233.527†	62270.2	509.78	ug/L	1.173	509.78	ppb	1.173	0.23%
QC value within limits for Ba 233.527 Recovery = 101.96%								
Be 313.107†	1337939.1	499.48	ug/L	0.671	499.48	ppb	0.671	0.13%
QC value within limits for Be 313.107 Recovery = 99.90%								
Ca 317.933Radial†	3050.5	5056.0	ug/L	60.18	5056.0	ppb	60.18	1.19%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.12%
Cd 226.502†          41680.6      495.43 ug/L        1.948      495.43 ppb        1.948   0.39%
   QC value within limits for Cd 226.502  Recovery = 99.09%
Co 228.616†          23691.9      517.54 ug/L        1.302      517.54 ppb        1.302   0.25%
   QC value within limits for Co 228.616  Recovery = 103.51%
Cr 267.716†          42300.8      493.06 ug/L        1.104      493.06 ppb        1.104   0.22%
   QC value within limits for Cr 267.716  Recovery = 98.61%
Cu 324.752†         166184.8      504.11 ug/L        1.524      504.11 ppb        1.524   0.30%
   QC value within limits for Cu 324.752  Recovery = 100.82%
Fe 238.204 Radial†     553.5      5051.7 ug/L       52.88      5051.7 ppb       52.88   1.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.03%
K 766.490 Radial†    27495.5      4847.2 ug/L       15.17      4847.2 ppb       15.17   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 96.94%
Mg 279.077 IEC†        147.0      5210.3 ug/L       72.81      5210.3 ppb       72.81   1.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.21%
Mn 257.610†         439983.2      506.49 ug/L        0.197      506.49 ppb        0.197   0.04%
   QC value within limits for Mn 257.610  Recovery = 101.30%
Mo 202.031†           6509.5      487.93 ug/L        2.734      487.93 ppb        2.734   0.56%
   QC value within limits for Mo 202.031  Recovery = 97.59%
Na 589.592 Radial†   32724.6      9897.5 ug/L       33.14      9897.5 ppb       33.14   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 98.98%
Ni 231.604†          19187.6      496.78 ug/L        1.417      496.78 ppb        1.417   0.29%
   QC value within limits for Ni 231.604  Recovery = 99.36%
P 214.914†            3996.9      2388.9 ug/L       18.86      2388.9 ppb       18.86   0.79%
   QC value within limits for P 214.914  Recovery = 95.55%
Pb 220.353†           3929.2      491.78 ug/L        3.205      491.78 ppb        3.205   0.65%
   QC value within limits for Pb 220.353  Recovery = 98.36%
S 181.975 Axial†       679.7      990.13 ug/L       11.967      990.13 ppb       11.967   1.21%
   QC value within limits for S 181.975 Axial  Recovery = 99.01%
Sb 206.836†           1404.3      506.96 ug/L        3.217      506.96 ppb        3.217   0.63%
   QC value within limits for Sb 206.836  Recovery = 101.39%
Se 196.026†            730.9      510.33 ug/L        2.993      510.33 ppb        2.993   0.59%
   QC value within limits for Se 196.026  Recovery = 102.07%
Si 251.611†          75975.2      2535.3 ug/L        9.85      2535.3 ppb        9.85   0.39%
   QC value within limits for Si 251.611  Recovery = 101.41%
Sn 189.927†           2618.7      486.82 ug/L        2.408      486.82 ppb        2.408   0.49%
   QC value within limits for Sn 189.927  Recovery = 97.36%
Sr 421.552†          75341.6      528.34 ug/L        1.499      528.34 ppb        1.499   0.28%
   QC value within limits for Sr 421.552  Recovery = 105.67%
Ti 334.940†         310642.2      503.71 ug/L        1.314      503.71 ppb        1.314   0.26%
   QC value within limits for Ti 334.940  Recovery = 100.74%
Tl 190.801†           1564.7      504.83 ug/L        1.886      504.83 ppb        1.886   0.37%
   QC value within limits for Tl 190.801  Recovery = 100.97%
U 409.014†           16914.1      488.77 ug/L        2.512      488.77 ppb        2.512   0.51%
   QC value within limits for U 409.014  Recovery = 97.75%
V 292.402†           67816.0      498.97 ug/L        0.683      498.97 ppb        0.683   0.14%
   QC value within limits for V 292.402  Recovery = 99.79%
Zn 213.857†          51187.6      500.39 ug/L        1.295      500.39 ppb        1.295   0.26%
   QC value within limits for Zn 213.857  Recovery = 100.08%
SiO2†                75595.6      5379.1 ug/L       33.70      5379.1 ppb       33.70   0.63%
   QC value within limits for SiO2  Recovery = 100.59%
All analyte(s) passed QC.
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Sequence No.: 71
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/12/2010 00:31:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4743.3	4743.3	98.7	%			00:33:10
1	Y RADIAL	5015.5	5015.5	100.3	%			00:33:10
1	Al 396.153Radial†	-151.2	-1.7	-1.5692	ug/L	-1.5692	ppb	00:33:10
1	Ca 317.933Radial†	22.0	5.5	9.1916	ug/L	9.1916	ppb	00:33:30
1	Fe 238.204 Radial†	9.4	-2.0	-18.184	ug/L	-18.184	ppb	00:33:30
1	K 766.490 Radial†	3009.8	224.4	39.600	ug/L	39.600	ppb	00:33:10
1	Mg 279.077 IEC†	3.8	3.5	122.60	ug/L	122.60	ppb	00:33:30
1	Na 589.592 Radial†	-943.0	122.8	37.147	ug/L	37.147	ppb	00:33:10
1	Sr 421.552†	13.0	11.1	0.0774	ug/L	0.0774	ppb	00:33:10
1	Sc 361.383	834507.6	834507.6	96.800	%			00:34:27
1	Y 371.029	680980.2	680980.2	95.295	%			00:34:27
1	Ag 328.068†	292.1	72.9	0.3320	ug/L	0.3320	ppb	00:34:27
1	As 188.979†	-20.5	12.7	5.7747	ug/L	5.7747	ppb	00:34:47
1	B 249.677†	-463.0	60.7	1.4468	ug/L	1.4468	ppb	00:34:47
1	Ba 233.527†	0.5	12.1	0.0979	ug/L	0.0979	ppb	00:34:47
1	Be 313.107†	-4174.8	25.9	0.0106	ug/L	0.0106	ppb	00:34:27
1	Cd 226.502†	-188.0	17.7	0.2127	ug/L	0.2127	ppb	00:34:47
1	Co 228.616†	-54.3	17.6	0.3849	ug/L	0.3849	ppb	00:34:47
1	Cr 267.716†	74.3	9.9	0.1129	ug/L	0.1129	ppb	00:34:47
1	Cu 324.752†	5304.2	-341.1	-1.0387	ug/L	-1.0387	ppb	00:34:27
1	Mn 257.610†	584.6	152.1	0.1682	ug/L	0.1682	ppb	00:34:47
1	Mo 202.031†	19.3	4.4	0.3261	ug/L	0.3261	ppb	00:34:47
1	Ni 231.604†	90.5	-14.5	-0.3762	ug/L	-0.3762	ppb	00:34:47
1	P 214.914†	229.4	8.9	5.7455	ug/L	5.7455	ppb	00:34:47
1	Pb 220.353†	-59.2	0.5	0.0704	ug/L	0.0704	ppb	00:34:47
1	S 181.975 Axial†	33.2	-5.0	-7.2997	ug/L	-7.2997	ppb	00:34:47
1	Sb 206.836†	46.9	6.2	2.1936	ug/L	2.1936	ppb	00:34:47
1	Se 196.026†	-22.0	-0.6	-0.4815	ug/L	-0.4815	ppb	00:34:47
1	Si 251.611†	582.0	39.0	1.3007	ug/L	1.3007	ppb	00:34:47
1	Sn 189.927†	12.2	3.9	0.7283	ug/L	0.7283	ppb	00:34:47
1	Ti 334.940†	-1025.2	244.1	0.3847	ug/L	0.3847	ppb	00:34:27
1	Tl 190.801†	-32.3	0.9	0.2793	ug/L	0.2793	ppb	00:34:47
1	U 409.014†	-2709.6	180.9	5.2481	ug/L	5.2481	ppb	00:34:27
1	V 292.402†	-1544.5	-41.0	-0.2782	ug/L	-0.2782	ppb	00:34:27
1	Zn 213.857†	713.8	24.1	0.2446	ug/L	0.2446	ppb	00:34:47
1	SiO2†	605.2	42.0	2.9905	ug/L	2.9905	ppb	00:35:43
2	Sc Radial	4980.2	4980.2	104	%			00:33:35
2	Y RADIAL	5246.6	5246.6	104.9	%			00:33:35
2	Al 396.153Radial†	-141.5	15.0	13.923	ug/L	13.923	ppb	00:33:35
2	Ca 317.933Radial†	21.6	4.1	6.7969	ug/L	6.7969	ppb	00:33:55
2	Fe 238.204 Radial†	10.9	-0.9	-8.5929	ug/L	-8.5929	ppb	00:33:55
2	K 766.490 Radial†	2890.7	-35.6	-6.3018	ug/L	-6.3018	ppb	00:33:35
2	Mg 279.077 IEC†	1.3	0.8	29.393	ug/L	29.393	ppb	00:33:55
2	Na 589.592 Radial†	-973.2	139.2	42.088	ug/L	42.088	ppb	00:33:35
2	Sr 421.552†	11.0	8.5	0.0595	ug/L	0.0595	ppb	00:33:35
2	Sc 361.383	833949.4	833949.4	96.735	%			00:34:52
2	Y 371.029	679898.8	679898.8	95.144	%			00:34:52
2	Ag 328.068†	296.7	77.9	0.3662	ug/L	0.3662	ppb	00:34:52
2	As 188.979†	-18.3	14.9	6.7776	ug/L	6.7776	ppb	00:35:12
2	B 249.677†	-451.8	72.0	1.7133	ug/L	1.7133	ppb	00:35:12
2	Ba 233.527†	0.0	11.6	0.0953	ug/L	0.0953	ppb	00:35:12
2	Be 313.107†	-4152.3	46.3	0.0176	ug/L	0.0176	ppb	00:34:52
2	Cd 226.502†	-191.0	14.5	0.1729	ug/L	0.1729	ppb	00:35:12
2	Co 228.616†	-62.2	9.4	0.2046	ug/L	0.2046	ppb	00:35:12
2	Cr 267.716†	80.2	16.2	0.1888	ug/L	0.1888	ppb	00:35:12
2	Cu 324.752†	5294.6	-347.5	-1.0539	ug/L	-1.0539	ppb	00:34:52
2	Mn 257.610†	615.2	184.1	0.2098	ug/L	0.2098	ppb	00:35:12
2	Mo 202.031†	14.8	-0.3	-0.0216	ug/L	-0.0216	ppb	00:35:12
2	Ni 231.604†	107.5	3.1	0.0799	ug/L	0.0799	ppb	00:35:12

2	P 214.914†	230.6	10.3	6.6513 ug/L	6.6513 ppb	00:35:12
2	Pb 220.353†	-58.2	1.6	0.2030 ug/L	0.2030 ppb	00:35:12
2	S 181.975 Axial†	39.5	1.5	2.1681 ug/L	2.1681 ppb	00:35:12
2	Sb 206.836†	45.0	4.4	1.5349 ug/L	1.5349 ppb	00:35:12
2	Se 196.026†	-22.8	-1.5	-1.0206 ug/L	-1.0206 ppb	00:35:12
2	Si 251.611†	610.2	68.5	2.2916 ug/L	2.2916 ppb	00:35:12
2	Sn 189.927†	8.7	0.3	0.0630 ug/L	0.0630 ppb	00:35:12
2	Ti 334.940†	-1165.8	98.0	0.1579 ug/L	0.1579 ppb	00:34:52
2	Tl 190.801†	-30.7	2.4	0.7760 ug/L	0.7760 ppb	00:35:12
2	U 409.014†	-2918.3	-36.7	-1.0646 ug/L	-1.0646 ppb	00:34:52
2	V 292.402†	-1465.8	39.3	0.2850 ug/L	0.2850 ppb	00:34:52
2	Zn 213.857†	710.0	20.7	0.2063 ug/L	0.2063 ppb	00:35:12
2	SiO2†	608.8	46.2	3.2946 ug/L	3.2946 ppb	00:35:48
3	Sc Radial	4891.6	4891.6	102 %		00:34:00
3	Y RADIAL	5137.7	5137.7	102.7 %		00:34:00
3	Al 396.153Radial†	-147.4	6.8	6.2473 ug/L	6.2473 ppb	00:34:00
3	Ca 317.933Radial†	23.3	6.2	10.251 ug/L	10.251 ppb	00:34:20
3	Fe 238.204 Radial†	10.2	-1.4	-13.096 ug/L	-13.096 ppb	00:34:20
3	K 766.490 Radial†	2773.3	-100.4	-17.741 ug/L	-17.741 ppb	00:34:00
3	Mg 279.077 IEC†	0.6	0.2	6.0263 ug/L	6.0263 ppb	00:34:20
3	Na 589.592 Radial†	-1043.5	53.1	16.057 ug/L	16.057 ppb	00:34:00
3	Sr 421.552†	16.1	13.7	0.0962 ug/L	0.0962 ppb	00:34:00
3	Sc 361.383	830652.8	830652.8	96.353 %		00:35:17
3	Y 371.029	677127.4	677127.4	94.756 %		00:35:17
3	Ag 328.068†	280.5	62.3	0.2956 ug/L	0.2956 ppb	00:35:17
3	As 188.979†	-27.6	5.3	2.3788 ug/L	2.3788 ppb	00:35:37
3	B 249.677†	-452.8	69.1	1.6470 ug/L	1.6470 ppb	00:35:37
3	Ba 233.527†	-0.4	11.1	0.0904 ug/L	0.0904 ppb	00:35:37
3	Be 313.107†	-4264.5	-87.2	-0.0322 ug/L	-0.0322 ppb	00:35:17
3	Cd 226.502†	-199.4	4.9	0.0580 ug/L	0.0580 ppb	00:35:37
3	Co 228.616†	-84.7	-14.2	-0.3081 ug/L	-0.3081 ppb	00:35:37
3	Cr 267.716†	76.2	12.3	0.1468 ug/L	0.1468 ppb	00:35:37
3	Cu 324.752†	5278.4	-342.6	-1.0350 ug/L	-1.0350 ppb	00:35:17
3	Mn 257.610†	587.0	157.3	0.1795 ug/L	0.1795 ppb	00:35:37
3	Mo 202.031†	29.2	14.8	1.1066 ug/L	1.1066 ppb	00:35:37
3	Ni 231.604†	102.0	-2.2	-0.0563 ug/L	-0.0563 ppb	00:35:37
3	P 214.914†	225.9	6.4	4.2331 ug/L	4.2331 ppb	00:35:37
3	Pb 220.353†	-72.7	-13.7	-1.7090 ug/L	-1.7090 ppb	00:35:37
3	S 181.975 Axial†	41.6	3.8	5.5369 ug/L	5.5369 ppb	00:35:37
3	Sb 206.836†	27.2	-13.9	-4.7896 ug/L	-4.7896 ppb	00:35:37
3	Se 196.026†	-10.0	11.8	7.9017 ug/L	7.9017 ppb	00:35:37
3	Si 251.611†	578.0	37.6	1.2432 ug/L	1.2432 ppb	00:35:37
3	Sn 189.927†	20.0	12.0	2.2328 ug/L	2.2328 ppb	00:35:37
3	Ti 334.940†	-1185.3	73.1	0.1232 ug/L	0.1232 ppb	00:35:17
3	Tl 190.801†	-38.2	-5.4	-1.7419 ug/L	-1.7419 ppb	00:35:37
3	U 409.014†	-3161.6	-301.3	-8.7346 ug/L	-8.7346 ppb	00:35:17
3	V 292.402†	-1513.6	-16.2	-0.1171 ug/L	-0.1171 ppb	00:35:17
3	Zn 213.857†	684.3	-3.1	-0.0268 ug/L	-0.0268 ppb	00:35:37
3	SiO2†	660.9	102.8	7.2998 ug/L	7.2998 ppb	00:35:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	833036.6	96.629	%	0.2416				0.25%
Sc Radial	4871.7	101	%	2.5				2.46%
Y 371.029	679335.5	95.065	%	0.2781				0.29%
Y RADIAL	5133.3	102.7	%	2.31				2.25%
Ag 328.068†	71.1	0.3313	ug/L	0.03530	0.3313	ppb	0.03530	10.66%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.7	6.2003	ug/L	7.74616	6.2003	ppb	7.74616	124.93%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.0	4.9770	ug/L	2.30531	4.9770	ppb	2.30531	46.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	67.3	1.6024	ug/L	0.13874	1.6024	ppb	0.13874	8.66%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.6	0.0945	ug/L	0.00382	0.0945	ppb	0.00382	4.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-5.0	-0.0013	ug/L	0.02696	-0.0013	ppb	0.02696	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.3	8.7464	ug/L	1.76940	8.7464	ppb	1.76940	20.23%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                12.3      0.1478 ug/L       0.08034      0.1478 ppb        0.08034  54.34%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.3      0.0938 ug/L       0.35954      0.0938 ppb        0.35954 383.41%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.8      0.1495 ug/L       0.03799      0.1495 ppb        0.03799  25.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -343.7     -1.0425 ug/L       0.00999     -1.0425 ppb        0.00999   0.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.5     -13.291 ug/L        4.7985     -13.291 ppb         4.7985  36.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.5      5.1856 ug/L      30.34753      5.1856 ppb       30.34753 585.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.5      52.673 ug/L       61.6760      52.673 ppb        61.6760 117.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               164.5      0.1858 ug/L       0.02151      0.1858 ppb        0.02151  11.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.3      0.4704 ug/L       0.57776      0.4704 ppb        0.57776 122.83%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        105.0      31.764 ug/L       13.8249      31.764 ppb        13.8249  43.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.5     -0.1175 ug/L       0.23412     -0.1175 ppb        0.23412 199.24%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.5      5.5433 ug/L       1.22171      5.5433 ppb        1.22171  22.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.9     -0.4785 ug/L       1.06766     -0.4785 ppb        1.06766 223.12%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.1      0.1351 ug/L       6.65539      0.1351 ppb        6.65539 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.1     -0.3537 ug/L       3.85568     -0.3537 ppb        3.85568 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.2      2.1332 ug/L       5.00293      2.1332 ppb        5.00293 234.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                48.4      1.6118 ug/L       0.58938      1.6118 ppb        0.58938  36.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.4      1.0080 ug/L       1.11160      1.0080 ppb        1.11160 110.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.1      0.0777 ug/L       0.01837      0.0777 ppb        0.01837  23.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               138.4      0.2219 ug/L       0.14206      0.2219 ppb        0.14206  64.02%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.7     -0.2289 ug/L       1.33367     -0.2289 ppb        1.33367 582.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -52.4     -1.5170 ug/L       7.00231     -1.5170 ppb        7.00231 461.58%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -5.9     -0.0368 ug/L       0.29002     -0.0368 ppb        0.29002 789.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                13.9      0.1414 ug/L       0.14691      0.1414 ppb        0.14691 103.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      63.7      4.5283 ug/L       2.40500      4.5283 ppb        2.40500  53.11%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 72
Sample ID: 245396001|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 93
Date Collected: 2/12/2010 00:38:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245396001|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5100.9	5100.9	106	%			00:39:57
1	Y RADIAL	6494.6	6494.6	129.9	%			00:39:57
1	Al 396.153Radial†	10478.4	10026.0	9304.8	ug/L	9304.8	ppb	00:39:57
1	Ca 317.933Radial†	2053.4	1918.3	3179.5	ug/L	3179.5	ppb	00:40:17
1	Fe 238.204 Radial†	8901.4	8376.8	76218	ug/L	76218	ppb	00:39:57
1	K 766.490 Radial†	16451.8	12677.7	2235.3	ug/L	2235.3	ppb	00:39:57
1	Mg 279.077 IEC†	63.3	59.2	2019.8	ug/L	2019.8	ppb	00:40:17
1	Na 589.592 Radial†	3531.3	4406.2	1332.7	ug/L	1332.7	ppb	00:39:57
1	Sr 421.552†	3400.3	3202.1	22.433	ug/L	22.433	ppb	00:39:57
1	Sc 361.383	875356.1	875356.1	101.54	%			00:41:14
1	Y 371.029	858009.2	858009.2	120.07	%			00:41:14
1	Ag 328.068†	-4511.2	-4671.7	4.0506	ug/L	4.0506	ppb	00:41:19
1	As 188.979†	-58.1	-23.3	26.886	ug/L	26.886	ppb	00:41:39
1	B 249.677†	75.7	613.6	2.1527	ug/L	2.1527	ppb	00:41:19
1	Ba 233.527†	22359.6	22032.4	182.34	ug/L	182.34	ppb	00:41:19
1	Be 313.107†	-10339.9	-5844.6	2.9723	ug/L	2.9723	ppb	00:41:19
1	Cd 226.502†	437.2	642.4	-0.2530	ug/L	-0.2530	ppb	00:41:39
1	Co 228.616†	1032.6	1090.7	18.046	ug/L	18.046	ppb	00:41:39
1	Cr 267.716†	6817.9	6647.8	79.034	ug/L	79.034	ppb	00:41:19
1	Cu 324.752†	23352.9	17178.4	56.283	ug/L	56.283	ppb	00:41:19
1	Mn 257.610†	2074023.9	2042150.3	2357.0	ug/L	2357.0	ppb	00:41:14
1	Mo 202.031†	140.3	122.6	15.139	ug/L	15.139	ppb	00:41:39
1	Ni 231.604†	1991.4	1853.2	47.996	ug/L	47.996	ppb	00:41:39
1	P 214.914†	1450.9	1200.8	677.88	ug/L	677.88	ppb	00:41:39
1	Pb 220.353†	423.3	478.6	54.460	ug/L	54.460	ppb	00:41:39
1	S 181.975 Axial†	70.4	30.0	42.009	ug/L	42.009	ppb	00:41:39
1	Sb 206.836†	55.2	12.2	-3.9365	ug/L	-3.9365	ppb	00:41:39
1	Se 196.026†	-401.6	-373.4	-5.6456	ug/L	-5.6456	ppb	00:41:39
1	Si 251.611†	297073.9	292010.9	9767.2	ug/L	9767.2	ppb	00:41:14
1	Sn 189.927†	31.7	22.6	5.9550	ug/L	5.9550	ppb	00:41:39
1	Ti 334.940†	1418576.6	1398388.2	2268.5	ug/L	2268.5	ppb	00:41:14
1	Tl 190.801†	-126.1	-90.0	1.0157	ug/L	1.0157	ppb	00:41:39
1	U 409.014†	-11805.2	-8646.3	-259.58	ug/L	-259.58	ppb	00:41:14
1	V 292.402†	4342.2	5831.0	28.505	ug/L	28.505	ppb	00:41:19
1	Zn 213.857†	35286.9	34039.0	324.03	ug/L	324.03	ppb	00:41:19
1	SiO2†	293185.2	288160.3	20555	ug/L	20555	ppb	00:42:47
2	Sc Radial	4977.4	4977.4	104	%			00:40:22
2	Y RADIAL	6360.9	6360.9	127.2	%			00:40:22
2	Al 396.153Radial†	10075.2	9881.7	9170.9	ug/L	9170.9	ppb	00:40:22
2	Ca 317.933Radial†	2071.4	1983.8	3288.0	ug/L	3288.0	ppb	00:40:42
2	Fe 238.204 Radial†	8597.8	8291.8	75445	ug/L	75445	ppb	00:40:22
2	K 766.490 Radial†	15953.9	12581.8	2218.4	ug/L	2218.4	ppb	00:40:22
2	Mg 279.077 IEC†	64.7	62.1	2122.0	ug/L	2122.0	ppb	00:40:42
2	Na 589.592 Radial†	3377.7	4340.6	1312.8	ug/L	1312.8	ppb	00:40:22
2	Sr 421.552†	3278.5	3164.1	22.166	ug/L	22.166	ppb	00:40:22
2	Sc 361.383	873686.4	873686.4	101.34	%			00:41:45
2	Y 371.029	855666.6	855666.6	119.74	%			00:41:45
2	Ag 328.068†	-4520.0	-4688.8	3.7015	ug/L	3.7015	ppb	00:41:50
2	As 188.979†	-45.8	-11.3	32.212	ug/L	32.212	ppb	00:42:10
2	B 249.677†	50.8	589.1	1.6970	ug/L	1.6970	ppb	00:41:50
2	Ba 233.527†	22116.9	21835.1	180.71	ug/L	180.71	ppb	00:41:50
2	Be 313.107†	-10211.5	-5737.3	3.0198	ug/L	3.0198	ppb	00:41:50
2	Cd 226.502†	450.5	656.4	-0.0067	ug/L	-0.0067	ppb	00:42:10
2	Co 228.616†	1010.1	1070.4	17.605	ug/L	17.605	ppb	00:42:10
2	Cr 267.716†	6857.3	6699.6	79.620	ug/L	79.620	ppb	00:41:50
2	Cu 324.752†	23169.8	17041.7	55.827	ug/L	55.827	ppb	00:41:50
2	Mn 257.610†	2073396.8	2045435.1	2360.7	ug/L	2360.7	ppb	00:41:45
2	Mo 202.031†	131.6	114.3	14.454	ug/L	14.454	ppb	00:42:10
2	Ni 231.604†	1980.4	1846.1	47.814	ug/L	47.814	ppb	00:42:10

2	P 214.914†	1423.6	1176.7	663.52	ug/L	663.52 ppb	00:42:10
2	Pb 220.353†	413.4	469.7	53.396	ug/L	53.396 ppb	00:42:10
2	S 181.975 Axial†	74.7	34.4	48.386	ug/L	48.386 ppb	00:42:10
2	Sb 206.836†	59.7	16.7	-2.3802	ug/L	-2.3802 ppb	00:42:10
2	Se 196.026†	-396.9	-369.5	-5.5613	ug/L	-5.5613 ppb	00:42:10
2	Si 251.611†	297072.3	292568.5	9785.9	ug/L	9785.9 ppb	00:41:45
2	Sn 189.927†	27.2	18.1	5.1346	ug/L	5.1346 ppb	00:42:10
2	Ti 334.940†	1417932.3	1400422.4	2271.8	ug/L	2271.8 ppb	00:41:45
2	Tl 190.801†	-143.7	-107.6	-4.5585	ug/L	-4.5585 ppb	00:42:10
2	U 409.014†	-11746.6	-8610.6	-258.45	ug/L	-258.45 ppb	00:41:45
2	V 292.402†	4164.3	5663.7	27.393	ug/L	27.393 ppb	00:41:50
2	Zn 213.857†	34903.1	33726.7	321.07	ug/L	321.07 ppb	00:41:50
2	SiO2†	297743.6	293210.0	20915	ug/L	20915 ppb	00:42:52
3	Sc Radial	5014.2	5014.2	104	%		00:40:47
3	Y RADIAL	6426.7	6426.7	128.5	%		00:40:47
3	Al 396.153Radial†	10259.0	9986.5	9268.1	ug/L	9268.1 ppb	00:40:47
3	Ca 317.933Radial†	2074.9	1972.5	3269.2	ug/L	3269.2 ppb	00:41:07
3	Fe 238.204 Radial†	8744.1	8371.2	76167	ug/L	76167 ppb	00:40:47
3	K 766.490 Radial†	16154.9	12661.4	2232.4	ug/L	2232.4 ppb	00:40:47
3	Mg 279.077 IEC†	60.0	57.1	1944.1	ug/L	1944.1 ppb	00:41:07
3	Na 589.592 Radial†	3434.2	4370.8	1321.9	ug/L	1321.9 ppb	00:40:47
3	Sr 421.552†	3330.4	3190.6	22.352	ug/L	22.352 ppb	00:40:47
3	Sc 361.383	875128.5	875128.5	101.51	%		00:42:16
3	Y 371.029	858249.7	858249.7	120.10	%		00:42:16
3	Ag 328.068†	-4515.1	-4676.7	4.0056	ug/L	4.0056 ppb	00:42:21
3	As 188.979†	-55.4	-20.7	28.075	ug/L	28.075 ppb	00:42:41
3	B 249.677†	40.2	578.6	1.3284	ug/L	1.3284 ppb	00:42:21
3	Ba 233.527†	22397.8	22075.8	182.70	ug/L	182.70 ppb	00:42:21
3	Be 313.107†	-10486.4	-5991.5	2.9177	ug/L	2.9177 ppb	00:42:21
3	Cd 226.502†	437.0	642.4	-0.2477	ug/L	-0.2477 ppb	00:42:41
3	Co 228.616†	1023.4	1081.9	17.856	ug/L	17.856 ppb	00:42:41
3	Cr 267.716†	6861.9	6692.9	79.557	ug/L	79.557 ppb	00:42:21
3	Cu 324.752†	23456.8	17286.7	56.606	ug/L	56.606 ppb	00:42:21
3	Mn 257.610†	2071434.5	2040130.7	2354.6	ug/L	2354.6 ppb	00:42:16
3	Mo 202.031†	153.4	135.6	16.109	ug/L	16.109 ppb	00:42:41
3	Ni 231.604†	1992.2	1854.5	48.030	ug/L	48.030 ppb	00:42:41
3	P 214.914†	1448.6	1199.0	676.71	ug/L	676.71 ppb	00:42:41
3	Pb 220.353†	428.8	484.1	55.150	ug/L	55.150 ppb	00:42:41
3	S 181.975 Axial†	76.6	36.1	50.896	ug/L	50.896 ppb	00:42:41
3	Sb 206.836†	54.6	11.6	-4.1187	ug/L	-4.1187 ppb	00:42:41
3	Se 196.026†	-402.6	-374.5	-6.5520	ug/L	-6.5520 ppb	00:42:41
3	Si 251.611†	296675.8	291694.9	9756.7	ug/L	9756.7 ppb	00:42:16
3	Sn 189.927†	29.7	20.6	5.6024	ug/L	5.6024 ppb	00:42:41
3	Ti 334.940†	1418240.9	1398420.9	2268.5	ug/L	2268.5 ppb	00:42:16
3	Tl 190.801†	-129.0	-92.8	0.1036	ug/L	0.1036 ppb	00:42:41
3	U 409.014†	-11625.9	-8472.7	-254.54	ug/L	-254.54 ppb	00:42:16
3	V 292.402†	4382.6	5872.0	28.831	ug/L	28.831 ppb	00:42:21
3	Zn 213.857†	35316.9	34077.7	324.42	ug/L	324.42 ppb	00:42:21
3	SiO2†	297469.7	292456.1	20861	ug/L	20861 ppb	00:42:57

Mean Data: 245396001|945399|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	874723.7	101.46	%	0.105				0.10%
Sc Radial	5030.8	105	%	1.3				1.26%
Y 371.029	857308.5	119.97	%	0.200				0.17%
Y RADIAL	6427.4	128.5	%	1.34				1.04%
Ag 328.068†	-4679.1	3.9192	ug/L	0.18987	3.9192	ppb	0.18987	4.84%
Al 396.153Radial†	9964.7	9247.9	ug/L	69.16	9247.9	ppb	69.16	0.75%
As 188.979†	-18.4	29.058	ug/L	2.7958	29.058	ppb	2.7958	9.62%
B 249.677†	593.8	1.7260	ug/L	0.41292	1.7260	ppb	0.41292	23.92%
Ba 233.527†	21981.1	181.92	ug/L	1.062	181.92	ppb	1.062	0.58%
Be 313.107†	-5857.8	2.9699	ug/L	0.05106	2.9699	ppb	0.05106	1.72%
Ca 317.933Radial†	1958.2	3245.6	ug/L	57.99	3245.6	ppb	57.99	1.79%
Cd 226.502†	647.1	-0.1691	ug/L	0.14069	-0.1691	ppb	0.14069	83.18%
Co 228.616†	1081.0	17.836	ug/L	0.2214	17.836	ppb	0.2214	1.24%
Cr 267.716†	6680.1	79.404	ug/L	0.3215	79.404	ppb	0.3215	0.40%
Cu 324.752†	17168.9	56.239	ug/L	0.3916	56.239	ppb	0.3916	0.70%
Fe 238.204 Radial†	8346.6	75943	ug/L	432.3	75943	ppb	432.3	0.57%
K 766.490 Radial†	12640.3	2228.7	ug/L	9.07	2228.7	ppb	9.07	0.41%

Mg 279.077 IEC†	59.5	2028.6	ug/L	89.30	2028.6	ppb	89.30	4.40%
Mn 257.610†	2042572.0	2357.4	ug/L	3.04	2357.4	ppb	3.04	0.13%
Mo 202.031†	124.2	15.234	ug/L	0.8312	15.234	ppb	0.8312	5.46%
Na 589.592 Radial†	4372.5	1322.5	ug/L	9.94	1322.5	ppb	9.94	0.75%
Ni 231.604†	1851.3	47.946	ug/L	0.1163	47.946	ppb	0.1163	0.24%
P 214.914†	1192.2	672.70	ug/L	7.977	672.70	ppb	7.977	1.19%
Pb 220.353†	477.5	54.335	ug/L	0.8837	54.335	ppb	0.8837	1.63%
S 181.975 Axial†	33.5	47.097	ug/L	4.5815	47.097	ppb	4.5815	9.73%
Sb 206.836†	13.5	-3.4785	ug/L	0.95550	-3.4785	ppb	0.95550	27.47%
Se 196.026†	-372.5	-5.9196	ug/L	0.54929	-5.9196	ppb	0.54929	9.28%
Si 251.611†	292091.4	9769.9	ug/L	14.80	9769.9	ppb	14.80	0.15%
Sn 189.927†	20.4	5.5640	ug/L	0.41154	5.5640	ppb	0.41154	7.40%
Sr 421.552†	3185.6	22.317	ug/L	0.1373	22.317	ppb	0.1373	0.62%
Ti 334.940†	1399077.1	2269.6	ug/L	1.89	2269.6	ppb	1.89	0.08%
Tl 190.801†	-96.8	-1.1464	ug/L	2.98994	-1.1464	ppb	2.98994	260.81%
U 409.014†	-8576.6	-257.52	ug/L	2.646	-257.52	ppb	2.646	1.03%
V 292.402†	5788.9	28.243	ug/L	0.7536	28.243	ppb	0.7536	2.67%
Zn 213.857†	33947.8	323.17	ug/L	1.833	323.17	ppb	1.833	0.57%
SiO2†	291275.4	20777	ug/L	194.3	20777	ppb	194.3	0.94%

Sequence No.: 73
Sample ID: 1202024775|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 94
Date Collected: 2/12/2010 00:45:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202024775|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5062.2	5062.2	105	%			00:47:02
1	Y RADIAL	6666.7	6666.7	133.3	%			00:47:02
1	Al 396.153Radial†	10714.9	10326.1	9583.2	ug/L	9583.2	ppb	00:47:02
1	Ca 317.933Radial†	1688.9	1587.0	2630.4	ug/L	2630.4	ppb	00:47:22
1	Fe 238.204 Radial†	9901.2	9390.4	85440	ug/L	85440	ppb	00:47:02
1	K 766.490 Radial†	16980.8	13298.7	2345.0	ug/L	2345.0	ppb	00:47:02
1	Mg 279.077 IEC†	60.7	57.2	1937.3	ug/L	1937.3	ppb	00:47:22
1	Na 589.592 Radial†	3978.7	4856.6	1468.9	ug/L	1468.9	ppb	00:47:02
1	Sr 421.552†	3137.0	2976.7	20.856	ug/L	20.856	ppb	00:47:02
1	Sc 361.383	818066.1	818066.1	94.893	%			00:48:19
1	Y 371.029	837450.8	837450.8	117.19	%			00:48:19
1	Ag 328.068†	-5099.8	-5603.0	2.8482	ug/L	2.8482	ppb	00:48:24
1	As 188.979†	-54.0	-23.1	34.494	ug/L	34.494	ppb	00:48:45
1	B 249.677†	14.7	554.5	-0.7553	ug/L	-0.7553	ppb	00:48:24
1	Ba 233.527†	18961.2	19993.2	165.98	ug/L	165.98	ppb	00:48:24
1	Be 313.107†	-12885.2	-9239.9	3.1023	ug/L	3.1023	ppb	00:48:24
1	Cd 226.502†	548.1	789.5	0.5694	ug/L	0.5694	ppb	00:48:45
1	Co 228.616†	1031.1	1160.3	18.089	ug/L	18.089	ppb	00:48:45
1	Cr 267.716†	16787.1	17623.8	207.03	ug/L	207.03	ppb	00:48:24
1	Cu 324.752†	23137.6	18562.1	60.998	ug/L	60.998	ppb	00:48:24
1	Mn 257.610†	2164972.0	2281038.7	2632.7	ug/L	2632.7	ppb	00:48:19
1	Mo 202.031†	176.2	170.2	19.408	ug/L	19.408	ppb	00:48:45
1	Ni 231.604†	3973.7	4079.6	105.67	ug/L	105.67	ppb	00:48:45
1	P 214.914†	1032.1	859.6	457.36	ug/L	457.36	ppb	00:48:45
1	Pb 220.353†	443.6	529.2	59.947	ug/L	59.947	ppb	00:48:45
1	S 181.975 Axial†	63.0	27.1	37.651	ug/L	37.651	ppb	00:48:45
1	Sb 206.836†	67.2	28.6	-0.2078	ug/L	-0.2078	ppb	00:48:45
1	Se 196.026†	-440.8	-442.4	-22.416	ug/L	-22.416	ppb	00:48:45
1	Si 251.611†	321328.5	338060.1	11307	ug/L	11307	ppb	00:48:24
1	Sn 189.927†	28.3	21.1	5.7542	ug/L	5.7542	ppb	00:48:45
1	Ti 334.940†	1685135.5	1777132.5	2882.7	ug/L	2882.7	ppb	00:48:19
1	Tl 190.801†	-158.0	-132.3	-6.1292	ug/L	-6.1292	ppb	00:48:45
1	U 409.014†	-12757.7	-10464.2	-313.63	ug/L	-313.63	ppb	00:48:19
1	V 292.402†	4777.1	6588.8	31.915	ug/L	31.915	ppb	00:48:24
1	Zn 213.857†	40353.4	41811.9	398.96	ug/L	398.96	ppb	00:48:24
1	SiO2†	326290.3	343268.1	24486	ug/L	24486	ppb	00:49:52
2	Sc Radial	5154.9	5154.9	107	%			00:47:27
2	Y RADIAL	6820.7	6820.7	136.4	%			00:47:27
2	Al 396.153Radial†	11073.1	10477.1	9723.4	ug/L	9723.4	ppb	00:47:27
2	Ca 317.933Radial†	1679.3	1549.3	2567.8	ug/L	2567.8	ppb	00:47:47
2	Fe 238.204 Radial†	10157.5	9460.2	86076	ug/L	86076	ppb	00:47:27
2	K 766.490 Radial†	17406.0	13405.2	2363.8	ug/L	2363.8	ppb	00:47:27
2	Mg 279.077 IEC†	62.5	57.9	1961.0	ug/L	1961.0	ppb	00:47:47
2	Na 589.592 Radial†	4103.0	4904.5	1483.3	ug/L	1483.3	ppb	00:47:27
2	Sr 421.552†	3255.1	3033.2	21.253	ug/L	21.253	ppb	00:47:27
2	Sc 361.383	875412.7	875412.7	101.54	%			00:48:50
2	Y 371.029	890689.4	890689.4	124.64	%			00:48:50
2	Ag 328.068†	-5117.1	-5268.1	4.6195	ug/L	4.6195	ppb	00:48:55
2	As 188.979†	-57.3	-22.6	34.395	ug/L	34.395	ppb	00:49:16
2	B 249.677†	62.0	600.1	0.2311	ug/L	0.2311	ppb	00:48:55
2	Ba 233.527†	18705.6	18432.6	153.25	ug/L	153.25	ppb	00:48:55
2	Be 313.107†	-12831.0	-8297.1	3.3284	ug/L	3.3284	ppb	00:48:55
2	Cd 226.502†	535.5	739.3	-0.0949	ug/L	-0.0949	ppb	00:49:16
2	Co 228.616†	1018.2	1076.4	16.362	ug/L	16.362	ppb	00:49:16
2	Cr 267.716†	16541.5	16223.1	190.72	ug/L	190.72	ppb	00:48:55
2	Cu 324.752†	22891.7	16722.7	55.443	ug/L	55.443	ppb	00:48:55
2	Mn 257.610†	2270624.1	2235627.4	2580.5	ug/L	2580.5	ppb	00:48:50
2	Mo 202.031†	172.4	154.2	18.263	ug/L	18.263	ppb	00:49:16
2	Ni 231.604†	3983.8	3815.1	98.824	ug/L	98.824	ppb	00:49:16

2	P 214.914†	1033.3	789.5	414.40 ug/L	414.40 ppb	00:49:16
2	Pb 220.353†	448.4	503.3	56.681 ug/L	56.681 ppb	00:49:16
2	S 181.975 Axial†	71.5	31.0	43.439 ug/L	43.439 ppb	00:49:16
2	Sb 206.836†	51.6	8.7	-6.9890 ug/L	-6.9890 ppb	00:49:16
2	Se 196.026†	-444.4	-415.5	-2.2735 ug/L	-2.2735 ppb	00:49:16
2	Si 251.611†	318829.9	313417.1	10483 ug/L	10483 ppb	00:48:55
2	Sn 189.927†	43.2	33.8	8.1186 ug/L	8.1186 ppb	00:49:16
2	Ti 334.940†	1768767.0	1743160.5	2827.6 ug/L	2827.6 ppb	00:48:50
2	Tl 190.801†	-145.5	-109.0	0.6212 ug/L	0.6212 ppb	00:49:16
2	U 409.014†	-13113.6	-9934.1	-298.29 ug/L	-298.29 ppb	00:48:50
2	V 292.402†	4771.3	6253.4	29.463 ug/L	29.463 ppb	00:48:55
2	Zn 213.857†	40298.5	38972.2	370.90 ug/L	370.90 ppb	00:48:55
2	SiO2†	329276.2	323683.5	23089 ug/L	23089 ppb	00:49:57
3	Sc Radial	5362.7	5362.7	112 %		00:47:52
3	Y RADIAL	7012.7	7012.7	140.2 %		00:47:52
3	Al 396.153Radial†	10782.3	9816.4	9110.1 ug/L	9110.1 ppb	00:47:52
3	Ca 317.933Radial†	1708.8	1515.0	2511.0 ug/L	2511.0 ppb	00:48:12
3	Fe 238.204 Radial†	9927.1	8886.8	80858 ug/L	80858 ppb	00:47:52
3	K 766.490 Radial†	17059.6	12465.9	2198.0 ug/L	2198.0 ppb	00:47:52
3	Mg 279.077 IEC†	64.6	57.4	1951.6 ug/L	1951.6 ppb	00:48:12
3	Na 589.592 Radial†	3992.7	4657.4	1408.6 ug/L	1408.6 ppb	00:47:52
3	Sr 421.552†	3156.9	2827.6	19.812 ug/L	19.812 ppb	00:47:52
3	Sc 361.383	849701.3	849701.3	98.562 %		00:49:21
3	Y 371.029	871028.0	871028.0	121.89 %		00:49:21
3	Ag 328.068†	-5189.6	-5494.1	1.8110 ug/L	1.8110 ppb	00:49:26
3	As 188.979†	-51.8	-18.7	35.689 ug/L	35.689 ppb	00:49:47
3	B 249.677†	109.1	649.7	2.2566 ug/L	2.2566 ppb	00:49:26
3	Ba 233.527†	19176.6	19467.9	161.55 ug/L	161.55 ppb	00:49:26
3	Be 313.107†	-13239.7	-9094.1	3.2291 ug/L	3.2291 ppb	00:49:26
3	Cd 226.502†	536.8	756.5	0.6477 ug/L	0.6477 ppb	00:49:47
3	Co 228.616†	1026.5	1115.2	17.103 ug/L	17.103 ppb	00:49:47
3	Cr 267.716†	16954.3	17134.8	201.24 ug/L	201.24 ppb	00:49:26
3	Cu 324.752†	23381.1	17901.4	58.751 ug/L	58.751 ppb	00:49:26
3	Mn 257.610†	2271766.6	2304448.9	2659.2 ug/L	2659.2 ppb	00:49:21
3	Mo 202.031†	175.2	162.2	18.457 ug/L	18.457 ppb	00:49:47
3	Ni 231.604†	3965.2	3915.0	101.41 ug/L	101.41 ppb	00:49:47
3	P 214.914†	1016.6	803.3	426.32 ug/L	426.32 ppb	00:49:47
3	Pb 220.353†	457.9	526.3	59.916 ug/L	59.916 ppb	00:49:47
3	S 181.975 Axial†	67.9	29.6	41.384 ug/L	41.384 ppb	00:49:47
3	Sb 206.836†	62.5	21.3	-2.8317 ug/L	-2.8317 ppb	00:49:47
3	Se 196.026†	-444.8	-429.2	-28.325 ug/L	-28.325 ppb	00:49:47
3	Si 251.611†	326134.7	330329.2	11049 ug/L	11049 ppb	00:49:26
3	Sn 189.927†	32.3	24.1	6.2086 ug/L	6.2086 ppb	00:49:47
3	Ti 334.940†	1769690.5	1796804.9	2914.6 ug/L	2914.6 ppb	00:49:21
3	Tl 190.801†	-148.9	-116.9	-0.8016 ug/L	-0.8016 ppb	00:49:47
3	U 409.014†	-13249.6	-10462.8	-313.05 ug/L	-313.05 ppb	00:49:21
3	V 292.402†	4785.4	6409.8	31.242 ug/L	31.242 ppb	00:49:26
3	Zn 213.857†	41223.1	41111.1	392.76 ug/L	392.76 ppb	00:49:26
3	SiO2†	327128.4	331316.5	23633 ug/L	23633 ppb	00:50:03

Mean Data: 1202024775|945399|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	847726.7	98.333	%	3.3319				3.39%
Sc Radial	5193.3	108	%	3.2				2.96%
Y 371.029	866389.4	121.24	%	3.767				3.11%
Y RADIAL	6833.4	136.6	%	3.47				2.54%
Ag 328.068†	-5455.1	3.0929	ug/L	1.42014	3.0929	ppb	1.42014	45.92%
Al 396.153Radial†	10206.5	9472.2	ug/L	321.35	9472.2	ppb	321.35	3.39%
As 188.979†	-21.4	34.859	ug/L	0.7205	34.859	ppb	0.7205	2.07%
B 249.677†	601.5	0.5775	ug/L	1.53552	0.5775	ppb	1.53552	265.90%
Ba 233.527†	19297.9	160.26	ug/L	6.463	160.26	ppb	6.463	4.03%
Be 313.107†	-8877.0	3.2199	ug/L	0.11332	3.2199	ppb	0.11332	3.52%
Ca 317.933Radial†	1550.4	2569.7	ug/L	59.69	2569.7	ppb	59.69	2.32%
Cd 226.502†	761.8	0.3741	ug/L	0.40798	0.3741	ppb	0.40798	109.07%
Co 228.616†	1117.3	17.185	ug/L	0.8665	17.185	ppb	0.8665	5.04%
Cr 267.716†	16993.9	199.66	ug/L	8.266	199.66	ppb	8.266	4.14%
Cu 324.752†	17728.7	58.398	ug/L	2.7942	58.398	ppb	2.7942	4.78%
Fe 238.204 Radial†	9245.8	84125	ug/L	2846.6	84125	ppb	2846.6	3.38%
K 766.490 Radial†	13056.6	2302.3	ug/L	90.77	2302.3	ppb	90.77	3.94%

Mg 279.077 IEC†	57.5	1950.0	ug/L	11.92	1950.0	ppb	11.92	0.61%
Mn 257.610†	2273705.0	2624.2	ug/L	40.03	2624.2	ppb	40.03	1.53%
Mo 202.031†	162.2	18.709	ug/L	0.6129	18.709	ppb	0.6129	3.28%
Na 589.592 Radial†	4806.2	1453.6	ug/L	39.63	1453.6	ppb	39.63	2.73%
Ni 231.604†	3936.6	101.97	ug/L	3.459	101.97	ppb	3.459	3.39%
P 214.914†	817.5	432.69	ug/L	22.177	432.69	ppb	22.177	5.13%
Pb 220.353†	519.6	58.848	ug/L	1.8765	58.848	ppb	1.8765	3.19%
S 181.975 Axial†	29.2	40.825	ug/L	2.9341	40.825	ppb	2.9341	7.19%
Sb 206.836†	19.5	-3.3428	ug/L	3.41938	-3.3428	ppb	3.41938	102.29%
Se 196.026†	-429.0	-17.672	ug/L	13.6586	-17.672	ppb	13.6586	77.29%
Si 251.611†	327268.8	10947	ug/L	421.6	10947	ppb	421.6	3.85%
Sn 189.927†	26.3	6.6938	ug/L	1.25463	6.6938	ppb	1.25463	18.74%
Sr 421.552†	2945.8	20.641	ug/L	0.7445	20.641	ppb	0.7445	3.61%
Ti 334.940†	1772366.0	2874.9	ug/L	44.02	2874.9	ppb	44.02	1.53%
Tl 190.801†	-119.4	-2.1032	ug/L	3.55843	-2.1032	ppb	3.55843	169.19%
U 409.014†	-10287.0	-308.32	ug/L	8.693	-308.32	ppb	8.693	2.82%
V 292.402†	6417.3	30.874	ug/L	1.2667	30.874	ppb	1.2667	4.10%
Zn 213.857†	40631.7	387.54	ug/L	14.740	387.54	ppb	14.740	3.80%
SiO2†	332756.0	23736	ug/L	704.1	23736	ppb	704.1	2.97%

Sequence No.: 74
Sample ID: 1202024776|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 95
Date Collected: 2/12/2010 00:52:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202024776|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5059.4	5059.4	105	%			00:54:07
1	Y RADIAL	7111.8	7111.8	142.2	%			00:54:07
1	Al 396.153Radial†	23107.1	22105.7	20493	ug/L	20493	ppb	00:54:07
1	Ca 317.933Radial†	5035.4	4767.5	7901.8	ug/L	7901.8	ppb	00:54:07
1	Fe 238.204 Radial†	11162.6	10594.1	96407	ug/L	96407	ppb	00:54:07
1	K 766.490 Radial†	56873.7	51210.1	9032.3	ug/L	9032.3	ppb	00:54:07
1	Mg 279.077 IEC†	227.6	215.9	7555.0	ug/L	7555.0	ppb	00:54:27
1	Na 589.592 Radial†	23669.1	23566.6	7127.7	ug/L	7127.7	ppb	00:54:07
1	Sr 421.552†	80054.7	76058.0	533.35	ug/L	533.35	ppb	00:54:07
1	Sc 361.383	861795.0	861795.0	99.965	%			00:55:26
1	Y 371.029	926146.9	926146.9	129.60	%			00:55:26
1	Ag 328.068†	97765.7	97570.9	494.11	ug/L	494.11	ppb	00:55:26
1	As 188.979†	993.8	1028.0	516.32	ug/L	516.32	ppb	00:55:46
1	B 249.677†	20286.3	20832.4	478.49	ug/L	478.49	ppb	00:55:26
1	Ba 233.527†	82266.4	82306.5	676.24	ug/L	676.24	ppb	00:55:26
1	Be 313.107†	1294462.2	1299250.5	491.39	ug/L	491.39	ppb	00:55:26
1	Cd 226.502†	39737.4	39963.1	465.54	ug/L	465.54	ppb	00:55:46
1	Co 228.616†	23244.9	23326.7	502.44	ug/L	502.44	ppb	00:55:46
1	Cr 267.716†	49907.8	49858.4	582.99	ug/L	582.99	ppb	00:55:26
1	Cu 324.752†	197188.0	191435.7	585.73	ug/L	585.73	ppb	00:55:26
1	Mn 257.610†	2876270.1	2876817.3	3319.0	ug/L	3319.0	ppb	00:55:26
1	Mo 202.031†	6436.7	6423.4	488.61	ug/L	488.61	ppb	00:55:46
1	Ni 231.604†	20998.3	20897.6	541.08	ug/L	541.08	ppb	00:55:46
1	P 214.914†	1886.0	1658.6	848.88	ug/L	848.88	ppb	00:55:46
1	Pb 220.353†	4358.2	4421.4	547.74	ug/L	547.74	ppb	00:55:46
1	S 181.975 Axial†	3441.3	3403.2	4958.7	ug/L	4958.7	ppb	00:55:46
1	Sb 206.836†	1373.1	1331.4	470.99	ug/L	470.99	ppb	00:55:46
1	Se 196.026†	236.7	258.9	487.18	ug/L	487.18	ppb	00:55:46
1	Si 251.611†	634020.0	633678.0	21190	ug/L	21190	ppb	00:55:26
1	Sn 189.927†	2663.0	2655.3	495.58	ug/L	495.58	ppb	00:55:46
1	Ti 334.940†	2025378.7	2027385.5	3288.5	ug/L	3288.5	ppb	00:55:26
1	Tl 190.801†	1346.2	1380.8	482.40	ug/L	482.40	ppb	00:55:46
1	U 409.014†	2661.5	5642.5	151.32	ug/L	151.32	ppb	00:55:26
1	V 292.402†	69227.5	70806.1	503.73	ug/L	503.73	ppb	00:55:26
1	Zn 213.857†	88203.4	87520.8	844.77	ug/L	844.77	ppb	00:55:26
1	SiO2†	644002.6	643643.2	45899	ug/L	45899	ppb	00:56:46
2	Sc Radial	5060.1	5060.1	105	%			00:54:32
2	Y RADIAL	7087.7	7087.7	141.7	%			00:54:32
2	Al 396.153Radial†	22774.9	21786.8	20198	ug/L	20198	ppb	00:54:32
2	Ca 317.933Radial†	4936.4	4672.7	7744.7	ug/L	7744.7	ppb	00:54:32
2	Fe 238.204 Radial†	10971.0	10410.5	94736	ug/L	94736	ppb	00:54:32
2	K 766.490 Radial†	55793.9	50176.2	8849.9	ug/L	8849.9	ppb	00:54:32
2	Mg 279.077 IEC†	231.1	219.1	7671.6	ug/L	7671.6	ppb	00:54:52
2	Na 589.592 Radial†	23007.4	22934.6	6936.6	ug/L	6936.6	ppb	00:54:32
2	Sr 421.552†	78504.9	74574.3	522.94	ug/L	522.94	ppb	00:54:32
2	Sc 361.383	866522.8	866522.8	100.51	%			00:55:53
2	Y 371.029	931181.4	931181.4	130.31	%			00:55:53
2	Ag 328.068†	97615.7	96888.1	490.31	ug/L	490.31	ppb	00:55:53
2	As 188.979†	990.9	1019.7	512.01	ug/L	512.01	ppb	00:56:13
2	B 249.677†	20238.8	20674.4	475.02	ug/L	475.02	ppb	00:55:53
2	Ba 233.527†	82090.1	81682.2	671.08	ug/L	671.08	ppb	00:55:53
2	Be 313.107†	1293940.4	1291666.4	488.51	ug/L	488.51	ppb	00:55:53
2	Cd 226.502†	39591.1	39600.7	461.40	ug/L	461.40	ppb	00:56:13
2	Co 228.616†	23163.6	23119.0	497.96	ug/L	497.96	ppb	00:56:13
2	Cr 267.716†	49880.8	49559.1	579.47	ug/L	579.47	ppb	00:55:53
2	Cu 324.752†	196773.7	189947.4	581.13	ug/L	581.13	ppb	00:55:53
2	Mn 257.610†	2868961.9	2853848.1	3292.4	ug/L	3292.4	ppb	00:55:53
2	Mo 202.031†	6414.7	6366.4	484.21	ug/L	484.21	ppb	00:56:13
2	Ni 231.604†	20907.4	20692.5	535.77	ug/L	535.77	ppb	00:56:13

2	P 214.914†	1884.8	1647.1	843.86	ug/L	843.86 ppb	00:56:13
2	Pb 220.353†	4318.3	4358.0	539.92	ug/L	539.92 ppb	00:56:13
2	S 181.975 Axial†	3433.9	3377.0	4920.6	ug/L	4920.6 ppb	00:56:13
2	Sb 206.836†	1365.5	1316.4	465.67	ug/L	465.67 ppb	00:56:13
2	Se 196.026†	238.2	259.1	481.90	ug/L	481.90 ppb	00:56:13
2	Si 251.611†	632664.4	628868.9	21029	ug/L	21029 ppb	00:55:53
2	Sn 189.927†	2646.0	2623.8	489.68	ug/L	489.68 ppb	00:56:13
2	Ti 334.940†	2021790.9	2012761.7	3264.7	ug/L	3264.7 ppb	00:55:53
2	Tl 190.801†	1335.8	1363.2	476.44	ug/L	476.44 ppb	00:56:13
2	U 409.014†	2666.6	5633.0	151.25	ug/L	151.25 ppb	00:55:53
2	V 292.402†	69179.5	70380.6	500.85	ug/L	500.85 ppb	00:55:53
2	Zn 213.857†	87970.1	86807.3	838.03	ug/L	838.03 ppb	00:55:53
2	SiO2†	629424.5	625624.7	44614	ug/L	44614 ppb	00:56:52
3	Sc Radial	5008.0	5008.0	104	%		00:54:57
3	Y RADIAL	7015.1	7015.1	140.3	%		00:54:57
3	Al 396.153Radial†	22819.5	22054.7	20446	ug/L	20446 ppb	00:54:57
3	Ca 317.933Radial†	4933.7	4718.9	7821.3	ug/L	7821.3 ppb	00:54:57
3	Fe 238.204 Radial†	10989.3	10536.5	95882	ug/L	95882 ppb	00:54:57
3	K 766.490 Radial†	56038.1	50962.1	8988.6	ug/L	8988.6 ppb	00:54:57
3	Mg 279.077 IEC†	221.6	212.3	7430.1	ug/L	7430.1 ppb	00:55:17
3	Na 589.592 Radial†	23030.5	23184.1	7012.0	ug/L	7012.0 ppb	00:54:57
3	Sr 421.552†	78584.3	75426.4	528.92	ug/L	528.92 ppb	00:54:57
3	Sc 361.383	872776.3	872776.3	101.24	%		00:56:21
3	Y 371.029	939318.1	939318.1	131.45	%		00:56:21
3	Ag 328.068†	98383.8	96950.9	491.00	ug/L	491.00 ppb	00:56:21
3	As 188.979†	989.7	1011.5	508.55	ug/L	508.55 ppb	00:56:41
3	B 249.677†	20551.9	20839.4	478.77	ug/L	478.77 ppb	00:56:21
3	Ba 233.527†	82739.2	81738.2	671.58	ug/L	671.58 ppb	00:56:21
3	Be 313.107†	1308048.9	1296378.4	490.27	ug/L	490.27 ppb	00:56:21
3	Cd 226.502†	39544.6	39272.5	457.38	ug/L	457.38 ppb	00:56:41
3	Co 228.616†	23170.0	22960.2	494.47	ug/L	494.47 ppb	00:56:41
3	Cr 267.716†	50281.0	49598.8	579.95	ug/L	579.95 ppb	00:56:21
3	Cu 324.752†	198605.6	190354.1	582.42	ug/L	582.42 ppb	00:56:21
3	Mn 257.610†	2892576.3	2856722.2	3295.9	ug/L	3295.9 ppb	00:56:21
3	Mo 202.031†	6403.5	6309.6	480.05	ug/L	480.05 ppb	00:56:41
3	Ni 231.604†	20887.4	20523.7	531.40	ug/L	531.40 ppb	00:56:41
3	P 214.914†	1888.2	1637.0	836.40	ug/L	836.40 ppb	00:56:41
3	Pb 220.353†	4318.9	4327.7	536.08	ug/L	536.08 ppb	00:56:41
3	S 181.975 Axial†	3428.7	3347.4	4877.3	ug/L	4877.3 ppb	00:56:41
3	Sb 206.836†	1358.6	1299.8	459.70	ug/L	459.70 ppb	00:56:41
3	Se 196.026†	226.5	245.9	476.66	ug/L	476.66 ppb	00:56:41
3	Si 251.611†	638176.1	629803.2	21060	ug/L	21060 ppb	00:56:21
3	Sn 189.927†	2644.2	2603.2	485.89	ug/L	485.89 ppb	00:56:41
3	Ti 334.940†	2037570.2	2013935.6	3266.7	ug/L	3266.7 ppb	00:56:21
3	Tl 190.801†	1342.1	1359.9	475.42	ug/L	475.42 ppb	00:56:41
3	U 409.014†	2741.5	5688.0	152.71	ug/L	152.71 ppb	00:56:21
3	V 292.402†	69774.1	70474.8	501.30	ug/L	501.30 ppb	00:56:21
3	Zn 213.857†	88749.2	86949.8	839.29	ug/L	839.29 ppb	00:56:21
3	SiO2†	636250.6	627880.4	44775	ug/L	44775 ppb	00:56:57

Mean Data: 1202024776|945399|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867031.4	100.57	%	0.639				0.64%
Sc Radial	5042.5	105	%	0.6				0.59%
Y 371.029	932215.4	130.45	%	0.930				0.71%
Y RADIAL	7071.5	141.4	%	1.01				0.71%
Ag 328.068†	97136.6	491.81	ug/L	2.021	491.81	ppb	2.021	0.41%
Al 396.153Radial†	21982.4	20379	ug/L	158.9	20379	ppb	158.9	0.78%
As 188.979†	1019.7	512.29	ug/L	3.893	512.29	ppb	3.893	0.76%
B 249.677†	20782.0	477.42	ug/L	2.090	477.42	ppb	2.090	0.44%
Ba 233.527†	81909.0	672.97	ug/L	2.845	672.97	ppb	2.845	0.42%
Be 313.107†	1295765.1	490.06	ug/L	1.451	490.06	ppb	1.451	0.30%
Ca 317.933Radial†	4719.7	7822.6	ug/L	78.54	7822.6	ppb	78.54	1.00%
Cd 226.502†	39612.1	461.44	ug/L	4.081	461.44	ppb	4.081	0.88%
Co 228.616†	23135.3	498.29	ug/L	3.997	498.29	ppb	3.997	0.80%
Cr 267.716†	49672.1	580.80	ug/L	1.908	580.80	ppb	1.908	0.33%
Cu 324.752†	190579.1	583.09	ug/L	2.374	583.09	ppb	2.374	0.41%
Fe 238.204 Radial†	10513.7	95675	ug/L	854.5	95675	ppb	854.5	0.89%
K 766.490 Radial†	50782.8	8956.9	ug/L	95.21	8956.9	ppb	95.21	1.06%

Mg 279.077 IEC†	215.8	7552.3	ug/L	120.77	7552.3	ppb	120.77	1.60%
Mn 257.610†	2862462.5	3302.5	ug/L	14.47	3302.5	ppb	14.47	0.44%
Mo 202.031†	6366.4	484.29	ug/L	4.281	484.29	ppb	4.281	0.88%
Na 589.592 Radial†	23228.4	7025.4	ug/L	96.26	7025.4	ppb	96.26	1.37%
Ni 231.604†	20704.6	536.09	ug/L	4.847	536.09	ppb	4.847	0.90%
P 214.914†	1647.6	843.04	ug/L	6.280	843.04	ppb	6.280	0.74%
Pb 220.353†	4369.0	541.24	ug/L	5.944	541.24	ppb	5.944	1.10%
S 181.975 Axial†	3375.9	4918.9	ug/L	40.72	4918.9	ppb	40.72	0.83%
Sb 206.836†	1315.9	465.46	ug/L	5.648	465.46	ppb	5.648	1.21%
Se 196.026†	254.6	481.92	ug/L	5.260	481.92	ppb	5.260	1.09%
Si 251.611†	630783.3	21093	ug/L	85.3	21093	ppb	85.3	0.40%
Sn 189.927†	2627.4	490.38	ug/L	4.884	490.38	ppb	4.884	1.00%
Sr 421.552†	75352.9	528.40	ug/L	5.221	528.40	ppb	5.221	0.99%
Ti 334.940†	2018027.6	3273.3	ug/L	13.19	3273.3	ppb	13.19	0.40%
Tl 190.801†	1368.0	478.08	ug/L	3.769	478.08	ppb	3.769	0.79%
U 409.014†	5654.5	151.76	ug/L	0.824	151.76	ppb	0.824	0.54%
V 292.402†	70553.8	501.96	ug/L	1.548	501.96	ppb	1.548	0.31%
Zn 213.857†	87092.6	840.69	ug/L	3.588	840.69	ppb	3.588	0.43%
SiO2†	632382.8	45096	ug/L	700.2	45096	ppb	700.2	1.55%

Sequence No.: 75
Sample ID: 1202024778|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 96
Date Collected: 2/12/2010 00:59:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202024778|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4946.0	4946.0	103	%			01:01:02
1	Y RADIAL	6871.4	6871.4	137.4	%			01:01:02
1	Al 396.153Radial†	22819.5	22329.2	20701	ug/L	20701	ppb	01:01:02
1	Ca 317.933Radial†	5072.1	4912.7	8142.5	ug/L	8142.5	ppb	01:01:02
1	Fe 238.204 Radial†	10262.7	9962.6	90660	ug/L	90660	ppb	01:01:02
1	K 766.490 Radial†	51612.3	47335.0	8348.4	ug/L	8348.4	ppb	01:01:02
1	Mg 279.077 IEC†	212.2	205.8	7204.3	ug/L	7204.3	ppb	01:01:22
1	Na 589.592 Radial†	22607.3	23050.0	6971.4	ug/L	6971.4	ppb	01:01:02
1	Sr 421.552†	77344.6	75167.0	527.10	ug/L	527.10	ppb	01:01:02
1	Sc 361.383	857285.6	857285.6	99.442	%			01:02:21
1	Y 371.029	910522.5	910522.5	127.42	%			01:02:21
1	Ag 328.068†	96391.4	96703.3	488.03	ug/L	488.03	ppb	01:02:21
1	As 188.979†	983.5	1022.9	512.42	ug/L	512.42	ppb	01:02:41
1	B 249.677†	20039.1	20690.6	476.08	ug/L	476.08	ppb	01:02:21
1	Ba 233.527†	78619.4	79072.0	649.63	ug/L	649.63	ppb	01:02:21
1	Be 313.107†	1279941.2	1291459.5	488.42	ug/L	488.42	ppb	01:02:21
1	Cd 226.502†	38975.2	39405.7	459.50	ug/L	459.50	ppb	01:02:41
1	Co 228.616†	22704.2	22905.3	493.35	ug/L	493.35	ppb	01:02:41
1	Cr 267.716†	49428.0	49638.5	580.30	ug/L	580.30	ppb	01:02:21
1	Cu 324.752†	191815.2	187070.5	572.18	ug/L	572.18	ppb	01:02:21
1	Mn 257.610†	2521250.5	2534941.2	2925.2	ug/L	2925.2	ppb	01:02:21
1	Mo 202.031†	6299.8	6319.6	480.40	ug/L	480.40	ppb	01:02:41
1	Ni 231.604†	20449.3	20456.0	529.65	ug/L	529.65	ppb	01:02:41
1	P 214.914†	2074.1	1857.7	980.01	ug/L	980.01	ppb	01:02:41
1	Pb 220.353†	4278.6	4364.3	541.21	ug/L	541.21	ppb	01:02:41
1	S 181.975 Axial†	3378.7	3358.3	4893.3	ug/L	4893.3	ppb	01:02:41
1	Sb 206.836†	1359.7	1325.2	468.68	ug/L	468.68	ppb	01:02:41
1	Se 196.026†	250.8	274.4	479.05	ug/L	479.05	ppb	01:02:41
1	Si 251.611†	608299.2	611149.1	20436	ug/L	20436	ppb	01:02:21
1	Sn 189.927†	2611.2	2617.2	488.45	ug/L	488.45	ppb	01:02:41
1	Ti 334.940†	1995380.3	2007876.2	3256.9	ug/L	3256.9	ppb	01:02:21
1	Tl 190.801†	1332.4	1374.0	478.13	ug/L	478.13	ppb	01:02:41
1	U 409.014†	2946.6	5943.2	160.71	ug/L	160.71	ppb	01:02:21
1	V 292.402†	67622.6	69556.5	495.43	ug/L	495.43	ppb	01:02:21
1	Zn 213.857†	86547.4	86319.6	833.87	ug/L	833.87	ppb	01:02:21
1	SiO2†	618838.0	621726.2	44336	ug/L	44336	ppb	01:03:41
2	Sc Radial	5007.6	5007.6	104	%			01:01:27
2	Y RADIAL	6937.1	6937.1	138.7	%			01:01:27
2	Al 396.153Radial†	23146.7	22370.6	20740	ug/L	20740	ppb	01:01:27
2	Ca 317.933Radial†	5128.9	4906.7	8132.5	ug/L	8132.5	ppb	01:01:27
2	Fe 238.204 Radial†	10398.9	9970.6	90734	ug/L	90734	ppb	01:01:27
2	K 766.490 Radial†	52421.9	47495.2	8376.7	ug/L	8376.7	ppb	01:01:27
2	Mg 279.077 IEC†	217.5	208.4	7295.8	ug/L	7295.8	ppb	01:01:47
2	Na 589.592 Radial†	22823.4	22987.2	6952.4	ug/L	6952.4	ppb	01:01:27
2	Sr 421.552†	78561.6	75410.9	528.81	ug/L	528.81	ppb	01:01:27
2	Sc 361.383	864215.4	864215.4	100.25	%			01:02:48
2	Y 371.029	918000.3	918000.3	128.46	%			01:02:48
2	Ag 328.068†	97118.4	96651.3	487.80	ug/L	487.80	ppb	01:02:48
2	As 188.979†	983.4	1014.9	508.78	ug/L	508.78	ppb	01:03:08
2	B 249.677†	20291.0	20780.2	478.21	ug/L	478.21	ppb	01:02:48
2	Ba 233.527†	78992.3	78810.0	647.49	ug/L	647.49	ppb	01:02:48
2	Be 313.107†	1289301.1	1290475.5	488.05	ug/L	488.05	ppb	01:02:48
2	Cd 226.502†	39011.3	39127.4	456.18	ug/L	456.18	ppb	01:03:08
2	Co 228.616†	22712.2	22730.2	489.52	ug/L	489.52	ppb	01:03:08
2	Cr 267.716†	49724.6	49535.8	579.10	ug/L	579.10	ppb	01:02:48
2	Cu 324.752†	193420.3	187124.9	572.34	ug/L	572.34	ppb	01:02:48
2	Mn 257.610†	2536490.9	2529813.8	2919.3	ug/L	2919.3	ppb	01:02:48
2	Mo 202.031†	6295.6	6264.6	476.28	ug/L	476.28	ppb	01:03:08
2	Ni 231.604†	20457.3	20299.0	525.58	ug/L	525.58	ppb	01:03:08

2	P 214.914†	2076.3	1843.1	970.81	ug/L	970.81 ppb	01:03:08
2	Pb 220.353†	4297.5	4348.7	539.25	ug/L	539.25 ppb	01:03:08
2	S 181.975 Axial†	3369.5	3321.8	4840.1	ug/L	4840.1 ppb	01:03:08
2	Sb 206.836†	1348.2	1302.8	460.71	ug/L	460.71 ppb	01:03:08
2	Se 196.026†	253.7	275.2	479.81	ug/L	479.81 ppb	01:03:08
2	Si 251.611†	613073.3	611006.4	20432	ug/L	20432 ppb	01:02:48
2	Sn 189.927†	2607.7	2592.7	483.90	ug/L	483.90 ppb	01:03:08
2	Ti 334.940†	2010237.8	2006607.4	3254.8	ug/L	3254.8 ppb	01:02:48
2	Tl 190.801†	1322.4	1353.3	471.46	ug/L	471.46 ppb	01:03:08
2	U 409.014†	3229.2	6201.3	168.19	ug/L	168.19 ppb	01:02:48
2	V 292.402†	68114.5	69502.0	494.98	ug/L	494.98 ppb	01:02:48
2	Zn 213.857†	87079.8	86152.8	832.24	ug/L	832.24 ppb	01:02:48
2	SiO2†	612143.8	610058.3	43504	ug/L	43504 ppb	01:03:47
3	Sc Radial	4921.4	4921.4	102	%		01:01:52
3	Y RADIAL	6768.1	6768.1	135.3	%		01:01:52
3	Al 396.153Radial†	22673.8	22297.8	20672	ug/L	20672 ppb	01:01:52
3	Ca 317.933Radial†	5041.5	4907.5	8133.8	ug/L	8133.8 ppb	01:01:52
3	Fe 238.204 Radial†	10160.9	9913.0	90209	ug/L	90209 ppb	01:01:52
3	K 766.490 Radial†	51221.7	47204.1	8325.3	ug/L	8325.3 ppb	01:01:52
3	Mg 279.077 IEC†	215.6	210.2	7358.8	ug/L	7358.8 ppb	01:02:12
3	Na 589.592 Radial†	22559.9	23113.4	6990.6	ug/L	6990.6 ppb	01:01:52
3	Sr 421.552†	76901.2	75109.6	526.69	ug/L	526.69 ppb	01:01:52
3	Sc 361.383	861394.2	861394.2	99.919	%		01:03:16
3	Y 371.029	915973.0	915973.0	128.18	%		01:03:16
3	Ag 328.068†	96679.0	96528.8	487.05	ug/L	487.05 ppb	01:03:16
3	As 188.979†	992.3	1027.0	514.11	ug/L	514.11 ppb	01:03:36
3	B 249.677†	20082.1	20637.4	474.89	ug/L	474.89 ppb	01:03:16
3	Ba 233.527†	78728.2	78803.8	647.42	ug/L	647.42 ppb	01:03:16
3	Be 313.107†	1285580.4	1290964.1	488.22	ug/L	488.22 ppb	01:03:16
3	Cd 226.502†	39107.6	39351.3	458.90	ug/L	458.90 ppb	01:03:36
3	Co 228.616†	22774.6	22866.8	492.53	ug/L	492.53 ppb	01:03:36
3	Cr 267.716†	49622.9	49596.5	579.80	ug/L	579.80 ppb	01:03:16
3	Cu 324.752†	192342.8	186678.4	570.96	ug/L	570.96 ppb	01:03:16
3	Mn 257.610†	2526194.2	2527795.7	2916.9	ug/L	2916.9 ppb	01:03:16
3	Mo 202.031†	6316.0	6305.6	479.31	ug/L	479.31 ppb	01:03:36
3	Ni 231.604†	20496.8	20405.4	528.34	ug/L	528.34 ppb	01:03:36
3	P 214.914†	2083.2	1856.9	980.07	ug/L	980.07 ppb	01:03:36
3	Pb 220.353†	4299.9	4365.1	541.34	ug/L	541.34 ppb	01:03:36
3	S 181.975 Axial†	3390.2	3353.6	4886.5	ug/L	4886.5 ppb	01:03:36
3	Sb 206.836†	1357.6	1316.5	465.64	ug/L	465.64 ppb	01:03:36
3	Se 196.026†	251.7	274.0	477.38	ug/L	477.38 ppb	01:03:36
3	Si 251.611†	609787.3	609720.7	20388	ug/L	20388 ppb	01:03:16
3	Sn 189.927†	2611.5	2604.9	486.16	ug/L	486.16 ppb	01:03:36
3	Ti 334.940†	2000503.6	2003432.9	3249.7	ug/L	3249.7 ppb	01:03:16
3	Tl 190.801†	1323.9	1359.2	473.29	ug/L	473.29 ppb	01:03:36
3	U 409.014†	2930.3	5912.7	159.87	ug/L	159.87 ppb	01:03:16
3	V 292.402†	67880.3	69490.2	495.00	ug/L	495.00 ppb	01:03:16
3	Zn 213.857†	86757.2	86114.4	831.93	ug/L	831.93 ppb	01:03:16
3	SiO2†	613443.3	613358.8	43739	ug/L	43739 ppb	01:03:52

Mean Data: 1202024778|945399|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	860965.0	99.869	%	0.4042				0.40%
Sc Radial	4958.3	103	%	0.9				0.90%
Y 371.029	914831.9	128.02	%	0.541				0.42%
Y RADIAL	6858.9	137.2	%	1.70				1.24%
Ag 328.068†	96627.8	487.63	ug/L	0.510	487.63	ppb	0.510	0.10%
Al 396.153Radial†	22332.5	20704	ug/L	34.0	20704	ppb	34.0	0.16%
As 188.979†	1021.6	511.77	ug/L	2.722	511.77	ppb	2.722	0.53%
B 249.677†	20702.7	476.39	ug/L	1.682	476.39	ppb	1.682	0.35%
Ba 233.527†	78895.3	648.18	ug/L	1.254	648.18	ppb	1.254	0.19%
Be 313.107†	1290966.4	488.23	ug/L	0.186	488.23	ppb	0.186	0.04%
Ca 317.933Radial†	4908.9	8136.2	ug/L	5.44	8136.2	ppb	5.44	0.07%
Cd 226.502†	39294.8	458.20	ug/L	1.767	458.20	ppb	1.767	0.39%
Co 228.616†	22834.1	491.80	ug/L	2.017	491.80	ppb	2.017	0.41%
Cr 267.716†	49590.3	579.73	ug/L	0.602	579.73	ppb	0.602	0.10%
Cu 324.752†	186957.9	571.83	ug/L	0.752	571.83	ppb	0.752	0.13%
Fe 238.204 Radial†	9948.7	90534	ug/L	284.2	90534	ppb	284.2	0.31%
K 766.490 Radial†	47344.8	8350.1	ug/L	25.75	8350.1	ppb	25.75	0.31%

Mg 279.077 IEC†	208.1	7286.3 ug/L	77.71	7286.3 ppb	77.71	1.07%
Mn 257.610†	2530850.2	2920.4 ug/L	4.26	2920.4 ppb	4.26	0.15%
Mo 202.031†	6296.6	478.67 ug/L	2.132	478.67 ppb	2.132	0.45%
Na 589.592 Radial†	23050.2	6971.5 ug/L	19.09	6971.5 ppb	19.09	0.27%
Ni 231.604†	20386.8	527.86 ug/L	2.074	527.86 ppb	2.074	0.39%
P 214.914†	1852.5	976.96 ug/L	5.332	976.96 ppb	5.332	0.55%
Pb 220.353†	4359.4	540.60 ug/L	1.169	540.60 ppb	1.169	0.22%
S 181.975 Axial†	3344.6	4873.3 ug/L	28.95	4873.3 ppb	28.95	0.59%
Sb 206.836†	1314.8	465.01 ug/L	4.021	465.01 ppb	4.021	0.86%
Se 196.026†	274.5	478.75 ug/L	1.245	478.75 ppb	1.245	0.26%
Si 251.611†	610625.4	20419 ug/L	26.3	20419 ppb	26.3	0.13%
Sn 189.927†	2604.9	486.17 ug/L	2.275	486.17 ppb	2.275	0.47%
Sr 421.552†	75229.2	527.53 ug/L	1.122	527.53 ppb	1.122	0.21%
Ti 334.940†	2005972.2	3253.8 ug/L	3.72	3253.8 ppb	3.72	0.11%
Tl 190.801†	1362.2	474.29 ug/L	3.447	474.29 ppb	3.447	0.73%
U 409.014†	6019.1	162.92 ug/L	4.577	162.92 ppb	4.577	2.81%
V 292.402†	69516.2	495.14 ug/L	0.251	495.14 ppb	0.251	0.05%
Zn 213.857†	86195.6	832.68 ug/L	1.045	832.68 ppb	1.045	0.13%
SiO2†	615047.7	43860 ug/L	429.0	43860 ppb	429.0	0.98%

Sequence No.: 76
Sample ID: 1202024777|945399|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 97
Date Collected: 2/12/2010 01:06:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202024777|945399|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5082.6	5082.6	106	%			01:07:57
1	Y RADIAL	5618.8	5618.8	112.4	%			01:07:57
1	Al 396.153Radial†	1917.2	1964.8	1823.5	ug/L	1823.5	ppb	01:07:57
1	Ca 317.933Radial†	441.5	400.9	664.43	ug/L	664.43	ppb	01:08:18
1	Fe 238.204 Radial†	1816.4	1706.4	15526	ug/L	15526	ppb	01:08:18
1	K 766.490 Radial†	5396.1	2277.7	401.52	ug/L	401.52	ppb	01:07:57
1	Mg 279.077 IEC†	14.7	13.5	461.02	ug/L	461.02	ppb	01:08:18
1	Na 589.592 Radial†	-41.7	1039.1	314.27	ug/L	314.27	ppb	01:07:57
1	Sr 421.552†	729.6	687.9	4.8193	ug/L	4.8193	ppb	01:07:57
1	Sc 361.383	831996.6	831996.6	96.509	%			01:09:14
1	Y 371.029	705697.1	705697.1	98.754	%			01:09:14
1	Ag 328.068†	-713.1	-967.7	0.7477	ug/L	0.7477	ppb	01:09:14
1	As 188.979†	-26.2	6.7	10.761	ug/L	10.761	ppb	01:09:35
1	B 249.677†	-370.6	155.1	1.1533	ug/L	1.1533	ppb	01:09:14
1	Ba 233.527†	4431.9	4603.9	38.089	ug/L	38.089	ppb	01:09:14
1	Be 313.107†	-5477.4	-1336.8	0.5731	ug/L	0.5731	ppb	01:09:14
1	Cd 226.502†	-72.5	136.7	0.0189	ug/L	0.0189	ppb	01:09:35
1	Co 228.616†	156.6	235.9	3.9589	ug/L	3.9589	ppb	01:09:35
1	Cr 267.716†	1371.7	1354.5	16.103	ug/L	16.103	ppb	01:09:35
1	Cu 324.752†	8780.1	3277.0	10.790	ug/L	10.790	ppb	01:09:14
1	Mn 257.610†	419840.1	434576.0	501.50	ug/L	501.50	ppb	01:09:14
1	Mo 202.031†	53.2	39.6	4.1750	ug/L	4.1750	ppb	01:09:35
1	Ni 231.604†	489.2	398.9	10.331	ug/L	10.331	ppb	01:09:35
1	P 214.914†	466.4	255.2	144.78	ug/L	144.78	ppb	01:09:35
1	Pb 220.353†	34.8	97.8	11.123	ug/L	11.123	ppb	01:09:35
1	S 181.975 Axial†	51.4	13.9	19.952	ug/L	19.952	ppb	01:09:35
1	Sb 206.836†	26.2	-15.0	-6.8957	ug/L	-6.8957	ppb	01:09:35
1	Se 196.026†	-98.5	-79.9	-3.7427	ug/L	-3.7427	ppb	01:09:35
1	Si 251.611†	58955.5	60526.0	2024.5	ug/L	2024.5	ppb	01:09:14
1	Sn 189.927†	14.4	6.3	1.5250	ug/L	1.5250	ppb	01:09:35
1	Ti 334.940†	279450.9	290863.3	471.83	ug/L	471.83	ppb	01:09:14
1	Tl 190.801†	-45.0	-12.4	2.2855	ug/L	2.2855	ppb	01:09:35
1	U 409.014†	-4532.8	-1716.7	-51.583	ug/L	-51.583	ppb	01:09:14
1	V 292.402†	-372.8	1168.4	5.6740	ug/L	5.6740	ppb	01:09:14
1	Zn 213.857†	7475.8	7033.0	66.981	ug/L	66.981	ppb	01:09:14
1	SiO2†	59159.6	60716.6	4331.0	ug/L	4331.0	ppb	01:10:31
2	Sc Radial	4998.8	4998.8	104	%			01:08:23
2	Y RADIAL	5469.0	5469.0	109.4	%			01:08:23
2	Al 396.153Radial†	1926.5	2004.1	1859.9	ug/L	1859.9	ppb	01:08:23
2	Ca 317.933Radial†	435.9	402.4	666.98	ug/L	666.98	ppb	01:08:43
2	Fe 238.204 Radial†	1803.8	1723.1	15678	ug/L	15678	ppb	01:08:43
2	K 766.490 Radial†	5438.0	2403.6	423.75	ug/L	423.75	ppb	01:08:23
2	Mg 279.077 IEC†	13.1	12.2	416.79	ug/L	416.79	ppb	01:08:43
2	Na 589.592 Radial†	-68.8	1012.3	306.18	ug/L	306.18	ppb	01:08:23
2	Sr 421.552†	688.4	659.9	4.6231	ug/L	4.6231	ppb	01:08:23
2	Sc 361.383	839775.0	839775.0	97.411	%			01:09:40
2	Y 371.029	712714.4	712714.4	99.736	%			01:09:40
2	Ag 328.068†	-745.7	-994.3	0.6710	ug/L	0.6710	ppb	01:09:40
2	As 188.979†	-39.1	-6.2	4.9169	ug/L	4.9169	ppb	01:10:00
2	B 249.677†	-321.1	209.4	2.4204	ug/L	2.4204	ppb	01:09:40
2	Ba 233.527†	4473.4	4603.8	38.093	ug/L	38.093	ppb	01:09:40
2	Be 313.107†	-5533.6	-1342.0	0.5679	ug/L	0.5679	ppb	01:09:40
2	Cd 226.502†	-72.7	137.2	0.0094	ug/L	0.0094	ppb	01:10:00
2	Co 228.616†	161.8	239.8	4.0439	ug/L	4.0439	ppb	01:10:00
2	Cr 267.716†	1366.2	1335.7	15.886	ug/L	15.886	ppb	01:10:00
2	Cu 324.752†	8795.7	3208.7	10.590	ug/L	10.590	ppb	01:09:40
2	Mn 257.610†	421419.3	432167.9	498.75	ug/L	498.75	ppb	01:09:40
2	Mo 202.031†	45.4	31.1	3.5537	ug/L	3.5537	ppb	01:10:00
2	Ni 231.604†	486.0	390.9	10.124	ug/L	10.124	ppb	01:10:00

2	P 214.914†	468.6	252.9	143.31 ug/L	143.31 ppb	01:10:00
2	Pb 220.353†	36.0	98.6	11.217 ug/L	11.217 ppb	01:10:00
2	S 181.975 Axial†	44.9	6.7	9.4938 ug/L	9.4938 ppb	01:10:00
2	Sb 206.836†	42.0	0.9	-1.3688 ug/L	-1.3688 ppb	01:10:00
2	Se 196.026†	-93.8	-74.1	0.6382 ug/L	0.6382 ppb	01:10:00
2	Si 251.611†	59247.3	60259.7	2015.6 ug/L	2015.6 ppb	01:09:40
2	Sn 189.927†	9.0	0.6	0.4736 ug/L	0.4736 ppb	01:10:00
2	Ti 334.940†	281194.3	289971.1	470.39 ug/L	470.39 ppb	01:09:40
2	Tl 190.801†	-42.6	-9.5	3.2012 ug/L	3.2012 ppb	01:10:00
2	U 409.014†	-4498.7	-1638.2	-49.325 ug/L	-49.325 ppb	01:09:40
2	V 292.402†	-404.7	1139.2	5.4363 ug/L	5.4363 ppb	01:09:40
2	Zn 213.857†	7435.0	6919.3	65.838 ug/L	65.838 ppb	01:09:40
2	SiO2†	59546.5	60546.0	4318.8 ug/L	4318.8 ppb	01:10:36
3	Sc Radial	4748.5	4748.5	98.8 %		01:08:48
3	Y RADIAL	5239.5	5239.5	104.8 %		01:08:48
3	Al 396.153Radial†	1910.5	2085.6	1935.6 ug/L	1935.6 ppb	01:08:48
3	Ca 317.933Radial†	439.6	428.3	709.82 ug/L	709.82 ppb	01:09:08
3	Fe 238.204 Radial†	1825.5	1836.4	16709 ug/L	16709 ppb	01:09:08
3	K 766.490 Radial†	5378.2	2618.6	461.68 ug/L	461.68 ppb	01:08:48
3	Mg 279.077 IEC†	15.1	14.9	509.19 ug/L	509.19 ppb	01:09:08
3	Na 589.592 Radial†	-28.8	1049.4	317.39 ug/L	317.39 ppb	01:08:48
3	Sr 421.552†	677.0	683.3	4.7865 ug/L	4.7865 ppb	01:08:48
3	Sc 361.383	844045.3	844045.3	97.906 %		01:10:05
3	Y 371.029	715315.4	715315.4	100.10 %		01:10:05
3	Ag 328.068†	-717.4	-961.5	1.1746 ug/L	1.1746 ppb	01:10:05
3	As 188.979†	-27.6	5.6	10.543 ug/L	10.543 ppb	01:10:26
3	B 249.677†	-283.1	249.9	3.2171 ug/L	3.2171 ppb	01:10:05
3	Ba 233.527†	4490.6	4598.2	38.080 ug/L	38.080 ppb	01:10:05
3	Be 313.107†	-5573.7	-1354.2	0.5634 ug/L	0.5634 ppb	01:10:05
3	Cd 226.502†	-75.2	135.1	-0.1225 ug/L	-0.1225 ppb	01:10:26
3	Co 228.616†	163.6	240.8	4.0471 ug/L	4.0471 ppb	01:10:26
3	Cr 267.716†	1387.9	1350.8	16.082 ug/L	16.082 ppb	01:10:26
3	Cu 324.752†	8826.7	3194.7	10.602 ug/L	10.602 ppb	01:10:05
3	Mn 257.610†	424318.5	432940.2	499.73 ug/L	499.73 ppb	01:10:05
3	Mo 202.031†	32.4	17.6	2.6228 ug/L	2.6228 ppb	01:10:26
3	Ni 231.604†	476.2	378.4	9.8004 ug/L	9.8004 ppb	01:10:26
3	P 214.914†	470.5	252.5	142.22 ug/L	142.22 ppb	01:10:26
3	Pb 220.353†	41.7	104.3	11.839 ug/L	11.839 ppb	01:10:26
3	S 181.975 Axial†	49.0	10.7	15.227 ug/L	15.227 ppb	01:10:26
3	Sb 206.836†	34.2	-7.2	-4.2100 ug/L	-4.2100 ppb	01:10:26
3	Se 196.026†	-96.1	-76.1	2.6438 ug/L	2.6438 ppb	01:10:26
3	Si 251.611†	59664.9	60378.5	2019.6 ug/L	2019.6 ppb	01:10:05
3	Sn 189.927†	19.8	11.6	2.5378 ug/L	2.5378 ppb	01:10:26
3	Ti 334.940†	282641.4	289988.6	470.42 ug/L	470.42 ppb	01:10:05
3	Tl 190.801†	-51.2	-18.1	0.4521 ug/L	0.4521 ppb	01:10:26
3	U 409.014†	-4516.4	-1632.9	-49.288 ug/L	-49.288 ppb	01:10:05
3	V 292.402†	-344.4	1202.9	5.7359 ug/L	5.7359 ppb	01:10:05
3	Zn 213.857†	7480.4	6927.1	65.763 ug/L	65.763 ppb	01:10:05
3	SiO2†	60340.7	61047.9	4354.6 ug/L	4354.6 ppb	01:10:41

Mean Data: 1202024777|945399|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	838605.7	97.275	%	0.7086				0.73%
Sc Radial	4943.3	103	%	3.6				3.52%
Y 371.029	711242.3	99.530	%	0.6962				0.70%
Y RADIAL	5442.4	108.8	%	3.82				3.51%
Ag 328.068†	-974.5	0.8645	ug/L	0.27133	0.8645	ppb	0.27133	31.39%
Al 396.153Radial†	2018.2	1873.0	ug/L	57.22	1873.0	ppb	57.22	3.05%
As 188.979†	2.0	8.7400	ug/L	3.31275	8.7400	ppb	3.31275	37.90%
B 249.677†	204.8	2.2636	ug/L	1.04083	2.2636	ppb	1.04083	45.98%
Ba 233.527†	4602.0	38.088	ug/L	0.0069	38.088	ppb	0.0069	0.02%
Be 313.107†	-1344.3	0.5681	ug/L	0.00485	0.5681	ppb	0.00485	0.85%
Ca 317.933Radial†	410.5	680.41	ug/L	25.500	680.41	ppb	25.500	3.75%
Cd 226.502†	136.4	-0.0314	ug/L	0.07901	-0.0314	ppb	0.07901	251.56%
Co 228.616†	238.9	4.0166	ug/L	0.05004	4.0166	ppb	0.05004	1.25%
Cr 267.716†	1347.0	16.024	ug/L	0.1200	16.024	ppb	0.1200	0.75%
Cu 324.752†	3226.8	10.661	ug/L	0.1123	10.661	ppb	0.1123	1.05%
Fe 238.204 Radial†	1755.3	15971	ug/L	643.8	15971	ppb	643.8	4.03%
K 766.490 Radial†	2433.3	428.98	ug/L	30.419	428.98	ppb	30.419	7.09%

Mg 279.077 IEC†	13.5	462.33	ug/L	46.214	462.33	ppb	46.214	10.00%
Mn 257.610†	433228.0	499.99	ug/L	1.395	499.99	ppb	1.395	0.28%
Mo 202.031†	29.4	3.4505	ug/L	0.78123	3.4505	ppb	0.78123	22.64%
Na 589.592 Radial†	1033.6	312.62	ug/L	5.787	312.62	ppb	5.787	1.85%
Ni 231.604†	389.4	10.085	ug/L	0.2676	10.085	ppb	0.2676	2.65%
P 214.914†	253.5	143.44	ug/L	1.284	143.44	ppb	1.284	0.89%
Pb 220.353†	100.3	11.393	ug/L	0.3891	11.393	ppb	0.3891	3.42%
S 181.975 Axial†	10.5	14.891	ug/L	5.2370	14.891	ppb	5.2370	35.17%
Sb 206.836†	-7.1	-4.1581	ug/L	2.76381	-4.1581	ppb	2.76381	66.47%
Se 196.026†	-76.7	-0.1536	ug/L	3.26607	-0.1536	ppb	3.26607	>999.9%
Si 251.611†	60388.1	2019.9	ug/L	4.46	2019.9	ppb	4.46	0.22%
Sn 189.927†	6.1	1.5121	ug/L	1.03218	1.5121	ppb	1.03218	68.26%
Sr 421.552†	677.0	4.7430	ug/L	0.10508	4.7430	ppb	0.10508	2.22%
Ti 334.940†	290274.3	470.88	ug/L	0.826	470.88	ppb	0.826	0.18%
Tl 190.801†	-13.3	1.9796	ug/L	1.39983	1.9796	ppb	1.39983	70.71%
U 409.014†	-1662.6	-50.066	ug/L	1.3141	-50.066	ppb	1.3141	2.62%
V 292.402†	1170.2	5.6154	ug/L	0.15817	5.6154	ppb	0.15817	2.82%
Zn 213.857†	6959.8	66.194	ug/L	0.6826	66.194	ppb	0.6826	1.03%
SiO2†	60770.1	4334.8	ug/L	18.22	4334.8	ppb	18.22	0.42%

Sequence No.: 77
Sample ID: 245396002|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 98
Date Collected: 2/12/2010 01:12:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245396002|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4996.9	4996.9	104	%			01:15:07
1	Y RADIAL	5786.5	5786.5	115.7	%			01:15:07
1	Al 396.153Radial†	84374.3	81317.8	75472	ug/L	75472	ppb	01:14:47
1	Ca 317.933Radial†	18557.9	17835.6	29561	ug/L	29561	ppb	01:14:47
1	Fe 238.204 Radial†	10382.6	9976.4	90773	ug/L	90773	ppb	01:14:47
1	K 766.490 Radial†	82425.9	76466.2	13487	ug/L	13487	ppb	01:14:47
1	Mg 279.077 IEC†	465.6	447.4	15763	ug/L	15763	ppb	01:15:07
1	Na 589.592 Radial†	611.5	1666.7	504.10	ug/L	504.10	ppb	01:14:47
1	Sr 421.552†	41841.5	40248.5	282.05	ug/L	282.05	ppb	01:14:47
1	Sc 361.383	851087.9	851087.9	98.723	%			01:16:05
1	Y 371.029	760276.9	760276.9	106.39	%			01:16:05
1	Ag 328.068†	-5227.9	-5524.3	4.9625	ug/L	4.9625	ppb	01:16:10
1	As 188.979†	-23.3	10.3	54.586	ug/L	54.586	ppb	01:16:30
1	B 249.677†	919.8	1470.8	20.076	ug/L	20.076	ppb	01:16:10
1	Ba 233.527†	138628.4	140432.8	1150.1	ug/L	1150.1	ppb	01:16:10
1	Be 313.107†	12576.1	17077.4	13.866	ug/L	13.866	ppb	01:16:10
1	Cd 226.502†	1554.5	1786.5	11.915	ug/L	11.915	ppb	01:16:30
1	Co 228.616†	2658.9	2767.0	52.716	ug/L	52.716	ppb	01:16:30
1	Cr 267.716†	6654.5	6673.8	79.719	ug/L	79.719	ppb	01:16:10
1	Cu 324.752†	178825.0	175316.9	536.60	ug/L	536.60	ppb	01:16:10
1	Mn 257.610†	2624435.8	2657923.8	3066.3	ug/L	3066.3	ppb	01:16:05
1	Mo 202.031†	-9.6	-25.3	5.5050	ug/L	5.5050	ppb	01:16:30
1	Ni 231.604†	2702.6	2629.5	68.085	ug/L	68.085	ppb	01:16:30
1	P 214.914†	2027.5	1825.6	976.01	ug/L	976.01	ppb	01:16:30
1	Pb 220.353†	5805.5	5942.3	748.98	ug/L	748.98	ppb	01:16:30
1	S 181.975 Axial†	908.6	881.0	1270.5	ug/L	1270.5	ppb	01:16:30
1	Sb 206.836†	75.0	33.9	-1.8317	ug/L	-1.8317	ppb	01:16:30
1	Se 196.026†	-463.3	-447.1	-6.2905	ug/L	-6.2905	ppb	01:16:30
1	Si 251.611†	813348.2	823304.4	27538	ug/L	27538	ppb	01:16:05
1	Sn 189.927†	-68.3	-77.9	-8.4308	ug/L	-8.4308	ppb	01:16:30
1	Ti 334.940†	2010955.4	2038264.8	3308.6	ug/L	3308.6	ppb	01:16:05
1	Tl 190.801†	-167.1	-135.0	-1.8503	ug/L	-1.8503	ppb	01:16:30
1	U 409.014†	-1635.1	1323.8	27.864	ug/L	27.864	ppb	01:16:05
1	V 292.402†	24757.7	26632.5	177.01	ug/L	177.01	ppb	01:16:10
1	Zn 213.857†	32737.9	32448.0	305.38	ug/L	305.38	ppb	01:16:10
1	SiO2†	830117.9	840270.1	59938	ug/L	59938	ppb	01:17:38
2	Sc Radial	4973.0	4973.0	103	%			01:15:32
2	Y RADIAL	5780.7	5780.7	115.6	%			01:15:32
2	Al 396.153Radial†	86481.4	83744.8	77725	ug/L	77725	ppb	01:15:12
2	Ca 317.933Radial†	18926.3	18277.5	30294	ug/L	30294	ppb	01:15:12
2	Fe 238.204 Radial†	10642.3	10275.4	93494	ug/L	93494	ppb	01:15:12
2	K 766.490 Radial†	84501.3	78853.5	13908	ug/L	13908	ppb	01:15:12
2	Mg 279.077 IEC†	462.4	446.6	15730	ug/L	15730	ppb	01:15:32
2	Na 589.592 Radial†	684.1	1739.7	526.18	ug/L	526.18	ppb	01:15:12
2	Sr 421.552†	43072.1	41631.5	291.74	ug/L	291.74	ppb	01:15:12
2	Sc 361.383	855156.5	855156.5	99.195	%			01:16:36
2	Y 371.029	764457.3	764457.3	106.98	%			01:16:36
2	Ag 328.068†	-5268.4	-5540.0	5.8004	ug/L	5.8004	ppb	01:16:41
2	As 188.979†	-19.2	14.5	57.121	ug/L	57.121	ppb	01:17:01
2	B 249.677†	1043.8	1591.3	22.502	ug/L	22.502	ppb	01:16:41
2	Ba 233.527†	139747.8	140893.2	1153.9	ug/L	1153.9	ppb	01:16:41
2	Be 313.107†	12439.7	16879.3	13.792	ug/L	13.792	ppb	01:16:41
2	Cd 226.502†	1550.2	1774.7	11.493	ug/L	11.493	ppb	01:17:01
2	Co 228.616†	2664.6	2759.9	52.524	ug/L	52.524	ppb	01:17:01
2	Cr 267.716†	6606.8	6593.6	78.838	ug/L	78.838	ppb	01:16:41
2	Cu 324.752†	180190.2	175831.4	538.31	ug/L	538.31	ppb	01:16:41
2	Mn 257.610†	2637076.5	2658019.3	3066.7	ug/L	3066.7	ppb	01:16:36
2	Mo 202.031†	-22.6	-38.4	4.7449	ug/L	4.7449	ppb	01:17:01
2	Ni 231.604†	2681.7	2595.4	67.203	ug/L	67.203	ppb	01:17:01

2	P 214.914†	2038.1	1826.6	974.68	ug/L	974.68 ppb	01:17:01
2	Pb 220.353†	5837.3	5946.4	749.72	ug/L	749.72 ppb	01:17:01
2	S 181.975 Axial†	904.5	872.5	1257.8	ug/L	1257.8 ppb	01:17:01
2	Sb 206.836†	73.3	31.7	-2.6405	ug/L	-2.6405 ppb	01:17:01
2	Se 196.026†	-466.8	-448.5	1.6164	ug/L	1.6164 ppb	01:17:01
2	Si 251.611†	817177.2	823244.7	27536	ug/L	27536 ppb	01:16:36
2	Sn 189.927†	-52.9	-62.0	-5.3248	ug/L	-5.3248 ppb	01:17:01
2	Ti 334.940†	2020346.9	2038041.2	3308.3	ug/L	3308.3 ppb	01:16:36
2	Tl 190.801†	-166.3	-133.4	-1.3355	ug/L	-1.3355 ppb	01:17:01
2	U 409.014†	-1512.9	1454.9	31.356	ug/L	31.356 ppb	01:16:36
2	V 292.402†	25086.2	26844.4	178.15	ug/L	178.15 ppb	01:16:41
2	Zn 213.857†	33037.9	32592.7	306.40	ug/L	306.40 ppb	01:16:41
2	SiO2†	826507.8	832630.2	59393	ug/L	59393 ppb	01:17:44
3	Sc Radial	5034.9	5034.9	105	%		01:15:57
3	Y RADIAL	5816.7	5816.7	116.3	%		01:15:57
3	Al 396.153Radial†	85389.8	81674.8	75804	ug/L	75804 ppb	01:15:37
3	Ca 317.933Radial†	18661.5	17799.8	29502	ug/L	29502 ppb	01:15:37
3	Fe 238.204 Radial†	10472.0	9986.3	90863	ug/L	90863 ppb	01:15:37
3	K 766.490 Radial†	83595.3	76984.3	13578	ug/L	13578 ppb	01:15:37
3	Mg 279.077 IEC†	466.8	445.3	15687	ug/L	15687 ppb	01:15:57
3	Na 589.592 Radial†	622.2	1672.5	505.85	ug/L	505.85 ppb	01:15:37
3	Sr 421.552†	42406.8	40484.4	283.70	ug/L	283.70 ppb	01:15:37
3	Sc 361.383	859603.0	859603.0	99.711	%		01:17:07
3	Y 371.029	768697.2	768697.2	107.57	%		01:17:07
3	Ag 328.068†	-5141.8	-5385.5	5.6437	ug/L	5.6437 ppb	01:17:12
3	As 188.979†	-33.6	0.2	50.008	ug/L	50.008 ppb	01:17:32
3	B 249.677†	986.8	1528.7	21.441	ug/L	21.441 ppb	01:17:12
3	Ba 233.527†	139087.2	139501.9	1142.5	ug/L	1142.5 ppb	01:17:12
3	Be 313.107†	12614.8	16990.1	13.834	ug/L	13.834 ppb	01:17:12
3	Cd 226.502†	1552.9	1769.3	11.701	ug/L	11.701 ppb	01:17:32
3	Co 228.616†	2676.8	2758.3	52.521	ug/L	52.521 ppb	01:17:32
3	Cr 267.716†	6609.6	6562.0	78.417	ug/L	78.417 ppb	01:17:12
3	Cu 324.752†	179380.6	174079.8	532.86	ug/L	532.86 ppb	01:17:12
3	Mn 257.610†	2650977.6	2658209.1	3066.6	ug/L	3066.6 ppb	01:17:07
3	Mo 202.031†	-14.6	-30.2	5.1415	ug/L	5.1415 ppb	01:17:32
3	Ni 231.604†	2697.8	2597.6	67.259	ug/L	67.259 ppb	01:17:32
3	P 214.914†	2034.8	1812.6	968.69	ug/L	968.69 ppb	01:17:32
3	Pb 220.353†	5832.4	5911.1	745.14	ug/L	745.14 ppb	01:17:32
3	S 181.975 Axial†	902.6	865.8	1248.4	ug/L	1248.4 ppb	01:17:32
3	Sb 206.836†	80.2	38.3	-0.2688	ug/L	-0.2688 ppb	01:17:32
3	Se 196.026†	-462.5	-441.8	-2.3782	ug/L	-2.3782 ppb	01:17:32
3	Si 251.611†	822212.2	824033.0	27563	ug/L	27563 ppb	01:17:07
3	Sn 189.927†	-54.0	-62.9	-5.6572	ug/L	-5.6572 ppb	01:17:32
3	Ti 334.940†	2031170.5	2038360.7	3308.8	ug/L	3308.8 ppb	01:17:07
3	Tl 190.801†	-175.4	-141.7	-3.9914	ug/L	-3.9914 ppb	01:17:32
3	U 409.014†	-1621.6	1353.7	28.724	ug/L	28.724 ppb	01:17:07
3	V 292.402†	24883.5	26510.2	176.11	ug/L	176.11 ppb	01:17:12
3	Zn 213.857†	32892.6	32274.7	303.66	ug/L	303.66 ppb	01:17:12
3	SiO2†	826407.8	828219.8	59079	ug/L	59079 ppb	01:17:50

Mean Data: 245396002|945399|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855282.4	99.210	%	0.4940				0.50%
Sc Radial	5001.6	104	%	0.6				0.62%
Y 371.029	764477.1	106.98	%	0.589				0.55%
Y RADIAL	5794.6	115.9	%	0.39				0.33%
Ag 328.068†	-5483.2	5.4689	ug/L	0.44549	5.4689	ppb	0.44549	8.15%
Al 396.153Radial†	82245.8	76333	ug/L	1216.2	76333	ppb	1216.2	1.59%
As 188.979†	8.3	53.905	ug/L	3.6049	53.905	ppb	3.6049	6.69%
B 249.677†	1530.3	21.339	ug/L	1.2161	21.339	ppb	1.2161	5.70%
Ba 233.527†	140276.0	1148.8	ug/L	5.83	1148.8	ppb	5.83	0.51%
Be 313.107†	16982.3	13.831	ug/L	0.0374	13.831	ppb	0.0374	0.27%
Ca 317.933Radial†	17971.0	29786	ug/L	441.0	29786	ppb	441.0	1.48%
Cd 226.502†	1776.8	11.703	ug/L	0.2108	11.703	ppb	0.2108	1.80%
Co 228.616†	2761.7	52.587	ug/L	0.1119	52.587	ppb	0.1119	0.21%
Cr 267.716†	6609.8	78.991	ug/L	0.6643	78.991	ppb	0.6643	0.84%
Cu 324.752†	175076.0	535.92	ug/L	2.789	535.92	ppb	2.789	0.52%
Fe 238.204 Radial†	10079.4	91710	ug/L	1545.5	91710	ppb	1545.5	1.69%
K 766.490 Radial†	77434.7	13657	ug/L	221.5	13657	ppb	221.5	1.62%

Mg 279.077 IEC†	446.4	15727	ug/L	38.2	15727	ppb	38.2	0.24%
Mn 257.610†	2658050.8	3066.5	ug/L	0.21	3066.5	ppb	0.21	0.01%
Mo 202.031†	-31.3	5.1305	ug/L	0.38019	5.1305	ppb	0.38019	7.41%
Na 589.592 Radial†	1693.0	512.04	ug/L	12.277	512.04	ppb	12.277	2.40%
Ni 231.604†	2607.5	67.516	ug/L	0.4943	67.516	ppb	0.4943	0.73%
P 214.914†	1821.6	973.13	ug/L	3.901	973.13	ppb	3.901	0.40%
Pb 220.353†	5933.2	747.95	ug/L	2.455	747.95	ppb	2.455	0.33%
S 181.975 Axial†	873.1	1258.9	ug/L	11.13	1258.9	ppb	11.13	0.88%
Sb 206.836†	34.6	-1.5803	ug/L	1.20568	-1.5803	ppb	1.20568	76.29%
Se 196.026†	-445.8	-2.3508	ug/L	3.95353	-2.3508	ppb	3.95353	168.18%
Si 251.611†	823527.4	27546	ug/L	14.7	27546	ppb	14.7	0.05%
Sn 189.927†	-67.6	-6.4710	ug/L	1.70542	-6.4710	ppb	1.70542	26.35%
Sr 421.552†	40788.1	285.83	ug/L	5.185	285.83	ppb	5.185	1.81%
Ti 334.940†	2038222.2	3308.6	ug/L	0.21	3308.6	ppb	0.21	0.01%
Tl 190.801†	-136.7	-2.3924	ug/L	1.40848	-2.3924	ppb	1.40848	58.87%
U 409.014†	1377.5	29.315	ug/L	1.8196	29.315	ppb	1.8196	6.21%
V 292.402†	26662.3	177.09	ug/L	1.023	177.09	ppb	1.023	0.58%
Zn 213.857†	32438.5	305.15	ug/L	1.383	305.15	ppb	1.383	0.45%
SiO2†	833706.7	59470	ug/L	434.9	59470	ppb	434.9	0.73%

Sequence No.: 78
Sample ID: 245396003|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 99
Date Collected: 2/12/2010 01:20:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245396003|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4924.5	4924.5	102	%			01:21:56
1	Y RADIAL	5794.9	5794.9	115.9	%			01:21:56
1	Al 396.153Radial†	65219.0	63813.0	59225	ug/L	59225	ppb	01:21:56
1	Ca 317.933Radial†	11108.6	10826.6	17944	ug/L	17944	ppb	01:21:56
1	Fe 238.204 Radial†	9117.7	8888.5	80874	ug/L	80874	ppb	01:21:56
1	K 766.490 Radial†	64212.0	59852.7	10558	ug/L	10558	ppb	01:21:56
1	Mg 279.077 IEC†	304.5	296.8	10434	ug/L	10434	ppb	01:22:16
1	Na 589.592 Radial†	690.9	1752.9	530.16	ug/L	530.16	ppb	01:21:56
1	Sr 421.552†	23595.2	23029.6	161.38	ug/L	161.38	ppb	01:21:56
1	Sc 361.383	852812.4	852812.4	98.923	%			01:23:14
1	Y 371.029	764760.0	764760.0	107.02	%			01:23:14
1	Ag 328.068†	-4090.9	-4364.2	6.7179	ug/L	6.7179	ppb	01:23:19
1	As 188.979†	-18.4	15.3	47.832	ug/L	47.832	ppb	01:23:39
1	B 249.677†	573.6	1118.9	13.375	ug/L	13.375	ppb	01:23:19
1	Ba 233.527†	100745.1	101853.2	834.60	ug/L	834.60	ppb	01:23:19
1	Be 313.107†	149657.4	155625.0	63.720	ug/L	63.720	ppb	01:23:19
1	Cd 226.502†	1289.8	1515.7	9.8101	ug/L	9.8101	ppb	01:23:39
1	Co 228.616†	1651.6	1743.3	31.960	ug/L	31.960	ppb	01:23:39
1	Cr 267.716†	9049.9	9081.7	107.33	ug/L	107.33	ppb	01:23:19
1	Cu 324.752†	1460859.4	1470938.7	4466.1	ug/L	4466.1	ppb	01:23:14
1	Mn 257.610†	2048090.6	2069930.1	2389.1	ug/L	2389.1	ppb	01:23:14
1	Mo 202.031†	52.4	37.4	9.2927	ug/L	9.2927	ppb	01:23:39
1	Ni 231.604†	3169.8	3096.3	80.192	ug/L	80.192	ppb	01:23:39
1	P 214.914†	2742.1	2543.9	646.60	ug/L	646.60	ppb	01:23:39
1	Pb 220.353†	6753.6	6888.9	862.06	ug/L	862.06	ppb	01:23:39
1	S 181.975 Axial†	590.8	557.9	802.48	ug/L	802.48	ppb	01:23:39
1	Sb 206.836†	93.8	52.7	8.4090	ug/L	8.4090	ppb	01:23:39
1	Se 196.026†	-430.5	-413.1	-15.789	ug/L	-15.789	ppb	01:23:39
1	Si 251.611†	722468.4	729769.5	24410	ug/L	24410	ppb	01:23:14
1	Sn 189.927†	135.7	128.5	27.940	ug/L	27.940	ppb	01:23:39
1	Ti 334.940†	1544696.6	1562812.2	2536.1	ug/L	2536.1	ppb	01:23:14
1	Tl 190.801†	-136.2	-103.5	-1.2096	ug/L	-1.2096	ppb	01:23:39
1	U 409.014†	13279.4	16404.0	466.20	ug/L	466.20	ppb	01:23:14
1	V 292.402†	19077.6	20839.9	137.99	ug/L	137.99	ppb	01:23:19
1	Zn 213.857†	51246.3	51090.9	485.39	ug/L	485.39	ppb	01:23:19
1	SiO2†	730188.2	737552.4	52611	ug/L	52611	ppb	01:24:48
2	Sc Radial	4969.2	4969.2	103	%			01:22:21
2	Y RADIAL	5819.6	5819.6	116.4	%			01:22:21
2	Al 396.153Radial†	66215.6	64204.1	59588	ug/L	59588	ppb	01:22:21
2	Ca 317.933Radial†	11221.0	10837.8	17963	ug/L	17963	ppb	01:22:21
2	Fe 238.204 Radial†	9248.3	8934.7	81294	ug/L	81294	ppb	01:22:21
2	K 766.490 Radial†	65264.9	60307.1	10638	ug/L	10638	ppb	01:22:21
2	Mg 279.077 IEC†	308.8	298.3	10488	ug/L	10488	ppb	01:22:41
2	Na 589.592 Radial†	772.6	1825.9	552.23	ug/L	552.23	ppb	01:22:21
2	Sr 421.552†	23910.8	23127.5	162.06	ug/L	162.06	ppb	01:22:21
2	Sc 361.383	855411.3	855411.3	99.225	%			01:23:45
2	Y 371.029	767554.3	767554.3	107.41	%			01:23:45
2	Ag 328.068†	-4206.2	-4467.8	6.3640	ug/L	6.3640	ppb	01:23:50
2	As 188.979†	-38.9	-5.3	38.567	ug/L	38.567	ppb	01:24:10
2	B 249.677†	534.5	1077.7	12.329	ug/L	12.329	ppb	01:23:50
2	Ba 233.527†	100176.8	100971.1	827.41	ug/L	827.41	ppb	01:23:50
2	Be 313.107†	149046.6	154549.8	63.315	ug/L	63.315	ppb	01:23:50
2	Cd 226.502†	1328.4	1550.7	10.183	ug/L	10.183	ppb	01:24:10
2	Co 228.616†	1656.5	1743.2	31.954	ug/L	31.954	ppb	01:24:10
2	Cr 267.716†	9048.5	9052.4	106.99	ug/L	106.99	ppb	01:23:50
2	Cu 324.752†	1461091.9	1466686.3	4453.2	ug/L	4453.2	ppb	01:23:45
2	Mn 257.610†	2055362.7	2070968.8	2390.3	ug/L	2390.3	ppb	01:23:45
2	Mo 202.031†	53.0	37.9	9.3625	ug/L	9.3625	ppb	01:24:10
2	Ni 231.604†	3183.3	3100.1	80.291	ug/L	80.291	ppb	01:24:10

2	P 214.914†	2786.1	2579.8	671.27	ug/L	671.27 ppb	01:24:10
2	Pb 220.353†	6870.4	6985.8	874.20	ug/L	874.20 ppb	01:24:10
2	S 181.975 Axial†	600.1	565.5	813.40	ug/L	813.40 ppb	01:24:10
2	Sb 206.836†	92.0	50.5	7.6613	ug/L	7.6613 ppb	01:24:10
2	Se 196.026†	-416.1	-397.2	-3.7038	ug/L	-3.7038 ppb	01:24:10
2	Si 251.611†	724262.9	729359.1	24396	ug/L	24396 ppb	01:23:45
2	Sn 189.927†	141.8	134.2	29.002	ug/L	29.002 ppb	01:24:10
2	Ti 334.940†	1548127.8	1561526.1	2534.0	ug/L	2534.0 ppb	01:23:45
2	Tl 190.801†	-139.4	-106.3	-2.1130	ug/L	-2.1130 ppb	01:24:10
2	U 409.014†	13346.6	16430.9	466.94	ug/L	466.94 ppb	01:23:45
2	V 292.402†	18905.2	20607.5	136.25	ug/L	136.25 ppb	01:23:50
2	Zn 213.857†	51001.7	50686.9	481.35	ug/L	481.35 ppb	01:23:50
2	SiO2†	735656.0	740820.3	52844	ug/L	52844 ppb	01:24:54
3	Sc Radial	5008.1	5008.1	104	%		01:22:46
3	Y RADIAL	5881.3	5881.3	117.6	%		01:22:46
3	Al 396.153Radial†	66441.9	63924.7	59329	ug/L	59329 ppb	01:22:46
3	Ca 317.933Radial†	11281.6	10811.7	17920	ug/L	17920 ppb	01:22:46
3	Fe 238.204 Radial†	9271.5	8887.6	80866	ug/L	80866 ppb	01:22:46
3	K 766.490 Radial†	65316.1	59866.9	10561	ug/L	10561 ppb	01:22:46
3	Mg 279.077 IEC†	307.7	294.9	10368	ug/L	10368 ppb	01:23:06
3	Na 589.592 Radial†	736.4	1785.4	539.98	ug/L	539.98 ppb	01:22:46
3	Sr 421.552†	24089.7	23120.0	162.01	ug/L	162.01 ppb	01:22:46
3	Sc 361.383	866415.6	866415.6	100.50	%		01:24:16
3	Y 371.029	775859.3	775859.3	108.57	%		01:24:16
3	Ag 328.068†	-4190.7	-4398.6	6.5398	ug/L	6.5398 ppb	01:24:21
3	As 188.979†	-23.8	10.2	45.487	ug/L	45.487 ppb	01:24:41
3	B 249.677†	501.9	1038.4	11.465	ug/L	11.465 ppb	01:24:21
3	Ba 233.527†	100739.2	100248.3	821.49	ug/L	821.49 ppb	01:24:21
3	Be 313.107†	149521.7	153114.6	62.778	ug/L	62.778 ppb	01:24:21
3	Cd 226.502†	1306.3	1511.7	9.7625	ug/L	9.7625 ppb	01:24:41
3	Co 228.616†	1650.1	1715.6	31.357	ug/L	31.357 ppb	01:24:41
3	Cr 267.716†	8999.9	8888.3	105.07	ug/L	105.07 ppb	01:24:21
3	Cu 324.752†	1481915.6	1468703.8	4459.3	ug/L	4459.3 ppb	01:24:16
3	Mn 257.610†	2081243.5	2070411.4	2389.6	ug/L	2389.6 ppb	01:24:16
3	Mo 202.031†	55.0	39.1	9.4223	ug/L	9.4223 ppb	01:24:41
3	Ni 231.604†	3157.2	3033.4	78.564	ug/L	78.564 ppb	01:24:41
3	P 214.914†	2774.1	2532.1	640.66	ug/L	640.66 ppb	01:24:41
3	Pb 220.353†	6856.0	6883.5	861.43	ug/L	861.43 ppb	01:24:41
3	S 181.975 Axial†	598.0	555.7	799.18	ug/L	799.18 ppb	01:24:41
3	Sb 206.836†	81.9	39.4	3.7228	ug/L	3.7228 ppb	01:24:41
3	Se 196.026†	-418.5	-394.3	-3.1536	ug/L	-3.1536 ppb	01:24:41
3	Si 251.611†	734344.2	730119.4	24421	ug/L	24421 ppb	01:24:16
3	Sn 189.927†	122.6	113.3	25.113	ug/L	25.113 ppb	01:24:41
3	Ti 334.940†	1567511.2	1560996.4	2533.2	ug/L	2533.2 ppb	01:24:16
3	Tl 190.801†	-127.3	-92.5	2.3227	ug/L	2.3227 ppb	01:24:41
3	U 409.014†	13594.9	16507.1	469.20	ug/L	469.20 ppb	01:24:16
3	V 292.402†	19005.4	20465.2	135.28	ug/L	135.28 ppb	01:24:21
3	Zn 213.857†	51323.0	50353.8	478.13	ug/L	478.13 ppb	01:24:21
3	SiO2†	728047.6	723833.4	51632	ug/L	51632 ppb	01:25:00

Mean Data: 245396003|945399|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858213.1	99.550	%	0.8377				0.84%
Sc Radial	4967.3	103	%	0.9				0.84%
Y 371.029	769391.2	107.67	%	0.808				0.75%
Y RADIAL	5831.9	116.6	%	0.89				0.76%
Ag 328.068†	-4410.2	6.5406	ug/L	0.17696	6.5406	ppb	0.17696	2.71%
Al 396.153Radial†	63980.6	59381	ug/L	187.0	59381	ppb	187.0	0.31%
As 188.979†	6.7	43.962	ug/L	4.8174	43.962	ppb	4.8174	10.96%
B 249.677†	1078.3	12.390	ug/L	0.9568	12.390	ppb	0.9568	7.72%
Ba 233.527†	101024.2	827.83	ug/L	6.567	827.83	ppb	6.567	0.79%
Be 313.107†	154429.8	63.271	ug/L	0.4724	63.271	ppb	0.4724	0.75%
Ca 317.933Radial†	10825.4	17942	ug/L	21.6	17942	ppb	21.6	0.12%
Cd 226.502†	1526.0	9.9186	ug/L	0.23027	9.9186	ppb	0.23027	2.32%
Co 228.616†	1734.0	31.757	ug/L	0.3467	31.757	ppb	0.3467	1.09%
Cr 267.716†	9007.4	106.46	ug/L	1.218	106.46	ppb	1.218	1.14%
Cu 324.752†	1468776.2	4459.5	ug/L	6.44	4459.5	ppb	6.44	0.14%
Fe 238.204 Radial†	8903.6	81011	ug/L	245.1	81011	ppb	245.1	0.30%
K 766.490 Radial†	60008.9	10586	ug/L	45.6	10586	ppb	45.6	0.43%

Mg 279.077 IEC†	296.7	10430	ug/L	60.1	10430	ppb	60.1	0.58%
Mn 257.610†	2070436.8	2389.6	ug/L	0.62	2389.6	ppb	0.62	0.03%
Mo 202.031†	38.1	9.3592	ug/L	0.06487	9.3592	ppb	0.06487	0.69%
Na 589.592 Radial†	1788.0	540.79	ug/L	11.058	540.79	ppb	11.058	2.04%
Ni 231.604†	3076.6	79.682	ug/L	0.9699	79.682	ppb	0.9699	1.22%
P 214.914†	2551.9	652.84	ug/L	16.233	652.84	ppb	16.233	2.49%
Pb 220.353†	6919.4	865.90	ug/L	7.198	865.90	ppb	7.198	0.83%
S 181.975 Axial†	559.7	805.02	ug/L	7.438	805.02	ppb	7.438	0.92%
Sb 206.836†	47.5	6.5977	ug/L	2.51761	6.5977	ppb	2.51761	38.16%
Se 196.026†	-401.5	-7.5489	ug/L	7.14166	-7.5489	ppb	7.14166	94.61%
Si 251.611†	729749.3	24409	ug/L	12.7	24409	ppb	12.7	0.05%
Sn 189.927†	125.4	27.352	ug/L	2.0099	27.352	ppb	2.0099	7.35%
Sr 421.552†	23092.4	161.82	ug/L	0.382	161.82	ppb	0.382	0.24%
Ti 334.940†	1561778.2	2534.4	ug/L	1.51	2534.4	ppb	1.51	0.06%
Tl 190.801†	-100.8	-0.3333	ug/L	2.34409	-0.3333	ppb	2.34409	703.30%
U 409.014†	16447.3	467.45	ug/L	1.562	467.45	ppb	1.562	0.33%
V 292.402†	20637.5	136.51	ug/L	1.373	136.51	ppb	1.373	1.01%
Zn 213.857†	50710.5	481.62	ug/L	3.633	481.62	ppb	3.633	0.75%
SiO2†	734068.7	52362	ug/L	642.9	52362	ppb	642.9	1.23%

Sequence No.: 79
Sample ID: 245396004|945399|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 2/12/2010 01:27:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245396004|945399|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5006.2	5006.2	104	%			01:29:04
1	Y RADIAL	6285.3	6285.3	125.7	%			01:29:04
1	Al 396.153Radial†	22848.0	22090.1	20502	ug/L	20502	ppb	01:29:04
1	Ca 317.933Radial†	2952.9	2818.7	4671.8	ug/L	4671.8	ppb	01:29:24
1	Fe 238.204 Radial†	16138.1	15484.2	140890	ug/L	140890	ppb	01:29:04
1	K 766.490 Radial†	29594.6	25590.9	4514.0	ug/L	4514.0	ppb	01:29:04
1	Mg 279.077 IEC†	108.2	103.5	3521.7	ug/L	3521.7	ppb	01:29:24
1	Na 589.592 Radial†	5679.0	6531.4	1975.4	ug/L	1975.4	ppb	01:29:04
1	Sr 421.552†	6784.0	6511.9	45.634	ug/L	45.634	ppb	01:29:04
1	Sc 361.383	854374.0	854374.0	99.104	%			01:30:22
1	Y 371.029	825925.9	825925.9	115.58	%			01:30:22
1	Ag 328.068†	-8391.5	-8696.1	6.8984	ug/L	6.8984	ppb	01:30:27
1	As 188.979†	-56.2	-22.9	37.722	ug/L	37.722	ppb	01:30:47
1	B 249.677†	589.3	1133.6	3.9083	ug/L	3.9083	ppb	01:30:27
1	Ba 233.527†	50562.9	51031.4	421.18	ug/L	421.18	ppb	01:30:27
1	Be 313.107†	1647.6	6001.2	6.1965	ug/L	6.1965	ppb	01:30:27
1	Cd 226.502†	1020.7	1241.9	0.2306	ug/L	0.2306	ppb	01:30:47
1	Co 228.616†	2812.4	2911.5	58.064	ug/L	58.064	ppb	01:30:47
1	Cr 267.716†	10432.8	10460.3	124.66	ug/L	124.66	ppb	01:30:27
1	Cu 324.752†	132744.8	128123.6	396.20	ug/L	396.20	ppb	01:30:27
1	Mn 257.610†	2123190.0	2141923.9	2478.1	ug/L	2478.1	ppb	01:30:22
1	Mo 202.031†	79.9	65.1	15.868	ug/L	15.868	ppb	01:30:47
1	Ni 231.604†	2975.9	2894.8	74.957	ug/L	74.957	ppb	01:30:47
1	P 214.914†	1136.3	918.4	386.01	ug/L	386.01	ppb	01:30:47
1	Pb 220.353†	1144.6	1216.6	142.57	ug/L	142.57	ppb	01:30:47
1	S 181.975 Axial†	176.3	138.5	198.17	ug/L	198.17	ppb	01:30:47
1	Sb 206.836†	40.0	-1.8	-8.1277	ug/L	-8.1277	ppb	01:30:47
1	Se 196.026†	-708.8	-693.1	-12.359	ug/L	-12.359	ppb	01:30:47
1	Si 251.611†	427667.6	430969.9	14415	ug/L	14415	ppb	01:30:22
1	Sn 189.927†	28.6	20.2	6.8226	ug/L	6.8226	ppb	01:30:47
1	Ti 334.940†	1064829.6	1075754.9	1745.2	ug/L	1745.2	ppb	01:30:22
1	Tl 190.801†	-134.0	-101.0	-6.4939	ug/L	-6.4939	ppb	01:30:47
1	U 409.014†	-8082.7	-5175.7	-166.41	ug/L	-166.41	ppb	01:30:22
1	V 292.402†	7006.7	8624.6	40.074	ug/L	40.074	ppb	01:30:27
1	Zn 213.857†	33109.7	32695.6	300.47	ug/L	300.47	ppb	01:30:27
1	SiO2†	430607.6	433915.6	30952	ug/L	30952	ppb	01:31:55
2	Sc Radial	5062.2	5062.2	105	%			01:29:29
2	Y RADIAL	6311.4	6311.4	126.2	%			01:29:29
2	Al 396.153Radial†	23020.8	22011.4	20429	ug/L	20429	ppb	01:29:29
2	Ca 317.933Radial†	2954.1	2788.4	4621.6	ug/L	4621.6	ppb	01:29:49
2	Fe 238.204 Radial†	16294.1	15460.9	140670	ug/L	140670	ppb	01:29:29
2	K 766.490 Radial†	29740.3	25414.8	4482.9	ug/L	4482.9	ppb	01:29:29
2	Mg 279.077 IEC†	104.3	98.6	3346.7	ug/L	3346.7	ppb	01:29:49
2	Na 589.592 Radial†	5723.5	6513.4	1970.0	ug/L	1970.0	ppb	01:29:29
2	Sr 421.552†	6777.9	6434.0	45.088	ug/L	45.088	ppb	01:29:29
2	Sc 361.383	870626.5	870626.5	100.99	%			01:30:53
2	Y 371.029	838910.0	838910.0	117.40	%			01:30:53
2	Ag 328.068†	-8668.2	-8812.1	6.2734	ug/L	6.2734	ppb	01:30:58
2	As 188.979†	-61.4	-26.9	35.854	ug/L	35.854	ppb	01:31:18
2	B 249.677†	685.7	1218.0	5.9538	ug/L	5.9538	ppb	01:30:58
2	Ba 233.527†	50924.2	50436.7	416.32	ug/L	416.32	ppb	01:30:58
2	Be 313.107†	1696.0	6018.1	6.2091	ug/L	6.2091	ppb	01:30:58
2	Cd 226.502†	1011.5	1213.5	-0.0851	ug/L	-0.0851	ppb	01:31:18
2	Co 228.616†	2819.4	2865.5	57.056	ug/L	57.056	ppb	01:31:18
2	Cr 267.716†	10581.2	10410.7	124.08	ug/L	124.08	ppb	01:30:58
2	Cu 324.752†	134497.1	127358.3	393.87	ug/L	393.87	ppb	01:30:58
2	Mn 257.610†	2167356.7	2145664.7	2482.4	ug/L	2482.4	ppb	01:30:53
2	Mo 202.031†	81.5	65.2	15.858	ug/L	15.858	ppb	01:31:18
2	Ni 231.604†	2974.1	2836.9	73.458	ug/L	73.458	ppb	01:31:18

2	P 214.914†	1115.7	876.7	360.66	ug/L	360.66 ppb	01:31:18
2	Pb 220.353†	1133.2	1183.8	138.48	ug/L	138.48 ppb	01:31:18
2	S 181.975 Axial†	175.7	134.6	192.47	ug/L	192.47 ppb	01:31:18
2	Sb 206.836†	51.0	8.4	-4.5997	ug/L	-4.5997 ppb	01:31:18
2	Se 196.026†	-704.4	-675.4	-1.1000	ug/L	-1.1000 ppb	01:31:18
2	Si 251.611†	437438.9	432589.7	14469	ug/L	14469 ppb	01:30:53
2	Sn 189.927†	22.6	13.7	5.6061	ug/L	5.6061 ppb	01:31:18
2	Ti 334.940†	1086825.5	1077477.8	1748.0	ug/L	1748.0 ppb	01:30:53
2	Tl 190.801†	-120.8	-85.4	-1.4526	ug/L	-1.4526 ppb	01:31:18
2	U 409.014†	-8046.2	-4987.3	-160.92	ug/L	-160.92 ppb	01:30:53
2	V 292.402†	7026.2	8512.0	39.291	ug/L	39.291 ppb	01:30:58
2	Zn 213.857†	33400.2	32359.6	297.20	ug/L	297.20 ppb	01:30:58
2	SiO2†	429635.2	424841.7	30305	ug/L	30305 ppb	01:32:00
3	Sc Radial	4934.7	4934.7	103	%		01:29:54
3	Y RADIAL	6199.0	6199.0	124.0	%		01:29:54
3	Al 396.153Radial†	22540.1	22108.1	20518	ug/L	20518 ppb	01:29:54
3	Ca 317.933Radial†	2931.8	2839.2	4705.8	ug/L	4705.8 ppb	01:30:14
3	Fe 238.204 Radial†	15921.8	15498.1	141010	ug/L	141010 ppb	01:29:54
3	K 766.490 Radial†	29289.0	25704.9	4534.1	ug/L	4534.1 ppb	01:29:54
3	Mg 279.077 IEC†	105.2	102.0	3469.2	ug/L	3469.2 ppb	01:30:14
3	Na 589.592 Radial†	5601.2	6534.7	1976.4	ug/L	1976.4 ppb	01:29:54
3	Sr 421.552†	6623.1	6449.5	45.196	ug/L	45.196 ppb	01:29:54
3	Sc 361.383	866185.8	866185.8	100.47	%		01:31:24
3	Y 371.029	834370.0	834370.0	116.76	%		01:31:24
3	Ag 328.068†	-8690.0	-8877.8	6.0866	ug/L	6.0866 ppb	01:31:29
3	As 188.979†	-65.2	-31.0	34.062	ug/L	34.062 ppb	01:31:49
3	B 249.677†	701.7	1237.5	6.3594	ug/L	6.3594 ppb	01:31:29
3	Ba 233.527†	51661.7	51429.3	424.44	ug/L	424.44 ppb	01:31:29
3	Be 313.107†	1606.4	5937.5	6.1746	ug/L	6.1746 ppb	01:31:29
3	Cd 226.502†	1010.1	1217.2	-0.0759	ug/L	-0.0759 ppb	01:31:49
3	Co 228.616†	2831.4	2891.8	57.635	ug/L	57.635 ppb	01:31:49
3	Cr 267.716†	10679.0	10561.8	125.85	ug/L	125.85 ppb	01:31:29
3	Cu 324.752†	136566.2	130100.4	402.20	ug/L	402.20 ppb	01:31:29
3	Mn 257.610†	2152939.5	2142318.1	2478.6	ug/L	2478.6 ppb	01:31:24
3	Mo 202.031†	101.1	85.1	17.372	ug/L	17.372 ppb	01:31:49
3	Ni 231.604†	2982.0	2859.9	74.053	ug/L	74.053 ppb	01:31:49
3	P 214.914†	1102.9	869.6	354.33	ug/L	354.33 ppb	01:31:49
3	Pb 220.353†	1150.8	1207.1	141.37	ug/L	141.37 ppb	01:31:49
3	S 181.975 Axial†	180.9	140.7	201.37	ug/L	201.37 ppb	01:31:49
3	Sb 206.836†	43.6	1.3	-7.0201	ug/L	-7.0201 ppb	01:31:49
3	Se 196.026†	-715.0	-689.5	-9.5128	ug/L	-9.5128 ppb	01:31:49
3	Si 251.611†	434094.4	431481.6	14432	ug/L	14432 ppb	01:31:24
3	Sn 189.927†	28.3	19.5	6.7010	ug/L	6.7010 ppb	01:31:49
3	Ti 334.940†	1080052.6	1076254.1	1746.0	ug/L	1746.0 ppb	01:31:24
3	Tl 190.801†	-119.0	-84.2	-1.1212	ug/L	-1.1212 ppb	01:31:49
3	U 409.014†	-8113.3	-5095.0	-164.09	ug/L	-164.09 ppb	01:31:24
3	V 292.402†	7231.3	8751.8	41.002	ug/L	41.002 ppb	01:31:29
3	Zn 213.857†	33825.1	32952.1	302.98	ug/L	302.98 ppb	01:31:29
3	SiO2†	429982.3	427368.1	30485	ug/L	30485 ppb	01:32:06

Mean Data: 245396004|945399|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863728.8	100.19	%	0.974				0.97%
Sc Radial	5001.0	104	%	1.3				1.28%
Y 371.029	833068.6	116.58	%	0.922				0.79%
Y RADIAL	6265.2	125.3	%	1.18				0.94%
Ag 328.068†	-8795.3	6.4195	ug/L	0.42516	6.4195	ppb	0.42516	6.62%
Al 396.153Radial†	22069.8	20483	ug/L	47.7	20483	ppb	47.7	0.23%
As 188.979†	-27.0	35.879	ug/L	1.8305	35.879	ppb	1.8305	5.10%
B 249.677†	1196.4	5.4072	ug/L	1.31379	5.4072	ppb	1.31379	24.30%
Ba 233.527†	50965.8	420.65	ug/L	4.087	420.65	ppb	4.087	0.97%
Be 313.107†	5985.6	6.1934	ug/L	0.01747	6.1934	ppb	0.01747	0.28%
Ca 317.933Radial†	2815.4	4666.4	ug/L	42.35	4666.4	ppb	42.35	0.91%
Cd 226.502†	1224.2	0.0232	ug/L	0.17965	0.0232	ppb	0.17965	774.01%
Co 228.616†	2889.6	57.585	ug/L	0.5062	57.585	ppb	0.5062	0.88%
Cr 267.716†	10477.6	124.86	ug/L	0.901	124.86	ppb	0.901	0.72%
Cu 324.752†	128527.4	397.42	ug/L	4.301	397.42	ppb	4.301	1.08%
Fe 238.204 Radial†	15481.0	140860	ug/L	171.1	140860	ppb	171.1	0.12%
K 766.490 Radial†	25570.2	4510.3	ug/L	25.79	4510.3	ppb	25.79	0.57%

Mg 279.077 IEC†	101.4	3445.9	ug/L	89.80	3445.9	ppb	89.80	2.61%
Mn 257.610†	2143302.3	2479.7	ug/L	2.35	2479.7	ppb	2.35	0.09%
Mo 202.031†	71.8	16.366	ug/L	0.8716	16.366	ppb	0.8716	5.33%
Na 589.592 Radial†	6526.5	1973.9	ug/L	3.47	1973.9	ppb	3.47	0.18%
Ni 231.604†	2863.9	74.156	ug/L	0.7544	74.156	ppb	0.7544	1.02%
P 214.914†	888.3	367.00	ug/L	16.767	367.00	ppb	16.767	4.57%
Pb 220.353†	1202.5	140.80	ug/L	2.102	140.80	ppb	2.102	1.49%
S 181.975 Axial†	138.0	197.34	ug/L	4.510	197.34	ppb	4.510	2.29%
Sb 206.836†	2.6	-6.5825	ug/L	1.80428	-6.5825	ppb	1.80428	27.41%
Se 196.026†	-686.0	-7.6571	ug/L	5.85421	-7.6571	ppb	5.85421	76.45%
Si 251.611†	431680.4	14439	ug/L	27.7	14439	ppb	27.7	0.19%
Sn 189.927†	17.8	6.3766	ug/L	0.66999	6.3766	ppb	0.66999	10.51%
Sr 421.552†	6465.1	45.306	ug/L	0.2891	45.306	ppb	0.2891	0.64%
Ti 334.940†	1076495.6	1746.4	ug/L	1.44	1746.4	ppb	1.44	0.08%
Tl 190.801†	-90.2	-3.0226	ug/L	3.01086	-3.0226	ppb	3.01086	99.61%
U 409.014†	-5086.0	-163.81	ug/L	2.755	-163.81	ppb	2.755	1.68%
V 292.402†	8629.5	40.123	ug/L	0.8565	40.123	ppb	0.8565	2.13%
Zn 213.857†	32669.1	300.22	ug/L	2.898	300.22	ppb	2.898	0.97%
SiO2†	428708.5	30580	ug/L	334.1	30580	ppb	334.1	1.09%

Sequence No.: 80
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/12/2010 01:34:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4756.4	4756.4	98.9	%			01:36:11
1	Y RADIAL	4971.0	4971.0	99.41	%			01:36:11
1	Al 396.153Radial†	5504.8	5714.8	5279.4	ug/L	5279.4	ppb	01:36:11
1	Ca 317.933Radial†	3219.3	3236.7	5364.7	ug/L	5364.7	ppb	01:36:31
1	Fe 238.204 Radial†	582.2	576.9	5265.3	ug/L	5265.3	ppb	01:36:31
1	K 766.490 Radial†	30932.2	28435.0	5012.9	ug/L	5012.9	ppb	01:36:11
1	Mg 279.077 IEC†	157.0	158.2	5607.6	ug/L	5607.6	ppb	01:36:31
1	Na 589.592 Radial†	31581.2	32995.1	9979.3	ug/L	9979.3	ppb	01:36:11
1	Sr 421.552†	76403.2	77212.6	541.46	ug/L	541.46	ppb	01:36:11
1	Sc 361.383	852407.6	852407.6	98.876	%			01:37:28
1	Y 371.029	686323.3	686323.3	96.043	%			01:37:28
1	Ag 328.068†	108338.8	109341.1	518.53	ug/L	518.53	ppb	01:37:33
1	As 188.979†	1096.2	1142.5	522.93	ug/L	522.93	ppb	01:37:53
1	B 249.677†	20935.0	21711.9	514.14	ug/L	514.14	ppb	01:37:33
1	Ba 233.527†	63636.7	64371.5	526.99	ug/L	526.99	ppb	01:37:33
1	Be 313.107†	1357001.1	1376760.9	513.98	ug/L	513.98	ppb	01:37:28
1	Cd 226.502†	42397.4	43091.1	512.20	ug/L	512.20	ppb	01:37:33
1	Co 228.616†	24167.8	24516.2	535.55	ug/L	535.55	ppb	01:37:33
1	Cr 267.716†	43368.1	43794.2	510.47	ug/L	510.47	ppb	01:37:33
1	Cu 324.752†	176859.9	173049.0	524.93	ug/L	524.93	ppb	01:37:33
1	Mn 257.610†	448092.8	452733.0	521.17	ug/L	521.17	ppb	01:37:28
1	Mo 202.031†	6706.5	6767.1	507.25	ug/L	507.25	ppb	01:37:53
1	Ni 231.604†	19778.6	19895.4	515.10	ug/L	515.10	ppb	01:37:33
1	P 214.914†	4332.6	4153.7	2482.4	ug/L	2482.4	ppb	01:37:53
1	Pb 220.353†	3982.4	4089.4	511.83	ug/L	511.83	ppb	01:37:53
1	S 181.975 Axial†	749.2	718.3	1046.5	ug/L	1046.5	ppb	01:37:53
1	Sb 206.836†	1483.2	1457.9	526.31	ug/L	526.31	ppb	01:37:53
1	Se 196.026†	732.8	763.3	532.91	ug/L	532.91	ppb	01:37:53
1	Si 251.611†	78346.9	78675.0	2625.3	ug/L	2625.3	ppb	01:37:33
1	Sn 189.927†	2688.4	2710.2	503.85	ug/L	503.85	ppb	01:37:53
1	Ti 334.940†	316936.9	321841.7	521.86	ug/L	521.86	ppb	01:37:33
1	Tl 190.801†	1570.7	1622.7	523.52	ug/L	523.52	ppb	01:37:53
1	U 409.014†	14633.7	17780.0	513.82	ug/L	513.82	ppb	01:37:33
1	V 292.402†	67965.5	70292.5	517.23	ug/L	517.23	ppb	01:37:33
1	Zn 213.857†	53114.5	53004.8	518.14	ug/L	518.14	ppb	01:37:33
1	SiO2†	76723.1	77011.8	5479.6	ug/L	5479.6	ppb	01:39:01
2	Sc Radial	4946.7	4946.7	103	%			01:36:36
2	Y RADIAL	5185.5	5185.5	103.7	%			01:36:36
2	Al 396.153Radial†	5698.1	5688.6	5255.1	ug/L	5255.1	ppb	01:36:36
2	Ca 317.933Radial†	3227.2	3119.3	5170.0	ug/L	5170.0	ppb	01:36:56
2	Fe 238.204 Radial†	590.2	562.1	5130.3	ug/L	5130.3	ppb	01:36:56
2	K 766.490 Radial†	31900.1	28172.8	4966.7	ug/L	4966.7	ppb	01:36:36
2	Mg 279.077 IEC†	155.6	150.8	5344.2	ug/L	5344.2	ppb	01:36:56
2	Na 589.592 Radial†	32490.3	32650.5	9875.1	ug/L	9875.1	ppb	01:36:36
2	Sr 421.552†	79168.2	76928.5	539.47	ug/L	539.47	ppb	01:36:36
2	Sc 361.383	857714.1	857714.1	99.492	%			01:37:59
2	Y 371.029	689968.2	689968.2	96.553	%			01:37:59
2	Ag 328.068†	108910.4	109237.8	518.00	ug/L	518.00	ppb	01:38:04
2	As 188.979†	1094.7	1134.1	519.08	ug/L	519.08	ppb	01:38:24
2	B 249.677†	21217.0	21864.4	517.79	ug/L	517.79	ppb	01:38:04
2	Ba 233.527†	64044.7	64383.3	527.08	ug/L	527.08	ppb	01:38:04
2	Be 313.107†	1367925.0	1379249.6	514.91	ug/L	514.91	ppb	01:37:59
2	Cd 226.502†	42668.8	43098.6	512.30	ug/L	512.30	ppb	01:38:04
2	Co 228.616†	24402.9	24601.2	537.41	ug/L	537.41	ppb	01:38:04
2	Cr 267.716†	43653.3	43809.4	510.65	ug/L	510.65	ppb	01:38:04
2	Cu 324.752†	177745.9	172832.9	524.27	ug/L	524.27	ppb	01:38:04
2	Mn 257.610†	452472.0	454330.8	523.00	ug/L	523.00	ppb	01:37:59
2	Mo 202.031†	6735.4	6754.2	506.27	ug/L	506.27	ppb	01:38:24
2	Ni 231.604†	19837.2	19830.5	513.42	ug/L	513.42	ppb	01:38:04

2	P 214.914†	4325.2	4119.3	2461.1	ug/L	2461.1	ppb	01:38:24
2	Pb 220.353†	3981.3	4063.4	508.59	ug/L	508.59	ppb	01:38:24
2	S 181.975 Axial†	737.5	702.0	1022.6	ug/L	1022.6	ppb	01:38:24
2	Sb 206.836†	1498.3	1463.8	528.34	ug/L	528.34	ppb	01:38:24
2	Se 196.026†	736.4	762.2	531.76	ug/L	531.76	ppb	01:38:24
2	Si 251.611†	78757.0	78596.9	2622.7	ug/L	2622.7	ppb	01:38:04
2	Sn 189.927†	2700.8	2705.9	503.03	ug/L	503.03	ppb	01:38:24
2	Ti 334.940†	318755.5	321686.6	521.61	ug/L	521.61	ppb	01:38:04
2	Tl 190.801†	1582.3	1624.6	524.11	ug/L	524.11	ppb	01:38:24
2	U 409.014†	14637.9	17692.7	511.30	ug/L	511.30	ppb	01:38:04
2	V 292.402†	68351.9	70255.6	516.96	ug/L	516.96	ppb	01:38:04
2	Zn 213.857†	53432.8	52992.4	518.05	ug/L	518.05	ppb	01:38:04
2	SiO2†	76832.4	76641.6	5453.2	ug/L	5453.2	ppb	01:39:06
3	Sc Radial	4923.6	4923.6	102	%			01:37:01
3	Y RADIAL	5191.8	5191.8	103.8	%			01:37:01
3	Al 396.153Radial†	5690.2	5706.9	5272.4	ug/L	5272.4	ppb	01:37:01
3	Ca 317.933Radial†	3222.2	3129.2	5186.4	ug/L	5186.4	ppb	01:37:21
3	Fe 238.204 Radial†	580.8	555.5	5070.2	ug/L	5070.2	ppb	01:37:21
3	K 766.490 Radial†	31935.8	28353.3	4998.5	ug/L	4998.5	ppb	01:37:01
3	Mg 279.077 IEC†	155.2	151.1	5353.8	ug/L	5353.8	ppb	01:37:21
3	Na 589.592 Radial†	32204.0	32519.3	9835.4	ug/L	9835.4	ppb	01:37:01
3	Sr 421.552†	79059.1	77183.5	541.26	ug/L	541.26	ppb	01:37:01
3	Sc 361.383	859212.3	859212.3	99.666	%			01:38:30
3	Y 371.029	691785.8	691785.8	96.807	%			01:38:30
3	Ag 328.068†	107614.6	107746.8	510.94	ug/L	510.94	ppb	01:38:35
3	As 188.979†	1096.7	1134.2	519.06	ug/L	519.06	ppb	01:38:55
3	B 249.677†	20975.7	21585.1	511.18	ug/L	511.18	ppb	01:38:35
3	Ba 233.527†	63300.7	63524.6	520.05	ug/L	520.05	ppb	01:38:35
3	Be 313.107†	1367641.8	1376567.9	513.89	ug/L	513.89	ppb	01:38:30
3	Cd 226.502†	42150.9	42504.2	505.23	ug/L	505.23	ppb	01:38:35
3	Co 228.616†	24005.4	24159.7	527.77	ug/L	527.77	ppb	01:38:35
3	Cr 267.716†	43164.3	43242.3	504.04	ug/L	504.04	ppb	01:38:35
3	Cu 324.752†	175265.9	170033.0	515.78	ug/L	515.78	ppb	01:38:35
3	Mn 257.610†	450478.8	451537.9	519.78	ug/L	519.78	ppb	01:38:30
3	Mo 202.031†	6682.2	6689.1	501.39	ug/L	501.39	ppb	01:38:55
3	Ni 231.604†	19663.5	19621.4	508.01	ug/L	508.01	ppb	01:38:35
3	P 214.914†	4305.6	4092.0	2445.9	ug/L	2445.9	ppb	01:38:55
3	Pb 220.353†	3960.1	4035.1	505.07	ug/L	505.07	ppb	01:38:55
3	S 181.975 Axial†	736.1	699.2	1018.6	ug/L	1018.6	ppb	01:38:55
3	Sb 206.836†	1480.7	1443.6	521.13	ug/L	521.13	ppb	01:38:55
3	Se 196.026†	716.6	741.2	517.35	ug/L	517.35	ppb	01:38:55
3	Si 251.611†	77624.4	77322.5	2580.2	ug/L	2580.2	ppb	01:38:35
3	Sn 189.927†	2689.6	2689.9	500.05	ug/L	500.05	ppb	01:38:55
3	Ti 334.940†	314987.6	317347.3	514.58	ug/L	514.58	ppb	01:38:35
3	Tl 190.801†	1569.0	1608.5	518.93	ug/L	518.93	ppb	01:38:55
3	U 409.014†	14208.5	17236.2	498.09	ug/L	498.09	ppb	01:38:35
3	V 292.402†	67518.8	69299.9	509.94	ug/L	509.94	ppb	01:38:35
3	Zn 213.857†	52639.8	52103.1	509.33	ug/L	509.33	ppb	01:38:35
3	SiO2†	78233.9	77913.2	5544.1	ug/L	5544.1	ppb	01:39:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856444.7	99.345	%	0.4148				0.42%
Sc Radial	4875.6	101	%	2.2				2.13%
Y 371.029	689359.1	96.467	%	0.3893				0.40%
Y RADIAL	5116.1	102.3	%	2.51				2.46%
Ag 328.068†	108775.2	515.82	ug/L	4.239	515.82	ppb	4.239	0.82%
QC value within limits for Ag 328.068 Recovery = 103.16%								
Al 396.153Radial†	5703.4	5269.0	ug/L	12.50	5269.0	ppb	12.50	0.24%
QC value within limits for Al 396.153Radial Recovery = 105.38%								
As 188.979†	1137.0	520.36	ug/L	2.230	520.36	ppb	2.230	0.43%
QC value within limits for As 188.979 Recovery = 104.07%								
B 249.677†	21720.5	514.37	ug/L	3.310	514.37	ppb	3.310	0.64%
QC value within limits for B 249.677 Recovery = 102.87%								
Ba 233.527†	64093.1	524.71	ug/L	4.033	524.71	ppb	4.033	0.77%
QC value within limits for Ba 233.527 Recovery = 104.94%								
Be 313.107†	1377526.1	514.26	ug/L	0.562	514.26	ppb	0.562	0.11%
QC value within limits for Be 313.107 Recovery = 102.85%								
Ca 317.933Radial†	3161.7	5240.4	ug/L	107.98	5240.4	ppb	107.98	2.06%

```
   QC value within limits for Ca 317.933Radial  Recovery = 104.81%
Cd 226.502†            42898.0      509.91 ug/L         4.051      509.91 ppb          4.051   0.79%
   QC value within limits for Cd 226.502  Recovery = 101.98%
Co 228.616†            24425.7      533.58 ug/L         5.115      533.58 ppb          5.115   0.96%
   QC value within limits for Co 228.616  Recovery = 106.72%
Cr 267.716†            43615.3      508.38 ug/L         3.765      508.38 ppb          3.765   0.74%
   QC value within limits for Cr 267.716  Recovery = 101.68%
Cu 324.752†           171971.7      521.66 ug/L         5.103      521.66 ppb          5.103   0.98%
   QC value within limits for Cu 324.752  Recovery = 104.33%
Fe 238.204 Radial†       564.8      5155.3 ug/L        99.90      5155.3 ppb         99.90   1.94%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.11%
K 766.490 Radial†      28320.4      4992.7 ug/L        23.64      4992.7 ppb         23.64   0.47%
   QC value within limits for K 766.490 Radial  Recovery = 99.85%
Mg 279.077 IEC†          153.4      5435.2 ug/L       149.36      5435.2 ppb        149.36   2.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.70%
Mn 257.610†           452867.2      521.32 ug/L         1.615      521.32 ppb          1.615   0.31%
   QC value within limits for Mn 257.610  Recovery = 104.26%
Mo 202.031†             6736.8      504.97 ug/L         3.140      504.97 ppb          3.140   0.62%
   QC value within limits for Mo 202.031  Recovery = 100.99%
Na 589.592 Radial†     32721.6      9896.6 ug/L        74.33      9896.6 ppb         74.33   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 98.97%
Ni 231.604†            19782.4      512.18 ug/L         3.706      512.18 ppb          3.706   0.72%
   QC value within limits for Ni 231.604  Recovery = 102.44%
P 214.914†              4121.7      2463.1 ug/L        18.32      2463.1 ppb         18.32   0.74%
   QC value within limits for P 214.914  Recovery = 98.53%
Pb 220.353†             4062.6      508.50 ug/L         3.382      508.50 ppb          3.382   0.67%
   QC value within limits for Pb 220.353  Recovery = 101.70%
S 181.975 Axial†         706.5      1029.2 ug/L        15.07      1029.2 ppb         15.07   1.46%
   QC value within limits for S 181.975 Axial  Recovery = 102.92%
Sb 206.836†             1455.1      525.26 ug/L         3.720      525.26 ppb          3.720   0.71%
   QC value within limits for Sb 206.836  Recovery = 105.05%
Se 196.026†              755.6      527.34 ug/L         8.666      527.34 ppb          8.666   1.64%
   QC value within limits for Se 196.026  Recovery = 105.47%
Si 251.611†            78198.1      2609.4 ug/L        25.36      2609.4 ppb         25.36   0.97%
   QC value within limits for Si 251.611  Recovery = 104.38%
Sn 189.927†             2702.0      502.31 ug/L         1.998      502.31 ppb          1.998   0.40%
   QC value within limits for Sn 189.927  Recovery = 100.46%
Sr 421.552†            77108.2      540.73 ug/L         1.095      540.73 ppb          1.095   0.20%
   QC value within limits for Sr 421.552  Recovery = 108.15%
Ti 334.940†           320291.9      519.35 ug/L         4.134      519.35 ppb          4.134   0.80%
   QC value within limits for Ti 334.940  Recovery = 103.87%
Tl 190.801†             1618.6      522.19 ug/L         2.835      522.19 ppb          2.835   0.54%
   QC value within limits for Tl 190.801  Recovery = 104.44%
U 409.014†             17569.6      507.74 ug/L         8.451      507.74 ppb          8.451   1.66%
   QC value within limits for U 409.014  Recovery = 101.55%
V 292.402†             69949.4      514.71 ug/L         4.131      514.71 ppb          4.131   0.80%
   QC value within limits for V 292.402  Recovery = 102.94%
Zn 213.857†            52700.1      515.17 ug/L         5.060      515.17 ppb          5.060   0.98%
   QC value within limits for Zn 213.857  Recovery = 103.03%
SiO2†                  77188.9      5492.3 ug/L        46.73      5492.3 ppb         46.73   0.85%
   QC value within limits for SiO2  Recovery = 102.71%
All analyte(s) passed QC.
```

Sequence No.: 81
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/12/2010 01:41:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4883.1	4883.1	102	%			01:43:14
1	Y RADIAL	5169.7	5169.7	103.4	%			01:43:14
1	Al 396.153Radial†	-150.3	3.7	3.3936	ug/L	3.3936	ppb	01:43:14
1	Ca 317.933Radial†	29.8	12.6	20.882	ug/L	20.882	ppb	01:43:34
1	Fe 238.204 Radial†	10.6	-1.0	-9.1606	ug/L	-9.1606	ppb	01:43:34
1	K 766.490 Radial†	2867.5	-3.0	-0.5464	ug/L	-0.5464	ppb	01:43:14
1	Mg 279.077 IEC†	1.5	1.0	36.806	ug/L	36.806	ppb	01:43:34
1	Na 589.592 Radial†	-972.7	121.0	36.598	ug/L	36.598	ppb	01:43:14
1	Sr 421.552†	4.9	2.7	0.0188	ug/L	0.0188	ppb	01:43:14
1	Sc 361.383	839106.1	839106.1	97.333	%			01:44:31
1	Y 371.029	683676.4	683676.4	95.672	%			01:44:31
1	Ag 328.068†	198.3	-25.1	-0.1214	ug/L	-0.1214	ppb	01:44:31
1	As 188.979†	-25.2	7.9	3.6004	ug/L	3.6004	ppb	01:44:51
1	B 249.677†	-385.7	142.8	3.3976	ug/L	3.3976	ppb	01:44:51
1	Ba 233.527†	-9.9	1.4	0.0117	ug/L	0.0117	ppb	01:44:51
1	Be 313.107†	-4220.2	2.9	0.0012	ug/L	0.0012	ppb	01:44:31
1	Cd 226.502†	-194.0	12.6	0.1511	ug/L	0.1511	ppb	01:44:51
1	Co 228.616†	-55.8	16.4	0.3589	ug/L	0.3589	ppb	01:44:51
1	Cr 267.716†	70.1	5.2	0.0609	ug/L	0.0609	ppb	01:44:51
1	Cu 324.752†	5369.3	-304.3	-0.9238	ug/L	-0.9238	ppb	01:44:31
1	Mn 257.610†	551.9	115.1	0.1300	ug/L	0.1300	ppb	01:44:51
1	Mo 202.031†	19.9	4.9	0.3675	ug/L	0.3675	ppb	01:44:51
1	Ni 231.604†	107.5	2.4	0.0631	ug/L	0.0631	ppb	01:44:51
1	P 214.914†	224.2	2.3	1.6245	ug/L	1.6245	ppb	01:44:51
1	Pb 220.353†	-50.5	9.8	1.2278	ug/L	1.2278	ppb	01:44:51
1	S 181.975 Axial†	40.5	2.3	3.3468	ug/L	3.3468	ppb	01:44:51
1	Sb 206.836†	46.3	5.4	1.9060	ug/L	1.9060	ppb	01:44:51
1	Se 196.026†	-18.3	3.3	2.2183	ug/L	2.2183	ppb	01:44:51
1	Si 251.611†	584.5	38.2	1.2739	ug/L	1.2739	ppb	01:44:51
1	Sn 189.927†	14.0	5.7	1.0603	ug/L	1.0603	ppb	01:44:51
1	Ti 334.940†	-1235.0	34.4	0.0554	ug/L	0.0554	ppb	01:44:31
1	Tl 190.801†	-35.9	-2.7	-0.8583	ug/L	-0.8583	ppb	01:44:51
1	U 409.014†	-2883.8	17.3	0.5017	ug/L	0.5017	ppb	01:44:31
1	V 292.402†	-1494.4	19.3	0.1483	ug/L	0.1483	ppb	01:44:31
1	Zn 213.857†	786.1	94.4	0.9331	ug/L	0.9331	ppb	01:44:51
1	SiO2†	657.8	92.7	6.6033	ug/L	6.6033	ppb	01:45:47
2	Sc Radial	4822.5	4822.5	100	%			01:43:39
2	Y RADIAL	5099.4	5099.4	102.0	%			01:43:39
2	Al 396.153Radial†	-162.2	-10.1	-9.3929	ug/L	-9.3929	ppb	01:43:39
2	Ca 317.933Radial†	27.7	10.9	18.076	ug/L	18.076	ppb	01:43:59
2	Fe 238.204 Radial†	13.3	1.7	15.834	ug/L	15.834	ppb	01:43:59
2	K 766.490 Radial†	2778.4	-56.2	-9.9410	ug/L	-9.9410	ppb	01:43:39
2	Mg 279.077 IEC†	1.0	0.6	19.750	ug/L	19.750	ppb	01:43:59
2	Na 589.592 Radial†	-1004.0	77.7	23.512	ug/L	23.512	ppb	01:43:39
2	Sr 421.552†	-13.8	-15.9	-0.1115	ug/L	-0.1115	ppb	01:43:39
2	Sc 361.383	829336.9	829336.9	96.200	%			01:44:56
2	Y 371.029	675028.0	675028.0	94.462	%			01:44:56
2	Ag 328.068†	211.2	-9.2	-0.0365	ug/L	-0.0365	ppb	01:44:56
2	As 188.979†	-26.6	6.2	2.8450	ug/L	2.8450	ppb	01:45:16
2	B 249.677†	-389.2	134.5	3.1959	ug/L	3.1959	ppb	01:45:16
2	Ba 233.527†	-1.7	9.8	0.0814	ug/L	0.0814	ppb	01:45:16
2	Be 313.107†	-4093.4	83.7	0.0337	ug/L	0.0337	ppb	01:44:56
2	Cd 226.502†	-194.8	9.4	0.1106	ug/L	0.1106	ppb	01:45:16
2	Co 228.616†	-66.5	4.6	0.0993	ug/L	0.0993	ppb	01:45:16
2	Cr 267.716†	76.3	12.5	0.1467	ug/L	0.1467	ppb	01:45:16
2	Cu 324.752†	5476.6	-127.8	-0.3865	ug/L	-0.3865	ppb	01:44:56
2	Mn 257.610†	640.9	214.3	0.2473	ug/L	0.2473	ppb	01:45:16
2	Mo 202.031†	23.1	8.5	0.6387	ug/L	0.6387	ppb	01:45:16
2	Ni 231.604†	112.8	9.2	0.2392	ug/L	0.2392	ppb	01:45:16

2	P 214.914†	218.0	-1.5	-0.8585 ug/L	-0.8585 ppb	01:45:16
2	Pb 220.353†	-50.9	8.8	1.0937 ug/L	1.0937 ppb	01:45:16
2	S 181.975 Axial†	39.1	1.3	1.8449 ug/L	1.8449 ppb	01:45:16
2	Sb 206.836†	41.9	1.4	0.4910 ug/L	0.4910 ppb	01:45:16
2	Se 196.026†	-20.8	0.5	0.3841 ug/L	0.3841 ppb	01:45:16
2	Si 251.611†	593.2	54.4	1.8112 ug/L	1.8112 ppb	01:45:16
2	Sn 189.927†	9.3	1.0	0.1886 ug/L	0.1886 ppb	01:45:16
2	Ti 334.940†	-604.8	674.5	1.0951 ug/L	1.0951 ppb	01:44:56
2	Tl 190.801†	-40.1	-7.5	-2.3819 ug/L	-2.3819 ppb	01:45:16
2	U 409.014†	-2885.9	-19.8	-0.5760 ug/L	-0.5760 ppb	01:44:56
2	V 292.402†	-1447.5	50.0	0.3675 ug/L	0.3675 ppb	01:44:56
2	Zn 213.857†	781.0	98.6	0.9697 ug/L	0.9697 ppb	01:45:16
2	SiO2†	554.3	-7.0	-0.5142 ug/L	-0.5142 ppb	01:45:52
3	Sc Radial	4988.3	4988.3	104 %		01:44:04
3	Y RADIAL	5298.5	5298.5	106.0 %		01:44:04
3	Al 396.153Radial†	-141.0	15.7	14.506 ug/L	14.506 ppb	01:44:04
3	Ca 317.933Radial†	28.6	10.9	18.054 ug/L	18.054 ppb	01:44:24
3	Fe 238.204 Radial†	9.7	-2.2	-19.571 ug/L	-19.571 ppb	01:44:24
3	K 766.490 Radial†	2759.6	-166.4	-29.397 ug/L	-29.397 ppb	01:44:04
3	Mg 279.077 IEC†	2.1	1.6	58.332 ug/L	58.332 ppb	01:44:24
3	Na 589.592 Radial†	-983.7	130.6	39.506 ug/L	39.506 ppb	01:44:04
3	Sr 421.552†	9.0	6.6	0.0462 ug/L	0.0462 ppb	01:44:04
3	Sc 361.383	851437.6	851437.6	98.764 %		01:45:22
3	Y 371.029	693797.1	693797.1	97.088 %		01:45:22
3	Ag 328.068†	319.8	95.0	0.4397 ug/L	0.4397 ppb	01:45:22
3	As 188.979†	-22.9	10.7	4.8610 ug/L	4.8610 ppb	01:45:42
3	B 249.677†	-416.0	117.8	2.8048 ug/L	2.8048 ppb	01:45:42
3	Ba 233.527†	2.3	13.9	0.1140 ug/L	0.1140 ppb	01:45:42
3	Be 313.107†	-4229.8	55.9	0.0209 ug/L	0.0209 ppb	01:45:22
3	Cd 226.502†	-192.0	17.5	0.2107 ug/L	0.2107 ppb	01:45:42
3	Co 228.616†	-65.2	7.7	0.1695 ug/L	0.1695 ppb	01:45:42
3	Cr 267.716†	80.3	14.5	0.1680 ug/L	0.1680 ppb	01:45:42
3	Cu 324.752†	5355.8	-397.9	-1.2100 ug/L	-1.2100 ppb	01:45:22
3	Mn 257.610†	623.1	179.0	0.2016 ug/L	0.2016 ppb	01:45:42
3	Mo 202.031†	25.8	10.6	0.7937 ug/L	0.7937 ppb	01:45:42
3	Ni 231.604†	103.3	-3.4	-0.0880 ug/L	-0.0880 ppb	01:45:42
3	P 214.914†	225.3	0.0	0.2881 ug/L	0.2881 ppb	01:45:42
3	Pb 220.353†	-44.5	16.7	2.0921 ug/L	2.0921 ppb	01:45:42
3	S 181.975 Axial†	39.0	0.2	0.2795 ug/L	0.2795 ppb	01:45:42
3	Sb 206.836†	36.6	-5.1	-1.7443 ug/L	-1.7443 ppb	01:45:42
3	Se 196.026†	-17.2	4.7	3.0780 ug/L	3.0780 ppb	01:45:42
3	Si 251.611†	614.0	59.4	1.9761 ug/L	1.9761 ppb	01:45:42
3	Sn 189.927†	13.8	5.3	0.9833 ug/L	0.9833 ppb	01:45:42
3	Ti 334.940†	-1261.9	25.5	0.0374 ug/L	0.0374 ppb	01:45:22
3	Tl 190.801†	-37.3	-3.6	-1.1438 ug/L	-1.1438 ppb	01:45:42
3	U 409.014†	-2819.1	125.7	3.6467 ug/L	3.6467 ppb	01:45:22
3	V 292.402†	-1473.5	62.7	0.4773 ug/L	0.4773 ppb	01:45:22
3	Zn 213.857†	769.3	65.7	0.6534 ug/L	0.6534 ppb	01:45:42
3	SiO2†	651.6	76.6	5.4434 ug/L	5.4434 ppb	01:45:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	839960.2	97.433	%	1.2847				1.32%
Sc Radial	4898.0	102	%	1.7				1.71%
Y 371.029	684167.1	95.741	%	1.3146				1.37%
Y RADIAL	5189.2	103.8	%	2.02				1.95%
Ag 328.068†	20.2	0.0940	ug/L	0.30244	0.0940	ppb	0.30244	321.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	3.1	2.8355	ug/L	11.95904	2.8355	ppb	11.95904	421.77%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.3	3.7688	ug/L	1.01849	3.7688	ppb	1.01849	27.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	131.7	3.1328	ug/L	0.30137	3.1328	ppb	0.30137	9.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.4	0.0690	ug/L	0.05226	0.0690	ppb	0.05226	75.71%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	47.5	0.0186	ug/L	0.01635	0.0186	ppb	0.01635	87.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.5	19.004	ug/L	1.6263	19.004	ppb	1.6263	8.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.2      0.1575 ug/L       0.05035      0.1575 ppb        0.05035  31.98%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.6      0.2092 ug/L       0.13427      0.2092 ppb        0.13427  64.17%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.8      0.1252 ug/L       0.05672      0.1252 ppb        0.05672  45.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -276.7     -0.8401 ug/L       0.41811     -0.8401 ppb        0.41811  49.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -4.2992 ug/L      18.19605     -4.2992 ppb       18.19605 423.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -75.2     -13.295 ug/L       14.7146     -13.295 ppb        14.7146 110.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      38.296 ug/L       19.3342      38.296 ppb        19.3342  50.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               169.5      0.1930 ug/L       0.05913      0.1930 ppb        0.05913  30.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.0      0.6000 ug/L       0.21571      0.6000 ppb        0.21571  35.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        109.8      33.206 ug/L        8.5195      33.206 ppb         8.5195  25.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.8      0.0714 ug/L       0.16375      0.0714 ppb        0.16375 229.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.3      0.3513 ug/L       1.24270      0.3513 ppb        1.24270 353.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                11.8      1.4712 ug/L       0.54187      1.4712 ppb        0.54187  36.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      1.8237 ug/L       1.53375      1.8237 ppb        1.53375  84.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.6      0.2176 ug/L       1.84043      0.2176 ppb        1.84043 845.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.8      1.8934 ug/L       1.37601      1.8934 ppb        1.37601  72.67%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                50.7      1.6871 ug/L       0.36718      1.6871 ppb        0.36718  21.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.0      0.7441 ug/L       0.48262      0.7441 ppb        0.48262  64.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.2     -0.0155 ug/L       0.08425     -0.0155 ppb        0.08425 543.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               244.8      0.3959 ug/L       0.60554      0.3959 ppb        0.60554 152.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.6     -1.4613 ug/L       0.80994     -1.4613 ppb        0.80994  55.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 41.1      1.1908 ug/L       2.19405      1.1908 ppb        2.19405 184.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 44.0      0.3310 ug/L       0.16755      0.3310 ppb        0.16755  50.61%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                86.2      0.8521 ug/L       0.17303      0.8521 ppb        0.17303  20.31%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      54.1      3.8442 ug/L       3.81874      3.8442 ppb        3.81874  99.34%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, February 13, 2010 14:53:47
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.320
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1166.8	1166.848	36.468	3.1
	Mg	24.0	14132.2	14132.187	94.630	0.7
	Co	58.9	44494.4	44494.392	551.949	1.2
	Rh	102.9	86899.9	86899.920	746.363	0.9
	In	114.9	120318.0	120317.952	320.860	0.3
	Pb	208.0	48341.3	48341.261	540.347	1.1
⌈>	Ba	137.9	96325.0	96324.966	554.527	0.6
⌊	Ba++	69.0	1075.7	0.011	0.000	3.4
⌈>	Ce	139.9	112930.2	112930.212	483.271	0.4
⌊	CeO	155.9	2573.6	0.023	0.000	1.7
	Bkgd	220.0	2.2	2.200	0.570	25.9

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.3	920.7
Co	59	17	4.8	30244.0
In	115	17	5.5	86185.9

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	603	2060	0.705
Be	9.0	9.0	2045	2045	0.720
Mg	24.0	24.0	5678	2065	0.711
Mg	25.0	25.0	5941	2080	0.701
Mg	26.0	26.0	6157	2085	0.699
Co	58.9	59.0	14186	2140	0.662
Rh	102.9	102.9	24867	2230	0.676
In	114.9	114.9	27777	2255	0.695
Ce	139.9	139.9	33853	2310	0.661
Pb	206.0	205.9	49924	2500	0.612
Pb	207.0	206.9	50101	2375	0.618
Pb	208.0	208.0	50436	2570	0.602
U	238.1	238.1	57689	2510	0.645

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 14, 2010 08:05:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\Blank.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		120939	
⌊	U	238		ug/L		85	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 14, 2010 08:07:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\Standard 1.264

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		120452	120451.584
	U	238	10.000	ug/L	1.369	106575	0.884

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 14, 2010 08:08:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100213\Standard 2.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		119160	119160.470
⌊	U	238	99.981	ug/L	0.915	1033879	8.676

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 14, 2010 08:10:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 1.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		120216	120216.293
[	U	238	53.119	ug/L	0.871	554180	4.609

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		99.4			
[	U	238	106.237				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 14, 2010 08:12:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 2.267

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		120057	120056.629
⌊	U	238	0.034	ug/L	4.300	443	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 14, 2010 08:13:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 3.268

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		120363	120363.465
⌊	U	238	0.253	ug/L	2.259	2732	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			99.5		
⌊	U	238	126.715				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 14, 2010 08:15:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 4.269

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		109018	109018.173
	U	238	0.003	ug/L	36.509	105	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		90.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 14, 2010 08:17:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 5.270

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		109090	109090.042
⌊	U	238	18.980	ug/L	0.783	179740	1.647

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		90.2			
⌊	U	238	94.898				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 08:19:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.271

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		114745	114744.826
⌊	U	238	50.523	ug/L	1.377	503091	4.384

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175			94.9		
⌊	U	238	101.046				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 08:20:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		115784	115784.474
⌊	U	238	0.023	ug/L	12.028	310	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		95.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202024764
Sample Date/Time: Sunday, February 14, 2010 08:22:25
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\1202024764.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		116658	116657.884
	U	238	0.010	ug/L	4.378	186	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		96.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202024765
Sample Date/Time: Sunday, February 14, 2010 08:24:06
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 945396|40|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\1202024765.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		116711	116711.326
	U	238	0.542	ug/L	0.914	5571	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		96.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 08:36:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.281

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		118497	118497.313
	U	238	51.547	ug/L	1.004	530134	4.473

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		98.0			
	U	238	103.094				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 08:37:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.282

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		117315	117314.584
⌊	U	238	0.022	ug/L	8.419	308	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		97.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 08:53:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.291

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		114476	114476.326
	U	238	52.974	ug/L	0.901	526317	4.597

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		94.7			
	U	238	105.949				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 08:55:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.292

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		115729	115728.689
⌊	U	238	**0.027**	ug/L	9.495	351	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		95.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245396001
Sample Date/Time: Sunday, February 14, 2010 09:00:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\245396001.295

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		124792	124791.951
[	U	238	6.600	ug/L	0.722	71555	0.573

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Lu	175		103.2			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202024766
Sample Date/Time: Sunday, February 14, 2010 09:01:55
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100213\1202024766.296

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		129791	129791.232
⌊	U	238	5.450	ug/L	0.112	61470	0.473

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		107.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202024767
Sample Date/Time: Sunday, February 14, 2010 09:03:40
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\1202024767.297

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		130203	130203.294
⌊	U	238	31.023	ug/L	1.415	350609	2.692

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		107.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202024772
Sample Date/Time: Sunday, February 14, 2010 09:05:24
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\1202024772.298

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		131423	131422.754
	U	238	31.687	ug/L	0.549	361469	2.750

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		108.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202024768
Sample Date/Time: Sunday, February 14, 2010 09:07:07
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 945396|10|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\1202024768.299

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		124341	124341.410
U	238	1.382	ug/L	2.932	14993	0.120

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Lu	175		102.8			
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 09:08:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.300

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		120453	120453.221
	U	238	51.977	ug/L	0.469	543378	4.510

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		99.6			
	U	238	103.954				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 09:10:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.301

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		119893	119892.584
	U	238	0.033	ug/L	1.492	429	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		99.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245396004
Sample Date/Time: Sunday, February 14, 2010 09:15:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\245396004.304

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		127361	127360.809
⌊	U	238	40.587	ug/L	0.945	448654	3.522

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		105.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 09:17:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 6.305

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		120801	120800.825
⌊	U	238	52.377	ug/L	1.279	549112	4.545

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.9			
⌊	U	238	104.753				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 09:19:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100213\QC Std 7.306

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		115277	115277.427
	U	238	0.039	ug/L	6.103	470	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		95.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, February 14, 2010 11:49:04
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.321
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	986.0	986.034	34.874	3.5
	Mg	24.0	13418.5	13418.499	79.034	0.6
	Co	58.9	38979.9	38979.912	400.608	1.0
	Rh	102.9	74548.4	74548.448	1240.322	1.7
	In	114.9	105307.6	105307.552	1177.038	1.1
	Pb	208.0	40241.8	40241.803	341.801	0.8
>	Ba	137.9	82380.5	82380.509	887.487	1.1
	Ba++	69.0	950.4	0.012	0.000	2.1
>	Ce	139.9	95752.0	95752.031	488.241	0.5
	CeO	155.9	2093.3	0.022	0.000	1.8
	Bkgd	220.0	2.5	2.500	1.275	51.0

Current Optimization File Data

Current Value	Description
0.91	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	4.0	788.4
Co	59	17	4.5	24374.1
In	115	17	5.3	67998.1

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	605	2060	0.699
Be	9.0	9.0	2037	2045	0.748
Mg	24.0	24.0	5688	2065	0.693
Mg	25.0	25.0	5939	2080	0.680
Mg	26.0	26.0	6156	2085	0.672
Co	58.9	58.9	14184	2140	0.650
Rh	102.9	102.9	24872	2230	0.664
In	114.9	114.9	27783	2255	0.689
Ce	139.9	139.9	33858	2310	0.649
Pb	206.0	206.0	49937	2500	0.613
Pb	207.0	207.0	50113	2375	0.619
Pb	208.0	208.0	50448	2570	0.602
U	238.1	238.0	57683	2510	0.651

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 14, 2010 12:07:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		106823	
	U	238		ug/L		77	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 14, 2010 12:09:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		107418	107418.129
⌊	U	238	10.000	ug/L	0.507	103442	0.962

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 14, 2010 12:11:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		107288	107288.105
⌊	U	238	99.969	ug/L	1.063	1000590	9.326

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 14, 2010 12:12:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		105511	105510.624
⌊	U	238	53.016	ug/L	1.970	521925	4.946

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		98.8			
⌊	U	238	106.033				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 14, 2010 12:14:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		105846	105845.726
⌊	U	238	0.040	ug/L	2.120	467	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		99.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 14, 2010 12:16:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		105491	105491.464
	U	238	**0.254**	ug/L	2.791	2570	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		98.8			
	U	238	126.756				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 14, 2010 12:17:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		94710	94710.191
⌊	U	238	0.007	ug/L	56.956	130	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		88.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 14, 2010 12:19:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		94551	94551.171
	U	238	18.580	ug/L	1.014	163938	1.733

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		88.5			
	U	238	92.900				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 12:21:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		99251	99251.246
⌊	U	238	48.602	ug/L	0.716	450052	4.534

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		92.9			
⌊	U	238	97.203				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 12:22:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		99191	99190.828
	U	238	0.030	ug/L	5.899	352	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		92.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245396002
Sample Date/Time: Sunday, February 14, 2010 12:28:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|20|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\245396002.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		102115	102115.038
⌊	U	238	12.314	ug/L	1.876	117367	1.149

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		95.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 245396003
Sample Date/Time: Sunday, February 14, 2010 12:29:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|20|baj
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\245396003.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		102259	102259.058
⌊	U	238	31.953	ug/L	0.474	304874	2.981

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		95.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 12:31:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no lrs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 6.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		101207	101207.252
	U	238	49.696	ug/L	0.523	469261	4.636

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Lu	175		94.7			
	U	238	99.392				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 12:33:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only no Irs.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 7.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		101908	101908.319
⌊	U	238	0.037	ug/L	6.504	422	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Lu	175		95.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, February 13, 2010 10:14:49
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.480
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	5702.1	5702.138	98.108	1.7
	Mg	24.0	53382.2	53382.156	369.934	0.7
	Co	58.9	126956.1	126956.090	1481.192	1.2
	Rh	102.9	234012.5	234012.506	651.114	0.3
	In	114.9	304048.2	304048.187	1620.031	0.5
	Pb	208.0	236889.8	236889.778	1242.706	0.5
⌈>	Ba	137.9	270555.9	270555.908	489.635	0.2
⌊	Ba++	69.0	5659.3	0.021	0.000	1.5
⌈>	Ce	139.9	338733.5	338733.542	1728.021	0.5
⌊	CeO	155.9	7831.6	0.023	0.000	1.3
	Bkgd	220.0	13.8	13.800	1.304	9.4

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.25	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	9	5.5	5355.3
Co	59	9	5.8	129010.6
In	115	9	6.0	301212.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	585	2072	0.621
Be	9.0	9.0	2053	2088	0.617
Mg	24.0	24.0	5687	2100	0.581
Mg	25.0	25.0	5939	2100	0.585
Mg	26.0	25.9	6157	2100	0.592
Co	58.9	58.9	14168	2125	0.589
Rh	102.9	102.9	24868	2180	0.582
In	114.9	114.9	27782	2200	0.579
Ce	139.9	139.9	33866	2220	0.587
Pb	206.0	206.0	49948	2305	0.611
Pb	207.0	207.0	50159	2240	0.650
Pb	208.0	208.0	50451	2265	0.716
U	238.1	238.1	57726	2275	0.762

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, February 13, 2010 21:18:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\Blank.669

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		28	
	Be	9		ug/L		11	
	B	11		ug/L		218	
	Na	23		ug/L		5668	
	Mg	24		ug/L		1667	
	Al	27		ug/L		2334	
	P	31		ug/L		5020	
	K	39		ug/L		545950	
	Ca	43		ug/L		397	
>	Sc	45		ug/L		671245	
	Ti	47		ug/L		425	
	V	51		ug/L		-3142	
	Cr	52		ug/L		4046	
	Cr	53		ug/L		135661	
	Mn	55		ug/L		1538	
	Fe	57		ug/L		6419	
	Co	59		ug/L		57	
	Ni	60		ug/L		239	
	Cu	63		ug/L		264	
	Cu	65		ug/L		218	
	Zn	66		ug/L		440	
	Zn	67		ug/L		13272	
	Zn	68		ug/L		1416	
>	Ge	74		ug/L		567423	
	As	75		ug/L		-1201	
	Se	77		ug/L		11968	
	Se	82		ug/L		19	
	Kr	83		ug/L		142	
	Sr	88		ug/L		134	
	Y	89		ug/L		69	
	Mo	98		ug/L		91	
	Ag	107		ug/L		29	
	Cd	111		ug/L		24	
	Cd	114		ug/L		39	
>	In	115		ug/L		367737	
	Sn	120		ug/L		177	
	Sb	121		ug/L		308	
	Sb	123		ug/L		248	
	Ba	135		ug/L		32	
	Ba	137		ug/L		35	
	Ho	165		ug/L		22	
>	Lu	175		ug/L		539773	
	Tl	205		ug/L		6144	
	Pb	208		ug/L		509	
	Bi	209		ug/L		109	
	Th	232		ug/L		292	
	U	238		ug/L		52	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Linear Thru Zero	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
Pb	208	Linear Thru Zero	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, February 13, 2010 21:24:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\Standard 1.670

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	0.640	14962	0.021
	Be	9	**10.000**	**ug/L**	2.865	3445	0.005
	B	11	**20.000**	**ug/L**	1.341	6415	0.009
	Na	23	**1000.000**	**ug/L**	12.538	2714803	3.752
	Mg	24	**1000.000**	**ug/L**	6.149	1927364	2.667
	Al	27	**1000.000**	**ug/L**	7.664	3002254	4.154
	P	31	**1000.000**	**ug/L**	2.680	200617	0.270
	K	39	**1000.000**	**ug/L**	10.316	5467461	6.757
	Ca	43	**1000.000**	**ug/L**	2.557	13890	0.019
>	Sc	45		**ug/L**		722059	722058.748
	Ti	47	**10.000**	**ug/L**	1.564	7545	0.010
	V	51	**10.000**	**ug/L**	11.437	86054	0.124
	Cr	52	**10.000**	**ug/L**	2.420	70801	0.092
	Cr	53		**ug/L**		171184	0.035
	Mn	55	**10.000**	**ug/L**	1.021	114906	0.157
	Fe	57	**1000.000**	**ug/L**	3.124	237518	0.319
	Co	59	**10.000**	**ug/L**	0.627	89415	0.124
	Ni	60	**10.000**	**ug/L**	2.535	20208	0.028
	Cu	63		**ug/L**		50208	0.069
	Cu	65	**10.000**	**ug/L**	0.738	25274	0.035
	Zn	66	**10.000**	**ug/L**	2.708	15957	0.026
	Zn	67		**ug/L**		20533	0.011
	Zn	68		**ug/L**		13264	0.020
>	Ge	74		**ug/L**		590845	590844.852
	As	75	**10.000**	**ug/L**	4.313	16106	0.029
	Se	77		**ug/L**		15598	0.005
	Se	82	**10.000**	**ug/L**	6.250	1807	0.003
	Kr	83		**ug/L**		134	-0.000
	Sr	88	**10.000**	**ug/L**	0.215	218852	0.576
	Y	89		**ug/L**		87	0.000
	Mo	98	**10.000**	**ug/L**	1.474	50662	0.133
	Ag	107	**10.000**	**ug/L**	1.217	89924	0.237
	Cd	111	**10.000**	**ug/L**	1.536	20892	0.055
	Cd	114		**ug/L**		49737	0.131
>	In	115		**ug/L**		380035	380034.775
	Sn	120	**10.000**	**ug/L**	0.844	88101	0.231
	Sb	121	**10.000**	**ug/L**	2.656	74679	0.196
	Sb	123		**ug/L**		57841	0.152
	Ba	135		**ug/L**		21531	0.038
	Ba	137	**10.000**	**ug/L**	1.470	37631	0.067
	Ho	165		**ug/L**		22	-0.000
>	Lu	175		**ug/L**		562654	562654.032
	Tl	205	**10.000**	**ug/L**	0.538	227370	0.393
	Pb	208	**10.000**	**ug/L**	0.886	423568	0.752
	Bi	209		**ug/L**		168	0.000
	Th	232	**10.000**	**ug/L**	1.590	514770	0.914
	U	238	**10.000**	**ug/L**	3.243	518224	0.921

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, February 13, 2010 21:30:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\Standard 2.671

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.005**	**ug/L**	2.782	147936	0.208
	Be	9	**99.989**	**ug/L**	3.774	33440	0.047
	B	11	**200.025**	**ug/L**	5.278	61881	0.087
	Na	23	**9991.545**	**ug/L**	14.490	24567228	34.566
	Mg	24	**9999.255**	**ug/L**	14.336	18791885	26.474
	Al	27	**9986.941**	**ug/L**	4.842	26091092	36.690
	P	31	**9989.282**	**ug/L**	2.458	1740090	2.439
	K	39	**10005.992**	**ug/L**	6.356	51701761	71.917
	Ca	43	**9998.719**	**ug/L**	2.339	131368	0.184
>	Sc	45		**ug/L**		711409	711408.564
	Ti	47	**99.967**	**ug/L**	2.510	68000	0.095
	V	51	**99.859**	**ug/L**	3.299	767280	1.084
	Cr	52	**99.921**	**ug/L**	2.601	610639	0.853
	Cr	53		**ug/L**		215571	0.101
	Mn	55	**99.905**	**ug/L**	2.583	1019304	1.431
	Fe	57	**9981.265**	**ug/L**	3.488	1915713	2.685
	Co	59	**99.926**	**ug/L**	2.460	818493	1.151
	Ni	60	**99.951**	**ug/L**	3.416	187468	0.263
	Cu	63		**ug/L**		456620	0.642
	Cu	65	**99.928**	**ug/L**	3.021	230176	0.323
	Zn	66	**99.984**	**ug/L**	2.117	147685	0.258
	Zn	67		**ug/L**		41257	0.049
	Zn	68		**ug/L**		108369	0.188
>	Ge	74		**ug/L**		570112	570112.266
	As	75	**99.928**	**ug/L**	2.222	154892	0.274
	Se	77		**ug/L**		23403	0.020
	Se	82	**99.942**	**ug/L**	1.950	16316	0.029
	Kr	83		**ug/L**		144	0.000
	Sr	88	**99.833**	**ug/L**	1.332	1790547	4.923
	Y	89		**ug/L**		260	0.001
	Mo	98	**99.982**	**ug/L**	1.621	475583	1.308
	Ag	107	**99.919**	**ug/L**	0.755	795202	2.187
	Cd	111	**99.987**	**ug/L**	1.813	197155	0.542
	Cd	114		**ug/L**		456423	1.255
>	In	115		**ug/L**		363669	363668.737
	Sn	120	**99.962**	**ug/L**	0.773	810031	2.227
	Sb	121	**99.947**	**ug/L**	1.584	675652	1.857
	Sb	123		**ug/L**		526117	1.446
	Ba	135		**ug/L**		204043	0.362
	Ba	137	**99.944**	**ug/L**	1.068	356739	0.632
	Ho	165		**ug/L**		26	0.000
>	Lu	175		**ug/L**		564141	564140.999
	Tl	205	**99.824**	**ug/L**	0.498	1887608	3.335
	Pb	208	**99.817**	**ug/L**	0.875	3580653	6.346
	Bi	209		**ug/L**		451	0.001
	Th	232	**99.700**	**ug/L**	0.536	3957704	7.015
	U	238	**99.724**	**ug/L**	1.750	4060767	7.198

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, February 13, 2010 21:36:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 1.672

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.691**	ug/L	0.938	76440	0.105
	Be	9	**50.809**	ug/L	1.449	17333	0.024
	B	11	**107.388**	ug/L	1.197	33981	0.047
	Na	23	**5247.519**	ug/L	11.430	13169342	18.154
	Mg	24	**5586.764**	ug/L	3.962	10725543	14.791
	Al	27	**4961.494**	ug/L	0.326	13217279	18.228
	P	31	**5149.066**	ug/L	2.580	917027	1.257
	K	39	**4602.180**	ug/L	16.997	24564799	33.078
	Ca	43	**4716.999**	ug/L	3.356	63382	0.087
>	Sc	45		ug/L		724988	724987.763
	Ti	47	**49.238**	ug/L	1.951	34381	0.047
	V	51	**50.226**	ug/L	0.507	391800	0.545
	Cr	52	**51.587**	ug/L	1.739	323486	0.440
	Cr	53		ug/L		181824	0.049
	Mn	55	**51.605**	ug/L	1.148	537595	0.739
	Fe	57	**5211.186**	ug/L	0.764	1023095	1.402
	Co	59	**49.449**	ug/L	2.327	412965	0.570
	Ni	60	**49.273**	ug/L	0.699	94354	0.130
	Cu	63		ug/L		228813	0.315
	Cu	65	**48.604**	ug/L	2.184	114264	0.157
	Zn	66	**51.487**	ug/L	1.002	75816	0.133
	Zn	67		ug/L		30124	0.030
	Zn	68		ug/L		56303	0.097
>	Ge	74		ug/L		566682	566681.541
	As	75	**48.295**	ug/L	2.887	73801	0.132
	Se	77		ug/L		17700	0.010
	Se	82	**49.718**	ug/L	0.692	8078	0.014
	Kr	83		ug/L		145	0.000
	Sr	88	**53.134**	ug/L	2.697	961501	2.620
	Y	89		ug/L		120	0.000
	Mo	98	**48.768**	ug/L	1.055	234138	0.638
	Ag	107	**50.106**	ug/L	1.267	402374	1.096
	Cd	111	**49.769**	ug/L	0.352	99035	0.270
	Cd	114		ug/L		231708	0.631
>	In	115		ug/L		366964	366964.013
	Sn	120	**50.392**	ug/L	0.996	412130	1.123
	Sb	121	**50.136**	ug/L	1.106	342129	0.932
	Sb	123		ug/L		264363	0.720
	Ba	135		ug/L		102432	0.181
	Ba	137	**49.889**	ug/L	1.406	178947	0.316
	Ho	165		ug/L		49	0.000
>	Lu	175		ug/L		566855	566855.335
	Tl	205	**53.647**	ug/L	1.139	1022211	1.792
	Pb	208	**53.782**	ug/L	0.844	1938783	3.419
	Bi	209		ug/L		516	0.001
	Th	232	**49.234**	ug/L	2.324	1963723	3.464
	U	238	**50.446**	ug/L	1.979	2063910	3.641

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.382				
	Be	9	101.617				
	B	11	107.388				
	Na	23	104.950				
	Mg	24	111.735				
	Al	27	98.247				
	P	31	102.981				
	K	39	92.044				
	Ca	43	94.340				
>	Sc	45		108.0			
	Ti	47	98.477				
	V	51	100.452				
	Cr	52	103.174				
	Cr	53					
	Mn	55	103.210				
	Fe	57	104.224				
	Co	59	98.897				
	Ni	60	98.547				
	Cu	63					
	Cu	65	97.208				
	Zn	66	102.973				
	Zn	67					
	Zn	68					
>	Ge	74		99.9			
	As	75	96.591				
	Se	77					
	Se	82	99.437				
	Kr	83					
	Sr	88	106.268				
	Y	89					
	Mo	98	97.536				
	Ag	107	100.213				
	Cd	111	99.538				
	Cd	114					
>	In	115		99.8			
	Sn	120	100.784				
	Sb	121	100.271				
	Sb	123					
	Ba	135					
	Ba	137	99.777				
	Ho	165					
>	Lu	175		105.0			
	Tl	205	107.294				
	Pb	208	107.565				
	Bi	209					
	Th	232	98.467				
	U	238	100.892				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Mg	24	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, February 13, 2010 21:42:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 2.673

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.007**	ug/L	99.527	38	0.000
	Be	9	**0.021**	ug/L	73.867	18	0.000
	B	11	**4.022**	ug/L	15.783	1402	0.002
	Na	23	**-0.308**	ug/L	132.172	5001	-0.001
	Mg	24	**-0.753**	ug/L	42.621	333	-0.002
	Al	27	**-0.004**	ug/L	22296.463	2334	-0.000
	P	31	**-1.693**	ug/L	34.509	4782	-0.000
	K	39	**-15.779**	ug/L	48.215	473757	-0.113
	Ca	43	**-2.746**	ug/L	45.238	366	-0.000
>	Sc	45		ug/L		676996	676995.729
	Ti	47	**-0.041**	ug/L	86.039	403	-0.000
	V	51	**0.312**	ug/L	173.298	-856	0.003
	Cr	52	**0.068**	ug/L	205.929	4474	0.001
	Cr	53		ug/L		112260	-0.036
	Mn	55	**-0.009**	ug/L	89.017	1467	-0.000
	Fe	57	**-0.947**	ug/L	65.144	6301	-0.000
	Co	59	**0.001**	ug/L	69.572	69	0.000
	Ni	60	**-0.003**	ug/L	97.876	235	-0.000
	Cu	63		ug/L		308	0.000
	Cu	65	**0.008**	ug/L	193.788	236	0.000
	Zn	66	**-0.032**	ug/L	31.209	381	-0.000
	Zn	67		ug/L		12108	-0.001
	Zn	68		ug/L		1323	-0.000
>	Ge	74		ug/L		550629	550629.118
	As	75	**0.614**	ug/L	79.495	-246	0.002
	Se	77		ug/L		9369	-0.004
	Se	82	**-0.047**	ug/L	185.873	11	-0.000
	Kr	83		ug/L		150	0.000
	Sr	88	**0.001**	ug/L	111.779	148	0.000
	Y	89		ug/L		60	-0.000
	Mo	98	**0.031**	ug/L	16.654	234	0.000
	Ag	107	**0.002**	ug/L	127.409	42	0.000
	Cd	111	**-0.001**	ug/L	180.510	22	-0.000
	Cd	114		ug/L		42	0.000
>	In	115		ug/L		359145	359144.535
	Sn	120	**0.002**	ug/L	90.245	191	0.000
	Sb	121	**0.466**	ug/L	12.832	3413	0.009
	Sb	123		ug/L		2678	0.007
	Ba	135		ug/L		36	0.000
	Ba	137	**0.001**	ug/L	134.911	39	0.000
	Ho	165		ug/L		20	-0.000
>	Lu	175		ug/L		535235	535235.466
	Tl	205	**0.466**	ug/L	18.861	14426	0.016
	Pb	208	**0.001**	ug/L	72.468	547	0.000
	Bi	209		ug/L		107	-0.000
	Th	232	**0.026**	ug/L	21.650	1261	0.002
	U	238	**0.007**	ug/L	56.495	313	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, February 13, 2010 21:49:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 3.674

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.673**	ug/L	0.380	17749	0.024
	Be	9	**0.592**	ug/L	4.324	216	0.000
	B	11	**18.075**	ug/L	4.576	5954	0.008
	Na	23	**306.811**	ug/L	11.312	779829	1.061
	Mg	24	**18.882**	ug/L	16.525	38386	0.050
	Al	27	**44.741**	ug/L	6.992	122525	0.164
	P	31	**66.860**	ug/L	4.661	17373	0.016
	K	39	**252.119**	ug/L	6.920	1917091	1.812
	Ca	43	**218.561**	ug/L	1.332	3370	0.004
>	Sc	45		ug/L		730122	730121.875
	Ti	47	**9.546**	ug/L	3.108	7082	0.009
	V	51	**11.777**	ug/L	12.622	89745	0.128
	Cr	52	**11.903**	ug/L	2.005	78544	0.102
	Cr	53		ug/L		164465	0.023
	Mn	55	**6.147**	ug/L	1.488	65952	0.088
	Fe	57	**130.519**	ug/L	2.612	32611	0.035
	Co	59	**1.163**	ug/L	2.552	9839	0.013
	Ni	60	**2.321**	ug/L	1.225	4723	0.006
	Cu	63		ug/L		6047	0.008
	Cu	65	**1.193**	ug/L	4.445	3053	0.004
	Zn	66	**11.864**	ug/L	0.834	18052	0.031
	Zn	67		ug/L		21230	0.014
	Zn	68		ug/L		14194	0.022
>	Ge	74		ug/L		574471	574471.454
	As	75	**6.195**	ug/L	0.199	8537	0.017
	Se	77		ug/L		13964	0.003
	Se	82	**5.685**	ug/L	3.826	954	0.002
	Kr	83		ug/L		142	-0.000
	Sr	88	**12.981**	ug/L	0.451	238554	0.640
	Y	89		ug/L		71	0.000
	Mo	98	**0.591**	ug/L	0.844	2969	0.008
	Ag	107	**1.122**	ug/L	0.704	9169	0.025
	Cd	111	**1.176**	ug/L	2.184	2398	0.006
	Cd	114		ug/L		5516	0.015
>	In	115		ug/L		372423	372423.179
	Sn	120	**5.852**	ug/L	1.612	48725	0.130
	Sb	121	**3.845**	ug/L	1.556	26913	0.071
	Sb	123		ug/L		20875	0.055
	Ba	135		ug/L		4691	0.008
	Ba	137	**2.248**	ug/L	2.314	8068	0.014
	Ho	165		ug/L		24	0.000
>	Lu	175		ug/L		564825	564824.912
	Tl	205	**1.512**	ug/L	3.217	34936	0.050
	Pb	208	**2.646**	ug/L	2.233	95513	0.168
	Bi	209		ug/L		152	0.000
	Th	232	**1.511**	ug/L	2.985	60319	0.106
	U	238	**0.316**	ug/L	2.703	12942	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	116.729				
|	Be	9	118.392				
|	B	11	120.502				
|	Na	23	122.724				
|	Mg	24	125.881				
|	Al	27	149.138				
|	P	31	133.719				
|	K	39	84.040				
|	Ca	43	109.280				
|>	Sc	45		108.8			
|	Ti	47	95.460				
|	V	51	117.771				
|	Cr	52	119.032				
|	Cr	53					
|	Mn	55	122.949				
|	Fe	57	130.519				
|	Co	59	116.322				
|	Ni	60	116.058				
|	Cu	63					
⌊	Cu	65	119.275				
⌈	Zn	66	118.638				
|	Zn	67					
|	Zn	68					
|>	Ge	74		101.2			
|	As	75	123.908				
|	Se	77					
|	Se	82	113.705				
⌊	Kr	83					
⌈	Sr	88	129.812				
|	Y	89					
|	Mo	98	118.155				
|	Ag	107	112.153				
|	Cd	111	117.590				
|	Cd	114					
|>	In	115		101.3			
|	Sn	120	117.043				
|	Sb	121	128.161				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	112.409				
|	Ho	165					
|>	Lu	175		104.6			
|	Tl	205	151.153				
|	Pb	208	132.286				
|	Bi	209					
|	Th	232	151.073				
⌊	U	238	158.081				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	P	31	CRDL is out of limits
QC Std 3	Fe	57	CRDL is out of limits
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	Pb	208	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, February 13, 2010 21:55:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 4.675

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.059**	ug/L	24.495	98	0.000
	Be	9	**0.112**	ug/L	7.039	42	0.000
	B	11	**1.590**	ug/L	13.443	608	0.001
	Na	23	**93317.904**	ug/L	7.539	193643462	322.834
	Mg	24	**89137.725**	ug/L	2.724	141413891	235.997
	Al	27	**94794.558**	ug/L	6.525	208630602	348.257
	P	31	**113356.411**	ug/L	2.743	16596156	27.683
	K	39	**96009.151**	ug/L	4.536	414027700	690.053
	Ca	43	**90875.295**	ug/L	2.329	1002653	1.673
>	Sc	45		ug/L		599183	599182.839
	Ti	47	**1752.174**	ug/L	3.723	997546	1.665
	V	51	**0.337**	ug/L	240.455	-686	0.004
	Cr	52	**2.732**	ug/L	4.939	17586	0.023
	Cr	53		ug/L		108109	-0.022
	Mn	55	**6.275**	ug/L	3.650	55206	0.090
	Fe	57	**100471.753**	ug/L	3.501	16188145	27.023
	Co	59	**0.359**	ug/L	4.348	2530	0.004
	Ni	60	**3.302**	ug/L	0.496	5424	0.009
	Cu	63		ug/L		9945	0.016
	Cu	65	**3.392**	ug/L	3.870	6768	0.011
	Zn	66	**4.331**	ug/L	3.584	5802	0.011
	Zn	67		ug/L		15384	0.008
	Zn	68		ug/L		2498	0.003
>	Ge	74		ug/L		485027	485027.018
	As	75	**0.886**	ug/L	43.559	149	0.002
	Se	77		ug/L		11850	0.003
	Se	82	**-1.548**	ug/L	11.714	-198	-0.000
	Kr	83		ug/L		410	0.001
	Sr	88	**3.262**	ug/L	1.832	52958	0.161
	Y	89		ug/L		707	0.002
	Mo	98	**1885.283**	ug/L	2.317	8097772	24.655
	Ag	107	**0.140**	ug/L	2.588	1031	0.003
	Cd	111	**0.557**	ug/L	20.719	1013	0.003
	Cd	114		ug/L		12859	0.039
>	In	115		ug/L		328473	328473.290
	Sn	120	**0.289**	ug/L	2.558	2272	0.006
	Sb	121	**0.257**	ug/L	25.341	1839	0.005
	Sb	123		ug/L		1439	0.004
	Ba	135		ug/L		1471	0.003
	Ba	137	**0.728**	ug/L	2.549	2418	0.005
	Ho	165		ug/L		10789	0.021
>	Lu	175		ug/L		517841	517840.674
	Tl	205	**0.055**	ug/L	63.600	6836	0.002
	Pb	208	**0.248**	ug/L	0.223	8667	0.016
	Bi	209		ug/L		6205	0.012
	Th	232	**0.043**	ug/L	30.228	1846	0.003
	U	238	**0.004**	ug/L	15.410	196	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	93.318				
	Mg	24	89.138				
	Al	27	94.795				
	P	31	113.356				
	K	39	96.009				
	Ca	43	90.875				
>	Sc	45		89.3			
	Ti	47	87.609				
	V	51					
	Cr	52	82.787				
	Cr	53					
	Mn	55	108.192				
	Fe	57	100.472				
	Co	59	152.931				
	Ni	60	99.745				
	Cu	63					
	Cu	65	101.566				
	Zn	66	115.181				
	Zn	67					
	Zn	68					
>	Ge	74		85.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	110.209				
	Y	89					
	Mo	98	94.264				
	Ag	107					
	Cd	111	125.500				
	Cd	114					
>	In	115		89.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	91.222				
	Ho	165					
>	Lu	175		95.9			
	Tl	205					
	Pb	208	131.444				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, February 13, 2010 22:01:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 5.676

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.909**	ug/L	2.717	23284	0.039
	Be	9	**18.960**	ug/L	2.878	5284	0.009
	B	11	**18.435**	ug/L	5.295	4919	0.008
	Na	23	**90235.674**	ug/L	10.304	184553024	312.171
	Mg	24	**88979.725**	ug/L	8.889	139331491	235.579
	Al	27	**94786.212**	ug/L	9.617	205882880	348.227
	P	31	**111558.803**	ug/L	3.007	16122157	27.244
	K	39	**93124.461**	ug/L	2.667	396449101	669.320
	Ca	43	**89947.153**	ug/L	1.346	980258	1.656
>	Sc	45		ug/L		591746	591745.687
	Ti	47	**1757.134**	ug/L	2.940	988178	1.670
	V	51	**22.897**	ug/L	6.207	144195	0.249
	Cr	52	**24.100**	ug/L	2.401	125227	0.206
	Cr	53		ug/L		118400	-0.002
	Mn	55	**28.305**	ug/L	0.179	241280	0.405
	Fe	57	**101635.542**	ug/L	1.266	16179960	27.336
	Co	59	**21.317**	ug/L	2.887	145293	0.246
	Ni	60	**23.118**	ug/L	2.076	36239	0.061
	Cu	63		ug/L		84935	0.143
	Cu	65	**22.748**	ug/L	0.744	43749	0.074
	Zn	66	**22.967**	ug/L	1.194	29819	0.059
	Zn	67		ug/L		19030	0.015
	Zn	68		ug/L		20127	0.038
>	Ge	74		ug/L		496122	496121.584
	As	75	**21.569**	ug/L	0.944	28274	0.059
	Se	77		ug/L		13504	0.006
	Se	82	**19.189**	ug/L	1.568	2740	0.005
	Kr	83		ug/L		397	0.001
	Sr	88	**25.996**	ug/L	0.186	420031	1.282
	Y	89		ug/L		732	0.002
	Mo	98	**1915.214**	ug/L	2.131	8202926	25.046
	Ag	107	**20.025**	ug/L	0.841	143562	0.438
	Cd	111	**20.091**	ug/L	0.761	35699	0.109
	Cd	114		ug/L		95127	0.290
>	In	115		ug/L		327543	327543.107
	Sn	120	**21.728**	ug/L	1.856	158694	0.484
	Sb	121	**22.094**	ug/L	1.517	134724	0.411
	Sb	123		ug/L		104879	0.320
	Ba	135		ug/L		38870	0.075
	Ba	137	**20.930**	ug/L	1.398	69036	0.132
	Ho	165		ug/L		10615	0.020
>	Lu	175		ug/L		521130	521129.946
	Tl	205	**21.732**	ug/L	3.713	384154	0.726
	Pb	208	**22.767**	ug/L	0.850	754788	1.448
	Bi	209		ug/L		6814	0.013
	Th	232	**25.274**	ug/L	1.926	926962	1.778
	U	238	**25.767**	ug/L	2.650	969132	1.860

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	94.547				
	Be	9	94.800				
	B	11	92.174				
	Na	23	90.236				
	Mg	24	88.980				
	Al	27	94.786				
	P	31	111.559				
	K	39	93.124				
	Ca	43	89.947				
>	Sc	45		88.2			
	Ti	47	87.857				
	V	51	114.484				
	Cr	52	103.432				
	Cr	53					
	Mn	55	109.711				
	Fe	57	101.636				
	Co	59	105.347				
	Ni	60	99.175				
	Cu	63					
	Cu	65	97.464				
	Zn	66	96.662				
	Zn	67					
	Zn	68					
>	Ge	74		87.4			
	As	75	107.847				
	Se	77					
	Se	82	95.947				
	Kr	83					
	Sr	88	113.223				
	Y	89					
	Mo	98	95.761				
	Ag	107	100.127				
	Cd	111	98.274				
	Cd	114					
>	In	115		89.1			
	Sn	120	108.638				
	Sb	121	110.468				
	Sb	123					
	Ba	135					
	Ba	137	100.636				
	Ho	165					
>	Lu	175		96.5			
	Tl	205	108.660				
	Pb	208	112.769				
	Bi	209					
	Th	232	126.370				
	U	238	128.836				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Th	232	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 13, 2010 22:07:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 6.677

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.926**	**ug/L**	1.551	66634	0.108
	Be	9	**52.148**	**ug/L**	3.113	15133	0.025
	B	11	**98.412**	**ug/L**	2.813	26514	0.043
	Na	23	**4737.267**	**ug/L**	10.183	10108823	16.389
	Mg	24	**4562.269**	**ug/L**	10.279	7445172	12.079
	Al	27	**4878.252**	**ug/L**	6.130	11052221	17.922
	P	31	**4928.621**	**ug/L**	5.669	746591	1.204
	K	39	**4456.220**	**ug/L**	6.193	20270322	32.029
	Ca	43	**4752.472**	**ug/L**	2.602	54338	0.087
>	Sc	45		**ug/L**		617130	617129.936
	Ti	47	**50.678**	**ug/L**	6.534	30071	0.048
	V	51	**52.708**	**ug/L**	6.548	349701	0.572
	Cr	52	**53.124**	**ug/L**	7.474	283064	0.453
	Cr	53		**ug/L**		152192	0.045
	Mn	55	**54.431**	**ug/L**	3.146	482304	0.780
	Fe	57	**5600.766**	**ug/L**	2.345	935149	1.506
	Co	59	**52.524**	**ug/L**	2.957	373165	0.605
	Ni	60	**52.466**	**ug/L**	5.081	85425	0.138
	Cu	63		**ug/L**		208837	0.338
	Cu	65	**53.079**	**ug/L**	5.463	106087	0.172
	Zn	66	**51.433**	**ug/L**	4.135	69811	0.133
	Zn	67		**ug/L**		25076	0.025
	Zn	68		**ug/L**		51953	0.097
>	Ge	74		**ug/L**		522710	522710.478
	As	75	**49.417**	**ug/L**	2.784	69640	0.135
	Se	77		**ug/L**		15330	0.008
	Se	82	**51.198**	**ug/L**	6.284	7663	0.015
	Kr	83		**ug/L**		139	0.000
	Sr	88	**53.488**	**ug/L**	1.479	923521	2.638
	Y	89		**ug/L**		117	0.000
	Mo	98	**49.278**	**ug/L**	1.565	225673	0.644
	Ag	107	**51.703**	**ug/L**	1.436	396088	1.131
	Cd	111	**50.637**	**ug/L**	1.897	96128	0.275
	Cd	114		**ug/L**		228244	0.652
>	In	115		**ug/L**		350071	350071.357
	Sn	120	**51.336**	**ug/L**	0.440	400523	1.144
	Sb	121	**51.594**	**ug/L**	1.745	335890	0.959
	Sb	123		**ug/L**		263192	0.751
	Ba	135		**ug/L**		101969	0.182
	Ba	137	**50.395**	**ug/L**	1.523	178561	0.319
	Ho	165		**ug/L**		49	0.000
>	Lu	175		**ug/L**		560004	560003.788
	Tl	205	**53.280**	**ug/L**	1.442	1003101	1.780
	Pb	208	**55.205**	**ug/L**	1.703	1965844	3.510
	Bi	209		**ug/L**		516	0.001
	Th	232	**52.158**	**ug/L**	0.872	2055328	3.670
	U	238	**53.639**	**ug/L**	0.356	2168267	3.872

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.851				
	Be	9	104.296				
	B	11	98.412				
	Na	23	94.745				
	Mg	24	91.245				
	Al	27	96.599				
	P	31	98.572				
	K	39	89.124				
	Ca	43	95.049				
>	Sc	45		91.9			
	Ti	47	101.357				
	V	51	105.417				
	Cr	52	106.249				
	Cr	53					
	Mn	55	108.863				
	Fe	57	112.015				
	Co	59	105.048				
	Ni	60	104.932				
	Cu	63					
	Cu	65	106.158				
	Zn	66	102.867				
	Zn	67					
	Zn	68					
>	Ge	74		92.1			
	As	75	98.834				
	Se	77					
	Se	82	102.396				
	Kr	83					
	Sr	88	106.976				
	Y	89					
	Mo	98	98.556				
	Ag	107	103.406				
	Cd	111	101.274				
	Cd	114					
>	In	115		95.2			
	Sn	120	102.673				
	Sb	121	103.189				
	Sb	123					
	Ba	135					
	Ba	137	100.790				
	Ho	165					
>	Lu	175		103.7			
	Tl	205	106.559				
	Pb	208	110.409				
	Bi	209					
	Th	232	104.315				
	U	238	107.277				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)
QC Std 6	Fe	57	CCV is out of limits (+/- 10%)
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 13, 2010 22:13:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 7.678

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	ug/L	26.196	44	0.000
	Be	9	**0.013**	ug/L	157.181	14	0.000
	B	11	**2.928**	ug/L	22.313	942	0.001
	Na	23	**-0.299**	ug/L	427.436	4334	-0.001
	Mg	24	**-0.720**	ug/L	52.264	333	-0.002
	Al	27	**0.586**	ug/L	160.907	3334	0.002
	P	31	**-3.750**	ug/L	48.899	3867	-0.001
	K	39	**-7.678**	ug/L	129.773	446565	-0.055
	Ca	43	**-1.457**	ug/L	7.438	333	-0.000
>	Sc	45		ug/L		589742	589742.229
	Ti	47	**-0.000**	ug/L	4322.762	373	-0.000
	V	51	**0.311**	ug/L	228.076	-744	0.003
	Cr	52	**-0.396**	ug/L	9.142	1563	-0.003
	Cr	53		ug/L		101436	-0.030
	Mn	55	**-0.004**	ug/L	149.549	1317	-0.000
	Fe	57	**1.973**	ug/L	58.138	5951	0.001
	Co	59	**0.001**	ug/L	195.799	57	0.000
	Ni	60	**0.008**	ug/L	119.737	222	0.000
	Cu	63		ug/L		285	0.000
	Cu	65	**0.020**	ug/L	13.003	230	0.000
	Zn	66	**-0.025**	ug/L	53.027	365	-0.000
	Zn	67		ug/L		10853	-0.002
	Zn	68		ug/L		1176	-0.000
>	Ge	74		ug/L		514176	514176.168
	As	75	**0.530**	ug/L	87.073	-347	0.001
	Se	77		ug/L		8550	-0.004
	Se	82	**0.055**	ug/L	164.990	26	0.000
	Kr	83		ug/L		134	0.000
	Sr	88	**0.000**	ug/L	131.174	132	0.000
	Y	89		ug/L		58	-0.000
	Mo	98	**0.073**	ug/L	8.519	412	0.001
	Ag	107	**0.003**	ug/L	25.365	49	0.000
	Cd	111	**0.004**	ug/L	41.378	30	0.000
	Cd	114		ug/L		49	0.000
>	In	115		ug/L		343494	343494.248
	Sn	120	**0.005**	ug/L	26.344	205	0.000
	Sb	121	**0.200**	ug/L	16.801	1564	0.004
	Sb	123		ug/L		1171	0.003
	Ba	135		ug/L		35	0.000
	Ba	137	**0.001**	ug/L	240.211	38	0.000
	Ho	165		ug/L		23	0.000
>	Lu	175		ug/L		542407	542407.080
	Tl	205	**0.625**	ug/L	16.740	17534	0.021
	Pb	208	**-0.001**	ug/L	82.033	483	-0.000
	Bi	209		ug/L		112	0.000
	Th	232	**0.030**	ug/L	16.996	1426	0.002
	U	238	**0.005**	ug/L	18.367	232	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, February 13, 2010 22:19:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 10.679

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**995.144**	ug/L	2.311	1082542	2.069
	Be	9	**1045.913**	ug/L	0.338	257388	0.492
	B	11	**1.293**	ug/L	9.094	463	0.001
	Na	23	**53897.448**	ug/L	1.782	97593560	186.458
	Mg	24	**51622.289**	ug/L	5.225	71558836	136.673
	Al	27	**49242.558**	ug/L	8.190	94796407	180.908
	P	31	**29661.730**	ug/L	1.721	3795316	7.244
	K	39	**46408.941**	ug/L	8.306	175165565	333.558
	Ca	43	**47883.549**	ug/L	2.336	461560	0.882
>	Sc	45		ug/L		523379	523379.050
	Ti	47	**41.577**	ug/L	4.660	21019	0.040
	V	51	**943.408**	ug/L	0.913	5356943	10.239
	Cr	52	**933.792**	ug/L	1.383	4174203	7.968
	Cr	53		ug/L		635646	1.013
	Mn	55	**956.393**	ug/L	2.716	7172554	13.700
	Fe	57	**53919.702**	ug/L	0.428	7595536	14.503
	Co	59	**922.981**	ug/L	1.465	5564290	10.630
	Ni	60	**901.680**	ug/L	1.704	1243021	2.375
	Cu	63		ug/L		3047158	5.825
	Cu	65	**897.551**	ug/L	1.288	1520029	2.904
	Zn	66	**2453.911**	ug/L	2.257	2873072	6.340
	Zn	67		ug/L		455036	0.981
	Zn	68		ug/L		1767166	3.897
>	Ge	74		ug/L		453137	453136.680
	As	75	**882.943**	ug/L	1.484	1095459	2.420
	Se	77		ug/L		53333	0.097
	Se	82	**493.912**	ug/L	0.683	64026	0.141
	Kr	83		ug/L		221	0.000
	Sr	88	**986.080**	ug/L	2.935	15083968	48.629
	Y	89		ug/L		630	0.002
	Mo	98	**977.926**	ug/L	3.213	3967090	12.789
	Ag	107	**222.367**	ug/L	2.030	1509428	4.866
	Cd	111	**878.921**	ug/L	1.339	1478090	4.765
	Cd	114		ug/L		3768424	12.149
>	In	115		ug/L		310191	310191.243
	Sn	120	**997.614**	ug/L	3.226	6894169	22.225
	Sb	121	**247.876**	ug/L	1.405	1428907	4.606
	Sb	123		ug/L		1138385	3.669
	Ba	135		ug/L		1542078	3.040
	Ba	137	**940.129**	ug/L	2.485	3017080	5.948
	Ho	165		ug/L		438	0.001
>	Lu	175		ug/L		507275	507275.466
	Tl	205	**503.421**	ug/L	3.682	8535436	16.816
	Pb	208	**5060.836**	ug/L	2.002	163215152	321.766
	Bi	209		ug/L		5061	0.010
	Th	232	**2659.548**	ug/L	2.876	94920490	187.129
	U	238	**5465.410**	ug/L	1.495	200111009	394.499

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	99.514				
	Be	9	104.591				
	B	11					
	Na	23	107.795				
	Mg	24	103.245				
	Al	27	98.485				
	P	31	118.647				
	K	39	92.818				
	Ca	43	95.767				
>	Sc	45		78.0			
	Ti	47					
	V	51	94.341				
	Cr	52	93.379				
	Cr	53					
	Mn	55	95.639				
	Fe	57	107.839				
	Co	59	92.298				
	Ni	60	90.168				
	Cu	63					
	Cu	65	89.755				
	Zn	66	98.156				
	Zn	67					
	Zn	68					
>	Ge	74		79.9			
	As	75	88.294				
	Se	77					
	Se	82	98.782				
	Kr	83					
	Sr	88	98.608				
	Y	89					
	Mo	98	97.793				
	Ag	107	88.947				
	Cd	111	87.892				
	Cd	114					
>	In	115		84.4			
	Sn	120	99.761				
	Sb	121	99.151				
	Sb	123					
	Ba	135					
	Ba	137	94.013				
	Ho	165					
>	Lu	175		94.0			
	Tl	205	100.684				
	Pb	208	101.217				
	Bi	209					
	Th	232	106.382				
	U	238	109.308				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	P	31	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, February 13, 2010 22:25:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 11.680

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.601**	**ug/L**	3.257	69730	0.109
	Be	9	**53.380**	**ug/L**	0.902	16008	0.025
	B	11	**99.553**	**ug/L**	4.287	27709	0.043
	Na	23	**5446.344**	**ug/L**	16.213	12019637	18.842
	Mg	24	**4760.099**	**ug/L**	10.276	8036763	12.603
	Al	27	**4680.210**	**ug/L**	10.054	10966355	17.194
	P	31	**4995.333**	**ug/L**	3.737	782406	1.220
	K	39	**4869.224**	**ug/L**	6.442	22819865	34.997
	Ca	43	**4873.658**	**ug/L**	3.249	57567	0.090
>	Sc	45		**ug/L**		637406	637405.935
	Ti	47	**51.686**	**ug/L**	0.987	31709	0.049
	V	51	**51.647**	**ug/L**	2.372	354339	0.561
	Cr	52	**53.556**	**ug/L**	2.645	295152	0.457
	Cr	53		**ug/L**		162034	0.052
	Mn	55	**54.432**	**ug/L**	3.500	498426	0.780
	Fe	57	**5562.990**	**ug/L**	2.286	959778	1.496
	Co	59	**52.181**	**ug/L**	1.610	383143	0.601
	Ni	60	**52.856**	**ug/L**	1.650	88968	0.139
	Cu	63		**ug/L**		215647	0.338
	Cu	65	**52.150**	**ug/L**	2.190	107773	0.169
	Zn	66	**52.078**	**ug/L**	1.815	71897	0.135
	Zn	67		**ug/L**		28196	0.030
	Zn	68		**ug/L**		54000	0.099
>	Ge	74		**ug/L**		531395	531395.454
	As	75	**50.302**	**ug/L**	2.744	72110	0.138
	Se	77		**ug/L**		15048	0.007
	Se	82	**51.334**	**ug/L**	0.324	7820	0.015
	Kr	83		**ug/L**		154	0.000
	Sr	88	**55.464**	**ug/L**	2.277	946187	2.735
	Y	89		**ug/L**		119	0.000
	Mo	98	**51.034**	**ug/L**	1.136	230965	0.667
	Ag	107	**52.704**	**ug/L**	2.033	398954	1.153
	Cd	111	**52.969**	**ug/L**	1.075	99364	0.287
	Cd	114		**ug/L**		228803	0.661
>	In	115		**ug/L**		345950	345949.710
	Sn	120	**52.645**	**ug/L**	0.969	405878	1.173
	Sb	121	**53.134**	**ug/L**	1.642	341801	0.987
	Sb	123		**ug/L**		266948	0.771
	Ba	135		**ug/L**		101386	0.185
	Ba	137	**51.200**	**ug/L**	0.771	177676	0.324
	Ho	165		**ug/L**		49	0.000
>	Lu	175		**ug/L**		548422	548422.033
	Tl	205	**57.472**	**ug/L**	1.793	1058947	1.920
	Pb	208	**56.331**	**ug/L**	1.875	1964395	3.582
	Bi	209		**ug/L**		486	0.001
	Th	232	**54.885**	**ug/L**	1.488	2117924	3.862
	U	238	**56.198**	**ug/L**	2.414	2224228	4.056

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.201				
	Be	9	106.760				
	B	11	99.553				
	Na	23	108.927				
	Mg	24	95.202				
	Al	27	92.677				
	P	31	99.907				
	K	39	97.384				
	Ca	43	97.473				
>	Sc	45		95.0			
	Ti	47	103.372				
	V	51	103.295				
	Cr	52	107.111				
	Cr	53					
	Mn	55	108.864				
	Fe	57	111.260				
	Co	59	104.362				
	Ni	60	105.712				
	Cu	63					
	Cu	65	104.300				
	Zn	66	104.155				
	Zn	67					
	Zn	68					
>	Ge	74		93.7			
	As	75	100.605				
	Se	77					
	Se	82	102.668				
	Kr	83					
	Sr	88	110.929				
	Y	89					
	Mo	98	102.068				
	Ag	107	105.408				
	Cd	111	105.938				
	Cd	114					
>	In	115		94.1			
	Sn	120	105.290				
	Sb	121	106.268				
	Sb	123					
	Ba	135					
	Ba	137	102.401				
	Ho	165					
>	Lu	175		101.6			
	Tl	205	114.944				
	Pb	208	112.663				
	Bi	209					
	Th	232	109.770				
	U	238	112.395				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Fe	57	CCV is out of limits (+/- 10%)
QC Std 11	Sr	88	CCV is out of limits (+/- 10%)
QC Std 11	Tl	205	CCV is out of limits (+/- 10%)
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, February 13, 2010 22:31:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 12.681

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.076**	**ug/L**	20.226	120	0.000
	Be	9	**0.041**	**ug/L**	14.015	22	0.000
	B	11	**2.777**	**ug/L**	25.588	918	0.001
	Na	23	**1.086**	**ug/L**	110.186	7335	0.004
	Mg	24	**0.533**	**ug/L**	246.710	2334	0.001
	Al	27	**0.716**	**ug/L**	37.088	3667	0.003
	P	31	**-2.243**	**ug/L**	148.736	4162	-0.001
	K	39	**-3.165**	**ug/L**	205.412	474777	-0.023
	Ca	43	**-2.425**	**ug/L**	107.258	328	-0.000
>	Sc	45		**ug/L**		600577	600576.785
	Ti	47	**-0.024**	**ug/L**	124.532	366	-0.000
	V	51	**0.125**	**ug/L**	249.295	-2004	0.001
	Cr	52	**-0.215**	**ug/L**	19.227	2520	-0.002
	Cr	53		**ug/L**		102041	-0.032
	Mn	55	**0.005**	**ug/L**	41.738	1417	0.000
	Fe	57	**-0.139**	**ug/L**	1002.951	5720	-0.000
	Co	59	**0.018**	**ug/L**	13.254	174	0.000
	Ni	60	**0.029**	**ug/L**	54.981	259	0.000
	Cu	63		**ug/L**		434	0.000
	Cu	65	**0.055**	**ug/L**	24.994	302	0.000
	Zn	66	**0.022**	**ug/L**	64.930	436	0.000
	Zn	67		**ug/L**		11618	-0.001
	Zn	68		**ug/L**		1333	0.000
>	Ge	74		**ug/L**		523265	523265.161
	As	75	**0.607**	**ug/L**	23.393	-238	0.002
	Se	77		**ug/L**		7836	-0.006
	Se	82	**0.111**	**ug/L**	75.736	34	0.000
	Kr	83		**ug/L**		135	0.000
	Sr	88	**0.018**	**ug/L**	11.035	426	0.001
	Y	89		**ug/L**		54	-0.000
	Mo	98	**0.124**	**ug/L**	11.916	641	0.002
	Ag	107	**0.008**	**ug/L**	30.341	91	0.000
	Cd	111	**0.015**	**ug/L**	44.104	50	0.000
	Cd	114		**ug/L**		107	0.000
>	In	115		**ug/L**		343852	343852.089
	Sn	120	**0.049**	**ug/L**	7.704	544	0.001
	Sb	121	**0.674**	**ug/L**	8.690	4593	0.013
	Sb	123		**ug/L**		3550	0.010
	Ba	135		**ug/L**		58	0.000
	Ba	137	**0.016**	**ug/L**	13.509	88	0.000
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		542552	542551.888
	Tl	205	**1.052**	**ug/L**	8.972	25247	0.035
	Pb	208	**0.076**	**ug/L**	4.872	3134	0.005
	Bi	209		**ug/L**		105	-0.000
	Th	232	**0.099**	**ug/L**	3.074	4056	0.007
	U	238	**0.114**	**ug/L**	2.759	4508	0.008

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 12	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202024764
Sample Date/Time: Saturday, February 13, 2010 22:37:58
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\1202024764.682

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.043**	ug/L	9.202	84	0.000
	Be	9	**0.013**	ug/L	84.634	15	0.000
	B	11	**0.877**	ug/L	17.938	451	0.000
	Na	23	**17.079**	ug/L	36.540	43069	0.059
	Mg	24	**2.396**	ug/L	35.360	5668	0.006
	Al	27	**8.565**	ug/L	9.282	22351	0.031
	P	31	**34.968**	ug/L	22.420	10240	0.009
	K	39	**-13.009**	ug/L	25.939	460644	-0.094
	Ca	43	**10.009**	ug/L	41.470	496	0.000
>	Sc	45		ug/L		640168	640167.908
	Ti	47	**0.544**	ug/L	4.826	736	0.001
	V	51	**1.326**	ug/L	46.993	6222	0.014
	Cr	52	**0.611**	ug/L	6.169	7199	0.005
	Cr	53		ug/L		92727	-0.057
	Mn	55	**0.529**	ug/L	2.666	6322	0.008
	Fe	57	**64.473**	ug/L	2.142	17222	0.017
	Co	59	**0.017**	ug/L	4.674	177	0.000
	Ni	60	**0.245**	ug/L	11.842	640	0.001
	Cu	63		ug/L		1028	0.001
	Cu	65	**0.188**	ug/L	5.408	597	0.001
	Zn	66	**1.230**	ug/L	0.608	2063	0.003
	Zn	67		ug/L		10512	-0.003
	Zn	68		ug/L		2475	0.002
>	Ge	74		ug/L		521731	521730.700
	As	75	**0.446**	ug/L	76.223	-466	0.001
	Se	77		ug/L		7183	-0.007
	Se	82	**0.251**	ug/L	66.736	55	0.000
	Kr	83		ug/L		123	-0.000
	Sr	88	**0.063**	ug/L	4.487	1231	0.003
	Y	89		ug/L		174	0.000
	Mo	98	**0.232**	ug/L	18.667	1159	0.003
	Ag	107	**0.014**	ug/L	13.267	136	0.000
	Cd	111	**0.032**	ug/L	36.493	84	0.000
	Cd	114		ug/L		94	0.000
>	In	115		ug/L		354103	354103.386
	Sn	120	**0.762**	ug/L	0.357	6184	0.017
	Sb	121	**0.074**	ug/L	16.010	785	0.001
	Sb	123		ug/L		651	0.001
	Ba	135		ug/L		2152	0.004
	Ba	137	**1.070**	ug/L	5.731	3796	0.007
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		555879	555879.322
	Tl	205	**0.681**	ug/L	12.276	18990	0.023
	Pb	208	**0.062**	ug/L	0.973	2701	0.004
	Bi	209		ug/L		318	0.000
	Th	232	**0.153**	ug/L	20.439	6310	0.011
	U	238	**0.053**	ug/L	13.858	2167	0.004

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024765
Sample Date/Time: Saturday, February 13, 2010 22:44:03
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 945396|40|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\1202024765.683

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.650**	ug/L	0.603	3626	0.006
	Be	9	**19.993**	ug/L	3.420	6148	0.009
	B	11	**37.704**	ug/L	6.902	10875	0.016
	Na	23	**289.224**	ug/L	5.206	658509	1.001
	Mg	24	**1139.322**	ug/L	13.271	1970270	3.016
	Al	27	**3179.383**	ug/L	18.098	7614502	11.680
	P	31	**209.959**	ug/L	7.051	38339	0.051
	K	39	**1142.771**	ug/L	8.796	5890769	8.214
	Ca	43	**2356.030**	ug/L	2.974	28706	0.043
>	Sc	45		ug/L		653177	653177.471
	Ti	47	**129.678**	ug/L	4.683	80844	0.123
	V	51	**33.711**	ug/L	10.376	235513	0.366
	Cr	52	**60.904**	ug/L	3.281	343210	0.520
	Cr	53		ug/L		162439	0.047
	Mn	55	**139.781**	ug/L	3.854	1308535	2.002
	Fe	57	**4845.521**	ug/L	2.506	857164	1.303
	Co	59	**24.870**	ug/L	2.662	187093	0.286
	Ni	60	**34.535**	ug/L	3.449	59619	0.091
	Cu	63		ug/L		187920	0.287
	Cu	65	**44.945**	ug/L	3.491	95164	0.145
	Zn	66	**151.591**	ug/L	0.744	212122	0.392
	Zn	67		ug/L		47367	0.064
	Zn	68		ug/L		152328	0.279
>	Ge	74		ug/L		540598	540598.414
	As	75	**28.681**	ug/L	3.921	41331	0.079
	Se	77		ug/L		17566	0.011
	Se	82	**74.938**	ug/L	2.049	11603	0.021
	Kr	83		ug/L		151	0.000
	Sr	88	**59.507**	ug/L	1.231	1064580	2.935
	Y	89		ug/L		63916	0.176
	Mo	98	**12.317**	ug/L	1.889	58511	0.161
	Ag	107	**5.578**	ug/L	2.718	44305	0.122
	Cd	111	**14.895**	ug/L	2.426	29313	0.081
	Cd	114		ug/L		69894	0.193
>	In	115		ug/L		362757	362757.302
	Sn	120	**8.257**	ug/L	1.538	66896	0.184
	Sb	121	**14.355**	ug/L	2.716	97040	0.267
	Sb	123		ug/L		75966	0.209
	Ba	135		ug/L		103714	0.182
	Ba	137	**50.161**	ug/L	2.204	180579	0.317
	Ho	165		ug/L		4208	0.007
>	Lu	175		ug/L		569051	569051.494
	Tl	205	**37.175**	ug/L	3.216	712832	1.242
	Pb	208	**26.104**	ug/L	1.813	944734	1.660
	Bi	209		ug/L		8596	0.015
	Th	232	**4.983**	ug/L	2.540	199746	0.351
	U	238	**0.725**	ug/L	1.787	29822	0.052

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, February 13, 2010 23:20:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 8.689

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.744**	**ug/L**	0.913	63659	0.112
	Be	9	**53.351**	**ug/L**	2.947	14291	0.025
	B	11	**98.426**	**ug/L**	2.167	24488	0.043
	Na	23	**5650.851**	**ug/L**	8.347	11127210	19.549
	Mg	24	**5098.246**	**ug/L**	12.274	7705472	13.498
	Al	27	**5146.097**	**ug/L**	5.610	10779289	18.906
	P	31	**4909.849**	**ug/L**	2.850	686913	1.199
	K	39	**4135.906**	**ug/L**	14.291	17355635	29.726
	Ca	43	**4849.863**	**ug/L**	0.729	51195	0.089
>	Sc	45		**ug/L**		569579	569579.332
	Ti	47	**49.343**	**ug/L**	2.759	27054	0.047
	V	51	**51.323**	**ug/L**	2.156	314512	0.557
	Cr	52	**51.403**	**ug/L**	2.139	253205	0.439
	Cr	53		**ug/L**		130955	0.028
	Mn	55	**53.016**	**ug/L**	2.766	433667	0.759
	Fe	57	**5483.217**	**ug/L**	2.094	845290	1.475
	Co	59	**51.718**	**ug/L**	3.003	339223	0.596
	Ni	60	**52.203**	**ug/L**	1.588	78511	0.138
	Cu	63		**ug/L**		188940	0.331
	Cu	65	**51.023**	**ug/L**	0.253	94224	0.165
	Zn	66	**52.315**	**ug/L**	2.224	63455	0.135
	Zn	67		**ug/L**		22441	0.025
	Zn	68		**ug/L**		46102	0.096
>	Ge	74		**ug/L**		467035	467035.108
	As	75	**49.329**	**ug/L**	4.596	62085	0.135
	Se	77		**ug/L**		12690	0.006
	Se	82	**50.754**	**ug/L**	2.621	6797	0.015
	Kr	83		**ug/L**		124	0.000
	Sr	88	**52.045**	**ug/L**	0.945	833804	2.567
	Y	89		**ug/L**		200	0.000
	Mo	98	**47.832**	**ug/L**	3.407	203271	0.626
	Ag	107	**50.572**	**ug/L**	1.678	359487	1.107
	Cd	111	**50.400**	**ug/L**	1.725	88789	0.273
	Cd	114		**ug/L**		210184	0.647
>	In	115		**ug/L**		324856	324855.727
	Sn	120	**51.652**	**ug/L**	1.330	373951	1.151
	Sb	121	**52.236**	**ug/L**	2.090	315616	0.971
	Sb	123		**ug/L**		249028	0.766
	Ba	135		**ug/L**		96285	0.170
	Ba	137	**46.637**	**ug/L**	1.343	167137	0.295
	Ho	165		**ug/L**		53	0.000
>	Lu	175		**ug/L**		566308	566308.188
	Tl	205	**54.269**	**ug/L**	0.881	1033039	1.813
	Pb	208	**55.262**	**ug/L**	0.054	1990280	3.514
	Bi	209		**ug/L**		565	0.001
	Th	232	**53.655**	**ug/L**	1.698	2138167	3.775
	U	238	**55.979**	**ug/L**	1.992	2288148	4.041

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.488				
	Be	9	106.702				
	B	11	98.426				
	Na	23	113.017				
	Mg	24	101.965				
	Al	27	101.903				
	P	31	98.197				
	K	39	82.718				
	Ca	43	96.997				
>	Sc	45		84.9			
	Ti	47	98.687				
	V	51	102.646				
	Cr	52	102.805				
	Cr	53					
	Mn	55	106.032				
	Fe	57	109.664				
	Co	59	103.436				
	Ni	60	104.406				
	Cu	63					
	Cu	65	102.046				
	Zn	66	104.629				
	Zn	67					
	Zn	68					
>	Ge	74		82.3			
	As	75	98.657				
	Se	77					
	Se	82	101.508				
	Kr	83					
	Sr	88	104.091				
	Y	89					
	Mo	98	95.664				
	Ag	107	101.143				
	Cd	111	100.801				
	Cd	114					
>	In	115		88.3			
	Sn	120	103.304				
	Sb	121	104.471				
	Sb	123					
	Ba	135					
	Ba	137	93.275				
	Ho	165					
>	Lu	175		104.9			
	Tl	205	108.538				
	Pb	208	110.524				
	Bi	209					
	Th	232	107.310				
	U	238	111.957				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	K	39	CCV is out of limits (+/- 10%)
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, February 13, 2010 23:26:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 9.690

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.057**	ug/L	25.166	86	0.000
	Be	9	**0.026**	ug/L	34.523	16	0.000
	B	11	**2.848**	ug/L	28.212	843	0.001
	Na	23	**2.005**	ug/L	63.820	8336	0.007
	Mg	24	**-0.704**	ug/L	57.698	333	-0.002
	Al	27	**-0.442**	ug/L	115.109	1000	-0.002
	P	31	**-1.124**	ug/L	21.528	3894	-0.000
	K	39	**-2.420**	ug/L	266.077	430052	-0.017
	Ca	43	**0.074**	ug/L	2964.805	320	0.000
>	Sc	45		ug/L		540594	540593.814
	Ti	47	**0.030**	ug/L	191.056	358	0.000
	V	51	**0.263**	ug/L	311.998	-1013	0.003
	Cr	52	**-0.291**	ug/L	16.186	1914	-0.002
	Cr	53		ug/L		86613	-0.042
	Mn	55	**-0.002**	ug/L	264.717	1221	-0.000
	Fe	57	**-1.077**	ug/L	97.780	5012	-0.000
	Co	59	**0.003**	ug/L	93.610	62	0.000
	Ni	60	**0.005**	ug/L	377.718	199	0.000
	Cu	63		ug/L		269	0.000
	Cu	65	**0.004**	ug/L	169.880	182	0.000
	Zn	66	**-0.030**	ug/L	16.330	325	-0.000
	Zn	67		ug/L		9823	-0.002
	Zn	68		ug/L		1104	-0.000
>	Ge	74		ug/L		464650	464649.704
	As	75	**0.230**	ug/L	120.574	-689	0.001
	Se	77		ug/L		6384	-0.007
	Se	82	**-0.023**	ug/L	480.553	13	-0.000
	Kr	83		ug/L		135	0.000
	Sr	88	**0.001**	ug/L	105.494	131	0.000
	Y	89		ug/L		67	0.000
	Mo	98	**0.025**	ug/L	12.940	184	0.000
	Ag	107	**0.002**	ug/L	38.222	39	0.000
	Cd	111	**0.005**	ug/L	127.201	30	0.000
	Cd	114		ug/L		53	0.000
>	In	115		ug/L		318576	318576.178
	Sn	120	**0.006**	ug/L	33.194	197	0.000
	Sb	121	**0.146**	ug/L	25.656	1132	0.003
	Sb	123		ug/L		885	0.002
	Ba	135		ug/L		33	0.000
	Ba	137	**0.003**	ug/L	60.243	43	0.000
	Ho	165		ug/L		17	-0.000
>	Lu	175		ug/L		536622	536621.954
	Tl	205	**0.324**	ug/L	20.326	11913	0.011
	Pb	208	**0.006**	ug/L	7.135	707	0.000
	Bi	209		ug/L		106	-0.000
	Th	232	**0.026**	ug/L	12.689	1284	0.002
	U	238	**0.006**	ug/L	21.752	285	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			80.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			81.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			86.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.4		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 14, 2010 00:15:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 8.698

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.805**	ug/L	2.331	68542	0.108
	Be	9	**52.447**	ug/L	6.088	15679	0.025
	B	11	**99.580**	ug/L	6.141	27632	0.043
	Na	23	**5169.814**	ug/L	17.374	11365726	17.885
	Mg	24	**5169.081**	ug/L	9.218	8702302	13.685
	Al	27	**5165.208**	ug/L	15.415	12030483	18.976
	P	31	**5096.720**	ug/L	4.430	796070	1.245
	K	39	**4362.207**	ug/L	4.046	20467435	31.353
	Ca	43	**4848.489**	ug/L	2.603	57156	0.089
>	Sc	45		ug/L		636561	636560.847
	Ti	47	**47.986**	ug/L	2.590	29409	0.046
	V	51	**52.201**	ug/L	9.137	356640	0.567
	Cr	52	**52.352**	ug/L	3.745	287889	0.447
	Cr	53		ug/L		139417	0.017
	Mn	55	**52.311**	ug/L	4.229	477822	0.749
	Fe	57	**5421.362**	ug/L	5.621	932682	1.458
	Co	59	**51.375**	ug/L	4.724	376191	0.592
	Ni	60	**51.296**	ug/L	4.355	86133	0.135
	Cu	63		ug/L		208849	0.328
	Cu	65	**50.755**	ug/L	2.568	104675	0.164
	Zn	66	**53.249**	ug/L	4.201	70172	0.138
	Zn	67		ug/L		24734	0.025
	Zn	68		ug/L		51266	0.099
>	Ge	74		ug/L		507767	507767.391
	As	75	**49.226**	ug/L	3.567	67360	0.135
	Se	77		ug/L		12665	0.004
	Se	82	**51.729**	ug/L	3.054	7524	0.015
	Kr	83		ug/L		131	0.000
	Sr	88	**54.221**	ug/L	3.280	900273	2.674
	Y	89		ug/L		192	0.000
	Mo	98	**49.667**	ug/L	2.427	218814	0.650
	Ag	107	**51.896**	ug/L	0.601	382483	1.136
	Cd	111	**51.165**	ug/L	2.734	93422	0.277
	Cd	114		ug/L		217699	0.646
>	In	115		ug/L		336800	336799.998
	Sn	120	**52.323**	ug/L	3.801	392534	1.166
	Sb	121	**52.384**	ug/L	2.285	328014	0.973
	Sb	123		ug/L		256560	0.761
	Ba	135		ug/L		98015	0.179
	Ba	137	**49.627**	ug/L	1.730	172296	0.314
	Ho	165		ug/L		46	0.000
>	Lu	175		ug/L		548742	548741.522
	Tl	205	**54.527**	ug/L	1.397	1005606	1.821
	Pb	208	**55.885**	ug/L	1.910	1949964	3.553
	Bi	209		ug/L		557	0.001
	Th	232	**53.982**	ug/L	1.782	2084209	3.798
	U	238	**55.353**	ug/L	3.041	2191893	3.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.611				
	Be	9	104.893				
	B	11	99.580				
	Na	23	103.396				
	Mg	24	103.382				
	Al	27	102.281				
	P	31	101.934				
	K	39	87.244				
	Ca	43	96.970				
>	Sc	45		94.8			
	Ti	47	95.972				
	V	51	104.401				
	Cr	52	104.703				
	Cr	53					
	Mn	55	104.621				
	Fe	57	108.427				
	Co	59	102.750				
	Ni	60	102.591				
	Cu	63					
	Cu	65	101.511				
	Zn	66	106.498				
	Zn	67					
	Zn	68					
>	Ge	74		89.5			
	As	75	98.452				
	Se	77					
	Se	82	103.459				
	Kr	83					
	Sr	88	108.441				
	Y	89					
	Mo	98	99.334				
	Ag	107	103.791				
	Cd	111	102.330				
	Cd	114					
>	In	115		91.6			
	Sn	120	104.646				
	Sb	121	104.769				
	Sb	123					
	Ba	135					
	Ba	137	99.255				
	Ho	165					
>	Lu	175		101.7			
	Tl	205	109.055				
	Pb	208	111.770				
	Bi	209					
	Th	232	107.964				
	U	238	110.707				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	K	39	CCV is out of limits (+/- 10%)
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 14, 2010 00:21:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 9.699

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.067**	**ug/L**	15.742	103	0.000
	Be	9	**0.032**	**ug/L**	41.990	18	0.000
	B	11	**2.827**	**ug/L**	22.186	878	0.001
	Na	23	**0.952**	**ug/L**	292.493	6669	0.003
	Mg	24	**-0.271**	**ug/L**	247.066	1000	-0.001
	Al	27	**0.018**	**ug/L**	7190.784	2000	0.000
	P	31	**-2.180**	**ug/L**	104.454	3934	-0.001
	K	39	**-6.006**	**ug/L**	64.992	436231	-0.043
	Ca	43	**-0.132**	**ug/L**	931.633	333	-0.000
>	Sc	45		**ug/L**		566467	566466.726
	Ti	47	**-0.014**	**ug/L**	216.676	351	-0.000
	V	51	**0.379**	**ug/L**	108.184	-330	0.004
	Cr	52	**-0.104**	**ug/L**	17.770	2910	-0.001
	Cr	53		**ug/L**		85844	-0.051
	Mn	55	**0.008**	**ug/L**	99.744	1367	0.000
	Fe	57	**-1.004**	**ug/L**	59.070	5264	-0.000
	Co	59	**0.003**	**ug/L**	32.275	71	0.000
	Ni	60	**0.017**	**ug/L**	63.782	227	0.000
	Cu	63		**ug/L**		251	0.000
	Cu	65	**0.011**	**ug/L**	79.351	204	0.000
	Zn	66	**-0.025**	**ug/L**	38.145	340	-0.000
	Zn	67		**ug/L**		10163	-0.002
	Zn	68		**ug/L**		1079	-0.000
>	Ge	74		**ug/L**		478555	478554.724
	As	75	**0.265**	**ug/L**	156.246	-667	0.001
	Se	77		**ug/L**		5891	-0.009
	Se	82	**-0.089**	**ug/L**	189.641	4	-0.000
	Kr	83		**ug/L**		139	0.000
	Sr	88	**0.003**	**ug/L**	33.613	160	0.000
	Y	89		**ug/L**		84	0.000
	Mo	98	**0.025**	**ug/L**	31.832	184	0.000
	Ag	107	**0.003**	**ug/L**	46.573	45	0.000
	Cd	111	**0.003**	**ug/L**	75.805	25	0.000
	Cd	114		**ug/L**		37	0.000
>	In	115		**ug/L**		320956	320956.259
	Sn	120	**0.007**	**ug/L**	16.506	202	0.000
	Sb	121	**0.159**	**ug/L**	20.237	1216	0.003
	Sb	123		**ug/L**		966	0.002
	Ba	135		**ug/L**		36	0.000
	Ba	137	**0.004**	**ug/L**	51.260	47	0.000
	Ho	165		**ug/L**		18	-0.000
>	Lu	175		**ug/L**		523170	523170.258
	Tl	205	**0.208**	**ug/L**	35.775	9583	0.007
	Pb	208	**0.005**	**ug/L**	30.752	660	0.000
	Bi	209		**ug/L**		111	0.000
	Th	232	**0.026**	**ug/L**	23.831	1221	0.002
	U	238	**0.005**	**ug/L**	15.440	256	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		84.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		84.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 14, 2010 00:52:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 8.704

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.130**	ug/L	0.630	70550	0.113
	Be	9	**54.119**	ug/L	1.198	15958	0.025
	B	11	**101.728**	ug/L	6.852	27825	0.044
	Na	23	**5889.872**	ug/L	7.804	12770027	20.376
	Mg	24	**5637.305**	ug/L	8.015	9350094	14.925
	Al	27	**5742.408**	ug/L	8.817	13217279	21.097
	P	31	**5225.248**	ug/L	1.085	804281	1.276
	K	39	**4703.333**	ug/L	4.563	21692120	33.805
	Ca	43	**4901.273**	ug/L	3.855	56914	0.090
>	Sc	45		ug/L		626653	626652.734
	Ti	47	**48.829**	ug/L	1.168	29470	0.046
	V	51	**52.382**	ug/L	1.776	353299	0.569
	Cr	52	**53.477**	ug/L	0.583	289723	0.456
	Cr	53		ug/L		141976	0.024
	Mn	55	**54.442**	ug/L	0.573	490117	0.780
	Fe	57	**5564.200**	ug/L	3.582	943643	1.497
	Co	59	**51.373**	ug/L	2.515	370781	0.592
	Ni	60	**52.027**	ug/L	2.387	86100	0.137
	Cu	63		ug/L		208951	0.333
	Cu	65	**51.969**	ug/L	1.254	105585	0.168
	Zn	66	**53.298**	ug/L	1.690	70482	0.138
	Zn	67		ug/L		24444	0.025
	Zn	68		ug/L		51650	0.099
>	Ge	74		ug/L		509019	509018.688
	As	75	**50.127**	ug/L	0.553	68842	0.137
	Se	77		ug/L		12517	0.003
	Se	82	**51.042**	ug/L	2.497	7449	0.015
	Kr	83		ug/L		131	0.000
	Sr	88	**54.536**	ug/L	0.653	906265	2.689
	Y	89		ug/L		198	0.000
	Mo	98	**49.025**	ug/L	0.786	216090	0.641
	Ag	107	**51.715**	ug/L	0.793	381328	1.132
	Cd	111	**51.419**	ug/L	0.805	93944	0.279
	Cd	114		ug/L		217613	0.646
>	In	115		ug/L		336925	336925.437
	Sn	120	**51.170**	ug/L	1.662	384231	1.140
	Sb	121	**51.873**	ug/L	0.819	325024	0.964
	Sb	123		ug/L		254639	0.755
	Ba	135		ug/L		97870	0.181
	Ba	137	**50.233**	ug/L	1.434	171711	0.318
	Ho	165		ug/L		52	0.000
>	Lu	175		ug/L		540243	540243.289
	Tl	205	**55.456**	ug/L	1.359	1006833	1.852
	Pb	208	**56.756**	ug/L	0.727	1949906	3.609
	Bi	209		ug/L		540	0.001
	Th	232	**54.998**	ug/L	2.740	2090505	3.870
	U	238	**56.204**	ug/L	1.324	2191593	4.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	108.260				
	Be	9	108.239				
	B	11	101.728				
	Na	23	117.797				
	Mg	24	112.746				
	Al	27	113.711				
	P	31	104.505				
	K	39	94.067				
	Ca	43	98.025				
>	Sc	45		93.4			
	Ti	47	97.657				
	V	51	104.765				
	Cr	52	106.955				
	Cr	53					
	Mn	55	108.885				
	Fe	57	111.284				
	Co	59	102.746				
	Ni	60	104.054				
	Cu	63					
	Cu	65	103.938				
	Zn	66	106.597				
	Zn	67					
	Zn	68					
>	Ge	74		89.7			
	As	75	100.254				
	Se	77					
	Se	82	102.085				
	Kr	83					
	Sr	88	109.071				
	Y	89					
	Mo	98	98.050				
	Ag	107	103.431				
	Cd	111	102.838				
	Cd	114					
>	In	115		91.6			
	Sn	120	102.340				
	Sb	121	103.746				
	Sb	123					
	Ba	135					
	Ba	137	100.465				
	Ho	165					
>	Lu	175		100.1			
	Tl	205	110.912				
	Pb	208	113.512				
	Bi	209					
	Th	232	109.996				
	U	238	112.409				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	Mg	24	CCV is out of limits (+/- 10%)
QC Std 8	Al	27	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)
QC Std 8	Tl	205	CCV is out of limits (+/- 10%)
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 14, 2010 00:58:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 9.705

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.048**	**ug/L**	17.672	83	0.000
	Be	9	**0.022**	**ug/L**	31.127	16	0.000
	B	11	**2.969**	**ug/L**	21.653	949	0.001
	Na	23	**1.483**	**ug/L**	34.786	8002	0.005
	Mg	24	**-0.511**	**ug/L**	72.465	667	-0.001
	Al	27	**0.906**	**ug/L**	154.825	4001	0.003
	P	31	**-2.969**	**ug/L**	89.775	3980	-0.001
	K	39	**2.780**	**ug/L**	373.775	491704	0.020
	Ca	43	**-2.552**	**ug/L**	83.493	321	-0.000
>	Sc	45		**ug/L**		589771	589770.653
	Ti	47	**-0.065**	**ug/L**	76.790	337	-0.000
	V	51	**-0.143**	**ug/L**	437.351	-3683	-0.002
	Cr	52	**-0.055**	**ug/L**	68.013	3276	-0.000
	Cr	53		**ug/L**		88347	-0.052
	Mn	55	**0.001**	**ug/L**	914.683	1361	0.000
	Fe	57	**-0.163**	**ug/L**	1231.821	5612	-0.000
	Co	59	**0.004**	**ug/L**	29.555	78	0.000
	Ni	60	**0.017**	**ug/L**	166.908	236	0.000
	Cu	63		**ug/L**		265	0.000
	Cu	65	**0.004**	**ug/L**	169.334	198	0.000
	Zn	66	**-0.002**	**ug/L**	2003.225	376	-0.000
	Zn	67		**ug/L**		10253	-0.002
	Zn	68		**ug/L**		1080	-0.000
>	Ge	74		**ug/L**		487505	487504.916
	As	75	**0.294**	**ug/L**	55.001	-638	0.001
	Se	77		**ug/L**		5982	-0.009
	Se	82	**0.078**	**ug/L**	44.106	28	0.000
	Kr	83		**ug/L**		126	0.000
	Sr	88	**0.005**	**ug/L**	18.574	196	0.000
	Y	89		**ug/L**		74	0.000
	Mo	98	**0.027**	**ug/L**	18.178	195	0.000
	Ag	107	**0.005**	**ug/L**	41.806	58	0.000
	Cd	111	**0.001**	**ug/L**	801.635	23	0.000
	Cd	114		**ug/L**		58	0.000
>	In	115		**ug/L**		322248	322247.988
	Sn	120	**0.011**	**ug/L**	29.764	234	0.000
	Sb	121	**0.188**	**ug/L**	20.387	1397	0.003
	Sb	123		**ug/L**		1053	0.003
	Ba	135		**ug/L**		36	0.000
	Ba	137	**0.007**	**ug/L**	61.804	57	0.000
	Ho	165		**ug/L**		27	0.000
>	Lu	175		**ug/L**		524505	524504.774
	Tl	205	**0.207**	**ug/L**	43.220	9600	0.007
	Pb	208	**0.005**	**ug/L**	24.580	667	0.000
	Bi	209		**ug/L**		115	0.000
	Th	232	**0.029**	**ug/L**	19.892	1371	0.002
	U	238	**0.008**	**ug/L**	18.134	345	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45		87.9			
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74		85.9			
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115		87.6			
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175		97.2			
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396001
Sample Date/Time: Sunday, February 14, 2010 01:04:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\245396001.706

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.786**	ug/L	0.757	28357	0.047
	Be	9	**1.733**	ug/L	2.024	497	0.001
	B	11	**1.935**	ug/L	4.005	696	0.001
	Na	23	**1347.492**	ug/L	2.682	2792522	4.662
	Mg	24	**1024.179**	ug/L	5.907	1622278	2.712
	Al	27	**7099.108**	ug/L	11.303	15600069	26.081
	P	31	**228.120**	ug/L	4.520	37793	0.056
	K	39	**1663.327**	ug/L	8.904	7632472	11.955
	Ca	43	**1260.372**	ug/L	1.530	14230	0.023
>	Sc	45		ug/L		598017	598017.281
	Ti	47	**521.074**	ug/L	4.343	296383	0.495
	V	51	**10.351**	ug/L	5.095	64376	0.112
	Cr	52	**9.186**	ug/L	2.263	50476	0.078
	Cr	53		ug/L		68274	-0.088
	Mn	55	**1158.219**	ug/L	1.241	9921839	16.591
	Fe	57	**26723.995**	ug/L	1.568	4303612	7.188
	Co	59	**14.275**	ug/L	2.973	98383	0.164
	Ni	60	**12.379**	ug/L	3.294	19716	0.033
	Cu	63		ug/L		136944	0.229
	Cu	65	**35.661**	ug/L	0.217	69201	0.115
	Zn	66	**95.501**	ug/L	2.394	109078	0.247
	Zn	67		ug/L		25024	0.033
	Zn	68		ug/L		80281	0.180
>	Ge	74		ug/L		440823	440822.862
	As	75	**3.877**	ug/L	2.211	3751	0.011
	Se	77		ug/L		3814	-0.012
	Se	82	**0.532**	ug/L	33.302	82	0.000
	Kr	83		ug/L		228	0.000
	Sr	88	**12.474**	ug/L	0.628	189218	0.615
	Y	89		ug/L		1331081	4.330
	Mo	98	**4.906**	ug/L	2.699	19797	0.064
	Ag	107	**0.347**	ug/L	3.060	2361	0.008
	Cd	111	**1.357**	ug/L	11.965	2281	0.007
	Cd	114		ug/L		806	0.003
>	In	115		ug/L		307416	307416.301
	Sn	120	**8.434**	ug/L	1.171	57905	0.188
	Sb	121	**0.606**	ug/L	7.410	3720	0.011
	Sb	123		ug/L		2807	0.008
	Ba	135		ug/L		204898	0.360
	Ba	137	**99.726**	ug/L	1.545	358688	0.631
	Ho	165		ug/L		105174	0.185
>	Lu	175		ug/L		568502	568501.609
	Tl	205	**0.277**	ug/L	11.840	11738	0.009
	Pb	208	**32.481**	ug/L	1.547	1174395	2.065
	Bi	209		ug/L		5268	0.009
	Th	232	**25.419**	ug/L	1.543	1016957	1.789
	U	238	**9.494**	ug/L	3.398	389585	0.685

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		77.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202024766
Sample Date/Time: Sunday, February 14, 2010 01:11:00
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\1202024766.707

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.026**	ug/L	0.432	29489	0.050
	Be	9	**1.709**	ug/L	3.423	484	0.001
	B	11	**1.676**	ug/L	1.474	620	0.001
	Na	23	**1301.581**	ug/L	11.075	2661204	4.503
	Mg	24	**1060.365**	ug/L	1.936	1657605	2.807
	Al	27	**6727.639**	ug/L	4.643	14575806	24.716
	P	31	**223.811**	ug/L	0.836	36649	0.055
	K	39	**1645.676**	ug/L	5.852	7457979	11.828
	Ca	43	**1270.855**	ug/L	1.690	14151	0.023
>	Sc	45		ug/L		589873	589872.645
	Ti	47	**539.021**	ug/L	0.449	302486	0.512
	V	51	**10.305**	ug/L	5.017	63187	0.112
	Cr	52	**10.406**	ug/L	2.799	55923	0.089
	Cr	53		ug/L		67113	-0.088
	Mn	55	**954.902**	ug/L	1.259	8070347	13.678
	Fe	57	**31986.761**	ug/L	0.703	5080762	8.603
	Co	59	**8.845**	ug/L	1.578	60137	0.102
	Ni	60	**10.999**	ug/L	1.023	17299	0.029
	Cu	63		ug/L		99755	0.169
	Cu	65	**26.119**	ug/L	1.213	50042	0.085
	Zn	66	**101.234**	ug/L	1.767	113747	0.262
	Zn	67		ug/L		25361	0.035
	Zn	68		ug/L		81971	0.187
>	Ge	74		ug/L		433745	433745.450
	As	75	**3.981**	ug/L	2.372	3813	0.011
	Se	77		ug/L		3771	-0.012
	Se	82	**0.762**	ug/L	19.959	109	0.000
	Kr	83		ug/L		208	0.000
	Sr	88	**12.677**	ug/L	3.294	191325	0.625
	Y	89		ug/L		1371015	4.482
	Mo	98	**4.907**	ug/L	3.631	19705	0.064
	Ag	107	**0.374**	ug/L	1.830	2530	0.008
	Cd	111	**1.430**	ug/L	0.996	2392	0.008
	Cd	114		ug/L		850	0.003
>	In	115		ug/L		305944	305943.762
	Sn	120	**4.910**	ug/L	0.910	33610	0.109
	Sb	121	**0.501**	ug/L	5.050	3105	0.009
	Sb	123		ug/L		2453	0.007
	Ba	135		ug/L		151561	0.264
	Ba	137	**72.958**	ug/L	2.663	265386	0.462
	Ho	165		ug/L		110252	0.192
>	Lu	175		ug/L		574931	574930.639
	Tl	205	**0.093**	ug/L	3.120	8333	0.003
	Pb	208	**26.040**	ug/L	1.608	952215	1.656
	Bi	209		ug/L		5659	0.010
	Th	232	**26.559**	ug/L	1.229	1074629	1.869
	U	238	**7.774**	ug/L	1.531	322633	0.561

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		76.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024767
Sample Date/Time: Sunday, February 14, 2010 01:17:08
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\1202024767.708

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.064**	**ug/L**	2.022	61413	0.106
	Be	9	**25.632**	**ug/L**	3.048	6978	0.012
	B	11	**45.905**	**ug/L**	3.300	11693	0.020
	Na	23	**2842.224**	**ug/L**	5.487	5689563	9.833
	Mg	24	**2477.694**	**ug/L**	4.805	3795056	6.560
	Al	27	**8950.891**	**ug/L**	9.369	19013255	32.884
	P	31	**1099.858**	**ug/L**	3.589	159625	0.269
	K	39	**3148.755**	**ug/L**	7.641	13552324	22.631
	Ca	43	**2332.388**	**ug/L**	2.619	25172	0.043
>	Sc	45		**ug/L**		578286	578286.239
	Ti	47	**664.856**	**ug/L**	2.994	365652	0.632
	V	51	**34.612**	**ug/L**	1.515	214522	0.376
	Cr	52	**35.325**	**ug/L**	2.437	177778	0.301
	Cr	53		**ug/L**		79223	-0.065
	Mn	55	**1047.606**	**ug/L**	2.783	8678221	15.006
	Fe	57	**32501.197**	**ug/L**	0.271	5060693	8.742
	Co	59	**32.712**	**ug/L**	0.877	217909	0.377
	Ni	60	**33.676**	**ug/L**	1.737	51498	0.089
	Cu	63		**ug/L**		223020	0.385
	Cu	65	**60.353**	**ug/L**	2.102	113118	0.195
	Zn	66	**142.967**	**ug/L**	3.422	156761	0.369
	Zn	67		**ug/L**		31404	0.051
	Zn	68		**ug/L**		112147	0.262
>	Ge	74		**ug/L**		423683	423682.615
	As	75	**39.802**	**ug/L**	2.714	45299	0.109
	Se	77		**ug/L**		4333	-0.011
	Se	82	**8.684**	**ug/L**	3.570	1066	0.002
	Kr	83		**ug/L**		237	0.000
	Sr	88	**40.436**	**ug/L**	2.546	607231	1.994
	Y	89		**ug/L**		1485618	4.879
	Mo	98	**27.363**	**ug/L**	2.512	109030	0.358
	Ag	107	**23.933**	**ug/L**	1.898	159484	0.524
	Cd	111	**6.651**	**ug/L**	1.234	10999	0.036
	Cd	114		**ug/L**		19271	0.063
>	In	115		**ug/L**		304481	304480.730
	Sn	120	**29.485**	**ug/L**	0.804	200148	0.657
	Sb	121	**81.385**	**ug/L**	1.043	460692	1.512
	Sb	123		**ug/L**		366715	1.204
	Ba	135		**ug/L**		200267	0.350
	Ba	137	**95.216**	**ug/L**	0.922	344381	0.602
	Ho	165		**ug/L**		123762	0.216
>	Lu	175		**ug/L**		571638	571637.818
	Tl	205	**51.646**	**ug/L**	2.353	992556	1.725
	Pb	208	**120.181**	**ug/L**	1.725	4368006	7.641
	Bi	209		**ug/L**		6729	0.012
	Th	232	**50.952**	**ug/L**	2.574	2049357	3.585
	U	238	**38.720**	**ug/L**	1.928	1597552	2.795

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		86.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		82.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202024772
Sample Date/Time: Sunday, February 14, 2010 01:23:15
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\1202024772.709

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.362**	**ug/L**	1.916	62554	0.107
	Be	9	**26.052**	**ug/L**	2.919	7181	0.012
	B	11	**50.165**	**ug/L**	3.929	12924	0.022
	Na	23	**2489.804**	**ug/L**	13.983	5046372	8.613
	Mg	24	**2553.220**	**ug/L**	7.265	3960701	6.760
	Al	27	**10305.697**	**ug/L**	16.024	22144308	37.861
	P	31	**1132.250**	**ug/L**	4.863	166178	0.277
	K	39	**2814.158**	**ug/L**	2.992	12321176	20.226
	Ca	43	**2342.795**	**ug/L**	5.033	25589	0.043
>	Sc	45		**ug/L**		585693	585693.230
	Ti	47	**657.082**	**ug/L**	2.098	365948	0.624
	V	51	**36.193**	**ug/L**	3.423	227195	0.393
	Cr	52	**36.194**	**ug/L**	1.441	184372	0.309
	Cr	53		**ug/L**		79484	-0.066
	Mn	55	**1074.965**	**ug/L**	2.491	9016022	15.398
	Fe	57	**36553.739**	**ug/L**	3.859	5760124	9.832
	Co	59	**31.720**	**ug/L**	3.435	213891	0.365
	Ni	60	**35.797**	**ug/L**	4.727	55388	0.094
	Cu	63		**ug/L**		204576	0.349
	Cu	65	**52.995**	**ug/L**	2.706	100583	0.171
	Zn	66	**143.957**	**ug/L**	2.536	159919	0.372
	Zn	67		**ug/L**		31780	0.051
	Zn	68		**ug/L**		115568	0.267
>	Ge	74		**ug/L**		429195	429195.181
	As	75	**40.898**	**ug/L**	0.919	47192	0.112
	Se	77		**ug/L**		4274	-0.011
	Se	82	**8.812**	**ug/L**	3.947	1096	0.003
	Kr	83		**ug/L**		255	0.000
	Sr	88	**41.033**	**ug/L**	2.718	611652	2.024
	Y	89		**ug/L**		1500927	4.966
	Mo	98	**29.364**	**ug/L**	3.590	116107	0.384
	Ag	107	**25.669**	**ug/L**	1.834	169807	0.562
	Cd	111	**6.823**	**ug/L**	1.282	11202	0.037
	Cd	114		**ug/L**		20486	0.068
>	In	115		**ug/L**		302339	302339.283
	Sn	120	**31.927**	**ug/L**	1.597	215163	0.711
	Sb	121	**90.403**	**ug/L**	3.066	507862	1.680
	Sb	123		**ug/L**		403141	1.333
	Ba	135		**ug/L**		228602	0.402
	Ba	137	**110.836**	**ug/L**	1.287	399205	0.701
	Ho	165		**ug/L**		124812	0.219
>	Lu	175		**ug/L**		569276	569276.401
	Tl	205	**53.852**	**ug/L**	1.295	1030553	1.799
	Pb	208	**124.415**	**ug/L**	0.850	4503558	7.910
	Bi	209		**ug/L**		6694	0.012
	Th	232	**52.801**	**ug/L**	1.351	2115216	3.715
	U	238	**39.943**	**ug/L**	1.309	1641326	2.883

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		75.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		82.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202024768
Sample Date/Time: Sunday, February 14, 2010 01:29:22
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 945396|10|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\1202024768.710

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.814**	ug/L	4.215	5421	0.010
	Be	9	**0.366**	ug/L	11.016	102	0.000
	B	11	**1.891**	ug/L	20.544	617	0.001
	Na	23	**274.415**	ug/L	3.053	516859	0.949
	Mg	24	**286.816**	ug/L	6.467	410833	0.759
	Al	27	**1513.457**	ug/L	5.499	3002254	5.560
	P	31	**59.631**	ug/L	4.780	11889	0.015
	K	39	**319.486**	ug/L	2.190	1677728	2.296
	Ca	43	**250.926**	ug/L	4.306	2812	0.005
>	Sc	45		ug/L		539595	539595.348
	Ti	47	**106.263**	ug/L	2.822	54810	0.101
	V	51	**1.546**	ug/L	26.757	6542	0.017
	Cr	52	**1.315**	ug/L	5.578	9306	0.011
	Cr	53		ug/L		78815	-0.056
	Mn	55	**237.873**	ug/L	2.985	1839310	3.407
	Fe	57	**6016.957**	ug/L	1.509	878305	1.618
	Co	59	**2.924**	ug/L	0.504	18216	0.034
	Ni	60	**2.540**	ug/L	1.860	3801	0.007
	Cu	63		ug/L		26003	0.048
	Cu	65	**7.169**	ug/L	1.681	12690	0.023
	Zn	66	**19.131**	ug/L	3.053	21704	0.049
	Zn	67		ug/L		13627	0.008
	Zn	68		ug/L		16300	0.035
>	Ge	74		ug/L		432551	432551.396
	As	75	**1.102**	ug/L	19.021	391	0.003
	Se	77		ug/L		4746	-0.010
	Se	82	**0.049**	ug/L	605.375	21	0.000
	Kr	83		ug/L		133	0.000
	Sr	88	**2.325**	ug/L	2.753	35085	0.115
	Y	89		ug/L		264477	0.867
	Mo	98	**0.899**	ug/L	2.164	3662	0.012
	Ag	107	**0.066**	ug/L	9.232	467	0.001
	Cd	111	**0.257**	ug/L	5.818	444	0.001
	Cd	114		ug/L		197	0.001
>	In	115		ug/L		305016	305015.748
	Sn	120	**1.597**	ug/L	1.103	11000	0.036
	Sb	121	**0.106**	ug/L	9.035	853	0.002
	Sb	123		ug/L		628	0.001
	Ba	135		ug/L		39746	0.072
	Ba	137	**19.811**	ug/L	1.940	69391	0.125
	Ho	165		ug/L		20182	0.036
>	Lu	175		ug/L		553401	553400.791
	Tl	205	**0.011**	ug/L	330.136	6503	0.000
	Pb	208	**6.677**	ug/L	1.090	235427	0.425
	Bi	209		ug/L		1123	0.002
	Th	232	**5.520**	ug/L	2.642	215190	0.388
	U	238	**1.915**	ug/L	2.887	76543	0.138

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		80.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		76.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		82.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396002
Sample Date/Time: Sunday, February 14, 2010 01:35:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\245396002.711

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.425**	ug/L	0.342	71053	0.113
	Be	9	**7.972**	ug/L	1.528	2364	0.004
	B	11	**18.393**	ug/L	1.599	5209	0.008
	Na	23	**514.315**	ug/L	6.267	1121805	1.779
	Mg	24	**9832.094**	ug/L	4.278	16330867	26.031
	Al	27	**68996.512**	ug/L	4.186	159171607	253.480
	P	31	**588.252**	ug/L	3.076	94830	0.144
	K	39	**8678.507**	ug/L	7.531	39706952	62.376
	Ca	43	**14493.341**	ug/L	4.198	167755	0.267
>	Sc	45		ug/L		627705	627704.554
	Ti	47	**1180.693**	ug/L	1.304	704523	1.122
	V	51	**76.623**	ug/L	2.364	518881	0.832
	Cr	52	**40.258**	ug/L	1.869	219346	0.344
	Cr	53		ug/L		87154	-0.063
	Mn	55	**1151.038**	ug/L	2.055	10347637	16.488
	Fe	57	**42774.073**	ug/L	2.942	7224758	11.505
	Co	59	**21.869**	ug/L	3.398	158137	0.252
	Ni	60	**33.346**	ug/L	3.862	55327	0.088
	Cu	63		ug/L		1132956	1.805
	Cu	65	**290.501**	ug/L	1.327	590154	0.940
	Zn	66	**176.691**	ug/L	1.031	193839	0.456
	Zn	67		ug/L		40578	0.072
	Zn	68		ug/L		146591	0.343
>	Ge	74		ug/L		423944	423943.810
	As	75	**11.288**	ug/L	1.582	12214	0.031
	Se	77		ug/L		3701	-0.012
	Se	82	**-0.342**	ug/L	73.257	-27	-0.000
	Kr	83		ug/L		314	0.000
	Sr	88	**144.717**	ug/L	0.926	2144686	7.137
	Y	89		ug/L		810190	2.696
	Mo	98	**2.376**	ug/L	1.578	9411	0.031
	Ag	107	**0.965**	ug/L	2.169	6369	0.021
	Cd	111	**6.967**	ug/L	2.831	11367	0.038
	Cd	114		ug/L		22112	0.073
>	In	115		ug/L		300529	300529.200
	Sn	120	**1.946**	ug/L	1.880	13169	0.043
	Sb	121	**1.212**	ug/L	1.899	7019	0.023
	Sb	123		ug/L		5501	0.018
	Ba	135		ug/L		971547	1.787
	Ba	137	**463.185**	ug/L	3.316	1593403	2.930
	Ho	165		ug/L		61025	0.112
>	Lu	175		ug/L		544038	544038.236
	Tl	205	**0.876**	ug/L	1.841	22111	0.029
	Pb	208	**408.443**	ug/L	2.205	14123194	25.969
	Bi	209		ug/L		38046	0.070
	Th	232	**38.176**	ug/L	2.136	1461122	2.686
	U	238	**140.346**	ug/L	3.372	5508230	10.130

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		81.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 245396003
Sample Date/Time: Sunday, February 14, 2010 01:41:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\245396003.712

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**43.403**	ug/L	1.191	51701	0.090
	Be	9	**22.014**	ug/L	4.386	5934	0.010
	B	11	**12.035**	ug/L	1.934	3173	0.005
	Na	23	**456.403**	ug/L	10.894	907761	1.579
	Mg	24	**6366.931**	ug/L	6.542	9654764	16.857
	Al	27	**50374.129**	ug/L	4.188	105983561	185.065
	P	31	**502.271**	ug/L	2.382	74521	0.123
	K	39	**6090.976**	ug/L	6.335	25547133	43.778
	Ca	43	**7436.542**	ug/L	3.049	78716	0.137
>	Sc	45		ug/L		572798	572798.174
	Ti	47	**693.682**	ug/L	4.502	377595	0.659
	V	51	**47.984**	ug/L	3.617	295412	0.521
	Cr	52	**28.456**	ug/L	3.133	142459	0.243
	Cr	53		ug/L		68986	-0.082
	Mn	55	**818.870**	ug/L	3.883	6715117	11.730
	Fe	57	**28246.581**	ug/L	3.422	4354516	7.597
	Co	59	**14.161**	ug/L	1.637	93447	0.163
	Ni	60	**26.760**	ug/L	1.624	40568	0.070
	Cu	63		ug/L		6123401	10.692
	Cu	65	**1771.636**	ug/L	3.993	3281483	5.733
	Zn	66	**224.594**	ug/L	2.109	233054	0.580
	Zn	67		ug/L		44143	0.087
	Zn	68		ug/L		170837	0.423
>	Ge	74		ug/L		401312	401311.978
	As	75	**9.388**	ug/L	4.006	9466	0.026
	Se	77		ug/L		3054	-0.013
	Se	82	**-0.166**	ug/L	51.447	-5	-0.000
	Kr	83		ug/L		228	0.000
	Sr	88	**75.820**	ug/L	4.927	1083956	3.739
	Y	89		ug/L		638188	2.201
	Mo	98	**3.072**	ug/L	2.544	11724	0.040
	Ag	107	**1.858**	ug/L	5.076	11809	0.041
	Cd	111	**5.464**	ug/L	1.063	8614	0.030
	Cd	114		ug/L		17499	0.060
>	In	115		ug/L		290120	290120.464
	Sn	120	**5.381**	ug/L	1.952	34909	0.120
	Sb	121	**2.716**	ug/L	2.778	14878	0.050
	Sb	123		ug/L		11535	0.039
	Ba	135		ug/L		639928	1.199
	Ba	137	**322.549**	ug/L	3.607	1089335	2.041
	Ho	165		ug/L		48689	0.091
>	Lu	175		ug/L		534084	534083.500
	Tl	205	**0.411**	ug/L	5.955	13406	0.014
	Pb	208	**460.270**	ug/L	3.934	15618811	29.264
	Bi	209		ug/L		28174	0.053
	Th	232	**29.374**	ug/L	4.216	1103310	2.067
	U	238	**365.900**	ug/L	3.602	14097425	26.411

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		85.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		70.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		78.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
Cu 65 Upper, S, EEE	Cu	65	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 245396004
Sample Date/Time: Sunday, February 14, 2010 01:47:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\245396004.713

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**17.248**	**ug/L**	3.365	20050	0.036
	Be	9	**4.006**	**ug/L**	4.014	1061	0.002
	B	11	**4.132**	**ug/L**	5.610	1181	0.002
	Na	23	**1669.685**	**ug/L**	7.749	3226676	5.776
	Mg	24	**1936.873**	**ug/L**	14.425	2863300	5.128
	Al	27	**15089.687**	**ug/L**	7.072	31034538	55.437
	P	31	**227.492**	**ug/L**	3.855	35203	0.056
	K	39	**2573.460**	**ug/L**	5.428	10799205	18.496
	Ca	43	**2408.207**	**ug/L**	1.068	25101	0.044
>	Sc	45		**ug/L**		558845	558845.058
	Ti	47	**444.499**	**ug/L**	1.041	236340	0.422
	V	51	**15.876**	**ug/L**	4.905	93585	0.172
	Cr	52	**22.215**	**ug/L**	3.455	109217	0.190
	Cr	53		**ug/L**		66003	-0.084
	Mn	55	**784.701**	**ug/L**	2.051	6279803	11.240
	Fe	57	**31227.708**	**ug/L**	2.715	4696332	8.399
	Co	59	**32.468**	**ug/L**	2.072	208955	0.374
	Ni	60	**17.962**	**ug/L**	2.189	26628	0.047
	Cu	63		**ug/L**		805095	1.440
	Cu	65	**229.987**	**ug/L**	1.108	415972	0.744
	Zn	66	**125.700**	**ug/L**	1.582	132348	0.325
	Zn	67		**ug/L**		26746	0.042
	Zn	68		**ug/L**		93960	0.229
>	Ge	74		**ug/L**		406690	406689.676
	As	75	**6.754**	**ug/L**	3.886	6664	0.019
	Se	77		**ug/L**		3098	-0.013
	Se	82	**0.430**	**ug/L**	41.828	64	0.000
	Kr	83		**ug/L**		205	0.000
	Sr	88	**23.019**	**ug/L**	0.781	333955	1.135
	Y	89		**ug/L**		1176730	4.001
	Mo	98	**4.816**	**ug/L**	1.523	18595	0.063
	Ag	107	**0.415**	**ug/L**	1.929	2695	0.009
	Cd	111	**1.949**	**ug/L**	5.271	3126	0.011
	Cd	114		**ug/L**		3335	0.011
>	In	115		**ug/L**		294105	294105.206
	Sn	120	**4.324**	**ug/L**	0.863	28476	0.096
	Sb	121	**1.039**	**ug/L**	2.687	5921	0.019
	Sb	123		**ug/L**		4668	0.015
	Ba	135		**ug/L**		236941	0.412
	Ba	137	**111.437**	**ug/L**	0.966	405491	0.705
	Ho	165		**ug/L**		89636	0.156
>	Lu	175		**ug/L**		575078	575078.270
	Tl	205	**-0.009**	**ug/L**	72.936	6381	-0.000
	Pb	208	**74.022**	**ug/L**	0.969	2706917	4.706
	Bi	209		**ug/L**		8889	0.015
	Th	232	**29.035**	**ug/L**	0.122	1175148	2.043
	U	238	**47.455**	**ug/L**	1.071	1969845	3.425

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		83.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		71.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		80.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 01:53:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 6.714

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.801**	ug/L	1.895	61744	0.114
	Be	9	**54.772**	ug/L	1.919	13962	0.026
	B	11	**101.773**	ug/L	3.259	24078	0.044
	Na	23	**5573.191**	ug/L	8.638	10449179	19.280
	Mg	24	**5317.720**	ug/L	12.587	7631523	14.079
	Al	27	**5309.108**	ug/L	9.776	10573823	19.505
	P	31	**5049.882**	ug/L	3.882	672246	1.233
	K	39	**4455.979**	ug/L	6.934	17791868	32.027
	Ca	43	**4773.885**	ug/L	2.510	47940	0.088
>	Sc	45		ug/L		541737	541737.377
	Ti	47	**49.296**	ug/L	2.810	25722	0.047
	V	51	**50.682**	ug/L	5.552	295534	0.550
	Cr	52	**51.689**	ug/L	3.163	242234	0.441
	Cr	53		ug/L		117380	0.015
	Mn	55	**53.136**	ug/L	2.837	413641	0.761
	Fe	57	**5518.620**	ug/L	2.404	809394	1.484
	Co	59	**51.475**	ug/L	2.290	321236	0.593
	Ni	60	**52.178**	ug/L	4.481	74666	0.137
	Cu	63		ug/L		179904	0.332
	Cu	65	**51.030**	ug/L	0.862	89635	0.165
	Zn	66	**52.305**	ug/L	3.425	59509	0.135
	Zn	67		ug/L		20683	0.024
	Zn	68		ug/L		43591	0.097
>	Ge	74		ug/L		437823	437822.738
	As	75	**49.648**	ug/L	2.443	58646	0.136
	Se	77		ug/L		10638	0.003
	Se	82	**50.587**	ug/L	4.137	6351	0.014
	Kr	83		ug/L		118	0.000
	Sr	88	**53.002**	ug/L	1.251	799794	2.614
	Y	89		ug/L		210	0.000
	Mo	98	**48.018**	ug/L	3.664	192124	0.628
	Ag	107	**50.920**	ug/L	2.337	340868	1.114
	Cd	111	**50.921**	ug/L	2.759	84457	0.276
	Cd	114		ug/L		197113	0.644
>	In	115		ug/L		305932	305932.292
	Sn	120	**52.312**	ug/L	0.429	356663	1.165
	Sb	121	**52.919**	ug/L	2.490	301044	0.983
	Sb	123		ug/L		236354	0.772
	Ba	135		ug/L		91718	0.168
	Ba	137	**46.706**	ug/L	1.990	161663	0.295
	Ho	165		ug/L		57	0.000
>	Lu	175		ug/L		547055	547055.108
	Tl	205	**55.930**	ug/L	1.042	1028207	1.868
	Pb	208	**56.610**	ug/L	1.406	1969324	3.599
	Bi	209		ug/L		539	0.001
	Th	232	**56.389**	ug/L	0.581	2170756	3.968
	U	238	**58.188**	ug/L	2.078	2297494	4.200

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9999
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9998
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9996
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	109.602				
	Be	9	109.543				
	B	11	101.773				
	Na	23	111.464				
	Mg	24	106.354				
	Al	27	105.131				
	P	31	100.998				
	K	39	89.120				
	Ca	43	95.478				
>	Sc	45		80.7			
	Ti	47	98.591				
	V	51	101.364				
	Cr	52	103.377				
	Cr	53					
	Mn	55	106.272				
	Fe	57	110.372				
	Co	59	102.949				
	Ni	60	104.356				
	Cu	63					
	Cu	65	102.060				
	Zn	66	104.610				
	Zn	67					
	Zn	68					
>	Ge	74		77.2			
	As	75	99.297				
	Se	77					
	Se	82	101.174				
	Kr	83					
	Sr	88	106.004				
	Y	89					
	Mo	98	96.037				
	Ag	107	101.841				
	Cd	111	101.841				
	Cd	114					
>	In	115		83.2			
	Sn	120	104.625				
	Sb	121	105.837				
	Sb	123					
	Ba	135					
	Ba	137	93.412				
	Ho	165					
>	Lu	175		101.3			
	Tl	205	111.860				
	Pb	208	113.221				
	Bi	209					
	Th	232	112.778				
	U	238	116.377				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)
QC Std 6	Fe	57	CCV is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	
QC Std 6	Tl	205	CCV is out of limits (+/- 10%)
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)
QC Std 6	Th	232	CCV is out of limits (+/- 10%)

QC Std 6	U	238CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 02:00:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100211\QC Std 7.715

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.038**	ug/L	30.107	64	0.000
	Be	9	**0.022**	ug/L	45.495	15	0.000
	B	11	**2.933**	ug/L	16.677	858	0.001
	Na	23	**-0.638**	ug/L	57.589	3334	-0.002
	Mg	24	**-0.938**	ug/L	0.000	0	-0.002
	Al	27	**0.735**	ug/L	101.457	3334	0.003
	P	31	**-1.059**	ug/L	130.415	3878	-0.000
	K	39	**1.212**	ug/L	580.202	440699	0.009
	Ca	43	**-4.471**	ug/L	80.950	273	-0.000
>	Sc	45		ug/L		536716	536716.031
	Ti	47	**-0.049**	ug/L	91.198	315	-0.000
	V	51	**-0.165**	ug/L	194.601	-3482	-0.002
	Cr	52	**-0.443**	ug/L	1.900	1208	-0.004
	Cr	53		ug/L		78905	-0.055
	Mn	55	**0.014**	ug/L	36.175	1341	0.000
	Fe	57	**-2.976**	ug/L	41.400	4699	-0.001
	Co	59	**0.005**	ug/L	28.933	75	0.000
	Ni	60	**0.004**	ug/L	92.274	196	0.000
	Cu	63		ug/L		352	0.000
	Cu	65	**0.040**	ug/L	30.290	245	0.000
	Zn	66	**0.012**	ug/L	182.939	356	0.000
	Zn	67		ug/L		9357	-0.002
	Zn	68		ug/L		1060	-0.000
>	Ge	74		ug/L		441681	441680.565
	As	75	**0.237**	ug/L	113.503	-649	0.001
	Se	77		ug/L		5277	-0.009
	Se	82	**0.084**	ug/L	79.283	26	0.000
	Kr	83		ug/L		112	0.000
	Sr	88	**0.005**	ug/L	26.690	187	0.000
	Y	89		ug/L		67	0.000
	Mo	98	**0.020**	ug/L	28.947	154	0.000
	Ag	107	**0.005**	ug/L	9.196	60	0.000
	Cd	111	**0.005**	ug/L	67.106	28	0.000
	Cd	114		ug/L		54	0.000
>	In	115		ug/L		303359	303358.833
	Sn	120	**0.010**	ug/L	19.392	212	0.000
	Sb	121	**0.182**	ug/L	14.806	1279	0.003
	Sb	123		ug/L		943	0.002
	Ba	135		ug/L		40	0.000
	Ba	137	**0.006**	ug/L	26.300	53	0.000
	Ho	165		ug/L		19	-0.000
>	Lu	175		ug/L		519339	519338.733
	Tl	205	**0.163**	ug/L	74.574	8726	0.005
	Pb	208	**0.008**	ug/L	39.984	742	0.000
	Bi	209		ug/L		108	0.000
	Th	232	**0.032**	ug/L	25.183	1436	0.002
	U	238	**0.011**	ug/L	12.629	468	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9999
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9998
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9996
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		80.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		77.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		82.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, February 14, 2010 12:01:59
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.489
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6564.3	6564.308	53.878	0.8
	Mg	24.0	64931.2	64931.236	553.347	0.9
	Co	58.9	147429.7	147429.657	849.123	0.6
	Rh	102.9	266980.2	266980.180	2193.601	0.8
	In	114.9	352729.2	352729.211	1815.331	0.5
	Pb	208.0	267033.7	267033.669	1120.035	0.4
⌈>	Ba	137.9	306000.5	306000.518	953.815	0.3
⌊	Ba++	69.0	6645.3	0.022	0.000	1.1
⌈>	Ce	139.9	374052.9	374052.914	4523.980	1.2
⌊	CeO	155.9	10146.6	0.027	0.001	2.4
	Bkgd	220.0	17.5	17.500	3.791	21.7

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	9	5.5	7930.2
Co	59	9	5.8	158826.0
In	115	9	6.0	318341.2

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2072	0.633
Be	9.0	9.0	2048	2088	0.630
Mg	24.0	24.0	5683	2100	0.573
Mg	25.0	25.0	5947	2100	0.618
Mg	26.0	26.0	6165	2100	0.608
Co	58.9	58.9	14188	2125	0.600
Rh	102.9	102.9	24878	2180	0.589
In	114.9	114.9	27792	2200	0.593
Ce	139.9	139.9	33864	2220	0.593
Pb	206.0	206.0	49948	2305	0.610
Pb	207.0	207.0	50147	2240	0.634
Pb	208.0	208.0	50451	2265	0.717
U	238.1	238.1	57726	2275	0.743

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 14, 2010 13:07:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\Blank.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		643704	
	Tl	205		ug/L		2746	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 14, 2010 13:11:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\Standard 1.011

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		630720	630720.059
	Tl	205	**10.000**	**ug/L**	0.922	258942	0.406

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 14, 2010 13:15:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\Standard 2.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		624041	624041.076
⌊	Tl	205	99.789	ug/L	0.647	2091458	3.347

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 14, 2010 13:20:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 1.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		625803	625803.426
⌊	Tl	205	**54.854**	ug/L	0.259	1154112	1.840

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		97.2			
⌊	Tl	205	109.708				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 14, 2010 13:24:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 2.014

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		646860	646859.779
⌊	Tl	205	**0.065**	**ug/L**	7.718	4174	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		100.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 14, 2010 13:29:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 3.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		641283	641283.085
	Tl	205	1.214	ug/L	2.273	28849	0.041

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.6			
	Tl	205	121.408				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 14, 2010 13:33:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 4.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		573532	573531.864
⌊	Tl	205	-0.029	ug/L	9.522	1885	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		89.1			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 14, 2010 13:38:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 5.017

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		568551	568551.112
⌊	Tl	205	**22.803**	**ug/L**	0.703	437294	0.765

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		88.3			
⌊	Tl	205	114.017				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 13:42:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 6.018

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		639915	639914.816
⌊	Tl	205	**52.608**	**ug/L**	1.010	1131924	1.765

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.4			
⌊	Tl	205	105.216				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 13:47:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 7.019

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		653474	653473.721
	Tl	205	**0.072**	**ug/L**	4.591	4369	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		101.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024764
Sample Date/Time: Sunday, February 14, 2010 13:53:36
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 945396|2|ba|
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\1202024764.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		647879	647878.906
⌊	Tl	205	-0.003	ug/L	53.816	2695	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		100.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024765
Sample Date/Time: Sunday, February 14, 2010 13:58:04
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 945396|40|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\1202024765.021

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		650681	650680.917
⌊	Tl	205	**34.239**	**ug/L**	1.772	750022	1.148

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		101.1			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 14:25:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 6.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		641411	641411.020
⌊	Tl	205	53.504	ug/L	1.302	1153695	1.795

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.6			
⌊	Tl	205	107.007				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 14:29:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 7.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		643449	643448.876
⌊	Tl	205	0.036	ug/L	5.398	3516	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		100.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 14, 2010 15:05:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 6.036

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		633400	633400.223
	Tl	205	**52.315**	**ug/L**	2.061	1114077	1.755

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.4			
	Tl	205	104.629				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 14, 2010 15:10:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 7.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		656727	656726.523
⌊	Tl	205	0.036	ug/L	2.454	3598	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		102.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 14, 2010 15:32:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 8.042

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		639984	639984.240
	Tl	205	**51.822**	**ug/L**	0.598	1115177	1.738

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.4			
	Tl	205	103.645				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 14, 2010 15:37:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 9.043

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		647145	647145.233
	Tl	205	**0.037**	**ug/L**	17.045	3555	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396001
Sample Date/Time: Sunday, February 14, 2010 15:41:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\245396001.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		678427	678426.652
	Tl	205	0.297	ug/L	5.616	9654	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		105.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024766
Sample Date/Time: Sunday, February 14, 2010 15:46:06
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\1202024766.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		679762	679761.919
⌊	Tl	205	0.150	ug/L	3.297	6320	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		105.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024767
Sample Date/Time: Sunday, February 14, 2010 15:50:36
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\1202024767.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		680104	680104.441
	Tl	205	47.246	ug/L	0.573	1080680	1.585

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		105.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024772
Sample Date/Time: Sunday, February 14, 2010 15:55:06
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\1202024772.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		683995	683995.187
	Tl	205	49.448	ug/L	1.637	1137341	1.659

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		106.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024768
Sample Date/Time: Sunday, February 14, 2010 15:59:36
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 945396|10|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\1202024768.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		642843	642843.369
	Tl	205	0.104	ug/L	1.309	4977	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396002
Sample Date/Time: Sunday, February 14, 2010 16:04:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\245396002.049

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		637241	637240.667
⌊	Tl	205	**0.928**	**ug/L**	1.119	22565	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396003
Sample Date/Time: Sunday, February 14, 2010 16:08:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\245396003.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		642191	642190.563
	Tl	205	0.479	ug/L	2.077	13068	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396004
Sample Date/Time: Sunday, February 14, 2010 16:13:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\245396004.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		674512	674511.868
	Tl	205	0.118	ug/L	6.510	5536	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 14, 2010 16:17:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 8.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		633297	633296.555
	Tl	205	52.520	ug/L	0.502	1118322	1.762

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.4			
	Tl	205	105.039				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 14, 2010 16:22:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 9.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		645077	645076.791
⌊	Tl	205	0.062	ug/L	4.901	4094	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		100.2			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, February 15, 2010 00:22:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\Blank.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		794114	
	As	75		ug/L		-409	
	Se	77		ug/L		12306	
	Se	82		ug/L		53	
	Kr	83		ug/L		179	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, February 15, 2010 00:25:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\Standard 1.168

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		798811	798811.177
	As	75	**10.000**	**ug/L**	4.386	22916	0.029
	Se	77		**ug/L**		17399	0.006
	Se	82	**10.000**	**ug/L**	2.286	2592	0.003
	Kr	83		**ug/L**		158	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, February 15, 2010 00:27:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\Standard 2.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		778699	778699.459
	As	75	100.028	ug/L	2.357	233500	0.300
	Se	77		ug/L		32804	0.027
	Se	82	99.981	ug/L	4.000	24318	0.031
	Kr	83		ug/L		200	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, February 15, 2010 00:29:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 1.170

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		782859	782859.113
	As	75	**49.856**	**ug/L**	1.445	116854	0.150
	Se	77		**ug/L**		24461	0.016
	Se	82	**50.297**	**ug/L**	1.296	12332	0.016
	Kr	83		**ug/L**		177	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		98.6			
	As	75	99.712				
	Se	77					
	Se	82	100.595				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, February 15, 2010 00:32:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 2.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		799119	799119.116
	As	75	0.013	ug/L	1754.092	-374	0.000
	Se	77		ug/L		12246	-0.000
	Se	82	-0.045	ug/L	30.740	42	-0.000
	Kr	83		ug/L		177	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		100.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, February 15, 2010 00:34:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 3.172

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		802483	802482.961
	As	75	**5.605**	**ug/L**	1.647	13097	0.017
	Se	77		**ug/L**		15559	0.004
	Se	82	**5.803**	**ug/L**	1.208	1507	0.002
	Kr	83		**ug/L**		165	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		101.1			
	As	75	112.091				
	Se	77					
	Se	82	116.069				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, February 15, 2010 00:36:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 4.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		672900	672899.960
	As	75	**0.099**	ug/L	309.336	-142	0.000
	Se	77		ug/L		19820	0.014
	Se	82	**-1.775**	ug/L	6.545	-327	-0.001
	Kr	83		ug/L		668	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Ge	74		84.7			
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, February 15, 2010 00:39:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 5.174

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		656624	656624.472
	As	75	**20.983**	**ug/L**	2.241	41043	0.063
	Se	77		**ug/L**		21546	0.017
	Se	82	**18.411**	**ug/L**	3.214	3814	0.006
	Kr	83		**ug/L**		664	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		82.7			
	As	75	104.915				
	Se	77					
	Se	82	92.053				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, February 15, 2010 00:41:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 6.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		741047	741047.095
	As	75	**48.618**	ug/L	1.433	107848	0.146
	Se	77		ug/L		22294	0.015
	Se	82	**50.255**	ug/L	0.987	11665	0.016
	Kr	83		ug/L		165	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		93.3			
	As	75	97.236				
	Se	77					
	Se	82	100.509				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, February 15, 2010 00:43:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 7.176

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		762821	762821.341
	As	75	**-0.134**	**ug/L**	228.863	-696	-0.000
	Se	77		**ug/L**		12353	0.001
	Se	82	**-0.019**	**ug/L**	384.739	47	-0.000
	Kr	83		**ug/L**		169	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024764
Sample Date/Time: Monday, February 15, 2010 00:46:18
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\1202024764.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		750857	750856.953
	As	75	-0.081	ug/L	194.439	-567	-0.000
	Se	77		ug/L		11110	-0.001
	Se	82	0.311	ug/L	34.822	123	0.000
	Kr	83		ug/L		140	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		94.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024765
Sample Date/Time: Monday, February 15, 2010 00:48:39
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 945396|40|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\1202024765.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		762351	762350.886
	As	75	**26.687**	ug/L	1.251	60722	0.080
	Se	77		ug/L		27217	0.020
	Se	82	**70.892**	ug/L	1.898	16908	0.022
	Kr	83		ug/L		177	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Ge	74		96.0			
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396001
Sample Date/Time: Monday, February 15, 2010 00:51:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\245396001.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		737205	737205.253
	As	75	**3.418**	ug/L	9.608	7185	0.010
	Se	77		ug/L		9657	-0.002
	Se	82	**1.150**	ug/L	2.694	314	0.000
	Kr	83		ug/L		404	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		92.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024766
Sample Date/Time: Monday, February 15, 2010 00:53:25
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\1202024766.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		736990	736990.133
	As	75	3.430	ug/L	2.174	7212	0.010
	Se	77		ug/L		9053	-0.003
	Se	82	1.698	ug/L	8.576	440	0.001
	Kr	83		ug/L		392	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		92.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024767
Sample Date/Time: Monday, February 15, 2010 00:55:48
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\1202024767.181

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		714725	714724.804
	As	75	**36.551**	**ug/L**	1.463	78108	0.110
	Se	77		**ug/L**		9489	-0.002
	Se	82	**9.001**	**ug/L**	0.755	2055	0.003
	Kr	83		**ug/L**		416	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		90.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024772
Sample Date/Time: Monday, February 15, 2010 00:58:10
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\1202024772.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		704416	704415.926
	As	75	**38.433**	ug/L	1.743	80965	0.115
	Se	77		ug/L		9047	-0.003
	Se	82	**9.944**	ug/L	2.527	2233	0.003
	Kr	83		ug/L		420	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		88.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202024768
Sample Date/Time: Monday, February 15, 2010 01:00:32
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 945396|10|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\1202024768.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		703426	703425.515
	As	75	0.954	ug/L	11.835	1657	0.003
	Se	77		ug/L		10205	-0.001
	Se	82	1.533	ug/L	7.056	383	0.000
	Kr	83		ug/L		195	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		88.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, February 15, 2010 01:02:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 8.184

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		722711	722710.659
	As	75	**49.639**	**ug/L**	2.292	107412	0.149
	Se	77		**ug/L**		20508	0.013
	Se	82	**50.319**	**ug/L**	1.283	11390	0.016
	Kr	83		**ug/L**		158	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		91.0			
	As	75	99.278				
	Se	77					
	Se	82	100.638				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, February 15, 2010 01:05:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 9.185

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		733667	733667.038
	As	75	**-0.050**	**ug/L**	447.734	-484	-0.000
	Se	77		**ug/L**		10791	-0.001
	Se	82	**0.332**	**ug/L**	52.714	125	0.000
	Kr	83		**ug/L**		168	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		92.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396002
Sample Date/Time: Monday, February 15, 2010 01:07:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\245396002.186

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		**ug/L**		685075	685075.099
	As	75	**10.902**	**ug/L**	1.921	22085	0.033
	Se	77		**ug/L**		7956	-0.004
	Se	82	**2.695**	**ug/L**	9.626	622	0.001
	Kr	83		**ug/L**		563	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		86.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396003
Sample Date/Time: Monday, February 15, 2010 01:10:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\245396003.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		663070	663069.590
	As	75	**9.190**	ug/L	2.207	17967	0.028
	Se	77		ug/L		6688	-0.005
	Se	82	**2.447**	ug/L	4.720	550	0.001
	Kr	83		ug/L		407	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		83.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245396004
Sample Date/Time: Monday, February 15, 2010 01:12:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 945396|2|baj
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\245396004.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		671913	671912.994
	As	75	**6.425**	ug/L	1.400	12620	0.019
	Se	77		ug/L		6478	-0.006
	Se	82	**2.331**	ug/L	2.653	534	0.001
	Kr	83		ug/L		349	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		84.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, February 15, 2010 01:14:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 6.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		699895	699894.979
	As	75	50.034	ug/L	1.984	104844	0.150
	Se	77		ug/L		18013	0.010
	Se	82	50.681	ug/L	1.546	11111	0.016
	Kr	83		ug/L		148	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		88.1			
	As	75	100.068				
	Se	77					
	Se	82	101.361				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, February 15, 2010 01:17:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\as and se.mth
Dataset File: C:\elandata\Dataset\100214\QC Std 7.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		709125	709124.679
	As	75	0.181	ug/L	166.153	23	0.001
	Se	77		ug/L		8953	-0.003
	Se	82	0.419	ug/L	18.773	140	0.000
	Kr	83		ug/L		161	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Ge	74		89.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\021010S1.sif
Batch ID:
Results Data Set: 021010S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 1/4/2010 13:53:20**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/10/2010 08:50:00**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0003	0.0003	08:50:51	Yes
2		[0.00]	0.0004	0.0013	0.0004	08:51:20	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0000				
%RSD:		0.00	14.85				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/10/2010 08:51:39**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0024	0.0111	0.0027	08:52:30	Yes
2		[0.2]	0.0023	0.0094	0.0026	08:53:00	Yes
Mean:		[0.2]	0.0023				
SD:		0.0	0.0001				
%RSD:		0.0	3.93				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01161 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/10/2010 08:53:19**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0057	0.0243	0.0061	08:54:09	Yes
2		[0.5]	0.0057	0.0233	0.0060	08:54:39	Yes
Mean:		[0.5]	0.0057				
SD:		0.0	0.0001				
%RSD:		0.0	1.03				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999969 Slope: 0.01141 Intercept: 0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/10/2010 08:54:59**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0231	0.0954	0.0234	08:55:50	Yes
2		[2.0]	0.0229	0.0944	0.0232	08:56:20	Yes
Mean:		[2.0]	0.0230				
SD:		0.0	0.0002				
%RSD:		0.0	0.70				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999997 Slope: 0.01149 Intercept: -0.00000

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/10/2010 08:56:40**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0565	0.2345	0.0568	08:57:32	Yes
2		[5.0]	0.0560	0.2313	0.0563	08:58:01	Yes
Mean:		[5.0]	0.0562				
SD:		0.0	0.0003				
%RSD:		0.0	0.59				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999961 Slope: 0.01125 Intercept: 0.00013

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/10/2010 08:58:22**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1100	0.4525	0.1103	08:59:12	Yes
2		[10.0]	0.1089	0.4493	0.1092	08:59:42	Yes
Mean:		[10.0]	0.1094				
SD:		0.0	0.0008				
%RSD:		0.0	0.71				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999887 Slope: 0.01096 Intercept: 0.00046

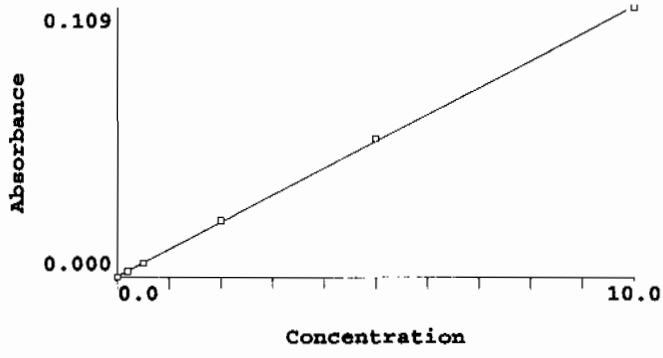

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.042	0.00	14.8
S0.2	0.0023	0.2	0.170	0.00	3.9
S0.5	0.0057	0.5	0.479	0.00	1.0
S2.0	0.0230	2.0	2.056	0.00	0.7

S5.0	0.0562	5.0	5.090	0.00	0.6
S10.0	0.1094	10.0	9.945	0.00	0.7

Correlation Coef.: 0.999887 Slope: 0.01096 Intercept: 0.00046

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/10/2010 09:00:01**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.248	5.248	0.0580	0.2383	0.0583	09:00:52	Yes
2	5.207	5.207	0.0575	0.2344	0.0578	09:01:22	Yes
Mean:	5.228	5.228	0.0577				
SD:	0.030	0.030	0.0003				
%RSD:	0.566	0.566	0.56				

QC value within limits for Hg 253.7 Recovery = 104.55%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/10/2010 09:01:41**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.028	-0.028	0.0001	0.0010	0.0005	09:02:33	Yes
2	-0.031	-0.031	0.0001	0.0010	0.0004	09:03:03	Yes
Mean:	-0.030	-0.030	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	7.743	7.743	19.45				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/10/2010 09:03:23**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.171	0.171	0.0023	0.0103	0.0026	09:04:14	Yes
2	0.168	0.168	0.0023	0.0101	0.0026	09:04:44	Yes
Mean:	0.170	0.170	0.0023				
SD:	0.002	0.002	0.0000				
%RSD:	1.222	1.222	0.98				

QC value within limits for Hg 253.7 Recovery = 84.87%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/10/2010 09:05:04**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.071	5.071	0.0560	0.2297	0.0563	09:05:55	Yes
2	5.062	5.062	0.0559	0.2309	0.0562	09:06:25	Yes
Mean:	5.066	5.066	0.0560				
SD:	0.006	0.006	0.0001				
%RSD:	0.124	0.124	0.12				

QC value within limits for Hg 253.7 Recovery = 101.32%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/10/2010 09:06:44
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0001	0.0015	0.0005	09:07:34	Yes
2	-0.024	-0.024	0.0002	0.0022	0.0005	09:08:04	Yes
Mean:	-0.027	-0.027	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	14.23	14.23	25.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202037073|950546|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 2/10/2010 09:08:23
Data Type: Original

Replicate Data: 1202037073|950546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0001	0.0023	0.0005	09:09:14	Yes
2	-0.024	-0.024	0.0002	0.0028	0.0005	09:09:44	Yes
Mean:	-0.027	-0.027	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	12.04	12.04	21.14				

Sequence No.: 13
Sample ID: 1202037074|950546|10
Analyst: JXL
Autosampler Location: 13
Date Collected: 2/10/2010 09:10:04
Data Type: Original

Replicate Data: 1202037074|950546|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.567	3.567	0.0395	0.1631	0.0399	09:10:56	Yes
2	3.525	3.525	0.0391	0.1620	0.0394	09:11:26	Yes
Mean:	3.546	3.546	0.0393				
SD:	0.030	0.030	0.0003				
%RSD:	0.843	0.843	0.83				

Sequence No.: 14
Sample ID: 245910001|950546|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 2/10/2010 09:11:46
Data Type: Original

Replicate Data: 245910001|950546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.425	0.425	0.0051	0.0236	0.0054	09:12:36	Yes
2	0.422	0.422	0.0051	0.0228	0.0054	09:13:06	Yes
Mean:	0.424	0.424	0.0051				
SD:	0.002	0.002	0.0000				
%RSD:	0.516	0.516	0.47				

Sequence No.: 15
Sample ID: 245910002|950546|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 2/10/2010 09:13:25
Data Type: Original

Replicate Data: 245910002|950546|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 245913001|950546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.053	0.053	0.0010	0.0053	0.0014	09:22:33	Yes
2	0.057	0.057	0.0011	0.0055	0.0014	09:23:03	Yes
Mean:	0.055	0.055	0.0011				
SD:	0.003	0.003	0.0000				
%RSD:	5.084	5.084	2.90				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 1202037075|950546|1 Date Collected: 2/10/2010 09:23:23
Analyst: JXL Data Type: Original

Replicate Data: 1202037075|950546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.073	0.073	0.0013	0.0070	0.0016	09:24:14	Yes
2	0.075	0.075	0.0013	0.0076	0.0016	09:24:44	Yes
Mean:	0.074	0.074	0.0013				
SD:	0.001	0.001	0.0000				
%RSD:	1.353	1.353	0.87				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 2/10/2010 09:25:03
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.059	5.059	0.0559	0.2322	0.0562	09:25:54	Yes
2	5.022	5.022	0.0555	0.2308	0.0558	09:26:24	Yes
Mean:	5.041	5.041	0.0557				
SD:	0.026	0.026	0.0003				
%RSD:	0.518	0.518	0.51				

QC value within limits for Hg 253.7 Recovery = 100.82%
All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/10/2010 09:26:43
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0001	0.0028	0.0005	09:27:34	Yes
2	-0.022	-0.022	0.0002	0.0043	0.0005	09:28:04	Yes
Mean:	-0.025	-0.025	0.0002				
SD:	0.005	0.005	0.0001				
%RSD:	20.69	20.69	32.62				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 Autosampler Location: 22
Sample ID: 1202037076|950546|1 Date Collected: 2/10/2010 09:28:23
Analyst: JXL Data Type: Original

Replicate Data: 1202037076|950546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.134	2.134	0.0238	0.0991	0.0242	09:29:15	Yes
2	2.148	2.148	0.0240	0.0995	0.0243	09:29:45	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.016	0.016	0.0006	0.0041	0.0009	09:37:39	Yes
2	0.016	0.016	0.0006	0.0038	0.0009	09:38:09	Yes
Mean:	0.016	0.016	0.0006				
SD:	0.000	0.000	0.0000				
%RSD:	1.593	1.593	0.44				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 245913005|950546|1 **Date Collected: 2/10/2010 09:38:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 245913005|950546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.179	0.179	0.0024	0.0113	0.0027	09:39:19	Yes
2	0.175	0.175	0.0024	0.0114	0.0027	09:39:49	Yes
Mean:	0.177	0.177	0.0024				
SD:	0.003	0.003	0.0000				
%RSD:	1.737	1.737	1.41				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202037079|950549|1 **Date Collected: 2/10/2010 09:40:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202037079|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.039	-0.039	0.0000	0.0013	0.0003	09:40:59	Yes
2	-0.037	-0.037	0.0001	0.0011	0.0004	09:41:28	Yes
Mean:	-0.038	-0.038	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	4.954	4.954	53.16				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202037080|950549|10 **Date Collected: 2/10/2010 09:41:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202037080|950549|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.626	3.626	0.0402	0.1670	0.0405	09:42:38	Yes
2	3.608	3.608	0.0400	0.1650	0.0403	09:43:08	Yes
Mean:	3.617	3.617	0.0401				
SD:	0.013	0.013	0.0001				
%RSD:	0.346	0.346	0.34				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 245915001|950549|1 **Date Collected: 2/10/2010 09:43:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 245915001|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.320	0.320	0.0040	0.0176	0.0043	09:44:17	Yes
2	0.321	0.321	0.0040	0.0181	0.0043	09:44:47	Yes
Mean:	0.321	0.321	0.0040				
SD:	0.001	0.001	0.0000				
%RSD:	0.400	0.400	0.35				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/10/2010 09:45:06**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.032	5.032	0.0556	0.2317	0.0559	09:45:56	Yes
2	5.045	5.045	0.0557	0.2313	0.0560	09:46:26	Yes
Mean:	5.038	5.038	0.0557				
SD:	0.009	0.009	0.0001				
%RSD:	0.188	0.188	0.19				

QC value within limits for Hg 253.7 Recovery = 100.77%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/10/2010 09:46:45
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.040	-0.040	0.0000	0.0012	0.0003	09:47:36	Yes
2	-0.033	-0.033	0.0001	0.0018	0.0004	09:48:05	Yes
Mean:	-0.036	-0.036	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	14.00	14.00	91.62				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 245915002|950549|1 Date Collected: 2/10/2010 09:48:25
Analyst: JXL Data Type: Original

Replicate Data: 245915002|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.112	0.112	0.0017	0.0083	0.0020	09:49:16	Yes
2	0.118	0.118	0.0017	0.0086	0.0021	09:49:46	Yes
Mean:	0.115	0.115	0.0017				
SD:	0.005	0.005	0.0001				
%RSD:	3.996	3.996	2.93				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 245915003|950549|1 Date Collected: 2/10/2010 09:50:05
Analyst: JXL Data Type: Original

Replicate Data: 245915003|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.293	0.293	0.0037	0.0166	0.0040	09:50:56	Yes
2	0.289	0.289	0.0036	0.0164	0.0039	09:51:26	Yes
Mean:	0.291	0.291	0.0036				
SD:	0.003	0.003	0.0000				
%RSD:	0.996	0.996	0.87				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 245915004|950549|1 Date Collected: 2/10/2010 09:51:45
Analyst: JXL Data Type: Original

Replicate Data: 245915004|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.161	0.161	0.0022	0.0106	0.0025	09:52:37	Yes

Replicate Data: 1202037082|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.259	2.259	0.0252	0.1063	0.0255	10:01:04	Yes
2	2.272	2.272	0.0253	0.1068	0.0257	10:01:34	Yes
Mean:	2.265	2.265	0.0253				
SD:	0.009	0.009	0.0001				
%RSD:	0.392	0.392	0.39				

==========

Sequence No.: 44 Autosampler Location: 40
Sample ID: 1202037084|950549|1 Date Collected: 2/10/2010 10:01:53
Analyst: JXL Data Type: Original

Replicate Data: 1202037084|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.217	2.217	0.0247	0.1037	0.0251	10:02:45	Yes
2	2.197	2.197	0.0245	0.1026	0.0248	10:03:14	Yes
Mean:	2.207	2.207	0.0246				
SD:	0.014	0.014	0.0002				
%RSD:	0.649	0.649	0.64				

==========

Sequence No.: 45 Autosampler Location: 41
Sample ID: 1202037083|950549|5 Date Collected: 2/10/2010 10:03:34
Analyst: JXL Data Type: Original

Replicate Data: 1202037083|950549|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0004	0.0029	0.0007	10:04:24	Yes
2	-0.009	-0.009	0.0004	0.0025	0.0007	10:04:54	Yes
Mean:	-0.009	-0.009	0.0004				
SD:	0.001	0.001	0.0000				
%RSD:	6.870	6.870	1.93				

==========

Sequence No.: 46 Autosampler Location: 7
Sample ID: CCV Date Collected: 2/10/2010 10:05:14
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.036	5.036	0.0556	0.2333	0.0559	10:06:04	Yes
2	5.040	5.040	0.0557	0.2322	0.0560	10:06:34	Yes
Mean:	5.038	5.038	0.0557				
SD:	0.003	0.003	0.0000				
%RSD:	0.065	0.065	0.06				

QC value within limits for Hg 253.7 Recovery = 100.76%
All analyte(s) passed QC.

==========

Sequence No.: 47 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/10/2010 10:06:53
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.038	-0.038	0.0000	0.0011	0.0004	10:07:44	Yes
2	-0.038	-0.038	0.0000	0.0015	0.0004	10:08:14	Yes
Mean:	-0.038	-0.038	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.142	0.142	1.47				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48
Sample ID: 245921002|950549|1
Analyst: JXL
Autosampler Location: 42
Date Collected: 2/10/2010 10:08:33
Data Type: Original

Replicate Data: 245921002|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.171	0.171	0.0023	0.0107	0.0026	10:09:25	Yes
2	0.167	0.167	0.0023	0.0108	0.0026	10:09:54	Yes
Mean:	0.169	0.169	0.0023				
SD:	0.003	0.003	0.0000				
%RSD:	1.717	1.717	1.38				

Sequence No.: 49
Sample ID: 245921003|950549|1
Analyst: JXL
Autosampler Location: 43
Date Collected: 2/10/2010 10:10:14
Data Type: Original

Replicate Data: 245921003|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.136	0.136	0.0019	0.0092	0.0023	10:11:05	Yes
2	0.133	0.133	0.0019	0.0095	0.0022	10:11:35	Yes
Mean:	0.134	0.134	0.0019				
SD:	0.002	0.002	0.0000				
%RSD:	1.504	1.504	1.15				

Sequence No.: 50
Sample ID: 245921004|950549|1
Analyst: JXL
Autosampler Location: 44
Date Collected: 2/10/2010 10:11:54
Data Type: Original

Replicate Data: 245921004|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.208	0.208	0.0027	0.0124	0.0030	10:12:45	Yes
2	0.206	0.206	0.0027	0.0121	0.0030	10:13:15	Yes
Mean:	0.207	0.207	0.0027				
SD:	0.001	0.001	0.0000				
%RSD:	0.502	0.502	0.42				

Sequence No.: 51
Sample ID: 245921005|950549|1
Analyst: JXL
Autosampler Location: 45
Date Collected: 2/10/2010 10:13:35
Data Type: Original

Replicate Data: 245921005|950549|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.194	0.194	0.0026	0.0119	0.0029	10:14:26	Yes
2	0.198	0.198	0.0026	0.0123	0.0029	10:14:56	Yes
Mean:	0.196	0.196	0.0026				
SD:	0.003	0.003	0.0000				
%RSD:	1.390	1.390	1.15				

Sequence No.: 52
Sample ID: 1202025301|945628|1
Analyst: JXL
Autosampler Location: 46
Date Collected: 2/10/2010 10:15:15
Data Type: Original

Replicate Data: 1202025301|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.041	-0.041	0.0000	0.0014	0.0003	10:16:06	Yes
2	-0.043	-0.043	-0.0000	0.0011	0.0003	10:16:36	Yes
Mean:	-0.042	-0.042	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.477	3.477	>999.9%				

==========

Sequence No.: 53 **Autosampler Location: 47**
Sample ID: 1202025302|945628|10 **Date Collected: 2/10/2010 10:16:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202025302|945628|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.378	3.378	0.0375	0.1574	0.0378	10:17:48	Yes
2	3.381	3.381	0.0375	0.1568	0.0378	10:18:18	Yes
Mean:	3.380	3.380	0.0375				
SD:	0.002	0.002	0.0000				
%RSD:	0.058	0.058	0.06				

==========

Sequence No.: 54 **Autosampler Location: 48**
Sample ID: 245394001|945628|1 **Date Collected: 2/10/2010 10:18:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 245394001|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0025	0.0118	0.0029	10:19:29	Yes
2	0.188	0.188	0.0025	0.0121	0.0028	10:19:59	Yes
Mean:	0.189	0.189	0.0025				
SD:	0.001	0.001	0.0000				
%RSD:	0.685	0.685	0.56				

==========

Sequence No.: 55 **Autosampler Location: 49**
Sample ID: 245394002|945628|1 **Date Collected: 2/10/2010 10:20:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 245394002|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.135	0.135	0.0019	0.0094	0.0023	10:21:11	Yes
2	0.135	0.135	0.0019	0.0096	0.0023	10:21:41	Yes
Mean:	0.135	0.135	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.085	0.085	0.06				

==========

Sequence No.: 56 **Autosampler Location: 50**
Sample ID: 245394003|945628|1 **Date Collected: 2/10/2010 10:22:01**
Analyst: JXL **Data Type: Original**

Replicate Data: 245394003|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.202	0.202	0.0027	0.0123	0.0030	10:22:52	Yes
2	0.203	0.203	0.0027	0.0123	0.0030	10:23:22	Yes
Mean:	0.203	0.203	0.0027				
SD:	0.001	0.001	0.0000				
%RSD:	0.340	0.340	0.28				

==========

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 245394004|945628|1 **Date Collected: 2/10/2010 10:23:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 245394004|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0010	0.0053	0.0013	10:24:32	Yes
2	0.047	0.047	0.0010	0.0052	0.0013	10:25:02	Yes
Mean:	0.050	0.050	0.0010				
SD:	0.003	0.003	0.0000				
%RSD:	6.928	6.928	3.76				

Sequence No.: 58
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 2/10/2010 10:25:22
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.013	5.013	0.0554	0.2332	0.0557	10:26:13	Yes
2	5.018	5.018	0.0554	0.2321	0.0557	10:26:43	Yes
Mean:	5.016	5.016	0.0554				
SD:	0.003	0.003	0.0000				
%RSD:	0.064	0.064	0.06				

QC value within limits for Hg 253.7 Recovery = 100.31%
All analyte(s) passed QC.

Sequence No.: 59
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/10/2010 10:27:01
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.039	-0.039	0.0000	0.0014	0.0003	10:27:52	Yes
2	-0.041	-0.041	0.0000	0.0015	0.0003	10:28:22	Yes
Mean:	-0.040	-0.040	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.624	3.624	108.53				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60
Sample ID: 245394005|945628|1
Analyst: JXL
Autosampler Location: 52
Date Collected: 2/10/2010 10:28:41
Data Type: Original

Replicate Data: 245394005|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.102	0.102	0.0016	0.0082	0.0019	10:29:32	Yes
2	0.102	0.102	0.0016	0.0078	0.0019	10:30:02	Yes
Mean:	0.102	0.102	0.0016				
SD:	0.000	0.000	0.0000				
%RSD:	0.082	0.082	0.06				

Sequence No.: 61
Sample ID: 245394006|945628|1
Analyst: JXL
Autosampler Location: 53
Date Collected: 2/10/2010 10:30:21
Data Type: Original

Replicate Data: 245394006|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.116	0.116	0.0017	0.0085	0.0020	10:31:12	Yes
2	0.116	0.116	0.0017	0.0088	0.0020	10:31:42	Yes
Mean:	0.116	0.116	0.0017				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.062	0.062	0.0011	0.0062	0.0015	10:39:34	Yes
2	0.063	0.063	0.0011	0.0063	0.0015	10:40:04	Yes
Mean:	0.063	0.063	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	1.645	1.645	0.99				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 245394012|945628|1 **Date Collected: 2/10/2010 10:40:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 245394012|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.239	0.239	0.0031	0.0146	0.0034	10:41:16	Yes
2	0.241	0.241	0.0031	0.0147	0.0034	10:41:45	Yes
Mean:	0.240	0.240	0.0031				
SD:	0.001	0.001	0.0000				
%RSD:	0.364	0.364	0.31				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 245394013|945628|1 **Date Collected: 2/10/2010 10:42:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 245394013|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.359	0.359	0.0044	0.0198	0.0047	10:42:57	Yes
2	0.356	0.356	0.0044	0.0198	0.0047	10:43:27	Yes
Mean:	0.357	0.357	0.0044				
SD:	0.002	0.002	0.0000				
%RSD:	0.452	0.452	0.41				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 245394014|945628|1 **Date Collected: 2/10/2010 10:43:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 245394014|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.081	0.081	0.0013	0.0069	0.0017	10:44:38	Yes
2	0.083	0.083	0.0014	0.0075	0.0017	10:45:08	Yes
Mean:	0.082	0.082	0.0014				
SD:	0.001	0.001	0.0000				
%RSD:	1.641	1.641	1.09				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/10/2010 10:45:28**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.906	4.906	0.0542	0.2292	0.0545	10:46:19	Yes
2	4.951	4.951	0.0547	0.2318	0.0550	10:46:49	Yes
Mean:	4.929	4.929	0.0545				
SD:	0.032	0.032	0.0003				
%RSD:	0.641	0.641	0.64				

QC value within limits for Hg 253.7 Recovery = 98.58%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB
Analyst:
Date Collected: 2/10/2010 10:47:08
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.041	-0.041	0.0000	0.0013	0.0003	10:47:59	Yes
2	-0.040	-0.040	0.0000	0.0017	0.0003	10:48:29	Yes
Mean:	-0.041	-0.041	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.451	2.451	100.14				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72
Sample ID: 245394015|945628|1
Analyst: JXL
Autosampler Location: 62
Date Collected: 2/10/2010 10:48:48
Data Type: Original

Replicate Data: 245394015|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.101	0.101	0.0016	0.0078	0.0019	10:49:40	Yes
2	0.105	0.105	0.0016	0.0085	0.0019	10:50:10	Yes
Mean:	0.103	0.103	0.0016				
SD:	0.003	0.003	0.0000				
%RSD:	2.458	2.458	1.75				

Sequence No.: 73
Sample ID: 245396001|945628|1
Analyst: JXL
Autosampler Location: 63
Date Collected: 2/10/2010 10:50:29
Data Type: Original

Replicate Data: 245396001|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.169	0.169	0.0023	0.0110	0.0026	10:51:21	Yes
2	0.172	0.172	0.0023	0.0116	0.0027	10:51:51	Yes
Mean:	0.170	0.170	0.0023				
SD:	0.002	0.002	0.0000				
%RSD:	1.307	1.307	1.05				

Sequence No.: 74
Sample ID: 1202025303|945628|1
Analyst: JXL
Autosampler Location: 64
Date Collected: 2/10/2010 10:52:11
Data Type: Original

Replicate Data: 1202025303|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.198	0.198	0.0026	0.0124	0.0029	10:53:01	Yes
2	0.204	0.204	0.0027	0.0131	0.0030	10:53:31	Yes
Mean:	0.201	0.201	0.0027				
SD:	0.004	0.004	0.0000				
%RSD:	2.008	2.008	1.66				

Sequence No.: 75
Sample ID: 1202025304|945628|1
Analyst: JXL
Autosampler Location: 65
Date Collected: 2/10/2010 10:53:51
Data Type: Original

Replicate Data: 1202025304|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.236	2.236	0.0250	0.1052	0.0253	10:54:43	Yes
2	2.239	2.239	0.0250	0.1050	0.0253	10:55:13	Yes

Mean:	2.238	2.238	0.0250
SD:	0.002	0.002	0.0000
%RSD:	0.086	0.086	0.08

==========

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 1202025306|945628|1 **Date Collected: 2/10/2010 10:55:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202025306|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.212	2.212	0.0247	0.1043	0.0250	10:56:24	Yes
2	2.211	2.211	0.0247	0.1044	0.0250	10:56:54	Yes
Mean:	2.212	2.212	0.0247				
SD:	0.001	0.001	0.0000				
%RSD:	0.030	0.030	0.03				

==========

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 1202025305|945628|5 **Date Collected: 2/10/2010 10:57:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202025305|945628|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0005	0.0035	0.0008	10:58:04	Yes
2	0.001	0.001	0.0005	0.0036	0.0008	10:58:34	Yes
Mean:	0.001	0.001	0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	17.74	17.74	0.42				

==========

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 245396002|945628|1 **Date Collected: 2/10/2010 10:58:54**
Analyst: JXL **Data Type: Original**

Replicate Data: 245396002|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.302	0.302	0.0038	0.0172	0.0041	10:59:46	Yes
2	0.309	0.309	0.0038	0.0179	0.0042	11:00:15	Yes
Mean:	0.306	0.306	0.0038				
SD:	0.005	0.005	0.0001				
%RSD:	1.600	1.600	1.41				

==========

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 245396003|945628|1 **Date Collected: 2/10/2010 11:00:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 245396003|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.205	0.205	0.0027	0.0123	0.0030	11:01:26	Yes
2	0.205	0.205	0.0027	0.0128	0.0030	11:01:56	Yes
Mean:	0.205	0.205	0.0027				
SD:	0.000	0.000	0.0000				
%RSD:	0.006	0.006	0.01				

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 245396004|945628|1 **Date Collected: 2/10/2010 11:02:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 245396004|945628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.192	0.192	0.0026	0.0119	0.0029	11:03:07	Yes
2	0.198	0.198	0.0026	0.0124	0.0029	11:03:37	Yes
Mean:	0.195	0.195	0.0026				
SD:	0.004	0.004	0.0000				
%RSD:	2.208	2.208	1.82				

==========

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202037458|950741|1 **Date Collected: 2/10/2010 11:03:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202037458|950741|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	-0.0000	0.0011	0.0003	11:04:48	Yes
2	-0.039	-0.039	0.0000	0.0019	0.0003	11:05:18	Yes
Mean:	-0.042	-0.042	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	9.471	9.471	696.05				

==========

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/10/2010 11:05:38**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.053	4.053	0.0449	0.2377	0.0452	11:06:29	Yes
2	3.983	3.983	0.0441	0.2366	0.0444	11:06:59	Yes
Mean:	4.018	4.018	0.0445				
SD:	0.050	0.050	0.0005				
%RSD:	1.236	1.236	1.22				

QC value within limits for Hg 253.7 Recovery = 80.36%
All analyte(s) passed QC.

==========

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/10/2010 11:07:17**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	-0.0001	0.0012	0.0003	11:08:08	Yes
2	-0.050	-0.050	-0.0001	0.0010	0.0002	11:08:38	Yes
Mean:	-0.048	-0.048	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.174	5.174	38.40				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 1202037459|950741|10 **Date Collected: 2/10/2010 11:08:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202037459|950741|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.903	2.903	0.0323	0.1710	0.0326	11:09:50	Yes
2	2.926	2.926	0.0325	0.1678	0.0328	11:10:19	Yes
Mean:	2.914	2.914	0.0324				
SD:	0.016	0.016	0.0002				
%RSD:	0.557	0.557	0.55				

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 945392

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202024765	UI062540-MS	.516	g
MS	1202024767	UI091015-A	.5	mL
MS	1202024767	UI091015-B	.5	mL
MSD	1202024772	UI091015-A	.5	mL
MSD	1202024772	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202024764		SW846 3050B	04-FEB-2010 13:30	0.534 g	50 mL	93.63296	SOIL
LCS	1202024765		SW846 3050B	04-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245383001		SW846 3050B	04-FEB-2010 13:30	0.531 g	50 mL	94.16196	SOIL
SAMPLE	245383002		SW846 3050B	04-FEB-2010 13:30	0.54 g	50 mL	92.59259	SOIL
SAMPLE	245383003		SW846 3050B	04-FEB-2010 13:30	0.545 g	50 mL	91.74312	SOIL
SAMPLE	245383004		SW846 3050B	04-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
SAMPLE	245383005		SW846 3050B	04-FEB-2010 13:30	0.543 g	50 mL	92.08103	SOIL
SAMPLE	245385001		SW846 3050B	04-FEB-2010 13:30	0.545 g	50 mL	91.74312	SOIL
SAMPLE	245385002		SW846 3050B	04-FEB-2010 13:30	0.549 g	50 mL	91.07468	SOIL
SAMPLE	245385003		SW846 3050B	04-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
SAMPLE	245385004		SW846 3050B	04-FEB-2010 13:30	0.53 g	50 mL	94.33962	SOIL
SAMPLE	245385005		SW846 3050B	04-FEB-2010 13:30	0.543 g	50 mL	92.08103	SOIL
SAMPLE	245385006		SW846 3050B	04-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
SAMPLE	245385007		SW846 3050B	04-FEB-2010 13:30	0.556 g	50 mL	89.92806	SOIL
SAMPLE	245385008		SW846 3050B	04-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245385009		SW846 3050B	04-FEB-2010 13:30	0.53 g	50 mL	94.33962	SOIL
SAMPLE	245385010		SW846 3050B	04-FEB-2010 13:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245385011		SW846 3050B	04-FEB-2010 13:30	0.538 g	50 mL	92.9368	SOIL
SAMPLE	245396001		SW846 3050B	04-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
DUP	1202024766	245396001	SW846 3050B	04-FEB-2010 13:30	0.569 g	50 mL	87.87346	SOIL
MS	1202024767	245396001	SW846 3050B	04-FEB-2010 13:30	0.547 g	50 mL	91.40768	SOIL
MSD	1202024772	245396001	SW846 3050B	04-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
SDILT	1202024768	245396001	SW846 3050B	04-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245396002		SW846 3050B	04-FEB-2010 13:30	0.534 g	50 mL	93.63296	SOIL
SAMPLE	245396003		SW846 3050B	04-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245396004		SW846 3050B	04-FEB-2010 13:30	0.528 g	50 mL	94.69697	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

1203655-02	1.5 mL	Hydrogen Peroxide 30%	Comments. Brown,medium soil.
1264396	5 mL	Nitric Acid CONC.	

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 945398

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202024774	UI062540-I	.502	g
MS	1202024776	UI100120-01	.25	mL
MS	1202024776	UI100120-06	.25	mL
MSD	1202024778	UI100120-01	.25	mL
MSD	1202024778	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202024773		SW846 3050B	04-FEB-2010 13:30	0.524 g	50 mL	95.41985	SOIL
LCS	1202024774		SW846 3050B	04-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245383001		SW846 3050B	04-FEB-2010 13:30	0.515 g	50 mL	97.08738	SOIL
SAMPLE	245383002		SW846 3050B	04-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL
SAMPLE	245383003		SW846 3050B	04-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245383004		SW846 3050B	04-FEB-2010 13:30	0.531 g	50 mL	94.16196	SOIL
SAMPLE	245383005		SW846 3050B	04-FEB-2010 13:30	0.515 g	50 mL	97.08738	SOIL
SAMPLE	245385001		SW846 3050B	04-FEB-2010 13:30	0.553 g	50 mL	90.41591	SOIL
SAMPLE	245385002		SW846 3050B	04-FEB-2010 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245385003		SW846 3050B	04-FEB-2010 13:30	0.559 g	50 mL	89.44544	SOIL
SAMPLE	245385004		SW846 3050B	04-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
SAMPLE	245385005		SW846 3050B	04-FEB-2010 13:30	0.539 g	50 mL	92.76438	SOIL
SAMPLE	245385006		SW846 3050B	04-FEB-2010 13:30	0.515 g	50 mL	97.08738	SOIL
SAMPLE	245385007		SW846 3050B	04-FEB-2010 13:30	0.508 g	50 mL	98.4252	SOIL
SAMPLE	245385008		SW846 3050B	04-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245385009		SW846 3050B	04-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245385010		SW846 3050B	04-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245385011		SW846 3050B	04-FEB-2010 13:30	0.537 g	50 mL	93.10987	SOIL
SAMPLE	245396001		SW846 3050B	04-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
DUP	1202024775	245396001	SW846 3050B	04-FEB-2010 13:30	0.542 g	50 mL	92.25092	SOIL
MS	1202024776	245396001	SW846 3050B	04-FEB-2010 13:30	0.51 g	50 mL	98.03922	SOIL
MSD	1202024778	245396001	SW846 3050B	04-FEB-2010 13:30	0.524 g	50 mL	95.41985	SOIL
SDILT	1202024777	245396001	SW846 3050B	04-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	245396002		SW846 3050B	04-FEB-2010 13:30	0.504 g	50 mL	99.20635	SOIL
SAMPLE	245396003		SW846 3050B	04-FEB-2010 13:30	0.561 g	50 mL	89.12656	SOIL
SAMPLE	245396004		SW846 3050B	04-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

100202	10 mL	HYDROCHLORIC ACID	Comments. Brown,medium soil.
1264396	1.25 mL	Nitric Acid CONC.	

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 945627

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202025302	UI031809A	.202	g
MS	1202025304	WHG100209-14	.3	mL
MSD	1202025306	WHG100209-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202025301		SW846 7471A Prep	09-FEB-2010 13:50	0.519 g	30 mL	57.80347	SOIL
LCS	1202025302		SW846 7471A Prep	09-FEB-2010 13:50	0.202 g	30 mL	148.51485	SOIL
SAMPLE	245394001		SW846 7471A Prep	09-FEB-2010 13:50	0.591 g	30 mL	50.76142	SOIL
SAMPLE	245394002		SW846 7471A Prep	09-FEB-2010 13:50	0.524 g	30 mL	57.25191	SOIL
SAMPLE	245394003		SW846 7471A Prep	09-FEB-2010 13:50	0.524 g	30 mL	57.25191	SOIL
SAMPLE	245394004		SW846 7471A Prep	09-FEB-2010 13:50	0.52 g	30 mL	57.69231	SOIL
SAMPLE	245394005		SW846 7471A Prep	09-FEB-2010 13:50	0.585 g	30 mL	51.28205	SOIL
SAMPLE	245394006		SW846 7471A Prep	09-FEB-2010 13:50	0.538 g	30 mL	55.76208	SOIL
SAMPLE	245394007		SW846 7471A Prep	09-FEB-2010 13:50	0.538 g	30 mL	55.76208	SOIL
SAMPLE	245394008		SW846 7471A Prep	09-FEB-2010 13:50	0.526 g	30 mL	57.03422	SOIL
SAMPLE	245394009		SW846 7471A Prep	09-FEB-2010 13:50	0.568 g	30 mL	52.8169	SOIL
SAMPLE	245394010		SW846 7471A Prep	09-FEB-2010 13:50	0.588 g	30 mL	51.02041	SOIL
SAMPLE	245394011		SW846 7471A Prep	09-FEB-2010 13:50	0.531 g	30 mL	56.49718	SOIL
SAMPLE	245394012		SW846 7471A Prep	09-FEB-2010 13:50	0.508 g	30 mL	59.05512	SOIL
SAMPLE	245394013		SW846 7471A Prep	09-FEB-2010 13:50	0.553 g	30 mL	54.24955	SOIL
SAMPLE	245394014		SW846 7471A Prep	09-FEB-2010 13:50	0.6 g	30 mL	50	SOIL
SAMPLE	245394015		SW846 7471A Prep	09-FEB-2010 13:50	0.542 g	30 mL	55.35055	SOIL
SAMPLE	245396001		SW846 7471A Prep	09-FEB-2010 13:50	0.534 g	30 mL	56.17978	SOIL
DUP	1202025303	245396001	SW846 7471A Prep	09-FEB-2010 13:50	0.572 g	30 mL	52.44755	SOIL
MS	1202025304	245396001	SW846 7471A Prep	09-FEB-2010 13:50	0.54 g	30 mL	55.55556	SOIL
MSD	1202025306	245396001	SW846 7471A Prep	09-FEB-2010 13:50	0.538 g	30 mL	55.76208	SOIL
SDILT	1202025305	245396001	SW846 7471A Prep	09-FEB-2010 13:50	0.534 g	30 mL	56.17978	SOIL
SAMPLE	245396002		SW846 7471A Prep	09-FEB-2010 13:50	0.508 g	30 mL	59.05512	SOIL
SAMPLE	245396003		SW846 7471A Prep	09-FEB-2010 13:50	0.531 g	30 mL	56.49718	SOIL
SAMPLE	245396004		SW846 7471A Prep	09-FEB-2010 13:50	0.582 g	30 mL	51.54639	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent

Comments. Sample 245396001 is a dry powdery brown soil.
Digestion Start Date: 09-FEB-10 13:50
Digestion End Date: 09-FEB-10 14:20

Prep LogBook

WHG100209-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100209-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100209-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100209-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100209-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100209-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
945396	See Below		

Potentially affected work order(s)(SDG): 245383(10-1381-1),245385(10-1383),245396(10-1394)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202024766DUP	The sample and sample duplicate % RPD failed outside the control limits for Ni and U due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 18-FEB-10

Data Validator/Group Leader:

Samantha Jacobs 18-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
945399	See Below		

Potentially affected work order(s)(SDG): 245383(10-1381-1),245385(10-1383),245396(10-1394)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202024776MS	1. The matrix spike recovery failed outside of the control limits for aluminum and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
2. Failed RPD for DUP: QC 1202024775DUP	2. The sample and sample duplicate % RPD failed outside the control limits for calcium and chromium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
3. Failed Recovery for MSD/PSD: QC 1202024778MSD	3. The matrix spike duplicate recovery failed outside of the control limits for aluminum due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 16-FEB-10

Data Validator/Group Leader:
Eric Lawson 16-FEB-10

Standard Logbook

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				
Description:	Mercury Source Standard #1 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID:	UHG1167641-02	**Opened:**	13-AUG-09	**Amount :**	100 mL
Name:	MHGSTOCK2	**Received:**	13-AUG-09	**Catalog Number :**	AHG1KN-100
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	4905530
Employee:	Bryan Davis			**Solvent :**	3% HNO3
Supplier:	Ricca Chemical Company				
Description:	Mercury Source Standard #2 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID:	UI031809A	**Opened:**	18-MAR-09	**Catalog Number :**	540
Name:	METALSOILSRM	**Received:**	18-MAR-09	**Lot Number :**	D061-540
Type:	Source Material	**Expires:**	10-OCT-10		
Employee:	Jamie Johnson				
Supplier:	ERA				
Description:	Metals LCS Soil SRM				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I

Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100126-11 **Opened:** 26-JAN-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 26-JAN-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 26-JAN-11 **Lot Number :** 1018321
Employee: Elizabeth Janssen **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100209-01 **Opened:** 09-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 09-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 10-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100209-02 **Opened:** 09-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 09-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 10-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100209-07 **Opened:** 09-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 09-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 16-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100209-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100209-08 **Opened:** 09-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 09-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 16-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100209-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100209-09 **Opened:** 09-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 09-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 16-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100209-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100209-10 **Opened:** 09-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 09-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 16-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100209-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100209-11 **Opened:** 09-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 09-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 16-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100209-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100209-12 **Opened:** 09-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 09-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 16-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100209-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100209-14 **Opened:** 09-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 09-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 16-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100211-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100211-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216

Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809

Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496

Employee: Helen Camello

Supplier: o2si

Description: Trace ICP Calibration Standard 1.0ppm

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100213-04 **Opened:** 13-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 13-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 14-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1266278
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100213-04A **Opened:** 13-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 13-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100213-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100213-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100213-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100213-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100213-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100213-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100213-05 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 13-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100213-06 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 13-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100213-07 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 13-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 14-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1266278
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100213-08 **Opened:** 13-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 13-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100213-70 **Opened:** 13-FEB-10 **Balance Id :** 40245216

Name: ICPMS LINEAR RANGE ST **Received:** 13-FEB-10 **Pipet Id :** 1758088

Type: Working **Expires:** 14-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278

Employee: Paul Boyd

Supplier: 02SI

Description: ICPMS LINEAR RANGE STANDARD

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100214-04 **Opened:** 14-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 14-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 15-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1266278
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100214-04A **Opened:** 14-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 14-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100214-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100214-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100214-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100214-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100214-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100214-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100214-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100214-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100214-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100214-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100214-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100214-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100214-05 **Opened:** 14-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 14-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 15-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100214-06 **Opened:** 14-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 14-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 15-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100214-07 **Opened:** 14-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 14-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 15-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1266278
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100214-08 **Opened:** 14-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 14-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 15-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1266278
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100126-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100126-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100126-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100126-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1252836 **Opened:** 08-JAN-10 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 08-JAN-10
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1252838 **Opened:** 08-JAN-10 **Lot Number :** H41032
Name: I-HCL **Received:** 08-JAN-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 08-JAN-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1266278 **Opened:** 08-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 08-FEB-10
Type: Reagent/Solvent **Expires:** 15-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1252836	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1252838	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1394

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	944845	**Method:**	SW9012A Cyanide and Total
Prep Batch :	944844	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202023418	Method Blank (MB)
1202023419	245377002(RE15-10-7876) Sample Duplicate (DUP)
1202023420	245377003(RE15-10-7878) Sample Duplicate (DUP)
1202023421	245377002(RE15-10-7876) Matrix Spike (MS)
1202023422	245377003(RE15-10-7878) Matrix Spike (MS)
1202023423	245377002(RE15-10-7876) Matrix Spike Duplicate (MSD)
1202023424	245377003(RE15-10-7878) Matrix Spike Duplicate (MSD)
1202023425	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245377002 (RE15-10-7876) and 245377003 (RE15-10-7878).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202023425 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 17Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1394 GEL Work Order: 245396

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 10, 2010

Client SDG: 10-1394

Client Sample ID: RE15-10-7928
Sample ID: 245396001
Matrix: R
Collect Date: 21-JAN-10 12:00
Receive Date: 23-JAN-10
Collector: Client
Moisture: 3.61%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	78.3	70.5	259	ug/kg	1	AXC2 02/03/10	1056	944845	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/02/10	1533	944844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 10, 2010

Client SDG: 10-1394

Client Sample ID:	RE15-10-7929	Project:	LANL01004
Sample ID:	245396002	Client ID:	LANL010
Matrix:	R		
Collect Date:	21-JAN-10 12:00		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	27.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	232	80.8	297	ug/kg	1	AXC2 02/03/10	1057	944845	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/02/10	1533	944844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 10, 2010

Client SDG: 10-1394

Client Sample ID:	RE15-10-7927	Project:	LANL01004
Sample ID:	245396003	Client ID:	LANL010
Matrix:	R		
Collect Date:	21-JAN-10 12:00		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	24.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	141	86.5	318	ug/kg	1	AXC2 02/03/10	1058	944845	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/02/10	1533	944844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 10, 2010

Client SDG: 10-1394

Client Sample ID:	RE15-10-7930	Project:	LANL01004
Sample ID:	245396004	Client ID:	LANL010
Matrix:	R		
Collect Date:	21-JAN-10 12:00		
Receive Date:	23-JAN-10		
Collector:	Client		
Moisture:	11.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	206	75.3	277	ug/kg	1	AXC2 02/03/10	1102	944845	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/02/10	1533	944844

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: February 10, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 944845										
QC1202023419 245377002 DUP										
Cyanide, Total	J	75.5	J	94.6	ug/kg	22.4 ^		(+/-257)	AXC2	02/03/10 10:40
QC1202023420 245377003 DUP										
Cyanide, Total	J	78.5	J	81.9	ug/kg	4.23 ^		(+/-242)		02/03/10 10:44
QC1202023425 LCS										
Cyanide, Total	67900			92000	ug/kg		135	(32%-157%)		02/03/10 10:29
QC1202023418 MB										
Cyanide, Total			U	250	ug/kg					02/03/10 10:28
QC1202023421 245377002 MS										
Cyanide, Total	5250	J 75.5		5460	ug/kg		103	(26%-158%)		02/03/10 10:41
QC1202023422 245377003 MS										
Cyanide, Total	5230	J 78.5		5760	ug/kg		109	(26%-158%)		02/03/10 10:45
QC1202023423 245377002 MSD										
Cyanide, Total	4770	J 75.5		5100	ug/kg	6.68	105	(0%-30%)		02/03/10 10:42
QC1202023424 245377003 MSD										
Cyanide, Total	4670	J 78.5		5090	ug/kg	12.2	107	(0%-30%)		02/03/10 10:45

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 10-FEB-2010 16:48

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1394

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**03-FEB-2010 10:07:27**	**OM_2-3-2010_09-58-47**	**154**	**150**	**103**	**(90%-110%)**	**Yes**
CCV	03-FEB-2010 10:21:55	OM_2-3-2010_09-58-47	94.9	100	94.9	(90%-110%)	Yes
CCV	03-FEB-2010 10:34:24	OM_2-3-2010_09-58-47	95.1	100	95.1	(90%-110%)	Yes
CCV	03-FEB-2010 10:46:46	OM_2-3-2010_09-58-47	94.7	100	94.7	(90%-110%)	Yes
CCV	03-FEB-2010 10:59:15	OM_2-3-2010_09-58-47	95.1	100	95.1	(90%-110%)	Yes
CCV	03-FEB-2010 11:09:04	OM_2-3-2010_09-58-47	95.6	100	95.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**03-FEB-2010 10:09:17**	**OM_2-3-2010_09-58-47**	**0.701**	**10**	**Yes**
CCB	03-FEB-2010 10:23:45	OM_2-3-2010_09-58-47	0.634	10	Yes
CCB	03-FEB-2010 10:36:14	OM_2-3-2010_09-58-47	0.127	10	Yes
CCB	03-FEB-2010 10:48:37	OM_2-3-2010_09-58-47	0.239	10	Yes
CCB	03-FEB-2010 11:01:05	OM_2-3-2010_09-58-47	0.399	10	Yes
CCB	03-FEB-2010 11:10:54	OM_2-3-2010_09-58-47	0.332	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 944844

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202023425	URF1200957-01	.25	g
MS	1202023421	URF1184831-02	.025	mL
MS	1202023422	URF1184831-02	.025	mL
MSD	1202023423	URF1184831-02	.025	mL
MSD	1202023424	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202023418		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.5 g	25 mL	50	SOIL
LCS	1202023425		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245374001		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245374002		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245374003		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245374004		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245374005		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245374006		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245374007		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245377002		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.5 g	25 mL	50	SOIL
DUP	1202023419	245377002	SW846 9010B Prep	02-FEB-2010 15:33	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202023421	245377002	SW846 9010B Prep	02-FEB-2010 15:33	>12	0.5 g	25 mL	50	SOIL
MSD	1202023423	245377002	SW846 9010B Prep	02-FEB-2010 15:33	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245377003		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.5 g	25 mL	50	SOIL
DUP	1202023420	245377003	SW846 9010B Prep	02-FEB-2010 15:33	>12	0.54 g	25 mL	46.2963	SOIL
MS	1202023422	245377003	SW846 9010B Prep	02-FEB-2010 15:33	>12	0.5 g	25 mL	50	SOIL
MSD	1202023424	245377003	SW846 9010B Prep	02-FEB-2010 15:33	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245377004		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245377005		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245377006		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245377007		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245377008		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245377009		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245377010		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245396001		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245396002		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245396003		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245396004		SW846 9010B Prep	02-FEB-2010 15:33	>12	0.51 g	25 mL	49.01961	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100202-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments.

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/3/2010 10:00:18	OM_2-3-2010_09-58-47
150 ppb		1	axc2	2/3/2010 10:01:10	OM_2-3-2010_09-58-47
100 ppb		1	axc2	2/3/2010 10:02:02	OM_2-3-2010_09-58-47
50 ppb		1	axc2	2/3/2010 10:02:55	OM_2-3-2010_09-58-47
10 ppb		1	axc2	2/3/2010 10:03:48	OM_2-3-2010_09-58-47
CRDL 5.0 ppb		1	axc2	2/3/2010 10:04:42	OM_2-3-2010_09-58-47
ICAL-00		1	axc2	2/3/2010 10:05:36	OM_2-3-2010_09-58-47
ICV		1	axc2	2/3/2010 10:07:27	OM_2-3-2010_09-58-47
ICB		1	axc2	2/3/2010 10:09:17	OM_2-3-2010_09-58-47
CRDL		1	axc2	2/3/2010 10:11:07	OM_2-3-2010_09-58-47
245313004*	944843	1	axc2	2/3/2010 10:12:56	OM_2-3-2010_09-58-47
245313005	944843	1	axc2	2/3/2010 10:13:50	OM_2-3-2010_09-58-47
245313006	944843	1	axc2	2/3/2010 10:14:45	OM_2-3-2010_09-58-47
245313007	944843	1	axc2	2/3/2010 10:15:39	OM_2-3-2010_09-58-47
245313008	944843	1	axc2	2/3/2010 10:16:33	OM_2-3-2010_09-58-47
245313009	944843	1	axc2	2/3/2010 10:17:27	OM_2-3-2010_09-58-47
245313010	944843	1	axc2	2/3/2010 10:18:21	OM_2-3-2010_09-58-47
245313011	944843	1	axc2	2/3/2010 10:19:15	OM_2-3-2010_09-58-47
245313012	944843	1	axc2	2/3/2010 10:20:09	OM_2-3-2010_09-58-47
245313013	944843	1	axc2	2/3/2010 10:21:03	OM_2-3-2010_09-58-47
CCV		1	axc2	2/3/2010 10:21:55	OM_2-3-2010_09-58-47
CCB		1	axc2	2/3/2010 10:23:45	OM_2-3-2010_09-58-47
245313004	944843	1	axc2	2/3/2010 10:25:33	OM_2-3-2010_09-58-47
245313014	944843	1	axc2	2/3/2010 10:26:27	OM_2-3-2010_09-58-47
245377001	944843	1	axc2	2/3/2010 10:27:20	OM_2-3-2010_09-58-47
1202023418	944845	1	axc2	2/3/2010 10:28:14	OM_2-3-2010_09-58-47
1202023425	944845	25	axc2	2/3/2010 10:29:07	OM_2-3-2010_09-58-47
245374001	944845	1	axc2	2/3/2010 10:30:00	OM_2-3-2010_09-58-47
245374002	944845	1	axc2	2/3/2010 10:30:53	OM_2-3-2010_09-58-47
245374003	944845	1	axc2	2/3/2010 10:31:46	OM_2-3-2010_09-58-47
245374004	944845	1	axc2	2/3/2010 10:32:39	OM_2-3-2010_09-58-47
245374005	944845	1	axc2	2/3/2010 10:33:32	OM_2-3-2010_09-58-47
CCV		1	axc2	2/3/2010 10:34:24	OM_2-3-2010_09-58-47
CCB		1	axc2	2/3/2010 10:36:14	OM_2-3-2010_09-58-47
245374006	944845	1	axc2	2/3/2010 10:38:03	OM_2-3-2010_09-58-47
245374007	944845	1	axc2	2/3/2010 10:38:55	OM_2-3-2010_09-58-47
245377002	944845	1	axc2	2/3/2010 10:39:47	OM_2-3-2010_09-58-47
1202023419	944845	1	axc2	2/3/2010 10:40:39	OM_2-3-2010_09-58-47
1202023421	944845	1	axc2	2/3/2010 10:41:31	OM_2-3-2010_09-58-47
1202023423	944845	1	axc2	2/3/2010 10:42:23	OM_2-3-2010_09-58-47
245377003	944845	1	axc2	2/3/2010 10:43:15	OM_2-3-2010_09-58-47
1202023420	944845	1	axc2	2/3/2010 10:44:07	OM_2-3-2010_09-58-47
1202023422	944845	1	axc2	2/3/2010 10:45:00	OM_2-3-2010_09-58-47
1202023424	944845	1	axc2	2/3/2010 10:45:54	OM_2-3-2010_09-58-47
CCV		1	axc2	2/3/2010 10:46:46	OM_2-3-2010_09-58-47
CCB		1	axc2	2/3/2010 10:48:37	OM_2-3-2010_09-58-47
245377004	944845	1	axc2	2/3/2010 10:50:27	OM_2-3-2010_09-58-47
245377005	944845	1	axc2	2/3/2010 10:51:21	OM_2-3-2010_09-58-47
245377006	944845	1	axc2	2/3/2010 10:52:14	OM_2-3-2010_09-58-47
245377007	944845	1	axc2	2/3/2010 10:53:07	OM_2-3-2010_09-58-47
245377008	944845	1	axc2	2/3/2010 10:54:00	OM_2-3-2010_09-58-47
245377009	944845	1	axc2	2/3/2010 10:54:52	OM_2-3-2010_09-58-47
245377010	944845	1	axc2	2/3/2010 10:55:45	OM_2-3-2010_09-58-47
245396001	944845	1	axc2	2/3/2010 10:56:38	OM_2-3-2010_09-58-47
245396002	944845	1	axc2	2/3/2010 10:57:30	OM_2-3-2010_09-58-47
245396003	944845	1	axc2	2/3/2010 10:58:23	OM_2-3-2010_09-58-47
CCV		1	axc2	2/3/2010 10:59:15	OM_2-3-2010_09-58-47
CCB		1	axc2	2/3/2010 11:01:05	OM_2-3-2010_09-58-47

245396004	944845	1	axc2	2/3/2010	11:02:53 OM_2-3-2010_09-58-47
1202030428	947857	1	axc2	2/3/2010	11:03:45 OM_2-3-2010_09-58-47
1202030430	947857	250	axc2	2/3/2010	11:04:38 OM_2-3-2010_09-58-47
245875004	947857	1	axc2	2/3/2010	11:05:32 OM_2-3-2010_09-58-47
1202030429	947857	1	axc2	2/3/2010	11:06:26 OM_2-3-2010_09-58-47
245875006	947857	1	axc2	2/3/2010	11:07:18 OM_2-3-2010_09-58-47
245875008	947857	1	axc2	2/3/2010	11:08:12 OM_2-3-2010_09-58-47
CCV		1	axc2	2/3/2010	11:09:04 OM_2-3-2010_09-58-47
CCB		1	axc2	2/3/2010	11:10:54 OM_2-3-2010_09-58-47

Author: axc2 Date : 2/3/2010

Original Run Filename: OM_2-3-2010_09-58-47.OMN created 2/3/2010 09:58:47
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-3-2010_09-58-47.OMN last modified 2/3/2010 11:12:02
Current Run Author's Signature: [axc2]
Description: GL-GC-E-102 EPA 420.4, 9066
LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100203-01	1	S1	200	8.01	2/3/2010@10:00:18			200 ppb
WCN100203-02	1	S2	150	5.91	2/3/2010@10:01:10			150 ppb
WCN100203-03	1	S3	100	3.57	2/3/2010@10:02:02			100 ppb
WCN100203-04	1	S4	50.0	1.92	2/3/2010@10:02:55			50 ppb
WCN100203-05	1	S5	10.0	0.472	2/3/2010@10:03:48			10 ppb
WCN100203-06	1	S6	5.00	0.281	2/3/2010@10:04:42			CRDL 5.0 ppb
WCN100203-08	1	S7	0.00	0.0606	2/3/2010@10:05:36			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99850 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100203-07	1	S8	154	6.07	2/3/2010@10:07:27			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.0 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100203-08	1	S7	0.701	0.0233	2/3/2010@10:09:17			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.701 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.701 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100203-06	1	S6	7.11	0.275	2/3/2010@10:11:07			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	7.11 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	7.11 > 2.50					
		Message	Pass					
		Action	None					
245313004|944843|	1	90	403	15.9	2/3/2010@10:12:56			
245313005	1	91	1.84	0.0679	2/3/2010@10:13:50			
245313006	1	92	2.26	0.0845	2/3/2010@10:14:45			
245313007	1	93	2.03	0.0754	2/3/2010@10:15:39			
245313008	1	94	4.27	0.164	2/3/2010@10:16:33			
245313009	1	95	2.54	0.0954	2/3/2010@10:17:27			
245313010	1	96	1.43	0.0518	2/3/2010@10:18:21			
245313011	1	97	4.56	0.175	2/3/2010@10:19:15			
245313012	1	98	2.07	0.0769	2/3/2010@10:20:09			
245313013	1	99	6.52	0.252	2/3/2010@10:21:03			
WCN100203-03	1	S3	94.9	3.73	2/3/2010@10:21:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-5.1 < 10.0					
		Message	CCV Passed					

		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100203-08	1	S7	0.634	0.0206	2/3/2010@10:23:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.634 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.634 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245313004	1	90	1.91	0.0710	2/3/2010@10:25:33			
245313014	1	100	1.40	0.0506	2/3/2010@10:26:27			
245377001	1	101	1.32	0.0475	2/3/2010@10:27:20			
1202023418|944845|MB	1	1	1.19	0.0424	2/3/2010@10:28:14			
1202023425||LCS	1	2	36.8	1.44	2/3/2010@10:29:07		25.00	
245374001	1	3	1.52	0.0553	2/3/2010@10:30:00			
245374002	1	4	1.80	0.0664	2/3/2010@10:30:53			
245374003	1	5	2.24	0.0839	2/3/2010@10:31:46			
245374004	1	6	1.53	0.0558	2/3/2010@10:32:39			
245374005	1	7	1.73	0.0637	2/3/2010@10:33:32			
WCN100203-03	1	S3	95.1	3.73	2/3/2010@10:34:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100203-08	1	S7	0.127	7.16e-4	2/3/2010@10:36:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.127 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.127 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245374006	1	8	1.57	0.0573	2/3/2010@10:38:03			
245374007	1	9	1.65	0.0605	2/3/2010@10:38:55			
245377002	1	10	1.44	0.0524	2/3/2010@10:39:47			
1202023419||DUP	1	11	1.84	0.0679	2/3/2010@10:40:39			
1202023421||MS	1	12	104	4.09	2/3/2010@10:41:31			
1202023423||MSD	1	13	107	4.19	2/3/2010@10:42:23			
245377003	1	14	1.50	0.0547	2/3/2010@10:43:15			
1202023420||DUP	1	15	1.69	0.0622	2/3/2010@10:44:07			
1202023422||MS	1	16	110	4.31	2/3/2010@10:45:00			
1202023424||MSD	1	17	109	4.29	2/3/2010@10:45:54			
WCN100203-03	1	S3	94.7	3.72	2/3/2010@10:46:46			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100203-08	1	S7	0.239	0.00510	2/3/2010@10:48:37			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								

		Result:	0.239 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.239 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245377004	1	18	1.63	0.0599	2/3/2010@10:50:27			
245377005	1	19	1.81	0.0668	2/3/2010@10:51:21			
245377006	1	20	1.69	0.0623	2/3/2010@10:52:14			
245377007	1	21	1.94	0.0720	2/3/2010@10:53:07			
245377008	1	22	1.31	0.0471	2/3/2010@10:54:00			
245377009	1	23	2.11	0.0788	2/3/2010@10:54:52			
245377010	1	24	2.50	0.0938	2/3/2010@10:55:45			
245396001	1	25	1.51	0.0551	2/3/2010@10:56:38			
245396002	1	26	3.90	0.149	2/3/2010@10:57:30			
245396003	1	27	2.22	0.0829	2/3/2010@10:58:23			
WCN100203-03	1	S3	95.1	3.73	2/3/2010@10:59:15			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100203-08	1	S7	0.399	0.0114	2/3/2010@11:01:05			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.399 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.399 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245396004	1	28	3.72	0.142	2/3/2010@11:02:53			
1202030428|947857|MB	1	29	0.112	1.18e-4	2/3/2010@11:03:45			
1202030430||LCS	1	30	25.7	1.00	2/3/2010@11:04:38		250.00	
245875004	1	31	0.587	0.0188	2/3/2010@11:05:32			
1202030429||DUP	1	32	0.112	1.37e-4	2/3/2010@11:06:26			
245875006	1	33	0.267	0.00621	2/3/2010@11:07:18			
245875008	1	34	2.76	0.104	2/3/2010@11:08:12			
WCN100203-03	1	S3	95.6	3.76	2/3/2010@11:09:04			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100203-08	1	S7	0.332	0.00875	2/3/2010@11:10:54			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.332 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.332 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-3-2010_09-58-47.OMN

Property	Channel 1

Author: axc2 Date : 2/3/2010

	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

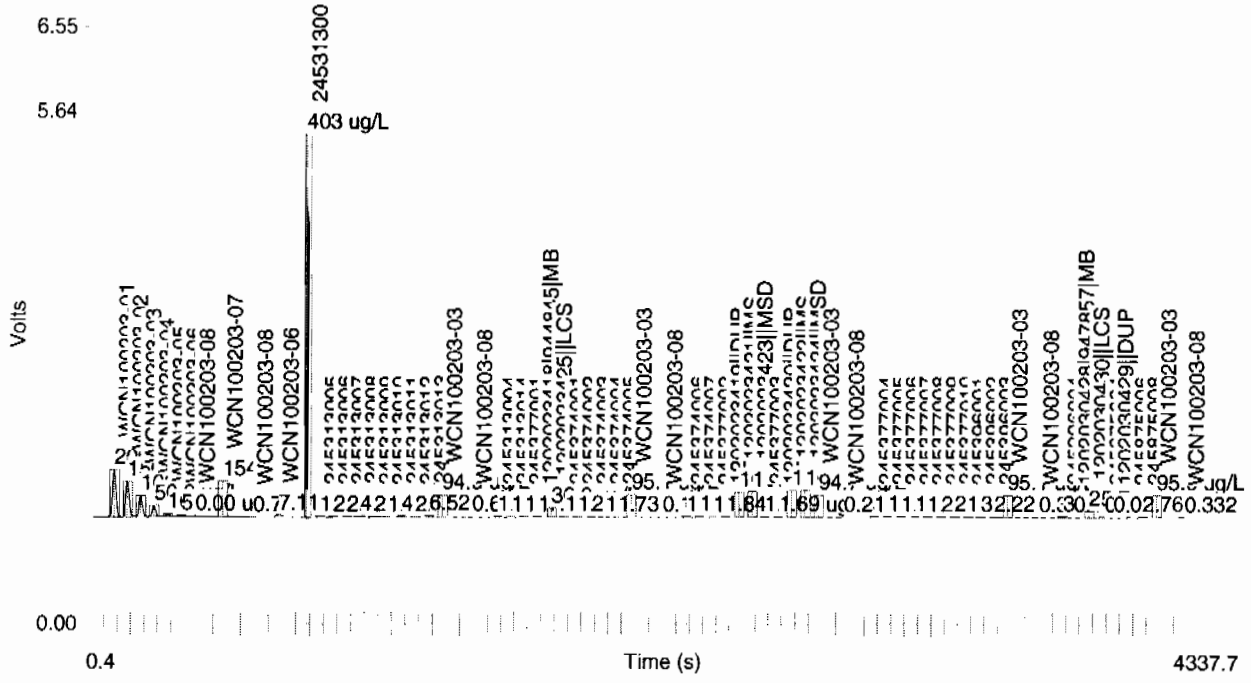

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.01	0.513	-2.1	2/3/2010	10:01:21
2	150	1	5.91	0.383	-0.4	2/3/2010	10:02:13
3	100	1	3.57	0.230	9.1	2/3/2010	10:03:05
4	50.0	1	1.92	0.125	2.3	2/3/2010	10:03:58
5	10.0	1	0.472	0.0303	-19.0	2/3/2010	10:04:52
6	5.00	1	0.281	0.0171	-40.2	2/3/2010	10:05:45
7	0.00	1	0.0606	0.0124		2/3/2010	10:06:39

Author: axc2 Date : 2/3/2010

Figure 1: TCYANIDE

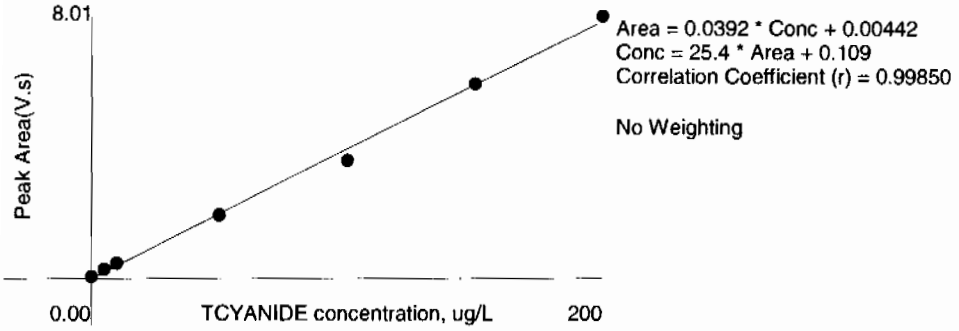

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1394

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	944890

Sample ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202023534	245385001(RE15-10-7303) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 245385001 (RE15-10-7303). The QC was from LANL work order 245385.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	944974
Prep Batch Number:	944890

Sample ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202023746	Method Blank (MB)
1202023747	245396001(RE15-10-7928) Sample Duplicate (DUP)
1202023748	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202023746 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245396001 (RE15-10-7928). The QC was from LANL work order 245396.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245396003 (RE15-10-7927) was given additional clean-up steps and recounted in order to remove suspected interferences.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	944976
Prep Batch Number:	944890

Sample ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202023751	Method Blank (MB)
1202023752	245396001(RE15-10-7928) Sample Duplicate (DUP)
1202023753	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202023751 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245396001 (RE15-10-7928). The QC was from LANL work order 245396.

QC Information
All of the QC samples met the required acceptance limits.

CSU

The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	944978
Prep Batch Number:	944890

Sample ID	Client ID
245396001	RE15-10-7928
245396004	RE15-10-7930
1202023754	Method Blank (MB)
1202023755	245396001(RE15-10-7928) Sample Duplicate (DUP)
1202023756	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as

Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202023754 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245396001 (RE15-10-7928). The QC was from LANL work order 245396.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U235 and U238 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949620
Prep Batch Number:	944890

Sample ID	Client ID
245396002	RE15-10-7929
245396003	RE15-10-7927
1202034525	Method Blank (MB)
1202034526	245396002(RE15-10-7929) Sample Duplicate (DUP)
1202034527	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202034525 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245396002 (RE15-10-7929). The QC was from LANL work order 245396.

QC Information
All of the QC samples met the required acceptance limits.

CSU

The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped to verify activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	944962
Prep Batch Number:	944890

Sample ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202023707	Method Blank (MB)
1202023708	245385005(RE15-10-7301) Sample Duplicate (DUP)
1202023709	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, August 2009, November 2009, December 2009 and January 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245385005 (RE15-10-7301). The QC was from LANL work order 245385.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample

UI	Data rejected due to high peak-width.	Cesium-137	1202023708	RE15-10-7301(245385005DUP)
UI	Data rejected due to interference.	Bismuth-211	245396001	RE15-10-7928
			245396002	RE15-10-7929
			245396003	RE15-10-7927
			245396004	RE15-10-7930
			1202023708	RE15-10-7301(245385005DUP)
		Cadmium-109	245396001	RE15-10-7928
			245396002	RE15-10-7929
			245396004	RE15-10-7930
			1202023708	RE15-10-7301(245385005DUP)
		Mercury-203	1202023708	RE15-10-7301(245385005DUP)
		Radium-224	245396001	RE15-10-7928
			245396002	RE15-10-7929
			245396003	RE15-10-7927
			245396004	RE15-10-7930
			1202023708	RE15-10-7301(245385005DUP)
UI	Data rejected due to low abundance.	Cesium-134	245396001	RE15-10-7928
			245396002	RE15-10-7929
			245396003	RE15-10-7927
			245396004	RE15-10-7930
		Strontium-85	245396001	RE15-10-7928
			245396002	RE15-10-7929
			245396003	RE15-10-7927
			245396004	RE15-10-7930
			1202023708	RE15-10-7301(245385005DUP)

Method/Analysis Information

Product: **H3**

Analytical Method: GL-RAD-A-002

Analytical Batch Number: 948401

Sample ID	Client ID
245396001	RE15-10-7928
245396002	RE15-10-7929
245396003	RE15-10-7927
245396004	RE15-10-7930
1202031679	Method Blank (MB)
1202031680	245396002(RE15-10-7929) Sample Duplicate (DUP)
1202031681	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245396002 (RE15-10-7929). The QC was from LANL work order 245396.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 3/17/2010

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1394 GEL Work Order: 245396

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7928
Sample ID: 245396001
Matrix: R
Collect Date: 21-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 3.61%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0168	0.0232	+/-0.00521	0.050	pCi/g		CXM2	02/11/10	2103	944974	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0028	0.0229	+/-0.00199	0.050	pCi/g		CXM2	02/12/10	1251	944976	3
Plutonium-239/240	U	0.0126	0.0172	+/-0.00546	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.863	0.134	+/-0.0897	0.100	pCi/g		CXM2	02/01/10	1309	944978	4
Uranium-235/236	U	0.0267	0.083	+/-0.0233	0.100	pCi/g						
Uranium-238		1.19	0.0775	+/-0.114	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0193	0.157	+/-0.0494	0.200	pCi/g		MXR1	02/04/10	2255	944962	5
Bismuth-211	UI	4.03	0.216	+/-0.279		pCi/g						
Bismuth-214		1.18	0.0751	+/-0.0832	0.200	pCi/g						
Cadmium-109	UI	4.31	0.766	+/-0.405		pCi/g						
Cerium-139	U	-0.024	0.0337	+/-0.0101	0.050	pCi/g						
Cesium-134	UI	0.106	0.0553	+/-0.0217	0.100	pCi/g						
Cesium-137	U	0.00594	0.0405	+/-0.012	0.100	pCi/g						
Cobalt-60	U	0.00777	0.0406	+/-0.0121	0.100	pCi/g						
Europium-152	U	-0.0887	0.101	+/-0.0419	0.200	pCi/g						
Lanthanum-140	U	-0.0817	0.0792	+/-0.0268		pCi/g						
Lead-212		1.85	0.0629	+/-0.128	0.100	pCi/g						
Lead-214		1.40	0.0754	+/-0.104	0.100	pCi/g						
Mercury-203	U	0.0377	0.0459	+/-0.0154	0.100	pCi/g						
Potassium-40		39.6	0.337	+/-1.91	1.00	pCi/g						
Radium-223	U	0.323	0.756	+/-0.249		pCi/g						
Radium-224	UI	5.04	0.715	+/-0.529		pCi/g						
Radium-226		1.18	0.0751	+/-0.0832		pCi/g						
Radium-228		1.78	0.138	+/-0.150	0.500	pCi/g						
Ruthenium-106	U	-0.0524	0.338	+/-0.102	0.800	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7928
Sample ID: 245396001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	-0.0217	0.0478	+/-0.0149	0.080	pCi/g						
Strontium-85	UI	0.131	0.0474	+/-0.0153		pCi/g						
Thallium-208		0.605	0.0366	+/-0.0421	0.080	pCi/g						
Thorium-227	U	0.140	0.442	+/-0.132		pCi/g						
Thorium-231	U	0.323	0.756	+/-0.249		pCi/g						
Thorium-234		2.06	1.30	+/-0.588	2.00	pCi/g						
Tin-113	U	-0.0238	0.0465	+/-0.0142	0.100	pCi/g						
Uranium-235	U	0.069	0.249	+/-0.0744	0.500	pCi/g						
Yttrium-88	U	0.0133	0.0335	+/-0.0106	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		2960	212	+/-233	250	pCi/L		KXK2	02/06/10	1138	948401	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	80.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7928
Sample ID: 245396001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7929
Sample ID: 245396002
Matrix: R
Collect Date: 21-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 27.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00347	0.021	+/-0.00754	0.050	pCi/g		CXM2	02/04/10	1450	944974	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00625	0.0341	+/-0.00626	0.050	pCi/g		CXM2	02/04/10	1450	944976	3
Plutonium-239/240		0.0333	0.0256	+/-0.00905	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.02	0.207	+/-0.293	0.100	pCi/g		CXM2	02/10/10	1057	949620	4
Uranium-235/236		0.138	0.134	+/-0.0413	0.100	pCi/g						
Uranium-238		11.1	0.142	+/-0.940	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.263	0.398	+/-0.131	0.200	pCi/g		MXR1	02/05/10	1859	944962	7
Bismuth-211	UI	4.39	0.446	+/-0.390		pCi/g						
Bismuth-214		1.34	0.157	+/-0.131	0.200	pCi/g						
Cadmium-109	UI	2.59	2.15	+/-0.799		pCi/g						
Cerium-139	U	-0.0279	0.0652	+/-0.020	0.050	pCi/g						
Cesium-134	UI	0.150	0.125	+/-0.0325	0.100	pCi/g						
Cesium-137		0.435	0.0796	+/-0.065	0.100	pCi/g						
Cobalt-60	U	0.0132	0.0917	+/-0.027	0.100	pCi/g						
Europium-152	U	-0.00485	0.211	+/-0.0744	0.200	pCi/g						
Lanthanum-140	U	-0.134	0.148	+/-0.0587		pCi/g						
Lead-212		1.87	0.114	+/-0.121	0.100	pCi/g						
Lead-214		1.53	0.156	+/-0.141	0.100	pCi/g						
Mercury-203	U	0.0461	0.0947	+/-0.0276	0.100	pCi/g						
Potassium-40		25.6	0.716	+/-1.53	1.00	pCi/g						
Radium-223	U	-0.0223	1.44	+/-0.443		pCi/g						
Radium-224	UI	4.62	1.30	+/-0.780		pCi/g						
Radium-226		1.34	0.157	+/-0.131		pCi/g						
Radium-228		1.80	0.266	+/-0.218	0.500	pCi/g						
Ruthenium-106	U	-0.327	0.658	+/-0.213	0.800	pCi/g						
Sodium-22	U	-0.00298	0.0929	+/-0.0282	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7929
Sample ID: 245396002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.104	0.103	+/-0.0292		pCi/g						
Thallium-208		0.453	0.0752	+/-0.0636	0.080	pCi/g						
Thorium-227	U	-0.355	0.860	+/-0.272		pCi/g						
Thorium-231	U	-0.0223	1.44	+/-0.443		pCi/g						
Thorium-234		13.6	3.07	+/-1.99	2.00	pCi/g						
Tin-113	U	-0.00635	0.0945	+/-0.0295	0.100	pCi/g						
Uranium-235	U	0.265	0.467	+/-0.230	0.500	pCi/g						
Yttrium-88	U	-0.00688	0.0674	+/-0.0218	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		977	212	+/-105	250	pCi/L		KXK2	02/06/10	1316	948401	8

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R
8	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	51.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	78.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7929
Sample ID: 245396002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7927
Sample ID: 245396003
Matrix: R
Collect Date: 21-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 24.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00919	0.0219	+/-0.00453	0.050	pCi/g		CXM2	02/16/10	1433	944974	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0137	0.032	+/-0.00762	0.050	pCi/g		CXM2	02/04/10	1450	944976	3
Plutonium-239/240		0.0352	0.0241	+/-0.00854	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		8.62	0.255	+/-0.783	0.100	pCi/g		CXM2	02/10/10	1057	949620	4
Uranium-235/236		1.01	0.165	+/-0.146	0.100	pCi/g						
Uranium-238		43.6	0.176	+/-3.70	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.231	0.306	+/-0.0921	0.200	pCi/g		MXR1	02/05/10	1900	944962	6
Bismuth-211	UI	3.32	0.295	+/-0.265		pCi/g						
Bismuth-214		0.954	0.101	+/-0.0812	0.200	pCi/g						
Cadmium-109	U	-2.58	1.84	+/-0.812		pCi/g						
Cerium-139	U	-0.00713	0.0498	+/-0.0162	0.050	pCi/g						
Cesium-134	UI	0.108	0.0704	+/-0.0258	0.100	pCi/g						
Cesium-137		0.523	0.0604	+/-0.0429	0.100	pCi/g						
Cobalt-60	U	-0.0169	0.0472	+/-0.015	0.100	pCi/g						
Europium-152	U	-0.0665	0.141	+/-0.052	0.200	pCi/g						
Lanthanum-140	U	-0.14	0.103	+/-0.0381		pCi/g						
Lead-212		1.53	0.0894	+/-0.111	0.100	pCi/g						
Lead-214		1.16	0.103	+/-0.0971	0.100	pCi/g						
Mercury-203	U	0.0222	0.0655	+/-0.0193	0.100	pCi/g						
Potassium-40		24.7	0.440	+/-1.30	1.00	pCi/g						
Radium-223	U	0.373	1.02	+/-0.331		pCi/g						
Radium-224	UI	3.79	1.02	+/-0.577		pCi/g						
Radium-226		0.954	0.101	+/-0.0812		pCi/g						
Radium-228		1.38	0.187	+/-0.157	0.500	pCi/g						
Ruthenium-106	U	0.000502	0.474	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0181	0.0525	+/-0.0164	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7927
Sample ID: 245396003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.120	0.0639	+/-0.0196		pCi/g						
Thallium-208		0.443	0.0518	+/-0.0426	0.080	pCi/g						
Thorium-227	U	-0.332	0.595	+/-0.186		pCi/g						
Thorium-231	U	0.373	1.02	+/-0.331		pCi/g						
Thorium-234		34.2	2.38	+/-3.28	2.00	pCi/g						
Tin-113	U	0.00196	0.0651	+/-0.0191	0.100	pCi/g						
Uranium-235		0.927	0.356	+/-0.192	0.500	pCi/g						
Yttrium-88	U	-0.00146	0.0391	+/-0.012	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1890	211	+/-162	250	pCi/L		KXK2	02/06/10	1454	948401	7

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	81.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	57.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	60.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7927
Sample ID: 245396003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7930
Sample ID: 245396004
Matrix: R
Collect Date: 21-JAN-10
Receive Date: 23-JAN-10
Collector: Client
Moisture: 11.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00203	0.0204	+/-0.00538	0.050	pCi/g		CXM2	02/04/10	1450	944974	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00137	0.0225	+/-0.00138	0.050	pCi/g		CXM2	02/04/10	1450	944976	3
Plutonium-239/240	U	0.00687	0.0169	+/-0.00414	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.60	0.138	+/-0.145	0.100	pCi/g		CXM2	02/01/10	1309	944978	4
Uranium-235/236	U	0.077	0.0856	+/-0.0213	0.100	pCi/g						
Uranium-238		4.97	0.080	+/-0.394	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0442	0.225	+/-0.0732	0.200	pCi/g		MXR1	02/05/10	1914	944962	5
Bismuth-211	UI	3.49	0.315	+/-0.244		pCi/g						
Bismuth-214		1.13	0.112	+/-0.0914	0.200	pCi/g						
Cadmium-109	UI	2.51	1.35	+/-0.443		pCi/g						
Cerium-139	U	-0.00221	0.0494	+/-0.0148	0.050	pCi/g						
Cesium-134	UI	0.0907	0.0889	+/-0.0316	0.100	pCi/g						
Cesium-137		0.0918	0.0632	+/-0.0403	0.100	pCi/g						
Cobalt-60	U	-0.00333	0.063	+/-0.0193	0.100	pCi/g						
Europium-152	U	-0.0602	0.161	+/-0.0649	0.200	pCi/g						
Lanthanum-140	U	-0.00694	0.124	+/-0.0385		pCi/g						
Lead-212		1.71	0.0916	+/-0.0837	0.100	pCi/g						
Lead-214		1.21	0.110	+/-0.0905	0.100	pCi/g						
Mercury-203	U	0.00404	0.0673	+/-0.0222	0.100	pCi/g						
Potassium-40		38.3	0.528	+/-1.67	1.00	pCi/g						
Radium-223	U	0.0488	1.07	+/-0.356		pCi/g						
Radium-224	UI	3.69	1.04	+/-0.497		pCi/g						
Radium-226		1.13	0.112	+/-0.0914		pCi/g						
Radium-228		1.54	0.218	+/-0.169	0.500	pCi/g						
Ruthenium-106	U	0.174	0.517	+/-0.150	0.800	pCi/g						
Sodium-22	U	0.0018	0.0753	+/-0.0226	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 17, 2010

Client Sample ID: RE15-10-7930
Sample ID: 245396004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0983	0.0706	+/-0.0207		pCi/g						
Thallium-208		0.505	0.0561	+/-0.0404	0.080	pCi/g						
Thorium-227	U	-0.0474	0.623	+/-0.180		pCi/g						
Thorium-231	U	0.0488	1.07	+/-0.356		pCi/g						
Thorium-234		4.77	1.95	+/-0.970	2.00	pCi/g						
Tin-113	U	0.0106	0.0698	+/-0.0202	0.100	pCi/g						
Uranium-235	U	-0.0464	0.358	+/-0.107	0.500	pCi/g						
Yttrium-88	U	-0.0062	0.0481	+/-0.0156	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		2710	211	+/-215	250	pCi/L		KXK2	02/06/10	1632	948401	6

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	79.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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< Result is less than value reported
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Contact: Ms. Joylene Valdez
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Report Date: February 17, 2010

Client Sample ID: RE15-10-7930
Sample ID: 245396004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
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^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: February 17, 2010
Page 1 of 7

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 944974										
QC1202023747 245396001 DUP										
Americium-241	U	0.0168	U	-0.000549	pCi/g	1.34		(0-1)	CXM2	02/04/1014:50
	TPU:	+/-0.00521		+/-0.00126						
	Yield:	86.1		89.1						
QC1202023748 LCS										
Americium-241	33.2			31.9	pCi/g		96.3	(75%-125%)		
	TPU:			+/-2.23						
	Yield:			92.6						
QC1202023746 MB										
Americium-241			U	-0.00392	pCi/g					
	TPU:			+/-0.00283						
	Yield:			93.0						
Batch 944976										
QC1202023752 245396001 DUP										
Plutonium-238	U	0.0028	U	-0.00494	pCi/g	0.367		(0-1)	CXM2	02/04/1014:50
	TPU:	+/-0.00199		+/-0.00855						
	Yield:	80.1		67.1						
Plutonium-239/240	U	0.0126	U	0.0115	pCi/g	0.0491		(0-1)		
	TPU:	+/-0.00546		+/-0.00549						
	Yield:	80.1		67.1						
QC1202023753 LCS										
Plutonium-238				7.05	pCi/g			(75%-125%)		
	TPU:			+/-0.540						
	Yield:			90.2						
Plutonium-239/240	41.8			38.4	pCi/g		91.9	(75%-125%)		
	TPU:			+/-2.42						
	Yield:			90.2						
QC1202023751 MB										
Plutonium-238			U	-0.00333	pCi/g					
	TPU:			+/-0.00289						
	Yield:			87.6						
Plutonium-239/240			U	0.00167	pCi/g					
	TPU:			+/-0.00373						
	Yield:			87.6						
Batch 944978										
QC1202023755 245396001 DUP										
Uranium-233/234		0.863		0.892	pCi/g	0.0875		(0-1)	CXM2	02/01/1013:09
	TPU:	+/-0.0897		+/-0.0787						
	Yield:	84.1		87.0						
Uranium-235/236	U	0.0267		0.0672	pCi/g	0.510		(0-1)		
	TPU:	+/-0.0233		+/-0.0164						
	Yield:	84.1		87.0						
Uranium-238		1.19		1.07	pCi/g	0.306		(0-1)		
	TPU:	+/-0.114		+/-0.091						

QC Summary

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 944978										
	Yield:	84.1		87.0						
QC1202023756 LCS										
Uranium-233/234				5.72	pCi/g			(75%-125%)		02/01/1013:09
	TPU:			+/-0.504						
	Yield:			92.6						
Uranium-235/236				0.336	pCi/g			(75%-125%)		
	TPU:			+/-0.0817						
	Yield:			92.6						
Uranium-238	5.75			5.31	pCi/g		92.3	(75%-125%)		
	TPU:			+/-0.473						
	Yield:			92.6						
QC1202023754 MB										
Uranium-233/234			U	0.00601	pCi/g					01/30/1012:24
	TPU:			+/-0.00681						
	Yield:			94.2						
Uranium-235/236			U	0.012	pCi/g					
	TPU:			+/-0.00496						
	Yield:			94.2						
Uranium-238			U	0.0113	pCi/g					
	TPU:			+/-0.00541						
	Yield:			94.2						
Batch 949620										
QC1202034526 245396002 DUP										
Uranium-233/234		3.02		3.45	pCi/g	0.338		(0-1)	CXM2	02/10/1010:57
	TPU:	+/-0.293		+/-0.343						
	Yield:	78.7		61.8						
Uranium-235/236		0.138		0.294	pCi/g	0.719		(0-1)		
	TPU:	+/-0.0413		+/-0.0671						
	Yield:	78.7		61.8						
Uranium-238		11.1		13.1	pCi/g	0.483		(0-1)		
	TPU:	+/-0.940		+/-1.14						
	Yield:	78.7		61.8						
QC1202034527 LCS										
Uranium-233/234				6.95	pCi/g			(75%-125%)		02/10/1010:57
	TPU:			+/-0.768						
	Yield:			93.8						
Uranium-235/236			U	0.502	pCi/g			(75%-125%)		
	TPU:			+/-0.157						
	Yield:			93.8						
Uranium-238	5.75			5.88	pCi/g		102	(75%-125%)		
	TPU:			+/-0.674						
	Yield:			93.8						
QC1202034525 MB										
Uranium-233/234			U	0.00994	pCi/g					02/10/1012:57
	TPU:			+/-0.00806						
	Yield:			85.7						
Uranium-235/236			U	0.00	pCi/g					
	TPU:			+/-0.00497						
	Yield:			85.7						
Uranium-238			U	0.00397	pCi/g					

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QC Summary

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949620										
	TPU:			+/-0.00636						
	Yield:			85.7						
Rad Gamma Spec										
Batch 944962										
QC1202023708 245385005 DUP										
Americium-241	U	-0.0559	U	0.0201	pCi/g	0.303		(0-1)	MXR1	02/06/1013:03
	TPU:	+/-0.0448		+/-0.0807						
Bismuth-211	UI	4.22	UI	4.70	pCi/g	0.343		(0-1)		
	TPU:	+/-0.325		+/-0.383						
Bismuth-214		1.36		1.40	pCi/g	0.0999		(0-1)		
	TPU:	+/-0.0967		+/-0.124						
Cadmium-109	UI	4.26	UI	2.84	pCi/g	0.778		(0-1)		
	TPU:	+/-0.392		+/-0.522						
Cerium-139	U	-0.0095	U	-0.0244	pCi/g	0.274		(0-1)		
	TPU:	+/-0.00982		+/-0.0174						
Cesium-134	UI	0.148	U	0.0431	pCi/g	1.05		(0-1)		
	TPU:	+/-0.0247		+/-0.0252						
Cesium-137	U	0.0241	UI	0.101	pCi/g	0.751		(0-1)		
	TPU:	+/-0.0187		+/-0.0327						
Cobalt-60	U	0.00943	U	0.00977	pCi/g	0.00523		(0-1)		
	TPU:	+/-0.0138		+/-0.0189						
Europium-152	U	-0.0183	U	-0.119	pCi/g	0.454		(0-1)		
	TPU:	+/-0.0355		+/-0.0749						
Lanthanum-140	U	0.0198	U	0.037	pCi/g	0.0741		(0-1)		
	TPU:	+/-0.0496		+/-0.0671						
Lead-212		1.93		2.06	pCi/g	0.209		(0-1)		
	TPU:	+/-0.142		+/-0.150						
Lead-214		1.47		1.64	pCi/g	0.326		(0-1)		
	TPU:	+/-0.119		+/-0.140						
Mercury-203	U	0.0432	UI	0.110	pCi/g	0.586		(0-1)		
	TPU:	+/-0.0175		+/-0.0392						
Potassium-40		21.4		22.7	pCi/g	0.270		(0-1)		
	TPU:	+/-1.08		+/-1.28						
Radium-223	U	0.669	U	-0.112	pCi/g	0.578		(0-1)		
	TPU:	+/-0.269		+/-0.407						
Radium-224	UI	5.15	UI	5.87	pCi/g	0.256		(0-1)		
	TPU:	+/-0.637		+/-0.768						
Radium-226		1.36		1.40	pCi/g	0.0999		(0-1)		
	TPU:	+/-0.0967		+/-0.124						
Radium-228		1.81		1.90	pCi/g	0.118		(0-1)		
	TPU:	+/-0.158		+/-0.210						
Ruthenium-106	U	-0.0752	U	-0.228	pCi/g	0.275		(0-1)		
	TPU:	+/-0.109		+/-0.169						
Sodium-22	U	-0.00141	U	-0.0105	pCi/g	0.120		(0-1)		
	TPU:	+/-0.0148		+/-0.0231						
Strontium-85	U	0.0412	UI	0.173	pCi/g	1.58		(0-1)		
	TPU:	+/-0.0138		+/-0.028						
Thallium-208		0.579		0.597	pCi/g	0.0959		(0-1)		
	TPU:	+/-0.0451		+/-0.0529						
Thorium-227	U	-0.00696	U	0.000557	pCi/g	0.0113		(0-1)		

QC Summary

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 944962										
	TPU:	+/-0.126		+/-0.208						
Thorium-231	U	0.669	U	-0.112	pCi/g	0.578		(0-1)		
	TPU:	+/-0.269		+/-0.407						
Thorium-234		2.16	U	1.28	pCi/g	0.288		(0-1)		
	TPU:	+/-0.651		+/-0.871						
Tin-113	U	-0.0211	U	0.0326	pCi/g	0.665		(0-1)		
	TPU:	+/-0.015		+/-0.0254						
Uranium-235		0.252	U	-0.0494	pCi/g	0.732		(0-1)		
	TPU:	+/-0.0845		+/-0.121						
Yttrium-88	U	-0.0203	U	0.0249	pCi/g	0.749		(0-1)		
	TPU:	+/-0.0136		+/-0.0166						
QC1202023709 LCS										
Americium-241	15.9			13.4	pCi/g		84.4	(75%-125%)		02/04/1021:14
	TPU:			+/-0.706						
Bismuth-211				2.13	pCi/g					
	TPU:			+/-0.396						
Bismuth-214				0.697	pCi/g					
	TPU:			+/-0.138						
Cadmium-109				29.1	pCi/g					
	TPU:			+/-2.21						
Cerium-139			U	0.037	pCi/g					
	TPU:			+/-0.024						
Cesium-134			U	0.0421	pCi/g					
	TPU:			+/-0.0517						
Cesium-137	5.56			5.62	pCi/g		101	(75%-125%)		
	TPU:			+/-0.278						
Cobalt-60	6.42			6.50	pCi/g		101	(75%-125%)		
	TPU:			+/-0.330						
Europium-152			U	-0.0881	pCi/g					
	TPU:			+/-0.113						
Lanthanum-140			U	0.00676	pCi/g					
	TPU:			+/-0.0443						
Lead-212				0.917	pCi/g					
	TPU:			+/-0.135						
Lead-214				0.742	pCi/g					
	TPU:			+/-0.139						
Mercury-203			U	0.0358	pCi/g					
	TPU:			+/-0.0354						
Potassium-40			U	0.720	pCi/g					
	TPU:			+/-0.326						
Radium-223			U	-0.103	pCi/g					
	TPU:			+/-0.611						
Radium-224				7.18	pCi/g					
	TPU:			+/-0.895						
Radium-226				0.697	pCi/g					
	TPU:			+/-0.138						
Radium-228			U	0.556	pCi/g					
	TPU:			+/-0.420						
Ruthenium-106			U	-0.48	pCi/g					
	TPU:			+/-0.313						
Sodium-22			U	-0.0214	pCi/g					

QC Summary

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 944962										
	TPU:			+/-0.0273						
Strontium-85			U	0.0733	pCi/g					
	TPU:			+/-0.0408						
Thallium-208				0.276	pCi/g					
	TPU:			+/-0.0625						
Thorium-227			U	0.279	pCi/g					
	TPU:			+/-0.358						
Thorium-231			U	-0.103	pCi/g					
	TPU:			+/-0.611						
Thorium-234			U	1.48	pCi/g					
	TPU:			+/-1.26						
Tin-113			U	-0.0146	pCi/g					
	TPU:			+/-0.0461						
Uranium-235			U	-0.153	pCi/g					
	TPU:			+/-0.164						
Yttrium-88			U	0.014	pCi/g					
	TPU:			+/-0.0248						
QC1202023707 MB										
Americium-241			U	0.0214	pCi/g					02/05/1019:15
	TPU:			+/-0.0197						
Bismuth-211			U	0.014	pCi/g					
	TPU:			+/-0.0511						
Bismuth-214			U	-0.00703	pCi/g					
	TPU:			+/-0.0203						
Cadmium-109			U	-0.17	pCi/g					
	TPU:			+/-0.131						
Cerium-139			U	-0.0014	pCi/g					
	TPU:			+/-0.00572						
Cesium-134			U	-0.0186	pCi/g					
	TPU:			+/-0.0092						
Cesium-137			U	-0.00668	pCi/g					
	TPU:			+/-0.00919						
Cobalt-60			U	0.000209	pCi/g					
	TPU:			+/-0.00881						
Europium-152			U	-0.0123	pCi/g					
	TPU:			+/-0.0219						
Lanthanum-140			U	0.00102	pCi/g					
	TPU:			+/-0.0155						
Lead-212			U	-0.00479	pCi/g					
	TPU:			+/-0.0142						
Lead-214			U	-0.0115	pCi/g					
	TPU:			+/-0.0175						
Mercury-203			U	0.0122	pCi/g					
	TPU:			+/-0.00795						
Potassium-40			U	-0.00805	pCi/g					
	TPU:			+/-0.107						
Radium-223			U	0.183	pCi/g					
	TPU:			+/-0.148						
Radium-224			U	-0.441	pCi/g					
	TPU:			+/-0.136						
Radium-226			U	-0.00703	pCi/g					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 944962										
	TPU:			+/-0.0203						
Radium-228			U	-0.0458	pCi/g					
	TPU:			+/-0.0297						
Ruthenium-106			U	-0.134	pCi/g					
	TPU:			+/-0.0741						
Sodium-22			U	-0.00253	pCi/g					
	TPU:			+/-0.00949						
Strontium-85			U	-0.0377	pCi/g					
	TPU:			+/-0.0144						
Thallium-208			U	-0.0197	pCi/g					
	TPU:			+/-0.00989						
Thorium-227			U	0.0225	pCi/g					
	TPU:			+/-0.0736						
Thorium-231			U	0.183	pCi/g					
	TPU:			+/-0.148						
Thorium-234			U	-0.283	pCi/g					
	TPU:			+/-0.214						
Tin-113			U	0.0013	pCi/g					
	TPU:			+/-0.00969						
Uranium-235			U	0.0295	pCi/g					
	TPU:			+/-0.0479						
Yttrium-88			U	7.01E-05	pCi/g					
	TPU:			+/-0.00823						
Rad Liquid Scintillation										
Batch 948401										
QC1202031680 245396002 DUP										
Tritium		977		917	pCi/L	0.145		(0-1)	KXK2	02/06/1019:48
	TPU:	+/-105		+/-101						
QC1202031681 LCS										
Tritium	5570			6210	pCi/L		112	(75%-125%)		02/06/1021:27
	TPU:			+/-451						
QC1202031679 MB										
Tritium			U	41.6	pCi/L					02/06/1018:10
	TPU:			+/-62.6						

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range

QC Summary

Workorder: 245396

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 944974 Product: Am Date: 2/17/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly stamped.	✓		
QC data entered into QC database and batch is in REVW	✓		
HR notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/17/10

Secondary Review Performed By: [signature] 2/17/10

2/20
LANC

Am/Cm Que Sheet

25-JAN-10

Batch #: 944974 | Analyst: CXM2 | First Client Due Date: 20-FEB-10 | Internal Due Date 09-FEB-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 5/11/10 | Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 | LCS Code(s): 0244-B / — | Expiration Date: 4/30/20 / — | Vol(s): 0.103g / — * SRM

Spike Isotope(s): Am241/Cm244 | Spike Code(s): — / — | Expiration Date: — / — | Vol(s): — / —

Prep Date: 1/28/10 | Initials: CMM | Pipet ID: 2971058 | Balance ID: 50410272 | Witness: NE 1/28/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245385001-1	RE15-10-7303	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	1	1	1.258	211
245385002-1	RE15-10-7305	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	2	2	1.257	212
245385003-1	RE15-10-7306	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	3	3	1.276	213
245385004-1	RE15-10-7307	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	4	4	1.256	214
245385005-1	RE15-10-7301	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	5	5	1.254	215
245385006-1	RE15-10-7304	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	6	6	1.254	216
245385007-1	RE15-10-7300	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	7	7	1.274	217
245385008-1	RE15-10-7302	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	8	8	1.259	218
245385009-1	RE15-10-7311	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	9	9	1.273	219
245385010-1	RE15-10-7310	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	10	10	1.265	220
245385011-1	RE15-10-7323	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	11	11	1.255	227
245396001-1	RE15-10-7928	SAMPLE		.05 pCi/g	SOIL	LANL010	21-JAN-10	12	12	1.264	228
245396002-1	RE15-10-7929	SAMPLE		.05 pCi/g	SOIL	LANL010	21-JAN-10	13	13	1.263	65
245396003-1	RE15-10-7927	SAMPLE		.05 pCi/g	SOIL	LANL010	21-JAN-10	14	14	1.266	~~66~~ 112 2/17/10
245396004-1	RE15-10-7930	SAMPLE		.05 pCi/g	SOIL	LANL010	21-JAN-10	15	15	1.260	67
1202023746-1	MB for batch 944974	MB		.05 pCi/g	SOIL	QC ACCOUNT		16	16	1.0	68
1202023747-1	RE15-10-7928(245396001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	21-JAN-10	17	17	1.262	69
1202023748-1	LCS for batch 944974	LCS		.05 pCi/g	SOIL	QC ACCOUNT		18	18	0.103	70

Choose SOP Used: GL-RAD-A-011 ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 2/17/10 2/17/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 944974

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202023747	DUP	Americium-241	1.26 g	-0.000549	0.00126	0.0201	-.00311111	pCi/g	NO
1202023748	LCS	Americium-241	0.103 g	31.9	2.23	0.215	-.03805825	pCi/g	NO
1202023746	MB	Americium-241	1.00 g	-0.00392	0.00283	0.026	-.00392	pCi/g	NO
245385001	RE15-10-7303	Americium-241	1.26 g	-0.00266	0.00293	0.0211	-.00311111	pCi/g	NO
245385002	RE15-10-7305	Americium-241	1.26 g	0.00452	0.00269	0.0237	-.00311111	pCi/g	NO
245385003	RE15-10-7306	Americium-241	1.28 g	0.0026	0.00195	0.0219	-.0030625	pCi/g	NO
245385004	RE15-10-7307	Americium-241	1.26 g	-0.000975	0.00215	0.0225	-.00311111	pCi/g	NO
245385005	RE15-10-7301	Americium-241	1.25 g	0.00199	0.00291	0.0223	-.003136	pCi/g	NO
245385006	RE15-10-7304	Americium-241	1.25 g	-0.00164	0.00302	0.0229	-.003136	pCi/g	NO
245385007	RE15-10-7300	Americium-241	1.27 g	0.00157	0.00224	0.0221	-.00308661	pCi/g	NO
245385008	RE15-10-7302	Americium-241	1.26 g	0.0028	0.00387	0.0221	-.00311111	pCi/g	NO
245385009	RE15-10-7311	Americium-241	1.27 g	0.00426	0.00255	0.0226	-.00308661	pCi/g	NO
245385010	RE15-10-7310	Americium-241	1.27 g	0.000978	0.00139	0.0208	-.00308661	pCi/g	NO
245385011	RE15-10-7323	Americium-241	1.26 g	0.00444	0.00265	0.0234	-.00311111	pCi/g	NO
245396001	RE15-10-7928	Americium-241	1.26 g	0.0168	0.00521	0.0232	-.00311111	pCi/g	NO
245396002	RE15-10-7929	Americium-241	1.26 g	0.00347	0.00754	0.021	-.00311111	pCi/g	NO
245396003	RE15-10-7927	Americium-241	1.27 g	0.00919	0.00453	0.0219	-.00308661	pCi/g	NO
245396004	RE15-10-7930	Americium-241	1.26 g	0.00203	0.00538	0.0204	-.00311111	pCi/g	NO

2/17/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944974
SAMPLE ID : S0245396001_AM
SAMPLE QTY : 1.264 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.105

CHAMBER : 228
DETECTOR S/N : 79421
AVERAGE %EFFICIENCY : 37.1363
COUNT DATE : 11-FEB-2010 21:03:14
ELAPSED LIVE TIME(SEC) : 43200.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B228.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W228.CNF;28
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5113E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5481.105	79.407	12.000	10.834	0.000	2.8409	99.94000	1.68E-02	5.21E-03	9.49E-03	2.32E-02	5.10E-03
AM243	5270.000	5283.855	44.124	670.000	670.000	0.000	0.0000	99.78000	1.04E+00	7.64E-02	0.00E+00	4.20E-03	4.02E-02
CM-242	6102.000	6085.990	0.000	0.000	0.000	0.000	4.3413	100.0000	0.00E+00	1.70E-03	1.45E-02	3.32E-02	1.70E-03
CM-3/4	5795.020	5730.995	59.012	4.000	3.280	0.720	5.1799	100.0000	5.09E-03	3.31E-03	1.73E-02	3.88E-02	3.30E-03
CM-5/6	5386.000	5380.616	0.000	15.000	15.000	0.000	14.2480	86.09000	2.70E-02	7.16E-03	5.53E-02	1.15E-01	6.96E-03
CM-247	4946.000	4898.372	178.900	4.000	4.000	0.000	13.7917	79.30000	7.81E-03	3.93E-03	5.81E-02	1.21E-01	3.90E-03
CM-248	5078.600	5056.887	0.000	14.000	14.000	0.000	19.5080	91.00000	2.38E-02	6.54E-03	7.16E-02	1.48E-01	6.36E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
□AM-241

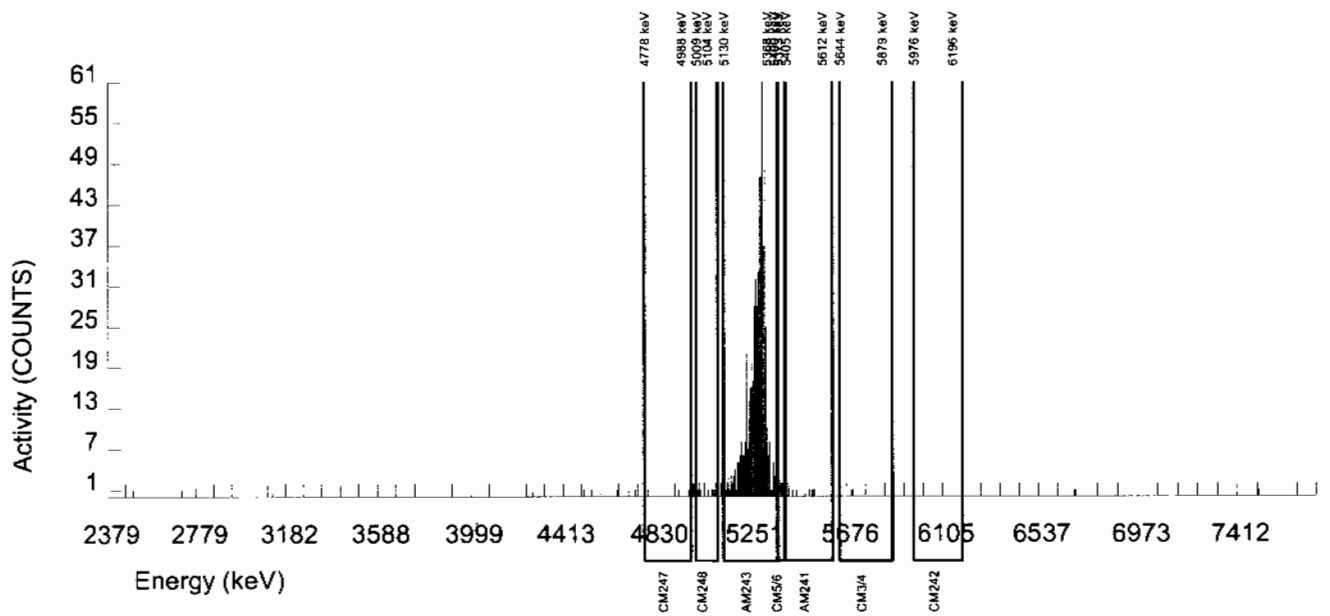

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944974
SAMPLE ID : S0245396002_AM
SAMPLE QTY : 1.263 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 87.056

CHAMBER : 065
DETECTOR S/N : 68551
AVERAGE %EFFICIENCY : 31.0643
COUNT DATE : 4-FEB-2010 14:50:48
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B065.CNF;1940
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W065.CNF;305
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5390E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5453.680	81.689	19.000	2.630	15.000	2.8409	99.94000	3.47E-03	7.54E-03	8.72E-03	2.10E-02	7.54E-03
AM243	5270.000	5248.061	39.373	792.000	787.000	5.000	2.2361	99.78000	1.04E+00	7.36E-02	6.88E-03	1.73E-02	3.73E-02
CM-242	6102.000	6034.151	43.893	5.000	1.000	4.000	4.3413	100.0000	1.41E-03	4.22E-03	1.33E-02	3.02E-02	4.22E-03
CM-3/4	5795.020	5708.138	63.299	14.000	-1.000	15.000	5.1799	100.0000	-1.32E-03	7.11E-03	1.59E-02	3.54E-02	7.11E-03
CM-5/6	5386.000	5389.454	14.021	3.000	-1.000	4.000	14.2480	86.09000	-1.53E-03	4.05E-03	5.08E-02	1.06E-01	4.05E-03
CM-247	4946.000	4882.081	4.877	7.000	4.000	3.000	13.7917	79.30000	6.65E-03	5.27E-03	5.34E-02	1.11E-01	5.26E-03
CM-248	5078.600	5067.139	53.647	10.000	9.000	1.000	19.5080	91.00000	1.30E-02	4.87E-03	6.58E-02	1.35E-01	4.81E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

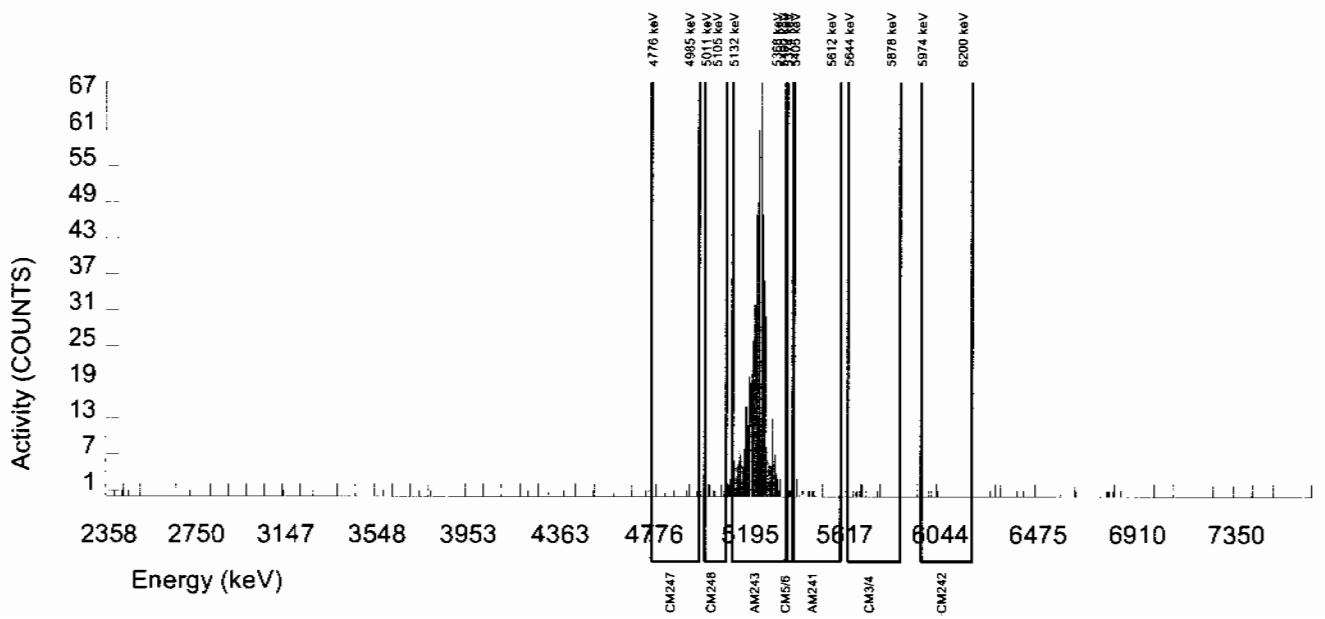

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944974
SAMPLE ID : S0245396003_AM
SAMPLE QTY : 1.266 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 81.438

CHAMBER : 112
DETECTOR S/N : 78261
AVERAGE %EFFICIENCY : 31.8150
COUNT DATE : 16-FEB-2010 14:33:43
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B112.CNF;687
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W112.CNF;221
CAL DATE : 15-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.3752E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5506.654	7.202	10.000	6.688	2.000	2.8409	99.94000	9.19E-03	4.53E-03	9.08E-03	2.19E-02	4.49E-03
AM243	5270.000	5262.583	46.581	756.000	754.000	2.000	1.4142	99.78000	1.04E+00	7.41E-02	4.53E-03	1.28E-02	3.79E-02
CM-242	6102.000	6057.108	44.031	12.000	12.000	0.000	4.3413	100.0000	1.85E-02	5.45E-03	1.39E-02	3.15E-02	5.34E-03
CM-3/4	5795.020	5727.314	82.750	9.000	9.000	0.000	5.1799	100.0000	1.24E-02	4.20E-03	1.65E-02	3.68E-02	4.13E-03
CM-5/6	5386.000	5380.336	0.000	3.000	3.000	0.000	14.2480	86.09000	4.79E-03	2.78E-03	5.29E-02	1.10E-01	2.76E-03
CM-247	4946.000	4895.001	7.202	12.000	10.000	2.000	13.7917	79.30000	1.73E-02	6.57E-03	5.56E-02	1.16E-01	6.48E-03
CM-248	5078.600	5059.343	0.000	23.000	23.000	0.000	19.5080	91.00000	3.47E-02	7.54E-03	6.85E-02	1.41E-01	7.24E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
  AM-241

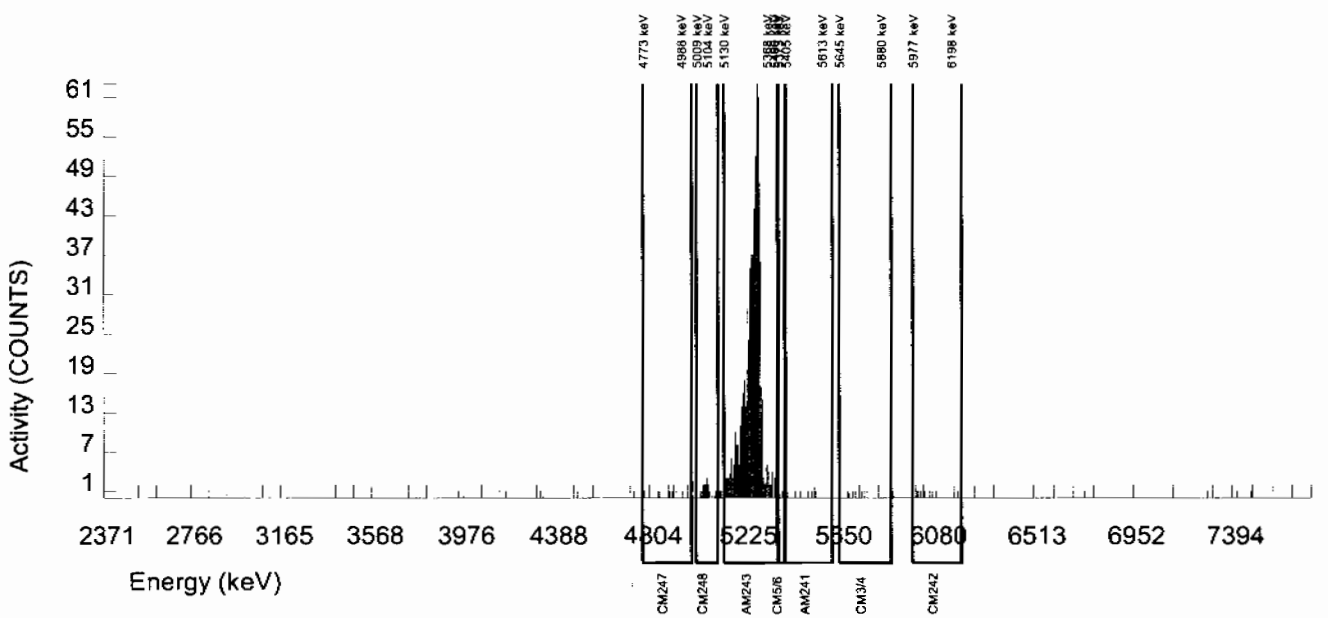

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944974
SAMPLE ID : S0245396004_AM
SAMPLE QTY : 1.260 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 85.782

CHAMBER : 067
DETECTOR S/N : 46-089B4
AVERAGE %EFFICIENCY : 32.5269
COUNT DATE : 4-FEB-2010 14:50:48
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B067.CNF;1099
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W067.CNF;287
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5019E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.612	7.330	11.000	1.587	8.000	2.8409	99.94000	2.03E-03	5.38E-03	8.47E-03	2.04E-02	5.38E-03
AM243	5270.000	5287.340	52.886	814.000	812.000	2.000	1.4142	99.78000	1.04E+00	7.30E-02	4.22E-03	1.19E-02	3.67E-02
CM-242	6102.000	6104.394	149.714	5.000	0.000	5.000	4.3413	100.0000	6.51E-10	4.32E-03	1.29E-02	2.94E-02	4.32E-03
CM-3/4	5795.020	5727.071	27.448	10.000	6.000	4.000	5.1799	100.0000	7.70E-03	4.82E-03	1.54E-02	3.44E-02	4.80E-03
CM-5/6	5386.000	5377.975	0.000	16.000	16.000	0.000	14.2480	86.09000	2.38E-02	6.13E-03	4.93E-02	1.03E-01	5.95E-03
CM-247	4946.000	4905.681	0.000	9.000	3.000	6.000	13.7917	79.30000	4.85E-03	6.26E-03	5.18E-02	1.08E-01	6.26E-03
CM-248	5078.600	5083.153	0.000	9.000	9.000	0.000	19.5080	91.00000	1.27E-02	4.29E-03	6.39E-02	1.32E-01	4.22E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
□AM-241

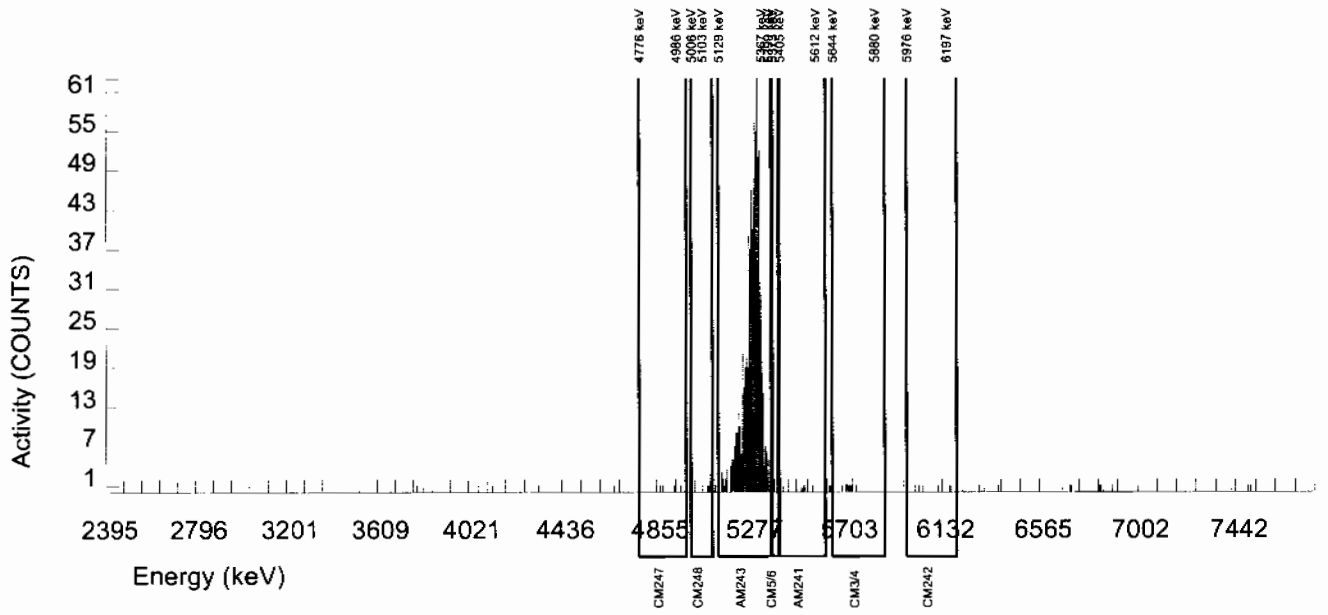

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944974
SAMPLE ID : S1202023746_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 93.011

CHAMBER : 068
DETECTOR S/N : 78794
AVERAGE %EFFICIENCY : 29.6665
COUNT DATE : 4-FEB-2010 14:50:48
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B068.CNF;1092
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W068.CNF;278
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.7127E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5526.751	4.978	1.000	-2.397	2.000	2.8409	99.94000	-3.92E-03	2.83E-03	1.08E-02	2.60E-02	2.83E-03
AM243	5270.000	5279.481	37.614	805.000	803.000	2.000	1.4142	99.78000	1.31E+00	9.23E-02	5.38E-03	1.52E-02	4.65E-02
CM-242	6102.000	6049.030	4.978	3.000	3.000	0.000	4.3413	100.0000	5.07E-03	2.94E-03	1.65E-02	3.74E-02	2.92E-03
CM-3/4	5795.020	5745.459	109.506	8.000	3.000	5.000	5.1799	100.0000	4.90E-03	5.90E-03	1.97E-02	4.38E-02	5.89E-03
CM-5/6	5386.000	5385.070	0.000	2.000	2.000	0.000	14.2480	86.09000	3.79E-03	2.69E-03	6.29E-02	1.31E-01	2.68E-03
CM-247	4946.000	4851.663	124.439	2.000	1.000	1.000	13.7917	79.30000	2.06E-03	3.57E-03	6.60E-02	1.38E-01	3.57E-03
CM-248	5078.600	5087.969	4.978	3.000	3.000	0.000	19.5080	91.00000	5.38E-03	3.12E-03	8.14E-02	1.68E-01	3.11E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
□AM-241

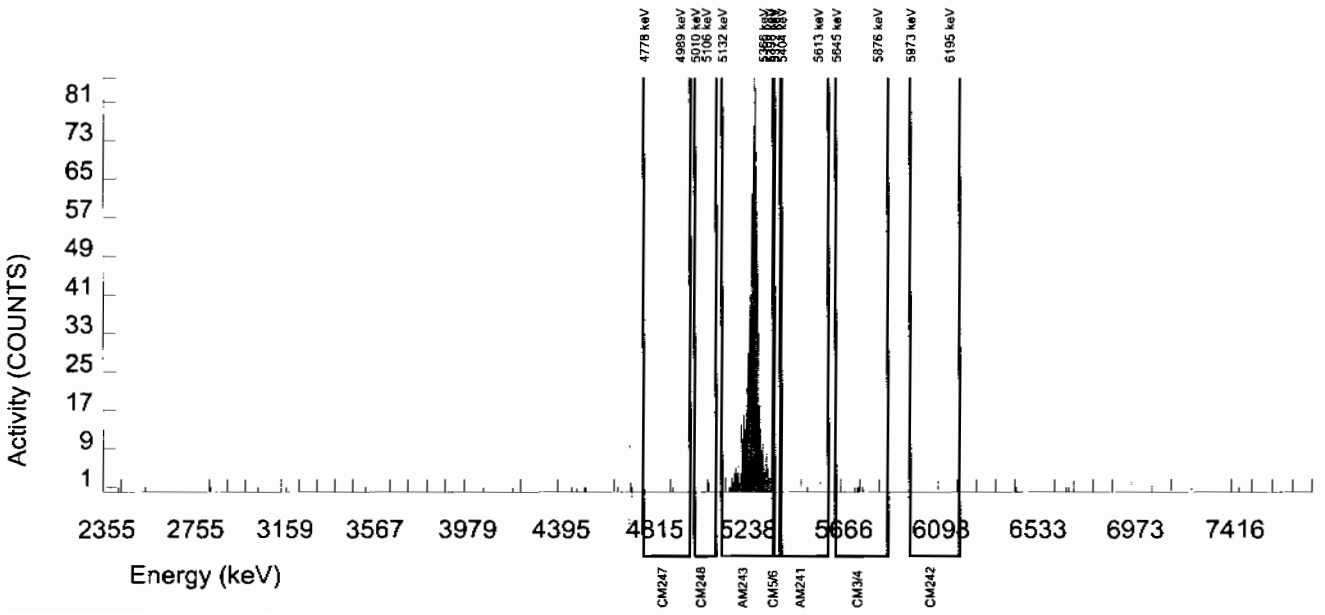

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944974
SAMPLE ID : S1202023747_AM
SAMPLE QTY : 1.262 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 89.111

CHAMBER : 069
DETECTOR S/N : 78795
AVERAGE %EFFICIENCY : 31.8131
COUNT DATE : 4-FEB-2010 14:50:48
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B069.CNF;1094
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W069.CNF;285
CAL DATE : 11-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5990E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3157E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5499.589	4.929	1.000	-0.436	0.000	2.8409	99.94000	-5.49E-04	1.26E-03	8.33E-03	2.01E-02	1.26E-03
AM243	5270.000	5272.348	32.789	825.000	825.000	0.000	0.0000	99.78000	1.04E+00	7.25E-02	0.00E+00	3.42E-03	3.62E-02
CM-242	6102.000	6035.825	14.787	2.000	2.000	0.000	4.3413	100.0000	2.68E-03	1.90E-03	1.27E-02	2.88E-02	1.90E-03
CM-3/4	5795.020	5779.915	123.224	7.000	4.000	3.000	5.1799	100.0000	5.04E-03	4.00E-03	1.52E-02	3.38E-02	3.99E-03
CM-5/6	5386.000	5385.153	0.000	0.000	0.000	0.000	14.2480	86.09000	0.00E+00	1.47E-03	4.85E-02	1.01E-01	1.46E-03
CM-247	4946.000	4828.649	71.316	8.000	3.000	5.000	13.7917	79.30000	4.76E-03	5.73E-03	5.09E-02	1.06E-01	5.72E-03
CM-248	5078.600	5066.337	11.860	10.000	10.000	0.000	19.5080	91.00000	1.38E-02	4.45E-03	6.28E-02	1.29E-01	4.38E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

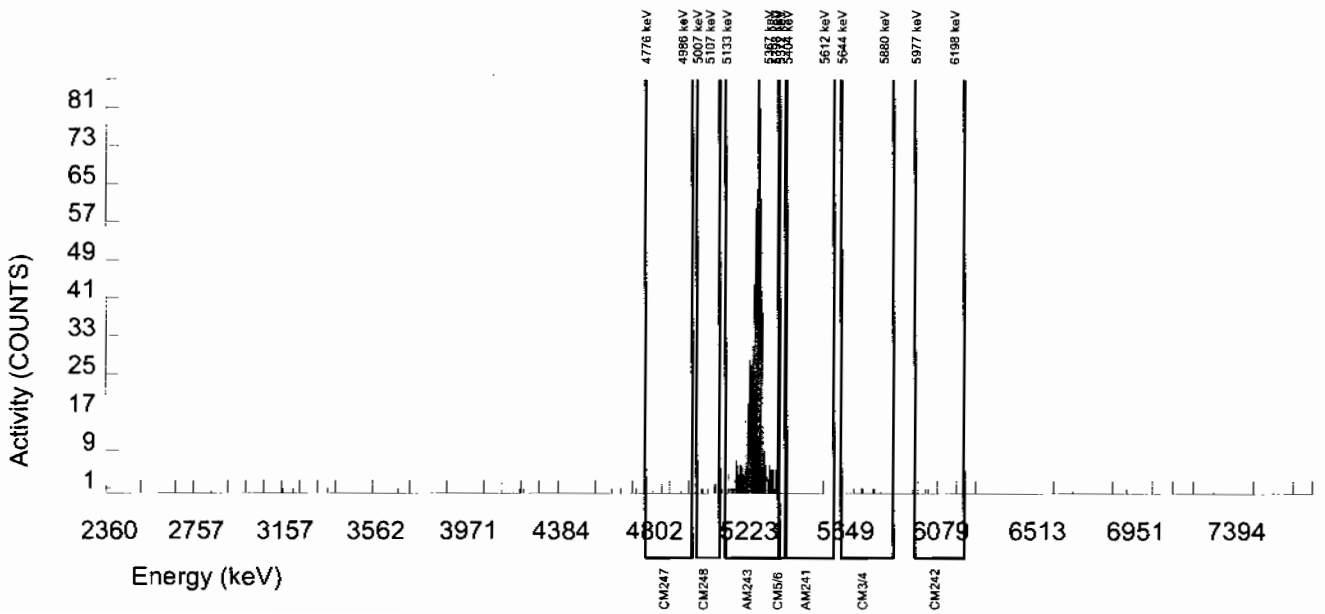

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944974	CHAMBER : 070	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202023748_AM	DETECTOR S/N : 46-089B2	BKG FILE : B070.CNF;1104
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 34.9911	BKG DATE : 31-JAN-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 4-FEB-2010 14:50:48	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W070.CNF;290
% YIELD : 92.606		CAL DATE : 11-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7009E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.270	59.569	2370.000	2364.359	4.000	2.8409	99.94000	3.19E+01	2.23E+00	8.93E-02	2.15E-01	6.58E-01
AM243	5270.000	5277.920	61.064	945.000	943.000	2.000	1.4142	99.78000	1.28E+01	9.48E-01	4.45E-02	1.26E-01	4.16E-01
CM-242	6102.000	6081.222	7.266	11.000	8.000	3.000	4.3413	100.0000	1.12E-01	5.28E-02	1.36E-01	3.09E-01	5.22E-02
CM-3/4	5795.020	5735.847	69.258	11.000	1.000	10.000	5.1799	100.0000	1.35E-02	6.19E-02	1.63E-01	3.62E-01	6.19E-02
CM-5/6	5386.000	5386.388	0.000	67.000	66.000	1.000	14.2480	86.09000	1.03E+00	1.47E-01	5.20E-01	1.08E+00	1.29E-01
CM-247	4946.000	4882.688	103.887	15.000	11.000	4.000	13.7917	79.30000	1.87E-01	7.52E-02	5.46E-01	1.14E+00	7.42E-02
CM-248	5078.600	5064.042	41.740	16.000	14.000	2.000	19.5080	91.00000	2.08E-01	6.44E-02	6.73E-01	1.39E+00	6.29E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
□AM-241

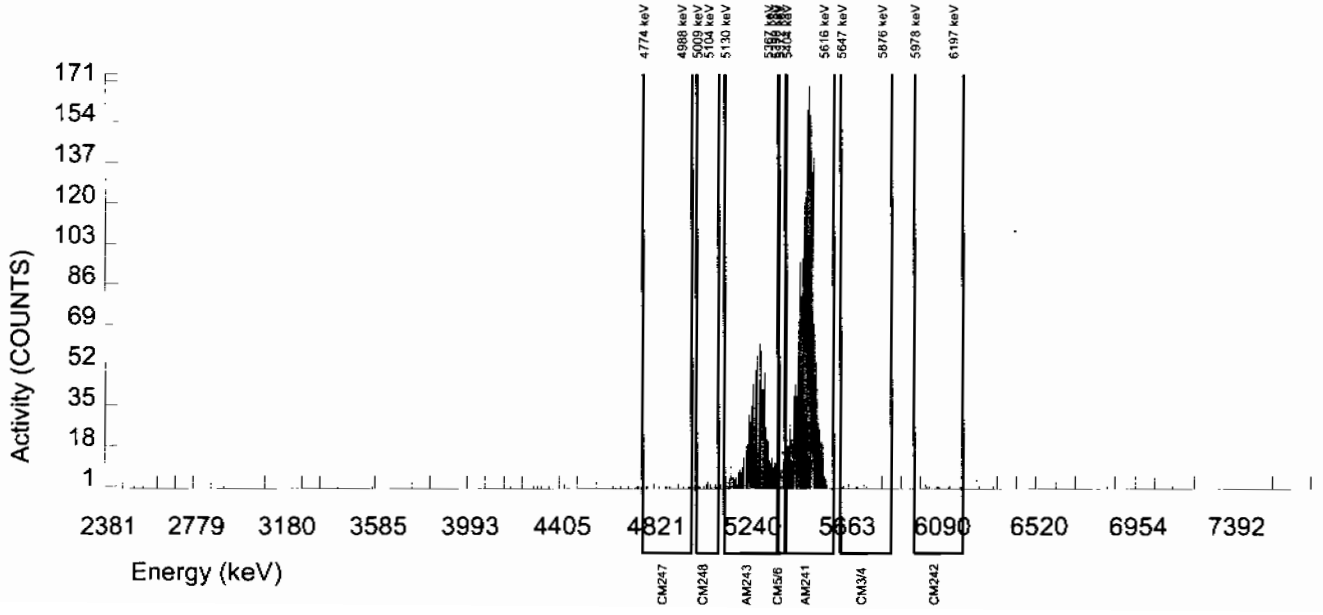

Radiochemistry Batch Checklist, Rev10

Batch# 944976 Product: Pu Date: 2/15/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] - 2/15/10

Secondary Review Performed By: [illegible] 2/16/10

2/9 2/20

LANL

Plutonium Que Sheet

25-JAN-10

Batch #: 944976 Analyst: CXM2 First Client Due Date:20-FEB-10 Internal Due Date:09-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1374-A Expiration Date: 12/8/10 Vol: 0.1mL

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0244-B Expiration Date: 4/30/20 Vol: 0.103g * 5RM

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 1/28/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: NL 1/28/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
245385001-1	RE15-10-7303	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	1	1	1.258	221
245385002-1	RE15-10-7305	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	2	2	1.257	222
245385003-1	RE15-10-7306	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	3	3	1.276	223
245385004-1	RE15-10-7307	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	4	4	1.256	224
245385005-1	RE15-10-7301	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	5	5	1.254	225
245385006-1	RE15-10-7304	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	6	6	1.254	241
245385007-1	RE15-10-7300	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	7	7	1.274	242
245385008-1	RE15-10-7302	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	8	8	1.259	243
245385009-1	RE15-10-7311	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	9	9	1.273	244
245385010-1	RE15-10-7310	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	10	10	1.265	252
245385011-1	RE15-10-7323	SAMPLE		.05 pCi/g	SOIL	LANL010	15-JAN-10	11	11	1.255	111
245396001-1	RE15-10-7928	SAMPLE		.05 pCi/g	SOIL	LANL010	21-JAN-10	12	12	1.264	112
245396002-1	RE15-10-7929	SAMPLE		.05 pCi/g	SOIL	LANL010	21-JAN-10	13	13	1.263	73
245396003-1	RE15-10-7927	SAMPLE		.05 pCi/g	SOIL	LANL010	21-JAN-10	14	14	1.266	74
245396004-1	RE15-10-7930	SAMPLE		.05 pCi/g	SOIL	LANL010	21-JAN-10	15	15	1.260	75
1202023751-1	MB for batch 944976	MB		.05 pCi/g	SOIL	QC ACCOUNT		16	16	1	76
1202023752-1	RE15-10-7928(245396001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	21-JAN-10	17	17	1.262	71
1202023753-1	LCS for batch 944976	LCS		.05 pCi/g	SOIL	QC ACCOUNT		18	18	0.103	72

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, ~~GL-RAD-A-045~~, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION Circle One 1/28/10 CMM

Data Reviewed By: JoLM 2/15/10

GEL Laboratories LLC., Radiochemistry Division

Page: 1 of 1

Blank Correction Report

Batch ID 944976

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202023752	DUP	Plutonium-238	1.26 g	-0.00494	0.00855	0.0269	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0115	0.00549	0.0202	.001325397	pCi/g	NO
1202023753	LCS	Plutonium-238	0.103 g	7.05	0.540	0.246	-.03233010	pCi/g	NO
		Plutonium-239/240	0.103 g	38.4	2.42	0.185	.016213592	pCi/g	NO
1202023751	MB	Plutonium-238	1.00 g	-0.00333	0.00289	0.0272	-.00333	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00167	0.00373	0.0205	.00167	pCi/g	YES
245385001	RE15-10-7303	Plutonium-238	1.26 g	0.00	0.00366	0.0244	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00	0.00299	0.0184	.001325397	pCi/g	YES
245385002	RE15-10-7305	Plutonium-238	1.26 g	0.00425	0.00246	0.0231	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00142	0.00245	0.0174	.001325397	pCi/g	YES
245385003	RE15-10-7306	Plutonium-238	1.28 g	0.00	0.0017	0.0277	-.00260156	pCi/g	NO
		Plutonium-239/240	1.28 g	0.00847	0.00382	0.0208	.001304688	pCi/g	NO
245385004	RE15-10-7307	Plutonium-238	1.26 g	0.0121	0.00451	0.022	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00134	0.00233	0.0165	.001325397	pCi/g	YES
245385005	RE15-10-7301	Plutonium-238	1.25 g	0.00522	0.00321	0.0213	-.002664	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00912	0.00394	0.016	.001336	pCi/g	NO
245385006	RE15-10-7304	Plutonium-238	1.25 g	0.00433	0.00251	0.0236	-.002664	pCi/g	NO
		Plutonium-239/240	1.25 g	-0.00289	0.0025	0.0178	.001336	pCi/g	YES
245385007	RE15-10-7300	Plutonium-238	1.27 g	0.0199	0.0064	0.0325	-.00262205	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00796	0.00401	0.0245	.001314961	pCi/g	NO
245385008	RE15-10-7302	Plutonium-238	1.26 g	0.00158	0.00159	0.0259	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0095	0.00451	0.0195	.001325397	pCi/g	NO
245385009	RE15-10-7311	Plutonium-238	1.27 g	0.0102	0.00363	0.0207	-.00262205	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00254	0.00311	0.0156	.001314961	pCi/g	YES
245385010	RE15-10-7310	Plutonium-238	1.27 g	0.00241	0.00241	0.0394	-.00262205	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0145	0.00687	0.0296	.001314961	pCi/g	NO
245385011	RE15-10-7323	Plutonium-238	1.26 g	0.00573	0.00454	0.0234	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00716	0.00323	0.0176	.001325397	pCi/g	NO
245396001	RE15-10-7928	Plutonium-238	1.26 g	0.0028	0.00199	0.0229	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0126	0.00546	0.0172	.001325397	pCi/g	NO
245396002	RE15-10-7929	Plutonium-238	1.26 g	0.00625	0.00626	0.0341	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0333	0.00905	0.0256	.001325397	pCi/g	NO
245396003	RE15-10-7927	Plutonium-238	1.27 g	0.0137	0.00762	0.032	-.00262205	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0352	0.00854	0.0241	.001314961	pCi/g	NO
245396004	RE15-10-7930	Plutonium-238	1.26 g	0.00137	0.00138	0.0225	-.00264286	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00687	0.00414	0.0169	.001325397	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944976
SAMPLE ID : S0245396001_PU
SAMPLE QTY : 1.264 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 80.124

CHAMBER : 112
DETECTOR S/N : 78261
AVERAGE %EFFICIENCY : 31.8150
COUNT DATE : 12-FEB-2010 12:51:26
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B112.CNF;685
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W112.CNF;221
CAL DATE : 15-FEB-2010

TRACER
ID : 1374-A
NUCLIDE : PU242
NOMINAL : 3.3854E+00 dpm
RESULTS : 2.7125E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.562	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.42E-03	8.76E-03	2.13E-02	1.42E-03
PU-238	5499.000	5458.243	93.170	2.000	2.000	0.000	2.9312	99.90000	2.80E-03	1.99E-03	9.54E-03	2.29E-02	1.98E-03
PU-9/0	5155.000	5155.415	24.416	12.000	9.000	3.000	2.0604	99.90000	1.26E-02	5.46E-03	6.71E-03	1.72E-02	5.42E-03
PU242	4890.000	4883.725	38.373	865.000	863.000	2.000	1.4142	100.0000	1.21E+00	7.55E-02	4.60E-03	1.30E-02	4.12E-02
PU-244	4589.000	4525.266	117.689	2.000	2.000	0.000	3.7241	99.90000	2.80E-03	1.98E-03	1.21E-02	2.80E-02	1.98E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

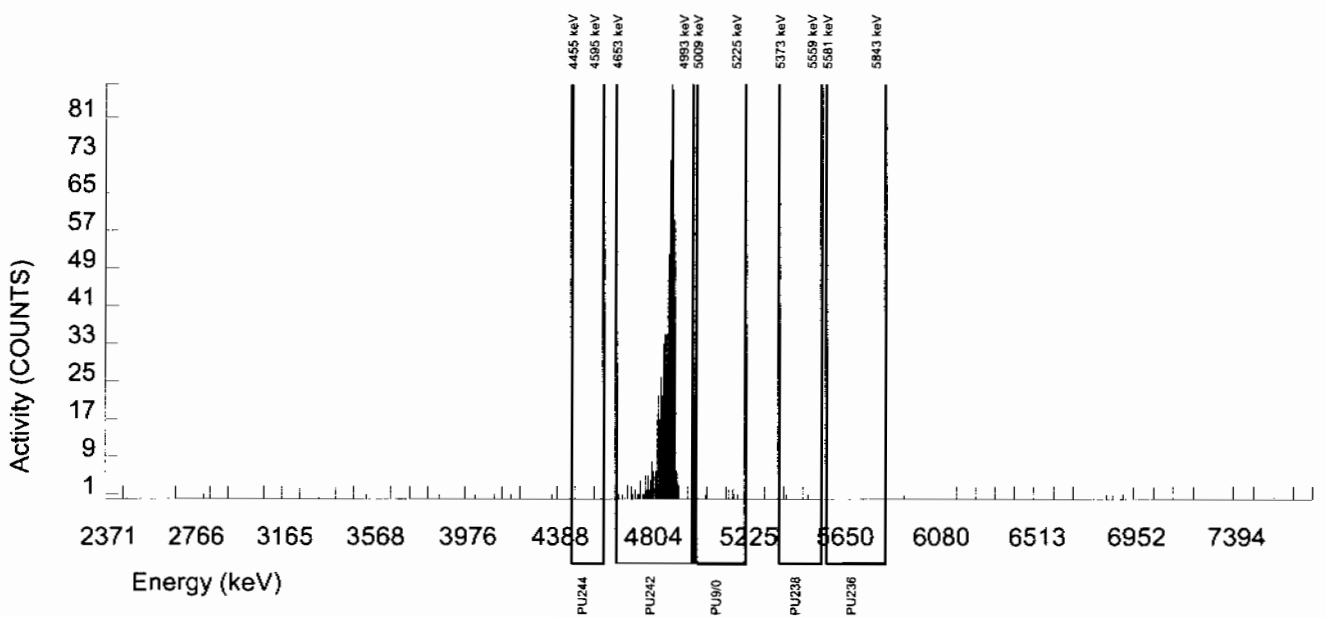

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944976
SAMPLE ID : S0245396002_PU
SAMPLE QTY : 1.263 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 51.041

CHAMBER : 073
DETECTOR S/N : 78775
AVERAGE %EFFICIENCY : 33.5654
COUNT DATE : 4-FEB-2010 14:50:50
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B073.CNF;1097
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W073.CNF;283
CAL DATE : 11-JAN-2010

TRACER
ID : 1374-A
NUCLIDE : PU242
NOMINAL : 3.3854E+00 dpm
RESULTS : 1.7280E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.089	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	2.11E-03	1.30E-02	3.17E-02	2.10E-03
PU-238	5499.000	5436.830	113.710	6.000	3.000	3.000	2.9312	99.90000	6.25E-03	6.26E-03	1.42E-02	3.41E-02	6.25E-03
PU-9/0	5155.000	5131.634	59.224	17.000	16.000	1.000	2.0604	99.90000	3.33E-02	9.05E-03	9.99E-03	2.56E-02	8.84E-03
PU242	4890.000	4886.485	49.481	586.000	580.000	6.000	2.4495	100.0000	1.21E+00	8.62E-02	1.19E-02	2.94E-02	5.07E-02
PU-244	4589.000	4518.671	113.710	4.000	3.000	1.000	3.7241	99.90000	6.25E-03	4.67E-03	1.81E-02	4.18E-02	4.66E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

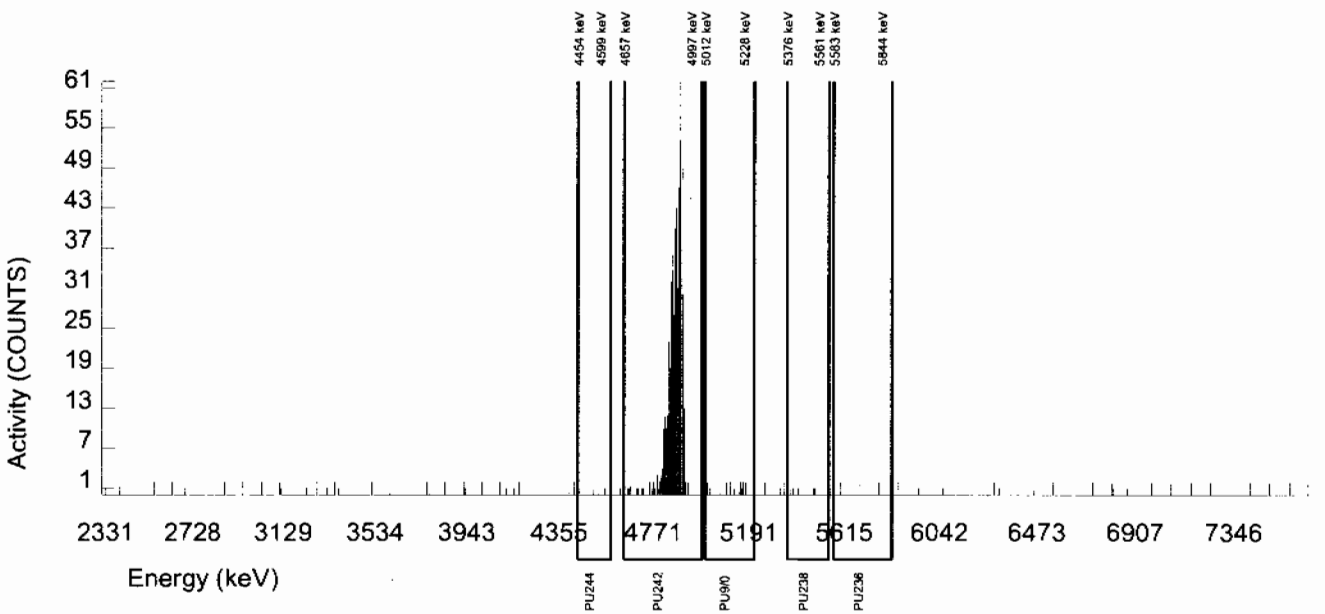

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944976
SAMPLE ID : S0245396003_PU
SAMPLE QTY : 1.266 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 57.436

CHAMBER : 074
DETECTOR S/N : 78266
AVERAGE %EFFICIENCY : 31.6797
COUNT DATE : 4-FEB-2010 14:50:50
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B074.CNF;1119
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W074.CNF;330
CAL DATE : 11-JAN-2010

TRACER
ID : 1374-A
NUCLIDE : PU242
NOMINAL : 3.3854E+00 dpm
RESULTS : 1.9445E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5618.469	24.898	2.000	0.000	2.000	2.6925	100.0000	0.00E+00	3.95E-03	1.22E-02	2.98E-02	3.95E-03
PU-238	5499.000	5486.791	44.610	11.000	7.000	4.000	2.9312	99.90000	1.37E-02	7.62E-03	1.33E-02	3.20E-02	7.58E-03
PU-9/0	5155.000	5136.216	64.673	18.000	18.000	0.000	2.0604	99.90000	3.52E-02	8.54E-03	9.38E-03	2.41E-02	8.30E-03
PU242	4890.000	4877.657	51.943	617.000	616.000	1.000	1.0000	100.0000	1.20E+00	8.38E-02	4.55E-03	1.44E-02	4.86E-02
PU-244	4589.000	4525.787	0.000	0.000	-1.000	1.000	3.7241	99.90000	-1.96E-03	2.77E-03	1.70E-02	3.92E-02	2.77E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

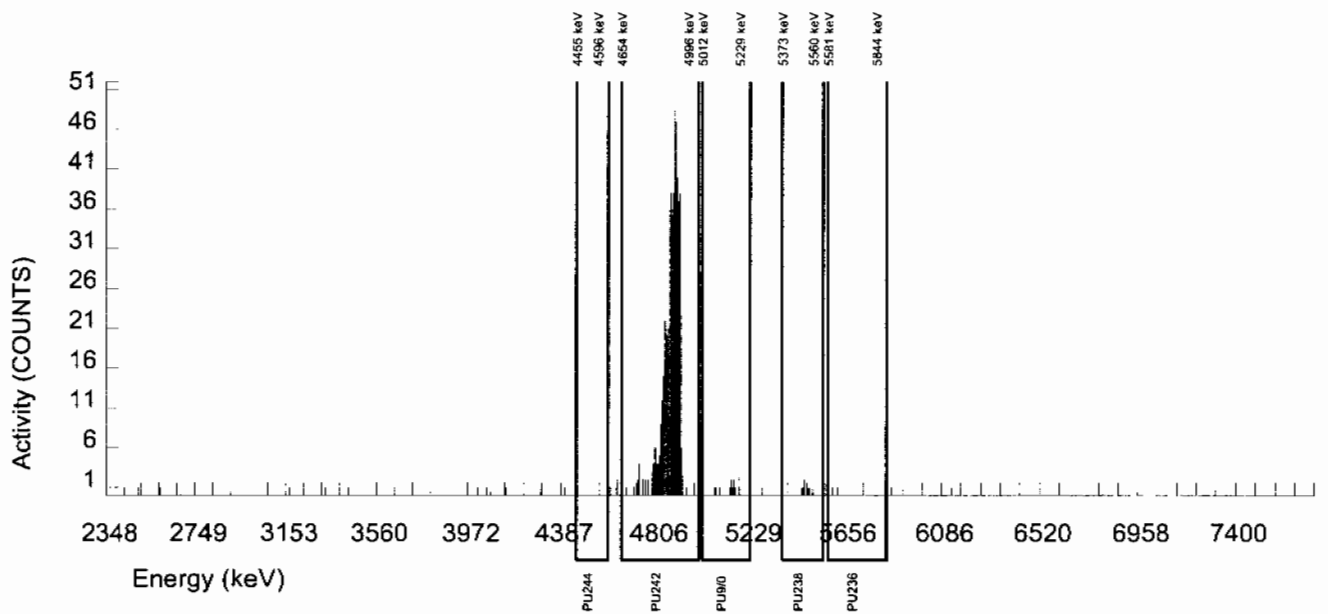

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944976
SAMPLE ID : S0245396004_PU
SAMPLE QTY : 1.260 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.053

CHAMBER : 075
DETECTOR S/N : 80010
AVERAGE %EFFICIENCY : 30.2754
COUNT DATE : 4-FEB-2010 14:50:50
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B075.CNF;1100
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W075.CNF;288
CAL DATE : 12-JAN-2010

TRACER
ID : 1374-A
NUCLIDE : PU242
NOMINAL : 3.3854E+00 dpm
RESULTS : 2.9133E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5687.500	108.962	3.000	2.000	1.000	2.6925	100.0000	2.77E-03	2.78E-03	8.60E-03	2.09E-02	2.77E-03
PU-238	5499.000	5476.078	4.953	1.000	1.000	0.000	2.9312	99.90000	1.37E-03	1.38E-03	9.37E-03	2.25E-02	1.37E-03
PU-9/0	5155.000	5132.413	74.292	7.000	5.000	2.000	2.0604	99.90000	6.87E-03	4.14E-03	6.58E-03	1.69E-02	4.12E-03
PU242	4890.000	4873.699	41.480	889.000	882.000	7.000	2.6458	100.0000	1.21E+00	7.54E-02	8.45E-03	2.06E-02	4.11E-02
PU-244	4589.000	4471.199	4.953	1.000	0.000	1.000	3.7241	99.90000	0.00E+00	1.94E-03	1.19E-02	2.75E-02	1.94E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

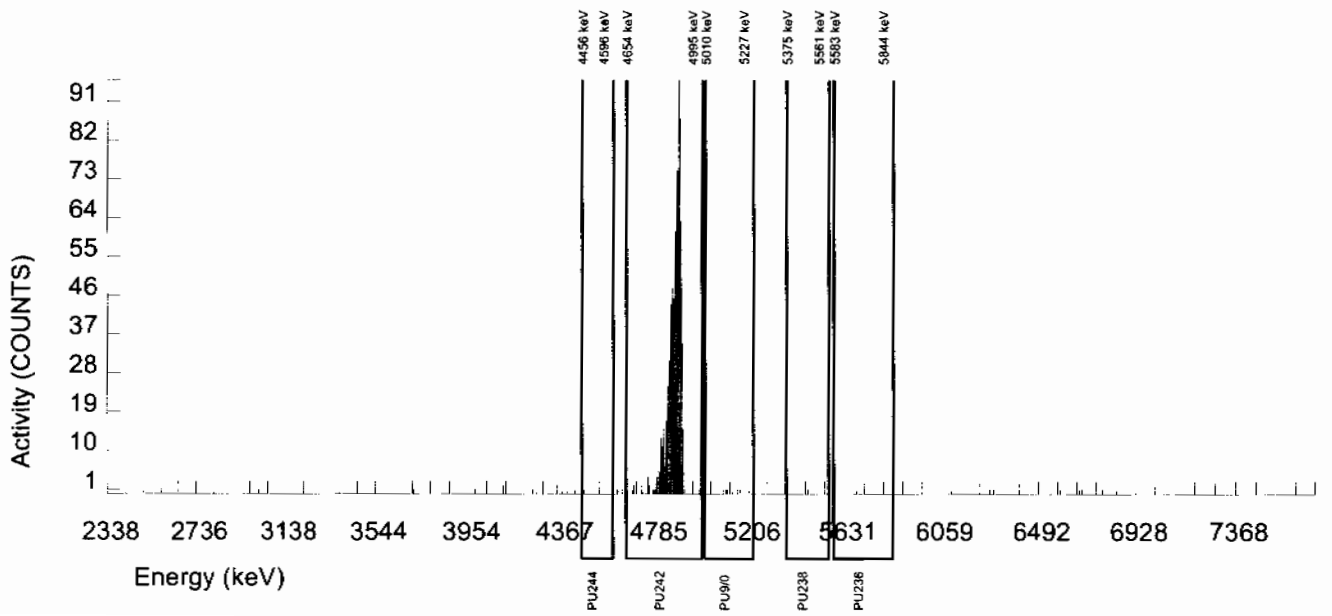

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER :	944976	CHAMBER :	076	LIB FILE :	ENV_ALPHA_PU
SAMPLE ID :	S1202023751_PU	DETECTOR S/N :	78779	BKG FILE :	B076.CNF;1103
SAMPLE QTY :	1.000 G	AVERAGE %EFFICIENCY :	30.8747	BKG DATE :	31-JAN-2010
SAMPLE DATE :	28-JAN-2010 00:00:00	COUNT DATE :	4-FEB-2010 14:50:50	BKG LIVE TIME(SEC) :	59999.99
ANALYST :	CXM2	ELAPSED LIVE TIME(SEC) :	59999.99	EFF FILE :	W076.CNF;293
% YIELD :	87.635			CAL DATE :	11-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1374-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3854E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9668E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5738.023	134.016	3.000	2.000	1.000	2.6925	100.0000	3.35E-03	3.35E-03	1.04E-02	2.54E-02	3.35E-03
PU-238	5499.000	5469.033	0.000	0.000	-2.000	2.000	2.9312	99.90000	-3.33E-03	2.89E-03	1.14E-02	2.72E-02	2.89E-03
PU-9/0	5155.000	5125.831	89.344	3.000	1.000	2.000	2.0604	99.90000	1.67E-03	3.73E-03	7.99E-03	2.05E-02	3.73E-03
PU242	4890.000	4887.292	34.040	920.000	916.000	4.000	2.0000	100.0000	1.52E+00	9.38E-02	7.75E-03	2.00E-02	5.06E-02
PU-244	4589.000	4496.928	98.651	3.000	3.000	0.000	3.7241	99.90000	5.00E-03	2.90E-03	1.44E-02	3.34E-02	2.89E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

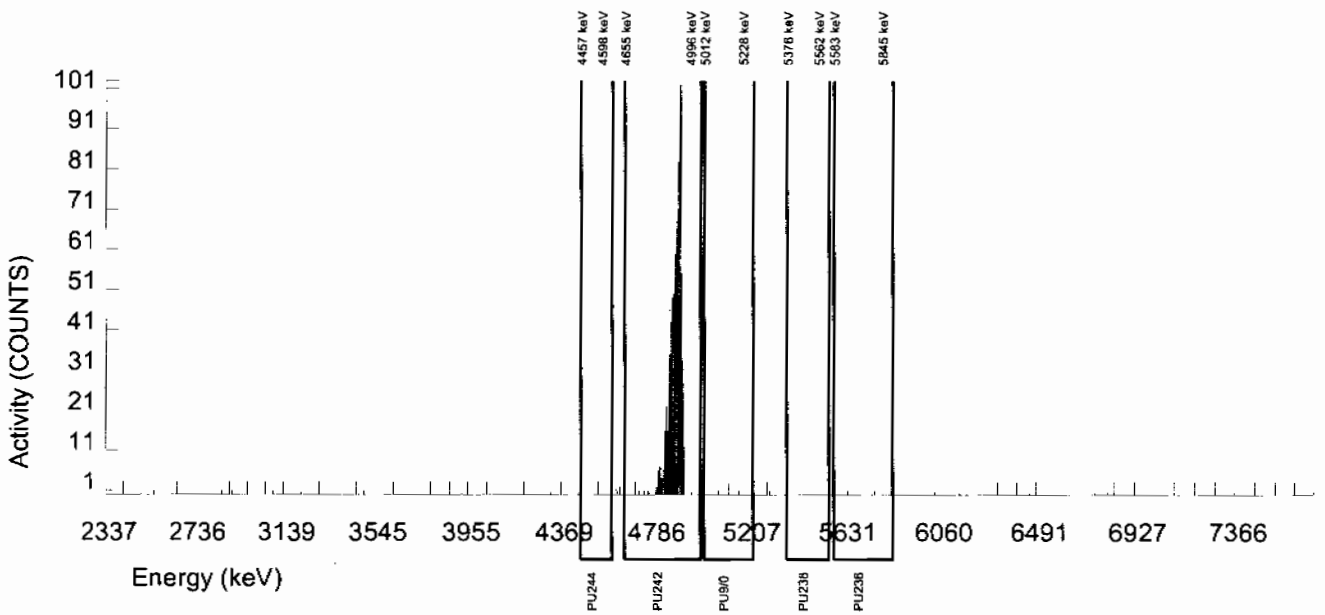

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944976
SAMPLE ID : S1202023752_PU
SAMPLE QTY : 1.262 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 67.083

CHAMBER : 071
DETECTOR S/N : 64259
AVERAGE %EFFICIENCY : 32.3636
COUNT DATE : 4-FEB-2010 14:50:50
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B071.CNF;1097
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W071.CNF;284
CAL DATE : 11-JAN-2010

TRACER
ID : 1374-A
NUCLIDE : PU242
NOMINAL : 3.3854E+00 dpm
RESULTS : 2.2711E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.606	9.962	10.000	10.000	0.000	2.6925	100.0000	1.66E-02	5.33E-03	1.03E-02	2.51E-02	5.25E-03
PU-238	5499.000	5452.172	74.716	12.000	-3.000	15.000	2.9312	99.90000	-4.94E-03	8.55E-03	1.12E-02	2.69E-02	8.55E-03
PU-9/0	5155.000	5169.606	0.000	9.000	7.000	2.000	2.0604	99.90000	1.15E-02	5.49E-03	7.89E-03	2.02E-02	5.46E-03
PU242	4890.000	4892.663	57.524	736.000	735.000	1.000	1.0000	100.0000	1.21E+00	7.93E-02	3.82E-03	1.21E-02	4.46E-02
PU-244	4589.000	4531.809	0.000	2.000	0.000	2.000	3.7241	99.90000	0.00E+00	3.29E-03	1.43E-02	3.30E-02	3.29E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

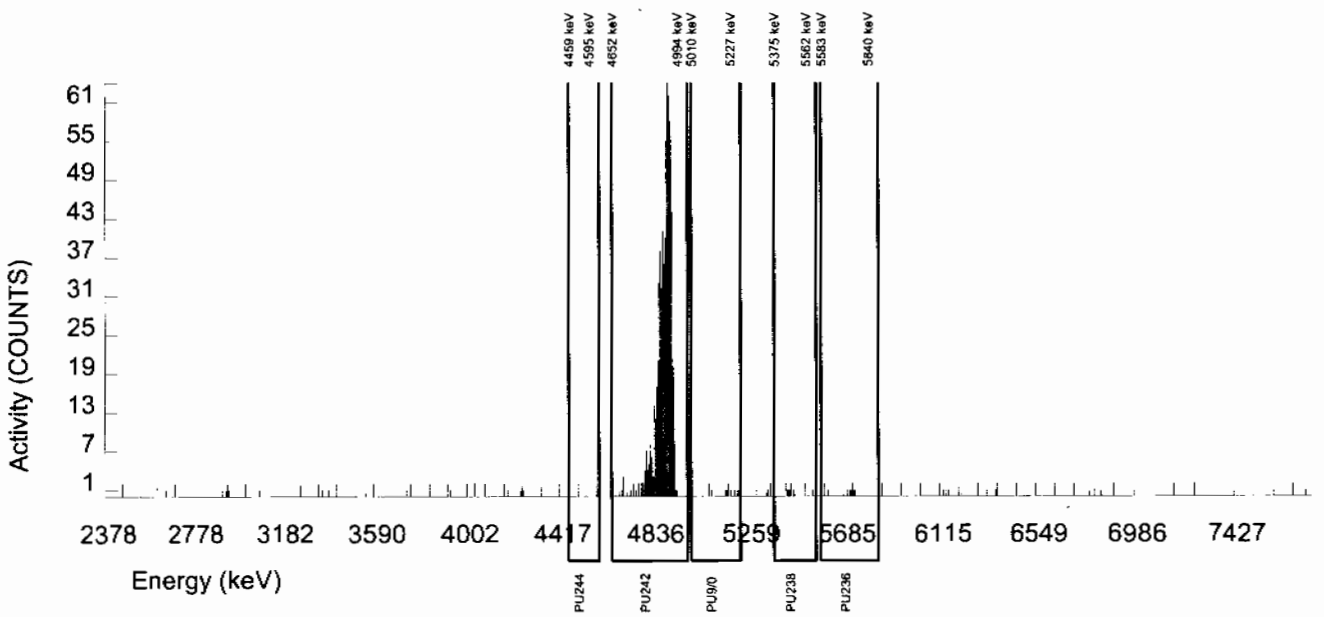

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944976
SAMPLE ID : S1202023753_PU
SAMPLE QTY : 0.103 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 90.165

CHAMBER : 072
DETECTOR S/N : 45-149AA3
AVERAGE %EFFICIENCY : 32.2361
COUNT DATE : 4-FEB-2010 14:50:50
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B072.CNF;1095
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W072.CNF;275
CAL DATE : 11-JAN-2010

TRACER
ID : 1374-A
NUCLIDE : PU242
NOMINAL : 3.3854E+00 dpm
RESULTS : 3.0525E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5716.566	5.732	13.000	8.000	5.000	2.6925	100.0000	1.21E-01	6.46E-02	9.42E-02	2.29E-01	6.42E-02
PU-238	5499.000	5489.340	57.844	485.000	468.000	17.000	2.9312	99.90000	7.05E+00	5.40E-01	1.03E-01	2.46E-01	3.38E-01
PU-9/0	5155.000	5146.485	53.610	2553.000	2551.000	2.000	2.0604	99.90000	3.84E+01	2.42E+00	7.22E-02	1.85E-01	7.61E-01
PU242	4890.000	4884.325	44.235	987.000	984.000	3.000	1.7321	100.0000	1.48E+01	1.00E+00	6.06E-02	1.62E-01	4.73E-01
PU-244	4589.000	4522.413	28.380	9.000	9.000	0.000	3.7241	99.90000	1.36E-01	4.59E-02	1.30E-01	3.02E-01	4.52E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

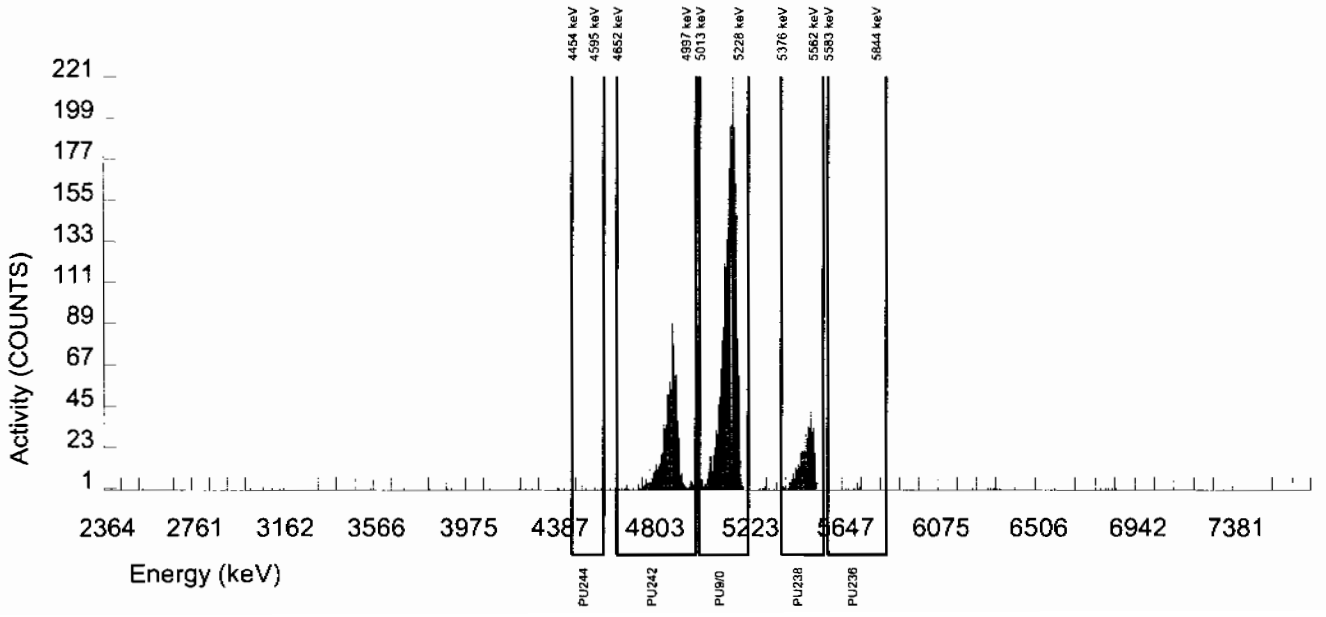

Radiochemistry Batch Checklist, Rev10

Batch# 944978 Product: U Date: 2/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 2/5/10

Secondary Review Performed By: [illegible] 2/6/10

2/10

LANL

Uranium Que Sheet

25-JAN-10

Batch #: 944978 Analyst: CXM2 First Client Due Date:20-FEB-10 Internal Due Date:09-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1 mL
LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.103g
Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —
Prep Date: 1/27/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: MS 1/27/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/l)	U Det #
245385001-1	RE15-10-7303	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	1	21	0.511	171 123
245385002-1	RE15-10-7305	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	2	22	0.518	124
245385003-1	RE15-10-7306	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	3	23	0.503	125
245385004-1	RE15-10-7307	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	4	24	0.510	126
245385005-1	RE15-10-7301	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	5	25	0.501	127
245385006-1	RE15-10-7304	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	6	26	0.502	128
245385007-1	RE15-10-7300	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	7	27	0.505	129
245385008-1	RE15-10-7302	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	8	28	0.512	130
245385009-1	RE15-10-7311	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	9	29	0.507	131
245385010-1	RE15-10-7310	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	10	30	0.505	132
245385011-1	RE15-10-7323	SAMPLE		.1 pCi/g	SOIL	LANL010	15-JAN-10	11	31	0.508	133
245396001-1	RE15-10-7928	SAMPLE		.1 pCi/g	SOIL	LANL010	21-JAN-10	12	32	0.507	134
~~245396002-1~~	~~RE15-10-7929~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~21-JAN-10~~	~~13~~	~~33~~	~~0.500~~	~~137~~
~~245396003-1~~	~~RE15-10-7927~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~21-JAN-10~~	~~14~~	~~34~~	~~0.509~~	~~138~~
245396004-1	RE15-10-7930	SAMPLE		.1 pCi/g	SOIL	LANL010	21-JAN-10	15	35	0.508	139
1202023754-1	MB for batch 944978	MB		.1 pCi/g	SOIL	QC ACCOUNT		16	36	1	7
1202023755-1	RE15-10-7928(245396001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	21-JAN-10	17	37	0.500	171
1202023756-1	LCS for batch 944978	LCS		.1 pCi/g	SOIL	QC ACCOUNT		18	38	0.103	172

2/5/10 ~~245396002-1~~ ~~245396003-1~~ 2/5/10

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: JeL ML 2/5/10

Blank Correction Report

Batch ID 944978

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202023755	DUP	Uranium-233/234	0.500 g	0.892	0.0787	0.0842	.01202	pCi/g	NO
		Uranium-235/236	0.500 g	0.0672	0.0164	0.0523	.024	pCi/g	YES
		Uranium-238	0.500 g	1.07	0.091	0.0488	.0226	pCi/g	NO
1202023756	LCS	Uranium-233/234	0.103 g	5.72	0.504	0.382	.058349515	pCi/g	NO
		Uranium-235/236	0.103 g	0.336	0.0817	0.237	.116504854	pCi/g	YES
		Uranium-238	0.103 g	5.31	0.473	0.222	.109708738	pCi/g	NO
1202023754	MB	Uranium-233/234	1.00 g	0.00601	0.00681	0.050	.00601	pCi/g	YES
		Uranium-235/236	1.00 g	0.012	0.00496	0.031	.012	pCi/g	YES
		Uranium-238	1.00 g	0.0113	0.00541	0.029	.0113	pCi/g	YES
245385001	RE15-10-7303	Uranium-233/234	0.511 g	1.10	0.109	0.173	.011761252	pCi/g	NO
		Uranium-235/236	0.511 g	0.0696	0.0246	0.106	.023483366	pCi/g	YES
		Uranium-238	0.511 g	1.26	0.122	0.0996	.022113503	pCi/g	NO
245385002	RE15-10-7305	Uranium-233/234	0.518 g	1.24	0.116	0.137	.011602317	pCi/g	NO
		Uranium-235/236	0.518 g	0.0764	0.0225	0.085	.023166023	pCi/g	YES
		Uranium-238	0.518 g	1.25	0.117	0.0794	.021814672	pCi/g	NO
245385003	RE15-10-7306	Uranium-233/234	0.503 g	2.92	0.265	0.214	.011948310	pCi/g	NO
		Uranium-235/236	0.503 g	0.231	0.0478	0.133	.023856859	pCi/g	NO
		Uranium-238	0.503 g	3.57	0.314	0.124	.022465209	pCi/g	NO
245385004	RE15-10-7307	Uranium-233/234	0.510 g	1.22	0.114	0.132	.011784314	pCi/g	NO
		Uranium-235/236	0.510 g	0.0634	0.0189	0.0822	.023529412	pCi/g	YES
		Uranium-238	0.510 g	1.13	0.107	0.0768	.022156863	pCi/g	NO
245385005	RE15-10-7301	Uranium-233/234	0.501 g	1.66	0.155	0.167	.011996008	pCi/g	NO
		Uranium-235/236	0.501 g	0.0931	0.0258	0.104	.023952096	pCi/g	YES
		Uranium-238	0.501 g	2.03	0.182	0.0967	.022554890	pCi/g	NO
245385006	RE15-10-7304	Uranium-233/234	0.502 g	1.82	0.164	0.158	.011972112	pCi/g	NO
		Uranium-235/236	0.502 g	0.114	0.0294	0.0982	.023904382	pCi/g	YES
		Uranium-238	0.502 g	3.03	0.254	0.0918	.022509960	pCi/g	NO
245385007	RE15-10-7300	Uranium-233/234	0.505 g	3.10	0.260	0.162	.011900990	pCi/g	NO
		Uranium-235/236	0.505 g	0.142	0.032	0.101	.023762376	pCi/g	NO
		Uranium-238	0.505 g	3.85	0.316	0.0939	.022376238	pCi/g	NO
245385008	RE15-10-7302	Uranium-233/234	0.512 g	4.08	0.324	0.140	.011738281	pCi/g	NO
		Uranium-235/236	0.512 g	0.223	0.0388	0.0869	.0234375	pCi/g	NO
		Uranium-238	0.512 g	4.84	0.379	0.0812	.022070313	pCi/g	NO
245385009	RE15-10-7311	Uranium-233/234	0.507 g	1.17	0.111	0.137	.011854043	pCi/g	NO
		Uranium-235/236	0.507 g	0.0821	0.022	0.0852	.023668639	pCi/g	YES
		Uranium-238	0.507 g	1.33	0.123	0.0796	.022287968	pCi/g	NO
245385010	RE15-10-7310	Uranium-233/234	0.505 g	3.54	0.292	0.159	.011900990	pCi/g	NO
		Uranium-235/236	0.505 g	0.153	0.0331	0.099	.023762376	pCi/g	NO
		Uranium-238	0.505 g	4.37	0.353	0.0925	.022376238	pCi/g	NO
245385011	RE15-10-7323	Uranium-233/234	0.508 g	1.22	0.114	0.133	.011830709	pCi/g	NO
		Uranium-235/236	0.508 g	0.0741	0.0205	0.0824	.023622047	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245385011	RE15-10-7323	Uranium-238	0.508 g	1.43	0.129	0.077	.022244094	pCi/g	NO
245396001	RE15-10-7928	Uranium-233/234	0.507 g	0.863	0.0897	0.134	.011854043	pCi/g	NO
		Uranium-235/236	0.507 g	0.0267	0.0233	0.083	.023668639	pCi/g	YES
		Uranium-238	0.507 g	1.19	0.114	0.0775	.022287968	pCi/g	NO
245396004	RE15-10-7930	Uranium-233/234	0.508 g	1.60	0.145	0.138	.011830709	pCi/g	NO
		Uranium-235/236	0.508 g	0.077	0.0213	0.0856	.023622047	pCi/g	YES
		Uranium-238	0.508 g	4.97	0.394	0.080	.022244094	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944978
SAMPLE ID : S0245396001_UU
SAMPLE QTY : 0.507 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 84.119

CHAMBER : 134
DETECTOR S/N : 76230
AVERAGE %EFFICIENCY : 24.4853
COUNT DATE : 1-FEB-2010 13:09:04
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B134.CNF;429
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W134.CNF;125
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5070E+00 dpm
RESULTS : 3.7913E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.147	68.841	940.000	928.000	12.000	3.4641	100.0000	4.00E+00	3.17E-01	3.48E-02	8.12E-02	1.33E-01
U-3/4	4763.020	4753.610	62.331	214.000	200.061	13.000	6.0782	100.0000	8.63E-01	8.97E-02	6.10E-02	1.34E-01	6.49E-02
U-235	4391.000	4405.925	33.392	12.000	5.000	7.000	2.7628	80.90000	2.67E-02	2.33E-02	3.43E-02	8.30E-02	2.32E-02
U-238	4184.730	4188.906	56.209	293.000	276.000	17.000	3.2810	100.0000	1.19E+00	1.14E-01	3.29E-02	7.75E-02	7.59E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

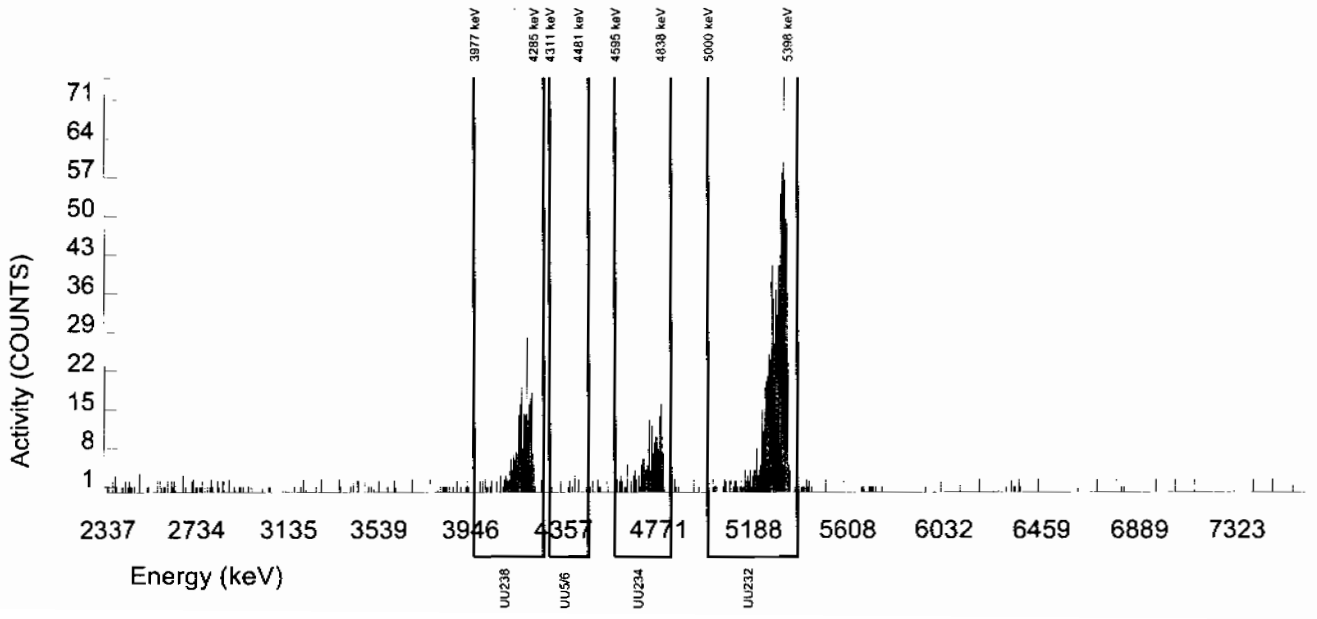

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944978
SAMPLE ID : S0245396004_UU
SAMPLE QTY : 0.508 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 79.827

CHAMBER : 139
DETECTOR S/N : 76231
AVERAGE %EFFICIENCY : 24.9676
COUNT DATE : 1-FEB-2010 13:09:18
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B139.CNF;392
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W139.CNF;102
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5070E+00 dpm
RESULTS : 3.5978E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.863	71.971	902.000	898.000	4.000	2.0000	100.0000	4.00E+00	3.23E-01	2.07E-02	5.35E-02	1.34E-01
U-3/4	4763.020	4758.625	29.121	362.000	360.092	1.000	6.0782	100.0000	1.60E+00	1.45E-01	6.29E-02	1.38E-01	8.47E-02
U-235	4391.000	4404.421	0.000	14.000	14.000	0.000	2.7628	80.90000	7.70E-02	2.13E-02	3.53E-02	8.56E-02	2.06E-02
U-238	4184.730	4184.892	49.018	1117.000	1117.000	0.000	3.2810	100.0000	4.97E+00	3.94E-01	3.40E-02	8.00E-02	1.49E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

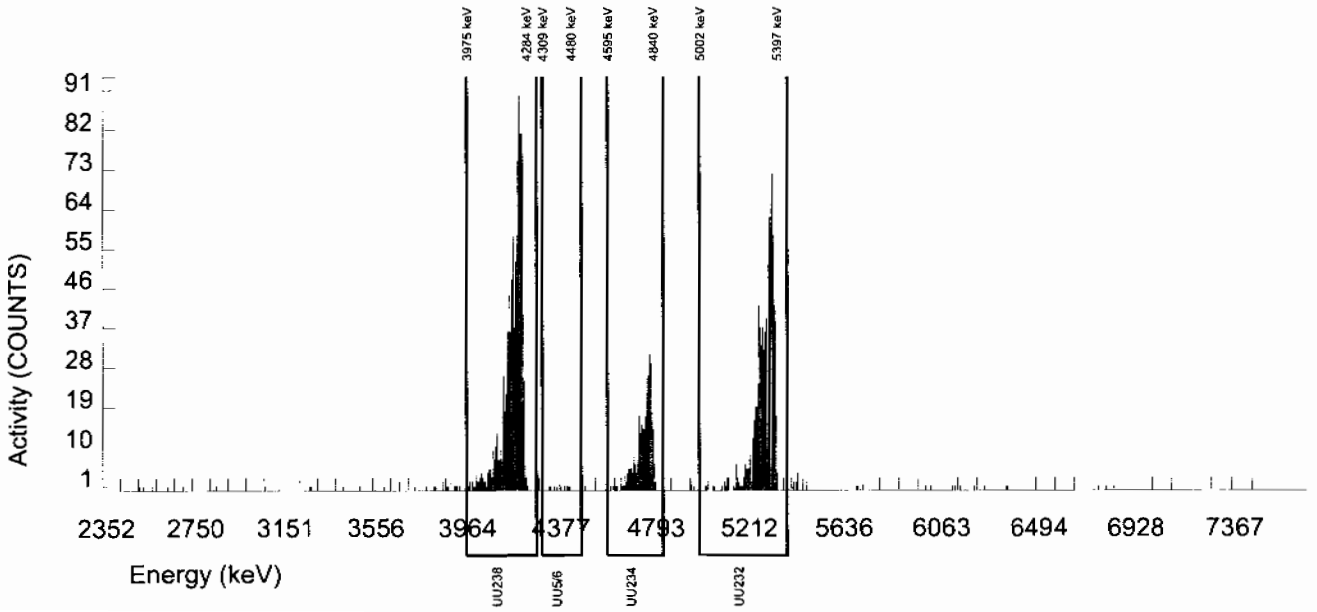

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944978
SAMPLE ID : S1202023754_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 94.156

CHAMBER : 007
DETECTOR S/N : 67607
AVERAGE %EFFICIENCY : 29.6523
COUNT DATE : 30-JAN-2010 12:24:55
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B007.CNF;1105
BKG DATE : 25-JAN-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W007.CNF;310
CAL DATE : 4-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5063E+00 dpm
RESULTS : 4.2430E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.484	38.655	1267.000	1258.000	9.000	3.0000	100.0000	2.03E+00	1.53E-01	1.13E-02	2.69E-02	5.76E-02
U-3/4	4763.020	4742.347	7.522	12.000	3.727	7.000	6.0782	100.0000	6.01E-03	6.81E-03	2.28E-02	5.00E-02	6.79E-03
U-235	4391.000	4377.360	117.784	6.000	6.000	0.000	2.7628	80.90000	1.20E-02	4.96E-03	1.28E-02	3.10E-02	4.89E-03
U-238	4184.730	4176.557	15.363	9.000	7.000	2.000	3.2810	100.0000	1.13E-02	5.41E-03	1.23E-02	2.90E-02	5.35E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

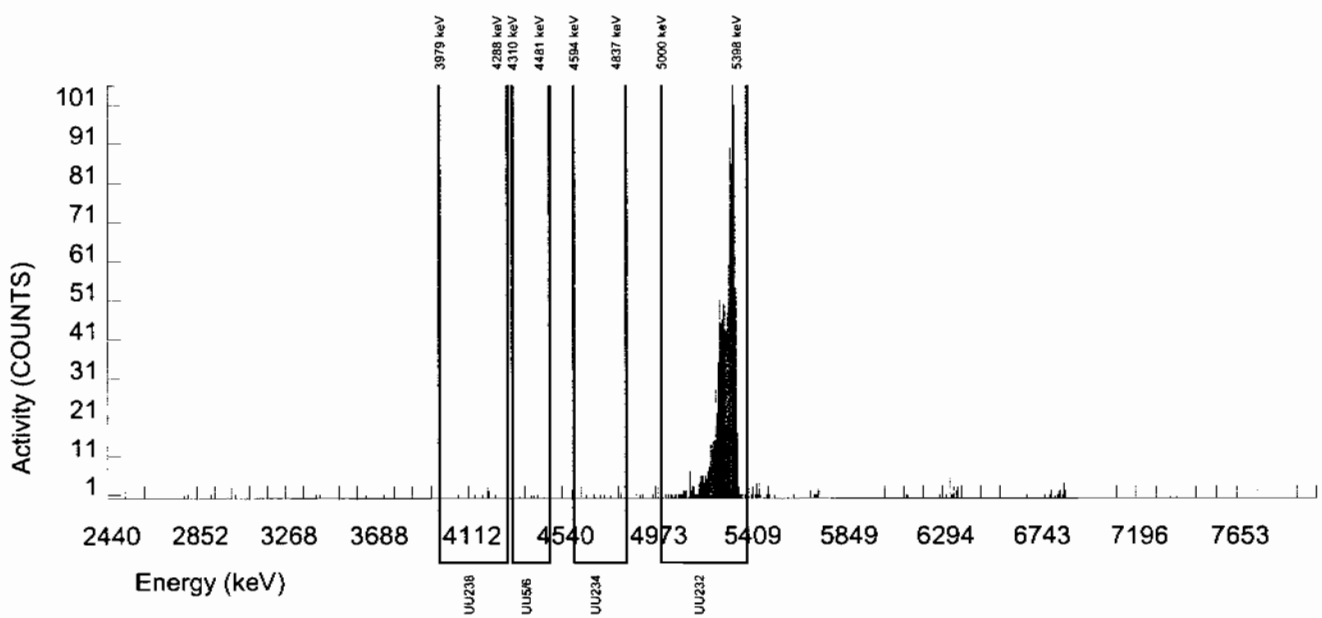

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944978
SAMPLE ID : S1202023755_UU
SAMPLE QTY : 0.500 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.956

CHAMBER : 171
DETECTOR S/N : 78260
AVERAGE %EFFICIENCY : 38.1329
COUNT DATE : 1-FEB-2010 13:09:44
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B171.CNF;173
BKG DATE : 31-JAN-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W171.CNF;72
CAL DATE : 21-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5070E+00 dpm
RESULTS : 3.9192E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.079	63.554	1498.000	1494.000	4.000	2.0000	100.0000	4.06E+00	2.98E-01	1.26E-02	3.26E-02	1.05E-01
U-3/4	4763.020	4758.214	50.356	331.000	328.489	1.000	6.0782	100.0000	8.92E-01	7.87E-02	3.84E-02	8.42E-02	4.94E-02
U-235	4391.000	4408.902	123.064	21.000	20.000	1.000	2.7628	80.90000	6.72E-02	1.64E-02	2.16E-02	5.23E-02	1.58E-02
U-238	4184.730	4187.049	58.944	394.000	392.000	2.000	3.2810	100.0000	1.07E+00	9.10E-02	2.07E-02	4.88E-02	5.41E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

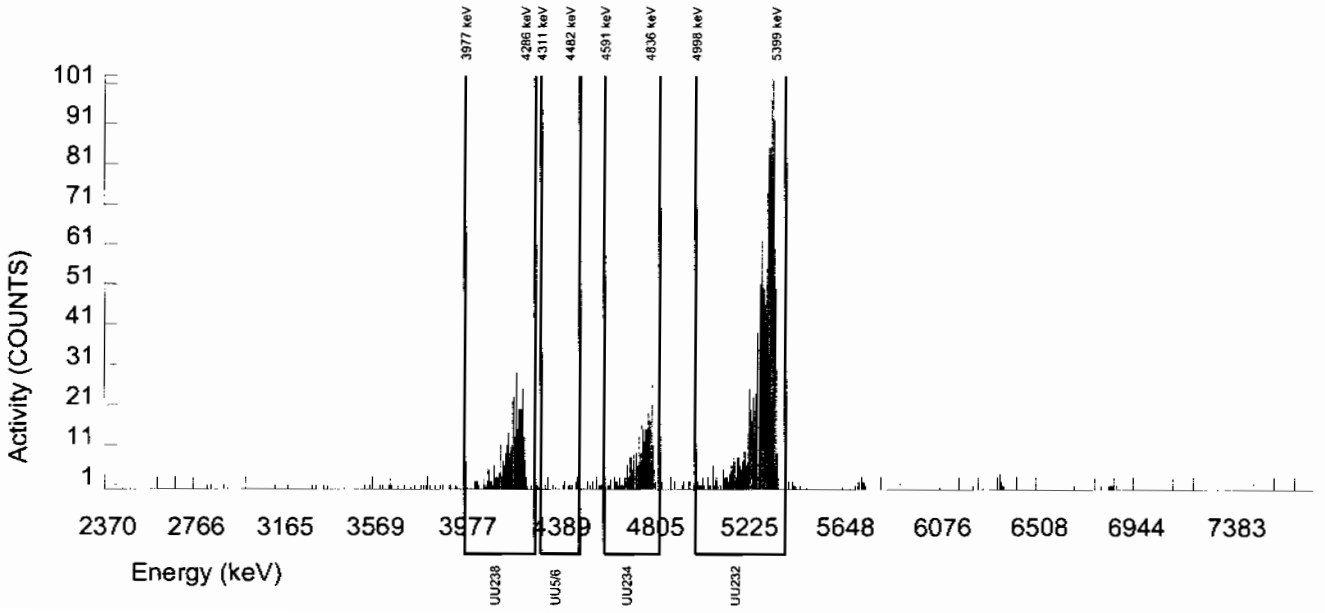

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 944978	CHAMBER : 172	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202023756_UU	DETECTOR S/N : 78772	BKG FILE : B172.CNF;171
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 38.2928	BKG DATE : 31-JAN-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 1-FEB-2010 13:09:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W172.CNF;65
% YIELD : 92.563		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1712E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.603	50.403	1601.000	1597.000	4.000	2.0000	100.0000	1.97E+01	1.56E+00	5.74E-02	1.48E-01	4.94E-01
U-3/4	4763.020	4756.994	36.129	465.000	463.384	0.000	6.0782	100.0000	5.72E+00	5.04E-01	1.74E-01	3.82E-01	2.66E-01
U-235	4391.000	4402.122	70.953	24.000	22.000	2.000	2.7628	80.90000	3.36E-01	8.17E-02	9.80E-02	2.37E-01	7.78E-02
U-238	4184.730	4184.575	59.811	430.000	430.000	0.000	3.2810	100.0000	5.31E+00	4.73E-01	9.42E-02	2.22E-01	2.56E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 5-JAN-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

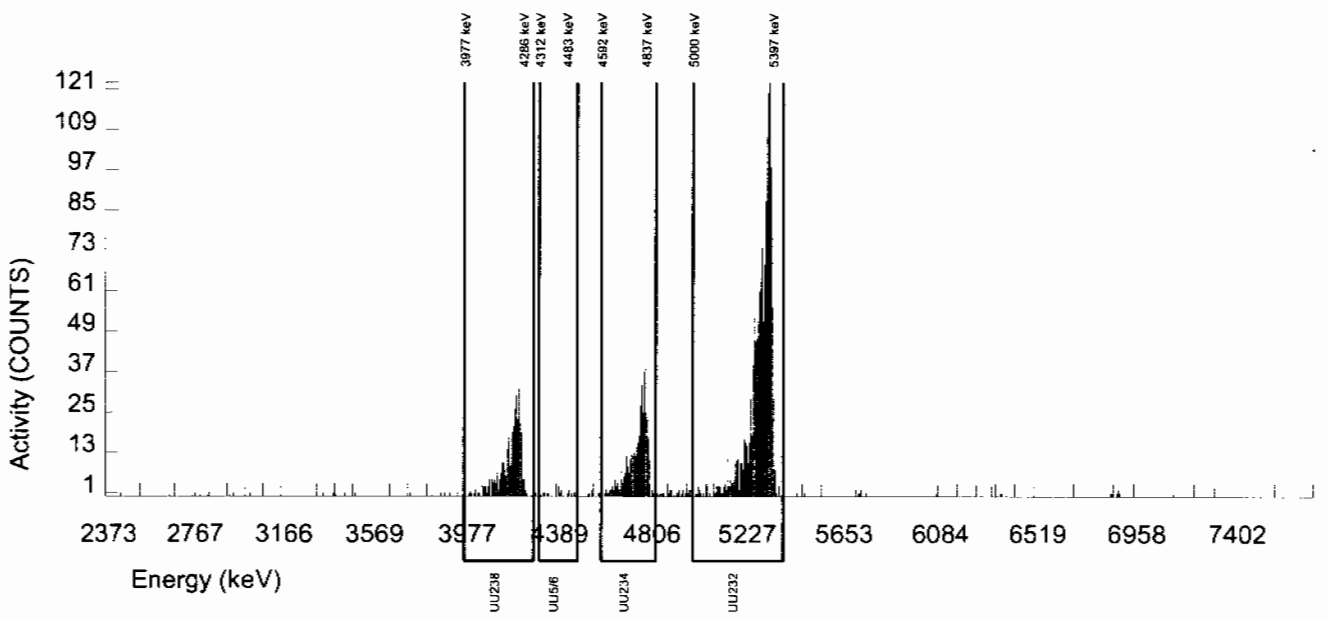

Radiochemistry Batch Checklist, Rev10

Batch# 949620 Product: U Date: 2/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/11/10

Secondary Review Performed By: [illegible] 2/16/10

2/20

LANL

Uranium Que Sheet

05-FEB-10

Batch #: 949620 Analyst: CXM2 First Client Due Date:20-FEB-10 Internal Due Date:14-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1mL

LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.104g * SRM

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 2/5/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: [illegible] 2/5/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet Dry Aliquot (g / l)	U Det #
245396002-3	RE15-10-7929	SAMPLE		.1 pCi/g	SOIL	LANL010	21-JAN-10	1	1	0.501	127
245396003-2	RE15-10-7927	SAMPLE		.1 pCi/g	SOIL	LANL010	21-JAN-10	2	2	0.504	128
1202034525-1	MB for batch 949620	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		3	3	1.0	142
1202034526-3	RE15-10-7929(245396002DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	21-JAN-10	4	4	0.506	129
1202034527-1	LCS for batch 949620	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		5	5	0.104	130

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [illegible] 2/11/10

Blank Correction Report

Batch ID 949620

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202034526	DUP	Uranium-233/234	0.506 g	3.45	0.343	0.240	.019644269	pCi/g	NO
		Uranium-235/236	0.506 g	0.294	0.0671	0.155	0	pCi/g	NO
		Uranium-238	0.506 g	13.1	1.14	0.165	.007845850	pCi/g	NO
1202034527	LCS	Uranium-233/234	0.104 g	6.95	0.768	0.822	.095576923	pCi/g	NO
		Uranium-235/236	0.104 g	0.502	0.157	0.532	0	pCi/g	NO
		Uranium-238	0.104 g	5.88	0.674	0.566	.038173077	pCi/g	NO
1202034525	MB	Uranium-233/234	1.00 g	0.00994	0.00806	0.0892	.00994	pCi/g	YES
		Uranium-235/236	1.00 g	0.00	0.00497	0.0578	0	pCi/g	NO
		Uranium-238	1.00 g	0.00397	0.00636	0.0614	.00397	pCi/g	YES
245396002	RE15-10-7929	Uranium-233/234	0.501 g	3.02	0.293	0.207	.019840319	pCi/g	NO
		Uranium-235/236	0.501 g	0.138	0.0413	0.134	0	pCi/g	NO
		Uranium-238	0.501 g	11.1	0.940	0.142	.007924152	pCi/g	NO
245396003	RE15-10-7927	Uranium-233/234	0.504 g	8.62	0.783	0.255	.019722222	pCi/g	NO
		Uranium-235/236	0.504 g	1.01	0.146	0.165	0	pCi/g	NO
		Uranium-238	0.504 g	43.6	3.70	0.176	.007876984	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949620	CHAMBER : 127	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245396002_UU	DETECTOR S/N : 78770	BKG FILE : B127.CNF;453
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 24.3481	BKG DATE : 7-FEB-2010
SAMPLE DATE : 21-JAN-2010 00:00:00	COUNT DATE : 10-FEB-2010 10:57:01	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W127.CNF;123
% YIELD : 78.720		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5070E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.5479E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.333	29.980	436.000	436.000	0.000	0.0000	100.0000	4.05E+00	3.77E-01	0.00E+00	2.52E-02	1.94E-01
U-3/4	4763.020	4763.988	35.932	326.000	325.054	0.505	4.8416	100.0000	3.02E+00	2.93E-01	9.08E-02	2.07E-01	1.68E-01
U-235	4391.000	4398.240	9.921	12.000	12.000	0.000	2.2152	80.90000	1.38E-01	4.13E-02	5.13E-02	1.34E-01	3.98E-02
U-238	4184.730	4192.368	42.708	1193.000	1193.000	0.000	3.1208	100.0000	1.11E+01	9.40E-01	5.85E-02	1.42E-01	3.21E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

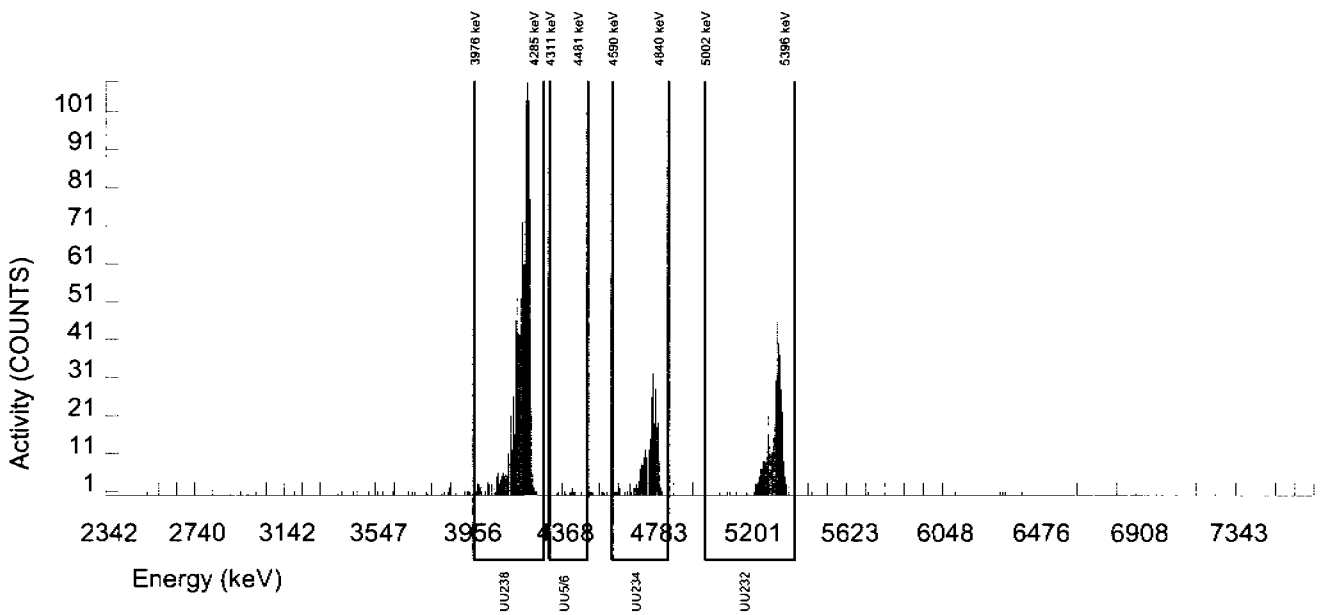

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949620
SAMPLE ID : S0245396003_UU
SAMPLE QTY : 0.504 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 60.149

CHAMBER : 128
DETECTOR S/N : 75549
AVERAGE %EFFICIENCY : 25.6524
COUNT DATE : 10-FEB-2010 10:57:03
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B128.CNF;459
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W128.CNF;133
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5070E+00 dpm
RESULTS : 2.7109E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.296	30.828	352.000	350.990	1.010	1.0050	100.0000	4.03E+00	3.98E-01	2.33E-02	7.76E-02	2.15E-01
U-3/4	4763.020	4762.934	58.899	753.000	751.635	1.010	4.8416	100.0000	8.62E+00	7.83E-01	1.12E-01	2.55E-01	3.15E-01
U-235	4391.000	4394.125	86.417	71.000	71.000	0.000	2.2152	80.90000	1.01E+00	1.46E-01	6.34E-02	1.65E-01	1.19E-01
U-238	4184.730	4191.230	66.332	3805.000	3805.000	0.000	3.1208	100.0000	4.36E+01	3.70E+00	7.22E-02	1.76E-01	7.08E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

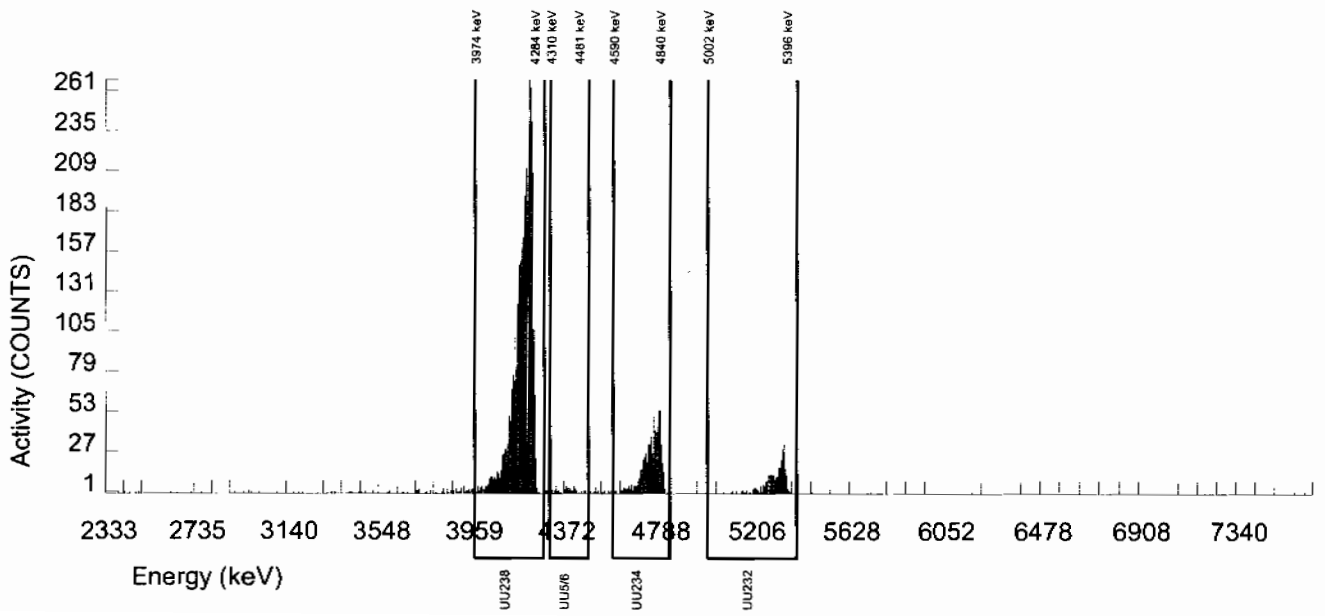

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949620
SAMPLE ID : S1202034525_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 5-FEB-2010 00:00:00.
ANALYST : CXM2
% YIELD : 85.690

CHAMBER : 142
DETECTOR S/N : 64261
AVERAGE %EFFICIENCY : 25.9552
COUNT DATE : 10-FEB-2010 12:57:31
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B142.CNF;392
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W142.CNF;109
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5052E+00 dpm
RESULTS : 3.8605E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5310.248	45.927	513.000	505.930	7.070	2.6589	100.0000	2.03E+00	1.82E-01	2.15E-02	5.39E-02	9.12E-02
U-3/4	4763.020	4764.324	0.000	4.000	2.478	1.010	4.8416	100.0000	9.94E-03	8.06E-03	3.92E-02	8.92E-02	8.02E-03
U-235	4391.000	4395.807	0.000	0.000	0.000	0.000	2.2152	80.90000	0.00E+00	4.97E-03	2.22E-02	5.78E-02	4.96E-03
U-238	4184.730	4125.892	99.384	2.000	0.990	1.010	3.1208	100.0000	3.97E-03	6.36E-03	2.53E-02	6.14E-02	6.35E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

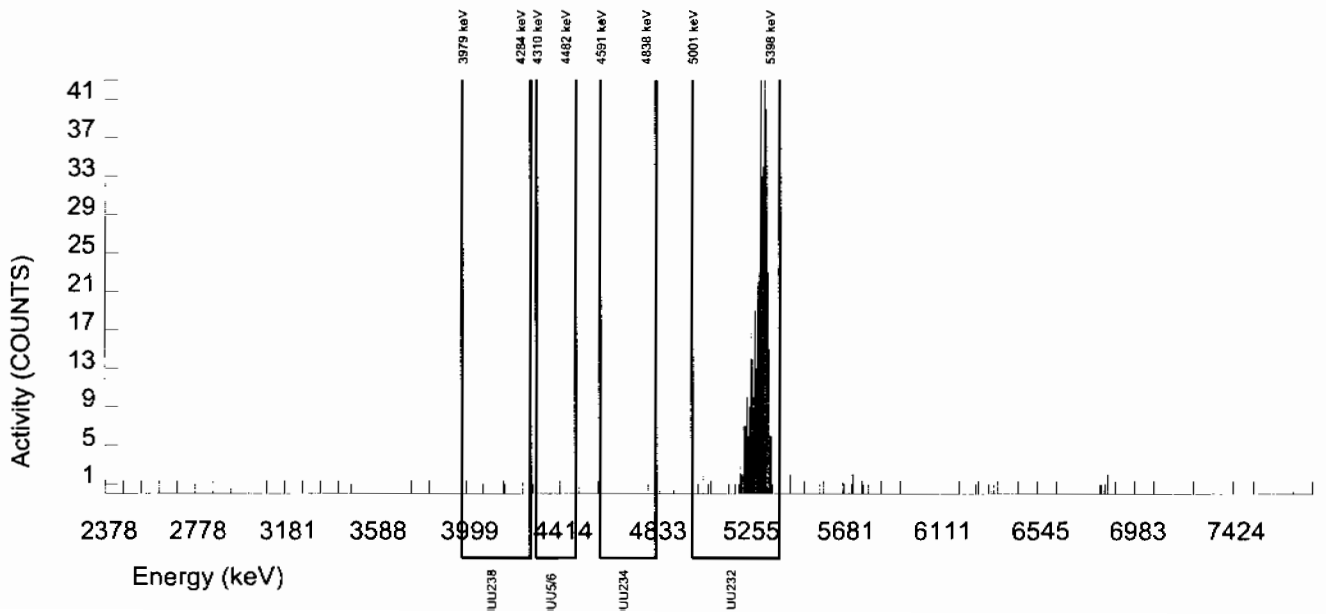

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949620
SAMPLE ID : S1202034526_UU
SAMPLE QTY : 0.506 G
SAMPLE DATE : 21-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 61.816

CHAMBER : 129
DETECTOR S/N : 76227
AVERAGE %EFFICIENCY : 26.4183
COUNT DATE : 10-FEB-2010 10:57:07
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B129.CNF;448
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W129.CNF;128
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5071E+00 dpm
RESULTS : 2.7861E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.754	38.608	373.000	371.485	1.515	1.2309	100.0000	4.01E+00	3.91E-01	2.68E-02	8.29E-02	2.09E-01
U-3/4	4763.020	4757.642	39.265	321.000	319.614	1.010	4.8416	100.0000	3.45E+00	3.43E-01	1.05E-01	2.40E-01	1.93E-01
U-235	4391.000	4406.142	76.087	22.000	22.000	0.000	2.2152	80.90000	2.94E-01	6.71E-02	5.96E-02	1.55E-01	6.26E-02
U-238	4184.730	4187.721	39.813	1213.000	1213.000	0.000	3.1208	100.0000	1.31E+01	1.14E+00	6.80E-02	1.65E-01	3.76E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

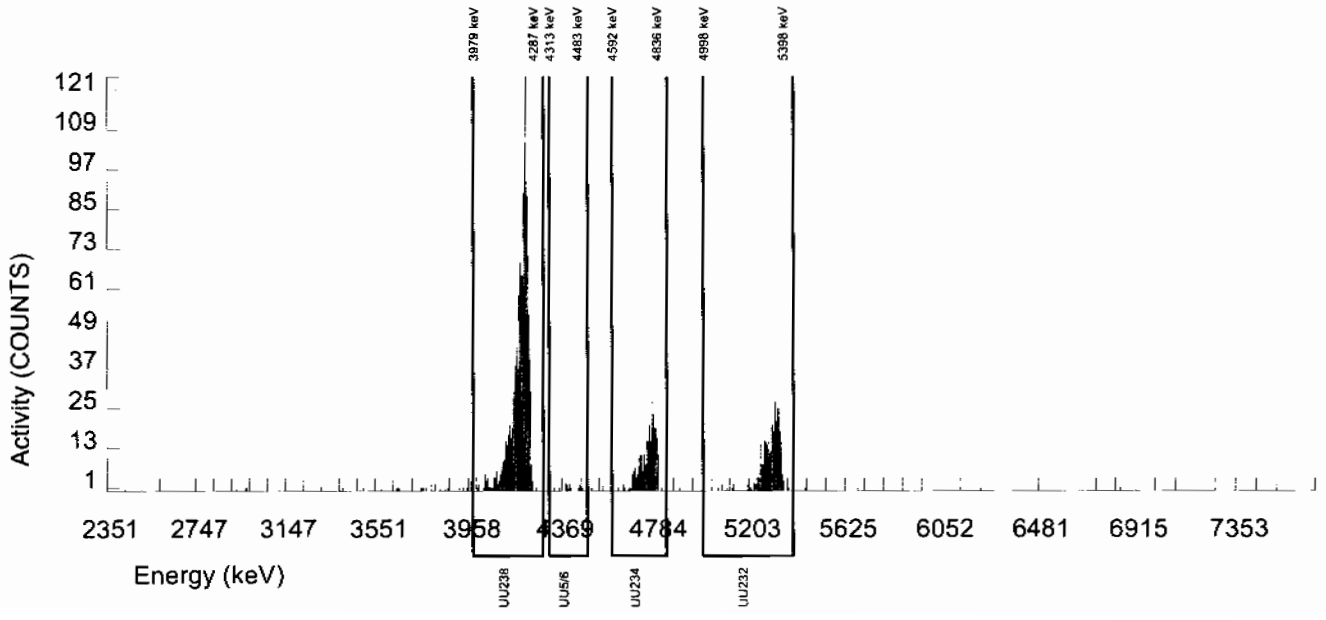

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949620
SAMPLE ID : S1202034527_UU
SAMPLE QTY : 0.104 G
SAMPLE DATE : 5-FEB-2010 00:00:00.
ANALYST : CXM2
% YIELD : 93.827

CHAMBER : 130
DETECTOR S/N : 76228
AVERAGE %EFFICIENCY : 24.7378
COUNT DATE : 10-FEB-2010 10:57:09
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B130.CNF;448
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W130.CNF;130
CAL DATE : 18-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5052E+00 dpm
RESULTS : 4.2271E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.007	34.721	529.000	527.990	1.010	1.0050	100.0000	1.95E+01	1.83E+00	7.49E-02	2.50E-01	8.50E-01
U-3/4	4763.020	4767.303	49.769	189.000	187.961	0.505	4.8416	100.0000	6.95E+00	7.68E-01	3.61E-01	8.22E-01	5.08E-01
U-235	4391.000	4415.824	4.987	11.000	11.000	0.000	2.2152	80.90000	5.02E-01	1.57E-01	2.04E-01	5.32E-01	1.51E-01
U-238	4184.730	4194.872	20.001	159.000	159.000	0.000	3.1208	100.0000	5.88E+00	6.74E-01	2.33E-01	5.66E-01	4.66E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

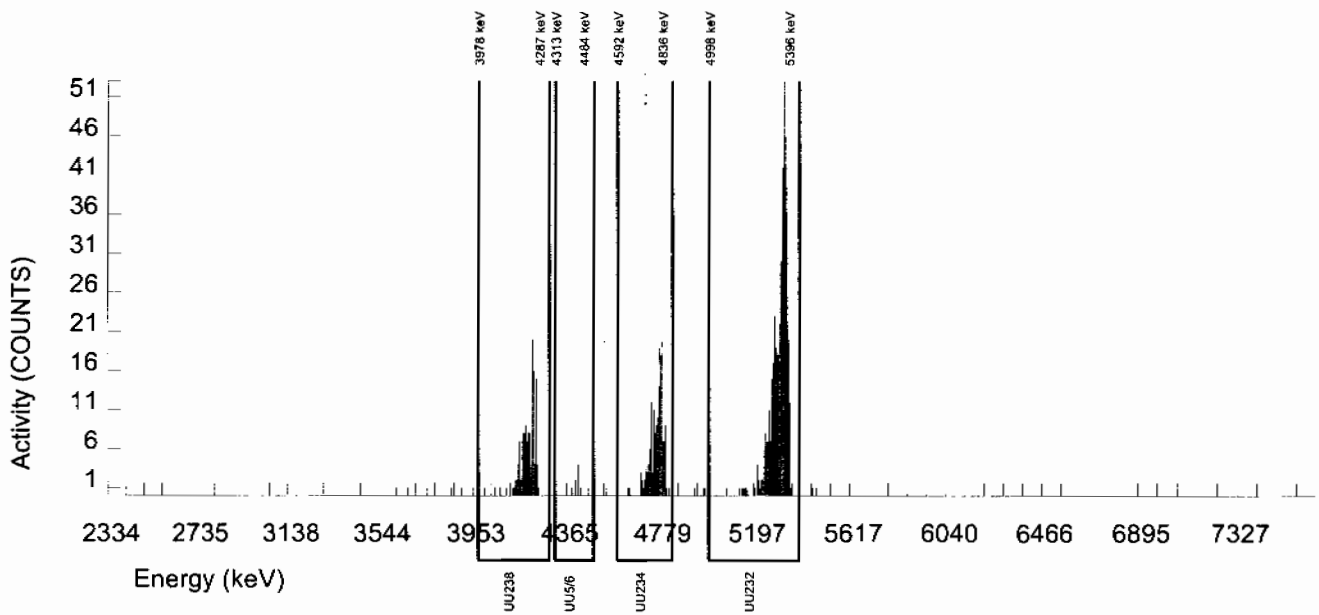

Radiochemistry Batch Checklist, Rev10

Batch# 944962 Product: Gamma Solid Date: 02/11/10

LANL

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (If required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/11/10

Secondary Review Performed By: [signature] 2/12/10

2/20

Gamma Spec Que Sheet 1.G.- 2/3/10

01/27/2010

Batch #:944962 Analyst: MXR1 First Client DueDate02/20/2010 Internal Due Date: 02/09/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: Na Expiration Date: n/a Vol: n/a Nominal Concentration: n/a

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0mL Nominal Concentration: Cs137-5.564 Co60-6.425 Am241-15.91

Initials: MS Prep Date: 1/27/10 Library: SOLID Witness: Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (W/F)	Detector	Sealing Date/Time (if Applicable)
245385001-1	RE15-10-7303	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL	Can	102.57	7	1/27/10
245385002-1	RE15-10-7305	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		86.96	14	
245385003-1	RE15-10-7306	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		118.45	20	
245385004-1	RE15-10-7307	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		126.96	19	
245385005-1	RE15-10-7301	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		110.57	11	1/26/10
245385006-1	RE15-10-7304	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		109.92	14	1/27/10
245385007-1	RE15-10-7300	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		107.99	16	1/26/10
245385008-1	RE15-10-7302	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		110.27	17	1/26/10
245385009-1	RE15-10-7311	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		109.43	19	1/27/10
245385010-1	RE15-10-7310	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		108.84	20	1/27/10
245385011-1	RE15-10-7323	SAMPLE		LANL010	SOIL	15-JAN-10 12:00:00	uL		121.15	21	1/26/10
245396001-1	RE15-10-7928	SAMPLE		LANL010	SOIL	21-JAN-10 12:00:00	uL		132.96	22	1/26/10
245396002-1	RE15-10-7929	SAMPLE		LANL010	SOIL	21-JAN-10 12:00:00	uL		100.51	1	1/27/10
245396003-1	RE15-10-7927	SAMPLE		LANL010	SOIL	21-JAN-10 12:00:00	uL		144.55	22	1/26/10
245396004-1	RE15-10-7930	SAMPLE		LANL010	SOIL	21-JAN-10 12:00:00	uL		139.85	14	1/26/10
1202023707-1	MB	MB		QC ACCOUNT	SOIL	1/27/10	uL		144.55	20	1/27/10
1202023708-1	DUP RE15-10-7301(245385005)	DUP		QC ACCOUNT	SOIL	15-JAN-10 12:00:00	uL		101.10	22	1/26/10
1202023709-1	LCS	LCS		QC ACCOUNT	SOIL	1/27/10	uL		155.44	1	1/27/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 2/11/10

dwhite 2/12/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
944962	245385001	SAMPLE	04-FEB-10		Cerium-139	-2.46E-05	0.05586	0.050
					Cesium-134	0.09177	0.1174	0.100
944962	245385002	SAMPLE	04-FEB-10		Americium-241	0.161	0.271	0.200
					Cerium-139	-0.00237	0.06962	0.050
					Europium-152	-0.1887	0.2146	0.200
					Mercury-203	0.04482	0.1011	0.100
					Sodium-22	0.02729	0.09971	0.080
					Thorium-234	1.876	2.303	2.00
944962	245385003	SAMPLE	04-FEB-10		Americium-241	0.1329	0.2104	0.200
					Cerium-139	-0.02931	0.05136	0.050
944962	245385004	SAMPLE	04-FEB-10		Americium-241	-0.1076	0.2706	0.200
					Cerium-139	-0.00151	0.05476	0.050
					Thorium-234	0.9359	2.393	2.00
944962	245385005	SAMPLE	04-FEB-10					
944962	245385006	SAMPLE	04-FEB-10					
944962	245385007	SAMPLE	04-FEB-10					
944962	245385008	SAMPLE	04-FEB-10					
944962	245385009	SAMPLE	04-FEB-10		Americium-241	0.1655	0.2068	0.200
944962	245385010	SAMPLE	04-FEB-10					
944962	245385011	SAMPLE	04-FEB-10					
944962	245396001	SAMPLE	04-FEB-10					
944962	245396002	SAMPLE	05-FEB-10		Americium-241	0.263	0.3976	0.200
					Cerium-139	-0.02788	0.06524	0.050
					Europium-152	-0.00485	0.2111	0.200
					Sodium-22	-0.00298	0.09291	0.080
944962	245396003	SAMPLE	05-FEB-10		Americium-241	0.2305	0.3057	0.200
944962	245396004	SAMPLE	05-FEB-10		Americium-241	0.04417	0.2249	0.200
944962	1202023707	MB	05-FEB-10					
944962	1202023708	DUP	06-FEB-10		Americium-241	0.02005	0.2424	0.200
					Cerium-139	-0.02442	0.05649	0.050
					Thorium-234	1.278	2.189	2.00
944962	1202023709	LCS	04-FEB-10		Cerium-139	0.03703	0.08914	0.050
					Cesium-134	0.0421	0.1797	0.100
					Europium-152	-0.0881	0.3268	0.200
					Mercury-203	0.03583	0.1261	0.100
					Potassium-40	0.7197	1.281	1.00
					Radium-228	0.5555	0.7306	0.500
					Ruthenium-106	-0.4804	1.015	0.800
					Sodium-22	-0.0214	0.08625	0.080
					Thorium-234	1.478	4.161	2.00
					Tin-113	-0.01456	0.1547	0.100
					Uranium-235	-0.1534	0.5832	0.500

GEL QUALS

Batch ID: 944962

Report run on: February 11, 2010 11:13 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245385001-1 04-FEB-2010 20:27	Bismuth-211	UI	UI	UI	Data rejected due to interference.		5.233			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.612			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.171			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1112			
245385002-1 04-FEB-2010 20:27	Bismuth-211	UI	UI	UI	Data rejected due to interference.		5.538			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		6.771			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1352		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.473			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1355			
245385003-1 04-FEB-2010 20:28	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.588			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.554			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1434		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.0862		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.404			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0899			
245385004-1 04-FEB-2010 20:48	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.577			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.358			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1213		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.514			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08523			

GEL QUALS

Batch ID: 944962

Report run on: February 11, 2010 11:13 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245385005-1 04-FEB-2010 22:52	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.215			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.262			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1481		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.149			
245385006-1 04-FEB-2010 22:53	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.285			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.551			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1003		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.439			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1177			
245385007-1 04-FEB-2010 22:53	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.68			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.358			
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.05735		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.698			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0689			
245385008-1 04-FEB-2010 22:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.357			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1796		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.09337		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.89			
	Cadmium-109	UI			Data rejected due to interference.		3.805			
245385009-1 04-FEB-2010 22:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.373			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.859			

GEL QUALS

Batch ID: 944962

Report run on: February 11, 2010 11:13 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245385009-1 04-FEB-2010 22:54	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1024		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.271			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1074			
245385010-1 04-FEB-2010 22:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.751			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.218			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.0958		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.966			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.104			
245385011-1 04-FEB-2010 22:55	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.166			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.426			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.326			
245396001-1 04-FEB-2010 22:55	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.034			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.308			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1059		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.04			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1308			
245396002-1 05-FEB-2010 18:59	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.391			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.593			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1498		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.62			

GEL QUALS

Batch ID: 944962

Report run on: February 11, 2010 11:13 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245396002-1 05-FEB-2010 18:59	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1038			
245396003-1 05-FEB-2010 19:00	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.322			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1081		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.785			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1197			
245396004-1 05-FEB-2010 19:14	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.488			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.509			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09067		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.692			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09829			
1202023708-1 DUP 06-FEB-2010 13:03	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.701			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.841			
	Cesium-137	UI	UI	UI	Data rejected due to high peak-width.		.1012		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.1097		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.869			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1732			

Gamma Review Report based on Result > MDA for Batch:944962

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385001	15-JAN-10 12:00	04-FEB-10 20:27	20.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.747	0.1989	pCi/g	0.2909	N	911.6	3	1.876	IDENTIFIED	9.785	☐	
Americium-243	int nr	0.4498	0.04129	pCi/g	0.08089	N	74.83	1	1.217	IDENTIFIED	8.25	☐	
Annihilation Rad.	HE	0.0988	0.04057	pCi/g	0.04748	N	511.3	1	1.581	IDENTIFIED	40.83	☐	
Bismuth-211	int	5.233	0.3586	pCi/g	0.3753	Y	352.1	4	1.221	IDENTIFIED	5.181	☐ ui	
Bismuth-212	nr	1.244	0.3162	pCi/g	0.5044	N	727.4	1	0.9044	IDENTIFIED	24.88	☐	
Bismuth-214	✓	1.599	0.1199	pCi/g	0.1346	0.200	609.5	4	1.528	IDENTIFIED	5.426	☐	
Bromine-77		62.81	27.15	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cadmium-109	int	4.612	0.6049	pCi/g	1.208	Y	87.34	3	1.373	IDENTIFIED	12.25	☐ ui	
Cerium-143		8045	1654	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Gross Gamma		10.06	1.716	pCi/g	4.156	N		0				☐	
Krypton-85	HE	20.53	4.554	pCi/g	15.89	N	0	11	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.993	0.1171	pCi/g	0.1053	0.100	238.8	4	1.076	IDENTIFIED	3.412	☐	
Lead-214	✓	1.82	0.1335	pCi/g	0.1308	0.100	352.1	4	1.221	IDENTIFIED	5.181	☐	
Lutetium-177	la nr	7.575	1.473	pCi/g	4.093	N	0	11	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	1.321	0.2204	pCi/g	0.3485	N	87.34	3	1.373	IDENTIFIED	12.25	☐	
Niobium-97	HE	5.16E+06	9.80E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.993	0.1171	pCi/g	0.1053	N	238.8	4	1.076	IDENTIFIED	3.412	☐	
Polonium-214	nr	1.82	0.1335	pCi/g	0.1308	N	352.1	4	1.221	IDENTIFIED	5.181	☐	
Polonium-216	nr	1.993	0.1171	pCi/g	0.1053	N	238.8	4	1.076	IDENTIFIED	3.412	☐	
Polonium-218	nr	1.82	0.1335	pCi/g	0.1308	N	352.1	4	1.221	IDENTIFIED	5.181	☐	
Potassium-40	✓	21.46	1.232	pCi/g	0.4483	1.00	1461	1	1.942	IDENTIFIED	3.812	☐	
Radium-224	int	5.171	0.7684	pCi/g	1.199	Y	241.6	1	1.662	IDENTIFIED	14.25	☐ ui	
Radium-226	✓	1.599	0.1199	pCi/g	0.1346	Y	609.5	4	1.528	IDENTIFIED	5.426	☐	
Radium-228	✓	1.747	0.1989	pCi/g	0.2909	0.500	911.6	3	1.876	IDENTIFIED	9.785	☐	
Sodium-24	HE	7.71E+07	1.36E+08	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.1112	0.02467	pCi/g	0.08607	Y	0	11	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		5.24E+21	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-200	HE	4299	7389	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.6342	0.05542	pCi/g	0.07313	0.080	583.3	1	1.172	IDENTIFIED	7.315	☐	
Thorium-228	nr	2.034	0.1195	pCi/g	0.1075	N	238.8	4	1.076	IDENTIFIED	3.412	☐	
Thorium-230	nr	1.599	0.1199	pCi/g	0.1346	N	609.5	4	1.528	IDENTIFIED	5.426	☐	
Thorium-232	nr	1.747	0.1989	pCi/g	0.2909	N	911.6	3	1.876	IDENTIFIED	9.785	☐	
Tin-126	int nr	0.4498	0.05899	pCi/g	0.118	N	87.34	3	1.373	IDENTIFIED	12.25	☐	
Titanium-44	la nr	0.481	0.03265	pCi/g	0.08189	N	0	11	0	FAIL_ABUND	0	☐	
Total Uranium		3.0792	2.31E-06	ug/g	2.6056	N		0				☐	
Uranium-234	nr	1.599	0.1199	pCi/g	0.1346	N	609.5	4	1.528	IDENTIFIED	5.426	☐	
Zirconium-97	HE	3.72E+08	2.00E+08	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385002	15-JAN-10 12:00	04-FEB-10 20:27	20.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	2.365	0.2736	pCi/g	0.2777	N	911.9	3	1.636	IDENTIFIED	9.968	☐		
Americium-243	int nr	0.5674	0.05605	pCi/g	0.105	N	74.92	1	1.492	IDENTIFIED	9.134	☐		
Annihilation Rad.	HE	0.1385	0.03948	pCi/g	0.06516	N	510.9	1	2.131	IDENTIFIED	28.34	☐		
Bismuth-211	int	5.538	0.3491	pCi/g	0.4508	Y	351.9	4	1.384	IDENTIFIED	5.452	☐	ui	
Bismuth-212	la nr	1.712	0.2952	pCi/g	0.8871	N	0	15	0	FAIL_ABUND	0	☐		
Bismuth-214		1.708	0.1228	pCi/g	0.1472	0.200	609.3	4	1.411	IDENTIFIED	5.999	☐		
Bromine-77	HE	12.39	33.26	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Cadmium-109	int	6.771	0.8371	pCi/g	1.352	Y	87.24	3	1.763	IDENTIFIED	11.58	☐	ui	
Cadmium-115	HE	8.585	38.86	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Cerium-143		18610	2737	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1352	0.03427	pCi/g	0.1246	0.100	0	15	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		11.48	1.832	pCi/g	5.526	N		0				☐		
Iodine-123	HE	3.15E+09	3.10E+09	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Iodine-133	HE	2.19E+05	2.75E+05	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Krypton-85	HE	25.02	5.744	pCi/g	18.92	N	0	15	0	NOT_IDENTI	0	☐		
Lead-212		2.231	0.1134	pCi/g	0.1202	0.100	238.6	4	1.277	IDENTIFIED	3.544	☐		
Lead-214		1.927	0.1314	pCi/g	0.1571	0.100	351.9	4	1.384	IDENTIFIED	5.452	☐		
Lutetium-177	la nr	9.513	1.875	pCi/g	4.646	N	0	15	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.939	0.3123	pCi/g	0.3918	N	87.24	3	1.763	IDENTIFIED	11.58	☐		
Niobium-95m	la nr	0.8878	0.114	pCi/g	0.3743	N	0	15	0	NOT_IDENTI	0	☐		
Polonium-212	nr	2.231	0.1134	pCi/g	0.1202	N	238.6	4	1.277	IDENTIFIED	3.544	☐		
Polonium-214	nr	1.927	0.1314	pCi/g	0.1571	N	351.9	4	1.384	IDENTIFIED	5.452	☐		
Polonium-216	nr	2.231	0.1134	pCi/g	0.1202	N	238.6	4	1.277	IDENTIFIED	3.544	☐		
Polonium-218	nr	1.927	0.1314	pCi/g	0.1571	N	351.9	4	1.384	IDENTIFIED	5.452	☐		
Potassium-40		23.79	1.281	pCi/g	0.76	1.00	1461	1	2.092	IDENTIFIED	3.975	☐		
Promethium-149	HE	306.2	307.4	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Radium-224	int	5.473	0.8698	pCi/g	1.367	Y	241.6	1	1.72	IDENTIFIED	15.63	☐	ui	
Radium-226		1.708	0.1228	pCi/g	0.1472	Y	609.3	4	1.411	IDENTIFIED	5.999	☐		
Radium-228		2.365	0.2736	pCi/g	0.2777	0.500	911.9	3	1.636	IDENTIFIED	9.968	☐		
Strontium-85	la	0.1355	0.03112	pCi/g	0.1025	Y	0	15	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	15620	8589	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Thallium-208		0.6296	0.05174	pCi/g	0.07764	0.080	583.3	1	1.655	IDENTIFIED	7.473	☐		
Thorium-228	nr	2.276	0.1157	pCi/g	0.1227	N	238.6	4	1.277	IDENTIFIED	3.544	☐		
Thorium-230	nr	1.708	0.1228	pCi/g	0.1472	N	609.3	4	1.411	IDENTIFIED	5.999	☐		
Thorium-232	nr	2.365	0.2736	pCi/g	0.2777	N	911.9	3	1.636	IDENTIFIED	9.968	☐		
Tin-126	int nr	0.6604	0.08164	pCi/g	0.1323	N	87.24	3	1.763	IDENTIFIED	11.58	☐		
Titanium-44	la nr	0.5298	0.03886	pCi/g	0.1067	N	0	15	0	FAIL_ABUND	0	☐		
Total Uranium		5.5352	3.56E-06	ug/g	3.4288	N		0				☐		
Uranium-234	nr	1.708	0.1228	pCi/g	0.1472	N	609.3	4	1.411	IDENTIFIED	5.999	☐		
Zirconium-97		9.61E+08	2.48E+08	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385003	15-JAN-10 12:00	04-FEB-10 20:28	20.4	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.772	0.1705	pCi/g	0.1979	N	911.9	3	1.681	IDENTIFIED	7.419	☐	
Americium-243	int nr	0.3545	0.03582	pCi/g	0.085	N	74.96	1	1.003	IDENTIFIED	9.261	☐	

Annihilation Rad.		0.1428	0.03715	pCi/g	0.0448	N	511.4	1	1.772	IDENTIFIED	25.6	☐		
Barium-137m		0.158	0.02925	pCi/g	0.06072	N	661.9	2	1.311	IDENTIFIED	17.82	☐		
Bismuth-211	int	4.588	0.3305	pCi/g	0.328	Y	352.1	4	1.166	IDENTIFIED	5.385	☐	ui	
Bismuth-212	nr	1.191	0.2543	pCi/g	0.4593	N	728.1	1	0.922	IDENTIFIED	20.59	☐		
Bismuth-214 ✔		1.345	0.1149	pCi/g	0.1103	0.200	609.8	4	1.311	IDENTIFIED	6.476	☐		
Cadmium-109	int	2.554	0.5291	pCi/g	1.573	Y	87	3	1.235	IDENTIFIED	20.19	☐	ui	
Cerium-143		6957	1314	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1434	0.02834	pCi/g	0.09605	0.100	0	11	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137 ✔		0.167	0.03092	pCi/g	0.06419	0.100	661.9	2	1.311	IDENTIFIED	17.82	☐		
Gross Gamma		10.09	1.407	pCi/g	4.386	N		0				☐		
Iodine-123	HE	5.31E+08	2.23E+09	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Iodine-135		1.66E+21	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Krypton-85	HE	16.59	4.395	pCi/g	14.44	N	0	11	0	NOT_IDENTI	0	☐		
Lead-212 ✔		1.867	0.1154	pCi/g	0.08622	0.100	238.7	4	1.153	IDENTIFIED	3.146	☐		
Lead-214 ✔		1.596	0.1223	pCi/g	0.11	0.100	352.1	4	1.166	IDENTIFIED	5.385	☐		
Lutetium-177	HE	5.672	1.213	pCi/g	3.571	N	0	11	0	FAIL_ABUND	0	☐		
Mercury-203	int	0.0862	0.02802	pCi/g	0.06355	0.100	277.9	1	1.531	IDENTIFIED	32.11	☐	ui	
Neptunium-237	int nr	0.7314	0.1693	pCi/g	0.3236	N	87	3	1.235	IDENTIFIED	20.19	☐		
Polonium-212	nr	1.867	0.1154	pCi/g	0.08622	N	238.7	4	1.153	IDENTIFIED	3.146	☐		
Polonium-214	nr	1.596	0.1223	pCi/g	0.11	N	352.1	4	1.166	IDENTIFIED	5.385	☐		
Polonium-216	nr	1.867	0.1154	pCi/g	0.08622	N	238.7	4	1.153	IDENTIFIED	3.146	☐		
Polonium-218	nr	1.596	0.1223	pCi/g	0.11	N	352.1	4	1.166	IDENTIFIED	5.385	☐		
Potassium-40 ✔		21.64	1.221	pCi/g	0.5103	1.00	1462	1	1.955	IDENTIFIED	3.582	☐		
Promethium-149	HE	212.3	220.9	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Radium-224	int	5.404	0.648	pCi/g	0.9809	Y	241.8	1	1.738	IDENTIFIED	10.97	☐	ui	
Radium-226 ✔		1.345	0.1149	pCi/g	0.1103	Y	609.8	4	1.311	IDENTIFIED	6.476	☐		
Radium-228 ✔		1.772	0.1705	pCi/g	0.1979	0.500	911.9	3	1.681	IDENTIFIED	7.419	☐		
Strontium-85	la	0.0899	0.02381	pCi/g	0.07823	Y	0	11	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	733.8	6231	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.5273	0.04944	pCi/g	0.05745	0.080	583.7	1	1.602	IDENTIFIED	7.841	☐		
Thorium-228	nr	1.905	0.1177	pCi/g	0.08798	N	238.7	4	1.153	IDENTIFIED	3.146	☐		
Thorium-230	nr	1.345	0.1149	pCi/g	0.1103	N	609.8	4	1.311	IDENTIFIED	6.476	☐		
Thorium-232	nr	1.772	0.1705	pCi/g	0.1979	N	911.9	3	1.681	IDENTIFIED	7.419	☐		
Thorium-234 ✔		4.574	0.9512	pCi/g	1.801	2.00	63.48	2	0.8083	IDENTIFIED	18.89	☐		
Tin-126	int nr	0.2491	0.0516	pCi/g	0.1442	N	87	3	1.235	IDENTIFIED	20.19	☐		
Titanium-44	la nr	0.3701	0.02772	pCi/g	0.0802	N	0	11	0	FAIL_ABUND	0	☐		
Total Uranium		13.703	2.83E-06	ug/g	2.6824	N		0				☐		
Uranium-234	nr	1.345	0.1149	pCi/g	0.1103	N	609.8	4	1.311	IDENTIFIED	6.476	☐		
Uranium-238	nr	4.574	0.9512	pCi/g	1.801	N	63.48	2	0.8083	IDENTIFIED	18.89	☐		
Zirconium-97	HE	2.31E+08	1.61E+08	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385004	15-JAN-10 12:00	04-FEB-10 20:48	20.4	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.903	0.1831	pCi/g	0.1905	N	911.7	3	1.936	IDENTIFIED	7.782	☐	
Americium-243	int nr	0.3283	0.03929	pCi/g	0.1109	N	74.85	1	1.086	IDENTIFIED	11.29	☐	
Annihilation Rad.	HE	0.05011	0.03019	pCi/g	0.04698	N	510.9	1	0.9542	IDENTIFIED	60.16	☐	

Bismuth-211	int	4.577	0.2991	pCi/g	0.3405	Y	351.7	4	1.277	IDENTIFIED	5.702	☐	ui	
Bismuth-212	nr	1.241	0.2361	pCi/g	0.4946	N	727.7	1	1.562	IDENTIFIED	18.56	☐		
Bismuth-214 ✔		1.472	0.1055	pCi/g	0.1097	0.200	609.4	4	1.738	IDENTIFIED	5.988	☐		
Bromine-77	HE	13.51	24.04	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cadmium-109	int	4.358	0.5451	pCi/g	1.21	Y	87.32	3	1.388	IDENTIFIED	11.69	☐	ui	
Cadmium-115	HE	18.55	26.92	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cerium-143		15600	2298	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1213	0.03486	pCi/g	0.09726	0.100	0	14	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma		9.559	1.31	pCi/g	3.835	N		0				☐		
Iodine-133	HE	1.37E+05	1.98E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Iodine-135		1.88E+21	0	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Krypton-85	HE	15.73	4.204	pCi/g	14.15	N	0	14	0	NOT_IDENTI	0	☐		
Lead-212 ✔		1.854	0.09054	pCi/g	0.09874	0.100	238.6	4	1.327	IDENTIFIED	3.289	☐		
Lead-214 ✔		1.592	0.112	pCi/g	0.1187	0.100	351.7	4	1.277	IDENTIFIED	5.702	☐		
Lutetium-177	HE	6.18	1.472	pCi/g	3.768	N	0	14	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.248	0.2024	pCi/g	0.3517	N	87.32	3	1.388	IDENTIFIED	11.69	☐		
Niobium-95m	la nr	0.5957	0.09022	pCi/g	0.2971	N	0	14	0	NOT_IDENTI	0	☐		
Polonium-212	nr	1.854	0.09054	pCi/g	0.09874	N	238.6	4	1.327	IDENTIFIED	3.289	☐		
Polonium-214	nr	1.592	0.112	pCi/g	0.1187	N	351.7	4	1.277	IDENTIFIED	5.702	☐		
Polonium-216	nr	1.854	0.09054	pCi/g	0.09874	N	238.6	4	1.327	IDENTIFIED	3.289	☐		
Polonium-218	nr	1.592	0.112	pCi/g	0.1187	N	351.7	4	1.277	IDENTIFIED	5.702	☐		
Potassium-40 ✔		20.67	1.086	pCi/g	0.673	1.00	1461	1	1.908	IDENTIFIED	3.706	☐		
Promethium-149	HE	267.8	246.1	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Radium-224	int	4.514	0.6445	pCi/g	1.123	Y	241.7	1	1.798	IDENTIFIED	13.99	☐	ui	
Radium-226 ✔		1.472	0.1055	pCi/g	0.1097	Y	609.4	4	1.738	IDENTIFIED	5.988	☐		
Radium-228 ✔		1.903	0.1831	pCi/g	0.1905	0.500	911.7	3	1.936	IDENTIFIED	7.782	☐		
Sodium-24	HE	1.66E+08	1.12E+08	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.08523	0.02278	pCi/g	0.07666	Y	0	14	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5744	0.04973	pCi/g	0.05946	0.080	583.3	1	1.502	IDENTIFIED	7.961	☐		
Thorium-228	nr	1.892	0.0924	pCi/g	0.1008	N	238.6	4	1.327	IDENTIFIED	3.289	☐		
Thorium-230	nr	1.472	0.1055	pCi/g	0.1097	N	609.4	4	1.738	IDENTIFIED	5.988	☐		
Thorium-232	nr	1.903	0.1831	pCi/g	0.1905	N	911.7	3	1.936	IDENTIFIED	7.782	☐		
Tin-126	int nr	0.425	0.05316	pCi/g	0.1185	N	87.32	3	1.388	IDENTIFIED	11.69	☐		
Titanium-44	la nr	0.479	0.03634	pCi/g	0.09458	N	0	14	0	FAIL_ABUND	0	☐		
Uranium-234	nr	1.472	0.1055	pCi/g	0.1097	N	609.4	4	1.738	IDENTIFIED	5.988	☐		
Zirconium-97		4.62E+08	1.77E+08	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385005	15-JAN-10 12:00	04-FEB-10 22:52	20.5	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.81	0.1577	pCi/g	0.1425	N	911.6	3	1.541	IDENTIFIED	6.239	☐	
Americium-243	int nr	0.4434	0.02982	pCi/g	0.05265	N	74.85	1	0.9792	IDENTIFIED	5.366	☐	
Annihilation Rad.		0.1083	0.02922	pCi/g	0.033	N	510.8	1	1.921	IDENTIFIED	26.45	☐	
Bismuth-211	int	4.215	0.3246	pCi/g	0.2145	Y	352.1	4	1.181	IDENTIFIED	4.011	☐	ui
Bismuth-212	la nr	0.9886	0.1788	pCi/g	0.5103	N	0	13	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.356	0.09669	pCi/g	0.07718	0.200	609.6	4	1.211	IDENTIFIED	4.348	☐	
Bromine-77	HE	8.393	16.6	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

Cadmium-109	int	4.262	0.392	pCi/g	0.6925	Y	87.27	3	1.108	IDENTIFIED	7.907	☐	ui	
Cadmium-115	HE	10.11	19.5	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cerium-143		5656	1063	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1481	0.02471	pCi/g	0.0692	0.100	0	13	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gold-195	la nr	0.4225	0.07341	pCi/g	0.2589	N	0	13	0	FAIL_ABUND	0	☐		
Gross Gamma		10.14	1.372	pCi/g	4.004	N		0				☐		
Iodine-123	HE	3.12E+08	1.76E+09	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Iodine-133	HE	31590	1.51E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Iodine-135		3.41E+20	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Lead-212		1.934	0.1424	pCi/g	0.06115	0.100	238.7	4	0.9499	IDENTIFIED	2.283	☐		
Lead-214		1.466	0.1192	pCi/g	0.07477	0.100	352.1	4	1.181	IDENTIFIED	4.011	☐		
Lutetium-177	la nr	6.344	0.9468	pCi/g	2.433	N	0	13	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.22	0.1687	pCi/g	0.2005	N	87.27	3	1.108	IDENTIFIED	7.907	☐		
Polonium-212	nr	1.934	0.1424	pCi/g	0.06115	N	238.7	4	0.9499	IDENTIFIED	2.283	☐		
Polonium-214	nr	1.466	0.1192	pCi/g	0.07477	N	352.1	4	1.181	IDENTIFIED	4.011	☐		
Polonium-216	nr	1.934	0.1424	pCi/g	0.06115	N	238.7	4	0.9499	IDENTIFIED	2.283	☐		
Polonium-218	nr	1.466	0.1192	pCi/g	0.07477	N	352.1	4	1.181	IDENTIFIED	4.011	☐		
Potassium-40		21.41	1.078	pCi/g	0.3445	1.00	1462	1	1.78	IDENTIFIED	2.579	☐		
Radium-224	int	5.149	0.6367	pCi/g	0.6961	Y	241.7	1	1.766	IDENTIFIED	10.38	☐	ui	
Radium-226		1.356	0.09669	pCi/g	0.07718	Y	609.6	4	1.211	IDENTIFIED	4.348	☐		
Radium-228		1.81	0.1577	pCi/g	0.1425	0.500	911.6	3	1.541	IDENTIFIED	6.239	☐		
Thallium-200	HE	1332	5012	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208		0.5786	0.04505	pCi/g	0.03751	0.080	583.5	1	1.268	IDENTIFIED	5.61	☐		
Thorium-228	nr	1.973	0.1454	pCi/g	0.06241	N	238.7	4	0.9499	IDENTIFIED	2.283	☐		
Thorium-230	nr	1.356	0.09669	pCi/g	0.07717	N	609.6	4	1.211	IDENTIFIED	4.348	☐		
Thorium-232	nr	1.81	0.1577	pCi/g	0.1425	N	911.6	3	1.541	IDENTIFIED	6.239	☐		
Thorium-234		2.156	0.6511	pCi/g	1.184	2.00	63.57	2	1.031	IDENTIFIED	28.92	☐		
Tin-126	int nr	0.4155	0.03822	pCi/g	0.06774	N	87.27	3	1.108	IDENTIFIED	7.907	☐		
Titanium-44	la nr	0.4431	0.02417	pCi/g	0.04678	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium		6.53	1.94E-06	ug/g	1.763	N		0				☐		
Uranium-234	nr	1.356	0.09669	pCi/g	0.07717	N	609.6	4	1.211	IDENTIFIED	4.348	☐		
Uranium-235		0.252	0.08451	pCi/g	0.2187	0.500	143.9	1	0.8328	IDENTIFIED	32.35	☐		
Uranium-238	HE	2.156	0.6511	pCi/g	1.184	N	63.57	2	1.031	IDENTIFIED	28.92	☐		
Zirconium-97		3.56E+08	1.28E+08	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385006	15-JAN-10 12:00	04-FEB-10 22:53	20.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	2.024	0.164	pCi/g	0.15	N	911.7	3	1.535	IDENTIFIED	5.584	☐		
Americium-243	int nr	0.4117	0.03469	pCi/g	0.0675	N	74.87	1	1.536	IDENTIFIED	7.541	☐		
Annihilation Rad.		0.1614	0.0289	pCi/g	0.0359	N	510.8	1	2.307	IDENTIFIED	17.66	☐		
Barium-137m	HE	0.07546	0.01962	pCi/g	0.0502	N	662	2	1.389	IDENTIFIED	25.82	☐		
Bismuth-211	int	4.285	0.2185	pCi/g	0.2689	Y	351.9	4	1.409	IDENTIFIED	3.997	☐	ui	
Bismuth-212	la nr	1.387	0.2103	pCi/g	0.5199	N	0	14	0	FAIL_ABUND	0	☐		
Bismuth-214		1.274	0.07821	pCi/g	0.08634	0.200	609.5	4	1.576	IDENTIFIED	4.694	☐		
Bromine-77	HE	9.74	18.56	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cadmium-109	int	4.551	0.4587	pCi/g	0.9207	Y	87.36	3	1.466	IDENTIFIED	9.097	☐	ui	

Cadmium-115	HE	9.233	22.34	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cerium-143		18210	2398	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1003	0.02339	pCi/g	0.06825	0.100	0	14	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137 ✔		0.07977	0.02074	pCi/g	0.05307	0.100	662	2	1.389	IDENTIFIED	25.82	☐		
Gross Gamma		10.04	1.487	pCi/g	4.035	N		0				☐		
Iodine-133	HE	78520	1.75E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Krypton-85	la nr	21.69	3.345	pCi/g	11.17	N	0	14	0	NOT_IDENTI	0	☐		
Lead-212 ✔		1.893	0.08237	pCi/g	0.06888	0.100	238.6	4	1.368	IDENTIFIED	2.382	☐		
Lead-214 ✔		1.49	0.08537	pCi/g	0.09036	0.100	351.9	4	1.409	IDENTIFIED	3.997	☐		
Lutetium-177	HE	4.448	0.9694	pCi/g	2.819	N	0	14	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.303	0.188	pCi/g	0.2667	N	87.36	3	1.466	IDENTIFIED	9.097	☐		
Niobium-95m	la nr	0.6192	0.07032	pCi/g	0.2249	N	0	14	0	NOT_IDENTI	0	☐		
Niobium-97	HE	4.74E+06	8.97E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.893	0.08237	pCi/g	0.06888	N	238.6	4	1.368	IDENTIFIED	2.382	☐		
Polonium-214	nr	1.49	0.08537	pCi/g	0.09036	N	351.9	4	1.409	IDENTIFIED	3.997	☐		
Polonium-216	nr	1.893	0.08237	pCi/g	0.06888	N	238.6	4	1.368	IDENTIFIED	2.382	☐		
Polonium-218	nr	1.49	0.08537	pCi/g	0.09036	N	351.9	4	1.409	IDENTIFIED	3.997	☐		
Potassium-40 ✔		22.46	0.9978	pCi/g	0.4327	1.00	1462	1	2.098	IDENTIFIED	2.562	☐		
Promethium-149	HE	359.8	195.5	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Radium-224	int	4.439	0.497	pCi/g	0.7834	Y	241.6	1	1.711	IDENTIFIED	10.82	☐	ui	
Radium-226 ✔		1.274	0.07821	pCi/g	0.08634	Y	609.5	4	1.576	IDENTIFIED	4.694	☐		
Radium-228 ✔		2.024	0.164	pCi/g	0.15	0.500	911.7	3	1.535	IDENTIFIED	5.584	☐		
Strontium-85	la	0.1177	0.01815	pCi/g	0.06058	Y	0	14	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5517	0.03841	pCi/g	0.04279	0.080	583.2	1	1.516	IDENTIFIED	6.065	☐		
Thorium-228	nr	1.932	0.08407	pCi/g	0.0703	N	238.6	4	1.368	IDENTIFIED	2.382	☐		
Thorium-230	nr	1.274	0.07821	pCi/g	0.08634	N	609.5	4	1.576	IDENTIFIED	4.694	☐		
Thorium-232	nr	2.024	0.164	pCi/g	0.15	N	911.7	3	1.535	IDENTIFIED	5.584	☐		
Thorium-234 ✔		3.518	0.8757	pCi/g	1.448	2.00	62.88	2	1.484	IDENTIFIED	23.36	☐		
Tin-126	int nr	0.4438	0.04473	pCi/g	0.09008	N	87.36	3	1.466	IDENTIFIED	9.097	☐		
Titanium-44	la nr	0.4321	0.02587	pCi/g	0.06481	N	0	14	0	FAIL_ABUND	0	☐		
Total Uranium		10.53	2.61E-06	ug/g	2.1566	N		0				☐		
Uranium-234	nr	1.274	0.07821	pCi/g	0.08634	N	609.5	4	1.576	IDENTIFIED	4.694	☐		
Uranium-238	nr	3.518	0.8757	pCi/g	1.448	N	62.88	2	1.484	IDENTIFIED	23.36	☐		
Zirconium-97		1.04E+09	1.71E+08	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385007	15-JAN-10 12:00	04-FEB-10 22:53	20.5	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.71	0.1617	pCi/g	0.1461	N	911.4	3	1.562	IDENTIFIED	7.359	☐	
Americium-243	int nr	0.3692	0.02954	pCi/g	0.06103	N	74.87	1	0.8482	IDENTIFIED	6.841	☐	
Annihilation Rad.		0.109	0.02694	pCi/g	0.03536	N	510.8	1	1.882	IDENTIFIED	24.24	☐	
Barium-137m		0.1057	0.02129	pCi/g	0.04348	N	662.1	2	1.313	IDENTIFIED	19.66	☐	
Bismuth-211	int	4.68	0.3163	pCi/g	0.229	Y	352	4	1.147	IDENTIFIED	3.991	☐	ui
Bismuth-212	la nr	0.9791	0.2203	pCi/g	0.4929	N	0	16	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.371	0.09392	pCi/g	0.07851	0.200	609.4	4	1.333	IDENTIFIED	4.357	☐	
Bromine-77	HE	11.01	17.43	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Cadmium-109	int	4.358	0.437	pCi/g	0.8066	Y	87.26	3	1.158	IDENTIFIED	8.816	☐	ui

Cerium-141	int nr	0.1798	0.04094	pCi/g	0.07457	N	143.9	2	1.016	IDENTIFIED	22.35	☐		
Cerium-143		6289	1144	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.2185	0.06289	pCi/g	0.1938	N	0	16	0	NOT_IDENTI	0	☐		
Cesium-137 ✔		0.1117	0.02251	pCi/g	0.04596	0.100	662.1	2	1.313	IDENTIFIED	19.66	☐		
Gold-195	HE	0.2818	0.08431	pCi/g	0.2789	N	0	16	0	FAIL_ABUND	0	☐		
Gross Gamma		10.07	1.255	pCi/g	3.66	N		0				☐		
Iodine-123	HE	2.20E+08	1.74E+09	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Iodine-133	HE	20980	1.46E+05	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Krypton-85	HE	12.7	2.95	pCi/g	9.633	N	0	16	0	NOT_IDENTI	0	☐		
Lead-212 ✔		1.791	0.1145	pCi/g	0.06346	0.100	238.6	4	0.9421	IDENTIFIED	2.421	☐		
Lead-214 ✔		1.628	0.1179	pCi/g	0.07983	0.100	352	4	1.147	IDENTIFIED	3.991	☐		
Lutetium-177	la nr	5.526	0.9342	pCi/g	2.489	N	0	16	0	FAIL_ABUND	0	☐		
Mercury-203	int	0.05735	0.02363	pCi/g	0.04674	0.100	277.8	1	0.9552	IDENTIFIED	40.75	☐	ui	
Neptunium-237	int nr	1.248	0.1795	pCi/g	0.2346	N	87.26	3	1.158	IDENTIFIED	8.816	☐		
Niobium-97	HE	2.55E+06	7.99E+06	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.791	0.1145	pCi/g	0.06346	N	238.6	4	0.9421	IDENTIFIED	2.421	☐		
Polonium-214	nr	1.628	0.1179	pCi/g	0.07983	N	352	4	1.147	IDENTIFIED	3.991	☐		
Polonium-216	nr	1.791	0.1145	pCi/g	0.06346	N	238.6	4	0.9421	IDENTIFIED	2.421	☐		
Polonium-218	nr	1.628	0.1179	pCi/g	0.07983	N	352	4	1.147	IDENTIFIED	3.991	☐		
Potassium-40 ✔		21.83	1.137	pCi/g	0.419	1.00	1461	1	1.931	IDENTIFIED	2.792	☐		
Promethium-149	HE	189.8	191.9	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Radium-224	int	5.698	0.6068	pCi/g	0.7222	Y	241.7	1	1.909	IDENTIFIED	9.109	☐	ui	
Radium-226 ✔		1.371	0.09392	pCi/g	0.07851	Y	609.4	4	1.333	IDENTIFIED	4.357	☐		
Radium-228 ✔		1.71	0.1617	pCi/g	0.1461	0.500	911.4	3	1.562	IDENTIFIED	7.359	☐		
Sodium-24	HE	5.75E+07	1.05E+08	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.0689	0.016	pCi/g	0.05226	Y	0	16	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m		6.77E+21	0	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.5406	0.04175	pCi/g	0.04266	0.080	583.3	1	1.254	IDENTIFIED	5.923	☐		
Thorium-228	nr	1.828	0.1169	pCi/g	0.06477	N	238.6	4	0.9421	IDENTIFIED	2.421	☐		
Thorium-230	nr	1.371	0.09392	pCi/g	0.07851	N	609.4	4	1.333	IDENTIFIED	4.357	☐		
Thorium-232	nr	1.71	0.1617	pCi/g	0.1461	N	911.4	3	1.562	IDENTIFIED	7.359	☐		
Thorium-234 ✔		3.166	0.7771	pCi/g	1.406	2.00	63.37	2	0.6825	IDENTIFIED	22.94	☐		
Tin-126	int nr	0.4249	0.04261	pCi/g	0.079	N	87.26	3	1.158	IDENTIFIED	8.816	☐		
Titanium-44	la nr	0.3856	0.02385	pCi/g	0.05385	N	0	16	0	FAIL_ABUND	0	☐		
Total Uranium		9.6656	2.31E-06	ug/g	2.0935	N		0				☐		
Uranium-234	nr	1.371	0.09392	pCi/g	0.07851	N	609.4	4	1.333	IDENTIFIED	4.357	☐		
Uranium-235 ✔		0.5347	0.1283	pCi/g	0.2197	0.500	143.9	2	1.016	IDENTIFIED	22.35	☐		
Uranium-238	nr	3.166	0.7771	pCi/g	1.406	N	63.37	2	0.6825	IDENTIFIED	22.94	☐		
Zirconium-97		4.79E+08	1.35E+08	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385008	15-JAN-10 12:00	04-FEB-10 22:54	20.5	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.761	0.1736	pCi/g	0.2289	N	910.5	3	1.414	IDENTIFIED	8.058	☐	
Americium-243	int nr	0.4267	0.02984	pCi/g	0.04717	N	74.84	1	0.9444	IDENTIFIED	5.008	☐	
Annihilation Rad.		0.1126	0.03276	pCi/g	0.04501	N	510.5	1	1.139	IDENTIFIED	28.74	☐	
Barium-137m	ul	0.1243	0.02285	pCi/g	0.06372	N	661.2	2	1.287	IDENTIFIED	17.9	☐	

Bismuth-210	nr	1.837	0.3397	pCi/g	0.6799	N	46.51	3	0.9444	IDENTIFIED	17.68	☐		
Bismuth-211	int	4.357	0.2877	pCi/g	0.2739	Y	351.7	4	1.114	IDENTIFIED	4.675	☐	ui	
Bismuth-212	HE	0.8846	0.2464	pCi/g	0.6733	N	0	13	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.268	0.1002	pCi/g	0.1105	0.200	609	4	1.351	IDENTIFIED	6.041	☐		
Bromine-77	HE	37.93	22.63	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cadmium-109	int	3.805	0.3906	pCi/g	0.7607	Y	87.15	3	1.222	IDENTIFIED	9.034	☐	ui	
Cadmium-115	HE	4.704	26.16	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cerium-143		8427	1453	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1796	0.03703	pCi/g	0.09356	0.100	0	13	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✓	0.1314	0.02416	pCi/g	0.06735	0.100	661.2	2	1.287	IDENTIFIED	17.9	☐		
Gross Gamma		9.724	1.294	pCi/g	4.425	N		0				☐		
Iodine-133	HE	1.27E+05	2.08E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Iodine-135		1.67E+21	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Lead-210	nr	1.837	0.3397	pCi/g	0.6799	N	46.51	3	0.9444	IDENTIFIED	17.68	☐		
Lead-212	✓	1.719	0.09961	pCi/g	0.07456	0.100	238.5	4	1.009	IDENTIFIED	2.861	☐		
Lead-214	✓	1.516	0.1076	pCi/g	0.09552	0.100	351.7	4	1.114	IDENTIFIED	4.675	☐		
Lutetium-177	HE	5.25	1.221	pCi/g	2.891	N	0	13	0	FAIL_ABUND	0	☐		
Mercury-203	int	0.09337	0.03184	pCi/g	0.05896	0.100	277.8	1	1.074	IDENTIFIED	33.78	☐	ui	
Neptunium-237	int nr	1.089	0.1586	pCi/g	0.2168	N	87.15	3	1.222	IDENTIFIED	9.034	☐		
Niobium-95	HE	0.08988	0.02365	pCi/g	0.0867	N	0	13	0	NOT_IDENTI	0	☐		
Polonium-210	nr	1.837	0.3378	pCi/g	0.6799	N	46.51	3	0.9444	IDENTIFIED	17.68	☐		
Polonium-212	nr	1.719	0.09961	pCi/g	0.07456	N	238.5	4	1.009	IDENTIFIED	2.861	☐		
Polonium-214	nr	1.516	0.1076	pCi/g	0.09552	N	351.7	4	1.114	IDENTIFIED	4.675	☐		
Polonium-216	nr	1.719	0.09961	pCi/g	0.07456	N	238.5	4	1.009	IDENTIFIED	2.861	☐		
Polonium-218	nr	1.516	0.1076	pCi/g	0.09552	N	351.7	4	1.114	IDENTIFIED	4.675	☐		
Potassium-40	✓	22.75	1.241	pCi/g	0.4727	1.00	1460	1	1.876	IDENTIFIED	3.171	☐		
Protactinium-234m	HE	9.083	2.6	pCi/g	8.078	N	0	13	0	FAIL_ABUND	0	☐		
Radium-224	int	4.89	0.4691	pCi/g	0.8491	Y	241.6	1	1.649	IDENTIFIED	8.46	☐	ui	
Radium-226	✓	1.268	0.1002	pCi/g	0.1105	Y	609	4	1.351	IDENTIFIED	6.041	☐		
Radium-228	✓	1.761	0.1736	pCi/g	0.2289	0.500	910.5	3	1.414	IDENTIFIED	8.058	☐		
Technetium-99m		2.21E+22	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5387	0.04758	pCi/g	0.05716	0.080	582.8	1	1.266	IDENTIFIED	7.459	☐		
Thorium-228	nr	1.754	0.1017	pCi/g	0.07609	N	238.5	4	1.009	IDENTIFIED	2.861	☐		
Thorium-230	nr	1.268	0.1002	pCi/g	0.1105	N	609	4	1.351	IDENTIFIED	6.041	☐		
Thorium-232	nr	1.761	0.1736	pCi/g	0.2289	N	910.5	3	1.414	IDENTIFIED	8.058	☐		
Thorium-234	✓	3.523	0.5362	pCi/g	0.7856	2.00	63.3	2	1.006	IDENTIFIED	12.03	☐		
Tin-126	int nr	0.371	0.03809	pCi/g	0.07407	N	87.15	3	1.222	IDENTIFIED	9.034	☐		
Titanium-44	la nr	0.3994	0.02423	pCi/g	0.04801	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium		10.589	1.60E-06	ug/g	1.1709	N		0				☐		
Uranium-234	nr	1.268	0.1002	pCi/g	0.1105	N	609	4	1.351	IDENTIFIED	6.041	☐		
Uranium-238	nr	3.523	0.5362	pCi/g	0.7856	N	63.3	2	1.006	IDENTIFIED	12.03	☐		
Zirconium-97		5.60E+08	1.89E+08	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385009	15-JAN-10 12:00	04-FEB-10 22:54	20.5	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.968	0.171	pCi/g	0.1702	N	911.5	3	1.71	IDENTIFIED	6.596	☐	

Americium-243	int nr	0.5372	0.04372	pCi/g	0.07368	N	74.8	1	1.617	IDENTIFIED	7.105	☐		
Annihilation Rad.		0.1068	0.02851	pCi/g	0.03698	N	510.6	1	2.094	IDENTIFIED	26.54	☐		
Bismuth-211	int	4.373	0.2518	pCi/g	0.2632	Y	351.8	4	1.535	IDENTIFIED	4.792	☐	ui	
Bismuth-212	la nr	1.427	0.2234	pCi/g	0.5233	N	0	15	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.197	0.08321	pCi/g	0.09161	0.200	609.4	4	1.547	IDENTIFIED	5.733	☐		
Bromine-77	HE	2.673	19.64	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Cadmium-109	int	4.859	0.5167	pCi/g	0.948	Y	87.23	3	1.635	IDENTIFIED	9.661	☐	ui	
Cerium-143		15940	2194	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1024	0.02954	pCi/g	0.07603	0.100	0	15	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3635	0.07354	pCi/g	0.2381	N	0	15	0	NOT_IDENTI	0	☐		
Gross Gamma		10.41	1.333	pCi/g	3.694	N		0				☐		
Iodine-135		2.10E+19	0	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Krypton-85	la nr	19.79	3.309	pCi/g	11.16	N	0	15	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.936	0.08402	pCi/g	0.07243	0.100	238.5	4	1.315	IDENTIFIED	2.412	☐		
Lead-214	✓	1.521	0.09616	pCi/g	0.09173	0.100	351.8	4	1.535	IDENTIFIED	4.792	☐		
Lutetium-177	HE	5.012	1.107	pCi/g	2.911	N	0	15	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.391	0.2061	pCi/g	0.2755	N	87.23	3	1.635	IDENTIFIED	9.661	☐		
Niobium-95	HE	0.09008	0.02179	pCi/g	0.07038	N	0	15	0	NOT_IDENTI	0	☐		
Niobium-95m	la nr	0.4804	0.06997	pCi/g	0.2181	N	0	15	0	NOT_IDENTI	0	☐		
Polonium-212	nr	1.936	0.08402	pCi/g	0.07243	N	238.5	4	1.315	IDENTIFIED	2.412	☐		
Polonium-214	nr	1.521	0.09616	pCi/g	0.09173	N	351.8	4	1.535	IDENTIFIED	4.792	☐		
Polonium-216	nr	1.936	0.08402	pCi/g	0.07243	N	238.5	4	1.315	IDENTIFIED	2.412	☐		
Polonium-218	nr	1.521	0.09616	pCi/g	0.09173	N	351.8	4	1.535	IDENTIFIED	4.792	☐		
Potassium-40	✓	22.19	1.018	pCi/g	0.4334	1.00	1461	1	2.052	IDENTIFIED	2.677	☐		
Radium-224	int	5.271	0.571	pCi/g	0.8238	Y	241.6	1	1.947	IDENTIFIED	10.45	☐	ui	
Radium-226	✓	1.197	0.08321	pCi/g	0.09161	Y	609.4	4	1.547	IDENTIFIED	5.733	☐		
Radium-228	✓	1.968	0.171	pCi/g	0.1702	0.500	911.5	3	1.71	IDENTIFIED	6.596	☐		
Sodium-24	HE	3.25E+07	1.26E+08	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.1074	0.01795	pCi/g	0.06055	Y	0	15	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	5655	5702	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.6801	0.04227	pCi/g	0.0467	0.080	583.3	1	1.631	IDENTIFIED	5.203	☐		
Thorium-228	nr	1.976	0.08575	pCi/g	0.07392	N	238.5	4	1.315	IDENTIFIED	2.412	☐		
Thorium-230	nr	1.197	0.08321	pCi/g	0.09161	N	609.4	4	1.547	IDENTIFIED	5.733	☐		
Thorium-232	nr	1.968	0.171	pCi/g	0.1702	N	911.5	3	1.71	IDENTIFIED	6.596	☐		
Thorium-234	✓	2.423	0.7365	pCi/g	1.666	2.00	63.27	2	1.208	IDENTIFIED	29.11	☐		
Tin-126	int nr	0.4738	0.05038	pCi/g	0.09283	N	87.23	3	1.635	IDENTIFIED	9.661	☐		
Titanium-44	la nr	0.4515	0.02747	pCi/g	0.06971	N	0	15	0	FAIL_ABUND	0	☐		
Total Uranium		7.3288	2.19E-06	ug/g	2.4802	N		0				☐		
Uranium-234	nr	1.197	0.08321	pCi/g	0.09161	N	609.4	4	1.547	IDENTIFIED	5.733	☐		
Uranium-238	HE	2.423	0.7365	pCi/g	1.666	N	63.27	2	1.208	IDENTIFIED	29.11	☐		
Zirconium-97		1.01E+09	1.74E+08	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245385010	15-JAN-10 12:00	04-FEB-10 22:54	20.5	SAMPLE	LOAD	1	LANL	LANL010041GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.797	0.1599	pCi/g	0.137	N	911.8	3	1.621	IDENTIFIED	6.459	☐
Americium-243	int nr	0.4256	0.02962	pCi/g	0.05955	N	74.98	1	1.082	IDENTIFIED	5.669	☐

Annihilation Rad.		0.142	0.02918	pCi/g	0.03295	N	511.3	1	1.903	IDENTIFIED	20.02	☐		
Barium-137m		0.1977	0.03086	pCi/g	0.0458	N	662.1	2	1.342	IDENTIFIED	14.78	☐		
Beryllium-7	HE	0.4337	0.168	pCi/g	0.3842	N	477.9	1	1.113	IDENTIFIED	38.43	☐		
Bismuth-211	int	4.751	0.278	pCi/g	0.2636	Y	352.1	4	1.229	IDENTIFIED	3.372	☐	ui	
Bismuth-212	nr	1.28	0.1878	pCi/g	0.3419	N	727.9	1	1.152	IDENTIFIED	13.53	☐		
Bismuth-214		1.394	0.09951	pCi/g	0.07945	0.200	609.7	4	1.465	IDENTIFIED	4.473	☐		
Bromine-77	HE	21.62	18.06	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Cadmium-109	int	4.218	0.4472	pCi/g	0.8688	Y	87.3	3	1.278	IDENTIFIED	9.511	☐	ui	
Cadmium-115	HE	18.52	21.15	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Cerium-143		8296	1367	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.0958	0.02802	pCi/g	0.07133	0.100	0	16	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137		0.209	0.03262	pCi/g	0.04842	0.100	662.1	2	1.342	IDENTIFIED	14.78	☐		
Gold-195	HE	0.3817	0.1098	pCi/g	0.2882	N	0	16	0	FAIL_ABUND	0	☐		
Gross Gamma		10.87	1.353	pCi/g	4.662	N		0				☐		
Iodine-133	HE	93620	1.63E+05	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Krypton-85	la nr	19.17	3.181	pCi/g	10.47	N	0	16	0	NOT_IDENTI	0	☐		
Lead-212		1.854	0.1086	pCi/g	0.06902	0.100	238.7	4	1.128	IDENTIFIED	2.45	☐		
Lead-214		1.653	0.1059	pCi/g	0.08475	0.100	352.1	4	1.229	IDENTIFIED	3.372	☐		
Lutetium-177	HE	4.607	1.044	pCi/g	2.686	N	0	16	0	FAIL_ABUND	0	☐		
Neptunium-237		1.208	0.1786	pCi/g	0.2512	N	87.3	3	1.278	IDENTIFIED	9.511	☐		
Niobium-97	HE	6.84E+06	7.47E+06	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.854	0.1086	pCi/g	0.06902	N	238.7	4	1.128	IDENTIFIED	2.45	☐		
Polonium-214	nr	1.653	0.1059	pCi/g	0.08475	N	352.1	4	1.229	IDENTIFIED	3.372	☐		
Polonium-216	nr	1.854	0.1086	pCi/g	0.06902	N	238.7	4	1.128	IDENTIFIED	2.45	☐		
Polonium-218	nr	1.653	0.1059	pCi/g	0.08475	N	352.1	4	1.229	IDENTIFIED	3.372	☐		
Potassium-40		23.53	1.19	pCi/g	0.3872	1.00	1462	1	1.784	IDENTIFIED	2.562	☐		
Protactinium-234m	HE	9.358	2.255	pCi/g	6.799	N	0	16	0	FAIL_ABUND	0	☐		
Radium-224	int	4.966	0.5296	pCi/g	0.7852	Y	241.7	1	1.602	IDENTIFIED	9.505	☐	ui	
Radium-226		1.394	0.09951	pCi/g	0.07945	Y	609.7	4	1.465	IDENTIFIED	4.473	☐		
Radium-228		1.797	0.1599	pCi/g	0.137	0.500	911.8	3	1.621	IDENTIFIED	6.459	☐		
Strontium-85	la	0.104	0.01726	pCi/g	0.05678	Y	0	16	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m		1.93E+22	0	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Thallium-200	HE	3531	5259	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Thallium-208		0.5813	0.04356	pCi/g	0.04342	0.080	583.7	1	1.398	IDENTIFIED	5.449	☐		
Thorium-228	nr	1.893	0.1108	pCi/g	0.07044	N	238.7	4	1.128	IDENTIFIED	2.45	☐		
Thorium-230	nr	1.394	0.09951	pCi/g	0.07945	N	609.7	4	1.465	IDENTIFIED	4.473	☐		
Thorium-232	nr	1.797	0.1599	pCi/g	0.137	N	911.8	3	1.621	IDENTIFIED	6.459	☐		
Thorium-234		4.121	0.7803	pCi/g	1.272	2.00	63.67	2	0.9318	IDENTIFIED	16.82	☐		
Tin-126	int nr	0.4112	0.0436	pCi/g	0.08496	N	87.3	3	1.278	IDENTIFIED	9.511	☐		
Titanium-44	la nr	0.4139	0.02464	pCi/g	0.06001	N	0	16	0	FAIL_ABUND	0	☐		
Total Uranium		12.356	2.32E-06	ug/g	1.8945	N		0				☐		
Uranium-231	HE	4.09	1.222	pCi/g	3.081	N	0	16	0	FAIL_ABUND	0	☐		
Uranium-234	nr	1.394	0.09951	pCi/g	0.07945	N	609.7	4	1.465	IDENTIFIED	4.473	☐		
Uranium-238	nr	4.121	0.7803	pCi/g	1.272	N	63.67	2	0.9318	IDENTIFIED	16.82	☐		
Zirconium-97	HE	1.39E+08	1.46E+08	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue

245385011	15-JAN-10 12:00	04-FEB-10 22:55	20.5	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	2.053	0.1743	pCi/g	0.1872	N	910.9	3	1.389	IDENTIFIED	6.315		
Americium-243	int nr	0.428	0.02385	pCi/g	0.03316	N	74.89	1	0.821	IDENTIFIED	3.609		
Annihilation Rad.		0.174	0.03118	pCi/g	0.03372	N	510.6	1	1.461	IDENTIFIED	17.26		
Bismuth-210	HE	0.8529	0.2387	pCi/g	0.4614	N	46.65	3	0.6159	IDENTIFIED	27.58		
Bismuth-211	int	4.166	0.2575	pCi/g	0.2361	Y	351.7	4	1.078	IDENTIFIED	4.227	ui	
Bismuth-212	nr	1.129	0.2087	pCi/g	0.3822	N	727	1	1.367	IDENTIFIED	17.5		
Bismuth-214	✓	1.461	0.1149	pCi/g	0.08814	0.200	609	4	1.229	IDENTIFIED	5.194		
Cadmium-109	int	4.426	0.3279	pCi/g	0.5415	Y	87.22	3	1.015	IDENTIFIED	5.748	ui	
Cadmium-115	HE	12.97	23.09	pCi/g	0	N	0	10	0	SHORT_HLIF	0		
Cerium-143		4324	925	pCi/g	0	N	0	10	0	SHORT_HLIF	0		
Curium-243	HE	0.146	0.03773	pCi/g	0.07926	N	0	10	0	FAIL_ABUND	0		
Europium-155	HE	0.1633	0.0422	pCi/g	0.08511	N	104.9	1	1.454	IDENTIFIED	25.32		
Gold-195	HE	0.3512	0.09251	pCi/g	0.1947	N	0	10	0	FAIL_ABUND	0		
Gross Gamma		10.21	1.198	pCi/g	3.764	N		0					
Iodine-135		6.37E+20	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0		
Lead-210	HE	0.8529	0.2387	pCi/g	0.4614	N	46.65	3	0.6159	IDENTIFIED	27.58		
Lead-212	✓	1.902	0.104	pCi/g	0.0599	0.100	238.5	4	0.8682	IDENTIFIED	2.279		
Lead-214	✓	1.449	0.09723	pCi/g	0.08237	0.100	351.7	4	1.078	IDENTIFIED	4.227		
Lutetium-177	la nr	5.659	0.9297	pCi/g	2.47	N	0	10	0	FAIL_ABUND	0		
Neptunium-237	int nr	1.267	0.161	pCi/g	0.1498	N	87.22	3	1.015	IDENTIFIED	5.748		
Polonium-210	HE	0.8529	0.2381	pCi/g	0.4614	N	46.65	3	0.6159	IDENTIFIED	27.58		
Polonium-212	nr	1.902	0.104	pCi/g	0.0599	N	238.5	4	0.8682	IDENTIFIED	2.279		
Polonium-214	nr	1.449	0.09723	pCi/g	0.08237	N	351.7	4	1.078	IDENTIFIED	4.227		
Polonium-216	nr	1.902	0.104	pCi/g	0.0599	N	238.5	4	0.8682	IDENTIFIED	2.279		
Polonium-218	nr	1.449	0.09723	pCi/g	0.08237	N	351.7	4	1.078	IDENTIFIED	4.227		
Potassium-40	✓	21.83	1.155	pCi/g	0.3773	1.00	1460	1	2.109	IDENTIFIED	3.129		
Radium-224	int	5.326	0.6012	pCi/g	0.6836	Y	241.3	1	1.71	IDENTIFIED	10.38	ui	
Radium-226	✓	1.461	0.1149	pCi/g	0.08814	Y	609	4	1.229	IDENTIFIED	5.194		
Radium-228	✓	2.053	0.1743	pCi/g	0.1872	0.500	910.9	3	1.389	IDENTIFIED	6.315		
Rhenium-188	HE	0.2044	0.08192	pCi/g	0.1756	N	154	1	1.478	IDENTIFIED	39.82		
Sodium-24	HE	2.87E+07	1.31E+08	pCi/g	0	N	0	10	0	SHORT_HLIF	0		
Technetium-99m		3.05E+21	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0		
Thallium-208	✓	0.65	0.05306	pCi/g	0.05082	0.080	583	1	1.322	IDENTIFIED	6.081		
Thorium-228	nr	1.942	0.1062	pCi/g	0.06114	N	238.5	4	0.8682	IDENTIFIED	2.279		
Thorium-230	nr	1.461	0.1149	pCi/g	0.08814	N	609	4	1.229	IDENTIFIED	5.194		
Thorium-232	nr	2.053	0.1743	pCi/g	0.1872	N	910.9	3	1.389	IDENTIFIED	6.315		
Thorium-234	✓	1.542	0.3276	pCi/g	0.5486	2.00	63.38	2	0.9076	IDENTIFIED	19.32		
Tin-126	int nr	0.4316	0.03197	pCi/g	0.05121	N	87.22	3	1.015	IDENTIFIED	5.748		
Titanium-44	la nr	0.4455	0.02249	pCi/g	0.0301	N	0	10	0	FAIL_ABUND	0		
Total Uranium		4.6317	9.75E-07	ug/g	0.81798	N		0					
Uranium-234	nr	1.461	0.1149	pCi/g	0.08814	N	609	4	1.229	IDENTIFIED	5.194		
Uranium-238	nr	1.542	0.3276	pCi/g	0.5486	N	63.38	2	0.9076	IDENTIFIED	19.32		
Zirconium-97		4.89E+08	1.59E+08	pCi/g	0	N	0	10	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue

245396001	21-JAN-10 12:00	04-FEB-10 22:55	14.5	SAMPLE	LOAD	1	LANL	LANL010041GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.778	0.1502	pCi/g	0.1382	N	911.3	3	2.077	IDENTIFIED	5.245	☐	
Americium-243	int nr	0.3887	0.0285	pCi/g	0.05687	N	74.79	1	1.224	IDENTIFIED	6.092	☐	
Annihilation Rad.		0.1102	0.02174	pCi/g	0.02952	N	510.8	1	2.216	IDENTIFIED	19.08	☐	
Bismuth-211	int	4.034	0.2787	pCi/g	0.2164	Y	352	4	1.471	IDENTIFIED	3.731	☐ ui	
Bismuth-212	la nr	1.178	0.1707	pCi/g	0.4241	N	0	14	0	FAIL_ABUND	0	☐	
Bismuth-214		1.183	0.08319	pCi/g	0.07511	0.200	609.4	4	1.627	IDENTIFIED	3.957	☐	
Cadmium-109	int	4.308	0.405	pCi/g	0.7656	Y	87.17	3	1.398	IDENTIFIED	8.142	☐ ui	
Cerium-143		628.7	88.81	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1059	0.02174	pCi/g	0.05531	0.100	0	14	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	HE	0.2119	0.06354	pCi/g	0.19	N	0	14	0	NOT_IDENTI	0	☐	
Gross Gamma		11.31	1.17	pCi/g	2.148	N		0				☐	
Krypton-85	la nr	25.67	2.995	pCi/g	9.307	N	0	14	0	NOT_IDENTI	0	☐	
Lead-212		1.852	0.1283	pCi/g	0.06289	0.100	238.6	4	1.284	IDENTIFIED	2.077	☐	
Lead-214		1.403	0.1036	pCi/g	0.07539	0.100	352	4	1.471	IDENTIFIED	3.731	☐	
Lutetium-177	la nr	2.744	0.4933	pCi/g	1.302	N	0	14	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	1.245	0.1737	pCi/g	0.2243	N	87.17	3	1.398	IDENTIFIED	8.142	☐	
Niobium-95	HE	0.06448	0.01659	pCi/g	0.05044	N	0	14	0	NOT_IDENTI	0	☐	
Niobium-95m	la nr	0.2766	0.05241	pCi/g	0.1572	N	0	14	0	NOT_IDENTI	0	☐	
Niobium-97	HE	25040	16680	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.852	0.1283	pCi/g	0.06289	N	238.6	4	1.284	IDENTIFIED	2.077	☐	
Polonium-214	nr	1.403	0.1036	pCi/g	0.07539	N	352	4	1.471	IDENTIFIED	3.731	☐	
Polonium-216	nr	1.852	0.1283	pCi/g	0.06289	N	238.6	4	1.284	IDENTIFIED	2.077	☐	
Polonium-218	nr	1.403	0.1036	pCi/g	0.07539	N	352	4	1.471	IDENTIFIED	3.731	☐	
Potassium-40		39.64	1.908	pCi/g	0.3371	1.00	1461	1	2.631	IDENTIFIED	1.477	☐	
Protactinium-234m	HE	6.804	1.659	pCi/g	5.608	N	0	14	0	NOT_IDENTI	0	☐	
Radium-224	int	5.04	0.5291	pCi/g	0.7149	Y	241.6	1	1.804	IDENTIFIED	8.42	☐ ui	
Radium-226		1.183	0.08319	pCi/g	0.07511	Y	609.4	4	1.627	IDENTIFIED	3.957	☐	
Radium-228		1.778	0.1502	pCi/g	0.1382	0.500	911.3	3	2.077	IDENTIFIED	5.245	☐	
Strontium-85	la	0.1308	0.01526	pCi/g	0.04741	Y	0	14	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	75.28	99.99	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Thallium-208		0.6051	0.04213	pCi/g	0.03657	0.080	583.2	1	1.778	IDENTIFIED	4.368	☐	
Thorium-228	nr	1.879	0.1301	pCi/g	0.06381	N	238.6	4	1.284	IDENTIFIED	2.077	☐	
Thorium-230	nr	1.183	0.08319	pCi/g	0.07511	N	609.4	4	1.627	IDENTIFIED	3.957	☐	
Thorium-232	nr	1.778	0.1502	pCi/g	0.1382	N	911.3	3	2.077	IDENTIFIED	5.245	☐	
Thorium-234		2.056	0.588	pCi/g	1.301	2.00	63.24	2	1.099	IDENTIFIED	27.24	☐	
Tin-126	int nr	0.4239	0.03984	pCi/g	0.07563	N	87.17	3	1.398	IDENTIFIED	8.142	☐	
Titanium-44	la nr	0.3905	0.02256	pCi/g	0.05145	N	0	14	0	FAIL_ABUND	0	☐	
Total Uranium		6.1491	1.75E-06	ug/g	1.9376	N		0				☐	
Uranium-234	nr	1.183	0.08319	pCi/g	0.07511	N	609.4	4	1.627	IDENTIFIED	3.957	☐	
Uranium-238	HE	2.056	0.588	pCi/g	1.301	N	63.24	2	1.099	IDENTIFIED	27.24	☐	
Zirconium-97		2.46E+06	3.96E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245396002	21-JAN-10 12:00	05-FEB-10 18:59	15.3	SAMPLE	LOAD	1	LANL	LANL010041GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.802	0.2177	pCi/g	0.266	N	911.6	3	1.548	IDENTIFIED	10.6	☐	
Americium-243	int nr	0.4243	0.05663	pCi/g	0.1327	N	74.9	1	1.19	IDENTIFIED	12.68	☐	
Annihilation Rad.	HE	0.1351	0.0563	pCi/g	0.06741	N	511.4	1	1.966	IDENTIFIED	41.47	☐	
Barium-137m		0.4111	0.06148	pCi/g	0.07534	N	662.3	2	1.616	IDENTIFIED	14.38	☐	
Bismuth-211	int	4.391	0.3899	pCi/g	0.4462	Y	352.5	4	1.376	IDENTIFIED	7.631	☐ ui	
Bismuth-214 ✔		1.343	0.1308	pCi/g	0.1568	0.200	609.7	4	1.491	IDENTIFIED	8.4	☐	
Cadmium-109	int	2.593	0.7993	pCi/g	2.151	Y	87.21	3	1.458	IDENTIFIED	30.47	☐ ui	
Cerium-143		442.6	122.6	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1498	0.03248	pCi/g	0.125	0.100	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-137 ✔		0.4346	0.065	pCi/g	0.07964	0.100	662.3	2	1.616	IDENTIFIED	14.38	☐	
Gross Gamma		10.89	1.788	pCi/g	4.623	N		0				☐	
Krypton-85	HE	20.2	5.689	pCi/g	20.04	N	0	9	0	NOT_IDENTI	0	☐	
Lead-212 ✔		1.87	0.121	pCi/g	0.1139	0.100	239.1	4	1.178	IDENTIFIED	4.026	☐	
Lead-214 ✔		1.527	0.1414	pCi/g	0.1556	0.100	352.5	4	1.376	IDENTIFIED	7.631	☐	
Neptunium-237	HE	0.7481	0.2432	pCi/g	0.6187	N	87.21	3	1.458	IDENTIFIED	30.47	☐	
Polonium-212	nr	1.87	0.121	pCi/g	0.1139	N	239.1	4	1.178	IDENTIFIED	4.026	☐	
Polonium-214	nr	1.527	0.1414	pCi/g	0.1556	N	352.5	4	1.376	IDENTIFIED	7.631	☐	
Polonium-216	nr	1.87	0.121	pCi/g	0.1139	N	239.1	4	1.178	IDENTIFIED	4.026	☐	
Polonium-218	nr	1.527	0.1414	pCi/g	0.1556	N	352.5	4	1.376	IDENTIFIED	7.631	☐	
Potassium-40 ✔		25.6	1.528	pCi/g	0.7156	1.00	1461	1	1.78	IDENTIFIED	3.982	☐	
Protactinium-234m	la nr	31.68	5.027	pCi/g	15.94	N	0	9	0	FAIL_ABUND	0	☐	
Radium-224	int	4.62	0.7804	pCi/g	1.297	Y	241.9	1	1.519	IDENTIFIED	16.27	☐ ui	
Radium-226 ✔		1.343	0.1308	pCi/g	0.1568	Y	609.7	4	1.491	IDENTIFIED	8.4	☐	
Radium-228 ✔		1.802	0.2177	pCi/g	0.266	0.500	911.6	3	1.548	IDENTIFIED	10.6	☐	
Sodium-24	HE	2.67E+05	5.07E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.1038	0.02922	pCi/g	0.103	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	228.3	364.5	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.4531	0.0636	pCi/g	0.07519	0.080	583.7	1	1.437	IDENTIFIED	13.28	☐	
Thorium-228	nr	1.899	0.1228	pCi/g	0.1157	N	239.1	4	1.178	IDENTIFIED	4.026	☐	
Thorium-230	nr	1.343	0.1308	pCi/g	0.1568	N	609.7	4	1.491	IDENTIFIED	8.4	☐	
Thorium-232	nr	1.802	0.2177	pCi/g	0.266	N	911.6	3	1.548	IDENTIFIED	10.6	☐	
Thorium-234 ✔		13.57	1.993	pCi/g	3.071	2.00	63.39	2	1.165	IDENTIFIED	11.77	☐	
Tin-126	HE	0.2548	0.07854	pCi/g	0.2288	N	87.21	3	1.458	IDENTIFIED	30.47	☐	
Titanium-44	la nr	0.428	0.04097	pCi/g	0.1111	N	0	9	0	FAIL_ABUND	0	☐	
Total Uranium		40.488	5.93E-06	ug/g	4.5721	N		0				☐	
Uranium-234	nr	1.343	0.1308	pCi/g	0.1568	N	609.7	4	1.491	IDENTIFIED	8.4	☐	
Uranium-238	nr	13.57	1.993	pCi/g	3.071	N	63.39	2	1.165	IDENTIFIED	11.77	☐	
Zirconium-97		3.36E+06	1.67E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245396003	21-JAN-10 12:00	05-FEB-10 19:00	15.3	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.381	0.1567	pCi/g	0.1868	N	911.5	3	1.911	IDENTIFIED	9.217	☐	
Americium-243	int nr	0.3375	0.04198	pCi/g	0.1049	N	74.82	1	1.171	IDENTIFIED	11.75	☐	
Annihilation Rad.		0.1508	0.0306	pCi/g	0.03939	N	510.6	1	1.963	IDENTIFIED	19.66	☐	
Barium-137m		0.4945	0.0406	pCi/g	0.05712	N	661.7	2	1.617	IDENTIFIED	6.292	☐	

Bismuth-211	int	3.322	0.2654	pCi/g	0.2954	Y	351.9	4	1.354	IDENTIFIED	5.478	☐	ui	
Bismuth-212	nr	1.259	0.1978	pCi/g	0.3935	N	727.5	1	1.812	IDENTIFIED	14.53	☐		
Bismuth-214	✓	0.9535	0.08121	pCi/g	0.1006	0.200	609.3	4	1.715	IDENTIFIED	6.225	☐		
Cerium-141	HE	0.1486	0.03496	pCi/g	0.1162	N	0	15	0	NOT_IDENTI	0	☐		
Cerium-143		738.2	125.5	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1081	0.02578	pCi/g	0.07035	0.100	0	15	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✓	0.5227	0.04294	pCi/g	0.06038	0.100	661.7	2	1.617	IDENTIFIED	6.292	☐		
Gadolinium-153	la nr	0.4193	0.06495	pCi/g	0.1705	N	0	15	0	FAIL_ABUND	0	☐		
Gold-195	la nr	1.221	0.1891	pCi/g	0.5037	N	0	15	0	FAIL_ABUND	0	☐		
Gross Gamma		13.19	1.808	pCi/g	3.79	N		0				☐		
Krypton-85	la nr	23.29	3.81	pCi/g	12.44	N	0	15	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.528	0.1112	pCi/g	0.08941	0.100	238.7	4	1.233	IDENTIFIED	3.043	☐		
Lead-214	✓	1.156	0.09713	pCi/g	0.1029	0.100	351.9	4	1.354	IDENTIFIED	5.478	☐		
Lutetium-177	HE	2.035	0.7033	pCi/g	1.905	N	209.3	1	1.132	IDENTIFIED	34.09	☐		
Niobium-95	la nr	0.2269	0.02793	pCi/g	0.09028	N	0	15	0	NOT_IDENTI	0	☐		
Niobium-97		1.82E+05	64130	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.528	0.1112	pCi/g	0.08941	N	238.7	4	1.233	IDENTIFIED	3.043	☐		
Polonium-214	nr	1.156	0.09713	pCi/g	0.1029	N	351.9	4	1.354	IDENTIFIED	5.478	☐		
Polonium-216	nr	1.528	0.1112	pCi/g	0.08941	N	238.7	4	1.233	IDENTIFIED	3.043	☐		
Polonium-218	nr	1.156	0.09713	pCi/g	0.1029	N	351.9	4	1.354	IDENTIFIED	5.478	☐		
Potassium-40	F ✓	24.72	1.304	pCi/g	0.44	1.00	1461	1	2.595	IDENTIFIED	2.617	☐		
Protactinium-234m	la nr	47.7	4.587	pCi/g	12.46	N	0	15	0	FAIL_ABUND	0	☐		
Radium-224	int	3.785	0.5767	pCi/g	1.016	Y	241.7	1	1.715	IDENTIFIED	13.88	☐	ui	
Radium-226	✓	0.9535	0.08121	pCi/g	0.1006	Y	609.3	4	1.715	IDENTIFIED	6.225	☐		
Radium-228	✓	1.381	0.1567	pCi/g	0.1868	0.500	911.5	3	1.911	IDENTIFIED	9.217	☐		
Rhenium-183	HE	0.2346	0.07586	pCi/g	0.2029	N	0	15	0	FAIL_ABUND	0	☐		
Strontium-85	la	0.1197	0.01957	pCi/g	0.0639	Y	0	15	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m		1.10E+16	0	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4431	0.04256	pCi/g	0.05175	0.080	583.2	1	1.626	IDENTIFIED	7.929	☐		
Thorium-228	nr	1.552	0.1129	pCi/g	0.09078	N	238.7	4	1.233	IDENTIFIED	3.043	☐		
Thorium-230	nr	0.9535	0.08121	pCi/g	0.1006	N	609.3	4	1.715	IDENTIFIED	6.225	☐		
Thorium-232	nr	1.381	0.1567	pCi/g	0.1868	N	911.5	3	1.911	IDENTIFIED	9.217	☐		
Thorium-234	✓	34.24	3.283	pCi/g	2.38	2.00	63.18	2	0.9993	IDENTIFIED	4.028	☐		
Titanium-44	la nr	0.3081	0.02749	pCi/g	0.07758	N	0	15	0	FAIL_ABUND	0	☐		
Total Uranium		102.28	9.77E-06	ug/g	3.5438	N		0				☐		
Tungsten-181	HE	1.073	0.22	pCi/g	0.7385	N	0	15	0	NOT_IDENTI	0	☐		
Uranium-231	HE	4.152	1.399	pCi/g	1.857	N	94.43	1	1.258	IDENTIFIED	33.39	☐		
Uranium-234	nr	0.9535	0.08121	pCi/g	0.1006	N	609.3	4	1.715	IDENTIFIED	6.225	☐		
Uranium-235	✓	0.9269	0.1924	pCi/g	0.3561	0.500	143.9	1	1.417	IDENTIFIED	18.79	☐		
Uranium-238	nr	34.24	3.283	pCi/g	2.38	N	63.18	2	0.9993	IDENTIFIED	4.028	☐		
Zirconium-97		6.50E+06	1.11E+06	pCi/g	0	N	0	15	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245396004	21-JAN-10 12:00	05-FEB-10 19:14	15.3	SAMPLE	LOAD	I	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.541	0.1687	pCi/g	0.2182	N	911.7	3	1.732	IDENTIFIED	9.24	☐	
Americium-243	int nr	0.3813	0.04034	pCi/g	0.08824	N	74.93	1	1.536	IDENTIFIED	9.89	☐	

Annihilation Rad.		0.1525	0.03133	pCi/g	0.04515	N	510.8	1	2.398	IDENTIFIED	20.34	☐	
Barium-137m	HE	0.08684	0.03811	pCi/g	0.05976	N	662.3	2	1.582	IDENTIFIED	43.79	☐	
Bismuth-211	int	3.488	0.2438	pCi/g	0.3149	Y	351.8	4	1.453	IDENTIFIED	6.232	☐	ui
Bismuth-212	la nr	1.421	0.228	pCi/g	0.6415	N	0	14	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.127	0.09143	pCi/g	0.112	0.200	609.5	4	1.617	IDENTIFIED	7.085	☐	
Cadmium-109	int	2.509	0.4428	pCi/g	1.349	Y	87.39	3	1.521	IDENTIFIED	17.11	☐	ui
Cerium-143		846.1	130.3	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.09067	0.03164	pCi/g	0.08894	0.100	0	14	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-135	int nr	0.7078	0.1195	pCi/g	0.2291	N	269.7	1	2.318	IDENTIFIED	16.45	☐	
Cesium-137 ✔		0.0918	0.04029	pCi/g	0.06318	0.100	662.3	2	1.582	IDENTIFIED	43.79	☐	
Gold-195	HE	0.4715	0.1212	pCi/g	0.4087	N	0	14	0	FAIL_ABUND	0	☐	
Gross Gamma		10.39	1.562	pCi/g	3.867	N		0				☐	
Iodine-135	HE	4.60E+15	4.51E+15	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Krypton-85	HE	19.13	4.024	pCi/g	13.75	N	0	14	0	NOT_IDENTI	0	☐	
Lead-212 ✔		1.709	0.0837	pCi/g	0.09158	0.100	238.5	4	1.585	IDENTIFIED	3.274	☐	
Lead-214 ✔		1.213	0.09053	pCi/g	0.1098	0.100	351.8	4	1.453	IDENTIFIED	6.232	☐	
Neptunium-237	int nr	0.724	0.148	pCi/g	0.4026	N	87.39	3	1.521	IDENTIFIED	17.11	☐	
Niobium-95m	la nr	0.6085	0.07701	pCi/g	0.2637	N	0	14	0	NOT_IDENTI	0	☐	
Polonium-212	nr	1.709	0.0837	pCi/g	0.09158	N	238.5	4	1.585	IDENTIFIED	3.274	☐	
Polonium-214	nr	1.213	0.09053	pCi/g	0.1098	N	351.8	4	1.453	IDENTIFIED	6.232	☐	
Polonium-216	nr	1.709	0.0837	pCi/g	0.09158	N	238.5	4	1.585	IDENTIFIED	3.274	☐	
Polonium-218	nr	1.213	0.09053	pCi/g	0.1098	N	351.8	4	1.453	IDENTIFIED	6.232	☐	
Potassium-40 ✔		38.25	1.673	pCi/g	0.5282	1.00	1462	1	2.009	IDENTIFIED	2.442	☐	
Protactinium-234m	HE	10.58	2.551	pCi/g	9.655	N	0	14	0	NOT_IDENTI	0	☐	
Radium-224	int	3.692	0.4972	pCi/g	1.041	Y	241.7	1	1.704	IDENTIFIED	13.15	☐	ui
Radium-226 ✔		1.127	0.09143	pCi/g	0.112	Y	609.5	4	1.617	IDENTIFIED	7.085	☐	
Radium-228 ✔		1.541	0.1687	pCi/g	0.2182	0.500	911.7	3	1.732	IDENTIFIED	9.24	☐	
Sodium-24	HE	1.89E+05	3.66E+05	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Strontium-85	la	0.09829	0.02067	pCi/g	0.07061	Y	0	14	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Technetium-99m		1.91E+16	0	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.5046	0.04039	pCi/g	0.05613	0.080	583.4	1	1.419	IDENTIFIED	7.238	☐	
Thorium-228	nr	1.735	0.08498	pCi/g	0.09299	N	238.5	4	1.585	IDENTIFIED	3.274	☐	
Thorium-230	nr	1.127	0.09142	pCi/g	0.112	N	609.5	4	1.617	IDENTIFIED	7.085	☐	
Thorium-232	nr	1.541	0.1687	pCi/g	0.2182	N	911.7	3	1.732	IDENTIFIED	9.24	☐	
Thorium-234 ✔		4.766	0.9702	pCi/g	1.946	2.00	63.25	2	1.144	IDENTIFIED	18.45	☐	
Tin-126	int nr	0.2466	0.04351	pCi/g	0.1469	N	87.39	3	1.521	IDENTIFIED	17.11	☐	
Titanium-44	la nr	0.3154	0.02441	pCi/g	0.07824	N	0	14	0	FAIL_ABUND	0	☐	
Total Uranium		14.159	2.89E-06	ug/g	2.8974	N		0				☐	
Tungsten-181	HE	0.7235	0.1959	pCi/g	0.6312	N	0	14	0	NOT_IDENTI	0	☐	
Uranium-234	nr	1.127	0.09142	pCi/g	0.112	N	609.5	4	1.617	IDENTIFIED	7.085	☐	
Uranium-238	nr	4.766	0.9702	pCi/g	1.946	N	63.25	2	1.144	IDENTIFIED	18.45	☐	
Zirconium-97		2.49E+06	1.15E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202023707		05-FEB-10 19:15	0	MB	LOAD	1		CEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb	Act	Rpt Err(%)	Qual	Qual Comment
Iodine-133	HE	28.69	20.69	pCi/g	0	N	0	2	0		SHORT_HLIF	0	☐	

Thallium-200 HE	2.644	3.768	pCi/g	0	N	0	2	0	SHORT_HLIF	0		☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202023708	15-JAN-10 12:00	06-FEB-10 13:03	22	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228 nr	1.897	0.2104	pCi/g	0.2245	N	911.4	3	2.087	IDENTIFIED	8.896	☐	
Americium-243 int nr	0.4658	0.04067	pCi/g	0.0904	N	74.75	1	1.077	IDENTIFIED	7.721	☐	
Annihilation Rad.	0.1501	0.03748	pCi/g	0.049	N	511	1	1.794	IDENTIFIED	24.46	☐	
Barium-137m HE	0.09577	0.03094	pCi/g	0.06478	N	661.8	2	3.087	IDENTIFIED	31.87	☐	
Bismuth-211 int	4.701	0.3831	pCi/g	0.3457	Y	351.9	4	1.428	IDENTIFIED	5.706	☐	ui
Bismuth-212 HE	1.191	0.3344	pCi/g	0.713	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214 ✓	1.4	0.1236	pCi/g	0.1185	0.200	609.3	4	1.681	IDENTIFIED	6.649	☐	
Cadmium-109 int	2.841	0.5216	pCi/g	1.403	Y	87.23	3	1.152	IDENTIFIED	17.75	☐	ui
Cadmium-115 HE	28.46	50.58	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143	35720	5676	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-137 pw	0.1012	0.03271	pCi/g	0.06848	0.100	661.8	2	3.087	IDENTIFIED	31.87	☑	UI Data rejected due to high peak-width.
Gross Gamma	10	1.641	pCi/g	3.199	N		0				☐	
Krypton-85 la nr	31.41	5.069	pCi/g	16.21	N	0	10	0	NOT_IDENTI	0	☐	
Lead-212 ✓	2.056	0.1495	pCi/g	0.1017	0.100	238.6	4	1.258	IDENTIFIED	3.032	☐	
Lead-214 ✓	1.635	0.1399	pCi/g	0.1205	0.100	351.9	4	1.428	IDENTIFIED	5.706	☐	
Lutetium-177 HE	5.141	1.729	pCi/g	4.637	N	0	10	0	FAIL_ABUND	0	☐	
Mercury-203 int	0.1097	0.03918	pCi/g	0.07959	0.100	278.6	1	1.216	IDENTIFIED	35	☐	ui
Neptunium-237 int nr	0.8115	0.1709	pCi/g	0.4278	N	87.23	3	1.152	IDENTIFIED	17.75	☐	
Polonium-212 nr	2.056	0.1495	pCi/g	0.1017	N	238.6	4	1.258	IDENTIFIED	3.032	☐	
Polonium-214 nr	1.635	0.1399	pCi/g	0.1205	N	351.9	4	1.428	IDENTIFIED	5.706	☐	
Polonium-216 nr	2.056	0.1495	pCi/g	0.1017	N	238.6	4	1.258	IDENTIFIED	3.032	☐	
Polonium-218 nr	1.635	0.1399	pCi/g	0.1205	N	351.9	4	1.428	IDENTIFIED	5.706	☐	
Potassium-40 ✓	22.68	1.277	pCi/g	0.5324	1.00	1461	1	2.381	IDENTIFIED	3.274	☐	
Promethium-149	992.8	467.8	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224 int	5.869	0.7677	pCi/g	1.157	Y	241.6	1	1.886	IDENTIFIED	11.48	☐	ui
Radium-226 ✓	1.4	0.1236	pCi/g	0.1185	Y	609.3	4	1.681	IDENTIFIED	6.649	☐	
Radium-228 ✓	1.897	0.2104	pCi/g	0.2245	0.500	911.4	3	2.087	IDENTIFIED	8.896	☐	
Sodium-24 HE	4.08E+08	9.32E+08	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Strontium-85 la	0.1732	0.02796	pCi/g	0.08938	Y	0	10	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208 ✓	0.5974	0.05292	pCi/g	0.06527	0.080	583.3	1	1.821	IDENTIFIED	7.005	☐	
Thorium-228 nr	2.102	0.1528	pCi/g	0.104	N	238.6	4	1.258	IDENTIFIED	3.032	☐	
Thorium-230 nr	1.4	0.1236	pCi/g	0.1184	N	609.3	4	1.681	IDENTIFIED	6.649	☐	
Thorium-232 nr	1.897	0.2104	pCi/g	0.2245	N	911.4	3	2.087	IDENTIFIED	8.896	☐	
Tin-126 int nr	0.2763	0.05074	pCi/g	0.1373	N	87.23	3	1.152	IDENTIFIED	17.75	☐	
Titanium-44 la nr	0.452	0.03204	pCi/g	0.08236	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium	3.7789	2.59E-06	ug/g	3.2598	N		0				☐	
Uranium-234 nr	1.4	0.1236	pCi/g	0.1184	N	609.3	4	1.681	IDENTIFIED	6.649	☐	
Zirconium-97	5.08E+09	1.12E+09	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202023709		04-FEB-10 21:14	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Americium-241 ✓		13.42	0.7063	pCi/g	0.6258	0.200	59.52	1	1.301	IDENTIFIED	3.272	☐	
Annihilation Rad.	HE	0.1351	0.06608	pCi/g	0.09776	N	511.1	1	1.767	IDENTIFIED	48.72	☐	
Barium-137m		5.317	0.2624	pCi/g	0.1195	N	662	2	1.725	IDENTIFIED	2.751	☐	
Bismuth-211		2.132	0.3962	pCi/g	0.6813	Y	351.9	4	1.204	IDENTIFIED	18.02	☐	
Bismuth-214		0.6969	0.1384	pCi/g	0.3519	0.200	0	11	0	FAIL_ABUND	0	☐	
Cadmium-109		29.1	2.208	pCi/g	2.415	Y	88.02	2	1.322	IDENTIFIED	5.933	☐	
Cesium-137 ✓		5.621	0.2777	pCi/g	0.1264	0.100	662	2	1.725	IDENTIFIED	2.751	☐	
Cobalt-57		0.2547	0.04248	pCi/g	0.06539	N	122.2	1	1.314	IDENTIFIED	16.09	☐	
Cobalt-60 ✓		6.499	0.3301	pCi/g	0.07216	0.100	1333	1	2.11	IDENTIFIED	2.762	☐	
Gross Gamma		25.48	3.756	pCi/g	3.426	N		0				☐	
Iodine-123	HE	843.4	1610	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Iodine-133	HE	27.7	41.68	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Lead-212		0.9169	0.135	pCi/g	0.1872	0.100	238.8	4	1.718	IDENTIFIED	13.82	☐	
Lead-214		0.7417	0.1392	pCi/g	0.2375	0.100	351.9	4	1.204	IDENTIFIED	18.02	☐	
Neptunium-237		4.909	0.6313	pCi/g	1.203	N	0	11	0	NOT_IDENTI	0	☐	
Niobium-97	HE	28.16	271	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-212		0.9169	0.135	pCi/g	0.1872	N	238.8	4	1.718	IDENTIFIED	13.82	☐	
Polonium-214		0.7417	0.1392	pCi/g	0.2375	N	351.9	4	1.204	IDENTIFIED	18.02	☐	
Polonium-216		0.9169	0.135	pCi/g	0.1872	N	238.8	4	1.718	IDENTIFIED	13.82	☐	
Polonium-218		0.7417	0.1392	pCi/g	0.2375	N	351.9	4	1.204	IDENTIFIED	18.02	☐	
Radium-224		7.184	0.8948	pCi/g	3.102	Y	0	11	0	NOT_IDENTI	0	☐	
Radium-226		0.6969	0.1384	pCi/g	0.3519	Y	0	11	0	FAIL_ABUND	0	☐	
Technetium-99m	HE	4.90E+08	9.60E+08	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-208		0.2758	0.06246	pCi/g	0.1254	0.080	583.5	1	1.606	IDENTIFIED	22.19	☐	
Thorium-228		0.9251	0.1362	pCi/g	0.1888	N	238.8	4	1.718	IDENTIFIED	13.82	☐	
Thorium-230		0.6969	0.1384	pCi/g	0.3519	N	0	11	0	FAIL_ABUND	0	☐	
Tin-126		2.887	0.2191	pCi/g	0.2409	N	88.02	2	1.322	IDENTIFIED	5.933	☐	
Uranium-234		0.6969	0.1384	pCi/g	0.3519	N	0	11	0	FAIL_ABUND	0	☐	
Zirconium-97	HE	4297	3971	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
944962	245396004	SAMPLE	05-FEB-10	Protactinium-234m	10.58	2.551	pCi/g	4.861	N
				Radium-224	3.692	0.4972	pCi/g	0.521	Y
				Radium-226	1.127	0.08143	pCi/g	0.05604	Y
				Radium-228	1.841	0.1667	pCi/g	0.1092	0.500
				Sodium-24	1.89E+05	3.66E+05	pCi/g	0	N
				Strontium-85	0.09829	0.02067	pCi/g	0.03533	Y
				Technetium-99m	1.91E+16	0	pCi/g	0	N
				Thallium-208	0.5046	0.04039	pCi/g	0.02808	0.080
				Thorium-234	4.766	0.9702	pCi/g	0.9735	2.00
				Zirconium-97	2.49E+06	1.15E+06	pCi/g	0	N
944962	1202023707	MB	05-FEB-10	Iodine-133	28.69	20.69	pCi/g	0	N
				Polonium-209	5.356	1.82	pCi/g	3.673	N
				Promethium-149	7.792	3.654	pCi/g	6.927	N
944962	1202023708	DUP	06-FEB-10	Bismuth-211	4.701	0.3831	pCi/g	0.173	Y
				Bismuth-214	1.4	0.1236	pCi/g	0.05926	0.200
				Cadmium-109	2.841	0.5216	pCi/g	0.7021	Y
				Cadmium-115	28.46	50.58	pCi/g	0	N
				Cerium-143	35720	5676	pCi/g	0	N
				Cesium-134	0.0431	0.02521	pCi/g	0.04253	0.100
				Cesium-137	0.1012	0.03271	pCi/g	0.03426	0.100
				Gross Gamma	10	1.641	pCi/g	1.552	N
				Indium-111	9.232	3.045	pCi/g	5.206	N
				Krypton-85	31.41	5.069	pCi/g	8.109	N
				Lead-212	2.856	0.1495	pCi/g	0.0509	0.100
				Lead-214	1.635	0.1399	pCi/g	0.06027	0.100
				Lutetium-177	5.141	1.729	pCi/g	2.32	N
				Mercury-203	0.1097	0.03918	pCi/g	0.03982	0.100
				Potassium-40	22.68	1.277	pCi/g	0.2664	1.00
				Promethium-149	992.8	467.8	pCi/g	0	N
				Radium-224	5.869	0.7677	pCi/g	0.5787	Y
				Radium-226	1.4	0.1236	pCi/g	0.05926	Y
				Radium-228	1.897	0.2104	pCi/g	0.1123	0.500
				Sodium-24	4.08E+08	9.32E+08	pCi/g	0	N
				Strontium-85	0.1732	0.02796	pCi/g	0.04472	Y
				Thallium-208	0.5974	0.05292	pCi/g	0.03266	0.080
				Thorium-234	1.278	0.871	pCi/g	1.095	2.00
				Zirconium-97	5.08E+09	1.12E+09	pCi/g	0	N

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 02:53:01.13

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245385005.CNF;1
Sample date       : 15-JAN-2010 12:00:00 Acquisition date : 4-FEB-2010 22:52:40.
Sample ID         : G245385005           Sample quantity  : 1.10570E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.14  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.91*	71	701	0.83	92.68	89	8	4.95E-03	68.7	
2	0	63.57*	209	980	1.03	126.02	122	9	1.45E-02	28.9	
3	3	74.85	999	745	0.98	148.61	142	15	6.94E-02	5.4	2.43E+00
4	3	77.12	1533	622	0.86	153.13	142	15	1.06E-01	3.5	
5	4	84.27*	236	687	1.18	167.45	163	29	1.64E-02	20.0	4.19E+00
6	4	87.27	615	645	1.11	173.45	163	29	4.27E-02	7.9	
7	4	89.89*	414	518	0.94	178.71	163	29	2.88E-02	10.3	
8	4	92.76*	623	559	1.20	184.45	163	29	4.32E-02	8.5	
9	0	128.91*	143	699	0.77	256.80	253	9	9.91E-03	35.1	
10	0	143.93*	110	416	0.83	286.86	284	6	7.61E-03	32.3	
11	0	154.32*	83	580	1.01	307.66	304	8	5.76E-03	53.1	
12	0	185.87*	446	584	1.15	370.80	366	10	3.10E-02	11.8	
13	0	209.42	281	404	1.11	417.94	415	8	1.95E-02	13.7	
14	7	238.69*	2646	338	0.95	476.52	472	16	1.84E-01	2.3	5.57E+00
15	7	241.70	619	504	1.77	482.55	472	16	4.30E-02	10.4	
16	0	270.33	181	382	1.22	539.84	535	10	1.26E-02	21.6	
17	0	277.45	102	279	1.26	554.10	551	7	7.08E-03	28.9	
18	2	295.32*	862	202	1.17	589.85	584	22	5.99E-02	4.5	2.00E+00
19	2	300.16	151	254	1.32	599.54	584	22	1.05E-02	19.4	
20	0	328.28	153	275	1.02	655.82	652	9	1.06E-02	21.2	
21	0	338.51	461	343	1.06	676.31	672	10	3.20E-02	8.8	
22	0	352.07*	1260	320	1.18	703.43	698	11	8.75E-02	4.0	
23	0	409.67	60	228	1.08	818.72	814	9	4.16E-03	47.2	
24	0	463.19	127	203	1.05	925.81	921	10	8.84E-03	22.7	
25	0	510.79*	188	344	1.92	1021.09	1015	17	1.31E-02	26.5	
26	0	583.47*	764	220	1.27	1166.52	1160	14	5.30E-02	5.6	
27	0	609.62*	950	161	1.21	1218.84	1214	12	6.60E-02	4.3	
28	0	662.25	29	144	1.23	1324.17	1319	9	2.01E-03	77.3	
29	0	727.82	153	152	1.44	1455.38	1450	10	1.06E-02	17.2	
30	0	770.10	154	186	4.25	1539.99	1531	20	1.07E-02	23.5	
31	0	795.51	136	79	1.46	1590.82	1585	12	9.42E-03	15.9	
32	0	861.02*	92	116	1.21	1721.91	1716	13	6.39E-03	26.9	
33	0	911.63*	541	115	1.54	1823.17	1816	14	3.76E-02	6.2	
34	0	936.79	113	96	6.53	1873.52	1865	21	7.84E-03	24.4	
35	3	965.44	81	78	2.10	1930.85	1926	19	5.62E-03	25.6	1.22E+00
36	3	969.50*	316	87	1.59	1938.97	1926	19	2.19E-02	8.0	
37	0	1002.13	36	66	0.97	2004.25	1999	9	2.52E-03	43.9	
38	0	1121.42*	206	126	2.17	2242.93	2234	18	1.43E-02	15.1	

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1238.76	75	107	1.89	2477.68	2472	11	5.18E-03	29.3	
40	0	1378.86	51	48	1.85	2757.97	2752	12	3.57E-03	30.9	
41	0	1410.52	20	44	0.72	2821.30	2811	12	1.36E-03	72.0	
42	0	1461.61*	1649	19	1.78	2923.51	2914	18	1.15E-01	2.6	
43	0	1496.45	30	16	2.65	2993.20	2988	11	2.05E-03	32.3	
44	1	1588.80	50	35	2.07	3177.94	3173	19	3.47E-03	25.2	4.23E+00
45	1	1593.64*	33	28	2.08	3187.62	3173	19	2.26E-03	35.9	
46	0	1632.29	30	14	1.74	3264.94	3260	11	2.08E-03	31.6	
47	0	1730.98	51	4	0.76	3462.34	3455	15	3.57E-03	16.2	
48	0	1765.55*	200	8	1.89	3531.48	3524	15	1.39E-02	8.1	
49	0	1848.90	27	21	1.76	3698.21	3689	14	1.85E-03	41.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-FEB-2010 02:53:03

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245385005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 15-JAN-2010 12:00:00 Acquisition date : 4-FEB-2010 22:52:40
Sample ID : G245385005 Sample quantity : 110.57 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:03.14 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.141E+01	2.156E+00	3.464E-01	2.995E-02	61.825
CD-109	+	88.03	*	4.262E+00	7.840E-01	6.817E-01	6.464E-02	6.252
SN-126	+	64.28		8.533E-01	5.089E-01	4.453E-01	6.459E-02	1.916
	+	86.94		1.728E+00	7.676E-01	2.785E-01	1.156E-01	6.203
	+	87.57	*	4.155E-01	7.644E-02	6.668E-02	6.290E-03	6.232
BA-137M	+	661.65	*	2.279E-02	3.531E-02	4.351E-02	4.117E-03	0.524
CS-137	+	661.65	*	2.409E-02	3.733E-02	4.599E-02	4.359E-03	0.524
RE-188	+	155.03	*	1.688E-01	1.799E-01	1.899E-01	1.771E-02	0.889
		477.96		-1.364E+00	2.373E+00	3.708E+00	3.996E-01	-0.368
		633.10		1.186E+00	2.116E+00	3.573E+00	3.502E-01	0.332
TL-208	+	277.35		5.446E-01	3.297E-01	4.229E-01	7.497E-02	1.288
	+	510.84		5.013E-01	2.738E-01	1.523E-01	2.065E-02	3.291
	+	583.14	*	5.786E-01	9.010E-02	3.745E-02	4.045E-03	15.449
	+	860.37		6.509E-01	3.568E-01	2.891E-01	3.011E-02	2.251
BI-210	+	46.50	*	1.903E+00	2.622E+00	2.534E+00	2.359E-01	0.751
PB-210	+	46.50	*	1.903E+00	2.622E+00	2.534E+00	2.359E-01	0.751
PO-210	+	46.50	*	1.903E+00	2.621E+00	2.534E+00	2.136E-01	0.751
BI-211		72.87		1.943E+00	1.823E+00	2.956E+00	2.348E-01	0.657
	+	351.07	*	4.215E+00	6.492E-01	2.133E-01	2.814E-02	19.759
PB-212	+	74.81		2.735E+00	4.479E-01	3.186E-01	3.941E-02	8.584
	+	77.11		2.401E+00	2.619E-01	1.826E-01	1.517E-02	13.147
	+	87.30		1.922E+00	4.024E-01	3.090E-01	4.241E-02	6.220
	+	238.63	*	1.934E+00	2.849E-01	6.065E-02	8.494E-03	31.880
	+	300.09		1.708E+00	7.167E-01	7.817E-01	1.253E-01	2.185
PO-212	+	74.81		2.735E+00	4.479E-01	3.186E-01	3.941E-02	8.584
	+	77.11		2.401E+00	2.619E-01	1.826E-01	1.517E-02	13.147
	+	87.30		1.922E+00	4.024E-01	3.090E-01	4.241E-02	6.220
		115.19		6.719E-01	2.212E+00	3.801E+00	3.220E-01	0.177
	+	238.63	*	1.934E+00	2.849E-01	6.065E-02	8.494E-03	31.880
	+	300.09		1.708E+00	7.167E-01	7.817E-01	1.253E-01	2.185
BI-214	+	609.31	*	1.356E+00	1.934E-01	7.708E-02	8.713E-03	17.595
	+	1120.29		1.511E+00	4.834E-01	3.198E-01	3.454E-02	4.725
	+	1764.49		2.004E+00	3.652E-01	2.096E-01	1.727E-02	9.560
PB-214	+	74.81		4.712E+00	7.236E-01	5.489E-01	6.027E-02	8.584

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		4.115E+00	5.476E-01	3.130E-01	3.529E-02	13.147
	+	87.30		3.292E+00	6.567E-01	5.293E-01	6.435E-02	6.220
	+	241.98		2.715E+00	6.886E-01	3.654E-01	5.323E-02	7.431
	+	295.21		1.707E+00	3.178E-01	1.369E-01	2.232E-02	12.471
	+	351.92	*	1.466E+00	2.384E-01	7.437E-02	1.052E-02	19.717
PO-214	+	74.81		4.712E+00	7.236E-01	5.489E-01	6.027E-02	8.584
	+	77.11		4.115E+00	5.476E-01	3.130E-01	3.529E-02	13.147
	+	87.30		3.292E+00	6.567E-01	5.293E-01	6.435E-02	6.220
	+	241.98		2.715E+00	6.886E-01	3.654E-01	5.323E-02	7.431
	+	295.21		1.707E+00	3.178E-01	1.369E-01	2.232E-02	12.471
	+	351.92	*	1.466E+00	2.384E-01	7.437E-02	1.052E-02	19.717
PO-216	+	74.81		2.735E+00	4.479E-01	3.186E-01	3.941E-02	8.584
	+	77.11		2.401E+00	2.619E-01	1.826E-01	1.517E-02	13.147
	+	87.30		1.922E+00	4.024E-01	3.090E-01	4.241E-02	6.220
	+	238.63	*	1.934E+00	2.849E-01	6.065E-02	8.494E-03	31.880
	+	300.09		1.708E+00	7.167E-01	7.817E-01	1.253E-01	2.185
PO-218	+	74.81		4.712E+00	7.236E-01	5.489E-01	6.027E-02	8.584
	+	77.11		4.115E+00	5.476E-01	3.130E-01	3.529E-02	13.147
	+	87.30		3.292E+00	6.567E-01	5.293E-01	6.435E-02	6.220
	+	241.98		2.715E+00	6.886E-01	3.654E-01	5.323E-02	7.431
	+	295.21		1.707E+00	3.178E-01	1.369E-01	2.232E-02	12.471
	+	351.92	*	1.466E+00	2.384E-01	7.437E-02	1.052E-02	19.717
RA-224	+	240.98	*	5.149E+00	1.273E+00	6.904E-01	9.247E-02	7.457
RA-226	+	609.31	*	1.356E+00	1.934E-01	7.708E-02	8.713E-03	17.595
	+	1120.29		1.511E+00	4.834E-01	3.198E-01	3.454E-02	4.725
	+	1764.49		2.004E+00	3.652E-01	2.096E-01	1.727E-02	9.560
AC-228	+	338.32		1.699E+00	7.828E-01	2.521E-01	1.073E-01	6.740
	+	911.07	*	1.810E+00	3.155E-01	1.428E-01	1.738E-02	12.676
	+	969.11		1.859E+00	5.323E-01	2.441E-01	5.786E-02	7.613
RA-228	+	338.32		1.699E+00	7.828E-01	2.521E-01	1.073E-01	6.740
	+	911.07	*	1.810E+00	3.155E-01	1.428E-01	1.738E-02	12.676
	+	969.11		1.859E+00	5.323E-01	2.441E-01	5.786E-02	7.613
TH-228	+	74.81		2.791E+00	3.767E-01	3.251E-01	2.660E-02	8.584
	+	77.11		2.450E+00	2.673E-01	1.864E-01	1.549E-02	13.147
	+	87.30		1.962E+00	3.608E-01	3.154E-01	2.964E-02	6.220
	+	238.63	*	1.973E+00	2.907E-01	6.190E-02	8.669E-03	31.881
	+	300.09		1.743E+00	1.253E+00	7.978E-01	4.828E-01	2.185
TH-230	+	609.31	*	1.356E+00	1.934E-01	7.708E-02	8.713E-03	17.595
	+	1120.29		1.511E+00	4.834E-01	3.198E-01	3.454E-02	4.725
	+	1764.49		2.004E+00	3.652E-01	2.096E-01	1.727E-02	9.560
TH-232	+	338.32		1.699E+00	3.779E-01	2.521E-01	3.399E-02	6.740
	+	911.07	*	1.810E+00	3.155E-01	1.428E-01	1.738E-02	12.676
	+	969.11		1.859E+00	5.323E-01	2.441E-01	5.786E-02	7.613
TH-234	+	63.29	*	2.156E+00	1.302E+00	1.163E+00	2.023E-01	1.854
	+	92.38		2.768E+00	6.923E-01	4.434E-01	8.134E-02	6.244
U-234	+	609.31	*	1.356E+00	1.934E-01	7.708E-02	8.713E-03	17.595
	+	1120.29		1.511E+00	4.834E-01	3.198E-01	3.454E-02	4.725
	+	1764.49		2.004E+00	3.652E-01	2.096E-01	1.727E-02	9.560
U-235	+	89.95		3.758E+00	1.399E+00	8.999E-01	2.795E-01	4.176

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	93.35		3.328E+00	1.096E+00	5.307E-01	1.495E-01	6.271
		105.00		5.444E-01	7.091E-01	1.115E+00	3.327E-01	0.488
	+	143.76	*	2.520E-01	1.690E-01	2.161E-01	3.821E-02	1.166
		163.35		-1.745E-02	3.221E-01	5.037E-01	9.850E-02	-0.035
	+	185.71		2.276E-01	5.900E-02	4.543E-02	4.817E-03	5.009
		205.31		3.824E-01	3.940E-01	5.807E-01	1.195E-01	0.659
NP-237	+	86.50	*	1.220E+00	3.373E-01	1.974E-01	4.467E-02	6.183
		95.87		-5.182E-01	6.393E-01	8.566E-01	2.121E-01	-0.605
U-238	+	63.29	*	2.156E+00	1.302E+00	1.163E+00	2.023E-01	1.854
	+	92.38		2.768E+00	5.344E-01	4.434E-01	4.060E-02	6.244
AM-243	+	74.67	*	4.434E-01	5.964E-02	5.177E-02	4.190E-03	8.564
	+	86.72		4.576E+01	8.417E+00	7.389E+00	6.894E-01	6.193
		117.66		-2.340E+00	2.367E+00	3.890E+00	3.291E-01	-0.602
		142.18		-2.540E+00	1.271E+01	1.855E+01	1.654E+00	-0.137
ANH-511	+	511.00	*	1.083E-01	5.845E-02	3.292E-02	3.520E-03	3.290

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.154E-01	2.490E-01	3.915E-01	4.430E-02	-0.295
NA-22		1274.54	*	-1.407E-03	2.952E-02	4.780E-02	3.926E-03	-0.029
NA-24		1368.53	*	-3.313E+01	2.952E-02	Half-Life too short		
AL-26		1129.67		-6.963E-02	1.273E+00	1.889E+00	1.596E-01	-0.037
		1808.65	*	-2.812E-03	2.178E-02	3.520E-02	2.873E-03	-0.080
TI-44		67.85		-3.530E-03	2.933E-02	4.249E-02	3.220E-03	-0.083
	+	78.38	*	4.431E-01	4.833E-02	4.602E-02	3.879E-03	9.629
SC-46		889.25	*	1.729E-02	2.640E-02	4.633E-02	4.564E-03	0.373
	+	1120.51		2.705E-01	8.464E-02	1.047E-01	8.926E-03	2.584
V-48		944.10		-3.812E-01	8.411E-01	1.156E+00	1.119E-01	-0.330
		983.50	*	5.189E-02	5.704E-02	1.013E-01	9.608E-03	0.512
		1312.09		-2.590E-02	6.890E-02	1.075E-01	8.865E-03	-0.241
CR-51		320.08	*	-2.279E-01	2.981E-01	4.545E-01	6.596E-02	-0.501
MN-52		744.21		2.692E-01	3.273E-01	5.564E-01	5.406E-02	0.484
		848.13		-5.129E+00	9.103E+00	1.472E+01	1.451E+00	-0.348
	+	935.52		1.445E+00	7.197E-01	6.694E-01	6.499E-02	2.158
		1246.25		-3.402E+00	9.509E+00	1.458E+01	1.190E+00	-0.233
		1333.61		7.295E-01	6.945E+00	1.119E+01	9.245E-01	0.065
		1434.06	*	8.202E-02	3.286E-01	5.434E-01	4.553E-02	0.151
MN-54		834.83	*	1.708E-02	2.748E-02	4.793E-02	4.720E-03	0.356
CO-56		846.75	*	5.985E-04	2.807E-02	4.735E-02	4.665E-03	0.013
		977.42		-1.150E+00	2.045E+00	3.248E+00	3.091E-01	-0.354
		1037.82		-1.364E-01	2.111E-01	3.299E-01	3.166E-02	-0.413
		1175.09		-5.107E-01	1.513E+00	2.408E+00	1.936E-01	-0.212
	+	1238.25		1.613E-01	9.541E-02	1.333E-01	1.122E-02	1.210
		1360.21		-3.823E-02	6.744E-01	1.083E+00	8.991E-02	-0.035
		1771.40		4.773E-02	1.368E-01	2.135E-01	1.757E-02	0.224
CO-57		122.06	*	-1.170E-02	1.572E-02	2.601E-02	2.200E-03	-0.450
		136.48		3.091E-02	1.302E-01	2.215E-01	2.080E-02	0.140

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-3.932E-02	2.955E-02	4.161E-02	4.097E-03	-0.945
FE-59	+	142.65		3.534E+00	2.308E+00	3.250E+00	2.903E-01	1.088
		192.34		-9.133E-02	6.425E-01	1.058E+00	1.587E-01	-0.086
		1099.22	*	-5.745E-02	6.733E-02	1.029E-01	9.675E-03	-0.558
		1291.56		4.742E-02	8.808E-02	1.500E-01	1.416E-02	0.316
CO-60		1173.22		-2.143E-02	3.031E-02	4.676E-02	3.757E-03	-0.458
		1332.49	*	9.429E-03	2.761E-02	4.549E-02	3.759E-03	0.207
ZN-65		1115.52	*	-4.004E-02	7.539E-02	9.680E-02	8.306E-03	-0.414
GE-68		1077.35	*	5.675E-02	8.542E-01	1.417E+00	1.259E-01	0.040
AS-73		53.44	*	-8.825E-02	4.617E-01	7.142E-01	5.363E-02	-0.124
AS-74		595.88	*	-4.692E-02	7.973E-02	1.258E-01	1.279E-02	-0.373
		634.78		1.917E-01	3.056E-01	5.184E-01	5.071E-02	0.370
SE-75		66.05		-1.501E+00	3.013E+00	4.299E+00	4.085E-01	-0.349
		96.73		-7.014E-01	5.595E-01	7.367E-01	1.018E-01	-0.952
		121.11		4.941E-03	8.573E-02	1.459E-01	1.619E-02	0.034
		136.00		-8.473E-04	2.478E-02	4.181E-02	3.680E-03	-0.020
		198.60		1.298E+00	1.322E+00	2.103E+00	2.515E-01	0.617
		264.65	*	-1.520E-02	3.106E-02	4.654E-02	6.841E-03	-0.327
		279.53		7.520E-02	8.720E-02	1.276E-01	1.998E-02	0.589
		303.91		-2.904E-01	1.643E+00	2.319E+00	3.855E-01	-0.125
		400.65		9.027E-02	1.698E-01	2.938E-01	3.758E-02	0.307
BR-77	+	87.88		4.384E-03	1.698E-01	Half-Life too short		
		200.40		-8.785E-05	1.698E-01	Half-Life too short		
	+	239.00		1.490E-03	1.698E-01	Half-Life too short		
		249.79		1.312E-05	1.698E-01	Half-Life too short		
		281.68		-3.185E-04	1.698E-01	Half-Life too short		
		297.23		8.700E-04	1.698E-01	Half-Life too short		
		303.76		-7.855E-05	1.698E-01	Half-Life too short		
		439.47		1.281E-05	1.698E-01	Half-Life too short		
		484.57		-4.612E-04	1.698E-01	Half-Life too short		
		520.65	*	8.393E-06	1.698E-01	Half-Life too short		
		574.64		-1.449E-04	1.698E-01	Half-Life too short		
		578.91		-2.995E-05	1.698E-01	Half-Life too short		
		585.48		6.215E-03	1.698E-01	Half-Life too short		
		755.35		4.883E-04	1.698E-01	Half-Life too short		
		817.79		-1.297E-04	1.698E-01	Half-Life too short		
SR-82		698.33		-1.696E+01	2.776E+01	4.302E+01	4.126E+00	-0.394
		776.49	*	-7.904E-02	3.239E-01	4.405E-01	4.308E-02	-0.179
		1395.20		3.930E-01	8.127E+00	1.318E+01	1.100E+00	0.030
RB-83		520.41	*	-3.197E-03	4.906E-02	8.105E-02	8.637E-03	-0.039
		529.64		4.637E-03	7.452E-02	1.239E-01	1.315E-02	0.037
		552.65		-4.741E-04	1.405E-01	2.320E-01	2.433E-02	-0.002
RB-84		881.50	*	4.340E-02	5.028E-02	8.942E-02	8.810E-03	0.485
KR-85		513.99	*	7.585E+00	5.096E+00	8.971E+00	9.583E-01	0.845
SR-85		513.99	*	4.115E-02	2.765E-02	4.867E-02	5.199E-03	0.845
RB-86		1076.63	*	-2.031E-01	6.496E-01	1.045E+00	9.287E-02	-0.194
Y-88		898.02		-9.715E-03	2.959E-02	4.503E-02	4.450E-03	-0.216
		1836.01	*	-2.028E-02	2.717E-02	3.979E-02	3.230E-03	-0.510
ZR-88		392.90	*	-9.392E-03	2.120E-02	3.508E-02	3.741E-03	-0.268

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91		1204.90	*	1.050E+00	1.308E+01	2.152E+01	1.742E+00	0.049
NB-94		702.63	*	9.456E-03	2.346E-02	3.897E-02	3.743E-03	0.243
		871.10		1.058E-04	2.360E-02	3.803E-02	3.748E-03	0.003
NB-95		765.79	*	8.058E-03	3.860E-02	5.512E-02	5.381E-03	0.146
NB-95M		235.69	*	-6.661E-02	9.927E-02	1.393E-01	1.945E-02	-0.478
ZR-95		724.18		-3.041E-02	8.200E-02	1.116E-01	1.153E-02	-0.273
		756.15	*	8.668E-02	5.275E-02	9.341E-02	9.830E-03	0.928
NB-97		657.90	*	-5.739E+00	5.275E-02	Half-Life too short		
		1024.50		2.987E+02	5.275E-02	Half-Life too short		
ZR-97		254.15		5.541E+01	5.275E-02	Half-Life too short		
		355.39		8.943E+01	5.275E-02	Half-Life too short		
		507.63	*	3.558E+02	5.275E-02	Half-Life too short		
		602.52		4.713E+02	5.275E-02	Half-Life too short		
		1021.30		7.621E+00	5.275E-02	Half-Life too short		
		1147.95		-4.471E+02	5.275E-02	Half-Life too short		
		1362.66		4.533E+02	5.275E-02	Half-Life too short		
		1750.46		2.747E+02	5.275E-02	Half-Life too short		
MO-99		140.51		-3.509E+00	7.397E+01	1.080E+02	2.999E+01	-0.032
		181.06		2.988E+01	4.687E+01	7.137E+01	1.369E+01	0.419
		366.43		4.604E+01	2.297E+02	3.676E+02	4.454E+01	0.125
		739.58	*	4.798E-02	3.111E+01	5.014E+01	7.935E+00	0.001
		778.00		-3.660E+00	1.006E+02	1.403E+02	1.373E+01	-0.026
TC-99M		140.51	*	-3.719E+15	1.006E+02	Half-Life too short		
RH-101		127.23		-3.761E-03	2.195E-02	3.184E-02	2.719E-03	-0.118
		198.01	*	4.904E-03	2.363E-02	3.683E-02	4.122E-03	0.133
		325.23		1.102E-01	1.757E-01	2.589E-01	3.633E-02	0.425
RH-102		418.52		1.604E-01	2.087E-01	3.628E-01	3.900E-02	0.442
		475.06	*	6.411E-03	1.942E-02	3.300E-02	3.558E-03	0.194
		631.29		6.121E-03	3.894E-02	6.424E-02	6.309E-03	0.095
		697.49		-2.495E-02	5.375E-02	8.422E-02	8.074E-03	-0.296
		766.84		6.516E-02	9.913E-02	1.462E-01	1.427E-02	0.446
		1046.59		-1.852E-02	7.671E-02	1.245E-01	1.133E-02	-0.149
		1112.84		-8.050E-02	1.649E-01	2.336E-01	2.008E-02	-0.345
RU-103		497.08	*	-4.681E-03	2.857E-02	4.705E-02	7.312E-03	-0.099
	+	610.33		1.610E+01	3.141E+00	2.609E+00	4.554E-01	6.172
RH-106	+	511.85		5.464E-01	2.949E-01	3.312E-01	3.540E-02	1.650
		621.84	*	-7.523E-02	2.177E-01	3.473E-01	4.943E-02	-0.217
		1050.47		1.247E+00	1.530E+00	2.686E+00	2.438E-01	0.464
RU-106	+	511.85		5.464E-01	2.949E-01	3.312E-01	3.540E-02	1.650
		621.84	*	-7.523E-02	2.176E-01	3.473E-01	3.446E-02	-0.217
		1050.47		1.247E+00	1.530E+00	2.686E+00	2.438E-01	0.464
AG-108M		433.93	*	3.124E-03	2.136E-02	3.618E-02	4.000E-03	0.086
		614.37		-8.227E-03	2.958E-02	4.135E-02	4.254E-03	-0.199
		722.95		-1.706E-02	3.605E-02	4.863E-02	4.846E-03	-0.351
AG-110M		657.75	*	-1.014E-02	2.898E-02	3.992E-02	3.890E-03	-0.254
		677.61		5.010E-02	2.279E-01	3.753E-01	3.656E-02	0.133
		706.67		-3.351E-02	1.444E-01	2.297E-01	2.258E-02	-0.146
		763.93		1.141E-01	1.292E-01	1.963E-01	1.958E-02	0.581
		884.67		-1.420E-02	3.240E-02	5.253E-02	5.303E-03	-0.270

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	937.48		3.313E-01	1.652E-01	1.273E-01	1.270E-02	2.603
		1384.27		4.932E-02	1.289E-01	1.899E-01	1.630E-02	0.260
IN-111		171.28		-1.786E+00	2.439E+00	3.950E+00	3.930E-01	-0.452
		245.39	*	-1.633E-01	2.940E+00	4.263E+00	5.810E-01	-0.038
IN-113M		391.69	*	-2.110E-02	3.003E-02	4.893E-02	5.322E-03	-0.431
SN-113		391.69	*	-2.110E-02	3.003E-02	4.893E-02	5.322E-03	-0.431
IN-114M		190.27	*	2.145E-02	1.341E-01	2.005E-01	2.170E-02	0.107
CD-115		260.90		-8.981E-05	1.341E-01	Half-Life too short		
		492.35		1.436E-05	1.341E-01	Half-Life too short		
		527.90	*	1.011E-05	1.341E-01	Half-Life too short		
SN-117M		156.02		4.442E-01	2.096E+00	3.184E+00	2.981E-01	0.140
		158.56	*	-1.506E-03	5.179E-02	7.776E-02	7.349E-03	-0.019
SB-122		563.90	*	4.885E+00	5.602E+00	9.672E+00	1.008E+00	0.505
		692.80		-1.415E+01	1.245E+02	2.003E+02	1.917E+01	-0.071
I-123		159.00	*	3.116E+02	1.245E+02	Half-Life too short		
		528.96		-7.560E+04	1.245E+02	Half-Life too short		
TE-123M		159.00	*	1.747E-03	1.968E-02	3.157E-02	3.003E-03	0.055
I-124		602.71	*	6.966E-01	1.179E+00	1.994E+00	2.015E-01	0.349
		722.78		-5.068E+00	9.152E+00	1.224E+01	1.183E+00	-0.414
		1325.50		2.713E+01	5.614E+01	9.534E+01	7.873E+00	0.285
		1376.25		1.068E+02	6.243E+01	1.051E+02	8.744E+00	1.017
		1509.49		1.681E+01	2.954E+01	5.196E+01	4.373E+00	0.323
		1691.02		3.918E+00	6.531E+00	1.167E+01	9.729E-01	0.336
SB-124		602.71		1.766E-02	2.988E-02	5.054E-02	5.109E-03	0.349
		645.85		-1.238E-01	3.561E-01	5.658E-01	5.726E-02	-0.219
		709.31		-1.336E+00	1.994E+00	3.060E+00	2.945E-01	-0.437
		713.82		1.315E+00	1.171E+00	2.024E+00	2.588E-01	0.650
		722.78		-1.862E-01	3.363E-01	4.498E-01	4.421E-02	-0.414
	+	968.20		2.036E+01	3.809E+00	6.031E+00	5.768E-01	3.375
		1045.16		-1.570E+00	1.784E+00	2.733E+00	2.491E-01	-0.575
		1325.50		1.065E+00	2.203E+00	3.742E+00	3.090E-01	0.285
		1368.21		-7.959E-01	1.294E+00	1.937E+00	2.572E-01	-0.411
		1436.60		-1.586E+00	3.026E+00	4.573E+00	3.832E-01	-0.347
		1691.02	*	3.395E-02	5.661E-02	1.011E-01	8.788E-03	0.336
SB-125		427.89	*	1.723E-02	6.009E-02	1.026E-01	1.118E-02	0.168
	+	463.38		6.647E-01	3.112E-01	4.085E-01	4.632E-02	1.627
		600.56		-8.586E-02	1.343E-01	2.116E-01	2.259E-02	-0.406
		635.90		-1.923E-01	1.973E-01	2.996E-01	3.112E-02	-0.642
TE-125M		109.28	*	3.972E+00	6.079E+00	1.056E+01	1.085E+00	0.376
I-126		388.63		1.450E-01	1.809E-01	3.167E-01	3.435E-02	0.458
		666.33	*	2.478E-01	2.052E-01	3.193E-01	3.027E-02	0.776
		753.82		9.790E-02	1.370E+00	2.216E+00	2.158E-01	0.044
SB-126		223.80		3.185E+00	3.559E+00	6.005E+00	7.501E-01	0.530
	+	278.60		4.864E+00	2.912E+00	4.193E+00	6.477E-01	1.160
	+	296.50		2.295E+01	4.026E+00	3.764E+00	5.655E-01	6.097
		414.70		-4.858E-02	7.690E-02	1.157E-01	1.243E-02	-0.420
		415.30		-3.414E-01	6.077E+00	9.888E+00	1.062E+00	-0.035
		555.20		1.592E+00	3.723E+00	6.295E+00	6.593E-01	0.253
		573.80		7.363E-01	9.962E-01	1.705E+00	1.764E-01	0.432

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		593.00		-9.914E-01	8.854E-01	1.339E+00	1.365E-01	-0.740
		656.30		-2.102E+00	3.484E+00	4.974E+00	4.740E-01	-0.423
		666.33		1.048E-01	8.683E-02	1.351E-01	1.280E-02	0.776
		675.00		5.796E-01	1.977E+00	3.270E+00	3.110E-01	0.177
		695.00		4.762E-02	7.429E-02	1.252E-01	1.199E-02	0.380
		697.00		-1.076E-01	2.507E-01	3.937E-01	3.774E-02	-0.273
		720.50	*	1.259E-01	1.360E-01	2.326E-01	2.246E-02	0.541
		856.80		-8.848E-02	4.812E-01	6.925E-01	6.825E-02	-0.128
		989.30		-9.058E-02	1.090E+00	1.801E+00	1.703E-01	-0.050
		1034.80		-2.840E+00	7.460E+00	1.194E+01	1.097E+00	-0.238
		1213.00		-2.791E+00	4.394E+00	6.825E+00	5.535E-01	-0.409
SB-127		61.10		-1.753E+01	8.845E+01	1.284E+02	1.541E+01	-0.137
		252.40		-1.236E+00	7.511E+00	1.209E+01	5.313E+00	-0.102
		290.80		-4.143E+01	4.076E+01	5.331E+01	9.580E+00	-0.777
		411.60		1.071E+01	2.539E+01	3.872E+01	7.035E+00	0.277
		444.90		-2.375E+00	1.712E+01	2.851E+01	4.428E+00	-0.083
		473.00		3.061E-01	2.845E+00	4.781E+00	7.551E-01	0.064
		543.00		1.711E+01	2.898E+01	4.940E+01	8.356E+00	0.346
		603.60		4.071E+00	2.367E+01	3.633E+01	5.463E+00	0.112
		685.20	*	-2.846E+00	2.698E+00	4.021E+00	5.519E-01	-0.708
		698.50		-1.774E+01	2.814E+01	4.333E+01	7.627E+00	-0.409
		722.20		-3.831E+01	6.579E+01	8.743E+01	1.191E+01	-0.438
		783.80		5.789E+00	6.922E+00	1.166E+01	1.721E+00	0.496
XE-127		57.60		-1.256E+00	3.473E+00	5.458E+00	3.929E-01	-0.230
	+	145.22		9.227E-01	6.026E-01	8.310E-01	7.485E-02	1.110
		172.10		1.437E-02	8.573E-02	1.437E-01	1.435E-02	0.100
		202.84	*	-3.252E-02	3.481E-02	5.513E-02	6.300E-03	-0.590
		374.96		1.588E-01	1.587E-01	2.629E-01	3.062E-02	0.604
I-131		80.18		4.773E+00	5.111E+00	6.757E+00	5.884E-01	0.706
		284.30		1.757E+00	1.623E+00	2.714E+00	4.245E-01	0.647
		364.48	*	-6.533E-02	1.306E-01	2.004E-01	2.522E-02	-0.326
		636.97		-2.164E+00	1.778E+00	2.640E+00	2.700E-01	-0.820
		722.89		-4.834E+00	9.640E+00	1.296E+01	1.264E+00	-0.373
TE-132		49.72		-1.450E+01	3.056E+01	4.411E+01	5.275E+00	-0.329
		111.76		-5.773E+01	6.191E+01	9.614E+01	1.186E+01	-0.600
		116.30		2.208E+01	5.313E+01	9.148E+01	1.126E+01	0.241
		228.16	*	4.699E-01	1.426E+00	2.361E+00	4.547E-01	0.199
BA-133		53.15		-1.020E+00	1.906E+00	2.908E+00	2.192E-01	-0.351
		79.62		-1.906E-01	9.510E-01	1.186E+00	1.801E-01	-0.161
		81.00		-5.374E-02	6.313E-02	8.685E-02	1.382E-02	-0.619
	+	276.40		5.387E-01	3.286E-01	4.682E-01	8.997E-02	1.151
		302.84		1.950E-03	1.075E-01	1.538E-01	2.761E-02	0.013
		356.01	*	1.446E-02	3.269E-02	4.749E-02	7.660E-03	0.305
		383.85		-1.118E-01	2.038E-01	3.356E-01	4.846E-02	-0.333
I-133	+	510.53		8.124E+01	2.038E-01	Half-Life too short		
		529.87	*	3.159E-02	2.038E-01	Half-Life too short		
		706.58		-3.954E+00	2.038E-01	Half-Life too short		
		856.28		-4.415E+00	2.038E-01	Half-Life too short		
		875.33		3.323E+00	2.038E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1236.41		4.634E+01	2.038E-01	Half-Life too short		
		1298.22		-1.406E+01	2.038E-01	Half-Life too short		
CS-134		475.35		2.192E-01	1.288E+00	2.170E+00	2.339E-01	0.101
		563.23		2.577E-01	2.460E-01	4.282E-01	4.492E-02	0.602
		569.32		-8.305E-02	1.388E-01	2.198E-01	2.303E-02	-0.378
		604.70		9.950E-03	2.828E-02	4.044E-02	4.087E-03	0.246
	+	795.84	*	1.481E-01	4.941E-02	6.925E-02	6.831E-03	2.138
		801.93		-9.122E-02	2.910E-01	4.159E-01	4.101E-02	-0.219
		1038.57		-6.917E-02	2.528E+00	4.177E+00	3.825E-01	-0.017
		1167.94		-1.692E-01	1.740E+00	2.830E+00	2.289E-01	-0.060
		1365.15		-1.455E-01	8.437E-01	1.337E+00	1.165E-01	-0.109
CS-135		268.24	*	8.257E-02	1.230E-01	1.782E-01	2.796E-02	0.463
I-135		288.45		1.232E+16	1.230E-01	Half-Life too short		
		417.63		6.907E+15	1.230E-01	Half-Life too short		
		546.56		5.780E+12	1.230E-01	Half-Life too short		
		836.80		4.430E+15	1.230E-01	Half-Life too short		
		1038.76		7.326E+14	1.230E-01	Half-Life too short		
		1124.00		3.228E+16	1.230E-01	Half-Life too short		
		1131.51		1.513E+15	1.230E-01	Half-Life too short		
		1260.41	*	3.414E+14	1.230E-01	Half-Life too short		
		1457.56		4.158E+16	1.230E-01	Half-Life too short		
		1678.03		-3.052E+15	1.230E-01	Half-Life too short		
		1706.46		-5.355E+15	1.230E-01	Half-Life too short		
		1791.20		6.979E+15	1.230E-01	Half-Life too short		
CS-136		66.91		-7.422E-02	6.414E-01	9.302E-01	1.382E-01	-0.080
	+	86.29		7.198E+00	1.492E+00	1.668E+00	2.219E-01	4.316
	+	153.22		8.156E-01	8.699E-01	9.982E-01	1.020E-01	0.817
		163.89		-1.061E-01	9.851E-01	1.540E+00	1.631E-01	-0.069
		176.55		1.166E-01	3.166E-01	5.331E-01	5.658E-02	0.219
		273.65		1.553E-01	5.373E-01	6.262E-01	9.710E-02	0.248
		340.57		3.157E-01	1.450E-01	2.148E-01	2.912E-02	1.470
		818.51		-6.011E-03	6.831E-02	1.083E-01	1.067E-02	-0.055
		1048.07	*	2.010E-03	9.631E-02	1.596E-01	1.508E-02	0.013
		1235.34		-4.080E-02	6.230E-01	8.723E-01	1.004E-01	-0.047
CE-139		165.85	*	-9.498E-03	1.965E-02	3.223E-02	3.132E-03	-0.295
BA-140		162.64		9.264E-02	6.873E-01	1.082E+00	1.088E-01	0.086
		304.84		4.060E-01	1.272E+00	1.848E+00	5.633E-01	0.220
		423.70		-3.487E-01	1.696E+00	2.819E+00	9.317E-01	-0.124
		537.32	*	-1.193E-01	2.351E-01	3.709E-01	1.250E-01	-0.322
LA-140	+	328.77		9.322E-01	4.172E-01	5.415E-01	7.686E-02	1.721
		432.53		-4.340E-01	1.810E+00	3.003E+00	3.338E-01	-0.145
		487.03		1.783E-02	1.242E-01	2.086E-01	2.335E-02	0.085
		751.79		-1.897E+00	1.612E+00	2.338E+00	2.469E-01	-0.811
		815.85		3.427E-01	2.932E-01	5.086E-01	5.449E-02	0.674
		867.82		-1.058E-01	1.269E+00	1.928E+00	1.978E-01	-0.055
		919.63		-1.176E+00	2.359E+00	3.785E+00	4.390E-01	-0.311
		925.24		3.083E-01	9.931E-01	1.698E+00	1.738E-01	0.182
		1596.49	*	1.975E-02	9.919E-02	1.468E-01	1.234E-02	0.135
CE-141		145.44	*	2.995E-02	4.746E-02	7.365E-02	6.751E-03	0.407

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-143		57.37		-3.011E-03	4.746E-02	Half-Life too short		
		231.56		5.163E-03	4.746E-02	Half-Life too short		
		293.26	*	5.656E-03	4.746E-02	Half-Life too short		
	+	350.59		5.026E-01	4.746E-02	Half-Life too short		
		490.36		-2.632E-02	4.746E-02	Half-Life too short		
		664.57		1.453E-02	4.746E-02	Half-Life too short		
		721.93		-4.532E-03	4.746E-02	Half-Life too short		
CE-144		80.11		1.487E+00	1.502E+00	1.990E+00	1.712E-01	0.747
		133.54	*	-4.731E-02	1.419E-01	2.124E-01	3.314E-02	-0.223
PM-144		476.78		-7.265E-03	4.761E-02	7.612E-02	8.705E-03	-0.095
		618.01		6.989E-03	2.196E-02	3.666E-02	3.727E-03	0.191
		696.49	*	-1.158E-02	2.444E-02	3.828E-02	3.671E-03	-0.303
		778.57		-6.350E-01	1.720E+00	2.454E+00	2.402E-01	-0.259
PR-144		696.49	*	-7.871E-01	1.661E+00	2.601E+00	2.493E-01	-0.303
		1489.15		1.590E+00	8.342E+00	1.335E+01	1.122E+00	0.119
PM-146		453.90	*	7.243E-03	3.018E-02	5.117E-02	6.416E-03	0.142
		633.02		5.472E-01	1.013E+00	1.676E+00	6.314E-01	0.326
		735.90		1.441E-02	1.036E-01	1.687E-01	4.882E-02	0.085
		747.13		-2.008E-02	6.359E-02	9.984E-02	1.472E-02	-0.201
ND-147	+	91.11		1.325E+00	3.025E-01	4.345E-01	4.306E-02	3.049
		319.41		-9.022E-01	3.129E+00	4.922E+00	7.017E-01	-0.183
		439.89		1.343E+00	5.490E+00	9.332E+00	1.007E+00	0.144
		531.02	*	-1.827E-01	5.349E-01	8.659E-01	1.401E-01	-0.211
PM-149		285.90	*	-3.033E-05	5.349E-01	Half-Life too short		
EU-152		121.78		-1.605E-02	4.490E-02	7.535E-02	7.371E-03	-0.213
		244.69		2.739E-02	2.489E-01	3.520E-01	4.784E-02	0.078
		344.27	*	-1.833E-02	7.108E-02	1.057E-01	1.433E-02	-0.173
		443.98		1.575E-01	6.301E-01	1.071E+00	1.156E-01	0.147
		778.89		-6.326E-02	1.958E-01	2.806E-01	2.746E-02	-0.225
		867.32		-2.439E-01	6.044E-01	8.451E-01	8.328E-02	-0.289
	+	964.01		5.485E-01	2.853E-01	3.795E-01	3.636E-02	1.445
		1085.78		-1.585E-01	2.738E-01	4.302E-01	3.792E-02	-0.368
		1112.02		-1.323E-01	2.125E-01	3.212E-01	2.763E-02	-0.412
		1407.95		1.272E-01	1.341E-01	2.360E-01	1.972E-02	0.539
GD-153		69.67		5.208E-01	1.084E+00	1.604E+00	1.235E-01	0.325
	+	83.37		2.927E+01	1.199E+01	1.566E+01	1.401E+00	1.869
		97.43	*	-1.998E-02	5.695E-02	7.973E-02	7.083E-03	-0.251
		103.18		-8.495E-02	6.216E-02	1.012E-01	8.783E-03	-0.839
EU-154		123.07		-1.865E-03	3.145E-02	5.330E-02	5.995E-03	-0.035
		247.94		1.989E-02	2.468E-01	4.032E-01	6.335E-02	0.049
		591.81		3.005E-01	4.036E-01	6.919E-01	8.915E-02	0.434
		723.30		-3.495E-02	1.480E-01	2.042E-01	2.140E-02	-0.171
		756.87		7.480E-01	5.498E-01	9.554E-01	1.224E-01	0.783
		873.19		6.350E-02	1.997E-01	3.429E-01	4.506E-02	0.185
		996.32		-2.448E-02	2.763E-01	3.947E-01	7.169E-02	-0.062
		1004.76		1.297E-01	1.459E-01	2.313E-01	2.822E-02	0.561
		1274.45	*	-4.550E-03	8.218E-02	1.330E-01	1.462E-02	-0.034
EU-155		48.70		9.579E-01	1.204E+00	1.848E+00	1.495E-01	0.518
		60.01		4.008E+00	2.743E+00	4.258E+00	3.038E-01	0.941

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.54		5.015E-01	9.246E-02	1.215E-01	1.141E-02	4.127
		105.31	*	5.325E-02	7.109E-02	1.145E-01	9.991E-03	0.465
TB-160	+	86.79		1.408E+00	2.589E-01	3.448E-01	3.220E-02	4.082
		197.04		-3.496E-01	4.237E-01	6.322E-01	7.046E-02	-0.553
		215.65		3.620E-01	5.100E-01	8.581E-01	1.036E-01	0.422
		298.57		1.536E-01	8.420E-02	1.412E-01	2.112E-02	1.088
		879.36	*	5.402E-03	9.635E-02	1.625E-01	1.601E-02	0.033
		962.29		1.554E-01	3.889E-01	5.864E-01	5.624E-02	0.265
	+	966.15		3.963E-01	2.061E-01	3.092E-01	2.960E-02	1.282
		1177.93		-9.733E-02	2.555E-01	4.057E-01	3.263E-02	-0.240
		1271.85		-2.900E-02	5.040E-01	8.155E-01	6.686E-02	-0.036
HO-166M		80.57		-4.671E-02	1.970E-01	2.451E-01	2.119E-02	-0.191
	+	184.41		1.707E-01	4.425E-02	4.274E-02	4.507E-03	3.993
		280.46		1.320E-02	6.579E-02	9.325E-02	1.441E-02	0.142
	+	410.95		2.592E-01	2.465E-01	3.146E-01	3.375E-02	0.824
		711.68	*	7.680E-03	4.171E-02	6.831E-02	6.579E-03	0.112
		752.31		-2.568E-01	1.978E-01	2.845E-01	2.769E-02	-0.903
		810.29		-5.550E-02	4.222E-02	5.959E-02	5.856E-03	-0.931
TM-171		51.35		-9.672E+00	1.483E+01	2.312E+01	1.788E+00	-0.418
		52.39		7.931E-01	8.132E+00	1.271E+01	9.680E-01	0.062
		59.40		-7.133E+00	1.527E+01	2.193E+01	1.560E+00	-0.325
		66.72	*	-4.676E+00	1.758E+01	2.534E+01	1.902E+00	-0.185
LU-176	+	88.36		9.856E-01	1.813E-01	2.234E-01	2.112E-02	4.412
		201.83		-1.957E-02	1.897E-02	2.990E-02	3.402E-03	-0.655
		306.84	*	1.095E-02	1.682E-02	2.774E-02	4.078E-03	0.395
		401.10		3.691E+00	4.275E+00	7.501E+00	8.024E-01	0.492
LU-177		112.95		-7.930E-02	1.883E+00	3.028E+00	2.572E-01	-0.026
	+	208.36	*	6.344E+00	1.894E+00	2.411E+00	2.821E-01	2.632
LU-177M		52.97		-4.969E-01	8.802E-01	1.341E+00	1.013E-01	-0.370
		54.07		8.487E-02	4.670E-01	7.325E-01	5.457E-02	0.116
		61.30		-1.308E-01	8.898E-01	1.295E+00	9.322E-02	-0.101
		121.62		-6.370E-02	2.361E-01	3.976E-01	3.359E-02	-0.160
		147.16		5.558E-02	4.544E-01	6.903E-01	6.260E-02	0.081
		171.86		2.819E-02	3.182E-01	5.319E-01	5.306E-02	0.053
		218.09		2.794E-02	5.636E-01	9.273E-01	1.131E-01	0.030
		268.79		1.113E+00	6.769E-01	1.009E+00	1.503E-01	1.104
		319.02		9.688E-03	1.757E-01	2.819E-01	4.022E-02	0.034
		367.43		4.005E-01	6.533E-01	1.067E+00	1.287E-01	0.375
		413.65	*	-6.409E-02	1.391E-01	2.002E-01	2.150E-02	-0.320
HF-181		56.28		1.348E-01	5.337E-01	8.593E-01	6.255E-02	0.157
		57.53		-8.676E-02	2.885E-01	4.545E-01	3.273E-02	-0.191
		65.20		-2.902E-01	6.163E-01	8.812E-01	6.532E-02	-0.329
		133.02		-1.351E-02	5.207E-02	7.538E-02	6.536E-03	-0.179
		136.25		7.532E-02	3.055E-01	5.199E-01	4.550E-02	0.145
		345.85		2.059E-02	1.433E-01	2.296E-01	3.018E-02	0.090
		482.03	*	-2.124E-03	3.215E-02	5.344E-02	5.756E-03	-0.040
W-181		56.28		4.963E-02	1.973E-01	3.177E-01	2.312E-02	0.156
		57.53		-3.191E-02	1.067E-01	1.682E-01	1.211E-02	-0.190
		65.20	*	-1.065E-01	2.262E-01	3.234E-01	2.397E-02	-0.329

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TA-182		67.75		-1.039E-02	7.223E-02	1.046E-01	7.917E-03	-0.099
		100.10		2.448E-02	1.115E-01	1.924E-01	1.688E-02	0.127
		152.43		6.041E-03	2.584E-01	3.774E-01	3.487E-02	0.016
		222.10		-2.718E-02	2.315E-01	3.779E-01	4.687E-02	-0.072
	+	1001.68		1.978E+00	1.746E+00	2.591E+00	2.432E-01	0.763
	+	1121.28		7.381E-01	2.310E-01	2.858E-01	2.435E-02	2.583
		1189.05		-2.526E-02	2.308E-01	3.746E-01	3.022E-02	-0.067
		1221.42	*	1.183E-02	1.428E-01	2.345E-01	1.905E-02	0.050
		1230.97		4.964E-03	3.565E-01	5.664E-01	4.610E-02	0.009
RE-183		57.98		-1.100E-01	1.096E-01	1.676E-01	1.203E-02	-0.657
		59.32		-3.384E-02	6.580E-02	9.425E-02	6.708E-03	-0.359
		67.20		3.195E-02	1.300E-01	1.912E-01	1.441E-02	0.167
		162.32	*	-2.249E-03	8.008E-02	1.256E-01	1.204E-02	-0.018
	+	208.81		3.452E+00	1.030E+00	1.346E+00	1.579E-01	2.563
		291.72		-8.892E-01	7.149E-01	9.166E-01	1.390E-01	-0.970
RE-184		57.98		-3.929E-01	3.914E-01	5.985E-01	4.296E-02	-0.657
		59.32		-1.208E-01	2.348E-01	3.364E-01	2.394E-02	-0.359
		67.20		1.141E-01	4.641E-01	6.826E-01	5.144E-02	0.167
		161.27		-5.603E-02	2.329E-01	3.864E-01	3.689E-02	-0.145
		216.55		9.728E-02	1.773E-01	2.968E-01	3.596E-02	0.328
		252.85	*	-7.128E-03	1.556E-01	2.525E-01	3.543E-02	-0.028
		318.01		-1.415E-02	3.088E-01	4.928E-01	7.050E-02	-0.029
		792.07		4.904E-01	7.520E-01	1.122E+00	1.100E-01	0.437
		903.28		5.657E-01	6.838E-01	1.183E+00	1.163E-01	0.478
		920.93		-5.644E-02	2.928E-01	4.824E-01	4.711E-02	-0.117
OS-185		59.72		1.417E-01	1.680E-01	2.553E-01	1.818E-02	0.555
		61.14		-1.784E-02	9.947E-02	1.446E-01	1.040E-02	-0.123
		69.30		1.716E-01	1.942E-01	2.916E-01	2.238E-02	0.589
		592.07		3.885E-01	1.753E+00	2.918E+00	2.977E-01	0.133
		646.12	*	-8.851E-03	2.930E-02	4.671E-02	4.509E-03	-0.189
		717.42		-4.126E-01	6.533E-01	1.006E+00	9.701E-02	-0.410
		874.81		2.674E-01	4.017E-01	7.054E-01	6.951E-02	0.379
		880.27		1.651E-01	5.243E-01	9.002E-01	8.870E-02	0.183
W-188	+	63.58		9.143E+01	5.331E+01	5.827E+01	4.266E+00	1.569
		227.08		-3.803E-01	8.843E+00	1.446E+01	1.830E+00	-0.026
		290.67	*	-7.556E+00	5.824E+00	7.442E+00	1.130E+00	-1.015
IR-192	+	295.96		1.369E+00	2.405E-01	2.391E-01	3.604E-02	5.724
		308.46		6.235E-03	6.846E-02	1.103E-01	1.618E-02	0.057
		316.51	*	-1.079E-02	2.521E-02	3.937E-02	5.659E-03	-0.274
		468.07		2.707E-02	5.087E-02	7.786E-02	8.790E-03	0.348
		604.41		3.289E-01	3.916E-01	5.778E-01	8.111E-02	0.569
		612.46		1.012E+00	5.872E-01	9.421E-01	1.049E-01	1.075
AU-195		65.12		-5.034E-02	1.042E-01	1.490E-01	1.104E-02	-0.338
		66.83		-1.054E-02	5.914E-02	8.557E-02	6.427E-03	-0.123
	+	75.70		1.464E+00	1.970E-01	2.810E-01	2.299E-02	5.211
		98.88	*	4.225E-01	1.468E-01	2.551E-01	2.250E-02	1.656
	+	129.76		4.437E+00	3.139E+00	3.443E+00	2.959E-01	1.289
TL-200		367.94	*	1.332E-03	3.139E+00	Half-Life too short		
		579.30		-1.135E-02	3.139E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		828.27		2.038E-02	3.139E+00	Half-Life too short		
		1205.75		1.876E-02	3.139E+00	Half-Life too short		
TL-201		68.90		2.305E+00	9.521E+00	1.516E+01	1.159E+00	0.152
		70.82		3.055E+00	5.816E+00	8.614E+00	6.706E-01	0.355
		80.30		9.949E+00	1.188E+01	1.564E+01	1.348E+00	0.636
		135.34		-8.996E+00	5.268E+01	8.849E+01	7.723E+00	-0.102
		167.43	*	6.104E+00	1.495E+01	2.528E+01	2.473E+00	0.241
TL-202		68.90		8.265E-02	3.413E-01	5.434E-01	4.155E-02	0.152
		70.82		1.092E-01	2.079E-01	3.080E-01	2.397E-02	0.355
		80.30		3.558E-01	4.250E-01	5.595E-01	4.823E-02	0.636
		439.56	*	3.040E-03	6.301E-02	1.061E-01	1.144E-02	0.029
HG-203		70.83		3.780E-01	7.208E-01	1.066E+00	1.396E-01	0.355
		72.87		4.186E-01	3.951E-01	6.368E-01	8.133E-02	0.657
		82.60		-1.560E-01	7.985E-01	1.116E+00	1.550E-01	-0.140
		279.20	*	4.319E-02	3.508E-02	5.193E-02	8.112E-03	0.832
BI-207		72.80		1.003E-01	1.060E-01	1.715E-01	1.361E-02	0.585
	+	74.97		7.961E-01	1.071E-01	1.469E-01	1.192E-02	5.420
	+	84.90		3.729E-01	1.527E-01	2.007E-01	1.830E-02	1.858
		569.67		-5.725E-03	2.125E-02	3.441E-02	3.571E-03	-0.166
		1063.62	*	2.587E-03	3.569E-02	5.932E-02	5.329E-03	0.044
		1770.23		2.074E-01	2.966E-01	4.920E-01	4.049E-02	0.422
TL-207		81.07		-1.190E-01	1.383E-01	1.914E-01	1.665E-02	-0.622
	+	83.78		2.458E-01	1.007E-01	1.355E-01	1.218E-02	1.814
		94.90		1.903E-01	1.433E-01	2.316E-01	2.086E-02	0.821
		122.32		-1.051E+00	1.085E+00	1.778E+00	1.618E-01	-0.591
	+	144.24		8.167E-01	5.346E-01	7.705E-01	7.677E-02	1.060
	+	154.21		3.697E-01	3.942E-01	4.632E-01	4.679E-02	0.798
	+	269.46		4.740E-01	2.168E-01	2.466E-01	3.710E-02	1.922
		323.87	*	6.686E-01	5.372E-01	7.989E-01	1.671E-01	0.837
	+	338.28		7.095E+00	1.697E+00	1.883E+00	3.032E-01	3.767
		445.03		-2.217E-01	1.514E+00	2.520E+00	3.458E-01	-0.088
PO-209		260.50		-2.333E+00	6.294E+00	1.002E+01	1.448E+00	-0.233
		262.80		-3.084E+00	1.701E+01	2.733E+01	3.983E+00	-0.113
		896.60	*	3.100E-01	4.627E+00	7.798E+00	7.677E-01	0.040
PB-211		404.84	*	-3.740E-01	7.450E-01	1.016E+00	6.398E-01	-0.368
		427.08		5.432E-01	1.363E+00	2.269E+00	1.417E+00	0.239
		831.96		-8.376E-01	1.094E+00	1.399E+00	8.793E-01	-0.599
BI-212	+	727.18	*	9.886E-01	3.576E-01	5.103E-01	5.578E-02	1.937
		785.46		1.919E+00	1.311E+00	2.286E+00	2.239E-01	0.839
		1620.62		1.420E+00	9.460E-01	1.804E+00	1.515E-01	0.787
PO-215		81.07		-1.190E-01	1.383E-01	1.914E-01	1.665E-02	-0.622
	+	83.78		2.458E-01	1.007E-01	1.355E-01	1.218E-02	1.814
		94.90		1.903E-01	1.433E-01	2.316E-01	2.086E-02	0.821
		122.32		-1.051E+00	1.085E+00	1.778E+00	1.618E-01	-0.591
	+	144.24		8.167E-01	5.346E-01	7.705E-01	7.677E-02	1.060
	+	154.21		3.697E-01	3.942E-01	4.632E-01	4.679E-02	0.798
	+	269.46		4.740E-01	2.168E-01	2.466E-01	3.710E-02	1.922
		323.87	*	6.686E-01	5.372E-01	7.989E-01	1.671E-01	0.837
	+	338.28		7.095E+00	1.697E+00	1.883E+00	3.032E-01	3.767

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-2.217E-01	1.514E+00	2.520E+00	3.458E-01	-0.088
RN-219	+	271.23		6.082E-01	2.801E-01	3.128E-01	5.027E-02	1.944
		401.81	*	1.055E-01	2.679E-01	4.605E-01	7.510E-02	0.229
RN-220		549.76	*	2.632E+00	1.750E+01	2.917E+01	3.065E+00	0.090
RA-223		81.07		-1.190E-01	1.383E-01	1.914E-01	1.665E-02	-0.622
	+	83.78		2.458E-01	1.007E-01	1.355E-01	1.218E-02	1.814
		94.90		1.903E-01	1.433E-01	2.316E-01	2.086E-02	0.821
		122.32		-1.051E+00	1.085E+00	1.778E+00	1.618E-01	-0.591
	+	144.24		8.167E-01	5.346E-01	7.705E-01	7.677E-02	1.060
	+	154.21		3.697E-01	3.942E-01	4.632E-01	4.679E-02	0.798
	+	269.46		4.740E-01	2.168E-01	2.466E-01	3.710E-02	1.922
		323.87	*	6.686E-01	5.372E-01	7.989E-01	1.671E-01	0.837
	+	338.28		7.095E+00	1.697E+00	1.883E+00	3.032E-01	3.767
		445.03		-2.217E-01	1.514E+00	2.520E+00	3.458E-01	-0.088
AC-227		79.80		-1.391E-01	1.208E+00	1.513E+00	3.251E-01	-0.092
		236.00		-6.219E-02	1.714E-01	2.451E-01	3.860E-02	-0.254
		256.20	*	-6.964E-03	2.512E-01	4.076E-01	7.769E-02	-0.017
		286.10		-2.368E-01	1.059E+00	1.688E+00	3.087E-01	-0.140
	+	299.80		3.165E+00	1.401E+00	1.791E+00	3.817E-01	1.767
		304.40		-3.248E-01	1.422E+00	1.998E+00	4.396E-01	-0.163
		334.20		-8.090E-01	1.745E+00	2.378E+00	5.259E-01	-0.340
TH-227		79.80		-1.391E-01	1.208E+00	1.513E+00	3.293E-01	-0.092
	+	94.00		1.070E+01	2.974E+00	2.443E+00	5.364E-01	4.379
		236.00		-6.219E-02	1.714E-01	2.451E-01	3.642E-02	-0.254
		256.20	*	-6.964E-03	2.512E-01	4.076E-01	8.685E-02	-0.017
		286.10		-2.368E-01	1.085E+00	1.688E+00	1.708E+00	-0.140
	+	299.80		3.165E+00	1.401E+00	1.791E+00	3.817E-01	1.767
		304.40		-3.248E-01	1.422E+00	1.998E+00	4.396E-01	-0.163
		334.20		-8.090E-01	1.745E+00	2.378E+00	5.259E-01	-0.340
TH-229	+	85.43		3.679E-01	1.507E-01	1.924E-01	1.766E-02	1.912
	+	88.47		5.673E-01	1.044E-01	1.272E-01	1.201E-02	4.461
		100.00		1.367E-01	1.105E-01	1.951E-01	1.713E-02	0.700
		193.63	*	8.992E-02	3.166E-01	5.292E-01	5.811E-02	0.170
		210.97		1.167E+00	5.555E-01	8.753E-01	1.036E-01	1.333
PA-231		283.67	*	4.967E-01	1.037E+00	1.703E+00	3.374E-01	0.292
	+	301.29		1.266E+00	5.375E-01	7.064E-01	1.217E-01	1.792
TH-231		81.07		-1.190E-01	1.383E-01	1.914E-01	1.665E-02	-0.622
	+	83.78		2.458E-01	1.007E-01	1.355E-01	1.218E-02	1.814
		94.90		1.903E-01	1.433E-01	2.316E-01	2.086E-02	0.821
		122.32		-1.051E+00	1.085E+00	1.778E+00	1.618E-01	-0.591
	+	144.24		8.167E-01	5.346E-01	7.705E-01	7.677E-02	1.060
	+	154.21		3.697E-01	3.942E-01	4.632E-01	4.679E-02	0.798
	+	269.46		4.740E-01	2.168E-01	2.466E-01	3.710E-02	1.922
		323.87	*	6.686E-01	5.372E-01	7.989E-01	1.671E-01	0.837
	+	338.28		7.095E+00	1.697E+00	1.883E+00	3.032E-01	3.767
		445.03		-2.217E-01	1.514E+00	2.520E+00	3.458E-01	-0.088
U-231	+	84.21		2.571E+01	1.053E+01	1.421E+01	1.285E+00	1.808
	+	92.29		2.566E+01	4.954E+00	6.830E+00	6.258E-01	3.757
		95.87	*	-1.426E+00	1.729E+00	2.358E+00	2.112E-01	-0.605

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-5.582E-01	3.089E+00	5.251E+00	4.497E-01	-0.106
PA-233	+	75.28		2.322E+01	4.296E+00	4.318E+00	6.514E-01	5.378
	+	86.59		8.135E+00	2.551E+00	1.984E+00	5.368E-01	4.100
	+	300.12		8.823E-01	3.819E-01	4.976E-01	9.564E-02	1.773
		311.98	*	-2.369E-02	4.352E-02	6.749E-02	9.902E-03	-0.351
		340.50		1.369E+00	6.249E-01	8.123E-01	2.107E-01	1.685
		398.62		-1.236E+00	1.389E+00	2.172E+00	5.944E-01	-0.569
		415.76		2.201E-02	1.164E+00	1.965E+00	4.417E-01	0.011
PA-234	+	63.00		2.513E+00	1.501E+00	1.624E+00	2.404E-01	1.548
		94.67		2.452E-01	1.093E-01	1.759E-01	2.231E-02	1.394
		98.44		1.260E-01	9.282E-02	1.010E-01	5.640E-02	1.247
		99.86		4.019E-01	2.822E-01	4.996E-01	4.389E-02	0.804
		111.00		-1.231E-01	1.234E-01	1.912E-01	2.297E-02	-0.644
		131.20		2.250E-02	7.689E-02	1.142E-01	9.853E-03	0.197
		152.70		7.602E-02	2.419E-01	3.574E-01	6.209E-02	0.213
	+	186.00		6.144E+00	2.436E+00	1.904E+00	6.060E-01	3.227
		226.40		-8.355E-02	2.647E-01	4.275E-01	6.885E-02	-0.195
		227.20		4.519E-02	2.813E-01	4.636E-01	5.873E-02	0.097
		248.90		6.996E-02	5.552E-01	9.083E-01	2.260E-01	0.077
		293.70		4.348E+00	1.089E+00	1.108E+00	2.359E-01	3.924
		369.80		-7.486E-02	6.042E-01	9.482E-01	2.208E-01	-0.079
		568.70		-5.733E-01	6.890E-01	1.072E+00	1.113E-01	-0.535
		569.50		-4.693E-02	1.887E-01	3.060E-01	3.176E-02	-0.153
		574.00		4.773E-01	1.076E+00	1.814E+00	1.877E-01	0.263
		699.00		-3.220E-01	4.975E-01	7.632E-01	1.491E-01	-0.422
		706.10		2.262E-01	7.195E-01	1.178E+00	5.276E-01	0.192
		733.00		9.916E-02	2.853E-01	4.152E-01	9.398E-02	0.239
		742.81		6.079E-01	1.034E+00	1.601E+00	1.078E+00	0.380
	+	796.30		2.863E+00	1.205E+00	1.313E+00	3.606E-01	2.180
		805.60		1.074E+00	7.851E-01	1.262E+00	3.914E-01	0.851
		819.60		-3.204E-01	8.582E-01	1.314E+00	5.034E-01	-0.244
		826.30		-5.104E-02	5.872E-01	9.301E-01	4.185E-01	-0.055
		831.60		-4.336E-01	5.134E-01	7.242E-01	2.189E-01	-0.599
		876.40		-3.381E-01	6.577E-01	8.960E-01	9.221E-01	-0.377
		880.51		7.853E-02	1.839E-01	3.181E-01	3.134E-02	0.247
		883.24		-1.415E-01	2.129E-01	3.020E-01	2.035E-01	-0.468
		899.00		-1.998E-01	5.763E-01	8.635E-01	3.797E-01	-0.231
		925.00		2.829E-01	7.654E-01	1.315E+00	1.282E-01	0.215
		926.50		-6.192E-02	1.187E-01	1.888E-01	4.850E-02	-0.328
		946.00	*	6.149E-03	2.309E-01	3.361E-01	6.475E-02	0.018
		949.00		2.029E-01	2.960E-01	5.176E-01	4.996E-02	0.392
		980.50		-1.816E-01	4.725E-01	7.614E-01	7.234E-02	-0.239
		1394.10		8.609E-02	7.188E-01	1.173E+00	7.633E-01	0.073
PA-234M		766.42		6.899E+00	1.039E+01	1.454E+01	7.407E+00	0.474
	+	1001.03	*	4.347E+00	3.843E+00	5.827E+00	6.199E-01	0.746
NP-236		94.67		1.878E-01	8.131E-02	1.336E-01	1.205E-02	1.406
		98.44		9.518E-02	4.655E-02	7.637E-02	6.751E-03	1.246
		111.00		-9.309E-02	9.297E-02	1.446E-01	1.231E-02	-0.644
		160.31	*	1.536E-02	5.128E-02	8.663E-02	8.242E-03	0.177

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.754E-01	9.603E-02	1.709E-01	1.503E-02	1.027
		117.00	*	-6.419E-02	1.181E-01	1.975E-01	1.671E-02	-0.325
	+	209.75		2.582E+00	7.706E-01	1.035E+00	1.218E-01	2.495
		228.18		1.333E-02	1.498E-01	2.461E-01	3.129E-02	0.054
	+	277.60		2.627E-01	1.573E-01	2.268E-01	3.491E-02	1.158
		334.30		-4.460E-01	9.861E-01	1.349E+00	1.843E-01	-0.331
AM-241		59.54	*	-5.591E-02	8.961E-02	1.277E-01	1.003E-02	-0.438
CM-243		99.55		1.805E-01	9.886E-02	1.759E-01	1.547E-02	1.027
		103.76	*	-1.533E-02	5.589E-02	9.488E-02	8.216E-03	-0.162
		117.00		-6.607E-02	1.216E-01	2.033E-01	1.720E-02	-0.325
	+	209.75		2.546E+00	7.599E-01	1.020E+00	1.201E-01	2.495
		228.18		1.347E-02	1.514E-01	2.487E-01	3.163E-02	0.054
	+	277.60		2.649E-01	1.586E-01	2.287E-01	3.521E-02	1.158
AM-246		798.80		-1.194E-02	9.504E-02	1.306E-01	1.281E-02	-0.091
		1036.00		-8.775E-02	1.933E-01	3.077E-01	2.823E-02	-0.285
		1062.04		-3.262E-02	1.514E-01	2.459E-01	2.212E-02	-0.133
		1078.86	*	1.513E-02	9.826E-02	1.641E-01	1.455E-02	0.092
CM-247	+	278.00		1.089E+00	6.523E-01	9.503E-01	1.465E-01	1.146
		287.40		-5.320E-03	8.288E-01	1.335E+00	2.040E-01	-0.004
		402.60	*	6.912E-03	2.440E-02	4.178E-02	4.471E-03	0.165
CF-249		252.85		-2.616E-02	5.712E-01	9.269E-01	1.301E-01	-0.028
		333.44		-1.179E-01	1.505E-01	1.802E-01	2.468E-02	-0.654
		387.95	*	3.526E-02	2.653E-02	4.723E-02	5.143E-03	0.746
CF-251		176.60	*	3.120E-02	8.228E-02	1.386E-01	1.412E-02	0.225
		227.00		-1.574E-02	2.513E-01	4.105E-01	5.195E-02	-0.038
		285.00		1.063E+00	1.197E+00	1.993E+00	3.057E-01	0.534

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245385005      *
* Acquisition date :  4-FEB-2010 22:52:40 Detector SN#     :               *
* Detector ID        : GAM11               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 04:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 04:00:03.14     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 15-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245385005           Analyst initials: MXR1         *
* Batch Number       : 944962               Sample Quantity : 1.1057E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.141E+01	2.113E+00	3.445E-01	0.000E+00
CD-109	4.262E+00	7.683E-01	6.925E-01	0.000E+00
SN-126	4.155E-01	7.491E-02	6.774E-02	0.000E+00
BA-137M	2.279E-02	3.461E-02	4.354E-02	0.000E+00
CS-137	2.409E-02	3.658E-02	4.602E-02	0.000E+00
RE-188	1.688E-01	1.763E-01	1.921E-01	0.000E+00
TL-208	5.786E-01	8.830E-02	3.751E-02	0.000E+00
BI-210	1.903E+00	2.570E+00	2.586E+00	0.000E+00
PB-210	1.903E+00	2.570E+00	2.586E+00	0.000E+00
PO-210	1.903E+00	2.569E+00	2.586E+00	0.000E+00
BI-211	4.215E+00	6.362E-01	2.145E-01	0.000E+00
PB-212	1.934E+00	2.792E-01	6.115E-02	0.000E+00
PO-212	1.934E+00	2.792E-01	6.115E-02	0.000E+00
BI-214	1.356E+00	1.895E-01	7.718E-02	0.000E+00
PB-214	1.466E+00	2.337E-01	7.477E-02	0.000E+00
PO-214	1.466E+00	2.337E-01	7.477E-02	0.000E+00
PO-216	1.934E+00	2.792E-01	6.115E-02	0.000E+00
PO-218	1.466E+00	2.337E-01	7.477E-02	0.000E+00
RA-224	5.149E+00	1.248E+00	6.961E-01	0.000E+00
RA-226	1.356E+00	1.895E-01	7.718E-02	0.000E+00
AC-228	1.810E+00	3.092E-01	1.425E-01	0.000E+00
RA-228	1.810E+00	3.092E-01	1.425E-01	0.000E+00
TH-228	1.973E+00	2.849E-01	6.241E-02	0.000E+00
TH-230	1.356E+00	1.895E-01	7.717E-02	0.000E+00
TH-232	1.810E+00	3.092E-01	1.425E-01	0.000E+00
TH-234	2.156E+00	1.276E+00	1.184E+00	0.000E+00
U-234	1.356E+00	1.895E-01	7.717E-02	0.000E+00
U-235	2.520E-01	1.656E-01	2.187E-01	0.000E+00
NP-237	1.220E+00	3.306E-01	2.005E-01	0.000E+00
U-238	2.156E+00	1.276E+00	1.184E+00	0.000E+00
AM-243	4.434E-01	5.845E-02	5.265E-02	0.000E+00
ANH-511	1.083E-01	5.728E-02	3.300E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-1.154E-01	2.440E-01	3.927E-01	0.000E+00	NOT IDENT.
NA-22	-1.407E-03	2.893E-02	4.760E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.854E+08	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.812E-03	2.134E-02	3.495E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.737E-02	4.678E-02	0.000E+00	FAIL ABUN
SC-46	1.729E-02	2.587E-02	4.626E-02	0.000E+00	FAIL ABUN
V-48	5.189E-02	5.590E-02	1.011E-01	0.000E+00	NOT IDENT.
CR-51	-2.279E-01	2.921E-01	4.573E-01	0.000E+00	NOT IDENT.
MN-52	8.202E-02	3.221E-01	5.406E-01	0.000E+00	FAIL ABUN
MN-54	1.708E-02	2.693E-02	4.788E-02	0.000E+00	NOT IDENT.
CO-56	5.985E-04	2.751E-02	4.729E-02	0.000E+00	FAIL ABUN
CO-57	-1.170E-02	1.540E-02	2.636E-02	0.000E+00	NOT IDENT.
CO-58	-3.932E-02	2.895E-02	4.157E-02	0.000E+00	NOT IDENT.
FE-59	-5.745E-02	6.599E-02	1.026E-01	0.000E+00	FAIL ABUN
CO-60	9.429E-03	2.706E-02	4.528E-02	0.000E+00	NOT IDENT.
ZN-65	-4.004E-02	7.388E-02	9.647E-02	0.000E+00	NOT IDENT.
GE-68	5.675E-02	8.371E-01	1.413E+00	0.000E+00	NOT IDENT.
AS-73	-8.825E-02	4.524E-01	7.281E-01	0.000E+00	NOT IDENT.
AS-74	-4.692E-02	7.813E-02	1.260E-01	0.000E+00	NOT IDENT.
SE-75	-1.520E-02	3.044E-02	4.689E-02	0.000E+00	NOT IDENT.
BR-77	0.000E+00	3.253E+01	0.000E+00	0.000E+00	SHORT HLIF
SR-82	-7.904E-02	3.174E-01	4.402E-01	0.000E+00	NOT IDENT.
RB-83	-3.197E-03	4.808E-02	8.124E-02	0.000E+00	NOT IDENT.
RB-84	4.340E-02	4.928E-02	8.928E-02	0.000E+00	NOT IDENT.
KR-85	7.585E+00	4.994E+00	8.994E+00	0.000E+00	NOT IDENT.
SR-85	4.115E-02	2.709E-02	4.879E-02	0.000E+00	NOT IDENT.
RB-86	-2.031E-01	6.366E-01	1.042E+00	0.000E+00	NOT IDENT.
Y-88	-2.028E-02	2.662E-02	3.950E-02	0.000E+00	NOT IDENT.
ZR-88	-9.392E-03	2.078E-02	3.524E-02	0.000E+00	NOT IDENT.
Y-91	1.050E+00	1.282E+01	2.144E+01	0.000E+00	NOT IDENT.
NB-94	9.456E-03	2.300E-02	3.898E-02	0.000E+00	NOT IDENT.
NB-95	8.058E-03	3.783E-02	5.509E-02	0.000E+00	NOT IDENT.
NB-95M	-6.661E-02	9.728E-02	1.405E-01	0.000E+00	NOT IDENT.
ZR-95	8.668E-02	5.169E-02	9.338E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.551E+07	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.509E+08	0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.798E-02	3.049E+01	5.013E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.684E+22	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.904E-03	2.316E-02	3.719E-02	0.000E+00	NOT IDENT.
RH-102	6.411E-03	1.903E-02	3.311E-02	0.000E+00	NOT IDENT.
RU-103	-4.681E-03	2.800E-02	4.718E-02	0.000E+00	FAIL ABUN
RH-106	-7.523E-02	2.134E-01	3.477E-01	0.000E+00	FAIL ABUN
RU-106	-7.523E-02	2.133E-01	3.477E-01	0.000E+00	FAIL ABUN
AG-108M	3.124E-03	2.094E-02	3.632E-02	0.000E+00	NOT IDENT.
AG-110M	-1.014E-02	2.840E-02	3.994E-02	0.000E+00	FAIL ABUN
IN-111	-1.633E-01	2.881E+00	4.298E+00	0.000E+00	NOT IDENT.
IN-113M	-2.110E-02	2.943E-02	4.916E-02	0.000E+00	NOT IDENT.
SN-113	-2.110E-02	2.943E-02	4.916E-02	0.000E+00	NOT IDENT.
IN-114M	2.145E-02	1.314E-01	2.025E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.822E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.506E-03	5.076E-02	7.864E-02	0.000E+00	NOT IDENT.
SB-122	4.885E+00	5.490E+00	9.689E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.440E+09	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.747E-03	1.928E-02	3.193E-02	0.000E+00	NOT IDENT.
I-124	6.966E-01	1.155E+00	1.997E+00	0.000E+00	NOT IDENT.
SB-124	3.395E-02	5.547E-02	1.005E-01	0.000E+00	FAIL ABUN
SB-125	1.723E-02	5.889E-02	1.030E-01	0.000E+00	FAIL ABUN
TE-125M	3.972E+00	5.957E+00	1.070E+01	0.000E+00	NOT IDENT.
I-126	2.478E-01	2.011E-01	3.195E-01	0.000E+00	NOT IDENT.
SB-126	1.259E-01	1.332E-01	2.326E-01	0.000E+00	FAIL ABUN
SB-127	-2.846E+00	2.644E+00	4.022E+00	0.000E+00	NOT IDENT.
XE-127	-3.252E-02	3.411E-02	5.565E-02	0.000E+00	FAIL ABUN
I-131	-6.533E-02	1.280E-01	2.014E-01	0.000E+00	NOT IDENT.
TE-132	4.699E-01	1.398E+00	2.382E+00	0.000E+00	NOT IDENT.
BA-133	1.446E-02	3.204E-02	4.775E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.962E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.842E-02	6.920E-02	0.000E+00	FAIL ABUN
CS-135	8.257E-02	1.205E-01	1.795E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.832E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.010E-03	9.438E-02	1.592E-01	0.000E+00	FAIL ABUN
CE-139	-9.498E-03	1.925E-02	3.259E-02	0.000E+00	NOT IDENT.
BA-140	-1.193E-01	2.304E-01	3.717E-01	0.000E+00	NOT IDENT.
LA-140	1.975E-02	9.720E-02	1.459E-01	0.000E+00	FAIL ABUN

CE-141	2.995E-02	4.651E-02	7.454E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.084E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.731E-02	1.391E-01	2.151E-01	0.000E+00	NOT IDENT.
PM-144	-1.158E-02	2.395E-02	3.829E-02	0.000E+00	NOT IDENT.
PR-144	-7.871E-01	1.628E+00	2.602E+00	0.000E+00	NOT IDENT.
PM-146	7.243E-03	2.958E-02	5.135E-02	0.000E+00	NOT IDENT.
ND-147	-1.827E-01	5.242E-01	8.679E-01	0.000E+00	FAIL ABUN
PM-149	0.000E+00	3.337E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.833E-02	6.966E-02	1.063E-01	0.000E+00	FAIL ABUN
GD-153	-1.998E-02	5.581E-02	8.093E-02	0.000E+00	FAIL ABUN
EU-154	-4.550E-03	8.054E-02	1.324E-01	0.000E+00	NOT IDENT.
EU-155	5.325E-02	6.966E-02	1.162E-01	0.000E+00	FAIL ABUN
TB-160	5.402E-03	9.442E-02	1.622E-01	0.000E+00	FAIL ABUN
HO-166M	7.680E-03	4.088E-02	6.832E-02	0.000E+00	FAIL ABUN
TM-171	-4.676E+00	1.723E+01	2.579E+01	0.000E+00	NOT IDENT.
LU-176	1.095E-02	1.648E-02	2.792E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.856E+00	2.433E+00	0.000E+00	FAIL ABUN
LU-177M	-6.409E-02	1.363E-01	2.011E-01	0.000E+00	NOT IDENT.
HF-181	-2.124E-03	3.151E-02	5.360E-02	0.000E+00	NOT IDENT.
W-181	-1.065E-01	2.217E-01	3.293E-01	0.000E+00	NOT IDENT.
TA-182	1.183E-02	1.400E-01	2.336E-01	0.000E+00	FAIL ABUN
RE-183	-2.249E-03	7.847E-02	1.270E-01	0.000E+00	FAIL ABUN
RE-184	-7.128E-03	1.525E-01	2.545E-01	0.000E+00	NOT IDENT.
OS-185	-8.851E-03	2.872E-02	4.675E-02	0.000E+00	NOT IDENT.
W-188	-7.556E+00	5.707E+00	7.493E+00	0.000E+00	FAIL ABUN
IR-192	-1.079E-02	2.471E-02	3.961E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	1.439E-01	2.589E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	9.823E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	6.104E+00	1.465E+01	2.556E+01	0.000E+00	NOT IDENT.
TL-202	3.040E-03	6.175E-02	1.065E-01	0.000E+00	NOT IDENT.
HG-203	4.319E-02	3.437E-02	5.230E-02	0.000E+00	NOT IDENT.
BI-207	2.587E-03	3.498E-02	5.914E-02	0.000E+00	FAIL ABUN
TL-207	6.686E-01	5.264E-01	8.037E-01	0.000E+00	FAIL ABUN
PO-209	3.100E-01	4.534E+00	7.785E+00	0.000E+00	NOT IDENT.
PB-211	-3.740E-01	7.301E-01	1.020E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.504E-01	5.103E-01	0.000E+00	FAIL ABUN
PO-215	6.686E-01	5.264E-01	8.037E-01	0.000E+00	FAIL ABUN
RN-219	1.055E-01	2.625E-01	4.625E-01	0.000E+00	FAIL ABUN
RN-220	2.632E+00	1.715E+01	2.923E+01	0.000E+00	NOT IDENT.
RA-223	6.686E-01	5.264E-01	8.037E-01	0.000E+00	FAIL ABUN
AC-227	-6.964E-03	2.462E-01	4.108E-01	0.000E+00	FAIL ABUN
TH-227	-6.964E-03	2.462E-01	4.108E-01	0.000E+00	FAIL ABUN
TH-229	8.992E-02	3.103E-01	5.345E-01	0.000E+00	FAIL ABUN
PA-231	4.967E-01	1.016E+00	1.715E+00	0.000E+00	FAIL ABUN
TH-231	6.686E-01	5.264E-01	8.037E-01	0.000E+00	FAIL ABUN
U-231	-1.426E+00	1.694E+00	2.394E+00	0.000E+00	FAIL ABUN
PA-233	-2.369E-02	4.265E-02	6.791E-02	0.000E+00	FAIL ABUN
PA-234	6.149E-03	2.263E-01	3.354E-01	0.000E+00	FAIL ABUN
PA-234M	4.347E+00	3.767E+00	5.813E+00	0.000E+00	FAIL ABUN
NP-236	1.536E-02	5.026E-02	8.761E-02	0.000E+00	NOT IDENT.
NP-239	-6.419E-02	1.157E-01	2.002E-01	0.000E+00	FAIL ABUN
AM-241	-5.591E-02	8.781E-02	1.300E-01	0.000E+00	NOT IDENT.
CM-243	-1.533E-02	5.477E-02	9.626E-02	0.000E+00	FAIL ABUN
AM-246	1.513E-02	9.630E-02	1.636E-01	0.000E+00	NOT IDENT.
CM-247	6.912E-03	2.391E-02	4.196E-02	0.000E+00	FAIL ABUN
CF-249	3.526E-02	2.600E-02	4.745E-02	0.000E+00	NOT IDENT.
CF-251	3.120E-02	8.063E-02	1.401E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 02:53:02.25

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245385005.CNF;1
Sample date       : 15-JAN-2010 12:00:00 Acquisition date : 4-FEB-2010 22:52:40.
Sample ID         : G245385005           Sample quantity  : 1.10570E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:03.14  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1649	10.67*	1.225E+00	2.141E+01	2.141E+01	10.07
CD-109	88.03	615	3.72*	6.793E+00	4.133E+00	4.262E+00	18.39
SN-126	64.28	209	9.60	4.325E+00	8.533E-01	8.533E-01	59.63
	86.94	615	8.90	6.793E+00	1.728E+00	1.728E+00	44.44
	87.57	615	37.00*	6.793E+00	4.155E-01	4.155E-01	18.39
BA-137M	661.65	29	89.98*	2.402E+00	2.276E-02	2.279E-02	154.96
CS-137	661.65	29	85.12*	2.402E+00	2.406E-02	2.409E-02	154.96
RE-188	155.03	83	15.00*	6.820E+00	1.375E-01	1.688E-01	106.56
	477.96	------	1.04	3.110E+00	------ Line Not Found		------
	633.10	------	1.26	2.491E+00	------ Line Not Found		------
TL-208	277.35	102	6.80	4.675E+00	5.446E-01	5.446E-01	60.53
	510.84	188	21.60	2.954E+00	5.013E-01	5.013E-01	54.62
	583.14	764	84.20*	2.660E+00	5.786E-01	5.786E-01	15.57
	860.37	92	12.46	1.926E+00	6.509E-01	6.509E-01	54.81
BI-210	46.50	71	4.05*	1.572E+00	1.900E+00	1.903E+00	137.79
PB-210	46.50	71	4.05*	1.572E+00	1.900E+00	1.903E+00	137.79
PO-210	46.50	71	4.05*	1.572E+00	1.900E+00	1.903E+00	137.73
BI-211	72.87	------	1.27	5.576E+00	------ Line Not Found		------
	351.07	1260	12.94*	3.920E+00	4.215E+00	4.215E+00	15.40
PB-212	74.81	999	10.70	5.794E+00	2.735E+00	2.735E+00	16.38
	77.11	1533	18.00	6.023E+00	2.401E+00	2.401E+00	10.91
	87.30	615	8.00	6.793E+00	1.922E+00	1.922E+00	20.94
	238.63	2646	44.60*	5.209E+00	1.934E+00	1.934E+00	14.73
	300.09	151	3.41	4.413E+00	1.708E+00	1.708E+00	41.97
PO-212	74.81	999	10.70	5.794E+00	2.735E+00	2.735E+00	16.38
	77.11	1533	18.00	6.023E+00	2.401E+00	2.401E+00	10.91
	87.30	615	8.00	6.793E+00	1.922E+00	1.922E+00	20.94
	115.19	------	0.60	7.407E+00	------ Line Not Found		------
	238.63	2646	44.60*	5.209E+00	1.934E+00	1.934E+00	14.73
	300.09	151	3.41	4.413E+00	1.708E+00	1.708E+00	41.97
BI-214	609.31	950	46.30*	2.569E+00	1.356E+00	1.356E+00	14.26
	1120.29	206	15.10	1.530E+00	1.511E+00	1.511E+00	31.99

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	200	15.80	1.070E+00	2.004E+00	2.004E+00	18.23
PB-214	74.81	999	6.21	5.794E+00	4.712E+00	4.712E+00	15.36
	77.11	1533	10.50	6.023E+00	4.115E+00	4.115E+00	13.31
	87.30	615	4.67	6.793E+00	3.292E+00	3.292E+00	19.94
	241.98	619	7.49	5.163E+00	2.715E+00	2.715E+00	25.36
	295.21	862	19.20	4.466E+00	1.707E+00	1.707E+00	18.62
	351.92	1260	37.20*	3.920E+00	1.466E+00	1.466E+00	16.26
PO-214	74.81	999	6.21	5.794E+00	4.712E+00	4.712E+00	15.36
	77.11	1533	10.50	6.023E+00	4.115E+00	4.115E+00	13.31
	87.30	615	4.67	6.793E+00	3.292E+00	3.292E+00	19.94
	241.98	619	7.49	5.163E+00	2.715E+00	2.715E+00	25.36
	295.21	862	19.20	4.466E+00	1.707E+00	1.707E+00	18.62
	351.92	1260	37.20*	3.920E+00	1.466E+00	1.466E+00	16.26
PO-216	74.81	999	10.70	5.794E+00	2.735E+00	2.735E+00	16.38
	77.11	1533	18.00	6.023E+00	2.401E+00	2.401E+00	10.91
	87.30	615	8.00	6.793E+00	1.922E+00	1.922E+00	20.94
	238.63	2646	44.60*	5.209E+00	1.934E+00	1.934E+00	14.73
	300.09	151	3.41	4.413E+00	1.708E+00	1.708E+00	41.97
PO-218	74.81	999	6.21	5.794E+00	4.712E+00	4.712E+00	15.36
	77.11	1533	10.50	6.023E+00	4.115E+00	4.115E+00	13.31
	87.30	615	4.67	6.793E+00	3.292E+00	3.292E+00	19.94
	241.98	619	7.49	5.163E+00	2.715E+00	2.715E+00	25.36
	295.21	862	19.20	4.466E+00	1.707E+00	1.707E+00	18.62
	351.92	1260	37.20*	3.920E+00	1.466E+00	1.466E+00	16.26
RA-224	240.98	619	3.95*	5.163E+00	5.149E+00	5.149E+00	24.73
RA-226	609.31	950	46.30*	2.569E+00	1.356E+00	1.356E+00	14.26
	1120.29	206	15.10	1.530E+00	1.511E+00	1.511E+00	31.99
	1764.49	200	15.80	1.070E+00	2.004E+00	2.004E+00	18.23
AC-228	338.32	461	11.40	4.037E+00	1.699E+00	1.699E+00	46.07
	911.07	541	27.70*	1.833E+00	1.810E+00	1.810E+00	17.43
	969.11	316	16.60	1.737E+00	1.859E+00	1.859E+00	28.64
RA-228	338.32	461	11.40	4.037E+00	1.699E+00	1.699E+00	46.07
	911.07	541	27.70*	1.833E+00	1.810E+00	1.810E+00	17.43
	969.11	316	16.60	1.737E+00	1.859E+00	1.859E+00	28.64
TH-228	74.81	999	10.70	5.794E+00	2.735E+00	2.791E+00	13.50
	77.11	1533	18.00	6.023E+00	2.401E+00	2.450E+00	10.91
	87.30	615	8.00	6.793E+00	1.922E+00	1.962E+00	18.39
	238.63	2646	44.60*	5.209E+00	1.934E+00	1.973E+00	14.73
	300.09	151	3.41	4.413E+00	1.708E+00	1.743E+00	71.88
TH-230	609.31	950	46.30*	2.569E+00	1.356E+00	1.356E+00	14.26
	1120.29	206	15.10	1.530E+00	1.511E+00	1.511E+00	31.99
	1764.49	200	15.80	1.070E+00	2.004E+00	2.004E+00	18.23
TH-232	338.32	461	11.40	4.037E+00	1.699E+00	1.699E+00	22.24
	911.07	541	27.70*	1.833E+00	1.810E+00	1.810E+00	17.43
	969.11	316	16.60	1.737E+00	1.859E+00	1.859E+00	28.64
TH-234	63.29	209	3.80*	4.325E+00	2.156E+00	2.156E+00	60.41
	92.38	623	5.41	7.058E+00	2.768E+00	2.768E+00	25.01
U-234	609.31	950	46.30*	2.569E+00	1.356E+00	1.356E+00	14.26
	1120.29	206	15.10	1.530E+00	1.511E+00	1.511E+00	31.99

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	200	15.80	1.070E+00	2.004E+00	2.004E+00	18.23
U-235	89.95	414	2.70	6.932E+00	3.758E+00	3.758E+00	37.24
	93.35	623	4.50	7.058E+00	3.328E+00	3.328E+00	32.92
	105.00	------	2.10	7.364E+00	------	Line Not Found	------
	143.76	110	10.50*	7.031E+00	2.520E-01	2.520E-01	67.07
	163.35	------	4.70	6.629E+00	------	Line Not Found	------
	185.71	446	54.00	6.156E+00	2.276E-01	2.276E-01	25.92
	205.31	------	4.70	5.777E+00	------	Line Not Found	------
NP-237	86.50	615	12.60*	6.793E+00	1.220E+00	1.220E+00	27.64
	95.87	------	2.60	7.169E+00	------	Line Not Found	------
U-238	63.29	209	3.80*	4.325E+00	2.156E+00	2.156E+00	60.41
	92.38	623	5.41	7.058E+00	2.768E+00	2.768E+00	19.30
AM-243	74.67	999	66.00*	5.794E+00	4.434E-01	4.434E-01	13.45
	86.72	615	0.34	6.793E+00	4.576E+01	4.576E+01	18.39
	117.66	------	0.55	7.397E+00	------	Line Not Found	------
	142.18	------	0.13	7.065E+00	------	Line Not Found	------
ANH-511	511.00	188	100.00*	2.954E+00	1.083E-01	1.083E-01	53.98

Flag: "*" = Keyline

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

Total number of lines in spectrum 49
Number of unidentified lines 9
Number of lines tentatively identified by NID 40 81.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.141E+01	2.141E+01	0.216E+01	10.07	
CD-109	464.00D	1.03	4.133E+00	4.262E+00	0.784E+00	18.39	
SN-126	1.00E+05Y	1.00	4.155E-01	4.155E-01	0.764E-01	18.39	
BA-137M	30.17Y	1.00	2.276E-02	2.279E-02	3.531E-02	154.96	
CS-137	30.17Y	1.00	2.406E-02	2.409E-02	3.733E-02	154.96	
RE-188	69.40D	1.23	1.375E-01	1.688E-01	1.799E-01	106.56	
TL-208	1.41E+10Y	1.00	5.786E-01	5.786E-01	0.901E-01	15.57	
BI-210	22.26Y	1.00	1.900E+00	1.903E+00	2.622E+00	137.79	
PB-210	22.26Y	1.00	1.900E+00	1.903E+00	2.622E+00	137.79	
PO-210	22.26Y	1.00	1.900E+00	1.903E+00	2.621E+00	137.73	
BI-211	7.04E+08Y	1.00	4.215E+00	4.215E+00	0.649E+00	15.40	
PB-212	1.41E+10Y	1.00	1.934E+00	1.934E+00	0.285E+00	14.73	
PO-212	1.41E+10Y	1.00	1.934E+00	1.934E+00	0.285E+00	14.73	
BI-214	1600.00Y	1.00	1.356E+00	1.356E+00	0.193E+00	14.26	
PB-214	1600.00Y	1.00	1.466E+00	1.466E+00	0.238E+00	16.26	
PO-214	1600.00Y	1.00	1.466E+00	1.466E+00	0.238E+00	16.26	
PO-216	1.41E+10Y	1.00	1.934E+00	1.934E+00	0.285E+00	14.73	
PO-218	1600.00Y	1.00	1.466E+00	1.466E+00	0.238E+00	16.26	
RA-224	1.41E+10Y	1.00	5.149E+00	5.149E+00	1.273E+00	24.73	
RA-226	1600.00Y	1.00	1.356E+00	1.356E+00	0.193E+00	14.26	
AC-228	1.41E+10Y	1.00	1.810E+00	1.810E+00	0.315E+00	17.43	
RA-228	1.41E+10Y	1.00	1.810E+00	1.810E+00	0.315E+00	17.43	
TH-228	1.91Y	1.02	1.934E+00	1.973E+00	0.291E+00	14.73	
TH-230	4.47E+09Y	1.00	1.356E+00	1.356E+00	0.193E+00	14.26	
TH-232	1.41E+10Y	1.00	1.810E+00	1.810E+00	0.315E+00	17.43	
TH-234	4.47E+09Y	1.00	2.156E+00	2.156E+00	1.302E+00	60.41	
U-234	4.47E+09Y	1.00	1.356E+00	1.356E+00	0.193E+00	14.26	
U-235	7.04E+08Y	1.00	2.520E-01	2.520E-01	1.690E-01	67.07	
NP-237	2.14E+06Y	1.00	1.220E+00	1.220E+00	0.337E+00	27.64	
U-238	4.47E+09Y	1.00	2.156E+00	2.156E+00	1.302E+00	60.41	
AM-243	7380.00Y	1.00	4.434E-01	4.434E-01	0.596E-01	13.45	
ANH-511	1.00E+09Y	1.00	1.083E-01	1.083E-01	0.584E-01	53.98	
	Total Activity :		7.111E+01	7.132E+01			

Grand Total Activity : 7.111E+01 7.132E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.27	236	687	1.18	167.45	163	29	1.64E-02	40.0	6.61E+00	T
0	128.91	143	699	0.77	256.80	253	9	9.91E-03	70.2	7.29E+00	T
0	209.42	281	404	1.11	417.94	415	8	1.95E-02	27.4	5.70E+00	T
0	270.33	181	382	1.22	539.84	535	10	1.26E-02	43.2	4.76E+00	T
0	328.28	153	275	1.02	655.82	652	9	1.06E-02	42.4	4.13E+00	T
0	409.67	60	228	1.08	818.72	814	9	4.16E-03	94.5	3.50E+00	T
0	463.19	127	203	1.05	925.81	921	10	8.84E-03	45.4	3.19E+00	T
0	727.82	153	152	1.44	1455.38	1450	10	1.06E-02	34.5	2.22E+00	T
0	770.10	154	186	4.25	1539.99	1531	20	1.07E-02	46.9	2.12E+00	
0	795.51	136	79	1.46	1590.82	1585	12	9.42E-03	31.9	2.06E+00	T
0	936.79	113	96	6.53	1873.52	1865	21	7.84E-03	48.9	1.79E+00	T
3	965.44	81	78	2.10	1930.85	1926	19	5.62E-03	51.1	1.74E+00	T
0	1002.13	36	66	0.97	2004.25	1999	9	2.52E-03	87.8	1.69E+00	T
0	1238.76	75	107	1.89	2477.68	2472	11	5.18E-03	58.5	1.40E+00	T
0	1378.86	51	48	1.85	2757.97	2752	12	3.57E-03	61.8	1.28E+00	
0	1410.52	20	44	0.72	2821.30	2811	12	1.36E-03	****	1.26E+00	
0	1496.45	30	16	2.65	2993.20	2988	11	2.05E-03	64.7	1.20E+00	
1	1588.80	50	35	2.07	3177.94	3173	19	3.47E-03	50.3	1.15E+00	
1	1593.64	33	28	2.08	3187.62	3173	19	2.26E-03	71.8	1.15E+00	
0	1632.29	30	14	1.74	3264.94	3260	11	2.08E-03	63.2	1.13E+00	
0	1730.98	51	4	0.76	3462.34	3455	15	3.57E-03	32.3	1.08E+00	
0	1848.90	27	21	1.76	3698.21	3689	14	1.85E-03	82.8	1.04E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 02:53:06.73

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245385005.CNF;1  *
* Acquisition date : 4-FEB-2010 22:52:40.  Detector SN#     :               *
* Detector ID      : GAM11                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 04:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 04:00:03.14         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 15-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245385005            Analyst initials: MXR1           *
* Batch Number     : 944962                Sample Quantity : 1.10570E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.141E+01	2.156E+00	3.464E-01	2.995E-02	61.825
CD-109	4.262E+00	7.840E-01	6.817E-01	6.464E-02	6.252
SN-126	4.155E-01	7.644E-02	6.668E-02	6.290E-03	6.232
BA-137M	2.279E-02	3.531E-02	4.351E-02	4.117E-03	0.524
CS-137	2.409E-02	3.733E-02	4.599E-02	4.359E-03	0.524
RE-188	1.688E-01	1.799E-01	1.899E-01	1.771E-02	0.889
TL-208	5.786E-01	9.010E-02	3.745E-02	4.045E-03	15.449
BI-210	1.903E+00	2.622E+00	2.534E+00	2.359E-01	0.751
PB-210	1.903E+00	2.622E+00	2.534E+00	2.359E-01	0.751
PO-210	1.903E+00	2.621E+00	2.534E+00	2.136E-01	0.751
BI-211	4.215E+00	6.492E-01	2.133E-01	2.814E-02	19.759
PB-212	1.934E+00	2.849E-01	6.065E-02	8.494E-03	31.880
PO-212	1.934E+00	2.849E-01	6.065E-02	8.494E-03	31.880
BI-214	1.356E+00	1.934E-01	7.708E-02	8.713E-03	17.595
PB-214	1.466E+00	2.384E-01	7.437E-02	1.052E-02	19.717
PO-214	1.466E+00	2.384E-01	7.437E-02	1.052E-02	19.717
PO-216	1.934E+00	2.849E-01	6.065E-02	8.494E-03	31.880
PO-218	1.466E+00	2.384E-01	7.437E-02	1.052E-02	19.717

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	5.149E+00	1.273E+00	6.904E-01	9.247E-02	7.457
RA-226	1.356E+00	1.934E-01	7.708E-02	8.713E-03	17.595
AC-228	1.810E+00	3.155E-01	1.428E-01	1.738E-02	12.676
RA-228	1.810E+00	3.155E-01	1.428E-01	1.738E-02	12.676
TH-228	1.973E+00	2.907E-01	6.190E-02	8.669E-03	31.881
TH-230	1.356E+00	1.934E-01	7.708E-02	8.713E-03	17.595
TH-232	1.810E+00	3.155E-01	1.428E-01	1.738E-02	12.676
TH-234	2.156E+00	1.302E+00	1.163E+00	2.023E-01	1.854
U-234	1.356E+00	1.934E-01	7.708E-02	8.713E-03	17.595
U-235	2.520E-01	1.690E-01	2.161E-01	3.821E-02	1.166
NP-237	1.220E+00	3.373E-01	1.974E-01	4.467E-02	6.183
U-238	2.156E+00	1.302E+00	1.163E+00	2.023E-01	1.854
AM-243	4.434E-01	5.964E-02	5.177E-02	4.190E-03	8.564
ANH-511	1.083E-01	5.845E-02	3.292E-02	3.520E-03	3.290

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.154E-01		2.490E-01	3.915E-01	4.430E-02	-0.295
NA-22	-1.407E-03		2.952E-02	4.780E-02	3.926E-03	-0.029
NA-24	-3.313E+01		9.458E+01	Half-Life too short		
AL-26	-2.812E-03		2.178E-02	3.520E-02	2.873E-03	-0.080
TI-44	4.431E-01	+	4.833E-02	4.602E-02	3.879E-03	9.629
SC-46	1.729E-02		2.640E-02	4.633E-02	4.564E-03	0.373
V-48	5.189E-02		5.704E-02	1.013E-01	9.608E-03	0.512
CR-51	-2.279E-01		2.981E-01	4.545E-01	6.596E-02	-0.501
MN-52	8.202E-02		3.286E-01	5.434E-01	4.553E-02	0.151
MN-54	1.708E-02		2.748E-02	4.793E-02	4.720E-03	0.356
CO-56	5.985E-04		2.807E-02	4.735E-02	4.665E-03	0.013
CO-57	-1.170E-02		1.572E-02	2.601E-02	2.200E-03	-0.450
CO-58	-3.932E-02		2.955E-02	4.161E-02	4.097E-03	-0.945
FE-59	-5.745E-02		6.733E-02	1.029E-01	9.675E-03	-0.558
CO-60	9.429E-03		2.761E-02	4.549E-02	3.759E-03	0.207
ZN-65	-4.004E-02		7.539E-02	9.680E-02	8.306E-03	-0.414
GE-68	5.675E-02		8.542E-01	1.417E+00	1.259E-01	0.040
AS-73	-8.825E-02		4.617E-01	7.142E-01	5.363E-02	-0.124
AS-74	-4.692E-02		7.973E-02	1.258E-01	1.279E-02	-0.373
SE-75	-1.520E-02		3.106E-02	4.654E-02	6.841E-03	-0.327
BR-77	8.393E-06		1.660E-05	Half-Life too short		
SR-82	-7.904E-02		3.239E-01	4.405E-01	4.308E-02	-0.179
RB-83	-3.197E-03		4.906E-02	8.105E-02	8.637E-03	-0.039
RB-84	4.340E-02		5.028E-02	8.942E-02	8.810E-03	0.485
KR-85	7.585E+00		5.096E+00	8.971E+00	9.583E-01	0.845
SR-85	4.115E-02		2.765E-02	4.867E-02	5.199E-03	0.845
RB-86	-2.031E-01		6.496E-01	1.045E+00	9.287E-02	-0.194
Y-88	-2.028E-02		2.717E-02	3.979E-02	3.230E-03	-0.510
ZR-88	-9.392E-03		2.120E-02	3.508E-02	3.741E-03	-0.268

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	1.050E+00		1.308E+01	2.152E+01	1.742E+00	0.049
NB-94	9.456E-03		2.346E-02	3.897E-02	3.743E-03	0.243
NB-95	8.058E-03		3.860E-02	5.512E-02	5.381E-03	0.146
NB-95M	-6.661E-02		9.927E-02	1.393E-01	1.945E-02	-0.478
ZR-95	8.668E-02		5.275E-02	9.341E-02	9.830E-03	0.928
NB-97	-5.739E+00		7.912E+00	Half-Life too short		
ZR-97	3.558E+02		1.280E+02	Half-Life too short		
MO-99	4.798E-02		3.111E+01	5.014E+01	7.935E+00	0.001
TC-99M	-3.719E+15		3.920E+16	Half-Life too short		
RH-101	4.904E-03		2.363E-02	3.683E-02	4.122E-03	0.133
RH-102	6.411E-03		1.942E-02	3.300E-02	3.558E-03	0.194
RU-103	-4.681E-03		2.857E-02	4.705E-02	7.312E-03	-0.099
RH-106	-7.523E-02		2.177E-01	3.473E-01	4.943E-02	-0.217
RU-106	-7.523E-02		2.176E-01	3.473E-01	3.446E-02	-0.217
AG-108M	3.124E-03		2.136E-02	3.618E-02	4.000E-03	0.086
AG-110M	-1.014E-02		2.898E-02	3.992E-02	3.890E-03	-0.254
IN-111	-1.633E-01		2.940E+00	4.263E+00	5.810E-01	-0.038
IN-113M	-2.110E-02		3.003E-02	4.893E-02	5.322E-03	-0.431
SN-113	-2.110E-02		3.003E-02	4.893E-02	5.322E-03	-0.431
IN-114M	2.145E-02		1.341E-01	2.005E-01	2.170E-02	0.107
CD-115	1.011E-05		1.950E-05	Half-Life too short		
SN-117M	-1.506E-03		5.179E-02	7.776E-02	7.349E-03	-0.019
SB-122	4.885E+00		5.602E+00	9.672E+00	1.008E+00	0.505
I-123	3.116E+02		1.755E+03	Half-Life too short		
TE-123M	1.747E-03		1.968E-02	3.157E-02	3.003E-03	0.055
I-124	6.966E-01		1.179E+00	1.994E+00	2.015E-01	0.349
SB-124	3.395E-02		5.661E-02	1.011E-01	8.788E-03	0.336
SB-125	1.723E-02		6.009E-02	1.026E-01	1.118E-02	0.168
TE-125M	3.972E+00		6.079E+00	1.056E+01	1.085E+00	0.376
I-126	2.478E-01		2.052E-01	3.193E-01	3.027E-02	0.776
SB-126	1.259E-01		1.360E-01	2.326E-01	2.246E-02	0.541
SB-127	-2.846E+00		2.698E+00	4.021E+00	5.519E-01	-0.708
XE-127	-3.252E-02		3.481E-02	5.513E-02	6.300E-03	-0.590
I-131	-6.533E-02		1.306E-01	2.004E-01	2.522E-02	-0.326
TE-132	4.699E-01		1.426E+00	2.361E+00	4.547E-01	0.199
BA-133	1.446E-02		3.269E-02	4.749E-02	7.660E-03	0.305
I-133	3.159E-02		1.511E-01	Half-Life too short		
CS-134	1.481E-01	+	4.941E-02	6.925E-02	6.831E-03	2.138
CS-135	8.257E-02		1.230E-01	1.782E-01	2.796E-02	0.463
I-135	3.414E+14		1.445E+15	Half-Life too short		
CS-136	2.010E-03		9.631E-02	1.596E-01	1.508E-02	0.013
CE-139	-9.498E-03		1.965E-02	3.223E-02	3.132E-03	-0.295
BA-140	-1.193E-01		2.351E-01	3.709E-01	1.250E-01	-0.322
LA-140	1.975E-02		9.919E-02	1.468E-01	1.234E-02	0.135
CE-141	2.995E-02		4.746E-02	7.365E-02	6.751E-03	0.407
CE-143	5.656E-03		1.063E-03	Half-Life too short		
CE-144	-4.731E-02		1.419E-01	2.124E-01	3.314E-02	-0.223
PM-144	-1.158E-02		2.444E-02	3.828E-02	3.671E-03	-0.303

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	-7.871E-01		1.661E+00	2.601E+00	2.493E-01	-0.303
PM-146	7.243E-03		3.018E-02	5.117E-02	6.416E-03	0.142
ND-147	-1.827E-01		5.349E-01	8.659E-01	1.401E-01	-0.211
PM-149	-3.033E-05		1.703E-04	Half-Life too short		
EU-152	-1.833E-02		7.108E-02	1.057E-01	1.433E-02	-0.173
GD-153	-1.998E-02		5.695E-02	7.973E-02	7.083E-03	-0.251
EU-154	-4.550E-03		8.218E-02	1.330E-01	1.462E-02	-0.034
EU-155	5.325E-02		7.109E-02	1.145E-01	9.991E-03	0.465
TB-160	5.402E-03		9.635E-02	1.625E-01	1.601E-02	0.033
HO-166M	7.680E-03		4.171E-02	6.831E-02	6.579E-03	0.112
TM-171	-4.676E+00		1.758E+01	2.534E+01	1.902E+00	-0.185
LU-176	1.095E-02		1.682E-02	2.774E-02	4.078E-03	0.395
LU-177	6.344E+00	+	1.894E+00	2.411E+00	2.821E-01	2.632
LU-177M	-6.409E-02		1.391E-01	2.002E-01	2.150E-02	-0.320
HF-181	-2.124E-03		3.215E-02	5.344E-02	5.756E-03	-0.040
W-181	-1.065E-01		2.262E-01	3.234E-01	2.397E-02	-0.329
TA-182	1.183E-02		1.428E-01	2.345E-01	1.905E-02	0.050
RE-183	-2.249E-03		8.008E-02	1.256E-01	1.204E-02	-0.018
RE-184	-7.128E-03		1.556E-01	2.525E-01	3.543E-02	-0.028
OS-185	-8.851E-03		2.930E-02	4.671E-02	4.509E-03	-0.189
W-188	-7.556E+00		5.824E+00	7.442E+00	1.130E+00	-1.015
IR-192	-1.079E-02		2.521E-02	3.937E-02	5.659E-03	-0.274
AU-195	4.225E-01		1.468E-01	2.551E-01	2.250E-02	1.656
TL-200	1.332E-03		5.012E-03	Half-Life too short		
TL-201	6.104E+00		1.495E+01	2.528E+01	2.473E+00	0.241
TL-202	3.040E-03		6.301E-02	1.061E-01	1.144E-02	0.029
HG-203	4.319E-02		3.508E-02	5.193E-02	8.112E-03	0.832
BI-207	2.587E-03		3.569E-02	5.932E-02	5.329E-03	0.044
TL-207	6.686E-01		5.372E-01	7.989E-01	1.671E-01	0.837
PO-209	3.100E-01		4.627E+00	7.798E+00	7.677E-01	0.040
PB-211	-3.740E-01		7.450E-01	1.016E+00	6.398E-01	-0.368
BI-212	9.886E-01	+	3.576E-01	5.103E-01	5.578E-02	1.937
PO-215	6.686E-01		5.372E-01	7.989E-01	1.671E-01	0.837
RN-219	1.055E-01		2.679E-01	4.605E-01	7.510E-02	0.229
RN-220	2.632E+00		1.750E+01	2.917E+01	3.065E+00	0.090
RA-223	6.686E-01		5.372E-01	7.989E-01	1.671E-01	0.837
AC-227	-6.964E-03		2.512E-01	4.076E-01	7.769E-02	-0.017
TH-227	-6.964E-03		2.512E-01	4.076E-01	8.685E-02	-0.017
TH-229	8.992E-02		3.166E-01	5.292E-01	5.811E-02	0.170
PA-231	4.967E-01		1.037E+00	1.703E+00	3.374E-01	0.292
TH-231	6.686E-01		5.372E-01	7.989E-01	1.671E-01	0.837
U-231	-1.426E+00		1.729E+00	2.358E+00	2.112E-01	-0.605
PA-233	-2.369E-02		4.352E-02	6.749E-02	9.902E-03	-0.351
PA-234	6.149E-03		2.309E-01	3.361E-01	6.475E-02	0.018
PA-234M	4.347E+00	+	3.843E+00	5.827E+00	6.199E-01	0.746
NP-236	1.536E-02		5.128E-02	8.663E-02	8.242E-03	0.177
NP-239	-6.419E-02		1.181E-01	1.975E-01	1.671E-02	-0.325
AM-241	-5.591E-02		8.961E-02	1.277E-01	1.003E-02	-0.438

Sample ID : G245385005 Acquisition date : 4-FEB-2010 22:52:40

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.533E-02		5.589E-02	9.488E-02	8.216E-03	-0.162
AM-246	1.513E-02		9.826E-02	1.641E-01	1.455E-02	0.092
CM-247	6.912E-03		2.440E-02	4.178E-02	4.471E-03	0.165
CF-249	3.526E-02		2.653E-02	4.723E-02	5.143E-03	0.746
CF-251	3.120E-02		8.228E-02	1.386E-01	1.412E-02	0.225

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245385005           *
* Acquisition date  :  4-FEB-2010 22:52:40 Detector SN#     :               *
* Detector ID       : GAM11                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:03.14      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 15-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245385005           Analyst initials: MXR1           *
* Batch Number      : 944962               Sample Quantity : 1.1057E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.141E+01	2.113E+00	1.724E-01	1.078E+00
CD-109	4.262E+00	7.683E-01	3.464E-01	3.920E-01
SN-126	4.155E-01	7.491E-02	3.389E-02	3.822E-02
BA-137M	2.279E-02	3.461E-02	2.178E-02	1.766E-02
CS-137	2.409E-02	3.658E-02	2.303E-02	1.866E-02
RE-188	1.688E-01	1.763E-01	9.609E-02	8.995E-02
TL-208	5.786E-01	8.830E-02	1.877E-02	4.505E-02
BI-210	1.903E+00	2.570E+00	1.294E+00	1.311E+00
PB-210	1.903E+00	2.570E+00	1.294E+00	1.311E+00
PO-210	1.903E+00	2.569E+00	1.294E+00	1.311E+00
BI-211	4.215E+00	6.362E-01	1.073E-01	3.246E-01
PB-212	1.934E+00	2.792E-01	3.059E-02	1.424E-01
PO-212	1.934E+00	2.792E-01	3.059E-02	1.424E-01
BI-214	1.356E+00	1.895E-01	3.861E-02	9.669E-02
PB-214	1.466E+00	2.337E-01	3.741E-02	1.192E-01
PO-214	1.466E+00	2.337E-01	3.741E-02	1.192E-01
PO-216	1.934E+00	2.792E-01	3.059E-02	1.424E-01
PO-218	1.466E+00	2.337E-01	3.741E-02	1.192E-01
RA-224	5.149E+00	1.248E+00	3.483E-01	6.367E-01
RA-226	1.356E+00	1.895E-01	3.861E-02	9.669E-02
AC-228	1.810E+00	3.092E-01	7.130E-02	1.577E-01
RA-228	1.810E+00	3.092E-01	7.130E-02	1.577E-01
TH-228	1.973E+00	2.849E-01	3.123E-02	1.454E-01
TH-230	1.356E+00	1.895E-01	3.861E-02	9.669E-02
TH-232	1.810E+00	3.092E-01	7.130E-02	1.577E-01
TH-234	2.156E+00	1.276E+00	5.924E-01	6.511E-01
U-234	1.356E+00	1.895E-01	3.861E-02	9.669E-02
U-235	2.520E-01	1.656E-01	1.094E-01	8.451E-02
NP-237	1.220E+00	3.306E-01	1.003E-01	1.687E-01
U-238	2.156E+00	1.276E+00	5.924E-01	6.511E-01
AM-243	4.434E-01	5.845E-02	2.634E-02	2.982E-02
ANH-511	1.083E-01	5.728E-02	1.651E-02	2.922E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.154E-01	2.440E-01	1.964E-01	1.245E-01	NOT IDENT.
NA-22	-1.407E-03	2.893E-02	2.381E-02	1.476E-02	NOT IDENT.
NA-24	-3.313E+07	1.854E+08	0.000E+00	9.458E+07	SHORT HLIF
AL-26	-2.812E-03	2.134E-02	1.749E-02	1.089E-02	NOT IDENT.
TI-44	4.431E-01	4.737E-02	2.340E-02	2.417E-02	FAIL ABUN
SC-46	1.729E-02	2.587E-02	2.314E-02	1.320E-02	FAIL ABUN
V-48	5.189E-02	5.590E-02	5.056E-02	2.852E-02	NOT IDENT.
CR-51	-2.279E-01	2.921E-01	2.288E-01	1.490E-01	NOT IDENT.
MN-52	8.202E-02	3.221E-01	2.705E-01	1.643E-01	FAIL ABUN
MN-54	1.708E-02	2.693E-02	2.395E-02	1.374E-02	NOT IDENT.
CO-56	5.985E-04	2.751E-02	2.366E-02	1.403E-02	FAIL ABUN
CO-57	-1.170E-02	1.540E-02	1.319E-02	7.859E-03	NOT IDENT.
CO-58	-3.932E-02	2.895E-02	2.080E-02	1.477E-02	NOT IDENT.
FE-59	-5.745E-02	6.599E-02	5.132E-02	3.367E-02	FAIL ABUN
CO-60	9.429E-03	2.706E-02	2.265E-02	1.380E-02	NOT IDENT.
ZN-65	-4.004E-02	7.388E-02	4.827E-02	3.770E-02	NOT IDENT.
GE-68	5.675E-02	8.371E-01	7.070E-01	4.271E-01	NOT IDENT.
AS-73	-8.825E-02	4.524E-01	3.643E-01	2.308E-01	NOT IDENT.
AS-74	-4.692E-02	7.813E-02	6.303E-02	3.986E-02	NOT IDENT.
SE-75	-1.520E-02	3.044E-02	2.346E-02	1.553E-02	NOT IDENT.
BR-77	8.393E+00	3.253E+01	0.000E+00	1.660E+01	SHORT HLIF
SR-82	-7.904E-02	3.174E-01	2.202E-01	1.620E-01	NOT IDENT.
RB-83	-3.197E-03	4.808E-02	4.065E-02	2.453E-02	NOT IDENT.
RB-84	4.340E-02	4.928E-02	4.467E-02	2.514E-02	NOT IDENT.
KR-85	7.585E+00	4.994E+00	4.499E+00	2.548E+00	NOT IDENT.
SR-85	4.115E-02	2.709E-02	2.441E-02	1.382E-02	NOT IDENT.
RB-86	-2.031E-01	6.366E-01	5.213E-01	3.248E-01	NOT IDENT.
Y-88	-2.028E-02	2.662E-02	1.976E-02	1.358E-02	NOT IDENT.
ZR-88	-9.392E-03	2.078E-02	1.763E-02	1.060E-02	NOT IDENT.
Y-91	1.050E+00	1.282E+01	1.072E+01	6.542E+00	NOT IDENT.
NB-94	9.456E-03	2.300E-02	1.950E-02	1.173E-02	NOT IDENT.
NB-95	8.058E-03	3.783E-02	2.756E-02	1.930E-02	NOT IDENT.
NB-95M	-6.661E-02	9.728E-02	7.027E-02	4.964E-02	NOT IDENT.
ZR-95	8.668E-02	5.169E-02	4.672E-02	2.637E-02	NOT IDENT.
NB-97	-5.739E+06	1.551E+07	0.000E+00	7.912E+06	SHORT HLIF
ZR-97	3.558E+08	2.509E+08	0.000E+00	1.280E+08	SHORT HLIF
MO-99	4.798E-02	3.049E+01	2.508E+01	1.555E+01	NOT IDENT.
TC-99M	-3.719E+21	7.684E+22	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.904E-03	2.316E-02	1.861E-02	1.181E-02	NOT IDENT.
RH-102	6.411E-03	1.903E-02	1.656E-02	9.711E-03	NOT IDENT.
RU-103	-4.681E-03	2.800E-02	2.361E-02	1.428E-02	FAIL ABUN
RH-106	-7.523E-02	2.134E-01	1.739E-01	1.089E-01	FAIL ABUN
RU-106	-7.523E-02	2.133E-01	1.739E-01	1.088E-01	FAIL ABUN
AG-108M	3.124E-03	2.094E-02	1.817E-02	1.068E-02	NOT IDENT.
AG-110M	-1.014E-02	2.840E-02	1.998E-02	1.449E-02	FAIL ABUN
IN-111	-1.633E-01	2.881E+00	2.150E+00	1.470E+00	NOT IDENT.
IN-113M	-2.110E-02	2.943E-02	2.459E-02	1.501E-02	NOT IDENT.
SN-113	-2.110E-02	2.943E-02	2.459E-02	1.501E-02	NOT IDENT.
IN-114M	2.145E-02	1.314E-01	1.013E-01	6.704E-02	NOT IDENT.
CD-115	1.011E+01	3.822E+01	0.000E+00	1.950E+01	SHORT HLIF
SN-117M	-1.506E-03	5.076E-02	3.934E-02	2.590E-02	NOT IDENT.
SB-122	4.885E+00	5.490E+00	4.848E+00	2.801E+00	NOT IDENT.
I-123	3.116E+08	3.440E+09	0.000E+00	1.755E+09	SHORT HLIF
TE-123M	1.747E-03	1.928E-02	1.597E-02	9.838E-03	NOT IDENT.
I-124	6.966E-01	1.155E+00	9.989E-01	5.895E-01	NOT IDENT.
SB-124	3.395E-02	5.547E-02	5.026E-02	2.830E-02	FAIL ABUN
SB-125	1.723E-02	5.889E-02	5.151E-02	3.004E-02	FAIL ABUN
TE-125M	3.972E+00	5.957E+00	5.356E+00	3.039E+00	NOT IDENT.
I-126	2.478E-01	2.011E-01	1.598E-01	1.026E-01	NOT IDENT.
SB-126	1.259E-01	1.332E-01	1.164E-01	6.798E-02	FAIL ABUN
SB-127	-2.846E+00	2.644E+00	2.012E+00	1.349E+00	NOT IDENT.
XE-127	-3.252E-02	3.411E-02	2.784E-02	1.740E-02	FAIL ABUN
I-131	-6.533E-02	1.280E-01	1.008E-01	6.530E-02	NOT IDENT.
TE-132	4.699E-01	1.398E+00	1.192E+00	7.131E-01	NOT IDENT.
BA-133	1.446E-02	3.204E-02	2.389E-02	1.635E-02	FAIL ABUN
I-133	3.159E+04	2.962E+05	0.000E+00	1.511E+05	SHORT HLIF
CS-134	1.481E-01	4.842E-02	3.462E-02	2.471E-02	FAIL ABUN
CS-135	8.257E-02	1.205E-01	8.983E-02	6.149E-02	NOT IDENT.
I-135	3.414E+20	2.832E+21	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.010E-03	9.438E-02	7.963E-02	4.815E-02	FAIL ABUN
CE-139	-9.498E-03	1.925E-02	1.630E-02	9.824E-03	NOT IDENT.
BA-140	-1.193E-01	2.304E-01	1.860E-01	1.175E-01	NOT IDENT.
LA-140	1.975E-02	9.720E-02	7.298E-02	4.959E-02	FAIL ABUN

CE-141	2.995E-02	4.651E-02	3.729E-02	2.373E-02	NOT IDENT.
CE-143	5.656E+03	2.084E+03	0.000E+00	1.063E+03	SHORT HLIF
CE-144	-4.731E-02	1.391E-01	1.076E-01	7.095E-02	NOT IDENT.
PM-144	-1.158E-02	2.395E-02	1.916E-02	1.222E-02	NOT IDENT.
PR-144	-7.871E-01	1.628E+00	1.302E+00	8.305E-01	NOT IDENT.
PM-146	7.243E-03	2.958E-02	2.569E-02	1.509E-02	NOT IDENT.
ND-147	-1.827E-01	5.242E-01	4.342E-01	2.674E-01	FAIL ABUN
PM-149	-3.033E+01	3.337E+02	0.000E+00	1.703E+02	SHORT HLIF
EU-152	-1.833E-02	6.966E-02	5.316E-02	3.554E-02	FAIL ABUN
GD-153	-1.998E-02	5.581E-02	4.049E-02	2.847E-02	FAIL ABUN
EU-154	-4.550E-03	8.054E-02	6.624E-02	4.109E-02	NOT IDENT.
EU-155	5.325E-02	6.966E-02	5.812E-02	3.554E-02	FAIL ABUN
TB-160	5.402E-03	9.442E-02	8.115E-02	4.817E-02	FAIL ABUN
HO-166M	7.680E-03	4.088E-02	3.418E-02	2.086E-02	FAIL ABUN
TM-171	-4.676E+00	1.723E+01	1.290E+01	8.790E+00	NOT IDENT.
LU-176	1.095E-02	1.648E-02	1.397E-02	8.409E-03	FAIL ABUN
LU-177	6.344E+00	1.856E+00	1.217E+00	9.468E-01	FAIL ABUN
LU-177M	-6.409E-02	1.363E-01	1.006E-01	6.956E-02	NOT IDENT.
HF-181	-2.124E-03	3.151E-02	2.682E-02	1.608E-02	NOT IDENT.
W-181	-1.065E-01	2.217E-01	1.647E-01	1.131E-01	NOT IDENT.
TA-182	1.183E-02	1.400E-01	1.169E-01	7.140E-02	FAIL ABUN
RE-183	-2.249E-03	7.847E-02	6.354E-02	4.004E-02	FAIL ABUN
RE-184	-7.128E-03	1.525E-01	1.273E-01	7.781E-02	NOT IDENT.
OS-185	-8.851E-03	2.872E-02	2.339E-02	1.465E-02	NOT IDENT.
W-188	-7.556E+00	5.707E+00	3.749E+00	2.912E+00	FAIL ABUN
IR-192	-1.079E-02	2.471E-02	1.982E-02	1.261E-02	FAIL ABUN
AU-195	4.225E-01	1.439E-01	1.295E-01	7.341E-02	FAIL ABUN
TL-200	1.332E+03	9.823E+03	0.000E+00	5.012E+03	SHORT HLIF
TL-201	6.104E+00	1.465E+01	1.279E+01	7.473E+00	NOT IDENT.
TL-202	3.040E-03	6.175E-02	5.327E-02	3.150E-02	NOT IDENT.
HG-203	4.319E-02	3.437E-02	2.617E-02	1.754E-02	NOT IDENT.
BI-207	2.587E-03	3.498E-02	2.959E-02	1.785E-02	FAIL ABUN
TL-207	6.686E-01	5.264E-01	4.021E-01	2.686E-01	FAIL ABUN
PO-209	3.100E-01	4.534E+00	3.895E+00	2.313E+00	NOT IDENT.
PB-211	-3.740E-01	7.301E-01	5.104E-01	3.725E-01	NOT IDENT.
BI-212	9.886E-01	3.504E-01	2.553E-01	1.788E-01	FAIL ABUN
PO-215	6.686E-01	5.264E-01	4.021E-01	2.686E-01	FAIL ABUN
RN-219	1.055E-01	2.625E-01	2.314E-01	1.339E-01	FAIL ABUN
RN-220	2.632E+00	1.715E+01	1.462E+01	8.751E+00	NOT IDENT.
RA-223	6.686E-01	5.264E-01	4.021E-01	2.686E-01	FAIL ABUN
AC-227	-6.964E-03	2.462E-01	2.055E-01	1.256E-01	FAIL ABUN
TH-227	-6.964E-03	2.462E-01	2.055E-01	1.256E-01	FAIL ABUN
TH-229	8.992E-02	3.103E-01	2.674E-01	1.583E-01	FAIL ABUN
PA-231	4.967E-01	1.016E+00	8.579E-01	5.183E-01	FAIL ABUN
TH-231	6.686E-01	5.264E-01	4.021E-01	2.686E-01	FAIL ABUN
U-231	-1.426E+00	1.694E+00	1.198E+00	8.643E-01	FAIL ABUN
PA-233	-2.369E-02	4.265E-02	3.398E-02	2.176E-02	FAIL ABUN
PA-234	6.149E-03	2.263E-01	1.678E-01	1.155E-01	FAIL ABUN
PA-234M	4.347E+00	3.767E+00	2.908E+00	1.922E+00	FAIL ABUN
NP-236	1.536E-02	5.026E-02	4.383E-02	2.564E-02	NOT IDENT.
NP-239	-6.419E-02	1.157E-01	1.002E-01	5.906E-02	FAIL ABUN
AM-241	-5.591E-02	8.781E-02	6.506E-02	4.480E-02	NOT IDENT.
CM-243	-1.533E-02	5.477E-02	4.816E-02	2.794E-02	FAIL ABUN
AM-246	1.513E-02	9.630E-02	8.184E-02	4.913E-02	NOT IDENT.
CM-247	6.912E-03	2.391E-02	2.099E-02	1.220E-02	FAIL ABUN
CF-249	3.526E-02	2.600E-02	2.374E-02	1.327E-02	NOT IDENT.
CF-251	3.120E-02	8.063E-02	7.008E-02	4.114E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	383.8813
46.50	383.8813
46.50	383.8813
48.70	344.8401
49.72	379.7713
51.35	401.3946
52.39	383.9137
52.97	429.1111
53.15	429.3629
53.44	418.6325
54.07	411.6749
56.28	424.6776
56.28	424.6819
57.37	0.0000
57.53	445.5066
57.53	445.5096
57.60	445.6031
57.98	473.2307
57.98	473.2307
59.32	482.3454
59.32	482.3454
59.40	482.4622
59.54	500.8217
59.72	413.2880
60.01	401.5267
61.10	522.9217
61.14	522.9829
61.30	523.2296
63.00	574.3715
63.29	574.8531
63.29	574.8531
63.58	575.3347
64.28	576.4919
65.12	569.0278
65.20	563.0037
65.20	563.0037
66.05	573.6060
66.72	587.0355
66.83	587.2211
66.91	587.3486
67.20	570.8082
67.20	570.8082
67.75	607.3081
67.85	607.4756
68.90	603.7866
68.90	603.7866
69.30	569.4363
69.67	613.6210
70.82	593.6456
70.82	593.6456
70.83	593.6611
72.80	621.8961
72.87	622.0089
72.87	622.0089
74.67	624.9254
74.81	625.1510
74.81	625.1510
74.81	625.1510
74.81	625.1510
74.81	625.1510
74.81	625.1510
74.81	625.1510
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75.28	625.9083
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77.11	628.8248

77.11	628.8248
77.11	628.8248
77.11	628.8248
77.11	628.8248
77.11	628.8248
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79.62	587.2321
79.80	587.4938
79.80	587.4938
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80.30	499.3828
80.30	499.3828
80.57	574.1893
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81.07	596.5419
81.07	596.5419
81.07	596.5419
81.07	596.5419
82.60	561.7322
83.37	448.6804
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83.78	449.1219
83.78	449.1219
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85.43	450.8769
86.29	451.7855
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86.54	452.0487
86.59	452.1025
86.72	452.2383
86.79	452.3091
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87.30	452.8469
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87.88	0.0000
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88.47	454.0668
89.95	455.6010
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92.29	457.9984
92.38	458.0890
92.38	458.0890
93.35	459.0740
94.00	459.7307
94.67	460.4015
94.67	460.4072
94.90	460.6364
94.90	460.6364
94.90	460.6364
94.90	460.6364
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95.87	466.1723
96.73	503.6068
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98.44	417.8695
98.88	376.6839
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111.00	484.3018
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116.30	420.9604
117.00	453.5401
117.00	453.5401
117.66	464.5017
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121.78	416.5283
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122.32	444.0349
122.32	444.0349
122.32	444.0349
122.32	444.0349
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135.34	405.0982
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136.25	391.3903
136.48	396.0213
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140.51	0.0000
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144.24	405.6485
144.24	405.6485
144.24	405.6485
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145.44	377.7895
147.16	395.2407
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152.70	409.7255
153.22	416.9596
154.21	399.1542
154.21	399.1542
154.21	399.1542
154.21	399.1542
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156.02	397.9532
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161.27	406.2308
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162.64	382.7818
163.35	386.9205
163.89	402.1933
165.85	405.2241
167.43	359.1431
171.28	403.6745
171.86	374.6741
172.10	374.8030
176.55	368.5759
176.60	368.6035
181.06	355.0587
184.41	381.2201
185.71	366.4589
186.00	366.5981
190.27	328.8994
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197.04	386.6101
198.01	355.7292
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209.75	303.2997
210.97	294.2916
215.65	306.4700
216.55	313.8183
218.09	317.4080
222.10	315.8815
223.80	289.2061
226.40	324.5605
227.00	315.6506
227.08	315.6790
227.20	306.5866
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228.18	317.0940
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236.00	373.7401
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238.63	318.7888
238.63	318.7888
238.63	318.7888
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241.98	319.9682
241.98	319.9682
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252.85	258.9867
254.15	0.0000
256.20	260.9505
256.20	260.9505
260.50	257.9099
260.90	0.0000
262.80	237.4191
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268.24	246.6954
268.79	248.4250
269.46	248.5964
269.46	248.5964
269.46	248.5964
269.46	248.5964
271.23	241.0572
273.65	240.0375
276.40	253.5339
277.35	290.1760
277.60	289.1766
277.60	289.1766
278.00	279.6489
278.60	252.4754
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279.53	223.7328
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285.00	222.2279
285.90	0.0000
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286.10	254.8600
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291.72	244.2902
293.26	0.0000
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295.21	221.1309

295.21	221.1309
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299.80	222.0808
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300.09	222.1427
300.09	222.1427
300.09	222.1427
300.12	222.1469
301.29	222.3864
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304.40	234.0131
304.84	212.6760
306.84	204.8036
308.46	215.0308
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316.51	227.7013
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319.02	199.2628
319.41	210.4678
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323.87	204.5868
323.87	204.5868
323.87	204.5868
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328.77	236.8942
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338.28	216.1884
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338.32	216.1962
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338.32	216.1962
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340.57	199.0300
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351.92	188.8913
351.92	188.8913
351.92	188.8913
355.39	0.0000
356.01	175.7390
364.48	200.0665
366.43	180.6860
367.43	173.8739
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369.80	190.4592
374.96	173.7394
383.85	204.2886
387.95	157.2275
388.63	169.6816
391.69	191.3335
391.69	191.3335
392.90	189.7317
398.62	188.7640
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401.10	151.6449
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402.60	175.0320
404.84	196.0712
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413.65	194.4481
414.70	206.6086
415.30	191.5887

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445.03	158.2738
445.03	158.2738
445.03	158.2738
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511.85	151.7594
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513.99	151.9547
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563.90	118.8098
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569.67	142.0399
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592.07	114.6332
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602.71	143.6034
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609.31	134.9726
609.31	134.9726
609.31	134.9726
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621.84	120.5352
631.29	121.1221
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661.65	141.7400
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666.33	120.3363
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696.49	129.2974
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722.89	145.9153
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723.30	137.3555
724.18	135.6925
727.18	116.0980
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765.79	132.9852
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766.84	147.0492
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778.89	99.7200
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785.46	94.8525
792.07	83.1749

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836.80	0.0000
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867.82	76.9169
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883.24	93.6428
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911.07	84.4372
911.07	84.4372
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969.11	79.6195
969.11	79.6195
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1077.35	77.7001
1078.86	79.7067
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1112.84	86.6961
1115.52	92.9323
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1120.29	87.7551
1120.29	87.7551
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1236.41	0.0000
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1274.54	67.8755
1291.56	53.5126
1298.22	0.0000
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1325.50	45.5447
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1333.61	44.5840
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1368.53	0.0000
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1395.20	36.6895
1407.95	41.1413
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1436.60	52.3523
1457.56	0.0000
1460.81	32.9224
1489.15	30.6993
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1596.49	40.5012
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1691.02	21.2409
1691.02	21.2409
1706.46	0.0000
1750.46	0.0000
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1764.49	20.1814
1764.49	20.1814
1764.49	20.1814
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1771.40	10.1057
1791.20	0.0000
1808.65	23.7656

1836.01	31.8672

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245385005

Total Uranium Activity	6.5300E+00	ug/g
Total Uranium Counting Unc.	3.7976E+00	ug/g
Total Uranium Tpu	1.9375E-06	ug/g
Total Uranium Mda	1.7630E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944962                    SAMPLE ID  : G245385005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM11            *
*   SAMPLE DATE   : 15-JAN-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE:  4-FEB-2010 22:52:40.73    SAMPLE ALQT:  110.570 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.014E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.372E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.004E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.954E+00
```

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 02:57:09.24

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396001.CNF;1
Sample date       : 21-JAN-2010 12:00:00 Acquisition date : 4-FEB-2010 22:55:47.
Sample ID         : G245396001           Sample quantity  : 1.32960E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:04.93  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.24*	239	1226	1.10	126.73	123	8	1.66E-02	27.2	
2	2	74.79	1120	1251	1.22	149.81	143	19	7.78E-02	6.1	3.57E+00
3	2	77.08*	1743	1022	1.05	154.39	143	19	1.21E-01	4.0	
4	4	84.38*	314	1072	1.52	168.97	165	27	2.18E-02	18.5	1.83E+00
5	4	87.17*	831	1183	1.40	174.54	165	27	5.77E-02	8.1	
6	4	89.93	552	1134	1.29	180.05	165	27	3.83E-02	11.7	
7	4	92.76*	852	1221	1.46	185.71	165	27	5.92E-02	9.1	
8	0	105.41	114	646	1.36	210.99	209	5	7.88E-03	34.9	
9	0	129.84	247	1438	0.99	259.81	255	11	1.72E-02	30.4	
10	0	185.99*	582	1085	1.14	372.00	367	10	4.04E-02	12.1	
11	0	209.17*	342	874	1.32	418.30	414	9	2.38E-02	17.1	
12	4	238.64*	3927	769	1.28	477.21	470	20	2.73E-01	2.1	3.29E+00
13	4	241.59	940	929	1.80	483.09	470	20	6.53E-02	8.4	
14	0	270.12	262	728	1.50	540.11	536	10	1.82E-02	20.2	
15	0	277.46	147	697	1.89	554.78	550	10	1.02E-02	34.6	
16	0	295.28*	1118	642	1.27	590.38	585	10	7.76E-02	5.3	
17	0	300.29*	181	727	1.25	600.40	596	11	1.25E-02	30.6	
18	0	328.25	305	612	1.24	656.27	650	12	2.12E-02	17.3	
19	0	338.36*	908	670	1.40	676.47	670	14	6.31E-02	7.1	
20	0	351.98*	1997	726	1.47	703.69	697	14	1.39E-01	3.7	
21	0	410.06	123	483	1.57	819.76	813	12	8.56E-03	36.8	
22	0	462.76	296	470	1.25	925.08	918	14	2.06E-02	16.6	
23	0	510.83*	336	533	2.22	1021.16	1014	16	2.33E-02	19.1	
24	0	583.24*	1419	397	1.78	1165.89	1158	18	9.85E-02	4.4	
25	0	609.37*	1478	403	1.63	1218.12	1212	13	1.03E-01	4.0	
26	0	727.60*	329	316	1.84	1454.46	1448	14	2.29E-02	13.2	
27	0	768.08	177	203	2.23	1535.39	1531	10	1.23E-02	16.8	
28	0	795.00	177	231	1.64	1589.20	1583	14	1.23E-02	19.8	
29	0	860.81	211	346	1.31	1720.76	1712	20	1.47E-02	22.7	
30	0	911.25*	973	251	2.08	1821.63	1813	18	6.76E-02	5.2	
31	0	934.57	66	192	2.19	1868.24	1861	11	4.60E-03	42.4	
32	1	964.74*	206	297	2.44	1928.58	1921	22	1.43E-02	19.5	1.45E+00
33	1	969.14*	563	179	2.10	1937.37	1921	22	3.91E-02	6.7	
34	0	1120.06*	440	305	2.38	2239.14	2230	19	3.06E-02	11.1	
35	0	1378.68	95	163	2.54	2756.36	2745	17	6.61E-03	32.6	
36	0	1409.40	56	107	1.99	2817.82	2807	16	3.85E-03	43.9	
37	0	1460.88*	5719	155	2.63	2920.78	2908	27	3.97E-01	1.5	
38	0	1729.56*	98	58	2.39	3458.28	3445	24	6.80E-03	24.4	

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1764.71*	319	54	3.55	3528.61	3515	23	2.22E-02	8.8	
40	0	1847.98	68	48	3.42	3695.23	3684	23	4.75E-03	25.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-FEB-2010 02:57:11

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 21-JAN-2010 12:00:00 Acquisition date : 4-FEB-2010 22:55:47
Sample ID : G245396001 Sample quantity : 132.96 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:04.93 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.964E+01	3.815E+00	3.365E-01	3.083E-02	117.789
CD-109	+	88.03	*	4.308E+00	8.100E-01	7.282E-01	6.911E-02	5.916
SN-126	+	64.28		8.139E-01	4.588E-01	4.761E-01	6.915E-02	1.709
	+	86.94		1.762E+00	7.860E-01	3.008E-01	1.249E-01	5.858
	+	87.57	*	4.239E-01	7.968E-02	7.194E-02	6.792E-03	5.892
EU-155		48.70		-1.268E+00	1.386E+00	2.270E+00	1.848E-01	-0.559
		60.01		1.240E-01	3.172E+00	4.731E+00	3.360E-01	0.026
	+	86.54		5.104E-01	9.615E-02	8.744E-02	8.224E-03	5.836
	+	105.31	*	9.288E-02	6.532E-02	1.164E-01	9.989E-03	0.798
TL-208	+	277.35		4.950E-01	3.525E-01	3.899E-01	6.430E-02	1.269
	+	510.84		5.104E-01	2.058E-01	1.339E-01	1.745E-02	3.812
	+	583.14	*	6.051E-01	8.427E-02	3.592E-02	3.895E-03	16.845
	+	860.37		8.188E-01	3.844E-01	3.000E-01	3.496E-02	2.729
BI-211		72.87		7.180E+00	2.005E+00	3.379E+00	2.704E-01	2.125
	+	351.07	*	4.034E+00	5.573E-01	2.106E-01	2.458E-02	19.152
PB-212	+	74.81		2.398E+00	4.170E-01	3.319E-01	4.118E-02	7.226
	+	77.11		2.116E+00	2.445E-01	1.890E-01	1.580E-02	11.199
	+	87.30		1.960E+00	4.174E-01	3.335E-01	4.580E-02	5.878
	+	238.63	*	1.852E+00	2.566E-01	6.083E-02	8.037E-03	30.449
	+	300.09		1.265E+00	7.960E-01	7.889E-01	1.150E-01	1.603
PO-212	+	74.81		2.398E+00	4.170E-01	3.319E-01	4.118E-02	7.226
	+	77.11		2.116E+00	2.445E-01	1.890E-01	1.580E-02	11.199
	+	87.30		1.960E+00	4.174E-01	3.335E-01	4.580E-02	5.878
		115.19		1.351E+00	2.527E+00	4.073E+00	3.374E-01	0.332
	+	238.63	*	1.852E+00	2.566E-01	6.083E-02	8.037E-03	30.449
	+	300.09		1.265E+00	7.960E-01	7.889E-01	1.150E-01	1.603
BI-214	+	609.31	*	1.183E+00	1.664E-01	7.383E-02	8.585E-03	16.021
	+	1120.29		1.753E+00	4.337E-01	2.870E-01	3.171E-02	6.109
	+	1764.49		1.662E+00	3.251E-01	1.650E-01	1.374E-02	10.076
PB-214	+	74.81		4.132E+00	6.788E-01	5.718E-01	6.303E-02	7.226
	+	77.11		3.628E+00	5.021E-01	3.239E-01	3.665E-02	11.199
	+	87.30		3.358E+00	6.824E-01	5.713E-01	6.950E-02	5.878
	+	241.98		2.658E+00	5.777E-01	3.658E-01	5.030E-02	7.267
	+	295.21		1.376E+00	2.521E-01	1.363E-01	2.029E-02	10.100

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.403E+00	2.072E-01	7.341E-02	9.357E-03	19.117
PO-214	+	74.81		4.132E+00	6.788E-01	5.718E-01	6.303E-02	7.226
	+	77.11		3.628E+00	5.021E-01	3.239E-01	3.665E-02	11.199
	+	87.30		3.358E+00	6.824E-01	5.713E-01	6.950E-02	5.878
	+	241.98		2.658E+00	5.777E-01	3.658E-01	5.030E-02	7.267
	+	295.21		1.376E+00	2.521E-01	1.363E-01	2.029E-02	10.100
	+	351.92	*	1.403E+00	2.072E-01	7.341E-02	9.357E-03	19.117
PO-216	+	74.81		2.398E+00	4.170E-01	3.319E-01	4.118E-02	7.226
	+	77.11		2.116E+00	2.445E-01	1.890E-01	1.580E-02	11.199
	+	87.30		1.960E+00	4.174E-01	3.335E-01	4.580E-02	5.878
	+	238.63	*	1.852E+00	2.566E-01	6.083E-02	8.037E-03	30.449
	+	300.09		1.265E+00	7.960E-01	7.889E-01	1.150E-01	1.603
PO-218	+	74.81		4.132E+00	6.788E-01	5.718E-01	6.303E-02	7.226
	+	77.11		3.628E+00	5.021E-01	3.239E-01	3.665E-02	11.199
	+	87.30		3.358E+00	6.824E-01	5.713E-01	6.950E-02	5.878
	+	241.98		2.658E+00	5.777E-01	3.658E-01	5.030E-02	7.267
	+	295.21		1.376E+00	2.521E-01	1.363E-01	2.029E-02	10.100
	+	351.92	*	1.403E+00	2.072E-01	7.341E-02	9.357E-03	19.117
RA-224	+	240.98	*	5.040E+00	1.058E+00	6.916E-01	8.657E-02	7.288
RA-226	+	609.31	*	1.183E+00	1.664E-01	7.383E-02	8.585E-03	16.021
	+	1120.29		1.753E+00	4.337E-01	2.870E-01	3.171E-02	6.109
	+	1764.49		1.662E+00	3.251E-01	1.650E-01	1.374E-02	10.076
AC-228	+	338.32		2.036E+00	9.041E-01	2.374E-01	9.986E-02	8.575
	+	911.07	*	1.778E+00	3.004E-01	1.368E-01	1.812E-02	13.000
	+	969.11		1.807E+00	4.986E-01	2.249E-01	5.432E-02	8.033
RA-228	+	338.32		2.036E+00	9.041E-01	2.374E-01	9.986E-02	8.575
	+	911.07	*	1.778E+00	3.004E-01	1.368E-01	1.812E-02	13.000
	+	969.11		1.807E+00	4.986E-01	2.249E-01	5.432E-02	8.033
TH-228	+	74.81		2.433E+00	3.578E-01	3.367E-01	2.774E-02	7.226
	+	77.11		2.147E+00	2.481E-01	1.917E-01	1.603E-02	11.199
	+	87.30		1.989E+00	3.739E-01	3.384E-01	3.184E-02	5.878
	+	238.63	*	1.879E+00	2.603E-01	6.172E-02	8.154E-03	30.449
	+	300.09		1.283E+00	1.101E+00	8.003E-01	4.814E-01	1.603
TH-230	+	609.31	*	1.183E+00	1.664E-01	7.383E-02	8.585E-03	16.021
	+	1120.29		1.753E+00	4.337E-01	2.870E-01	3.171E-02	6.109
	+	1764.49		1.662E+00	3.251E-01	1.650E-01	1.374E-02	10.076
TH-232	+	338.32		2.036E+00	3.777E-01	2.374E-01	2.823E-02	8.575
	+	911.07	*	1.778E+00	3.004E-01	1.368E-01	1.812E-02	13.000
	+	969.11		1.807E+00	4.986E-01	2.249E-01	5.432E-02	8.033
TH-234	+	63.29	*	2.056E+00	1.176E+00	1.231E+00	2.143E-01	1.670
	+	92.38		2.827E+00	7.281E-01	4.744E-01	8.692E-02	5.958
U-234	+	609.31	*	1.183E+00	1.664E-01	7.383E-02	8.585E-03	16.021
	+	1120.29		1.753E+00	4.337E-01	2.870E-01	3.171E-02	6.109
	+	1764.49		1.662E+00	3.251E-01	1.650E-01	1.374E-02	10.076
U-235	+	89.95		3.756E+00	1.460E+00	9.667E-01	3.002E-01	3.885
	+	93.35		3.398E+00	1.138E+00	5.670E-01	1.597E-01	5.994
	+	105.00		9.104E-01	6.910E-01	1.141E+00	3.401E-01	0.798
		143.76	*	6.899E-02	1.488E-01	2.389E-01	4.214E-02	0.289
		163.35		3.203E-01	3.165E-01	5.299E-01	1.038E-01	0.605

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.71		2.001E-01	5.284E-02	4.785E-02	5.011E-03	4.181
		205.31		-3.665E-02	4.157E-01	5.758E-01	1.172E-01	-0.064
NP-237	+	86.50	*	1.245E+00	3.474E-01	2.133E-01	4.830E-02	5.834
		95.87		-8.762E-01	7.152E-01	9.385E-01	2.321E-01	-0.934
U-238	+	63.29	*	2.056E+00	1.176E+00	1.231E+00	2.143E-01	1.670
	+	92.38		2.827E+00	5.729E-01	4.744E-01	4.323E-02	5.958
AM-243	+	74.67	*	3.887E-01	5.701E-02	5.395E-02	4.398E-03	7.205
	+	86.72		4.667E+01	8.775E+00	7.984E+00	7.460E-01	5.846
		117.66		-1.564E-01	2.658E+00	4.218E+00	3.484E-01	-0.037
		142.18		-4.967E+00	1.242E+01	1.964E+01	1.734E+00	-0.253
ANH-511	+	511.00	*	1.102E-01	4.348E-02	2.893E-02	2.898E-03	3.811

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.063E-01	2.099E-01	3.497E-01	3.649E-02	0.590
NA-22		1274.54	*	-2.171E-02	2.982E-02	4.764E-02	4.105E-03	-0.456
NA-24		1368.53	*	-3.784E-02	2.982E-02	Half-Life too short		
AL-26		1129.67		5.803E-01	1.206E+00	1.776E+00	1.546E-01	0.327
		1808.65	*	-6.584E-03	1.853E-02	2.948E-02	2.411E-03	-0.223
TI-44		67.85		-1.742E-02	3.047E-02	4.647E-02	3.547E-03	-0.375
	+	78.38	*	3.905E-01	4.512E-02	4.885E-02	4.142E-03	7.993
SC-46		889.25	*	-4.640E-03	2.483E-02	4.085E-02	4.572E-03	-0.114
	+	1120.51		2.986E-01	7.116E-02	8.317E-02	7.353E-03	3.590
V-48		944.10		-1.054E-01	5.909E-01	9.670E-01	1.049E-01	-0.109
		983.50	*	1.244E-02	4.523E-02	7.517E-02	7.884E-03	0.165
		1312.09		1.040E-02	5.265E-02	8.771E-02	7.728E-03	0.119
CR-51		320.08	*	7.250E-02	2.499E-01	4.106E-01	5.317E-02	0.177
MN-52		744.21		4.151E-02	1.380E-01	2.268E-01	2.464E-02	0.183
		848.13		-2.722E+00	3.988E+00	6.434E+00	7.164E-01	-0.423
	+	935.52		2.196E-01	1.877E-01	2.735E-01	2.986E-02	0.803
		1246.25		-4.639E+00	4.888E+00	7.789E+00	6.584E-01	-0.596
		1333.61		1.413E+00	2.868E+00	4.852E+00	4.327E-01	0.291
		1434.06	*	1.675E-01	1.386E-01	2.426E-01	2.168E-02	0.690
MN-54		834.83	*	1.983E-02	2.480E-02	4.243E-02	4.713E-03	0.467
CO-56		846.75	*	-1.675E-02	2.504E-02	4.046E-02	4.503E-03	-0.414
		977.42		4.117E-01	2.002E+00	3.121E+00	3.291E-01	0.132
		1037.82		-1.229E-01	2.058E-01	3.263E-01	3.365E-02	-0.377
		1175.09		1.132E+00	1.498E+00	2.568E+00	2.068E-01	0.441
		1238.25		1.807E-01	6.772E-02	1.153E-01	9.987E-03	1.567
		1360.21		-6.256E-02	6.343E-01	1.037E+00	9.262E-02	-0.060
		1771.40		-6.779E-02	1.491E-01	1.936E-01	1.609E-02	-0.350
CO-57		122.06	*	6.390E-03	1.717E-02	2.747E-02	2.266E-03	0.233
		136.48		-1.861E-01	1.371E-01	2.231E-01	2.070E-02	-0.834
CO-58		810.76	*	-1.267E-02	2.398E-02	3.916E-02	4.336E-03	-0.324
FE-59		142.65		3.535E-01	1.888E+00	3.023E+00	2.675E-01	0.117
		192.34		2.552E-02	6.313E-01	1.042E+00	1.548E-01	0.024
		1099.22	*	-1.757E-02	6.210E-02	9.957E-02	9.757E-03	-0.176

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.56		-6.011E-02	8.167E-02	1.299E-01	1.280E-02	-0.463
CO-60		1173.22		1.942E-02	2.996E-02	5.119E-02	4.117E-03	0.379
		1332.49	*	7.769E-03	2.415E-02	4.050E-02	3.611E-03	0.192
ZN-65		1115.52	*	4.639E-02	7.331E-02	1.048E-01	9.346E-03	0.443
GE-68		1077.35	*	5.642E-01	8.605E-01	1.438E+00	1.356E-01	0.392
AS-73		53.44	*	-5.164E-02	5.284E-01	8.246E-01	6.231E-02	-0.063
AS-74		595.88	*	-2.162E-02	5.771E-02	9.429E-02	9.773E-03	-0.229
		634.78		9.330E-02	2.256E-01	3.773E-01	3.954E-02	0.247
SE-75		66.05		-5.152E+00	3.313E+00	4.565E+00	4.355E-01	-1.129
		96.73		-4.447E-01	5.578E-01	7.753E-01	1.067E-01	-0.574
		121.11		-2.653E-02	9.248E-02	1.455E-01	1.591E-02	-0.182
		136.00		-2.424E-02	2.664E-02	4.254E-02	3.691E-03	-0.570
		198.60		-1.013E-01	1.308E+00	2.052E+00	2.398E-01	-0.049
		264.65	*	2.604E-02	3.349E-02	4.824E-02	6.493E-03	0.540
		279.53		7.429E-02	8.167E-02	1.174E-01	1.666E-02	0.633
		303.91		1.562E+00	1.521E+00	2.288E+00	3.486E-01	0.683
		400.65		1.474E-02	1.670E-01	2.749E-01	3.217E-02	0.054
BR-77	+	87.88		7.776E+02	1.462E+02	1.830E+02	1.735E+01	4.249
		200.40		2.978E+01	9.363E+01	1.550E+02	1.704E+01	0.192
	+	239.00		2.482E+02	3.253E+01	2.105E+01	2.619E+00	11.795
		249.79		-1.906E+01	3.645E+01	5.782E+01	7.434E+00	-0.330
		281.68		-7.254E+00	5.611E+01	7.772E+01	1.083E+01	-0.093
		297.23		3.081E+02	6.668E+01	6.946E+01	9.341E+00	4.435
		303.76		1.072E+02	1.080E+02	1.629E+02	2.154E+01	0.658
		439.47		1.639E+01	7.866E+01	1.290E+02	1.241E+01	0.127
		484.57		-4.962E+01	1.233E+02	1.957E+02	1.934E+01	-0.254
		520.65	*	1.521E+00	5.387E+00	8.940E+00	8.998E-01	0.170
		574.64		-1.389E+02	1.188E+02	1.721E+02	1.771E+01	-0.808
		578.91		6.714E+01	5.023E+01	7.631E+01	7.864E+00	0.880
		585.48		1.725E+03	2.272E+02	2.784E+02	2.876E+01	6.194
		755.35		4.421E+01	8.987E+01	1.485E+02	1.619E+01	0.298
		817.79		-1.342E+01	6.719E+01	1.113E+02	1.233E+01	-0.121
SR-82		698.33		3.251E+00	2.165E+01	3.557E+01	3.805E+00	0.091
		776.49	*	-3.709E-01	2.643E-01	3.859E-01	4.232E-02	-0.961
		1395.20		-7.198E+00	6.480E+00	9.768E+00	8.734E-01	-0.737
RB-83		520.41	*	1.160E-02	4.245E-02	7.042E-02	7.087E-03	0.165
		529.64		-3.183E-02	6.450E-02	1.060E-01	1.071E-02	-0.300
		552.65		-7.449E-02	1.235E-01	2.012E-01	2.053E-02	-0.370
RB-84		881.50	*	1.183E-02	4.457E-02	7.479E-02	8.365E-03	0.158
KR-85		513.99	*	2.567E+01	5.991E+00	9.121E+00	9.152E-01	2.815
SR-85		513.99	*	1.308E-01	3.052E-02	4.646E-02	4.662E-03	2.815
RB-86		1076.63	*	1.950E-01	5.276E-01	8.725E-01	8.233E-02	0.224
Y-88		898.02		-2.289E-02	2.686E-02	4.266E-02	4.793E-03	-0.537
		1836.01	*	1.326E-02	2.120E-02	3.355E-02	2.713E-03	0.395
ZR-88		392.90	*	-9.990E-03	1.946E-02	3.141E-02	2.925E-03	-0.318
Y-91		1204.90	*	8.766E+00	1.273E+01	2.170E+01	1.784E+00	0.404
NB-94		702.63	*	2.508E-02	2.205E-02	3.728E-02	3.995E-03	0.673
		871.10		-4.408E-03	2.426E-02	3.650E-02	4.077E-03	-0.121
NB-95		765.79	*	6.448E-02	3.318E-02	4.978E-02	5.444E-03	1.295

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M		235.69	*	2.766E-01	1.048E-01	1.520E-01	2.009E-02	1.820
ZR-95		724.18		2.010E-01	7.664E-02	1.163E-01	1.326E-02	1.728
		756.15	*	7.377E-03	4.603E-02	7.511E-02	8.718E-03	0.098
NB-97		657.90	*	2.504E-02	4.603E-02	Half-Life too short		
		1024.50		1.174E-01	4.603E-02	Half-Life too short		
ZR-97		254.15		9.254E-01	4.603E-02	Half-Life too short		
		355.39		2.023E+00	4.603E-02	Half-Life too short		
		507.63	*	2.462E+00	4.603E-02	Half-Life too short		
		602.52		-7.369E-01	4.603E-02	Half-Life too short		
		1021.30		1.960E+00	4.603E-02	Half-Life too short		
		1147.95		-2.333E+00	4.603E-02	Half-Life too short		
		1362.66		1.117E-01	4.603E-02	Half-Life too short		
		1750.46		-9.557E-01	4.603E-02	Half-Life too short		
MO-99		140.51		-1.086E+01	1.590E+01	2.472E+01	6.856E+00	-0.439
		181.06		1.541E+00	1.131E+01	1.653E+01	3.164E+00	0.093
		366.43		1.208E+01	4.696E+01	7.829E+01	8.304E+00	0.154
		739.58	*	-2.230E+00	6.347E+00	1.014E+01	1.678E+00	-0.220
		778.00		-2.920E+01	2.003E+01	2.992E+01	3.282E+00	-0.976
TC-99M		140.51	*	-3.305E+09	2.003E+01	Half-Life too short		
RH-101		127.23		3.732E-02	2.525E-02	3.690E-02	3.084E-03	1.012
		198.01	*	-8.999E-04	2.398E-02	3.766E-02	4.108E-03	-0.024
		325.23		2.337E-02	1.708E-01	2.495E-01	3.101E-02	0.094
RH-102		418.52		-4.508E-02	1.830E-01	2.966E-01	2.815E-02	-0.152
		475.06	*	5.428E-03	1.927E-02	3.146E-02	3.093E-03	0.173
		631.29		1.657E-02	3.525E-02	5.910E-02	6.188E-03	0.280
		697.49		2.057E-02	4.909E-02	8.142E-02	8.709E-03	0.253
	+	766.84		2.313E-01	8.192E-02	1.288E-01	1.409E-02	1.795
		1046.59		2.840E-02	7.746E-02	1.284E-01	1.260E-02	0.221
		1112.84		2.024E-01	1.652E-01	2.455E-01	2.197E-02	0.824
RU-103		497.08	*	-3.738E-03	2.575E-02	4.120E-02	6.184E-03	-0.091
	+	610.33		1.263E+01	2.447E+00	1.736E+00	3.070E-01	7.276
RH-106	+	511.85		5.500E-01	2.169E-01	2.695E-01	2.701E-02	2.041
		621.84	*	-5.237E-02	2.036E-01	3.327E-01	4.859E-02	-0.157
		1050.47		-6.096E-01	1.561E+00	2.500E+00	2.440E-01	-0.244
RU-106	+	511.85		5.500E-01	2.169E-01	2.695E-01	2.701E-02	2.041
		621.84	*	-5.237E-02	2.036E-01	3.327E-01	3.475E-02	-0.157
		1050.47		-6.096E-01	1.561E+00	2.500E+00	2.440E-01	-0.244
AG-108M		433.93	*	-3.525E-03	2.104E-02	3.408E-02	3.374E-03	-0.103
		614.37		2.672E-02	2.753E-02	4.097E-02	4.385E-03	0.652
		722.95		3.232E-02	3.121E-02	4.580E-02	5.067E-03	0.706
AG-110M		657.75	*	1.483E-02	2.193E-02	3.688E-02	3.963E-03	0.402
		677.61		5.039E-02	1.934E-01	3.201E-01	3.461E-02	0.157
		706.67		3.120E-02	1.343E-01	2.211E-01	2.415E-02	0.141
		763.93		7.147E-02	1.199E-01	1.717E-01	1.910E-02	0.416
		884.67		-7.510E-03	3.150E-02	5.172E-02	5.898E-03	-0.145
		937.48		5.380E-03	8.560E-02	1.211E-01	1.350E-02	0.044
		1384.27		-1.049E-01	1.139E-01	1.432E-01	1.314E-02	-0.733
IN-111		171.28		-1.143E-01	5.927E-01	9.816E-01	9.798E-02	-0.116
		245.39	*	-4.958E-02	6.694E-01	9.433E-01	1.197E-01	-0.053

---- Non-Identified Nuclides ----

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IN-113M		391.69	*	-2.376E-02	2.846E-02	4.536E-02	4.331E-03	-0.524
SN-113		391.69	*	-2.376E-02	2.846E-02	4.536E-02	4.331E-03	-0.524
IN-114M		190.27	*	3.965E-02	1.356E-01	1.983E-01	2.108E-02	0.200
CD-115		260.90		-6.773E+01	7.397E+01	1.149E+02	1.527E+01	-0.589
		492.35		6.404E+00	1.921E+01	3.134E+01	3.111E+00	0.204
		527.90	*	2.754E+00	5.448E+00	9.282E+00	9.374E-01	0.297
SN-117M		156.02		4.299E-01	1.448E+00	2.441E+00	2.289E-01	0.176
		158.56	*	-2.520E-02	3.516E-02	5.774E-02	5.476E-03	-0.436
SB-122		563.90	*	6.682E-01	1.131E+00	1.919E+00	1.967E-01	0.348
		692.80		1.138E+01	2.327E+01	3.873E+01	4.136E+00	0.294
I-123		159.00	*	-1.955E+00	2.327E+01	Half-Life too short		
		528.96		-2.690E+01	2.327E+01	Half-Life too short		
TE-123M		159.00	*	-2.114E-02	1.899E-02	3.079E-02	2.940E-03	-0.687
I-124		602.71	*	-1.655E-01	4.605E-01	6.435E-01	6.684E-02	-0.257
		722.78		2.932E+00	2.936E+00	4.303E+00	4.644E-01	0.681
		1325.50		-4.709E+00	1.920E+01	3.120E+01	2.770E+00	-0.151
		1376.25		6.279E+01	2.265E+01	3.687E+01	3.295E+00	1.703
		1509.49		1.342E+01	9.089E+00	1.605E+01	1.427E+00	0.836
		1691.02		-1.433E+00	1.889E+00	2.896E+00	2.477E-01	-0.495
SB-124		602.71		-1.059E-02	2.945E-02	4.115E-02	4.275E-03	-0.257
		645.85		1.300E-01	3.199E-01	5.342E-01	5.843E-02	0.243
		709.31		-1.145E+00	1.784E+00	2.826E+00	3.036E-01	-0.405
		713.82		-4.130E-01	1.057E+00	1.693E+00	2.312E-01	-0.244
		722.78		2.718E-01	2.722E-01	3.989E-01	4.365E-02	0.681
	+	968.20		1.847E+01	3.152E+00	4.701E+00	4.998E-01	3.929
		1045.16		1.556E+00	1.614E+00	2.738E+00	2.690E-01	0.568
		1325.50		-4.663E-01	1.901E+00	3.089E+00	2.743E-01	-0.151
		1368.21		-5.919E-01	1.296E+00	1.726E+00	2.361E-01	-0.343
		1436.60		1.917E+00	2.405E+00	4.121E+00	3.682E-01	0.465
		1691.02	*	-3.135E-02	4.132E-02	6.333E-02	5.634E-03	-0.495
SB-125		427.89	*	-1.723E-02	6.019E-02	9.721E-02	9.432E-03	-0.177
	+	463.38		8.914E-01	3.093E-01	3.536E-01	3.666E-02	2.521
		600.56		2.131E-02	1.184E-01	1.931E-01	2.108E-02	0.110
		635.90		2.029E-02	1.728E-01	2.861E-01	3.165E-02	0.071
TE-125M		109.28	*	2.985E+00	7.157E+00	1.030E+01	1.043E+00	0.290
I-126		388.63		1.108E-01	1.249E-01	2.108E-01	1.996E-02	0.525
		666.33	*	1.114E-02	1.102E-01	1.816E-01	1.919E-02	0.061
		753.82		6.221E-01	9.172E-01	1.526E+00	1.663E-01	0.408
SB-126		223.80		-4.480E-02	2.696E+00	4.393E+00	5.212E-01	-0.010
	+	278.60		3.161E+00	2.234E+00	2.701E+00	3.775E-01	1.171
	+	296.50		1.324E+01	2.278E+00	2.284E+00	3.077E-01	5.795
		414.70		-6.458E-03	5.379E-02	7.570E-02	7.164E-03	-0.085
		415.30		2.000E+00	4.416E+00	6.386E+00	6.047E-01	0.313
		555.20		1.490E-01	2.373E+00	3.968E+00	4.053E-01	0.038
		573.80		-6.978E-01	6.610E-01	9.961E-01	1.025E-01	-0.701
		593.00		-4.888E-01	6.102E-01	9.296E-01	9.627E-02	-0.526
		656.30		7.249E-01	2.040E+00	3.397E+00	3.578E-01	0.213
		666.33		4.648E-03	4.600E-02	7.577E-02	8.006E-03	0.061
		675.00		3.207E-01	1.218E+00	2.016E+00	2.138E-01	0.159

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		695.00		-3.373E-02	4.838E-02	7.666E-02	8.192E-03	-0.440
		697.00		4.274E-02	1.658E-01	2.735E-01	2.925E-02	0.156
		720.50	*	5.037E-02	1.058E-01	1.514E-01	1.633E-02	0.333
		856.80		4.408E-01	3.391E-01	5.149E-01	5.740E-02	0.856
		989.30		3.952E-01	7.803E-01	1.309E+00	1.365E-01	0.302
		1034.80		2.022E+00	5.684E+00	9.434E+00	9.381E-01	0.214
		1213.00		-9.722E-01	3.072E+00	5.046E+00	4.172E-01	-0.193
SB-127		61.10		8.303E+00	3.272E+01	4.904E+01	4.849E+00	0.169
		252.40		-1.678E+00	2.710E+00	4.134E+00	1.781E+00	-0.406
		290.80		-1.123E+01	1.409E+01	1.991E+01	3.037E+00	-0.564
		411.60		1.128E+01	8.318E+00	1.224E+01	1.967E+00	0.922
		444.90		-1.886E+00	5.744E+00	9.223E+00	1.210E+00	-0.204
		473.00		2.689E-01	9.831E-01	1.605E+00	2.175E-01	0.168
		543.00		4.808E+00	9.867E+00	1.608E+01	2.450E+00	0.299
		603.60		-1.661E+00	7.841E+00	1.104E+01	1.506E+00	-0.150
		685.20	*	-1.952E-01	7.633E-01	1.235E+00	1.585E-01	-0.158
		698.50		1.768E+00	8.795E+00	1.447E+01	2.448E+00	0.122
		722.20		4.967E+00	2.041E+01	2.883E+01	3.677E+00	0.172
		783.80		4.151E+00	2.303E+00	3.859E+00	5.411E-01	1.076
XE-127		57.60		2.397E+00	3.505E+00	5.924E+00	4.255E-01	0.405
		145.22		3.019E-01	4.536E-01	7.730E-01	6.913E-02	0.391
		172.10		-1.538E-02	8.179E-02	1.354E-01	1.355E-02	-0.114
		202.84	*	-1.531E-02	3.312E-02	5.185E-02	5.748E-03	-0.295
		374.96		5.058E-02	1.241E-01	2.074E-01	2.112E-02	0.244
I-131		80.18		2.368E+00	3.542E+00	4.197E+00	3.652E-01	0.564
		284.30		-3.266E-01	9.642E-01	1.522E+00	2.151E-01	-0.215
		364.48	*	2.380E-02	7.070E-02	1.182E-01	1.309E-02	0.201
		636.97		-2.894E-01	9.480E-01	1.542E+00	1.679E-01	-0.188
		722.89		5.092E+00	4.979E+00	7.304E+00	7.912E-01	0.697
TE-132		49.72		5.414E-01	9.769E+00	1.643E+01	1.677E+00	0.033
		111.76		-3.680E+00	1.819E+01	2.888E+01	3.021E+00	-0.127
		116.30		6.731E+00	1.714E+01	2.751E+01	2.865E+00	0.245
		228.16	*	-7.117E-02	4.218E-01	6.831E-01	1.210E-01	-0.104
BA-133		53.15		1.264E-01	2.298E+00	3.602E+00	2.733E-01	0.035
		79.62		5.387E-01	1.084E+00	1.272E+00	1.935E-01	0.423
		81.00		-2.532E-02	8.108E-02	9.167E-02	1.461E-02	-0.276
	+	276.40		4.891E-01	3.503E-01	4.336E-01	7.846E-02	1.128
		302.84		1.537E-01	1.070E-01	1.607E-01	2.680E-02	0.956
		356.01	*	7.017E-03	3.080E-02	4.476E-02	6.689E-03	0.157
		383.85		-8.295E-02	1.933E-01	3.135E-01	4.195E-02	-0.265
I-133	+	510.53		6.828E-01	1.933E-01	Half-Life too short		
		529.87	*	-1.974E-03	1.933E-01	Half-Life too short		
		706.58		4.431E-02	1.933E-01	Half-Life too short		
		856.28		2.723E-01	1.933E-01	Half-Life too short		
		875.33		-5.198E-03	1.933E-01	Half-Life too short		
		1236.41		8.676E-01	1.933E-01	Half-Life too short		
		1298.22		2.119E-02	1.933E-01	Half-Life too short		
CS-134		475.35		5.660E-01	1.257E+00	2.064E+00	2.030E-01	0.274
		563.23		7.906E-02	2.331E-01	3.926E-01	4.051E-02	0.201

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		569.32		1.358E-01	1.250E-01	2.147E-01	2.226E-02	0.632
		604.70		9.254E-03	2.544E-02	3.685E-02	3.837E-03	0.251
	+	795.84	*	1.059E-01	4.348E-02	5.462E-02	6.046E-03	1.938
		801.93		-1.301E-01	3.049E-01	4.075E-01	4.512E-02	-0.319
		1038.57		-1.363E+00	2.583E+00	4.112E+00	4.071E-01	-0.331
		1167.94		-2.603E-01	1.665E+00	2.762E+00	2.244E-01	-0.094
		1365.15		-3.300E-01	7.951E-01	1.251E+00	1.165E-01	-0.264
CS-135		268.24	*	2.119E-01	1.271E-01	1.842E-01	2.664E-02	1.151
I-135		288.45		1.892E+09	1.271E-01	Half-Life too short		
		417.63		1.947E+09	1.271E-01	Half-Life too short		
		546.56		4.085E+08	1.271E-01	Half-Life too short		
		836.80		3.529E+09	1.271E-01	Half-Life too short		
		1038.76		-1.879E+09	1.271E-01	Half-Life too short		
		1124.00		3.308E+10	1.271E-01	Half-Life too short		
		1131.51		2.914E+08	1.271E-01	Half-Life too short		
		1260.41	*	-3.539E+08	1.271E-01	Half-Life too short		
		1457.56		2.827E+11	1.271E-01	Half-Life too short		
		1678.03		-8.095E+08	1.271E-01	Half-Life too short		
		1706.46		-2.207E+09	1.271E-01	Half-Life too short		
		1791.20		-7.764E+08	1.271E-01	Half-Life too short		
CS-136		66.91		-4.529E-02	5.156E-01	7.507E-01	1.117E-01	-0.060
	+	86.29		5.354E+00	1.128E+00	1.273E+00	1.695E-01	4.206
		153.22		1.904E-01	4.192E-01	7.092E-01	7.241E-02	0.268
		163.89		6.596E-01	6.833E-01	1.159E+00	1.234E-01	0.569
		176.55		-1.083E-01	2.458E-01	4.034E-01	4.269E-02	-0.268
		273.65		-3.748E-01	4.969E-01	4.670E-01	6.606E-02	-0.803
		340.57		6.397E-01	1.227E-01	1.698E-01	2.035E-02	3.766
		818.51		2.824E-03	4.423E-02	7.414E-02	8.215E-03	0.038
		1048.07	*	-4.570E-02	7.191E-02	1.138E-01	1.151E-02	-0.402
		1235.34		6.609E-01	4.127E-01	7.091E-01	8.286E-02	0.932
BA-137M		661.65	*	5.618E-03	2.276E-02	3.770E-02	3.976E-03	0.149
CS-137		661.65	*	5.939E-03	2.406E-02	3.986E-02	4.208E-03	0.149
CE-139		165.85	*	-2.398E-02	2.010E-02	3.238E-02	3.176E-03	-0.741
BA-140		162.64		3.387E-01	4.818E-01	8.152E-01	8.244E-02	0.415
		304.84		6.367E-02	9.097E-01	1.334E+00	3.969E-01	0.048
		423.70		9.402E-01	1.215E+00	1.973E+00	6.447E-01	0.476
		537.32	*	-1.122E-01	1.616E-01	2.562E-01	8.602E-02	-0.438
LA-140	+	328.77		8.224E-01	3.024E-01	3.420E-01	4.321E-02	2.405
		432.53		-1.727E-01	1.268E+00	2.056E+00	2.048E-01	-0.084
		487.03		-3.116E-02	8.585E-02	1.364E-01	1.414E-02	-0.228
		751.79		-8.141E-01	1.071E+00	1.672E+00	1.946E-01	-0.487
		815.85		-9.198E-02	1.867E-01	3.050E-01	3.616E-02	-0.302
		867.82		6.738E-01	9.896E-01	1.463E+00	1.686E-01	0.460
		919.63		4.579E-01	2.010E+00	2.880E+00	3.655E-01	0.159
		925.24		4.615E-02	7.529E-01	1.172E+00	1.339E-01	0.039
		1596.49	*	-8.173E-02	5.355E-02	7.915E-02	6.938E-03	-1.033
CE-141		145.44	*	2.644E-02	4.072E-02	6.937E-02	6.315E-03	0.381
CE-143		57.37		3.792E-04	4.072E-02	Half-Life too short		
		231.56		-4.582E-04	4.072E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		293.26	*	6.287E-04	4.072E-02	Half-Life too short		
	+	350.59		2.339E-02	4.072E-02	Half-Life too short		
		490.36		1.055E-03	4.072E-02	Half-Life too short		
		664.57		-1.742E-04	4.072E-02	Half-Life too short		
		721.93		1.322E-04	4.072E-02	Half-Life too short		
CE-144		80.11		1.186E+00	1.718E+00	2.038E+00	1.761E-01	0.582
		133.54	*	1.563E-01	1.502E-01	2.287E-01	3.550E-02	0.684
PM-144		476.78		2.573E-02	4.475E-02	7.370E-02	7.781E-03	0.349
		618.01		-6.271E-03	2.102E-02	3.356E-02	3.568E-03	-0.187
		696.49	*	-4.253E-03	2.198E-02	3.563E-02	3.810E-03	-0.119
		778.57		-2.593E+00	1.592E+00	2.352E+00	2.581E-01	-1.102
PR-144		696.49	*	-2.881E-01	1.489E+00	2.413E+00	2.580E-01	-0.119
		1489.15		-2.338E+00	7.244E+00	1.151E+01	1.025E+00	-0.203
PM-146		453.90	*	4.069E-02	2.890E-02	4.752E-02	5.522E-03	0.856
		633.02		-1.577E-01	8.954E-01	1.463E+00	5.535E-01	-0.108
		735.90		-8.604E-04	1.014E-01	1.523E-01	4.469E-02	-0.006
		747.13		-2.561E-02	5.793E-02	9.196E-02	1.428E-02	-0.279
ND-147	+	91.11		9.068E-01	2.304E-01	3.259E-01	3.220E-02	2.782
		319.41		1.060E+00	2.113E+00	3.578E+00	4.529E-01	0.296
		439.89		-1.631E+00	3.791E+00	5.964E+00	5.743E-01	-0.274
		531.02	*	-2.402E-01	3.412E-01	5.536E-01	8.779E-02	-0.434
PM-149		285.90	*	5.286E+00	5.142E+01	8.234E+01	1.558E+01	0.064
EU-152		121.78		-6.263E-03	5.035E-02	7.957E-02	7.638E-03	-0.079
		244.69		3.539E-01	2.481E-01	3.644E-01	4.613E-02	0.971
		344.27	*	-8.871E-02	8.384E-02	9.860E-02	1.185E-02	-0.900
		443.98		-8.429E-01	6.391E-01	9.816E-01	9.476E-02	-0.859
		778.89		-2.123E-01	1.799E-01	2.735E-01	3.002E-02	-0.776
		867.32		4.737E-01	6.066E-01	9.020E-01	1.007E-01	0.525
	+	964.01		7.623E-01	3.082E-01	3.892E-01	4.154E-02	1.958
		1085.78		-3.934E-01	2.794E-01	4.212E-01	3.924E-02	-0.934
		1112.02		2.750E-01	2.335E-01	3.462E-01	3.103E-02	0.794
	+	1407.95		1.937E-01	1.710E-01	2.053E-01	1.836E-02	0.944
GD-153		69.67		8.004E-01	1.122E+00	1.684E+00	1.307E-01	0.475
	+	83.37		2.898E+01	1.103E+01	1.521E+01	1.365E+00	1.906
		97.43	*	-6.124E-03	5.927E-02	8.302E-02	7.300E-03	-0.074
		103.18		-2.814E-03	7.831E-02	1.117E-01	9.549E-03	-0.025
EU-154		123.07		-1.605E-02	3.579E-02	5.596E-02	6.208E-03	-0.287
		247.94		2.139E-02	2.527E-01	3.783E-01	5.622E-02	0.057
		591.81		-1.134E-02	4.550E-01	6.485E-01	8.431E-02	-0.017
		723.30		1.381E-01	1.331E-01	1.950E-01	2.249E-02	0.708
		756.87		-4.329E-03	5.114E-01	8.285E-01	1.136E-01	-0.005
		873.19		-2.258E-02	1.923E-01	3.179E-01	4.501E-02	-0.071
		996.32		-3.442E-01	2.589E-01	3.866E-01	7.218E-02	-0.890
		1004.76		-4.612E-02	1.473E-01	2.380E-01	3.073E-02	-0.194
		1274.45	*	-6.168E-02	8.339E-02	1.329E-01	1.503E-02	-0.464
TB-160	+	86.79		1.355E+00	2.548E-01	3.206E-01	2.999E-02	4.228
		197.04		4.215E-02	4.018E-01	6.325E-01	6.878E-02	0.067
		215.65		1.308E-01	5.062E-01	8.324E-01	9.622E-02	0.157
		298.57		1.439E-01	1.274E-01	1.328E-01	1.780E-02	1.083

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	-3.105E-02	8.927E-02	1.459E-01	1.632E-02	-0.213
		962.29		1.261E+00	4.420E-01	6.811E-01	7.279E-02	1.852
	+	966.15		5.204E-01	2.104E-01	3.511E-01	3.740E-02	1.482
		1177.93		-8.318E-02	2.403E-01	3.952E-01	3.189E-02	-0.210
		1271.85		7.743E-02	4.700E-01	7.837E-01	6.736E-02	0.099
HO-166M		80.57		1.166E-01	2.196E-01	2.586E-01	2.247E-02	0.451
		184.41		9.277E-02	3.082E-02	4.566E-02	4.760E-03	2.032
		280.46		-8.136E-04	6.300E-02	8.776E-02	1.226E-02	-0.009
	+	410.95		3.149E-01	2.340E-01	2.765E-01	2.610E-02	1.139
		711.68	*	7.818E-03	3.888E-02	6.389E-02	6.869E-03	0.122
		752.31		-3.798E-02	1.758E-01	2.823E-01	3.075E-02	-0.135
		810.29		-8.926E-03	3.633E-02	6.015E-02	6.649E-03	-0.148
TM-171		51.35		1.321E+01	1.790E+01	3.048E+01	2.378E+00	0.433
		52.39		3.867E+00	1.006E+01	1.587E+01	1.218E+00	0.244
		59.40		2.998E+00	1.701E+01	2.550E+01	1.802E+00	0.118
		66.72	*	-6.282E+00	1.928E+01	2.787E+01	2.106E+00	-0.225
LU-176	+	88.36		1.005E+00	1.890E-01	2.372E-01	2.243E-02	4.238
		201.83		-3.423E-02	2.044E-02	3.169E-02	3.501E-03	-1.080
		306.84	*	-9.356E-03	1.782E-02	2.667E-02	3.498E-03	-0.351
		401.10		1.494E+00	4.398E+00	7.295E+00	6.835E-01	0.205
LU-177		112.95		-3.466E-01	1.076E+00	1.701E+00	1.414E-01	-0.204
	+	208.36	*	2.744E+00	9.865E-01	1.256E+00	1.418E-01	2.184
LU-177M		52.97		5.768E-02	1.042E+00	1.633E+00	1.243E-01	0.035
		54.07		1.085E-01	5.390E-01	8.462E-01	6.338E-02	0.128
		61.30		5.311E-01	9.487E-01	1.434E+00	1.031E-01	0.370
		121.62		-4.240E-02	2.573E-01	4.062E-01	3.346E-02	-0.104
		147.16		-2.282E-01	4.302E-01	7.145E-01	6.443E-02	-0.319
		171.86		-8.880E-02	3.320E-01	5.488E-01	5.488E-02	-0.162
		218.09		1.873E-01	5.819E-01	9.573E-01	1.115E-01	0.196
	+	268.79		1.848E+00	7.870E-01	9.590E-01	1.304E-01	1.927
		319.02		-5.777E-02	1.717E-01	2.844E-01	3.604E-02	-0.203
		367.43		3.476E-01	5.855E-01	9.845E-01	1.039E-01	0.353
		413.65	*	1.618E-02	1.282E-01	1.827E-01	1.728E-02	0.089
HF-181		56.28		-1.567E-01	5.507E-01	9.122E-01	6.645E-02	-0.172
		57.53		2.759E-01	2.932E-01	4.981E-01	3.580E-02	0.554
		65.20		-5.685E-01	6.357E-01	9.030E-01	6.732E-02	-0.630
		133.02		5.560E-02	4.810E-02	7.405E-02	6.312E-03	0.751
		136.25		-3.430E-01	3.078E-01	4.881E-01	4.210E-02	-0.703
		345.85		7.343E-02	1.541E-01	1.997E-01	2.310E-02	0.368
		482.03	*	-1.080E-02	2.735E-02	4.344E-02	4.289E-03	-0.249
W-181		56.28		-6.127E-02	2.170E-01	3.595E-01	2.618E-02	-0.170
		57.53		1.086E-01	1.156E-01	1.964E-01	1.412E-02	0.553
		65.20	*	-2.224E-01	2.487E-01	3.533E-01	2.633E-02	-0.630
TA-182		67.75		-3.913E-02	7.251E-02	1.107E-01	8.442E-03	-0.353
		100.10		3.631E-02	1.186E-01	1.920E-01	1.664E-02	0.189
		152.43		-8.902E-02	2.240E-01	3.723E-01	3.435E-02	-0.239
		222.10		-5.336E-02	2.361E-01	3.826E-01	4.515E-02	-0.139
		1001.68		2.590E+00	1.435E+00	2.406E+00	2.479E-01	1.077
	+	1121.28		8.258E-01	1.968E-01	2.284E-01	2.017E-02	3.616

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		1.125E-01	2.066E-01	3.512E-01	2.856E-02	0.320
		1221.42	*	-1.094E-01	1.341E-01	2.154E-01	1.791E-02	-0.508
		1230.97		-7.294E-01	3.491E-01	5.275E-01	4.414E-02	-1.383
RE-183		57.98		5.717E-02	1.162E-01	1.955E-01	1.399E-02	0.292
		59.32		1.153E-02	6.959E-02	1.043E-01	7.376E-03	0.111
		67.20		-1.005E-02	1.371E-01	1.997E-01	1.516E-02	-0.050
		162.32	*	3.319E-02	7.259E-02	1.224E-01	1.180E-02	0.271
	+	208.81		2.614E+00	9.398E-01	1.209E+00	1.367E-01	2.162
		291.72		-8.230E-01	6.943E-01	9.601E-01	1.308E-01	-0.857
RE-184		57.98		2.114E-01	4.296E-01	7.230E-01	5.174E-02	0.292
		59.32		4.259E-02	2.572E-01	3.853E-01	2.725E-02	0.111
		67.20		-3.714E-02	5.069E-01	7.384E-01	5.603E-02	-0.050
		161.27		-1.085E-01	2.342E-01	3.870E-01	3.715E-02	-0.280
		216.55		1.651E-01	1.799E-01	2.990E-01	3.466E-02	0.552
		252.85	*	-1.807E-01	1.601E-01	2.470E-01	3.205E-02	-0.731
		318.01		-9.459E-02	2.960E-01	4.907E-01	6.237E-02	-0.193
		792.07		-4.921E-01	8.534E-01	1.136E+00	1.251E-01	-0.433
		903.28		2.386E-01	7.395E-01	1.067E+00	1.192E-01	0.224
		920.93		1.054E-01	3.167E-01	4.870E-01	5.374E-02	0.216
OS-185		59.72		-4.606E-03	1.880E-01	2.799E-01	1.982E-02	-0.016
		61.14		2.804E-02	1.036E-01	1.553E-01	1.116E-02	0.181
		69.30		2.540E-01	1.987E-01	3.019E-01	2.335E-02	0.841
		592.07		-3.483E-01	1.781E+00	2.621E+00	2.713E-01	-0.133
		646.12	*	6.417E-03	2.726E-02	4.525E-02	4.755E-03	0.142
		717.42		-1.268E-01	5.873E-01	9.483E-01	1.022E-01	-0.134
		874.81		-1.079E-01	3.791E-01	6.218E-01	6.950E-02	-0.174
		880.27		-9.836E-02	4.970E-01	8.179E-01	9.147E-02	-0.120
RE-188		155.03	*	1.214E-01	1.139E-01	1.943E-01	1.813E-02	0.625
		477.96		1.160E+00	2.025E+00	3.336E+00	3.286E-01	0.348
		633.10		-2.741E-01	1.794E+00	2.940E+00	3.080E-01	-0.093
W-188	+	63.58		8.213E+01	4.515E+01	5.561E+01	4.086E+00	1.477
		227.08		6.796E+00	8.804E+00	1.455E+01	1.744E+00	0.467
		290.67	*	-3.843E+00	5.418E+00	7.708E+00	1.053E+00	-0.499
IR-192	+	295.96		1.043E+00	1.799E-01	1.815E-01	2.455E-02	5.750
		308.46		1.236E-02	6.235E-02	1.052E-01	1.377E-02	0.118
		316.51	*	8.435E-03	2.240E-02	3.786E-02	4.839E-03	0.223
		468.07		-2.876E-02	4.826E-02	6.505E-02	6.729E-03	-0.442
		604.41		-4.153E-02	3.466E-01	4.906E-01	6.993E-02	-0.085
		612.46		5.262E+00	8.846E-01	1.187E+00	1.365E-01	4.431
AU-195		65.12		-2.820E-02	1.133E-01	1.644E-01	1.225E-02	-0.172
		66.83		-1.191E-02	6.375E-02	9.256E-02	7.001E-03	-0.129
	+	75.70		1.255E+00	1.840E-01	2.897E-01	2.387E-02	4.332
		98.88	*	2.373E-01	1.545E-01	2.484E-01	2.166E-02	0.955
	+	129.76		5.345E+00	3.280E+00	3.382E+00	2.850E-01	1.581
TL-200		367.94	*	7.528E-05	3.280E+00	Half-Life too short		
		579.30		4.188E-03	3.280E+00	Half-Life too short		
		828.27		3.445E-04	3.280E+00	Half-Life too short		
		1205.75		6.885E-04	3.280E+00	Half-Life too short		
TL-201		68.90		1.049E+00	2.837E+00	4.225E+00	3.256E-01	0.248

---- Non-Identified Nuclides ----

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		70.82		-2.855E-01	1.623E+00	2.377E+00	1.865E-01	-0.120
		80.30		2.212E+00	3.532E+00	4.177E+00	3.619E-01	0.530
		135.34		1.135E+01	1.602E+01	2.439E+01	2.097E+00	0.465
		167.43	*	-1.324E+00	4.102E+00	6.783E+00	6.685E-01	-0.195
TL-202		68.90		1.049E-01	2.837E-01	4.225E-01	3.256E-02	0.248
		70.82		-2.847E-02	1.619E-01	2.371E-01	1.860E-02	-0.120
		80.30		2.207E-01	3.523E-01	4.167E-01	3.610E-02	0.530
		439.56	*	-7.197E-03	4.524E-02	7.194E-02	6.925E-03	-0.100
HG-203		70.83		-1.204E-01	7.201E-01	1.055E+00	1.385E-01	-0.114
		72.87		1.415E+00	4.196E-01	6.659E-01	8.529E-02	2.125
		82.60		5.308E-01	9.264E-01	1.079E+00	1.502E-01	0.492
		279.20	*	3.774E-02	3.082E-02	4.454E-02	6.304E-03	0.847
BI-207		72.80		3.686E-01	1.150E-01	1.942E-01	1.554E-02	1.898
	+	74.97		6.978E-01	1.023E-01	1.425E-01	1.165E-02	4.895
	+	84.90		3.755E-01	1.430E-01	2.055E-01	1.878E-02	1.827
		569.67		2.344E-02	1.927E-02	3.319E-02	3.410E-03	0.706
		1063.62	*	2.258E-02	3.869E-02	6.099E-02	5.856E-03	0.370
		1770.23		6.860E-01	3.702E-01	6.120E-01	5.087E-02	1.121
TL-207		81.07		-6.546E-02	1.787E-01	2.016E-01	1.762E-02	-0.325
	+	83.78		2.476E-01	9.427E-02	1.317E-01	1.188E-02	1.880
		94.90		3.612E-01	1.651E-01	2.487E-01	2.223E-02	1.452
		122.32		5.356E-01	1.192E+00	1.910E+00	1.700E-01	0.280
		144.24		4.793E-01	4.807E-01	7.789E-01	7.711E-02	0.615
		154.21		2.785E-01	2.618E-01	4.465E-01	4.510E-02	0.624
	+	269.46		4.338E-01	1.849E-01	2.292E-01	3.148E-02	1.893
		323.87	*	3.231E-01	4.971E-01	7.354E-01	1.462E-01	0.439
	+	338.28		8.500E+00	1.745E+00	1.613E+00	2.386E-01	5.270
		445.03		-3.380E-01	1.500E+00	2.420E+00	3.109E-01	-0.140
PO-209		260.50		-3.660E+00	6.518E+00	1.029E+01	1.365E+00	-0.356
		262.80		-4.337E+00	1.791E+01	2.858E+01	3.818E+00	-0.152
		896.60	*	-1.175E+00	4.753E+00	7.790E+00	8.726E-01	-0.151
BI-210		46.50	*	9.040E-01	2.081E+00	3.362E+00	3.124E-01	0.269
PB-210		46.50	*	9.040E-01	2.081E+00	3.362E+00	3.124E-01	0.269
PO-210		46.50	*	9.040E-01	2.080E+00	3.362E+00	2.827E-01	0.269
PB-211		404.84	*	-1.746E-01	7.204E-01	9.992E-01	6.273E-01	-0.175
		427.08		7.358E-02	1.353E+00	2.211E+00	1.377E+00	0.033
		831.96		-1.860E-01	8.092E-01	1.324E+00	8.351E-01	-0.140
BI-212	+	727.18	*	1.178E+00	3.413E-01	4.182E-01	4.995E-02	2.818
		785.46		2.514E+00	1.274E+00	2.126E+00	2.337E-01	1.183
		1620.62		7.876E-01	7.776E-01	1.378E+00	1.201E-01	0.572
PO-215		81.07		-6.546E-02	1.787E-01	2.016E-01	1.762E-02	-0.325
	+	83.78		2.476E-01	9.427E-02	1.317E-01	1.188E-02	1.880
		94.90		3.612E-01	1.651E-01	2.487E-01	2.223E-02	1.452
		122.32		5.356E-01	1.192E+00	1.910E+00	1.700E-01	0.280
		144.24		4.793E-01	4.807E-01	7.789E-01	7.711E-02	0.615
		154.21		2.785E-01	2.618E-01	4.465E-01	4.510E-02	0.624
	+	269.46		4.338E-01	1.849E-01	2.292E-01	3.148E-02	1.893
		323.87	*	3.231E-01	4.971E-01	7.354E-01	1.462E-01	0.439
	+	338.28		8.500E+00	1.745E+00	1.613E+00	2.386E-01	5.270

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-3.380E-01	1.500E+00	2.420E+00	3.109E-01	-0.140
RN-219	+	271.23		5.566E-01	2.391E-01	2.997E-01	4.440E-02	1.857
		401.81	*	7.775E-02	2.784E-01	4.485E-01	6.939E-02	0.173
RN-220		549.76	*	4.774E-01	1.620E+01	2.708E+01	2.761E+00	0.018
RA-223		81.07		-6.546E-02	1.787E-01	2.016E-01	1.762E-02	-0.325
	+	83.78		2.476E-01	9.427E-02	1.317E-01	1.188E-02	1.880
		94.90		3.612E-01	1.651E-01	2.487E-01	2.223E-02	1.452
		122.32		5.356E-01	1.192E+00	1.910E+00	1.700E-01	0.280
		144.24		4.793E-01	4.807E-01	7.789E-01	7.711E-02	0.615
		154.21		2.785E-01	2.618E-01	4.465E-01	4.510E-02	0.624
	+	269.46		4.338E-01	1.849E-01	2.292E-01	3.148E-02	1.893
		323.87	*	3.231E-01	4.971E-01	7.354E-01	1.462E-01	0.439
	+	338.28		8.500E+00	1.745E+00	1.613E+00	2.386E-01	5.270
		445.03		-3.380E-01	1.500E+00	2.420E+00	3.109E-01	-0.140
AC-227		79.80		4.105E-01	1.369E+00	1.595E+00	3.428E-01	0.257
		236.00		1.314E+00	2.823E-01	3.374E-01	5.089E-02	3.894
		256.20	*	1.395E-01	2.627E-01	4.278E-01	7.806E-02	0.326
		286.10		5.315E-01	1.045E+00	1.688E+00	2.877E-01	0.315
	+	299.80		2.344E+00	1.511E+00	1.682E+00	3.406E-01	1.393
		304.40		1.306E+00	1.379E+00	2.052E+00	4.304E-01	0.636
		334.20		2.343E+00	2.335E+00	2.417E+00	5.115E-01	0.970
TH-227		79.80		4.105E-01	1.369E+00	1.595E+00	3.472E-01	0.257
	+	94.00		1.092E+01	3.110E+00	2.467E+00	5.410E-01	4.428
		236.00		1.314E+00	2.739E-01	3.374E-01	4.775E-02	3.894
		256.20	*	1.395E-01	2.630E-01	4.278E-01	8.805E-02	0.326
		286.10		5.315E-01	1.171E+00	1.688E+00	1.704E+00	0.315
	+	299.80		2.344E+00	1.511E+00	1.682E+00	3.406E-01	1.393
		304.40		1.306E+00	1.379E+00	2.052E+00	4.304E-01	0.636
		334.20		2.343E+00	2.335E+00	2.417E+00	5.115E-01	0.970
TH-229	+	85.43		3.706E-01	1.411E-01	2.114E-01	1.945E-02	1.753
	+	88.47		5.787E-01	1.088E-01	1.359E-01	1.284E-02	4.257
		100.00		6.170E-02	1.235E-01	2.008E-01	1.741E-02	0.307
		193.63	*	4.791E-02	3.428E-01	5.669E-01	6.095E-02	0.085
		210.97		1.477E+00	6.161E-01	9.181E-01	1.045E-01	1.609
PA-231		283.67	*	-3.522E-01	1.073E+00	1.631E+00	3.045E-01	-0.216
	+	301.29		9.374E-01	5.931E-01	6.826E-01	1.085E-01	1.373
TH-231		81.07		-6.546E-02	1.787E-01	2.016E-01	1.762E-02	-0.325
	+	83.78		2.476E-01	9.427E-02	1.317E-01	1.188E-02	1.880
		94.90		3.612E-01	1.651E-01	2.487E-01	2.223E-02	1.452
		122.32		5.356E-01	1.192E+00	1.910E+00	1.700E-01	0.280
		144.24		4.793E-01	4.807E-01	7.789E-01	7.711E-02	0.615
		154.21		2.785E-01	2.618E-01	4.465E-01	4.510E-02	0.624
	+	269.46		4.338E-01	1.849E-01	2.292E-01	3.148E-02	1.893
		323.87	*	3.231E-01	4.971E-01	7.354E-01	1.462E-01	0.439
	+	338.28		8.500E+00	1.745E+00	1.613E+00	2.386E-01	5.270
		445.03		-3.380E-01	1.500E+00	2.420E+00	3.109E-01	-0.140
U-231	+	84.21		9.624E+00	3.664E+00	5.185E+00	4.700E-01	1.856
	+	92.29		9.738E+00	1.974E+00	2.413E+00	2.201E-01	4.035
		95.87	*	-8.963E-01	7.018E-01	9.601E-01	8.526E-02	-0.934

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		6.880E-01	1.405E+00	2.030E+00	1.707E-01	0.339
PA-233	+	75.28		2.036E+01	3.950E+00	4.352E+00	6.580E-01	4.679
	+	86.59		8.298E+00	2.622E+00	1.976E+00	5.345E-01	4.200
	+	300.12		6.534E-01	4.171E-01	4.695E-01	8.465E-02	1.392
		311.98	*	2.636E-02	4.161E-02	7.076E-02	9.269E-03	0.373
		340.50		3.403E+00	9.838E-01	8.652E-01	2.177E-01	3.933
		398.62		-4.841E-01	1.374E+00	2.221E+00	5.969E-01	-0.218
		415.76		1.063E+00	1.209E+00	1.754E+00	3.842E-01	0.606
PA-234	+	63.00		2.397E+00	1.353E+00	1.680E+00	2.489E-01	1.427
		94.67		4.105E-01	1.294E-01	1.878E-01	2.373E-02	2.186
		98.44		7.262E-02	7.675E-02	1.004E-01	5.602E-02	0.723
		99.86		1.043E-01	3.246E-01	5.110E-01	4.433E-02	0.204
		111.00		4.677E-02	1.286E-01	2.069E-01	2.461E-02	0.226
	+	131.20		2.009E-01	1.233E-01	1.201E-01	1.017E-02	1.672
		152.70		4.785E-02	2.145E-01	3.614E-01	6.275E-02	0.132
	+	186.00		5.402E+00	2.159E+00	1.727E+00	5.488E-01	3.128
		226.40		4.914E-02	2.794E-01	4.568E-01	7.123E-02	0.108
		227.20		2.248E-01	2.996E-01	4.950E-01	5.936E-02	0.454
		248.90		-2.746E-01	5.599E-01	8.526E-01	2.075E-01	-0.322
		293.70		6.001E+00	1.351E+00	1.104E+00	2.233E-01	5.435
		369.80		-8.305E-02	5.510E-01	9.059E-01	2.044E-01	-0.092
		568.70		4.164E-01	6.423E-01	1.091E+00	1.120E-01	0.382
		569.50		2.233E-01	1.718E-01	2.964E-01	3.044E-02	0.753
		574.00		-1.004E+00	9.804E-01	1.480E+00	1.523E-01	-0.679
		699.00		1.497E-02	4.649E-01	7.603E-01	1.529E-01	0.020
		706.10		2.792E-01	6.910E-01	1.126E+00	5.073E-01	0.248
		733.00		1.013E-01	2.683E-01	3.810E-01	8.818E-02	0.266
		742.81		6.101E-02	8.582E-01	1.396E+00	9.431E-01	0.044
	+	796.30		2.059E+00	9.965E-01	1.054E+00	2.940E-01	1.954
		805.60		1.197E+00	7.276E-01	1.120E+00	3.519E-01	1.069
		819.60		1.768E-01	7.666E-01	1.289E+00	4.982E-01	0.137
		826.30		1.262E-01	5.388E-01	9.032E-01	4.090E-01	0.140
		831.60		-3.849E-01	4.327E-01	6.702E-01	2.054E-01	-0.574
		876.40		6.131E-02	5.371E-01	8.904E-01	9.175E-01	0.069
		880.51		1.335E-02	1.800E-01	2.997E-01	3.352E-02	0.045
		883.24		3.260E-02	1.850E-01	3.071E-01	2.076E-01	0.106
		899.00		-4.313E-01	5.728E-01	8.637E-01	3.826E-01	-0.499
		925.00		-5.810E-03	8.107E-01	1.257E+00	1.383E-01	-0.005
		926.50		-6.241E-02	1.357E-01	1.842E-01	4.823E-02	-0.339
		946.00	*	7.346E-03	2.027E-01	3.347E-01	6.653E-02	0.022
		949.00		1.223E-01	3.047E-01	5.101E-01	5.511E-02	0.240
		980.50		-3.162E-01	4.837E-01	7.693E-01	8.090E-02	-0.411
		1394.10		-7.590E-01	8.630E-01	1.075E+00	7.002E-01	-0.706
PA-234M		766.42		1.692E+01	1.236E+01	1.347E+01	6.893E+00	1.257
		1001.03	*	6.804E+00	3.318E+00	5.561E+00	6.373E-01	1.223
NP-236		94.67		3.144E-01	9.427E-02	1.426E-01	1.277E-02	2.204
		98.44		5.488E-02	4.950E-02	7.588E-02	6.634E-03	0.723
		111.00		3.538E-02	9.722E-02	1.565E-01	1.306E-02	0.226
		160.31	*	-2.930E-02	5.288E-02	8.717E-02	8.333E-03	-0.336

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.134E-01	1.079E-01	1.722E-01	1.496E-02	0.659
		117.00	*	1.048E-01	1.324E-01	2.144E-01	1.772E-02	0.489
	+	209.75		2.075E+00	7.459E-01	9.607E-01	1.089E-01	2.160
		228.18		-2.656E-02	1.574E-01	2.549E-01	3.067E-02	-0.104
	+	277.60		2.387E-01	1.687E-01	2.091E-01	2.915E-02	1.142
		334.30		9.796E-01	1.142E+00	1.372E+00	1.655E-01	0.714
AM-241		59.54	*	1.926E-02	9.888E-02	1.482E-01	1.159E-02	0.130
CM-243		99.55		1.167E-01	1.110E-01	1.772E-01	1.540E-02	0.659
		103.76	*	3.659E-02	7.285E-02	1.057E-01	9.009E-03	0.346
		117.00		1.078E-01	1.362E-01	2.205E-01	1.823E-02	0.489
	+	209.75		2.045E+00	7.353E-01	9.470E-01	1.074E-01	2.160
		228.18		-2.684E-02	1.590E-01	2.576E-01	3.099E-02	-0.104
	+	277.60		2.407E-01	1.701E-01	2.108E-01	2.939E-02	1.142
AM-246		798.80		-6.103E-02	1.047E-01	1.382E-01	1.524E-02	-0.442
		1036.00		3.848E-03	2.006E-01	3.282E-01	3.259E-02	0.012
		1062.04		-2.871E-03	1.718E-01	2.645E-01	2.545E-02	-0.011
		1078.86	*	1.194E-01	9.786E-02	1.667E-01	1.568E-02	0.716
CM-247	+	278.00		9.900E-01	6.996E-01	8.591E-01	1.199E-01	1.152
		287.40		6.642E-01	8.474E-01	1.377E+00	1.895E-01	0.482
		402.60	*	1.682E-02	2.631E-02	4.015E-02	3.766E-03	0.419
CF-249		252.85		-6.796E-01	6.022E-01	9.291E-01	1.206E-01	-0.731
		333.44		2.709E-01	1.592E-01	1.756E-01	2.125E-02	1.542
		387.95	*	2.585E-02	2.499E-02	4.234E-02	4.024E-03	0.611
CF-251		176.60	*	-3.990E-02	8.753E-02	1.436E-01	1.459E-02	-0.278
		227.00		2.020E-01	2.657E-01	4.391E-01	5.263E-02	0.460
		285.00		-3.119E-01	1.196E+00	1.894E+00	2.619E-01	-0.165

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396001      *
* Acquisition date :  4-FEB-2010 22:55:47 Detector SN#     :               *
* Detector ID        : GAM22                Sensitivity      : 5.000       *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 04:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 04:00:04.93       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date        : 21-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245396001           Analyst initials: MXR1          *
* Batch Number       : 944962               Sample Quantity : 1.3296E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.964E+01	3.739E+00	3.371E-01	0.000E+00
CD-109	4.308E+00	7.938E-01	7.656E-01	0.000E+00
SN-126	4.239E-01	7.809E-02	7.563E-02	0.000E+00
EU-155	9.288E-02	6.401E-02	1.220E-01	0.000E+00
TL-208	6.051E-01	8.258E-02	3.657E-02	0.000E+00
BI-211	4.034E+00	5.462E-01	2.164E-01	0.000E+00
PB-212	1.852E+00	2.514E-01	6.289E-02	0.000E+00
PO-212	1.852E+00	2.514E-01	6.289E-02	0.000E+00
BI-214	1.183E+00	1.630E-01	7.511E-02	0.000E+00
PB-214	1.403E+00	2.031E-01	7.539E-02	0.000E+00
PO-214	1.403E+00	2.031E-01	7.539E-02	0.000E+00
PO-216	1.852E+00	2.514E-01	6.289E-02	0.000E+00
PO-218	1.403E+00	2.031E-01	7.539E-02	0.000E+00
RA-224	5.040E+00	1.037E+00	7.149E-01	0.000E+00
RA-226	1.183E+00	1.630E-01	7.511E-02	0.000E+00
AC-228	1.778E+00	2.944E-01	1.382E-01	0.000E+00
RA-228	1.778E+00	2.944E-01	1.382E-01	0.000E+00
TH-228	1.879E+00	2.551E-01	6.381E-02	0.000E+00
TH-230	1.183E+00	1.630E-01	7.511E-02	0.000E+00
TH-232	1.778E+00	2.944E-01	1.382E-01	0.000E+00
TH-234	2.056E+00	1.152E+00	1.301E+00	0.000E+00
U-234	1.183E+00	1.630E-01	7.511E-02	0.000E+00
U-235	6.899E-02	1.458E-01	2.491E-01	0.000E+00
NP-237	1.245E+00	3.405E-01	2.243E-01	0.000E+00
U-238	2.056E+00	1.152E+00	1.301E+00	0.000E+00
AM-243	3.887E-01	5.587E-02	5.687E-02	0.000E+00
ANH-511	1.102E-01	4.262E-02	2.952E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	2.063E-01	2.057E-01	3.572E-01	0.000E+00	NOT IDENT.
NA-22	-2.171E-02	2.922E-02	4.783E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.677E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-6.584E-03	1.816E-02	2.941E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.422E-02	5.145E-02	0.000E+00	FAIL ABUN
SC-46	-4.640E-03	2.434E-02	4.128E-02	0.000E+00	FAIL ABUN
V-48	1.244E-02	4.432E-02	7.583E-02	0.000E+00	NOT IDENT.
CR-51	7.250E-02	2.449E-01	4.224E-01	0.000E+00	NOT IDENT.
MN-52	1.675E-01	1.358E-01	2.431E-01	0.000E+00	FAIL ABUN
MN-54	1.983E-02	2.430E-02	4.292E-02	0.000E+00	NOT IDENT.
CO-56	-1.675E-02	2.454E-02	4.092E-02	0.000E+00	NOT IDENT.
CO-57	6.390E-03	1.683E-02	2.873E-02	0.000E+00	NOT IDENT.
CO-58	-1.267E-02	2.350E-02	3.964E-02	0.000E+00	NOT IDENT.
FE-59	-1.757E-02	6.086E-02	1.002E-01	0.000E+00	NOT IDENT.
CO-60	7.769E-03	2.367E-02	4.063E-02	0.000E+00	NOT IDENT.
ZN-65	4.639E-02	7.184E-02	1.054E-01	0.000E+00	NOT IDENT.
GE-68	5.642E-01	8.433E-01	1.448E+00	0.000E+00	NOT IDENT.
AS-73	-5.164E-02	5.179E-01	8.740E-01	0.000E+00	NOT IDENT.
AS-74	-2.162E-02	5.655E-02	9.596E-02	0.000E+00	NOT IDENT.
SE-75	2.604E-02	3.282E-02	4.979E-02	0.000E+00	NOT IDENT.
BR-77	1.521E+00	5.280E+00	9.120E+00	0.000E+00	FAIL ABUN
SR-82	-3.709E-01	2.590E-01	3.909E-01	0.000E+00	NOT IDENT.
RB-83	1.160E-02	4.160E-02	7.183E-02	0.000E+00	NOT IDENT.
RB-84	1.183E-02	4.368E-02	7.559E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	5.871E+00	9.307E+00	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.991E-02	4.741E-02	0.000E+00	NOT IDENT.
RB-86	1.950E-01	5.171E-01	8.787E-01	0.000E+00	NOT IDENT.
Y-88	1.326E-02	2.078E-02	3.347E-02	0.000E+00	NOT IDENT.
ZR-88	-9.990E-03	1.907E-02	3.220E-02	0.000E+00	NOT IDENT.
Y-91	8.766E+00	1.248E+01	2.181E+01	0.000E+00	NOT IDENT.
NB-94	2.508E-02	2.161E-02	3.783E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.252E-02	5.044E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.027E-01	1.572E-01	0.000E+00	NOT IDENT.
ZR-95	7.377E-03	4.511E-02	7.612E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.270E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	7.770E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.230E+00	6.220E+00	1.028E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.746E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.999E-04	2.351E-02	3.906E-02	0.000E+00	NOT IDENT.
RH-102	5.428E-03	1.888E-02	3.214E-02	0.000E+00	FAIL ABUN
RU-103	-3.738E-03	2.523E-02	4.206E-02	0.000E+00	FAIL ABUN
RH-106	-5.237E-02	1.996E-01	3.384E-01	0.000E+00	FAIL ABUN
RU-106	-5.237E-02	1.995E-01	3.384E-01	0.000E+00	FAIL ABUN
AG-108M	-3.525E-03	2.062E-02	3.488E-02	0.000E+00	NOT IDENT.
AG-110M	1.483E-02	2.149E-02	3.747E-02	0.000E+00	NOT IDENT.
IN-111	-4.958E-02	6.560E-01	9.748E-01	0.000E+00	NOT IDENT.
IN-113M	-2.376E-02	2.789E-02	4.650E-02	0.000E+00	NOT IDENT.
SN-113	-2.376E-02	2.789E-02	4.650E-02	0.000E+00	NOT IDENT.
IN-114M	3.965E-02	1.329E-01	2.058E-01	0.000E+00	NOT IDENT.
CD-115	2.754E+00	5.339E+00	9.467E+00	0.000E+00	NOT IDENT.
SN-117M	-2.520E-02	3.446E-02	6.011E-02	0.000E+00	NOT IDENT.
SB-122	6.682E-01	1.108E+00	1.955E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.721E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.114E-02	1.861E-02	3.205E-02	0.000E+00	NOT IDENT.
I-124	-1.655E-01	4.513E-01	6.547E-01	0.000E+00	NOT IDENT.
SB-124	-3.135E-02	4.049E-02	6.326E-02	0.000E+00	FAIL ABUN
SB-125	-1.723E-02	5.898E-02	9.951E-02	0.000E+00	FAIL ABUN
TE-125M	2.985E+00	7.014E+00	1.079E+01	0.000E+00	NOT IDENT.
I-126	1.114E-02	1.080E-01	1.844E-01	0.000E+00	NOT IDENT.
SB-126	5.037E-02	1.037E-01	1.536E-01	0.000E+00	FAIL ABUN
SB-127	-1.952E-01	7.481E-01	1.254E+00	0.000E+00	NOT IDENT.
XE-127	-1.531E-02	3.246E-02	5.376E-02	0.000E+00	NOT IDENT.
I-131	2.380E-02	6.928E-02	1.213E-01	0.000E+00	NOT IDENT.
TE-132	-7.117E-02	4.133E-01	7.067E-01	0.000E+00	NOT IDENT.
BA-133	7.017E-03	3.018E-02	4.597E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.248E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.261E-02	5.531E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.245E-01	1.900E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.712E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.570E-02	7.047E-02	1.147E-01	0.000E+00	FAIL ABUN
BA-137M	5.618E-03	2.230E-02	3.830E-02	0.000E+00	NOT IDENT.
CS-137	5.939E-03	2.358E-02	4.049E-02	0.000E+00	NOT IDENT.
CE-139	-2.398E-02	1.970E-02	3.368E-02	0.000E+00	NOT IDENT.
BA-140	-1.122E-01	1.584E-01	2.613E-01	0.000E+00	NOT IDENT.
LA-140	-8.173E-02	5.248E-02	7.915E-02	0.000E+00	FAIL ABUN
CE-141	2.644E-02	3.991E-02	7.232E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.741E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.563E-01	1.472E-01	2.387E-01	0.000E+00	NOT IDENT.

PM-144	-4.253E-03	2.154E-02	3.616E-02	0.000E+00	NOT IDENT.
PR-144	-2.881E-01	1.459E+00	2.449E+00	0.000E+00	NOT IDENT.
PM-146	4.069E-02	2.832E-02	4.859E-02	0.000E+00	NOT IDENT.
ND-147	-2.402E-01	3.344E-01	5.646E-01	0.000E+00	FAIL ABUN
PM-149	5.286E+00	5.039E+01	8.487E+01	0.000E+00	NOT IDENT.
EU-152	-8.871E-02	8.217E-02	1.013E-01	0.000E+00	FAIL ABUN
GD-153	-6.124E-03	5.808E-02	8.713E-02	0.000E+00	FAIL ABUN
EU-154	-6.168E-02	8.172E-02	1.335E-01	0.000E+00	NOT IDENT.
TB-160	-3.105E-02	8.749E-02	1.475E-01	0.000E+00	FAIL ABUN
HO-166M	7.818E-03	3.810E-02	6.482E-02	0.000E+00	FAIL ABUN
TM-171	-6.282E+00	1.889E+01	2.943E+01	0.000E+00	NOT IDENT.
LU-176	-9.356E-03	1.746E-02	2.745E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	9.668E-01	1.302E+00	0.000E+00	FAIL ABUN
LU-177M	1.618E-02	1.257E-01	1.871E-01	0.000E+00	FAIL ABUN
HF-181	-1.080E-02	2.680E-02	4.438E-02	0.000E+00	NOT IDENT.
W-181	-2.224E-01	2.437E-01	3.732E-01	0.000E+00	NOT IDENT.
TA-182	-1.094E-01	1.314E-01	2.165E-01	0.000E+00	FAIL ABUN
RE-183	3.319E-02	7.114E-02	1.273E-01	0.000E+00	FAIL ABUN
RE-184	-1.807E-01	1.569E-01	2.551E-01	0.000E+00	NOT IDENT.
OS-185	6.417E-03	2.671E-02	4.598E-02	0.000E+00	NOT IDENT.
RE-188	1.214E-01	1.116E-01	2.023E-01	0.000E+00	NOT IDENT.
W-188	-3.843E+00	5.309E+00	7.943E+00	0.000E+00	FAIL ABUN
IR-192	8.435E-03	2.195E-02	3.895E-02	0.000E+00	FAIL ABUN
AU-195	2.373E-01	1.514E-01	2.606E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.960E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.324E+00	4.020E+00	7.055E+00	0.000E+00	NOT IDENT.
TL-202	-7.197E-03	4.434E-02	7.360E-02	0.000E+00	NOT IDENT.
HG-203	3.774E-02	3.020E-02	4.593E-02	0.000E+00	NOT IDENT.
BI-207	2.258E-02	3.792E-02	6.144E-02	0.000E+00	FAIL ABUN
TL-207	3.231E-01	4.872E-01	7.564E-01	0.000E+00	FAIL ABUN
PO-209	-1.175E+00	4.658E+00	7.871E+00	0.000E+00	NOT IDENT.
BI-210	9.040E-01	2.039E+00	3.572E+00	0.000E+00	NOT IDENT.
PB-210	9.040E-01	2.039E+00	3.572E+00	0.000E+00	NOT IDENT.
PO-210	9.040E-01	2.039E+00	3.572E+00	0.000E+00	NOT IDENT.
PB-211	-1.746E-01	7.060E-01	1.024E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.345E-01	4.241E-01	0.000E+00	FAIL ABUN
PO-215	3.231E-01	4.872E-01	7.564E-01	0.000E+00	FAIL ABUN
RN-219	7.775E-02	2.728E-01	4.596E-01	0.000E+00	FAIL ABUN
RN-220	4.774E-01	1.588E+01	2.760E+01	0.000E+00	NOT IDENT.
RA-223	3.231E-01	4.872E-01	7.564E-01	0.000E+00	FAIL ABUN
AC-227	1.395E-01	2.574E-01	4.418E-01	0.000E+00	FAIL ABUN
TH-227	1.395E-01	2.578E-01	4.418E-01	0.000E+00	FAIL ABUN
TH-229	4.791E-02	3.359E-01	5.882E-01	0.000E+00	FAIL ABUN
PA-231	-3.522E-01	1.051E+00	1.681E+00	0.000E+00	FAIL ABUN
TH-231	3.231E-01	4.872E-01	7.564E-01	0.000E+00	FAIL ABUN
U-231	-8.963E-01	6.877E-01	1.008E+00	0.000E+00	FAIL ABUN
PA-233	2.636E-02	4.078E-02	7.282E-02	0.000E+00	FAIL ABUN
PA-234	7.346E-03	1.986E-01	3.379E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	3.252E+00	5.608E+00	0.000E+00	NOT IDENT.
NP-236	-2.930E-02	5.182E-02	9.073E-02	0.000E+00	NOT IDENT.
NP-239	1.048E-01	1.298E-01	2.243E-01	0.000E+00	FAIL ABUN
AM-241	1.926E-02	9.690E-02	1.568E-01	0.000E+00	NOT IDENT.
CM-243	3.659E-02	7.139E-02	1.108E-01	0.000E+00	FAIL ABUN
AM-246	1.194E-01	9.591E-02	1.679E-01	0.000E+00	NOT IDENT.
CM-247	1.682E-02	2.578E-02	4.114E-02	0.000E+00	FAIL ABUN
CF-249	2.585E-02	2.449E-02	4.341E-02	0.000E+00	NOT IDENT.
CF-251	-3.990E-02	8.578E-02	1.493E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 02:57:10.14

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396001.CNF;1
Sample date      : 21-JAN-2010 12:00:00 Acquisition date : 4-FEB-2010 22:55:47.
Sample ID        : G245396001           Sample quantity  : 1.32960E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00        Elapsed real time: 0 04:00:04.93  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 944962               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	5719	10.67*	1.909E+00	3.964E+01	3.964E+01	9.63
CD-109	88.03	831	3.72*	7.476E+00	4.216E+00	4.308E+00	18.80
SN-126	64.28	239	9.60	4.325E+00	8.139E-01	8.139E-01	56.37
	86.94	831	8.90	7.476E+00	1.762E+00	1.762E+00	44.60
	87.57	831	37.00*	7.476E+00	4.239E-01	4.239E-01	18.80
EU-155	48.70	------	4.60	1.648E+00	------ Line Not Found		------
	60.01	------	1.11	3.728E+00	------ Line Not Found		------
	86.54	831	30.90	7.476E+00	5.075E-01	5.104E-01	18.84
	105.31	114	20.70*	8.381E+00	9.236E-02	9.288E-02	70.32
TL-208	277.35	147	6.80	6.181E+00	4.950E-01	4.950E-01	71.22
	510.84	336	21.60	4.299E+00	5.104E-01	5.104E-01	40.32
	583.14	1419	84.20*	3.930E+00	6.051E-01	6.051E-01	13.93
	860.37	211	12.46	2.922E+00	8.188E-01	8.188E-01	46.95
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	1997	12.94*	5.401E+00	4.034E+00	4.034E+00	13.82
PB-212	74.81	1120	10.70	6.163E+00	2.398E+00	2.398E+00	17.39
	77.11	1743	18.00	6.458E+00	2.116E+00	2.116E+00	11.56
	87.30	831	8.00	7.476E+00	1.960E+00	1.960E+00	21.29
	238.63	3927	44.60*	6.710E+00	1.852E+00	1.852E+00	13.85
	300.09	181	3.41	5.913E+00	1.265E+00	1.265E+00	62.95
PO-212	74.81	1120	10.70	6.163E+00	2.398E+00	2.398E+00	17.39
	77.11	1743	18.00	6.458E+00	2.116E+00	2.116E+00	11.56
	87.30	831	8.00	7.476E+00	1.960E+00	1.960E+00	21.29
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	3927	44.60*	6.710E+00	1.852E+00	1.852E+00	13.85
	300.09	181	3.41	5.913E+00	1.265E+00	1.265E+00	62.95
BI-214	609.31	1478	46.30*	3.811E+00	1.183E+00	1.183E+00	14.07
	1120.29	440	15.10	2.346E+00	1.753E+00	1.753E+00	24.74
	1764.49	319	15.80	1.716E+00	1.662E+00	1.662E+00	19.56
PB-214	74.81	1120	6.21	6.163E+00	4.132E+00	4.132E+00	16.43
	77.11	1743	10.50	6.458E+00	3.628E+00	3.628E+00	13.84
	87.30	831	4.67	7.476E+00	3.358E+00	3.358E+00	20.32

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	940	7.49	6.666E+00	2.658E+00	2.658E+00	21.73
	295.21	1118	19.20	5.970E+00	1.376E+00	1.376E+00	18.31
	351.92	1997	37.20*	5.401E+00	1.403E+00	1.403E+00	14.77
PO-214	74.81	1120	6.21	6.163E+00	4.132E+00	4.132E+00	16.43
	77.11	1743	10.50	6.458E+00	3.628E+00	3.628E+00	13.84
	87.30	831	4.67	7.476E+00	3.358E+00	3.358E+00	20.32
	241.98	940	7.49	6.666E+00	2.658E+00	2.658E+00	21.73
	295.21	1118	19.20	5.970E+00	1.376E+00	1.376E+00	18.31
	351.92	1997	37.20*	5.401E+00	1.403E+00	1.403E+00	14.77
PO-216	74.81	1120	10.70	6.163E+00	2.398E+00	2.398E+00	17.39
	77.11	1743	18.00	6.458E+00	2.116E+00	2.116E+00	11.56
	87.30	831	8.00	7.476E+00	1.960E+00	1.960E+00	21.29
	238.63	3927	44.60*	6.710E+00	1.852E+00	1.852E+00	13.85
	300.09	181	3.41	5.913E+00	1.265E+00	1.265E+00	62.95
PO-218	74.81	1120	6.21	6.163E+00	4.132E+00	4.132E+00	16.43
	77.11	1743	10.50	6.458E+00	3.628E+00	3.628E+00	13.84
	87.30	831	4.67	7.476E+00	3.358E+00	3.358E+00	20.32
	241.98	940	7.49	6.666E+00	2.658E+00	2.658E+00	21.73
	295.21	1118	19.20	5.970E+00	1.376E+00	1.376E+00	18.31
	351.92	1997	37.20*	5.401E+00	1.403E+00	1.403E+00	14.77
RA-224	240.98	940	3.95*	6.666E+00	5.040E+00	5.040E+00	21.00
RA-226	609.31	1478	46.30*	3.811E+00	1.183E+00	1.183E+00	14.07
	1120.29	440	15.10	2.346E+00	1.753E+00	1.753E+00	24.74
	1764.49	319	15.80	1.716E+00	1.662E+00	1.662E+00	19.56
AC-228	338.32	908	11.40	5.525E+00	2.036E+00	2.036E+00	44.41
	911.07	973	27.70*	2.788E+00	1.778E+00	1.778E+00	16.90
	969.11	563	16.60	2.649E+00	1.807E+00	1.807E+00	27.60
RA-228	338.32	908	11.40	5.525E+00	2.036E+00	2.036E+00	44.41
	911.07	973	27.70*	2.788E+00	1.778E+00	1.778E+00	16.90
	969.11	563	16.60	2.649E+00	1.807E+00	1.807E+00	27.60
TH-228	74.81	1120	10.70	6.163E+00	2.398E+00	2.433E+00	14.71
	77.11	1743	18.00	6.458E+00	2.116E+00	2.147E+00	11.56
	87.30	831	8.00	7.476E+00	1.960E+00	1.989E+00	18.80
	238.63	3927	44.60*	6.710E+00	1.852E+00	1.879E+00	13.85
	300.09	181	3.41	5.913E+00	1.265E+00	1.283E+00	85.84
TH-230	609.31	1478	46.30*	3.811E+00	1.183E+00	1.183E+00	14.07
	1120.29	440	15.10	2.346E+00	1.753E+00	1.753E+00	24.74
	1764.49	319	15.80	1.716E+00	1.662E+00	1.662E+00	19.56
TH-232	338.32	908	11.40	5.525E+00	2.036E+00	2.036E+00	18.56
	911.07	973	27.70*	2.788E+00	1.778E+00	1.778E+00	16.90
	969.11	563	16.60	2.649E+00	1.807E+00	1.807E+00	27.60
TH-234	63.29	239	3.80*	4.325E+00	2.056E+00	2.056E+00	57.19
	92.38	852	5.41	7.863E+00	2.827E+00	2.827E+00	25.76
U-234	609.31	1478	46.30*	3.811E+00	1.183E+00	1.183E+00	14.07
	1120.29	440	15.10	2.346E+00	1.753E+00	1.753E+00	24.74
	1764.49	319	15.80	1.716E+00	1.662E+00	1.662E+00	19.56
U-235	89.95	552	2.70	7.681E+00	3.756E+00	3.756E+00	38.87
	93.35	852	4.50	7.863E+00	3.398E+00	3.398E+00	33.49
	105.00	114	2.10	8.381E+00	9.104E-01	9.104E-01	75.89

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	143.76	------	10.50*	8.364E+00	------	Line Not Found	------
	163.35	------	4.70	8.031E+00	------	Line Not Found	------
	185.71	582	54.00	7.605E+00	2.001E-01	2.001E-01	26.41
	205.31	------	4.70	7.253E+00	------	Line Not Found	------
NP-237	86.50	831	12.60*	7.476E+00	1.245E+00	1.245E+00	27.91
	95.87	------	2.60	8.032E+00	------	Line Not Found	------
U-238	63.29	239	3.80*	4.325E+00	2.056E+00	2.056E+00	57.19
	92.38	852	5.41	7.863E+00	2.827E+00	2.827E+00	20.27
AM-243	74.67	1120	66.00*	6.163E+00	3.887E-01	3.887E-01	14.66
	86.72	831	0.34	7.476E+00	4.667E+01	4.667E+01	18.80
	117.66	------	0.55	8.550E+00	------	Line Not Found	------
	142.18	------	0.13	8.387E+00	------	Line Not Found	------
ANH-511	511.00	336	100.00*	4.299E+00	1.102E-01	1.102E-01	39.45

Flag: "*" = Keyline

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

Total number of lines in spectrum 40
Number of unidentified lines 3
Number of lines tentatively identified by NID 37 92.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.964E+01	3.964E+01	0.382E+01	9.63	
CD-109	464.00D	1.02	4.216E+00	4.308E+00	0.810E+00	18.80	
SN-126	1.00E+05Y	1.00	4.239E-01	4.239E-01	0.797E-01	18.80	
EU-155	4.96Y	1.01	9.236E-02	9.288E-02	6.532E-02	70.32	
TL-208	1.41E+10Y	1.00	6.051E-01	6.051E-01	0.843E-01	13.93	
BI-211	7.04E+08Y	1.00	4.034E+00	4.034E+00	0.557E+00	13.82	
PB-212	1.41E+10Y	1.00	1.852E+00	1.852E+00	0.257E+00	13.85	
PO-212	1.41E+10Y	1.00	1.852E+00	1.852E+00	0.257E+00	13.85	
BI-214	1600.00Y	1.00	1.183E+00	1.183E+00	0.166E+00	14.07	
PB-214	1600.00Y	1.00	1.403E+00	1.403E+00	0.207E+00	14.77	
PO-214	1600.00Y	1.00	1.403E+00	1.403E+00	0.207E+00	14.77	
PO-216	1.41E+10Y	1.00	1.852E+00	1.852E+00	0.257E+00	13.85	
PO-218	1600.00Y	1.00	1.403E+00	1.403E+00	0.207E+00	14.77	
RA-224	1.41E+10Y	1.00	5.040E+00	5.040E+00	1.058E+00	21.00	
RA-226	1600.00Y	1.00	1.183E+00	1.183E+00	0.166E+00	14.07	
AC-228	1.41E+10Y	1.00	1.778E+00	1.778E+00	0.300E+00	16.90	
RA-228	1.41E+10Y	1.00	1.778E+00	1.778E+00	0.300E+00	16.90	
TH-228	1.91Y	1.01	1.852E+00	1.879E+00	0.260E+00	13.85	
TH-230	4.47E+09Y	1.00	1.183E+00	1.183E+00	0.166E+00	14.07	
TH-232	1.41E+10Y	1.00	1.778E+00	1.778E+00	0.300E+00	16.90	
TH-234	4.47E+09Y	1.00	2.056E+00	2.056E+00	1.176E+00	57.19	
U-234	4.47E+09Y	1.00	1.183E+00	1.183E+00	0.166E+00	14.07	
U-235	7.04E+08Y	1.00	2.001E-01	2.001E-01	0.528E-01	26.41	K
NP-237	2.14E+06Y	1.00	1.245E+00	1.245E+00	0.347E+00	27.91	
U-238	4.47E+09Y	1.00	2.056E+00	2.056E+00	1.176E+00	57.19	
AM-243	7380.00Y	1.00	3.887E-01	3.887E-01	0.570E-01	14.66	
ANH-511	1.00E+09Y	1.00	1.102E-01	1.102E-01	0.435E-01	39.45	
	Total Activity :		8.179E+01	8.191E+01			

Grand Total Activity : 8.179E+01 8.191E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.38	314	1072	1.52	168.97	165	27	2.18E-02	37.0	7.24E+00	T
0	129.84	247	1438	0.99	259.81	255	11	1.72E-02	60.8	8.52E+00	T
0	209.17	342	874	1.32	418.30	414	9	2.38E-02	34.1	7.19E+00	T
0	270.12	262	728	1.50	540.11	536	10	1.82E-02	40.3	6.27E+00	T
0	328.25	305	612	1.24	656.27	650	12	2.12E-02	34.5	5.62E+00	T
0	410.06	123	483	1.57	819.76	813	12	8.56E-03	73.7	4.93E+00	T
0	462.76	296	470	1.25	925.08	918	14	2.06E-02	33.1	4.58E+00	T
0	727.60	329	316	1.84	1454.46	1448	14	2.29E-02	26.4	3.34E+00	T
0	768.08	177	203	2.23	1535.39	1531	10	1.23E-02	33.7	3.20E+00	T
0	795.00	177	231	1.64	1589.20	1583	14	1.23E-02	39.5	3.12E+00	T
0	934.57	66	192	2.19	1868.24	1861	11	4.60E-03	84.8	2.73E+00	T
1	964.74	206	297	2.44	1928.58	1921	22	1.43E-02	39.0	2.66E+00	T
0	1378.68	95	163	2.54	2756.36	2745	17	6.61E-03	65.2	1.99E+00	
0	1409.40	56	107	1.99	2817.82	2807	16	3.85E-03	87.8	1.96E+00	T
0	1729.56	98	58	2.39	3458.28	3445	24	6.80E-03	48.9	1.73E+00	
0	1847.98	68	48	3.42	3695.23	3684	23	4.75E-03	51.2	1.69E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 02:57:14.22

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396001.CNF;1 *
* Acquisition date  : 4-FEB-2010 22:55:47.  Detector SN#     :             *
* Detector ID       : GAM22                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 04:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 04:00:04.93          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 21-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245396001            Analyst initials: MXR1         *
* Batch Number      : 944962                Sample Quantity : 1.32960E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.964E+01	3.815E+00	3.365E-01	3.083E-02	117.789
CD-109	4.308E+00	8.100E-01	7.282E-01	6.911E-02	5.916
SN-126	4.239E-01	7.968E-02	7.194E-02	6.792E-03	5.892
EU-155	9.288E-02	6.532E-02	1.164E-01	9.989E-03	0.798
TL-208	6.051E-01	8.427E-02	3.592E-02	3.895E-03	16.845
BI-211	4.034E+00	5.573E-01	2.106E-01	2.458E-02	19.152
PB-212	1.852E+00	2.566E-01	6.083E-02	8.037E-03	30.449
PO-212	1.852E+00	2.566E-01	6.083E-02	8.037E-03	30.449
BI-214	1.183E+00	1.664E-01	7.383E-02	8.585E-03	16.021
PB-214	1.403E+00	2.072E-01	7.341E-02	9.357E-03	19.117
PO-214	1.403E+00	2.072E-01	7.341E-02	9.357E-03	19.117
PO-216	1.852E+00	2.566E-01	6.083E-02	8.037E-03	30.449
PO-218	1.403E+00	2.072E-01	7.341E-02	9.357E-03	19.117
RA-224	5.040E+00	1.058E+00	6.916E-01	8.657E-02	7.288
RA-226	1.183E+00	1.664E-01	7.383E-02	8.585E-03	16.021
AC-228	1.778E+00	3.004E-01	1.368E-01	1.812E-02	13.000
RA-228	1.778E+00	3.004E-01	1.368E-01	1.812E-02	13.000
TH-228	1.879E+00	2.603E-01	6.172E-02	8.154E-03	30.449

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.183E+00	1.664E-01	7.383E-02	8.585E-03	16.021
TH-232	1.778E+00	3.004E-01	1.368E-01	1.812E-02	13.000
TH-234	2.056E+00	1.176E+00	1.231E+00	2.143E-01	1.670
U-234	1.183E+00	1.664E-01	7.383E-02	8.585E-03	16.021
U-235	2.001E-01	5.284E-02	2.389E-01	4.214E-02	0.838
NP-237	1.245E+00	3.474E-01	2.133E-01	4.830E-02	5.834
U-238	2.056E+00	1.176E+00	1.231E+00	2.143E-01	1.670
AM-243	3.887E-01	5.701E-02	5.395E-02	4.398E-03	7.205
ANH-511	1.102E-01	4.348E-02	2.893E-02	2.898E-03	3.811

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.063E-01		2.099E-01	3.497E-01	3.649E-02	0.590
NA-22	-2.171E-02		2.982E-02	4.764E-02	4.105E-03	-0.456
NA-24	-3.784E-02		1.366E-01	Half-Life too short		
AL-26	-6.584E-03		1.853E-02	2.948E-02	2.411E-03	-0.223
TI-44	3.905E-01	+	4.512E-02	4.885E-02	4.142E-03	7.993
SC-46	-4.640E-03		2.483E-02	4.085E-02	4.572E-03	-0.114
V-48	1.244E-02		4.523E-02	7.517E-02	7.884E-03	0.165
CR-51	7.250E-02		2.499E-01	4.106E-01	5.317E-02	0.177
MN-52	1.675E-01		1.386E-01	2.426E-01	2.168E-02	0.690
MN-54	1.983E-02		2.480E-02	4.243E-02	4.713E-03	0.467
CO-56	-1.675E-02		2.504E-02	4.046E-02	4.503E-03	-0.414
CO-57	6.390E-03		1.717E-02	2.747E-02	2.266E-03	0.233
CO-58	-1.267E-02		2.398E-02	3.916E-02	4.336E-03	-0.324
FE-59	-1.757E-02		6.210E-02	9.957E-02	9.757E-03	-0.176
CO-60	7.769E-03		2.415E-02	4.050E-02	3.611E-03	0.192
ZN-65	4.639E-02		7.331E-02	1.048E-01	9.346E-03	0.443
GE-68	5.642E-01		8.605E-01	1.438E+00	1.356E-01	0.392
AS-73	-5.164E-02		5.284E-01	8.246E-01	6.231E-02	-0.063
AS-74	-2.162E-02		5.771E-02	9.429E-02	9.773E-03	-0.229
SE-75	2.604E-02		3.349E-02	4.824E-02	6.493E-03	0.540
BR-77	1.521E+00		5.387E+00	8.940E+00	8.998E-01	0.170
SR-82	-3.709E-01		2.643E-01	3.859E-01	4.232E-02	-0.961
RB-83	1.160E-02		4.245E-02	7.042E-02	7.087E-03	0.165
RB-84	1.183E-02		4.457E-02	7.479E-02	8.365E-03	0.158
KR-85	2.567E+01		5.991E+00	9.121E+00	9.152E-01	2.815
SR-85	1.308E-01		3.052E-02	4.646E-02	4.662E-03	2.815
RB-86	1.950E-01		5.276E-01	8.725E-01	8.233E-02	0.224
Y-88	1.326E-02		2.120E-02	3.355E-02	2.713E-03	0.395
ZR-88	-9.990E-03		1.946E-02	3.141E-02	2.925E-03	-0.318
Y-91	8.766E+00		1.273E+01	2.170E+01	1.784E+00	0.404
NB-94	2.508E-02		2.205E-02	3.728E-02	3.995E-03	0.673
NB-95	6.448E-02		3.318E-02	4.978E-02	5.444E-03	1.295
NB-95M	2.766E-01		1.048E-01	1.520E-01	2.009E-02	1.820
ZR-95	7.377E-03		4.603E-02	7.511E-02	8.718E-03	0.098

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	2.504E-02		1.668E-02	Half-Life too short		
ZR-97	2.462E+00		3.964E-01	Half-Life too short		
MO-99	-2.230E+00		6.347E+00	1.014E+01	1.678E+00	-0.220
TC-99M	-3.305E+09		2.421E+09	Half-Life too short		
RH-101	-8.999E-04		2.398E-02	3.766E-02	4.108E-03	-0.024
RH-102	5.428E-03		1.927E-02	3.146E-02	3.093E-03	0.173
RU-103	-3.738E-03		2.575E-02	4.120E-02	6.184E-03	-0.091
RH-106	-5.237E-02		2.036E-01	3.327E-01	4.859E-02	-0.157
RU-106	-5.237E-02		2.036E-01	3.327E-01	3.475E-02	-0.157
AG-108M	-3.525E-03		2.104E-02	3.408E-02	3.374E-03	-0.103
AG-110M	1.483E-02		2.193E-02	3.688E-02	3.963E-03	0.402
IN-111	-4.958E-02		6.694E-01	9.433E-01	1.197E-01	-0.053
IN-113M	-2.376E-02		2.846E-02	4.536E-02	4.331E-03	-0.524
SN-113	-2.376E-02		2.846E-02	4.536E-02	4.331E-03	-0.524
IN-114M	3.965E-02		1.356E-01	1.983E-01	2.108E-02	0.200
CD-115	2.754E+00		5.448E+00	9.282E+00	9.374E-01	0.297
SN-117M	-2.520E-02		3.516E-02	5.774E-02	5.476E-03	-0.436
SB-122	6.682E-01		1.131E+00	1.919E+00	1.967E-01	0.348
I-123	-1.955E+00		8.783E-01	Half-Life too short		
TE-123M	-2.114E-02		1.899E-02	3.079E-02	2.940E-03	-0.687
I-124	-1.655E-01		4.605E-01	6.435E-01	6.684E-02	-0.257
SB-124	-3.135E-02		4.132E-02	6.333E-02	5.634E-03	-0.495
SB-125	-1.723E-02		6.019E-02	9.721E-02	9.432E-03	-0.177
TE-125M	2.985E+00		7.157E+00	1.030E+01	1.043E+00	0.290
I-126	1.114E-02		1.102E-01	1.816E-01	1.919E-02	0.061
SB-126	5.037E-02		1.058E-01	1.514E-01	1.633E-02	0.333
SB-127	-1.952E-01		7.633E-01	1.235E+00	1.585E-01	-0.158
XE-127	-1.531E-02		3.312E-02	5.185E-02	5.748E-03	-0.295
I-131	2.380E-02		7.070E-02	1.182E-01	1.309E-02	0.201
TE-132	-7.117E-02		4.218E-01	6.831E-01	1.210E-01	-0.104
BA-133	7.017E-03		3.080E-02	4.476E-02	6.689E-03	0.157
I-133	-1.974E-03		1.147E-03	Half-Life too short		
CS-134	1.059E-01	+	4.348E-02	5.462E-02	6.046E-03	1.938
CS-135	2.119E-01		1.271E-01	1.842E-01	2.664E-02	1.151
I-135	-3.539E+08		3.935E+08	Half-Life too short		
CS-136	-4.570E-02		7.191E-02	1.138E-01	1.151E-02	-0.402
BA-137M	5.618E-03		2.276E-02	3.770E-02	3.976E-03	0.149
CS-137	5.939E-03		2.406E-02	3.986E-02	4.208E-03	0.149
CE-139	-2.398E-02		2.010E-02	3.238E-02	3.176E-03	-0.741
BA-140	-1.122E-01		1.616E-01	2.562E-01	8.602E-02	-0.438
LA-140	-8.173E-02		5.355E-02	7.915E-02	6.938E-03	-1.033
CE-141	2.644E-02		4.072E-02	6.937E-02	6.315E-03	0.381
CE-143	6.287E-04		8.881E-05	Half-Life too short		
CE-144	1.563E-01		1.502E-01	2.287E-01	3.550E-02	0.684
PM-144	-4.253E-03		2.198E-02	3.563E-02	3.810E-03	-0.119
PR-144	-2.881E-01		1.489E+00	2.413E+00	2.580E-01	-0.119
PM-146	4.069E-02		2.890E-02	4.752E-02	5.522E-03	0.856
ND-147	-2.402E-01		3.412E-01	5.536E-01	8.779E-02	-0.434

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	5.286E+00		5.142E+01	8.234E+01	1.558E+01	0.064
EU-152	-8.871E-02		8.384E-02	9.860E-02	1.185E-02	-0.900
GD-153	-6.124E-03		5.927E-02	8.302E-02	7.300E-03	-0.074
EU-154	-6.168E-02		8.339E-02	1.329E-01	1.503E-02	-0.464
TB-160	-3.105E-02		8.927E-02	1.459E-01	1.632E-02	-0.213
HO-166M	7.818E-03		3.888E-02	6.389E-02	6.869E-03	0.122
TM-171	-6.282E+00		1.928E+01	2.787E+01	2.106E+00	-0.225
LU-176	-9.356E-03		1.782E-02	2.667E-02	3.498E-03	-0.351
LU-177	2.744E+00	+	9.865E-01	1.256E+00	1.418E-01	2.184
LU-177M	1.618E-02		1.282E-01	1.827E-01	1.728E-02	0.089
HF-181	-1.080E-02		2.735E-02	4.344E-02	4.289E-03	-0.249
W-181	-2.224E-01		2.487E-01	3.533E-01	2.633E-02	-0.630
TA-182	-1.094E-01		1.341E-01	2.154E-01	1.791E-02	-0.508
RE-183	3.319E-02		7.259E-02	1.224E-01	1.180E-02	0.271
RE-184	-1.807E-01		1.601E-01	2.470E-01	3.205E-02	-0.731
OS-185	6.417E-03		2.726E-02	4.525E-02	4.755E-03	0.142
RE-188	1.214E-01		1.139E-01	1.943E-01	1.813E-02	0.625
W-188	-3.843E+00		5.418E+00	7.708E+00	1.053E+00	-0.499
IR-192	8.435E-03		2.240E-02	3.786E-02	4.839E-03	0.223
AU-195	2.373E-01		1.545E-01	2.484E-01	2.166E-02	0.955
TL-200	7.528E-05		9.999E-05	Half-Life too short		
TL-201	-1.324E+00		4.102E+00	6.783E+00	6.685E-01	-0.195
TL-202	-7.197E-03		4.524E-02	7.194E-02	6.925E-03	-0.100
HG-203	3.774E-02		3.082E-02	4.454E-02	6.304E-03	0.847
BI-207	2.258E-02		3.869E-02	6.099E-02	5.856E-03	0.370
TL-207	3.231E-01		4.971E-01	7.354E-01	1.462E-01	0.439
PO-209	-1.175E+00		4.753E+00	7.790E+00	8.726E-01	-0.151
BI-210	9.040E-01		2.081E+00	3.362E+00	3.124E-01	0.269
PB-210	9.040E-01		2.081E+00	3.362E+00	3.124E-01	0.269
PO-210	9.040E-01		2.080E+00	3.362E+00	2.827E-01	0.269
PB-211	-1.746E-01		7.204E-01	9.992E-01	6.273E-01	-0.175
BI-212	1.178E+00	+	3.413E-01	4.182E-01	4.995E-02	2.818
PO-215	3.231E-01		4.971E-01	7.354E-01	1.462E-01	0.439
RN-219	7.775E-02		2.784E-01	4.485E-01	6.939E-02	0.173
RN-220	4.774E-01		1.620E+01	2.708E+01	2.761E+00	0.018
RA-223	3.231E-01		4.971E-01	7.354E-01	1.462E-01	0.439
AC-227	1.395E-01		2.627E-01	4.278E-01	7.806E-02	0.326
TH-227	1.395E-01		2.630E-01	4.278E-01	8.805E-02	0.326
TH-229	4.791E-02		3.428E-01	5.669E-01	6.095E-02	0.085
PA-231	-3.522E-01		1.073E+00	1.631E+00	3.045E-01	-0.216
TH-231	3.231E-01		4.971E-01	7.354E-01	1.462E-01	0.439
U-231	-8.963E-01		7.018E-01	9.601E-01	8.526E-02	-0.934
PA-233	2.636E-02		4.161E-02	7.076E-02	9.269E-03	0.373
PA-234	7.346E-03		2.027E-01	3.347E-01	6.653E-02	0.022
PA-234M	6.804E+00		3.318E+00	5.561E+00	6.373E-01	1.223
NP-236	-2.930E-02		5.288E-02	8.717E-02	8.333E-03	-0.336
NP-239	1.048E-01		1.324E-01	2.144E-01	1.772E-02	0.489
AM-241	1.926E-02		9.888E-02	1.482E-01	1.159E-02	0.130

Sample ID : G245396001 Acquisition date : 4-FEB-2010 22:55:47

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.659E-02		7.285E-02	1.057E-01	9.009E-03	0.346
AM-246	1.194E-01		9.786E-02	1.667E-01	1.568E-02	0.716
CM-247	1.682E-02		2.631E-02	4.015E-02	3.766E-03	0.419
CF-249	2.585E-02		2.499E-02	4.234E-02	4.024E-03	0.611
CF-251	-3.990E-02		8.753E-02	1.436E-01	1.459E-02	-0.278

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                               2040 Savage Road                            *
*                             Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245396001            *
* Acquisition date :  4-FEB-2010 22:55:47 Detector SN#     :               *
* Detector ID      : GAM22                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 04:00:04.93     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 21-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245396001           Analyst initials: MXR1            *
* Batch Number     : 944962               Sample Quantity : 1.3296E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.964E+01	3.739E+00	1.686E-01	1.908E+00
CD-109	4.308E+00	7.938E-01	3.830E-01	4.050E-01
SN-126	4.239E-01	7.809E-02	3.784E-02	3.984E-02
EU-155	9.288E-02	6.401E-02	6.102E-02	3.266E-02
TL-208	6.051E-01	8.258E-02	1.830E-02	4.213E-02
BI-211	4.034E+00	5.462E-01	1.082E-01	2.787E-01
PB-212	1.852E+00	2.514E-01	3.147E-02	1.283E-01
PO-212	1.852E+00	2.514E-01	3.147E-02	1.283E-01
BI-214	1.183E+00	1.630E-01	3.758E-02	8.319E-02
PB-214	1.403E+00	2.031E-01	3.772E-02	1.036E-01
PO-214	1.403E+00	2.031E-01	3.772E-02	1.036E-01
PO-216	1.852E+00	2.514E-01	3.147E-02	1.283E-01
PO-218	1.403E+00	2.031E-01	3.772E-02	1.036E-01
RA-224	5.040E+00	1.037E+00	3.577E-01	5.291E-01
RA-226	1.183E+00	1.630E-01	3.758E-02	8.319E-02
AC-228	1.778E+00	2.944E-01	6.912E-02	1.502E-01
RA-228	1.778E+00	2.944E-01	6.912E-02	1.502E-01
TH-228	1.879E+00	2.551E-01	3.192E-02	1.301E-01
TH-230	1.183E+00	1.630E-01	3.758E-02	8.319E-02
TH-232	1.778E+00	2.944E-01	6.912E-02	1.502E-01
TH-234	2.056E+00	1.152E+00	6.510E-01	5.880E-01
U-234	1.183E+00	1.630E-01	3.758E-02	8.319E-02
U-235	6.899E-02	1.458E-01	1.246E-01	7.438E-02
NP-237	1.245E+00	3.405E-01	1.122E-01	1.737E-01
U-238	2.056E+00	1.152E+00	6.510E-01	5.880E-01
AM-243	3.887E-01	5.587E-02	2.845E-02	2.850E-02
ANH-511	1.102E-01	4.262E-02	1.477E-02	2.174E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	2.063E-01	2.057E-01	1.787E-01	1.050E-01	NOT IDENT.
NA-22	-2.171E-02	2.922E-02	2.393E-02	1.491E-02	NOT IDENT.
NA-24	-3.784E+04	2.677E+05	0.000E+00	1.366E+05	SHORT HLIF
AL-26	-6.584E-03	1.816E-02	1.471E-02	9.266E-03	NOT IDENT.
TI-44	3.905E-01	4.422E-02	2.574E-02	2.256E-02	FAIL ABUN
SC-46	-4.640E-03	2.434E-02	2.065E-02	1.242E-02	FAIL ABUN
V-48	1.244E-02	4.432E-02	3.794E-02	2.261E-02	NOT IDENT.
CR-51	7.250E-02	2.449E-01	2.113E-01	1.250E-01	NOT IDENT.
MN-52	1.675E-01	1.358E-01	1.216E-01	6.929E-02	FAIL ABUN
MN-54	1.983E-02	2.430E-02	2.147E-02	1.240E-02	NOT IDENT.
CO-56	-1.675E-02	2.454E-02	2.047E-02	1.252E-02	NOT IDENT.
CO-57	6.390E-03	1.683E-02	1.437E-02	8.584E-03	NOT IDENT.
CO-58	-1.267E-02	2.350E-02	1.983E-02	1.199E-02	NOT IDENT.
FE-59	-1.757E-02	6.086E-02	5.015E-02	3.105E-02	NOT IDENT.
CO-60	7.769E-03	2.367E-02	2.033E-02	1.207E-02	NOT IDENT.
ZN-65	4.639E-02	7.184E-02	5.276E-02	3.665E-02	NOT IDENT.
GE-68	5.642E-01	8.433E-01	7.247E-01	4.303E-01	NOT IDENT.
AS-73	-5.164E-02	5.179E-01	4.372E-01	2.642E-01	NOT IDENT.
AS-74	-2.162E-02	5.655E-02	4.801E-02	2.885E-02	NOT IDENT.
SE-75	2.604E-02	3.282E-02	2.491E-02	1.675E-02	NOT IDENT.
BR-77	1.521E+00	5.280E+00	4.563E+00	2.694E+00	FAIL ABUN
SR-82	-3.709E-01	2.590E-01	1.956E-01	1.321E-01	NOT IDENT.
RB-83	1.160E-02	4.160E-02	3.594E-02	2.122E-02	NOT IDENT.
RB-84	1.183E-02	4.368E-02	3.782E-02	2.228E-02	NOT IDENT.
KR-85	2.567E+01	5.871E+00	4.656E+00	2.995E+00	NOT IDENT.
SR-85	1.308E-01	2.991E-02	2.372E-02	1.526E-02	NOT IDENT.
RB-86	1.950E-01	5.171E-01	4.396E-01	2.638E-01	NOT IDENT.
Y-88	1.326E-02	2.078E-02	1.674E-02	1.060E-02	NOT IDENT.
ZR-88	-9.990E-03	1.907E-02	1.611E-02	9.730E-03	NOT IDENT.
Y-91	8.766E+00	1.248E+01	1.091E+01	6.365E+00	NOT IDENT.
NB-94	2.508E-02	2.161E-02	1.892E-02	1.102E-02	NOT IDENT.
NB-95	6.448E-02	3.252E-02	2.523E-02	1.659E-02	NOT IDENT.
NB-95M	2.766E-01	1.027E-01	7.864E-02	5.241E-02	NOT IDENT.
ZR-95	7.377E-03	4.511E-02	3.808E-02	2.302E-02	NOT IDENT.
NB-97	2.504E+04	3.270E+04	0.000E+00	1.668E+04	SHORT HLIF
ZR-97	2.462E+06	7.770E+05	0.000E+00	3.964E+05	SHORT HLIF
MO-99	-2.230E+00	6.220E+00	5.141E+00	3.174E+00	NOT IDENT.
TC-99M	-3.305E+15	4.746E+15	0.000E+00	2.421E+15	SHORT HLIF
RH-101	-8.999E-04	2.351E-02	1.954E-02	1.199E-02	NOT IDENT.
RH-102	5.428E-03	1.888E-02	1.608E-02	9.633E-03	FAIL ABUN
RU-103	-3.738E-03	2.523E-02	2.104E-02	1.287E-02	FAIL ABUN
RH-106	-5.237E-02	1.996E-01	1.693E-01	1.018E-01	FAIL ABUN
RU-106	-5.237E-02	1.995E-01	1.693E-01	1.018E-01	FAIL ABUN
AG-108M	-3.525E-03	2.062E-02	1.745E-02	1.052E-02	NOT IDENT.
AG-110M	1.483E-02	2.149E-02	1.874E-02	1.096E-02	NOT IDENT.
IN-111	-4.958E-02	6.560E-01	4.877E-01	3.347E-01	NOT IDENT.
IN-113M	-2.376E-02	2.789E-02	2.326E-02	1.423E-02	NOT IDENT.
SN-113	-2.376E-02	2.789E-02	2.326E-02	1.423E-02	NOT IDENT.
IN-114M	3.965E-02	1.329E-01	1.030E-01	6.779E-02	NOT IDENT.
CD-115	2.754E+00	5.339E+00	4.736E+00	2.724E+00	NOT IDENT.
SN-117M	-2.520E-02	3.446E-02	3.007E-02	1.758E-02	NOT IDENT.
SB-122	6.682E-01	1.108E+00	9.781E-01	5.655E-01	NOT IDENT.
I-123	-1.955E+06	1.721E+06	0.000E+00	8.783E+05	SHORT HLIF
TE-123M	-2.114E-02	1.861E-02	1.604E-02	9.495E-03	NOT IDENT.
I-124	-1.655E-01	4.513E-01	3.276E-01	2.302E-01	NOT IDENT.
SB-124	-3.135E-02	4.049E-02	3.165E-02	2.066E-02	FAIL ABUN
SB-125	-1.723E-02	5.898E-02	4.978E-02	3.009E-02	FAIL ABUN
TE-125M	2.985E+00	7.014E+00	5.400E+00	3.578E+00	NOT IDENT.
I-126	1.114E-02	1.080E-01	9.227E-02	5.512E-02	NOT IDENT.
SB-126	5.037E-02	1.037E-01	7.685E-02	5.290E-02	FAIL ABUN
SB-127	-1.952E-01	7.481E-01	6.273E-01	3.817E-01	NOT IDENT.
XE-127	-1.531E-02	3.246E-02	2.690E-02	1.656E-02	NOT IDENT.
I-131	2.380E-02	6.928E-02	6.068E-02	3.535E-02	NOT IDENT.
TE-132	-7.117E-02	4.133E-01	3.536E-01	2.109E-01	NOT IDENT.
BA-133	7.017E-03	3.018E-02	2.300E-02	1.540E-02	FAIL ABUN
I-133	-1.974E+03	2.248E+03	0.000E+00	1.147E+03	SHORT HLIF
CS-134	1.059E-01	4.261E-02	2.767E-02	2.174E-02	FAIL ABUN
CS-135	2.119E-01	1.245E-01	9.508E-02	6.354E-02	NOT IDENT.
I-135	-3.539E+14	7.712E+14	0.000E+00	3.935E+14	SHORT HLIF
CS-136	-4.570E-02	7.047E-02	5.736E-02	3.595E-02	FAIL ABUN
BA-137M	5.618E-03	2.230E-02	1.916E-02	1.138E-02	NOT IDENT.
CS-137	5.939E-03	2.358E-02	2.026E-02	1.203E-02	NOT IDENT.
CE-139	-2.398E-02	1.970E-02	1.685E-02	1.005E-02	NOT IDENT.
BA-140	-1.122E-01	1.584E-01	1.307E-01	8.081E-02	NOT IDENT.
LA-140	-8.173E-02	5.248E-02	3.960E-02	2.678E-02	FAIL ABUN
CE-141	2.644E-02	3.991E-02	3.618E-02	2.036E-02	NOT IDENT.
CE-143	6.287E+02	1.741E+02	0.000E+00	8.881E+01	SHORT HLIF
CE-144	1.563E-01	1.472E-01	1.194E-01	7.509E-02	NOT IDENT.

PM-144	-4.253E-03	2.154E-02	1.809E-02	1.099E-02	NOT IDENT.
PR-144	-2.881E-01	1.459E+00	1.225E+00	7.445E-01	NOT IDENT.
PM-146	4.069E-02	2.832E-02	2.431E-02	1.445E-02	NOT IDENT.
ND-147	-2.402E-01	3.344E-01	2.824E-01	1.706E-01	FAIL ABUN
PM-149	5.286E+00	5.039E+01	4.246E+01	2.571E+01	NOT IDENT.
EU-152	-8.871E-02	8.217E-02	5.068E-02	4.192E-02	FAIL ABUN
GD-153	-6.124E-03	5.808E-02	4.359E-02	2.963E-02	FAIL ABUN
EU-154	-6.168E-02	8.172E-02	6.678E-02	4.169E-02	NOT IDENT.
TB-160	-3.105E-02	8.749E-02	7.378E-02	4.464E-02	FAIL ABUN
HO-166M	7.818E-03	3.810E-02	3.243E-02	1.944E-02	FAIL ABUN
TM-171	-6.282E+00	1.889E+01	1.472E+01	9.638E+00	NOT IDENT.
LU-176	-9.356E-03	1.746E-02	1.373E-02	8.908E-03	FAIL ABUN
LU-177	2.744E+00	9.668E-01	6.513E-01	4.933E-01	FAIL ABUN
LU-177M	1.618E-02	1.257E-01	9.362E-02	6.411E-02	FAIL ABUN
HF-181	-1.080E-02	2.680E-02	2.220E-02	1.367E-02	NOT IDENT.
W-181	-2.224E-01	2.437E-01	1.867E-01	1.243E-01	NOT IDENT.
TA-182	-1.094E-01	1.314E-01	1.083E-01	6.703E-02	FAIL ABUN
RE-183	3.319E-02	7.114E-02	6.370E-02	3.629E-02	FAIL ABUN
RE-184	-1.807E-01	1.569E-01	1.276E-01	8.004E-02	NOT IDENT.
OS-185	6.417E-03	2.671E-02	2.301E-02	1.363E-02	NOT IDENT.
RE-188	1.214E-01	1.116E-01	1.012E-01	5.694E-02	NOT IDENT.
W-188	-3.843E+00	5.309E+00	3.974E+00	2.709E+00	FAIL ABUN
IR-192	8.435E-03	2.195E-02	1.949E-02	1.120E-02	FAIL ABUN
AU-195	2.373E-01	1.514E-01	1.304E-01	7.725E-02	FAIL ABUN
TL-200	7.528E+01	1.960E+02	0.000E+00	9.999E+01	SHORT HLIF
TL-201	-1.324E+00	4.020E+00	3.529E+00	2.051E+00	NOT IDENT.
TL-202	-7.197E-03	4.434E-02	3.682E-02	2.262E-02	NOT IDENT.
HG-203	3.774E-02	3.020E-02	2.298E-02	1.541E-02	NOT IDENT.
BI-207	2.258E-02	3.792E-02	3.074E-02	1.935E-02	FAIL ABUN
TL-207	3.231E-01	4.872E-01	3.784E-01	2.486E-01	FAIL ABUN
PO-209	-1.175E+00	4.658E+00	3.938E+00	2.377E+00	NOT IDENT.
BI-210	9.040E-01	2.039E+00	1.787E+00	1.040E+00	NOT IDENT.
PB-210	9.040E-01	2.039E+00	1.787E+00	1.040E+00	NOT IDENT.
PO-210	9.040E-01	2.039E+00	1.787E+00	1.040E+00	NOT IDENT.
PB-211	-1.746E-01	7.060E-01	5.122E-01	3.602E-01	NOT IDENT.
BI-212	1.178E+00	3.345E-01	2.122E-01	1.707E-01	FAIL ABUN
PO-215	3.231E-01	4.872E-01	3.784E-01	2.486E-01	FAIL ABUN
RN-219	7.775E-02	2.728E-01	2.299E-01	1.392E-01	FAIL ABUN
RN-220	4.774E-01	1.588E+01	1.381E+01	8.101E+00	NOT IDENT.
RA-223	3.231E-01	4.872E-01	3.784E-01	2.486E-01	FAIL ABUN
AC-227	1.395E-01	2.574E-01	2.210E-01	1.313E-01	FAIL ABUN
TH-227	1.395E-01	2.578E-01	2.210E-01	1.315E-01	FAIL ABUN
TH-229	4.791E-02	3.359E-01	2.943E-01	1.714E-01	FAIL ABUN
PA-231	-3.522E-01	1.051E+00	8.410E-01	5.364E-01	FAIL ABUN
TH-231	3.231E-01	4.872E-01	3.784E-01	2.486E-01	FAIL ABUN
U-231	-8.963E-01	6.877E-01	5.042E-01	3.509E-01	FAIL ABUN
PA-233	2.636E-02	4.078E-02	3.643E-02	2.081E-02	FAIL ABUN
PA-234	7.346E-03	1.986E-01	1.690E-01	1.013E-01	FAIL ABUN
PA-234M	6.804E+00	3.252E+00	2.806E+00	1.659E+00	NOT IDENT.
NP-236	-2.930E-02	5.182E-02	4.539E-02	2.644E-02	NOT IDENT.
NP-239	1.048E-01	1.298E-01	1.122E-01	6.621E-02	FAIL ABUN
AM-241	1.926E-02	9.690E-02	7.847E-02	4.944E-02	NOT IDENT.
CM-243	3.659E-02	7.139E-02	5.543E-02	3.642E-02	FAIL ABUN
AM-246	1.194E-01	9.591E-02	8.400E-02	4.893E-02	NOT IDENT.
CM-247	1.682E-02	2.578E-02	2.058E-02	1.315E-02	FAIL ABUN
CF-249	2.585E-02	2.449E-02	2.172E-02	1.249E-02	NOT IDENT.
CF-251	-3.990E-02	8.578E-02	7.468E-02	4.376E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	677.3796
46.50	677.3796
46.50	677.3796
48.70	747.3508
49.72	728.8390
51.35	724.9455
52.39	755.1696
52.97	792.4188
53.15	786.5207
53.44	793.0945
54.07	767.2029
56.28	832.8292
56.28	832.8381
57.37	0.0000
57.53	780.2422
57.53	780.2485
57.60	805.1224
57.98	830.1107
57.98	830.1107
59.32	852.2574
59.32	852.2574
59.40	852.5275
59.54	853.0019
59.72	875.1321
60.01	876.1373
61.10	902.9722
61.14	903.1119
61.30	903.6743
63.00	953.1987
63.29	954.2523
63.29	954.2523
63.58	955.3008
64.28	987.0264
65.12	1004.7769
65.20	1066.6118
65.20	1066.6118
66.05	1106.7098
66.72	1051.9668
66.83	1052.3917
66.91	1052.7023
67.20	1078.9043
67.20	1078.9043
67.75	1121.5724
67.85	1121.9803
68.90	1122.6489
68.90	1122.6489
69.30	1042.4562
69.67	1097.4368
70.82	1202.0436
70.82	1202.0436
70.83	1202.0865
72.80	1104.9255
72.87	1105.1943
72.87	1105.1943
74.67	1111.9536
74.81	1112.4744
74.81	1112.4744
74.81	1112.4744
74.81	1112.4744
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74.97	1113.0736
75.28	1114.2272
75.70	1115.7839
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77.11	1120.9863

77.11	1120.9863
77.11	1120.9863
77.11	1120.9863
77.11	1120.9863
77.11	1120.9863
78.38	1125.6343
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80.30	978.2857
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81.07	1048.7347
81.07	1048.7347
81.07	1048.7347
82.60	988.4950
83.37	1028.2389
83.78	916.1937
83.78	916.1937
83.78	916.1937
83.78	916.1937
84.21	917.4081
84.90	919.3439
85.43	920.8271
86.29	923.2199
86.50	923.8024
86.54	923.9145
86.59	924.0534
86.72	924.4164
86.79	924.6046
86.94	925.0258
87.30	926.0206
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87.30	926.0206
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87.88	927.6202
88.03	928.0325
88.36	928.9377
88.47	929.2424
89.95	933.2842
91.11	936.4344
92.29	939.6159
92.38	939.8578
92.38	939.8578
93.35	942.4524
94.00	944.1865
94.67	918.0396
94.67	918.0526
94.90	918.6440
94.90	918.6440
94.90	918.6440
94.90	918.6440
95.87	1021.3248
95.87	1021.3248
96.73	973.5483
97.43	933.2213
98.44	871.0230
98.44	871.0271
98.88	850.5599
99.55	877.1349
99.55	877.1349
99.86	925.7879
100.00	926.1381
100.10	936.2064
103.18	913.1160
103.76	901.3007
105.00	934.0217
105.31	934.7704
108.00	914.5277
109.28	955.9911

111.00	964.0269
111.00	964.0269
111.76	1004.0267
112.95	1019.3586
115.19	967.1612
116.30	957.2549
117.00	889.4709
117.00	889.4709
117.66	931.8787
121.11	872.8357
121.62	875.0176
121.78	875.3389
122.06	839.0723
122.32	839.5729
122.32	839.5729
122.32	839.5729
122.32	839.5729
123.07	906.7816
127.23	896.1277
129.76	977.5773
131.20	929.0275
133.02	883.1596
133.54	852.9778
135.34	861.9521
136.00	970.5949
136.25	971.1106
136.48	976.6769
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140.51	0.0000
142.18	985.6030
142.65	954.0515
143.76	943.5397
144.24	905.5176
144.24	905.5176
144.24	905.5176
144.24	905.5176
145.22	939.9737
145.44	923.1460
147.16	980.9696
152.43	972.7526
152.70	928.1426
153.22	908.7957
154.21	877.2816
154.21	877.2816
154.21	877.2816
154.21	877.2816
155.03	895.3069
156.02	907.1913
158.56	924.5888
159.00	0.0000
159.00	958.8937
160.31	924.8092
161.27	913.3544
162.32	886.0529
162.64	867.8156
163.35	842.6415
163.89	841.5890
165.85	966.3281
167.43	927.4456
171.28	929.0514
171.86	939.5345
172.10	939.9328
176.55	947.2299
176.60	947.3125
181.06	936.5023
184.41	902.7863
185.71	897.5030
186.00	897.9377
190.27	842.2332
192.34	866.7664
193.63	863.6154
197.04	862.3300
198.01	891.5313
198.60	898.3329
200.40	885.8648
201.83	1013.0903
202.84	926.7751
205.31	878.4732

208.36	931.1182
208.81	880.0985
209.75	798.3769
209.75	798.3769
210.97	822.5897
215.65	817.4462
216.55	771.3953
218.09	809.0599
222.10	817.8739
223.80	821.9262
226.40	815.5982
227.00	780.9318
227.08	781.0178
227.20	784.2700
228.16	829.0675
228.18	829.0918
228.18	829.0918
231.56	0.0000
235.69	833.5058
236.00	869.2383
236.00	869.2383
238.63	769.2066
238.63	769.2066
238.63	769.2066
238.63	769.2066
239.00	769.5898
240.98	771.6338
241.98	772.6669
241.98	772.6669
241.98	772.6669
244.69	630.5808
245.39	649.9277
247.94	614.7354
248.90	647.5323
249.79	650.8838
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252.85	716.9744
254.15	0.0000
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256.20	662.7496
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260.90	693.8795
262.80	639.9264
264.65	592.6624
268.24	647.9572
268.79	665.9704
269.46	666.5163
269.46	666.5163
269.46	666.5163
269.46	666.5163
271.23	734.3344
273.65	777.7236
276.40	709.3555
277.35	623.6060
277.60	623.7861
277.60	623.7861
278.00	557.9019
278.60	561.8566
279.20	574.7129
279.53	574.9337
280.46	582.6923
281.68	583.5306
283.67	613.2505
284.30	620.8944
285.00	623.6418
285.90	608.6048
286.10	588.5662
286.10	588.5662
287.40	589.4474
288.45	0.0000
290.67	652.1479
290.80	652.2450
291.72	678.5095
293.26	0.0000
293.70	604.6410
295.21	566.4063
295.21	566.4063

295.21	566.4063
295.96	643.9835
296.50	644.3735
297.23	644.9022
298.57	645.8729
299.80	587.5468
299.80	587.5468
300.09	587.7437
300.09	587.7437
300.09	587.7437
300.09	587.7437
300.12	587.7594
301.29	593.0853
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303.91	538.3767
304.40	540.1971
304.40	540.1971
304.84	589.3113
306.84	601.9732
308.46	571.1123
311.98	538.2075
316.51	548.2477
318.01	587.2231
319.02	596.2192
319.41	560.1790
320.08	574.2257
323.87	556.2654
323.87	556.2654
323.87	556.2654
323.87	556.2654
325.23	621.0248
328.77	566.9286
333.44	368.2291
334.20	448.8321
334.20	448.8321
334.30	478.8037
338.28	519.0023
338.28	519.0023
338.28	519.0023
338.28	519.0023
338.32	519.0291
338.32	519.0291
338.32	519.0291
340.50	469.1304
340.57	469.1605
344.27	563.1648
345.85	468.4489
350.59	0.0000
351.07	504.4922
351.92	504.9088
351.92	504.9088
351.92	504.9088
355.39	0.0000
356.01	463.4648
364.48	467.2324
366.43	472.9697
367.43	458.7721
367.94	0.0000
369.80	481.3096
374.96	446.2745
383.85	478.6546
387.95	409.8022
388.63	423.9875
391.69	485.0270
391.69	485.0270
392.90	467.5658
398.62	487.0011
400.65	476.8005
401.10	472.9662
401.81	474.3776
402.60	447.6753
404.84	499.7433
410.95	426.2600
411.60	429.8807
413.65	434.0208
414.70	444.5930
415.30	415.9547

415.76	388.9441
417.63	0.0000
418.52	435.1315
423.70	401.1186
427.08	441.3380
427.89	444.7195
432.53	408.1827
433.93	416.9269
439.47	424.0022
439.56	426.1107
439.89	433.5029
443.98	467.2609
444.90	430.0300
445.03	430.0753
445.03	430.0753
445.03	430.0753
445.03	430.0753
453.90	355.0790
463.38	365.3580
468.07	396.7897
473.00	390.4566
475.06	396.4066
475.35	390.0848
476.78	391.5735
477.59	369.3294
477.96	387.6387
482.03	394.1890
484.57	387.4043
487.03	383.7951
490.36	0.0000
492.35	357.1630
497.08	365.9980
507.63	0.0000
510.53	0.0000
510.84	358.6622
511.00	358.7021
511.85	358.9156
511.85	358.9156
513.99	326.1160
513.99	326.1160
520.41	333.2748
520.65	333.3337
527.90	326.5207
528.96	0.0000
529.64	359.3215
529.87	0.0000
531.02	379.1355
537.32	377.9735
543.00	336.4380
546.56	0.0000
549.76	343.5941
552.65	364.0093
555.20	336.3580
563.23	377.9103
563.90	362.9196
568.70	362.1484
569.32	337.5649
569.50	324.2941
569.67	324.3288
573.80	379.9276
574.00	377.6873
574.64	385.4817
578.91	303.4318
579.30	0.0000
583.14	328.0909
585.48	331.0485
591.81	343.9414
592.07	350.1940
593.00	379.9387
595.88	377.1381
600.56	388.2840
602.52	0.0000
602.71	421.1843
602.71	421.1843
603.60	414.7511
604.41	428.2915
604.70	405.0283
609.31	393.9148

609.31	393.9148
609.31	393.9148
609.31	393.9148
610.33	369.6308
612.46	365.0846
614.37	316.8809
618.01	358.2127
621.84	342.8723
621.84	342.8723
631.29	320.0977
633.02	336.2508
633.10	335.2756
634.78	323.7268
635.90	319.9771
636.97	339.0150
645.85	312.8693
646.12	316.9066
656.30	311.7466
657.75	302.9769
657.90	0.0000
661.65	330.7939
661.65	330.7939
664.57	0.0000
666.33	326.6301
666.33	326.6301
675.00	304.9193
677.61	298.2588
685.20	306.6462
692.80	303.8280
695.00	355.4011
696.49	339.2898
696.49	339.2898
697.00	329.1308
697.49	326.1389
698.33	342.7047
698.50	342.7387
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713.82	330.0396
717.42	330.6692
720.50	315.0405
721.93	0.0000
722.20	340.2587
722.78	306.5070
722.78	306.5070
722.89	306.5250
722.95	306.5310
723.30	319.0685
724.18	313.8622
727.18	359.0057
733.00	266.9341
735.90	283.2881
739.58	296.7550
742.81	278.3438
744.21	269.0781
747.13	292.6375
751.79	313.3812
752.31	297.6342
753.82	278.8457
755.35	287.5169
756.15	299.2654
756.87	312.0691
763.93	289.3687
765.79	306.0293
766.42	320.7003
766.84	317.1228
776.49	358.9312
778.00	353.8492
778.57	363.5742
778.89	342.2396
783.80	295.8948
785.46	292.6247
792.07	407.8002

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796.30	251.4662
798.80	296.1998
801.93	298.5002
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831.96	320.6092
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848.13	283.2168
856.28	0.0000
856.80	251.2873
860.37	277.1666
867.32	234.0839
867.82	239.1523
871.10	267.9736
873.19	262.4750
874.81	270.3303
875.33	0.0000
876.40	251.3361
879.36	266.0734
880.27	261.3750
880.51	253.7151
881.50	252.8642
883.24	250.1702
884.67	257.0685
889.25	254.6911
896.60	259.3773
898.02	281.8098
899.00	279.0201
903.28	253.0881
911.07	259.0466
911.07	259.0466
911.07	259.0466
919.63	241.1776
920.93	240.9688
925.00	250.6076
925.24	248.1405
926.50	267.6108
935.52	232.4638
937.48	268.8439
944.10	279.4566
946.00	271.7726
949.00	273.0977
962.29	254.1945
964.01	283.9865
966.15	253.0964
968.20	253.3046
969.11	226.9644
969.11	226.9644
969.11	226.9644
977.42	234.4105
980.50	265.5869
983.50	241.8237
989.30	223.2737
996.32	309.6233
1001.03	217.2383
1001.68	221.3373
1004.76	291.4252
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1024.50	0.0000
1034.80	239.5497
1036.00	251.9458
1037.82	262.3661
1038.57	262.4464
1038.76	0.0000
1045.16	223.0168
1046.59	250.9017
1048.07	282.9415

1050.47	269.8037
1050.47	269.8037
1062.04	274.0761
1063.62	248.3705
1076.63	254.7668
1077.35	253.7951
1078.86	235.2065
1085.78	304.6589
1099.22	278.8955
1112.02	211.9751
1112.84	212.0383
1115.52	297.1385
1120.29	239.8020
1120.29	239.8020
1120.29	239.8020
1120.29	239.8020
1120.51	239.8257
1121.28	238.5681
1124.00	0.0000
1129.67	224.2318
1131.51	0.0000
1147.95	0.0000
1167.94	294.1730
1173.22	275.8678
1175.09	276.9888
1177.93	304.6065
1189.05	291.5510
1204.90	305.4731
1205.75	0.0000
1213.00	336.8302
1221.42	358.8181
1230.97	455.9235
1235.34	366.2218
1236.41	0.0000
1238.25	330.9719
1246.25	362.6895
1260.41	0.0000
1271.85	229.5181
1274.45	261.8251
1274.54	261.8333
1291.56	233.8798
1298.22	0.0000
1312.09	196.9666
1325.50	158.2227
1325.50	158.2227
1332.49	145.6766
1333.61	141.7606
1360.21	146.8968
1362.66	0.0000
1365.15	145.1773
1368.21	142.4609
1368.53	0.0000
1376.25	135.6595
1384.27	135.9811
1394.10	133.2327
1395.20	134.2826
1407.95	127.6880
1434.06	101.0786
1436.60	111.3717
1457.56	0.0000
1460.81	109.0472
1489.15	100.5730
1509.49	95.9194
1596.49	134.6619
1620.62	79.1994
1678.03	0.0000
1691.02	65.0644
1691.02	65.0644
1706.46	0.0000
1750.46	0.0000
1764.49	46.4530
1764.49	46.4530
1764.49	46.4530
1764.49	46.4530
1770.23	62.3506
1771.40	58.8038
1791.20	0.0000
1808.65	65.9051

1836.01 46.7245

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245396001

Total Uranium Activity	6.1491E+00	ug/g
Total Uranium Counting Unc.	3.4291E+00	ug/g
Total Uranium Tpu	1.7495E-06	ug/g
Total Uranium Mda	1.9376E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944962                    SAMPLE ID  : G245396001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   : 21-JAN-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE:  4-FEB-2010 22:55:47.58    SAMPLE ALQT:  132.960 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.131E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.170E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.148E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.054E+00
```

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:00:09.33

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396002.CNF;1
Sample date       : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 18:59:38.
Sample ID         : G245396002           Sample quantity  : 1.00510E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.09  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944962                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.39*	385	481	1.16	127.51	123	9	5.35E-02	11.8	
2	3	74.90*	312	435	1.19	150.52	143	18	4.33E-02	12.7	9.28E-01
3	3	77.18*	490	422	1.10	155.08	143	18	6.81E-02	8.6	
4	0	87.21	131	533	1.46	175.13	172	7	1.82E-02	30.5	
5	2	92.76*	1002	548	1.31	186.22	182	19	1.39E-01	5.2	2.80E+00
6	2	98.49*	80	317	1.14	197.67	182	19	1.12E-02	42.5	
7	0	144.75*	44	363	1.45	290.14	284	10	6.05E-03	86.4	
8	0	186.18*	276	451	1.04	372.95	367	12	3.84E-02	17.0	
9	0	209.95	81	241	1.28	420.46	416	9	1.12E-02	36.8	
10	3	239.05*	970	181	1.18	478.64	471	20	1.35E-01	4.0	1.16E+00
11	3	241.90*	210	237	1.52	484.32	471	20	2.92E-02	16.3	
12	0	270.20	130	216	1.97	540.90	535	13	1.81E-02	24.8	
13	0	295.66*	266	193	1.26	591.79	587	11	3.70E-02	11.9	
14	0	300.55	77	124	1.59	601.56	597	9	1.07E-02	28.7	
15	0	339.24*	211	202	1.45	678.90	671	16	2.94E-02	16.8	
16	0	352.51*	490	184	1.38	705.42	698	15	6.81E-02	7.6	
17	0	463.89	95	121	1.55	928.06	921	16	1.32E-02	27.8	
18	0	511.40*	86	173	1.97	1023.01	1015	19	1.20E-02	41.5	
19	0	583.69*	219	126	1.44	1167.51	1162	14	3.04E-02	13.3	
20	0	609.71*	344	91	1.49	1219.52	1214	14	4.77E-02	8.4	
21	0	662.27	190	107	1.62	1324.57	1317	17	2.64E-02	14.4	
22	0	727.91	35	56	0.85	1455.75	1454	7	4.90E-03	43.2	
23	0	861.65	37	73	1.84	1723.06	1715	14	5.19E-03	51.3	
24	0	911.62*	193	42	1.55	1822.93	1817	15	2.68E-02	10.6	
25	0	965.06*	29	45	1.97	1929.73	1925	9	3.99E-03	46.9	
26	0	969.27*	106	37	1.69	1938.16	1934	10	1.48E-02	15.1	
27	0	1001.56*	94	18	2.06	2002.69	1995	16	1.31E-02	15.0	
28	0	1120.75*	79	41	1.74	2240.89	2233	15	1.10E-02	21.3	
29	0	1461.21*	692	11	1.78	2921.31	2915	14	9.60E-02	4.0	
30	0	1730.26	22	8	1.75	3458.97	3454	11	3.08E-03	32.7	
31	0	1765.19*	53	12	2.15	3528.77	3521	16	7.43E-03	21.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-FEB-2010 21:00:13

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 18:59:38
Sample ID : G245396002 Sample quantity : 100.51 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.09 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.560E+01	3.056E+00	7.217E-01	6.416E-02	35.471
CD-109	+	88.03	*	2.593E+00	1.599E+00	2.153E+00	2.037E-01	1.204
SN-126	+	64.28		5.371E+00	1.491E+00	1.137E+00	1.673E-01	4.723
	+	86.94		1.059E+00	7.810E-01	9.407E-01	3.906E-01	1.126
	+	87.57	*	2.548E-01	1.571E-01	2.290E-01	2.157E-02	1.113
BA-137M	+	661.65	*	4.111E-01	1.230E-01	7.581E-02	6.210E-03	5.423
CS-137	+	661.65	*	4.346E-01	1.300E-01	8.014E-02	6.578E-03	5.423
CE-141	+	145.44	*	7.969E-02	1.379E-01	1.344E-01	1.169E-02	0.593
TL-208		277.35		4.719E-02	5.297E-01	8.489E-01	1.079E-01	0.056
	+	510.84		6.253E-01	5.239E-01	3.138E-01	3.729E-02	1.993
	+	583.14	*	4.531E-01	1.272E-01	7.563E-02	6.869E-03	5.991
	+	860.37		7.369E-01	7.590E-01	6.585E-01	6.311E-02	1.119
BI-211		72.87		6.395E+00	4.713E+00	7.906E+00	6.484E-01	0.809
	+	351.07	*	4.391E+00	7.798E-01	4.482E-01	4.077E-02	9.796
PB-212	+	74.81		2.617E+00	7.402E-01	8.160E-01	1.021E-01	3.207
	+	77.11		2.319E+00	4.440E-01	4.605E-01	3.907E-02	5.037
	+	87.30		1.178E+00	7.360E-01	1.044E+00	1.432E-01	1.129
	+	238.63	*	1.870E+00	2.420E-01	1.143E-01	1.157E-02	16.363
	+	300.09		2.310E+00	1.350E+00	1.485E+00	1.606E-01	1.555
PO-212	+	74.81		2.617E+00	7.402E-01	8.160E-01	1.021E-01	3.207
	+	77.11		2.319E+00	4.440E-01	4.605E-01	3.907E-02	5.037
	+	87.30		1.178E+00	7.360E-01	1.044E+00	1.432E-01	1.129
		115.19		-8.398E-01	5.419E+00	8.554E+00	7.433E-01	-0.098
	+	238.63	*	1.870E+00	2.420E-01	1.143E-01	1.157E-02	16.363
	+	300.09		2.310E+00	1.350E+00	1.485E+00	1.606E-01	1.555
BI-214	+	609.31	*	1.343E+00	2.616E-01	1.578E-01	1.556E-02	8.512
	+	1120.29		1.646E+00	7.220E-01	5.597E-01	5.988E-02	2.941
	+	1764.49		1.531E+00	6.650E-01	5.412E-01	4.539E-02	2.829
PB-214	+	74.81		4.509E+00	1.249E+00	1.406E+00	1.567E-01	3.207
	+	77.11		3.976E+00	8.192E-01	7.894E-01	9.002E-02	5.037
	+	87.30		2.018E+00	1.254E+00	1.788E+00	2.172E-01	1.129
	+	241.98		2.436E+00	8.344E-01	6.886E-01	7.355E-02	3.538
	+	295.21		1.401E+00	3.681E-01	2.896E-01	3.198E-02	4.838
	+	351.92	*	1.527E+00	2.827E-01	1.563E-01	1.637E-02	9.775

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.509E+00	1.249E+00	1.406E+00	1.567E-01	3.207
	+	77.11		3.976E+00	8.192E-01	7.894E-01	9.002E-02	5.037
	+	87.30		2.018E+00	1.254E+00	1.788E+00	2.172E-01	1.129
	+	241.98		2.436E+00	8.344E-01	6.886E-01	7.355E-02	3.538
	+	295.21		1.401E+00	3.681E-01	2.896E-01	3.198E-02	4.838
	+	351.92	*	1.527E+00	2.827E-01	1.563E-01	1.637E-02	9.775
PO-216	+	74.81		2.617E+00	7.402E-01	8.160E-01	1.021E-01	3.207
	+	77.11		2.319E+00	4.440E-01	4.605E-01	3.907E-02	5.037
	+	87.30		1.178E+00	7.360E-01	1.044E+00	1.432E-01	1.129
	+	238.63	*	1.870E+00	2.420E-01	1.143E-01	1.157E-02	16.363
	+	300.09		2.310E+00	1.350E+00	1.485E+00	1.606E-01	1.555
PO-218	+	74.81		4.509E+00	1.249E+00	1.406E+00	1.567E-01	3.207
	+	77.11		3.976E+00	8.192E-01	7.894E-01	9.002E-02	5.037
	+	87.30		2.018E+00	1.254E+00	1.788E+00	2.172E-01	1.129
	+	241.98		2.436E+00	8.344E-01	6.886E-01	7.355E-02	3.538
	+	295.21		1.401E+00	3.681E-01	2.896E-01	3.198E-02	4.838
	+	351.92	*	1.527E+00	2.827E-01	1.563E-01	1.637E-02	9.775
RA-224	+	240.98	*	4.620E+00	1.561E+00	1.301E+00	1.182E-01	3.550
RA-226	+	609.31	*	1.343E+00	2.616E-01	1.578E-01	1.556E-02	8.512
	+	1120.29		1.646E+00	7.220E-01	5.597E-01	5.988E-02	2.941
	+	1764.49		1.531E+00	6.650E-01	5.412E-01	4.539E-02	2.829
AC-228	+	338.32		2.084E+00	1.110E+00	4.746E-01	1.960E-01	4.391
	+	911.07	*	1.802E+00	4.354E-01	2.679E-01	3.101E-02	6.728
	+	969.11		1.753E+00	6.714E-01	5.817E-01	1.365E-01	3.013
RA-228	+	338.32		2.084E+00	1.110E+00	4.746E-01	1.960E-01	4.391
	+	911.07	*	1.802E+00	4.354E-01	2.679E-01	3.101E-02	6.728
	+	969.11		1.753E+00	6.714E-01	5.817E-01	1.365E-01	3.013
TH-228	+	74.81		2.657E+00	7.100E-01	8.285E-01	6.960E-02	3.207
	+	77.11		2.355E+00	4.508E-01	4.675E-01	3.967E-02	5.037
	+	87.30		1.196E+00	7.377E-01	1.060E+00	9.951E-02	1.129
	+	238.63	*	1.899E+00	2.457E-01	1.161E-01	1.175E-02	16.363
	+	300.09		2.345E+00	1.937E+00	1.508E+00	8.952E-01	1.555
TH-230	+	609.31	*	1.343E+00	2.616E-01	1.578E-01	1.556E-02	8.512
	+	1120.29		1.646E+00	7.220E-01	5.597E-01	5.988E-02	2.941
	+	1764.49		1.531E+00	6.650E-01	5.412E-01	4.539E-02	2.829
TH-232	+	338.32		2.084E+00	7.245E-01	4.746E-01	4.178E-02	4.391
	+	911.07	*	1.802E+00	4.354E-01	2.679E-01	3.101E-02	6.728
	+	969.11		1.753E+00	6.714E-01	5.817E-01	1.365E-01	3.013
TH-234	+	63.29	*	1.357E+01	3.987E+00	3.070E+00	5.396E-01	4.420
	+	92.38		1.257E+01	2.652E+00	1.264E+00	2.318E-01	9.947
U-234	+	609.31	*	1.343E+00	2.616E-01	1.578E-01	1.556E-02	8.512
	+	1120.29		1.646E+00	7.220E-01	5.597E-01	5.988E-02	2.941
	+	1764.49		1.531E+00	6.650E-01	5.412E-01	4.539E-02	2.829
U-235		89.95		6.112E-01	2.556E+00	2.901E+00	9.008E-01	0.211
	+	93.35		1.512E+01	4.543E+00	1.508E+00	4.248E-01	10.024
		105.00		1.150E+00	1.482E+00	2.383E+00	7.117E-01	0.483
	+	143.76	*	2.649E-01	4.600E-01	4.679E-01	8.175E-02	0.566
		163.35		1.026E+00	6.767E-01	1.142E+00	2.173E-01	0.899
	+	185.71		3.704E-01	1.300E-01	9.824E-02	8.536E-03	3.770

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		7.788E-01	8.571E-01	1.297E+00	2.489E-01	0.600
NP-237	+	86.50	*	7.481E-01	4.864E-01	6.190E-01	1.401E-01	1.209
		95.87		-3.503E+00	1.721E+00	2.155E+00	5.333E-01	-1.626
U-238	+	63.29	*	1.357E+01	3.987E+00	3.070E+00	5.396E-01	4.420
	+	92.38		1.257E+01	1.743E+00	1.264E+00	1.154E-01	9.947
AM-243	+	74.67	*	4.243E-01	1.133E-01	1.327E-01	1.104E-02	3.196
	+	86.72		2.805E+01	1.730E+01	2.399E+01	2.239E+00	1.169
		117.66		2.006E+00	5.583E+00	9.008E+00	7.853E-01	0.223
		142.18		1.802E+00	2.718E+01	4.085E+01	3.494E+00	0.044
ANH-511	+	511.00	*	1.351E-01	1.126E-01	6.779E-02	5.745E-03	1.992

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.927E-01	4.840E-01	8.111E-01	7.379E-02	0.361
NA-22		1274.54	*	-2.984E-03	5.646E-02	9.367E-02	7.866E-03	-0.032
NA-24		1368.53	*	2.673E-01	5.646E-02	Half-Life too short		
AL-26		1129.67		1.091E+00	2.343E+00	3.966E+00	3.313E-01	0.275
		1808.65	*	-2.336E-02	3.939E-02	5.399E-02	4.473E-03	-0.433
TI-44		67.85		-5.972E-02	8.535E-02	1.071E-01	8.493E-03	-0.558
	+	78.38	*	4.280E-01	8.193E-02	1.111E-01	9.533E-03	3.853
SC-46		889.25	*	-2.764E-02	5.444E-02	8.388E-02	7.583E-03	-0.329
	+	1120.51		2.822E-01	1.224E-01	1.741E-01	1.463E-02	1.621
V-48		944.10		3.405E-01	1.177E+00	1.980E+00	1.783E-01	0.172
		983.50	*	-1.306E-02	1.013E-01	1.621E-01	1.447E-02	-0.081
		1312.09		-7.961E-03	1.060E-01	1.749E-01	1.483E-02	-0.046
CR-51		320.08	*	3.559E-02	5.166E-01	8.500E-01	7.996E-02	0.042
MN-52		744.21		5.877E-02	3.299E-01	5.544E-01	4.756E-02	0.106
		848.13		-8.822E+00	8.282E+00	1.166E+01	1.042E+00	-0.757
		935.52		2.963E-01	3.687E-01	6.481E-01	5.846E-02	0.457
		1246.25		6.852E+00	9.887E+00	1.765E+01	1.467E+00	0.388
		1333.61		-2.046E+00	7.298E+00	1.171E+01	9.980E-01	-0.175
		1434.06	*	-1.867E-01	2.726E-01	3.889E-01	3.358E-02	-0.480
MN-54		834.83	*	-5.390E-03	5.010E-02	8.135E-02	7.241E-03	-0.066
CO-56		846.75	*	-7.813E-02	4.920E-02	6.346E-02	5.670E-03	-1.231
		977.42		-2.440E-01	4.199E+00	6.776E+00	6.059E-01	-0.036
		1037.82		-1.001E-01	3.675E-01	5.715E-01	5.269E-02	-0.175
		1175.09		9.331E-02	2.834E+00	4.774E+00	3.867E-01	0.020
		1238.25		1.557E-01	1.310E-01	2.388E-01	2.041E-02	0.652
		1360.21		2.284E-01	1.222E+00	2.090E+00	1.789E-01	0.109
		1771.40		-8.116E-02	4.575E-01	6.086E-01	5.095E-02	-0.133
CO-57		122.06	*	-3.360E-02	3.737E-02	5.657E-02	4.980E-03	-0.594
		136.48		-1.639E-01	2.806E-01	4.649E-01	4.294E-02	-0.352
CO-58		810.76	*	-4.115E-02	5.245E-02	7.871E-02	6.963E-03	-0.523
FE-59		142.65		2.399E+00	4.256E+00	6.549E+00	5.600E-01	0.366
		192.34		-5.561E-02	1.282E+00	2.075E+00	2.802E-01	-0.027
		1099.22	*	-7.262E-02	1.398E-01	2.121E-01	1.955E-02	-0.342
		1291.56		8.871E-02	1.594E-01	2.832E-01	2.724E-02	0.313

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.22		-6.377E-02	5.800E-02	8.508E-02	6.886E-03	-0.749
		1332.49	*	1.316E-02	5.390E-02	9.249E-02	7.884E-03	0.142
ZN-65		1115.52	*	1.661E-02	1.211E-01	1.723E-01	1.454E-02	0.096
GE-68		1077.35	*	3.702E-01	1.654E+00	2.741E+00	2.360E-01	0.135
AS-73		53.44	*	3.819E-01	1.383E+00	2.278E+00	1.844E-01	0.168
AS-74		595.88	*	1.024E-02	1.170E-01	1.975E-01	1.664E-02	0.052
		634.78		1.815E-02	4.570E-01	7.654E-01	6.358E-02	0.024
SE-75		66.05		-2.688E+00	7.740E+00	1.096E+01	1.075E+00	-0.245
		96.73		-3.091E+00	1.298E+00	1.761E+00	2.433E-01	-1.755
		121.11		-3.428E-02	1.940E-01	3.052E-01	3.461E-02	-0.112
		136.00		-2.953E-02	5.260E-02	8.725E-02	7.551E-03	-0.338
		198.60		-1.589E+00	2.553E+00	3.963E+00	3.856E-01	-0.401
		264.65	*	7.445E-03	6.827E-02	9.995E-02	9.182E-03	0.074
		279.53		1.210E-01	1.471E-01	2.528E-01	2.389E-02	0.478
		303.91		9.368E-01	2.938E+00	4.353E+00	5.143E-01	0.215
		400.65		2.830E-01	3.851E-01	6.521E-01	6.988E-02	0.434
BR-77	+	87.88		5.892E+02	3.633E+02	5.320E+02	5.029E+01	1.108
		200.40		2.263E+01	2.329E+02	3.913E+02	3.452E+01	0.058
	+	239.00		3.160E+02	3.835E+01	5.266E+01	4.781E+00	6.001
		249.79		-2.682E+01	9.347E+01	1.525E+02	1.390E+01	-0.176
		281.68		7.876E+00	1.269E+02	2.100E+02	1.919E+01	0.038
		297.23		3.918E+02	1.384E+02	1.839E+02	1.672E+01	2.131
		303.76		7.011E+01	2.622E+02	3.869E+02	3.508E+01	0.181
		439.47		3.997E+01	2.097E+02	3.429E+02	2.843E+01	0.117
		484.57		1.639E+02	3.327E+02	5.550E+02	4.679E+01	0.295
		520.65	*	9.458E+00	1.647E+01	2.669E+01	2.264E+00	0.354
		574.64		8.923E+00	2.900E+02	4.878E+02	4.129E+01	0.018
		578.91		3.450E+01	1.336E+02	2.009E+02	1.699E+01	0.172
		585.48		1.987E+03	3.950E+02	7.253E+02	6.126E+01	2.739
		755.35		-1.604E+02	2.041E+02	3.057E+02	2.636E+01	-0.525
		817.79		-1.253E+02	1.847E+02	2.801E+02	2.479E+01	-0.447
SR-82		698.33		3.232E-01	4.234E+01	7.031E+01	5.888E+00	0.005
		776.49	*	-7.007E-01	5.299E-01	7.500E-01	6.529E-02	-0.934
		1395.20		-1.065E+00	1.456E+01	2.388E+01	2.054E+00	-0.045
RB-83		520.41	*	7.073E-02	1.045E-01	1.707E-01	1.448E-02	0.414
		529.64		-2.106E-02	1.483E-01	2.395E-01	2.033E-02	-0.088
		552.65		1.437E-01	2.542E-01	4.466E-01	3.790E-02	0.322
RB-84		881.50	*	3.174E-02	9.645E-02	1.632E-01	1.473E-02	0.194
KR-85		513.99	*	2.020E+01	1.138E+01	2.016E+01	1.709E+00	1.002
SR-85		513.99	*	1.038E-01	5.845E-02	1.035E-01	8.779E-03	1.002
RB-86		1076.63	*	1.713E-01	1.094E+00	1.797E+00	1.548E-01	0.095
Y-88		898.02		-5.416E-02	5.751E-02	8.349E-02	7.597E-03	-0.649
		1836.01	*	-6.880E-03	4.355E-02	6.798E-02	5.591E-03	-0.101
ZR-88		392.90	*	-3.429E-03	4.027E-02	6.485E-02	5.222E-03	-0.053
Y-91		1204.90	*	2.442E+00	2.523E+01	4.268E+01	3.497E+00	0.057
NB-94		702.63	*	5.566E-03	4.484E-02	7.520E-02	6.312E-03	0.074
		871.10		1.608E-02	4.937E-02	8.342E-02	7.506E-03	0.193
NB-95		765.79	*	1.334E-02	6.476E-02	1.086E-01	9.410E-03	0.123
NB-95M		235.69	*	1.684E-01	1.755E-01	2.720E-01	2.789E-02	0.619

---- Non-Identified Nuclides ----

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ZR-95		724.18		-1.610E-01	1.664E-01	2.110E-01	1.951E-02	-0.763
		756.15	*	-6.635E-02	8.518E-02	1.279E-01	1.215E-02	-0.519
NB-97		657.90	*	-5.775E-02	8.518E-02	Half-Life too short		
		1024.50		2.394E+00	8.518E-02	Half-Life too short		
ZR-97		254.15		-1.508E+00	8.518E-02	Half-Life too short		
		355.39		3.579E+00	8.518E-02	Half-Life too short		
		507.63	*	3.362E+00	8.518E-02	Half-Life too short		
		602.52		5.088E+00	8.518E-02	Half-Life too short		
		1021.30		-3.491E+00	8.518E-02	Half-Life too short		
		1147.95		-2.527E+00	8.518E-02	Half-Life too short		
		1362.66		8.924E-01	8.518E-02	Half-Life too short		
		1750.46		1.177E+01	8.518E-02	Half-Life too short		
MO-99		140.51		-8.130E+00	4.229E+01	6.180E+01	1.710E+01	-0.132
		181.06		-1.128E+00	2.776E+01	4.101E+01	7.505E+00	-0.028
		366.43		3.344E+00	1.237E+02	2.017E+02	1.706E+01	0.017
		739.58	*	9.119E-01	1.665E+01	2.767E+01	4.193E+00	0.033
		778.00		-4.608E+01	4.677E+01	6.875E+01	5.990E+00	-0.670
TC-99M		140.51	*	-1.832E+10	4.677E+01	Half-Life too short		
RH-101		127.23		-1.738E-02	4.741E-02	7.379E-02	6.419E-03	-0.236
		198.01	*	-1.883E-02	4.661E-02	7.321E-02	6.442E-03	-0.257
		325.23		-5.156E-01	3.173E-01	4.603E-01	4.108E-02	-1.120
RH-102		418.52		-3.143E-02	4.206E-01	6.759E-01	5.539E-02	-0.047
		475.06	*	-2.364E-03	4.469E-02	7.139E-02	6.003E-03	-0.033
		631.29		1.514E-02	7.233E-02	1.229E-01	1.023E-02	0.123
		697.49		-6.679E-03	9.703E-02	1.600E-01	1.339E-02	-0.042
		766.84		1.870E-01	1.667E-01	2.968E-01	2.573E-02	0.630
		1046.59		6.133E-02	1.666E-01	2.802E-01	2.447E-02	0.219
		1112.84		-4.507E-01	3.490E-01	3.575E-01	3.018E-02	-1.261
RU-103		497.08	*	2.794E-02	5.985E-02	9.922E-02	1.395E-02	0.282
	+	610.33		1.455E+01	3.432E+00	4.080E+00	6.759E-01	3.566
RH-106	+	511.85		6.748E-01	5.626E-01	6.042E-01	5.121E-02	1.117
		621.84	*	-3.267E-01	4.271E-01	6.619E-01	8.729E-02	-0.494
		1050.47		8.202E-01	3.428E+00	5.683E+00	4.956E-01	0.144
RU-106	+	511.85		6.748E-01	5.626E-01	6.042E-01	5.121E-02	1.117
		621.84	*	-3.267E-01	4.258E-01	6.619E-01	5.529E-02	-0.494
		1050.47		8.202E-01	3.428E+00	5.683E+00	4.956E-01	0.144
AG-108M		433.93	*	-1.699E-02	4.699E-02	7.360E-02	6.347E-03	-0.231
		614.37		-3.687E-02	5.941E-02	7.978E-02	6.961E-03	-0.462
		722.95		-2.592E-02	6.578E-02	9.463E-02	8.356E-03	-0.274
AG-110M		657.75	*	-1.735E-02	5.320E-02	7.370E-02	6.249E-03	-0.235
		677.61		7.805E-02	3.896E-01	6.599E-01	5.626E-02	0.118
		706.67		8.776E-02	2.923E-01	4.795E-01	4.151E-02	0.183
		763.93		-2.337E-01	2.412E-01	3.625E-01	3.227E-02	-0.645
		884.67		6.609E-03	6.888E-02	1.138E-01	1.058E-02	0.058
		937.48		-6.449E-02	1.585E-01	2.466E-01	2.297E-02	-0.262
		1384.27		-2.828E-02	2.236E-01	3.644E-01	3.219E-02	-0.078
IN-111		171.28		2.622E-01	1.422E+00	2.412E+00	2.065E-01	0.109
		245.39	*	1.014E-01	1.654E+00	2.422E+00	2.205E-01	0.042
IN-113M		391.69	*	-6.352E-03	5.904E-02	9.494E-02	7.908E-03	-0.067

---- Non-Identified Nuclides ----

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SN-113		391.69	*	-6.352E-03	5.904E-02	9.494E-02	7.908E-03	-0.067
IN-114M		190.27	*	1.625E-01	2.717E-01	4.155E-01	3.628E-02	0.391
CD-115		260.90		-4.960E+01	2.008E+02	3.279E+02	2.998E+01	-0.151
		492.35		-2.383E+01	5.392E+01	8.290E+01	7.003E+00	-0.287
		527.90	*	1.467E+01	1.511E+01	2.725E+01	2.313E+00	0.538
SN-117M		156.02		7.666E-01	3.053E+00	5.208E+00	4.435E-01	0.147
		158.56	*	-4.014E-02	7.407E-02	1.221E-01	1.040E-02	-0.329
SB-122		563.90	*	-6.151E-01	2.914E+00	4.814E+00	4.081E-01	-0.128
		692.80		-5.578E+01	6.277E+01	9.016E+01	7.526E+00	-0.619
I-123		159.00	*	-5.521E+00	6.277E+01	Half-Life too short		
		528.96		2.006E+02	6.277E+01	Half-Life too short		
TE-123M		159.00	*	-2.189E-02	3.768E-02	6.199E-02	5.311E-03	-0.353
I-124		602.71	*	6.473E-02	1.057E+00	1.681E+00	1.413E-01	0.039
		722.78		-1.315E+00	6.696E+00	1.026E+01	8.704E-01	-0.128
		1325.50		-6.842E+01	4.696E+01	6.031E+01	5.132E+00	-1.134
		1376.25		1.756E+01	3.982E+01	7.010E+01	6.015E+00	0.250
		1509.49		9.589E+00	2.091E+01	3.702E+01	3.205E+00	0.259
		1691.02		5.543E-01	4.900E+00	8.221E+00	7.004E-01	0.067
SB-124		602.71		3.662E-03	5.982E-02	9.508E-02	7.997E-03	0.039
		645.85		6.254E-02	6.171E-01	1.039E+00	9.141E-02	0.060
		709.31		-6.748E-01	3.669E+00	5.980E+00	5.038E-01	-0.113
		713.82		5.620E-01	1.986E+00	3.383E+00	4.031E-01	0.166
		722.78		-1.079E-01	5.492E-01	8.411E-01	7.297E-02	-0.128
	+	968.20		1.808E+01	5.709E+00	1.017E+01	9.114E-01	1.778
		1045.16		1.687E+00	3.316E+00	5.678E+00	4.963E-01	0.297
		1325.50		-5.993E+00	4.114E+00	5.283E+00	4.495E-01	-1.134
		1368.21		8.155E-01	1.979E+00	3.508E+00	4.717E-01	0.232
		1436.60		-1.020E+00	4.615E+00	7.343E+00	6.340E-01	-0.139
		1691.02	*	1.072E-02	9.478E-02	1.590E-01	1.410E-02	0.067
SB-125		427.89	*	-7.355E-02	1.364E-01	2.110E-01	1.776E-02	-0.348
	+	463.38		1.334E+00	7.528E-01	7.807E-01	7.081E-02	1.709
		600.56		6.463E-02	2.511E-01	4.284E-01	3.883E-02	0.151
		635.90		-7.106E-02	3.438E-01	5.627E-01	5.078E-02	-0.126
TE-125M		109.28	*	-4.548E+00	1.359E+01	2.131E+01	2.209E+00	-0.213
I-126		388.63		5.930E-02	2.789E-01	4.595E-01	3.721E-02	0.129
		666.33	*	-1.538E-01	2.821E-01	3.787E-01	3.111E-02	-0.406
		753.82		-1.033E+00	1.789E+00	2.763E+00	2.381E-01	-0.374
SB-126		223.80		4.541E+00	5.380E+00	9.298E+00	8.365E-01	0.488
		278.60		2.786E+00	3.355E+00	5.768E+00	5.275E-01	0.483
	+	296.50		1.408E+01	3.595E+00	5.001E+00	4.551E-01	2.816
		414.70		-6.045E-02	1.074E-01	1.660E-01	1.357E-02	-0.364
		415.30		-6.426E+00	8.965E+00	1.367E+01	1.118E+00	-0.470
		555.20		6.866E-01	5.284E+00	8.978E+00	7.618E-01	0.076
		573.80		-1.039E+00	1.414E+00	2.226E+00	1.885E-01	-0.467
		593.00		-4.335E-01	1.155E+00	1.868E+00	1.575E-01	-0.232
		656.30		3.818E-01	5.194E+00	7.587E+00	6.234E-01	0.050
		666.33		-6.429E-02	1.179E-01	1.583E-01	1.301E-02	-0.406
		675.00		1.320E-01	2.740E+00	4.576E+00	3.779E-01	0.029
		695.00		-3.212E-03	9.643E-02	1.596E-01	1.334E-02	-0.020

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		697.00		-5.837E-02	3.458E-01	5.650E-01	4.728E-02	-0.103
		720.50	*	2.365E-01	1.931E-01	3.525E-01	2.988E-02	0.671
		856.80		-4.634E-02	7.338E-01	1.030E+00	9.235E-02	-0.045
		989.30		4.702E-02	1.686E+00	2.746E+00	2.448E-01	0.017
		1034.80		8.979E+00	1.097E+01	1.954E+01	1.715E+00	0.460
		1213.00		9.971E-01	6.122E+00	1.042E+01	8.563E-01	0.096
SB-127		61.10		7.250E+01	1.037E+02	1.549E+02	1.621E+01	0.468
		252.40		3.559E+00	6.206E+00	1.029E+01	4.339E+00	0.346
		290.80		7.052E+00	3.282E+01	4.823E+01	5.595E+00	0.146
		411.60		1.799E+01	1.802E+01	3.082E+01	4.781E+00	0.584
		444.90		-9.994E+00	1.375E+01	2.067E+01	2.556E+00	-0.484
		473.00		2.652E-01	2.538E+00	4.106E+00	5.242E-01	0.065
		543.00		-2.597E+01	2.324E+01	3.506E+01	5.033E+00	-0.741
		603.60		-7.337E+00	2.026E+01	2.836E+01	3.519E+00	-0.259
		685.20	*	1.083E-01	1.778E+00	2.972E+00	3.329E-01	0.036
		698.50		-3.334E+00	1.956E+01	3.192E+01	5.019E+00	-0.104
		722.20		1.993E+01	4.386E+01	7.357E+01	8.172E+00	0.271
		783.80		3.756E+00	5.711E+00	9.887E+00	1.240E+00	0.380
XE-127		57.60		-4.045E+00	9.529E+00	1.520E+01	1.168E+00	-0.266
	+	145.22		8.783E-01	1.520E+00	1.642E+00	1.402E-01	0.535
		172.10		2.440E-02	1.635E-01	2.769E-01	2.372E-02	0.088
		202.84	*	3.252E-02	6.608E-02	1.127E-01	9.964E-03	0.289
		374.96		-1.663E-01	2.993E-01	4.595E-01	3.827E-02	-0.362
I-131		80.18		-1.898E-01	7.536E+00	1.079E+01	9.475E-01	-0.018
		284.30		-5.016E-01	2.032E+00	3.298E+00	3.154E-01	-0.152
		364.48	*	-5.311E-02	1.597E-01	2.536E-01	2.272E-02	-0.209
		636.97		9.704E-01	1.956E+00	3.409E+00	3.000E-01	0.285
		722.89		-4.274E+00	1.126E+01	1.622E+01	1.386E+00	-0.263
TE-132		49.72		-1.167E+01	3.495E+01	5.618E+01	6.063E+00	-0.208
		111.76		2.742E+01	4.722E+01	7.681E+01	8.402E+00	0.357
		116.30		-3.050E+01	4.357E+01	6.688E+01	7.334E+00	-0.456
		228.16	*	4.559E-01	9.806E-01	1.663E+00	2.657E-01	0.274
BA-133		53.15		-1.227E-01	6.082E+00	9.898E+00	8.042E-01	-0.012
		79.62		8.587E-01	2.085E+00	3.045E+00	4.646E-01	0.282
		81.00		-2.063E-01	1.720E-01	2.278E-01	3.638E-02	-0.906
		276.40		3.115E-01	5.651E-01	8.502E-01	1.256E-01	0.366
		302.84		3.567E-02	2.126E-01	3.107E-01	4.221E-02	0.115
		356.01	*	2.985E-02	6.586E-02	9.788E-02	1.291E-02	0.305
		383.85		6.599E-02	4.262E-01	6.992E-01	8.606E-02	0.094
I-133	+	510.53		1.580E+00	4.262E-01	Half-Life too short		
		529.87	*	-1.203E-03	4.262E-01	Half-Life too short		
		706.58		1.993E-01	4.262E-01	Half-Life too short		
		856.28		6.703E-02	4.262E-01	Half-Life too short		
		875.33		3.651E-02	4.262E-01	Half-Life too short		
		1236.41		1.409E+00	4.262E-01	Half-Life too short		
		1298.22		5.724E-02	4.262E-01	Half-Life too short		
CS-134		475.35		1.558E-01	2.893E+00	4.661E+00	3.919E-01	0.033
		563.23		2.671E-01	4.776E-01	8.361E-01	7.159E-02	0.319
		569.32		1.234E-01	2.633E-01	4.553E-01	3.911E-02	0.271

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		604.70		-5.541E-02	6.026E-02	7.933E-02	6.684E-03	-0.698
		795.84	*	1.498E-01	6.496E-02	1.258E-01	1.112E-02	1.191
		801.93		-5.271E-01	5.328E-01	7.769E-01	6.871E-02	-0.679
		1038.57		-3.896E+00	4.744E+00	6.762E+00	5.927E-01	-0.576
		1167.94		3.619E+00	3.421E+00	6.294E+00	5.115E-01	0.575
		1365.15		1.448E-01	1.549E+00	2.611E+00	2.340E-01	0.055
CS-135		268.24	*	2.312E-01	2.384E-01	3.692E-01	3.849E-02	0.626
I-135		288.45		9.967E+09	2.384E-01	Half-Life too short		
		417.63		7.818E+09	2.384E-01	Half-Life too short		
		546.56		2.773E+10	2.384E-01	Half-Life too short		
		836.80		2.129E+09	2.384E-01	Half-Life too short		
		1038.76		-2.611E+10	2.384E-01	Half-Life too short		
		1124.00		4.847E+10	2.384E-01	Half-Life too short		
		1131.51		-1.206E+10	2.384E-01	Half-Life too short		
		1260.41	*	-1.318E+10	2.384E-01	Half-Life too short		
		1457.56		3.455E+11	2.384E-01	Half-Life too short		
		1678.03		-5.099E+09	2.384E-01	Half-Life too short		
		1706.46		-1.259E+10	2.384E-01	Half-Life too short		
		1791.20		-1.346E+10	2.384E-01	Half-Life too short		
CS-136		66.91		-4.252E-01	1.281E+00	1.814E+00	2.727E-01	-0.234
	+	86.29		3.355E+00	2.093E+00	3.014E+00	4.011E-01	1.113
		153.22		3.216E-02	8.851E-01	1.499E+00	1.430E-01	0.021
		163.89		1.365E+00	1.501E+00	2.569E+00	2.457E-01	0.531
		176.55		-2.084E-02	5.096E-01	8.555E-01	7.789E-02	-0.024
		273.65		-3.250E-01	7.001E-01	9.771E-01	9.465E-02	-0.333
	+	340.57		1.098E+00	3.826E-01	3.820E-01	3.448E-02	2.876
		818.51		-3.507E-02	9.646E-02	1.520E-01	1.346E-02	-0.231
		1048.07	*	3.773E-02	1.580E-01	2.621E-01	2.383E-02	0.144
		1235.34		1.899E-01	8.339E-01	1.422E+00	1.650E-01	0.134
CE-139		165.85	*	-2.788E-02	4.003E-02	6.540E-02	5.569E-03	-0.426
BA-140		162.64		1.089E+00	1.062E+00	1.825E+00	1.647E-01	0.597
		304.84		1.808E+00	1.829E+00	2.769E+00	7.799E-01	0.653
		423.70		1.325E+00	2.847E+00	4.699E+00	1.518E+00	0.282
		537.32	*	2.111E-01	3.603E-01	6.221E-01	2.060E-01	0.339
LA-140		328.77		5.250E-01	4.239E-01	7.382E-01	6.912E-02	0.711
		432.53		2.748E-02	2.974E+00	4.800E+00	4.175E-01	0.006
		487.03		4.038E-02	1.979E-01	3.224E-01	2.896E-02	0.125
		751.79		2.026E-01	2.140E+00	3.570E+00	3.403E-01	0.057
		815.85		3.415E-01	4.224E-01	7.506E-01	7.366E-02	0.455
		867.82		1.065E-01	2.248E+00	3.207E+00	3.024E-01	0.033
		919.63		2.283E-01	3.914E+00	5.838E+00	6.416E-01	0.039
		925.24		-6.517E-01	1.526E+00	2.360E+00	2.254E-01	-0.276
		1596.49	*	-1.335E-01	1.175E-01	1.490E-01	1.285E-02	-0.897
CE-143		57.37		-8.398E-04	1.175E-01	Half-Life too short		
		231.56		-2.360E-03	1.175E-01	Half-Life too short		
		293.26	*	4.426E-04	1.175E-01	Half-Life too short		
		350.59		2.480E-02	1.175E-01	Half-Life too short		
		490.36		2.758E-04	1.175E-01	Half-Life too short		
		664.57		7.771E-03	1.175E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		721.93		1.085E-03	1.175E-01	Half-Life too short		
CE-144		80.11		-5.796E-03	3.422E+00	4.906E+00	4.278E-01	-0.001
		133.54	*	3.988E-02	2.995E-01	4.762E-01	7.413E-02	0.084
PM-144		476.78		4.290E-02	1.022E-01	1.690E-01	1.562E-02	0.254
		618.01		2.296E-02	4.507E-02	7.460E-02	6.424E-03	0.308
		696.49	*	-6.376E-03	4.219E-02	6.900E-02	5.774E-03	-0.092
		778.57		-2.228E+00	2.963E+00	4.484E+00	3.908E-01	-0.497
PR-144		696.49	*	-4.321E-01	2.859E+00	4.676E+00	3.911E-01	-0.092
		1489.15		-1.363E+00	1.369E+01	2.216E+01	1.918E+00	-0.062
PM-146		453.90	*	4.251E-02	6.844E-02	1.147E-01	1.205E-02	0.371
		633.02		5.539E-01	1.747E+00	2.979E+00	1.111E+00	0.186
		735.90		1.125E-01	2.152E-01	3.683E-01	1.053E-01	0.305
		747.13		-2.694E-02	1.261E-01	2.041E-01	2.862E-02	-0.132
ND-147		91.11		3.630E+00	7.931E-01	1.009E+00	9.973E-02	3.598
		319.41		-2.224E+00	4.667E+00	7.408E+00	6.646E-01	-0.300
		439.89		-9.491E-03	8.139E+00	1.311E+01	1.088E+00	-0.001
		531.02	*	-1.622E-01	8.013E-01	1.287E+00	1.915E-01	-0.126
PM-149		285.90	*	-4.733E+01	1.263E+02	2.029E+02	3.213E+01	-0.233
EU-152		121.78		-9.622E-02	1.085E-01	1.643E-01	1.655E-02	-0.586
		244.69		4.725E-01	5.037E-01	7.797E-01	7.097E-02	0.606
		344.27	*	-4.845E-03	1.488E-01	2.120E-01	1.960E-02	-0.023
		443.98		-1.926E+00	1.352E+00	1.896E+00	1.575E-01	-1.016
		778.89		-2.407E-01	3.471E-01	5.297E-01	4.617E-02	-0.454
		867.32		-4.229E-01	1.381E+00	1.866E+00	1.677E-01	-0.227
	+	964.01		5.454E-01	5.141E-01	8.135E-01	7.297E-02	0.670
		1085.78		7.772E-02	5.332E-01	8.751E-01	7.503E-02	0.089
		1112.02		-4.364E-01	4.383E-01	5.569E-01	4.704E-02	-0.784
		1407.95		9.960E-02	2.336E-01	4.116E-01	3.545E-02	0.242
GD-153		69.67		1.154E+00	2.674E+00	3.934E+00	3.156E-01	0.293
		83.37		1.164E+01	2.573E+01	3.741E+01	3.368E+00	0.311
	+	97.43	*	1.750E-01	1.495E-01	1.903E-01	1.690E-02	0.919
		103.18		-8.733E-02	1.480E-01	2.295E-01	2.002E-02	-0.381
EU-154		123.07		-5.595E-03	7.424E-02	1.173E-01	1.347E-02	-0.048
		247.94		-7.100E-02	5.159E-01	7.855E-01	9.309E-02	-0.090
		591.81		2.533E-01	7.837E-01	1.283E+00	1.479E-01	0.198
		723.30		-1.308E-01	2.734E-01	3.891E-01	3.661E-02	-0.336
		756.87		-5.219E-01	8.923E-01	1.370E+00	1.642E-01	-0.381
		873.19		1.228E-01	4.301E-01	7.239E-01	9.060E-02	0.170
		996.32		4.609E-01	4.957E-01	8.013E-01	1.434E-01	0.575
		1004.76		-7.852E-02	3.336E-01	4.497E-01	5.319E-02	-0.175
		1274.45	*	-1.277E-02	1.594E-01	2.636E-01	2.935E-02	-0.048
EU-155		48.70		-8.269E-01	4.246E+00	6.873E+00	5.882E-01	-0.120
		60.01		5.229E+00	8.490E+00	1.268E+01	9.588E-01	0.412
	+	86.54		3.068E-01	1.892E-01	2.752E-01	2.586E-02	1.115
		105.31	*	8.280E-03	1.509E-01	2.413E-01	2.122E-02	0.034
TB-160	+	86.79		8.210E-01	5.062E-01	7.371E-01	6.883E-02	1.114
		197.04		-1.652E-01	7.722E-01	1.221E+00	1.073E-01	-0.135
		215.65		4.876E-01	1.047E+00	1.727E+00	1.544E-01	0.282
		298.57		9.379E-02	2.495E-01	2.725E-01	2.477E-02	0.344

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	-5.306E-02	1.948E-01	3.092E-01	2.788E-02	-0.172
		962.29		1.171E+00	7.409E-01	1.274E+00	1.144E-01	0.919
	+	966.15		3.751E-01	3.536E-01	6.469E-01	5.801E-02	0.580
		1177.93		4.047E-01	4.424E-01	8.115E-01	6.581E-02	0.499
		1271.85		-1.126E-01	9.397E-01	1.547E+00	1.297E-01	-0.073
HO-166M		80.57		-1.747E-01	4.468E-01	6.278E-01	5.499E-02	-0.278
		184.41		2.018E-01	6.078E-02	1.001E-01	8.683E-03	2.017
		280.46		-4.731E-02	1.149E-01	1.848E-01	1.689E-02	-0.256
		410.95		4.361E-01	3.486E-01	6.094E-01	4.970E-02	0.716
		711.68	*	-5.819E-03	7.695E-02	1.266E-01	1.068E-02	-0.046
		752.31		-3.338E-02	3.360E-01	5.492E-01	4.730E-02	-0.061
		810.29		-7.307E-02	7.940E-02	1.171E-01	1.033E-02	-0.624
TM-171		51.35		3.143E+01	5.157E+01	8.611E+01	7.167E+00	0.365
		52.39		1.351E+01	2.703E+01	4.491E+01	3.687E+00	0.301
		59.40		1.669E+01	4.622E+01	6.823E+01	5.143E+00	0.245
		66.72	*	6.387E+00	4.473E+01	6.503E+01	5.122E+00	0.098
LU-176	+	88.36		6.042E-01	3.726E-01	5.492E-01	5.181E-02	1.100
		201.83		-6.160E-02	4.108E-02	6.365E-02	5.622E-03	-0.968
		306.84	*	4.145E-03	3.192E-02	5.285E-02	4.784E-03	0.078
		401.10		7.215E+00	9.983E+00	1.692E+01	1.371E+00	0.426
LU-177		112.95		1.612E+00	2.595E+00	4.189E+00	3.632E-01	0.385
		208.36	*	-5.984E-01	1.874E+00	2.706E+00	2.405E-01	-0.221
LU-177M		52.97		-1.582E-02	2.763E+00	4.499E+00	3.664E-01	-0.004
		54.07		-1.533E-01	1.418E+00	2.299E+00	1.845E-01	-0.067
		61.30		3.119E+00	2.638E+00	4.023E+00	3.068E-01	0.775
		121.62		-3.960E-01	5.521E-01	8.442E-01	7.416E-02	-0.469
		147.16		1.450E-01	9.260E-01	1.397E+00	1.192E-01	0.104
		171.86		6.210E-02	6.554E-01	1.108E+00	9.487E-02	0.056
		218.09		2.968E-01	1.164E+00	1.964E+00	1.759E-01	0.151
	+	268.79		3.859E+00	1.945E+00	1.993E+00	1.824E-01	1.937
		319.02		-6.441E-02	3.566E-01	5.776E-01	5.182E-02	-0.112
		367.43		2.403E-01	1.309E+00	2.155E+00	1.820E-01	0.111
		413.65	*	-1.741E-01	2.523E-01	3.863E-01	3.156E-02	-0.451
HF-181		56.28		-1.380E+00	1.518E+00	2.367E+00	1.846E-01	-0.583
		57.53		-3.276E-01	8.026E-01	1.282E+00	9.849E-02	-0.256
		65.20		2.075E+00	1.622E+00	2.475E+00	1.932E-01	0.838
		133.02		-1.029E-02	9.766E-02	1.536E-01	1.325E-02	-0.067
		136.25		-4.096E-01	6.142E-01	1.014E+00	8.711E-02	-0.404
		345.85		3.692E-03	4.217E-01	4.340E-01	3.785E-02	0.009
		482.03	*	-7.140E-02	6.233E-02	8.954E-02	7.545E-03	-0.797
W-181		56.28		-5.394E-01	5.930E-01	9.247E-01	7.212E-02	-0.583
		57.53		-1.280E-01	3.138E-01	5.011E-01	3.851E-02	-0.255
		65.20	*	8.049E-01	6.292E-01	9.602E-01	7.496E-02	0.838
TA-182		67.75		-9.081E-02	1.827E-01	2.566E-01	2.034E-02	-0.354
		100.10		2.083E-01	2.871E-01	4.242E-01	3.729E-02	0.491
		152.43		-5.455E-02	4.424E-01	7.443E-01	6.341E-02	-0.073
		222.10		-2.859E-02	4.605E-01	7.650E-01	6.874E-02	-0.037
	+	1001.68		1.397E+01	4.377E+00	7.028E+00	6.241E-01	1.987
	+	1121.28		7.790E-01	3.378E-01	4.760E-01	3.998E-02	1.637

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		1.748E-01	3.948E-01	6.916E-01	5.632E-02	0.253
		1221.42	*	1.182E-01	2.538E-01	4.441E-01	3.660E-02	0.266
		1230.97		-3.548E-01	5.719E-01	8.907E-01	7.366E-02	-0.398
RE-183		57.98		-2.626E-01	3.305E-01	4.912E-01	3.756E-02	-0.535
		59.32		6.051E-02	1.903E-01	2.803E-01	2.114E-02	0.216
		67.20		-7.755E-02	3.241E-01	4.617E-01	3.647E-02	-0.168
		162.32	*	1.345E-01	1.527E-01	2.615E-01	2.226E-02	0.514
	+	208.81		2.474E+00	1.834E+00	2.423E+00	2.154E-01	1.021
		291.72		-1.063E-01	1.418E+00	2.034E+00	1.854E-01	-0.052
RE-184		57.98		-9.666E-01	1.217E+00	1.808E+00	1.383E-01	-0.535
		59.32		2.226E-01	6.998E-01	1.031E+00	7.776E-02	0.216
		67.20		-2.854E-01	1.193E+00	1.699E+00	1.342E-01	-0.168
		161.27		-3.872E-01	4.830E-01	7.865E-01	6.696E-02	-0.492
		216.55		-1.301E-01	3.616E-01	5.927E-01	5.303E-02	-0.220
		252.85	*	1.133E-01	3.182E-01	5.369E-01	4.900E-02	0.211
		318.01		2.088E-01	6.167E-01	1.032E+00	9.265E-02	0.202
		792.07		-1.872E+00	1.437E+00	2.057E+00	1.803E-01	-0.910
		903.28		-1.474E-01	1.354E+00	2.184E+00	1.978E-01	-0.067
		920.93		1.259E-01	5.906E-01	9.626E-01	8.699E-02	0.131
OS-185		59.72		5.265E-01	4.957E-01	7.568E-01	5.708E-02	0.696
		61.14		2.289E-01	2.867E-01	4.308E-01	3.282E-02	0.531
		69.30		2.130E-01	4.842E-01	7.128E-01	5.704E-02	0.299
		592.07		1.046E+00	3.161E+00	5.322E+00	4.489E-01	0.196
		646.12	*	-2.835E-02	5.451E-02	8.633E-02	7.132E-03	-0.328
		717.42		-6.043E-01	1.178E+00	1.854E+00	1.569E-01	-0.326
		874.81		3.087E-01	8.529E-01	1.445E+00	1.302E-01	0.214
		880.27		-1.717E-01	1.087E+00	1.747E+00	1.576E-01	-0.098
RE-188		155.03	*	1.016E-01	2.300E-01	3.951E-01	3.365E-02	0.257
		477.96		4.625E+00	4.527E+00	7.810E+00	6.573E-01	0.592
		633.10		5.784E-01	3.582E+00	6.065E+00	5.042E-01	0.095
W-188	+	63.58		5.463E+02	1.354E+02	1.822E+02	1.409E+01	2.999
		227.08		2.473E+00	1.757E+01	2.943E+01	2.654E+00	0.084
		290.67	*	3.132E+00	1.107E+01	1.636E+01	1.492E+00	0.191
IR-192	+	295.96		1.070E+00	2.733E-01	3.809E-01	3.489E-02	2.809
		308.46		-1.288E-01	1.286E-01	1.963E-01	1.783E-02	-0.656
		316.51	*	6.223E-03	4.827E-02	7.975E-02	7.185E-03	0.078
		468.07		2.517E-02	1.079E-01	1.551E-01	1.400E-02	0.162
		604.41		-3.277E-01	7.909E-01	1.102E+00	1.418E-01	-0.297
		612.46		2.559E+00	1.211E+00	2.073E+00	2.010E-01	1.234
AU-195		65.12		4.908E-01	2.963E-01	4.578E-01	3.572E-02	1.072
		66.83		-5.304E-02	1.525E-01	2.159E-01	1.702E-02	-0.246
	+	75.70		1.374E+00	3.668E-01	6.362E-01	5.335E-02	2.160
	+	98.88	*	5.096E-01	4.354E-01	5.665E-01	5.002E-02	0.900
		129.76		5.102E+00	4.220E+00	6.994E+00	6.058E-01	0.730
TL-200		367.94	*	2.283E-04	4.220E+00	Half-Life too short		
		579.30		-3.406E-03	4.220E+00	Half-Life too short		
		828.27		1.279E-03	4.220E+00	Half-Life too short		
		1205.75		4.173E-04	4.220E+00	Half-Life too short		
TL-201		68.90		6.860E+00	7.875E+00	1.183E+01	9.442E-01	0.580

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		2.261E+00	4.677E+00	6.887E+00	5.567E-01	0.328
		80.30		-3.928E+00	8.589E+00	1.203E+01	1.051E+00	-0.327
		135.34		-7.093E+00	3.813E+01	5.968E+01	5.133E+00	-0.119
		167.43	*	-1.377E+01	9.765E+00	1.534E+01	1.308E+00	-0.898
TL-202		68.90		5.988E-01	6.874E-01	1.033E+00	8.243E-02	0.580
		70.82		1.969E-01	4.071E-01	5.996E-01	4.846E-02	0.328
		80.30		-3.420E-01	7.480E-01	1.047E+00	9.148E-02	-0.327
		439.56	*	1.598E-02	9.722E-02	1.587E-01	1.316E-02	0.101
HG-203		70.83		8.548E-01	1.754E+00	2.580E+00	3.424E-01	0.331
		72.87		1.275E+00	9.485E-01	1.577E+00	2.039E-01	0.809
		82.60		5.182E-01	1.900E+00	2.753E+00	3.838E-01	0.188
		279.20	*	4.606E-02	5.528E-02	9.507E-02	8.914E-03	0.485
BI-207		72.80		3.034E-01	2.725E-01	4.546E-01	3.727E-02	0.667
	+	74.97		7.616E-01	2.033E-01	3.164E-01	2.638E-02	2.407
		84.90		4.697E-01	3.290E-01	4.946E-01	4.526E-02	0.950
		569.67		1.591E-02	4.128E-02	7.095E-02	6.010E-03	0.224
		1063.62	*	3.015E-02	7.654E-02	1.289E-01	1.117E-02	0.234
		1770.23		-2.458E-01	9.863E-01	1.292E+00	1.082E-01	-0.190
TL-207		81.07		-4.531E-01	3.746E-01	5.027E-01	4.424E-02	-0.901
		83.78		1.424E-01	2.187E-01	3.204E-01	2.898E-02	0.444
		94.90		7.521E-01	4.032E-01	6.751E-01	6.070E-02	1.114
		122.32		-1.106E+00	2.517E+00	3.905E+00	3.674E-01	-0.283
	+	144.24		8.583E-01	1.486E+00	1.665E+00	1.594E-01	0.516
		154.21		1.672E-01	5.231E-01	8.951E-01	8.401E-02	0.187
	+	269.46		9.028E-01	4.554E-01	5.108E-01	4.760E-02	1.767
		323.87	*	-2.234E-02	8.855E-01	1.448E+00	2.585E-01	-0.015
	+	338.28		8.702E+00	3.121E+00	3.243E+00	4.035E-01	2.683
		445.03		-6.317E-01	2.989E+00	4.723E+00	5.607E-01	-0.134
PO-209		260.50		1.833E-02	1.410E+01	2.333E+01	2.133E+00	0.001
		262.80		9.374E+00	3.799E+01	6.363E+01	5.819E+00	0.147
		896.60	*	-4.067E+00	9.814E+00	1.525E+01	1.381E+00	-0.267
BI-210		46.50	*	3.540E+00	6.297E+00	1.042E+01	9.840E-01	0.340
PB-210		46.50	*	3.540E+00	6.297E+00	1.042E+01	9.840E-01	0.340
PO-210		46.50	*	3.540E+00	6.296E+00	1.042E+01	8.937E-01	0.340
PB-211		404.84	*	5.070E-02	1.376E+00	2.232E+00	1.397E+00	0.023
		427.08		-7.452E-01	3.070E+00	4.809E+00	2.986E+00	-0.155
		831.96		-3.070E-01	1.595E+00	2.546E+00	1.596E+00	-0.121
BI-212	+	727.18	*	6.311E-01	5.483E-01	8.881E-01	8.801E-02	0.711
		785.46		2.972E+00	2.729E+00	4.869E+00	4.255E-01	0.610
		1620.62		4.014E-01	1.685E+00	2.831E+00	2.437E-01	0.142
PO-215		81.07		-4.531E-01	3.746E-01	5.027E-01	4.424E-02	-0.901
		83.78		1.424E-01	2.187E-01	3.204E-01	2.898E-02	0.444
		94.90		7.521E-01	4.032E-01	6.751E-01	6.070E-02	1.114
		122.32		-1.106E+00	2.517E+00	3.905E+00	3.674E-01	-0.283
	+	144.24		8.583E-01	1.486E+00	1.665E+00	1.594E-01	0.516
		154.21		1.672E-01	5.231E-01	8.951E-01	8.401E-02	0.187
	+	269.46		9.028E-01	4.554E-01	5.108E-01	4.760E-02	1.767
		323.87	*	-2.234E-02	8.855E-01	1.448E+00	2.585E-01	-0.015
	+	338.28		8.702E+00	3.121E+00	3.243E+00	4.035E-01	2.683

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-6.317E-01	2.989E+00	4.723E+00	5.607E-01	-0.134
RN-219	+	271.23		1.158E+00	5.876E-01	6.497E-01	6.990E-02	1.783
		401.81	*	2.984E-02	6.210E-01	1.009E+00	1.487E-01	0.030
RN-220		549.76	*	-3.631E+01	3.530E+01	5.370E+01	4.558E+00	-0.676
RA-223		81.07		-4.531E-01	3.746E-01	5.027E-01	4.424E-02	-0.901
		83.78		1.424E-01	2.187E-01	3.204E-01	2.898E-02	0.444
		94.90		7.521E-01	4.032E-01	6.751E-01	6.070E-02	1.114
		122.32		-1.106E+00	2.517E+00	3.905E+00	3.674E-01	-0.283
	+	144.24		8.583E-01	1.486E+00	1.665E+00	1.594E-01	0.516
		154.21		1.672E-01	5.231E-01	8.951E-01	8.401E-02	0.187
	+	269.46		9.028E-01	4.554E-01	5.108E-01	4.760E-02	1.767
		323.87	*	-2.234E-02	8.855E-01	1.448E+00	2.585E-01	-0.015
	+	338.28		8.702E+00	3.121E+00	3.243E+00	4.035E-01	2.683
		445.03		-6.317E-01	2.989E+00	4.723E+00	5.607E-01	-0.134
AC-227		79.80		5.430E-01	2.671E+00	3.864E+00	8.321E-01	0.141
		236.00		4.360E-01	3.257E-01	5.122E-01	6.434E-02	0.851
		256.20	*	-3.550E-01	5.426E-01	8.627E-01	1.349E-01	-0.411
		286.10		-1.491E+00	2.048E+00	3.206E+00	4.342E-01	-0.465
	+	299.80		4.281E+00	2.574E+00	3.602E+00	6.384E-01	1.189
		304.40		1.396E+00	2.657E+00	3.991E+00	7.442E-01	0.350
		334.20		9.129E-01	3.366E+00	4.935E+00	9.628E-01	0.185
TH-227		79.80		5.430E-01	2.671E+00	3.864E+00	8.427E-01	0.141
	+	94.00		4.859E+01	1.182E+01	7.953E+00	1.745E+00	6.110
		236.00		4.360E-01	3.249E-01	5.122E-01	5.853E-02	0.851
		256.20	*	-3.550E-01	5.436E-01	8.627E-01	1.580E-01	-0.411
		286.10		-1.491E+00	2.529E+00	3.206E+00	3.219E+00	-0.465
	+	299.80		4.281E+00	2.574E+00	3.602E+00	6.384E-01	1.189
		304.40		1.396E+00	2.657E+00	3.991E+00	7.442E-01	0.350
		334.20		9.129E-01	3.366E+00	4.935E+00	9.628E-01	0.185
TH-229		85.43		5.625E-01	3.315E-01	5.013E-01	4.612E-02	1.122
	+	88.47		3.478E-01	2.145E-01	3.146E-01	2.964E-02	1.106
		100.00		2.159E-01	3.028E-01	4.438E-01	3.904E-02	0.487
		193.63	*	-8.535E-02	6.604E-01	1.100E+00	9.638E-02	-0.078
	+	210.97		1.934E+00	1.434E+00	1.799E+00	1.603E-01	1.075
PA-231		283.67	*	-8.388E-01	2.050E+00	3.289E+00	5.092E-01	-0.255
	+	301.29		1.712E+00	1.007E+00	1.388E+00	1.745E-01	1.233
TH-231		81.07		-4.531E-01	3.746E-01	5.027E-01	4.424E-02	-0.901
		83.78		1.424E-01	2.187E-01	3.204E-01	2.898E-02	0.444
		94.90		7.521E-01	4.032E-01	6.751E-01	6.070E-02	1.114
		122.32		-1.106E+00	2.517E+00	3.905E+00	3.674E-01	-0.283
	+	144.24		8.583E-01	1.486E+00	1.665E+00	1.594E-01	0.516
		154.21		1.672E-01	5.231E-01	8.951E-01	8.401E-02	0.187
	+	269.46		9.028E-01	4.554E-01	5.108E-01	4.760E-02	1.767
		323.87	*	-2.234E-02	8.855E-01	1.448E+00	2.585E-01	-0.015
	+	338.28		8.702E+00	3.121E+00	3.243E+00	4.035E-01	2.683
		445.03		-6.317E-01	2.989E+00	4.723E+00	5.607E-01	-0.134
U-231		84.21		3.879E+00	9.754E+00	1.414E+01	1.284E+00	0.274
	+	92.29		4.939E+01	6.845E+00	9.061E+00	8.279E-01	5.450
		95.87	*	-4.085E+00	1.772E+00	2.513E+00	2.248E-01	-1.626

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.786E+00	3.020E+00	4.676E+00	4.053E-01	-0.382
PA-233	+	75.28		2.222E+01	6.570E+00	9.520E+00	1.447E+00	2.334
	+	86.59		4.987E+00	3.326E+00	4.475E+00	1.211E+00	1.115
	+	300.12		1.194E+00	7.091E-01	9.960E-01	1.509E-01	1.198
		311.98	*	-1.956E-02	8.524E-02	1.377E-01	1.275E-02	-0.142
	+	340.50		5.279E+00	2.178E+00	1.867E+00	4.461E-01	2.828
		398.62		2.767E-01	3.020E+00	4.923E+00	1.303E+00	0.056
		415.76		-2.042E+00	2.400E+00	3.562E+00	7.615E-01	-0.573
PA-234	+	63.00		1.582E+01	4.417E+00	5.408E+00	8.119E-01	2.925
		94.67		1.164E+00	3.363E-01	5.388E-01	6.828E-02	2.160
	+	98.44		2.063E-01	2.098E-01	2.279E-01	1.272E-01	0.905
	+	99.86		1.070E+00	9.138E-01	1.136E+00	9.996E-02	0.942
		111.00		9.143E-02	2.794E-01	4.505E-01	5.460E-02	0.203
		131.20		-4.319E-02	1.599E-01	2.498E-01	2.159E-02	-0.173
		152.70		6.515E-02	4.281E-01	7.280E-01	1.237E-01	0.089
	+	186.00		1.000E+01	4.618E+00	4.230E+00	1.321E+00	2.364
		226.40		-1.966E-01	5.496E-01	8.981E-01	1.209E-01	-0.219
		227.20		8.336E-02	5.924E-01	9.925E-01	8.950E-02	0.084
		248.90		-5.691E-01	1.156E+00	1.786E+00	4.038E-01	-0.319
		293.70		3.887E+00	1.317E+00	1.985E+00	3.483E-01	1.959
		369.80		1.820E-01	1.263E+00	2.072E+00	4.496E-01	0.088
		568.70		2.021E-01	1.339E+00	2.263E+00	1.917E-01	0.089
		569.50		1.412E-01	3.663E-01	6.295E-01	5.333E-02	0.224
		574.00		-1.085E+00	1.977E+00	3.166E+00	2.680E-01	-0.343
		699.00		-4.056E-01	9.264E-01	1.470E+00	2.789E-01	-0.276
		706.10		9.809E-01	1.507E+00	2.442E+00	1.088E+00	0.402
		733.00		-1.796E-01	6.332E-01	8.746E-01	1.938E-01	-0.205
		742.81		1.937E-01	1.853E+00	3.086E+00	2.074E+00	0.063
		796.30		2.980E+00	1.454E+00	2.418E+00	6.554E-01	1.232
		805.60		1.322E+00	1.373E+00	2.373E+00	7.285E-01	0.557
		819.60		-8.291E-02	1.568E+00	2.561E+00	9.751E-01	-0.032
		826.30		-2.641E-01	1.063E+00	1.688E+00	7.559E-01	-0.157
		831.60		-3.423E-01	8.246E-01	1.283E+00	3.840E-01	-0.267
		876.40		1.180E-03	1.184E+00	1.938E+00	1.993E+00	0.001
		880.51		6.936E-02	3.840E-01	6.402E-01	5.775E-02	0.108
		883.24		-1.974E-01	4.268E-01	6.284E-01	4.227E-01	-0.314
		899.00		-5.899E-01	1.130E+00	1.683E+00	7.374E-01	-0.350
		925.00		-5.031E-01	1.589E+00	2.494E+00	2.253E-01	-0.202
		926.50		-3.485E-02	2.348E-01	3.760E-01	9.557E-02	-0.093
		946.00	*	-3.504E-01	3.986E-01	5.685E-01	1.077E-01	-0.616
		949.00		-2.492E-01	6.159E-01	9.618E-01	8.655E-02	-0.259
		980.50		-7.055E-02	1.019E+00	1.642E+00	1.467E-01	-0.043
		1394.10		1.132E-01	1.636E+00	2.739E+00	1.783E+00	0.041
PA-234M		766.42		1.677E+01	1.900E+01	3.017E+01	1.531E+01	0.556
	+	1001.03	*	3.168E+01	1.005E+01	1.606E+01	1.637E+00	1.973
NP-236		94.67		8.929E-01	2.432E-01	4.096E-01	3.687E-02	2.180
	+	98.44		1.560E-01	1.333E-01	1.723E-01	1.524E-02	0.905
		111.00		6.916E-02	2.112E-01	3.407E-01	2.952E-02	0.203
		160.31	*	-1.174E-01	1.084E-01	1.740E-01	1.481E-02	-0.675

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		3.565E-01	3.046E-01	3.871E-01	3.410E-02	0.921
		117.00	*	-1.849E-04	2.810E-01	4.463E-01	3.887E-02	0.000
	+	209.75		1.949E+00	1.444E+00	1.886E+00	1.678E-01	1.033
		228.18		1.452E-01	3.086E-01	5.245E-01	4.733E-02	0.277
		277.60		7.024E-03	2.465E-01	4.072E-01	3.725E-02	0.017
		334.30		3.204E-01	1.894E+00	2.754E+00	2.436E-01	0.116
AM-241		59.54	*	2.630E-01	2.611E-01	3.974E-01	3.275E-02	0.662
CM-243	+	99.55		3.669E-01	3.135E-01	3.984E-01	3.509E-02	0.921
		103.76	*	7.652E-02	1.314E-01	2.151E-01	1.874E-02	0.356
		117.00		-1.903E-04	2.891E-01	4.592E-01	3.999E-02	0.000
	+	209.75		1.921E+00	1.424E+00	1.859E+00	1.654E-01	1.033
		228.18		1.468E-01	3.118E-01	5.300E-01	4.782E-02	0.277
		277.60		7.082E-03	2.485E-01	4.106E-01	3.755E-02	0.017
AM-246		798.80		-3.019E-01	1.978E-01	2.720E-01	2.390E-02	-1.110
		1036.00		3.518E-01	3.545E-01	6.454E-01	5.662E-02	0.545
		1062.04		1.132E-01	3.283E-01	5.505E-01	4.775E-02	0.206
		1078.86	*	7.211E-02	1.978E-01	3.325E-01	2.861E-02	0.217
CM-247		278.00		6.749E-02	1.016E+00	1.683E+00	1.539E-01	0.040
		287.40		3.992E-01	1.645E+00	2.748E+00	2.508E-01	0.145
		402.60	*	8.493E-03	5.558E-02	9.091E-02	7.373E-03	0.093
CF-249		252.85		4.248E-01	1.193E+00	2.013E+00	1.837E-01	0.211
		333.44		-1.499E-02	2.598E-01	3.702E-01	3.277E-02	-0.040
		387.95	*	2.225E-02	5.389E-02	9.001E-02	7.301E-03	0.247
CF-251		176.60	*	-1.108E-02	1.739E-01	2.917E-01	2.511E-02	-0.038
		227.00		8.927E-02	5.245E-01	8.801E-01	7.935E-02	0.101
		285.00		-4.680E-01	2.345E+00	3.817E+00	3.487E-01	-0.123

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396002      *
* Acquisition date :  5-FEB-2010 18:59:38 Detector SN#     :               *
* Detector ID        : GAM01               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.09      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 21-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245396002           Analyst initials: MXR1          *
* Batch Number       : 944962               Sample Quantity : 1.0051E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.560E+01	2.994E+00	7.156E-01	0.000E+00
CD-109	2.593E+00	1.567E+00	2.151E+00	0.000E+00
SN-126	2.548E-01	1.539E-01	2.288E-01	0.000E+00
BA-137M	4.111E-01	1.205E-01	7.534E-02	0.000E+00
CS-137	4.346E-01	1.274E-01	7.964E-02	0.000E+00
CE-141	7.969E-02	1.351E-01	1.341E-01	0.000E+00
TL-208	4.531E-01	1.247E-01	7.519E-02	0.000E+00
BI-211	4.391E+00	7.642E-01	4.462E-01	0.000E+00
PB-212	1.870E+00	2.371E-01	1.139E-01	0.000E+00
PO-212	1.870E+00	2.371E-01	1.139E-01	0.000E+00
BI-214	1.343E+00	2.564E-01	1.568E-01	0.000E+00
PB-214	1.527E+00	2.771E-01	1.556E-01	0.000E+00
PO-214	1.527E+00	2.771E-01	1.556E-01	0.000E+00
PO-216	1.870E+00	2.371E-01	1.139E-01	0.000E+00
PO-218	1.527E+00	2.771E-01	1.556E-01	0.000E+00
RA-224	4.620E+00	1.530E+00	1.297E+00	0.000E+00
RA-226	1.343E+00	2.564E-01	1.568E-01	0.000E+00
AC-228	1.802E+00	4.267E-01	2.660E-01	0.000E+00
RA-228	1.802E+00	4.267E-01	2.660E-01	0.000E+00
TH-228	1.899E+00	2.408E-01	1.157E-01	0.000E+00
TH-230	1.343E+00	2.564E-01	1.568E-01	0.000E+00
TH-232	1.802E+00	4.267E-01	2.660E-01	0.000E+00
TH-234	1.357E+01	3.907E+00	3.071E+00	0.000E+00
U-234	1.343E+00	2.564E-01	1.568E-01	0.000E+00
U-235	2.649E-01	4.508E-01	4.670E-01	0.000E+00
NP-237	7.481E-01	4.767E-01	6.187E-01	0.000E+00
U-238	1.357E+01	3.907E+00	3.071E+00	0.000E+00
AM-243	4.243E-01	1.110E-01	1.327E-01	0.000E+00
ANH-511	1.351E-01	1.103E-01	6.741E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	2.927E-01	4.743E-01	8.068E-01	0.000E+00	NOT IDENT.
NA-22	-2.984E-03	5.534E-02	9.291E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.930E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.336E-02	3.860E-02	5.350E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	8.029E-02	1.111E-01	0.000E+00	FAIL ABUN
SC-46	-2.764E-02	5.335E-02	8.328E-02	0.000E+00	FAIL ABUN
V-48	-1.306E-02	9.929E-02	1.609E-01	0.000E+00	NOT IDENT.
CR-51	3.559E-02	5.063E-01	8.464E-01	0.000E+00	NOT IDENT.
MN-52	-1.867E-01	2.672E-01	3.856E-01	0.000E+00	NOT IDENT.
MN-54	-5.390E-03	4.910E-02	8.078E-02	0.000E+00	NOT IDENT.
CO-56	-7.813E-02	4.822E-02	6.302E-02	0.000E+00	NOT IDENT.
CO-57	-3.360E-02	3.663E-02	5.649E-02	0.000E+00	NOT IDENT.
CO-58	-4.115E-02	5.140E-02	7.817E-02	0.000E+00	NOT IDENT.
FE-59	-7.262E-02	1.370E-01	2.104E-01	0.000E+00	NOT IDENT.
CO-60	1.316E-02	5.282E-02	9.173E-02	0.000E+00	NOT IDENT.
ZN-65	1.661E-02	1.187E-01	1.710E-01	0.000E+00	NOT IDENT.
GE-68	3.702E-01	1.621E+00	2.720E+00	0.000E+00	NOT IDENT.
AS-73	3.819E-01	1.356E+00	2.280E+00	0.000E+00	NOT IDENT.
AS-74	1.024E-02	1.147E-01	1.963E-01	0.000E+00	NOT IDENT.
SE-75	7.445E-03	6.690E-02	9.958E-02	0.000E+00	NOT IDENT.
BR-77	9.458E+00	1.614E+01	2.654E+01	0.000E+00	FAIL ABUN
SR-82	-7.007E-01	5.193E-01	7.449E-01	0.000E+00	NOT IDENT.
RB-83	7.073E-02	1.024E-01	1.697E-01	0.000E+00	NOT IDENT.
RB-84	3.174E-02	9.452E-02	1.621E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.115E+01	2.004E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.728E-02	1.030E-01	0.000E+00	NOT IDENT.
RB-86	1.713E-01	1.072E+00	1.783E+00	0.000E+00	NOT IDENT.
Y-88	-6.880E-03	4.268E-02	6.735E-02	0.000E+00	NOT IDENT.
ZR-88	-3.429E-03	3.946E-02	6.454E-02	0.000E+00	NOT IDENT.
Y-91	2.442E+00	2.473E+01	4.234E+01	0.000E+00	NOT IDENT.
NB-94	5.566E-03	4.395E-02	7.471E-02	0.000E+00	NOT IDENT.
NB-95	1.334E-02	6.347E-02	1.079E-01	0.000E+00	NOT IDENT.
NB-95M	1.684E-01	1.720E-01	2.710E-01	0.000E+00	NOT IDENT.
ZR-95	-6.635E-02	8.347E-02	1.271E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.725E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.275E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	9.119E-01	1.632E+01	2.749E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.338E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.883E-02	4.568E-02	7.300E-02	0.000E+00	NOT IDENT.
RH-102	-2.364E-03	4.379E-02	7.101E-02	0.000E+00	NOT IDENT.
RU-103	2.794E-02	5.865E-02	9.868E-02	0.000E+00	FAIL ABUN
RH-106	-3.267E-01	4.186E-01	6.579E-01	0.000E+00	FAIL ABUN
RU-106	-3.267E-01	4.173E-01	6.579E-01	0.000E+00	FAIL ABUN
AG-108M	-1.699E-02	4.605E-02	7.323E-02	0.000E+00	NOT IDENT.
AG-110M	-1.735E-02	5.214E-02	7.324E-02	0.000E+00	NOT IDENT.
IN-111	1.014E-01	1.620E+00	2.413E+00	0.000E+00	NOT IDENT.
IN-113M	-6.352E-03	5.786E-02	9.448E-02	0.000E+00	NOT IDENT.
SN-113	-6.352E-03	5.786E-02	9.448E-02	0.000E+00	NOT IDENT.
IN-114M	1.625E-01	2.662E-01	4.144E-01	0.000E+00	NOT IDENT.
CD-115	1.467E+01	1.481E+01	2.710E+01	0.000E+00	NOT IDENT.
SN-117M	-4.014E-02	7.259E-02	1.219E-01	0.000E+00	NOT IDENT.
SB-122	-6.151E-01	2.855E+00	4.786E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	9.314E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.189E-02	3.692E-02	6.185E-02	0.000E+00	NOT IDENT.
I-124	6.473E-02	1.036E+00	1.670E+00	0.000E+00	NOT IDENT.
SB-124	1.072E-02	9.288E-02	1.576E-01	0.000E+00	FAIL ABUN
SB-125	-7.355E-02	1.337E-01	2.100E-01	0.000E+00	FAIL ABUN
TE-125M	-4.548E+00	1.332E+01	2.128E+01	0.000E+00	NOT IDENT.
I-126	-1.538E-01	2.764E-01	3.763E-01	0.000E+00	NOT IDENT.
SB-126	2.365E-01	1.892E-01	3.502E-01	0.000E+00	FAIL ABUN
SB-127	1.083E-01	1.743E+00	2.953E+00	0.000E+00	NOT IDENT.
XE-127	3.252E-02	6.476E-02	1.124E-01	0.000E+00	FAIL ABUN
I-131	-5.311E-02	1.565E-01	2.524E-01	0.000E+00	NOT IDENT.
TE-132	4.559E-01	9.610E-01	1.658E+00	0.000E+00	NOT IDENT.
BA-133	2.985E-02	6.454E-02	9.743E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	9.572E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.366E-02	1.250E-01	0.000E+00	NOT IDENT.
CS-135	2.312E-01	2.336E-01	3.678E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.160E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.773E-02	1.548E-01	2.601E-01	0.000E+00	FAIL ABUN
CE-139	-2.788E-02	3.923E-02	6.524E-02	0.000E+00	NOT IDENT.
BA-140	2.111E-01	3.531E-01	6.185E-01	0.000E+00	NOT IDENT.
LA-140	-1.335E-01	1.151E-01	1.476E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.403E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	3.988E-02	2.935E-01	4.754E-01	0.000E+00	NOT IDENT.
PM-144	-6.376E-03	4.134E-02	6.855E-02	0.000E+00	NOT IDENT.

PR-144	-4.321E-01	2.802E+00	4.646E+00	0.000E+00	NOT IDENT.
PM-146	4.251E-02	6.708E-02	1.141E-01	0.000E+00	NOT IDENT.
ND-147	-1.622E-01	7.853E-01	1.280E+00	0.000E+00	NOT IDENT.
PM-149	-4.733E+01	1.238E+02	2.021E+02	0.000E+00	NOT IDENT.
EU-152	-4.845E-03	1.458E-01	2.111E-01	0.000E+00	FAIL ABUN
GD-153	1.750E-01	1.465E-01	1.901E-01	0.000E+00	FAIL ABUN
EU-154	-1.277E-02	1.562E-01	2.615E-01	0.000E+00	NOT IDENT.
EU-155	8.280E-03	1.479E-01	2.410E-01	0.000E+00	FAIL ABUN
TB-160	-5.306E-02	1.909E-01	3.070E-01	0.000E+00	FAIL ABUN
HO-166M	-5.819E-03	7.541E-02	1.258E-01	0.000E+00	NOT IDENT.
TM-171	6.387E+00	4.383E+01	6.505E+01	0.000E+00	NOT IDENT.
LU-176	4.145E-03	3.129E-02	5.264E-02	0.000E+00	FAIL ABUN
LU-177	-5.984E-01	1.837E+00	2.698E+00	0.000E+00	NOT IDENT.
LU-177M	-1.741E-01	2.473E-01	3.844E-01	0.000E+00	FAIL ABUN
HF-181	-7.140E-02	6.109E-02	8.906E-02	0.000E+00	NOT IDENT.
W-181	8.049E-01	6.166E-01	9.605E-01	0.000E+00	NOT IDENT.
TA-182	1.182E-01	2.487E-01	4.405E-01	0.000E+00	FAIL ABUN
RE-183	1.345E-01	1.497E-01	2.609E-01	0.000E+00	FAIL ABUN
RE-184	1.133E-01	3.119E-01	5.350E-01	0.000E+00	NOT IDENT.
OS-185	-2.835E-02	5.342E-02	8.579E-02	0.000E+00	NOT IDENT.
RE-188	1.016E-01	2.254E-01	3.943E-01	0.000E+00	NOT IDENT.
W-188	3.132E+00	1.085E+01	1.630E+01	0.000E+00	FAIL ABUN
IR-192	6.223E-03	4.730E-02	7.942E-02	0.000E+00	FAIL ABUN
AU-195	5.096E-01	4.267E-01	5.660E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	7.144E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.377E+01	9.569E+00	1.530E+01	0.000E+00	NOT IDENT.
TL-202	1.598E-02	9.528E-02	1.579E-01	0.000E+00	NOT IDENT.
HG-203	4.606E-02	5.418E-02	9.471E-02	0.000E+00	NOT IDENT.
BI-207	3.015E-02	7.501E-02	1.279E-01	0.000E+00	FAIL ABUN
TL-207	-2.234E-02	8.678E-01	1.441E+00	0.000E+00	FAIL ABUN
PO-209	-4.067E+00	9.618E+00	1.514E+01	0.000E+00	NOT IDENT.
BI-210	3.540E+00	6.171E+00	1.044E+01	0.000E+00	NOT IDENT.
PB-210	3.540E+00	6.171E+00	1.044E+01	0.000E+00	NOT IDENT.
PO-210	3.540E+00	6.170E+00	1.044E+01	0.000E+00	NOT IDENT.
PB-211	5.070E-02	1.349E+00	2.221E+00	0.000E+00	NOT IDENT.
BI-212	6.311E-01	5.373E-01	8.823E-01	0.000E+00	FAIL ABUN
PO-215	-2.234E-02	8.678E-01	1.441E+00	0.000E+00	FAIL ABUN
RN-219	2.984E-02	6.086E-01	1.004E+00	0.000E+00	FAIL ABUN
RN-220	-3.631E+01	3.459E+01	5.339E+01	0.000E+00	NOT IDENT.
RA-223	-2.234E-02	8.678E-01	1.441E+00	0.000E+00	FAIL ABUN
AC-227	-3.550E-01	5.317E-01	8.596E-01	0.000E+00	FAIL ABUN
TH-227	-3.550E-01	5.327E-01	8.596E-01	0.000E+00	FAIL ABUN
TH-229	-8.535E-02	6.472E-01	1.097E+00	0.000E+00	FAIL ABUN
PA-231	-8.388E-01	2.009E+00	3.276E+00	0.000E+00	FAIL ABUN
TH-231	-2.234E-02	8.678E-01	1.441E+00	0.000E+00	FAIL ABUN
U-231	-4.085E+00	1.737E+00	2.511E+00	0.000E+00	FAIL ABUN
PA-233	-1.956E-02	8.353E-02	1.371E-01	0.000E+00	FAIL ABUN
PA-234	-3.504E-01	3.906E-01	5.644E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	9.852E+00	1.594E+01	0.000E+00	FAIL ABUN
NP-236	-1.174E-01	1.062E-01	1.736E-01	0.000E+00	FAIL ABUN
NP-239	-1.849E-04	2.753E-01	4.457E-01	0.000E+00	FAIL ABUN
AM-241	2.630E-01	2.559E-01	3.976E-01	0.000E+00	NOT IDENT.
CM-243	7.652E-02	1.288E-01	2.149E-01	0.000E+00	FAIL ABUN
AM-246	7.211E-02	1.939E-01	3.299E-01	0.000E+00	NOT IDENT.
CM-247	8.493E-03	5.447E-02	9.047E-02	0.000E+00	NOT IDENT.
CF-249	2.225E-02	5.281E-02	8.958E-02	0.000E+00	NOT IDENT.
CF-251	-1.108E-02	1.705E-01	2.910E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:00:10.37

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396002.CNF;1
Sample date       : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 18:59:38.
Sample ID         : G245396002           Sample quantity  : 1.00510E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.09  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	692	10.67*	9.454E-01	2.560E+01	2.560E+01	11.94
CD-109	88.03	131	3.72*	5.188E+00	2.534E+00	2.593E+00	61.66
SN-126	64.28	385	9.60	2.790E+00	5.371E+00	5.371E+00	27.75
	86.94	131	8.90	5.188E+00	1.059E+00	1.059E+00	73.74
	87.57	131	37.00*	5.188E+00	2.548E-01	2.548E-01	61.66
BA-137M	661.65	190	89.98*	1.922E+00	4.107E-01	4.111E-01	29.91
CS-137	661.65	190	85.12*	1.922E+00	4.342E-01	4.346E-01	29.91
CE-141	145.44	44	48.40*	5.851E+00	5.746E-02	7.969E-02	173.02
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	86	21.60	2.391E+00	6.253E-01	6.253E-01	83.78
	583.14	219	84.20*	2.142E+00	4.531E-01	4.531E-01	28.07
	860.37	37	12.46	1.520E+00	7.369E-01	7.369E-01	103.00
BI-211	72.87	------	1.27	3.944E+00	------ Line Not Found		------
	351.07	490	12.94*	3.224E+00	4.391E+00	4.391E+00	17.76
PB-212	74.81	312	10.70	4.160E+00	2.617E+00	2.617E+00	28.29
	77.11	490	18.00	4.388E+00	2.319E+00	2.319E+00	19.14
	87.30	131	8.00	5.188E+00	1.178E+00	1.178E+00	62.47
	238.63	970	44.60*	4.345E+00	1.870E+00	1.870E+00	12.94
	300.09	77	3.41	3.652E+00	2.310E+00	2.310E+00	58.46
PO-212	74.81	312	10.70	4.160E+00	2.617E+00	2.617E+00	28.29
	77.11	490	18.00	4.388E+00	2.319E+00	2.319E+00	19.14
	87.30	131	8.00	5.188E+00	1.178E+00	1.178E+00	62.47
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	970	44.60*	4.345E+00	1.870E+00	1.870E+00	12.94
	300.09	77	3.41	3.652E+00	2.310E+00	2.310E+00	58.46
BI-214	609.31	344	46.30*	2.064E+00	1.343E+00	1.343E+00	19.48
	1120.29	79	15.10	1.193E+00	1.646E+00	1.646E+00	43.86
	1764.49	53	15.80	8.255E-01	1.531E+00	1.531E+00	43.44
PB-214	74.81	312	6.21	4.160E+00	4.509E+00	4.509E+00	27.71
	77.11	490	10.50	4.388E+00	3.976E+00	3.976E+00	20.60
	87.30	131	4.67	5.188E+00	2.018E+00	2.018E+00	62.14
	241.98	210	7.49	4.307E+00	2.436E+00	2.436E+00	34.25

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	266	19.20	3.698E+00	1.401E+00	1.401E+00	26.28
	351.92	490	37.20*	3.224E+00	1.527E+00	1.527E+00	18.51
PO-214	74.81	312	6.21	4.160E+00	4.509E+00	4.509E+00	27.71
	77.11	490	10.50	4.388E+00	3.976E+00	3.976E+00	20.60
	87.30	131	4.67	5.188E+00	2.018E+00	2.018E+00	62.14
	241.98	210	7.49	4.307E+00	2.436E+00	2.436E+00	34.25
	295.21	266	19.20	3.698E+00	1.401E+00	1.401E+00	26.28
	351.92	490	37.20*	3.224E+00	1.527E+00	1.527E+00	18.51
PO-216	74.81	312	10.70	4.160E+00	2.617E+00	2.617E+00	28.29
	77.11	490	18.00	4.388E+00	2.319E+00	2.319E+00	19.14
	87.30	131	8.00	5.188E+00	1.178E+00	1.178E+00	62.47
	238.63	970	44.60*	4.345E+00	1.870E+00	1.870E+00	12.94
	300.09	77	3.41	3.652E+00	2.310E+00	2.310E+00	58.46
PO-218	74.81	312	6.21	4.160E+00	4.509E+00	4.509E+00	27.71
	77.11	490	10.50	4.388E+00	3.976E+00	3.976E+00	20.60
	87.30	131	4.67	5.188E+00	2.018E+00	2.018E+00	62.14
	241.98	210	7.49	4.307E+00	2.436E+00	2.436E+00	34.25
	295.21	266	19.20	3.698E+00	1.401E+00	1.401E+00	26.28
	351.92	490	37.20*	3.224E+00	1.527E+00	1.527E+00	18.51
RA-224	240.98	210	3.95*	4.307E+00	4.620E+00	4.620E+00	33.79
RA-226	609.31	344	46.30*	2.064E+00	1.343E+00	1.343E+00	19.48
	1120.29	79	15.10	1.193E+00	1.646E+00	1.646E+00	43.86
	1764.49	53	15.80	8.255E-01	1.531E+00	1.531E+00	43.44
AC-228	338.32	211	11.40	3.322E+00	2.084E+00	2.084E+00	53.26
	911.07	193	27.70*	1.444E+00	1.802E+00	1.802E+00	24.15
	969.11	106	16.60	1.364E+00	1.753E+00	1.753E+00	38.31
RA-228	338.32	211	11.40	3.322E+00	2.084E+00	2.084E+00	53.26
	911.07	193	27.70*	1.444E+00	1.802E+00	1.802E+00	24.15
	969.11	106	16.60	1.364E+00	1.753E+00	1.753E+00	38.31
TH-228	74.81	312	10.70	4.160E+00	2.617E+00	2.657E+00	26.72
	77.11	490	18.00	4.388E+00	2.319E+00	2.355E+00	19.14
	87.30	131	8.00	5.188E+00	1.178E+00	1.196E+00	61.66
	238.63	970	44.60*	4.345E+00	1.870E+00	1.899E+00	12.94
	300.09	77	3.41	3.652E+00	2.310E+00	2.345E+00	82.60
TH-230	609.31	344	46.30*	2.064E+00	1.343E+00	1.343E+00	19.48
	1120.29	79	15.10	1.193E+00	1.646E+00	1.646E+00	43.86
	1764.49	53	15.80	8.255E-01	1.531E+00	1.531E+00	43.44
TH-232	338.32	211	11.40	3.322E+00	2.084E+00	2.084E+00	34.77
	911.07	193	27.70*	1.444E+00	1.802E+00	1.802E+00	24.15
	969.11	106	16.60	1.364E+00	1.753E+00	1.753E+00	38.31
TH-234	63.29	385	3.80*	2.790E+00	1.357E+01	1.357E+01	29.38
	92.38	1002	5.41	5.499E+00	1.257E+01	1.257E+01	21.09
U-234	609.31	344	46.30*	2.064E+00	1.343E+00	1.343E+00	19.48
	1120.29	79	15.10	1.193E+00	1.646E+00	1.646E+00	43.86
	1764.49	53	15.80	8.255E-01	1.531E+00	1.531E+00	43.44
U-235	89.95	------	2.70	5.352E+00	------ Line Not Found		------
	93.35	1002	4.50	5.499E+00	1.512E+01	1.512E+01	30.05
	105.00	------	2.10	5.912E+00	------ Line Not Found		------
	143.76	44	10.50*	5.851E+00	2.649E-01	2.649E-01	173.68

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	163.35	------	4.70	5.554E+00	------	Line Not Found	------
	185.71	276	54.00	5.158E+00	3.704E-01	3.704E-01	35.11
	205.31	------	4.70	4.840E+00	------	Line Not Found	------
NP-237	86.50	131	12.60*	5.188E+00	7.481E-01	7.481E-01	65.02
	95.87	------	2.60	5.636E+00	------	Line Not Found	------
U-238	63.29	385	3.80*	2.790E+00	1.357E+01	1.357E+01	29.38
	92.38	1002	5.41	5.499E+00	1.257E+01	1.257E+01	13.86
AM-243	74.67	312	66.00*	4.160E+00	4.243E-01	4.243E-01	26.70
	86.72	131	0.34	5.188E+00	2.805E+01	2.805E+01	61.66
	117.66	------	0.55	6.054E+00	------	Line Not Found	------
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	86	100.00*	2.391E+00	1.351E-01	1.351E-01	83.37

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.560E+01	2.560E+01	0.306E+01	11.94	
CD-109	464.00D	1.02	2.534E+00	2.593E+00	1.599E+00	61.66	
SN-126	1.00E+05Y	1.00	2.548E-01	2.548E-01	1.571E-01	61.66	
BA-137M	30.17Y	1.00	4.107E-01	4.111E-01	1.230E-01	29.91	
CS-137	30.17Y	1.00	4.342E-01	4.346E-01	1.300E-01	29.91	
CE-141	32.50D	1.39	5.746E-02	7.969E-02	13.79E-02	173.02	
TL-208	1.41E+10Y	1.00	4.531E-01	4.531E-01	1.272E-01	28.07	
BI-211	7.04E+08Y	1.00	4.391E+00	4.391E+00	0.780E+00	17.76	
PB-212	1.41E+10Y	1.00	1.870E+00	1.870E+00	0.242E+00	12.94	
PO-212	1.41E+10Y	1.00	1.870E+00	1.870E+00	0.242E+00	12.94	
BI-214	1600.00Y	1.00	1.343E+00	1.343E+00	0.262E+00	19.48	
PB-214	1600.00Y	1.00	1.527E+00	1.527E+00	0.283E+00	18.51	
PO-214	1600.00Y	1.00	1.527E+00	1.527E+00	0.283E+00	18.51	
PO-216	1.41E+10Y	1.00	1.870E+00	1.870E+00	0.242E+00	12.94	
PO-218	1600.00Y	1.00	1.527E+00	1.527E+00	0.283E+00	18.51	
RA-224	1.41E+10Y	1.00	4.620E+00	4.620E+00	1.561E+00	33.79	
RA-226	1600.00Y	1.00	1.343E+00	1.343E+00	0.262E+00	19.48	
AC-228	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.435E+00	24.15	
RA-228	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.435E+00	24.15	
TH-228	1.91Y	1.02	1.870E+00	1.899E+00	0.246E+00	12.94	
TH-230	4.47E+09Y	1.00	1.343E+00	1.343E+00	0.262E+00	19.48	
TH-232	1.41E+10Y	1.00	1.802E+00	1.802E+00	0.435E+00	24.15	
TH-234	4.47E+09Y	1.00	1.357E+01	1.357E+01	0.399E+01	29.38	
U-234	4.47E+09Y	1.00	1.343E+00	1.343E+00	0.262E+00	19.48	
U-235	7.04E+08Y	1.00	2.649E-01	2.649E-01	4.600E-01	173.68	
NP-237	2.14E+06Y	1.00	7.481E-01	7.481E-01	4.864E-01	65.02	
U-238	4.47E+09Y	1.00	1.357E+01	1.357E+01	0.399E+01	29.38	
AM-243	7380.00Y	1.00	4.243E-01	4.243E-01	1.133E-01	26.70	
ANH-511	1.00E+09Y	1.00	1.351E-01	1.351E-01	1.126E-01	83.37	
	Total Activity :		9.031E+01	9.042E+01			

Grand Total Activity : 9.031E+01 9.042E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	98.49	80	317	1.14	197.67	182	19	1.12E-02	85.0	5.73E+00	T
0	209.95	81	241	1.28	420.46	416	9	1.12E-02	73.6	4.77E+00	T
0	270.20	130	216	1.97	540.90	535	13	1.81E-02	49.6	3.96E+00	T
0	463.89	95	121	1.55	928.06	921	16	1.32E-02	55.7	2.59E+00	T
0	727.91	35	56	0.85	1455.75	1454	7	4.90E-03	86.3	1.77E+00	T
0	965.06	29	45	1.97	1929.73	1925	9	3.99E-03	93.8	1.37E+00	T
0	1001.56	94	18	2.06	2002.69	1995	16	1.31E-02	30.1	1.32E+00	T
0	1730.26	22	8	1.75	3458.97	3454	11	3.08E-03	65.4	8.36E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:00:16.51

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396002.CNF;1   *
* Acquisition date  : 5-FEB-2010 18:59:38.  Detector SN#     :                *
* Detector ID       : GAM01                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.09          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 21-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245396002            Analyst initials: MXR1            *
* Batch Number      : 944962                Sample Quantity : 1.00510E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.560E+01	3.056E+00	7.217E-01	6.416E-02	35.471
CD-109	2.593E+00	1.599E+00	2.153E+00	2.037E-01	1.204
SN-126	2.548E-01	1.571E-01	2.290E-01	2.157E-02	1.113
BA-137M	4.111E-01	1.230E-01	7.581E-02	6.210E-03	5.423
CS-137	4.346E-01	1.300E-01	8.014E-02	6.578E-03	5.423
CE-141	7.969E-02	1.379E-01	1.344E-01	1.169E-02	0.593
TL-208	4.531E-01	1.272E-01	7.563E-02	6.869E-03	5.991
BI-211	4.391E+00	7.798E-01	4.482E-01	4.077E-02	9.796
PB-212	1.870E+00	2.420E-01	1.143E-01	1.157E-02	16.363
PO-212	1.870E+00	2.420E-01	1.143E-01	1.157E-02	16.363
BI-214	1.343E+00	2.616E-01	1.578E-01	1.556E-02	8.512
PB-214	1.527E+00	2.827E-01	1.563E-01	1.637E-02	9.775
PO-214	1.527E+00	2.827E-01	1.563E-01	1.637E-02	9.775
PO-216	1.870E+00	2.420E-01	1.143E-01	1.157E-02	16.363
PO-218	1.527E+00	2.827E-01	1.563E-01	1.637E-02	9.775
RA-224	4.620E+00	1.561E+00	1.301E+00	1.182E-01	3.550
RA-226	1.343E+00	2.616E-01	1.578E-01	1.556E-02	8.512
AC-228	1.802E+00	4.354E-01	2.679E-01	3.101E-02	6.728

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.802E+00	4.354E-01	2.679E-01	3.101E-02	6.728
TH-228	1.899E+00	2.457E-01	1.161E-01	1.175E-02	16.363
TH-230	1.343E+00	2.616E-01	1.578E-01	1.556E-02	8.512
TH-232	1.802E+00	4.354E-01	2.679E-01	3.101E-02	6.728
TH-234	1.357E+01	3.987E+00	3.070E+00	5.396E-01	4.420
U-234	1.343E+00	2.616E-01	1.578E-01	1.556E-02	8.512
U-235	2.649E-01	4.600E-01	4.679E-01	8.175E-02	0.566
NP-237	7.481E-01	4.864E-01	6.190E-01	1.401E-01	1.209
U-238	1.357E+01	3.987E+00	3.070E+00	5.396E-01	4.420
AM-243	4.243E-01	1.133E-01	1.327E-01	1.104E-02	3.196
ANH-511	1.351E-01	1.126E-01	6.779E-02	5.745E-03	1.992

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.927E-01		4.840E-01	8.111E-01	7.379E-02	0.361
NA-22	-2.984E-03		5.646E-02	9.367E-02	7.866E-03	-0.032
NA-24	2.673E-01		5.066E-01	Half-Life too short		
AL-26	-2.336E-02		3.939E-02	5.399E-02	4.473E-03	-0.433
TI-44	4.280E-01	+	8.193E-02	1.111E-01	9.533E-03	3.853
SC-46	-2.764E-02		5.444E-02	8.388E-02	7.583E-03	-0.329
V-48	-1.306E-02		1.013E-01	1.621E-01	1.447E-02	-0.081
CR-51	3.559E-02		5.166E-01	8.500E-01	7.996E-02	0.042
MN-52	-1.867E-01		2.726E-01	3.889E-01	3.358E-02	-0.480
MN-54	-5.390E-03		5.010E-02	8.135E-02	7.241E-03	-0.066
CO-56	-7.813E-02		4.920E-02	6.346E-02	5.670E-03	-1.231
CO-57	-3.360E-02		3.737E-02	5.657E-02	4.980E-03	-0.594
CO-58	-4.115E-02		5.245E-02	7.871E-02	6.963E-03	-0.523
FE-59	-7.262E-02		1.398E-01	2.121E-01	1.955E-02	-0.342
CO-60	1.316E-02		5.390E-02	9.249E-02	7.884E-03	0.142
ZN-65	1.661E-02		1.211E-01	1.723E-01	1.454E-02	0.096
GE-68	3.702E-01		1.654E+00	2.741E+00	2.360E-01	0.135
AS-73	3.819E-01		1.383E+00	2.278E+00	1.844E-01	0.168
AS-74	1.024E-02		1.170E-01	1.975E-01	1.664E-02	0.052
SE-75	7.445E-03		6.827E-02	9.995E-02	9.182E-03	0.074
BR-77	9.458E+00		1.647E+01	2.669E+01	2.264E+00	0.354
SR-82	-7.007E-01		5.299E-01	7.500E-01	6.529E-02	-0.934
RB-83	7.073E-02		1.045E-01	1.707E-01	1.448E-02	0.414
RB-84	3.174E-02		9.645E-02	1.632E-01	1.473E-02	0.194
KR-85	2.020E+01		1.138E+01	2.016E+01	1.709E+00	1.002
SR-85	1.038E-01		5.845E-02	1.035E-01	8.779E-03	1.002
RB-86	1.713E-01		1.094E+00	1.797E+00	1.548E-01	0.095
Y-88	-6.880E-03		4.355E-02	6.798E-02	5.591E-03	-0.101
ZR-88	-3.429E-03		4.027E-02	6.485E-02	5.222E-03	-0.053
Y-91	2.442E+00		2.523E+01	4.268E+01	3.497E+00	0.057
NB-94	5.566E-03		4.484E-02	7.520E-02	6.312E-03	0.074
NB-95	1.334E-02		6.476E-02	1.086E-01	9.410E-03	0.123

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	1.684E-01		1.755E-01	2.720E-01	2.789E-02	0.619
ZR-95	-6.635E-02		8.518E-02	1.279E-01	1.215E-02	-0.519
NB-97	-5.775E-02		8.801E-02	Half-Life too short		
ZR-97	3.362E+00		1.671E+00	Half-Life too short		
MO-99	9.119E-01		1.665E+01	2.767E+01	4.193E+00	0.033
TC-99M	-1.832E+10		4.764E+10	Half-Life too short		
RH-101	-1.883E-02		4.661E-02	7.321E-02	6.442E-03	-0.257
RH-102	-2.364E-03		4.469E-02	7.139E-02	6.003E-03	-0.033
RU-103	2.794E-02		5.985E-02	9.922E-02	1.395E-02	0.282
RH-106	-3.267E-01		4.271E-01	6.619E-01	8.729E-02	-0.494
RU-106	-3.267E-01		4.258E-01	6.619E-01	5.529E-02	-0.494
AG-108M	-1.699E-02		4.699E-02	7.360E-02	6.347E-03	-0.231
AG-110M	-1.735E-02		5.320E-02	7.370E-02	6.249E-03	-0.235
IN-111	1.014E-01		1.654E+00	2.422E+00	2.205E-01	0.042
IN-113M	-6.352E-03		5.904E-02	9.494E-02	7.908E-03	-0.067
SN-113	-6.352E-03		5.904E-02	9.494E-02	7.908E-03	-0.067
IN-114M	1.625E-01		2.717E-01	4.155E-01	3.628E-02	0.391
CD-115	1.467E+01		1.511E+01	2.725E+01	2.313E+00	0.538
SN-117M	-4.014E-02		7.407E-02	1.221E-01	1.040E-02	-0.329
SB-122	-6.151E-01		2.914E+00	4.814E+00	4.081E-01	-0.128
I-123	-5.521E+00		4.752E+00	Half-Life too short		
TE-123M	-2.189E-02		3.768E-02	6.199E-02	5.311E-03	-0.353
I-124	6.473E-02		1.057E+00	1.681E+00	1.413E-01	0.039
SB-124	1.072E-02		9.478E-02	1.590E-01	1.410E-02	0.067
SB-125	-7.355E-02		1.364E-01	2.110E-01	1.776E-02	-0.348
TE-125M	-4.548E+00		1.359E+01	2.131E+01	2.209E+00	-0.213
I-126	-1.538E-01		2.821E-01	3.787E-01	3.111E-02	-0.406
SB-126	2.365E-01		1.931E-01	3.525E-01	2.988E-02	0.671
SB-127	1.083E-01		1.778E+00	2.972E+00	3.329E-01	0.036
XE-127	3.252E-02		6.608E-02	1.127E-01	9.964E-03	0.289
I-131	-5.311E-02		1.597E-01	2.536E-01	2.272E-02	-0.209
TE-132	4.559E-01		9.806E-01	1.663E+00	2.657E-01	0.274
BA-133	2.985E-02		6.586E-02	9.788E-02	1.291E-02	0.305
I-133	-1.203E-03		4.883E-03	Half-Life too short		
CS-134	1.498E-01		6.496E-02	1.258E-01	1.112E-02	1.191
CS-135	2.312E-01		2.384E-01	3.692E-01	3.849E-02	0.626
I-135	-1.318E+10		5.917E+09	Half-Life too short		
CS-136	3.773E-02		1.580E-01	2.621E-01	2.383E-02	0.144
CE-139	-2.788E-02		4.003E-02	6.540E-02	5.569E-03	-0.426
BA-140	2.111E-01		3.603E-01	6.221E-01	2.060E-01	0.339
LA-140	-1.335E-01		1.175E-01	1.490E-01	1.285E-02	-0.897
CE-143	4.426E-04		1.226E-04	Half-Life too short		
CE-144	3.988E-02		2.995E-01	4.762E-01	7.413E-02	0.084
PM-144	-6.376E-03		4.219E-02	6.900E-02	5.774E-03	-0.092
PR-144	-4.321E-01		2.859E+00	4.676E+00	3.911E-01	-0.092
PM-146	4.251E-02		6.844E-02	1.147E-01	1.205E-02	0.371
ND-147	-1.622E-01		8.013E-01	1.287E+00	1.915E-01	-0.126
PM-149	-4.733E+01		1.263E+02	2.029E+02	3.213E+01	-0.233

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-4.845E-03		1.488E-01	2.120E-01	1.960E-02	-0.023
GD-153	1.750E-01	+	1.495E-01	1.903E-01	1.690E-02	0.919
EU-154	-1.277E-02		1.594E-01	2.636E-01	2.935E-02	-0.048
EU-155	8.280E-03		1.509E-01	2.413E-01	2.122E-02	0.034
TB-160	-5.306E-02		1.948E-01	3.092E-01	2.788E-02	-0.172
HO-166M	-5.819E-03		7.695E-02	1.266E-01	1.068E-02	-0.046
TM-171	6.387E+00		4.473E+01	6.503E+01	5.122E+00	0.098
LU-176	4.145E-03		3.192E-02	5.285E-02	4.784E-03	0.078
LU-177	-5.984E-01		1.874E+00	2.706E+00	2.405E-01	-0.221
LU-177M	-1.741E-01		2.523E-01	3.863E-01	3.156E-02	-0.451
HF-181	-7.140E-02		6.233E-02	8.954E-02	7.545E-03	-0.797
W-181	8.049E-01		6.292E-01	9.602E-01	7.496E-02	0.838
TA-182	1.182E-01		2.538E-01	4.441E-01	3.660E-02	0.266
RE-183	1.345E-01		1.527E-01	2.615E-01	2.226E-02	0.514
RE-184	1.133E-01		3.182E-01	5.369E-01	4.900E-02	0.211
OS-185	-2.835E-02		5.451E-02	8.633E-02	7.132E-03	-0.328
RE-188	1.016E-01		2.300E-01	3.951E-01	3.365E-02	0.257
W-188	3.132E+00		1.107E+01	1.636E+01	1.492E+00	0.191
IR-192	6.223E-03		4.827E-02	7.975E-02	7.185E-03	0.078
AU-195	5.096E-01	+	4.354E-01	5.665E-01	5.002E-02	0.900
TL-200	2.283E-04		3.645E-04	Half-Life too short		
TL-201	-1.377E+01		9.765E+00	1.534E+01	1.308E+00	-0.898
TL-202	1.598E-02		9.722E-02	1.587E-01	1.316E-02	0.101
HG-203	4.606E-02		5.528E-02	9.507E-02	8.914E-03	0.485
BI-207	3.015E-02		7.654E-02	1.289E-01	1.117E-02	0.234
TL-207	-2.234E-02		8.855E-01	1.448E+00	2.585E-01	-0.015
PO-209	-4.067E+00		9.814E+00	1.525E+01	1.381E+00	-0.267
BI-210	3.540E+00		6.297E+00	1.042E+01	9.840E-01	0.340
PB-210	3.540E+00		6.297E+00	1.042E+01	9.840E-01	0.340
PO-210	3.540E+00		6.296E+00	1.042E+01	8.937E-01	0.340
PB-211	5.070E-02		1.376E+00	2.232E+00	1.397E+00	0.023
BI-212	6.311E-01	+	5.483E-01	8.881E-01	8.801E-02	0.711
PO-215	-2.234E-02		8.855E-01	1.448E+00	2.585E-01	-0.015
RN-219	2.984E-02		6.210E-01	1.009E+00	1.487E-01	0.030
RN-220	-3.631E+01		3.530E+01	5.370E+01	4.558E+00	-0.676
RA-223	-2.234E-02		8.855E-01	1.448E+00	2.585E-01	-0.015
AC-227	-3.550E-01		5.426E-01	8.627E-01	1.349E-01	-0.411
TH-227	-3.550E-01		5.436E-01	8.627E-01	1.580E-01	-0.411
TH-229	-8.535E-02		6.604E-01	1.100E+00	9.638E-02	-0.078
PA-231	-8.388E-01		2.050E+00	3.289E+00	5.092E-01	-0.255
TH-231	-2.234E-02		8.855E-01	1.448E+00	2.585E-01	-0.015
U-231	-4.085E+00		1.772E+00	2.513E+00	2.248E-01	-1.626
PA-233	-1.956E-02		8.524E-02	1.377E-01	1.275E-02	-0.142
PA-234	-3.504E-01		3.986E-01	5.685E-01	1.077E-01	-0.616
PA-234M	3.168E+01	+	1.005E+01	1.606E+01	1.637E+00	1.973
NP-236	-1.174E-01		1.084E-01	1.740E-01	1.481E-02	-0.675
NP-239	-1.849E-04		2.810E-01	4.463E-01	3.887E-02	0.000
AM-241	2.630E-01		2.611E-01	3.974E-01	3.275E-02	0.662

Sample ID : G245396002 Acquisition date : 5-FEB-2010 18:59:38

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	7.652E-02		1.314E-01	2.151E-01	1.874E-02	0.356
AM-246	7.211E-02		1.978E-01	3.325E-01	2.861E-02	0.217
CM-247	8.493E-03		5.558E-02	9.091E-02	7.373E-03	0.093
CF-249	2.225E-02		5.389E-02	9.001E-02	7.301E-03	0.247
CF-251	-1.108E-02		1.739E-01	2.917E-01	2.511E-02	-0.038

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245396002           *
* Acquisition date  :  5-FEB-2010 18:59:38 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.09      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 21-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245396002           Analyst initials: MXR1           *
* Batch Number      : 944962               Sample Quantity : 1.0051E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.560E+01	2.994E+00	3.580E-01	1.528E+00
CD-109	2.593E+00	1.567E+00	1.076E+00	7.993E-01
SN-126	2.548E-01	1.539E-01	1.145E-01	7.854E-02
BA-137M	4.111E-01	1.205E-01	3.769E-02	6.148E-02
CS-137	4.346E-01	1.274E-01	3.984E-02	6.500E-02
CE-141	7.969E-02	1.351E-01	6.711E-02	6.894E-02
TL-208	4.531E-01	1.247E-01	3.762E-02	6.360E-02
BI-211	4.391E+00	7.642E-01	2.232E-01	3.899E-01
PB-212	1.870E+00	2.371E-01	5.699E-02	1.210E-01
PO-212	1.870E+00	2.371E-01	5.699E-02	1.210E-01
BI-214	1.343E+00	2.564E-01	7.846E-02	1.308E-01
PB-214	1.527E+00	2.771E-01	7.782E-02	1.414E-01
PO-214	1.527E+00	2.771E-01	7.782E-02	1.414E-01
PO-216	1.870E+00	2.371E-01	5.699E-02	1.210E-01
PO-218	1.527E+00	2.771E-01	7.782E-02	1.414E-01
RA-224	4.620E+00	1.530E+00	6.487E-01	7.804E-01
RA-226	1.343E+00	2.564E-01	7.846E-02	1.308E-01
AC-228	1.802E+00	4.267E-01	1.331E-01	2.177E-01
RA-228	1.802E+00	4.267E-01	1.331E-01	2.177E-01
TH-228	1.899E+00	2.408E-01	5.787E-02	1.228E-01
TH-230	1.343E+00	2.564E-01	7.846E-02	1.308E-01
TH-232	1.802E+00	4.267E-01	1.331E-01	2.177E-01
TH-234	1.357E+01	3.907E+00	1.536E+00	1.993E+00
U-234	1.343E+00	2.564E-01	7.846E-02	1.308E-01
U-235	2.649E-01	4.508E-01	2.336E-01	2.300E-01
NP-237	7.481E-01	4.767E-01	3.095E-01	2.432E-01
U-238	1.357E+01	3.907E+00	1.536E+00	1.993E+00
AM-243	4.243E-01	1.110E-01	6.640E-02	5.663E-02
ANH-511	1.351E-01	1.103E-01	3.373E-02	5.630E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	2.927E-01	4.743E-01	4.036E-01	2.420E-01	NOT IDENT.
NA-22	-2.984E-03	5.534E-02	4.648E-02	2.823E-02	NOT IDENT.
NA-24	2.673E+05	9.930E+05	0.000E+00	5.066E+05	SHORT HLIF
AL-26	-2.336E-02	3.860E-02	2.677E-02	1.970E-02	NOT IDENT.
TI-44	4.280E-01	8.029E-02	5.556E-02	4.097E-02	FAIL ABUN
SC-46	-2.764E-02	5.335E-02	4.167E-02	2.722E-02	FAIL ABUN
V-48	-1.306E-02	9.929E-02	8.050E-02	5.066E-02	NOT IDENT.
CR-51	3.559E-02	5.063E-01	4.235E-01	2.583E-01	NOT IDENT.
MN-52	-1.867E-01	2.672E-01	1.929E-01	1.363E-01	NOT IDENT.
MN-54	-5.390E-03	4.910E-02	4.042E-02	2.505E-02	NOT IDENT.
CO-56	-7.813E-02	4.822E-02	3.153E-02	2.460E-02	NOT IDENT.
CO-57	-3.360E-02	3.663E-02	2.826E-02	1.869E-02	NOT IDENT.
CO-58	-4.115E-02	5.140E-02	3.911E-02	2.623E-02	NOT IDENT.
FE-59	-7.262E-02	1.370E-01	1.053E-01	6.989E-02	NOT IDENT.
CO-60	1.316E-02	5.282E-02	4.589E-02	2.695E-02	NOT IDENT.
ZN-65	1.661E-02	1.187E-01	8.555E-02	6.057E-02	NOT IDENT.
GE-68	3.702E-01	1.621E+00	1.361E+00	8.269E-01	NOT IDENT.
AS-73	3.819E-01	1.356E+00	1.141E+00	6.917E-01	NOT IDENT.
AS-74	1.024E-02	1.147E-01	9.821E-02	5.852E-02	NOT IDENT.
SE-75	7.445E-03	6.690E-02	4.982E-02	3.413E-02	NOT IDENT.
BR-77	9.458E+00	1.614E+01	1.328E+01	8.237E+00	FAIL ABUN
SR-82	-7.007E-01	5.193E-01	3.727E-01	2.649E-01	NOT IDENT.
RB-83	7.073E-02	1.024E-01	8.492E-02	5.227E-02	NOT IDENT.
RB-84	3.174E-02	9.452E-02	8.108E-02	4.823E-02	NOT IDENT.
KR-85	2.020E+01	1.115E+01	1.003E+01	5.689E+00	NOT IDENT.
SR-85	1.038E-01	5.728E-02	5.151E-02	2.922E-02	NOT IDENT.
RB-86	1.713E-01	1.072E+00	8.922E-01	5.468E-01	NOT IDENT.
Y-88	-6.880E-03	4.268E-02	3.370E-02	2.178E-02	NOT IDENT.
ZR-88	-3.429E-03	3.946E-02	3.229E-02	2.013E-02	NOT IDENT.
Y-91	2.442E+00	2.473E+01	2.118E+01	1.262E+01	NOT IDENT.
NB-94	5.566E-03	4.395E-02	3.738E-02	2.242E-02	NOT IDENT.
NB-95	1.334E-02	6.347E-02	5.397E-02	3.238E-02	NOT IDENT.
NB-95M	1.684E-01	1.720E-01	1.356E-01	8.774E-02	NOT IDENT.
ZR-95	-6.635E-02	8.347E-02	6.358E-02	4.259E-02	NOT IDENT.
NB-97	-5.775E+04	1.725E+05	0.000E+00	8.801E+04	SHORT HLIF
ZR-97	3.362E+06	3.275E+06	0.000E+00	1.671E+06	SHORT HLIF
MO-99	9.119E-01	1.632E+01	1.375E+01	8.325E+00	NOT IDENT.
TC-99M	-1.832E+16	9.338E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.883E-02	4.568E-02	3.652E-02	2.331E-02	NOT IDENT.
RH-102	-2.364E-03	4.379E-02	3.553E-02	2.234E-02	NOT IDENT.
RU-103	2.794E-02	5.865E-02	4.937E-02	2.992E-02	FAIL ABUN
RH-106	-3.267E-01	4.186E-01	3.291E-01	2.136E-01	FAIL ABUN
RU-106	-3.267E-01	4.173E-01	3.291E-01	2.129E-01	FAIL ABUN
AG-108M	-1.699E-02	4.605E-02	3.663E-02	2.350E-02	NOT IDENT.
AG-110M	-1.735E-02	5.214E-02	3.664E-02	2.660E-02	NOT IDENT.
IN-111	1.014E-01	1.620E+00	1.207E+00	8.268E-01	NOT IDENT.
IN-113M	-6.352E-03	5.786E-02	4.727E-02	2.952E-02	NOT IDENT.
SN-113	-6.352E-03	5.786E-02	4.727E-02	2.952E-02	NOT IDENT.
IN-114M	1.625E-01	2.662E-01	2.073E-01	1.358E-01	NOT IDENT.
CD-115	1.467E+01	1.481E+01	1.356E+01	7.555E+00	NOT IDENT.
SN-117M	-4.014E-02	7.259E-02	6.097E-02	3.703E-02	NOT IDENT.
SB-122	-6.151E-01	2.855E+00	2.394E+00	1.457E+00	NOT IDENT.
I-123	-5.521E+06	9.314E+06	0.000E+00	4.752E+06	SHORT HLIF
TE-123M	-2.189E-02	3.692E-02	3.095E-02	1.884E-02	NOT IDENT.
I-124	6.473E-02	1.036E+00	8.357E-01	5.286E-01	NOT IDENT.
SB-124	1.072E-02	9.288E-02	7.886E-02	4.739E-02	FAIL ABUN
SB-125	-7.355E-02	1.337E-01	1.051E-01	6.822E-02	FAIL ABUN
TE-125M	-4.548E+00	1.332E+01	1.065E+01	6.796E+00	NOT IDENT.
I-126	-1.538E-01	2.764E-01	1.883E-01	1.410E-01	NOT IDENT.
SB-126	2.365E-01	1.892E-01	1.752E-01	9.655E-02	FAIL ABUN
SB-127	1.083E-01	1.743E+00	1.477E+00	8.891E-01	NOT IDENT.
XE-127	3.252E-02	6.476E-02	5.622E-02	3.304E-02	FAIL ABUN
I-131	-5.311E-02	1.565E-01	1.263E-01	7.986E-02	NOT IDENT.
TE-132	4.559E-01	9.610E-01	8.294E-01	4.903E-01	NOT IDENT.
BA-133	2.985E-02	6.454E-02	4.875E-02	3.293E-02	NOT IDENT.
I-133	-1.203E+03	9.572E+03	0.000E+00	4.883E+03	SHORT HLIF
CS-134	1.498E-01	6.366E-02	6.253E-02	3.248E-02	NOT IDENT.
CS-135	2.312E-01	2.336E-01	1.840E-01	1.192E-01	NOT IDENT.
I-135	-1.318E+16	1.160E+16	0.000E+00	5.917E+15	SHORT HLIF
CS-136	3.773E-02	1.548E-01	1.301E-01	7.900E-02	FAIL ABUN
CE-139	-2.788E-02	3.923E-02	3.264E-02	2.001E-02	NOT IDENT.
BA-140	2.111E-01	3.531E-01	3.095E-01	1.802E-01	NOT IDENT.
LA-140	-1.335E-01	1.151E-01	7.387E-02	5.873E-02	NOT IDENT.
CE-143	4.426E+02	2.403E+02	0.000E+00	1.226E+02	SHORT HLIF
CE-144	3.988E-02	2.935E-01	2.378E-01	1.498E-01	NOT IDENT.
PM-144	-6.376E-03	4.134E-02	3.430E-02	2.109E-02	NOT IDENT.

PR-144	-4.321E-01	2.802E+00	2.324E+00	1.430E+00	NOT IDENT.
PM-146	4.251E-02	6.708E-02	5.709E-02	3.422E-02	NOT IDENT.
ND-147	-1.622E-01	7.853E-01	6.403E-01	4.007E-01	NOT IDENT.
PM-149	-4.733E+01	1.238E+02	1.011E+02	6.317E+01	NOT IDENT.
EU-152	-4.845E-03	1.458E-01	1.056E-01	7.439E-02	FAIL ABUN
GD-153	1.750E-01	1.465E-01	9.512E-02	7.475E-02	FAIL ABUN
EU-154	-1.277E-02	1.562E-01	1.308E-01	7.971E-02	NOT IDENT.
EU-155	8.280E-03	1.479E-01	1.206E-01	7.546E-02	FAIL ABUN
TB-160	-5.306E-02	1.909E-01	1.536E-01	9.741E-02	FAIL ABUN
HO-166M	-5.819E-03	7.541E-02	6.294E-02	3.847E-02	NOT IDENT.
TM-171	6.387E+00	4.383E+01	3.254E+01	2.236E+01	NOT IDENT.
LU-176	4.145E-03	3.129E-02	2.633E-02	1.596E-02	FAIL ABUN
LU-177	-5.984E-01	1.837E+00	1.350E+00	9.370E-01	NOT IDENT.
LU-177M	-1.741E-01	2.473E-01	1.923E-01	1.262E-01	FAIL ABUN
HF-181	-7.140E-02	6.109E-02	4.456E-02	3.117E-02	NOT IDENT.
W-181	8.049E-01	6.166E-01	4.805E-01	3.146E-01	NOT IDENT.
TA-182	1.182E-01	2.487E-01	2.204E-01	1.269E-01	FAIL ABUN
RE-183	1.345E-01	1.497E-01	1.305E-01	7.637E-02	FAIL ABUN
RE-184	1.133E-01	3.119E-01	2.676E-01	1.591E-01	NOT IDENT.
OS-185	-2.835E-02	5.342E-02	4.292E-02	2.725E-02	NOT IDENT.
RE-188	1.016E-01	2.254E-01	1.972E-01	1.150E-01	NOT IDENT.
W-188	3.132E+00	1.085E+01	8.153E+00	5.537E+00	FAIL ABUN
IR-192	6.223E-03	4.730E-02	3.973E-02	2.413E-02	FAIL ABUN
AU-195	5.096E-01	4.267E-01	2.832E-01	2.177E-01	FAIL ABUN
TL-200	2.283E+02	7.144E+02	0.000E+00	3.645E+02	SHORT HLIF
TL-201	-1.377E+01	9.569E+00	7.655E+00	4.882E+00	NOT IDENT.
TL-202	1.598E-02	9.528E-02	7.898E-02	4.861E-02	NOT IDENT.
HG-203	4.606E-02	5.418E-02	4.738E-02	2.764E-02	NOT IDENT.
BI-207	3.015E-02	7.501E-02	6.398E-02	3.827E-02	FAIL ABUN
TL-207	-2.234E-02	8.678E-01	7.212E-01	4.428E-01	FAIL ABUN
PO-209	-4.067E+00	9.618E+00	7.576E+00	4.907E+00	NOT IDENT.
BI-210	3.540E+00	6.171E+00	5.222E+00	3.149E+00	NOT IDENT.
PB-210	3.540E+00	6.171E+00	5.222E+00	3.149E+00	NOT IDENT.
PO-210	3.540E+00	6.170E+00	5.222E+00	3.148E+00	NOT IDENT.
PB-211	5.070E-02	1.349E+00	1.111E+00	6.880E-01	NOT IDENT.
BI-212	6.311E-01	5.373E-01	4.414E-01	2.741E-01	FAIL ABUN
PO-215	-2.234E-02	8.678E-01	7.212E-01	4.428E-01	FAIL ABUN
RN-219	2.984E-02	6.086E-01	5.022E-01	3.105E-01	FAIL ABUN
RN-220	-3.631E+01	3.459E+01	2.671E+01	1.765E+01	NOT IDENT.
RA-223	-2.234E-02	8.678E-01	7.212E-01	4.428E-01	FAIL ABUN
AC-227	-3.550E-01	5.317E-01	4.300E-01	2.713E-01	FAIL ABUN
TH-227	-3.550E-01	5.327E-01	4.300E-01	2.718E-01	FAIL ABUN
TH-229	-8.535E-02	6.472E-01	5.488E-01	3.302E-01	FAIL ABUN
PA-231	-8.388E-01	2.009E+00	1.639E+00	1.025E+00	FAIL ABUN
TH-231	-2.234E-02	8.678E-01	7.212E-01	4.428E-01	FAIL ABUN
U-231	-4.085E+00	1.737E+00	1.256E+00	8.860E-01	FAIL ABUN
PA-233	-1.956E-02	8.353E-02	6.861E-02	4.262E-02	FAIL ABUN
PA-234	-3.504E-01	3.906E-01	2.824E-01	1.993E-01	FAIL ABUN
PA-234M	3.168E+01	9.852E+00	7.974E+00	5.027E+00	FAIL ABUN
NP-236	-1.174E-01	1.062E-01	8.686E-02	5.419E-02	FAIL ABUN
NP-239	-1.849E-04	2.753E-01	2.230E-01	1.405E-01	FAIL ABUN
AM-241	2.630E-01	2.559E-01	1.989E-01	1.305E-01	NOT IDENT.
CM-243	7.652E-02	1.288E-01	1.075E-01	6.570E-02	FAIL ABUN
AM-246	7.211E-02	1.939E-01	1.651E-01	9.891E-02	NOT IDENT.
CM-247	8.493E-03	5.447E-02	4.526E-02	2.779E-02	NOT IDENT.
CF-249	2.225E-02	5.281E-02	4.482E-02	2.694E-02	NOT IDENT.
CF-251	-1.108E-02	1.705E-01	1.456E-01	8.697E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	270.2379
46.50	270.2379
46.50	270.2379
48.70	299.2508
49.72	307.0905
51.35	276.0520
52.39	298.3799
52.97	312.2051
53.15	312.3146
53.44	295.8813
54.07	309.7566
56.28	329.8578
56.28	329.8594
57.37	0.0000
57.53	321.2185
57.53	321.2197
57.60	321.2603
57.98	339.2897
57.98	339.2897
59.32	325.9580
59.32	325.9580
59.40	326.0054
59.54	293.0076
59.72	293.1041
60.01	320.0620
61.10	353.8691
61.14	353.8943
61.30	353.9965
63.00	347.6720
63.29	347.8498
63.29	347.8498
63.58	348.0276
64.28	333.6265
65.12	364.3428
65.20	364.3935
65.20	364.3935
66.05	361.7397
66.72	343.0089
66.83	376.5841
66.91	376.6346
67.20	373.6266
67.20	373.6266
67.75	394.7511
67.85	411.3364
68.90	339.4714
68.90	339.4714
69.30	374.9495
69.67	370.3716
70.82	403.2025
70.82	403.2025
70.83	403.2082
72.80	434.0501
72.87	434.0995
72.87	434.0995
74.67	435.3529
74.81	435.4516
74.81	435.4516
74.81	435.4516
74.81	435.4516
74.81	435.4516
74.81	435.4516
74.81	435.4516
74.97	435.5605
75.28	435.7762
75.70	436.0639
77.11	437.0297
77.11	437.0297

77.11	437.0297
77.11	437.0297
77.11	437.0297
77.11	437.0297
77.11	437.0297
78.38	416.2148
79.62	395.8316
79.80	410.6055
79.80	410.6055
80.11	410.7997
80.18	410.8420
80.30	438.6375
80.30	438.6375
80.57	438.8181
81.00	502.7653
81.07	502.8193
81.07	502.8193
81.07	502.8193
81.07	502.8193
82.60	454.8880
83.37	448.8560
83.78	445.8516
83.78	445.8516
83.78	445.8516
83.78	445.8516
84.21	465.8183
84.90	425.2440
85.43	440.3643
86.29	533.0482
86.50	533.2113
86.54	533.2410
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86.72	572.8916
86.79	621.2418
86.94	621.3771
87.30	623.4598
87.30	623.4598
87.30	623.4598
87.30	623.4598
87.30	623.4598
87.30	623.4598
87.30	623.4598
87.57	646.1187
87.88	557.3601
88.03	557.4813
88.36	541.2430
88.47	541.3281
89.95	559.0105
91.11	559.9260
92.29	465.7150
92.38	465.7749
92.38	465.7749
93.35	466.4023
94.00	466.8199
94.67	467.2481
94.67	467.2503
94.90	467.3980
94.90	467.3980
94.90	467.3980
94.90	467.3980
95.87	468.0169
95.87	468.0169
96.73	468.5651
97.43	469.0062
98.44	277.7693
98.44	277.7706
98.88	279.6083
99.55	274.8306
99.55	274.8306
99.86	288.3551
100.00	288.4089
100.10	288.4483
103.18	300.8389
103.76	252.7611
105.00	252.0399
105.31	283.6577
108.00	310.6087
109.28	316.7645

111.00	320.8465
111.00	320.8465
111.76	324.5517
112.95	322.7545
115.19	329.3349
116.30	336.6239
117.00	298.0762
117.00	298.0762
117.66	284.5970
121.11	273.1369
121.62	299.7117
121.78	307.8078
122.06	307.9080
122.32	283.8676
122.32	283.8676
122.32	283.8676
122.32	283.8676
123.07	276.0632
127.23	317.8380
129.76	280.4969
131.20	325.0659
133.02	301.2920
133.54	285.1704
135.34	283.4011
136.00	288.8557
136.25	290.6862
136.48	290.7584
140.51	284.2820
140.51	0.0000
142.18	296.0636
142.65	293.3912
143.76	275.3756
144.24	275.5137
144.24	275.5137
144.24	275.5137
144.24	275.5137
145.22	248.9244
145.44	248.9803
147.16	240.9219
152.43	263.5956
152.70	260.1048
153.22	268.2618
154.21	255.1486
154.21	255.1486
154.21	255.1486
154.21	255.1486
155.03	258.0367
156.02	259.1840
158.56	269.6925
159.00	0.0000
159.00	264.4314
160.31	289.0045
161.27	282.0878
162.32	232.0154
162.64	232.0882
163.35	210.6432
163.89	230.5664
165.85	268.9007
167.43	279.2462
171.28	243.9824
171.86	245.9287
172.10	245.9845
176.55	253.3798
176.60	253.3904
181.06	262.1087
184.41	261.4288
185.71	249.0487
186.00	249.1127
190.27	215.5407
192.34	220.7887
193.63	219.3161
197.04	206.0366
198.01	224.7850
198.60	230.4736
200.40	230.8255
201.83	290.7409
202.84	237.8271
205.31	231.7753

208.36	301.3160
208.81	301.4289
209.75	225.1190
209.75	225.1190
210.97	207.3167
215.65	202.5006
216.55	220.7032
218.09	206.8096
222.10	197.9945
223.80	174.5425
226.40	211.0162
227.00	200.6538
227.08	202.5687
227.20	202.5882
228.16	192.2677
228.18	192.2708
228.18	192.2708
231.56	0.0000
235.69	170.0189
236.00	162.3992
236.00	162.3992
238.63	163.1039
238.63	163.1039
238.63	163.1039
238.63	163.1039
239.00	163.1493
240.98	163.3905
241.98	163.5124
241.98	163.5124
241.98	163.5124
244.69	164.9971
245.39	168.1676
247.94	163.5882
248.90	176.7760
249.79	168.3222
252.40	151.1952
252.85	160.9391
252.85	160.9391
254.15	0.0000
256.20	191.4540
256.20	191.4540
260.50	187.1660
260.90	189.1689
262.80	168.9163
264.65	156.4258
268.24	144.2711
268.79	144.3272
269.46	151.0650
269.46	151.0650
269.46	151.0650
269.46	151.0650
271.23	151.2483
273.65	174.7166
276.40	149.8105
277.35	163.4335
277.60	163.7431
277.60	163.7431
278.00	160.8262
278.60	142.1389
279.20	140.2211
279.53	139.2637
280.46	159.1182
281.68	145.4007
283.67	147.5745
284.30	144.6633
285.00	143.7389
285.90	138.8657
286.10	149.7973
286.10	149.7973
287.40	135.0309
288.45	0.0000
290.67	135.3214
290.80	135.3339
291.72	144.9735
293.26	0.0000
293.70	133.9960
295.21	140.5143
295.21	140.5143

295.21	140.5143
295.96	140.5809
296.50	140.6303
297.23	159.8828
298.57	160.0220
299.80	160.1465
299.80	160.1465
300.09	113.7265
300.09	113.7265
300.09	113.7265
300.09	113.7265
300.12	113.7283
301.29	131.4462
302.84	126.7626
303.76	109.1752
303.91	109.1868
304.40	107.6138
304.40	107.6138
304.84	93.1837
306.84	115.6229
308.46	139.8951
311.98	125.0728
316.51	129.4727
318.01	121.4923
319.02	130.6849
319.41	137.8096
320.08	127.7284
323.87	124.9763
323.87	124.9763
323.87	124.9763
323.87	124.9763
325.23	168.8065
328.77	124.3270
333.44	125.9014
334.20	111.2371
334.20	111.2371
334.30	111.2438
338.28	107.6115
338.28	107.6115
338.28	107.6115
338.28	107.6115
338.32	107.6131
338.32	107.6131
338.32	107.6131
340.50	107.7509
340.57	107.7557
344.27	113.5434
345.85	119.4126
350.59	0.0000
351.07	116.6744
351.92	116.7313
351.92	116.7313
351.92	116.7313
355.39	0.0000
356.01	101.0581
364.48	108.2006
366.43	108.3196
367.43	112.5483
367.94	0.0000
369.80	118.9576
374.96	124.5273
383.85	106.2044
387.95	92.7373
388.63	95.9349
391.69	95.0345
391.69	95.0345
392.90	91.9264
398.62	108.1011
400.65	107.1553
401.10	106.1203
401.81	118.8975
402.60	116.8230
404.84	114.8324
410.95	88.5294
411.60	90.6938
413.65	114.2867
414.70	107.9367
415.30	110.1070

415.76	113.3415
417.63	0.0000
418.52	106.0047
423.70	96.6206
427.08	106.4625
427.89	110.8096
432.53	93.8128
433.93	99.2717
439.47	85.4781
439.56	85.4817
439.89	86.5771
443.98	106.2693
444.90	91.1290
445.03	79.1999
445.03	79.1999
445.03	79.1999
445.03	79.1999
453.90	99.1522
463.38	74.4258
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475.35	94.6543
476.78	89.2105
477.59	84.8368
477.96	74.9332
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487.03	78.5652
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497.08	77.8111
507.63	0.0000
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511.00	87.2412
511.85	87.2733
511.85	87.2733
513.99	87.3549
513.99	87.3549
520.41	70.5934
520.65	70.6011
527.90	58.5889
528.96	0.0000
529.64	71.2620
529.87	0.0000
531.02	72.2051
537.32	66.0654
543.00	85.2747
546.56	0.0000
549.76	75.5085
552.65	57.3829
555.20	65.6490
563.23	64.0374
563.90	75.9503
568.70	65.0960
569.32	60.5279
569.50	62.3671
569.67	62.3704
573.80	79.9313
574.00	75.3435
574.64	68.0110
578.91	64.4458
579.30	0.0000
583.14	61.7869
585.48	52.3074
591.81	49.7397
592.07	51.4160
593.00	60.1774
595.88	60.2456
600.56	76.1423
602.52	0.0000
602.71	85.9645
602.71	85.9645
603.60	94.5157
604.41	100.7452
604.70	113.1595
609.31	75.4708

609.31	75.4708
609.31	75.4708
609.31	75.4708
610.33	75.5005
612.46	63.7455
614.37	76.2395
618.01	58.4290
621.84	71.1526
621.84	71.1526
631.29	57.3141
633.02	49.8298
633.10	53.5920
634.78	54.5662
635.90	56.4727
636.97	47.0789
645.85	49.1245
646.12	59.5224
656.30	60.0615
657.75	63.2552
657.90	0.0000
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661.65	57.0117
664.57	0.0000
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666.33	68.2128
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677.61	49.6945
685.20	50.7874
692.80	61.4922
695.00	51.9249
696.49	52.9133
696.49	52.9133
697.00	57.7339
697.49	55.8193
698.33	52.9482
698.50	55.8392
699.00	62.5895
702.63	59.7764
706.10	48.2642
706.58	0.0000
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709.31	58.9478
711.68	52.2268
713.82	43.5542
717.42	59.1131
720.50	42.6841
721.93	0.0000
722.20	59.3178
722.78	69.1730
722.78	69.1730
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722.95	73.5109
723.30	73.5201
724.18	92.2748
727.18	85.8856
733.00	68.1953
735.90	54.6096
739.58	54.6766
742.81	52.7805
744.21	51.8277
747.13	57.7511
751.79	44.1156
752.31	45.1038
753.82	48.0693
755.35	47.1117
756.15	49.0869
756.87	44.1892
763.93	79.7245
765.79	74.8496
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766.84	66.0071
776.49	68.1914
778.00	58.3374
778.57	54.3917
778.89	55.3861
783.80	61.4172
785.46	57.4860
792.07	76.4774

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801.93	53.8022
805.60	36.9070
810.29	55.9412
810.76	53.9512
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817.79	50.0635
818.51	45.0681
819.60	41.0751
826.30	44.1719
828.27	0.0000
831.60	50.2777
831.96	48.2719
834.83	52.3402
836.80	0.0000
846.75	52.5307
848.13	44.4673
856.28	0.0000
856.80	47.2853
860.37	51.7321
867.32	52.5168
867.82	45.7471
871.10	45.7910
873.19	45.8196
874.81	45.8416
875.33	0.0000
876.40	46.8827
879.36	47.9432
880.27	46.9355
880.51	41.8368
881.50	40.8281
883.24	51.0620
884.67	43.9312
889.25	49.1051
896.60	44.0844
898.02	53.3330
899.00	45.1408
903.28	45.1967
911.07	38.0912
911.07	38.0912
911.07	38.0912
919.63	35.3831
920.93	34.4124
925.00	43.4099
925.24	43.4130
926.50	41.3604
935.52	39.3925
937.48	50.8231
944.10	35.3306
946.00	45.7456
949.00	42.6626
962.29	27.8496
964.01	33.0869
966.15	57.5002
968.20	57.5325
969.11	57.5472
969.11	57.5472
969.11	57.5472
977.42	44.0446
980.50	41.9824
983.50	44.1174
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996.32	22.8373
1001.03	36.9371
1001.68	36.9440
1004.76	36.9739
1021.30	0.0000
1024.50	0.0000
1034.80	24.4892
1036.00	21.3018
1037.82	30.9017
1038.57	37.3037
1038.76	0.0000
1045.16	33.0964
1046.59	40.5847
1048.07	41.6679

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1050.47	43.8328
1062.04	39.6720
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1076.63	37.6677
1077.35	34.4453
1078.86	36.6114
1085.78	35.5958
1099.22	54.1138
1112.02	44.7849
1112.84	48.8672
1115.52	30.7876
1120.29	33.7246
1120.29	33.7246
1120.29	33.7246
1120.29	33.7246
1120.51	33.7276
1121.28	33.7337
1124.00	0.0000
1129.67	37.0729
1131.51	0.0000
1147.95	0.0000
1167.94	34.8473
1173.22	50.4995
1175.09	38.5803
1177.93	28.4949
1189.05	36.8636
1204.90	45.3234
1205.75	0.0000
1213.00	42.6290
1221.42	39.9241
1230.97	45.5946
1235.34	56.8177
1236.41	0.0000
1238.25	50.3306
1246.25	35.4812
1260.41	0.0000
1271.85	34.7447
1274.45	33.8262
1274.54	32.8866
1291.56	25.4652
1298.22	0.0000
1312.09	28.4204
1325.50	36.1028
1325.50	36.1028
1332.49	25.6904
1333.61	31.4075
1360.21	18.1851
1362.66	0.0000
1365.15	19.1618
1368.21	13.4218
1368.53	0.0000
1376.25	20.1669
1384.27	25.0098
1394.10	22.1689
1395.20	21.2096
1407.95	17.3987
1434.06	17.4917
1436.60	17.5005
1457.56	0.0000
1460.81	17.5847
1489.15	12.7715
1509.49	14.7943
1596.49	23.0608
1620.62	10.0712
1678.03	0.0000
1691.02	9.1794
1691.02	9.1794
1706.46	0.0000
1750.46	0.0000
1764.49	16.5280
1764.49	16.5280
1764.49	16.5280
1764.49	16.5280
1770.23	21.2712
1771.40	17.7295
1791.20	0.0000
1808.65	11.4485

1836.01	9.4094

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245396002

Total Uranium Activity	4.0488E+01	ug/g
Total Uranium Counting Unc.	1.1625E+01	ug/g
Total Uranium Tpu	5.9311E-06	ug/g
Total Uranium Mda	4.5721E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944962                    SAMPLE ID  : G245396002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 21-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  5-FEB-2010 18:59:38.92    SAMPLE ALQT:  100.510 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.089E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.788E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.623E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.239E+00
```

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:01:10.80

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396003.CNF;1
Sample date       : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 19:00:13.
Sample ID         : G245396003           Sample quantity  : 1.44550E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.74  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.18*	2161	1517	1.00	126.61	121	10	3.00E-01	4.0	
2	3	74.82	529	1246	1.17	149.87	146	13	7.35E-02	11.7	1.26E+00
3	3	77.06*	747	1006	1.08	154.35	146	13	1.04E-01	7.9	
4	0	83.97*	166	1202	1.44	168.15	165	7	2.30E-02	35.9	
5	0	86.19*	132	1449	1.36	172.58	172	7	1.84E-02	48.4	
6	3	92.59*	5436	1316	1.15	185.38	181	14	7.55E-01	1.8	2.45E+00
7	3	94.43	284	1035	1.26	189.05	181	14	3.94E-02	33.4	
8	0	98.49*	394	913	1.14	197.16	194	9	5.48E-02	14.9	
9	0	105.30	118	744	1.38	210.77	207	8	1.64E-02	41.1	
10	0	112.81	539	1158	1.46	225.77	220	13	7.49E-02	13.7	
11	0	143.87*	313	813	1.42	287.84	283	11	4.35E-02	18.8	
12	0	163.33	146	621	1.20	326.71	323	9	2.03E-02	32.0	
13	0	185.79*	1306	707	1.34	371.59	367	10	1.81E-01	4.8	
14	0	209.33*	127	520	1.13	418.64	415	9	1.76E-02	34.1	
15	4	238.68*	1761	355	1.23	477.29	470	18	2.45E-01	3.0	2.16E+00
16	4	241.66	384	460	1.71	483.24	470	18	5.33E-02	13.9	
17	0	270.51	125	423	1.45	540.89	534	11	1.73E-02	33.1	
18	0	295.19*	507	408	1.18	590.19	585	11	7.05E-02	9.0	
19	0	299.68*	78	295	1.25	599.17	596	8	1.08E-02	40.1	
20	0	328.14	109	349	2.00	656.05	651	11	1.51E-02	34.6	
21	0	338.21*	398	301	1.50	676.17	671	11	5.53E-02	10.1	
22	0	351.92*	894	334	1.35	703.57	697	13	1.24E-01	5.5	
23	0	463.11	111	210	1.40	925.78	921	11	1.55E-02	26.9	
24	0	510.61*	250	291	1.96	1020.73	1011	20	3.47E-02	19.7	
25	0	583.17*	565	248	1.63	1165.76	1157	18	7.84E-02	7.9	
26	0	609.30*	648	267	1.71	1217.99	1210	13	9.00E-02	6.2	
27	0	661.69	614	195	1.62	1322.70	1315	14	8.53E-02	6.3	
28	0	727.49*	191	115	1.81	1454.25	1447	15	2.65E-02	14.5	
29	0	767.99	296	237	3.41	1535.20	1527	22	4.12E-02	14.8	
30	0	785.49	134	139	1.67	1570.19	1561	18	1.86E-02	22.4	
31	0	795.41	98	91	1.61	1590.02	1584	14	1.37E-02	23.2	
32	0	860.67	83	95	1.25	1720.49	1715	11	1.15E-02	25.4	
33	0	911.45*	411	175	1.91	1822.02	1811	18	5.70E-02	9.2	
34	3	964.71*	124	98	3.10	1928.52	1917	30	1.72E-02	24.7	1.62E+00
35	3	969.23*	252	87	2.32	1937.55	1917	30	3.50E-02	10.6	
36	0	1001.00*	398	99	1.94	2001.06	1994	18	5.52E-02	7.7	
37	0	1120.47*	229	109	2.52	2239.96	2230	24	3.19E-02	14.0	
38	0	1238.73*	90	118	1.52	2476.46	2470	15	1.25E-02	28.9	

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1383.82	7	111	0.67	2766.65	2753	20	9.22E-04	396.7	
40	0	1460.89*	1939	72	2.59	2920.80	2908	27	2.69E-01	2.6	
41	0	1729.97*	39	24	3.30	3459.12	3448	19	5.37E-03	36.0	
42	0	1764.52*	172	10	3.00	3528.23	3517	20	2.39E-02	9.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-FEB-2010 21:01:14

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 19:00:13
Sample ID : G245396003 Sample quantity : 144.55 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.74 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.472E+01	2.609E+00	4.378E-01	4.010E-02	56.478
SN-126	+	64.28		1.355E+01	2.246E+00	8.197E-01	1.190E-01	16.533
	+	86.94		5.222E-01	5.501E-01	6.049E-01	2.512E-01	0.863
	+	87.57	*	1.256E-01	1.222E-01	1.691E-01	1.596E-02	0.743
BA-137M	+	661.65	*	4.945E-01	8.119E-02	5.580E-02	5.884E-03	8.862
CS-137	+	661.65	*	5.227E-01	8.587E-02	5.898E-02	6.228E-03	8.862
EU-155		48.70		-1.698E+00	2.455E+00	4.046E+00	3.295E-01	-0.420
		60.01		7.221E+00	5.999E+00	9.224E+00	6.550E-01	0.783
	+	86.54		1.513E-01	1.472E-01	1.880E-01	1.768E-02	0.805
	+	105.31	*	1.780E-01	1.472E-01	1.767E-01	1.517E-02	1.007
LU-177	+	112.95		1.253E+01	3.600E+00	2.782E+00	2.313E-01	4.504
	+	208.36	*	2.035E+00	1.407E+00	1.814E+00	2.048E-01	1.122
TL-208		277.35		2.714E-01	3.508E-01	5.738E-01	9.461E-02	0.473
	+	510.84		6.983E-01	2.892E-01	1.771E-01	2.307E-02	3.944
	+	583.14	*	4.431E-01	8.512E-02	5.041E-02	5.466E-03	8.789
	+	860.37		5.913E-01	3.079E-01	3.717E-01	4.331E-02	1.591
BI-211		72.87		6.465E+00	3.652E+00	5.578E+00	4.464E-01	1.159
	+	351.07	*	3.322E+00	5.308E-01	2.845E-01	3.319E-02	11.678
BI-212	+	727.18	*	1.259E+00	3.955E-01	3.853E-01	4.602E-02	3.267
	+	785.46		5.618E+00	2.589E+00	2.230E+00	2.452E-01	2.519
		1620.62		1.073E+00	1.043E+00	1.892E+00	1.650E-01	0.567
PB-212	+	74.81		2.082E+00	5.532E-01	6.013E-01	7.461E-02	3.462
	+	77.11		1.670E+00	2.979E-01	3.424E-01	2.863E-02	4.877
	+	87.30		5.809E-01	5.681E-01	7.839E-01	1.076E-01	0.741
	+	238.63	*	1.528E+00	2.223E-01	8.540E-02	1.128E-02	17.892
	+	300.09		1.003E+00	8.172E-01	1.041E+00	1.518E-01	0.963
PO-212	+	74.81		2.082E+00	5.532E-01	6.013E-01	7.461E-02	3.462
	+	77.11		1.670E+00	2.979E-01	3.424E-01	2.863E-02	4.877
	+	87.30		5.809E-01	5.681E-01	7.839E-01	1.076E-01	0.741
		115.19		3.802E+00	4.160E+00	6.090E+00	5.045E-01	0.624
	+	238.63	*	1.528E+00	2.223E-01	8.540E-02	1.128E-02	17.892
	+	300.09		1.003E+00	8.172E-01	1.041E+00	1.518E-01	0.963
BI-214	+	609.31	*	9.535E-01	1.624E-01	9.813E-02	1.141E-02	9.717
	+	1120.29		1.683E+00	5.079E-01	3.231E-01	3.570E-02	5.208

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1764.49		1.649E+00	3.492E-01	2.222E-01	1.852E-02	7.419
PB-214	+	74.81		3.587E+00	9.310E-01	1.036E+00	1.142E-01	3.462
	+	77.11		2.862E+00	5.554E-01	5.869E-01	6.640E-02	4.877
	+	87.30		9.952E-01	9.711E-01	1.343E+00	1.634E-01	0.741
	+	241.98		1.996E+00	6.184E-01	4.948E-01	6.804E-02	4.035
	+	295.21		1.149E+00	2.685E-01	2.043E-01	3.042E-02	5.625
	+	351.92	*	1.156E+00	1.943E-01	9.915E-02	1.264E-02	11.657
PO-214	+	74.81		3.587E+00	9.310E-01	1.036E+00	1.142E-01	3.462
	+	77.11		2.862E+00	5.554E-01	5.869E-01	6.640E-02	4.877
	+	87.30		9.952E-01	9.711E-01	1.343E+00	1.634E-01	0.741
	+	241.98		1.996E+00	6.184E-01	4.948E-01	6.804E-02	4.035
	+	295.21		1.149E+00	2.685E-01	2.043E-01	3.042E-02	5.625
	+	351.92	*	1.156E+00	1.943E-01	9.915E-02	1.264E-02	11.657
PO-216	+	74.81		2.082E+00	5.532E-01	6.013E-01	7.461E-02	3.462
	+	77.11		1.670E+00	2.979E-01	3.424E-01	2.863E-02	4.877
	+	87.30		5.809E-01	5.681E-01	7.839E-01	1.076E-01	0.741
	+	238.63	*	1.528E+00	2.223E-01	8.540E-02	1.128E-02	17.892
	+	300.09		1.003E+00	8.172E-01	1.041E+00	1.518E-01	0.963
PO-218	+	74.81		3.587E+00	9.310E-01	1.036E+00	1.142E-01	3.462
	+	77.11		2.862E+00	5.554E-01	5.869E-01	6.640E-02	4.877
	+	87.30		9.952E-01	9.711E-01	1.343E+00	1.634E-01	0.741
	+	241.98		1.996E+00	6.184E-01	4.948E-01	6.804E-02	4.035
	+	295.21		1.149E+00	2.685E-01	2.043E-01	3.042E-02	5.625
	+	351.92	*	1.156E+00	1.943E-01	9.915E-02	1.264E-02	11.657
RA-224	+	240.98	*	3.785E+00	1.153E+00	9.709E-01	1.215E-01	3.898
RA-226	+	609.31	*	9.535E-01	1.624E-01	9.813E-02	1.141E-02	9.717
	+	1120.29		1.683E+00	5.079E-01	3.231E-01	3.570E-02	5.208
	+	1764.49		1.649E+00	3.492E-01	2.222E-01	1.852E-02	7.419
AC-228	+	338.32		1.640E+00	7.646E-01	3.261E-01	1.372E-01	5.029
	+	911.07	*	1.381E+00	3.134E-01	1.838E-01	2.436E-02	7.511
	+	969.11		1.487E+00	4.781E-01	2.771E-01	6.691E-02	5.368
RA-228	+	338.32		1.640E+00	7.646E-01	3.261E-01	1.372E-01	5.029
	+	911.07	*	1.381E+00	3.134E-01	1.838E-01	2.436E-02	7.511
	+	969.11		1.487E+00	4.781E-01	2.771E-01	6.691E-02	5.368
TH-228	+	74.81		2.114E+00	5.263E-01	6.105E-01	5.030E-02	3.462
	+	77.11		1.695E+00	3.025E-01	3.476E-01	2.907E-02	4.877
	+	87.30		5.898E-01	5.738E-01	7.959E-01	7.490E-02	0.741
	+	238.63	*	1.552E+00	2.257E-01	8.672E-02	1.146E-02	17.892
	+	300.09		1.018E+00	1.020E+00	1.057E+00	6.356E-01	0.963
TH-230	+	609.31	*	9.535E-01	1.624E-01	9.813E-02	1.141E-02	9.717
	+	1120.29		1.682E+00	5.079E-01	3.231E-01	3.570E-02	5.208
	+	1764.49		1.649E+00	3.492E-01	2.222E-01	1.851E-02	7.419
U-231	+	84.21		1.073E+01	7.766E+00	9.777E+00	8.863E-01	1.098
	+	92.29		1.305E+02	1.275E+01	4.240E+00	3.866E-01	30.782
	+	95.87	*	4.152E+00	2.798E+00	1.740E+00	1.545E-01	2.386
		108.00		-1.902E-01	3.196E+00	3.554E+00	2.988E-01	-0.054
TH-232	+	338.32		1.640E+00	3.831E-01	3.261E-01	3.878E-02	5.029
	+	911.07	*	1.381E+00	3.134E-01	1.838E-01	2.436E-02	7.511
	+	969.11		1.487E+00	4.781E-01	2.771E-01	6.691E-02	5.368

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-234	+	63.29	*	3.424E+01	6.566E+00	2.211E+00	3.849E-01	15.483
	+	92.38		3.323E+01	6.199E+00	1.079E+00	1.977E-01	30.800
U-234	+	609.31	*	9.535E-01	1.624E-01	9.813E-02	1.141E-02	9.717
	+	1120.29		1.682E+00	5.079E-01	3.231E-01	3.570E-02	5.208
	+	1764.49		1.649E+00	3.492E-01	2.222E-01	1.851E-02	7.419
U-235		89.95		-2.200E+00	2.247E+00	2.341E+00	7.269E-01	-0.940
	+	93.35		3.994E+01	1.134E+01	1.289E+00	3.630E-01	30.982
	+	105.00		1.744E+00	1.526E+00	1.732E+00	5.163E-01	1.007
	+	143.76	*	9.269E-01	3.848E-01	3.365E-01	5.936E-02	2.755
	+	163.35		1.003E+00	6.710E-01	7.397E-01	1.449E-01	1.356
	+	185.71		8.254E-01	1.176E-01	6.896E-02	7.221E-03	11.968
		205.31		2.227E-01	5.835E-01	8.411E-01	1.713E-01	0.265
NP-237	+	86.50	*	3.688E-01	3.668E-01	4.586E-01	1.038E-01	0.804
	+	95.87		3.560E+00	2.536E+00	1.492E+00	3.689E-01	2.386
U-238	+	63.29	*	3.424E+01	6.566E+00	2.211E+00	3.849E-01	15.483
	+	92.38		3.323E+01	3.245E+00	1.079E+00	9.829E-02	30.800
AM-243	+	74.67	*	3.375E-01	8.396E-02	9.775E-02	7.968E-03	3.453
	+	86.72		1.383E+01	1.345E+01	1.716E+01	1.604E+00	0.806
		117.66		8.455E-01	4.275E+00	6.090E+00	5.031E-01	0.139
		142.18		2.995E+01	2.095E+01	3.209E+01	2.834E+00	0.933
ANH-511	+	511.00	*	1.508E-01	6.120E-02	3.826E-02	3.833E-03	3.943

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.644E-01	2.993E-01	4.602E-01	4.803E-02	-0.574
NA-22		1274.54	*	-1.807E-02	3.283E-02	5.202E-02	4.483E-03	-0.347
NA-24		1368.53	*	-2.799E-01	3.283E-02	Half-Life too short		
AL-26		1129.67		-1.855E-02	1.479E+00	2.032E+00	1.770E-01	-0.009
		1808.65	*	-1.998E-02	2.273E-02	3.256E-02	2.663E-03	-0.614
TI-44		67.85		-3.928E-02	4.956E-02	7.606E-02	5.805E-03	-0.517
	+	78.38	*	3.081E-01	5.498E-02	7.239E-02	6.137E-03	4.257
SC-46		889.25	*	-1.931E-02	3.174E-02	5.046E-02	5.649E-03	-0.383
	+	1120.51		2.884E-01	8.495E-02	9.980E-02	8.824E-03	2.890
V-48		944.10		2.961E-01	7.335E-01	1.240E+00	1.345E-01	0.239
		983.50	*	9.206E-03	6.059E-02	1.005E-01	1.054E-02	0.092
		1312.09		-2.971E-02	6.319E-02	1.003E-01	8.835E-03	-0.296
CR-51		320.08	*	-4.252E-02	3.259E-01	5.425E-01	7.024E-02	-0.078
MN-52		744.21		1.167E-01	2.064E-01	3.456E-01	3.755E-02	0.338
		848.13		-1.788E+00	5.579E+00	9.108E+00	1.014E+00	-0.196
		935.52		3.198E-01	2.243E-01	3.961E-01	4.324E-02	0.808
		1246.25		-8.818E-01	6.630E+00	9.230E+00	7.803E-01	-0.096
		1333.61		-1.489E+00	3.912E+00	6.229E+00	5.555E-01	-0.239
		1434.06	*	-8.854E-02	1.738E-01	2.683E-01	2.397E-02	-0.330
MN-54		834.83	*	-1.084E-02	3.093E-02	5.057E-02	5.618E-03	-0.214
CO-56		846.75	*	-1.005E-02	3.256E-02	5.324E-02	5.927E-03	-0.189
		977.42		-2.711E-01	2.867E+00	3.981E+00	4.199E-01	-0.068
		1037.82		-8.038E-02	2.601E-01	4.159E-01	4.288E-02	-0.193

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1175.09		1.129E+00	1.763E+00	3.051E+00	2.457E-01	0.370
	+	1238.25		1.848E-01	1.081E-01	1.396E-01	1.210E-02	1.323
		1360.21		-1.002E-01	7.067E-01	1.146E+00	1.023E-01	-0.087
		1771.40		1.198E-01	1.876E-01	2.946E-01	2.447E-02	0.407
CO-57		122.06	*	1.243E-02	2.613E-02	4.203E-02	3.466E-03	0.296
		136.48		-2.151E-02	2.055E-01	3.465E-01	3.215E-02	-0.062
CO-58		810.76	*	-2.309E-02	3.128E-02	4.982E-02	5.516E-03	-0.464
FE-59	+	142.65		1.199E+01	4.630E+00	5.056E+00	4.474E-01	2.371
		192.34		-3.702E-01	8.905E-01	1.447E+00	2.148E-01	-0.256
		1099.22	*	-2.964E-02	7.609E-02	1.202E-01	1.178E-02	-0.246
		1291.56		7.693E-03	9.313E-02	1.549E-01	1.527E-02	0.050
CO-60		1173.22		8.135E-03	3.439E-02	5.822E-02	4.682E-03	0.140
		1332.49	*	-1.688E-02	2.997E-02	4.690E-02	4.182E-03	-0.360
ZN-65		1115.52	*	6.613E-02	7.916E-02	1.181E-01	1.053E-02	0.560
GE-68		1077.35	*	7.968E-02	9.901E-01	1.621E+00	1.528E-01	0.049
AS-73		53.44	*	5.536E-02	8.884E-01	1.462E+00	1.105E-01	0.038
AS-74		595.88	*	-1.974E-02	7.723E-02	1.263E-01	1.309E-02	-0.156
		634.78		4.681E-02	2.951E-01	4.906E-01	5.142E-02	0.095
SE-75		66.05		-2.411E+00	5.366E+00	7.818E+00	7.459E-01	-0.308
		96.73		2.502E+00	1.193E+00	1.446E+00	1.990E-01	1.730
		121.11		-6.513E-02	1.424E-01	2.222E-01	2.429E-02	-0.293
		136.00		-5.745E-03	3.865E-02	6.509E-02	5.648E-03	-0.088
		198.60		-5.275E-01	1.739E+00	2.790E+00	3.260E-01	-0.189
		264.65	*	1.994E-03	4.562E-02	6.415E-02	8.634E-03	0.031
		279.53		5.347E-02	1.026E-01	1.670E-01	2.370E-02	0.320
		303.91		-4.227E-01	2.038E+00	2.946E+00	4.489E-01	-0.143
		400.65		1.547E-01	2.318E-01	3.902E-01	4.567E-02	0.396
BR-77		87.88		-6.146E+02	3.698E+02	3.893E+02	3.690E+01	-1.579
		200.40		-1.316E+02	1.668E+02	2.665E+02	2.930E+01	-0.494
	+	239.00		2.582E+02	3.574E+01	3.302E+01	4.108E+00	7.821
		249.79		-8.431E+00	6.533E+01	1.050E+02	1.350E+01	-0.080
		281.68		-8.525E+00	8.855E+01	1.410E+02	1.964E+01	-0.060
		297.23		3.455E+02	9.942E+01	1.147E+02	1.543E+01	3.011
		303.76		-5.357E+01	1.820E+02	2.617E+02	3.462E+01	-0.205
		439.47		1.597E+02	1.340E+02	2.290E+02	2.204E+01	0.698
		484.57		9.963E+00	2.154E+02	3.484E+02	3.444E+01	0.029
		520.65	*	-7.287E+00	9.611E+00	1.470E+01	1.480E+00	-0.496
		574.64		-1.383E+02	2.149E+02	3.062E+02	3.150E+01	-0.452
		578.91		3.489E+01	8.948E+01	1.314E+02	1.355E+01	0.265
		585.48		1.684E+03	2.855E+02	4.340E+02	4.483E+01	3.879
		755.35		1.313E+02	1.493E+02	2.533E+02	2.762E+01	0.518
		817.79		-6.063E+00	1.108E+02	1.846E+02	2.044E+01	-0.033
SR-82		698.33		-2.251E+01	2.973E+01	4.640E+01	4.964E+00	-0.485
		776.49	*	1.950E-01	5.339E-01	4.913E-01	5.388E-02	0.397
		1395.20		-4.337E+00	8.623E+00	1.345E+01	1.203E+00	-0.322
RB-83		520.41	*	-4.512E-02	6.049E-02	9.261E-02	9.321E-03	-0.487
		529.64		-5.168E-02	8.902E-02	1.447E-01	1.462E-02	-0.357
		552.65		-1.275E-01	1.620E-01	2.583E-01	2.636E-02	-0.494
RB-84		881.50	*	3.801E-02	6.000E-02	1.030E-01	1.152E-02	0.369

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
KR-85		513.99	*	2.329E+01	7.620E+00	1.209E+01	1.213E+00	1.927
SR-85		513.99	*	1.197E-01	3.914E-02	6.208E-02	6.229E-03	1.927
RB-86		1076.63	*	-8.860E-02	6.468E-01	1.043E+00	9.840E-02	-0.085
Y-88		898.02		-8.839E-03	3.592E-02	5.864E-02	6.589E-03	-0.151
		1836.01	*	-1.461E-03	2.403E-02	3.911E-02	3.162E-03	-0.037
ZR-88		392.90	*	3.655E-03	2.622E-02	4.339E-02	4.040E-03	0.084
Y-91		1204.90	*	2.886E-01	1.479E+01	2.464E+01	2.026E+00	0.012
NB-94		702.63	*	1.251E-02	2.960E-02	4.933E-02	5.286E-03	0.254
		871.10		-1.913E-02	2.804E-02	4.448E-02	4.969E-03	-0.430
NB-95		765.79	*	2.269E-01	5.587E-02	8.849E-02	9.677E-03	2.564
NB-95M		235.69	*	8.367E-02	1.335E-01	1.942E-01	2.568E-02	0.431
ZR-95		724.18		1.151E-01	9.555E-02	1.440E-01	1.642E-02	0.799
		756.15	*	3.166E-02	6.053E-02	1.010E-01	1.172E-02	0.314
NB-97		657.90	*	1.820E-01	6.053E-02	Half-Life too short		
		1024.50		-3.356E-01	6.053E-02	Half-Life too short		
ZR-97		254.15		-4.801E+00	6.053E-02	Half-Life too short		
		355.39		5.960E+00	6.053E-02	Half-Life too short		
		507.63	*	6.500E+00	6.053E-02	Half-Life too short		
		602.52		2.087E+00	6.053E-02	Half-Life too short		
		1021.30		3.097E+00	6.053E-02	Half-Life too short		
		1147.95		-8.600E-01	6.053E-02	Half-Life too short		
		1362.66		-4.532E+00	6.053E-02	Half-Life too short		
		1750.46		2.676E+00	6.053E-02	Half-Life too short		
MO-99		140.51		4.884E+00	3.078E+01	4.552E+01	1.263E+01	0.107
		181.06		3.816E+00	1.946E+01	2.854E+01	5.463E+00	0.134
		366.43		-4.826E+01	7.815E+01	1.255E+02	1.332E+01	-0.384
		739.58	*	-1.618E-01	1.030E+01	1.671E+01	2.766E+00	-0.010
		778.00		1.355E+01	4.980E+01	4.502E+01	4.939E+00	0.301
TC-99M		140.51	*	1.101E+10	4.980E+01	Half-Life too short		
RH-101		127.23		-1.417E-02	3.423E-02	5.337E-02	4.461E-03	-0.266
		198.01	*	6.447E-03	3.175E-02	5.176E-02	5.647E-03	0.125
		325.23		8.370E-02	2.263E-01	3.351E-01	4.165E-02	0.250
RH-102		418.52		5.513E-03	2.503E-01	4.098E-01	3.889E-02	0.013
		475.06	*	2.703E-02	2.591E-02	4.382E-02	4.310E-03	0.617
		631.29		1.192E-02	4.579E-02	7.655E-02	8.015E-03	0.156
		697.49		-6.759E-02	6.797E-02	1.045E-01	1.117E-02	-0.647
	+	766.84		7.139E-01	2.253E-01	2.242E-01	2.452E-02	3.185
		1046.59		-1.130E-01	9.956E-02	1.491E-01	1.463E-02	-0.758
		1112.84		2.776E-02	1.875E-01	2.628E-01	2.352E-02	0.106
RU-103		497.08	*	6.211E-03	3.491E-02	5.672E-02	8.514E-03	0.109
	+	610.33		1.033E+01	2.233E+00	2.241E+00	3.962E-01	4.608
RH-106	+	511.85		7.537E-01	3.058E-01	3.552E-01	3.561E-02	2.122
		621.84	*	5.018E-04	2.801E-01	4.626E-01	6.755E-02	0.001
		1050.47		2.000E+00	1.880E+00	3.268E+00	3.190E-01	0.612
RU-106	+	511.85		7.537E-01	3.058E-01	3.552E-01	3.561E-02	2.122
		621.84	*	5.018E-04	2.801E-01	4.626E-01	4.832E-02	0.001
		1050.47		2.000E+00	1.880E+00	3.268E+00	3.190E-01	0.612
AG-108M		433.93	*	-1.930E-02	2.871E-02	4.515E-02	4.469E-03	-0.428
		614.37		-2.034E-03	3.856E-02	5.459E-02	5.843E-03	-0.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.95		-1.302E-02	4.098E-02	5.558E-02	6.149E-03	-0.234
CD-109		88.03	*	-2.581E+00	1.625E+00	1.718E+00	1.630E-01	-1.503
AG-110M		657.75	*	3.656E-02	3.774E-02	5.655E-02	6.078E-03	0.646
		677.61		-2.312E-02	2.581E-01	4.206E-01	4.548E-02	-0.055
		706.67		-1.472E-01	1.874E-01	2.918E-01	3.187E-02	-0.504
		763.93		6.103E-01	1.947E-01	3.099E-01	3.447E-02	1.969
		884.67		-2.790E-03	4.155E-02	6.868E-02	7.832E-03	-0.041
		937.48		3.529E-02	9.468E-02	1.596E-01	1.780E-02	0.221
	+	1384.27		3.736E-02	2.965E-01	2.222E-01	2.039E-02	0.168
IN-111		171.28		2.146E-01	1.001E+00	1.675E+00	1.672E-01	0.128
		245.39	*	1.307E-01	1.161E+00	1.651E+00	2.094E-01	0.079
IN-113M		391.69	*	1.957E-03	3.810E-02	6.282E-02	5.999E-03	0.031
SN-113		391.69	*	1.957E-03	3.810E-02	6.282E-02	5.999E-03	0.031
IN-114M		190.27	*	1.258E-01	1.904E-01	2.832E-01	3.011E-02	0.444
CD-115		260.90		4.387E+00	1.309E+02	2.108E+02	2.802E+01	0.021
		492.35		-2.245E+00	3.317E+01	5.325E+01	5.286E+00	-0.042
		527.90	*	-2.059E+00	9.677E+00	1.605E+01	1.620E+00	-0.128
SN-117M		156.02		-5.527E-01	2.282E+00	3.796E+00	3.559E-01	-0.146
		158.56	*	-9.063E-02	6.411E-02	8.840E-02	8.384E-03	-1.025
SB-122		563.90	*	-7.135E-01	1.853E+00	3.028E+00	3.104E-01	-0.236
		692.80		2.450E+01	3.845E+01	6.489E+01	6.928E+00	0.378
I-123		159.00	*	-8.738E+00	3.845E+01	Half-Life too short		
		528.96		-2.187E+02	3.845E+01	Half-Life too short		
TE-123M		159.00	*	-3.462E-02	3.263E-02	4.582E-02	4.376E-03	-0.756
I-124		602.71	*	1.888E-01	6.808E-01	9.882E-01	1.026E-01	0.191
		722.78		-1.745E+00	4.392E+00	5.913E+00	6.381E-01	-0.295
		1325.50		-6.463E+00	2.818E+01	4.558E+01	4.048E+00	-0.142
		1376.25		5.904E+01	2.847E+01	4.855E+01	4.339E+00	1.216
		1509.49		1.774E+00	1.283E+01	2.116E+01	1.880E+00	0.084
		1691.02		-2.196E+00	2.878E+00	4.271E+00	3.653E-01	-0.514
SB-124		602.71		1.068E-02	3.851E-02	5.590E-02	5.807E-03	0.191
		645.85		1.062E-01	4.228E-01	7.050E-01	7.710E-02	0.151
		709.31		6.856E-01	2.413E+00	3.995E+00	4.291E-01	0.172
		713.82		1.628E-01	1.449E+00	2.375E+00	3.243E-01	0.069
		722.78		-1.431E-01	3.602E-01	4.849E-01	5.306E-02	-0.295
	+	968.20		1.534E+01	3.640E+00	6.009E+00	6.389E-01	2.553
		1045.16		-1.524E+00	2.081E+00	3.219E+00	3.163E-01	-0.473
		1325.50		-5.661E-01	2.468E+00	3.992E+00	3.545E-01	-0.142
		1368.21		-8.759E-01	1.289E+00	1.965E+00	2.688E-01	-0.446
		1436.60		-2.692E-01	2.655E+00	4.293E+00	3.837E-01	-0.063
		1691.02	*	-4.248E-02	5.568E-02	8.262E-02	7.349E-03	-0.514
SB-125		427.89	*	3.615E-02	7.864E-02	1.311E-01	1.272E-02	0.276
	+	463.38		6.173E-01	3.376E-01	4.569E-01	4.738E-02	1.351
		600.56		9.632E-02	1.616E-01	2.565E-01	2.799E-02	0.376
		635.90		-1.154E-01	2.237E-01	3.572E-01	3.952E-02	-0.323
TE-125M		109.28	*	6.047E+00	1.415E+01	1.617E+01	1.637E+00	0.374
I-126		388.63		-1.555E-01	1.797E-01	2.832E-01	2.681E-02	-0.549
		666.33	*	7.550E-02	1.875E-01	2.717E-01	2.870E-02	0.278
		753.82		8.331E-01	1.267E+00	2.128E+00	2.319E-01	0.391

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-126		223.80		-3.226E+00	3.769E+00	5.925E+00	7.029E-01	-0.545
		278.60		5.394E-01	2.346E+00	3.785E+00	5.291E-01	0.143
	+	296.50		1.155E+01	2.601E+00	3.081E+00	4.151E-01	3.749
		414.70		-1.425E-02	6.814E-02	1.104E-01	1.045E-02	-0.129
		415.30		1.275E+00	5.610E+00	9.273E+00	8.780E-01	0.137
		555.20		3.771E-01	3.181E+00	5.340E+00	5.455E-01	0.071
		573.80		-7.576E-01	9.927E-01	1.456E+00	1.498E-01	-0.520
		593.00		-6.394E-01	8.101E-01	1.252E+00	1.296E-01	-0.511
		656.30		2.265E+00	3.169E+00	4.717E+00	4.969E-01	0.480
		666.33		3.156E-02	7.839E-02	1.136E-01	1.200E-02	0.278
		675.00		-5.066E-01	1.662E+00	2.674E+00	2.835E-01	-0.189
		695.00		8.147E-02	6.529E-02	1.130E-01	1.207E-02	0.721
		697.00		-2.465E-01	2.395E-01	3.670E-01	3.925E-02	-0.672
		720.50	*	2.375E-02	1.429E-01	2.021E-01	2.179E-02	0.118
		856.80		2.481E-01	4.521E-01	6.729E-01	7.502E-02	0.369
		989.30		4.734E-01	1.030E+00	1.741E+00	1.816E-01	0.272
		1034.80		-1.623E+00	7.398E+00	1.191E+01	1.184E+00	-0.136
		1213.00		5.378E-01	3.663E+00	6.146E+00	5.082E-01	0.087
SB-127		61.10		1.402E+02	7.369E+01	1.135E+02	1.152E+01	1.235
		252.40		-2.917E-01	4.128E+00	6.639E+00	2.865E+00	-0.044
		290.80		1.965E+01	2.201E+01	3.349E+01	5.165E+00	0.587
		411.60		6.293E+00	1.110E+01	1.856E+01	3.012E+00	0.339
		444.90		-9.153E+00	9.069E+00	1.388E+01	1.848E+00	-0.660
		473.00		-3.593E-01	1.578E+00	2.522E+00	3.467E-01	-0.142
		543.00		-6.471E+00	1.444E+01	2.317E+01	3.570E+00	-0.279
		603.60		2.694E+00	1.189E+01	1.719E+01	2.377E+00	0.157
		685.20	*	2.995E-01	1.157E+00	1.921E+00	2.503E-01	0.156
		698.50		-1.053E+01	1.366E+01	2.118E+01	3.616E+00	-0.497
		722.20		-3.735E+00	2.915E+01	4.018E+01	5.205E+00	-0.093
		783.80		7.176E+00	3.900E+00	5.992E+00	8.511E-01	1.198
XE-127		57.60		-1.818E+00	6.894E+00	1.088E+01	7.816E-01	-0.167
	+	145.22		3.073E+00	1.187E+00	1.245E+00	1.113E-01	2.469
		172.10		-4.584E-02	1.154E-01	1.894E-01	1.896E-02	-0.242
		202.84	*	2.021E-02	4.537E-02	7.545E-02	8.364E-03	0.268
		374.96		-1.012E-01	1.727E-01	2.772E-01	2.822E-02	-0.365
I-131		80.18		3.203E+00	6.991E+00	8.212E+00	7.150E-01	0.390
		284.30		-1.041E+00	1.428E+00	2.199E+00	3.109E-01	-0.473
		364.48	*	-2.881E-03	1.021E-01	1.689E-01	1.871E-02	-0.017
		636.97		-6.442E-01	1.290E+00	2.062E+00	2.245E-01	-0.312
		722.89		-2.420E+00	6.998E+00	9.467E+00	1.026E+00	-0.256
TE-132		49.72		-1.294E+00	2.047E+01	3.432E+01	3.578E+00	-0.038
	+	111.76		2.321E+02	6.846E+01	6.529E+01	6.970E+00	3.555
		116.30		2.122E+01	3.264E+01	4.731E+01	5.029E+00	0.448
		228.16	*	6.124E-01	6.863E-01	1.136E+00	2.028E-01	0.539
BA-133		53.15		-2.511E-01	3.851E+00	6.321E+00	4.797E-01	-0.040
		79.62		1.081E-01	1.974E+00	2.279E+00	3.466E-01	0.047
		81.00		9.399E-03	1.512E-01	1.742E-01	2.777E-02	0.054
		276.40		3.229E-01	3.573E-01	5.658E-01	1.024E-01	0.571
		302.84		3.737E-02	1.407E-01	2.086E-01	3.479E-02	0.179

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		356.01	*	3.519E-02	4.018E-02	6.055E-02	9.048E-03	0.581
		383.85		-2.436E-02	2.615E-01	4.291E-01	5.743E-02	-0.057
I-133	+	510.53		1.765E+00	2.615E-01	Half-Life too short		
		529.87	*	-1.168E-03	2.615E-01	Half-Life too short		
		706.58		-3.343E-01	2.615E-01	Half-Life too short		
		856.28		2.514E-01	2.615E-01	Half-Life too short		
		875.33		-6.146E-02	2.615E-01	Half-Life too short		
		1236.41		1.357E+00	2.615E-01	Half-Life too short		
		1298.22		1.465E-02	2.615E-01	Half-Life too short		
CS-134		475.35		1.584E+00	1.700E+00	2.863E+00	2.816E-01	0.553
		563.23		-7.112E-03	3.039E-01	5.058E-01	5.218E-02	-0.014
		569.32		2.681E-02	1.684E-01	2.824E-01	2.928E-02	0.095
		604.70		2.117E-02	3.311E-02	4.913E-02	5.115E-03	0.431
	+	795.84	*	1.081E-01	5.156E-02	6.901E-02	7.639E-03	1.567
		801.93		-4.469E-01	4.050E-01	4.948E-01	5.479E-02	-0.903
		1038.57		-3.396E-01	3.221E+00	5.224E+00	5.173E-01	-0.065
		1167.94		-1.688E-01	1.915E+00	3.178E+00	2.583E-01	-0.053
		1365.15		-8.040E-01	8.746E-01	1.294E+00	1.206E-01	-0.621
CS-135		268.24	*	2.287E-01	1.666E-01	2.458E-01	3.555E-02	0.930
I-135		288.45		1.047E+10	1.666E-01	Half-Life too short		
		417.63		7.180E+09	1.666E-01	Half-Life too short		
		546.56		2.451E+10	1.666E-01	Half-Life too short		
		836.80		6.608E+09	1.666E-01	Half-Life too short		
		1038.76		-5.135E+08	1.666E-01	Half-Life too short		
		1124.00		1.553E+11	1.666E-01	Half-Life too short		
		1131.51		-4.308E+08	1.666E-01	Half-Life too short		
		1260.41	*	-2.025E+09	1.666E-01	Half-Life too short		
		1457.56		1.310E+12	1.666E-01	Half-Life too short		
		1678.03		-6.182E+09	1.666E-01	Half-Life too short		
		1706.46		1.595E+10	1.666E-01	Half-Life too short		
		1791.20		-4.400E+09	1.666E-01	Half-Life too short		
CS-136		66.91		-3.621E-01	8.809E-01	1.283E+00	1.908E-01	-0.282
	+	86.29		1.654E+00	1.617E+00	2.167E+00	2.885E-01	0.763
		153.22		9.183E-01	6.672E-01	1.148E+00	1.172E-01	0.800
	+	163.89		2.294E+00	1.487E+00	1.878E+00	1.999E-01	1.222
		176.55		1.706E-01	3.571E-01	6.003E-01	6.353E-02	0.284
		273.65		-5.724E-01	4.937E-01	6.362E-01	9.001E-02	-0.900
		340.57		5.449E-01	1.479E-01	2.294E-01	2.748E-02	2.376
		818.51		1.473E-02	6.001E-02	1.017E-01	1.127E-02	0.145
		1048.07	*	-1.886E-02	9.181E-02	1.478E-01	1.494E-02	-0.128
		1235.34		1.171E+00	5.755E-01	9.174E-01	1.072E-01	1.276
CE-139		165.85	*	-7.130E-03	3.243E-02	4.716E-02	4.625E-03	-0.151
BA-140	+	162.64		1.616E+00	1.046E+00	1.332E+00	1.347E-01	1.213
		304.84		-3.025E-01	1.263E+00	1.818E+00	5.410E-01	-0.166
		423.70		-4.718E-01	1.654E+00	2.654E+00	8.669E-01	-0.178
		537.32	*	1.362E-01	2.181E-01	3.680E-01	1.235E-01	0.370
LA-140	+	328.77		5.637E-01	3.960E-01	4.840E-01	6.115E-02	1.164
		432.53		-1.599E+00	1.803E+00	2.799E+00	2.788E-01	-0.571
		487.03		1.644E-02	1.240E-01	2.013E-01	2.087E-02	0.082

---- Non-Identified Nuclides ----

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		751.79		4.157E-01	1.453E+00	2.396E+00	2.788E-01	0.173
		815.85		1.357E-01	2.511E-01	4.329E-01	5.134E-02	0.314
		867.82		-3.042E-01	1.245E+00	1.796E+00	2.069E-01	-0.169
		919.63		-2.733E-01	2.392E+00	3.578E+00	4.541E-01	-0.076
		925.24		2.821E-01	8.918E-01	1.504E+00	1.719E-01	0.188
		1596.49	*	-1.401E-01	7.629E-02	1.031E-01	9.036E-03	-1.359
CE-141		145.44	*	1.486E-01	6.991E-02	1.099E-01	1.000E-02	1.353
CE-143		57.37		-2.385E-04	6.991E-02	Half-Life too short		
		231.56		-1.445E-03	6.991E-02	Half-Life too short		
		293.26	*	7.382E-04	6.991E-02	Half-Life too short		
	+	350.59		2.876E-02	6.991E-02	Half-Life too short		
		490.36		1.337E-04	6.991E-02	Half-Life too short		
		664.57		1.275E-02	6.991E-02	Half-Life too short		
		721.93		-1.193E-04	6.991E-02	Half-Life too short		
CE-144		80.11		1.408E+00	3.171E+00	3.722E+00	3.217E-01	0.378
		133.54	*	-5.521E-02	2.021E-01	3.395E-01	5.270E-02	-0.163
PM-144		476.78		-4.972E-02	6.163E-02	9.519E-02	1.005E-02	-0.522
		618.01		2.284E-02	2.846E-02	4.868E-02	5.176E-03	0.469
		696.49	*	-1.195E-02	2.982E-02	4.762E-02	5.093E-03	-0.251
		778.57		1.399E+00	3.231E+00	3.009E+00	3.303E-01	0.465
PR-144		696.49	*	-8.095E-01	2.021E+00	3.227E+00	3.450E-01	-0.251
		1489.15		-1.208E+01	9.256E+00	1.268E+01	1.130E+00	-0.953
PM-146		453.90	*	3.381E-02	3.980E-02	6.685E-02	7.769E-03	0.506
		633.02		8.757E-01	1.179E+00	1.945E+00	7.359E-01	0.450
		735.90		-1.258E-01	1.414E-01	1.906E-01	5.595E-02	-0.660
		747.13		-8.070E-02	8.003E-02	1.203E-01	1.868E-02	-0.671
ND-147	+	91.11		1.690E+01	1.758E+00	1.016E+00	1.003E-01	16.641
		319.41		-8.429E-01	2.951E+00	4.879E+00	6.176E-01	-0.173
		439.89		2.438E+00	5.319E+00	8.803E+00	8.477E-01	0.277
		531.02	*	-2.686E-01	4.774E-01	7.742E-01	1.228E-01	-0.347
PM-149		285.90	*	-7.623E+01	9.196E+01	1.399E+02	2.646E+01	-0.545
EU-152		121.78		-1.760E-02	7.699E-02	1.211E-01	1.163E-02	-0.145
		244.69		1.172E-01	3.543E-01	5.089E-01	6.443E-02	0.230
		344.27	*	-6.648E-02	1.040E-01	1.353E-01	1.626E-02	-0.491
		443.98		-9.641E-01	8.506E-01	1.297E+00	1.252E-01	-0.743
		778.89		2.093E-01	3.159E-01	3.540E-01	3.885E-02	0.591
		867.32		-1.820E-01	7.735E-01	1.075E+00	1.201E-01	-0.169
	+	964.01		8.403E-01	4.254E-01	4.823E-01	5.147E-02	1.742
		1085.78		-9.250E-02	3.326E-01	5.306E-01	4.944E-02	-0.174
		1112.02		8.914E-03	2.690E-01	3.723E-01	3.336E-02	0.024
		1407.95		9.675E-02	1.594E-01	2.735E-01	2.445E-02	0.354
GD-153		69.67		-7.079E-01	1.792E+00	2.785E+00	2.162E-01	-0.254
	+	83.37		2.841E+01	2.056E+01	2.861E+01	2.568E+00	0.993
	+	97.43	*	4.193E-01	1.299E-01	1.598E-01	1.405E-02	2.623
		103.18		4.525E-02	1.538E-01	1.756E-01	1.500E-02	0.258
EU-154		123.07		4.533E-02	5.351E-02	8.671E-02	9.618E-03	0.523
		247.94		-1.953E-02	3.394E-01	5.472E-01	8.133E-02	-0.036
		591.81		4.494E-02	5.690E-01	8.504E-01	1.106E-01	0.053
		723.30		3.606E-02	1.701E-01	2.411E-01	2.780E-02	0.150

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		756.87		1.446E-01	6.615E-01	1.085E+00	1.489E-01	0.133
		873.19		-6.694E-02	2.475E-01	4.041E-01	5.721E-02	-0.166
		996.32		3.713E-01	3.492E-01	5.282E-01	9.863E-02	0.703
		1004.76		8.672E-01	2.573E-01	4.154E-01	5.364E-02	2.088
		1274.45	*	-5.045E-02	9.177E-02	1.453E-01	1.642E-02	-0.347
TB-160	+	86.79		4.048E-01	3.937E-01	5.324E-01	4.979E-02	0.760
		197.04		1.747E-01	5.384E-01	8.809E-01	9.579E-02	0.198
		215.65		5.900E-01	7.197E-01	1.165E+00	1.347E-01	0.506
	+	298.57		1.461E-01	1.188E-01	1.818E-01	2.437E-02	0.804
		879.36	*	1.256E-01	1.190E-01	2.083E-01	2.329E-02	0.603
		962.29		1.090E+00	4.619E-01	8.298E-01	8.868E-02	1.314
	+	966.15		5.779E-01	2.926E-01	4.409E-01	4.697E-02	1.311
		1177.93		6.045E-02	2.805E-01	4.741E-01	3.825E-02	0.128
		1271.85		-1.720E-01	5.298E-01	8.552E-01	7.350E-02	-0.201
HO-166M		80.57		2.377E-01	4.069E-01	4.803E-01	4.173E-02	0.495
	+	184.41		6.191E-01	8.822E-02	9.195E-02	9.586E-03	6.733
		280.46		-2.793E-02	8.104E-02	1.277E-01	1.783E-02	-0.219
		410.95		9.235E-02	2.186E-01	3.644E-01	3.440E-02	0.253
		711.68	*	2.497E-02	5.258E-02	8.785E-02	9.445E-03	0.284
		752.31		1.043E-01	2.327E-01	3.870E-01	4.215E-02	0.270
		810.29		-2.621E-02	4.644E-02	7.490E-02	8.280E-03	-0.350
TM-171		51.35		-4.062E+00	3.166E+01	5.291E+01	4.127E+00	-0.077
		52.39		1.121E+00	1.679E+01	2.767E+01	2.123E+00	0.041
		59.40		3.721E+01	3.163E+01	4.868E+01	3.441E+00	0.764
		66.72	*	-1.214E+01	3.172E+01	4.630E+01	3.498E+00	-0.262
LU-176		88.36		-2.213E-01	3.626E-01	4.027E-01	3.808E-02	-0.549
		201.83		-1.870E-02	2.795E-02	4.485E-02	4.955E-03	-0.417
		306.84	*	-1.680E-02	2.169E-02	3.514E-02	4.610E-03	-0.478
		401.10		3.188E+00	6.060E+00	1.016E+01	9.519E-01	0.314
LU-177M		52.97		6.465E-02	1.741E+00	2.866E+00	2.180E-01	0.023
		54.07		6.793E-02	9.209E-01	1.516E+00	1.135E-01	0.045
		61.30		6.765E+00	1.937E+00	3.061E+00	2.202E-01	2.210
		121.62		-1.254E-01	3.941E-01	6.183E-01	5.093E-02	-0.203
		147.16		1.155E-01	6.883E-01	1.027E+00	9.265E-02	0.112
		171.86		-1.636E-01	4.643E-01	7.636E-01	7.637E-02	-0.214
		218.09		6.260E-02	7.952E-01	1.302E+00	1.517E-01	0.048
		268.79		1.469E+00	8.693E-01	1.291E+00	1.755E-01	1.138
		319.02		-5.759E-02	2.258E-01	3.740E-01	4.739E-02	-0.154
		367.43		-1.893E-01	8.113E-01	1.328E+00	1.402E-01	-0.143
		413.65	*	-1.198E-01	1.606E-01	2.535E-01	2.397E-02	-0.473
HF-181		56.28		-4.084E-01	1.021E+00	1.686E+00	1.228E-01	-0.242
		57.53		-7.607E-02	5.762E-01	9.129E-01	6.562E-02	-0.083
		65.20		2.767E+00	1.134E+00	1.770E+00	1.319E-01	1.564
		133.02		-1.001E-02	6.497E-02	1.096E-01	9.341E-03	-0.091
		136.25		-6.720E-02	4.517E-01	7.607E-01	6.562E-02	-0.088
		345.85		-1.033E-01	1.921E-01	2.679E-01	3.098E-02	-0.386
		482.03	*	2.438E-03	3.861E-02	6.253E-02	6.173E-03	0.039
W-181		56.28		-1.589E-01	3.988E-01	6.586E-01	4.797E-02	-0.241
		57.53		-2.988E-02	2.253E-01	3.570E-01	2.566E-02	-0.084

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		65.20	*	1.073E+00	4.400E-01	6.864E-01	5.117E-02	1.564
TA-182		67.75		-9.975E-02	1.183E-01	1.813E-01	1.383E-02	-0.550
		100.10		4.888E-01	2.382E-01	3.335E-01	2.890E-02	1.466
		152.43		3.799E-02	3.350E-01	5.638E-01	5.202E-02	0.067
		222.10		1.232E-01	3.147E-01	5.198E-01	6.134E-02	0.237
	+	1001.68		2.103E+01	3.906E+00	5.408E+00	5.573E-01	3.889
	+	1121.28		7.963E-01	2.345E-01	2.744E-01	2.423E-02	2.902
		1189.05		-3.229E-01	2.470E-01	3.754E-01	3.053E-02	-0.860
		1221.42	*	-5.645E-02	1.540E-01	2.502E-01	2.081E-02	-0.226
		1230.97		-3.685E-01	4.637E-01	6.084E-01	5.092E-02	-0.606
RE-183		57.98		1.596E-01	2.384E-01	3.630E-01	2.598E-02	0.440
		59.32		1.474E-01	1.302E-01	2.001E-01	1.416E-02	0.736
		67.20		-2.001E-01	2.270E-01	3.254E-01	2.470E-02	-0.615
	+	162.32	*	2.346E-01	1.517E-01	1.922E-01	1.854E-02	1.220
	+	208.81		1.800E+00	1.244E+00	1.611E+00	1.821E-01	1.118
		291.72		5.736E-01	9.526E-01	1.436E+00	1.957E-01	0.399
RE-184		57.98		5.876E-01	8.775E-01	1.336E+00	9.562E-02	0.440
		59.32		5.422E-01	4.787E-01	7.362E-01	5.207E-02	0.736
		67.20		-7.365E-01	8.355E-01	1.198E+00	9.088E-02	-0.615
		161.27		5.664E-02	3.971E-01	5.874E-01	5.640E-02	0.096
		216.55		2.132E-01	2.483E-01	4.154E-01	4.816E-02	0.513
		252.85	*	-1.338E-01	2.176E-01	3.414E-01	4.430E-02	-0.392
		318.01		-3.853E-02	3.924E-01	6.543E-01	8.317E-02	-0.059
		792.07		1.010E+00	1.420E+00	1.377E+00	1.516E-01	0.734
		903.28		-1.817E-01	1.044E+00	1.456E+00	1.625E-01	-0.125
		920.93		-7.671E-02	3.623E-01	5.662E-01	6.248E-02	-0.135
OS-185		59.72		3.263E-01	3.553E-01	5.429E-01	3.844E-02	0.601
		61.14		4.081E-01	2.021E-01	3.147E-01	2.260E-02	1.297
		69.30		-2.654E-01	3.064E-01	4.936E-01	3.818E-02	-0.538
		592.07		-8.379E-03	2.266E+00	3.484E+00	3.606E-01	-0.002
		646.12	*	2.847E-02	3.571E-02	6.111E-02	6.422E-03	0.466
		717.42		-4.604E-02	7.903E-01	1.283E+00	1.383E-01	-0.036
		874.81		6.526E-02	4.862E-01	8.142E-01	9.099E-02	0.080
		880.27		2.071E-01	6.738E-01	1.138E+00	1.273E-01	0.182
RE-188		155.03	*	1.340E-01	1.725E-01	2.943E-01	2.747E-02	0.455
		477.96		-1.312E+00	2.814E+00	4.436E+00	4.370E-01	-0.296
		633.10		1.695E+00	2.293E+00	3.923E+00	4.110E-01	0.432
W-188	+	63.58		1.378E+03	1.501E+02	1.600E+02	1.176E+01	8.616
		227.08		2.874E+00	1.205E+01	1.977E+01	2.370E+00	0.145
		290.67	*	6.769E+00	7.390E+00	1.128E+01	1.540E+00	0.600
IR-192	+	295.96		8.777E-01	1.978E-01	2.349E-01	3.178E-02	3.736
		308.46		1.756E-02	8.371E-02	1.415E-01	1.853E-02	0.124
		316.51	*	-6.427E-03	2.995E-02	4.971E-02	6.353E-03	-0.129
		468.07		-1.042E-02	6.884E-02	9.510E-02	9.838E-03	-0.110
		604.41		3.139E-01	4.453E-01	6.622E-01	9.439E-02	0.474
		612.46		4.682E+00	1.014E+00	1.559E+00	1.793E-01	3.003
AU-195		65.12		5.962E-01	2.080E-01	3.258E-01	2.427E-02	1.830
		66.83		-4.190E-02	1.048E-01	1.530E-01	1.157E-02	-0.274
	+	75.70		1.093E+00	2.719E-01	4.209E-01	3.468E-02	2.597

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	98.88	*	1.221E+00	3.783E-01	4.722E-01	4.118E-02	2.586
		129.76		2.889E+00	2.851E+00	4.939E+00	4.162E-01	0.585
TL-200		367.94	*	-7.314E-05	2.851E+00	Half-Life too short		
		579.30		3.051E-03	2.851E+00	Half-Life too short		
		828.27		8.655E-04	2.851E+00	Half-Life too short		
		1205.75		6.615E-05	2.851E+00	Half-Life too short		
TL-201		68.90		-4.725E+00	5.104E+00	8.210E+00	6.327E-01	-0.576
		70.82		3.209E+00	3.240E+00	4.896E+00	3.842E-01	0.655
		80.30		3.882E+00	7.815E+00	9.192E+00	7.963E-01	0.422
		135.34		-2.540E+01	2.611E+01	4.289E+01	3.687E+00	-0.592
		167.43	*	-9.868E-01	7.910E+00	1.154E+01	1.137E+00	-0.086
TL-202		68.90		-4.124E-01	4.455E-01	7.167E-01	5.523E-02	-0.576
		70.82		2.793E-01	2.821E-01	4.262E-01	3.344E-02	0.655
		80.30		3.380E-01	6.805E-01	8.004E-01	6.934E-02	0.422
		439.56	*	4.003E-02	6.357E-02	1.059E-01	1.020E-02	0.378
HG-203		70.83		1.206E+00	1.220E+00	1.834E+00	2.408E-01	0.658
		72.87		1.289E+00	7.396E-01	1.112E+00	1.425E-01	1.159
	+	82.60		2.117E+00	1.548E+00	2.081E+00	2.896E-01	1.017
		279.20	*	2.224E-02	3.850E-02	6.278E-02	8.886E-03	0.354
BI-207		72.80		3.419E-01	2.122E-01	3.233E-01	2.586E-02	1.058
	+	74.97		6.058E-01	1.507E-01	2.149E-01	1.757E-02	2.819
	+	84.90		3.673E-01	2.657E-01	3.647E-01	3.333E-02	1.007
		569.67		8.325E-03	2.628E-02	4.439E-02	4.560E-03	0.188
		1063.62	*	-2.334E-02	4.393E-02	6.671E-02	6.405E-03	-0.350
		1770.23		5.761E-01	4.466E-01	7.484E-01	6.221E-02	0.770
TL-207		81.07		2.387E-02	3.336E-01	3.847E-01	3.361E-02	0.062
	+	83.78		2.422E-01	1.752E-01	2.424E-01	2.186E-02	0.999
	+	94.90		8.264E-01	5.568E-01	5.322E-01	4.757E-02	1.553
		122.32		9.785E-01	1.811E+00	2.916E+00	2.595E-01	0.336
	+	144.24		3.004E+00	1.167E+00	1.294E+00	1.281E-01	2.320
		154.21		5.966E-01	3.973E-01	6.846E-01	6.915E-02	0.872
	+	269.46		3.805E-01	2.575E-01	3.061E-01	4.205E-02	1.243
		323.87	*	3.729E-01	6.610E-01	9.848E-01	1.957E-01	0.379
	+	338.28		6.848E+00	1.709E+00	2.085E+00	3.084E-01	3.284
		445.03		-2.066E+00	2.046E+00	3.133E+00	4.026E-01	-0.660
PO-209		260.50		3.259E+00	9.185E+00	1.497E+01	1.986E+00	0.218
		262.80		-4.273E+01	2.710E+01	3.817E+01	5.100E+00	-1.119
		896.60	*	1.440E+00	6.271E+00	1.053E+01	1.180E+00	0.137
BI-210		46.50	*	1.266E+00	3.508E+00	5.882E+00	5.465E-01	0.215
PB-210		46.50	*	1.266E+00	3.508E+00	5.882E+00	5.465E-01	0.215
PO-210		46.50	*	1.266E+00	3.507E+00	5.882E+00	4.946E-01	0.215
PB-211		404.84	*	-4.453E-01	8.966E-01	1.366E+00	8.573E-01	-0.326
		427.08		1.534E+00	1.982E+00	2.955E+00	1.840E+00	0.519
		831.96		-4.130E-01	1.040E+00	1.642E+00	1.035E+00	-0.252
PO-215		81.07		2.387E-02	3.336E-01	3.847E-01	3.361E-02	0.062
	+	83.78		2.422E-01	1.752E-01	2.424E-01	2.186E-02	0.999
	+	94.90		8.264E-01	5.568E-01	5.322E-01	4.757E-02	1.553
		122.32		9.785E-01	1.811E+00	2.916E+00	2.595E-01	0.336
	+	144.24		3.004E+00	1.167E+00	1.294E+00	1.281E-01	2.320

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		5.966E-01	3.973E-01	6.846E-01	6.915E-02	0.872
	+	269.46		3.805E-01	2.575E-01	3.061E-01	4.205E-02	1.243
		323.87	*	3.729E-01	6.610E-01	9.848E-01	1.957E-01	0.379
	+	338.28		6.848E+00	1.709E+00	2.085E+00	3.084E-01	3.284
		445.03		-2.066E+00	2.046E+00	3.133E+00	4.026E-01	-0.660
RN-219	+	271.23		4.881E-01	3.315E-01	4.003E-01	5.930E-02	1.219
		401.81	*	1.604E-01	3.737E-01	6.232E-01	9.643E-02	0.257
RN-220		549.76	*	-6.487E+00	2.134E+01	3.506E+01	3.573E+00	-0.185
RA-223		81.07		2.387E-02	3.336E-01	3.847E-01	3.361E-02	0.062
	+	83.78		2.422E-01	1.752E-01	2.424E-01	2.186E-02	0.999
	+	94.90		8.264E-01	5.568E-01	5.322E-01	4.757E-02	1.553
		122.32		9.785E-01	1.811E+00	2.916E+00	2.595E-01	0.336
	+	144.24		3.004E+00	1.167E+00	1.294E+00	1.281E-01	2.320
		154.21		5.966E-01	3.973E-01	6.846E-01	6.915E-02	0.872
	+	269.46		3.805E-01	2.575E-01	3.061E-01	4.205E-02	1.243
		323.87	*	3.729E-01	6.610E-01	9.848E-01	1.957E-01	0.379
	+	338.28		6.848E+00	1.709E+00	2.085E+00	3.084E-01	3.284
		445.03		-2.066E+00	2.046E+00	3.133E+00	4.026E-01	-0.660
AC-227		79.80		9.237E-03	2.502E+00	2.880E+00	6.193E-01	0.003
		236.00		9.447E-01	2.980E-01	4.253E-01	6.416E-02	2.221
		256.20	*	-3.315E-01	3.708E-01	5.691E-01	1.038E-01	-0.582
		286.10		-1.072E+00	1.446E+00	2.217E+00	3.778E-01	-0.484
	+	299.80		1.858E+00	1.537E+00	2.277E+00	4.611E-01	0.816
		304.40		8.150E-01	1.780E+00	2.658E+00	5.575E-01	0.307
		334.20		1.727E+00	3.139E+00	3.230E+00	6.836E-01	0.535
TH-227		79.80		9.237E-03	2.502E+00	2.880E+00	6.272E-01	0.003
	+	94.00		6.611E+00	4.647E+00	7.484E+00	1.641E+00	0.883
		236.00		9.447E-01	2.939E-01	4.253E-01	6.020E-02	2.221
		256.20	*	-3.315E-01	3.721E-01	5.691E-01	1.171E-01	-0.582
		286.10		-1.072E+00	1.797E+00	2.217E+00	2.238E+00	-0.484
	+	299.80		1.858E+00	1.537E+00	2.277E+00	4.611E-01	0.816
		304.40		8.150E-01	1.780E+00	2.658E+00	5.575E-01	0.307
		334.20		1.727E+00	3.139E+00	3.230E+00	6.836E-01	0.535
TH-229	+	85.43		2.817E-01	2.740E-01	3.642E-01	3.350E-02	0.773
		88.47		-1.065E-01	2.079E-01	2.319E-01	2.191E-02	-0.459
		100.00		6.145E-01	2.310E-01	3.531E-01	3.061E-02	1.740
		193.63	*	-4.049E-01	4.789E-01	7.649E-01	8.224E-02	-0.529
		210.97		1.298E+00	8.189E-01	1.237E+00	1.408E-01	1.050
PA-231		283.67	*	7.136E-02	1.413E+00	2.262E+00	4.223E-01	0.032
		301.29		1.095E+00	5.933E-01	8.969E-01	1.426E-01	1.221
TH-231		81.07		2.387E-02	3.336E-01	3.847E-01	3.361E-02	0.062
	+	83.78		2.422E-01	1.752E-01	2.424E-01	2.186E-02	0.999
	+	94.90		8.264E-01	5.568E-01	5.322E-01	4.757E-02	1.553
		122.32		9.785E-01	1.811E+00	2.916E+00	2.595E-01	0.336
	+	144.24		3.004E+00	1.167E+00	1.294E+00	1.281E-01	2.320
		154.21		5.966E-01	3.973E-01	6.846E-01	6.915E-02	0.872
	+	269.46		3.805E-01	2.575E-01	3.061E-01	4.205E-02	1.243
		323.87	*	3.729E-01	6.610E-01	9.848E-01	1.957E-01	0.379
	+	338.28		6.848E+00	1.709E+00	2.085E+00	3.084E-01	3.284

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-2.066E+00	2.046E+00	3.133E+00	4.026E-01	-0.660
PA-233	+	75.28		1.768E+01	4.938E+00	6.456E+00	9.760E-01	2.738
	+	86.59		2.459E+00	2.472E+00	3.232E+00	8.745E-01	0.761
	+	300.12		5.180E-01	4.258E-01	6.374E-01	1.149E-01	0.813
		311.98	*	1.661E-02	5.589E-02	9.470E-02	1.241E-02	0.175
		340.50		2.793E+00	9.529E-01	1.120E+00	2.818E-01	2.494
		398.62		3.322E-01	1.866E+00	3.085E+00	8.291E-01	0.108
		415.76		8.621E-01	1.458E+00	2.430E+00	5.324E-01	0.355
PA-234	+	63.00		3.991E+01	6.731E+00	4.783E+00	7.085E-01	8.343
	+	94.67		5.895E-01	4.007E-01	4.399E-01	5.559E-02	1.340
	+	98.44		4.944E-01	3.126E-01	1.921E-01	1.072E-01	2.574
	+	99.86		2.563E+00	7.940E-01	9.174E-01	7.959E-02	2.794
		111.00		4.173E-01	2.439E-01	3.601E-01	4.283E-02	1.159
		131.20		2.387E-02	1.060E-01	1.806E-01	1.530E-02	0.132
		152.70		9.616E-02	3.240E-01	5.470E-01	9.500E-02	0.176
	+	186.00		2.229E+01	7.402E+00	3.509E+00	1.115E+00	6.350
		226.40		-1.127E-01	3.762E-01	6.055E-01	9.441E-02	-0.186
		227.20		7.825E-02	4.100E-01	6.715E-01	8.053E-02	0.117
		248.90		2.714E-02	7.736E-01	1.251E+00	3.046E-01	0.022
	+	293.70		5.516E+00	1.492E+00	1.438E+00	2.907E-01	3.837
		369.80		7.963E-01	7.670E-01	1.288E+00	2.907E-01	0.618
		568.70		-1.629E-01	8.582E-01	1.415E+00	1.453E-01	-0.115
		569.50		6.186E-02	2.326E-01	3.919E-01	4.026E-02	0.158
		574.00		-8.475E-01	1.408E+00	2.089E+00	2.149E-01	-0.406
		699.00		-5.142E-01	6.403E-01	9.873E-01	1.985E-01	-0.521
		706.10		-5.102E-01	9.513E-01	1.461E+00	6.583E-01	-0.349
		733.00		2.577E-01	3.396E-01	4.982E-01	1.153E-01	0.517
		742.81		1.772E+00	1.655E+00	2.022E+00	1.366E+00	0.876
	+	796.30		2.101E+00	1.137E+00	1.310E+00	3.656E-01	1.604
		805.60		1.206E+00	8.794E-01	1.423E+00	4.471E-01	0.847
		819.60		-4.652E-01	1.046E+00	1.678E+00	6.486E-01	-0.277
		826.30		1.587E-01	7.032E-01	1.183E+00	5.357E-01	0.134
		831.60		-6.373E-02	5.204E-01	8.621E-01	2.643E-01	-0.074
		876.40		-4.523E-02	7.149E-01	1.180E+00	1.216E+00	-0.038
		880.51		1.124E-01	2.415E-01	4.113E-01	4.600E-02	0.273
		883.24		1.003E-01	2.534E-01	4.151E-01	2.806E-01	0.242
		899.00		-2.201E-01	7.539E-01	1.194E+00	5.288E-01	-0.184
		925.00		1.286E-01	9.230E-01	1.539E+00	1.693E-01	0.084
		926.50		-7.441E-02	1.427E-01	2.255E-01	5.903E-02	-0.330
		946.00	*	1.017E-01	2.421E-01	4.086E-01	8.121E-02	0.249
		949.00		3.073E-01	3.572E-01	6.186E-01	6.684E-02	0.497
		980.50		2.881E-01	6.215E-01	1.032E+00	1.086E-01	0.279
		1394.10		-3.344E-01	9.969E-01	1.487E+00	9.685E-01	-0.225
PA-234M		766.42		6.178E+01	3.432E+01	2.366E+01	1.211E+01	2.611
	+	1001.03	*	4.770E+01	9.174E+00	1.228E+01	1.408E+00	3.884
NP-236	+	94.67		4.471E-01	3.013E-01	3.351E-01	3.001E-02	1.334
	+	98.44		3.738E-01	1.158E-01	1.452E-01	1.270E-02	2.574
		111.00		3.156E-01	1.826E-01	2.724E-01	2.273E-02	1.159
		160.31	*	2.803E-02	8.618E-02	1.285E-01	1.228E-02	0.218

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		8.543E-01	2.647E-01	3.179E-01	2.762E-02	2.688
		117.00	*	7.708E-02	2.157E-01	3.095E-01	2.558E-02	0.249
	+	209.75		1.418E+00	9.798E-01	1.291E+00	1.464E-01	1.098
		228.18		1.927E-01	2.148E-01	3.581E-01	4.308E-02	0.538
		277.60		8.501E-02	1.684E-01	2.742E-01	3.823E-02	0.310
		334.30		3.988E-01	1.563E+00	1.825E+00	2.201E-01	0.218
AM-241		59.54	*	2.305E-01	1.841E-01	2.836E-01	2.217E-02	0.813
CM-243	+	99.55		8.791E-01	2.724E-01	3.271E-01	2.842E-02	2.688
		103.76	*	4.119E-02	1.471E-01	1.676E-01	1.429E-02	0.246
		117.00		7.930E-02	2.220E-01	3.184E-01	2.632E-02	0.249
	+	209.75		1.398E+00	9.659E-01	1.273E+00	1.443E-01	1.098
		228.18		1.947E-01	2.170E-01	3.618E-01	4.353E-02	0.538
		277.60		8.570E-02	1.698E-01	2.765E-01	3.854E-02	0.310
AM-246		798.80		9.786E-03	1.274E-01	1.767E-01	1.948E-02	0.055
		1036.00		-1.739E-01	2.491E-01	3.865E-01	3.838E-02	-0.450
		1062.04		-1.180E-01	1.867E-01	2.802E-01	2.696E-02	-0.421
		1078.86	*	8.520E-03	1.114E-01	1.823E-01	1.715E-02	0.047
CM-247		278.00		6.681E-01	7.016E-01	1.154E+00	1.611E-01	0.579
		287.40		-5.349E-01	1.162E+00	1.815E+00	2.498E-01	-0.295
		402.60	*	1.466E-02	3.336E-02	5.572E-02	5.227E-03	0.263
CF-249		252.85		-5.017E-01	8.158E-01	1.280E+00	1.661E-01	-0.392
		333.44		3.685E-02	2.431E-01	2.404E-01	2.908E-02	0.153
		387.95	*	-3.874E-02	3.494E-02	5.431E-02	5.162E-03	-0.713
CF-251		176.60	*	6.037E-02	1.221E-01	2.053E-01	2.086E-02	0.294
		227.00		5.868E-02	3.600E-01	5.893E-01	7.063E-02	0.100
		285.00		-9.296E-01	1.634E+00	2.538E+00	3.511E-01	-0.366

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396003      *
* Acquisition date :  5-FEB-2010 19:00:13 Detector SN#     :               *
* Detector ID        : GAM22               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.74      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 21-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245396003           Analyst initials: MXR1          *
* Batch Number       : 944962               Sample Quantity : 1.4455E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope      :               *
* LCS DPM          :    0.000             LCS Isotope      :               *
* LCSD DPM         :    0.000             LCSD Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.472E+01	2.556E+00	4.400E-01	0.000E+00
SN-126	1.256E-01	1.197E-01	1.808E-01	0.000E+00
BA-137M	4.945E-01	7.957E-02	5.712E-02	0.000E+00
CS-137	5.227E-01	8.415E-02	6.038E-02	0.000E+00
EU-155	1.780E-01	1.443E-01	1.882E-01	0.000E+00
LU-177	2.035E+00	1.379E+00	1.905E+00	0.000E+00
TL-208	4.431E-01	8.341E-02	5.175E-02	0.000E+00
BI-211	3.322E+00	5.202E-01	2.954E-01	0.000E+00
BI-212	1.259E+00	3.876E-01	3.935E-01	0.000E+00
PB-212	1.528E+00	2.179E-01	8.941E-02	0.000E+00
PO-212	1.528E+00	2.179E-01	8.941E-02	0.000E+00
BI-214	9.535E-01	1.592E-01	1.006E-01	0.000E+00
PB-214	1.156E+00	1.904E-01	1.029E-01	0.000E+00
PO-214	1.156E+00	1.904E-01	1.029E-01	0.000E+00
PO-216	1.528E+00	2.179E-01	8.941E-02	0.000E+00
PO-218	1.156E+00	1.904E-01	1.029E-01	0.000E+00
RA-224	3.785E+00	1.130E+00	1.016E+00	0.000E+00
RA-226	9.535E-01	1.592E-01	1.006E-01	0.000E+00
AC-228	1.381E+00	3.072E-01	1.868E-01	0.000E+00
RA-228	1.381E+00	3.072E-01	1.868E-01	0.000E+00
TH-228	1.552E+00	2.212E-01	9.078E-02	0.000E+00
TH-230	9.535E-01	1.592E-01	1.006E-01	0.000E+00
U-231	4.152E+00	2.742E+00	1.857E+00	0.000E+00
TH-232	1.381E+00	3.072E-01	1.868E-01	0.000E+00
TH-234	3.424E+01	6.435E+00	2.380E+00	0.000E+00
U-234	9.535E-01	1.592E-01	1.006E-01	0.000E+00
U-235	9.269E-01	3.771E-01	3.561E-01	0.000E+00
NP-237	3.688E-01	3.594E-01	4.905E-01	0.000E+00
U-238	3.424E+01	6.435E+00	2.380E+00	0.000E+00
AM-243	3.375E-01	8.228E-02	1.049E-01	0.000E+00
ANH-511	1.508E-01	5.997E-02	3.939E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-2.644E-01	2.933E-01	4.746E-01	0.000E+00	NOT IDENT.
NA-22	-1.807E-02	3.218E-02	5.246E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.353E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.998E-02	2.228E-02	3.256E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.388E-02	7.758E-02	0.000E+00	FAIL ABUN
SC-46	-1.931E-02	3.111E-02	5.131E-02	0.000E+00	FAIL ABUN
V-48	9.206E-03	5.938E-02	1.019E-01	0.000E+00	NOT IDENT.
CR-51	-4.252E-02	3.194E-01	5.643E-01	0.000E+00	NOT IDENT.
MN-52	-8.854E-02	1.704E-01	2.698E-01	0.000E+00	NOT IDENT.
MN-54	-1.084E-02	3.031E-02	5.149E-02	0.000E+00	NOT IDENT.
CO-56	-1.005E-02	3.191E-02	5.419E-02	0.000E+00	FAIL ABUN
CO-57	1.243E-02	2.561E-02	4.464E-02	0.000E+00	NOT IDENT.
CO-58	-2.309E-02	3.065E-02	5.076E-02	0.000E+00	NOT IDENT.
FE-59	-2.964E-02	7.457E-02	1.217E-01	0.000E+00	FAIL ABUN
CO-60	-1.688E-02	2.937E-02	4.724E-02	0.000E+00	NOT IDENT.
ZN-65	6.613E-02	7.758E-02	1.194E-01	0.000E+00	NOT IDENT.
GE-68	7.968E-02	9.703E-01	1.641E+00	0.000E+00	NOT IDENT.
AS-73	5.536E-02	8.707E-01	1.580E+00	0.000E+00	NOT IDENT.
AS-74	-1.974E-02	7.569E-02	1.296E-01	0.000E+00	NOT IDENT.
SE-75	1.994E-03	4.471E-02	6.700E-02	0.000E+00	NOT IDENT.
BR-77	-7.287E+00	9.419E+00	1.513E+01	0.000E+00	FAIL ABUN
SR-82	1.950E-01	5.232E-01	5.011E-01	0.000E+00	NOT IDENT.
RB-83	-4.512E-02	5.928E-02	9.531E-02	0.000E+00	NOT IDENT.
RB-84	3.801E-02	5.880E-02	1.048E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.467E+00	1.244E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.836E-02	6.390E-02	0.000E+00	NOT IDENT.
RB-86	-8.860E-02	6.339E-01	1.056E+00	0.000E+00	NOT IDENT.
Y-88	-1.461E-03	2.354E-02	3.910E-02	0.000E+00	NOT IDENT.
ZR-88	3.655E-03	2.570E-02	4.493E-02	0.000E+00	NOT IDENT.
Y-91	2.886E-01	1.449E+01	2.488E+01	0.000E+00	NOT IDENT.
NB-94	1.251E-02	2.900E-02	5.042E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	5.475E-02	9.028E-02	0.000E+00	NOT IDENT.
NB-95M	8.367E-02	1.309E-01	2.034E-01	0.000E+00	NOT IDENT.
ZR-95	3.166E-02	5.932E-02	1.030E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.257E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.169E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.618E-01	1.009E+01	1.706E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.804E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	6.447E-03	3.111E-02	5.441E-02	0.000E+00	NOT IDENT.
RH-102	2.703E-02	2.539E-02	4.519E-02	0.000E+00	FAIL ABUN
RU-103	6.211E-03	3.422E-02	5.844E-02	0.000E+00	FAIL ABUN
RH-106	5.018E-04	2.745E-01	4.742E-01	0.000E+00	FAIL ABUN
RU-106	5.018E-04	2.745E-01	4.742E-01	0.000E+00	FAIL ABUN
AG-108M	-1.930E-02	2.813E-02	4.665E-02	0.000E+00	NOT IDENT.
CD-109	-2.581E+00	1.592E+00	1.837E+00	0.000E+00	NOT IDENT.
AG-110M	3.656E-02	3.699E-02	5.790E-02	0.000E+00	FAIL ABUN
IN-111	1.307E-01	1.138E+00	1.727E+00	0.000E+00	NOT IDENT.
IN-113M	1.957E-03	3.734E-02	6.505E-02	0.000E+00	NOT IDENT.
SN-113	1.957E-03	3.734E-02	6.505E-02	0.000E+00	NOT IDENT.
IN-114M	1.258E-01	1.866E-01	2.980E-01	0.000E+00	NOT IDENT.
CD-115	-2.059E+00	9.483E+00	1.651E+01	0.000E+00	NOT IDENT.
SN-117M	-9.063E-02	6.283E-02	9.336E-02	0.000E+00	NOT IDENT.
SB-122	-7.135E-01	1.816E+00	3.111E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.069E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.462E-02	3.197E-02	4.839E-02	0.000E+00	NOT IDENT.
I-124	1.888E-01	6.671E-01	1.014E+00	0.000E+00	NOT IDENT.
SB-124	-4.248E-02	5.456E-02	8.277E-02	0.000E+00	FAIL ABUN
SB-125	3.615E-02	7.706E-02	1.355E-01	0.000E+00	FAIL ABUN
TE-125M	6.047E+00	1.386E+01	1.721E+01	0.000E+00	NOT IDENT.
I-126	7.550E-02	1.838E-01	2.780E-01	0.000E+00	NOT IDENT.
SB-126	2.375E-02	1.401E-01	2.064E-01	0.000E+00	FAIL ABUN
SB-127	2.995E-01	1.134E+00	1.965E+00	0.000E+00	NOT IDENT.
XE-127	2.021E-02	4.446E-02	7.927E-02	0.000E+00	FAIL ABUN
I-131	-2.881E-03	1.001E-01	1.752E-01	0.000E+00	NOT IDENT.
TE-132	6.124E-01	6.726E-01	1.191E+00	0.000E+00	FAIL ABUN
BA-133	3.519E-02	3.937E-02	6.284E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.636E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.053E-02	7.035E-02	0.000E+00	FAIL ABUN
CS-135	2.287E-01	1.633E-01	2.567E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.514E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.886E-02	8.997E-02	1.497E-01	0.000E+00	FAIL ABUN
CE-139	-7.130E-03	3.178E-02	4.975E-02	0.000E+00	NOT IDENT.
BA-140	1.362E-01	2.137E-01	3.785E-01	0.000E+00	FAIL ABUN
LA-140	-1.401E-01	7.476E-02	1.034E-01	0.000E+00	FAIL ABUN

CE-141	0.000E+00	6.852E-02	1.162E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.460E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.521E-02	1.981E-01	3.599E-01	0.000E+00	NOT IDENT.
PM-144	-1.195E-02	2.922E-02	4.869E-02	0.000E+00	NOT IDENT.
PR-144	-8.095E-01	1.980E+00	3.300E+00	0.000E+00	NOT IDENT.
PM-146	3.381E-02	3.900E-02	6.901E-02	0.000E+00	NOT IDENT.
ND-147	-2.686E-01	4.678E-01	7.964E-01	0.000E+00	FAIL ABUN
PM-149	-7.623E+01	9.012E+01	1.458E+02	0.000E+00	NOT IDENT.
EU-152	-6.648E-02	1.020E-01	1.405E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.273E-01	1.705E-01	0.000E+00	FAIL ABUN
EU-154	-5.045E-02	8.994E-02	1.465E-01	0.000E+00	NOT IDENT.
TB-160	1.256E-01	1.166E-01	2.118E-01	0.000E+00	FAIL ABUN
HO-166M	2.497E-02	5.153E-02	8.978E-02	0.000E+00	FAIL ABUN
TM-171	-1.214E+01	3.108E+01	4.979E+01	0.000E+00	NOT IDENT.
LU-176	-1.680E-02	2.126E-02	3.659E-02	0.000E+00	NOT IDENT.
LU-177M	-1.198E-01	1.574E-01	2.622E-01	0.000E+00	NOT IDENT.
HF-181	2.438E-03	3.784E-02	6.446E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	4.312E-01	7.385E-01	0.000E+00	NOT IDENT.
TA-182	-5.645E-02	1.510E-01	2.526E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.487E-01	2.029E-01	0.000E+00	FAIL ABUN
RE-184	-1.338E-01	2.132E-01	3.570E-01	0.000E+00	NOT IDENT.
OS-185	2.847E-02	3.500E-02	6.259E-02	0.000E+00	NOT IDENT.
RE-188	1.340E-01	1.691E-01	3.109E-01	0.000E+00	NOT IDENT.
W-188	6.769E+00	7.242E+00	1.176E+01	0.000E+00	FAIL ABUN
IR-192	-6.427E-03	2.935E-02	5.172E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.707E-01	5.037E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.466E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-9.868E-01	7.751E+00	1.217E+01	0.000E+00	NOT IDENT.
TL-202	4.003E-02	6.229E-02	1.094E-01	0.000E+00	NOT IDENT.
HG-203	2.224E-02	3.773E-02	6.550E-02	0.000E+00	FAIL ABUN
BI-207	-2.334E-02	4.305E-02	6.755E-02	0.000E+00	FAIL ABUN
TL-207	3.729E-01	6.478E-01	1.024E+00	0.000E+00	FAIL ABUN
PO-209	1.440E+00	6.146E+00	1.071E+01	0.000E+00	NOT IDENT.
BI-210	1.266E+00	3.437E+00	6.372E+00	0.000E+00	NOT IDENT.
PB-210	1.266E+00	3.437E+00	6.372E+00	0.000E+00	NOT IDENT.
PO-210	1.266E+00	3.437E+00	6.372E+00	0.000E+00	NOT IDENT.
PB-211	-4.453E-01	8.787E-01	1.413E+00	0.000E+00	NOT IDENT.
PO-215	3.729E-01	6.478E-01	1.024E+00	0.000E+00	FAIL ABUN
RN-219	1.604E-01	3.662E-01	6.451E-01	0.000E+00	FAIL ABUN
RN-220	-6.487E+00	2.091E+01	3.604E+01	0.000E+00	NOT IDENT.
RA-223	3.729E-01	6.478E-01	1.024E+00	0.000E+00	FAIL ABUN
AC-227	-3.315E-01	3.634E-01	5.948E-01	0.000E+00	FAIL ABUN
TH-227	-3.315E-01	3.647E-01	5.948E-01	0.000E+00	FAIL ABUN
TH-229	-4.049E-01	4.693E-01	8.044E-01	0.000E+00	FAIL ABUN
PA-231	7.136E-02	1.384E+00	2.359E+00	0.000E+00	NOT IDENT.
TH-231	3.729E-01	6.478E-01	1.024E+00	0.000E+00	FAIL ABUN
PA-233	1.661E-02	5.478E-02	9.857E-02	0.000E+00	FAIL ABUN
PA-234	1.017E-01	2.372E-01	4.148E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	8.990E+00	1.246E+01	0.000E+00	FAIL ABUN
NP-236	2.803E-02	8.446E-02	1.356E-01	0.000E+00	FAIL ABUN
NP-239	7.708E-02	2.114E-01	3.289E-01	0.000E+00	FAIL ABUN
AM-241	2.305E-01	1.805E-01	3.057E-01	0.000E+00	NOT IDENT.
CM-243	4.119E-02	1.442E-01	1.786E-01	0.000E+00	FAIL ABUN
AM-246	8.520E-03	1.091E-01	1.845E-01	0.000E+00	NOT IDENT.
CM-247	1.466E-02	3.269E-02	5.767E-02	0.000E+00	NOT IDENT.
CF-249	-3.874E-02	3.424E-02	5.626E-02	0.000E+00	NOT IDENT.
CF-251	6.037E-02	1.196E-01	2.163E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:01:11.90

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396003.CNF;1
Sample date       : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 19:00:13.
Sample ID         : G245396003           Sample quantity  : 1.44550E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.74  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1939	10.67*	1.909E+00	2.472E+01	2.472E+01	10.55
SN-126	64.28	2161	9.60	4.314E+00	1.355E+01	1.355E+01	16.58
	86.94	132	8.90	7.396E+00	5.222E-01	5.222E-01	105.35
	87.57	132	37.00*	7.396E+00	1.256E-01	1.256E-01	97.28
BA-137M	661.65	614	89.98*	3.590E+00	4.940E-01	4.945E-01	16.42
CS-137	661.65	614	85.12*	3.590E+00	5.222E-01	5.227E-01	16.43
EU-155	48.70	------	4.60	1.648E+00	------	Line Not Found	------
	60.01	------	1.11	3.728E+00	------	Line Not Found	------
	86.54	132	30.90	7.396E+00	1.504E-01	1.513E-01	97.29
	105.31	118	20.70*	8.378E+00	1.770E-01	1.780E-01	82.70
LU-177	112.95	539	6.40	8.513E+00	2.571E+00	1.253E+01	28.73
	208.36	127	11.00*	7.183E+00	4.176E-01	2.035E+00	69.11
TL-208	277.35	------	6.80	6.182E+00	------	Line Not Found	------
	510.84	250	21.60	4.300E+00	6.983E-01	6.983E-01	41.42
	583.14	565	84.20*	3.931E+00	4.431E-01	4.431E-01	19.21
	860.37	83	12.46	2.923E+00	5.913E-01	5.913E-01	52.07
BI-211	72.87	------	1.27	5.897E+00	------	Line Not Found	------
	351.07	894	12.94*	5.401E+00	3.322E+00	3.322E+00	15.98
BI-212	727.18	191	11.80*	3.342E+00	1.259E+00	1.259E+00	31.43
	785.46	134	1.97	3.147E+00	5.618E+00	5.618E+00	46.09
	1620.62	------	2.75	1.789E+00	------	Line Not Found	------
PB-212	74.81	529	10.70	6.167E+00	2.082E+00	2.082E+00	26.57
	77.11	747	18.00	6.455E+00	1.670E+00	1.670E+00	17.84
	87.30	132	8.00	7.396E+00	5.809E-01	5.809E-01	97.79
	238.63	1761	44.60*	6.709E+00	1.528E+00	1.528E+00	14.55
	300.09	78	3.41	5.920E+00	1.003E+00	1.003E+00	81.50
PO-212	74.81	529	10.70	6.167E+00	2.082E+00	2.082E+00	26.57
	77.11	747	18.00	6.455E+00	1.670E+00	1.670E+00	17.84
	87.30	132	8.00	7.396E+00	5.809E-01	5.809E-01	97.79
	115.19	------	0.60	8.535E+00	------	Line Not Found	------
	238.63	1761	44.60*	6.709E+00	1.528E+00	1.528E+00	14.55
	300.09	78	3.41	5.920E+00	1.003E+00	1.003E+00	81.50

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
BI-214	609.31	648	46.30*	3.811E+00	9.535E-01	9.535E-01	17.03
	1120.29	229	15.10	2.345E+00	1.682E+00	1.683E+00	30.19
	1764.49	172	15.80	1.716E+00	1.649E+00	1.649E+00	21.18
PB-214	74.81	529	6.21	6.167E+00	3.587E+00	3.587E+00	25.95
	77.11	747	10.50	6.455E+00	2.862E+00	2.862E+00	19.40
	87.30	132	4.67	7.396E+00	9.951E-01	9.952E-01	97.58
	241.98	384	7.49	6.665E+00	1.996E+00	1.996E+00	30.98
	295.21	507	19.20	5.971E+00	1.149E+00	1.149E+00	23.37
	351.92	894	37.20*	5.401E+00	1.156E+00	1.156E+00	16.81
PO-214	74.81	529	6.21	6.167E+00	3.587E+00	3.587E+00	25.95
	77.11	747	10.50	6.455E+00	2.862E+00	2.862E+00	19.40
	87.30	132	4.67	7.396E+00	9.951E-01	9.952E-01	97.58
	241.98	384	7.49	6.665E+00	1.996E+00	1.996E+00	30.98
	295.21	507	19.20	5.971E+00	1.149E+00	1.149E+00	23.37
	351.92	894	37.20*	5.401E+00	1.156E+00	1.156E+00	16.81
PO-216	74.81	529	10.70	6.167E+00	2.082E+00	2.082E+00	26.57
	77.11	747	18.00	6.455E+00	1.670E+00	1.670E+00	17.84
	87.30	132	8.00	7.396E+00	5.809E-01	5.809E-01	97.79
	238.63	1761	44.60*	6.709E+00	1.528E+00	1.528E+00	14.55
	300.09	78	3.41	5.920E+00	1.003E+00	1.003E+00	81.50
PO-218	74.81	529	6.21	6.167E+00	3.587E+00	3.587E+00	25.95
	77.11	747	10.50	6.455E+00	2.862E+00	2.862E+00	19.40
	87.30	132	4.67	7.396E+00	9.951E-01	9.952E-01	97.58
	241.98	384	7.49	6.665E+00	1.996E+00	1.996E+00	30.98
	295.21	507	19.20	5.971E+00	1.149E+00	1.149E+00	23.37
	351.92	894	37.20*	5.401E+00	1.156E+00	1.156E+00	16.81
RA-224	240.98	384	3.95*	6.665E+00	3.785E+00	3.785E+00	30.47
RA-226	609.31	648	46.30*	3.811E+00	9.535E-01	9.535E-01	17.03
	1120.29	229	15.10	2.345E+00	1.682E+00	1.683E+00	30.19
	1764.49	172	15.80	1.716E+00	1.649E+00	1.649E+00	21.18
AC-228	338.32	398	11.40	5.527E+00	1.640E+00	1.640E+00	46.63
	911.07	411	27.70*	2.788E+00	1.381E+00	1.381E+00	22.70
	969.11	252	16.60	2.648E+00	1.487E+00	1.487E+00	32.14
RA-228	338.32	398	11.40	5.527E+00	1.640E+00	1.640E+00	46.63
	911.07	411	27.70*	2.788E+00	1.381E+00	1.381E+00	22.70
	969.11	252	16.60	2.648E+00	1.487E+00	1.487E+00	32.14
TH-228	74.81	529	10.70	6.167E+00	2.082E+00	2.114E+00	24.90
	77.11	747	18.00	6.455E+00	1.670E+00	1.695E+00	17.84
	87.30	132	8.00	7.396E+00	5.809E-01	5.898E-01	97.28
	238.63	1761	44.60*	6.709E+00	1.528E+00	1.552E+00	14.55
	300.09	78	3.41	5.920E+00	1.003E+00	1.018E+00	100.24
TH-230	609.31	648	46.30*	3.811E+00	9.535E-01	9.535E-01	17.03
	1120.29	229	15.10	2.345E+00	1.682E+00	1.682E+00	30.19
	1764.49	172	15.80	1.716E+00	1.649E+00	1.649E+00	21.18
U-231	84.21	166	7.00	7.201E+00	8.545E-01	1.073E+01	72.35
	92.29	5436	17.30	7.854E+00	1.039E+01	1.305E+02	9.77
	95.87	284	28.00*	7.958E+00	3.306E-01	4.152E+00	67.38
	108.00	------	13.10	8.439E+00	------ Line Not Found		------
TH-232	338.32	398	11.40	5.527E+00	1.640E+00	1.640E+00	23.36

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	911.07	411	27.70*	2.788E+00	1.381E+00	1.381E+00	22.70
	969.11	252	16.60	2.648E+00	1.487E+00	1.487E+00	32.14
TH-234	63.29	2161	3.80*	4.314E+00	3.424E+01	3.424E+01	19.18
	92.38	5436	5.41	7.854E+00	3.323E+01	3.323E+01	18.66
U-234	609.31	648	46.30*	3.811E+00	9.535E-01	9.535E-01	17.03
	1120.29	229	15.10	2.345E+00	1.682E+00	1.682E+00	30.19
	1764.49	172	15.80	1.716E+00	1.649E+00	1.649E+00	21.18
U-235	89.95	------	2.70	7.683E+00	------ Line Not Found		------
	93.35	5436	4.50	7.854E+00	3.994E+01	3.994E+01	28.40
	105.00	118	2.10	8.378E+00	1.744E+00	1.744E+00	87.48
	143.76	313	10.50*	8.362E+00	9.269E-01	9.269E-01	41.52
	163.35	146	4.70	8.031E+00	1.003E+00	1.003E+00	66.88
	185.71	1306	54.00	7.609E+00	8.254E-01	8.254E-01	14.25
	205.31	------	4.70	7.253E+00	------ Line Not Found		------
NP-237	86.50	132	12.60*	7.396E+00	3.688E-01	3.688E-01	99.44
	95.87	284	2.60	7.958E+00	3.560E+00	3.560E+00	71.22
U-238	63.29	2161	3.80*	4.314E+00	3.424E+01	3.424E+01	19.18
	92.38	5436	5.41	7.854E+00	3.323E+01	3.323E+01	9.77
AM-243	74.67	529	66.00*	6.167E+00	3.375E-01	3.375E-01	24.88
	86.72	132	0.34	7.396E+00	1.383E+01	1.383E+01	97.28
	117.66	------	0.55	8.550E+00	------ Line Not Found		------
	142.18	------	0.13	8.387E+00	------ Line Not Found		------
ANH-511	511.00	250	100.00*	4.300E+00	1.508E-01	1.508E-01	40.57

Flag: "*" = Keyline

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

Total number of lines in spectrum 42
Number of unidentified lines 1
Number of lines tentatively identified by NID 41 97.62%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.472E+01	2.472E+01	0.261E+01	10.55	
SN-126	1.00E+05Y	1.00	1.256E-01	1.256E-01	1.222E-01	97.28	
BA-137M	30.17Y	1.00	4.940E-01	4.945E-01	0.812E-01	16.42	
CS-137	30.17Y	1.00	5.222E-01	5.227E-01	0.859E-01	16.43	
EU-155	4.96Y	1.01	1.770E-01	1.780E-01	1.472E-01	82.70	
LU-177	6.71D	4.87	4.176E-01	2.035E+00	1.407E+00	69.11	
TL-208	1.41E+10Y	1.00	4.431E-01	4.431E-01	0.851E-01	19.21	
BI-211	7.04E+08Y	1.00	3.322E+00	3.322E+00	0.531E+00	15.98	
BI-212	1.41E+10Y	1.00	1.259E+00	1.259E+00	0.396E+00	31.43	
PB-212	1.41E+10Y	1.00	1.528E+00	1.528E+00	0.222E+00	14.55	
PO-212	1.41E+10Y	1.00	1.528E+00	1.528E+00	0.222E+00	14.55	
BI-214	1600.00Y	1.00	9.535E-01	9.535E-01	1.624E-01	17.03	
PB-214	1600.00Y	1.00	1.156E+00	1.156E+00	0.194E+00	16.81	
PO-214	1600.00Y	1.00	1.156E+00	1.156E+00	0.194E+00	16.81	
PO-216	1.41E+10Y	1.00	1.528E+00	1.528E+00	0.222E+00	14.55	
PO-218	1600.00Y	1.00	1.156E+00	1.156E+00	0.194E+00	16.81	
RA-224	1.41E+10Y	1.00	3.785E+00	3.785E+00	1.153E+00	30.47	
RA-226	1600.00Y	1.00	9.535E-01	9.535E-01	1.624E-01	17.03	
AC-228	1.41E+10Y	1.00	1.381E+00	1.381E+00	0.313E+00	22.70	
RA-228	1.41E+10Y	1.00	1.381E+00	1.381E+00	0.313E+00	22.70	
TH-228	1.91Y	1.02	1.528E+00	1.552E+00	0.226E+00	14.55	
TH-230	4.47E+09Y	1.00	9.535E-01	9.535E-01	1.624E-01	17.03	
U-231	4.20D	12.6	3.306E-01	4.152E+00	2.798E+00	67.38	
TH-232	1.41E+10Y	1.00	1.381E+00	1.381E+00	0.313E+00	22.70	
TH-234	4.47E+09Y	1.00	3.424E+01	3.424E+01	0.657E+01	19.18	
U-234	4.47E+09Y	1.00	9.535E-01	9.535E-01	1.624E-01	17.03	
U-235	7.04E+08Y	1.00	9.269E-01	9.269E-01	3.848E-01	41.52	
NP-237	2.14E+06Y	1.00	3.688E-01	3.688E-01	3.668E-01	99.44	
U-238	4.47E+09Y	1.00	3.424E+01	3.424E+01	0.657E+01	19.18	
AM-243	7380.00Y	1.00	3.375E-01	3.375E-01	0.840E-01	24.88	
ANH-511	1.00E+09Y	1.00	1.508E-01	1.508E-01	0.612E-01	40.57	
	Total Activity :		1.234E+02	1.289E+02			

Grand Total Activity : 1.234E+02 1.289E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.49	394	913	1.14	197.16	194	9	5.48E-02	29.7	8.15E+00	T
0	270.51	125	423	1.45	540.89	534	11	1.73E-02	66.3	6.27E+00	T
0	328.14	109	349	2.00	656.05	651	11	1.51E-02	69.1	5.62E+00	T
0	463.11	111	210	1.40	925.78	921	11	1.55E-02	53.7	4.58E+00	T
0	767.99	296	237	3.41	1535.20	1527	22	4.12E-02	29.6	3.20E+00	T
0	795.41	98	91	1.61	1590.02	1584	14	1.37E-02	46.4	3.12E+00	T
3	964.71	124	98	3.10	1928.52	1917	30	1.72E-02	49.5	2.66E+00	T
0	1001.00	398	99	1.94	2001.06	1994	18	5.52E-02	15.4	2.58E+00	T
0	1238.73	90	118	1.52	2476.46	2470	15	1.25E-02	57.8	2.16E+00	T
0	1383.82	7	111	0.67	2766.65	2753	20	9.22E-04	****	1.98E+00	T
0	1729.97	39	24	3.30	3459.12	3448	19	5.37E-03	72.0	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:01:17.50

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396003.CNF;1 *
* Acquisition date  : 5-FEB-2010 19:00:13.  Detector SN#     :             *
* Detector ID       : GAM22                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:02.74          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 21-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245396003            Analyst initials: MXR1         *
* Batch Number      : 944962                Sample Quantity : 1.44550E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.472E+01	2.609E+00	4.378E-01	4.010E-02	56.478
SN-126	1.256E-01	1.222E-01	1.691E-01	1.596E-02	0.743
BA-137M	4.945E-01	8.119E-02	5.580E-02	5.884E-03	8.862
CS-137	5.227E-01	8.587E-02	5.898E-02	6.228E-03	8.862
EU-155	1.780E-01	1.472E-01	1.767E-01	1.517E-02	1.007
LU-177	2.035E+00	1.407E+00	1.814E+00	2.048E-01	1.122
TL-208	4.431E-01	8.512E-02	5.041E-02	5.466E-03	8.789
BI-211	3.322E+00	5.308E-01	2.845E-01	3.319E-02	11.678
BI-212	1.259E+00	3.955E-01	3.853E-01	4.602E-02	3.267
PB-212	1.528E+00	2.223E-01	8.540E-02	1.128E-02	17.892
PO-212	1.528E+00	2.223E-01	8.540E-02	1.128E-02	17.892
BI-214	9.535E-01	1.624E-01	9.813E-02	1.141E-02	9.717
PB-214	1.156E+00	1.943E-01	9.915E-02	1.264E-02	11.657
PO-214	1.156E+00	1.943E-01	9.915E-02	1.264E-02	11.657
PO-216	1.528E+00	2.223E-01	8.540E-02	1.128E-02	17.892
PO-218	1.156E+00	1.943E-01	9.915E-02	1.264E-02	11.657
RA-224	3.785E+00	1.153E+00	9.709E-01	1.215E-01	3.898
RA-226	9.535E-01	1.624E-01	9.813E-02	1.141E-02	9.717

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.381E+00	3.134E-01	1.838E-01	2.436E-02	7.511
RA-228	1.381E+00	3.134E-01	1.838E-01	2.436E-02	7.511
TH-228	1.552E+00	2.257E-01	8.672E-02	1.146E-02	17.892
TH-230	9.535E-01	1.624E-01	9.813E-02	1.141E-02	9.717
U-231	4.152E+00	2.798E+00	1.740E+00	1.545E-01	2.386
TH-232	1.381E+00	3.134E-01	1.838E-01	2.436E-02	7.511
TH-234	3.424E+01	6.566E+00	2.211E+00	3.849E-01	15.483
U-234	9.535E-01	1.624E-01	9.813E-02	1.141E-02	9.717
U-235	9.269E-01	3.848E-01	3.365E-01	5.936E-02	2.755
NP-237	3.688E-01	3.668E-01	4.586E-01	1.038E-01	0.804
U-238	3.424E+01	6.566E+00	2.211E+00	3.849E-01	15.483
AM-243	3.375E-01	8.396E-02	9.775E-02	7.968E-03	3.453
ANH-511	1.508E-01	6.120E-02	3.826E-02	3.833E-03	3.943

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.644E-01		2.993E-01	4.602E-01	4.803E-02	-0.574
NA-22	-1.807E-02		3.283E-02	5.202E-02	4.483E-03	-0.347
NA-24	-2.799E-01		3.241E-01	Half-Life too short		
AL-26	-1.998E-02		2.273E-02	3.256E-02	2.663E-03	-0.614
TI-44	3.081E-01	+	5.498E-02	7.239E-02	6.137E-03	4.257
SC-46	-1.931E-02		3.174E-02	5.046E-02	5.649E-03	-0.383
V-48	9.206E-03		6.059E-02	1.005E-01	1.054E-02	0.092
CR-51	-4.252E-02		3.259E-01	5.425E-01	7.024E-02	-0.078
MN-52	-8.854E-02		1.738E-01	2.683E-01	2.397E-02	-0.330
MN-54	-1.084E-02		3.093E-02	5.057E-02	5.618E-03	-0.214
CO-56	-1.005E-02		3.256E-02	5.324E-02	5.927E-03	-0.189
CO-57	1.243E-02		2.613E-02	4.203E-02	3.466E-03	0.296
CO-58	-2.309E-02		3.128E-02	4.982E-02	5.516E-03	-0.464
FE-59	-2.964E-02		7.609E-02	1.202E-01	1.178E-02	-0.246
CO-60	-1.688E-02		2.997E-02	4.690E-02	4.182E-03	-0.360
ZN-65	6.613E-02		7.916E-02	1.181E-01	1.053E-02	0.560
GE-68	7.968E-02		9.901E-01	1.621E+00	1.528E-01	0.049
AS-73	5.536E-02		8.884E-01	1.462E+00	1.105E-01	0.038
AS-74	-1.974E-02		7.723E-02	1.263E-01	1.309E-02	-0.156
SE-75	1.994E-03		4.562E-02	6.415E-02	8.634E-03	0.031
BR-77	-7.287E+00		9.611E+00	1.470E+01	1.480E+00	-0.496
SR-82	1.950E-01		5.339E-01	4.913E-01	5.388E-02	0.397
RB-83	-4.512E-02		6.049E-02	9.261E-02	9.321E-03	-0.487
RB-84	3.801E-02		6.000E-02	1.030E-01	1.152E-02	0.369
KR-85	2.329E+01		7.620E+00	1.209E+01	1.213E+00	1.927
SR-85	1.197E-01		3.914E-02	6.208E-02	6.229E-03	1.927
RB-86	-8.860E-02		6.468E-01	1.043E+00	9.840E-02	-0.085
Y-88	-1.461E-03		2.403E-02	3.911E-02	3.162E-03	-0.037
ZR-88	3.655E-03		2.622E-02	4.339E-02	4.040E-03	0.084
Y-91	2.886E-01		1.479E+01	2.464E+01	2.026E+00	0.012

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	1.251E-02		2.960E-02	4.933E-02	5.286E-03	0.254
NB-95	2.269E-01		5.587E-02	8.849E-02	9.677E-03	2.564
NB-95M	8.367E-02		1.335E-01	1.942E-01	2.568E-02	0.431
ZR-95	3.166E-02		6.053E-02	1.010E-01	1.172E-02	0.314
NB-97	1.820E-01		6.413E-02	Half-Life too short		
ZR-97	6.500E+00		1.107E+00	Half-Life too short		
MO-99	-1.618E-01		1.030E+01	1.671E+01	2.766E+00	-0.010
TC-99M	1.101E+10		3.471E+10	Half-Life too short		
RH-101	6.447E-03		3.175E-02	5.176E-02	5.647E-03	0.125
RH-102	2.703E-02		2.591E-02	4.382E-02	4.310E-03	0.617
RU-103	6.211E-03		3.491E-02	5.672E-02	8.514E-03	0.109
RH-106	5.018E-04		2.801E-01	4.626E-01	6.755E-02	0.001
RU-106	5.018E-04		2.801E-01	4.626E-01	4.832E-02	0.001
AG-108M	-1.930E-02		2.871E-02	4.515E-02	4.469E-03	-0.428
CD-109	-2.581E+00		1.625E+00	1.718E+00	1.630E-01	-1.503
AG-110M	3.656E-02		3.774E-02	5.655E-02	6.078E-03	0.646
IN-111	1.307E-01		1.161E+00	1.651E+00	2.094E-01	0.079
IN-113M	1.957E-03		3.810E-02	6.282E-02	5.999E-03	0.031
SN-113	1.957E-03		3.810E-02	6.282E-02	5.999E-03	0.031
IN-114M	1.258E-01		1.904E-01	2.832E-01	3.011E-02	0.444
CD-115	-2.059E+00		9.677E+00	1.605E+01	1.620E+00	-0.128
SN-117M	-9.063E-02		6.411E-02	8.840E-02	8.384E-03	-1.025
SB-122	-7.135E-01		1.853E+00	3.028E+00	3.104E-01	-0.236
I-123	-8.738E+00		4.117E+00	Half-Life too short		
TE-123M	-3.462E-02		3.263E-02	4.582E-02	4.376E-03	-0.756
I-124	1.888E-01		6.808E-01	9.882E-01	1.026E-01	0.191
SB-124	-4.248E-02		5.568E-02	8.262E-02	7.349E-03	-0.514
SB-125	3.615E-02		7.864E-02	1.311E-01	1.272E-02	0.276
TE-125M	6.047E+00		1.415E+01	1.617E+01	1.637E+00	0.374
I-126	7.550E-02		1.875E-01	2.717E-01	2.870E-02	0.278
SB-126	2.375E-02		1.429E-01	2.021E-01	2.179E-02	0.118
SB-127	2.995E-01		1.157E+00	1.921E+00	2.503E-01	0.156
XE-127	2.021E-02		4.537E-02	7.545E-02	8.364E-03	0.268
I-131	-2.881E-03		1.021E-01	1.689E-01	1.871E-02	-0.017
TE-132	6.124E-01		6.863E-01	1.136E+00	2.028E-01	0.539
BA-133	3.519E-02		4.018E-02	6.055E-02	9.048E-03	0.581
I-133	-1.168E-03		2.875E-03	Half-Life too short		
CS-134	1.081E-01	+	5.156E-02	6.901E-02	7.639E-03	1.567
CS-135	2.287E-01		1.666E-01	2.458E-01	3.555E-02	0.930
I-135	-2.025E+09		3.324E+09	Half-Life too short		
CS-136	-1.886E-02		9.181E-02	1.478E-01	1.494E-02	-0.128
CE-139	-7.130E-03		3.243E-02	4.716E-02	4.625E-03	-0.151
BA-140	1.362E-01		2.181E-01	3.680E-01	1.235E-01	0.370
LA-140	-1.401E-01		7.629E-02	1.031E-01	9.036E-03	-1.359
CE-141	1.486E-01		6.991E-02	1.099E-01	1.000E-02	1.353
CE-143	7.382E-04		1.255E-04	Half-Life too short		
CE-144	-5.521E-02		2.021E-01	3.395E-01	5.270E-02	-0.163
PM-144	-1.195E-02		2.982E-02	4.762E-02	5.093E-03	-0.251

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	-8.095E-01		2.021E+00	3.227E+00	3.450E-01	-0.251
PM-146	3.381E-02		3.980E-02	6.685E-02	7.769E-03	0.506
ND-147	-2.686E-01		4.774E-01	7.742E-01	1.228E-01	-0.347
PM-149	-7.623E+01		9.196E+01	1.399E+02	2.646E+01	-0.545
EU-152	-6.648E-02		1.040E-01	1.353E-01	1.626E-02	-0.491
GD-153	4.193E-01	+	1.299E-01	1.598E-01	1.405E-02	2.623
EU-154	-5.045E-02		9.177E-02	1.453E-01	1.642E-02	-0.347
TB-160	1.256E-01		1.190E-01	2.083E-01	2.329E-02	0.603
HO-166M	2.497E-02		5.258E-02	8.785E-02	9.445E-03	0.284
TM-171	-1.214E+01		3.172E+01	4.630E+01	3.498E+00	-0.262
LU-176	-1.680E-02		2.169E-02	3.514E-02	4.610E-03	-0.478
LU-177M	-1.198E-01		1.606E-01	2.535E-01	2.397E-02	-0.473
HF-181	2.438E-03		3.861E-02	6.253E-02	6.173E-03	0.039
W-181	1.073E+00		4.400E-01	6.864E-01	5.117E-02	1.564
TA-182	-5.645E-02		1.540E-01	2.502E-01	2.081E-02	-0.226
RE-183	2.346E-01	+	1.517E-01	1.922E-01	1.854E-02	1.220
RE-184	-1.338E-01		2.176E-01	3.414E-01	4.430E-02	-0.392
OS-185	2.847E-02		3.571E-02	6.111E-02	6.422E-03	0.466
RE-188	1.340E-01		1.725E-01	2.943E-01	2.747E-02	0.455
W-188	6.769E+00		7.390E+00	1.128E+01	1.540E+00	0.600
IR-192	-6.427E-03		2.995E-02	4.971E-02	6.353E-03	-0.129
AU-195	1.221E+00	+	3.783E-01	4.722E-01	4.118E-02	2.586
TL-200	-7.314E-05		2.279E-04	Half-Life too short		
TL-201	-9.868E-01		7.910E+00	1.154E+01	1.137E+00	-0.086
TL-202	4.003E-02		6.357E-02	1.059E-01	1.020E-02	0.378
HG-203	2.224E-02		3.850E-02	6.278E-02	8.886E-03	0.354
BI-207	-2.334E-02		4.393E-02	6.671E-02	6.405E-03	-0.350
TL-207	3.729E-01		6.610E-01	9.848E-01	1.957E-01	0.379
PO-209	1.440E+00		6.271E+00	1.053E+01	1.180E+00	0.137
BI-210	1.266E+00		3.508E+00	5.882E+00	5.465E-01	0.215
PB-210	1.266E+00		3.508E+00	5.882E+00	5.465E-01	0.215
PO-210	1.266E+00		3.507E+00	5.882E+00	4.946E-01	0.215
PB-211	-4.453E-01		8.966E-01	1.366E+00	8.573E-01	-0.326
PO-215	3.729E-01		6.610E-01	9.848E-01	1.957E-01	0.379
RN-219	1.604E-01		3.737E-01	6.232E-01	9.643E-02	0.257
RN-220	-6.487E+00		2.134E+01	3.506E+01	3.573E+00	-0.185
RA-223	3.729E-01		6.610E-01	9.848E-01	1.957E-01	0.379
AC-227	-3.315E-01		3.708E-01	5.691E-01	1.038E-01	-0.582
TH-227	-3.315E-01		3.721E-01	5.691E-01	1.171E-01	-0.582
TH-229	-4.049E-01		4.789E-01	7.649E-01	8.224E-02	-0.529
PA-231	7.136E-02		1.413E+00	2.262E+00	4.223E-01	0.032
TH-231	3.729E-01		6.610E-01	9.848E-01	1.957E-01	0.379
PA-233	1.661E-02		5.589E-02	9.470E-02	1.241E-02	0.175
PA-234	1.017E-01		2.421E-01	4.086E-01	8.121E-02	0.249
PA-234M	4.770E+01	+	9.174E+00	1.228E+01	1.408E+00	3.884
NP-236	2.803E-02		8.618E-02	1.285E-01	1.228E-02	0.218
NP-239	7.708E-02		2.157E-01	3.095E-01	2.558E-02	0.249
AM-241	2.305E-01		1.841E-01	2.836E-01	2.217E-02	0.813

Sample ID : G245396003 Acquisition date : 5-FEB-2010 19:00:13

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	4.119E-02		1.471E-01	1.676E-01	1.429E-02	0.246
AM-246	8.520E-03		1.114E-01	1.823E-01	1.715E-02	0.047
CM-247	1.466E-02		3.336E-02	5.572E-02	5.227E-03	0.263
CF-249	-3.874E-02		3.494E-02	5.431E-02	5.162E-03	-0.713
CF-251	6.037E-02		1.221E-01	2.053E-01	2.086E-02	0.294

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245396003           *
* Acquisition date  :  5-FEB-2010 19:00:13 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.74      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 21-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245396003           Analyst initials: MXR1           *
* Batch Number      : 944962               Sample Quantity : 1.4455E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.472E+01	2.556E+00	2.201E-01	1.304E+00
SN-126	1.256E-01	1.197E-01	9.045E-02	6.109E-02
BA-137M	4.945E-01	7.957E-02	2.857E-02	4.060E-02
CS-137	5.227E-01	8.415E-02	3.021E-02	4.294E-02
EU-155	1.780E-01	1.443E-01	9.416E-02	7.360E-02
LU-177	2.035E+00	1.379E+00	9.529E-01	7.033E-01
TL-208	4.431E-01	8.341E-02	2.589E-02	4.256E-02
BI-211	3.322E+00	5.202E-01	1.478E-01	2.654E-01
BI-212	1.259E+00	3.876E-01	1.969E-01	1.978E-01
PB-212	1.528E+00	2.179E-01	4.473E-02	1.112E-01
PO-212	1.528E+00	2.179E-01	4.473E-02	1.112E-01
BI-214	9.535E-01	1.592E-01	5.035E-02	8.121E-02
PB-214	1.156E+00	1.904E-01	5.149E-02	9.713E-02
PO-214	1.156E+00	1.904E-01	5.149E-02	9.713E-02
PO-216	1.528E+00	2.179E-01	4.473E-02	1.112E-01
PO-218	1.156E+00	1.904E-01	5.149E-02	9.713E-02
RA-224	3.785E+00	1.130E+00	5.084E-01	5.767E-01
RA-226	9.535E-01	1.592E-01	5.035E-02	8.121E-02
AC-228	1.381E+00	3.072E-01	9.346E-02	1.567E-01
RA-228	1.381E+00	3.072E-01	9.346E-02	1.567E-01
TH-228	1.552E+00	2.212E-01	4.542E-02	1.129E-01
TH-230	9.535E-01	1.592E-01	5.034E-02	8.121E-02
U-231	4.152E+00	2.742E+00	9.291E-01	1.399E+00
TH-232	1.381E+00	3.072E-01	9.346E-02	1.567E-01
TH-234	3.424E+01	6.435E+00	1.191E+00	3.283E+00
U-234	9.535E-01	1.592E-01	5.034E-02	8.121E-02
U-235	9.269E-01	3.771E-01	1.782E-01	1.924E-01
NP-237	3.688E-01	3.594E-01	2.454E-01	1.834E-01
U-238	3.424E+01	6.435E+00	1.191E+00	3.283E+00
AM-243	3.375E-01	8.228E-02	5.247E-02	4.198E-02
ANH-511	1.508E-01	5.997E-02	1.971E-02	3.060E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.644E-01	2.933E-01	2.374E-01	1.496E-01	NOT IDENT.
NA-22	-1.807E-02	3.218E-02	2.625E-02	1.642E-02	NOT IDENT.
NA-24	-2.799E+05	6.353E+05	0.000E+00	3.241E+05	SHORT HLIF
AL-26	-1.998E-02	2.228E-02	1.629E-02	1.137E-02	NOT IDENT.
TI-44	3.081E-01	5.388E-02	3.881E-02	2.749E-02	FAIL ABUN
SC-46	-1.931E-02	3.111E-02	2.567E-02	1.587E-02	FAIL ABUN
V-48	9.206E-03	5.938E-02	5.099E-02	3.029E-02	NOT IDENT.
CR-51	-4.252E-02	3.194E-01	2.823E-01	1.630E-01	NOT IDENT.
MN-52	-8.854E-02	1.704E-01	1.350E-01	8.692E-02	NOT IDENT.
MN-54	-1.084E-02	3.031E-02	2.576E-02	1.546E-02	NOT IDENT.
CO-56	-1.005E-02	3.191E-02	2.711E-02	1.628E-02	FAIL ABUN
CO-57	1.243E-02	2.561E-02	2.233E-02	1.307E-02	NOT IDENT.
CO-58	-2.309E-02	3.065E-02	2.540E-02	1.564E-02	NOT IDENT.
FE-59	-2.964E-02	7.457E-02	6.086E-02	3.805E-02	FAIL ABUN
CO-60	-1.688E-02	2.937E-02	2.364E-02	1.498E-02	NOT IDENT.
ZN-65	6.613E-02	7.758E-02	5.975E-02	3.958E-02	NOT IDENT.
GE-68	7.968E-02	9.703E-01	8.209E-01	4.950E-01	NOT IDENT.
AS-73	5.536E-02	8.707E-01	7.902E-01	4.442E-01	NOT IDENT.
AS-74	-1.974E-02	7.569E-02	6.484E-02	3.862E-02	NOT IDENT.
SE-75	1.994E-03	4.471E-02	3.352E-02	2.281E-02	NOT IDENT.
BR-77	-7.287E+00	9.419E+00	7.569E+00	4.805E+00	FAIL ABUN
SR-82	1.950E-01	5.232E-01	2.507E-01	2.669E-01	NOT IDENT.
RB-83	-4.512E-02	5.928E-02	4.768E-02	3.025E-02	NOT IDENT.
RB-84	3.801E-02	5.880E-02	5.242E-02	3.000E-02	NOT IDENT.
KR-85	2.329E+01	7.467E+00	6.224E+00	3.810E+00	NOT IDENT.
SR-85	1.197E-01	3.836E-02	3.197E-02	1.957E-02	NOT IDENT.
RB-86	-8.860E-02	6.339E-01	5.282E-01	3.234E-01	NOT IDENT.
Y-88	-1.461E-03	2.354E-02	1.956E-02	1.201E-02	NOT IDENT.
ZR-88	3.655E-03	2.570E-02	2.248E-02	1.311E-02	NOT IDENT.
Y-91	2.886E-01	1.449E+01	1.245E+01	7.394E+00	NOT IDENT.
NB-94	1.251E-02	2.900E-02	2.523E-02	1.480E-02	NOT IDENT.
NB-95	2.269E-01	5.475E-02	4.517E-02	2.793E-02	NOT IDENT.
NB-95M	8.367E-02	1.309E-01	1.018E-01	6.677E-02	NOT IDENT.
ZR-95	3.166E-02	5.932E-02	5.155E-02	3.027E-02	NOT IDENT.
NB-97	1.820E+05	1.257E+05	0.000E+00	6.413E+04	SHORT HLIF
ZR-97	6.500E+06	2.169E+06	0.000E+00	1.107E+06	SHORT HLIF
MO-99	-1.618E-01	1.009E+01	8.535E+00	5.148E+00	NOT IDENT.
TC-99M	1.101E+16	6.804E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	6.447E-03	3.111E-02	2.722E-02	1.587E-02	NOT IDENT.
RH-102	2.703E-02	2.539E-02	2.261E-02	1.295E-02	FAIL ABUN
RU-103	6.211E-03	3.422E-02	2.924E-02	1.746E-02	FAIL ABUN
RH-106	5.018E-04	2.745E-01	2.373E-01	1.401E-01	FAIL ABUN
RU-106	5.018E-04	2.745E-01	2.373E-01	1.401E-01	FAIL ABUN
AG-108M	-1.930E-02	2.813E-02	2.334E-02	1.435E-02	NOT IDENT.
CD-109	-2.581E+00	1.592E+00	9.188E-01	8.123E-01	NOT IDENT.
AG-110M	3.656E-02	3.699E-02	2.897E-02	1.887E-02	FAIL ABUN
IN-111	1.307E-01	1.138E+00	8.640E-01	5.805E-01	NOT IDENT.
IN-113M	1.957E-03	3.734E-02	3.255E-02	1.905E-02	NOT IDENT.
SN-113	1.957E-03	3.734E-02	3.255E-02	1.905E-02	NOT IDENT.
IN-114M	1.258E-01	1.866E-01	1.491E-01	9.520E-02	NOT IDENT.
CD-115	-2.059E+00	9.483E+00	8.259E+00	4.838E+00	NOT IDENT.
SN-117M	-9.063E-02	6.283E-02	4.671E-02	3.206E-02	NOT IDENT.
SB-122	-7.135E-01	1.816E+00	1.556E+00	9.267E-01	NOT IDENT.
I-123	-8.738E+06	8.069E+06	0.000E+00	4.117E+06	SHORT HLIF
TE-123M	-3.462E-02	3.197E-02	2.421E-02	1.631E-02	NOT IDENT.
I-124	1.888E-01	6.671E-01	5.071E-01	3.404E-01	NOT IDENT.
SB-124	-4.248E-02	5.456E-02	4.141E-02	2.784E-02	FAIL ABUN
SB-125	3.615E-02	7.706E-02	6.777E-02	3.932E-02	FAIL ABUN
TE-125M	6.047E+00	1.386E+01	8.610E+00	7.073E+00	NOT IDENT.
I-126	7.550E-02	1.838E-01	1.391E-01	9.376E-02	NOT IDENT.
SB-126	2.375E-02	1.401E-01	1.033E-01	7.147E-02	FAIL ABUN
SB-127	2.995E-01	1.134E+00	9.830E-01	5.787E-01	NOT IDENT.
XE-127	2.021E-02	4.446E-02	3.966E-02	2.268E-02	FAIL ABUN
I-131	-2.881E-03	1.001E-01	8.763E-02	5.107E-02	NOT IDENT.
TE-132	6.124E-01	6.726E-01	5.958E-01	3.432E-01	FAIL ABUN
BA-133	3.519E-02	3.937E-02	3.144E-02	2.009E-02	NOT IDENT.
I-133	-1.168E+03	5.636E+03	0.000E+00	2.875E+03	SHORT HLIF
CS-134	1.081E-01	5.053E-02	3.519E-02	2.578E-02	FAIL ABUN
CS-135	2.287E-01	1.633E-01	1.284E-01	8.330E-02	NOT IDENT.
I-135	-2.025E+15	6.514E+15	0.000E+00	3.324E+15	SHORT HLIF
CS-136	-1.886E-02	8.997E-02	7.489E-02	4.590E-02	FAIL ABUN
CE-139	-7.130E-03	3.178E-02	2.489E-02	1.622E-02	NOT IDENT.
BA-140	1.362E-01	2.137E-01	1.894E-01	1.090E-01	FAIL ABUN
LA-140	-1.401E-01	7.476E-02	5.173E-02	3.814E-02	FAIL ABUN

CE-141	1.486E-01	6.852E-02	5.815E-02	3.496E-02	NOT IDENT.
CE-143	7.382E+02	2.460E+02	0.000E+00	1.255E+02	SHORT HLIF
CE-144	-5.521E-02	1.981E-01	1.800E-01	1.011E-01	NOT IDENT.
PM-144	-1.195E-02	2.922E-02	2.436E-02	1.491E-02	NOT IDENT.
PR-144	-8.095E-01	1.980E+00	1.651E+00	1.010E+00	NOT IDENT.
PM-146	3.381E-02	3.900E-02	3.453E-02	1.990E-02	NOT IDENT.
ND-147	-2.686E-01	4.678E-01	3.984E-01	2.387E-01	FAIL ABUN
PM-149	-7.623E+01	9.012E+01	7.296E+01	4.598E+01	NOT IDENT.
EU-152	-6.648E-02	1.020E-01	7.030E-02	5.202E-02	FAIL ABUN
GD-153	4.193E-01	1.273E-01	8.531E-02	6.495E-02	FAIL ABUN
EU-154	-5.045E-02	8.994E-02	7.330E-02	4.589E-02	NOT IDENT.
TB-160	1.256E-01	1.166E-01	1.060E-01	5.948E-02	FAIL ABUN
HO-166M	2.497E-02	5.153E-02	4.492E-02	2.629E-02	FAIL ABUN
TM-171	-1.214E+01	3.108E+01	2.491E+01	1.586E+01	NOT IDENT.
LU-176	-1.680E-02	2.126E-02	1.831E-02	1.084E-02	NOT IDENT.
LU-177M	-1.198E-01	1.574E-01	1.312E-01	8.029E-02	NOT IDENT.
HF-181	2.438E-03	3.784E-02	3.225E-02	1.931E-02	NOT IDENT.
W-181	1.073E+00	4.312E-01	3.694E-01	2.200E-01	NOT IDENT.
TA-182	-5.645E-02	1.510E-01	1.264E-01	7.702E-02	FAIL ABUN
RE-183	2.346E-01	1.487E-01	1.015E-01	7.586E-02	FAIL ABUN
RE-184	-1.338E-01	2.132E-01	1.786E-01	1.088E-01	NOT IDENT.
OS-185	2.847E-02	3.500E-02	3.131E-02	1.786E-02	NOT IDENT.
RE-188	1.340E-01	1.691E-01	1.556E-01	8.627E-02	NOT IDENT.
W-188	6.769E+00	7.242E+00	5.882E+00	3.695E+00	FAIL ABUN
IR-192	-6.427E-03	2.935E-02	2.588E-02	1.497E-02	FAIL ABUN
AU-195	1.221E+00	3.707E-01	2.520E-01	1.891E-01	FAIL ABUN
TL-200	-7.314E+01	4.466E+02	0.000E+00	2.279E+02	SHORT HLIF
TL-201	-9.868E-01	7.751E+00	6.089E+00	3.955E+00	NOT IDENT.
TL-202	4.003E-02	6.229E-02	5.474E-02	3.178E-02	NOT IDENT.
HG-203	2.224E-02	3.773E-02	3.277E-02	1.925E-02	FAIL ABUN
BI-207	-2.334E-02	4.305E-02	3.380E-02	2.197E-02	FAIL ABUN
TL-207	3.729E-01	6.478E-01	5.124E-01	3.305E-01	FAIL ABUN
PO-209	1.440E+00	6.146E+00	5.357E+00	3.135E+00	NOT IDENT.
BI-210	1.266E+00	3.437E+00	3.188E+00	1.754E+00	NOT IDENT.
PB-210	1.266E+00	3.437E+00	3.188E+00	1.754E+00	NOT IDENT.
PO-210	1.266E+00	3.437E+00	3.188E+00	1.754E+00	NOT IDENT.
PB-211	-4.453E-01	8.787E-01	7.071E-01	4.483E-01	NOT IDENT.
PO-215	3.729E-01	6.478E-01	5.124E-01	3.305E-01	FAIL ABUN
RN-219	1.604E-01	3.662E-01	3.227E-01	1.869E-01	FAIL ABUN
RN-220	-6.487E+00	2.091E+01	1.803E+01	1.067E+01	NOT IDENT.
RA-223	3.729E-01	6.478E-01	5.124E-01	3.305E-01	FAIL ABUN
AC-227	-3.315E-01	3.634E-01	2.976E-01	1.854E-01	FAIL ABUN
TH-227	-3.315E-01	3.647E-01	2.976E-01	1.861E-01	FAIL ABUN
TH-229	-4.049E-01	4.693E-01	4.024E-01	2.395E-01	FAIL ABUN
PA-231	7.136E-02	1.384E+00	1.180E+00	7.064E-01	NOT IDENT.
TH-231	3.729E-01	6.478E-01	5.124E-01	3.305E-01	FAIL ABUN
PA-233	1.661E-02	5.478E-02	4.931E-02	2.795E-02	FAIL ABUN
PA-234	1.017E-01	2.372E-01	2.075E-01	1.210E-01	FAIL ABUN
PA-234M	4.770E+01	8.990E+00	6.231E+00	4.587E+00	FAIL ABUN
NP-236	2.803E-02	8.446E-02	6.785E-02	4.309E-02	FAIL ABUN
NP-239	7.708E-02	2.114E-01	1.646E-01	1.079E-01	FAIL ABUN
AM-241	2.305E-01	1.805E-01	1.529E-01	9.207E-02	NOT IDENT.
CM-243	4.119E-02	1.442E-01	8.937E-02	7.355E-02	FAIL ABUN
AM-246	8.520E-03	1.091E-01	9.230E-02	5.569E-02	NOT IDENT.
CM-247	1.466E-02	3.269E-02	2.885E-02	1.668E-02	NOT IDENT.
CF-249	-3.874E-02	3.424E-02	2.815E-02	1.747E-02	NOT IDENT.
CF-251	6.037E-02	1.196E-01	1.082E-01	6.103E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	623.1893
46.50	623.1893
46.50	623.1893
48.70	687.1248
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52.39	708.7833
52.97	725.4538
53.15	733.4655
53.44	723.1978
54.07	741.9720
56.28	828.1132
56.28	828.1221
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57.53	838.4521
57.53	838.4589
57.60	854.6246
57.98	812.0648
57.98	812.0648
59.32	825.0425
59.32	825.0425
59.40	825.3040
59.54	825.7632
59.72	872.2628
60.01	873.2648
61.10	911.6270
61.14	911.7679
61.30	912.3358
63.00	908.6385
63.29	909.6428
63.29	909.6428
63.58	910.6423
64.28	864.3782
65.12	867.0961
65.20	860.0290
65.20	860.0290
66.05	867.1432
66.72	879.5857
66.83	879.9410
66.91	880.2006
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67.20	923.9317
67.75	926.3621
67.85	926.6990
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68.90	983.0603
69.30	994.3734
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70.82	934.4244
70.83	934.4578
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72.87	1010.3344
72.87	1010.3344
74.67	1078.6252
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74.81	1079.1305
74.81	1079.1305
74.81	1079.1305
74.81	1079.1305
74.81	1079.1305
74.81	1079.1305
74.97	1079.7117
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75.70	1082.3408
77.11	1087.3873
77.11	1087.3873

77.11	1087.3873
77.11	1087.3873
77.11	1087.3873
77.11	1087.3873
77.11	1087.3873
78.38	1087.2953
79.62	1043.9137
79.80	1044.5138
79.80	1044.5138
80.11	990.0325
80.18	990.2529
80.30	990.6300
80.30	990.6300
80.57	991.4774
81.00	1067.0594
81.07	1067.2964
81.07	1067.2964
81.07	1067.2964
81.07	1067.2964
82.60	1072.4238
83.37	1146.6421
83.78	1118.4635
83.78	1118.4635
83.78	1118.4635
83.78	1118.4635
84.21	1062.1525
84.90	1064.3937
85.43	1066.1108
86.29	1260.6511
86.50	1261.4465
86.54	1261.5995
86.59	1261.7892
86.72	1262.2848
86.79	1105.1177
86.94	1105.6211
87.30	1511.4843
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87.30	1511.4843
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87.30	1511.4843
87.30	1511.4843
87.57	1512.6984
87.88	1781.5364
88.03	1782.3281
88.36	1638.5576
88.47	1639.0951
89.95	1792.4143
91.11	1543.3630
92.29	1435.5540
92.38	1435.9236
92.38	1435.9236
93.35	1439.8876
94.00	1442.5370
94.67	1445.2412
94.67	1445.2617
94.90	1446.1927
94.90	1446.1927
94.90	1446.1927
94.90	1446.1927
95.87	665.8004
95.87	665.8004
96.73	667.3909
97.43	668.6733
98.44	655.8712
98.44	655.8743
98.88	663.1760
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99.55	644.7922
99.86	645.3286
100.00	645.5727
100.10	651.7479
103.18	629.6215
103.76	676.8009
105.00	635.9297
105.31	636.4395
108.00	677.5515
109.28	666.3476

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111.00	731.4274
111.76	661.4896
112.95	663.4279
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116.30	567.1990
117.00	563.0283
117.00	563.0283
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121.62	608.2579
121.78	608.4813
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122.32	566.6253
122.32	566.6253
122.32	566.6253
122.32	566.6253
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127.23	678.9376
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133.54	635.8369
135.34	656.9540
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136.25	621.7042
136.48	619.3344
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140.51	0.0000
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143.76	598.8718
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144.24	599.4526
144.24	599.4526
144.24	599.4526
145.22	550.1931
145.44	534.4625
147.16	555.2452
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152.70	620.6033
153.22	577.9056
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154.21	567.0009
154.21	567.0009
154.21	567.0009
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156.02	631.0493
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159.00	644.1082
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162.32	589.5767
162.64	564.4084
163.35	534.5184
163.89	514.5447
165.85	554.1288
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171.28	518.3630
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172.10	543.9205
176.55	516.4086
176.60	516.4536
181.06	545.7762
184.41	562.8771
185.71	550.8071
186.00	551.0739
190.27	465.9832
192.34	509.3980
193.63	524.3026
197.04	474.4307
198.01	485.1125
198.60	504.5021
200.40	552.9156
201.83	556.1475
202.84	508.8373
205.31	522.2483

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208.81	575.2543
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209.75	485.8010
210.97	455.1880
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216.55	427.1870
218.09	448.6792
222.10	408.9370
223.80	454.4403
226.40	448.8387
227.00	438.8192
227.08	438.8675
227.20	448.3029
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228.18	420.7953
228.18	420.7953
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236.00	464.9414
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238.63	447.9995
238.63	447.9995
238.63	447.9995
239.00	448.2227
240.98	449.4131
241.98	417.7496
241.98	417.7496
241.98	417.7496
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247.94	387.2405
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249.79	382.8097
252.40	364.7369
252.85	388.6302
252.85	388.6302
254.15	0.0000
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256.20	419.4892
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260.90	377.3922
262.80	422.3607
264.65	337.4154
268.24	331.8805
268.79	344.4068
269.46	346.2280
269.46	346.2280
269.46	346.2280
269.46	346.2280
271.23	338.3813
273.65	420.6778
276.40	345.8108
277.35	355.0781
277.60	362.9503
277.60	362.9503
278.00	348.6887
278.60	374.4970
279.20	355.8594
279.53	355.9961
280.46	383.1157
281.68	355.7841
283.67	332.0177
284.30	360.2306
285.00	351.5683
285.90	364.2662
286.10	358.7451
286.10	358.7451
287.40	357.0367
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290.80	317.1053
291.72	343.0159
293.26	0.0000
293.70	378.4660
295.21	376.0938
295.21	376.0938

295.21	376.0938
295.96	344.6672
296.50	344.8760
297.23	345.1589
298.57	345.6785
299.80	314.2692
299.80	314.2692
300.09	302.2248
300.09	302.2248
300.09	302.2248
300.09	302.2248
300.12	302.2329
301.29	285.8976
302.84	310.7646
303.76	311.0801
303.91	311.1299
304.40	279.2545
304.40	279.2545
304.84	312.9762
306.84	326.8229
308.46	297.9716
311.98	292.6446
316.51	297.7792
318.01	300.1156
319.02	303.2253
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320.08	300.7701
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323.87	289.8190
323.87	289.8190
323.87	289.8190
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334.20	250.4011
334.20	250.4011
334.30	274.0521
338.28	289.3889
338.28	289.3889
338.28	289.3889
338.28	289.3889
338.32	289.4037
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338.32	289.4037
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340.57	261.5253
344.27	299.7182
345.85	291.5855
350.59	0.0000
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351.92	272.1699
351.92	272.1699
351.92	272.1699
355.39	0.0000
356.01	215.6399
364.48	257.9512
366.43	276.9555
367.43	275.2633
367.94	0.0000
369.80	233.8069
374.96	267.3715
383.85	254.6879
387.95	279.5010
388.63	272.7056
391.69	241.5155
391.69	241.5155
392.90	236.7801
398.62	257.0562
400.65	253.4889
401.10	258.6219
401.81	260.7958
402.60	258.9608
404.84	290.7598
410.95	257.7858
411.60	243.7119
413.65	284.8262
414.70	260.6469
415.30	244.4795

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423.70	231.8486
427.08	197.5219
427.89	210.0064
432.53	238.7094
433.93	240.0175
439.47	203.6874
439.56	217.2125
439.89	218.3108
443.98	249.2754
444.90	250.5029
445.03	250.5293
445.03	250.5293
445.03	250.5293
445.03	250.5293
453.90	218.6539
463.38	220.2738
468.07	230.2797
473.00	232.5670
475.06	192.3267
475.35	196.6455
476.78	243.9310
477.59	252.6427
477.96	236.6524
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484.57	213.0724
487.03	209.1468
490.36	0.0000
492.35	198.0631
497.08	187.8862
507.63	0.0000
510.53	0.0000
510.84	185.3636
511.00	185.3842
511.85	185.4946
511.85	185.4946
513.99	177.7149
513.99	177.7149
520.41	205.3856
520.65	205.4219
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529.87	0.0000
531.02	200.2280
537.32	166.6435
543.00	184.1063
546.56	0.0000
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552.65	189.0591
555.20	162.0548
563.23	195.1116
563.90	208.4656
568.70	205.3125
569.32	195.8827
569.50	193.0548
569.67	193.0755
573.80	218.7000
574.00	214.9130
574.64	216.1178
578.91	193.5403
579.30	0.0000
583.14	190.9067
585.48	182.8178
591.81	170.7305
592.07	174.9362
593.00	194.8133
595.88	187.6020
600.56	182.3277
602.52	0.0000
602.71	199.7712
602.71	199.7712
603.60	204.8770
604.41	189.9815
604.70	195.0136
609.31	205.5934

609.31	205.5934
609.31	205.5934
609.31	205.5934
610.33	214.0848
612.46	197.6146
614.37	199.5176
618.01	180.3538
621.84	187.6465
621.84	187.6465
631.29	161.0368
633.02	143.4011
633.10	143.4070
634.78	156.4185
635.90	168.4090
636.97	166.5337
645.85	159.4238
646.12	146.4946
656.30	142.6273
657.75	187.4616
657.90	0.0000
661.65	222.3486
661.65	222.3486
664.57	0.0000
666.33	183.1894
666.33	183.1894
675.00	162.0833
677.61	161.3032
685.20	148.7387
692.80	157.5404
695.00	141.3411
696.49	188.6082
696.49	188.6082
697.00	207.1166
697.49	208.1956
698.33	198.0300
698.50	198.0496
699.00	207.3385
702.63	179.9774
706.10	196.7978
706.58	0.0000
706.67	205.1054
709.31	169.2685
711.68	161.2146
713.82	172.7794
717.42	173.1089
720.50	158.4102
721.93	0.0000
722.20	158.5499
722.78	174.6377
722.78	174.6377
722.89	174.6479
722.95	174.6514
723.30	163.9905
724.18	164.0643
727.18	158.3674
733.00	116.4478
735.90	166.0654
739.58	150.9990
742.81	120.7907
744.21	139.7945
747.13	173.6877
751.79	143.5011
752.31	143.5399
753.82	141.5353
755.35	137.4162
756.15	142.7591
756.87	150.2163
763.93	149.2342
765.79	158.4795
766.42	160.3502
766.84	148.8412
776.49	108.9612
778.00	109.0411
778.57	109.0723
778.89	106.9499
783.80	130.4878
785.46	131.0959
792.07	116.2507

795.84	123.5200
796.30	118.3371
798.80	124.0337
801.93	165.0095
805.60	104.0078
810.29	134.9539
810.76	140.5698
815.85	109.1795
817.79	124.2236
818.51	122.3967
819.60	144.8935
826.30	139.7239
828.27	0.0000
831.60	148.5273
831.96	154.1933
834.83	159.1065
836.80	0.0000
846.75	140.0998
848.13	132.6099
856.28	0.0000
856.80	128.1399
860.37	125.7250
867.32	123.7300
867.82	120.4124
871.10	134.9439
873.19	131.2375
874.81	124.6204
875.33	0.0000
876.40	135.2610
879.36	114.3059
880.27	132.6094
880.51	127.8186
881.50	123.0670
883.24	126.0473
884.67	129.9785
889.25	128.3103
896.60	126.7852
898.02	142.3575
899.00	147.1116
903.28	154.5706
911.07	138.2881
911.07	138.2881
911.07	138.2881
919.63	109.4707
920.93	108.3903
925.00	106.7799
925.24	102.8723
926.50	123.5127
935.52	112.1730
937.48	127.0361
944.10	110.5977
946.00	107.7208
949.00	100.9274
962.29	101.4788
964.01	101.5482
966.15	101.6371
968.20	101.7207
969.11	101.7599
969.11	101.7599
969.11	101.7599
977.42	119.1162
980.50	111.1687
983.50	120.4101
989.30	103.5909
996.32	97.0724
1001.03	95.9890
1001.68	96.0139
1004.76	95.6239
1021.30	0.0000
1024.50	0.0000
1034.80	116.7037
1036.00	124.9487
1037.82	120.9344
1038.57	116.8707
1038.76	0.0000
1045.16	129.4937
1046.59	142.9317
1048.07	122.4365

1050.47	94.7402
1050.47	94.7402
1062.04	107.5619
1063.62	112.8016
1076.63	112.3054
1077.35	104.0144
1078.86	100.9514
1085.78	119.9855
1099.22	123.7206
1112.02	92.1631
1112.84	88.5029
1115.52	95.9702
1120.29	89.7937
1120.29	89.7937
1120.29	89.7937
1120.29	89.7937
1120.51	89.8026
1121.28	89.8263
1124.00	0.0000
1129.67	96.4526
1131.51	0.0000
1147.95	0.0000
1167.94	114.6617
1173.22	110.1588
1175.09	109.2881
1177.93	114.1096
1189.05	147.6687
1204.90	126.5667
1205.75	0.0000
1213.00	124.0451
1221.42	136.8293
1230.97	163.8125
1235.34	123.0352
1236.41	0.0000
1238.25	133.4150
1246.25	111.4648
1260.41	0.0000
1271.85	90.4457
1274.45	95.3861
1274.54	95.3891
1291.56	81.2219
1298.22	0.0000
1312.09	85.6805
1325.50	78.1224
1325.50	78.1224
1332.49	75.3158
1333.61	72.3673
1360.21	53.9621
1362.66	0.0000
1365.15	60.0458
1368.21	61.1024
1368.53	0.0000
1376.25	46.4098
1384.27	53.6768
1394.10	64.5977
1395.20	64.6172
1407.95	68.9110
1434.06	51.0498
1436.60	44.9574
1457.56	0.0000
1460.81	54.5236
1489.15	58.0627
1509.49	53.1727
1596.49	81.5558
1620.62	39.1226
1678.03	0.0000
1691.02	35.9311
1691.02	35.9311
1706.46	0.0000
1750.46	0.0000
1764.49	24.9067
1764.49	24.9067
1764.49	24.9067
1764.49	24.9067
1770.23	26.7217
1771.40	21.3832
1791.20	0.0000
1808.65	33.9511

1836.01 25.1207

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245396003

Total Uranium Activity	1.0228E+02	ug/g
Total Uranium Counting Unc.	1.9145E+01	ug/g
Total Uranium Tpu	9.7676E-06	ug/g
Total Uranium Mda	3.5438E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944962                    SAMPLE ID  : G245396003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   : 21-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  5-FEB-2010 19:00:13.07    SAMPLE ALQT:  144.550 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.319E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.808E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.790E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.858E+00
```

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:15:08.40

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396004.CNF;1
Sample date       : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 19:14:38.
Sample ID         : G245396004           Sample quantity  : 1.39850E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.63  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944962                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.25*	312	783	1.14	126.05	121	11	4.33E-02	18.5	
2	3	74.93	571	752	1.54	149.39	143	17	7.93E-02	9.9	1.89E+00
3	3	77.27	724	530	1.16	154.07	143	17	1.01E-01	6.7	
4	1	87.39	240	573	1.52	174.28	171	20	3.33E-02	17.1	2.99E+00
5	1	89.89	189	680	1.52	179.28	171	20	2.62E-02	26.6	
6	1	92.74*	650	605	1.56	184.98	171	20	9.02E-02	8.5	
7	0	186.08*	276	563	1.30	371.47	365	13	3.83E-02	19.1	
8	0	209.06	92	518	1.23	417.39	411	13	1.27E-02	52.4	
9	1	238.54*	1581	293	1.59	476.31	468	21	2.20E-01	3.3	5.91E+00
10	1	241.74	300	279	1.70	482.69	468	21	4.16E-02	13.2	
11	0	269.66	215	248	2.32	538.50	533	13	2.99E-02	16.4	
12	0	277.58	33	244	0.93	554.32	549	10	4.65E-03	89.0	
13	0	295.15	397	175	1.31	589.43	585	9	5.51E-02	7.8	
14	0	300.63	151	266	1.51	600.39	595	14	2.10E-02	24.6	
15	0	327.73	108	203	1.01	654.54	650	11	1.50E-02	27.3	
16	0	338.13	302	259	1.35	675.32	670	13	4.19E-02	12.3	
17	0	351.80*	703	255	1.45	702.65	696	15	9.76E-02	6.2	
18	0	463.01	75	126	0.87	924.94	920	10	1.05E-02	30.3	
19	0	510.77*	176	156	2.40	1020.40	1011	18	2.44E-02	20.3	
20	0	569.86*	158	226	2.23	1138.53	1127	24	2.19E-02	27.0	
21	0	583.36*	436	119	1.42	1165.51	1158	14	6.06E-02	7.2	
22	0	609.47*	516	145	1.62	1217.71	1209	18	7.16E-02	7.1	
23	0	662.34	72	174	1.58	1323.41	1314	17	9.96E-03	43.8	
24	0	727.45	142	71	1.78	1453.60	1446	15	1.97E-02	15.5	
25	0	795.57	54	75	1.33	1589.80	1585	12	7.43E-03	34.7	
26	0	860.92	97	77	1.90	1720.50	1713	17	1.34E-02	23.1	
27	0	911.72	293	88	1.73	1822.10	1814	16	4.07E-02	9.2	
28	0	969.60*	154	69	1.67	1937.85	1932	11	2.14E-02	13.3	
29	0	1121.03	70	85	1.66	2240.75	2235	12	9.68E-03	28.9	
30	0	1239.63	36	71	1.57	2478.01	2474	9	4.96E-03	46.3	
31	0	1379.99	31	54	1.52	2758.87	2750	18	4.31E-03	58.4	
32	0	1461.59	1841	35	2.01	2922.16	2913	17	2.56E-01	2.4	
33	0	1510.12	14	30	3.54	3019.28	3010	20	1.91E-03	101.5	
34	0	1765.20*	98	0	2.07	3529.87	3521	16	1.36E-02	10.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-FEB-2010 21:15:11

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 19:14:38
Sample ID : G245396004 Sample quantity : 139.85 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA14 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.63 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.825E+01	3.347E+00	5.262E-01	3.821E-02	72.686
CD-109	+	88.03	*	2.509E+00	8.857E-01	1.270E+00	1.111E-01	1.975
SN-126	+	64.28		1.887E+00	7.462E-01	7.169E-01	1.022E-01	2.632
	+	86.94		1.025E+00	5.503E-01	5.653E-01	2.338E-01	1.813
	+	87.57	*	2.466E-01	8.703E-02	1.383E-01	1.203E-02	1.783
CS-135	+	268.24	*	7.078E-01	2.391E-01	2.205E-01	1.691E-02	3.210
BA-137M	+	661.65	*	8.684E-02	7.622E-02	5.856E-02	3.482E-03	1.483
CS-137	+	661.65	*	9.180E-02	8.058E-02	6.191E-02	3.696E-03	1.483
TL-208	+	277.35		2.645E-01	4.719E-01	5.564E-01	5.884E-02	0.475
	+	510.84		7.061E-01	2.960E-01	2.037E-01	2.077E-02	3.467
	+	583.14	*	5.046E-01	8.079E-02	5.486E-02	3.752E-03	9.198
	+	860.37		1.073E+00	5.055E-01	4.488E-01	4.222E-02	2.391
BI-211		72.87		1.132E+01	3.547E+00	5.437E+00	4.007E-01	2.081
	+	351.07	*	3.488E+00	4.876E-01	3.046E-01	1.930E-02	11.450
PB-212	+	74.81		2.352E+00	5.441E-01	5.098E-01	6.113E-02	4.613
	+	77.11		1.709E+00	2.646E-01	2.926E-01	2.253E-02	5.841
	+	87.30		1.140E+00	4.183E-01	6.409E-01	8.483E-02	1.779
	+	238.63	*	1.709E+00	1.674E-01	8.792E-02	6.404E-03	19.438
	+	300.09		2.525E+00	1.261E+00	1.093E+00	9.035E-02	2.311
PO-212	+	74.81		2.352E+00	5.441E-01	5.098E-01	6.113E-02	4.613
	+	77.11		1.709E+00	2.646E-01	2.926E-01	2.253E-02	5.841
	+	87.30		1.140E+00	4.183E-01	6.409E-01	8.483E-02	1.779
		115.19		-1.982E+00	3.650E+00	5.768E+00	4.197E-01	-0.344
	+	238.63	*	1.709E+00	1.674E-01	8.792E-02	6.404E-03	19.438
	+	300.09		2.525E+00	1.261E+00	1.093E+00	9.035E-02	2.311
BI-214	+	609.31	*	1.127E+00	1.829E-01	1.096E-01	8.674E-03	10.280
	+	1120.29		8.137E-01	4.770E-01	4.372E-01	4.050E-02	1.861
	+	1764.49		1.575E+00	3.519E-01	2.554E-01	1.532E-02	6.168
PB-214	+	74.81		4.052E+00	9.086E-01	8.784E-01	9.269E-02	4.613
	+	77.11		2.930E+00	5.055E-01	5.016E-01	5.433E-02	5.841
	+	87.30		1.953E+00	7.058E-01	1.098E+00	1.274E-01	1.779
	+	241.98		1.947E+00	5.356E-01	5.290E-01	4.250E-02	3.681
	+	295.21		1.161E+00	2.073E-01	1.960E-01	1.676E-02	5.923
	+	351.92	*	1.213E+00	1.811E-01	1.062E-01	8.713E-03	11.427

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.052E+00	9.086E-01	8.784E-01	9.269E-02	4.613
	+	77.11		2.930E+00	5.055E-01	5.016E-01	5.433E-02	5.841
	+	87.30		1.953E+00	7.058E-01	1.098E+00	1.274E-01	1.779
	+	241.98		1.947E+00	5.356E-01	5.290E-01	4.250E-02	3.681
	+	295.21		1.161E+00	2.073E-01	1.960E-01	1.676E-02	5.923
	+	351.92	*	1.213E+00	1.811E-01	1.062E-01	8.713E-03	11.427
PO-216	+	74.81		2.352E+00	5.441E-01	5.098E-01	6.113E-02	4.613
	+	77.11		1.709E+00	2.646E-01	2.926E-01	2.253E-02	5.841
	+	87.30		1.140E+00	4.183E-01	6.409E-01	8.483E-02	1.779
	+	238.63	*	1.709E+00	1.674E-01	8.792E-02	6.404E-03	19.438
	+	300.09		2.525E+00	1.261E+00	1.093E+00	9.035E-02	2.311
PO-218	+	74.81		4.052E+00	9.086E-01	8.784E-01	9.269E-02	4.613
	+	77.11		2.930E+00	5.055E-01	5.016E-01	5.433E-02	5.841
	+	87.30		1.953E+00	7.058E-01	1.098E+00	1.274E-01	1.779
	+	241.98		1.947E+00	5.356E-01	5.290E-01	4.250E-02	3.681
	+	295.21		1.161E+00	2.073E-01	1.960E-01	1.676E-02	5.923
	+	351.92	*	1.213E+00	1.811E-01	1.062E-01	8.713E-03	11.427
RA-224	+	240.98	*	3.692E+00	9.943E-01	1.000E+00	5.748E-02	3.692
RA-226	+	609.31	*	1.127E+00	1.829E-01	1.096E-01	8.674E-03	10.280
	+	1120.29		8.137E-01	4.770E-01	4.372E-01	4.050E-02	1.861
	+	1764.49		1.575E+00	3.519E-01	2.554E-01	1.532E-02	6.168
AC-228	+	338.32		1.650E+00	7.860E-01	3.453E-01	1.408E-01	4.778
	+	911.07	*	1.541E+00	3.373E-01	2.153E-01	2.528E-02	7.157
	+	969.11		1.432E+00	5.079E-01	4.302E-01	1.005E-01	3.329
RA-228	+	338.32		1.650E+00	7.860E-01	3.453E-01	1.408E-01	4.778
	+	911.07	*	1.541E+00	3.373E-01	2.153E-01	2.528E-02	7.157
	+	969.11		1.432E+00	5.079E-01	4.302E-01	1.005E-01	3.329
TH-228	+	74.81		2.388E+00	5.060E-01	5.176E-01	3.933E-02	4.613
	+	77.11		1.735E+00	2.686E-01	2.971E-01	2.287E-02	5.841
	+	87.30		1.158E+00	4.087E-01	6.507E-01	5.643E-02	1.779
	+	238.63	*	1.735E+00	1.700E-01	8.927E-02	6.502E-03	19.438
	+	300.09		2.563E+00	1.969E+00	1.109E+00	6.538E-01	2.311
TH-230	+	609.31	*	1.127E+00	1.828E-01	1.096E-01	8.674E-03	10.280
	+	1120.29		8.136E-01	4.770E-01	4.371E-01	4.050E-02	1.861
	+	1764.49		1.575E+00	3.519E-01	2.554E-01	1.532E-02	6.168
TH-232	+	338.32		1.650E+00	4.176E-01	3.453E-01	1.984E-02	4.778
	+	911.07	*	1.541E+00	3.373E-01	2.153E-01	2.528E-02	7.157
	+	969.11		1.432E+00	5.079E-01	4.302E-01	1.005E-01	3.329
TH-234	+	63.29	*	4.766E+00	1.940E+00	1.821E+00	3.130E-01	2.617
	+	92.38		4.408E+00	1.088E+00	8.313E-01	1.493E-01	5.302
U-234	+	609.31	*	1.127E+00	1.828E-01	1.096E-01	8.674E-03	10.280
	+	1120.29		8.136E-01	4.770E-01	4.371E-01	4.050E-02	1.861
	+	1764.49		1.575E+00	3.519E-01	2.554E-01	1.532E-02	6.168
NP-237	+	86.50	*	7.240E-01	2.960E-01	3.790E-01	8.470E-02	1.910
		95.87		3.777E-01	1.103E+00	1.577E+00	3.857E-01	0.240
U-238	+	63.29	*	4.766E+00	1.940E+00	1.821E+00	3.130E-01	2.617
	+	92.38		4.408E+00	8.322E-01	8.313E-01	6.955E-02	5.302
AM-243	+	74.67	*	3.813E-01	8.069E-02	8.283E-02	6.216E-03	4.603
	+	86.72		2.715E+01	9.584E+00	1.500E+01	1.291E+00	1.810

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		5.937E-01	3.783E+00	6.129E+00	4.419E-01	0.097
		142.18		5.576E+00	1.790E+01	2.893E+01	1.819E+00	0.193
ANH-511	+	511.00	*	1.525E-01	6.267E-02	4.401E-02	2.585E-03	3.466

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.091E-01	3.065E-01	5.134E-01	3.461E-02	0.213
NA-22		1274.54	*	1.801E-03	4.528E-02	7.478E-02	4.885E-03	0.024
NA-24		1368.53	*	1.885E-01	4.528E-02	Half-Life too short		
AL-26		1129.67		-1.110E+00	1.854E+00	2.851E+00	1.800E-01	-0.389
		1808.65	*	-7.736E-03	2.507E-02	3.764E-02	2.182E-03	-0.206
TI-44		67.85		-4.544E-02	5.335E-02	6.791E-02	4.779E-03	-0.669
	+	78.38	*	3.154E-01	4.882E-02	7.351E-02	5.740E-03	4.290
SC-46		889.25	*	-4.703E-02	3.673E-02	5.414E-02	5.002E-03	-0.869
	+	1120.51		1.395E-01	8.125E-02	1.147E-01	7.425E-03	1.216
V-48		944.10		-2.150E-01	9.061E-01	1.483E+00	1.326E-01	-0.145
		983.50	*	-2.039E-02	6.736E-02	1.092E-01	9.275E-03	-0.187
		1312.09		-2.657E-02	7.920E-02	1.256E-01	8.677E-03	-0.212
CR-51		320.08	*	-7.798E-03	3.591E-01	5.959E-01	3.850E-02	-0.013
MN-52		744.21		2.458E-01	2.303E-01	4.020E-01	2.837E-02	0.611
		848.13		-1.634E+00	6.205E+00	1.017E+01	8.741E-01	-0.161
		935.52		1.332E-01	2.556E-01	4.431E-01	4.000E-02	0.301
		1246.25		-4.592E-01	8.525E+00	1.249E+01	7.785E-01	-0.037
		1333.61		-2.717E+00	5.064E+00	7.812E+00	5.567E-01	-0.348
		1434.06	*	1.173E-01	2.180E-01	3.817E-01	2.675E-02	0.307
MN-54		834.83	*	-2.663E-02	4.040E-02	6.478E-02	5.434E-03	-0.411
CO-56		846.75	*	-1.683E-02	3.522E-02	5.665E-02	4.856E-03	-0.297
		977.42		-3.062E-01	2.808E+00	4.532E+00	3.881E-01	-0.068
		1037.82		1.150E-01	3.017E-01	5.171E-01	4.284E-02	0.222
		1175.09		-1.491E+00	2.588E+00	4.091E+00	2.261E-01	-0.364
	+	1238.25		1.178E-01	1.094E-01	1.790E-01	1.163E-02	0.658
		1360.21		-1.862E-01	9.963E-01	1.599E+00	1.136E-01	-0.116
		1771.40		-7.441E-02	1.951E-01	2.307E-01	1.377E-02	-0.323
CO-57		122.06	*	-1.324E-02	2.516E-02	3.968E-02	2.823E-03	-0.334
		136.48		-1.338E-01	2.062E-01	3.226E-01	2.368E-02	-0.415
CO-58		810.76	*	7.157E-03	3.715E-02	6.064E-02	4.879E-03	0.118
FE-59		142.65		6.389E-01	2.777E+00	4.475E+00	2.806E-01	0.143
		192.34		5.710E-01	1.030E+00	1.549E+00	1.809E-01	0.368
		1099.22	*	8.002E-03	9.362E-02	1.562E-01	1.203E-02	0.051
		1291.56		3.236E-02	1.305E-01	2.193E-01	1.785E-02	0.148
CO-60		1173.22		-9.194E-03	5.010E-02	8.155E-02	4.492E-03	-0.113
		1332.49	*	-3.327E-03	3.854E-02	6.269E-02	4.468E-03	-0.053
ZN-65		1115.52	*	-6.054E-02	1.034E-01	1.369E-01	8.996E-03	-0.442
GE-68		1077.35	*	3.261E-01	1.228E+00	2.081E+00	1.496E-01	0.157
AS-73		53.44	*	2.236E-01	6.419E-01	1.060E+00	6.911E-02	0.211
AS-74		595.88	*	1.885E-02	8.851E-02	1.460E-01	8.734E-03	0.129
		634.78		-2.012E-01	3.587E-01	5.570E-01	3.327E-02	-0.361

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		9.002E-01	4.957E+00	7.114E+00	6.469E-01	0.127
		96.73		-4.929E-01	8.975E-01	1.234E+00	1.640E-01	-0.399
		121.11		-2.335E-02	1.343E-01	2.148E-01	2.173E-02	-0.109
		136.00		-1.836E-02	3.854E-02	6.074E-02	4.012E-03	-0.302
		198.60		3.592E-01	1.697E+00	2.876E+00	1.991E-01	0.125
		264.65	*	2.023E-02	4.250E-02	6.371E-02	3.741E-03	0.318
		279.53		1.033E-02	1.165E-01	1.699E-01	1.070E-02	0.061
		303.91		3.527E-03	2.182E+00	3.154E+00	3.014E-01	0.001
		400.65		1.477E-01	2.519E-01	4.277E-01	3.809E-02	0.345
BR-77	+	87.88		5.720E+02	2.019E+02	3.502E+02	3.059E+01	1.633
		200.40		5.974E+01	1.663E+02	2.832E+02	1.575E+01	0.211
	+	239.00		2.897E+02	2.522E+01	3.709E+01	2.130E+00	7.809
		249.79		-3.268E+01	6.558E+01	1.074E+02	6.201E+00	-0.304
		281.68		-2.593E+01	1.005E+02	1.432E+02	8.350E+00	-0.181
		297.23		3.414E+02	9.739E+01	1.257E+02	7.333E+00	2.715
		303.76		2.590E+01	1.956E+02	2.852E+02	1.662E+01	0.091
		439.47		7.234E+01	1.373E+02	2.330E+02	1.317E+01	0.310
		484.57		-1.262E+02	2.320E+02	3.664E+02	2.128E+01	-0.344
		520.65	*	4.666E+00	1.072E+01	1.800E+01	1.061E+00	0.259
		574.64		1.848E+02	2.591E+02	3.698E+02	2.208E+01	0.500
		578.91		9.302E+01	1.305E+02	1.402E+02	8.374E+00	0.664
		585.48		1.791E+03	2.958E+02	5.332E+02	3.187E+01	3.360
		755.35		-4.099E+00	1.676E+02	2.692E+02	1.942E+01	-0.015
		817.79		2.642E+01	1.223E+02	2.089E+02	1.698E+01	0.126
SR-82		698.33		-2.195E+01	3.377E+01	5.180E+01	3.329E+00	-0.424
		776.49	*	-3.312E-01	3.654E-01	5.388E-01	4.051E-02	-0.615
		1395.20		8.883E-01	9.634E+00	1.598E+01	1.129E+00	0.056
RB-83		520.41	*	3.030E-02	6.730E-02	1.132E-01	6.670E-03	0.268
		529.64		-3.383E-02	1.004E-01	1.601E-01	9.468E-03	-0.211
		552.65		3.427E-02	1.845E-01	3.048E-01	1.813E-02	0.112
RB-84		881.50	*	-1.018E-01	6.891E-02	1.000E-01	9.120E-03	-1.018
KR-85		513.99	*	1.913E+01	8.049E+00	1.340E+01	7.881E-01	1.428
SR-85		513.99	*	9.829E-02	4.135E-02	6.884E-02	4.049E-03	1.428
RB-86		1076.63	*	7.440E-01	7.695E-01	1.375E+00	9.903E-02	0.541
Y-88		898.02		-1.774E-02	4.064E-02	6.555E-02	6.175E-03	-0.271
		1836.01	*	-6.201E-03	3.111E-02	4.817E-02	2.736E-03	-0.129
ZR-88		392.90	*	1.343E-02	2.797E-02	4.741E-02	2.581E-03	0.283
Y-91		1204.90	*	-8.191E+00	1.978E+01	3.161E+01	1.839E+00	-0.259
NB-94		702.63	*	-4.921E-03	3.338E-02	5.330E-02	3.457E-03	-0.092
		871.10		7.857E-03	3.604E-02	6.006E-02	5.377E-03	0.131
NB-95		765.79	*	5.270E-02	4.304E-02	7.500E-02	5.523E-03	0.703
NB-95M		235.69	*	6.085E-01	1.540E-01	2.531E-01	1.892E-02	2.404
ZR-95		724.18		6.148E-02	9.686E-02	1.442E-01	1.111E-02	0.426
		756.15	*	-1.260E-02	6.913E-02	1.096E-01	9.039E-03	-0.115
NB-97		657.90	*	-3.646E-02	6.913E-02	Half-Life too short		
		1024.50		2.842E-01	6.913E-02	Half-Life too short		
ZR-97		254.15		-7.457E-02	6.913E-02	Half-Life too short		
		355.39		2.149E+00	6.913E-02	Half-Life too short		
		507.63	*	2.488E+00	6.913E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		602.52		-1.831E+00	6.913E-02	Half-Life too short		
		1021.30		4.092E+00	6.913E-02	Half-Life too short		
		1147.95		3.033E+00	6.913E-02	Half-Life too short		
		1362.66		-4.116E-01	6.913E-02	Half-Life too short		
		1750.46		2.858E+00	6.913E-02	Half-Life too short		
MO-99		140.51		8.258E+00	2.764E+01	4.407E+01	1.193E+01	0.187
		181.06		-3.420E+00	1.901E+01	2.769E+01	4.714E+00	-0.124
		366.43		7.916E+00	8.343E+01	1.387E+02	7.784E+00	0.057
		739.58	*	-1.234E+01	1.252E+01	1.835E+01	2.629E+00	-0.672
		778.00		-3.156E+01	3.542E+01	5.246E+01	3.956E+00	-0.602
TC-99M		140.51	*	1.910E+10	3.542E+01	Half-Life too short		
RH-101		127.23		2.459E-02	3.280E-02	5.404E-02	3.718E-03	0.455
		198.01	*	-5.771E-04	3.136E-02	5.274E-02	2.926E-03	-0.011
		325.23		2.244E-01	2.414E-01	3.690E-01	2.136E-02	0.608
RH-102		418.52		-1.313E-02	2.873E-01	4.634E-01	2.580E-02	-0.028
		475.06	*	-1.375E-02	2.743E-02	4.348E-02	2.513E-03	-0.316
		631.29		3.828E-02	5.472E-02	9.307E-02	5.561E-03	0.411
		697.49		-1.028E-02	7.409E-02	1.184E-01	7.597E-03	-0.087
		766.84		1.920E-01	1.121E-01	2.000E-01	1.476E-02	0.960
		1046.59		1.165E-02	1.122E-01	1.879E-01	1.438E-02	0.062
		1112.84		9.989E-03	2.335E-01	3.704E-01	2.448E-02	0.027
RU-103		497.08	*	2.020E-02	3.816E-02	6.449E-02	8.167E-03	0.313
	+	610.33		1.220E+01	2.562E+00	2.690E+00	4.167E-01	4.536
RH-106	+	511.85		7.620E-01	3.131E-01	4.017E-01	2.361E-02	1.897
		621.84	*	1.743E-01	2.996E-01	5.062E-01	5.986E-02	0.344
		1050.47		1.681E+00	2.304E+00	4.044E+00	3.072E-01	0.416
RU-106	+	511.85		7.620E-01	3.131E-01	4.017E-01	2.361E-02	1.897
		621.84	*	1.743E-01	2.991E-01	5.062E-01	3.027E-02	0.344
		1050.47		1.681E+00	2.304E+00	4.044E+00	3.072E-01	0.416
AG-108M		433.93	*	-1.018E-02	2.853E-02	4.580E-02	2.814E-03	-0.222
		614.37		2.608E-02	4.098E-02	6.115E-02	3.950E-03	0.426
		722.95		-2.305E-02	4.543E-02	5.936E-02	4.267E-03	-0.388
AG-110M		657.75	*	-1.342E-02	3.917E-02	5.264E-02	3.325E-03	-0.255
		677.61		-6.335E-02	2.817E-01	4.470E-01	2.900E-02	-0.142
		706.67		-8.981E-02	2.116E-01	3.306E-01	2.265E-02	-0.272
		763.93		-3.003E-01	1.773E-01	2.458E-01	1.873E-02	-1.222
		884.67		4.734E-02	4.283E-02	7.801E-02	7.355E-03	0.607
		937.48		-4.114E-02	1.109E-01	1.797E-01	1.672E-02	-0.229
		1384.27		9.510E-02	1.650E-01	2.562E-01	1.889E-02	0.371
IN-111		171.28		1.023E+00	1.026E+00	1.702E+00	9.180E-02	0.601
		245.39	*	1.454E+00	1.153E+00	1.797E+00	1.036E-01	0.809
IN-113M		391.69	*	1.057E-02	4.040E-02	6.767E-02	3.960E-03	0.156
SN-113		391.69	*	1.057E-02	4.040E-02	6.767E-02	3.960E-03	0.156
IN-114M		190.27	*	-8.761E-03	1.996E-01	2.923E-01	1.609E-02	-0.030
CD-115		260.90		-4.977E+01	1.282E+02	2.104E+02	1.221E+01	-0.236
		492.35		-2.891E+01	3.609E+01	5.580E+01	3.253E+00	-0.518
		527.90	*	-1.187E+01	1.099E+01	1.654E+01	9.777E-01	-0.718
SN-117M		156.02		2.629E+00	2.319E+00	3.858E+00	2.221E-01	0.682
		158.56	*	-1.665E-02	5.765E-02	9.124E-02	5.161E-03	-0.182

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-122		563.90	*	-1.233E+00	2.574E+00	3.457E+00	2.061E-01	-0.357
		692.80		1.222E+01	4.530E+01	7.464E+01	4.742E+00	0.164
I-123		159.00	*	-1.831E+00	4.530E+01	Half-Life too short		
		528.96		-2.803E+02	4.530E+01	Half-Life too short		
TE-123M		159.00	*	-7.164E-03	2.962E-02	4.696E-02	2.686E-03	-0.153
I-124		602.71	*	-1.598E-01	7.481E-01	1.027E+00	6.142E-02	-0.156
		722.78		-2.535E+00	4.890E+00	6.380E+00	4.313E-01	-0.397
		1325.50		-1.072E+01	3.699E+01	5.894E+01	4.157E+00	-0.182
		1376.25		5.133E+01	3.213E+01	5.642E+01	3.999E+00	0.910
	+	1509.49		1.366E+01	2.774E+01	2.303E+01	1.580E+00	0.593
		1691.02		2.764E-01	3.479E+00	5.726E+00	3.608E-01	0.048
SB-124		602.71		-9.027E-03	4.226E-02	5.799E-02	3.471E-03	-0.156
		645.85		2.492E-02	4.836E-01	7.867E-01	5.262E-02	0.032
		709.31		4.783E-01	2.713E+00	4.437E+00	2.918E-01	0.108
		713.82		3.421E-02	1.563E+00	2.526E+00	2.705E-01	0.014
		722.78		-2.075E-01	4.004E-01	5.224E-01	3.655E-02	-0.397
	+	968.20		1.477E+01	4.146E+00	6.948E+00	6.025E-01	2.126
		1045.16		7.834E-01	2.414E+00	4.117E+00	3.159E-01	0.190
		1325.50		-9.371E-01	3.235E+00	5.154E+00	3.635E-01	-0.182
		1368.21		5.472E-01	1.416E+00	2.444E+00	3.069E-01	0.224
		1436.60		-1.813E+00	3.299E+00	4.954E+00	3.470E-01	-0.366
		1691.02	*	5.339E-03	6.720E-02	1.106E-01	7.476E-03	0.048
SB-125		427.89	*	5.566E-02	8.540E-02	1.458E-01	8.547E-03	0.382
	+	463.38		5.883E-01	3.586E-01	5.219E-01	3.504E-02	1.127
		600.56		6.871E-02	1.796E-01	2.833E-01	1.945E-02	0.243
		635.90		-1.424E-01	2.708E-01	4.216E-01	2.925E-02	-0.338
TE-125M		109.28	*	-8.076E+00	9.693E+00	1.516E+01	1.423E+00	-0.533
I-126		388.63		-3.573E-02	1.857E-01	3.032E-01	1.656E-02	-0.118
		666.33	*	2.119E-01	2.149E-01	3.284E-01	1.973E-02	0.645
		753.82		6.143E-01	1.394E+00	2.326E+00	1.673E-01	0.264
SB-126		223.80		-5.774E+00	3.938E+00	6.218E+00	3.532E-01	-0.929
	+	278.60		1.767E+00	3.148E+00	3.954E+00	2.305E-01	0.447
	+	296.50		1.168E+01	1.954E+00	3.343E+00	1.950E-01	3.494
		414.70		-2.425E-02	7.347E-02	1.188E-01	6.590E-03	-0.204
		415.30		-2.653E+00	6.151E+00	9.883E+00	5.487E-01	-0.268
		555.20		-4.531E+00	3.831E+00	5.686E+00	3.384E-01	-0.797
		573.80		5.889E-01	1.182E+00	1.742E+00	1.040E-01	0.338
		593.00		-8.850E-02	9.195E-01	1.485E+00	8.879E-02	-0.060
		656.30		-3.930E+00	3.929E+00	4.869E+00	2.898E-01	-0.807
		666.33		8.860E-02	8.986E-02	1.373E-01	8.247E-03	0.645
		675.00		-6.828E-01	1.845E+00	2.892E+00	1.770E-01	-0.236
		695.00		5.200E-03	7.597E-02	1.234E-01	7.874E-03	0.042
		697.00		-7.402E-02	2.625E-01	4.148E-01	2.658E-02	-0.178
		720.50	*	2.842E-02	1.514E-01	2.152E-01	1.448E-02	0.132
		856.80		7.588E-02	5.328E-01	7.823E-01	6.827E-02	0.097
		989.30		-1.971E-02	1.193E+00	1.984E+00	1.670E-01	-0.010
		1034.80		-4.028E-01	8.870E+00	1.469E+01	1.149E+00	-0.027
		1213.00		5.301E-01	5.133E+00	8.530E+00	5.030E-01	0.062
SB-127		61.10		7.337E+01	5.838E+01	8.629E+01	8.468E+00	0.850

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		6.117E-01	4.150E+00	6.971E+00	2.897E+00	0.088
		290.80		-1.453E+01	2.353E+01	3.260E+01	3.015E+00	-0.446
		411.60		1.709E+00	1.211E+01	2.010E+01	2.877E+00	0.085
		444.90		3.988E+00	9.944E+00	1.671E+01	1.801E+00	0.239
		473.00		2.553E-01	1.609E+00	2.664E+00	2.988E-01	0.096
		543.00		-4.876E+00	1.588E+01	2.532E+01	3.295E+00	-0.193
		603.60		5.332E-01	1.271E+01	1.791E+01	1.955E+00	0.030
		685.20	*	-8.943E-01	1.275E+00	1.932E+00	1.889E-01	-0.463
		698.50		-9.512E+00	1.556E+01	2.386E+01	3.527E+00	-0.399
		722.20		-4.533E+00	3.243E+01	4.432E+01	4.367E+00	-0.102
		783.80		3.088E+00	4.067E+00	6.739E+00	7.951E-01	0.458
XE-127		57.60		5.723E+00	5.694E+00	8.462E+00	5.573E-01	0.676
		145.22		-9.965E-02	7.120E-01	1.136E+00	7.010E-02	-0.088
		172.10		1.281E-01	1.168E-01	1.943E-01	1.049E-02	0.659
		202.84	*	-1.631E-02	5.342E-02	7.708E-02	4.297E-03	-0.212
		374.96		2.387E-02	1.894E-01	3.152E-01	1.752E-02	0.076
I-131		80.18		-5.653E+00	5.192E+00	7.030E+00	5.644E-01	-0.804
		284.30		-8.900E-05	1.470E+00	2.387E+00	1.547E-01	0.000
		364.48	*	-2.214E-02	1.122E-01	1.837E-01	1.161E-02	-0.121
		636.97		-2.782E-01	1.526E+00	2.439E+00	1.622E-01	-0.114
		722.89		-3.973E+00	7.772E+00	1.015E+01	6.936E-01	-0.391
TE-132		49.72		-1.544E+01	1.464E+01	2.294E+01	2.129E+00	-0.673
		111.76		1.470E+01	3.154E+01	5.162E+01	5.138E+00	0.285
		116.30		1.258E+01	2.894E+01	4.730E+01	4.661E+00	0.266
		228.16	*	8.003E-02	6.889E-01	1.160E+00	1.666E-01	0.069
BA-133		53.15		4.415E-01	2.764E+00	4.540E+00	2.958E-01	0.097
		79.62		2.945E+00	1.513E+00	2.208E+00	3.276E-01	1.334
		81.00		-2.367E-01	1.172E-01	1.449E-01	2.256E-02	-1.634
	+	276.40		2.614E-01	4.667E-01	5.947E-01	7.718E-02	0.439
		302.84		1.235E-01	1.484E-01	2.254E-01	2.631E-02	0.548
		356.01	*	1.359E-03	4.669E-02	6.721E-02	7.726E-03	0.020
		383.85		-7.377E-02	2.749E-01	4.468E-01	4.787E-02	-0.165
I-133	+	510.53		1.799E+00	2.749E-01	Half-Life too short		
		529.87	*	-6.880E-04	2.749E-01	Half-Life too short		
		706.58		-1.462E-01	2.749E-01	Half-Life too short		
		856.28		8.642E-02	2.749E-01	Half-Life too short		
		875.33		1.612E-01	2.749E-01	Half-Life too short		
		1236.41		6.843E-01	2.749E-01	Half-Life too short		
		1298.22		1.016E-01	2.749E-01	Half-Life too short		
CS-134		475.35		-1.578E+00	1.810E+00	2.795E+00	1.615E-01	-0.565
		563.23		-1.688E-01	4.267E-01	5.780E-01	3.513E-02	-0.292
	+	569.32		9.901E-01	5.386E-01	4.632E-01	2.841E-02	2.137
		604.70		2.129E-02	3.492E-02	5.198E-02	3.126E-03	0.410
	+	795.84	*	9.067E-02	6.327E-02	8.749E-02	6.886E-03	1.036
		801.93		-7.099E-02	4.583E-01	6.279E-01	4.989E-02	-0.113
		1038.57		9.791E-01	3.712E+00	6.306E+00	4.899E-01	0.155
		1167.94		-1.372E+00	2.844E+00	4.534E+00	2.543E-01	-0.303
		1365.15		-1.226E-01	1.130E+00	1.828E+00	1.384E-01	-0.067
I-135		288.45		4.622E+10	1.130E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		417.63		-7.985E+08	1.130E+00	Half-Life too short		
		546.56		-1.292E+10	1.130E+00	Half-Life too short		
		836.80		4.566E+10	1.130E+00	Half-Life too short		
		1038.76		4.865E+09	1.130E+00	Half-Life too short		
		1124.00		8.174E+10	1.130E+00	Half-Life too short		
		1131.51		-1.278E+10	1.130E+00	Half-Life too short		
		1260.41	*	4.603E+09	1.130E+00	Half-Life too short		
		1457.56		4.089E+11	1.130E+00	Half-Life too short		
		1678.03		1.088E+10	1.130E+00	Half-Life too short		
		1706.46		-1.672E+10	1.130E+00	Half-Life too short		
		1791.20		1.150E+10	1.130E+00	Half-Life too short		
CS-136		66.91		-6.950E-01	8.301E-01	1.136E+00	1.657E-01	-0.612
	+	86.29		3.249E+00	1.188E+00	1.985E+00	2.543E-01	1.637
		153.22		1.659E-01	6.743E-01	1.089E+00	7.925E-02	0.152
		163.89		9.189E-01	1.086E+00	1.789E+00	1.247E-01	0.514
		176.55		-1.976E-01	3.633E-01	5.664E-01	3.503E-02	-0.349
		273.65		2.983E-02	6.981E-01	6.831E-01	4.534E-02	0.044
		340.57		4.974E-01	1.574E-01	2.620E-01	1.600E-02	1.899
		818.51		3.267E-02	6.556E-02	1.145E-01	9.326E-03	0.285
		1048.07	*	5.759E-02	1.077E-01	1.865E-01	1.500E-02	0.309
		1235.34		2.288E-01	7.097E-01	1.038E+00	1.056E-01	0.220
CE-139		165.85	*	-2.206E-03	2.957E-02	4.712E-02	2.530E-03	-0.047
BA-140		162.64		3.665E-01	7.799E-01	1.268E+00	7.932E-02	0.289
		304.84		-6.628E-01	1.379E+00	1.909E+00	5.211E-01	-0.347
		423.70		-1.048E+00	1.881E+00	2.947E+00	9.355E-01	-0.356
		537.32	*	9.580E-02	2.482E-01	4.127E-01	1.343E-01	0.232
LA-140	+	328.77		7.340E-01	4.032E-01	5.379E-01	3.484E-02	1.365
		432.53		-7.682E-01	1.834E+00	2.934E+00	1.834E-01	-0.262
		487.03		1.542E-01	1.285E-01	2.260E-01	1.487E-02	0.682
		751.79		-1.082E+00	1.678E+00	2.550E+00	2.104E-01	-0.424
		815.85		-9.020E-02	2.892E-01	4.730E-01	4.327E-02	-0.191
		867.82		-6.659E-01	1.599E+00	2.198E+00	2.053E-01	-0.303
		919.63		1.513E+00	2.919E+00	4.618E+00	5.129E-01	0.328
		925.24		-8.553E-01	1.157E+00	1.814E+00	1.749E-01	-0.472
		1596.49	*	-6.935E-03	7.707E-02	1.236E-01	8.194E-03	-0.056
CE-141		145.44	*	1.378E-02	6.372E-02	1.030E-01	6.570E-03	0.134
CE-143		57.37		1.075E-03	6.372E-02	Half-Life too short		
		231.56		-2.460E-04	6.372E-02	Half-Life too short		
		293.26	*	8.461E-04	6.372E-02	Half-Life too short		
	+	350.59		3.035E-02	6.372E-02	Half-Life too short		
		490.36		-9.390E-04	6.372E-02	Half-Life too short		
		664.57		2.241E-03	6.372E-02	Half-Life too short		
		721.93		-7.742E-04	6.372E-02	Half-Life too short		
CE-144		80.11		-2.391E+00	2.355E+00	3.201E+00	2.549E-01	-0.747
		133.54	*	-6.861E-02	2.110E-01	3.346E-01	4.871E-02	-0.205
PM-144		476.78		-1.049E-02	6.401E-02	1.038E-01	7.195E-03	-0.101
		618.01		-2.155E-02	3.309E-02	4.788E-02	3.026E-03	-0.450
		696.49	*	-7.689E-03	3.388E-02	5.378E-02	3.446E-03	-0.143
		778.57		-7.875E-01	2.233E+00	3.481E+00	2.629E-01	-0.226

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144		696.49	*	-5.211E-01	2.296E+00	3.645E+00	2.334E-01	-0.143
		1489.15		-6.106E+00	8.785E+00	1.238E+01	8.547E-01	-0.493
PM-146		453.90	*	1.996E-02	4.196E-02	7.081E-02	6.062E-03	0.282
		633.02		3.641E-02	1.382E+00	2.245E+00	8.272E-01	0.016
		735.90		1.857E-01	1.535E-01	2.512E-01	7.069E-02	0.739
		747.13		-7.306E-02	8.872E-02	1.319E-01	1.736E-02	-0.554
ND-147	+	91.11		6.628E-01	3.576E-01	6.047E-01	5.558E-02	1.096
		319.41		8.748E-02	3.286E+00	5.465E+00	3.172E-01	0.016
		439.89		2.955E+00	5.412E+00	9.191E+00	5.201E-01	0.322
		531.02	*	2.934E-02	5.362E-01	8.787E-01	1.193E-01	0.033
PM-149		285.90	*	1.669E+01	9.150E+01	1.537E+02	2.181E+01	0.109
EU-152		121.78		-5.684E-02	7.293E-02	1.137E-01	9.837E-03	-0.500
		244.69		7.052E-01	3.487E-01	5.614E-01	3.234E-02	1.256
		344.27	*	-6.021E-02	1.297E-01	1.561E-01	1.010E-02	-0.386
		443.98		2.493E-01	9.326E-01	1.557E+00	8.828E-02	0.160
		778.89		-2.677E-02	2.538E-01	4.044E-01	3.054E-02	-0.066
		867.32		-7.727E-01	9.767E-01	1.280E+00	1.138E-01	-0.604
		964.01		3.375E-01	3.287E-01	5.190E-01	4.526E-02	0.650
		1085.78		1.711E-01	3.702E-01	6.384E-01	4.504E-02	0.268
		1112.02		2.005E-01	3.115E-01	5.327E-01	3.527E-02	0.376
		1407.95		1.146E-01	1.617E-01	2.881E-01	2.030E-02	0.398
GD-153		69.67		1.923E-02	1.889E+00	2.503E+00	1.790E-01	0.008
		83.37		1.313E+01	1.923E+01	2.378E+01	1.967E+00	0.552
		97.43	*	-8.330E-03	9.171E-02	1.291E-01	1.035E-02	-0.065
		103.18		-1.800E-01	1.077E-01	1.626E-01	1.254E-02	-1.107
EU-154		123.07		-1.489E-02	5.099E-02	8.114E-02	8.302E-03	-0.184
		247.94		1.076E-01	3.880E-01	5.738E-01	5.465E-02	0.187
		591.81		-2.058E-02	6.060E-01	9.829E-01	9.713E-02	-0.021
		723.30		1.206E-02	1.772E-01	2.484E-01	1.960E-02	0.049
		756.87		3.544E-01	7.302E-01	1.221E+00	1.346E-01	0.290
		873.19		1.263E-01	3.167E-01	5.446E-01	6.809E-02	0.232
		996.32		-7.679E-01	4.056E-01	5.297E-01	9.337E-02	-1.450
		1004.76		3.836E-03	2.287E-01	3.811E-01	4.326E-02	0.010
		1274.45	*	8.051E-03	1.267E-01	2.097E-01	2.057E-02	0.038
EU-155		48.70		-1.805E+00	1.730E+00	2.720E+00	1.743E-01	-0.664
		60.01		2.120E+00	4.694E+00	6.782E+00	4.508E-01	0.313
	+	86.54		2.970E-01	1.049E-01	1.799E-01	1.562E-02	1.650
		105.31	*	8.404E-02	1.063E-01	1.759E-01	1.362E-02	0.478
TB-160	+	86.79		7.946E-01	2.805E-01	4.761E-01	4.103E-02	1.669
		197.04		1.547E-01	5.258E-01	8.938E-01	4.953E-02	0.173
		215.65		-9.650E-01	8.122E-01	1.171E+00	6.604E-02	-0.824
		298.57		2.045E-01	1.816E-01	1.992E-01	1.162E-02	1.026
		879.36	*	1.520E-02	1.358E-01	2.293E-01	2.083E-02	0.066
		962.29		1.879E-01	5.642E-01	8.708E-01	7.609E-02	0.216
		966.15		5.713E-01	2.499E-01	4.243E-01	3.689E-02	1.347
		1177.93		-4.299E-02	4.068E-01	6.703E-01	3.723E-02	-0.064
		1271.85		4.235E-01	7.167E-01	1.240E+00	8.053E-02	0.341
HO-166M		80.57		-5.450E-01	3.057E-01	3.992E-01	3.195E-02	-1.365
		184.41		1.598E-01	4.159E-02	6.962E-02	3.808E-03	2.296

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		7.904E-03	8.779E-02	1.280E-01	7.463E-03	0.062
		410.95		1.197E-01	2.351E-01	3.979E-01	2.201E-02	0.301
		711.68	*	-2.234E-02	5.924E-02	9.272E-02	6.127E-03	-0.241
		752.31		4.563E-02	2.522E-01	4.123E-01	2.957E-02	0.111
		810.29		1.315E-02	5.514E-02	9.038E-02	7.245E-03	0.145
TM-171		51.35		-7.538E+00	2.264E+01	3.661E+01	2.374E+00	-0.206
		52.39		-4.669E-01	1.195E+01	1.951E+01	1.269E+00	-0.024
		59.40		7.646E+00	2.511E+01	3.608E+01	2.390E+00	0.212
		66.72	*	-1.867E+01	2.944E+01	4.089E+01	2.851E+00	-0.457
LU-176	+	88.36		5.848E-01	2.064E-01	3.637E-01	3.169E-02	1.608
		201.83		-1.737E-02	3.060E-02	4.569E-02	2.545E-03	-0.380
		306.84	*	1.395E-02	2.519E-02	3.781E-02	2.202E-03	0.369
		401.10		7.142E+00	6.490E+00	1.130E+01	6.201E-01	0.632
LU-177		112.95		4.952E-01	1.693E+00	2.755E+00	2.024E-01	0.180
	+	208.36	*	1.793E+00	1.881E+00	1.953E+00	1.094E-01	0.918
LU-177M		52.97		1.127E-01	1.249E+00	2.047E+00	1.333E-01	0.055
		54.07		3.856E-02	6.787E-01	1.111E+00	7.251E-02	0.035
		61.30		2.676E+00	1.481E+00	2.232E+00	1.496E-01	1.199
		121.62		-2.413E-01	3.726E-01	5.847E-01	4.158E-02	-0.413
		147.16		1.215E-01	6.509E-01	1.050E+00	6.405E-02	0.116
		171.86		4.982E-01	4.686E-01	7.791E-01	4.204E-02	0.639
		218.09		1.116E+00	8.098E-01	1.423E+00	8.042E-02	0.785
	+	268.79		3.559E+00	1.189E+00	1.446E+00	8.411E-02	2.462
		319.02		-3.067E-02	2.555E-01	4.221E-01	2.449E-02	-0.073
		367.43		-2.804E-02	8.561E-01	1.413E+00	7.922E-02	-0.020
		413.65	*	-1.067E-01	1.759E-01	2.800E-01	1.552E-02	-0.381
HF-181		56.28		1.114E-01	7.800E-01	1.279E+00	8.394E-02	0.087
		57.53		4.869E-01	4.788E-01	7.119E-01	4.688E-02	0.684
		65.20		1.865E+00	1.010E+00	1.524E+00	1.050E-01	1.224
		133.02		-3.525E-02	6.895E-02	1.087E-01	7.224E-03	-0.324
		136.25		-1.930E-01	4.481E-01	7.075E-01	4.611E-02	-0.273
		345.85		4.968E-02	2.444E-01	3.129E-01	1.788E-02	0.159
		482.03	*	-3.166E-02	4.122E-02	6.412E-02	3.719E-03	-0.494
W-181		56.28		4.385E-02	3.048E-01	4.998E-01	3.280E-02	0.088
		57.53		1.904E-01	1.872E-01	2.783E-01	1.833E-02	0.684
		65.20	*	7.235E-01	3.919E-01	5.911E-01	4.072E-02	1.224
TA-182		67.75		-1.099E-01	1.274E-01	1.621E-01	1.140E-02	-0.678
		100.10		2.553E-01	1.797E-01	3.020E-01	2.376E-02	0.846
		152.43		8.034E-02	3.407E-01	5.503E-01	3.244E-02	0.146
		222.10		-9.606E-02	3.315E-01	5.501E-01	3.120E-02	-0.175
		1001.68		4.579E+00	2.254E+00	4.225E+00	3.493E-01	1.084
	+	1121.28		3.851E-01	2.243E-01	3.211E-01	2.075E-02	1.199
		1189.05		-2.650E-01	3.207E-01	4.943E-01	2.799E-02	-0.536
		1221.42	*	-6.711E-02	2.045E-01	3.288E-01	1.967E-02	-0.204
		1230.97		1.486E-01	5.161E-01	8.677E-01	5.273E-02	0.171
RE-183		57.98		1.430E-01	1.870E-01	2.755E-01	1.817E-02	0.519
		59.32		3.169E-02	1.034E-01	1.486E-01	9.840E-03	0.213
		67.20		-1.623E-01	2.103E-01	2.903E-01	2.032E-02	-0.559
		162.32	*	4.728E-02	1.130E-01	1.834E-01	1.010E-02	0.258

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		1.584E+00	1.662E+00	1.727E+00	9.681E-02	0.917
		291.72		-7.224E-01	1.001E+00	1.378E+00	8.038E-02	-0.524
RE-184		57.98		5.264E-01	6.885E-01	1.014E+00	6.687E-02	0.519
		59.32		1.166E-01	3.804E-01	5.465E-01	3.619E-02	0.213
		67.20		-5.973E-01	7.737E-01	1.068E+00	7.478E-02	-0.559
		161.27		-3.098E-02	3.687E-01	5.878E-01	3.262E-02	-0.053
		216.55		-7.042E-02	2.632E-01	4.261E-01	2.406E-02	-0.165
		252.85	*	-1.962E-02	2.168E-01	3.612E-01	2.089E-02	-0.054
		318.01		1.017E-01	4.401E-01	7.390E-01	4.290E-02	0.138
		792.07		-1.981E-01	1.088E+00	1.471E+00	1.139E-01	-0.135
		903.28		6.252E-01	1.031E+00	1.644E+00	1.535E-01	0.380
		920.93		8.170E-02	4.309E-01	7.162E-01	6.568E-02	0.114
OS-185		59.72		9.793E-02	2.787E-01	4.011E-01	2.662E-02	0.244
		61.14		2.207E-01	1.608E-01	2.394E-01	1.603E-02	0.922
		69.30		2.820E-01	3.614E-01	4.499E-01	3.206E-02	0.627
		592.07		-1.619E-01	2.484E+00	4.020E+00	2.404E-01	-0.040
		646.12	*	6.150E-03	4.118E-02	6.748E-02	4.024E-03	0.091
		717.42		5.786E-01	8.438E-01	1.434E+00	9.590E-02	0.403
		874.81		4.237E-01	6.137E-01	1.076E+00	9.695E-02	0.394
		880.27		-5.468E-01	7.585E-01	1.193E+00	1.085E-01	-0.458
RE-188		155.03	*	1.335E-01	1.741E-01	2.862E-01	1.658E-02	0.466
		477.96		1.679E+00	2.869E+00	4.876E+00	2.822E-01	0.344
		633.10		5.831E-02	2.796E+00	4.541E+00	2.713E-01	0.013
W-188	+	63.58		1.919E+02	7.202E+01	8.719E+01	5.936E+00	2.201
		227.08		-4.058E+00	1.212E+01	2.007E+01	1.143E+00	-0.202
		290.67	*	-4.323E+00	7.910E+00	1.103E+01	6.435E-01	-0.392
IR-192	+	295.96		8.868E-01	1.486E-01	2.541E-01	1.505E-02	3.491
		308.46		7.505E-02	9.520E-02	1.510E-01	8.888E-03	0.497
		316.51	*	3.106E-02	3.313E-02	5.737E-02	3.349E-03	0.541
		468.07		2.996E-02	7.060E-02	1.041E-01	6.918E-03	0.288
		604.41		3.255E-01	4.681E-01	7.013E-01	8.026E-02	0.464
		612.46		3.456E+00	9.652E-01	1.654E+00	1.276E-01	2.089
AU-195		65.12		3.701E-01	1.825E-01	2.764E-01	1.903E-02	1.339
		66.83		-6.230E-02	9.740E-02	1.352E-01	9.438E-03	-0.461
	+	75.70		1.235E+00	2.613E-01	4.263E-01	3.234E-02	2.896
		98.88	*	4.715E-01	2.425E-01	3.857E-01	3.061E-02	1.222
		129.76		4.668E+00	2.995E+00	5.036E+00	3.412E-01	0.927
TL-200		367.94	*	-7.559E-05	2.995E+00	Half-Life too short		
		579.30		7.561E-04	2.995E+00	Half-Life too short		
		828.27		3.182E-03	2.995E+00	Half-Life too short		
		1205.75		-1.555E-04	2.995E+00	Half-Life too short		
TL-201		68.90		4.082E+00	7.026E+00	7.473E+00	5.307E-01	0.546
		70.82		1.214E+00	3.012E+00	4.350E+00	3.143E-01	0.279
		80.30		-7.046E+00	5.797E+00	7.799E+00	6.222E-01	-0.903
		135.34		-8.199E+00	2.629E+01	4.173E+01	2.734E+00	-0.196
		167.43	*	-6.084E+00	7.227E+00	1.114E+01	5.986E-01	-0.546
TL-202		68.90		3.557E-01	6.122E-01	6.512E-01	4.625E-02	0.546
		70.82		1.055E-01	2.617E-01	3.780E-01	2.731E-02	0.279
		80.30		-6.125E-01	5.039E-01	6.779E-01	5.409E-02	-0.903

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	3.425E-02	6.369E-02	1.081E-01	6.115E-03	0.317
HG-203		70.83		4.640E-01	1.127E+00	1.626E+00	2.076E-01	0.285
		72.87		2.257E+00	7.426E-01	1.084E+00	1.347E-01	2.081
		82.60		5.083E-01	1.688E+00	1.753E+00	2.364E-01	0.290
		279.20	*	4.039E-03	4.449E-02	6.484E-02	4.012E-03	0.062
BI-207		72.80		6.157E-01	2.054E-01	3.142E-01	2.314E-02	1.960
	+	74.97		6.844E-01	1.448E-01	2.175E-01	1.637E-02	3.147
		84.90		4.011E-01	2.149E-01	3.218E-01	2.710E-02	1.247
	+	569.67		1.543E-01	8.390E-02	7.275E-02	4.340E-03	2.121
		1063.62	*	1.770E-02	5.524E-02	9.393E-02	6.951E-03	0.188
		1770.23		-1.452E-02	3.750E-01	5.112E-01	3.053E-02	-0.028
TL-207		81.07		-5.235E-01	2.491E-01	3.196E-01	2.573E-02	-1.638
		83.78		4.749E-02	1.513E-01	2.025E-01	1.682E-02	0.235
		94.90		1.100E+00	2.963E-01	4.560E-01	3.731E-02	2.412
		122.32		1.460E-02	1.720E+00	2.769E+00	2.173E-01	0.005
		144.24		-1.850E-01	6.960E-01	1.101E+00	8.332E-02	-0.168
		154.21		1.937E-01	4.032E-01	6.566E-01	4.619E-02	0.295
	+	269.46		8.327E-01	2.786E-01	3.519E-01	2.140E-02	2.366
		323.87	*	4.884E-02	7.111E-01	1.030E+00	1.701E-01	0.047
	+	338.28		6.891E+00	1.846E+00	2.362E+00	2.480E-01	2.918
		445.03		7.266E-01	2.230E+00	3.732E+00	3.806E-01	0.195
PO-209		260.50		-1.820E+00	8.980E+00	1.487E+01	8.631E-01	-0.122
		262.80		-3.055E+01	2.632E+01	3.889E+01	2.259E+00	-0.785
		896.60	*	1.816E+00	7.206E+00	1.229E+01	1.150E+00	0.148
BI-210		46.50	*	1.040E+00	2.316E+00	3.871E+00	2.871E-01	0.269
PB-210		46.50	*	1.040E+00	2.316E+00	3.871E+00	2.871E-01	0.269
PO-210		46.50	*	1.040E+00	2.316E+00	3.871E+00	2.429E-01	0.269
PB-211		404.84	*	-1.222E+00	1.209E+00	1.439E+00	8.968E-01	-0.849
		427.08		7.453E-01	2.008E+00	3.288E+00	2.032E+00	0.227
		831.96		-4.746E-01	1.258E+00	1.994E+00	1.249E+00	-0.238
BI-212	+	727.18	*	1.421E+00	4.560E-01	6.299E-01	5.359E-02	2.257
		785.46		1.180E+00	1.876E+00	3.088E+00	2.362E-01	0.382
		1620.62		-2.289E-01	1.190E+00	1.876E+00	1.229E-01	-0.122
PO-215		81.07		-5.235E-01	2.491E-01	3.196E-01	2.573E-02	-1.638
		83.78		4.749E-02	1.513E-01	2.025E-01	1.682E-02	0.235
		94.90		1.100E+00	2.963E-01	4.560E-01	3.731E-02	2.412
		122.32		1.460E-02	1.720E+00	2.769E+00	2.173E-01	0.005
		144.24		-1.850E-01	6.960E-01	1.101E+00	8.332E-02	-0.168
		154.21		1.937E-01	4.032E-01	6.566E-01	4.619E-02	0.295
	+	269.46		8.327E-01	2.786E-01	3.519E-01	2.140E-02	2.366
		323.87	*	4.884E-02	7.111E-01	1.030E+00	1.701E-01	0.047
	+	338.28		6.891E+00	1.846E+00	2.362E+00	2.480E-01	2.918
		445.03		7.266E-01	2.230E+00	3.732E+00	3.806E-01	0.195
RN-219		271.23		5.603E-01	3.389E-01	4.396E-01	3.569E-02	1.275
		401.81	*	2.388E-01	4.141E-01	7.012E-01	9.450E-02	0.341
RN-220		549.76	*	1.428E+01	2.440E+01	4.138E+01	2.460E+00	0.345
RA-223		81.07		-5.235E-01	2.491E-01	3.196E-01	2.573E-02	-1.638
		83.78		4.749E-02	1.513E-01	2.025E-01	1.682E-02	0.235
		94.90		1.100E+00	2.963E-01	4.560E-01	3.731E-02	2.412

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		1.460E-02	1.720E+00	2.769E+00	2.173E-01	0.005
		144.24		-1.850E-01	6.960E-01	1.101E+00	8.332E-02	-0.168
		154.21		1.937E-01	4.032E-01	6.566E-01	4.619E-02	0.295
	+	269.46		8.327E-01	2.786E-01	3.519E-01	2.140E-02	2.366
		323.87	*	4.884E-02	7.111E-01	1.030E+00	1.701E-01	0.047
	+	338.28		6.891E+00	1.846E+00	2.362E+00	2.480E-01	2.918
		445.03		7.266E-01	2.230E+00	3.732E+00	3.806E-01	0.195
AC-227		79.80		2.269E+00	1.868E+00	2.682E+00	5.696E-01	0.846
		236.00		2.082E+00	3.714E-01	5.540E-01	5.769E-02	3.759
		256.20	*	-4.739E-02	3.605E-01	5.993E-01	8.364E-02	-0.079
		286.10		3.317E-01	1.456E+00	2.451E+00	2.837E-01	0.135
	+	299.80		4.679E+00	2.427E+00	2.584E+00	4.210E-01	1.811
		304.40		-7.453E-03	1.924E+00	2.779E+00	4.810E-01	-0.003
		334.20		-7.474E-01	3.090E+00	3.399E+00	6.228E-01	-0.220
TH-227		79.80		2.269E+00	1.869E+00	2.682E+00	5.771E-01	0.846
	+	94.00		1.703E+01	4.685E+00	4.325E+00	9.356E-01	3.938
		236.00		2.082E+00	3.551E-01	5.540E-01	4.993E-02	3.759
		256.20	*	-4.739E-02	3.606E-01	5.993E-01	1.013E-01	-0.079
		286.10		3.317E-01	1.493E+00	2.451E+00	2.455E+00	0.135
	+	299.80		4.679E+00	2.427E+00	2.584E+00	4.210E-01	1.811
		304.40		-7.453E-03	1.924E+00	2.779E+00	4.810E-01	-0.003
		334.20		-7.474E-01	3.090E+00	3.399E+00	6.228E-01	-0.220
TH-229		85.43		5.728E-01	2.189E-01	3.313E-01	2.808E-02	1.729
	+	88.47		3.366E-01	1.188E-01	2.097E-01	1.825E-02	1.605
		100.00		2.874E-01	1.872E-01	3.153E-01	2.483E-02	0.911
		193.63	*	9.357E-02	4.958E-01	8.192E-01	4.524E-02	0.114
		210.97		1.696E+00	8.501E-01	1.352E+00	7.598E-02	1.254
PA-231		283.67	*	-5.979E-01	1.540E+00	2.371E+00	3.271E-01	-0.252
	+	301.29		1.872E+00	9.423E-01	1.016E+00	1.063E-01	1.843
TH-231		81.07		-5.235E-01	2.491E-01	3.196E-01	2.573E-02	-1.638
		83.78		4.749E-02	1.513E-01	2.025E-01	1.682E-02	0.235
		94.90		1.100E+00	2.963E-01	4.560E-01	3.731E-02	2.412
		122.32		1.460E-02	1.720E+00	2.769E+00	2.173E-01	0.005
		144.24		-1.850E-01	6.960E-01	1.101E+00	8.332E-02	-0.168
		154.21		1.937E-01	4.032E-01	6.566E-01	4.619E-02	0.295
	+	269.46		8.327E-01	2.786E-01	3.519E-01	2.140E-02	2.366
		323.87	*	4.884E-02	7.111E-01	1.030E+00	1.701E-01	0.047
	+	338.28		6.891E+00	1.846E+00	2.362E+00	2.480E-01	2.918
		445.03		7.266E-01	2.230E+00	3.732E+00	3.806E-01	0.195
U-231		84.21		6.367E+00	6.208E+00	9.109E+00	7.608E-01	0.699
	+	92.29		1.734E+01	3.274E+00	4.735E+00	3.965E-01	3.662
		95.87	*	4.412E-01	1.284E+00	1.842E+00	1.495E-01	0.240
		108.00		3.805E-01	2.156E+00	3.500E+00	2.630E-01	0.109
PA-233	+	75.28		1.997E+01	4.929E+00	6.641E+00	9.812E-01	3.007
	+	86.59		4.827E+00	2.099E+00	2.917E+00	7.821E-01	1.655
	+	300.12		1.304E+00	6.659E-01	7.209E-01	9.697E-02	1.809
		311.98	*	-2.331E-02	6.030E-02	9.832E-02	6.070E-03	-0.237
		340.50		2.582E+00	9.551E-01	1.281E+00	2.940E-01	2.015
		398.62		-6.559E-02	2.065E+00	3.400E+00	8.766E-01	-0.019

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-1.765E-01	1.601E+00	2.620E+00	5.376E-01	-0.067
PA-234	+	63.00		5.556E+00	2.204E+00	2.553E+00	3.717E-01	2.176
		94.67		1.077E+00	2.439E-01	3.448E-01	4.176E-02	3.125
		98.44		1.490E-01	1.316E-01	1.539E-01	8.569E-02	0.968
		99.86		9.639E-01	4.733E-01	8.054E-01	6.347E-02	1.197
		111.00		1.810E-01	1.892E-01	3.131E-01	3.524E-02	0.578
		131.20		1.252E-01	1.098E-01	1.828E-01	1.228E-02	0.685
		152.70		5.065E-02	3.269E-01	5.264E-01	8.337E-02	0.096
	+	186.00		5.670E+00	2.773E+00	2.578E+00	7.862E-01	2.199
		226.40		9.629E-02	3.829E-01	6.479E-01	7.455E-02	0.149
		227.20		-1.172E-01	4.095E-01	6.792E-01	3.868E-02	-0.173
		248.90		-4.716E-01	8.253E-01	1.258E+00	2.701E-01	-0.375
	+	293.70		5.573E+00	1.252E+00	1.547E+00	2.491E-01	3.601
		369.80		1.962E-01	7.927E-01	1.327E+00	2.755E-01	0.148
	+	568.70		5.021E+00	2.730E+00	2.363E+00	1.410E-01	2.125
	+	569.50		1.369E+00	7.447E-01	6.434E-01	3.839E-02	2.128
		574.00		8.144E-01	1.679E+00	2.472E+00	1.476E-01	0.329
		699.00		-2.493E-01	6.865E-01	1.075E+00	1.956E-01	-0.232
		706.10		-2.363E-01	1.053E+00	1.664E+00	7.360E-01	-0.142
		733.00		-1.404E-01	4.225E-01	5.623E-01	1.214E-01	-0.250
		742.81		2.430E-01	1.328E+00	2.155E+00	1.445E+00	0.113
	+	796.30		1.762E+00	1.310E+00	1.710E+00	4.582E-01	1.031
		805.60		1.111E+00	9.989E-01	1.660E+00	5.058E-01	0.669
		819.60		-3.406E-01	1.086E+00	1.761E+00	6.680E-01	-0.193
		826.30		-2.242E-01	7.823E-01	1.273E+00	5.686E-01	-0.176
		831.60		-3.076E-01	6.344E-01	1.017E+00	3.026E-01	-0.303
		876.40		6.056E-01	1.073E+00	1.535E+00	1.579E+00	0.395
		880.51		-2.030E-01	2.735E-01	4.292E-01	3.906E-02	-0.473
		883.24		-1.503E-01	2.792E-01	4.137E-01	2.784E-01	-0.363
		899.00		-9.085E-01	9.333E-01	1.291E+00	5.665E-01	-0.704
		925.00		-8.471E-01	1.163E+00	1.822E+00	1.664E-01	-0.465
		926.50		7.228E-02	1.712E-01	2.939E-01	7.480E-02	0.246
		946.00	*	-3.409E-01	3.199E-01	4.781E-01	9.036E-02	-0.713
		949.00		2.867E-01	4.639E-01	8.081E-01	7.179E-02	0.355
		980.50		3.804E-01	6.866E-01	1.196E+00	1.020E-01	0.318
		1394.10		-3.354E-01	1.038E+00	1.585E+00	1.029E+00	-0.212
PA-234M		766.42		2.147E+01	1.580E+01	2.086E+01	1.054E+01	1.029
		1001.03	*	1.058E+01	5.103E+00	9.543E+00	9.226E-01	1.109
U-235	+	89.95		2.609E+00	1.603E+00	2.026E+00	6.249E-01	1.288
	+	93.35		5.299E+00	1.731E+00	1.382E+00	3.859E-01	3.835
		105.00		2.049E-01	1.058E+00	1.717E+00	5.076E-01	0.119
		143.76	*	-4.636E-02	2.147E-01	3.402E-01	5.600E-02	-0.136
		163.35		3.545E-01	4.804E-01	7.827E-01	1.399E-01	0.453
	+	185.71		2.100E-01	8.113E-02	9.551E-02	5.231E-03	2.199
		205.31		2.815E-01	5.665E-01	8.468E-01	1.517E-01	0.332
NP-236		94.67		8.215E-01	1.702E-01	2.618E-01	2.146E-02	3.138
		98.44		1.126E-01	7.771E-02	1.163E-01	9.259E-03	0.968
		111.00		1.369E-01	1.426E-01	2.368E-01	1.754E-02	0.578
		160.31	*	-1.268E-02	8.308E-02	1.321E-01	7.384E-03	-0.096

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		3.646E-01	1.630E-01	2.705E-01	2.137E-02	1.348
		117.00	*	8.430E-02	1.887E-01	3.088E-01	2.232E-02	0.273
	+	209.75		1.247E+00	1.309E+00	1.348E+00	7.564E-02	0.925
		228.18		2.744E-02	2.167E-01	3.651E-01	2.080E-02	0.075
	+	277.60		1.276E-01	2.273E-01	2.890E-01	1.685E-02	0.441
		334.30		-4.175E-01	1.749E+00	1.927E+00	1.110E-01	-0.217
AM-241		59.54	*	4.417E-02	1.464E-01	2.102E-01	1.561E-02	0.210
CM-243		99.55		3.752E-01	1.678E-01	2.784E-01	2.199E-02	1.348
		103.76	*	-1.435E-01	9.884E-02	1.507E-01	1.159E-02	-0.953
		117.00		8.673E-02	1.942E-01	3.177E-01	2.296E-02	0.273
	+	209.75		1.230E+00	1.290E+00	1.329E+00	7.457E-02	0.925
		228.18		2.772E-02	2.190E-01	3.689E-01	2.102E-02	0.075
	+	277.60		1.286E-01	2.291E-01	2.914E-01	1.699E-02	0.441
AM-246		798.80		-6.794E-02	1.697E-01	2.237E-01	1.755E-02	-0.304
		1036.00		1.466E-01	2.960E-01	5.115E-01	3.992E-02	0.287
		1062.04		9.976E-02	2.476E-01	4.233E-01	3.143E-02	0.236
		1078.86	*	-9.734E-02	1.438E-01	2.245E-01	1.609E-02	-0.433
CM-247	+	278.00		5.290E-01	9.426E-01	1.201E+00	6.999E-02	0.441
		287.40		4.044E-01	1.154E+00	1.953E+00	1.139E-01	0.207
		402.60	*	1.701E-02	3.597E-02	6.079E-02	3.339E-03	0.280
CF-249		252.85		-7.357E-02	8.129E-01	1.354E+00	7.833E-02	-0.054
		333.44		8.430E-02	2.520E-01	2.549E-01	1.469E-02	0.331
		387.95	*	-2.743E-03	3.580E-02	5.884E-02	3.217E-03	-0.047
CF-251		176.60	*	-6.679E-02	1.241E-01	1.935E-01	1.049E-02	-0.345
		227.00		-1.337E-01	3.626E-01	5.994E-01	3.413E-02	-0.223
		285.00		-1.165E-01	1.649E+00	2.739E+00	1.598E-01	-0.043

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396004      *
* Acquisition date :  5-FEB-2010 19:14:38 Detector SN#     :               *
* Detector ID        : GAM14               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.63      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 21-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245396004           Analyst initials: MXR1          *
* Batch Number       : 944962               Sample Quantity : 1.3985E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.825E+01	3.280E+00	5.282E-01	0.000E+00
CD-109	2.509E+00	8.680E-01	1.349E+00	0.000E+00
SN-126	2.466E-01	8.529E-02	1.469E-01	0.000E+00
CS-135	7.078E-01	2.343E-01	2.291E-01	0.000E+00
BA-137M	8.684E-02	7.470E-02	5.976E-02	0.000E+00
CS-137	9.180E-02	7.897E-02	6.318E-02	0.000E+00
TL-208	5.046E-01	7.917E-02	5.613E-02	0.000E+00
BI-211	3.488E+00	4.779E-01	3.149E-01	0.000E+00
PB-212	1.709E+00	1.640E-01	9.158E-02	0.000E+00
PO-212	1.709E+00	1.640E-01	9.158E-02	0.000E+00
BI-214	1.127E+00	1.792E-01	1.120E-01	0.000E+00
PB-214	1.213E+00	1.774E-01	1.098E-01	0.000E+00
PO-214	1.213E+00	1.774E-01	1.098E-01	0.000E+00
PO-216	1.709E+00	1.640E-01	9.158E-02	0.000E+00
PO-218	1.213E+00	1.774E-01	1.098E-01	0.000E+00
RA-224	3.692E+00	9.744E-01	1.041E+00	0.000E+00
RA-226	1.127E+00	1.792E-01	1.120E-01	0.000E+00
AC-228	1.541E+00	3.306E-01	2.182E-01	0.000E+00
RA-228	1.541E+00	3.306E-01	2.182E-01	0.000E+00
TH-228	1.735E+00	1.666E-01	9.299E-02	0.000E+00
TH-230	1.127E+00	1.792E-01	1.120E-01	0.000E+00
TH-232	1.541E+00	3.306E-01	2.182E-01	0.000E+00
TH-234	4.766E+00	1.902E+00	1.946E+00	0.000E+00
U-234	1.127E+00	1.792E-01	1.120E-01	0.000E+00
NP-237	7.240E-01	2.901E-01	4.026E-01	0.000E+00
U-238	4.766E+00	1.902E+00	1.946E+00	0.000E+00
AM-243	3.813E-01	7.907E-02	8.824E-02	0.000E+00
ANH-511	1.525E-01	6.142E-02	4.515E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	1.091E-01	3.003E-01	5.275E-01	0.000E+00	NOT IDENT.
NA-22	1.801E-03	4.438E-02	7.528E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.177E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-7.736E-03	2.457E-02	3.761E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.785E-02	7.824E-02	0.000E+00	FAIL ABUN
SC-46	-4.703E-02	3.599E-02	5.491E-02	0.000E+00	FAIL ABUN
V-48	-2.039E-02	6.602E-02	1.106E-01	0.000E+00	NOT IDENT.
CR-51	-7.798E-03	3.519E-01	6.171E-01	0.000E+00	NOT IDENT.
MN-52	1.173E-01	2.136E-01	3.833E-01	0.000E+00	NOT IDENT.
MN-54	-2.663E-02	3.960E-02	6.579E-02	0.000E+00	NOT IDENT.
CO-56	-1.683E-02	3.452E-02	5.752E-02	0.000E+00	FAIL ABUN
CO-57	-1.324E-02	2.466E-02	4.188E-02	0.000E+00	NOT IDENT.
CO-58	7.157E-03	3.641E-02	6.162E-02	0.000E+00	NOT IDENT.
FE-59	8.002E-03	9.175E-02	1.578E-01	0.000E+00	NOT IDENT.
CO-60	-3.327E-03	3.777E-02	6.304E-02	0.000E+00	NOT IDENT.
ZN-65	-6.054E-02	1.014E-01	1.382E-01	0.000E+00	NOT IDENT.
GE-68	3.261E-01	1.203E+00	2.103E+00	0.000E+00	NOT IDENT.
AS-73	2.236E-01	6.291E-01	1.137E+00	0.000E+00	NOT IDENT.
AS-74	1.885E-02	8.674E-02	1.493E-01	0.000E+00	NOT IDENT.
SE-75	2.023E-02	4.165E-02	6.623E-02	0.000E+00	NOT IDENT.
BR-77	4.666E+00	1.050E+01	1.846E+01	0.000E+00	FAIL ABUN
SR-82	-3.312E-01	3.581E-01	5.481E-01	0.000E+00	NOT IDENT.
RB-83	3.030E-02	6.595E-02	1.160E-01	0.000E+00	NOT IDENT.
RB-84	-1.018E-01	6.754E-02	1.015E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.888E+00	1.375E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.052E-02	7.061E-02	0.000E+00	NOT IDENT.
RB-86	7.440E-01	7.541E-01	1.390E+00	0.000E+00	NOT IDENT.
Y-88	-6.201E-03	3.049E-02	4.812E-02	0.000E+00	NOT IDENT.
ZR-88	1.343E-02	2.741E-02	4.889E-02	0.000E+00	NOT IDENT.
Y-91	-8.191E+00	1.939E+01	3.186E+01	0.000E+00	NOT IDENT.
NB-94	-4.921E-03	3.271E-02	5.433E-02	0.000E+00	NOT IDENT.
NB-95	5.270E-02	4.218E-02	7.631E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.509E-01	2.637E-01	0.000E+00	NOT IDENT.
ZR-95	-1.260E-02	6.775E-02	1.115E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.288E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.256E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.234E+01	1.227E+01	1.869E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.266E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.771E-04	3.073E-02	5.514E-02	0.000E+00	NOT IDENT.
RH-102	-1.375E-02	2.688E-02	4.467E-02	0.000E+00	NOT IDENT.
RU-103	2.020E-02	3.740E-02	6.620E-02	0.000E+00	FAIL ABUN
RH-106	1.743E-01	2.936E-01	5.172E-01	0.000E+00	FAIL ABUN
RU-106	1.743E-01	2.931E-01	5.172E-01	0.000E+00	FAIL ABUN
AG-108M	-1.018E-02	2.796E-02	4.714E-02	0.000E+00	NOT IDENT.
AG-110M	-1.342E-02	3.839E-02	5.373E-02	0.000E+00	NOT IDENT.
IN-111	1.454E+00	1.130E+00	1.871E+00	0.000E+00	NOT IDENT.
IN-113M	1.057E-02	3.960E-02	6.980E-02	0.000E+00	NOT IDENT.
SN-113	1.057E-02	3.960E-02	6.980E-02	0.000E+00	NOT IDENT.
IN-114M	-8.761E-03	1.956E-01	3.058E-01	0.000E+00	NOT IDENT.
CD-115	-1.187E+01	1.077E+01	1.696E+01	0.000E+00	NOT IDENT.
SN-117M	-1.665E-02	5.650E-02	9.580E-02	0.000E+00	NOT IDENT.
SB-122	-1.233E+00	2.522E+00	3.540E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.420E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-7.164E-03	2.903E-02	4.931E-02	0.000E+00	NOT IDENT.
I-124	-1.598E-01	7.332E-01	1.050E+00	0.000E+00	FAIL ABUN
SB-124	5.339E-03	6.586E-02	1.107E-01	0.000E+00	FAIL ABUN
SB-125	5.566E-02	8.369E-02	1.502E-01	0.000E+00	FAIL ABUN
TE-125M	-8.076E+00	9.499E+00	1.603E+01	0.000E+00	NOT IDENT.
I-126	2.119E-01	2.106E-01	3.351E-01	0.000E+00	NOT IDENT.
SB-126	2.842E-02	1.483E-01	2.192E-01	0.000E+00	FAIL ABUN
SB-127	-8.943E-01	1.250E+00	1.970E+00	0.000E+00	NOT IDENT.
XE-127	-1.631E-02	5.235E-02	8.055E-02	0.000E+00	NOT IDENT.
I-131	-2.214E-02	1.100E-01	1.897E-01	0.000E+00	NOT IDENT.
TE-132	8.003E-02	6.751E-01	1.209E+00	0.000E+00	NOT IDENT.
BA-133	1.359E-03	4.576E-02	6.946E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.443E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.201E-02	8.894E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	8.847E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.759E-02	1.055E-01	1.885E-01	0.000E+00	FAIL ABUN
CE-139	-2.206E-03	2.898E-02	4.944E-02	0.000E+00	NOT IDENT.
BA-140	9.580E-02	2.433E-01	4.229E-01	0.000E+00	NOT IDENT.
LA-140	-6.935E-03	7.553E-02	1.238E-01	0.000E+00	FAIL ABUN
CE-141	1.378E-02	6.245E-02	1.083E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.553E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-6.861E-02	2.067E-01	3.525E-01	0.000E+00	NOT IDENT.
PM-144	-7.689E-03	3.320E-02	5.482E-02	0.000E+00	NOT IDENT.
PR-144	-5.211E-01	2.250E+00	3.715E+00	0.000E+00	NOT IDENT.

PM-146	1.996E-02	4.113E-02	7.282E-02	0.000E+00	NOT IDENT.
ND-147	2.934E-02	5.254E-01	9.008E-01	0.000E+00	FAIL ABUN
PM-149	1.669E+01	8.967E+01	1.595E+02	0.000E+00	NOT IDENT.
EU-152	-6.021E-02	1.271E-01	1.614E-01	0.000E+00	NOT IDENT.
GD-153	-8.330E-03	8.988E-02	1.368E-01	0.000E+00	NOT IDENT.
EU-154	8.051E-03	1.242E-01	2.111E-01	0.000E+00	NOT IDENT.
EU-155	8.404E-02	1.042E-01	1.862E-01	0.000E+00	FAIL ABUN
TB-160	1.520E-02	1.331E-01	2.327E-01	0.000E+00	FAIL ABUN
HO-166M	-2.234E-02	5.806E-02	9.448E-02	0.000E+00	NOT IDENT.
TM-171	-1.867E+01	2.885E+01	4.365E+01	0.000E+00	NOT IDENT.
LU-176	1.395E-02	2.468E-02	3.919E-02	0.000E+00	FAIL ABUN
LU-177	1.793E+00	1.843E+00	2.040E+00	0.000E+00	FAIL ABUN
LU-177M	-1.067E-01	1.724E-01	2.885E-01	0.000E+00	FAIL ABUN
HF-181	-3.166E-02	4.040E-02	6.586E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	3.840E-01	6.312E-01	0.000E+00	NOT IDENT.
TA-182	-6.711E-02	2.004E-01	3.313E-01	0.000E+00	FAIL ABUN
RE-183	4.728E-02	1.107E-01	1.925E-01	0.000E+00	FAIL ABUN
RE-184	-1.962E-02	2.125E-01	3.758E-01	0.000E+00	NOT IDENT.
OS-185	6.150E-03	4.035E-02	6.889E-02	0.000E+00	NOT IDENT.
RE-188	1.335E-01	1.706E-01	3.006E-01	0.000E+00	NOT IDENT.
W-188	-4.323E+00	7.752E+00	1.144E+01	0.000E+00	FAIL ABUN
IR-192	3.106E-02	3.246E-02	5.943E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.376E-01	4.087E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.824E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-6.084E+00	7.082E+00	1.169E+01	0.000E+00	NOT IDENT.
TL-202	3.425E-02	6.242E-02	1.113E-01	0.000E+00	NOT IDENT.
HG-203	4.039E-03	4.360E-02	6.734E-02	0.000E+00	NOT IDENT.
BI-207	1.770E-02	5.413E-02	9.491E-02	0.000E+00	FAIL ABUN
TL-207	4.884E-02	6.969E-01	1.066E+00	0.000E+00	FAIL ABUN
PO-209	1.816E+00	7.062E+00	1.246E+01	0.000E+00	NOT IDENT.
BI-210	1.040E+00	2.270E+00	4.160E+00	0.000E+00	NOT IDENT.
PB-210	1.040E+00	2.270E+00	4.160E+00	0.000E+00	NOT IDENT.
PO-210	1.040E+00	2.269E+00	4.160E+00	0.000E+00	NOT IDENT.
PB-211	-1.222E+00	1.185E+00	1.483E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.469E-01	6.415E-01	0.000E+00	FAIL ABUN
PO-215	4.884E-02	6.969E-01	1.066E+00	0.000E+00	FAIL ABUN
RN-219	2.388E-01	4.058E-01	7.229E-01	0.000E+00	NOT IDENT.
RN-220	1.428E+01	2.391E+01	4.239E+01	0.000E+00	NOT IDENT.
RA-223	4.884E-02	6.969E-01	1.066E+00	0.000E+00	FAIL ABUN
AC-227	-4.739E-02	3.533E-01	6.234E-01	0.000E+00	FAIL ABUN
TH-227	-4.739E-02	3.534E-01	6.234E-01	0.000E+00	FAIL ABUN
TH-229	9.357E-02	4.858E-01	8.568E-01	0.000E+00	FAIL ABUN
PA-231	-5.979E-01	1.509E+00	2.461E+00	0.000E+00	FAIL ABUN
TH-231	4.884E-02	6.969E-01	1.066E+00	0.000E+00	FAIL ABUN
U-231	4.412E-01	1.259E+00	1.953E+00	0.000E+00	FAIL ABUN
PA-233	-2.331E-02	5.909E-02	1.019E-01	0.000E+00	FAIL ABUN
PA-234	-3.409E-01	3.135E-01	4.842E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	5.001E+00	9.655E+00	0.000E+00	NOT IDENT.
U-235	-4.636E-02	2.104E-01	3.579E-01	0.000E+00	FAIL ABUN
NP-236	-1.268E-02	8.142E-02	1.387E-01	0.000E+00	NOT IDENT.
NP-239	8.430E-02	1.850E-01	3.262E-01	0.000E+00	FAIL ABUN
AM-241	4.417E-02	1.434E-01	2.249E-01	0.000E+00	NOT IDENT.
CM-243	-1.435E-01	9.686E-02	1.595E-01	0.000E+00	FAIL ABUN
AM-246	-9.734E-02	1.409E-01	2.268E-01	0.000E+00	NOT IDENT.
CM-247	1.701E-02	3.525E-02	6.267E-02	0.000E+00	FAIL ABUN
CF-249	-2.743E-03	3.509E-02	6.070E-02	0.000E+00	NOT IDENT.
CF-251	-6.679E-02	1.216E-01	2.027E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:15:09.50

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396004.CNF;1
Sample date       : 21-JAN-2010 12:00:00 Acquisition date : 5-FEB-2010 19:14:38.
Sample ID         : G245396004           Sample quantity  : 1.39850E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.63  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1841	10.67*	1.211E+00	3.825E+01	3.825E+01	8.75
CD-109	88.03	240	3.72*	7.058E+00	2.452E+00	2.509E+00	35.30
SN-126	64.28	312	9.60	4.621E+00	1.887E+00	1.887E+00	39.55
	86.94	240	8.90	7.058E+00	1.025E+00	1.025E+00	53.68
	87.57	240	37.00*	7.058E+00	2.466E-01	2.466E-01	35.30
CS-135	268.24	215	16.00*	5.105E+00	7.078E-01	7.078E-01	33.78
BA-137M	661.65	72	89.98*	2.466E+00	8.676E-02	8.684E-02	87.77
CS-137	661.65	72	85.12*	2.466E+00	9.171E-02	9.180E-02	87.78
TL-208	277.35	33	6.80	4.999E+00	2.645E-01	2.645E-01	178.40
	510.84	176	21.60	3.089E+00	7.061E-01	7.061E-01	41.93
	583.14	436	84.20*	2.757E+00	5.046E-01	5.046E-01	16.01
	860.37	97	12.46	1.943E+00	1.073E+00	1.073E+00	47.11
BI-211	72.87	------	1.27	5.875E+00	------ Line Not Found		------
	351.07	703	12.94*	4.178E+00	3.488E+00	3.488E+00	13.98
PB-212	74.81	571	10.70	6.094E+00	2.352E+00	2.352E+00	23.13
	77.11	724	18.00	6.320E+00	1.709E+00	1.709E+00	15.48
	87.30	240	8.00	7.058E+00	1.140E+00	1.140E+00	36.69
	238.63	1581	44.60*	5.569E+00	1.709E+00	1.709E+00	9.79
	300.09	151	3.41	4.712E+00	2.525E+00	2.525E+00	49.94
PO-212	74.81	571	10.70	6.094E+00	2.352E+00	2.352E+00	23.13
	77.11	724	18.00	6.320E+00	1.709E+00	1.709E+00	15.48
	87.30	240	8.00	7.058E+00	1.140E+00	1.140E+00	36.69
	115.19	------	0.60	7.689E+00	------ Line Not Found		------
	238.63	1581	44.60*	5.569E+00	1.709E+00	1.709E+00	9.79
	300.09	151	3.41	4.712E+00	2.525E+00	2.525E+00	49.94
BI-214	609.31	516	46.30*	2.654E+00	1.127E+00	1.127E+00	16.23
	1120.29	70	15.10	1.523E+00	8.136E-01	8.137E-01	58.62
	1764.49	98	15.80	1.059E+00	1.575E+00	1.575E+00	22.34
PB-214	74.81	571	6.21	6.094E+00	4.052E+00	4.052E+00	22.42
	77.11	724	10.50	6.320E+00	2.930E+00	2.930E+00	17.25
	87.30	240	4.67	7.058E+00	1.953E+00	1.953E+00	36.13
	241.98	300	7.49	5.518E+00	1.947E+00	1.947E+00	27.51

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	397	19.20	4.777E+00	1.161E+00	1.161E+00	17.86
	351.92	703	37.20*	4.178E+00	1.213E+00	1.213E+00	14.92
PO-214	74.81	571	6.21	6.094E+00	4.052E+00	4.052E+00	22.42
	77.11	724	10.50	6.320E+00	2.930E+00	2.930E+00	17.25
	87.30	240	4.67	7.058E+00	1.953E+00	1.953E+00	36.13
	241.98	300	7.49	5.518E+00	1.947E+00	1.947E+00	27.51
	295.21	397	19.20	4.777E+00	1.161E+00	1.161E+00	17.86
	351.92	703	37.20*	4.178E+00	1.213E+00	1.213E+00	14.92
PO-216	74.81	571	10.70	6.094E+00	2.352E+00	2.352E+00	23.13
	77.11	724	18.00	6.320E+00	1.709E+00	1.709E+00	15.48
	87.30	240	8.00	7.058E+00	1.140E+00	1.140E+00	36.69
	238.63	1581	44.60*	5.569E+00	1.709E+00	1.709E+00	9.79
	300.09	151	3.41	4.712E+00	2.525E+00	2.525E+00	49.94
PO-218	74.81	571	6.21	6.094E+00	4.052E+00	4.052E+00	22.42
	77.11	724	10.50	6.320E+00	2.930E+00	2.930E+00	17.25
	87.30	240	4.67	7.058E+00	1.953E+00	1.953E+00	36.13
	241.98	300	7.49	5.518E+00	1.947E+00	1.947E+00	27.51
	295.21	397	19.20	4.777E+00	1.161E+00	1.161E+00	17.86
	351.92	703	37.20*	4.178E+00	1.213E+00	1.213E+00	14.92
RA-224	240.98	300	3.95*	5.518E+00	3.692E+00	3.692E+00	26.93
RA-226	609.31	516	46.30*	2.654E+00	1.127E+00	1.127E+00	16.23
	1120.29	70	15.10	1.523E+00	8.136E-01	8.137E-01	58.62
	1764.49	98	15.80	1.059E+00	1.575E+00	1.575E+00	22.34
AC-228	338.32	302	11.40	4.308E+00	1.650E+00	1.650E+00	47.63
	911.07	293	27.70*	1.843E+00	1.541E+00	1.541E+00	21.89
	969.11	154	16.60	1.741E+00	1.432E+00	1.432E+00	35.47
RA-228	338.32	302	11.40	4.308E+00	1.650E+00	1.650E+00	47.63
	911.07	293	27.70*	1.843E+00	1.541E+00	1.541E+00	21.89
	969.11	154	16.60	1.741E+00	1.432E+00	1.432E+00	35.47
TH-228	74.81	571	10.70	6.094E+00	2.352E+00	2.388E+00	21.19
	77.11	724	18.00	6.320E+00	1.709E+00	1.735E+00	15.48
	87.30	240	8.00	7.058E+00	1.140E+00	1.158E+00	35.30
	238.63	1581	44.60*	5.569E+00	1.709E+00	1.735E+00	9.79
	300.09	151	3.41	4.712E+00	2.525E+00	2.563E+00	76.81
TH-230	609.31	516	46.30*	2.654E+00	1.127E+00	1.127E+00	16.23
	1120.29	70	15.10	1.523E+00	8.136E-01	8.136E-01	58.62
	1764.49	98	15.80	1.059E+00	1.575E+00	1.575E+00	22.34
TH-232	338.32	302	11.40	4.308E+00	1.650E+00	1.650E+00	25.31
	911.07	293	27.70*	1.843E+00	1.541E+00	1.541E+00	21.89
	969.11	154	16.60	1.741E+00	1.432E+00	1.432E+00	35.47
TH-234	63.29	312	3.80*	4.621E+00	4.766E+00	4.766E+00	40.71
	92.38	650	5.41	7.313E+00	4.408E+00	4.408E+00	24.68
U-234	609.31	516	46.30*	2.654E+00	1.127E+00	1.127E+00	16.23
	1120.29	70	15.10	1.523E+00	8.136E-01	8.136E-01	58.62
	1764.49	98	15.80	1.059E+00	1.575E+00	1.575E+00	22.34
NP-237	86.50	240	12.60*	7.058E+00	7.240E-01	7.240E-01	40.89
	95.87	------	2.60	7.425E+00	------ Line Not Found		------
U-238	63.29	312	3.80*	4.621E+00	4.766E+00	4.766E+00	40.71
	92.38	650	5.41	7.313E+00	4.408E+00	4.408E+00	18.88

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	571	66.00*	6.094E+00	3.813E-01	3.813E-01	21.16
	86.72	240	0.34	7.058E+00	2.715E+01	2.715E+01	35.30
	117.66	------	0.55	7.685E+00	------	Line Not Found	------
	142.18	------	0.13	7.399E+00	------	Line Not Found	------
ANH-511	511.00	176	100.00*	3.089E+00	1.525E-01	1.525E-01	41.09

Flag: "*" = Keyline

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

Total number of lines in spectrum 34
Number of unidentified lines 1
Number of lines tentatively identified by NID 33 97.06%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.825E+01	3.825E+01	0.335E+01	8.75	
CD-109	464.00D	1.02	2.452E+00	2.509E+00	0.886E+00	35.30	
SN-126	1.00E+05Y	1.00	2.466E-01	2.466E-01	0.870E-01	35.30	
CS-135	2.30E+06Y	1.00	7.078E-01	7.078E-01	2.391E-01	33.78	
BA-137M	30.17Y	1.00	8.676E-02	8.684E-02	7.622E-02	87.77	
CS-137	30.17Y	1.00	9.171E-02	9.180E-02	8.058E-02	87.78	
TL-208	1.41E+10Y	1.00	5.046E-01	5.046E-01	0.808E-01	16.01	
BI-211	7.04E+08Y	1.00	3.488E+00	3.488E+00	0.488E+00	13.98	
PB-212	1.41E+10Y	1.00	1.709E+00	1.709E+00	0.167E+00	9.79	
PO-212	1.41E+10Y	1.00	1.709E+00	1.709E+00	0.167E+00	9.79	
BI-214	1600.00Y	1.00	1.127E+00	1.127E+00	0.183E+00	16.23	
PB-214	1600.00Y	1.00	1.213E+00	1.213E+00	0.181E+00	14.92	
PO-214	1600.00Y	1.00	1.213E+00	1.213E+00	0.181E+00	14.92	
PO-216	1.41E+10Y	1.00	1.709E+00	1.709E+00	0.167E+00	9.79	
PO-218	1600.00Y	1.00	1.213E+00	1.213E+00	0.181E+00	14.92	
RA-224	1.41E+10Y	1.00	3.692E+00	3.692E+00	0.994E+00	26.93	
RA-226	1600.00Y	1.00	1.127E+00	1.127E+00	0.183E+00	16.23	
AC-228	1.41E+10Y	1.00	1.541E+00	1.541E+00	0.337E+00	21.89	
RA-228	1.41E+10Y	1.00	1.541E+00	1.541E+00	0.337E+00	21.89	
TH-228	1.91Y	1.02	1.709E+00	1.735E+00	0.170E+00	9.79	
TH-230	4.47E+09Y	1.00	1.127E+00	1.127E+00	0.183E+00	16.23	
TH-232	1.41E+10Y	1.00	1.541E+00	1.541E+00	0.337E+00	21.89	
TH-234	4.47E+09Y	1.00	4.766E+00	4.766E+00	1.940E+00	40.71	
U-234	4.47E+09Y	1.00	1.127E+00	1.127E+00	0.183E+00	16.23	
NP-237	2.14E+06Y	1.00	7.240E-01	7.240E-01	2.960E-01	40.89	
U-238	4.47E+09Y	1.00	4.766E+00	4.766E+00	1.940E+00	40.71	
AM-243	7380.00Y	1.00	3.813E-01	3.813E-01	0.807E-01	21.16	
ANH-511	1.00E+09Y	1.00	1.525E-01	1.525E-01	0.627E-01	41.09	
	Total Activity :		7.991E+01	8.000E+01			

Grand Total Activity : 7.991E+01 8.000E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	89.89	189	680	1.52	179.28	171	20	2.62E-02	53.1	7.19E+00	T
0	186.08	276	563	1.30	371.47	365	13	3.83E-02	38.2	6.53E+00	T
0	209.06	92	518	1.23	417.39	411	13	1.27E-02	****	6.08E+00	T
0	327.73	108	203	1.01	654.54	650	11	1.50E-02	54.5	4.41E+00	T
0	463.01	75	126	0.87	924.94	920	10	1.05E-02	60.6	3.35E+00	T
0	569.86	158	226	2.23	1138.53	1127	24	2.19E-02	54.1	2.81E+00	T
0	727.45	142	71	1.78	1453.60	1446	15	1.97E-02	30.9	2.27E+00	T
0	795.57	54	75	1.33	1589.80	1585	12	7.43E-03	69.3	2.09E+00	T
0	1239.63	36	71	1.57	2478.01	2474	9	4.96E-03	92.6	1.39E+00	T
0	1379.99	31	54	1.52	2758.87	2750	18	4.31E-03	****	1.27E+00	
0	1510.12	14	30	3.54	3019.28	3010	20	1.91E-03	****	1.18E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:15:15.05

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245396004.CNF;1  *
* Acquisition date : 5-FEB-2010 19:14:38.  Detector SN#     :               *
* Detector ID      : GAM14                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.63         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 21-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245396004            Analyst initials: MXR1           *
* Batch Number     : 944962                Sample Quantity : 1.39850E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 6-MAR-2009 11:43:06.61MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.825E+01	3.347E+00	5.262E-01	3.821E-02	72.686
CD-109	2.509E+00	8.857E-01	1.270E+00	1.111E-01	1.975
SN-126	2.466E-01	8.703E-02	1.383E-01	1.203E-02	1.783
CS-135	7.078E-01	2.391E-01	2.205E-01	1.691E-02	3.210
BA-137M	8.684E-02	7.622E-02	5.856E-02	3.482E-03	1.483
CS-137	9.180E-02	8.058E-02	6.191E-02	3.696E-03	1.483
TL-208	5.046E-01	8.079E-02	5.486E-02	3.752E-03	9.198
BI-211	3.488E+00	4.876E-01	3.046E-01	1.930E-02	11.450
PB-212	1.709E+00	1.674E-01	8.792E-02	6.404E-03	19.438
PO-212	1.709E+00	1.674E-01	8.792E-02	6.404E-03	19.438
BI-214	1.127E+00	1.829E-01	1.096E-01	8.674E-03	10.280
PB-214	1.213E+00	1.811E-01	1.062E-01	8.713E-03	11.427
PO-214	1.213E+00	1.811E-01	1.062E-01	8.713E-03	11.427
PO-216	1.709E+00	1.674E-01	8.792E-02	6.404E-03	19.438
PO-218	1.213E+00	1.811E-01	1.062E-01	8.713E-03	11.427
RA-224	3.692E+00	9.943E-01	1.000E+00	5.748E-02	3.692
RA-226	1.127E+00	1.829E-01	1.096E-01	8.674E-03	10.280
AC-228	1.541E+00	3.373E-01	2.153E-01	2.528E-02	7.157

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.541E+00	3.373E-01	2.153E-01	2.528E-02	7.157
TH-228	1.735E+00	1.700E-01	8.927E-02	6.502E-03	19.438
TH-230	1.127E+00	1.828E-01	1.096E-01	8.674E-03	10.280
TH-232	1.541E+00	3.373E-01	2.153E-01	2.528E-02	7.157
TH-234	4.766E+00	1.940E+00	1.821E+00	3.130E-01	2.617
U-234	1.127E+00	1.828E-01	1.096E-01	8.674E-03	10.280
NP-237	7.240E-01	2.960E-01	3.790E-01	8.470E-02	1.910
U-238	4.766E+00	1.940E+00	1.821E+00	3.130E-01	2.617
AM-243	3.813E-01	8.069E-02	8.283E-02	6.216E-03	4.603
ANH-511	1.525E-01	6.267E-02	4.401E-02	2.585E-03	3.466

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.091E-01		3.065E-01	5.134E-01	3.461E-02	0.213
NA-22	1.801E-03		4.528E-02	7.478E-02	4.885E-03	0.024
NA-24	1.885E-01		3.662E-01	Half-Life too short		
AL-26	-7.736E-03		2.507E-02	3.764E-02	2.182E-03	-0.206
TI-44	3.154E-01	+	4.882E-02	7.351E-02	5.740E-03	4.290
SC-46	-4.703E-02		3.673E-02	5.414E-02	5.002E-03	-0.869
V-48	-2.039E-02		6.736E-02	1.092E-01	9.275E-03	-0.187
CR-51	-7.798E-03		3.591E-01	5.959E-01	3.850E-02	-0.013
MN-52	1.173E-01		2.180E-01	3.817E-01	2.675E-02	0.307
MN-54	-2.663E-02		4.040E-02	6.478E-02	5.434E-03	-0.411
CO-56	-1.683E-02		3.522E-02	5.665E-02	4.856E-03	-0.297
CO-57	-1.324E-02		2.516E-02	3.968E-02	2.823E-03	-0.334
CO-58	7.157E-03		3.715E-02	6.064E-02	4.879E-03	0.118
FE-59	8.002E-03		9.362E-02	1.562E-01	1.203E-02	0.051
CO-60	-3.327E-03		3.854E-02	6.269E-02	4.468E-03	-0.053
ZN-65	-6.054E-02		1.034E-01	1.369E-01	8.996E-03	-0.442
GE-68	3.261E-01		1.228E+00	2.081E+00	1.496E-01	0.157
AS-73	2.236E-01		6.419E-01	1.060E+00	6.911E-02	0.211
AS-74	1.885E-02		8.851E-02	1.460E-01	8.734E-03	0.129
SE-75	2.023E-02		4.250E-02	6.371E-02	3.741E-03	0.318
BR-77	4.666E+00		1.072E+01	1.800E+01	1.061E+00	0.259
SR-82	-3.312E-01		3.654E-01	5.388E-01	4.051E-02	-0.615
RB-83	3.030E-02		6.730E-02	1.132E-01	6.670E-03	0.268
RB-84	-1.018E-01		6.891E-02	1.000E-01	9.120E-03	-1.018
KR-85	1.913E+01		8.049E+00	1.340E+01	7.881E-01	1.428
SR-85	9.829E-02		4.135E-02	6.884E-02	4.049E-03	1.428
RB-86	7.440E-01		7.695E-01	1.375E+00	9.903E-02	0.541
Y-88	-6.201E-03		3.111E-02	4.817E-02	2.736E-03	-0.129
ZR-88	1.343E-02		2.797E-02	4.741E-02	2.581E-03	0.283
Y-91	-8.191E+00		1.978E+01	3.161E+01	1.839E+00	-0.259
NB-94	-4.921E-03		3.338E-02	5.330E-02	3.457E-03	-0.092
NB-95	5.270E-02		4.304E-02	7.500E-02	5.523E-03	0.703
NB-95M	6.085E-01		1.540E-01	2.531E-01	1.892E-02	2.404

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	-1.260E-02		6.913E-02	1.096E-01	9.039E-03	-0.115
NB-97	-3.646E-02		6.573E-02	Half-Life too short		
ZR-97	2.488E+00		1.151E+00	Half-Life too short		
MO-99	-1.234E+01		1.252E+01	1.835E+01	2.629E+00	-0.672
TC-99M	1.910E+10		3.197E+10	Half-Life too short		
RH-101	-5.771E-04		3.136E-02	5.274E-02	2.926E-03	-0.011
RH-102	-1.375E-02		2.743E-02	4.348E-02	2.513E-03	-0.316
RU-103	2.020E-02		3.816E-02	6.449E-02	8.167E-03	0.313
RH-106	1.743E-01		2.996E-01	5.062E-01	5.986E-02	0.344
RU-106	1.743E-01		2.991E-01	5.062E-01	3.027E-02	0.344
AG-108M	-1.018E-02		2.853E-02	4.580E-02	2.814E-03	-0.222
AG-110M	-1.342E-02		3.917E-02	5.264E-02	3.325E-03	-0.255
IN-111	1.454E+00		1.153E+00	1.797E+00	1.036E-01	0.809
IN-113M	1.057E-02		4.040E-02	6.767E-02	3.960E-03	0.156
SN-113	1.057E-02		4.040E-02	6.767E-02	3.960E-03	0.156
IN-114M	-8.761E-03		1.996E-01	2.923E-01	1.609E-02	-0.030
CD-115	-1.187E+01		1.099E+01	1.654E+01	9.777E-01	-0.718
SN-117M	-1.665E-02		5.765E-02	9.124E-02	5.161E-03	-0.182
SB-122	-1.233E+00		2.574E+00	3.457E+00	2.061E-01	-0.357
I-123	-1.831E+00		3.786E+00	Half-Life too short		
TE-123M	-7.164E-03		2.962E-02	4.696E-02	2.686E-03	-0.153
I-124	-1.598E-01		7.481E-01	1.027E+00	6.142E-02	-0.156
SB-124	5.339E-03		6.720E-02	1.106E-01	7.476E-03	0.048
SB-125	5.566E-02		8.540E-02	1.458E-01	8.547E-03	0.382
TE-125M	-8.076E+00		9.693E+00	1.516E+01	1.423E+00	-0.533
I-126	2.119E-01		2.149E-01	3.284E-01	1.973E-02	0.645
SB-126	2.842E-02		1.514E-01	2.152E-01	1.448E-02	0.132
SB-127	-8.943E-01		1.275E+00	1.932E+00	1.889E-01	-0.463
XE-127	-1.631E-02		5.342E-02	7.708E-02	4.297E-03	-0.212
I-131	-2.214E-02		1.122E-01	1.837E-01	1.161E-02	-0.121
TE-132	8.003E-02		6.889E-01	1.160E+00	1.666E-01	0.069
BA-133	1.359E-03		4.669E-02	6.721E-02	7.726E-03	0.020
I-133	-6.880E-04		3.287E-03	Half-Life too short		
CS-134	9.067E-02	+	6.327E-02	8.749E-02	6.886E-03	1.036
I-135	4.603E+09		4.514E+09	Half-Life too short		
CS-136	5.759E-02		1.077E-01	1.865E-01	1.500E-02	0.309
CE-139	-2.206E-03		2.957E-02	4.712E-02	2.530E-03	-0.047
BA-140	9.580E-02		2.482E-01	4.127E-01	1.343E-01	0.232
LA-140	-6.935E-03		7.707E-02	1.236E-01	8.194E-03	-0.056
CE-141	1.378E-02		6.372E-02	1.030E-01	6.570E-03	0.134
CE-143	8.461E-04		1.303E-04	Half-Life too short		
CE-144	-6.861E-02		2.110E-01	3.346E-01	4.871E-02	-0.205
PM-144	-7.689E-03		3.388E-02	5.378E-02	3.446E-03	-0.143
PR-144	-5.211E-01		2.296E+00	3.645E+00	2.334E-01	-0.143
PM-146	1.996E-02		4.196E-02	7.081E-02	6.062E-03	0.282
ND-147	2.934E-02		5.362E-01	8.787E-01	1.193E-01	0.033
PM-149	1.669E+01		9.150E+01	1.537E+02	2.181E+01	0.109
EU-152	-6.021E-02		1.297E-01	1.561E-01	1.010E-02	-0.386

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-8.330E-03		9.171E-02	1.291E-01	1.035E-02	-0.065
EU-154	8.051E-03		1.267E-01	2.097E-01	2.057E-02	0.038
EU-155	8.404E-02		1.063E-01	1.759E-01	1.362E-02	0.478
TB-160	1.520E-02		1.358E-01	2.293E-01	2.083E-02	0.066
HO-166M	-2.234E-02		5.924E-02	9.272E-02	6.127E-03	-0.241
TM-171	-1.867E+01		2.944E+01	4.089E+01	2.851E+00	-0.457
LU-176	1.395E-02		2.519E-02	3.781E-02	2.202E-03	0.369
LU-177	1.793E+00	+	1.881E+00	1.953E+00	1.094E-01	0.918
LU-177M	-1.067E-01		1.759E-01	2.800E-01	1.552E-02	-0.381
HF-181	-3.166E-02		4.122E-02	6.412E-02	3.719E-03	-0.494
W-181	7.235E-01		3.919E-01	5.911E-01	4.072E-02	1.224
TA-182	-6.711E-02		2.045E-01	3.288E-01	1.967E-02	-0.204
RE-183	4.728E-02		1.130E-01	1.834E-01	1.010E-02	0.258
RE-184	-1.962E-02		2.168E-01	3.612E-01	2.089E-02	-0.054
OS-185	6.150E-03		4.118E-02	6.748E-02	4.024E-03	0.091
RE-188	1.335E-01		1.741E-01	2.862E-01	1.658E-02	0.466
W-188	-4.323E+00		7.910E+00	1.103E+01	6.435E-01	-0.392
IR-192	3.106E-02		3.313E-02	5.737E-02	3.349E-03	0.541
AU-195	4.715E-01		2.425E-01	3.857E-01	3.061E-02	1.222
TL-200	-7.559E-05		2.461E-04	Half-Life too short		
TL-201	-6.084E+00		7.227E+00	1.114E+01	5.986E-01	-0.546
TL-202	3.425E-02		6.369E-02	1.081E-01	6.115E-03	0.317
HG-203	4.039E-03		4.449E-02	6.484E-02	4.012E-03	0.062
BI-207	1.770E-02		5.524E-02	9.393E-02	6.951E-03	0.188
TL-207	4.884E-02		7.111E-01	1.030E+00	1.701E-01	0.047
PO-209	1.816E+00		7.206E+00	1.229E+01	1.150E+00	0.148
BI-210	1.040E+00		2.316E+00	3.871E+00	2.871E-01	0.269
PB-210	1.040E+00		2.316E+00	3.871E+00	2.871E-01	0.269
PO-210	1.040E+00		2.316E+00	3.871E+00	2.429E-01	0.269
PB-211	-1.222E+00		1.209E+00	1.439E+00	8.968E-01	-0.849
BI-212	1.421E+00	+	4.560E-01	6.299E-01	5.359E-02	2.257
PO-215	4.884E-02		7.111E-01	1.030E+00	1.701E-01	0.047
RN-219	2.388E-01		4.141E-01	7.012E-01	9.450E-02	0.341
RN-220	1.428E+01		2.440E+01	4.138E+01	2.460E+00	0.345
RA-223	4.884E-02		7.111E-01	1.030E+00	1.701E-01	0.047
AC-227	-4.739E-02		3.605E-01	5.993E-01	8.364E-02	-0.079
TH-227	-4.739E-02		3.606E-01	5.993E-01	1.013E-01	-0.079
TH-229	9.357E-02		4.958E-01	8.192E-01	4.524E-02	0.114
PA-231	-5.979E-01		1.540E+00	2.371E+00	3.271E-01	-0.252
TH-231	4.884E-02		7.111E-01	1.030E+00	1.701E-01	0.047
U-231	4.412E-01		1.284E+00	1.842E+00	1.495E-01	0.240
PA-233	-2.331E-02		6.030E-02	9.832E-02	6.070E-03	-0.237
PA-234	-3.409E-01		3.199E-01	4.781E-01	9.036E-02	-0.713
PA-234M	1.058E+01		5.103E+00	9.543E+00	9.226E-01	1.109
U-235	-4.636E-02		2.147E-01	3.402E-01	5.600E-02	-0.136
NP-236	-1.268E-02		8.308E-02	1.321E-01	7.384E-03	-0.096
NP-239	8.430E-02		1.887E-01	3.088E-01	2.232E-02	0.273
AM-241	4.417E-02		1.464E-01	2.102E-01	1.561E-02	0.210

Sample ID : G245396004 Acquisition date : 5-FEB-2010 19:14:38

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.435E-01		9.884E-02	1.507E-01	1.159E-02	-0.953
AM-246	-9.734E-02		1.438E-01	2.245E-01	1.609E-02	-0.433
CM-247	1.701E-02		3.597E-02	6.079E-02	3.339E-03	0.280
CF-249	-2.743E-03		3.580E-02	5.884E-02	3.217E-03	-0.047
CF-251	-6.679E-02		1.241E-01	1.935E-01	1.049E-02	-0.345

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245396004            *
* Acquisition date :  5-FEB-2010 19:14:38 Detector SN#     :                *
* Detector ID      : GAM14                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.63     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 21-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G245396004           Analyst initials: MXR1           *
* Batch Number     : 944962               Sample Quantity : 1.3985E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.825E+01	3.280E+00	2.642E-01	1.673E+00
CD-109	2.509E+00	8.680E-01	6.750E-01	4.428E-01
SN-126	2.466E-01	8.529E-02	7.348E-02	4.351E-02
CS-135	7.078E-01	2.343E-01	1.146E-01	1.195E-01
BA-137M	8.684E-02	7.470E-02	2.990E-02	3.811E-02
CS-137	9.180E-02	7.897E-02	3.161E-02	4.029E-02
TL-208	5.046E-01	7.917E-02	2.808E-02	4.039E-02
BI-211	3.488E+00	4.779E-01	1.575E-01	2.438E-01
PB-212	1.709E+00	1.640E-01	4.582E-02	8.370E-02
PO-212	1.709E+00	1.640E-01	4.582E-02	8.370E-02
BI-214	1.127E+00	1.792E-01	5.604E-02	9.143E-02
PB-214	1.213E+00	1.774E-01	5.491E-02	9.053E-02
PO-214	1.213E+00	1.774E-01	5.491E-02	9.053E-02
PO-216	1.709E+00	1.640E-01	4.582E-02	8.370E-02
PO-218	1.213E+00	1.774E-01	5.491E-02	9.053E-02
RA-224	3.692E+00	9.744E-01	5.210E-01	4.972E-01
RA-226	1.127E+00	1.792E-01	5.604E-02	9.143E-02
AC-228	1.541E+00	3.306E-01	1.092E-01	1.687E-01
RA-228	1.541E+00	3.306E-01	1.092E-01	1.687E-01
TH-228	1.735E+00	1.666E-01	4.652E-02	8.498E-02
TH-230	1.127E+00	1.792E-01	5.604E-02	9.142E-02
TH-232	1.541E+00	3.306E-01	1.092E-01	1.687E-01
TH-234	4.766E+00	1.902E+00	9.735E-01	9.702E-01
U-234	1.127E+00	1.792E-01	5.604E-02	9.142E-02
NP-237	7.240E-01	2.901E-01	2.014E-01	1.480E-01
U-238	4.766E+00	1.902E+00	9.735E-01	9.702E-01
AM-243	3.813E-01	7.907E-02	4.415E-02	4.034E-02
ANH-511	1.525E-01	6.142E-02	2.259E-02	3.133E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	1.091E-01	3.003E-01	2.639E-01	1.532E-01	NOT IDENT.
NA-22	1.801E-03	4.438E-02	3.766E-02	2.264E-02	NOT IDENT.
NA-24	1.885E+05	7.177E+05	0.000E+00	3.662E+05	SHORT HLIF
AL-26	-7.736E-03	2.457E-02	1.882E-02	1.254E-02	NOT IDENT.
TI-44	3.154E-01	4.785E-02	3.914E-02	2.441E-02	FAIL ABUN
SC-46	-4.703E-02	3.599E-02	2.747E-02	1.836E-02	FAIL ABUN
V-48	-2.039E-02	6.602E-02	5.531E-02	3.368E-02	NOT IDENT.
CR-51	-7.798E-03	3.519E-01	3.087E-01	1.796E-01	NOT IDENT.
MN-52	1.173E-01	2.136E-01	1.917E-01	1.090E-01	NOT IDENT.
MN-54	-2.663E-02	3.960E-02	3.292E-02	2.020E-02	NOT IDENT.
CO-56	-1.683E-02	3.452E-02	2.878E-02	1.761E-02	FAIL ABUN
CO-57	-1.324E-02	2.466E-02	2.095E-02	1.258E-02	NOT IDENT.
CO-58	7.157E-03	3.641E-02	3.083E-02	1.858E-02	NOT IDENT.
FE-59	8.002E-03	9.175E-02	7.893E-02	4.681E-02	NOT IDENT.
CO-60	-3.327E-03	3.777E-02	3.154E-02	1.927E-02	NOT IDENT.
ZN-65	-6.054E-02	1.014E-01	6.912E-02	5.172E-02	NOT IDENT.
GE-68	3.261E-01	1.203E+00	1.052E+00	6.138E-01	NOT IDENT.
AS-73	2.236E-01	6.291E-01	5.686E-01	3.210E-01	NOT IDENT.
AS-74	1.885E-02	8.674E-02	7.472E-02	4.426E-02	NOT IDENT.
SE-75	2.023E-02	4.165E-02	3.313E-02	2.125E-02	NOT IDENT.
BR-77	4.666E+00	1.050E+01	9.237E+00	5.359E+00	FAIL ABUN
SR-82	-3.312E-01	3.581E-01	2.742E-01	1.827E-01	NOT IDENT.
RB-83	3.030E-02	6.595E-02	5.805E-02	3.365E-02	NOT IDENT.
RB-84	-1.018E-01	6.754E-02	5.077E-02	3.446E-02	NOT IDENT.
KR-85	1.913E+01	7.888E+00	6.877E+00	4.024E+00	NOT IDENT.
SR-85	9.829E-02	4.052E-02	3.533E-02	2.067E-02	NOT IDENT.
RB-86	7.440E-01	7.541E-01	6.952E-01	3.848E-01	NOT IDENT.
Y-88	-6.201E-03	3.049E-02	2.407E-02	1.555E-02	NOT IDENT.
ZR-88	1.343E-02	2.741E-02	2.446E-02	1.399E-02	NOT IDENT.
Y-91	-8.191E+00	1.939E+01	1.594E+01	9.892E+00	NOT IDENT.
NB-94	-4.921E-03	3.271E-02	2.718E-02	1.669E-02	NOT IDENT.
NB-95	5.270E-02	4.218E-02	3.818E-02	2.152E-02	NOT IDENT.
NB-95M	6.085E-01	1.509E-01	1.319E-01	7.701E-02	NOT IDENT.
ZR-95	-1.260E-02	6.775E-02	5.579E-02	3.456E-02	NOT IDENT.
NB-97	-3.646E+04	1.288E+05	0.000E+00	6.573E+04	SHORT HLIF
ZR-97	2.488E+06	2.256E+06	0.000E+00	1.151E+06	SHORT HLIF
MO-99	-1.234E+01	1.227E+01	9.349E+00	6.262E+00	NOT IDENT.
TC-99M	1.910E+16	6.266E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.771E-04	3.073E-02	2.758E-02	1.568E-02	NOT IDENT.
RH-102	-1.375E-02	2.688E-02	2.235E-02	1.371E-02	NOT IDENT.
RU-103	2.020E-02	3.740E-02	3.312E-02	1.908E-02	FAIL ABUN
RH-106	1.743E-01	2.936E-01	2.587E-01	1.498E-01	FAIL ABUN
RU-106	1.743E-01	2.931E-01	2.587E-01	1.495E-01	FAIL ABUN
AG-108M	-1.018E-02	2.796E-02	2.359E-02	1.426E-02	NOT IDENT.
AG-110M	-1.342E-02	3.839E-02	2.688E-02	1.959E-02	NOT IDENT.
IN-111	1.454E+00	1.130E+00	9.362E-01	5.764E-01	NOT IDENT.
IN-113M	1.057E-02	3.960E-02	3.492E-02	2.020E-02	NOT IDENT.
SN-113	1.057E-02	3.960E-02	3.492E-02	2.020E-02	NOT IDENT.
IN-114M	-8.761E-03	1.956E-01	1.530E-01	9.978E-02	NOT IDENT.
CD-115	-1.187E+01	1.077E+01	8.486E+00	5.497E+00	NOT IDENT.
SN-117M	-1.665E-02	5.650E-02	4.793E-02	2.882E-02	NOT IDENT.
SB-122	-1.233E+00	2.522E+00	1.771E+00	1.287E+00	NOT IDENT.
I-123	-1.831E+06	7.420E+06	0.000E+00	3.786E+06	SHORT HLIF
TE-123M	-7.164E-03	2.903E-02	2.467E-02	1.481E-02	NOT IDENT.
I-124	-1.598E-01	7.332E-01	5.252E-01	3.741E-01	FAIL ABUN
SB-124	5.339E-03	6.586E-02	5.536E-02	3.360E-02	FAIL ABUN
SB-125	5.566E-02	8.369E-02	7.512E-02	4.270E-02	FAIL ABUN
TE-125M	-8.076E+00	9.499E+00	8.019E+00	4.847E+00	NOT IDENT.
I-126	2.119E-01	2.106E-01	1.677E-01	1.075E-01	NOT IDENT.
SB-126	2.842E-02	1.483E-01	1.097E-01	7.568E-02	FAIL ABUN
SB-127	-8.943E-01	1.250E+00	9.855E-01	6.376E-01	NOT IDENT.
XE-127	-1.631E-02	5.235E-02	4.030E-02	2.671E-02	NOT IDENT.
I-131	-2.214E-02	1.100E-01	9.491E-02	5.610E-02	NOT IDENT.
TE-132	8.003E-02	6.751E-01	6.050E-01	3.444E-01	NOT IDENT.
BA-133	1.359E-03	4.576E-02	3.475E-02	2.335E-02	FAIL ABUN
I-133	-6.880E+02	6.443E+03	0.000E+00	3.287E+03	SHORT HLIF
CS-134	9.067E-02	6.201E-02	4.450E-02	3.164E-02	FAIL ABUN
I-135	4.603E+15	8.847E+15	0.000E+00	4.514E+15	SHORT HLIF
CS-136	5.759E-02	1.055E-01	9.431E-02	5.384E-02	FAIL ABUN
CE-139	-2.206E-03	2.898E-02	2.473E-02	1.479E-02	NOT IDENT.
BA-140	9.580E-02	2.433E-01	2.116E-01	1.241E-01	NOT IDENT.
LA-140	-6.935E-03	7.553E-02	6.195E-02	3.853E-02	FAIL ABUN
CE-141	1.378E-02	6.245E-02	5.418E-02	3.186E-02	NOT IDENT.
CE-143	8.461E+02	2.553E+02	0.000E+00	1.303E+02	SHORT HLIF
CE-144	-6.861E-02	2.067E-01	1.764E-01	1.055E-01	NOT IDENT.
PM-144	-7.689E-03	3.320E-02	2.743E-02	1.694E-02	NOT IDENT.
PR-144	-5.211E-01	2.250E+00	1.859E+00	1.148E+00	NOT IDENT.

PM-146	1.996E-02	4.113E-02	3.643E-02	2.098E-02	NOT IDENT.
ND-147	2.934E-02	5.254E-01	4.507E-01	2.681E-01	FAIL ABUN
PM-149	1.669E+01	8.967E+01	7.980E+01	4.575E+01	NOT IDENT.
EU-152	-6.021E-02	1.271E-01	8.076E-02	6.486E-02	NOT IDENT.
GD-153	-8.330E-03	8.988E-02	6.845E-02	4.586E-02	NOT IDENT.
EU-154	8.051E-03	1.242E-01	1.056E-01	6.337E-02	NOT IDENT.
EU-155	8.404E-02	1.042E-01	9.316E-02	5.315E-02	FAIL ABUN
TB-160	1.520E-02	1.331E-01	1.164E-01	6.792E-02	FAIL ABUN
HO-166M	-2.234E-02	5.806E-02	4.727E-02	2.962E-02	NOT IDENT.
TM-171	-1.867E+01	2.885E+01	2.184E+01	1.472E+01	NOT IDENT.
LU-176	1.395E-02	2.468E-02	1.960E-02	1.259E-02	FAIL ABUN
LU-177	1.793E+00	1.843E+00	1.021E+00	9.405E-01	FAIL ABUN
LU-177M	-1.067E-01	1.724E-01	1.443E-01	8.794E-02	FAIL ABUN
HF-181	-3.166E-02	4.040E-02	3.295E-02	2.061E-02	NOT IDENT.
W-181	7.235E-01	3.840E-01	3.158E-01	1.959E-01	NOT IDENT.
TA-182	-6.711E-02	2.004E-01	1.657E-01	1.022E-01	FAIL ABUN
RE-183	4.728E-02	1.107E-01	9.632E-02	5.649E-02	FAIL ABUN
RE-184	-1.962E-02	2.125E-01	1.880E-01	1.084E-01	NOT IDENT.
OS-185	6.150E-03	4.035E-02	3.447E-02	2.059E-02	NOT IDENT.
RE-188	1.335E-01	1.706E-01	1.504E-01	8.703E-02	NOT IDENT.
W-188	-4.323E+00	7.752E+00	5.725E+00	3.955E+00	FAIL ABUN
IR-192	3.106E-02	3.246E-02	2.973E-02	1.656E-02	FAIL ABUN
AU-195	4.715E-01	2.376E-01	2.045E-01	1.212E-01	FAIL ABUN
TL-200	-7.559E+01	4.824E+02	0.000E+00	2.461E+02	SHORT HLIF
TL-201	-6.084E+00	7.082E+00	5.848E+00	3.613E+00	NOT IDENT.
TL-202	3.425E-02	6.242E-02	5.567E-02	3.185E-02	NOT IDENT.
HG-203	4.039E-03	4.360E-02	3.369E-02	2.224E-02	NOT IDENT.
BI-207	1.770E-02	5.413E-02	4.748E-02	2.762E-02	FAIL ABUN
TL-207	4.884E-02	6.969E-01	5.335E-01	3.556E-01	FAIL ABUN
PO-209	1.816E+00	7.062E+00	6.234E+00	3.603E+00	NOT IDENT.
BI-210	1.040E+00	2.270E+00	2.081E+00	1.158E+00	NOT IDENT.
PB-210	1.040E+00	2.270E+00	2.081E+00	1.158E+00	NOT IDENT.
PO-210	1.040E+00	2.269E+00	2.081E+00	1.158E+00	NOT IDENT.
PB-211	-1.222E+00	1.185E+00	7.421E-01	6.044E-01	NOT IDENT.
BI-212	1.421E+00	4.469E-01	3.210E-01	2.280E-01	FAIL ABUN
PO-215	4.884E-02	6.969E-01	5.335E-01	3.556E-01	FAIL ABUN
RN-219	2.388E-01	4.058E-01	3.616E-01	2.071E-01	NOT IDENT.
RN-220	1.428E+01	2.391E+01	2.121E+01	1.220E+01	NOT IDENT.
RA-223	4.884E-02	6.969E-01	5.335E-01	3.556E-01	FAIL ABUN
AC-227	-4.739E-02	3.533E-01	3.119E-01	1.803E-01	FAIL ABUN
TH-227	-4.739E-02	3.534E-01	3.119E-01	1.803E-01	FAIL ABUN
TH-229	9.357E-02	4.858E-01	4.287E-01	2.479E-01	FAIL ABUN
PA-231	-5.979E-01	1.509E+00	1.231E+00	7.701E-01	FAIL ABUN
TH-231	4.884E-02	6.969E-01	5.335E-01	3.556E-01	FAIL ABUN
U-231	4.412E-01	1.259E+00	9.771E-01	6.422E-01	FAIL ABUN
PA-233	-2.331E-02	5.909E-02	5.096E-02	3.015E-02	FAIL ABUN
PA-234	-3.409E-01	3.135E-01	2.423E-01	1.600E-01	FAIL ABUN
PA-234M	1.058E+01	5.001E+00	4.831E+00	2.551E+00	NOT IDENT.
U-235	-4.636E-02	2.104E-01	1.790E-01	1.073E-01	FAIL ABUN
NP-236	-1.268E-02	8.142E-02	6.940E-02	4.154E-02	NOT IDENT.
NP-239	8.430E-02	1.850E-01	1.632E-01	9.437E-02	FAIL ABUN
AM-241	4.417E-02	1.434E-01	1.125E-01	7.319E-02	NOT IDENT.
CM-243	-1.435E-01	9.686E-02	7.981E-02	4.942E-02	FAIL ABUN
AM-246	-9.734E-02	1.409E-01	1.135E-01	7.189E-02	NOT IDENT.
CM-247	1.701E-02	3.525E-02	3.135E-02	1.799E-02	FAIL ABUN
CF-249	-2.743E-03	3.509E-02	3.037E-02	1.790E-02	NOT IDENT.
CF-251	-6.679E-02	1.216E-01	1.014E-01	6.204E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	446.0562
46.50	446.0562
46.50	446.0562
48.70	536.8607
49.72	534.4352
51.35	513.9707
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52.97	520.0225
53.15	518.0784
53.44	510.0509
54.07	543.2023
56.28	566.0801
56.28	566.0817
57.37	0.0000
57.53	531.6537
57.53	531.6547
57.60	531.6932
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57.98	543.4345
59.32	562.3388
59.32	562.3388
59.40	562.3856
59.54	565.7668
59.72	565.8725
60.01	566.0421
61.10	594.7646
61.14	594.7888
61.30	594.8866
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63.29	658.1799
63.58	658.3709
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65.20	695.1017
66.05	699.0035
66.72	736.0116
66.83	736.0927
66.91	754.4286
67.20	754.6420
67.20	754.6420
67.75	775.4167
67.85	775.4907
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68.90	657.6495
69.30	660.6761
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70.82	735.5769
70.83	735.5823
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72.87	742.0009
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74.81	706.2878
74.81	706.2878
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74.81	706.2878
74.81	706.2878
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77.11	707.7607

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77.11	707.7607
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77.11	707.7607
77.11	707.7607
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81.07	835.0413
81.07	835.0413
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83.78	702.4219
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86.29	718.7180
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86.54	718.8710
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87.30	839.4976
87.30	839.4976
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87.88	688.9856
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88.36	689.2612
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92.29	691.4863
92.38	691.5385
92.38	691.5385
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94.67	560.2097
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94.90	575.6397
94.90	575.6397
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99.55	424.8882
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103.18	550.6524
103.76	539.1059
105.00	473.0979
105.31	441.0163
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109.28	535.9507

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111.00	455.8081
111.76	475.4666
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115.19	491.7723
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117.00	418.8155
117.66	427.6721
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121.78	437.5882
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122.32	408.4229
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136.48	427.6486
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144.24	442.9846
144.24	442.9846
144.24	442.9846
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147.16	418.3972
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152.70	417.6016
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154.21	414.6552
154.21	414.6552
154.21	414.6552
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162.64	403.3558
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163.89	373.5422
165.85	384.0133
167.43	398.8877
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171.86	322.6003
172.10	322.6443
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176.60	369.5050
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186.00	370.2762
190.27	377.1541
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193.63	358.6799
197.04	349.7310
198.01	370.8096
198.60	357.2860
200.40	362.1669
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202.84	397.8480
205.31	354.2570

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208.81	372.8553
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209.75	373.0296
210.97	332.3932
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218.09	289.1890
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223.80	365.4804
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227.20	321.8132
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228.18	316.4292
228.18	316.4292
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236.00	319.4451
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238.63	305.9288
238.63	305.9288
238.63	305.9288
239.00	305.9811
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241.98	306.4021
241.98	306.4021
241.98	306.4021
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248.90	277.0959
249.79	270.2183
252.40	244.4129
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252.85	254.7261
254.15	0.0000
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256.20	262.5808
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260.90	251.8887
262.80	265.9186
264.65	187.5830
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268.79	209.8439
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269.46	227.9180
269.46	227.9180
269.46	227.9180
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273.65	240.0959
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277.60	227.9225
278.00	237.3937
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279.20	248.5240
279.53	239.1174
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283.67	241.1076
284.30	229.0851
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285.90	224.2966
286.10	226.2068
286.10	226.2068
287.40	217.8065
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290.67	240.2245
290.80	240.2368
291.72	245.0698
293.26	0.0000
293.70	216.7857
295.21	207.4193
295.21	207.4193

295.21	207.4193
295.96	228.0703
296.50	228.1201
297.23	228.1875
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299.80	180.8363
299.80	180.8363
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300.09	198.3083
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306.84	173.3905
308.46	173.2740
311.98	209.4482
316.51	185.8654
318.01	209.9400
319.02	220.5692
319.41	213.8889
320.08	207.2276
323.87	200.1648
323.87	200.1648
323.87	200.1648
323.87	200.1648
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334.20	199.3430
334.30	199.3506
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338.28	184.5113
338.28	184.5113
338.28	184.5113
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338.32	184.5160
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340.57	206.2630
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351.92	174.7617
355.39	0.0000
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364.48	174.5753
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367.94	0.0000
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374.96	165.4331
383.85	156.1236
387.95	147.4933
388.63	150.4786
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391.69	142.7592
392.90	138.8778
398.62	172.6993
400.65	159.9790
401.10	146.1753
401.81	166.9556
402.60	159.0956
404.84	205.6920
410.95	155.5722
411.60	160.5623
413.65	182.4884
414.70	163.7009
415.30	166.7101

415.76	158.7969
417.63	0.0000
418.52	155.9593
423.70	160.2021
427.08	137.4643
427.89	125.5447
432.53	126.7287
433.93	122.7913
439.47	118.0072
439.56	118.0115
439.89	120.0234
443.98	138.2055
444.90	138.2443
445.03	138.2510
445.03	138.2510
445.03	138.2510
445.03	138.2510
453.90	129.5905
463.38	120.9009
468.07	117.7106
473.00	118.2226
475.06	131.4409
475.35	139.5414
476.78	128.4728
477.59	120.4090
477.96	111.3159
482.03	139.8193
484.57	133.8418
487.03	96.3951
490.36	0.0000
492.35	129.0681
497.08	106.8572
507.63	0.0000
510.53	0.0000
510.84	118.5226
511.00	118.5283
511.85	118.5566
511.85	118.5566
513.99	109.0840
513.99	109.0840
520.41	111.6744
520.65	111.6824
527.90	128.3386
528.96	0.0000
529.64	116.0733
529.87	0.0000
531.02	107.8967
537.32	101.9101
543.00	107.2246
546.56	0.0000
549.76	95.0300
552.65	99.2391
555.20	123.1022
563.23	133.0456
563.90	134.7957
568.70	116.2820
569.32	116.3012
569.50	116.3066
569.67	116.3121
573.80	105.6976
574.00	105.7026
574.64	99.8273
578.91	78.0798
579.30	0.0000
583.14	104.2212
585.48	112.9751
591.81	107.5918
592.07	108.6439
593.00	108.6693
595.88	102.4765
600.56	103.3861
602.52	0.0000
602.71	111.7370
602.71	111.7370
603.60	104.7778
604.41	90.8265
604.70	94.3264
609.31	116.4741

609.31	116.4741
609.31	116.4741
609.31	116.4741
610.33	116.5039
612.46	105.0146
614.37	91.0571
618.01	107.7927
621.84	85.2656
621.84	85.2656
631.29	92.8533
633.02	101.3367
633.10	101.3391
634.78	109.8297
635.90	108.8038
636.97	98.2676
645.85	92.1295
646.12	91.0769
656.30	115.0142
657.75	100.8934
657.90	0.0000
661.65	108.4323
661.65	108.4323
664.57	0.0000
666.33	95.7832
666.33	95.7832
675.00	87.4493
677.61	84.3040
685.20	87.6635
692.80	96.3875
695.00	95.3664
696.49	102.9024
696.49	102.9024
697.00	100.7700
697.49	98.6372
698.33	110.4534
698.50	110.4585
699.00	100.8182
702.63	104.1234
706.10	105.2806
706.58	0.0000
706.67	109.5927
709.31	91.3833
711.68	96.8115
713.82	86.0977
717.42	74.3199
720.50	75.4500
721.93	0.0000
722.20	84.4665
722.78	95.2603
722.78	95.2603
722.89	95.2646
722.95	95.2646
723.30	77.2971
724.18	75.5149
727.18	68.0095
733.00	90.0777
735.90	63.6966
739.58	105.0068
742.81	80.1661
744.21	65.0200
747.13	92.1719
751.79	91.1818
752.31	72.7365
753.82	72.7611
755.35	81.4764
756.15	85.8373
756.87	72.8102
763.93	134.9650
765.79	84.9316
766.42	78.4090
766.84	83.8616
776.49	89.4953
778.00	94.9842
778.57	85.1678
778.89	79.7154
783.80	87.4512
785.46	85.2954
792.07	82.1320

795.84	75.6220
796.30	69.4193
798.80	98.7012
801.93	71.3318
805.60	58.2081
810.29	65.9619
810.76	68.1667
815.85	69.7069
817.79	60.5604
818.51	57.8167
819.60	67.0088
826.30	78.1328
828.27	0.0000
831.60	96.6238
831.96	96.6324
834.83	119.7089
836.80	0.0000
846.75	72.0031
848.13	69.2535
856.28	0.0000
856.80	79.2864
860.37	75.9057
867.32	90.5794
867.82	81.0536
871.10	79.9503
873.19	81.6711
874.81	75.1992
875.33	0.0000
876.40	75.2239
879.36	71.5515
880.27	81.7874
880.51	81.7910
881.50	91.1034
883.24	69.7464
884.67	44.6504
889.25	81.0032
896.60	69.0001
898.02	79.2776
899.00	92.3533
903.28	61.6212
911.07	77.6115
911.07	77.6115
911.07	77.6115
919.63	59.0087
920.93	62.3444
925.00	80.6355
925.24	84.3896
926.50	64.7142
935.52	68.5845
937.48	80.8297
944.10	77.1670
946.00	94.1406
949.00	72.5290
962.29	80.7390
964.01	77.7288
966.15	76.1390
968.20	98.8569
969.11	99.2792
969.11	99.2792
969.11	99.2792
977.42	63.0173
980.50	55.9043
983.50	66.3641
989.30	61.6900
996.32	104.5349
1001.03	53.2633
1001.68	55.1721
1004.76	83.7568
1021.30	0.0000
1024.50	0.0000
1034.80	67.9434
1036.00	61.2578
1037.82	60.3212
1038.57	60.3289
1038.76	0.0000
1045.16	62.3181
1046.59	65.2109
1048.07	61.3906

1050.47	60.4570
1050.47	60.4570
1062.04	75.9655
1063.62	73.1024
1076.63	53.0239
1077.35	63.6367
1078.86	78.1194
1085.78	54.0745
1099.22	72.5891
1112.02	60.3145
1112.84	72.1749
1115.52	83.1892
1120.29	64.9392
1120.29	64.9392
1120.29	64.9392
1120.29	64.9392
1120.51	84.5078
1121.28	80.6325
1124.00	0.0000
1129.67	90.2106
1131.51	0.0000
1147.95	0.0000
1167.94	102.8040
1173.22	90.1545
1175.09	101.9476
1177.93	93.1677
1189.05	93.3378
1204.90	92.5925
1205.75	0.0000
1213.00	93.6973
1221.42	92.8372
1230.97	95.9462
1235.34	93.3266
1236.41	0.0000
1238.25	113.7402
1246.25	77.3398
1260.41	0.0000
1271.85	53.7583
1274.45	63.7396
1274.54	63.7396
1291.56	58.9136
1298.22	0.0000
1312.09	51.0851
1325.50	52.1925
1325.50	52.1925
1332.49	44.2095
1333.61	48.2383
1360.21	41.3670
1362.66	0.0000
1365.15	33.3196
1368.21	22.2229
1368.53	0.0000
1376.25	22.5387
1384.27	26.0366
1394.10	29.4059
1395.20	27.3823
1407.95	24.3848
1434.06	23.4567
1436.60	29.5865
1457.56	0.0000
1460.81	29.6879
1489.15	19.5280
1509.49	16.4909
1596.49	22.9426
1620.62	24.0622
1678.03	0.0000
1691.02	14.7799
1691.02	14.7799
1706.46	0.0000
1750.46	0.0000
1764.49	11.7202
1764.49	11.7202
1764.49	11.7202
1764.49	11.7202
1770.23	9.1389
1771.40	10.9683
1791.20	0.0000
1808.65	12.8550

1836.01 15.0465

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245396004

Total Uranium Activity	1.4159E+01	ug/g
Total Uranium Counting Unc.	5.6582E+00	ug/g
Total Uranium Tpu	2.8868E-06	ug/g
Total Uranium Mda	2.8974E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944962                    SAMPLE ID  : G245396004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM14            *
*   SAMPLE DATE   : 21-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  5-FEB-2010 19:14:38.86    SAMPLE ALQT:  139.850 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.039E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.562E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.867E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.889E+00
```

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:16:34.27

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023707.CNF;1
Sample date       : 27-JAN-2010 00:00:00 Acquisition date : 5-FEB-2010 19:15:18.
Sample ID         : G1202023707          Sample quantity  : 1.44550E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:32.56  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944962                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	185.71*	14	94	1.34	371.06	364	14	1.89E-03	174.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-FEB-2010 21:16:37

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023707.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 00:00:00 Acquisition date : 5-FEB-2010 19:15:18
Sample ID : G1202023707 Sample quantity : 144.55 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:32.56 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	8.986E-02	1.260E-01	2.248E-01	2.185E-02	0.400
NA-22		1274.54	*	-2.527E-03	1.898E-02	2.970E-02	2.461E-03	-0.085
NA-24		1368.53	*	-5.521E-04	1.898E-02	Half-Life too short		
AL-26		1129.67		-9.144E-02	6.908E-01	1.092E+00	9.251E-02	-0.084
		1808.65	*	1.448E-04	1.799E-02	2.965E-02	2.409E-03	0.005
K-40		1460.81	*	-8.045E-03	2.140E-01	3.859E-01	3.365E-02	-0.021
TI-44		67.85		-8.436E-03	1.378E-02	2.124E-02	1.598E-03	-0.397
		78.38	*	9.949E-03	1.053E-02	1.810E-02	1.519E-03	0.550
SC-46		889.25	*	1.677E-02	1.306E-02	2.691E-02	2.683E-03	0.623
		1120.51		-1.047E-02	1.854E-02	2.642E-02	2.260E-03	-0.396
V-48		944.10		-4.612E-02	3.019E-01	4.824E-01	4.707E-02	-0.096
		983.50	*	5.510E-03	2.920E-02	4.932E-02	4.714E-03	0.112
		1312.09		-2.892E-02	3.109E-02	3.883E-02	3.240E-03	-0.745
CR-51		320.08	*	-1.855E-01	1.510E-01	2.145E-01	2.150E-02	-0.865
MN-52		744.21		-7.357E-03	5.341E-02	8.731E-02	8.869E-03	-0.084
		848.13		-4.804E-01	1.531E+00	2.397E+00	2.416E-01	-0.200
		935.52		-1.711E-02	5.641E-02	8.762E-02	8.583E-03	-0.195
		1246.25		-4.006E-01	1.300E+00	1.934E+00	1.589E-01	-0.207
		1333.61		5.773E-01	1.031E+00	1.892E+00	1.585E-01	0.305
		1434.06	*	2.583E-03	7.006E-02	1.180E-01	9.983E-03	0.022
MN-54		834.83	*	4.136E-03	1.442E-02	2.510E-02	2.536E-03	0.165
CO-56		846.75	*	3.322E-03	1.590E-02	2.729E-02	2.750E-03	0.122
		977.42		2.232E-01	1.408E+00	2.371E+00	2.274E-01	0.094
		1037.82		-7.305E-02	1.110E-01	1.520E-01	1.467E-02	-0.480
		1175.09		-2.134E-01	7.275E-01	1.092E+00	8.788E-02	-0.195
		1238.25		2.879E-02	3.350E-02	6.215E-02	5.258E-03	0.463
		1360.21		-3.415E-01	4.214E-01	5.675E-01	4.771E-02	-0.602
		1771.40		-4.122E-02	1.216E-01	1.809E-01	1.483E-02	-0.228
CO-57		122.06	*	2.327E-03	9.933E-03	1.630E-02	1.361E-03	0.143
		136.48		6.978E-02	7.952E-02	1.373E-01	1.243E-02	0.508
CO-58		810.76	*	1.187E-02	1.562E-02	2.908E-02	2.953E-03	0.408
FE-59		142.65		1.862E-01	1.141E+00	1.830E+00	1.545E-01	0.102
		192.34		-1.681E-01	3.395E-01	5.288E-01	7.261E-02	-0.318
		1099.22	*	4.567E-03	3.764E-02	6.268E-02	5.912E-03	0.073

Sample ID : G1202023707 Acquisition date : 5-FEB-2010 19:15:18

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	1291.56		1.248E-03	4.067E-02	6.602E-02	6.278E-03	0.019
CO-60	1173.22		-3.980E-03	1.252E-02	1.829E-02	1.471E-03	-0.218
	1332.49	*	2.088E-04	1.763E-02	2.840E-02	2.379E-03	0.007
ZN-65	1115.52	*	2.219E-02	3.277E-02	6.048E-02	5.206E-03	0.367
GE-68	1077.35	*	-1.084E-01	5.433E-01	8.517E-01	7.599E-02	-0.127
AS-73	53.44	*	-1.344E-01	2.024E-01	2.933E-01	2.177E-02	-0.458
AS-74	595.88	*	-1.202E-02	3.807E-02	5.818E-02	5.694E-03	-0.207
	634.78		5.836E-02	1.324E-01	2.359E-01	2.347E-02	0.247
SE-75	66.05		-2.371E+00	1.548E+00	2.202E+00	2.083E-01	-1.077
	96.73		-3.740E-01	2.857E-01	3.898E-01	5.383E-02	-0.960
	121.11		2.717E-02	5.200E-02	8.743E-02	9.627E-03	0.311
	136.00		1.227E-02	1.488E-02	2.558E-02	2.161E-03	0.480
	198.60		-3.019E-02	8.033E-01	1.264E+00	1.272E-01	-0.024
	264.65	*	-9.286E-03	1.818E-02	2.882E-02	2.853E-03	-0.322
	279.53		3.520E-02	4.517E-02	8.062E-02	8.253E-03	0.437
	303.91		-3.548E-01	8.474E-01	1.342E+00	1.660E-01	-0.264
	400.65		6.628E-02	1.147E-01	2.001E-01	2.195E-02	0.331
BR-77	87.88		-8.568E+00	1.204E+01	1.802E+01	1.702E+00	-0.475
	200.40		4.410E+00	1.374E+01	2.385E+01	2.193E+00	0.185
	239.00		-3.005E-01	9.635E-01	1.554E+00	1.499E-01	-0.193
	249.79		-3.753E+00	5.656E+00	8.818E+00	8.595E-01	-0.426
	281.68		3.455E+00	8.416E+00	1.457E+01	1.448E+00	0.237
	297.23		-1.033E-01	4.726E+00	7.844E+00	7.718E-01	-0.013
	303.76		-6.354E+00	1.582E+01	2.512E+01	2.457E+00	-0.253
	439.47		-3.510E+00	1.345E+01	2.114E+01	1.857E+00	-0.166
	484.57		-3.002E+00	2.256E+01	3.589E+01	3.279E+00	-0.084
	520.65	*	-5.424E-01	1.047E+00	1.559E+00	1.462E-01	-0.348
	574.64		3.305E+00	1.871E+01	3.088E+01	2.992E+00	0.107
	578.91		2.745E+00	8.527E+00	1.431E+01	1.389E+00	0.192
	585.48		2.341E+00	1.478E+01	2.429E+01	2.366E+00	0.096
	755.35		8.425E-01	1.570E+01	2.643E+01	2.685E+00	0.032
	817.79		2.738E+00	1.303E+01	2.235E+01	2.263E+00	0.123
SR-82	698.33		-1.498E+01	2.222E+01	2.613E+01	2.642E+00	-0.573
	776.49	*	-8.952E-02	1.286E-01	1.859E-01	1.889E-02	-0.482
	1395.20		5.571E+00	4.389E+00	9.126E+00	7.702E-01	0.610
RB-83	520.41	*	-1.536E-02	3.136E-02	4.692E-02	4.401E-03	-0.327
	529.64		3.954E-02	4.931E-02	8.777E-02	8.282E-03	0.451
	552.65		-1.979E-02	7.920E-02	1.219E-01	1.167E-02	-0.162
RB-84	881.50	*	-1.287E-02	2.205E-02	3.139E-02	3.137E-03	-0.410
KR-85	513.99	*	-7.769E+00	5.935E+00	8.550E+00	7.983E-01	-0.909
SR-85	513.99	*	-3.767E-02	2.878E-02	4.145E-02	3.871E-03	-0.909
RB-86	1076.63	*	-5.801E-02	2.862E-01	4.484E-01	4.003E-02	-0.129
Y-88	898.02		7.070E-03	2.122E-02	3.668E-02	3.660E-03	0.193
	1836.01	*	7.011E-05	1.646E-02	2.707E-02	2.184E-03	0.003
ZR-88	392.90	*	3.220E-03	1.373E-02	2.312E-02	1.933E-03	0.139
Y-91	1204.90	*	2.674E+00	5.153E+00	9.445E+00	7.669E-01	0.283
NB-94	702.63	*	-7.624E-03	1.558E-02	2.433E-02	2.462E-03	-0.313
	871.10		4.747E-04	1.404E-02	2.337E-02	2.342E-03	0.020
NB-95	765.79	*	3.143E-03	1.510E-02	2.605E-02	2.647E-03	0.121

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M		235.69	*	-2.294E-02	5.167E-02	8.372E-02	8.996E-03	-0.274
ZR-95		724.18		-2.350E-04	3.321E-02	5.551E-02	5.986E-03	-0.004
		756.15	*	-1.748E-03	2.937E-02	4.858E-02	5.302E-03	-0.036
NB-97		657.90	*	-5.207E-05	2.937E-02	Half-Life too short		
		1024.50		-1.541E-03	2.937E-02	Half-Life too short		
ZR-97		254.15		2.642E-03	2.937E-02	Half-Life too short		
		355.39		-2.880E-03	2.937E-02	Half-Life too short		
		507.63	*	-2.122E-02	2.937E-02	Half-Life too short		
		602.52		-1.863E-03	2.937E-02	Half-Life too short		
		1021.30		6.349E-05	2.937E-02	Half-Life too short		
		1147.95		2.750E-03	2.937E-02	Half-Life too short		
		1362.66		3.450E-03	2.937E-02	Half-Life too short		
		1750.46		-1.372E-02	2.937E-02	Half-Life too short		
MO-99		140.51		-3.615E+00	3.347E+00	4.386E+00	1.212E+00	-0.824
		181.06		9.347E-01	1.997E+00	2.969E+00	5.475E-01	0.315
		366.43		4.519E+00	1.135E+01	1.942E+01	1.726E+00	0.233
		739.58	*	1.732E-01	1.309E+00	2.232E+00	3.595E-01	0.078
		778.00		-1.663E+00	3.653E+00	5.596E+00	5.686E-01	-0.297
TC-99M		140.51	*	-8.396E+03	3.653E+00	Half-Life too short		
RH-101		127.23		-1.053E-02	1.233E-02	1.807E-02	1.507E-03	-0.583
		198.01	*	-8.890E-03	1.505E-02	2.251E-02	2.063E-03	-0.395
		325.23		6.415E-02	1.014E-01	1.781E-01	1.700E-02	0.360
RH-102		418.52		4.779E-02	1.317E-01	2.246E-01	1.932E-02	0.213
		475.06	*	2.243E-03	1.356E-02	2.249E-02	2.039E-03	0.100
		631.29		1.639E-02	2.266E-02	4.058E-02	4.031E-03	0.404
		697.49		-4.290E-02	5.806E-02	6.759E-02	6.832E-03	-0.635
		766.84		7.854E-03	4.123E-02	7.085E-02	7.201E-03	0.111
		1046.59		4.766E-03	4.130E-02	6.927E-02	6.342E-03	0.069
		1112.84		-1.594E-02	8.549E-02	1.334E-01	1.151E-02	-0.119
RU-103		497.08	*	8.467E-03	1.665E-02	2.880E-02	4.187E-03	0.294
		610.33		2.880E-02	3.785E-01	5.892E-01	1.022E-01	0.049
RH-106		511.85		-1.691E-01	1.417E-01	2.605E-01	2.429E-02	-0.649
		621.84	*	-1.340E-01	1.488E-01	1.985E-01	2.822E-02	-0.675
		1050.47		-9.224E-02	8.683E-01	1.385E+00	1.264E-01	-0.067
RU-106		511.85		-1.691E-01	1.417E-01	2.605E-01	2.429E-02	-0.649
		621.84	*	-1.340E-01	1.482E-01	1.985E-01	1.965E-02	-0.675
		1050.47		-9.224E-02	8.683E-01	1.385E+00	1.264E-01	-0.067
AG-108M		433.93	*	-5.345E-03	1.255E-02	1.906E-02	1.730E-03	-0.280
		614.37		-6.553E-03	1.874E-02	2.836E-02	2.883E-03	-0.231
		722.95		-6.772E-04	1.705E-02	2.836E-02	2.958E-03	-0.024
CD-109		88.03	*	-1.699E-01	2.614E-01	3.938E-01	3.724E-02	-0.432
AG-110M		657.75	*	-3.094E-03	1.535E-02	2.511E-02	2.572E-03	-0.123
		677.61		-1.473E-02	1.149E-01	1.888E-01	1.941E-02	-0.078
		706.67		-3.945E-02	9.587E-02	1.514E-01	1.564E-02	-0.261
		763.93		-1.366E-02	5.935E-02	9.488E-02	9.840E-03	-0.144
		884.67		-8.133E-04	1.589E-02	2.594E-02	2.652E-03	-0.031
		937.48		-1.070E-04	4.839E-02	7.964E-02	8.014E-03	-0.001
		1384.27		2.776E-02	6.292E-02	1.164E-01	1.010E-02	0.239
IN-111		171.28		3.583E-02	1.059E-01	1.737E-01	1.529E-02	0.206

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	6.887E-02	1.086E-01	1.933E-01	1.877E-02	0.356
IN-113M		391.69	*	1.300E-03	1.939E-02	3.206E-02	2.766E-03	0.041
SN-113		391.69	*	1.300E-03	1.939E-02	3.206E-02	2.766E-03	0.041
IN-114M		190.27	*	4.987E-02	6.506E-02	1.068E-01	9.675E-03	0.467
CD-115		260.90		-1.428E+00	9.676E+00	1.594E+01	1.568E+00	-0.090
		492.35		-4.885E-01	3.135E+00	4.962E+00	4.561E-01	-0.098
		527.90	*	4.384E-01	9.800E-01	1.678E+00	1.582E-01	0.261
SN-117M		156.02		1.995E-01	7.025E-01	1.148E+00	9.867E-02	0.174
		158.56	*	1.794E-03	1.721E-02	2.763E-02	2.385E-03	0.065
SB-122		563.90	*	2.758E-02	2.119E-01	3.480E-01	3.351E-02	0.079
		692.80		-2.727E-01	5.324E+00	8.875E+00	8.965E-01	-0.031
I-123		159.00	*	-3.689E-04	5.324E+00	Half-Life too short		
		528.96		9.972E-02	5.324E+00	Half-Life too short		
TE-123M		159.00	*	-1.485E-03	1.143E-02	1.793E-02	1.558E-03	-0.083
I-124		602.71	*	3.273E-03	1.467E-01	2.353E-01	2.311E-02	0.014
		722.78		1.185E-02	7.445E-01	1.249E+00	1.267E-01	0.009
		1325.50		7.199E+00	7.218E+00	1.381E+01	1.155E+00	0.521
		1376.25		-1.678E+00	4.235E+00	6.287E+00	5.296E-01	-0.267
		1509.49		9.117E-01	2.926E+00	5.229E+00	4.432E-01	0.174
		1691.02		-6.743E-01	8.603E-01	1.083E+00	9.030E-02	-0.623
SB-124		602.71		4.320E-04	1.935E-02	3.106E-02	3.050E-03	0.014
		645.85		9.202E-02	2.132E-01	3.795E-01	3.960E-02	0.242
		709.31		-1.940E-01	1.207E+00	1.978E+00	2.003E-01	-0.098
		713.82		-4.826E-02	7.486E-01	1.243E+00	1.636E-01	-0.039
		722.78		2.267E-03	1.424E-01	2.390E-01	2.462E-02	0.009
		968.20		5.871E-02	9.827E-01	1.631E+00	1.573E-01	0.036
		1045.16		5.544E-01	8.106E-01	1.524E+00	1.397E-01	0.364
		1325.50		1.471E+00	1.475E+00	2.821E+00	2.360E-01	0.521
		1368.21		-2.648E-01	7.499E-01	1.157E+00	1.544E-01	-0.229
		1436.60		2.518E-01	1.846E+00	3.172E+00	2.684E-01	0.079
		1691.02	*	-3.043E-02	3.883E-02	4.887E-02	4.247E-03	-0.623
SB-125		427.89	*	5.662E-02	4.173E-02	7.866E-02	6.962E-03	0.720
		463.38		2.519E-02	1.157E-01	1.937E-01	1.865E-02	0.130
		600.56		2.721E-03	1.013E-01	1.627E-01	1.687E-02	0.017
		635.90		3.120E-02	1.225E-01	2.136E-01	2.255E-02	0.146
TE-125M		109.28	*	2.092E+00	3.347E+00	5.683E+00	5.803E-01	0.368
I-126		388.63		-3.692E-02	6.765E-02	1.032E-01	8.695E-03	-0.358
		666.33	*	2.208E-02	6.409E-02	1.124E-01	1.129E-02	0.196
		753.82		4.069E-01	4.862E-01	9.069E-01	9.215E-02	0.449
SB-126		223.80		-8.134E-01	1.132E+00	1.768E+00	1.677E-01	-0.460
		278.60		-3.602E-01	7.937E-01	1.265E+00	1.259E-01	-0.285
		296.50		9.078E-02	4.214E-01	7.159E-01	7.048E-02	0.127
		414.70		-2.146E-02	2.399E-02	3.420E-02	2.930E-03	-0.627
		415.30		-4.565E-01	1.997E+00	3.165E+00	2.713E-01	-0.144
		555.20		7.474E-01	1.267E+00	2.223E+00	2.130E-01	0.336
		573.80		-2.468E-01	3.641E-01	5.208E-01	5.043E-02	-0.474
		593.00		-2.713E-02	3.268E-01	5.168E-01	5.051E-02	-0.052
		656.30		-3.940E-01	1.088E+00	1.736E+00	1.739E-01	-0.227
		666.33		9.116E-03	2.646E-02	4.640E-02	4.662E-03	0.196

---- Non-Identified Nuclides ----

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		675.00		-3.539E-01	5.714E-01	8.562E-01	8.619E-02	-0.413
		695.00		2.306E-02	2.860E-02	5.243E-02	5.298E-03	0.440
		697.00		-1.234E-01	1.497E-01	1.693E-01	1.711E-02	-0.729
		720.50	*	-3.956E-03	4.671E-02	7.722E-02	7.830E-03	-0.051
		856.80		1.096E-01	1.749E-01	3.143E-01	3.161E-02	0.349
		989.30		3.050E-01	4.351E-01	7.961E-01	7.583E-02	0.383
		1034.80		3.464E+00	2.500E+00	5.164E+00	4.770E-01	0.671
		1213.00		9.682E-01	1.241E+00	2.326E+00	1.894E-01	0.416
SN-126		64.28		-1.252E-01	1.656E-01	2.655E-01	3.845E-02	-0.471
		86.94		-1.375E-01	1.263E-01	1.618E-01	6.717E-02	-0.850
		87.57	*	-3.246E-02	2.705E-02	3.860E-02	3.631E-03	-0.841
SB-127		61.10		-9.127E+00	6.290E+00	8.976E+00	7.628E-01	-1.017
		252.40		7.527E-01	7.548E-01	1.266E+00	5.309E-01	0.595
		290.80		-3.578E+00	3.363E+00	4.900E+00	5.344E-01	-0.730
		411.60		-4.280E-02	1.910E+00	3.116E+00	4.589E-01	-0.014
		444.90		-1.278E+00	1.971E+00	2.952E+00	3.387E-01	-0.433
		473.00		-7.336E-03	3.034E-01	4.909E-01	5.892E-02	-0.015
		543.00		5.964E-01	3.189E+00	5.264E+00	7.339E-01	0.113
		603.60		7.016E-01	2.385E+00	3.953E+00	4.835E-01	0.177
		685.20	*	1.604E-01	2.455E-01	4.461E-01	5.047E-02	0.360
		698.50		-3.036E+00	4.415E+00	5.154E+00	8.134E-01	-0.589
		722.20		3.855E-01	4.680E+00	7.932E+00	8.835E-01	0.049
		783.80		7.705E-03	6.280E-01	1.048E+00	1.300E-01	0.007
XE-127		57.60		-7.500E-01	1.362E+00	2.121E+00	1.516E-01	-0.354
		145.22		-1.864E-01	2.912E-01	4.346E-01	3.682E-02	-0.429
		172.10		-7.210E-03	4.178E-02	6.494E-02	5.723E-03	-0.111
		202.84	*	-1.808E-03	1.639E-02	2.746E-02	2.534E-03	-0.066
		374.96		6.512E-03	8.454E-02	1.277E-01	1.114E-02	0.051
I-131		80.18		-5.916E-01	9.029E-01	1.389E+00	1.194E-01	-0.426
		284.30		-2.716E-01	4.327E-01	6.755E-01	6.954E-02	-0.402
		364.48	*	1.804E-02	3.761E-02	6.483E-02	6.062E-03	0.278
		636.97		1.163E-01	4.531E-01	7.893E-01	8.168E-02	0.147
		722.89		-3.639E-02	1.822E+00	3.040E+00	3.090E-01	-0.012
TE-132		49.72		-9.161E-01	1.529E+00	2.388E+00	2.136E-01	-0.384
		111.76		-2.853E+00	3.926E+00	5.912E+00	5.600E-01	-0.483
		116.30		-7.088E-01	3.523E+00	5.565E+00	5.241E-01	-0.127
		228.16	*	2.504E-04	8.876E-02	1.494E-01	2.307E-02	0.002
BA-133		53.15		-3.044E-01	9.014E-01	1.353E+00	1.008E-01	-0.225
		79.62		2.756E-01	3.835E-01	6.590E-01	9.994E-02	0.418
		81.00		-2.012E-02	2.999E-02	4.578E-02	7.278E-03	-0.439
		276.40		-2.501E-02	1.586E-01	2.607E-01	3.982E-02	-0.096
		302.84		-4.901E-03	5.867E-02	9.661E-02	1.360E-02	-0.051
		356.01	*	-2.671E-03	1.874E-02	3.038E-02	4.104E-03	-0.088
		383.85		-2.099E-02	1.264E-01	2.031E-01	2.547E-02	-0.103
I-133		510.53		-7.430E-03	1.264E-01	Half-Life too short		
		529.87	*	2.869E-05	1.264E-01	Half-Life too short		
		706.58		-1.092E-03	1.264E-01	Half-Life too short		
		856.28		1.163E-03	1.264E-01	Half-Life too short		
		875.33		7.520E-05	1.264E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1236.41		2.074E-03	1.264E-01	Half-Life too short		
		1298.22		-8.305E-05	1.264E-01	Half-Life too short		
CS-134		475.35		1.909E-01	8.593E-01	1.437E+00	1.303E-01	0.133
		563.23		-8.460E-03	1.435E-01	2.283E-01	2.215E-02	-0.037
		569.32		4.885E-02	8.889E-02	1.540E-01	1.504E-02	0.317
		604.70		3.296E-03	1.732E-02	2.839E-02	2.795E-03	0.116
		795.84	*	-1.858E-02	1.839E-02	2.463E-02	2.513E-03	-0.754
		801.93		4.463E-02	2.067E-01	3.524E-01	3.590E-02	0.127
		1038.57		-7.441E-01	1.340E+00	1.872E+00	1.724E-01	-0.398
		1167.94		3.967E-01	6.315E-01	1.214E+00	9.823E-02	0.327
		1365.15		2.740E-01	5.313E-01	9.893E-01	8.720E-02	0.277
CS-135		268.24	*	-1.295E-02	6.185E-02	1.011E-01	1.121E-02	-0.128
I-135		288.45		3.397E+03	6.185E-02	Half-Life too short		
		417.63		-5.719E+02	6.185E-02	Half-Life too short		
		546.56		0.000E+00	6.185E-02	Half-Life too short		
		836.80		5.068E+03	6.185E-02	Half-Life too short		
		1038.76		-6.221E+03	6.185E-02	Half-Life too short		
		1124.00		-8.465E+03	6.185E-02	Half-Life too short		
		1131.51		-1.374E+03	6.185E-02	Half-Life too short		
		1260.41	*	-1.309E+03	6.185E-02	Half-Life too short		
		1457.56		-1.371E+04	6.185E-02	Half-Life too short		
		1678.03		4.976E+03	6.185E-02	Half-Life too short		
		1706.46		-8.633E+03	6.185E-02	Half-Life too short		
		1791.20		-1.742E+03	6.185E-02	Half-Life too short		
CS-136		66.91		-7.027E-02	1.779E-01	2.798E-01	4.145E-02	-0.251
		86.29		-1.458E-01	2.619E-01	3.982E-01	5.289E-02	-0.366
		153.22		-2.690E-02	1.998E-01	3.139E-01	3.007E-02	-0.086
		163.89		-1.038E-01	3.452E-01	5.007E-01	4.869E-02	-0.207
		176.55		-3.627E-02	9.746E-02	1.471E-01	1.376E-02	-0.247
		273.65		1.630E-01	1.422E-01	2.605E-01	2.714E-02	0.626
		340.57		-1.530E-02	4.246E-02	6.748E-02	6.454E-03	-0.227
		818.51		3.748E-02	2.405E-02	4.906E-02	4.969E-03	0.764
		1048.07	*	-9.522E-03	3.119E-02	4.743E-02	4.499E-03	-0.201
		1235.34		2.120E-03	1.726E-01	2.794E-01	3.224E-02	0.008
BA-137M		661.65	*	-6.317E-03	1.739E-02	2.790E-02	2.800E-03	-0.226
CS-137		661.65	*	-6.678E-03	1.839E-02	2.949E-02	2.964E-03	-0.226
CE-139		165.85	*	-1.403E-03	1.143E-02	1.791E-02	1.563E-03	-0.078
BA-140		162.64		-3.319E-02	2.411E-01	3.565E-01	3.274E-02	-0.093
		304.84		-1.309E-01	3.879E-01	6.168E-01	1.752E-01	-0.212
		423.70		-3.949E-01	6.480E-01	9.504E-01	3.082E-01	-0.416
		537.32	*	-1.236E-02	9.082E-02	1.432E-01	4.780E-02	-0.086
LA-140		328.77		-7.535E-03	9.753E-02	1.601E-01	1.592E-02	-0.047
		432.53		-6.521E-01	6.428E-01	8.796E-01	8.040E-02	-0.741
		487.03		3.210E-02	4.698E-02	8.301E-02	8.016E-03	0.387
		751.79		-2.316E-01	5.715E-01	8.931E-01	9.783E-02	-0.259
		815.85		-1.109E-01	1.152E-01	1.594E-01	1.752E-02	-0.695
		867.82		-1.396E-01	4.386E-01	6.825E-01	7.115E-02	-0.205
		919.63		6.190E-01	9.596E-01	1.744E+00	2.037E-01	0.355
		925.24		7.616E-02	3.591E-01	6.148E-01	6.343E-02	0.124

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1596.49	*	1.020E-03	3.096E-02	5.179E-02	4.372E-03	0.020
CE-141		145.44	*	-5.409E-03	2.435E-02	3.809E-02	3.289E-03	-0.142
CE-143		57.37		-9.581E+00	1.814E+01	2.832E+01	2.647E+00	-0.338
		231.56		1.382E+01	7.395E+01	1.261E+02	4.044E+01	0.110
		293.26	*	-9.705E-01	3.461E+00	5.573E+00	1.242E+00	-0.174
		350.59		2.296E+01	5.215E+01	8.909E+01	2.797E+01	0.258
		490.36		-5.613E+01	9.005E+01	1.292E+02	4.126E+01	-0.435
		664.57		2.476E+01	4.316E+01	7.639E+01	2.515E+01	0.324
		721.93		4.058E+00	3.915E+01	6.654E+01	1.988E+01	0.061
CE-144		80.11		-3.856E-01	6.515E-01	1.008E+00	8.638E-02	-0.382
		133.54	*	-6.997E-02	8.031E-02	1.163E-01	1.794E-02	-0.602
PM-144		476.78		3.291E-03	2.979E-02	4.908E-02	4.833E-03	0.067
		618.01		1.896E-03	1.390E-02	2.271E-02	2.292E-03	0.083
		696.49	*	-1.098E-02	2.539E-02	3.057E-02	3.090E-03	-0.359
		778.57		-5.586E-01	9.851E-01	1.484E+00	1.508E-01	-0.376
PR-144		696.49	*	-7.417E-01	1.716E+00	2.066E+00	2.088E-01	-0.359
		1489.15		1.261E+00	4.329E+00	7.849E+00	6.654E-01	0.161
PM-146		453.90	*	3.184E-03	2.097E-02	3.477E-02	3.808E-03	0.092
		633.02		2.286E-01	6.387E-01	1.069E+00	4.028E-01	0.214
		735.90		6.742E-03	6.338E-02	1.077E-01	3.133E-02	0.063
		747.13		2.175E-02	3.930E-02	7.089E-02	1.066E-02	0.307
ND-147		91.11		7.170E-03	7.494E-02	1.225E-01	1.211E-02	0.059
		319.41		4.894E-01	1.053E+00	1.829E+00	1.759E-01	0.268
		439.89		-2.894E-01	1.837E+00	2.930E+00	2.575E-01	-0.099
		531.02	*	2.019E-01	1.932E-01	3.512E-01	5.422E-02	0.575
PM-149		285.90	*	7.792E+00	7.307E+00	1.328E+01	2.162E+00	0.587
EU-152		121.78		2.675E-03	3.002E-02	4.862E-02	4.710E-03	0.055
		244.69		3.116E-02	1.260E-01	2.165E-01	2.100E-02	0.144
		344.27	*	-1.233E-02	4.369E-02	6.986E-02	6.816E-03	-0.177
		443.98		7.086E-02	4.786E-01	7.934E-01	7.000E-02	0.089
		778.89		-3.783E-02	1.102E-01	1.729E-01	1.756E-02	-0.219
		867.32		1.434E-01	3.262E-01	5.832E-01	5.850E-02	0.246
		964.01		1.100E-01	1.137E-01	2.161E-01	2.088E-02	0.509
		1085.78		-8.352E-02	1.672E-01	2.434E-01	2.155E-02	-0.343
		1112.02		-1.017E-01	1.271E-01	1.691E-01	1.460E-02	-0.601
		1407.95		-4.922E-02	8.320E-02	1.199E-01	1.013E-02	-0.411
GD-153		69.67		-2.394E-01	4.537E-01	7.082E-01	5.418E-02	-0.338
		83.37		1.541E+00	4.612E+00	7.601E+00	6.776E-01	0.203
		97.43	*	-1.183E-02	2.782E-02	4.207E-02	3.731E-03	-0.281
		103.18		1.522E-02	3.597E-02	6.045E-02	5.229E-03	0.252
EU-154		123.07		6.646E-03	2.019E-02	3.341E-02	3.726E-03	0.199
		247.94		-2.609E-02	1.454E-01	2.394E-01	2.953E-02	-0.109
		591.81		1.645E-01	2.861E-01	5.037E-01	6.318E-02	0.327
		723.30		-1.801E-02	7.217E-02	1.161E-01	1.269E-02	-0.155
		756.87		5.365E-02	3.339E-01	5.710E-01	7.497E-02	0.094
		873.19		9.032E-02	1.266E-01	2.341E-01	3.105E-02	0.386
		996.32		-5.897E-02	1.327E-01	1.941E-01	3.533E-02	-0.304
		1004.76		-1.086E-02	1.012E-01	1.627E-01	1.994E-02	-0.067
		1274.45	*	-1.403E-03	5.193E-02	8.320E-02	9.193E-03	-0.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155		48.70		-1.847E-01	6.019E-01	9.693E-01	7.757E-02	-0.191
		60.01		5.420E-01	1.283E+00	2.187E+00	1.551E-01	0.248
		86.54		-2.314E-02	3.183E-02	4.766E-02	4.462E-03	-0.485
		105.31	*	-4.703E-02	4.136E-02	5.737E-02	4.988E-03	-0.820
TB-160		86.79		-9.615E-02	8.332E-02	1.196E-01	1.114E-02	-0.804
		197.04		6.884E-02	2.056E-01	3.576E-01	3.274E-02	0.192
		215.65		-9.539E-03	2.806E-01	4.721E-01	4.433E-02	-0.020
		298.57		6.126E-03	4.563E-02	7.686E-02	7.554E-03	0.080
		879.36	*	6.453E-03	4.952E-02	8.405E-02	8.403E-03	0.077
		962.29		-1.115E-01	2.018E-01	2.969E-01	2.871E-02	-0.376
		966.15		3.985E-02	7.558E-02	1.351E-01	1.304E-02	0.295
		1177.93		7.433E-02	1.214E-01	2.227E-01	1.793E-02	0.334
		1271.85		-5.826E-02	2.638E-01	4.020E-01	3.324E-02	-0.145
HO-166M		80.57		-4.899E-02	8.249E-02	1.274E-01	1.098E-02	-0.384
	+	184.41		7.954E-03	2.769E-02	2.879E-02	2.586E-03	0.276
		280.46		9.618E-03	3.681E-02	6.290E-02	6.259E-03	0.153
		410.95		-3.482E-02	1.021E-01	1.594E-01	1.360E-02	-0.218
		711.68	*	1.467E-02	2.958E-02	5.262E-02	5.331E-03	0.279
		752.31		5.096E-02	1.180E-01	2.097E-01	2.131E-02	0.243
		810.29		9.587E-03	2.299E-02	4.102E-02	4.158E-03	0.234
TM-171		51.35		-4.000E+00	7.147E+00	1.116E+01	8.524E-01	-0.359
		52.39		5.663E-01	3.827E+00	6.028E+00	4.536E-01	0.094
		59.40		3.669E+00	6.736E+00	1.161E+01	8.212E-01	0.316
		66.72	*	-1.216E+01	9.151E+00	1.330E+01	9.909E-01	-0.914
LU-176		88.36		-9.537E-03	6.038E-02	9.519E-02	8.976E-03	-0.100
		201.83		-8.300E-03	1.152E-02	1.825E-02	1.682E-03	-0.455
		306.84	*	-3.460E-03	1.063E-02	1.703E-02	1.661E-03	-0.203
		401.10		2.121E+00	2.770E+00	4.967E+00	4.193E-01	0.427
LU-177		112.95		6.180E-03	3.711E-01	5.988E-01	5.048E-02	0.010
		208.36	*	-1.075E-01	2.316E-01	3.747E-01	3.485E-02	-0.287
LU-177M		52.97		-8.256E-02	4.027E-01	6.143E-01	4.587E-02	-0.134
		54.07		-9.398E-02	2.136E-01	3.173E-01	2.338E-02	-0.296
		61.30		-7.828E-01	4.236E-01	5.804E-01	4.152E-02	-1.349
		121.62		6.270E-02	1.464E-01	2.443E-01	2.037E-02	0.257
		147.16		-5.762E-03	2.667E-01	4.246E-01	3.605E-02	-0.014
		171.86		-2.731E-02	1.824E-01	2.843E-01	2.505E-02	-0.096
		218.09		6.782E-02	3.531E-01	6.048E-01	5.697E-02	0.112
		268.79		-1.050E-01	3.031E-01	4.880E-01	4.828E-02	-0.215
		319.02		9.923E-02	1.176E-01	2.104E-01	2.025E-02	0.472
		367.43		6.715E-02	4.465E-01	7.463E-01	6.620E-02	0.090
		413.65	*	-1.767E-02	7.035E-02	1.110E-01	9.502E-03	-0.159
HF-181		56.28		-1.197E-01	2.234E-01	3.495E-01	2.522E-02	-0.343
		57.53		-6.324E-02	1.162E-01	1.812E-01	1.295E-02	-0.349
		65.20		-6.746E-02	2.648E-01	4.226E-01	3.109E-02	-0.160
		133.02		-2.496E-02	2.373E-02	3.386E-02	2.833E-03	-0.737
		136.25		1.420E-01	1.618E-01	2.796E-01	2.346E-02	0.508
		345.85		2.509E-02	7.979E-02	1.361E-01	1.259E-02	0.184
		482.03	*	-1.046E-03	1.684E-02	2.705E-02	2.467E-03	-0.039
W-181		56.28		-4.962E-02	9.251E-02	1.448E-01	1.044E-02	-0.343

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		57.53		-2.620E-02	4.817E-02	7.510E-02	5.369E-03	-0.349
		65.20	*	-2.774E-02	1.089E-01	1.738E-01	1.279E-02	-0.160
TA-182		67.75		-1.059E-02	3.132E-02	4.944E-02	3.717E-03	-0.214
		100.10		1.874E-02	6.167E-02	1.025E-01	8.977E-03	0.183
		152.43		-2.551E-02	1.268E-01	1.977E-01	1.691E-02	-0.129
		222.10		1.316E-02	1.305E-01	2.219E-01	2.100E-02	0.059
		1001.68		4.091E-01	9.575E-01	1.719E+00	1.625E-01	0.238
		1121.28		-3.145E-02	5.143E-02	7.226E-02	6.176E-03	-0.435
		1189.05		2.727E-02	1.018E-01	1.751E-01	1.415E-02	0.156
		1221.42	*	6.055E-03	6.734E-02	1.110E-01	9.059E-03	0.055
		1230.97		-6.784E-02	1.504E-01	2.152E-01	1.760E-02	-0.315
RE-183		57.98		-3.611E-03	4.691E-02	7.664E-02	5.463E-03	-0.047
		59.32		1.439E-02	2.641E-02	4.550E-02	3.221E-03	0.316
		67.20		-1.884E-02	5.750E-02	9.106E-02	6.813E-03	-0.207
		162.32	*	1.085E-02	4.083E-02	6.659E-02	5.780E-03	0.163
		208.81		-4.324E-02	3.370E-01	5.627E-01	5.236E-02	-0.077
		291.72		-9.412E-02	3.436E-01	5.543E-01	5.477E-02	-0.170
RE-184		57.98		-1.372E-02	1.782E-01	2.913E-01	2.076E-02	-0.047
		59.32		5.463E-02	1.003E-01	1.728E-01	1.223E-02	0.316
		67.20		-7.157E-02	2.185E-01	3.460E-01	2.588E-02	-0.207
		161.27		-3.344E-02	1.380E-01	2.137E-01	1.852E-02	-0.156
		216.55		2.262E-02	1.048E-01	1.800E-01	1.692E-02	0.126
		252.85	*	1.131E-01	9.705E-02	1.786E-01	1.745E-02	0.633
		318.01		2.804E-01	2.017E-01	3.766E-01	3.629E-02	0.745
		792.07		-5.839E-02	3.620E-01	5.847E-01	5.937E-02	-0.100
		903.28		-2.434E-01	4.690E-01	7.065E-01	7.011E-02	-0.344
		920.93		-1.575E-02	2.077E-01	3.379E-01	3.331E-02	-0.047
OS-185		59.72		3.912E-02	7.189E-02	1.238E-01	8.771E-03	0.316
		61.14		-6.613E-02	4.461E-02	6.357E-02	4.543E-03	-1.040
		69.30		-3.443E-02	7.986E-02	1.259E-01	9.596E-03	-0.274
		592.07		5.635E-01	1.137E+00	1.981E+00	1.936E-01	0.284
		646.12	*	7.270E-03	1.879E-02	3.325E-02	3.320E-03	0.219
		717.42		1.454E-01	3.998E-01	7.022E-01	7.118E-02	0.207
		874.81		7.056E-02	2.437E-01	4.231E-01	4.236E-02	0.167
		880.27		9.281E-02	2.671E-01	4.733E-01	4.731E-02	0.196
RE-188		155.03	*	1.165E-02	6.457E-02	1.046E-01	8.976E-03	0.111
		477.96		1.553E-01	1.255E+00	2.073E+00	1.884E-01	0.075
		633.10		3.340E-02	1.281E+00	2.052E+00	2.040E-01	0.016
W-188		63.58		-9.068E+00	1.618E+01	2.647E+01	1.924E+00	-0.343
		227.08		-2.469E+00	4.730E+00	7.560E+00	7.199E-01	-0.327
		290.67	*	-3.059E+00	2.872E+00	4.189E+00	4.142E-01	-0.730
IR-192		295.96		5.430E-03	4.089E-02	6.893E-02	6.827E-03	0.079
		308.46		-8.869E-03	4.211E-02	6.842E-02	6.690E-03	-0.130
		316.51	*	1.191E-02	1.609E-02	2.845E-02	2.751E-03	0.419
		468.07		1.745E-02	2.570E-02	4.574E-02	4.395E-03	0.381
		604.41		7.323E-02	2.277E-01	3.788E-01	5.245E-02	0.193
		612.46		1.129E-01	3.183E-01	5.338E-01	5.870E-02	0.212
AU-195		65.12		-6.632E-03	5.141E-02	8.289E-02	6.095E-03	-0.080
		66.83		-1.145E-02	2.764E-02	4.344E-02	3.239E-03	-0.264

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		75.70		-2.973E-02	4.993E-02	7.726E-02	6.290E-03	-0.385
		98.88	*	-5.891E-02	8.626E-02	1.279E-01	1.126E-02	-0.461
		129.76		8.525E-01	1.036E+00	1.785E+00	1.491E-01	0.478
TL-200		367.94	*	2.644E-06	1.036E+00	Half-Life too short		
		579.30		1.957E-06	1.036E+00	Half-Life too short		
		828.27		1.565E-07	1.036E+00	Half-Life too short		
		1205.75		-5.143E-06	1.036E+00	Half-Life too short		
TL-201		68.90		-2.782E-01	3.984E-01	6.120E-01	4.648E-02	-0.455
		70.82		2.554E-02	2.133E-01	3.528E-01	2.729E-02	0.072
		80.30		-3.141E-01	4.602E-01	7.055E-01	6.057E-02	-0.445
		135.34		1.524E+00	2.863E+00	4.814E+00	4.036E-01	0.317
		167.43	*	-6.989E-03	8.439E-01	1.338E+00	1.170E-01	-0.005
TL-202		68.90		-6.209E-02	8.892E-02	1.366E-01	1.037E-02	-0.455
		70.82		5.686E-03	4.748E-02	7.852E-02	6.074E-03	0.072
		80.30		-6.994E-02	1.025E-01	1.571E-01	1.349E-02	-0.445
		439.56	*	-5.656E-03	2.273E-02	3.579E-02	3.144E-03	-0.158
HG-203		70.83		3.190E-02	2.571E-01	4.253E-01	5.555E-02	0.075
		72.87		-4.114E-02	1.524E-01	2.432E-01	3.098E-02	-0.169
		82.60		-1.478E-01	3.107E-01	4.841E-01	6.718E-02	-0.305
		279.20	*	1.223E-02	1.590E-02	2.838E-02	2.886E-03	0.431
BI-207		72.80		-1.377E-02	4.867E-02	7.761E-02	6.124E-03	-0.177
		74.97		-2.377E-02	2.842E-02	4.292E-02	3.466E-03	-0.554
		84.90		-4.725E-02	6.240E-02	9.365E-02	8.512E-03	-0.505
		569.67		1.087E-03	1.453E-02	2.358E-02	2.278E-03	0.046
		1063.62	*	2.947E-03	1.913E-02	3.231E-02	2.917E-03	0.091
		1770.23		-1.047E-01	2.996E-01	4.520E-01	3.708E-02	-0.232
TL-207		81.07		-4.445E-02	6.599E-02	1.011E-01	8.765E-03	-0.439
		83.78		4.596E-03	4.039E-02	6.542E-02	5.863E-03	0.070
		94.90		-2.393E-01	1.013E-01	1.312E-01	1.180E-02	-1.824
		122.32		2.340E-01	6.793E-01	1.126E+00	1.012E-01	0.208
		144.24		-5.014E-02	3.214E-01	5.020E-01	4.769E-02	-0.100
		154.21		-2.845E-02	1.562E-01	2.441E-01	2.304E-02	-0.117
		269.46		-8.001E-02	7.650E-02	1.133E-01	1.139E-02	-0.706
		323.87	*	1.826E-01	2.962E-01	5.181E-01	9.422E-02	0.352
		338.28		-7.714E-04	4.671E-01	7.719E-01	9.917E-02	-0.001
		445.03		-9.136E-01	1.182E+00	1.734E+00	2.123E-01	-0.527
TL-208		277.35		-1.904E-01	1.686E-01	2.475E-01	3.290E-02	-0.770
		510.84		-1.508E-01	1.334E-01	2.448E-01	3.060E-02	-0.616
		583.14	*	-1.970E-02	1.979E-02	2.705E-02	2.781E-03	-0.728
		860.37		-5.897E-02	1.428E-01	2.199E-01	2.331E-02	-0.268
PO-209		260.50		-6.809E-01	3.707E+00	6.082E+00	5.981E-01	-0.112
		262.80		6.778E+00	1.089E+01	1.929E+01	1.900E+00	0.351
		896.60	*	5.356E+00	3.639E+00	7.222E+00	7.183E-01	0.742
BI-210		46.50	*	3.327E-01	9.376E-01	1.554E+00	1.441E-01	0.214
PB-210		46.50	*	3.327E-01	9.376E-01	1.554E+00	1.441E-01	0.214
PO-210		46.50	*	3.327E-01	9.375E-01	1.554E+00	1.304E-01	0.214
BI-211		72.87		-2.239E-01	8.289E-01	1.323E+00	1.045E-01	-0.169
		351.07	*	1.400E-02	1.022E-01	1.623E-01	1.555E-02	0.086
PB-211		404.84	*	-1.086E-01	3.846E-01	5.955E-01	3.730E-01	-0.182

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.08		3.393E-01	9.847E-01	1.638E+00	1.018E+00	0.207
		831.96		-1.238E-01	4.733E-01	7.359E-01	4.628E-01	-0.168
BI-212		727.18	*	-5.727E-02	1.136E-01	1.737E-01	1.971E-02	-0.330
		785.46		-1.017E-01	7.427E-01	1.209E+00	1.228E-01	-0.084
		1620.62		1.627E-02	5.537E-01	9.256E-01	7.794E-02	0.018
PB-212		74.81		-7.866E-02	9.978E-02	1.512E-01	1.866E-02	-0.520
		77.11		-4.572E-02	6.062E-02	9.081E-02	7.510E-03	-0.504
		87.30		-1.667E-01	1.283E-01	1.798E-01	2.464E-02	-0.927
		238.63	*	-4.792E-03	2.839E-02	4.632E-02	4.926E-03	-0.103
		300.09		2.008E-01	3.115E-01	5.504E-01	6.294E-02	0.365
PO-212		74.81		-7.866E-02	9.978E-02	1.512E-01	1.866E-02	-0.520
		77.11		-4.572E-02	6.062E-02	9.081E-02	7.510E-03	-0.504
		87.30		-1.667E-01	1.283E-01	1.798E-01	2.464E-02	-0.927
		115.19		-9.829E-02	1.400E+00	2.240E+00	1.881E-01	-0.044
		238.63	*	-4.792E-03	2.839E-02	4.632E-02	4.926E-03	-0.103
		300.09		2.008E-01	3.115E-01	5.504E-01	6.294E-02	0.365
BI-214		609.31	*	-7.027E-03	4.067E-02	6.153E-02	6.847E-03	-0.114
		1120.29		-1.066E-01	1.189E-01	1.551E-01	1.678E-02	-0.688
		1764.49		5.325E-02	1.174E-01	2.143E-01	1.760E-02	0.248
PB-214		74.81		-1.355E-01	1.717E-01	2.605E-01	2.852E-02	-0.520
		77.11		-7.838E-02	1.041E-01	1.557E-01	1.751E-02	-0.504
		87.30		-2.855E-01	2.191E-01	3.080E-01	3.737E-02	-0.927
		241.98		-1.668E-01	1.403E-01	2.074E-01	2.320E-02	-0.804
		295.21		2.397E-02	5.447E-02	9.460E-02	1.104E-02	0.253
		351.92	*	-1.151E-02	3.503E-02	5.266E-02	5.739E-03	-0.219
PO-214		74.81		-1.355E-01	1.717E-01	2.605E-01	2.852E-02	-0.520
		77.11		-7.838E-02	1.041E-01	1.557E-01	1.751E-02	-0.504
		87.30		-2.855E-01	2.191E-01	3.080E-01	3.737E-02	-0.927
		241.98		-1.668E-01	1.403E-01	2.074E-01	2.320E-02	-0.804
		295.21		2.397E-02	5.447E-02	9.460E-02	1.104E-02	0.253
		351.92	*	-1.151E-02	3.503E-02	5.266E-02	5.739E-03	-0.219
PO-215		81.07		-4.445E-02	6.599E-02	1.011E-01	8.765E-03	-0.439
		83.78		4.596E-03	4.039E-02	6.542E-02	5.863E-03	0.070
		94.90		-2.393E-01	1.013E-01	1.312E-01	1.180E-02	-1.824
		122.32		2.340E-01	6.793E-01	1.126E+00	1.012E-01	0.208
		144.24		-5.014E-02	3.214E-01	5.020E-01	4.769E-02	-0.100
		154.21		-2.845E-02	1.562E-01	2.441E-01	2.304E-02	-0.117
		269.46		-8.001E-02	7.650E-02	1.133E-01	1.139E-02	-0.706
		323.87	*	1.826E-01	2.962E-01	5.181E-01	9.422E-02	0.352
		338.28		-7.714E-04	4.671E-01	7.719E-01	9.917E-02	-0.001
		445.03		-9.136E-01	1.182E+00	1.734E+00	2.123E-01	-0.527
PO-216		74.81		-7.866E-02	9.978E-02	1.512E-01	1.866E-02	-0.520
		77.11		-4.572E-02	6.062E-02	9.081E-02	7.510E-03	-0.504
		87.30		-1.667E-01	1.283E-01	1.798E-01	2.464E-02	-0.927
		238.63	*	-4.792E-03	2.839E-02	4.632E-02	4.926E-03	-0.103
		300.09		2.008E-01	3.115E-01	5.504E-01	6.294E-02	0.365
PO-218		74.81		-1.355E-01	1.717E-01	2.605E-01	2.852E-02	-0.520
		77.11		-7.838E-02	1.041E-01	1.557E-01	1.751E-02	-0.504
		87.30		-2.855E-01	2.191E-01	3.080E-01	3.737E-02	-0.927

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		241.98		-1.668E-01	1.403E-01	2.074E-01	2.320E-02	-0.804
		295.21		2.397E-02	5.447E-02	9.460E-02	1.104E-02	0.253
		351.92	*	-1.151E-02	3.503E-02	5.266E-02	5.739E-03	-0.219
RN-219		271.23		-2.310E-02	9.687E-02	1.579E-01	1.802E-02	-0.146
		401.81	*	-1.001E-01	1.820E-01	2.759E-01	4.119E-02	-0.363
RN-220		549.76	*	-4.009E+00	1.124E+01	1.699E+01	1.623E+00	-0.236
RA-223		81.07		-4.445E-02	6.599E-02	1.011E-01	8.765E-03	-0.439
		83.78		4.596E-03	4.039E-02	6.542E-02	5.863E-03	0.070
		94.90		-2.393E-01	1.013E-01	1.312E-01	1.180E-02	-1.824
		122.32		2.340E-01	6.793E-01	1.126E+00	1.012E-01	0.208
		144.24		-5.014E-02	3.214E-01	5.020E-01	4.769E-02	-0.100
		154.21		-2.845E-02	1.562E-01	2.441E-01	2.304E-02	-0.117
		269.46		-8.001E-02	7.650E-02	1.133E-01	1.139E-02	-0.706
		323.87	*	1.826E-01	2.962E-01	5.181E-01	9.422E-02	0.352
		338.28		-7.714E-04	4.671E-01	7.719E-01	9.917E-02	-0.001
		445.03		-9.136E-01	1.182E+00	1.734E+00	2.123E-01	-0.527
RA-224		240.98	*	-4.414E-01	2.711E-01	3.801E-01	3.674E-02	-1.161
RA-226		609.31	*	-7.027E-03	4.067E-02	6.153E-02	6.847E-03	-0.114
		1120.29		-1.066E-01	1.189E-01	1.551E-01	1.678E-02	-0.688
		1764.49		5.325E-02	1.174E-01	2.143E-01	1.760E-02	0.248
AC-227		79.80		6.136E-02	5.021E-01	8.266E-01	1.775E-01	0.074
		236.00		-3.533E-02	1.006E-01	1.643E-01	2.130E-02	-0.215
		256.20	*	2.247E-02	1.473E-01	2.504E-01	4.017E-02	0.090
		286.10		6.765E-01	6.574E-01	1.194E+00	1.681E-01	0.567
		299.80		2.866E-01	5.876E-01	1.021E+00	1.849E-01	0.281
		304.40		-3.137E-01	7.683E-01	1.214E+00	2.308E-01	-0.258
		334.20		3.208E-01	1.110E+00	1.883E+00	3.725E-01	0.170
TH-227		79.80		6.136E-02	5.021E-01	8.266E-01	1.797E-01	0.074
		94.00		-1.167E+00	9.029E-01	1.457E+00	3.198E-01	-0.801
		236.00		-3.533E-02	1.006E-01	1.643E-01	1.950E-02	-0.215
		256.20	*	2.247E-02	1.473E-01	2.504E-01	4.672E-02	0.090
		286.10		6.765E-01	9.409E-01	1.194E+00	1.200E+00	0.567
		299.80		2.866E-01	5.876E-01	1.021E+00	1.849E-01	0.281
		304.40		-3.137E-01	7.683E-01	1.214E+00	2.308E-01	-0.258
		334.20		3.208E-01	1.110E+00	1.883E+00	3.725E-01	0.170
AC-228		338.32		-1.968E-03	1.117E-01	1.843E-01	7.634E-02	-0.011
		911.07	*	-4.578E-02	5.947E-02	8.448E-02	1.035E-02	-0.542
		969.11		-9.849E-02	1.143E-01	1.510E-01	3.584E-02	-0.652
RA-228		338.32		-1.968E-03	1.117E-01	1.843E-01	7.634E-02	-0.011
		911.07	*	-4.578E-02	5.947E-02	8.448E-02	1.035E-02	-0.542
		969.11		-9.849E-02	1.143E-01	1.510E-01	3.584E-02	-0.652
TH-228		74.81		-7.943E-02	1.005E-01	1.527E-01	1.243E-02	-0.520
		77.11		-4.617E-02	6.122E-02	9.170E-02	7.584E-03	-0.504
		87.30		-1.683E-01	1.285E-01	1.815E-01	1.702E-02	-0.927
		238.63	*	-4.839E-03	2.867E-02	4.678E-02	4.974E-03	-0.103
		300.09		2.027E-01	3.361E-01	5.558E-01	3.305E-01	0.365
TH-229		85.43		-3.362E-02	6.005E-02	9.168E-02	8.388E-03	-0.367
		88.47		4.113E-04	3.450E-02	5.519E-02	5.199E-03	0.007
		100.00		2.007E-02	6.609E-02	1.099E-01	9.624E-03	0.183

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		193.63	*	3.716E-02	1.912E-01	3.295E-01	3.000E-02	0.113
		210.97		3.013E-01	2.776E-01	5.104E-01	4.763E-02	0.590
TH-230		609.31	*	-7.027E-03	4.067E-02	6.153E-02	6.847E-03	-0.114
		1120.29		-1.066E-01	1.189E-01	1.551E-01	1.678E-02	-0.688
		1764.49		5.325E-02	1.174E-01	2.143E-01	1.760E-02	0.248
PA-231		283.67	*	-7.014E-01	7.184E-01	1.068E+00	1.706E-01	-0.656
		301.29		-3.224E-02	2.346E-01	3.844E-01	5.037E-02	-0.084
TH-231		81.07		-4.445E-02	6.599E-02	1.011E-01	8.765E-03	-0.439
		83.78		4.596E-03	4.039E-02	6.542E-02	5.863E-03	0.070
		94.90		-2.393E-01	1.013E-01	1.312E-01	1.180E-02	-1.824
		122.32		2.340E-01	6.793E-01	1.126E+00	1.012E-01	0.208
		144.24		-5.014E-02	3.214E-01	5.020E-01	4.769E-02	-0.100
		154.21		-2.845E-02	1.562E-01	2.441E-01	2.304E-02	-0.117
		269.46		-8.001E-02	7.650E-02	1.133E-01	1.139E-02	-0.706
		323.87	*	1.826E-01	2.962E-01	5.181E-01	9.422E-02	0.352
		338.28		-7.714E-04	4.671E-01	7.719E-01	9.917E-02	-0.001
		445.03		-9.136E-01	1.182E+00	1.734E+00	2.123E-01	-0.527
U-231		84.21		5.526E-02	7.142E-01	1.153E+00	1.039E-01	0.048
		92.29		-3.801E-01	3.752E-01	6.367E-01	5.823E-02	-0.597
		95.87	*	-7.115E-01	2.093E-01	2.306E-01	2.063E-02	-3.085
		108.00		1.303E-01	3.220E-01	5.381E-01	4.586E-02	0.242
TH-232		338.32		-1.968E-03	1.117E-01	1.843E-01	1.727E-02	-0.011
		911.07	*	-4.578E-02	5.947E-02	8.448E-02	1.035E-02	-0.542
		969.11		-9.849E-02	1.143E-01	1.510E-01	3.584E-02	-0.652
PA-233		75.28		-7.336E-01	8.103E-01	1.203E+00	1.812E-01	-0.610
		86.59		-3.827E-01	5.269E-01	7.743E-01	2.094E-01	-0.494
		300.12		1.043E-01	1.614E-01	2.846E-01	4.439E-02	0.366
		311.98	*	8.048E-03	2.980E-02	5.075E-02	5.035E-03	0.159
		340.50		-9.616E-02	2.735E-01	4.337E-01	1.045E-01	-0.222
		398.62		6.099E-01	9.858E-01	1.707E+00	4.535E-01	0.357
		415.76		1.064E-01	6.977E-01	1.163E+00	2.505E-01	0.091
PA-234		63.00		-3.105E-01	4.987E-01	8.098E-01	1.197E-01	-0.383
		94.67		-4.449E-02	6.737E-02	1.035E-01	1.312E-02	-0.430
		98.44		-5.661E-03	3.409E-02	5.277E-02	2.946E-02	-0.107
		99.86		4.567E-02	1.668E-01	2.766E-01	2.425E-02	0.165
		111.00		-6.039E-03	7.420E-02	1.188E-01	1.423E-02	-0.051
		131.20		2.746E-02	3.966E-02	6.761E-02	5.651E-03	0.406
		152.70		-2.547E-02	1.273E-01	1.985E-01	3.378E-02	-0.128
	+	186.00		2.863E-01	1.000E+00	1.097E+00	3.435E-01	0.261
		226.40		-6.295E-02	1.546E-01	2.497E-01	3.447E-02	-0.252
		227.20		-8.112E-02	1.691E-01	2.716E-01	2.587E-02	-0.299
		248.90		-2.913E-01	3.428E-01	5.146E-01	1.177E-01	-0.566
		293.70		-5.763E-02	2.528E-01	4.099E-01	7.360E-02	-0.141
		369.80		-1.548E-01	4.080E-01	6.401E-01	1.399E-01	-0.242
		568.70		3.704E-01	4.399E-01	7.922E-01	7.649E-02	0.468
		569.50		6.173E-02	1.227E-01	2.115E-01	2.043E-02	0.292
		574.00		-4.391E-01	7.087E-01	1.026E+00	9.934E-02	-0.428
		699.00		-4.383E-01	5.432E-01	6.140E-01	1.216E-01	-0.714
		706.10		-4.442E-02	4.625E-01	7.640E-01	3.431E-01	-0.058

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		733.00		3.849E-02	1.531E-01	2.657E-01	6.068E-02	0.145
		742.81		-1.528E-01	6.158E-01	9.753E-01	6.577E-01	-0.157
		796.30		-2.376E-01	3.541E-01	5.053E-01	1.393E-01	-0.470
		805.60		2.929E-01	4.744E-01	8.447E-01	2.628E-01	0.347
		819.60		2.371E-01	5.519E-01	9.675E-01	3.715E-01	0.245
		826.30		-1.088E-01	2.914E-01	4.375E-01	1.971E-01	-0.249
		831.60		5.483E-02	2.314E-01	4.001E-01	1.213E-01	0.137
		876.40		1.783E-01	4.073E-01	6.515E-01	6.706E-01	0.274
		880.51		3.792E-02	9.633E-02	1.727E-01	1.726E-02	0.220
		883.24		-1.142E-01	1.328E-01	1.347E-01	9.082E-02	-0.848
		899.00		1.533E-02	4.516E-01	7.493E-01	3.296E-01	0.020
		925.00		6.027E-02	4.890E-01	8.245E-01	8.114E-02	0.073
		926.50		5.365E-02	7.464E-02	1.366E-01	3.513E-02	0.393
		946.00	*	-4.732E-02	1.272E-01	1.935E-01	3.737E-02	-0.245
		949.00		-7.681E-02	1.860E-01	2.808E-01	2.733E-02	-0.274
		980.50		-1.256E-01	3.771E-01	5.851E-01	5.602E-02	-0.215
		1394.10		4.804E-01	6.318E-01	1.081E+00	7.033E-01	0.444
PA-234M		766.42		-1.155E-01	4.305E+00	7.148E+00	3.647E+00	-0.016
		1001.03	*	1.256E+00	2.113E+00	3.906E+00	4.178E-01	0.322
TH-234		63.29	*	-2.827E-01	4.279E-01	6.909E-01	1.201E-01	-0.409
		92.38		-2.369E-01	2.393E-01	4.013E-01	7.359E-02	-0.590
U-234		609.31	*	-7.027E-03	4.067E-02	6.153E-02	6.847E-03	-0.114
		1120.29		-1.066E-01	1.189E-01	1.551E-01	1.678E-02	-0.688
		1764.49		5.325E-02	1.174E-01	2.143E-01	1.760E-02	0.248
U-235		89.95		-1.274E+00	5.824E-01	5.384E-01	1.672E-01	-2.366
		93.35		-2.393E-01	2.874E-01	4.808E-01	1.354E-01	-0.498
		105.00		-4.575E-01	4.241E-01	5.591E-01	1.668E-01	-0.818
		143.76	*	2.945E-02	9.575E-02	1.550E-01	2.702E-02	0.190
		163.35		-5.232E-02	2.004E-01	2.914E-01	5.570E-02	-0.180
	+	185.71		1.061E-02	3.691E-02	4.048E-02	3.643E-03	0.262
		205.31		7.052E-02	2.054E-01	3.432E-01	6.651E-02	0.205
NP-236		94.67		-3.307E-02	5.105E-02	7.868E-02	7.087E-03	-0.420
		98.44		-4.286E-03	2.566E-02	3.989E-02	3.520E-03	-0.107
		111.00		-4.568E-03	5.613E-02	8.986E-02	7.604E-03	-0.051
		160.31	*	1.099E-02	3.202E-02	5.258E-02	4.549E-03	0.209
NP-237		86.50	*	-5.583E-02	7.868E-02	1.167E-01	2.640E-02	-0.479
		95.87		-1.509E+00	5.644E-01	4.893E-01	1.211E-01	-3.085
U-238		63.29	*	-2.827E-01	4.279E-01	6.909E-01	1.201E-01	-0.409
		92.38		-2.369E-01	2.363E-01	4.013E-01	3.668E-02	-0.590
NP-239		99.55		-2.958E-02	6.040E-02	9.116E-02	8.002E-03	-0.324
		117.00	*	-1.370E-02	7.426E-02	1.174E-01	9.838E-03	-0.117
		209.75		2.280E-01	2.846E-01	5.123E-01	4.773E-02	0.445
		228.18		2.547E-02	8.780E-02	1.517E-01	1.446E-02	0.168
		277.60		-6.924E-02	7.878E-02	1.196E-01	1.190E-02	-0.579
		334.30		1.818E-01	6.281E-01	1.067E+00	1.006E-01	0.170
AM-241		59.54	*	2.143E-02	3.938E-02	6.782E-02	5.307E-03	0.316
AM-243		74.67	*	-4.772E-03	1.557E-02	2.475E-02	1.992E-03	-0.193
		86.72		-2.238E+00	2.904E+00	4.327E+00	4.026E-01	-0.517
		117.66		-3.122E-03	1.488E+00	2.394E+00	2.004E-01	-0.001

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		3.148E+00	7.608E+00	1.257E+01	1.061E+00	0.250
CM-243		99.55		-3.043E-02	6.213E-02	9.377E-02	8.231E-03	-0.324
		103.76	*	-2.297E-02	3.607E-02	5.296E-02	4.572E-03	-0.434
		117.00		-1.409E-02	7.637E-02	1.208E-01	1.012E-02	-0.117
		209.75		2.247E-01	2.805E-01	5.048E-01	4.704E-02	0.445
		228.18		2.573E-02	8.869E-02	1.532E-01	1.460E-02	0.168
		277.60		-6.978E-02	7.940E-02	1.206E-01	1.200E-02	-0.579
AM-246		798.80		-1.449E-02	6.210E-02	9.948E-02	1.010E-02	-0.146
		1036.00		1.971E-02	1.103E-01	1.875E-01	1.731E-02	0.105
		1062.04		6.034E-02	8.568E-02	1.602E-01	1.448E-02	0.377
		1078.86	*	-1.564E-02	6.000E-02	9.260E-02	8.250E-03	-0.169
CM-247		278.00		-1.332E-01	3.208E-01	5.132E-01	5.107E-02	-0.260
		287.40		1.260E-01	5.225E-01	8.914E-01	8.833E-02	0.141
		402.60	*	-1.383E-02	1.621E-02	2.348E-02	1.986E-03	-0.589
CF-249		252.85		4.337E-01	3.722E-01	6.848E-01	6.693E-02	0.633
		333.44		6.721E-03	8.035E-02	1.340E-01	1.265E-02	0.050
		387.95	*	-6.127E-03	1.772E-02	2.782E-02	2.348E-03	-0.220
CF-251		176.60	*	-1.516E-02	4.460E-02	6.761E-02	6.000E-03	-0.224
		227.00		-8.185E-02	1.493E-01	2.379E-01	2.265E-02	-0.344
		285.00		-1.634E-01	7.596E-01	1.238E+00	1.229E-01	-0.132
ANH-511		511.00	*	-3.234E-02	2.904E-02	5.342E-02	4.978E-03	-0.605

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023707    *
* Acquisition date :  5-FEB-2010 19:15:18 Detector SN#    :                *
* Detector ID        : GAM20               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:32.56      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202023707          Analyst initials: MXR1          *
* Batch Number       : 944962               Sample Quantity : 1.4455E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	8.986E-02	1.234E-01	2.317E-01	0.000E+00 NOT IDENT.
NA-22	-2.527E-03	1.860E-02	2.995E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	9.010E+02	0.000E+00	0.000E+00 SHORT HLIF
AL-26	1.448E-04	1.764E-02	2.966E-02	0.000E+00 NOT IDENT.
K-40	-8.045E-03	2.098E-01	3.879E-01	0.000E+00 NOT IDENT.
TI-44	9.949E-03	1.032E-02	1.940E-02	0.000E+00 NOT IDENT.
SC-46	1.677E-02	1.280E-02	2.736E-02	0.000E+00 NOT IDENT.
V-48	5.510E-03	2.861E-02	5.003E-02	0.000E+00 NOT IDENT.
CR-51	-1.855E-01	1.480E-01	2.231E-01	0.000E+00 NOT IDENT.
MN-52	2.583E-03	6.866E-02	1.186E-01	0.000E+00 NOT IDENT.
MN-54	4.136E-03	1.413E-02	2.556E-02	0.000E+00 NOT IDENT.
CO-56	3.322E-03	1.558E-02	2.778E-02	0.000E+00 NOT IDENT.
CO-57	2.327E-03	9.734E-03	1.731E-02	0.000E+00 NOT IDENT.
CO-58	1.187E-02	1.531E-02	2.963E-02	0.000E+00 NOT IDENT.
FE-59	4.567E-03	3.689E-02	6.343E-02	0.000E+00 NOT IDENT.
CO-60	2.088E-04	1.728E-02	2.860E-02	0.000E+00 NOT IDENT.
ZN-65	2.219E-02	3.211E-02	6.117E-02	0.000E+00 NOT IDENT.
GE-68	-1.084E-01	5.324E-01	8.622E-01	0.000E+00 NOT IDENT.
AS-73	-1.344E-01	1.983E-01	3.168E-01	0.000E+00 NOT IDENT.
AS-74	-1.202E-02	3.731E-02	5.969E-02	0.000E+00 NOT IDENT.
SE-75	-9.286E-03	1.782E-02	3.010E-02	0.000E+00 NOT IDENT.
BR-77	-5.424E-01	1.026E+00	1.604E+00	0.000E+00 NOT IDENT.
SR-82	-8.952E-02	1.261E-01	1.896E-01	0.000E+00 NOT IDENT.
RB-83	-1.536E-02	3.073E-02	4.829E-02	0.000E+00 NOT IDENT.
RB-84	-1.287E-02	2.161E-02	3.192E-02	0.000E+00 NOT IDENT.
KR-85	-7.769E+00	5.817E+00	8.801E+00	0.000E+00 NOT IDENT.

SR-85	-3.767E-02	2.820E-02	4.267E-02	0.000E+00	NOT IDENT.
RB-86	-5.801E-02	2.805E-01	4.539E-01	0.000E+00	NOT IDENT.
Y-88	7.011E-05	1.613E-02	2.706E-02	0.000E+00	NOT IDENT.
ZR-88	3.220E-03	1.345E-02	2.394E-02	0.000E+00	NOT IDENT.
Y-91	2.674E+00	5.050E+00	9.536E+00	0.000E+00	NOT IDENT.
NB-94	-7.624E-03	1.527E-02	2.487E-02	0.000E+00	NOT IDENT.
NB-95	3.143E-03	1.480E-02	2.658E-02	0.000E+00	NOT IDENT.
NB-95M	-2.294E-02	5.064E-02	8.767E-02	0.000E+00	NOT IDENT.
ZR-95	-1.748E-03	2.879E-02	4.958E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.268E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	7.018E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.732E-01	1.283E+00	2.279E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	7.453E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.890E-03	1.474E-02	2.366E-02	0.000E+00	NOT IDENT.
RH-102	2.243E-03	1.329E-02	2.320E-02	0.000E+00	NOT IDENT.
RU-103	8.467E-03	1.632E-02	2.967E-02	0.000E+00	NOT IDENT.
RH-106	-1.340E-01	1.458E-01	2.035E-01	0.000E+00	NOT IDENT.
RU-106	-1.340E-01	1.452E-01	2.035E-01	0.000E+00	NOT IDENT.
AG-108M	-5.345E-03	1.230E-02	1.969E-02	0.000E+00	NOT IDENT.
CD-109	-1.699E-01	2.562E-01	4.210E-01	0.000E+00	NOT IDENT.
AG-110M	-3.094E-03	1.504E-02	2.570E-02	0.000E+00	NOT IDENT.
IN-111	6.887E-02	1.065E-01	2.023E-01	0.000E+00	NOT IDENT.
IN-113M	1.300E-03	1.900E-02	3.320E-02	0.000E+00	NOT IDENT.
SN-113	1.300E-03	1.900E-02	3.320E-02	0.000E+00	NOT IDENT.
IN-114M	4.987E-02	6.376E-02	1.123E-01	0.000E+00	NOT IDENT.
CD-115	4.384E-01	9.604E-01	1.727E+00	0.000E+00	NOT IDENT.
SN-117M	1.794E-03	1.686E-02	2.918E-02	0.000E+00	NOT IDENT.
SB-122	2.758E-02	2.077E-01	3.575E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.783E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.485E-03	1.120E-02	1.894E-02	0.000E+00	NOT IDENT.
I-124	3.273E-03	1.437E-01	2.414E-01	0.000E+00	NOT IDENT.
SB-124	-3.043E-02	3.805E-02	4.895E-02	0.000E+00	NOT IDENT.
SB-125	5.662E-02	4.089E-02	8.131E-02	0.000E+00	NOT IDENT.
TE-125M	2.092E+00	3.280E+00	6.049E+00	0.000E+00	NOT IDENT.
I-126	2.208E-02	6.281E-02	1.150E-01	0.000E+00	NOT IDENT.
SB-126	-3.956E-03	4.578E-02	7.889E-02	0.000E+00	NOT IDENT.
SN-126	-3.246E-02	2.651E-02	4.128E-02	0.000E+00	NOT IDENT.
SB-127	1.604E-01	2.406E-01	4.563E-01	0.000E+00	NOT IDENT.
XE-127	-1.808E-03	1.606E-02	2.885E-02	0.000E+00	NOT IDENT.
I-131	1.804E-02	3.686E-02	6.725E-02	0.000E+00	NOT IDENT.
TE-132	2.504E-04	8.699E-02	1.566E-01	0.000E+00	NOT IDENT.
BA-133	-2.671E-03	1.837E-02	3.153E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.056E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.858E-02	1.802E-02	2.511E-02	0.000E+00	NOT IDENT.
CS-135	-1.295E-02	6.061E-02	1.056E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.749E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.522E-03	3.056E-02	4.804E-02	0.000E+00	NOT IDENT.
BA-137M	-6.317E-03	1.705E-02	2.856E-02	0.000E+00	NOT IDENT.
CS-137	-6.678E-03	1.802E-02	3.019E-02	0.000E+00	NOT IDENT.
CE-139	-1.403E-03	1.120E-02	1.889E-02	0.000E+00	NOT IDENT.
BA-140	-1.236E-02	8.900E-02	1.473E-01	0.000E+00	NOT IDENT.
LA-140	1.020E-03	3.034E-02	5.195E-02	0.000E+00	NOT IDENT.
CE-141	-5.409E-03	2.386E-02	4.030E-02	0.000E+00	NOT IDENT.
CE-143	-9.705E-01	3.392E+00	5.808E+00	0.000E+00	NOT IDENT.
CE-144	-6.997E-02	7.871E-02	1.233E-01	0.000E+00	NOT IDENT.
PM-144	-1.098E-02	2.488E-02	3.126E-02	0.000E+00	NOT IDENT.
PR-144	-7.417E-01	1.681E+00	2.112E+00	0.000E+00	NOT IDENT.
PM-146	3.184E-03	2.055E-02	3.589E-02	0.000E+00	NOT IDENT.
ND-147	2.019E-01	1.893E-01	3.612E-01	0.000E+00	NOT IDENT.
PM-149	7.792E+00	7.161E+00	1.385E+01	0.000E+00	NOT IDENT.
EU-152	-1.233E-02	4.282E-02	7.256E-02	0.000E+00	NOT IDENT.
GD-153	-1.183E-02	2.726E-02	4.489E-02	0.000E+00	NOT IDENT.
EU-154	-1.403E-03	5.090E-02	8.390E-02	0.000E+00	NOT IDENT.
EU-155	-4.703E-02	4.054E-02	6.111E-02	0.000E+00	NOT IDENT.
TB-160	6.453E-03	4.853E-02	8.548E-02	0.000E+00	NOT IDENT.
HO-166M	1.467E-02	2.899E-02	5.378E-02	0.000E+00	FAIL ABUN
TM-171	-1.216E+01	8.968E+00	1.430E+01	0.000E+00	NOT IDENT.
LU-176	-3.460E-03	1.042E-02	1.773E-02	0.000E+00	NOT IDENT.
LU-177	-1.075E-01	2.270E-01	3.935E-01	0.000E+00	NOT IDENT.
LU-177M	-1.767E-02	6.894E-02	1.148E-01	0.000E+00	NOT IDENT.
HF-181	-1.046E-03	1.650E-02	2.789E-02	0.000E+00	NOT IDENT.
W-181	-2.774E-02	1.067E-01	1.869E-01	0.000E+00	NOT IDENT.
TA-182	6.055E-03	6.599E-02	1.121E-01	0.000E+00	NOT IDENT.
RE-183	1.085E-02	4.002E-02	7.029E-02	0.000E+00	NOT IDENT.
RE-184	1.131E-01	9.511E-02	1.867E-01	0.000E+00	NOT IDENT.
OS-185	7.270E-03	1.841E-02	3.405E-02	0.000E+00	NOT IDENT.
RE-188	1.165E-02	6.328E-02	1.105E-01	0.000E+00	NOT IDENT.
W-188	-3.059E+00	2.815E+00	4.367E+00	0.000E+00	NOT IDENT.

IR-192	1.191E-02	1.576E-02	2.960E-02	0.000E+00	NOT IDENT.
AU-195	-5.891E-02	8.454E-02	1.364E-01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	7.386E+00	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-6.989E-03	8.271E-01	1.411E+00	0.000E+00	NOT IDENT.
TL-202	-5.656E-03	2.228E-02	3.697E-02	0.000E+00	NOT IDENT.
HG-203	1.223E-02	1.558E-02	2.961E-02	0.000E+00	NOT IDENT.
BI-207	2.947E-03	1.875E-02	3.272E-02	0.000E+00	NOT IDENT.
TL-207	1.826E-01	2.902E-01	5.389E-01	0.000E+00	NOT IDENT.
TL-208	-1.970E-02	1.939E-02	2.777E-02	0.000E+00	NOT IDENT.
PO-209	5.356E+00	3.566E+00	7.342E+00	0.000E+00	NOT IDENT.
BI-210	3.327E-01	9.189E-01	1.683E+00	0.000E+00	NOT IDENT.
PB-210	3.327E-01	9.189E-01	1.683E+00	0.000E+00	NOT IDENT.
PO-210	3.327E-01	9.188E-01	1.683E+00	0.000E+00	NOT IDENT.
BI-211	1.400E-02	1.001E-01	1.685E-01	0.000E+00	NOT IDENT.
PB-211	-1.086E-01	3.769E-01	6.163E-01	0.000E+00	NOT IDENT.
BI-212	-5.727E-02	1.113E-01	1.774E-01	0.000E+00	NOT IDENT.
PB-212	-4.792E-03	2.782E-02	4.849E-02	0.000E+00	NOT IDENT.
PO-212	-4.792E-03	2.782E-02	4.849E-02	0.000E+00	NOT IDENT.
BI-214	-7.027E-03	3.985E-02	6.311E-02	0.000E+00	NOT IDENT.
PB-214	-1.151E-02	3.433E-02	5.467E-02	0.000E+00	NOT IDENT.
PO-214	-1.151E-02	3.433E-02	5.467E-02	0.000E+00	NOT IDENT.
PO-215	1.826E-01	2.902E-01	5.389E-01	0.000E+00	NOT IDENT.
PO-216	-4.792E-03	2.782E-02	4.849E-02	0.000E+00	NOT IDENT.
PO-218	-1.151E-02	3.433E-02	5.467E-02	0.000E+00	NOT IDENT.
RN-219	-1.001E-01	1.783E-01	2.856E-01	0.000E+00	NOT IDENT.
RN-220	-4.009E+00	1.101E+01	1.747E+01	0.000E+00	NOT IDENT.
RA-223	1.826E-01	2.902E-01	5.389E-01	0.000E+00	NOT IDENT.
RA-224	-4.414E-01	2.656E-01	3.978E-01	0.000E+00	NOT IDENT.
RA-226	-7.027E-03	3.985E-02	6.311E-02	0.000E+00	NOT IDENT.
AC-227	2.247E-02	1.443E-01	2.618E-01	0.000E+00	NOT IDENT.
TH-227	2.247E-02	1.443E-01	2.618E-01	0.000E+00	NOT IDENT.
AC-228	-4.578E-02	5.828E-02	8.585E-02	0.000E+00	NOT IDENT.
RA-228	-4.578E-02	5.828E-02	8.585E-02	0.000E+00	NOT IDENT.
TH-228	-4.839E-03	2.809E-02	4.897E-02	0.000E+00	NOT IDENT.
TH-229	3.716E-02	1.874E-01	3.465E-01	0.000E+00	NOT IDENT.
TH-230	-7.027E-03	3.985E-02	6.310E-02	0.000E+00	NOT IDENT.
PA-231	-7.014E-01	7.040E-01	1.114E+00	0.000E+00	NOT IDENT.
TH-231	1.826E-01	2.902E-01	5.389E-01	0.000E+00	NOT IDENT.
U-231	-7.115E-01	2.052E-01	2.462E-01	0.000E+00	NOT IDENT.
TH-232	-4.578E-02	5.828E-02	8.585E-02	0.000E+00	NOT IDENT.
PA-233	8.048E-03	2.920E-02	5.282E-02	0.000E+00	NOT IDENT.
PA-234	-4.732E-02	1.246E-01	1.965E-01	0.000E+00	FAIL ABUN
PA-234M	1.256E+00	2.071E+00	3.961E+00	0.000E+00	NOT IDENT.
TH-234	-2.827E-01	4.193E-01	7.438E-01	0.000E+00	NOT IDENT.
U-234	-7.027E-03	3.985E-02	6.310E-02	0.000E+00	NOT IDENT.
U-235	2.945E-02	9.384E-02	1.641E-01	0.000E+00	FAIL ABUN
NP-236	1.099E-02	3.138E-02	5.551E-02	0.000E+00	NOT IDENT.
NP-237	-5.583E-02	7.711E-02	1.248E-01	0.000E+00	NOT IDENT.
U-238	-2.827E-01	4.193E-01	7.438E-01	0.000E+00	NOT IDENT.
NP-239	-1.370E-02	7.277E-02	1.248E-01	0.000E+00	NOT IDENT.
AM-241	2.143E-02	3.859E-02	7.309E-02	0.000E+00	NOT IDENT.
AM-243	-4.772E-03	1.526E-02	2.655E-02	0.000E+00	NOT IDENT.
CM-243	-2.297E-02	3.535E-02	5.643E-02	0.000E+00	NOT IDENT.
AM-246	-1.564E-02	5.880E-02	9.373E-02	0.000E+00	NOT IDENT.
CM-247	-1.383E-02	1.589E-02	2.431E-02	0.000E+00	NOT IDENT.
CF-249	-6.127E-03	1.736E-02	2.882E-02	0.000E+00	NOT IDENT.
CF-251	-1.516E-02	4.371E-02	7.124E-02	0.000E+00	NOT IDENT.
ANH-511	-3.234E-02	2.846E-02	5.500E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:16:35.35

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023707.CNF;1
Sample date       : 27-JAN-2010 00:00:00 Acquisition date : 5-FEB-2010 19:15:18.
Sample ID         : G1202023707          Sample quantity  : 1.44550E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:32.56  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944962                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202023707 Acquisition date : 5-FEB-2010 19:15:18

Total number of lines in spectrum	1	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	1	100.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202023707 Acquisition date : 5-FEB-2010 19:15:18

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.71	14	94	1.34	371.06	364	14	1.89E-03	****	6.18E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-FEB-2010 21:16:40.64

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023707.CNF;1 *
* Acquisition date : 5-FEB-2010 19:15:18.  Detector SN#     :               *
* Detector ID      : GAM20                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:32.56         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 27-JAN-2010 00:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202023707           Analyst initials: MXR1          *
* Batch Number     : 944962                Sample Quantity : 1.44550E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.986E-02		1.260E-01	2.248E-01	2.185E-02	0.400
NA-22	-2.527E-03		1.898E-02	2.970E-02	2.461E-03	-0.085
NA-24	-5.521E-04		4.597E-04	Half-Life too short		
AL-26	1.448E-04		1.799E-02	2.965E-02	2.409E-03	0.005
K-40	-8.045E-03		2.140E-01	3.859E-01	3.365E-02	-0.021
TI-44	9.949E-03		1.053E-02	1.810E-02	1.519E-03	0.550
SC-46	1.677E-02		1.306E-02	2.691E-02	2.683E-03	0.623
V-48	5.510E-03		2.920E-02	4.932E-02	4.714E-03	0.112
CR-51	-1.855E-01		1.510E-01	2.145E-01	2.150E-02	-0.865
MN-52	2.583E-03		7.006E-02	1.180E-01	9.983E-03	0.022
MN-54	4.136E-03		1.442E-02	2.510E-02	2.536E-03	0.165
CO-56	3.322E-03		1.590E-02	2.729E-02	2.750E-03	0.122
CO-57	2.327E-03		9.933E-03	1.630E-02	1.361E-03	0.143
CO-58	1.187E-02		1.562E-02	2.908E-02	2.953E-03	0.408
FE-59	4.567E-03		3.764E-02	6.268E-02	5.912E-03	0.073
CO-60	2.088E-04		1.763E-02	2.840E-02	2.379E-03	0.007
ZN-65	2.219E-02		3.277E-02	6.048E-02	5.206E-03	0.367

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GE-68	-1.084E-01		5.433E-01	8.517E-01	7.599E-02	-0.127
AS-73	-1.344E-01		2.024E-01	2.933E-01	2.177E-02	-0.458
AS-74	-1.202E-02		3.807E-02	5.818E-02	5.694E-03	-0.207
SE-75	-9.286E-03		1.818E-02	2.882E-02	2.853E-03	-0.322
BR-77	-5.424E-01		1.047E+00	1.559E+00	1.462E-01	-0.348
SR-82	-8.952E-02		1.286E-01	1.859E-01	1.889E-02	-0.482
RB-83	-1.536E-02		3.136E-02	4.692E-02	4.401E-03	-0.327
RB-84	-1.287E-02		2.205E-02	3.139E-02	3.137E-03	-0.410
KR-85	-7.769E+00		5.935E+00	8.550E+00	7.983E-01	-0.909
SR-85	-3.767E-02		2.878E-02	4.145E-02	3.871E-03	-0.909
RB-86	-5.801E-02		2.862E-01	4.484E-01	4.003E-02	-0.129
Y-88	7.011E-05		1.646E-02	2.707E-02	2.184E-03	0.003
ZR-88	3.220E-03		1.373E-02	2.312E-02	1.933E-03	0.139
Y-91	2.674E+00		5.153E+00	9.445E+00	7.669E-01	0.283
NB-94	-7.624E-03		1.558E-02	2.433E-02	2.462E-03	-0.313
NB-95	3.143E-03		1.510E-02	2.605E-02	2.647E-03	0.121
NB-95M	-2.294E-02		5.167E-02	8.372E-02	8.996E-03	-0.274
ZR-95	-1.748E-03		2.937E-02	4.858E-02	5.302E-03	-0.036
NB-97	-5.207E-05		1.157E-04	Half-Life too short		
ZR-97	-2.122E-02		3.580E-03	Half-Life too short		
MO-99	1.732E-01		1.309E+00	2.232E+00	3.595E-01	0.078
TC-99M	-8.396E+03		3.803E+03	Half-Life too short		
RH-101	-8.890E-03		1.505E-02	2.251E-02	2.063E-03	-0.395
RH-102	2.243E-03		1.356E-02	2.249E-02	2.039E-03	0.100
RU-103	8.467E-03		1.665E-02	2.880E-02	4.187E-03	0.294
RH-106	-1.340E-01		1.488E-01	1.985E-01	2.822E-02	-0.675
RU-106	-1.340E-01		1.482E-01	1.985E-01	1.965E-02	-0.675
AG-108M	-5.345E-03		1.255E-02	1.906E-02	1.730E-03	-0.280
CD-109	-1.699E-01		2.614E-01	3.938E-01	3.724E-02	-0.432
AG-110M	-3.094E-03		1.535E-02	2.511E-02	2.572E-03	-0.123
IN-111	6.887E-02		1.086E-01	1.933E-01	1.877E-02	0.356
IN-113M	1.300E-03		1.939E-02	3.206E-02	2.766E-03	0.041
SN-113	1.300E-03		1.939E-02	3.206E-02	2.766E-03	0.041
IN-114M	4.987E-02		6.506E-02	1.068E-01	9.675E-03	0.467
CD-115	4.384E-01		9.800E-01	1.678E+00	1.582E-01	0.261
SN-117M	1.794E-03		1.721E-02	2.763E-02	2.385E-03	0.065
SB-122	2.758E-02		2.119E-01	3.480E-01	3.351E-02	0.079
I-123	-3.689E-04		1.420E-03	Half-Life too short		
TE-123M	-1.485E-03		1.143E-02	1.793E-02	1.558E-03	-0.083
I-124	3.273E-03		1.467E-01	2.353E-01	2.311E-02	0.014
SB-124	-3.043E-02		3.883E-02	4.887E-02	4.247E-03	-0.623
SB-125	5.662E-02		4.173E-02	7.866E-02	6.962E-03	0.720
TE-125M	2.092E+00		3.347E+00	5.683E+00	5.803E-01	0.368
I-126	2.208E-02		6.409E-02	1.124E-01	1.129E-02	0.196
SB-126	-3.956E-03		4.671E-02	7.722E-02	7.830E-03	-0.051
SN-126	-3.246E-02		2.705E-02	3.860E-02	3.631E-03	-0.841
SB-127	1.604E-01		2.455E-01	4.461E-01	5.047E-02	0.360
XE-127	-1.808E-03		1.639E-02	2.746E-02	2.534E-03	-0.066

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	1.804E-02		3.761E-02	6.483E-02	6.062E-03	0.278
TE-132	2.504E-04		8.876E-02	1.494E-01	2.307E-02	0.002
BA-133	-2.671E-03		1.874E-02	3.038E-02	4.104E-03	-0.088
I-133	2.869E-05		2.069E-05	Half-Life too short		
CS-134	-1.858E-02		1.839E-02	2.463E-02	2.513E-03	-0.754
CS-135	-1.295E-02		6.185E-02	1.011E-01	1.121E-02	-0.128
I-135	-1.309E+03		1.403E+03	Half-Life too short		
CS-136	-9.522E-03		3.119E-02	4.743E-02	4.499E-03	-0.201
BA-137M	-6.317E-03		1.739E-02	2.790E-02	2.800E-03	-0.226
CS-137	-6.678E-03		1.839E-02	2.949E-02	2.964E-03	-0.226
CE-139	-1.403E-03		1.143E-02	1.791E-02	1.563E-03	-0.078
BA-140	-1.236E-02		9.082E-02	1.432E-01	4.780E-02	-0.086
LA-140	1.020E-03		3.096E-02	5.179E-02	4.372E-03	0.020
CE-141	-5.409E-03		2.435E-02	3.809E-02	3.289E-03	-0.142
CE-143	-9.705E-01		3.461E+00	5.573E+00	1.242E+00	-0.174
CE-144	-6.997E-02		8.031E-02	1.163E-01	1.794E-02	-0.602
PM-144	-1.098E-02		2.539E-02	3.057E-02	3.090E-03	-0.359
PR-144	-7.417E-01		1.716E+00	2.066E+00	2.088E-01	-0.359
PM-146	3.184E-03		2.097E-02	3.477E-02	3.808E-03	0.092
ND-147	2.019E-01		1.932E-01	3.512E-01	5.422E-02	0.575
PM-149	7.792E+00		7.307E+00	1.328E+01	2.162E+00	0.587
EU-152	-1.233E-02		4.369E-02	6.986E-02	6.816E-03	-0.177
GD-153	-1.183E-02		2.782E-02	4.207E-02	3.731E-03	-0.281
EU-154	-1.403E-03		5.193E-02	8.320E-02	9.193E-03	-0.017
EU-155	-4.703E-02		4.136E-02	5.737E-02	4.988E-03	-0.820
TB-160	6.453E-03		4.952E-02	8.405E-02	8.403E-03	0.077
HO-166M	1.467E-02		2.958E-02	5.262E-02	5.331E-03	0.279
TM-171	-1.216E+01		9.151E+00	1.330E+01	9.909E-01	-0.914
LU-176	-3.460E-03		1.063E-02	1.703E-02	1.661E-03	-0.203
LU-177	-1.075E-01		2.316E-01	3.747E-01	3.485E-02	-0.287
LU-177M	-1.767E-02		7.035E-02	1.110E-01	9.502E-03	-0.159
HF-181	-1.046E-03		1.684E-02	2.705E-02	2.467E-03	-0.039
W-181	-2.774E-02		1.089E-01	1.738E-01	1.279E-02	-0.160
TA-182	6.055E-03		6.734E-02	1.110E-01	9.059E-03	0.055
RE-183	1.085E-02		4.083E-02	6.659E-02	5.780E-03	0.163
RE-184	1.131E-01		9.705E-02	1.786E-01	1.745E-02	0.633
OS-185	7.270E-03		1.879E-02	3.325E-02	3.320E-03	0.219
RE-188	1.165E-02		6.457E-02	1.046E-01	8.976E-03	0.111
W-188	-3.059E+00		2.872E+00	4.189E+00	4.142E-01	-0.730
IR-192	1.191E-02		1.609E-02	2.845E-02	2.751E-03	0.419
AU-195	-5.891E-02		8.626E-02	1.279E-01	1.126E-02	-0.461
TL-200	2.644E-06		3.768E-06	Half-Life too short		
TL-201	-6.989E-03		8.439E-01	1.338E+00	1.170E-01	-0.005
TL-202	-5.656E-03		2.273E-02	3.579E-02	3.144E-03	-0.158
HG-203	1.223E-02		1.590E-02	2.838E-02	2.886E-03	0.431
BI-207	2.947E-03		1.913E-02	3.231E-02	2.917E-03	0.091
TL-207	1.826E-01		2.962E-01	5.181E-01	9.422E-02	0.352
TL-208	-1.970E-02		1.979E-02	2.705E-02	2.781E-03	-0.728

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-209	5.356E+00		3.639E+00	7.222E+00	7.183E-01	0.742
BI-210	3.327E-01		9.376E-01	1.554E+00	1.441E-01	0.214
PB-210	3.327E-01		9.376E-01	1.554E+00	1.441E-01	0.214
PO-210	3.327E-01		9.375E-01	1.554E+00	1.304E-01	0.214
BI-211	1.400E-02		1.022E-01	1.623E-01	1.555E-02	0.086
PB-211	-1.086E-01		3.846E-01	5.955E-01	3.730E-01	-0.182
BI-212	-5.727E-02		1.136E-01	1.737E-01	1.971E-02	-0.330
PB-212	-4.792E-03		2.839E-02	4.632E-02	4.926E-03	-0.103
PO-212	-4.792E-03		2.839E-02	4.632E-02	4.926E-03	-0.103
BI-214	-7.027E-03		4.067E-02	6.153E-02	6.847E-03	-0.114
PB-214	-1.151E-02		3.503E-02	5.266E-02	5.739E-03	-0.219
PO-214	-1.151E-02		3.503E-02	5.266E-02	5.739E-03	-0.219
PO-215	1.826E-01		2.962E-01	5.181E-01	9.422E-02	0.352
PO-216	-4.792E-03		2.839E-02	4.632E-02	4.926E-03	-0.103
PO-218	-1.151E-02		3.503E-02	5.266E-02	5.739E-03	-0.219
RN-219	-1.001E-01		1.820E-01	2.759E-01	4.119E-02	-0.363
RN-220	-4.009E+00		1.124E+01	1.699E+01	1.623E+00	-0.236
RA-223	1.826E-01		2.962E-01	5.181E-01	9.422E-02	0.352
RA-224	-4.414E-01		2.711E-01	3.801E-01	3.674E-02	-1.161
RA-226	-7.027E-03		4.067E-02	6.153E-02	6.847E-03	-0.114
AC-227	2.247E-02		1.473E-01	2.504E-01	4.017E-02	0.090
TH-227	2.247E-02		1.473E-01	2.504E-01	4.672E-02	0.090
AC-228	-4.578E-02		5.947E-02	8.448E-02	1.035E-02	-0.542
RA-228	-4.578E-02		5.947E-02	8.448E-02	1.035E-02	-0.542
TH-228	-4.839E-03		2.867E-02	4.678E-02	4.974E-03	-0.103
TH-229	3.716E-02		1.912E-01	3.295E-01	3.000E-02	0.113
TH-230	-7.027E-03		4.067E-02	6.153E-02	6.847E-03	-0.114
PA-231	-7.014E-01		7.184E-01	1.068E+00	1.706E-01	-0.656
TH-231	1.826E-01		2.962E-01	5.181E-01	9.422E-02	0.352
U-231	-7.115E-01		2.093E-01	2.306E-01	2.063E-02	-3.085
TH-232	-4.578E-02		5.947E-02	8.448E-02	1.035E-02	-0.542
PA-233	8.048E-03		2.980E-02	5.075E-02	5.035E-03	0.159
PA-234	-4.732E-02		1.272E-01	1.935E-01	3.737E-02	-0.245
PA-234M	1.256E+00		2.113E+00	3.906E+00	4.178E-01	0.322
TH-234	-2.827E-01		4.279E-01	6.909E-01	1.201E-01	-0.409
U-234	-7.027E-03		4.067E-02	6.153E-02	6.847E-03	-0.114
U-235	2.945E-02		9.575E-02	1.550E-01	2.702E-02	0.190
NP-236	1.099E-02		3.202E-02	5.258E-02	4.549E-03	0.209
NP-237	-5.583E-02		7.868E-02	1.167E-01	2.640E-02	-0.479
U-238	-2.827E-01		4.279E-01	6.909E-01	1.201E-01	-0.409
NP-239	-1.370E-02		7.426E-02	1.174E-01	9.838E-03	-0.117
AM-241	2.143E-02		3.938E-02	6.782E-02	5.307E-03	0.316
AM-243	-4.772E-03		1.557E-02	2.475E-02	1.992E-03	-0.193
CM-243	-2.297E-02		3.607E-02	5.296E-02	4.572E-03	-0.434
AM-246	-1.564E-02		6.000E-02	9.260E-02	8.250E-03	-0.169
CM-247	-1.383E-02		1.621E-02	2.348E-02	1.986E-03	-0.589
CF-249	-6.127E-03		1.772E-02	2.782E-02	2.348E-03	-0.220
CF-251	-1.516E-02		4.460E-02	6.761E-02	6.000E-03	-0.224

Sample ID : G1202023707 Acquisition date : 5-FEB-2010 19:15:18

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	-3.234E-02		2.904E-02	5.342E-02	4.978E-03	-0.605

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202023707          *
* Acquisition date  :  5-FEB-2010 19:15:18 Detector SN#     :               *
* Detector ID       : GAM20                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:     0 02:00:32.56     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202023707          Analyst initials: MXR1           *
* Batch Number      : 944962               Sample Quantity : 1.4455E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	8.986E-02	1.234E-01	1.159E-01	6.298E-02 NOT IDENT.
NA-22	-2.527E-03	1.860E-02	1.499E-02	9.490E-03 NOT IDENT.
NA-24	-5.521E+02	9.010E+02	0.000E+00	4.597E+02 SHORT HLIF
AL-26	1.448E-04	1.764E-02	1.484E-02	8.997E-03 NOT IDENT.
K-40	-8.045E-03	2.098E-01	1.941E-01	1.070E-01 NOT IDENT.
TI-44	9.949E-03	1.032E-02	9.705E-03	5.266E-03 NOT IDENT.
SC-46	1.677E-02	1.280E-02	1.369E-02	6.531E-03 NOT IDENT.
V-48	5.510E-03	2.861E-02	2.503E-02	1.460E-02 NOT IDENT.
CR-51	-1.855E-01	1.480E-01	1.116E-01	7.550E-02 NOT IDENT.
MN-52	2.583E-03	6.866E-02	5.935E-02	3.503E-02 NOT IDENT.
MN-54	4.136E-03	1.413E-02	1.279E-02	7.211E-03 NOT IDENT.
CO-56	3.322E-03	1.558E-02	1.390E-02	7.949E-03 NOT IDENT.
CO-57	2.327E-03	9.734E-03	8.660E-03	4.966E-03 NOT IDENT.
CO-58	1.187E-02	1.531E-02	1.482E-02	7.809E-03 NOT IDENT.
FE-59	4.567E-03	3.689E-02	3.173E-02	1.882E-02 NOT IDENT.
CO-60	2.088E-04	1.728E-02	1.431E-02	8.814E-03 NOT IDENT.
ZN-65	2.219E-02	3.211E-02	3.060E-02	1.638E-02 NOT IDENT.
GE-68	-1.084E-01	5.324E-01	4.313E-01	2.716E-01 NOT IDENT.
AS-73	-1.344E-01	1.983E-01	1.585E-01	1.012E-01 NOT IDENT.
AS-74	-1.202E-02	3.731E-02	2.986E-02	1.904E-02 NOT IDENT.
SE-75	-9.286E-03	1.782E-02	1.506E-02	9.089E-03 NOT IDENT.
BR-77	-5.424E-01	1.026E+00	8.027E-01	5.237E-01 NOT IDENT.
SR-82	-8.952E-02	1.261E-01	9.486E-02	6.431E-02 NOT IDENT.
RB-83	-1.536E-02	3.073E-02	2.416E-02	1.568E-02 NOT IDENT.
RB-84	-1.287E-02	2.161E-02	1.597E-02	1.103E-02 NOT IDENT.
KR-85	-7.769E+00	5.817E+00	4.403E+00	2.968E+00 NOT IDENT.

SR-85	-3.767E-02	2.820E-02	2.135E-02	1.439E-02	NOT IDENT.
RB-86	-5.801E-02	2.805E-01	2.271E-01	1.431E-01	NOT IDENT.
Y-88	7.011E-05	1.613E-02	1.354E-02	8.228E-03	NOT IDENT.
ZR-88	3.220E-03	1.345E-02	1.198E-02	6.863E-03	NOT IDENT.
Y-91	2.674E+00	5.050E+00	4.771E+00	2.576E+00	NOT IDENT.
NB-94	-7.624E-03	1.527E-02	1.244E-02	7.790E-03	NOT IDENT.
NB-95	3.143E-03	1.480E-02	1.330E-02	7.552E-03	NOT IDENT.
NB-95M	-2.294E-02	5.064E-02	4.386E-02	2.584E-02	NOT IDENT.
ZR-95	-1.748E-03	2.879E-02	2.481E-02	1.469E-02	NOT IDENT.
NB-97	-5.207E+01	2.268E+02	0.000E+00	1.157E+02	SHORT HLIF
ZR-97	-2.122E+04	7.018E+03	0.000E+00	3.580E+03	SHORT HLIF
MO-99	1.732E-01	1.283E+00	1.140E+00	6.545E-01	NOT IDENT.
TC-99M	-8.396E+09	7.453E+09	0.000E+00	3.803E+09	SHORT HLIF
RH-101	-8.890E-03	1.474E-02	1.184E-02	7.523E-03	NOT IDENT.
RH-102	2.243E-03	1.329E-02	1.161E-02	6.781E-03	NOT IDENT.
RU-103	8.467E-03	1.632E-02	1.485E-02	8.326E-03	NOT IDENT.
RH-106	-1.340E-01	1.458E-01	1.018E-01	7.440E-02	NOT IDENT.
RU-106	-1.340E-01	1.452E-01	1.018E-01	7.408E-02	NOT IDENT.
AG-108M	-5.345E-03	1.230E-02	9.852E-03	6.273E-03	NOT IDENT.
CD-109	-1.699E-01	2.562E-01	2.106E-01	1.307E-01	NOT IDENT.
AG-110M	-3.094E-03	1.504E-02	1.286E-02	7.675E-03	NOT IDENT.
IN-111	6.887E-02	1.065E-01	1.012E-01	5.432E-02	NOT IDENT.
IN-113M	1.300E-03	1.900E-02	1.661E-02	9.694E-03	NOT IDENT.
SN-113	1.300E-03	1.900E-02	1.661E-02	9.694E-03	NOT IDENT.
IN-114M	4.987E-02	6.376E-02	5.619E-02	3.253E-02	NOT IDENT.
CD-115	4.384E-01	9.604E-01	8.638E-01	4.900E-01	NOT IDENT.
SN-117M	1.794E-03	1.686E-02	1.460E-02	8.603E-03	NOT IDENT.
SB-122	2.758E-02	2.077E-01	1.788E-01	1.060E-01	NOT IDENT.
I-123	-3.689E+02	2.783E+03	0.000E+00	1.420E+03	SHORT HLIF
TE-123M	-1.485E-03	1.120E-02	9.474E-03	5.713E-03	NOT IDENT.
I-124	3.273E-03	1.437E-01	1.208E-01	7.333E-02	NOT IDENT.
SB-124	-3.043E-02	3.805E-02	2.449E-02	1.941E-02	NOT IDENT.
SB-125	5.662E-02	4.089E-02	4.068E-02	2.086E-02	NOT IDENT.
TE-125M	2.092E+00	3.280E+00	3.026E+00	1.673E+00	NOT IDENT.
I-126	2.208E-02	6.281E-02	5.756E-02	3.205E-02	NOT IDENT.
SB-126	-3.956E-03	4.578E-02	3.947E-02	2.335E-02	NOT IDENT.
SN-126	-3.246E-02	2.651E-02	2.065E-02	1.353E-02	NOT IDENT.
SB-127	1.604E-01	2.406E-01	2.283E-01	1.228E-01	NOT IDENT.
XE-127	-1.808E-03	1.606E-02	1.443E-02	8.194E-03	NOT IDENT.
I-131	1.804E-02	3.686E-02	3.365E-02	1.881E-02	NOT IDENT.
TE-132	2.504E-04	8.699E-02	7.835E-02	4.438E-02	NOT IDENT.
BA-133	-2.671E-03	1.837E-02	1.577E-02	9.372E-03	NOT IDENT.
I-133	2.869E+01	4.056E+01	0.000E+00	2.069E+01	SHORT HLIF
CS-134	-1.858E-02	1.802E-02	1.256E-02	9.195E-03	NOT IDENT.
CS-135	-1.295E-02	6.061E-02	5.283E-02	3.093E-02	NOT IDENT.
I-135	-1.309E+09	2.749E+09	0.000E+00	1.403E+09	SHORT HLIF
CS-136	-9.522E-03	3.056E-02	2.404E-02	1.559E-02	NOT IDENT.
BA-137M	-6.317E-03	1.705E-02	1.429E-02	8.697E-03	NOT IDENT.
CS-137	-6.678E-03	1.802E-02	1.510E-02	9.194E-03	NOT IDENT.
CE-139	-1.403E-03	1.120E-02	9.452E-03	5.715E-03	NOT IDENT.
BA-140	-1.236E-02	8.900E-02	7.369E-02	4.541E-02	NOT IDENT.
LA-140	1.020E-03	3.034E-02	2.599E-02	1.548E-02	NOT IDENT.
CE-141	-5.409E-03	2.386E-02	2.016E-02	1.218E-02	NOT IDENT.
CE-143	-9.705E-01	3.392E+00	2.906E+00	1.731E+00	NOT IDENT.
CE-144	-6.997E-02	7.871E-02	6.167E-02	4.016E-02	NOT IDENT.
PM-144	-1.098E-02	2.488E-02	1.564E-02	1.269E-02	NOT IDENT.
PR-144	-7.417E-01	1.681E+00	1.057E+00	8.578E-01	NOT IDENT.
PM-146	3.184E-03	2.055E-02	1.796E-02	1.049E-02	NOT IDENT.
ND-147	2.019E-01	1.893E-01	1.807E-01	9.660E-02	NOT IDENT.
PM-149	7.792E+00	7.161E+00	6.927E+00	3.654E+00	NOT IDENT.
EU-152	-1.233E-02	4.282E-02	3.630E-02	2.185E-02	NOT IDENT.
GD-153	-1.183E-02	2.726E-02	2.246E-02	1.391E-02	NOT IDENT.
EU-154	-1.403E-03	5.090E-02	4.197E-02	2.597E-02	NOT IDENT.
EU-155	-4.703E-02	4.054E-02	3.057E-02	2.068E-02	NOT IDENT.
TB-160	6.453E-03	4.853E-02	4.276E-02	2.476E-02	NOT IDENT.
HO-166M	1.467E-02	2.899E-02	2.690E-02	1.479E-02	FAIL ABUN
TM-171	-1.216E+01	8.968E+00	7.155E+00	4.575E+00	NOT IDENT.
LU-176	-3.460E-03	1.042E-02	8.870E-03	5.317E-03	NOT IDENT.
LU-177	-1.075E-01	2.270E-01	1.969E-01	1.158E-01	NOT IDENT.
LU-177M	-1.767E-02	6.894E-02	5.746E-02	3.517E-02	NOT IDENT.
HF-181	-1.046E-03	1.650E-02	1.395E-02	8.419E-03	NOT IDENT.
W-181	-2.774E-02	1.067E-01	9.352E-02	5.445E-02	NOT IDENT.
TA-182	6.055E-03	6.599E-02	5.606E-02	3.367E-02	NOT IDENT.
RE-183	1.085E-02	4.002E-02	3.516E-02	2.042E-02	NOT IDENT.
RE-184	1.131E-01	9.511E-02	9.341E-02	4.852E-02	NOT IDENT.
OS-185	7.270E-03	1.841E-02	1.704E-02	9.395E-03	NOT IDENT.
RE-188	1.165E-02	6.328E-02	5.527E-02	3.228E-02	NOT IDENT.
W-188	-3.059E+00	2.815E+00	2.185E+00	1.436E+00	NOT IDENT.

IR-192	1.191E-02	1.576E-02	1.481E-02	8.043E-03	NOT IDENT.
AU-195	-5.891E-02	8.454E-02	6.825E-02	4.313E-02	NOT IDENT.
TL-200	2.644E+00	7.386E+00	0.000E+00	3.768E+00	SHORT HLIF
TL-201	-6.989E-03	8.271E-01	7.059E-01	4.220E-01	NOT IDENT.
TL-202	-5.656E-03	2.228E-02	1.849E-02	1.137E-02	NOT IDENT.
HG-203	1.223E-02	1.558E-02	1.481E-02	7.949E-03	NOT IDENT.
BI-207	2.947E-03	1.875E-02	1.637E-02	9.565E-03	NOT IDENT.
TL-207	1.826E-01	2.902E-01	2.696E-01	1.481E-01	NOT IDENT.
TL-208	-1.970E-02	1.939E-02	1.389E-02	9.894E-03	NOT IDENT.
PO-209	5.356E+00	3.566E+00	3.673E+00	1.820E+00	NOT IDENT.
BI-210	3.327E-01	9.189E-01	8.420E-01	4.688E-01	NOT IDENT.
PB-210	3.327E-01	9.189E-01	8.420E-01	4.688E-01	NOT IDENT.
PO-210	3.327E-01	9.188E-01	8.420E-01	4.688E-01	NOT IDENT.
BI-211	1.400E-02	1.001E-01	8.428E-02	5.109E-02	NOT IDENT.
PB-211	-1.086E-01	3.769E-01	3.083E-01	1.923E-01	NOT IDENT.
BI-212	-5.727E-02	1.113E-01	8.876E-02	5.679E-02	NOT IDENT.
PB-212	-4.792E-03	2.782E-02	2.426E-02	1.419E-02	NOT IDENT.
PO-212	-4.792E-03	2.782E-02	2.426E-02	1.419E-02	NOT IDENT.
BI-214	-7.027E-03	3.985E-02	3.157E-02	2.033E-02	NOT IDENT.
PB-214	-1.151E-02	3.433E-02	2.735E-02	1.752E-02	NOT IDENT.
PO-214	-1.151E-02	3.433E-02	2.735E-02	1.752E-02	NOT IDENT.
PO-215	1.826E-01	2.902E-01	2.696E-01	1.481E-01	NOT IDENT.
PO-216	-4.792E-03	2.782E-02	2.426E-02	1.419E-02	NOT IDENT.
PO-218	-1.151E-02	3.433E-02	2.735E-02	1.752E-02	NOT IDENT.
RN-219	-1.001E-01	1.783E-01	1.429E-01	9.098E-02	NOT IDENT.
RN-220	-4.009E+00	1.101E+01	8.739E+00	5.618E+00	NOT IDENT.
RA-223	1.826E-01	2.902E-01	2.696E-01	1.481E-01	NOT IDENT.
RA-224	-4.414E-01	2.656E-01	1.990E-01	1.355E-01	NOT IDENT.
RA-226	-7.027E-03	3.985E-02	3.157E-02	2.033E-02	NOT IDENT.
AC-227	2.247E-02	1.443E-01	1.310E-01	7.363E-02	NOT IDENT.
TH-227	2.247E-02	1.443E-01	1.310E-01	7.364E-02	NOT IDENT.
AC-228	-4.578E-02	5.828E-02	4.295E-02	2.974E-02	NOT IDENT.
RA-228	-4.578E-02	5.828E-02	4.295E-02	2.974E-02	NOT IDENT.
TH-228	-4.839E-03	2.809E-02	2.450E-02	1.433E-02	NOT IDENT.
TH-229	3.716E-02	1.874E-01	1.733E-01	9.562E-02	NOT IDENT.
TH-230	-7.027E-03	3.985E-02	3.157E-02	2.033E-02	NOT IDENT.
PA-231	-7.014E-01	7.040E-01	5.575E-01	3.592E-01	NOT IDENT.
TH-231	1.826E-01	2.902E-01	2.696E-01	1.481E-01	NOT IDENT.
U-231	-7.115E-01	2.052E-01	1.232E-01	1.047E-01	NOT IDENT.
TH-232	-4.578E-02	5.828E-02	4.295E-02	2.974E-02	NOT IDENT.
PA-233	8.048E-03	2.920E-02	2.643E-02	1.490E-02	NOT IDENT.
PA-234	-4.732E-02	1.246E-01	9.830E-02	6.360E-02	FAIL ABUN
PA-234M	1.256E+00	2.071E+00	1.982E+00	1.057E+00	NOT IDENT.
TH-234	-2.827E-01	4.193E-01	3.721E-01	2.139E-01	NOT IDENT.
U-234	-7.027E-03	3.985E-02	3.157E-02	2.033E-02	NOT IDENT.
U-235	2.945E-02	9.384E-02	8.208E-02	4.788E-02	FAIL ABUN
NP-236	1.099E-02	3.138E-02	2.777E-02	1.601E-02	NOT IDENT.
NP-237	-5.583E-02	7.711E-02	6.243E-02	3.934E-02	NOT IDENT.
U-238	-2.827E-01	4.193E-01	3.721E-01	2.139E-01	NOT IDENT.
NP-239	-1.370E-02	7.277E-02	6.244E-02	3.713E-02	NOT IDENT.
AM-241	2.143E-02	3.859E-02	3.657E-02	1.969E-02	NOT IDENT.
AM-243	-4.772E-03	1.526E-02	1.328E-02	7.785E-03	NOT IDENT.
CM-243	-2.297E-02	3.535E-02	2.823E-02	1.804E-02	NOT IDENT.
AM-246	-1.564E-02	5.880E-02	4.689E-02	3.000E-02	NOT IDENT.
CM-247	-1.383E-02	1.589E-02	1.216E-02	8.106E-03	NOT IDENT.
CF-249	-6.127E-03	1.736E-02	1.442E-02	8.859E-03	NOT IDENT.
CF-251	-1.516E-02	4.371E-02	3.564E-02	2.230E-02	NOT IDENT.
ANH-511	-3.234E-02	2.846E-02	2.752E-02	1.452E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	59.3238
46.50	59.3238
46.50	59.3238
48.70	73.2826
49.72	71.4808
51.35	61.8966
52.39	46.2742
52.97	54.2139
53.15	54.2334
53.44	59.1980
54.07	56.3084
56.28	67.4653
56.28	67.4656
57.37	62.6358
57.53	62.6549
57.53	62.6551
57.60	62.6632
57.98	57.7315
57.98	57.7315
59.32	54.8838
59.32	54.8838
59.40	54.8919
59.54	54.9063
59.72	54.9248
60.01	58.9509
61.10	96.1135
61.14	96.1204
61.30	105.1626
63.00	64.2974
63.29	66.3412
63.29	66.3412
63.58	66.3757
64.28	69.4798
65.12	73.6170
65.20	73.6274
65.20	73.6274
66.05	104.0404
66.72	97.0830
66.83	70.8032
66.91	70.8132
67.20	70.8488
67.20	70.8488
67.75	63.8245
67.85	69.9149
68.90	80.1918
68.90	80.1918
69.30	77.1991
69.67	77.2478
70.82	63.1400
70.82	63.1400
70.83	63.1409
72.80	73.5656
72.87	72.5521
72.87	72.5521
74.67	73.7908
74.81	85.0838
74.81	85.0838
74.81	85.0838
74.81	85.0838
74.81	85.0838
74.81	85.0838
74.81	85.0838
74.97	83.0550
75.28	80.0190
75.70	81.0995
77.11	77.1671
77.11	77.1671

77.11	77.1671
77.11	77.1671
77.11	77.1671
77.11	77.1671
77.11	77.1671
78.38	48.4554
79.62	63.0111
79.80	75.4279
79.80	75.4279
80.11	86.8356
80.18	86.8450
80.30	85.8272
80.30	85.8272
80.57	82.7596
81.00	83.8497
81.07	83.8588
81.07	83.8588
81.07	83.8588
81.07	83.8588
82.60	78.8671
83.37	58.1801
83.78	63.4145
83.78	63.4145
83.78	63.4145
83.78	63.4145
84.21	62.4152
84.90	79.1412
85.43	72.9512
86.29	73.0445
86.50	75.1549
86.54	75.1593
86.59	75.1648
86.72	75.1791
86.79	85.6294
86.94	86.6931
87.30	89.8742
87.30	89.8742
87.30	89.8742
87.30	89.8742
87.30	89.8742
87.30	89.8742
87.30	89.8742
87.57	85.7278
87.88	72.1698
88.03	72.1856
88.36	63.8470
88.47	60.7167
89.95	165.7566
91.11	114.5418
92.29	75.7881
92.38	75.7980
92.38	75.7980
93.35	70.6310
94.00	68.5854
94.67	114.0634
94.67	114.0645
94.90	152.1343
94.90	152.1343
94.90	152.1343
94.90	152.1343
95.87	168.2088
95.87	168.2088
96.73	81.5568
97.43	60.4312
98.44	60.5147
98.44	60.5147
98.88	74.3608
99.55	69.1121
99.55	69.1121
99.86	61.6952
100.00	61.7070
100.10	61.7156
103.18	54.4907
103.76	59.8788
105.00	68.5446
105.31	69.6437
108.00	63.4359
109.28	62.4631

111.00	76.6305
111.00	76.6305
111.76	87.5073
112.95	72.4906
115.19	70.5225
116.30	71.7054
117.00	68.5047
117.00	68.5047
117.66	66.3834
121.11	59.0106
121.62	61.2332
121.78	68.9005
122.06	63.4534
122.32	59.0955
122.32	59.0955
122.32	59.0955
122.32	59.0955
123.07	60.2435
127.23	74.8461
129.76	51.8824
131.20	53.0732
133.02	76.4500
133.54	74.2770
135.34	53.3208
136.00	53.3599
136.25	51.1506
136.48	51.1637
140.51	88.2562
140.51	0.0000
142.18	73.8666
142.65	69.4246
143.76	66.1439
144.24	78.5164
144.24	78.5164
144.24	78.5164
144.24	78.5164
145.22	80.8440
145.44	80.8630
147.16	72.0091
152.43	62.2230
152.70	63.3717
153.22	65.6701
154.21	63.4700
154.21	63.4700
154.21	63.4700
154.21	63.4700
155.03	60.1199
156.02	61.3158
158.56	62.6113
159.00	0.0000
159.00	66.0554
160.31	57.0190
161.27	61.6393
162.32	54.8472
162.64	58.2938
163.35	58.3343
163.89	59.5098
165.85	58.4769
167.43	59.7150
171.28	49.5626
171.86	54.2027
172.10	54.2151
176.55	46.3342
176.60	46.3367
181.06	52.3444
184.41	57.7550
185.71	57.8230
186.00	57.8381
190.27	39.4099
192.34	60.4321
193.63	52.9381
197.04	54.8654
198.01	65.5398
198.60	59.3698
200.40	56.7998
201.83	70.1978
202.84	58.6972
205.31	47.2343

208.36	59.8641
208.81	54.5236
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209.75	45.6211
210.97	40.2948
215.65	55.7310
216.55	54.8726
218.09	60.3451
222.10	50.6009
223.80	55.1938
226.40	53.4944
227.00	56.2410
227.08	56.2443
227.20	56.2499
228.16	52.6603
228.18	47.2135
228.18	47.2135
231.56	57.3523
235.69	78.5411
236.00	76.7325
236.00	76.7325
238.63	54.9193
238.63	54.9193
238.63	54.9193
238.63	54.9193
239.00	55.8504
240.98	77.0248
241.98	69.7413
241.98	69.7413
241.98	69.7413
244.69	43.2177
245.39	36.8002
247.94	47.9312
248.90	56.2670
249.79	51.6891
252.40	36.0668
252.85	37.9289
252.85	37.9289
254.15	0.0000
256.20	39.8763
256.20	39.8763
260.50	41.8607
260.90	41.8730
262.80	38.2029
264.65	53.1809
268.24	45.8336
268.79	46.7865
269.46	58.0427
269.46	58.0427
269.46	58.0427
269.46	58.0427
271.23	48.7413
273.65	37.5568
276.40	52.6794
277.35	66.8333
277.60	61.1964
277.60	61.1964
278.00	54.6210
278.60	55.5853
279.20	39.5852
279.53	40.5369
280.46	46.2227
281.68	45.3171
283.67	63.3400
284.30	57.6929
285.00	48.2576
285.90	32.1915
286.10	34.0895
286.10	34.0895
287.40	41.7012
288.45	0.0000
290.67	52.2406
290.80	52.2456
291.72	40.8715
293.26	42.8158
293.70	41.8764
295.21	38.1073
295.21	38.1073

295.21	38.1073
295.96	43.8452
296.50	43.8606
297.23	47.6974
298.57	46.7846
299.80	39.1776
299.80	39.1776
300.09	36.3179
300.09	36.3179
300.09	36.3179
300.09	36.3179
300.12	36.3185
301.29	44.9547
302.84	41.1701
303.76	45.0264
303.91	45.0307
304.40	43.1282
304.40	43.1282
304.84	41.2232
306.84	44.1561
308.46	49.0063
311.98	44.3007
316.51	43.4619
318.01	30.9351
319.02	37.7259
319.41	37.7348
320.08	57.1103
323.87	37.8396
323.87	37.8396
323.87	37.8396
323.87	37.8396
325.23	40.7843
328.77	45.7392
333.44	48.7968
334.20	48.8190
334.20	48.8190
334.30	48.8220
338.28	50.8963
338.28	50.8963
338.28	50.8963
338.28	50.8963
338.32	50.8979
338.32	50.8979
338.32	50.8979
340.50	49.9837
340.57	49.9860
344.27	43.2198
345.85	38.3442
350.59	40.4232
351.07	38.4620
351.92	41.4412
351.92	41.4412
351.92	41.4412
355.39	0.0000
356.01	37.5831
364.48	42.7349
366.43	42.7822
367.43	43.8019
367.94	0.0000
369.80	43.8604
374.96	28.9916
383.85	32.1479
387.95	37.2546
388.63	38.2754
391.69	34.3035
391.69	34.3035
392.90	35.3354
398.62	31.3931
400.65	31.4267
401.10	23.3222
401.81	37.5324
402.60	39.5778
404.84	30.4807
410.95	32.6167
411.60	28.5494
413.65	29.6005
414.70	36.7657
415.30	31.6693

415.76	27.5896
417.63	0.0000
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427.08	30.8331
427.89	20.5640
432.53	32.9795
433.93	24.7518
439.47	31.0254
439.56	31.0268
439.89	29.9974
443.98	35.2410
444.90	45.6268
445.03	45.6295
445.03	45.6295
445.03	45.6295
445.03	45.6295
453.90	32.2876
463.38	25.1115
468.07	18.8756
473.00	30.4819
475.06	28.4073
475.35	26.3065
476.78	26.3241
477.59	18.9605
477.96	24.2315
482.03	25.3334
484.57	29.5902
487.03	22.2180
490.36	30.7289
492.35	27.5754
497.08	22.3205
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510.53	0.0000
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511.00	36.3649
511.85	33.1690
511.85	33.1690
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513.99	122.0922
520.41	31.1470
520.65	31.1497
527.90	23.7060
528.96	0.0000
529.64	22.6458
529.87	0.0000
531.02	19.4222
537.32	27.0485
543.00	28.1995
546.56	0.0000
549.76	23.9296
552.65	21.7804
555.20	17.4429
563.23	19.6891
563.90	18.6005
568.70	17.5410
569.32	20.8358
569.50	20.8369
569.67	26.3225
573.80	30.7617
574.00	30.7643
574.64	19.7820
578.91	24.2203
579.30	0.0000
583.14	26.4675
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591.81	14.3866
592.07	15.4949
593.00	25.4651
595.88	32.1453
600.56	38.8687
602.52	0.0000
602.71	34.4559
602.71	34.4559
603.60	33.3554
604.41	32.2542
604.70	32.2577
609.31	35.6592

609.31	35.6592
609.31	35.6592
609.31	35.6592
610.33	28.9850
612.46	25.6616
614.37	30.1476
618.01	20.1264
621.84	29.1151
621.84	29.1151
631.29	13.4865
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633.10	23.6173
634.78	20.7067
635.90	21.6164
636.97	22.5262
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646.12	20.7955
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657.75	24.5182
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661.65	30.9188
664.57	22.7591
666.33	23.6850
666.33	23.6850
675.00	20.1045
677.61	16.4646
685.20	19.2614
692.80	26.6714
695.00	22.0904
696.49	23.0231
696.49	23.0231
697.00	28.5531
697.49	29.4797
698.33	28.5668
698.50	28.5683
699.00	29.4953
702.63	28.6099
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706.67	27.7266
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711.68	22.2205
713.82	25.9431
717.42	20.4091
720.50	21.3598
721.93	18.5830
722.20	18.5845
722.78	19.5178
722.78	19.5178
722.89	19.5183
722.95	19.5188
723.30	21.3806
724.18	16.7375
727.18	20.4784
733.00	15.8557
735.90	17.7383
739.58	17.7605
742.81	21.5232
744.21	19.6608
747.13	14.9945
751.79	22.5270
752.31	15.9595
753.82	14.0889
755.35	19.7347
756.15	19.7398
756.87	17.8640
763.93	16.0213
765.79	15.0883
766.42	16.9778
766.84	16.0367
776.49	18.9268
778.00	18.9360
778.57	21.7804
778.89	18.9414
783.80	20.8688
785.46	18.9819
792.07	15.2180

795.84	21.9022
796.30	19.0483
798.80	20.9698
801.93	15.2660
805.60	16.2392
810.29	11.4800
810.76	11.4817
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817.79	17.2608
818.51	6.7141
819.60	14.3921
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828.27	0.0000
831.60	11.5570
831.96	15.4109
834.83	13.4965
836.80	0.0000
846.75	14.5140
848.13	18.3919
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856.80	18.4406
860.37	20.4037
867.32	10.7102
867.82	16.5547
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873.19	10.7290
874.81	13.6616
875.33	0.0000
876.40	12.6918
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880.51	7.8199
881.50	12.7112
883.24	16.6310
884.67	8.8084
889.25	3.9201
896.60	9.8215
898.02	20.6334
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903.28	22.6333
911.07	14.7946
911.07	14.7946
911.07	14.7946
919.63	12.8537
920.93	17.8040
925.00	12.8734
925.24	12.8743
926.50	9.9067
935.52	16.8850
937.48	15.9004
944.10	14.9348
946.00	15.9387
949.00	15.9523
962.29	19.0139
964.01	10.0120
966.15	13.0232
968.20	16.0379
969.11	20.0522
969.11	20.0522
969.11	20.0522
977.42	18.0883
980.50	22.1268
983.50	19.1252
989.30	12.0981
996.32	12.1213
1001.03	6.0683
1001.68	9.1039
1004.76	18.2232
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1024.50	0.0000
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1036.00	9.1874
1037.82	13.2768
1038.57	11.2369
1038.76	0.0000
1045.16	6.1397
1046.59	9.2127
1048.07	12.2889

1050.47	11.2718
1050.47	11.2718
1062.04	7.1941
1063.62	9.2536
1076.63	15.4739
1077.35	15.4768
1078.86	14.4505
1085.78	15.5098
1099.22	14.5250
1112.02	16.6531
1112.84	12.4922
1115.52	8.3340
1120.29	18.7734
1120.29	18.7734
1120.29	18.7734
1120.29	18.7734
1120.51	15.6453
1121.28	15.6482
1124.00	0.0000
1129.67	13.5897
1131.51	0.0000
1147.95	0.0000
1167.94	3.1652
1173.22	7.3951
1175.09	10.5688
1177.93	7.4033
1189.05	8.4832
1204.90	5.3218
1205.75	0.0000
1213.00	7.4645
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1230.97	11.7788
1235.34	15.0062
1236.41	0.0000
1238.25	10.7256
1246.25	10.7451
1260.41	0.0000
1271.85	10.8076
1274.45	11.8954
1274.54	12.9768
1291.56	7.5985
1298.22	0.0000
1312.09	17.4461
1325.50	7.6552
1325.50	7.6552
1332.49	9.8569
1333.61	5.4775
1360.21	12.8538
1362.66	0.0000
1365.15	6.4335
1368.21	11.0361
1368.53	0.0000
1376.25	7.3698
1384.27	5.5366
1394.10	5.5481
1395.20	3.6995
1407.95	12.0553
1434.06	13.0527
1436.60	10.2606
1457.56	0.0000
1460.81	8.4364
1489.15	3.7707
1509.49	6.6252
1596.49	7.6982
1620.62	5.7998
1678.03	0.0000
1691.02	9.7904
1691.02	9.7904
1706.46	0.0000
1750.46	0.0000
1764.49	5.9504
1764.49	5.9504
1764.49	5.9504
1764.49	5.9504
1770.23	10.9199
1771.40	7.9434
1791.20	0.0000
1808.65	6.9949

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202023707

Total Uranium Activity	-8.2728E-01	ug/g
Total Uranium Counting Unc.	1.2482E+00	ug/g
Total Uranium Tpu	6.3684E-07	ug/g
Total Uranium Mda	1.1076E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944962                    SAMPLE ID  : G1202023707      *
*   ANALYST       : MXR1                      DETECTOR   : GAM20            *
*   SAMPLE DATE   : 27-JAN-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  5-FEB-2010 19:15:18.07    SAMPLE ALQT:  144.550 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 5.727E-03
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 9.963E-03
        GROSS GAMMA MDA     (pCi/GRAM  )  : 1.619E-02
        GROSS GAMMA DLC     (pCi/GRAM  )  : 7.531E-03
```

VAX/VMS Nuclide Identification Report Generated 6-FEB-2010 15:03:40.70

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023708.CNF;1
Sample date       : 15-JAN-2010 12:00:00 Acquisition date : 6-FEB-2010 13:03:11.
Sample ID         : G1202023708          Sample quantity  : 1.01100E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.00  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.94*	56	459	1.00	126.13	123	7	7.76E-03	67.6	
2	2	74.75	510	446	1.08	149.72	146	15	7.08E-02	7.7	2.13E+00
3	2	77.07*	767	402	1.06	154.37	146	15	1.06E-01	5.7	
4	0	87.23*	206	435	1.15	174.67	172	6	2.86E-02	17.7	
5	3	90.00	167	371	1.10	180.20	178	14	2.32E-02	18.6	2.34E+00
6	3	92.72*	285	480	1.23	185.64	178	14	3.96E-02	15.3	
7	0	128.86	103	375	1.23	257.84	254	8	1.43E-02	34.2	
8	0	185.81*	304	415	1.51	371.64	368	9	4.23E-02	14.1	
9	0	209.36*	112	365	0.95	418.69	415	9	1.55E-02	33.1	
10	3	238.64*	1657	229	1.26	477.20	469	23	2.30E-01	3.0	2.85E+00
11	3	241.62	416	298	1.89	483.16	469	23	5.78E-02	11.5	
12	0	269.99	114	337	1.39	539.85	536	12	1.59E-02	33.3	
13	0	278.59	101	286	1.22	557.02	552	12	1.41E-02	35.0	
14	0	295.14*	490	324	1.16	590.10	583	13	6.81E-02	8.9	
15	0	299.46*	69	331	0.89	598.73	596	12	9.55E-03	55.1	
16	0	328.09	47	292	1.58	655.95	650	11	6.46E-03	72.6	
17	0	338.23*	356	220	1.61	676.22	671	10	4.95E-02	9.7	
18	0	351.87*	885	331	1.43	703.48	695	15	1.23E-01	5.7	
19	0	410.25	82	244	1.56	820.14	813	15	1.14E-02	43.8	
20	0	462.99	94	178	1.44	925.55	921	10	1.30E-02	28.5	
21	0	511.02*	174	221	1.79	1021.54	1012	18	2.41E-02	24.5	
22	0	583.30*	532	156	1.82	1166.02	1158	16	7.39E-02	7.0	
23	0	609.26*	665	220	1.68	1217.90	1209	18	9.24E-02	6.6	
24	0	661.81	83	124	3.09	1322.95	1313	16	1.16E-02	31.9	
25	0	727.09*	127	192	2.20	1453.44	1446	19	1.76E-02	27.4	
26	0	768.98	41	93	0.89	1537.18	1532	9	5.70E-03	45.4	
27	0	861.02	116	108	2.35	1721.18	1711	18	1.62E-02	22.9	
28	0	911.44*	394	128	2.09	1821.99	1814	19	5.48E-02	8.9	
29	0	968.39*	315	127	2.07	1935.87	1925	22	4.37E-02	11.1	
30	0	1120.46*	173	90	2.23	2239.94	2230	21	2.41E-02	16.1	
31	2	1374.49	39	11	2.43	2748.00	2745	24	5.37E-03	18.9	3.45E+00
32	2	1378.00	63	28	2.68	2755.00	2745	24	8.78E-03	23.4	
33	0	1460.81*	1244	54	2.38	2920.66	2908	23	1.73E-01	3.3	
34	0	1593.82	33	82	10.28	3186.72	3171	32	4.52E-03	91.3	
35	0	1731.39*	19	26	2.42	3461.96	3449	17	2.69E-03	67.8	
36	0	1764.47*	146	21	1.91	3528.13	3517	21	2.03E-02	12.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 6-FEB-2010 15:03:43

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023708.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 15-JAN-2010 12:00:00 Acquisition date : 6-FEB-2010 13:03:11
Sample ID : G1202023708 Sample quantity : 101.10 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.00 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.268E+01	2.554E+00	5.369E-01	4.918E-02	42.244
CD-109	+	88.03	*	2.841E+00	1.043E+00	1.403E+00	1.331E-01	2.025
SN-126	+	64.28		5.058E-01	6.878E-01	8.060E-01	1.171E-01	0.628
	+	86.94		1.149E+00	6.276E-01	6.177E-01	2.565E-01	1.860
	+	87.57	*	2.763E-01	1.015E-01	1.372E-01	1.296E-02	2.014
BA-137M	+	661.65	*	9.577E-02	6.188E-02	6.517E-02	6.872E-03	1.470
CS-137	+	661.65	*	1.012E-01	6.541E-02	6.889E-02	7.274E-03	1.470
HG-203		70.83		5.976E-01	1.277E+00	1.916E+00	2.515E-01	0.312
		72.87		1.634E+00	7.909E-01	1.219E+00	1.562E-01	1.340
		82.60		9.885E-01	1.539E+00	2.099E+00	2.922E-01	0.471
	+	279.20	*	1.097E-01	7.835E-02	7.985E-02	1.130E-02	1.374
TL-208	+	277.35		8.979E-01	6.459E-01	6.994E-01	1.153E-01	1.284
	+	510.84		6.950E-01	3.519E-01	2.279E-01	2.970E-02	3.049
	+	583.14	*	5.974E-01	1.058E-01	6.563E-02	7.117E-03	9.102
	+	860.37		1.187E+00	5.608E-01	4.413E-01	5.142E-02	2.690
BI-211		72.87		7.410E+00	3.510E+00	5.531E+00	4.427E-01	1.340
	+	351.07	*	4.701E+00	7.661E-01	3.471E-01	4.049E-02	13.547
PB-212	+	74.81		2.873E+00	5.690E-01	5.555E-01	6.893E-02	5.171
	+	77.11		2.449E+00	3.472E-01	3.163E-01	2.645E-02	7.741
	+	87.30		1.278E+00	4.864E-01	6.363E-01	8.737E-02	2.009
	+	238.63	*	2.056E+00	2.990E-01	1.020E-01	1.348E-02	20.155
	+	300.09		1.264E+00	1.404E+00	1.330E+00	1.940E-01	0.950
PO-212	+	74.81		2.873E+00	5.690E-01	5.555E-01	6.893E-02	5.171
	+	77.11		2.449E+00	3.472E-01	3.163E-01	2.645E-02	7.741
	+	87.30		1.278E+00	4.864E-01	6.363E-01	8.737E-02	2.009
		115.19		2.074E+00	4.014E+00	6.519E+00	5.400E-01	0.318
	+	238.63	*	2.056E+00	2.990E-01	1.020E-01	1.348E-02	20.155
	+	300.09		1.264E+00	1.404E+00	1.330E+00	1.940E-01	0.950
BI-214	+	609.31	*	1.400E+00	2.472E-01	1.191E-01	1.385E-02	11.750
	+	1120.29		1.817E+00	6.203E-01	4.070E-01	4.497E-02	4.465
	+	1764.49		1.998E+00	5.218E-01	3.101E-01	2.583E-02	6.444
PB-214	+	74.81		4.950E+00	9.390E-01	9.572E-01	1.055E-01	5.171
	+	77.11		4.198E+00	6.757E-01	5.423E-01	6.135E-02	7.741
	+	87.30		2.189E+00	8.215E-01	1.090E+00	1.326E-01	2.009

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		3.095E+00	8.282E-01	6.135E-01	8.436E-02	5.045
	+	295.21		1.587E+00	3.695E-01	2.190E-01	3.261E-02	7.246
	+	351.92	*	1.635E+00	2.798E-01	1.209E-01	1.542E-02	13.522
PO-214	+	74.81		4.950E+00	9.390E-01	9.572E-01	1.055E-01	5.171
	+	77.11		4.198E+00	6.757E-01	5.423E-01	6.135E-02	7.741
	+	87.30		2.189E+00	8.215E-01	1.090E+00	1.326E-01	2.009
	+	241.98		3.095E+00	8.282E-01	6.135E-01	8.436E-02	5.045
	+	295.21		1.587E+00	3.695E-01	2.190E-01	3.261E-02	7.246
	+	351.92	*	1.635E+00	2.798E-01	1.209E-01	1.542E-02	13.522
PO-216	+	74.81		2.873E+00	5.690E-01	5.555E-01	6.893E-02	5.171
	+	77.11		2.449E+00	3.472E-01	3.163E-01	2.645E-02	7.741
	+	87.30		1.278E+00	4.864E-01	6.363E-01	8.737E-02	2.009
	+	238.63	*	2.056E+00	2.990E-01	1.020E-01	1.348E-02	20.155
	+	300.09		1.264E+00	1.404E+00	1.330E+00	1.940E-01	0.950
PO-218	+	74.81		4.950E+00	9.390E-01	9.572E-01	1.055E-01	5.171
	+	77.11		4.198E+00	6.757E-01	5.423E-01	6.135E-02	7.741
	+	87.30		2.189E+00	8.215E-01	1.090E+00	1.326E-01	2.009
	+	241.98		3.095E+00	8.282E-01	6.135E-01	8.436E-02	5.045
	+	295.21		1.587E+00	3.695E-01	2.190E-01	3.261E-02	7.246
	+	351.92	*	1.635E+00	2.798E-01	1.209E-01	1.542E-02	13.522
RA-224	+	240.98	*	5.869E+00	1.535E+00	1.160E+00	1.452E-01	5.060
RA-226	+	609.31	*	1.400E+00	2.472E-01	1.191E-01	1.385E-02	11.750
	+	1120.29		1.817E+00	6.203E-01	4.070E-01	4.497E-02	4.465
	+	1764.49		1.998E+00	5.218E-01	3.101E-01	2.583E-02	6.444
AC-228	+	338.32		2.101E+00	9.738E-01	4.319E-01	1.817E-01	4.865
	+	911.07	*	1.897E+00	4.207E-01	2.260E-01	2.994E-02	8.391
	+	969.11		2.655E+00	8.695E-01	3.595E-01	8.681E-02	7.384
RA-228	+	338.32		2.101E+00	9.738E-01	4.319E-01	1.817E-01	4.865
	+	911.07	*	1.897E+00	4.207E-01	2.260E-01	2.994E-02	8.391
	+	969.11		2.655E+00	8.695E-01	3.595E-01	8.681E-02	7.384
TH-228	+	74.81		2.937E+00	5.139E-01	5.679E-01	4.679E-02	5.171
	+	77.11		2.503E+00	3.549E-01	3.233E-01	2.704E-02	7.741
	+	87.30		1.306E+00	4.797E-01	6.504E-01	6.121E-02	2.009
	+	238.63	*	2.102E+00	3.056E-01	1.043E-01	1.378E-02	20.155
	+	300.09		1.292E+00	1.621E+00	1.359E+00	8.177E-01	0.950
TH-230	+	609.31	*	1.400E+00	2.472E-01	1.191E-01	1.385E-02	11.750
	+	1120.29		1.817E+00	6.202E-01	4.070E-01	4.497E-02	4.465
	+	1764.49		1.998E+00	5.218E-01	3.101E-01	2.583E-02	6.444
TH-232	+	338.32		2.101E+00	4.792E-01	4.319E-01	5.136E-02	4.865
	+	911.07	*	1.897E+00	4.207E-01	2.260E-01	2.994E-02	8.391
	+	969.11		2.655E+00	8.695E-01	3.595E-01	8.681E-02	7.384
TH-234	+	63.29	*	1.278E+00	1.742E+00	2.186E+00	3.806E-01	0.585
	+	92.38		2.487E+00	8.860E-01	8.076E-01	1.480E-01	3.079
U-234	+	609.31	*	1.400E+00	2.472E-01	1.191E-01	1.385E-02	11.750
	+	1120.29		1.817E+00	6.202E-01	4.070E-01	4.497E-02	4.465
	+	1764.49		1.998E+00	5.218E-01	3.101E-01	2.583E-02	6.444
NP-237	+	86.50	*	8.115E-01	3.418E-01	4.276E-01	9.681E-02	1.898
		95.87		1.764E-02	1.131E+00	1.627E+00	4.022E-01	0.011
U-238	+	63.29	*	1.278E+00	1.742E+00	2.186E+00	3.806E-01	0.585

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		2.487E+00	7.929E-01	8.076E-01	7.358E-02	3.079
AM-243	+	74.67	*	4.658E-01	8.134E-02	9.032E-02	7.362E-03	5.157
	+	86.72		3.043E+01	1.117E+01	1.642E+01	1.534E+00	1.854
		117.66		-7.870E+00	4.397E+00	6.379E+00	5.269E-01	-1.234
		142.18		-2.764E+00	2.029E+01	3.305E+01	2.919E+00	-0.084
ANH-511	+	511.00	*	1.501E-01	7.497E-02	4.925E-02	4.934E-03	3.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.750E-01	3.813E-01	6.320E-01	6.596E-02	0.277
NA-22		1274.54	*	-1.046E-02	4.621E-02	7.516E-02	6.477E-03	-0.139
NA-24		1368.53	*	4.079E+02	4.621E-02	Half-Life too short		
AL-26		1129.67		3.476E-02	1.811E+00	2.499E+00	2.176E-01	0.014
		1808.65	*	2.291E-03	2.870E-02	4.777E-02	3.907E-03	0.048
TI-44		67.85		-2.457E-02	4.635E-02	7.451E-02	5.688E-03	-0.330
	+	78.38	*	4.520E-01	6.409E-02	8.230E-02	6.978E-03	5.492
SC-46		889.25	*	3.964E-02	4.323E-02	7.580E-02	8.485E-03	0.523
	+	1120.51		3.294E-01	1.103E-01	1.358E-01	1.201E-02	2.425
V-48		944.10		-4.374E-01	1.267E+00	2.036E+00	2.209E-01	-0.215
		983.50	*	-5.150E-02	9.640E-02	1.514E-01	1.588E-02	-0.340
		1312.09		4.720E-02	1.126E-01	1.922E-01	1.693E-02	0.246
CR-51		320.08	*	2.898E-01	4.922E-01	8.225E-01	1.065E-01	0.352
MN-52		744.21		5.983E-02	6.128E-01	1.001E+00	1.088E-01	0.060
		848.13		8.781E+00	1.599E+01	2.760E+01	3.072E+00	0.318
		935.52		4.549E-01	6.468E-01	1.114E+00	1.217E-01	0.408
		1246.25		2.687E-01	1.849E+01	3.071E+01	2.596E+00	0.009
		1333.61		5.753E+00	1.161E+01	1.998E+01	1.782E+00	0.288
		1434.06	*	-1.684E-01	6.166E-01	9.806E-01	8.764E-02	-0.172
MN-54		834.83	*	1.967E-02	3.961E-02	6.800E-02	7.554E-03	0.289
CO-56		846.75	*	2.314E-02	4.210E-02	7.262E-02	8.084E-03	0.319
		977.42		-5.958E-01	3.635E+00	4.996E+00	5.269E-01	-0.119
		1037.82		1.092E-01	3.232E-01	5.422E-01	5.591E-02	0.201
		1175.09		-5.785E-01	2.366E+00	3.879E+00	3.124E-01	-0.149
		1238.25		1.858E-01	1.025E-01	1.816E-01	1.573E-02	1.023
		1360.21		-4.112E-01	1.037E+00	1.634E+00	1.459E-01	-0.252
		1771.40		-6.897E-02	2.944E-01	3.901E-01	3.241E-02	-0.177
CO-57		122.06	*	-1.716E-03	2.935E-02	4.641E-02	3.827E-03	-0.037
		136.48		-5.395E-02	2.375E-01	3.984E-01	3.696E-02	-0.135
CO-58		810.76	*	-3.369E-02	4.181E-02	6.576E-02	7.282E-03	-0.512
FE-59		142.65		-1.438E+00	3.483E+00	5.618E+00	4.971E-01	-0.256
		192.34		-1.660E+00	1.197E+00	1.825E+00	2.711E-01	-0.909
		1099.22	*	-6.691E-02	1.033E-01	1.587E-01	1.555E-02	-0.422
		1291.56		1.084E-02	1.368E-01	2.276E-01	2.243E-02	0.048
CO-60		1173.22		3.210E-02	4.481E-02	7.829E-02	6.296E-03	0.410
		1332.49	*	9.771E-03	3.777E-02	6.375E-02	5.684E-03	0.153
ZN-65		1115.52	*	6.837E-02	1.063E-01	1.567E-01	1.398E-02	0.436
GE-68		1077.35	*	-2.077E-01	1.239E+00	1.989E+00	1.875E-01	-0.104

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	4.596E-01	9.050E-01	1.482E+00	1.120E-01	0.310
AS-74		595.88	*	-2.773E-02	1.224E-01	2.001E-01	2.074E-02	-0.139
		634.78		-4.085E-01	4.772E-01	7.388E-01	7.743E-02	-0.553
SE-75		66.05		-1.994E+00	5.623E+00	8.181E+00	7.805E-01	-0.244
		96.73		-4.140E-01	9.729E-01	1.364E+00	1.878E-01	-0.303
		121.11		1.667E-01	1.584E-01	2.607E-01	2.851E-02	0.640
		136.00		8.543E-03	4.556E-02	7.751E-02	6.726E-03	0.110
		198.60		9.042E-01	2.277E+00	3.720E+00	4.348E-01	0.243
		264.65	*	4.357E-02	5.843E-02	8.552E-02	1.151E-02	0.510
	+	279.53		2.753E-01	1.967E-01	2.160E-01	3.066E-02	1.275
		303.91		5.247E-01	2.673E+00	3.957E+00	6.029E-01	0.133
		400.65		-7.370E-02	2.890E-01	4.680E-01	5.478E-02	-0.157
BR-77	+	87.88		4.580E-03	2.890E-01	Half-Life too short		
		200.40		2.660E-04	2.890E-01	Half-Life too short		
	+	239.00		2.490E-03	2.890E-01	Half-Life too short		
		249.79		-8.424E-05	2.890E-01	Half-Life too short		
		281.68		-2.027E-04	2.890E-01	Half-Life too short		
		297.23		3.426E-03	2.890E-01	Half-Life too short		
		303.76		3.440E-04	2.890E-01	Half-Life too short		
		439.47		1.605E-04	2.890E-01	Half-Life too short		
		484.57		4.888E-04	2.890E-01	Half-Life too short		
		520.65	*	-4.553E-05	2.890E-01	Half-Life too short		
		574.64		9.359E-04	2.890E-01	Half-Life too short		
		578.91		4.226E-04	2.890E-01	Half-Life too short		
		585.48		1.719E-02	2.890E-01	Half-Life too short		
		755.35		-3.230E-04	2.890E-01	Half-Life too short		
		817.79		-1.147E-04	2.890E-01	Half-Life too short		
SR-82		698.33		-1.190E+01	4.418E+01	7.092E+01	7.588E+00	-0.168
		776.49	*	-6.826E-01	5.543E-01	7.913E-01	8.678E-02	-0.863
		1395.20		-1.588E+01	1.413E+01	2.035E+01	1.820E+00	-0.780
RB-83		520.41	*	-4.003E-02	7.851E-02	1.249E-01	1.257E-02	-0.321
		529.64		-8.240E-02	1.184E-01	1.901E-01	1.922E-02	-0.433
		552.65		5.415E-02	2.101E-01	3.559E-01	3.632E-02	0.152
RB-84		881.50	*	-9.116E-03	8.635E-02	1.423E-01	1.592E-02	-0.064
KR-85		513.99	*	3.141E+01	1.014E+01	1.629E+01	1.635E+00	1.928
SR-85		513.99	*	1.732E-01	5.591E-02	8.984E-02	9.014E-03	1.928
RB-86		1076.63	*	3.444E-01	1.000E+00	1.673E+00	1.579E-01	0.206
Y-88		898.02		-2.027E-02	4.529E-02	7.258E-02	8.154E-03	-0.279
		1836.01	*	2.485E-02	3.311E-02	6.027E-02	4.873E-03	0.412
ZR-88		392.90	*	1.546E-02	3.581E-02	6.012E-02	5.598E-03	0.257
Y-91		1204.90	*	-7.254E+00	2.010E+01	3.260E+01	2.681E+00	-0.223
NB-94		702.63	*	2.093E-02	3.655E-02	6.161E-02	6.602E-03	0.340
		871.10		-8.362E-03	3.598E-02	5.767E-02	6.443E-03	-0.145
NB-95		765.79	*	6.426E-02	5.802E-02	8.761E-02	9.580E-03	0.733
NB-95M		235.69	*	2.375E-01	1.800E-01	2.688E-01	3.553E-02	0.883
ZR-95		724.18		1.501E-01	1.328E-01	2.010E-01	2.291E-02	0.747
		756.15	*	-1.209E-02	8.171E-02	1.311E-01	1.522E-02	-0.092
NB-97		657.90	*	-5.067E+01	8.171E-02	Half-Life too short		
		1024.50		4.278E+03	8.171E-02	Half-Life too short		

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97		254.15		-9.402E+03	8.171E-02	Half-Life too short		
		355.39		3.839E+03	8.171E-02	Half-Life too short		
		507.63	*	5.082E+03	8.171E-02	Half-Life too short		
		602.52		-7.937E+02	8.171E-02	Half-Life too short		
		1021.30		-4.428E+03	8.171E-02	Half-Life too short		
		1147.95		-7.355E+02	8.171E-02	Half-Life too short		
		1362.66		-1.070E+03	8.171E-02	Half-Life too short		
		1750.46		-6.470E+03	8.171E-02	Half-Life too short		
MO-99		140.51		-1.712E-05	8.171E-02	Half-Life too short		
		181.06		1.086E-04	8.171E-02	Half-Life too short		
		366.43		1.406E-04	8.171E-02	Half-Life too short		
		739.58	*	-2.671E-05	8.171E-02	Half-Life too short		
		778.00		-3.045E-04	8.171E-02	Half-Life too short		
TC-99M		140.51	*	-8.931E+17	8.171E-02	Half-Life too short		
RH-101		127.23		2.854E-02	4.206E-02	6.102E-02	5.101E-03	0.468
		198.01	*	2.942E-02	3.966E-02	6.545E-02	7.140E-03	0.449
		325.23		-1.121E-01	2.819E-01	3.988E-01	4.957E-02	-0.281
RH-102		418.52		3.226E-01	3.110E-01	5.225E-01	4.959E-02	0.617
		475.06	*	9.393E-03	3.247E-02	5.334E-02	5.246E-03	0.176
		631.29		-1.917E-03	5.752E-02	9.465E-02	9.911E-03	-0.020
		697.49		5.127E-02	8.202E-02	1.388E-01	1.485E-02	0.369
		766.84		1.955E-01	1.409E-01	2.158E-01	2.361E-02	0.906
		1046.59		-9.936E-02	1.173E-01	1.777E-01	1.743E-02	-0.559
		1112.84		5.510E-02	2.532E-01	3.582E-01	3.206E-02	0.154
RU-103		497.08	*	-5.105E-02	5.015E-02	7.455E-02	1.119E-02	-0.685
	+	610.33		1.707E+01	3.777E+00	3.464E+00	6.124E-01	4.929
RH-106	+	511.85		7.597E-01	3.794E-01	4.845E-01	4.856E-02	1.568
		621.84	*	-2.281E-01	3.387E-01	5.329E-01	7.782E-02	-0.428
		1050.47		1.448E+00	2.409E+00	4.103E+00	4.005E-01	0.353
RU-106	+	511.85		7.597E-01	3.794E-01	4.845E-01	4.856E-02	1.568
		621.84	*	-2.281E-01	3.379E-01	5.329E-01	5.567E-02	-0.428
		1050.47		1.448E+00	2.409E+00	4.103E+00	4.005E-01	0.353
AG-108M		433.93	*	-1.068E-02	3.549E-02	5.684E-02	5.627E-03	-0.188
		614.37		2.509E-02	4.778E-02	7.073E-02	7.571E-03	0.355
		722.95		-2.705E-02	5.170E-02	6.834E-02	7.562E-03	-0.396
AG-110M		657.75	*	-2.478E-02	4.098E-02	5.413E-02	5.818E-03	-0.458
		677.61		-4.635E-02	3.267E-01	5.301E-01	5.732E-02	-0.087
		706.67		6.250E-02	2.358E-01	3.907E-01	4.268E-02	0.160
		763.93		4.603E-02	2.127E-01	3.004E-01	3.341E-02	0.153
		884.67		-2.006E-02	5.427E-02	8.771E-02	1.000E-02	-0.229
		937.48		6.924E-02	1.230E-01	2.103E-01	2.345E-02	0.329
		1384.27		2.812E-02	2.031E-01	2.883E-01	2.645E-02	0.098
IN-111		171.28		-2.816E+00	6.148E+00	1.005E+01	1.003E+00	-0.280
		245.39	*	9.232E+00	6.889E+00	1.043E+01	1.324E+00	0.885
IN-113M		391.69	*	3.262E-02	5.074E-02	8.598E-02	8.211E-03	0.379
SN-113		391.69	*	3.262E-02	5.074E-02	8.598E-02	8.211E-03	0.379
IN-114M		190.27	*	5.635E-02	2.469E-01	3.621E-01	3.849E-02	0.156
CD-115		260.90		-1.173E-03	2.469E-01	Half-Life too short		
		492.35		2.048E-04	2.469E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		527.90	*	2.846E-05	2.469E-01	Half-Life too short		
SN-117M		156.02		5.291E+00	3.679E+00	6.399E+00	5.999E-01	0.827
		158.56	*	-6.471E-02	9.009E-02	1.467E-01	1.391E-02	-0.441
SB-122		563.90	*	-1.124E-06	9.009E-02	Half-Life too short		
		692.80		1.329E-05	9.009E-02	Half-Life too short		
I-123		159.00	*	-1.631E+04	9.009E-02	Half-Life too short		
		528.96		-5.570E+05	9.009E-02	Half-Life too short		
TE-123M		159.00	*	-1.295E-02	3.357E-02	5.537E-02	5.288E-03	-0.234
I-124		602.71	*	-9.877E-02	2.517E+00	3.573E+00	3.711E-01	-0.028
		722.78		-9.365E+00	1.701E+01	2.242E+01	2.419E+00	-0.418
		1325.50		-8.031E+01	1.124E+02	1.727E+02	1.534E+01	-0.465
		1376.25		2.812E+02	1.186E+02	2.087E+02	1.865E+01	1.348
		1509.49		3.255E+01	5.701E+01	9.765E+01	8.679E+00	0.333
		1691.02		-1.626E+00	1.240E+01	2.018E+01	1.726E+00	-0.081
SB-124		602.71		-1.971E-03	5.024E-02	7.131E-02	7.408E-03	-0.028
		645.85		-1.520E-01	5.550E-01	8.966E-01	9.806E-02	-0.170
		709.31		-2.013E+00	3.329E+00	5.212E+00	5.599E-01	-0.386
		713.82		-1.324E+00	1.967E+00	3.054E+00	4.169E-01	-0.433
		722.78		-2.709E-01	4.921E-01	6.485E-01	7.096E-02	-0.418
	+	968.20		2.960E+01	7.264E+00	8.444E+00	8.979E-01	3.505
		1045.16		-2.365E+00	2.718E+00	4.107E+00	4.035E-01	-0.576
		1325.50		-2.482E+00	3.473E+00	5.338E+00	4.740E-01	-0.465
		1368.21		4.711E-01	2.247E+00	3.229E+00	4.417E-01	0.146
		1436.60		6.586E-01	4.529E+00	7.509E+00	6.710E-01	0.088
		1691.02	*	-1.110E-02	8.459E-02	1.377E-01	1.225E-02	-0.081
SB-125		427.89	*	9.357E-03	9.915E-02	1.627E-01	1.578E-02	0.058
	+	463.38		7.465E-01	4.326E-01	6.266E-01	6.498E-02	1.191
		600.56		2.675E-01	2.000E-01	3.242E-01	3.538E-02	0.825
		635.90		-2.343E-01	2.816E-01	4.368E-01	4.833E-02	-0.536
TE-125M		109.28	*	2.376E+00	1.134E+01	1.827E+01	1.854E+00	0.130
I-126		388.63		1.255E-01	3.301E-01	5.531E-01	5.237E-02	0.227
		666.33	*	3.689E-01	3.122E-01	4.825E-01	5.098E-02	0.764
		753.82		-8.017E-01	2.284E+00	3.611E+00	3.935E-01	-0.222
SB-126		223.80		3.102E+00	6.739E+00	1.117E+01	1.325E+00	0.278
	+	278.60		8.744E+00	6.242E+00	7.015E+00	9.806E-01	1.246
	+	296.50		2.327E+01	5.219E+00	5.855E+00	7.888E-01	3.974
		414.70		-8.220E-02	1.374E-01	1.850E-01	1.751E-02	-0.444
		415.30		-5.938E-01	1.096E+01	1.544E+01	1.462E+00	-0.038
		555.20		2.666E+00	6.156E+00	1.051E+01	1.074E+00	0.254
		573.80		-9.924E-01	1.802E+00	2.758E+00	2.837E-01	-0.360
		593.00		-1.308E+00	1.415E+00	2.202E+00	2.280E-01	-0.594
		656.30		-2.453E+00	5.661E+00	7.628E+00	8.035E-01	-0.322
		666.33		1.566E-01	1.326E-01	2.049E-01	2.165E-02	0.764
		675.00		-1.243E+00	3.038E+00	4.839E+00	5.130E-01	-0.257
		695.00		-1.883E-03	1.210E-01	1.975E-01	2.111E-02	-0.010
		697.00		1.011E-01	4.235E-01	7.017E-01	7.504E-02	0.144
		720.50	*	1.598E-02	2.574E-01	3.612E-01	3.895E-02	0.044
		856.80		6.803E-01	8.310E-01	1.271E+00	1.418E-01	0.535
		989.30		4.861E-01	1.730E+00	2.906E+00	3.031E-01	0.167

---- Non-Identified Nuclides ----

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		1034.80		-2.004E+00	1.287E+01	2.076E+01	2.065E+00	-0.097
		1213.00		2.515E+00	6.757E+00	1.152E+01	9.521E-01	0.218
SB-127		61.10		1.903E+02	2.081E+02	3.212E+02	4.040E+01	0.592
		252.40		2.337E+01	1.923E+01	2.802E+01	1.227E+01	0.834
		290.80		-6.258E+01	8.922E+01	1.244E+02	2.130E+01	-0.503
	+	411.60		9.566E+01	8.550E+01	7.931E+01	1.416E+01	1.206
		444.90		3.632E+00	3.721E+01	6.084E+01	9.276E+00	0.060
		473.00		4.571E+00	6.219E+00	1.043E+01	1.629E+00	0.438
		543.00		-5.787E+00	6.218E+01	1.014E+02	1.734E+01	-0.057
		603.60		-9.176E-01	4.956E+01	7.047E+01	1.106E+01	-0.013
		685.20	*	8.603E-01	4.976E+00	8.230E+00	1.235E+00	0.105
		698.50		-2.040E+01	5.630E+01	8.966E+01	1.670E+01	-0.228
		722.20		-5.440E+01	1.281E+02	1.709E+02	2.553E+01	-0.318
		783.80		2.355E+01	1.416E+01	2.446E+01	3.922E+00	0.963
XE-127		57.60		-2.159E-01	6.642E+00	1.105E+01	7.937E-01	-0.020
		145.22		1.236E+00	8.583E-01	1.502E+00	1.343E-01	0.823
		172.10		-5.379E-02	1.509E-01	2.475E-01	2.477E-02	-0.217
		202.84	*	-4.978E-02	6.267E-02	9.949E-02	1.103E-02	-0.500
		374.96		1.086E-01	2.461E-01	4.148E-01	4.223E-02	0.262
I-131		80.18		-3.980E-01	9.252E+00	1.346E+01	1.180E+00	-0.030
		284.30		-1.232E+00	3.543E+00	4.808E+00	6.815E-01	-0.256
		364.48	*	-1.203E-02	2.262E-01	3.734E-01	4.155E-02	-0.032
		636.97		-7.789E-01	2.861E+00	4.629E+00	5.061E-01	-0.168
		722.89		-8.426E+00	1.581E+01	2.088E+01	2.273E+00	-0.404
TE-132		49.72		1.523E+01	7.982E+01	1.350E+02	1.689E+01	0.113
		111.76		-1.057E+01	1.485E+02	2.363E+02	3.006E+01	-0.045
		116.30		8.613E+01	1.336E+02	2.176E+02	2.759E+01	0.396
		228.16	*	8.815E-02	3.503E+00	5.705E+00	1.092E+00	0.015
BA-133		53.15		1.036E+00	3.692E+00	5.998E+00	4.551E-01	0.173
		79.62		5.692E-01	1.418E+00	2.104E+00	3.201E-01	0.271
		81.00		-1.489E-01	1.151E-01	1.540E-01	2.455E-02	-0.967
		276.40		7.345E-01	6.515E-01	7.196E-01	1.302E-01	1.021
		302.84		1.605E-01	1.773E-01	2.706E-01	4.513E-02	0.593
		356.01	*	1.124E-02	5.165E-02	7.546E-02	1.128E-02	0.149
		383.85		2.106E-01	3.367E-01	5.698E-01	7.625E-02	0.370
I-133	+	510.53		3.890E+02	3.367E-01	Half-Life too short		
		529.87	*	-1.318E+00	3.367E-01	Half-Life too short		
		706.58		3.271E+01	3.367E-01	Half-Life too short		
		856.28		4.343E+01	3.367E-01	Half-Life too short		
		875.33		6.721E+00	3.367E-01	Half-Life too short		
		1236.41		1.739E+02	3.367E-01	Half-Life too short		
		1298.22		-3.859E+01	3.367E-01	Half-Life too short		
CS-134		475.35		5.531E-01	2.123E+00	3.482E+00	3.425E-01	0.159
		563.23		6.765E-02	3.898E-01	6.555E-01	6.763E-02	0.103
		569.32		3.236E-03	2.132E-01	3.552E-01	3.683E-02	0.009
		604.70		1.916E-02	4.041E-02	5.971E-02	6.216E-03	0.321
		795.84	*	4.310E-02	5.043E-02	8.556E-02	9.470E-03	0.504
		801.93		3.145E-02	4.434E-01	7.180E-01	7.950E-02	0.044
		1038.57		-7.495E-01	3.775E+00	6.065E+00	6.005E-01	-0.124

---- Non-Identified Nuclides ----

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		1167.94		2.008E-01	2.585E+00	4.338E+00	3.525E-01	0.046
		1365.15		3.601E-01	1.235E+00	2.058E+00	1.917E-01	0.175
CS-135		268.24	*	1.250E-01	2.097E-01	3.032E-01	4.386E-02	0.412
I-135		288.45		-4.854E+17	2.097E-01	Half-Life too short		
		417.63		4.985E+17	2.097E-01	Half-Life too short		
		546.56		1.865E+17	2.097E-01	Half-Life too short		
		836.80		6.454E+17	2.097E-01	Half-Life too short		
		1038.76		3.052E+16	2.097E-01	Half-Life too short		
		1124.00		5.146E+18	2.097E-01	Half-Life too short		
		1131.51		-9.111E+16	2.097E-01	Half-Life too short		
		1260.41	*	-2.351E+17	2.097E-01	Half-Life too short		
		1457.56		3.052E+19	2.097E-01	Half-Life too short		
		1678.03		1.755E+17	2.097E-01	Half-Life too short		
		1706.46		-4.068E+17	2.097E-01	Half-Life too short		
		1791.20		6.540E+16	2.097E-01	Half-Life too short		
CS-136		66.91		-1.067E+00	1.271E+00	1.792E+00	2.667E-01	-0.595
	+	86.29		5.194E+00	1.971E+00	3.008E+00	4.006E-01	1.727
		153.22		3.789E-01	1.079E+00	1.829E+00	1.869E-01	0.207
		163.89		1.369E+00	1.713E+00	2.928E+00	3.120E-01	0.467
		176.55		-9.169E-02	5.859E-01	9.668E-01	1.024E-01	-0.095
		273.65		-8.965E-02	1.178E+00	1.166E+00	1.650E-01	-0.077
		340.57		1.030E+00	2.782E-01	4.368E-01	5.236E-02	2.359
		818.51		-4.081E-04	1.068E-01	1.785E-01	1.979E-02	-0.002
		1048.07	*	-7.359E-02	1.578E-01	2.477E-01	2.507E-02	-0.297
		1235.34		7.815E-01	8.833E-01	1.536E+00	1.795E-01	0.509
CE-139		165.85	*	-2.442E-02	3.488E-02	5.658E-02	5.549E-03	-0.432
BA-140		162.64		8.965E-01	1.211E+00	2.069E+00	2.093E-01	0.433
		304.84		-1.506E-01	2.279E+00	3.320E+00	9.876E-01	-0.045
		423.70		5.035E-01	2.945E+00	4.849E+00	1.584E+00	0.104
		537.32	*	1.782E-02	4.059E-01	6.807E-01	2.285E-01	0.026
LA-140	+	328.77		4.961E-01	7.227E-01	8.748E-01	1.105E-01	0.567
		432.53		1.827E+00	3.253E+00	5.459E+00	5.438E-01	0.335
		487.03		8.371E-02	2.280E-01	3.752E-01	3.889E-02	0.223
		751.79		-3.874E-01	2.636E+00	4.231E+00	4.923E-01	-0.092
		815.85		8.745E-02	4.576E-01	7.752E-01	9.192E-02	0.113
		867.82		-4.494E-01	2.373E+00	3.305E+00	3.808E-01	-0.136
		919.63		1.098E+00	4.815E+00	6.966E+00	8.839E-01	0.158
		925.24		3.778E-01	1.637E+00	2.751E+00	3.144E-01	0.137
		1596.49	*	3.703E-02	1.341E-01	2.295E-01	2.011E-02	0.161
CE-141		145.44	*	9.222E-02	7.870E-02	1.369E-01	1.246E-02	0.674
CE-143		57.37		-1.934E-02	7.870E-02	Half-Life too short		
		231.56		4.647E-02	7.870E-02	Half-Life too short		
		293.26	*	3.572E-02	7.870E-02	Half-Life too short		
	+	350.59		1.224E+00	7.870E-02	Half-Life too short		
		490.36		3.889E-02	7.870E-02	Half-Life too short		
		664.57		5.819E-02	7.870E-02	Half-Life too short		
		721.93		-2.518E-02	7.870E-02	Half-Life too short		
CE-144		80.11		-7.744E-02	2.385E+00	3.472E+00	3.001E-01	-0.022
		133.54	*	-2.160E-01	2.511E-01	3.777E-01	5.863E-02	-0.572

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144		476.78		2.596E-03	7.443E-02	1.205E-01	1.273E-02	0.022
		618.01		-8.718E-03	3.675E-02	5.523E-02	5.874E-03	-0.158
		696.49	*	2.889E-05	3.731E-02	6.095E-02	6.520E-03	0.000
		778.57		-4.180E+00	2.749E+00	3.925E+00	4.309E-01	-1.065
PR-144		696.49	*	1.965E-03	2.537E+00	4.146E+00	4.432E-01	0.000
		1489.15		-1.076E+00	1.310E+01	2.114E+01	1.883E+00	-0.051
PM-146		453.90	*	2.970E-04	4.827E-02	7.839E-02	9.110E-03	0.004
		633.02		-3.391E-01	1.457E+00	2.357E+00	8.920E-01	-0.144
		735.90		6.722E-02	1.859E-01	2.662E-01	7.813E-02	0.252
		747.13		5.114E-02	9.903E-02	1.657E-01	2.573E-02	0.309
ND-147	+	91.11		1.162E+00	4.479E-01	9.026E-01	8.920E-02	1.287
		319.41		4.327E+00	5.604E+00	9.651E+00	1.222E+00	0.448
		439.89		-9.590E-01	9.691E+00	1.560E+01	1.502E+00	-0.061
		531.02	*	-1.298E-01	9.320E-01	1.549E+00	2.456E-01	-0.084
PM-149		285.90	*	9.928E-04	9.320E-01	Half-Life too short		
EU-152		121.78		2.741E-02	8.299E-02	1.334E-01	1.280E-02	0.206
		244.69		5.244E-01	4.135E-01	6.218E-01	7.872E-02	0.843
		344.27	*	-1.186E-01	1.498E-01	1.757E-01	2.112E-02	-0.675
		443.98		-7.036E-02	1.066E+00	1.728E+00	1.668E-01	-0.041
		778.89		-3.903E-01	3.074E-01	4.492E-01	4.929E-02	-0.869
		867.32		-4.737E-01	9.728E-01	1.308E+00	1.461E-01	-0.362
		964.01		9.740E-01	3.756E-01	6.269E-01	6.690E-02	1.554
		1085.78		-2.675E-01	4.242E-01	6.548E-01	6.101E-02	-0.409
		1112.02		4.701E-02	3.594E-01	5.033E-01	4.510E-02	0.093
		1407.95		6.431E-02	2.057E-01	3.464E-01	3.097E-02	0.186
GD-153		69.67		-4.952E-01	1.748E+00	2.715E+00	2.107E-01	-0.182
		83.37		2.226E+01	1.748E+01	2.648E+01	2.377E+00	0.840
		97.43	*	-3.379E-02	9.856E-02	1.377E-01	1.211E-02	-0.245
		103.18		-3.150E-02	1.181E-01	1.875E-01	1.602E-02	-0.168
EU-154		123.07		-3.871E-02	6.015E-02	9.247E-02	1.026E-02	-0.419
		247.94		-2.677E-01	4.649E-01	6.295E-01	9.356E-02	-0.425
		591.81		-3.798E-01	6.877E-01	1.010E+00	1.314E-01	-0.376
		723.30		-5.478E-02	2.207E-01	3.004E-01	3.464E-02	-0.182
		756.87		1.244E-01	8.199E-01	1.342E+00	1.841E-01	0.093
		873.19		4.233E-02	3.123E-01	5.236E-01	7.414E-02	0.081
		996.32		-5.275E-01	3.853E-01	5.415E-01	1.011E-01	-0.974
		1004.76		1.644E-01	2.324E-01	3.980E-01	5.138E-02	0.413
		1274.45	*	-3.090E-02	1.285E-01	2.087E-01	2.359E-02	-0.148
EU-155		48.70		-3.017E-01	2.311E+00	3.865E+00	3.147E-01	-0.078
		60.01		-1.308E-01	5.151E+00	7.663E+00	5.442E-01	-0.017
	+	86.54		3.337E-01	1.226E-01	1.953E-01	1.837E-02	1.709
		105.31	*	1.290E-01	1.201E-01	1.997E-01	1.714E-02	0.646
TB-160	+	86.79		9.500E-01	3.489E-01	5.555E-01	5.195E-02	1.710
		197.04		3.254E-01	7.142E-01	1.169E+00	1.272E-01	0.278
		215.65		3.470E-01	9.188E-01	1.473E+00	1.703E-01	0.236
	+	298.57		1.966E-01	2.181E-01	2.434E-01	3.263E-02	0.807
		879.36	*	1.120E-01	1.549E-01	2.690E-01	3.008E-02	0.416
		962.29		1.276E+00	7.020E-01	1.140E+00	1.219E-01	1.119
		966.15		1.757E+00	3.781E-01	6.232E-01	6.638E-02	2.820

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1177.93		-3.476E-01	3.836E-01	5.963E-01	4.812E-02	-0.583
		1271.85		-2.958E-01	7.778E-01	1.248E+00	1.073E-01	-0.237
HO-166M		80.57		-4.094E-02	2.993E-01	4.334E-01	3.766E-02	-0.094
	+	184.41		2.064E-01	6.201E-02	8.232E-02	8.583E-03	2.507
		280.46		6.502E-02	1.026E-01	1.489E-01	2.079E-02	0.437
	+	410.95		5.495E-01	4.841E-01	4.796E-01	4.527E-02	1.146
		711.68	*	-3.114E-02	6.650E-02	1.050E-01	1.129E-02	-0.296
		752.31		-7.959E-02	2.928E-01	4.658E-01	5.074E-02	-0.171
		810.29		-4.678E-02	6.021E-02	9.507E-02	1.051E-02	-0.492
TM-171		51.35		-1.199E+01	2.989E+01	4.930E+01	3.846E+00	-0.243
		52.39		-1.367E+01	1.660E+01	2.581E+01	1.981E+00	-0.530
		59.40		2.512E+00	2.795E+01	4.185E+01	2.958E+00	0.060
		66.72	*	-2.304E+01	3.222E+01	4.603E+01	3.478E+00	-0.501
LU-176	+	88.36		6.554E-01	2.407E-01	3.971E-01	3.755E-02	1.651
		201.83		-1.523E-02	3.393E-02	5.478E-02	6.052E-03	-0.278
		306.84	*	-2.344E-02	3.203E-02	4.446E-02	5.833E-03	-0.527
		401.10		-3.974E+00	7.326E+00	1.167E+01	1.094E+00	-0.340
LU-177		112.95		-2.843E+00	3.877E+00	5.991E+00	4.980E-01	-0.475
	+	208.36	*	5.141E+00	3.458E+00	4.648E+00	5.246E-01	1.106
LU-177M		52.97		1.216E-01	1.720E+00	2.773E+00	2.110E-01	0.044
		54.07		7.567E-01	9.064E-01	1.500E+00	1.124E-01	0.504
		61.30		1.896E+00	1.601E+00	2.507E+00	1.804E-01	0.756
		121.62		1.706E-01	4.391E-01	7.072E-01	5.826E-02	0.241
		147.16		-6.824E-01	7.428E-01	1.206E+00	1.087E-01	-0.566
		171.86		-1.858E-01	5.495E-01	9.020E-01	9.021E-02	-0.206
		218.09		-1.812E-01	9.796E-01	1.587E+00	1.849E-01	-0.114
	+	268.79		2.192E+00	1.489E+00	1.647E+00	2.239E-01	1.331
		319.02		1.009E-01	2.927E-01	4.967E-01	6.294E-02	0.203
		367.43		3.056E-02	1.010E+00	1.672E+00	1.765E-01	0.018
		413.65	*	-1.300E-01	2.199E-01	2.962E-01	2.801E-02	-0.439
HF-181		56.28		-2.239E-01	1.027E+00	1.699E+00	1.238E-01	-0.132
		57.53		-2.814E-01	5.593E-01	9.135E-01	6.566E-02	-0.308
		65.20		-3.635E-01	1.182E+00	1.726E+00	1.287E-01	-0.211
		133.02		-5.504E-02	9.254E-02	1.344E-01	1.146E-02	-0.409
		136.25		4.350E-02	5.694E-01	9.653E-01	8.327E-02	0.045
		345.85		-1.712E-01	2.812E-01	3.887E-01	4.496E-02	-0.440
		482.03	*	-3.686E-02	5.222E-02	8.048E-02	7.945E-03	-0.458
W-181		56.28		-8.177E-02	3.735E-01	6.178E-01	4.500E-02	-0.132
		57.53		-1.026E-01	2.035E-01	3.325E-01	2.390E-02	-0.309
		65.20	*	-1.312E-01	4.269E-01	6.233E-01	4.646E-02	-0.211
TA-182		67.75		-6.755E-02	1.151E-01	1.847E-01	1.409E-02	-0.366
		100.10		3.176E-02	1.962E-01	3.175E-01	2.751E-02	0.100
		152.43		1.753E-01	3.918E-01	6.666E-01	6.150E-02	0.263
		222.10		7.738E-03	4.110E-01	6.707E-01	7.915E-02	0.012
		1001.68		3.303E+00	2.350E+00	4.116E+00	4.241E-01	0.803
	+	1121.28		8.959E-01	3.000E-01	3.714E-01	3.280E-02	2.412
		1189.05		-5.766E-02	3.074E-01	5.052E-01	4.108E-02	-0.114
		1221.42	*	-1.144E-01	2.016E-01	3.215E-01	2.673E-02	-0.356
		1230.97		-8.592E-01	5.222E-01	7.636E-01	6.391E-02	-1.125

---- Non-Identified Nuclides ----

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RE-183		57.98		-7.660E-02	2.048E-01	3.361E-01	2.405E-02	-0.228
		59.32		8.574E-03	1.222E-01	1.828E-01	1.293E-02	0.047
		67.20		-3.006E-01	2.284E-01	3.382E-01	2.566E-02	-0.889
		162.32	*	5.958E-02	1.313E-01	2.225E-01	2.147E-02	0.268
	+	208.81		2.420E+00	1.628E+00	2.198E+00	2.484E-01	1.101
		291.72		-7.617E-02	1.203E+00	1.760E+00	2.398E-01	-0.043
RE-184		57.98		-2.711E-01	7.250E-01	1.190E+00	8.514E-02	-0.228
		59.32		3.032E-02	4.323E-01	6.467E-01	4.574E-02	0.047
		67.20		-1.064E+00	8.084E-01	1.197E+00	9.081E-02	-0.889
		161.27		-1.693E-01	4.111E-01	6.766E-01	6.496E-02	-0.250
		216.55		-7.724E-02	3.071E-01	4.965E-01	5.756E-02	-0.156
		252.85	*	8.914E-02	2.636E-01	4.316E-01	5.601E-02	0.207
		318.01		-1.892E-01	5.134E-01	8.445E-01	1.073E-01	-0.224
		792.07		-3.082E-01	1.116E+00	1.767E+00	1.945E-01	-0.174
		903.28		-4.083E-01	1.264E+00	1.728E+00	1.930E-01	-0.236
		920.93		4.939E-01	5.372E-01	8.300E-01	9.158E-02	0.595
OS-185		59.72		1.140E-02	3.231E-01	4.823E-01	3.414E-02	0.024
		61.14		1.681E-01	1.784E-01	2.768E-01	1.988E-02	0.607
		69.30		-1.218E-01	3.106E-01	5.047E-01	3.904E-02	-0.241
		592.07		-1.688E+00	2.843E+00	4.301E+00	4.453E-01	-0.392
		646.12	*	-6.405E-03	4.591E-02	7.484E-02	7.865E-03	-0.086
		717.42		4.247E-01	1.023E+00	1.674E+00	1.803E-01	0.254
		874.81		2.013E-01	6.377E-01	1.082E+00	1.209E-01	0.186
		880.27		4.130E-01	8.638E-01	1.478E+00	1.653E-01	0.279
RE-188		155.03	*	1.630E-01	2.120E-01	3.633E-01	3.391E-02	0.449
		477.96		1.045E+00	3.580E+00	5.881E+00	5.793E-01	0.178
		633.10		-1.085E+00	3.140E+00	5.060E+00	5.301E-01	-0.214
W-188	+	63.58		5.504E+01	7.453E+01	1.022E+02	7.507E+00	0.539
		227.08		6.311E+00	1.585E+01	2.619E+01	3.140E+00	0.241
		290.67	*	-6.775E+00	9.486E+00	1.325E+01	1.810E+00	-0.511
IR-192	+	295.96		1.291E+00	2.899E-01	3.277E-01	4.433E-02	3.941
		308.46		-7.153E-02	1.170E-01	1.852E-01	2.424E-02	-0.386
		316.51	*	-1.204E-02	4.047E-02	6.682E-02	8.540E-03	-0.180
		468.07		1.574E-02	8.705E-02	1.234E-01	1.277E-02	0.128
		604.41		2.819E-01	5.739E-01	8.484E-01	1.209E-01	0.332
		612.46		7.436E+00	1.465E+00	2.264E+00	2.604E-01	3.284
AU-195		65.12		-4.203E-02	1.944E-01	2.850E-01	2.123E-02	-0.147
		66.83		-8.567E-02	1.084E-01	1.542E-01	1.166E-02	-0.556
	+	75.70		1.547E+00	2.702E-01	5.123E-01	4.221E-02	3.020
		98.88	*	6.661E-02	2.515E-01	4.027E-01	3.512E-02	0.165
	+	129.76		6.005E+00	4.142E+00	5.597E+00	4.717E-01	1.073
TL-200		367.94	*	-1.541E-02	4.142E+00	Half-Life too short		
		579.30		4.902E-01	4.142E+00	Half-Life too short		
		828.27		-5.072E-02	4.142E+00	Half-Life too short		
		1205.75		-9.367E-02	4.142E+00	Half-Life too short		
TL-201		68.90		3.151E-01	2.274E+01	3.750E+01	2.890E+00	0.008
		70.82		6.741E+00	1.433E+01	2.153E+01	1.689E+00	0.313
		80.30		-1.923E+00	2.684E+01	3.900E+01	3.378E+00	-0.049
		135.34		9.760E+01	1.343E+02	2.321E+02	1.996E+01	0.420

---- Non-Identified Nuclides ----

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		167.43	*	-7.355E+00	3.820E+01	6.321E+01	6.230E+00	-0.116
TL-202		68.90		8.667E-03	6.256E-01	1.031E+00	7.949E-02	0.008
		70.82		1.849E-01	3.932E-01	5.906E-01	4.634E-02	0.313
		80.30		-5.277E-02	7.365E-01	1.070E+00	9.270E-02	-0.049
		439.56	*	-6.726E-03	1.090E-01	1.758E-01	1.692E-02	-0.038
BI-207		72.80		3.686E-01	2.024E-01	3.168E-01	2.534E-02	1.163
	+	74.97		8.364E-01	1.461E-01	2.432E-01	1.989E-02	3.438
		84.90		2.046E-01	2.201E-01	3.292E-01	3.009E-02	0.622
		569.67		9.495E-03	3.318E-02	5.606E-02	5.758E-03	0.169
		1063.62	*	-1.463E-02	5.772E-02	8.892E-02	8.536E-03	-0.165
		1770.23		6.740E-01	6.063E-01	1.002E+00	8.330E-02	0.673
TL-207		81.07		-3.382E-01	2.496E-01	3.383E-01	2.956E-02	-1.000
		83.78		1.288E-01	1.481E-01	2.212E-01	1.995E-02	0.582
		94.90		5.543E-01	2.738E-01	4.252E-01	3.801E-02	1.304
		122.32		-2.487E-01	1.989E+00	3.136E+00	2.791E-01	-0.079
		144.24		1.353E-01	7.847E-01	1.290E+00	1.277E-01	0.105
		154.21		3.413E-01	4.582E-01	7.845E-01	7.924E-02	0.435
	+	269.46		4.980E-01	3.384E-01	3.792E-01	5.208E-02	1.313
		323.87	*	-1.115E-01	8.134E-01	1.171E+00	2.328E-01	-0.095
	+	338.28		8.773E+00	2.145E+00	2.760E+00	4.082E-01	3.179
		445.03		2.435E-01	2.491E+00	4.072E+00	5.233E-01	0.060
PO-209		260.50		-5.819E+00	1.100E+01	1.722E+01	2.285E+00	-0.338
		262.80		-1.312E+01	3.068E+01	4.828E+01	6.451E+00	-0.272
		896.60	*	2.718E+00	7.374E+00	1.254E+01	1.404E+00	0.217
BI-210		46.50	*	1.463E+00	3.393E+00	5.637E+00	5.237E-01	0.260
PB-210		46.50	*	1.463E+00	3.393E+00	5.637E+00	5.237E-01	0.260
PO-210		46.50	*	1.463E+00	3.392E+00	5.637E+00	4.740E-01	0.260
PB-211		404.84	*	8.030E-01	1.267E+00	1.733E+00	1.088E+00	0.463
		427.08		4.640E-01	2.219E+00	3.633E+00	2.263E+00	0.128
		831.96		-1.136E-01	1.245E+00	2.062E+00	1.300E+00	-0.055
BI-212	+	727.18	*	1.191E+00	6.688E-01	7.174E-01	8.569E-02	1.660
		785.46		2.171E+00	1.974E+00	3.386E+00	3.722E-01	0.641
		1620.62		7.838E-01	1.378E+00	2.421E+00	2.111E-01	0.324
PO-215		81.07		-3.382E-01	2.496E-01	3.383E-01	2.956E-02	-1.000
		83.78		1.288E-01	1.481E-01	2.212E-01	1.995E-02	0.582
		94.90		5.543E-01	2.738E-01	4.252E-01	3.801E-02	1.304
		122.32		-2.487E-01	1.989E+00	3.136E+00	2.791E-01	-0.079
		144.24		1.353E-01	7.847E-01	1.290E+00	1.277E-01	0.105
		154.21		3.413E-01	4.582E-01	7.845E-01	7.924E-02	0.435
	+	269.46		4.980E-01	3.384E-01	3.792E-01	5.208E-02	1.313
		323.87	*	-1.115E-01	8.134E-01	1.171E+00	2.328E-01	-0.095
	+	338.28		8.773E+00	2.145E+00	2.760E+00	4.082E-01	3.179
		445.03		2.435E-01	2.491E+00	4.072E+00	5.233E-01	0.060
RN-219	+	271.23		6.389E-01	4.355E-01	4.941E-01	7.320E-02	1.293
		401.81	*	-1.987E-01	4.651E-01	7.235E-01	1.119E-01	-0.275
RN-220		549.76	*	-2.975E+01	2.642E+01	4.080E+01	4.158E+00	-0.729
RA-223		81.07		-3.382E-01	2.496E-01	3.383E-01	2.956E-02	-1.000
		83.78		1.288E-01	1.481E-01	2.212E-01	1.995E-02	0.582
		94.90		5.543E-01	2.738E-01	4.252E-01	3.801E-02	1.304

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-2.487E-01	1.989E+00	3.136E+00	2.791E-01	-0.079
		144.24		1.353E-01	7.847E-01	1.290E+00	1.277E-01	0.105
		154.21		3.413E-01	4.582E-01	7.845E-01	7.924E-02	0.435
	+	269.46		4.980E-01	3.384E-01	3.792E-01	5.208E-02	1.313
		323.87	*	-1.115E-01	8.134E-01	1.171E+00	2.328E-01	-0.095
	+	338.28		8.773E+00	2.145E+00	2.760E+00	4.082E-01	3.179
		445.03		2.435E-01	2.491E+00	4.072E+00	5.233E-01	0.060
AC-227		79.80		5.839E-01	1.794E+00	2.650E+00	5.697E-01	0.220
		236.00		1.351E+00	3.870E-01	5.528E-01	8.340E-02	2.445
		256.20	*	5.569E-04	4.153E-01	6.693E-01	1.221E-01	0.001
		286.10		2.391E+00	1.732E+00	2.875E+00	4.900E-01	0.831
	+	299.80		2.343E+00	2.623E+00	2.913E+00	5.899E-01	0.804
		304.40		-3.565E-02	2.304E+00	3.368E+00	7.064E-01	-0.011
		334.20		1.068E+00	3.527E+00	4.142E+00	8.768E-01	0.258
TH-227		79.80		5.839E-01	1.794E+00	2.650E+00	5.770E-01	0.220
	+	94.00		9.610E+00	3.617E+00	4.246E+00	9.312E-01	2.263
		236.00		1.351E+00	3.805E-01	5.528E-01	7.825E-02	2.445
		256.20	*	5.569E-04	4.153E-01	6.693E-01	1.378E-01	0.001
		286.10		2.391E+00	2.943E+00	2.875E+00	2.903E+00	0.831
	+	299.80		2.343E+00	2.623E+00	2.913E+00	5.899E-01	0.804
		304.40		-3.565E-02	2.304E+00	3.368E+00	7.064E-01	-0.011
		334.20		1.068E+00	3.527E+00	4.142E+00	8.768E-01	0.258
TH-229		85.43		2.466E-01	2.225E-01	3.344E-01	3.076E-02	0.738
	+	88.47		3.773E-01	1.386E-01	2.284E-01	2.157E-02	1.652
		100.00		8.876E-02	1.938E-01	3.173E-01	2.750E-02	0.280
		193.63	*	-4.241E-01	5.676E-01	9.057E-01	9.738E-02	-0.468
		210.97		1.583E+00	1.005E+00	1.532E+00	1.744E-01	1.033
PA-231		283.67	*	-9.534E-01	1.995E+00	2.674E+00	4.993E-01	-0.357
		301.29		8.910E-01	7.600E-01	1.144E+00	1.820E-01	0.779
TH-231		81.07		-3.382E-01	2.496E-01	3.383E-01	2.956E-02	-1.000
		83.78		1.288E-01	1.481E-01	2.212E-01	1.995E-02	0.582
		94.90		5.543E-01	2.738E-01	4.252E-01	3.801E-02	1.304
		122.32		-2.487E-01	1.989E+00	3.136E+00	2.791E-01	-0.079
		144.24		1.353E-01	7.847E-01	1.290E+00	1.277E-01	0.105
		154.21		3.413E-01	4.582E-01	7.845E-01	7.924E-02	0.435
	+	269.46		4.980E-01	3.384E-01	3.792E-01	5.208E-02	1.313
		323.87	*	-1.115E-01	8.134E-01	1.171E+00	2.328E-01	-0.095
	+	338.28		8.773E+00	2.145E+00	2.760E+00	4.082E-01	3.179
		445.03		2.435E-01	2.491E+00	4.072E+00	5.233E-01	0.060
U-231		84.21		2.535E+01	1.967E+01	2.979E+01	2.701E+00	0.851
	+	92.29		2.977E+01	9.491E+00	1.447E+01	1.319E+00	2.058
		95.87	*	6.268E-02	4.019E+00	5.782E+00	5.135E-01	0.011
		108.00		-8.168E+00	7.364E+00	1.121E+01	9.421E-01	-0.729
PA-233	+	75.28		2.440E+01	5.268E+00	7.458E+00	1.127E+00	3.271
	+	86.59		5.410E+00	2.415E+00	3.170E+00	8.576E-01	1.707
	+	300.12		6.531E-01	7.289E-01	8.159E-01	1.471E-01	0.800
		311.98	*	5.296E-02	7.051E-02	1.215E-01	1.591E-02	0.436
		340.50		3.685E+00	1.256E+00	1.494E+00	3.760E-01	2.466
		398.62		-8.981E-01	2.263E+00	3.617E+00	9.722E-01	-0.248

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-2.993E-02	1.974E+00	2.790E+00	6.112E-01	-0.011
PA-234	+	63.00		1.490E+00	2.026E+00	2.816E+00	4.172E-01	0.529
		94.67		5.575E-01	2.094E-01	3.203E-01	4.048E-02	1.740
		98.44		1.629E-02	1.048E-01	1.591E-01	8.878E-02	0.102
		99.86		1.318E-01	5.038E-01	8.058E-01	6.991E-02	0.164
		111.00		4.767E-02	2.100E-01	3.382E-01	4.022E-02	0.141
		131.20		9.450E-03	1.269E-01	1.907E-01	1.615E-02	0.050
		152.70		1.474E-01	3.666E-01	6.217E-01	1.080E-01	0.237
	+	186.00		7.429E+00	3.155E+00	3.138E+00	9.973E-01	2.367
		226.40		-3.935E-02	4.663E-01	7.566E-01	1.180E-01	-0.052
		227.20		8.743E-02	5.029E-01	8.240E-01	9.883E-02	0.106
		248.90		-1.886E-02	1.030E+00	1.452E+00	3.535E-01	-0.013
	+	293.70		7.618E+00	2.055E+00	1.879E+00	3.799E-01	4.055
		369.80		2.303E-05	9.187E-01	1.519E+00	3.426E-01	0.000
		568.70		-5.049E-01	1.101E+00	1.785E+00	1.832E-01	-0.283
		569.50		5.554E-02	2.926E-01	4.919E-01	5.053E-02	0.113
		574.00		-6.843E-01	1.752E+00	2.712E+00	2.790E-01	-0.252
		699.00		-4.791E-01	7.828E-01	1.220E+00	2.454E-01	-0.393
		706.10		7.292E-01	1.188E+00	1.935E+00	8.715E-01	0.377
		733.00		-7.048E-02	4.886E-01	6.703E-01	1.551E-01	-0.105
		742.81		-6.488E-01	1.542E+00	2.329E+00	1.573E+00	-0.279
		796.30		1.039E+00	1.012E+00	1.674E+00	4.673E-01	0.620
		805.60		6.739E-01	1.083E+00	1.847E+00	5.803E-01	0.365
		819.60		9.346E-02	1.236E+00	2.075E+00	8.022E-01	0.045
		826.30		-1.876E-01	8.306E-01	1.359E+00	6.152E-01	-0.138
		831.60		-3.184E-01	6.628E-01	1.060E+00	3.250E-01	-0.300
		876.40		4.970E-01	1.030E+00	1.539E+00	1.586E+00	0.323
		880.51		9.106E-02	2.999E-01	5.078E-01	5.679E-02	0.179
		883.24		-4.117E-01	4.187E-01	4.717E-01	3.188E-01	-0.873
		899.00		9.508E-02	8.566E-01	1.429E+00	6.329E-01	0.067
		925.00		1.599E-01	1.180E+00	1.969E+00	2.167E-01	0.081
		926.50		-1.355E-01	1.836E-01	2.809E-01	7.354E-02	-0.482
		946.00	*	-7.495E-02	3.175E-01	5.141E-01	1.022E-01	-0.146
		949.00		2.553E-01	4.593E-01	7.858E-01	8.490E-02	0.325
		980.50		7.155E-01	7.200E-01	1.249E+00	1.314E-01	0.573
		1394.10		-8.501E-01	1.354E+00	1.884E+00	1.227E+00	-0.451
PA-234M		766.42		1.989E+01	1.768E+01	2.238E+01	1.145E+01	0.889
		1001.03	*	4.269E+00	5.051E+00	8.596E+00	9.851E-01	0.497
U-235	+	89.95		2.988E+00	1.449E+00	2.062E+00	6.405E-01	1.449
	+	93.35		2.990E+00	1.243E+00	1.433E+00	4.035E-01	2.087
		105.00		1.557E+00	1.258E+00	1.971E+00	5.875E-01	0.790
		143.76	*	-4.944E-02	2.425E-01	3.937E-01	6.946E-02	-0.126
		163.35		3.732E-01	5.267E-01	8.926E-01	1.748E-01	0.418
	+	185.71		2.752E-01	8.268E-02	1.159E-01	1.213E-02	2.375
		205.31		3.943E-02	6.840E-01	9.707E-01	1.977E-01	0.041
NP-236		94.67		4.266E-01	1.545E-01	2.433E-01	2.179E-02	1.753
		98.44		1.228E-02	7.891E-02	1.203E-01	1.051E-02	0.102
		111.00		3.606E-02	1.588E-01	2.558E-01	2.134E-02	0.141
		160.31	*	-6.754E-02	8.940E-02	1.451E-01	1.387E-02	-0.466

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		5.770E-02	1.686E-01	2.706E-01	2.351E-02	0.213
		117.00	*	-2.121E-01	2.169E-01	3.296E-01	2.724E-02	-0.644
	+	209.75		1.783E+00	1.199E+00	1.584E+00	1.796E-01	1.126
		228.18		5.207E-03	2.624E-01	4.274E-01	5.141E-02	0.012
	+	277.60		4.330E-01	3.091E-01	3.430E-01	4.782E-02	1.262
		334.30		3.058E-01	1.827E+00	2.349E+00	2.833E-01	0.130
AM-241		59.54	*	2.005E-02	1.614E-01	2.420E-01	1.892E-02	0.083
CM-243		99.55		5.940E-02	1.736E-01	2.785E-01	2.420E-02	0.213
		103.76	*	7.920E-02	1.061E-01	1.750E-01	1.492E-02	0.453
		117.00		-2.183E-01	2.232E-01	3.392E-01	2.804E-02	-0.644
	+	209.75		1.758E+00	1.182E+00	1.562E+00	1.771E-01	1.126
		228.18		5.264E-03	2.653E-01	4.320E-01	5.198E-02	0.012
	+	277.60		4.368E-01	3.118E-01	3.460E-01	4.823E-02	1.262
AM-246		798.80		-1.129E-01	1.585E-01	2.425E-01	2.674E-02	-0.466
		1036.00		-1.640E-01	3.034E-01	4.735E-01	4.702E-02	-0.346
		1062.04		3.385E-02	2.549E-01	4.053E-01	3.899E-02	0.084
		1078.86	*	2.685E-02	1.405E-01	2.322E-01	2.184E-02	0.116
CM-247	+	278.00		1.796E+00	1.282E+00	1.433E+00	2.000E-01	1.253
		287.40		1.346E+00	1.415E+00	2.272E+00	3.126E-01	0.593
		402.60	*	3.131E-03	4.511E-02	6.745E-02	6.327E-03	0.046
CF-249		252.85		3.251E-01	9.616E-01	1.574E+00	2.043E-01	0.207
		333.44		3.372E-02	3.106E-01	3.061E-01	3.703E-02	0.110
		387.95	*	1.666E-02	4.426E-02	7.416E-02	7.048E-03	0.225
CF-251		176.60	*	-2.114E-02	1.403E-01	2.316E-01	2.352E-02	-0.091
		227.00		1.837E-01	4.443E-01	7.342E-01	8.800E-02	0.250
		285.00		9.011E-01	2.234E+00	3.191E+00	4.414E-01	0.282

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023708    *
* Acquisition date :  6-FEB-2010 13:03:11 Detector SN#     :               *
* Detector ID        : GAM22              Sensitivity     : 5.000          *
* Geometry           : CAN                Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.00     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date        : 15-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G1202023708          Analyst initials: MXR1         *
* Batch Number       : 944962               Sample Quantity : 1.0110E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.268E+01	2.503E+00	5.324E-01	0.000E+00
CD-109	2.841E+00	1.022E+00	1.403E+00	0.000E+00
SN-126	2.763E-01	9.945E-02	1.373E-01	0.000E+00
BA-137M	9.577E-02	6.064E-02	6.478E-02	0.000E+00
CS-137	1.012E-01	6.411E-02	6.848E-02	0.000E+00
HG-203	1.097E-01	7.678E-02	7.959E-02	0.000E+00
TL-208	5.974E-01	1.037E-01	6.527E-02	0.000E+00
BI-211	4.701E+00	7.508E-01	3.457E-01	0.000E+00
PB-212	2.056E+00	2.930E-01	1.017E-01	0.000E+00
PO-212	2.056E+00	2.930E-01	1.017E-01	0.000E+00
BI-214	1.400E+00	2.423E-01	1.185E-01	0.000E+00
PB-214	1.635E+00	2.742E-01	1.205E-01	0.000E+00
PO-214	1.635E+00	2.742E-01	1.205E-01	0.000E+00
PO-216	2.056E+00	2.930E-01	1.017E-01	0.000E+00
PO-218	1.635E+00	2.742E-01	1.205E-01	0.000E+00
RA-224	5.869E+00	1.505E+00	1.157E+00	0.000E+00
RA-226	1.400E+00	2.423E-01	1.185E-01	0.000E+00
AC-228	1.897E+00	4.123E-01	2.245E-01	0.000E+00
RA-228	1.897E+00	4.123E-01	2.245E-01	0.000E+00
TH-228	2.102E+00	2.995E-01	1.040E-01	0.000E+00
TH-230	1.400E+00	2.423E-01	1.184E-01	0.000E+00
TH-232	1.897E+00	4.123E-01	2.245E-01	0.000E+00
TH-234	1.278E+00	1.707E+00	2.189E+00	0.000E+00
U-234	1.400E+00	2.423E-01	1.184E-01	0.000E+00
NP-237	8.115E-01	3.350E-01	4.278E-01	0.000E+00
U-238	1.278E+00	1.707E+00	2.189E+00	0.000E+00
AM-243	4.658E-01	7.971E-02	9.040E-02	0.000E+00
ANH-511	1.501E-01	7.347E-02	4.900E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	1.750E-01	3.737E-01	6.289E-01	0.000E+00	NOT IDENT.
NA-22	-1.046E-02	4.529E-02	7.456E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.827E+09	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.291E-03	2.813E-02	4.734E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.281E-02	8.236E-02	0.000E+00	FAIL ABUN
SC-46	3.964E-02	4.236E-02	7.529E-02	0.000E+00	FAIL ABUN
V-48	-5.150E-02	9.447E-02	1.503E-01	0.000E+00	NOT IDENT.
CR-51	2.898E-01	4.824E-01	8.196E-01	0.000E+00	NOT IDENT.
MN-52	-1.684E-01	6.042E-01	9.725E-01	0.000E+00	NOT IDENT.
MN-54	1.967E-02	3.882E-02	6.755E-02	0.000E+00	NOT IDENT.
CO-56	2.314E-02	4.125E-02	7.213E-02	0.000E+00	NOT IDENT.
CO-57	-1.716E-03	2.876E-02	4.638E-02	0.000E+00	NOT IDENT.
CO-58	-3.369E-02	4.098E-02	6.534E-02	0.000E+00	NOT IDENT.
FE-59	-6.691E-02	1.013E-01	1.575E-01	0.000E+00	NOT IDENT.
CO-60	9.771E-03	3.701E-02	6.323E-02	0.000E+00	NOT IDENT.
ZN-65	6.837E-02	1.041E-01	1.555E-01	0.000E+00	NOT IDENT.
GE-68	-2.077E-01	1.215E+00	1.974E+00	0.000E+00	NOT IDENT.
AS-73	4.596E-01	8.869E-01	1.485E+00	0.000E+00	NOT IDENT.
AS-74	-2.773E-02	1.200E-01	1.990E-01	0.000E+00	NOT IDENT.
SE-75	4.357E-02	5.726E-02	8.526E-02	0.000E+00	FAIL ABUN
BR-77	0.000E+00	8.288E+01	0.000E+00	0.000E+00	SHORT HLIF
SR-82	-6.826E-01	5.432E-01	7.862E-01	0.000E+00	NOT IDENT.
RB-83	-4.003E-02	7.694E-02	1.243E-01	0.000E+00	NOT IDENT.
RB-84	-9.116E-03	8.463E-02	1.413E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	9.936E+00	1.621E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.479E-02	8.938E-02	0.000E+00	NOT IDENT.
RB-86	3.444E-01	9.805E-01	1.661E+00	0.000E+00	NOT IDENT.
Y-88	2.485E-02	3.245E-02	5.972E-02	0.000E+00	NOT IDENT.
ZR-88	1.546E-02	3.510E-02	5.986E-02	0.000E+00	NOT IDENT.
Y-91	-7.254E+00	1.970E+01	3.235E+01	0.000E+00	NOT IDENT.
NB-94	2.093E-02	3.582E-02	6.124E-02	0.000E+00	NOT IDENT.
NB-95	6.426E-02	5.686E-02	8.705E-02	0.000E+00	NOT IDENT.
NB-95M	2.375E-01	1.764E-01	2.681E-01	0.000E+00	NOT IDENT.
ZR-95	-1.209E-02	8.008E-02	1.303E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.010E+08	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.187E+09	0.000E+00	0.000E+00	SHORT HLIF
MO-99	0.000E+00	7.135E+01	0.000E+00	0.000E+00	SHORT HLIF
TC-99M	0.000E+00	8.876E+24	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.942E-02	3.887E-02	6.531E-02	0.000E+00	NOT IDENT.
RH-102	9.393E-03	3.182E-02	5.309E-02	0.000E+00	NOT IDENT.
RU-103	-5.105E-02	4.915E-02	7.418E-02	0.000E+00	FAIL ABUN
RH-106	-2.281E-01	3.319E-01	5.299E-01	0.000E+00	FAIL ABUN
RU-106	-2.281E-01	3.311E-01	5.299E-01	0.000E+00	FAIL ABUN
AG-108M	-1.068E-02	3.478E-02	5.658E-02	0.000E+00	NOT IDENT.
AG-110M	-2.478E-02	4.016E-02	5.381E-02	0.000E+00	NOT IDENT.
IN-111	9.232E+00	6.752E+00	1.041E+01	0.000E+00	NOT IDENT.
IN-113M	3.262E-02	4.972E-02	8.561E-02	0.000E+00	NOT IDENT.
SN-113	3.262E-02	4.972E-02	8.561E-02	0.000E+00	NOT IDENT.
IN-114M	5.635E-02	2.420E-01	3.613E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	9.915E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-6.471E-02	8.829E-02	1.465E-01	0.000E+00	NOT IDENT.
SB-122	0.000E+00	1.310E+01	0.000E+00	0.000E+00	SHORT HLIF
I-123	0.000E+00	4.145E+10	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.295E-02	3.290E-02	5.529E-02	0.000E+00	NOT IDENT.
I-124	-9.877E-02	2.467E+00	3.553E+00	0.000E+00	NOT IDENT.
SB-124	-1.110E-02	8.290E-02	1.365E-01	0.000E+00	FAIL ABUN
SB-125	9.357E-03	9.717E-02	1.619E-01	0.000E+00	FAIL ABUN
TE-125M	2.376E+00	1.112E+01	1.827E+01	0.000E+00	NOT IDENT.
I-126	3.689E-01	3.060E-01	4.797E-01	0.000E+00	NOT IDENT.
SB-126	1.598E-02	2.523E-01	3.589E-01	0.000E+00	FAIL ABUN
SB-127	8.603E-01	4.876E+00	8.181E+00	0.000E+00	FAIL ABUN
XE-127	-4.978E-02	6.141E-02	9.928E-02	0.000E+00	NOT IDENT.
I-131	-1.203E-02	2.217E-01	3.719E-01	0.000E+00	NOT IDENT.
TE-132	8.815E-02	3.433E+00	5.691E+00	0.000E+00	NOT IDENT.
BA-133	1.124E-02	5.061E-02	7.516E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.621E+06	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.310E-02	4.942E-02	8.500E-02	0.000E+00	NOT IDENT.
CS-135	1.250E-01	2.055E-01	3.023E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.993E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.359E-02	1.547E-01	2.459E-01	0.000E+00	FAIL ABUN
CE-139	-2.442E-02	3.418E-02	5.649E-02	0.000E+00	NOT IDENT.
BA-140	1.782E-02	3.978E-01	6.772E-01	0.000E+00	NOT IDENT.
LA-140	3.703E-02	1.314E-01	2.275E-01	0.000E+00	FAIL ABUN
CE-141	9.222E-02	7.712E-02	1.368E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.113E+04	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.160E-01	2.461E-01	3.774E-01	0.000E+00	NOT IDENT.
PM-144	2.889E-05	3.656E-02	6.059E-02	0.000E+00	NOT IDENT.

PR-144	1.965E-03	2.487E+00	4.121E+00	0.000E+00	NOT IDENT.
PM-146	2.970E-04	4.731E-02	7.802E-02	0.000E+00	NOT IDENT.
ND-147	-1.298E-01	9.133E-01	1.541E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	9.168E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.186E-01	1.468E-01	1.750E-01	0.000E+00	NOT IDENT.
GD-153	-3.379E-02	9.659E-02	1.377E-01	0.000E+00	NOT IDENT.
EU-154	-3.090E-02	1.259E-01	2.071E-01	0.000E+00	NOT IDENT.
EU-155	1.290E-01	1.177E-01	1.997E-01	0.000E+00	FAIL ABUN
TB-160	1.120E-01	1.518E-01	2.671E-01	0.000E+00	FAIL ABUN
HO-166M	-3.114E-02	6.517E-02	1.044E-01	0.000E+00	FAIL ABUN
TM-171	-2.304E+01	3.158E+01	4.609E+01	0.000E+00	NOT IDENT.
LU-176	-2.344E-02	3.139E-02	4.430E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	3.388E+00	4.637E+00	0.000E+00	FAIL ABUN
LU-177M	-1.300E-01	2.155E-01	2.948E-01	0.000E+00	FAIL ABUN
HF-181	-3.686E-02	5.118E-02	8.009E-02	0.000E+00	NOT IDENT.
W-181	-1.312E-01	4.184E-01	6.241E-01	0.000E+00	NOT IDENT.
TA-182	-1.144E-01	1.976E-01	3.190E-01	0.000E+00	FAIL ABUN
RE-183	5.958E-02	1.287E-01	2.222E-01	0.000E+00	FAIL ABUN
RE-184	8.914E-02	2.584E-01	4.304E-01	0.000E+00	NOT IDENT.
OS-185	-6.405E-03	4.499E-02	7.441E-02	0.000E+00	NOT IDENT.
RE-188	1.630E-01	2.078E-01	3.628E-01	0.000E+00	NOT IDENT.
W-188	-6.775E+00	9.296E+00	1.321E+01	0.000E+00	FAIL ABUN
IR-192	-1.204E-02	3.966E-02	6.658E-02	0.000E+00	FAIL ABUN
AU-195	6.661E-02	2.465E-01	4.027E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.028E+04	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-7.355E+00	3.743E+01	6.311E+01	0.000E+00	NOT IDENT.
TL-202	-6.726E-03	1.068E-01	1.749E-01	0.000E+00	NOT IDENT.
BI-207	-1.463E-02	5.656E-02	8.826E-02	0.000E+00	FAIL ABUN
TL-207	-1.115E-01	7.971E-01	1.167E+00	0.000E+00	FAIL ABUN
PO-209	2.718E+00	7.226E+00	1.245E+01	0.000E+00	NOT IDENT.
BI-210	1.463E+00	3.325E+00	5.650E+00	0.000E+00	NOT IDENT.
PB-210	1.463E+00	3.325E+00	5.650E+00	0.000E+00	NOT IDENT.
PO-210	1.463E+00	3.325E+00	5.650E+00	0.000E+00	NOT IDENT.
PB-211	8.030E-01	1.242E+00	1.726E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.554E-01	7.130E-01	0.000E+00	FAIL ABUN
PO-215	-1.115E-01	7.971E-01	1.167E+00	0.000E+00	FAIL ABUN
RN-219	-1.987E-01	4.558E-01	7.203E-01	0.000E+00	FAIL ABUN
RN-220	-2.975E+01	2.590E+01	4.058E+01	0.000E+00	NOT IDENT.
RA-223	-1.115E-01	7.971E-01	1.167E+00	0.000E+00	FAIL ABUN
AC-227	5.569E-04	4.070E-01	6.673E-01	0.000E+00	FAIL ABUN
TH-227	5.569E-04	4.070E-01	6.673E-01	0.000E+00	FAIL ABUN
TH-229	-4.241E-01	5.562E-01	9.038E-01	0.000E+00	FAIL ABUN
PA-231	-9.534E-01	1.955E+00	2.665E+00	0.000E+00	NOT IDENT.
TH-231	-1.115E-01	7.971E-01	1.167E+00	0.000E+00	FAIL ABUN
U-231	6.268E-02	3.939E+00	5.783E+00	0.000E+00	FAIL ABUN
PA-233	5.296E-02	6.910E-02	1.210E-01	0.000E+00	FAIL ABUN
PA-234	-7.495E-02	3.112E-01	5.105E-01	0.000E+00	FAIL ABUN
PA-234M	4.269E+00	4.950E+00	8.534E+00	0.000E+00	NOT IDENT.
U-235	-4.944E-02	2.377E-01	3.933E-01	0.000E+00	FAIL ABUN
NP-236	-6.754E-02	8.762E-02	1.449E-01	0.000E+00	NOT IDENT.
NP-239	-2.121E-01	2.125E-01	3.294E-01	0.000E+00	FAIL ABUN
AM-241	2.005E-02	1.581E-01	2.424E-01	0.000E+00	NOT IDENT.
CM-243	7.920E-02	1.040E-01	1.749E-01	0.000E+00	FAIL ABUN
AM-246	2.685E-02	1.377E-01	2.305E-01	0.000E+00	NOT IDENT.
CM-247	3.131E-03	4.421E-02	6.716E-02	0.000E+00	FAIL ABUN
CF-249	1.666E-02	4.337E-02	7.384E-02	0.000E+00	NOT IDENT.
CF-251	-2.114E-02	1.375E-01	2.312E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 6-FEB-2010 15:03:41.73

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023708.CNF;1
Sample date       : 15-JAN-2010 12:00:00 Acquisition date : 6-FEB-2010 13:03:11.
Sample ID         : G1202023708          Sample quantity  : 1.01100E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.00  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1244	10.67*	1.909E+00	2.268E+01	2.268E+01	11.26
CD-109	88.03	206	3.72*	7.481E+00	2.749E+00	2.841E+00	36.72
SN-126	64.28	56	9.60	4.271E+00	5.058E-01	5.058E-01	135.98
	86.94	206	8.90	7.481E+00	1.149E+00	1.149E+00	54.63
	87.57	206	37.00*	7.481E+00	2.763E-01	2.763E-01	36.72
BA-137M	661.65	83	89.98*	3.589E+00	9.564E-02	9.577E-02	64.61
CS-137	661.65	83	85.12*	3.589E+00	1.011E-01	1.012E-01	64.61
HG-203	70.83	------	4.75	5.596E+00	------	Line Not Found	------
	72.87	------	8.00	5.897E+00	------	Line Not Found	------
	82.60	------	3.55	7.070E+00	------	Line Not Found	------
	279.20	101	77.30*	6.167E+00	7.899E-02	1.097E-01	71.42
TL-208	277.35	101	6.80	6.167E+00	8.979E-01	8.979E-01	71.93
	510.84	174	21.60	4.298E+00	6.950E-01	6.950E-01	50.62
	583.14	532	84.20*	3.930E+00	5.974E-01	5.974E-01	17.72
	860.37	116	12.46	2.922E+00	1.187E+00	1.187E+00	47.26
BI-211	72.87	------	1.27	5.897E+00	------	Line Not Found	------
	351.07	885	12.94*	5.402E+00	4.701E+00	4.701E+00	16.30
PB-212	74.81	510	10.70	6.157E+00	2.873E+00	2.873E+00	19.81
	77.11	767	18.00	6.457E+00	2.449E+00	2.449E+00	14.18
	87.30	206	8.00	7.481E+00	1.278E+00	1.278E+00	38.06
	238.63	1657	44.60*	6.710E+00	2.056E+00	2.056E+00	14.54
	300.09	69	3.41	5.923E+00	1.264E+00	1.264E+00	111.10
PO-212	74.81	510	10.70	6.157E+00	2.873E+00	2.873E+00	19.81
	77.11	767	18.00	6.457E+00	2.449E+00	2.449E+00	14.18
	87.30	206	8.00	7.481E+00	1.278E+00	1.278E+00	38.06
	115.19	------	0.60	8.535E+00	------	Line Not Found	------
	238.63	1657	44.60*	6.710E+00	2.056E+00	2.056E+00	14.54
	300.09	69	3.41	5.923E+00	1.264E+00	1.264E+00	111.10
BI-214	609.31	665	46.30*	3.811E+00	1.400E+00	1.400E+00	17.66
	1120.29	173	15.10	2.345E+00	1.817E+00	1.817E+00	34.13
	1764.49	146	15.80	1.716E+00	1.998E+00	1.998E+00	26.11
PB-214	74.81	510	6.21	6.157E+00	4.950E+00	4.950E+00	18.97

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	767	10.50	6.457E+00	4.198E+00	4.198E+00	16.10
	87.30	206	4.67	7.481E+00	2.189E+00	2.189E+00	37.52
	241.98	416	7.49	6.665E+00	3.095E+00	3.095E+00	26.76
	295.21	490	19.20	5.971E+00	1.587E+00	1.587E+00	23.28
	351.92	885	37.20*	5.402E+00	1.635E+00	1.635E+00	17.11
PO-214	74.81	510	6.21	6.157E+00	4.950E+00	4.950E+00	18.97
	77.11	767	10.50	6.457E+00	4.198E+00	4.198E+00	16.10
	87.30	206	4.67	7.481E+00	2.189E+00	2.189E+00	37.52
	241.98	416	7.49	6.665E+00	3.095E+00	3.095E+00	26.76
	295.21	490	19.20	5.971E+00	1.587E+00	1.587E+00	23.28
	351.92	885	37.20*	5.402E+00	1.635E+00	1.635E+00	17.11
PO-216	74.81	510	10.70	6.157E+00	2.873E+00	2.873E+00	19.81
	77.11	767	18.00	6.457E+00	2.449E+00	2.449E+00	14.18
	87.30	206	8.00	7.481E+00	1.278E+00	1.278E+00	38.06
	238.63	1657	44.60*	6.710E+00	2.056E+00	2.056E+00	14.54
	300.09	69	3.41	5.923E+00	1.264E+00	1.264E+00	111.10
PO-218	74.81	510	6.21	6.157E+00	4.950E+00	4.950E+00	18.97
	77.11	767	10.50	6.457E+00	4.198E+00	4.198E+00	16.10
	87.30	206	4.67	7.481E+00	2.189E+00	2.189E+00	37.52
	241.98	416	7.49	6.665E+00	3.095E+00	3.095E+00	26.76
	295.21	490	19.20	5.971E+00	1.587E+00	1.587E+00	23.28
	351.92	885	37.20*	5.402E+00	1.635E+00	1.635E+00	17.11
RA-224	240.98	416	3.95*	6.665E+00	5.869E+00	5.869E+00	26.16
RA-226	609.31	665	46.30*	3.811E+00	1.400E+00	1.400E+00	17.66
	1120.29	173	15.10	2.345E+00	1.817E+00	1.817E+00	34.13
	1764.49	146	15.80	1.716E+00	1.998E+00	1.998E+00	26.11
AC-228	338.32	356	11.40	5.527E+00	2.101E+00	2.101E+00	46.35
	911.07	394	27.70*	2.788E+00	1.897E+00	1.897E+00	22.18
	969.11	315	16.60	2.650E+00	2.655E+00	2.655E+00	32.75
RA-228	338.32	356	11.40	5.527E+00	2.101E+00	2.101E+00	46.35
	911.07	394	27.70*	2.788E+00	1.897E+00	1.897E+00	22.18
	969.11	315	16.60	2.650E+00	2.655E+00	2.655E+00	32.75
TH-228	74.81	510	10.70	6.157E+00	2.873E+00	2.937E+00	17.50
	77.11	767	18.00	6.457E+00	2.449E+00	2.503E+00	14.18
	87.30	206	8.00	7.481E+00	1.278E+00	1.306E+00	36.72
	238.63	1657	44.60*	6.710E+00	2.056E+00	2.102E+00	14.54
	300.09	69	3.41	5.923E+00	1.264E+00	1.292E+00	125.49
TH-230	609.31	665	46.30*	3.811E+00	1.400E+00	1.400E+00	17.66
	1120.29	173	15.10	2.345E+00	1.817E+00	1.817E+00	34.13
	1764.49	146	15.80	1.716E+00	1.998E+00	1.998E+00	26.11
TH-232	338.32	356	11.40	5.527E+00	2.101E+00	2.101E+00	22.81
	911.07	394	27.70*	2.788E+00	1.897E+00	1.897E+00	22.18
	969.11	315	16.60	2.650E+00	2.655E+00	2.655E+00	32.75
TH-234	63.29	56	3.80*	4.271E+00	1.278E+00	1.278E+00	136.32
	92.38	285	5.41	7.861E+00	2.487E+00	2.487E+00	35.63
U-234	609.31	665	46.30*	3.811E+00	1.400E+00	1.400E+00	17.66
	1120.29	173	15.10	2.345E+00	1.817E+00	1.817E+00	34.13
	1764.49	146	15.80	1.716E+00	1.998E+00	1.998E+00	26.11
NP-237	86.50	206	12.60*	7.481E+00	8.115E-01	8.115E-01	42.12

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	95.87	------	2.60	8.032E+00	------	Line Not Found	------
U-238	63.29	56	3.80*	4.271E+00	1.278E+00	1.278E+00	136.32
	92.38	285	5.41	7.861E+00	2.487E+00	2.487E+00	31.88
AM-243	74.67	510	66.00*	6.157E+00	4.658E-01	4.658E-01	17.46
	86.72	206	0.34	7.481E+00	3.043E+01	3.043E+01	36.72
	117.66	------	0.55	8.550E+00	------	Line Not Found	------
	142.18	------	0.13	8.387E+00	------	Line Not Found	------
ANH-511	511.00	174	100.00*	4.298E+00	1.501E-01	1.501E-01	49.93

Flag: "*" = Keyline

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

Total number of lines in spectrum 36
Number of unidentified lines 5
Number of lines tentatively identified by NID 31 86.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.268E+01	2.268E+01	0.255E+01	11.26	
CD-109	464.00D	1.03	2.749E+00	2.841E+00	1.043E+00	36.72	
SN-126	1.00E+05Y	1.00	2.763E-01	2.763E-01	1.015E-01	36.72	
BA-137M	30.17Y	1.00	9.564E-02	9.577E-02	6.188E-02	64.61	
CS-137	30.17Y	1.00	1.011E-01	1.012E-01	0.654E-01	64.61	
HG-203	46.60D	1.39	7.899E-02	1.097E-01	0.784E-01	71.42	
TL-208	1.41E+10Y	1.00	5.974E-01	5.974E-01	1.058E-01	17.72	
BI-211	7.04E+08Y	1.00	4.701E+00	4.701E+00	0.766E+00	16.30	
PB-212	1.41E+10Y	1.00	2.056E+00	2.056E+00	0.299E+00	14.54	
PO-212	1.41E+10Y	1.00	2.056E+00	2.056E+00	0.299E+00	14.54	
BI-214	1600.00Y	1.00	1.400E+00	1.400E+00	0.247E+00	17.66	
PB-214	1600.00Y	1.00	1.635E+00	1.635E+00	0.280E+00	17.11	
PO-214	1600.00Y	1.00	1.635E+00	1.635E+00	0.280E+00	17.11	
PO-216	1.41E+10Y	1.00	2.056E+00	2.056E+00	0.299E+00	14.54	
PO-218	1600.00Y	1.00	1.635E+00	1.635E+00	0.280E+00	17.11	
RA-224	1.41E+10Y	1.00	5.869E+00	5.869E+00	1.535E+00	26.16	
RA-226	1600.00Y	1.00	1.400E+00	1.400E+00	0.247E+00	17.66	
AC-228	1.41E+10Y	1.00	1.897E+00	1.897E+00	0.421E+00	22.18	
RA-228	1.41E+10Y	1.00	1.897E+00	1.897E+00	0.421E+00	22.18	
TH-228	1.91Y	1.02	2.056E+00	2.102E+00	0.306E+00	14.54	
TH-230	4.47E+09Y	1.00	1.400E+00	1.400E+00	0.247E+00	17.66	
TH-232	1.41E+10Y	1.00	1.897E+00	1.897E+00	0.421E+00	22.18	
TH-234	4.47E+09Y	1.00	1.278E+00	1.278E+00	1.742E+00	136.32	
U-234	4.47E+09Y	1.00	1.400E+00	1.400E+00	0.247E+00	17.66	
NP-237	2.14E+06Y	1.00	8.115E-01	8.115E-01	3.418E-01	42.12	
U-238	4.47E+09Y	1.00	1.278E+00	1.278E+00	1.742E+00	136.32	
AM-243	7380.00Y	1.00	4.658E-01	4.658E-01	0.813E-01	17.46	
ANH-511	1.00E+09Y	1.00	1.501E-01	1.501E-01	0.750E-01	49.93	
	Total Activity :		6.555E+01	6.572E+01			

Grand Total Activity : 6.555E+01 6.572E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	90.00	167	371	1.10	180.20	178	14	2.32E-02	37.2	7.69E+00	T
0	128.86	103	375	1.23	257.84	254	8	1.43E-02	68.5	8.53E+00	T
0	185.81	304	415	1.51	371.64	368	9	4.23E-02	28.2	7.61E+00	T
0	209.36	112	365	0.95	418.69	415	9	1.55E-02	66.3	7.18E+00	T
0	269.99	114	337	1.39	539.85	536	12	1.59E-02	66.5	6.27E+00	T
0	328.09	47	292	1.58	655.95	650	11	6.46E-03	****	5.62E+00	T
0	410.25	82	244	1.56	820.14	813	15	1.14E-02	87.6	4.93E+00	T
0	462.99	94	178	1.44	925.55	921	10	1.30E-02	57.0	4.58E+00	T
0	727.09	127	192	2.20	1453.44	1446	19	1.76E-02	54.9	3.34E+00	T
0	768.98	41	93	0.89	1537.18	1532	9	5.70E-03	90.7	3.20E+00	
2	1374.49	39	11	2.43	2748.00	2745	24	5.37E-03	37.8	1.99E+00	
2	1378.00	63	28	2.68	2755.00	2745	24	8.78E-03	46.7	1.99E+00	
0	1593.82	33	82	10.28	3186.72	3171	32	4.52E-03	****	1.81E+00	
0	1731.39	19	26	2.42	3461.96	3449	17	2.69E-03	****	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 6-FEB-2010 15:03:47.08

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023708.CNF;1 *
* Acquisition date : 6-FEB-2010 13:03:11.  Detector SN#     :               *
* Detector ID      : GAM22                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.00         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 15-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202023708           Analyst initials: MXR1           *
* Batch Number     : 944962                Sample Quantity : 1.01100E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.268E+01	2.554E+00	5.369E-01	4.918E-02	42.244
CD-109	2.841E+00	1.043E+00	1.403E+00	1.331E-01	2.025
SN-126	2.763E-01	1.015E-01	1.372E-01	1.296E-02	2.014
BA-137M	9.577E-02	6.188E-02	6.517E-02	6.872E-03	1.470
CS-137	1.012E-01	6.541E-02	6.889E-02	7.274E-03	1.470
HG-203	1.097E-01	7.835E-02	7.985E-02	1.130E-02	1.374
TL-208	5.974E-01	1.058E-01	6.563E-02	7.117E-03	9.102
BI-211	4.701E+00	7.661E-01	3.471E-01	4.049E-02	13.547
PB-212	2.056E+00	2.990E-01	1.020E-01	1.348E-02	20.155
PO-212	2.056E+00	2.990E-01	1.020E-01	1.348E-02	20.155
BI-214	1.400E+00	2.472E-01	1.191E-01	1.385E-02	11.750
PB-214	1.635E+00	2.798E-01	1.209E-01	1.542E-02	13.522
PO-214	1.635E+00	2.798E-01	1.209E-01	1.542E-02	13.522
PO-216	2.056E+00	2.990E-01	1.020E-01	1.348E-02	20.155
PO-218	1.635E+00	2.798E-01	1.209E-01	1.542E-02	13.522
RA-224	5.869E+00	1.535E+00	1.160E+00	1.452E-01	5.060
RA-226	1.400E+00	2.472E-01	1.191E-01	1.385E-02	11.750
AC-228	1.897E+00	4.207E-01	2.260E-01	2.994E-02	8.391

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.897E+00	4.207E-01	2.260E-01	2.994E-02	8.391
TH-228	2.102E+00	3.056E-01	1.043E-01	1.378E-02	20.155
TH-230	1.400E+00	2.472E-01	1.191E-01	1.385E-02	11.750
TH-232	1.897E+00	4.207E-01	2.260E-01	2.994E-02	8.391
TH-234	1.278E+00	1.742E+00	2.186E+00	3.806E-01	0.585
U-234	1.400E+00	2.472E-01	1.191E-01	1.385E-02	11.750
NP-237	8.115E-01	3.418E-01	4.276E-01	9.681E-02	1.898
U-238	1.278E+00	1.742E+00	2.186E+00	3.806E-01	0.585
AM-243	4.658E-01	8.134E-02	9.032E-02	7.362E-03	5.157
ANH-511	1.501E-01	7.497E-02	4.925E-02	4.934E-03	3.048

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.750E-01		3.813E-01	6.320E-01	6.596E-02	0.277
NA-22	-1.046E-02		4.621E-02	7.516E-02	6.477E-03	-0.139
NA-24	4.079E+02		9.322E+02	Half-Life too short		
AL-26	2.291E-03		2.870E-02	4.777E-02	3.907E-03	0.048
TI-44	4.520E-01	+	6.409E-02	8.230E-02	6.978E-03	5.492
SC-46	3.964E-02		4.323E-02	7.580E-02	8.485E-03	0.523
V-48	-5.150E-02		9.640E-02	1.514E-01	1.588E-02	-0.340
CR-51	2.898E-01		4.922E-01	8.225E-01	1.065E-01	0.352
MN-52	-1.684E-01		6.166E-01	9.806E-01	8.764E-02	-0.172
MN-54	1.967E-02		3.961E-02	6.800E-02	7.554E-03	0.289
CO-56	2.314E-02		4.210E-02	7.262E-02	8.084E-03	0.319
CO-57	-1.716E-03		2.935E-02	4.641E-02	3.827E-03	-0.037
CO-58	-3.369E-02		4.181E-02	6.576E-02	7.282E-03	-0.512
FE-59	-6.691E-02		1.033E-01	1.587E-01	1.555E-02	-0.422
CO-60	9.771E-03		3.777E-02	6.375E-02	5.684E-03	0.153
ZN-65	6.837E-02		1.063E-01	1.567E-01	1.398E-02	0.436
GE-68	-2.077E-01		1.239E+00	1.989E+00	1.875E-01	-0.104
AS-73	4.596E-01		9.050E-01	1.482E+00	1.120E-01	0.310
AS-74	-2.773E-02		1.224E-01	2.001E-01	2.074E-02	-0.139
SE-75	4.357E-02		5.843E-02	8.552E-02	1.151E-02	0.510
BR-77	-4.553E-05		4.228E-05	Half-Life too short		
SR-82	-6.826E-01		5.543E-01	7.913E-01	8.678E-02	-0.863
RB-83	-4.003E-02		7.851E-02	1.249E-01	1.257E-02	-0.321
RB-84	-9.116E-03		8.635E-02	1.423E-01	1.592E-02	-0.064
KR-85	3.141E+01		1.014E+01	1.629E+01	1.635E+00	1.928
SR-85	1.732E-01		5.591E-02	8.984E-02	9.014E-03	1.928
RB-86	3.444E-01		1.000E+00	1.673E+00	1.579E-01	0.206
Y-88	2.485E-02		3.311E-02	6.027E-02	4.873E-03	0.412
ZR-88	1.546E-02		3.581E-02	6.012E-02	5.598E-03	0.257
Y-91	-7.254E+00		2.010E+01	3.260E+01	2.681E+00	-0.223
NB-94	2.093E-02		3.655E-02	6.161E-02	6.602E-03	0.340
NB-95	6.426E-02		5.802E-02	8.761E-02	9.580E-03	0.733
NB-95M	2.375E-01		1.800E-01	2.688E-01	3.553E-02	0.883

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	-1.209E-02		8.171E-02	1.311E-01	1.522E-02	-0.092
NB-97	-5.067E+01		5.154E+01	Half-Life too short		
ZR-97	5.082E+03		1.116E+03	Half-Life too short		
MO-99	-2.671E-05		3.640E-05	Half-Life too short		
TC-99M	-8.931E+17		4.529E+18	Half-Life too short		
RH-101	2.942E-02		3.966E-02	6.545E-02	7.140E-03	0.449
RH-102	9.393E-03		3.247E-02	5.334E-02	5.246E-03	0.176
RU-103	-5.105E-02		5.015E-02	7.455E-02	1.119E-02	-0.685
RH-106	-2.281E-01		3.387E-01	5.329E-01	7.782E-02	-0.428
RU-106	-2.281E-01		3.379E-01	5.329E-01	5.567E-02	-0.428
AG-108M	-1.068E-02		3.549E-02	5.684E-02	5.627E-03	-0.188
AG-110M	-2.478E-02		4.098E-02	5.413E-02	5.818E-03	-0.458
IN-111	9.232E+00		6.889E+00	1.043E+01	1.324E+00	0.885
IN-113M	3.262E-02		5.074E-02	8.598E-02	8.211E-03	0.379
SN-113	3.262E-02		5.074E-02	8.598E-02	8.211E-03	0.379
IN-114M	5.635E-02		2.469E-01	3.621E-01	3.849E-02	0.156
CD-115	2.846E-05		5.058E-05	Half-Life too short		
SN-117M	-6.471E-02		9.009E-02	1.467E-01	1.391E-02	-0.441
SB-122	-1.124E-06		6.683E-06	Half-Life too short		
I-123	-1.631E+04		2.115E+04	Half-Life too short		
TE-123M	-1.295E-02		3.357E-02	5.537E-02	5.288E-03	-0.234
I-124	-9.877E-02		2.517E+00	3.573E+00	3.711E-01	-0.028
SB-124	-1.110E-02		8.459E-02	1.377E-01	1.225E-02	-0.081
SB-125	9.357E-03		9.915E-02	1.627E-01	1.578E-02	0.058
TE-125M	2.376E+00		1.134E+01	1.827E+01	1.854E+00	0.130
I-126	3.689E-01		3.122E-01	4.825E-01	5.098E-02	0.764
SB-126	1.598E-02		2.574E-01	3.612E-01	3.895E-02	0.044
SB-127	8.603E-01		4.976E+00	8.230E+00	1.235E+00	0.105
XE-127	-4.978E-02		6.267E-02	9.949E-02	1.103E-02	-0.500
I-131	-1.203E-02		2.262E-01	3.734E-01	4.155E-02	-0.032
TE-132	8.815E-02		3.503E+00	5.705E+00	1.092E+00	0.015
BA-133	1.124E-02		5.165E-02	7.546E-02	1.128E-02	0.149
I-133	-1.318E+00		8.270E-01	Half-Life too short		
CS-134	4.310E-02		5.043E-02	8.556E-02	9.470E-03	0.504
CS-135	1.250E-01		2.097E-01	3.032E-01	4.386E-02	0.412
I-135	-2.351E+17		1.017E+17	Half-Life too short		
CS-136	-7.359E-02		1.578E-01	2.477E-01	2.507E-02	-0.297
CE-139	-2.442E-02		3.488E-02	5.658E-02	5.549E-03	-0.432
BA-140	1.782E-02		4.059E-01	6.807E-01	2.285E-01	0.026
LA-140	3.703E-02		1.341E-01	2.295E-01	2.011E-02	0.161
CE-141	9.222E-02		7.870E-02	1.369E-01	1.246E-02	0.674
CE-143	3.572E-02		5.676E-03	Half-Life too short		
CE-144	-2.160E-01		2.511E-01	3.777E-01	5.863E-02	-0.572
PM-144	2.889E-05		3.731E-02	6.095E-02	6.520E-03	0.000
PR-144	1.965E-03		2.537E+00	4.146E+00	4.432E-01	0.000
PM-146	2.970E-04		4.827E-02	7.839E-02	9.110E-03	0.004
ND-147	-1.298E-01		9.320E-01	1.549E+00	2.456E-01	-0.084
PM-149	9.928E-04		4.678E-04	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-1.186E-01		1.498E-01	1.757E-01	2.112E-02	-0.675
GD-153	-3.379E-02		9.856E-02	1.377E-01	1.211E-02	-0.245
EU-154	-3.090E-02		1.285E-01	2.087E-01	2.359E-02	-0.148
EU-155	1.290E-01		1.201E-01	1.997E-01	1.714E-02	0.646
TB-160	1.120E-01		1.549E-01	2.690E-01	3.008E-02	0.416
HO-166M	-3.114E-02		6.650E-02	1.050E-01	1.129E-02	-0.296
TM-171	-2.304E+01		3.222E+01	4.603E+01	3.478E+00	-0.501
LU-176	-2.344E-02		3.203E-02	4.446E-02	5.833E-03	-0.527
LU-177	5.141E+00	+	3.458E+00	4.648E+00	5.246E-01	1.106
LU-177M	-1.300E-01		2.199E-01	2.962E-01	2.801E-02	-0.439
HF-181	-3.686E-02		5.222E-02	8.048E-02	7.945E-03	-0.458
W-181	-1.312E-01		4.269E-01	6.233E-01	4.646E-02	-0.211
TA-182	-1.144E-01		2.016E-01	3.215E-01	2.673E-02	-0.356
RE-183	5.958E-02		1.313E-01	2.225E-01	2.147E-02	0.268
RE-184	8.914E-02		2.636E-01	4.316E-01	5.601E-02	0.207
OS-185	-6.405E-03		4.591E-02	7.484E-02	7.865E-03	-0.086
RE-188	1.630E-01		2.120E-01	3.633E-01	3.391E-02	0.449
W-188	-6.775E+00		9.486E+00	1.325E+01	1.810E+00	-0.511
IR-192	-1.204E-02		4.047E-02	6.682E-02	8.540E-03	-0.180
AU-195	6.661E-02		2.515E-01	4.027E-01	3.512E-02	0.165
TL-200	-1.541E-02		2.055E-02	Half-Life too short		
TL-201	-7.355E+00		3.820E+01	6.321E+01	6.230E+00	-0.116
TL-202	-6.726E-03		1.090E-01	1.758E-01	1.692E-02	-0.038
BI-207	-1.463E-02		5.772E-02	8.892E-02	8.536E-03	-0.165
TL-207	-1.115E-01		8.134E-01	1.171E+00	2.328E-01	-0.095
PO-209	2.718E+00		7.374E+00	1.254E+01	1.404E+00	0.217
BI-210	1.463E+00		3.393E+00	5.637E+00	5.237E-01	0.260
PB-210	1.463E+00		3.393E+00	5.637E+00	5.237E-01	0.260
PO-210	1.463E+00		3.392E+00	5.637E+00	4.740E-01	0.260
PB-211	8.030E-01		1.267E+00	1.733E+00	1.088E+00	0.463
BI-212	1.191E+00	+	6.688E-01	7.174E-01	8.569E-02	1.660
PO-215	-1.115E-01		8.134E-01	1.171E+00	2.328E-01	-0.095
RN-219	-1.987E-01		4.651E-01	7.235E-01	1.119E-01	-0.275
RN-220	-2.975E+01		2.642E+01	4.080E+01	4.158E+00	-0.729
RA-223	-1.115E-01		8.134E-01	1.171E+00	2.328E-01	-0.095
AC-227	5.569E-04		4.153E-01	6.693E-01	1.221E-01	0.001
TH-227	5.569E-04		4.153E-01	6.693E-01	1.378E-01	0.001
TH-229	-4.241E-01		5.676E-01	9.057E-01	9.738E-02	-0.468
PA-231	-9.534E-01		1.995E+00	2.674E+00	4.993E-01	-0.357
TH-231	-1.115E-01		8.134E-01	1.171E+00	2.328E-01	-0.095
U-231	6.268E-02		4.019E+00	5.782E+00	5.135E-01	0.011
PA-233	5.296E-02		7.051E-02	1.215E-01	1.591E-02	0.436
PA-234	-7.495E-02		3.175E-01	5.141E-01	1.022E-01	-0.146
PA-234M	4.269E+00		5.051E+00	8.596E+00	9.851E-01	0.497
U-235	-4.944E-02		2.425E-01	3.937E-01	6.946E-02	-0.126
NP-236	-6.754E-02		8.940E-02	1.451E-01	1.387E-02	-0.466
NP-239	-2.121E-01		2.169E-01	3.296E-01	2.724E-02	-0.644
AM-241	2.005E-02		1.614E-01	2.420E-01	1.892E-02	0.083

Sample ID : G1202023708 Acquisition date : 6-FEB-2010 13:03:11

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	7.920E-02		1.061E-01	1.750E-01	1.492E-02	0.453
AM-246	2.685E-02		1.405E-01	2.322E-01	2.184E-02	0.116
CM-247	3.131E-03		4.511E-02	6.745E-02	6.327E-03	0.046
CF-249	1.666E-02		4.426E-02	7.416E-02	7.048E-03	0.225
CF-251	-2.114E-02		1.403E-01	2.316E-01	2.352E-02	-0.091

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202023708          *
* Acquisition date :  6-FEB-2010 13:03:11 Detector SN#    :                 *
* Detector ID       : GAM22               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.00     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 15-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202023708          Analyst initials: MXR1           *
* Batch Number      : 944962               Sample Quantity : 1.0110E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.268E+01	2.503E+00	2.664E-01	1.277E+00
CD-109	2.841E+00	1.022E+00	7.021E-01	5.216E-01
SN-126	2.763E-01	9.945E-02	6.869E-02	5.074E-02
BA-137M	9.577E-02	6.064E-02	3.241E-02	3.094E-02
CS-137	1.012E-01	6.411E-02	3.426E-02	3.271E-02
HG-203	1.097E-01	7.678E-02	3.982E-02	3.918E-02
TL-208	5.974E-01	1.037E-01	3.266E-02	5.292E-02
BI-211	4.701E+00	7.508E-01	1.730E-01	3.831E-01
PB-212	2.056E+00	2.930E-01	5.090E-02	1.495E-01
PO-212	2.056E+00	2.930E-01	5.090E-02	1.495E-01
BI-214	1.400E+00	2.423E-01	5.926E-02	1.236E-01
PB-214	1.635E+00	2.742E-01	6.027E-02	1.399E-01
PO-214	1.635E+00	2.742E-01	6.027E-02	1.399E-01
PO-216	2.056E+00	2.930E-01	5.090E-02	1.495E-01
PO-218	1.635E+00	2.742E-01	6.027E-02	1.399E-01
RA-224	5.869E+00	1.505E+00	5.787E-01	7.677E-01
RA-226	1.400E+00	2.423E-01	5.926E-02	1.236E-01
AC-228	1.897E+00	4.123E-01	1.123E-01	2.104E-01
RA-228	1.897E+00	4.123E-01	1.123E-01	2.104E-01
TH-228	2.102E+00	2.995E-01	5.203E-02	1.528E-01
TH-230	1.400E+00	2.423E-01	5.926E-02	1.236E-01
TH-232	1.897E+00	4.123E-01	1.123E-01	2.104E-01
TH-234	1.278E+00	1.707E+00	1.095E+00	8.710E-01
U-234	1.400E+00	2.423E-01	5.926E-02	1.236E-01
NP-237	8.115E-01	3.350E-01	2.140E-01	1.709E-01
U-238	1.278E+00	1.707E+00	1.095E+00	8.710E-01
AM-243	4.658E-01	7.971E-02	4.523E-02	4.067E-02
ANH-511	1.501E-01	7.347E-02	2.451E-02	3.748E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	1.750E-01	3.737E-01	3.146E-01	1.907E-01	NOT IDENT.
NA-22	-1.046E-02	4.529E-02	3.730E-02	2.311E-02	NOT IDENT.
NA-24	4.079E+08	1.827E+09	0.000E+00	9.322E+08	SHORT HLIF
AL-26	2.291E-03	2.813E-02	2.368E-02	1.435E-02	NOT IDENT.
TI-44	4.520E-01	6.281E-02	4.121E-02	3.204E-02	FAIL ABUN
SC-46	3.964E-02	4.236E-02	3.767E-02	2.161E-02	FAIL ABUN
V-48	-5.150E-02	9.447E-02	7.522E-02	4.820E-02	NOT IDENT.
CR-51	2.898E-01	4.824E-01	4.100E-01	2.461E-01	NOT IDENT.
MN-52	-1.684E-01	6.042E-01	4.865E-01	3.083E-01	NOT IDENT.
MN-54	1.967E-02	3.882E-02	3.380E-02	1.981E-02	NOT IDENT.
CO-56	2.314E-02	4.125E-02	3.609E-02	2.105E-02	NOT IDENT.
CO-57	-1.716E-03	2.876E-02	2.320E-02	1.467E-02	NOT IDENT.
CO-58	-3.369E-02	4.098E-02	3.269E-02	2.091E-02	NOT IDENT.
FE-59	-6.691E-02	1.013E-01	7.881E-02	5.167E-02	NOT IDENT.
CO-60	9.771E-03	3.701E-02	3.164E-02	1.888E-02	NOT IDENT.
ZN-65	6.837E-02	1.041E-01	7.781E-02	5.313E-02	NOT IDENT.
GE-68	-2.077E-01	1.215E+00	9.878E-01	6.197E-01	NOT IDENT.
AS-73	4.596E-01	8.869E-01	7.429E-01	4.525E-01	NOT IDENT.
AS-74	-2.773E-02	1.200E-01	9.957E-02	6.122E-02	NOT IDENT.
SE-75	4.357E-02	5.726E-02	4.265E-02	2.921E-02	FAIL ABUN
BR-77	-4.553E+01	8.288E+01	0.000E+00	4.228E+01	SHORT HLIF
SR-82	-6.826E-01	5.432E-01	3.934E-01	2.772E-01	NOT IDENT.
RB-83	-4.003E-02	7.694E-02	6.216E-02	3.925E-02	NOT IDENT.
RB-84	-9.116E-03	8.463E-02	7.072E-02	4.318E-02	NOT IDENT.
KR-85	3.141E+01	9.936E+00	8.109E+00	5.069E+00	NOT IDENT.
SR-85	1.732E-01	5.479E-02	4.472E-02	2.796E-02	NOT IDENT.
RB-86	3.444E-01	9.805E-01	8.310E-01	5.002E-01	NOT IDENT.
Y-88	2.485E-02	3.245E-02	2.988E-02	1.656E-02	NOT IDENT.
ZR-88	1.546E-02	3.510E-02	2.995E-02	1.791E-02	NOT IDENT.
Y-91	-7.254E+00	1.970E+01	1.618E+01	1.005E+01	NOT IDENT.
NB-94	2.093E-02	3.582E-02	3.064E-02	1.828E-02	NOT IDENT.
NB-95	6.426E-02	5.686E-02	4.355E-02	2.901E-02	NOT IDENT.
NB-95M	2.375E-01	1.764E-01	1.341E-01	9.000E-02	NOT IDENT.
ZR-95	-1.209E-02	8.008E-02	6.517E-02	4.086E-02	NOT IDENT.
NB-97	-5.067E+07	1.010E+08	0.000E+00	5.154E+07	SHORT HLIF
ZR-97	5.082E+09	2.187E+09	0.000E+00	1.116E+09	SHORT HLIF
MO-99	-2.671E+01	7.135E+01	0.000E+00	3.640E+01	SHORT HLIF
TC-99M	-8.931E+23	8.876E+24	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.942E-02	3.887E-02	3.267E-02	1.983E-02	NOT IDENT.
RH-102	9.393E-03	3.182E-02	2.656E-02	1.624E-02	NOT IDENT.
RU-103	-5.105E-02	4.915E-02	3.711E-02	2.508E-02	FAIL ABUN
RH-106	-2.281E-01	3.319E-01	2.651E-01	1.693E-01	FAIL ABUN
RU-106	-2.281E-01	3.311E-01	2.651E-01	1.689E-01	FAIL ABUN
AG-108M	-1.068E-02	3.478E-02	2.831E-02	1.774E-02	NOT IDENT.
AG-110M	-2.478E-02	4.016E-02	2.692E-02	2.049E-02	NOT IDENT.
IN-111	9.232E+00	6.752E+00	5.206E+00	3.445E+00	NOT IDENT.
IN-113M	3.262E-02	4.972E-02	4.283E-02	2.537E-02	NOT IDENT.
SN-113	3.262E-02	4.972E-02	4.283E-02	2.537E-02	NOT IDENT.
IN-114M	5.635E-02	2.420E-01	1.808E-01	1.235E-01	NOT IDENT.
CD-115	2.846E+01	9.915E+01	0.000E+00	5.058E+01	SHORT HLIF
SN-117M	-6.471E-02	8.829E-02	7.327E-02	4.504E-02	NOT IDENT.
SB-122	-1.124E+00	1.310E+01	0.000E+00	6.683E+00	SHORT HLIF
I-123	-1.631E+10	4.145E+10	0.000E+00	2.115E+10	SHORT HLIF
TE-123M	-1.295E-02	3.290E-02	2.766E-02	1.679E-02	NOT IDENT.
I-124	-9.877E-02	2.467E+00	1.778E+00	1.259E+00	NOT IDENT.
SB-124	-1.110E-02	8.290E-02	6.828E-02	4.230E-02	FAIL ABUN
SB-125	9.357E-03	9.717E-02	8.101E-02	4.958E-02	FAIL ABUN
TE-125M	2.376E+00	1.112E+01	9.140E+00	5.671E+00	NOT IDENT.
I-126	3.689E-01	3.060E-01	2.400E-01	1.561E-01	NOT IDENT.
SB-126	1.598E-02	2.523E-01	1.796E-01	1.287E-01	FAIL ABUN
SB-127	8.603E-01	4.876E+00	4.093E+00	2.488E+00	FAIL ABUN
XE-127	-4.978E-02	6.141E-02	4.967E-02	3.133E-02	NOT IDENT.
I-131	-1.203E-02	2.217E-01	1.860E-01	1.131E-01	NOT IDENT.
TE-132	8.815E-02	3.433E+00	2.847E+00	1.751E+00	NOT IDENT.
BA-133	1.124E-02	5.061E-02	3.760E-02	2.582E-02	NOT IDENT.
I-133	-1.318E+06	1.621E+06	0.000E+00	8.270E+05	SHORT HLIF
CS-134	4.310E-02	4.942E-02	4.253E-02	2.521E-02	NOT IDENT.
CS-135	1.250E-01	2.055E-01	1.512E-01	1.048E-01	NOT IDENT.
I-135	-2.351E+23	1.993E+23	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.359E-02	1.547E-01	1.230E-01	7.891E-02	FAIL ABUN
CE-139	-2.442E-02	3.418E-02	2.826E-02	1.744E-02	NOT IDENT.
BA-140	1.782E-02	3.978E-01	3.388E-01	2.030E-01	NOT IDENT.
LA-140	3.703E-02	1.314E-01	1.138E-01	6.705E-02	FAIL ABUN
CE-141	9.222E-02	7.712E-02	6.842E-02	3.935E-02	NOT IDENT.
CE-143	3.572E+04	1.113E+04	0.000E+00	5.676E+03	SHORT HLIF
CE-144	-2.160E-01	2.461E-01	1.888E-01	1.255E-01	NOT IDENT.
PM-144	2.889E-05	3.656E-02	3.031E-02	1.865E-02	NOT IDENT.

PR-144	1.965E-03	2.487E+00	2.062E+00	1.269E+00	NOT IDENT.
PM-146	2.970E-04	4.731E-02	3.903E-02	2.414E-02	NOT IDENT.
ND-147	-1.298E-01	9.133E-01	7.708E-01	4.660E-01	FAIL ABUN
PM-149	9.928E+02	9.168E+02	0.000E+00	4.678E+02	SHORT HLIF
EU-152	-1.186E-01	1.468E-01	8.757E-02	7.492E-02	NOT IDENT.
GD-153	-3.379E-02	9.659E-02	6.889E-02	4.928E-02	NOT IDENT.
EU-154	-3.090E-02	1.259E-01	1.036E-01	6.425E-02	NOT IDENT.
EU-155	1.290E-01	1.177E-01	9.989E-02	6.004E-02	FAIL ABUN
TB-160	1.120E-01	1.518E-01	1.337E-01	7.743E-02	FAIL ABUN
HO-166M	-3.114E-02	6.517E-02	5.224E-02	3.325E-02	FAIL ABUN
TM-171	-2.304E+01	3.158E+01	2.306E+01	1.611E+01	NOT IDENT.
LU-176	-2.344E-02	3.139E-02	2.216E-02	1.601E-02	FAIL ABUN
LU-177	5.141E+00	3.388E+00	2.320E+00	1.729E+00	FAIL ABUN
LU-177M	-1.300E-01	2.155E-01	1.475E-01	1.100E-01	FAIL ABUN
HF-181	-3.686E-02	5.118E-02	4.007E-02	2.611E-02	NOT IDENT.
W-181	-1.312E-01	4.184E-01	3.122E-01	2.135E-01	NOT IDENT.
TA-182	-1.144E-01	1.976E-01	1.596E-01	1.008E-01	FAIL ABUN
RE-183	5.958E-02	1.287E-01	1.112E-01	6.564E-02	FAIL ABUN
RE-184	8.914E-02	2.584E-01	2.153E-01	1.318E-01	NOT IDENT.
OS-185	-6.405E-03	4.499E-02	3.723E-02	2.295E-02	NOT IDENT.
RE-188	1.630E-01	2.078E-01	1.815E-01	1.060E-01	NOT IDENT.
W-188	-6.775E+00	9.296E+00	6.607E+00	4.743E+00	FAIL ABUN
IR-192	-1.204E-02	3.966E-02	3.331E-02	2.023E-02	FAIL ABUN
AU-195	6.661E-02	2.465E-01	2.015E-01	1.257E-01	FAIL ABUN
TL-200	-1.541E+04	4.028E+04	0.000E+00	2.055E+04	SHORT HLIF
TL-201	-7.355E+00	3.743E+01	3.157E+01	1.910E+01	NOT IDENT.
TL-202	-6.726E-03	1.068E-01	8.752E-02	5.449E-02	NOT IDENT.
BI-207	-1.463E-02	5.656E-02	4.416E-02	2.886E-02	FAIL ABUN
TL-207	-1.115E-01	7.971E-01	5.839E-01	4.067E-01	FAIL ABUN
PO-209	2.718E+00	7.226E+00	6.230E+00	3.687E+00	NOT IDENT.
BI-210	1.463E+00	3.325E+00	2.827E+00	1.696E+00	NOT IDENT.
PB-210	1.463E+00	3.325E+00	2.827E+00	1.696E+00	NOT IDENT.
PO-210	1.463E+00	3.325E+00	2.827E+00	1.696E+00	NOT IDENT.
PB-211	8.030E-01	1.242E+00	8.633E-01	6.335E-01	NOT IDENT.
BI-212	1.191E+00	6.554E-01	3.567E-01	3.344E-01	FAIL ABUN
PO-215	-1.115E-01	7.971E-01	5.839E-01	4.067E-01	FAIL ABUN
RN-219	-1.987E-01	4.558E-01	3.604E-01	2.325E-01	FAIL ABUN
RN-220	-2.975E+01	2.590E+01	2.030E+01	1.321E+01	NOT IDENT.
RA-223	-1.115E-01	7.971E-01	5.839E-01	4.067E-01	FAIL ABUN
AC-227	5.569E-04	4.070E-01	3.339E-01	2.076E-01	FAIL ABUN
TH-227	5.569E-04	4.070E-01	3.339E-01	2.076E-01	FAIL ABUN
TH-229	-4.241E-01	5.562E-01	4.522E-01	2.838E-01	FAIL ABUN
PA-231	-9.534E-01	1.955E+00	1.334E+00	9.975E-01	NOT IDENT.
TH-231	-1.115E-01	7.971E-01	5.839E-01	4.067E-01	FAIL ABUN
U-231	6.268E-02	3.939E+00	2.893E+00	2.010E+00	FAIL ABUN
PA-233	5.296E-02	6.910E-02	6.055E-02	3.525E-02	FAIL ABUN
PA-234	-7.495E-02	3.112E-01	2.554E-01	1.588E-01	FAIL ABUN
PA-234M	4.269E+00	4.950E+00	4.270E+00	2.526E+00	NOT IDENT.
U-235	-4.944E-02	2.377E-01	1.968E-01	1.213E-01	FAIL ABUN
NP-236	-6.754E-02	8.762E-02	7.248E-02	4.470E-02	NOT IDENT.
NP-239	-2.121E-01	2.125E-01	1.648E-01	1.084E-01	FAIL ABUN
AM-241	2.005E-02	1.581E-01	1.213E-01	8.068E-02	NOT IDENT.
CM-243	7.920E-02	1.040E-01	8.753E-02	5.307E-02	FAIL ABUN
AM-246	2.685E-02	1.377E-01	1.153E-01	7.025E-02	NOT IDENT.
CM-247	3.131E-03	4.421E-02	3.360E-02	2.255E-02	FAIL ABUN
CF-249	1.666E-02	4.337E-02	3.694E-02	2.213E-02	NOT IDENT.
CF-251	-2.114E-02	1.375E-01	1.157E-01	7.015E-02	NOT IDENT.

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                             2040 SAVAGE ROAD                          *
*                           CHARLESTON ,SC 29417                        *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                *
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ENERGY	MDA COUNTS
46.50	266.4360
46.50	266.4360
46.50	266.4360
48.70	289.2676
49.72	279.6175
51.35	310.2952
52.39	336.7648
52.97	305.0626
53.15	299.7156
53.44	293.5661
54.07	288.7524
56.28	328.2271
56.28	328.2307
57.37	0.0000
57.53	350.7772
57.53	350.7800
57.60	326.2216
57.98	339.0727
57.98	339.0727
59.32	328.0117
59.32	328.0117
59.40	328.1156
59.54	328.2982
59.72	332.8371
60.01	333.2195
61.10	325.9932
61.14	326.0436
61.30	326.2466
63.00	401.0409
63.29	434.9412
63.29	434.9412
63.58	435.4191
64.28	408.8275
65.12	411.5777
65.20	417.5609
65.20	417.5609
66.05	420.3440
66.72	437.5829
66.83	437.7596
66.91	437.8887
67.20	458.1284
67.20	458.1284
67.75	419.9981
67.85	420.1509
68.90	424.7058
68.90	424.7058
69.30	448.1124
69.67	439.5704
70.82	420.1172
70.82	420.1172
70.83	420.1322
72.80	426.0135
72.87	426.1172
72.87	426.1172
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74.81	450.6481
74.81	450.6481
74.81	450.6481
74.81	450.6481
74.81	450.6481
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74.81	450.6481
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78.38	455.9790
79.62	411.0988
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79.80	411.3351
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80.30	433.5935
80.30	433.5935
80.57	433.9644
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81.07	501.1653
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83.78	435.2180
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86.94	563.8353
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87.30	487.1856
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87.30	487.1856
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89.95	489.4181
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92.29	393.5508
92.38	393.6522
92.38	393.6522
93.35	394.7389
94.00	395.4652
94.67	351.1099
94.67	351.1149
94.90	351.3411
94.90	351.3411
94.90	351.3411
94.90	351.3411
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95.87	386.2288
96.73	393.6310
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98.44	342.4201
98.44	342.4217
98.88	337.8341
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99.55	325.3888
99.86	325.6595
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100.10	338.9525
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103.76	335.6492
105.00	329.0053
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108.00	414.9864
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111.00	372.1592
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112.95	415.6280
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116.30	327.0337
117.00	382.1768
117.00	382.1768
117.66	406.7002
121.11	304.3440
121.62	332.2997
121.78	332.4218
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122.32	348.9583
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122.32	348.9583
122.32	348.9583
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131.20	363.7164
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136.25	382.1076
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142.65	403.4636
143.76	395.3278
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144.24	382.1284
144.24	382.1284
144.24	382.1284
145.22	331.1683
145.44	336.7622
147.16	410.7867
152.43	372.7198
152.70	383.0430
153.22	391.7223
154.21	389.6977
154.21	389.6977
154.21	389.6977
154.21	389.6977
155.03	385.6849
156.02	349.3474
158.56	413.4113
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159.00	391.3852
160.31	392.3433
161.27	385.5553
162.32	356.2964
162.64	341.4972
163.35	342.8809
163.89	341.3372
165.85	391.6271
167.43	373.8173
171.28	366.8562
171.86	352.9216
172.10	353.0712
176.55	349.0807
176.60	349.1111
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185.71	391.6199
186.00	391.8096
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192.34	379.0869
193.63	362.0656
197.04	343.1417
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198.60	361.9254
200.40	0.0000
201.83	398.8229
202.84	397.4351
205.31	351.3893

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208.81	377.5612
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209.75	346.8558
210.97	330.0113
215.65	308.6798
216.55	329.8662
218.09	320.3384
222.10	323.2254
223.80	306.4108
226.40	333.5121
227.00	319.2358
227.08	319.2709
227.20	329.7263
228.16	330.1688
228.18	330.1785
228.18	330.1785
231.56	0.0000
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236.00	335.2295
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238.63	312.7543
238.63	312.7543
238.63	312.7543
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241.98	314.1613
241.98	314.1613
241.98	314.1613
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245.39	213.2309
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249.79	0.0000
252.40	211.9563
252.85	246.5272
252.85	246.5272
254.15	0.0000
256.20	248.6663
256.20	248.6663
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260.90	0.0000
262.80	276.9017
264.65	234.2677
268.24	279.2010
268.79	281.1484
269.46	269.0686
269.46	269.0686
269.46	269.0686
269.46	269.0686
271.23	274.2739
273.65	282.8086
276.40	230.5405
277.35	289.9805
277.60	301.9036
277.60	301.9036
278.00	302.0488
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279.20	251.3257
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280.46	210.2682
281.68	0.0000
283.67	253.9879
284.30	252.3852
285.00	227.5117
285.90	0.0000
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286.10	199.5520
287.40	210.4367
288.45	0.0000
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290.80	253.9848
291.72	246.7307
293.26	0.0000
293.70	211.0966
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295.21	211.4583

295.21	211.4583
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296.50	245.0435
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298.57	245.6136
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299.80	241.3952
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300.09	241.4761
300.09	241.4761
300.09	241.4761
300.12	241.4825
301.29	252.4414
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303.76	0.0000
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304.40	239.5789
304.84	238.1672
306.84	263.1720
308.46	254.4408
311.98	215.0984
316.51	236.5536
318.01	243.4374
319.02	222.3033
319.41	208.4387
320.08	211.0667
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323.87	229.0505
323.87	229.0505
323.87	229.0505
325.23	251.2186
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334.20	217.3292
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338.28	248.2735
338.28	248.2735
338.28	248.2735
338.32	248.2863
338.32	248.2863
338.32	248.2863
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340.57	213.9752
344.27	262.4921
345.85	246.9713
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351.07	197.9531
351.92	198.1166
351.92	198.1166
351.92	198.1166
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356.01	186.6733
364.48	193.7068
366.43	0.0000
367.43	192.2938
367.94	0.0000
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374.96	186.7668
383.85	190.2727
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388.63	196.0694
391.69	180.6376
391.69	180.6376
392.90	186.8265
398.62	193.7963
400.65	195.1462
401.10	204.2811
401.81	202.5055
402.60	197.2075
404.84	178.3596
410.95	190.8021
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413.65	183.1025
414.70	188.3581
415.30	164.6841

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433.93	174.8403
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443.98	176.2658
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445.03	167.0195
445.03	167.0195
445.03	167.0195
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513.99	148.4011
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537.32	151.7480
543.00	139.2480
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555.20	133.7895
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569.67	150.2755
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578.91	0.0000
579.30	0.0000
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591.81	138.8994
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593.00	146.7243
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602.52	0.0000
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602.71	146.4989
603.60	156.5727
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604.70	141.6766
609.31	148.2056

609.31	148.2056
609.31	148.2056
609.31	148.2056
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621.84	140.4892
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661.65	148.2324
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666.33	107.1485
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722.78	138.9974
722.89	139.0055
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723.30	140.8179
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756.87	113.1912
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765.79	120.2258
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792.07	130.2439

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834.83	111.0921
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867.82	95.3264
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911.07	102.2552
911.07	102.2552
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969.11	83.8022
969.11	83.8022
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1048.07	90.5413

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1050.47	79.2935
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1076.63	73.8304
1077.35	80.0911
1078.86	77.0145
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1115.52	83.0511
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1120.29	69.7222
1120.29	69.7222
1120.51	69.7291
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1147.95	0.0000
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1189.05	91.8196
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1260.41	0.0000
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1274.45	87.5995
1274.54	87.6022
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1298.22	0.0000
1312.09	64.0141
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1325.50	70.2113
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1333.61	49.5667
1360.21	52.9628
1362.66	0.0000
1365.15	44.8342
1368.21	48.0806
1368.53	0.0000
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1384.27	53.6768
1394.10	58.5416
1395.20	64.6172
1407.95	58.7770
1434.06	56.1548
1436.60	52.1097
1457.56	0.0000
1460.81	40.1212
1489.15	44.5839
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1596.49	42.6746
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1678.03	0.0000
1691.02	30.1044
1691.02	30.1044
1706.46	0.0000
1750.46	0.0000
1764.49	23.7207
1764.49	23.7207
1764.49	23.7207
1764.49	23.7207
1770.23	24.9402
1771.40	28.5109
1791.20	0.0000
1808.65	20.9698

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202023708

Total Uranium Activity	3.7789E+00	ug/g
Total Uranium Counting Unc.	5.0802E+00	ug/g
Total Uranium Tpu	2.5919E-06	ug/g
Total Uranium Mda	3.2598E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944962                    SAMPLE ID   : G1202023708     *
*   ANALYST       : MXR1                      DETECTOR    : GAM22           *
*   SAMPLE DATE   : 15-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  6-FEB-2010 13:03:11.01    SAMPLE ALQT:  101.100 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.000E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.641E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.199E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.552E+00
```

VAX/VMS Nuclide Identification Report Generated 4-FEB-2010 22:14:30.36

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023709.CNF;1
Sample date       : 27-JAN-2010 00:00:00 Acquisition date : 4-FEB-2010 21:14:00.
Sample ID         : G1202023709          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.14  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 944962                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.52	2272	798	1.30	119.78	114	12	6.31E-01	3.3	
2	0	78.04*	53	498	1.10	156.80	152	8	1.48E-02	75.3	
3	0	88.02	1159	739	1.32	176.74	170	15	3.22E-01	5.9	
4	4	92.54*	9	94	0.91	185.77	184	10	2.46E-03	174.2	1.61E+00
5	4	93.54*	20	210	1.22	187.78	184	10	5.66E-03	133.8	
6	0	122.15	267	373	1.31	244.97	240	13	7.41E-02	16.1	
7	0	186.81*	93	340	1.20	374.22	369	12	2.59E-02	41.6	
8	0	238.83*	368	483	1.72	478.20	471	14	1.02E-01	13.8	
9	0	295.83*	161	146	2.17	592.12	587	11	4.48E-02	16.7	
10	0	339.27*	67	223	2.26	678.96	672	12	1.85E-02	46.9	
11	0	351.90*	184	215	1.20	704.21	698	13	5.12E-02	18.0	
12	0	511.07*	67	175	1.77	1022.35	1014	17	1.86E-02	48.7	
13	0	583.53*	103	107	1.61	1167.17	1162	11	2.86E-02	22.2	
14	0	609.50*	138	114	1.79	1219.08	1211	15	3.83E-02	19.2	
15	0	661.97	1904	151	1.72	1323.97	1316	18	5.29E-01	2.8	
16	0	911.01*	46	201	1.71	1821.71	1816	19	1.28E-02	75.4	
17	0	1173.55	1447	91	2.10	2346.42	2336	19	4.02E-01	3.1	
18	0	1332.85	1370	12	2.11	2664.79	2657	20	3.81E-01	2.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 4-FEB-2010 22:14:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023709.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 00:00:00 Acquisition date : 4-FEB-2010 21:14:00
Sample ID : G1202023709 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.14 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.547E-01	8.496E-02	6.071E-02	5.345E-03	4.195
		136.48		-1.932E-01	3.337E-01	5.521E-01	5.100E-02	-0.350
CO-60	+	1173.22		6.132E+00	6.225E-01	1.348E-01	1.091E-02	45.498
	+	1332.49	*	6.499E+00	6.602E-01	7.136E-02	6.083E-03	91.079
CD-109	+	88.03	*	2.910E+01	4.416E+00	2.224E+00	2.105E-01	13.081
SN-126		64.28		4.290E-02	9.462E-01	1.396E+00	2.055E-01	0.031
	+	86.94		1.200E+01	5.185E+00	9.290E-01	3.857E-01	12.919
	+	87.57	*	2.887E+00	4.381E-01	2.218E-01	2.089E-02	13.014
BA-137M	+	661.65	*	5.317E+00	5.247E-01	1.160E-01	9.499E-03	45.854
CS-137	+	661.65	*	5.621E+00	5.555E-01	1.226E-01	1.006E-02	45.854
TL-208		277.35		1.610E-01	7.085E-01	1.182E+00	1.502E-01	0.136
	+	510.84		6.255E-01	6.140E-01	4.359E-01	5.180E-02	1.435
	+	583.14	*	2.758E-01	1.249E-01	1.213E-01	1.101E-02	2.274
		860.37		2.982E-01	7.128E-01	1.202E+00	1.152E-01	0.248
BI-211		72.87		-8.639E+00	6.052E+00	7.979E+00	6.544E-01	-1.083
	+	351.07	*	2.132E+00	7.923E-01	6.498E-01	5.911E-02	3.281
PB-212		74.81		6.696E-01	7.073E-01	1.056E+00	1.321E-01	0.634
	+	77.11		3.205E-01	4.833E-01	5.768E-01	4.894E-02	0.556
	+	87.30		1.335E+01	2.427E+00	1.029E+00	1.412E-01	12.973
	+	238.63	*	9.169E-01	2.699E-01	1.767E-01	1.789E-02	5.188
		300.09		-5.970E-01	1.577E+00	2.203E+00	2.382E-01	-0.271
PO-212		74.81		6.696E-01	7.073E-01	1.056E+00	1.321E-01	0.634
	+	77.11		3.205E-01	4.833E-01	5.768E-01	4.894E-02	0.556
	+	87.30		1.335E+01	2.427E+00	1.029E+00	1.412E-01	12.973
		115.19		-7.195E-01	6.062E+00	9.578E+00	8.322E-01	-0.075
	+	238.63	*	9.169E-01	2.699E-01	1.767E-01	1.789E-02	5.188
		300.09		-5.970E-01	1.577E+00	2.203E+00	2.382E-01	-0.271
PB-214		74.81		1.154E+00	1.217E+00	1.819E+00	2.027E-01	0.634
	+	77.11		5.495E-01	8.297E-01	9.887E-01	1.128E-01	0.556
	+	87.30		2.287E+01	3.893E+00	1.763E+00	2.142E-01	12.973
		241.98		1.476E+00	7.724E-01	1.228E+00	1.312E-01	1.202
	+	295.21		1.097E+00	3.854E-01	3.826E-01	4.225E-02	2.868
	+	351.92	*	7.417E-01	2.783E-01	2.265E-01	2.374E-02	3.274
PO-214		74.81		1.154E+00	1.217E+00	1.819E+00	2.027E-01	0.634

Sample ID : G1202023709 Acquisition date : 4-FEB-2010 21:14:00

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		5.495E-01	8.297E-01	9.887E-01	1.128E-01	0.556
	+	87.30		2.287E+01	3.893E+00	1.763E+00	2.142E-01	12.973
		241.98		1.476E+00	7.724E-01	1.228E+00	1.312E-01	1.202
	+	295.21		1.097E+00	3.854E-01	3.826E-01	4.225E-02	2.868
	+	351.92	*	7.417E-01	2.783E-01	2.265E-01	2.374E-02	3.274
PO-216		74.81		6.696E-01	7.073E-01	1.056E+00	1.321E-01	0.634
	+	77.11		3.205E-01	4.833E-01	5.768E-01	4.894E-02	0.556
	+	87.30		1.335E+01	2.427E+00	1.029E+00	1.412E-01	12.973
	+	238.63	*	9.169E-01	2.699E-01	1.767E-01	1.789E-02	5.188
		300.09		-5.970E-01	1.577E+00	2.203E+00	2.382E-01	-0.271
PO-218		74.81		1.154E+00	1.217E+00	1.819E+00	2.027E-01	0.634
	+	77.11		5.495E-01	8.297E-01	9.887E-01	1.128E-01	0.556
	+	87.30		2.287E+01	3.893E+00	1.763E+00	2.142E-01	12.973
		241.98		1.476E+00	7.724E-01	1.228E+00	1.312E-01	1.202
	+	295.21		1.097E+00	3.854E-01	3.826E-01	4.225E-02	2.868
	+	351.92	*	7.417E-01	2.783E-01	2.265E-01	2.374E-02	3.274
TH-228		74.81		6.756E-01	7.108E-01	1.065E+00	8.947E-02	0.634
	+	77.11		3.234E-01	4.876E-01	5.819E-01	4.938E-02	0.556
	+	87.30		1.347E+01	2.044E+00	1.038E+00	9.750E-02	12.973
	+	238.63	*	9.251E-01	2.723E-01	1.783E-01	1.805E-02	5.188
		300.09		-6.023E-01	1.630E+00	2.223E+00	1.319E+00	-0.271
AM-241	+	59.54	*	1.342E+01	1.413E+00	5.710E-01	4.705E-02	23.513
ANH-511	+	511.00	*	1.351E-01	1.322E-01	9.417E-02	7.981E-03	1.435

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.133E-01	6.586E-01	1.044E+00	9.493E-02	-0.109
NA-22		1274.54	*	-2.140E-02	5.455E-02	8.519E-02	7.154E-03	-0.251
NA-24		1368.53	*	-2.091E-04	5.455E-02	Half-Life too short		
AL-26		1129.67		-2.268E+00	3.485E+00	5.209E+00	4.351E-01	-0.435
		1808.65	*	2.574E-02	4.266E-02	8.061E-02	6.678E-03	0.319
K-40		1460.81	*	7.197E-01	6.517E-01	1.270E+00	1.129E-01	0.567
TI-44		67.85		5.809E-02	7.487E-02	1.250E-01	9.912E-03	0.465
	+	78.38	*	5.914E-02	8.917E-02	1.053E-01	9.040E-03	0.561
SC-46		889.25	*	2.393E-02	9.942E-02	1.653E-01	1.494E-02	0.145
		1120.51		2.506E-02	1.125E-01	1.853E-01	1.557E-02	0.135
V-48		944.10		1.315E+00	1.916E+00	3.263E+00	2.939E-01	0.403
		983.50	*	1.320E-02	1.326E-01	2.171E-01	1.938E-02	0.061
		1312.09		-7.787E-03	8.427E-02	1.383E-01	1.173E-02	-0.056
CR-51		320.08	*	-1.940E-01	6.091E-01	9.787E-01	9.206E-02	-0.198
MN-52		744.21		2.821E-02	2.285E-01	3.815E-01	3.273E-02	0.074
		848.13		-5.241E+00	7.664E+00	1.188E+01	1.062E+00	-0.441
		935.52		2.439E-01	3.049E-01	5.243E-01	4.729E-02	0.465
		1246.25		-2.468E+00	3.619E+00	5.317E+00	4.420E-01	-0.464
	+	1333.61		3.855E+02	3.916E+01	4.814E+01	4.104E+00	8.008
		1434.06	*	2.801E-02	1.391E-01	2.400E-01	2.072E-02	0.117
MN-54		834.83	*	-2.518E-02	8.354E-02	1.339E-01	1.192E-02	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-56		846.75	*	-2.922E-02	8.984E-02	1.436E-01	1.283E-02	-0.203
		977.42		-2.538E+00	6.933E+00	1.091E+01	9.757E-01	-0.233
		1037.82		2.234E-02	7.132E-01	1.157E+00	1.067E-01	0.019
		1175.09		2.655E+02	2.633E+01	3.447E+01	2.792E+00	7.702
		1238.25		1.327E-01	1.063E-01	2.029E-01	1.735E-02	0.654
		1360.21		9.551E-01	1.210E+00	2.291E+00	1.961E-01	0.417
		1771.40		-4.340E-01	4.284E-01	5.377E-01	4.502E-02	-0.807
CO-58		810.76	*	-2.459E-02	8.254E-02	1.324E-01	1.171E-02	-0.186
FE-59		142.65		-1.005E+00	3.851E+00	6.453E+00	5.518E-01	-0.156
		192.34		4.080E-02	1.673E+00	2.475E+00	3.343E-01	0.016
		1099.22	*	-9.895E-02	2.012E-01	3.096E-01	2.854E-02	-0.320
		1291.56		-6.210E-02	1.376E-01	2.112E-01	2.031E-02	-0.294
ZN-65		1115.52	*	-6.835E-02	2.072E-01	3.239E-01	2.733E-02	-0.211
GE-68		1077.35	*	3.275E+00	3.133E+00	5.459E+00	4.700E-01	0.600
AS-73		53.44	*	1.196E-01	2.108E+00	3.279E+00	2.654E-01	0.036
AS-74		595.88	*	-7.460E-02	1.453E-01	2.343E-01	1.974E-02	-0.318
		634.78		3.781E-01	6.003E-01	1.044E+00	8.670E-02	0.362
SE-75		66.05		-1.448E+01	8.030E+00	1.175E+01	1.152E+00	-1.233
		96.73		-1.843E+00	1.358E+00	1.717E+00	2.371E-01	-1.074
	+	121.11		1.342E+00	4.579E-01	4.720E-01	5.353E-02	2.844
		136.00		-2.785E-02	6.229E-02	1.037E-01	8.978E-03	-0.269
		198.60		-8.578E-01	2.948E+00	4.837E+00	4.706E-01	-0.177
		264.65	*	-4.142E-03	8.053E-02	1.328E-01	1.220E-02	-0.031
		279.53		9.595E-02	1.974E-01	3.334E-01	3.150E-02	0.288
		303.91		1.030E-02	3.993E+00	6.559E+00	7.749E-01	0.002
		400.65		-1.905E-01	5.330E-01	8.436E-01	9.040E-02	-0.226
BR-77	+	87.88		1.024E+03	1.555E+02	1.583E+02	1.496E+01	6.471
		200.40		7.046E+00	4.378E+01	7.379E+01	6.508E+00	0.095
	+	239.00		2.377E+01	6.916E+00	7.664E+00	6.958E-01	3.102
		249.79		-9.019E+00	1.953E+01	3.157E+01	2.879E+00	-0.286
		281.68		-1.809E+01	2.762E+01	4.385E+01	4.008E+00	-0.413
	+	297.23		6.801E+01	2.350E+01	2.905E+01	2.642E+00	2.341
		303.76		6.075E-01	5.696E+01	9.361E+01	8.488E+00	0.006
		439.47		-1.544E+01	5.353E+01	8.466E+01	7.019E+00	-0.182
		484.57		-4.584E+01	8.060E+01	1.237E+02	1.043E+01	-0.371
		520.65	*	2.698E+00	3.592E+00	6.042E+00	5.126E-01	0.447
		574.64		-3.647E+01	6.735E+01	1.086E+02	9.196E+00	-0.336
		578.91		-9.403E+00	3.042E+01	4.298E+01	3.636E+00	-0.219
		585.48		1.962E+02	6.907E+01	1.206E+02	1.019E+01	1.627
		755.35		1.791E+01	5.591E+01	9.463E+01	8.161E+00	0.189
		817.79		-4.876E+00	5.216E+01	8.512E+01	7.532E+00	-0.057
SR-82		698.33		4.736E+01	5.507E+01	9.714E+01	8.135E+00	0.488
		776.49	*	1.649E-02	6.714E-01	1.109E+00	9.657E-02	0.015
		1395.20		4.106E+00	1.260E+01	2.215E+01	1.905E+00	0.185
RB-83		520.41	*	1.005E-01	1.395E-01	2.343E-01	1.987E-02	0.429
		529.64		1.056E-01	2.084E-01	3.613E-01	3.067E-02	0.292
		552.65		7.548E-02	3.592E-01	6.131E-01	5.203E-02	0.123
RB-84		881.50	*	1.189E-02	1.558E-01	2.562E-01	2.312E-02	0.046
KR-85		513.99	*	1.527E+01	1.700E+01	2.560E+01	2.171E+00	0.597

Sample ID : G1202023709 Acquisition date : 4-FEB-2010 21:14:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SR-85		513.99	*	7.332E-02	8.161E-02	1.229E-01	1.042E-02	0.597
RB-86		1076.63	*	3.501E-01	1.629E+00	2.674E+00	2.303E-01	0.131
Y-88		898.02		-7.020E-03	1.069E-01	1.738E-01	1.581E-02	-0.040
		1836.01	*	1.404E-02	4.950E-02	8.638E-02	7.105E-03	0.163
ZR-88		392.90	*	-9.312E-04	6.408E-02	1.038E-01	8.358E-03	-0.009
Y-91		1204.90	*	4.444E+00	2.402E+01	4.116E+01	3.372E+00	0.108
NB-94		702.63	*	2.684E-02	6.886E-02	1.174E-01	9.858E-03	0.229
		871.10		4.917E-02	8.312E-02	1.420E-01	1.278E-02	0.346
NB-95		765.79	*	-2.340E-02	8.134E-02	1.312E-01	1.137E-02	-0.178
NB-95M		235.69	*	1.535E-01	2.208E-01	3.366E-01	3.452E-02	0.456
ZR-95		724.18		-2.056E-01	1.879E-01	2.843E-01	2.629E-02	-0.723
		756.15	*	-7.844E-03	1.414E-01	2.325E-01	2.209E-02	-0.034
NB-97		657.90	*	2.816E-05	1.414E-01	Half-Life too short		
		1024.50		-4.460E-02	1.414E-01	Half-Life too short		
ZR-97		254.15		4.511E-03	1.414E-01	Half-Life too short		
		355.39		-5.965E-03	1.414E-01	Half-Life too short		
		507.63	*	4.297E-03	1.414E-01	Half-Life too short		
		602.52		-2.232E-03	1.414E-01	Half-Life too short		
		1021.30		6.066E-02	1.414E-01	Half-Life too short		
		1147.95		6.611E-03	1.414E-01	Half-Life too short		
		1362.66		2.160E-02	1.414E-01	Half-Life too short		
		1750.46		-5.915E-04	1.414E-01	Half-Life too short		
MO-99		140.51		2.222E+00	8.723E+00	1.485E+01	4.109E+00	0.150
		181.06		3.508E+00	6.136E+00	9.823E+00	1.798E+00	0.357
		366.43		3.606E+01	3.822E+01	6.532E+01	5.524E+00	0.552
		739.58	*	1.109E+00	4.969E+00	8.359E+00	1.266E+00	0.133
		778.00		-2.823E+00	1.500E+01	2.435E+01	2.122E+00	-0.116
TC-99M		140.51	*	4.895E+02	1.500E+01	Half-Life too short		
RH-101		127.23		-3.197E-02	5.816E-02	7.845E-02	6.825E-03	-0.408
		198.01	*	3.956E-03	5.534E-02	9.234E-02	8.126E-03	0.043
		325.23		-1.691E-01	4.151E-01	6.626E-01	5.913E-02	-0.255
RH-102		418.52		6.511E-01	6.261E-01	1.072E+00	8.786E-02	0.607
		475.06	*	-3.821E-03	6.513E-02	1.041E-01	8.751E-03	-0.037
		631.29		9.147E-03	1.122E-01	1.885E-01	1.568E-02	0.049
		697.49		3.943E-02	1.445E-01	2.449E-01	2.050E-02	0.161
		766.84		-1.453E-01	2.225E-01	3.482E-01	3.019E-02	-0.417
		1046.59		7.547E-02	2.696E-01	4.465E-01	3.901E-02	0.169
		1112.84		-5.937E-02	5.393E-01	8.598E-01	7.259E-02	-0.069
RU-103		497.08	*	-4.642E-03	8.114E-02	1.293E-01	1.818E-02	-0.036
	+	610.33		6.741E+00	2.824E+00	3.177E+00	5.263E-01	2.122
RH-106	+	511.85		6.670E-01	6.524E-01	6.695E-01	5.675E-02	0.996
		621.84	*	-4.804E-01	6.279E-01	9.825E-01	1.296E-01	-0.489
		1050.47		-3.902E+00	5.475E+00	8.260E+00	7.203E-01	-0.472
RU-106	+	511.85		6.670E-01	6.524E-01	6.695E-01	5.675E-02	0.996
		621.84	*	-4.804E-01	6.260E-01	9.825E-01	8.207E-02	-0.489
		1050.47		-3.902E+00	5.475E+00	8.260E+00	7.203E-01	-0.472
AG-108M		433.93	*	-3.088E-02	7.596E-02	1.193E-01	1.029E-02	-0.259
		614.37		3.794E-02	8.373E-02	1.274E-01	1.112E-02	0.298
		722.95		-1.020E-01	8.812E-02	1.322E-01	1.167E-02	-0.772

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-110M		657.75	*	-1.599E-02	8.873E-02	1.261E-01	1.069E-02	-0.127
		677.61		-2.377E-01	6.012E-01	9.676E-01	8.249E-02	-0.246
		706.67		2.052E-01	4.182E-01	7.151E-01	6.191E-02	0.287
		763.93		-1.619E-01	3.354E-01	5.322E-01	4.737E-02	-0.304
		884.67		-7.516E-02	1.262E-01	1.968E-01	1.829E-02	-0.382
		937.48		2.290E-01	2.901E-01	4.980E-01	4.639E-02	0.460
		1384.27		2.521E-02	2.095E-01	3.556E-01	3.141E-02	0.071
IN-111		171.28		2.304E-01	3.384E-01	5.867E-01	5.022E-02	0.393
		245.39	*	-5.447E-01	4.667E-01	6.622E-01	6.029E-02	-0.823
IN-113M		391.69	*	-1.456E-02	9.214E-02	1.480E-01	1.232E-02	-0.098
SN-113		391.69	*	-1.456E-02	9.214E-02	1.480E-01	1.232E-02	-0.098
IN-114M		190.27	*	8.511E-02	3.266E-01	4.901E-01	4.279E-02	0.174
CD-115		260.90		-1.225E+01	3.458E+01	5.612E+01	5.132E+00	-0.218
		492.35		-2.509E+00	1.098E+01	1.727E+01	1.459E+00	-0.145
		527.90	*	1.031E+00	3.202E+00	5.507E+00	4.674E-01	0.187
SN-117M		156.02		8.017E-01	2.588E+00	4.431E+00	3.773E-01	0.181
		158.56	*	4.231E-02	6.197E-02	1.076E-01	9.165E-03	0.393
SB-122		563.90	*	5.410E-01	7.557E-01	1.333E+00	1.130E-01	0.406
		692.80		-2.143E+01	1.659E+01	2.417E+01	2.018E+00	-0.886
I-123		159.00	*	8.434E-04	1.659E+01	Half-Life too short		
		528.96		3.838E-01	1.659E+01	Half-Life too short		
TE-123M		159.00	*	1.108E-02	4.232E-02	7.228E-02	6.192E-03	0.153
I-124		602.71	*	-1.217E-01	5.215E-01	7.409E-01	6.230E-02	-0.164
		722.78		-2.592E+00	3.184E+00	4.929E+00	4.183E-01	-0.526
		1325.50		1.081E+01	1.996E+01	3.211E+01	2.732E+00	0.337
		1376.25		7.547E+00	1.400E+01	2.539E+01	2.179E+00	0.297
		1509.49		3.617E+00	7.443E+00	1.346E+01	1.165E+00	0.269
		1691.02		-4.789E-01	2.012E+00	3.088E+00	2.631E-01	-0.155
SB-124		602.71		-1.856E-02	7.955E-02	1.130E-01	9.506E-03	-0.164
		645.85		3.533E-01	9.498E-01	1.626E+00	1.431E-01	0.217
		709.31		-2.126E+00	5.282E+00	8.480E+00	7.145E-01	-0.251
		713.82		6.638E-01	3.002E+00	5.061E+00	6.030E-01	0.131
		722.78		-5.730E-01	7.041E-01	1.090E+00	9.455E-02	-0.526
		968.20		5.672E+00	6.413E+00	1.102E+01	9.872E-01	0.515
		1045.16		2.403E+00	5.414E+00	9.087E+00	7.943E-01	0.264
		1325.50		2.553E+00	4.715E+00	7.583E+00	6.452E-01	0.337
		1368.21		-1.871E-01	1.807E+00	2.930E+00	3.940E-01	-0.064
		1436.60		2.231E+00	4.373E+00	7.997E+00	6.905E-01	0.279
		1691.02	*	-2.498E-02	1.049E-01	1.611E-01	1.428E-02	-0.155
SB-125		427.89	*	2.884E-02	2.144E-01	3.487E-01	2.935E-02	0.083
		463.38		1.197E+00	6.911E-01	1.203E+00	1.091E-01	0.995
		600.56		-6.435E-02	3.438E-01	5.524E-01	5.007E-02	-0.117
		635.90		1.165E-01	5.710E-01	9.665E-01	8.721E-02	0.121
TE-125M		109.28	*	-6.107E+00	1.428E+01	2.223E+01	2.302E+00	-0.275
I-126		388.63		1.049E-01	3.105E-01	5.138E-01	4.162E-02	0.204
		666.33	*	1.378E-01	2.854E-01	4.341E-01	3.566E-02	0.317
		753.82		6.029E-01	2.185E+00	3.686E+00	3.177E-01	0.164
SB-126		223.80		2.309E+00	5.276E+00	8.952E+00	8.054E-01	0.258
		278.60		2.181E+00	3.290E+00	5.599E+00	5.120E-01	0.390

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	296.50		7.703E+00	2.662E+00	3.569E+00	3.247E-01	2.158
		414.70		-6.877E-02	1.146E-01	1.779E-01	1.454E-02	-0.387
		415.30		-9.093E+00	9.634E+00	1.458E+01	1.192E+00	-0.624
		555.20		-5.985E-01	5.313E+00	8.860E+00	7.518E-01	-0.068
		573.80		3.800E-02	1.467E+00	2.466E+00	2.088E-01	0.015
		593.00		7.429E-01	1.322E+00	2.298E+00	1.938E-01	0.323
		656.30		-1.232E+00	5.975E+00	8.468E+00	6.957E-01	-0.146
		666.33		5.676E-02	1.176E-01	1.788E-01	1.469E-02	0.317
		675.00		-1.277E-01	2.817E+00	4.668E+00	3.855E-01	-0.027
		695.00		-8.098E-02	1.032E-01	1.598E-01	1.335E-02	-0.507
		697.00		-6.707E-02	3.562E-01	5.820E-01	4.870E-02	-0.115
		720.50	*	-2.566E-02	2.025E-01	3.320E-01	2.814E-02	-0.077
		856.80		-6.564E-01	8.506E-01	1.312E+00	1.176E-01	-0.500
		989.30		1.014E+00	2.273E+00	3.817E+00	3.402E-01	0.266
		1034.80		-1.139E+01	1.534E+01	2.314E+01	2.031E+00	-0.492
		1213.00		1.720E+00	4.329E+00	7.607E+00	6.251E-01	0.226
SB-127		61.10		7.956E+02	9.289E+01	1.235E+02	1.072E+01	6.444
		252.40		2.375E+00	2.839E+00	4.599E+00	1.920E+00	0.516
		290.80		1.317E+01	1.408E+01	2.171E+01	2.177E+00	0.606
		411.60		-2.936E-02	8.406E+00	1.359E+01	1.954E+00	-0.002
		444.90		2.779E+00	7.384E+00	1.216E+01	1.326E+00	0.229
		473.00		9.944E-02	1.228E+00	1.981E+00	2.250E-01	0.050
		543.00		-3.611E+00	1.067E+01	1.752E+01	2.298E+00	-0.206
		603.60		-1.926E-01	8.270E+00	1.201E+01	1.316E+00	-0.016
		685.20	*	-2.204E-01	9.300E-01	1.517E+00	1.451E-01	-0.145
		698.50		7.957E+00	9.553E+00	1.674E+01	2.444E+00	0.475
		722.20		2.379E+00	1.924E+01	3.216E+01	3.039E+00	0.074
		783.80		7.830E-01	2.462E+00	4.156E+00	4.614E-01	0.188
XE-127		57.60		1.395E+02	2.163E+01	3.378E+01	2.594E+00	4.128
		145.22		1.519E-01	9.777E-01	1.666E+00	1.423E-01	0.091
		172.10		7.225E-02	1.678E-01	2.878E-01	2.466E-02	0.251
		202.84	*	-5.965E-03	6.890E-02	1.148E-01	1.015E-02	-0.052
		374.96		1.216E-01	3.723E-01	6.158E-01	5.128E-02	0.197
I-131		80.18		1.373E+00	4.852E+00	7.065E+00	6.178E-01	0.194
		284.30		6.759E-01	1.608E+00	2.708E+00	2.581E-01	0.250
		364.48	*	-4.346E-02	1.486E-01	2.377E-01	2.122E-02	-0.183
		636.97		7.889E-01	1.902E+00	3.264E+00	2.860E-01	0.242
		722.89		-9.947E+00	8.659E+00	1.301E+01	1.107E+00	-0.765
TE-132		49.72		-3.620E+00	1.249E+01	2.014E+01	1.879E+00	-0.180
		111.76		-2.989E+00	1.310E+01	2.061E+01	1.956E+00	-0.145
		116.30		9.360E+00	1.252E+01	1.970E+01	1.876E+00	0.475
		228.16	*	1.182E-01	3.374E-01	5.697E-01	8.557E-02	0.207
BA-133		53.15		3.906E+00	9.090E+00	1.502E+01	1.221E+00	0.260
		79.62		1.234E+00	2.361E+00	3.473E+00	5.300E-01	0.355
		81.00		-7.420E-02	1.823E-01	2.547E-01	4.068E-02	-0.291
		276.40		-1.416E-01	7.195E-01	1.175E+00	1.735E-01	-0.120
		302.84		3.468E-02	2.745E-01	4.540E-01	6.168E-02	0.076
		356.01	*	-5.850E-02	9.823E-02	1.324E-01	1.746E-02	-0.442
		383.85		-5.045E-01	6.541E-01	1.007E+00	1.239E-01	-0.501

---- Non-Identified Nuclides ----

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I-133	+	510.53		9.253E-03	6.541E-01	Half-Life too short		
		529.87	*	2.770E-05	6.541E-01	Half-Life too short		
		706.58		2.858E-03	6.541E-01	Half-Life too short		
		856.28		-2.362E-03	6.541E-01	Half-Life too short		
		875.33		-9.663E-04	6.541E-01	Half-Life too short		
		1236.41		3.005E-03	6.541E-01	Half-Life too short		
		1298.22		3.316E-04	6.541E-01	Half-Life too short		
CS-134		475.35		-1.518E+00	4.305E+00	6.738E+00	5.666E-01	-0.225
		563.23		4.723E-01	6.485E-01	1.145E+00	9.803E-02	0.412
		569.32		5.443E-02	3.774E-01	6.413E-01	5.509E-02	0.085
		604.70		6.172E-02	7.194E-02	1.134E-01	9.555E-03	0.544
		795.84	*	4.210E-02	1.034E-01	1.752E-01	1.548E-02	0.240
		801.93		-2.099E-01	9.448E-01	1.533E+00	1.356E-01	-0.137
		1038.57		6.047E+00	9.205E+00	1.570E+01	1.376E+00	0.385
		1167.94		1.445E+00	5.402E+00	8.112E+00	6.592E-01	0.178
		1365.15		-2.539E-01	1.591E+00	2.561E+00	2.295E-01	-0.099
CS-135		268.24	*	-1.254E-01	3.028E-01	4.895E-01	5.104E-02	-0.256
I-135		288.45		3.353E+03	3.028E-01	Half-Life too short		
		417.63		-8.331E+02	3.028E-01	Half-Life too short		
		546.56		-2.554E+03	3.028E-01	Half-Life too short		
		836.80		4.282E+02	3.028E-01	Half-Life too short		
		1038.76		4.538E+03	3.028E-01	Half-Life too short		
		1124.00		2.140E+03	3.028E-01	Half-Life too short		
		1131.51		3.686E+02	3.028E-01	Half-Life too short		
		1260.41	*	-1.397E+02	3.028E-01	Half-Life too short		
		1457.56		-7.244E+02	3.028E-01	Half-Life too short		
		1678.03		-1.848E+03	3.028E-01	Half-Life too short		
		1706.46		-2.262E+03	3.028E-01	Half-Life too short		
		1791.20		1.582E+03	3.028E-01	Half-Life too short		
CS-136		66.91		-9.435E-01	9.613E-01	1.472E+00	2.213E-01	-0.641
		86.29		1.179E+01	2.404E+00	3.250E+00	4.324E-01	3.628
		153.22		-2.548E-02	7.307E-01	1.233E+00	1.177E-01	-0.021
		163.89		8.240E-01	1.256E+00	2.170E+00	2.074E-01	0.380
		176.55		-1.328E-01	4.100E-01	6.786E-01	6.175E-02	-0.196
		273.65		-1.397E-01	6.313E-01	1.031E+00	9.978E-02	-0.136
	+	340.57		3.187E-01	3.005E-01	3.021E-01	2.726E-02	1.055
		818.51		2.283E-02	1.257E-01	2.094E-01	1.854E-02	0.109
		1048.07	*	3.787E-02	1.836E-01	3.021E-01	2.745E-02	0.125
		1235.34		-1.121E-01	5.719E-01	9.343E-01	1.084E-01	-0.120
CE-139		165.85	*	3.703E-02	4.801E-02	8.340E-02	7.103E-03	0.444
BA-140		162.64		-3.654E-01	8.690E-01	1.435E+00	1.295E-01	-0.255
		304.84		6.949E-01	1.793E+00	2.988E+00	8.416E-01	0.233
		423.70		-2.191E+00	3.177E+00	4.781E+00	1.545E+00	-0.458
		537.32	*	8.662E-03	3.728E-01	6.290E-01	2.082E-01	0.014
LA-140		328.77		3.957E-01	4.125E-01	7.073E-01	6.623E-02	0.559
		432.53		-9.802E-02	3.424E+00	5.512E+00	4.794E-01	-0.018
		487.03		-4.947E-03	2.086E-01	3.335E-01	2.995E-02	-0.015
		751.79		-4.906E-01	2.539E+00	4.129E+00	3.936E-01	-0.119
		815.85		2.911E-01	5.445E-01	9.297E-01	9.124E-02	0.313

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		867.82		3.689E-01	2.372E+00	3.930E+00	3.705E-01	0.094
		919.63		8.809E-01	6.412E+00	9.163E+00	1.007E+00	0.096
		925.24		7.892E-01	2.179E+00	3.643E+00	3.480E-01	0.217
		1596.49	*	6.759E-03	8.866E-02	1.480E-01	1.277E-02	0.046
CE-141		145.44	*	9.043E-03	8.725E-02	1.484E-01	1.290E-02	0.061
CE-143		57.37		7.316E+02	1.632E+02	2.525E+02	2.380E+01	2.898
		231.56		-6.516E+01	2.092E+02	3.294E+02	1.047E+02	-0.198
		293.26	*	-3.095E+00	1.209E+01	1.710E+01	3.728E+00	-0.181
	+	350.59		7.227E+02	3.442E+02	3.095E+02	9.638E+01	2.335
		490.36		-4.597E+00	2.627E+02	4.201E+02	1.329E+02	-0.011
		664.57		3.078E+03	1.028E+03	5.633E+02	1.820E+02	5.465
		721.93		6.956E+00	1.176E+02	1.957E+02	5.723E+01	0.036
CE-144		80.11		1.076E+00	3.773E+00	5.494E+00	4.791E-01	0.196
		133.54	*	2.382E-01	3.534E-01	5.741E-01	8.937E-02	0.415
PM-144		476.78		4.202E-02	1.514E-01	2.472E-01	2.283E-02	0.170
		618.01		1.367E-02	6.339E-02	1.076E-01	9.260E-03	0.127
		696.49	*	-3.066E-02	6.432E-02	1.025E-01	8.576E-03	-0.299
		778.57		-3.013E+00	4.879E+00	7.628E+00	6.647E-01	-0.395
PR-144		696.49	*	-2.071E+00	4.344E+00	6.923E+00	5.792E-01	-0.299
		1489.15		-6.157E+00	1.793E+01	2.756E+01	2.385E+00	-0.223
PM-146		453.90	*	1.429E-01	1.106E-01	1.892E-01	1.987E-02	0.755
		633.02		9.773E-01	2.936E+00	4.978E+00	1.857E+00	0.196
		735.90		-6.297E-03	3.035E-01	5.013E-01	1.433E-01	-0.013
		747.13		1.164E-03	1.884E-01	3.116E-01	4.369E-02	0.004
ND-147	+	91.11		4.879E-02	1.700E-01	4.697E-01	4.643E-02	0.104
		319.41		7.791E-01	4.330E+00	7.168E+00	6.430E-01	0.109
		439.89		-9.231E-01	9.095E+00	1.456E+01	1.207E+00	-0.063
		531.02	*	-8.472E-02	7.949E-01	1.327E+00	1.974E-01	-0.064
PM-149		285.90	*	-5.006E+00	2.455E+01	3.997E+01	6.322E+00	-0.125
EU-152	+	121.78		7.505E-01	2.531E-01	2.737E-01	2.758E-02	2.742
		244.69		-9.833E-01	7.225E-01	9.476E-01	8.625E-02	-1.038
		344.27	*	-8.810E-02	2.254E-01	3.116E-01	2.881E-02	-0.283
		443.98		6.806E-01	2.223E+00	3.646E+00	3.029E-01	0.187
		778.89		-3.839E-01	5.598E-01	8.686E-01	7.570E-02	-0.442
		867.32		6.600E-01	2.010E+00	3.372E+00	3.031E-01	0.196
		964.01		-5.128E-01	7.840E-01	1.221E+00	1.095E-01	-0.420
		1085.78		-5.752E-01	1.032E+00	1.585E+00	1.359E-01	-0.363
		1112.02		-5.127E-01	7.821E-01	1.186E+00	1.001E-01	-0.432
		1407.95		2.236E-01	2.472E-01	4.732E-01	4.076E-02	0.473
GD-153		69.67		2.225E+00	2.666E+00	4.453E+00	3.572E-01	0.500
		83.37		-1.009E+01	2.780E+01	3.907E+01	3.518E+00	-0.258
		97.43	*	3.870E-02	1.324E-01	1.920E-01	1.705E-02	0.202
		103.18		5.189E-02	1.676E-01	2.715E-01	2.368E-02	0.191
EU-154	+	123.07		5.266E-01	1.799E-01	1.885E-01	2.164E-02	2.794
		247.94		2.533E-01	6.502E-01	1.098E+00	1.302E-01	0.231
		591.81		-5.845E-01	1.284E+00	2.081E+00	2.401E-01	-0.281
		723.30		-4.939E-01	3.718E-01	5.483E-01	5.159E-02	-0.901
		756.87		-1.241E-01	1.632E+00	2.679E+00	3.210E-01	-0.046
		873.19		-2.231E-01	7.373E-01	1.177E+00	1.473E-01	-0.190

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		996.32		-3.257E-01	9.588E-01	1.511E+00	2.705E-01	-0.216
		1004.76		-2.468E-01	5.429E-01	8.481E-01	1.003E-01	-0.291
		1274.45	*	-1.082E-01	1.607E-01	2.387E-01	2.658E-02	-0.453
EU-155		48.70		7.406E-01	5.942E+00	9.747E+00	8.341E-01	0.076
	+	60.01		4.357E+02	4.347E+01	4.375E+01	3.307E+00	9.959
	+	86.54		3.468E+00	5.281E-01	4.598E-01	4.319E-02	7.543
		105.31	*	-4.252E-02	1.767E-01	2.783E-01	2.448E-02	-0.153
TB-160	+	86.79		8.747E+00	1.327E+00	1.249E+00	1.166E-01	7.004
		197.04		1.333E-01	8.934E-01	1.496E+00	1.315E-01	0.089
		215.65		2.847E-01	1.279E+00	2.154E+00	1.926E-01	0.132
		298.57		1.697E-02	2.089E-01	3.032E-01	2.756E-02	0.056
		879.36	*	1.671E-01	3.250E-01	5.519E-01	4.977E-02	0.303
		962.29		-3.264E-01	1.289E+00	2.059E+00	1.848E-01	-0.158
		966.15		-1.711E-01	5.054E-01	8.053E-01	7.221E-02	-0.212
		1177.93		1.463E+00	8.176E-01	1.412E+00	1.145E-01	1.036
		1271.85		-7.349E-01	8.607E-01	1.229E+00	1.030E-01	-0.598
HO-166M		80.57		1.674E-01	4.880E-01	7.128E-01	6.243E-02	0.235
		184.41		8.316E-03	6.453E-02	9.621E-02	8.349E-03	0.086
		280.46		-4.501E-02	1.614E-01	2.622E-01	2.397E-02	-0.172
		410.95		-1.580E-01	5.295E-01	8.405E-01	6.855E-02	-0.188
		711.68	*	1.737E-03	1.214E-01	2.015E-01	1.700E-02	0.009
		752.31		-1.097E-01	5.628E-01	9.149E-01	7.879E-02	-0.120
		810.29		-1.191E-01	1.361E-01	2.074E-01	1.830E-02	-0.574
TM-171		51.35		-7.275E+01	7.643E+01	1.197E+02	9.966E+00	-0.608
		52.39		2.844E+00	3.973E+01	6.491E+01	5.328E+00	0.044
	+	59.40		2.283E+03	2.277E+02	2.426E+02	1.828E+01	9.411
		66.72	*	-5.695E+01	4.790E+01	7.313E+01	5.760E+00	-0.779
LU-176	+	88.36		6.847E+00	1.039E+00	1.043E+00	9.840E-02	6.563
		201.83		-1.991E-02	4.702E-02	7.702E-02	6.803E-03	-0.258
		306.84	*	3.314E-03	4.936E-02	8.133E-02	7.361E-03	0.041
		401.10		-1.177E+01	1.466E+01	2.251E+01	1.824E+00	-0.523
LU-177		112.95		1.950E-01	1.417E+00	2.266E+00	1.965E-01	0.086
		208.36	*	1.188E+00	9.879E-01	1.726E+00	1.534E-01	0.688
LU-177M		52.97		1.949E+00	4.026E+00	6.665E+00	5.429E-01	0.292
		54.07		1.204E+00	2.374E+00	3.528E+00	2.831E-01	0.341
		61.30		4.421E+01	5.550E+00	8.454E+00	6.448E-01	5.229
	+	121.62		3.750E+00	1.251E+00	1.362E+00	1.197E-01	2.753
		147.16		-1.942E-01	9.995E-01	1.678E+00	1.432E-01	-0.116
		171.86		3.012E-01	7.402E-01	1.269E+00	1.087E-01	0.237
		218.09		5.722E-01	1.544E+00	2.615E+00	2.343E-01	0.219
		268.79		6.675E-02	1.502E+00	2.486E+00	2.275E-01	0.027
		319.02		2.267E-01	4.893E-01	8.224E-01	7.379E-02	0.276
		367.43		1.404E-01	1.918E+00	3.134E+00	2.645E-01	0.045
		413.65	*	7.727E-02	3.586E-01	5.877E-01	4.802E-02	0.131
HF-181		56.28		1.842E+00	2.525E+00	3.774E+00	2.944E-01	0.488
		57.53		1.058E+01	1.775E+00	2.798E+00	2.150E-01	3.783
		65.20		-1.196E+00	1.519E+00	2.245E+00	1.752E-01	-0.533
		133.02		5.011E-02	1.046E-01	1.690E-01	1.458E-02	0.296
		136.25		-3.520E-01	6.721E-01	1.115E+00	9.582E-02	-0.316

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		345.85		3.985E-01	3.820E-01	5.905E-01	5.150E-02	0.675
		482.03	*	3.290E-02	8.332E-02	1.372E-01	1.156E-02	0.240
W-181		56.28		7.729E-01	1.056E+00	1.579E+00	1.231E-01	0.490
		57.53		4.414E+00	7.423E-01	1.170E+00	8.992E-02	3.773
		65.20	*	-4.969E-01	6.307E-01	9.323E-01	7.278E-02	-0.533
TA-182		67.75		4.415E-02	1.748E-01	2.859E-01	2.265E-02	0.154
		100.10		1.426E-01	2.767E-01	4.529E-01	3.982E-02	0.315
		152.43		-5.513E-01	5.031E-01	8.049E-01	6.858E-02	-0.685
		222.10		3.370E-01	6.211E-01	1.058E+00	9.510E-02	0.318
		1001.68		-2.039E+00	5.027E+00	7.942E+00	7.053E-01	-0.257
		1121.28		9.419E-03	3.060E-01	4.967E-01	4.171E-02	0.019
		1189.05		2.232E-01	4.576E-01	8.075E-01	6.577E-02	0.276
		1221.42	*	3.434E-02	2.194E-01	3.756E-01	3.095E-02	0.091
		1230.97		1.251E-01	5.501E-01	9.486E-01	7.845E-02	0.132
RE-183		57.98		8.896E+00	9.610E-01	1.396E+00	1.068E-01	6.372
	+	59.32		8.846E+00	8.826E-01	9.452E-01	7.129E-02	9.360
		67.20		-8.043E-02	3.101E-01	4.960E-01	3.917E-02	-0.162
		162.32	*	-1.300E-01	1.649E-01	2.670E-01	2.273E-02	-0.487
		208.81		2.350E+00	1.595E+00	2.809E+00	2.497E-01	0.837
		291.72		-1.621E-01	1.775E+00	2.544E+00	2.319E-01	-0.064
RE-184		57.98		3.399E+01	3.672E+00	5.334E+00	4.079E-01	6.372
	+	59.32		3.377E+01	3.370E+00	3.609E+00	2.722E-01	9.360
		67.20		-3.072E-01	1.185E+00	1.894E+00	1.496E-01	-0.162
		161.27		-5.459E-01	5.438E-01	8.719E-01	7.422E-02	-0.626
		216.55		-1.097E-01	4.728E-01	7.802E-01	6.981E-02	-0.141
		252.85	*	4.152E-01	4.292E-01	7.418E-01	6.771E-02	0.560
		318.01		9.747E-01	8.446E-01	1.467E+00	1.318E-01	0.664
		792.07		-1.435E+00	2.154E+00	3.360E+00	2.944E-01	-0.427
		903.28		-1.183E+00	2.562E+00	3.914E+00	3.544E-01	-0.302
		920.93		-3.960E-01	1.484E+00	2.036E+00	1.840E-01	-0.195
OS-185	+	59.72		2.451E+01	2.446E+00	2.536E+00	1.913E-01	9.666
		61.14		6.282E+00	7.005E-01	1.010E+00	7.699E-02	6.217
		69.30		3.916E-01	4.677E-01	7.813E-01	6.251E-02	0.501
		592.07		-1.307E+00	4.933E+00	8.110E+00	6.840E-01	-0.161
		646.12	*	3.172E-02	8.300E-02	1.422E-01	1.175E-02	0.223
		717.42		-3.973E-01	1.689E+00	2.744E+00	2.322E-01	-0.145
		874.81		-4.302E-01	1.376E+00	2.194E+00	1.977E-01	-0.196
		880.27		1.205E-01	1.903E+00	3.127E+00	2.821E-01	0.039
RE-188		155.03	*	1.634E-01	2.492E-01	4.325E-01	3.683E-02	0.378
		477.96		-3.609E+00	6.484E+00	9.983E+00	8.402E-01	-0.362
		633.10		9.735E-01	5.593E+00	9.449E+00	7.855E-01	0.103
W-188		63.58		9.926E+00	9.458E+01	1.400E+02	1.083E+01	0.071
		227.08		-1.032E+01	2.231E+01	3.632E+01	3.275E+00	-0.284
		290.67	*	1.357E+01	1.413E+01	2.184E+01	1.992E+00	0.622
IR-192	+	295.96		7.892E-01	2.729E-01	3.747E-01	3.432E-02	2.106
		308.46		-1.501E-01	1.847E-01	2.887E-01	2.623E-02	-0.520
		316.51	*	-2.009E-02	6.593E-02	1.062E-01	9.567E-03	-0.189
		468.07		-1.485E-01	1.550E-01	2.331E-01	2.104E-02	-0.637
		604.41		9.825E-02	9.625E-01	1.415E+00	1.823E-01	0.069

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		612.46		9.786E-01	1.529E+00	2.355E+00	2.283E-01	0.416
AU-195		65.12		-2.168E-01	2.965E-01	4.398E-01	3.432E-02	-0.493
		66.83		-1.619E-01	1.554E-01	2.392E-01	1.885E-02	-0.677
		75.70		6.183E-01	3.703E-01	5.676E-01	4.759E-02	1.089
		98.88	*	1.504E-01	3.940E-01	5.739E-01	5.067E-02	0.262
		129.76		1.467E+00	4.582E+00	7.367E+00	6.382E-01	0.199
TL-200		367.94	*	-4.833E-07	4.582E+00	Half-Life too short		
		579.30		-5.192E-05	4.582E+00	Half-Life too short		
		828.27		1.154E-04	4.582E+00	Half-Life too short		
		1205.75		-1.929E-05	4.582E+00	Half-Life too short		
TL-201		68.90		1.359E+00	1.896E+00	3.154E+00	2.518E-01	0.431
		70.82		-2.963E-01	1.085E+00	1.733E+00	1.400E-01	-0.171
		80.30		7.384E-01	2.174E+00	3.176E+00	2.774E-01	0.232
		135.34		8.062E-01	1.070E+01	1.696E+01	1.459E+00	0.048
		167.43	*	-3.961E-01	2.762E+00	4.624E+00	3.943E-01	-0.086
TL-202		68.90		3.561E-01	4.968E-01	8.266E-01	6.597E-02	0.431
		70.82		-7.744E-02	2.836E-01	4.527E-01	3.659E-02	-0.171
		80.30		1.930E-01	5.684E-01	8.302E-01	7.253E-02	0.232
		439.56	*	-3.074E-02	1.127E-01	1.785E-01	1.480E-02	-0.172
HG-203		70.83		-4.439E-01	1.596E+00	2.547E+00	3.380E-01	-0.174
		72.87		-1.566E+00	1.108E+00	1.446E+00	1.870E-01	-1.083
		82.60		-1.773E-01	1.867E+00	2.659E+00	3.707E-01	-0.067
		279.20	*	3.583E-02	7.077E-02	1.196E-01	1.121E-02	0.300
BI-207		72.80		-5.273E-01	3.529E-01	4.629E-01	3.795E-02	-1.139
		74.97		2.283E-01	2.055E-01	3.097E-01	2.582E-02	0.737
		84.90		2.322E-01	3.648E-01	5.393E-01	4.935E-02	0.431
		569.67		3.904E-02	5.916E-02	1.039E-01	8.799E-03	0.376
		1063.62	*	-6.746E-02	1.183E-01	1.803E-01	1.563E-02	-0.374
		1770.23		-1.017E+00	9.783E-01	1.251E+00	1.048E-01	-0.812
TL-207		81.07		-2.795E-01	4.085E-01	5.620E-01	4.946E-02	-0.497
		83.78		-6.217E-02	2.424E-01	3.428E-01	3.100E-02	-0.181
	+	94.90		1.588E-01	4.252E-01	5.829E-01	5.241E-02	0.272
	+	122.32		1.789E+01	5.997E+00	6.538E+00	6.152E-01	2.736
		144.24		-2.928E-01	1.057E+00	1.768E+00	1.693E-01	-0.166
		154.21		1.391E-01	6.074E-01	1.037E+00	9.731E-02	0.134
		269.46		1.018E-01	3.613E-01	6.047E-01	5.635E-02	0.168
		323.87	*	-1.027E-01	1.222E+00	1.991E+00	3.556E-01	-0.052
	+	338.28		3.542E+00	3.354E+00	3.701E+00	4.605E-01	0.957
		445.03		2.522E+00	5.257E+00	8.704E+00	1.033E+00	0.290
PO-209		260.50		-6.068E+00	1.758E+01	2.854E+01	2.610E+00	-0.213
		262.80		4.039E+00	4.896E+01	8.131E+01	7.437E+00	0.050
		896.60	*	2.040E+01	1.978E+01	3.453E+01	3.126E+00	0.591
BI-210		46.50	*	-1.892E+00	8.467E+00	1.371E+01	1.294E+00	-0.138
PB-210		46.50	*	-1.892E+00	8.467E+00	1.371E+01	1.294E+00	-0.138
PO-210		46.50	*	-1.892E+00	8.467E+00	1.371E+01	1.175E+00	-0.138
PB-211		404.84	*	9.315E-01	2.126E+00	3.399E+00	2.128E+00	0.274
		427.08		-7.040E-02	4.792E+00	7.727E+00	4.797E+00	-0.009
		831.96		1.785E+00	2.970E+00	4.739E+00	2.971E+00	0.377
BI-212		727.18	*	1.107E+00	6.398E-01	1.167E+00	1.156E-01	0.949

---- Non-Identified Nuclides ----

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		785.46		1.638E+00	3.673E+00	6.259E+00	5.470E-01	0.262
		1620.62		2.204E-01	1.869E+00	3.171E+00	2.729E-01	0.070
BI-214	+	609.31	*	6.969E-01	2.768E-01	3.406E-01	3.359E-02	2.046
		1120.29		4.144E-01	6.703E-01	1.139E+00	1.219E-01	0.364
		1764.49		4.914E-01	4.118E-01	8.447E-01	7.084E-02	0.582
PO-215		81.07		-2.795E-01	4.085E-01	5.620E-01	4.946E-02	-0.497
		83.78		-6.217E-02	2.424E-01	3.428E-01	3.100E-02	-0.181
	+	94.90		1.588E-01	4.252E-01	5.829E-01	5.241E-02	0.272
	+	122.32		1.789E+01	5.997E+00	6.538E+00	6.152E-01	2.736
		144.24		-2.928E-01	1.057E+00	1.768E+00	1.693E-01	-0.166
		154.21		1.391E-01	6.074E-01	1.037E+00	9.731E-02	0.134
		269.46		1.018E-01	3.613E-01	6.047E-01	5.635E-02	0.168
		323.87	*	-1.027E-01	1.222E+00	1.991E+00	3.556E-01	-0.052
	+	338.28		3.542E+00	3.354E+00	3.701E+00	4.605E-01	0.957
		445.03		2.522E+00	5.257E+00	8.704E+00	1.033E+00	0.290
RN-219		271.23		3.324E-01	4.696E-01	7.994E-01	8.601E-02	0.416
		401.81	*	-9.716E-01	9.148E-01	1.365E+00	2.012E-01	-0.712
RN-220		549.76	*	-1.033E+00	5.036E+01	8.490E+01	7.206E+00	-0.012
RA-223		81.07		-2.795E-01	4.085E-01	5.620E-01	4.946E-02	-0.497
		83.78		-6.217E-02	2.424E-01	3.428E-01	3.100E-02	-0.181
	+	94.90		1.588E-01	4.252E-01	5.829E-01	5.241E-02	0.272
	+	122.32		1.789E+01	5.997E+00	6.538E+00	6.152E-01	2.736
		144.24		-2.928E-01	1.057E+00	1.768E+00	1.693E-01	-0.166
		154.21		1.391E-01	6.074E-01	1.037E+00	9.731E-02	0.134
		269.46		1.018E-01	3.613E-01	6.047E-01	5.635E-02	0.168
		323.87	*	-1.027E-01	1.222E+00	1.991E+00	3.556E-01	-0.052
	+	338.28		3.542E+00	3.354E+00	3.701E+00	4.605E-01	0.957
		445.03		2.522E+00	5.257E+00	8.704E+00	1.033E+00	0.290
RA-224		240.98	*	7.184E+00	1.790E+00	2.930E+00	2.662E-01	2.452
RA-226	+	609.31	*	6.969E-01	2.768E-01	3.406E-01	3.359E-02	2.046
		1120.29		4.144E-01	6.703E-01	1.139E+00	1.219E-01	0.364
		1764.49		4.914E-01	4.118E-01	8.447E-01	7.084E-02	0.582
AC-227		79.80		1.161E+00	2.990E+00	4.366E+00	9.401E-01	0.266
		236.00		4.325E-01	4.394E-01	6.783E-01	8.521E-02	0.638
		256.20	*	2.789E-01	7.156E-01	1.206E+00	1.886E-01	0.231
		286.10		-2.131E+00	2.969E+00	4.676E+00	6.333E-01	-0.456
		299.80		-9.654E-01	2.916E+00	4.084E+00	7.239E-01	-0.236
		304.40		9.222E-01	3.692E+00	6.138E+00	1.145E+00	0.150
		334.20		1.917E+00	5.164E+00	7.591E+00	1.481E+00	0.253
TH-227		79.80		1.161E+00	2.990E+00	4.366E+00	9.521E-01	0.266
	+	94.00		1.271E+00	3.411E+00	5.278E+00	1.158E+00	0.241
		236.00		4.325E-01	4.389E-01	6.783E-01	7.751E-02	0.638
		256.20	*	2.789E-01	7.161E-01	1.206E+00	2.208E-01	0.231
		286.10		-2.131E+00	3.648E+00	4.676E+00	4.696E+00	-0.456
		299.80		-9.654E-01	2.916E+00	4.084E+00	7.239E-01	-0.236
		304.40		9.222E-01	3.692E+00	6.138E+00	1.145E+00	0.150
		334.20		1.917E+00	5.164E+00	7.591E+00	1.481E+00	0.253
AC-228	+	338.32		8.481E-01	8.699E-01	8.874E-01	3.665E-01	0.956
	+	911.07	*	5.555E-01	8.407E-01	7.149E-01	8.275E-02	0.777

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		969.11		3.858E-01	6.726E-01	1.127E+00	2.645E-01	0.342
RA-228	+	338.32		8.481E-01	8.699E-01	8.874E-01	3.665E-01	0.956
	+	911.07	*	5.555E-01	8.407E-01	7.149E-01	8.275E-02	0.777
		969.11		3.858E-01	6.726E-01	1.127E+00	2.645E-01	0.342
TH-229		85.43		6.729E-01	3.771E-01	5.800E-01	5.337E-02	1.160
	+	88.47		3.941E+00	5.982E-01	5.973E-01	5.628E-02	6.599
		100.00		1.154E-01	3.004E-01	4.878E-01	4.290E-02	0.237
		193.63	*	2.814E-01	8.841E-01	1.455E+00	1.275E-01	0.193
		210.97		-7.433E-02	1.360E+00	2.265E+00	2.017E-01	-0.033
TH-230	+	609.31	*	6.969E-01	2.768E-01	3.406E-01	3.359E-02	2.046
		1120.29		4.144E-01	6.703E-01	1.139E+00	1.219E-01	0.364
		1764.49		4.914E-01	4.118E-01	8.447E-01	7.084E-02	0.582
PA-231		283.67	*	7.426E-01	2.886E+00	4.819E+00	7.461E-01	0.154
		301.29		3.076E-01	1.198E+00	1.760E+00	2.212E-01	0.175
TH-231		81.07		-2.795E-01	4.085E-01	5.620E-01	4.946E-02	-0.497
		83.78		-6.217E-02	2.424E-01	3.428E-01	3.100E-02	-0.181
	+	94.90		1.588E-01	4.252E-01	5.829E-01	5.241E-02	0.272
	+	122.32		1.789E+01	5.997E+00	6.538E+00	6.152E-01	2.736
		144.24		-2.928E-01	1.057E+00	1.768E+00	1.693E-01	-0.166
		154.21		1.391E-01	6.074E-01	1.037E+00	9.731E-02	0.134
		269.46		1.018E-01	3.613E-01	6.047E-01	5.635E-02	0.168
		323.87	*	-1.027E-01	1.222E+00	1.991E+00	3.556E-01	-0.052
	+	338.28		3.542E+00	3.354E+00	3.701E+00	4.605E-01	0.957
		445.03		2.522E+00	5.257E+00	8.704E+00	1.033E+00	0.290
U-231		84.21		5.994E-01	3.662E+00	5.296E+00	4.811E-01	0.113
	+	92.29		1.957E-01	6.820E-01	1.933E+00	1.767E-01	0.101
		95.87	*	-5.518E-01	6.746E-01	9.044E-01	8.091E-02	-0.610
		108.00		1.653E-01	1.192E+00	1.912E+00	1.658E-01	0.086
TH-232	+	338.32		8.481E-01	7.997E-01	8.874E-01	7.812E-02	0.956
	+	911.07	*	5.555E-01	8.407E-01	7.149E-01	8.275E-02	0.777
		969.11		3.858E-01	6.726E-01	1.127E+00	2.645E-01	0.342
PA-233		75.28		7.721E+00	6.124E+00	9.159E+00	1.392E+00	0.843
	+	86.59		5.651E+01	1.672E+01	7.622E+00	2.062E+00	7.415
		300.12		-2.965E-01	8.163E-01	1.141E+00	1.728E-01	-0.260
		311.98	*	8.096E-02	1.301E-01	2.202E-01	2.038E-02	0.368
	+	340.50		2.149E+00	2.081E+00	2.057E+00	4.915E-01	1.045
		398.62		1.999E+00	4.578E+00	7.560E+00	2.001E+00	0.264
		415.76		-4.683E+00	3.778E+00	5.399E+00	1.154E+00	-0.867
PA-234		63.00		2.092E+00	2.983E+00	4.537E+00	6.812E-01	0.461
	+	94.67		1.133E-01	3.035E-01	4.296E-01	5.444E-02	0.264
		98.44		1.480E-01	1.783E-01	2.390E-01	1.334E-01	0.619
		99.86		2.589E-01	7.591E-01	1.230E+00	1.083E-01	0.210
		111.00		3.986E-02	3.038E-01	4.867E-01	5.898E-02	0.082
		131.20		7.566E-02	1.830E-01	2.952E-01	2.551E-02	0.256
		152.70		-4.754E-01	5.081E-01	8.121E-01	1.380E-01	-0.585
	+	186.00		4.367E+00	3.884E+00	3.872E+00	1.209E+00	1.128
		226.40		-5.660E-01	7.518E-01	1.202E+00	1.618E-01	-0.471
		227.20		-3.487E-01	8.033E-01	1.309E+00	1.181E-01	-0.266
		248.90		-8.805E-01	1.508E+00	2.402E+00	5.431E-01	-0.367

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		293.70		8.125E-01	1.425E+00	2.130E+00	3.738E-01	0.381
		369.80		1.030E+00	1.833E+00	3.057E+00	6.633E-01	0.337
		568.70		-2.763E-01	1.880E+00	3.130E+00	2.652E-01	-0.088
		569.50		2.783E-01	5.196E-01	9.057E-01	7.673E-02	0.307
		574.00		3.798E-01	2.952E+00	4.998E+00	4.231E-01	0.076
		699.00		8.396E-01	1.387E+00	2.392E+00	4.539E-01	0.351
		706.10		6.969E-01	2.192E+00	3.667E+00	1.634E+00	0.190
		733.00		-1.351E+00	8.589E-01	1.151E+00	2.551E-01	-1.173
		742.81		-4.285E-01	2.859E+00	4.647E+00	3.123E+00	-0.092
		796.30		8.234E-01	2.033E+00	3.426E+00	9.285E-01	0.240
		805.60		6.411E-03	2.342E+00	3.853E+00	1.183E+00	0.002
		819.60		-1.299E+00	2.964E+00	4.635E+00	1.765E+00	-0.280
		826.30		-1.006E+00	2.071E+00	3.196E+00	1.431E+00	-0.315
		831.60		2.434E-01	1.483E+00	2.462E+00	7.367E-01	0.099
		876.40		-8.021E-01	2.251E+00	3.325E+00	3.419E+00	-0.241
		880.51		-3.665E-02	7.266E-01	1.184E+00	1.068E-01	-0.031
		883.24		1.164E-01	7.345E-01	1.209E+00	8.132E-01	0.096
		899.00		-1.243E+00	2.292E+00	3.486E+00	1.527E+00	-0.356
		925.00		1.097E+00	3.173E+00	5.300E+00	4.788E-01	0.207
		926.50		4.436E-02	4.659E-01	7.648E-01	1.944E-01	0.058
		946.00	*	-1.062E-01	8.785E-01	1.418E+00	2.686E-01	-0.075
		949.00		-2.281E-01	1.306E+00	2.107E+00	1.896E-01	-0.108
		980.50		1.915E-02	1.807E+00	2.938E+00	2.625E-01	0.007
		1394.10		5.161E-01	1.531E+00	2.647E+00	1.723E+00	0.195
PA-234M		766.42		-9.071E+00	2.385E+01	3.748E+01	1.902E+01	-0.242
		1001.03	*	-6.661E+00	1.172E+01	1.824E+01	1.859E+00	-0.365
TH-234		63.29	*	1.478E+00	2.514E+00	3.802E+00	6.683E-01	0.389
	+	92.38		1.439E-01	5.021E-01	1.417E+00	2.597E-01	0.102
U-234	+	609.31	*	6.969E-01	2.768E-01	3.406E-01	3.359E-02	2.046
		1120.29		4.144E-01	6.703E-01	1.139E+00	1.219E-01	0.364
		1764.49		4.914E-01	4.118E-01	8.447E-01	7.084E-02	0.582
U-235		89.95		1.068E+01	4.092E+00	4.063E+00	1.262E+00	2.629
	+	93.35		3.953E-01	1.064E+00	1.697E+00	4.781E-01	0.233
		105.00		1.265E-01	1.733E+00	2.773E+00	8.282E-01	0.046
		143.76	*	-1.534E-01	3.286E-01	5.437E-01	9.498E-02	-0.282
		163.35		2.602E-02	7.737E-01	1.304E+00	2.482E-01	0.020
	+	185.71		1.617E-01	1.354E-01	1.419E-01	1.233E-02	1.140
		205.31		-7.695E-01	9.023E-01	1.426E+00	2.737E-01	-0.540
NP-236	+	94.67		8.594E-02	2.301E-01	3.261E-01	2.936E-02	0.264
		98.44		1.119E-01	1.199E-01	1.807E-01	1.598E-02	0.619
		111.00		3.015E-02	2.298E-01	3.681E-01	3.189E-02	0.082
		160.31	*	-1.343E-01	1.272E-01	2.035E-01	1.733E-02	-0.660
NP-237		86.50	*	4.909E+00	1.263E+00	1.107E+00	2.507E-01	4.432
		95.87		-1.367E+00	1.700E+00	2.240E+00	5.544E-01	-0.610
U-238		63.29	*	1.478E+00	2.514E+00	3.802E+00	6.683E-01	0.389
	+	92.38		1.439E-01	5.016E-01	1.417E+00	1.294E-01	0.102
NP-239		99.55		9.753E-02	2.634E-01	4.080E-01	3.594E-02	0.239
		117.00	*	2.430E-01	3.531E-01	5.209E-01	4.537E-02	0.466
		209.75		1.724E+00	1.374E+00	2.400E+00	2.135E-01	0.718

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		228.18		1.514E-01	4.173E-01	7.056E-01	6.367E-02	0.215
		277.60		1.861E-01	3.371E-01	5.710E-01	5.223E-02	0.326
		334.30		9.025E-01	2.911E+00	4.269E+00	3.775E-01	0.211
AM-243		74.67	*	9.995E-02	1.143E-01	1.707E-01	1.420E-02	0.585
	+	86.72		3.179E+02	4.825E+01	4.470E+01	4.171E+00	7.111
		117.66		-2.778E+00	7.299E+00	1.003E+01	8.740E-01	-0.277
		142.18		-1.294E+01	2.723E+01	4.517E+01	3.864E+00	-0.287
CM-243		99.55		1.003E-01	2.709E-01	4.196E-01	3.696E-02	0.239
		103.76	*	4.999E-02	1.575E-01	2.553E-01	2.224E-02	0.196
		117.00		2.499E-01	3.631E-01	5.357E-01	4.666E-02	0.466
		209.75		1.699E+00	1.353E+00	2.365E+00	2.104E-01	0.718
		228.18		1.530E-01	4.215E-01	7.127E-01	6.430E-02	0.215
		277.60		1.875E-01	3.397E-01	5.754E-01	5.263E-02	0.326
AM-246		798.80		-2.768E-01	3.317E-01	5.107E-01	4.487E-02	-0.542
		1036.00		-5.453E-01	7.302E-01	1.100E+00	9.648E-02	-0.496
		1062.04		6.836E-02	4.998E-01	8.178E-01	7.095E-02	0.084
		1078.86	*	3.031E-01	3.739E-01	6.402E-01	5.508E-02	0.473
CM-247		278.00		1.176E+00	1.408E+00	2.414E+00	2.208E-01	0.487
		287.40		-9.013E-01	2.323E+00	3.742E+00	3.416E-01	-0.241
		402.60	*	-9.154E-02	8.226E-02	1.235E-01	1.002E-02	-0.741
CF-249		252.85		1.598E+00	1.652E+00	2.856E+00	2.607E-01	0.560
		333.44		-8.119E-03	3.876E-01	5.542E-01	4.905E-02	-0.015
		387.95	*	9.099E-02	8.254E-02	1.423E-01	1.155E-02	0.639
CF-251		176.60	*	-6.418E-02	1.965E-01	3.252E-01	2.799E-02	-0.197
		227.00		-4.118E-01	7.165E-01	1.160E+00	1.046E-01	-0.355
		285.00		1.355E+00	3.211E+00	5.410E+00	4.942E-01	0.250

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023709    *
* Acquisition date :  4-FEB-2010 21:14:00 Detector SN#     :               *
* Detector ID        : GAM01              Sensitivity      : 5.000         *
* Geometry           : CAN                Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.14     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date        : 27-JAN-2010 00:00:00 Nuclide Library : SOLID        *
* Sample ID          : G1202023709          Analyst initials: MXR1         *
* Batch Number       : 944962               Sample Quantity : 1.5544E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.547E-01	8.326E-02	6.539E-02	0.000E+00
CO-60	6.499E+00	6.470E-01	7.216E-02	0.000E+00
CD-109	2.910E+01	4.328E+00	2.415E+00	0.000E+00
SN-126	2.887E+00	4.294E-01	2.409E-01	0.000E+00
BA-137M	5.317E+00	5.142E-01	1.195E-01	0.000E+00
CS-137	5.621E+00	5.444E-01	1.264E-01	0.000E+00
TL-208	2.758E-01	1.224E-01	1.254E-01	0.000E+00
BI-211	2.132E+00	7.765E-01	6.813E-01	0.000E+00
PB-212	9.169E-01	2.645E-01	1.872E-01	0.000E+00
PO-212	9.169E-01	2.645E-01	1.872E-01	0.000E+00
PB-214	7.417E-01	2.728E-01	2.375E-01	0.000E+00
PO-214	7.417E-01	2.728E-01	2.375E-01	0.000E+00
PO-216	9.169E-01	2.645E-01	1.872E-01	0.000E+00
PO-218	7.417E-01	2.728E-01	2.375E-01	0.000E+00
TH-228	9.251E-01	2.669E-01	1.888E-01	0.000E+00
AM-241	1.342E+01	1.384E+00	6.258E-01	0.000E+00
ANH-511	1.351E-01	1.295E-01	9.776E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.133E-01	6.455E-01	1.085E+00	0.000E+00	NOT IDENT.
NA-22	-2.140E-02	5.346E-02	8.625E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.929E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.574E-02	4.181E-02	8.080E-02	0.000E+00	NOT IDENT.
K-40	7.197E-01	6.387E-01	1.281E+00	0.000E+00	NOT IDENT.
TI-44	5.914E-02	8.739E-02	1.147E-01	0.000E+00	FAIL ABUN
SC-46	2.393E-02	9.743E-02	1.690E-01	0.000E+00	NOT IDENT.
V-48	1.320E-02	1.300E-01	2.214E-01	0.000E+00	NOT IDENT.
CR-51	-1.940E-01	5.970E-01	1.029E+00	0.000E+00	NOT IDENT.
MN-52	2.801E-02	1.363E-01	2.421E-01	0.000E+00	FAIL ABUN

MN-54	-2.518E-02	8.187E-02	1.372E-01	0.000E+00	NOT IDENT.
CO-56	-2.922E-02	8.805E-02	1.470E-01	0.000E+00	NOT IDENT.
CO-58	-2.459E-02	8.089E-02	1.357E-01	0.000E+00	NOT IDENT.
FE-59	-9.895E-02	1.971E-01	3.147E-01	0.000E+00	NOT IDENT.
ZN-65	-6.835E-02	2.031E-01	3.292E-01	0.000E+00	NOT IDENT.
GE-68	3.275E+00	3.070E+00	5.552E+00	0.000E+00	NOT IDENT.
AS-73	1.196E-01	2.066E+00	3.603E+00	0.000E+00	NOT IDENT.
AS-74	-7.460E-02	1.424E-01	2.422E-01	0.000E+00	NOT IDENT.
SE-75	-4.142E-03	7.892E-02	1.402E-01	0.000E+00	FAIL ABUN
BR-77	2.698E+00	3.520E+00	6.269E+00	0.000E+00	FAIL ABUN
SR-82	1.649E-02	6.579E-01	1.138E+00	0.000E+00	NOT IDENT.
RB-83	1.005E-01	1.367E-01	2.431E-01	0.000E+00	NOT IDENT.
RB-84	1.189E-02	1.526E-01	2.621E-01	0.000E+00	NOT IDENT.
KR-85	1.527E+01	1.666E+01	2.657E+01	0.000E+00	NOT IDENT.
SR-85	7.332E-02	7.998E-02	1.276E-01	0.000E+00	NOT IDENT.
RB-86	3.501E-01	1.596E+00	2.719E+00	0.000E+00	NOT IDENT.
Y-88	1.404E-02	4.851E-02	8.655E-02	0.000E+00	NOT IDENT.
ZR-88	-9.312E-04	6.279E-02	1.085E-01	0.000E+00	NOT IDENT.
Y-91	4.444E+00	2.354E+01	4.173E+01	0.000E+00	NOT IDENT.
NB-94	2.684E-02	6.749E-02	1.209E-01	0.000E+00	NOT IDENT.
NB-95	-2.340E-02	7.971E-02	1.347E-01	0.000E+00	NOT IDENT.
NB-95M	1.535E-01	2.164E-01	3.566E-01	0.000E+00	NOT IDENT.
ZR-95	-7.844E-03	1.386E-01	2.388E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	5.311E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	7.784E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.109E+00	4.870E+00	8.591E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.881E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.956E-03	5.424E-02	9.825E-02	0.000E+00	NOT IDENT.
RH-102	-3.821E-03	6.383E-02	1.082E-01	0.000E+00	NOT IDENT.
RU-103	-4.642E-03	7.952E-02	1.343E-01	0.000E+00	FAIL ABUN
RH-106	-4.804E-01	6.153E-01	1.015E+00	0.000E+00	FAIL ABUN
RU-106	-4.804E-01	6.134E-01	1.015E+00	0.000E+00	FAIL ABUN
AG-108M	-3.088E-02	7.444E-02	1.244E-01	0.000E+00	NOT IDENT.
AG-110M	-1.599E-02	8.696E-02	1.300E-01	0.000E+00	NOT IDENT.
IN-111	-5.447E-01	4.574E-01	7.008E-01	0.000E+00	NOT IDENT.
IN-113M	-1.456E-02	9.030E-02	1.547E-01	0.000E+00	NOT IDENT.
SN-113	-1.456E-02	9.030E-02	1.547E-01	0.000E+00	NOT IDENT.
IN-114M	8.511E-02	3.201E-01	5.220E-01	0.000E+00	NOT IDENT.
CD-115	1.031E+00	3.138E+00	5.711E+00	0.000E+00	NOT IDENT.
SN-117M	4.231E-02	6.073E-02	1.152E-01	0.000E+00	NOT IDENT.
SB-122	5.410E-01	7.406E-01	1.380E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.156E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.108E-02	4.147E-02	7.733E-02	0.000E+00	NOT IDENT.
I-124	-1.217E-01	5.110E-01	7.657E-01	0.000E+00	NOT IDENT.
SB-124	-2.498E-02	1.028E-01	1.618E-01	0.000E+00	NOT IDENT.
SB-125	2.884E-02	2.101E-01	3.637E-01	0.000E+00	NOT IDENT.
TE-125M	-6.107E+00	1.400E+01	2.401E+01	0.000E+00	NOT IDENT.
I-126	1.378E-01	2.797E-01	4.475E-01	0.000E+00	NOT IDENT.
SB-126	-2.566E-02	1.984E-01	3.414E-01	0.000E+00	FAIL ABUN
SB-127	-2.204E-01	9.114E-01	1.563E+00	0.000E+00	NOT IDENT.
XE-127	-5.965E-03	6.752E-02	1.220E-01	0.000E+00	NOT IDENT.
I-131	-4.346E-02	1.456E-01	2.490E-01	0.000E+00	NOT IDENT.
TE-132	1.182E-01	3.307E-01	6.040E-01	0.000E+00	NOT IDENT.
BA-133	-5.850E-02	9.626E-02	1.387E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.168E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.210E-02	1.013E-01	1.797E-01	0.000E+00	NOT IDENT.
CS-135	-1.254E-01	2.967E-01	5.168E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.746E+08	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.787E-02	1.799E-01	3.075E-01	0.000E+00	FAIL ABUN
CE-139	3.703E-02	4.705E-02	8.914E-02	0.000E+00	NOT IDENT.
BA-140	8.662E-03	3.654E-01	6.520E-01	0.000E+00	NOT IDENT.
LA-140	6.759E-03	8.689E-02	1.489E-01	0.000E+00	NOT IDENT.
CE-141	9.043E-03	8.551E-02	1.591E-01	0.000E+00	NOT IDENT.
CE-143	-3.095E+00	1.185E+01	1.801E+01	0.000E+00	FAIL ABUN
CE-144	2.382E-01	3.463E-01	6.170E-01	0.000E+00	NOT IDENT.
PM-144	-3.066E-02	6.304E-02	1.055E-01	0.000E+00	NOT IDENT.
PR-144	-2.071E+00	4.257E+00	7.127E+00	0.000E+00	NOT IDENT.
PM-146	1.429E-01	1.084E-01	1.970E-01	0.000E+00	NOT IDENT.
ND-147	-8.472E-02	7.790E-01	1.376E+00	0.000E+00	FAIL ABUN
PM-149	-5.006E+00	2.406E+01	4.213E+01	0.000E+00	NOT IDENT.
EU-152	-8.810E-02	2.209E-01	3.268E-01	0.000E+00	FAIL ABUN
GD-153	3.870E-02	1.297E-01	2.080E-01	0.000E+00	NOT IDENT.
EU-154	-1.082E-01	1.575E-01	2.417E-01	0.000E+00	FAIL ABUN
EU-155	-4.252E-02	1.732E-01	3.009E-01	0.000E+00	FAIL ABUN
TB-160	1.671E-01	3.185E-01	5.645E-01	0.000E+00	FAIL ABUN
HO-166M	1.737E-03	1.190E-01	2.073E-01	0.000E+00	NOT IDENT.
TM-171	-5.695E+01	4.694E+01	7.994E+01	0.000E+00	FAIL ABUN
LU-176	3.314E-03	4.837E-02	8.557E-02	0.000E+00	FAIL ABUN

LU-177	1.188E+00	9.682E-01	1.834E+00	0.000E+00	NOT IDENT.
LU-177M	7.727E-02	3.515E-01	6.135E-01	0.000E+00	FAIL ABUN
HF-181	3.290E-02	8.165E-02	1.426E-01	0.000E+00	NOT IDENT.
W-181	-4.969E-01	6.181E-01	1.020E+00	0.000E+00	NOT IDENT.
TA-182	3.434E-02	2.150E-01	3.807E-01	0.000E+00	NOT IDENT.
RE-183	-1.300E-01	1.616E-01	2.856E-01	0.000E+00	FAIL ABUN
RE-184	4.152E-01	4.206E-01	7.844E-01	0.000E+00	FAIL ABUN
OS-185	3.172E-02	8.134E-02	1.467E-01	0.000E+00	FAIL ABUN
RE-188	1.634E-01	2.442E-01	4.631E-01	0.000E+00	NOT IDENT.
W-188	1.357E+01	1.385E+01	2.301E+01	0.000E+00	NOT IDENT.
IR-192	-2.009E-02	6.461E-02	1.116E-01	0.000E+00	FAIL ABUN
AU-195	1.504E-01	3.861E-01	6.213E-01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	1.842E+01	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.961E-01	2.707E+00	4.941E+00	0.000E+00	NOT IDENT.
TL-202	-3.074E-02	1.105E-01	1.860E-01	0.000E+00	NOT IDENT.
HG-203	3.583E-02	6.935E-02	1.261E-01	0.000E+00	NOT IDENT.
BI-207	-6.746E-02	1.159E-01	1.835E-01	0.000E+00	NOT IDENT.
TL-207	-1.027E-01	1.198E+00	2.092E+00	0.000E+00	FAIL ABUN
PO-209	2.040E+01	1.939E+01	3.530E+01	0.000E+00	NOT IDENT.
BI-210	-1.892E+00	8.298E+00	1.512E+01	0.000E+00	NOT IDENT.
PB-210	-1.892E+00	8.298E+00	1.512E+01	0.000E+00	NOT IDENT.
PO-210	-1.892E+00	8.298E+00	1.512E+01	0.000E+00	NOT IDENT.
PB-211	9.315E-01	2.084E+00	3.550E+00	0.000E+00	NOT IDENT.
BI-212	1.107E+00	6.270E-01	1.200E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	2.713E-01	3.519E-01	0.000E+00	FAIL ABUN
PO-215	-1.027E-01	1.198E+00	2.092E+00	0.000E+00	FAIL ABUN
RN-219	-9.716E-01	8.965E-01	1.426E+00	0.000E+00	NOT IDENT.
RN-220	-1.033E+00	4.936E+01	8.796E+01	0.000E+00	NOT IDENT.
RA-223	-1.027E-01	1.198E+00	2.092E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	1.754E+00	3.102E+00	0.000E+00	NOT IDENT.
RA-226	0.000E+00	2.713E-01	3.519E-01	0.000E+00	FAIL ABUN
AC-227	2.789E-01	7.013E-01	1.275E+00	0.000E+00	NOT IDENT.
TH-227	2.789E-01	7.018E-01	1.275E+00	0.000E+00	FAIL ABUN
AC-228	5.555E-01	8.239E-01	7.306E-01	0.000E+00	FAIL ABUN
RA-228	5.555E-01	8.239E-01	7.306E-01	0.000E+00	FAIL ABUN
TH-229	2.814E-01	8.664E-01	1.549E+00	0.000E+00	FAIL ABUN
TH-230	0.000E+00	2.713E-01	3.519E-01	0.000E+00	FAIL ABUN
PA-231	7.426E-01	2.828E+00	5.080E+00	0.000E+00	NOT IDENT.
TH-231	-1.027E-01	1.198E+00	2.092E+00	0.000E+00	FAIL ABUN
U-231	-5.518E-01	6.611E-01	9.799E-01	0.000E+00	FAIL ABUN
TH-232	5.555E-01	8.239E-01	7.306E-01	0.000E+00	FAIL ABUN
PA-233	8.096E-02	1.275E-01	2.316E-01	0.000E+00	FAIL ABUN
PA-234	-1.062E-01	8.609E-01	1.447E+00	0.000E+00	FAIL ABUN
PA-234M	-6.661E+00	1.148E+01	1.859E+01	0.000E+00	NOT IDENT.
TH-234	1.478E+00	2.463E+00	4.161E+00	0.000E+00	FAIL ABUN
U-234	0.000E+00	2.713E-01	3.519E-01	0.000E+00	FAIL ABUN
U-235	-1.534E-01	3.220E-01	5.832E-01	0.000E+00	FAIL ABUN
NP-236	-1.343E-01	1.246E-01	2.177E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	1.237E+00	1.203E+00	0.000E+00	NOT IDENT.
U-238	1.478E+00	2.463E+00	4.161E+00	0.000E+00	FAIL ABUN
NP-239	2.430E-01	3.460E-01	5.617E-01	0.000E+00	NOT IDENT.
AM-243	9.995E-02	1.120E-01	1.861E-01	0.000E+00	FAIL ABUN
CM-243	4.999E-02	1.544E-01	2.761E-01	0.000E+00	NOT IDENT.
AM-246	3.031E-01	3.664E-01	6.511E-01	0.000E+00	NOT IDENT.
CM-247	-9.154E-02	8.062E-02	1.290E-01	0.000E+00	NOT IDENT.
CF-249	9.099E-02	8.089E-02	1.488E-01	0.000E+00	NOT IDENT.
CF-251	-6.418E-02	1.926E-01	3.470E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 4-FEB-2010 22:14:31.27

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023709.CNF;1
Sample date       : 27-JAN-2010 00:00:00 Acquisition date : 4-FEB-2010 21:14:00.
Sample ID         : G1202023709          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.14  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 944962               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	267	85.51*	6.056E+00	2.489E-01	2.547E-01	33.36
	136.48	------	10.60	5.957E+00	------ Line Not Found		------
CO-60	1173.22	1447	100.00	1.144E+00	6.112E+00	6.132E+00	10.15
	1332.49	1370	100.00*	1.021E+00	6.479E+00	6.499E+00	10.16
CD-109	88.03	1159	3.72*	5.239E+00	2.871E+01	2.910E+01	15.18
SN-126	64.28	------	9.60	2.906E+00	------ Line Not Found		------
	86.94	1159	8.90	5.239E+00	1.200E+01	1.200E+01	43.20
	87.57	1159	37.00*	5.239E+00	2.887E+00	2.887E+00	15.18
BA-137M	661.65	1904	89.98*	1.923E+00	5.314E+00	5.317E+00	9.87
CS-137	661.65	1904	85.12*	1.923E+00	5.618E+00	5.621E+00	9.88
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	67	21.60	2.393E+00	6.255E-01	6.255E-01	98.16
	583.14	103	84.20*	2.142E+00	2.758E-01	2.758E-01	45.29
	860.37	------	12.46	1.522E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.944E+00	------ Line Not Found		------
	351.07	184	12.94*	3.228E+00	2.132E+00	2.132E+00	37.16
PB-212	74.81	------	10.70	4.150E+00	------ Line Not Found		------
	77.11	53	18.00	4.469E+00	3.205E-01	3.205E-01	150.79
	87.30	1159	8.00	5.239E+00	1.335E+01	1.335E+01	18.18
	238.63	368	44.60*	4.348E+00	9.169E-01	9.169E-01	29.44
	300.09	------	3.41	3.656E+00	------ Line Not Found		------
PO-212	74.81	------	10.70	4.150E+00	------ Line Not Found		------
	77.11	53	18.00	4.469E+00	3.205E-01	3.205E-01	150.79
	87.30	1159	8.00	5.239E+00	1.335E+01	1.335E+01	18.18
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	368	44.60*	4.348E+00	9.169E-01	9.169E-01	29.44
	300.09	------	3.41	3.656E+00	------ Line Not Found		------
PB-214	74.81	------	6.21	4.150E+00	------ Line Not Found		------
	77.11	53	10.50	4.469E+00	5.495E-01	5.495E-01	150.98
	87.30	1159	4.67	5.239E+00	2.287E+01	2.287E+01	17.02
	241.98	------	7.49	4.306E+00	------ Line Not Found		------
	295.21	161	19.20	3.697E+00	1.097E+00	1.097E+00	35.12

Sample ID : G1202023709 Acquisition date : 4-FEB-2010 21:14:00

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	184	37.20*	3.228E+00	7.417E-01	7.417E-01	37.53
PO-214	74.81	------	6.21	4.150E+00	------	Line Not Found	------
	77.11	53	10.50	4.469E+00	5.495E-01	5.495E-01	150.98
	87.30	1159	4.67	5.239E+00	2.287E+01	2.287E+01	17.02
	241.98	------	7.49	4.306E+00	------	Line Not Found	------
	295.21	161	19.20	3.697E+00	1.097E+00	1.097E+00	35.12
	351.92	184	37.20*	3.228E+00	7.417E-01	7.417E-01	37.53
PO-216	74.81	------	10.70	4.150E+00	------	Line Not Found	------
	77.11	53	18.00	4.469E+00	3.205E-01	3.205E-01	150.79
	87.30	1159	8.00	5.239E+00	1.335E+01	1.335E+01	18.18
	238.63	368	44.60*	4.348E+00	9.169E-01	9.169E-01	29.44
	300.09	------	3.41	3.656E+00	------	Line Not Found	------
PO-218	74.81	------	6.21	4.150E+00	------	Line Not Found	------
	77.11	53	10.50	4.469E+00	5.495E-01	5.495E-01	150.98
	87.30	1159	4.67	5.239E+00	2.287E+01	2.287E+01	17.02
	241.98	------	7.49	4.306E+00	------	Line Not Found	------
	295.21	161	19.20	3.697E+00	1.097E+00	1.097E+00	35.12
	351.92	184	37.20*	3.228E+00	7.417E-01	7.417E-01	37.53
TH-228	74.81	------	10.70	4.150E+00	------	Line Not Found	------
	77.11	53	18.00	4.469E+00	3.205E-01	3.234E-01	150.79
	87.30	1159	8.00	5.239E+00	1.335E+01	1.347E+01	15.18
	238.63	368	44.60*	4.348E+00	9.169E-01	9.251E-01	29.44
	300.09	------	3.41	3.656E+00	------	Line Not Found	------
AM-241	59.54	2272	35.90*	2.277E+00	1.342E+01	1.342E+01	10.52
ANH-511	511.00	67	100.00*	2.393E+00	1.351E-01	1.351E-01	97.81

Flag: "*" = Keyline

Sample ID : G1202023709 Acquisition date : 4-FEB-2010 21:14:00

Total number of lines in spectrum 18
Number of unidentified lines 0
Number of lines tentatively identified by NID 18 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	2.489E-01	2.547E-01	0.850E-01	33.36	
CO-60	5.27Y	1.00	6.479E+00	6.499E+00	0.660E+00	10.16	
CD-109	464.00D	1.01	2.871E+01	2.910E+01	0.442E+01	15.18	
SN-126	1.00E+05Y	1.00	2.887E+00	2.887E+00	0.438E+00	15.18	
BA-137M	30.17Y	1.00	5.314E+00	5.317E+00	0.525E+00	9.87	
CS-137	30.17Y	1.00	5.618E+00	5.621E+00	0.555E+00	9.88	
TL-208	1.41E+10Y	1.00	2.758E-01	2.758E-01	1.249E-01	45.29	
BI-211	7.04E+08Y	1.00	2.132E+00	2.132E+00	0.792E+00	37.16	
PB-212	1.41E+10Y	1.00	9.169E-01	9.169E-01	2.699E-01	29.44	
PO-212	1.41E+10Y	1.00	9.169E-01	9.169E-01	2.699E-01	29.44	
PB-214	1600.00Y	1.00	7.417E-01	7.417E-01	2.783E-01	37.53	
PO-214	1600.00Y	1.00	7.417E-01	7.417E-01	2.783E-01	37.53	
PO-216	1.41E+10Y	1.00	9.169E-01	9.169E-01	2.699E-01	29.44	
PO-218	1600.00Y	1.00	7.417E-01	7.417E-01	2.783E-01	37.53	
TH-228	1.91Y	1.01	9.169E-01	9.251E-01	2.723E-01	29.44	
AM-241	432.20Y	1.00	1.342E+01	1.342E+01	0.141E+01	10.52	
ANH-511	1.00E+09Y	1.00	1.351E-01	1.351E-01	1.322E-01	97.81	
			---	---			
	Total Activity :		7.112E+01	7.154E+01			

Grand Total Activity : 7.112E+01 7.154E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202023709 Acquisition date : 4-FEB-2010 21:14:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	92.54	9	94	0.91	185.77	184	10	2.46E-03	****	5.49E+00	T
4	93.54	20	210	1.22	187.78	184	10	5.66E-03	****	5.54E+00	T
0	186.81	93	340	1.20	374.22	369	12	2.59E-02	83.3	5.15E+00	T
0	339.27	67	223	2.26	678.96	672	12	1.85E-02	93.9	3.32E+00	T
0	609.50	138	114	1.79	1219.08	1211	15	3.83E-02	38.5	2.06E+00	T
0	911.01	46	201	1.71	1821.71	1816	19	1.28E-02	****	1.44E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 4-FEB-2010 22:14:36.53

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202023709.CNF;1  *
* Acquisition date  : 4-FEB-2010 21:14:00.  Detector SN#     :              *
* Detector ID       : GAM01                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 01:00:01.14          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 00:00:00  Nuclide Library : SOLID        *
* Sample ID         : G1202023709           Analyst initials: MXR1         *
* Batch Number      : 944962                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.547E-01	8.496E-02	6.071E-02	5.345E-03	4.195
CO-60	6.499E+00	6.602E-01	7.136E-02	6.083E-03	91.079
CD-109	2.910E+01	4.416E+00	2.224E+00	2.105E-01	13.081
SN-126	2.887E+00	4.381E-01	2.218E-01	2.089E-02	13.014
BA-137M	5.317E+00	5.247E-01	1.160E-01	9.499E-03	45.854
CS-137	5.621E+00	5.555E-01	1.226E-01	1.006E-02	45.854
TL-208	2.758E-01	1.249E-01	1.213E-01	1.101E-02	2.274
BI-211	2.132E+00	7.923E-01	6.498E-01	5.911E-02	3.281
PB-212	9.169E-01	2.699E-01	1.767E-01	1.789E-02	5.188
PO-212	9.169E-01	2.699E-01	1.767E-01	1.789E-02	5.188
PB-214	7.417E-01	2.783E-01	2.265E-01	2.374E-02	3.274
PO-214	7.417E-01	2.783E-01	2.265E-01	2.374E-02	3.274
PO-216	9.169E-01	2.699E-01	1.767E-01	1.789E-02	5.188
PO-218	7.417E-01	2.783E-01	2.265E-01	2.374E-02	3.274
TH-228	9.251E-01	2.723E-01	1.783E-01	1.805E-02	5.188
AM-241	1.342E+01	1.413E+00	5.710E-01	4.705E-02	23.513
ANH-511	1.351E-01	1.322E-01	9.417E-02	7.981E-03	1.435

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.133E-01		6.586E-01	1.044E+00	9.493E-02	-0.109

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22	-2.140E-02		5.455E-02	8.519E-02	7.154E-03	-0.251
NA-24	-2.091E-04		4.046E-04	Half-Life too short		
AL-26	2.574E-02		4.266E-02	8.061E-02	6.678E-03	0.319
K-40	7.197E-01		6.517E-01	1.270E+00	1.129E-01	0.567
TI-44	5.914E-02	+	8.917E-02	1.053E-01	9.040E-03	0.561
SC-46	2.393E-02		9.942E-02	1.653E-01	1.494E-02	0.145
V-48	1.320E-02		1.326E-01	2.171E-01	1.938E-02	0.061
CR-51	-1.940E-01		6.091E-01	9.787E-01	9.206E-02	-0.198
MN-52	2.801E-02		1.391E-01	2.400E-01	2.072E-02	0.117
MN-54	-2.518E-02		8.354E-02	1.339E-01	1.192E-02	-0.188
CO-56	-2.922E-02		8.984E-02	1.436E-01	1.283E-02	-0.203
CO-58	-2.459E-02		8.254E-02	1.324E-01	1.171E-02	-0.186
FE-59	-9.895E-02		2.012E-01	3.096E-01	2.854E-02	-0.320
ZN-65	-6.835E-02		2.072E-01	3.239E-01	2.733E-02	-0.211
GE-68	3.275E+00		3.133E+00	5.459E+00	4.700E-01	0.600
AS-73	1.196E-01		2.108E+00	3.279E+00	2.654E-01	0.036
AS-74	-7.460E-02		1.453E-01	2.343E-01	1.974E-02	-0.318
SE-75	-4.142E-03		8.053E-02	1.328E-01	1.220E-02	-0.031
BR-77	2.698E+00		3.592E+00	6.042E+00	5.126E-01	0.447
SR-82	1.649E-02		6.714E-01	1.109E+00	9.657E-02	0.015
RB-83	1.005E-01		1.395E-01	2.343E-01	1.987E-02	0.429
RB-84	1.189E-02		1.558E-01	2.562E-01	2.312E-02	0.046
KR-85	1.527E+01		1.700E+01	2.560E+01	2.171E+00	0.597
SR-85	7.332E-02		8.161E-02	1.229E-01	1.042E-02	0.597
RB-86	3.501E-01		1.629E+00	2.674E+00	2.303E-01	0.131
Y-88	1.404E-02		4.950E-02	8.638E-02	7.105E-03	0.163
ZR-88	-9.312E-04		6.408E-02	1.038E-01	8.358E-03	-0.009
Y-91	4.444E+00		2.402E+01	4.116E+01	3.372E+00	0.108
NB-94	2.684E-02		6.886E-02	1.174E-01	9.858E-03	0.229
NB-95	-2.340E-02		8.134E-02	1.312E-01	1.137E-02	-0.178
NB-95M	1.535E-01		2.208E-01	3.366E-01	3.452E-02	0.456
ZR-95	-7.844E-03		1.414E-01	2.325E-01	2.209E-02	-0.034
NB-97	2.816E-05		2.710E-04	Half-Life too short		
ZR-97	4.297E-03		3.971E-03	Half-Life too short		
MO-99	1.109E+00		4.969E+00	8.359E+00	1.266E+00	0.133
TC-99M	4.895E+02		9.595E+02	Half-Life too short		
RH-101	3.956E-03		5.534E-02	9.234E-02	8.126E-03	0.043
RH-102	-3.821E-03		6.513E-02	1.041E-01	8.751E-03	-0.037
RU-103	-4.642E-03		8.114E-02	1.293E-01	1.818E-02	-0.036
RH-106	-4.804E-01		6.279E-01	9.825E-01	1.296E-01	-0.489
RU-106	-4.804E-01		6.260E-01	9.825E-01	8.207E-02	-0.489
AG-108M	-3.088E-02		7.596E-02	1.193E-01	1.029E-02	-0.259
AG-110M	-1.599E-02		8.873E-02	1.261E-01	1.069E-02	-0.127
IN-111	-5.447E-01		4.667E-01	6.622E-01	6.029E-02	-0.823
IN-113M	-1.456E-02		9.214E-02	1.480E-01	1.232E-02	-0.098
SN-113	-1.456E-02		9.214E-02	1.480E-01	1.232E-02	-0.098
IN-114M	8.511E-02		3.266E-01	4.901E-01	4.279E-02	0.174
CD-115	1.031E+00		3.202E+00	5.507E+00	4.674E-01	0.187

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-117M	4.231E-02		6.197E-02	1.076E-01	9.165E-03	0.393
SB-122	5.410E-01		7.557E-01	1.333E+00	1.130E-01	0.406
I-123	8.434E-04		1.610E-03	Half-Life too short		
TE-123M	1.108E-02		4.232E-02	7.228E-02	6.192E-03	0.153
I-124	-1.217E-01		5.215E-01	7.409E-01	6.230E-02	-0.164
SB-124	-2.498E-02		1.049E-01	1.611E-01	1.428E-02	-0.155
SB-125	2.884E-02		2.144E-01	3.487E-01	2.935E-02	0.083
TE-125M	-6.107E+00		1.428E+01	2.223E+01	2.302E+00	-0.275
I-126	1.378E-01		2.854E-01	4.341E-01	3.566E-02	0.317
SB-126	-2.566E-02		2.025E-01	3.320E-01	2.814E-02	-0.077
SB-127	-2.204E-01		9.300E-01	1.517E+00	1.451E-01	-0.145
XE-127	-5.965E-03		6.890E-02	1.148E-01	1.015E-02	-0.052
I-131	-4.346E-02		1.486E-01	2.377E-01	2.122E-02	-0.183
TE-132	1.182E-01		3.374E-01	5.697E-01	8.557E-02	0.207
BA-133	-5.850E-02		9.823E-02	1.324E-01	1.746E-02	-0.442
I-133	2.770E-05		4.168E-05	Half-Life too short		
CS-134	4.210E-02		1.034E-01	1.752E-01	1.548E-02	0.240
CS-135	-1.254E-01		3.028E-01	4.895E-01	5.104E-02	-0.256
I-135	-1.397E+02		4.462E+02	Half-Life too short		
CS-136	3.787E-02		1.836E-01	3.021E-01	2.745E-02	0.125
CE-139	3.703E-02		4.801E-02	8.340E-02	7.103E-03	0.444
BA-140	8.662E-03		3.728E-01	6.290E-01	2.082E-01	0.014
LA-140	6.759E-03		8.866E-02	1.480E-01	1.277E-02	0.046
CE-141	9.043E-03		8.725E-02	1.484E-01	1.290E-02	0.061
CE-143	-3.095E+00		1.209E+01	1.710E+01	3.728E+00	-0.181
CE-144	2.382E-01		3.534E-01	5.741E-01	8.937E-02	0.415
PM-144	-3.066E-02		6.432E-02	1.025E-01	8.576E-03	-0.299
PR-144	-2.071E+00		4.344E+00	6.923E+00	5.792E-01	-0.299
PM-146	1.429E-01		1.106E-01	1.892E-01	1.987E-02	0.755
ND-147	-8.472E-02		7.949E-01	1.327E+00	1.974E-01	-0.064
PM-149	-5.006E+00		2.455E+01	3.997E+01	6.322E+00	-0.125
EU-152	-8.810E-02		2.254E-01	3.116E-01	2.881E-02	-0.283
GD-153	3.870E-02		1.324E-01	1.920E-01	1.705E-02	0.202
EU-154	-1.082E-01		1.607E-01	2.387E-01	2.658E-02	-0.453
EU-155	-4.252E-02		1.767E-01	2.783E-01	2.448E-02	-0.153
TB-160	1.671E-01		3.250E-01	5.519E-01	4.977E-02	0.303
HO-166M	1.737E-03		1.214E-01	2.015E-01	1.700E-02	0.009
TM-171	-5.695E+01		4.790E+01	7.313E+01	5.760E+00	-0.779
LU-176	3.314E-03		4.936E-02	8.133E-02	7.361E-03	0.041
LU-177	1.188E+00		9.879E-01	1.726E+00	1.534E-01	0.688
LU-177M	7.727E-02		3.586E-01	5.877E-01	4.802E-02	0.131
HF-181	3.290E-02		8.332E-02	1.372E-01	1.156E-02	0.240
W-181	-4.969E-01		6.307E-01	9.323E-01	7.278E-02	-0.533
TA-182	3.434E-02		2.194E-01	3.756E-01	3.095E-02	0.091
RE-183	-1.300E-01		1.649E-01	2.670E-01	2.273E-02	-0.487
RE-184	4.152E-01		4.292E-01	7.418E-01	6.771E-02	0.560
OS-185	3.172E-02		8.300E-02	1.422E-01	1.175E-02	0.223
RE-188	1.634E-01		2.492E-01	4.325E-01	3.683E-02	0.378

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
W-188	1.357E+01		1.413E+01	2.184E+01	1.992E+00	0.622
IR-192	-2.009E-02		6.593E-02	1.062E-01	9.567E-03	-0.189
AU-195	1.504E-01		3.940E-01	5.739E-01	5.067E-02	0.262
TL-200	-4.833E-07		9.398E-06	Half-Life too short		
TL-201	-3.961E-01		2.762E+00	4.624E+00	3.943E-01	-0.086
TL-202	-3.074E-02		1.127E-01	1.785E-01	1.480E-02	-0.172
HG-203	3.583E-02		7.077E-02	1.196E-01	1.121E-02	0.300
BI-207	-6.746E-02		1.183E-01	1.803E-01	1.563E-02	-0.374
TL-207	-1.027E-01		1.222E+00	1.991E+00	3.556E-01	-0.052
PO-209	2.040E+01		1.978E+01	3.453E+01	3.126E+00	0.591
BI-210	-1.892E+00		8.467E+00	1.371E+01	1.294E+00	-0.138
PB-210	-1.892E+00		8.467E+00	1.371E+01	1.294E+00	-0.138
PO-210	-1.892E+00		8.467E+00	1.371E+01	1.175E+00	-0.138
PB-211	9.315E-01		2.126E+00	3.399E+00	2.128E+00	0.274
BI-212	1.107E+00		6.398E-01	1.167E+00	1.156E-01	0.949
BI-214	6.969E-01	+	2.768E-01	3.406E-01	3.359E-02	2.046
PO-215	-1.027E-01		1.222E+00	1.991E+00	3.556E-01	-0.052
RN-219	-9.716E-01		9.148E-01	1.365E+00	2.012E-01	-0.712
RN-220	-1.033E+00		5.036E+01	8.490E+01	7.206E+00	-0.012
RA-223	-1.027E-01		1.222E+00	1.991E+00	3.556E-01	-0.052
RA-224	7.184E+00		1.790E+00	2.930E+00	2.662E-01	2.452
RA-226	6.969E-01	+	2.768E-01	3.406E-01	3.359E-02	2.046
AC-227	2.789E-01		7.156E-01	1.206E+00	1.886E-01	0.231
TH-227	2.789E-01		7.161E-01	1.206E+00	2.208E-01	0.231
AC-228	5.555E-01	+	8.407E-01	7.149E-01	8.275E-02	0.777
RA-228	5.555E-01	+	8.407E-01	7.149E-01	8.275E-02	0.777
TH-229	2.814E-01		8.841E-01	1.455E+00	1.275E-01	0.193
TH-230	6.969E-01	+	2.768E-01	3.406E-01	3.359E-02	2.046
PA-231	7.426E-01		2.886E+00	4.819E+00	7.461E-01	0.154
TH-231	-1.027E-01		1.222E+00	1.991E+00	3.556E-01	-0.052
U-231	-5.518E-01		6.746E-01	9.044E-01	8.091E-02	-0.610
TH-232	5.555E-01	+	8.407E-01	7.149E-01	8.275E-02	0.777
PA-233	8.096E-02		1.301E-01	2.202E-01	2.038E-02	0.368
PA-234	-1.062E-01		8.785E-01	1.418E+00	2.686E-01	-0.075
PA-234M	-6.661E+00		1.172E+01	1.824E+01	1.859E+00	-0.365
TH-234	1.478E+00		2.514E+00	3.802E+00	6.683E-01	0.389
U-234	6.969E-01	+	2.768E-01	3.406E-01	3.359E-02	2.046
U-235	-1.534E-01		3.286E-01	5.437E-01	9.498E-02	-0.282
NP-236	-1.343E-01		1.272E-01	2.035E-01	1.733E-02	-0.660
NP-237	4.909E+00		1.263E+00	1.107E+00	2.507E-01	4.432
U-238	1.478E+00		2.514E+00	3.802E+00	6.683E-01	0.389
NP-239	2.430E-01		3.531E-01	5.209E-01	4.537E-02	0.466
AM-243	9.995E-02		1.143E-01	1.707E-01	1.420E-02	0.585
CM-243	4.999E-02		1.575E-01	2.553E-01	2.224E-02	0.196
AM-246	3.031E-01		3.739E-01	6.402E-01	5.508E-02	0.473
CM-247	-9.154E-02		8.226E-02	1.235E-01	1.002E-02	-0.741
CF-249	9.099E-02		8.254E-02	1.423E-01	1.155E-02	0.639
CF-251	-6.418E-02		1.965E-01	3.252E-01	2.799E-02	-0.197

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202023709          *
* Acquisition date  :  4-FEB-2010 21:14:00 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:     0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:     0 01:00:01.14     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202023709          Analyst initials: MXR1           *
* Batch Number      : 944962               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.547E-01	8.326E-02	3.272E-02	4.248E-02
CO-60	6.499E+00	6.470E-01	3.610E-02	3.301E-01
CD-109	2.910E+01	4.328E+00	1.208E+00	2.208E+00
SN-126	2.887E+00	4.294E-01	1.205E-01	2.191E-01
BA-137M	5.317E+00	5.142E-01	5.981E-02	2.624E-01
CS-137	5.621E+00	5.444E-01	6.322E-02	2.777E-01
TL-208	2.758E-01	1.224E-01	6.276E-02	6.246E-02
BI-211	2.132E+00	7.765E-01	3.408E-01	3.962E-01
PB-212	9.169E-01	2.645E-01	9.364E-02	1.350E-01
PO-212	9.169E-01	2.645E-01	9.364E-02	1.350E-01
PB-214	7.417E-01	2.728E-01	1.188E-01	1.392E-01
PO-214	7.417E-01	2.728E-01	1.188E-01	1.392E-01
PO-216	9.169E-01	2.645E-01	9.364E-02	1.350E-01
PO-218	7.417E-01	2.728E-01	1.188E-01	1.392E-01
TH-228	9.251E-01	2.669E-01	9.447E-02	1.362E-01
AM-241	1.342E+01	1.384E+00	3.131E-01	7.063E-01
ANH-511	1.351E-01	1.295E-01	4.891E-02	6.608E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.133E-01	6.455E-01	5.429E-01	3.293E-01	NOT IDENT.
NA-22	-2.140E-02	5.346E-02	4.315E-02	2.728E-02	NOT IDENT.
NA-24	-2.091E+02	7.929E+02	0.000E+00	4.046E+02	SHORT HLIF
AL-26	2.574E-02	4.181E-02	4.042E-02	2.133E-02	NOT IDENT.
K-40	7.197E-01	6.387E-01	6.410E-01	3.259E-01	NOT IDENT.
TI-44	5.914E-02	8.739E-02	5.738E-02	4.459E-02	FAIL ABUN
SC-46	2.393E-02	9.743E-02	8.456E-02	4.971E-02	NOT IDENT.
V-48	1.320E-02	1.300E-01	1.108E-01	6.630E-02	NOT IDENT.
CR-51	-1.940E-01	5.970E-01	5.146E-01	3.046E-01	NOT IDENT.
MN-52	2.801E-02	1.363E-01	1.211E-01	6.957E-02	FAIL ABUN

MN-54	-2.518E-02	8.187E-02	6.862E-02	4.177E-02	NOT IDENT.
CO-56	-2.922E-02	8.805E-02	7.355E-02	4.492E-02	NOT IDENT.
CO-58	-2.459E-02	8.089E-02	6.791E-02	4.127E-02	NOT IDENT.
FE-59	-9.895E-02	1.971E-01	1.575E-01	1.006E-01	NOT IDENT.
ZN-65	-6.835E-02	2.031E-01	1.647E-01	1.036E-01	NOT IDENT.
GE-68	3.275E+00	3.070E+00	2.778E+00	1.566E+00	NOT IDENT.
AS-73	1.196E-01	2.066E+00	1.802E+00	1.054E+00	NOT IDENT.
AS-74	-7.460E-02	1.424E-01	1.212E-01	7.264E-02	NOT IDENT.
SE-75	-4.142E-03	7.892E-02	7.016E-02	4.027E-02	FAIL ABUN
BR-77	2.698E+00	3.520E+00	3.136E+00	1.796E+00	FAIL ABUN
SR-82	1.649E-02	6.579E-01	5.696E-01	3.357E-01	NOT IDENT.
RB-83	1.005E-01	1.367E-01	1.216E-01	6.976E-02	NOT IDENT.
RB-84	1.189E-02	1.526E-01	1.311E-01	7.788E-02	NOT IDENT.
KR-85	1.527E+01	1.666E+01	1.329E+01	8.499E+00	NOT IDENT.
SR-85	7.332E-02	7.998E-02	6.382E-02	4.080E-02	NOT IDENT.
RB-86	3.501E-01	1.596E+00	1.361E+00	8.144E-01	NOT IDENT.
Y-88	1.404E-02	4.851E-02	4.330E-02	2.475E-02	NOT IDENT.
ZR-88	-9.312E-04	6.279E-02	5.428E-02	3.204E-02	NOT IDENT.
Y-91	4.444E+00	2.354E+01	2.088E+01	1.201E+01	NOT IDENT.
NB-94	2.684E-02	6.749E-02	6.047E-02	3.443E-02	NOT IDENT.
NB-95	-2.340E-02	7.971E-02	6.741E-02	4.067E-02	NOT IDENT.
NB-95M	1.535E-01	2.164E-01	1.784E-01	1.104E-01	NOT IDENT.
ZR-95	-7.844E-03	1.386E-01	1.195E-01	7.070E-02	NOT IDENT.
NB-97	2.816E+01	5.311E+02	0.000E+00	2.710E+02	SHORT HLIF
ZR-97	4.297E+03	7.784E+03	0.000E+00	3.971E+03	SHORT HLIF
MO-99	1.109E+00	4.870E+00	4.298E+00	2.485E+00	NOT IDENT.
TC-99M	4.895E+08	1.881E+09	0.000E+00	9.595E+08	SHORT HLIF
RH-101	3.956E-03	5.424E-02	4.916E-02	2.767E-02	NOT IDENT.
RH-102	-3.821E-03	6.383E-02	5.415E-02	3.257E-02	NOT IDENT.
RU-103	-4.642E-03	7.952E-02	6.720E-02	4.057E-02	FAIL ABUN
RH-106	-4.804E-01	6.153E-01	5.076E-01	3.139E-01	FAIL ABUN
RU-106	-4.804E-01	6.134E-01	5.076E-01	3.130E-01	FAIL ABUN
AG-108M	-3.088E-02	7.444E-02	6.223E-02	3.798E-02	NOT IDENT.
AG-110M	-1.599E-02	8.696E-02	6.506E-02	4.437E-02	NOT IDENT.
IN-111	-5.447E-01	4.574E-01	3.506E-01	2.334E-01	NOT IDENT.
IN-113M	-1.456E-02	9.030E-02	7.739E-02	4.607E-02	NOT IDENT.
SN-113	-1.456E-02	9.030E-02	7.739E-02	4.607E-02	NOT IDENT.
IN-114M	8.511E-02	3.201E-01	2.611E-01	1.633E-01	NOT IDENT.
CD-115	1.031E+00	3.138E+00	2.857E+00	1.601E+00	NOT IDENT.
SN-117M	4.231E-02	6.073E-02	5.763E-02	3.099E-02	NOT IDENT.
SB-122	5.410E-01	7.406E-01	6.904E-01	3.778E-01	NOT IDENT.
I-123	8.434E+02	3.156E+03	0.000E+00	1.610E+03	SHORT HLIF
TE-123M	1.108E-02	4.147E-02	3.869E-02	2.116E-02	NOT IDENT.
I-124	-1.217E-01	5.110E-01	3.831E-01	2.607E-01	NOT IDENT.
SB-124	-2.498E-02	1.028E-01	8.093E-02	5.247E-02	NOT IDENT.
SB-125	2.884E-02	2.101E-01	1.820E-01	1.072E-01	NOT IDENT.
TE-125M	-6.107E+00	1.400E+01	1.201E+01	7.142E+00	NOT IDENT.
I-126	1.378E-01	2.797E-01	2.239E-01	1.427E-01	NOT IDENT.
SB-126	-2.566E-02	1.984E-01	1.708E-01	1.012E-01	FAIL ABUN
SB-127	-2.204E-01	9.114E-01	7.818E-01	4.650E-01	NOT IDENT.
XE-127	-5.965E-03	6.752E-02	6.105E-02	3.445E-02	NOT IDENT.
I-131	-4.346E-02	1.456E-01	1.246E-01	7.431E-02	NOT IDENT.
TE-132	1.182E-01	3.307E-01	3.022E-01	1.687E-01	NOT IDENT.
BA-133	-5.850E-02	9.626E-02	6.941E-02	4.911E-02	NOT IDENT.
I-133	2.770E+01	8.168E+01	0.000E+00	4.168E+01	SHORT HLIF
CS-134	4.210E-02	1.013E-01	8.989E-02	5.169E-02	NOT IDENT.
CS-135	-1.254E-01	2.967E-01	2.586E-01	1.514E-01	NOT IDENT.
I-135	-1.397E+08	8.746E+08	0.000E+00	4.462E+08	SHORT HLIF
CS-136	3.787E-02	1.799E-01	1.539E-01	9.179E-02	FAIL ABUN
CE-139	3.703E-02	4.705E-02	4.460E-02	2.401E-02	NOT IDENT.
BA-140	8.662E-03	3.654E-01	3.262E-01	1.864E-01	NOT IDENT.
LA-140	6.759E-03	8.689E-02	7.448E-02	4.433E-02	NOT IDENT.
CE-141	9.043E-03	8.551E-02	7.960E-02	4.363E-02	NOT IDENT.
CE-143	-3.095E+00	1.185E+01	9.010E+00	6.046E+00	FAIL ABUN
CE-144	2.382E-01	3.463E-01	3.087E-01	1.767E-01	NOT IDENT.
PM-144	-3.066E-02	6.304E-02	5.279E-02	3.216E-02	NOT IDENT.
PR-144	-2.071E+00	4.257E+00	3.566E+00	2.172E+00	NOT IDENT.
PM-146	1.429E-01	1.084E-01	9.856E-02	5.530E-02	NOT IDENT.
ND-147	-8.472E-02	7.790E-01	6.885E-01	3.974E-01	FAIL ABUN
PM-149	-5.006E+00	2.406E+01	2.108E+01	1.227E+01	NOT IDENT.
EU-152	-8.810E-02	2.209E-01	1.635E-01	1.127E-01	FAIL ABUN
GD-153	3.870E-02	1.297E-01	1.040E-01	6.619E-02	NOT IDENT.
EU-154	-1.082E-01	1.575E-01	1.209E-01	8.033E-02	FAIL ABUN
EU-155	-4.252E-02	1.732E-01	1.505E-01	8.837E-02	FAIL ABUN
TB-160	1.671E-01	3.185E-01	2.824E-01	1.625E-01	FAIL ABUN
HO-166M	1.737E-03	1.190E-01	1.037E-01	6.070E-02	NOT IDENT.
TM-171	-5.695E+01	4.694E+01	3.999E+01	2.395E+01	FAIL ABUN
LU-176	3.314E-03	4.837E-02	4.281E-02	2.468E-02	FAIL ABUN

LU-177	1.188E+00	9.682E-01	9.175E-01	4.940E-01	NOT IDENT.
LU-177M	7.727E-02	3.515E-01	3.069E-01	1.793E-01	FAIL ABUN
HF-181	3.290E-02	8.165E-02	7.136E-02	4.166E-02	NOT IDENT.
W-181	-4.969E-01	6.181E-01	5.101E-01	3.154E-01	NOT IDENT.
TA-182	3.434E-02	2.150E-01	1.904E-01	1.097E-01	NOT IDENT.
RE-183	-1.300E-01	1.616E-01	1.429E-01	8.243E-02	FAIL ABUN
RE-184	4.152E-01	4.206E-01	3.924E-01	2.146E-01	FAIL ABUN
OS-185	3.172E-02	8.134E-02	7.338E-02	4.150E-02	FAIL ABUN
RE-188	1.634E-01	2.442E-01	2.317E-01	1.246E-01	NOT IDENT.
W-188	1.357E+01	1.385E+01	1.151E+01	7.066E+00	NOT IDENT.
IR-192	-2.009E-02	6.461E-02	5.585E-02	3.296E-02	FAIL ABUN
AU-195	1.504E-01	3.861E-01	3.108E-01	1.970E-01	NOT IDENT.
TL-200	-4.833E-01	1.842E+01	0.000E+00	9.398E+00	SHORT HLIF
TL-201	-3.961E-01	2.707E+00	2.472E+00	1.381E+00	NOT IDENT.
TL-202	-3.074E-02	1.105E-01	9.305E-02	5.635E-02	NOT IDENT.
HG-203	3.583E-02	6.935E-02	6.310E-02	3.538E-02	NOT IDENT.
BI-207	-6.746E-02	1.159E-01	9.181E-02	5.915E-02	NOT IDENT.
TL-207	-1.027E-01	1.198E+00	1.046E+00	6.111E-01	FAIL ABUN
PO-209	2.040E+01	1.939E+01	1.766E+01	9.891E+00	NOT IDENT.
BI-210	-1.892E+00	8.298E+00	7.563E+00	4.234E+00	NOT IDENT.
PB-210	-1.892E+00	8.298E+00	7.563E+00	4.234E+00	NOT IDENT.
PO-210	-1.892E+00	8.298E+00	7.563E+00	4.233E+00	NOT IDENT.
PB-211	9.315E-01	2.084E+00	1.776E+00	1.063E+00	NOT IDENT.
BI-212	1.107E+00	6.270E-01	6.002E-01	3.199E-01	NOT IDENT.
BI-214	6.969E-01	2.713E-01	1.760E-01	1.384E-01	FAIL ABUN
PO-215	-1.027E-01	1.198E+00	1.046E+00	6.111E-01	FAIL ABUN
RN-219	-9.716E-01	8.965E-01	7.135E-01	4.574E-01	NOT IDENT.
RN-220	-1.033E+00	4.936E+01	4.401E+01	2.518E+01	NOT IDENT.
RA-223	-1.027E-01	1.198E+00	1.046E+00	6.111E-01	FAIL ABUN
RA-224	7.184E+00	1.754E+00	1.552E+00	8.948E-01	NOT IDENT.
RA-226	6.969E-01	2.713E-01	1.760E-01	1.384E-01	FAIL ABUN
AC-227	2.789E-01	7.013E-01	6.377E-01	3.578E-01	NOT IDENT.
TH-227	2.789E-01	7.018E-01	6.377E-01	3.581E-01	FAIL ABUN
AC-228	5.555E-01	8.239E-01	3.655E-01	4.204E-01	FAIL ABUN
RA-228	5.555E-01	8.239E-01	3.655E-01	4.204E-01	FAIL ABUN
TH-229	2.814E-01	8.664E-01	7.750E-01	4.420E-01	FAIL ABUN
TH-230	6.969E-01	2.713E-01	1.760E-01	1.384E-01	FAIL ABUN
PA-231	7.426E-01	2.828E+00	2.542E+00	1.443E+00	NOT IDENT.
TH-231	-1.027E-01	1.198E+00	1.046E+00	6.111E-01	FAIL ABUN
U-231	-5.518E-01	6.611E-01	4.903E-01	3.373E-01	FAIL ABUN
TH-232	5.555E-01	8.239E-01	3.655E-01	4.204E-01	FAIL ABUN
PA-233	8.096E-02	1.275E-01	1.159E-01	6.505E-02	FAIL ABUN
PA-234	-1.062E-01	8.609E-01	7.242E-01	4.392E-01	FAIL ABUN
PA-234M	-6.661E+00	1.148E+01	9.301E+00	5.859E+00	NOT IDENT.
TH-234	1.478E+00	2.463E+00	2.082E+00	1.257E+00	FAIL ABUN
U-234	6.969E-01	2.713E-01	1.760E-01	1.384E-01	FAIL ABUN
U-235	-1.534E-01	3.220E-01	2.918E-01	1.643E-01	FAIL ABUN
NP-236	-1.343E-01	1.246E-01	1.089E-01	6.359E-02	FAIL ABUN
NP-237	4.909E+00	1.237E+00	6.018E-01	6.313E-01	NOT IDENT.
U-238	1.478E+00	2.463E+00	2.082E+00	1.257E+00	FAIL ABUN
NP-239	2.430E-01	3.460E-01	2.810E-01	1.766E-01	NOT IDENT.
AM-243	9.995E-02	1.120E-01	9.311E-02	5.713E-02	FAIL ABUN
CM-243	4.999E-02	1.544E-01	1.381E-01	7.877E-02	NOT IDENT.
AM-246	3.031E-01	3.664E-01	3.258E-01	1.869E-01	NOT IDENT.
CM-247	-9.154E-02	8.062E-02	6.456E-02	4.113E-02	NOT IDENT.
CF-249	9.099E-02	8.089E-02	7.446E-02	4.127E-02	NOT IDENT.
CF-251	-6.418E-02	1.926E-01	1.736E-01	9.826E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	325.5138
46.50	325.5138
46.50	325.5138
48.70	343.4700
49.72	359.6462
51.35	411.4932
52.39	405.0921
52.97	404.5183
53.15	404.6601
53.44	424.8232
54.07	419.4187
56.28	480.6947
56.28	480.6970
57.37	480.1152
57.53	484.9666
57.53	484.9684
57.60	485.0297
57.98	431.4424
57.98	431.4424
59.32	432.5111
59.32	432.5111
59.40	432.5740
59.54	432.6851
59.72	432.8275
60.01	433.0560
61.10	355.4489
61.14	355.4742
61.30	355.5768
63.00	261.5466
63.29	261.6803
63.29	261.6803
63.58	280.8551
64.28	273.2560
65.12	311.8393
65.20	311.8827
65.20	311.8827
66.05	343.1481
66.72	328.6504
66.83	325.5219
66.91	325.5655
67.20	293.7919
67.20	293.7919
67.75	279.1493
67.85	257.8844
68.90	276.4877
68.90	276.4877
69.30	276.6721
69.67	274.7056
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70.83	321.2814
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74.81	370.2416
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74.81	370.2416
74.81	370.2416
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77.11	409.9857

77.11	409.9857
77.11	409.9857
77.11	409.9857
77.11	409.9857
77.11	409.9857
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79.80	301.4366
80.11	301.5791
80.18	301.6102
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81.07	352.6265
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83.37	350.5664
83.78	355.6978
83.78	355.6978
83.78	355.6978
83.78	355.6978
84.21	339.5225
84.90	339.8668
85.43	341.7753
86.29	361.9463
86.50	362.0570
86.54	362.0772
86.59	362.1040
86.72	362.1729
86.79	362.2081
86.94	362.2870
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87.57	362.6176
87.88	362.7788
88.03	362.8577
88.36	363.0289
88.47	363.0859
89.95	363.8530
91.11	178.9113
92.29	179.2062
92.38	179.2293
92.38	179.2293
93.35	212.7061
94.00	212.8965
94.67	213.0918
94.67	213.0928
94.90	196.5070
94.90	196.5070
94.90	196.5070
94.90	196.5070
95.87	255.1304
95.87	255.1304
96.73	267.1155
97.43	203.8673
98.44	192.4306
98.44	192.4315
98.88	217.6591
99.55	217.1832
99.55	217.1832
99.86	222.4134
100.00	222.4549
100.10	220.2493
103.18	222.2616
103.76	222.4297
105.00	231.7867
105.31	239.7583
108.00	228.1562
109.28	246.6238

111.00	230.1478
111.00	230.1478
111.76	246.2508
112.95	230.7012
115.19	246.1465
116.30	205.3976
117.00	208.9959
117.00	208.9959
117.66	243.4504
121.11	220.3457
121.62	187.1762
121.78	187.2115
122.06	187.2724
122.32	187.3296
122.32	187.3296
122.32	187.3296
122.32	187.3296
123.07	187.4929
127.23	230.5770
129.76	224.8611
131.20	240.3166
133.02	241.9642
133.54	230.4642
135.34	243.7483
136.00	259.0948
136.25	254.7882
136.48	254.8515
140.51	233.0901
140.51	0.0000
142.18	238.7894
142.65	240.6725
143.76	227.7144
144.24	220.7642
144.24	220.7642
144.24	220.7642
144.24	220.7642
145.22	220.1072
145.44	220.1566
147.16	234.7217
152.43	239.5515
152.70	236.9448
153.22	216.5702
154.21	206.9737
154.21	206.9737
154.21	206.9737
154.21	206.9737
155.03	200.0007
156.02	212.7096
158.56	192.6375
159.00	0.0000
159.00	198.9958
160.31	239.6404
161.27	230.8808
162.32	227.5190
162.64	227.5904
163.35	222.3456
163.89	205.3482
165.85	214.7596
167.43	226.8311
171.28	181.3995
171.86	191.4795
172.10	191.5230
176.55	198.6935
176.60	198.7018
181.06	202.5607
184.41	249.6792
185.71	239.6749
186.00	234.4050
190.27	230.3038
192.34	226.2820
193.63	210.4589
197.04	205.1086
198.01	205.2788
198.60	216.5336
200.40	205.6953
201.83	212.4645
202.84	208.9148
205.31	240.1865

208.36	208.9349
208.81	201.5149
209.75	217.6151
209.75	217.6151
210.97	246.9397
215.65	224.3125
216.55	234.8509
218.09	227.5850
222.10	218.8360
223.80	217.2296
226.40	242.3835
227.00	239.6434
227.08	234.9037
227.20	234.9263
228.16	213.2078
228.18	213.2112
228.18	213.2112
231.56	227.9450
235.69	191.4627
236.00	186.9123
236.00	186.9123
238.63	233.1426
238.63	233.1426
238.63	233.1426
238.63	233.1426
239.00	233.2075
240.98	238.3579
241.98	209.2959
241.98	209.2959
241.98	209.2959
244.69	246.7246
245.39	228.8520
247.94	170.9948
248.90	193.3487
249.79	189.6043
252.40	173.4868
252.85	171.6038
252.85	171.6038
254.15	0.0000
256.20	179.7918
256.20	179.7918
260.50	180.3423
260.90	185.2686
262.80	170.8691
264.65	184.7780
268.24	209.7419
268.79	205.9016
269.46	200.1121
269.46	200.1121
269.46	200.1121
269.46	200.1121
271.23	193.4800
273.65	212.4932
276.40	205.0039
277.35	184.4262
277.60	172.6208
277.60	172.6208
278.00	168.7195
278.60	172.7383
279.20	174.7826
279.53	169.8820
280.46	184.8143
281.68	187.9329
283.67	162.4310
284.30	151.5992
285.00	149.6867
285.90	172.5902
286.10	186.5026
286.10	186.5026
287.40	172.7601
288.45	0.0000
290.67	138.5054
290.80	138.5182
291.72	154.5322
293.26	189.7725
293.70	173.8757
295.21	146.7017
295.21	146.7017

295.21	146.7017
295.96	146.7712
296.50	146.8228
297.23	159.8828
298.57	148.8204
299.80	163.3494
299.80	163.3494
300.09	164.9836
300.09	164.9836
300.09	164.9836
300.09	164.9836
300.12	164.9861
301.29	161.9033
302.84	165.4733
303.76	175.6035
303.91	175.6222
304.40	168.6486
304.40	168.6486
304.84	163.6740
306.84	166.8992
308.46	188.2041
311.98	157.3497
316.51	170.9444
318.01	128.5794
319.02	143.8547
319.41	147.9426
320.08	153.0714
323.87	143.2655
323.87	143.2655
323.87	143.2655
323.87	143.2655
325.23	155.5867
328.77	148.7847
333.44	166.7785
334.20	155.4048
334.20	155.4048
334.30	155.4141
338.28	139.3826
338.28	139.3826
338.28	139.3826
338.28	139.3826
338.32	139.3846
338.32	139.3846
338.32	139.3846
340.50	159.2661
340.57	159.2732
344.27	161.2646
345.85	123.5303
350.59	150.2944
351.07	146.6173
351.92	146.6888
351.92	146.6888
351.92	146.6888
355.39	0.0000
356.01	150.7587
364.48	167.5028
366.43	140.6071
367.43	155.2750
367.94	0.0000
369.80	140.8708
374.96	139.1776
383.85	165.0900
387.95	119.0831
388.63	140.2126
391.69	149.9433
391.69	149.9433
392.90	153.2107
398.62	140.9553
400.65	152.7759
401.10	164.4865
401.81	169.8535
402.60	174.1724
404.84	144.6038
410.95	153.5933
411.60	141.9091
413.65	130.3082
414.70	149.6152
415.30	157.1430

415.76	165.7352
417.63	0.0000
418.52	122.0661
423.70	162.1080
427.08	153.7791
427.89	151.6908
432.53	149.8848
433.93	154.3028
439.47	150.3981
439.56	150.4045
439.89	147.1812
443.98	138.8008
444.90	137.7784
445.03	133.4464
445.03	133.4464
445.03	133.4464
445.03	133.4464
453.90	143.8251
463.38	137.9067
468.07	174.4085
473.00	125.3363
475.06	125.4564
475.35	133.1764
476.78	123.3528
477.59	124.5007
477.96	132.2351
482.03	108.1939
484.57	122.6901
487.03	108.4421
490.36	108.6066
492.35	108.7038
497.08	116.7167
507.63	0.0000
510.53	0.0000
510.84	100.6561
511.00	100.6629
511.85	100.7000
511.85	100.7000
513.99	105.7218
513.99	105.7218
520.41	89.8462
520.65	89.8560
527.90	99.1504
528.96	0.0000
529.64	93.8133
529.87	0.0000
531.02	104.6974
537.32	97.7405
543.00	97.9752
546.56	0.0000
549.76	84.6059
552.65	81.9756
555.20	84.7967
563.23	69.5263
563.90	70.4599
568.70	85.2667
569.32	85.2894
569.50	77.9589
569.67	77.9630
573.80	93.7125
574.00	90.0447
574.64	101.0974
578.91	92.0654
579.30	0.0000
583.14	94.9858
585.48	78.4611
591.81	101.7930
592.07	96.2508
593.00	82.3967
595.88	100.1004
600.56	87.6978
602.52	0.0000
602.71	92.9346
602.71	92.9346
603.60	91.4169
604.41	94.5455
604.70	77.5065
609.31	97.8325

609.31	97.8325
609.31	97.8325
609.31	97.8325
610.33	97.8710
612.46	91.7314
614.37	77.7954
618.01	84.1377
621.84	92.6856
621.84	92.6856
631.29	85.5013
633.02	85.5569
633.10	89.3199
634.78	84.6716
635.90	87.5326
636.97	83.8004
645.85	77.4656
646.12	77.4736
656.30	101.1563
657.75	105.9525
657.90	0.0000
661.65	79.8164
661.65	79.8164
664.57	74.5104
666.33	71.3855
666.33	71.3855
675.00	79.2472
677.61	81.2314
685.20	88.1592
692.80	83.5909
695.00	81.7336
696.49	78.8890
696.49	78.8890
697.00	75.0541
697.49	70.2554
698.33	65.4633
698.50	66.4293
699.00	69.3299
702.63	80.9874
706.10	80.1185
706.58	0.0000
706.67	74.3418
709.31	86.9722
711.68	76.4059
713.82	70.6546
717.42	75.5873
720.50	77.6074
721.93	77.6445
722.20	77.6523
722.78	96.1141
722.78	96.1141
722.89	104.8544
722.95	104.8570
723.30	108.7543
724.18	109.7584
727.18	70.0049
733.00	106.1898
735.90	74.1130
739.58	72.2512
742.81	78.1934
744.21	74.3189
747.13	74.3913
751.79	78.4277
752.31	76.4804
753.82	72.5944
755.35	72.6306
756.15	80.5025
756.87	79.5406
763.93	88.5828
765.79	87.6528
766.42	91.6105
766.84	95.5625
776.49	75.1094
778.00	79.1016
778.57	86.0378
778.89	84.0682
783.80	74.2950
785.46	71.3619
792.07	97.3349

795.84	83.5304
796.30	83.5427
798.80	107.4964
801.93	95.6484
805.60	88.7762
810.29	93.9013
810.76	81.9259
815.85	78.0533
817.79	90.1143
818.51	81.1226
819.60	90.1648
826.30	98.3828
828.27	0.0000
831.60	88.4888
831.96	75.4248
834.83	91.5954
836.80	0.0000
846.75	91.9287
848.13	99.0408
856.28	0.0000
856.80	113.4848
860.37	91.2920
867.32	80.2999
867.82	80.3115
871.10	75.3008
873.19	89.6027
874.81	88.6270
875.33	0.0000
876.40	92.7462
879.36	78.5453
880.27	90.8100
880.51	93.8777
881.50	88.8012
883.24	87.8267
884.67	101.1439
889.25	95.1411
896.60	83.0428
898.02	101.5378
899.00	106.6965
903.28	100.4371
911.07	95.7428
911.07	95.7428
911.07	95.7428
919.63	103.2007
920.93	117.0023
925.00	91.9877
925.24	91.9942
926.50	93.0608
935.52	83.9683
937.48	86.0882
944.10	94.5614
946.00	115.4037
949.00	116.5418
962.29	115.9240
964.01	133.7406
966.15	127.5460
968.20	103.5584
969.11	107.7703
969.11	107.7703
969.11	107.7703
977.42	83.8945
980.50	77.6675
983.50	75.6299
989.30	76.7997
996.32	93.8085
1001.03	93.9258
1001.68	93.9432
1004.76	88.7373
1021.30	0.0000
1024.50	0.0000
1034.80	83.0502
1036.00	82.0118
1037.82	72.4592
1038.57	62.8834
1038.76	0.0000
1045.16	64.0576
1046.59	66.2171
1048.07	67.3097

1050.47	80.1819
1050.47	80.1819
1062.04	57.8997
1063.62	69.7227
1076.63	80.7166
1077.35	66.7378
1078.86	74.2997
1085.78	89.5290
1099.22	80.0884
1112.02	87.9412
1112.84	78.1875
1115.52	81.4966
1120.29	65.2734
1120.29	65.2734
1120.29	65.2734
1120.29	65.2734
1120.51	75.0712
1121.28	72.9083
1124.00	0.0000
1129.67	61.0613
1131.51	0.0000
1147.95	0.0000
1167.94	48.7337
1173.22	46.8268
1175.09	42.5171
1177.93	44.1211
1189.05	31.3341
1204.90	27.7490
1205.75	0.0000
1213.00	24.0946
1221.42	20.4263
1230.97	22.3320
1235.34	34.4632
1236.41	0.0000
1238.25	18.6409
1246.25	20.5417
1260.41	0.0000
1271.85	24.4152
1274.45	24.4300
1274.54	20.6716
1291.56	18.8631
1298.22	0.0000
1312.09	18.9469
1325.50	14.6583
1325.50	14.6583
1332.49	10.4665
1333.61	10.4692
1360.21	8.6140
1362.66	0.0000
1365.15	13.4132
1368.21	9.5870
1368.53	0.0000
1376.25	11.5239
1384.27	12.5049
1394.10	9.6387
1395.20	11.5688
1407.95	8.6993
1434.06	9.7176
1436.60	7.7780
1457.56	0.0000
1460.81	11.7231
1489.15	14.7363
1509.49	8.8766
1596.49	11.0291
1620.62	9.0641
1678.03	0.0000
1691.02	9.1794
1691.02	9.1794
1706.46	0.0000
1750.46	0.0000
1764.49	5.1650
1764.49	5.1650
1764.49	5.1650
1764.49	5.1650
1770.23	21.7144
1771.40	18.6160
1791.20	0.0000
1808.65	4.1631

1836.01	6.2729

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202023709

Total Uranium Activity	4.3255E+00	ug/g
Total Uranium Counting Unc.	7.3298E+00	ug/g
Total Uranium Tpu	3.7397E-06	ug/g
Total Uranium Mda	6.1950E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 944962                    SAMPLE ID   : G1202023709     *
*   ANALYST       : MXR1                      DETECTOR    : GAM01           *
*   SAMPLE DATE   : 27-JAN-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE:  4-FEB-2010 21:14:00.89    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.548E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 3.756E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.426E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.667E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 948401 Product: H3 Date: 2-9-10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			
Smears Taken for Radioactive batches.			
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JM

Secondary Review Performed By: [illegible] 2/9/10

LANL 2-20-10

Tritium Que Sheet

95 / 03-FEB-10

Batch #: 948401 **Analyst:** KXK2 **First Client Due Date** 20-FEB-10 **Internal Due Date:** 09-FEB-10

Spike Isotope: Hydrogen-3 **Spike Code:** _____ **Expiration Date:** _____ **Vol:** ____

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 2/3/10 **Initials:** KXK **Pipet ID:** 2970968 **Witness:** bz 2/4/10

Sample ID	Client Samp ID	Type	Hazard Code	Min. CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture ~~Dist Vol (mL)~~ KXK 2/4/10
245396001-1	RE15-10-7928	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-JAN-10	10	62-2	1	KXK 2/3/10	321.85	310.26	11.59
245396002-1	RE15-10-7929	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-JAN-10	10	62-3	2		228.12	165.62	62.50
245396003-1	RE15-10-7927	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-JAN-10	10	62-4	3		263.69	199.35	64.34
245396004-1	RE15-10-7930	SAMPLE		.25 pCi/mL	SOIL	LANL010	21-JAN-10	10	62-5	4		246.46	218.36	28.10
1202031679-1	MB for batch 948401	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	62-6	5		20.00	0	20.00
1202031680-1	KKG 2/3/10 ~~RE15-10-7928(245396001DUP)~~ RE15-10-7929(245396002DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	21-JAN-10	10	62-7	2		228.12	165.62	62.50
1202031681-1	LCS for batch 948401	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	24-1	6		20.00	0	20.00

Bkg Rack #: 62-1

2-8-10 dailies ✓

Comments: _____

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 2-9-10

GEL Laboratories LLC, Radiochemistry Division

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.5

Batch : 948401
Analyst : KXK2
Prep Date : 2/3/2010

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005460 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2471.24
LCS Volume Added: 0.10

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.28 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	245396001.1	321.85	0.0116	0.0100	2.5729E-05	310.26	3.60%	1	1/21/2010 12:00
2	245396002.1	228.12	0.0625	0.0100	2.5729E-05	165.62	27.40%	2	1/21/2010 12:00
3	245396003.1	263.69	0.0643	0.0100	2.5729E-05	199.35	24.40%	3	1/21/2010 12:00
4	245396004.1	246.46	0.0281	0.0100	2.5729E-05	218.36	11.40%	4	1/21/2010 12:00
5	1202031679.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	5	2/3/2010 0:00
6	1202031680.1	228.12	0.0625	0.0100	2.5729E-05	165.62	27.40%	2	1/21/2010 12:00
7	1202031681.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	6	2/3/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	62-2	95	119.1	15.05	3.02	95	2/6/2010 11:38	0.998	LSCGREEN	8/20/2009	8/31/2010	0.1832	0.00792	62-1	2/6/2010 10:00
2	62-3	95	118.8	6.99	3.02	95	2/6/2010 13:16	0.998	LSCGREEN	8/20/2009	8/31/2010	0.1835	0.00792	62-1	2/6/2010 10:00
3	62-4	95	118.2	10.73	3.02	95	2/6/2010 14:54	0.998	LSCGREEN	8/20/2009	8/31/2010	0.1839	0.00792	62-1	2/6/2010 10:00
4	62-5	95	118.2	14.04	3.02	95	2/6/2010 16:32	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1839	0.00792	62-1	2/6/2010 10:00
5	62-6	95	117.7	3.19	3.02	95	2/6/2010 18:10	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1843	0.00792	62-1	2/6/2010 10:00
6	62-7	95	117.9	6.76	3.02	95	2/6/2010 19:48	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1841	0.00792	62-1	2/6/2010 10:00
7	24-1	120	117.5	28.43	3.02	95	2/6/2010 21:27	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1844	0.00792	62-1	2/6/2010 10:00

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	144.7896	102.2227	250	212.2279	**2984.7657**	0.037	12.030	0.436	107.4836	232.7880		SAMPLE				
2	144.6084	102.0947	250	211.9623	**977.1727**	0.082	3.970	0.325	79.8980	104.9549		SAMPLE				
3	144.2507	101.8422	250	211.4380	**1893.0391**	0.050	7.710	0.380	93.4103	161.5819		SAMPLE				
4	144.2522	101.8433	250	211.4402	**2705.7730**	0.039	11.020	0.424	104.0489	215.2666		SAMPLE				
5	143.6829	101.4413	250	210.6057	**41.5759**	1.504	0.170	0.256	62.5283	62.5953		MB				
6	144.0787	101.7208	250	211.1860	**917.1890**	0.086	3.740	0.321	78.6855	101.3512	245396002.1	DUP	6.3%	0.1454		
7	135.8875	95.9378	250	197.9848	**6209.5202**	0.022	25.410	0.518	126.8754	450.6479		LCS			5565.8668	111.6%

ID: TRIT 1 CLIM 6 FEB 2010 10:03
USER: 4 COMMENT: GK-N
PRESET TIME : 95.00
DATA CALC : CPM H# : YES SAMPLE REPEATS : 1 PRINTER : STD
COUNT BLANK : NO ICA : NO REPLICATES : 1 RS232 : EDIT
TWO PHASE : NO ADC : NO CYCLE REPEATS : 1 DISK : OFF
SCINTILLATOR: LIQUID LUMEX: YES LOW SAMPLE RE: % RWM LIST : OFF
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 0.0 - 990.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	62-1	95.00	118.6	3.02	12.05	35.87	5.40	0.31	77.50
2	62-2	95.00	119.1	15.05	5.00	51.22	2.87	0.27	195.51
3	62-3	95.00	118.8	6.99	7.84	40.22	3.24	0.32	273.53
4	62-4	95.00	118.2	10.73	6.31	45.97	3.03	0.26	391.50
5	62-5	95.00	118.2	14.04	5.50	50.89	2.88	0.23	489.51
6	62-6	95.00	117.7	3.19	11.64	35.94	3.43	0.26	567.47
7	62-7	95.00	117.7	6.76	7.95	40.69	3.22	0.27	685.46

LID : TFR1 : CLUM 6 FEB 2010 21:29

USER: 2 COMMENT:GREEN

PRESET TIME : 120.00

DATA CALC	:	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:	STD
COUNT BLANK	:	NO	IC#	: NO	REPLICATES :	1	RS232	:	EDIT
TWO PHASE	:	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	:	OFF
SCINTILLATOR:		LIQUID	LUMEX	:YES	LOW SAMPLE RED:	0	RWM LIST	:	OFF
LOW LEVEL	:	NO	HALF LIFE CORRECTION DATE:				none		

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	24-1	120.00	117.5	28.43	3.43	70.72	2.17	0.14	122.99

Sample Count Start Time:	6 Feb 2010 10:00:07		
Data Capture Date	06 Feb 2010 11:35:29		
User Filename	S04020662-1A.XLS		
	U04020662-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	62-1	95.00
H#, Total Counts:	118.6	3465	
Win1: Tritium - Start, End, Counts:	10	230	287
Win2: - Start, End, Counts:	0	990	3465

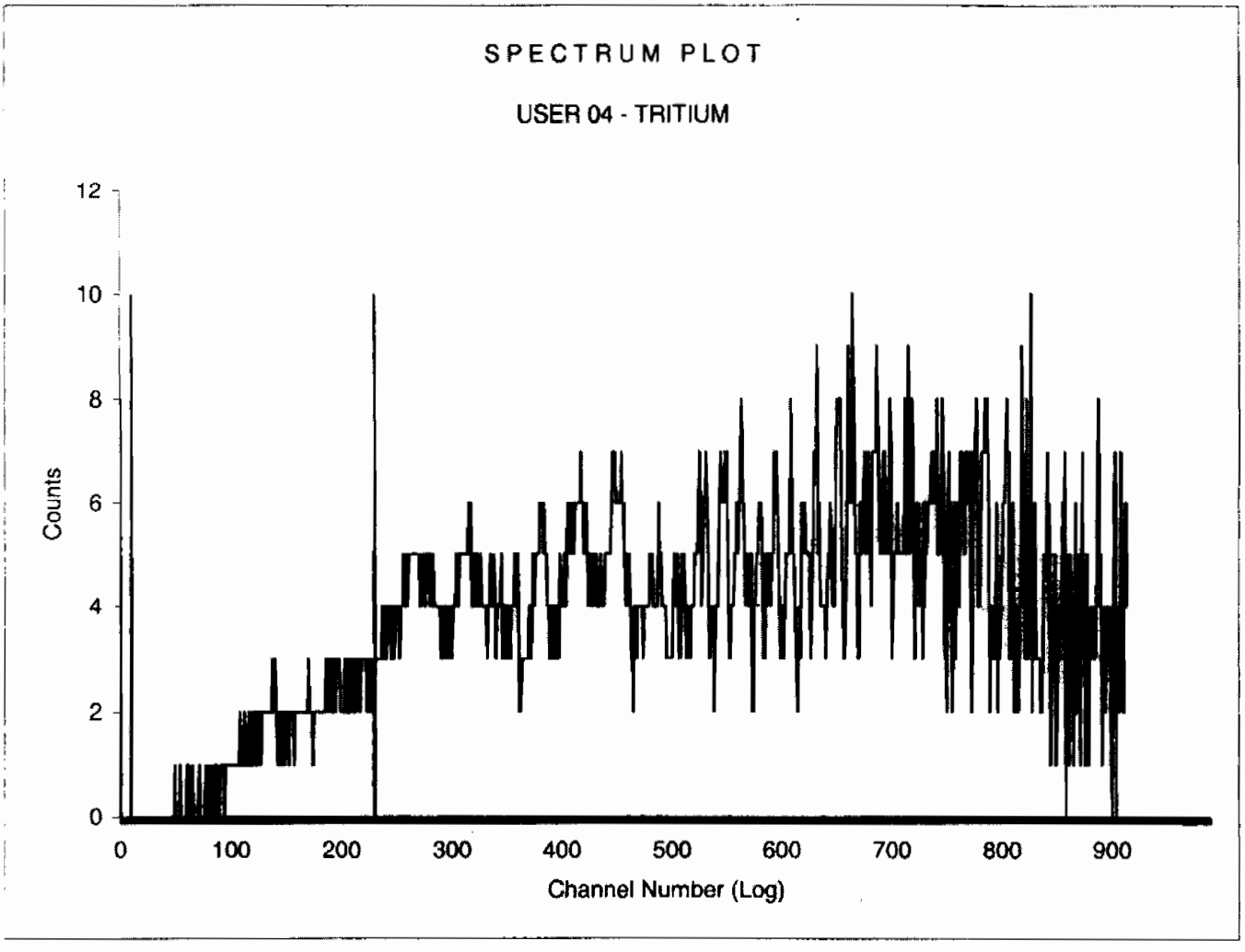

Sample Count Start Time:	6 Feb 2010 11:38:08		
Data Capture Date	06 Feb 2010 13:13:30		
User Filename	S04020662-2A.XLS		
	U04020662-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	62-2	95.00
H#, Total Counts:	119.1	4928	
Win1: Tritium - Start, End, Counts:	10	230	1430
Win2: - Start, End, Counts:	0	990	4928

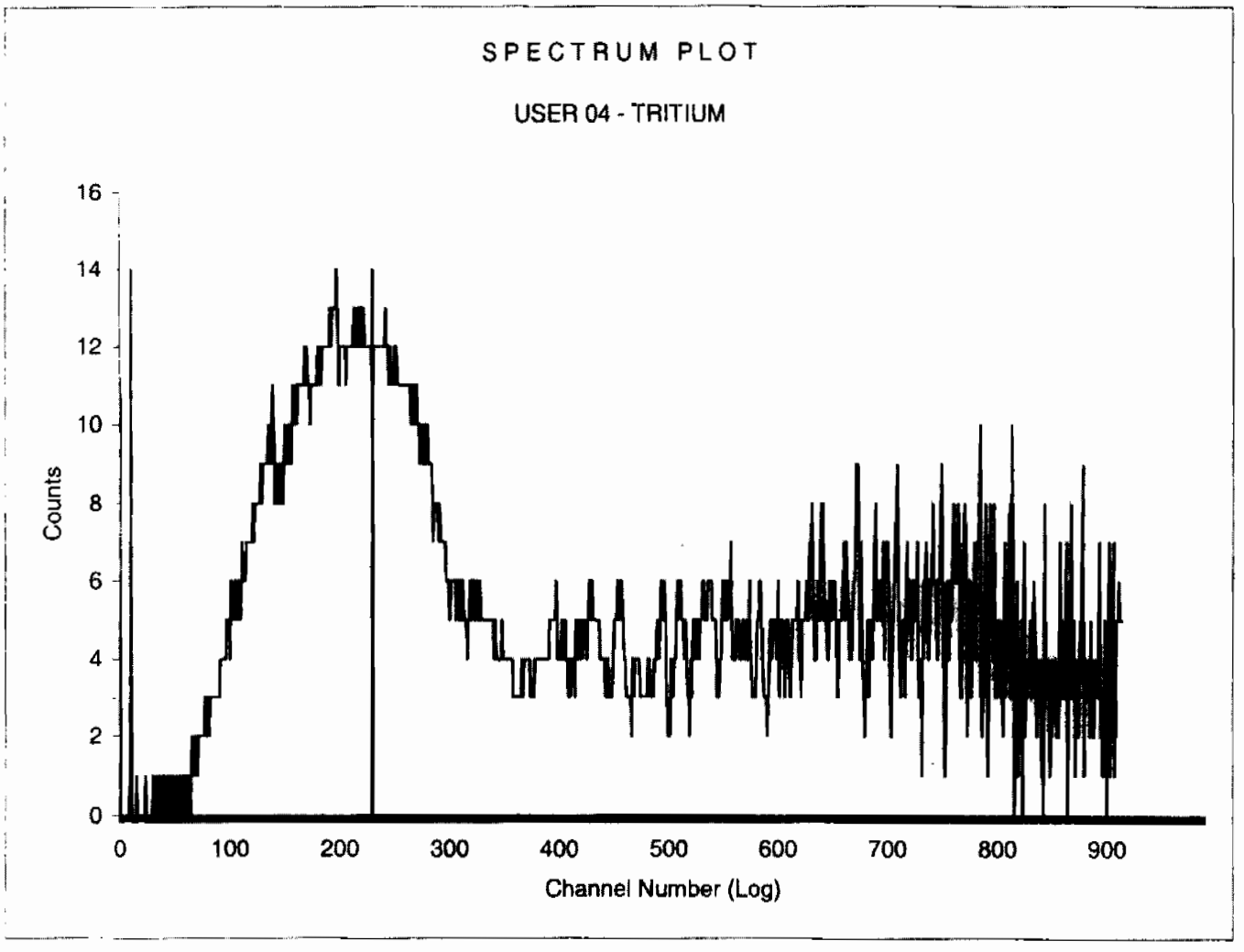

Sample Count Start Time:	6 Feb 2010 13:16:09		
Data Capture Date	06 Feb 2010 14:51:31		
User Filename	S04020662-3A.XLS		
	U04020662-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	62-3	95.00
H#, Total Counts:	118.8	3878	
Win1: Tritium - Start, End, Counts:	10	230	664
Win2: - Start, End, Counts:	0	990	3878

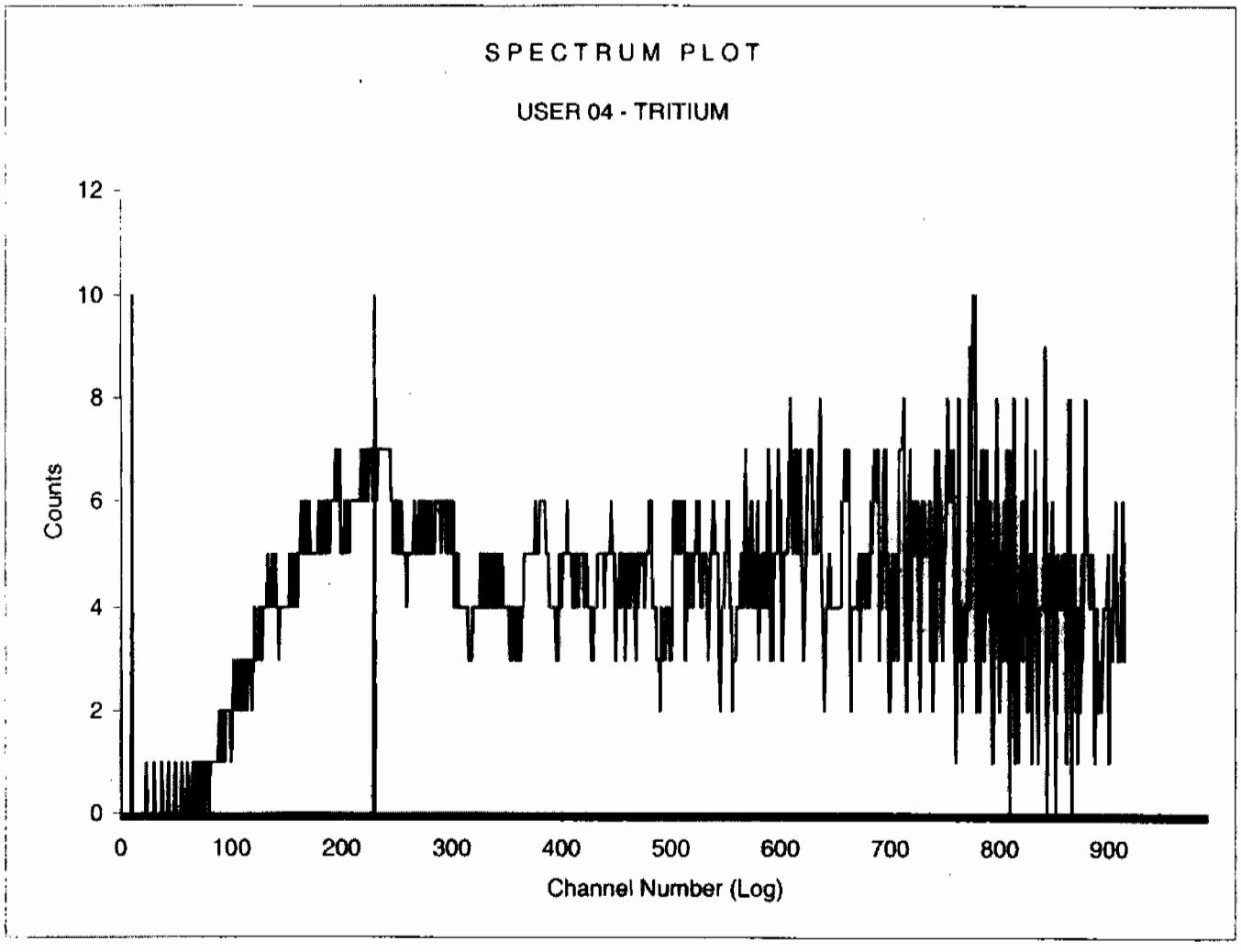

Sample Count Start Time:	6 Feb 2010 14:54:08		
Data Capture Date	06 Feb 2010 16:29:31		
User Filename	S04020662-4A.XLS		
	U04020662-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	62-4	95.00
H#, Total Counts:	118.2	4425	
Win1: Tritium - Start, End, Counts:	10	230	1019
Win2: - Start, End, Counts:	0	990	4425

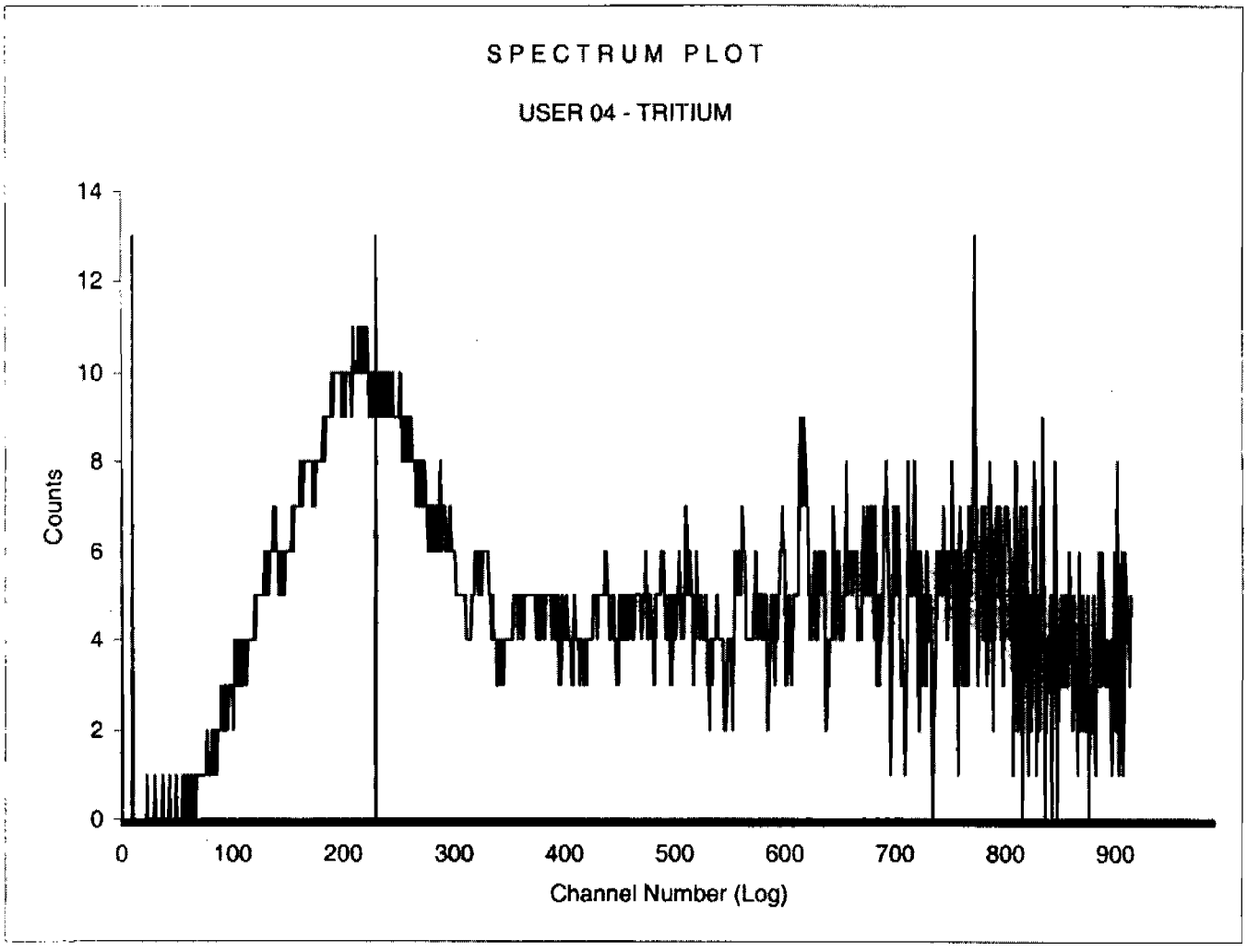

Sample Count Start Time:	6 Feb 2010 16:32:08		
Data Capture Date	06 Feb 2010 18:07:31		
User Filename	S04020662-5A.XLS		
	U04020662-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	62-5	95.00
H#, Total Counts:	118.2	4906	
Win1: Tritium - Start, End, Counts:	10	230	1334
Win2: - Start, End, Counts:	0	990	4906

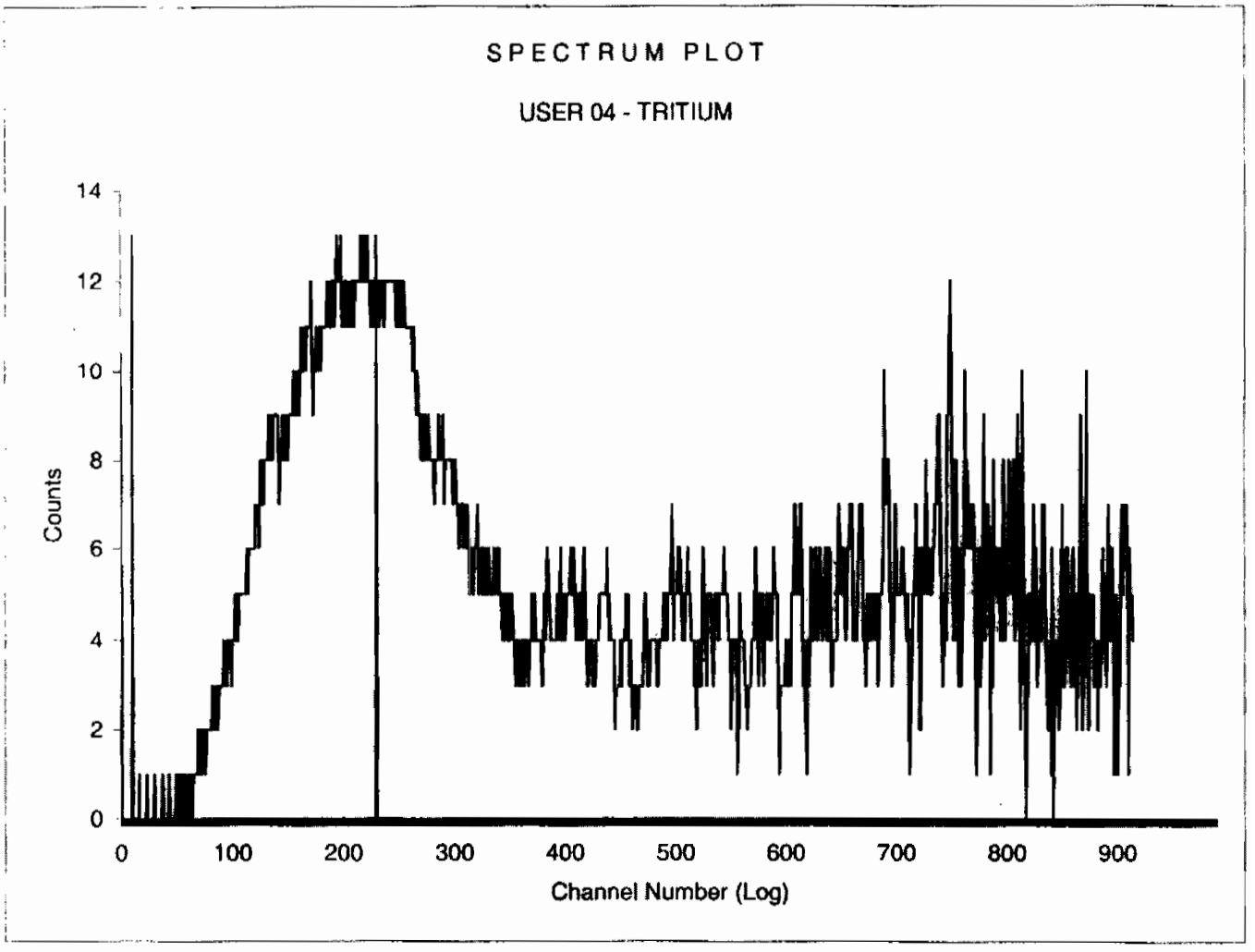

Sample Count Start Time:	6 Feb 2010 18:10:05		
Data Capture Date	06 Feb 2010 19:45:43		
User Filename	S04020662-6A.XLS		
	U04020662-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	62-6	95.00
H#, Total Counts:	117.7	3464	
Win1: Tritium - Start, End, Counts:	10	230	303
Win2: - Start, End, Counts:	0	990	3464

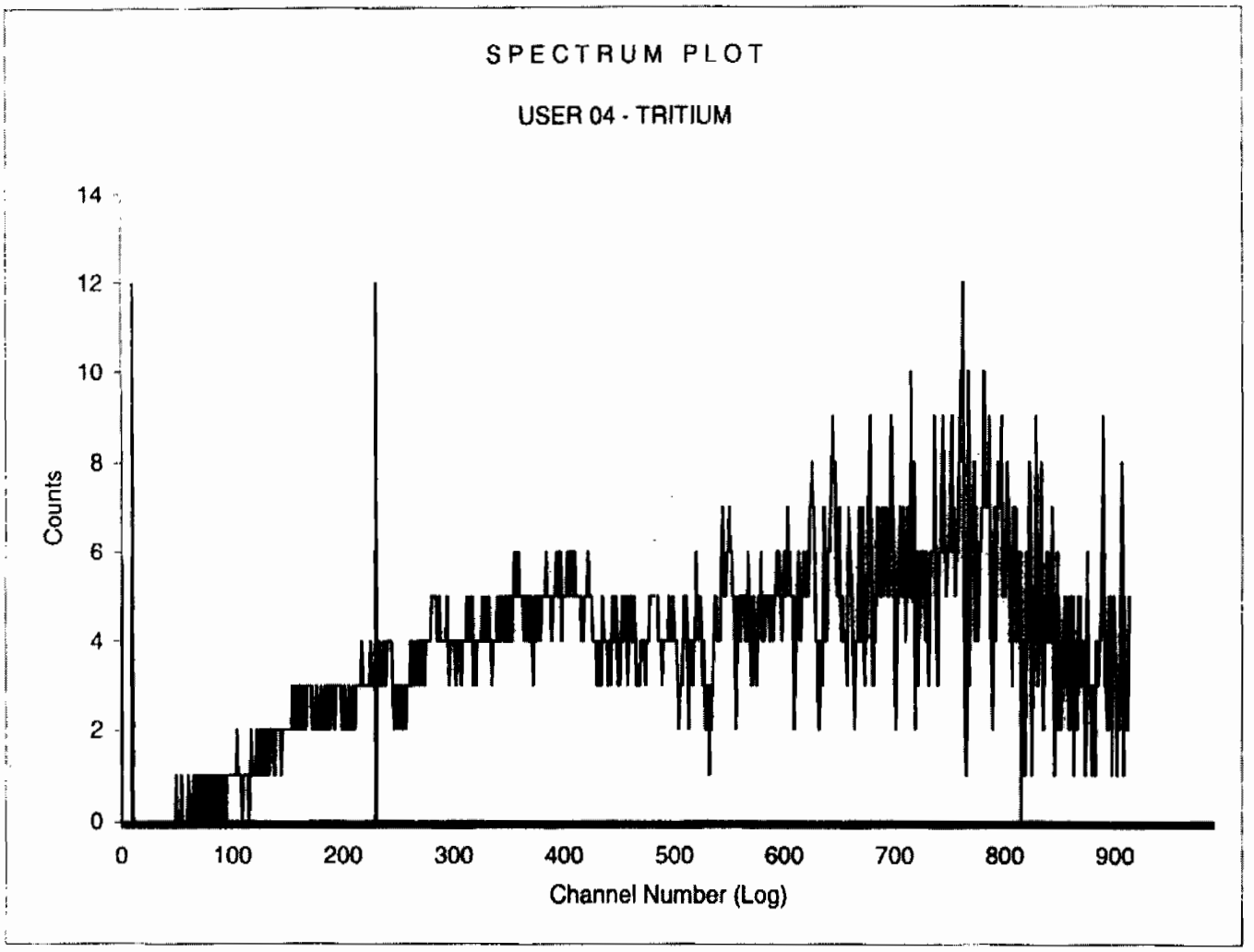

Sample Count Start Time:	6 Feb 2010 19:48:05		
Data Capture Date	06 Feb 2010 21:23:27		
User Filename	S04020662-7A.XLS		
	U04020662-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	62-7	95.00
H#, Total Counts:	117.9	3922	
Win1: Tritium - Start, End, Counts:	10	230	642
Win2: - Start, End, Counts:	0	990	3922

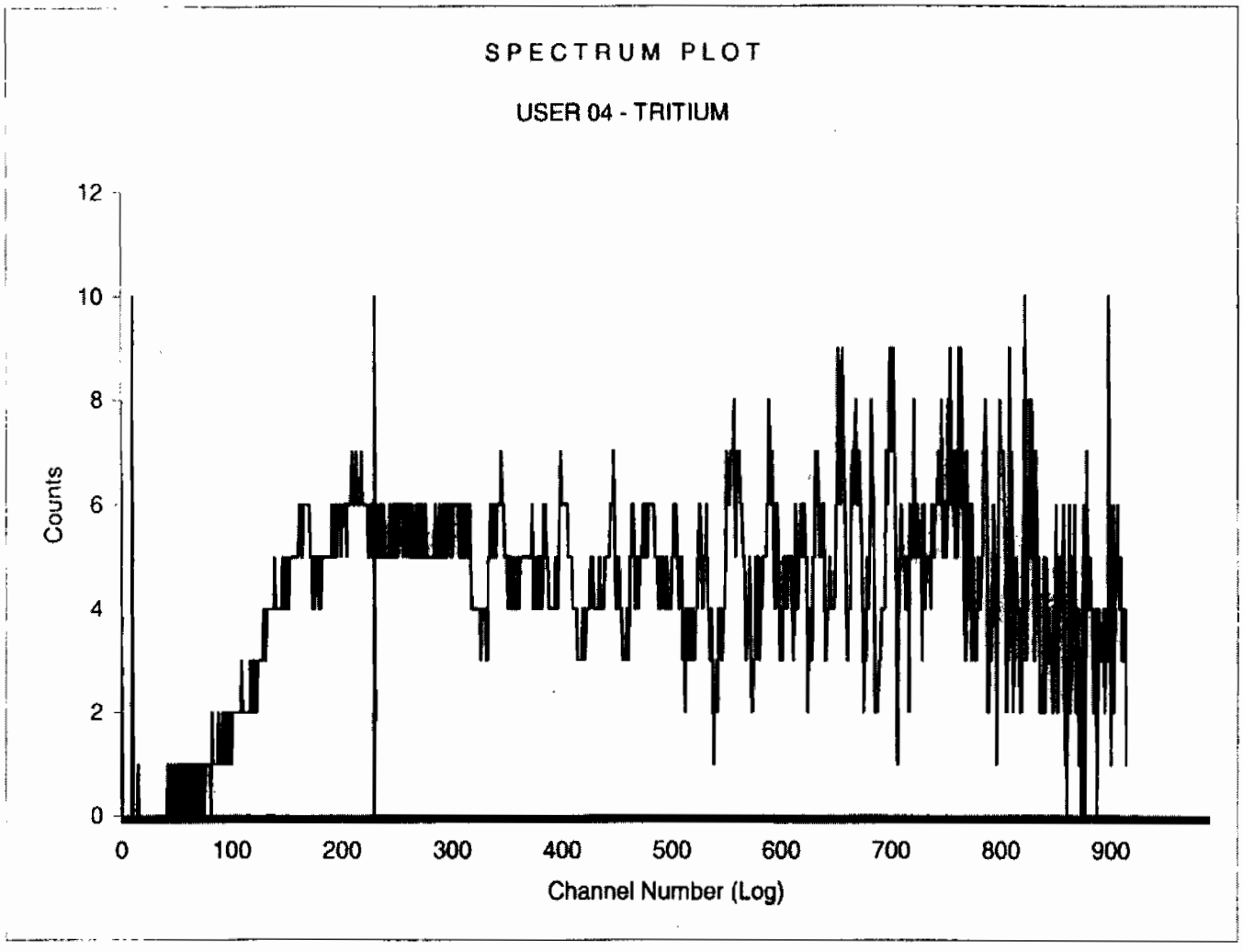

Sample Count Start Time:	6 Feb 2010 21:27:41		
Data Capture Date	06 Feb 2010 23:27:10		
User Filename	S02020624-1A.XLS		
	U02020624-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	24-1	120.00
H#, Total Counts:	117.5	8557	
Win1: Tritium - Start, End, Counts:	10	230	3412
Win2: - Start, End, Counts:	0	990	8557

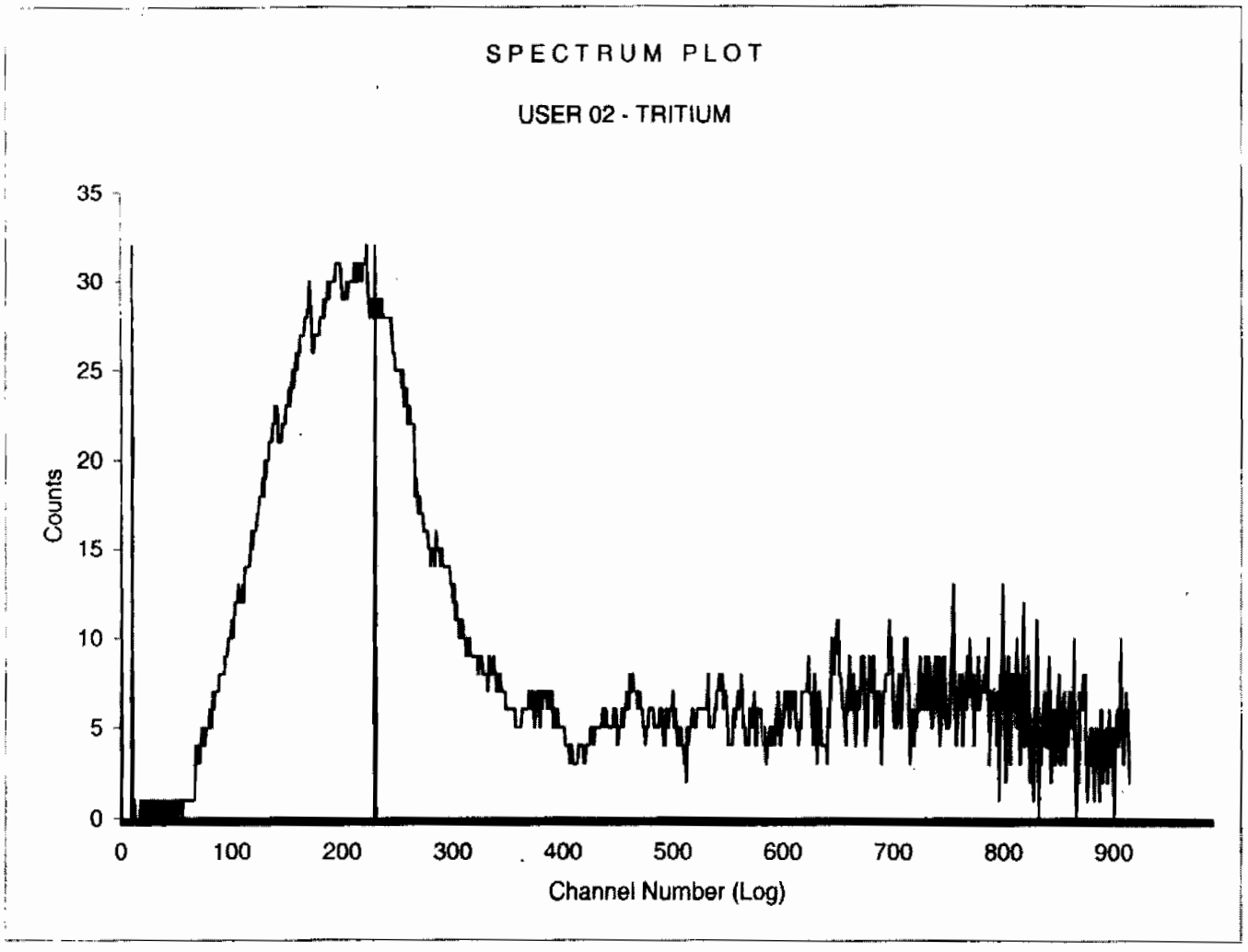

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.290108 through 0.310108

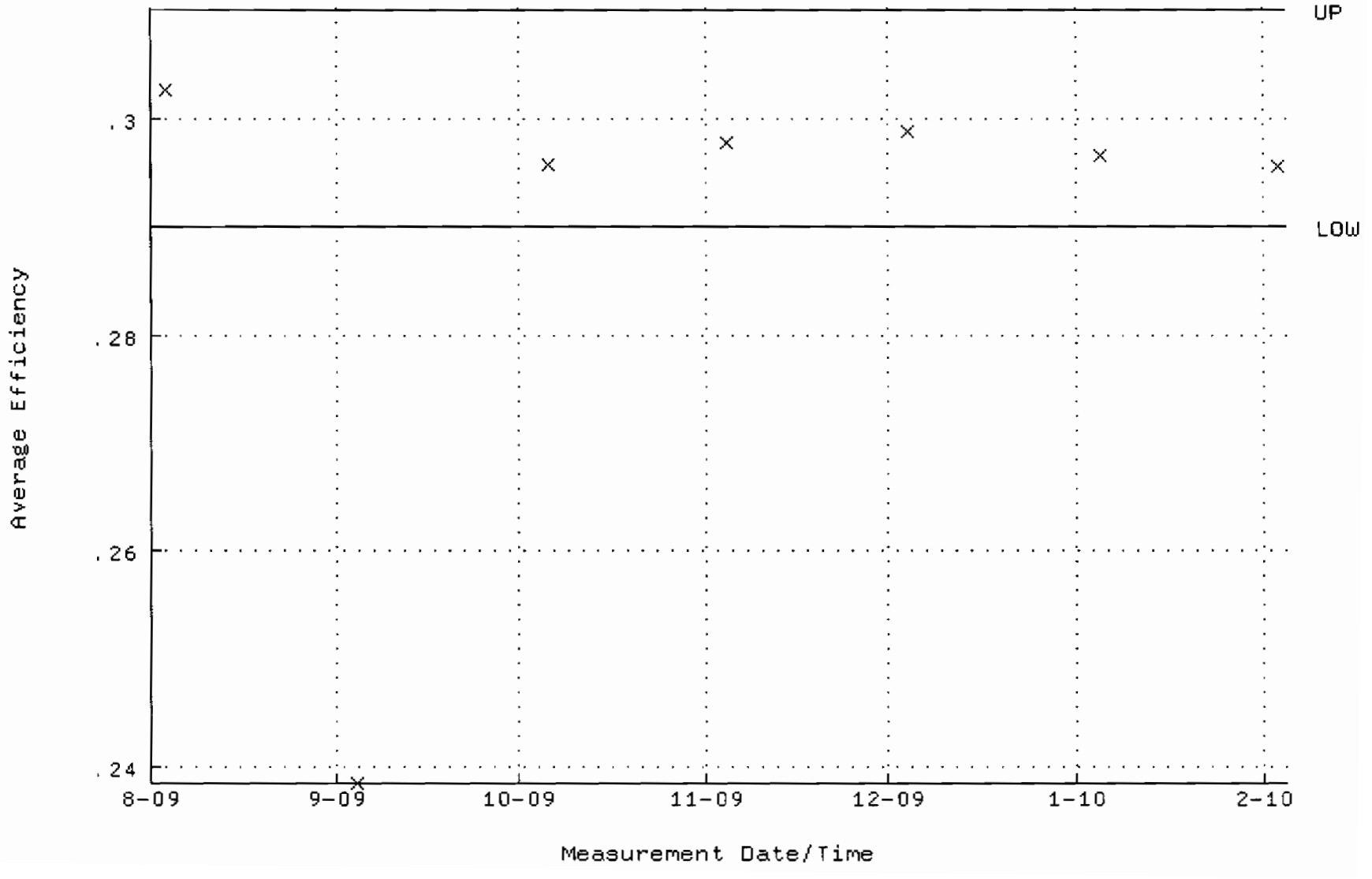

QA filename : DKA100:[ENV_ALPHA.QA.W]W007.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.0687 through 96.2339

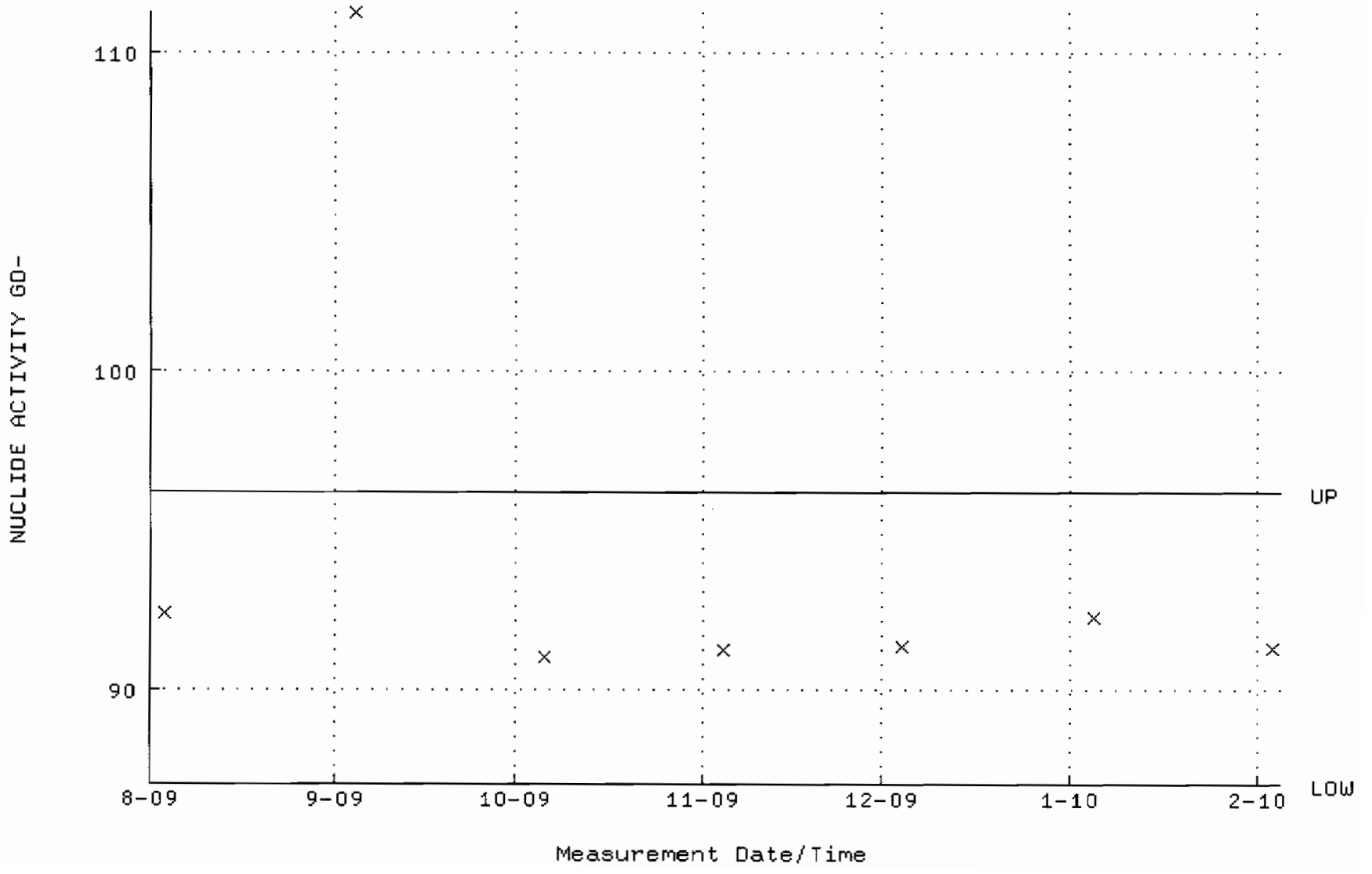

QA filename : DKA100:[ENV_ALPHA.QA.B]B007.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

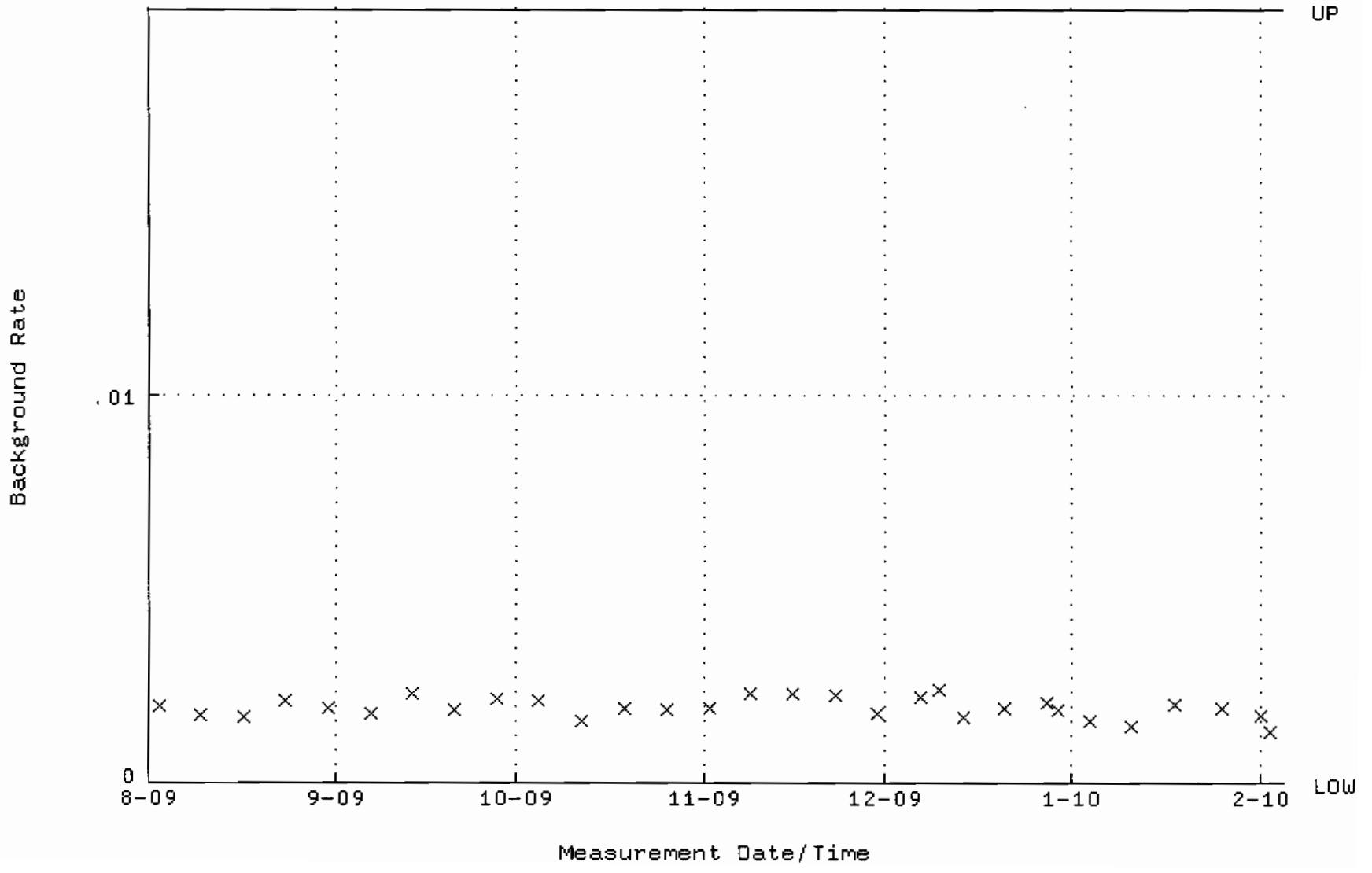

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.302750 through 0.322750

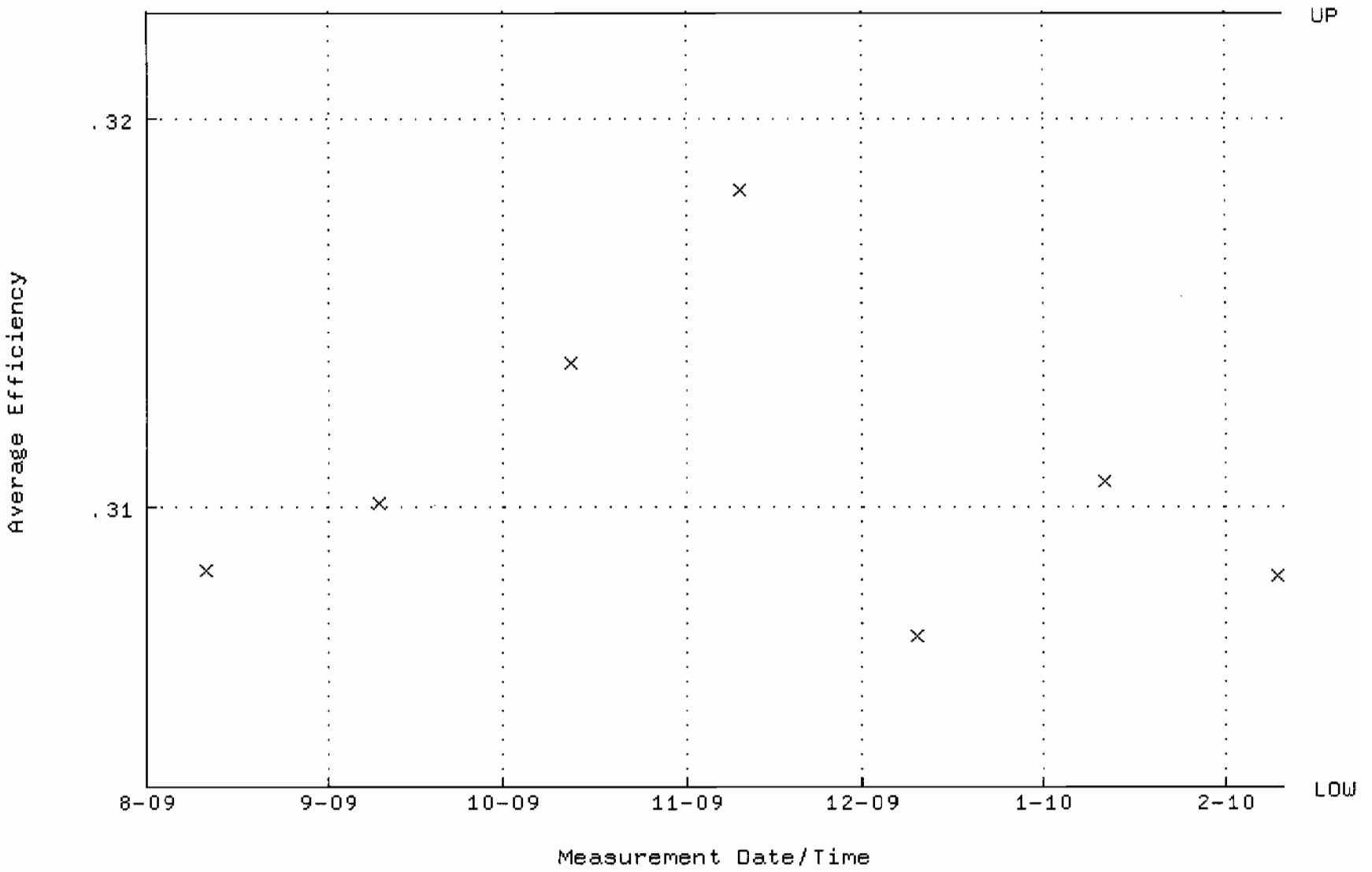

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8638 through 96.0074

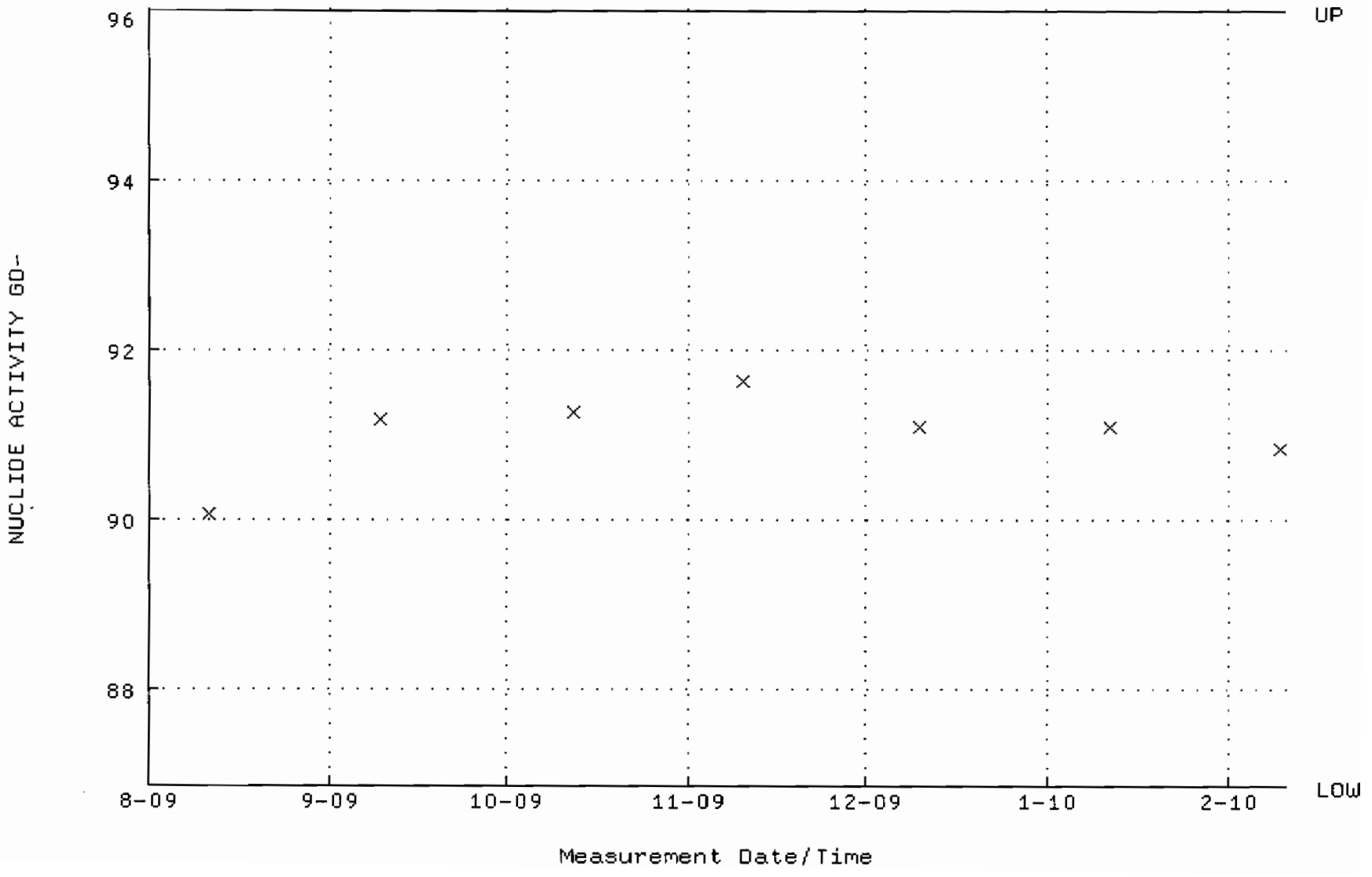

QA filename : DKA100:[ENV_ALPHA.QA.B]B065.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

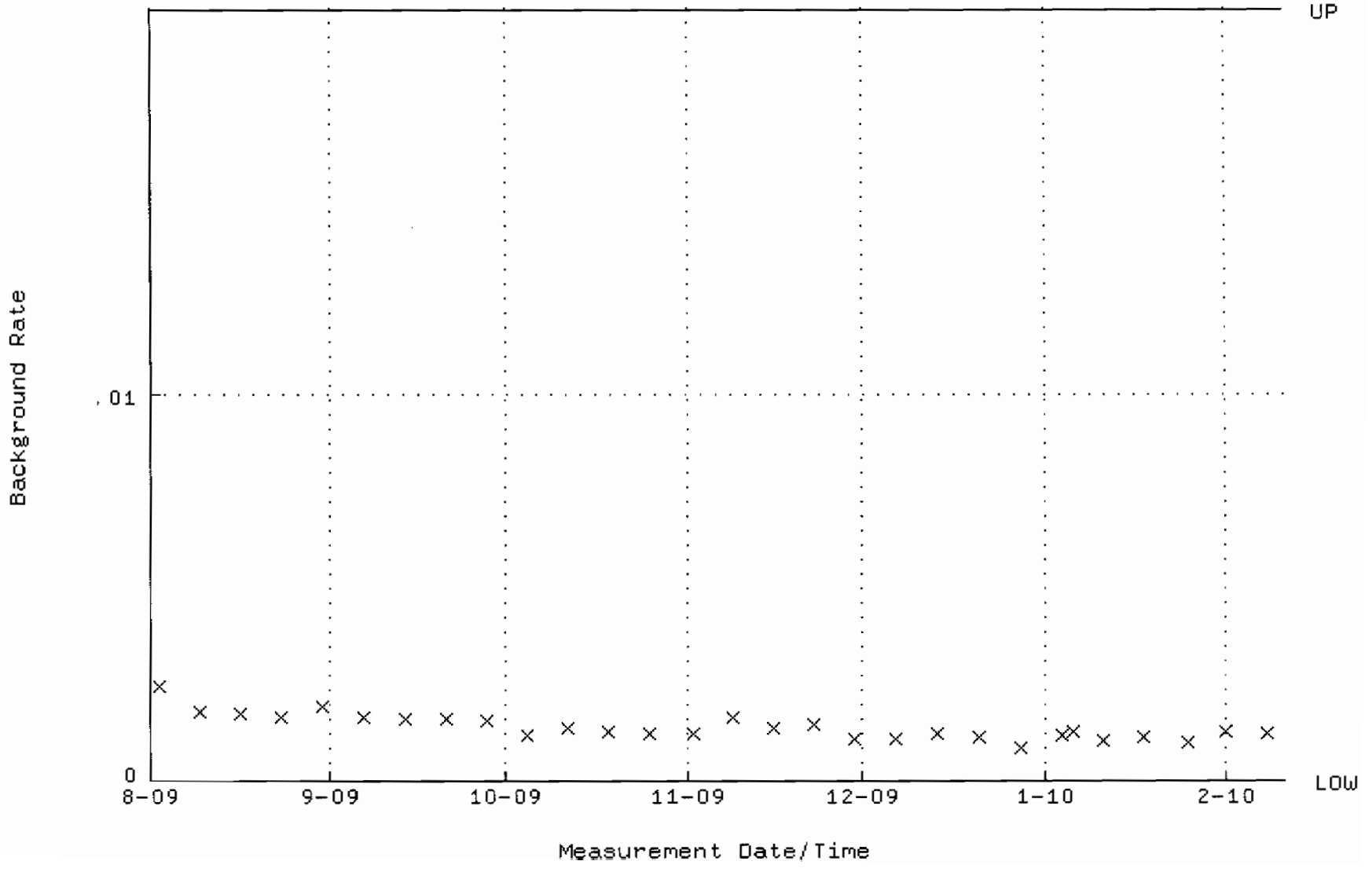

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316597 through 0.336597

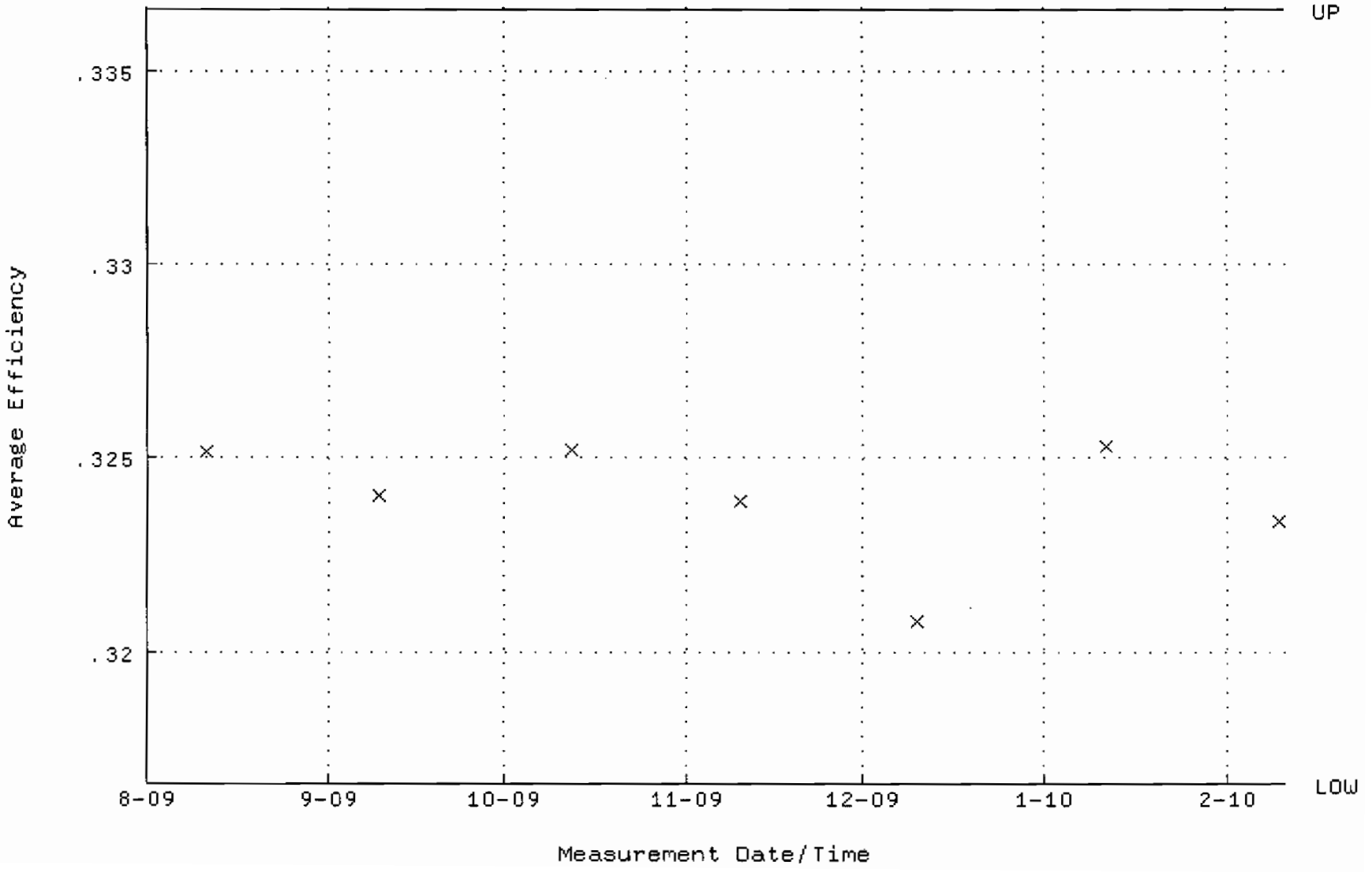

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.2683 through 95.3491

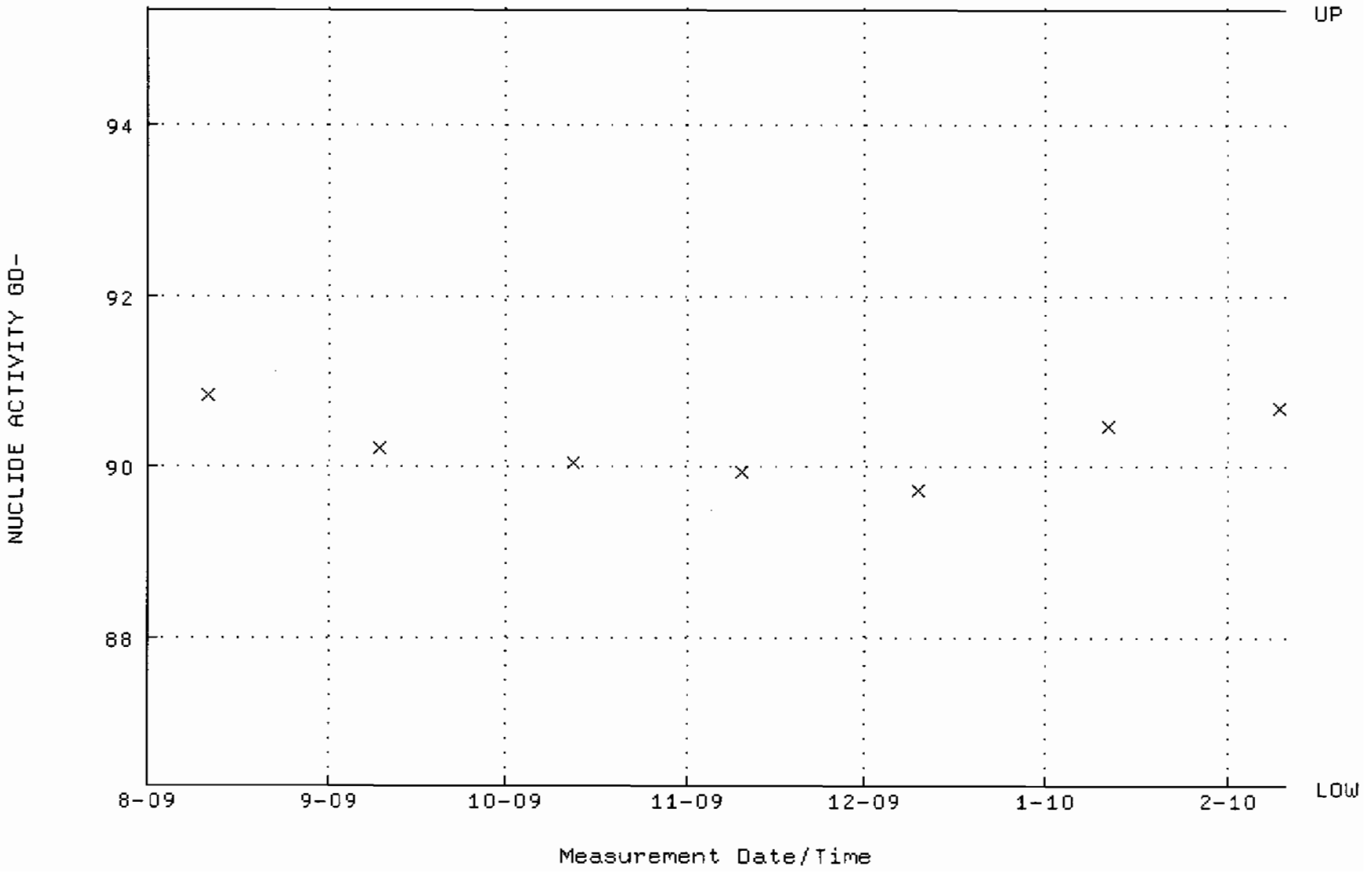

QA filename : DKA100:[ENV_ALPHA.QA.B]B067.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

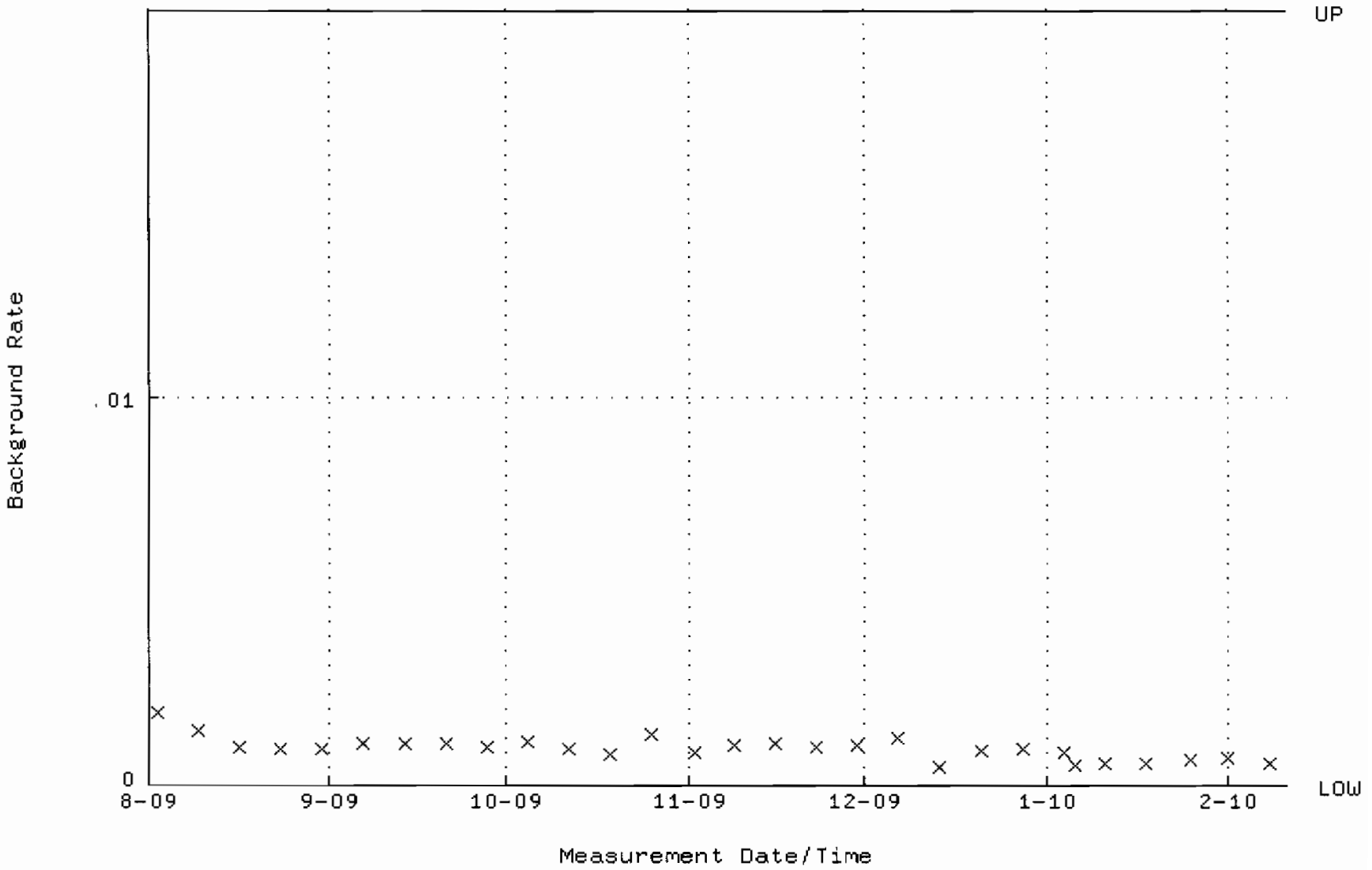

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.289178 through 0.309178

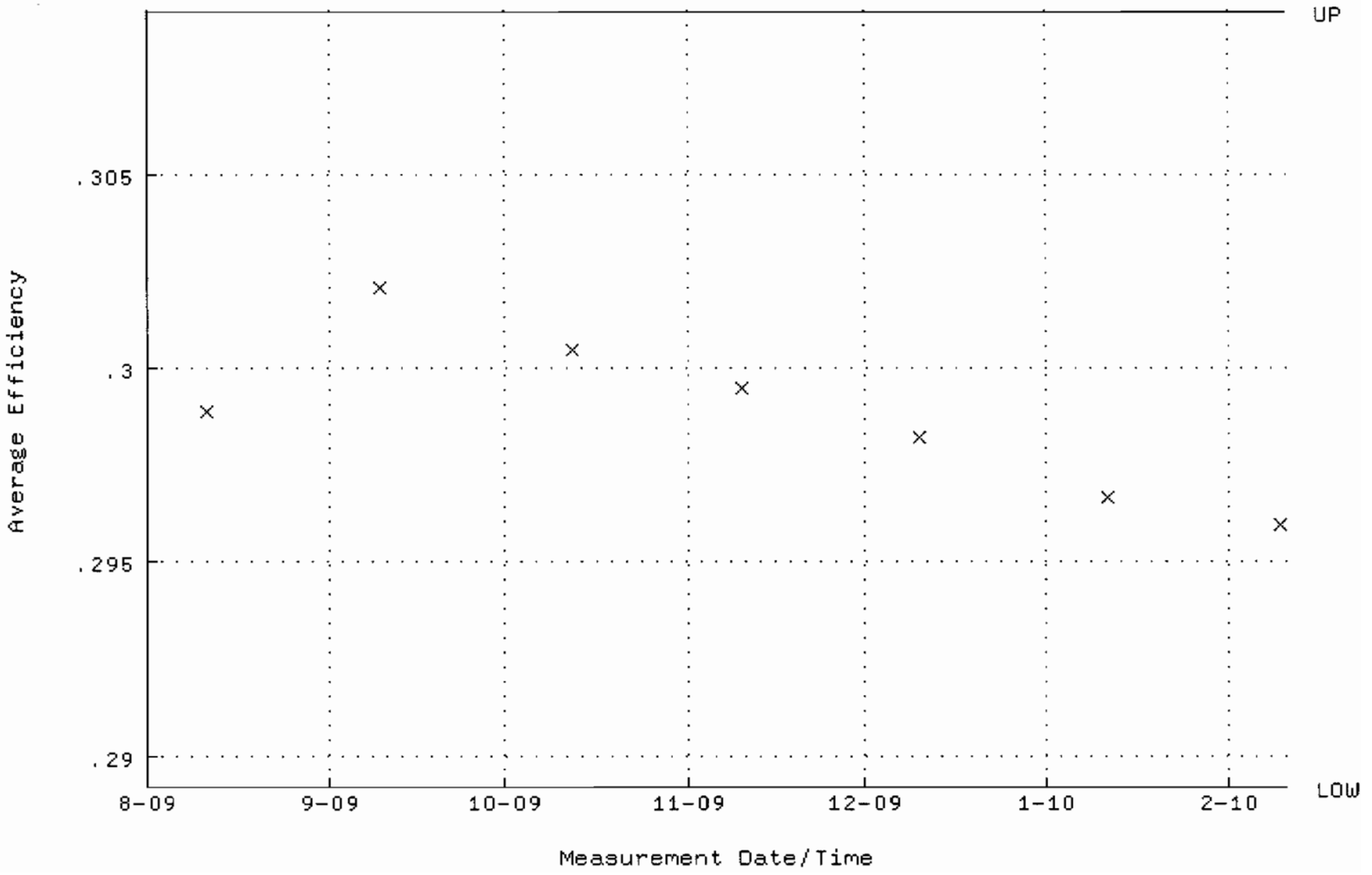

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.4419 through 96.6463

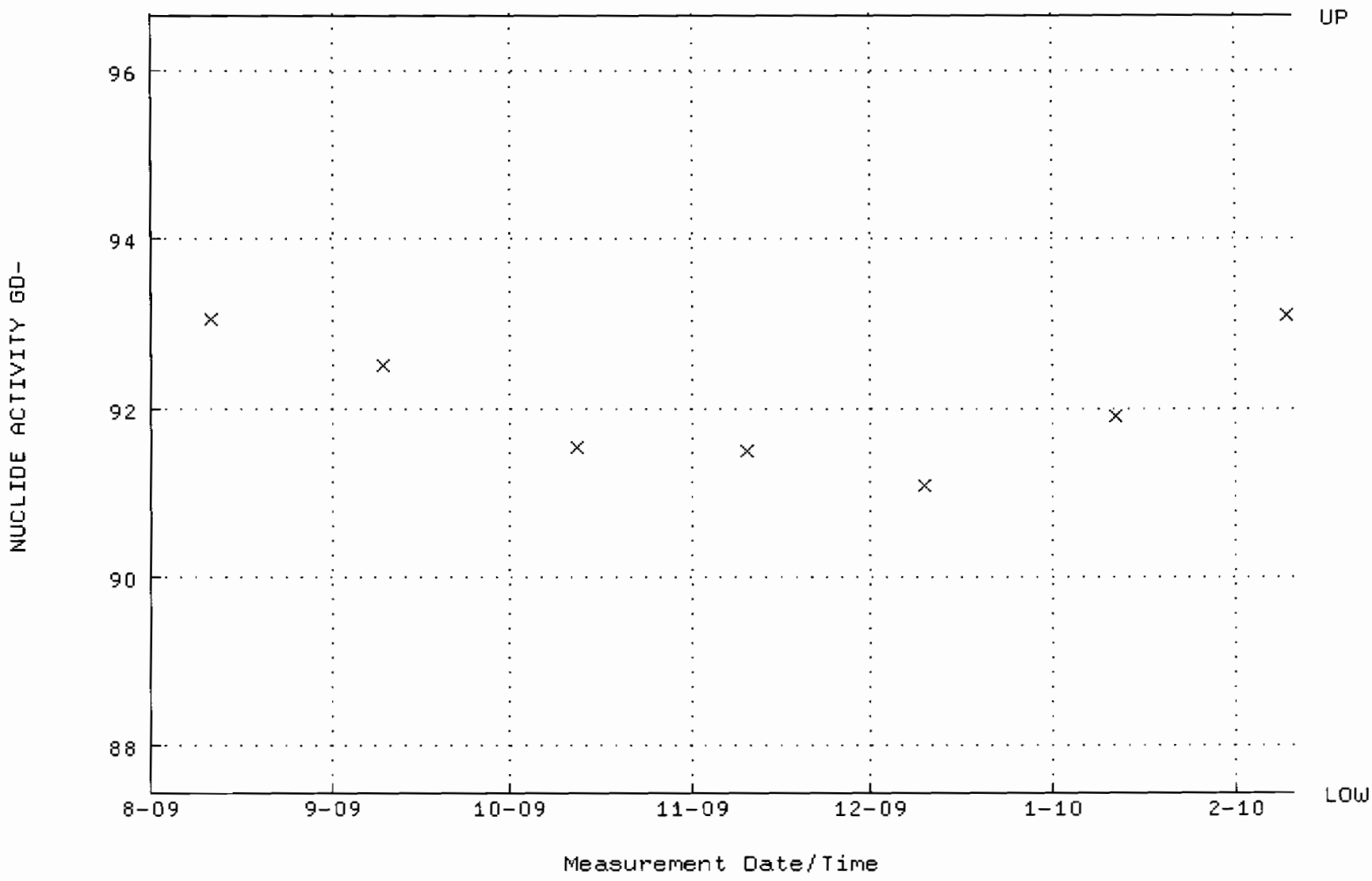

QA filename : DKA100:[ENV_ALPHA.QA.B]B068.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

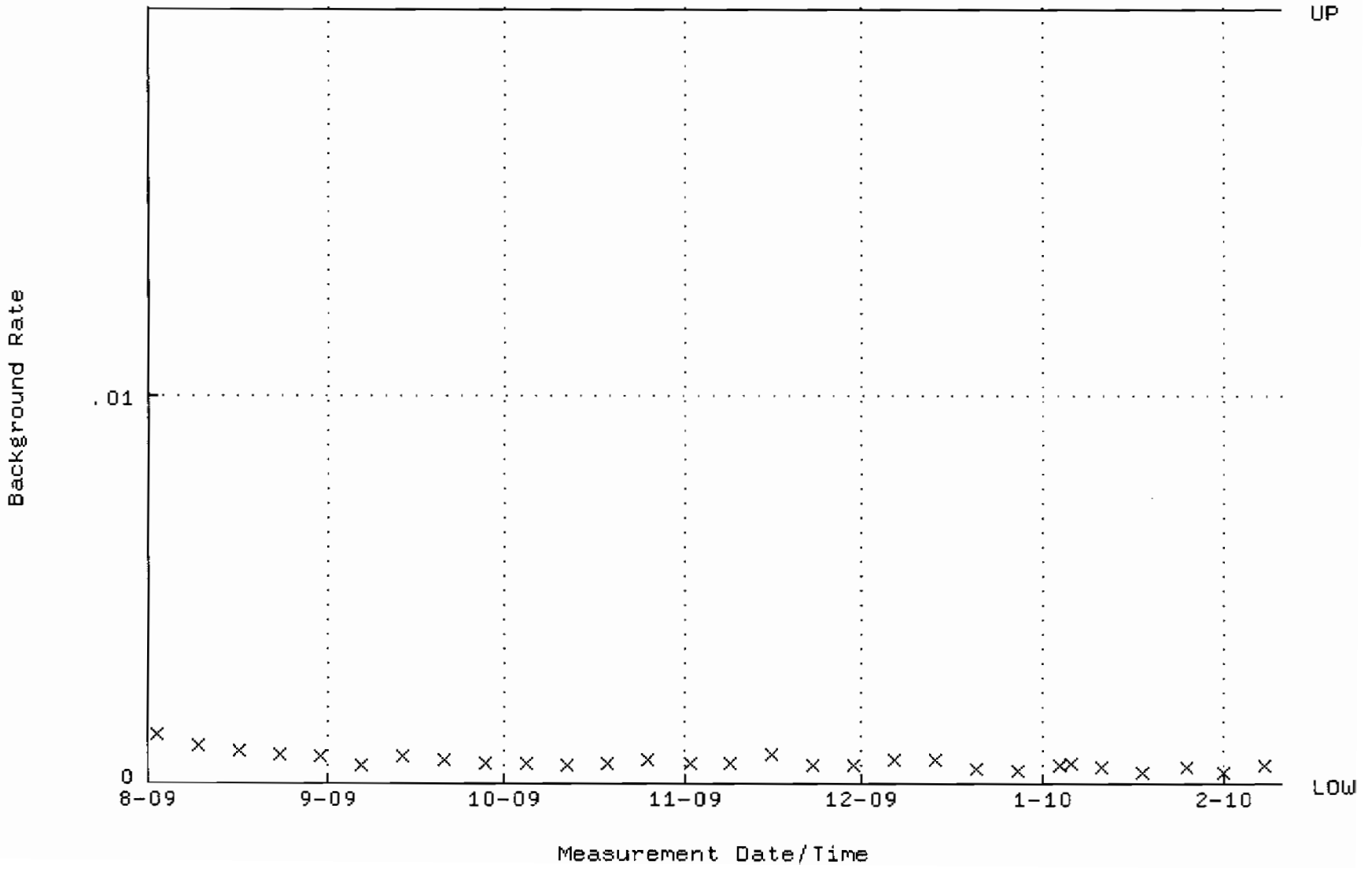

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.306636 through 0.326636

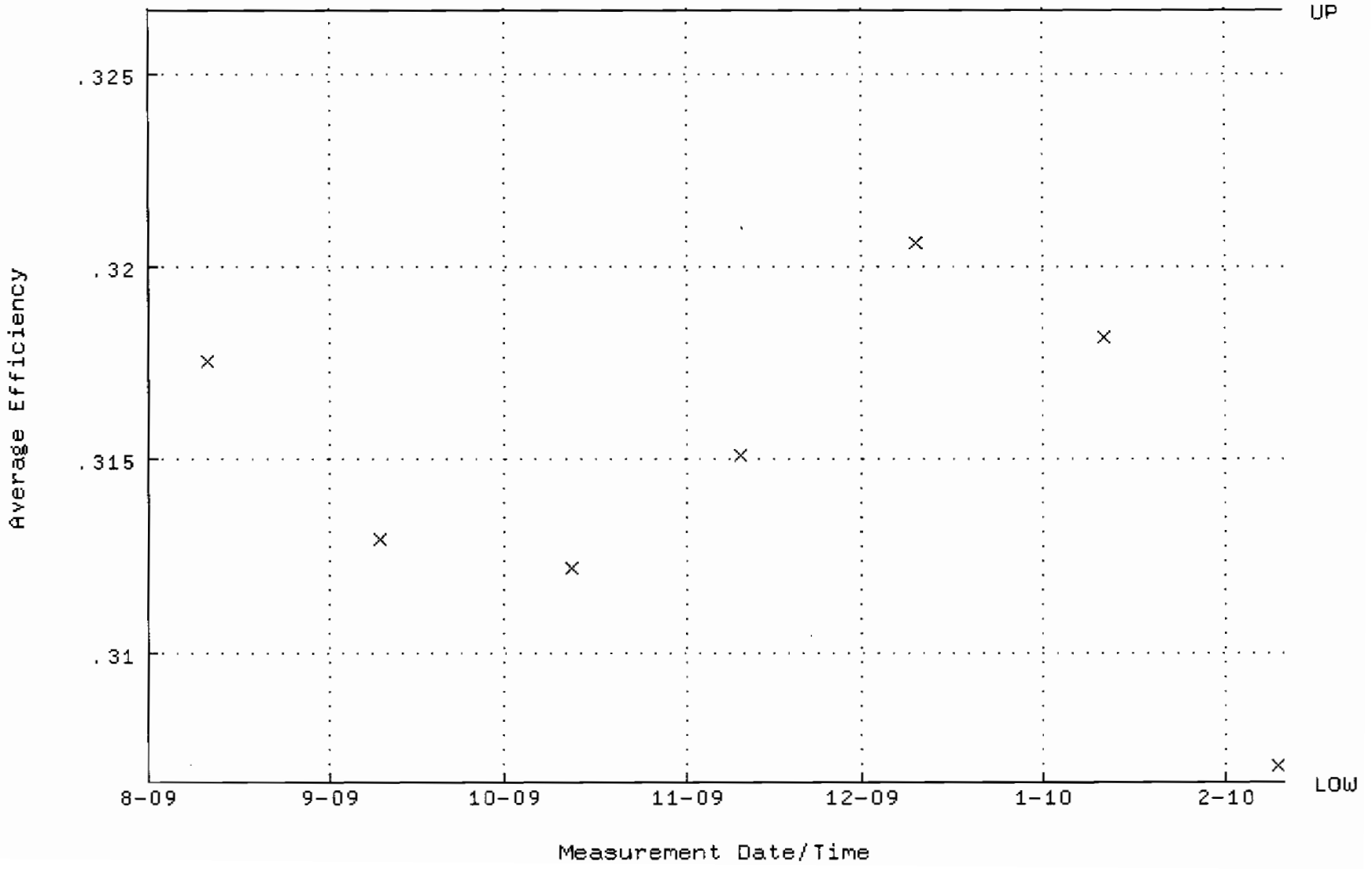

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 89.6479 through 99.0845

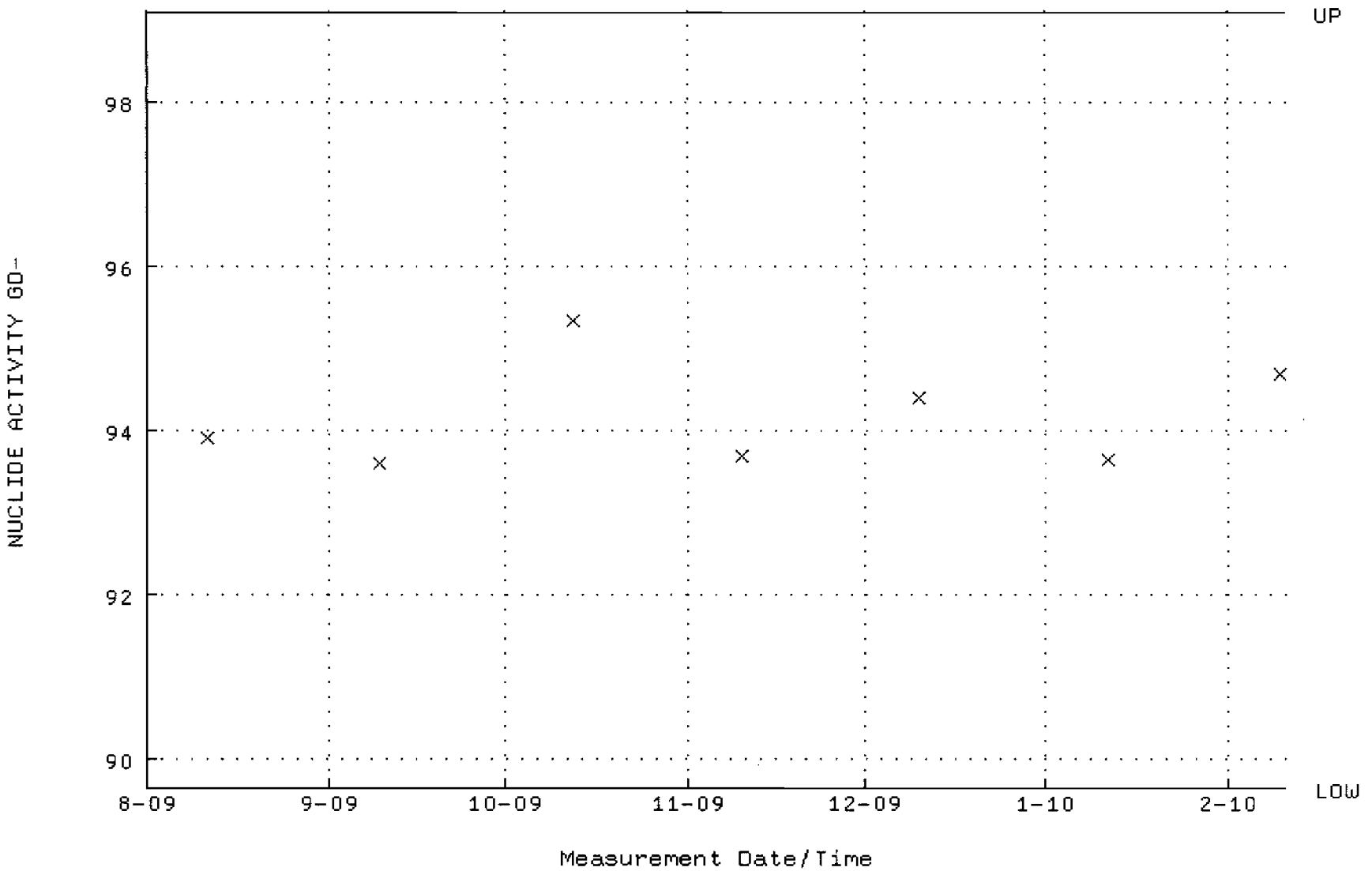

QA filename : DKA100:[ENV_ALPHA.QA.B]B069.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

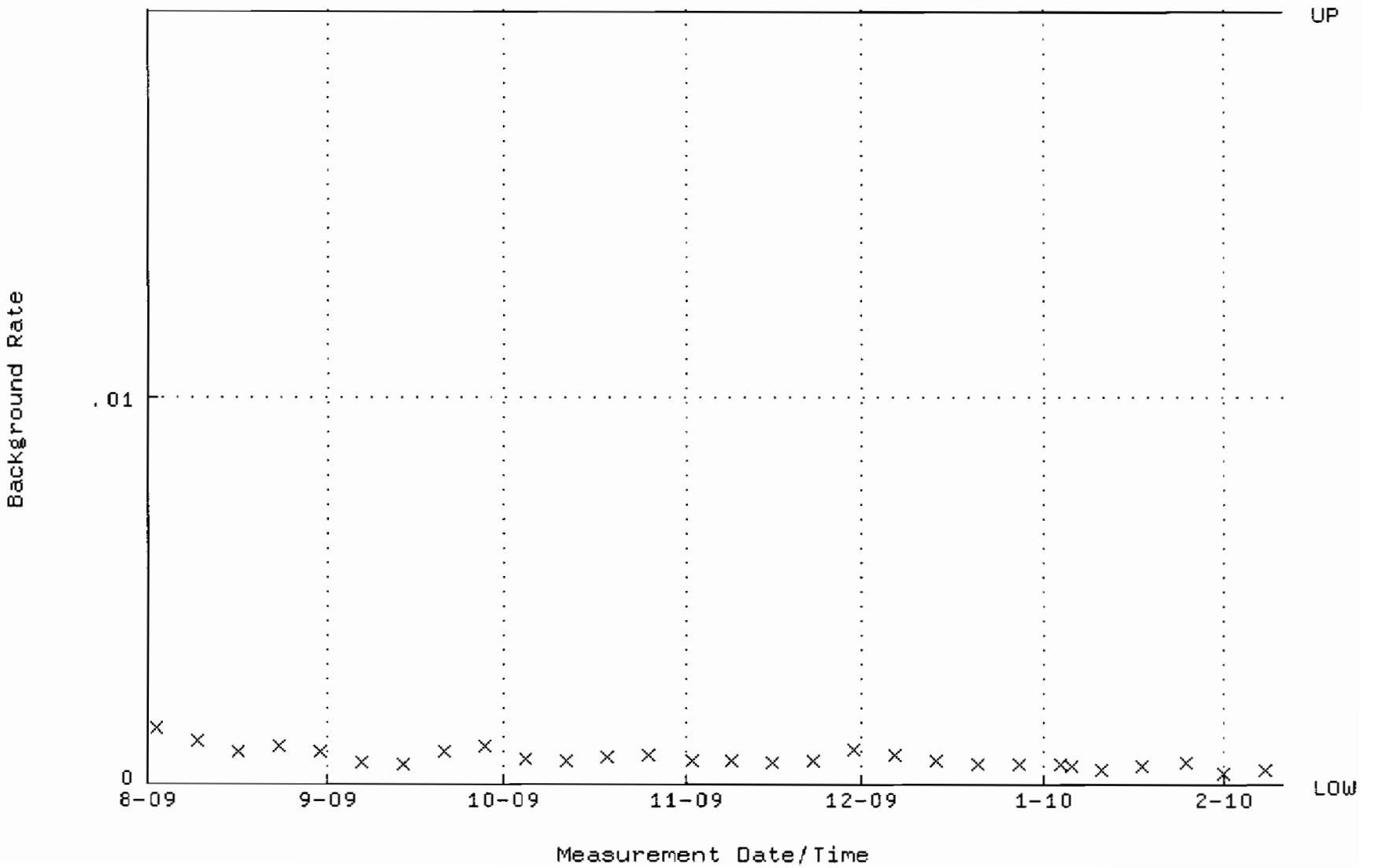

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.342785 through 0.362785

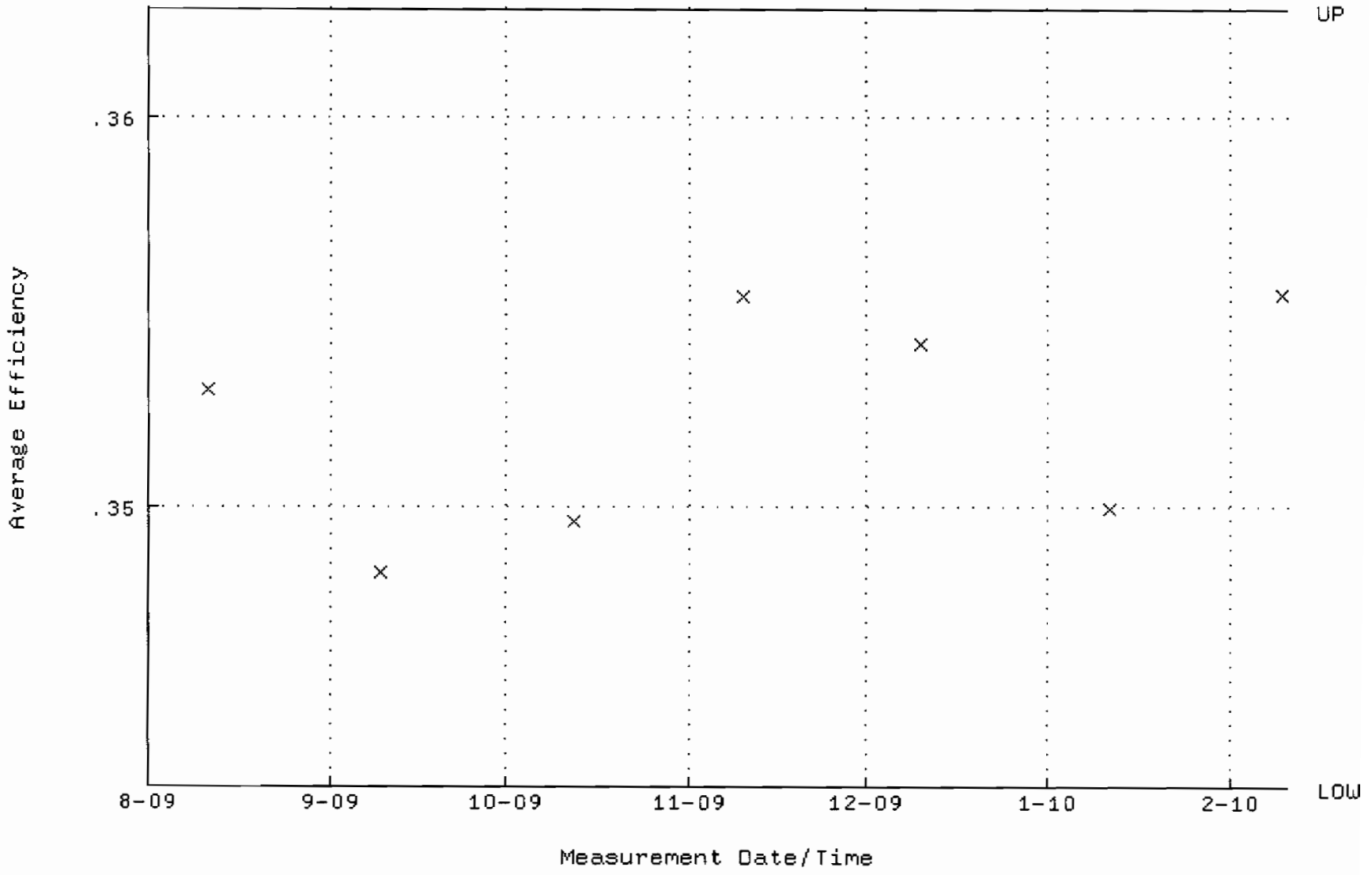

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5293 through 94.5323

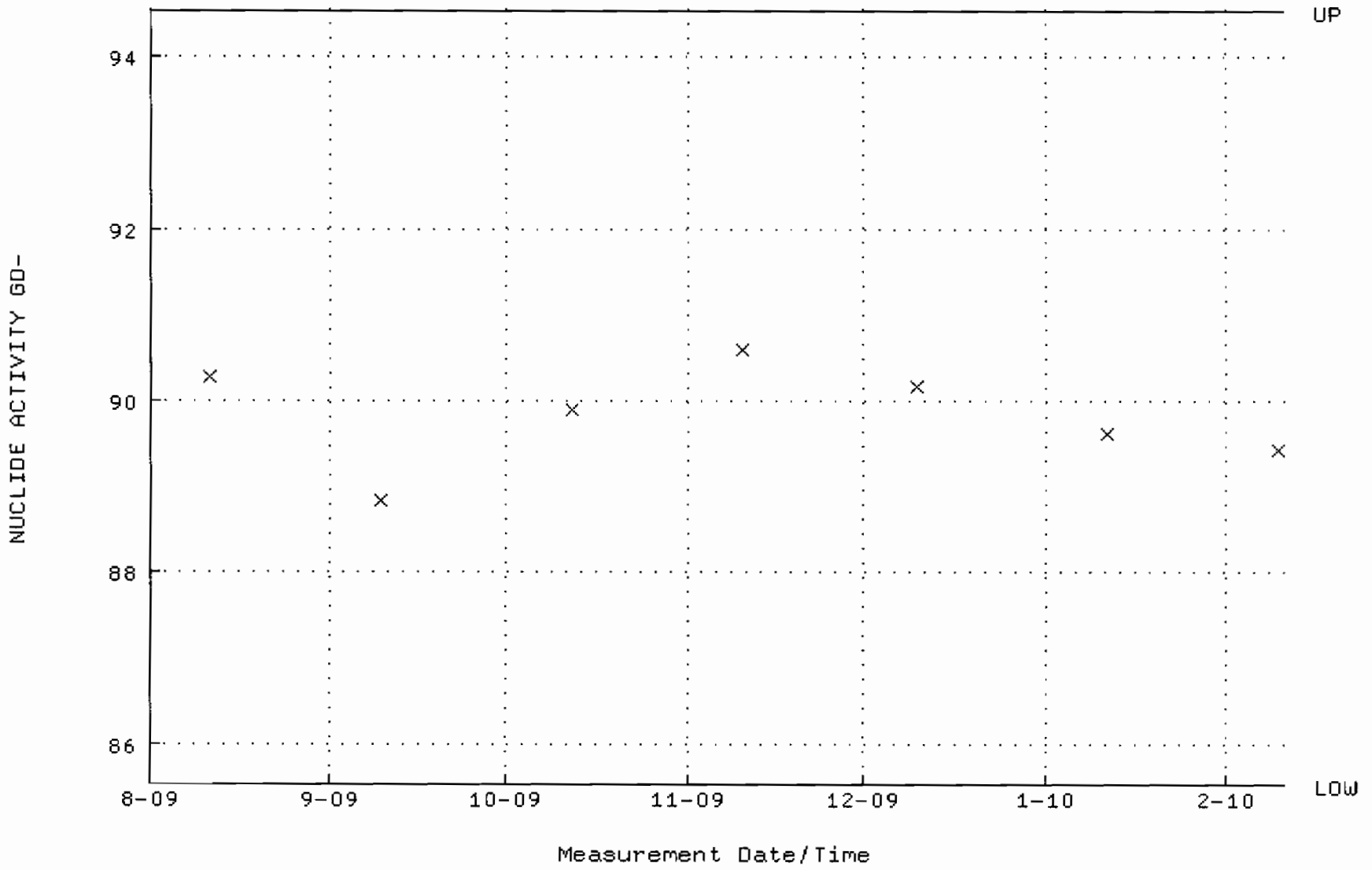

QA filename : DKA100:[ENV_ALPHA.QA.B]B070.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

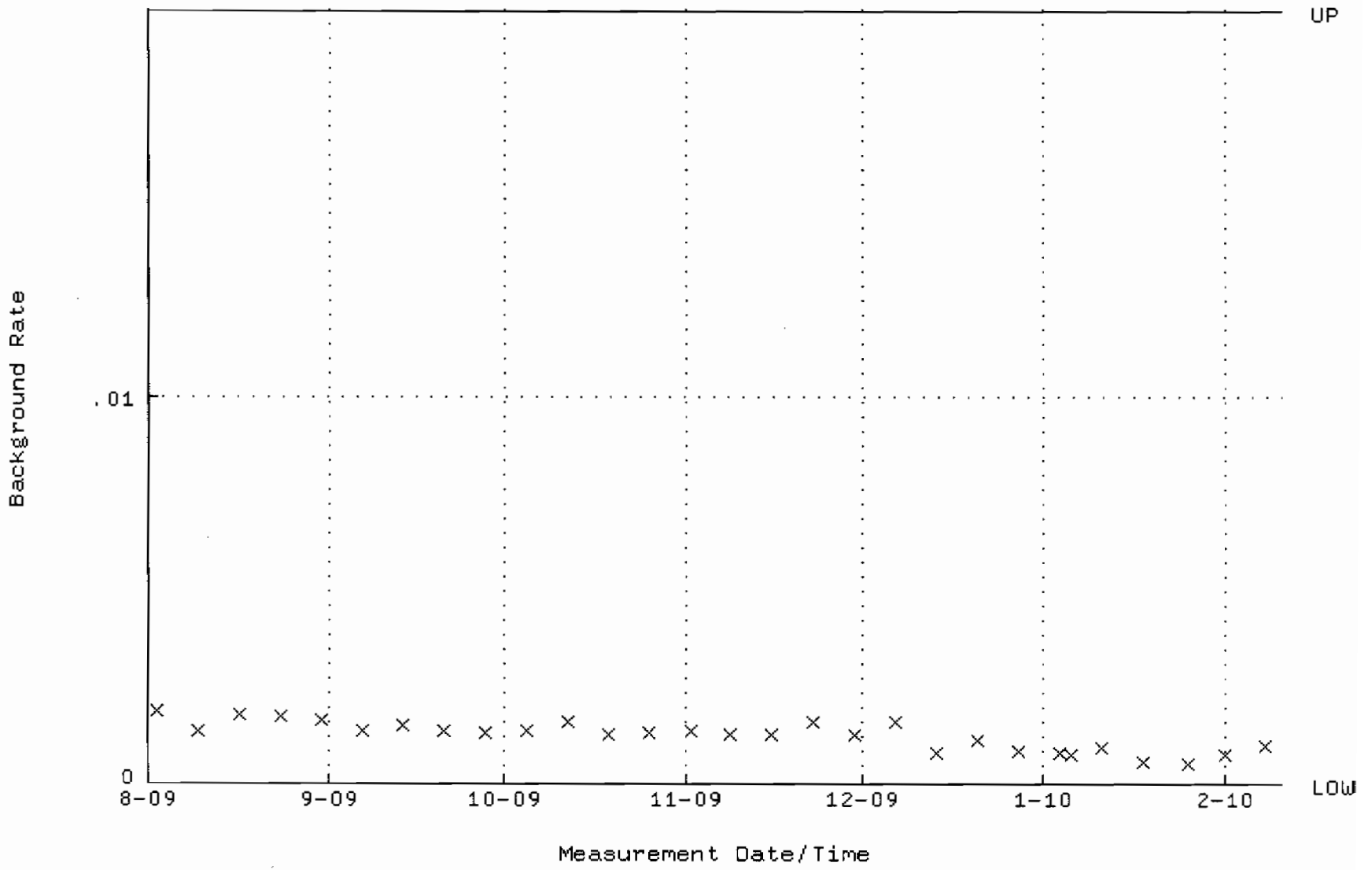

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.309161 through 0.329161

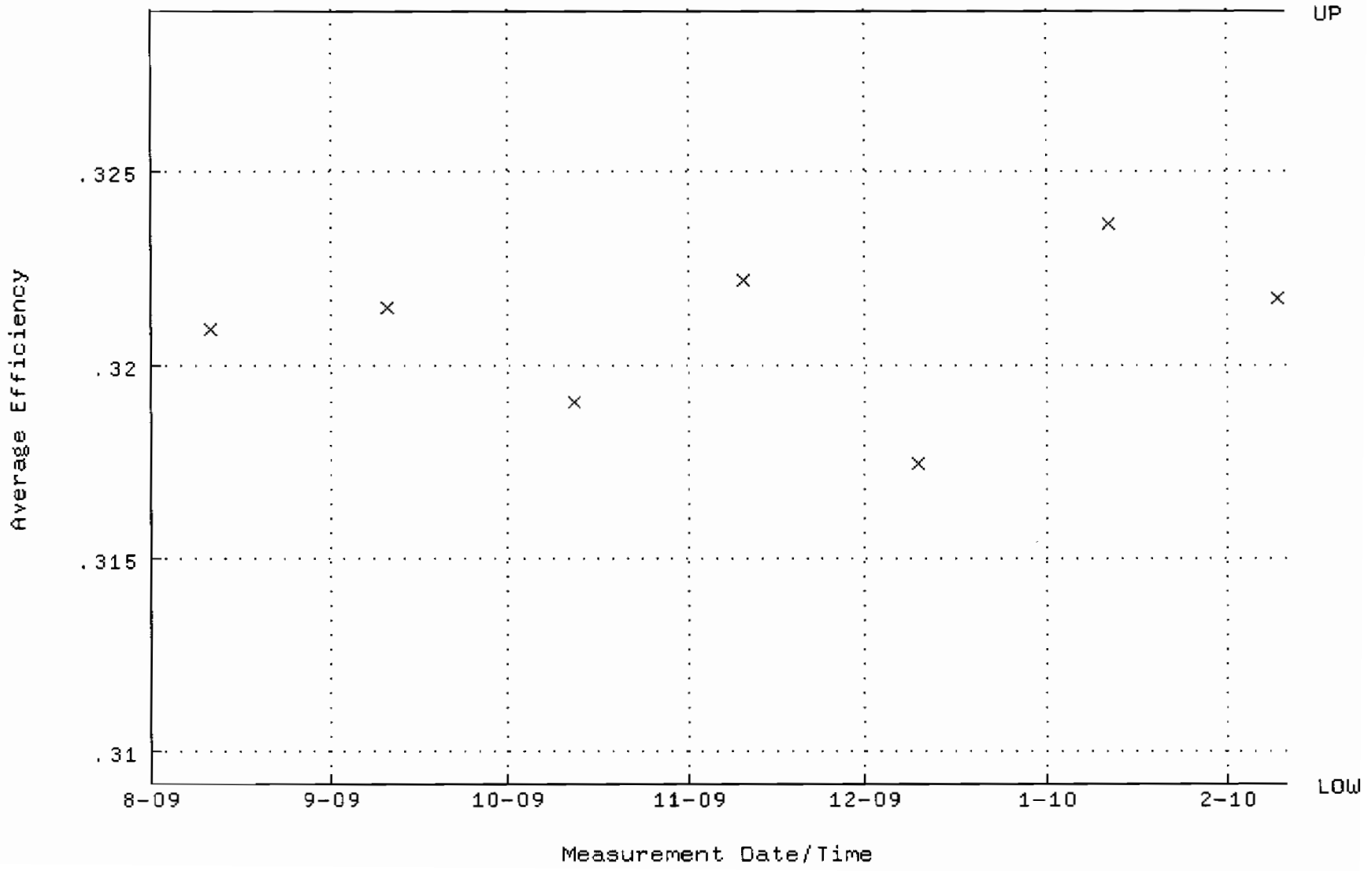

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7769 through 95.9113

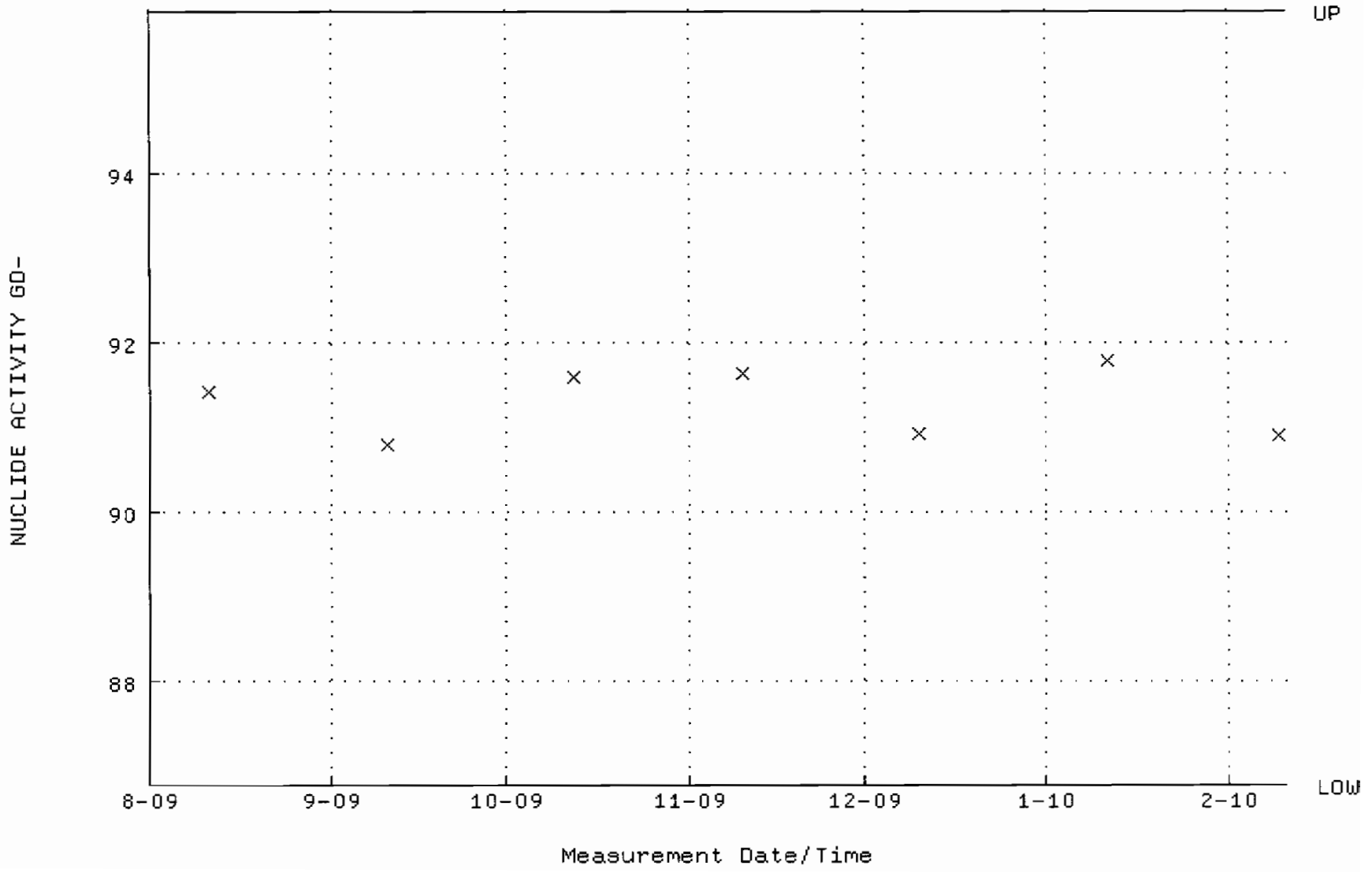

QA filename : DKA100:[ENV_ALPHA.QA.B]B071.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

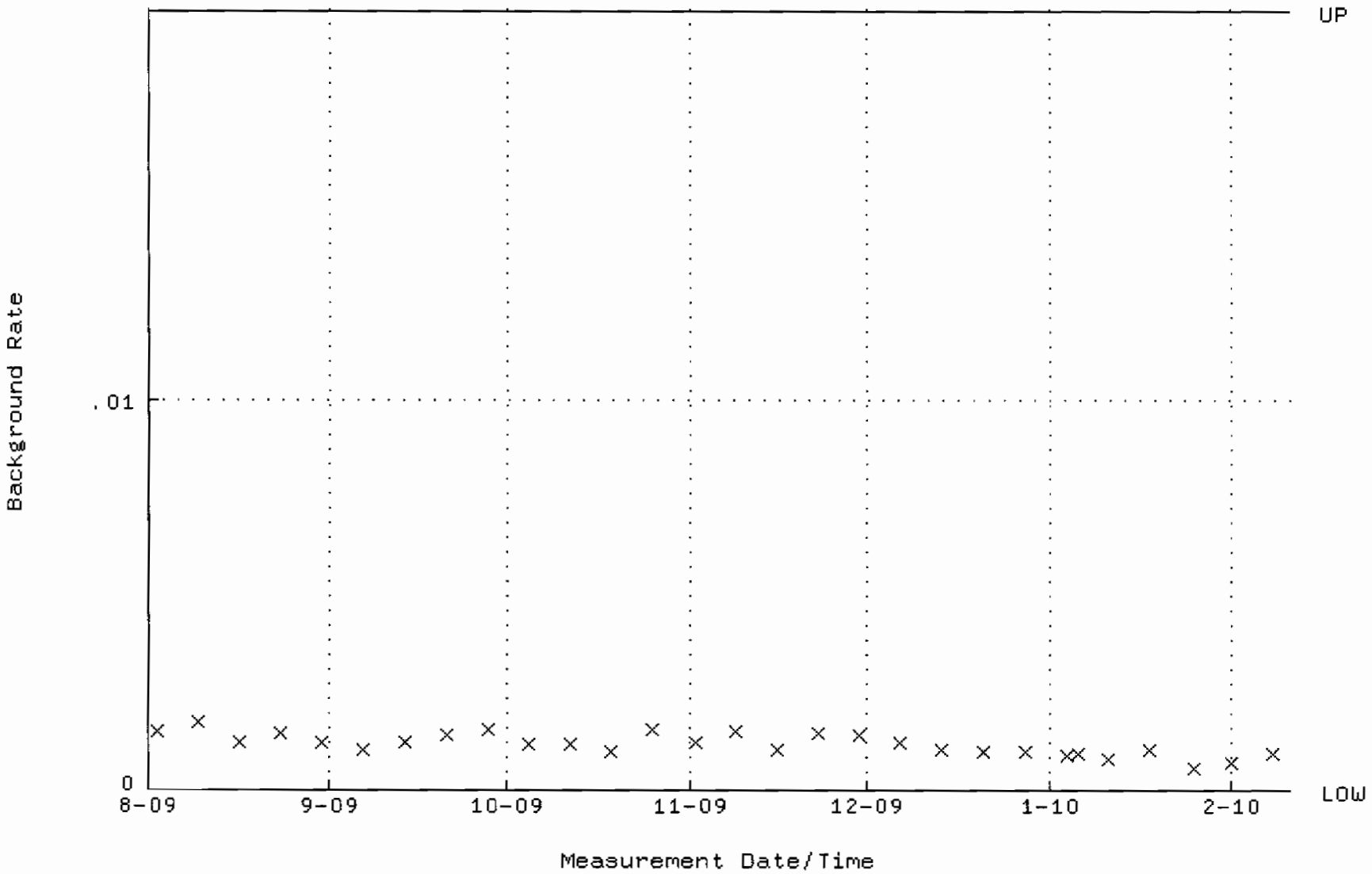

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313761 through 0.333761

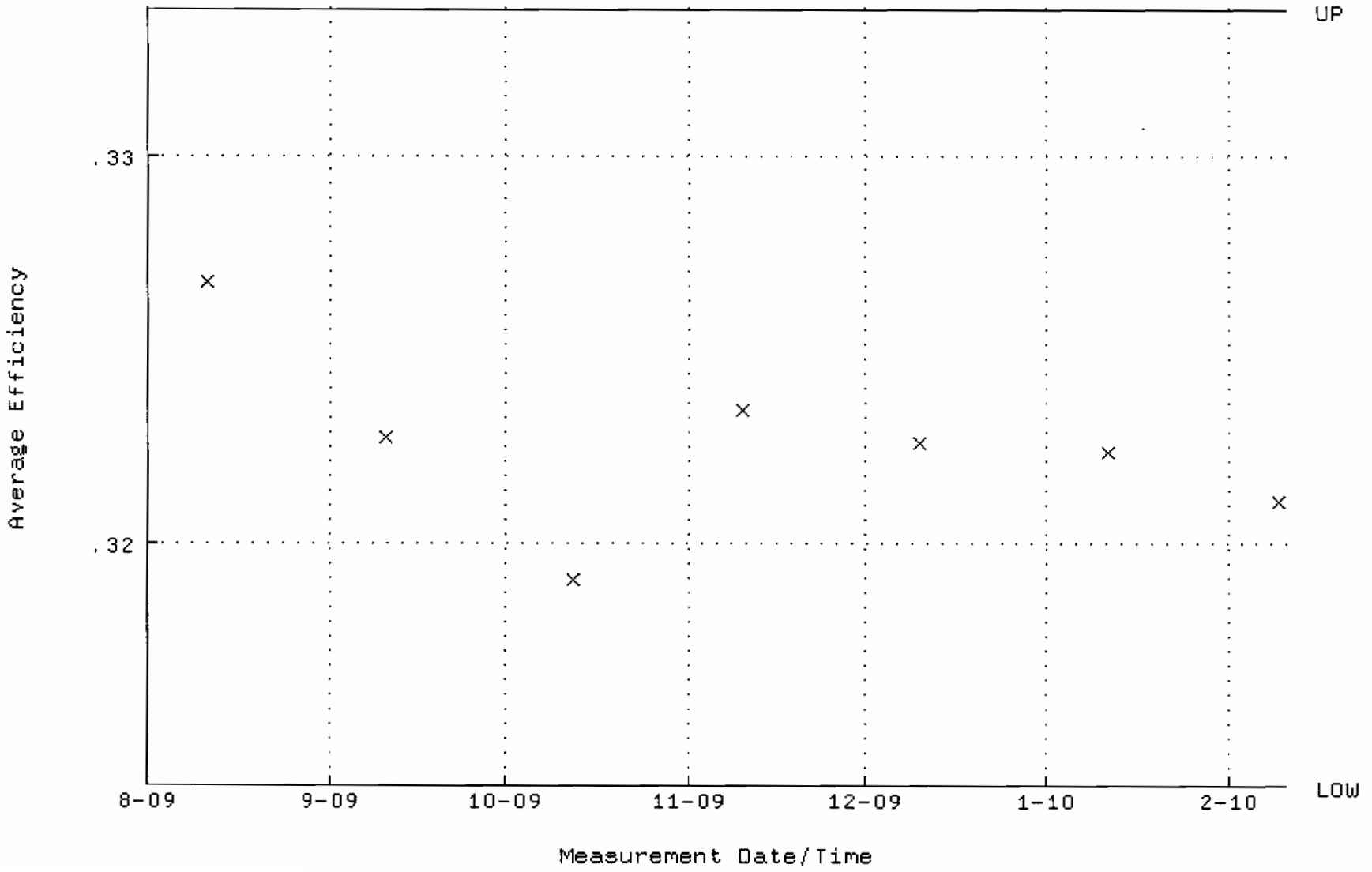

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.3348 through 96.5280

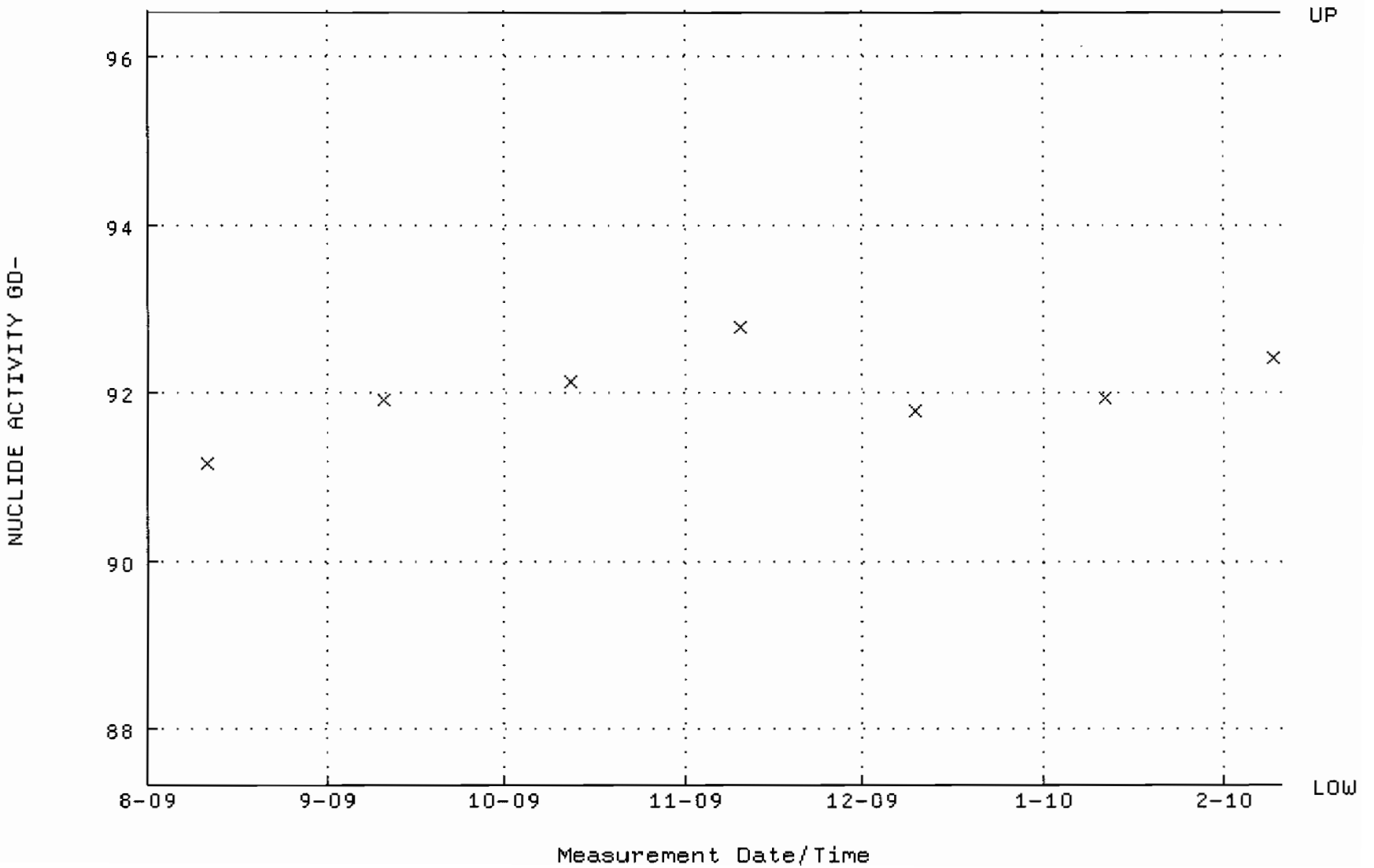

QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

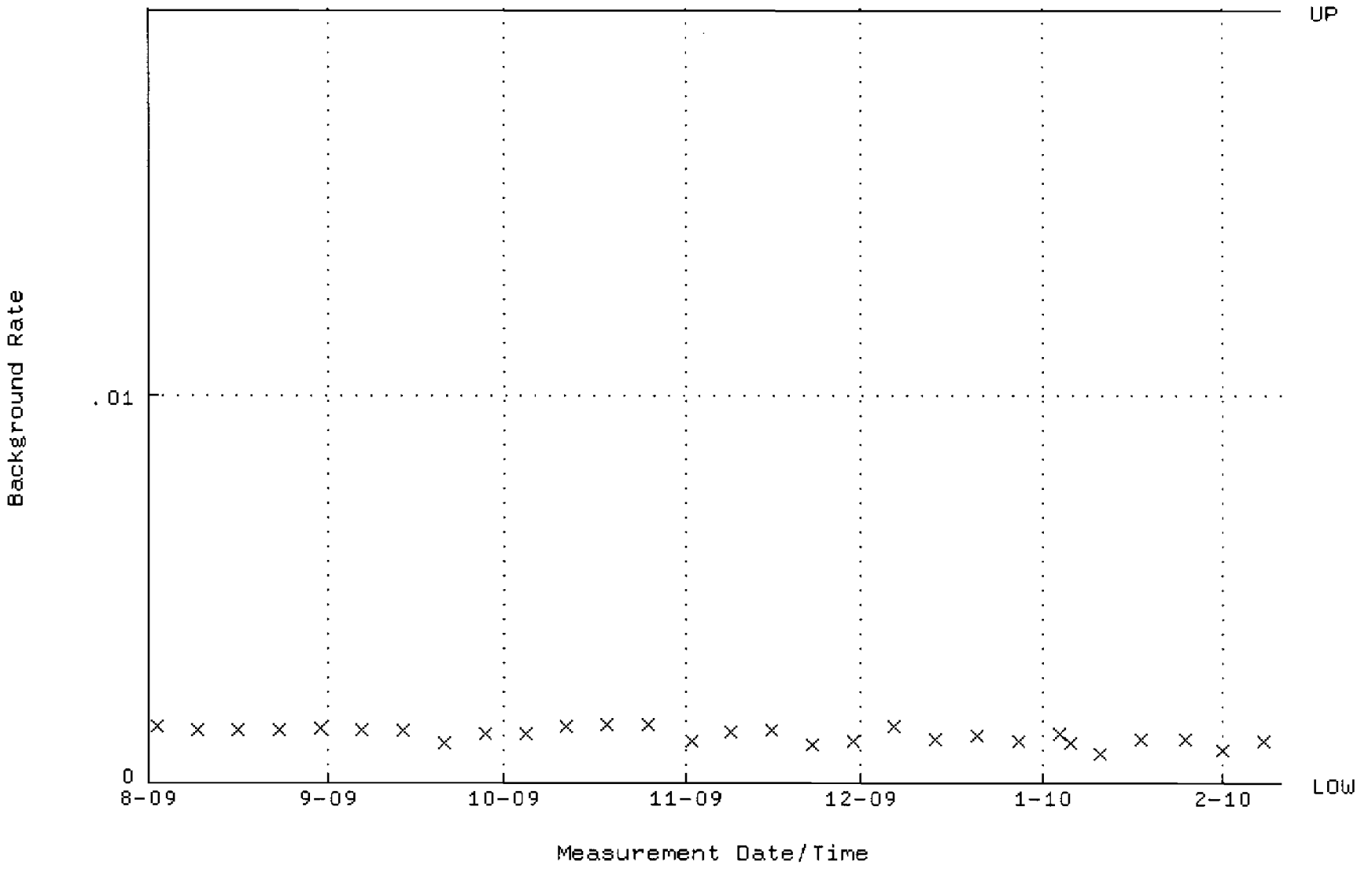

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.323184 through 0.343184

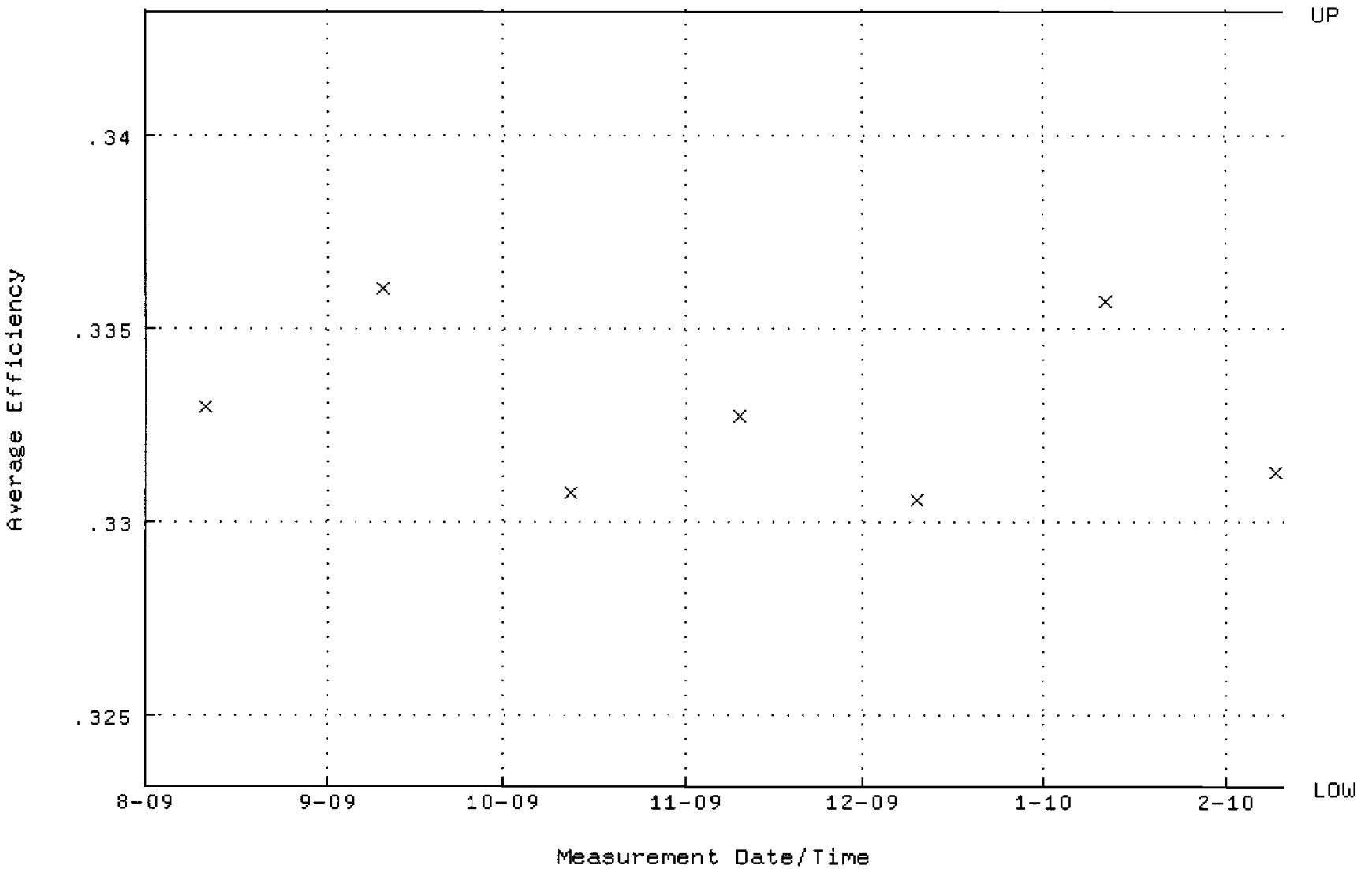

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.6734 through 95.7970

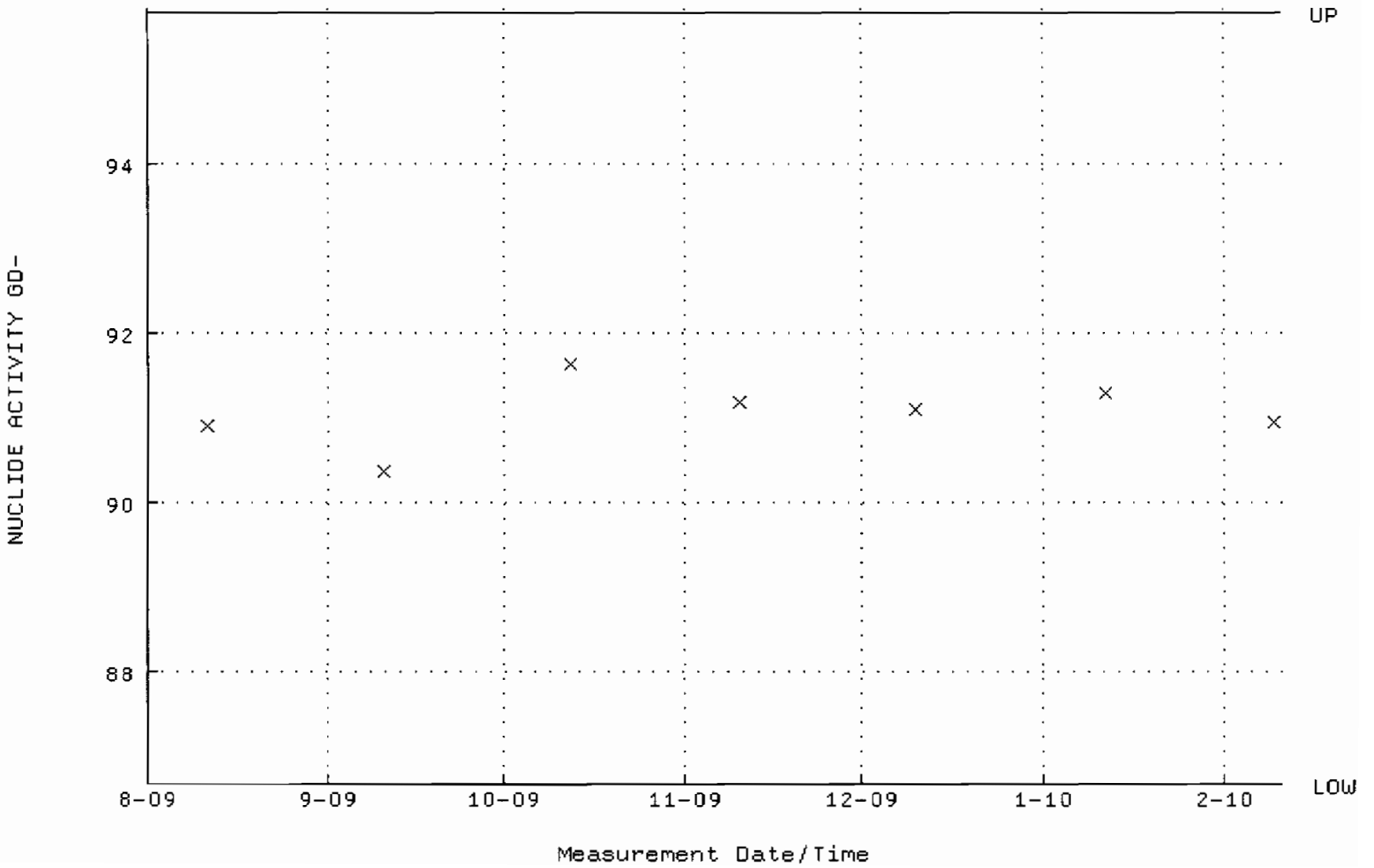

QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

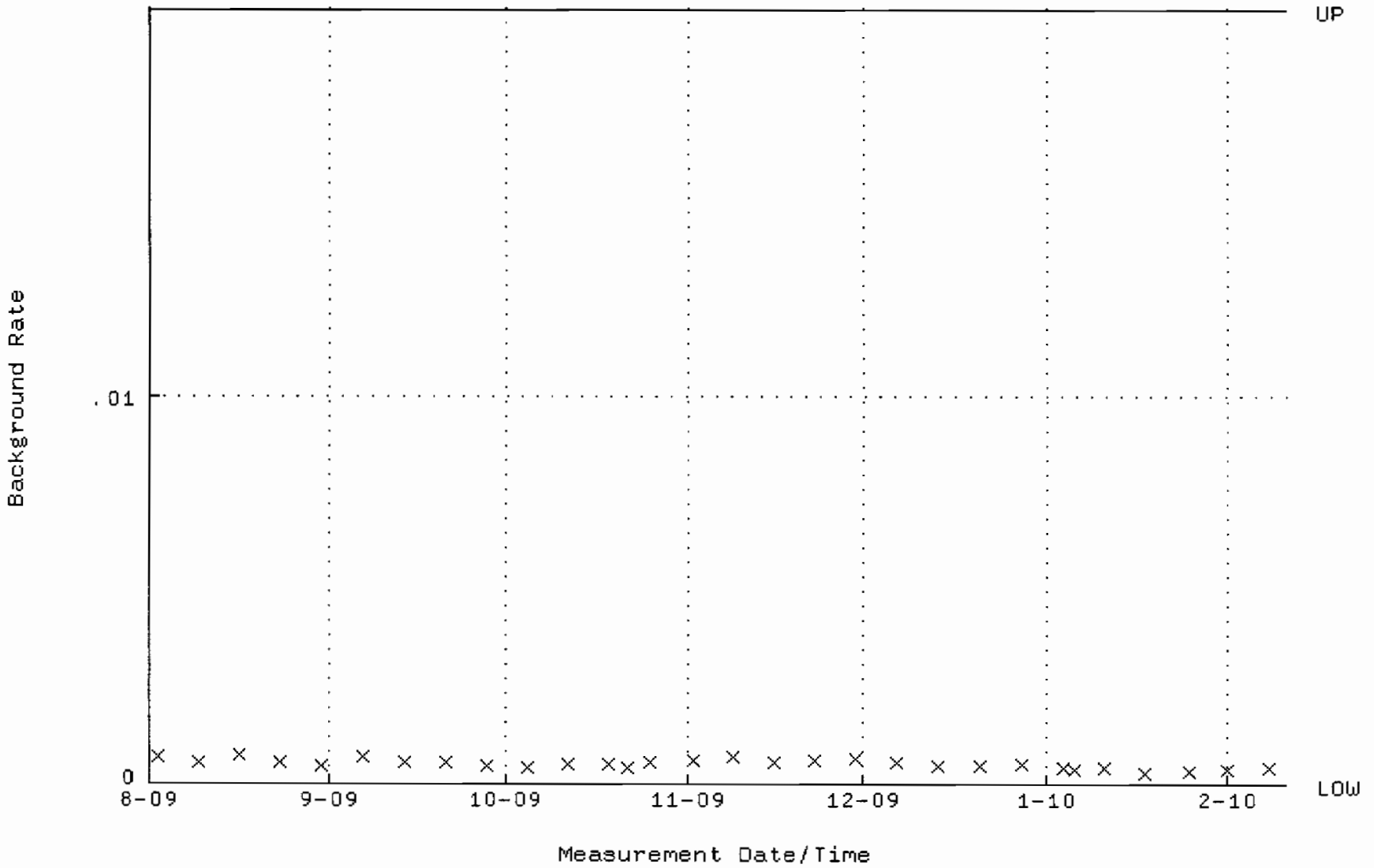

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.305830 through 0.325830

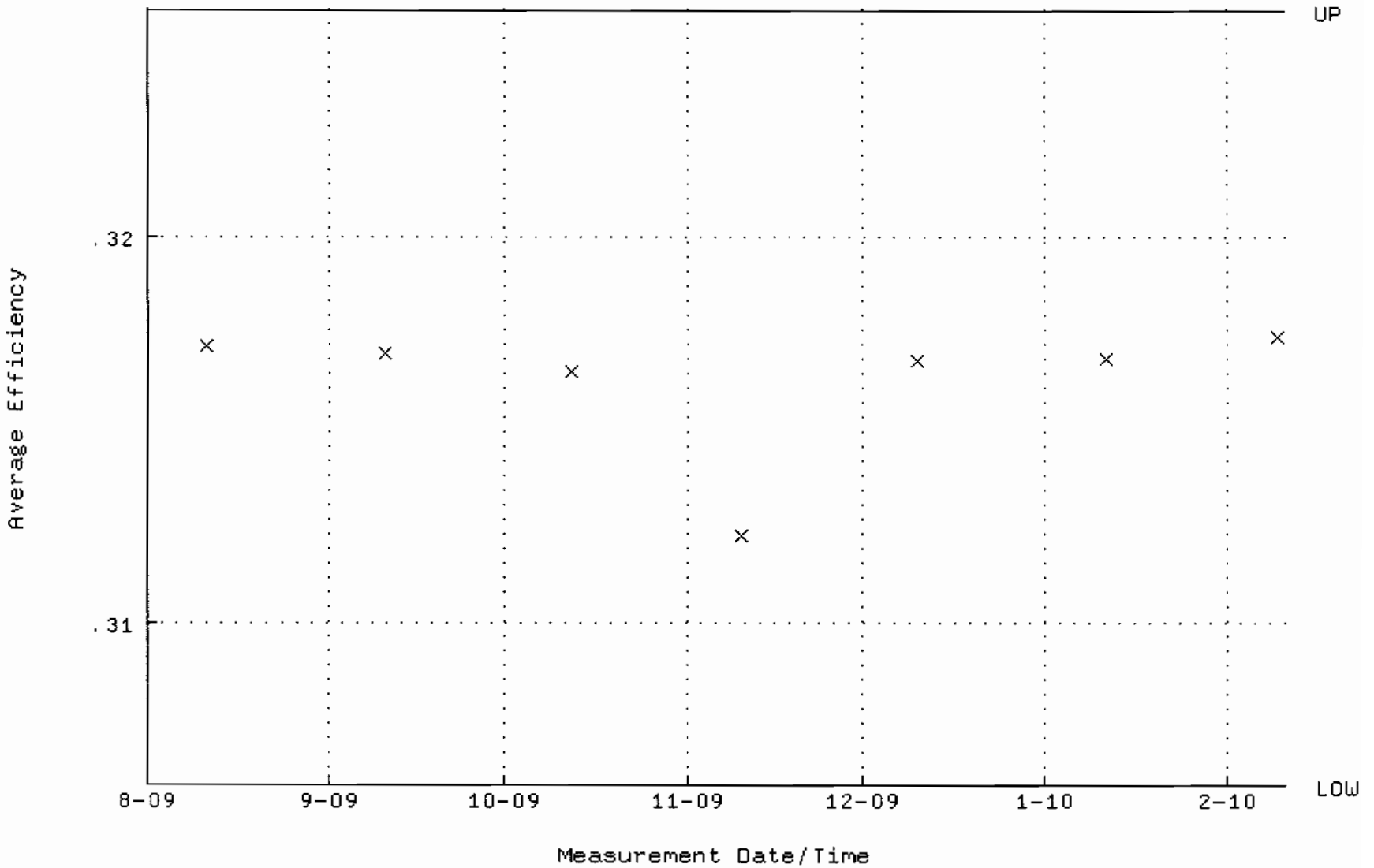

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0289 through 95.0845

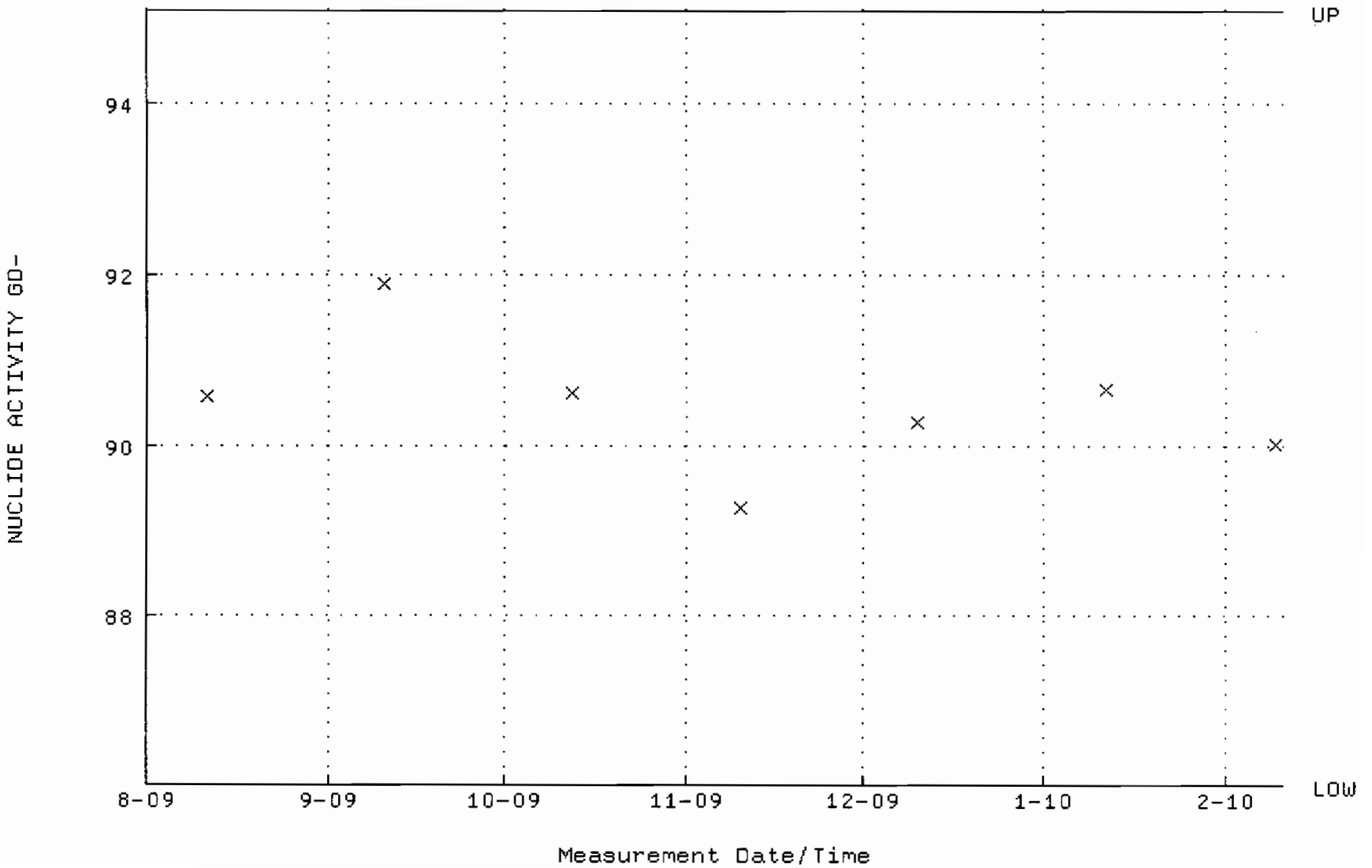

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

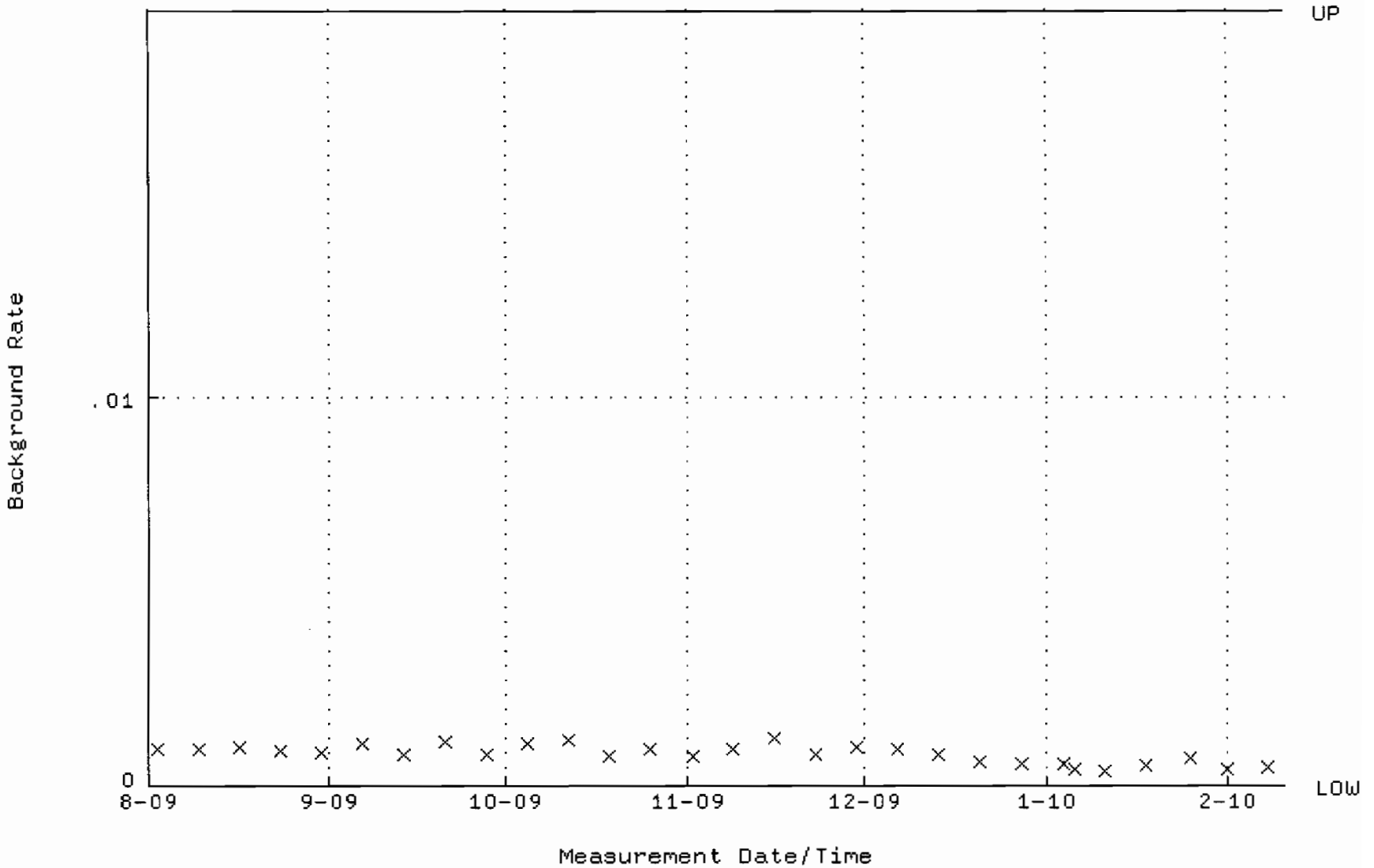

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.292134 through 0.312134

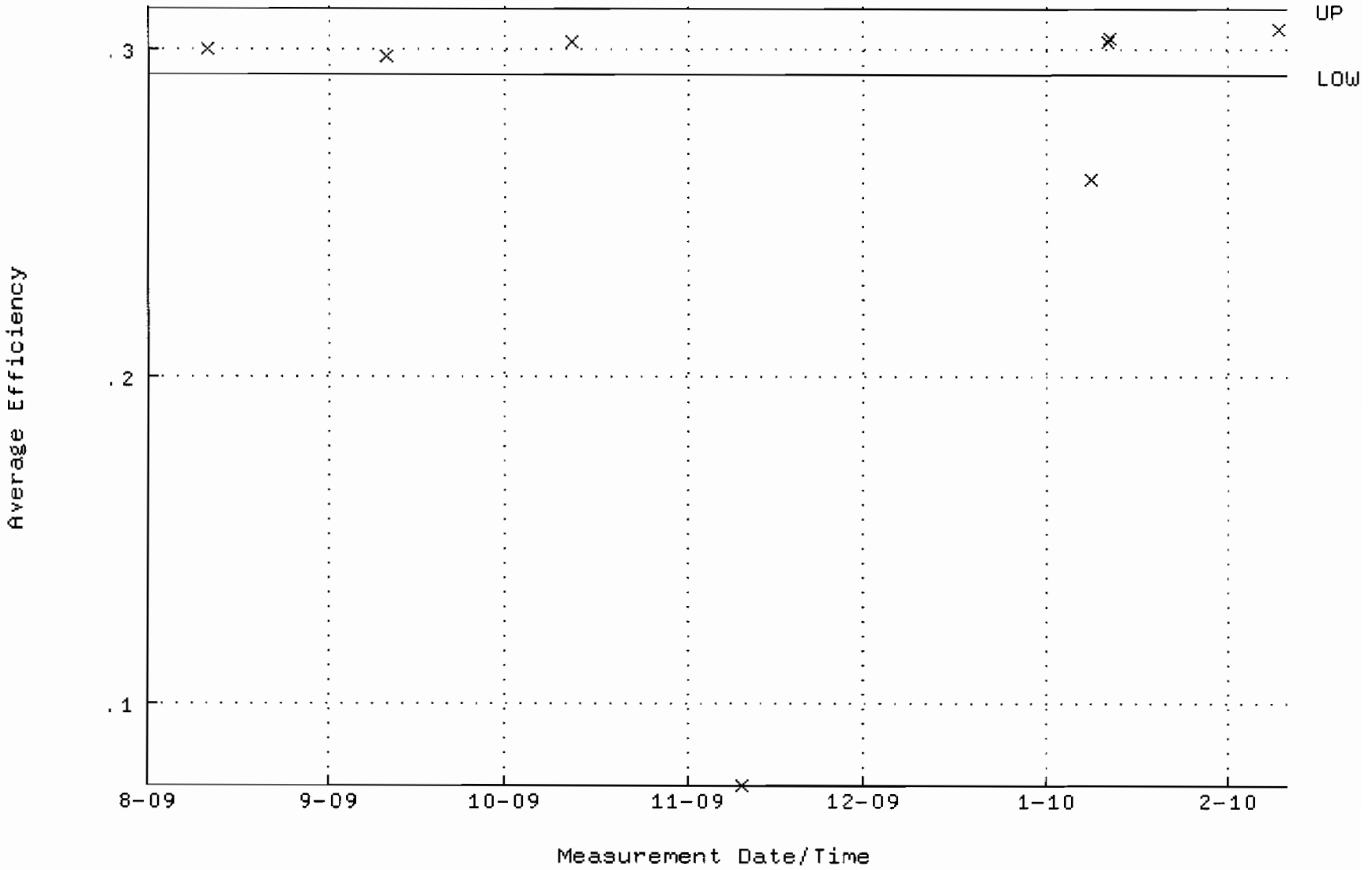

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 91.1212 through 100.713

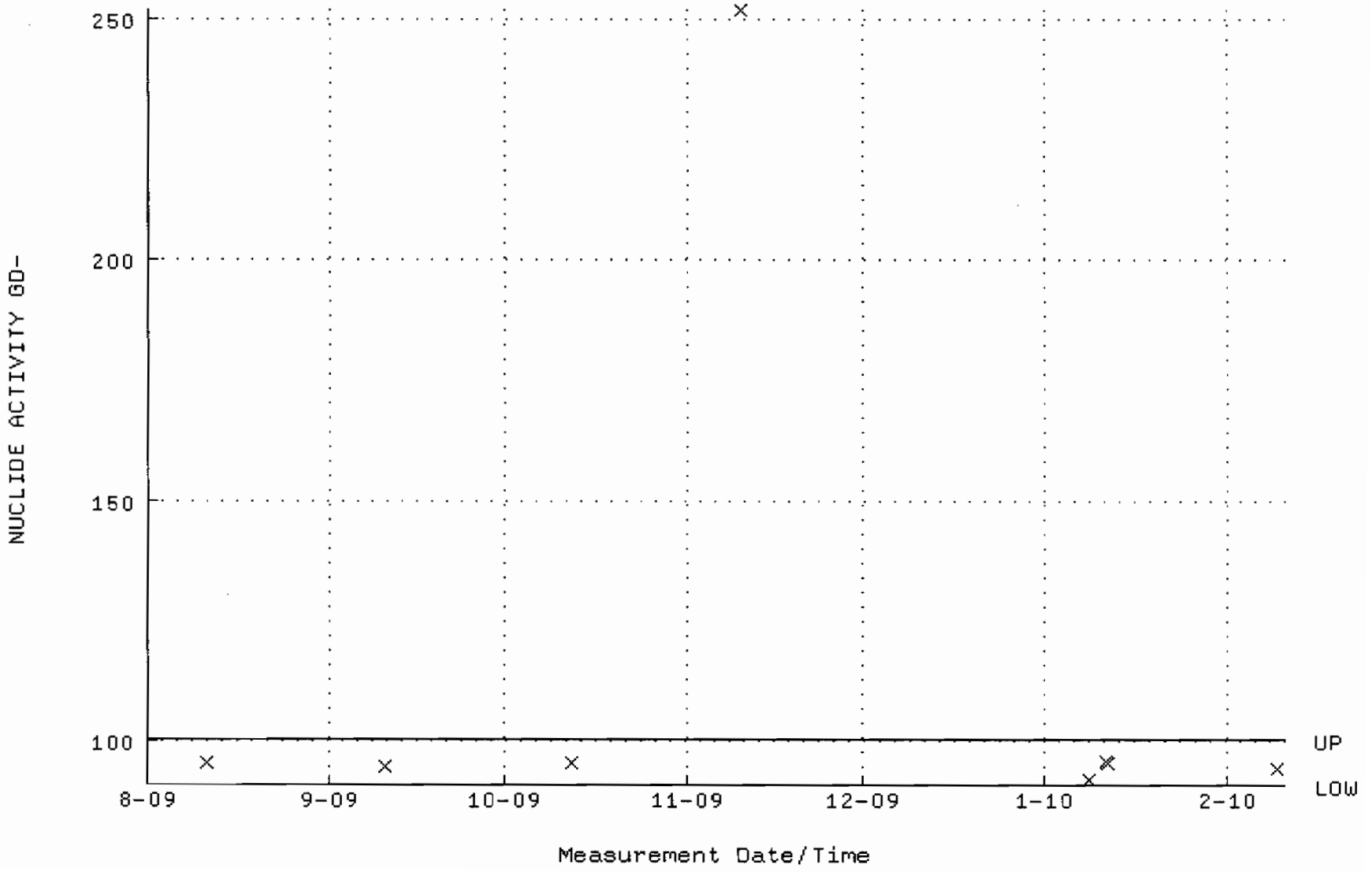

QA filename : DKA100:[ENV_ALPHA.QA.B]B075.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

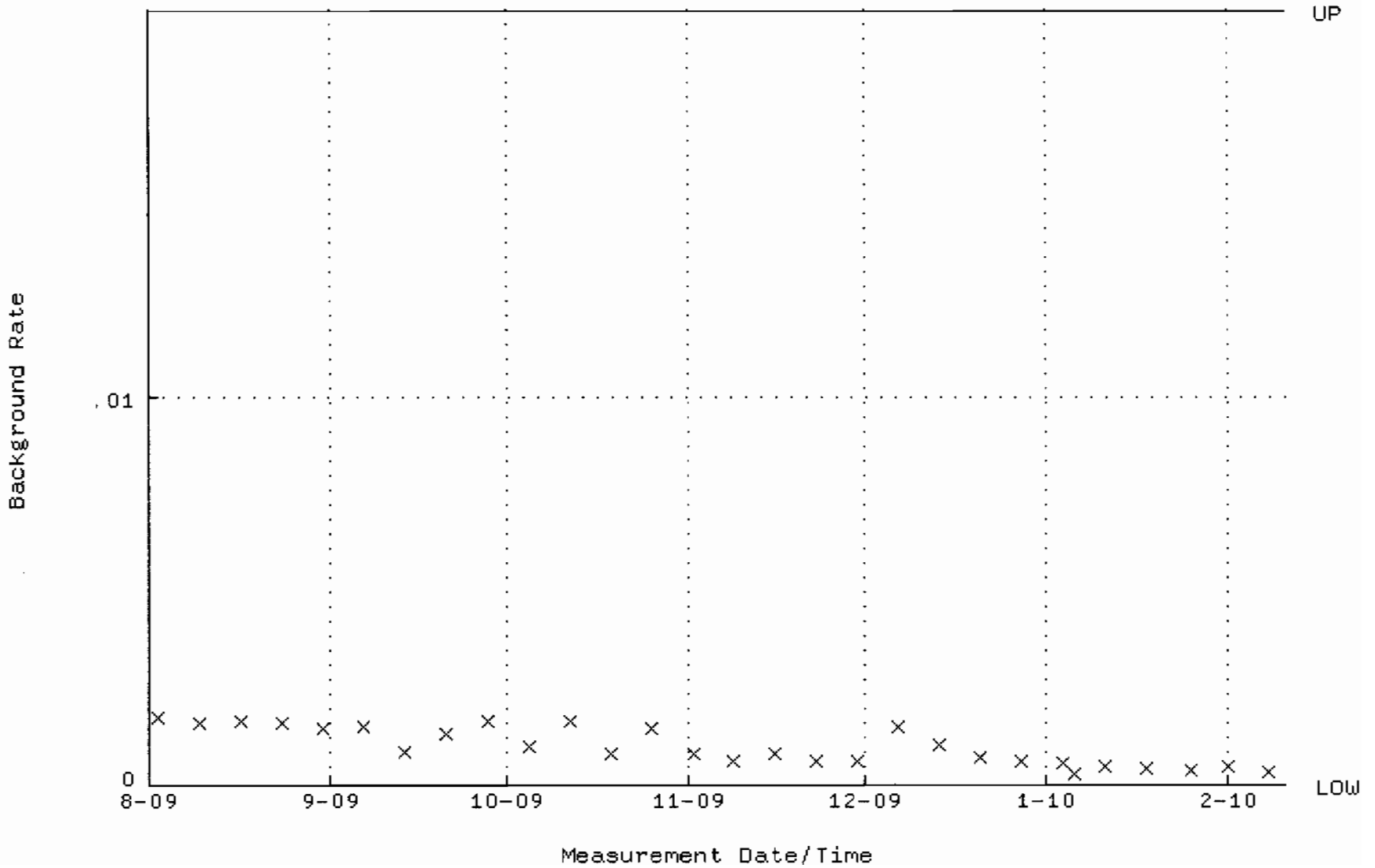

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295613 through 0.315613

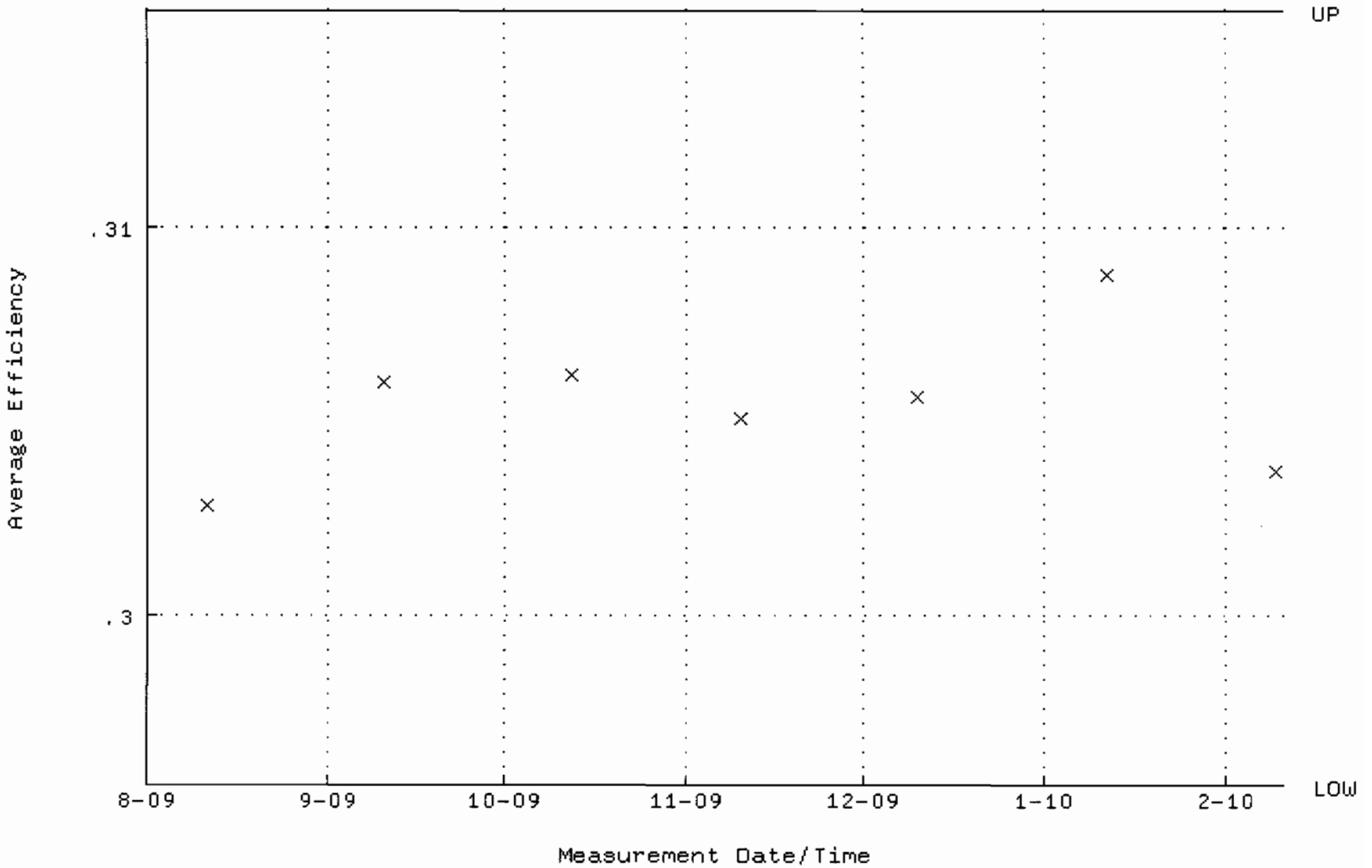

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9031 through 97.1561

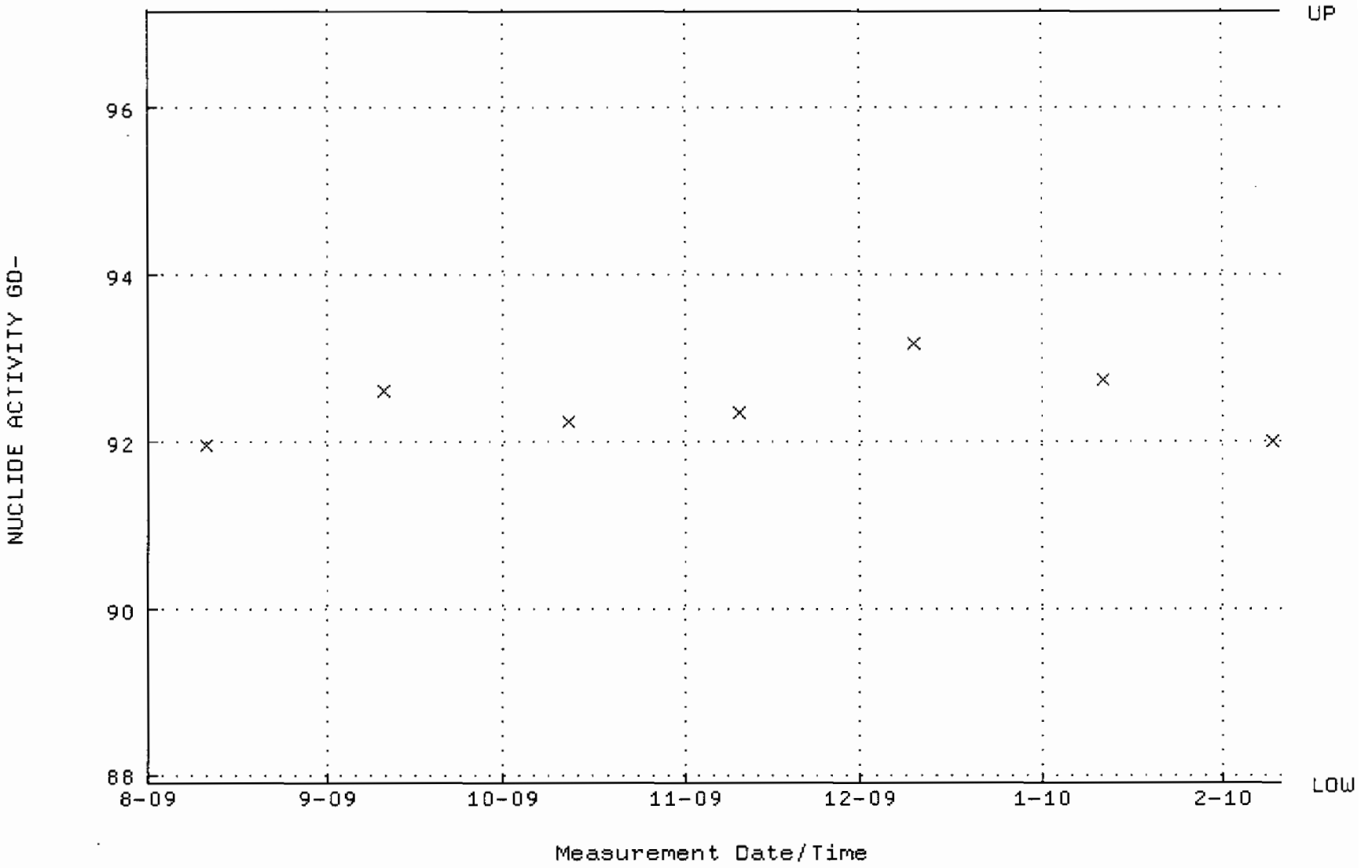

QA filename : DKA100:[ENV_ALPHA.QA.B]B076.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

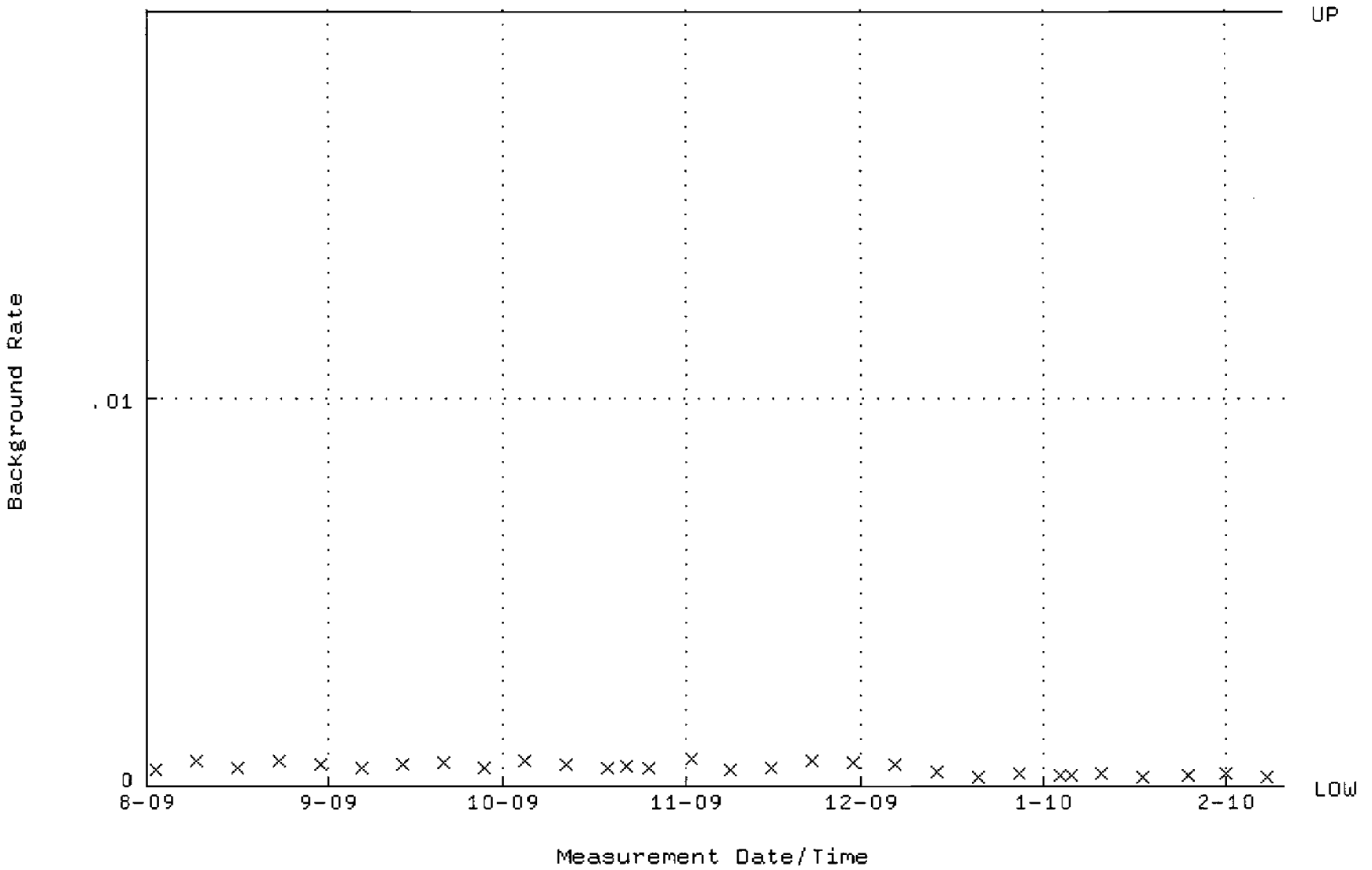

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.308263 through 0.328263

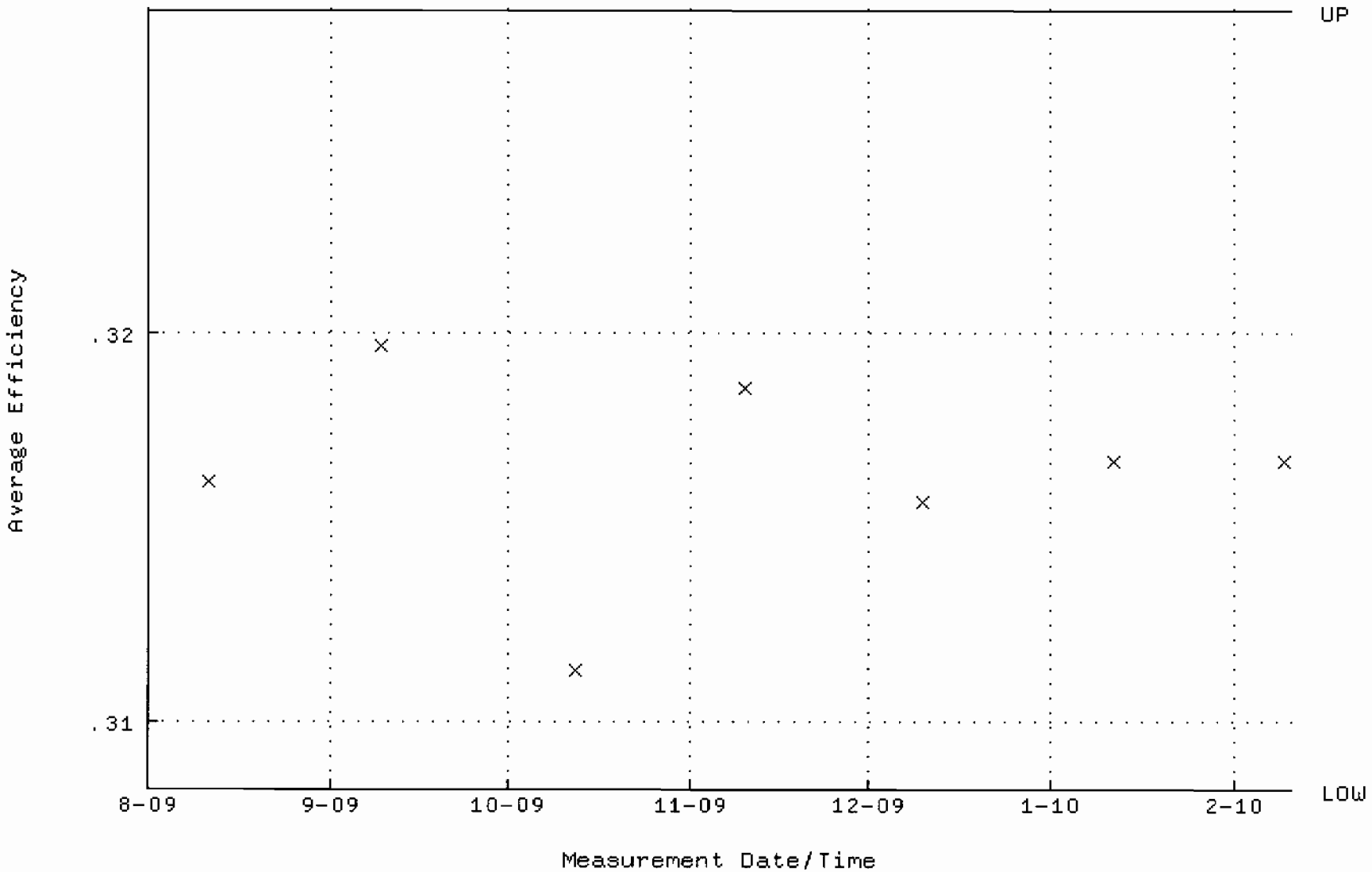

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 64.8451 through 71.6709

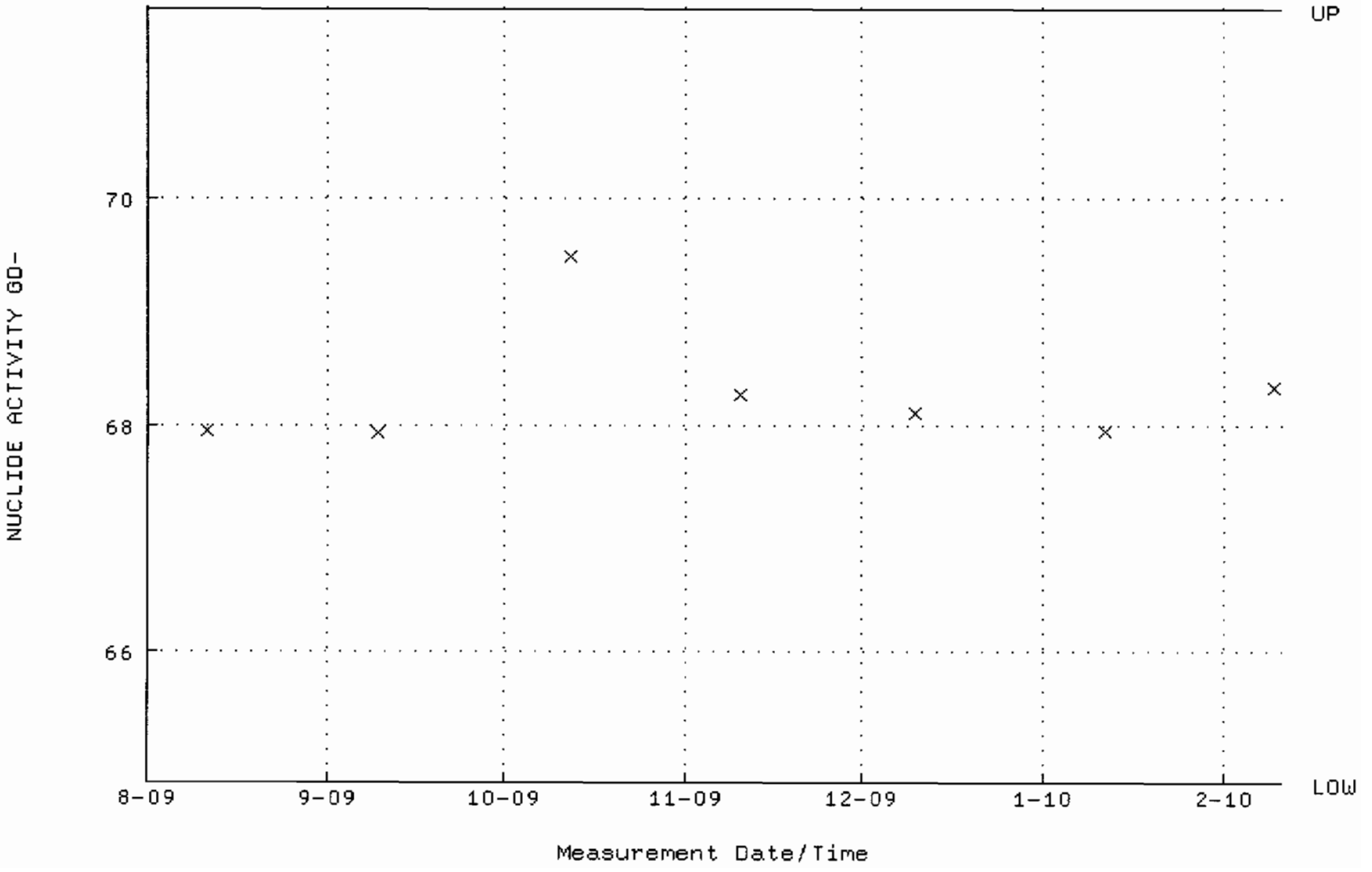

QA filename : DKA100:[ENV_ALPHA.QA.B]B112.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

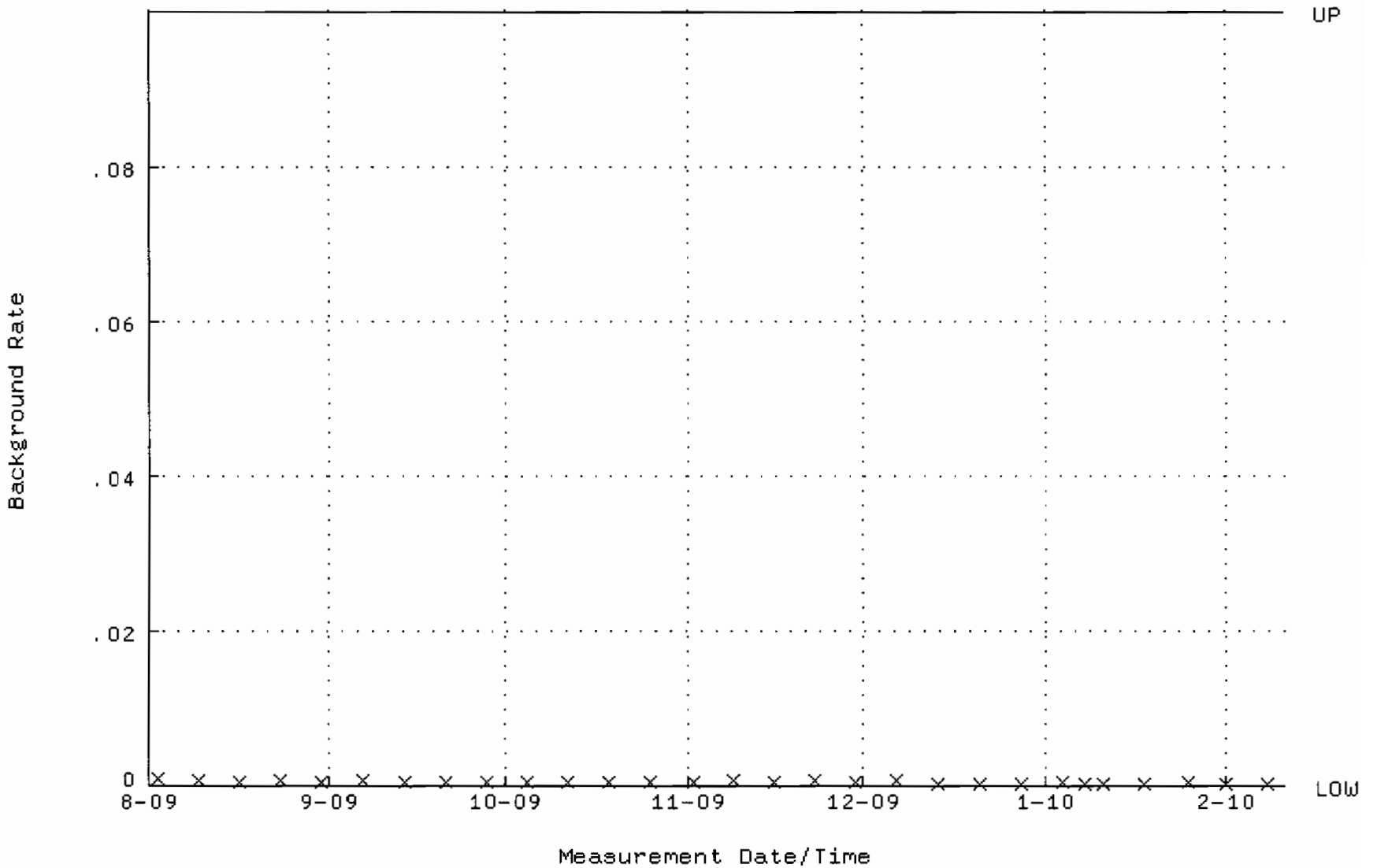

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-JUL-2009 09:11:52 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773

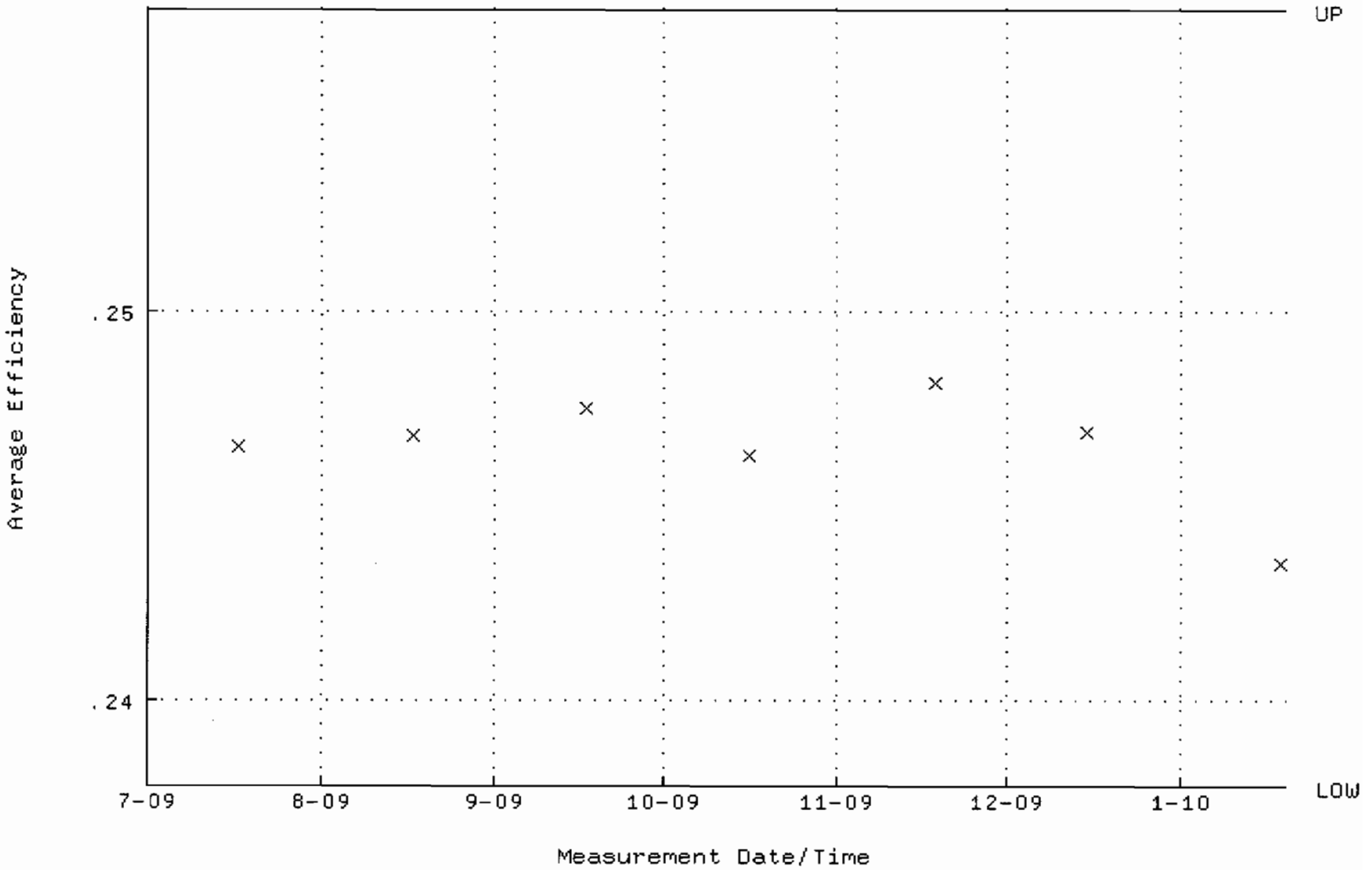

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-JUL-2009 09:11:52 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713

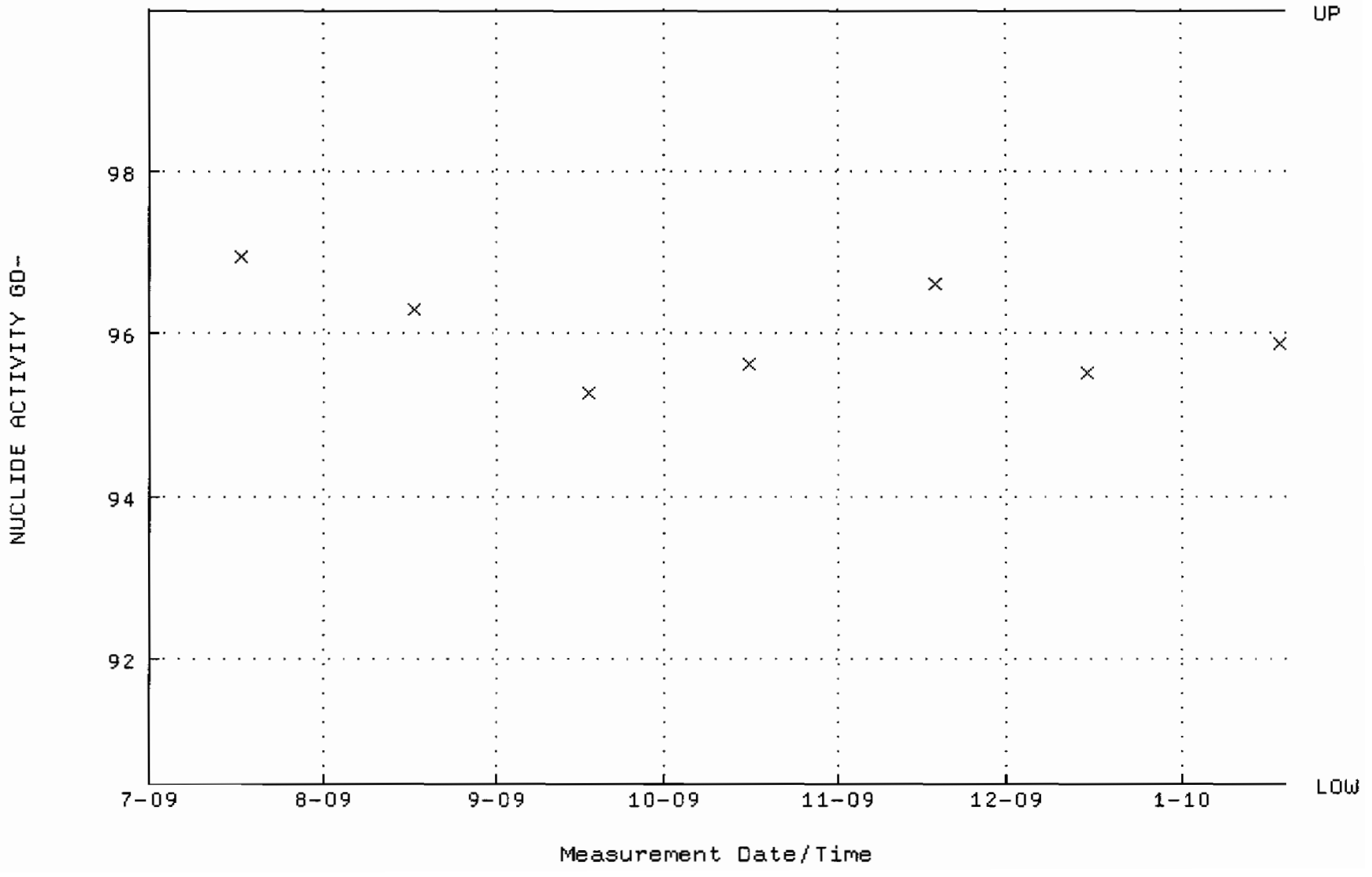

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:55:55 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

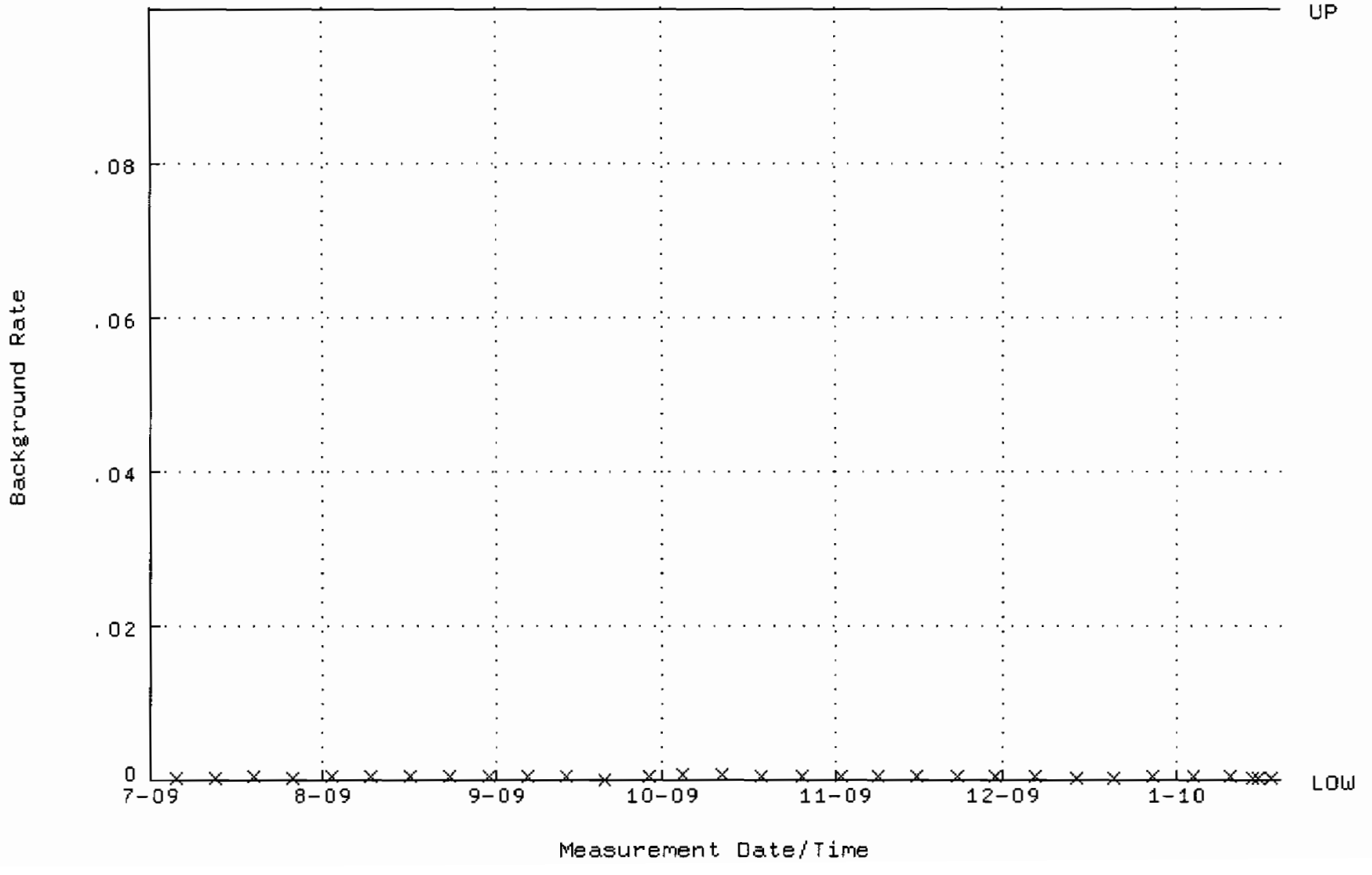

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-JUL-2009 09:11:58 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.246062 through 0.266062

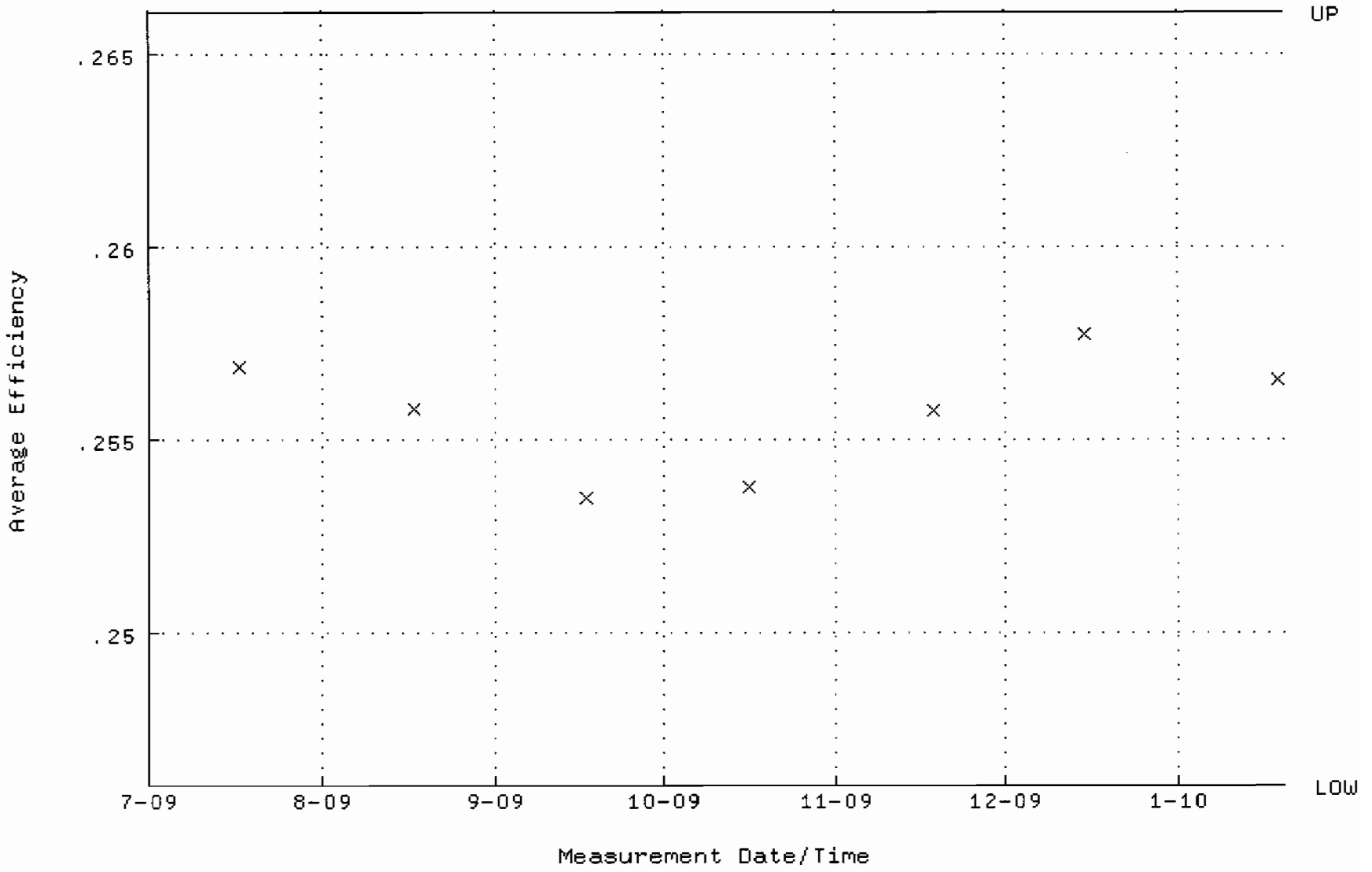

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-JUL-2009 09:11:58 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 86.1964 through 95.2697

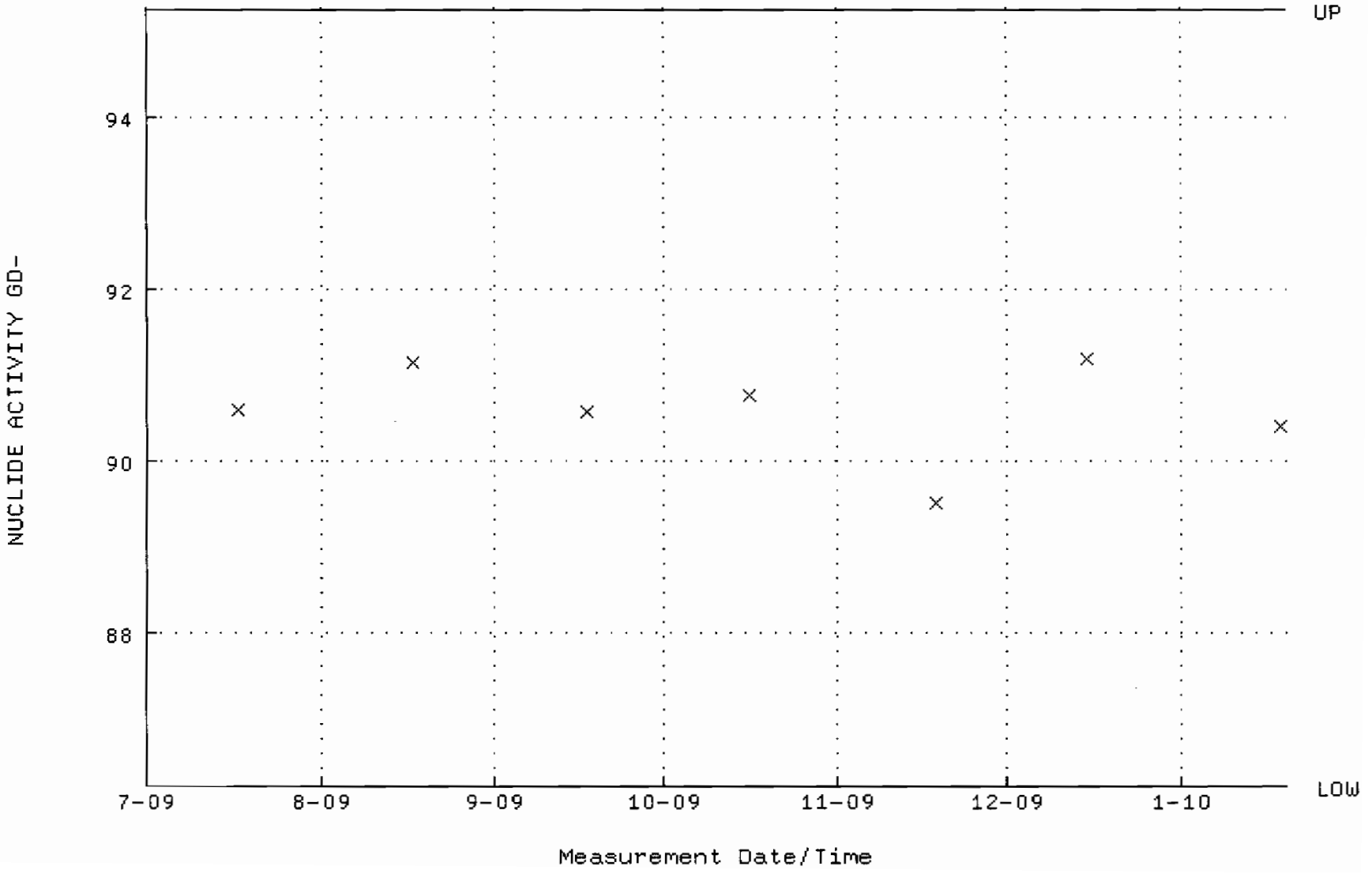

QA filename : DKA100:[ENV_ALPHA.QA.B]B128.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:56:00 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

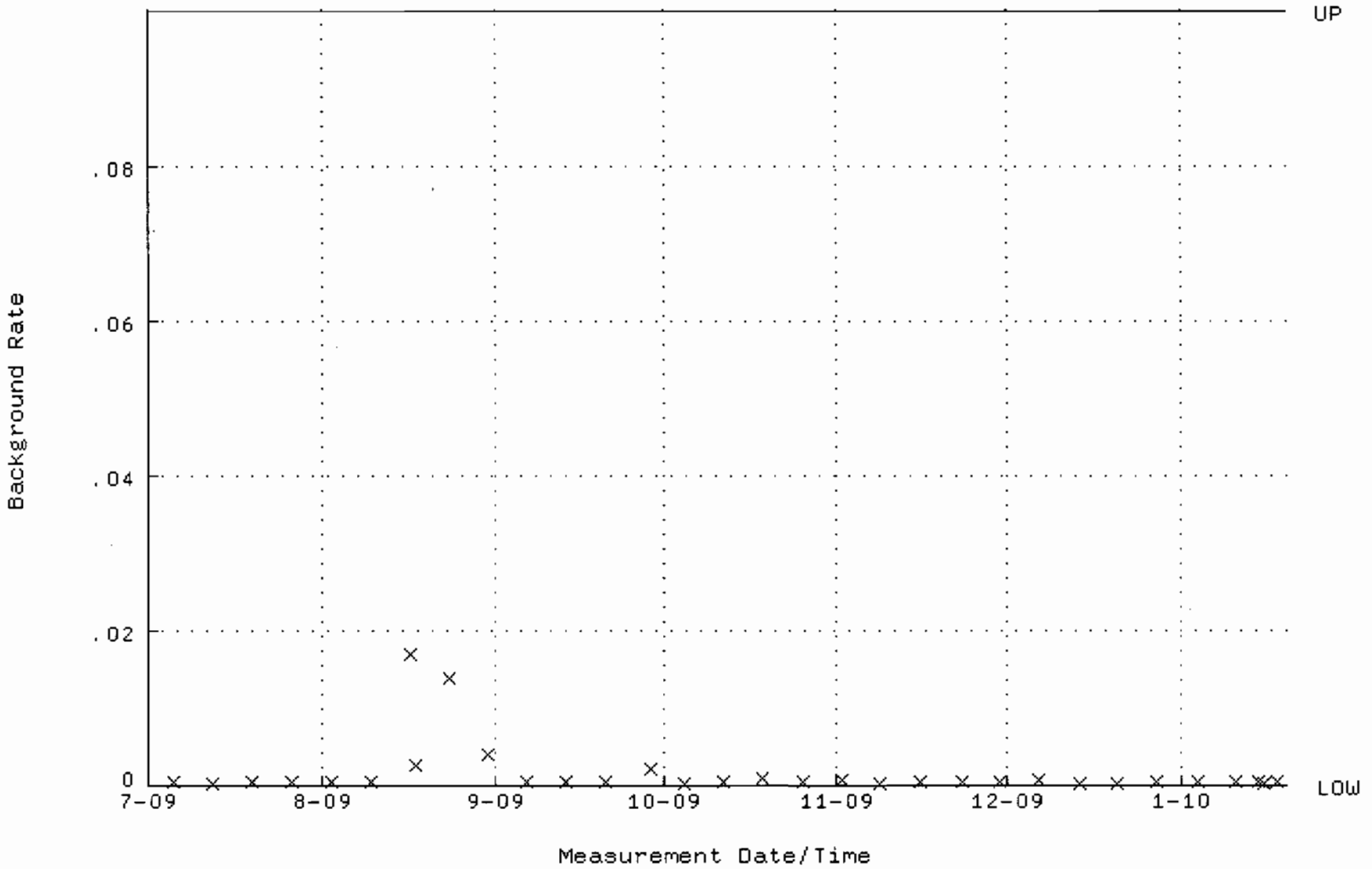

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-JUL-2009 09:12:03 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.256741 through 0.276741

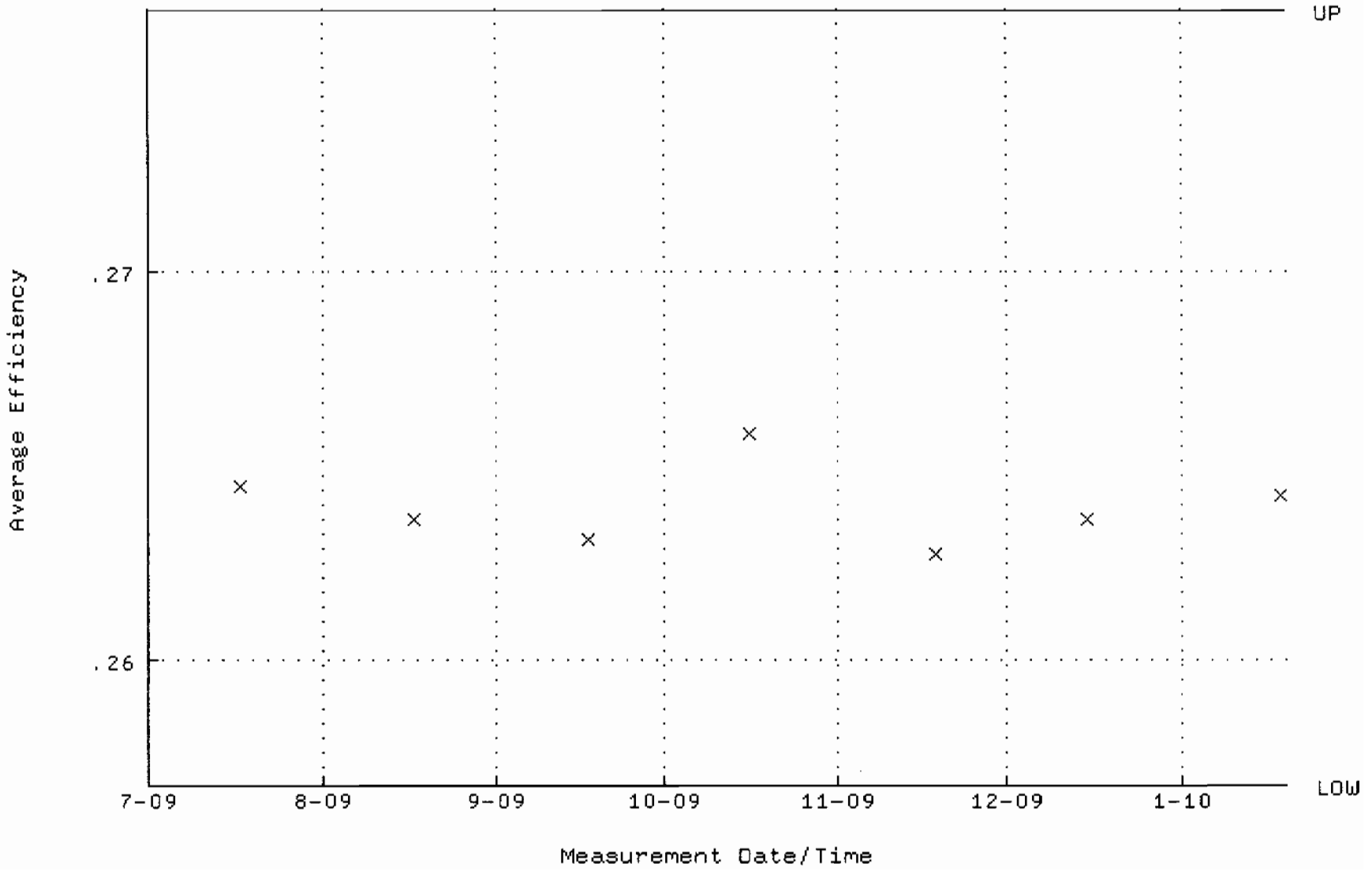

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-JUL-2009 09:12:03 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 86.3646 through 95.4556

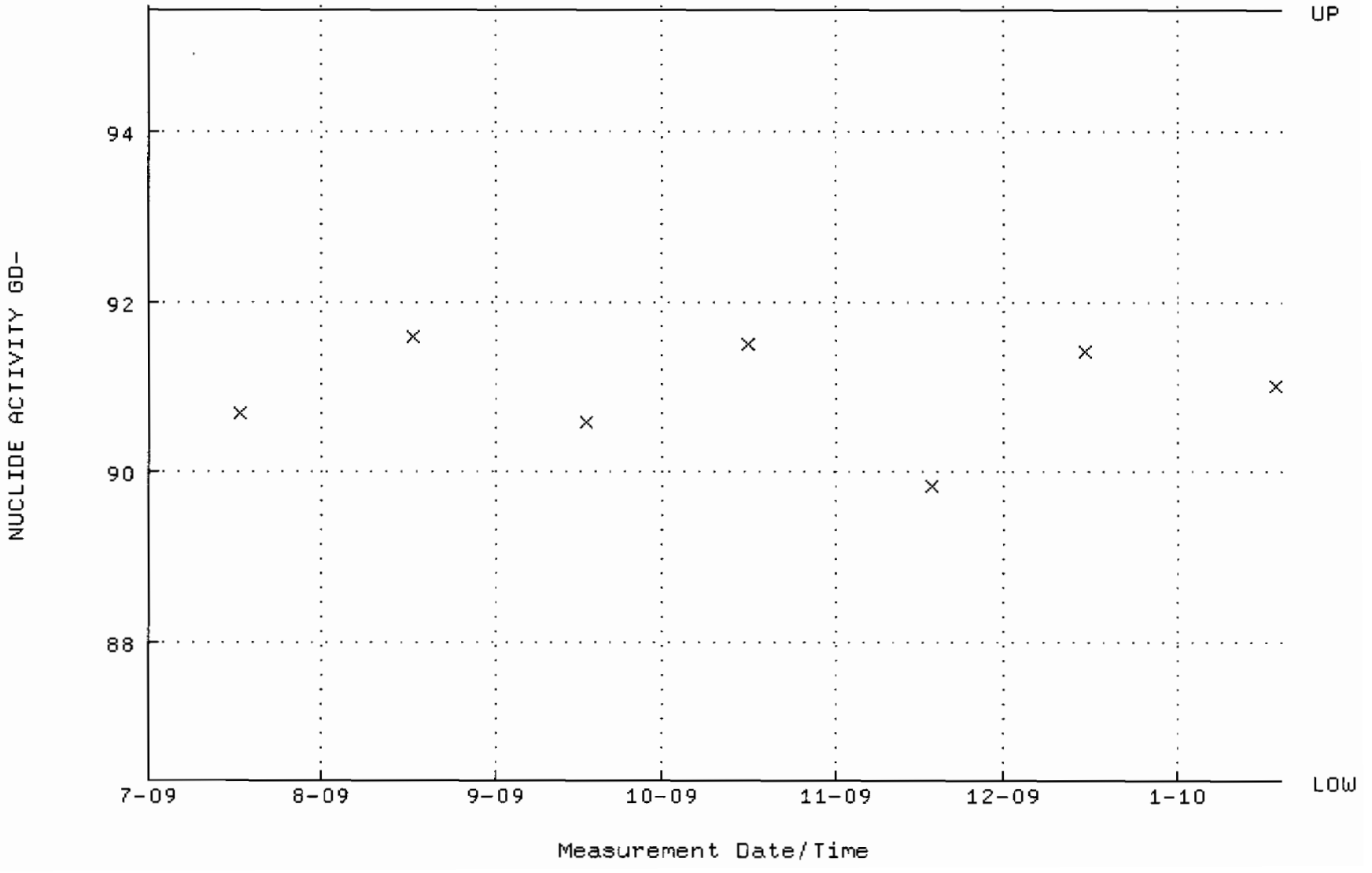

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:56:05 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

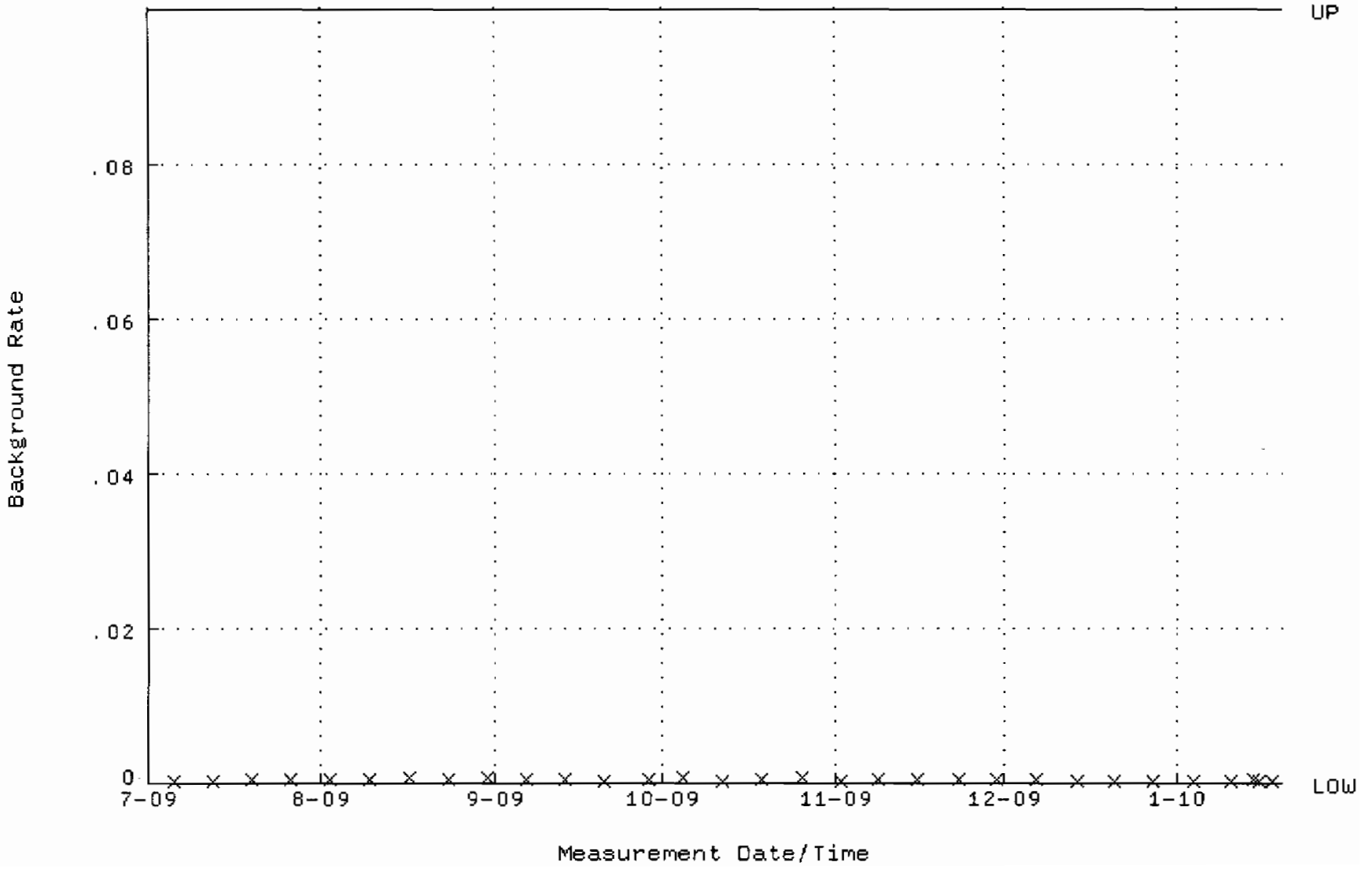

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-JUL-2009 09:12:07 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131

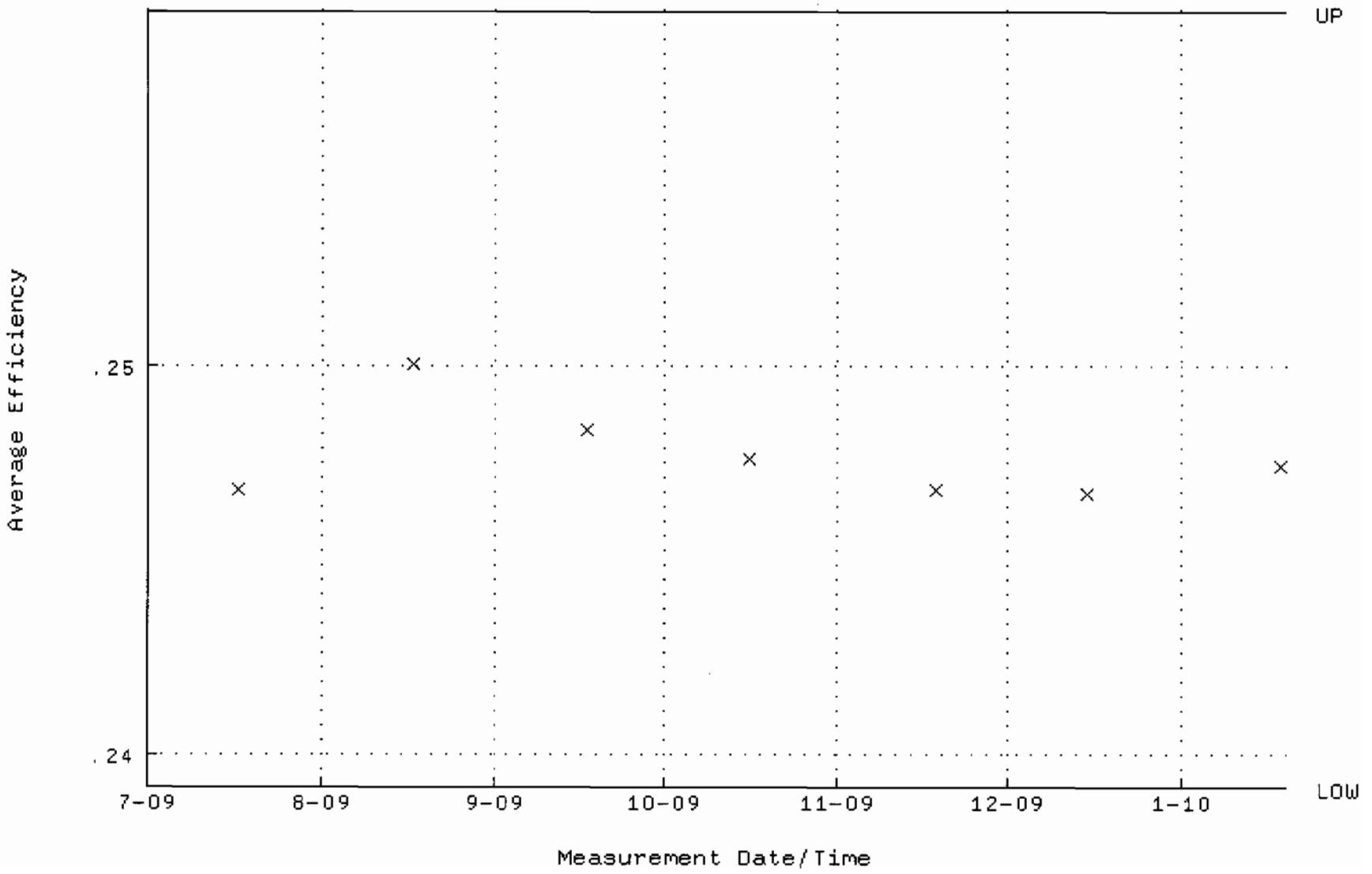

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-JUL-2009 09:12:07 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 88.1614 through 97.4416

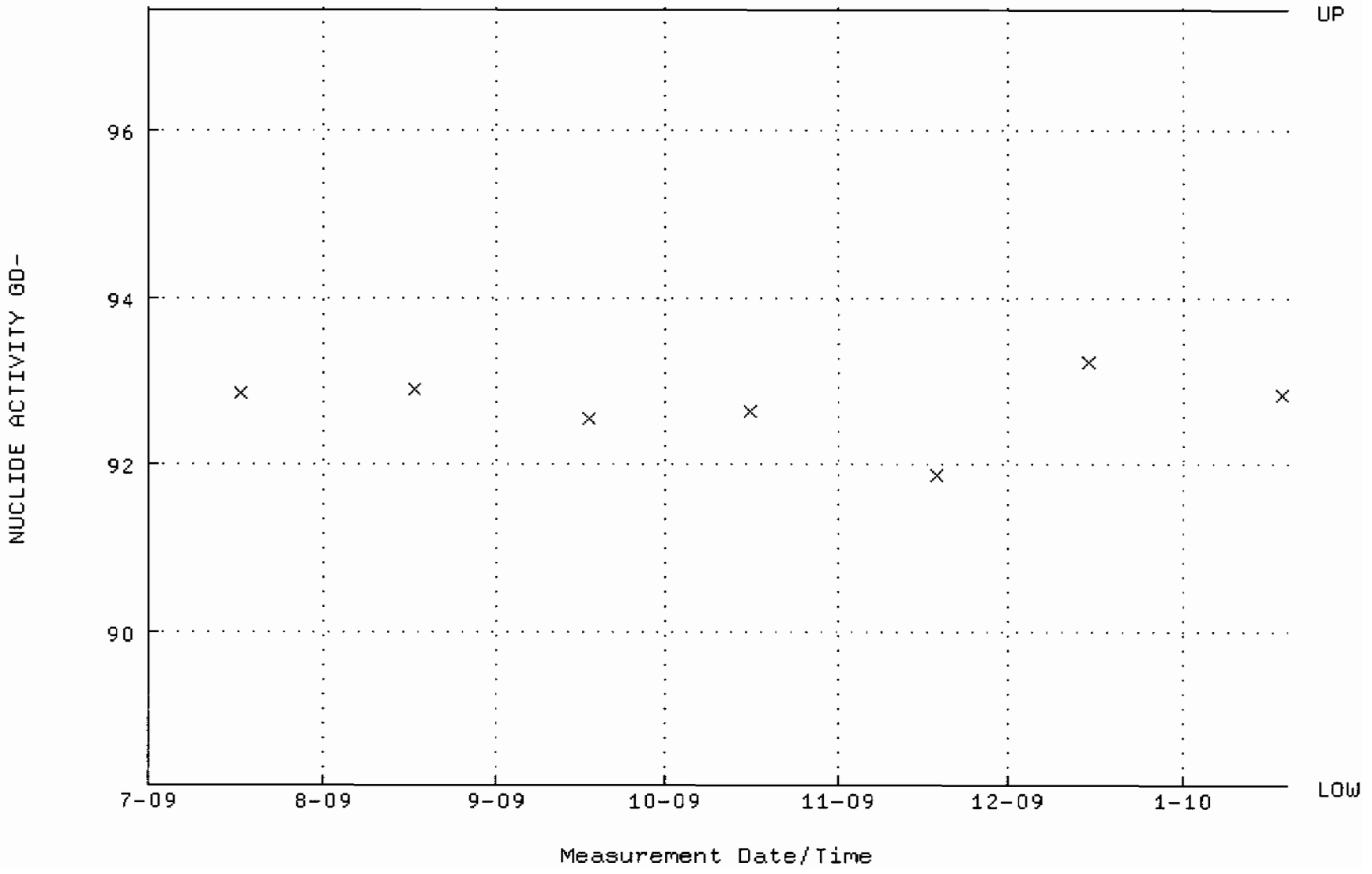

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:56:11 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

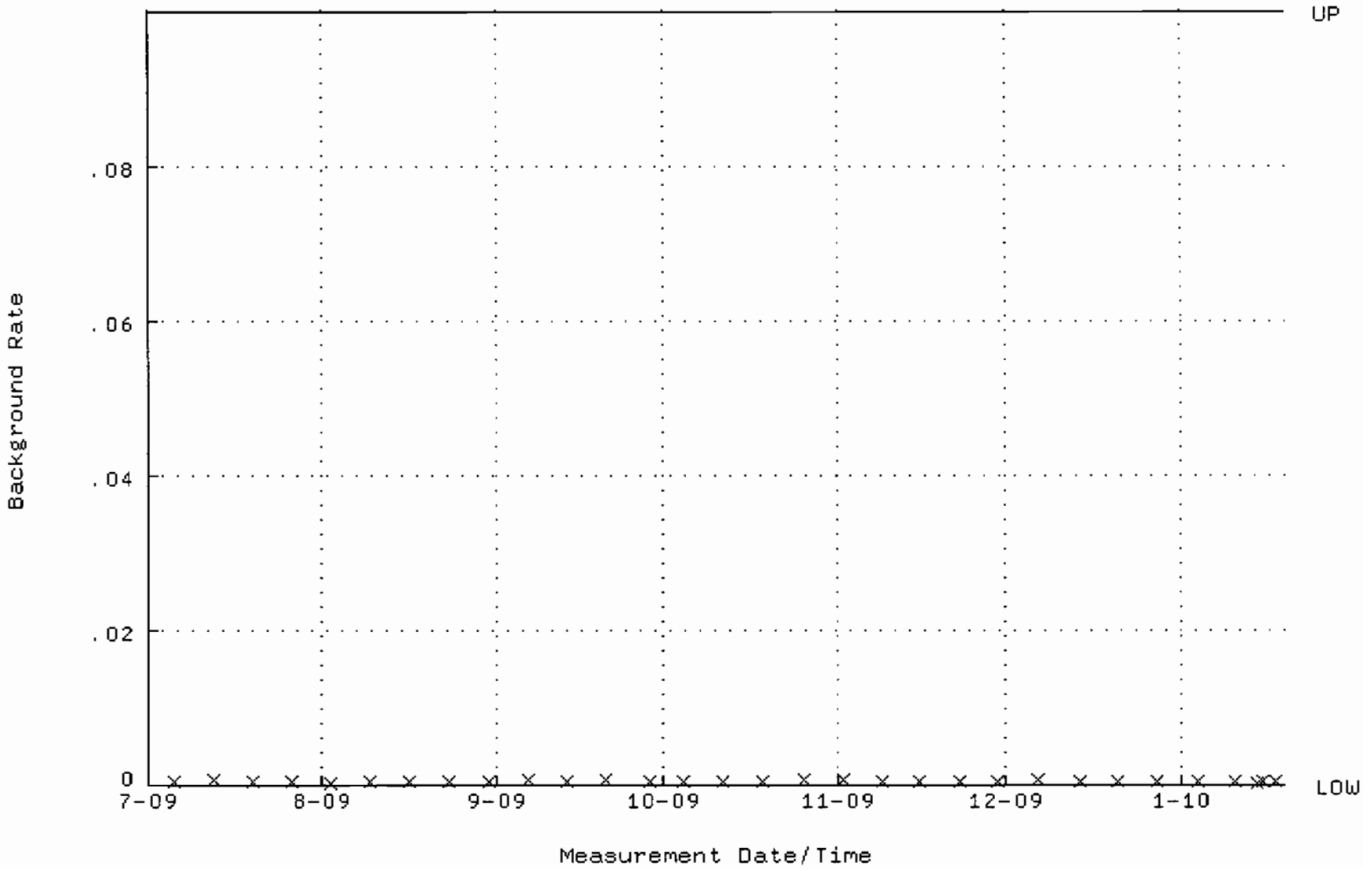

QA filename : DKA100:[ENV_ALPHA.QA.W]W134.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-JUL-2009 09:12:25 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.236455 through 0.256455

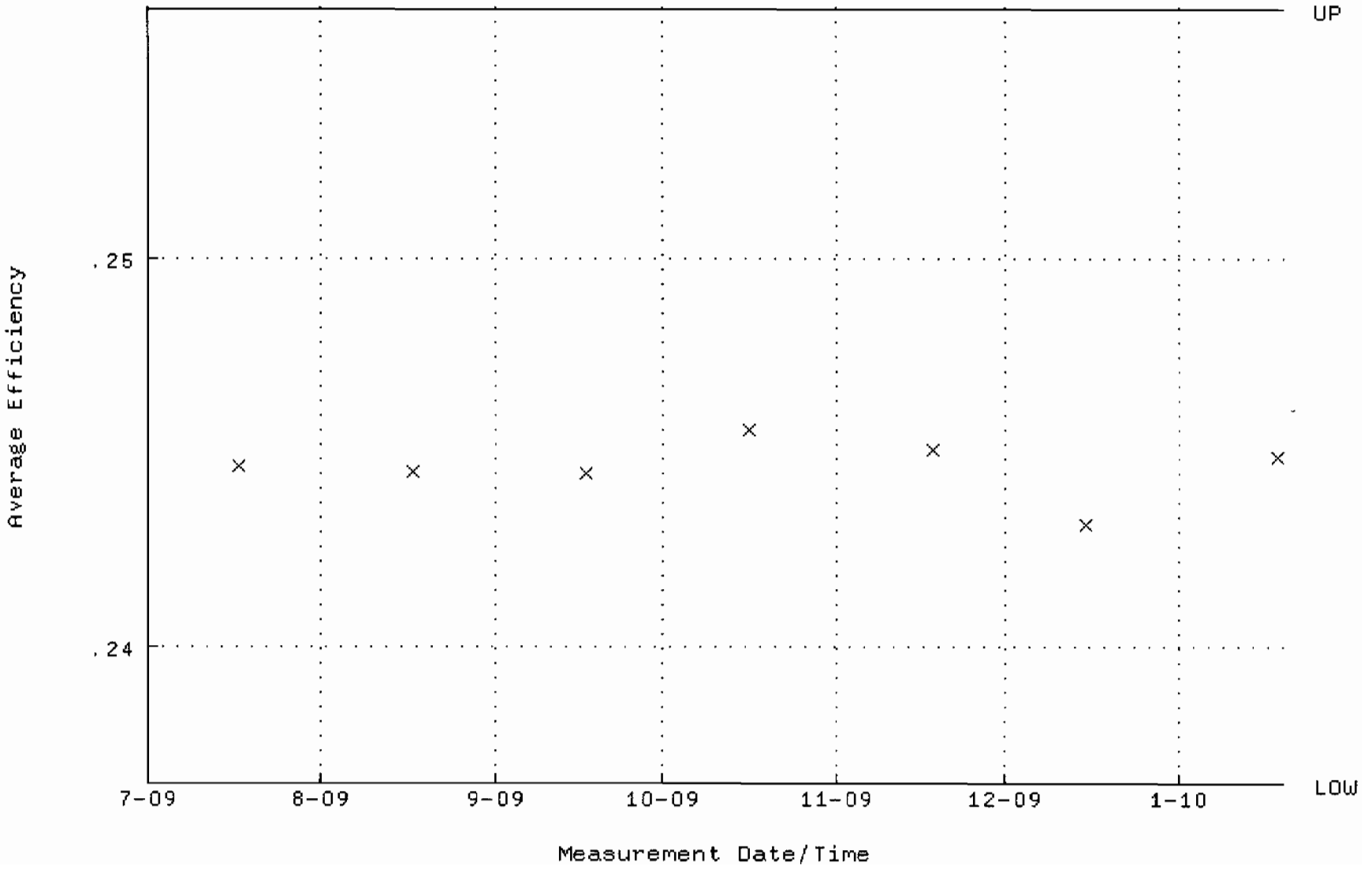

QA filename : DKA100:[ENV_ALPHA.QA.W]W134.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-JUL-2009 09:12:25 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 87.6576 through 96.8848

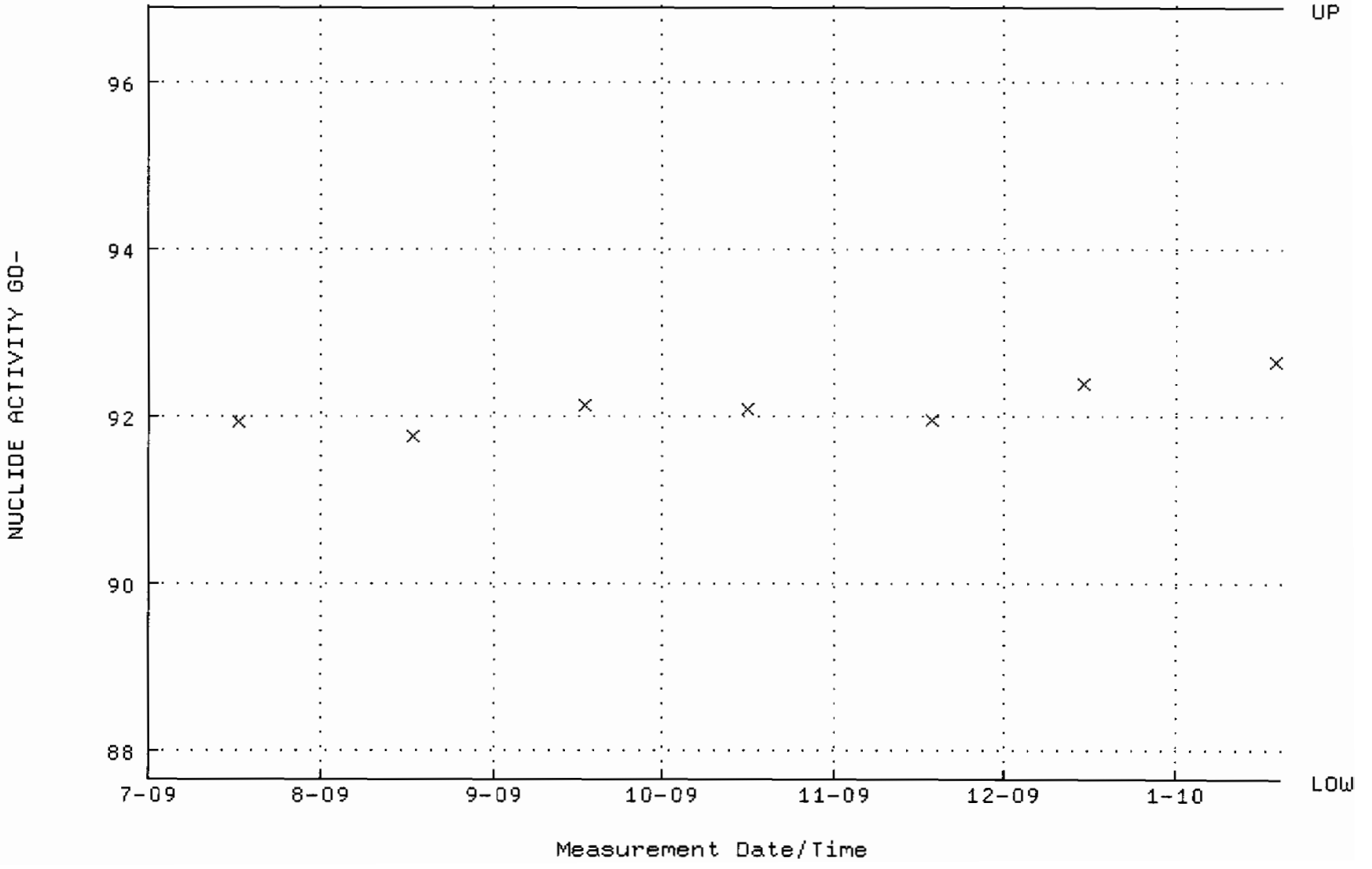

QA filename : DKA100:[ENV_ALPHA.QA.B]B134.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:56:30 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

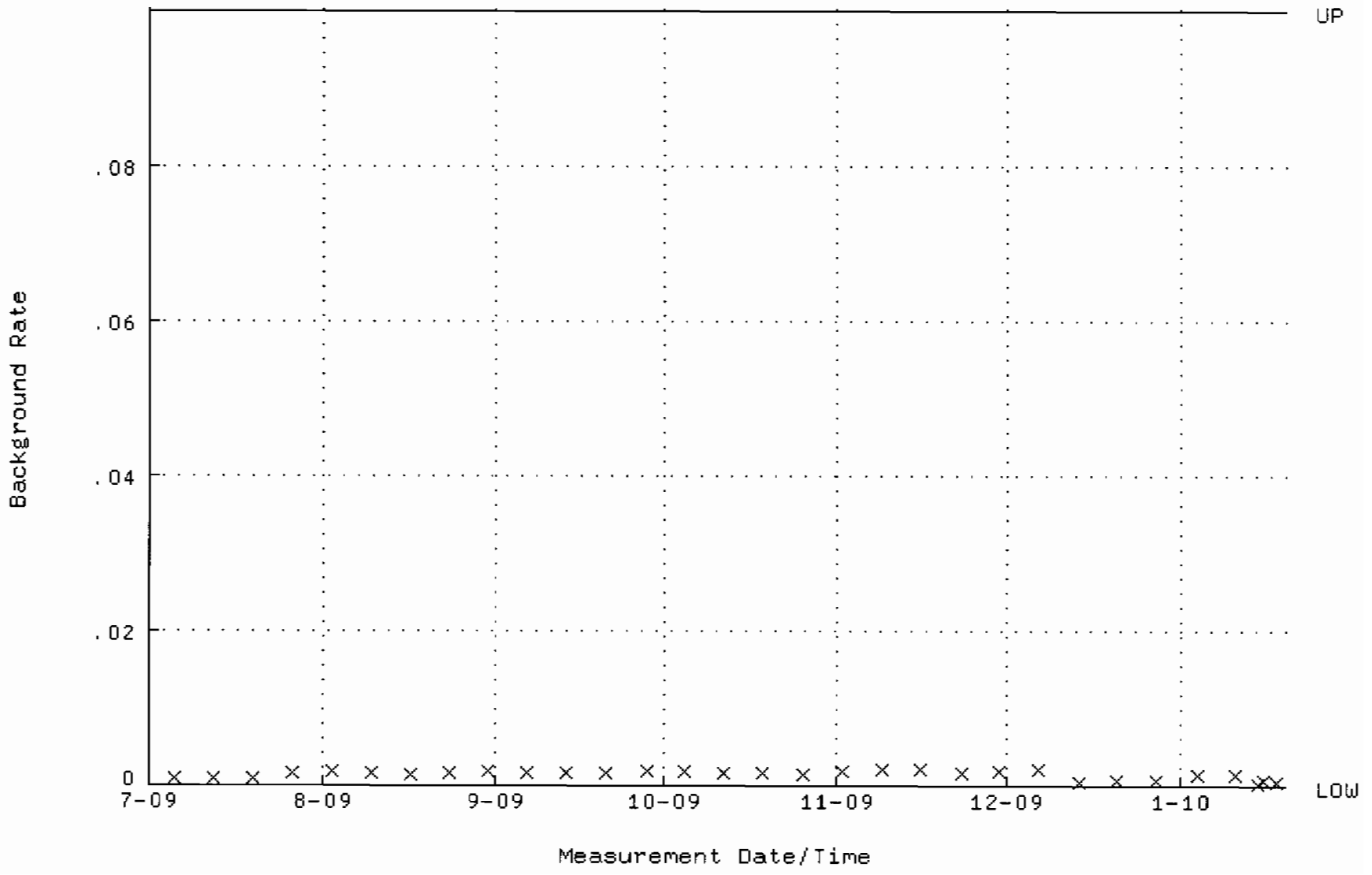

QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-JUL-2009 09:12:48 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.240299 through 0.260299

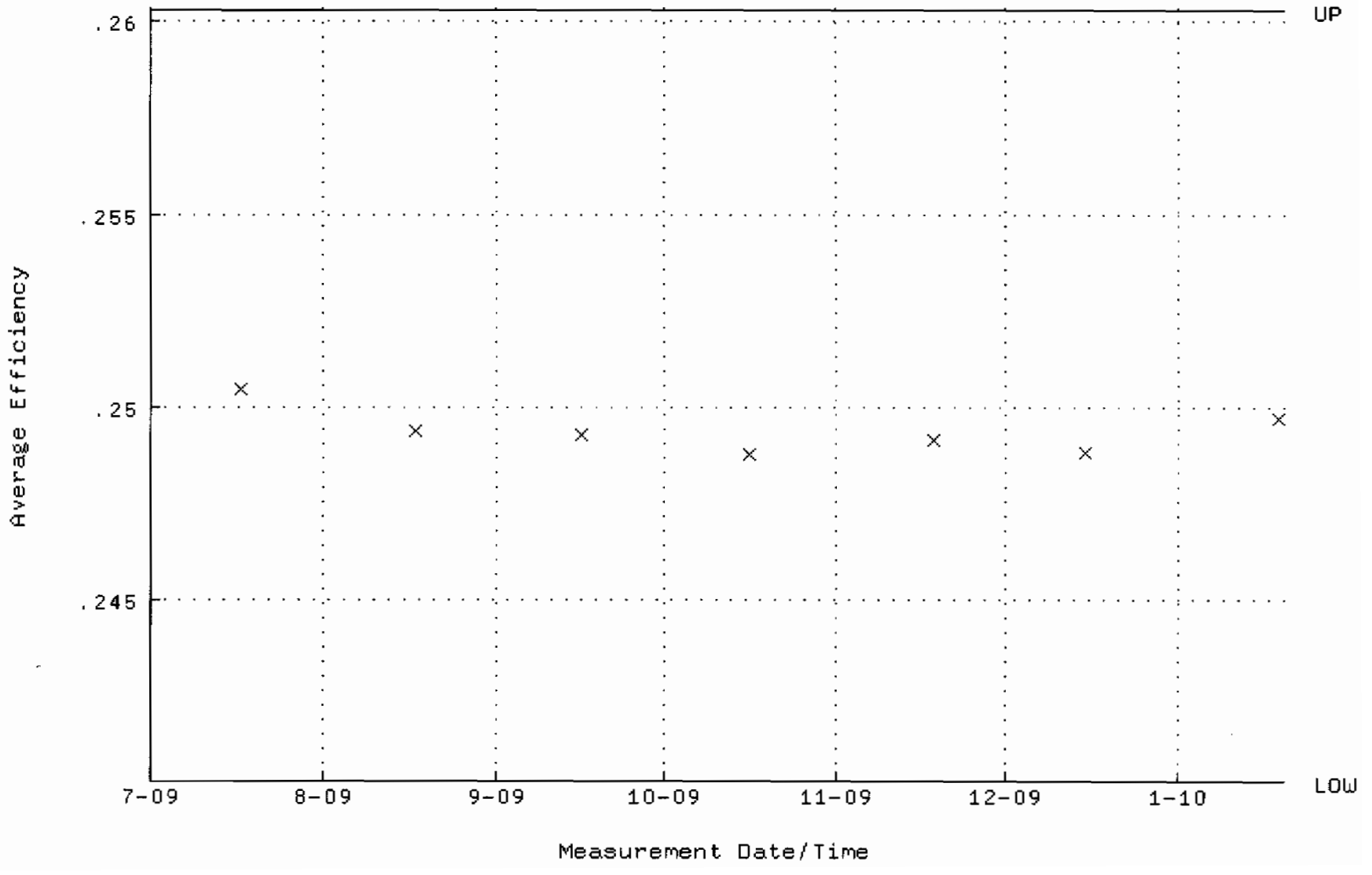

QA filename : DKA100:[ENV_ALPHA.QA.W]W139.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-JUL-2009 09:12:48 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 85.8145 through 94.8477

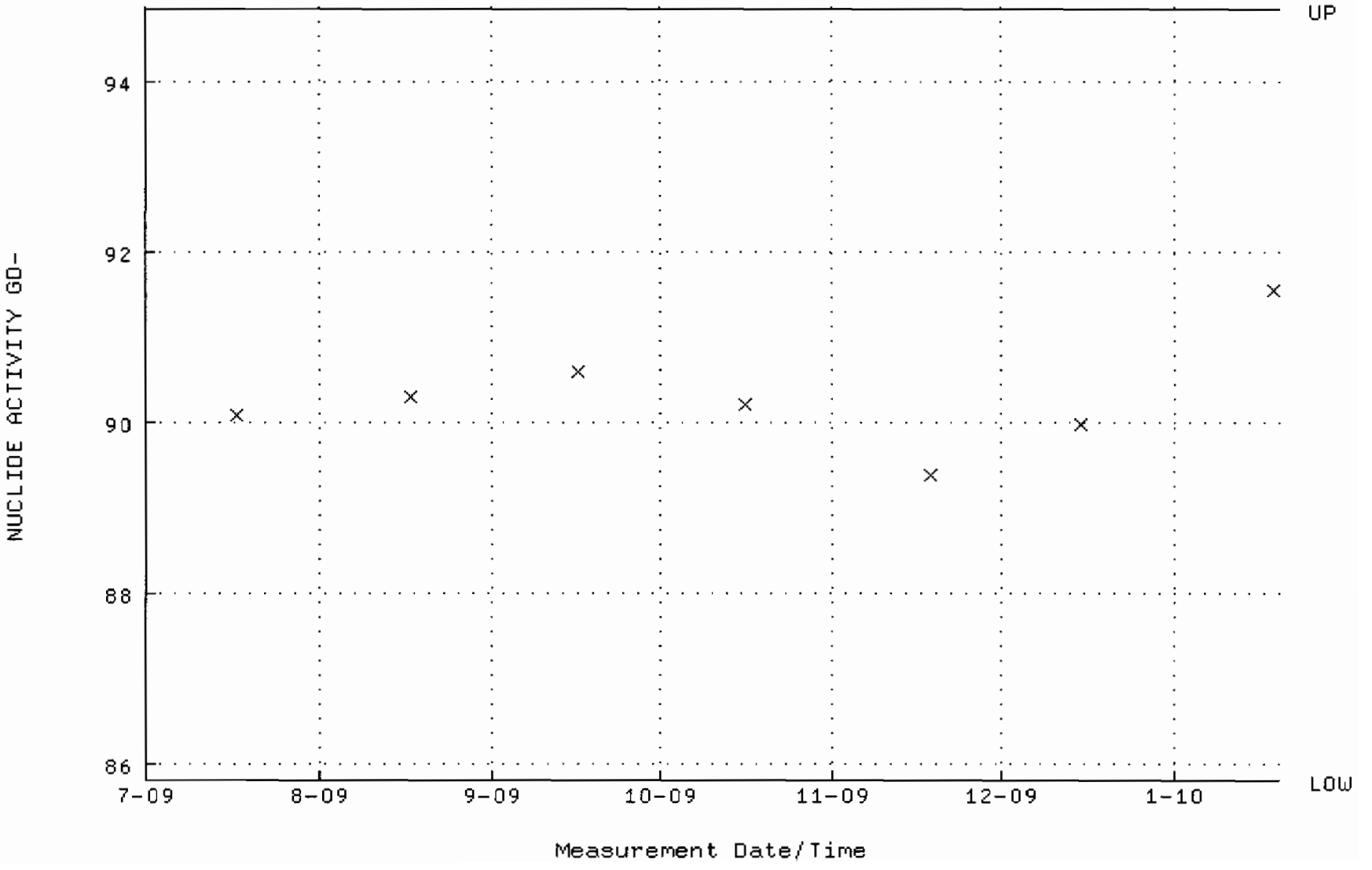

QA filename : DKA100:[ENV_ALPHA.QA.B]B139.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:56:55 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

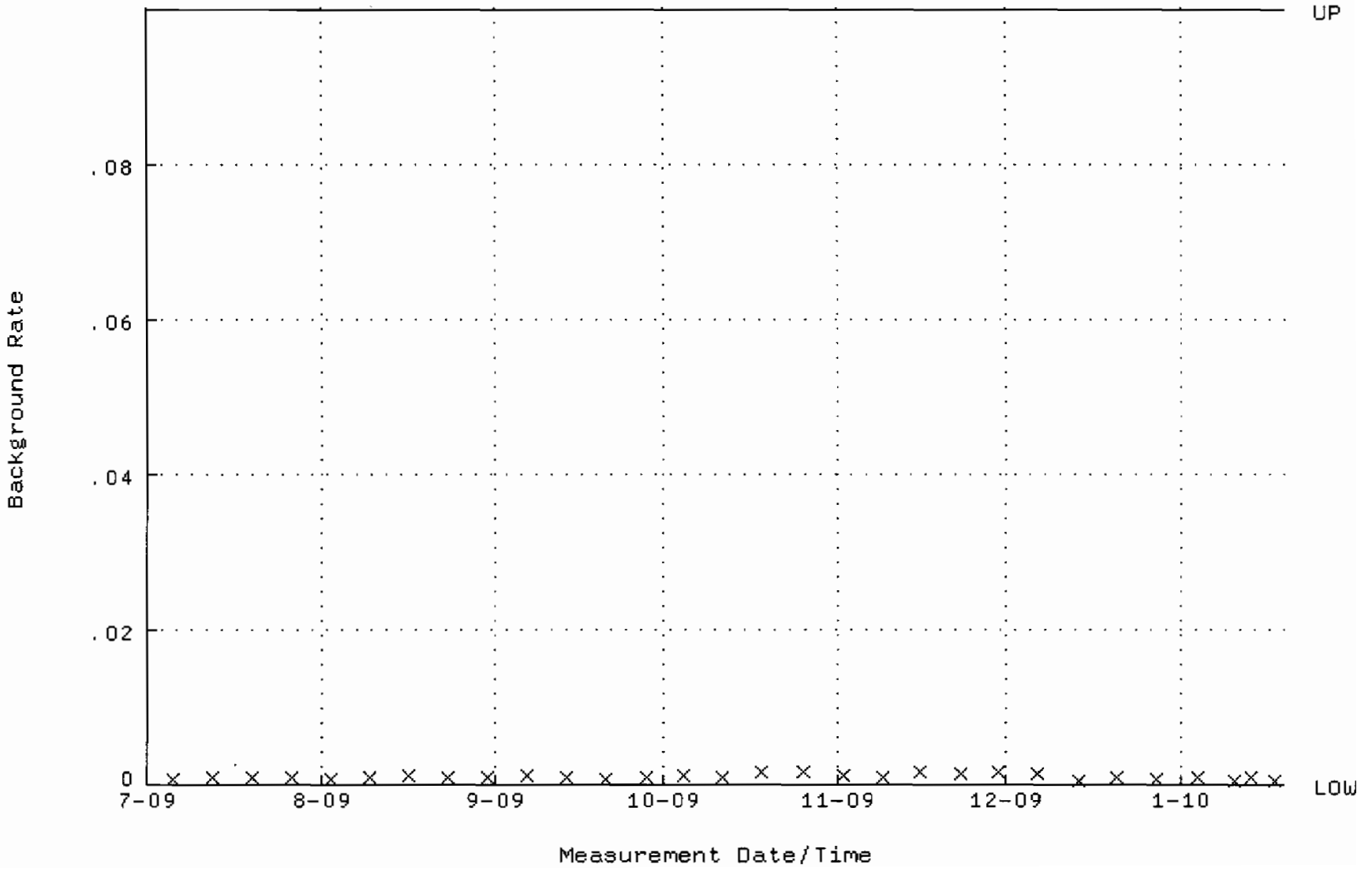

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-JUL-2009 09:13:03 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.252182 through 0.272182

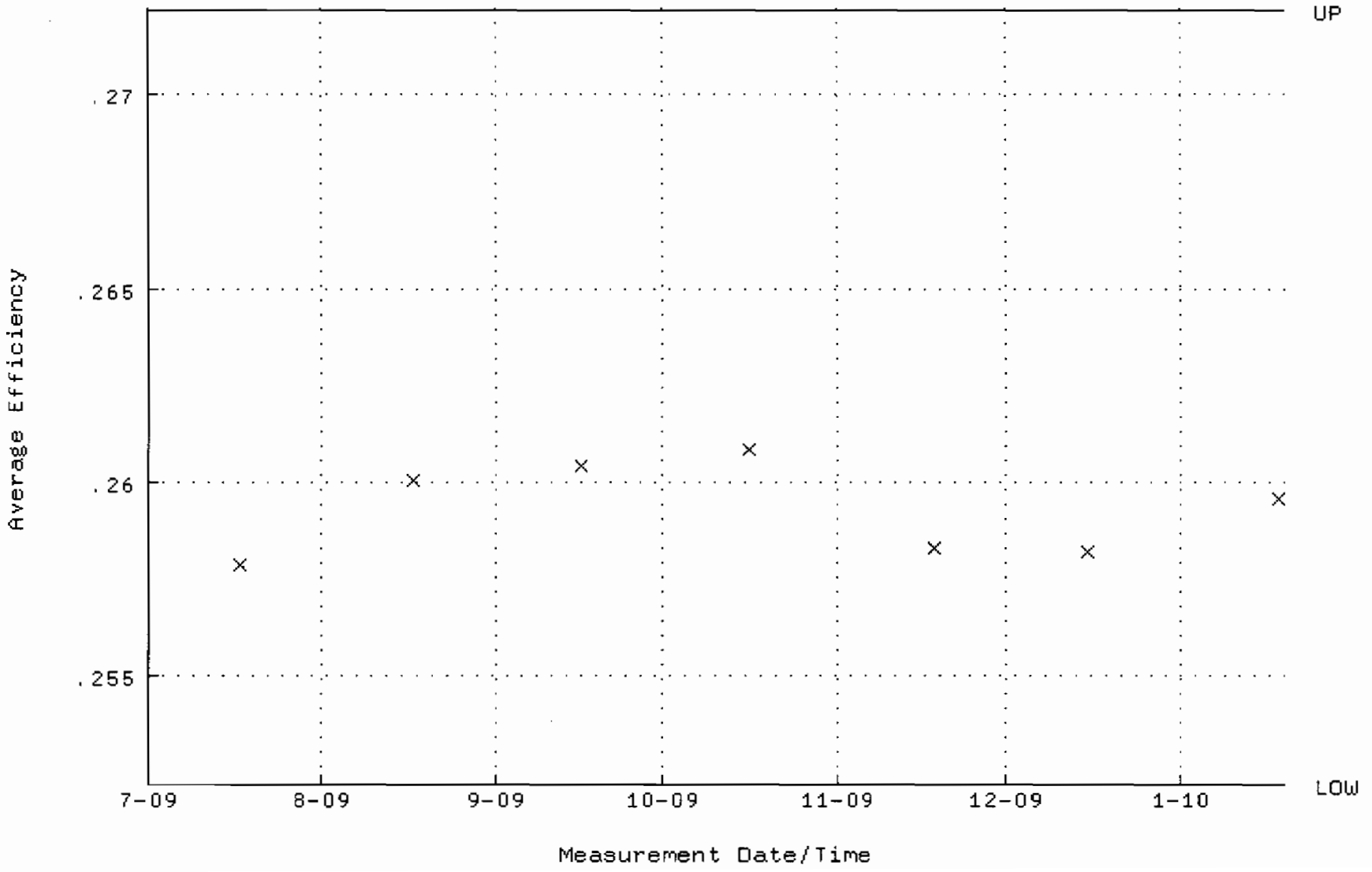

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-JUL-2009 09:13:03 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 81.0245 through 89.5533

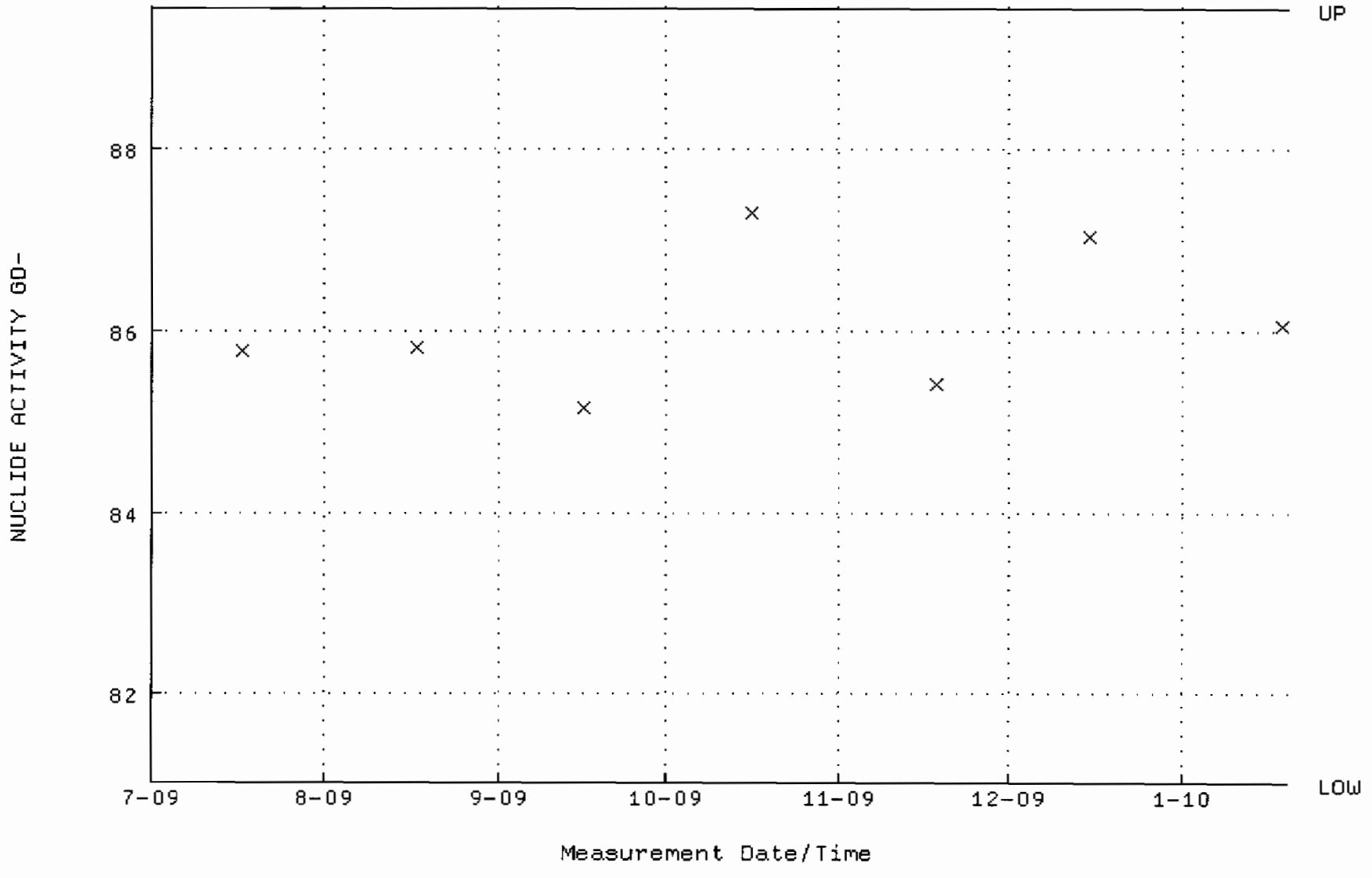

QA filename : DKA100:[ENV_ALPHA.QA.B]B142.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 14:57:09 through 19-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

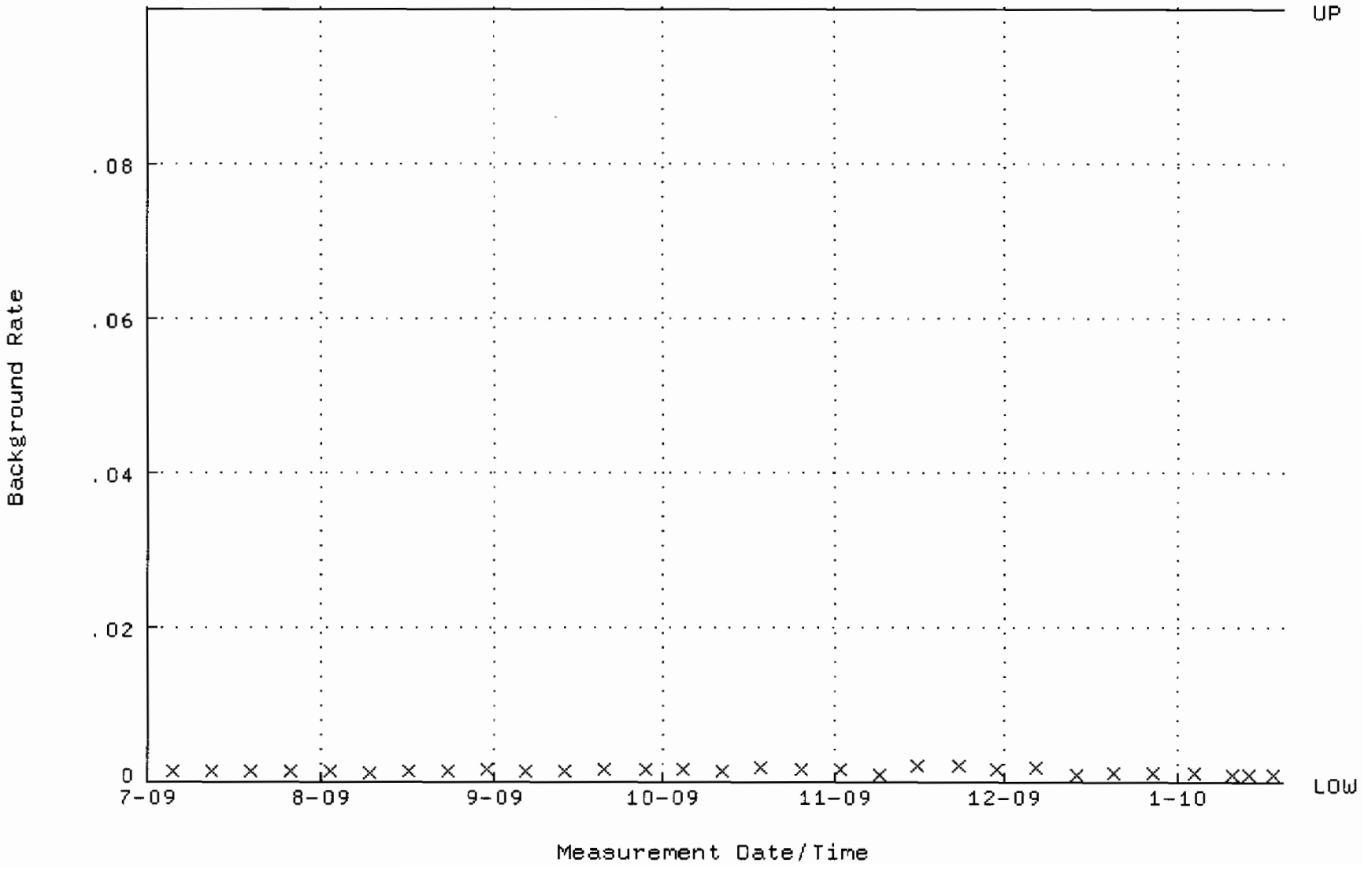

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 23-JUL-2009 08:07:41 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.375364 through 0.395364

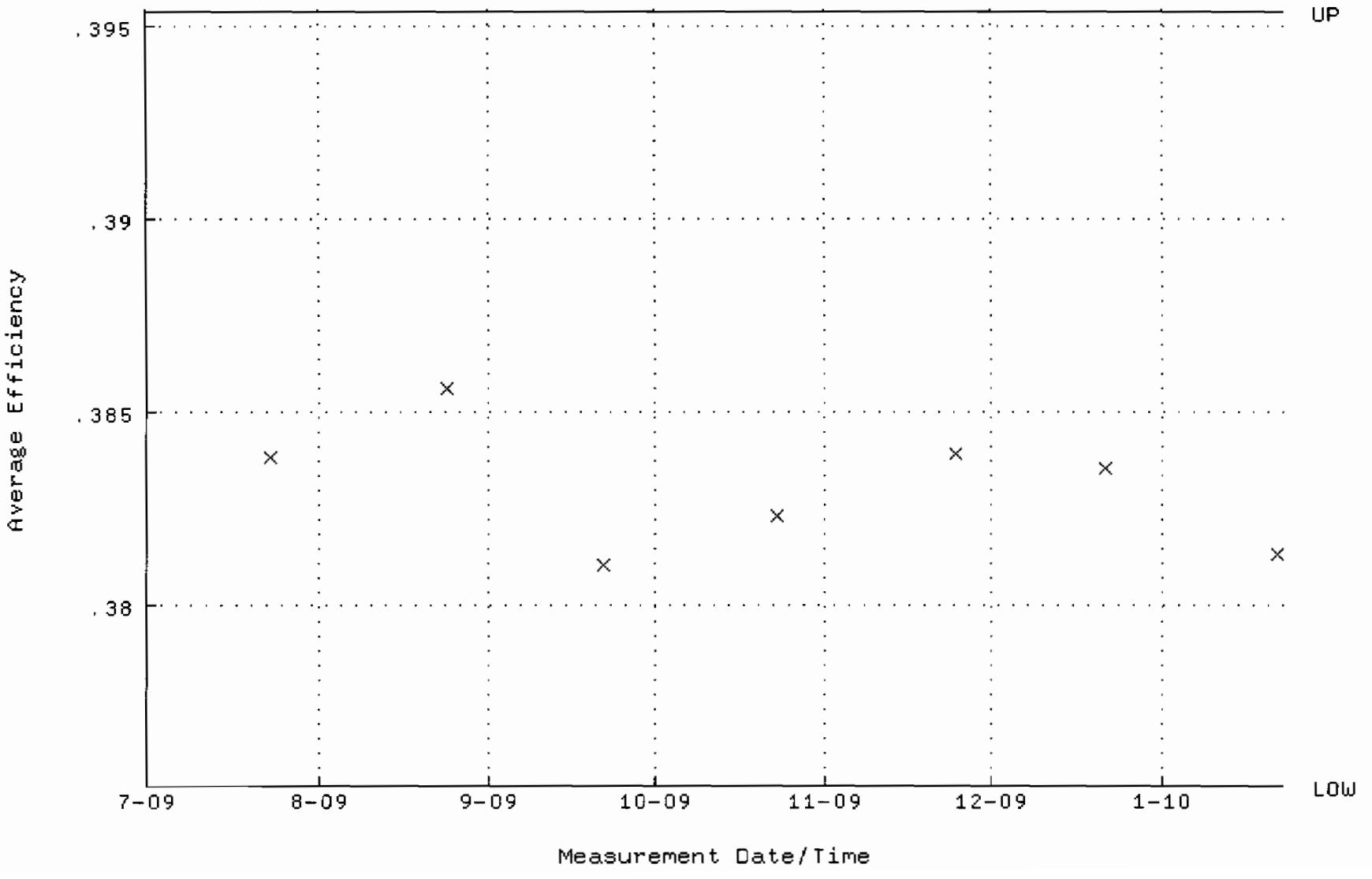

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 23-JUL-2009 08:07:41 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 84.7539 through 93.6753

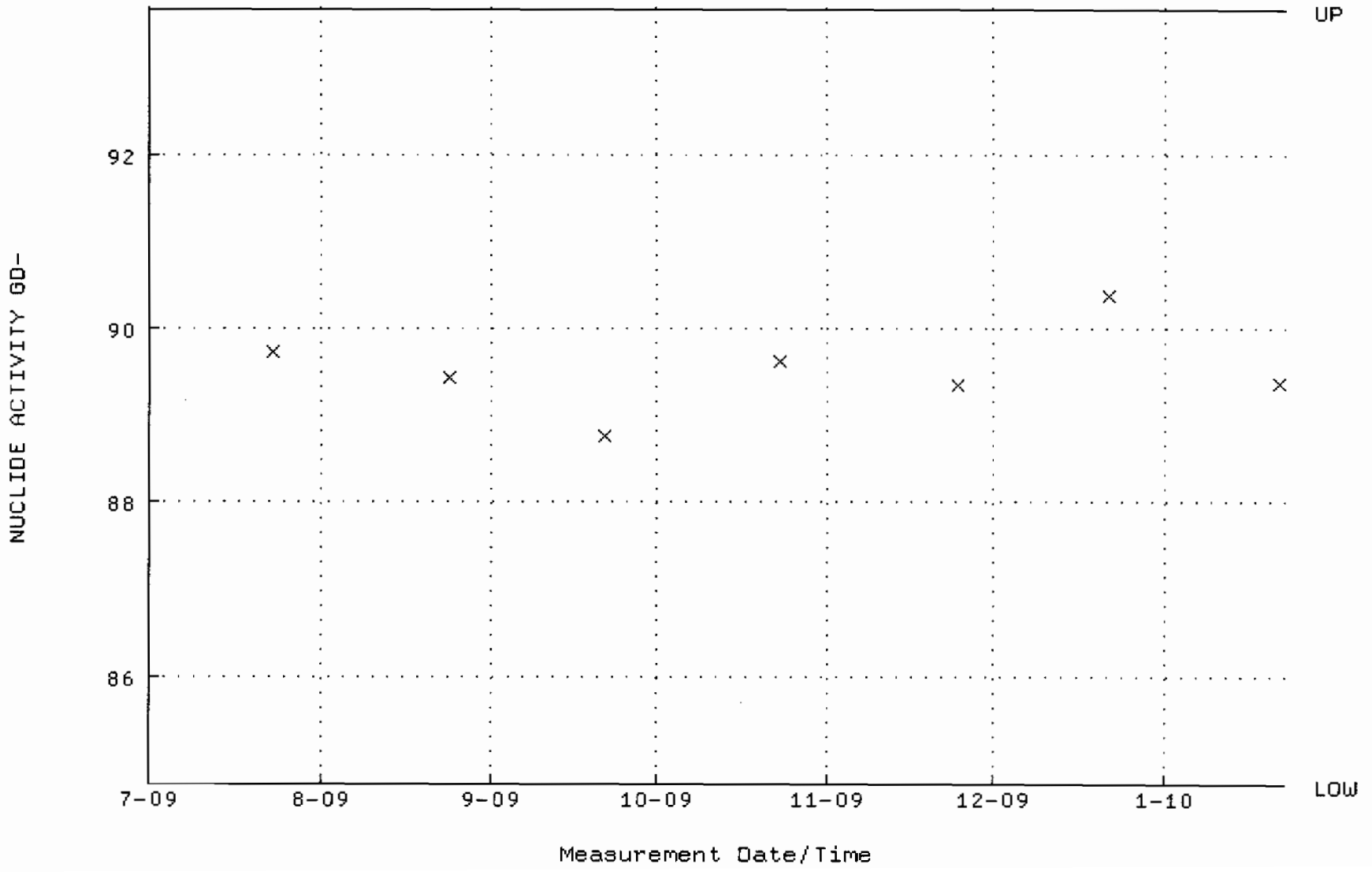

QA filename : DKA100:[ENV_ALPHA.QA.B]B171.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:00:19 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

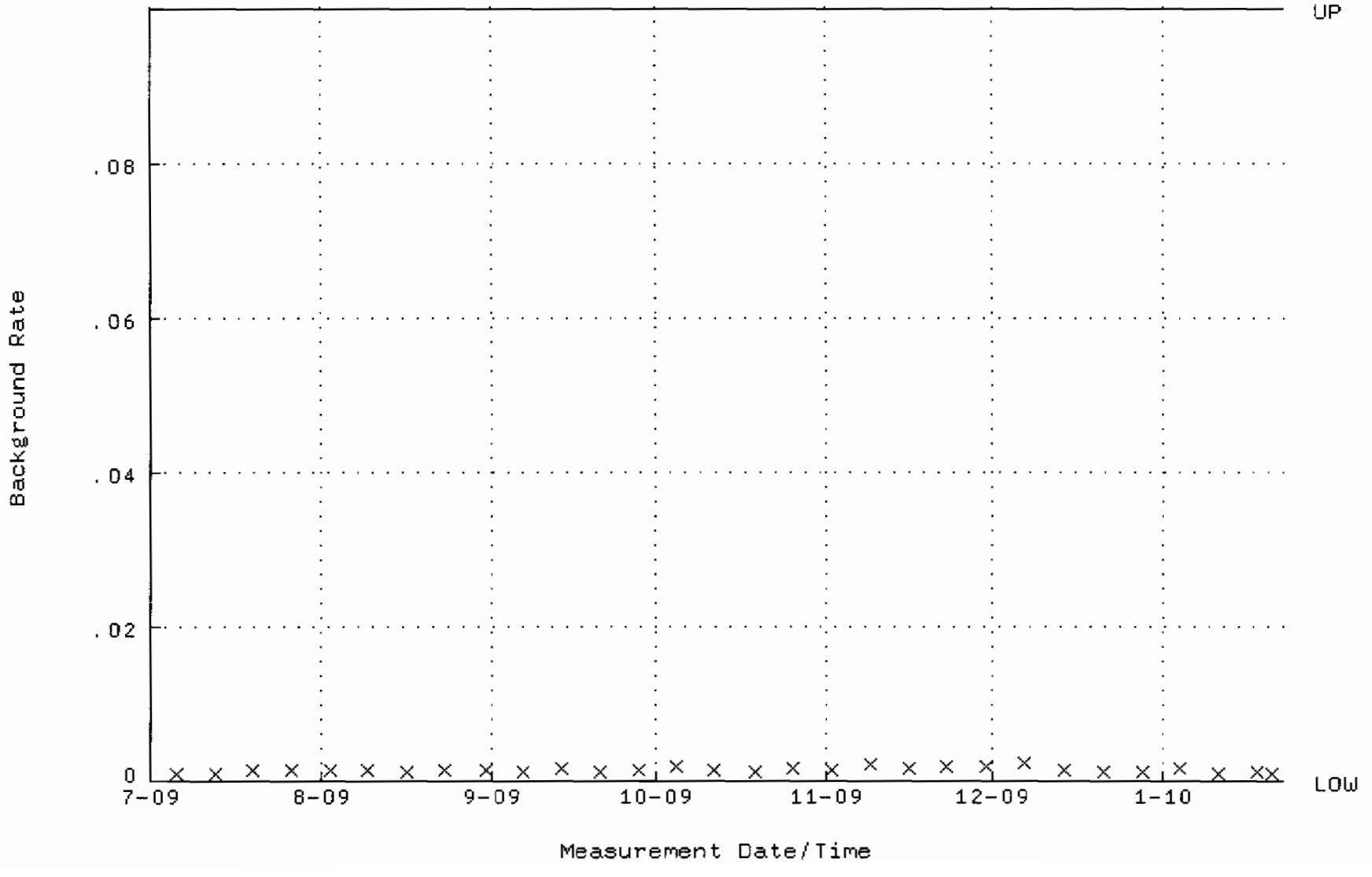

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 23-JUL-2009 08:07:46 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.373575 through 0.393575

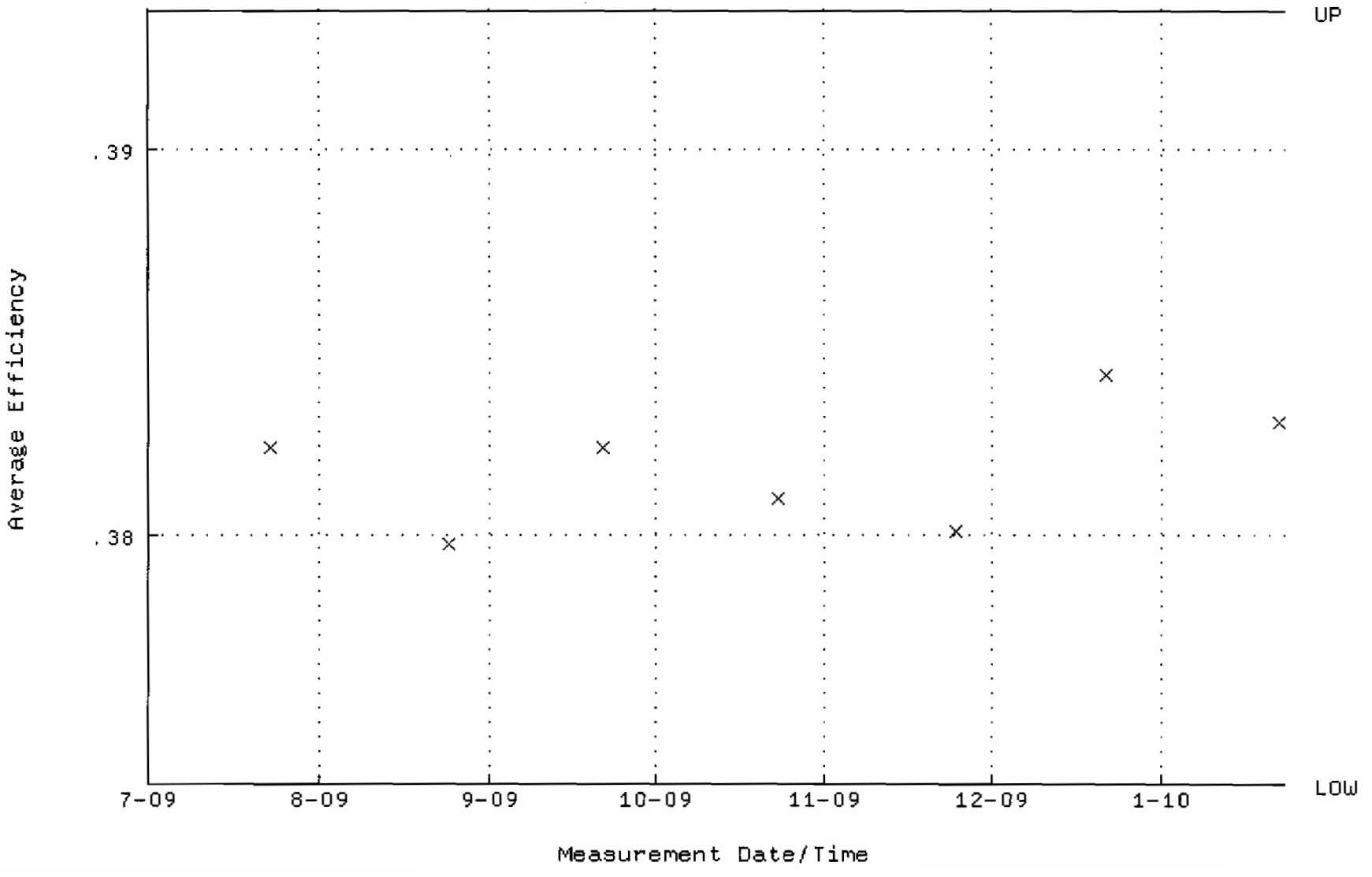

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 23-JUL-2009 08:07:46 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 86.5089 through 95.6151

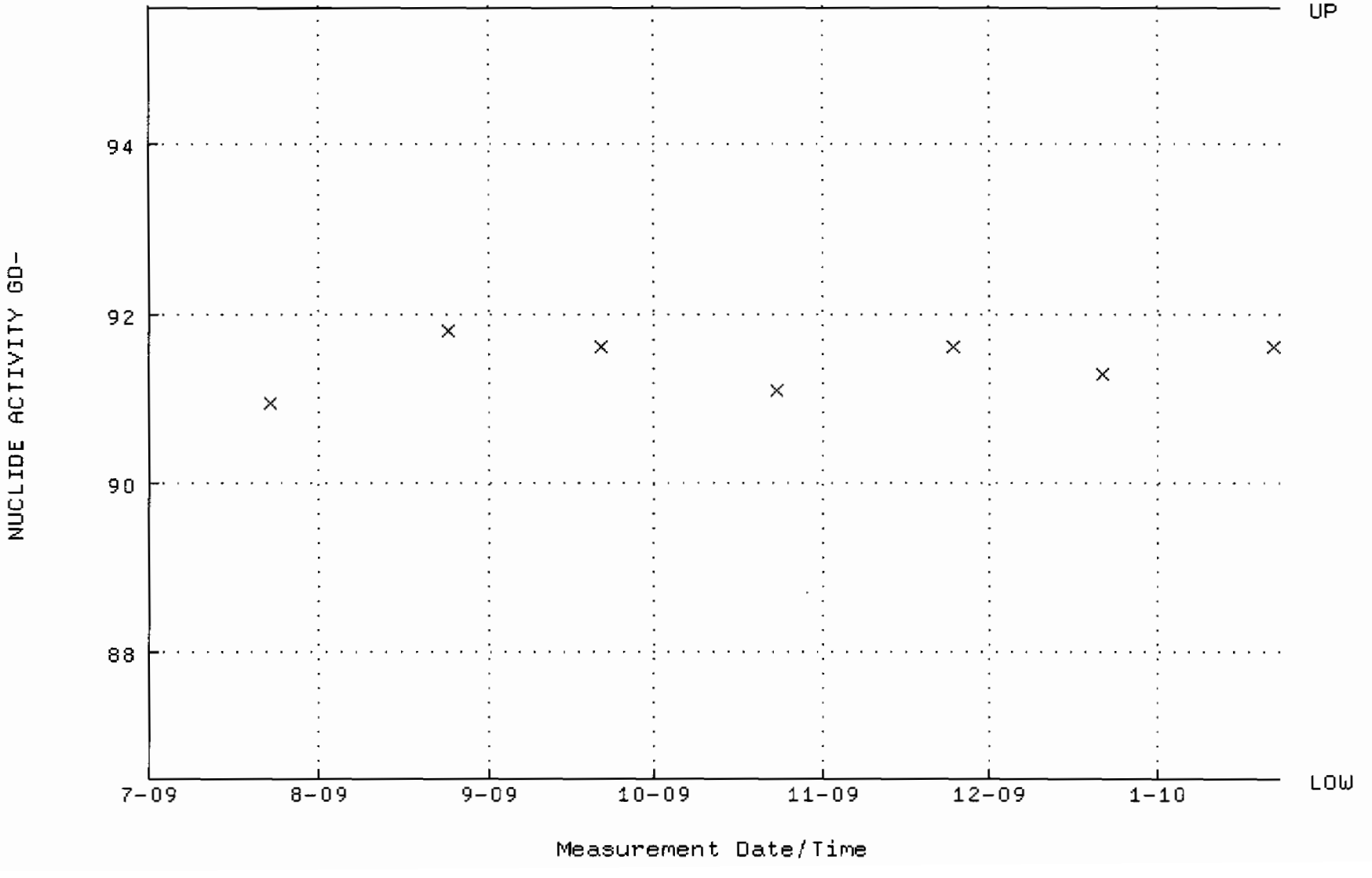

QA filename : DKA100:[ENV_ALPHA.QA.B]B172.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:00:24 through 22-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

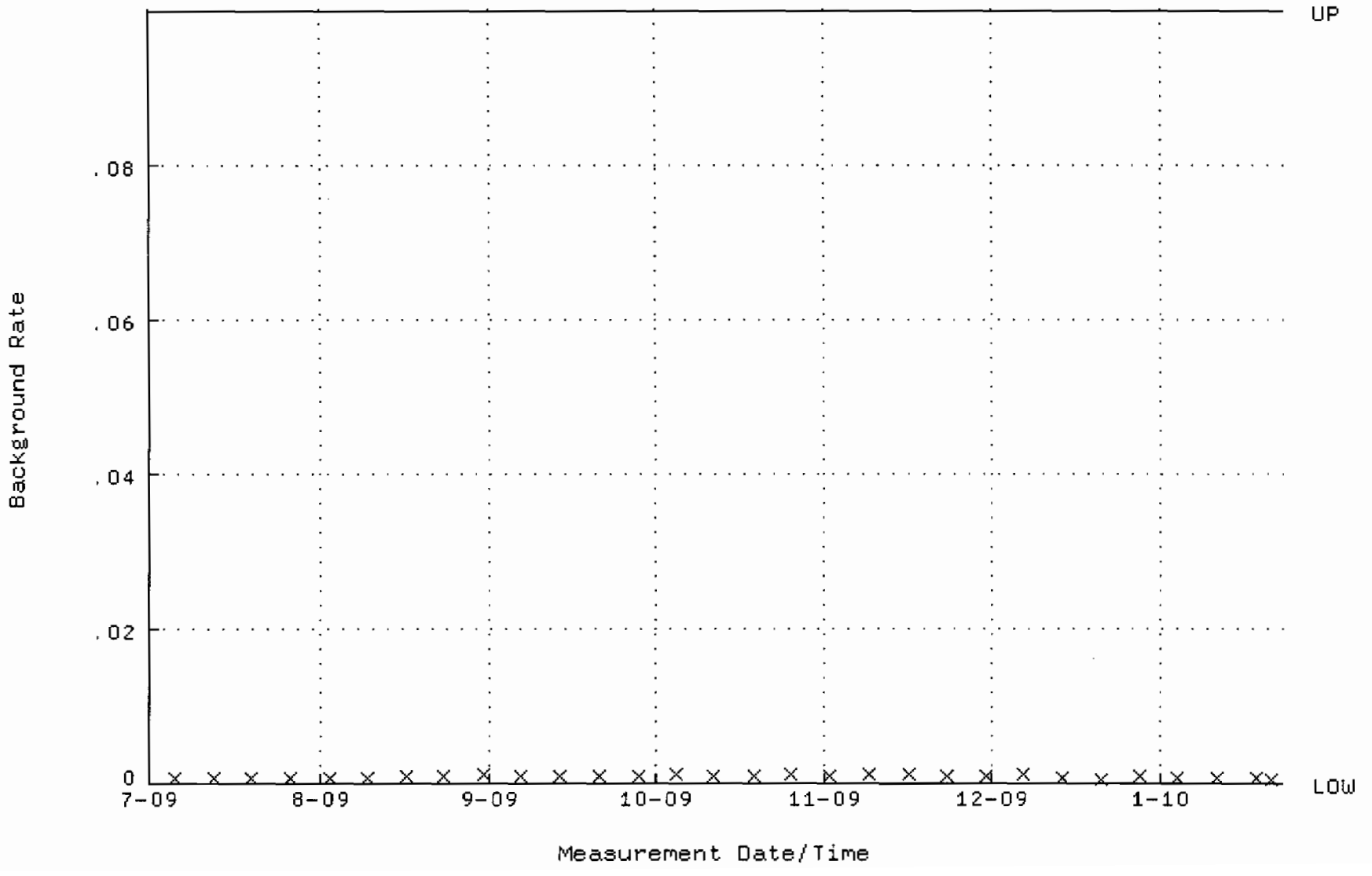

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362134 through 0.382134

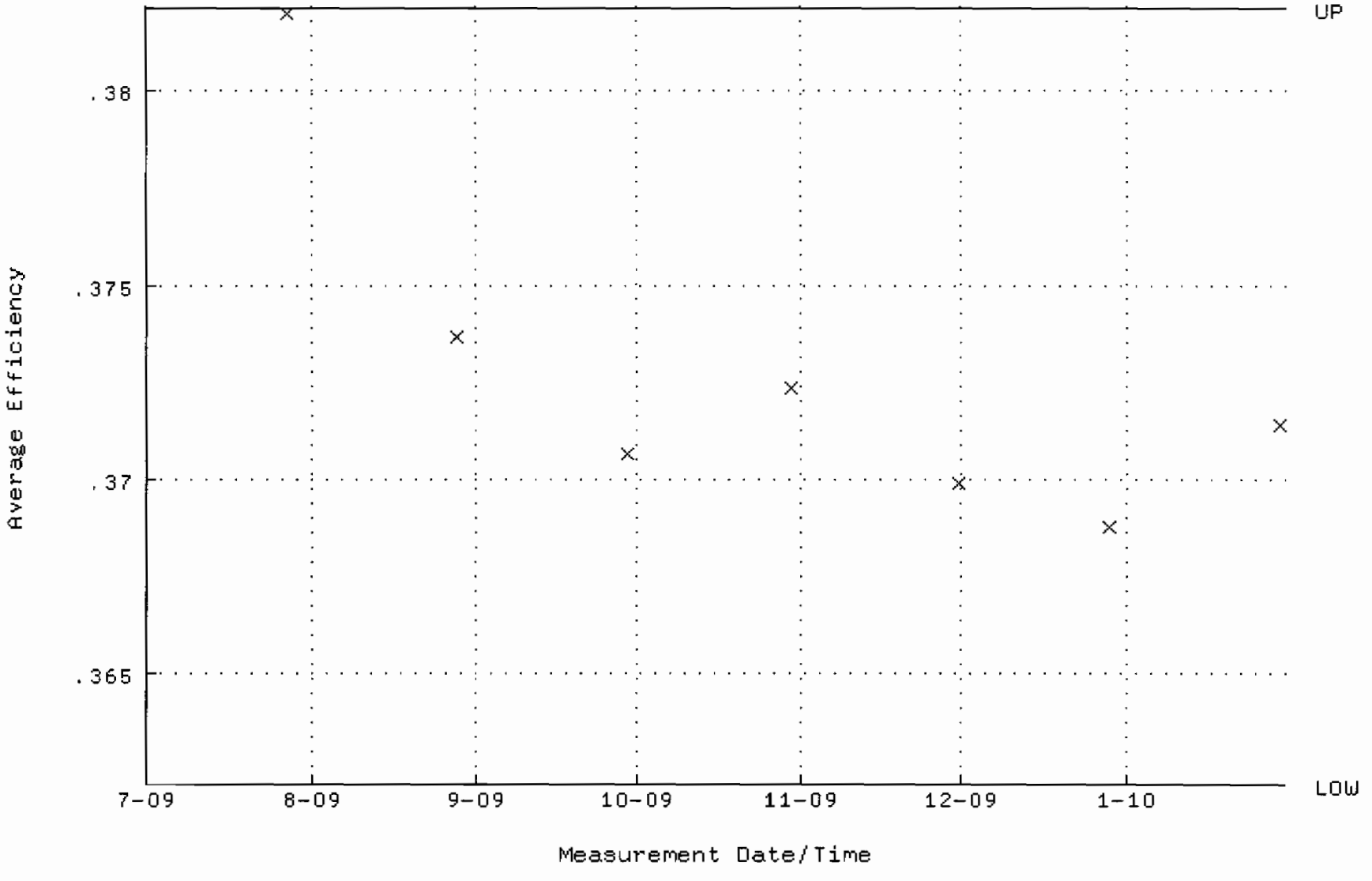

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 87.0370 through 96.1988

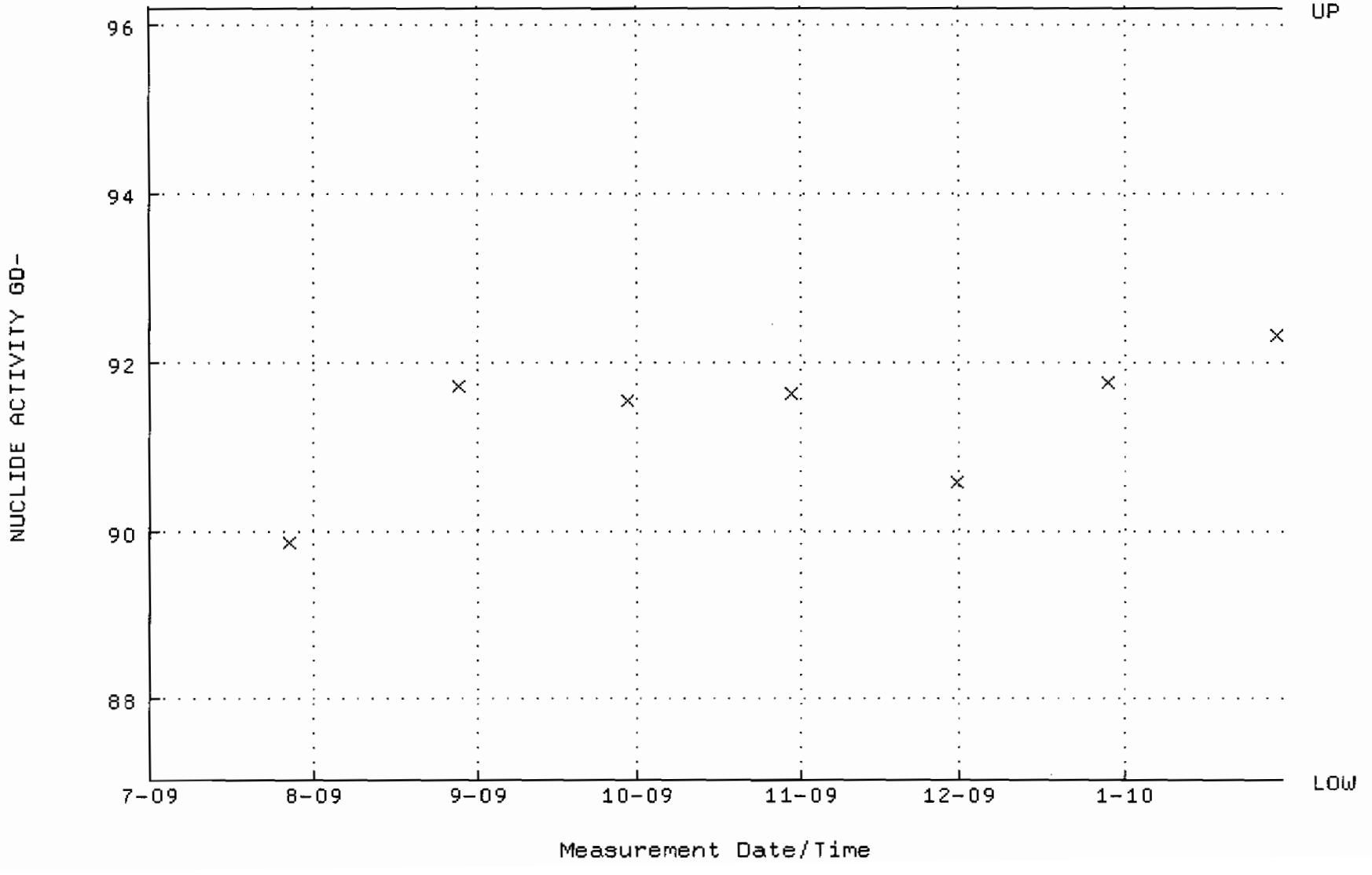

QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

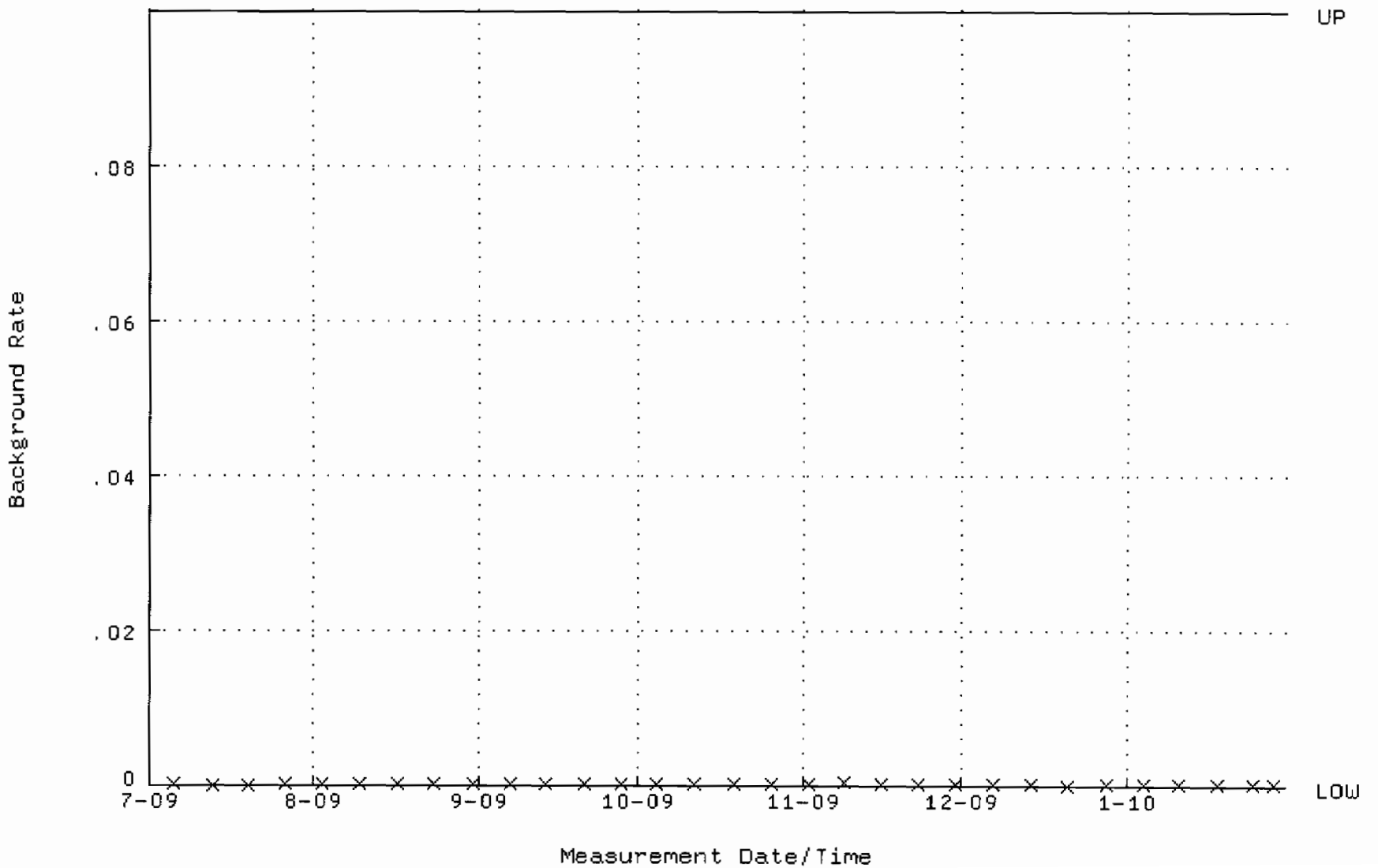

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:08:48 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

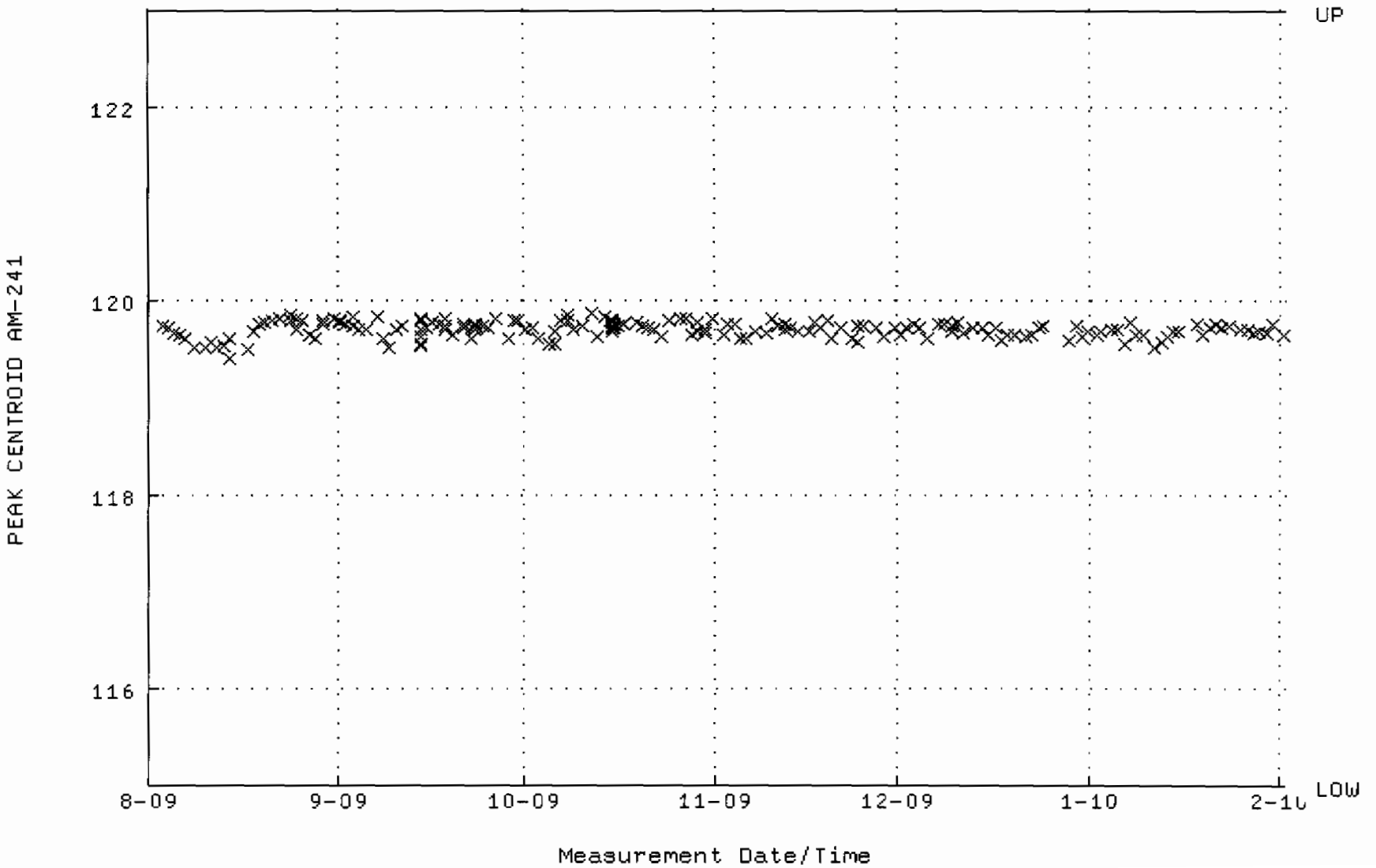

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:21:01 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

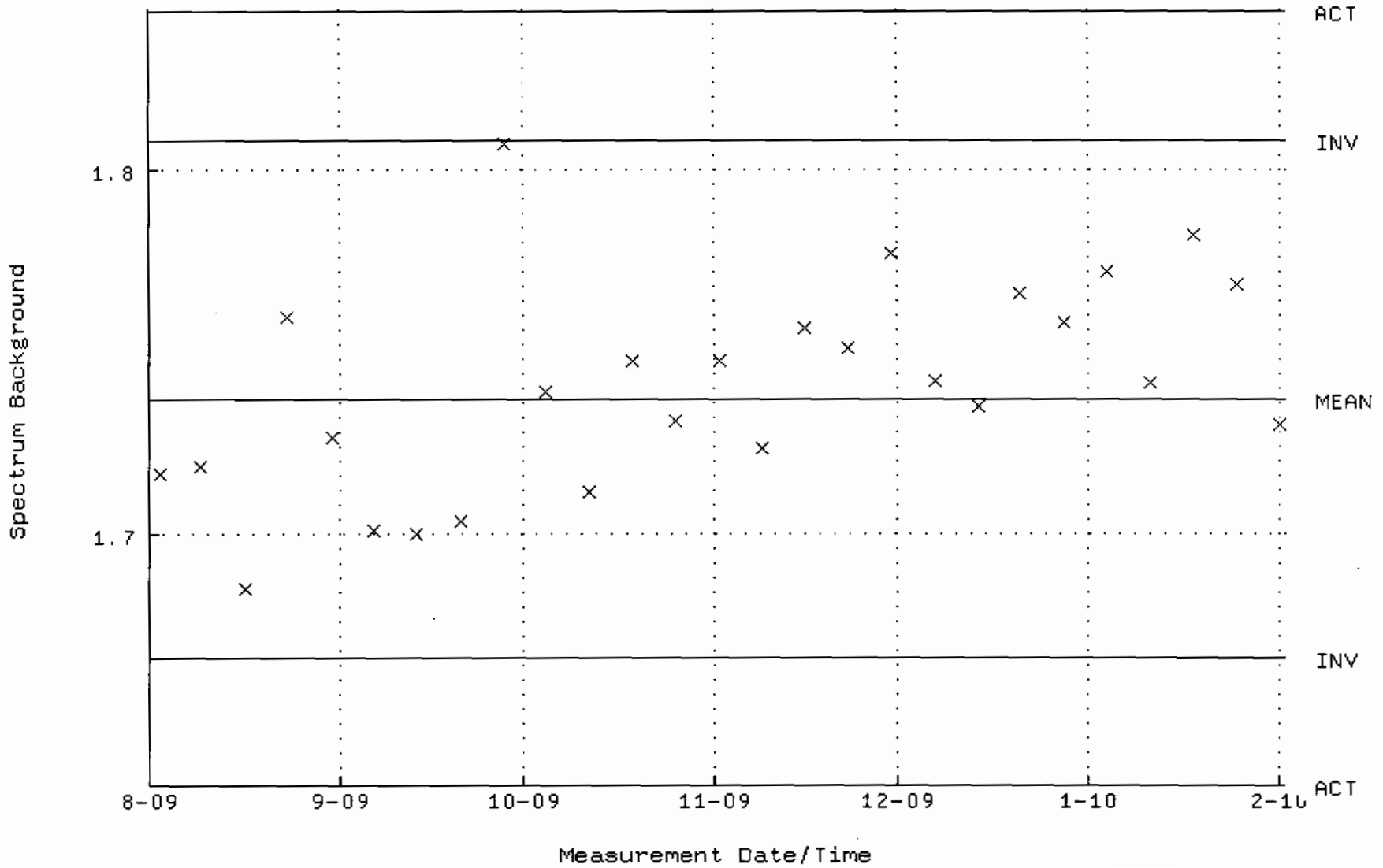

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

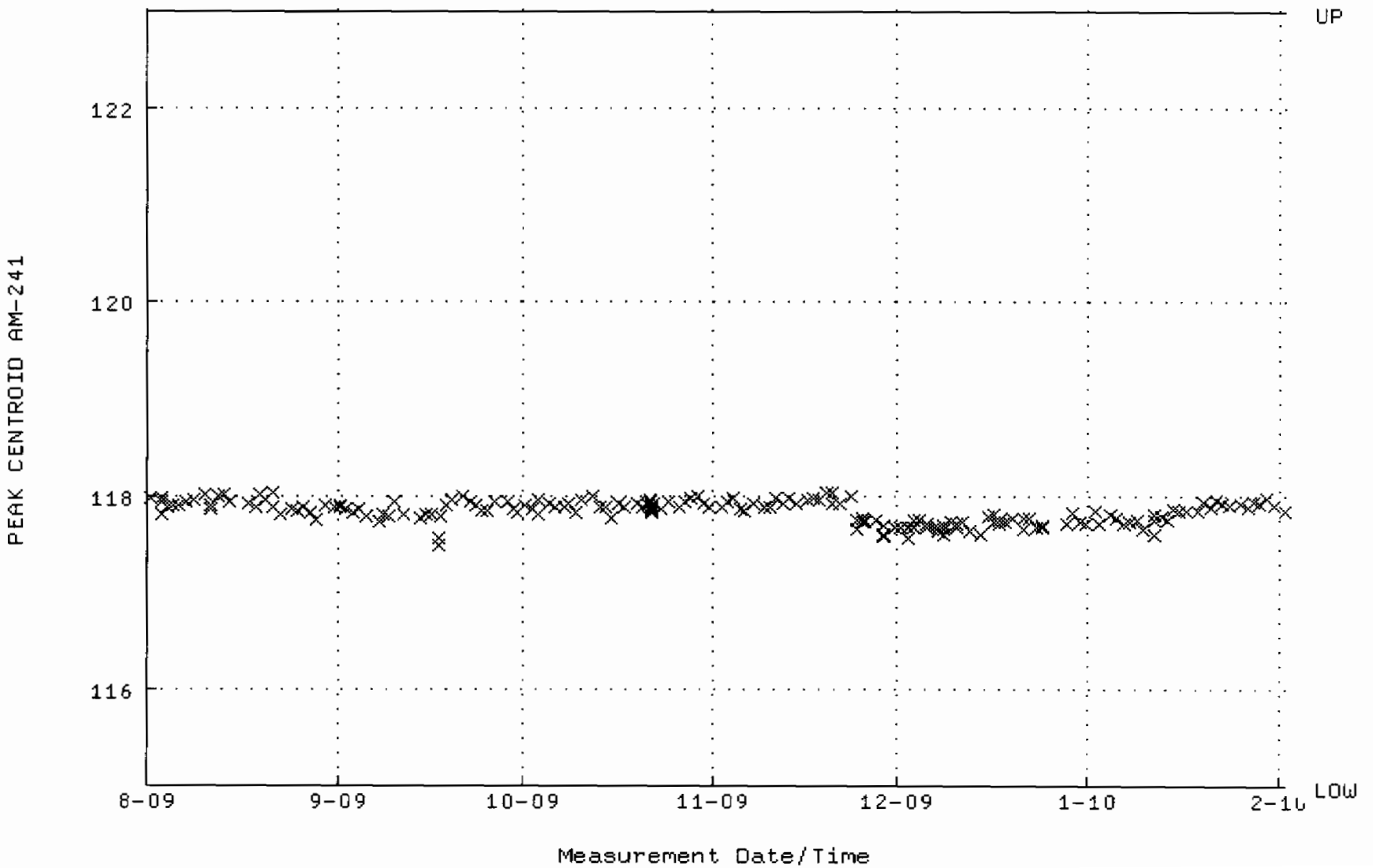

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)

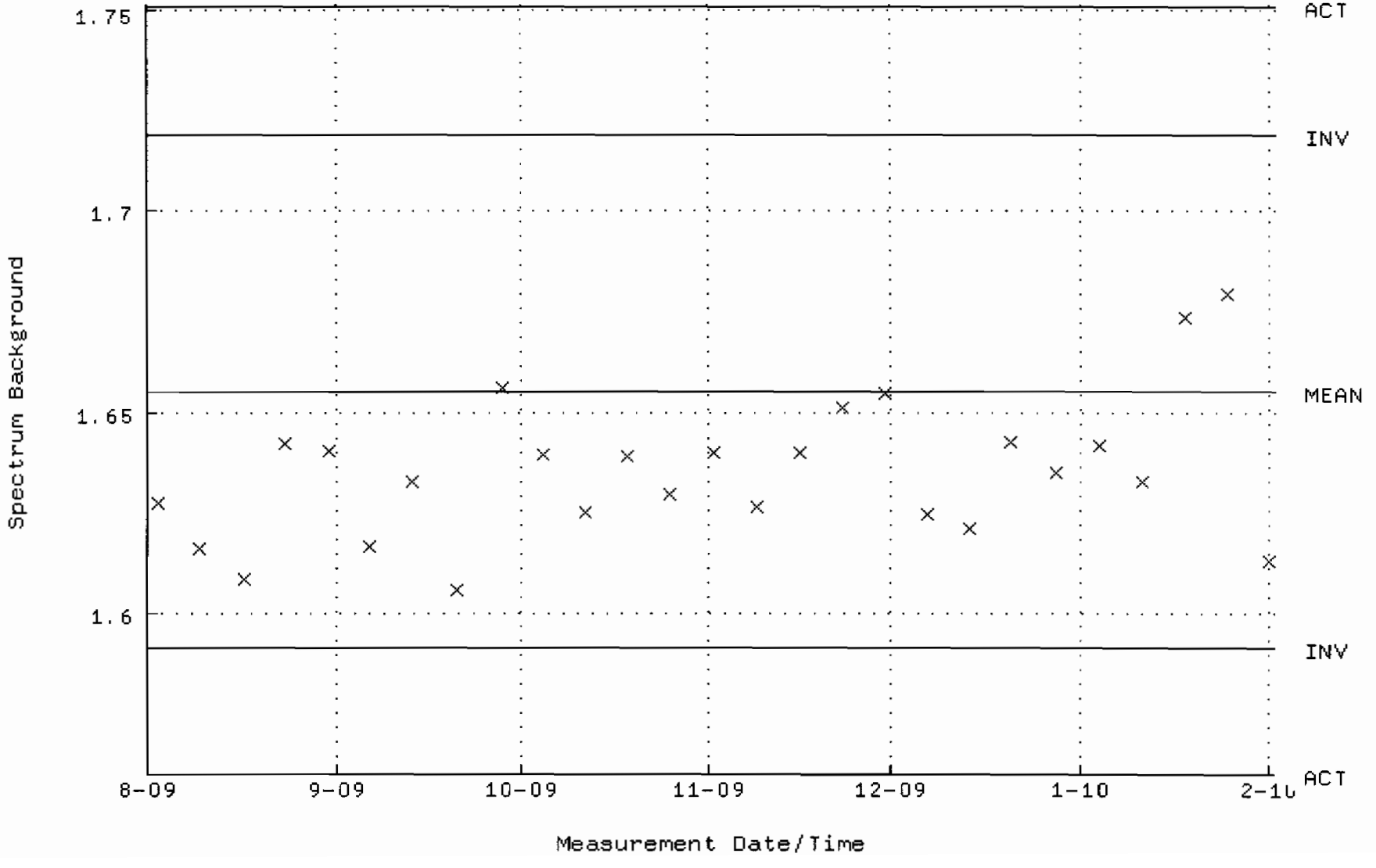

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:15:54 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

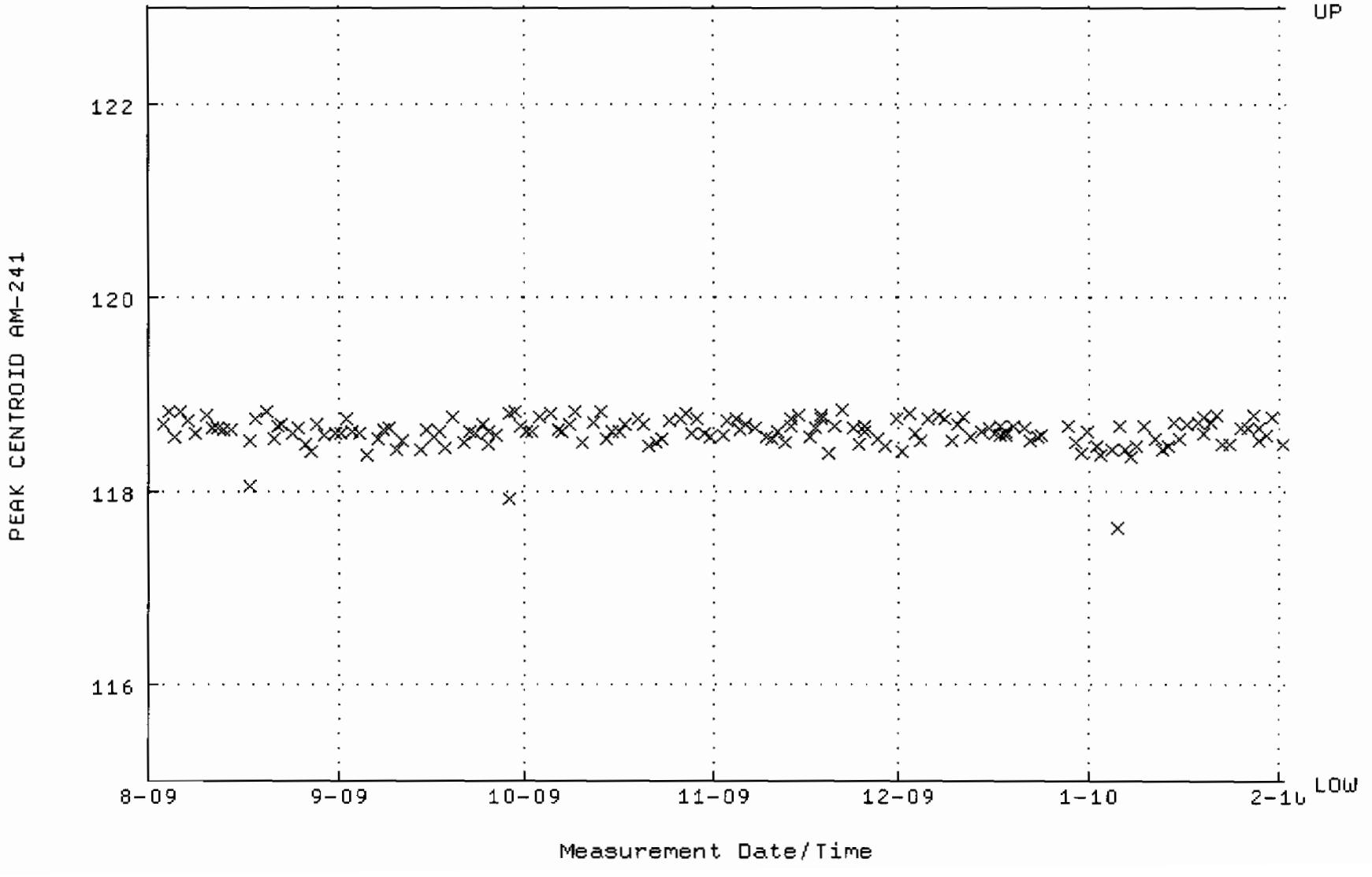

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:33 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

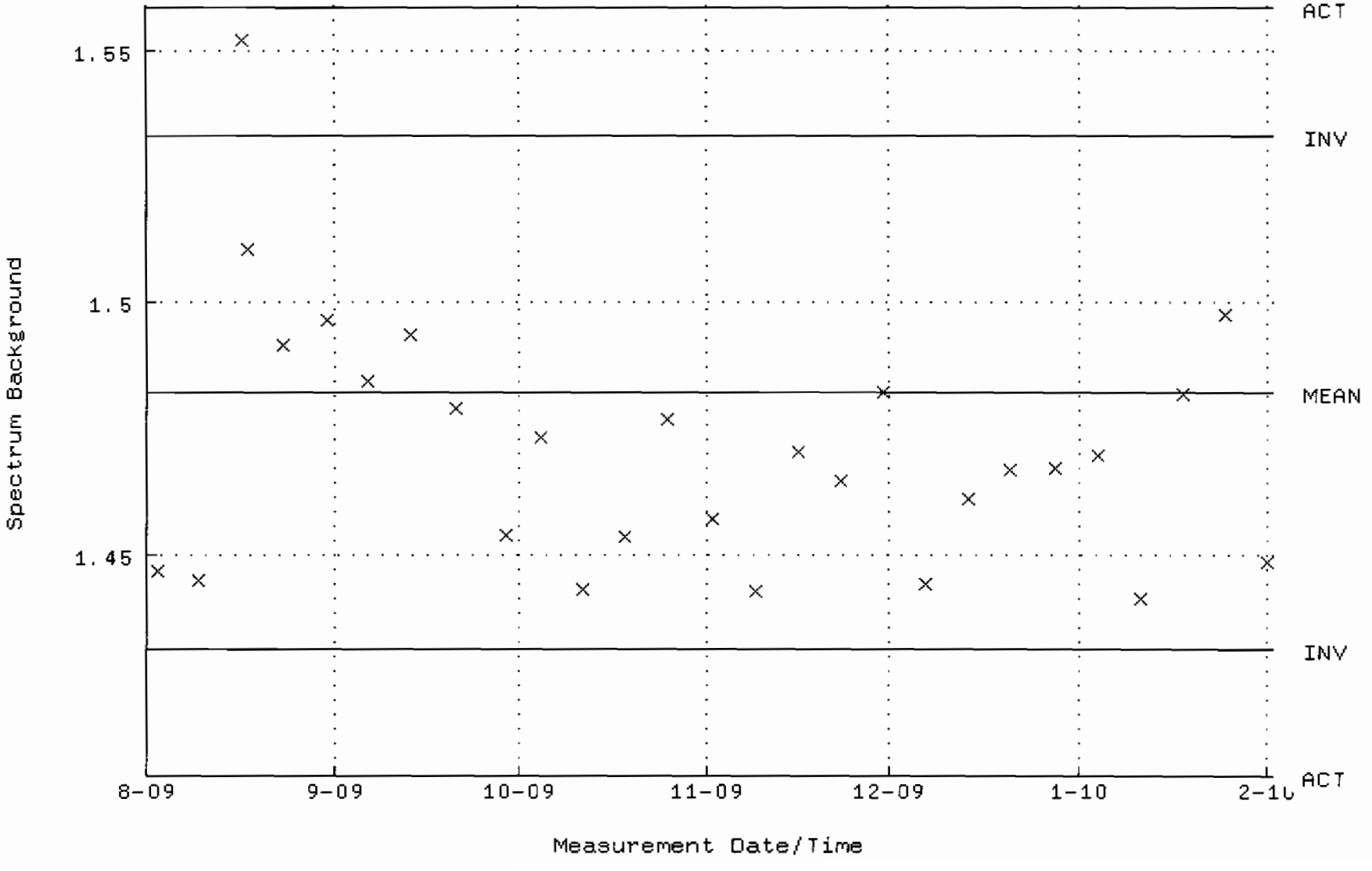

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:19:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

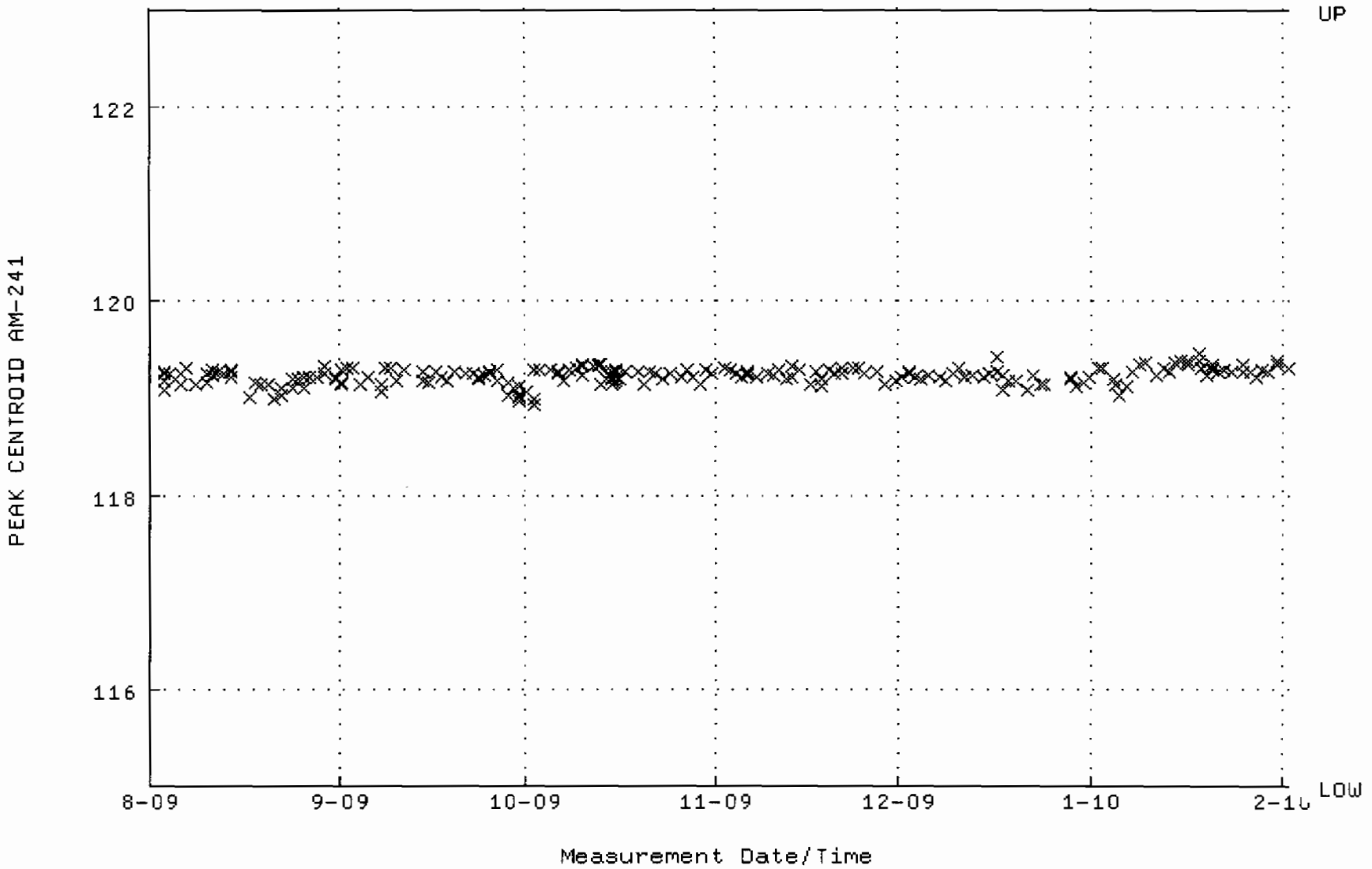

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

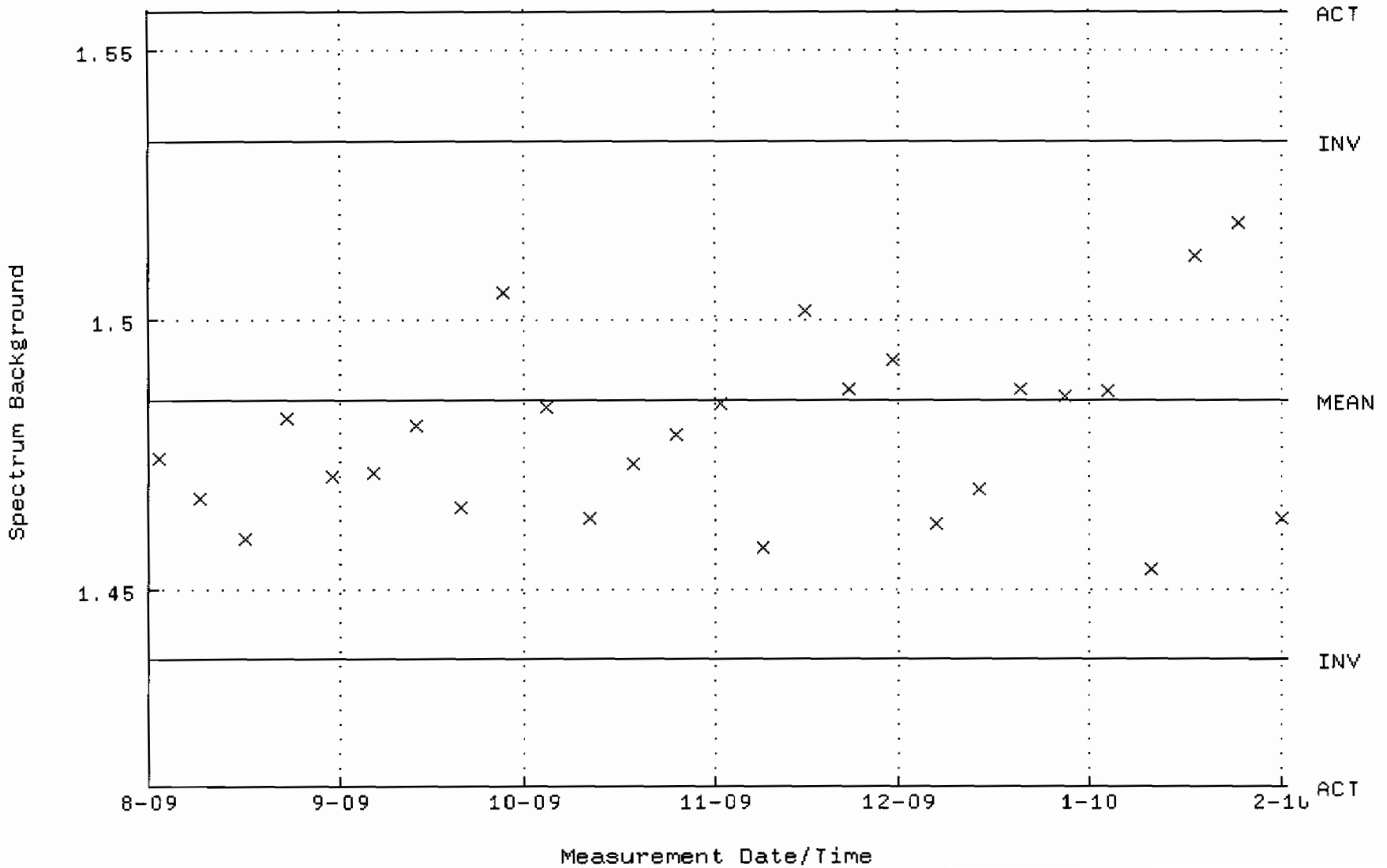

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

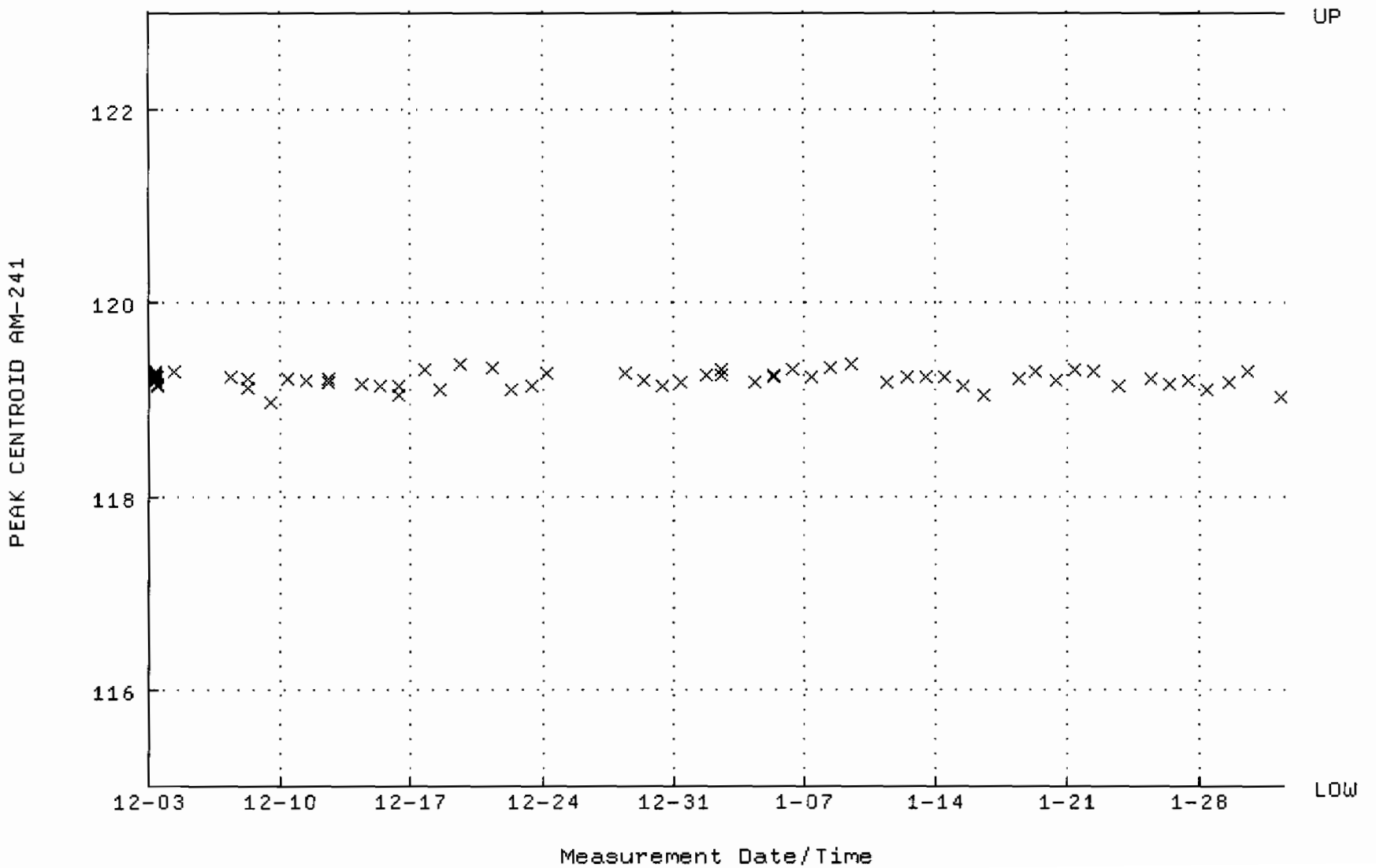

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

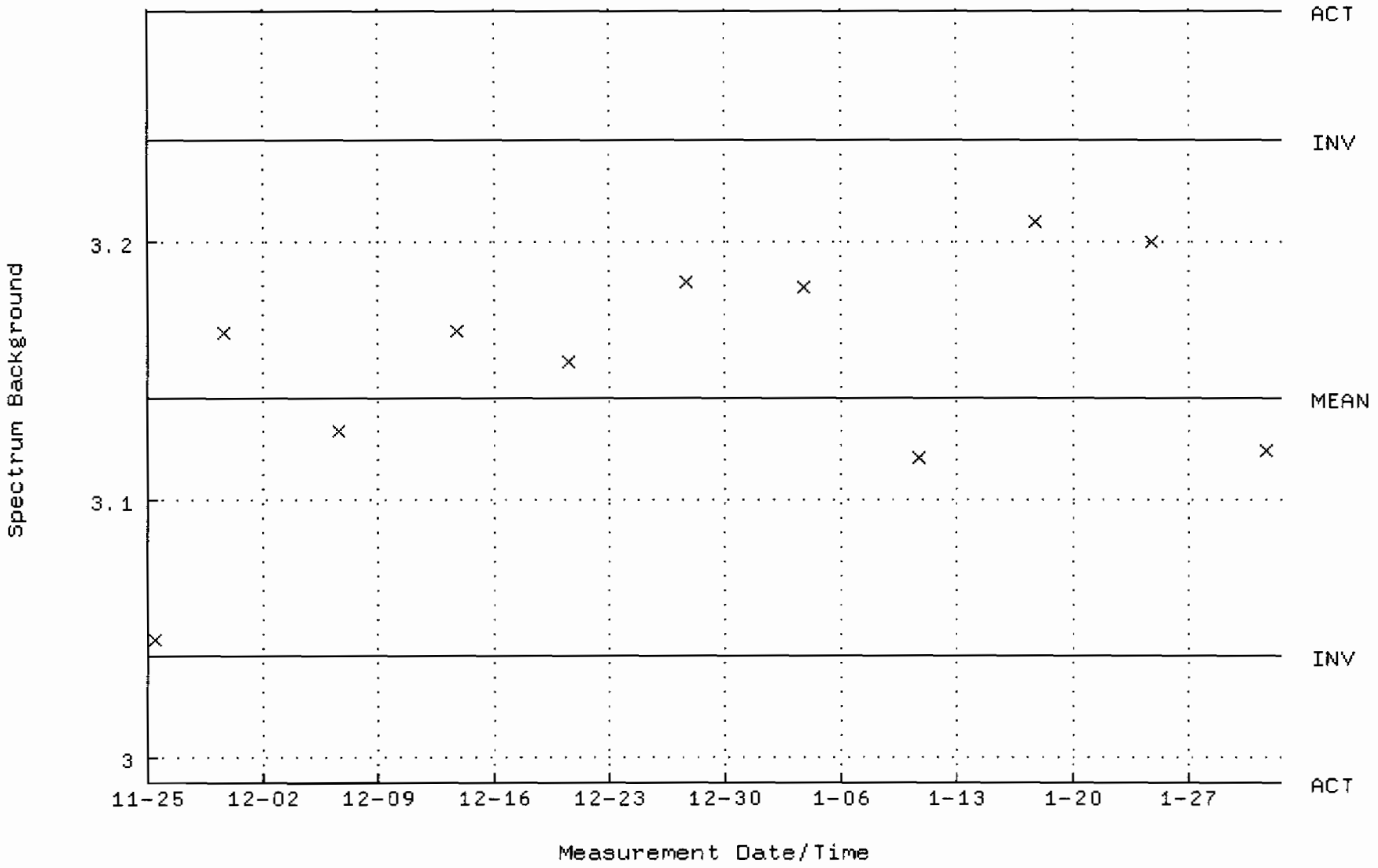

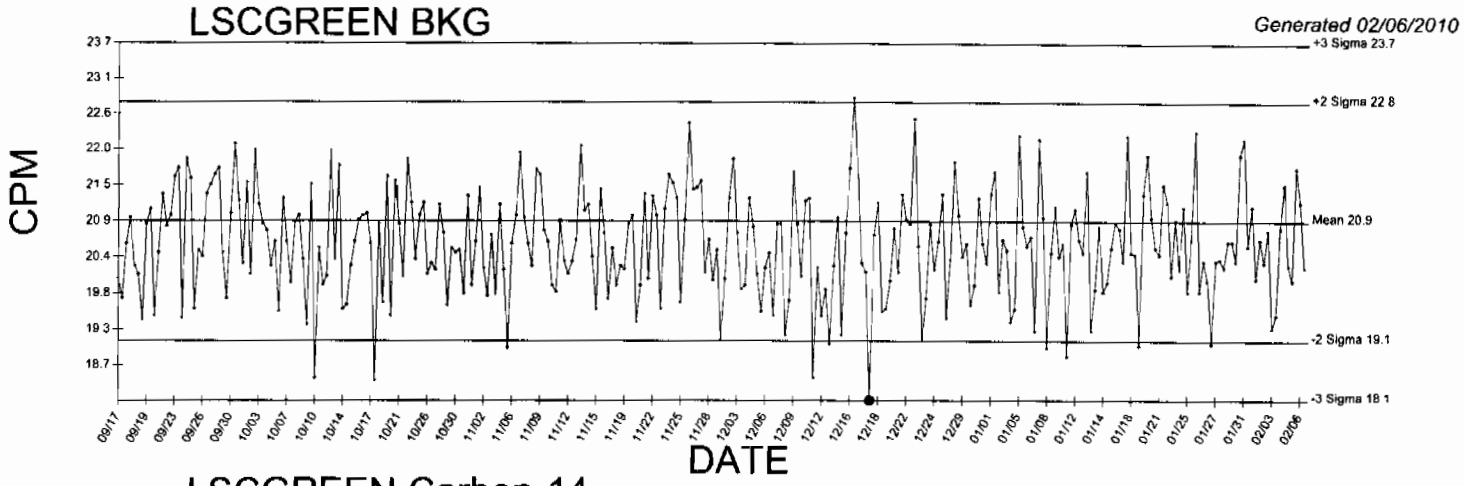

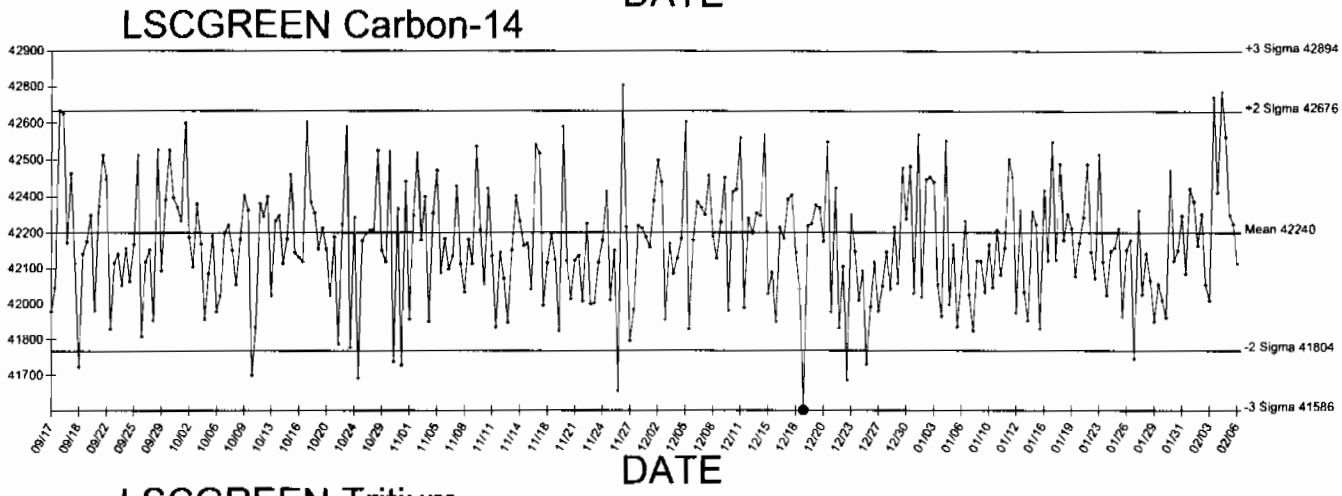

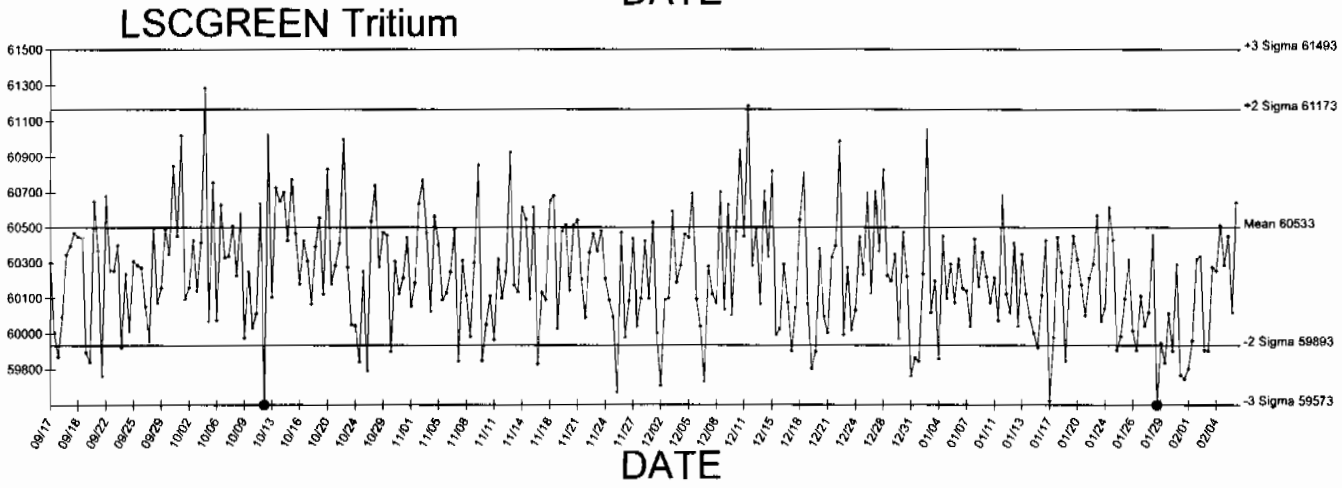

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION
No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case
W.F. Case

RC-5-023-061a

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)

where:

A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

[illegible] 4/9/09
Amanda L. [illegible] 4/9/09

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Corporate Office
24937 Avenue [illegible]
Laboratory
1380 Seaboard Industrial Blvd. Atlanta, Georgia 30318

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result	
	Mixed Gamma N1	2534	pCi/L - Ver. JAR-1
	Mixed Gamma N2	2510	pCi/L - Ver. JAR-3
	Mixed Gamma N3	2413	pCi/L - Ver. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**
Certificate Value =	2485.68018	pCi/L	
Lower Limit =	2357.536524	pCi/L	
Upper Limit =	2613.796809	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	128.1301422		
10 % of Mean =	248.56666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2005 Scott C Neill 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-07)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (SMO USE)
Date Entered (mm/dd/yy)
Entered by

QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL per request of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

	Org.	Date	Time		Org.	Date
1. Relinquished by: Douglas E. Perry SMO	7577	11-16-99	0900	4. Relinquished by		
1. Received by				4. Received by		
2. Relinquished by				5. Relinquished by		
2. Received by				5. Received by		
3. Relinquished by				6. Relinquished by		
3. Received by				6. Received by		

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATE 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Servides, Dept.
P.O. Box 5800 MS 0154

Location Tech Area VI
Building N/A Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (SMO USE)
Date Entered (mm/dd/yy)
Entered by

QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org	Date

Original To Accompany Samples, Laboratory Copy (White) | 1st Copy To Accompany Samples, Return to SMO (Blue) | 2nd Copy SMO Suspense Copy (Yellow) | 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridean 5/15/09
007509

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

1374

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-5-051-013

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One µSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (µSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}·{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	Isotope	Value	Uncertainty
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440
Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**
Target =	1.52		
Lower Limit =	1.492504296		
Upper Limit =	1.654162371		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.080829038		
10 % of Mean =	0.157333333		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

12/9/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 944962**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245385001	SAMPLE	MXR1	GAM07	04-FEB-10 20:27	DONE CAN		20-JUL-09 00:00
245385002	SAMPLE	MXR1	GAM14	04-FEB-10 20:27	DONE CAN		06-MAR-09 00:00
245385003	SAMPLE	MXR1	GAM20	04-FEB-10 20:28	DONE CAN		26-AUG-09 00:00
245385004	SAMPLE	MXR1	GAM19	04-FEB-10 20:48	DONE CAN		12-MAR-09 00:00
1202023709	LCS	MXR1	GAM01	04-FEB-10 21:14	DONE CAN		12-JAN-10 00:00
245385005	SAMPLE	MXR1	GAM11	04-FEB-10 22:52	DONE CAN		18-NOV-09 00:00
245385006	SAMPLE	MXR1	GAM14	04-FEB-10 22:53	DONE CAN		06-MAR-09 00:00
245385007	SAMPLE	MXR1	GAM16	04-FEB-10 22:53	DONE CAN		16-NOV-09 00:00
245385008	SAMPLE	MXR1	GAM17	04-FEB-10 22:54	DONE CAN		06-JAN-10 00:00
245385009	SAMPLE	MXR1	GAM19	04-FEB-10 22:54	DONE CAN		12-MAR-09 00:00
245385010	SAMPLE	MXR1	GAM20	04-FEB-10 22:54	DONE CAN		26-AUG-09 00:00
245385011	SAMPLE	MXR1	GAM21	04-FEB-10 22:55	DONE CAN		28-JUL-09 00:00
245396001	SAMPLE	MXR1	GAM22	04-FEB-10 22:55	DONE CAN		02-DEC-09 00:00
245396002	SAMPLE	MXR1	GAM01	05-FEB-10 18:59	DONE CAN		12-JAN-10 00:00
245396003	SAMPLE	MXR1	GAM22	05-FEB-10 19:00	DONE CAN		02-DEC-09 00:00
245396004	SAMPLE	MXR1	GAM14	05-FEB-10 19:14	DONE CAN		06-MAR-09 00:00
1202023707	MB	MXR1	GAM20	05-FEB-10 19:15	DONE CAN		26-AUG-09 00:00
1202023708	DUP	MXR1	GAM22	06-FEB-10 13:03	DONE CAN		02-DEC-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 944974**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245396002	SAMPLE	CXM2	1065	04-FEB-10 14:50	DONE		
245396004	SAMPLE	CXM2	1067	04-FEB-10 14:50	DONE		
1202023746	MB	CXM2	1068	04-FEB-10 14:50	DONE		
1202023747	DUP	CXM2	1069	04-FEB-10 14:50	DONE		
1202023748	LCS	CXM2	1070	04-FEB-10 14:50	DONE		
245385001	SAMPLE	CXM2	1211	11-FEB-10 21:02	DONE		
245385002	SAMPLE	CXM2	1212	11-FEB-10 21:02	DONE		
245385003	SAMPLE	CXM2	1213	11-FEB-10 21:02	DONE		
245385004	SAMPLE	CXM2	1214	11-FEB-10 21:02	DONE		
245385005	SAMPLE	CXM2	1215	11-FEB-10 21:02	DONE		
245385006	SAMPLE	CXM2	1216	11-FEB-10 21:02	DONE		
245385007	SAMPLE	CXM2	1217	11-FEB-10 21:03	DONE		
245385008	SAMPLE	CXM2	1218	11-FEB-10 21:03	DONE		
245385009	SAMPLE	CXM2	1219	11-FEB-10 21:03	DONE		
245385010	SAMPLE	CXM2	1220	11-FEB-10 21:03	DONE		
245385011	SAMPLE	CXM2	1227	11-FEB-10 21:03	DONE		
245396001	SAMPLE	CXM2	1228	11-FEB-10 21:03	DONE		
245396003	SAMPLE	CXM2	1112	16-FEB-10 14:33	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 944976**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202023752	DUP	CXM2	1071	04-FEB-10 14:50	DONE		
1202023753	LCS	CXM2	1072	04-FEB-10 14:50	DONE		
245396002	SAMPLE	CXM2	1073	04-FEB-10 14:50	DONE		
245396003	SAMPLE	CXM2	1074	04-FEB-10 14:50	DONE		
245396004	SAMPLE	CXM2	1075	04-FEB-10 14:50	DONE		
1202023751	MB	CXM2	1076	04-FEB-10 14:50	DONE		
245385011	SAMPLE	CXM2	1111	12-FEB-10 12:51	DONE		
245396001	SAMPLE	CXM2	1112	12-FEB-10 12:51	DONE		
245385006	SAMPLE	CXM2	1241	12-FEB-10 14:28	DONE		
245385007	SAMPLE	CXM2	1242	12-FEB-10 14:28	DONE		
245385008	SAMPLE	CXM2	1243	12-FEB-10 14:28	DONE		
245385009	SAMPLE	CXM2	1244	12-FEB-10 14:28	DONE		
245385010	SAMPLE	CXM2	1252	12-FEB-10 14:28	DONE		
245385001	SAMPLE	CXM2	1221	12-FEB-10 18:04	DONE		
245385002	SAMPLE	CXM2	1222	12-FEB-10 18:04	DONE		
245385003	SAMPLE	CXM2	1223	12-FEB-10 18:04	DONE		
245385004	SAMPLE	CXM2	1224	12-FEB-10 18:04	DONE		
245385005	SAMPLE	CXM2	1225	12-FEB-10 18:04	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 944978**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202023754	MB	CXM2	1007	30-JAN-10 12:24	DONE		
245385001	SAMPLE	CXM2	1123	01-FEB-10 13:08	DUSE		
245385002	SAMPLE	CXM2	1124	01-FEB-10 13:08	DONE		
245385003	SAMPLE	CXM2	1125	01-FEB-10 13:08	DONE		
245385004	SAMPLE	CXM2	1126	01-FEB-10 13:08	DONE		
245385005	SAMPLE	CXM2	1127	01-FEB-10 13:08	DONE		
245385006	SAMPLE	CXM2	1128	01-FEB-10 13:08	DONE		
245385007	SAMPLE	CXM2	1129	01-FEB-10 13:08	DONE		
245385008	SAMPLE	CXM2	1130	01-FEB-10 13:08	DONE		
245385009	SAMPLE	CXM2	1131	01-FEB-10 13:08	DONE		
245385010	SAMPLE	CXM2	1132	01-FEB-10 13:09	DONE		
245385011	SAMPLE	CXM2	1133	01-FEB-10 13:09	DONE		
245396001	SAMPLE	CXM2	1134	01-FEB-10 13:09	DONE		
245396002	SAMPLE	CXM2	1137	01-FEB-10 13:09	DUSE		
245396003	SAMPLE	CXM2	1138	01-FEB-10 13:09	DUSE		
245396004	SAMPLE	CXM2	1139	01-FEB-10 13:09	DONE		
1202023755	DUP	CXM2	1171	01-FEB-10 13:09	DONE		
1202023756	LCS	CXM2	1172	01-FEB-10 13:09	DONE		
245385001	SAMPLE	CXM2	1171	04-FEB-10 08:09	DONE		
245396002	SAMPLE	CXM2	1172	04-FEB-10 08:09	DUSE		

Instrument Run Log

Instrument Type: LSC **Batch ID: 948401**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245396001	SAMPLE	KXK2	LSCGREEN	06-FEB-10 11:38	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
245396002	SAMPLE	KXK2	LSCGREEN	06-FEB-10 13:16	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
245396003	SAMPLE	KXK2	LSCGREEN	06-FEB-10 14:54	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
245396004	SAMPLE	KXK2	LSCGREEN	06-FEB-10 16:32	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202031679	MB	KXK2	LSCGREEN	06-FEB-10 18:10	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202031680	DUP	KXK2	LSCGREEN	06-FEB-10 19:48	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202031681	LCS	KXK2	LSCGREEN	06-FEB-10 21:27	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949620**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245396002	SAMPLE	CXM2	1127	10-FEB-10 10:57	DONE		
245396003	SAMPLE	CXM2	1128	10-FEB-10 10:57	DONE		
1202034526	DUP	CXM2	1129	10-FEB-10 10:57	DONE		
1202034527	LCS	CXM2	1130	10-FEB-10 10:57	DONE		
1202034525	MB	CXM2	1142	10-FEB-10 12:57	DONE		

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1511
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:AM-241	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOPU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:6020	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:6850	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:7470A	1	RE15-10-7326	W	1/28/2010	
	SW-846:7471A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:9012A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1511

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1511C

REQUEST NUMBER: 10-1511

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7309	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7308	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7308	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7315	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7315	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7317	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7317	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7319	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7319	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7312	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7312	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7313	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7313	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7314	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7314	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7316	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7316	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7318	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7318	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7326	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-7326	1	POLY	SW-846:6850	Ice	W
RE15-10-7326	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-7324	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7324	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	2/1/10	3:00			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7329 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0846	SUB-MEDIA:	OTHER	
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610559	FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
12m 1/28/10						
1 ~~2~~	Normal	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of RE15-10-7308

SAMPLE COMMENTS:

FTB

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7314 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		0906	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610562	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Frozen brown silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 11 dpm

Bγ ≤ 1734 dpm

PID ambient reading 0.1 / 0.1 ppm

HE negative

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7308 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		0855	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610559	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty sand, numerous rocks, some roots

FTB RE15-10-7329

SAMPLE COMMENTS:
NA

LOCATION DESC: 5c-3

FIELD SCREENING/MEASUREMENT RESULTS:

α ± 11 dpm
Bγ ± 1976 dpm

PID ambient reading 0.0 / 0.0 ppm

HE NEG

HE neg

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7318 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		0943	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610564	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+C N	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, numerous rocks, grass roots

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-5

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 5 dpm

BY ≤ 2080 dpm

HE negative

PID ambient reading 0.1 / 0.4 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7309 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610559	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt
FD: RE15-10-7324

SAMPLE COMMENTS: NA

LOCATION DESC: 5C-3

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 16 dpm PID ambient reading 0.0 / 0.0 ppm

BY ≤ 1824 dpm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R. Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7317 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Mlh
TIME COLLECTED (HH:MM)		0934	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610563	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+C N	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light brown sandy silt, white tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC:

5c-6

FIELD SCREENING/MEASUREMENT RESULTS:

α ± 22 dpm
βγ ± 1935 dpm

ambient reading 0.0 / 0.3 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7315 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Auh
TIME COLLECTED (HH:MM)		0420	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610562	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	✓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	✓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, white tuff fragments
Field duplicate collected with this sample RE15-10-7326

FR : RE15-10-7326

SAMPLE COMMENTS: NA

LOCATION DESC: 5C-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 27 dpm PID ambient reading 0.0 / 0.0 ppm

BY ≤ 1637 dpm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7324 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluh
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610559	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+8270+NMED-EXP	500 ML AMBER GLASS	Ice	Y	
1	↓	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7309

Light brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

5c-3

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 16 dpm

βγ ≤ 1824 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7316 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		0930	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	of
LOCATION ID:	15-610563	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown frozen silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 5c-6

FIELD SCREENING/MEASUREMENT RESULTS: PID ambient 0.0 reading 0.5

α ≤ 0 dpm

βγ ≤ 1513 dpm HE negative

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature) [signature]	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7313 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alih
TIME COLLECTED (HH:MM)		0918	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610561		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/u/10 LC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, white tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: 5C-1

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 5$ dpm PID ambient reading 0.0 / 0.0 ppm

$\beta\gamma \leq 1790$ dpm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7319 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		0945	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610564	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, white tuff fragments

SAMPLE COMMENTS: NA

LOCATION DESC: ~~5c-6~~ 5c.5 TJm 1/28/10

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 5 dpm PID ambient reading 0.0 / 0.2 ppm

Bγ ≤ 1686 dpm

COLLECTED BY (PRINT) TLMcFarlang **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7312 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		0900	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-005(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610561	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1	↓	8270C+NMED Exp	500 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty sand, some pebbles

SAMPLE COMMENTS:

NA

LOCATION DESC: 5C-1

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq$ 5 dpm PID HE NEG

$\beta\gamma \leq$ 1845 dpm ambient reading 0.0 / 0.1 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2482 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-005(c) - Threemile Canyon

SAMPLE ID: RE15-10-7326 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0933	SUB-MEDIA:	OTHER	
PRS ID:	15-005(c)		SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	OK ~~OK~~ ~~SC-2~~ 15-610562 ~~OK~~	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO (NA)

BOREHOLE: YES / NO (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1	↓	SW-846:6850	250 ML POLY	Ice	Y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7315

SAMPLE COMMENTS:
Field Rinsate

LOCATION DESC:
SC-2

FIELD SCREENING/MEASUREMENT RESULTS:
α ≤ NA
~~β/γ ≤ NA~~ 12m 1/28/10 NA

COLLECTED BY (PRINT) LARRY A. LOPEZ REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders ~~Larry A. Lopez~~ LA 1/28/10	~~01/28/10~~ 1/28/10 1350	(Printed Name)	1/28/10 1350
(Signature) R Saunders ~~Larry A. Lopez~~ LA 1/28/10		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1511 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD %R calculations were performed incorrectly. The parent sample results were < the MDLs and, thus, a result of 0 µg/kg or 0 µg/L should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentrations. The %Rs were within the acceptance limits when calculated correctly. In addition, the parent QC samples were from other LANL RNs and raw data for the parent QC samples were not included in the data package. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/10/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7309

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960001

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.892	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate Isotope Ratio			3.13			1	21-FEB-10 02:06	per0220091a
14797-73-0	Perchlorate-101	.555	2.22	0.905	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:06	per0220091a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

SEB
3/10/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7308

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960002

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:16	per0220092a
14797-73-0	Perchlorate-101	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate-O(18)			6.42	ug/kg		1	21-FEB-10 02:16	per0220092a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

SEB
3/10/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7315

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960003

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 91.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:25	per0220093a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:25	per0220093a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7317

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960004

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:03	per0220097a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate-O(18)			5.53	ug/kg		1	21-FEB-10 03:03	per0220097a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7319

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960005

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.618	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate Isotope Ratio			3.31			1	21-FEB-10 03:13	per0220098a
14797-73-0	Perchlorate-101	.56	2.24	0.594	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate-O(18)			5.47	ug/kg		1	21-FEB-10 03:13	per0220098a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7312

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960006

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:23	per0220099a
14797-73-0	Perchlorate-101	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate-O(18)			6.70	ug/kg		1	21-FEB-10 03:23	per0220099a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7313

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960007

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.928	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate Isotope Ratio			3.18			1	21-FEB-10 03:32	per0220100a
14797-73-0	Perchlorate-101	.554	2.22	0.927	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 03:32	per0220100a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7314

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960008

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:42	per0220101a
14797-73-0	Perchlorate-101	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate-O(18)			6.84	ug/kg		1	21-FEB-10 03:42	per0220101a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7316

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960009

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:51	per0220102a
14797-73-0	Perchlorate-101	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate-O(18)			7.68	ug/kg		1	21-FEB-10 03:51	per0220102a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7318

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960010

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	1.49	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate Isotope Ratio			3.21			1	21-FEB-10 04:01	per0220103a
14797-73-0	Perchlorate-101	.587	2.35	1.48	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate-O(18)			5.42	ug/kg		1	21-FEB-10 04:01	per0220103a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7324

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960011

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.946	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate Isotope Ratio			3.01			1	21-FEB-10 04:11	per0220104a
14797-73-0	Perchlorate-101	.557	2.23	0.998	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 04:11	per0220104a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-7326

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 245965001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate Isotope Ratio						1	08-FEB-10 20:53	per0208065a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate-O(18)			0.465	ug/L		1	08-FEB-10 20:53	per0208065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1511 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the soil MB, Cr, Fe, Mn, and Zn were detected. The Cr result for sample RE15-10-7318 was a detect >5X but ≤50X the MB concentration and, thus, was qualified J,I4a. The remaining associated sample results were detects >50X the MB concentrations and, thus, were not qualified based on professional judgment.
2. In the aqueous CCB, Tl was detected. The associated sample result was a ND and, thus, was not qualified.
3. In the FR blank, sample -7326, associated with all the soil samples, K and Na were detected. The Na results for samples -7312, -7314, -7316, and -7318 were ≤5X the FR blank concentration and, thus, were qualified U,I4d. The remaining associated sample results were >5X the FR blank concentrations and, thus, were not qualified.
4. The soil MS %R for Ca was < the laboratory LAL but ≥10%. The associated sample results were detects and, thus, were qualified J-,I6a. The soil MS %Rs for Al and Mg were > the laboratory UAL. The associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %R for Fe was also > the laboratory UAL. However, the parent sample concentration was >4X the spike concentration and, thus, the associated Fe sample results were not qualified, based on professional judgment.
5. The soil duplicate RPDs for Ba and Cr were >35%, and both the parent and the duplicate sample results were ≥5X the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.
6. It should be noted that the parent QC samples were from other LANL RNs. In addition, the raw data for the ICP and the ICP-MS parent QC samples were not included in the data package. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: _____ DATE: 03/10/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960001 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7309 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.2

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	13600000	ug/Kg		7290	21500	21500	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-36-0	Antimony		664	ug/Kg	J	354	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-38-2	Arsenic		1.92	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-39-3	Barium	J,I10a	205000	ug/Kg		107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-41-7	Beryllium		1.15	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:08	100226-4	948748
7440-43-9	Cadmium		536	ug/Kg	U	107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-70-2	Calcium	J-,I6a	2810000	ug/Kg		8580	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-47-3	Chromium	J,I10a	10700	ug/Kg		161	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-48-4	Cobalt		5820	ug/Kg		161	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-50-8	Copper		8300	ug/Kg		322	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-89-6	Iron		14200000	ug/Kg		8580	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-92-1	Lead		13800	ug/Kg		268	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-95-4	Magnesium	J+,I6b	2290000	ug/Kg		9120	32200	32200	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-96-5	Manganese		364000	ug/Kg		215	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-97-6	Mercury		7.97	ug/kg	J	4.17	12.3	12.3	1	AV	JXL1	02/18/10 12:01	021810S1-5	951512
7440-02-0	Nickel		9.06	mg/kg		0.11	0.439	0.439	2	MS	RMJ	02/27/10 02:08	100226-4	948748
7440-09-7	Potassium		1840000	ug/Kg		6870	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7782-49-2	Selenium		1.1	mg/kg	U	0.549	1.1	1.1	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-22-4	Silver		536	ug/Kg	U	107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-23-5	Sodium		94700	ug/Kg		7510	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-28-0	Thallium		0.240	mg/kg		0.0659	0.22	0.22	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-61-1	Uranium		0.908	mg/kg		0.0145	0.0439	0.0439	2	MS	RMJ	02/26/10 08:53	100225-2	948748
7440-62-2	Vanadium		27900	ug/Kg		107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-66-6	Zinc		27900	ug/Kg		354	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.505	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.542	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960002 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7308 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	9550000	ug/Kg		8750	25700	25700	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-36-0	Antimony	542	ug/Kg	J	425	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-38-2	Arsenic	1.92	mg/kg		0.239	1.2	1.2	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-39-3	Barium J,I10a	161000	ug/Kg		129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-41-7	Beryllium	0.901	mg/kg		0.0239	0.12	0.12	2	MS	RMJ	02/27/10 02:11	100226-4	948748
7440-43-9	Cadmium	644	ug/Kg	U	129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-70-2	Calcium J-,I6a	2110000	ug/Kg		10300	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-47-3	Chromium J,I10a	10300	ug/Kg		193	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-48-4	Cobalt	6570	ug/Kg		193	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-50-8	Copper	11900	ug/Kg		386	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-89-6	Iron	14000000	ug/Kg		10300	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-92-1	Lead	63800	ug/Kg		322	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-95-4	Magnesium J+,I6b	1660000	ug/Kg		10900	38600	38600	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-96-5	Manganese	312000	ug/Kg		257	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-97-6	Mercury	4.79	ug/kg	J	4.38	12.9	12.9	1	AV	JXL1	02/18/10 12:07	021810S1-5	951512
7440-02-0	Nickel	8.38	mg/kg		0.12	0.478	0.478	2	MS	RMJ	02/27/10 02:11	100226-4	948748
7440-09-7	Potassium	1710000	ug/Kg		8240	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7782-49-2	Selenium	1.2	mg/kg	U	0.598	1.2	1.2	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-22-4	Silver	644	ug/Kg	U	129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-23-5	Sodium	91100	ug/Kg		9010	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-28-0	Thallium	0.167	mg/kg	J	0.0718	0.239	0.239	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-61-1	Uranium	7.73	mg/kg		0.0158	0.0478	0.0478	2	MS	RMJ	02/26/10 08:59	100225-2	948748
7440-62-2	Vanadium	23000	ug/Kg		129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-66-6	Zinc	39700	ug/Kg		425	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.538	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960003 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7315 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	13300000	ug/Kg		7330	21600	21600	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-36-0	Antimony	1220	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-38-2	Arsenic	2.16	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-39-3	Barium J,I10a	205000	ug/Kg		108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-41-7	Beryllium	1.15	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:20	100226-4	948748
7440-43-9	Cadmium	539	ug/Kg	U	108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-70-2	Calcium J-,I6a	2460000	ug/Kg		8630	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-47-3	Chromium J,I10a	11700	ug/Kg		162	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-48-4	Cobalt	6310	ug/Kg		162	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-50-8	Copper	8010	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-89-6	Iron	15000000	ug/Kg		8630	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-92-1	Lead	14900	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2400000	ug/Kg		9170	32400	32400	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-96-5	Manganese	422000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-97-6	Mercury	11.3	ug/kg	J	3.93	11.6	11.6	1	AV	JXL1	02/18/10 12:09	021810S1-5	951512
7440-02-0	Nickel	9.63	mg/kg		0.11	0.439	0.439	2	MS	RMJ	02/27/10 02:20	100226-4	948748
7440-09-7	Potassium	1960000	ug/Kg		6900	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-22-4	Silver	539	ug/Kg	U	108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-23-5	Sodium	60800	ug/Kg		7550	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-28-0	Thallium	0.229	mg/kg		0.0659	0.22	0.22	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-61-1	Uranium	1.59	mg/kg		0.0145	0.0439	0.0439	2	MS	RMJ	02/26/10 09:04	100225-2	948748
7440-62-2	Vanadium	30000	ug/Kg		108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-66-6	Zinc	30300	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.509	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.57	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960004 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7317 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	14500000	ug/Kg		7340	21600	21600	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-36-0	Antimony	1080	ug/Kg	U	356	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-38-2	Arsenic	2.07	mg/kg		0.223	1.12	1.12	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-39-3	Barium J,I10a	216000	ug/Kg		108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-41-7	Beryllium	1.32	mg/kg		0.0223	0.112	0.112	2	MS	RMJ	02/27/10 02:23	100226-4	948748
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-70-2	Calcium J-,I6a	3530000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-47-3	Chromium J,I10a	10300	ug/Kg		162	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-48-4	Cobalt	5250	ug/Kg		162	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-50-8	Copper	7520	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-89-6	Iron	14100000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-92-1	Lead	13900	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2280000	ug/Kg		9180	32400	32400	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-96-5	Manganese	354000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-97-6	Mercury	10.8	ug/kg	J	4.51	13.3	13.3	1	AV	JXL1	02/18/10 12:11	021810S1-5	951512
7440-02-0	Nickel	10.6	mg/kg		0.112	0.447	0.447	2	MS	RMJ	02/27/10 02:23	100226-4	948748
7440-09-7	Potassium	1740000	ug/Kg		6910	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7782-49-2	Selenium	1.12	mg/kg	U	0.558	1.12	1.12	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-22-4	Silver	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-23-5	Sodium	78500	ug/Kg		7560	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-28-0	Thallium	0.235	mg/kg		0.067	0.223	0.223	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-61-1	Uranium	1.1	mg/kg		0.0147	0.0447	0.0447	2	MS	RMJ	02/26/10 09:10	100225-2	948748
7440-62-2	Vanadium	27500	ug/Kg		108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-66-6	Zinc	27000	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.507	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960005 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7319 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	13300000	ug/Kg		7580	22300	22300	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-36-0	Antimony	905	ug/Kg	J	368	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-38-2	Arsenic	2.17	mg/kg		0.218	1.09	1.09	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-39-3	Barium J,I10a	205000	ug/Kg		111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-41-7	Beryllium	1.48	mg/kg		0.0218	0.109	0.109	2	MS	RMJ	02/27/10 02:26	100226-4	948748
7440-43-9	Cadmium	557	ug/Kg	U	111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-70-2	Calcium J-,I6a	2860000	ug/Kg		8910	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-47-3	Chromium J,I10a	9850	ug/Kg		167	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-48-4	Cobalt	4720	ug/Kg		167	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-50-8	Copper	6720	ug/Kg		334	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-89-6	Iron	13000000	ug/Kg		8910	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-92-1	Lead	14400	ug/Kg		279	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2160000	ug/Kg		9470	33400	33400	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-96-5	Manganese	310000	ug/Kg		223	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-97-6	Mercury	11.7	ug/kg	J	4.41	13	13	1	AV	JXL1	02/18/10 12:12	021810S1-5	951512
7440-02-0	Nickel	11	mg/kg		0.109	0.437	0.437	2	MS	RMJ	02/27/10 02:26	100226-4	948748
7440-09-7	Potassium	1760000	ug/Kg		7130	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7782-49-2	Selenium	1.09	mg/kg	U	0.546	1.09	1.09	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-22-4	Silver	557	ug/Kg	U	111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-23-5	Sodium	96900	ug/Kg		7800	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-28-0	Thallium	0.268	mg/kg		0.0655	0.218	0.218	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-61-1	Uranium	1.5	mg/kg		0.0144	0.0437	0.0437	2	MS	RMJ	02/26/10 09:28	100225-2	948748
7440-62-2	Vanadium	25400	ug/Kg		111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-66-6	Zinc	26000	ug/Kg		368	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.503	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.513	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.519	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960006 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7312 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 71

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	10500000	ug/Kg		9360	27500	27500	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-36-0	Antimony	611	ug/Kg	J	454	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-38-2	Arsenic	2.15	mg/kg		0.27	1.35	1.35	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-39-3	Barium J,I10a	214000	ug/Kg		138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-41-7	Beryllium	0.981	mg/kg		0.027	0.135	0.135	2	MS	RMJ	02/27/10 02:29	100226-4	948748
7440-43-9	Cadmium	688	ug/Kg	U	138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-70-2	Calcium J-,I6a	2520000	ug/Kg		11000	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-47-3	Chromium J,I10a	13900	ug/Kg		207	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-48-4	Cobalt	9870	ug/Kg		207	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-50-8	Copper	9580	ug/Kg		413	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-89-6	Iron	14200000	ug/Kg		11000	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-92-1	Lead	19100	ug/Kg		344	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2050000	ug/Kg		11700	41300	41300	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-96-5	Manganese	693000	ug/Kg		275	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-97-6	Mercury	6.27	ug/kg	J	5.46	16.1	16.1	1	AV	JXL1	02/18/10 12:14	021810S1-5	951512
7440-02-0	Nickel	8.66	mg/kg		0.135	0.539	0.539	2	MS	RMJ	02/27/10 02:29	100226-4	948748
7440-09-7	Potassium	2310000	ug/Kg		8810	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7782-49-2	Selenium	1.35	mg/kg	U	0.674	1.35	1.35	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-22-4	Silver	688	ug/Kg	U	138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-23-5	Sodium U,I4d	52700	ug/Kg		9640	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-28-0	Thallium	0.205	mg/kg	J	0.0809	0.27	0.27	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-61-1	Uranium	17.4	mg/kg		0.0178	0.0539	0.0539	2	MS	RMJ	02/26/10 09:34	100225-2	948748
7440-62-2	Vanadium	29100	ug/Kg		138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-66-6	Zinc	38200	ug/Kg		454	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.529	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960007 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7313 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	15200000	ug/Kg		7500	22100	22100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-36-0	Antimony	660	ug/Kg	J	364	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-38-2	Arsenic	2.32	mg/kg		0.221	1.1	1.1	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-39-3	Barium J,I10a	193000	ug/Kg		110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-41-7	Beryllium	1.24	mg/kg		0.0221	0.11	0.11	2	MS	RMJ	02/27/10 02:32	100226-4	948748
7440-43-9	Cadmium	552	ug/Kg	U	110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-70-2	Calcium J-,I6a	2650000	ug/Kg		8830	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-47-3	Chromium J,I10a	13000	ug/Kg		165	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-48-4	Cobalt	7060	ug/Kg		165	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-50-8	Copper	7850	ug/Kg		331	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-89-6	Iron	16000000	ug/Kg		8830	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-92-1	Lead	15500	ug/Kg		276	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2770000	ug/Kg		9380	33100	33100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-96-5	Manganese	440000	ug/Kg		221	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-97-6	Mercury	10.3	ug/kg	J	4.51	13.3	13.3	1	AV	JXL1	02/18/10 12:16	021810S1-5	951512
7440-02-0	Nickel	10.9	mg/kg		0.11	0.441	0.441	2	MS	RMJ	02/27/10 02:32	100226-4	948748
7440-09-7	Potassium	1910000	ug/Kg		7060	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.552	1.1	1.1	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-22-4	Silver	552	ug/Kg	U	110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-23-5	Sodium	82900	ug/Kg		7720	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-28-0	Thallium	0.288	mg/kg		0.0662	0.221	0.221	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-61-1	Uranium	1.14	mg/kg		0.0146	0.0441	0.0441	2	MS	RMJ	02/26/10 09:40	100225-2	948748
7440-62-2	Vanadium	30100	ug/Kg		110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-66-6	Zinc	31800	ug/Kg		364	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.501	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960008 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7314 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	10700000	ug/Kg		9670	28400	28400	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-36-0	Antimony	503	ug/Kg	J	469	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-38-2	Arsenic	2.33	mg/kg		0.297	1.48	1.48	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-39-3	Barium J,I10a	205000	ug/Kg		142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-41-7	Beryllium	1.09	mg/kg		0.0297	0.148	0.148	2	MS	RMJ	02/27/10 02:36	100226-4	948748
7440-43-9	Cadmium	711	ug/Kg	U	142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-70-2	Calcium J-,I6a	2450000	ug/Kg		11400	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-47-3	Chromium J,I10a	10500	ug/Kg		213	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-48-4	Cobalt	5770	ug/Kg		213	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-50-8	Copper	11100	ug/Kg		426	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-89-6	Iron	13300000	ug/Kg		11400	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-92-1	Lead	15800	ug/Kg		355	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-95-4	Magnesium J+,I6b	2030000	ug/Kg		12100	42600	42600	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-96-5	Manganese	418000	ug/Kg		284	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-97-6	Mercury	15.1	ug/kg	U	5.15	15.1	15.1	1	AV	JXL1	02/18/10 12:18	021810S1-5	951512
7440-02-0	Nickel	9.31	mg/kg		0.148	0.594	0.594	2	MS	RMJ	02/27/10 02:36	100226-4	948748
7440-09-7	Potassium	1930000	ug/Kg		9100	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7782-49-2	Selenium	1.48	mg/kg	U	0.742	1.48	1.48	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-22-4	Silver	711	ug/Kg	U	142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-23-5	Sodium U,I4d	53600	ug/Kg		9950	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-28-0	Thallium	0.227	mg/kg	J	0.089	0.297	0.297	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-61-1	Uranium	8.52	mg/kg		0.0196	0.0594	0.0594	2	MS	RMJ	02/26/10 09:46	100225-2	948748
7440-62-2	Vanadium	27400	ug/Kg		142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-66-6	Zinc	33900	ug/Kg		469	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.588	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960009 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7316 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	11200000	ug/Kg		10400	30700	30700	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-36-0	Antimony	869	ug/Kg	J	506	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-38-2	Arsenic	2.31	mg/kg		0.296	1.48	1.48	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-39-3	Barium J,I10a	185000	ug/Kg		153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-41-7	Beryllium	1.16	mg/kg		0.0296	0.148	0.148	2	MS	RMJ	02/27/10 02:39	100226-4	948748
7440-43-9	Cadmium	767	ug/Kg	U	153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-70-2	Calcium J-,I6a	2320000	ug/Kg		12300	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-47-3	Chromium J,I10a	10800	ug/Kg		230	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-48-4	Cobalt	6240	ug/Kg		230	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-50-8	Copper	8110	ug/Kg		460	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-89-6	Iron	12900000	ug/Kg		12300	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-92-1	Lead	13500	ug/Kg		384	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-95-4	Magnesium J+,I6b	1900000	ug/Kg		13000	46000	46000	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-96-5	Manganese	405000	ug/Kg		307	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-97-6	Mercury	17.2	ug/kg	U	5.83	17.2	17.2	1	AV	JXL1	02/18/10 12:20	021810S1-5	951512
7440-02-0	Nickel	9.45	mg/kg		0.148	0.592	0.592	2	MS	RMJ	02/27/10 02:39	100226-4	948748
7440-09-7	Potassium	2100000	ug/Kg		9820	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7782-49-2	Selenium	1.48	mg/kg	U	0.739	1.48	1.48	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-22-4	Silver	767	ug/Kg	U	153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-23-5	Sodium U,I4d	62600	ug/Kg		10700	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-28-0	Thallium	0.217	mg/kg	J	0.0887	0.296	0.296	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-61-1	Uranium	6.4	mg/kg		0.0195	0.0592	0.0592	2	MS	RMJ	02/26/10 09:52	100225-2	948748
7440-62-2	Vanadium	25100	ug/Kg		153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-66-6	Zinc	28300	ug/Kg		506	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.506	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960010 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7318 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	5960000	ug/Kg		7610	22400	22400	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-36-0	Antimony		895	ug/Kg	J	369	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-38-2	Arsenic		1.34	mg/kg		0.235	1.17	1.17	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-39-3	Barium	J,I10a	102000	ug/Kg		112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-41-7	Beryllium		0.590	mg/kg		0.0235	0.117	0.117	2	MS	RMJ	02/27/10 02:42	100226-4	948748
7440-43-9	Cadmium		560	ug/Kg	U	112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-70-2	Calcium	J-,I6a	2590000	ug/Kg		8960	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-47-3	Chromium	J,I4a	5940	ug/Kg		168	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-48-4	Cobalt		2930	ug/Kg		168	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-50-8	Copper		10800	ug/Kg		336	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-89-6	Iron		7940000	ug/Kg		8960	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-92-1	Lead		69600	ug/Kg		280	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-95-4	Magnesium	J+,I6b	1120000	ug/Kg		9520	33600	33600	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-96-5	Manganese		224000	ug/Kg		224	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-97-6	Mercury		6.52	ug/kg	J	4.54	13.4	13.4	1	AV	JXL1	02/18/10 12:22	021810S1-5	951512
7440-02-0	Nickel		5.37	mg/kg		0.117	0.469	0.469	2	MS	RMJ	02/27/10 02:42	100226-4	948748
7440-09-7	Potassium		1290000	ug/Kg		7170	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7782-49-2	Selenium		1.17	mg/kg	U	0.587	1.17	1.17	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-22-4	Silver		560	ug/Kg	U	112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-23-5	Sodium	U,I4d	52000	ug/Kg		7840	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-28-0	Thallium		0.117	mg/kg	J	0.0704	0.235	0.235	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-61-1	Uranium		7.65	mg/kg		0.0155	0.0469	0.0469	2	MS	RMJ	02/26/10 09:58	100225-2	948748
7440-62-2	Vanadium		14300	ug/Kg		112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-66-6	Zinc		27200	ug/Kg		369	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.524	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.527	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960011 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7324 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	14200000	ug/Kg		7340	21600	21600	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-36-0	Antimony		1260	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-38-2	Arsenic		1.85	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-39-3	Barium	J,I10a	213000	ug/Kg		108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-41-7	Beryllium		1.18	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:45	100226-4	948748
7440-43-9	Cadmium		540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-70-2	Calcium	J-,I6a	3280000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-47-3	Chromium	J,I10a	10900	ug/Kg		162	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-48-4	Cobalt		5530	ug/Kg		162	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-50-8	Copper		7470	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-89-6	Iron		14500000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-92-1	Lead		13800	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-95-4	Magnesium	J+,I6b	2390000	ug/Kg		9180	32400	32400	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-96-5	Manganese		367000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-97-6	Mercury		10.9	ug/kg	J	4.42	13	13	1	AV	JXL1	02/18/10 12:24	021810S1-5	951512
7440-02-0	Nickel		9.46	mg/kg		0.11	0.44	0.44	2	MS	RMJ	02/27/10 02:45	100226-4	948748
7440-09-7	Potassium		1880000	ug/Kg		6910	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7782-49-2	Selenium		1.1	mg/kg	U	0.55	1.1	1.1	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-22-4	Silver		540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-23-5	Sodium		101000	ug/Kg		7560	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-28-0	Thallium		0.223	mg/kg		0.066	0.22	0.22	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-61-1	Uranium		0.896	mg/kg		0.0145	0.044	0.044	2	MS	RMJ	02/26/10 10:04	100225-2	948748
7440-62-2	Vanadium		28400	ug/Kg		108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-66-6	Zinc		28700	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.516	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.514	g	30	mL	02/17/10	TXB3

SEB
3/10/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245965001 **BASIS:** As Received **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7326 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 04:38	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 04:38	100224-2	948740
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:01	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-09-7	Potassium	164	ug/L		50	150	150	1	P	HSC	02/11/10 19:55	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-23-5	Sodium	100	ug/L	J	100	300	300	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/28/10 14:30	100228-5	948740
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:20	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 19:55	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

SEB
3/10/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1511 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the soil CCB, total cyanide was detected. The total cyanide results for samples RE15-10-7314 and -7316 were detects ≤5X the blank concentration and, thus, were qualified U,I4b. The remaining associated samples were NDs and, thus, were not qualified.
2. It should be noted that the parent QC samples for one of the soil total cyanide batches and the aqueous parent QC sample were from other LANL RNs. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: DATE: 03/10/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7309	Project:	LANL01004
Sample ID:	245960001	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.84%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.2	243	ug/kg	1	AXC2 02/11/10	1342	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/10/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7308	Project:	LANL01004
Sample ID:	245960002	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.4	277	ug/kg	1	AXC2 02/11/10	1343	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/10/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7315	Project:	LANL01004
Sample ID:	245960003	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.92%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.7	245	ug/kg	1	AXC2 02/11/10	1344	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7317	Project:	LANL01004
Sample ID:	245960004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.3	269	ug/kg	1	AXC2 02/11/10	1345	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7319	Project:	LANL01004
Sample ID:	245960005	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.7	242	ug/kg	1	AXC2 02/11/10	1346	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7312	Project:	LANL01004
Sample ID:	245960006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	92.5	340	ug/kg	1	AXC2 02/11/10	1347	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7313	Project:	LANL01004
Sample ID:	245960007	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.72%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.8	235	ug/kg	1	AXC2 02/11/10	1353	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7314	Project:	LANL01004
Sample ID:	245960008	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	32.6%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	209	U,l4b	91.7	337	ug/kg	1	AXC2 02/11/10	1356	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7316	Project:	LANL01004
Sample ID:	245960009	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	35.6%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	230	U,I4b	96.0	353	ug/kg	1	AXC2 02/11/10	1400	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7318	Project:	LANL01004
Sample ID:	245960010	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2 02/11/10	1401	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7324	Project:	LANL01004
Sample ID:	245960011	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.9	268	ug/kg	1	AXC2 02/11/10	1405	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1511-1

Client Sample ID: RE15-10-7326
Sample ID: 245965001
Matrix: W
Collect Date: 28-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1509	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

SEB
3/10/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1511 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec results that were rejected by the laboratory due to interference and low abundance were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. The alpha spec Am-243 tracer %R for the LCS was > the laboratory UAL but ≤ 125%. Because the LCS was a QC sample, no sample results were qualified.
3. It should be noted that the parent QC sample for alpha spec was from another LANL RN. No sample data were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: DATE: 03/10/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☒	☐	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7309	Project:	LANL01004
Sample ID:	245960001	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.84%		

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00144		0.0241	+/-0.00162	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00108		0.023	+/-0.00185	0.050	pCi/g		HAKB	02/13/10	2134	949824	3
Plutonium-239/240	U	-0.00282		0.0174	+/-0.00263	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.07		0.0919	+/-0.098	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236	U	0.0405		0.0586	+/-0.0165	0.100	pCi/g						
Uranium-238		1.07		0.0628	+/-0.0984	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.033		0.0844	+/-0.0256	0.200	pCi/g		MXR1	02/12/10	1444	948717	5
Bismuth-211	UI	4.74	R,R5a	0.318	+/-0.329		pCi/g						
Bismuth-214		1.41		0.132	+/-0.129	0.200	pCi/g						
Cadmium-109	UI	4.01	R,R5a	0.734	+/-0.399		pCi/g						
Cerium-139	U	0.00731		0.044	+/-0.0124	0.050	pCi/g						
Cesium-134	U	0.0869		0.122	+/-0.0463	0.100	pCi/g						
Cesium-137	U	-0.0133		0.0798	+/-0.025	0.100	pCi/g						
Cobalt-60	U	-0.0193		0.0808	+/-0.0256	0.100	pCi/g						
Europium-152	U	-0.0479		0.153	+/-0.0489	0.200	pCi/g						
Lanthanum-140	U	-0.0369		0.181	+/-0.0694		pCi/g						
Lead-212		1.95		0.0877	+/-0.115	0.100	pCi/g						
Lead-214		1.65		0.111	+/-0.122	0.100	pCi/g						
Mercury-203	U	0.0289		0.0654	+/-0.0206	0.100	pCi/g						
Potassium-40		22.5		0.713	+/-1.38	1.00	pCi/g						
Radium-223	U	0.0234		1.09	+/-0.371		pCi/g						
Radium-224	UI	5.48	R,R5a	1.00	+/-0.545		pCi/g						
Radium-226		1.41		0.132	+/-0.129		pCi/g						
Radium-228		1.72		0.266	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	-0.224		0.589	+/-0.196	0.800	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7309
Sample ID: 245960001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0324	0.103	+/-0.0299	0.080	pCi/g						
Strontium-85	U	0.0221	0.0667	+/-0.0212		pCi/g						
Thallium-208		0.543	0.0709	+/-0.0594	0.080	pCi/g						
Thorium-227	U	0.0974	0.587	+/-0.171		pCi/g						
Thorium-231	U	0.0234	1.09	+/-0.371		pCi/g						
Thorium-234		1.01	0.775	+/-0.430	2.00	pCi/g						
Tin-113	U	-0.0445	0.081	+/-0.0271	0.100	pCi/g						
Uranium-235	U	0.147	0.305	+/-0.0921	0.500	pCi/g						
Yttrium-88	U	0.0151	0.0875	+/-0.0253	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	100	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7308
Sample ID: 245960002
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 22.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0029		0.0234	+/-0.00214	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0231	+/-0.00151	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00751		0.0174	+/-0.00338	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		3.62		0.102	+/-0.285	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.215		0.0652	+/-0.0363	0.100	pCi/g						
Uranium-238		4.59		0.0699	+/-0.354	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.235		0.377	+/-0.119	0.200	pCi/g		MXR1	02/12/10	1445	948717	5
Bismuth-211	UI	3.58	R,R5a	0.425	+/-0.282		pCi/g						
Bismuth-214		1.26		0.131	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	3.47	R,R5a	1.61	+/-0.615		pCi/g						
Cerium-139	U	0.00945		0.0588	+/-0.0176	0.050	pCi/g						
Cesium-134	UI	0.107	R,R5a	0.106	+/-0.0301	0.100	pCi/g						
Cesium-137		0.223		0.0674	+/-0.0486	0.100	pCi/g						
Cobalt-60	U	-0.015		0.0729	+/-0.0235	0.100	pCi/g						
Europium-152	U	-0.0814		0.179	+/-0.0641	0.200	pCi/g						
Lanthanum-140	U	-0.159		0.0984	+/-0.0458		pCi/g						
Lead-212		1.50		0.101	+/-0.0807	0.100	pCi/g						
Lead-214		1.24		0.141	+/-0.103	0.100	pCi/g						
Mercury-203	U	-0.00814		0.0794	+/-0.0233	0.100	pCi/g						
Potassium-40		20.0		0.519	+/-1.14	1.00	pCi/g						
Radium-223	U	-0.917		1.14	+/-0.429		pCi/g						
Radium-224	UI	4.25	R,R5a	1.14	+/-0.728		pCi/g						
Radium-226		1.26		0.131	+/-0.102		pCi/g						
Radium-228		1.41		0.186	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.126		0.572	+/-0.180	0.800	pCi/g						
Sodium-22	U	-0.0441		0.0699	+/-0.0243	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7308
Sample ID: 245960002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0664	0.0751	+/-0.0205		pCi/g						
Thallium-208		0.576	0.0613	+/-0.0455	0.080	pCi/g						
Thorium-227	U	0.00271	0.703	+/-0.215		pCi/g						
Thorium-231	U	-0.917	1.14	+/-0.429		pCi/g						
Thorium-234		6.32	2.99	+/-1.56	2.00	pCi/g						
Tin-113	U	-0.0534	0.0742	+/-0.0239	0.100	pCi/g						
Uranium-235		0.421	0.409	+/-0.168	0.500	pCi/g						
Yttrium-88	U	-0.00168	0.057	+/-0.0175	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	88.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- > Result is greater than value reported
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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7315
Sample ID: 245960003
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 8.92%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00131		0.0274	+/-0.00226	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00106		0.0227	+/-0.00182	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00739		0.0172	+/-0.00333	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.07		0.0857	+/-0.0962	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0714		0.0547	+/-0.018	0.100	pCi/g						
Uranium-238		1.25		0.0585	+/-0.110	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0949		0.213	+/-0.0658	0.200	pCi/g		MXR1	02/12/10	1547	948717	5
Bismuth-211	UI	4.51	R,R5a	0.273	+/-0.334		pCi/g						
Bismuth-214		1.30		0.101	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.13	R,R5a	1.17	+/-0.459		pCi/g						
Cerium-139	U	0.000265		0.0484	+/-0.014	0.050	pCi/g						
Cesium-134	UI	0.132	R,R5a	0.077	+/-0.0337	0.100	pCi/g						
Cesium-137	U	0.0375		0.0606	+/-0.0173	0.100	pCi/g						
Cobalt-60	U	0.00324		0.0458	+/-0.0137	0.100	pCi/g						
Europium-152	U	0.0788		0.154	+/-0.0562	0.200	pCi/g						
Lanthanum-140	U	-0.116		0.108	+/-0.0386		pCi/g						
Lead-212		1.79		0.0798	+/-0.129	0.100	pCi/g						
Lead-214		1.57		0.095	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.032		0.068	+/-0.0201	0.100	pCi/g						
Potassium-40		20.5		0.417	+/-1.12	1.00	pCi/g						
Radium-223	U	0.557		0.988	+/-0.319		pCi/g						
Radium-224	UI	5.02	R,R5a	0.907	+/-0.649		pCi/g						
Radium-226		1.30		0.101	+/-0.104		pCi/g						
Radium-228		1.63		0.181	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	0.127		0.480	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0332		0.0547	+/-0.0178	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7315
Sample ID: 245960003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.175	R,R5a	0.0711	+/-0.0215		pCi/g						
Thallium-208		0.509		0.0521	+/-0.0433	0.080	pCi/g						
Thorium-227	U	0.299		0.605	+/-0.178		pCi/g						
Thorium-231	U	0.557		0.988	+/-0.319		pCi/g						
Thorium-234		1.79		1.77	+/-0.816	2.00	pCi/g						
Tin-113	U	-0.00411		0.0678	+/-0.0203	0.100	pCi/g						
Uranium-235	U	0.100		0.331	+/-0.096	0.500	pCi/g						
Yttrium-88	U	-0.0101		0.041	+/-0.0133	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	69.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7317
Sample ID: 245960004
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00455		0.0238	+/-0.00271	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00106		0.0172	+/-0.00149	0.050	pCi/g		HAKB	02/18/10	1842	949824	3
Plutonium-239/240	U	0.00211		0.013	+/-0.0015	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.09		0.0794	+/-0.0962	0.100	pCi/g		HAKB	02/13/10	2124	949825	5
Uranium-235/236		0.0777		0.0506	+/-0.0182	0.100	pCi/g						
Uranium-238		1.17		0.0542	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.00338		0.0777	+/-0.0253	0.200	pCi/g		MXR1	02/12/10	1547	948717	6
Bismuth-211	UI	4.22	R,R5a	0.301	+/-0.317		pCi/g						
Bismuth-214		1.25		0.125	+/-0.113	0.200	pCi/g						
Cadmium-109	UI	4.08	R,R5a	0.773	+/-0.418		pCi/g						
Cerium-139	U	0.00339		0.0416	+/-0.0122	0.050	pCi/g						
Cesium-134	UI	0.159	R,R5a	0.103	+/-0.0385	0.100	pCi/g						
Cesium-137	U	0.0122		0.0691	+/-0.0315	0.100	pCi/g						
Cobalt-60	U	-0.000929		0.0702	+/-0.0219	0.100	pCi/g						
Europium-152	U	0.0242		0.148	+/-0.0483	0.200	pCi/g						
Lanthanum-140	U	0.00201		0.174	+/-0.0522		pCi/g						
Lead-212		1.90		0.122	+/-0.124	0.100	pCi/g						
Lead-214		1.47		0.105	+/-0.117	0.100	pCi/g						
Mercury-203	UI	0.0703	R,R5a	0.0599	+/-0.0247	0.100	pCi/g						
Potassium-40		20.8		0.542	+/-1.16	1.00	pCi/g						
Radium-223	U	0.276		1.03	+/-0.331		pCi/g						
Radium-224	UI	3.66	R,R5a	1.05	+/-0.499		pCi/g						
Radium-226		1.25		0.125	+/-0.113		pCi/g						
Radium-228		1.67		0.213	+/-0.191	0.500	pCi/g						
Ruthenium-106	U	0.0466		0.553	+/-0.161	0.800	pCi/g						
Sodium-22	U	0.0175		0.0797	+/-0.0233	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7317
Sample ID: 245960004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0254	0.0639	+/-0.0211		pCi/g						
Thallium-208		0.598	0.0595	+/-0.0569	0.080	pCi/g						
Thorium-227	U	-0.246	0.587	+/-0.189		pCi/g						
Thorium-231	U	0.276	1.03	+/-0.331		pCi/g						
Thorium-234		1.78	0.732	+/-0.471	2.00	pCi/g						
Tin-113	U	-0.0176	0.0681	+/-0.0209	0.100	pCi/g						
Uranium-235	U	0.0801	0.302	+/-0.0885	0.500	pCi/g						
Yttrium-88	U	-0.022	0.0495	+/-0.0177	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7319
Sample ID: 245960005
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0102		0.0256	+/-0.00422	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00583		0.0222	+/-0.00311	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00433		0.0167	+/-0.00251	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.38		0.0898	+/-0.120	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0924		0.0573	+/-0.0212	0.100	pCi/g						
Uranium-238		1.49		0.0613	+/-0.128	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0423		0.253	+/-0.078	0.200	pCi/g		MXR1	02/12/10	1548	948717	5
Bismuth-211	UI	4.43	R,R5a	0.308	+/-0.262		pCi/g						
Bismuth-214		1.35		0.117	+/-0.0926	0.200	pCi/g						
Cadmium-109	UI	3.98	R,R5a	1.29	+/-0.470		pCi/g						
Cerium-139	U	-0.000378		0.0468	+/-0.0141	0.050	pCi/g						
Cesium-134	UI	0.125	R,R5a	0.0977	+/-0.0354	0.100	pCi/g						
Cesium-137	U	-0.0125		0.0625	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	-0.0188		0.0603	+/-0.0196	0.100	pCi/g						
Europium-152	U	-0.0246		0.148	+/-0.0463	0.200	pCi/g						
Lanthanum-140	U	0.0476		0.168	+/-0.0542		pCi/g						
Lead-212		1.70		0.0911	+/-0.0814	0.100	pCi/g						
Lead-214		1.54		0.107	+/-0.0995	0.100	pCi/g						
Mercury-203	U	0.00869		0.0682	+/-0.0197	0.100	pCi/g						
Potassium-40		19.0		0.578	+/-1.05	1.00	pCi/g						
Radium-223	U	-0.345		1.07	+/-0.374		pCi/g						
Radium-224	UI	4.94	R,R5a	1.04	+/-0.676		pCi/g						
Radium-226		1.35		0.117	+/-0.0926		pCi/g						
Radium-228		1.60		0.209	+/-0.169	0.500	pCi/g						
Ruthenium-106	U	-0.0347		0.506	+/-0.151	0.800	pCi/g						
Sodium-22	U	-0.0225		0.0758	+/-0.0241	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7319
Sample ID: 245960005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0483	0.0664	+/-0.0211		pCi/g						
Thallium-208		0.552	0.0529	+/-0.0459	0.080	pCi/g						
Thorium-227	U	0.269	0.628	+/-0.177		pCi/g						
Thorium-231	U	-0.345	1.07	+/-0.374		pCi/g						
Thorium-234		2.27	2.09	+/-1.05	2.00	pCi/g						
Tin-113	U	0.0066	0.0715	+/-0.0212	0.100	pCi/g						
Uranium-235	U	0.00721	0.345	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0285	0.0501	+/-0.0181	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7312
Sample ID: 245960006
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 29.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00509		0.022	+/-0.00267	0.050	pCi/g		CXM2	02/20/10	1337	955380	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00183		0.0219	+/-0.00227	0.050	pCi/g		HAKB	02/13/10	2135	949824	5
Plutonium-239/240	U	0.0133		0.0166	+/-0.00469	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		7.59		0.0951	+/-0.565	0.100	pCi/g		HAKB	02/13/10	2124	949825	6
Uranium-235/236		0.405		0.0606	+/-0.0521	0.100	pCi/g						
Uranium-238		7.64		0.0649	+/-0.568	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.00654		0.125	+/-0.0396	0.200	pCi/g		MXR1	02/12/10	1548	948717	7
Bismuth-211	UI	4.20	R,R5a	0.395	+/-0.340		pCi/g						
Bismuth-214		1.32		0.148	+/-0.120	0.200	pCi/g						
Cadmium-109	UI	2.11	R,R5a	1.34	+/-0.445		pCi/g						
Cerium-139	U	-0.0234		0.0562	+/-0.0175	0.050	pCi/g						
Cesium-134	U	0.111		0.118	+/-0.0473	0.100	pCi/g						
Cesium-137		0.348		0.0764	+/-0.0519	0.100	pCi/g						
Cobalt-60	U	0.0248		0.0902	+/-0.0253	0.100	pCi/g						
Europium-152	U	-0.000504		0.197	+/-0.060	0.200	pCi/g						
Lanthanum-140	U	-0.103		0.167	+/-0.0606		pCi/g						
Lead-212		1.69		0.0986	+/-0.107	0.100	pCi/g						
Lead-214		1.46		0.138	+/-0.124	0.100	pCi/g						
Mercury-203	U	-0.0187		0.0798	+/-0.0237	0.100	pCi/g						
Potassium-40		19.9		0.509	+/-1.29	1.00	pCi/g						
Radium-223	U	-0.261		1.24	+/-0.426		pCi/g						
Radium-224	UI	4.50	R,R5a	1.12	+/-0.552		pCi/g						
Radium-226		1.32		0.148	+/-0.120		pCi/g						
Radium-228		1.54		0.254	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.156		0.701	+/-0.209	0.800	pCi/g						
Sodium-22	U	-0.03		0.082	+/-0.0274	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7312
Sample ID: 245960006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0042	0.0766	+/-0.0264		pCi/g						
Thallium-208		0.570	0.0694	+/-0.0534	0.080	pCi/g						
Thorium-227	U	-0.263	0.682	+/-0.222		pCi/g						
Thorium-231	U	-0.261	1.24	+/-0.426		pCi/g						
Thorium-234		8.43	1.16	+/-1.04	2.00	pCi/g						
Tin-113	U	-0.00517	0.0912	+/-0.0273	0.100	pCi/g						
Uranium-235		0.549	0.369	+/-0.232	0.500	pCi/g						
Yttrium-88	U	0.0029	0.0745	+/-0.0226	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Am-05-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	66.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7313
Sample ID: 245960007
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.72%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00181		0.0232	+/-0.00155	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0218	+/-0.00142	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.000793		0.0164	+/-0.00247	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.984		0.091	+/-0.0917	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.102		0.058	+/-0.0226	0.100	pCi/g						
Uranium-238		1.17		0.0621	+/-0.105	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.16		0.261	+/-0.0862	0.200	pCi/g		MXR1	02/12/10	1549	948717	5
Bismuth-211	UI	3.64	R,R5a	0.234	+/-0.213		pCi/g						
Bismuth-214		1.16		0.083	+/-0.0813	0.200	pCi/g						
Cadmium-109	UI	2.59	R,R5a	1.13	+/-0.434		pCi/g						
Cerium-139	U	0.0103		0.0406	+/-0.0113	0.050	pCi/g						
Cesium-134	U	0.064		0.0661	+/-0.0207	0.100	pCi/g						
Cesium-137	U	0.00697		0.0474	+/-0.0137	0.100	pCi/g						
Cobalt-60	U	-0.0152		0.0488	+/-0.0156	0.100	pCi/g						
Europium-152	U	0.0302		0.122	+/-0.0443	0.200	pCi/g						
Lanthanum-140	U	-0.0221		0.0936	+/-0.0351		pCi/g						
Lead-212		1.57		0.0723	+/-0.0723	0.100	pCi/g						
Lead-214		1.27		0.0814	+/-0.081	0.100	pCi/g						
Mercury-203	UI	0.0601	R,R5a	0.0487	+/-0.0207	0.100	pCi/g						
Potassium-40		19.2		0.347	+/-0.912	1.00	pCi/g						
Radium-223	U	-0.0218		0.835	+/-0.289		pCi/g						
Radium-224	UI	4.21	R,R5a	0.822	+/-0.552		pCi/g						
Radium-226		1.16		0.083	+/-0.0813		pCi/g						
Radium-228		1.57		0.147	+/-0.151	0.500	pCi/g						
Ruthenium-106	U	0.083		0.407	+/-0.121	0.800	pCi/g						
Sodium-22	U	-0.00867		0.0504	+/-0.0156	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7313
Sample ID: 245960007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.0899	R,R5a	0.0554	+/-0.0161		pCi/g						
Thallium-208		0.480		0.0448	+/-0.0361	0.080	pCi/g						
Thorium-227	U	-0.0212		0.517	+/-0.153		pCi/g						
Thorium-231	U	-0.0218		0.835	+/-0.289		pCi/g						
Thorium-234		2.31		2.08	+/-0.930	2.00	pCi/g						
Tin-113	U	-0.00883		0.0544	+/-0.016	0.100	pCi/g						
Uranium-235	U	-0.172		0.289	+/-0.0924	0.500	pCi/g						
Yttrium-88	U	-0.00487		0.0397	+/-0.0125	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7314
Sample ID: 245960008
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 32.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00281		0.0183	+/-0.0018	0.050	pCi/g		CXM2	02/20/10	1337	955380	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.000397		0.0218	+/-0.00175	0.050	pCi/g		HAKB	02/13/10	2135	949824	5
Plutonium-239/240	U	0.00567		0.0164	+/-0.00285	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.47		0.0968	+/-0.203	0.100	pCi/g		HAKB	02/23/10	2117	954007	6
Uranium-235/236		0.166		0.0617	+/-0.0305	0.100	pCi/g						
Uranium-238		2.99		0.0661	+/-0.241	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0119		0.302	+/-0.0999	0.200	pCi/g		MXR1	02/12/10	1553	948717	9
Bismuth-211	UI	4.07	R,R5a	0.386	+/-0.339		pCi/g						
Bismuth-214		1.21		0.119	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.10	R,R5a	1.46	+/-0.507		pCi/g						
Cerium-139	U	0.0111		0.0598	+/-0.0171	0.050	pCi/g						
Cesium-134	U	0.0437		0.107	+/-0.031	0.100	pCi/g						
Cesium-137		0.271		0.0681	+/-0.0347	0.100	pCi/g						
Cobalt-60	U	0.0239		0.0773	+/-0.0217	0.100	pCi/g						
Europium-152	U	-0.00967		0.182	+/-0.063	0.200	pCi/g						
Lanthanum-140	U	-0.0192		0.149	+/-0.0482		pCi/g						
Lead-212		1.64		0.107	+/-0.105	0.100	pCi/g						
Lead-214		1.41		0.139	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.0362		0.0838	+/-0.024	0.100	pCi/g						
Potassium-40		22.0		0.554	+/-1.30	1.00	pCi/g						
Radium-223	U	-0.283		1.30	+/-0.398		pCi/g						
Radium-224	UI	4.84	R,R5a	1.22	+/-0.661		pCi/g						
Radium-226		1.21		0.119	+/-0.107		pCi/g						
Radium-228		1.59		0.228	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	-0.168		0.601	+/-0.185	0.800	pCi/g						
Sodium-22	U	-0.0113		0.0825	+/-0.0253	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7314
Sample ID: 245960008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.0988	R,R5a	0.0872	+/-0.0266		pCi/g						
Thallium-208		0.566		0.0609	+/-0.0548	0.080	pCi/g						
Thorium-227	U	-0.274		0.748	+/-0.229		pCi/g						
Thorium-231	U	-0.283		1.30	+/-0.398		pCi/g						
Thorium-234		3.12		2.47	+/-1.27	2.00	pCi/g						
Tin-113	U	-0.0293		0.0841	+/-0.0266	0.100	pCi/g						
Uranium-235	U	-0.0861		0.406	+/-0.120	0.500	pCi/g						
Yttrium-88	U	-0.0122		0.0634	+/-0.0209	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Am-05-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE EML HASL-300, U-02-RC Modified
9	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316
Sample ID: 245960009
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 35.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00352		0.0243	+/-0.003	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00254		0.0207	+/-0.00802	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.00888		0.0156	+/-0.00383	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.05		0.101	+/-0.172	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.108		0.0641	+/-0.0244	0.100	pCi/g						
Uranium-238		2.95		0.0686	+/-0.237	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.149		0.361	+/-0.115	0.200	pCi/g		MXR1	02/12/10	1554	948717	5
Bismuth-211	UI	4.03	R,R5a	0.414	+/-0.316		pCi/g						
Bismuth-214		1.28		0.138	+/-0.112	0.200	pCi/g						
Cadmium-109	UI	2.82	R,R5a	2.03	+/-0.617		pCi/g						
Cerium-139	U	0.0017		0.0605	+/-0.0182	0.050	pCi/g						
Cesium-134	UI	0.186	R,R5a	0.115	+/-0.057	0.100	pCi/g						
Cesium-137		0.260		0.0733	+/-0.0485	0.100	pCi/g						
Cobalt-60	U	0.0285		0.0699	+/-0.0193	0.100	pCi/g						
Europium-152	U	-0.0635		0.193	+/-0.0682	0.200	pCi/g						
Lanthanum-140	U	0.0626		0.189	+/-0.0525		pCi/g						
Lead-212		1.61		0.119	+/-0.0865	0.100	pCi/g						
Lead-214		1.40		0.144	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0255		0.0885	+/-0.0253	0.100	pCi/g						
Potassium-40		18.7		0.557	+/-1.03	1.00	pCi/g						
Radium-223	U	-0.822		1.33	+/-0.420		pCi/g						
Radium-224	UI	4.80	R,R5a	1.36	+/-0.706		pCi/g						
Radium-226		1.28		0.138	+/-0.112		pCi/g						
Radium-228		1.68		0.258	+/-0.222	0.500	pCi/g						
Ruthenium-106	U	0.0585		0.604	+/-0.182	0.800	pCi/g						
Sodium-22	U	-0.0131		0.0782	+/-0.0249	0.080	pCi/g						

SEB
3/10/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316
Sample ID: 245960009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0668	0.0874	+/-0.0275		pCi/g						
Thallium-208		0.553	0.0693	+/-0.0496	0.080	pCi/g						
Thorium-227	U	-0.0604	0.772	+/-0.239		pCi/g						
Thorium-231	U	-0.822	1.33	+/-0.420		pCi/g						
Thorium-234		4.91	2.98	+/-1.17	2.00	pCi/g						
Tin-113	U	-0.00475	0.0902	+/-0.027	0.100	pCi/g						
Uranium-235	U	-0.0472	0.414	+/-0.125	0.500	pCi/g						
Yttrium-88	U	0.0194	0.0699	+/-0.0193	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	83.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range

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3/10/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318
Sample ID: 245960010
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0136		0.0231	+/-0.00467	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00264		0.0216	+/-0.00264	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.0145		0.0162	+/-0.00444	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		4.65		0.0859	+/-0.349	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.252		0.0547	+/-0.0371	0.100	pCi/g						
Uranium-238		7.77		0.0586	+/-0.568	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0199		0.213	+/-0.0708	0.200	pCi/g		MXR1	02/12/10	1624	948717	5
Bismuth-211	UI	4.26	R,R5a	0.399	+/-0.341		pCi/g						
Bismuth-214		1.30		0.132	+/-0.117	0.200	pCi/g						
Cadmium-109	UI	3.32	R,R5a	1.33	+/-0.528		pCi/g						
Cerium-139	U	-0.019		0.0545	+/-0.0176	0.050	pCi/g						
Cesium-134	U	0.0886		0.0999	+/-0.0417	0.100	pCi/g						
Cesium-137		0.259		0.0751	+/-0.0529	0.100	pCi/g						
Cobalt-60	U	-0.000576		0.0728	+/-0.0223	0.100	pCi/g						
Europium-152	U	-0.0389		0.182	+/-0.0652	0.200	pCi/g						
Lanthanum-140	U	0.0676		0.171	+/-0.0536		pCi/g						
Lead-212		1.86		0.100	+/-0.111	0.100	pCi/g						
Lead-214		1.48		0.139	+/-0.125	0.100	pCi/g						
Mercury-203	U	0.00503		0.0782	+/-0.0234	0.100	pCi/g						
Potassium-40		23.6		0.518	+/-1.35	1.00	pCi/g						
Radium-223	U	-0.132		1.30	+/-0.400		pCi/g						
Radium-224	UI	5.99	R,R5a	1.14	+/-0.966		pCi/g						
Radium-226		1.30		0.132	+/-0.117		pCi/g						
Radium-228		1.74		0.258	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	-0.135		0.576	+/-0.179	0.800	pCi/g						
Sodium-22	U	-0.00621		0.0736	+/-0.0228	0.080	pCi/g						

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3/10/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318
Sample ID: 245960010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.089	R,R5a	0.0839	+/-0.025		pCi/g						
Thallium-208		0.553		0.0654	+/-0.0521	0.080	pCi/g						
Thorium-227	U	0.143		0.730	+/-0.215		pCi/g						
Thorium-231	U	-0.132		1.30	+/-0.400		pCi/g						
Thorium-234		9.31		1.88	+/-1.32	2.00	pCi/g						
Tin-113	U	0.0183		0.0849	+/-0.0255	0.100	pCi/g						
Uranium-235		0.492		0.376	+/-0.169	0.500	pCi/g						
Yttrium-88	U	-0.0405		0.040	+/-0.0176	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- > Result is greater than value reported
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- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range

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3/10/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7324
Sample ID: 245960011
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00316		0.0248	+/-0.0023	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00249		0.0203	+/-0.00249	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.00248		0.0153	+/-0.00176	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.04		0.0995	+/-0.0977	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0682		0.0634	+/-0.0189	0.100	pCi/g						
Uranium-238		1.06		0.0679	+/-0.0996	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0971		0.355	+/-0.102	0.200	pCi/g		MXR1	02/12/10	1631	948717	5
Bismuth-211	UI	4.14	R,R5a	0.303	+/-0.268		pCi/g						
Bismuth-214		1.20		0.103	+/-0.0822	0.200	pCi/g						
Cadmium-109	UI	2.71	R,R5a	1.36	+/-0.517		pCi/g						
Cerium-139	U	0.00232		0.046	+/-0.0136	0.050	pCi/g						
Cesium-134	UI	0.096	R,R5a	0.0959	+/-0.0286	0.100	pCi/g						
Cesium-137	U	-0.0302		0.0604	+/-0.0187	0.100	pCi/g						
Cobalt-60	U	0.00303		0.0635	+/-0.0188	0.100	pCi/g						
Europium-152	U	0.0866		0.154	+/-0.0473	0.200	pCi/g						
Lanthanum-140	U	-0.106		0.127	+/-0.0472		pCi/g						
Lead-212		1.65		0.0865	+/-0.0866	0.100	pCi/g						
Lead-214		1.44		0.106	+/-0.100	0.100	pCi/g						
Mercury-203	U	0.00405		0.0661	+/-0.0189	0.100	pCi/g						
Potassium-40		19.8		0.603	+/-1.06	1.00	pCi/g						
Radium-223	U	-0.576		1.05	+/-0.324		pCi/g						
Radium-224	UI	4.64	R,R5a	0.985	+/-0.654		pCi/g						
Radium-226		1.20		0.103	+/-0.0822		pCi/g						
Radium-228		1.68		0.194	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.00296		0.474	+/-0.146	0.800	pCi/g						
Sodium-22	U	0.00202		0.0696	+/-0.0206	0.080	pCi/g						

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3/10/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7324
Sample ID: 245960011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0123	0.0576	+/-0.0193		pCi/g						
Thallium-208		0.504	0.0557	+/-0.0458	0.080	pCi/g						
Thorium-227	U	0.0518	0.588	+/-0.167		pCi/g						
Thorium-231	U	-0.576	1.05	+/-0.324		pCi/g						
Thorium-234	U	1.38	2.99	+/-0.828	2.00	pCi/g						
Tin-113	U	-0.0291	0.0646	+/-0.0202	0.100	pCi/g						
Uranium-235	U	-0.0498	0.314	+/-0.0939	0.500	pCi/g						
Yttrium-88	U	0.0162	0.0546	+/-0.0151	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

SEB
3/10/10

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1511C

REQUEST NUMBER: 10-1511

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245960, 245965

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7309	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7308	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7308	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7315	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7315	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7317	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7317	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7319	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7319	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7312	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7312	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7313	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7313	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7314	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7314	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7316	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7316	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7318	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7318	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7326	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-7326	1	POLY	SW-846:6850	Ice	W
RE15-10-7326	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-7324	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7324	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	2/1/10	3:00	Dionne Francis [signature]	2/2/10	0910

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1511
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:AM-241	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOPU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:6020	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:6850	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:7470A	1	RE15-10-7326	W	1/28/2010	
	SW-846:7471A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:9012A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1511

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 245960 245965
SDG: 10-1511

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1511
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245960 and 245965
SDG: 10-1511

Table of Contents

Case Narrative **1**

Chain of Custody and Supporting Documentation **5**

Data Review Qualifier Flag Definition Sheet **19**

LC/MS/MS Perchlorate Analysis **21**
- Sample Data Summary 26
- Quality Control Summary 38
- Sample Data 70
- Standards Data 93
- Quality Control 122
- Miscellaneous Data 127

LC/MS/MS Perchlorate Analysis **136**
- Sample Data Summary 141
- Quality Control Summary 143
- Sample Data 170
- Standards Data 173
- Quality Control 195
- Miscellaneous Data 200

Metals Analysis **208**
- Case Narrative 209
- Sample Data Summary 215
- Quality Control Summary 227
- Standards 287
- Raw Data 299
- Miscellaneous 664

Metals Analysis **709**
- Case Narrative 710
- Sample Data Summary 715
- Quality Control Summary 717
- Standards 770
- Raw Data 782
- Miscellaneous 1099

General Chemistry Analysis **1146**
- Case Narrative 1147
- Sample Data Summary 1152

Quality Control Summary 1165
Instrument QC Data Summary 1168
Cyanide, Total 1170
Miscellaneous 1188

General Chemistry Analysis 1191
Case Narrative 1192
Sample Data Summary 1197
Quality Control Summary 1200
Instrument QC Data Summary 1203
Cyanide, Total 1205

Radiological Analysis 1219
Sample Data Summary 1236
Quality Control Data 1271
Raw Data 1279
Background and Efficiency Data 1986
Standards Data 2150
Runlogs 2182

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245960 and 245965
SDG # : 10-1511

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13-15,19C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
245965001	RE15-10-7326

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1511C

REQUEST NUMBER: 10-1511

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 245960, 245965

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7309	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7309	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7308	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7308	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7315	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7315	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7317	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7317	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7319	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7319	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7312	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7312	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7313	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7313	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7314	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7314	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7316	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7316	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7318	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7318	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7326	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-7326	1	POLY	SW-846:6850	Ice	W
RE15-10-7326	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-7324	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7324	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	2/1/10	3:00	Dionne Francis [signature]	2/2/10	0910

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1511
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:AM-241	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOPU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:6020	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:6850	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1511

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6850	1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	
	SW-846:7470A	1	RE15-10-7326	W	1/28/2010	
	SW-846:7471A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
	SW-846:9012A	1	RE15-10-7308	R	1/28/2010	
		1	RE15-10-7309	R	1/28/2010	
		1	RE15-10-7312	R	1/28/2010	
		1	RE15-10-7313	R	1/28/2010	
		1	RE15-10-7314	R	1/28/2010	
		1	RE15-10-7315	R	1/28/2010	
		1	RE15-10-7316	R	1/28/2010	
		1	RE15-10-7317	R	1/28/2010	
		1	RE15-10-7318	R	1/28/2010	
		1	RE15-10-7319	R	1/28/2010	
		1	RE15-10-7324	R	1/28/2010	
		1	RE15-10-7326	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1511

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1511**
Received By: Dionne Francis	**Date Received: February 2, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C	**7209 7849 7886 2C**	**7209 7849 7967 3C**	**7209 7849 7739 19C**
7209 7849 7772 1C	**7209 7849 7901 2C**	**7209 7849 7945 4C**	
7209 7849 7934 1C	**7209 7849 7853 2C**	**7209 7849 7810 5C**	
7209 7849 7831 1C	**7209 7849 7875 2C**	**7209 7849 7897 5C**	
7209 7849 7783 1C	**7209 7849 7956 2C**	**7209 7849 7728 13C**	
7209 7849 7864 1C	**7209 7849 7794 2C**	**7209 7849 7706 13C**	
7209 7849 7923 1C	**7209 7849 7820 2C**	**7209 7849 7717 14C**	
7209 7849 7761 1C	**7209 7849 7809 2C**	**7209 7849 7750 15C**	
7209 7849 7842 1C	**7209 7849 7912 3C**	**7209 7849 7740 15C**	

PM (or PMA) review: Initials P. ID-LD. Date 2/3/10

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CHG: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

0c

FedEx Express

TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 2
MPS# 0263 7209 7849 7772
Mstr# 7209 7849 7761 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9068
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

1c

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1 of 2
TRK# 0201 7209 7849 7934
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9068
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1c

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1 of 2
TRK# 0201 7209 7849 7831
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PRIORITY OVERNIGHT

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29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1C

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1 of 2
TRK# 0201 7209 7849 7783
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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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CHS

XX CHSA

Part# 158148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 784[illegible] 7864
Mstr# 7209 7[illegible] 7853 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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CHS

XX CHSA

Part# 158148-434 NRITV3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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2 of 2
MPS# 0263 7209 7849 7923
Mstr# 7209 7849 7912 0201

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
TRK# 0201 7209 7849 7761
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 2
MPS# 0263 7209 7849 7842
Matr# 7209 7849 7831 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

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2 of 2
MPS# 0263 7209 7849 7886
Matr# 7209 7849 7875 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

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2 of 2
MPS# 0263 7209 7849 7901
Matr# 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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TRK# 0201 7209 7849 7853
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TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7875
TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
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Part # 156148-434 NATT V04.0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

2C

FedEx Express

1 of 2
TRK# 0201 7209 7849 7956
TUE - 02FEB A1
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NATT V04.0

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7794
Mstr# 7209 7849 7783 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

3 of 3
MPS# 0263 7209 7849 7820
Mstr# 7209 7849 7809 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

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2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR3A052VA00

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FedEx Express

1 of 3

TUE - 02FEB A1

TRK# [illegible]

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TRK# 0201 7209 7849 7809

TUE - 02 FEB A1
PRIORITY OVERNIGHT

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Emp# 133990 01FEB10 SAFA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

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1 of 2

TUE - 02FEB A1

TRK# 0201 7209 7849 7912
MM MASTER MM

PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 09-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR1A015AGWL0

3C

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2 of 2

TUE - 02FEB A1

MPS# 0263 7209 7849 7967
Mstr# 7209 7849 7956 0201

PRIORITY OVERNIGHT

29407
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CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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2 of 2

TUE - 02FEB A1

MPS# 0263 7209 7849 7945
Mstr# 7209 7849 7934 0201

PRIORITY OVERNIGHT

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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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FedEx Express

2 of 3
MPS# 0263 7209 7849 7810
Mstr# 7209 7849 7800 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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5°

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1 of 2
TRK# 0201 7209 7849 7897
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7728
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR2A0515BYD0

13c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7706
Mstr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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CHS

04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

14c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7717
Mstr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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CHS

XX CHSA

Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

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REF: 6B010AMR2A0515BYDO

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2 of 2
MPS# 0263 7209 7849 7750
Mstr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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1 of 2
TRK# 0201 7209 7849 7740
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TUE - 02FEB A1
PRIORITY OVERNIGHT

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CHS

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR2A0515BYDO

19°

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2 of 2
MPS# 0263 7209 7849 7739
Mstr# 7209 7849 7728 0201

TUE - 02FEB A1
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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1511

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950054
Prep Batch Number:	950053

Sample Analysis

Sample ID	**Client ID**
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202035635	Interference Check Sample (ICS)
1202035631	Method Blank (MB)
1202035632	Laboratory Control Sample (LCS)
1202035633	245938002(RE46-10-11964) Matrix Spike (MS)
1202035634	245938002(RE46-10-11964) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245938002 (RE46-10-11964) from SDG 10-1506 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K. Meus **Date:** 01/25/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7309

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960001

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.892	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate Isotope Ratio			3.13			1	21-FEB-10 02:06	per0220091a
14797-73-0	Perchlorate-101	.555	2.22	0.905	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:06	per0220091a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7308

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960002

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:16	per0220092a
14797-73-0	Perchlorate-101	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate-O(18)			6.42	ug/kg		1	21-FEB-10 02:16	per0220092a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7315

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960003

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 91.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:25	per0220093a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:25	per0220093a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7317

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960004

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:03	per0220097a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate-O(18)			5.53	ug/kg		1	21-FEB-10 03:03	per0220097a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7319

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960005

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.618	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate Isotope Ratio			3.31			1	21-FEB-10 03:13	per0220098a
14797-73-0	Perchlorate-101	.56	2.24	0.594	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate-O(18)			5.47	ug/kg		1	21-FEB-10 03:13	per0220098a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7312

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960006

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:23	per0220099a
14797-73-0	Perchlorate-101	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate-O(18)			6.70	ug/kg		1	21-FEB-10 03:23	per0220099a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7313

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960007

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.928	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate Isotope Ratio			3.18			1	21-FEB-10 03:32	per0220100a
14797-73-0	Perchlorate-101	.554	2.22	0.927	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 03:32	per0220100a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7314

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960008

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:42	per0220101a
14797-73-0	Perchlorate-101	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate-O(18)			6.84	ug/kg		1	21-FEB-10 03:42	per0220101a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7316

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960009

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:51	per0220102a
14797-73-0	Perchlorate-101	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate-O(18)			7.68	ug/kg		1	21-FEB-10 03:51	per0220102a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7318

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960010

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	1.49	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate Isotope Ratio			3.21			1	21-FEB-10 04:01	per0220103a
14797-73-0	Perchlorate-101	.587	2.35	1.48	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate-O(18)			5.42	ug/kg		1	21-FEB-10 04:01	per0220103a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7324

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960011

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.946	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate Isotope Ratio			3.01			1	21-FEB-10 04:11	per0220104a
14797-73-0	Perchlorate-101	.557	2.23	0.998	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 04:11	per0220104a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1511

Extract Batch Code: 950053

Date Filtered: 15–FEB–10

Matrix: SOIL

Sample ID: 1202035632

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.14	ug/kg	107		70 – 130
Perchlorate Isotope Ratio		3.28				–
Perchlorate–101	2.00	2.08	ug/kg	104		70 – 130
Perchlorate–O(18)		4.88	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1511

Extract Batch Code: 950053

Date Filtered: 15–FEB–10

Matrix: SOIL

Sample ID: 1202035635

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.1	ug/kg	105		70 – 130
Perchlorate Isotope Ratio		3.23				
Perchlorate–101	2.00	2.07	ug/kg	103		70 – 130
Perchlorate–O(18)		5.01	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220077a
Date: 20-Feb-2010
Time: 23:52:19
ID: 1202035635
Vial: 2:5,C

|LANL|950054|SOLZO|ZLS|1|

0221-10

Perchlorate

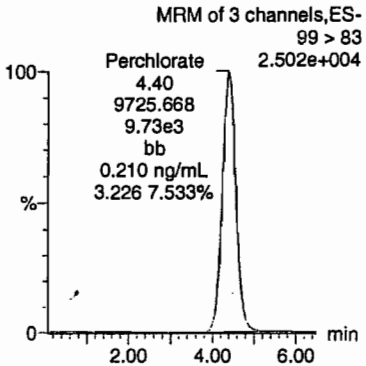

Perchlorate

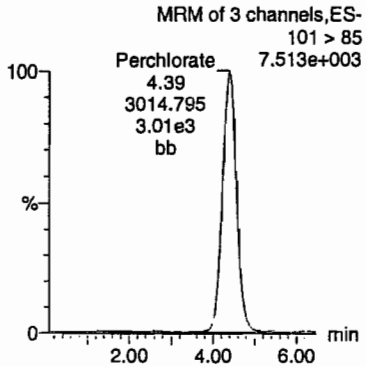

Perchlorate-101

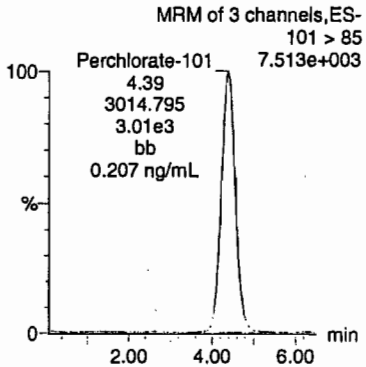

Perchlorate-O(18)

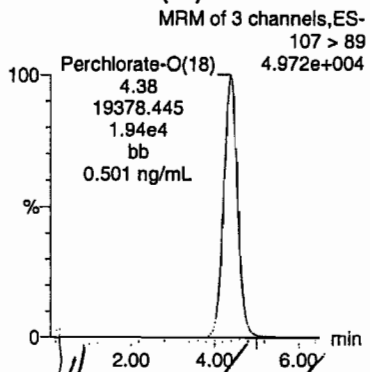

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035635	Perchlorate	99 > 83	4.40	9725.668	9725.668	bb			0.2100	104.99	4.99	368.233	3.23
1202035635	Perchlorate-101	101 > 85	4.39	3014.795	3014.795	bb			0.2068	103.39	3.39	73.018	
1202035635	Perchlorate-O(18)	107 > 89	4.38	19378.445	19378.445	bb			0.5005	100.10	0.10	4724.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1511

Extract Batch Code: 950053

Date Extracted: 15–FEB–10

GEL MS/PS ID: 1202035633

Client ID: RE46–10–11964

GEL MSD/PSD ID: 1202035634

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.22	0.0932	ug/kg	2.38	103	2.4	104	.746	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.18		3.15		0		–
Perchlorate–101	2.22	0.0794	ug/kg	2.37	103	2.42	105	1.78	30	75 – 125
Perchlorate–O(18)	0	5.51	ug/kg	5.50		5.54		.671		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	20–FEB–10	per0220001a	IPB001
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220001a	IPB001
Perchlorate	0.00	0	NA	20–FEB–10	per0220002a	IPB001
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220002a	IPB001

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uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ethod: C:\MassLynx\Perchlorate.PRO\MethDB\per022010a.mdb 21 Feb 2010 10:20:41
alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022010a.cdb 21 Feb 2010 10:20:58

ame: per0220001a
ate: 20-Feb-2010
me: 11:45:54
: IPB001
al: 1:1,A

02-21-10

erchlorate

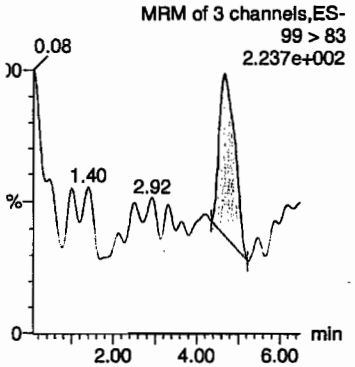

Perchlorate

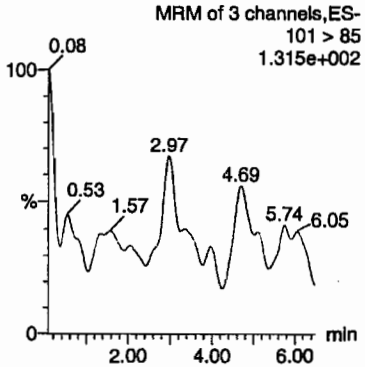

Perchlorate-101

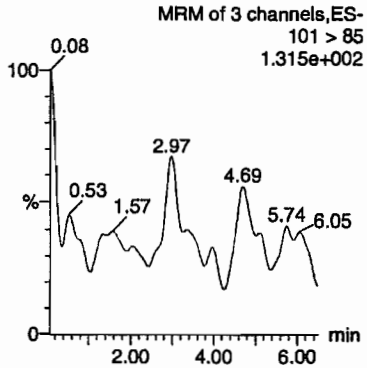

Perchlorate-O(18)

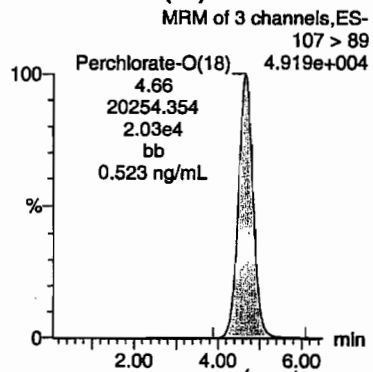

dhw 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
3001	Perchlorate	99 > 83	4.66	61.000	61.000	bb			0.0013			9.339	0.00
3001	Perchlorate-101	101 > 85											
3001	Perchlorate-O(18)	107 > 89	4.66	20254.354	20254.354	bb			0.5231	104.63	4.63	6035.7...	

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	20–FEB–10	per0220008a	IPB002
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220008a	IPB002
Perchlorate	0.00	0	NA	20–FEB–10	per0220010a	IPB003
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220010a	IPB003
Perchlorate	0.00	0	NA	20–FEB–10	per0220015a	IPB004
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220015a	IPB004
Perchlorate	0.00	0	NA	20–FEB–10	per0220023a	IPB005
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220023a	IPB005
Perchlorate	0.00	0	NA	20–FEB–10	per0220036a	IPB006
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220036a	IPB006
Perchlorate	0.00	0	NA	20–FEB–10	per0220043a	IPB007
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220043a	IPB007
Perchlorate	0.00	0	NA	20–FEB–10	per0220049a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220049a	IPB008
Perchlorate	0.00	0	NA	20–FEB–10	per0220062a	IPB009
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220062a	IPB009
Perchlorate	0.00	0	NA	20–FEB–10	per0220073a	IPB010
Perchlorate–101	0.00	0	NA	20–FEB–10	per0220073a	IPB010
Perchlorate	0.00	0	NA	21–FEB–10	per0220084a	IPB011
Perchlorate–101	0.00	0	NA	21–FEB–10	per0220084a	IPB011
Perchlorate	0.00	0	NA	21–FEB–10	per0220095a	IPB012
Perchlorate–101	0.00	0	NA	21–FEB–10	per0220095a	IPB012
Perchlorate	0.00	0	NA	21–FEB–10	per0220106a	IPB013
Perchlorate–101	0.00	0	NA	21–FEB–10	per0220106a	IPB013

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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Date: 20-Feb-2010
Time: 12:52:34
ID: IPB002
Vial: 1:1,A

CWW
02-21-10

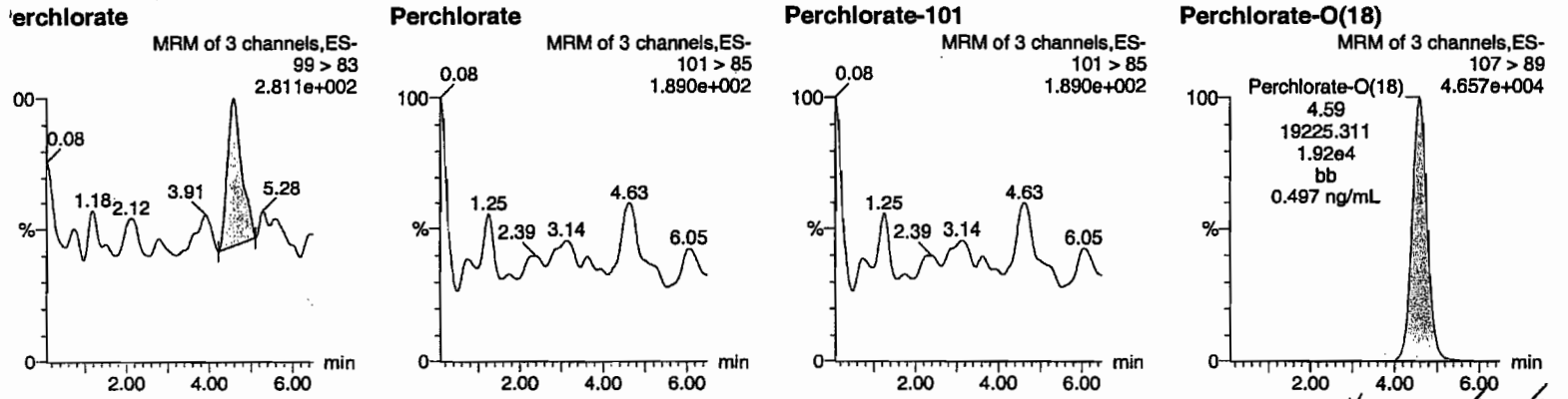

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ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	4.58	63.464	63.464	bb			0.0014			18.597	0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	4.59	19225.311	19225.311	bb			0.4966	99.31	-0.69	9318.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220010a
Date: 20-Feb-2010
Time: 13:11:39
ID: IPB003
Vial: 1:1,A

CWW 02-21-10

Perchlorate

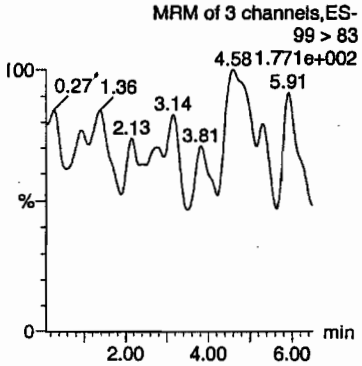

Perchlorate

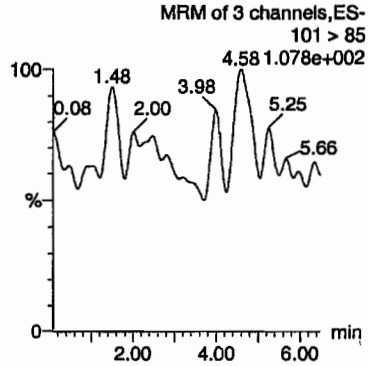

Perchlorate-101

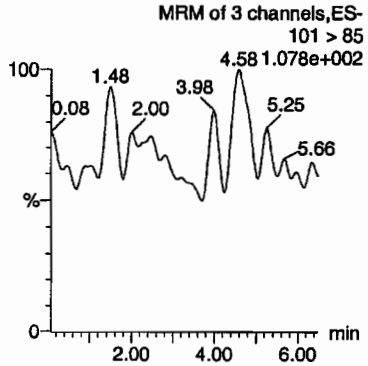

Perchlorate-O(18)

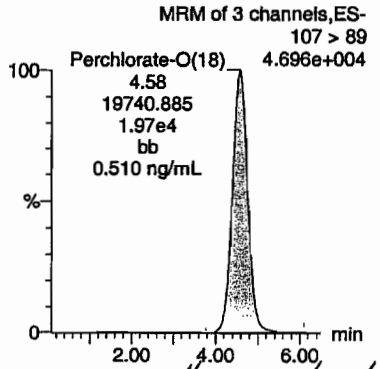

hmm 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	4.58	19740.885	19740.885	bb			0.5099	101.97	1.97	4824.8...	

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luantify Sample Report MassLynx 4.0 SP4
'he GEL Group, LLC Analyst: Charlers W. Wilson

'ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

'ame: per0220015a
'ate: 20-Feb-2010
ime: 13:59:24
): IPB004
ial: 1:1,A

AW 02-21-10

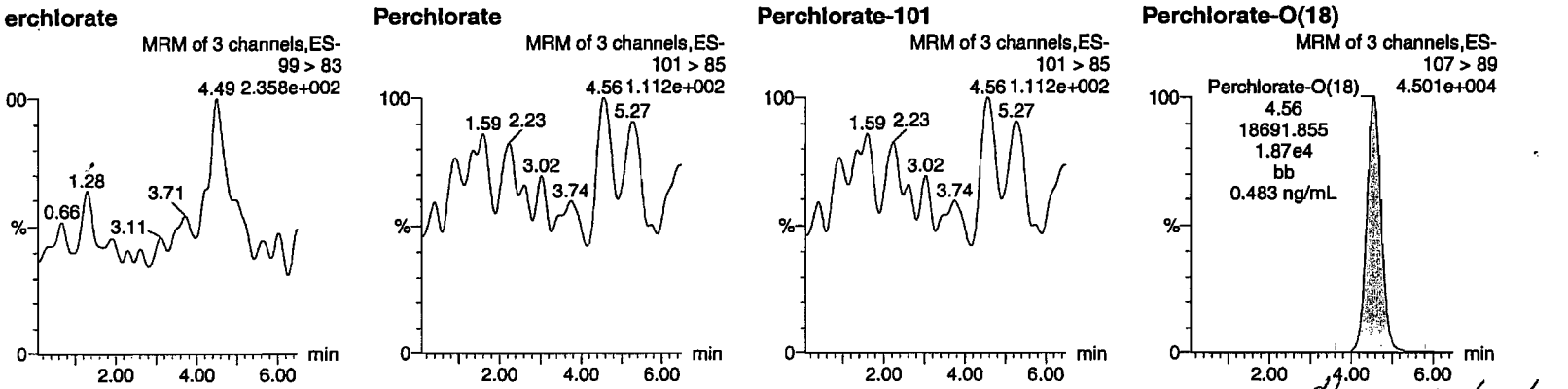

Hmm 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B004	Perchlorate	99 > 83											0.00
'B004	Perchlorate-101	101 > 85											
'B004	Perchlorate-O(18)	107 > 89	4.56	18691.855	18691.855	bb			0.4828	96.56	-3.44	7592.8...	

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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Date: 20-Feb-2010
Time: 15:15:43
ID: IPB005
Vial: 1:1,A

QWO
02-21-10

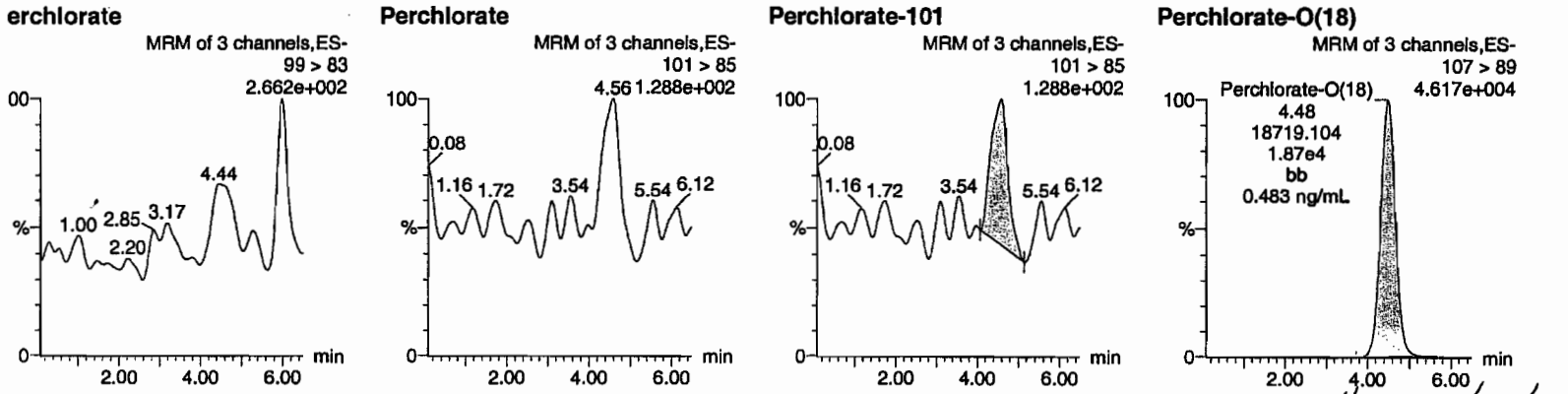

HMW 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B005	Perchlorate	99 > 83											0.00
B005	Perchlorate-101	101 > 85	4.56	34.937	34.937	bb			0.0024			13.428	
B005	Perchlorate-O(18)	107 > 89	4.48	18719.104	18719.104	bb			0.4835	96.70	-3.30	3565.0...	

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Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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Date: 20-Feb-2010
Time: 17:19:52
ID: IPB006
Vial: 1:1,A

CWW 02-21-10

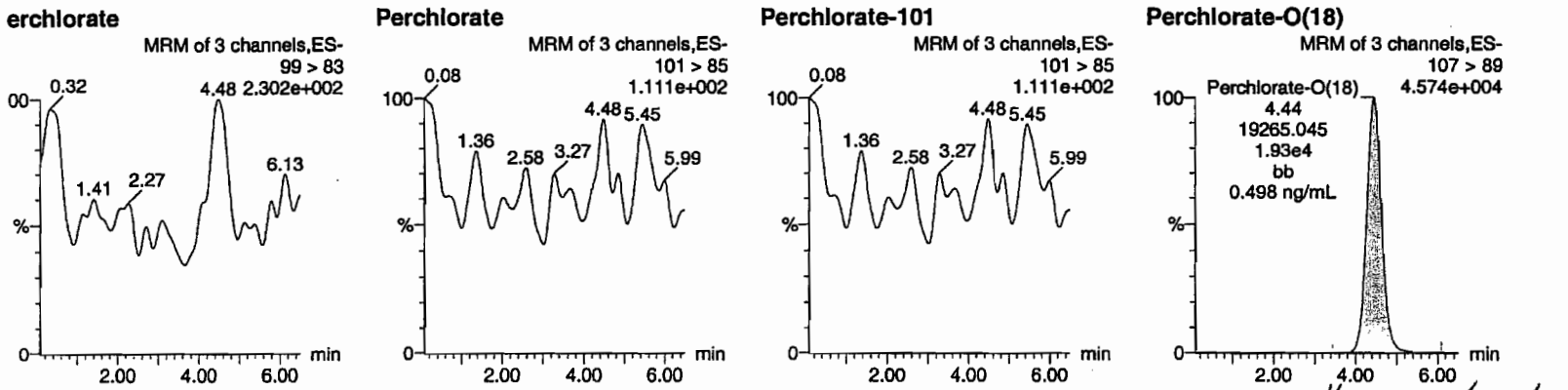

HMM 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B006	Perchlorate	99 > 83											0.00
B006	Perchlorate-101	101 > 85											
B006	Perchlorate-O(18)	107 > 89	4.44	19265.045	19265.045	bb			0.4976	99.52	-0.48	6877.1...	

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Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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Date: 20-Feb-2010
Time: 18:26:42
ID: IPB007
Vial: 1:1,A

CWW 02-21-10

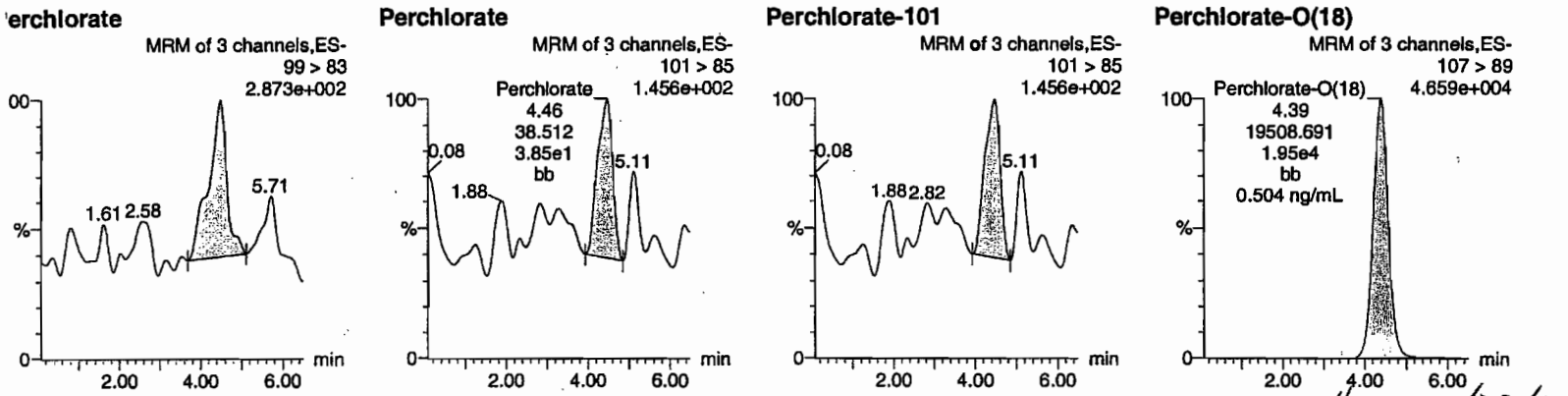

HM 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	4.48	89.974	89.974	bb			0.0019			15.691	2.34
IPB007	Perchlorate-101	101 > 85	4.46	38.512	38.512	bb			0.0026			5.432	
IPB007	Perchlorate-O(18)	107 > 89	4.39	19508.691	19508.691	bb			0.5039	100.78	0.78	7058.6...	

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Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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Date: 20-Feb-2010
Time: 19:24:17
ID: IPB008
Vial: 1:1,A

CW 02-21-10

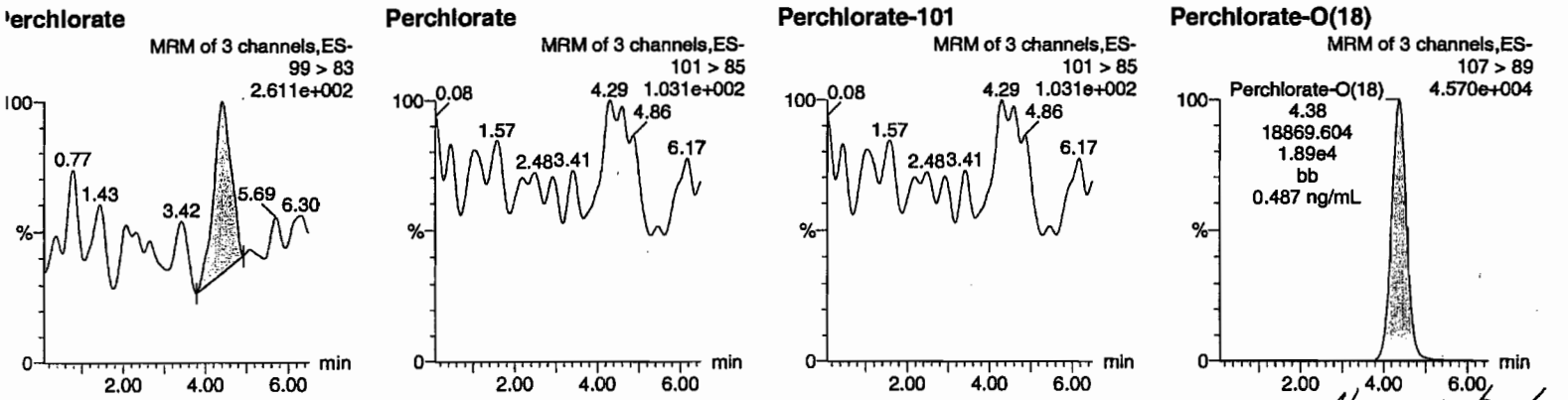

HMM 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83	4.40	84.592	84.592	bb			0.0018			10.288	0.00
PB008	Perchlorate-101	101 > 85											
PB008	Perchlorate-O(18)	107 > 89	4.38	18869.604	18869.604	bb			0.4874	97.47	-2.53	1484.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220062a
Date: 20-Feb-2010
Time: 21:28:38
ID: IPB009
Vial: 1:1,A

Cwa
02-21-10

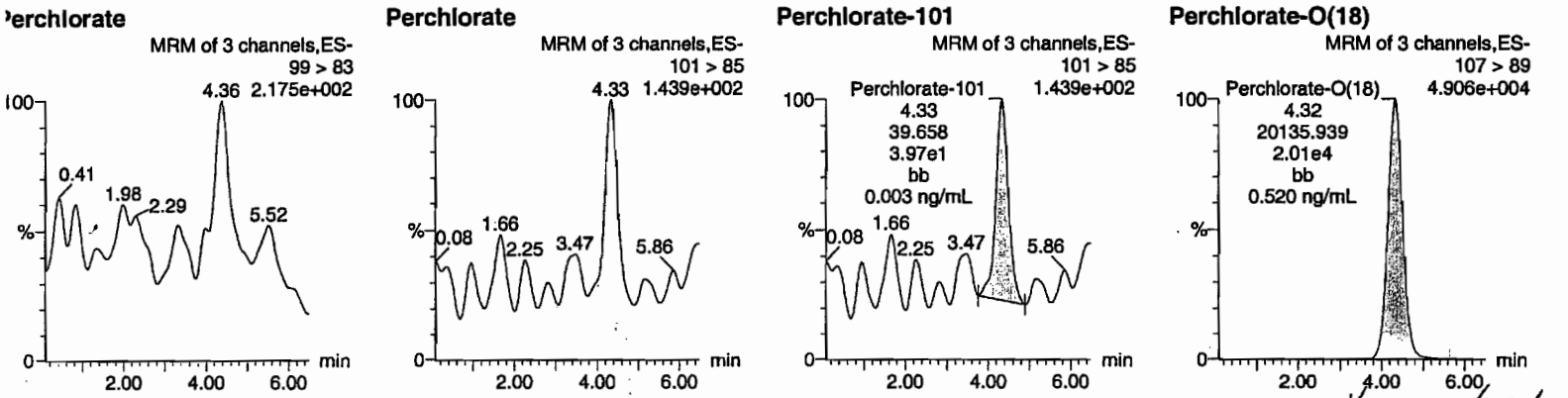

Hmm 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85	4.33	39.658	39.658	bb			0.0027			13.481	
IPB009	Perchlorate-O(18)	107 > 89	4.32	20135.939	20135.939	bb			0.5201	104.02	4.02	4395.0...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220073a
Date: 20-Feb-2010
Time: 23:13:57
D: IPB010
Vial: 1:1,A

CWW 02-21-10

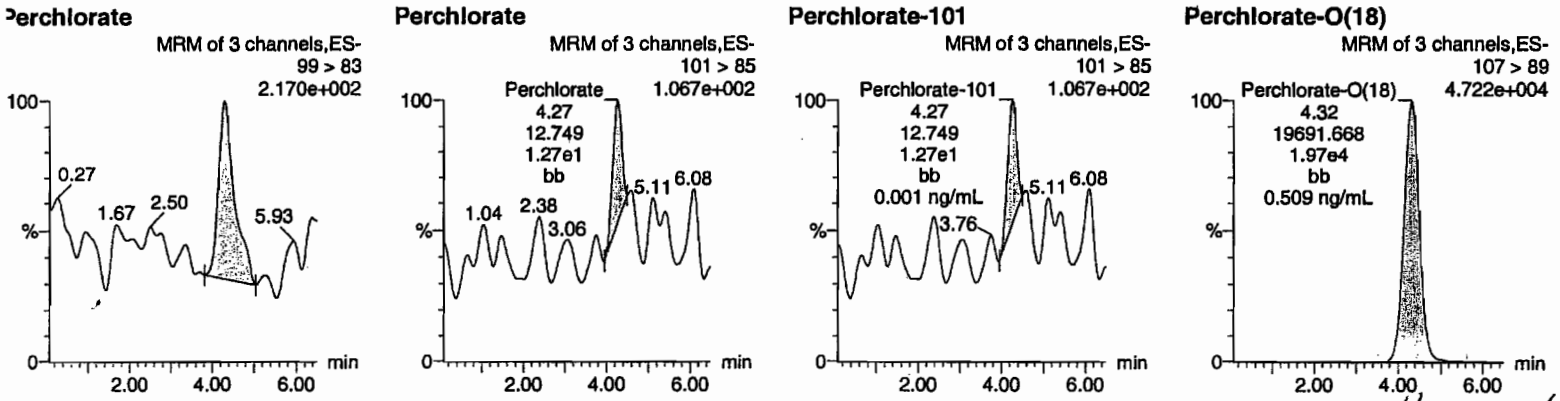

HM 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB010	Perchlorate	99 > 83	4.29	66.247	66.247	bb			0.0014			11.963	5.20
PB010	Perchlorate-101	101 > 85	4.27	12.749	12.749	bb			0.0009			8.284	
PB010	Perchlorate-O(18)	107 > 89	4.32	19691.668	19691.668	bb			0.5086	101.72	1.72	4522.9...	

OKAY LW 0500

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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Date: 21-Feb-2010
Time: 00:59:25
ID: IPB011
Vial: 1:1,A

OWD 02-21-10

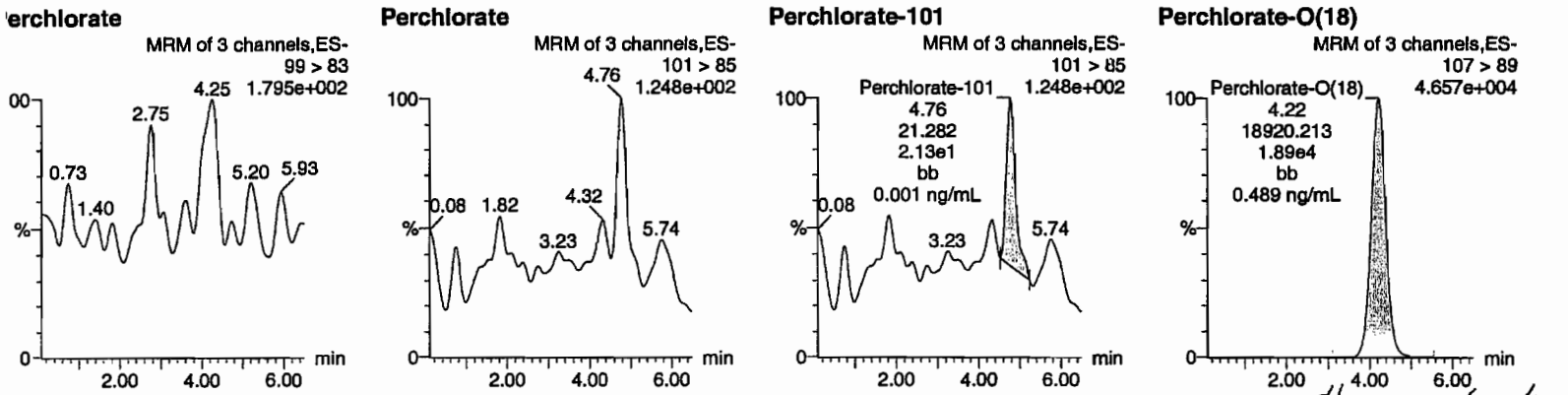

HM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB011	Perchlorate	99 > 83											0.00
IPB011	Perchlorate-101	101 > 85	4.76	21.282	21.282	bb			0.0015			21.790	
IPB011	Perchlorate-O(18)	107 > 89	4.22	18920.213	18920.213	bb			0.4887	97.74	-2.26	4383.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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Date: 21-Feb-2010
Time: 02:44:53
ID: IPB012
Vial: 1:1,A

CWW 02/22/10

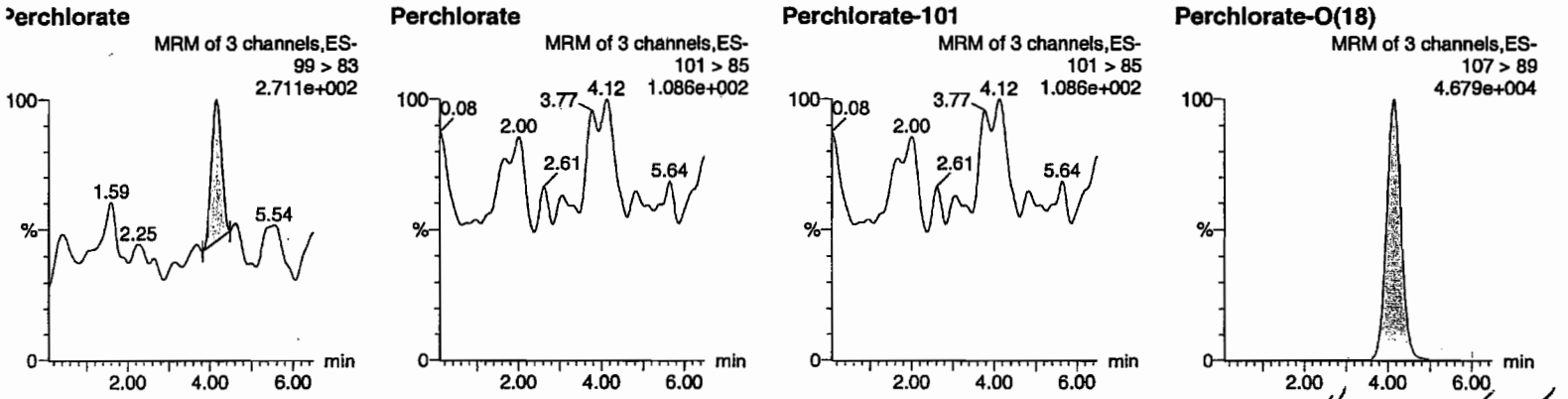

HMM 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB012	Perchlorate	99 > 83	4.15	42.382	42.382	bb			0.0009			18.969	0.00
PB012	Perchlorate-101	101 > 85											
PB012	Perchlorate-O(18)	107 > 89	4.14	18727.615	18727.615	bb			0.4837	96.74	-3.26	7863.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220106a
Date: 21-Feb-2010
Time: 04:30:26
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Vial: 1:1,A

CWW 02-21-10

Perchlorate

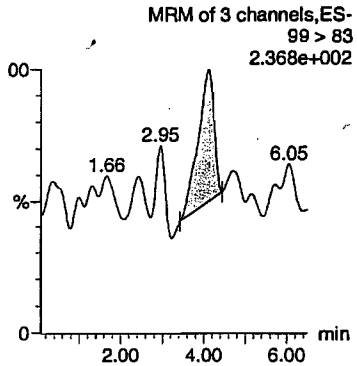

Perchlorate

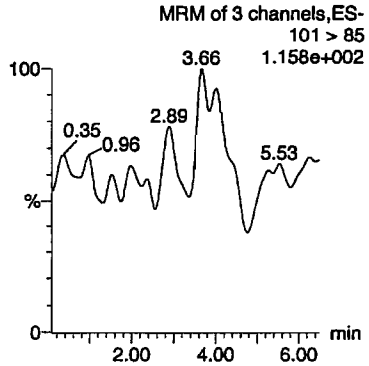

Perchlorate-101

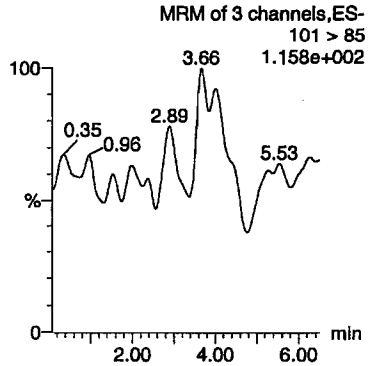

Perchlorate-O(18)

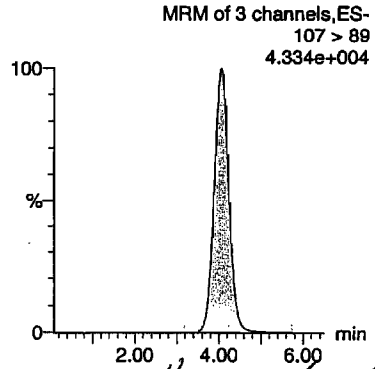

HMM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB013	Perchlorate	99 > 83	4.12	54.108	54.108	bb			0.0012			6.988	0.00
IPB013	Perchlorate-101	101 > 85											
IPB013	Perchlorate-O(18)	107 > 89	4.05	17571.473	17571.473	bb			0.4538	90.77	-9.23	3961.9...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

Data file: STATMS1 - Uncalibrated

7 matches of 7 tested references

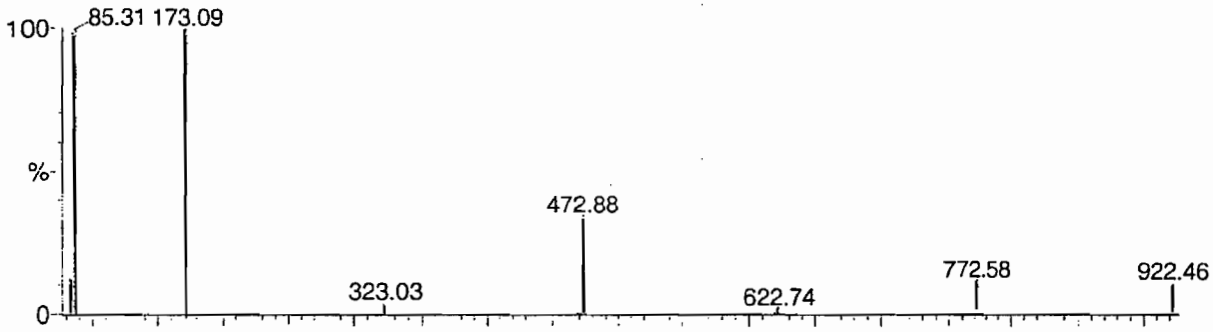

Reference file: Nairb

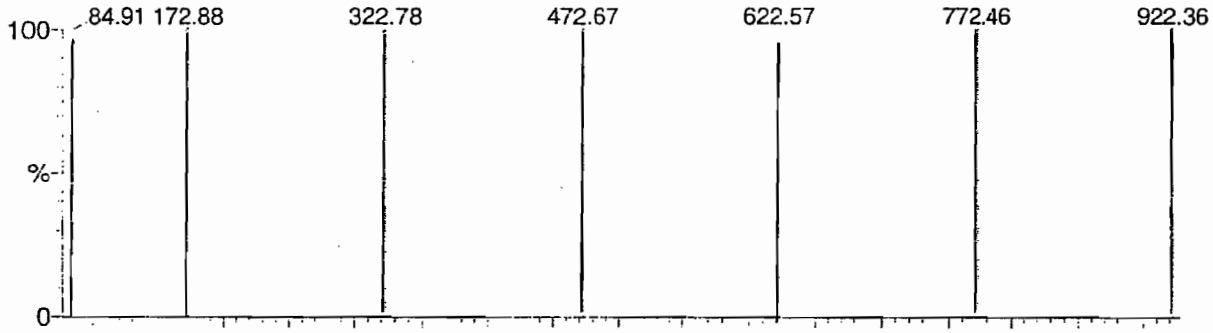

Mass difference (Raw - Ref mass)

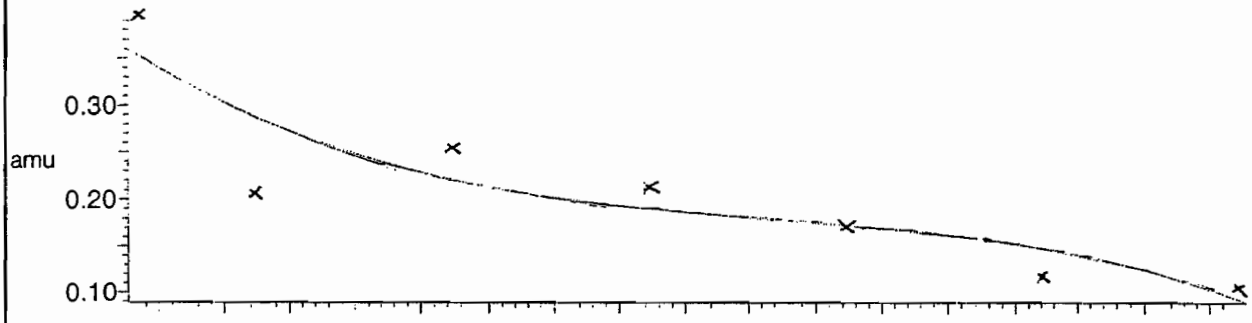

Residuals

Mean residual = 3.212012e-2 ± 0.024108

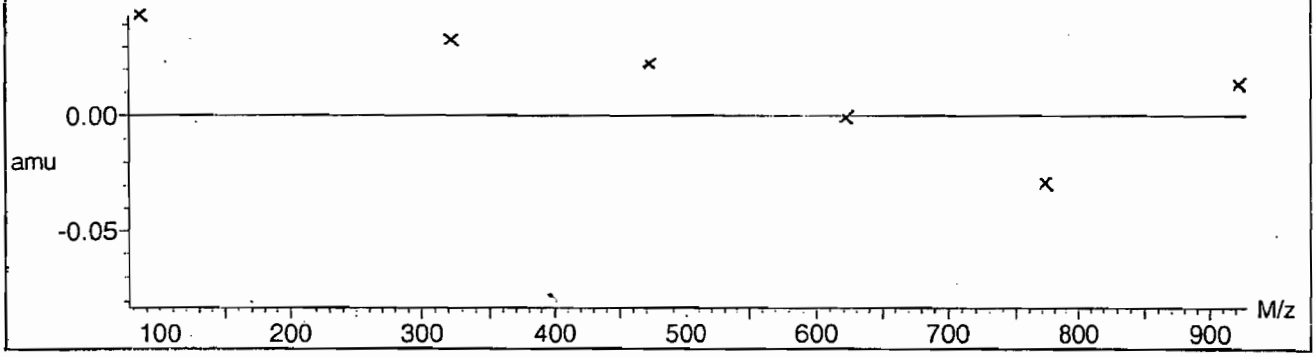

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

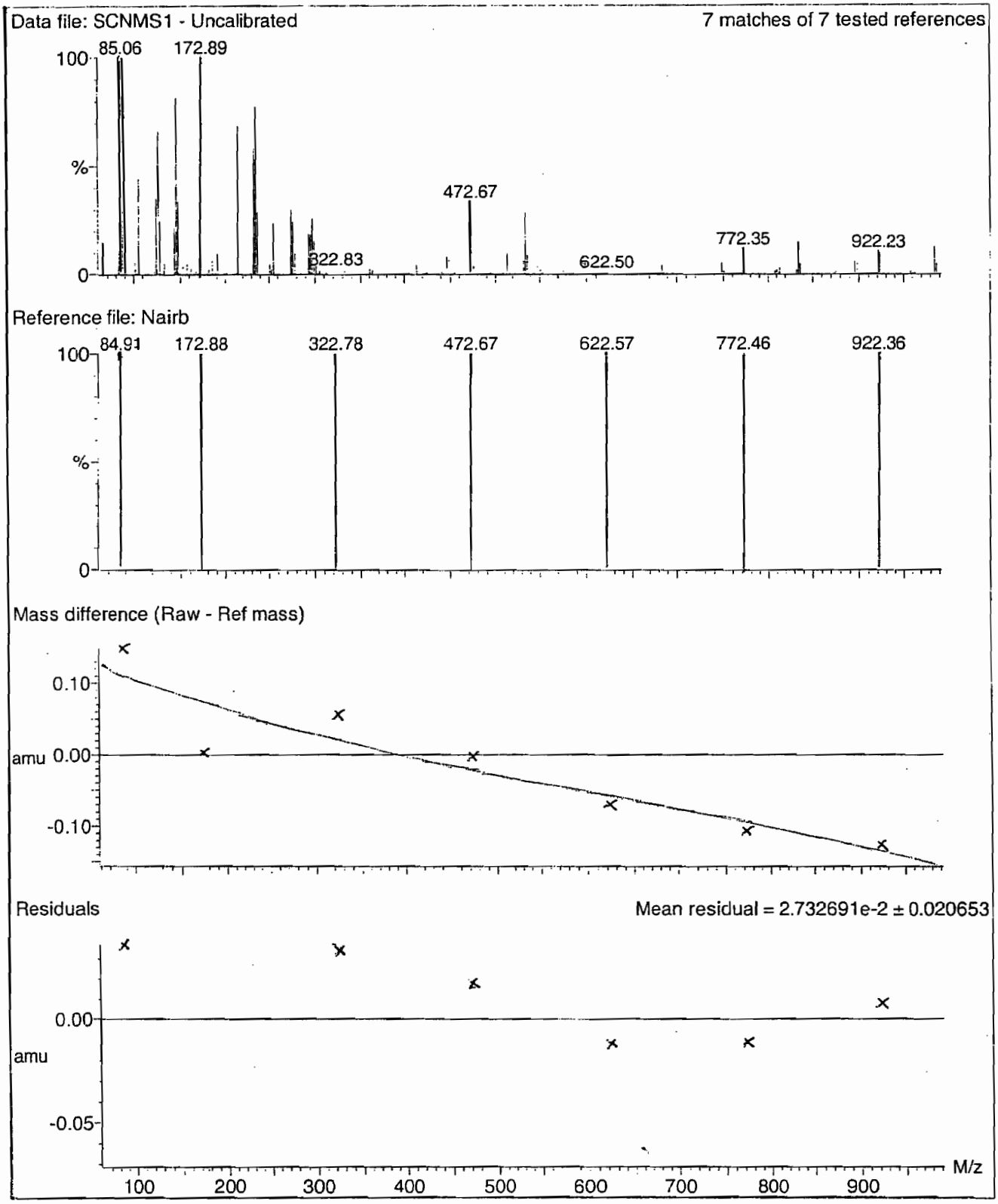

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

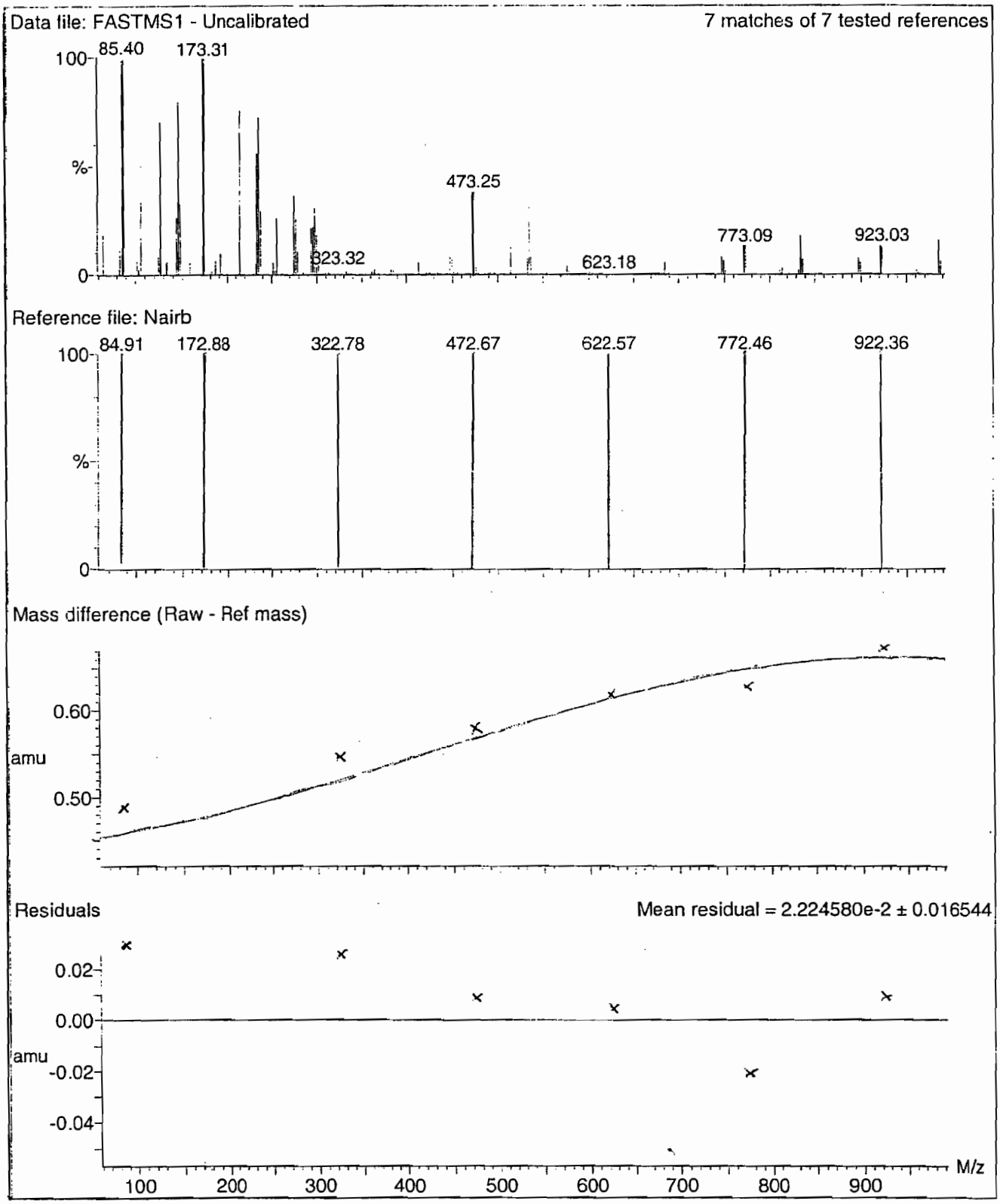

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Printed: Tue Jan 08 12:23:51 2008

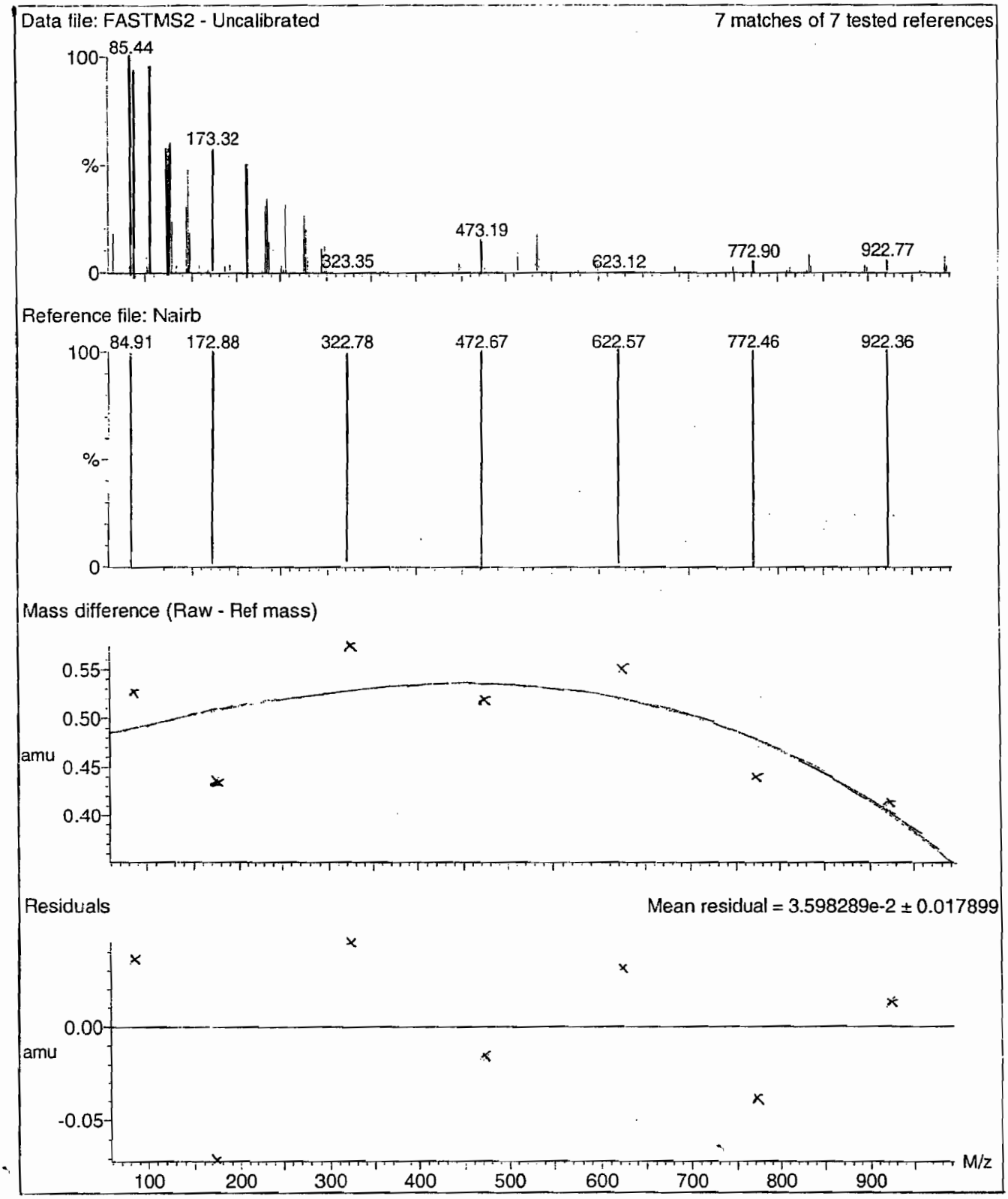

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Printed: Tue Jan 08 12:22:56 2008

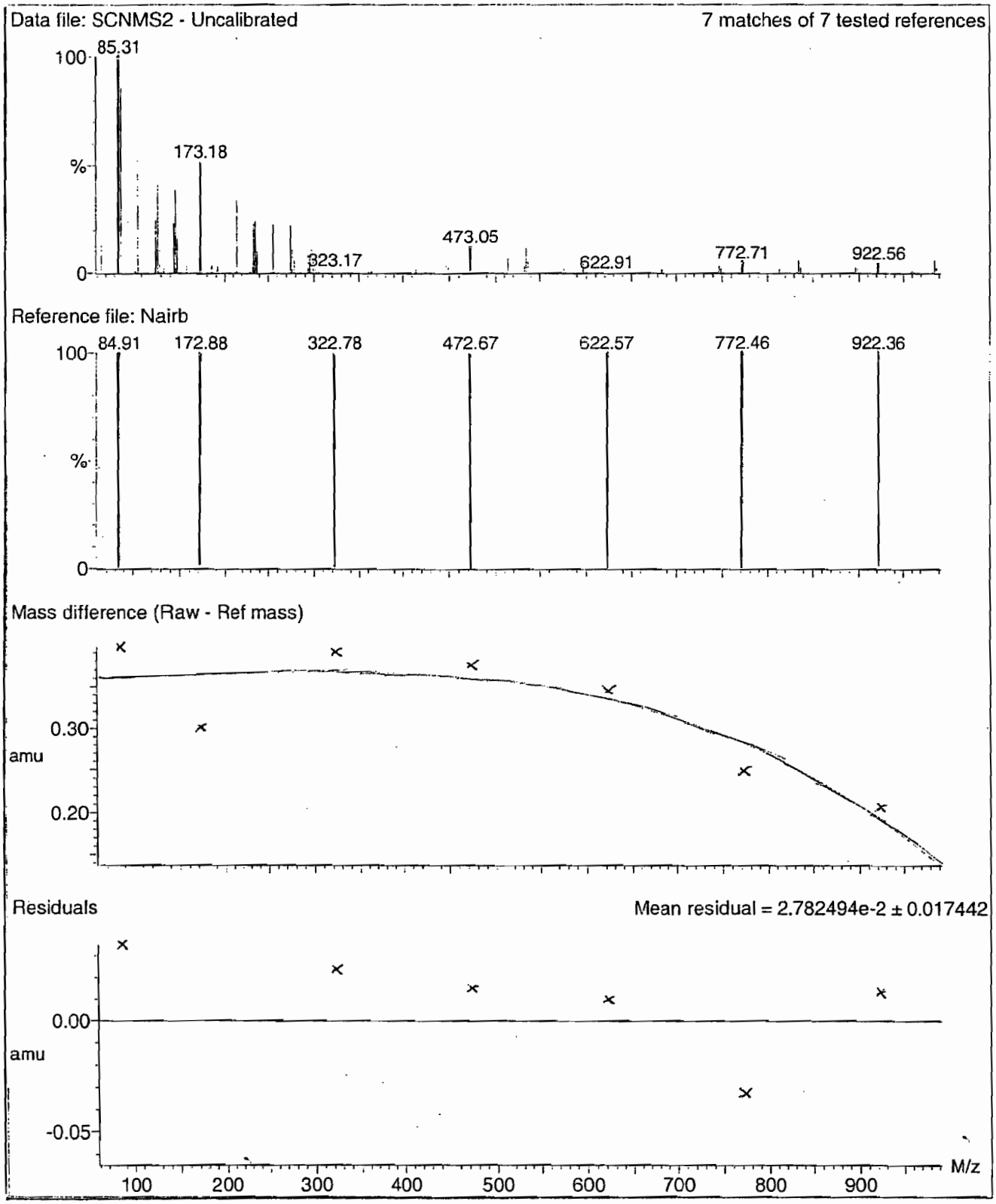

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

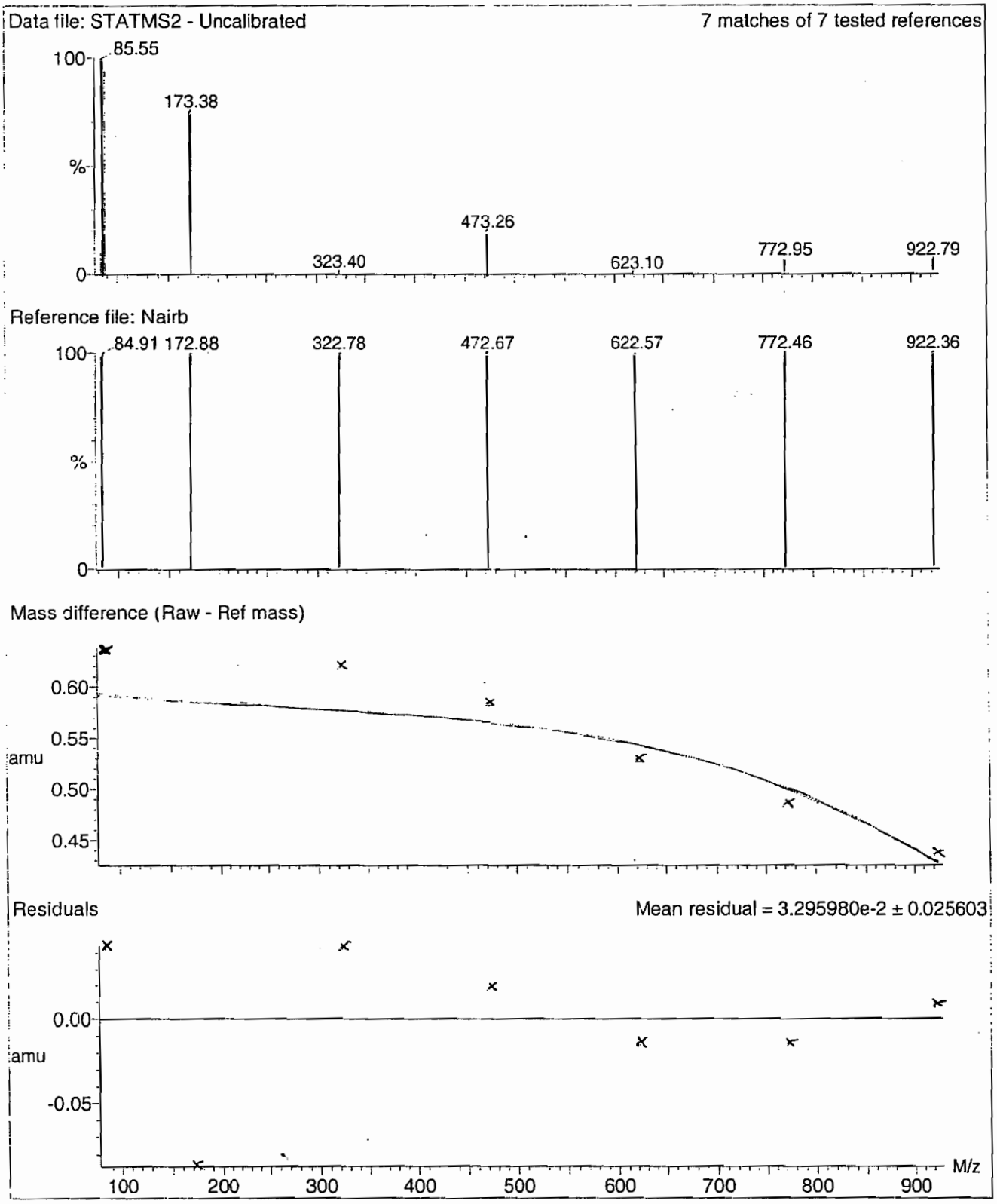

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Saturday, February 20, 2010 10:23:15 Eastern Standard Time

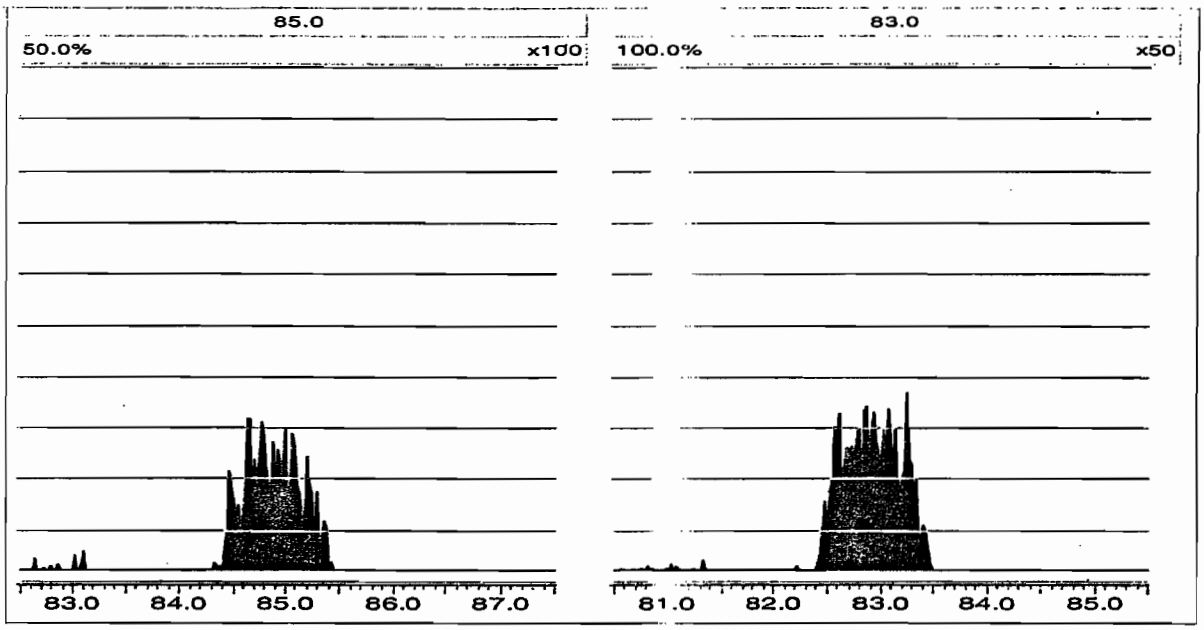

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0220006a**	**20–FEB–10**	**18317.2**				
Lower Area Limit			**9158.6**				
Upper Area Limit			**36634.4**				
1202035631	per0220075a	20–FEB–10 23:33	17461.8	4.33	4.32755	.999	
1202035632	per0220076a	20–FEB–10 23:42	18906.5	4.3	4.32755	1.006	
1202035635	per0220077a	20–FEB–10 23:52	19378.4	4.38	4.4021	1.005	
245960001	per0220091a	21–FEB–10 02:06	19826.6	4.15	4.17852	1.007	
245960002	per0220092a	21–FEB–10 02:16	19310.6	4.14	4.1785	1.009	
245960003	per0220093a	21–FEB–10 02:25	20044	4.14	4.15357	1.003	
245960004	per0220097a	21–FEB–10 03:03	19097.6	4.13	4.15355	1.006	
245960005	per0220098a	21–FEB–10 03:13	18901.3	4.12	4.14122	1.005	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0220006a**	**20–FEB–10**	**18317.2**				
Lower Area Limit			**9158.6**				
Upper Area Limit			**36634.4**				
245960006	per0220099a	21–FEB–10 03:23	18320.5	4.1	4.11632	1.004	
245960007	per0220100a	21–FEB–10 03:32	18913.6	4.1	4.11627	1.004	
245960008	per0220101a	21–FEB–10 03:42	17853.9	4.09	4.10393	1.003	
245960009	per0220102a	21–FEB–10 03:51	19148.6	4.09	4.12875	1.009	
245960010	per0220103a	21–FEB–10 04:01	17898.6	4.09	4.10402	1.003	
245960011	per0220104a	21–FEB–10 04:11	18788.5	4.07	4.07907	1.002	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7309

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960001

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.2

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.555	2.22	0.892	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate Isotope Ratio			3.13			1	21-FEB-10 02:06	per0220091a
14797-73-0	Perchlorate-101	.555	2.22	0.905	ug/kg	J	1	21-FEB-10 02:06	per0220091a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:06	per0220091a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220091a
Date: 21-Feb-2010
Time: 02:06:26
ID: 245960001
Vial: 2:7,B

LANL | 950054 | 50120 | 11

CWW 02-21-10

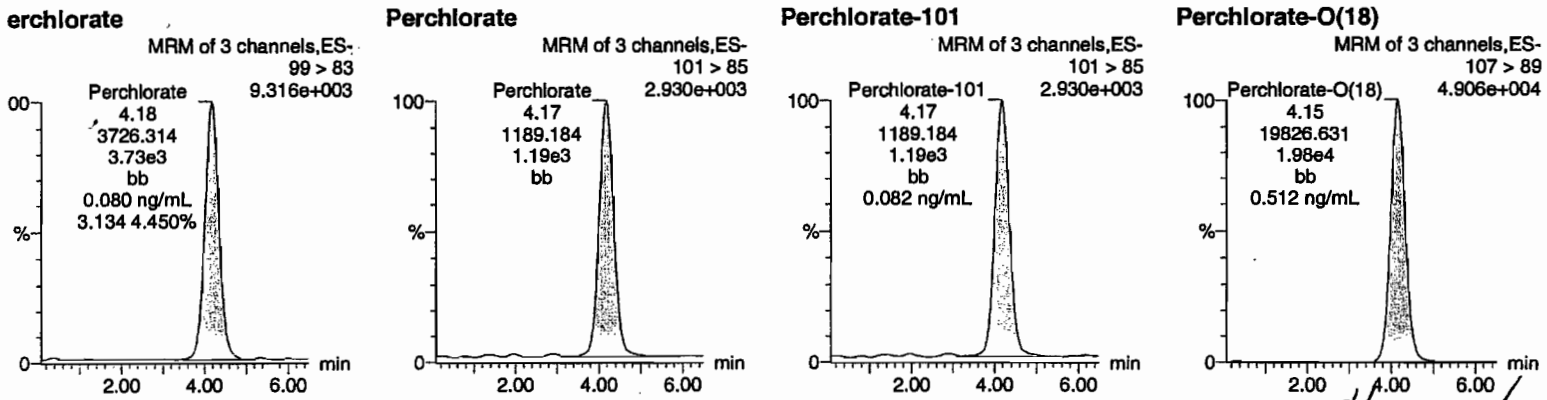

HMW 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960001	Perchlorate	99 > 83	4.18	3726.314	3726.314	bb			0.0805			1009.0...	3.13
45960001	Perchlorate-101	101 > 85	4.17	1189.184	1189.184	bb			0.0816			574.228	
45960001	Perchlorate-O(18)	107 > 89	4.15	19826.631	19826.631	bb			0.5121	102.42	2.42	6709.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7308

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960002

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:16	per0220092a
14797-73-0	Perchlorate-101	.644	2.57	0.644	ug/kg	U	1	21-FEB-10 02:16	per0220092a
	Perchlorate-O(18)			6.42	ug/kg		1	21-FEB-10 02:16	per0220092a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220092a
Date: 21-Feb-2010
Time: 02:16:00
ID: 245960002 |LANL|950054|SD20|1|
Vial: 2:7,C

AWD 02-21-10

Perchlorate

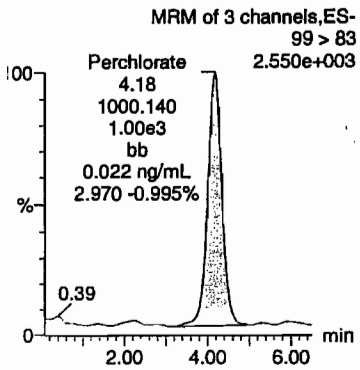

Perchlorate

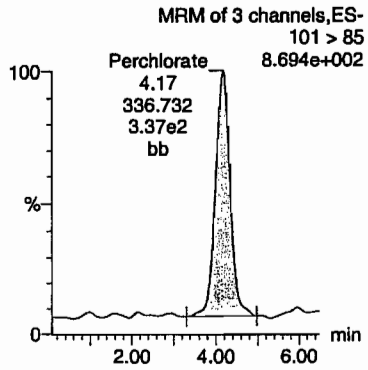

Perchlorate-101

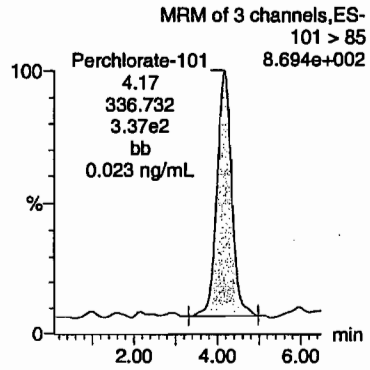

Perchlorate-O(18)

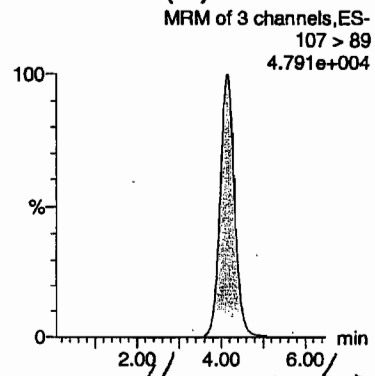

AMM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245960002	Perchlorate	99 > 83	4.18	1000.140	1000.140	bb			0.0216			201.263	2.97
245960002	Perchlorate-101	101 > 85	4.17	336.732	336.732	bb			0.0231			393.081	
245960002	Perchlorate-O(18)	107 > 89	4.14	19310.611	19310.611	bb			0.4988	99.75	-0.25	11783....	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7315

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960003

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 91.1

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate Isotope Ratio						1	21-FEB-10 02:25	per0220093a
14797-73-0	Perchlorate-101	.549	2.2	0.549	ug/kg	U	1	21-FEB-10 02:25	per0220093a
	Perchlorate-O(18)			5.68	ug/kg		1	21-FEB-10 02:25	per0220093a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220093a
Date: 21-Feb-2010
Time: 02:25:33
ID: 245960003
Vial: 2:7,D

| LANL | 950054 | 50620 | 11 |

cwd 02-21-10

Perchlorate

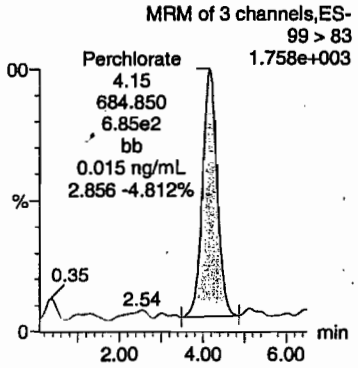

Perchlorate

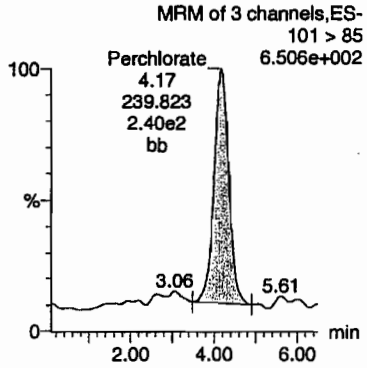

Perchlorate-101

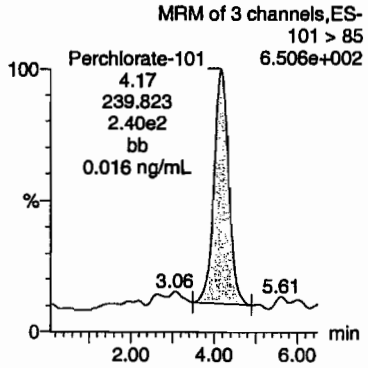

Perchlorate-O(18)

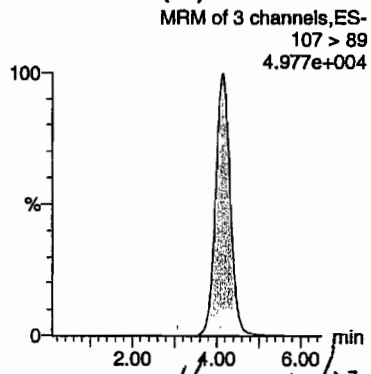

HMM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960003	Perchlorate	99 > 83	4.15	684.850	684.850	bb			0.0148			87.701	2.86
45960003	Perchlorate-101	101 > 85	4.17	239.823	239.823	bb			0.0164			12.746	
45960003	Perchlorate-O(18)	107 > 89	4.14	20044.012	20044.012	bb			0.5177	103.54	3.54	6185.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7317

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960004

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:03	per0220097a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	21-FEB-10 03:03	per0220097a
	Perchlorate-O(18)			5.53	ug/kg		1	21-FEB-10 03:03	per0220097a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220097a
Date: 21-Feb-2010
Time: 03:03:58
ID: 245960004
Vial: 2:7,E

|LANL|950054|50120|1|

CWD 02-21-10

Perchlorate

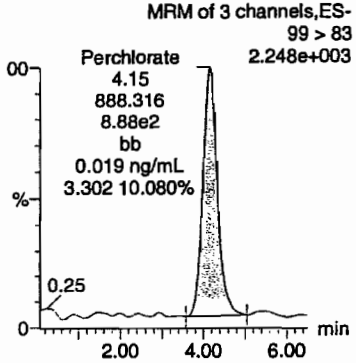

Perchlorate

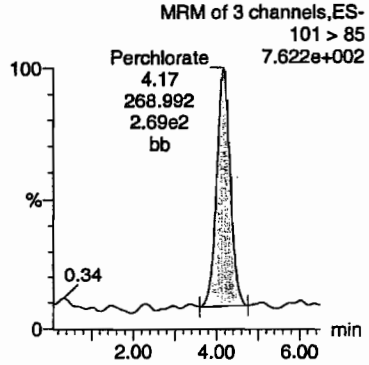

Perchlorate-101

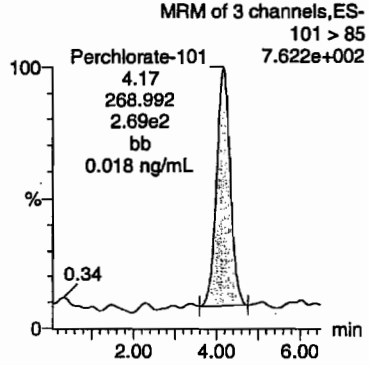

Perchlorate-O(18)

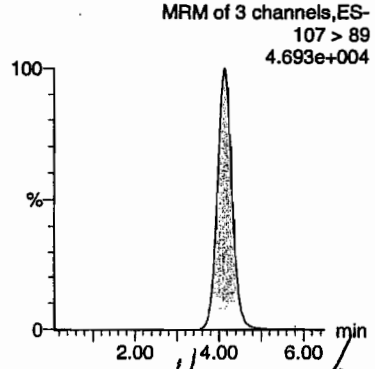

HMM 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960004	Perchlorate	99 > 83	4.15	888.316	888.316	bb			0.0192			200.965	3.30
45960004	Perchlorate-101	101 > 85	4.17	268.992	268.992	bb			0.0184			162.870	
45960004	Perchlorate-O(18)	107 > 89	4.13	19097.637	19097.637	bb			0.4933	98.65	-1.35	1297.1...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7319

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960005

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.618	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate Isotope Ratio			3.31			1	21-FEB-10 03:13	per0220098a
14797-73-0	Perchlorate-101	.56	2.24	0.594	ug/kg	J	1	21-FEB-10 03:13	per0220098a
	Perchlorate-O(18)			5.47	ug/kg		1	21-FEB-10 03:13	per0220098a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220098a
Date: 21-Feb-2010
Time: 03:13:42
ID: 245960005
Vial: 2:7,F

|LANL|950054|SOLID|1|

CWD 02-21-10

Perchlorate

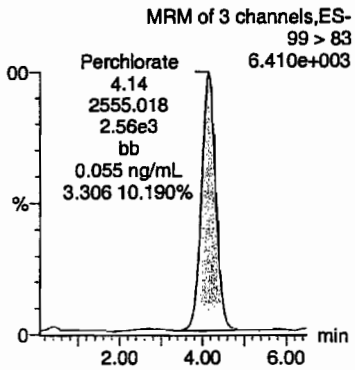

Perchlorate

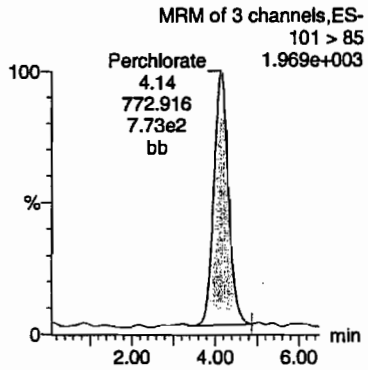

Perchlorate-101

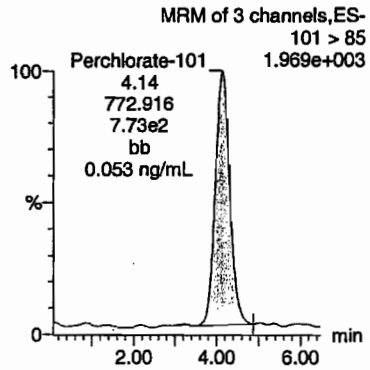

Perchlorate-O(18)

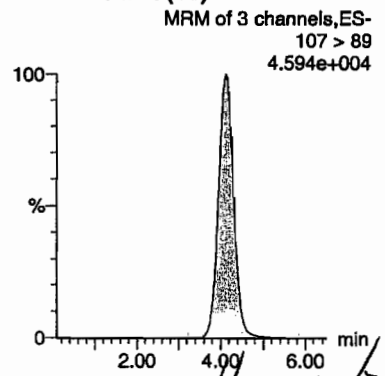

HMM 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960005	Perchlorate	99 > 83	4.14	2555.018	2555.018	bb			0.0552			882.482	3.31
45960005	Perchlorate-101	101 > 85	4.14	772.916	772.916	bb			0.0530			230.104	
45960005	Perchlorate-O(18)	107 > 89	4.12	18901.270	18901.270	bb			0.4882	97.64	-2.36	4103.7...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7312

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960006

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:23	per0220099a
14797-73-0	Perchlorate-101	.708	2.83	0.708	ug/kg	U	1	21-FEB-10 03:23	per0220099a
	Perchlorate-O(18)			6.70	ug/kg		1	21-FEB-10 03:23	per0220099a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220099a
Date: 21-Feb-2010
Time: 03:23:16
ID: 245960006
Vial: 2:8,A

|LANL|950054|SDZD|11|

CWO 02-21-10

Perchlorate

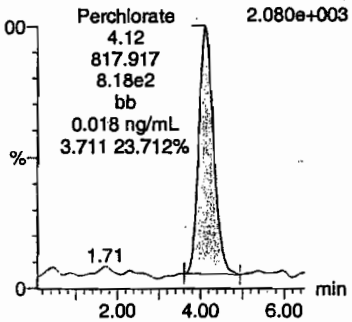

Perchlorate

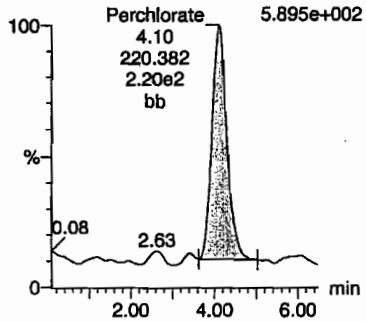

Perchlorate-101

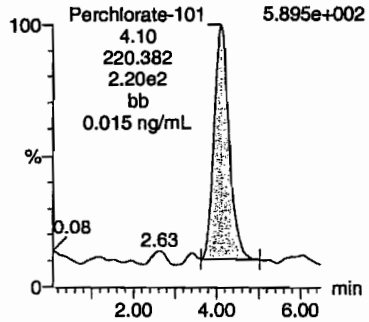

Perchlorate-O(18)

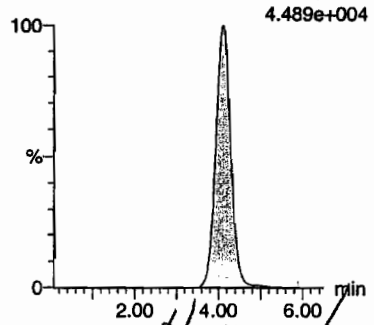

Hallor 2/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
15960006	Perchlorate	99 > 83	4.12	817.917	817.917	bb			0.0177			314.419	3.71
15960006	Perchlorate-101	101 > 85	4.10	220.382	220.382	bb			0.0151			75.209	
15960006	Perchlorate-O(18)	107 > 89	4.10	18320.496	18320.496	bb			0.4732	94.64	-5.36	2523.9...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7313

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960007

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.554	2.22	0.928	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate Isotope Ratio			3.18			1	21-FEB-10 03:32	per0220100a
14797-73-0	Perchlorate-101	.554	2.22	0.927	ug/kg	J	1	21-FEB-10 03:32	per0220100a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 03:32	per0220100a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220100a
ate: 21-Feb-2010
me: 03:32:50
: 245960007 | LANL | 950054 | SDG20 | 1 |
ial: 2:8,B

CWD 02-24-10

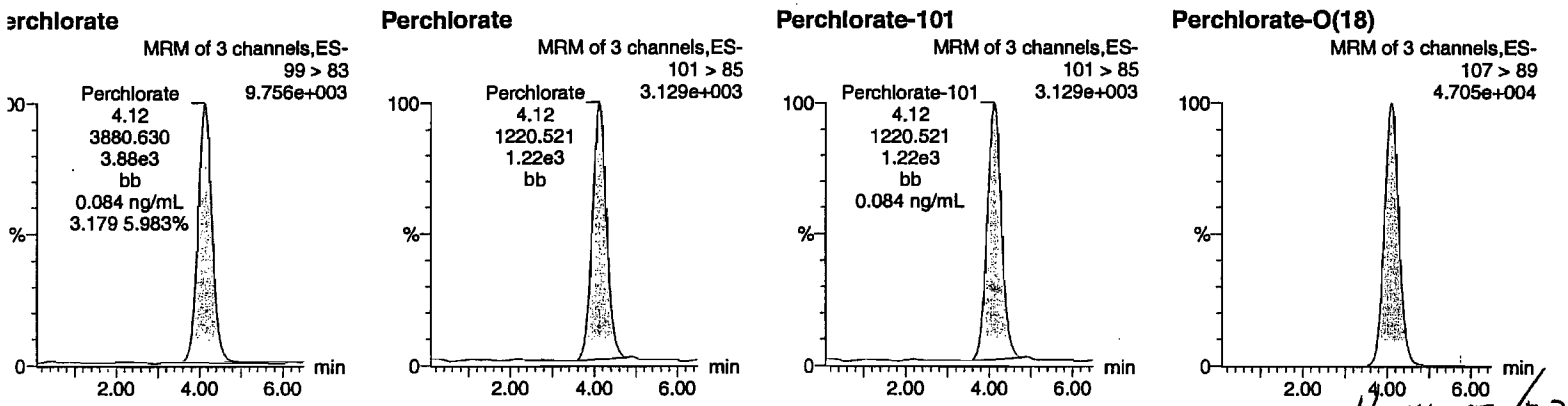

HMW 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
5960007	Perchlorate	99 > 83	4.12	3880.630	3880.630	bb			0.0838			796.824	3.18
5960007	Perchlorate-101	101 > 85	4.12	1220.521	1220.521	bb			0.0837			281.227	
5960007	Perchlorate-O(18)	107 > 89	4.10	18913.563	18913.563	bb			0.4885	97.70	-2.30	8136.3...	

$$\frac{3880.630}{46316} \Big| \frac{10}{} \Big| \frac{100}{40.28} = 0.928$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7314

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960008

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:42	per0220101a
14797-73-0	Perchlorate-101	.742	2.97	0.742	ug/kg	U	1	21-FEB-10 03:42	per0220101a
	Perchlorate-O(18)			6.84	ug/kg		1	21-FEB-10 03:42	per0220101a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220101a
ate: 21-Feb-2010
ime: 03:42:25
): 245960008
ial: 2:8,C

|LANC|950054|SOTO|1|

02-21-10

erchlorate

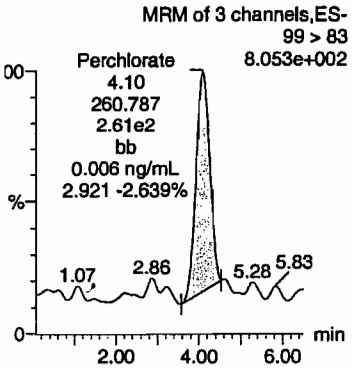

Perchlorate

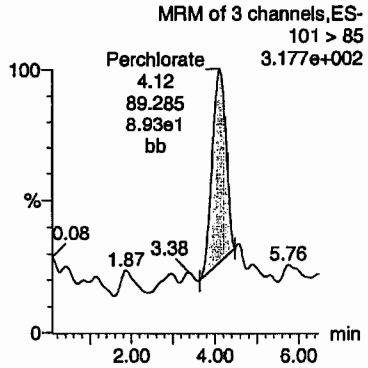

Perchlorate-101

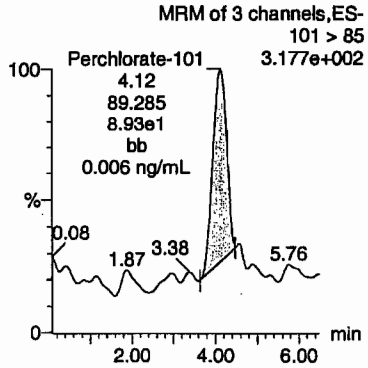

Perchlorate-O(18)

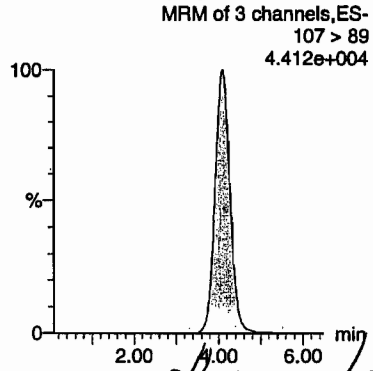

Hum 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960008	Perchlorate	99 > 83	4.10	260.787	260.787	bb			0.0056			55.318	2.92
45960008	Perchlorate-101	101 > 85	4.12	89.285	89.285	bb			0.0061			23.797	
45960008	Perchlorate-O(18)	107 > 89	4.09	17853.879	17853.879	bb			0.4611	92.23	-7.77	9107.8...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7316

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960009

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate Isotope Ratio						1	21-FEB-10 03:51	per0220102a
14797-73-0	Perchlorate-101	.776	3.11	0.776	ug/kg	U	1	21-FEB-10 03:51	per0220102a
	Perchlorate-O(18)			7.68	ug/kg		1	21-FEB-10 03:51	per0220102a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220102a
ate: 21-Feb-2010
ime: 03:51:58
): 245960009
ial: 2:8,D

| LANL | 950054 | 50620 | 11

WW 02-21-10

erchlorate

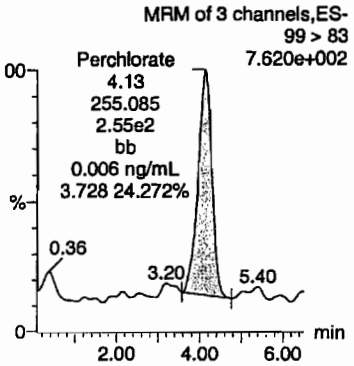

Perchlorate

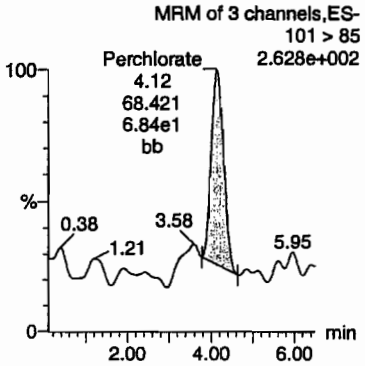

Perchlorate-101

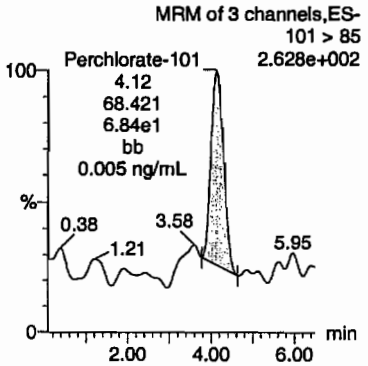

Perchlorate-O(18)

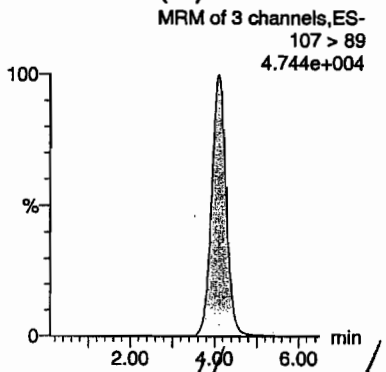

HMW 02/22/10

I	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
15960009	Perchlorate	99 > 83	4.13	255.085	255.085	bb			0.0055			38.545	3.73
15960009	Perchlorate-101	101 > 85	4.12	68.421	68.421	bb			0.0047			41.037	
15960009	Perchlorate-O(18)	107 > 89	4.09	19148.615	19148.615	bb			0.4946	98.92	-1.08	3624.5...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7318

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960010

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	1.49	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate Isotope Ratio			3.21			1	21-FEB-10 04:01	per0220103a
14797-73-0	Perchlorate-101	.587	2.35	1.48	ug/kg	J	1	21-FEB-10 04:01	per0220103a
	Perchlorate-O(18)			5.42	ug/kg		1	21-FEB-10 04:01	per0220103a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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)uantify Sample Report MassLynx 4.0 SP4
'he GEL Group, LLC Analyst: Charlers W. Wilson

)ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
'rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

lame: per0220103a
)ate: 21-Feb-2010
Ime: 04:01:32
): 245960010
'ial: 2:8,E

|LANL|950054|50120|1|

GWD 02.21.10

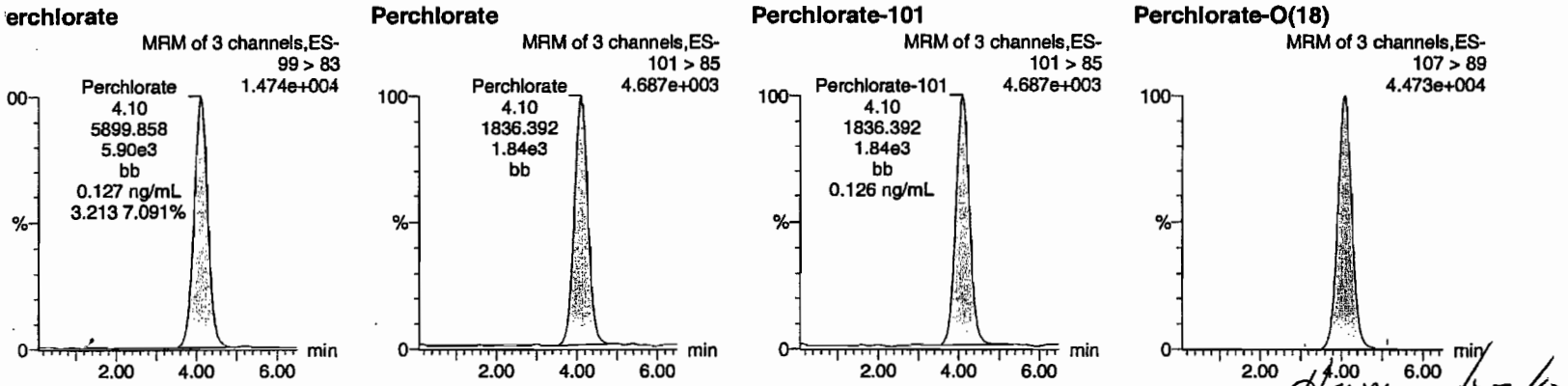

HM 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960010	Perchlorate	99 > 83	4.10	5899.858	5899.858	bb			0.1274			2745.7...	3.21
45960010	Perchlorate-101	101 > 85	4.10	1836.392	1836.392	bb			0.1260			521.023	
45960010	Perchlorate-O(18)	107 > 89	4.09	17898.635	17898.635	bb			0.4623	92.46	-7.54	8035.3...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7324

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 245960011

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.946	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate Isotope Ratio			3.01			1	21-FEB-10 04:11	per0220104a
14797-73-0	Perchlorate-101	.557	2.23	0.998	ug/kg	J	1	21-FEB-10 04:11	per0220104a
	Perchlorate-O(18)			5.41	ug/kg		1	21-FEB-10 04:11	per0220104a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220104a
Date: 21-Feb-2010
Time: 04:11:06
ID: 245960011
Vial: 2:8,F

| LANL | 950054 | SOLZD | 1 |

CWW
02-21-10

Perchlorate

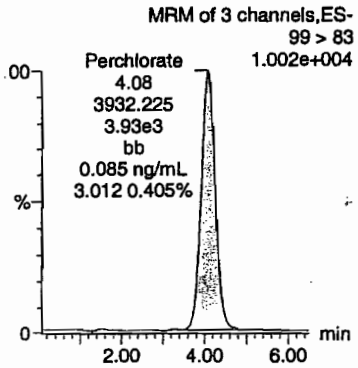

Perchlorate

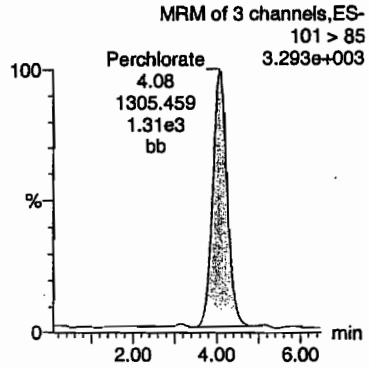

Perchlorate-101

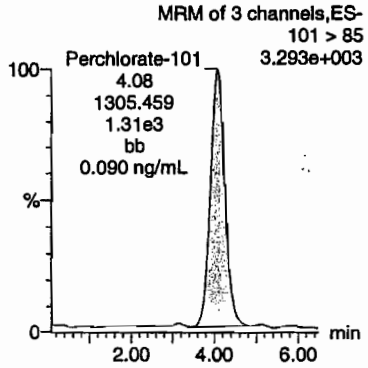

Perchlorate-O(18)

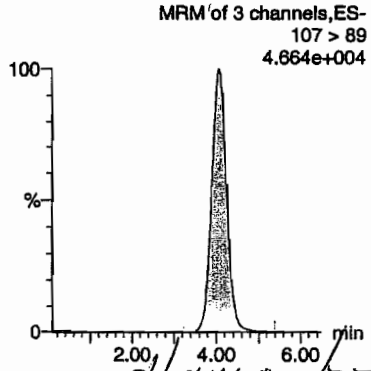

Hammond 2/21/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45960011	Perchlorate	99 > 83	4.08	3932.225	3932.225	bb			0.0849			452.736	3.01
45960011	Perchlorate-101	101 > 85	4.08	1305.459	1305.459	bb			0.0895			192.783	
45960011	Perchlorate-O(18)	107 > 89	4.07	18788.537	18788.537	bb			0.4853	97.06	-2.94	1143.9...	

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 20–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 46315.98

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 20–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 14579.96

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022010a.mdb 21 Feb 2010 10:20:41
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022010a.cdb 21 Feb 2010 10:20:58

Compound name: Perchlorate
Response Factor: 46316
RF SD: 1794.44, % Relative SD: 3.87435
Response type: External Std, Area
Curve type: RF

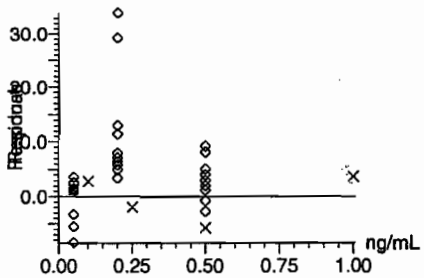

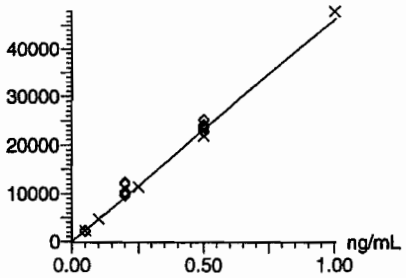

CWW
02-21-10

Compound name: Perchlorate-101
Response Factor: 14580
RF SD: 514.022, % Relative SD: 3.52554
Response type: External Std, Area
Curve type: RF

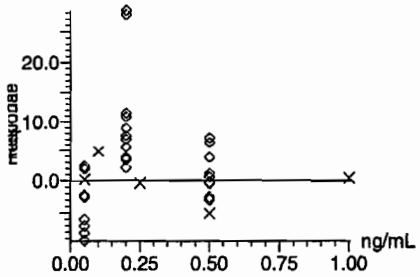

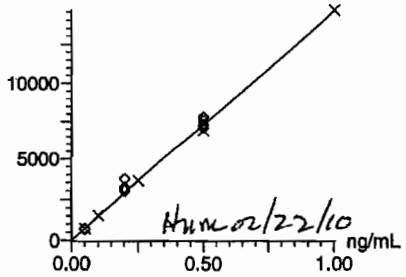

HMM 02/22/10

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uantify Calibration Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ıst Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
inted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ompound name: Perchlorate-O(18)
esponse Factor: 38717.3
RF SD: 2911.99, % Relative SD: 7.52116
esponse type: External Std, Area
urve type: RF

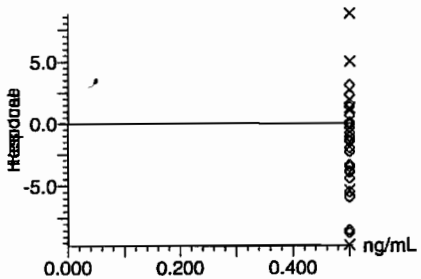

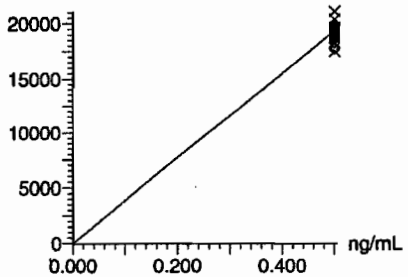

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.55	109.17	20–FEB–10 13:02	per0220009a
Perchlorate Isotope Ratio		3.23		20–FEB–10 13:02	per0220009a
Perchlorate–101	.5	.54	107.23	20–FEB–10 13:02	per0220009a

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220009a
ate: 20-Feb-2010
ime: 13:02:07
): WCL100219-06ICV
ial: 1:2,A

Pao
aw
02-21-10

erchlorate

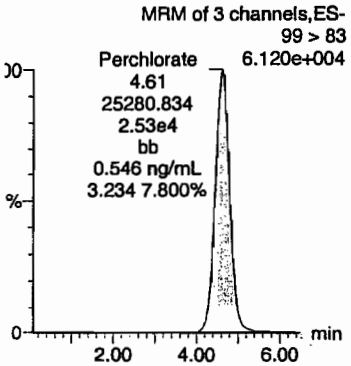

Perchlorate

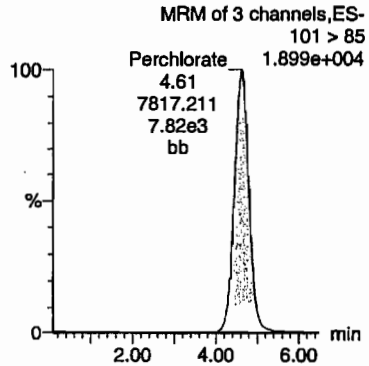

Perchlorate-101

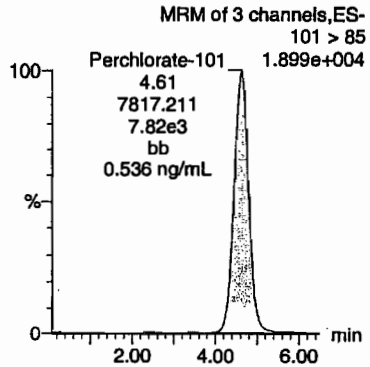

Perchlorate-O(18)

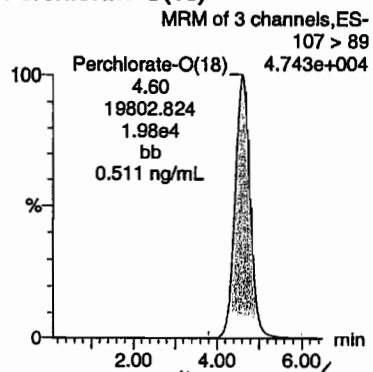

Hnm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06ICV	Perchlorate	99 > 83	4.61	25280.834	25280.834	bb			0.5458	109.17	9.17	5804.4...	3.23
CL100219-06ICV	Perchlorate-101	101 > 85	4.61	7817.211	7817.211	bb			0.5362	107.23	7.23	786.420	
CL100219-06ICV	Perchlorate-O(18)	107 > 89	4.60	19802.824	19802.824	bb			0.5115	102.29	2.29	24890....	

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	102.91	20–FEB–10 15:06	per0220022a
Perchlorate Isotope Ratio		3.35		20–FEB–10 15:06	per0220022a
Perchlorate–101	.5	.49	97.45	20–FEB–10 15:06	per0220022a
Perchlorate	.5	.51	101.18	20–FEB–10 17:10	per0220035a
Perchlorate Isotope Ratio		3.22		20–FEB–10 17:10	per0220035a
Perchlorate–101	.5	.5	99.77	20–FEB–10 17:10	per0220035a
Perchlorate	.5	.52	103.99	20–FEB–10 19:14	per0220048a
Perchlorate Isotope Ratio		3.32		20–FEB–10 19:14	per0220048a
Perchlorate–101	.5	.5	99.54	20–FEB–10 19:14	per0220048a
Perchlorate	.5	.54	108.13	20–FEB–10 21:18	per0220061a
Perchlorate Isotope Ratio		3.23		20–FEB–10 21:18	per0220061a
Perchlorate–101	.5	.53	106.41	20–FEB–10 21:18	per0220061a
Perchlorate	.5	.53	105.06	20–FEB–10 23:04	per0220072a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.21		20–FEB–10 23:04	per0220072a
Perchlorate–101	.5	.52	103.83	20–FEB–10 23:04	per0220072a
Perchlorate	.5	.5	99.2	21–FEB–10 00:49	per0220083a
Perchlorate Isotope Ratio		3.13		21–FEB–10 00:49	per0220083a
Perchlorate–101	.5	.5	100.65	21–FEB–10 00:49	per0220083a
Perchlorate	.5	.51	102.02	21–FEB–10 02:35	per0220094a
Perchlorate Isotope Ratio		3.2		21–FEB–10 02:35	per0220094a
Perchlorate–101	.5	.51	101.16	21–FEB–10 02:35	per0220094a
Perchlorate	.5	.49	97.28	21–FEB–10 04:20	per0220105a
Perchlorate Isotope Ratio		3.18		21–FEB–10 04:20	per0220105a
Perchlorate–101	.5	.49	97.03	21–FEB–10 04:20	per0220105a

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220022a
ate: 20-Feb-2010
me: 15:06:10
: WCL100219-06CCV
al: 1:2,A

Pwo
aw
02-21-10

erchlorate

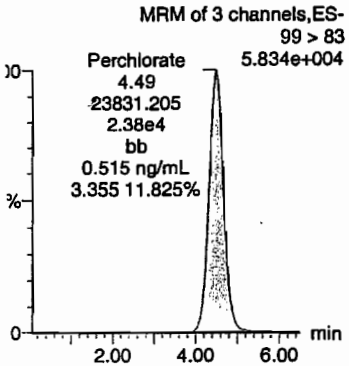

Perchlorate

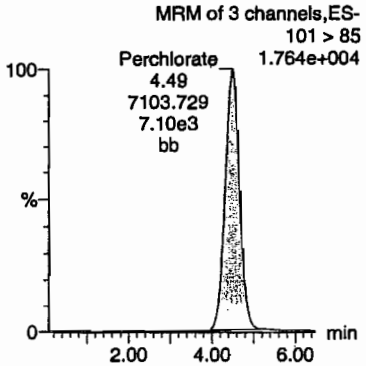

Perchlorate-101

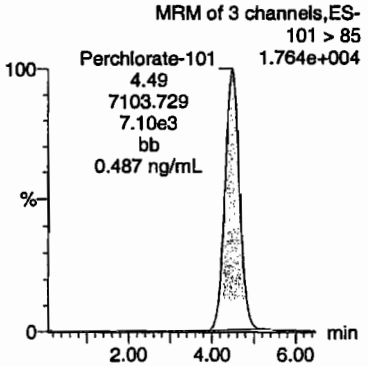

Perchlorate-O(18)

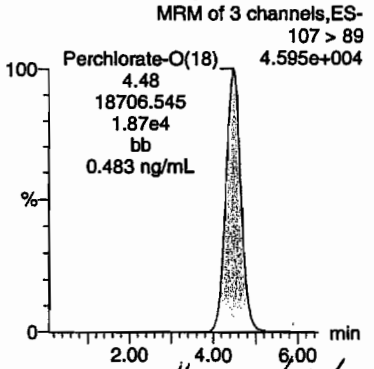

HM 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.49	23831.205	23831.205	bb			0.5145	102.91	2.91	7443.4...	3.35
CL100219-06CCV	Perchlorate-101	101 > 85	4.49	7103.729	7103.729	bb			0.4872	97.45	-2.55	2137.2...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.48	18706.545	18706.545	bb			0.4832	96.63	-3.37	1260.4...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ıst Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
inted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ıme: per0220035a
ıte: 20-Feb-2010
me: 17:10:20
: WCL100219-06CCV
al: 1:2,A

Perm
cw
02-21-10

ırchlorate

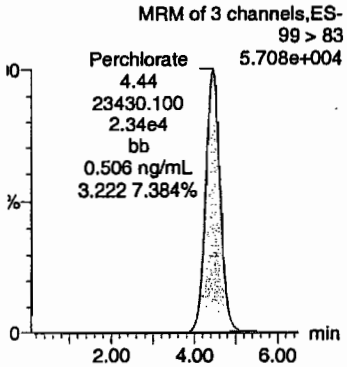

Perchlorate

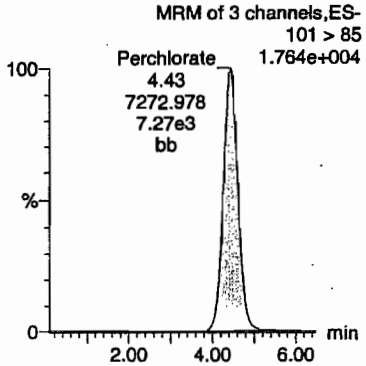

Perchlorate-101

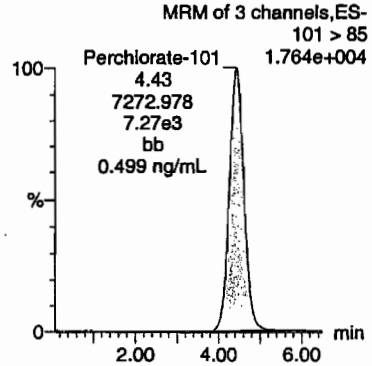

Perchlorate-O(18)

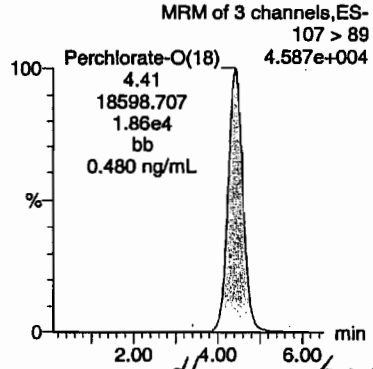

Hnm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.44	23430.100	23430.100	bb			0.5059	101.18	1.18	3471.1...	3.22
CL100219-06CCV	Perchlorate-101	101 > 85	4.43	7272.978	7272.978	bb			0.4988	99.77	-0.23	2914.3...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.41	18598.707	18598.707	bb			0.4804	96.07	-3.93	4014.5...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ıst Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
inted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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ate: 20-Feb-2010
me: 19:14:31
: WCL100219-06CCV
al: 1:2,A

Pwo
aw
02-21-10

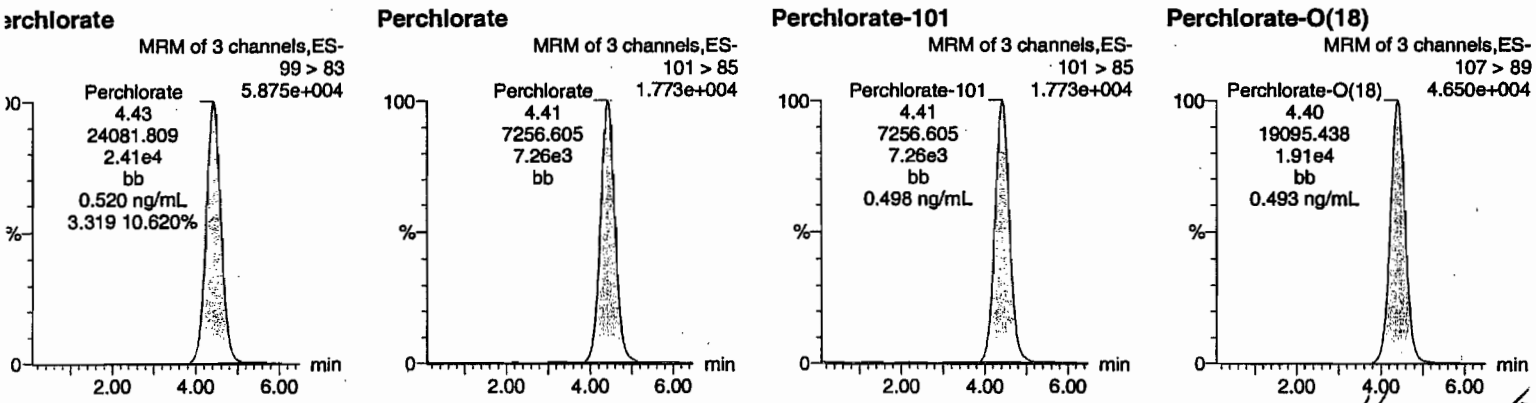

HJM 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.43	24081.809	24081.809	bb			0.5199	103.99	3.99	3487.6...	3.32
CL100219-06CCV	Perchlorate-101	101 > 85	4.41	7256.605	7256.605	bb			0.4977	99.54	-0.46	2155.5...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.40	19095.438	19095.438	bb			0.4932	98.64	-1.36	5524.1...	

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

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rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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ime: 21:18:50
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al: 1:2,A

Pers
02-21-10

erchlorate

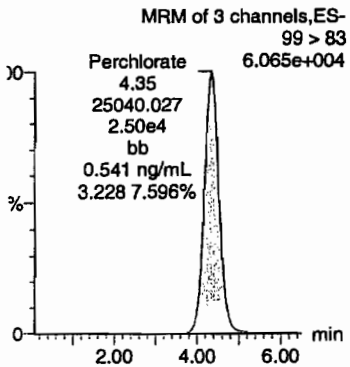

Perchlorate

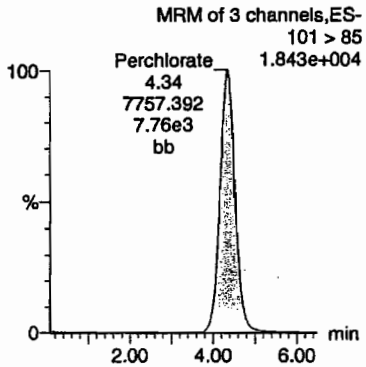

Perchlorate-101

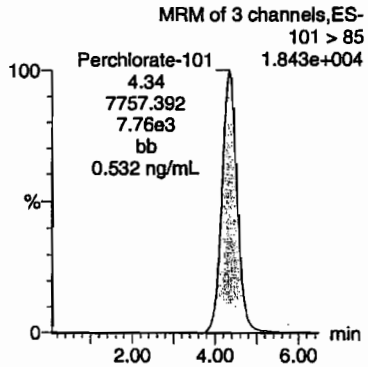

Perchlorate-O(18)

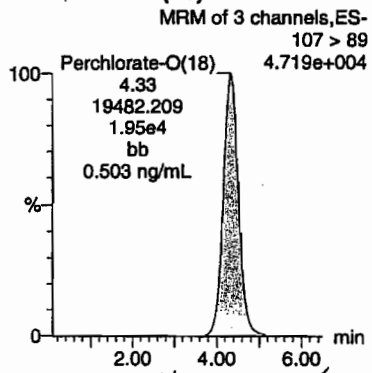

Hrm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.35	25040.027	25040.027	bb			0.5406	108.13	8.13	6065.8...	3.23
CL100219-06CCV	Perchlorate-101	101 > 85	4.34	7757.392	7757.392	bb			0.5321	106.41	6.41	4545.5...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.33	19482.209	19482.209	bb			0.5032	100.64	0.64	13763....	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220072a
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ime: 23:04:11
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ial: 1:2,A

Pass
cwo
02-21-10

erchlorate

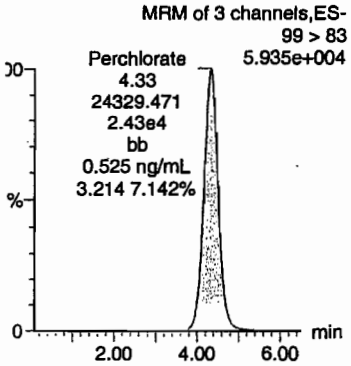

Perchlorate

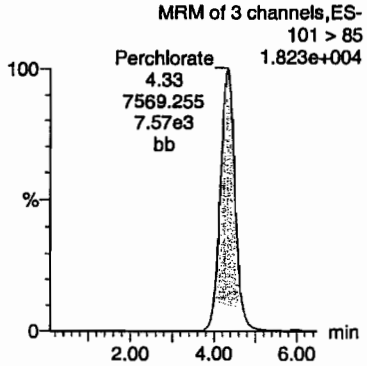

Perchlorate-101

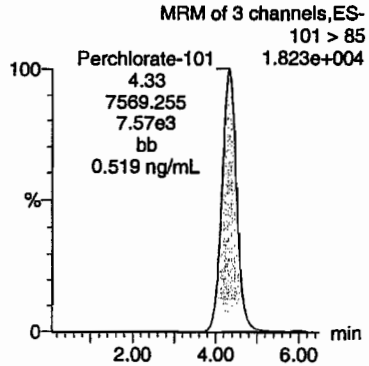

Perchlorate-O(18)

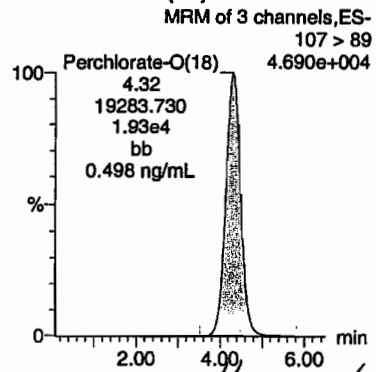

Hmm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.33	24329.471	24329.471	bb			0.5253	105.06	5.06	7176.1...	3.21
CL100219-06CCV	Perchlorate-101	101 > 85	4.33	7569.255	7569.255	bb			0.5192	103.83	3.83	1709.3...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.32	19283.730	19283.730	bb			0.4981	99.61	-0.39	6392.3...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220083a
Date: 21-Feb-2010
Time: 00:49:38
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
aw
02-21-10

Perchlorate

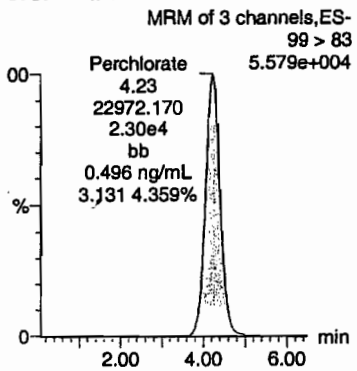

Perchlorate

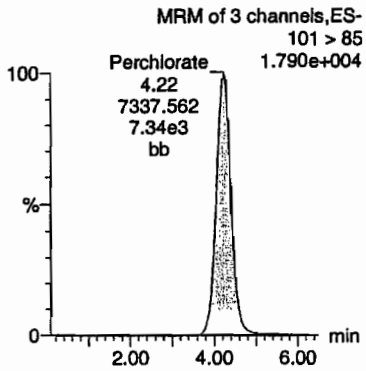

Perchlorate-101

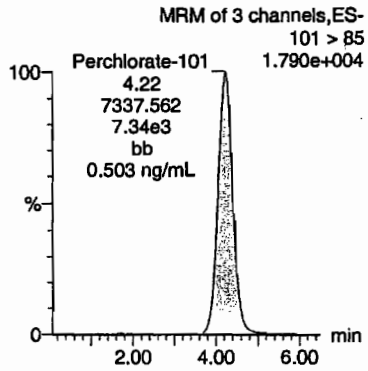

Perchlorate-O(18)

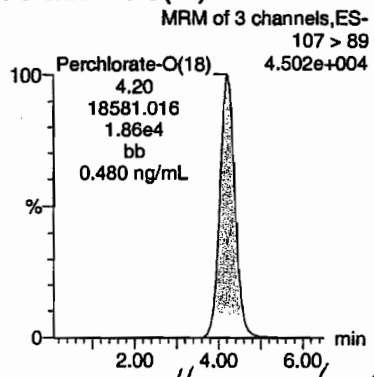

Hmc 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.23	22972.170	22972.170	bb			0.4960	99.20	-0.80	5040.9...	3.13
CL100219-06CCV	Perchlorate-101	101 > 85	4.22	7337.562	7337.562	bb			0.5033	100.65	0.65	778.937	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.20	18581.016	18581.016	bb			0.4799	95.98	-4.02	4056.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

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rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220094a
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ime: 02:35:07
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ial: 1:2,A

Pwo
and
02-21-10

erchlorate

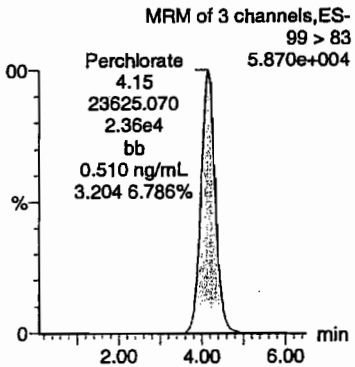

Perchlorate

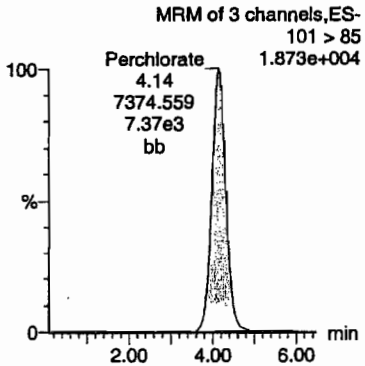

Perchlorate-101

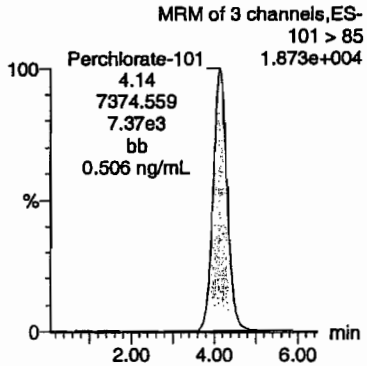

Perchlorate-O(18)

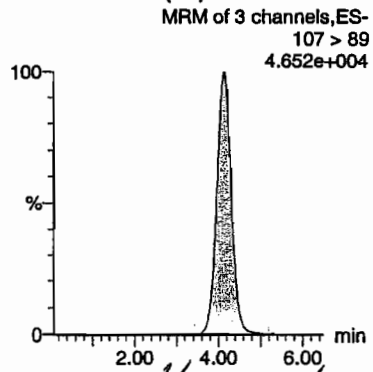

Hmm 02/22/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100219-06CCV	Perchlorate	99 > 83	4.15	23625.070	23625.070	bb			0.5101	102.02	2.02	3717.9...	3.20
'CL100219-06CCV	Perchlorate-101	101 > 85	4.14	7374.559	7374.559	bb			0.5058	101.16	1.16	5655.4...	
'CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.13	18614.232	18614.232	bb			0.4808	96.15	-3.85	3369.0...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220105a
Date: 21-Feb-2010
Time: 04:20:39
ID: WCL100219-06CCV
Vial: 1:2,A

Rev 02-21-10

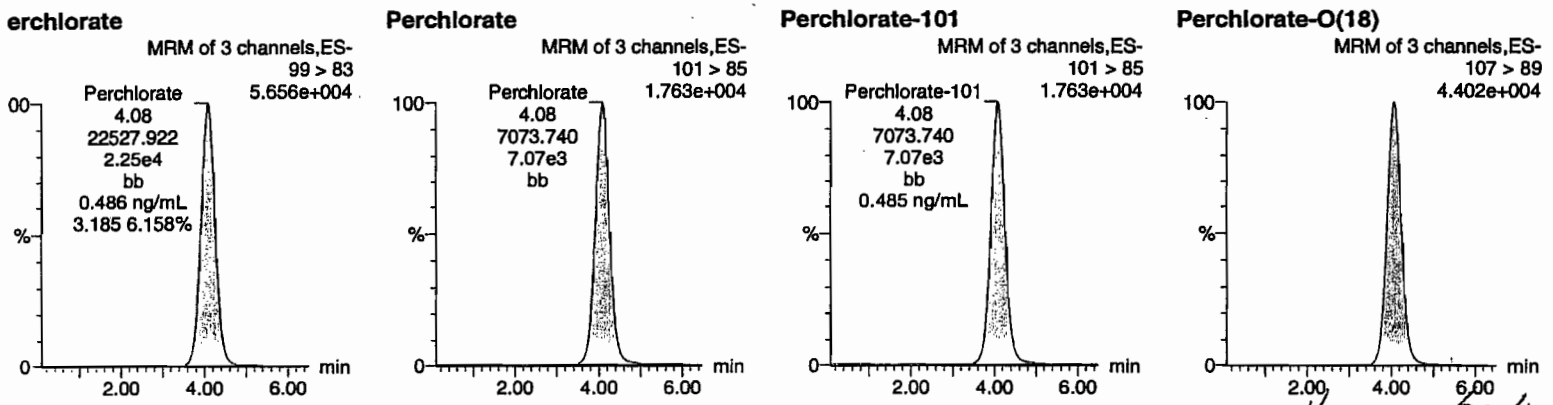

Anne 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	4.08	22527.922	22527.922	bb			0.4864	97.28	-2.72	506.362	3.18
CL100219-06CCV	Perchlorate-101	101 > 85	4.08	7073.740	7073.740	bb			0.4852	97.03	-2.97	2434.4...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	4.07	17673.967	17673.967	bb			0.4565	91.30	-8.70	1164.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1511

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.29	20-FEB-10 13:21	per0220011a
Perchlorate Isotope Ratio		3.3		20-FEB-10 13:21	per0220011a
Perchlorate-101	.05	.05	97.42	20-FEB-10 13:21	per0220011a
Perchlorate	.05	.05	103.64	20-FEB-10 15:25	per0220024a
Perchlorate Isotope Ratio		3.23		20-FEB-10 15:25	per0220024a
Perchlorate-101	.05	.05	101.96	20-FEB-10 15:25	per0220024a
Perchlorate	.05	.05	102.62	20-FEB-10 17:29	per0220037a
Perchlorate Isotope Ratio		3.18		20-FEB-10 17:29	per0220037a
Perchlorate-101	.05	.05	102.38	20-FEB-10 17:29	per0220037a
Perchlorate	.05	.05	101.55	20-FEB-10 19:33	per0220050a
Perchlorate Isotope Ratio		3.51		20-FEB-10 19:33	per0220050a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1511

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	91.81	20-FEB-10 19:33	per0220050a
Perchlorate	.05	.05	102.48	20-FEB-10 21:38	per0220063a
Perchlorate Isotope Ratio		3.34		20-FEB-10 21:38	per0220063a
Perchlorate-101	.05	.05	97.47	20-FEB-10 21:38	per0220063a
Perchlorate	.05	.05	100.93	20-FEB-10 23:23	per0220074a
Perchlorate Isotope Ratio		3.54		20-FEB-10 23:23	per0220074a
Perchlorate-101	.05	.05	90.65	20-FEB-10 23:23	per0220074a
Perchlorate	.05	.05	91.55	21-FEB-10 01:08	per0220085a
Perchlorate Isotope Ratio		2.97		21-FEB-10 01:08	per0220085a
Perchlorate-101	.05	.05	97.8	21-FEB-10 01:08	per0220085a
Perchlorate	.05	.05	96.8	21-FEB-10 02:54	per0220096a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.27		21–FEB–10 02:54	per0220096a
Perchlorate–101	.05	.05	94.01	21–FEB–10 02:54	per0220096a
Perchlorate	.05	.05	94.5	21–FEB–10 04:39	per0220107a
Perchlorate Isotope Ratio		3.23		21–FEB–10 04:39	per0220107a
Perchlorate–101	.05	.05	92.95	21–FEB–10 04:39	per0220107a

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ıst Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
inted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

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me: 13:21:12
: WCL100219-07CRI
al: 1:2,B

Pwo
02-21-10

erchlorate

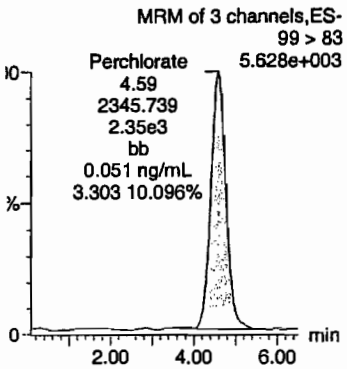

Perchlorate

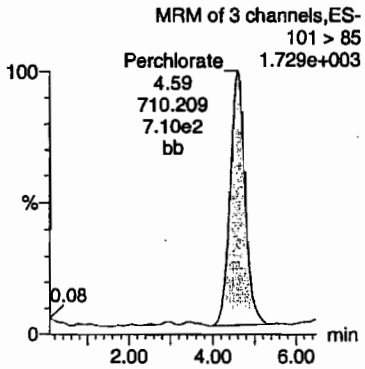

Perchlorate-101

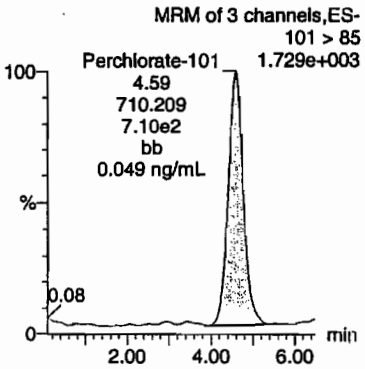

Perchlorate-O(18)

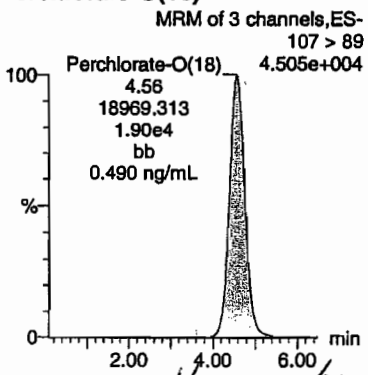

HMM 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-07CRI	Perchlorate	99 > 83	4.59	2345.739	2345.739	bb			0.0506	101.29	1.29	436.505	3.30
CL100219-07CRI	Perchlorate-101	101 > 85	4.59	710.209	710.209	bb			0.0487	97.42	-2.58	369.094	
CL100219-07CRI	Perchlorate-O(18)	107 > 89	4.56	18969.313	18969.313	bb			0.4899	97.99	-2.01	631.545	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220024a
Date: 20-Feb-2010
Time: 15:25:16
D: WCL100219-07CRI
Vial: 1:2,B

Pass
02-21-10

Perchlorate

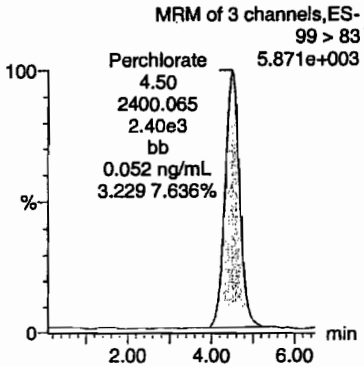

Perchlorate

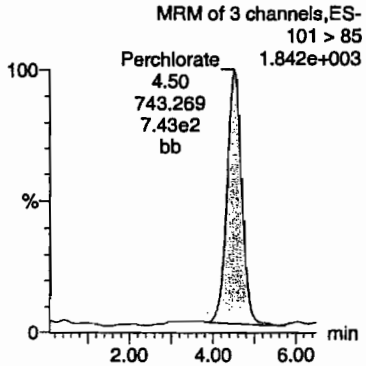

Perchlorate-101

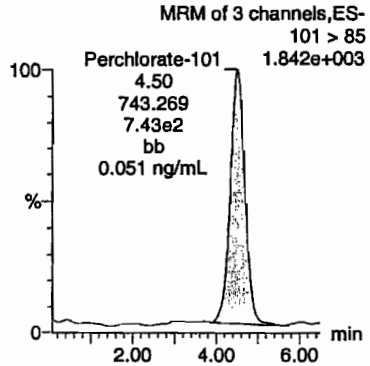

Perchlorate-O(18)

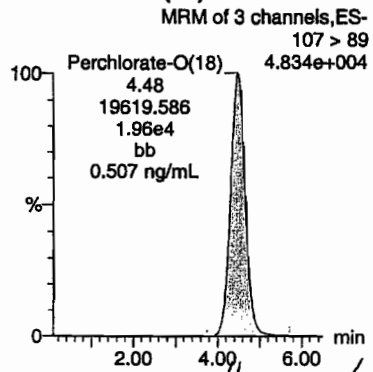

Hmm 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100219-07CRI	Perchlorate	99 > 83	4.50	2400.065	2400.065	bb			0.0518	103.64	3.64	639.813	3.23
/CL100219-07CRI	Perchlorate-101	101 > 85	4.50	743.269	743.269	bb			0.0510	101.96	1.96	131.359	
/CL100219-07CRI	Perchlorate-O(18)	107 > 89	4.48	19619.586	19619.586	bb			0.5067	101.35	1.35	17963....	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

ast Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
rinted: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

ame: per0220037a
ate: 20-Feb-2010
ime: 17:29:25
): WCL100219-07CRI
ial: 1:2,B

Pass
CWW
02-21-10

erchlorate

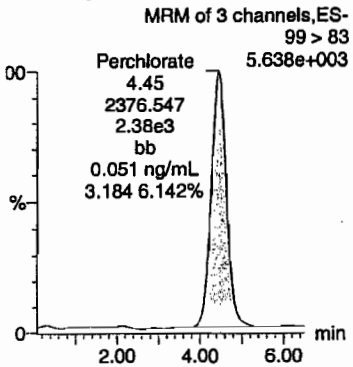

Perchlorate

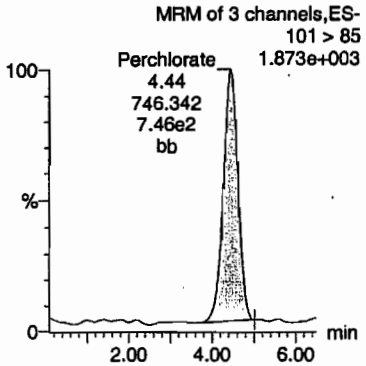

Perchlorate-101

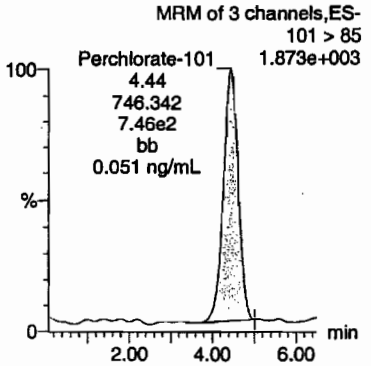

Perchlorate-O(18)

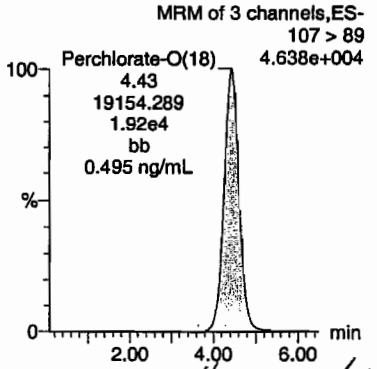

Hmm 02/22/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-07CRI	Perchlorate	99 > 83	4.45	2376.547	2376.547	bb			0.0513	102.62	2.62	558.392	3.18
CL100219-07CRI	Perchlorate-101	101 > 85	4.44	746.342	746.342	bb			0.0512	102.38	2.38	389.491	
CL100219-07CRI	Perchlorate-O(18)	107 > 89	4.43	19154.289	19154.289	bb			0.4947	98.94	-1.06	5635.0...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220050a
Date: 20-Feb-2010
Time: 19:33:50
ID: WCL100219-07CRI
Vial: 1:2,B

Pwo
02-21-10

Perchlorate

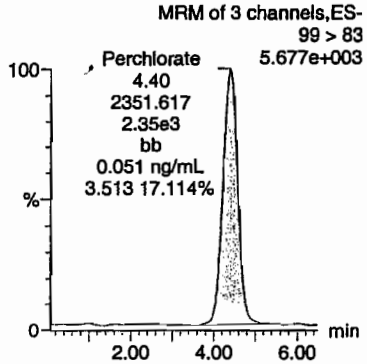

Perchlorate

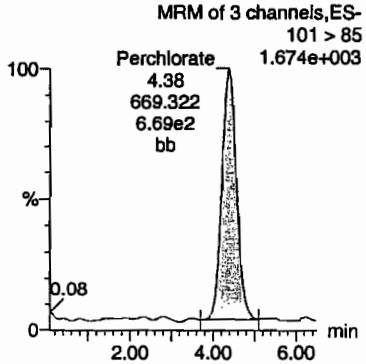

Perchlorate-101

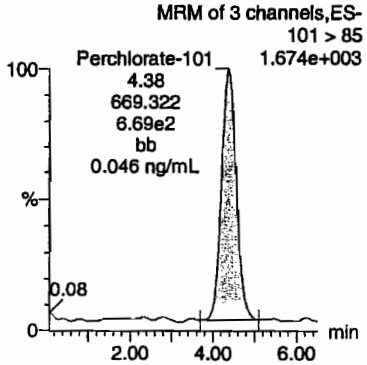

Perchlorate-O(18)

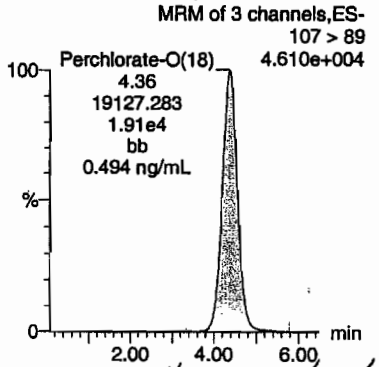

Hnm 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.40	2351.617	2351.617	bb			0.0508	101.55	1.55	327.436	3.51
WCL100219-07CRI	Perchlorate-101	101 > 85	4.38	669.322	669.322	bb			0.0459	91.81	-8.19	223.769	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.36	19127.283	19127.283	bb			0.4940	98.80	-1.20	7461.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220063a
Date: 20-Feb-2010
Time: 21:38:10
ID: WCL100219-07CRI
Vial: 1:2,B

Pass and 02-21-10

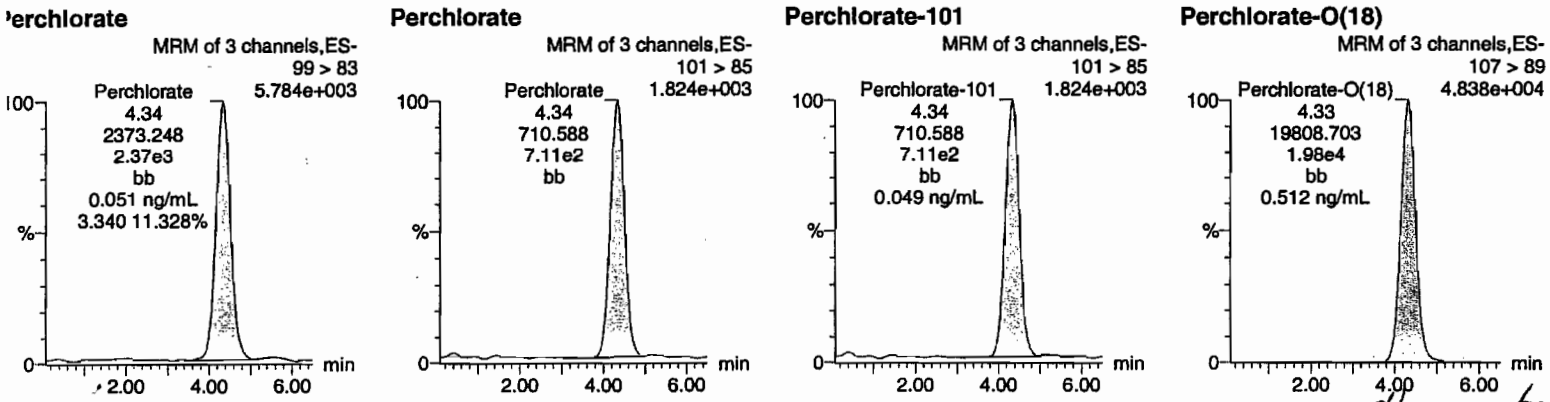

Hrm 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100219-07CRI	Perchlorate	99 > 83	4.34	2373.248	2373.248	bb			0.0512	102.48	2.48	465.448	3.34
/CL100219-07CRI	Perchlorate-101	101 > 85	4.34	710.588	710.588	bb			0.0487	97.47	-2.53	256.453	
/CL100219-07CRI	Perchlorate-O(18)	107 > 89	4.33	19808.703	19808.703	bb			0.5116	102.32	2.32	4838.7...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220074a
Date: 20-Feb-2010
Time: 23:23:30
ID: WCL100219-07CRI
Vial: 1:2,B

Pwo
aw
02-21-10

Perchlorate

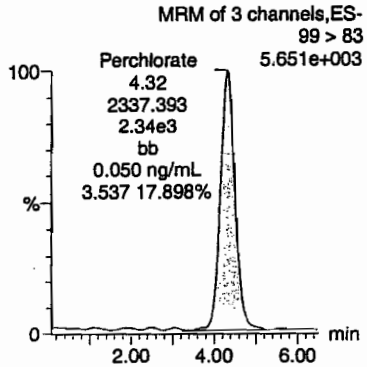

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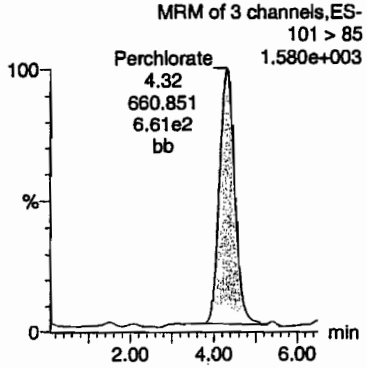

Perchlorate-101

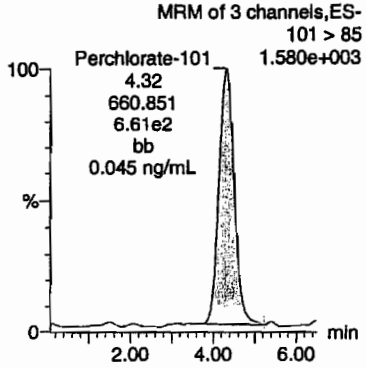

Perchlorate-O(18)

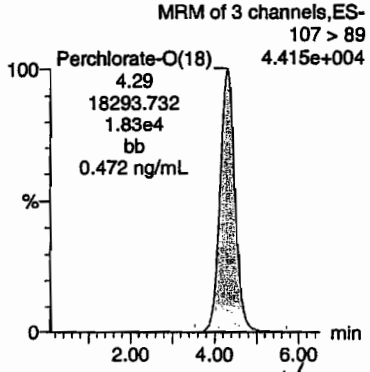

dhm 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.32	2337.393	2337.393	bb			0.0505	100.93	0.93	403.757	3.54
WCL100219-07CRI	Perchlorate-101	101 > 85	4.32	660.851	660.851	bb			0.0453	90.65	-9.35	251.018	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.29	18293.732	18293.732	bb			0.4725	94.50	-5.50	4835.7...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220085a
Date: 21-Feb-2010
Time: 01:08:58
ID: WCL100219-07CRI
Vial: 1:2,B

Pwo
02-21-10

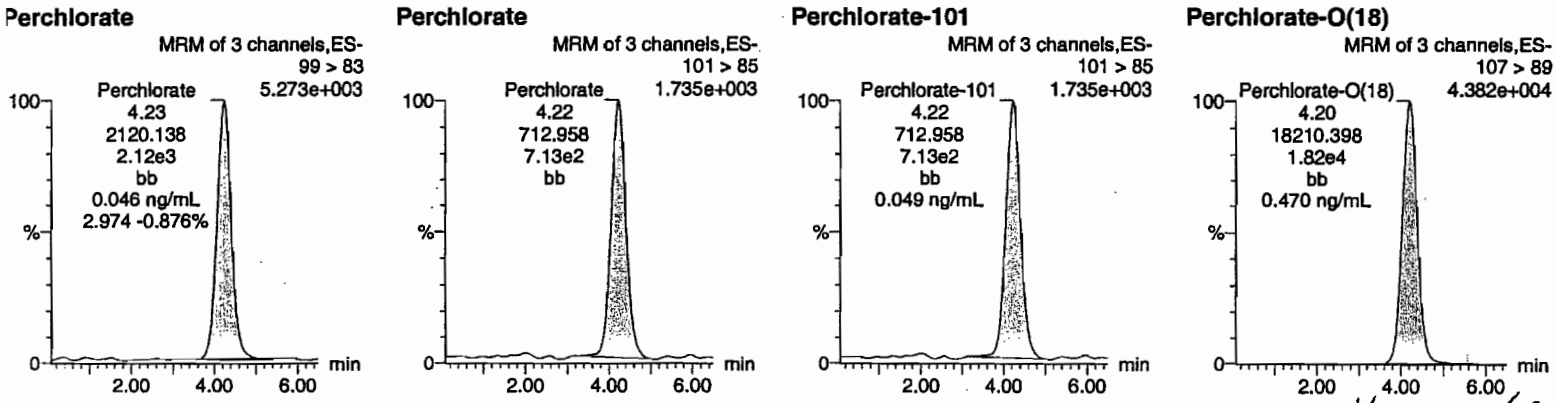

Hm 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.23	2120.138	2120.138	bb			0.0458	91.55	-8.45	372.289	2.97
WCL100219-07CRI	Perchlorate-101	101 > 85	4.22	712.958	712.958	bb			0.0489	97.80	-2.20	51.399	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.20	18210.398	18210.398	bb			0.4703	94.07	-5.93	12306....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220096a
Date: 21-Feb-2010
Time: 02:54:26
ID: WCL100219-07CRI | LANL | 950054 | 50120 | 1 |
Vial: 1:2,B

GWO 02-24-10

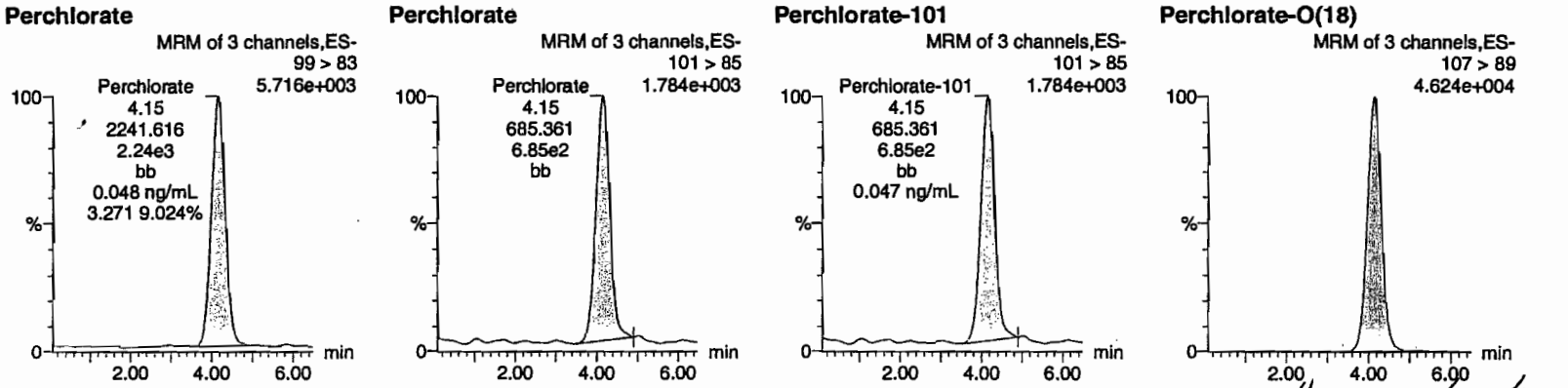

HMM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.15	2241.616	2241.616	bb			0.0484	96.80	-3.20	121.544	3.27
WCL100219-07CRI	Perchlorate-101	101 > 85	4.15	685.361	685.361	bb			0.0470	94.01	-5.99	29.300	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.13	18498.721	18498.721	bb			0.4778	95.56	-4.44	1975.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220107a
Date: 21-Feb-2010
Time: 04:39:58
ID: WCL100219-07CRI
Vial: 1:2,B

Perm
02-21-10

Perchlorate

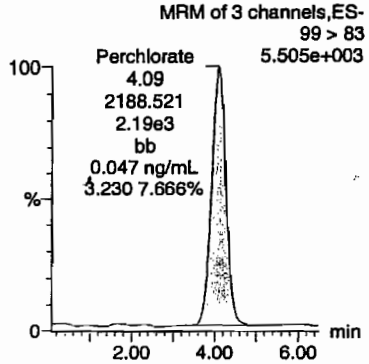

Perchlorate

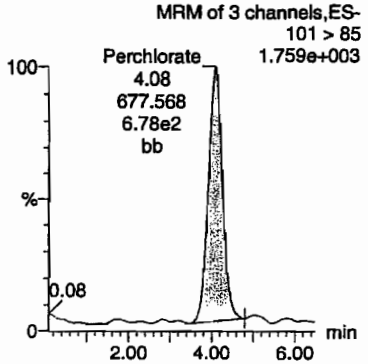

Perchlorate-101

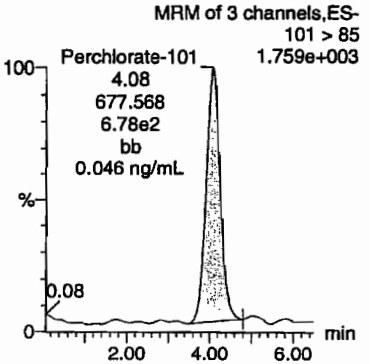

Perchlorate-O(18)

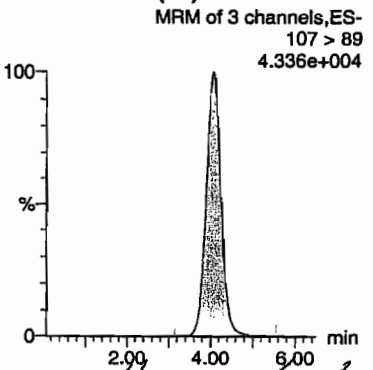

Harmon 2/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	4.09	2188.521	2188.521	bb			0.0473	94.50	-5.50	364.745	3.23
WCL100219-07CRI	Perchlorate-101	101 > 85	4.08	677.568	677.568	bb			0.0465	92.95	-7.05	238.567	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	4.07	17718.965	17718.965	bb			0.4577	91.53	-8.47	8430.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 15-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 1202035631

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	20-FEB-10 23:33	per0220075a
	Perchlorate Isotope Ratio						1	20-FEB-10 23:33	per0220075a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	20-FEB-10 23:33	per0220075a
	Perchlorate-O(18)			4.51	ug/kg		1	20-FEB-10 23:33	per0220075a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220075a
Date: 20-Feb-2010
Time: 23:33:02
ID: 1202035631
Vial: 2:5,A

|LANL|950054|SOLID|MB|1|

GW 02-21-10

Perchlorate

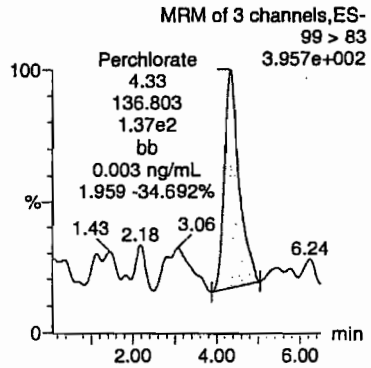

Perchlorate

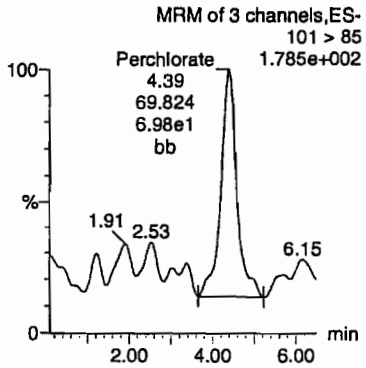

Perchlorate-101

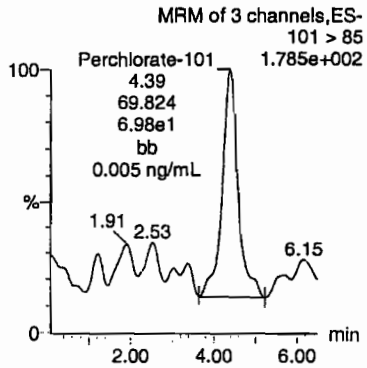

Perchlorate-O(18)

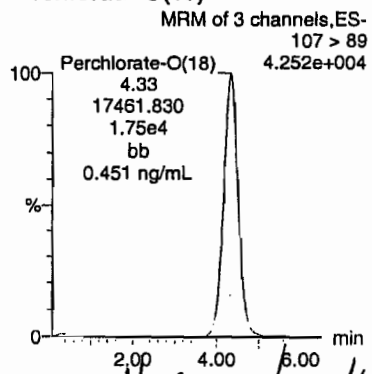

HMK 02/22/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035631	Perchlorate	99 > 83	4.33	136.803	136.803	bb			0.0030			44.900	1.96
1202035631	Perchlorate-101	101 > 85	4.39	69.824	69.824	bb			0.0048			38.498	
1202035631	Perchlorate-O(18)	107 > 89	4.33	17461.830	17461.830	bb			0.4510	90.20	-9.80	12252....	

OKAY 2/22/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950053

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 15-FEB-10

GEL Job No (SDG): 10-1511

GEL Sample ID: 1202035632

Date Filtered: 15-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.14	ug/kg		1	20-FEB-10 23:42	per0220076a
	Perchlorate Isotope Ratio			3.28			1	20-FEB-10 23:42	per0220076a
14797-73-0	Perchlorate-101	.5	2	2.08	ug/kg		1	20-FEB-10 23:42	per0220076a
	Perchlorate-O(18)			4.88	ug/kg		1	20-FEB-10 23:42	per0220076a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220076a
Date: 20-Feb-2010
Time: 23:42:45
ID: 1202035632
Vial: 2:5,B

|LANL|950054|50120|LCS|1|

AWO 02-21-10

Perchlorate

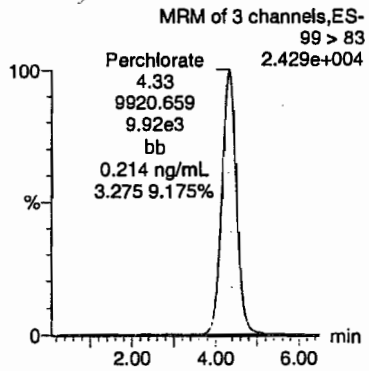

Perchlorate

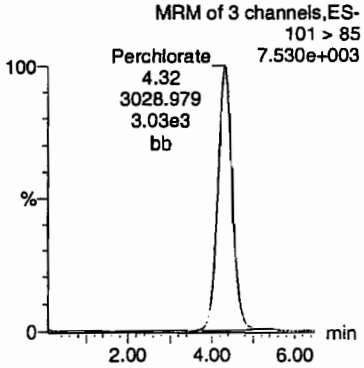

Perchlorate-101

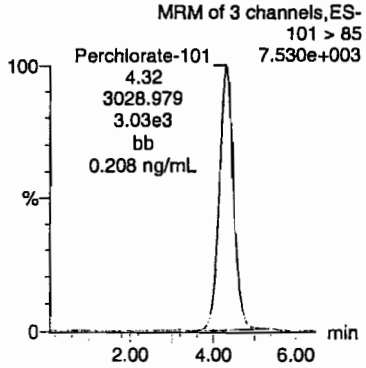

Perchlorate-O(18)

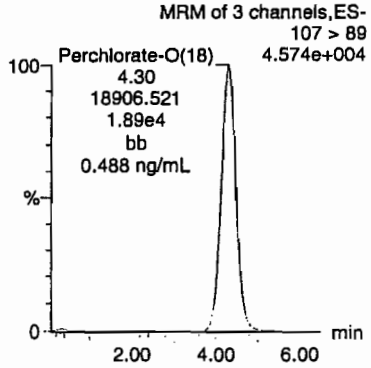

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035632	Perchlorate	99 > 83	4.33	9920.659	9920.659	bb			0.2142	107.10	7.10	3020.5...	3.28
1202035632	Perchlorate-101	101 > 85	4.32	3028.979	3028.979	bb			0.2077	103.87	3.87	758.843	
1202035632	Perchlorate-O(18)	107 > 89	4.30	18906.521	18906.521	bb			0.4883	97.66	-2.34	3352.7...	

$\frac{9920.659}{46316} = 0.214$ ng/L
AMM 02/22/10

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950053 **Verified by:** _____

Analyst: Charles Wilson **Lab SOP:** GL-OA-E-067 REV# 6

Method: SW846 6850 Modified **Instrument:** MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035631 MB	15-FEB-2010 19:16:00	2	20	10
1202035632 LCS	15-FEB-2010 19:16:00	2	20	10
245938001	15-FEB-2010 19:16:00	2	20	10
245938002	15-FEB-2010 19:16:00	2	20	10
1202035633 MS (245938002)	15-FEB-2010 19:16:00	2	20	10
1202035634 MSD (245938002)	15-FEB-2010 19:16:00	2	20	10
245938003	15-FEB-2010 19:16:00	2	20	10
245938004	15-FEB-2010 19:16:00	2	20	10
245938005	15-FEB-2010 19:16:00	2	20	10
245938006	15-FEB-2010 19:16:00	2	20	10
245938007	15-FEB-2010 19:16:00	2	20	10
245938008	15-FEB-2010 19:16:00	2	20	10
245960001	15-FEB-2010 19:16:00	2	20	10
245960002	15-FEB-2010 19:16:00	2	20	10
245960003	15-FEB-2010 19:16:00	2	20	10
245960004	15-FEB-2010 19:16:00	2	20	10
245960005	15-FEB-2010 19:16:00	2	20	10
245960006	15-FEB-2010 19:16:00	2	20	10
245960007	15-FEB-2010 19:16:00	2	20	10
245960008	15-FEB-2010 19:16:00	2	20	10
245960009	15-FEB-2010 19:16:00	2	20	10
245960010	15-FEB-2010 19:16:00	2	20	10
245960011	15-FEB-2010 19:16:00	2	20	10
1202035635 ICS	15-FEB-2010 19:16:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035635	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
LCS	1202035632	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MS	1202035633	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MSD	1202035634	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL

Comments:

Desalting cartridges used: BJ01/02J1609 & BJ0003J1609

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/20/10
Extr. Injection Volume: 20uL
Sequence Number: per022010a
Initial Calibration Date: 02/20/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: [illegible]
Date: 02/22/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100211-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0220001a	IPB001	CWW	2/20/2010 11:45			1		USE	B
per0220002a	IPB001	CWW	2/20/2010 11:55			1		USE	B
per0220003a	WCLICAL-01	CWW	2/20/2010 12:04			1		USE	I
per0220004a	WCLICAL-02	CWW	2/20/2010 12:14			1		USE	I
per0220005a	WCLICAL-03	CWW	2/20/2010 12:24			1		USE	I
per0220006a	WCLICAL-04	CWW	2/20/2010 12:33			1		USE	I
per0220007a	WCLICAL-05	CWW	2/20/2010 12:43			1		USE	I
per0220008a	IPB002	CWW	2/20/2010 12:52			1		USE	B
per0220009a	WCLICV	CWW	2/20/2010 13:02			1		USE	C
per0220010a	IPB003	CWW	2/20/2010 13:11			1		USE	B
per0220011a	WCLCRI	CWW	2/20/2010 13:21			1		USE	C
per0220012a	246331001	CWW	2/20/2010 13:30	952441	10-1577	20	LANL	USE	S
per0220013a	246331002	CWW	2/20/2010 13:40	952441	10-1577	20	LANL	USE	S
per0220014a	246338001	CWW	2/20/2010 13:49	952441	10-1605	1	LANL	USE	S
per0220015a	IPB004	CWW	2/20/2010 13:59			1		USE	B
per0220016a	1202041320	CWW	2/20/2010 14:08	952433	VARIOUS	1	LANL	USE	S
per0220017a	1202041321	CWW	2/20/2010 14:18	952433	VARIOUS	1	LANL	USE	S
per0220018a	1202041327	CWW	2/20/2010 14:28	952433	VARIOUS	1	LANL	USE	S
per0220019a	246344001	CWW	2/20/2010 14:37	952433	10-1570	1	LANL	USE	S
per0220020a	246344002	CWW	2/20/2010 14:47	952433	10-1570	1	LANL	USE	S
per0220021a	246344003	CWW	2/20/2010 14:56	952433	10-1570	1	LANL	USE	S
per0220022a	WCLCCV	CWW	2/20/2010 15:06			1		USE	C
per0220023a	IPB005	CWW	2/20/2010 15:15			1		USE	B
per0220024a	WCLCRI	CWW	2/20/2010 15:25			1		USE	C
per0220025a	246344004	CWW	2/20/2010 15:34	952433	10-1570	1	LANL	USE	S
per0220026a	246344005	CWW	2/20/2010 15:44	952433	10-1570	1	LANL	USE	S
per0220027a	246354001	CWW	2/20/2010 15:53	952433	10-1572	1	LANL	USE	S
per0220028a	1202041322	CWW	2/20/2010 16:03	952433	10-1572	1	LANL	USE	S
per0220029a	1202041323	CWW	2/20/2010 16:13	952433	10-1572	1	LANL	USE	S

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per0220030a	246354002	CWW	2/20/2010 16:22	952433	10-1572	1	LANL	USE	S
per0220031a	246354003	CWW	2/20/2010 16:32	952433	10-1572	1	LANL	USE	S
per0220032a	246354004	CWW	2/20/2010 16:41	952433	10-1572	1	LANL	USE	S
per0220033a	246354005	CWW	2/20/2010 16:51	952433	10-1572	1	LANL	USE	S
per0220034a	246354006	CWW	2/20/2010 17:00	952433	10-1572	1	LANL	USE	S
per0220035a	WCLCCV	CWW	2/20/2010 17:10			1		USE	C
per0220036a	IPB006	CWW	2/20/2010 17:19			1		USE	B
per0220037a	WCLCRI	CWW	2/20/2010 17:29			1		USE	C
per0220038a	246354007	CWW	2/20/2010 17:38	952433	10-1572	1	LANL	USE	S
per0220039a	246354008	CWW	2/20/2010 17:48	952433	10-1572	1	LANL	USE	S
per0220040a	246354009	CWW	2/20/2010 17:58	952433	10-1572	1	LANL	USE	S
per0220041a	246354010	CWW	2/20/2010 18:07	952433	10-1572	1	LANL	USE	S
per0220042a	246354011	CWW	2/20/2010 18:17	952433	10-1572	1	LANL	USE	S
per0220043a	IPB007	CWW	2/20/2010 18:26			1		USE	B
per0220044a	1202042230	CWW	2/20/2010 18:36	952823	VARIOUS	1	LANL	USE	S
per0220045a	1202042231	CWW	2/20/2010 18:45	952823	VARIOUS	1	LANL	USE	S
per0220046a	1202042235	CWW	2/20/2010 18:55	952823	VARIOUS	1	LANL	USE	S
per0220047a	246443001	CWW	2/20/2010 19:05	952823	10-1624	1	LANL	USE	S
per0220048a	WCLCCV	CWW	2/20/2010 19:14			1		USE	C
per0220049a	IPB008	CWW	2/20/2010 19:24			1		USE	B
per0220050a	WCLCRI	CWW	2/20/2010 19:33			1		USE	C
per0220051a	246443002	CWW	2/20/2010 19:43	952823	10-1624	1	LANL	USE	S
per0220052a	246443003	CWW	2/20/2010 19:53	952823	10-1624	1	LANL	USE	S
per0220053a	246443004	CWW	2/20/2010 20:02	952823	10-1624	1	LANL	USE	S
per0220054a	246443005	CWW	2/20/2010 20:12	952823	10-1624	1	LANL	USE	S
per0220055a	246447001	CWW	2/20/2010 20:21	952823	10-1627	1	LANL	USE	S
per0220056a	246447002	CWW	2/20/2010 20:31	952823	10-1627	1	LANL	USE	S
per0220057a	246447003	CWW	2/20/2010 20:40	952823	10-1627	1	LANL	USE	S
per0220058a	246452001	CWW	2/20/2010 20:50	952823	10-1629-1	1	LANL	USE	S
per0220059a	1202042232	CWW	2/20/2010 20:59	952823	10-1629-1	1	LANL	USE	S
per0220060a	1202042233	CWW	2/20/2010 21:09	952823	10-1629-1	1	LANL	USE	S
per0220061a	WCLCCV	CWW	2/20/2010 21:18			1		USE	C
per0220062a	IPB009	CWW	2/20/2010 21:28			1		USE	B
per0220063a	WCLCRI	CWW	2/20/2010 21:38			1		USE	C
per0220064a	246452002	CWW	2/20/2010 21:47	952823	10-1629-1	1	LANL	USE	S
per0220065a	246452003	CWW	2/20/2010 21:57	952823	10-1629-1	1	LANL	USE	S
per0220066a	246452004	CWW	2/20/2010 22:06	952823	10-1629-1	1	LANL	USE	S

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per0220067a	246452005	CWW	2/20/2010 22:16	952823	10-1629-1	1	LANL	USE	S
per0220068a	246452006	CWW	2/20/2010 22:26	952823	10-1629-1	1	LANL	USE	S
per0220069a	246452007	CWW	2/20/2010 22:35	952823	10-1629-1	1	LANL	USE	S
per0220070a	246452008	CWW	2/20/2010 22:45	952823	10-1629-1	1	LANL	USE	S
per0220071a	246452009	CWW	2/20/2010 22:54	952823	10-1629-1	1	LANL	USE	S
per0220072a	WCLCCV	CWW	2/20/2010 23:04			1		USE	C
per0220073a	IPB010	CWW	2/20/2010 23:13			1		USE	B
per0220074a	WCLCRI	CWW	2/20/2010 23:23			1		USE	C
per0220075a	1202035631	CWW	2/20/2010 23:33	950054	VARIOUS	1	LANL	USE	S
per0220076a	1202035632	CWW	2/20/2010 23:42	950054	VARIOUS	1	LANL	USE	S
per0220077a	1202035635	CWW	2/20/2010 23:52	950054	VARIOUS	1	LANL	USE	S
per0220078a	245938001	CWW	2/21/2010 0:01	950054	10-1506	1	LANL	USE	S
per0220079a	245938002	CWW	2/21/2010 0:11	950054	10-1506	1	LANL	USE	S
per0220080a	1202035633	CWW	2/21/2010 0:20	950054	10-1506	1	LANL	USE	S
per0220081a	1202035634	CWW	2/21/2010 0:30	950054	10-1506	1	LANL	USE	S
per0220082a	245938003	CWW	2/21/2010 0:40	950054	10-1506	1	LANL	USE	S
per0220083a	WCLCCV	CWW	2/21/2010 0:49			1		USE	C
per0220084a	IPB011	CWW	2/21/2010 0:59			1		USE	B
per0220085a	WCLCRI	CWW	2/21/2010 1:08			1		USE	C
per0220086a	245938004	CWW	2/21/2010 1:18	950054	10-1506	1	LANL	USE	S
per0220087a	245938005	CWW	2/21/2010 1:28	950054	10-1506	1	LANL	USE	S
per0220088a	245938006	CWW	2/21/2010 1:37	950054	10-1506	1	LANL	USE	S
per0220089a	245938007	CWW	2/21/2010 1:47	950054	10-1506	1	LANL	USE	S
per0220090a	245938008	CWW	2/21/2010 1:56	950054	10-1506	1	LANL	USE	S
per0220091a	245960001	CWW	2/21/2010 2:06	950054	10-1511	1	LANL	USE	S
per0220092a	245960002	CWW	2/21/2010 2:16	950054	10-1511	1	LANL	USE	S
per0220093a	245960003	CWW	2/21/2010 2:25	950054	10-1511	1	LANL	USE	S
per0220094a	WCLCCV	CWW	2/21/2010 2:35			1		USE	C
per0220095a	IPB012	CWW	2/21/2010 2:44			1		USE	B
per0220096a	WCLCRI	CWW	2/21/2010 2:54			1		USE	C
per0220097a	245960004	CWW	2/21/2010 3:03	950054	10-1511	1	LANL	USE	S
per0220098a	245960005	CWW	2/21/2010 3:13	950054	10-1511	1	LANL	USE	S
per0220099a	245960006	CWW	2/21/2010 3:23	950054	10-1511	1	LANL	USE	S
per0220100a	245960007	CWW	2/21/2010 3:32	950054	10-1511	1	LANL	USE	S
per0220101a	245960008	CWW	2/21/2010 3:42	950054	10-1511	1	LANL	USE	S
per0220102a	245960009	CWW	2/21/2010 3:51	950054	10-1511	1	LANL	USE	S
per0220103a	245960010	CWW	2/21/2010 4:01	950054	10-1511	1	LANL	USE	S

per0220104a	245960011	CWW	2/21/2010 4:11	950054	10-1511	1	LANL	USE	S
per0220105a	WCLCCV	CWW	2/21/2010 4:20			1		USE	C
per0220106a	IPB013	CWW	2/21/2010 4:30			1		USE	B
per0220107a	WCLCRI	CWW	2/21/2010 4:39			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220080a
Date: 21-Feb-2010
Time: 00:20:58
ID: 1202035633
Vial: 2:5,F

| LANL | 950054 | SOLZO | MJ | 1 |

CWW 02-21-10

Perchlorate

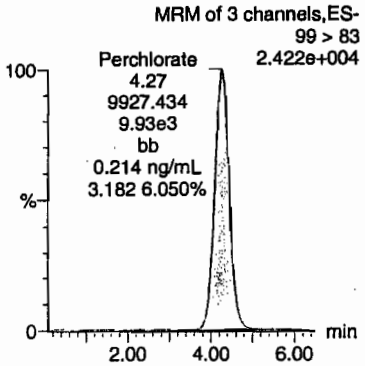

Perchlorate

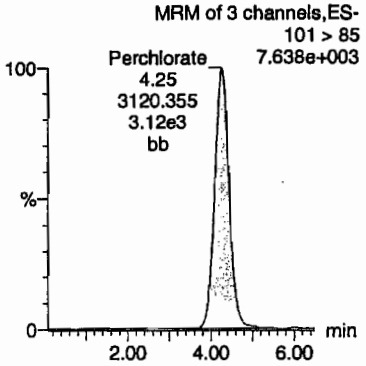

Perchlorate-101

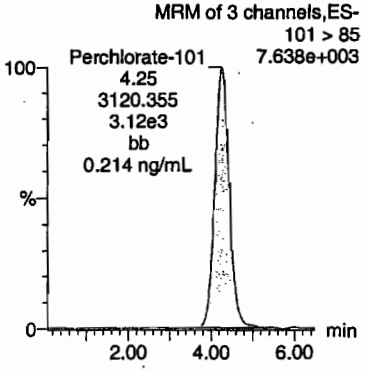

Perchlorate-O(18)

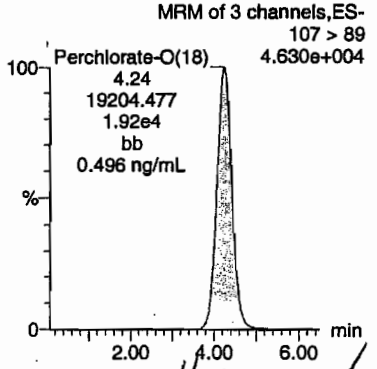

HMW 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035633	Perchlorate	99 > 83	4.27	9927.434	9927.434	bb			0.2143	107.17	7.17	1656.6...	3.18
1202035633	Perchlorate-101	101 > 85	4.25	3120.355	3120.355	bb			0.2140	107.01	7.01	1097.6...	
1202035633	Perchlorate-O(18)	107 > 89	4.24	19204.477	19204.477	bb			0.4960	99.20	-0.80	6722.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022010a.qld

Last Altered: Sunday, February 21, 2010 10:20:59 AM Eastern Standard Time
Printed: Sunday, February 21, 2010 10:33:30 AM Eastern Standard Time

Name: per0220081a
Date: 21-Feb-2010
Time: 00:30:30
ID: 1202035634
Vial: 2:6,A

|LANL|950054|SOLID|MSD|1|

GWJ 02-21-10

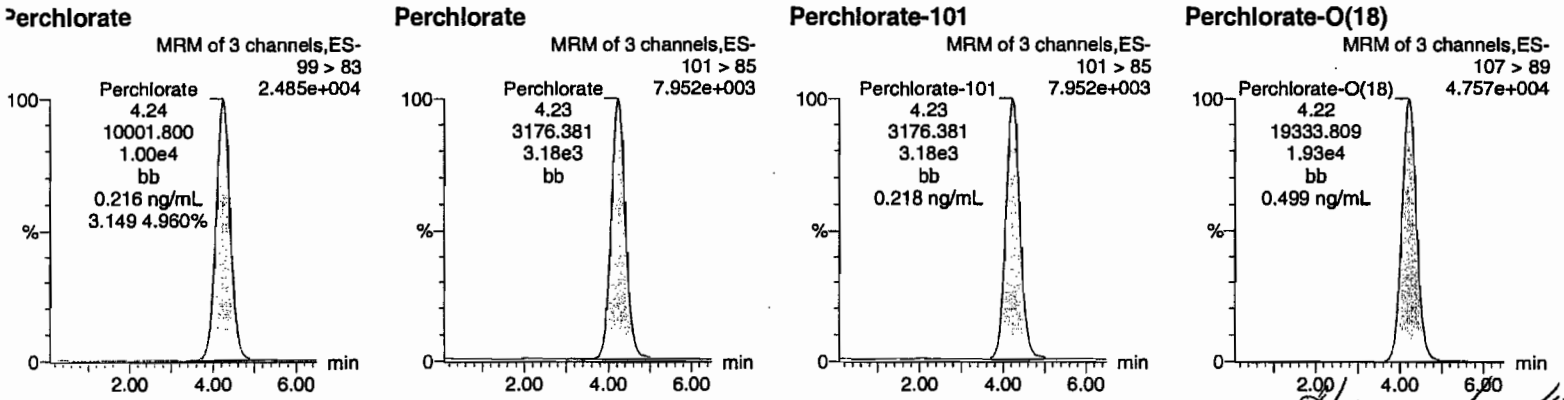

HMM 02/22/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035634	Perchlorate	99 > 83	4.24	10001.800	10001.800	bb			0.2159	107.97	7.97	2359.7...	3.15
1202035634	Perchlorate-101	101 > 85	4.23	3176.381	3176.381	bb			0.2179	108.93	8.93	2275.7...	
1202035634	Perchlorate-O(18)	107 > 89	4.22	19333.809	19333.809	bb			0.4994	99.87	-0.13	6997.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1511-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950028
Prep Batch Number:	950027

Sample Analysis

Sample ID	Client ID
245965001	RE15-10-7326
1202035573	Interference Check Sample (ICS)
1202035565	Method Blank (MB)
1202035566	Laboratory Control Sample (LCS)
1202035571	245911001(RE16-10-1400) Matrix Spike (MS)
1202035572	245911001(RE16-10-1400) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

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CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245911001 (RE16-10-1400) from SDG 10-1487-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

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Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert N Maier **Date:** 02/11/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-7326

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 245965001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate Isotope Ratio						1	08-FEB-10 20:53	per0208065a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate-O(18)			0.465	ug/L		1	08-FEB-10 20:53	per0208065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1511-1

Extract Batch Code: 950027

Date Filtered: 07-FEB-10

Matrix: WASTE WATER

Sample ID: 1202035566

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.196	ug/L	98.0		85 – 115
Perchlorate Isotope Ratio		3.01				–
Perchlorate–101	0.200	.207	ug/L	103		85 – 115
Perchlorate–O(18)		.483	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1511-1

Extract Batch Code: 950027

Date Filtered: 07-FEB-10

Matrix: WATER

Sample ID: 1202035573

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.211	ug/L	105		70 – 130
Perchlorate Isotope Ratio		3.12				
Perchlorate–101	0.200	.214	ug/L	107		70 – 130
Perchlorate–O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208052a
Date: 08-Feb-2010
Time: 19:28:20
ID: 1202035573
Vial: 2:1,C

|LANL|950028|LCQ|ICS|1|

CWW 02-09-10

Perchlorate

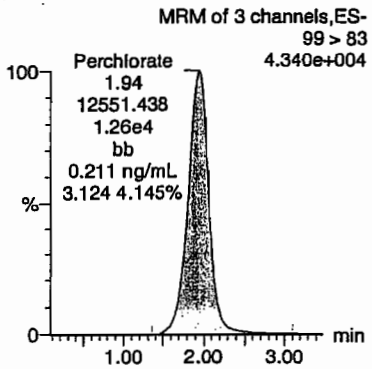

Perchlorate

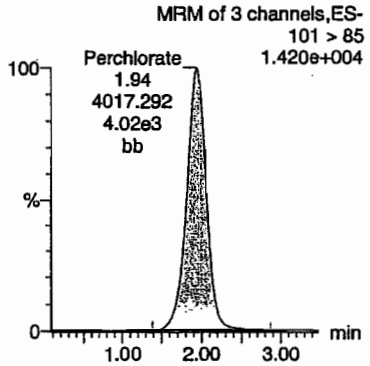

Perchlorate-101

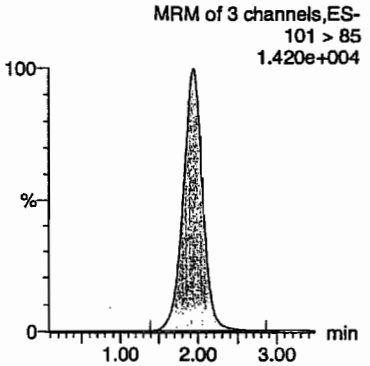

Perchlorate-O(18)

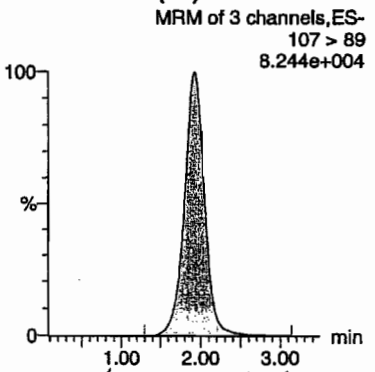

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035573	Perchlorate	99 > 83	1.94	12551.438	12551.438	bb			0.2108	105.42	5.42	1217.2...	3.12
1202035573	Perchlorate-101	101 > 85	1.94	4017.292	4017.292	bb			0.2140	107.01	7.01	2883.8...	
1202035573	Perchlorate-O(18)	107 > 89	1.93	23733.555	23733.555	bb			0.4879	97.59	-2.41	5289.0...	

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1511–1

Extract Batch Code: 950027

Date Extracted: 07–FEB–10

GEL MS/PS ID: 1202035571

Client ID: RE16–10–1400

GEL MSD/PSD ID: 1202035572

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00204	ug/L	0.192	94.8	.198	98.1	3.39	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3		3.01		0		–
Perchlorate–101	0.200	0.00319	ug/L	0.203	99.9	.209	103	2.76	30	75 – 125
Perchlorate–O(18)	0	0.461	ug/L	0.468		.462		1.31		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–FEB–10	per0208001a	IPB001
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208001a	IPB001
Perchlorate	0.00	0	NA	08–FEB–10	per0208002a	IPB001
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Name: per0208001a
Date: 08-Feb-2010
Time: 13:54:09
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

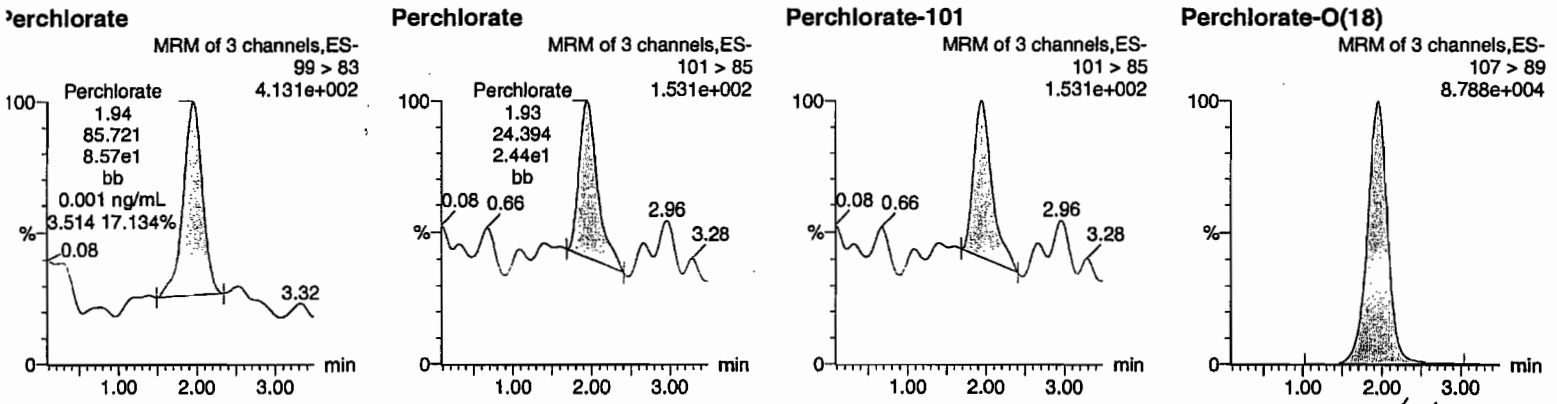

Hyme 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83	1.94	85.721	85.721	bb			0.0014			29.463	3.51
PB001	Perchlorate-101	101 > 85	1.93	24.394	24.394	bb			0.0013			21.780	
PB001	Perchlorate-O(18)	107 > 89	1.94	25816.436	25816.436	bb			0.5308	106.15	6.15	6489.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208002a
Date: 08-Feb-2010
Time: 14:00:52
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

Perchlorate

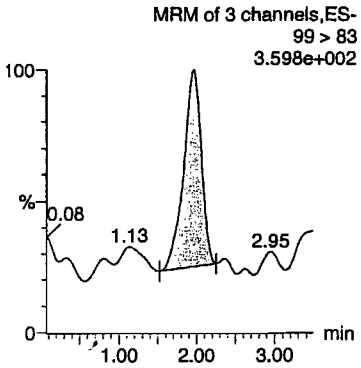

Perchlorate

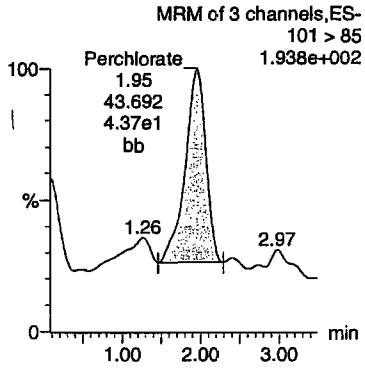

Perchlorate-101

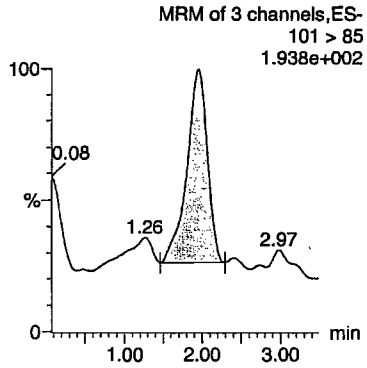

Perchlorate-O(18)

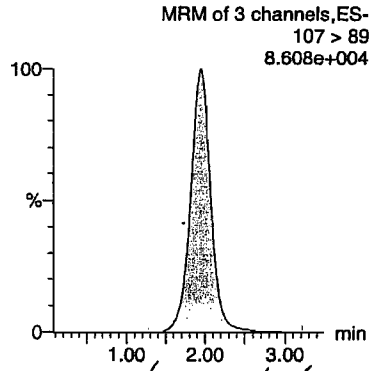

time on helio

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83	1.97	72.177	72.177	bb			0.0012			25.847	1.65
PB001	Perchlorate-101	101 > 85	1.95	43.692	43.692	bb			0.0023			6.442	
PB001	Perchlorate-O(18)	107 > 89	1.94	25472.947	25472.947	bb			0.5237	104.74	4.74	6120.9...	

OKAY
2/10/2010

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–FEB–10	per0208008a	IPB002
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208008a	IPB002
Perchlorate	0.00	0	NA	08–FEB–10	per0208010a	IPB003
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208010a	IPB003
Perchlorate	0.00	0	NA	08–FEB–10	per0208022a	IPB004
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208022a	IPB004
Perchlorate	0.00	0	NA	08–FEB–10	per0208026a	IPB005
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208026a	IPB005
Perchlorate	0.00	0	NA	08–FEB–10	per0208035a	IPB006
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208035a	IPB006
Perchlorate	0.00	0	NA	08–FEB–10	per0208048a	IPB007
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208048a	IPB007
Perchlorate	0.00	0	NA	08–FEB–10	per0208061a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208061a	IPB008
Perchlorate	0.00	0	NA	08–FEB–10	per0208074a	IPB009
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208074a	IPB009

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208008a
Date: 08-Feb-2010
Time: 14:40:00
ID: IPB002
Vial: 1:1,A

CWW 02-09-10

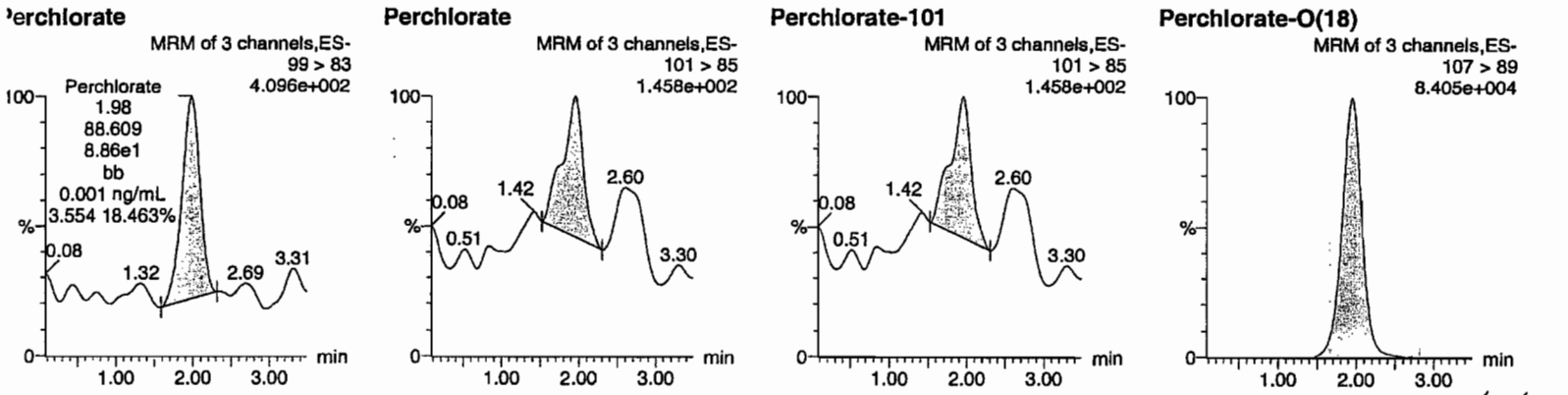

Hmc 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83	1.98	88.609	88.609	bb			0.0015			17.608	3.55
PB002	Perchlorate-101	101 > 85	1.95	24.933	24.933	bb			0.0013			9.796	
PB002	Perchlorate-O(18)	107 > 89	1.94	24800.170	24800.170	bb			0.5099	101.97	1.97	8413.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208010a
Date: 08-Feb-2010
Time: 14:53:04
ID: IPB003
Vial: 1:1,A

CWW
02-09-10

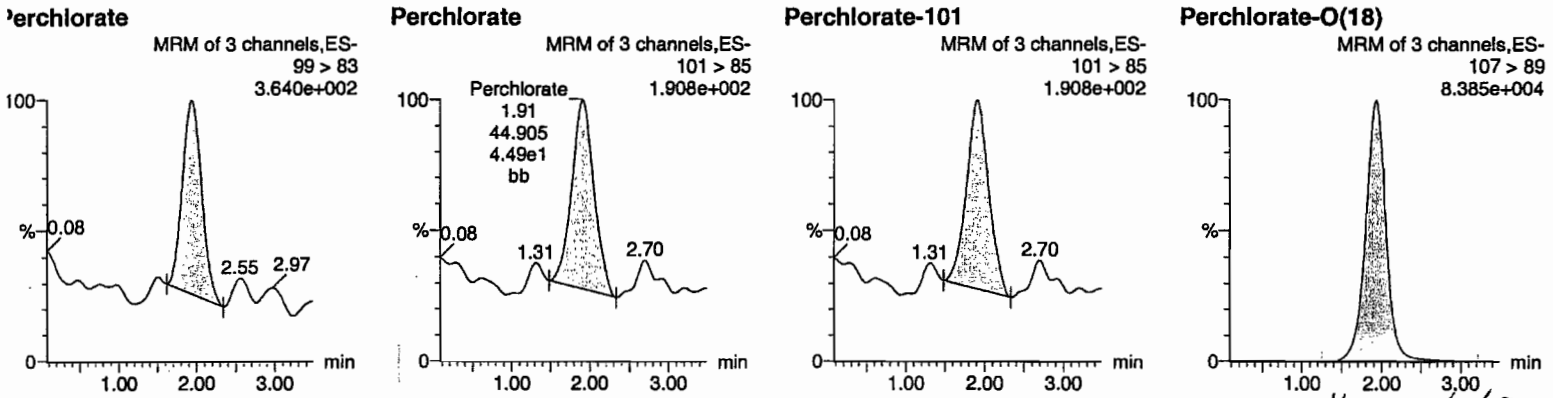

Hrwa 2/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83	1.93	78.058	78.058	bb			0.0013			17.447	1.74
PB003	Perchlorate-101	101 > 85	1.91	44.905	44.905	bb			0.0024			6.119	
PB003	Perchlorate-O(18)	107 > 89	1.93	24645.639	24645.639	bb			0.5067	101.34	1.34	10100....	

OKAY
(0.05U)

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208022a
Date: 08-Feb-2010
Time: 16:11:45
ID: IPB004
Vial: 1:1,A

CWW 02-09-10

Perchlorate

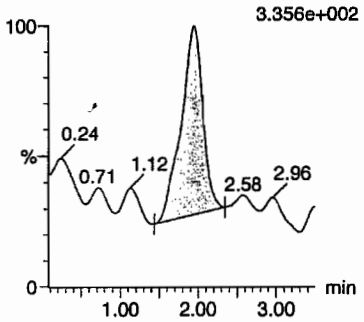

Perchlorate

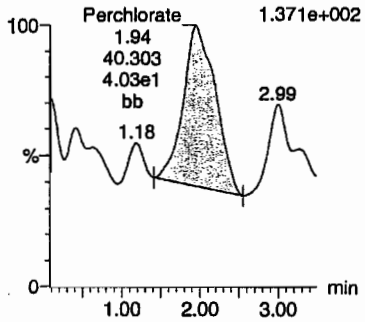

Perchlorate-101

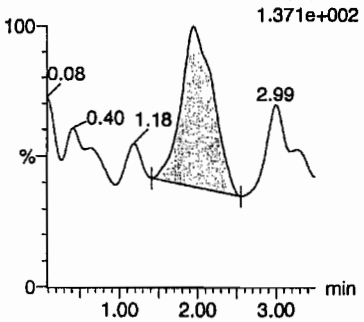

Perchlorate-O(18)

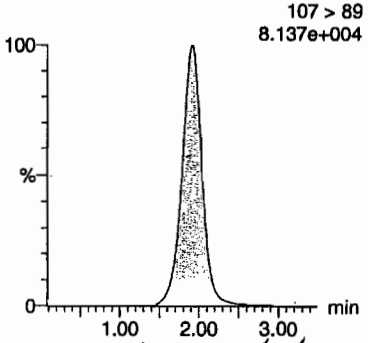

Hmm 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB004	Perchlorate	99 > 83	1.94	78.709	78.709	bb			0.0013			20.514	1.95
PB004	Perchlorate-101	101 > 85	1.94	40.303	40.303	bb			0.0021			13.319	
PB004	Perchlorate-O(18)	107 > 89	1.92	23985.541	23985.541	bb			0.4931	98.62	-1.38	5434.3...	

okay
<0.0200

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208026a
Date: 08-Feb-2010
Time: 16:37:55
ID: IPB005
Vial: 1:1,A

CWD
02-09-10

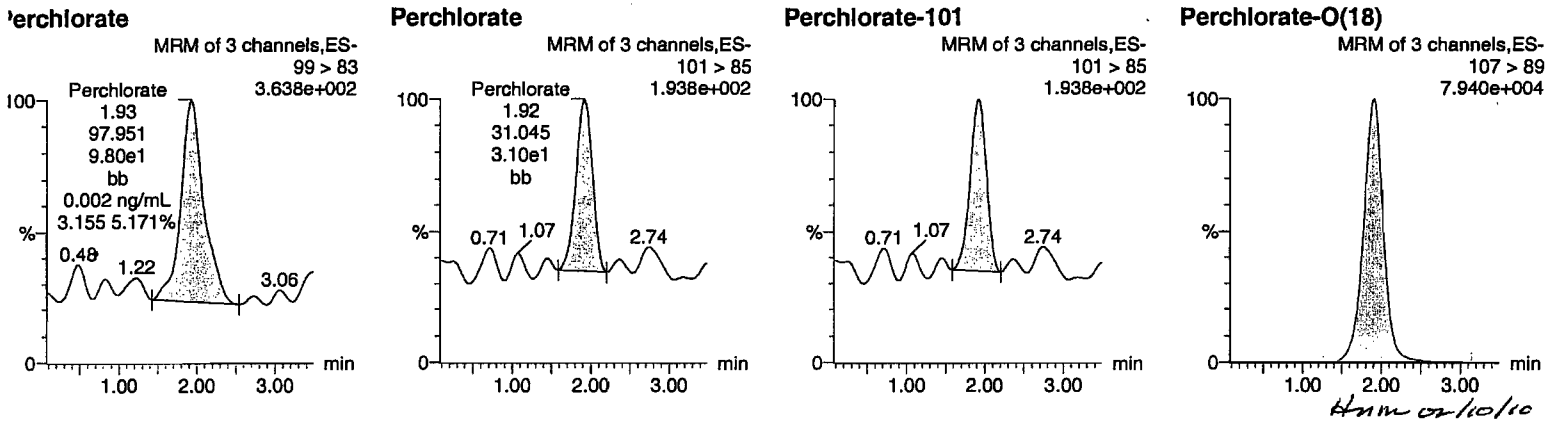

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83	1.93	97.951	97.951	bb			0.0016			26.012	3.16
PB005	Perchlorate-101	101 > 85	1.92	31.045	31.045	bb			0.0017			24.338	
PB005	Perchlorate-O(18)	107 > 89	1.91	23263.740	23263.740	bb			0.4783	95.66	-4.34	17328....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208035a
Date: 08-Feb-2010
Time: 17:36:50
ID: IPB006
Vial: 1:1,A

CW
02-09-10

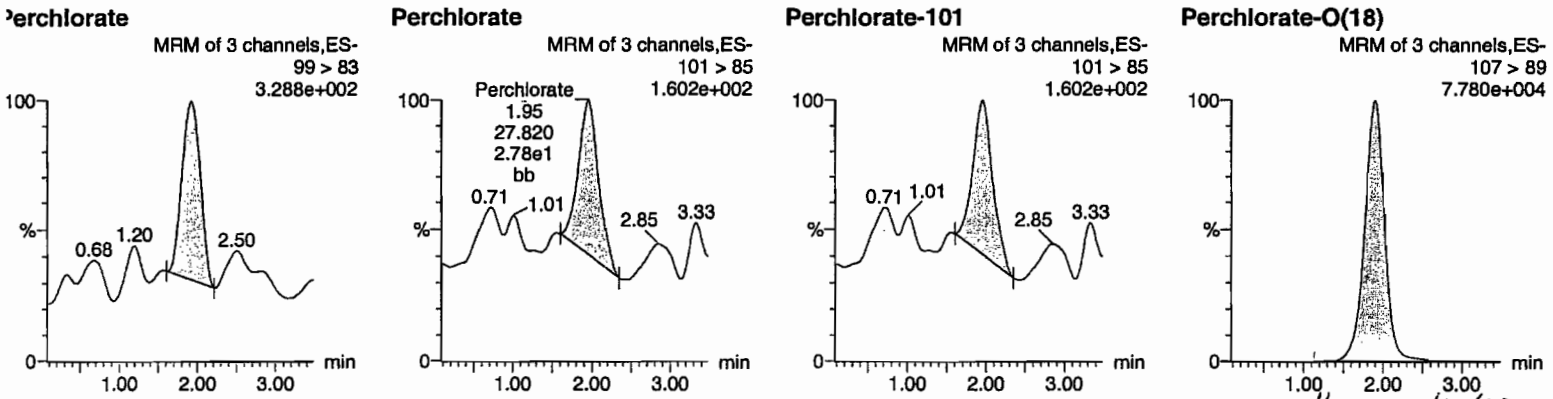

Hmmcalloio

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB006	Perchlorate	99 > 83	1.92	61.682	61.682	bb			0.0010			7.589	2.22
PB006	Perchlorate-101	101 > 85	1.95	27.820	27.820	bb			0.0015			8.535	
PB006	Perchlorate-O(18)	107 > 89	1.89	22700.701	22700.701	bb			0.4667	93.34	-6.66	9296.2...	

okay
<0.050

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208048a
Date: 08-Feb-2010
Time: 19:01:59
ID: IPB007
Vial: 1:1,A

02-09-10

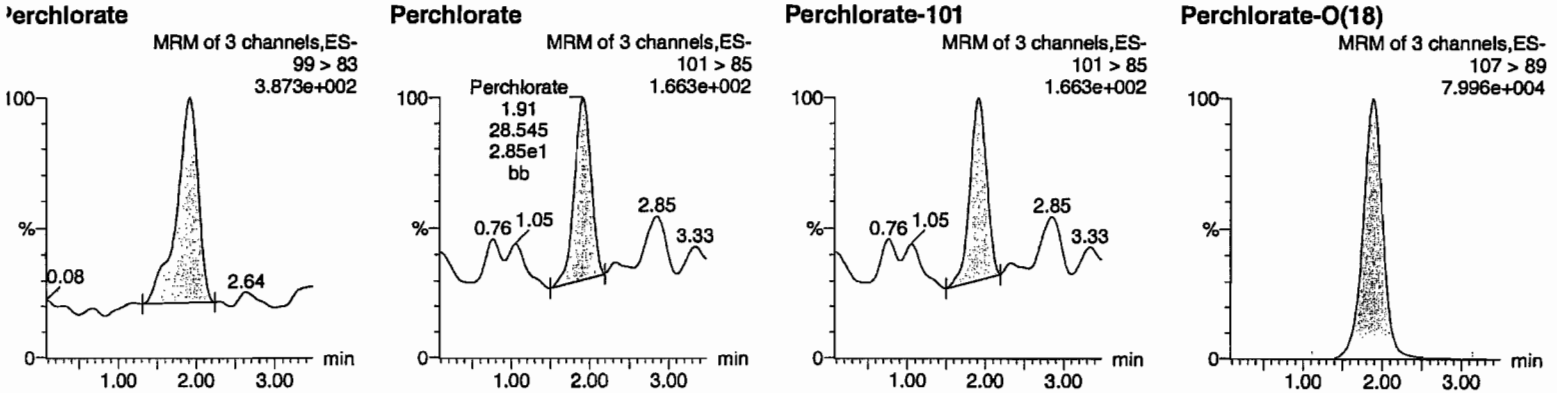

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83	1.92	98.695	98.695	bb			0.0017			45.617	3.46
PB007	Perchlorate-101	101 > 85	1.91	28.545	28.545	bb			0.0015			16.585	
PB007	Perchlorate-O(18)	107 > 89	1.88	23201.119	23201.119	bb			0.4770	95.40	-4.60	2781.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208061a
Date: 08-Feb-2010
Time: 20:27:18
ID: IPB008
Vial: 1:1,A

CWW 02-09-10

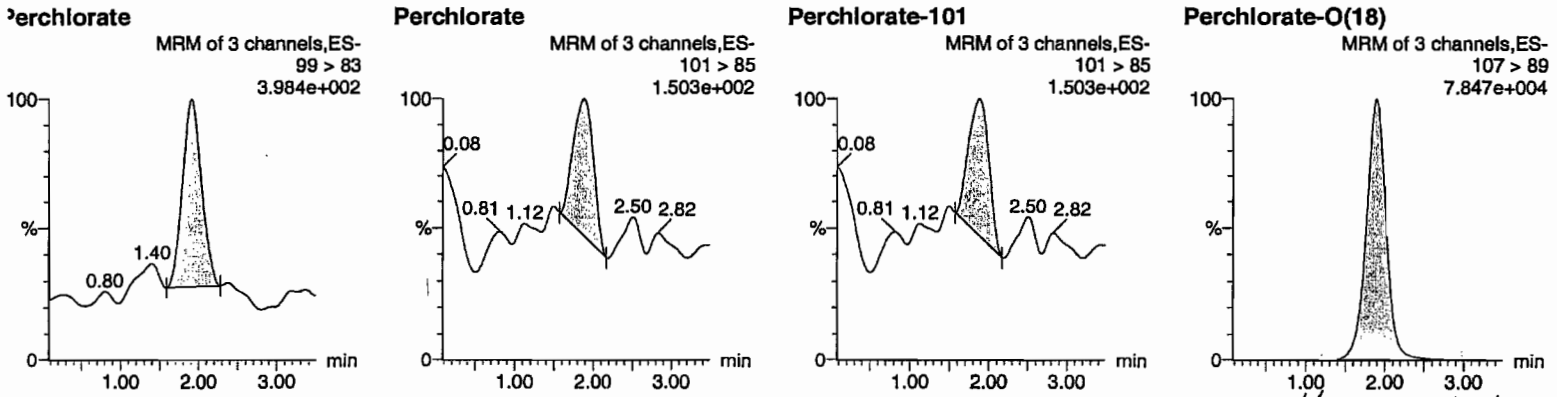

HMM 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83	1.91	82.327	82.327	bb			0.0014			25.247	3.44
PB008	Perchlorate-101	101 > 85	1.88	23.921	23.921	bb			0.0013			7.965	
PB008	Perchlorate-O(18)	107 > 89	1.89	22850.625	22850.625	bb			0.4698	93.96	-6.04	9586.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

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Date: 08-Feb-2010
Time: 21:52:41
ID: IPB009
Vial: 1:1,A

Cmw 02-09-10

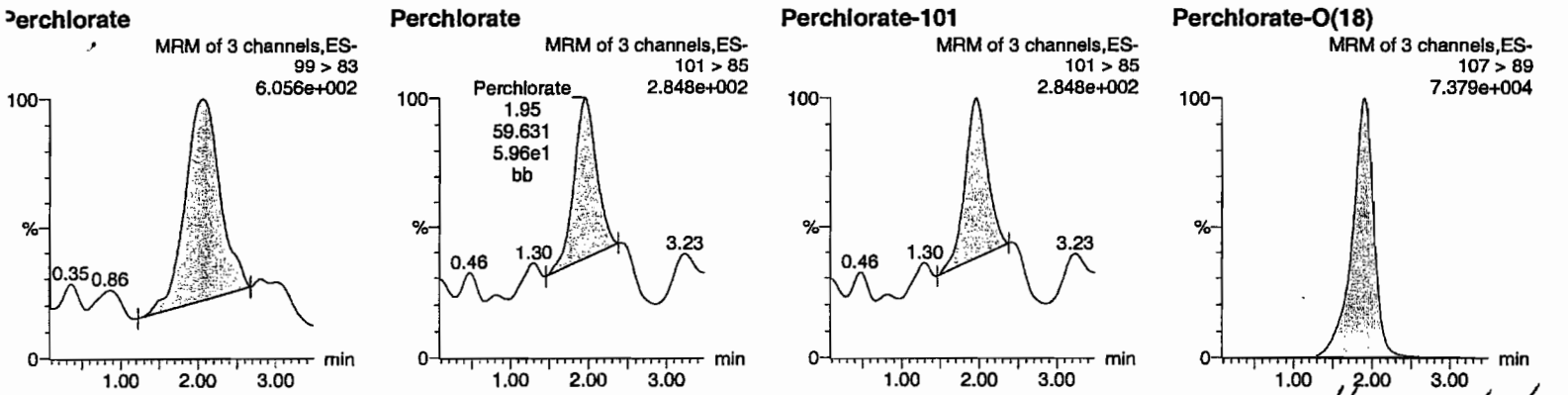

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83	2.05	246.817	246.817	bb			0.0041			12.504	4.14
IPB009	Perchlorate-101	101 > 85	1.95	59.631	59.631	bb			0.0032			10.438	
IPB009	Perchlorate-O(18)	107 > 89	1.89	23201.656	23201.656	bb			0.4770	95.40	-4.60	2554.5...	

OKAY LOWSOD

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-07-08

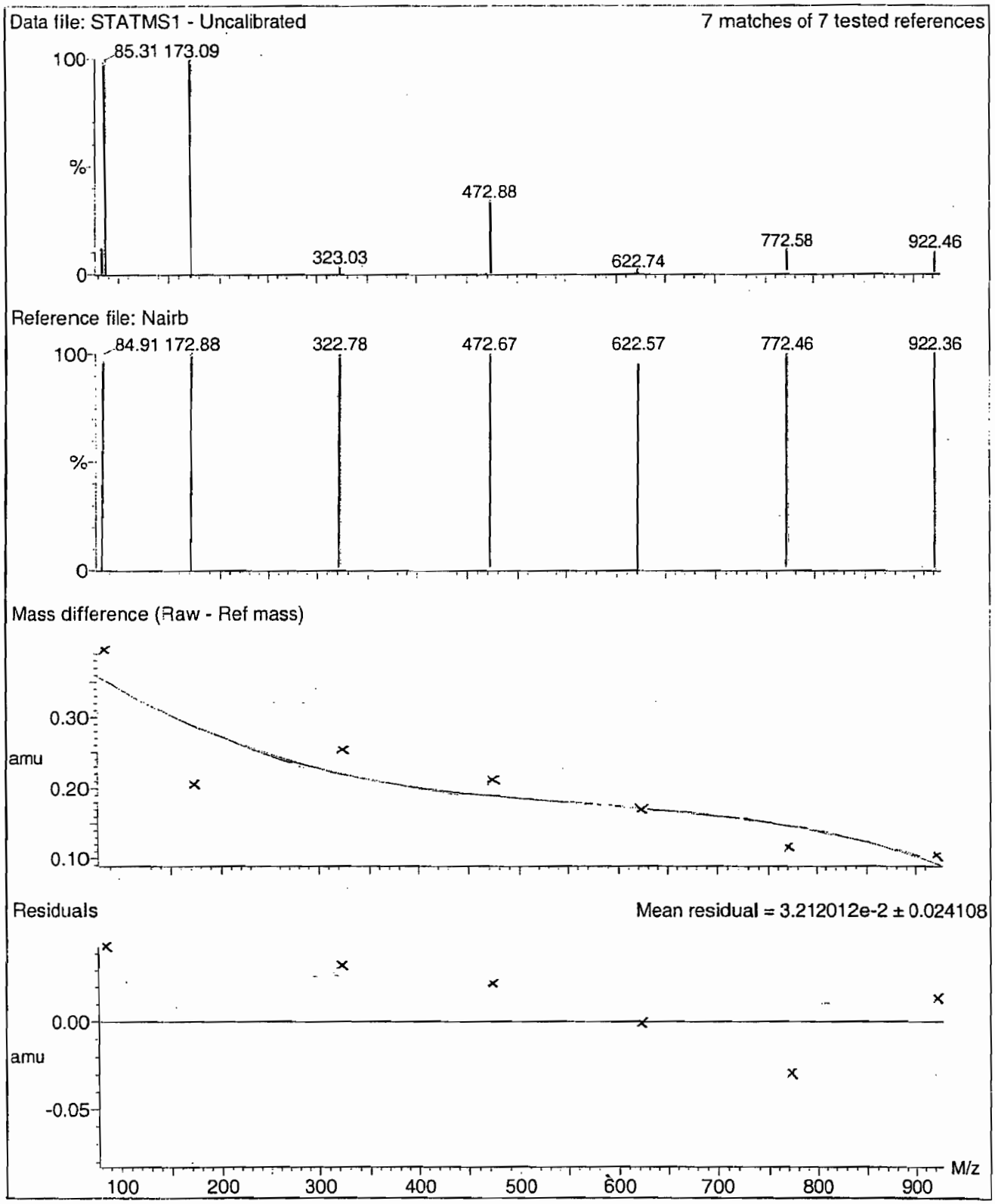

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

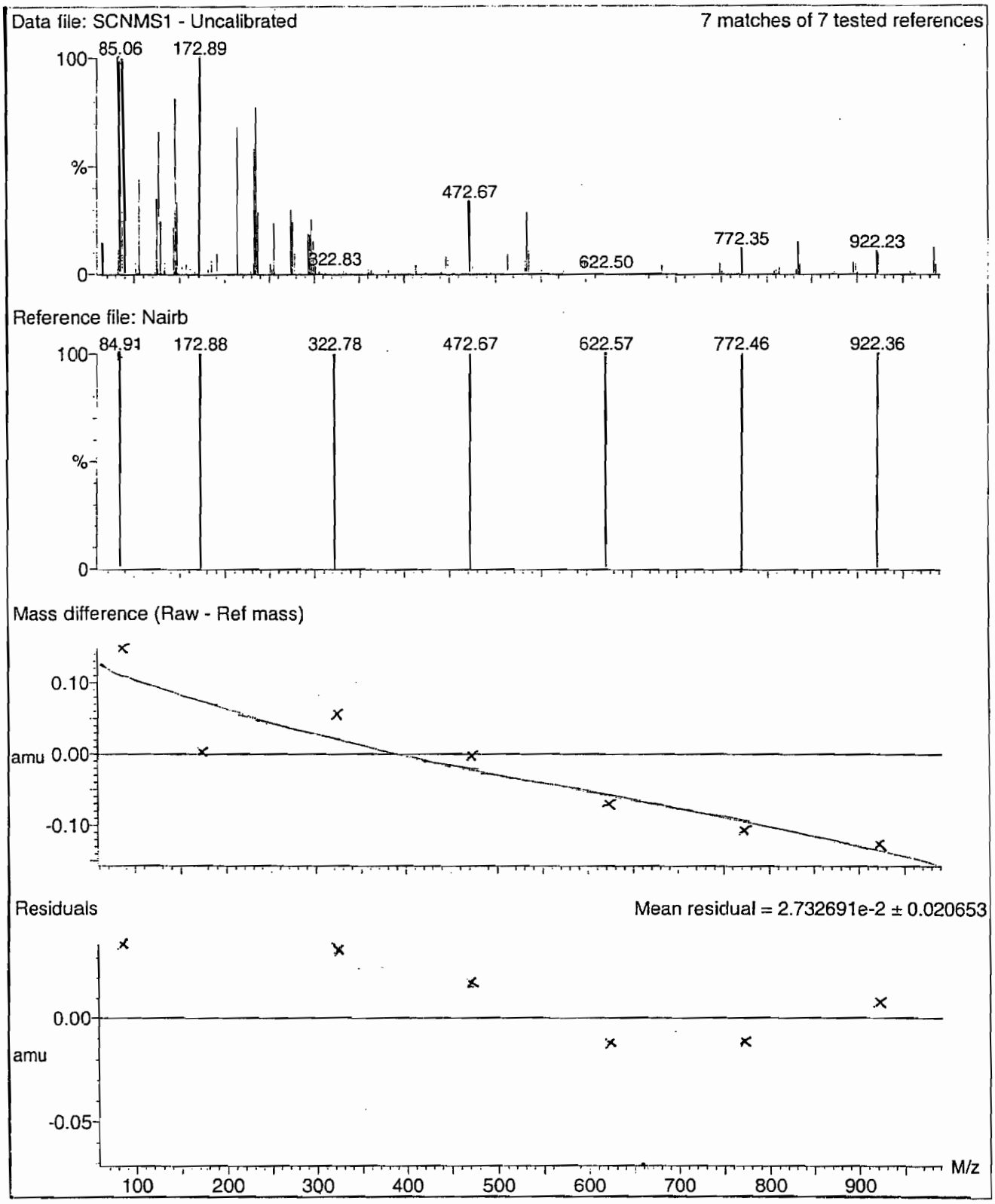

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Printed: Tue Jan 08 12:21:04 2008

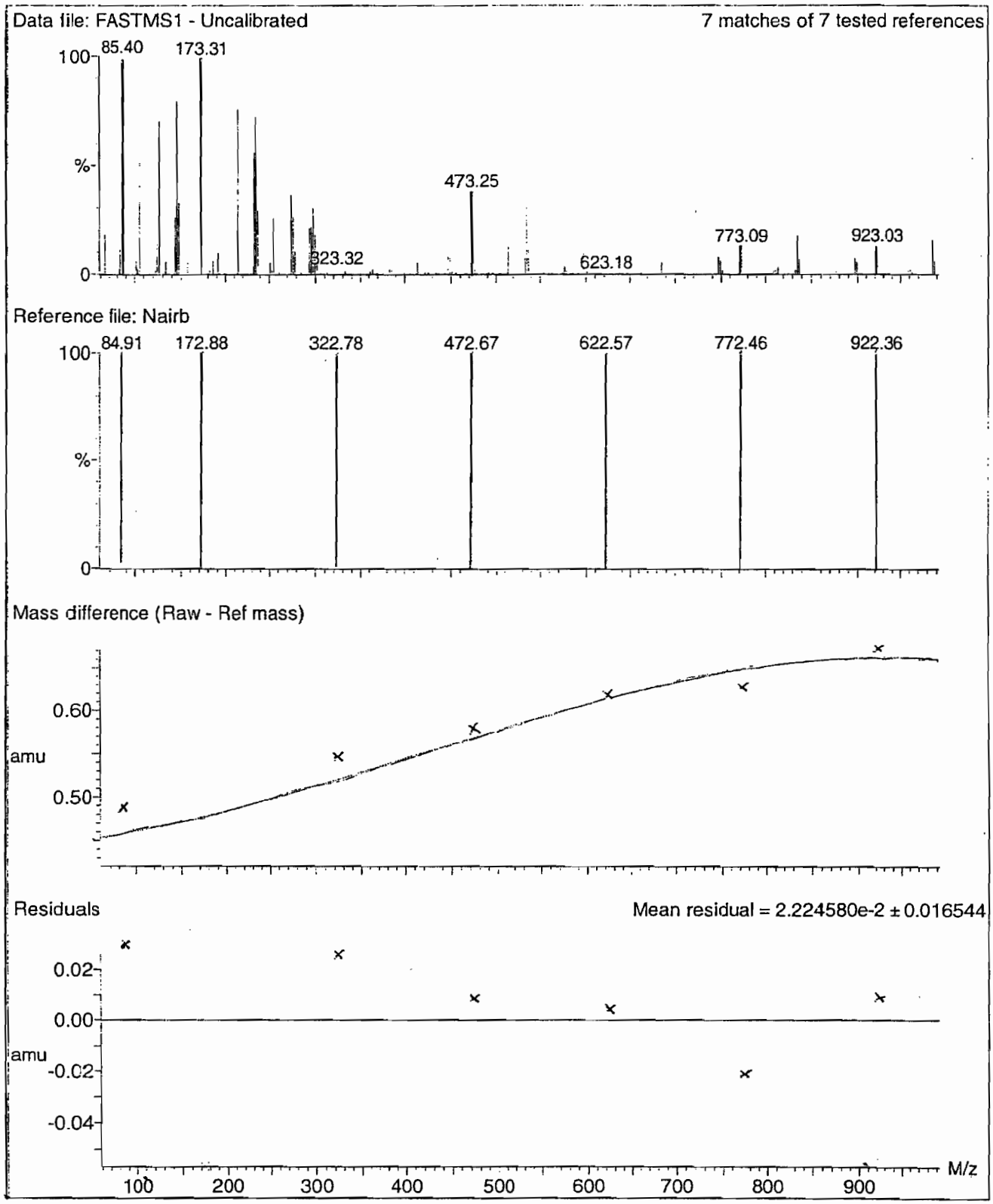

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Printed: Tue Jan 08 12:23:51 2008

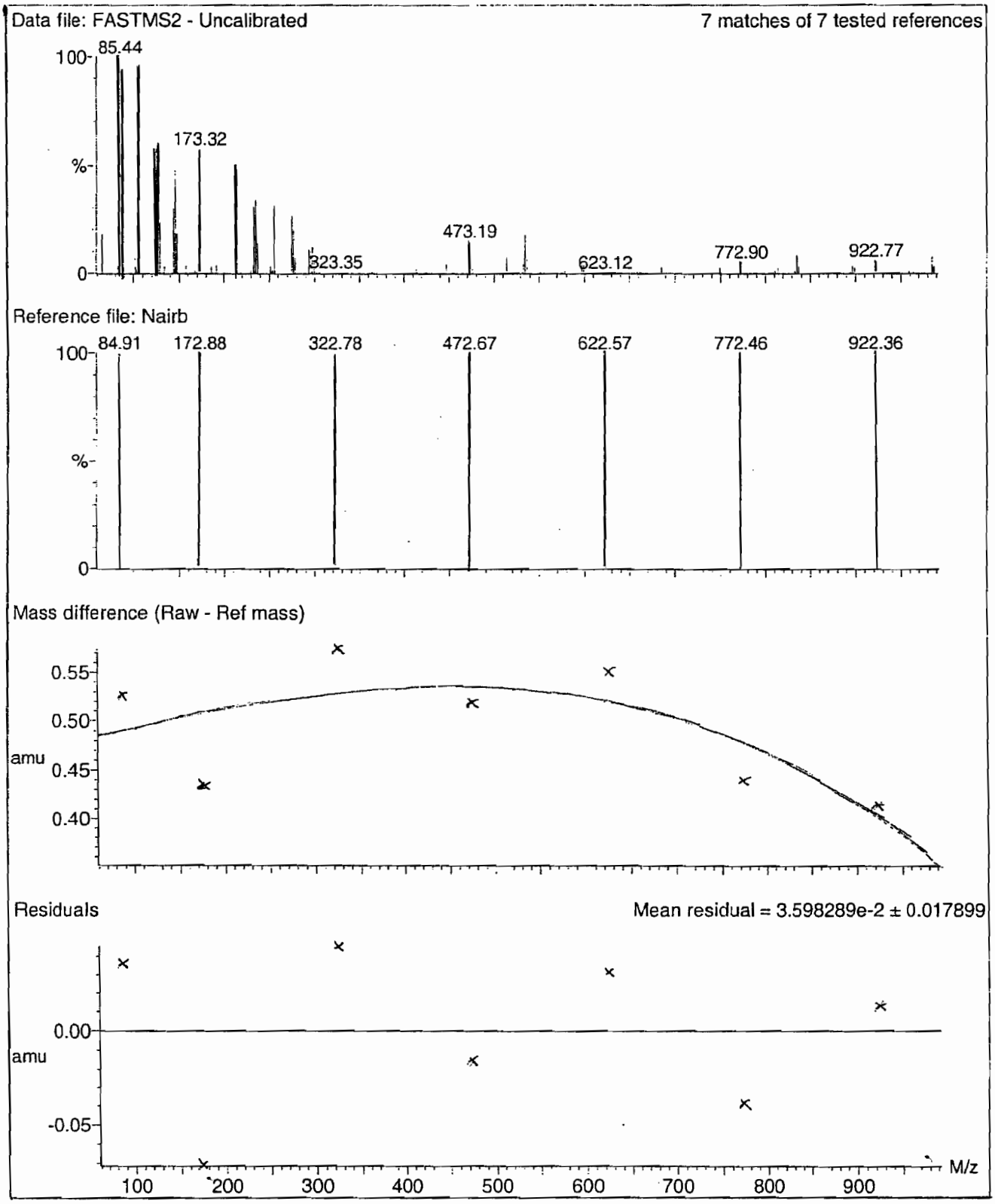

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Calibration Report - MS2 Scanning

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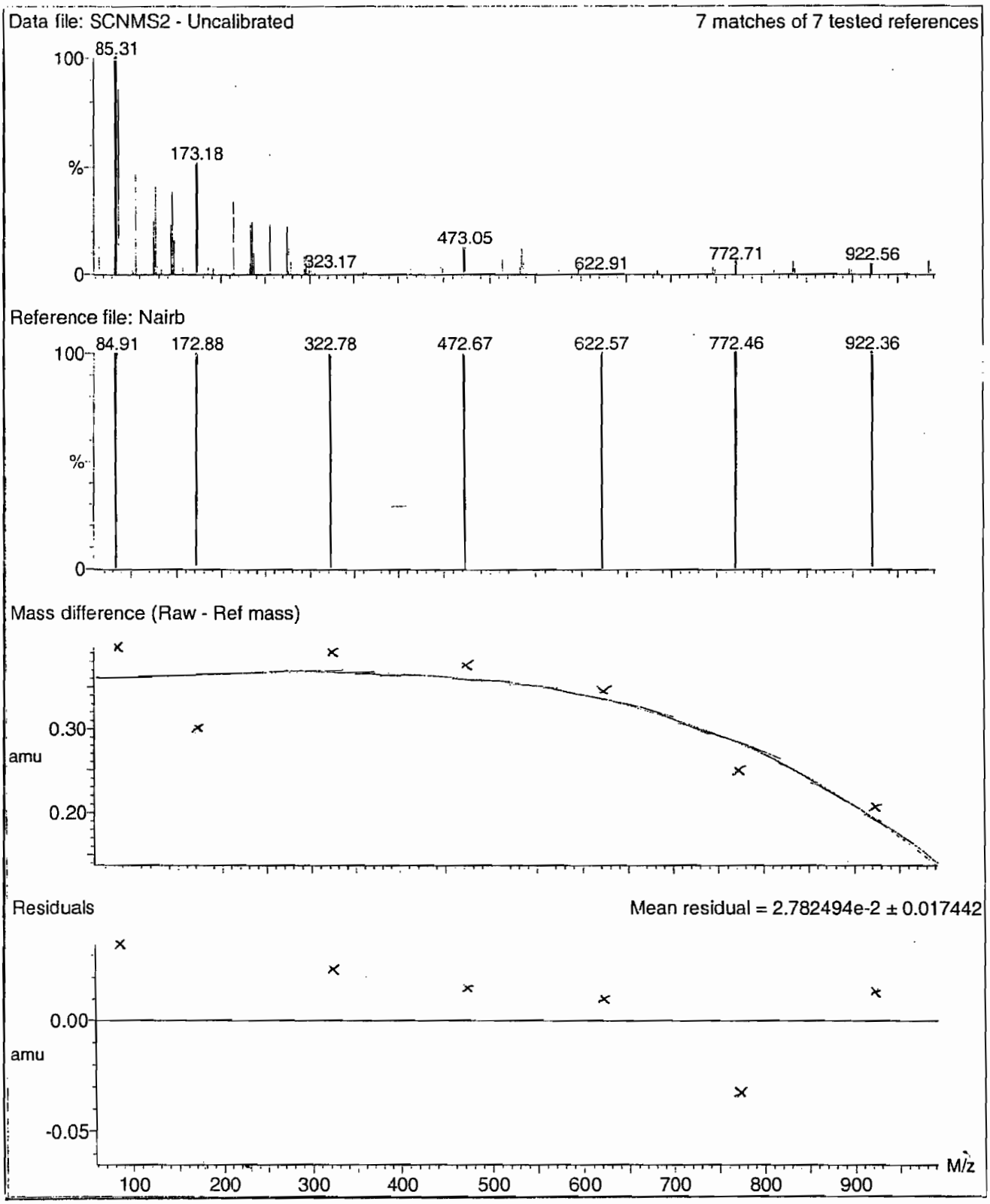

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

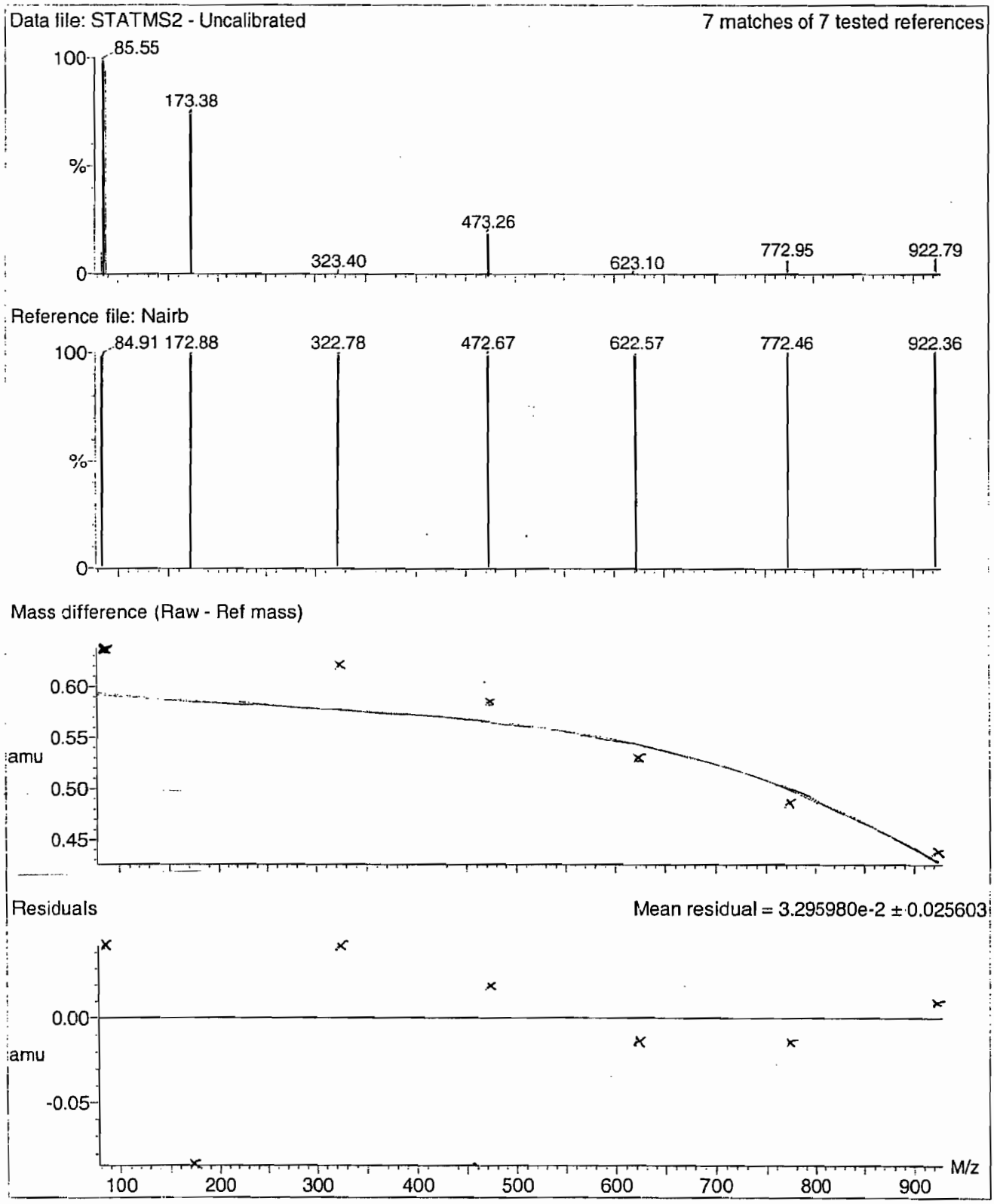

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, February 08, 2010 12:29:43 Eastern Standard Time

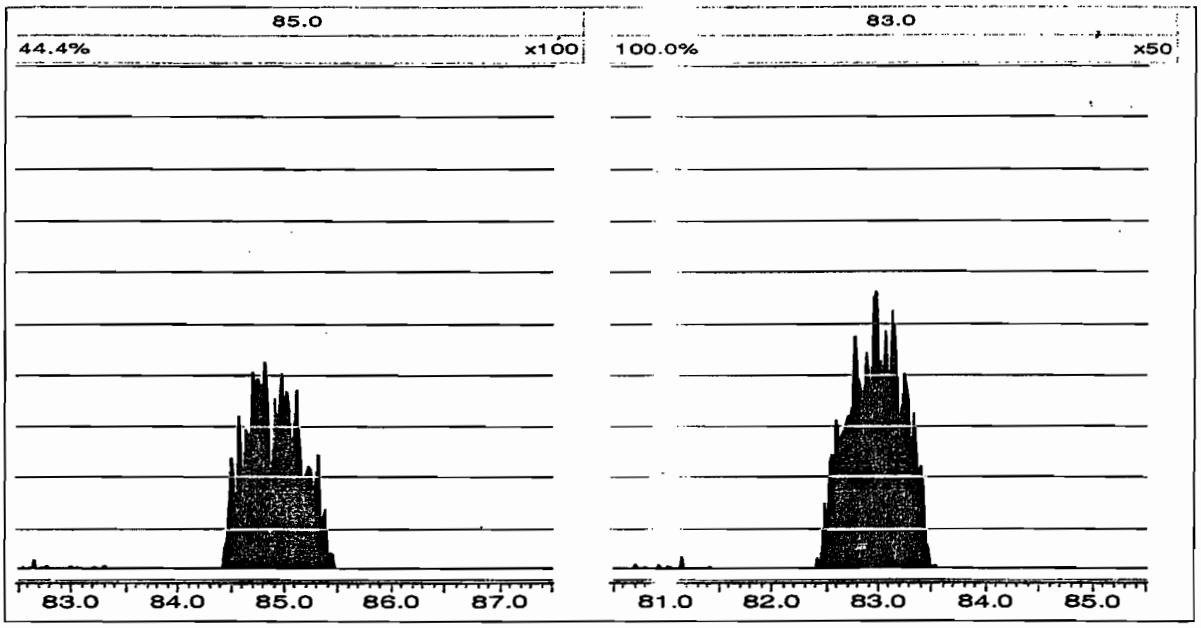

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1511–1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0208006a**	**08–FEB–10**	**24441.6**				
Lower Area Limit			**12220.8**				
Upper Area Limit			**48883.2**				
1202035565	per0208050a	08–FEB–10 19:15	22209.3	1.88	1.89273	1.007	
1202035566	per0208051a	08–FEB–10 19:21	23514.8	1.88	1.89277	1.007	
1202035573	per0208052a	08–FEB–10 19:28	23733.6	1.93	1.94248	1.006	
245965001	per0208065a	08–FEB–10 20:53	22596.3	1.88	1.89275	1.007	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-7326

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 245965001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate Isotope Ratio						1	08-FEB-10 20:53	per0208065a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 20:53	per0208065a
	Perchlorate-O(18)			0.465	ug/L		1	08-FEB-10 20:53	per0208065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208065a
Date: 08-Feb-2010
Time: 20:53:36
ID: 245965001
Vial: 2:3,A

LANL|950028|L22|11

CWW 02-21-10

Perchlorate
MRM of 3 channels,ES-
99 > 83
6.227e+002

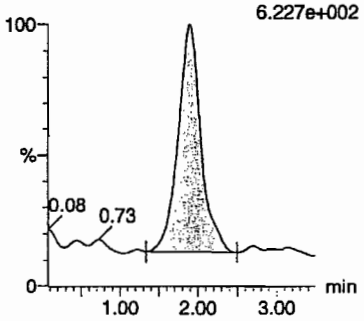

Perchlorate
MRM of 3 channels,ES-
101 > 85
3.150e+002

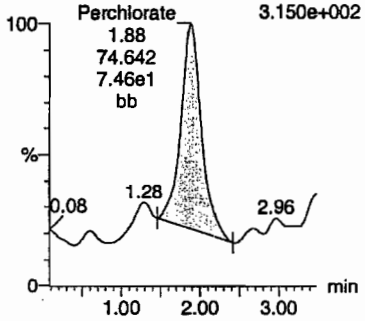

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
3.150e+002

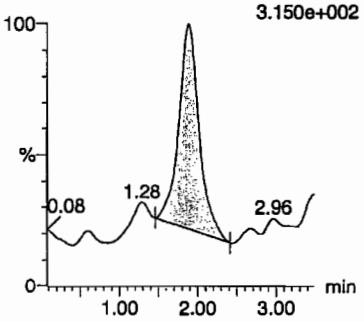

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
7.823e+004

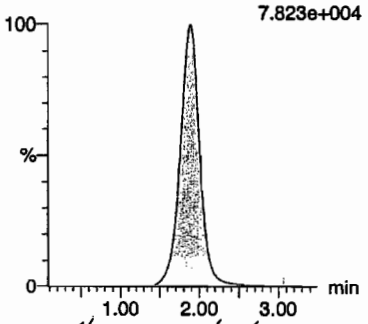

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245965001	Perchlorate	99 > 83	1.89	186.082	186.082	bb			0.0031			34.822	2.49
245965001	Perchlorate-101	101 > 85	1.88	74.642	74.642	bb			0.0040			32.265	
245965001	Perchlorate-O(18)	107 > 89	1.88	22596.332	22596.332	bb			0.4646	92.91	-7.09	3161.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1511-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 59530.66

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1511-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 18771.12

Response Type: External Standard

Curve Type: RF

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uantify Calibration Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

ast Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
rinted: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

lethod: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

ompound name: Perchlorate
esponse Factor: 59530.6
RF SD: 1393.77, % Relative SD: 2.34126
esponse type: External Std, Area
urve type: RF

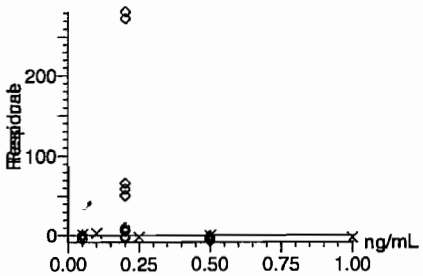

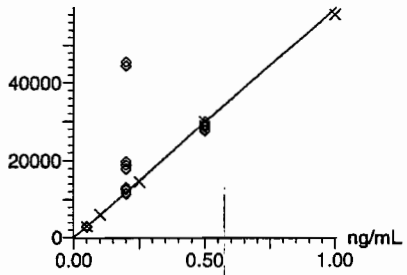

CWW
02-09-10

ompound name: Perchlorate-101
esponse Factor: 18771.1
RF SD: 687.466, % Relative SD: 3.66236
esponse type: External Std, Area
urve type: RF

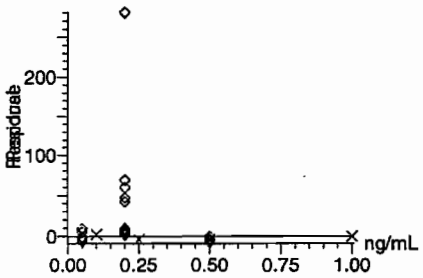

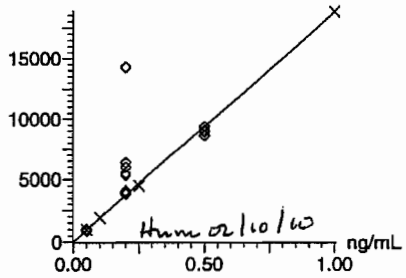

Hum 02/10/10

iEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 48640
RRF SD: 647.782, % Relative SD: 1.33179
Response type: External Std, Area
Curve type: RF

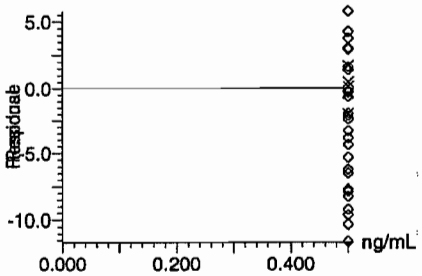

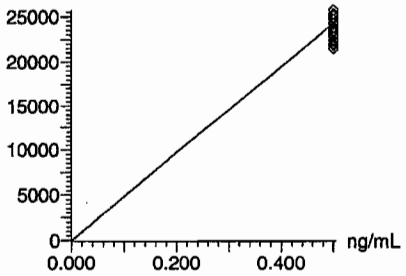

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	100.59	08–FEB–10 14:46	per0208009a
Perchlorate Isotope Ratio		3.19		08–FEB–10 14:46	per0208009a
Perchlorate–101	.5	.5	99.88	08–FEB–10 14:46	per0208009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208009a
Date: 08-Feb-2010
Time: 14:46:32
ID: WCL100128-06ICV
Vial: 1:2,A

PWD
CWO
02-09-10

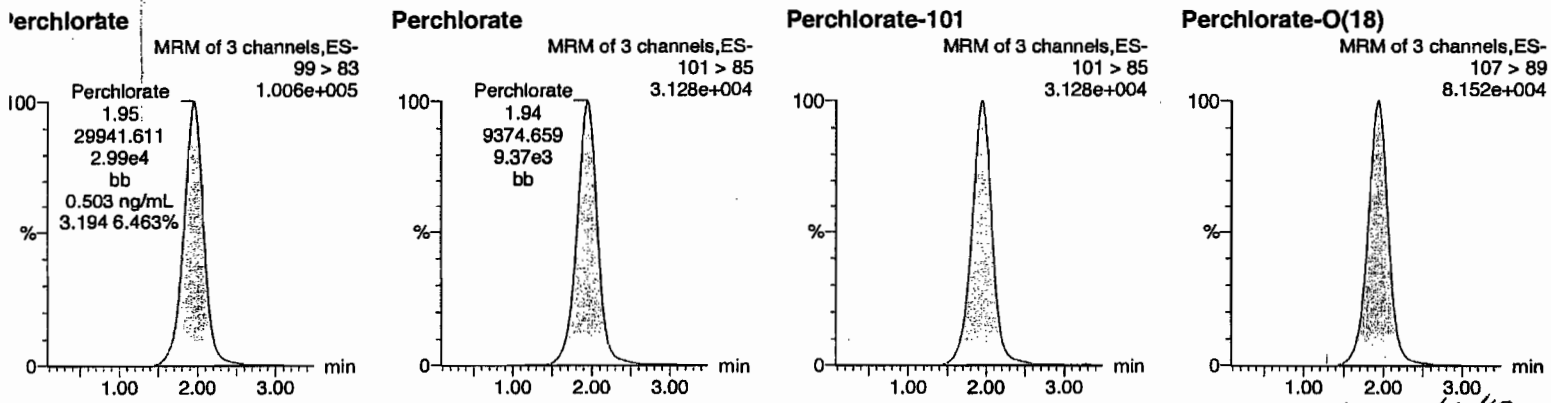

Hmw 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100128-06ICV	Perchlorate	99 > 83	1.95	29941.611	29941.611	bb			0.5030	100.59	0.59	5446.9...	3.19
VCL100128-06ICV	Perchlorate-101	101 > 85	1.94	9374.659	9374.659	bb			0.4994	99.88	-0.12	264.354	
VCL100128-06ICV	Perchlorate-O(18)	107 > 89	1.93	24277.504	24277.504	bb			0.4991	99.83	-0.17	3258.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1511-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.49	08-FEB-10 16:05	per0208021a
Perchlorate Isotope Ratio		3.13		08-FEB-10 16:05	per0208021a
Perchlorate-101	.5	.5	99.83	08-FEB-10 16:05	per0208021a
Perchlorate	.5	.49	97.32	08-FEB-10 17:30	per0208034a
Perchlorate Isotope Ratio		3.24		08-FEB-10 17:30	per0208034a
Perchlorate-101	.5	.48	95.26	08-FEB-10 17:30	per0208034a
Perchlorate	.5	.48	95.6	08-FEB-10 18:55	per0208047a
Perchlorate Isotope Ratio		3.13		08-FEB-10 18:55	per0208047a
Perchlorate-101	.5	.49	97	08-FEB-10 18:55	per0208047a
Perchlorate	.5	.47	93.45	08-FEB-10 20:20	per0208060a
Perchlorate Isotope Ratio		3.05		08-FEB-10 20:20	per0208060a
Perchlorate-101	.5	.49	97.09	08-FEB-10 20:20	per0208060a
Perchlorate	.5	.48	96.67	08-FEB-10 21:45	per0208073a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1511–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.22		08–FEB–10 21:45	per0208073a
Perchlorate–101	.5	.48	95.12	08–FEB–10 21:45	per0208073a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208021a
Date: 08-Feb-2010
Time: 16:05:12
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-09-10

Perchlorate

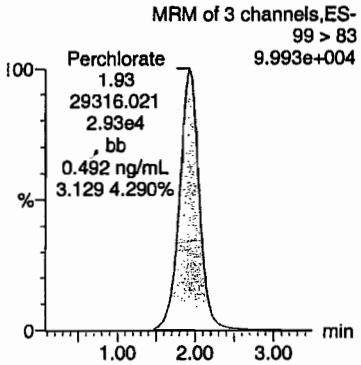

Perchlorate

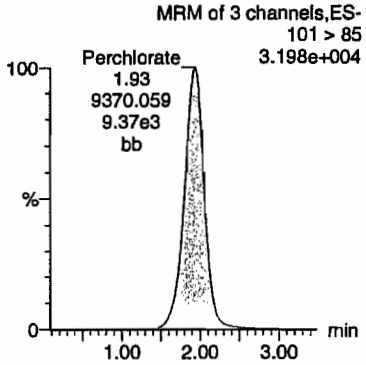

Perchlorate-101

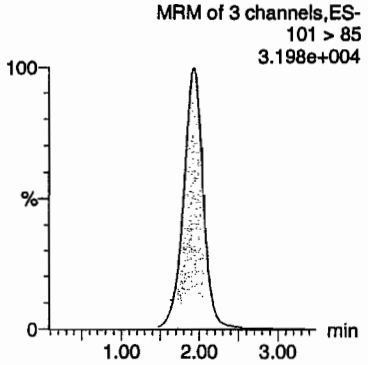

Perchlorate-O(18)

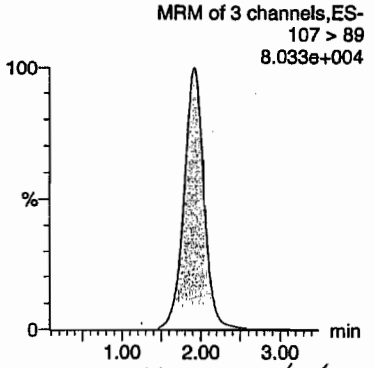

Hum on holio

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100128-06CCV	Perchlorate	99 > 83	1.93	29316.021	29316.021	bb			0.4925	98.49	-1.51	1324.3...	3.13
VCL100128-06CCV	Perchlorate-101	101 > 85	1.93	9370.059	9370.059	bb			0.4992	99.83	-0.17	4157.5...	
VCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.92	23385.551	23385.551	bb			0.4808	96.16	-3.84	3253.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208034a
Date: 08-Feb-2010
Time: 17:30:17
ID: WCL100128-06CCV
Vial: 1:2,A

Pwo
aw
02-09-10

Perchlorate

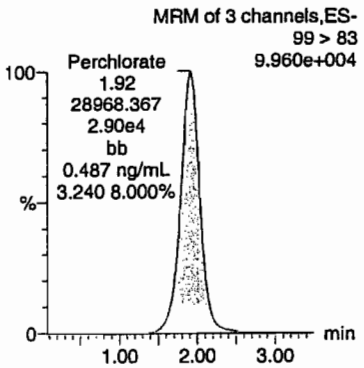

Perchlorate

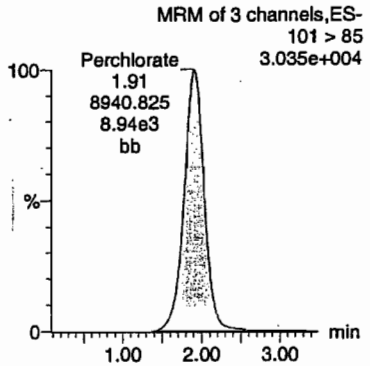

Perchlorate-101

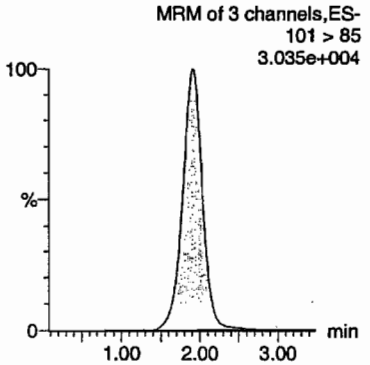

Perchlorate-O(18)

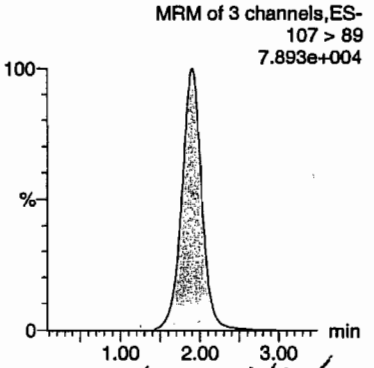

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.92	28968.367	28968.367	bb			0.4866	97.32	-2.68	7606.4...	3.24
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8940.825	8940.825	bb			0.4763	95.26	-4.74	3381.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.91	23019.350	23019.350	bb			0.4733	94.65	-5.35	4411.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208047a
Date: 08-Feb-2010
Time: 18:55:25
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-09-10

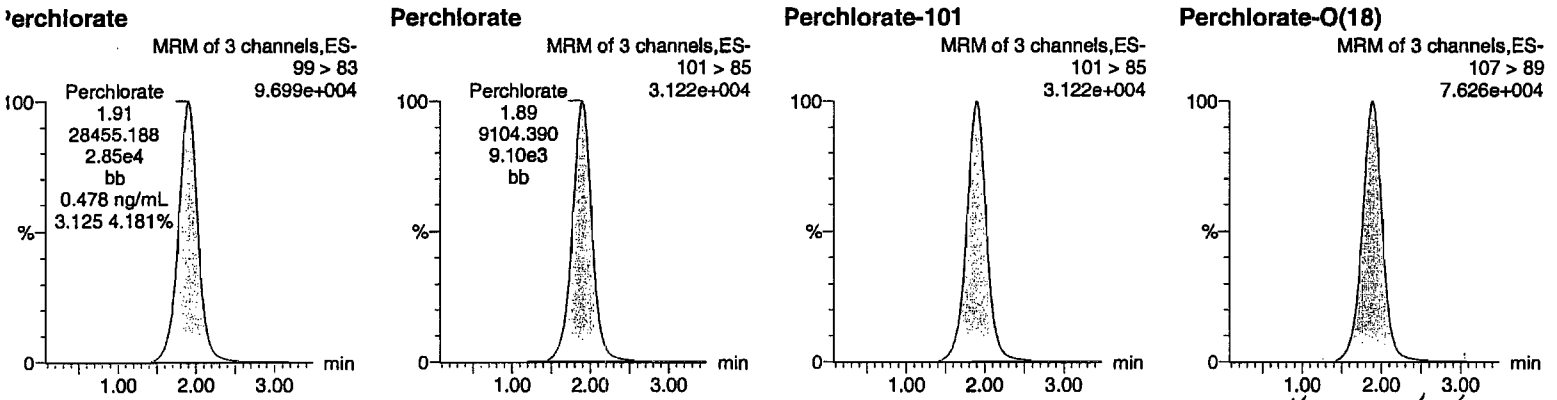

Hmm a/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28455.188	28455.188	bb			0.4780	95.60	-4.40	6190.9...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9104.390	9104.390	bb			0.4850	97.00	-3.00	681.071	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22404.150	22404.150	bb			0.4606	92.12	-7.88	2959.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208060a
Date: 08-Feb-2010
Time: 20:20:32
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-25-10

Perchlorate

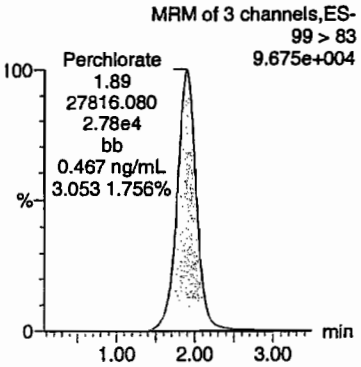

Perchlorate

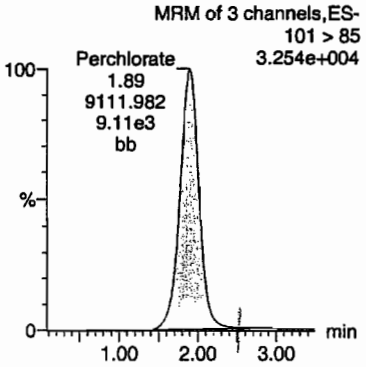

Perchlorate-101

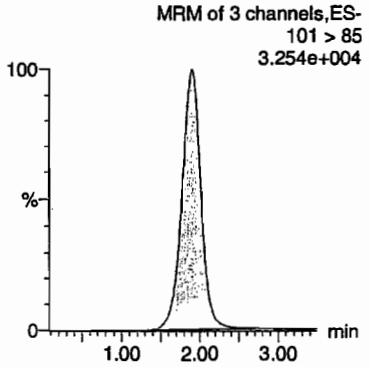

Perchlorate-O(18)

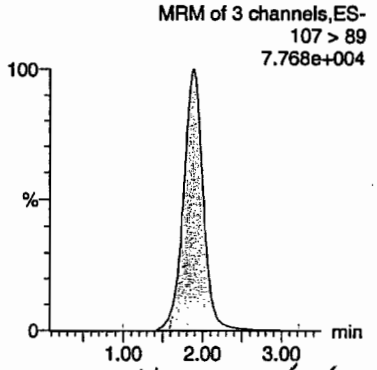

Hmm on holo

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	27816.080	27816.080	bb			0.4673	93.45	-6.55	1799.5...	3.05
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9111.982	9111.982	bb			0.4854	97.09	-2.91	1434.4...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22435.383	22435.383	bb			0.4613	92.25	-7.75	1805.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208073a
Date: 08-Feb-2010
Time: 21:45:55
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-09-10

Perchlorate

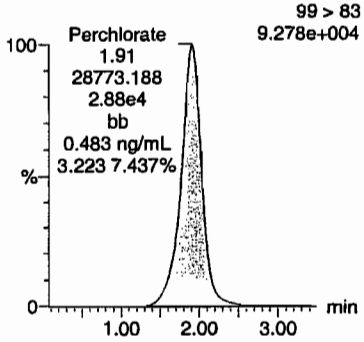

Perchlorate

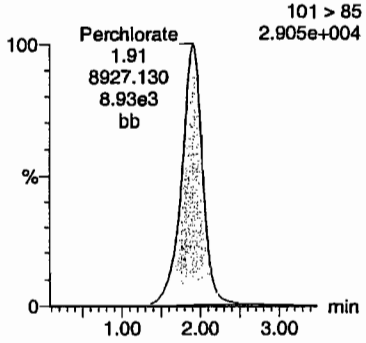

Perchlorate-101

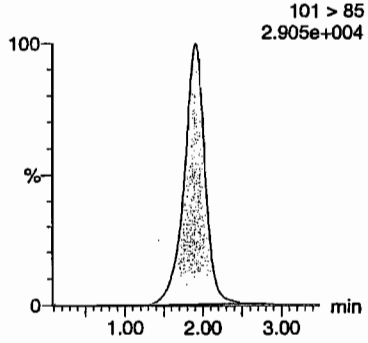

Perchlorate-O(18)

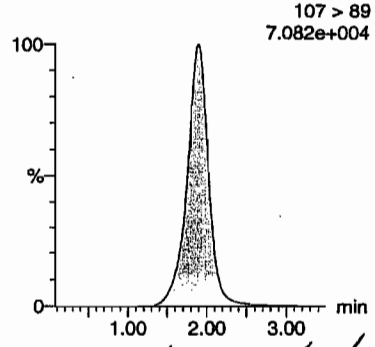

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28773.188	28773.188	bb			0.4833	96.67	-3.33	3174.1...	3.22
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8927.130	8927.130	bb			0.4756	95.12	-4.88	5417.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22077.664	22077.664	bb			0.4539	90.78	-9.22	7805.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1511-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.73	08-FEB-10 14:59	per0208011a
Perchlorate Isotope Ratio		2.96		08-FEB-10 14:59	per0208011a
Perchlorate-101	.05	.05	109.1	08-FEB-10 14:59	per0208011a
Perchlorate	.05	.05	100.29	08-FEB-10 16:18	per0208023a
Perchlorate Isotope Ratio		3.21		08-FEB-10 16:18	per0208023a
Perchlorate-101	.05	.05	98.94	08-FEB-10 16:18	per0208023a
Perchlorate	.05	.05	101.53	08-FEB-10 17:43	per0208036a
Perchlorate Isotope Ratio		3.05		08-FEB-10 17:43	per0208036a
Perchlorate-101	.05	.05	105.49	08-FEB-10 17:43	per0208036a
Perchlorate	.05	.05	101.45	08-FEB-10 19:08	per0208049a
Perchlorate Isotope Ratio		3.36		08-FEB-10 19:08	per0208049a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1511-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	95.78	08-FEB-10 19:08	per0208049a
Perchlorate	.05	.05	97.2	08-FEB-10 20:33	per0208062a
Perchlorate Isotope Ratio		3.14		08-FEB-10 20:33	per0208062a
Perchlorate-101	.05	.05	98.24	08-FEB-10 20:33	per0208062a
Perchlorate	.05	.05	99.1	08-FEB-10 21:59	per0208075a
Perchlorate Isotope Ratio		3.16		08-FEB-10 21:59	per0208075a
Perchlorate-101	.05	.05	99.59	08-FEB-10 21:59	per0208075a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208011a
Date: 08-Feb-2010
Time: 14:59:36
ID: WCL100128-07CRI
Vial: 1:2,B

Pwo
02-09-10

Perchlorate

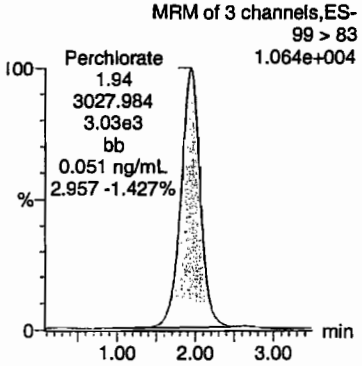

Perchlorate

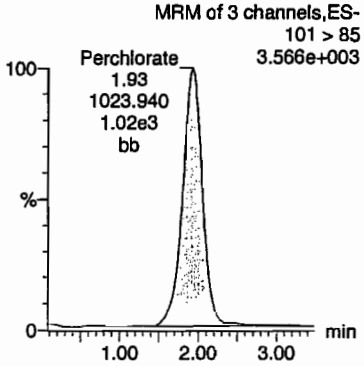

Perchlorate-101

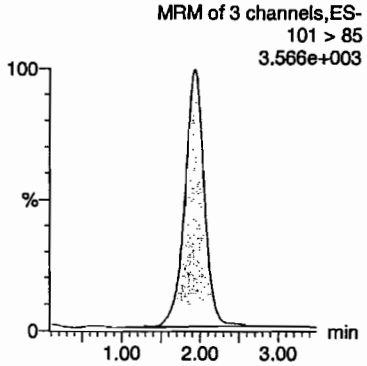

Perchlorate-O(18)

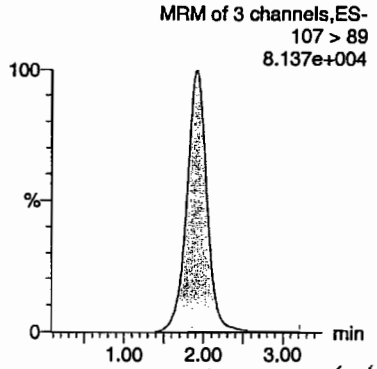

Hnm 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100128-07CRI	Perchlorate	99 > 83	1.94	3027.984	3027.984	bb			0.0509	101.73	1.73	849.198	2.96
VCL100128-07CRI	Perchlorate-101	101 > 85	1.93	1023.940	1023.940	bb			0.0545	109.10	9.10	829.276	
VCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.92	23852.451	23852.451	bb			0.4904	98.08	-1.92	6658.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altefed: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208023a
Date: 08-Feb-2010
Time: 16:18:17
ID: WCL100128-07CRI
Vial: 1:2,B

Pms
02-09-10

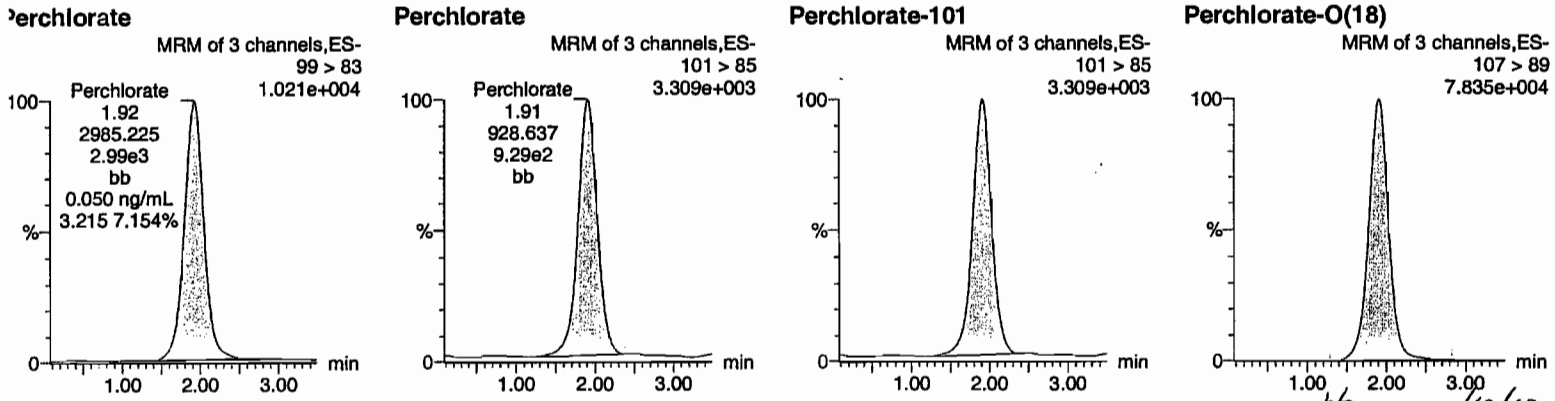

Hmw 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.92	2985.225	2985.225	bb			0.0501	100.29	0.29	2277.7...	3.21
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	928.637	928.637	bb			0.0495	98.94	-1.06	1285.2...	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.91	22805.957	22805.957	bb			0.4689	93.77	-6.23	2391.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208036a
Date: 08-Feb-2010
Time: 17:43:22
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-09-10

Perchlorate

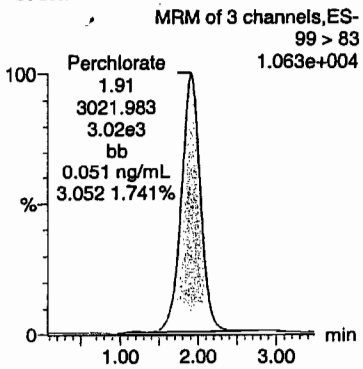

Perchlorate

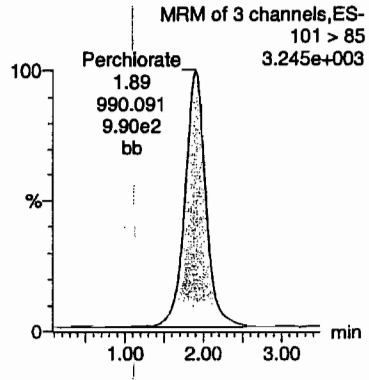

Perchlorate-101

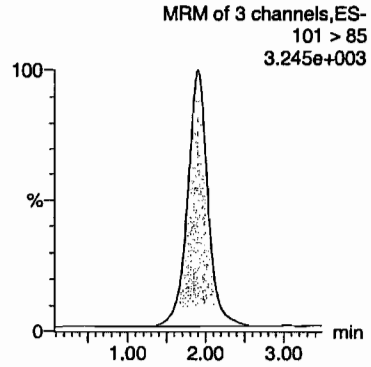

Perchlorate-O(18)

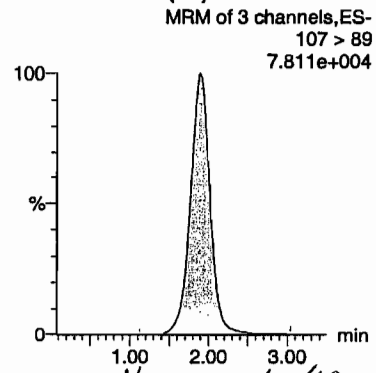

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3021.983	3021.983	bb			0.0508	101.53	1.53	1282.6...	3.05
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	990.091	990.091	bb			0.0527	105.49	5.49	30.390	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22734.426	22734.426	bb			0.4674	93.48	-6.52	4696.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208049a
Date: 08-Feb-2010
Time: 19:08:31
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-09-10

Perchlorate

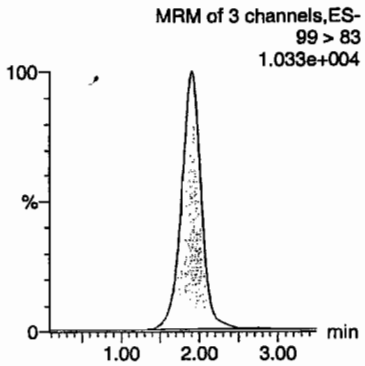

Perchlorate

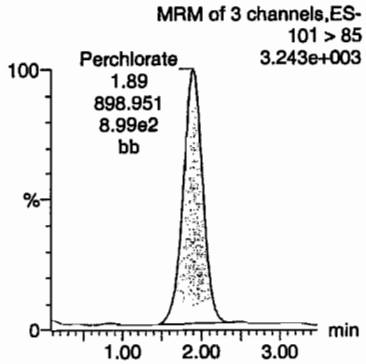

Perchlorate-101

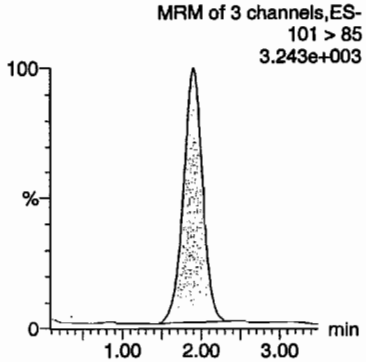

Perchlorate-O(18)

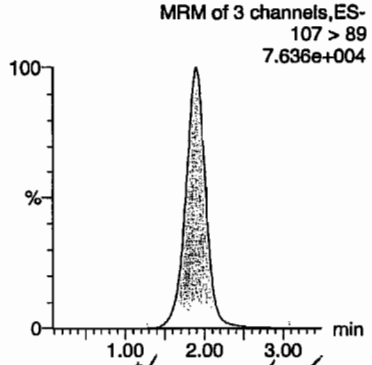

Hum 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3019.704	3019.704	bb			0.0507	101.45	1.45	1111.1...	3.36
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	898.951	898.951	bb			0.0479	95.78	-4.22	607.346	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22316.896	22316.896	bb			0.4588	91.76	-8.24	6290.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208062a
Date: 08-Feb-2010
Time: 20:33:51
ID: WCL100128-07CRI
Vial: 1:2,B

Pers
02-09-10

Perchlorate

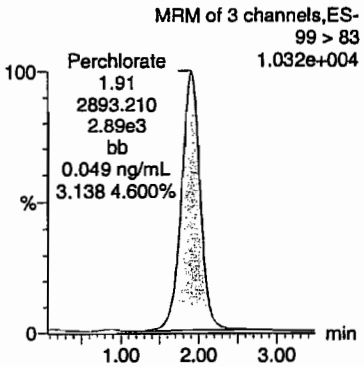

Perchlorate

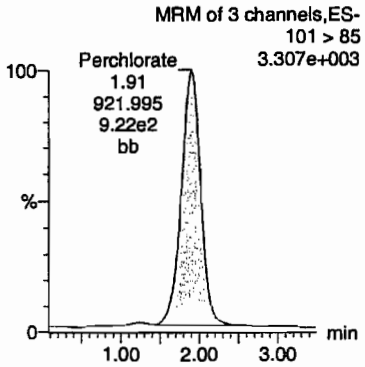

Perchlorate-101

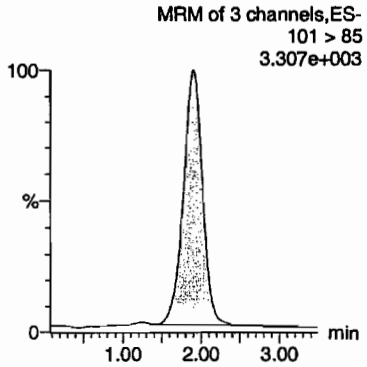

Perchlorate-O(18)

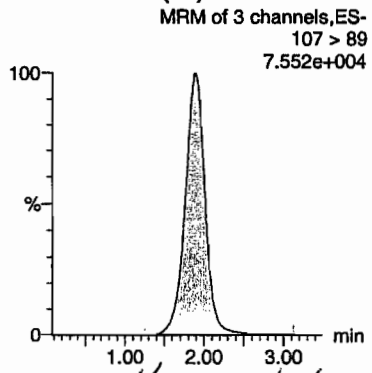

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	2893.210	2893.210	bb			0.0486	97.20	-2.80	767.866	3.14
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	921.995	921.995	bb			0.0491	98.24	-1.76	510.313	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	21979.691	21979.691	bb			0.4519	90.38	-9.62	1938.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208075a
Date: 08-Feb-2010
Time: 21:59:15
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
and
02-24-10

Perchlorate

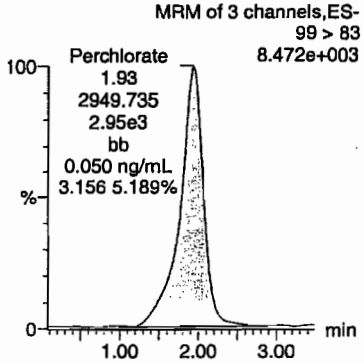

Perchlorate

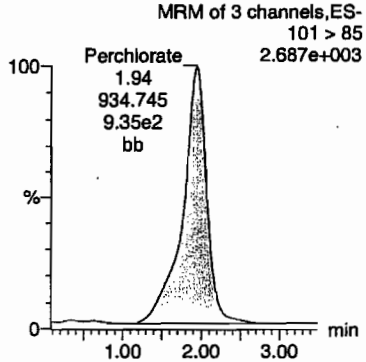

Perchlorate-101

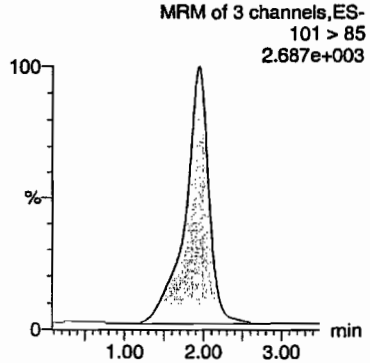

Perchlorate-O(18)

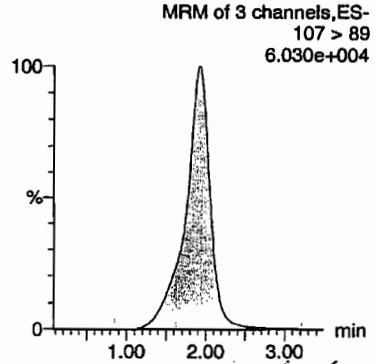

Hmw 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.93	2949.735	2949.735	bb			0.0495	99.10	-0.90	555.102	3.16
WCL100128-07CRI	Perchlorate-101	101 > 85	1.94	934.745	934.745	bb			0.0498	99.59	-0.41	523.923	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.93	21809.545	21809.545	bb			0.4484	89.68	-10.32	1949.9...	

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 1202035565

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate Isotope Ratio						1	08-FEB-10 19:15	per0208050a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate-O(18)			0.457	ug/L		1	08-FEB-10 19:15	per0208050a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208050a
Date: 08-Feb-2010
Time: 19:15:05
ID: 1202035565
Vial: 2:1,A

LANL | 950028 | LCQ | MB | 11

GWJ 02-09-10

Perchlorate

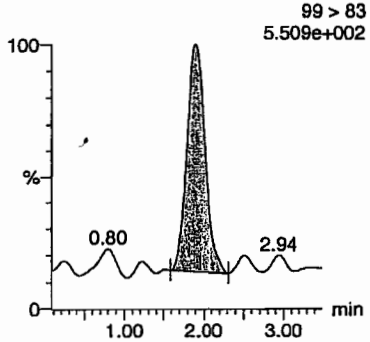

Perchlorate

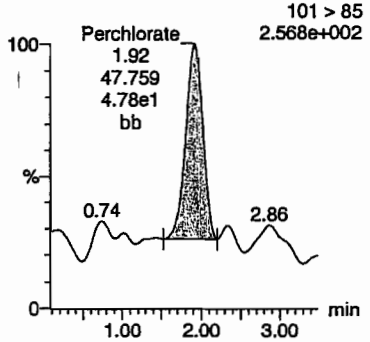

Perchlorate-101

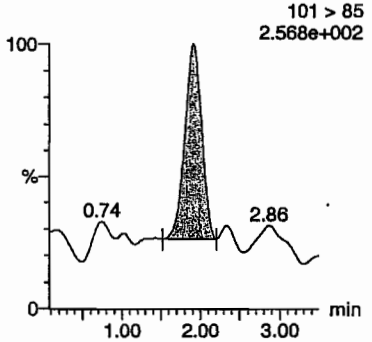

Perchlorate-O(18)

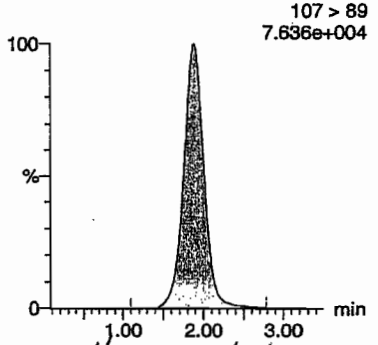

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	% Rec	% Dev	S/N	Ion Ratio
1202035565	Perchlorate	99 > 83	1.89	121.925	121.925	bb			0.0020			39.295	2.55
1202035565	Perchlorate-101	101 > 85	1.92	47.759	47.759	bb			0.0025			14.790	
1202035565	Perchlorate-O(18)	107 > 89	1.88	22209.346	22209.346	bb			0.4566	91.32	-8.68	5376.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1511-1

GEL Sample ID: 1202035566

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	08-FEB-10 19:21	per0208051a
	Perchlorate Isotope Ratio			3.01			1	08-FEB-10 19:21	per0208051a
14797-73-0	Perchlorate-101	.05	.2	0.207	ug/L		1	08-FEB-10 19:21	per0208051a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 19:21	per0208051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208051a
Date: 08-Feb-2010
Time: 19:21:48
ID: 1202035566
Vial: 2:1,B

|LANL|950028|LCQ|LCS|11

GW 02-09-10

Perchlorate

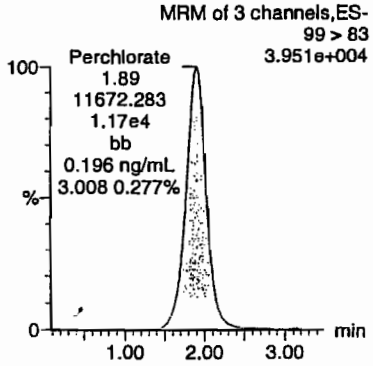

Perchlorate

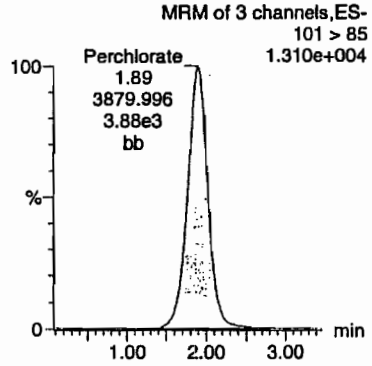

Perchlorate-101

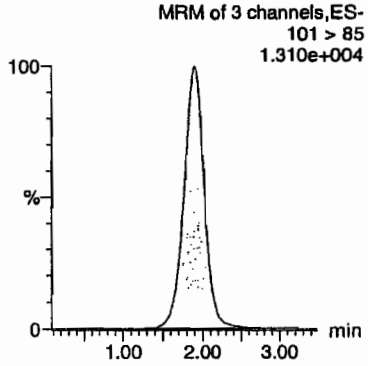

Perchlorate-O(18)

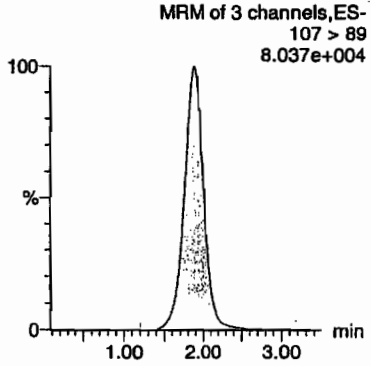

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035566	Perchlorate	99 > 83	1.89	11672.283	11672.283	bb			0.1961	98.04	-1.96	1706.5...	3.01
1202035566	Perchlorate-101	101 > 85	1.89	3879.996	3879.996	bb			0.2067	103.35	3.35	835.288	
1202035566	Perchlorate-O(18)	107 > 89	1.88	23514.770	23514.770	bb			0.4834	96.69	-3.31	6317.6...	

$$\frac{11672.283}{59530.6} = 0.1961$$

HMW 02/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950027 **Verified by:** _____

Analyst: Charles Wilson

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202035565 MB	07-FEB-2010 14:31:00	10	10	1
1202035566 LCS	07-FEB-2010 14:31:00	10	10	1
245911001	07-FEB-2010 14:31:00	10	10	1
1202035571 MS (245911001)	07-FEB-2010 14:31:00	10	10	1
1202035572 MSD (245911001)	07-FEB-2010 14:31:00	10	10	1
245922001	07-FEB-2010 14:31:00	10	10	1
245934001	07-FEB-2010 14:31:00	10	10	1
245934004	07-FEB-2010 14:31:00	10	10	1
245939001	07-FEB-2010 14:31:00	10	10	1
245939002	07-FEB-2010 14:31:00	10	10	1
245953001	07-FEB-2010 14:31:00	10	10	1
245965001	07-FEB-2010 14:31:00	10	10	1
245975001	07-FEB-2010 14:31:00	10	10	1
245981001	07-FEB-2010 14:31:00	10	10	1
246000001	07-FEB-2010 14:31:00	10	10	1
246007001	07-FEB-2010 14:31:00	10	10	1
246056001	07-FEB-2010 14:31:00	10	10	1
246056002	07-FEB-2010 14:31:00	10	10	1
246056003	07-FEB-2010 14:31:00	10	10	1
246056004	07-FEB-2010 14:31:00	10	10	1
246375001	07-FEB-2010 14:31:00	10	10	1
1202035567 MS (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035568 MSD (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035573 ICS	07-FEB-2010 14:31:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035573	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
LCS	1202035566	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035567	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035571	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035568	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035572	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL

Comments:

Desalting cartridges used: 100105-1-H & 091118-1-Ba

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/08/10
Extr. Injection Volume: 20uL
Sequence Number: per020810a
Initial Calibration Date: 02/08/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: Hnm
Date: 02/10/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0208001a	IPB001	CWW	2/8/2010 13:54			1		USE	B
per0208002a	IPB001	CWW	2/8/2010 14:00			1		USE	B
per0208003a	WCLICAL-01	CWW	2/8/2010 14:07			1		USE	I
per0208004a	WCLICAL-02	CWW	2/8/2010 14:13			1		USE	I
per0208005a	WCLICAL-03	CWW	2/8/2010 14:20			1		USE	I
per0208006a	WCLICAL-04	CWW	2/8/2010 14:26			1		USE	I
per0208007a	WCLICAL-05	CWW	2/8/2010 14:33			1		USE	I
per0208008a	IPB002	CWW	2/8/2010 14:40			1		USE	B
per0208009a	WCLICV	CWW	2/8/2010 14:46			1		USE	C
per0208010a	IPB003	CWW	2/8/2010 14:53			1		USE	B
per0208011a	WCLCRI	CWW	2/8/2010 14:59			1		USE	C
per0208012a	1202035621	CWW	2/8/2010 15:06	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208013a	1202035622	CWW	2/8/2010 15:12	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208014a	1202035625	CWW	2/8/2010 15:19	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208015a	246431001	CWW	2/8/2010 15:25	950048	10-1650	1	LANL	DUSE-RE	S
per0208016a	1202035623	CWW	2/8/2010 15:32	950048	10-1650	1	LANL	DUSE-RE	S
per0208017a	1202035624	CWW	2/8/2010 15:39	950048	10-1650	1	LANL	DUSE-RE	S
per0208018a	246431002	CWW	2/8/2010 15:45	950048	10-1650	1	LANL	DUSE-RE	S
per0208019a	246431003	CWW	2/8/2010 15:52	950048	10-1650	1	LANL	DUSE-RE	S
per0208020a	246431004	CWW	2/8/2010 15:58	950048	10-1650	1	LANL	DUSE-RE	S
per0208021a	WCLCCV	CWW	2/8/2010 16:05			1		USE	C
per0208022a	IPB004	CWW	2/8/2010 16:11			1		USE	B
per0208023a	WCLCRI	CWW	2/8/2010 16:18			1		USE	C
per0208024a	246472001	CWW	2/8/2010 16:24	950048	10-1640	1	LANL	DUSE-RE	S
per0208025a	246472002	CWW	2/8/2010 16:31	950048	10-1640	1	LANL	DUSE-RE	S
per0208026a	IPB005	CWW	2/8/2010 16:37			1		USE	B
per0208027a	1202029082	CWW	2/8/2010 16:44	947249	VARIOUS	1	LANL	USE	S
per0208028a	1202029083	CWW	2/8/2010 16:51	947249	VARIOUS	1	LANL	USE	S
per0208029a	1202029088	CWW	2/8/2010 16:57	947249	VARIOUS	1	LANL	USE	S

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per0208030a	245605003	CWW	2/8/2010 17:04	947249	10-1413	200	LANL	USE	S
per0208031a	245608002	CWW	2/8/2010 17:10	947249	10-1415	1	LANL	USE	S
per0208032a	245673001	CWW	2/8/2010 17:17	947249	10-1442	100	LANL	USE	S
per0208033a	245673003	CWW	2/8/2010 17:23	947249	10-1442	200	LANL	USE	S
per0208034a	WCLCCV	CWW	2/8/2010 17:30			1		USE	C
per0208035a	IPB006	CWW	2/8/2010 17:36			1		USE	B
per0208036a	WCLCRI	CWW	2/8/2010 17:43			1		USE	C
per0208037a	245673006	CWW	2/8/2010 17:49	947249	10-1442	200	LANL	USE	S
per0208038a	245676001	CWW	2/8/2010 17:56	947249	10-1446	1	LANL	USE	S
per0208039a	1202029086	CWW	2/8/2010 18:03	947249	10-1446	1	LANL	USE	S
per0208040a	1202029087	CWW	2/8/2010 18:09	947249	10-1446	1	LANL	USE	S
per0208041a	245791001	CWW	2/8/2010 18:16	947249	10-1467	1	LANL	USE	S
per0208042a	1202029084	CWW	2/8/2010 18:22	947249	10-1467	1	LANL	USE	S
per0208043a	1202029085	CWW	2/8/2010 18:29	947249	10-1467	1	LANL	USE	S
per0208044a	245791003	CWW	2/8/2010 18:35	947249	10-1467	1	LANL	USE	S
per0208045a	245791006	CWW	2/8/2010 18:42	947249	10-1467	1	LANL	USE	S
per0208046a	245791007	CWW	2/8/2010 18:48	947249	10-1467	1	LANL	USE	S
per0208047a	WCLCCV	CWW	2/8/2010 18:55			1		USE	C
per0208048a	IPB007	CWW	2/8/2010 19:01			1		USE	B
per0208049a	WCLCRI	CWW	2/8/2010 19:08			1		USE	C
per0208050a	1202035565	CWW	2/8/2010 19:15	950028	VARIOUS	1	LANL	USE	S
per0208051a	1202035566	CWW	2/8/2010 19:21	950028	VARIOUS	1	LANL	USE	S
per0208052a	1202035573	CWW	2/8/2010 19:28	950028	VARIOUS	1	LANL	USE	S
per0208053a	245911001	CWW	2/8/2010 19:34	950028	10-1487-1	1	LANL	USE	S
per0208054a	1202035571	CWW	2/8/2010 19:41	950028	10-1487-1	1	LANL	USE	S
per0208055a	1202035572	CWW	2/8/2010 19:47	950028	10-1487-1	1	LANL	USE	S
per0208056a	245922001	CWW	2/8/2010 19:54	950028	10-1493-1	1	LANL	USE	S
per0208057a	245934001	CWW	2/8/2010 20:00	950028	10-1502	1	LANL	DUSE-DL	S
per0208058a	245934004	CWW	2/8/2010 20:07	950028	10-1502	1	LANL	DUSE-RA	S
per0208059a	245939001	CWW	2/8/2010 20:14	950028	10-1506-1	1	LANL	USE	S
per0208060a	WCLCCV	CWW	2/8/2010 20:20			1		USE	C
per0208061a	IPB008	CWW	2/8/2010 20:27			1		USE	B
per0208062a	WCLCRI	CWW	2/8/2010 20:33			1		USE	C
per0208063a	245939002	CWW	2/8/2010 20:40	950028	10-1506-1	1	LANL	USE	S
per0208064a	245953001	CWW	2/8/2010 20:47	950028	10-1508-1	1	LANL	USE	S
per0208065a	245965001	CWW	2/8/2010 20:53	950028	10-1511-1	1	LANL	USE	S
per0208066a	245975001	CWW	2/8/2010 21:00	950028	10-1512-1	1	LANL	USE	S

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per0208067a	245981001	CWW	2/8/2010 21:06	950028	10-1514-1	1	LANL	USE	S
per0208068a	246000001	CWW	2/8/2010 21:13	950028	10-1517-1	1	LANL	USE	S
per0208069a	246007001	CWW	2/8/2010 21:19	950028	10-1520-1	1	LANL	USE	S
per0208070a	246056001	CWW	2/8/2010 21:26	950028	10-1545-1	1	LANL	USE	S
per0208071a	246056002	CWW	2/8/2010 21:32	950028	10-1545-1	1	LANL	USE	S
per0208072a	246056003	CWW	2/8/2010 21:39	950028	10-1545-1	1	LANL	USE	S
per0208073a	WCLCCV	CWW	2/8/2010 21:45			1		USE	C
per0208074a	IPB009	CWW	2/8/2010 21:52			1		USE	B
per0208075a	WCLCRI	CWW	2/8/2010 21:59			1		USE	C
per0208076a	246056004	CWW	2/8/2010 22:05	950028	10-1545-1	1	LANL	USE	S
per0208077a	246375001	CWW	2/8/2010 22:12	950028	10-1609	1	LANL	USE	S
per0208078a	1202035567	CWW	2/8/2010 22:19	950028	10-1609	1	LANL	USE	S
per0208079a	1202035568	CWW	2/8/2010 22:25	950028	10-1609	1	LANL	USE	S
per0208080a	IPB010	CWW	2/8/2010 22:32			1		USE	B
per0208081a	1262643 Supp	CWW	2/8/2010 22:38	Screen	Inhouse	1	GEL	DUSE	S
per0208082a	1202035625	CWW	2/8/2010 22:45	950048	VARIOUS	1	LANL	DUSE	S
per0208083a	WCLCCV	CWW	2/8/2010 22:52			1		USE	C
per0208084a	IPB011	CWW	2/8/2010 22:58			1		USE	B
per0208085a	WCLCRI	CWW	2/8/2010 23:05			1		USE	C

luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

ast Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
rinted: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

ame: per0208054a
ate: 08-Feb-2010
ime: 19:41:23
): 1202035571 |LANL|950028|LZQ|MS|1|
ial: 2:1,E

WWD 02-04-10

erchlorate

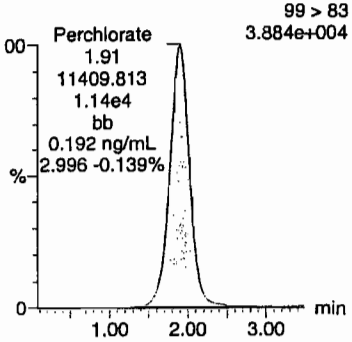

Perchlorate

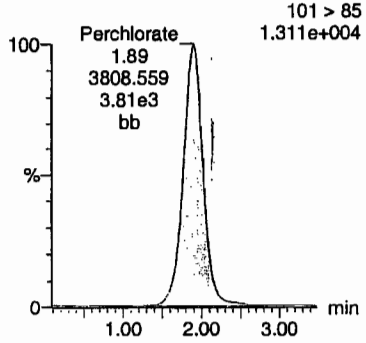

Perchlorate-101

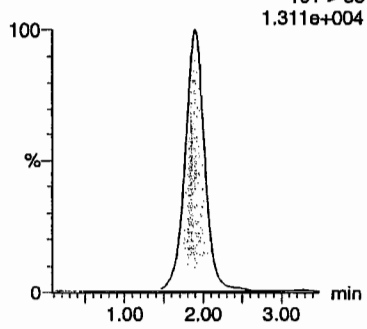

Perchlorate-O(18)

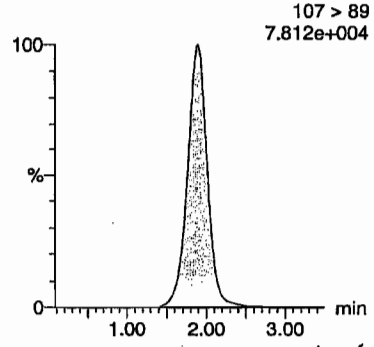

Hmm 02/10/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202035571	Perchlorate	99 > 83	1.91	11409.813	11409.813	bb			0.1917	95.83	-4.17	2471.6...	3.00
202035571	Perchlorate-101	101 > 85	1.89	3808.559	3808.559	bb			0.2029	101.45	1.45	676.220	
202035571	Perchlorate-O(18)	107 > 89	1.89	22745.916	22745.916	bb			0.4676	93.53	-6.47	4602.2...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

ast Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
rinted: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

ame: per0208055a
ate: 08-Feb-2010
ime: 19:47:53
): 1202035572
ial: 2:1,F

|LANL|950028|LCQ|MSD|1|

CWW 02-09-10

erchlorate

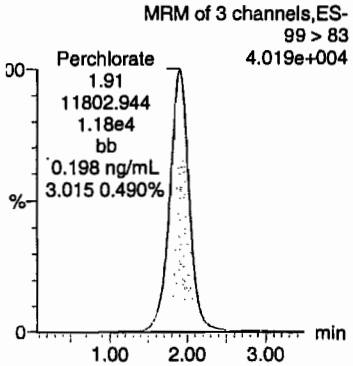

Perchlorate

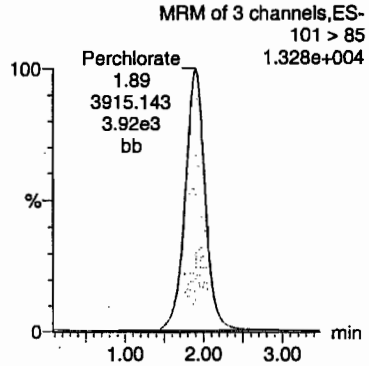

Perchlorate-101

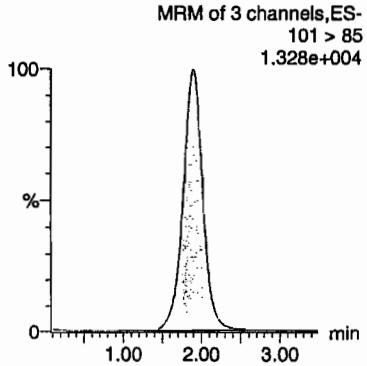

Perchlorate-O(18)

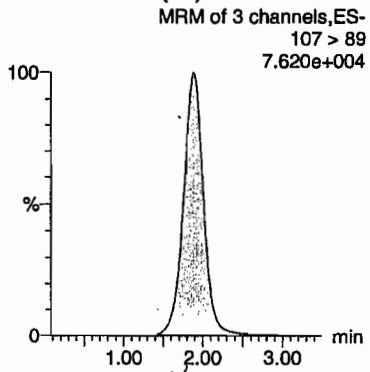

HMM 02/10/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202035572	Perchlorate	99 > 83	1.91	11802.944	11802.944	bb			0.1983	99.13	-0.87	5921.1...	3.01
202035572	Perchlorate-101	101 > 85	1.89	3915.143	3915.143	bb			0.2086	104.29	4.29	847.965	
202035572	Perchlorate-O(18)	107 > 89	1.89	22449.852	22449.852	bb			0.4616	92.31	-7.69	7045.6...	

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511

Sample Analysis

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202032567	Method Blank (MB) **ICP**
1202032572	Laboratory Control Sample (LCS)
1202032569	245938001(RE46-10-11961L) Serial Dilution (SD)
1202032568	245938001(RE46-10-11961D) Sample Duplicate (DUP)
1202032570	245938001(RE46-10-11961S) Matrix Spike (MS)
1202032571	245938001(RE46-10-11961SD) Matrix Spike Duplicate (MSD)
1202032573	Method Blank (MB) **ICP-MS**
1202032578	Laboratory Control Sample (LCS)
1202032575	245938001(RE46-10-11961L) Serial Dilution (SD)

1202032574	245938001(RE46-10-11961D) Sample Duplicate (DUP)
1202032576	245938001(RE46-10-11961S) Matrix Spike (MS)
1202032577	245938001(RE46-10-11961SD) Matrix Spike Duplicate (MSD)
1202039184	Method Blank (MB) **CVAA**
1202039185	Laboratory Control Sample (LCS)
1202039192	246470001(RE16-10-4573L) Serial Dilution (SD)
1202039186	246470001(RE16-10-4573D) Sample Duplicate (DUP)
1202039187	246470001(RE16-10-4573S) Matrix Spike (MS)
1202039193	246470001(RE16-10-4573SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	948744, 948748 and 951512
Prep Batch :	948743, 948745 and 951508
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 245938001 (RE46-10-11961) and 246470001 (RE16-10-4573).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, calcium and magnesium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, calcium and magnesium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of calcium, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of barium, calcium, chromium, copper, lead and beryllium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 793579 and 796660. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960001 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7309 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13600000	ug/Kg		7290	21500	21500	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-36-0	Antimony	664	ug/Kg	J	354	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-38-2	Arsenic	1.92	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-39-3	Barium	205000	ug/Kg		107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-41-7	Beryllium	1.15	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:08	100226-4	948748
7440-43-9	Cadmium	536	ug/Kg	U	107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-70-2	Calcium	2810000	ug/Kg		8580	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-47-3	Chromium	10700	ug/Kg		161	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-48-4	Cobalt	5820	ug/Kg		161	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-50-8	Copper	8300	ug/Kg		322	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-89-6	Iron	14200000	ug/Kg		8580	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-92-1	Lead	13800	ug/Kg		268	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-95-4	Magnesium	2290000	ug/Kg		9120	32200	32200	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-96-5	Manganese	364000	ug/Kg		215	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7439-97-6	Mercury	7.97	ug/kg	J	4.17	12.3	12.3	1	AV	JXL1	02/18/10 12:01	021810S1-5	951512
7440-02-0	Nickel	9.06	mg/kg		0.11	0.439	0.439	2	MS	RMJ	02/27/10 02:08	100226-4	948748
7440-09-7	Potassium	1840000	ug/Kg		6870	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-22-4	Silver	536	ug/Kg	U	107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-23-5	Sodium	94700	ug/Kg		7510	26800	26800	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-28-0	Thallium	0.240	mg/kg		0.0659	0.22	0.22	2	MS	RMJ	02/26/10 23:40	100226-3	948748
7440-61-1	Uranium	0.908	mg/kg		0.0145	0.0439	0.0439	2	MS	RMJ	02/26/10 08:53	100225-2	948748
7440-62-2	Vanadium	27900	ug/Kg		107	536	536	1	P	JWJ	02/19/10 22:17	021910A-1	948744
7440-66-6	Zinc	27900	ug/Kg		354	1070	1070	1	P	JWJ	02/19/10 22:17	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.505	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.542	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960002 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7308 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9550000	ug/Kg		8750	25700	25700	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-36-0	Antimony	542	ug/Kg	J	425	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-38-2	Arsenic	1.92	mg/kg		0.239	1.2	1.2	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-39-3	Barium	161000	ug/Kg		129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-41-7	Beryllium	0.901	mg/kg		0.0239	0.12	0.12	2	MS	RMJ	02/27/10 02:11	100226-4	948748
7440-43-9	Cadmium	644	ug/Kg	U	129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-70-2	Calcium	2110000	ug/Kg		10300	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-47-3	Chromium	10300	ug/Kg		193	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-48-4	Cobalt	6570	ug/Kg		193	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-50-8	Copper	11900	ug/Kg		386	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-89-6	Iron	14000000	ug/Kg		10300	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-92-1	Lead	63800	ug/Kg		322	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-95-4	Magnesium	1660000	ug/Kg		10900	38600	38600	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-96-5	Manganese	312000	ug/Kg		257	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7439-97-6	Mercury	4.79	ug/kg	J	4.38	12.9	12.9	1	AV	JXL1	02/18/10 12:07	021810S1-5	951512
7440-02-0	Nickel	8.38	mg/kg		0.12	0.478	0.478	2	MS	RMJ	02/27/10 02:11	100226-4	948748
7440-09-7	Potassium	1710000	ug/Kg		8240	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7782-49-2	Selenium	1.2	mg/kg	U	0.598	1.2	1.2	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-22-4	Silver	644	ug/Kg	U	129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-23-5	Sodium	91100	ug/Kg		9010	32200	32200	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-28-0	Thallium	0.167	mg/kg	J	0.0718	0.239	0.239	2	MS	RMJ	02/26/10 23:44	100226-3	948748
7440-61-1	Uranium	7.73	mg/kg		0.0158	0.0478	0.0478	2	MS	RMJ	02/26/10 08:59	100225-2	948748
7440-62-2	Vanadium	23000	ug/Kg		129	644	644	1	P	JWJ	02/19/10 22:21	021910A-1	948744
7440-66-6	Zinc	39700	ug/Kg		425	1290	1290	1	P	JWJ	02/19/10 22:21	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.538	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960003 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7315 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.1

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13300000	ug/Kg		7330	21600	21600	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-36-0	Antimony	1220	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-38-2	Arsenic	2.16	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-39-3	Barium	205000	ug/Kg		108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-41-7	Beryllium	1.15	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:20	100226-4	948748
7440-43-9	Cadmium	539	ug/Kg	U	108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-70-2	Calcium	2460000	ug/Kg		8630	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-47-3	Chromium	11700	ug/Kg		162	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-48-4	Cobalt	6310	ug/Kg		162	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-50-8	Copper	8010	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-89-6	Iron	15000000	ug/Kg		8630	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-92-1	Lead	14900	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-95-4	Magnesium	2400000	ug/Kg		9170	32400	32400	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-96-5	Manganese	422000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7439-97-6	Mercury	11.3	ug/kg	J	3.93	11.6	11.6	1	AV	JXL1	02/18/10 12:09	021810S1-5	951512
7440-02-0	Nickel	9.63	mg/kg		0.11	0.439	0.439	2	MS	RMJ	02/27/10 02:20	100226-4	948748
7440-09-7	Potassium	1960000	ug/Kg		6900	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.549	1.1	1.1	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-22-4	Silver	539	ug/Kg	U	108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-23-5	Sodium	60800	ug/Kg		7550	27000	27000	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-28-0	Thallium	0.229	mg/kg		0.0659	0.22	0.22	2	MS	RMJ	02/26/10 23:48	100226-3	948748
7440-61-1	Uranium	1.59	mg/kg		0.0145	0.0439	0.0439	2	MS	RMJ	02/26/10 09:04	100225-2	948748
7440-62-2	Vanadium	30000	ug/Kg		108	539	539	1	P	JWJ	02/19/10 22:25	021910A-1	948744
7440-66-6	Zinc	30300	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:25	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.509	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.57	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960004 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7317 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14500000	ug/Kg		7340	21600	21600	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-36-0	Antimony	1080	ug/Kg	U	356	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-38-2	Arsenic	2.07	mg/kg		0.223	1.12	1.12	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-39-3	Barium	216000	ug/Kg		108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-41-7	Beryllium	1.32	mg/kg		0.0223	0.112	0.112	2	MS	RMJ	02/27/10 02:23	100226-4	948748
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-70-2	Calcium	3530000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-47-3	Chromium	10300	ug/Kg		162	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-48-4	Cobalt	5250	ug/Kg		162	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-50-8	Copper	7520	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-89-6	Iron	14100000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-92-1	Lead	13900	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-95-4	Magnesium	2280000	ug/Kg		9180	32400	32400	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-96-5	Manganese	354000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7439-97-6	Mercury	10.8	ug/kg	J	4.51	13.3	13.3	1	AV	JXL1	02/18/10 12:11	021810S1-5	951512
7440-02-0	Nickel	10.6	mg/kg		0.112	0.447	0.447	2	MS	RMJ	02/27/10 02:23	100226-4	948748
7440-09-7	Potassium	1740000	ug/Kg		6910	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7782-49-2	Selenium	1.12	mg/kg	U	0.558	1.12	1.12	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-22-4	Silver	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-23-5	Sodium	78500	ug/Kg		7560	27000	27000	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-28-0	Thallium	0.235	mg/kg		0.067	0.223	0.223	2	MS	RMJ	02/27/10 00:00	100226-3	948748
7440-61-1	Uranium	1.1	mg/kg		0.0147	0.0447	0.0447	2	MS	RMJ	02/26/10 09:10	100225-2	948748
7440-62-2	Vanadium	27500	ug/Kg		108	540	540	1	P	JWJ	02/19/10 22:36	021910A-1	948744
7440-66-6	Zinc	27000	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 22:36	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.507	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960005 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7319 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13300000	ug/Kg		7580	22300	22300	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-36-0	Antimony	905	ug/Kg	J	368	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-38-2	Arsenic	2.17	mg/kg		0.218	1.09	1.09	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-39-3	Barium	205000	ug/Kg		111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-41-7	Beryllium	1.48	mg/kg		0.0218	0.109	0.109	2	MS	RMJ	02/27/10 02:26	100226-4	948748
7440-43-9	Cadmium	557	ug/Kg	U	111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-70-2	Calcium	2860000	ug/Kg		8910	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-47-3	Chromium	9850	ug/Kg		167	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-48-4	Cobalt	4720	ug/Kg		167	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-50-8	Copper	6720	ug/Kg		334	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-89-6	Iron	13000000	ug/Kg		8910	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-92-1	Lead	14400	ug/Kg		279	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-95-4	Magnesium	2160000	ug/Kg		9470	33400	33400	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-96-5	Manganese	310000	ug/Kg		223	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7439-97-6	Mercury	11.7	ug/kg	J	4.41	13	13	1	AV	JXL1	02/18/10 12:12	021810S1-5	951512
7440-02-0	Nickel	11	mg/kg		0.109	0.437	0.437	2	MS	RMJ	02/27/10 02:26	100226-4	948748
7440-09-7	Potassium	1760000	ug/Kg		7130	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7782-49-2	Selenium	1.09	mg/kg	U	0.546	1.09	1.09	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-22-4	Silver	557	ug/Kg	U	111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-23-5	Sodium	96900	ug/Kg		7800	27900	27900	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-28-0	Thallium	0.268	mg/kg		0.0655	0.218	0.218	2	MS	RMJ	02/27/10 00:04	100226-3	948748
7440-61-1	Uranium	1.5	mg/kg		0.0144	0.0437	0.0437	2	MS	RMJ	02/26/10 09:28	100225-2	948748
7440-62-2	Vanadium	25400	ug/Kg		111	557	557	1	P	JWJ	02/19/10 22:39	021910A-1	948744
7440-66-6	Zinc	26000	ug/Kg		368	1110	1110	1	P	JWJ	02/19/10 22:39	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.503	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.513	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.519	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960006 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7312 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 71

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10500000	ug/Kg		9360	27500	27500	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-36-0	Antimony	611	ug/Kg	J	454	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-38-2	Arsenic	2.15	mg/kg		0.27	1.35	1.35	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-39-3	Barium	214000	ug/Kg		138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-41-7	Beryllium	0.981	mg/kg		0.027	0.135	0.135	2	MS	RMJ	02/27/10 02:29	100226-4	948748
7440-43-9	Cadmium	688	ug/Kg	U	138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-70-2	Calcium	2520000	ug/Kg		11000	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-47-3	Chromium	13900	ug/Kg		207	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-48-4	Cobalt	9870	ug/Kg		207	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-50-8	Copper	9580	ug/Kg		413	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-89-6	Iron	14200000	ug/Kg		11000	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-92-1	Lead	19100	ug/Kg		344	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-95-4	Magnesium	2050000	ug/Kg		11700	41300	41300	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-96-5	Manganese	693000	ug/Kg		275	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7439-97-6	Mercury	6.27	ug/kg	J	5.46	16.1	16.1	1	AV	JXL1	02/18/10 12:14	021810S1-5	951512
7440-02-0	Nickel	8.66	mg/kg		0.135	0.539	0.539	2	MS	RMJ	02/27/10 02:29	100226-4	948748
7440-09-7	Potassium	2310000	ug/Kg		8810	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7782-49-2	Selenium	1.35	mg/kg	U	0.674	1.35	1.35	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-22-4	Silver	688	ug/Kg	U	138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-23-5	Sodium	52700	ug/Kg		9640	34400	34400	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-28-0	Thallium	0.205	mg/kg	J	0.0809	0.27	0.27	2	MS	RMJ	02/27/10 00:08	100226-3	948748
7440-61-1	Uranium	17.4	mg/kg		0.0178	0.0539	0.0539	2	MS	RMJ	02/26/10 09:34	100225-2	948748
7440-62-2	Vanadium	29100	ug/Kg		138	688	688	1	P	JWJ	02/19/10 22:43	021910A-1	948744
7440-66-6	Zinc	38200	ug/Kg		454	1380	1380	1	P	JWJ	02/19/10 22:43	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.529	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960007 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7313 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15200000	ug/Kg		7500	22100	22100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-36-0	Antimony	660	ug/Kg	J	364	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-38-2	Arsenic	2.32	mg/kg		0.221	1.1	1.1	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-39-3	Barium	193000	ug/Kg		110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-41-7	Beryllium	1.24	mg/kg		0.0221	0.11	0.11	2	MS	RMJ	02/27/10 02:32	100226-4	948748
7440-43-9	Cadmium	552	ug/Kg	U	110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-70-2	Calcium	2650000	ug/Kg		8830	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-47-3	Chromium	13000	ug/Kg		165	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-48-4	Cobalt	7060	ug/Kg		165	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-50-8	Copper	7850	ug/Kg		331	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-89-6	Iron	16000000	ug/Kg		8830	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-92-1	Lead	15500	ug/Kg		276	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-95-4	Magnesium	2770000	ug/Kg		9380	33100	33100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-96-5	Manganese	440000	ug/Kg		221	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7439-97-6	Mercury	10.3	ug/kg	J	4.51	13.3	13.3	1	AV	JXL1	02/18/10 12:16	021810S1-5	951512
7440-02-0	Nickel	10.9	mg/kg		0.11	0.441	0.441	2	MS	RMJ	02/27/10 02:32	100226-4	948748
7440-09-7	Potassium	1910000	ug/Kg		7060	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.552	1.1	1.1	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-22-4	Silver	552	ug/Kg	U	110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-23-5	Sodium	82900	ug/Kg		7720	27600	27600	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-28-0	Thallium	0.288	mg/kg		0.0662	0.221	0.221	2	MS	RMJ	02/27/10 00:12	100226-3	948748
7440-61-1	Uranium	1.14	mg/kg		0.0146	0.0441	0.0441	2	MS	RMJ	02/26/10 09:40	100225-2	948748
7440-62-2	Vanadium	30100	ug/Kg		110	552	552	1	P	JWJ	02/19/10 22:47	021910A-1	948744
7440-66-6	Zinc	31800	ug/Kg		364	1100	1100	1	P	JWJ	02/19/10 22:47	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Uuits	Date	Analyst
948744	948743	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.501	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960008 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7314 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10700000	ug/Kg		9670	28400	28400	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-36-0	Antimony	503	ug/Kg	J	469	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-38-2	Arsenic	2.33	mg/kg		0.297	1.48	1.48	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-39-3	Barium	205000	ug/Kg		142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-41-7	Beryllium	1.09	mg/kg		0.0297	0.148	0.148	2	MS	RMJ	02/27/10 02:36	100226-4	948748
7440-43-9	Cadmium	711	ug/Kg	U	142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-70-2	Calcium	2450000	ug/Kg		11400	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-47-3	Chromium	10500	ug/Kg		213	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-48-4	Cobalt	5770	ug/Kg		213	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-50-8	Copper	11100	ug/Kg		426	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-89-6	Iron	13300000	ug/Kg		11400	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-92-1	Lead	15800	ug/Kg		355	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-95-4	Magnesium	2030000	ug/Kg		12100	42600	42600	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-96-5	Manganese	418000	ug/Kg		284	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7439-97-6	Mercury	15.1	ug/kg	U	5.15	15.1	15.1	1	AV	JXL1	02/18/10 12:18	021810S1-5	951512
7440-02-0	Nickel	9.31	mg/kg		0.148	0.594	0.594	2	MS	RMJ	02/27/10 02:36	100226-4	948748
7440-09-7	Potassium	1930000	ug/Kg		9100	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7782-49-2	Selenium	1.48	mg/kg	U	0.742	1.48	1.48	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-22-4	Silver	711	ug/Kg	U	142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-23-5	Sodium	53600	ug/Kg		9950	35500	35500	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-28-0	Thallium	0.227	mg/kg	J	0.089	0.297	0.297	2	MS	RMJ	02/27/10 00:16	100226-3	948748
7440-61-1	Uranium	8.52	mg/kg		0.0196	0.0594	0.0594	2	MS	RMJ	02/26/10 09:46	100225-2	948748
7440-62-2	Vanadium	27400	ug/Kg		142	711	711	1	P	JWJ	02/19/10 22:50	021910A-1	948744
7440-66-6	Zinc	33900	ug/Kg		469	1420	1420	1	P	JWJ	02/19/10 22:50	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.588	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960009 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7316 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11200000	ug/Kg		10400	30700	30700	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-36-0	Antimony	869	ug/Kg	J	506	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-38-2	Arsenic	2.31	mg/kg		0.296	1.48	1.48	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-39-3	Barium	185000	ug/Kg		153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-41-7	Beryllium	1.16	mg/kg		0.0296	0.148	0.148	2	MS	RMJ	02/27/10 02:39	100226-4	948748
7440-43-9	Cadmium	767	ug/Kg	U	153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-70-2	Calcium	2320000	ug/Kg		12300	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-47-3	Chromium	10800	ug/Kg		230	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-48-4	Cobalt	6240	ug/Kg		230	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-50-8	Copper	8110	ug/Kg		460	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-89-6	Iron	12900000	ug/Kg		12300	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-92-1	Lead	13500	ug/Kg		384	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-95-4	Magnesium	1900000	ug/Kg		13000	46000	46000	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-96-5	Manganese	405000	ug/Kg		307	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7439-97-6	Mercury	17.2	ug/kg	U	5.83	17.2	17.2	1	AV	JXL1	02/18/10 12:20	021810S1-5	951512
7440-02-0	Nickel	9.45	mg/kg		0.148	0.592	0.592	2	MS	RMJ	02/27/10 02:39	100226-4	948748
7440-09-7	Potassium	2100000	ug/Kg		9820	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7782-49-2	Selenium	1.48	mg/kg	U	0.739	1.48	1.48	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-22-4	Silver	767	ug/Kg	U	153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-23-5	Sodium	62600	ug/Kg		10700	38400	38400	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-28-0	Thallium	0.217	mg/kg	J	0.0887	0.296	0.296	2	MS	RMJ	02/27/10 00:20	100226-3	948748
7440-61-1	Uranium	6.4	mg/kg		0.0195	0.0592	0.0592	2	MS	RMJ	02/26/10 09:52	100225-2	948748
7440-62-2	Vanadium	25100	ug/Kg		153	767	767	1	P	JWJ	02/19/10 22:54	021910A-1	948744
7440-66-6	Zinc	28300	ug/Kg		506	1530	1530	1	P	JWJ	02/19/10 22:54	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.506	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960010 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7318 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5960000	ug/Kg		7610	22400	22400	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-36-0	Antimony	895	ug/Kg	J	369	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-38-2	Arsenic	1.34	mg/kg		0.235	1.17	1.17	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-39-3	Barium	102000	ug/Kg		112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-41-7	Beryllium	0.590	mg/kg		0.0235	0.117	0.117	2	MS	RMJ	02/27/10 02:42	100226-4	948748
7440-43-9	Cadmium	560	ug/Kg	U	112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-70-2	Calcium	2590000	ug/Kg		8960	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-47-3	Chromium	5940	ug/Kg		168	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-48-4	Cobalt	2930	ug/Kg		168	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-50-8	Copper	10800	ug/Kg		336	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-89-6	Iron	7940000	ug/Kg		8960	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-92-1	Lead	69600	ug/Kg		280	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-95-4	Magnesium	1120000	ug/Kg		9520	33600	33600	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-96-5	Manganese	224000	ug/Kg		224	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7439-97-6	Mercury	6.52	ug/kg	J	4.54	13.4	13.4	1	AV	JXL1	02/18/10 12:22	021810S1-5	951512
7440-02-0	Nickel	5.37	mg/kg		0.117	0.469	0.469	2	MS	RMJ	02/27/10 02:42	100226-4	948748
7440-09-7	Potassium	1290000	ug/Kg		7170	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7782-49-2	Selenium	1.17	mg/kg	U	0.587	1.17	1.17	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-22-4	Silver	560	ug/Kg	U	112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-23-5	Sodium	52000	ug/Kg		7840	28000	28000	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-28-0	Thallium	0.117	mg/kg	J	0.0704	0.235	0.235	2	MS	RMJ	02/27/10 00:24	100226-3	948748
7440-61-1	Uranium	7.65	mg/kg		0.0155	0.0469	0.0469	2	MS	RMJ	02/26/10 09:58	100225-2	948748
7440-62-2	Vanadium	14300	ug/Kg		112	560	560	1	P	JWJ	02/19/10 22:58	021910A-1	948744
7440-66-6	Zinc	27200	ug/Kg		369	1120	1120	1	P	JWJ	02/19/10 22:58	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.524	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.527	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245960011 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7324 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14200000	ug/Kg		7340	21600	21600	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-36-0	Antimony	1260	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-38-2	Arsenic	1.85	mg/kg		0.22	1.1	1.1	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-39-3	Barium	213000	ug/Kg		108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-41-7	Beryllium	1.18	mg/kg		0.022	0.11	0.11	2	MS	RMJ	02/27/10 02:45	100226-4	948748
7440-43-9	Cadmium	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-70-2	Calcium	3280000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-47-3	Chromium	10900	ug/Kg		162	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-48-4	Cobalt	5530	ug/Kg		162	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-50-8	Copper	7470	ug/Kg		324	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-89-6	Iron	14500000	ug/Kg		8640	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-92-1	Lead	13800	ug/Kg		270	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-95-4	Magnesium	2390000	ug/Kg		9180	32400	32400	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-96-5	Manganese	367000	ug/Kg		216	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7439-97-6	Mercury	10.9	ug/kg	J	4.42	13	13	1	AV	JXL1	02/18/10 12:24	021810S1-5	951512
7440-02-0	Nickel	9.46	mg/kg		0.11	0.44	0.44	2	MS	RMJ	02/27/10 02:45	100226-4	948748
7440-09-7	Potassium	1880000	ug/Kg		6910	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7782-49-2	Selenium	1.1	mg/kg	U	0.55	1.1	1.1	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-22-4	Silver	540	ug/Kg	U	108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-23-5	Sodium	101000	ug/Kg		7560	27000	27000	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-28-0	Thallium	0.223	mg/kg		0.066	0.22	0.22	2	MS	RMJ	02/27/10 00:28	100226-3	948748
7440-61-1	Uranium	0.896	mg/kg		0.0145	0.044	0.044	2	MS	RMJ	02/26/10 10:04	100225-2	948748
7440-62-2	Vanadium	28400	ug/Kg		108	540	540	1	P	JWJ	02/19/10 23:01	021910A-1	948744
7440-66-6	Zinc	28700	ug/Kg		356	1080	1080	1	P	JWJ	02/19/10 23:01	021910A-1	948744

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948744	948743	SW846 3050B	0.516	g	50	mL	02/10/10	FGA
948748	948745	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
951512	951508	SW846 7471A Prep	0.514	g	30	mL	02/17/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	90.0 – 110.0	AV	18–FEB–10 09:57	021810S1–5
	Aluminum	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Antimony	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Cadmium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Copper	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Potassium	2560	ug/L	2500	ug/L	102.4	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Silver	262	ug/L	250	ug/L	104.9	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Sodium	2570	ug/L	2500	ug/L	102.8	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Zinc	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19–FEB–10 16:40	021910A–1
	Uranium	54.5	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	26–FEB–10 06:07	100225–2
	Arsenic	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	26–FEB–10 21:58	100226–3
	Selenium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	26–FEB–10 21:58	100226–3
	Thallium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	26–FEB–10 21:58	100226–3
	Beryllium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	27–FEB–10 01:01	100226–4
	Nickel	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	27–FEB–10 01:01	100226–4
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	18–FEB–10 10:03	021810S1–5
	Aluminum	5300	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Antimony	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Copper	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Iron	5350	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Lead	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Magnesium	5420	ug/L	5000	ug/L	108.5	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Manganese	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Potassium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Zinc	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–FEB–10 17:03	021910A–1
	Uranium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	26–FEB–10 06:37	100225–2
	Arsenic	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	26–FEB–10 22:19	100226–3
	Selenium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	26–FEB–10 22:19	100226–3
	Thallium	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	26–FEB–10 22:19	100226–3
	Beryllium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	27–FEB–10 01:14	100226–4
	Nickel	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	27–FEB–10 01:14	100226–4
CCV02										
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 – 120.0	AV	18–FEB–10 10:27	021810S1–5
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Calcium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Cobalt	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Iron	5390	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Magnesium	5440	ug/L	5000	ug/L	108.8	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Manganese	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Potassium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19–FEB–10 17:21	021910A–1
	Uranium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	26–FEB–10 06:54	100225–2
	Arsenic	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	26–FEB–10 22:35	100226–3
	Selenium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	26–FEB–10 22:35	100226–3
	Thallium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	26–FEB–10 22:35	100226–3
	Beryllium	52.6	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	27–FEB–10 01:44	100226–4
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	27–FEB–10 01:44	100226–4
CCV03										
	Mercury	5.22	ug/L	5	ug/L	104.5	80.0 – 120.0	AV	18–FEB–10 10:51	021810S1–5
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Antimony	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Iron	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Lead	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Magnesium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10500	ug/L	10000	ug/L	105.5	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Uranium	54.3	ug/L	50	ug/L	108.6	90.0 – 110.0	MS	26-FEB-10 07:18	100225-2
	Arsenic	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	26-FEB-10 23:15	100226-3
	Selenium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	26-FEB-10 23:15	100226-3
	Thallium	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	26-FEB-10 23:15	100226-3
	Beryllium	52.7	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	27-FEB-10 02:15	100226-4
	Nickel	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	27-FEB-10 02:15	100226-4
CCV04										
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	18-FEB-10 11:15	021810S1-5
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Antimony	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Barium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Lead	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Magnesium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Potassium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Uranium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	26-FEB-10 08:17	100225-2
	Arsenic	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	26-FEB-10 23:52	100226-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	26-FEB-10 23:52	100226-3
	Thallium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	26-FEB-10 23:52	100226-3
	Beryllium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	27-FEB-10 02:48	100226-4
	Nickel	54.6	ug/L	50	ug/L	109.2	90.0 – 110.0	MS	27-FEB-10 02:48	100226-4
CCV05										
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	18-FEB-10 11:39	021810S1-5
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Cadmium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Calcium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Cobalt	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Lead	475	ug/L	500	ug/L	95	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Magnesium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Manganese	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Silver	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Uranium	54.9	ug/L	50	ug/L	109.8	90.0 – 110.0	MS	26-FEB-10 09:16	100225-2
	Arsenic	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	27-FEB-10 00:32	100226-3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	27-FEB-10 00:32	100226-3
	Thallium	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	27-FEB-10 00:32	100226-3
CCV06										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	18-FEB-10 12:03	021810S1-5
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19-FEB-10 19:26	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Cadmium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Calcium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Lead	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Manganese	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Sodium	9920	ug/L	10000	ug/L	99.2	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Zinc	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Uranium	53.1	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	26–FEB–10 10:10	100225–2
CCV07										
	Mercury	5.07	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	18–FEB–10 12:26	021810S1–5
	Aluminum	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Antimony	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Cadmium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Copper	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Lead	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Magnesium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Potassium	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Vanadium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Zinc	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
CCV08										
	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 – 120.0	AV	18–FEB–10 12:50	021810S1–5
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Barium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Cadmium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Calcium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Chromium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Cobalt	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Copper	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Lead	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Magnesium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Silver	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Vanadium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
CCV09										
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	19–FEB–10 21:08	021910A–1
	Antimony	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	19–FEB–10 21:08	021910A–1
	Barium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	19–FEB–10 21:08	021910A–1
	Cadmium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19–FEB–10 21:08	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Cobalt	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Copper	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Lead	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Magnesium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Manganese	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Vanadium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Zinc	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
CCV10										
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Cadmium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Calcium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Copper	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Iron	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Lead	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Magnesium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Silver	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
CCV11										
	Aluminum	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Antimony	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Chromium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Cobalt	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Copper	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Lead	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Magnesium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Manganese	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Potassium	4820	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
CCV12										
	Aluminum	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Antimony	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Cadmium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Chromium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Copper	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Lead	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Potassium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–FEB–10 23:05	021910A–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.218	ug/L	.2	ug/L	109	70.0 – 130.0	AV	18-FEB-10 10:01	021810S1-5
	Uranium	.246	ug/L	.2	ug/L	123	70.0 – 130.0	MS	26-FEB-10 06:19	100225-2
	Thallium	1.09	ug/L	1	ug/L	108.5	70.0 – 130.0	MS	26-FEB-10 22:06	100226-3
	Selenium	5.91	ug/L	5	ug/L	118.2	70.0 – 130.0	MS	26-FEB-10 22:06	100226-3
	Arsenic	5.98	ug/L	5	ug/L	119.7	70.0 – 130.0	MS	26-FEB-10 22:06	100226-3
	Nickel	2.18	ug/L	2	ug/L	108.8	70.0 – 130.0	MS	27-FEB-10 01:06	100226-4
	Beryllium	.579	ug/L	.5	ug/L	115.8	70.0 – 130.0	MS	27-FEB-10 01:06	100226-4
PQL01										
	Aluminum	198	ug/L	200	ug/L	98.8	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Iron	101	ug/L	100	ug/L	100.9	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Lead	10.5	ug/L	10	ug/L	105.2	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Magnesium	305	ug/L	300	ug/L	101.7	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Manganese	10.3	ug/L	10	ug/L	102.7	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Potassium	157	ug/L	150	ug/L	104.4	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Silver	4.8	ug/L	5	ug/L	96.1	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Sodium	312	ug/L	300	ug/L	104	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Antimony	10.8	ug/L	10	ug/L	108.3	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Barium	4.87	ug/L	5	ug/L	97.4	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Cadmium	5	ug/L	5	ug/L	99.9	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Chromium	5.48	ug/L	5	ug/L	109.5	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Cobalt	4.54	ug/L	5	ug/L	90.9	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Copper	10.1	ug/L	10	ug/L	100.7	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Vanadium	5.03	ug/L	5	ug/L	100.5	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Zinc	9.76	ug/L	10	ug/L	97.6	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Calcium	188	ug/L	200	ug/L	94.2	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.129	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 09:59	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 16:44	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 16:44	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 16:44	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 16:44	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 16:44	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 16:44	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 16:44	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 16:44	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 06:13	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 22:02	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 22:02	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 22:02	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 01:03	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 01:03	100226–4
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:05	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 17:07	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:07	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Lead	5.21	+/–10	J	2.5	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 17:07	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Potassium	80.96	+/–250	J	64.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Sodium	72.13	+/–250	J	70.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 06:43	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 22:23	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 22:23	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 22:23	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 01:16	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 01:16	100226–4
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:29	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 17:25	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 17:25	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Uranium	0.066	+/–.2	J	0.066	0.2	SOL	MS	26–FEB–10 07:00	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 22:39	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 22:39	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 22:39	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 01:47	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 01:47	100226–4
CCB03										
	Mercury	–0.08	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 10:53	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 17:55	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 17:55	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:55	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 07:24	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 23:19	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 23:19	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 23:19	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 02:17	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 02:17	100226–4
CCB04										
	Mercury	–0.106	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 11:17	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 18:28	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 18:28	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 18:28	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 18:28	021910A–1
	Manganese	2.04	+/–10	J	2.0	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 18:28	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 18:28	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 18:28	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 18:28	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 08:23	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 23:56	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 23:56	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 23:56	100226–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 02:51	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 02:51	100226–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Mercury	–0.154	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 11:41	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 19:01	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:01	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:01	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 19:01	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 19:01	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 19:01	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:01	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:01	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 09:22	100225–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	27–FEB–10 00:36	100226–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	27–FEB–10 00:36	100226–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	27–FEB–10 00:36	100226–3
CCB06										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:05	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 19:30	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:30	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 19:30	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 10:16	100225–2
CCB07										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:28	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 20:02	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 20:02	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:02	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB08										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:52	021810S1–5
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 20:39	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:39	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:39	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 20:39	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:39	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 20:39	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 20:39	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 20:39	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 20:39	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 20:39	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:39	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:39	021910A–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 21:12	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:12	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 21:12	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 21:12	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 21:12	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 21:12	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:12	021910A–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 21:55	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 21:55	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:55	021910A–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 22:32	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 22:32	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 22:32	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 22:32	021910A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 22:32	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 22:32	021910A–1
	Lead	–3.7	+/–10	J	2.5	10.0	SOL	P	19–FEB–10 22:32	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 22:32	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 22:32	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 22:32	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 22:32	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 22:32	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 22:32	021910A–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 23:09	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 23:09	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 23:09	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 23:09	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 23:09	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 23:09	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 23:09	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 23:09	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 23:09	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 23:09	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 23:09	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 23:09	021910A–1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1511

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032567								
	Aluminum	5230	ug/Kg	+/-15400	U	P	5230	15400
	Antimony	254	ug/Kg	+/-769	U	P	254	769
	Barium	76.9	ug/Kg	+/-385	U	P	76.9	385
	Cadmium	76.9	ug/Kg	+/-385	U	P	76.9	385
	Calcium	6150	ug/Kg	+/-19200	U	P	6150	19200
	Chromium	191	ug/Kg	+/-385	J	P	115	385
	Cobalt	115	ug/Kg	+/-385	U	P	115	385
	Copper	231	ug/Kg	+/-769	U	P	231	769
	Iron	8210	ug/Kg	+/-19200	J	P	6150	19200
	Lead	192	ug/Kg	+/-769	U	P	192	769
	Magnesium	6540	ug/Kg	+/-23100	U	P	6540	23100
	Manganese	226	ug/Kg	+/-769	J	P	154	769
	Potassium	4920	ug/Kg	+/-19200	U	P	4920	19200
	Silver	76.9	ug/Kg	+/-385	U	P	76.9	385
	Sodium	5380	ug/Kg	+/-19200	U	P	5380	19200
	Vanadium	76.9	ug/Kg	+/-385	U	P	76.9	385
	Zinc	346	ug/Kg	+/-769	J	P	254	769
1202032573								
	Arsenic	0.157	mg/kg	+/-0.784	U	MS	0.157	0.784
	Beryllium	0.0157	mg/kg	+/-0.0784	U	MS	0.0157	0.0784
	Nickel	0.0784	mg/kg	+/-0.313	U	MS	0.0784	0.313
	Selenium	0.392	mg/kg	+/-0.784	U	MS	0.392	0.784
	Thallium	0.047	mg/kg	+/-0.157	U	MS	0.047	0.157
	Uranium	0.0103	mg/kg	+/-0.0314	U	MS	0.0103	0.0314
1202039184								
	Mercury	-10.4	ug/kg	+/-11.4	J	AV	3.87	11.4

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	515000	ug/L	500000	ug/L	103	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Antimony	–14.6	ug/L					19–FEB–10 16:51	021910A–1
	Barium	7.73	ug/L					19–FEB–10 16:51	021910A–1
	Cadmium	–6.35	ug/L					19–FEB–10 16:51	021910A–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Chromium	–0.312	ug/L					19–FEB–10 16:51	021910A–1
	Cobalt	2.17	ug/L					19–FEB–10 16:51	021910A–1
	Copper	–2.01	ug/L					19–FEB–10 16:51	021910A–1
	Iron	191000	ug/L	200000	ug/L	95.7	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Lead	7.77	ug/L					19–FEB–10 16:51	021910A–1
	Magnesium	494000	ug/L	500000	ug/L	98.8	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Manganese	8.98	ug/L					19–FEB–10 16:51	021910A–1
	Potassium	–20.1	ug/L					19–FEB–10 16:51	021910A–1
	Silver	–6.6	ug/L					19–FEB–10 16:51	021910A–1
	Sodium	30.3	ug/L					19–FEB–10 16:51	021910A–1
	Vanadium	–3.3	ug/L					19–FEB–10 16:51	021910A–1
	Zinc	–9.41	ug/L					19–FEB–10 16:51	021910A–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Antimony	505	ug/L	500	ug/L	101	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Barium	503	ug/L	500	ug/L	101	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Cadmium	459	ug/L	500	ug/L	91.9	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Chromium	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Cobalt	435	ug/L	500	ug/L	87.1	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Copper	543	ug/L	500	ug/L	109	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Lead	484	ug/L	500	ug/L	96.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Magnesium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Potassium	5060	ug/L	5000	ug/L	101	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Silver	257	ug/L	250	ug/L	103	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Sodium	5160	ug/L	5000	ug/L	103	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Zinc	466	ug/L	500	ug/L	93.3	80.0 – 120.0	19–FEB–10 16:54	021910A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.014	ug/L					26–FEB–10 06:25	100225–2
ICSAB01									
	Uranium	22.2	ug/L	20	ug/L	111	80.0 – 120.0	26–FEB–10 06:31	100225–2

METALS
–4–
Interference Check Sample

SDG No: 10–1511

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.839	ug/L					26–FEB–10 22:11	100226–3
	Selenium	–2.53	ug/L					26–FEB–10 22:11	100226–3
	Thallium	0.016	ug/L					26–FEB–10 22:11	100226–3
ICSAB01									
	Arsenic	22.1	ug/L	20	ug/L	110	80.0 – 120.0	26–FEB–10 22:15	100226–3
	Selenium	19.1	ug/L	20	ug/L	95.5	80.0 – 120.0	26–FEB–10 22:15	100226–3
	Thallium	19.5	ug/L	20	ug/L	97.6	80.0 – 120.0	26–FEB–10 22:15	100226–3

METALS
-4-
Interference Check Sample

SDG No: 10-1511

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.108	ug/L					27-FEB-10 01:09	100226-4
	Nickel	4.68	ug/L					27-FEB-10 01:09	100226-4
ICSAB01									
	Beryllium	19.6	ug/L	20	ug/L	97.8	80.0 - 120.0	27-FEB-10 01:11	100226-4
	Nickel	24.1	ug/L	23.31	ug/L	103	80.0 - 120.0	27-FEB-10 01:11	100226-4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1511 **Client ID:** RE46–10–11961S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 245938001 **Spike ID:** 1202032570

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75–125	2230000		953000		529000	241	N	P
Antimony	ug/Kg	75–125	47500		348	U	52900	89.2		P
Barium	ug/Kg	75–125	67600		11300		52900	106		P
Cadmium	ug/Kg	75–125	50300		105	U	52900	95.1		P
Calcium	ug/Kg	75–125	1700000		1360000		529000	65.1	N	P
Chromium	ug/Kg	75–125	60700		3980		52900	107		P
Cobalt	ug/Kg	75–125	49900		612		52900	93.2		P
Copper	ug/Kg	75–125	54900		3030		52900	98.1		P
Iron	ug/Kg		5240000		4330000		529000	172	N/A	P
Lead	ug/Kg	75–125	53000		2170		52900	96.2		P
Magnesium	ug/Kg	75–125	928000		236000		529000	131	N	P
Manganese	ug/Kg	75–125	220000		161000		52900	113		P
Potassium	ug/Kg	75–125	853000		246000		529000	115		P
Silver	ug/Kg	75–125	49700		105	U	52900	93.9		P
Sodium	ug/Kg	75–125	656000		97200		529000	106		P
Vanadium	ug/Kg	75–125	54100		3960		52900	94.8		P
Zinc	ug/Kg	75–125	71700		19600		52900	98.5		P

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1511 **Client ID:** RE46–10–11961SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 245938001 **Spike ID:** 1202032571

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Copper	ug/Kg	75–125	56700		3030		54800	97.9		P
Iron	ug/Kg		4870000		4330000		548000	98.4	N/A	P
Lead	ug/Kg	75–125	54800		2170		54800	96		P
Magnesium	ug/Kg	75–125	924000		236000		548000	126	N	P
Manganese	ug/Kg	75–125	223000		161000		54800	113		P
Potassium	ug/Kg	75–125	833000		246000		548000	107		P
Silver	ug/Kg	75–125	52100		105	U	54800	95.1		P
Sodium	ug/Kg	75–125	682000		97200		548000	107		P
Vanadium	ug/Kg	75–125	54700		3960		54800	92.7		P
Zinc	ug/Kg	75–125	73900		19600		54800	99.1		P
Aluminum	ug/Kg	75–125	2150000		953000		548000	219	N	P
Antimony	ug/Kg	75–125	49900		348	U	54800	90.5		P
Barium	ug/Kg	75–125	65100		11300		54800	98.1		P
Cadmium	ug/Kg	75–125	53200		105	U	54800	97		P
Calcium	ug/Kg	75–125	1240000		1360000		548000	–21.6	N	P
Chromium	ug/Kg	75–125	57600		3980		54800	97.9		P
Cobalt	ug/Kg	75–125	52200		612		54800	94.1		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1511 **Client ID** RE46–10–11961S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 245938001 **Spike ID:** 1202032576

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	8.26		0.529	J	8.25	93.7		MS
Beryllium	mg/kg	75–125	5.07		0.249		5.16	93.4		MS
Nickel	mg/kg	75–125	6.43		1.34		5.16	98.6		MS
Selenium	mg/kg	75–125	2		0.543	U	2.06	84		MS
Thallium	mg/kg	75–125	9.2		0.0652	U	10.3	88.8		MS
Uranium	mg/kg	75–125	5.42		0.546		5.16	94.5		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1511 **Client ID:** RE46–10–11961SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 90.9

Sample ID: 245938001 **Spike ID:** 1202032577

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/kg	75–125	5.26		0.249		5.33	94.1		MS
Nickel	mg/kg	75–125	6.19		1.34		5.33	91		MS
Arsenic	mg/kg	75–125	8.47		0.529	J	8.53	93.1		MS
Selenium	mg/kg	75–125	2.03		0.543	U	2.13	82.6		MS
Thallium	mg/kg	75–125	9.6		0.0652	U	10.7	89.7		MS
Uranium	mg/kg	75–125	5.47		0.546		5.33	92.4		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1511 **Client ID:** RE16-10-4573S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.5

Sample ID: 246470001 **Spike ID:** 1202039187

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg		719		581		111	124	N/A	AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1511 **Client ID:** RE16–10–4573SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.5

Sample ID: 246470001 **Spike ID:** 1202039193

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg		717		581		119	115	N/A	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11961D

Sample ID: 245938001 **Duplicate ID:** 1202032568 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	953000		1060000		10.4		P
Antimony	ug/Kg		348	U	359	U			P
Barium	ug/Kg	+/–20%	11300		19500		53	*	P
Cadmium	ug/Kg		105	U	109	U			P
Calcium	ug/Kg	+/–20%	1360000		1870000		31.6	*	P
Chromium	ug/Kg	+/–20%	3980		28200		150	*	P
Cobalt	ug/Kg	+/–543	612		894		37.5		P
Copper	ug/Kg	+/–1090	3030		15800		135	*	P
Iron	ug/Kg	+/–20%	4330000		4770000		9.53		P
Lead	ug/Kg	+/–1090	2170		4460		69	*	P
Magnesium	ug/Kg	+/–20%	236000		275000		15.1		P
Manganese	ug/Kg	+/–20%	161000		173000		7.3		P
Potassium	ug/Kg	+/–20%	246000		281000		12.9		P
Silver	ug/Kg		105	U	423	J	200		P
Sodium	ug/Kg	+/–27200	97200		111000		13		P
Vanadium	ug/Kg	+/–20%	3960		4470		12		P
Zinc	ug/Kg	+/–20%	19600		23000		15.9		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11961SD

Sample ID: 1202032570 **Duplicate ID:** 1202032571 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	2230000		2150000		3.33		P
Antimony	ug/Kg	+/–20	47500		49900		4.94		P
Barium	ug/Kg	+/–20	67600		65100		3.84		P
Cadmium	ug/Kg	+/–20	50300		53200		5.57		P
Calcium	ug/Kg	+/–20	1700000		1240000		31.4	*	P
Chromium	ug/Kg	+/–20	60700		57600		5.19		P
Cobalt	ug/Kg	+/–20	49900		52200		4.44		P
Copper	ug/Kg	+/–20	54900		56700		3.08		P
Iron	ug/Kg	+/–20	5240000		4870000		7.33		P
Lead	ug/Kg	+/–20	53000		54800		3.21		P
Magnesium	ug/Kg	+/–20	928000		924000		.38		P
Manganese	ug/Kg	+/–20	220000		223000		1.1		P
Potassium	ug/Kg	+/–20	853000		833000		2.32		P
Silver	ug/Kg	+/–20	49700		52100		4.89		P
Sodium	ug/Kg	+/–20	656000		682000		3.9		P
Vanadium	ug/Kg	+/–20	54100		54700		1.15		P
Zinc	ug/Kg	+/–20	71700		73900		3		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11961D

Sample ID: 245938001 **Duplicate ID:** 1202032574 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.07	0.529	J	0.674	J	24.1		MS
Beryllium	mg/kg	+/–.107	0.249		0.391		44.4	*	MS
Nickel	mg/kg	+/–.427	1.34		1.48		9.7		MS
Selenium	mg/kg		0.543	U	0.534	U			MS
Thallium	mg/kg		0.0652	U	0.0641	U			MS
Uranium	mg/kg	+/–20%	0.546		0.518		5.29		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–11961SD

Sample ID: 1202032576 **Duplicate ID:** 1202032577 **Percent Solids for Dup:** 90.9

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	8.26		8.47		2.47		MS
Beryllium	mg/kg	+/–20	5.07		5.26		3.8		MS
Nickel	mg/kg	+/–20	6.43		6.19		3.71		MS
Selenium	mg/kg	+/–20	2		2.03		1.34		MS
Thallium	mg/kg	+/–20	9.2		9.6		4.19		MS
Uranium	mg/kg	+/–20	5.42		5.47		.939		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE16–10–4573D

Sample ID: 246470001 **Duplicate ID:** 1202039186 **Percent Solids for Dup:** 94.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20%	581		516		11.8		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE16–10–4573SD

Sample ID: 1202039187 **Duplicate ID:** 1202039193 **Percent Solids for Dup:** 94.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	719		717		.265		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032572								
	Aluminum	ug/Kg	10500000	8610000		82	56-144	P
	Antimony	ug/Kg	173000	127000		73.4	71-130	P
	Barium	ug/Kg	198000	194000		98.2	80-120	P
	Cadmium	ug/Kg	60700	56600		93.3	81-120	P
	Calcium	ug/Kg	9870000	9650000		97.7	83-117	P
	Chromium	ug/Kg	236000	224000		94.8	80-120	P
	Cobalt	ug/Kg	91200	88600		97.1	81-120	P
	Copper	ug/Kg	174000	173000		99.4	81-118	P
	Iron	ug/Kg	18000000	19400000		108	51-149	P
	Lead	ug/Kg	86000	83900		97.6	79-121	P
	Magnesium	ug/Kg	4000000	3780000		94.4	79-122	P
	Manganese	ug/Kg	558000	537000		96.3	81-119	P
	Potassium	ug/Kg	4300000	3890000		90.4	74-127	P
	Silver	ug/Kg	30100	29700		98.8	66-134	P
	Sodium	ug/Kg	1020000	961000		94.2	74-127	P
	Vanadium	ug/Kg	115000	119000		103	79-121	P
	Zinc	ug/Kg	594000	557000		93.8	80-121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1511

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032578								
	Arsenic	mg/kg	104	108		103	78–123	MS
	Beryllium	mg/kg	77.6	74.7		96.2	84–116	MS
	Nickel	mg/kg	134	135		101	78–123	MS
	Selenium	mg/kg	286	286		99.9	77–123	MS
	Thallium	mg/kg	121	121		100	78–122	MS
	Uranium	mg/kg	2.13	1.8		84.7	73–127	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1511

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202039185								
	Mercury	ug/kg	5150	6070		118	71.6–128.3	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1511 **Client ID:** RE46–10–11961L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245938001 **Serial Dilution ID:** 1202032569

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	9050		8950		1.1		10	P
Antimony	3.3	U	16.5	U				P
Barium	108		107		1.39		10	P
Cadmium	1	U	5	U				P
Calcium	12900		12900		.388		10	P
Chromium	37.8		40.7		7.54			P
Cobalt	5.81		7.5	U	100			P
Copper	28.8		27.2	J	5.56			P
Iron	41100		41400		.73		10	P
Lead	20.6		16.7	J	18.9			P
Magnesium	2240		2110		5.8			P
Manganese	1530		1490		2.61		10	P
Potassium	2340		2480		5.98			P
Silver	1	U	5	U				P
Sodium	922		910	J	1.3			P
Vanadium	37.6		38.5		2.26			P
Zinc	186		182		2.42		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1511 **Client ID:** RE46–10–11961L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245938001 **Serial Dilution ID:** 1202032575

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	2.44	J	5.3	J	117			MS
Beryllium	1.14		1.07	J	6.58			MS
Nickel	6.18		5.85	J	5.34			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	2.51		2.45		2.59			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1511 **Client ID:** RE16-10-4573L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246470001 **Serial Dilution ID:** 1202039192

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	9.22		8.75		5.1		10	AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1511 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948743						
1202032567	MB for batch 948743	MB	S	10–FEB–10	.65g	50mL	
1202032572	LCS for batch 948743	LCS	S	10–FEB–10	.535g	50mL	
1202032570	RE46–10–11961S	MS	S	10–FEB–10	.52g	50mL	
1202032571	RE46–10–11961SD	MSD	S	10–FEB–10	.502g	50mL	
1202032568	RE46–10–11961D	DUP	S	10–FEB–10	.506g	50mL	
245960001	RE15–10–7309	SAMPLE	S	10–FEB–10	.517g	50mL	
245960002	RE15–10–7308	SAMPLE	S	10–FEB–10	.5g	50mL	
245960003	RE15–10–7315	SAMPLE	S	10–FEB–10	.509g	50mL	
245960004	RE15–10–7317	SAMPLE	S	10–FEB–10	.519g	50mL	
245960005	RE15–10–7319	SAMPLE	S	10–FEB–10	.503g	50mL	
245960006	RE15–10–7312	SAMPLE	S	10–FEB–10	.514g	50mL	
245960007	RE15–10–7313	SAMPLE	S	10–FEB–10	.502g	50mL	
245960008	RE15–10–7314	SAMPLE	S	10–FEB–10	.522g	50mL	
245960009	RE15–10–7316	SAMPLE	S	10–FEB–10	.506g	50mL	
245960010	RE15–10–7318	SAMPLE	S	10–FEB–10	.524g	50mL	
245960011	RE15–10–7324	SAMPLE	S	10–FEB–10	.516g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1511 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948745						
1202032573	MB for batch 948745	MB	S	10–FEB–10	.638g	50mL	
1202032578	LCS for batch 948745	LCS	S	10–FEB–10	.5g	50mL	
1202032576	RE46–10–11961S	MS	S	10–FEB–10	.533g	50mL	
1202032577	RE46–10–11961SD	MSD	S	10–FEB–10	.516g	50mL	
1202032574	RE46–10–11961D	DUP	S	10–FEB–10	.515g	50mL	
245960001	RE15–10–7309	SAMPLE	S	10–FEB–10	.505g	50mL	
245960002	RE15–10–7308	SAMPLE	S	10–FEB–10	.538g	50mL	
245960003	RE15–10–7315	SAMPLE	S	10–FEB–10	.5g	50mL	
245960004	RE15–10–7317	SAMPLE	S	10–FEB–10	.502g	50mL	
245960005	RE15–10–7319	SAMPLE	S	10–FEB–10	.513g	50mL	
245960006	RE15–10–7312	SAMPLE	S	10–FEB–10	.525g	50mL	
245960007	RE15–10–7313	SAMPLE	S	10–FEB–10	.502g	50mL	
245960008	RE15–10–7314	SAMPLE	S	10–FEB–10	.5g	50mL	
245960009	RE15–10–7316	SAMPLE	S	10–FEB–10	.525g	50mL	
245960010	RE15–10–7318	SAMPLE	S	10–FEB–10	.5g	50mL	
245960011	RE15–10–7324	SAMPLE	S	10–FEB–10	.507g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1511 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	951508						
1202039184	MB for batch 951508	MB	S	17–FEB–10	.527g	30mL	
1202039185	LCS for batch 951508	LCS	S	17–FEB–10	.202g	30mL	
1202039187	RE16–10–4573S	MS	S	17–FEB–10	.571g	30mL	
1202039193	RE16–10–4573SD	MSD	S	17–FEB–10	.534g	30mL	
1202039186	RE16–10–4573D	DUP	S	17–FEB–10	.555g	30mL	
245960001	RE15–10–7309	SAMPLE	S	17–FEB–10	.542g	30mL	
245960002	RE15–10–7308	SAMPLE	S	17–FEB–10	.6g	30mL	
245960003	RE15–10–7315	SAMPLE	S	17–FEB–10	.57g	30mL	
245960004	RE15–10–7317	SAMPLE	S	17–FEB–10	.507g	30mL	
245960005	RE15–10–7319	SAMPLE	S	17–FEB–10	.519g	30mL	
245960006	RE15–10–7312	SAMPLE	S	17–FEB–10	.529g	30mL	
245960007	RE15–10–7313	SAMPLE	S	17–FEB–10	.501g	30mL	
245960008	RE15–10–7314	SAMPLE	S	17–FEB–10	.588g	30mL	
245960009	RE15–10–7316	SAMPLE	S	17–FEB–10	.543g	30mL	
245960010	RE15–10–7318	SAMPLE	S	17–FEB–10	.527g	30mL	
245960011	RE15–10–7324	SAMPLE	S	17–FEB–10	.514g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26–FEB–10 **End Date:** 26–FEB–10

Client Sdg: 10–1511
Method MS
Data File: 100225–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	05:50																						X		
S10	1	05:55																						X		
S100	1	06:01																						X		
ICV01	1	06:07																						X		
ICB01	1	06:13																						X		
CRDL01	1	06:19																						X		
ICSA01	1	06:25																						X		
ICSAB01	1	06:31																						X		
CCV01	1	06:37																						X		
CCB01	1	06:43																						X		
LR01	1	06:48																						X		
CCV02	1	06:54																						X		
CCB02	1	07:00																						X		
1202032573	2	07:06																						X		
1202032578	40	07:12																						X		
CCV03	1	07:18																						X		
CCB03	1	07:24																						X		
ZZZZZZ	2	07:30																								
1202032574	2	07:36																						X		
1202032576	2	07:42																						X		
1202032577	2	07:48																						X		
1202032575	10	07:53																						X		
ZZZZZZ	2	07:59																								
ZZZZZZ	2	08:05																								
ZZZZZZ	2	08:11																								
CCV04	1	08:17																						X		
CCB04	1	08:23																						X		
ZZZZZZ	2	08:29																								
ZZZZZZ	2	08:35																								
ZZZZZZ	2	08:41																								
ZZZZZZ	2	08:47																								
245960001	2	08:53																						X		
245960002	2	08:59																						X		
245960003	2	09:04																						X		
245960004	2	09:10																						X		
CCV05	1	09:16																						X		
CCB05	1	09:22																						X		
245960005	2	09:28																						X		
245960006	2	09:34																						X		
245960007	2	09:40																						X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
245960008	2	09:46																					X		
245960009	2	09:52																					X		
245960010	2	09:58																					X		
245960011	2	10:04																					X		
CCV06	1	10:10																					X		
CCB06	1	10:16																					X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26–FEB–10 **End Date:** 27–FEB–10

Client Sdg: 10–1511
Method MS
Data File: 100226–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	21:46			X															X			X			
S10	1	21:50			X															X			X			
S100	1	21:54			X															X			X			
ICV01	1	21:58			X															X			X			
ICB01	1	22:02			X															X			X			
CRDL01	1	22:06			X															X			X			
ICSA01	1	22:11			X															X			X			
ICSAB01	1	22:15			X															X			X			
CCV01	1	22:19			X															X			X			
CCB01	1	22:23			X															X			X			
1202032573	2	22:27			X															X			X			
1202032578	40	22:31			X															X			X			
CCV02	1	22:35			X															X			X			
CCB02	1	22:39			X															X			X			
ZZZZZZ	2	22:43																								
1202032574	2	22:47			X															X			X			
1202032576	2	22:51			X															X			X			
1202032577	2	22:55			X															X			X			
1202032575	10	22:59			X															X			X			
ZZZZZZ	2	23:03																								
ZZZZZZ	2	23:07																								
ZZZZZZ	2	23:11																								
CCV03	1	23:15			X															X			X			
CCB03	1	23:19			X															X			X			
ZZZZZZ	2	23:23																								
ZZZZZZ	2	23:27																								
ZZZZZZ	2	23:31																								
ZZZZZZ	2	23:35																								
245960001	2	23:40			X															X			X			
245960002	2	23:44			X															X			X			
245960003	2	23:48			X															X			X			
CCV04	1	23:52			X															X			X			
CCB04	1	23:56			X															X			X			
245960004	2	00:00			X															X			X			
245960005	2	00:04			X															X			X			
245960006	2	00:08			X															X			X			
245960007	2	00:12			X															X			X			
245960008	2	00:16			X															X			X			
245960009	2	00:20			X															X			X			
245960010	2	00:24			X															X			X			

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
245960011	2	00:28			X															X			X			
CCV05	1	00:32			X															X			X			
CCB05	1	00:36			X															X			X			

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26–FEB–10 **End Date:** 27–FEB–10

Client Sdg: 10–1511
Method MS
Data File: 100226–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:51					X											X								
S10	1	00:55					X											X								
S100	1	00:58					X											X								
ICV01	1	01:01					X											X								
ICB01	1	01:03					X											X								
CRDL01	1	01:06					X											X								
ICSA01	1	01:09					X											X								
ICSAB01	1	01:11					X											X								
CCV01	1	01:14					X											X								
CCB01	1	01:16					X											X								
1202032573	2	01:19					X											X								
1202032578	40	01:22					X											X								
ZZZZZZ	2	01:25																								
1202032574	2	01:29					X											X								
1202032576	2	01:32					X											X								
1202032577	2	01:35					X											X								
1202032575	10	01:38					X											X								
ZZZZZZ	2	01:41																								
CCV02	1	01:44					X											X								
CCB02	1	01:47					X											X								
ZZZZZZ	2	01:49																								
ZZZZZZ	2	01:53																								
ZZZZZZ	2	01:56																								
ZZZZZZ	2	01:59																								
ZZZZZZ	2	02:02																								
ZZZZZZ	2	02:05																								
245960001	2	02:08					X											X								
245960002	2	02:11					X											X								
CCV03	1	02:15					X											X								
CCB03	1	02:17					X											X								
245960003	2	02:20					X											X								
245960004	2	02:23					X											X								
245960005	2	02:26					X											X								
245960006	2	02:29					X											X								
245960007	2	02:32					X											X								
245960008	2	02:36					X											X								
245960009	2	02:39					X											X								
245960010	2	02:42					X											X								
245960011	2	02:45					X											X								
CCV04	1	02:48					X											X								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCB04	1	02:51					X											X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 18–FEB–10 **End Date:** 18–FEB–10

Client Sdg: 10–1511
Method AV
Data File: 021810S1–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:45															X									
S0.2	1	09:47															X									
S0.5	1	09:49															X									
S2.0	1	09:51															X									
S5.0	1	09:53															X									
S10	1	09:55															X									
ICV01	1	09:57															X									
ICB01	1	09:59															X									
CRDL01	1	10:01															X									
CCV01	1	10:03															X									
CCB01	1	10:05															X									
ZZZZZZ	1	10:07																								
ZZZZZZ	10	10:09																								
ZZZZZZ	1	10:11																								
ZZZZZZ	1	10:13																								
ZZZZZZ	1	10:15																								
ZZZZZZ	1	10:17																								
ZZZZZZ	5	10:19																								
ZZZZZZ	1	10:21																								
ZZZZZZ	1	10:23																								
ZZZZZZ	1	10:25																								
CCV02	1	10:27															X									
CCB02	1	10:29															X									
ZZZZZZ	1	10:31																								
ZZZZZZ	1	10:33																								
ZZZZZZ	1	10:35																								
ZZZZZZ	1	10:37																								
ZZZZZZ	1	10:39																								
ZZZZZZ	1	10:41																								
ZZZZZZ	1	10:43																								
ZZZZZZ	1	10:45																								
ZZZZZZ	1	10:47																								
ZZZZZZ	1	10:49																								
CCV03	1	10:51															X									
CCB03	1	10:53															X									
ZZZZZZ	1	10:55																								
ZZZZZZ	1	10:57																								
ZZZZZZ	10	10:59																								
ZZZZZZ	1	11:01																								
ZZZZZZ	1	11:03																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	11:05																						
ZZZZZZ	1	11:07																						
ZZZZZZ	5	11:09																						
ZZZZZZ	1	11:11																						
ZZZZZZ	1	11:13																						
CCV04	1	11:15													X									
CCB04	1	11:17													X									
ZZZZZZ	1	11:19																						
ZZZZZZ	1	11:21																						
ZZZZZZ	1	11:23																						
ZZZZZZ	1	11:25																						
ZZZZZZ	1	11:27																						
ZZZZZZ	1	11:29																						
ZZZZZZ	1	11:31																						
ZZZZZZ	1	11:33																						
ZZZZZZ	1	11:35																						
ZZZZZZ	1	11:37																						
CCV05	1	11:39													X									
CCB05	1	11:41													X									
ZZZZZZ	1	11:43																						
ZZZZZZ	1	11:45																						
ZZZZZZ	1	11:47																						
ZZZZZZ	1	11:49																						
ZZZZZZ	1	11:51																						
ZZZZZZ	1	11:53																						
ZZZZZZ	1	11:55																						
1202039184	1	11:57													X									
1202039185	10	11:59													X									
245960001	1	12:01													X									
CCV06	1	12:03													X									
CCB06	1	12:05													X									
245960002	1	12:07													X									
245960003	1	12:09													X									
245960004	1	12:11													X									
245960005	1	12:12													X									
245960006	1	12:14													X									
245960007	1	12:16													X									
245960008	1	12:18													X									
245960009	1	12:20													X									
245960010	1	12:22													X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
245960011	1	12:24															X									
CCV07	1	12:26															X									
CCB07	1	12:28															X									
ZZZZZZ	1	12:30																								
1202039186	1	12:32															X									
1202039187	1	12:34															X									
1202039193	1	12:36															X									
1202039192	5	12:38															X									
ZZZZZZ	1	12:40																								
ZZZZZZ	1	12:42																								
ZZZZZZ	1	12:44																								
ZZZZZZ	1	12:46																								
ZZZZZZ	1	12:48																								
CCV08	1	12:50															X									
CCB08	1	12:52															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 19-FEB-10 **End Date:** 19-FEB-10

Client Sdg: 10-1511
Method P
Data File: 021910A-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	16:28		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	16:30	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	16:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	16:38	X						X				X		X							X				
ICV01	1	16:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	16:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	16:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	16:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	16:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	16:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	16:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	17:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	17:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	17:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	17:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	17:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:30																								
ZZZZZZ	1	17:34																								
ZZZZZZ	1	17:37																								
ZZZZZZ	1	17:41																								
ZZZZZZ	1	17:44																								
ZZZZZZ	1	17:48																								
CCV03	1	17:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	17:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:59																								
ZZZZZZ	1	18:03																								
ZZZZZZ	1	18:06																								
ZZZZZZ	1	18:09																								
ZZZZZZ	1	18:13																								
ZZZZZZ	1	18:17																								
ZZZZZZ	5	18:20																								
CCV04	1	18:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	18:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:31																								
ZZZZZZ	1	18:35																								
ZZZZZZ	1	18:39																								
ZZZZZZ	1	18:42																								
ZZZZZZ	1	18:46																								
ZZZZZZ	1	18:50																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	18:53																								
CCV05	1	18:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	19:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:04																								
ZZZZZZ	1	19:08																								
ZZZZZZ	1	19:12																								
ZZZZZZ	1	19:15																								
ZZZZZZ	1	19:19																								
ZZZZZZ	1	19:23																								
CCV06	1	19:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	19:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:34																								
ZZZZZZ	1	19:37																								
ZZZZZZ	1	19:40																								
ZZZZZZ	1	19:44																								
ZZZZZZ	1	19:48																								
ZZZZZZ	1	19:51																								
ZZZZZZ	5	19:55																								
CCV07	1	19:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	20:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:06																								
ZZZZZZ	1	20:10																								
ZZZZZZ	1	20:13																								
ZZZZZZ	1	20:17																								
ZZZZZZ	1	20:21																								
ZZZZZZ	1	20:24																								
ZZZZZZ	1	20:28																								
ZZZZZZ	1	20:32																								
CCV08	1	20:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	20:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:43																								
ZZZZZZ	1	20:46																								
ZZZZZZ	1	20:50																								
ZZZZZZ	1	20:53																								
ZZZZZZ	1	20:57																								
ZZZZZZ	5	21:01																								
ZZZZZZ	1	21:04																								
CCV09	1	21:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	21:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032567	1	21:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
1202032572	1	21:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:26																								
1202032568	1	21:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032570	1	21:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032571	1	21:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032569	5	21:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:44																								
ZZZZZZ	1	21:48																								
CCV10	1	21:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	21:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:59																								
ZZZZZZ	1	22:03																								
ZZZZZZ	1	22:06																								
ZZZZZZ	1	22:10																								
ZZZZZZ	1	22:14																								
245960001	1	22:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960002	1	22:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960003	1	22:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV11	1	22:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	22:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960004	1	22:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960005	1	22:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960006	1	22:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960007	1	22:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960008	1	22:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960009	1	22:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960010	1	22:58	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245960011	1	23:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV12	1	23:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	23:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1511

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1511

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1511

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1511

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1511

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

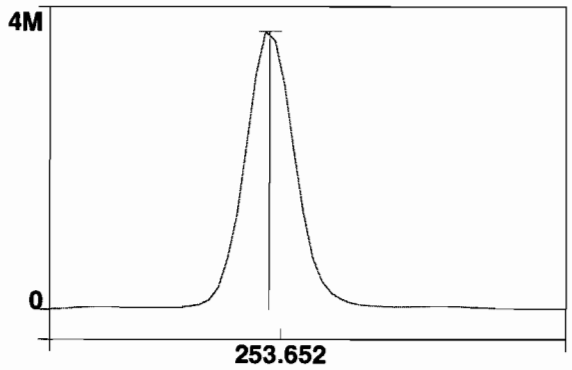

Intensity: 3672376.8 cps
Conc:

1

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Analysis Begun

Start Time: 2/19/2010 16:24:40 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 15:19:26**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/19/2010 16:24:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56379.0	56379.0	99.8	%	16:25:17
1	Al 396.153Radial†	16.2	16.2	[0.00]	µg/L	16:25:17
1	Ca 317.933Radial†	214.7	215.2	[0.00]	µg/L	16:25:38
1	Fe 238.204 Radial†	18.4	18.4	[0.00]	µg/L	16:25:38

1	K 766.490 Radial†	170.1	170.5	[0.00]	µg/L	16:25:17
1	Mg 279.077 IEC†	12.4	12.5	[0.00]	µg/L	16:25:38
1	Na 589.592 Radial†	471.3	472.3	[0.00]	µg/L	16:25:17
1	Sr 421.552†	12.0	12.0	[0.00]	µg/L	16:25:17
1	Sc 361.383	1972868.2	1972868.2	100.50	%	16:26:40
1	Y 371.029	1358545.8	1358545.8	100.43	%	16:26:40
1	Ag 328.068†	-377.9	-376.0	[0.00]	µg/L	16:26:45
1	As 188.979†	2.0	2.0	[0.00]	µg/L	16:27:06
1	B 249.677†	379.3	377.5	[0.00]	µg/L	16:27:06
1	Ba 233.527†	-13.3	-13.3	[0.00]	µg/L	16:27:06
1	Be 313.107†	-2914.6	-2900.2	[0.00]	µg/L	16:26:45
1	Cd 226.502†	-140.3	-139.6	[0.00]	µg/L	16:27:06
1	Co 228.616†	-4.5	-4.5	[0.00]	µg/L	16:27:06
1	Cr 267.716†	-50.8	-50.6	[0.00]	µg/L	16:26:45
1	Cu 324.752†	2545.0	2532.4	[0.00]	µg/L	16:26:45
1	Mn 257.610†	-255.0	-253.7	[0.00]	µg/L	16:27:06
1	Mo 202.031†	-2.4	-2.3	[0.00]	µg/L	16:27:06
1	Ni 231.604†	320.7	319.1	[0.00]	µg/L	16:27:06
1	P 214.914†	15.8	15.8	[0.00]	µg/L	16:27:06
1	Pb 220.353†	88.6	88.2	[0.00]	µg/L	16:27:06
1	S 181.975 Axial†	19.1	19.1	[0.00]	µg/L	16:27:06
1	Sb 206.836†	17.4	17.3	[0.00]	µg/L	16:27:06
1	Se 196.026†	20.3	20.2	[0.00]	µg/L	16:27:06
1	SiO2†	1396.5	1389.6	[0.00]	µg/L	16:26:45
1	Si 251.611†	308.1	306.6	[0.00]	µg/L	16:27:06
1	Sn 189.927†	0.6	0.6	[0.00]	µg/L	16:27:06
1	Ti 334.940†	185.3	184.3	[0.00]	µg/L	16:26:45
1	Tl 190.801†	-23.5	-23.3	[0.00]	µg/L	16:27:06
1	U 409.014†	-92.6	-92.1	[0.00]	µg/L	16:26:45
1	V 292.402†	-67.1	-66.8	[0.00]	µg/L	16:26:45
1	Zn 213.857†	537.3	534.6	[0.00]	µg/L	16:27:06
2	Sc RADIAL	56755.6	56755.6	100	%	16:25:43
2	Al 396.153Radial†	-1.8	-1.8	[0.00]	µg/L	16:25:43
2	Ca 317.933Radial†	215.5	214.5	[0.00]	µg/L	16:26:04
2	Fe 238.204 Radial†	16.5	16.4	[0.00]	µg/L	16:26:04
2	K 766.490 Radial†	182.5	181.6	[0.00]	µg/L	16:25:43
2	Mg 279.077 IEC†	11.4	11.3	[0.00]	µg/L	16:26:04
2	Na 589.592 Radial†	457.5	455.4	[0.00]	µg/L	16:25:43
2	Sr 421.552†	48.2	48.0	[0.00]	µg/L	16:25:43
2	Sc 361.383	1966863.7	1966863.7	100.19	%	16:27:12
2	Y 371.029	1355430.0	1355430.0	100.20	%	16:27:12
2	Ag 328.068†	-456.1	-455.2	[0.00]	µg/L	16:27:17
2	As 188.979†	1.0	0.9	[0.00]	µg/L	16:27:38
2	B 249.677†	393.1	392.3	[0.00]	µg/L	16:27:38
2	Ba 233.527†	-22.9	-22.8	[0.00]	µg/L	16:27:38
2	Be 313.107†	-2829.8	-2824.4	[0.00]	µg/L	16:27:17
2	Cd 226.502†	-143.7	-143.4	[0.00]	µg/L	16:27:38
2	Co 228.616†	5.2	5.2	[0.00]	µg/L	16:27:38
2	Cr 267.716†	-56.7	-56.6	[0.00]	µg/L	16:27:17
2	Cu 324.752†	2525.9	2521.0	[0.00]	µg/L	16:27:17
2	Mn 257.610†	-246.3	-245.8	[0.00]	µg/L	16:27:38
2	Mo 202.031†	-7.2	-7.2	[0.00]	µg/L	16:27:38
2	Ni 231.604†	311.9	311.3	[0.00]	µg/L	16:27:38
2	P 214.914†	14.8	14.8	[0.00]	µg/L	16:27:38
2	Pb 220.353†	93.7	93.5	[0.00]	µg/L	16:27:38
2	S 181.975 Axial†	14.7	14.7	[0.00]	µg/L	16:27:38
2	Sb 206.836†	27.4	27.4	[0.00]	µg/L	16:27:38
2	Se 196.026†	17.0	16.9	[0.00]	µg/L	16:27:38
2	SiO2†	1365.2	1362.6	[0.00]	µg/L	16:27:17
2	Si 251.611†	311.7	311.1	[0.00]	µg/L	16:27:38
2	Sn 189.927†	0.1	0.1	[0.00]	µg/L	16:27:38
2	Ti 334.940†	147.4	147.1	[0.00]	µg/L	16:27:17
2	Tl 190.801†	-23.8	-23.8	[0.00]	µg/L	16:27:38
2	U 409.014†	-39.1	-39.0	[0.00]	µg/L	16:27:17
2	V 292.402†	-66.7	-66.6	[0.00]	µg/L	16:27:17
2	Zn 213.857†	535.6	534.6	[0.00]	µg/L	16:27:38
3	Sc RADIAL	56352.2	56352.2	99.7	%	16:26:09
3	Al 396.153Radial†	7.7	7.7	[0.00]	µg/L	16:26:09
3	Ca 317.933Radial†	203.6	204.1	[0.00]	µg/L	16:26:29
3	Fe 238.204 Radial†	14.9	14.9	[0.00]	µg/L	16:26:29
3	K 766.490 Radial†	142.5	142.8	[0.00]	µg/L	16:26:09

3	Mg 279.077 IEC†	14.6	14.7	[0.00] µg/L	16:26:29
3	Na 589.592 Radial†	487.6	488.9	[0.00] µg/L	16:26:09
3	Sr 421.552†	26.3	26.4	[0.00] µg/L	16:26:09
3	Sc 361.383	1949627.5	1949627.5	99.313 %	16:27:44
3	Y 371.029	1344291.5	1344291.5	99.374 %	16:27:44
3	Ag 328.068†	-371.1	-373.6	[0.00] µg/L	16:27:50
3	As 188.979†	-4.3	-4.4	[0.00] µg/L	16:28:10
3	B 249.677†	380.0	382.6	[0.00] µg/L	16:28:10
3	Ba 233.527†	-15.0	-15.1	[0.00] µg/L	16:28:10
3	Be 313.107†	-2823.0	-2842.5	[0.00] µg/L	16:27:50
3	Cd 226.502†	-141.0	-142.0	[0.00] µg/L	16:28:10
3	Co 228.616†	5.0	5.1	[0.00] µg/L	16:28:10
3	Cr 267.716†	-43.6	-43.9	[0.00] µg/L	16:27:50
3	Cu 324.752†	2560.1	2577.8	[0.00] µg/L	16:27:50
3	Mn 257.610†	-266.7	-268.5	[0.00] µg/L	16:28:10
3	Mo 202.031†	-6.5	-6.5	[0.00] µg/L	16:28:10
3	Ni 231.604†	304.5	306.6	[0.00] µg/L	16:28:10
3	P 214.914†	15.4	15.5	[0.00] µg/L	16:28:10
3	Pb 220.353†	90.5	91.1	[0.00] µg/L	16:28:10
3	S 181.975 Axial†	22.9	23.0	[0.00] µg/L	16:28:10
3	Sb 206.836†	22.7	22.8	[0.00] µg/L	16:28:10
3	Se 196.026†	20.7	20.8	[0.00] µg/L	16:28:10
3	SiO2†	1412.7	1422.5	[0.00] µg/L	16:27:50
3	Si 251.611†	312.1	314.3	[0.00] µg/L	16:28:10
3	Sn 189.927†	0.4	0.4	[0.00] µg/L	16:28:10
3	Ti 334.940†	192.3	193.6	[0.00] µg/L	16:27:50
3	Tl 190.801†	-19.9	-20.0	[0.00] µg/L	16:28:10
3	U 409.014†	-99.5	-100.1	[0.00] µg/L	16:27:50
3	V 292.402†	-0.9	-0.9	[0.00] µg/L	16:27:50
3	Zn 213.857†	530.3	534.0	[0.00] µg/L	16:28:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1963119.8	12064.22	0.61%	100.00	%
Sc RADIAL	56495.6	225.58	0.40%	100	%
Y 371.029	1352755.8	7494.01	0.55%	100.00	%
Ag 328.068†	-401.6	46.42	11.56%	[0.00]	µg/L
Al 396.153Radial†	7.4	9.00	122.22%	[0.00]	µg/L
As 188.979†	-0.5	3.42	746.44%	[0.00]	µg/L
B 249.677†	384.1	7.56	1.97%	[0.00]	µg/L
Ba 233.527†	-17.1	5.08	29.78%	[0.00]	µg/L
Be 313.107†	-2855.7	39.56	1.39%	[0.00]	µg/L
Ca 317.933Radial†	211.3	6.18	2.93%	[0.00]	µg/L
Cd 226.502†	-141.7	1.91	1.35%	[0.00]	µg/L
Co 228.616†	1.9	5.56	287.58%	[0.00]	µg/L
Cr 267.716†	-50.4	6.37	12.65%	[0.00]	µg/L
Cu 324.752†	2543.7	30.02	1.18%	[0.00]	µg/L
Fe 238.204 Radial†	16.6	1.77	10.70%	[0.00]	µg/L
K 766.490 Radial†	165.0	19.97	12.10%	[0.00]	µg/L
Mg 279.077 IEC†	12.8	1.69	13.22%	[0.00]	µg/L
Mn 257.610†	-256.0	11.55	4.51%	[0.00]	µg/L
Mo 202.031†	-5.3	2.62	48.99%	[0.00]	µg/L
Na 589.592 Radial†	472.2	16.73	3.54%	[0.00]	µg/L
Ni 231.604†	312.3	6.29	2.01%	[0.00]	µg/L
P 214.914†	15.3	0.52	3.38%	[0.00]	µg/L
Pb 220.353†	90.9	2.66	2.92%	[0.00]	µg/L
S 181.975 Axial†	18.9	4.16	21.98%	[0.00]	µg/L
Sb 206.836†	22.5	5.03	22.34%	[0.00]	µg/L
Se 196.026†	19.3	2.09	10.80%	[0.00]	µg/L
SiO2†	1391.6	29.99	2.16%	[0.00]	µg/L
Si 251.611†	310.6	3.86	1.24%	[0.00]	µg/L
Sn 189.927†	0.4	0.26	71.28%	[0.00]	µg/L
Sr 421.552†	28.8	18.10	62.83%	[0.00]	µg/L
Ti 334.940†	175.0	24.62	14.06%	[0.00]	µg/L
Tl 190.801†	-22.4	2.06	9.20%	[0.00]	µg/L
U 409.014†	-77.1	33.23	43.11%	[0.00]	µg/L
V 292.402†	-44.8	37.98	84.87%	[0.00]	µg/L
Zn 213.857†	534.4	0.37	0.07%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/19/2010 16:28:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56547.7	56547.7	100	%	16:28:54
1	K 766.490 Radial†	1729.4	1562.9	[1000]	µg/L	16:28:54
1	Sr 421.552†	10915.2	10876.4	[100]	µg/L	16:28:54
1	Sc 361.383	1958657.5	1958657.5	99.773	%	16:29:16
1	Y 371.029	1350548.9	1350548.9	99.837	%	16:29:16
1	Ag 328.068†	13553.9	13986.4	[100]	µg/L	16:29:22
1	As 188.979†	59.6	60.2	[100]	µg/L	16:29:42
1	B 249.677†	2836.9	2459.2	[100]	µg/L	16:29:22
1	Ba 233.527†	4355.0	4382.0	[100]	µg/L	16:29:22
1	Be 313.107†	171130.8	174376.3	[100]	µg/L	16:29:16
1	Cd 226.502†	4124.2	4275.2	[100]	µg/L	16:29:22
1	Co 228.616†	2298.0	2301.3	[100]	µg/L	16:29:42
1	Cr 267.716†	5258.9	5321.2	[100]	µg/L	16:29:22
1	Cu 324.752†	18781.5	16280.6	[100]	µg/L	16:29:22
1	Mn 257.610†	33738.0	34070.9	[100]	µg/L	16:29:22
1	Mo 202.031†	1103.1	1111.0	[100]	µg/L	16:29:42
1	Ni 231.604†	2464.7	2158.0	[100]	µg/L	16:29:22
1	P 214.914†	279.5	264.8	[500]	µg/L	16:29:42
1	Pb 220.353†	532.5	442.7	[100]	µg/L	16:29:42
1	S 181.975 Axial†	65.4	46.6	[200]	µg/L	16:29:42
1	Sb 206.836†	134.3	112.1	[100]	µg/L	16:29:42
1	Se 196.026†	91.1	72.0	[100]	µg/L	16:29:42
1	SiO2†	6958.0	5582.3	[1069.5]	µg/L	16:29:22
1	Si 251.611†	7026.5	6731.9	[500]	µg/L	16:29:22
1	Sn 189.927†	255.8	256.0	[100]	µg/L	16:29:42
1	Ti 334.940†	46558.0	46489.0	[100]	µg/L	16:29:22
1	Tl 190.801†	54.5	77.1	[100]	µg/L	16:29:42
1	U 409.014†	1252.7	1332.6	[100]	µg/L	16:29:22
1	V 292.402†	10759.4	10828.7	[100]	µg/L	16:29:22
1	Zn 213.857†	5084.1	4561.2	[100]	µg/L	16:29:22
2	Sc RADIAL	56202.9	56202.9	99.5	%	16:29:00
2	K 766.490 Radial†	1727.4	1571.4	[1000]	µg/L	16:29:00
2	Sr 421.552†	10846.6	10874.3	[100]	µg/L	16:29:00
2	Sc 361.383	1969774.0	1969774.0	100.34	%	16:29:48
2	Y 371.029	1358589.1	1358589.1	100.43	%	16:29:48
2	Ag 328.068†	13626.3	13981.9	[100]	µg/L	16:29:54
2	As 188.979†	59.0	59.2	[100]	µg/L	16:30:15
2	B 249.677†	2870.2	2476.3	[100]	µg/L	16:29:54
2	Ba 233.527†	4352.8	4355.2	[100]	µg/L	16:29:54
2	Be 313.107†	172207.8	174481.8	[100]	µg/L	16:29:48
2	Cd 226.502†	4144.1	4271.8	[100]	µg/L	16:29:54
2	Co 228.616†	2299.6	2289.9	[100]	µg/L	16:30:15
2	Cr 267.716†	5267.7	5300.2	[100]	µg/L	16:29:54
2	Cu 324.752†	18798.4	16191.1	[100]	µg/L	16:29:54
2	Mn 257.610†	33750.8	33892.8	[100]	µg/L	16:29:54
2	Mo 202.031†	1093.5	1095.1	[100]	µg/L	16:30:15
2	Ni 231.604†	2441.8	2121.3	[100]	µg/L	16:29:54
2	P 214.914†	278.5	262.2	[500]	µg/L	16:30:15
2	Pb 220.353†	534.1	441.4	[100]	µg/L	16:30:15
2	S 181.975 Axial†	68.1	49.0	[200]	µg/L	16:30:15
2	Sb 206.836†	141.3	118.3	[100]	µg/L	16:30:15
2	Se 196.026†	84.6	65.0	[100]	µg/L	16:30:15
2	SiO2†	6950.3	5535.3	[1069.5]	µg/L	16:29:54
2	Si 251.611†	7046.5	6712.0	[500]	µg/L	16:29:54
2	Sn 189.927†	257.8	256.5	[100]	µg/L	16:30:15
2	Ti 334.940†	46408.5	46076.6	[100]	µg/L	16:29:54
2	Tl 190.801†	53.9	76.1	[100]	µg/L	16:30:15
2	U 409.014†	1326.1	1398.7	[100]	µg/L	16:29:54
2	V 292.402†	10708.8	10717.4	[100]	µg/L	16:29:54

2	Zn 213.857†	5067.8	4516.3	[100]	µg/L	16:29:54
3	Sc RADIAL	55976.7	55976.7	99.1	%	16:29:05
3	K 766.490 Radial†	1714.6	1565.5	[1000]	µg/L	16:29:05
3	Sr 421.552†	10778.8	10849.9	[100]	µg/L	16:29:05
3	Sc 361.383	1959694.8	1959694.8	99.826	%	16:30:21
3	Y 371.029	1350466.2	1350466.2	99.831	%	16:30:21
3	Ag 328.068†	13514.1	13939.3	[100]	µg/L	16:30:27
3	As 188.979†	60.6	61.1	[100]	µg/L	16:30:47
3	B 249.677†	2823.5	2444.3	[100]	µg/L	16:30:27
3	Ba 233.527†	4346.0	4370.6	[100]	µg/L	16:30:27
3	Be 313.107†	170786.2	173940.4	[100]	µg/L	16:30:21
3	Cd 226.502†	4105.4	4254.3	[100]	µg/L	16:30:27
3	Co 228.616†	2321.1	2323.2	[100]	µg/L	16:30:47
3	Cr 267.716†	5182.0	5241.4	[100]	µg/L	16:30:27
3	Cu 324.752†	18775.8	16264.9	[100]	µg/L	16:30:27
3	Mn 257.610†	33438.9	33753.4	[100]	µg/L	16:30:27
3	Mo 202.031†	1103.0	1110.3	[100]	µg/L	16:30:47
3	Ni 231.604†	2473.4	2165.4	[100]	µg/L	16:30:27
3	P 214.914†	282.4	267.5	[500]	µg/L	16:30:47
3	Pb 220.353†	529.2	439.2	[100]	µg/L	16:30:47
3	S 181.975 Axial†	72.1	53.3	[200]	µg/L	16:30:47
3	Sb 206.836†	136.5	114.2	[100]	µg/L	16:30:47
3	Se 196.026†	86.4	67.3	[100]	µg/L	16:30:47
3	SiO2†	6918.8	5539.3	[1069.5]	µg/L	16:30:27
3	Si 251.611†	6976.1	6677.7	[500]	µg/L	16:30:27
3	Sn 189.927†	259.9	260.0	[100]	µg/L	16:30:47
3	Ti 334.940†	46135.2	46040.8	[100]	µg/L	16:30:27
3	Tl 190.801†	63.1	85.5	[100]	µg/L	16:30:47
3	U 409.014†	1279.4	1358.7	[100]	µg/L	16:30:27
3	V 292.402†	10662.6	10726.0	[100]	µg/L	16:30:27
3	Zn 213.857†	5060.1	4534.5	[100]	µg/L	16:30:27

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1962708.8	6140.62	0.31%	99.979	%
Sc RADIAL	56242.4	287.56	0.51%	99.6	%
Y 371.029	1353201.4	4666.07	0.34%	100.03	%
Ag 328.068†	13969.2	25.98	0.19%	[100]	µg/L
As 188.979†	60.2	0.95	1.58%	[100]	µg/L
B 249.677†	2459.9	16.02	0.65%	[100]	µg/L
Ba 233.527†	4369.3	13.48	0.31%	[100]	µg/L
Be 313.107†	174266.2	287.04	0.16%	[100]	µg/L
Cd 226.502†	4267.1	11.24	0.26%	[100]	µg/L
Co 228.616†	2304.8	16.95	0.74%	[100]	µg/L
Cr 267.716†	5287.6	41.38	0.78%	[100]	µg/L
Cu 324.752†	16245.5	47.76	0.29%	[100]	µg/L
K 766.490 Radial†	1566.6	4.37	0.28%	[1000]	µg/L
Mn 257.610†	33905.7	159.14	0.47%	[100]	µg/L
Mo 202.031†	1105.5	8.97	0.81%	[100]	µg/L
Ni 231.604†	2148.2	23.63	1.10%	[100]	µg/L
P 214.914†	264.9	2.64	1.00%	[500]	µg/L
Pb 220.353†	441.1	1.78	0.40%	[100]	µg/L
S 181.975 Axial†	49.6	3.39	6.83%	[200]	µg/L
Sb 206.836†	114.9	3.15	2.74%	[100]	µg/L
Se 196.026†	68.1	3.58	5.25%	[100]	µg/L
SiO2†	5552.3	26.07	0.47%	[1069.5]	µg/L
Si 251.611†	6707.2	27.43	0.41%	[500]	µg/L
Sn 189.927†	257.5	2.17	0.84%	[100]	µg/L
Sr 421.552†	10866.8	14.72	0.14%	[100]	µg/L
Ti 334.940†	46202.1	249.08	0.54%	[100]	µg/L
Tl 190.801†	79.6	5.19	6.52%	[100]	µg/L
U 409.014†	1363.3	33.25	2.44%	[100]	µg/L
V 292.402†	10757.4	61.94	0.58%	[100]	µg/L
Zn 213.857†	4537.3	22.62	0.50%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/19/2010 16:30:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56525.4	56525.4	100	%	16:31:29
1	Al 396.153Radial†	7453.5	7442.2	[5000]	µg/L	16:31:29
1	Ca 317.933Radial†	6221.9	6007.4	[5000]	µg/L	16:31:49
1	K 766.490 Radial†	7933.1	7763.9	[5000]	µg/L	16:31:29
1	Mg 279.077 IEC†	599.2	586.0	[5000]	µg/L	16:31:49
1	Sr 421.552†	54754.2	54696.6	[500]	µg/L	16:31:29
1	Sc 361.383	1991566.8	1991566.8	101.45	%	16:32:53
1	Y 371.029	1367918.2	1367918.2	101.12	%	16:32:53
1	Ag 328.068†	68503.2	67926.3	[500]	µg/L	16:32:58
1	As 188.979†	299.0	295.2	[500]	µg/L	16:33:19
1	B 249.677†	12863.6	12295.7	[500]	µg/L	16:32:58
1	Ba 233.527†	21495.8	21205.8	[500]	µg/L	16:32:58
1	Be 313.107†	866518.5	856997.1	[500]	µg/L	16:32:53
1	Cd 226.502†	20677.7	20524.0	[500]	µg/L	16:32:58
1	Co 228.616†	11538.9	11372.2	[500]	µg/L	16:32:58
1	Cr 267.716†	25928.5	25608.5	[500]	µg/L	16:32:58
1	Cu 324.752†	81773.4	78061.6	[500]	µg/L	16:32:58
1	Mn 257.610†	167098.7	164967.9	[500]	µg/L	16:32:53
1	Mo 202.031†	5532.6	5459.0	[500]	µg/L	16:33:19
1	Ni 231.604†	10768.1	10301.9	[500]	µg/L	16:32:58
1	P 214.914†	1359.0	1324.3	[2500]	µg/L	16:33:19
1	Pb 220.353†	2302.4	2178.6	[500]	µg/L	16:33:19
1	S 181.975 Axial†	272.4	249.5	[1000]	µg/L	16:33:19
1	Sb 206.836†	599.4	568.4	[500]	µg/L	16:33:19
1	Se 196.026†	396.8	371.8	[500]	µg/L	16:33:19
1	SiO2†	29409.8	27598.2	[5347.5]	µg/L	16:32:58
1	Si 251.611†	34329.7	33528.7	[2500]	µg/L	16:32:58
1	Sn 189.927†	1299.8	1280.9	[500]	µg/L	16:33:19
1	Ti 334.940†	233565.9	230054.7	[500]	µg/L	16:32:53
1	Tl 190.801†	385.4	402.3	[500]	µg/L	16:33:19
1	U 409.014†	6215.4	6203.7	[500]	µg/L	16:32:58
1	V 292.402†	53048.0	52335.0	[500]	µg/L	16:32:58
1	Zn 213.857†	22866.4	22005.3	[500]	µg/L	16:32:58
2	Sc RADIAL	57277.6	57277.6	101	%	16:31:55
2	Al 396.153Radial†	7395.5	7287.2	[5000]	µg/L	16:31:55
2	Ca 317.933Radial†	6211.2	5915.2	[5000]	µg/L	16:32:15
2	K 766.490 Radial†	7980.6	7706.7	[5000]	µg/L	16:31:55
2	Mg 279.077 IEC†	604.0	583.0	[5000]	µg/L	16:32:15
2	Sr 421.552†	54765.5	53989.0	[500]	µg/L	16:31:55
2	Sc 361.383	1976796.7	1976796.7	100.70	%	16:33:26
2	Y 371.029	1357513.2	1357513.2	100.35	%	16:33:26
2	Ag 328.068†	68789.6	68715.3	[500]	µg/L	16:33:31
2	As 188.979†	285.8	284.2	[500]	µg/L	16:33:52
2	B 249.677†	12976.0	12502.1	[500]	µg/L	16:33:31
2	Ba 233.527†	21626.4	21493.9	[500]	µg/L	16:33:31
2	Be 313.107†	874707.4	871511.2	[500]	µg/L	16:33:26
2	Cd 226.502†	20785.1	20783.0	[500]	µg/L	16:33:31
2	Co 228.616†	11579.6	11497.5	[500]	µg/L	16:33:31
2	Cr 267.716†	26128.8	25998.4	[500]	µg/L	16:33:31
2	Cu 324.752†	82210.9	79098.3	[500]	µg/L	16:33:31
2	Mn 257.610†	168624.9	167714.3	[500]	µg/L	16:33:26
2	Mo 202.031†	5307.9	5276.5	[500]	µg/L	16:33:52
2	Ni 231.604†	10841.5	10454.2	[500]	µg/L	16:33:31
2	P 214.914†	1330.2	1305.6	[2500]	µg/L	16:33:52
2	Pb 220.353†	2234.1	2127.7	[500]	µg/L	16:33:52
2	S 181.975 Axial†	262.6	241.9	[1000]	µg/L	16:33:52
2	Sb 206.836†	590.7	564.1	[500]	µg/L	16:33:52
2	Se 196.026†	389.5	367.5	[500]	µg/L	16:33:52
2	SiO2†	29539.9	27943.9	[5347.5]	µg/L	16:33:31

2	Si 251.611†	34501.4	33952.0	[2500]	µg/L	16:33:31
2	Sn 189.927†	1233.2	1224.3	[500]	µg/L	16:33:52
2	Ti 334.940†	235746.0	233939.9	[500]	µg/L	16:33:26
2	Tl 190.801†	379.0	398.8	[500]	µg/L	16:33:52
2	U 409.014†	6274.1	6307.8	[500]	µg/L	16:33:31
2	V 292.402†	53430.8	53105.9	[500]	µg/L	16:33:31
2	Zn 213.857†	22993.9	22300.4	[500]	µg/L	16:33:31
3	Sc RADIAL	57058.8	57058.8	101	%	16:32:20
3	Al 396.153Radial†	7492.8	7411.5	[5000]	µg/L	16:32:20
3	Ca 317.933Radial†	6205.9	5933.4	[5000]	µg/L	16:32:41
3	K 766.490 Radial†	8033.0	7788.8	[5000]	µg/L	16:32:20
3	Mg 279.077 IEC†	601.3	582.5	[5000]	µg/L	16:32:41
3	Sr 421.552†	55478.9	54902.6	[500]	µg/L	16:32:20
3	Sc 361.383	1973452.3	1973452.3	100.53	%	16:33:59
3	Y 371.029	1355765.1	1355765.1	100.22	%	16:33:59
3	Ag 328.068†	62917.4	62989.6	[500]	µg/L	16:34:05
3	As 188.979†	237.6	236.8	[500]	µg/L	16:34:25
3	B 249.677†	11812.4	11366.4	[500]	µg/L	16:34:05
3	Ba 233.527†	19002.6	18920.2	[500]	µg/L	16:34:05
3	Be 313.107†	778040.5	776822.6	[500]	µg/L	16:33:59
3	Cd 226.502†	18161.8	18208.4	[500]	µg/L	16:34:05
3	Co 228.616†	9999.7	9945.4	[500]	µg/L	16:34:05
3	Cr 267.716†	21799.1	21735.4	[500]	µg/L	16:34:05
3	Cu 324.752†	71681.4	68762.3	[500]	µg/L	16:34:05
3	Mn 257.610†	150744.1	150210.9	[500]	µg/L	16:33:59
3	Mo 202.031†	4242.5	4225.7	[500]	µg/L	16:34:25
3	Ni 231.604†	9432.3	9070.6	[500]	µg/L	16:34:05
3	P 214.914†	1083.7	1062.7	[2500]	µg/L	16:34:25
3	Pb 220.353†	1851.4	1750.7	[500]	µg/L	16:34:25
3	S 181.975 Axial†	228.1	208.0	[1000]	µg/L	16:34:25
3	Sb 206.836†	487.0	461.9	[500]	µg/L	16:34:25
3	Se 196.026†	331.3	310.2	[500]	µg/L	16:34:25
3	SiO2†	26534.1	25003.6	[5347.5]	µg/L	16:34:05
3	Si 251.611†	30910.4	30437.9	[2500]	µg/L	16:34:05
3	Sn 189.927†	970.3	964.9	[500]	µg/L	16:34:25
3	Ti 334.940†	207765.1	206502.3	[500]	µg/L	16:33:59
3	Tl 190.801†	318.1	338.8	[500]	µg/L	16:34:25
3	U 409.014†	5271.8	5321.3	[500]	µg/L	16:34:05
3	V 292.402†	45729.0	45534.4	[500]	µg/L	16:34:05
3	Zn 213.857†	20028.6	19389.3	[500]	µg/L	16:34:05

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1980605.3	9639.15	0.49%	100.89	%
Sc RADIAL	56953.9	386.91	0.68%	101	%
Y 371.029	1360398.8	6570.38	0.48%	100.57	%
Ag 328.068†	66543.7	3103.16	4.66%	[500]	µg/L
Al 396.153Radial†	7380.3	82.09	1.11%	[5000]	µg/L
As 188.979†	272.1	31.03	11.41%	[500]	µg/L
B 249.677†	12054.7	604.97	5.02%	[500]	µg/L
Ba 233.527†	20540.0	1410.14	6.87%	[500]	µg/L
Be 313.107†	835110.3	50997.60	6.11%	[500]	µg/L
Ca 317.933Radial†	5952.0	48.84	0.82%	[5000]	µg/L
Cd 226.502†	19838.5	1417.61	7.15%	[500]	µg/L
Co 228.616†	10938.4	862.20	7.88%	[500]	µg/L
Cr 267.716†	24447.5	2356.79	9.64%	[500]	µg/L
Cu 324.752†	75307.4	5691.88	7.56%	[500]	µg/L
K 766.490 Radial†	7753.1	42.12	0.54%	[5000]	µg/L
Mg 279.077 IEC†	583.8	1.92	0.33%	[5000]	µg/L
Mn 257.610†	160964.4	9413.47	5.85%	[500]	µg/L
Mo 202.031†	4987.0	665.66	13.35%	[500]	µg/L
Ni 231.604†	9942.2	758.69	7.63%	[500]	µg/L
P 214.914†	1230.9	145.94	11.86%	[2500]	µg/L
Pb 220.353†	2019.0	233.71	11.58%	[500]	µg/L
S 181.975 Axial†	233.1	22.09	9.48%	[1000]	µg/L
Sb 206.836†	531.5	60.25	11.34%	[500]	µg/L
Se 196.026†	349.9	34.37	9.82%	[500]	µg/L
SiO2†	26848.6	1607.13	5.99%	[5347.5]	µg/L
Si 251.611†	32639.5	1918.39	5.88%	[2500]	µg/L

Sn 189.927†	1156.7	168.51	14.57%	[500] µg/L
Sr 421.552†	54529.4	479.17	0.88%	[500] µg/L
Ti 334.940†	223499.0	14847.21	6.64%	[500] µg/L
Tl 190.801†	380.0	35.70	9.40%	[500] µg/L
U 409.014†	5944.2	542.02	9.12%	[500] µg/L
V 292.402†	50325.1	4166.77	8.28%	[500] µg/L
Zn 213.857†	21231.7	1602.33	7.55%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/19/2010 16:34:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57422.3	57422.3	102	%	16:35:07
1	Al 396.153Radial†	14869.0	14621.7	[10000]	µg/L	16:35:07
1	Ca 317.933Radial†	12244.2	11835.4	[10000]	µg/L	16:35:27
1	Fe 238.204 Radial†	1337.9	1299.7	[10000]	µg/L	16:35:27
1	K 766.490 Radial†	15761.0	15341.7	[10000]	µg/L	16:35:07
1	Mg 279.077 IEC†	1192.0	1159.9	[10000]	µg/L	16:35:27
1	Na 589.592 Radial†	34164.4	33140.9	[10000]	µg/L	16:35:07
1	Sr 421.552†	110392.2	108581.9	[1000]	µg/L	16:35:07
1	Sc 361.383	1976099.1	1976099.1	100.66	%	16:36:31
1	Y 371.029	1355904.7	1355904.7	100.23	%	16:36:31
1	Ag 328.068†	139743.4	139227.2	[1000]	µg/L	16:36:37
1	As 188.979†	605.1	601.6	[1000]	µg/L	16:36:57
1	B 249.677†	26002.4	25447.4	[1000]	µg/L	16:36:37
1	Ba 233.527†	43710.4	43440.4	[1000]	µg/L	16:36:37
1	Be 313.107†	1745428.1	1736819.7	[1000]	µg/L	16:36:31
1	Cd 226.502†	41933.9	41800.2	[1000]	µg/L	16:36:37
1	Co 228.616†	23253.7	23099.0	[1000]	µg/L	16:36:37
1	Cr 267.716†	53002.6	52704.8	[1000]	µg/L	16:36:37
1	Cu 324.752†	163999.7	160378.8	[1000]	µg/L	16:36:37
1	Mn 257.610†	334533.8	332592.5	[1000]	µg/L	16:36:37
1	Mo 202.031†	11127.7	11059.9	[1000]	µg/L	16:36:57
1	Ni 231.604†	21437.9	20984.7	[1000]	µg/L	16:36:37
1	P 214.914†	2747.0	2713.6	[5000]	µg/L	16:36:57
1	Pb 220.353†	4519.4	4398.7	[1000]	µg/L	16:36:57
1	S 181.975 Axial†	537.0	514.5	[2000]	µg/L	16:36:57
1	Sb 206.836†	1201.1	1170.7	[1000]	µg/L	16:36:57
1	Se 196.026†	778.4	754.0	[1000]	µg/L	16:36:57
1	SiO2†	57839.1	56067.6	[10695]	µg/L	16:36:37
1	Si 251.611†	68811.8	68049.2	[5000]	µg/L	16:36:37
1	Sn 189.927†	2603.2	2585.7	[1000]	µg/L	16:36:57
1	Ti 334.940†	470528.6	467263.1	[1000]	µg/L	16:36:31
1	Tl 190.801†	793.2	810.4	[1000]	µg/L	16:36:57
1	U 409.014†	12617.6	12611.8	[1000]	µg/L	16:36:37
1	V 292.402†	108523.0	107854.9	[1000]	µg/L	16:36:37
1	Zn 213.857†	45321.2	44489.2	[1000]	µg/L	16:36:37
2	Sc RADIAL	58102.6	58102.6	103	%	16:35:33
2	Al 396.153Radial†	14960.9	14539.8	[10000]	µg/L	16:35:33
2	Ca 317.933Radial†	12189.3	11640.9	[10000]	µg/L	16:35:53
2	Fe 238.204 Radial†	1332.7	1279.3	[10000]	µg/L	16:35:53
2	K 766.490 Radial†	15805.1	15203.0	[10000]	µg/L	16:35:33
2	Mg 279.077 IEC†	1183.6	1138.1	[10000]	µg/L	16:35:53
2	Na 589.592 Radial†	34301.4	32880.5	[10000]	µg/L	16:35:33
2	Sr 421.552†	111111.1	108009.2	[1000]	µg/L	16:35:33
2	Sc 361.383	1983646.2	1983646.2	101.05	%	16:37:04
2	Y 371.029	1360206.5	1360206.5	100.55	%	16:37:04
2	Ag 328.068†	139094.6	138056.9	[1000]	µg/L	16:37:10
2	As 188.979†	587.5	581.9	[1000]	µg/L	16:37:30
2	B 249.677†	25898.4	25246.3	[1000]	µg/L	16:37:10
2	Ba 233.527†	43616.3	43182.0	[1000]	µg/L	16:37:10
2	Be 313.107†	1746219.5	1731005.6	[1000]	µg/L	16:37:04
2	Cd 226.502†	41774.2	41483.6	[1000]	µg/L	16:37:10
2	Co 228.616†	23185.1	22943.2	[1000]	µg/L	16:37:10
2	Cr 267.716†	52660.4	52165.9	[1000]	µg/L	16:37:10
2	Cu 324.752†	163246.9	159013.9	[1000]	µg/L	16:37:10
2	Mn 257.610†	333323.0	330129.8	[1000]	µg/L	16:37:10
2	Mo 202.031†	10856.0	10749.0	[1000]	µg/L	16:37:30
2	Ni 231.604†	21396.9	20863.1	[1000]	µg/L	16:37:10
2	P 214.914†	2695.8	2652.5	[5000]	µg/L	16:37:30
2	Pb 220.353†	4439.8	4303.0	[1000]	µg/L	16:37:30

2	S 181.975 Axial†	528.4	504.0	[2000]	µg/L	16:37:30
2	Sb 206.836†	1179.2	1144.5	[1000]	µg/L	16:37:30
2	Se 196.026†	773.9	746.5	[1000]	µg/L	16:37:30
2	SiO2†	57827.3	55837.4	[10695]	µg/L	16:37:10
2	Si 251.611†	68760.8	67738.7	[5000]	µg/L	16:37:10
2	Sn 189.927†	2530.7	2504.2	[1000]	µg/L	16:37:30
2	Ti 334.940†	470622.3	465577.3	[1000]	µg/L	16:37:04
2	Tl 190.801†	781.8	796.1	[1000]	µg/L	16:37:30
2	U 409.014†	12629.7	12576.1	[1000]	µg/L	16:37:10
2	V 292.402†	108044.3	106971.0	[1000]	µg/L	16:37:10
2	Zn 213.857†	45147.6	44146.0	[1000]	µg/L	16:37:10
3	Sc RADIAL	57759.7	57759.7	102	%	16:35:59
3	Al 396.153Radial†	14873.5	14540.6	[10000]	µg/L	16:35:59
3	Ca 317.933Radial†	12176.6	11698.9	[10000]	µg/L	16:36:19
3	Fe 238.204 Radial†	1332.4	1286.7	[10000]	µg/L	16:36:19
3	K 766.490 Radial†	15741.4	15231.9	[10000]	µg/L	16:35:59
3	Mg 279.077 IEC†	1190.1	1151.2	[10000]	µg/L	16:36:19
3	Na 589.592 Radial†	34189.4	32969.0	[10000]	µg/L	16:35:59
3	Sr 421.552†	110552.5	108104.4	[1000]	µg/L	16:35:59
3	Sc 361.383	1985078.6	1985078.6	101.12	%	16:37:37
3	Y 371.029	1363323.6	1363323.6	100.78	%	16:37:37
3	Ag 328.068†	130033.0	128996.2	[1000]	µg/L	16:37:43
3	As 188.979†	504.5	499.3	[1000]	µg/L	16:38:03
3	B 249.677†	23878.6	23230.3	[1000]	µg/L	16:37:43
3	Ba 233.527†	39125.7	38709.9	[1000]	µg/L	16:37:43
3	Be 313.107†	1611138.8	1596172.2	[1000]	µg/L	16:37:37
3	Cd 226.502†	37509.7	37236.5	[1000]	µg/L	16:37:43
3	Co 228.616†	20554.3	20325.0	[1000]	µg/L	16:37:43
3	Cr 267.716†	45522.8	45069.6	[1000]	µg/L	16:37:43
3	Cu 324.752†	146020.7	141861.7	[1000]	µg/L	16:37:43
3	Mn 257.610†	295756.2	292740.6	[1000]	µg/L	16:37:43
3	Mo 202.031†	9074.4	8979.3	[1000]	µg/L	16:38:03
3	Ni 231.604†	18944.4	18422.5	[1000]	µg/L	16:37:43
3	P 214.914†	2295.1	2254.3	[5000]	µg/L	16:38:03
3	Pb 220.353†	3820.6	3687.4	[1000]	µg/L	16:38:03
3	S 181.975 Axial†	464.0	439.9	[2000]	µg/L	16:38:03
3	Sb 206.836†	1004.3	970.7	[1000]	µg/L	16:38:03
3	Se 196.026†	672.5	645.8	[1000]	µg/L	16:38:03
3	SiO2†	52945.1	50967.8	[10695]	µg/L	16:37:43
3	Si 251.611†	62859.1	61853.1	[5000]	µg/L	16:37:43
3	Sn 189.927†	2084.7	2061.2	[1000]	µg/L	16:38:03
3	Ti 334.940†	431690.8	426740.5	[1000]	µg/L	16:37:37
3	Tl 190.801†	695.2	709.9	[1000]	µg/L	16:38:03
3	U 409.014†	11027.6	10982.7	[1000]	µg/L	16:37:43
3	V 292.402†	95350.9	94340.9	[1000]	µg/L	16:37:43
3	Zn 213.857†	40251.0	39271.3	[1000]	µg/L	16:37:43

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1981608.0	4824.30	0.24%	100.94	%
Sc RADIAL	57761.5	340.17	0.59%	102	%
Y 371.029	1359811.6	3725.20	0.27%	100.52	%
Ag 328.068†	135426.8	5599.70	4.13%	[1000]	µg/L
Al 396.153Radial†	14567.3	47.07	0.32%	[10000]	µg/L
As 188.979†	560.9	54.25	9.67%	[1000]	µg/L
B 249.677†	24641.4	1226.12	4.98%	[1000]	µg/L
Ba 233.527†	41777.5	2659.67	6.37%	[1000]	µg/L
Be 313.107†	1687999.2	79577.59	4.71%	[1000]	µg/L
Ca 317.933Radial†	11725.1	99.83	0.85%	[10000]	µg/L
Cd 226.502†	40173.4	2548.40	6.34%	[1000]	µg/L
Co 228.616†	22122.4	1558.58	7.05%	[1000]	µg/L
Cr 267.716†	49980.1	4261.16	8.53%	[1000]	µg/L
Cu 324.752†	153751.5	10319.43	6.71%	[1000]	µg/L
Fe 238.204 Radial†	1288.5	10.35	0.80%	[10000]	µg/L
K 766.490 Radial†	15258.9	73.17	0.48%	[10000]	µg/L
Mg 279.077 IEC†	1149.7	11.01	0.96%	[10000]	µg/L
Mn 257.610†	318487.6	22331.56	7.01%	[1000]	µg/L
Mo 202.031†	10262.8	1122.29	10.94%	[1000]	µg/L
Na 589.592 Radial†	32996.8	132.37	0.40%	[10000]	µg/L

Ni 231.604†	20090.1	1445.49	7.20%	[1000]	µg/L
P 214.914†	2540.1	249.38	9.82%	[5000]	µg/L
Pb 220.353†	4129.7	386.03	9.35%	[1000]	µg/L
S 181.975 Axial†	486.1	40.36	8.30%	[2000]	µg/L
Sb 206.836†	1095.3	108.69	9.92%	[1000]	µg/L
Se 196.026†	715.4	60.44	8.45%	[1000]	µg/L
SiO2†	54290.9	2880.22	5.31%	[10695]	µg/L
Si 251.611†	65880.3	3491.15	5.30%	[5000]	µg/L
Sn 189.927†	2383.7	282.23	11.84%	[1000]	µg/L
Sr 421.552†	108231.8	306.90	0.28%	[1000]	µg/L
Ti 334.940†	453193.6	22924.60	5.06%	[1000]	µg/L
Tl 190.801†	772.1	54.39	7.04%	[1000]	µg/L
U 409.014†	12056.9	930.42	7.72%	[1000]	µg/L
V 292.402†	103055.6	7560.10	7.34%	[1000]	µg/L
Zn 213.857†	42635.5	2918.50	6.85%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/19/2010 16:38:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57539.5	57539.5	102	%	16:38:46
1	Al 396.153Radial†	72990.6	71659.1	[50000]	µg/L	16:38:46
1	Ca 317.933Radial†	59650.4	58357.0	[50000]	µg/L	16:38:46
1	Fe 238.204 Radial†	2601.5	2537.7	[20000]	µg/L	16:39:06
1	Mg 279.077 IEC†	5707.4	5591.1	[50000]	µg/L	16:39:06
1	Na 589.592 Radial†	66487.5	64809.1	[20000]	µg/L	16:38:46
1	Sc 361.383	1991346.9	1991346.9	101.44	%	16:40:10
1	Y 371.029	1361642.8	1361642.8	100.66	%	16:40:10
2	Sc RADIAL	57692.4	57692.4	102	%	16:39:12
2	Al 396.153Radial†	73669.2	72133.7	[50000]	µg/L	16:39:12
2	Ca 317.933Radial†	60236.2	58775.4	[50000]	µg/L	16:39:12
2	Fe 238.204 Radial†	2575.9	2505.9	[20000]	µg/L	16:39:32
2	Mg 279.077 IEC†	5682.3	5551.6	[50000]	µg/L	16:39:32
2	Na 589.592 Radial†	66913.0	65052.7	[20000]	µg/L	16:39:12
2	Sc 361.383	1994513.8	1994513.8	101.60	%	16:40:18
2	Y 371.029	1362831.0	1362831.0	100.74	%	16:40:18
3	Sc RADIAL	57518.8	57518.8	102	%	16:39:38
3	Al 396.153Radial†	72963.9	71658.6	[50000]	µg/L	16:39:38
3	Ca 317.933Radial†	59707.9	58434.6	[50000]	µg/L	16:39:38
3	Fe 238.204 Radial†	2595.7	2533.0	[20000]	µg/L	16:39:58
3	Mg 279.077 IEC†	5726.3	5611.7	[50000]	µg/L	16:39:58
3	Na 589.592 Radial†	66483.6	64828.8	[20000]	µg/L	16:39:38
3	Sc 361.383	1986414.7	1986414.7	101.19	%	16:40:26
3	Y 371.029	1358035.0	1358035.0	100.39	%	16:40:26

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1990758.5	4081.49	0.21%	101.41	%
Sc RADIAL	57583.6	94.84	0.16%	102	%
Y 371.029	1360836.3	2497.65	0.18%	100.60	%
Al 396.153Radial†	71817.1	274.12	0.38%	[50000]	µg/L
Ca 317.933Radial†	58522.3	222.58	0.38%	[50000]	µg/L
Fe 238.204 Radial†	2525.5	17.19	0.68%	[20000]	µg/L
Mg 279.077 IEC†	5584.8	30.54	0.55%	[50000]	µg/L
Na 589.592 Radial†	64896.9	135.34	0.21%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	135.0	0.00000	0.999971	
Al 396.153Radial	3	Lin Thru 0	0.0	1.437	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	0.5579	0.00000	0.999904	
B 249.677	3	Lin Thru 0	0.0	24.54	0.00000	0.999963	
Ba 233.527	3	Lin Thru 0	0.0	41.65	0.00000	0.999968	
Be 313.107	3	Lin Thru 0	0.0	1685	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.171	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	40.09	0.00000	0.999971	
Co 228.616	3	Lin Thru 0	0.0	22.08	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	49.79	0.00000	0.999947	
Cu 324.752	3	Lin Thru 0	0.0	153.2	0.00000	0.999952	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1268	0.00000	0.999967	
K 766.490 Radial	3	Lin Thru 0	0.0	1.531	0.00000	0.999977	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1119	0.00000	0.999975	
Mn 257.610	3	Lin Thru 0	0.0	319.3	0.00000	0.999976	
Mo 202.031	3	Lin Thru 0	0.0	10.21	0.00000	0.999909	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.256	0.00000	0.999977	

Ni 231.604	3	Lin Thru 0	0.0	20.06	0.00000	0.999972
P 214.914	3	Lin Thru 0	0.0	0.5051	0.00000	0.999914
Pb 220.353	3	Lin Thru 0	0.0	4.114	0.00000	0.999940
S 181.975 Axial	3	Lin Thru 0	0.0	0.2411	0.00000	0.999862
Sb 206.836	3	Lin Thru 0	0.0	1.089	0.00000	0.999918
Se 196.026	3	Lin Thru 0	0.0	0.7120	0.00000	0.999954
SiO2	3	Lin Thru 0	0.0	5.066	0.00000	0.999988
Si 251.611	3	Lin Thru 0	0.0	13.15	0.00000	0.999992
Sn 189.927	3	Lin Thru 0	0.0	2.371	0.00000	0.999901
Sr 421.552	3	Lin Thru 0	0.0	108.4	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	452.0	0.00000	0.999983
Tl 190.801	3	Lin Thru 0	0.0	0.7699	0.00000	0.999976
U 409.014	3	Lin Thru 0	0.0	12.04	0.00000	0.999914
V 292.402	3	Lin Thru 0	0.0	102.6	0.00000	0.999947
Zn 213.857	3	Lin Thru 0	0.0	42.62	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/19/2010 16:40:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57359.3	57359.3	102	%			16:41:09
1	Al 396.153Radial†	7610.3	7488.4	5197.5	µg/L	5197.5	ppb	16:41:09
1	Ca 317.933Radial†	6222.8	5917.8	5054.9	µg/L	5054.9	ppb	16:41:29
1	Fe 238.204 Radial†	692.6	665.6	5260.8	µg/L	5260.8	ppb	16:41:29
1	K 766.490 Radial†	4130.5	3903.3	2549.3	µg/L	2549.3	ppb	16:41:09
1	Mg 279.077 IEC†	619.9	597.8	5347.7	µg/L	5347.7	ppb	16:41:29
1	Na 589.592 Radial†	9010.6	8402.7	2580.8	µg/L	2580.8	ppb	16:41:09
1	Sr 421.552†	58315.4	57408.5	529.60	µg/L	529.60	ppb	16:41:09
1	Sc 361.383	2000166.2	2000166.2	101.89	%			16:42:33
1	Y 371.029	1374985.6	1374985.6	101.64	%			16:42:33
1	Ag 328.068†	36064.6	35798.3	269.00	µg/L	269.00	ppb	16:42:38
1	As 188.979†	291.8	286.8	513.02	µg/L	513.02	ppb	16:42:59
1	B 249.677†	13712.5	13074.4	530.96	µg/L	530.96	ppb	16:42:38
1	Ba 233.527†	22228.0	21833.3	525.11	µg/L	525.11	ppb	16:42:38
1	Be 313.107†	460753.1	455074.9	269.89	µg/L	269.89	ppb	16:42:33
1	Cd 226.502†	21063.9	20815.4	519.08	µg/L	519.08	ppb	16:42:38
1	Co 228.616†	11897.3	11675.0	528.19	µg/L	528.19	ppb	16:42:38
1	Cr 267.716†	25972.0	25541.3	513.34	µg/L	513.34	ppb	16:42:38
1	Cu 324.752†	84959.1	80841.8	528.42	µg/L	528.42	ppb	16:42:38
1	Mn 257.610†	174009.6	171042.6	536.11	µg/L	536.11	ppb	16:42:33
1	Mo 202.031†	5977.0	5871.6	575.18	µg/L	575.18	ppb	16:42:59
1	Ni 231.604†	11001.5	10485.4	522.13	µg/L	522.13	ppb	16:42:38
1	P 214.914†	1396.3	1355.1	2632.9	µg/L	2632.9	ppb	16:42:59
1	Pb 220.353†	2319.9	2186.0	531.70	µg/L	531.70	ppb	16:42:59
1	S 181.975 Axial†	667.0	635.7	2636.3	µg/L	2636.3	ppb	16:42:59
1	Sb 206.836†	616.3	582.4	537.83	µg/L	537.83	ppb	16:42:59
1	Se 196.026†	1971.6	1915.8	2698.7	µg/L	2698.7	ppb	16:42:59
1	SiO2†	55895.4	53468.6	10554	µg/L	10554	ppb	16:42:38
1	Si 251.611†	66312.0	64773.2	4924.2	µg/L	4924.2	ppb	16:42:38
1	Sn 189.927†	1397.6	1371.4	578.38	µg/L	578.38	ppb	16:42:59
1	Ti 334.940†	236505.6	231950.1	512.78	µg/L	512.78	ppb	16:42:33
1	Tl 190.801†	406.2	421.1	553.15	µg/L	553.15	ppb	16:42:59
1	U 409.014†	6233.6	6195.2	513.68	µg/L	513.68	ppb	16:42:38
1	V 292.402†	55272.1	54293.1	535.87	µg/L	535.87	ppb	16:42:38
1	Zn 213.857†	23721.8	22748.1	529.99	µg/L	529.99	ppb	16:42:38
2	Sc RADIAL	57362.6	57362.6	102	%			16:41:35
2	Al 396.153Radial†	7570.2	7448.5	5170.1	µg/L	5170.1	ppb	16:41:35
2	Ca 317.933Radial†	6248.3	5942.6	5076.0	µg/L	5076.0	ppb	16:41:55
2	Fe 238.204 Radial†	687.3	660.3	5219.2	µg/L	5219.2	ppb	16:41:55
2	K 766.490 Radial†	4135.1	3907.6	2552.1	µg/L	2552.1	ppb	16:41:35
2	Mg 279.077 IEC†	628.6	606.2	5423.0	µg/L	5423.0	ppb	16:41:55
2	Na 589.592 Radial†	8905.8	8299.0	2549.0	µg/L	2549.0	ppb	16:41:35
2	Sr 421.552†	58283.1	57373.4	529.28	µg/L	529.28	ppb	16:41:35
2	Sc 361.383	1991588.3	1991588.3	101.45	%			16:43:06
2	Y 371.029	1369085.3	1369085.3	101.21	%			16:43:06
2	Ag 328.068†	36279.5	36162.5	271.74	µg/L	271.74	ppb	16:43:12
2	As 188.979†	284.2	280.6	501.89	µg/L	501.89	ppb	16:43:32
2	B 249.677†	13841.7	13259.7	538.55	µg/L	538.55	ppb	16:43:12
2	Ba 233.527†	22542.4	22237.3	534.82	µg/L	534.82	ppb	16:43:12
2	Be 313.107†	458487.5	454789.4	269.72	µg/L	269.72	ppb	16:43:06
2	Cd 226.502†	21330.8	21167.6	527.88	µg/L	527.88	ppb	16:43:12
2	Co 228.616†	12048.7	11874.5	537.21	µg/L	537.21	ppb	16:43:12
2	Cr 267.716†	26258.5	25933.5	521.22	µg/L	521.22	ppb	16:43:12
2	Cu 324.752†	85756.0	81986.4	535.89	µg/L	535.89	ppb	16:43:12
2	Mn 257.610†	173215.7	170995.8	535.95	µg/L	535.95	ppb	16:43:06
2	Mo 202.031†	5783.7	5706.4	559.00	µg/L	559.00	ppb	16:43:32
2	Ni 231.604†	11147.8	10676.1	531.63	µg/L	531.63	ppb	16:43:12
2	P 214.914†	1350.6	1315.9	2554.3	µg/L	2554.3	ppb	16:43:32
2	Pb 220.353†	2269.2	2145.8	521.87	µg/L	521.87	ppb	16:43:32

2	S 181.975 Axial†	662.1	633.7	2628.1 µg/L	2628.1 ppb	16:43:32
2	Sb 206.836†	597.3	566.3	522.67 µg/L	522.67 ppb	16:43:32
2	Se 196.026†	1939.9	1892.9	2666.3 µg/L	2666.3 ppb	16:43:32
2	SiO2†	56544.0	54344.2	10727 µg/L	10727 ppb	16:43:12
2	Si 251.611†	67028.2	65759.4	4999.2 µg/L	4999.2 ppb	16:43:12
2	Sn 189.927†	1346.2	1326.5	559.48 µg/L	559.48 ppb	16:43:32
2	Ti 334.940†	235243.5	231705.8	512.24 µg/L	512.24 ppb	16:43:06
2	Tl 190.801†	411.2	427.8	561.75 µg/L	561.75 ppb	16:43:32
2	U 409.014†	6266.1	6253.6	518.55 µg/L	518.55 ppb	16:43:12
2	V 292.402†	55774.5	55022.0	542.87 µg/L	542.87 ppb	16:43:12
2	Zn 213.857†	24005.0	23127.4	538.84 µg/L	538.84 ppb	16:43:12
3	Sc RADIAL	57314.4	57314.4	101 %		16:42:01
3	Al 396.153Radial†	7617.9	7501.8	5209.5 µg/L	5209.5 ppb	16:42:01
3	Ca 317.933Radial†	6192.6	5892.9	5033.6 µg/L	5033.6 ppb	16:42:21
3	Fe 238.204 Radial†	680.9	654.6	5172.6 µg/L	5172.6 ppb	16:42:21
3	K 766.490 Radial†	4172.6	3948.0	2578.5 µg/L	2578.5 ppb	16:42:01
3	Mg 279.077 IEC†	617.9	596.2	5331.5 µg/L	5331.5 ppb	16:42:21
3	Na 589.592 Radial†	9012.1	8411.2	2583.4 µg/L	2583.4 ppb	16:42:01
3	Sr 421.552†	58397.5	57534.4	530.76 µg/L	530.76 ppb	16:42:01
3	Sc 361.383	1985318.4	1985318.4	101.13 %		16:43:39
3	Y 371.029	1365549.9	1365549.9	100.95 %		16:43:39
3	Ag 328.068†	32686.9	32723.0	245.69 µg/L	245.69 ppb	16:43:45
3	As 188.979†	231.6	229.5	410.45 µg/L	410.45 ppb	16:44:05
3	B 249.677†	12281.0	11759.6	477.28 µg/L	477.28 ppb	16:43:45
3	Ba 233.527†	19297.0	19098.3	459.31 µg/L	459.31 ppb	16:43:45
3	Be 313.107†	404356.4	402690.8	238.83 µg/L	238.83 ppb	16:43:39
3	Cd 226.502†	18203.2	18141.4	452.33 µg/L	452.33 ppb	16:43:45
3	Co 228.616†	10166.3	10050.7	454.63 µg/L	454.63 ppb	16:43:45
3	Cr 267.716†	21411.9	21222.9	426.55 µg/L	426.55 ppb	16:43:45
3	Cu 324.752†	73007.3	69647.2	455.34 µg/L	455.34 ppb	16:43:45
3	Mn 257.610†	153334.3	151875.9	476.08 µg/L	476.08 ppb	16:43:39
3	Mo 202.031†	4566.2	4520.5	442.87 µg/L	442.87 ppb	16:44:05
3	Ni 231.604†	9424.8	9007.0	448.52 µg/L	448.52 ppb	16:43:45
3	P 214.914†	1102.1	1074.4	2083.0 µg/L	2083.0 ppb	16:44:05
3	Pb 220.353†	1863.1	1751.3	425.87 µg/L	425.87 ppb	16:44:05
3	S 181.975 Axial†	551.5	526.4	2182.8 µg/L	2182.8 ppb	16:44:05
3	Sb 206.836†	493.8	465.8	429.60 µg/L	429.60 ppb	16:44:05
3	Se 196.026†	1594.6	1557.5	2195.3 µg/L	2195.3 ppb	16:44:05
3	SiO2†	49563.2	47617.5	9399.1 µg/L	9399.1 ppb	16:43:45
3	Si 251.611†	58584.7	57619.0	4380.3 µg/L	4380.3 ppb	16:43:45
3	Sn 189.927†	1053.3	1041.2	439.13 µg/L	439.13 ppb	16:44:05
3	Ti 334.940†	205922.2	203444.7	449.72 µg/L	449.72 ppb	16:43:39
3	Tl 190.801†	337.8	356.4	468.42 µg/L	468.42 ppb	16:44:05
3	U 409.014†	5226.1	5244.7	434.73 µg/L	434.73 ppb	16:43:45
3	V 292.402†	46549.8	46074.1	454.46 µg/L	454.46 ppb	16:43:45
3	Zn 213.857†	20360.6	19598.5	456.55 µg/L	456.55 ppb	16:43:45

Mean Data: ICV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992357.6	101.49	%	0.380				0.37%
Sc RADIAL	57345.5	102	%	0.0				0.05%
Y 371.029	1369873.6	101.27	%	0.352				0.35%
Ag 328.068†	34894.6	262.14	µg/L	14.318	262.14	ppb	14.318	5.46%
QC value within limits for Ag 328.068 Recovery = 104.86%								
Al 396.153Radial†	7479.5	5192.4	µg/L	20.22	5192.4	ppb	20.22	0.39%
QC value within limits for Al 396.153Radial Recovery = 103.85%								
As 188.979†	265.6	475.12	µg/L	56.284	475.12	ppb	56.284	11.85%
QC value within limits for As 188.979 Recovery = 95.02%								
B 249.677†	12697.9	515.59	µg/L	33.400	515.59	ppb	33.400	6.48%
QC value within limits for B 249.677 Recovery = 103.12%								
Ba 233.527†	21056.3	506.41	µg/L	41.083	506.41	ppb	41.083	8.11%
QC value within limits for Ba 233.527 Recovery = 101.28%								
Be 313.107†	437518.4	259.48	µg/L	17.887	259.48	ppb	17.887	6.89%
QC value within limits for Be 313.107 Recovery = 103.79%								
Ca 317.933Radial†	5917.8	5054.8	µg/L	21.22	5054.8	ppb	21.22	0.42%
QC value within limits for Ca 317.933Radial Recovery = 101.10%								
Cd 226.502†	20041.5	499.76	µg/L	41.316	499.76	ppb	41.316	8.27%
QC value within limits for Cd 226.502 Recovery = 99.95%								
Co 228.616†	11200.1	506.67	µg/L	45.295	506.67	ppb	45.295	8.94%

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   QC value within limits for Co 228.616  Recovery = 101.33%
Cr 267.716†            24232.6      487.04 µg/L        52.530      487.04 ppb         52.530  10.79%
   QC value within limits for Cr 267.716  Recovery = 97.41%
Cu 324.752†            77491.8      506.55 µg/L        44.507      506.55 ppb         44.507   8.79%
   QC value within limits for Cu 324.752  Recovery = 101.31%
Fe 238.204 Radial†       660.2      5217.6 µg/L         44.12      5217.6 ppb          44.12   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.35%
K 766.490 Radial†       3919.6      2560.0 µg/L         16.09      2560.0 ppb          16.09   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          600.1      5367.4 µg/L         48.83      5367.4 ppb          48.83   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.35%
Mn 257.610†           164638.1      516.05 µg/L        34.615      516.05 ppb         34.615   6.71%
   QC value within limits for Mn 257.610  Recovery = 103.21%
Mo 202.031†            5366.2      525.68 µg/L        72.174      525.68 ppb         72.174  13.73%
   QC value within limits for Mo 202.031  Recovery = 105.14%
Na 589.592 Radial†     8371.0      2571.1 µg/L         19.18      2571.1 ppb          19.18   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 102.84%
Ni 231.604†           10056.2      500.76 µg/L        45.489      500.76 ppb         45.489   9.08%
   QC value within limits for Ni 231.604  Recovery = 100.15%
P 214.914†             1248.5      2423.4 µg/L        297.40      2423.4 ppb         297.40  12.27%
   QC value within limits for P 214.914  Recovery = 96.94%
Pb 220.353†            2027.7      493.15 µg/L        58.472      493.15 ppb         58.472  11.86%
   QC value within limits for Pb 220.353  Recovery = 98.63%
S 181.975 Axial†        598.6      2482.4 µg/L        259.45      2482.4 ppb         259.45  10.45%
   QC value within limits for S 181.975 Axial  Recovery = 99.30%
Sb 206.836†             538.2      496.70 µg/L        58.600      496.70 ppb         58.600  11.80%
   QC value within limits for Sb 206.836  Recovery = 99.34%
Se 196.026†            1788.7      2520.1 µg/L        281.74      2520.1 ppb         281.74  11.18%
   QC value within limits for Se 196.026  Recovery = 100.81%
SiO2†                 51810.1       10227 µg/L         721.9       10227 ppb          721.9   7.06%
   QC value within limits for SiO2  Recovery = 95.62%
Si 251.611†           62717.2      4767.9 µg/L        337.74      4767.9 ppb         337.74   7.08%
   QC value within limits for Si 251.611  Recovery = 95.36%
Sn 189.927†            1246.4      525.66 µg/L        75.534      525.66 ppb         75.534  14.37%
   QC value within limits for Sn 189.927  Recovery = 105.13%
Sr 421.552†           57438.8      529.88 µg/L         0.781      529.88 ppb          0.781   0.15%
   QC value within limits for Sr 421.552  Recovery = 105.98%
Ti 334.940†          222366.9      491.58 µg/L        36.251      491.58 ppb         36.251   7.37%
   QC value within limits for Ti 334.940  Recovery = 98.32%
Tl 190.801†             401.7      527.77 µg/L        51.582      527.77 ppb         51.582   9.77%
   QC value within limits for Tl 190.801  Recovery = 105.55%
U 409.014†             5897.8      488.99 µg/L        47.052      488.99 ppb         47.052   9.62%
   QC value within limits for U 409.014  Recovery = 97.80%
V 292.402†            51796.4      511.07 µg/L        49.146      511.07 ppb         49.146   9.62%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†           21824.7      508.46 µg/L        45.173      508.46 ppb         45.173   8.88%
   QC value within limits for Zn 213.857  Recovery = 101.69%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/19/2010 16:44:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56443.8	56443.8	99.9	%			16:44:48
1	Al 396.153Radial†	-10.1	-17.4	-12.137	µg/L	-12.137	ppb	16:44:48
1	Ca 317.933Radial†	199.6	-11.5	-9.8207	µg/L	-9.8207	ppb	16:45:08
1	Fe 238.204 Radial†	15.6	-0.9	-7.1871	µg/L	-7.1871	ppb	16:45:08
1	K 766.490 Radial†	171.4	6.6	4.2945	µg/L	4.2945	ppb	16:44:48
1	Mg 279.077 IEC†	7.6	-5.2	-46.321	µg/L	-46.321	ppb	16:45:08
1	Na 589.592 Radial†	489.1	17.3	5.3226	µg/L	5.3226	ppb	16:44:48
1	Sr 421.552†	79.0	50.3	0.4638	µg/L	0.4638	ppb	16:44:48
1	Sc 361.383	1989449.1	1989449.1	101.34	%			16:46:10
1	Y 371.029	1372109.7	1372109.7	101.43	%			16:46:10
1	Ag 328.068†	-456.4	-48.7	-0.3594	µg/L	-0.3594	ppb	16:46:15
1	As 188.979†	-5.3	-4.7	-8.4993	µg/L	-8.4993	ppb	16:46:36
1	B 249.677†	407.4	17.9	0.7343	µg/L	0.7343	ppb	16:46:36
1	Ba 233.527†	-5.2	11.9	0.2870	µg/L	0.2870	ppb	16:46:36
1	Be 313.107†	-2754.2	138.0	0.0819	µg/L	0.0819	ppb	16:46:15
1	Cd 226.502†	-144.4	-0.8	-0.0195	µg/L	-0.0195	ppb	16:46:36
1	Co 228.616†	1.0	-1.0	-0.0431	µg/L	-0.0431	ppb	16:46:36
1	Cr 267.716†	-33.7	17.2	0.3447	µg/L	0.3447	ppb	16:46:36
1	Cu 324.752†	2574.7	-3.1	-0.0214	µg/L	-0.0214	ppb	16:46:15
1	Mn 257.610†	-226.6	32.4	0.1025	µg/L	0.1025	ppb	16:46:36
1	Mo 202.031†	0.9	6.2	0.6075	µg/L	0.6075	ppb	16:46:36
1	Ni 231.604†	309.9	-6.6	-0.3281	µg/L	-0.3281	ppb	16:46:36
1	P 214.914†	11.4	-4.0	-7.9899	µg/L	-7.9899	ppb	16:46:36
1	Pb 220.353†	88.4	-3.8	-0.9074	µg/L	-0.9074	ppb	16:46:36
1	S 181.975 Axial†	15.3	-3.9	-15.967	µg/L	-15.967	ppb	16:46:36
1	Sb 206.836†	19.9	-2.9	-2.6187	µg/L	-2.6187	ppb	16:46:36
1	Se 196.026†	12.9	-6.6	-9.2715	µg/L	-9.2715	ppb	16:46:36
1	SiO2†	1429.0	18.5	3.6472	µg/L	3.6472	ppb	16:46:15
1	Si 251.611†	332.7	17.7	1.3429	µg/L	1.3429	ppb	16:46:36
1	Sn 189.927†	3.4	3.0	1.2548	µg/L	1.2548	ppb	16:46:36
1	Ti 334.940†	214.5	36.6	0.0844	µg/L	0.0844	ppb	16:46:15
1	Tl 190.801†	-23.3	-0.6	-0.8230	µg/L	-0.8230	ppb	16:46:36
1	U 409.014†	-112.1	-33.5	-2.7841	µg/L	-2.7841	ppb	16:46:15
1	V 292.402†	-13.0	31.9	0.3124	µg/L	0.3124	ppb	16:46:15
1	Zn 213.857†	555.4	13.6	0.3246	µg/L	0.3246	ppb	16:46:36
2	Sc RADIAL	56635.2	56635.2	100	%			16:45:14
2	Al 396.153Radial†	-10.1	-17.4	-12.141	µg/L	-12.141	ppb	16:45:14
2	Ca 317.933Radial†	187.9	-23.8	-20.367	µg/L	-20.367	ppb	16:45:34
2	Fe 238.204 Radial†	16.3	-0.3	-2.5827	µg/L	-2.5827	ppb	16:45:34
2	K 766.490 Radial†	218.4	52.9	34.520	µg/L	34.520	ppb	16:45:14
2	Mg 279.077 IEC†	12.4	-0.5	-4.1392	µg/L	-4.1392	ppb	16:45:34
2	Na 589.592 Radial†	513.9	40.5	12.430	µg/L	12.430	ppb	16:45:14
2	Sr 421.552†	58.4	29.4	0.2715	µg/L	0.2715	ppb	16:45:14
2	Sc 361.383	1983608.7	1983608.7	101.04	%			16:46:42
2	Y 371.029	1367482.8	1367482.8	101.09	%			16:46:42
2	Ag 328.068†	-443.4	-37.3	-0.2763	µg/L	-0.2763	ppb	16:46:47
2	As 188.979†	-2.8	-2.3	-4.1149	µg/L	-4.1149	ppb	16:47:08
2	B 249.677†	412.0	23.6	0.9621	µg/L	0.9621	ppb	16:47:08
2	Ba 233.527†	-18.2	-0.9	-0.0219	µg/L	-0.0219	ppb	16:47:08
2	Be 313.107†	-2703.5	180.2	0.1068	µg/L	0.1068	ppb	16:46:47
2	Cd 226.502†	-127.6	15.4	0.3840	µg/L	0.3840	ppb	16:47:08
2	Co 228.616†	7.3	5.3	0.2405	µg/L	0.2405	ppb	16:47:08
2	Cr 267.716†	-58.8	-7.8	-0.1569	µg/L	-0.1569	ppb	16:47:08
2	Cu 324.752†	2608.4	37.7	0.2459	µg/L	0.2459	ppb	16:46:47
2	Mn 257.610†	-227.1	31.2	0.0977	µg/L	0.0977	ppb	16:47:08
2	Mo 202.031†	0.0	5.4	0.5248	µg/L	0.5248	ppb	16:47:08
2	Ni 231.604†	305.0	-10.5	-0.5251	µg/L	-0.5251	ppb	16:47:08
2	P 214.914†	15.6	0.1	0.1534	µg/L	0.1534	ppb	16:47:08
2	Pb 220.353†	82.8	-8.9	-2.1787	µg/L	-2.1787	ppb	16:47:08

2	S 181.975 Axial†	18.3	-0.8	-3.3922 µg/L	-3.3922 ppb	16:47:08
2	Sb 206.836†	21.7	-1.0	-0.9259 µg/L	-0.9259 ppb	16:47:08
2	Se 196.026†	16.5	-3.0	-4.1629 µg/L	-4.1629 ppb	16:47:08
2	SiO2†	1450.1	43.5	8.5888 µg/L	8.5888 ppb	16:46:47
2	Si 251.611†	323.7	9.8	0.7431 µg/L	0.7431 ppb	16:47:08
2	Sn 189.927†	7.2	6.8	2.8541 µg/L	2.8541 ppb	16:47:08
2	Ti 334.940†	275.2	97.3	0.2152 µg/L	0.2152 ppb	16:46:47
2	Tl 190.801†	-21.7	1.0	1.2441 µg/L	1.2441 ppb	16:47:08
2	U 409.014†	-34.6	42.8	3.5596 µg/L	3.5596 ppb	16:46:47
2	V 292.402†	-47.6	-2.4	-0.0159 µg/L	-0.0159 ppb	16:46:47
2	Zn 213.857†	557.8	17.6	0.4155 µg/L	0.4155 ppb	16:47:08
3	Sc RADIAL	56103.5	56103.5	99.3 %		16:45:39
3	Al 396.153Radial†	-12.8	-20.2	-14.109 µg/L	-14.109 ppb	16:45:39
3	Ca 317.933Radial†	191.0	-18.9	-16.130 µg/L	-16.130 ppb	16:46:00
3	Fe 238.204 Radial†	17.4	1.0	7.6890 µg/L	7.6890 ppb	16:46:00
3	K 766.490 Radial†	173.9	10.1	6.6116 µg/L	6.6116 ppb	16:45:39
3	Mg 279.077 IEC†	10.0	-2.8	-24.916 µg/L	-24.916 ppb	16:46:00
3	Na 589.592 Radial†	509.0	40.4	12.402 µg/L	12.402 ppb	16:45:39
3	Sr 421.552†	51.1	22.6	0.2086 µg/L	0.2086 ppb	16:45:39
3	Sc 361.383	1979825.1	1979825.1	100.85 %		16:47:14
3	Y 371.029	1367032.8	1367032.8	101.06 %		16:47:14
3	Ag 328.068†	-365.2	39.5	0.2926 µg/L	0.2926 ppb	16:47:20
3	As 188.979†	6.4	6.8	12.172 µg/L	12.172 ppb	16:47:40
3	B 249.677†	398.6	11.1	0.4486 µg/L	0.4486 ppb	16:47:40
3	Ba 233.527†	-12.4	4.8	0.1152 µg/L	0.1152 ppb	16:47:40
3	Be 313.107†	-2652.0	226.1	0.1341 µg/L	0.1341 ppb	16:47:20
3	Cd 226.502†	-131.0	11.8	0.2924 µg/L	0.2924 ppb	16:47:40
3	Co 228.616†	3.8	1.9	0.0848 µg/L	0.0848 ppb	16:47:40
3	Cr 267.716†	-32.1	18.5	0.3716 µg/L	0.3716 ppb	16:47:40
3	Cu 324.752†	2543.2	-22.0	-0.1426 µg/L	-0.1426 ppb	16:47:20
3	Mn 257.610†	-230.0	28.0	0.0896 µg/L	0.0896 ppb	16:47:40
3	Mo 202.031†	7.5	12.8	1.2495 µg/L	1.2495 ppb	16:47:40
3	Ni 231.604†	307.7	-7.2	-0.3603 µg/L	-0.3603 ppb	16:47:40
3	P 214.914†	16.4	0.9	1.7842 µg/L	1.7842 ppb	16:47:40
3	Pb 220.353†	91.4	-0.3	-0.0769 µg/L	-0.0769 ppb	16:47:40
3	S 181.975 Axial†	16.1	-2.9	-12.216 µg/L	-12.216 ppb	16:47:40
3	Sb 206.836†	18.4	-4.3	-3.9156 µg/L	-3.9156 ppb	16:47:40
3	Se 196.026†	19.5	-0.0	0.0313 µg/L	0.0313 ppb	16:47:40
3	SiO2†	1408.7	5.2	1.0280 µg/L	1.0280 ppb	16:47:20
3	Si 251.611†	328.7	15.3	1.1614 µg/L	1.1614 ppb	16:47:40
3	Sn 189.927†	7.2	6.8	2.8616 µg/L	2.8616 ppb	16:47:40
3	Ti 334.940†	264.4	87.1	0.1944 µg/L	0.1944 ppb	16:47:20
3	Tl 190.801†	-17.8	4.8	6.2130 µg/L	6.2130 ppb	16:47:40
3	U 409.014†	44.4	121.1	10.062 µg/L	10.062 ppb	16:47:20
3	V 292.402†	-48.6	-3.5	-0.0118 µg/L	-0.0118 ppb	16:47:20
3	Zn 213.857†	546.8	7.8	0.1863 µg/L	0.1863 ppb	16:47:40

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984294.3	101.08	%	0.247				0.24%
Sc RADIAL	56394.2	99.8	%	0.48				0.48%
Y 371.029	1368875.1	101.19	%	0.208				0.21%
Ag 328.068†	-15.5	-0.1144	µg/L	0.35487	-0.1144	ppb	0.35487	310.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.4	-12.796	µg/L	1.1373	-12.796	ppb	1.1373	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1476	µg/L	10.89157	-0.1476	ppb	10.89157	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.5	0.7150	µg/L	0.25726	0.7150	ppb	0.25726	35.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1268	µg/L	0.15478	0.1268	ppb	0.15478	122.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.4	0.1076	µg/L	0.02612	0.1076	ppb	0.02612	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.1	-15.439	µg/L	5.3071	-15.439	ppb	5.3071	34.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.8	0.2189	µg/L	0.21153	0.2189	ppb	0.21153	96.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0941	µg/L	0.14201	0.0941	ppb	0.14201	150.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.3      0.1865 µg/L       0.29770      0.1865 ppb        0.29770 159.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.2      0.0273 µg/L       0.19878      0.0273 ppb        0.19878 728.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -0.6936 µg/L       7.61586     -0.6936 ppb        7.61586 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          23.2      15.142 µg/L       16.8219      15.142 ppb        16.8219 111.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8     -25.125 µg/L       21.0915     -25.125 ppb        21.0915  83.94%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.6      0.0966 µg/L       0.00647      0.0966 ppb        0.00647   6.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.1      0.7939 µg/L       0.39671      0.7939 ppb        0.39671  49.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         32.7      10.051 µg/L        4.0953      10.051 ppb         4.0953  40.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.1     -0.4045 µg/L       0.10569     -0.4045 ppb        0.10569  26.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.0     -2.0175 µg/L       5.23620     -2.0175 ppb        5.23620 259.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.3     -1.0543 µg/L       1.05859     -1.0543 ppb        1.05859 100.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.5     -10.525 µg/L        6.4558     -10.525 ppb         6.4558  61.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.7     -2.4867 µg/L       1.49921     -2.4867 ppb        1.49921  60.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.2     -4.4677 µg/L       4.65886     -4.4677 ppb        4.65886 104.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      22.4      4.4213 µg/L       3.83941      4.4213 ppb        3.83941  86.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                14.2      1.0825 µg/L       0.30758      1.0825 ppb        0.30758  28.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.5      2.3235 µg/L       0.92554      2.3235 ppb        0.92554  39.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                34.1      0.3146 µg/L       0.13296      0.3146 ppb        0.13296  42.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.7      0.1647 µg/L       0.07028      0.1647 ppb        0.07028  42.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.7      2.2114 µg/L       3.61632      2.2114 ppb        3.61632 163.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.5      3.6126 µg/L       6.42347      3.6126 ppb        6.42347 177.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  8.7      0.0949 µg/L       0.18839      0.0949 ppb        0.18839 198.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                13.0      0.3088 µg/L       0.11540      0.3088 ppb        0.11540  37.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/19/2010 16:47:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56282.3	56282.3	99.6	%			16:48:22
1	Al 396.153Radial†	298.2	292.0	202.91	µg/L	202.91	ppb	16:48:22
1	Ca 317.933Radial†	429.4	219.7	187.68	µg/L	187.68	ppb	16:48:43
1	Fe 238.204 Radial†	29.6	13.1	103.39	µg/L	103.39	ppb	16:48:43
1	K 766.490 Radial†	342.0	178.3	116.45	µg/L	116.45	ppb	16:48:22
1	Mg 279.077 IEC†	44.3	31.6	282.85	µg/L	282.85	ppb	16:48:43
1	Na 589.592 Radial†	1474.0	1007.4	309.41	µg/L	309.41	ppb	16:48:22
1	Sr 421.552†	600.8	574.3	5.2980	µg/L	5.2980	ppb	16:48:22
1	Sc 361.383	1977761.8	1977761.8	100.75	%			16:49:45
1	Y 371.029	1365399.5	1365399.5	100.93	%			16:49:45
1	Ag 328.068†	258.4	658.1	4.9148	µg/L	4.9148	ppb	16:49:50
1	As 188.979†	15.7	16.1	28.782	µg/L	28.782	ppb	16:50:11
1	B 249.677†	1617.1	1221.0	49.720	µg/L	49.720	ppb	16:49:50
1	Ba 233.527†	202.7	218.3	5.2492	µg/L	5.2492	ppb	16:50:11
1	Be 313.107†	5999.9	8811.2	5.2276	µg/L	5.2276	ppb	16:49:50
1	Cd 226.502†	69.7	210.9	5.2540	µg/L	5.2540	ppb	16:50:11
1	Co 228.616†	98.7	96.0	4.3479	µg/L	4.3479	ppb	16:50:11
1	Cr 267.716†	241.4	290.0	5.8279	µg/L	5.8279	ppb	16:49:50
1	Cu 324.752†	4202.8	1627.9	10.640	µg/L	10.640	ppb	16:49:50
1	Mn 257.610†	3188.0	3420.5	10.714	µg/L	10.714	ppb	16:49:50
1	Mo 202.031†	99.0	103.6	10.146	µg/L	10.146	ppb	16:50:11
1	Ni 231.604†	418.0	102.5	5.1075	µg/L	5.1075	ppb	16:50:11
1	P 214.914†	98.6	82.5	162.32	µg/L	162.32	ppb	16:50:11
1	Pb 220.353†	137.2	45.3	10.965	µg/L	10.965	ppb	16:50:11
1	S 181.975 Axial†	42.3	23.0	95.542	µg/L	95.542	ppb	16:50:11
1	Sb 206.836†	37.6	14.8	13.659	µg/L	13.659	ppb	16:50:11
1	Se 196.026†	37.4	17.8	24.952	µg/L	24.952	ppb	16:50:11
1	SiO2†	2505.0	1094.9	216.12	µg/L	216.12	ppb	16:49:50
1	Si 251.611†	1649.6	1326.8	100.86	µg/L	100.86	ppb	16:50:11
1	Sn 189.927†	23.4	22.9	9.6771	µg/L	9.6771	ppb	16:50:11
1	Ti 334.940†	2480.4	2287.0	5.0399	µg/L	5.0399	ppb	16:49:50
1	Tl 190.801†	-7.5	15.0	19.606	µg/L	19.606	ppb	16:50:11
1	U 409.014†	617.0	689.5	57.259	µg/L	57.259	ppb	16:49:50
1	V 292.402†	481.6	522.7	5.2575	µg/L	5.2575	ppb	16:49:50
1	Zn 213.857†	992.7	450.9	10.519	µg/L	10.519	ppb	16:50:11
2	Sc RADIAL	56210.7	56210.7	99.5	%			16:48:48
2	Al 396.153Radial†	273.4	267.4	185.81	µg/L	185.81	ppb	16:48:48
2	Ca 317.933Radial†	426.2	217.1	185.45	µg/L	185.45	ppb	16:49:08
2	Fe 238.204 Radial†	28.4	12.0	94.492	µg/L	94.492	ppb	16:49:08
2	K 766.490 Radial†	411.4	248.5	162.28	µg/L	162.28	ppb	16:48:48
2	Mg 279.077 IEC†	50.3	37.8	337.62	µg/L	337.62	ppb	16:49:08
2	Na 589.592 Radial†	1464.1	999.4	306.94	µg/L	306.94	ppb	16:48:48
2	Sr 421.552†	574.2	548.3	5.0581	µg/L	5.0581	ppb	16:48:48
2	Sc 361.383	1972692.6	1972692.6	100.49	%			16:50:17
2	Y 371.029	1361966.2	1361966.2	100.68	%			16:50:17
2	Ag 328.068†	270.6	670.9	5.0087	µg/L	5.0087	ppb	16:50:23
2	As 188.979†	17.9	18.3	32.707	µg/L	32.707	ppb	16:50:43
2	B 249.677†	1623.8	1231.8	50.165	µg/L	50.165	ppb	16:50:23
2	Ba 233.527†	197.6	213.7	5.1395	µg/L	5.1395	ppb	16:50:43
2	Be 313.107†	5881.6	8708.7	5.1667	µg/L	5.1667	ppb	16:50:23
2	Cd 226.502†	72.2	213.5	5.3190	µg/L	5.3190	ppb	16:50:43
2	Co 228.616†	112.6	110.1	4.9856	µg/L	4.9856	ppb	16:50:43
2	Cr 267.716†	212.6	261.9	5.2641	µg/L	5.2641	ppb	16:50:23
2	Cu 324.752†	4135.5	1571.7	10.273	µg/L	10.273	ppb	16:50:23
2	Mn 257.610†	3139.9	3380.7	10.586	µg/L	10.586	ppb	16:50:23
2	Mo 202.031†	100.4	105.3	10.314	µg/L	10.314	ppb	16:50:43
2	Ni 231.604†	409.7	95.3	4.7480	µg/L	4.7480	ppb	16:50:43
2	P 214.914†	98.3	82.5	162.33	µg/L	162.33	ppb	16:50:43
2	Pb 220.353†	137.5	45.9	11.123	µg/L	11.123	ppb	16:50:43

2	S 181.975 Axial†	44.4	25.2	104.52 µg/L	104.52 ppb	16:50:43
2	Sb 206.836†	32.9	10.2	9.4639 µg/L	9.4639 ppb	16:50:43
2	Se 196.026†	35.2	15.7	21.973 µg/L	21.973 ppb	16:50:43
2	SiO2†	2523.6	1119.7	221.02 µg/L	221.02 ppb	16:50:23
2	Si 251.611†	1635.2	1316.7	100.10 µg/L	100.10 ppb	16:50:43
2	Sn 189.927†	26.0	25.5	10.767 µg/L	10.767 ppb	16:50:43
2	Ti 334.940†	2526.0	2338.7	5.1499 µg/L	5.1499 ppb	16:50:23
2	Tl 190.801†	-4.6	17.8	23.319 µg/L	23.319 ppb	16:50:43
2	U 409.014†	591.4	665.6	55.280 µg/L	55.280 ppb	16:50:23
2	V 292.402†	473.1	515.6	5.1847 µg/L	5.1847 ppb	16:50:23
2	Zn 213.857†	977.2	438.1	10.216 µg/L	10.216 ppb	16:50:43
3	Sc RADIAL	56270.8	56270.8	99.6 %		16:49:14
3	Al 396.153Radial†	299.9	293.7	204.14 µg/L	204.14 ppb	16:49:14
3	Ca 317.933Radial†	434.4	224.8	192.04 µg/L	192.04 ppb	16:49:35
3	Fe 238.204 Radial†	29.7	13.3	104.87 µg/L	104.87 ppb	16:49:35
3	K 766.490 Radial†	455.9	292.7	191.16 µg/L	191.16 ppb	16:49:14
3	Mg 279.077 IEC†	45.6	33.0	295.03 µg/L	295.03 ppb	16:49:35
3	Na 589.592 Radial†	1506.5	1040.3	319.53 µg/L	319.53 ppb	16:49:14
3	Sr 421.552†	597.6	571.2	5.2696 µg/L	5.2696 ppb	16:49:14
3	Sc 361.383	1984220.0	1984220.0	101.07 %		16:50:49
3	Y 371.029	1369121.2	1369121.2	101.21 %		16:50:49
3	Ag 328.068†	201.6	601.1	4.4889 µg/L	4.4889 ppb	16:50:55
3	As 188.979†	12.2	12.5	22.435 µg/L	22.435 ppb	16:51:15
3	B 249.677†	1528.3	1127.9	45.924 µg/L	45.924 ppb	16:50:55
3	Ba 233.527†	159.9	175.2	4.2153 µg/L	4.2153 ppb	16:51:15
3	Be 313.107†	4886.5	7690.3	4.5625 µg/L	4.5625 ppb	16:50:55
3	Cd 226.502†	36.1	177.4	4.4177 µg/L	4.4177 ppb	16:51:15
3	Co 228.616†	97.9	94.9	4.2983 µg/L	4.2983 ppb	16:51:15
3	Cr 267.716†	217.3	265.4	5.3332 µg/L	5.3332 ppb	16:50:55
3	Cu 324.752†	4009.3	1423.0	9.3030 µg/L	9.3030 ppb	16:50:55
3	Mn 257.610†	2806.1	3032.2	9.4977 µg/L	9.4977 ppb	16:50:55
3	Mo 202.031†	85.5	90.0	8.8152 µg/L	8.8152 ppb	16:51:15
3	Ni 231.604†	395.2	78.7	3.9181 µg/L	3.9181 ppb	16:51:15
3	P 214.914†	81.4	65.2	128.29 µg/L	128.29 ppb	16:51:15
3	Pb 220.353†	131.5	39.1	9.4710 µg/L	9.4710 ppb	16:51:15
3	S 181.975 Axial†	39.1	19.8	81.981 µg/L	81.981 ppb	16:51:15
3	Sb 206.836†	33.0	10.1	9.3652 µg/L	9.3652 ppb	16:51:15
3	Se 196.026†	36.9	17.2	24.099 µg/L	24.099 ppb	16:51:15
3	SiO2†	2440.0	1022.5	201.82 µg/L	201.82 ppb	16:50:55
3	Si 251.611†	1427.0	1101.2	83.718 µg/L	83.718 ppb	16:51:15
3	Sn 189.927†	23.7	23.1	9.7555 µg/L	9.7555 ppb	16:51:15
3	Ti 334.940†	2205.8	2007.3	4.4203 µg/L	4.4203 ppb	16:50:55
3	Tl 190.801†	-9.0	13.5	17.705 µg/L	17.705 ppb	16:51:15
3	U 409.014†	550.5	621.7	51.630 µg/L	51.630 ppb	16:50:55
3	V 292.402†	420.4	460.6	4.6353 µg/L	4.6353 ppb	16:50:55
3	Zn 213.857†	910.8	366.7	8.5490 µg/L	8.5490 ppb	16:51:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1978224.8	100.77	%	0.294				0.29%
Sc RADIAL	56254.6	99.6	%	0.07				0.07%
Y 371.029	1365495.6	100.94	%	0.265				0.26%
Ag 328.068†	643.3	4.8041	µg/L	0.27699	4.8041	ppb	0.27699	5.77%
QC value within limits for Ag 328.068 Recovery = 96.08%								
Al 396.153Radial†	284.4	197.62	µg/L	10.244	197.62	ppb	10.244	5.18%
QC value within limits for Al 396.153Radial Recovery = 98.81%								
As 188.979†	15.6	27.975	µg/L	5.1834	27.975	ppb	5.1834	18.53%
QC value within limits for As 188.979 Recovery = 93.25%								
B 249.677†	1193.6	48.603	µg/L	2.3307	48.603	ppb	2.3307	4.80%
QC value within limits for B 249.677 Recovery = 97.21%								
Ba 233.527†	202.4	4.8680	µg/L	0.56789	4.8680	ppb	0.56789	11.67%
QC value within limits for Ba 233.527 Recovery = 97.36%								
Be 313.107†	8403.4	4.9856	µg/L	0.36766	4.9856	ppb	0.36766	7.37%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	220.5	188.39	µg/L	3.356	188.39	ppb	3.356	1.78%
QC value within limits for Ca 317.933Radial Recovery = 94.19%								
Cd 226.502†	200.6	4.9969	µg/L	0.50267	4.9969	ppb	0.50267	10.06%
QC value within limits for Cd 226.502 Recovery = 99.94%								
Co 228.616†	100.4	4.5440	µg/L	0.38331	4.5440	ppb	0.38331	8.44%

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   QC value within limits for Co 228.616  Recovery = 90.88%
Cr 267.716†              272.4      5.4751 µg/L       0.30749      5.4751 ppb        0.30749   5.62%
   QC value within limits for Cr 267.716  Recovery = 109.50%
Cu 324.752†             1540.9      10.072 µg/L        0.6909      10.072 ppb         0.6909   6.86%
   QC value within limits for Cu 324.752  Recovery = 100.72%
Fe 238.204 Radial†        12.8      100.92 µg/L         5.613      100.92 ppb          5.613   5.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.92%
K 766.490 Radial†        239.8      156.63 µg/L        37.674      156.63 ppb         37.674  24.05%
   QC value within limits for K 766.490 Radial  Recovery = 104.42%
Mg 279.077 IEC†           34.1      305.17 µg/L        28.759      305.17 ppb         28.759   9.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.72%
Mn 257.610†             3277.8      10.266 µg/L        0.6682      10.266 ppb         0.6682   6.51%
   QC value within limits for Mn 257.610  Recovery = 102.66%
Mo 202.031†               99.6      9.7581 µg/L       0.82093      9.7581 ppb        0.82093   8.41%
   QC value within limits for Mo 202.031  Recovery = 97.58%
Na 589.592 Radial†      1015.7      311.96 µg/L         6.671      311.96 ppb          6.671   2.14%
   QC value within limits for Na 589.592 Radial  Recovery = 103.99%
Ni 231.604†               92.2      4.5912 µg/L       0.61004      4.5912 ppb        0.61004  13.29%
   QC value within limits for Ni 231.604  Recovery = 91.82%
P 214.914†                76.7      150.98 µg/L        19.653      150.98 ppb         19.653  13.02%
   QC value within limits for P 214.914  Recovery = 100.65%
Pb 220.353†               43.4      10.520 µg/L        0.9115      10.520 ppb         0.9115   8.67%
   QC value within limits for Pb 220.353  Recovery = 105.20%
S 181.975 Axial†          22.7      94.016 µg/L       11.3485      94.016 ppb        11.3485  12.07%
   QC value within limits for S 181.975 Axial  Recovery = 94.02%
Sb 206.836†               11.7      10.829 µg/L        2.4509      10.829 ppb         2.4509  22.63%
   QC value within limits for Sb 206.836  Recovery = 108.29%
Se 196.026†               16.9      23.675 µg/L        1.5343      23.675 ppb         1.5343   6.48%
   QC value within limits for Se 196.026  Recovery = 78.92%
SiO2†                   1079.0      212.99 µg/L         9.975      212.99 ppb          9.975   4.68%
   QC value within limits for SiO2  Recovery = 99.99%
Si 251.611†             1248.2      94.893 µg/L        9.6851      94.893 ppb         9.6851  10.21%
   QC value within limits for Si 251.611  Recovery = 94.89%
Sn 189.927†               23.8      10.067 µg/L        0.6079      10.067 ppb         0.6079   6.04%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†              564.6      5.2086 µg/L       0.13109      5.2086 ppb        0.13109   2.52%
   QC value within limits for Sr 421.552  Recovery = 104.17%
Ti 334.940†             2211.0      4.8701 µg/L       0.39334      4.8701 ppb        0.39334   8.08%
   QC value within limits for Ti 334.940  Recovery = 97.40%
Tl 190.801†               15.4      20.210 µg/L        2.8552      20.210 ppb         2.8552  14.13%
   QC value within limits for Tl 190.801  Recovery = 101.05%
U 409.014†               659.0      54.723 µg/L        2.8553      54.723 ppb         2.8553   5.22%
   QC value within limits for U 409.014  Recovery = 109.45%
V 292.402†               499.7      5.0258 µg/L       0.34018      5.0258 ppb        0.34018   6.77%
   QC value within limits for V 292.402  Recovery = 100.52%
Zn 213.857†              418.6      9.7614 µg/L       1.06081      9.7614 ppb        1.06081  10.87%
   QC value within limits for Zn 213.857  Recovery = 97.61%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/19/2010 16:51:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55393.6	55393.6	98.0	%			16:52:06
1	Al 396.153Radial†	724194.0	738594.2	513810	µg/L	513810	ppb	16:52:00
1	Ca 317.933Radial†	560588.9	571530.4	488190	µg/L	488190	ppb	16:52:00
1	Fe 238.204 Radial†	23830.6	24288.1	191560	µg/L	191560	ppb	16:52:06
1	K 766.490 Radial†	115.1	-47.6	-31.114	µg/L	-31.114	ppb	16:52:06
1	Mg 279.077 IEC†	54305.7	55373.3	494780	µg/L	494780	ppb	16:52:06
1	Na 589.592 Radial†	579.7	119.1	36.566	µg/L	36.566	ppb	16:52:06
1	Sr 421.552†	417.7	397.2	3.6640	µg/L	3.6640	ppb	16:52:06
1	Sc 361.383	1850788.2	1850788.2	94.278	%			16:52:38
1	Y 371.029	1267800.9	1267800.9	93.720	%			16:52:38
1	Ag 328.068†	-2693.6	-2455.5	-6.2926	µg/L	-6.2926	ppb	16:52:44
1	As 188.979†	-3.5	-3.2	-20.025	µg/L	-20.025	ppb	16:53:05
1	B 249.677†	871.2	539.9	-77.949	µg/L	-77.949	ppb	16:52:44
1	Ba 233.527†	294.9	329.9	7.8736	µg/L	7.8736	ppb	16:53:05
1	Be 313.107†	-3450.2	-803.9	-0.4876	µg/L	-0.4876	ppb	16:52:44
1	Cd 226.502†	449.3	618.2	-6.2337	µg/L	-6.2337	ppb	16:53:05
1	Co 228.616†	61.1	62.9	2.7806	µg/L	2.7806	ppb	16:53:05
1	Cr 267.716†	-66.1	-19.8	-0.4132	µg/L	-0.4132	ppb	16:53:05
1	Cu 324.752†	-1734.2	-4383.2	-1.9848	µg/L	-1.9848	ppb	16:52:44
1	Mn 257.610†	821.6	1127.5	9.2085	µg/L	9.2085	ppb	16:52:44
1	Mo 202.031†	-118.4	-120.2	-4.4913	µg/L	-4.4913	ppb	16:53:05
1	Ni 231.604†	163.0	-139.5	-4.4672	µg/L	-4.4672	ppb	16:53:05
1	P 214.914†	72.2	61.2	116.25	µg/L	116.25	ppb	16:53:05
1	Pb 220.353†	39.4	-49.1	9.0511	µg/L	9.0511	ppb	16:53:05
1	S 181.975 Axial†	32.2	15.3	63.310	µg/L	63.310	ppb	16:53:05
1	Sb 206.836†	57.5	38.5	-7.3305	µg/L	-7.3305	ppb	16:53:05
1	Se 196.026†	11.6	-7.0	-62.783	µg/L	-62.783	ppb	16:53:05
1	SiO2†	1235.7	-80.9	-15.963	µg/L	-15.963	ppb	16:53:05
1	Si 251.611†	441.8	157.9	12.007	µg/L	12.007	ppb	16:53:05
1	Sn 189.927†	-66.4	-70.8	5.6696	µg/L	5.6696	ppb	16:53:05
1	Ti 334.940†	11832.7	12375.9	-3.9147	µg/L	-3.9147	ppb	16:52:44
1	Tl 190.801†	-42.3	-22.5	-8.4040	µg/L	-8.4040	ppb	16:53:05
1	U 409.014†	-59.0	14.5	-55.197	µg/L	-55.197	ppb	16:52:44
1	V 292.402†	-2553.4	-2663.6	-3.5017	µg/L	-3.5017	ppb	16:52:44
1	Zn 213.857†	1634.5	1199.3	-8.9501	µg/L	-8.9501	ppb	16:53:05
2	Sc RADIAL	55011.0	55011.0	97.4	%			16:52:17
2	Al 396.153Radial†	723719.7	743244.2	517040	µg/L	517040	ppb	16:52:11
2	Ca 317.933Radial†	561511.7	576454.6	492400	µg/L	492400	ppb	16:52:11
2	Fe 238.204 Radial†	23613.9	24234.6	191140	µg/L	191140	ppb	16:52:17
2	K 766.490 Radial†	128.3	-33.2	-21.699	µg/L	-21.699	ppb	16:52:17
2	Mg 279.077 IEC†	53736.1	55173.5	492990	µg/L	492990	ppb	16:52:17
2	Na 589.592 Radial†	541.6	84.0	25.796	µg/L	25.796	ppb	16:52:17
2	Sr 421.552†	414.5	396.8	3.6609	µg/L	3.6609	ppb	16:52:17
2	Sc 361.383	1848725.6	1848725.6	94.173	%			16:53:11
2	Y 371.029	1266302.7	1266302.7	93.609	%			16:53:11
2	Ag 328.068†	-2764.2	-2533.7	-6.8956	µg/L	-6.8956	ppb	16:53:16
2	As 188.979†	-19.7	-20.5	-51.199	µg/L	-51.199	ppb	16:53:37
2	B 249.677†	821.6	488.3	-79.833	µg/L	-79.833	ppb	16:53:16
2	Ba 233.527†	289.2	324.1	7.7351	µg/L	7.7351	ppb	16:53:37
2	Be 313.107†	-3507.9	-869.3	-0.5266	µg/L	-0.5266	ppb	16:53:16
2	Cd 226.502†	439.6	608.5	-6.4301	µg/L	-6.4301	ppb	16:53:37
2	Co 228.616†	46.3	47.3	2.0733	µg/L	2.0733	ppb	16:53:37
2	Cr 267.716†	-55.1	-8.1	-0.1798	µg/L	-0.1798	ppb	16:53:37
2	Cu 324.752†	-1747.2	-4399.1	-2.1470	µg/L	-2.1470	ppb	16:53:16
2	Mn 257.610†	693.8	992.7	8.8018	µg/L	8.8018	ppb	16:53:16
2	Mo 202.031†	-103.9	-105.0	-3.0206	µg/L	-3.0206	ppb	16:53:37
2	Ni 231.604†	140.3	-163.4	-5.6612	µg/L	-5.6612	ppb	16:53:37
2	P 214.914†	95.8	86.4	167.33	µg/L	167.33	ppb	16:53:37
2	Pb 220.353†	25.6	-63.7	5.6987	µg/L	5.6987	ppb	16:53:37

2	S 181.975 Axial†	46.7	30.7	127.27 µg/L	127.27 ppb		16:53:37
2	Sb 206.836†	44.2	24.4	-20.582 µg/L	-20.582 ppb		16:53:37
2	Se 196.026†	15.1	-3.2	-58.240 µg/L	-58.240 ppb		16:53:37
2	SiO2†	1212.8	-103.8	-20.481 µg/L	-20.481 ppb		16:53:37
2	Si 251.611†	449.3	166.5	12.657 µg/L	12.657 ppb		16:53:37
2	Sn 189.927†	-68.4	-73.0	4.5450 µg/L	4.5450 ppb		16:53:37
2	Ti 334.940†	12102.5	12676.3	-3.0417 µg/L	-3.0417 ppb		16:53:16
2	Tl 190.801†	-37.0	-17.0	-1.3751 µg/L	-1.3751 ppb		16:53:37
2	U 409.014†	-33.8	41.2	-53.185 µg/L	-53.185 ppb		16:53:16
2	V 292.402†	-2512.7	-2623.4	-3.1453 µg/L	-3.1453 ppb		16:53:16
2	Zn 213.857†	1609.3	1174.4	-9.4073 µg/L	-9.4073 ppb		16:53:37
3	Sc RADIAL	55087.9	55087.9	97.5 %			16:52:28
3	Al 396.153Radial†	720131.5	738527.0	513760 µg/L	513760 ppb		16:52:23
3	Ca 317.933Radial†	556178.1	570179.9	487040 µg/L	487040 ppb		16:52:23
3	Fe 238.204 Radial†	23691.3	24280.2	191500 µg/L	191500 ppb		16:52:28
3	K 766.490 Radial†	149.7	-11.5	-7.5099 µg/L	-7.5099 ppb		16:52:28
3	Mg 279.077 IEC†	53963.6	55329.8	494390 µg/L	494390 ppb		16:52:28
3	Na 589.592 Radial†	551.3	93.2	28.624 µg/L	28.624 ppb		16:52:28
3	Sr 421.552†	418.9	400.8	3.6974 µg/L	3.6974 ppb		16:52:28
3	Sc 361.383	1849927.7	1849927.7	94.234 %			16:53:43
3	Y 371.029	1267002.1	1267002.1	93.661 %			16:53:43
3	Ag 328.068†	-2734.1	-2499.7	-6.6223 µg/L	-6.6223 ppb		16:53:49
3	As 188.979†	-9.3	-9.4	-31.056 µg/L	-31.056 ppb		16:54:09
3	B 249.677†	848.6	516.3	-78.878 µg/L	-78.878 ppb		16:53:49
3	Ba 233.527†	283.0	317.4	7.5725 µg/L	7.5725 ppb		16:54:09
3	Be 313.107†	-3473.1	-829.9	-0.5033 µg/L	-0.5033 ppb		16:53:49
3	Cd 226.502†	443.2	612.0	-6.3822 µg/L	-6.3822 ppb		16:54:09
3	Co 228.616†	37.7	38.1	1.6569 µg/L	1.6569 ppb		16:54:09
3	Cr 267.716†	-62.9	-16.3	-0.3442 µg/L	-0.3442 ppb		16:54:09
3	Cu 324.752†	-1721.6	-4370.7	-1.9119 µg/L	-1.9119 ppb		16:53:49
3	Mn 257.610†	731.2	1032.0	8.9167 µg/L	8.9167 ppb		16:53:49
3	Mo 202.031†	-107.8	-109.1	-3.4029 µg/L	-3.4029 ppb		16:54:09
3	Ni 231.604†	145.6	-157.8	-5.3810 µg/L	-5.3810 ppb		16:54:09
3	P 214.914†	108.6	100.0	193.00 µg/L	193.00 ppb		16:54:09
3	Pb 220.353†	37.4	-51.2	8.5535 µg/L	8.5535 ppb		16:54:09
3	S 181.975 Axial†	37.1	20.4	84.584 µg/L	84.584 ppb		16:54:09
3	Sb 206.836†	48.6	29.0	-15.889 µg/L	-15.889 ppb		16:54:09
3	Se 196.026†	35.7	18.5	-26.410 µg/L	-26.410 ppb		16:54:09
3	SiO2†	1232.2	-83.9	-16.565 µg/L	-16.565 ppb		16:54:09
3	Si 251.611†	426.5	142.0	10.792 µg/L	10.792 ppb		16:54:09
3	Sn 189.927†	-55.5	-59.3	10.507 µg/L	10.507 ppb		16:54:09
3	Ti 334.940†	12184.3	12754.8	-3.0642 µg/L	-3.0642 ppb		16:53:49
3	Tl 190.801†	-36.8	-16.7	-0.7208 µg/L	-0.7208 ppb		16:54:09
3	U 409.014†	-97.2	-26.0	-58.491 µg/L	-58.491 ppb		16:53:49
3	V 292.402†	-2526.9	-2636.8	-3.2422 µg/L	-3.2422 ppb		16:53:49
3	Zn 213.857†	1595.9	1159.1	-9.8646 µg/L	-9.8646 ppb		16:54:09

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1849813.8	94.228	%	0.0528				0.06%
Sc RADIAL	55164.1	97.6	%	0.36				0.37%
Y 371.029	1267035.2	93.663	%	0.0554				0.06%
Ag 328.068†	-2496.3	-6.6035	µg/L	0.30193	-6.6035	ppb	0.30193	4.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	740121.8	514870	µg/L	1881.2	514870	ppb	1881.2	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.97%								
As 188.979†	-11.0	-34.093	µg/L	15.8073	-34.093	ppb	15.8073	46.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	514.9	-78.887	µg/L	0.9419	-78.887	ppb	0.9419	1.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	323.8	7.7271	µg/L	0.15071	7.7271	ppb	0.15071	1.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-834.4	-0.5058	µg/L	0.01964	-0.5058	ppb	0.01964	3.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	572721.6	489210	µg/L	2821.0	489210	ppb	2821.0	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	612.9	-6.3487	µg/L	0.10242	-6.3487	ppb	0.10242	1.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	49.4	2.1702	µg/L	0.56812	2.1702	ppb	0.56812	26.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.7     -0.3124 µg/L       0.11992     -0.3124 ppb        0.11992  38.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -4384.3     -2.0146 µg/L       0.12034     -2.0146 ppb        0.12034   5.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     24267.6      191400 µg/L         227.6      191400 ppb          227.6   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.70%
K 766.490 Radial†        -30.8     -20.107 µg/L       11.8821     -20.107 ppb        11.8821  59.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        55292.2      494060 µg/L         938.7      494060 ppb          938.7   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.81%
Mn 257.610†             1050.7      8.9756 µg/L       0.20969      8.9756 ppb        0.20969   2.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -111.4     -3.6383 µg/L       0.76308     -3.6383 ppb        0.76308  20.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        98.7      30.329 µg/L        5.5836      30.329 ppb         5.5836  18.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†            -153.6     -5.1698 µg/L       0.62439     -5.1698 ppb        0.62439  12.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                82.5      158.86 µg/L        39.068      158.86 ppb         39.068  24.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -54.7      7.7677 µg/L       1.80905      7.7677 ppb        1.80905  23.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          22.1      91.723 µg/L       32.5738      91.723 ppb        32.5738  35.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               30.6     -14.600 µg/L        6.7191     -14.600 ppb         6.7191  46.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.8     -49.144 µg/L       19.8190     -49.144 ppb        19.8190  40.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -89.5     -17.670 µg/L        2.4533     -17.670 ppb         2.4533  13.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             155.5      11.818 µg/L        0.9466      11.818 ppb         0.9466   8.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -67.7      6.9072 µg/L       3.16787      6.9072 ppb        3.16787  45.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             398.3      3.6741 µg/L       0.02024      3.6741 ppb        0.02024   0.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            12602.3     -3.3402 µg/L       0.49765     -3.3402 ppb        0.49765  14.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -18.7     -3.4999 µg/L       4.25960     -3.4999 ppb        4.25960 121.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 9.9     -55.624 µg/L        2.6789     -55.624 ppb         2.6789   4.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2641.3     -3.2964 µg/L       0.18427     -3.2964 ppb        0.18427   5.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1177.6     -9.4073 µg/L       0.45728     -9.4073 ppb        0.45728   4.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/19/2010 16:54:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55797.0	55797.0	98.8	%			16:54:58
1	Al 396.153Radial†	721688.4	730717.2	508320	µg/L	508320	ppb	16:54:53
1	Ca 317.933Radial†	559165.5	565955.4	483430	µg/L	483430	ppb	16:54:53
1	Fe 238.204 Radial†	23697.0	23977.1	189110	µg/L	189110	ppb	16:54:58
1	K 766.490 Radial†	7825.4	7758.4	5067.1	µg/L	5067.1	ppb	16:54:58
1	Mg 279.077 IEC†	54011.0	54674.5	488540	µg/L	488540	ppb	16:54:58
1	Na 589.592 Radial†	17079.2	16820.9	5166.4	µg/L	5166.4	ppb	16:54:58
1	Sr 421.552†	53653.0	54296.0	500.89	µg/L	500.89	ppb	16:54:58
1	Sc 361.383	1843700.1	1843700.1	93.917	%			16:55:33
1	Y 371.029	1261744.6	1261744.6	93.272	%			16:55:33
1	Ag 328.068†	30366.5	32735.0	257.65	µg/L	257.65	ppb	16:55:33
1	As 188.979†	267.3	285.0	495.71	µg/L	495.71	ppb	16:55:53
1	B 249.677†	12776.1	13219.5	440.90	µg/L	440.90	ppb	16:55:33
1	Ba 233.527†	19707.5	21001.1	505.07	µg/L	505.07	ppb	16:55:33
1	Be 313.107†	381967.5	409563.9	242.87	µg/L	242.87	ppb	16:55:33
1	Cd 226.502†	18000.5	19308.2	460.62	µg/L	460.62	ppb	16:55:33
1	Co 228.616†	9028.5	9611.4	434.60	µg/L	434.60	ppb	16:55:53
1	Cr 267.716†	22814.5	24342.6	489.24	µg/L	489.24	ppb	16:55:33
1	Cu 324.752†	76830.3	79263.0	543.67	µg/L	543.67	ppb	16:55:33
1	Mn 257.610†	145121.7	154777.5	490.29	µg/L	490.29	ppb	16:55:33
1	Mo 202.031†	4771.3	5085.6	505.20	µg/L	505.20	ppb	16:55:53
1	Ni 231.604†	8362.6	8591.9	430.24	µg/L	430.24	ppb	16:55:53
1	P 214.914†	1320.9	1391.1	2699.5	µg/L	2699.5	ppb	16:55:53
1	Pb 220.353†	1871.2	1901.4	483.01	µg/L	483.01	ppb	16:55:53
1	S 181.975 Axial†	648.6	671.7	2785.4	µg/L	2785.4	ppb	16:55:53
1	Sb 206.836†	575.1	589.8	502.04	µg/L	502.04	ppb	16:55:53
1	Se 196.026†	1623.8	1709.6	2348.3	µg/L	2348.3	ppb	16:55:53
1	SiO2†	53672.2	55757.1	11006	µg/L	11006	ppb	16:55:33
1	Si 251.611†	64106.8	67948.4	5165.6	µg/L	5165.6	ppb	16:55:33
1	Sn 189.927†	1083.9	1153.7	521.63	µg/L	521.63	ppb	16:55:53
1	Ti 334.940†	229038.7	243698.9	508.24	µg/L	508.24	ppb	16:55:33
1	Tl 190.801†	288.9	330.0	454.77	µg/L	454.77	ppb	16:55:53
1	U 409.014†	5773.2	6224.2	461.36	µg/L	461.36	ppb	16:55:33
1	V 292.402†	47456.1	50574.7	520.63	µg/L	520.63	ppb	16:55:33
1	Zn 213.857†	20837.2	21652.5	468.58	µg/L	468.58	ppb	16:55:33
2	Sc RADIAL	55348.5	55348.5	98.0	%			16:55:10
2	Al 396.153Radial†	722041.1	736998.6	512690	µg/L	512690	ppb	16:55:04
2	Ca 317.933Radial†	559699.2	571088.2	487810	µg/L	487810	ppb	16:55:04
2	Fe 238.204 Radial†	23398.1	23866.4	188240	µg/L	188240	ppb	16:55:10
2	K 766.490 Radial†	7752.4	7748.1	5060.4	µg/L	5060.4	ppb	16:55:10
2	Mg 279.077 IEC†	53665.0	54764.4	489350	µg/L	489350	ppb	16:55:10
2	Na 589.592 Radial†	16898.5	16776.6	5152.8	µg/L	5152.8	ppb	16:55:10
2	Sr 421.552†	53220.9	54295.2	500.88	µg/L	500.88	ppb	16:55:10
2	Sc 361.383	1828346.4	1828346.4	93.135	%			16:56:01
2	Y 371.029	1251250.1	1251250.1	92.496	%			16:56:01
2	Ag 328.068†	30001.6	32614.7	256.69	µg/L	256.69	ppb	16:56:01
2	As 188.979†	258.0	277.4	481.82	µg/L	481.82	ppb	16:56:21
2	B 249.677†	12695.1	13246.8	442.46	µg/L	442.46	ppb	16:56:01
2	Ba 233.527†	19356.4	20800.3	500.24	µg/L	500.24	ppb	16:56:01
2	Be 313.107†	377037.1	407685.5	241.76	µg/L	241.76	ppb	16:56:01
2	Cd 226.502†	17698.0	19144.3	456.64	µg/L	456.64	ppb	16:56:01
2	Co 228.616†	8995.7	9656.8	436.67	µg/L	436.67	ppb	16:56:21
2	Cr 267.716†	22554.0	24266.9	487.72	µg/L	487.72	ppb	16:56:01
2	Cu 324.752†	76157.1	79227.2	543.32	µg/L	543.32	ppb	16:56:01
2	Mn 257.610†	143300.8	154120.0	488.08	µg/L	488.08	ppb	16:56:01
2	Mo 202.031†	4737.2	5091.8	505.77	µg/L	505.77	ppb	16:56:21
2	Ni 231.604†	8356.6	8660.3	433.64	µg/L	433.64	ppb	16:56:21
2	P 214.914†	1314.8	1396.4	2712.1	µg/L	2712.1	ppb	16:56:21
2	Pb 220.353†	1869.4	1916.2	486.89	µg/L	486.89	ppb	16:56:21

2	S 181.975 Axial†	642.4	670.8	2782.0 µg/L	2782.0 ppb	16:56:21
2	Sb 206.836†	578.7	598.8	509.94 µg/L	509.94 ppb	16:56:21
2	Se 196.026†	1633.2	1734.3	2378.6 µg/L	2378.6 ppb	16:56:21
2	SiO2†	52972.0	55485.1	10952 µg/L	10952 ppb	16:56:01
2	Si 251.611†	63354.2	67713.7	5147.7 µg/L	5147.7 ppb	16:56:01
2	Sn 189.927†	1076.4	1155.4	522.48 µg/L	522.48 ppb	16:56:21
2	Ti 334.940†	226229.7	242730.8	506.11 µg/L	506.11 ppb	16:56:01
2	Tl 190.801†	294.9	339.0	466.26 µg/L	466.26 ppb	16:56:21
2	U 409.014†	5629.0	6121.0	452.64 µg/L	452.64 ppb	16:56:01
2	V 292.402†	46870.5	50370.2	518.52 µg/L	518.52 ppb	16:56:01
2	Zn 213.857†	20535.2	21514.5	465.32 µg/L	465.32 ppb	16:56:01
3	Sc RADIAL	55847.7	55847.7	98.9 %		16:55:21
3	Al 396.153Radial†	722897.9	731277.0	508700 µg/L	508700 ppb	16:55:15
3	Ca 317.933Radial†	559752.9	566035.4	483500 µg/L	483500 ppb	16:55:15
3	Fe 238.204 Radial†	23698.6	23957.0	188960 µg/L	188960 ppb	16:55:21
3	K 766.490 Radial†	7809.0	7734.7	5051.6 µg/L	5051.6 ppb	16:55:21
3	Mg 279.077 IEC†	54100.9	54715.7	488910 µg/L	488910 ppb	16:55:21
3	Na 589.592 Radial†	17037.2	16762.7	5148.5 µg/L	5148.5 ppb	16:55:21
3	Sr 421.552†	53557.3	54149.8	499.54 µg/L	499.54 ppb	16:55:21
3	Sc 361.383	1849513.8	1849513.8	94.213 %		16:56:29
3	Y 371.029	1265200.0	1265200.0	93.528 %		16:56:29
3	Ag 328.068†	30278.1	32539.5	256.19 µg/L	256.19 ppb	16:56:29
3	As 188.979†	249.4	265.2	460.15 µg/L	460.15 ppb	16:56:49
3	B 249.677†	12838.9	13243.4	441.96 µg/L	441.96 ppb	16:56:29
3	Ba 233.527†	19684.2	20910.3	502.89 µg/L	502.89 ppb	16:56:29
3	Be 313.107†	381877.8	408190.3	242.06 µg/L	242.06 ppb	16:56:29
3	Cd 226.502†	18049.5	19299.9	460.44 µg/L	460.44 ppb	16:56:29
3	Co 228.616†	9068.2	9623.2	435.15 µg/L	435.15 ppb	16:56:49
3	Cr 267.716†	22913.2	24371.1	489.81 µg/L	489.81 ppb	16:56:29
3	Cu 324.752†	76676.5	78842.6	540.91 µg/L	540.91 ppb	16:56:29
3	Mn 257.610†	145122.9	154293.0	488.74 µg/L	488.74 ppb	16:56:29
3	Mo 202.031†	4785.3	5084.6	505.09 µg/L	505.09 ppb	16:56:49
3	Ni 231.604†	8413.0	8617.4	431.51 µg/L	431.51 ppb	16:56:49
3	P 214.914†	1336.0	1402.7	2723.0 µg/L	2723.0 ppb	16:56:49
3	Pb 220.353†	1874.0	1898.2	482.26 µg/L	482.26 ppb	16:56:49
3	S 181.975 Axial†	650.5	671.5	2784.8 µg/L	2784.8 ppb	16:56:49
3	Sb 206.836†	579.0	592.1	504.11 µg/L	504.11 ppb	16:56:49
3	Se 196.026†	1645.5	1727.2	2372.2 µg/L	2372.2 ppb	16:56:49
3	SiO2†	53612.6	55514.2	10958 µg/L	10958 ppb	16:56:29
3	Si 251.611†	64125.9	67754.2	5150.8 µg/L	5150.8 ppb	16:56:29
3	Sn 189.927†	1079.8	1145.8	518.33 µg/L	518.33 ppb	16:56:49
3	Ti 334.940†	228839.3	242720.7	506.05 µg/L	506.05 ppb	16:56:29
3	Tl 190.801†	301.0	341.8	470.11 µg/L	470.11 ppb	16:56:49
3	U 409.014†	5634.4	6057.5	447.53 µg/L	447.53 ppb	16:56:29
3	V 292.402†	47572.3	50539.2	520.25 µg/L	520.25 ppb	16:56:29
3	Zn 213.857†	20782.8	21525.0	465.57 µg/L	465.57 ppb	16:56:29

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1840520.1	93.755	%	0.5571				0.59%
Sc RADIAL	55664.4	98.5	%	0.49				0.49%
Y 371.029	1259398.2	93.099	%	0.5370				0.58%
Ag 328.068†	32629.7	256.85	µg/L	0.742	256.85	ppb	0.742	0.29%
QC value within limits for Ag 328.068 Recovery = 102.74%								
Al 396.153Radial†	732997.6	509900	µg/L	2418.3	509900	ppb	2418.3	0.47%
QC value within limits for Al 396.153Radial Recovery = 101.98%								
As 188.979†	275.9	479.23	µg/L	17.921	479.23	ppb	17.921	3.74%
QC value within limits for As 188.979 Recovery = 95.85%								
B 249.677†	13236.6	441.77	µg/L	0.799	441.77	ppb	0.799	0.18%
QC value within limits for B 249.677 Recovery = 88.35%								
Ba 233.527†	20903.9	502.73	µg/L	2.416	502.73	ppb	2.416	0.48%
QC value within limits for Ba 233.527 Recovery = 100.55%								
Be 313.107†	408479.9	242.23	µg/L	0.577	242.23	ppb	0.577	0.24%
QC value within limits for Be 313.107 Recovery = 96.89%								
Ca 317.933Radial†	567693.0	484910	µg/L	2511.8	484910	ppb	2511.8	0.52%
QC value within limits for Ca 317.933Radial Recovery = 96.98%								
Cd 226.502†	19250.8	459.23	µg/L	2.249	459.23	ppb	2.249	0.49%
QC value within limits for Cd 226.502 Recovery = 91.85%								
Co 228.616†	9630.5	435.47	µg/L	1.070	435.47	ppb	1.070	0.25%

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   QC value within limits for Co 228.616  Recovery = 87.09%
Cr 267.716†            24326.8      488.92 µg/L         1.082      488.92 ppb          1.082   0.22%
   QC value within limits for Cr 267.716  Recovery = 97.78%
Cu 324.752†            79110.9      542.63 µg/L         1.505      542.63 ppb          1.505   0.28%
   QC value within limits for Cu 324.752  Recovery = 108.53%
Fe 238.204 Radial†     23933.5      188770 µg/L         465.0      188770 ppb          465.0   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.39%
K 766.490 Radial†       7747.0      5059.7 µg/L          7.77      5059.7 ppb           7.77   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 101.19%
Mg 279.077 IEC†        54718.2      488940 µg/L         403.0      488940 ppb          403.0   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.79%
Mn 257.610†           154396.8      489.04 µg/L         1.134      489.04 ppb          1.134   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.81%
Mo 202.031†             5087.3      505.36 µg/L         0.362      505.36 ppb          0.362   0.07%
   QC value within limits for Mo 202.031  Recovery = 101.07%
Na 589.592 Radial†     16786.7      5155.9 µg/L          9.34      5155.9 ppb           9.34   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 103.12%
Ni 231.604†             8623.2      431.80 µg/L         1.714      431.80 ppb          1.714   0.40%
   QC value within limits for Ni 231.604  Recovery = 86.36%
P 214.914†              1396.7      2711.6 µg/L         11.77      2711.6 ppb          11.77   0.43%
   QC value within limits for P 214.914  Recovery = 108.46%
Pb 220.353†             1905.3      484.05 µg/L         2.482      484.05 ppb          2.482   0.51%
   QC value within limits for Pb 220.353  Recovery = 96.81%
S 181.975 Axial†         671.3      2784.0 µg/L          1.83      2784.0 ppb           1.83   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 111.36%
Sb 206.836†              593.6      505.36 µg/L         4.096      505.36 ppb          4.096   0.81%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†             1723.7      2366.3 µg/L         15.98      2366.3 ppb          15.98   0.68%
   QC value within limits for Se 196.026  Recovery = 94.65%
SiO2†                  55585.5       10972 µg/L          29.5       10972 ppb           29.5   0.27%
   QC value within limits for SiO2  Recovery = 102.59%
Si 251.611†            67805.4      5154.7 µg/L          9.54      5154.7 ppb           9.54   0.19%
   QC value within limits for Si 251.611  Recovery = 103.09%
Sn 189.927†             1151.6      520.81 µg/L         2.193      520.81 ppb          2.193   0.42%
   QC value within limits for Sn 189.927  Recovery = 104.16%
Sr 421.552†            54247.0      500.44 µg/L         0.776      500.44 ppb          0.776   0.16%
   QC value within limits for Sr 421.552  Recovery = 100.09%
Ti 334.940†           243050.1      506.80 µg/L         1.249      506.80 ppb          1.249   0.25%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              337.0      463.71 µg/L         7.981      463.71 ppb          7.981   1.72%
   QC value within limits for Tl 190.801  Recovery = 92.74%
U 409.014†              6134.3      453.84 µg/L         6.995      453.84 ppb          6.995   1.54%
   QC value within limits for U 409.014  Recovery = 90.77%
V 292.402†             50494.7      519.80 µg/L         1.121      519.80 ppb          1.121   0.22%
   QC value within limits for V 292.402  Recovery = 103.96%
Zn 213.857†            21564.0      466.49 µg/L         1.813      466.49 ppb          1.813   0.39%
   QC value within limits for Zn 213.857  Recovery = 93.30%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/19/2010 16:56:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54748.6	54748.6	96.9	%			16:57:39
1	Al 396.153Radial†	706292.1	728823.1	507010	µg/L	507010	ppb	16:57:34
1	Ca 317.933Radial†	550897.7	568266.0	485400	µg/L	485400	ppb	16:57:34
1	Fe 238.204 Radial†	56162.0	57937.6	456950	µg/L	456950	ppb	16:57:39
1	K 766.490 Radial†	115.4	-45.9	-29.969	µg/L	-29.969	ppb	16:57:39
1	Mg 279.077 IEC†	52280.8	53936.3	481650	µg/L	481650	ppb	16:57:39
1	Na 589.592 Radial†	1551701.3	1600745.1	491660	µg/L	491660	ppb	16:57:34
1	Sr 421.552†	596.5	586.7	5.4124	µg/L	5.4124	ppb	16:57:39
1	Sc 361.383	1808982.1	1808982.1	92.148	%			16:58:15
1	Y 371.029	1229275.2	1229275.2	90.872	%			16:58:15
1	Ag 328.068†	-4982.3	-5005.2	-8.7931	µg/L	-8.7931	ppb	16:58:15
1	As 188.979†	-19.3	-20.5	-35.405	µg/L	-35.405	ppb	16:58:35
1	B 249.677†	1469.8	1210.9	-189.08	µg/L	-189.08	ppb	16:58:15
1	Ba 233.527†	599.8	668.0	15.898	µg/L	15.898	ppb	16:58:35
1	Be 313.107†	-11244.2	-9346.6	-5.5617	µg/L	-5.5617	ppb	16:58:15
1	Cd 226.502†	1210.5	1455.3	-15.352	µg/L	-15.352	ppb	16:58:15
1	Co 228.616†	210.6	226.6	10.160	µg/L	10.160	ppb	16:58:35
1	Cr 267.716†	45.2	99.4	1.9489	µg/L	1.9489	ppb	16:58:35
1	Cu 324.752†	-9617.8	-12981.1	-21.218	µg/L	-21.218	ppb	16:58:15
1	Mn 257.610†	-6155.9	-6424.4	21.370	µg/L	21.370	ppb	16:58:15
1	Mo 202.031†	-225.9	-239.8	-6.1197	µg/L	-6.1197	ppb	16:58:35
1	Ni 231.604†	48.3	-259.9	-7.0295	µg/L	-7.0295	ppb	16:58:35
1	P 214.914†	306.6	317.4	411.96	µg/L	411.96	ppb	16:58:35
1	Pb 220.353†	156.6	79.1	15.477	µg/L	15.477	ppb	16:58:35
1	S 181.975 Axial†	35.4	19.5	80.955	µg/L	80.955	ppb	16:58:35
1	Sb 206.836†	57.1	39.4	-6.4292	µg/L	-6.4292	ppb	16:58:35
1	Se 196.026†	-157.5	-190.2	417.62	µg/L	417.62	ppb	16:58:35
1	SiO2†	1118.3	-178.0	-35.141	µg/L	-35.141	ppb	16:58:35
1	Si 251.611†	-300.1	-636.3	-48.374	µg/L	-48.374	ppb	16:58:35
1	Sn 189.927†	-47.4	-51.8	-16.141	µg/L	-16.141	ppb	16:58:35
1	Ti 334.940†	15981.4	17168.1	7.6569	µg/L	7.6569	ppb	16:58:15
1	Tl 190.801†	-58.7	-41.3	21.254	µg/L	21.254	ppb	16:58:35
1	U 409.014†	152808.3	165905.7	13691	µg/L	13691	ppb	16:58:15
1	V 292.402†	-7264.4	-7838.6	-8.4612	µg/L	-8.4612	ppb	16:58:15
1	Zn 213.857†	2986.9	2707.0	14.661	µg/L	14.661	ppb	16:58:35
2	Sc RADIAL	54627.5	54627.5	96.7	%			16:57:51
2	Al 396.153Radial†	705003.9	729106.1	507210	µg/L	507210	ppb	16:57:46
2	Ca 317.933Radial†	548288.5	566827.4	484170	µg/L	484170	ppb	16:57:46
2	Fe 238.204 Radial†	56104.2	58006.2	457490	µg/L	457490	ppb	16:57:51
2	K 766.490 Radial†	75.8	-86.6	-56.548	µg/L	-56.548	ppb	16:57:51
2	Mg 279.077 IEC†	52084.5	53852.8	480900	µg/L	480900	ppb	16:57:51
2	Na 589.592 Radial†	1549659.8	1602182.6	492100	µg/L	492100	ppb	16:57:46
2	Sr 421.552†	580.4	571.4	5.2714	µg/L	5.2714	ppb	16:57:51
2	Sc 361.383	1809663.3	1809663.3	92.183	%			16:58:42
2	Y 371.029	1230302.7	1230302.7	90.948	%			16:58:42
2	Ag 328.068†	-5024.4	-5048.9	-9.0852	µg/L	-9.0852	ppb	16:58:42
2	As 188.979†	-32.4	-34.7	-60.833	µg/L	-60.833	ppb	16:59:03
2	B 249.677†	1435.1	1172.6	-190.92	µg/L	-190.92	ppb	16:58:42
2	Ba 233.527†	598.4	666.2	15.855	µg/L	15.855	ppb	16:59:03
2	Be 313.107†	-11290.0	-9391.7	-5.5890	µg/L	-5.5890	ppb	16:58:42
2	Cd 226.502†	1204.3	1448.1	-15.591	µg/L	-15.591	ppb	16:58:42
2	Co 228.616†	198.7	213.6	9.5711	µg/L	9.5711	ppb	16:59:03
2	Cr 267.716†	78.1	135.1	2.6649	µg/L	2.6649	ppb	16:59:03
2	Cu 324.752†	-9599.6	-12957.4	-20.988	µg/L	-20.988	ppb	16:58:42
2	Mn 257.610†	-6316.5	-6596.2	20.934	µg/L	20.934	ppb	16:58:42
2	Mo 202.031†	-200.5	-212.1	-3.3875	µg/L	-3.3875	ppb	16:59:03
2	Ni 231.604†	53.6	-254.2	-6.7348	µg/L	-6.7348	ppb	16:59:03
2	P 214.914†	301.0	311.1	399.21	µg/L	399.21	ppb	16:59:03
2	Pb 220.353†	148.3	69.9	13.245	µg/L	13.245	ppb	16:59:03

2	S 181.975 Axial†	35.1	19.1	79.229 µg/L	79.229 ppb	16:59:03
2	Sb 206.836†	43.8	25.1	-19.483 µg/L	-19.483 ppb	16:59:03
2	Se 196.026†	-176.5	-210.8	391.20 µg/L	391.20 ppb	16:59:03
2	SiO2†	1119.0	-177.7	-35.076 µg/L	-35.076 ppb	16:59:03
2	Si 251.611†	-359.8	-700.9	-53.283 µg/L	-53.283 ppb	16:59:03
2	Sn 189.927†	-47.7	-52.1	-16.412 µg/L	-16.412 ppb	16:59:03
2	Ti 334.940†	16565.0	17794.7	9.0824 µg/L	9.0824 ppb	16:58:42
2	Tl 190.801†	-50.4	-32.3	33.191 µg/L	33.191 ppb	16:59:03
2	U 409.014†	152895.7	165938.1	13694 µg/L	13694 ppb	16:58:42
2	V 292.402†	-7309.1	-7884.1	-8.8154 µg/L	-8.8154 ppb	16:58:42
2	Zn 213.857†	2986.8	2705.7	14.646 µg/L	14.646 ppb	16:59:03
3	Sc RADIAL	54733.6	54733.6	96.9 %		16:58:03
3	Al 396.153Radial†	704918.4	727604.3	506160 µg/L	506160 ppb	16:57:58
3	Ca 317.933Radial†	547195.5	564600.0	482270 µg/L	482270 ppb	16:57:58
3	Fe 238.204 Radial†	56342.5	58139.8	458540 µg/L	458540 ppb	16:58:03
3	K 766.490 Radial†	150.9	-9.2	-6.0382 µg/L	-6.0382 ppb	16:58:03
3	Mg 279.077 IEC†	52432.2	54107.4	483180 µg/L	483180 ppb	16:58:03
3	Na 589.592 Radial†	1551864.9	1601351.6	491840 µg/L	491840 ppb	16:57:58
3	Sr 421.552†	544.2	532.9	4.9161 µg/L	4.9161 ppb	16:58:03
3	Sc 361.383	1803530.5	1803530.5	91.871 %		16:59:10
3	Y 371.029	1226225.3	1226225.3	90.646 %		16:59:10
3	Ag 328.068†	-4992.7	-5032.9	-8.8937 µg/L	-8.8937 ppb	16:59:10
3	As 188.979†	-17.9	-19.1	-32.607 µg/L	-32.607 ppb	16:59:30
3	B 249.677†	1429.0	1171.3	-191.53 µg/L	-191.53 ppb	16:59:10
3	Ba 233.527†	596.4	666.2	15.857 µg/L	15.857 ppb	16:59:30
3	Be 313.107†	-11247.7	-9387.3	-5.5855 µg/L	-5.5855 ppb	16:59:10
3	Cd 226.502†	1240.2	1491.6	-14.625 µg/L	-14.625 ppb	16:59:10
3	Co 228.616†	217.8	235.1	10.551 µg/L	10.551 ppb	16:59:30
3	Cr 267.716†	61.4	117.2	2.3057 µg/L	2.3057 ppb	16:59:30
3	Cu 324.752†	-9496.4	-12880.5	-20.340 µg/L	-20.340 ppb	16:59:10
3	Mn 257.610†	-6307.3	-6609.4	20.942 µg/L	20.942 ppb	16:59:10
3	Mo 202.031†	-204.7	-217.5	-3.8705 µg/L	-3.8705 ppb	16:59:30
3	Ni 231.604†	57.2	-250.1	-6.5186 µg/L	-6.5186 ppb	16:59:30
3	P 214.914†	280.7	290.2	356.64 µg/L	356.64 ppb	16:59:30
3	Pb 220.353†	147.7	69.8	13.118 µg/L	13.118 ppb	16:59:30
3	S 181.975 Axial†	25.1	8.4	34.818 µg/L	34.818 ppb	16:59:30
3	Sb 206.836†	38.6	19.5	-24.434 µg/L	-24.434 ppb	16:59:30
3	Se 196.026†	-161.9	-195.6	413.95 µg/L	413.95 ppb	16:59:30
3	SiO2†	1115.5	-177.4	-35.018 µg/L	-35.018 ppb	16:59:30
3	Si 251.611†	-321.2	-660.2	-50.191 µg/L	-50.191 ppb	16:59:30
3	Sn 189.927†	-41.2	-45.3	-13.350 µg/L	-13.350 ppb	16:59:30
3	Ti 334.940†	15494.0	16690.0	6.4283 µg/L	6.4283 ppb	16:59:10
3	Tl 190.801†	-51.2	-33.3	32.056 µg/L	32.056 ppb	16:59:30
3	U 409.014†	152493.7	166064.5	13704 µg/L	13704 ppb	16:59:10
3	V 292.402†	-7191.9	-7783.6	-7.7057 µg/L	-7.7057 ppb	16:59:10
3	Zn 213.857†	2972.0	2700.6	14.345 µg/L	14.345 ppb	16:59:30

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807392.0	92.067	%	0.1712				0.19%
Sc RADIAL	54703.2	96.8	%	0.12				0.12%
Y 371.029	1228601.0	90.822	%	0.1568				0.17%
Ag 328.068†	-5029.0	-8.9240	µg/L	0.14840	-8.9240	ppb	0.14840	1.66%
Al 396.153Radial†	728511.2	506790	µg/L	555.2	506790	ppb	555.2	0.11%
QC value within limits for Al 396.153Radial Recovery = 101.36%								
As 188.979†	-24.8	-42.948	µg/L	15.5521	-42.948	ppb	15.5521	36.21%
B 249.677†	1184.9	-190.51	µg/L	1.274	-190.51	ppb	1.274	0.67%
Ba 233.527†	666.8	15.870	µg/L	0.0245	15.870	ppb	0.0245	0.15%
Be 313.107†	-9375.2	-5.5787	µg/L	0.01486	-5.5787	ppb	0.01486	0.27%
Ca 317.933Radial†	566564.5	483950	µg/L	1577.8	483950	ppb	1577.8	0.33%
QC value within limits for Ca 317.933Radial Recovery = 96.79%								
Cd 226.502†	1465.0	-15.189	µg/L	0.5033	-15.189	ppb	0.5033	3.31%
Co 228.616†	225.1	10.094	µg/L	0.4933	10.094	ppb	0.4933	4.89%
Cr 267.716†	117.2	2.3065	µg/L	0.35801	2.3065	ppb	0.35801	15.52%
Cu 324.752†	-12939.7	-20.849	µg/L	0.4554	-20.849	ppb	0.4554	2.18%
Fe 238.204 Radial†	58027.9	457660	µg/L	810.7	457660	ppb	810.7	0.18%
QC value within limits for Fe 238.204 Radial Recovery = 91.53%								
K 766.490 Radial†	-47.2	-30.852	µg/L	25.2666	-30.852	ppb	25.2666	81.90%
Mg 279.077 IEC†	53965.5	481910	µg/L	1159.2	481910	ppb	1159.2	0.24%

QC value within limits for Mg 279.077 IEC Recovery = 96.38%

Mn 257.610†	-6543.3	21.082 µg/L	0.2497	21.082 ppb	0.2497	1.18%
Mo 202.031†	-223.1	-4.4592 µg/L	1.45813	-4.4592 ppb	1.45813	32.70%
Na 589.592 Radial†	1601426.4	491870 µg/L	221.6	491870 ppb	221.6	0.05%

QC value within limits for Na 589.592 Radial Recovery = 98.37%

Ni 231.604†	-254.7	-6.7610 µg/L	0.25647	-6.7610 ppb	0.25647	3.79%
P 214.914†	306.2	389.27 µg/L	28.970	389.27 ppb	28.970	7.44%
Pb 220.353†	72.9	13.947 µg/L	1.3271	13.947 ppb	1.3271	9.52%
S 181.975 Axial†	15.7	65.000 µg/L	26.1534	65.000 ppb	26.1534	40.24%
Sb 206.836†	28.0	-16.782 µg/L	9.3013	-16.782 ppb	9.3013	55.42%
Se 196.026†	-198.8	407.59 µg/L	14.310	407.59 ppb	14.310	3.51%
SiO2†	-177.7	-35.078 µg/L	0.0614	-35.078 ppb	0.0614	0.18%
Si 251.611†	-665.8	-50.616 µg/L	2.4820	-50.616 ppb	2.4820	4.90%
Sn 189.927†	-49.7	-15.301 µg/L	1.6952	-15.301 ppb	1.6952	11.08%
Sr 421.552†	563.7	5.2000 µg/L	0.25572	5.2000 ppb	0.25572	4.92%
Ti 334.940†	17217.6	7.7225 µg/L	1.32825	7.7225 ppb	1.32825	17.20%
Tl 190.801†	-35.6	28.834 µg/L	6.5890	28.834 ppb	6.5890	22.85%
U 409.014†	165969.4	13696 µg/L	7.0	13696 ppb	7.0	0.05%

QC value within limits for U 409.014 Recovery = 91.31%

V 292.402†	-7835.4	-8.3274 µg/L	0.56678	-8.3274 ppb	0.56678	6.81%
Zn 213.857†	2704.4	14.551 µg/L	0.1785	14.551 ppb	0.1785	1.23%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/19/2010 16:59:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56692.7	56692.7	100	%			17:00:22
1	Al 396.153Radial†	410.3	401.6	67.150	µg/L	67.150	ppb	17:00:22
1	Ca 317.933Radial†	313.1	100.7	86.030	µg/L	86.030	ppb	17:00:42
1	Fe 238.204 Radial†	6.3	-10.3	125.34	µg/L	125.34	ppb	17:00:42
1	K 766.490 Radial†	452848.2	451108.7	294630	µg/L	294630	ppb	17:00:16
1	Mg 279.077 IEC†	-3.5	-16.3	27.924	µg/L	27.924	ppb	17:00:42
1	Na 589.592 Radial†	1202.8	726.5	223.13	µg/L	223.13	ppb	17:00:22
1	Sr 421.552†	1055792.8	1052093.2	9705.7	µg/L	9705.7	ppb	17:00:16
1	Sc 361.383	1927950.9	1927950.9	98.209	%			17:02:14
1	Y 371.029	1317313.5	1317313.5	97.380	%			17:02:14
1	Ag 328.068†	-7740.8	-7480.4	13.019	µg/L	13.019	ppb	17:02:19
1	As 188.979†	5373.1	5471.6	9786.3	µg/L	9786.3	ppb	17:02:19
1	B 249.677†	122177.3	124021.9	5094.8	µg/L	5094.8	ppb	17:02:14
1	Ba 233.527†	611336.6	622505.5	14963	µg/L	14963	ppb	17:02:14
1	Be 313.107†	4884950.3	4976915.5	2949.9	µg/L	2949.9	ppb	17:02:03
1	Cd 226.502†	386911.9	394111.5	9839.4	µg/L	9839.4	ppb	17:02:14
1	Co 228.616†	210861.9	214706.5	9711.7	µg/L	9711.7	ppb	17:02:14
1	Cr 267.716†	1221432.5	1243763.8	24988	µg/L	24988	ppb	17:02:14
1	Cu 324.752†	3142243.6	3197019.5	20869	µg/L	20869	ppb	17:02:14
1	Mn 257.610†	3084343.0	3140862.5	9835.7	µg/L	9835.7	ppb	17:02:14
1	Mo 202.031†	103586.6	105481.5	10329	µg/L	10329	ppb	17:02:14
1	Ni 231.604†	195607.8	198863.7	9901.7	µg/L	9901.7	ppb	17:02:14
1	P 214.914†	7737.6	7863.4	13522	µg/L	13522	ppb	17:02:19
1	Pb 220.353†	104065.3	105872.7	25731	µg/L	25731	ppb	17:02:14
1	S 181.975 Axial†	12812.3	13027.1	54023	µg/L	54023	ppb	17:02:19
1	Sb 206.836†	11529.6	11717.4	10643	µg/L	10643	ppb	17:02:19
1	Se 196.026†	6981.3	7089.4	9956.3	µg/L	9956.3	ppb	17:02:19
1	SiO2†	509789.5	517697.3	102190	µg/L	102190	ppb	17:02:14
1	Si 251.611†	616246.3	627177.0	47679	µg/L	47679	ppb	17:02:14
1	Sn 189.927†	24747.6	25198.7	10627	µg/L	10627	ppb	17:02:19
1	Ti 334.940†	4520614.2	4602902.5	10183	µg/L	10183	ppb	17:02:03
1	Tl 190.801†	7250.0	7404.6	9714.3	µg/L	9714.3	ppb	17:02:19
1	U 409.014†	894.0	987.4	82.040	µg/L	82.040	ppb	17:02:14
1	V 292.402†	1045223.3	1064334.6	10510	µg/L	10510	ppb	17:02:14
1	Zn 213.857†	624777.0	635639.6	14836	µg/L	14836	ppb	17:02:14
2	Sc RADIAL	56901.4	56901.4	101	%			17:00:54
2	Al 396.153Radial†	358.9	349.0	41.120	µg/L	41.120	ppb	17:00:54
2	Ca 317.933Radial†	305.5	92.1	78.637	µg/L	78.637	ppb	17:01:14
2	Fe 238.204 Radial†	4.4	-12.2	99.290	µg/L	99.290	ppb	17:01:14
2	K 766.490 Radial†	456232.0	452813.9	295740	µg/L	295740	ppb	17:00:48
2	Mg 279.077 IEC†	1.4	-11.4	63.333	µg/L	63.333	ppb	17:01:14
2	Na 589.592 Radial†	1121.5	641.3	196.97	µg/L	196.97	ppb	17:00:54
2	Sr 421.552†	1064137.7	1056521.3	9746.6	µg/L	9746.6	ppb	17:00:48
2	Sc 361.383	1930719.4	1930719.4	98.350	%			17:02:38
2	Y 371.029	1320362.0	1320362.0	97.605	%			17:02:38
2	Ag 328.068†	-7077.0	-6794.2	14.570	µg/L	14.570	ppb	17:02:44
2	As 188.979†	5081.0	5166.8	9240.9	µg/L	9240.9	ppb	17:02:44
2	B 249.677†	118618.7	120225.2	4937.5	µg/L	4937.5	ppb	17:02:38
2	Ba 233.527†	584914.6	594747.4	14296	µg/L	14296	ppb	17:02:38
2	Be 313.107†	4840646.5	4924735.5	2919.0	µg/L	2919.0	ppb	17:02:28
2	Cd 226.502†	369934.9	376284.7	9394.3	µg/L	9394.3	ppb	17:02:38
2	Co 228.616†	200219.4	203577.5	9207.4	µg/L	9207.4	ppb	17:02:38
2	Cr 267.716†	1146054.0	1165336.9	23412	µg/L	23412	ppb	17:02:38
2	Cu 324.752†	2987260.6	3034847.6	19810	µg/L	19810	ppb	17:02:38
2	Mn 257.610†	2933156.9	2982635.7	9340.2	µg/L	9340.2	ppb	17:02:38
2	Mo 202.031†	98580.4	100240.0	9816.1	µg/L	9816.1	ppb	17:02:38
2	Ni 231.604†	185684.1	188487.9	9385.1	µg/L	9385.1	ppb	17:02:38
2	P 214.914†	7168.5	7273.5	12452	µg/L	12452	ppb	17:02:44
2	Pb 220.353†	100296.4	101888.6	24763	µg/L	24763	ppb	17:02:38

2	S 181.975 Axial†	12172.5	12357.8	51247 µg/L	51247 ppb	17:02:44
2	Sb 206.836†	10777.5	10935.8	9934.7 µg/L	9934.7 ppb	17:02:44
2	Se 196.026†	6594.7	6686.0	9389.7 µg/L	9389.7 ppb	17:02:44
2	SiO2†	493318.0	500205.0	98734 µg/L	98734 ppb	17:02:38
2	Si 251.611†	596653.2	606355.3	46096 µg/L	46096 ppb	17:02:38
2	Sn 189.927†	22590.4	22969.2	9686.4 µg/L	9686.4 ppb	17:02:44
2	Ti 334.940†	4476920.0	4551874.4	10070 µg/L	10070 ppb	17:02:28
2	Tl 190.801†	7064.0	7204.9	9453.5 µg/L	9453.5 ppb	17:02:44
2	U 409.014†	804.4	895.0	74.370 µg/L	74.370 ppb	17:02:38
2	V 292.402†	992711.5	1009415.4	9966.7 µg/L	9966.7 ppb	17:02:38
2	Zn 213.857†	595571.0	605031.1	14122 µg/L	14122 ppb	17:02:38
3	Sc RADIAL	56734.5	56734.5	100 %		17:01:26
3	Al 396.153Radial†	382.8	373.8	92.098 µg/L	92.098 ppb	17:01:26
3	Ca 317.933Radial†	337.7	125.0	106.77 µg/L	106.77 ppb	17:01:46
3	Fe 238.204 Radial†	8.1	-8.5	96.137 µg/L	96.137 ppb	17:01:46
3	K 766.490 Radial†	455344.2	453262.2	296030 µg/L	296030 ppb	17:01:20
3	Mg 279.077 IEC†	6.4	-6.4	80.021 µg/L	80.021 ppb	17:01:46
3	Na 589.592 Radial†	1058.9	582.2	178.83 µg/L	178.83 ppb	17:01:26
3	Sr 421.552†	1062613.5	1058110.9	9761.2 µg/L	9761.2 ppb	17:01:20
3	Sc 361.383	1951531.6	1951531.6	99.410 %		17:03:03
3	Y 371.029	1334759.8	1334759.8	98.670 %		17:03:03
3	Ag 328.068†	-5952.6	-5586.4	12.490 µg/L	12.490 ppb	17:03:09
3	As 188.979†	4352.3	4378.6	7831.5 µg/L	7831.5 ppb	17:03:09
3	B 249.677†	103961.3	104194.4	4277.3 µg/L	4277.3 ppb	17:03:03
3	Ba 233.527†	498513.8	501491.0	12054 µg/L	12054 ppb	17:03:03
3	Be 313.107†	4199873.9	4227668.5	2505.9 µg/L	2505.9 ppb	17:02:53
3	Cd 226.502†	314684.6	316694.9	7906.5 µg/L	7906.5 ppb	17:03:03
3	Co 228.616†	168522.5	169521.2	7666.6 µg/L	7666.6 ppb	17:03:03
3	Cr 267.716†	945201.2	950864.3	19103 µg/L	19103 ppb	17:03:03
3	Cu 324.752†	2517755.9	2530162.7	16516 µg/L	16516 ppb	17:03:03
3	Mn 257.610†	2467371.4	2482278.7	7773.3 µg/L	7773.3 ppb	17:03:03
3	Mo 202.031†	82974.3	83472.3	8174.1 µg/L	8174.1 ppb	17:03:03
3	Ni 231.604†	156258.3	156873.9	7811.0 µg/L	7811.0 ppb	17:03:03
3	P 214.914†	6005.8	6026.1	10305 µg/L	10305 ppb	17:03:09
3	Pb 220.353†	86464.2	86886.7	21117 µg/L	21117 ppb	17:03:03
3	S 181.975 Axial†	10331.9	10374.4	43022 µg/L	43022 ppb	17:03:09
3	Sb 206.836†	9128.5	9160.2	8326.6 µg/L	8326.6 ppb	17:03:09
3	Se 196.026†	5645.3	5659.5	7948.1 µg/L	7948.1 ppb	17:03:09
3	SiO2†	429530.2	430689.2	85012 µg/L	85012 ppb	17:03:03
3	Si 251.611†	519223.8	521996.3	39683 µg/L	39683 ppb	17:03:03
3	Sn 189.927†	18770.5	18881.6	7962.6 µg/L	7962.6 ppb	17:03:09
3	Ti 334.940†	3882788.8	3905669.8	8640.2 µg/L	8640.2 ppb	17:02:53
3	Tl 190.801†	6222.6	6282.0	8241.0 µg/L	8241.0 ppb	17:03:09
3	U 409.014†	704.1	785.3	65.252 µg/L	65.252 ppb	17:03:03
3	V 292.402†	832909.4	837900.0	8272.7 µg/L	8272.7 ppb	17:03:03
3	Zn 213.857†	505033.0	507497.5	11846 µg/L	11846 ppb	17:03:03

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1936734.0	98.656	%	0.6566				0.67%
Sc RADIAL	56776.2	100	%	0.2				0.19%
Y 371.029	1324145.1	97.885	%	0.6888				0.70%
Ag 328.068†	-6620.3	13.360	µg/L	1.0808	13.360	ppb	1.0808	8.09%
Al 396.153Radial†	374.8	66.790	µg/L	25.4910	66.790	ppb	25.4910	38.17%
As 188.979†	5005.6	8952.9	µg/L	1008.74	8952.9	ppb	1008.74	11.27%
QC value less than the lower limit for As 188.979 Recovery = 89.53%								
B 249.677†	116147.2	4769.9	µg/L	433.79	4769.9	ppb	433.79	9.09%
QC value within limits for B 249.677 Recovery = 95.40%								
Ba 233.527†	572914.6	13771	µg/L	1524.0	13771	ppb	1524.0	11.07%
QC value within limits for Ba 233.527 Recovery = 91.81%								
Be 313.107†	4709773.2	2791.6	µg/L	247.95	2791.6	ppb	247.95	8.88%
QC value within limits for Be 313.107 Recovery = 93.05%								
Ca 317.933Radial†	105.9	90.480	µg/L	14.5864	90.480	ppb	14.5864	16.12%
Cd 226.502†	362363.7	9046.7	µg/L	1012.25	9046.7	ppb	1012.25	11.19%
QC value within limits for Cd 226.502 Recovery = 90.47%								
Co 228.616†	195935.1	8861.9	µg/L	1065.42	8861.9	ppb	1065.42	12.02%
QC value less than the lower limit for Co 228.616 Recovery = 88.62%								
Cr 267.716†	1119988.3	22501	µg/L	3046.1	22501	ppb	3046.1	13.54%
QC value within limits for Cr 267.716 Recovery = 90.00%								

Cu 324.752†	2920676.6	19065 µg/L	2270.1	19065 ppb	2270.1	11.91%
QC value within limits for Cu 324.752 Recovery = 95.32%						
Fe 238.204 Radial†	-10.3	106.92 µg/L	16.029	106.92 ppb	16.029	14.99%
K 766.490 Radial†	452395.0	295470 µg/L	742.1	295470 ppb	742.1	0.25%
QC value within limits for K 766.490 Radial Recovery = 98.49%						
Mg 279.077 IEC†	-11.4	57.093 µg/L	26.6031	57.093 ppb	26.6031	46.60%
Mn 257.610†	2868592.3	8983.1 µg/L	1076.57	8983.1 ppb	1076.57	11.98%
QC value less than the lower limit for Mn 257.610 Recovery = 89.83%						
Mo 202.031†	96398.0	9439.9 µg/L	1125.82	9439.9 ppb	1125.82	11.93%
QC value within limits for Mo 202.031 Recovery = 94.40%						
Na 589.592 Radial†	650.0	199.64 µg/L	22.270	199.64 ppb	22.270	11.15%
Ni 231.604†	181408.5	9032.6 µg/L	1089.03	9032.6 ppb	1089.03	12.06%
QC value within limits for Ni 231.604 Recovery = 90.33%						
P 214.914†	7054.3	12093 µg/L	1638.4	12093 ppb	1638.4	13.55%
QC value less than the lower limit for P 214.914 Recovery = 80.62%						
Pb 220.353†	98216.0	23870 µg/L	2433.1	23870 ppb	2433.1	10.19%
QC value within limits for Pb 220.353 Recovery = 95.48%						
S 181.975 Axial†	11919.8	49431 µg/L	5721.0	49431 ppb	5721.0	11.57%
QC value within limits for S 181.975 Axial Recovery = 98.86%						
Sb 206.836†	10604.5	9634.7 µg/L	1186.86	9634.7 ppb	1186.86	12.32%
QC value within limits for Sb 206.836 Recovery = 96.35%						
Se 196.026†	6478.3	9098.0 µg/L	1035.37	9098.0 ppb	1035.37	11.38%
QC value within limits for Se 196.026 Recovery = 90.98%						
SiO2†	482863.9	95311 µg/L	9084.4	95311 ppb	9084.4	9.53%
QC value less than the lower limit for SiO2 Recovery = 89.08%						
Si 251.611†	585176.2	44486 µg/L	4234.2	44486 ppb	4234.2	9.52%
QC value less than the lower limit for Si 251.611 Recovery = 88.97%						
Sn 189.927†	22349.8	9425.3 µg/L	1351.08	9425.3 ppb	1351.08	14.33%
QC value within limits for Sn 189.927 Recovery = 94.25%						
Sr 421.552†	1055575.2	9737.8 µg/L	28.77	9737.8 ppb	28.77	0.30%
QC value within limits for Sr 421.552 Recovery = 97.38%						
Ti 334.940†	4353482.3	9630.9 µg/L	859.79	9630.9 ppb	859.79	8.93%
QC value within limits for Ti 334.940 Recovery = 96.31%						
Tl 190.801†	6963.8	9136.3 µg/L	786.19	9136.3 ppb	786.19	8.61%
QC value within limits for Tl 190.801 Recovery = 91.36%						
U 409.014†	889.2	73.887 µg/L	8.4048	73.887 ppb	8.4048	11.38%
V 292.402†	970550.0	9583.0 µg/L	1166.76	9583.0 ppb	1166.76	12.18%
QC value within limits for V 292.402 Recovery = 95.83%						
Zn 213.857†	582722.8	13601 µg/L	1561.6	13601 ppb	1561.6	11.48%
QC value within limits for Zn 213.857 Recovery = 90.67%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:03:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55888.6	55888.6	98.9	%			17:03:56
1	Al 396.153Radial†	7603.9	7679.1	5330.8	µg/L	5330.8	ppb	17:03:56
1	Ca 317.933Radial†	6396.5	6254.7	5342.6	µg/L	5342.6	ppb	17:04:16
1	Fe 238.204 Radial†	693.3	684.2	5407.8	µg/L	5407.8	ppb	17:04:16
1	K 766.490 Radial†	8387.1	8313.2	5429.5	µg/L	5429.5	ppb	17:03:56
1	Mg 279.077 IEC†	619.4	613.3	5485.4	µg/L	5485.4	ppb	17:04:16
1	Na 589.592 Radial†	35135.8	35045.3	10764	µg/L	10764	ppb	17:03:56
1	Sr 421.552†	55695.8	56272.0	519.12	µg/L	519.12	ppb	17:03:56
1	Sc 361.383	1985726.3	1985726.3	101.15	%			17:05:20
1	Y 371.029	1365771.7	1365771.7	100.96	%			17:05:20
1	Ag 328.068†	70288.8	69890.2	521.53	µg/L	521.53	ppb	17:05:25
1	As 188.979†	301.3	298.4	533.72	µg/L	533.72	ppb	17:05:46
1	B 249.677†	13549.7	13011.4	528.34	µg/L	528.34	ppb	17:05:25
1	Ba 233.527†	22064.2	21830.1	525.03	µg/L	525.03	ppb	17:05:25
1	Be 313.107†	895757.0	888415.0	527.08	µg/L	527.08	ppb	17:05:20
1	Cd 226.502†	21255.4	21155.1	527.55	µg/L	527.55	ppb	17:05:25
1	Co 228.616†	11817.8	11681.3	528.41	µg/L	528.41	ppb	17:05:25
1	Cr 267.716†	26786.8	26532.2	533.24	µg/L	533.24	ppb	17:05:25
1	Cu 324.752†	84423.2	80918.4	528.94	µg/L	528.94	ppb	17:05:25
1	Mn 257.610†	172694.5	170984.5	535.94	µg/L	535.94	ppb	17:05:20
1	Mo 202.031†	5634.1	5575.3	546.17	µg/L	546.17	ppb	17:05:46
1	Ni 231.604†	11061.6	10623.3	529.01	µg/L	529.01	ppb	17:05:25
1	P 214.914†	1393.6	1362.4	2646.9	µg/L	2646.9	ppb	17:05:46
1	Pb 220.353†	2366.1	2248.2	546.74	µg/L	546.74	ppb	17:05:46
1	S 181.975 Axial†	286.4	264.2	1095.6	µg/L	1095.6	ppb	17:05:46
1	Sb 206.836†	624.5	594.8	548.51	µg/L	548.51	ppb	17:05:46
1	Se 196.026†	403.3	379.4	541.16	µg/L	541.16	ppb	17:05:46
1	SiO2†	30463.6	28725.2	5670.0	µg/L	5670.0	ppb	17:05:25
1	Si 251.611†	35537.3	34822.1	2647.2	µg/L	2647.2	ppb	17:05:25
1	Sn 189.927†	1316.6	1301.2	548.79	µg/L	548.79	ppb	17:05:46
1	Ti 334.940†	242343.4	239409.4	529.28	µg/L	529.28	ppb	17:05:20
1	Tl 190.801†	396.9	414.8	545.11	µg/L	545.11	ppb	17:05:46
1	U 409.014†	6392.8	6397.1	530.42	µg/L	530.42	ppb	17:05:25
1	V 292.402†	54586.5	54009.9	532.97	µg/L	532.97	ppb	17:05:25
1	Zn 213.857†	23680.6	22876.6	532.96	µg/L	532.96	ppb	17:05:25
2	Sc RADIAL	56411.2	56411.2	99.9	%			17:04:22
2	Al 396.153Radial†	7635.5	7639.5	5303.6	µg/L	5303.6	ppb	17:04:22
2	Ca 317.933Radial†	6387.4	6185.7	5283.7	µg/L	5283.7	ppb	17:04:42
2	Fe 238.204 Radial†	694.2	678.6	5363.5	µg/L	5363.5	ppb	17:04:42
2	K 766.490 Radial†	8367.7	8215.3	5365.5	µg/L	5365.5	ppb	17:04:22
2	Mg 279.077 IEC†	620.5	608.6	5443.2	µg/L	5443.2	ppb	17:04:42
2	Na 589.592 Radial†	35309.3	34889.9	10716	µg/L	10716	ppb	17:04:22
2	Sr 421.552†	56012.6	56067.6	517.23	µg/L	517.23	ppb	17:04:22
2	Sc 361.383	1973301.2	1973301.2	100.52	%			17:05:53
2	Y 371.029	1356327.8	1356327.8	100.26	%			17:05:53
2	Ag 328.068†	69539.4	69582.3	519.23	µg/L	519.23	ppb	17:05:58
2	As 188.979†	297.6	296.5	530.36	µg/L	530.36	ppb	17:06:19
2	B 249.677†	13399.5	12946.2	525.71	µg/L	525.71	ppb	17:05:58
2	Ba 233.527†	21880.7	21784.8	523.94	µg/L	523.94	ppb	17:05:58
2	Be 313.107†	883505.0	881802.2	523.15	µg/L	523.15	ppb	17:05:53
2	Cd 226.502†	20975.5	21009.0	523.90	µg/L	523.90	ppb	17:05:58
2	Co 228.616†	11661.3	11599.2	524.68	µg/L	524.68	ppb	17:05:58
2	Cr 267.716†	26502.8	26416.4	530.91	µg/L	530.91	ppb	17:05:58
2	Cu 324.752†	83587.4	80612.4	526.94	µg/L	526.94	ppb	17:05:58
2	Mn 257.610†	170657.8	170033.3	532.96	µg/L	532.96	ppb	17:05:53
2	Mo 202.031†	5420.5	5397.9	528.80	µg/L	528.80	ppb	17:06:19
2	Ni 231.604†	10882.8	10514.3	523.58	µg/L	523.58	ppb	17:05:58
2	P 214.914†	1342.7	1320.4	2563.7	µg/L	2563.7	ppb	17:06:19
2	Pb 220.353†	2290.9	2188.1	532.08	µg/L	532.08	ppb	17:06:19

2	S 181.975 Axial†	275.7	255.3	1058.7 µg/L	1058.7 ppb	17:06:19
2	Sb 206.836†	598.1	572.5	527.76 µg/L	527.76 ppb	17:06:19
2	Se 196.026†	397.1	375.7	535.95 µg/L	535.95 ppb	17:06:19
2	SiO2†	30055.7	28509.0	5627.3 µg/L	5627.3 ppb	17:05:58
2	Si 251.611†	35203.5	34711.2	2638.8 µg/L	2638.8 ppb	17:05:58
2	Sn 189.927†	1262.7	1255.8	529.63 µg/L	529.63 ppb	17:06:19
2	Ti 334.940†	239137.9	237729.0	525.56 µg/L	525.56 ppb	17:05:53
2	Tl 190.801†	378.8	399.3	524.92 µg/L	524.92 ppb	17:06:19
2	U 409.014†	6362.6	6406.8	531.24 µg/L	531.24 ppb	17:05:58
2	V 292.402†	53891.1	53657.8	529.39 µg/L	529.39 ppb	17:05:58
2	Zn 213.857†	23377.3	22722.3	529.37 µg/L	529.37 ppb	17:05:58
3	Sc RADIAL	56975.5	56975.5	101 %		17:04:48
3	Al 396.153Radial†	7635.5	7563.8	5253.0 µg/L	5253.0 ppb	17:04:48
3	Ca 317.933Radial†	6375.4	6110.4	5219.4 µg/L	5219.4 ppb	17:05:08
3	Fe 238.204 Radial†	692.0	669.6	5290.9 µg/L	5290.9 ppb	17:05:08
3	K 766.490 Radial†	8336.4	8101.2	5291.0 µg/L	5291.0 ppb	17:04:48
3	Mg 279.077 IEC†	615.1	597.1	5339.2 µg/L	5339.2 ppb	17:05:08
3	Na 589.592 Radial†	35286.2	34516.8	10602 µg/L	10602 ppb	17:04:48
3	Sr 421.552†	56155.5	55653.7	513.41 µg/L	513.41 ppb	17:04:48
3	Sc 361.383	1965301.5	1965301.5	100.11 %		17:06:26
3	Y 371.029	1350670.0	1350670.0	99.846 %		17:06:26
3	Ag 328.068†	64381.3	64711.5	482.70 µg/L	482.70 ppb	17:06:32
3	As 188.979†	245.8	246.0	440.05 µg/L	440.05 ppb	17:06:52
3	B 249.677†	12272.2	11874.4	481.93 µg/L	481.93 ppb	17:06:32
3	Ba 233.527†	19548.8	19544.2	470.02 µg/L	470.02 ppb	17:06:32
3	Be 313.107†	784667.9	786652.6	466.70 µg/L	466.70 ppb	17:06:26
3	Cd 226.502†	18615.7	18736.7	467.18 µg/L	467.18 ppb	17:06:32
3	Co 228.616†	10218.5	10205.2	461.59 µg/L	461.59 ppb	17:06:32
3	Cr 267.716†	22418.3	22443.7	451.08 µg/L	451.08 ppb	17:06:32
3	Cu 324.752†	73939.9	71314.0	466.24 µg/L	466.24 ppb	17:06:32
3	Mn 257.610†	152452.7	152539.5	478.17 µg/L	478.17 ppb	17:06:26
3	Mo 202.031†	4381.2	4381.7	429.29 µg/L	429.29 ppb	17:06:52
3	Ni 231.604†	9646.8	9323.7	464.30 µg/L	464.30 ppb	17:06:32
3	P 214.914†	1099.4	1082.8	2098.1 µg/L	2098.1 ppb	17:06:52
3	Pb 220.353†	1951.4	1858.2	451.78 µg/L	451.78 ppb	17:06:52
3	S 181.975 Axial†	236.4	217.2	900.67 µg/L	900.67 ppb	17:06:52
3	Sb 206.836†	506.2	483.2	445.02 µg/L	445.02 ppb	17:06:52
3	Se 196.026†	341.1	321.4	459.63 µg/L	459.63 ppb	17:06:52
3	SiO2†	27392.4	25970.5	5126.2 µg/L	5126.2 ppb	17:06:32
3	Si 251.611†	31876.5	31530.5	2397.0 µg/L	2397.0 ppb	17:06:32
3	Sn 189.927†	1001.9	1000.4	421.93 µg/L	421.93 ppb	17:06:52
3	Ti 334.940†	211018.2	210609.0	465.58 µg/L	465.58 ppb	17:06:26
3	Tl 190.801†	333.8	355.8	467.83 µg/L	467.83 ppb	17:06:52
3	U 409.014†	5451.1	5522.1	457.75 µg/L	457.75 ppb	17:06:32
3	V 292.402†	46793.0	46785.8	461.39 µg/L	461.39 ppb	17:06:32
3	Zn 213.857†	20591.5	20034.3	466.68 µg/L	466.68 ppb	17:06:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1974776.3	100.59	%	0.524				0.52%
Sc RADIAL	56425.1	99.9	%	0.96				0.96%
Y 371.029	1357589.8	100.36	%	0.564				0.56%
Ag 328.068†	68061.3	507.82	µg/L	21.786	507.82	ppb	21.786	4.29%
QC value within limits for Ag 328.068 Recovery = 101.56%								
Al 396.153Radial†	7627.5	5295.8	µg/L	39.51	5295.8	ppb	39.51	0.75%
QC value within limits for Al 396.153Radial Recovery = 105.92%								
As 188.979†	280.3	501.38	µg/L	53.136	501.38	ppb	53.136	10.60%
QC value within limits for As 188.979 Recovery = 100.28%								
B 249.677†	12610.7	512.00	µg/L	26.067	512.00	ppb	26.067	5.09%
QC value within limits for B 249.677 Recovery = 102.40%								
Ba 233.527†	21053.0	506.33	µg/L	31.447	506.33	ppb	31.447	6.21%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	852289.9	505.65	µg/L	33.780	505.65	ppb	33.780	6.68%
QC value within limits for Be 313.107 Recovery = 101.13%								
Ca 317.933Radial†	6183.6	5281.9	µg/L	61.64	5281.9	ppb	61.64	1.17%
QC value within limits for Ca 317.933Radial Recovery = 105.64%								
Cd 226.502†	20300.3	506.21	µg/L	33.851	506.21	ppb	33.851	6.69%
QC value within limits for Cd 226.502 Recovery = 101.24%								
Co 228.616†	11161.9	504.89	µg/L	37.550	504.89	ppb	37.550	7.44%

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   QC value within limits for Co 228.616  Recovery = 100.98%
Cr 267.716†            25130.8      505.07 µg/L        46.779      505.07 ppb         46.779   9.26%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†            77614.9      507.37 µg/L        35.640      507.37 ppb         35.640   7.02%
   QC value within limits for Cu 324.752  Recovery = 101.47%
Fe 238.204 Radial†       677.5      5354.0 µg/L         59.03      5354.0 ppb          59.03   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.08%
K 766.490 Radial†       8209.9      5362.0 µg/L         69.32      5362.0 ppb          69.32   1.29%
   QC value within limits for K 766.490 Radial  Recovery = 107.24%
Mg 279.077 IEC†          606.3      5422.6 µg/L         75.22      5422.6 ppb          75.22   1.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.45%
Mn 257.610†           164519.1      515.69 µg/L        32.527      515.69 ppb         32.527   6.31%
   QC value within limits for Mn 257.610  Recovery = 103.14%
Mo 202.031†            5118.3      501.42 µg/L        63.069      501.42 ppb         63.069  12.58%
   QC value within limits for Mo 202.031  Recovery = 100.28%
Na 589.592 Radial†     34817.3       10694 µg/L          83.4       10694 ppb           83.4   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 106.94%
Ni 231.604†            10153.8      505.63 µg/L        35.893      505.63 ppb         35.893   7.10%
   QC value within limits for Ni 231.604  Recovery = 101.13%
P 214.914†              1255.2      2436.2 µg/L        295.76      2436.2 ppb         295.76  12.14%
   QC value within limits for P 214.914  Recovery = 97.45%
Pb 220.353†             2098.2      510.20 µg/L        51.120      510.20 ppb         51.120  10.02%
   QC value within limits for Pb 220.353  Recovery = 102.04%
S 181.975 Axial†         245.6      1018.3 µg/L        103.55      1018.3 ppb         103.55  10.17%
   QC value within limits for S 181.975 Axial  Recovery = 101.83%
Sb 206.836†              550.2      507.10 µg/L        54.752      507.10 ppb         54.752  10.80%
   QC value within limits for Sb 206.836  Recovery = 101.42%
Se 196.026†              358.8      512.25 µg/L        45.639      512.25 ppb         45.639   8.91%
   QC value within limits for Se 196.026  Recovery = 102.45%
SiO2†                  27734.9      5474.5 µg/L        302.37      5474.5 ppb         302.37   5.52%
   QC value within limits for SiO2  Recovery = 102.38%
Si 251.611†            33688.0      2561.0 µg/L        142.10      2561.0 ppb         142.10   5.55%
   QC value within limits for Si 251.611  Recovery = 102.44%
Sn 189.927†             1185.8      500.11 µg/L        68.387      500.11 ppb         68.387  13.67%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†            55997.8      516.59 µg/L         2.906      516.59 ppb          2.906   0.56%
   QC value within limits for Sr 421.552  Recovery = 103.32%
Ti 334.940†           229249.1      506.81 µg/L        35.755      506.81 ppb         35.755   7.05%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              390.0      512.62 µg/L        40.080      512.62 ppb         40.080   7.82%
   QC value within limits for Tl 190.801  Recovery = 102.52%
U 409.014†              6108.7      506.47 µg/L        42.195      506.47 ppb         42.195   8.33%
   QC value within limits for U 409.014  Recovery = 101.29%
V 292.402†             51484.5      507.91 µg/L        40.335      507.91 ppb         40.335   7.94%
   QC value within limits for V 292.402  Recovery = 101.58%
Zn 213.857†            21877.7      509.67 µg/L        37.277      509.67 ppb         37.277   7.31%
   QC value within limits for Zn 213.857  Recovery = 101.93%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:07:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55412.9	55412.9	98.1	%			17:07:34
1	Al 396.153Radial†	37.8	31.1	21.627	µg/L	21.627	ppb	17:07:34
1	Ca 317.933Radial†	224.1	17.2	14.719	µg/L	14.719	ppb	17:07:55
1	Fe 238.204 Radial†	17.2	1.0	7.9128	µg/L	7.9128	ppb	17:07:55
1	K 766.490 Radial†	263.9	104.0	67.945	µg/L	67.945	ppb	17:07:34
1	Mg 279.077 IEC†	16.1	3.6	31.922	µg/L	31.922	ppb	17:07:55
1	Na 589.592 Radial†	689.0	230.2	70.711	µg/L	70.711	ppb	17:07:34
1	Sr 421.552†	101.9	75.1	0.6926	µg/L	0.6926	ppb	17:07:34
1	Sc 361.383	1951828.9	1951828.9	99.425	%			17:08:57
1	Y 371.029	1347100.7	1347100.7	99.582	%			17:08:57
1	Ag 328.068†	-411.9	-12.6	-0.0884	µg/L	-0.0884	ppb	17:09:02
1	As 188.979†	1.0	1.5	2.6447	µg/L	2.6447	ppb	17:09:23
1	B 249.677†	547.2	166.2	6.7725	µg/L	6.7725	ppb	17:09:02
1	Ba 233.527†	13.0	30.1	0.7248	µg/L	0.7248	ppb	17:09:23
1	Be 313.107†	-2489.6	351.6	0.2085	µg/L	0.2085	ppb	17:09:02
1	Cd 226.502†	-106.1	35.0	0.8724	µg/L	0.8724	ppb	17:09:23
1	Co 228.616†	8.3	6.4	0.2907	µg/L	0.2907	ppb	17:09:23
1	Cr 267.716†	3.3	53.7	1.0792	µg/L	1.0792	ppb	17:09:02
1	Cu 324.752†	2832.8	305.4	1.9949	µg/L	1.9949	ppb	17:09:02
1	Mn 257.610†	-94.7	160.8	0.5033	µg/L	0.5033	ppb	17:09:23
1	Mo 202.031†	11.2	16.6	1.6267	µg/L	1.6267	ppb	17:09:23
1	Ni 231.604†	329.4	19.0	0.9450	µg/L	0.9450	ppb	17:09:23
1	P 214.914†	17.5	2.3	4.3252	µg/L	4.3252	ppb	17:09:23
1	Pb 220.353†	117.3	27.1	6.5756	µg/L	6.5756	ppb	17:09:23
1	S 181.975 Axial†	13.9	-5.0	-20.708	µg/L	-20.708	ppb	17:09:23
1	Sb 206.836†	24.4	2.0	1.8677	µg/L	1.8677	ppb	17:09:23
1	Se 196.026†	8.1	-11.2	-15.713	µg/L	-15.713	ppb	17:09:23
1	SiO2†	1498.4	115.5	22.804	µg/L	22.804	ppb	17:09:02
1	Si 251.611†	397.1	88.7	6.7465	µg/L	6.7465	ppb	17:09:23
1	Sn 189.927†	7.9	7.6	3.2082	µg/L	3.2082	ppb	17:09:23
1	Ti 334.940†	420.5	247.9	0.5462	µg/L	0.5462	ppb	17:09:02
1	Tl 190.801†	-26.0	-3.7	-4.8506	µg/L	-4.8506	ppb	17:09:23
1	U 409.014†	-2.4	74.7	6.2026	µg/L	6.2026	ppb	17:09:02
1	V 292.402†	29.6	74.5	0.7487	µg/L	0.7487	ppb	17:09:02
1	Zn 213.857†	624.2	93.4	2.1827	µg/L	2.1827	ppb	17:09:23
2	Sc RADIAL	55845.1	55845.1	98.8	%			17:08:00
2	Al 396.153Radial†	15.5	8.3	5.7389	µg/L	5.7389	ppb	17:08:00
2	Ca 317.933Radial†	229.7	21.1	18.050	µg/L	18.050	ppb	17:08:21
2	Fe 238.204 Radial†	18.3	1.9	15.065	µg/L	15.065	ppb	17:08:21
2	K 766.490 Radial†	268.0	106.2	69.336	µg/L	69.336	ppb	17:08:00
2	Mg 279.077 IEC†	18.8	6.2	55.616	µg/L	55.616	ppb	17:08:21
2	Na 589.592 Radial†	718.0	254.2	78.078	µg/L	78.078	ppb	17:08:00
2	Sr 421.552†	118.8	91.4	0.8433	µg/L	0.8433	ppb	17:08:00
2	Sc 361.383	1967750.3	1967750.3	100.24	%			17:09:29
2	Y 371.029	1358640.9	1358640.9	100.44	%			17:09:29
2	Ag 328.068†	-328.6	73.7	0.5515	µg/L	0.5515	ppb	17:09:34
2	As 188.979†	0.4	0.9	1.5587	µg/L	1.5587	ppb	17:09:55
2	B 249.677†	564.6	179.1	7.2933	µg/L	7.2933	ppb	17:09:34
2	Ba 233.527†	22.7	39.7	0.9547	µg/L	0.9547	ppb	17:09:55
2	Be 313.107†	-2501.6	360.0	0.2134	µg/L	0.2134	ppb	17:09:34
2	Cd 226.502†	-111.0	30.9	0.7694	µg/L	0.7694	ppb	17:09:55
2	Co 228.616†	5.7	3.7	0.1688	µg/L	0.1688	ppb	17:09:55
2	Cr 267.716†	-17.2	33.2	0.6680	µg/L	0.6680	ppb	17:09:34
2	Cu 324.752†	2799.6	249.3	1.6293	µg/L	1.6293	ppb	17:09:34
2	Mn 257.610†	-100.4	155.9	0.4879	µg/L	0.4879	ppb	17:09:55
2	Mo 202.031†	11.5	16.9	1.6521	µg/L	1.6521	ppb	17:09:55
2	Ni 231.604†	309.9	-3.2	-0.1576	µg/L	-0.1576	ppb	17:09:55
2	P 214.914†	22.6	7.2	14.217	µg/L	14.217	ppb	17:09:55
2	Pb 220.353†	112.5	21.3	5.1809	µg/L	5.1809	ppb	17:09:55

2	S 181.975 Axial†	17.8	-1.2	-5.0873 µg/L	-5.0873	ppb	17:09:55
2	Sb 206.836†	28.6	6.1	5.5939 µg/L	5.5939	ppb	17:09:55
2	Se 196.026†	12.5	-6.8	-9.5638 µg/L	-9.5638	ppb	17:09:55
2	SiO2†	1499.4	104.3	20.597 µg/L	20.597	ppb	17:09:34
2	Si 251.611†	402.2	90.6	6.8889 µg/L	6.8889	ppb	17:09:55
2	Sn 189.927†	9.5	9.2	3.8641 µg/L	3.8641	ppb	17:09:55
2	Ti 334.940†	469.3	293.2	0.6444 µg/L	0.6444	ppb	17:09:34
2	Tl 190.801†	-20.6	1.9	2.4344 µg/L	2.4344	ppb	17:09:55
2	U 409.014†	-26.6	50.5	4.1927 µg/L	4.1927	ppb	17:09:34
2	V 292.402†	21.3	66.0	0.6641 µg/L	0.6641	ppb	17:09:34
2	Zn 213.857†	610.2	74.4	1.7390 µg/L	1.7390	ppb	17:09:55
3	Sc RADIAL	55020.8	55020.8	97.4 %			17:08:26
3	Al 396.153Radial†	25.2	18.5	12.855 µg/L	12.855	ppb	17:08:26
3	Ca 317.933Radial†	219.3	13.9	11.843 µg/L	11.843	ppb	17:08:46
3	Fe 238.204 Radial†	16.8	0.7	5.5902 µg/L	5.5902	ppb	17:08:46
3	K 766.490 Radial†	318.2	161.7	105.61 µg/L	105.61	ppb	17:08:26
3	Mg 279.077 IEC†	14.2	1.7	15.617 µg/L	15.617	ppb	17:08:46
3	Na 589.592 Radial†	674.2	220.1	67.603 µg/L	67.603	ppb	17:08:26
3	Sr 421.552†	108.4	82.5	0.7609 µg/L	0.7609	ppb	17:08:26
3	Sc 361.383	1948909.4	1948909.4	99.276 %			17:10:01
3	Y 371.029	1346308.2	1346308.2	99.523 %			17:10:01
3	Ag 328.068†	-352.8	46.2	0.3442 µg/L	0.3442	ppb	17:10:07
3	As 188.979†	-1.2	-0.7	-1.3112 µg/L	-1.3112	ppb	17:10:27
3	B 249.677†	510.9	130.5	5.3165 µg/L	5.3165	ppb	17:10:07
3	Ba 233.527†	13.0	30.2	0.7245 µg/L	0.7245	ppb	17:10:27
3	Be 313.107†	-2546.8	290.3	0.1721 µg/L	0.1721	ppb	17:10:07
3	Cd 226.502†	-112.3	28.5	0.7115 µg/L	0.7115	ppb	17:10:27
3	Co 228.616†	15.8	14.0	0.6325 µg/L	0.6325	ppb	17:10:27
3	Cr 267.716†	5.2	55.6	1.1178 µg/L	1.1178	ppb	17:10:07
3	Cu 324.752†	2793.0	269.6	1.7608 µg/L	1.7608	ppb	17:10:07
3	Mn 257.610†	-128.7	126.3	0.3957 µg/L	0.3957	ppb	17:10:27
3	Mo 202.031†	14.1	19.5	1.9140 µg/L	1.9140	ppb	17:10:27
3	Ni 231.604†	312.1	2.0	0.1004 µg/L	0.1004	ppb	17:10:27
3	P 214.914†	16.0	0.8	1.3809 µg/L	1.3809	ppb	17:10:27
3	Pb 220.353†	106.0	15.9	3.8630 µg/L	3.8630	ppb	17:10:27
3	S 181.975 Axial†	14.2	-4.6	-19.132 µg/L	-19.132	ppb	17:10:27
3	Sb 206.836†	16.0	-6.4	-5.8776 µg/L	-5.8776	ppb	17:10:27
3	Se 196.026†	18.1	-1.1	-1.5391 µg/L	-1.5391	ppb	17:10:27
3	SiO2†	1473.7	92.8	18.326 µg/L	18.326	ppb	17:10:07
3	Si 251.611†	414.5	106.9	8.1279 µg/L	8.1279	ppb	17:10:27
3	Sn 189.927†	10.6	10.3	4.3488 µg/L	4.3488	ppb	17:10:27
3	Ti 334.940†	439.9	268.1	0.5920 µg/L	0.5920	ppb	17:10:07
3	Tl 190.801†	-23.3	-1.1	-1.4129 µg/L	-1.4129	ppb	17:10:27
3	U 409.014†	-71.7	4.9	0.4060 µg/L	0.4060	ppb	17:10:07
3	V 292.402†	-20.7	23.9	0.2511 µg/L	0.2511	ppb	17:10:07
3	Zn 213.857†	601.7	71.7	1.6777 µg/L	1.6777	ppb	17:10:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1956162.9	99.646	%	0.5166				0.52%
Sc RADIAL	55426.3	98.1	%	0.73				0.74%
Y 371.029	1350683.2	99.847	%	0.5103				0.51%
Ag 328.068†	35.8	0.2691	µg/L	0.32647	0.2691	ppb	0.32647	121.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.3	13.407	µg/L	7.9584	13.407	ppb	7.9584	59.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.9641	µg/L	2.04391	0.9641	ppb	2.04391	212.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	158.6	6.4608	µg/L	1.02461	6.4608	ppb	1.02461	15.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	33.3	0.8013	µg/L	0.13279	0.8013	ppb	0.13279	16.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.0	0.1980	µg/L	0.02257	0.1980	ppb	0.02257	11.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	17.4	14.871	µg/L	3.1063	14.871	ppb	3.1063	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.5	0.7844	µg/L	0.08148	0.7844	ppb	0.08148	10.39%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.3640	µg/L	0.24037	0.3640	ppb	0.24037	66.04%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.5      0.9550 µg/L       0.24930      0.9550 ppb        0.24930  26.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             274.8      1.7950 µg/L       0.18518      1.7950 ppb        0.18518  10.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       1.2      9.5227 µg/L       4.93823      9.5227 ppb        4.93823  51.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       124.0      80.963 µg/L       21.3541      80.963 ppb        21.3541  26.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          3.8      34.385 µg/L       20.1131      34.385 ppb        20.1131  58.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             147.7      0.4623 µg/L       0.05817      0.4623 ppb        0.05817  12.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              17.7      1.7309 µg/L       0.15903      1.7309 ppb        0.15903   9.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      234.8      72.131 µg/L        5.3801      72.131 ppb         5.3801   7.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              5.9      0.2959 µg/L       0.57673      0.2959 ppb        0.57673 194.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               3.4      6.6410 µg/L       6.72404      6.6410 ppb        6.72404 101.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.4      5.2065 µg/L       1.35647      5.2065 ppb        1.35647  26.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.6     -14.976 µg/L        8.5998     -14.976 ppb         8.5998  57.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              0.6      0.5280 µg/L       5.85192      0.5280 ppb        5.85192 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.4     -8.9385 µg/L       7.10744     -8.9385 ppb        7.10744  79.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   104.2      20.576 µg/L        2.2394      20.576 ppb         2.2394  10.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              95.4      7.2544 µg/L       0.75977      7.2544 ppb        0.75977  10.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.0      3.8070 µg/L       0.57241      3.8070 ppb        0.57241  15.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              83.0      0.7656 µg/L       0.07544      0.7656 ppb        0.07544   9.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             269.7      0.5942 µg/L       0.04915      0.5942 ppb        0.04915   8.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.0     -1.2763 µg/L       3.64442     -1.2763 ppb        3.64442 285.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               43.4      3.6004 µg/L       2.94331      3.6004 ppb        2.94331  81.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               54.8      0.5546 µg/L       0.26626      0.5546 ppb        0.26626  48.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.8      1.8665 µg/L       0.27558      1.8665 ppb        0.27558  14.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/19/2010 17:18:12 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 16:28:12**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR2 **Date Collected: 2/19/2010 17:18:14**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57089.6	57089.6	101	%			17:18:49
1	Al 396.153Radial†	-10.5	-17.7	-12.364	µg/L	-12.364	ppb	17:18:49
1	Ca 317.933Radial†	228.9	15.3	13.039	µg/L	13.039	ppb	17:19:09
1	Fe 238.204 Radial†	8.4	-8.2	43.697	µg/L	43.697	ppb	17:19:09

1	K 766.490 Radial†	220.7	53.4	34.889	µg/L	34.889 ppb	17:18:49
1	Mg 279.077 IEC†	10.1	-2.8	-24.911	µg/L	-24.911 ppb	17:19:09
1	Na 589.592 Radial†	602.0	123.6	37.957	µg/L	37.957 ppb	17:18:49
1	Sr 421.552†	60.8	31.4	0.2896	µg/L	0.2896 ppb	17:18:49
1	Sc 361.383	1992980.4	1992980.4	101.52	%		17:20:12
1	Y 371.029	1370801.5	1370801.5	101.33	%		17:20:12
1	Ag 328.068†	-413.2	-5.4	-0.0402	µg/L	-0.0402 ppb	17:20:18
1	As 188.979†	2879.0	2836.3	5083.5	µg/L	5083.5 ppb	17:20:38
1	B 249.677†	863.8	466.7	19.057	µg/L	19.057 ppb	17:20:18
1	Ba 233.527†	-3.1	14.0	0.3366	µg/L	0.3366 ppb	17:20:38
1	Be 313.107†	-2634.3	260.8	0.1545	µg/L	0.1545 ppb	17:20:18
1	Cd 226.502†	-101.6	41.6	1.0480	µg/L	1.0480 ppb	17:20:38
1	Co 228.616†	114754.7	113033.4	5119.0	µg/L	5119.0 ppb	17:20:18
1	Cr 267.716†	-18.5	32.2	0.6465	µg/L	0.6465 ppb	17:20:18
1	Cu 324.752†	1806.3	-764.5	-4.9994	µg/L	-4.9994 ppb	17:20:18
1	Mn 257.610†	-157.7	100.7	0.3076	µg/L	0.3076 ppb	17:20:38
1	Mo 202.031†	8.0	13.2	1.2927	µg/L	1.2927 ppb	17:20:38
1	Ni 231.604†	383.1	65.0	-2.8550	µg/L	-2.8550 ppb	17:20:38
1	P 214.914†	5661.5	5561.4	11011	µg/L	11011 ppb	17:20:18
1	Pb 220.353†	103.9	11.4	2.7844	µg/L	2.7844 ppb	17:20:38
1	S 181.975 Axial†	11.6	-7.5	-31.222	µg/L	-31.222 ppb	17:20:38
1	Sb 206.836†	26.1	3.2	2.9217	µg/L	2.9217 ppb	17:20:38
1	Se 196.026†	15.5	-4.1	-5.9032	µg/L	-5.9032 ppb	17:20:38
1	SiO2†	426908.6	419120.7	82729	µg/L	82729 ppb	17:20:12
1	Si 251.611†	511420.1	503446.9	38273	µg/L	38273 ppb	17:20:12
1	Sn 189.927†	7.7	7.2	3.0305	µg/L	3.0305 ppb	17:20:38
1	Ti 334.940†	600.4	416.4	0.9232	µg/L	0.9232 ppb	17:20:18
1	Tl 190.801†	0.4	22.7	12.314	µg/L	12.314 ppb	17:20:38
1	U 409.014†	-95.3	-16.8	-1.3899	µg/L	-1.3899 ppb	17:20:18
1	V 292.402†	13.1	57.7	0.5647	µg/L	0.5647 ppb	17:20:18
1	Zn 213.857†	632.3	88.4	2.0732	µg/L	2.0732 ppb	17:20:38
2	Sc RADIAL	56165.6	56165.6	99.4	%		17:19:15
2	Al 396.153Radial†	-6.9	-14.3	-9.9617	µg/L	-9.9617 ppb	17:19:15
2	Ca 317.933Radial†	216.0	6.0	5.1201	µg/L	5.1201 ppb	17:19:35
2	Fe 238.204 Radial†	7.6	-8.9	36.342	µg/L	36.342 ppb	17:19:35
2	K 766.490 Radial†	221.8	58.1	37.930	µg/L	37.930 ppb	17:19:15
2	Mg 279.077 IEC†	7.5	-5.3	-47.450	µg/L	-47.450 ppb	17:19:35
2	Na 589.592 Radial†	593.1	124.4	38.204	µg/L	38.204 ppb	17:19:15
2	Sr 421.552†	33.6	5.0	0.0462	µg/L	0.0462 ppb	17:19:15
2	Sc 361.383	2021073.3	2021073.3	102.95	%		17:20:45
2	Y 371.029	1388832.8	1388832.8	102.67	%		17:20:45
2	Ag 328.068†	-393.4	19.5	0.1414	µg/L	0.1414 ppb	17:20:50
2	As 188.979†	2798.9	2719.1	4873.4	µg/L	4873.4 ppb	17:21:11
2	B 249.677†	844.8	436.4	17.824	µg/L	17.824 ppb	17:20:50
2	Ba 233.527†	-4.8	12.4	0.2992	µg/L	0.2992 ppb	17:21:11
2	Be 313.107†	-2671.8	260.5	0.1543	µg/L	0.1543 ppb	17:20:50
2	Cd 226.502†	-106.1	38.6	0.9740	µg/L	0.9740 ppb	17:21:11
2	Co 228.616†	114007.7	110736.6	5015.0	µg/L	5015.0 ppb	17:20:50
2	Cr 267.716†	-23.2	27.9	0.5600	µg/L	0.5600 ppb	17:20:50
2	Cu 324.752†	1789.0	-806.1	-5.2714	µg/L	-5.2714 ppb	17:20:50
2	Mn 257.610†	-160.2	100.4	0.3070	µg/L	0.3070 ppb	17:21:11
2	Mo 202.031†	1.7	7.0	0.6793	µg/L	0.6793 ppb	17:21:11
2	Ni 231.604†	365.6	42.8	-3.8392	µg/L	-3.8392 ppb	17:21:11
2	P 214.914†	5616.7	5440.3	10772	µg/L	10772 ppb	17:20:50
2	Pb 220.353†	110.3	16.2	3.9509	µg/L	3.9509 ppb	17:21:11
2	S 181.975 Axial†	18.6	-0.9	-3.7186	µg/L	-3.7186 ppb	17:21:11
2	Sb 206.836†	25.8	2.5	2.3409	µg/L	2.3409 ppb	17:21:11
2	Se 196.026†	13.5	-6.2	-8.8057	µg/L	-8.8057 ppb	17:21:11
2	SiO2†	425202.9	411618.8	81248	µg/L	81248 ppb	17:20:45
2	Si 251.611†	509536.8	494615.4	37602	µg/L	37602 ppb	17:20:45
2	Sn 189.927†	2.6	2.2	0.9156	µg/L	0.9156 ppb	17:21:11
2	Ti 334.940†	589.0	397.1	0.8822	µg/L	0.8822 ppb	17:20:50
2	Tl 190.801†	0.9	23.3	13.383	µg/L	13.383 ppb	17:21:11
2	U 409.014†	-89.3	-9.7	-0.7935	µg/L	-0.7935 ppb	17:20:50
2	V 292.402†	-20.8	24.5	0.2365	µg/L	0.2365 ppb	17:20:50
2	Zn 213.857†	620.1	67.9	1.5977	µg/L	1.5977 ppb	17:21:11
3	Sc RADIAL	56192.1	56192.1	99.5	%		17:19:41
3	Al 396.153Radial†	-3.6	-11.0	-7.6627	µg/L	-7.6627 ppb	17:19:41
3	Ca 317.933Radial†	218.7	8.6	7.3845	µg/L	7.3845 ppb	17:20:01
3	Fe 238.204 Radial†	9.7	-6.8	38.692	µg/L	38.692 ppb	17:20:01
3	K 766.490 Radial†	214.2	50.4	32.899	µg/L	32.899 ppb	17:19:41

3	Mg 279.077 IEC†	13.9	1.2	10.769	µg/L	10.769 ppb	17:20:01
3	Na 589.592 Radial†	600.0	131.0	40.239	µg/L	40.239 ppb	17:19:41
3	Sr 421.552†	67.6	39.2	0.3616	µg/L	0.3616 ppb	17:19:41
3	Sc 361.383	1998637.7	1998637.7	101.81	%		17:21:17
3	Y 371.029	1373104.8	1373104.8	101.50	%		17:21:17
3	Ag 328.068†	-417.7	-8.6	-0.0666	µg/L	-0.0666 ppb	17:21:23
3	As 188.979†	2369.6	2327.9	4172.3	µg/L	4172.3 ppb	17:21:43
3	B 249.677†	832.0	433.0	17.679	µg/L	17.679 ppb	17:21:23
3	Ba 233.527†	-4.2	12.9	0.3111	µg/L	0.3111 ppb	17:21:43
3	Be 313.107†	-2497.8	402.3	0.2384	µg/L	0.2384 ppb	17:21:23
3	Cd 226.502†	-118.0	25.8	0.6517	µg/L	0.6517 ppb	17:21:43
3	Co 228.616†	98118.9	96373.3	4364.5	µg/L	4364.5 ppb	17:21:23
3	Cr 267.716†	-6.1	44.4	0.8924	µg/L	0.8924 ppb	17:21:23
3	Cu 324.752†	1945.6	-632.7	-4.1375	µg/L	-4.1375 ppb	17:21:23
3	Mn 257.610†	-181.8	77.4	0.2349	µg/L	0.2349 ppb	17:21:43
3	Mo 202.031†	-0.1	5.3	0.5134	µg/L	0.5134 ppb	17:21:43
3	Ni 231.604†	349.6	31.0	-3.6536	µg/L	-3.6536 ppb	17:21:43
3	P 214.914†	4913.6	4810.9	9525.5	µg/L	9525.5 ppb	17:21:23
3	Pb 220.353†	106.2	13.4	3.2602	µg/L	3.2602 ppb	17:21:43
3	S 181.975 Axial†	19.1	-0.2	-0.8917	µg/L	-0.8917 ppb	17:21:43
3	Sb 206.836†	17.0	-5.8	-5.3639	µg/L	-5.3639 ppb	17:21:43
3	Se 196.026†	14.4	-5.1	-7.3641	µg/L	-7.3641 ppb	17:21:43
3	SiO2†	388378.1	380084.6	75024	µg/L	75024 ppb	17:21:17
3	Si 251.611†	465723.5	457136.5	34752	µg/L	34752 ppb	17:21:17
3	Sn 189.927†	7.2	6.7	2.8419	µg/L	2.8419 ppb	17:21:43
3	Ti 334.940†	599.4	413.7	0.9146	µg/L	0.9146 ppb	17:21:23
3	Tl 190.801†	-3.1	19.4	10.494	µg/L	10.494 ppb	17:21:43
3	U 409.014†	-33.0	44.6	3.7148	µg/L	3.7148 ppb	17:21:23
3	V 292.402†	-34.4	11.0	0.1103	µg/L	0.1103 ppb	17:21:23
3	Zn 213.857†	609.9	64.6	1.5181	µg/L	1.5181 ppb	17:21:43

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004230.5	102.09	%	0.757				0.74%
Sc RADIAL	56482.4	100.0	%	0.93				0.93%
Y 371.029	1377579.7	101.84	%	0.725				0.71%
Ag 328.068†	1.8	0.0115	µg/L	0.11324	0.0115	ppb	0.11324	983.61%
Al 396.153Radial†	-14.3	-9.9961	µg/L	2.35074	-9.9961	ppb	2.35074	23.52%
As 188.979†	2627.8	4709.7	µg/L	477.13	4709.7	ppb	477.13	10.13%
B 249.677†	445.4	18.187	µg/L	0.7573	18.187	ppb	0.7573	4.16%
Ba 233.527†	13.1	0.3156	µg/L	0.01910	0.3156	ppb	0.01910	6.05%
Be 313.107†	307.9	0.1824	µg/L	0.04852	0.1824	ppb	0.04852	26.60%
Ca 317.933Radial†	10.0	8.5144	µg/L	4.07847	8.5144	ppb	4.07847	47.90%
Cd 226.502†	35.4	0.8912	µg/L	0.21072	0.8912	ppb	0.21072	23.64%
Co 228.616†	106714.5	4832.9	µg/L	408.90	4832.9	ppb	408.90	8.46%
Cr 267.716†	34.8	0.6996	µg/L	0.17243	0.6996	ppb	0.17243	24.65%
Cu 324.752†	-734.4	-4.8027	µg/L	0.59198	-4.8027	ppb	0.59198	12.33%
Fe 238.204 Radial†	-8.0	39.577	µg/L	3.7566	39.577	ppb	3.7566	9.49%
K 766.490 Radial†	54.0	35.239	µg/L	2.5339	35.239	ppb	2.5339	7.19%
Mg 279.077 IEC†	-2.3	-20.531	µg/L	29.3558	-20.531	ppb	29.3558	142.98%
Mn 257.610†	92.8	0.2832	µg/L	0.04179	0.2832	ppb	0.04179	14.76%
Mo 202.031†	8.5	0.8285	µg/L	0.41049	0.8285	ppb	0.41049	49.55%
Na 589.592 Radial†	126.3	38.800	µg/L	1.2520	38.800	ppb	1.2520	3.23%
Ni 231.604†	46.3	-3.4493	µg/L	0.52296	-3.4493	ppb	0.52296	15.16%
P 214.914†	5270.9	10436	µg/L	797.7	10436	ppb	797.7	7.64%
Pb 220.353†	13.7	3.3319	µg/L	0.58655	3.3319	ppb	0.58655	17.60%
S 181.975 Axial†	-2.9	-11.944	µg/L	16.7551	-11.944	ppb	16.7551	140.28%
Sb 206.836†	-0.0	-0.0338	µg/L	4.62516	-0.0338	ppb	4.62516	>999.9%
Se 196.026†	-5.1	-7.3577	µg/L	1.45126	-7.3577	ppb	1.45126	19.72%
SiO2†	403608.1	79667	µg/L	4088.7	79667	ppb	4088.7	5.13%
Si 251.611†	485066.3	36876	µg/L	1869.2	36876	ppb	1869.2	5.07%
Sn 189.927†	5.4	2.2626	µg/L	1.17039	2.2626	ppb	1.17039	51.73%
Sr 421.552†	25.2	0.2325	µg/L	0.16530	0.2325	ppb	0.16530	71.11%
Ti 334.940†	409.0	0.9067	µg/L	0.02163	0.9067	ppb	0.02163	2.39%
Tl 190.801†	21.8	12.064	µg/L	1.4608	12.064	ppb	1.4608	12.11%
U 409.014†	6.0	0.5104	µg/L	2.79101	0.5104	ppb	2.79101	546.79%
V 292.402†	31.1	0.3038	µg/L	0.23456	0.3038	ppb	0.23456	77.20%
Zn 213.857†	73.7	1.7297	µg/L	0.30016	1.7297	ppb	0.30016	17.35%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:21:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55997.1	55997.1	99.1	%			17:22:28
1	Al 396.153Radial†	7484.4	7543.7	5236.5	µg/L	5236.5	ppb	17:22:28
1	Ca 317.933Radial†	6284.2	6128.9	5235.2	µg/L	5235.2	ppb	17:22:48
1	Fe 238.204 Radial†	689.0	678.6	5363.5	µg/L	5363.5	ppb	17:22:48
1	K 766.490 Radial†	8069.9	7976.8	5209.8	µg/L	5209.8	ppb	17:22:28
1	Mg 279.077 IEC†	607.2	599.8	5365.3	µg/L	5365.3	ppb	17:22:48
1	Na 589.592 Radial†	34612.1	34448.1	10580	µg/L	10580	ppb	17:22:28
1	Sr 421.552†	55249.7	55712.7	513.96	µg/L	513.96	ppb	17:22:28
1	Sc 361.383	1941292.6	1941292.6	98.888	%			17:23:51
1	Y 371.029	1335522.5	1335522.5	98.726	%			17:23:51
1	Ag 328.068†	70158.7	71349.1	532.40	µg/L	532.40	ppb	17:23:57
1	As 188.979†	304.1	308.0	550.96	µg/L	550.96	ppb	17:24:18
1	B 249.677†	13216.5	12981.0	527.15	µg/L	527.15	ppb	17:23:57
1	Ba 233.527†	22082.2	22347.5	537.47	µg/L	537.47	ppb	17:23:57
1	Be 313.107†	881057.8	893819.8	530.28	µg/L	530.28	ppb	17:23:51
1	Cd 226.502†	21234.9	21615.4	539.04	µg/L	539.04	ppb	17:23:57
1	Co 228.616†	11841.2	11972.4	541.59	µg/L	541.59	ppb	17:23:57
1	Cr 267.716†	26708.5	27059.1	543.83	µg/L	543.83	ppb	17:23:57
1	Cu 324.752†	83577.2	81973.2	535.82	µg/L	535.82	ppb	17:23:57
1	Mn 257.610†	169839.0	172004.6	539.13	µg/L	539.13	ppb	17:23:51
1	Mo 202.031†	5552.9	5620.6	550.61	µg/L	550.61	ppb	17:24:18
1	Ni 231.604†	11057.1	10869.0	541.24	µg/L	541.24	ppb	17:23:57
1	P 214.914†	1373.5	1373.6	2668.4	µg/L	2668.4	ppb	17:24:18
1	Pb 220.353†	2326.6	2261.9	550.03	µg/L	550.03	ppb	17:24:18
1	S 181.975 Axial†	279.6	263.8	1093.9	µg/L	1093.9	ppb	17:24:18
1	Sb 206.836†	611.1	595.5	549.07	µg/L	549.07	ppb	17:24:18
1	Se 196.026†	411.0	396.3	565.02	µg/L	565.02	ppb	17:24:18
1	SiO2†	30336.5	29286.0	5780.7	µg/L	5780.7	ppb	17:23:57
1	Si 251.611†	35486.6	35575.0	2704.5	µg/L	2704.5	ppb	17:23:57
1	Sn 189.927†	1307.2	1321.6	557.36	µg/L	557.36	ppb	17:24:18
1	Ti 334.940†	237204.0	239696.0	529.92	µg/L	529.92	ppb	17:23:51
1	Tl 190.801†	383.1	409.8	538.64	µg/L	538.64	ppb	17:24:18
1	U 409.014†	6443.7	6593.3	546.74	µg/L	546.74	ppb	17:23:57
1	V 292.402†	54369.9	55025.9	542.94	µg/L	542.94	ppb	17:23:57
1	Zn 213.857†	23470.8	23200.3	540.50	µg/L	540.50	ppb	17:23:57
2	Sc RADIAL	55374.2	55374.2	98.0	%			17:22:54
2	Al 396.153Radial†	7516.3	7661.2	5318.8	µg/L	5318.8	ppb	17:22:54
2	Ca 317.933Radial†	6316.8	6233.4	5324.5	µg/L	5324.5	ppb	17:23:14
2	Fe 238.204 Radial†	689.1	686.5	5425.5	µg/L	5425.5	ppb	17:23:14
2	K 766.490 Radial†	8078.4	8077.0	5275.2	µg/L	5275.2	ppb	17:22:54
2	Mg 279.077 IEC†	616.4	616.1	5510.0	µg/L	5510.0	ppb	17:23:14
2	Na 589.592 Radial†	34699.9	34930.4	10729	µg/L	10729	ppb	17:22:54
2	Sr 421.552†	55215.6	56305.0	519.42	µg/L	519.42	ppb	17:22:54
2	Sc 361.383	1972008.9	1972008.9	100.45	%			17:24:25
2	Y 371.029	1357440.8	1357440.8	100.35	%			17:24:25
2	Ag 328.068†	69394.0	69482.8	518.48	µg/L	518.48	ppb	17:24:30
2	As 188.979†	292.5	291.6	521.69	µg/L	521.69	ppb	17:24:51
2	B 249.677†	13098.0	12654.8	513.80	µg/L	513.80	ppb	17:24:30
2	Ba 233.527†	21766.9	21685.9	521.56	µg/L	521.56	ppb	17:24:30
2	Be 313.107†	875557.6	874466.7	518.80	µg/L	518.80	ppb	17:24:25
2	Cd 226.502†	20934.5	20981.8	523.22	µg/L	523.22	ppb	17:24:30
2	Co 228.616†	11674.3	11619.7	525.62	µg/L	525.62	ppb	17:24:30
2	Cr 267.716†	26349.4	26281.0	528.19	µg/L	528.19	ppb	17:24:30
2	Cu 324.752†	82762.2	79845.4	521.94	µg/L	521.94	ppb	17:24:30
2	Mn 257.610†	168819.9	168315.0	527.58	µg/L	527.58	ppb	17:24:25
2	Mo 202.031†	5374.4	5355.5	524.65	µg/L	524.65	ppb	17:24:51
2	Ni 231.604†	10896.7	10535.3	524.62	µg/L	524.62	ppb	17:24:30
2	P 214.914†	1349.1	1327.7	2578.5	µg/L	2578.5	ppb	17:24:51
2	Pb 220.353†	2255.8	2154.7	523.94	µg/L	523.94	ppb	17:24:51

2	S 181.975 Axial†	273.6	253.5	1051.2 µg/L	1051.2 ppb	17:24:51
2	Sb 206.836†	597.1	571.9	527.15 µg/L	527.15 ppb	17:24:51
2	Se 196.026†	399.0	377.9	539.15 µg/L	539.15 ppb	17:24:51
2	SiO2†	30015.2	28488.3	5623.2 µg/L	5623.2 ppb	17:24:30
2	Si 251.611†	35058.2	34589.5	2629.6 µg/L	2629.6 ppb	17:24:30
2	Sn 189.927†	1256.6	1250.5	527.41 µg/L	527.41 ppb	17:24:51
2	Ti 334.940†	235686.9	234449.5	518.30 µg/L	518.30 ppb	17:24:25
2	Tl 190.801†	379.7	400.4	526.29 µg/L	526.29 ppb	17:24:51
2	U 409.014†	6398.7	6446.9	534.56 µg/L	534.56 ppb	17:24:30
2	V 292.402†	53704.7	53507.4	527.90 µg/L	527.90 ppb	17:24:30
2	Zn 213.857†	23141.6	22502.9	524.22 µg/L	524.22 ppb	17:24:30
3	Sc RADIAL	55679.0	55679.0	98.6 %		17:23:19
3	Al 396.153Radial†	7596.6	7700.7	5348.4 µg/L	5348.4 ppb	17:23:19
3	Ca 317.933Radial†	6283.1	6164.0	5265.1 µg/L	5265.1 ppb	17:23:40
3	Fe 238.204 Radial†	686.1	679.6	5369.7 µg/L	5369.7 ppb	17:23:40
3	K 766.490 Radial†	8154.7	8109.3	5296.3 µg/L	5296.3 ppb	17:23:19
3	Mg 279.077 IEC†	612.2	608.4	5439.6 µg/L	5439.6 ppb	17:23:40
3	Na 589.592 Radial†	34975.0	35015.8	10755 µg/L	10755 ppb	17:23:19
3	Sr 421.552†	55908.1	56699.3	523.06 µg/L	523.06 ppb	17:23:19
3	Sc 361.383	1952535.0	1952535.0	99.461 %		17:24:58
3	Y 371.029	1343624.0	1343624.0	99.325 %		17:24:58
3	Ag 328.068†	63360.5	64105.6	478.17 µg/L	478.17 ppb	17:25:04
3	As 188.979†	241.7	243.4	435.49 µg/L	435.49 ppb	17:25:24
3	B 249.677†	11843.3	11523.4	467.57 µg/L	467.57 ppb	17:25:04
3	Ba 233.527†	19104.2	19224.8	462.34 µg/L	462.34 ppb	17:25:04
3	Be 313.107†	780835.5	787924.2	467.46 µg/L	467.46 ppb	17:24:58
3	Cd 226.502†	18231.2	18471.7	460.55 µg/L	460.55 ppb	17:25:04
3	Co 228.616†	10034.6	10087.0	456.23 µg/L	456.23 ppb	17:25:04
3	Cr 267.716†	21902.6	22071.8	443.60 µg/L	443.60 ppb	17:25:04
3	Cu 324.752†	72242.1	70090.0	458.26 µg/L	458.26 ppb	17:25:04
3	Mn 257.610†	151408.5	152485.3	478.01 µg/L	478.01 ppb	17:24:58
3	Mo 202.031†	4271.9	4300.4	421.32 µg/L	421.32 ppb	17:25:24
3	Ni 231.604†	9447.8	9186.7	457.48 µg/L	457.48 ppb	17:25:04
3	P 214.914†	1083.3	1073.8	2080.9 µg/L	2080.9 ppb	17:25:24
3	Pb 220.353†	1873.7	1793.0	435.92 µg/L	435.92 ppb	17:25:24
3	S 181.975 Axial†	233.8	216.1	896.36 µg/L	896.36 ppb	17:25:24
3	Sb 206.836†	489.4	469.6	432.51 µg/L	432.51 ppb	17:25:24
3	Se 196.026†	332.8	315.3	451.15 µg/L	451.15 ppb	17:25:24
3	SiO2†	26947.7	25702.2	5073.3 µg/L	5073.3 ppb	17:25:04
3	Si 251.611†	31277.9	31136.9	2367.1 µg/L	2367.1 ppb	17:25:04
3	Sn 189.927†	976.9	981.8	414.09 µg/L	414.09 ppb	17:25:24
3	Ti 334.940†	208555.8	209511.3	463.14 µg/L	463.14 ppb	17:24:58
3	Tl 190.801†	319.8	343.9	452.38 µg/L	452.38 ppb	17:25:24
3	U 409.014†	5254.4	5360.0	444.27 µg/L	444.27 ppb	17:25:04
3	V 292.402†	45815.6	46108.8	454.70 µg/L	454.70 ppb	17:25:04
3	Zn 213.857†	20168.8	19743.8	459.90 µg/L	459.90 ppb	17:25:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1955278.8	99.601	%	0.7916				0.79%
Sc RADIAL	55683.5	98.6	%	0.55				0.56%
Y 371.029	1345529.1	99.466	%	0.8193				0.82%
Ag 328.068†	68312.5	509.69	µg/L	28.165	509.69	ppb	28.165	5.53%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	7635.2	5301.2	µg/L	57.98	5301.2	ppb	57.98	1.09%
QC value within limits for Al 396.153Radial Recovery = 106.02%								
As 188.979†	281.0	502.71	µg/L	60.027	502.71	ppb	60.027	11.94%
QC value within limits for As 188.979 Recovery = 100.54%								
B 249.677†	12386.4	502.84	µg/L	31.261	502.84	ppb	31.261	6.22%
QC value within limits for B 249.677 Recovery = 100.57%								
Ba 233.527†	21086.1	507.12	µg/L	39.588	507.12	ppb	39.588	7.81%
QC value within limits for Ba 233.527 Recovery = 101.42%								
Be 313.107†	852070.2	505.52	µg/L	33.453	505.52	ppb	33.453	6.62%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	6175.4	5274.9	µg/L	45.45	5274.9	ppb	45.45	0.86%
QC value within limits for Ca 317.933Radial Recovery = 105.50%								
Cd 226.502†	20356.3	507.61	µg/L	41.509	507.61	ppb	41.509	8.18%
QC value within limits for Cd 226.502 Recovery = 101.52%								
Co 228.616†	11226.4	507.82	µg/L	45.380	507.82	ppb	45.380	8.94%

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   QC value within limits for Co 228.616  Recovery = 101.56%
Cr 267.716†            25137.3      505.21 µg/L        53.922      505.21 ppb         53.922  10.67%
   QC value within limits for Cr 267.716  Recovery = 101.04%
Cu 324.752†            77302.9      505.34 µg/L        41.362      505.34 ppb         41.362   8.19%
   QC value within limits for Cu 324.752  Recovery = 101.07%
Fe 238.204 Radial†       681.6      5386.2 µg/L         34.14      5386.2 ppb          34.14   0.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.72%
K 766.490 Radial†       8054.3      5260.4 µg/L         45.13      5260.4 ppb          45.13   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 105.21%
Mg 279.077 IEC†          608.1      5438.3 µg/L         72.33      5438.3 ppb          72.33   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.77%
Mn 257.610†           164268.3      514.91 µg/L        32.475      514.91 ppb         32.475   6.31%
   QC value within limits for Mn 257.610  Recovery = 102.98%
Mo 202.031†            5092.2      498.86 µg/L        68.394      498.86 ppb         68.394  13.71%
   QC value within limits for Mo 202.031  Recovery = 99.77%
Na 589.592 Radial†     34798.1       10688 µg/L          94.0       10688 ppb           94.0   0.88%
   QC value within limits for Na 589.592 Radial  Recovery = 106.88%
Ni 231.604†            10197.0      507.78 µg/L        44.349      507.78 ppb         44.349   8.73%
   QC value within limits for Ni 231.604  Recovery = 101.56%
P 214.914†              1258.3      2442.6 µg/L        316.42      2442.6 ppb         316.42  12.95%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             2069.8      503.29 µg/L        59.790      503.29 ppb         59.790  11.88%
   QC value within limits for Pb 220.353  Recovery = 100.66%
S 181.975 Axial†         244.5      1013.8 µg/L        103.94      1013.8 ppb         103.94  10.25%
   QC value within limits for S 181.975 Axial  Recovery = 101.38%
Sb 206.836†              545.7      502.91 µg/L        61.945      502.91 ppb         61.945  12.32%
   QC value within limits for Sb 206.836  Recovery = 100.58%
Se 196.026†              363.2      518.44 µg/L        59.692      518.44 ppb         59.692  11.51%
   QC value within limits for Se 196.026  Recovery = 103.69%
SiO2†                  27825.5      5492.4 µg/L        371.40      5492.4 ppb         371.40   6.76%
   QC value within limits for SiO2  Recovery = 102.71%
Si 251.611†            33767.1      2567.0 µg/L        177.17      2567.0 ppb         177.17   6.90%
   QC value within limits for Si 251.611  Recovery = 102.68%
Sn 189.927†             1184.6      499.62 µg/L        75.568      499.62 ppb         75.568  15.13%
   QC value within limits for Sn 189.927  Recovery = 99.92%
Sr 421.552†            56239.0      518.81 µg/L         4.581      518.81 ppb          4.581   0.88%
   QC value within limits for Sr 421.552  Recovery = 103.76%
Ti 334.940†           227885.6      503.79 µg/L        35.678      503.79 ppb         35.678   7.08%
   QC value within limits for Ti 334.940  Recovery = 100.76%
Tl 190.801†              384.7      505.77 µg/L        46.646      505.77 ppb         46.646   9.22%
   QC value within limits for Tl 190.801  Recovery = 101.15%
U 409.014†              6133.4      508.52 µg/L        55.977      508.52 ppb         55.977  11.01%
   QC value within limits for U 409.014  Recovery = 101.70%
V 292.402†             51547.4      508.51 µg/L        47.203      508.51 ppb         47.203   9.28%
   QC value within limits for V 292.402  Recovery = 101.70%
Zn 213.857†            21815.7      508.21 µg/L        42.623      508.21 ppb         42.623   8.39%
   QC value within limits for Zn 213.857  Recovery = 101.64%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:25:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55715.1	55715.1	98.6	%			17:26:06
1	Al 396.153Radial†	9.9	2.7	1.8794	µg/L	1.8794	ppb	17:26:06
1	Ca 317.933Radial†	200.0	-8.4	-7.2065	µg/L	-7.2065	ppb	17:26:26
1	Fe 238.204 Radial†	18.1	1.8	14.281	µg/L	14.281	ppb	17:26:26
1	K 766.490 Radial†	190.3	28.0	18.262	µg/L	18.262	ppb	17:26:06
1	Mg 279.077 IEC†	10.8	-1.8	-16.403	µg/L	-16.403	ppb	17:26:26
1	Na 589.592 Radial†	566.5	102.3	31.414	µg/L	31.414	ppb	17:26:06
1	Sr 421.552†	8.2	-20.5	-0.1895	µg/L	-0.1895	ppb	17:26:06
1	Sc 361.383	1953458.7	1953458.7	99.508	%			17:27:28
1	Y 371.029	1347989.6	1347989.6	99.648	%			17:27:28
1	Ag 328.068†	-445.9	-46.5	-0.3428	µg/L	-0.3428	ppb	17:27:34
1	As 188.979†	1.8	2.2	4.0261	µg/L	4.0261	ppb	17:27:54
1	B 249.677†	402.6	20.4	0.8246	µg/L	0.8246	ppb	17:27:54
1	Ba 233.527†	-7.2	9.9	0.2372	µg/L	0.2372	ppb	17:27:54
1	Be 313.107†	-2535.3	307.9	0.1827	µg/L	0.1827	ppb	17:27:34
1	Cd 226.502†	-139.8	1.2	0.0290	µg/L	0.0290	ppb	17:27:54
1	Co 228.616†	8.7	6.8	0.3065	µg/L	0.3065	ppb	17:27:54
1	Cr 267.716†	-42.4	7.8	0.1560	µg/L	0.1560	ppb	17:27:34
1	Cu 324.752†	2642.5	111.8	0.7321	µg/L	0.7321	ppb	17:27:34
1	Mn 257.610†	-204.1	50.9	0.1618	µg/L	0.1618	ppb	17:27:54
1	Mo 202.031†	-2.0	3.3	0.3242	µg/L	0.3242	ppb	17:27:54
1	Ni 231.604†	314.6	3.8	0.1900	µg/L	0.1900	ppb	17:27:54
1	P 214.914†	18.8	3.5	6.8616	µg/L	6.8616	ppb	17:27:54
1	Pb 220.353†	98.3	7.8	1.8853	µg/L	1.8853	ppb	17:27:54
1	S 181.975 Axial†	15.5	-3.4	-14.112	µg/L	-14.112	ppb	17:27:54
1	Sb 206.836†	26.9	4.5	4.1739	µg/L	4.1739	ppb	17:27:54
1	Se 196.026†	12.3	-7.0	-9.7684	µg/L	-9.7684	ppb	17:27:54
1	SiO2†	1515.6	131.5	25.955	µg/L	25.955	ppb	17:27:34
1	Si 251.611†	416.0	107.4	8.1665	µg/L	8.1665	ppb	17:27:54
1	Sn 189.927†	2.2	1.9	0.7860	µg/L	0.7860	ppb	17:27:54
1	Ti 334.940†	256.5	82.7	0.1842	µg/L	0.1842	ppb	17:27:34
1	Tl 190.801†	-25.3	-3.1	-3.9679	µg/L	-3.9679	ppb	17:27:54
1	U 409.014†	32.9	110.1	9.1492	µg/L	9.1492	ppb	17:27:34
1	V 292.402†	-29.6	15.0	0.1604	µg/L	0.1604	ppb	17:27:34
1	Zn 213.857†	546.5	14.8	0.3443	µg/L	0.3443	ppb	17:27:54
2	Sc RADIAL	55504.2	55504.2	98.2	%			17:26:32
2	Al 396.153Radial†	11.6	4.4	3.0699	µg/L	3.0699	ppb	17:26:32
2	Ca 317.933Radial†	200.3	-7.4	-6.2839	µg/L	-6.2839	ppb	17:26:52
2	Fe 238.204 Radial†	17.9	1.6	12.645	µg/L	12.645	ppb	17:26:52
2	K 766.490 Radial†	201.9	40.6	26.491	µg/L	26.491	ppb	17:26:32
2	Mg 279.077 IEC†	10.5	-2.1	-19.078	µg/L	-19.078	ppb	17:26:52
2	Na 589.592 Radial†	562.4	100.3	30.804	µg/L	30.804	ppb	17:26:32
2	Sr 421.552†	36.5	8.4	0.0774	µg/L	0.0774	ppb	17:26:32
2	Sc 361.383	1950778.5	1950778.5	99.371	%			17:28:00
2	Y 371.029	1346193.0	1346193.0	99.515	%			17:28:00
2	Ag 328.068†	-396.0	3.1	0.0257	µg/L	0.0257	ppb	17:28:06
2	As 188.979†	1.1	1.6	2.8532	µg/L	2.8532	ppb	17:28:26
2	B 249.677†	390.0	8.3	0.3322	µg/L	0.3322	ppb	17:28:26
2	Ba 233.527†	-6.8	10.2	0.2452	µg/L	0.2452	ppb	17:28:26
2	Be 313.107†	-2616.4	222.8	0.1321	µg/L	0.1321	ppb	17:28:06
2	Cd 226.502†	-139.8	1.0	0.0242	µg/L	0.0242	ppb	17:28:26
2	Co 228.616†	3.7	1.8	0.0803	µg/L	0.0803	ppb	17:28:26
2	Cr 267.716†	-54.5	-4.5	-0.0900	µg/L	-0.0900	ppb	17:28:06
2	Cu 324.752†	2637.6	110.5	0.7233	µg/L	0.7233	ppb	17:28:06
2	Mn 257.610†	-213.1	41.5	0.1325	µg/L	0.1325	ppb	17:28:26
2	Mo 202.031†	-0.0	5.3	0.5204	µg/L	0.5204	ppb	17:28:26
2	Ni 231.604†	311.7	1.3	0.0651	µg/L	0.0651	ppb	17:28:26
2	P 214.914†	7.2	-8.1	-16.019	µg/L	-16.019	ppb	17:28:26
2	Pb 220.353†	96.7	6.4	1.5474	µg/L	1.5474	ppb	17:28:26

2	S 181.975 Axial†	17.4	-1.4	-5.8210 µg/L	-5.8210 ppb	17:28:26
2	Sb 206.836†	19.7	-2.6	-2.3998 µg/L	-2.3998 ppb	17:28:26
2	Se 196.026†	15.0	-4.2	-5.8108 µg/L	-5.8108 ppb	17:28:26
2	SiO2†	1459.9	77.6	15.313 µg/L	15.313 ppb	17:28:06
2	Si 251.611†	412.0	104.0	7.9062 µg/L	7.9062 ppb	17:28:26
2	Sn 189.927†	7.8	7.4	3.1294 µg/L	3.1294 ppb	17:28:26
2	Ti 334.940†	270.4	97.1	0.2161 µg/L	0.2161 ppb	17:28:06
2	Tl 190.801†	-21.2	1.0	1.3155 µg/L	1.3155 ppb	17:28:26
2	U 409.014†	-29.9	47.0	3.9019 µg/L	3.9019 ppb	17:28:06
2	V 292.402†	-11.1	33.5	0.3361 µg/L	0.3361 ppb	17:28:06
2	Zn 213.857†	544.6	13.6	0.3180 µg/L	0.3180 ppb	17:28:26
3	Sc RADIAL	55576.2	55576.2	98.4 %		17:26:57
3	Al 396.153Radial†	-4.2	-11.6	-8.0814 µg/L	-8.0814 ppb	17:26:57
3	Ca 317.933Radial†	198.4	-9.6	-8.1878 µg/L	-8.1878 ppb	17:27:18
3	Fe 238.204 Radial†	17.1	0.8	6.2197 µg/L	6.2197 ppb	17:27:18
3	K 766.490 Radial†	182.5	20.5	13.397 µg/L	13.397 ppb	17:26:57
3	Mg 279.077 IEC†	14.4	1.8	16.514 µg/L	16.514 ppb	17:27:18
3	Na 589.592 Radial†	564.0	101.1	31.056 µg/L	31.056 ppb	17:26:57
3	Sr 421.552†	84.4	57.0	0.5260 µg/L	0.5260 ppb	17:26:57
3	Sc 361.383	1984583.7	1984583.7	101.09 %		17:28:32
3	Y 371.029	1368650.9	1368650.9	101.18 %		17:28:32
3	Ag 328.068†	-463.7	-57.1	-0.4221 µg/L	-0.4221 ppb	17:28:38
3	As 188.979†	1.5	1.9	3.4901 µg/L	3.4901 ppb	17:28:58
3	B 249.677†	385.7	-2.6	-0.1102 µg/L	-0.1102 ppb	17:28:58
3	Ba 233.527†	-8.4	8.8	0.2107 µg/L	0.2107 ppb	17:28:58
3	Be 313.107†	-2606.1	277.8	0.1648 µg/L	0.1648 ppb	17:28:38
3	Cd 226.502†	-137.9	5.3	0.1312 µg/L	0.1312 ppb	17:28:58
3	Co 228.616†	11.7	9.7	0.4385 µg/L	0.4385 ppb	17:28:58
3	Cr 267.716†	-56.0	-5.0	-0.1002 µg/L	-0.1002 ppb	17:28:38
3	Cu 324.752†	2581.0	9.4	0.0621 µg/L	0.0621 ppb	17:28:38
3	Mn 257.610†	-221.0	37.4	0.1174 µg/L	0.1174 ppb	17:28:58
3	Mo 202.031†	2.7	8.0	0.7835 µg/L	0.7835 ppb	17:28:58
3	Ni 231.604†	311.4	-4.3	-0.2151 µg/L	-0.2151 ppb	17:28:58
3	P 214.914†	14.9	-0.6	-1.1261 µg/L	-1.1261 ppb	17:28:58
3	Pb 220.353†	89.4	-2.5	-0.6244 µg/L	-0.6244 ppb	17:28:58
3	S 181.975 Axial†	14.9	-4.2	-17.388 µg/L	-17.388 ppb	17:28:58
3	Sb 206.836†	22.0	-0.7	-0.6331 µg/L	-0.6331 ppb	17:28:58
3	Se 196.026†	16.1	-3.3	-4.6875 µg/L	-4.6875 ppb	17:28:58
3	SiO2†	1488.2	80.6	15.904 µg/L	15.904 ppb	17:28:38
3	Si 251.611†	405.3	90.2	6.8609 µg/L	6.8609 ppb	17:28:58
3	Sn 189.927†	5.4	5.0	2.0931 µg/L	2.0931 ppb	17:28:58
3	Ti 334.940†	242.9	65.3	0.1429 µg/L	0.1429 ppb	17:28:38
3	Tl 190.801†	-20.1	2.5	3.3063 µg/L	3.3063 ppb	17:28:58
3	U 409.014†	41.4	118.0	9.8042 µg/L	9.8042 ppb	17:28:38
3	V 292.402†	-37.8	7.4	0.0885 µg/L	0.0885 ppb	17:28:38
3	Zn 213.857†	537.5	-2.8	-0.0653 µg/L	-0.0653 ppb	17:28:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962940.3	99.991	%	0.9572				0.96%
Sc RADIAL	55598.5	98.4	%	0.19				0.19%
Y 371.029	1354277.8	100.11	%	0.923				0.92%
Ag 328.068†	-33.5	-0.2464	µg/L	0.23900	-0.2464	ppb	0.23900	96.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.5	-1.0440	µg/L	6.12354	-1.0440	ppb	6.12354	586.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.4565	µg/L	0.58720	3.4565	ppb	0.58720	16.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.7	0.3489	µg/L	0.46764	0.3489	ppb	0.46764	134.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.2310	µg/L	0.01805	0.2310	ppb	0.01805	7.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.5	0.1599	µg/L	0.02562	0.1599	ppb	0.02562	16.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.5	-7.2261	µg/L	0.95208	-7.2261	ppb	0.95208	13.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	2.5	0.0615	µg/L	0.06046	0.0615	ppb	0.06046	98.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.1	0.2751	µg/L	0.18114	0.2751	ppb	0.18114	65.85%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -0.6     -0.0114 µg/L      0.14502     -0.0114 ppb       0.14502 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              77.3      0.5058 µg/L      0.38426      0.5058 ppb       0.38426  75.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.4      11.049 µg/L       4.2612      11.049 ppb        4.2612  38.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        29.7      19.384 µg/L       6.6186      19.384 ppb        6.6186  34.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -6.3222 µg/L      19.82205     -6.3222 ppb      19.82205 313.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              43.3      0.1372 µg/L      0.02261      0.1372 ppb       0.02261  16.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.5      0.5427 µg/L      0.23045      0.5427 ppb       0.23045  42.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       101.2      31.091 µg/L       0.3066      31.091 ppb        0.3066   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.3      0.0133 µg/L      0.20747      0.0133 ppb       0.20747 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.7     -3.4277 µg/L      11.61243     -3.4277 ppb      11.61243 338.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.9      0.9361 µg/L      1.36196      0.9361 ppb       1.36196 145.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.0     -12.440 µg/L       5.9620     -12.440 ppb        5.9620  47.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.4      0.3803 µg/L      3.40201      0.3803 ppb       3.40201 894.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -4.8     -6.7556 µg/L      2.66893     -6.7556 ppb       2.66893  39.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    96.5      19.057 µg/L       5.9811      19.057 ppb        5.9811  31.38%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             100.6      7.6446 µg/L      0.69104      7.6446 ppb       0.69104   9.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.8      2.0028 µg/L      1.17429      2.0028 ppb       1.17429  58.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              15.0      0.1380 µg/L      0.36157      0.1380 ppb       0.36157 262.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              81.7      0.1811 µg/L      0.03671      0.1811 ppb       0.03671  20.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.2      0.2179 µg/L      3.75923      0.2179 ppb       3.75923 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               91.7      7.6184 µg/L      3.23526      7.6184 ppb       3.23526  42.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               18.6      0.1950 µg/L      0.12739      0.1950 ppb       0.12739  65.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               8.5      0.1990 µg/L      0.22924      0.1990 ppb       0.22924 115.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56387.7	56387.7	99.8	%			17:52:51
1	Al 396.153Radial†	7516.2	7523.2	5222.3	µg/L	5222.3	ppb	17:52:51
1	Ca 317.933Radial†	6203.6	6004.2	5128.7	µg/L	5128.7	ppb	17:53:12
1	Fe 238.204 Radial†	678.6	663.3	5242.5	µg/L	5242.5	ppb	17:53:12
1	K 766.490 Radial†	8065.5	7916.0	5170.1	µg/L	5170.1	ppb	17:52:51
1	Mg 279.077 IEC†	612.7	601.1	5376.4	µg/L	5376.4	ppb	17:53:12
1	Na 589.592 Radial†	34827.6	34422.1	10573	µg/L	10573	ppb	17:52:51
1	Sr 421.552†	55284.5	55361.6	510.72	µg/L	510.72	ppb	17:52:51
1	Sc 361.383	1961302.2	1961302.2	99.907	%			17:54:15
1	Y 371.029	1346537.9	1346537.9	99.540	%			17:54:15
1	Ag 328.068†	69774.1	70240.4	524.12	µg/L	524.12	ppb	17:54:21
1	As 188.979†	301.3	302.0	540.22	µg/L	540.22	ppb	17:54:41
1	B 249.677†	13080.8	12708.8	516.10	µg/L	516.10	ppb	17:54:21
1	Ba 233.527†	21956.6	21994.0	528.97	µg/L	528.97	ppb	17:54:21
1	Be 313.107†	883536.0	887210.5	526.36	µg/L	526.36	ppb	17:54:15
1	Cd 226.502†	21042.7	21203.9	528.78	µg/L	528.78	ppb	17:54:21
1	Co 228.616†	11741.3	11750.3	531.54	µg/L	531.54	ppb	17:54:21
1	Cr 267.716†	26482.6	26557.5	533.75	µg/L	533.75	ppb	17:54:21
1	Cu 324.752†	83088.9	80622.2	526.99	µg/L	526.99	ppb	17:54:21
1	Mn 257.610†	170434.3	170848.3	535.50	µg/L	535.50	ppb	17:54:15
1	Mo 202.031†	5552.2	5562.7	544.93	µg/L	544.93	ppb	17:54:41
1	Ni 231.604†	10987.8	10685.6	532.11	µg/L	532.11	ppb	17:54:21
1	P 214.914†	1368.8	1354.8	2632.0	µg/L	2632.0	ppb	17:54:41
1	Pb 220.353†	2310.1	2221.3	540.17	µg/L	540.17	ppb	17:54:41
1	S 181.975 Axial†	278.0	259.3	1075.2	µg/L	1075.2	ppb	17:54:41
1	Sb 206.836†	616.4	594.4	548.12	µg/L	548.12	ppb	17:54:41
1	Se 196.026†	407.1	388.1	553.19	µg/L	553.19	ppb	17:54:41
1	SiO2†	29956.0	28592.2	5643.7	µg/L	5643.7	ppb	17:54:21
1	Si 251.611†	34932.9	34654.6	2634.5	µg/L	2634.5	ppb	17:54:21
1	Sn 189.927†	1295.2	1296.1	546.62	µg/L	546.62	ppb	17:54:41
1	Ti 334.940†	237959.8	238005.3	526.18	µg/L	526.18	ppb	17:54:15
1	Tl 190.801†	387.6	410.3	539.25	µg/L	539.25	ppb	17:54:41
1	U 409.014†	6411.5	6494.5	538.55	µg/L	538.55	ppb	17:54:21
1	V 292.402†	54050.9	54145.8	534.27	µg/L	534.27	ppb	17:54:21
1	Zn 213.857†	23288.3	22775.5	530.59	µg/L	530.59	ppb	17:54:21
2	Sc RADIAL	56513.7	56513.7	100	%			17:53:17
2	Al 396.153Radial†	7511.3	7501.5	5207.6	µg/L	5207.6	ppb	17:53:17
2	Ca 317.933Radial†	6229.5	6016.2	5139.0	µg/L	5139.0	ppb	17:53:38
2	Fe 238.204 Radial†	684.9	668.1	5280.5	µg/L	5280.5	ppb	17:53:38
2	K 766.490 Radial†	8100.3	7932.7	5181.0	µg/L	5181.0	ppb	17:53:17
2	Mg 279.077 IEC†	601.5	588.5	5263.5	µg/L	5263.5	ppb	17:53:38
2	Na 589.592 Radial†	34828.0	34344.7	10549	µg/L	10549	ppb	17:53:17
2	Sr 421.552†	55539.3	55492.7	511.93	µg/L	511.93	ppb	17:53:17
2	Sc 361.383	1968482.8	1968482.8	100.27	%			17:54:48
2	Y 371.029	1351706.6	1351706.6	99.922	%			17:54:48
2	Ag 328.068†	69757.2	69968.7	522.10	µg/L	522.10	ppb	17:54:54
2	As 188.979†	290.5	290.2	519.13	µg/L	519.13	ppb	17:55:15
2	B 249.677†	13075.3	12655.5	513.91	µg/L	513.91	ppb	17:54:54
2	Ba 233.527†	21957.1	21914.4	527.05	µg/L	527.05	ppb	17:54:54
2	Be 313.107†	886040.3	886482.1	525.93	µg/L	525.93	ppb	17:54:48
2	Cd 226.502†	21056.7	21141.0	527.21	µg/L	527.21	ppb	17:54:54
2	Co 228.616†	11735.1	11701.2	529.30	µg/L	529.30	ppb	17:54:54
2	Cr 267.716†	26499.8	26477.9	532.15	µg/L	532.15	ppb	17:54:54
2	Cu 324.752†	83008.4	80238.5	524.49	µg/L	524.49	ppb	17:54:54
2	Mn 257.610†	171057.7	170847.6	535.50	µg/L	535.50	ppb	17:54:48
2	Mo 202.031†	5398.9	5389.5	527.98	µg/L	527.98	ppb	17:55:15
2	Ni 231.604†	11020.6	10678.2	531.74	µg/L	531.74	ppb	17:54:54
2	P 214.914†	1347.0	1328.0	2579.1	µg/L	2579.1	ppb	17:55:15
2	Pb 220.353†	2257.9	2160.8	525.43	µg/L	525.43	ppb	17:55:15

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   QC value within limits for Co 228.616  Recovery = 100.90%
Cr 267.716†            24932.7      501.10 µg/L        55.174      501.10 ppb         55.174  11.01%
   QC value within limits for Cr 267.716  Recovery = 100.22%
Cu 324.752†            76565.2      500.51 µg/L        43.720      500.51 ppb         43.720   8.74%
   QC value within limits for Cu 324.752  Recovery = 100.10%
Fe 238.204 Radial†       664.4      5250.8 µg/L         26.46      5250.8 ppb          26.46   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.02%
K 766.490 Radial†       7929.2      5178.7 µg/L          7.74      5178.7 ppb           7.74   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 103.57%
Mg 279.077 IEC†          596.8      5337.6 µg/L         64.15      5337.6 ppb          64.15   1.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.75%
Mn 257.610†           164681.4      516.19 µg/L        33.451      516.19 ppb         33.451   6.48%
   QC value within limits for Mn 257.610  Recovery = 103.24%
Mo 202.031†             5078.6      497.52 µg/L        67.959      497.52 ppb         67.959  13.66%
   QC value within limits for Mo 202.031  Recovery = 99.50%
Na 589.592 Radial†     34331.7       10545 µg/L         29.9       10545 ppb           29.9   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 105.45%
Ni 231.604†            10144.1      505.14 µg/L        46.388      505.14 ppb         46.388   9.18%
   QC value within limits for Ni 231.604  Recovery = 101.03%
P 214.914†              1250.6      2427.8 µg/L        309.09      2427.8 ppb         309.09  12.73%
   QC value within limits for P 214.914  Recovery = 97.11%
Pb 220.353†             2055.1      499.72 µg/L        57.768      499.72 ppb         57.768  11.56%
   QC value within limits for Pb 220.353  Recovery = 99.94%
S 181.975 Axial†         243.6      1010.2 µg/L         98.85      1010.2 ppb          98.85   9.79%
   QC value within limits for S 181.975 Axial  Recovery = 101.02%
Sb 206.836†              544.1      501.49 µg/L        65.671      501.49 ppb         65.671  13.10%
   QC value within limits for Sb 206.836  Recovery = 100.30%
Se 196.026†              359.6      513.22 µg/L        56.697      513.22 ppb         56.697  11.05%
   QC value within limits for Se 196.026  Recovery = 102.64%
SiO2†                  27382.4      5404.9 µg/L        389.50      5404.9 ppb         389.50   7.21%
   QC value within limits for SiO2  Recovery = 101.07%
Si 251.611†            33259.5      2528.4 µg/L        181.64      2528.4 ppb         181.64   7.18%
   QC value within limits for Si 251.611  Recovery = 101.14%
Sn 189.927†             1178.7      497.14 µg/L        72.805      497.14 ppb         72.805  14.64%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†            55404.3      511.11 µg/L         0.706      511.11 ppb          0.706   0.14%
   QC value within limits for Sr 421.552  Recovery = 102.22%
Ti 334.940†           228393.4      504.92 µg/L        36.389      504.92 ppb         36.389   7.21%
   QC value within limits for Ti 334.940  Recovery = 100.98%
Tl 190.801†              388.0      510.09 µg/L        40.923      510.09 ppb         40.923   8.02%
   QC value within limits for Tl 190.801  Recovery = 102.02%
U 409.014†              6071.8      503.43 µg/L        52.204      503.43 ppb         52.204  10.37%
   QC value within limits for U 409.014  Recovery = 100.69%
V 292.402†             51233.3      505.41 µg/L        48.044      505.41 ppb         48.044   9.51%
   QC value within limits for V 292.402  Recovery = 101.08%
Zn 213.857†            21595.5      503.07 µg/L        44.204      503.07 ppb         44.204   8.79%
   QC value within limits for Zn 213.857  Recovery = 100.61%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:55:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55016.4	55016.4	97.4	%			17:56:30
1	Al 396.153Radial†	-25.6	-33.6	-23.423	µg/L	-23.423	ppb	17:56:30
1	Ca 317.933Radial†	188.9	-17.3	-14.738	µg/L	-14.738	ppb	17:56:51
1	Fe 238.204 Radial†	16.8	0.7	5.5284	µg/L	5.5284	ppb	17:56:51
1	K 766.490 Radial†	203.2	43.7	28.526	µg/L	28.526	ppb	17:56:30
1	Mg 279.077 IEC†	6.2	-6.4	-57.504	µg/L	-57.504	ppb	17:56:51
1	Na 589.592 Radial†	507.1	48.5	14.906	µg/L	14.906	ppb	17:56:30
1	Sr 421.552†	39.0	11.2	0.1037	µg/L	0.1037	ppb	17:56:30
1	Sc 361.383	1965901.2	1965901.2	100.14	%			17:57:53
1	Y 371.029	1354342.9	1354342.9	100.12	%			17:57:53
1	Ag 328.068†	-375.0	27.2	0.2015	µg/L	0.2015	ppb	17:57:58
1	As 188.979†	2.9	3.3	5.9435	µg/L	5.9435	ppb	17:58:19
1	B 249.677†	389.1	4.4	0.1765	µg/L	0.1765	ppb	17:58:19
1	Ba 233.527†	-21.5	-4.4	-0.1059	µg/L	-0.1059	ppb	17:58:19
1	Be 313.107†	-2713.7	145.8	0.0865	µg/L	0.0865	ppb	17:57:58
1	Cd 226.502†	-132.8	9.1	0.2255	µg/L	0.2255	ppb	17:58:19
1	Co 228.616†	-6.2	-8.1	-0.3659	µg/L	-0.3659	ppb	17:58:19
1	Cr 267.716†	-50.1	0.4	0.0078	µg/L	0.0078	ppb	17:57:58
1	Cu 324.752†	2544.7	-2.7	-0.0168	µg/L	-0.0168	ppb	17:57:58
1	Mn 257.610†	-245.9	10.5	0.0359	µg/L	0.0359	ppb	17:58:19
1	Mo 202.031†	3.8	9.1	0.8915	µg/L	0.8915	ppb	17:58:19
1	Ni 231.604†	300.7	-12.0	-0.5990	µg/L	-0.5990	ppb	17:58:19
1	P 214.914†	17.4	2.0	4.0305	µg/L	4.0305	ppb	17:58:19
1	Pb 220.353†	97.4	6.3	1.5269	µg/L	1.5269	ppb	17:58:19
1	S 181.975 Axial†	17.7	-1.2	-5.1360	µg/L	-5.1360	ppb	17:58:19
1	Sb 206.836†	24.8	2.2	2.0583	µg/L	2.0583	ppb	17:58:19
1	Se 196.026†	12.5	-6.8	-9.5059	µg/L	-9.5059	ppb	17:58:19
1	SiO2†	1426.2	32.7	6.4463	µg/L	6.4463	ppb	17:57:58
1	Si 251.611†	326.4	15.3	1.1636	µg/L	1.1636	ppb	17:58:19
1	Sn 189.927†	4.0	3.6	1.5081	µg/L	1.5081	ppb	17:58:19
1	Ti 334.940†	201.4	26.1	0.0620	µg/L	0.0620	ppb	17:57:58
1	Tl 190.801†	-21.5	0.9	1.1647	µg/L	1.1647	ppb	17:58:19
1	U 409.014†	-51.8	25.4	2.1068	µg/L	2.1068	ppb	17:57:58
1	V 292.402†	-46.0	-1.1	-0.0014	µg/L	-0.0014	ppb	17:57:58
1	Zn 213.857†	533.4	-1.7	-0.0344	µg/L	-0.0344	ppb	17:58:19
2	Sc RADIAL	55682.3	55682.3	98.6	%			17:56:56
2	Al 396.153Radial†	-28.9	-36.6	-25.497	µg/L	-25.497	ppb	17:56:56
2	Ca 317.933Radial†	190.4	-18.1	-15.487	µg/L	-15.487	ppb	17:57:17
2	Fe 238.204 Radial†	16.8	0.5	4.1171	µg/L	4.1171	ppb	17:57:17
2	K 766.490 Radial†	223.9	62.2	40.619	µg/L	40.619	ppb	17:56:56
2	Mg 279.077 IEC†	9.9	-2.8	-25.072	µg/L	-25.072	ppb	17:57:17
2	Na 589.592 Radial†	519.3	54.7	16.798	µg/L	16.798	ppb	17:56:56
2	Sr 421.552†	32.7	4.3	0.0401	µg/L	0.0401	ppb	17:56:56
2	Sc 361.383	1957019.5	1957019.5	99.689	%			17:58:25
2	Y 371.029	1350334.7	1350334.7	99.821	%			17:58:25
2	Ag 328.068†	-377.0	23.5	0.1757	µg/L	0.1757	ppb	17:58:30
2	As 188.979†	-0.8	-0.3	-0.5788	µg/L	-0.5788	ppb	17:58:51
2	B 249.677†	388.0	5.1	0.2060	µg/L	0.2060	ppb	17:58:51
2	Ba 233.527†	-16.1	0.9	0.0215	µg/L	0.0215	ppb	17:58:51
2	Be 313.107†	-2677.7	169.6	0.1006	µg/L	0.1006	ppb	17:58:30
2	Cd 226.502†	-142.7	-1.4	-0.0367	µg/L	-0.0367	ppb	17:58:51
2	Co 228.616†	7.4	5.5	0.2501	µg/L	0.2501	ppb	17:58:51
2	Cr 267.716†	-33.3	17.0	0.3420	µg/L	0.3420	ppb	17:58:30
2	Cu 324.752†	2564.5	28.8	0.1884	µg/L	0.1884	ppb	17:58:30
2	Mn 257.610†	-244.8	10.4	0.0341	µg/L	0.0341	ppb	17:58:51
2	Mo 202.031†	-1.9	3.5	0.3412	µg/L	0.3412	ppb	17:58:51
2	Ni 231.604†	305.0	-6.4	-0.3187	µg/L	-0.3187	ppb	17:58:51
2	P 214.914†	15.9	0.6	1.2381	µg/L	1.2381	ppb	17:58:51
2	Pb 220.353†	85.8	-4.9	-1.1822	µg/L	-1.1822	ppb	17:58:51

2	S 181.975 Axial†	16.3	-2.6	-10.626	µg/L	-10.626 ppb	17:58:51
2	Sb 206.836†	25.7	3.2	2.9825	µg/L	2.9825 ppb	17:58:51
2	Se 196.026†	18.4	-0.8	-1.1281	µg/L	-1.1281 ppb	17:58:51
2	SiO2†	1461.8	74.8	14.763	µg/L	14.763 ppb	17:58:30
2	Si 251.611†	344.9	35.3	2.6849	µg/L	2.6849 ppb	17:58:51
2	Sn 189.927†	-1.0	-1.4	-0.5943	µg/L	-0.5943 ppb	17:58:51
2	Ti 334.940†	216.4	42.0	0.0947	µg/L	0.0947 ppb	17:58:30
2	Tl 190.801†	-19.8	2.5	3.2612	µg/L	3.2612 ppb	17:58:51
2	U 409.014†	-50.4	26.6	2.2066	µg/L	2.2066 ppb	17:58:30
2	V 292.402†	-18.0	26.7	0.2662	µg/L	0.2662 ppb	17:58:30
2	Zn 213.857†	535.3	2.5	0.0614	µg/L	0.0614 ppb	17:58:51
3	Sc RADIAL	55053.2	55053.2	97.4	%		17:57:22
3	Al 396.153Radial†	-40.3	-48.7	-33.898	µg/L	-33.898 ppb	17:57:22
3	Ca 317.933Radial†	188.9	-17.4	-14.892	µg/L	-14.892 ppb	17:57:42
3	Fe 238.204 Radial†	16.1	-0.0	-0.3068	µg/L	-0.3068 ppb	17:57:42
3	K 766.490 Radial†	212.7	53.3	34.793	µg/L	34.793 ppb	17:57:22
3	Mg 279.077 IEC†	19.0	6.7	59.990	µg/L	59.990 ppb	17:57:42
3	Na 589.592 Radial†	541.5	83.5	25.652	µg/L	25.652 ppb	17:57:22
3	Sr 421.552†	50.1	22.6	0.2082	µg/L	0.2082 ppb	17:57:22
3	Sc 361.383	1965248.8	1965248.8	100.11	%		17:58:57
3	Y 371.029	1354189.1	1354189.1	100.11	%		17:58:57
3	Ag 328.068†	-450.0	-47.9	-0.3524	µg/L	-0.3524 ppb	17:59:03
3	As 188.979†	0.1	0.6	1.0726	µg/L	1.0726 ppb	17:59:23
3	B 249.677†	379.0	-5.5	-0.2247	µg/L	-0.2247 ppb	17:59:23
3	Ba 233.527†	-9.6	7.5	0.1800	µg/L	0.1800 ppb	17:59:23
3	Be 313.107†	-2642.2	216.4	0.1284	µg/L	0.1284 ppb	17:59:03
3	Cd 226.502†	-137.1	4.7	0.1164	µg/L	0.1164 ppb	17:59:23
3	Co 228.616†	5.7	3.7	0.1693	µg/L	0.1693 ppb	17:59:23
3	Cr 267.716†	-63.8	-13.4	-0.2679	µg/L	-0.2679 ppb	17:59:03
3	Cu 324.752†	2541.3	-5.2	-0.0342	µg/L	-0.0342 ppb	17:59:03
3	Mn 257.610†	-242.2	14.1	0.0418	µg/L	0.0418 ppb	17:59:23
3	Mo 202.031†	-0.6	4.8	0.4652	µg/L	0.4652 ppb	17:59:23
3	Ni 231.604†	301.2	-11.4	-0.5704	µg/L	-0.5704 ppb	17:59:23
3	P 214.914†	21.9	6.6	13.019	µg/L	13.019 ppb	17:59:23
3	Pb 220.353†	81.2	-9.9	-2.4060	µg/L	-2.4060 ppb	17:59:23
3	S 181.975 Axial†	14.0	-4.9	-20.443	µg/L	-20.443 ppb	17:59:23
3	Sb 206.836†	27.7	5.2	4.7514	µg/L	4.7514 ppb	17:59:23
3	Se 196.026†	17.1	-2.2	-3.1763	µg/L	-3.1763 ppb	17:59:23
3	SiO2†	1412.3	19.2	3.7961	µg/L	3.7961 ppb	17:59:03
3	Si 251.611†	335.9	24.9	1.8933	µg/L	1.8933 ppb	17:59:23
3	Sn 189.927†	3.9	3.5	1.4733	µg/L	1.4733 ppb	17:59:23
3	Ti 334.940†	206.9	31.6	0.0650	µg/L	0.0650 ppb	17:59:03
3	Tl 190.801†	-23.3	-0.9	-1.1798	µg/L	-1.1798 ppb	17:59:23
3	U 409.014†	2.6	79.6	6.6183	µg/L	6.6183 ppb	17:59:03
3	V 292.402†	-4.6	40.2	0.4016	µg/L	0.4016 ppb	17:59:03
3	Zn 213.857†	533.9	-1.1	-0.0271	µg/L	-0.0271 ppb	17:59:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962723.2	99.980	%	0.2522				0.25%
Sc RADIAL	55250.6	97.8	%	0.66				0.68%
Y 371.029	1352955.6	100.01	%	0.168				0.17%
Ag 328.068†	0.9	0.0083	µg/L	0.31265	0.0083	ppb	0.31265	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-39.7	-27.606	µg/L	5.5466	-27.606	ppb	5.5466	20.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	2.1458	µg/L	3.39103	2.1458	ppb	3.39103	158.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.3	0.0526	µg/L	0.24059	0.0526	ppb	0.24059	457.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.3	0.0318	µg/L	0.14326	0.0318	ppb	0.14326	449.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	177.3	0.1052	µg/L	0.02132	0.1052	ppb	0.02132	20.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.6	-15.039	µg/L	0.3955	-15.039	ppb	0.3955	2.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.1	0.1017	µg/L	0.13173	0.1017	ppb	0.13173	129.53%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0179	µg/L	0.33479	0.0179	ppb	0.33479	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.4      0.0273 µg/L       0.30543      0.0273 ppb        0.30543 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                7.0      0.0458 µg/L       0.12379      0.0458 ppb        0.12379 270.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.4      3.1129 µg/L       3.04443      3.1129 ppb        3.04443  97.80%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         53.0      34.646 µg/L        6.0478      34.646 ppb         6.0478  17.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -7.5284 µg/L      60.67961     -7.5284 ppb       60.67961 806.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               11.7      0.0373 µg/L       0.00401      0.0373 ppb        0.00401  10.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.8      0.5659 µg/L       0.28866      0.5659 ppb        0.28866  51.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        62.2      19.119 µg/L        5.7369      19.119 ppb         5.7369  30.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -10.0     -0.4960 µg/L       0.15424     -0.4960 ppb        0.15424  31.09%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 3.1      6.0957 µg/L       6.15582      6.0957 ppb        6.15582 100.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.8     -0.6871 µg/L       2.01265     -0.6871 ppb        2.01265 292.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.9     -12.068 µg/L        7.7546     -12.068 ppb         7.7546  64.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.5      3.2641 µg/L       1.36846      3.2641 ppb        1.36846  41.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.3     -4.6035 µg/L       4.36743     -4.6035 ppb        4.36743  94.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     42.2      8.3350 µg/L       5.72201      8.3350 ppb        5.72201  68.65%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               25.2      1.9139 µg/L       0.76087      1.9139 ppb        0.76087  39.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.9      0.7957 µg/L       1.20387      0.7957 ppb        1.20387 151.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               12.7      0.1173 µg/L       0.08487      0.1173 ppb        0.08487  72.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               33.2      0.0739 µg/L       0.01807      0.0739 ppb        0.01807  24.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.8      1.0820 µg/L       2.22165      1.0820 ppb        2.22165 205.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                43.9      3.6439 µg/L       2.57643      3.6439 ppb        2.57643  70.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                21.9      0.2221 µg/L       0.20505      0.2221 ppb        0.20505  92.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -0.1      0.0000 µg/L       0.05335      0.0000 ppb        0.05335 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:24:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58110.7	58110.7	103	%			18:24:59
1	Al 396.153Radial†	7350.7	7139.0	4955.6	µg/L	4955.6	ppb	18:24:59
1	Ca 317.933Radial†	6185.2	5802.1	4956.0	µg/L	4956.0	ppb	18:25:20
1	Fe 238.204 Radial†	675.1	639.8	5056.7	µg/L	5056.7	ppb	18:25:20
1	K 766.490 Radial†	7936.4	7550.9	4931.6	µg/L	4931.6	ppb	18:24:59
1	Mg 279.077 IEC†	594.2	564.9	5052.6	µg/L	5052.6	ppb	18:25:20
1	Na 589.592 Radial†	33978.9	32562.3	10001	µg/L	10001	ppb	18:24:59
1	Sr 421.552†	54344.8	52805.6	487.14	µg/L	487.14	ppb	18:24:59
1	Sc 361.383	2010503.2	2010503.2	102.41	%			18:26:23
1	Y 371.029	1378737.8	1378737.8	101.92	%			18:26:23
1	Ag 328.068†	69160.3	67932.0	506.90	µg/L	506.90	ppb	18:26:28
1	As 188.979†	303.0	296.3	530.04	µg/L	530.04	ppb	18:26:49
1	B 249.677†	13059.0	12367.1	502.24	µg/L	502.24	ppb	18:26:28
1	Ba 233.527†	21831.0	21333.5	513.08	µg/L	513.08	ppb	18:26:28
1	Be 313.107†	864886.0	847358.1	502.72	µg/L	502.72	ppb	18:26:23
1	Cd 226.502†	21036.3	20682.2	515.78	µg/L	515.78	ppb	18:26:28
1	Co 228.616†	11703.6	11425.8	516.87	µg/L	516.87	ppb	18:26:28
1	Cr 267.716†	26284.2	25715.1	516.82	µg/L	516.82	ppb	18:26:28
1	Cu 324.752†	82127.8	77648.4	507.55	µg/L	507.55	ppb	18:26:28
1	Mn 257.610†	166823.1	163147.4	511.37	µg/L	511.37	ppb	18:26:23
1	Mo 202.031†	5448.5	5325.4	521.69	µg/L	521.69	ppb	18:26:49
1	Ni 231.604†	10977.7	10406.6	518.22	µg/L	518.22	ppb	18:26:28
1	P 214.914†	1361.9	1314.4	2554.1	µg/L	2554.1	ppb	18:26:49
1	Pb 220.353†	2277.9	2133.2	518.76	µg/L	518.76	ppb	18:26:49
1	S 181.975 Axial†	276.1	250.7	1039.6	µg/L	1039.6	ppb	18:26:49
1	Sb 206.836†	598.0	561.4	517.60	µg/L	517.60	ppb	18:26:49
1	Se 196.026†	404.7	375.8	535.75	µg/L	535.75	ppb	18:26:49
1	SiO2†	29945.4	27848.1	5496.8	µg/L	5496.8	ppb	18:26:28
1	Si 251.611†	34979.9	33844.9	2573.0	µg/L	2573.0	ppb	18:26:28
1	Sn 189.927†	1294.8	1263.9	533.06	µg/L	533.06	ppb	18:26:49
1	Ti 334.940†	232405.2	226752.9	501.31	µg/L	501.31	ppb	18:26:23
1	Tl 190.801†	387.3	400.5	526.22	µg/L	526.22	ppb	18:26:49
1	U 409.014†	6254.1	6183.8	512.77	µg/L	512.77	ppb	18:26:28
1	V 292.402†	53539.0	52322.0	516.23	µg/L	516.23	ppb	18:26:28
1	Zn 213.857†	23135.9	22056.3	513.84	µg/L	513.84	ppb	18:26:28
2	Sc RADIAL	57983.0	57983.0	103	%			18:25:25
2	Al 396.153Radial†	7301.1	7106.5	4933.3	µg/L	4933.3	ppb	18:25:25
2	Ca 317.933Radial†	6156.7	5787.5	4943.6	µg/L	4943.6	ppb	18:25:45
2	Fe 238.204 Radial†	670.2	636.5	5030.5	µg/L	5030.5	ppb	18:25:45
2	K 766.490 Radial†	7863.7	7497.0	4896.4	µg/L	4896.4	ppb	18:25:25
2	Mg 279.077 IEC†	585.6	557.7	4988.7	µg/L	4988.7	ppb	18:25:45
2	Na 589.592 Radial†	33805.3	32465.9	9971.7	µg/L	9971.7	ppb	18:25:25
2	Sr 421.552†	54068.8	52653.0	485.73	µg/L	485.73	ppb	18:25:25
2	Sc 361.383	2038047.8	2038047.8	103.82	%			18:26:56
2	Y 371.029	1399253.6	1399253.6	103.44	%			18:26:56
2	Ag 328.068†	68906.4	66774.7	498.26	µg/L	498.26	ppb	18:27:02
2	As 188.979†	291.3	281.1	502.79	µg/L	502.79	ppb	18:27:22
2	B 249.677†	13031.9	12168.7	494.15	µg/L	494.15	ppb	18:27:02
2	Ba 233.527†	21788.4	21004.4	505.16	µg/L	505.16	ppb	18:27:02
2	Be 313.107†	871938.9	842738.2	499.98	µg/L	499.98	ppb	18:26:56
2	Cd 226.502†	20959.6	20330.7	507.01	µg/L	507.01	ppb	18:27:02
2	Co 228.616†	11663.7	11232.9	508.13	µg/L	508.13	ppb	18:27:02
2	Cr 267.716†	26195.8	25283.1	508.13	µg/L	508.13	ppb	18:27:02
2	Cu 324.752†	81865.7	76312.2	498.82	µg/L	498.82	ppb	18:27:02
2	Mn 257.610†	168150.2	162224.2	508.48	µg/L	508.48	ppb	18:26:56
2	Mo 202.031†	5330.8	5140.1	503.54	µg/L	503.54	ppb	18:27:22
2	Ni 231.604†	10880.8	10168.4	506.35	µg/L	506.35	ppb	18:27:02
2	P 214.914†	1337.9	1273.4	2473.4	µg/L	2473.4	ppb	18:27:22
2	Pb 220.353†	2238.1	2064.9	502.11	µg/L	502.11	ppb	18:27:22

2	S 181.975 Axial†	271.4	242.5	1005.7	µg/L	1005.7 ppb	18:27:22
2	Sb 206.836†	590.8	546.6	503.85	µg/L	503.85 ppb	18:27:22
2	Se 196.026†	401.0	366.9	523.19	µg/L	523.19 ppb	18:27:22
2	SiO2†	29842.8	27354.0	5399.3	µg/L	5399.3 ppb	18:27:02
2	Si 251.611†	34939.6	33344.4	2534.9	µg/L	2534.9 ppb	18:27:02
2	Sn 189.927†	1259.4	1212.7	511.46	µg/L	511.46 ppb	18:27:22
2	Ti 334.940†	233999.5	225221.6	497.93	µg/L	497.93 ppb	18:26:56
2	Tl 190.801†	377.0	385.6	506.75	µg/L	506.75 ppb	18:27:22
2	U 409.014†	6252.8	6100.0	505.82	µg/L	505.82 ppb	18:27:02
2	V 292.402†	53301.3	51386.4	506.94	µg/L	506.94 ppb	18:27:02
2	Zn 213.857†	23074.0	21691.3	505.35	µg/L	505.35 ppb	18:27:02
3	Sc RADIAL	58101.7	58101.7	103	%		18:25:51
3	Al 396.153Radial†	7325.2	7115.3	4941.3	µg/L	4941.3 ppb	18:25:51
3	Ca 317.933Radial†	6167.8	5786.1	4942.3	µg/L	4942.3 ppb	18:26:11
3	Fe 238.204 Radial†	673.8	638.6	5046.3	µg/L	5046.3 ppb	18:26:11
3	K 766.490 Radial†	7958.4	7573.4	4946.3	µg/L	4946.3 ppb	18:25:51
3	Mg 279.077 IEC†	598.9	569.5	5092.5	µg/L	5092.5 ppb	18:26:11
3	Na 589.592 Radial†	33931.7	32521.6	9988.8	µg/L	9988.8 ppb	18:25:51
3	Sr 421.552†	54158.1	52632.2	485.54	µg/L	485.54 ppb	18:25:51
3	Sc 361.383	2006960.6	2006960.6	102.23	%		18:27:29
3	Y 371.029	1377064.8	1377064.8	101.80	%		18:27:29
3	Ag 328.068†	63249.3	62269.2	464.47	µg/L	464.47 ppb	18:27:35
3	As 188.979†	239.9	235.1	420.56	µg/L	420.56 ppb	18:27:55
3	B 249.677†	11912.9	11268.6	457.34	µg/L	457.34 ppb	18:27:35
3	Ba 233.527†	19263.5	18859.7	453.56	µg/L	453.56 ppb	18:27:35
3	Be 313.107†	784759.4	770472.5	457.11	µg/L	457.11 ppb	18:27:29
3	Cd 226.502†	18434.4	18173.4	453.14	µg/L	453.14 ppb	18:27:35
3	Co 228.616†	10122.4	9899.4	447.75	µg/L	447.75 ppb	18:27:35
3	Cr 267.716†	21992.5	21562.5	433.36	µg/L	433.36 ppb	18:27:35
3	Cu 324.752†	71871.2	67757.5	442.99	µg/L	442.99 ppb	18:27:35
3	Mn 257.610†	152131.1	149063.9	467.26	µg/L	467.26 ppb	18:27:29
3	Mo 202.031†	4313.3	4224.4	413.87	µg/L	413.87 ppb	18:27:55
3	Ni 231.604†	9585.0	9063.2	451.33	µg/L	451.33 ppb	18:27:35
3	P 214.914†	1100.5	1061.1	2057.6	µg/L	2057.6 ppb	18:27:55
3	Pb 220.353†	1891.6	1759.4	427.76	µg/L	427.76 ppb	18:27:55
3	S 181.975 Axial†	229.0	205.1	850.35	µg/L	850.35 ppb	18:27:55
3	Sb 206.836†	491.8	458.5	422.37	µg/L	422.37 ppb	18:27:55
3	Se 196.026†	337.5	310.8	444.41	µg/L	444.41 ppb	18:27:55
3	SiO2†	27007.5	25025.9	4939.8	µg/L	4939.8 ppb	18:27:35
3	Si 251.611†	31393.7	30397.3	2310.9	µg/L	2310.9 ppb	18:27:35
3	Sn 189.927†	994.9	972.8	410.27	µg/L	410.27 ppb	18:27:55
3	Ti 334.940†	209196.0	204451.2	451.97	µg/L	451.97 ppb	18:27:29
3	Tl 190.801†	327.6	342.9	450.86	µg/L	450.86 ppb	18:27:55
3	U 409.014†	5293.3	5254.7	435.59	µg/L	435.59 ppb	18:27:35
3	V 292.402†	45934.6	44975.9	443.54	µg/L	443.54 ppb	18:27:35
3	Zn 213.857†	20247.3	19270.6	448.88	µg/L	448.88 ppb	18:27:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2018503.9	102.82	%	0.867				0.84%
Sc RADIAL	58065.1	103	%	0.1				0.12%
Y 371.029	1385018.8	102.38	%	0.913				0.89%
Ag 328.068†	65658.6	489.88	µg/L	22.418	489.88	ppb	22.418	4.58%
QC value within limits for Ag 328.068 Recovery = 97.98%								
Al 396.153Radial†	7120.3	4943.4	µg/L	11.28	4943.4	ppb	11.28	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	270.8	484.46	µg/L	56.991	484.46	ppb	56.991	11.76%
QC value within limits for As 188.979 Recovery = 96.89%								
B 249.677†	11934.8	484.58	µg/L	23.933	484.58	ppb	23.933	4.94%
QC value within limits for B 249.677 Recovery = 96.92%								
Ba 233.527†	20399.2	490.60	µg/L	32.321	490.60	ppb	32.321	6.59%
QC value within limits for Ba 233.527 Recovery = 98.12%								
Be 313.107†	820189.6	486.60	µg/L	25.580	486.60	ppb	25.580	5.26%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 317.933Radial†	5791.9	4947.3	µg/L	7.57	4947.3	ppb	7.57	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.95%								
Cd 226.502†	19728.8	491.98	µg/L	33.915	491.98	ppb	33.915	6.89%
QC value within limits for Cd 226.502 Recovery = 98.40%								
Co 228.616†	10852.7	490.92	µg/L	37.639	490.92	ppb	37.639	7.67%

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   QC value within limits for Co 228.616  Recovery = 98.18%
Cr 267.716†            24186.9      486.10 µg/L        45.880      486.10 ppb        45.880   9.44%
   QC value within limits for Cr 267.716  Recovery = 97.22%
Cu 324.752†            73906.0      483.12 µg/L        35.030      483.12 ppb        35.030   7.25%
   QC value within limits for Cu 324.752  Recovery = 96.62%
Fe 238.204 Radial†       638.3      5044.5 µg/L         13.19      5044.5 ppb         13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.89%
K 766.490 Radial†       7540.4      4924.8 µg/L         25.64      4924.8 ppb         25.64   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 98.50%
Mg 279.077 IEC†          564.0      5044.6 µg/L         52.37      5044.6 ppb         52.37   1.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.89%
Mn 257.610†           158145.2      495.70 µg/L        24.672      495.70 ppb        24.672   4.98%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†             4896.7      479.70 µg/L        57.728      479.70 ppb        57.728  12.03%
   QC value within limits for Mo 202.031  Recovery = 95.94%
Na 589.592 Radial†     32516.6      9987.3 µg/L         14.87      9987.3 ppb         14.87   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 99.87%
Ni 231.604†             9879.4      491.97 µg/L        35.688      491.97 ppb        35.688   7.25%
   QC value within limits for Ni 231.604  Recovery = 98.39%
P 214.914†              1216.3      2361.7 µg/L        266.42      2361.7 ppb        266.42  11.28%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1985.8      482.88 µg/L        48.455      482.88 ppb        48.455  10.03%
   QC value within limits for Pb 220.353  Recovery = 96.58%
S 181.975 Axial†         232.7      965.19 µg/L       100.884      965.19 ppb       100.884  10.45%
   QC value within limits for S 181.975 Axial  Recovery = 96.52%
Sb 206.836†              522.2      481.27 µg/L        51.474      481.27 ppb        51.474  10.70%
   QC value within limits for Sb 206.836  Recovery = 96.25%
Se 196.026†              351.2      501.12 µg/L        49.509      501.12 ppb        49.509   9.88%
   QC value within limits for Se 196.026  Recovery = 100.22%
SiO2†                  26742.7      5278.7 µg/L        297.49      5278.7 ppb        297.49   5.64%
   QC value within limits for SiO2  Recovery = 98.71%
Si 251.611†            32528.9      2472.9 µg/L        141.62      2472.9 ppb        141.62   5.73%
   QC value within limits for Si 251.611  Recovery = 98.92%
Sn 189.927†             1149.8      484.93 µg/L        65.553      484.93 ppb        65.553  13.52%
   QC value within limits for Sn 189.927  Recovery = 96.99%
Sr 421.552†            52696.9      486.14 µg/L         0.873      486.14 ppb         0.873   0.18%
   QC value within limits for Sr 421.552  Recovery = 97.23%
Ti 334.940†           218808.6      483.73 µg/L        27.562      483.73 ppb        27.562   5.70%
   QC value within limits for Ti 334.940  Recovery = 96.75%
Tl 190.801†              376.3      494.61 µg/L        39.121      494.61 ppb        39.121   7.91%
   QC value within limits for Tl 190.801  Recovery = 98.92%
U 409.014†              5846.2      484.73 µg/L        42.700      484.73 ppb        42.700   8.81%
   QC value within limits for U 409.014  Recovery = 96.95%
V 292.402†             49561.4      488.90 µg/L        39.562      488.90 ppb        39.562   8.09%
   QC value within limits for V 292.402  Recovery = 97.78%
Zn 213.857†            21006.1      489.36 µg/L        35.308      489.36 ppb        35.308   7.22%
   QC value within limits for Zn 213.857  Recovery = 97.87%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 18:28:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56920.6	56920.6	101	%			18:28:38
1	Al 396.153Radial†	-0.3	-7.6	-5.3346	µg/L	-5.3346	ppb	18:28:38
1	Ca 317.933Radial†	189.5	-23.2	-19.841	µg/L	-19.841	ppb	18:28:58
1	Fe 238.204 Radial†	19.4	2.7	21.377	µg/L	21.377	ppb	18:28:58
1	K 766.490 Radial†	221.6	55.0	35.912	µg/L	35.912	ppb	18:28:38
1	Mg 279.077 IEC†	10.8	-2.1	-18.380	µg/L	-18.380	ppb	18:28:58
1	Na 589.592 Radial†	498.2	22.3	6.8542	µg/L	6.8542	ppb	18:28:38
1	Sr 421.552†	54.9	25.7	0.2367	µg/L	0.2367	ppb	18:28:38
1	Sc 361.383	2032515.3	2032515.3	103.53	%			18:30:00
1	Y 371.029	1398820.8	1398820.8	103.41	%			18:30:00
1	Ag 328.068†	-457.1	-39.8	-0.2911	µg/L	-0.2911	ppb	18:30:06
1	As 188.979†	5.6	5.9	10.594	µg/L	10.594	ppb	18:30:26
1	B 249.677†	410.3	12.1	0.4845	µg/L	0.4845	ppb	18:30:26
1	Ba 233.527†	49.3	64.6	1.5526	µg/L	1.5526	ppb	18:30:26
1	Be 313.107†	-2857.0	96.2	0.0570	µg/L	0.0570	ppb	18:30:06
1	Cd 226.502†	-101.1	44.0	1.0963	µg/L	1.0963	ppb	18:30:26
1	Co 228.616†	28.1	25.2	1.1408	µg/L	1.1408	ppb	18:30:26
1	Cr 267.716†	-32.9	18.6	0.3731	µg/L	0.3731	ppb	18:30:06
1	Cu 324.752†	2585.0	-47.0	-0.3039	µg/L	-0.3039	ppb	18:30:06
1	Mn 257.610†	1142.9	1359.9	4.2620	µg/L	4.2620	ppb	18:30:26
1	Mo 202.031†	8.1	13.2	1.2945	µg/L	1.2945	ppb	18:30:26
1	Ni 231.604†	338.7	14.7	0.7339	µg/L	0.7339	ppb	18:30:26
1	P 214.914†	15.9	0.0	0.2437	µg/L	0.2437	ppb	18:30:26
1	Pb 220.353†	99.8	5.5	1.3339	µg/L	1.3339	ppb	18:30:26
1	S 181.975 Axial†	18.1	-1.5	-6.0253	µg/L	-6.0253	ppb	18:30:26
1	Sb 206.836†	22.7	-0.5	-0.4788	µg/L	-0.4788	ppb	18:30:26
1	Se 196.026†	18.0	-1.9	-2.6538	µg/L	-2.6538	ppb	18:30:26
1	SiO2†	1447.9	6.9	1.3541	µg/L	1.3541	ppb	18:30:06
1	Si 251.611†	659.6	326.5	24.820	µg/L	24.820	ppb	18:30:26
1	Sn 189.927†	38.3	36.6	15.441	µg/L	15.441	ppb	18:30:26
1	Ti 334.940†	321.1	135.1	0.3001	µg/L	0.3001	ppb	18:30:06
1	Tl 190.801†	-21.1	2.0	2.6395	µg/L	2.6395	ppb	18:30:26
1	U 409.014†	-28.7	49.4	4.1035	µg/L	4.1035	ppb	18:30:06
1	V 292.402†	-3.2	41.6	0.4232	µg/L	0.4232	ppb	18:30:06
1	Zn 213.857†	618.9	63.4	1.4848	µg/L	1.4848	ppb	18:30:26
2	Sc RADIAL	56709.3	56709.3	100	%			18:29:04
2	Al 396.153Radial†	-16.5	-23.8	-16.528	µg/L	-16.528	ppb	18:29:04
2	Ca 317.933Radial†	196.4	-15.6	-13.311	µg/L	-13.311	ppb	18:29:24
2	Fe 238.204 Radial†	19.1	2.4	18.992	µg/L	18.992	ppb	18:29:24
2	K 766.490 Radial†	204.3	38.5	25.150	µg/L	25.150	ppb	18:29:04
2	Mg 279.077 IEC†	11.8	-1.1	-9.6092	µg/L	-9.6092	ppb	18:29:24
2	Na 589.592 Radial†	485.8	11.8	3.6148	µg/L	3.6148	ppb	18:29:04
2	Sr 421.552†	30.8	1.9	0.0174	µg/L	0.0174	ppb	18:29:04
2	Sc 361.383	2017506.8	2017506.8	102.77	%			18:30:32
2	Y 371.029	1389281.0	1389281.0	102.70	%			18:30:32
2	Ag 328.068†	-439.2	-25.7	-0.1831	µg/L	-0.1831	ppb	18:30:38
2	As 188.979†	-2.8	-2.2	-4.0102	µg/L	-4.0102	ppb	18:30:58
2	B 249.677†	382.6	-11.8	-0.4899	µg/L	-0.4899	ppb	18:30:58
2	Ba 233.527†	4.3	21.2	0.5118	µg/L	0.5118	ppb	18:30:58
2	Be 313.107†	-2101.4	811.0	0.4800	µg/L	0.4800	ppb	18:30:38
2	Cd 226.502†	-138.5	6.9	0.1705	µg/L	0.1705	ppb	18:30:58
2	Co 228.616†	11.1	8.8	0.3922	µg/L	0.3922	ppb	18:30:58
2	Cr 267.716†	4.0	54.3	1.0911	µg/L	1.0911	ppb	18:30:38
2	Cu 324.752†	2748.4	130.6	0.8552	µg/L	0.8552	ppb	18:30:38
2	Mn 257.610†	83.5	337.3	1.0592	µg/L	1.0592	ppb	18:30:58
2	Mo 202.031†	-7.8	-2.2	-0.2192	µg/L	-0.2192	ppb	18:30:58
2	Ni 231.604†	324.9	3.8	0.1884	µg/L	0.1884	ppb	18:30:58
2	P 214.914†	13.0	-2.7	-5.2676	µg/L	-5.2676	ppb	18:30:58
2	Pb 220.353†	93.0	-0.4	-0.1127	µg/L	-0.1127	ppb	18:30:58

2	S 181.975 Axial†	20.2	0.7	2.8524	µg/L	2.8524 ppb	18:30:58
2	Sb 206.836†	24.9	1.7	1.5373	µg/L	1.5373 ppb	18:30:58
2	Se 196.026†	20.3	0.5	0.7192	µg/L	0.7192 ppb	18:30:58
2	SiO2†	1642.6	206.7	40.802	µg/L	40.802 ppb	18:30:38
2	Si 251.611†	453.6	130.8	9.9406	µg/L	9.9406 ppb	18:30:58
2	Sn 189.927†	19.1	18.2	7.6779	µg/L	7.6779 ppb	18:30:58
2	Ti 334.940†	1831.1	1606.7	3.5550	µg/L	3.5550 ppb	18:30:38
2	Tl 190.801†	-20.6	2.3	3.0926	µg/L	3.0926 ppb	18:30:58
2	U 409.014†	-17.3	60.3	5.0059	µg/L	5.0059 ppb	18:30:38
2	V 292.402†	54.7	98.0	0.9631	µg/L	0.9631 ppb	18:30:38
2	Zn 213.857†	549.1	-0.1	-0.0060	µg/L	-0.0060 ppb	18:30:58
3	Sc RADIAL	57463.0	57463.0	102	%		18:29:29
3	Al 396.153Radial†	-41.0	-47.6	-33.158	µg/L	-33.158 ppb	18:29:29
3	Ca 317.933Radial†	194.3	-20.2	-17.244	µg/L	-17.244 ppb	18:29:50
3	Fe 238.204 Radial†	18.7	1.8	14.201	µg/L	14.201 ppb	18:29:50
3	K 766.490 Radial†	178.1	10.2	6.6395	µg/L	6.6395 ppb	18:29:29
3	Mg 279.077 IEC†	8.7	-4.2	-37.957	µg/L	-37.957 ppb	18:29:50
3	Na 589.592 Radial†	506.8	26.1	8.0102	µg/L	8.0102 ppb	18:29:29
3	Sr 421.552†	42.9	13.3	0.1232	µg/L	0.1232 ppb	18:29:29
3	Sc 361.383	2013891.9	2013891.9	102.59	%		18:31:04
3	Y 371.029	1385497.7	1385497.7	102.42	%		18:31:04
3	Ag 328.068†	-434.1	-21.6	-0.1566	µg/L	-0.1566 ppb	18:31:10
3	As 188.979†	1.4	1.8	3.2592	µg/L	3.2592 ppb	18:31:31
3	B 249.677†	380.8	-12.9	-0.5336	µg/L	-0.5336 ppb	18:31:31
3	Ba 233.527†	-7.5	9.7	0.2343	µg/L	0.2343 ppb	18:31:31
3	Be 313.107†	-2627.4	294.5	0.1745	µg/L	0.1745 ppb	18:31:10
3	Cd 226.502†	-139.2	6.0	0.1475	µg/L	0.1475 ppb	18:31:31
3	Co 228.616†	-2.4	-4.2	-0.1927	µg/L	-0.1927 ppb	18:31:31
3	Cr 267.716†	-21.1	29.8	0.5980	µg/L	0.5980 ppb	18:31:10
3	Cu 324.752†	2619.6	9.8	0.0659	µg/L	0.0659 ppb	18:31:10
3	Mn 257.610†	-3.1	253.0	0.7956	µg/L	0.7956 ppb	18:31:31
3	Mo 202.031†	1.5	6.8	0.6637	µg/L	0.6637 ppb	18:31:31
3	Ni 231.604†	309.6	-10.5	-0.5253	µg/L	-0.5253 ppb	18:31:31
3	P 214.914†	10.7	-4.9	-9.6506	µg/L	-9.6506 ppb	18:31:31
3	Pb 220.353†	92.1	-1.1	-0.2804	µg/L	-0.2804 ppb	18:31:31
3	S 181.975 Axial†	20.6	1.2	4.9214	µg/L	4.9214 ppb	18:31:31
3	Sb 206.836†	22.0	-1.0	-0.9299	µg/L	-0.9299 ppb	18:31:31
3	Se 196.026†	22.4	2.6	3.6800	µg/L	3.6800 ppb	18:31:31
3	SiO2†	1531.3	101.1	19.951	µg/L	19.951 ppb	18:31:10
3	Si 251.611†	470.6	148.1	11.258	µg/L	11.258 ppb	18:31:31
3	Sn 189.927†	15.7	14.9	6.2845	µg/L	6.2845 ppb	18:31:31
3	Ti 334.940†	545.2	356.5	0.7913	µg/L	0.7913 ppb	18:31:10
3	Tl 190.801†	-18.8	4.0	5.2381	µg/L	5.2381 ppb	18:31:31
3	U 409.014†	-62.1	16.5	1.3714	µg/L	1.3714 ppb	18:31:10
3	V 292.402†	-10.9	34.2	0.3425	µg/L	0.3425 ppb	18:31:10
3	Zn 213.857†	537.6	-10.4	-0.2395	µg/L	-0.2395 ppb	18:31:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2021304.7	102.96	%	0.503				0.49%
Sc RADIAL	57030.9	101	%	0.7				0.68%
Y 371.029	1391199.8	102.84	%	0.508				0.49%
Ag 328.068†	-29.0	-0.2103	µg/L	0.07128	-0.2103	ppb	0.07128	33.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-26.3	-18.340	µg/L	14.0000	-18.340	ppb	14.0000	76.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	3.2809	µg/L	7.30195	3.2809	ppb	7.30195	222.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-4.2	-0.1797	µg/L	0.57561	-0.1797	ppb	0.57561	320.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	31.9	0.7662	µg/L	0.69500	0.7662	ppb	0.69500	90.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	400.6	0.2372	µg/L	0.21833	0.2372	ppb	0.21833	92.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.7	-16.799	µg/L	3.2876	-16.799	ppb	3.2876	19.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.0	0.4714	µg/L	0.54127	0.4714	ppb	0.54127	114.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.9	0.4468	µg/L	0.66842	0.4468	ppb	0.66842	149.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                34.2      0.6874 µg/L       0.36726      0.6874 ppb        0.36726  53.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                31.1      0.2057 µg/L       0.59207      0.2057 ppb        0.59207 287.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3      18.190 µg/L        3.6545      18.190 ppb         3.6545  20.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          34.6      22.567 µg/L       14.8062      22.567 ppb        14.8062  65.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.5     -21.982 µg/L       14.5132     -21.982 ppb        14.5132  66.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               650.0      2.0389 µg/L       1.92974      2.0389 ppb        1.92974  94.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.9      0.5797 µg/L       0.76032      0.5797 ppb        0.76032 131.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         20.1      6.1597 µg/L       2.27853      6.1597 ppb        2.27853  36.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.7      0.1323 µg/L       0.63148      0.1323 ppb        0.63148 477.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -4.8915 µg/L       4.95786     -4.8915 ppb        4.95786 101.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.3      0.3136 µg/L       0.88754      0.3136 ppb        0.88754 283.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.1      0.5829 µg/L       5.81558      0.5829 ppb        5.81558 997.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.0      0.0429 µg/L       1.31372      0.0429 ppb        1.31372 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.4      0.5818 µg/L       3.16914      0.5818 ppb        3.16914 544.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     104.9     20.702 µg/L      19.7346     20.702 ppb        19.7346  95.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               201.8     15.340 µg/L       8.2366     15.340 ppb         8.2366  53.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                23.3      9.8010 µg/L       4.93347      9.8010 ppb        4.93347  50.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.6      0.1258 µg/L       0.10971      0.1258 ppb        0.10971  87.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               699.4      1.5488 µg/L       1.75468      1.5488 ppb        1.75468 113.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      3.6567 µg/L       1.38813      3.6567 ppb        1.38813  37.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 42.1      3.4936 µg/L       1.89246      3.4936 ppb        1.89246  54.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 57.9      0.5763 µg/L       0.33743      0.5763 ppb        0.33743  58.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                17.6      0.4131 µg/L       0.93546      0.4131 ppb        0.93546 226.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:57:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58333.6	58333.6	103	%			18:58:00
1	Al 396.153Radial†	7365.1	7125.7	4946.5	µg/L	4946.5	ppb	18:58:00
1	Ca 317.933Radial†	6192.0	5785.6	4942.0	µg/L	4942.0	ppb	18:58:20
1	Fe 238.204 Radial†	674.6	636.7	5032.7	µg/L	5032.7	ppb	18:58:20
1	K 766.490 Radial†	7915.6	7501.2	4899.2	µg/L	4899.2	ppb	18:58:00
1	Mg 279.077 IEC†	598.6	566.9	5070.8	µg/L	5070.8	ppb	18:58:20
1	Na 589.592 Radial†	33942.4	32400.8	9951.7	µg/L	9951.7	ppb	18:58:00
1	Sr 421.552†	54192.3	52456.0	483.91	µg/L	483.91	ppb	18:58:00
1	Sc 361.383	2038441.2	2038441.2	103.84	%			18:59:24
1	Y 371.029	1399434.4	1399434.4	103.45	%			18:59:24
1	Ag 328.068†	68624.6	66490.5	496.15	µg/L	496.15	ppb	18:59:29
1	As 188.979†	294.5	284.1	508.19	µg/L	508.19	ppb	18:59:50
1	B 249.677†	12921.2	12059.6	489.70	µg/L	489.70	ppb	18:59:29
1	Ba 233.527†	21646.3	20863.5	501.78	µg/L	501.78	ppb	18:59:29
1	Be 313.107†	864552.3	835462.4	495.66	µg/L	495.66	ppb	18:59:24
1	Cd 226.502†	20886.7	20256.6	505.16	µg/L	505.16	ppb	18:59:29
1	Co 228.616†	11617.5	11186.3	506.03	µg/L	506.03	ppb	18:59:29
1	Cr 267.716†	26041.8	25130.0	505.06	µg/L	505.06	ppb	18:59:29
1	Cu 324.752†	81610.2	76051.0	497.12	µg/L	497.12	ppb	18:59:29
1	Mn 257.610†	166517.1	160620.2	503.45	µg/L	503.45	ppb	18:59:24
1	Mo 202.031†	5420.2	5225.2	511.88	µg/L	511.88	ppb	18:59:50
1	Ni 231.604†	10851.5	10138.2	504.85	µg/L	504.85	ppb	18:59:29
1	P 214.914†	1356.9	1291.4	2509.3	µg/L	2509.3	ppb	18:59:50
1	Pb 220.353†	2274.9	2099.9	510.66	µg/L	510.66	ppb	18:59:50
1	S 181.975 Axial†	272.1	243.1	1008.0	µg/L	1008.0	ppb	18:59:50
1	Sb 206.836†	600.9	556.2	512.79	µg/L	512.79	ppb	18:59:50
1	Se 196.026†	401.3	367.2	523.52	µg/L	523.52	ppb	18:59:50
1	SiO2†	29690.3	27201.7	5369.3	µg/L	5369.3	ppb	18:59:29
1	Si 251.611†	34620.8	33030.9	2511.1	µg/L	2511.1	ppb	18:59:29
1	Sn 189.927†	1274.6	1227.1	517.53	µg/L	517.53	ppb	18:59:50
1	Ti 334.940†	232175.5	223421.5	493.94	µg/L	493.94	ppb	18:59:24
1	Tl 190.801†	380.4	388.7	510.84	µg/L	510.84	ppb	18:59:50
1	U 409.014†	6240.2	6086.8	504.71	µg/L	504.71	ppb	18:59:29
1	V 292.402†	53236.3	51313.9	506.29	µg/L	506.29	ppb	18:59:29
1	Zn 213.857†	23013.8	21629.0	503.89	µg/L	503.89	ppb	18:59:29
2	Sc RADIAL	58344.7	58344.7	103	%			18:58:26
2	Al 396.153Radial†	7317.7	7078.4	4913.9	µg/L	4913.9	ppb	18:58:26
2	Ca 317.933Radial†	6132.7	5727.0	4891.9	µg/L	4891.9	ppb	18:58:46
2	Fe 238.204 Radial†	665.9	628.2	4965.5	µg/L	4965.5	ppb	18:58:46
2	K 766.490 Radial†	7920.4	7504.4	4901.2	µg/L	4901.2	ppb	18:58:26
2	Mg 279.077 IEC†	590.4	558.9	4999.2	µg/L	4999.2	ppb	18:58:46
2	Na 589.592 Radial†	33811.9	32268.1	9910.9	µg/L	9910.9	ppb	18:58:26
2	Sr 421.552†	54099.6	52356.2	482.99	µg/L	482.99	ppb	18:58:26
2	Sc 361.383	2035256.6	2035256.6	103.67	%			18:59:57
2	Y 371.029	1396273.2	1396273.2	103.22	%			18:59:57
2	Ag 328.068†	68425.9	66402.2	495.48	µg/L	495.48	ppb	19:00:03
2	As 188.979†	292.9	282.9	506.17	µg/L	506.17	ppb	19:00:23
2	B 249.677†	12903.7	12062.2	489.84	µg/L	489.84	ppb	19:00:03
2	Ba 233.527†	21596.0	20847.7	501.39	µg/L	501.39	ppb	19:00:03
2	Be 313.107†	862338.3	834629.7	495.17	µg/L	495.17	ppb	18:59:57
2	Cd 226.502†	20772.6	20178.1	503.20	µg/L	503.20	ppb	19:00:03
2	Co 228.616†	11542.6	11131.5	503.54	µg/L	503.54	ppb	19:00:03
2	Cr 267.716†	25954.2	25084.7	504.15	µg/L	504.15	ppb	19:00:03
2	Cu 324.752†	81509.2	76076.5	497.28	µg/L	497.28	ppb	19:00:03
2	Mn 257.610†	166351.9	160711.8	503.73	µg/L	503.73	ppb	18:59:57
2	Mo 202.031†	5270.1	5088.7	498.51	µg/L	498.51	ppb	19:00:23
2	Ni 231.604†	10791.0	10096.2	502.76	µg/L	502.76	ppb	19:00:03
2	P 214.914†	1323.9	1261.6	2450.2	µg/L	2450.2	ppb	19:00:23
2	Pb 220.353†	2210.1	2040.8	496.26	µg/L	496.26	ppb	19:00:23

2	S 181.975 Axial†	270.0	241.5	1001.5 µg/L	1001.5 ppb	19:00:23
2	Sb 206.836†	587.9	544.6	501.96 µg/L	501.96 ppb	19:00:23
2	Se 196.026†	392.6	359.4	512.48 µg/L	512.48 ppb	19:00:23
2	SiO2†	29616.5	27175.2	5364.0 µg/L	5364.0 ppb	19:00:03
2	Si 251.611†	34657.6	33118.5	2517.7 µg/L	2517.7 ppb	19:00:03
2	Sn 189.927†	1231.7	1187.7	500.91 µg/L	500.91 ppb	19:00:23
2	Ti 334.940†	231864.1	223470.9	494.05 µg/L	494.05 ppb	18:59:57
2	Tl 190.801†	372.5	381.7	501.72 µg/L	501.72 ppb	19:00:23
2	U 409.014†	6180.9	6038.9	500.75 µg/L	500.75 ppb	19:00:03
2	V 292.402†	53024.3	51189.7	504.96 µg/L	504.96 ppb	19:00:03
2	Zn 213.857†	22918.2	21571.5	502.56 µg/L	502.56 ppb	19:00:03
3	Sc RADIAL	58456.7	58456.7	103 %		18:58:52
3	Al 396.153Radial†	7314.1	7061.4	4904.0 µg/L	4904.0 ppb	18:58:52
3	Ca 317.933Radial†	6160.3	5742.4	4905.0 µg/L	4905.0 ppb	18:59:12
3	Fe 238.204 Radial†	669.3	630.3	4980.2 µg/L	4980.2 ppb	18:59:12
3	K 766.490 Radial†	7905.3	7475.1	4882.1 µg/L	4882.1 ppb	18:58:52
3	Mg 279.077 IEC†	592.0	559.3	5000.9 µg/L	5000.9 ppb	18:59:12
3	Na 589.592 Radial†	33692.4	32089.9	9856.2 µg/L	9856.2 ppb	18:58:52
3	Sr 421.552†	53981.8	52142.0	481.02 µg/L	481.02 ppb	18:58:52
3	Sc 361.383	2047612.7	2047612.7	104.30 %		19:00:30
3	Y 371.029	1406490.5	1406490.5	103.97 %		19:00:30
3	Ag 328.068†	63103.6	60901.3	454.27 µg/L	454.27 ppb	19:00:36
3	As 188.979†	237.6	228.3	408.38 µg/L	408.38 ppb	19:00:57
3	B 249.677†	11765.8	10896.1	442.18 µg/L	442.18 ppb	19:00:36
3	Ba 233.527†	19176.1	18401.9	442.55 µg/L	442.55 ppb	19:00:36
3	Be 313.107†	782724.7	753282.0	446.91 µg/L	446.91 ppb	19:00:30
3	Cd 226.502†	18400.9	17783.3	443.41 µg/L	443.41 ppb	19:00:36
3	Co 228.616†	10109.3	9690.2	438.29 µg/L	438.29 ppb	19:00:36
3	Cr 267.716†	21969.5	21113.3	424.34 µg/L	424.34 ppb	19:00:36
3	Cu 324.752†	71747.0	66242.7	433.09 µg/L	433.09 ppb	19:00:36
3	Mn 257.610†	151555.7	145557.9	456.28 µg/L	456.28 ppb	19:00:30
3	Mo 202.031†	4263.1	4092.5	400.95 µg/L	400.95 ppb	19:00:57
3	Ni 231.604†	9465.5	8762.6	436.35 µg/L	436.35 ppb	19:00:36
3	P 214.914†	1103.2	1042.4	2021.3 µg/L	2021.3 ppb	19:00:57
3	Pb 220.353†	1887.4	1718.6	417.83 µg/L	417.83 ppb	19:00:57
3	S 181.975 Axial†	232.4	203.9	845.45 µg/L	845.45 ppb	19:00:57
3	Sb 206.836†	490.6	447.9	412.47 µg/L	412.47 ppb	19:00:57
3	Se 196.026†	335.5	302.3	432.38 µg/L	432.38 ppb	19:00:57
3	SiO2†	26801.6	24304.1	4797.3 µg/L	4797.3 ppb	19:00:36
3	Si 251.611†	31212.7	29614.1	2251.3 µg/L	2251.3 ppb	19:00:36
3	Sn 189.927†	987.7	946.6	399.24 µg/L	399.24 ppb	19:00:57
3	Ti 334.940†	208406.1	199631.3	441.31 µg/L	441.31 ppb	19:00:30
3	Tl 190.801†	322.4	331.5	435.96 µg/L	435.96 ppb	19:00:57
3	U 409.014†	5296.2	5154.8	427.29 µg/L	427.29 ppb	19:00:36
3	V 292.402†	45829.3	43982.9	433.72 µg/L	433.72 ppb	19:00:36
3	Zn 213.857†	20142.3	18776.7	437.38 µg/L	437.38 ppb	19:00:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2040436.8	103.94	%	0.327				0.31%
Sc RADIAL	58378.3	103	%	0.1				0.12%
Y 371.029	1400732.7	103.55	%	0.387				0.37%
Ag 328.068†	64598.0	481.97	µg/L	23.988	481.97	ppb	23.988	4.98%
QC value within limits for Ag 328.068 Recovery = 96.39%								
Al 396.153Radial†	7088.5	4921.5	µg/L	22.23	4921.5	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	265.1	474.24	µg/L	57.051	474.24	ppb	57.051	12.03%
QC value within limits for As 188.979 Recovery = 94.85%								
B 249.677†	11672.6	473.91	µg/L	27.477	473.91	ppb	27.477	5.80%
QC value within limits for B 249.677 Recovery = 94.78%								
Ba 233.527†	20037.7	481.91	µg/L	34.084	481.91	ppb	34.084	7.07%
QC value within limits for Ba 233.527 Recovery = 96.38%								
Be 313.107†	807791.4	479.25	µg/L	28.007	479.25	ppb	28.007	5.84%
QC value within limits for Be 313.107 Recovery = 95.85%								
Ca 317.933Radial†	5751.7	4913.0	µg/L	25.95	4913.0	ppb	25.95	0.53%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	19406.0	483.92	µg/L	35.100	483.92	ppb	35.100	7.25%
QC value within limits for Cd 226.502 Recovery = 96.78%								
Co 228.616†	10669.3	482.62	µg/L	38.414	482.62	ppb	38.414	7.96%

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   QC value within limits for Co 228.616  Recovery = 96.52%
Cr 267.716†            23776.0      477.85 µg/L        46.344      477.85 ppb         46.344   9.70%
   QC value within limits for Cr 267.716  Recovery = 95.57%
Cu 324.752†            72790.1      475.83 µg/L        37.014      475.83 ppb         37.014   7.78%
   QC value within limits for Cu 324.752  Recovery = 95.17%
Fe 238.204 Radial†       631.7      4992.8 µg/L         35.34      4992.8 ppb          35.34   0.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.86%
K 766.490 Radial†       7493.6      4894.2 µg/L         10.48      4894.2 ppb          10.48   0.21%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†          561.7      5023.6 µg/L         40.85      5023.6 ppb          40.85   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.47%
Mn 257.610†           155630.0      487.82 µg/L        27.316      487.82 ppb         27.316   5.60%
   QC value within limits for Mn 257.610  Recovery = 97.56%
Mo 202.031†             4802.1      470.44 µg/L        60.553      470.44 ppb         60.553  12.87%
   QC value within limits for Mo 202.031  Recovery = 94.09%
Na 589.592 Radial†     32252.9      9906.3 µg/L         47.92      9906.3 ppb          47.92   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 99.06%
Ni 231.604†             9665.7      481.32 µg/L        38.955      481.32 ppb         38.955   8.09%
   QC value within limits for Ni 231.604  Recovery = 96.26%
P 214.914†              1198.4      2326.9 µg/L        266.31      2326.9 ppb         266.31  11.44%
   QC value within limits for P 214.914  Recovery = 93.08%
Pb 220.353†             1953.1      474.92 µg/L        49.957      474.92 ppb         49.957  10.52%
   QC value within limits for Pb 220.353  Recovery = 94.98%
S 181.975 Axial†         229.5      951.68 µg/L        92.053      951.68 ppb         92.053   9.67%
   QC value within limits for S 181.975 Axial  Recovery = 95.17%
Sb 206.836†              516.2      475.74 µg/L        55.061      475.74 ppb         55.061  11.57%
   QC value within limits for Sb 206.836  Recovery = 95.15%
Se 196.026†              343.0      489.46 µg/L        49.737      489.46 ppb         49.737  10.16%
   QC value within limits for Se 196.026  Recovery = 97.89%
SiO2†                  26227.0      5176.9 µg/L        328.72      5176.9 ppb         328.72   6.35%
   QC value within limits for SiO2  Recovery = 96.81%
Si 251.611†            31921.2      2426.7 µg/L        151.93      2426.7 ppb         151.93   6.26%
   QC value within limits for Si 251.611  Recovery = 97.07%
Sn 189.927†             1120.5      472.56 µg/L        64.040      472.56 ppb         64.040  13.55%
   QC value within limits for Sn 189.927  Recovery = 94.51%
Sr 421.552†            52318.1      482.64 µg/L         1.480      482.64 ppb          1.480   0.31%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†           215507.9      476.43 µg/L        30.416      476.43 ppb         30.416   6.38%
   QC value within limits for Ti 334.940  Recovery = 95.29%
Tl 190.801†              367.3      482.84 µg/L        40.853      482.84 ppb         40.853   8.46%
   QC value within limits for Tl 190.801  Recovery = 96.57%
U 409.014†              5760.1      477.59 µg/L        43.602      477.59 ppb         43.602   9.13%
   QC value within limits for U 409.014  Recovery = 95.52%
V 292.402†             48828.8      481.66 µg/L        41.521      481.66 ppb         41.521   8.62%
   QC value within limits for V 292.402  Recovery = 96.33%
Zn 213.857†            20659.1      481.28 µg/L        38.019      481.28 ppb         38.019   7.90%
   QC value within limits for Zn 213.857  Recovery = 96.26%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:01:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57423.2	57423.2	102	%			19:01:39
1	Al 396.153Radial†	-18.9	-25.9	-18.036	µg/L	-18.036	ppb	19:01:39
1	Ca 317.933Radial†	194.6	-19.8	-16.907	µg/L	-16.907	ppb	19:02:00
1	Fe 238.204 Radial†	20.3	3.4	26.844	µg/L	26.844	ppb	19:02:00
1	K 766.490 Radial†	169.3	1.6	1.0514	µg/L	1.0514	ppb	19:01:39
1	Mg 279.077 IEC†	10.7	-2.3	-20.795	µg/L	-20.795	ppb	19:02:00
1	Na 589.592 Radial†	537.1	56.3	17.279	µg/L	17.279	ppb	19:01:39
1	Sr 421.552†	21.5	-7.7	-0.0709	µg/L	-0.0709	ppb	19:01:39
1	Sc 361.383	2013251.1	2013251.1	102.55	%			19:03:02
1	Y 371.029	1385844.0	1385844.0	102.45	%			19:03:02
1	Ag 328.068†	-425.6	-13.4	-0.0944	µg/L	-0.0944	ppb	19:03:07
1	As 188.979†	1.0	1.5	2.6013	µg/L	2.6013	ppb	19:03:28
1	B 249.677†	361.7	-31.5	-1.2963	µg/L	-1.2963	ppb	19:03:28
1	Ba 233.527†	-6.9	10.3	0.2492	µg/L	0.2492	ppb	19:03:28
1	Be 313.107†	-2769.2	155.5	0.0922	µg/L	0.0922	ppb	19:03:07
1	Cd 226.502†	-136.0	9.0	0.2223	µg/L	0.2223	ppb	19:03:28
1	Co 228.616†	7.0	4.9	0.2213	µg/L	0.2213	ppb	19:03:28
1	Cr 267.716†	-45.7	5.9	0.1181	µg/L	0.1181	ppb	19:03:07
1	Cu 324.752†	2554.2	-53.2	-0.3432	µg/L	-0.3432	ppb	19:03:07
1	Mn 257.610†	-168.0	92.2	0.2930	µg/L	0.2930	ppb	19:03:28
1	Mo 202.031†	-4.8	0.6	0.0615	µg/L	0.0615	ppb	19:03:28
1	Ni 231.604†	318.0	-2.3	-0.1132	µg/L	-0.1132	ppb	19:03:28
1	P 214.914†	14.8	-0.9	-1.7488	µg/L	-1.7488	ppb	19:03:28
1	Pb 220.353†	84.3	-8.7	-2.1358	µg/L	-2.1358	ppb	19:03:28
1	S 181.975 Axial†	16.4	-2.9	-12.184	µg/L	-12.184	ppb	19:03:28
1	Sb 206.836†	29.7	6.4	5.9047	µg/L	5.9047	ppb	19:03:28
1	Se 196.026†	21.6	1.7	2.5321	µg/L	2.5321	ppb	19:03:28
1	SiO2†	1445.6	18.1	3.5679	µg/L	3.5679	ppb	19:03:07
1	Si 251.611†	358.6	39.1	2.9715	µg/L	2.9715	ppb	19:03:28
1	Sn 189.927†	6.5	5.9	2.5018	µg/L	2.5018	ppb	19:03:28
1	Ti 334.940†	319.2	136.2	0.3026	µg/L	0.3026	ppb	19:03:07
1	Tl 190.801†	-23.1	-0.1	-0.1533	µg/L	-0.1533	ppb	19:03:28
1	U 409.014†	95.4	170.1	14.129	µg/L	14.129	ppb	19:03:07
1	V 292.402†	4.5	49.1	0.4975	µg/L	0.4975	ppb	19:03:07
1	Zn 213.857†	525.8	-21.7	-0.5072	µg/L	-0.5072	ppb	19:03:28
2	Sc RADIAL	57351.0	57351.0	102	%			19:02:05
2	Al 396.153Radial†	0.6	-6.8	-4.7217	µg/L	-4.7217	ppb	19:02:05
2	Ca 317.933Radial†	191.9	-22.2	-18.945	µg/L	-18.945	ppb	19:02:26
2	Fe 238.204 Radial†	16.4	-0.4	-2.9277	µg/L	-2.9277	ppb	19:02:26
2	K 766.490 Radial†	226.8	58.4	38.151	µg/L	38.151	ppb	19:02:05
2	Mg 279.077 IEC†	4.7	-8.2	-72.904	µg/L	-72.904	ppb	19:02:26
2	Na 589.592 Radial†	474.9	-4.4	-1.3380	µg/L	-1.3380	ppb	19:02:05
2	Sr 421.552†	49.2	19.7	0.1813	µg/L	0.1813	ppb	19:02:05
2	Sc 361.383	2012182.2	2012182.2	102.50	%			19:03:34
2	Y 371.029	1385686.0	1385686.0	102.43	%			19:03:34
2	Ag 328.068†	-448.4	-35.9	-0.2659	µg/L	-0.2659	ppb	19:03:39
2	As 188.979†	-1.5	-1.0	-1.7378	µg/L	-1.7378	ppb	19:04:00
2	B 249.677†	352.5	-40.3	-1.6393	µg/L	-1.6393	ppb	19:04:00
2	Ba 233.527†	-10.2	7.1	0.1714	µg/L	0.1714	ppb	19:04:00
2	Be 313.107†	-2906.5	20.0	0.0117	µg/L	0.0117	ppb	19:03:39
2	Cd 226.502†	-139.6	5.4	0.1354	µg/L	0.1354	ppb	19:04:00
2	Co 228.616†	8.8	6.6	0.3005	µg/L	0.3005	ppb	19:04:00
2	Cr 267.716†	-48.8	2.8	0.0565	µg/L	0.0565	ppb	19:03:39
2	Cu 324.752†	2585.7	-21.1	-0.1382	µg/L	-0.1382	ppb	19:03:39
2	Mn 257.610†	-165.3	94.7	0.2992	µg/L	0.2992	ppb	19:04:00
2	Mo 202.031†	-0.6	4.7	0.4624	µg/L	0.4624	ppb	19:04:00
2	Ni 231.604†	304.3	-15.4	-0.7700	µg/L	-0.7700	ppb	19:04:00
2	P 214.914†	20.3	4.4	8.7926	µg/L	8.7926	ppb	19:04:00
2	Pb 220.353†	93.2	-0.0	-0.0043	µg/L	-0.0043	ppb	19:04:00

2	S 181.975 Axial†	10.8	-8.4	-34.884 µg/L	-34.884 ppb	19:04:00
2	Sb 206.836†	19.1	-3.9	-3.5666 µg/L	-3.5666 ppb	19:04:00
2	Se 196.026†	15.1	-4.6	-6.4360 µg/L	-6.4360 ppb	19:04:00
2	SiO2†	1460.9	33.7	6.6594 µg/L	6.6594 ppb	19:03:39
2	Si 251.611†	358.4	39.0	2.9639 µg/L	2.9639 ppb	19:04:00
2	Sn 189.927†	4.7	4.2	1.7676 µg/L	1.7676 ppb	19:04:00
2	Ti 334.940†	408.1	223.1	0.4990 µg/L	0.4990 ppb	19:03:39
2	Tl 190.801†	-23.8	-0.9	-1.1422 µg/L	-1.1422 ppb	19:04:00
2	U 409.014†	-63.7	15.0	1.2443 µg/L	1.2443 ppb	19:03:39
2	V 292.402†	-44.3	1.5	0.0193 µg/L	0.0193 ppb	19:03:39
2	Zn 213.857†	528.3	-19.0	-0.4374 µg/L	-0.4374 ppb	19:04:00
3	Sc RADIAL	57190.0	57190.0	101 %		19:02:31
3	Al 396.153Radial†	-22.6	-29.7	-20.673 µg/L	-20.673 ppb	19:02:31
3	Ca 317.933Radial†	189.8	-23.8	-20.291 µg/L	-20.291 ppb	19:02:51
3	Fe 238.204 Radial†	18.6	1.8	13.987 µg/L	13.987 ppb	19:02:51
3	K 766.490 Radial†	197.7	30.3	19.782 µg/L	19.782 ppb	19:02:31
3	Mg 279.077 IEC†	10.1	-2.9	-25.784 µg/L	-25.784 ppb	19:02:51
3	Na 589.592 Radial†	485.7	7.6	2.3466 µg/L	2.3466 ppb	19:02:31
3	Sr 421.552†	55.0	25.5	0.2351 µg/L	0.2351 ppb	19:02:31
3	Sc 361.383	2000057.1	2000057.1	101.88 %		19:04:06
3	Y 371.029	1377155.5	1377155.5	101.80 %		19:04:06
3	Ag 328.068†	-451.3	-41.4	-0.3043 µg/L	-0.3043 ppb	19:04:11
3	As 188.979†	5.3	5.6	10.113 µg/L	10.113 ppb	19:04:32
3	B 249.677†	349.5	-41.1	-1.6816 µg/L	-1.6816 ppb	19:04:32
3	Ba 233.527†	-13.8	3.6	0.0860 µg/L	0.0860 ppb	19:04:32
3	Be 313.107†	-2997.1	-86.1	-0.0512 µg/L	-0.0512 ppb	19:04:11
3	Cd 226.502†	-137.9	6.3	0.1551 µg/L	0.1551 ppb	19:04:32
3	Co 228.616†	6.6	4.6	0.2062 µg/L	0.2062 ppb	19:04:32
3	Cr 267.716†	-22.6	28.2	0.5656 µg/L	0.5656 ppb	19:04:11
3	Cu 324.752†	2587.8	-3.8	-0.0226 µg/L	-0.0226 ppb	19:04:11
3	Mn 257.610†	-159.2	99.8	0.3153 µg/L	0.3153 ppb	19:04:32
3	Mo 202.031†	2.5	7.8	0.7608 µg/L	0.7608 ppb	19:04:32
3	Ni 231.604†	316.7	-1.4	-0.0722 µg/L	-0.0722 ppb	19:04:32
3	P 214.914†	14.3	-1.3	-2.5898 µg/L	-2.5898 ppb	19:04:32
3	Pb 220.353†	83.5	-8.9	-2.1741 µg/L	-2.1741 ppb	19:04:32
3	S 181.975 Axial†	16.2	-3.0	-12.393 µg/L	-12.393 ppb	19:04:32
3	Sb 206.836†	23.0	0.1	0.0887 µg/L	0.0887 ppb	19:04:32
3	Se 196.026†	9.9	-9.6	-13.418 µg/L	-13.418 ppb	19:04:32
3	SiO2†	1462.5	43.9	8.6651 µg/L	8.6651 ppb	19:04:11
3	Si 251.611†	360.6	43.4	3.2962 µg/L	3.2962 ppb	19:04:32
3	Sn 189.927†	6.4	5.9	2.4731 µg/L	2.4731 ppb	19:04:32
3	Ti 334.940†	309.8	129.0	0.2871 µg/L	0.2871 ppb	19:04:11
3	Tl 190.801†	-25.4	-2.6	-3.3285 µg/L	-3.3285 ppb	19:04:32
3	U 409.014†	-45.5	32.4	2.6931 µg/L	2.6931 ppb	19:04:11
3	V 292.402†	-23.1	22.0	0.2263 µg/L	0.2263 ppb	19:04:11
3	Zn 213.857†	527.6	-16.5	-0.3862 µg/L	-0.3862 ppb	19:04:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008496.8	102.31	%	0.373				0.36%
Sc RADIAL	57321.4	101	%	0.2				0.21%
Y 371.029	1382895.2	102.23	%	0.367				0.36%
Ag 328.068†	-30.2	-0.2215	µg/L	0.11176	-0.2215	ppb	0.11176	50.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-20.8	-14.477	µg/L	8.5505	-14.477	ppb	8.5505	59.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	3.6588	µg/L	5.99568	3.6588	ppb	5.99568	163.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.6	-1.5391	µg/L	0.21127	-1.5391	ppb	0.21127	13.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.1689	µg/L	0.08165	0.1689	ppb	0.08165	48.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	29.8	0.0176	µg/L	0.07185	0.0176	ppb	0.07185	409.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-21.9	-18.714	µg/L	1.7037	-18.714	ppb	1.7037	9.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1709	µg/L	0.04557	0.1709	ppb	0.04557	26.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.2427	µg/L	0.05064	0.2427	ppb	0.05064	20.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.3      0.2467 µg/L       0.27783      0.2467 ppb        0.27783 112.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -26.0     -0.1680 µg/L       0.16236     -0.1680 ppb        0.16236  96.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.6      12.634 µg/L       14.9319      12.634 ppb        14.9319 118.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          30.1      19.662 µg/L       18.5502      19.662 ppb        18.5502  94.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.5     -39.828 µg/L       28.7536     -39.828 ppb        28.7536  72.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                95.6      0.3025 µg/L       0.01153      0.3025 ppb        0.01153   3.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.4      0.4283 µg/L       0.35090      0.4283 ppb        0.35090  81.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         19.8      6.0958 µg/L       9.85836      6.0958 ppb        9.85836 161.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.4     -0.3185 µg/L       0.39156     -0.3185 ppb        0.39156 122.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.7      1.4847 µg/L       6.34276      1.4847 ppb        6.34276 427.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9     -1.4381 µg/L       1.24182     -1.4381 ppb        1.24182  86.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.8     -19.820 µg/L       13.0459     -19.820 ppb        13.0459  65.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.9      0.8090 µg/L       4.77653      0.8090 ppb        4.77653 590.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.2     -5.7739 µg/L       7.99551     -5.7739 ppb        7.99551 138.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      31.9      6.2974 µg/L       2.56780      6.2974 ppb        2.56780  40.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                40.5      3.0772 µg/L       0.18971      3.0772 ppb        0.18971   6.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      2.2475 µg/L       0.41585      2.2475 ppb        0.41585  18.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.5      0.1152 µg/L       0.16339      0.1152 ppb        0.16339 141.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               162.8      0.3629 µg/L       0.11813      0.3629 ppb        0.11813  32.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.5413 µg/L       1.62481     -1.5413 ppb        1.62481 105.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 72.5      6.0222 µg/L       7.05819      6.0222 ppb        7.05819 117.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 24.2      0.2477 µg/L       0.23982      0.2477 ppb        0.23982  96.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -19.1     -0.4436 µg/L       0.06072     -0.4436 ppb        0.06072  13.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 19:26:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58011.2	58011.2	103	%			19:27:24
1	Al 396.153Radial†	7306.1	7107.9	4934.0	µg/L	4934.0	ppb	19:27:24
1	Ca 317.933Radial†	6126.5	5755.1	4915.9	µg/L	4915.9	ppb	19:27:44
1	Fe 238.204 Radial†	670.2	636.1	5027.8	µg/L	5027.8	ppb	19:27:44
1	K 766.490 Radial†	7850.1	7480.0	4885.3	µg/L	4885.3	ppb	19:27:24
1	Mg 279.077 IEC†	589.4	561.2	5020.1	µg/L	5020.1	ppb	19:27:44
1	Na 589.592 Radial†	33642.4	32291.3	9918.0	µg/L	9918.0	ppb	19:27:24
1	Sr 421.552†	53727.7	52295.2	482.43	µg/L	482.43	ppb	19:27:24
1	Sc 361.383	2023941.6	2023941.6	103.10	%			19:28:48
1	Y 371.029	1390155.2	1390155.2	102.76	%			19:28:48
1	Ag 328.068†	68263.9	66614.1	497.07	µg/L	497.07	ppb	19:28:53
1	As 188.979†	297.5	289.1	517.08	µg/L	517.08	ppb	19:29:14
1	B 249.677†	12754.8	11987.3	486.76	µg/L	486.76	ppb	19:28:53
1	Ba 233.527†	21527.5	20897.6	502.60	µg/L	502.60	ppb	19:28:53
1	Be 313.107†	859738.4	836757.9	496.43	µg/L	496.43	ppb	19:28:48
1	Cd 226.502†	20670.0	20190.5	503.51	µg/L	503.51	ppb	19:28:53
1	Co 228.616†	11554.6	11205.5	506.90	µg/L	506.90	ppb	19:28:53
1	Cr 267.716†	25881.7	25154.3	505.55	µg/L	505.55	ppb	19:28:53
1	Cu 324.752†	81255.0	76269.5	498.55	µg/L	498.55	ppb	19:28:53
1	Mn 257.610†	166147.8	161410.9	505.93	µg/L	505.93	ppb	19:28:48
1	Mo 202.031†	5454.8	5296.3	518.83	µg/L	518.83	ppb	19:29:14
1	Ni 231.604†	10745.9	10110.7	503.47	µg/L	503.47	ppb	19:28:53
1	P 214.914†	1361.8	1305.6	2537.4	µg/L	2537.4	ppb	19:29:14
1	Pb 220.353†	2266.4	2107.4	512.48	µg/L	512.48	ppb	19:29:14
1	S 181.975 Axial†	273.5	246.4	1021.7	µg/L	1021.7	ppb	19:29:14
1	Sb 206.836†	610.7	569.8	525.42	µg/L	525.42	ppb	19:29:14
1	Se 196.026†	395.7	364.5	519.83	µg/L	519.83	ppb	19:29:14
1	SiO2†	29524.0	27245.2	5377.9	µg/L	5377.9	ppb	19:28:53
1	Si 251.611†	34545.7	33196.9	2523.7	µg/L	2523.7	ppb	19:28:53
1	Sn 189.927†	1282.8	1243.9	524.60	µg/L	524.60	ppb	19:29:14
1	Ti 334.940†	231474.2	224343.1	495.98	µg/L	495.98	ppb	19:28:48
1	Tl 190.801†	382.2	393.1	516.55	µg/L	516.55	ppb	19:29:14
1	U 409.014†	6240.4	6130.0	508.31	µg/L	508.31	ppb	19:28:53
1	V 292.402†	52860.7	51317.0	506.38	µg/L	506.38	ppb	19:28:53
1	Zn 213.857†	22851.7	21630.6	503.94	µg/L	503.94	ppb	19:28:53
2	Sc RADIAL	58208.4	58208.4	103	%			19:27:50
2	Al 396.153Radial†	7271.3	7050.0	4894.0	µg/L	4894.0	ppb	19:27:50
2	Ca 317.933Radial†	6163.6	5771.0	4929.4	µg/L	4929.4	ppb	19:28:10
2	Fe 238.204 Radial†	675.5	639.1	5051.0	µg/L	5051.0	ppb	19:28:10
2	K 766.490 Radial†	7866.0	7469.5	4878.5	µg/L	4878.5	ppb	19:27:50
2	Mg 279.077 IEC†	590.4	560.2	5010.8	µg/L	5010.8	ppb	19:28:10
2	Na 589.592 Radial†	33660.4	32197.8	9889.3	µg/L	9889.3	ppb	19:27:50
2	Sr 421.552†	53698.2	52089.4	480.53	µg/L	480.53	ppb	19:27:50
2	Sc 361.383	2026589.1	2026589.1	103.23	%			19:29:21
2	Y 371.029	1392880.6	1392880.6	102.97	%			19:29:21
2	Ag 328.068†	68809.4	67056.0	500.36	µg/L	500.36	ppb	19:29:27
2	As 188.979†	296.8	288.0	515.16	µg/L	515.16	ppb	19:29:47
2	B 249.677†	12885.4	12097.7	491.25	µg/L	491.25	ppb	19:29:27
2	Ba 233.527†	21677.5	21015.6	505.43	µg/L	505.43	ppb	19:29:27
2	Be 313.107†	865418.2	841170.5	499.05	µg/L	499.05	ppb	19:29:21
2	Cd 226.502†	20826.2	20315.7	506.63	µg/L	506.63	ppb	19:29:27
2	Co 228.616†	11598.5	11233.3	508.15	µg/L	508.15	ppb	19:29:27
2	Cr 267.716†	26109.2	25341.9	509.31	µg/L	509.31	ppb	19:29:27
2	Cu 324.752†	81892.1	76783.6	501.90	µg/L	501.90	ppb	19:29:27
2	Mn 257.610†	167199.4	162219.0	508.46	µg/L	508.46	ppb	19:29:21
2	Mo 202.031†	5288.0	5127.7	502.33	µg/L	502.33	ppb	19:29:47
2	Ni 231.604†	10828.5	10177.0	506.78	µg/L	506.78	ppb	19:29:27
2	P 214.914†	1324.9	1268.1	2462.5	µg/L	2462.5	ppb	19:29:47
2	Pb 220.353†	2219.6	2059.1	500.70	µg/L	500.70	ppb	19:29:47

2	S 181.975 Axial†	269.0	241.6	1001.9 µg/L	1001.9 ppb	19:29:47
2	Sb 206.836†	585.9	545.1	502.40 µg/L	502.40 ppb	19:29:47
2	Se 196.026†	401.2	369.3	526.64 µg/L	526.64 ppb	19:29:47
2	SiO2†	29674.8	27353.9	5399.3 µg/L	5399.3 ppb	19:29:27
2	Si 251.611†	34681.9	33285.1	2530.4 µg/L	2530.4 ppb	19:29:27
2	Sn 189.927†	1240.2	1201.0	506.52 µg/L	506.52 ppb	19:29:47
2	Ti 334.940†	232768.0	225303.0	498.10 µg/L	498.10 ppb	19:29:21
2	Tl 190.801†	370.9	381.6	501.66 µg/L	501.66 ppb	19:29:47
2	U 409.014†	6213.7	6096.2	505.50 µg/L	505.50 ppb	19:29:27
2	V 292.402†	53162.8	51542.6	508.46 µg/L	508.46 ppb	19:29:27
2	Zn 213.857†	22978.8	21724.8	506.12 µg/L	506.12 ppb	19:29:27
3	Sc RADIAL	57939.2	57939.2	103 %		19:28:16
3	Al 396.153Radial†	7262.7	7074.4	4912.9 µg/L	4912.9 ppb	19:28:16
3	Ca 317.933Radial†	6172.6	5807.6	4960.7 µg/L	4960.7 ppb	19:28:36
3	Fe 238.204 Radial†	672.1	638.8	5047.6 µg/L	5047.6 ppb	19:28:36
3	K 766.490 Radial†	7867.0	7506.0	4902.3 µg/L	4902.3 ppb	19:28:16
3	Mg 279.077 IEC†	596.5	568.8	5086.0 µg/L	5086.0 ppb	19:28:36
3	Na 589.592 Radial†	33675.5	32364.3	9940.5 µg/L	9940.5 ppb	19:28:16
3	Sr 421.552†	53684.5	52318.1	482.64 µg/L	482.64 ppb	19:28:16
3	Sc 361.383	2019244.9	2019244.9	102.86 %		19:29:54
3	Y 371.029	1386733.2	1386733.2	102.51 %		19:29:54
3	Ag 328.068†	63032.4	61682.0	460.10 µg/L	460.10 ppb	19:30:00
3	As 188.979†	244.2	237.9	425.60 µg/L	425.60 ppb	19:30:20
3	B 249.677†	11714.9	11005.2	446.60 µg/L	446.60 ppb	19:30:00
3	Ba 233.527†	19107.8	18593.8	447.17 µg/L	447.17 ppb	19:30:00
3	Be 313.107†	780455.8	761618.7	451.85 µg/L	451.85 ppb	19:29:54
3	Cd 226.502†	18286.2	17919.6	446.80 µg/L	446.80 ppb	19:30:00
3	Co 228.616†	10093.7	9811.2	443.77 µg/L	443.77 ppb	19:30:00
3	Cr 267.716†	21917.3	21358.4	429.26 µg/L	429.26 ppb	19:30:00
3	Cu 324.752†	71787.5	67248.4	439.66 µg/L	439.66 ppb	19:30:00
3	Mn 257.610†	151706.1	147745.4	463.13 µg/L	463.13 ppb	19:29:54
3	Mo 202.031†	4317.7	4203.0	411.78 µg/L	411.78 ppb	19:30:20
3	Ni 231.604†	9445.6	8870.7	441.74 µg/L	441.74 ppb	19:30:00
3	P 214.914†	1095.4	1049.6	2035.1 µg/L	2035.1 ppb	19:30:20
3	Pb 220.353†	1899.2	1755.5	426.81 µg/L	426.81 ppb	19:30:20
3	S 181.975 Axial†	229.2	203.9	845.45 µg/L	845.45 ppb	19:30:20
3	Sb 206.836†	491.4	455.2	419.32 µg/L	419.32 ppb	19:30:20
3	Se 196.026†	335.0	306.4	438.20 µg/L	438.20 ppb	19:30:20
3	SiO2†	26768.8	24633.2	4862.3 µg/L	4862.3 ppb	19:30:00
3	Si 251.611†	31095.2	29920.3	2274.6 µg/L	2274.6 ppb	19:30:00
3	Sn 189.927†	986.7	958.9	404.42 µg/L	404.42 ppb	19:30:20
3	Ti 334.940†	208387.6	202420.4	447.48 µg/L	447.48 ppb	19:29:54
3	Tl 190.801†	323.7	337.1	443.33 µg/L	443.33 ppb	19:30:20
3	U 409.014†	5278.3	5208.6	431.75 µg/L	431.75 ppb	19:30:00
3	V 292.402†	45791.0	44563.0	439.48 µg/L	439.48 ppb	19:30:00
3	Zn 213.857†	20107.0	19013.7	442.90 µg/L	442.90 ppb	19:30:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2023258.5	103.06	%	0.189				0.18%
Sc RADIAL	58052.9	103	%	0.2				0.24%
Y 371.029	1389923.0	102.75	%	0.228				0.22%
Ag 328.068†	65117.4	485.84	µg/L	22.354	485.84	ppb	22.354	4.60%
QC value within limits for Ag 328.068 Recovery = 97.17%								
Al 396.153Radial†	7077.4	4913.6	µg/L	19.97	4913.6	ppb	19.97	0.41%
QC value within limits for Al 396.153Radial Recovery = 98.27%								
As 188.979†	271.6	485.95	µg/L	52.268	485.95	ppb	52.268	10.76%
QC value within limits for As 188.979 Recovery = 97.19%								
B 249.677†	11696.7	474.87	µg/L	24.588	474.87	ppb	24.588	5.18%
QC value within limits for B 249.677 Recovery = 94.97%								
Ba 233.527†	20169.0	485.07	µg/L	32.850	485.07	ppb	32.850	6.77%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	813182.4	482.44	µg/L	26.525	482.44	ppb	26.525	5.50%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	5777.9	4935.4	µg/L	22.97	4935.4	ppb	22.97	0.47%
QC value within limits for Ca 317.933Radial Recovery = 98.71%								
Cd 226.502†	19475.3	485.65	µg/L	33.674	485.65	ppb	33.674	6.93%
QC value within limits for Cd 226.502 Recovery = 97.13%								
Co 228.616†	10750.0	486.27	µg/L	36.817	486.27	ppb	36.817	7.57%

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   QC value within limits for Co 228.616  Recovery = 97.25%
Cr 267.716†            23951.5      481.37 µg/L        45.169      481.37 ppb         45.169   9.38%
   QC value within limits for Cr 267.716  Recovery = 96.27%
Cu 324.752†            73433.8      480.04 µg/L        35.005      480.04 ppb         35.005   7.29%
   QC value within limits for Cu 324.752  Recovery = 96.01%
Fe 238.204 Radial†       638.0      5042.1 µg/L         12.53      5042.1 ppb          12.53   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.84%
K 766.490 Radial†       7485.2      4888.7 µg/L         12.26      4888.7 ppb          12.26   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 97.77%
Mg 279.077 IEC†          563.4      5039.0 µg/L         41.01      5039.0 ppb          41.01   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.78%
Mn 257.610†           157125.1      492.51 µg/L        25.470      492.51 ppb         25.470   5.17%
   QC value within limits for Mn 257.610  Recovery = 98.50%
Mo 202.031†             4875.7      477.65 µg/L        57.638      477.65 ppb         57.638  12.07%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     32284.4      9915.9 µg/L         25.63      9915.9 ppb          25.63   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.16%
Ni 231.604†             9719.5      484.00 µg/L        36.636      484.00 ppb         36.636   7.57%
   QC value within limits for Ni 231.604  Recovery = 96.80%
P 214.914†              1207.8      2345.0 µg/L        270.98      2345.0 ppb         270.98  11.56%
   QC value within limits for P 214.914  Recovery = 93.80%
Pb 220.353†             1974.0      480.00 µg/L        46.437      480.00 ppb         46.437   9.67%
   QC value within limits for Pb 220.353  Recovery = 96.00%
S 181.975 Axial†         230.6      956.35 µg/L        96.547      956.35 ppb         96.547  10.10%
   QC value within limits for S 181.975 Axial  Recovery = 95.63%
Sb 206.836†              523.4      482.38 µg/L        55.814      482.38 ppb         55.814  11.57%
   QC value within limits for Sb 206.836  Recovery = 96.48%
Se 196.026†              346.8      494.89 µg/L        49.212      494.89 ppb         49.212   9.94%
   QC value within limits for Se 196.026  Recovery = 98.98%
SiO2†                  26410.8      5213.1 µg/L        304.05      5213.1 ppb         304.05   5.83%
   QC value within limits for SiO2  Recovery = 97.49%
Si 251.611†            32134.1      2442.9 µg/L        145.79      2442.9 ppb         145.79   5.97%
   QC value within limits for Si 251.611  Recovery = 97.72%
Sn 189.927†             1134.6      478.51 µg/L        64.799      478.51 ppb         64.799  13.54%
   QC value within limits for Sn 189.927  Recovery = 95.70%
Sr 421.552†            52234.2      481.87 µg/L         1.162      481.87 ppb          1.162   0.24%
   QC value within limits for Sr 421.552  Recovery = 96.37%
Ti 334.940†           217355.5      480.52 µg/L        28.636      480.52 ppb         28.636   5.96%
   QC value within limits for Ti 334.940  Recovery = 96.10%
Tl 190.801†              370.6      487.18 µg/L        38.702      487.18 ppb         38.702   7.94%
   QC value within limits for Tl 190.801  Recovery = 97.44%
U 409.014†              5811.6      481.85 µg/L        43.409      481.85 ppb         43.409   9.01%
   QC value within limits for U 409.014  Recovery = 96.37%
V 292.402†             49140.8      484.77 µg/L        39.238      484.77 ppb         39.238   8.09%
   QC value within limits for V 292.402  Recovery = 96.95%
Zn 213.857†            20789.7      484.32 µg/L        35.886      484.32 ppb         35.886   7.41%
   QC value within limits for Zn 213.857  Recovery = 96.86%
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:30:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57803.7	57803.7	102	%			19:31:04
1	Al 396.153Radial†	-10.0	-17.1	-11.924	µg/L	-11.924	ppb	19:31:04
1	Ca 317.933Radial†	196.7	-19.1	-16.278	µg/L	-16.278	ppb	19:31:24
1	Fe 238.204 Radial†	20.4	3.4	26.456	µg/L	26.456	ppb	19:31:24
1	K 766.490 Radial†	206.4	36.8	24.007	µg/L	24.007	ppb	19:31:04
1	Mg 279.077 IEC†	12.2	-0.9	-8.3904	µg/L	-8.3904	ppb	19:31:24
1	Na 589.592 Radial†	467.0	-15.7	-4.8300	µg/L	-4.8300	ppb	19:31:04
1	Sr 421.552†	46.6	16.7	0.1542	µg/L	0.1542	ppb	19:31:04
1	Sc 361.383	2025799.3	2025799.3	103.19	%			19:32:26
1	Y 371.029	1395690.7	1395690.7	103.17	%			19:32:26
1	Ag 328.068†	-418.9	-4.3	-0.0299	µg/L	-0.0299	ppb	19:32:32
1	As 188.979†	5.7	6.0	10.690	µg/L	10.690	ppb	19:32:52
1	B 249.677†	346.4	-48.5	-1.9903	µg/L	-1.9903	ppb	19:32:52
1	Ba 233.527†	-10.1	7.3	0.1761	µg/L	0.1761	ppb	19:32:52
1	Be 313.107†	-2840.4	103.2	0.0611	µg/L	0.0611	ppb	19:32:32
1	Cd 226.502†	-141.4	4.7	0.1130	µg/L	0.1130	ppb	19:32:52
1	Co 228.616†	3.9	1.9	0.0851	µg/L	0.0851	ppb	19:32:52
1	Cr 267.716†	-52.3	-0.3	-0.0059	µg/L	-0.0059	ppb	19:32:32
1	Cu 324.752†	2589.2	-34.6	-0.2223	µg/L	-0.2223	ppb	19:32:32
1	Mn 257.610†	-125.9	134.0	0.4234	µg/L	0.4234	ppb	19:32:52
1	Mo 202.031†	-3.8	1.7	0.1637	µg/L	0.1637	ppb	19:32:52
1	Ni 231.604†	312.5	-9.5	-0.4735	µg/L	-0.4735	ppb	19:32:52
1	P 214.914†	19.0	3.1	6.0665	µg/L	6.0665	ppb	19:32:52
1	Pb 220.353†	87.4	-6.2	-1.5170	µg/L	-1.5170	ppb	19:32:52
1	S 181.975 Axial†	16.2	-3.2	-13.428	µg/L	-13.428	ppb	19:32:52
1	Sb 206.836†	17.3	-5.7	-5.2171	µg/L	-5.2171	ppb	19:32:52
1	Se 196.026†	14.6	-5.2	-7.2159	µg/L	-7.2159	ppb	19:32:52
1	SiO2†	1457.3	20.6	4.0713	µg/L	4.0713	ppb	19:32:32
1	Si 251.611†	367.4	45.4	3.4484	µg/L	3.4484	ppb	19:32:52
1	Sn 189.927†	2.9	2.5	1.0388	µg/L	1.0388	ppb	19:32:52
1	Ti 334.940†	320.1	135.2	0.2995	µg/L	0.2995	ppb	19:32:32
1	Tl 190.801†	-20.2	2.8	3.6951	µg/L	3.6951	ppb	19:32:52
1	U 409.014†	5.9	82.8	6.8777	µg/L	6.8777	ppb	19:32:32
1	V 292.402†	-40.7	5.3	0.0634	µg/L	0.0634	ppb	19:32:32
1	Zn 213.857†	538.4	-12.7	-0.2952	µg/L	-0.2952	ppb	19:32:52
2	Sc RADIAL	57446.2	57446.2	102	%			19:31:29
2	Al 396.153Radial†	-13.6	-20.7	-14.413	µg/L	-14.413	ppb	19:31:29
2	Ca 317.933Radial†	196.2	-18.3	-15.615	µg/L	-15.615	ppb	19:31:50
2	Fe 238.204 Radial†	16.6	-0.3	-2.1967	µg/L	-2.1967	ppb	19:31:50
2	K 766.490 Radial†	247.6	78.5	51.300	µg/L	51.300	ppb	19:31:29
2	Mg 279.077 IEC†	10.6	-2.4	-21.567	µg/L	-21.567	ppb	19:31:50
2	Na 589.592 Radial†	483.2	3.0	0.9277	µg/L	0.9277	ppb	19:31:29
2	Sr 421.552†	2.4	-26.4	-0.2440	µg/L	-0.2440	ppb	19:31:29
2	Sc 361.383	2031745.9	2031745.9	103.50	%			19:32:58
2	Y 371.029	1401392.4	1401392.4	103.60	%			19:32:58
2	Ag 328.068†	-396.7	18.3	0.1368	µg/L	0.1368	ppb	19:33:04
2	As 188.979†	0.2	0.6	1.1375	µg/L	1.1375	ppb	19:33:24
2	B 249.677†	348.5	-47.4	-1.9319	µg/L	-1.9319	ppb	19:33:24
2	Ba 233.527†	-17.3	0.3	0.0083	µg/L	0.0083	ppb	19:33:24
2	Be 313.107†	-2882.3	70.8	0.0419	µg/L	0.0419	ppb	19:33:04
2	Cd 226.502†	-137.7	8.6	0.2144	µg/L	0.2144	ppb	19:33:24
2	Co 228.616†	-1.5	-3.4	-0.1547	µg/L	-0.1547	ppb	19:33:24
2	Cr 267.716†	-68.0	-15.3	-0.3078	µg/L	-0.3078	ppb	19:33:04
2	Cu 324.752†	2609.0	-22.8	-0.1493	µg/L	-0.1493	ppb	19:33:04
2	Mn 257.610†	-117.6	142.3	0.4463	µg/L	0.4463	ppb	19:33:24
2	Mo 202.031†	-2.4	3.0	0.2951	µg/L	0.2951	ppb	19:33:24
2	Ni 231.604†	312.9	-10.0	-0.4983	µg/L	-0.4983	ppb	19:33:24
2	P 214.914†	11.5	-4.2	-8.3725	µg/L	-8.3725	ppb	19:33:24
2	Pb 220.353†	83.2	-10.5	-2.5612	µg/L	-2.5612	ppb	19:33:24

2	S 181.975 Axial†	19.8	0.2	0.8387 µg/L	0.8387 ppb	19:33:24
2	Sb 206.836†	25.4	2.1	1.9038 µg/L	1.9038 ppb	19:33:24
2	Se 196.026†	16.0	-3.9	-5.4218 µg/L	-5.4218 ppb	19:33:24
2	SiO2†	1425.4	-14.3	-2.8218 µg/L	-2.8218 ppb	19:33:04
2	Si 251.611†	386.0	62.4	4.7401 µg/L	4.7401 ppb	19:33:24
2	Sn 189.927†	-0.4	-0.8	-0.3347 µg/L	-0.3347 ppb	19:33:24
2	Ti 334.940†	346.5	159.8	0.3550 µg/L	0.3550 ppb	19:33:04
2	Tl 190.801†	-19.1	3.9	5.0976 µg/L	5.0976 ppb	19:33:24
2	U 409.014†	-2.7	74.5	6.1922 µg/L	6.1922 ppb	19:33:04
2	V 292.402†	-29.1	16.7	0.1702 µg/L	0.1702 ppb	19:33:04
2	Zn 213.857†	529.8	-22.5	-0.5234 µg/L	-0.5234 ppb	19:33:24
3	Sc RADIAL	56634.0	56634.0	100 %		19:31:55
3	Al 396.153Radial†	3.4	-4.0	-2.7853 µg/L	-2.7853 ppb	19:31:55
3	Ca 317.933Radial†	194.5	-17.2	-14.719 µg/L	-14.719 ppb	19:32:16
3	Fe 238.204 Radial†	18.7	2.1	16.416 µg/L	16.416 ppb	19:32:16
3	K 766.490 Radial†	165.0	-0.4	-0.2546 µg/L	-0.2546 ppb	19:31:55
3	Mg 279.077 IEC†	11.4	-1.4	-12.921 µg/L	-12.921 ppb	19:32:16
3	Na 589.592 Radial†	499.6	26.2	8.0527 µg/L	8.0527 ppb	19:31:55
3	Sr 421.552†	20.0	-8.9	-0.0818 µg/L	-0.0818 ppb	19:31:55
3	Sc 361.383	2031784.6	2031784.6	103.50 %		19:33:30
3	Y 371.029	1401143.1	1401143.1	103.58 %		19:33:30
3	Ag 328.068†	-447.4	-30.7	-0.2248 µg/L	-0.2248 ppb	19:33:36
3	As 188.979†	-3.2	-2.6	-4.7006 µg/L	-4.7006 ppb	19:33:57
3	B 249.677†	355.0	-41.1	-1.6835 µg/L	-1.6835 ppb	19:33:57
3	Ba 233.527†	-12.0	5.5	0.1329 µg/L	0.1329 ppb	19:33:57
3	Be 313.107†	-2752.0	196.7	0.1167 µg/L	0.1167 ppb	19:33:36
3	Cd 226.502†	-133.4	12.8	0.3163 µg/L	0.3163 ppb	19:33:57
3	Co 228.616†	5.6	3.5	0.1593 µg/L	0.1593 ppb	19:33:57
3	Cr 267.716†	-3.9	46.6	0.9367 µg/L	0.9367 ppb	19:33:36
3	Cu 324.752†	2597.8	-33.7	-0.2180 µg/L	-0.2180 ppb	19:33:36
3	Mn 257.610†	-109.9	149.9	0.4720 µg/L	0.4720 ppb	19:33:57
3	Mo 202.031†	-0.0	5.3	0.5227 µg/L	0.5227 ppb	19:33:57
3	Ni 231.604†	321.2	-2.0	-0.0983 µg/L	-0.0983 ppb	19:33:57
3	P 214.914†	15.7	-0.2	-0.3967 µg/L	-0.3967 ppb	19:33:57
3	Pb 220.353†	93.0	-1.1	-0.2629 µg/L	-0.2629 ppb	19:33:57
3	S 181.975 Axial†	17.9	-1.7	-6.9059 µg/L	-6.9059 ppb	19:33:57
3	Sb 206.836†	24.5	1.2	1.0976 µg/L	1.0976 ppb	19:33:57
3	Se 196.026†	13.0	-6.8	-9.4419 µg/L	-9.4419 ppb	19:33:57
3	SiO2†	1471.5	30.2	5.9619 µg/L	5.9619 ppb	19:33:36
3	Si 251.611†	378.8	55.4	4.2091 µg/L	4.2091 ppb	19:33:57
3	Sn 189.927†	1.2	0.8	0.3212 µg/L	0.3212 ppb	19:33:57
3	Ti 334.940†	295.3	110.3	0.2447 µg/L	0.2447 ppb	19:33:36
3	Tl 190.801†	-22.9	0.3	0.3574 µg/L	0.3574 ppb	19:33:57
3	U 409.014†	-14.1	63.5	5.2725 µg/L	5.2725 ppb	19:33:36
3	V 292.402†	-25.9	19.7	0.2057 µg/L	0.2057 ppb	19:33:36
3	Zn 213.857†	530.6	-21.8	-0.5098 µg/L	-0.5098 ppb	19:33:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2029776.6	103.40	%	0.175				0.17%
Sc RADIAL	57294.7	101	%	1.1				1.05%
Y 371.029	1399408.7	103.45	%	0.238				0.23%
Ag 328.068†	-5.5	-0.0393	µg/L	0.18096	-0.0393	ppb	0.18096	460.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.9	-9.7076	µg/L	6.12268	-9.7076	ppb	6.12268	63.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	2.3757	µg/L	7.76979	2.3757	ppb	7.76979	327.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.7	-1.8686	µg/L	0.16289	-1.8686	ppb	0.16289	8.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.4	0.1057	µg/L	0.08714	0.1057	ppb	0.08714	82.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.6	0.0732	µg/L	0.03884	0.0732	ppb	0.03884	53.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.2	-15.537	µg/L	0.7823	-15.537	ppb	0.7823	5.04%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.7	0.2146	µg/L	0.10166	0.2146	ppb	0.10166	47.38%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0299	µg/L	0.16412	0.0299	ppb	0.16412	548.91%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.3      0.2077 µg/L       0.64914      0.2077 ppb        0.64914 312.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -30.4     -0.1965 µg/L       0.04097     -0.1965 ppb        0.04097  20.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.7      13.558 µg/L       14.5386      13.558 ppb        14.5386 107.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          38.3      25.017 µg/L       25.7921      25.017 ppb        25.7921 103.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.6     -14.293 µg/L        6.6944     -14.293 ppb         6.6944  46.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               142.1      0.4473 µg/L       0.02431      0.4473 ppb        0.02431   5.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.3      0.3272 µg/L       0.18162      0.3272 ppb        0.18162  55.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          4.5      1.3835 µg/L       6.45342      1.3835 ppb        6.45342 466.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.2     -0.3567 µg/L       0.22417     -0.3567 ppb        0.22417  62.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.5     -0.9009 µg/L       7.23268     -0.9009 ppb        7.23268 802.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9     -1.4470 µg/L       1.15074     -1.4470 ppb        1.15074  79.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.6     -6.4984 µg/L       7.14204     -6.4984 ppb        7.14204 109.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.8     -0.7386 µg/L       3.89940     -0.7386 ppb        3.89940 527.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.3     -7.3599 µg/L       2.01391     -7.3599 ppb        2.01391  27.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      12.2      2.4038 µg/L       4.62317      2.4038 ppb        4.62317 192.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                54.4      4.1325 µg/L       0.64925      4.1325 ppb        0.64925  15.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.3418 µg/L       0.68701      0.3418 ppb        0.68701 201.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.2     -0.0572 µg/L       0.20025     -0.0572 ppb        0.20025 350.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               135.1      0.2997 µg/L       0.05511      0.2997 ppb        0.05511  18.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.3      3.0500 µg/L       2.43504      3.0500 ppb        2.43504  79.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 73.6      6.1141 µg/L       0.80544      6.1141 ppb        0.80544  13.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 13.9      0.1464 µg/L       0.07408      0.1464 ppb        0.07408  50.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -19.0     -0.4428 µg/L       0.12799     -0.4428 ppb        0.12799  28.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 42
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 19:59:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58617.0	58617.0	104	%			19:59:42
1	Al 396.153Radial†	7256.0	6986.0	4849.5	µg/L	4849.5	ppb	19:59:42
1	Ca 317.933Radial†	6123.5	5690.6	4860.8	µg/L	4860.8	ppb	20:00:02
1	Fe 238.204 Radial†	667.2	626.5	4951.5	µg/L	4951.5	ppb	20:00:02
1	K 766.490 Radial†	7829.5	7381.2	4820.8	µg/L	4820.8	ppb	19:59:42
1	Mg 279.077 IEC†	588.8	554.6	4961.1	µg/L	4961.1	ppb	20:00:02
1	Na 589.592 Radial†	33301.2	31623.9	9713.1	µg/L	9713.1	ppb	19:59:42
1	Sr 421.552†	53397.7	51436.4	474.51	µg/L	474.51	ppb	19:59:42
1	Sc 361.383	2068511.8	2068511.8	105.37	%			20:01:05
1	Y 371.029	1423469.8	1423469.8	105.23	%			20:01:05
1	Ag 328.068†	67922.0	64862.9	484.01	µg/L	484.01	ppb	20:01:11
1	As 188.979†	296.0	281.4	503.36	µg/L	503.36	ppb	20:01:31
1	B 249.677†	12790.0	11754.2	477.28	µg/L	477.28	ppb	20:01:11
1	Ba 233.527†	21499.5	20421.1	491.13	µg/L	491.13	ppb	20:01:11
1	Be 313.107†	867694.3	826340.4	490.25	µg/L	490.25	ppb	20:01:05
1	Cd 226.502†	20783.9	19866.6	495.43	µg/L	495.43	ppb	20:01:11
1	Co 228.616†	11539.6	10949.8	495.33	µg/L	495.33	ppb	20:01:11
1	Cr 267.716†	25939.4	24668.1	495.77	µg/L	495.77	ppb	20:01:11
1	Cu 324.752†	80834.9	74172.6	484.85	µg/L	484.85	ppb	20:01:11
1	Mn 257.610†	167548.2	159267.5	499.21	µg/L	499.21	ppb	20:01:05
1	Mo 202.031†	5432.8	5161.4	505.62	µg/L	505.62	ppb	20:01:31
1	Ni 231.604†	10817.5	9954.0	495.67	µg/L	495.67	ppb	20:01:11
1	P 214.914†	1353.6	1269.3	2466.8	µg/L	2466.8	ppb	20:01:31
1	Pb 220.353†	2262.0	2055.8	499.95	µg/L	499.95	ppb	20:01:31
1	S 181.975 Axial†	272.7	239.9	994.69	µg/L	994.69	ppb	20:01:31
1	Sb 206.836†	591.4	538.8	496.84	µg/L	496.84	ppb	20:01:31
1	Se 196.026†	402.1	362.3	516.51	µg/L	516.51	ppb	20:01:31
1	SiO2†	29474.8	26581.5	5246.8	µg/L	5246.8	ppb	20:01:11
1	Si 251.611†	34348.3	32287.6	2454.6	µg/L	2454.6	ppb	20:01:11
1	Sn 189.927†	1273.6	1208.3	509.59	µg/L	509.59	ppb	20:01:31
1	Ti 334.940†	232532.4	220509.7	487.50	µg/L	487.50	ppb	20:01:05
1	Tl 190.801†	380.7	383.7	504.27	µg/L	504.27	ppb	20:01:31
1	U 409.014†	6183.0	5945.1	492.96	µg/L	492.96	ppb	20:01:11
1	V 292.402†	52726.6	50084.9	494.22	µg/L	494.22	ppb	20:01:11
1	Zn 213.857†	22867.3	21167.8	493.14	µg/L	493.14	ppb	20:01:11
2	Sc RADIAL	58636.6	58636.6	104	%			20:00:07
2	Al 396.153Radial†	7235.2	6963.6	4834.1	µg/L	4834.1	ppb	20:00:07
2	Ca 317.933Radial†	6136.1	5700.8	4869.5	µg/L	4869.5	ppb	20:00:28
2	Fe 238.204 Radial†	670.0	629.0	4971.2	µg/L	4971.2	ppb	20:00:28
2	K 766.490 Radial†	7740.8	7293.1	4763.3	µg/L	4763.3	ppb	20:00:07
2	Mg 279.077 IEC†	589.3	554.9	4963.5	µg/L	4963.5	ppb	20:00:28
2	Na 589.592 Radial†	33169.7	31486.4	9670.8	µg/L	9670.8	ppb	20:00:07
2	Sr 421.552†	53167.6	51197.6	472.31	µg/L	472.31	ppb	20:00:07
2	Sc 361.383	2055969.6	2055969.6	104.73	%			20:01:39
2	Y 371.029	1414871.3	1414871.3	104.59	%			20:01:39
2	Ag 328.068†	68170.5	65493.4	488.71	µg/L	488.71	ppb	20:01:44
2	As 188.979†	286.1	273.7	489.56	µg/L	489.56	ppb	20:02:05
2	B 249.677†	12871.2	11905.8	483.46	µg/L	483.46	ppb	20:01:44
2	Ba 233.527†	21540.4	20584.7	495.07	µg/L	495.07	ppb	20:01:44
2	Be 313.107†	866432.8	830159.5	492.52	µg/L	492.52	ppb	20:01:39
2	Cd 226.502†	20792.6	19995.3	498.64	µg/L	498.64	ppb	20:01:44
2	Co 228.616†	11548.2	11024.7	498.71	µg/L	498.71	ppb	20:01:44
2	Cr 267.716†	25975.2	24852.5	499.48	µg/L	499.48	ppb	20:01:44
2	Cu 324.752†	80962.2	74762.1	488.70	µg/L	488.70	ppb	20:01:44
2	Mn 257.610†	167284.8	159986.0	501.46	µg/L	501.46	ppb	20:01:39
2	Mo 202.031†	5294.1	5060.4	495.73	µg/L	495.73	ppb	20:02:05
2	Ni 231.604†	10791.2	9991.5	497.54	µg/L	497.54	ppb	20:01:44
2	P 214.914†	1329.3	1253.9	2435.7	µg/L	2435.7	ppb	20:02:05
2	Pb 220.353†	2213.3	2022.4	491.80	µg/L	491.80	ppb	20:02:05

2	S 181.975 Axial†	269.1	238.0	986.93 µg/L	986.93 ppb	20:02:05
2	Sb 206.836†	582.9	534.0	492.29 µg/L	492.29 ppb	20:02:05
2	Se 196.026†	393.7	356.6	508.59 µg/L	508.59 ppb	20:02:05
2	SiO2†	29657.1	26926.2	5314.9 µg/L	5314.9 ppb	20:01:44
2	Si 251.611†	34634.6	32759.9	2490.5 µg/L	2490.5 ppb	20:01:44
2	Sn 189.927†	1234.0	1177.9	496.78 µg/L	496.78 ppb	20:02:05
2	Ti 334.940†	231981.3	221329.7	489.32 µg/L	489.32 ppb	20:01:39
2	Tl 190.801†	381.4	386.5	507.93 µg/L	507.93 ppb	20:02:05
2	U 409.014†	6098.6	5900.3	489.23 µg/L	489.23 ppb	20:01:44
2	V 292.402†	52826.1	50485.1	498.06 µg/L	498.06 ppb	20:01:44
2	Zn 213.857†	22870.8	21303.6	496.31 µg/L	496.31 ppb	20:01:44
3	Sc RADIAL	59033.7	59033.7	104 %		20:00:33
3	Al 396.153Radial†	7290.5	6969.7	4840.1 µg/L	4840.1 ppb	20:00:33
3	Ca 317.933Radial†	6120.4	5646.0	4822.7 µg/L	4822.7 ppb	20:00:54
3	Fe 238.204 Radial†	666.4	621.2	4908.6 µg/L	4908.6 ppb	20:00:54
3	K 766.490 Radial†	7821.9	7320.6	4781.2 µg/L	4781.2 ppb	20:00:33
3	Mg 279.077 IEC†	587.2	549.1	4910.3 µg/L	4910.3 ppb	20:00:54
3	Na 589.592 Radial†	33485.2	31573.4	9697.6 µg/L	9697.6 ppb	20:00:33
3	Sr 421.552†	53913.2	51566.5	475.71 µg/L	475.71 ppb	20:00:33
3	Sc 361.383	2033065.7	2033065.7	103.56 %		20:02:12
3	Y 371.029	1398835.6	1398835.6	103.41 %		20:02:12
3	Ag 328.068†	63294.2	61518.2	458.88 µg/L	458.88 ppb	20:02:18
3	As 188.979†	245.5	237.5	424.87 µg/L	424.87 ppb	20:02:38
3	B 249.677†	11858.0	11065.9	449.15 µg/L	449.15 ppb	20:02:18
3	Ba 233.527†	19323.7	18676.0	449.14 µg/L	449.14 ppb	20:02:18
3	Be 313.107†	782866.8	758788.6	450.18 µg/L	450.18 ppb	20:02:12
3	Cd 226.502†	18556.4	18059.6	450.32 µg/L	450.32 ppb	20:02:18
3	Co 228.616†	10216.8	9863.3	446.13 µg/L	446.13 ppb	20:02:18
3	Cr 267.716†	22173.2	21460.7	431.32 µg/L	431.32 ppb	20:02:18
3	Cu 324.752†	72319.8	67287.9	439.90 µg/L	439.90 ppb	20:02:18
3	Mn 257.610†	151992.9	147019.7	460.85 µg/L	460.85 ppb	20:02:12
3	Mo 202.031†	4312.9	4169.9	408.53 µg/L	408.53 ppb	20:02:38
3	Ni 231.604†	9615.9	8972.7	446.82 µg/L	446.82 ppb	20:02:18
3	P 214.914†	1099.8	1046.6	2029.2 µg/L	2029.2 ppb	20:02:38
3	Pb 220.353†	1898.6	1742.3	423.60 µg/L	423.60 ppb	20:02:38
3	S 181.975 Axial†	229.2	202.4	839.15 µg/L	839.15 ppb	20:02:38
3	Sb 206.836†	490.6	451.2	415.60 µg/L	415.60 ppb	20:02:38
3	Se 196.026†	342.7	311.6	445.29 µg/L	445.29 ppb	20:02:38
3	SiO2†	27143.6	24818.1	4898.8 µg/L	4898.8 ppb	20:02:18
3	Si 251.611†	31477.2	30083.6	2287.0 µg/L	2287.0 ppb	20:02:18
3	Sn 189.927†	996.2	961.5	405.52 µg/L	405.52 ppb	20:02:38
3	Ti 334.940†	208374.6	201030.6	444.41 µg/L	444.41 ppb	20:02:12
3	Tl 190.801†	320.5	331.9	436.49 µg/L	436.49 ppb	20:02:38
3	U 409.014†	5350.1	5243.1	434.64 µg/L	434.64 ppb	20:02:18
3	V 292.402†	46198.8	44654.1	440.34 µg/L	440.34 ppb	20:02:18
3	Zn 213.857†	20325.7	19092.0	444.73 µg/L	444.73 ppb	20:02:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2052515.7	104.55	%	0.916				0.88%
Sc RADIAL	58762.4	104	%	0.4				0.40%
Y 371.029	1412392.2	104.41	%	0.924				0.89%
Ag 328.068†	63958.2	477.20	µg/L	16.037	477.20	ppb	16.037	3.36%
QC value within limits for Ag 328.068 Recovery = 95.44%								
Al 396.153Radial†	6973.1	4841.2	µg/L	7.74	4841.2	ppb	7.74	0.16%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	264.2	472.59	µg/L	41.905	472.59	ppb	41.905	8.87%
QC value within limits for As 188.979 Recovery = 94.52%								
B 249.677†	11575.3	469.96	µg/L	18.288	469.96	ppb	18.288	3.89%
QC value within limits for B 249.677 Recovery = 93.99%								
Ba 233.527†	19893.9	478.45	µg/L	25.456	478.45	ppb	25.456	5.32%
QC value within limits for Ba 233.527 Recovery = 95.69%								
Be 313.107†	805096.2	477.65	µg/L	23.819	477.65	ppb	23.819	4.99%
QC value within limits for Be 313.107 Recovery = 95.53%								
Ca 317.933Radial†	5679.2	4851.0	µg/L	24.88	4851.0	ppb	24.88	0.51%
QC value within limits for Ca 317.933Radial Recovery = 97.02%								
Cd 226.502†	19307.2	481.46	µg/L	27.019	481.46	ppb	27.019	5.61%
QC value within limits for Cd 226.502 Recovery = 96.29%								
Co 228.616†	10612.6	480.06	µg/L	29.431	480.06	ppb	29.431	6.13%

Sequence No.: 43
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 20:02:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57569.4	57569.4	102	%			20:03:20
1	Al 396.153Radial†	-22.6	-29.5	-20.579	µg/L	-20.579	ppb	20:03:20
1	Ca 317.933Radial†	198.2	-16.8	-14.330	µg/L	-14.330	ppb	20:03:40
1	Fe 238.204 Radial†	19.4	2.5	19.506	µg/L	19.506	ppb	20:03:40
1	K 766.490 Radial†	193.2	24.6	16.060	µg/L	16.060	ppb	20:03:20
1	Mg 279.077 IEC†	17.4	4.2	37.678	µg/L	37.678	ppb	20:03:40
1	Na 589.592 Radial†	507.7	26.1	8.0056	µg/L	8.0056	ppb	20:03:20
1	Sr 421.552†	69.4	39.3	0.3627	µg/L	0.3627	ppb	20:03:20
1	Sc 361.383	2028233.3	2028233.3	103.32	%			20:04:43
1	Y 371.029	1400221.9	1400221.9	103.51	%			20:04:43
1	Ag 328.068†	-425.8	-10.5	-0.0759	µg/L	-0.0759	ppb	20:04:48
1	As 188.979†	-0.0	0.4	0.7754	µg/L	0.7754	ppb	20:05:09
1	B 249.677†	384.2	-12.2	-0.5097	µg/L	-0.5097	ppb	20:05:09
1	Ba 233.527†	-8.4	9.0	0.2158	µg/L	0.2158	ppb	20:05:09
1	Be 313.107†	-2721.5	221.5	0.1313	µg/L	0.1313	ppb	20:04:48
1	Cd 226.502†	-138.1	8.0	0.1973	µg/L	0.1973	ppb	20:05:09
1	Co 228.616†	11.2	8.9	0.4024	µg/L	0.4024	ppb	20:05:09
1	Cr 267.716†	-77.7	-24.8	-0.4982	µg/L	-0.4982	ppb	20:04:48
1	Cu 324.752†	2603.6	-23.7	-0.1519	µg/L	-0.1519	ppb	20:04:48
1	Mn 257.610†	-163.1	98.1	0.3084	µg/L	0.3084	ppb	20:05:09
1	Mo 202.031†	7.5	12.6	1.2358	µg/L	1.2358	ppb	20:05:09
1	Ni 231.604†	299.1	-22.9	-1.1403	µg/L	-1.1403	ppb	20:05:09
1	P 214.914†	14.2	-1.6	-3.2353	µg/L	-3.2353	ppb	20:05:09
1	Pb 220.353†	90.8	-3.0	-0.7394	µg/L	-0.7394	ppb	20:05:09
1	S 181.975 Axial†	13.4	-5.9	-24.623	µg/L	-24.623	ppb	20:05:09
1	Sb 206.836†	25.4	2.1	1.9281	µg/L	1.9281	ppb	20:05:09
1	Se 196.026†	24.1	4.0	5.6292	µg/L	5.6292	ppb	20:05:09
1	SiO2†	1495.3	55.8	11.008	µg/L	11.008	ppb	20:04:48
1	Si 251.611†	422.4	98.2	7.4686	µg/L	7.4686	ppb	20:05:09
1	Sn 189.927†	3.5	3.0	1.2550	µg/L	1.2550	ppb	20:05:09
1	Ti 334.940†	384.2	196.9	0.4323	µg/L	0.4323	ppb	20:04:48
1	Tl 190.801†	-27.9	-4.6	-5.9805	µg/L	-5.9805	ppb	20:05:09
1	U 409.014†	2.8	79.8	6.6302	µg/L	6.6302	ppb	20:04:48
1	V 292.402†	-37.2	8.7	0.1027	µg/L	0.1027	ppb	20:04:48
1	Zn 213.857†	546.8	-5.1	-0.1177	µg/L	-0.1177	ppb	20:05:09
2	Sc RADIAL	57517.3	57517.3	102	%			20:03:46
2	Al 396.153Radial†	-0.6	-7.9	-5.5362	µg/L	-5.5362	ppb	20:03:46
2	Ca 317.933Radial†	193.6	-21.1	-17.995	µg/L	-17.995	ppb	20:04:06
2	Fe 238.204 Radial†	17.2	0.3	2.2760	µg/L	2.2760	ppb	20:04:06
2	K 766.490 Radial†	220.4	51.5	33.663	µg/L	33.663	ppb	20:03:46
2	Mg 279.077 IEC†	7.2	-5.8	-51.579	µg/L	-51.579	ppb	20:04:06
2	Na 589.592 Radial†	510.7	29.4	9.0386	µg/L	9.0386	ppb	20:03:46
2	Sr 421.552†	54.5	24.8	0.2285	µg/L	0.2285	ppb	20:03:46
2	Sc 361.383	2037744.1	2037744.1	103.80	%			20:05:15
2	Y 371.029	1408689.0	1408689.0	104.13	%			20:05:15
2	Ag 328.068†	-451.1	-32.9	-0.2433	µg/L	-0.2433	ppb	20:05:20
2	As 188.979†	-1.3	-0.8	-1.5061	µg/L	-1.5061	ppb	20:05:41
2	B 249.677†	373.4	-24.4	-0.9937	µg/L	-0.9937	ppb	20:05:41
2	Ba 233.527†	-11.7	5.8	0.1389	µg/L	0.1389	ppb	20:05:41
2	Be 313.107†	-2676.0	277.7	0.1647	µg/L	0.1647	ppb	20:05:20
2	Cd 226.502†	-133.2	13.4	0.3334	µg/L	0.3334	ppb	20:05:41
2	Co 228.616†	1.8	-0.2	-0.0098	µg/L	-0.0098	ppb	20:05:41
2	Cr 267.716†	-26.9	24.5	0.4922	µg/L	0.4922	ppb	20:05:20
2	Cu 324.752†	2624.5	-15.4	-0.0999	µg/L	-0.0999	ppb	20:05:20
2	Mn 257.610†	-174.3	88.1	0.2782	µg/L	0.2782	ppb	20:05:41
2	Mo 202.031†	-0.9	4.5	0.4383	µg/L	0.4383	ppb	20:05:41
2	Ni 231.604†	325.1	0.9	0.0446	µg/L	0.0446	ppb	20:05:41
2	P 214.914†	14.3	-1.6	-3.1937	µg/L	-3.1937	ppb	20:05:41
2	Pb 220.353†	89.5	-4.7	-1.1490	µg/L	-1.1490	ppb	20:05:41

2	S 181.975 Axial†	14.0	-5.5	-22.637 µg/L	-22.637 ppb	20:05:41
2	Sb 206.836†	15.2	-7.8	-7.1701 µg/L	-7.1701 ppb	20:05:41
2	Se 196.026†	20.1	0.0	0.0726 µg/L	0.0726 ppb	20:05:41
2	SiO2†	1557.2	108.6	21.433 µg/L	21.433 ppb	20:05:20
2	Si 251.611†	433.2	106.7	8.1144 µg/L	8.1144 ppb	20:05:41
2	Sn 189.927†	-0.5	-0.9	-0.3787 µg/L	-0.3787 ppb	20:05:41
2	Ti 334.940†	337.5	150.1	0.3359 µg/L	0.3359 ppb	20:05:20
2	Tl 190.801†	-19.6	3.5	4.5946 µg/L	4.5946 ppb	20:05:41
2	U 409.014†	-41.0	37.6	3.1255 µg/L	3.1255 ppb	20:05:20
2	V 292.402†	-37.8	8.4	0.0896 µg/L	0.0896 ppb	20:05:20
2	Zn 213.857†	536.8	-17.3	-0.4029 µg/L	-0.4029 ppb	20:05:41
3	Sc RADIAL	57101.8	57101.8	101 %		20:04:12
3	Al 396.153Radial†	-30.6	-37.6	-26.198 µg/L	-26.198 ppb	20:04:12
3	Ca 317.933Radial†	202.0	-11.4	-9.7154 µg/L	-9.7154 ppb	20:04:32
3	Fe 238.204 Radial†	16.6	-0.1	-0.8955 µg/L	-0.8955 ppb	20:04:32
3	K 766.490 Radial†	248.0	80.4	52.520 µg/L	52.520 ppb	20:04:12
3	Mg 279.077 IEC†	11.1	-1.9	-16.608 µg/L	-16.608 ppb	20:04:32
3	Na 589.592 Radial†	462.4	-14.7	-4.5060 µg/L	-4.5060 ppb	20:04:12
3	Sr 421.552†	86.8	57.1	0.5266 µg/L	0.5266 ppb	20:04:12
3	Sc 361.383	2024969.7	2024969.7	103.15 %		20:05:47
3	Y 371.029	1398302.4	1398302.4	103.37 %		20:05:47
3	Ag 328.068†	-423.6	-9.1	-0.0674 µg/L	-0.0674 ppb	20:05:53
3	As 188.979†	-1.6	-1.1	-1.9285 µg/L	-1.9285 ppb	20:06:13
3	B 249.677†	379.2	-16.5	-0.6717 µg/L	-0.6717 ppb	20:06:13
3	Ba 233.527†	0.7	17.8	0.4269 µg/L	0.4269 ppb	20:06:13
3	Be 313.107†	-2714.8	223.8	0.1327 µg/L	0.1327 ppb	20:05:53
3	Cd 226.502†	-132.0	13.7	0.3404 µg/L	0.3404 ppb	20:06:13
3	Co 228.616†	-1.2	-3.1	-0.1385 µg/L	-0.1385 ppb	20:06:13
3	Cr 267.716†	-33.0	18.3	0.3686 µg/L	0.3686 ppb	20:05:53
3	Cu 324.752†	2577.7	-44.8	-0.2926 µg/L	-0.2926 ppb	20:05:53
3	Mn 257.610†	-197.2	64.8	0.2036 µg/L	0.2036 ppb	20:06:13
3	Mo 202.031†	6.7	11.8	1.1572 µg/L	1.1572 ppb	20:06:13
3	Ni 231.604†	298.5	-22.9	-1.1431 µg/L	-1.1431 ppb	20:06:13
3	P 214.914†	13.3	-2.5	-4.8521 µg/L	-4.8521 ppb	20:06:13
3	Pb 220.353†	83.9	-9.6	-2.3299 µg/L	-2.3299 ppb	20:06:13
3	S 181.975 Axial†	20.3	0.8	3.2471 µg/L	3.2471 ppb	20:06:13
3	Sb 206.836†	24.6	1.3	1.2371 µg/L	1.2371 ppb	20:06:13
3	Se 196.026†	22.2	2.2	3.1385 µg/L	3.1385 ppb	20:06:13
3	SiO2†	1561.1	121.8	24.043 µg/L	24.043 ppb	20:05:53
3	Si 251.611†	451.8	127.4	9.6851 µg/L	9.6851 ppb	20:06:13
3	Sn 189.927†	2.9	2.4	1.0100 µg/L	1.0100 ppb	20:06:13
3	Ti 334.940†	371.5	185.1	0.4107 µg/L	0.4107 ppb	20:05:53
3	Tl 190.801†	-21.0	2.0	2.6499 µg/L	2.6499 ppb	20:06:13
3	U 409.014†	-27.8	50.1	4.1641 µg/L	4.1641 ppb	20:05:53
3	V 292.402†	-46.3	-0.1	0.0127 µg/L	0.0127 ppb	20:05:53
3	Zn 213.857†	547.9	-3.2	-0.0687 µg/L	-0.0687 ppb	20:06:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2030315.7	103.42	%	0.338				0.33%
Sc RADIAL	57396.2	102	%	0.5				0.45%
Y 371.029	1402404.4	103.67	%	0.409				0.39%
Ag 328.068†	-17.5	-0.1289	µg/L	0.09924	-0.1289	ppb	0.09924	77.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-25.0	-17.437	µg/L	10.6828	-17.437	ppb	10.6828	61.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.8864	µg/L	1.45458	-0.8864	ppb	1.45458	164.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.7	-0.7250	µg/L	0.24636	-0.7250	ppb	0.24636	33.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.8	0.2605	µg/L	0.14916	0.2605	ppb	0.14916	57.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	241.0	0.1429	µg/L	0.01888	0.1429	ppb	0.01888	13.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.4	-14.013	µg/L	4.1488	-14.013	ppb	4.1488	29.61%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.2904	µg/L	0.08067	0.2904	ppb	0.08067	27.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.9	0.0847	µg/L	0.28258	0.0847	ppb	0.28258	333.70%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.0      0.1209 µg/L       0.53966      0.1209 ppb        0.53966 446.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -27.9     -0.1815 µg/L       0.09969     -0.1815 ppb        0.09969  54.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      6.9622 µg/L      10.97852      6.9622 ppb       10.97852 157.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          52.2      34.081 µg/L       18.2334      34.081 ppb        18.2334  53.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -10.170 µg/L       44.9756     -10.170 ppb        44.9756 442.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                83.7      0.2634 µg/L       0.05392      0.2634 ppb        0.05392  20.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.6      0.9437 µg/L       0.43952      0.9437 ppb        0.43952  46.57%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         13.6      4.1794 µg/L       7.53951      4.1794 ppb        7.53951 180.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -15.0     -0.7463 µg/L       0.68489     -0.7463 ppb        0.68489  91.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.9     -3.7603 µg/L       0.94573     -3.7603 ppb        0.94573  25.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.8     -1.4061 µg/L       0.82584     -1.4061 ppb        0.82584  58.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -14.671 µg/L       15.5492     -14.671 ppb        15.5492 105.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.5     -1.3350 µg/L       5.06517     -1.3350 ppb        5.06517 379.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      2.9468 µg/L       2.78328      2.9468 ppb        2.78328  94.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      95.4      18.828 µg/L        6.8971      18.828 ppb         6.8971  36.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               110.8      8.4227 µg/L       1.13993      8.4227 ppb        1.13993  13.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.5      0.6288 µg/L       0.88102      0.6288 ppb        0.88102 140.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                40.4      0.3726 µg/L       0.14931      0.3726 ppb        0.14931  40.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               177.4      0.3930 µg/L       0.05061      0.3930 ppb        0.05061  12.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.3      0.4213 µg/L       5.62878      0.4213 ppb        5.62878 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 55.8      4.6399 µg/L       1.80015      4.6399 ppb        1.80015  38.80%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  5.7      0.0683 µg/L       0.04863      0.0683 ppb        0.04863  71.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -8.5     -0.1964 µg/L       0.18047     -0.1964 ppb        0.18047  91.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 52
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 20:35:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57811.0	57811.0	102	%			20:36:24
1	Al 396.153Radial†	7388.1	7212.6	5006.8	µg/L	5006.8	ppb	20:36:24
1	Ca 317.933Radial†	6190.3	5838.2	4986.9	µg/L	4986.9	ppb	20:36:45
1	Fe 238.204 Radial†	686.3	654.2	5170.0	µg/L	5170.0	ppb	20:36:45
1	K 766.490 Radial†	7863.0	7519.2	4910.9	µg/L	4910.9	ppb	20:36:24
1	Mg 279.077 IEC†	595.3	569.0	5089.2	µg/L	5089.2	ppb	20:36:45
1	Na 589.592 Radial†	33730.1	32490.4	9979.2	µg/L	9979.2	ppb	20:36:24
1	Sr 421.552†	54087.0	52827.6	487.34	µg/L	487.34	ppb	20:36:24
1	Sc 361.383	2027762.0	2027762.0	103.29	%			20:37:48
1	Y 371.029	1396189.5	1396189.5	103.21	%			20:37:48
1	Ag 328.068†	68163.2	66391.9	495.42	µg/L	495.42	ppb	20:37:54
1	As 188.979†	292.5	283.7	507.44	µg/L	507.44	ppb	20:38:14
1	B 249.677†	12787.8	11996.0	487.04	µg/L	487.04	ppb	20:37:54
1	Ba 233.527†	21558.1	20888.0	502.36	µg/L	502.36	ppb	20:37:54
1	Be 313.107†	866205.3	841447.6	499.21	µg/L	499.21	ppb	20:37:48
1	Cd 226.502†	20872.3	20348.6	507.44	µg/L	507.44	ppb	20:37:54
1	Co 228.616†	11546.5	11176.4	505.59	µg/L	505.59	ppb	20:37:54
1	Cr 267.716†	26035.2	25255.6	507.58	µg/L	507.58	ppb	20:37:54
1	Cu 324.752†	80912.1	75789.0	495.43	µg/L	495.43	ppb	20:37:54
1	Mn 257.610†	167567.2	162481.4	509.30	µg/L	509.30	ppb	20:37:48
1	Mo 202.031†	5499.7	5329.7	522.12	µg/L	522.12	ppb	20:38:14
1	Ni 231.604†	10852.6	10194.3	507.64	µg/L	507.64	ppb	20:37:54
1	P 214.914†	1371.9	1312.8	2552.0	µg/L	2552.0	ppb	20:38:14
1	Pb 220.353†	2293.7	2129.7	517.93	µg/L	517.93	ppb	20:38:14
1	S 181.975 Axial†	271.3	243.7	1010.7	µg/L	1010.7	ppb	20:38:14
1	Sb 206.836†	610.9	568.9	524.60	µg/L	524.60	ppb	20:38:14
1	Se 196.026†	405.3	373.1	532.19	µg/L	532.19	ppb	20:38:14
1	SiO2†	29562.8	27228.8	5374.6	µg/L	5374.6	ppb	20:37:54
1	Si 251.611†	34535.5	33124.0	2518.1	µg/L	2518.1	ppb	20:37:54
1	Sn 189.927†	1288.7	1247.3	526.02	µg/L	526.02	ppb	20:38:14
1	Ti 334.940†	232020.0	224448.5	496.21	µg/L	496.21	ppb	20:37:48
1	Tl 190.801†	381.3	391.6	514.57	µg/L	514.57	ppb	20:38:14
1	U 409.014†	6126.5	6008.3	498.17	µg/L	498.17	ppb	20:37:54
1	V 292.402†	52790.3	51152.2	504.81	µg/L	504.81	ppb	20:37:54
1	Zn 213.857†	22965.6	21699.1	505.52	µg/L	505.52	ppb	20:37:54
2	Sc RADIAL	57688.1	57688.1	102	%			20:36:50
2	Al 396.153Radial†	7347.5	7188.2	4990.2	µg/L	4990.2	ppb	20:36:50
2	Ca 317.933Radial†	6170.4	5831.6	4981.2	µg/L	4981.2	ppb	20:37:11
2	Fe 238.204 Radial†	679.7	649.0	5129.7	µg/L	5129.7	ppb	20:37:11
2	K 766.490 Radial†	7862.4	7534.9	4921.2	µg/L	4921.2	ppb	20:36:50
2	Mg 279.077 IEC†	586.2	561.2	5019.8	µg/L	5019.8	ppb	20:37:11
2	Na 589.592 Radial†	33629.0	32461.7	9970.4	µg/L	9970.4	ppb	20:36:50
2	Sr 421.552†	53906.2	52763.0	486.75	µg/L	486.75	ppb	20:36:50
2	Sc 361.383	2033079.9	2033079.9	103.56	%			20:38:21
2	Y 371.029	1400966.0	1400966.0	103.56	%			20:38:21
2	Ag 328.068†	68767.8	66803.0	498.49	µg/L	498.49	ppb	20:38:27
2	As 188.979†	289.6	280.1	501.07	µg/L	501.07	ppb	20:38:48
2	B 249.677†	12962.6	12132.4	492.63	µg/L	492.63	ppb	20:38:27
2	Ba 233.527†	21784.9	21052.3	506.31	µg/L	506.31	ppb	20:38:27
2	Be 313.107†	868836.4	841794.7	499.42	µg/L	499.42	ppb	20:38:21
2	Cd 226.502†	21029.8	20447.8	509.92	µg/L	509.92	ppb	20:38:27
2	Co 228.616†	11697.0	11292.5	510.83	µg/L	510.83	ppb	20:38:27
2	Cr 267.716†	26246.5	25393.7	510.36	µg/L	510.36	ppb	20:38:27
2	Cu 324.752†	81619.6	76267.2	498.55	µg/L	498.55	ppb	20:38:27
2	Mn 257.610†	168162.1	162631.5	509.76	µg/L	509.76	ppb	20:38:21
2	Mo 202.031†	5295.6	5118.8	501.46	µg/L	501.46	ppb	20:38:48
2	Ni 231.604†	10929.3	10240.9	509.96	µg/L	509.96	ppb	20:38:27
2	P 214.914†	1331.9	1270.7	2468.1	µg/L	2468.1	ppb	20:38:48
2	Pb 220.353†	2225.5	2057.9	500.41	µg/L	500.41	ppb	20:38:48

2	S 181.975 Axial†	269.1	240.9	999.11 µg/L	999.11 ppb		20:38:48
2	Sb 206.836†	587.1	544.4	501.78 µg/L	501.78 ppb		20:38:48
2	Se 196.026†	397.3	364.3	519.74 µg/L	519.74 ppb		20:38:48
2	SiO2†	29990.1	27566.6	5441.3 µg/L	5441.3 ppb		20:38:27
2	Si 251.611†	34935.7	33422.9	2540.9 µg/L	2540.9 ppb		20:38:27
2	Sn 189.927†	1242.7	1199.6	505.90 µg/L	505.90 ppb		20:38:48
2	Ti 334.940†	232729.3	224545.8	496.43 µg/L	496.43 ppb		20:38:21
2	Tl 190.801†	371.6	381.2	501.12 µg/L	501.12 ppb		20:38:48
2	U 409.014†	6316.5	6176.2	512.13 µg/L	512.13 ppb		20:38:27
2	V 292.402†	53367.3	51575.7	508.79 µg/L	508.79 ppb		20:38:27
2	Zn 213.857†	23160.5	21829.2	508.56 µg/L	508.56 ppb		20:38:27
3	Sc RADIAL	57760.3	57760.3	102 %			20:37:16
3	Al 396.153Radial†	7302.7	7135.4	4955.4 µg/L	4955.4 ppb		20:37:16
3	Ca 317.933Radial†	6153.2	5807.2	4960.4 µg/L	4960.4 ppb		20:37:37
3	Fe 238.204 Radial†	676.8	645.4	5100.0 µg/L	5100.0 ppb		20:37:37
3	K 766.490 Radial†	7938.5	7599.7	4963.5 µg/L	4963.5 ppb		20:37:16
3	Mg 279.077 IEC†	588.7	563.0	5033.9 µg/L	5033.9 ppb		20:37:37
3	Na 589.592 Radial†	33538.1	32331.6	9930.4 µg/L	9930.4 ppb		20:37:16
3	Sr 421.552†	53805.7	52598.9	485.23 µg/L	485.23 ppb		20:37:16
3	Sc 361.383	2033958.3	2033958.3	103.61 %			20:38:55
3	Y 371.029	1400977.3	1400977.3	103.56 %			20:38:55
3	Ag 328.068†	62963.6	61172.3	456.31 µg/L	456.31 ppb		20:39:00
3	As 188.979†	248.4	240.2	429.67 µg/L	429.67 ppb		20:39:21
3	B 249.677†	11744.3	10951.1	444.37 µg/L	444.37 ppb		20:39:00
3	Ba 233.527†	19280.0	18625.6	447.93 µg/L	447.93 ppb		20:39:00
3	Be 313.107†	786101.6	761579.0	451.83 µg/L	451.83 ppb		20:38:55
3	Cd 226.502†	18540.5	18036.5	449.72 µg/L	449.72 ppb		20:39:00
3	Co 228.616†	10152.5	9797.0	443.12 µg/L	443.12 ppb		20:39:00
3	Cr 267.716†	22048.4	21330.9	428.71 µg/L	428.71 ppb		20:39:00
3	Cu 324.752†	71642.8	66603.9	435.46 µg/L	435.46 ppb		20:39:00
3	Mn 257.610†	152739.1	147675.5	462.92 µg/L	462.92 ppb		20:38:55
3	Mo 202.031†	4325.4	4180.1	409.54 µg/L	409.54 ppb		20:39:21
3	Ni 231.604†	9564.0	8918.6	444.13 µg/L	444.13 ppb		20:39:00
3	P 214.914†	1113.3	1059.1	2054.4 µg/L	2054.4 ppb		20:39:21
3	Pb 220.353†	1908.3	1750.9	425.71 µg/L	425.71 ppb		20:39:21
3	S 181.975 Axial†	235.9	208.8	865.74 µg/L	865.74 ppb		20:39:21
3	Sb 206.836†	489.0	449.5	414.04 µg/L	414.04 ppb		20:39:21
3	Se 196.026†	343.4	312.2	446.46 µg/L	446.46 ppb		20:39:21
3	SiO2†	26970.8	24639.8	4863.6 µg/L	4863.6 ppb		20:39:00
3	Si 251.611†	31321.6	29920.1	2274.6 µg/L	2274.6 ppb		20:39:00
3	Sn 189.927†	1005.3	969.9	409.06 µg/L	409.06 ppb		20:39:21
3	Ti 334.940†	209022.0	201567.2	445.59 µg/L	445.59 ppb		20:38:55
3	Tl 190.801†	324.2	335.3	441.01 µg/L	441.01 ppb		20:39:21
3	U 409.014†	5266.4	5160.0	427.71 µg/L	427.71 ppb		20:39:00
3	V 292.402†	45851.9	44299.7	436.90 µg/L	436.90 ppb		20:39:00
3	Zn 213.857†	20248.2	19008.5	442.78 µg/L	442.78 ppb		20:39:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031600.1	103.49	%	0.171				0.17%
Sc RADIAL	57753.1	102	%	0.1				0.11%
Y 371.029	1399377.6	103.45	%	0.204				0.20%
Ag 328.068†	64789.1	483.41	µg/L	23.516	483.41	ppb	23.516	4.86%
QC value within limits for Ag 328.068 Recovery = 96.68%								
Al 396.153Radial†	7178.8	4984.1	µg/L	26.23	4984.1	ppb	26.23	0.53%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	268.0	479.39	µg/L	43.175	479.39	ppb	43.175	9.01%
QC value within limits for As 188.979 Recovery = 95.88%								
B 249.677†	11693.1	474.68	µg/L	26.400	474.68	ppb	26.400	5.56%
QC value within limits for B 249.677 Recovery = 94.94%								
Ba 233.527†	20188.6	485.53	µg/L	32.628	485.53	ppb	32.628	6.72%
QC value within limits for Ba 233.527 Recovery = 97.11%								
Be 313.107†	814940.4	483.49	µg/L	27.416	483.49	ppb	27.416	5.67%
QC value within limits for Be 313.107 Recovery = 96.70%								
Ca 317.933Radial†	5825.7	4976.2	µg/L	13.94	4976.2	ppb	13.94	0.28%
QC value within limits for Ca 317.933Radial Recovery = 99.52%								
Cd 226.502†	19610.9	489.02	µg/L	34.065	489.02	ppb	34.065	6.97%
QC value within limits for Cd 226.502 Recovery = 97.80%								
Co 228.616†	10755.3	486.52	µg/L	37.669	486.52	ppb	37.669	7.74%

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   QC value within limits for Co 228.616  Recovery = 97.30%
Cr 267.716†            23993.4      482.21 µg/L        46.358      482.21 ppb         46.358   9.61%
   QC value within limits for Cr 267.716  Recovery = 96.44%
Cu 324.752†            72886.7      476.48 µg/L        35.555      476.48 ppb         35.555   7.46%
   QC value within limits for Cu 324.752  Recovery = 95.30%
Fe 238.204 Radial†       649.5      5133.2 µg/L         35.15      5133.2 ppb          35.15   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.66%
K 766.490 Radial†       7551.3      4931.9 µg/L         27.89      4931.9 ppb          27.89   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.64%
Mg 279.077 IEC†          564.4      5047.6 µg/L         36.69      5047.6 ppb          36.69   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.95%
Mn 257.610†           157596.1      494.00 µg/L        26.909      494.00 ppb         26.909   5.45%
   QC value within limits for Mn 257.610  Recovery = 98.80%
Mo 202.031†             4876.2      477.70 µg/L        59.931      477.70 ppb         59.931  12.55%
   QC value within limits for Mo 202.031  Recovery = 95.54%
Na 589.592 Radial†     32427.9      9960.0 µg/L         26.00      9960.0 ppb          26.00   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.60%
Ni 231.604†             9784.6      487.24 µg/L        37.359      487.24 ppb         37.359   7.67%
   QC value within limits for Ni 231.604  Recovery = 97.45%
P 214.914†              1214.2      2358.2 µg/L        266.40      2358.2 ppb         266.40  11.30%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†             1979.5      481.35 µg/L        48.976      481.35 ppb         48.976  10.17%
   QC value within limits for Pb 220.353  Recovery = 96.27%
S 181.975 Axial†         231.1      958.52 µg/L        80.559      958.52 ppb         80.559   8.40%
   QC value within limits for S 181.975 Axial  Recovery = 95.85%
Sb 206.836†              520.9      480.14 µg/L        58.372      480.14 ppb         58.372  12.16%
   QC value within limits for Sb 206.836  Recovery = 96.03%
Se 196.026†              349.9      499.46 µg/L        46.321      499.46 ppb         46.321   9.27%
   QC value within limits for Se 196.026  Recovery = 99.89%
SiO2†                  26478.4      5226.5 µg/L        316.05      5226.5 ppb         316.05   6.05%
   QC value within limits for SiO2  Recovery = 97.74%
Si 251.611†            32155.7      2444.5 µg/L        147.62      2444.5 ppb         147.62   6.04%
   QC value within limits for Si 251.611  Recovery = 97.78%
Sn 189.927†             1138.9      480.33 µg/L        62.530      480.33 ppb         62.530  13.02%
   QC value within limits for Sn 189.927  Recovery = 96.07%
Sr 421.552†            52729.8      486.44 µg/L         1.088      486.44 ppb          1.088   0.22%
   QC value within limits for Sr 421.552  Recovery = 97.29%
Ti 334.940†           216853.8      479.41 µg/L        29.286      479.41 ppb         29.286   6.11%
   QC value within limits for Ti 334.940  Recovery = 95.88%
Tl 190.801†              369.4      485.57 µg/L        39.170      485.57 ppb         39.170   8.07%
   QC value within limits for Tl 190.801  Recovery = 97.11%
U 409.014†              5781.5      479.34 µg/L        45.254      479.34 ppb         45.254   9.44%
   QC value within limits for U 409.014  Recovery = 95.87%
V 292.402†             49009.2      483.50 µg/L        40.407      483.50 ppb         40.407   8.36%
   QC value within limits for V 292.402  Recovery = 96.70%
Zn 213.857†            20845.6      485.62 µg/L        37.132      485.62 ppb         37.132   7.65%
   QC value within limits for Zn 213.857  Recovery = 97.12%
All analyte(s) passed QC.
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Sequence No.: 53
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 20:39:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57162.5	57162.5	101	%			20:40:03
1	Al 396.153Radial†	-20.6	-27.7	-19.312	µg/L	-19.312	ppb	20:40:03
1	Ca 317.933Radial†	195.3	-18.2	-15.572	µg/L	-15.572	ppb	20:40:24
1	Fe 238.204 Radial†	18.3	1.6	12.247	µg/L	12.247	ppb	20:40:24
1	K 766.490 Radial†	190.9	23.7	15.502	µg/L	15.502	ppb	20:40:03
1	Mg 279.077 IEC†	9.0	-3.9	-34.969	µg/L	-34.969	ppb	20:40:24
1	Na 589.592 Radial†	476.5	-1.2	-0.3760	µg/L	-0.3760	ppb	20:40:03
1	Sr 421.552†	42.5	13.2	0.1218	µg/L	0.1218	ppb	20:40:03
1	Sc 361.383	2005809.0	2005809.0	102.17	%			20:41:26
1	Y 371.029	1386566.9	1386566.9	102.50	%			20:41:26
1	Ag 328.068†	-356.9	52.3	0.3879	µg/L	0.3879	ppb	20:41:31
1	As 188.979†	-5.8	-5.3	-9.4245	µg/L	-9.4245	ppb	20:41:52
1	B 249.677†	364.0	-27.9	-1.1423	µg/L	-1.1423	ppb	20:41:52
1	Ba 233.527†	-8.2	9.1	0.2179	µg/L	0.2179	ppb	20:41:52
1	Be 313.107†	-2726.8	187.0	0.1108	µg/L	0.1108	ppb	20:41:31
1	Cd 226.502†	-147.9	-3.1	-0.0778	µg/L	-0.0778	ppb	20:41:52
1	Co 228.616†	7.1	5.0	0.2268	µg/L	0.2268	ppb	20:41:52
1	Cr 267.716†	-43.6	7.7	0.1543	µg/L	0.1543	ppb	20:41:31
1	Cu 324.752†	2639.9	39.9	0.2624	µg/L	0.2624	ppb	20:41:31
1	Mn 257.610†	-151.5	107.7	0.3403	µg/L	0.3403	ppb	20:41:52
1	Mo 202.031†	6.4	11.6	1.1391	µg/L	1.1391	ppb	20:41:52
1	Ni 231.604†	316.5	-2.6	-0.1301	µg/L	-0.1301	ppb	20:41:52
1	P 214.914†	12.1	-3.5	-7.0029	µg/L	-7.0029	ppb	20:41:52
1	Pb 220.353†	81.5	-11.1	-2.7059	µg/L	-2.7059	ppb	20:41:52
1	S 181.975 Axial†	13.5	-5.7	-23.814	µg/L	-23.814	ppb	20:41:52
1	Sb 206.836†	24.3	1.2	1.1646	µg/L	1.1646	ppb	20:41:52
1	Se 196.026†	7.0	-12.5	-17.428	µg/L	-17.428	ppb	20:41:52
1	SiO2†	1501.0	77.5	15.292	µg/L	15.292	ppb	20:41:31
1	Si 251.611†	421.6	102.0	7.7577	µg/L	7.7577	ppb	20:41:52
1	Sn 189.927†	1.5	1.1	0.4747	µg/L	0.4747	ppb	20:41:52
1	Ti 334.940†	398.8	215.3	0.4788	µg/L	0.4788	ppb	20:41:31
1	Tl 190.801†	-25.8	-2.8	-3.6663	µg/L	-3.6663	ppb	20:41:52
1	U 409.014†	-80.7	-1.9	-0.1586	µg/L	-0.1586	ppb	20:41:31
1	V 292.402†	-54.6	-8.7	-0.0740	µg/L	-0.0740	ppb	20:41:31
1	Zn 213.857†	530.1	-15.6	-0.3645	µg/L	-0.3645	ppb	20:41:52
2	Sc RADIAL	57110.3	57110.3	101	%			20:40:29
2	Al 396.153Radial†	-14.1	-21.4	-14.870	µg/L	-14.870	ppb	20:40:29
2	Ca 317.933Radial†	198.8	-14.6	-12.455	µg/L	-12.455	ppb	20:40:49
2	Fe 238.204 Radial†	16.0	-0.7	-5.6974	µg/L	-5.6974	ppb	20:40:49
2	K 766.490 Radial†	221.1	53.7	35.087	µg/L	35.087	ppb	20:40:29
2	Mg 279.077 IEC†	11.7	-1.2	-10.895	µg/L	-10.895	ppb	20:40:49
2	Na 589.592 Radial†	429.7	-47.1	-14.471	µg/L	-14.471	ppb	20:40:29
2	Sr 421.552†	18.0	-11.0	-0.1015	µg/L	-0.1015	ppb	20:40:29
2	Sc 361.383	2018163.8	2018163.8	102.80	%			20:41:58
2	Y 371.029	1394669.2	1394669.2	103.10	%			20:41:58
2	Ag 328.068†	-380.5	31.5	0.2331	µg/L	0.2331	ppb	20:42:03
2	As 188.979†	-3.5	-2.9	-5.2309	µg/L	-5.2309	ppb	20:42:24
2	B 249.677†	356.6	-37.3	-1.5164	µg/L	-1.5164	ppb	20:42:24
2	Ba 233.527†	0.7	17.8	0.4272	µg/L	0.4272	ppb	20:42:24
2	Be 313.107†	-2645.1	282.8	0.1677	µg/L	0.1677	ppb	20:42:03
2	Cd 226.502†	-142.5	3.0	0.0759	µg/L	0.0759	ppb	20:42:24
2	Co 228.616†	8.4	6.3	0.2840	µg/L	0.2840	ppb	20:42:24
2	Cr 267.716†	-35.6	15.8	0.3172	µg/L	0.3172	ppb	20:42:03
2	Cu 324.752†	2611.1	-3.9	-0.0261	µg/L	-0.0261	ppb	20:42:03
2	Mn 257.610†	-153.4	106.8	0.3340	µg/L	0.3340	ppb	20:42:24
2	Mo 202.031†	1.6	6.9	0.6745	µg/L	0.6745	ppb	20:42:24
2	Ni 231.604†	310.9	-9.9	-0.4961	µg/L	-0.4961	ppb	20:42:24
2	P 214.914†	14.4	-1.3	-2.5139	µg/L	-2.5139	ppb	20:42:24
2	Pb 220.353†	85.6	-7.7	-1.8763	µg/L	-1.8763	ppb	20:42:24

2	S 181.975 Axial†	16.1	-3.2	-13.393	µg/L	-13.393 ppb	20:42:24
2	Sb 206.836†	24.8	1.7	1.5353	µg/L	1.5353 ppb	20:42:24
2	Se 196.026†	18.4	-1.4	-1.9764	µg/L	-1.9764 ppb	20:42:24
2	SiO2†	1495.4	63.0	12.440	µg/L	12.440 ppb	20:42:03
2	Si 251.611†	417.9	95.9	7.2895	µg/L	7.2895 ppb	20:42:24
2	Sn 189.927†	7.5	6.9	2.9027	µg/L	2.9027 ppb	20:42:24
2	Ti 334.940†	363.4	178.5	0.3955	µg/L	0.3955 ppb	20:42:03
2	Tl 190.801†	-20.3	2.6	3.4259	µg/L	3.4259 ppb	20:42:24
2	U 409.014†	-48.9	29.5	2.4528	µg/L	2.4528 ppb	20:42:03
2	V 292.402†	-44.8	1.2	0.0192	µg/L	0.0192 ppb	20:42:03
2	Zn 213.857†	537.2	-11.8	-0.2740	µg/L	-0.2740 ppb	20:42:24
3	Sc RADIAL	56287.1	56287.1	99.6	%		20:40:55
3	Al 396.153Radial†	-17.5	-24.9	-17.369	µg/L	-17.369 ppb	20:40:55
3	Ca 317.933Radial†	205.6	-4.9	-4.1718	µg/L	-4.1718 ppb	20:41:15
3	Fe 238.204 Radial†	18.7	2.2	17.059	µg/L	17.059 ppb	20:41:15
3	K 766.490 Radial†	216.2	52.0	33.972	µg/L	33.972 ppb	20:40:55
3	Mg 279.077 IEC†	14.3	1.5	13.643	µg/L	13.643 ppb	20:41:15
3	Na 589.592 Radial†	474.9	4.5	1.3843	µg/L	1.3843 ppb	20:40:55
3	Sr 421.552†	69.4	40.8	0.3766	µg/L	0.3766 ppb	20:40:55
3	Sc 361.383	2011137.2	2011137.2	102.45	%		20:42:30
3	Y 371.029	1391137.6	1391137.6	102.84	%		20:42:30
3	Ag 328.068†	-401.5	9.7	0.0756	µg/L	0.0756 ppb	20:42:35
3	As 188.979†	-0.8	-0.3	-0.5665	µg/L	-0.5665 ppb	20:42:56
3	B 249.677†	346.6	-45.8	-1.8768	µg/L	-1.8768 ppb	20:42:56
3	Ba 233.527†	-8.1	9.2	0.2209	µg/L	0.2209 ppb	20:42:56
3	Be 313.107†	-2811.5	111.4	0.0659	µg/L	0.0659 ppb	20:42:35
3	Cd 226.502†	-144.9	0.2	0.0027	µg/L	0.0027 ppb	20:42:56
3	Co 228.616†	2.5	0.5	0.0230	µg/L	0.0230 ppb	20:42:56
3	Cr 267.716†	-35.3	16.0	0.3209	µg/L	0.3209 ppb	20:42:35
3	Cu 324.752†	2596.5	-9.2	-0.0576	µg/L	-0.0576 ppb	20:42:35
3	Mn 257.610†	-144.2	115.3	0.3628	µg/L	0.3628 ppb	20:42:56
3	Mo 202.031†	5.0	10.2	1.0037	µg/L	1.0037 ppb	20:42:56
3	Ni 231.604†	304.8	-14.8	-0.7372	µg/L	-0.7372 ppb	20:42:56
3	P 214.914†	12.9	-2.8	-5.4792	µg/L	-5.4792 ppb	20:42:56
3	Pb 220.353†	85.3	-7.7	-1.8682	µg/L	-1.8682 ppb	20:42:56
3	S 181.975 Axial†	20.2	0.8	3.1941	µg/L	3.1941 ppb	20:42:56
3	Sb 206.836†	18.9	-4.0	-3.6766	µg/L	-3.6766 ppb	20:42:56
3	Se 196.026†	18.1	-1.7	-2.3416	µg/L	-2.3416 ppb	20:42:56
3	SiO2†	1495.2	67.9	13.403	µg/L	13.403 ppb	20:42:35
3	Si 251.611†	434.6	113.6	8.6363	µg/L	8.6363 ppb	20:42:56
3	Sn 189.927†	2.2	1.8	0.7385	µg/L	0.7385 ppb	20:42:56
3	Ti 334.940†	476.2	289.8	0.6400	µg/L	0.6400 ppb	20:42:35
3	Tl 190.801†	-22.5	0.4	0.5912	µg/L	0.5912 ppb	20:42:56
3	U 409.014†	-60.8	17.7	1.4714	µg/L	1.4714 ppb	20:42:35
3	V 292.402†	-1.0	43.8	0.4391	µg/L	0.4391 ppb	20:42:35
3	Zn 213.857†	528.9	-18.1	-0.4235	µg/L	-0.4235 ppb	20:42:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2011703.4	102.47	%	0.316				0.31%
Sc RADIAL	56853.3	101	%	0.9				0.86%
Y 371.029	1390791.2	102.81	%	0.300				0.29%
Ag 328.068†	31.2	0.2322	µg/L	0.15616	0.2322	ppb	0.15616	67.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-24.7	-17.184	µg/L	2.2266	-17.184	ppb	2.2266	12.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-5.0740	µg/L	4.43112	-5.0740	ppb	4.43112	87.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.0	-1.5118	µg/L	0.36725	-1.5118	ppb	0.36725	24.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.0	0.2887	µg/L	0.11995	0.2887	ppb	0.11995	41.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.7	0.1148	µg/L	0.05103	0.1148	ppb	0.05103	44.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-12.6	-10.733	µg/L	5.8919	-10.733	ppb	5.8919	54.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	0.1	0.0002	µg/L	0.07690	0.0002	ppb	0.07690	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.9	0.1779	µg/L	0.13721	0.1779	ppb	0.13721	77.12%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.1      0.2641 µg/L       0.09516      0.2641 ppb        0.09516  36.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 9.0      0.0596 µg/L       0.17639      0.0596 ppb        0.17639 296.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.0      7.8695 µg/L      11.99309      7.8695 ppb       11.99309 152.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          43.2      28.187 µg/L       10.9995      28.187 ppb        10.9995  39.02%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2     -10.740 µg/L       24.3062     -10.740 ppb        24.3062 226.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               109.9      0.3457 µg/L       0.01513      0.3457 ppb        0.01513   4.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.6      0.9391 µg/L       0.23895      0.9391 ppb        0.23895  25.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -14.6     -4.4874 µg/L       8.69036     -4.4874 ppb        8.69036 193.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.1     -0.4545 µg/L       0.30571     -0.4545 ppb        0.30571  67.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -4.9987 µg/L       2.28274     -4.9987 ppb        2.28274  45.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.8     -2.1501 µg/L       0.48133     -2.1501 ppb        0.48133  22.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.7     -11.337 µg/L       13.6207     -11.337 ppb        13.6207 120.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.4     -0.3256 µg/L       2.90798     -0.3256 ppb        2.90798 893.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.2     -7.2486 µg/L       8.81736     -7.2486 ppb        8.81736 121.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      69.5      13.712 µg/L        1.4510      13.712 ppb         1.4510  10.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               103.8      7.8945 µg/L       0.68372      7.8945 ppb        0.68372   8.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.3      1.3720 µg/L       1.33219      1.3720 ppb        1.33219  97.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                14.3      0.1323 µg/L       0.23923      0.1323 ppb        0.23923 180.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               227.9      0.5048 µg/L       0.12431      0.5048 ppb        0.12431  24.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.1      0.1169 µg/L       3.56976      0.1169 ppb        3.56976 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 15.1      1.2552 µg/L       1.31907      1.2552 ppb        1.31907 105.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.1      0.1281 µg/L       0.27331      0.1281 ppb        0.27331 213.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -15.2     -0.3540 µg/L       0.07531     -0.3540 ppb        0.07531  21.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 21:08:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58780.4	58780.4	104	%			21:08:58
1	Al 396.153Radial†	7195.1	6908.1	4795.0	µg/L	4795.0	ppb	21:08:58
1	Ca 317.933Radial†	6074.4	5627.0	4806.5	µg/L	4806.5	ppb	21:09:18
1	Fe 238.204 Radial†	666.1	623.6	4928.9	µg/L	4928.9	ppb	21:09:18
1	K 766.490 Radial†	7823.5	7354.4	4803.3	µg/L	4803.3	ppb	21:08:58
1	Mg 279.077 IEC†	587.1	551.5	4933.1	µg/L	4933.1	ppb	21:09:18
1	Na 589.592 Radial†	33229.4	31465.6	9664.4	µg/L	9664.4	ppb	21:08:58
1	Sr 421.552†	53405.2	51300.6	473.26	µg/L	473.26	ppb	21:08:58
1	Sc 361.383	2031693.4	2031693.4	103.49	%			21:10:22
1	Y 371.029	1400531.0	1400531.0	103.53	%			21:10:22
1	Ag 328.068†	67476.4	65600.6	489.51	µg/L	489.51	ppb	21:10:27
1	As 188.979†	292.3	282.9	506.06	µg/L	506.06	ppb	21:10:48
1	B 249.677†	12687.3	11875.0	482.23	µg/L	482.23	ppb	21:10:27
1	Ba 233.527†	21301.5	20599.6	495.43	µg/L	495.43	ppb	21:10:27
1	Be 313.107†	857576.3	831487.1	493.30	µg/L	493.30	ppb	21:10:22
1	Cd 226.502†	20668.3	20112.4	501.57	µg/L	501.57	ppb	21:10:27
1	Co 228.616†	11438.4	11050.4	499.89	µg/L	499.89	ppb	21:10:27
1	Cr 267.716†	25764.0	24944.8	501.33	µg/L	501.33	ppb	21:10:27
1	Cu 324.752†	80279.0	75025.7	490.41	µg/L	490.41	ppb	21:10:27
1	Mn 257.610†	165571.7	160239.4	502.25	µg/L	502.25	ppb	21:10:22
1	Mo 202.031†	5439.6	5261.4	515.41	µg/L	515.41	ppb	21:10:48
1	Ni 231.604†	10750.1	10074.9	501.70	µg/L	501.70	ppb	21:10:27
1	P 214.914†	1349.1	1288.2	2503.9	µg/L	2503.9	ppb	21:10:48
1	Pb 220.353†	2254.8	2087.7	507.72	µg/L	507.72	ppb	21:10:48
1	S 181.975 Axial†	277.5	249.2	1033.4	µg/L	1033.4	ppb	21:10:48
1	Sb 206.836†	587.9	545.6	503.19	µg/L	503.19	ppb	21:10:48
1	Se 196.026†	400.3	367.5	523.81	µg/L	523.81	ppb	21:10:48
1	SiO2†	29116.0	26741.7	5278.5	µg/L	5278.5	ppb	21:10:27
1	Si 251.611†	33907.1	32452.1	2467.1	µg/L	2467.1	ppb	21:10:27
1	Sn 189.927†	1278.1	1234.6	520.67	µg/L	520.67	ppb	21:10:48
1	Ti 334.940†	229666.3	221739.6	490.22	µg/L	490.22	ppb	21:10:22
1	Tl 190.801†	374.5	384.2	504.96	µg/L	504.96	ppb	21:10:48
1	U 409.014†	6113.1	5983.9	496.19	µg/L	496.19	ppb	21:10:27
1	V 292.402†	52349.3	50627.2	499.60	µg/L	499.60	ppb	21:10:27
1	Zn 213.857†	22683.3	21383.2	498.16	µg/L	498.16	ppb	21:10:27
2	Sc RADIAL	57808.7	57808.7	102	%			21:09:24
2	Al 396.153Radial†	7047.8	6880.4	4776.2	µg/L	4776.2	ppb	21:09:24
2	Ca 317.933Radial†	6096.5	5746.7	4908.7	µg/L	4908.7	ppb	21:09:44
2	Fe 238.204 Radial†	663.6	632.0	4994.7	µg/L	4994.7	ppb	21:09:44
2	K 766.490 Radial†	7642.6	7304.0	4770.4	µg/L	4770.4	ppb	21:09:24
2	Mg 279.077 IEC†	579.2	553.3	4948.6	µg/L	4948.6	ppb	21:09:44
2	Na 589.592 Radial†	32775.0	31558.4	9692.9	µg/L	9692.9	ppb	21:09:24
2	Sr 421.552†	52410.5	51191.2	472.25	µg/L	472.25	ppb	21:09:24
2	Sc 361.383	2049495.0	2049495.0	104.40	%			21:10:55
2	Y 371.029	1411660.7	1411660.7	104.35	%			21:10:55
2	Ag 328.068†	67550.5	65105.2	485.82	µg/L	485.82	ppb	21:11:01
2	As 188.979†	289.6	277.9	497.13	µg/L	497.13	ppb	21:11:21
2	B 249.677†	12725.6	11805.1	479.34	µg/L	479.34	ppb	21:11:01
2	Ba 233.527†	21349.4	20466.7	492.23	µg/L	492.23	ppb	21:11:01
2	Be 313.107†	866033.8	832390.8	493.84	µg/L	493.84	ppb	21:10:55
2	Cd 226.502†	20727.2	19995.3	498.64	µg/L	498.64	ppb	21:11:01
2	Co 228.616†	11460.7	10975.7	496.49	µg/L	496.49	ppb	21:11:01
2	Cr 267.716†	25871.8	24831.8	499.06	µg/L	499.06	ppb	21:11:01
2	Cu 324.752†	80404.8	74472.4	486.81	µg/L	486.81	ppb	21:11:01
2	Mn 257.610†	167118.2	160331.1	502.55	µg/L	502.55	ppb	21:10:55
2	Mo 202.031†	5254.1	5038.0	493.54	µg/L	493.54	ppb	21:11:21
2	Ni 231.604†	10763.2	9997.2	497.83	µg/L	497.83	ppb	21:11:01
2	P 214.914†	1302.2	1232.0	2392.5	µg/L	2392.5	ppb	21:11:21
2	Pb 220.353†	2211.3	2027.1	492.93	µg/L	492.93	ppb	21:11:21

2	S 181.975 Axial†	268.4	238.1	987.50 µg/L	987.50 ppb	21:11:21
2	Sb 206.836†	582.5	535.4	493.50 µg/L	493.50 ppb	21:11:21
2	Se 196.026†	387.4	351.8	501.93 µg/L	501.93 ppb	21:11:21
2	SiO2†	29211.0	26588.3	5248.2 µg/L	5248.2 ppb	21:11:01
2	Si 251.611†	34096.5	32348.9	2459.2 µg/L	2459.2 ppb	21:11:01
2	Sn 189.927†	1232.7	1180.4	497.82 µg/L	497.82 ppb	21:11:21
2	Ti 334.940†	231940.6	221990.5	490.78 µg/L	490.78 ppb	21:10:55
2	Tl 190.801†	370.0	376.8	495.24 µg/L	495.24 ppb	21:11:21
2	U 409.014†	6104.7	5924.5	491.24 µg/L	491.24 ppb	21:11:01
2	V 292.402†	52450.2	50284.5	496.09 µg/L	496.09 ppb	21:11:01
2	Zn 213.857†	22753.7	21260.4	495.30 µg/L	495.30 ppb	21:11:01
3	Sc RADIAL	57645.3	57645.3	102 %		21:09:50
3	Al 396.153Radial†	7101.7	6952.7	4828.5 µg/L	4828.5 ppb	21:09:50
3	Ca 317.933Radial†	6127.9	5794.4	4949.5 µg/L	4949.5 ppb	21:10:10
3	Fe 238.204 Radial†	665.9	636.0	5025.6 µg/L	5025.6 ppb	21:10:10
3	K 766.490 Radial†	7687.0	7368.7	4812.6 µg/L	4812.6 ppb	21:09:50
3	Mg 279.077 IEC†	588.9	564.4	5046.2 µg/L	5046.2 ppb	21:10:10
3	Na 589.592 Radial†	32797.2	31670.9	9727.5 µg/L	9727.5 ppb	21:09:50
3	Sr 421.552†	52594.3	51516.6	475.25 µg/L	475.25 ppb	21:09:50
3	Sc 361.383	2043330.2	2043330.2	104.09 %		21:11:28
3	Y 371.029	1408836.0	1408836.0	104.15 %		21:11:28
3	Ag 328.068†	61712.7	59691.8	445.28 µg/L	445.28 ppb	21:11:34
3	As 188.979†	240.0	231.0	413.29 µg/L	413.29 ppb	21:11:54
3	B 249.677†	11528.4	10691.7	433.82 µg/L	433.82 ppb	21:11:34
3	Ba 233.527†	18793.6	18072.9	434.64 µg/L	434.64 ppb	21:11:34
3	Be 313.107†	773952.6	746427.0	442.84 µg/L	442.84 ppb	21:11:28
3	Cd 226.502†	18104.4	17535.4	437.21 µg/L	437.21 ppb	21:11:34
3	Co 228.616†	9919.4	9528.1	430.96 µg/L	430.96 ppb	21:11:34
3	Cr 267.716†	21628.5	20829.9	418.64 µg/L	418.64 ppb	21:11:34
3	Cu 324.752†	70293.2	64990.1	424.92 µg/L	424.92 ppb	21:11:34
3	Mn 257.610†	150318.2	144673.6	453.51 µg/L	453.51 ppb	21:11:28
3	Mo 202.031†	4250.4	4088.9	400.60 µg/L	400.60 ppb	21:11:54
3	Ni 231.604†	9317.9	8639.7	430.24 µg/L	430.24 ppb	21:11:34
3	P 214.914†	1076.0	1018.4	1974.8 µg/L	1974.8 ppb	21:11:54
3	Pb 220.353†	1875.8	1711.2	416.06 µg/L	416.06 ppb	21:11:54
3	S 181.975 Axial†	231.3	203.3	842.98 µg/L	842.98 ppb	21:11:54
3	Sb 206.836†	484.5	443.0	408.08 µg/L	408.08 ppb	21:11:54
3	Se 196.026†	334.8	302.4	432.47 µg/L	432.47 ppb	21:11:54
3	SiO2†	26265.0	23842.4	4706.2 µg/L	4706.2 ppb	21:11:34
3	Si 251.611†	30430.4	28925.2	2199.0 µg/L	2199.0 ppb	21:11:34
3	Sn 189.927†	990.4	951.2	401.15 µg/L	401.15 ppb	21:11:54
3	Ti 334.940†	205711.5	197461.3	436.51 µg/L	436.51 ppb	21:11:28
3	Tl 190.801†	323.8	333.4	438.43 µg/L	438.43 ppb	21:11:54
3	U 409.014†	5199.4	5072.4	420.44 µg/L	420.44 ppb	21:11:34
3	V 292.402†	45058.2	43334.2	427.38 µg/L	427.38 ppb	21:11:34
3	Zn 213.857†	19790.2	18479.0	430.43 µg/L	430.43 ppb	21:11:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2041506.2	103.99	%	0.460				0.44%
Sc RADIAL	58078.1	103	%	1.1				1.06%
Y 371.029	1407009.2	104.01	%	0.428				0.41%
Ag 328.068†	63465.9	473.53	µg/L	24.543	473.53	ppb	24.543	5.18%
QC value within limits for Ag 328.068 Recovery = 94.71%								
Al 396.153Radial†	6913.7	4799.9	µg/L	26.45	4799.9	ppb	26.45	0.55%
QC value within limits for Al 396.153Radial Recovery = 96.00%								
As 188.979†	263.9	472.16	µg/L	51.179	472.16	ppb	51.179	10.84%
QC value within limits for As 188.979 Recovery = 94.43%								
B 249.677†	11457.3	465.13	µg/L	27.155	465.13	ppb	27.155	5.84%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	19713.1	474.10	µg/L	34.210	474.10	ppb	34.210	7.22%
QC value within limits for Ba 233.527 Recovery = 94.82%								
Be 313.107†	803435.0	476.66	µg/L	29.291	476.66	ppb	29.291	6.15%
QC value within limits for Be 313.107 Recovery = 95.33%								
Ca 317.933Radial†	5722.7	4888.2	µg/L	73.67	4888.2	ppb	73.67	1.51%
QC value within limits for Ca 317.933Radial Recovery = 97.76%								
Cd 226.502†	19214.4	479.14	µg/L	36.339	479.14	ppb	36.339	7.58%
QC value within limits for Cd 226.502 Recovery = 95.83%								
Co 228.616†	10518.1	475.78	µg/L	38.855	475.78	ppb	38.855	8.17%

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   QC value within limits for Co 228.616  Recovery = 95.16%
Cr 267.716†            23535.5      473.01 µg/L        47.102      473.01 ppb         47.102   9.96%
   QC value within limits for Cr 267.716  Recovery = 94.60%
Cu 324.752†            71496.1      467.38 µg/L        36.817      467.38 ppb         36.817   7.88%
   QC value within limits for Cu 324.752  Recovery = 93.48%
Fe 238.204 Radial†       630.5      4983.1 µg/L         49.36      4983.1 ppb          49.36   0.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.66%
K 766.490 Radial†       7342.4      4795.4 µg/L         22.20      4795.4 ppb          22.20   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 95.91%
Mg 279.077 IEC†          556.4      4976.0 µg/L         61.30      4976.0 ppb          61.30   1.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.52%
Mn 257.610†           155081.3      486.10 µg/L        28.223      486.10 ppb         28.223   5.81%
   QC value within limits for Mn 257.610  Recovery = 97.22%
Mo 202.031†             4796.1      469.85 µg/L        60.963      469.85 ppb         60.963  12.97%
   QC value within limits for Mo 202.031  Recovery = 93.97%
Na 589.592 Radial†     31564.9      9695.0 µg/L         31.58      9695.0 ppb          31.58   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.95%
Ni 231.604†             9570.6      476.59 µg/L        40.187      476.59 ppb         40.187   8.43%
   QC value within limits for Ni 231.604  Recovery = 95.32%
P 214.914†              1179.5      2290.4 µg/L        278.94      2290.4 ppb         278.94  12.18%
   QC value within limits for P 214.914  Recovery = 91.62%
Pb 220.353†             1942.0      472.24 µg/L        49.211      472.24 ppb         49.211  10.42%
   QC value within limits for Pb 220.353  Recovery = 94.45%
S 181.975 Axial†         230.2      954.62 µg/L        99.373      954.62 ppb         99.373  10.41%
   QC value within limits for S 181.975 Axial  Recovery = 95.46%
Sb 206.836†              508.0      468.26 µg/L        52.337      468.26 ppb         52.337  11.18%
   QC value within limits for Sb 206.836  Recovery = 93.65%
Se 196.026†              340.5      486.07 µg/L        47.691      486.07 ppb         47.691   9.81%
   QC value within limits for Se 196.026  Recovery = 97.21%
SiO2†                  25724.1      5077.6 µg/L        322.02      5077.6 ppb         322.02   6.34%
   QC value within limits for SiO2  Recovery = 94.95%
Si 251.611†            31242.1      2375.1 µg/L        152.58      2375.1 ppb         152.58   6.42%
   QC value within limits for Si 251.611  Recovery = 95.00%
Sn 189.927†             1122.0      473.21 µg/L        63.445      473.21 ppb         63.445  13.41%
   QC value within limits for Sn 189.927  Recovery = 94.64%
Sr 421.552†            51336.1      473.58 µg/L         1.527      473.58 ppb          1.527   0.32%
   QC value within limits for Sr 421.552  Recovery = 94.72%
Ti 334.940†           213730.5      472.50 µg/L        31.174      472.50 ppb         31.174   6.60%
   QC value within limits for Ti 334.940  Recovery = 94.50%
Tl 190.801†              364.8      479.54 µg/L        35.938      479.54 ppb         35.938   7.49%
   QC value within limits for Tl 190.801  Recovery = 95.91%
U 409.014†              5660.3      469.29 µg/L        42.377      469.29 ppb         42.377   9.03%
   QC value within limits for U 409.014  Recovery = 93.86%
V 292.402†             48082.0      474.36 µg/L        40.718      474.36 ppb         40.718   8.58%
   QC value within limits for V 292.402  Recovery = 94.87%
Zn 213.857†            20374.2      474.63 µg/L        38.303      474.63 ppb         38.303   8.07%
   QC value within limits for Zn 213.857  Recovery = 94.93%
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 21:12:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57648.5	57648.5	102	%			21:12:37
1	Al 396.153Radial†	-14.7	-21.7	-15.138	µg/L	-15.138	ppb	21:12:37
1	Ca 317.933Radial†	203.7	-11.6	-9.9121	µg/L	-9.9121	ppb	21:12:58
1	Fe 238.204 Radial†	16.4	-0.5	-4.2458	µg/L	-4.2458	ppb	21:12:58
1	K 766.490 Radial†	239.5	69.8	45.559	µg/L	45.559	ppb	21:12:37
1	Mg 279.077 IEC†	8.9	-4.1	-36.403	µg/L	-36.403	ppb	21:12:58
1	Na 589.592 Radial†	512.1	29.6	9.0983	µg/L	9.0983	ppb	21:12:37
1	Sr 421.552†	48.1	18.3	0.1688	µg/L	0.1688	ppb	21:12:37
1	Sc 361.383	2024672.5	2024672.5	103.14	%			21:14:00
1	Y 371.029	1400432.3	1400432.3	103.52	%			21:14:00
1	Ag 328.068†	-413.0	1.2	0.0111	µg/L	0.0111	ppb	21:14:05
1	As 188.979†	-0.7	-0.3	-0.4624	µg/L	-0.4624	ppb	21:14:26
1	B 249.677†	378.7	-16.9	-0.6888	µg/L	-0.6888	ppb	21:14:26
1	Ba 233.527†	-12.8	4.6	0.1123	µg/L	0.1123	ppb	21:14:26
1	Be 313.107†	-2775.1	164.9	0.0978	µg/L	0.0978	ppb	21:14:05
1	Cd 226.502†	-135.5	10.3	0.2573	µg/L	0.2573	ppb	21:14:26
1	Co 228.616†	7.3	5.2	0.2337	µg/L	0.2337	ppb	21:14:26
1	Cr 267.716†	-69.0	-16.5	-0.3312	µg/L	-0.3312	ppb	21:14:05
1	Cu 324.752†	2629.4	5.8	0.0370	µg/L	0.0370	ppb	21:14:05
1	Mn 257.610†	-259.5	4.4	0.0146	µg/L	0.0146	ppb	21:14:26
1	Mo 202.031†	0.2	5.6	0.5442	µg/L	0.5442	ppb	21:14:26
1	Ni 231.604†	315.8	-6.1	-0.3065	µg/L	-0.3065	ppb	21:14:26
1	P 214.914†	22.8	6.8	13.475	µg/L	13.475	ppb	21:14:26
1	Pb 220.353†	88.5	-5.2	-1.2633	µg/L	-1.2633	ppb	21:14:26
1	S 181.975 Axial†	14.4	-5.0	-20.717	µg/L	-20.717	ppb	21:14:26
1	Sb 206.836†	29.4	6.0	5.5139	µg/L	5.5139	ppb	21:14:26
1	Se 196.026†	18.0	-1.8	-2.5508	µg/L	-2.5508	ppb	21:14:26
1	SiO2†	1453.6	17.9	3.5281	µg/L	3.5281	ppb	21:14:05
1	Si 251.611†	344.2	23.1	1.7570	µg/L	1.7570	ppb	21:14:26
1	Sn 189.927†	6.9	6.3	2.6452	µg/L	2.6452	ppb	21:14:26
1	Ti 334.940†	260.8	77.8	0.1748	µg/L	0.1748	ppb	21:14:05
1	Tl 190.801†	-22.9	0.2	0.2097	µg/L	0.2097	ppb	21:14:26
1	U 409.014†	13.7	90.4	7.5095	µg/L	7.5095	ppb	21:14:05
1	V 292.402†	-3.7	41.2	0.4118	µg/L	0.4118	ppb	21:14:05
1	Zn 213.857†	548.2	-2.9	-0.0641	µg/L	-0.0641	ppb	21:14:26
2	Sc RADIAL	57532.9	57532.9	102	%			21:13:03
2	Al 396.153Radial†	12.0	4.4	3.0811	µg/L	3.0811	ppb	21:13:03
2	Ca 317.933Radial†	199.1	-15.8	-13.477	µg/L	-13.477	ppb	21:13:24
2	Fe 238.204 Radial†	16.8	-0.1	-0.4573	µg/L	-0.4573	ppb	21:13:24
2	K 766.490 Radial†	217.9	49.0	32.018	µg/L	32.018	ppb	21:13:03
2	Mg 279.077 IEC†	13.2	0.1	1.1462	µg/L	1.1462	ppb	21:13:24
2	Na 589.592 Radial†	531.4	49.6	15.230	µg/L	15.230	ppb	21:13:03
2	Sr 421.552†	44.8	15.2	0.1403	µg/L	0.1403	ppb	21:13:03
2	Sc 361.383	2034376.0	2034376.0	103.63	%			21:14:32
2	Y 371.029	1406950.8	1406950.8	104.01	%			21:14:32
2	Ag 328.068†	-398.7	16.9	0.1249	µg/L	0.1249	ppb	21:14:37
2	As 188.979†	3.7	4.1	7.2905	µg/L	7.2905	ppb	21:14:58
2	B 249.677†	367.6	-29.4	-1.1995	µg/L	-1.1995	ppb	21:14:58
2	Ba 233.527†	-11.7	5.8	0.1382	µg/L	0.1382	ppb	21:14:58
2	Be 313.107†	-2725.4	225.8	0.1339	µg/L	0.1339	ppb	21:14:37
2	Cd 226.502†	-127.6	18.5	0.4618	µg/L	0.4618	ppb	21:14:58
2	Co 228.616†	1.0	-1.0	-0.0440	µg/L	-0.0440	ppb	21:14:58
2	Cr 267.716†	-41.5	10.4	0.2082	µg/L	0.2082	ppb	21:14:37
2	Cu 324.752†	2590.3	-44.1	-0.2880	µg/L	-0.2880	ppb	21:14:37
2	Mn 257.610†	-252.5	12.4	0.0387	µg/L	0.0387	ppb	21:14:58
2	Mo 202.031†	-1.6	3.8	0.3741	µg/L	0.3741	ppb	21:14:58
2	Ni 231.604†	312.0	-11.3	-0.5640	µg/L	-0.5640	ppb	21:14:58
2	P 214.914†	12.2	-3.6	-7.0402	µg/L	-7.0402	ppb	21:14:58
2	Pb 220.353†	83.5	-10.4	-2.5295	µg/L	-2.5295	ppb	21:14:58

2	S 181.975 Axial†	19.3	-0.3	-1.1792 µg/L	-1.1792 ppb	21:14:58
2	Sb 206.836†	27.7	4.2	3.8619 µg/L	3.8619 ppb	21:14:58
2	Se 196.026†	19.1	-0.8	-1.1798 µg/L	-1.1798 ppb	21:14:58
2	SiO2†	1460.9	18.1	3.5783 µg/L	3.5783 ppb	21:14:37
2	Si 251.611†	357.2	34.1	2.5907 µg/L	2.5907 ppb	21:14:58
2	Sn 189.927†	1.7	1.3	0.5463 µg/L	0.5463 ppb	21:14:58
2	Ti 334.940†	290.1	104.9	0.2318 µg/L	0.2318 ppb	21:14:37
2	Tl 190.801†	-21.1	2.0	2.6077 µg/L	2.6077 ppb	21:14:58
2	U 409.014†	-69.8	9.7	0.8107 µg/L	0.8107 ppb	21:14:37
2	V 292.402†	-49.8	-3.3	-0.0276 µg/L	-0.0276 ppb	21:14:37
2	Zn 213.857†	547.2	-6.4	-0.1467 µg/L	-0.1467 ppb	21:14:58
3	Sc RADIAL	57754.3	57754.3	102 %		21:13:29
3	Al 396.153Radial†	-7.4	-14.6	-10.181 µg/L	-10.181 ppb	21:13:29
3	Ca 317.933Radial†	198.7	-16.9	-14.434 µg/L	-14.434 ppb	21:13:50
3	Fe 238.204 Radial†	15.1	-1.8	-14.173 µg/L	-14.173 ppb	21:13:50
3	K 766.490 Radial†	210.2	40.6	26.521 µg/L	26.521 ppb	21:13:29
3	Mg 279.077 IEC†	12.2	-0.9	-7.7282 µg/L	-7.7282 ppb	21:13:50
3	Na 589.592 Radial†	514.7	31.3	9.6113 µg/L	9.6113 ppb	21:13:29
3	Sr 421.552†	36.6	7.0	0.0646 µg/L	0.0646 ppb	21:13:29
3	Sc 361.383	2036784.5	2036784.5	103.75 %		21:15:04
3	Y 371.029	1408626.3	1408626.3	104.13 %		21:15:04
3	Ag 328.068†	-389.3	26.4	0.1980 µg/L	0.1980 ppb	21:15:10
3	As 188.979†	1.3	1.8	3.1417 µg/L	3.1417 ppb	21:15:30
3	B 249.677†	362.6	-34.7	-1.4060 µg/L	-1.4060 ppb	21:15:30
3	Ba 233.527†	-7.2	10.1	0.2434 µg/L	0.2434 ppb	21:15:30
3	Be 313.107†	-2768.8	187.1	0.1110 µg/L	0.1110 ppb	21:15:10
3	Cd 226.502†	-144.7	2.2	0.0556 µg/L	0.0556 ppb	21:15:30
3	Co 228.616†	-8.3	-9.9	-0.4480 µg/L	-0.4480 ppb	21:15:30
3	Cr 267.716†	-54.9	-2.5	-0.0503 µg/L	-0.0503 ppb	21:15:10
3	Cu 324.752†	2622.8	-15.8	-0.1051 µg/L	-0.1051 ppb	21:15:10
3	Mn 257.610†	-264.4	1.2	0.0020 µg/L	0.0020 ppb	21:15:30
3	Mo 202.031†	-0.5	4.9	0.4803 µg/L	0.4803 ppb	21:15:30
3	Ni 231.604†	316.5	-7.3	-0.3620 µg/L	-0.3620 ppb	21:15:30
3	P 214.914†	15.2	-0.7	-1.2959 µg/L	-1.2959 ppb	21:15:30
3	Pb 220.353†	89.8	-4.4	-1.0668 µg/L	-1.0668 ppb	21:15:30
3	S 181.975 Axial†	20.3	0.6	2.6598 µg/L	2.6598 ppb	21:15:30
3	Sb 206.836†	20.9	-2.4	-2.1959 µg/L	-2.1959 ppb	21:15:30
3	Se 196.026†	19.2	-0.8	-1.1695 µg/L	-1.1695 ppb	21:15:30
3	SiO2†	1478.1	33.0	6.5234 µg/L	6.5234 ppb	21:15:10
3	Si 251.611†	346.7	23.5	1.7856 µg/L	1.7856 ppb	21:15:30
3	Sn 189.927†	2.2	1.7	0.7297 µg/L	0.7297 ppb	21:15:30
3	Ti 334.940†	181.9	0.3	0.0010 µg/L	0.0010 ppb	21:15:10
3	Tl 190.801†	-25.3	-2.0	-2.6178 µg/L	-2.6178 ppb	21:15:30
3	U 409.014†	-25.5	52.5	4.3661 µg/L	4.3661 ppb	21:15:10
3	V 292.402†	9.1	53.5	0.5276 µg/L	0.5276 ppb	21:15:10
3	Zn 213.857†	536.2	-17.6	-0.4107 µg/L	-0.4107 ppb	21:15:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031944.3	103.51	%	0.327				0.32%
Sc RADIAL	57645.2	102	%	0.2				0.19%
Y 371.029	1405336.4	103.89	%	0.320				0.31%
Ag 328.068†	14.8	0.1113	µg/L	0.09420	0.1113	ppb	0.09420	84.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.6	-7.4128	µg/L	9.41994	-7.4128	ppb	9.41994	127.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.3232	µg/L	3.87965	3.3232	ppb	3.87965	116.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-27.0	-1.0981	µg/L	0.36915	-1.0981	ppb	0.36915	33.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.1646	µg/L	0.06947	0.1646	ppb	0.06947	42.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	192.6	0.1142	µg/L	0.01827	0.1142	ppb	0.01827	15.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-14.8	-12.608	µg/L	2.3832	-12.608	ppb	2.3832	18.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.3	0.2582	µg/L	0.20309	0.2582	ppb	0.20309	78.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.9	-0.0861	µg/L	0.34278	-0.0861	ppb	0.34278	398.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.9     -0.0578 µg/L       0.26977     -0.0578 ppb        0.26977 467.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -18.1     -0.1187 µg/L       0.16294     -0.1187 ppb        0.16294 137.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -6.2921 µg/L       7.08315     -6.2921 ppb        7.08315 112.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        53.1      34.699 µg/L        9.7985      34.699 ppb         9.7985  28.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -14.328 µg/L       19.6256     -14.328 ppb        19.6256 136.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               6.0      0.0185 µg/L       0.01862      0.0185 ppb        0.01862 100.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.8      0.4662 µg/L       0.08595      0.4662 ppb        0.08595  18.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       36.8      11.313 µg/L        3.4017      11.313 ppb         3.4017  30.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.2     -0.4108 µg/L       0.13551     -0.4108 ppb        0.13551  32.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.8      1.7128 µg/L      10.58316      1.7128 ppb       10.58316 617.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.7     -1.6199 µg/L       0.79389     -1.6199 ppb        0.79389  49.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -6.4120 µg/L      12.53600     -6.4120 ppb       12.53600 195.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.6      2.3933 µg/L       4.05930      2.3933 ppb        4.05930 169.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.2     -1.6333 µg/L       0.79453     -1.6333 ppb        0.79453  48.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    23.0      4.5433 µg/L       1.71504      4.5433 ppb        1.71504  37.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              26.9      2.0444 µg/L       0.47330      2.0444 ppb        0.47330  23.15%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.1      1.3071 µg/L       1.16248      1.3071 ppb        1.16248  88.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              13.5      0.1246 µg/L       0.05381      0.1246 ppb        0.05381  43.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              61.0      0.1359 µg/L       0.12021      0.1359 ppb        0.12021  88.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.0      0.0665 µg/L       2.61569      0.0665 ppb        2.61569 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               50.9      4.2288 µg/L       3.35151      4.2288 ppb        3.35151  79.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               30.5      0.3039 µg/L       0.29290      0.3039 ppb        0.29290  96.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -9.0     -0.2072 µg/L       0.18103     -0.2072 ppb        0.18103  87.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/19/2010 21:19:47 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910G.SIF
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 201**
Sample ID: 1202032567|948744|1 **Date Collected: 2/19/2010 21:19:49**
Analyst: JWJ **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202032567|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57402.4	57402.4	102	%			21:20:27
1	Al 396.153Radial†	33.1	25.2	17.546	µg/L	17.546	ppb	21:20:27
1	Ca 317.933Radial†	245.5	30.3	25.921	µg/L	25.921	ppb	21:20:48
1	Fe 238.204 Radial†	31.7	14.6	115.00	µg/L	115.00	ppb	21:20:48
1	K 766.490 Radial†	271.7	102.5	66.927	µg/L	66.927	ppb	21:20:27
1	Mg 279.077 IEC†	11.1	-1.9	-17.242	µg/L	-17.242	ppb	21:20:48
1	Na 589.592 Radial†	537.0	56.4	17.310	µg/L	17.310	ppb	21:20:27
1	Sr 421.552†	100.6	70.2	0.6479	µg/L	0.6479	ppb	21:20:27
1	Sc 361.383	2016368.8	2016368.8	102.71	%			21:21:49
1	Y 371.029	1392342.5	1392342.5	102.93	%			21:21:49
1	Ag 328.068†	-415.2	-2.6	-0.0122	µg/L	-0.0122	ppb	21:21:55
1	As 188.979†	4.8	5.1	9.1786	µg/L	9.1786	ppb	21:22:16
1	B 249.677†	385.0	-9.3	-0.4355	µg/L	-0.4355	ppb	21:22:16
1	Ba 233.527†	12.2	29.0	0.6957	µg/L	0.6957	ppb	21:22:16
1	Be 313.107†	-2443.5	476.8	0.2819	µg/L	0.2819	ppb	21:21:55
1	Cd 226.502†	-122.1	22.8	0.5579	µg/L	0.5579	ppb	21:22:16
1	Co 228.616†	18.6	16.2	0.7261	µg/L	0.7261	ppb	21:22:16
1	Cr 267.716†	88.8	136.8	2.7477	µg/L	2.7477	ppb	21:21:55
1	Cu 324.752†	2850.5	231.5	1.5270	µg/L	1.5270	ppb	21:21:55
1	Mn 257.610†	729.8	966.6	3.0428	µg/L	3.0428	ppb	21:21:55
1	Mo 202.031†	-5.1	0.4	0.0394	µg/L	0.0394	ppb	21:22:16
1	Ni 231.604†	341.5	20.1	1.0035	µg/L	1.0035	ppb	21:22:16
1	P 214.914†	12.8	-2.8	-5.8269	µg/L	-5.8269	ppb	21:22:16
1	Pb 220.353†	89.4	-3.9	-0.9607	µg/L	-0.9607	ppb	21:22:16
1	S 181.975 Axial†	19.3	-0.2	-0.7557	µg/L	-0.7557	ppb	21:22:16
1	Sb 206.836†	20.9	-2.2	-2.0246	µg/L	-2.0246	ppb	21:22:16
1	Se 196.026†	19.2	-0.6	-0.4825	µg/L	-0.4825	ppb	21:22:16
1	SiO2†	2318.2	865.5	170.83	µg/L	170.83	ppb	21:21:55
1	Si 251.611†	1340.0	994.0	75.567	µg/L	75.567	ppb	21:22:16
1	Sn 189.927†	8.7	8.1	3.3919	µg/L	3.3919	ppb	21:22:16
1	Ti 334.940†	1513.8	1298.8	2.8750	µg/L	2.8750	ppb	21:21:55
1	Tl 190.801†	-15.6	7.2	9.4177	µg/L	9.4177	ppb	21:22:16
1	U 409.014†	-72.6	6.4	0.5170	µg/L	0.5170	ppb	21:21:55
1	V 292.402†	-48.6	-2.6	-0.0042	µg/L	-0.0042	ppb	21:21:55
1	Zn 213.857†	756.4	202.0	4.7290	µg/L	4.7290	ppb	21:22:16
2	Sc RADIAL	56982.6	56982.6	101	%			21:20:53
2	Al 396.153Radial†	31.2	23.6	16.416	µg/L	16.416	ppb	21:20:53
2	Ca 317.933Radial†	236.4	23.1	19.768	µg/L	19.768	ppb	21:21:14
2	Fe 238.204 Radial†	29.0	12.1	95.817	µg/L	95.817	ppb	21:21:14
2	K 766.490 Radial†	250.4	83.3	54.377	µg/L	54.377	ppb	21:20:53
2	Mg 279.077 IEC†	14.2	1.2	11.008	µg/L	11.008	ppb	21:21:14
2	Na 589.592 Radial†	531.7	55.0	16.895	µg/L	16.895	ppb	21:20:53
2	Sr 421.552†	104.2	74.5	0.6873	µg/L	0.6873	ppb	21:20:53
2	Sc 361.383	1992597.0	1992597.0	101.50	%			21:22:22
2	Y 371.029	1375290.5	1375290.5	101.67	%			21:22:22
2	Ag 328.068†	-388.6	18.8	0.1460	µg/L	0.1460	ppb	21:22:27
2	As 188.979†	-6.3	-5.7	-10.301	µg/L	-10.301	ppb	21:22:48

2	B 249.677†	381.1	-8.7	-0.4014 µg/L	-0.4014 ppb	21:22:48
2	Ba 233.527†	13.4	30.3	0.7280 µg/L	0.7280 ppb	21:22:48
2	Be 313.107†	-2307.9	582.0	0.3443 µg/L	0.3443 ppb	21:22:27
2	Cd 226.502†	-131.4	12.2	0.2949 µg/L	0.2949 ppb	21:22:48
2	Co 228.616†	16.2	14.0	0.6277 µg/L	0.6277 ppb	21:22:48
2	Cr 267.716†	68.3	117.7	2.3641 µg/L	2.3641 ppb	21:22:27
2	Cu 324.752†	2848.7	262.8	1.7289 µg/L	1.7289 ppb	21:22:27
2	Mn 257.610†	685.1	931.0	2.9277 µg/L	2.9277 ppb	21:22:27
2	Mo 202.031†	-2.7	2.7	0.2670 µg/L	0.2670 ppb	21:22:48
2	Ni 231.604†	331.4	14.1	0.7050 µg/L	0.7050 ppb	21:22:48
2	P 214.914†	12.9	-2.7	-5.5407 µg/L	-5.5407 ppb	21:22:48
2	Pb 220.353†	87.9	-4.3	-1.0494 µg/L	-1.0494 ppb	21:22:48
2	S 181.975 Axial†	15.4	-3.7	-15.465 µg/L	-15.465 ppb	21:22:48
2	Sb 206.836†	17.7	-5.1	-4.6964 µg/L	-4.6964 ppb	21:22:48
2	Se 196.026†	21.7	2.1	3.1412 µg/L	3.1412 ppb	21:22:48
2	SiO2†	2305.8	880.1	173.72 µg/L	173.72 ppb	21:22:27
2	Si 251.611†	1352.4	1021.8	77.676 µg/L	77.676 ppb	21:22:48
2	Sn 189.927†	3.9	3.5	1.4633 µg/L	1.4633 ppb	21:22:48
2	Ti 334.940†	1550.8	1352.8	2.9922 µg/L	2.9922 ppb	21:22:27
2	Tl 190.801†	-23.5	-0.8	-0.9704 µg/L	-0.9704 ppb	21:22:48
2	U 409.014†	-130.4	-51.3	-4.2803 µg/L	-4.2803 ppb	21:22:27
2	V 292.402†	-29.7	15.5	0.1651 µg/L	0.1651 ppb	21:22:27
2	Zn 213.857†	737.3	192.0	4.4941 µg/L	4.4941 ppb	21:22:48
3	Sc RADIAL	56926.8	56926.8	101 %		21:21:19
3	Al 396.153Radial†	42.5	34.8	24.220 µg/L	24.220 ppb	21:21:19
3	Ca 317.933Radial†	234.1	21.1	18.004 µg/L	18.004 ppb	21:21:39
3	Fe 238.204 Radial†	30.7	13.9	109.47 µg/L	109.47 ppb	21:21:39
3	K 766.490 Radial†	228.2	61.5	40.170 µg/L	40.170 ppb	21:21:19
3	Mg 279.077 IEC†	11.0	-1.9	-16.752 µg/L	-16.752 ppb	21:21:39
3	Na 589.592 Radial†	512.5	36.4	11.177 µg/L	11.177 ppb	21:21:19
3	Sr 421.552†	118.3	88.6	0.8173 µg/L	0.8173 ppb	21:21:19
3	Sc 361.383	2010428.8	2010428.8	102.41 %		21:22:54
3	Y 371.029	1388252.8	1388252.8	102.62 %		21:22:54
3	Ag 328.068†	-352.9	57.0	0.4329 µg/L	0.4329 ppb	21:22:59
3	As 188.979†	-2.3	-1.8	-3.2859 µg/L	-3.2859 ppb	21:23:20
3	B 249.677†	374.4	-18.5	-0.8076 µg/L	-0.8076 ppb	21:23:20
3	Ba 233.527†	4.9	21.9	0.5260 µg/L	0.5260 ppb	21:23:20
3	Be 313.107†	-2407.9	504.4	0.2983 µg/L	0.2983 ppb	21:22:59
3	Cd 226.502†	-130.0	14.8	0.3559 µg/L	0.3559 ppb	21:23:20
3	Co 228.616†	11.6	9.4	0.4189 µg/L	0.4189 ppb	21:23:20
3	Cr 267.716†	67.3	116.1	2.3330 µg/L	2.3330 ppb	21:22:59
3	Cu 324.752†	2867.2	255.9	1.6859 µg/L	1.6859 ppb	21:22:59
3	Mn 257.610†	656.7	897.3	2.8251 µg/L	2.8251 ppb	21:22:59
3	Mo 202.031†	5.1	10.3	1.0146 µg/L	1.0146 ppb	21:23:20
3	Ni 231.604†	323.1	3.2	0.1582 µg/L	0.1582 ppb	21:23:20
3	P 214.914†	6.0	-9.4	-18.929 µg/L	-18.929 ppb	21:23:20
3	Pb 220.353†	89.4	-3.6	-0.8784 µg/L	-0.8784 ppb	21:23:20
3	S 181.975 Axial†	15.2	-4.1	-17.137 µg/L	-17.137 ppb	21:23:20
3	Sb 206.836†	19.9	-3.1	-2.8529 µg/L	-2.8529 ppb	21:23:20
3	Se 196.026†	8.9	-10.6	-14.586 µg/L	-14.586 ppb	21:23:20
3	SiO2†	2301.1	855.4	168.84 µg/L	168.84 ppb	21:22:59
3	Si 251.611†	1282.3	941.5	71.577 µg/L	71.577 ppb	21:23:20
3	Sn 189.927†	5.1	4.6	1.9188 µg/L	1.9188 ppb	21:23:20
3	Ti 334.940†	1496.9	1286.6	2.8479 µg/L	2.8479 ppb	21:22:59
3	Tl 190.801†	-22.7	0.2	0.2878 µg/L	0.2878 ppb	21:23:20
3	U 409.014†	-95.2	-15.9	-1.3389 µg/L	-1.3389 ppb	21:22:59
3	V 292.402†	11.1	55.6	0.5665 µg/L	0.5665 ppb	21:22:59
3	Zn 213.857†	733.3	181.6	4.2532 µg/L	4.2532 ppb	21:23:20

Mean Data: 1202032567|948744|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2006464.9	102.21	%	0.630				0.62%
Sc RADIAL	57103.9	101	%	0.5				0.46%
Y 371.029	1385295.3	102.41	%	0.658				0.64%
Ag 328.068†	24.4	0.1889	µg/L	0.22561	0.1889	ppb	0.22561	119.44%
Al 396.153Radial†	27.9	19.394	µg/L	4.2175	19.394	ppb	4.2175	21.75%
As 188.979†	-0.8	-1.4693	µg/L	9.86596	-1.4693	ppb	9.86596	671.45%
B 249.677†	-12.2	-0.5482	µg/L	0.22531	-0.5482	ppb	0.22531	41.10%
Ba 233.527†	27.1	0.6499	µg/L	0.10851	0.6499	ppb	0.10851	16.70%

Be 313.107†	521.1	0.3081	µg/L	0.03235	0.3081	ppb	0.03235	10.50%
Ca 317.933Radial†	24.9	21.231	µg/L	4.1563	21.231	ppb	4.1563	19.58%
Cd 226.502†	16.6	0.4029	µg/L	0.13762	0.4029	ppb	0.13762	34.16%
Co 228.616†	13.2	0.5909	µg/L	0.15687	0.5909	ppb	0.15687	26.55%
Cr 267.716†	123.5	2.4816	µg/L	0.23095	2.4816	ppb	0.23095	9.31%
Cu 324.752†	250.1	1.6473	µg/L	0.10634	1.6473	ppb	0.10634	6.46%
Fe 238.204 Radial†	13.5	106.76	µg/L	9.876	106.76	ppb	9.876	9.25%
K 766.490 Radial†	82.4	53.824	µg/L	13.3869	53.824	ppb	13.3869	24.87%
Mg 279.077 IEC†	-0.8	-7.6618	µg/L	16.17055	-7.6618	ppb	16.17055	211.05%
Mn 257.610†	931.6	2.9319	µg/L	0.10890	2.9319	ppb	0.10890	3.71%
Mo 202.031†	4.5	0.4403	µg/L	0.51021	0.4403	ppb	0.51021	115.87%
Na 589.592 Radial†	49.3	15.128	µg/L	3.4272	15.128	ppb	3.4272	22.66%
Ni 231.604†	12.5	0.6222	µg/L	0.42868	0.6222	ppb	0.42868	68.90%
P 214.914†	-5.0	-10.099	µg/L	7.6485	-10.099	ppb	7.6485	75.74%
Pb 220.353†	-3.9	-0.9628	µg/L	0.08552	-0.9628	ppb	0.08552	8.88%
S 181.975 Axial†	-2.7	-11.119	µg/L	9.0141	-11.119	ppb	9.0141	81.07%
Sb 206.836†	-3.5	-3.1913	µg/L	1.36765	-3.1913	ppb	1.36765	42.86%
Se 196.026†	-3.0	-3.9757	µg/L	9.36552	-3.9757	ppb	9.36552	235.57%
SiO2†	867.0	171.13	µg/L	2.453	171.13	ppb	2.453	1.43%
Si 251.611†	985.8	74.940	µg/L	3.0976	74.940	ppb	3.0976	4.13%
Sn 189.927†	5.4	2.2580	µg/L	1.00802	2.2580	ppb	1.00802	44.64%
Sr 421.552†	77.8	0.7175	µg/L	0.08863	0.7175	ppb	0.08863	12.35%
Ti 334.940†	1312.8	2.9051	µg/L	0.07670	2.9051	ppb	0.07670	2.64%
Tl 190.801†	2.2	2.9117	µg/L	5.66939	2.9117	ppb	5.66939	194.71%
U 409.014†	-20.3	-1.7007	µg/L	2.41905	-1.7007	ppb	2.41905	142.24%
V 292.402†	22.8	0.2425	µg/L	0.29312	0.2425	ppb	0.29312	120.90%
Zn 213.857†	191.9	4.4921	µg/L	0.23794	4.4921	ppb	0.23794	5.30%

Sequence No.: 2
Sample ID: 1202032572|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 202
Date Collected: 2/19/2010 21:23:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032572|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58415.3	58415.3	103	%			21:24:08
1	Al 396.153Radial†	135383.6	130927.3	91069	µg/L	91069	ppb	21:24:03
1	Ca 317.933Radial†	123850.9	119569.7	102130	µg/L	102130	ppb	21:24:03
1	Fe 238.204 Radial†	26903.3	26002.7	205100	µg/L	205100	ppb	21:24:08
1	K 766.490 Radial†	65406.2	63091.8	41206	µg/L	41206	ppb	21:24:03
1	Mg 279.077 IEC†	4657.3	4491.5	39938	µg/L	39938	ppb	21:24:08
1	Na 589.592 Radial†	34747.5	33133.4	10177	µg/L	10177	ppb	21:24:03
1	Sr 421.552†	258713.6	250183.0	2308.0	µg/L	2308.0	ppb	21:24:03
1	Sc 361.383	2042875.3	2042875.3	104.06	%			21:24:43
1	Y 371.029	1442097.3	1442097.3	106.60	%			21:24:43
1	Ag 328.068†	41321.7	40110.1	318.21	µg/L	318.21	ppb	21:24:49
1	As 188.979†	652.8	627.8	1130.7	µg/L	1130.7	ppb	21:25:10
1	B 249.677†	39577.8	37648.5	1431.3	µg/L	1431.3	ppb	21:24:49
1	Ba 233.527†	90297.4	86789.1	2085.8	µg/L	2085.8	ppb	21:24:49
1	Be 313.107†	1446764.3	1393137.2	824.64	µg/L	824.64	ppb	21:24:43
1	Cd 226.502†	26065.8	25189.8	606.44	µg/L	606.44	ppb	21:24:49
1	Co 228.616†	22074.0	21210.3	949.03	µg/L	949.03	ppb	21:24:49
1	Cr 267.716†	124315.1	119512.1	2401.2	µg/L	2401.2	ppb	21:24:49
1	Cu 324.752†	293462.6	279461.8	1852.7	µg/L	1852.7	ppb	21:24:49
1	Mn 257.610†	1904676.7	1830572.7	5758.1	µg/L	5758.1	ppb	21:24:43
1	Mo 202.031†	5538.3	5327.5	529.49	µg/L	529.49	ppb	21:25:10
1	Ni 231.604†	28651.2	27220.3	1358.4	µg/L	1358.4	ppb	21:24:49
1	P 214.914†	4607.1	4411.9	8419.2	µg/L	8419.2	ppb	21:25:10
1	Pb 220.353†	3953.3	3708.0	897.13	µg/L	897.13	ppb	21:25:10
1	S 181.975 Axial†	1039.4	979.9	4063.7	µg/L	4063.7	ppb	21:25:10
1	Sb 206.836†	1591.0	1506.4	1355.3	µg/L	1355.3	ppb	21:25:10
1	Se 196.026†	2204.1	2098.7	3443.8	µg/L	3443.8	ppb	21:25:10
1	SiO2†	371338.5	355449.6	70161	µg/L	70161	ppb	21:24:49
1	Si 251.611†	456663.7	438524.6	33337	µg/L	33337	ppb	21:24:43
1	Sn 189.927†	2865.1	2752.9	1143.3	µg/L	1143.3	ppb	21:25:10
1	Ti 334.940†	2707857.0	2601965.1	5754.6	µg/L	5754.6	ppb	21:24:43
1	Tl 190.801†	940.5	926.2	1299.5	µg/L	1299.5	ppb	21:25:10
1	U 409.014†	-1505.1	-1369.2	-148.50	µg/L	-148.50	ppb	21:24:49
1	V 292.402†	132215.8	127098.7	1272.2	µg/L	1272.2	ppb	21:24:49
1	Zn 213.857†	266531.9	255591.9	5975.6	µg/L	5975.6	ppb	21:24:49
2	Sc RADIAL	57081.8	57081.8	101	%			21:24:19
2	Al 396.153Radial†	136000.1	134596.2	93622	µg/L	93622	ppb	21:24:14
2	Ca 317.933Radial†	124362.6	122874.2	104960	µg/L	104960	ppb	21:24:14
2	Fe 238.204 Radial†	27303.6	27006.6	213020	µg/L	213020	ppb	21:24:19
2	K 766.490 Radial†	65567.7	64729.4	42276	µg/L	42276	ppb	21:24:14
2	Mg 279.077 IEC†	4708.7	4647.5	41324	µg/L	41324	ppb	21:24:19
2	Na 589.592 Radial†	34864.8	34034.6	10453	µg/L	10453	ppb	21:24:14
2	Sr 421.552†	259749.9	257053.6	2371.4	µg/L	2371.4	ppb	21:24:14
2	Sc 361.383	2038446.5	2038446.5	103.84	%			21:25:17
2	Y 371.029	1439111.3	1439111.3	106.38	%			21:25:17
2	Ag 328.068†	41317.9	40192.7	319.32	µg/L	319.32	ppb	21:25:23
2	As 188.979†	654.5	630.8	1136.4	µg/L	1136.4	ppb	21:25:44
2	B 249.677†	39451.5	37609.5	1425.6	µg/L	1425.6	ppb	21:25:23
2	Ba 233.527†	90012.7	86703.5	2083.7	µg/L	2083.7	ppb	21:25:23
2	Be 313.107†	1445115.4	1394569.8	825.49	µg/L	825.49	ppb	21:25:17
2	Cd 226.502†	26076.4	25254.5	607.16	µg/L	607.16	ppb	21:25:23
2	Co 228.616†	22015.0	21199.5	948.53	µg/L	948.53	ppb	21:25:23
2	Cr 267.716†	123858.9	119332.3	2397.6	µg/L	2397.6	ppb	21:25:23
2	Cu 324.752†	293092.4	279718.1	1855.5	µg/L	1855.5	ppb	21:25:23
2	Mn 257.610†	1901135.8	1831139.2	5760.9	µg/L	5760.9	ppb	21:25:17
2	Mo 202.031†	5546.1	5346.5	531.65	µg/L	531.65	ppb	21:25:44
2	Ni 231.604†	28564.1	27196.2	1357.3	µg/L	1357.3	ppb	21:25:23
2	P 214.914†	4614.7	4428.8	8446.8	µg/L	8446.8	ppb	21:25:44
2	Pb 220.353†	3949.7	3712.8	898.13	µg/L	898.13	ppb	21:25:44

2	S 181.975 Axial†	1031.2	974.1	4039.7 µg/L	4039.7 ppb	21:25:44
2	Sb 206.836†	1589.1	1507.8	1356.5 µg/L	1356.5 ppb	21:25:44
2	Se 196.026†	2189.0	2088.7	3449.5 µg/L	3449.5 ppb	21:25:44
2	SiO2†	370543.2	355459.0	70163 µg/L	70163 ppb	21:25:23
2	Si 251.611†	455929.2	438770.6	33356 µg/L	33356 ppb	21:25:17
2	Sn 189.927†	2861.1	2755.0	1143.4 µg/L	1143.4 ppb	21:25:44
2	Ti 334.940†	2705061.5	2604926.3	5761.1 µg/L	5761.1 ppb	21:25:17
2	Tl 190.801†	951.9	939.1	1317.4 µg/L	1317.4 ppb	21:25:44
2	U 409.014†	-1394.1	-1265.5	-141.15 µg/L	-141.15 ppb	21:25:23
2	V 292.402†	131858.0	127030.2	1272.5 µg/L	1272.5 ppb	21:25:23
2	Zn 213.857†	265787.2	255431.2	5971.4 µg/L	5971.4 ppb	21:25:23
3	Sc RADIAL	58186.2	58186.2	103 %		21:24:30
3	Al 396.153Radial†	135762.9	131811.0	91684 µg/L	91684 ppb	21:24:25
3	Ca 317.933Radial†	123845.5	120035.9	102530 µg/L	102530 ppb	21:24:25
3	Fe 238.204 Radial†	26783.7	25988.9	204990 µg/L	204990 ppb	21:24:30
3	K 766.490 Radial†	65199.2	63139.9	41238 µg/L	41238 ppb	21:24:25
3	Mg 279.077 IEC†	4638.8	4491.2	39936 µg/L	39936 ppb	21:24:30
3	Na 589.592 Radial†	34725.9	33244.8	10211 µg/L	10211 ppb	21:24:25
3	Sr 421.552†	258790.6	251242.7	2317.8 µg/L	2317.8 ppb	21:24:25
3	Sc 361.383	2028308.4	2028308.4	103.32 %		21:25:51
3	Y 371.029	1431622.5	1431622.5	105.83 %		21:25:51
3	Ag 328.068†	40828.9	39918.2	316.73 µg/L	316.73 ppb	21:25:57
3	As 188.979†	648.4	628.0	1131.2 µg/L	1131.2 ppb	21:26:17
3	B 249.677†	39045.9	37406.8	1421.5 µg/L	1421.5 ppb	21:25:57
3	Ba 233.527†	89093.4	86247.1	2072.8 µg/L	2072.8 ppb	21:25:57
3	Be 313.107†	1431602.3	1388447.1	821.86 µg/L	821.86 ppb	21:25:51
3	Cd 226.502†	25795.0	25107.7	604.40 µg/L	604.40 ppb	21:25:57
3	Co 228.616†	21826.5	21123.0	945.11 µg/L	945.11 ppb	21:25:57
3	Cr 267.716†	122499.8	118613.1	2383.2 µg/L	2383.2 ppb	21:25:57
3	Cu 324.752†	289925.9	278064.1	1843.6 µg/L	1843.6 ppb	21:25:57
3	Mn 257.610†	1881784.2	1821560.8	5729.9 µg/L	5729.9 ppb	21:25:51
3	Mo 202.031†	5528.7	5356.3	532.31 µg/L	532.31 ppb	21:26:17
3	Ni 231.604†	28328.8	27106.0	1352.7 µg/L	1352.7 ppb	21:25:57
3	P 214.914†	4597.5	4434.4	8465.0 µg/L	8465.0 ppb	21:26:17
3	Pb 220.353†	3928.9	3711.7	898.08 µg/L	898.08 ppb	21:26:17
3	S 181.975 Axial†	1035.5	983.2	4077.5 µg/L	4077.5 ppb	21:26:17
3	Sb 206.836†	1591.4	1517.8	1366.0 µg/L	1366.0 ppb	21:26:17
3	Se 196.026†	2185.1	2095.5	3439.0 µg/L	3439.0 ppb	21:26:17
3	SiO2†	366957.6	353772.3	69830 µg/L	69830 ppb	21:25:57
3	Si 251.611†	452269.8	437423.5	33254 µg/L	33254 ppb	21:25:51
3	Sn 189.927†	2855.3	2763.1	1147.6 µg/L	1147.6 ppb	21:26:17
3	Ti 334.940†	2681639.4	2595278.1	5739.8 µg/L	5739.8 ppb	21:25:51
3	Tl 190.801†	936.9	929.1	1303.1 µg/L	1303.1 ppb	21:26:17
3	U 409.014†	-1316.4	-1197.0	-134.20 µg/L	-134.20 ppb	21:25:57
3	V 292.402†	130478.2	126329.4	1264.7 µg/L	1264.7 ppb	21:25:57
3	Zn 213.857†	263037.4	254049.2	5939.5 µg/L	5939.5 ppb	21:25:57

Mean Data: 1202032572|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2036543.4	103.74	%	0.380				0.37%
Sc RADIAL	57894.4	102	%	1.3				1.23%
Y 371.029	1437610.4	106.27	%	0.399				0.38%
Ag 328.068†	40073.7	318.09	µg/L	1.296	318.09	ppb	1.296	0.41%
Al 396.153Radial†	132444.8	92125	µg/L	1332.0	92125	ppb	1332.0	1.45%
As 188.979†	628.9	1132.8	µg/L	3.17	1132.8	ppb	3.17	0.28%
B 249.677†	37555.0	1426.1	µg/L	4.93	1426.1	ppb	4.93	0.35%
Ba 233.527†	86579.9	2080.8	µg/L	7.00	2080.8	ppb	7.00	0.34%
Be 313.107†	1392051.4	824.00	µg/L	1.897	824.00	ppb	1.897	0.23%
Ca 317.933Radial†	120826.6	103210	µg/L	1527.7	103210	ppb	1527.7	1.48%
Cd 226.502†	25184.0	606.00	µg/L	1.432	606.00	ppb	1.432	0.24%
Co 228.616†	21177.6	947.55	µg/L	2.133	947.55	ppb	2.133	0.23%
Cr 267.716†	119152.5	2394.0	µg/L	9.56	2394.0	ppb	9.56	0.40%
Cu 324.752†	279081.3	1850.6	µg/L	6.23	1850.6	ppb	6.23	0.34%
Fe 238.204 Radial†	26332.7	207700	µg/L	4603.1	207700	ppb	4603.1	2.22%
K 766.490 Radial†	63653.7	41573	µg/L	608.6	41573	ppb	608.6	1.46%
Mg 279.077 IEC†	4543.4	40400	µg/L	800.9	40400	ppb	800.9	1.98%
Mn 257.610†	1827757.5	5749.7	µg/L	17.16	5749.7	ppb	17.16	0.30%
Mo 202.031†	5343.4	531.15	µg/L	1.477	531.15	ppb	1.477	0.28%
Na 589.592 Radial†	33470.9	10280	µg/L	150.9	10280	ppb	150.9	1.47%

Ni 231.604†	27174.2	1356.2 µg/L	3.02	1356.2 ppb	3.02	0.22%
P 214.914†	4425.0	8443.6 µg/L	23.07	8443.6 ppb	23.07	0.27%
Pb 220.353†	3710.8	897.78 µg/L	0.560	897.78 ppb	0.560	0.06%
S 181.975 Axial†	979.1	4060.3 µg/L	19.10	4060.3 ppb	19.10	0.47%
Sb 206.836†	1510.7	1359.3 µg/L	5.87	1359.3 ppb	5.87	0.43%
Se 196.026†	2094.3	3444.1 µg/L	5.24	3444.1 ppb	5.24	0.15%
SiO2†	354893.6	70051 µg/L	191.7	70051 ppb	191.7	0.27%
Si 251.611†	438239.6	33316 µg/L	54.5	33316 ppb	54.5	0.16%
Sn 189.927†	2757.0	1144.8 µg/L	2.45	1144.8 ppb	2.45	0.21%
Sr 421.552†	252826.4	2332.4 µg/L	34.12	2332.4 ppb	34.12	1.46%
Ti 334.940†	2600723.2	5751.8 µg/L	10.90	5751.8 ppb	10.90	0.19%
Tl 190.801†	931.5	1306.7 µg/L	9.44	1306.7 ppb	9.44	0.72%
U 409.014†	-1277.2	-141.28 µg/L	7.151	-141.28 ppb	7.151	5.06%
V 292.402†	126819.5	1269.8 µg/L	4.42	1269.8 ppb	4.42	0.35%
Zn 213.857†	255024.1	5962.2 µg/L	19.76	5962.2 ppb	19.76	0.33%

Sequence No.: 4
Sample ID: 1202032568|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 204
Date Collected: 2/19/2010 21:30:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032568|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57977.6	57977.6	103	%			21:30:37
1	Al 396.153Radial†	14352.3	13978.1	9723.8	µg/L	9723.8	ppb	21:30:37
1	Ca 317.933Radial†	20878.2	20133.3	17197	µg/L	17197	ppb	21:30:37
1	Fe 238.204 Radial†	5772.2	5608.1	44230	µg/L	44230	ppb	21:30:57
1	K 766.490 Radial†	4210.7	3938.1	2572.0	µg/L	2572.0	ppb	21:30:37
1	Mg 279.077 IEC†	314.4	293.5	2576.6	µg/L	2576.6	ppb	21:30:57
1	Na 589.592 Radial†	3884.4	3312.9	1017.5	µg/L	1017.5	ppb	21:30:37
1	Sr 421.552†	4227.2	4090.3	37.734	µg/L	37.734	ppb	21:30:37
1	Sc 361.383	2033725.5	2033725.5	103.60	%			21:32:01
1	Y 371.029	1461158.8	1461158.8	108.01	%			21:32:01
1	Ag 328.068†	-327.0	85.9	3.6619	µg/L	3.6619	ppb	21:32:07
1	As 188.979†	-1.3	-0.8	0.1909	µg/L	0.1909	ppb	21:32:27
1	B 249.677†	610.9	205.6	-14.273	µg/L	-14.273	ppb	21:32:07
1	Ba 233.527†	7916.5	7658.7	183.93	µg/L	183.93	ppb	21:32:07
1	Be 313.107†	3491.0	6225.5	3.3595	µg/L	3.3595	ppb	21:32:07
1	Cd 226.502†	17.4	158.5	-0.9181	µg/L	-0.9181	ppb	21:32:27
1	Co 228.616†	245.2	234.7	8.7972	µg/L	8.7972	ppb	21:32:27
1	Cr 267.716†	13700.2	13274.9	266.65	µg/L	266.65	ppb	21:32:07
1	Cu 324.752†	25242.1	21822.0	148.59	µg/L	148.59	ppb	21:32:07
1	Mn 257.610†	532113.6	513896.0	1615.1	µg/L	1615.1	ppb	21:32:01
1	Mo 202.031†	48.0	51.7	6.7431	µg/L	6.7431	ppb	21:32:27
1	Ni 231.604†	2958.5	2543.5	127.35	µg/L	127.35	ppb	21:32:27
1	P 214.914†	528.9	495.2	932.55	µg/L	932.55	ppb	21:32:27
1	Pb 220.353†	280.2	179.5	42.346	µg/L	42.346	ppb	21:32:27
1	S 181.975 Axial†	79.5	57.8	239.58	µg/L	239.58	ppb	21:32:27
1	Sb 206.836†	28.1	4.7	-0.1555	µg/L	-0.1555	ppb	21:32:27
1	Se 196.026†	-16.0	-34.8	64.941	µg/L	64.941	ppb	21:32:27
1	SiO2†	144080.4	137686.7	27178	µg/L	27178	ppb	21:32:07
1	Si 251.611†	175448.0	169046.3	12851	µg/L	12851	ppb	21:32:01
1	Sn 189.927†	44.6	42.7	13.497	µg/L	13.497	ppb	21:32:27
1	Ti 334.940†	412379.5	397887.7	880.28	µg/L	880.28	ppb	21:32:01
1	Tl 190.801†	-38.4	-14.7	0.3212	µg/L	0.3212	ppb	21:32:27
1	U 409.014†	-1113.3	-997.5	-90.078	µg/L	-90.078	ppb	21:32:07
1	V 292.402†	3803.1	3715.8	41.985	µg/L	41.985	ppb	21:32:07
1	Zn 213.857†	10256.9	9366.4	216.71	µg/L	216.71	ppb	21:32:07
2	Sc RADIAL	58045.1	58045.1	103	%			21:31:03
2	Al 396.153Radial†	14409.0	14017.0	9750.9	µg/L	9750.9	ppb	21:31:03
2	Ca 317.933Radial†	20896.9	20127.9	17193	µg/L	17193	ppb	21:31:03
2	Fe 238.204 Radial†	5726.2	5556.8	43826	µg/L	43826	ppb	21:31:23
2	K 766.490 Radial†	4248.2	3969.8	2592.8	µg/L	2592.8	ppb	21:31:03
2	Mg 279.077 IEC†	310.1	289.0	2536.4	µg/L	2536.4	ppb	21:31:23
2	Na 589.592 Radial†	3934.4	3357.2	1031.1	µg/L	1031.1	ppb	21:31:03
2	Sr 421.552†	4246.4	4104.3	37.863	µg/L	37.863	ppb	21:31:03
2	Sc 361.383	2044572.9	2044572.9	104.15	%			21:32:34
2	Y 371.029	1468740.2	1468740.2	108.57	%			21:32:34
2	Ag 328.068†	-291.0	122.2	3.9024	µg/L	3.9024	ppb	21:32:40
2	As 188.979†	3.8	4.1	8.9178	µg/L	8.9178	ppb	21:33:01
2	B 249.677†	630.9	221.6	-13.416	µg/L	-13.416	ppb	21:32:40
2	Ba 233.527†	7860.6	7564.5	181.67	µg/L	181.67	ppb	21:32:40
2	Be 313.107†	3336.8	6059.6	3.2626	µg/L	3.2626	ppb	21:32:40
2	Cd 226.502†	18.4	159.4	-0.8530	µg/L	-0.8530	ppb	21:33:01
2	Co 228.616†	243.3	231.7	8.6680	µg/L	8.6680	ppb	21:33:01
2	Cr 267.716†	13596.5	13105.2	263.24	µg/L	263.24	ppb	21:32:40
2	Cu 324.752†	25048.0	21506.4	146.47	µg/L	146.47	ppb	21:32:40
2	Mn 257.610†	532006.9	511068.5	1606.1	µg/L	1606.1	ppb	21:32:34
2	Mo 202.031†	44.4	48.0	6.3620	µg/L	6.3620	ppb	21:33:01
2	Ni 231.604†	2928.3	2499.3	125.15	µg/L	125.15	ppb	21:33:01
2	P 214.914†	521.2	485.1	913.15	µg/L	913.15	ppb	21:33:01
2	Pb 220.353†	283.3	181.0	42.756	µg/L	42.756	ppb	21:33:01

2	S 181.975 Axial†	81.1	59.0	244.47 µg/L	244.47 ppb	21:33:01
2	Sb 206.836†	32.7	8.9	3.7987 µg/L	3.7987 ppb	21:33:01
2	Se 196.026†	-12.5	-31.3	68.780 µg/L	68.780 ppb	21:33:01
2	SiO2†	143450.1	136343.7	26912 µg/L	26912 ppb	21:32:40
2	Si 251.611†	175216.6	167925.6	12766 µg/L	12766 ppb	21:32:34
2	Sn 189.927†	44.3	42.2	13.333 µg/L	13.333 ppb	21:33:01
2	Ti 334.940†	412600.6	395988.1	876.08 µg/L	876.08 ppb	21:32:34
2	Tl 190.801†	-31.7	-8.1	8.8023 µg/L	8.8023 ppb	21:33:01
2	U 409.014†	-1276.7	-1148.8	-102.59 µg/L	-102.59 ppb	21:32:40
2	V 292.402†	3778.0	3672.3	41.489 µg/L	41.489 ppb	21:32:40
2	Zn 213.857†	10181.3	9241.3	213.81 µg/L	213.81 ppb	21:32:40
3	Sc RADIAL	58547.0	58547.0	104 %		21:31:29
3	Al 396.153Radial†	14467.3	13953.0	9706.4 µg/L	9706.4 ppb	21:31:29
3	Ca 317.933Radial†	21082.9	20132.9	17197 µg/L	17197 ppb	21:31:29
3	Fe 238.204 Radial†	5738.5	5520.9	43543 µg/L	43543 ppb	21:31:49
3	K 766.490 Radial†	4262.7	3948.3	2578.7 µg/L	2578.7 ppb	21:31:29
3	Mg 279.077 IEC†	305.2	281.7	2471.2 µg/L	2471.2 ppb	21:31:49
3	Na 589.592 Radial†	3880.8	3272.6	1005.2 µg/L	1005.2 ppb	21:31:29
3	Sr 421.552†	4230.5	4053.4	37.393 µg/L	37.393 ppb	21:31:29
3	Sc 361.383	2037668.7	2037668.7	103.80 %		21:33:08
3	Y 371.029	1462773.2	1462773.2	108.13 %		21:33:08
3	Ag 328.068†	-258.4	152.7	4.0997 µg/L	4.0997 ppb	21:33:14
3	As 188.979†	0.4	0.9	3.2193 µg/L	3.2193 ppb	21:33:34
3	B 249.677†	557.6	153.1	-16.086 µg/L	-16.086 ppb	21:33:14
3	Ba 233.527†	7474.5	7218.1	173.35 µg/L	173.35 ppb	21:33:14
3	Be 313.107†	3041.7	5786.1	3.1126 µg/L	3.1126 ppb	21:33:14
3	Cd 226.502†	2.9	144.4	-1.2049 µg/L	-1.2049 ppb	21:33:34
3	Co 228.616†	207.3	197.8	7.2019 µg/L	7.2019 ppb	21:33:34
3	Cr 267.716†	12738.4	12322.7	247.53 µg/L	247.53 ppb	21:33:14
3	Cu 324.752†	23903.3	20485.1	139.77 µg/L	139.77 ppb	21:33:14
3	Mn 257.610†	512432.8	493941.3	1552.5 µg/L	1552.5 ppb	21:33:08
3	Mo 202.031†	43.9	47.6	6.3196 µg/L	6.3196 ppb	21:33:34
3	Ni 231.604†	2674.5	2264.3	113.43 µg/L	113.43 ppb	21:33:34
3	P 214.914†	473.7	441.1	826.81 µg/L	826.81 ppb	21:33:34
3	Pb 220.353†	262.5	161.9	38.110 µg/L	38.110 ppb	21:33:34
3	S 181.975 Axial†	74.1	52.5	217.61 µg/L	217.61 ppb	21:33:34
3	Sb 206.836†	32.1	8.4	3.4877 µg/L	3.4877 ppb	21:33:34
3	Se 196.026†	-3.3	-22.5	80.382 µg/L	80.382 ppb	21:33:34
3	SiO2†	137755.9	131324.5	25922 µg/L	25922 ppb	21:33:14
3	Si 251.611†	170091.9	163558.4	12434 µg/L	12434 ppb	21:33:08
3	Sn 189.927†	39.4	37.6	11.417 µg/L	11.417 ppb	21:33:34
3	Ti 334.940†	396084.7	381418.7	843.86 µg/L	843.86 ppb	21:33:08
3	Tl 190.801†	-34.2	-10.6	5.0221 µg/L	5.0221 ppb	21:33:34
3	U 409.014†	-977.5	-864.7	-78.943 µg/L	-78.943 ppb	21:33:14
3	V 292.402†	3594.5	3507.7	39.840 µg/L	39.840 ppb	21:33:14
3	Zn 213.857†	9726.9	8836.6	204.39 µg/L	204.39 ppb	21:33:14

Mean Data: 1202032568|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2038655.7	103.85	%	0.280				0.27%
Sc RADIAL	58189.9	103	%	0.6				0.53%
Y 371.029	1464224.1	108.24	%	0.295				0.27%
Ag 328.068†	120.3	3.8880	µg/L	0.21921	3.8880	ppb	0.21921	5.64%
Al 396.153Radial†	13982.7	9727.0	µg/L	22.44	9727.0	ppb	22.44	0.23%
As 188.979†	1.4	4.1093	µg/L	4.43100	4.1093	ppb	4.43100	107.83%
B 249.677†	193.4	-14.592	µg/L	1.3635	-14.592	ppb	1.3635	9.34%
Ba 233.527†	7480.4	179.65	µg/L	5.572	179.65	ppb	5.572	3.10%
Be 313.107†	6023.7	3.2449	µg/L	0.12440	3.2449	ppb	0.12440	3.83%
Ca 317.933Radial†	20131.3	17196	µg/L	2.6	17196	ppb	2.6	0.02%
Cd 226.502†	154.1	-0.9920	µg/L	0.18723	-0.9920	ppb	0.18723	18.87%
Co 228.616†	221.4	8.2224	µg/L	0.88614	8.2224	ppb	0.88614	10.78%
Cr 267.716†	12901.0	259.14	µg/L	10.202	259.14	ppb	10.202	3.94%
Cu 324.752†	21271.2	144.94	µg/L	4.606	144.94	ppb	4.606	3.18%
Fe 238.204 Radial†	5561.9	43866	µg/L	345.6	43866	ppb	345.6	0.79%
K 766.490 Radial†	3952.1	2581.2	µg/L	10.58	2581.2	ppb	10.58	0.41%
Mg 279.077 IEC†	288.1	2528.1	µg/L	53.18	2528.1	ppb	53.18	2.10%
Mn 257.610†	506301.9	1591.2	µg/L	33.85	1591.2	ppb	33.85	2.13%
Mo 202.031†	49.1	6.4749	µg/L	0.23323	6.4749	ppb	0.23323	3.60%
Na 589.592 Radial†	3314.2	1017.9	µg/L	12.99	1017.9	ppb	12.99	1.28%

Ni 231.604†	2435.7	121.98 µg/L	7.482	121.98 ppb	7.482	6.13%
P 214.914†	473.8	890.83 µg/L	56.292	890.83 ppb	56.292	6.32%
Pb 220.353†	174.2	41.071 µg/L	2.5724	41.071 ppb	2.5724	6.26%
S 181.975 Axial†	56.4	233.88 µg/L	14.307	233.88 ppb	14.307	6.12%
Sb 206.836†	7.3	2.3770 µg/L	2.19872	2.3770 ppb	2.19872	92.50%
Se 196.026†	-29.5	71.368 µg/L	8.0390	71.368 ppb	8.0390	11.26%
SiO2†	135118.3	26671 µg/L	661.9	26671 ppb	661.9	2.48%
Si 251.611†	166843.4	12684 µg/L	220.4	12684 ppb	220.4	1.74%
Sn 189.927†	40.8	12.749 µg/L	1.1564	12.749 ppb	1.1564	9.07%
Sr 421.552†	4082.7	37.663 µg/L	0.2424	37.663 ppb	0.2424	0.64%
Ti 334.940†	391764.8	866.74 µg/L	19.928	866.74 ppb	19.928	2.30%
Tl 190.801†	-11.1	4.7152 µg/L	4.24883	4.7152 ppb	4.24883	90.11%
U 409.014†	-1003.7	-90.536 µg/L	11.8288	-90.536 ppb	11.8288	13.07%
V 292.402†	3631.9	41.105 µg/L	1.1227	41.105 ppb	1.1227	2.73%
Zn 213.857†	9148.1	211.64 µg/L	6.439	211.64 ppb	6.439	3.04%

Sequence No.: 5
Sample ID: 1202032570|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 205
Date Collected: 2/19/2010 21:33:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032570|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59019.0	59019.0	104	%			21:34:16
1	Al 396.153Radial†	31626.3	30266.8	21045	µg/L	21045	ppb	21:34:16
1	Ca 317.933Radial†	19945.0	18881.0	16128	µg/L	16128	ppb	21:34:16
1	Fe 238.204 Radial†	6590.4	6292.1	49635	µg/L	49635	ppb	21:34:36
1	K 766.490 Radial†	13042.1	12319.5	8046.1	µg/L	8046.1	ppb	21:34:16
1	Mg 279.077 IEC†	1048.0	990.4	8807.7	µg/L	8807.7	ppb	21:34:36
1	Na 589.592 Radial†	21553.7	20159.9	6192.0	µg/L	6192.0	ppb	21:34:16
1	Sr 421.552†	56371.5	53932.5	497.54	µg/L	497.54	ppb	21:34:16
1	Sc 361.383	2052596.8	2052596.8	104.56	%			21:35:42
1	Y 371.029	1502368.7	1502368.7	111.06	%			21:35:42
1	Ag 328.068†	65725.7	63262.2	475.14	µg/L	475.14	ppb	21:35:47
1	As 188.979†	294.7	282.3	507.10	µg/L	507.10	ppb	21:36:08
1	B 249.677†	12919.0	11971.6	462.98	µg/L	462.98	ppb	21:35:47
1	Ba 233.527†	28416.7	27195.0	653.80	µg/L	653.80	ppb	21:35:47
1	Be 313.107†	866931.1	831995.4	493.18	µg/L	493.18	ppb	21:35:42
1	Cd 226.502†	20408.9	19660.9	485.29	µg/L	485.29	ppb	21:35:47
1	Co 228.616†	11225.4	10734.1	483.21	µg/L	483.21	ppb	21:35:47
1	Cr 267.716†	30615.4	29331.2	589.45	µg/L	589.45	ppb	21:35:47
1	Cu 324.752†	86615.8	80296.3	531.03	µg/L	531.03	ppb	21:35:47
1	Mn 257.610†	704496.9	674042.5	2117.0	µg/L	2117.0	ppb	21:35:42
1	Mo 202.031†	5131.9	4913.6	483.05	µg/L	483.05	ppb	21:36:08
1	Ni 231.604†	11589.0	10771.5	537.02	µg/L	537.02	ppb	21:35:47
1	P 214.914†	725.7	678.7	1261.7	µg/L	1261.7	ppb	21:36:08
1	Pb 220.353†	2325.3	2133.0	517.91	µg/L	517.91	ppb	21:36:08
1	S 181.975 Axial†	1323.8	1247.2	5172.0	µg/L	5172.0	ppb	21:36:08
1	Sb 206.836†	558.9	512.0	469.81	µg/L	469.81	ppb	21:36:08
1	Se 196.026†	363.3	328.2	584.20	µg/L	584.20	ppb	21:36:08
1	SiO2†	258873.9	246197.4	48596	µg/L	48596	ppb	21:35:42
1	Si 251.611†	310698.8	296844.1	22567	µg/L	22567	ppb	21:35:42
1	Sn 189.927†	1264.0	1208.6	505.34	µg/L	505.34	ppb	21:36:08
1	Ti 334.940†	759508.3	726224.7	1606.1	µg/L	1606.1	ppb	21:35:42
1	Tl 190.801†	349.6	356.7	491.96	µg/L	491.96	ppb	21:36:08
1	U 409.014†	4444.3	4327.6	351.67	µg/L	351.67	ppb	21:35:42
1	V 292.402†	55037.7	52683.3	524.69	µg/L	524.69	ppb	21:35:47
1	Zn 213.857†	31689.3	29773.5	692.46	µg/L	692.46	ppb	21:35:47
2	Sc RADIAL	58925.7	58925.7	104	%			21:34:42
2	Al 396.153Radial†	31645.2	30332.9	21091	µg/L	21091	ppb	21:34:42
2	Ca 317.933Radial†	19929.7	18896.6	16141	µg/L	16141	ppb	21:34:42
2	Fe 238.204 Radial†	6578.0	6290.1	49620	µg/L	49620	ppb	21:35:02
2	K 766.490 Radial†	13105.7	12400.3	8098.8	µg/L	8098.8	ppb	21:34:42
2	Mg 279.077 IEC†	1036.4	980.8	8722.5	µg/L	8722.5	ppb	21:35:02
2	Na 589.592 Radial†	21556.7	20195.5	6202.9	µg/L	6202.9	ppb	21:34:42
2	Sr 421.552†	56346.0	53993.5	498.10	µg/L	498.10	ppb	21:34:42
2	Sc 361.383	2055614.8	2055614.8	104.71	%			21:36:16
2	Y 371.029	1503879.5	1503879.5	111.17	%			21:36:16
2	Ag 328.068†	65625.8	63074.5	473.72	µg/L	473.72	ppb	21:36:22
2	As 188.979†	292.2	279.5	502.08	µg/L	502.08	ppb	21:36:42
2	B 249.677†	12868.3	11905.1	460.27	µg/L	460.27	ppb	21:36:22
2	Ba 233.527†	28304.1	27047.6	650.26	µg/L	650.26	ppb	21:36:22
2	Be 313.107†	868910.6	832668.5	493.58	µg/L	493.58	ppb	21:36:16
2	Cd 226.502†	20262.2	19492.2	481.08	µg/L	481.08	ppb	21:36:22
2	Co 228.616†	11192.7	10687.1	481.07	µg/L	481.07	ppb	21:36:22
2	Cr 267.716†	30478.9	29157.8	585.96	µg/L	585.96	ppb	21:36:22
2	Cu 324.752†	86339.1	79910.5	528.51	µg/L	528.51	ppb	21:36:22
2	Mn 257.610†	706641.0	675100.8	2120.3	µg/L	2120.3	ppb	21:36:16
2	Mo 202.031†	5044.0	4822.4	474.12	µg/L	474.12	ppb	21:36:42
2	Ni 231.604†	11517.9	10687.3	532.82	µg/L	532.82	ppb	21:36:22
2	P 214.914†	713.2	665.8	1236.3	µg/L	1236.3	ppb	21:36:42
2	Pb 220.353†	2301.6	2107.1	511.59	µg/L	511.59	ppb	21:36:42

2	S 181.975 Axial†	1313.6	1235.6	5123.8 µg/L	5123.8 ppb	21:36:42
2	Sb 206.836†	548.0	500.9	459.48 µg/L	459.48 ppb	21:36:42
2	Se 196.026†	368.3	332.4	590.15 µg/L	590.15 ppb	21:36:42
2	SiO2†	259539.5	246469.6	48650 µg/L	48650 ppb	21:36:16
2	Si 251.611†	311361.5	297040.7	22582 µg/L	22582 ppb	21:36:16
2	Sn 189.927†	1255.4	1198.6	501.11 µg/L	501.11 ppb	21:36:42
2	Ti 334.940†	761157.2	726732.9	1607.3 µg/L	1607.3 ppb	21:36:16
2	Tl 190.801†	354.6	361.1	497.62 µg/L	497.62 ppb	21:36:42
2	U 409.014†	4515.8	4389.7	356.84 µg/L	356.84 ppb	21:36:16
2	V 292.402†	54783.5	52363.2	521.50 µg/L	521.50 ppb	21:36:22
2	Zn 213.857†	31547.6	29593.7	688.27 µg/L	688.27 ppb	21:36:22
3	Sc RADIAL	58788.9	58788.9	104 %		21:35:08
3	Al 396.153Radial†	31466.7	30231.9	21022 µg/L	21022 ppb	21:35:08
3	Ca 317.933Radial†	19759.9	18777.8	16040 µg/L	16040 ppb	21:35:08
3	Fe 238.204 Radial†	6545.5	6273.6	49489 µg/L	49489 ppb	21:35:28
3	K 766.490 Radial†	13001.9	12329.7	8052.8 µg/L	8052.8 ppb	21:35:08
3	Mg 279.077 IEC†	1041.4	988.0	8785.8 µg/L	8785.8 ppb	21:35:28
3	Na 589.592 Radial†	21495.8	20185.1	6199.7 µg/L	6199.7 ppb	21:35:08
3	Sr 421.552†	56110.8	53893.2	497.17 µg/L	497.17 ppb	21:35:08
3	Sc 361.383	2060110.6	2060110.6	104.94 %		21:36:50
3	Y 371.029	1502209.7	1502209.7	111.05 %		21:36:50
3	Ag 328.068†	63802.4	61200.1	459.61 µg/L	459.61 ppb	21:36:56
3	As 188.979†	264.4	252.4	453.59 µg/L	453.59 ppb	21:37:16
3	B 249.677†	12340.9	11375.8	438.70 µg/L	438.70 ppb	21:36:56
3	Ba 233.527†	26775.3	25531.8	613.81 µg/L	613.81 ppb	21:36:56
3	Be 313.107†	824987.0	789002.0	467.70 µg/L	467.70 ppb	21:36:50
3	Cd 226.502†	19407.3	18635.3	459.69 µg/L	459.69 ppb	21:36:56
3	Co 228.616†	10520.6	10023.3	451.15 µg/L	451.15 ppb	21:36:56
3	Cr 267.716†	28475.0	27184.8	546.31 µg/L	546.31 ppb	21:36:56
3	Cu 324.752†	81724.2	75332.9	498.61 µg/L	498.61 ppb	21:36:56
3	Mn 257.610†	673174.6	641737.3	2015.8 µg/L	2015.8 ppb	21:36:50
3	Mo 202.031†	4570.1	4360.2	428.86 µg/L	428.86 ppb	21:37:16
3	Ni 231.604†	10886.3	10061.4	501.66 µg/L	501.66 ppb	21:36:56
3	P 214.914†	670.3	623.4	1155.0 µg/L	1155.0 ppb	21:37:16
3	Pb 220.353†	2148.6	1956.5	474.91 µg/L	474.91 ppb	21:37:16
3	S 181.975 Axial†	1223.8	1147.2	4757.5 µg/L	4757.5 ppb	21:37:16
3	Sb 206.836†	502.7	456.5	418.51 µg/L	418.51 ppb	21:37:16
3	Se 196.026†	331.1	296.2	538.96 µg/L	538.96 ppb	21:37:16
3	SiO2†	249639.0	236494.3	46681 µg/L	46681 ppb	21:36:50
3	Si 251.611†	299443.4	285034.9	21669 µg/L	21669 ppb	21:36:50
3	Sn 189.927†	1135.2	1081.4	451.71 µg/L	451.71 ppb	21:37:16
3	Ti 334.940†	720176.9	686095.7	1517.4 µg/L	1517.4 ppb	21:36:50
3	Tl 190.801†	317.2	324.6	449.16 µg/L	449.16 ppb	21:37:16
3	U 409.014†	4313.5	4187.5	340.06 µg/L	340.06 ppb	21:36:50
3	V 292.402†	51369.5	48995.8	488.21 µg/L	488.21 ppb	21:36:56
3	Zn 213.857†	30058.2	28108.6	653.61 µg/L	653.61 ppb	21:36:56

Mean Data: 1202032570|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2056107.4	104.74	%	0.193				0.18%
Sc RADIAL	58911.2	104	%	0.2				0.20%
Y 371.029	1502819.3	111.09	%	0.068				0.06%
Ag 328.068†	62512.3	469.49	µg/L	8.583	469.49	ppb	8.583	1.83%
Al 396.153Radial†	30277.2	21053	µg/L	35.3	21053	ppb	35.3	0.17%
As 188.979†	271.4	487.59	µg/L	29.555	487.59	ppb	29.555	6.06%
B 249.677†	11750.8	453.98	µg/L	13.305	453.98	ppb	13.305	2.93%
Ba 233.527†	26591.5	639.29	µg/L	22.138	639.29	ppb	22.138	3.46%
Be 313.107†	817888.7	484.82	µg/L	14.829	484.82	ppb	14.829	3.06%
Ca 317.933Radial†	18851.8	16103	µg/L	55.1	16103	ppb	55.1	0.34%
Cd 226.502†	19262.8	475.35	µg/L	13.726	475.35	ppb	13.726	2.89%
Co 228.616†	10481.5	471.81	µg/L	17.920	471.81	ppb	17.920	3.80%
Cr 267.716†	28557.9	573.91	µg/L	23.961	573.91	ppb	23.961	4.17%
Cu 324.752†	78513.2	519.38	µg/L	18.034	519.38	ppb	18.034	3.47%
Fe 238.204 Radial†	6285.3	49581	µg/L	80.5	49581	ppb	80.5	0.16%
K 766.490 Radial†	12349.8	8065.9	µg/L	28.73	8065.9	ppb	28.73	0.36%
Mg 279.077 IEC†	986.4	8772.0	µg/L	44.26	8772.0	ppb	44.26	0.50%
Mn 257.610†	663626.9	2084.4	µg/L	59.40	2084.4	ppb	59.40	2.85%
Mo 202.031†	4698.7	462.01	µg/L	29.054	462.01	ppb	29.054	6.29%
Na 589.592 Radial†	20180.2	6198.2	µg/L	5.62	6198.2	ppb	5.62	0.09%

Ni 231.604†	10506.7	523.84 µg/L	19.318	523.84 ppb	19.318	3.69%
P 214.914†	656.0	1217.7 µg/L	55.75	1217.7 ppb	55.75	4.58%
Pb 220.353†	2065.5	501.47 µg/L	23.220	501.47 ppb	23.220	4.63%
S 181.975 Axial†	1210.0	5017.8 µg/L	226.65	5017.8 ppb	226.65	4.52%
Sb 206.836†	489.8	449.27 µg/L	27.132	449.27 ppb	27.132	6.04%
Se 196.026†	318.9	571.11 µg/L	27.997	571.11 ppb	27.997	4.90%
SiO2†	243053.8	47976 µg/L	1121.6	47976 ppb	1121.6	2.34%
Si 251.611†	292973.2	22272 µg/L	522.7	22272 ppb	522.7	2.35%
Sn 189.927†	1162.8	486.05 µg/L	29.818	486.05 ppb	29.818	6.13%
Sr 421.552†	53939.7	497.60 µg/L	0.466	497.60 ppb	0.466	0.09%
Ti 334.940†	713017.7	1576.9 µg/L	51.58	1576.9 ppb	51.58	3.27%
Tl 190.801†	347.5	479.58 µg/L	26.496	479.58 ppb	26.496	5.52%
U 409.014†	4301.6	349.52 µg/L	8.592	349.52 ppb	8.592	2.46%
V 292.402†	51347.4	511.47 µg/L	20.204	511.47 ppb	20.204	3.95%
Zn 213.857†	29158.6	678.11 µg/L	21.320	678.11 ppb	21.320	3.14%

Sequence No.: 6
Sample ID: 1202032571|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 206
Date Collected: 2/19/2010 21:37:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032571|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59069.1	59069.1	105	%			21:37:58
1	Al 396.153Radial†	29353.5	28067.3	19515	µg/L	19515	ppb	21:37:58
1	Ca 317.933Radial†	14054.2	13230.6	11301	µg/L	11301	ppb	21:38:19
1	Fe 238.204 Radial†	5910.9	5636.8	44467	µg/L	44467	ppb	21:38:19
1	K 766.490 Radial†	12276.9	11577.0	7561.1	µg/L	7561.1	ppb	21:37:58
1	Mg 279.077 IEC†	1002.0	945.5	8412.3	µg/L	8412.3	ppb	21:38:19
1	Na 589.592 Radial†	21518.6	20108.9	6176.3	µg/L	6176.3	ppb	21:37:58
1	Sr 421.552†	55106.5	52676.8	485.95	µg/L	485.95	ppb	21:37:58
1	Sc 361.383	2052886.2	2052886.2	104.57	%			21:39:24
1	Y 371.029	1493298.8	1493298.8	110.39	%			21:39:24
1	Ag 328.068†	66676.3	64162.4	481.40	µg/L	481.40	ppb	21:39:29
1	As 188.979†	289.6	277.4	498.26	µg/L	498.26	ppb	21:39:50
1	B 249.677†	12940.7	11990.7	466.38	µg/L	466.38	ppb	21:39:29
1	Ba 233.527†	26394.1	25257.1	607.26	µg/L	607.26	ppb	21:39:29
1	Be 313.107†	877307.6	841801.3	499.03	µg/L	499.03	ppb	21:39:24
1	Cd 226.502†	20800.7	20032.8	495.14	µg/L	495.14	ppb	21:39:29
1	Co 228.616†	11324.3	10827.2	487.59	µg/L	487.59	ppb	21:39:29
1	Cr 267.716†	28068.7	26891.7	540.44	µg/L	540.44	ppb	21:39:29
1	Cu 324.752†	86472.2	80147.3	529.34	µg/L	529.34	ppb	21:39:29
1	Mn 257.610†	686738.5	656965.5	2062.9	µg/L	2062.9	ppb	21:39:24
1	Mo 202.031†	5108.1	4890.1	480.56	µg/L	480.56	ppb	21:39:50
1	Ni 231.604†	11306.0	10499.3	523.38	µg/L	523.38	ppb	21:39:29
1	P 214.914†	703.7	657.6	1223.9	µg/L	1223.9	ppb	21:39:50
1	Pb 220.353†	2313.2	2121.1	515.08	µg/L	515.08	ppb	21:39:50
1	S 181.975 Axial†	1321.7	1245.0	5162.9	µg/L	5162.9	ppb	21:39:50
1	Sb 206.836†	559.6	512.7	471.37	µg/L	471.37	ppb	21:39:50
1	Se 196.026†	367.1	331.8	576.80	µg/L	576.80	ppb	21:39:50
1	SiO2†	230492.1	219021.8	43232	µg/L	43232	ppb	21:39:24
1	Si 251.611†	276277.8	263886.4	20061	µg/L	20061	ppb	21:39:24
1	Sn 189.927†	1286.7	1230.0	514.92	µg/L	514.92	ppb	21:39:50
1	Ti 334.940†	720586.5	688902.4	1523.5	µg/L	1523.5	ppb	21:39:24
1	Tl 190.801†	355.0	361.9	497.32	µg/L	497.32	ppb	21:39:50
1	U 409.014†	4794.7	4662.1	380.48	µg/L	380.48	ppb	21:39:24
1	V 292.402†	53826.5	51517.6	512.62	µg/L	512.62	ppb	21:39:29
1	Zn 213.857†	31534.2	29620.9	689.21	µg/L	689.21	ppb	21:39:29
2	Sc RADIAL	58915.2	58915.2	104	%			21:38:24
2	Al 396.153Radial†	29688.1	28461.5	19790	µg/L	19790	ppb	21:38:24
2	Ca 317.933Radial†	14146.0	13353.8	11407	µg/L	11407	ppb	21:38:45
2	Fe 238.204 Radial†	5935.5	5675.2	44770	µg/L	44770	ppb	21:38:45
2	K 766.490 Radial†	12397.0	11722.9	7656.4	µg/L	7656.4	ppb	21:38:24
2	Mg 279.077 IEC†	1011.2	956.8	8513.2	µg/L	8513.2	ppb	21:38:45
2	Na 589.592 Radial†	21769.7	20403.4	6266.8	µg/L	6266.8	ppb	21:38:24
2	Sr 421.552†	55739.2	53421.3	492.82	µg/L	492.82	ppb	21:38:24
2	Sc 361.383	2046644.5	2046644.5	104.25	%			21:39:58
2	Y 371.029	1489520.7	1489520.7	110.11	%			21:39:58
2	Ag 328.068†	66571.6	64256.4	482.12	µg/L	482.12	ppb	21:40:04
2	As 188.979†	289.0	277.7	498.72	µg/L	498.72	ppb	21:40:24
2	B 249.677†	12836.5	11928.4	463.68	µg/L	463.68	ppb	21:40:04
2	Ba 233.527†	26346.6	25288.4	608.01	µg/L	608.01	ppb	21:40:04
2	Be 313.107†	879492.5	846455.6	501.79	µg/L	501.79	ppb	21:39:58
2	Cd 226.502†	20745.2	20040.2	495.29	µg/L	495.29	ppb	21:40:04
2	Co 228.616†	11337.4	10872.7	489.64	µg/L	489.64	ppb	21:40:04
2	Cr 267.716†	28074.9	26979.5	542.21	µg/L	542.21	ppb	21:40:04
2	Cu 324.752†	86335.2	80268.1	530.17	µg/L	530.17	ppb	21:40:04
2	Mn 257.610†	687683.7	659875.0	2072.0	µg/L	2072.0	ppb	21:39:58
2	Mo 202.031†	5073.7	4871.9	478.79	µg/L	478.79	ppb	21:40:24
2	Ni 231.604†	11280.6	10507.8	523.81	µg/L	523.81	ppb	21:40:04
2	P 214.914†	699.4	655.5	1219.5	µg/L	1219.5	ppb	21:40:24
2	Pb 220.353†	2303.1	2118.2	514.38	µg/L	514.38	ppb	21:40:24

2	S 181.975 Axial†	1320.9	1248.1	5175.7 µg/L	5175.7 ppb	21:40:24
2	Sb 206.836†	555.4	510.3	469.09 µg/L	469.09 ppb	21:40:24
2	Se 196.026†	367.5	333.2	579.51 µg/L	579.51 ppb	21:40:24
2	SiO2†	231280.4	220450.2	43514 µg/L	43514 ppb	21:39:58
2	Si 251.611†	277304.5	265676.9	20197 µg/L	20197 ppb	21:39:58
2	Sn 189.927†	1274.5	1222.2	511.58 µg/L	511.58 ppb	21:40:24
2	Ti 334.940†	722270.4	692619.1	1531.7 µg/L	1531.7 ppb	21:39:58
2	Tl 190.801†	358.8	366.5	503.52 µg/L	503.52 ppb	21:40:24
2	U 409.014†	4784.3	4666.1	380.77 µg/L	380.77 ppb	21:39:58
2	V 292.402†	53756.2	51607.1	513.52 µg/L	513.52 ppb	21:40:04
2	Zn 213.857†	31484.2	29664.9	690.21 µg/L	690.21 ppb	21:40:04
3	Sc RADIAL	59416.2	59416.2	105 %		21:38:50
3	Al 396.153Radial†	29760.7	28290.4	19672 µg/L	19672 ppb	21:38:50
3	Ca 317.933Radial†	14086.4	13182.7	11260 µg/L	11260 ppb	21:39:10
3	Fe 238.204 Radial†	5910.2	5603.1	44201 µg/L	44201 ppb	21:39:10
3	K 766.490 Radial†	12421.7	11646.1	7606.3 µg/L	7606.3 ppb	21:38:50
3	Mg 279.077 IEC†	1004.5	942.3	8383.2 µg/L	8383.2 ppb	21:39:10
3	Na 589.592 Radial†	21802.9	20259.0	6222.4 µg/L	6222.4 ppb	21:38:50
3	Sr 421.552†	55779.4	53008.8	489.01 µg/L	489.01 ppb	21:38:50
3	Sc 361.383	2047214.8	2047214.8	104.28 %		21:40:32
3	Y 371.029	1484735.9	1484735.9	109.76 %		21:40:32
3	Ag 328.068†	64126.4	61893.8	464.32 µg/L	464.32 ppb	21:40:38
3	As 188.979†	267.2	256.7	461.22 µg/L	461.22 ppb	21:40:58
3	B 249.677†	12317.1	11427.0	443.46 µg/L	443.46 ppb	21:40:38
3	Ba 233.527†	24548.4	23557.0	566.37 µg/L	566.37 ppb	21:40:38
3	Be 313.107†	833152.5	801784.1	475.31 µg/L	475.31 ppb	21:40:32
3	Cd 226.502†	19491.6	18832.6	465.19 µg/L	465.19 ppb	21:40:38
3	Co 228.616†	10452.4	10021.1	451.20 µg/L	451.20 ppb	21:40:38
3	Cr 267.716†	25651.1	24647.8	495.35 µg/L	495.35 ppb	21:40:38
3	Cu 324.752†	80243.2	74403.3	491.81 µg/L	491.81 ppb	21:40:38
3	Mn 257.610†	653566.1	626975.1	1968.9 µg/L	1968.9 ppb	21:40:32
3	Mo 202.031†	4516.6	4336.4	426.33 µg/L	426.33 ppb	21:40:58
3	Ni 231.604†	10444.9	9703.5	483.75 µg/L	483.75 ppb	21:40:38
3	P 214.914†	640.3	598.6	1110.5 µg/L	1110.5 ppb	21:40:58
3	Pb 220.353†	2114.6	1936.8	470.24 µg/L	470.24 ppb	21:40:58
3	S 181.975 Axial†	1216.3	1147.4	4758.3 µg/L	4758.3 ppb	21:40:58
3	Sb 206.836†	507.7	464.4	426.65 µg/L	426.65 ppb	21:40:58
3	Se 196.026†	337.9	304.7	538.13 µg/L	538.13 ppb	21:40:58
3	SiO2†	222644.6	212107.3	41867 µg/L	41867 ppb	21:40:32
3	Si 251.611†	266723.5	255456.4	19420 µg/L	19420 ppb	21:40:32
3	Sn 189.927†	1134.2	1087.2	454.72 µg/L	454.72 ppb	21:40:58
3	Ti 334.940†	681996.7	653806.8	1445.9 µg/L	1445.9 ppb	21:40:32
3	Tl 190.801†	329.4	338.2	465.66 µg/L	465.66 ppb	21:40:58
3	U 409.014†	4466.8	4360.4	355.46 µg/L	355.46 ppb	21:40:32
3	V 292.402†	49417.8	47432.5	472.24 µg/L	472.24 ppb	21:40:38
3	Zn 213.857†	29442.9	27699.0	644.36 µg/L	644.36 ppb	21:40:38

Mean Data: 1202032571|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2048915.2	104.37	%	0.176				0.17%
Sc RADIAL	59133.5	105	%	0.5				0.43%
Y 371.029	1489185.1	110.09	%	0.317				0.29%
Ag 328.068†	63437.5	475.95	µg/L	10.078	475.95	ppb	10.078	2.12%
Al 396.153Radial†	28273.1	19659	µg/L	137.6	19659	ppb	137.6	0.70%
As 188.979†	270.6	486.07	µg/L	21.520	486.07	ppb	21.520	4.43%
B 249.677†	11782.1	457.84	µg/L	12.523	457.84	ppb	12.523	2.74%
Ba 233.527†	24700.8	593.88	µg/L	23.826	593.88	ppb	23.826	4.01%
Be 313.107†	830013.7	492.05	µg/L	14.557	492.05	ppb	14.557	2.96%
Ca 317.933Radial†	13255.7	11323	µg/L	75.4	11323	ppb	75.4	0.67%
Cd 226.502†	19635.2	485.21	µg/L	17.332	485.21	ppb	17.332	3.57%
Co 228.616†	10573.7	476.14	µg/L	21.625	476.14	ppb	21.625	4.54%
Cr 267.716†	26173.0	526.00	µg/L	26.560	526.00	ppb	26.560	5.05%
Cu 324.752†	78272.9	517.11	µg/L	21.912	517.11	ppb	21.912	4.24%
Fe 238.204 Radial†	5638.4	44479	µg/L	284.9	44479	ppb	284.9	0.64%
K 766.490 Radial†	11648.7	7607.9	µg/L	47.68	7607.9	ppb	47.68	0.63%
Mg 279.077 IEC†	948.2	8436.2	µg/L	68.22	8436.2	ppb	68.22	0.81%
Mn 257.610†	647938.5	2034.6	µg/L	57.07	2034.6	ppb	57.07	2.80%
Mo 202.031†	4699.5	461.89	µg/L	30.814	461.89	ppb	30.814	6.67%
Na 589.592 Radial†	20257.1	6221.8	µg/L	45.24	6221.8	ppb	45.24	0.73%

Ni 231.604†	10236.9	510.31 µg/L	23.004	510.31 ppb	23.004	4.51%
P 214.914†	637.2	1184.6 µg/L	64.24	1184.6 ppb	64.24	5.42%
Pb 220.353†	2058.7	499.90 µg/L	25.690	499.90 ppb	25.690	5.14%
S 181.975 Axial†	1213.5	5032.3 µg/L	237.39	5032.3 ppb	237.39	4.72%
Sb 206.836†	495.8	455.70 µg/L	25.186	455.70 ppb	25.186	5.53%
Se 196.026†	323.2	564.81 µg/L	23.147	564.81 ppb	23.147	4.10%
SiO2†	217193.1	42871 µg/L	880.7	42871 ppb	880.7	2.05%
Si 251.611†	261673.2	19893 µg/L	414.9	19893 ppb	414.9	2.09%
Sn 189.927†	1179.8	493.74 µg/L	33.831	493.74 ppb	33.831	6.85%
Sr 421.552†	53035.6	489.26 µg/L	3.441	489.26 ppb	3.441	0.70%
Ti 334.940†	678442.8	1500.4 µg/L	47.37	1500.4 ppb	47.37	3.16%
Tl 190.801†	355.5	488.84 µg/L	20.308	488.84 ppb	20.308	4.15%
U 409.014†	4562.9	372.23 µg/L	14.530	372.23 ppb	14.530	3.90%
V 292.402†	50185.8	499.46 µg/L	23.583	499.46 ppb	23.583	4.72%
Zn 213.857†	28994.9	674.59 µg/L	26.185	674.59 ppb	26.185	3.88%

Sequence No.: 7
Sample ID: 1202032569|948744|5
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 207
Date Collected: 2/19/2010 21:41:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032569|948744|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58658.9	58658.9	104	%			21:41:40
1	Al 396.153Radial†	2684.9	2578.5	1793.7	µg/L	1793.7	ppb	21:41:40
1	Ca 317.933Radial†	3333.7	2999.5	2562.1	µg/L	2562.1	ppb	21:41:40
1	Fe 238.204 Radial†	1110.9	1053.3	8307.5	µg/L	8307.5	ppb	21:42:00
1	K 766.490 Radial†	929.8	730.5	477.09	µg/L	477.09	ppb	21:41:40
1	Mg 279.077 IEC†	63.9	48.7	426.64	µg/L	426.64	ppb	21:42:00
1	Na 589.592 Radial†	1130.6	616.7	189.42	µg/L	189.42	ppb	21:41:40
1	Sr 421.552†	682.4	628.5	5.7977	µg/L	5.7977	ppb	21:41:40
1	Sc 361.383	2054721.9	2054721.9	104.67	%			21:43:02
1	Y 371.029	1430917.5	1430917.5	105.78	%			21:43:02
1	Ag 328.068†	-389.0	29.9	0.7917	µg/L	0.7917	ppb	21:43:08
1	As 188.979†	4.2	4.4	8.3221	µg/L	8.3221	ppb	21:43:28
1	B 249.677†	419.8	17.0	-3.6285	µg/L	-3.6285	ppb	21:43:08
1	Ba 233.527†	964.8	938.9	22.553	µg/L	22.553	ppb	21:43:28
1	Be 313.107†	-1441.8	1478.1	0.8150	µg/L	0.8150	ppb	21:43:08
1	Cd 226.502†	-99.8	46.3	0.2197	µg/L	0.2197	ppb	21:43:28
1	Co 228.616†	46.9	42.9	1.6003	µg/L	1.6003	ppb	21:43:28
1	Cr 267.716†	419.7	451.4	9.0701	µg/L	9.0701	ppb	21:43:08
1	Cu 324.752†	3385.2	690.6	5.6624	µg/L	5.6624	ppb	21:43:08
1	Mn 257.610†	102233.7	97932.0	307.76	µg/L	307.76	ppb	21:43:08
1	Mo 202.031†	0.0	5.4	0.8418	µg/L	0.8418	ppb	21:43:28
1	Ni 231.604†	402.4	72.1	3.7020	µg/L	3.7020	ppb	21:43:28
1	P 214.914†	87.1	67.9	127.70	µg/L	127.70	ppb	21:43:28
1	Pb 220.353†	113.5	17.5	4.0338	µg/L	4.0338	ppb	21:43:28
1	S 181.975 Axial†	25.4	5.3	22.077	µg/L	22.077	ppb	21:43:28
1	Sb 206.836†	26.6	2.9	2.3560	µg/L	2.3560	ppb	21:43:28
1	Se 196.026†	7.6	-12.1	4.6640	µg/L	4.6640	ppb	21:43:28
1	SiO2†	28335.2	25680.4	5069.0	µg/L	5069.0	ppb	21:43:08
1	Si 251.611†	32807.9	31034.6	2359.3	µg/L	2359.3	ppb	21:43:08
1	Sn 189.927†	4.2	3.6	0.6758	µg/L	0.6758	ppb	21:43:28
1	Ti 334.940†	77513.6	73882.9	163.45	µg/L	163.45	ppb	21:43:08
1	Tl 190.801†	-22.8	0.6	4.4769	µg/L	4.4769	ppb	21:43:28
1	U 409.014†	-238.4	-150.7	-13.828	µg/L	-13.828	ppb	21:43:08
1	V 292.402†	713.4	726.3	8.0677	µg/L	8.0677	ppb	21:43:08
1	Zn 213.857†	2320.0	1682.2	39.024	µg/L	39.024	ppb	21:43:28
2	Sc RADIAL	58271.8	58271.8	103	%			21:42:06
2	Al 396.153Radial†	2672.3	2583.5	1797.2	µg/L	1797.2	ppb	21:42:06
2	Ca 317.933Radial†	3327.2	3014.5	2574.9	µg/L	2574.9	ppb	21:42:06
2	Fe 238.204 Radial†	1101.6	1051.5	8292.8	µg/L	8292.8	ppb	21:42:26
2	K 766.490 Radial†	984.9	789.9	515.88	µg/L	515.88	ppb	21:42:06
2	Mg 279.077 IEC†	61.6	46.9	410.69	µg/L	410.69	ppb	21:42:26
2	Na 589.592 Radial†	1082.7	577.5	177.37	µg/L	177.37	ppb	21:42:06
2	Sr 421.552†	719.5	668.7	6.1691	µg/L	6.1691	ppb	21:42:06
2	Sc 361.383	2058109.7	2058109.7	104.84	%			21:43:34
2	Y 371.029	1432626.2	1432626.2	105.90	%			21:43:34
2	Ag 328.068†	-455.1	-32.5	0.3254	µg/L	0.3254	ppb	21:43:40
2	As 188.979†	-0.9	-0.4	-0.4394	µg/L	-0.4394	ppb	21:44:01
2	B 249.677†	400.1	-2.5	-4.4150	µg/L	-4.4150	ppb	21:43:40
2	Ba 233.527†	955.4	928.3	22.299	µg/L	22.299	ppb	21:44:01
2	Be 313.107†	-1494.0	1430.7	0.7867	µg/L	0.7867	ppb	21:43:40
2	Cd 226.502†	-105.7	40.8	0.0853	µg/L	0.0853	ppb	21:44:01
2	Co 228.616†	35.0	31.5	1.0843	µg/L	1.0843	ppb	21:44:01
2	Cr 267.716†	367.1	400.5	8.0484	µg/L	8.0484	ppb	21:43:40
2	Cu 324.752†	3401.7	701.0	5.7282	µg/L	5.7282	ppb	21:43:40
2	Mn 257.610†	102980.1	98483.2	309.49	µg/L	309.49	ppb	21:43:40
2	Mo 202.031†	1.1	6.4	0.9458	µg/L	0.9458	ppb	21:44:01
2	Ni 231.604†	404.0	73.0	3.7462	µg/L	3.7462	ppb	21:44:01
2	P 214.914†	83.2	64.0	119.95	µg/L	119.95	ppb	21:44:01
2	Pb 220.353†	104.5	8.8	1.9277	µg/L	1.9277	ppb	21:44:01

2	S 181.975 Axial†	28.0	7.7	32.087 µg/L	32.087	ppb	21:44:01
2	Sb 206.836†	24.3	0.7	0.3479 µg/L	0.3479	ppb	21:44:01
2	Se 196.026†	7.8	-11.9	4.8853 µg/L	4.8853	ppb	21:44:01
2	SiO2†	28321.8	25623.1	5057.7 µg/L	5057.7	ppb	21:43:40
2	Si 251.611†	32775.5	30952.1	2353.0 µg/L	2353.0	ppb	21:43:40
2	Sn 189.927†	0.1	-0.2	-0.9506 µg/L	-0.9506	ppb	21:44:01
2	Ti 334.940†	77816.9	74050.3	163.82 µg/L	163.82	ppb	21:43:40
2	Tl 190.801†	-30.8	-7.0	-5.4109 µg/L	-5.4109	ppb	21:44:01
2	U 409.014†	-279.1	-189.2	-17.028 µg/L	-17.028	ppb	21:43:40
2	V 292.402†	666.5	680.5	7.6145 µg/L	7.6145	ppb	21:43:40
2	Zn 213.857†	2276.0	1636.5	37.954 µg/L	37.954	ppb	21:44:01
3	Sc RADIAL	58638.0	58638.0	104 %			21:42:32
3	Al 396.153Radial†	2676.6	2571.4	1788.8 µg/L	1788.8	ppb	21:42:32
3	Ca 317.933Radial†	3341.0	3007.7	2569.1 µg/L	2569.1	ppb	21:42:32
3	Fe 238.204 Radial†	1100.9	1044.1	8234.9 µg/L	8234.9	ppb	21:42:52
3	K 766.490 Radial†	958.8	758.7	495.55 µg/L	495.55	ppb	21:42:32
3	Mg 279.077 IEC†	64.0	48.8	427.79 µg/L	427.79	ppb	21:42:52
3	Na 589.592 Radial†	1093.1	581.0	178.45 µg/L	178.45	ppb	21:42:32
3	Sr 421.552†	666.4	613.3	5.6577 µg/L	5.6577	ppb	21:42:32
3	Sc 361.383	2054723.4	2054723.4	104.67 %			21:44:07
3	Y 371.029	1429264.8	1429264.8	105.66 %			21:44:07
3	Ag 328.068†	-471.6	-49.0	0.1984 µg/L	0.1984	ppb	21:44:12
3	As 188.979†	-1.4	-0.8	-1.1528 µg/L	-1.1528	ppb	21:44:33
3	B 249.677†	436.9	33.3	-2.9277 µg/L	-2.9277	ppb	21:44:12
3	Ba 233.527†	808.0	789.0	18.954 µg/L	18.954	ppb	21:44:33
3	Be 313.107†	-1582.9	1343.3	0.7419 µg/L	0.7419	ppb	21:44:12
3	Cd 226.502†	-115.0	31.8	-0.1348 µg/L	-0.1348	ppb	21:44:33
3	Co 228.616†	37.9	34.3	1.2517 µg/L	1.2517	ppb	21:44:33
3	Cr 267.716†	325.7	361.5	7.2652 µg/L	7.2652	ppb	21:44:12
3	Cu 324.752†	3269.0	579.5	4.9275 µg/L	4.9275	ppb	21:44:12
3	Mn 257.610†	92161.6	88308.8	277.62 µg/L	277.62	ppb	21:44:12
3	Mo 202.031†	2.9	8.1	1.1109 µg/L	1.1109	ppb	21:44:33
3	Ni 231.604†	389.3	59.6	3.0763 µg/L	3.0763	ppb	21:44:33
3	P 214.914†	74.0	55.4	103.07 µg/L	103.07	ppb	21:44:33
3	Pb 220.353†	113.5	17.5	4.0598 µg/L	4.0598	ppb	21:44:33
3	S 181.975 Axial†	21.7	1.8	7.2986 µg/L	7.2986	ppb	21:44:33
3	Sb 206.836†	23.1	-0.5	-0.7245 µg/L	-0.7245	ppb	21:44:33
3	Se 196.026†	21.6	1.4	23.330 µg/L	23.330	ppb	21:44:33
3	SiO2†	26156.7	23599.0	4658.1 µg/L	4658.1	ppb	21:44:12
3	Si 251.611†	30123.9	28470.3	2164.4 µg/L	2164.4	ppb	21:44:12
3	Sn 189.927†	1.5	1.1	-0.3945 µg/L	-0.3945	ppb	21:44:33
3	Ti 334.940†	68948.2	65699.4	145.35 µg/L	145.35	ppb	21:44:12
3	Tl 190.801†	-29.7	-6.0	-4.3131 µg/L	-4.3131	ppb	21:44:33
3	U 409.014†	-368.0	-274.5	-24.111 µg/L	-24.111	ppb	21:44:12
3	V 292.402†	643.4	659.4	7.3948 µg/L	7.3948	ppb	21:44:12
3	Zn 213.857†	1996.2	1372.8	31.773 µg/L	31.773	ppb	21:44:33

Mean Data: 1202032569|948744|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2055851.6	104.72	%	0.100				0.10%
Sc RADIAL	58522.9	104	%	0.4				0.37%
Y 371.029	1430936.2	105.78	%	0.124				0.12%
Ag 328.068†	-17.2	0.4385	µg/L	0.31241	0.4385	ppb	0.31241	71.25%
Al 396.153Radial†	2577.8	1793.2	µg/L	4.21	1793.2	ppb	4.21	0.23%
As 188.979†	1.1	2.2433	µg/L	5.27646	2.2433	ppb	5.27646	235.21%
B 249.677†	15.9	-3.6571	µg/L	0.74403	-3.6571	ppb	0.74403	20.35%
Ba 233.527†	885.4	21.269	µg/L	2.0083	21.269	ppb	2.0083	9.44%
Be 313.107†	1417.4	0.7812	µg/L	0.03686	0.7812	ppb	0.03686	4.72%
Ca 317.933Radial†	3007.2	2568.7	µg/L	6.42	2568.7	ppb	6.42	0.25%
Cd 226.502†	39.6	0.0567	µg/L	0.17899	0.0567	ppb	0.17899	315.54%
Co 228.616†	36.2	1.3121	µg/L	0.26323	1.3121	ppb	0.26323	20.06%
Cr 267.716†	404.5	8.1279	µg/L	0.90504	8.1279	ppb	0.90504	11.13%
Cu 324.752†	657.0	5.4394	µg/L	0.44448	5.4394	ppb	0.44448	8.17%
Fe 238.204 Radial†	1049.6	8278.4	µg/L	38.39	8278.4	ppb	38.39	0.46%
K 766.490 Radial†	759.7	496.17	µg/L	19.399	496.17	ppb	19.399	3.91%
Mg 279.077 IEC†	48.2	421.71	µg/L	9.556	421.71	ppb	9.556	2.27%
Mn 257.610†	94908.0	298.29	µg/L	17.923	298.29	ppb	17.923	6.01%
Mo 202.031†	6.7	0.9662	µg/L	0.13570	0.9662	ppb	0.13570	14.05%
Na 589.592 Radial†	591.7	181.75	µg/L	6.669	181.75	ppb	6.669	3.67%

Ni 231.604†	68.3	3.5082	µg/L	0.37471	3.5082	ppb	0.37471 10.68%
P 214.914†	62.4	116.91	µg/L	12.591	116.91	ppb	12.591 10.77%
Pb 220.353†	14.6	3.3404	µg/L	1.22348	3.3404	ppb	1.22348 36.63%
S 181.975 Axial†	4.9	20.488	µg/L	12.4703	20.488	ppb	12.4703 60.87%
Sb 206.836†	1.1	0.6598	µg/L	1.56375	0.6598	ppb	1.56375 237.00%
Se 196.026†	-7.5	10.960	µg/L	10.7133	10.960	ppb	10.7133 97.75%
SiO2†	24967.5	4928.3	µg/L	234.00	4928.3	ppb	234.00 4.75%
Si 251.611†	30152.3	2292.2	µg/L	110.79	2292.2	ppb	110.79 4.83%
Sn 189.927†	1.5	-0.2231	µg/L	0.82664	-0.2231	ppb	0.82664 370.50%
Sr 421.552†	636.8	5.8748	µg/L	0.26427	5.8748	ppb	0.26427 4.50%
Ti 334.940†	71210.8	157.54	µg/L	10.561	157.54	ppb	10.561 6.70%
Tl 190.801†	-4.1	-1.7490	µg/L	5.41968	-1.7490	ppb	5.41968 309.86%
U 409.014†	-204.8	-18.322	µg/L	5.2619	-18.322	ppb	5.2619 28.72%
V 292.402†	688.7	7.6924	µg/L	0.34313	7.6924	ppb	0.34313 4.46%
Zn 213.857†	1563.8	36.250	µg/L	3.9144	36.250	ppb	3.9144 10.80%

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 21:52:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58294.3	58294.3	103	%			21:52:41
1	Al 396.153Radial†	7182.0	6953.0	4826.2	µg/L	4826.2	ppb	21:52:41
1	Ca 317.933Radial†	6144.9	5744.1	4906.5	µg/L	4906.5	ppb	21:53:01
1	Fe 238.204 Radial†	674.3	636.9	5034.3	µg/L	5034.3	ppb	21:53:01
1	K 766.490 Radial†	7708.3	7305.5	4771.3	µg/L	4771.3	ppb	21:52:41
1	Mg 279.077 IEC†	585.5	554.7	4961.5	µg/L	4961.5	ppb	21:53:01
1	Na 589.592 Radial†	33172.0	31676.2	9729.1	µg/L	9729.1	ppb	21:52:41
1	Sr 421.552†	53074.5	51408.1	474.25	µg/L	474.25	ppb	21:52:41
1	Sc 361.383	2038801.4	2038801.4	103.86	%			21:54:04
1	Y 371.029	1405502.7	1405502.7	103.90	%			21:54:04
1	Ag 328.068†	68855.2	66700.9	497.72	µg/L	497.72	ppb	21:54:10
1	As 188.979†	301.6	290.9	520.35	µg/L	520.35	ppb	21:54:30
1	B 249.677†	12936.2	12071.9	490.21	µg/L	490.21	ppb	21:54:10
1	Ba 233.527†	21777.9	20986.5	504.73	µg/L	504.73	ppb	21:54:10
1	Be 313.107†	877883.1	848151.2	503.19	µg/L	503.19	ppb	21:54:04
1	Cd 226.502†	21105.9	20464.1	510.33	µg/L	510.33	ppb	21:54:10
1	Co 228.616†	11658.9	11224.2	507.74	µg/L	507.74	ppb	21:54:10
1	Cr 267.716†	26274.1	25349.1	509.46	µg/L	509.46	ppb	21:54:10
1	Cu 324.752†	81876.3	76293.3	498.70	µg/L	498.70	ppb	21:54:10
1	Mn 257.610†	169788.5	163741.9	513.23	µg/L	513.23	ppb	21:54:04
1	Mo 202.031†	5498.7	5299.9	519.19	µg/L	519.19	ppb	21:54:30
1	Ni 231.604†	10915.6	10198.1	507.83	µg/L	507.83	ppb	21:54:10
1	P 214.914†	1366.5	1300.5	2527.2	µg/L	2527.2	ppb	21:54:30
1	Pb 220.353†	2295.3	2119.1	515.34	µg/L	515.34	ppb	21:54:30
1	S 181.975 Axial†	270.9	241.9	1003.1	µg/L	1003.1	ppb	21:54:30
1	Sb 206.836†	593.9	549.4	506.62	µg/L	506.62	ppb	21:54:30
1	Se 196.026†	409.1	374.6	534.08	µg/L	534.08	ppb	21:54:30
1	SiO2†	29747.3	27251.5	5379.1	µg/L	5379.1	ppb	21:54:10
1	Si 251.611†	34761.7	33160.6	2520.9	µg/L	2520.9	ppb	21:54:10
1	Sn 189.927†	1289.3	1241.1	523.40	µg/L	523.40	ppb	21:54:30
1	Ti 334.940†	235226.3	226319.5	500.36	µg/L	500.36	ppb	21:54:04
1	Tl 190.801†	380.7	389.0	511.20	µg/L	511.20	ppb	21:54:30
1	U 409.014†	6210.9	6057.5	502.28	µg/L	502.28	ppb	21:54:10
1	V 292.402†	53474.0	51533.7	508.50	µg/L	508.50	ppb	21:54:10
1	Zn 213.857†	23135.3	21742.1	506.54	µg/L	506.54	ppb	21:54:10
2	Sc RADIAL	58681.1	58681.1	104	%			21:53:06
2	Al 396.153Radial†	7270.0	6991.8	4853.5	µg/L	4853.5	ppb	21:53:06
2	Ca 317.933Radial†	6085.0	5647.1	4823.6	µg/L	4823.6	ppb	21:53:27
2	Fe 238.204 Radial†	670.2	628.7	4969.3	µg/L	4969.3	ppb	21:53:27
2	K 766.490 Radial†	7805.0	7349.3	4800.0	µg/L	4800.0	ppb	21:53:06
2	Mg 279.077 IEC†	586.2	551.6	4933.9	µg/L	4933.9	ppb	21:53:27
2	Na 589.592 Radial†	33396.3	31680.3	9730.4	µg/L	9730.4	ppb	21:53:06
2	Sr 421.552†	53644.8	51618.1	476.18	µg/L	476.18	ppb	21:53:06
2	Sc 361.383	2035611.6	2035611.6	103.69	%			21:54:38
2	Y 371.029	1402256.7	1402256.7	103.66	%			21:54:38
2	Ag 328.068†	68542.9	66503.5	496.25	µg/L	496.25	ppb	21:54:43
2	As 188.979†	295.1	285.0	509.86	µg/L	509.86	ppb	21:55:04
2	B 249.677†	12897.2	12053.8	489.51	µg/L	489.51	ppb	21:54:43
2	Ba 233.527†	21658.8	20904.6	502.76	µg/L	502.76	ppb	21:54:43
2	Be 313.107†	876936.1	848562.5	503.44	µg/L	503.44	ppb	21:54:38
2	Cd 226.502†	20999.3	20393.1	508.57	µg/L	508.57	ppb	21:54:43
2	Co 228.616†	11591.9	11177.2	505.60	µg/L	505.60	ppb	21:54:43
2	Cr 267.716†	26197.4	25314.8	508.77	µg/L	508.77	ppb	21:54:43
2	Cu 324.752†	81474.1	76028.9	496.97	µg/L	496.97	ppb	21:54:43
2	Mn 257.610†	169436.5	163658.6	512.96	µg/L	512.96	ppb	21:54:38
2	Mo 202.031†	5362.1	5176.5	507.10	µg/L	507.10	ppb	21:55:04
2	Ni 231.604†	10886.7	10186.7	507.26	µg/L	507.26	ppb	21:54:43
2	P 214.914†	1342.5	1279.3	2485.4	µg/L	2485.4	ppb	21:55:04
2	Pb 220.353†	2248.7	2077.6	505.24	µg/L	505.24	ppb	21:55:04

2	S 181.975 Axial†	273.9	245.2	1016.8 µg/L	1016.8 ppb	21:55:04
2	Sb 206.836†	581.9	538.7	496.67 µg/L	496.67 ppb	21:55:04
2	Se 196.026†	397.7	364.2	519.29 µg/L	519.29 ppb	21:55:04
2	SiO2†	29634.0	27187.2	5366.4 µg/L	5366.4 ppb	21:54:43
2	Si 251.611†	34631.9	33087.9	2515.4 µg/L	2515.4 ppb	21:54:43
2	Sn 189.927†	1251.2	1206.2	508.72 µg/L	508.72 ppb	21:55:04
2	Ti 334.940†	234968.5	226425.8	500.59 µg/L	500.59 ppb	21:54:38
2	Tl 190.801†	379.2	388.0	510.01 µg/L	510.01 ppb	21:55:04
2	U 409.014†	6096.3	5956.3	493.89 µg/L	493.89 ppb	21:54:43
2	V 292.402†	53226.6	51375.9	506.85 µg/L	506.85 ppb	21:54:43
2	Zn 213.857†	23007.5	21653.8	504.47 µg/L	504.47 ppb	21:54:43
3	Sc RADIAL	57886.6	57886.6	102 %		21:53:32
3	Al 396.153Radial†	7257.6	7075.9	4913.9 µg/L	4913.9 ppb	21:53:32
3	Ca 317.933Radial†	6157.6	5798.4	4952.8 µg/L	4952.8 ppb	21:53:53
3	Fe 238.204 Radial†	675.4	642.6	5077.7 µg/L	5077.7 ppb	21:53:53
3	K 766.490 Radial†	7760.4	7409.0	4838.9 µg/L	4838.9 ppb	21:53:32
3	Mg 279.077 IEC†	588.1	561.1	5017.3 µg/L	5017.3 ppb	21:53:53
3	Na 589.592 Radial†	33284.0	32012.0	9832.3 µg/L	9832.3 ppb	21:53:32
3	Sr 421.552†	53489.2	52175.1	481.32 µg/L	481.32 ppb	21:53:32
3	Sc 361.383	2029490.9	2029490.9	103.38 %		21:55:11
3	Y 371.029	1398933.7	1398933.7	103.41 %		21:55:11
3	Ag 328.068†	63112.5	61450.2	458.38 µg/L	458.38 ppb	21:55:16
3	As 188.979†	245.3	237.8	425.38 µg/L	425.38 ppb	21:55:37
3	B 249.677†	11837.4	11066.1	449.07 µg/L	449.07 ppb	21:55:16
3	Ba 233.527†	19154.5	18545.2	446.00 µg/L	446.00 ppb	21:55:16
3	Be 313.107†	788293.6	765369.5	454.08 µg/L	454.08 ppb	21:55:11
3	Cd 226.502†	18488.3	18025.4	449.44 µg/L	449.44 ppb	21:55:16
3	Co 228.616†	10118.0	9785.2	442.59 µg/L	442.59 ppb	21:55:16
3	Cr 267.716†	22060.3	21389.3	429.88 µg/L	429.88 ppb	21:55:16
3	Cu 324.752†	71764.5	66873.8	437.22 µg/L	437.22 ppb	21:55:16
3	Mn 257.610†	153169.4	148416.2	465.24 µg/L	465.24 ppb	21:55:11
3	Mo 202.031†	4341.5	4204.8	411.96 µg/L	411.96 ppb	21:55:37
3	Ni 231.604†	9550.0	8925.4	444.46 µg/L	444.46 ppb	21:55:16
3	P 214.914†	1104.5	1053.0	2042.0 µg/L	2042.0 ppb	21:55:37
3	Pb 220.353†	1894.1	1741.3	423.37 µg/L	423.37 ppb	21:55:37
3	S 181.975 Axial†	230.7	204.2	846.98 µg/L	846.98 ppb	21:55:37
3	Sb 206.836†	492.3	453.7	417.96 µg/L	417.96 ppb	21:55:37
3	Se 196.026†	339.0	308.6	441.39 µg/L	441.39 ppb	21:55:37
3	SiO2†	26881.8	24611.1	4857.9 µg/L	4857.9 ppb	21:55:16
3	Si 251.611†	31176.8	29846.6	2269.0 µg/L	2269.0 ppb	21:55:16
3	Sn 189.927†	996.0	963.1	406.17 µg/L	406.17 ppb	21:55:37
3	Ti 334.940†	209447.8	202423.1	447.49 µg/L	447.49 ppb	21:55:11
3	Tl 190.801†	327.8	339.5	446.42 µg/L	446.42 ppb	21:55:37
3	U 409.014†	5220.1	5126.5	424.93 µg/L	424.93 ppb	21:55:16
3	V 292.402†	46012.1	44552.1	439.38 µg/L	439.38 ppb	21:55:16
3	Zn 213.857†	20191.8	18997.1	442.51 µg/L	442.51 ppb	21:55:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2034634.6	103.64	%	0.241				0.23%
Sc RADIAL	58287.3	103	%	0.7				0.68%
Y 371.029	1402231.0	103.66	%	0.243				0.23%
Ag 328.068†	64884.9	484.12	µg/L	22.300	484.12	ppb	22.300	4.61%
QC value within limits for Ag 328.068 Recovery = 96.82%								
Al 396.153Radial†	7006.9	4864.5	µg/L	44.88	4864.5	ppb	44.88	0.92%
QC value within limits for Al 396.153Radial Recovery = 97.29%								
As 188.979†	271.2	485.20	µg/L	52.069	485.20	ppb	52.069	10.73%
QC value within limits for As 188.979 Recovery = 97.04%								
B 249.677†	11730.6	476.26	µg/L	23.552	476.26	ppb	23.552	4.95%
QC value within limits for B 249.677 Recovery = 95.25%								
Ba 233.527†	20145.4	484.50	µg/L	33.355	484.50	ppb	33.355	6.88%
QC value within limits for Ba 233.527 Recovery = 96.90%								
Be 313.107†	820694.4	486.90	µg/L	28.425	486.90	ppb	28.425	5.84%
QC value within limits for Be 313.107 Recovery = 97.38%								
Ca 317.933Radial†	5729.8	4894.3	µg/L	65.45	4894.3	ppb	65.45	1.34%
QC value within limits for Ca 317.933Radial Recovery = 97.89%								
Cd 226.502†	19627.6	489.45	µg/L	34.658	489.45	ppb	34.658	7.08%
QC value within limits for Cd 226.502 Recovery = 97.89%								
Co 228.616†	10728.9	485.31	µg/L	37.015	485.31	ppb	37.015	7.63%

QC value within limits for Co 228.616 Recovery = 97.06%

Cr 267.716†	24017.7	482.70 µg/L	45.746	482.70 ppb	45.746	9.48%

QC value within limits for Cr 267.716 Recovery = 96.54%

Cu 324.752†	73065.3	477.63 µg/L	35.005	477.63 ppb	35.005	7.33%

QC value within limits for Cu 324.752 Recovery = 95.53%

Fe 238.204 Radial†	636.1	5027.1 µg/L	54.54	5027.1 ppb	54.54	1.08%

QC value within limits for Fe 238.204 Radial Recovery = 100.54%

K 766.490 Radial†	7354.6	4803.4 µg/L	33.93	4803.4 ppb	33.93	0.71%

QC value within limits for K 766.490 Radial Recovery = 96.07%

Mg 279.077 IEC†	555.8	4970.9 µg/L	42.48	4970.9 ppb	42.48	0.85%

QC value within limits for Mg 279.077 IEC Recovery = 99.42%

Mn 257.610†	158605.5	497.15 µg/L	27.629	497.15 ppb	27.629	5.56%

QC value within limits for Mn 257.610 Recovery = 99.43%

Mo 202.031†	4893.7	479.42 µg/L	58.734	479.42 ppb	58.734	12.25%

QC value within limits for Mo 202.031 Recovery = 95.88%

Na 589.592 Radial†	31789.5	9763.9 µg/L	59.18	9763.9 ppb	59.18	0.61%

QC value within limits for Na 589.592 Radial Recovery = 97.64%

Ni 231.604†	9770.1	486.52 µg/L	36.423	486.52 ppb	36.423	7.49%

QC value within limits for Ni 231.604 Recovery = 97.30%

P 214.914†	1210.9	2351.5 µg/L	268.87	2351.5 ppb	268.87	11.43%

QC value within limits for P 214.914 Recovery = 94.06%

Pb 220.353†	1979.3	481.31 µg/L	50.440	481.31 ppb	50.440	10.48%

QC value within limits for Pb 220.353 Recovery = 96.26%

S 181.975 Axial†	230.4	955.62 µg/L	94.337	955.62 ppb	94.337	9.87%

QC value within limits for S 181.975 Axial Recovery = 95.56%

Sb 206.836†	513.9	473.75 µg/L	48.569	473.75 ppb	48.569	10.25%

QC value within limits for Sb 206.836 Recovery = 94.75%

Se 196.026†	349.1	498.25 µg/L	49.795	498.25 ppb	49.795	9.99%

QC value within limits for Se 196.026 Recovery = 99.65%

SiO2†	26349.9	5201.1 µg/L	297.31	5201.1 ppb	297.31	5.72%

QC value within limits for SiO2 Recovery = 97.26%

Si 251.611†	32031.7	2435.1 µg/L	143.89	2435.1 ppb	143.89	5.91%

QC value within limits for Si 251.611 Recovery = 97.40%

Sn 189.927†	1136.8	479.43 µg/L	63.868	479.43 ppb	63.868	13.32%

QC value within limits for Sn 189.927 Recovery = 95.89%

Sr 421.552†	51733.8	477.25 µg/L	3.657	477.25 ppb	3.657	0.77%

QC value within limits for Sr 421.552 Recovery = 95.45%

Ti 334.940†	218389.5	482.81 µg/L	30.592	482.81 ppb	30.592	6.34%

QC value within limits for Ti 334.940 Recovery = 96.56%

Tl 190.801†	372.2	489.21 µg/L	37.063	489.21 ppb	37.063	7.58%

QC value within limits for Tl 190.801 Recovery = 97.84%

U 409.014†	5713.4	473.70 µg/L	42.447	473.70 ppb	42.447	8.96%

QC value within limits for U 409.014 Recovery = 94.74%

V 292.402†	49153.9	484.91 µg/L	39.441	484.91 ppb	39.441	8.13%

QC value within limits for V 292.402 Recovery = 96.98%

Zn 213.857†	20797.7	484.50 µg/L	36.387	484.50 ppb	36.387	7.51%

QC value within limits for Zn 213.857 Recovery = 96.90%

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 21:55:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56008.4	56008.4	99.1	%			21:56:19
1	Al 396.153Radial†	-22.0	-29.6	-20.580	µg/L	-20.580	ppb	21:56:19
1	Ca 317.933Radial†	199.9	-9.6	-8.2382	µg/L	-8.2382	ppb	21:56:40
1	Fe 238.204 Radial†	17.9	1.5	11.526	µg/L	11.526	ppb	21:56:40
1	K 766.490 Radial†	220.6	57.6	37.606	µg/L	37.606	ppb	21:56:19
1	Mg 279.077 IEC†	11.6	-1.1	-9.8037	µg/L	-9.8037	ppb	21:56:40
1	Na 589.592 Radial†	493.3	25.4	7.7861	µg/L	7.7861	ppb	21:56:19
1	Sr 421.552†	76.4	48.2	0.4449	µg/L	0.4449	ppb	21:56:19
1	Sc 361.383	2005725.5	2005725.5	102.17	%			21:57:41
1	Y 371.029	1388119.7	1388119.7	102.61	%			21:57:41
1	Ag 328.068†	-414.5	-4.1	-0.0292	µg/L	-0.0292	ppb	21:57:47
1	As 188.979†	-0.2	0.2	0.3889	µg/L	0.3889	ppb	21:58:07
1	B 249.677†	373.9	-18.2	-0.7465	µg/L	-0.7465	ppb	21:58:07
1	Ba 233.527†	-14.8	2.6	0.0623	µg/L	0.0623	ppb	21:58:07
1	Be 313.107†	-2754.8	159.4	0.0946	µg/L	0.0946	ppb	21:57:47
1	Cd 226.502†	-146.2	-1.4	-0.0360	µg/L	-0.0360	ppb	21:58:07
1	Co 228.616†	0.9	-1.0	-0.0474	µg/L	-0.0474	ppb	21:58:07
1	Cr 267.716†	-37.0	14.2	0.2854	µg/L	0.2854	ppb	21:57:47
1	Cu 324.752†	2573.5	-24.9	-0.1610	µg/L	-0.1610	ppb	21:57:47
1	Mn 257.610†	-199.9	60.3	0.1908	µg/L	0.1908	ppb	21:58:07
1	Mo 202.031†	0.2	5.5	0.5418	µg/L	0.5418	ppb	21:58:07
1	Ni 231.604†	310.8	-8.1	-0.4047	µg/L	-0.4047	ppb	21:58:07
1	P 214.914†	12.5	-3.1	-6.0711	µg/L	-6.0711	ppb	21:58:07
1	Pb 220.353†	85.5	-7.3	-1.7723	µg/L	-1.7723	ppb	21:58:07
1	S 181.975 Axial†	18.2	-1.2	-4.7784	µg/L	-4.7784	ppb	21:58:07
1	Sb 206.836†	26.7	3.7	3.3830	µg/L	3.3830	ppb	21:58:07
1	Se 196.026†	14.0	-5.6	-7.7903	µg/L	-7.7903	ppb	21:58:07
1	SiO2†	1480.0	57.0	11.258	µg/L	11.258	ppb	21:57:47
1	Si 251.611†	360.8	42.5	3.2304	µg/L	3.2304	ppb	21:58:07
1	Sn 189.927†	5.1	4.6	1.9521	µg/L	1.9521	ppb	21:58:07
1	Ti 334.940†	260.5	80.0	0.1775	µg/L	0.1775	ppb	21:57:47
1	Tl 190.801†	-26.0	-3.1	-4.0069	µg/L	-4.0069	ppb	21:58:07
1	U 409.014†	-86.5	-7.5	-0.6279	µg/L	-0.6279	ppb	21:57:47
1	V 292.402†	-37.7	7.9	0.0821	µg/L	0.0821	ppb	21:57:47
1	Zn 213.857†	552.4	6.2	0.1486	µg/L	0.1486	ppb	21:58:07
2	Sc RADIAL	57173.7	57173.7	101	%			21:56:45
2	Al 396.153Radial†	-31.7	-38.7	-26.934	µg/L	-26.934	ppb	21:56:45
2	Ca 317.933Radial†	191.8	-21.7	-18.545	µg/L	-18.545	ppb	21:57:05
2	Fe 238.204 Radial†	17.2	0.4	3.3000	µg/L	3.3000	ppb	21:57:05
2	K 766.490 Radial†	225.8	58.1	37.968	µg/L	37.968	ppb	21:56:45
2	Mg 279.077 IEC†	9.7	-3.2	-28.801	µg/L	-28.801	ppb	21:57:05
2	Na 589.592 Radial†	447.5	-30.0	-9.2124	µg/L	-9.2124	ppb	21:56:45
2	Sr 421.552†	50.5	21.1	0.1949	µg/L	0.1949	ppb	21:56:45
2	Sc 361.383	2026912.1	2026912.1	103.25	%			21:58:13
2	Y 371.029	1401779.3	1401779.3	103.62	%			21:58:13
2	Ag 328.068†	-380.0	33.5	0.2477	µg/L	0.2477	ppb	21:58:19
2	As 188.979†	-0.5	-0.1	-0.1267	µg/L	-0.1267	ppb	21:58:39
2	B 249.677†	375.7	-20.3	-0.8273	µg/L	-0.8273	ppb	21:58:39
2	Ba 233.527†	-18.4	-0.7	-0.0176	µg/L	-0.0176	ppb	21:58:39
2	Be 313.107†	-2695.7	244.9	0.1452	µg/L	0.1452	ppb	21:58:19
2	Cd 226.502†	-138.0	8.1	0.2002	µg/L	0.2002	ppb	21:58:39
2	Co 228.616†	2.7	0.7	0.0322	µg/L	0.0322	ppb	21:58:39
2	Cr 267.716†	-33.8	17.6	0.3538	µg/L	0.3538	ppb	21:58:19
2	Cu 324.752†	2615.0	-11.1	-0.0717	µg/L	-0.0717	ppb	21:58:19
2	Mn 257.610†	-217.0	45.8	0.1451	µg/L	0.1451	ppb	21:58:39
2	Mo 202.031†	-0.5	4.9	0.4797	µg/L	0.4797	ppb	21:58:39
2	Ni 231.604†	315.6	-6.7	-0.3341	µg/L	-0.3341	ppb	21:58:39
2	P 214.914†	6.6	-9.0	-17.706	µg/L	-17.706	ppb	21:58:39
2	Pb 220.353†	96.0	2.0	0.4801	µg/L	0.4801	ppb	21:58:39

2	S 181.975 Axial†	17.3	-2.2	-9.1795 µg/L	-9.1795 ppb	21:58:39
2	Sb 206.836†	20.9	-2.3	-2.0746 µg/L	-2.0746 ppb	21:58:39
2	Se 196.026†	11.9	-7.8	-10.865 µg/L	-10.865 ppb	21:58:39
2	SiO2†	1472.8	34.8	6.8766 µg/L	6.8766 ppb	21:58:19
2	Si 251.611†	396.0	72.9	5.5446 µg/L	5.5446 ppb	21:58:39
2	Sn 189.927†	5.5	5.0	2.0997 µg/L	2.0997 ppb	21:58:39
2	Ti 334.940†	289.3	105.2	0.2346 µg/L	0.2346 ppb	21:58:19
2	Tl 190.801†	-22.0	1.1	1.4215 µg/L	1.4215 ppb	21:58:39
2	U 409.014†	-13.9	63.6	5.2886 µg/L	5.2886 ppb	21:58:19
2	V 292.402†	-61.5	-14.8	-0.1337 µg/L	-0.1337 ppb	21:58:19
2	Zn 213.857†	550.0	-1.7	-0.0370 µg/L	-0.0370 ppb	21:58:39
3	Sc RADIAL	56372.6	56372.6	99.8 %		21:57:11
3	Al 396.153Radial†	-29.3	-36.7	-25.549 µg/L	-25.549 ppb	21:57:11
3	Ca 317.933Radial†	191.2	-19.7	-16.825 µg/L	-16.825 ppb	21:57:31
3	Fe 238.204 Radial†	16.1	-0.4	-3.3964 µg/L	-3.3964 ppb	21:57:31
3	K 766.490 Radial†	211.8	47.3	30.861 µg/L	30.861 ppb	21:57:11
3	Mg 279.077 IEC†	13.6	0.8	7.2890 µg/L	7.2890 ppb	21:57:31
3	Na 589.592 Radial†	501.0	29.9	9.1712 µg/L	9.1712 ppb	21:57:11
3	Sr 421.552†	52.9	24.2	0.2232 µg/L	0.2232 ppb	21:57:11
3	Sc 361.383	2000712.7	2000712.7	101.91 %		21:58:46
3	Y 371.029	1384703.1	1384703.1	102.36 %		21:58:46
3	Ag 328.068†	-421.1	-11.6	-0.0829 µg/L	-0.0829 ppb	21:58:51
3	As 188.979†	1.5	1.9	3.3848 µg/L	3.3848 ppb	21:59:12
3	B 249.677†	368.1	-22.9	-0.9332 µg/L	-0.9332 ppb	21:59:12
3	Ba 233.527†	-8.4	8.8	0.2121 µg/L	0.2121 ppb	21:59:12
3	Be 313.107†	-2743.0	164.2	0.0974 µg/L	0.0974 ppb	21:58:51
3	Cd 226.502†	-139.1	5.2	0.1301 µg/L	0.1301 ppb	21:59:12
3	Co 228.616†	11.1	9.0	0.4061 µg/L	0.4061 ppb	21:59:12
3	Cr 267.716†	-57.8	-6.4	-0.1274 µg/L	-0.1274 ppb	21:58:51
3	Cu 324.752†	2614.2	21.4	0.1392 µg/L	0.1392 ppb	21:58:51
3	Mn 257.610†	-214.3	45.7	0.1425 µg/L	0.1425 ppb	21:59:12
3	Mo 202.031†	-1.4	4.0	0.3871 µg/L	0.3871 ppb	21:59:12
3	Ni 231.604†	307.7	-10.4	-0.5197 µg/L	-0.5197 ppb	21:59:12
3	P 214.914†	8.3	-7.2	-14.189 µg/L	-14.189 ppb	21:59:12
3	Pb 220.353†	80.5	-12.0	-2.9118 µg/L	-2.9118 ppb	21:59:12
3	S 181.975 Axial†	16.3	-2.9	-12.028 µg/L	-12.028 ppb	21:59:12
3	Sb 206.836†	20.6	-2.3	-2.1004 µg/L	-2.1004 ppb	21:59:12
3	Se 196.026†	16.0	-3.6	-5.0557 µg/L	-5.0557 ppb	21:59:12
3	SiO2†	1465.4	46.3	9.1427 µg/L	9.1427 ppb	21:58:51
3	Si 251.611†	387.9	70.0	5.3210 µg/L	5.3210 ppb	21:59:12
3	Sn 189.927†	6.0	5.5	2.3403 µg/L	2.3403 ppb	21:59:12
3	Ti 334.940†	247.3	67.7	0.1488 µg/L	0.1488 ppb	21:58:51
3	Tl 190.801†	-19.0	3.7	4.8315 µg/L	4.8315 ppb	21:59:12
3	U 409.014†	-77.0	1.6	0.1327 µg/L	0.1327 ppb	21:58:51
3	V 292.402†	6.4	51.0	0.4995 µg/L	0.4995 ppb	21:58:51
3	Zn 213.857†	535.6	-8.9	-0.2068 µg/L	-0.2068 ppb	21:59:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2011116.8	102.44	%	0.708				0.69%
Sc RADIAL	56518.2	100	%	1.1				1.05%
Y 371.029	1391534.0	102.87	%	0.668				0.65%
Ag 328.068†	5.9	0.0452	µg/L	0.17741	0.0452	ppb	0.17741	392.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-35.0	-24.355	µg/L	3.3414	-24.355	ppb	3.3414	13.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	1.2156	µg/L	1.89611	1.2156	ppb	1.89611	155.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.5	-0.8357	µg/L	0.09366	-0.8357	ppb	0.09366	11.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.6	0.0856	µg/L	0.11658	0.0856	ppb	0.11658	136.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.5	0.1124	µg/L	0.02848	0.1124	ppb	0.02848	25.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.0	-14.536	µg/L	5.5217	-14.536	ppb	5.5217	37.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.0	0.0981	µg/L	0.12132	0.0981	ppb	0.12132	123.63%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.9	0.1303	µg/L	0.24215	0.1303	ppb	0.24215	185.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.5      0.1706 µg/L       0.26030      0.1706 ppb        0.26030 152.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -4.9     -0.0312 µg/L       0.15414     -0.0312 ppb        0.15414 494.08%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      3.8100 µg/L       7.47451      3.8100 ppb        7.47451 196.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          54.3      35.478 µg/L        4.0031      35.478 ppb         4.0031  11.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2     -10.439 µg/L       18.0534     -10.439 ppb        18.0534 172.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.6      0.1594 µg/L       0.02719      0.1594 ppb        0.02719  17.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.8      0.4696 µg/L       0.07785      0.4696 ppb        0.07785  16.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          8.4      2.5817 µg/L      10.23739      2.5817 ppb       10.23739 396.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.4     -0.4195 µg/L       0.09366     -0.4195 ppb        0.09366  22.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.4     -12.655 µg/L        5.9671     -12.655 ppb         5.9671  47.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.8     -1.4013 µg/L       1.72611     -1.4013 ppb        1.72611 123.18%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -8.6621 µg/L       3.65257     -8.6621 ppb        3.65257  42.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.3     -0.2640 µg/L       3.15844     -0.2640 ppb        3.15844 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.6     -7.9035 µg/L       2.90606     -7.9035 ppb        2.90606  36.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      46.1      9.0923 µg/L       2.19093      9.0923 ppb        2.19093  24.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                61.8      4.6987 µg/L       1.27646      4.6987 ppb        1.27646  27.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.1      2.1307 µg/L       0.19595      2.1307 ppb        0.19595   9.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.2      0.2877 µg/L       0.13693      0.2877 ppb        0.13693  47.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.3      0.1870 µg/L       0.04366      0.1870 ppb        0.04366  23.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.6      0.7487 µg/L       4.45745      0.7487 ppb        4.45745 595.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 19.2      1.5978 µg/L       3.21889      1.5978 ppb        3.21889 201.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 14.7      0.1493 µg/L       0.32188      0.1493 ppb        0.32188 215.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -1.5     -0.0317 µg/L       0.17777     -0.0317 ppb        0.17777 560.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: 245960001|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 215
Date Collected: 2/19/2010 22:17:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960001|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58745.0	58745.0	104	%			22:18:12
1	Al 396.153Radial†	189309.0	182053.0	126650	µg/L	126650	ppb	22:18:12
1	Ca 317.933Radial†	32287.1	30839.5	26342	µg/L	26342	ppb	22:18:33
1	Fe 238.204 Radial†	17486.9	16800.8	132510	µg/L	132510	ppb	22:18:33
1	K 766.490 Radial†	27485.0	26267.7	17156	µg/L	17156	ppb	22:18:12
1	Mg 279.077 IEC†	2531.4	2421.7	21506	µg/L	21506	ppb	22:18:33
1	Na 589.592 Radial†	3502.2	2895.9	889.45	µg/L	889.45	ppb	22:18:33
1	Sr 421.552†	34246.9	32906.7	303.57	µg/L	303.57	ppb	22:18:12
1	Sc 361.383	2030755.5	2030755.5	103.45	%			22:19:38
1	Y 371.029	1438736.5	1438736.5	106.36	%			22:19:38
1	Ag 328.068†	-1912.9	-1447.6	-0.7193	µg/L	-0.7193	ppb	22:19:43
1	As 188.979†	13.6	13.6	30.776	µg/L	30.776	ppb	22:20:04
1	B 249.677†	1236.3	811.0	-35.924	µg/L	-35.924	ppb	22:19:43
1	Ba 233.527†	84173.6	81387.2	1954.3	µg/L	1954.3	ppb	22:19:43
1	Be 313.107†	21504.8	23644.3	12.147	µg/L	12.147	ppb	22:19:43
1	Cd 226.502†	358.4	488.1	-2.7105	µg/L	-2.7105	ppb	22:19:43
1	Co 228.616†	1530.5	1477.6	56.584	µg/L	56.584	ppb	22:20:04
1	Cr 267.716†	5242.5	5118.3	102.96	µg/L	102.96	ppb	22:19:43
1	Cu 324.752†	12161.3	9212.5	78.553	µg/L	78.553	ppb	22:19:43
1	Mn 257.610†	1132864.1	1095389.3	3447.0	µg/L	3447.0	ppb	22:19:38
1	Mo 202.031†	-21.6	-15.5	3.5145	µg/L	3.5145	ppb	22:20:04
1	Ni 231.604†	2148.3	1764.4	89.599	µg/L	89.599	ppb	22:20:04
1	P 214.914†	668.0	630.4	1170.4	µg/L	1170.4	ppb	22:20:04
1	Pb 220.353†	651.1	538.4	132.81	µg/L	132.81	ppb	22:20:04
1	S 181.975 Axial†	157.0	132.9	550.97	µg/L	550.97	ppb	22:20:04
1	Sb 206.836†	34.5	10.9	6.4845	µg/L	6.4845	ppb	22:20:04
1	Se 196.026†	-41.1	-59.1	252.64	µg/L	252.64	ppb	22:20:04
1	SiO2†	345271.6	332380.5	65608	µg/L	65608	ppb	22:19:38
1	Si 251.611†	414275.6	400167.3	30421	µg/L	30421	ppb	22:19:38
1	Sn 189.927†	-37.8	-36.9	-27.264	µg/L	-27.264	ppb	22:20:04
1	Ti 334.940†	2315153.0	2237870.1	4949.4	µg/L	4949.4	ppb	22:19:38
1	Tl 190.801†	-76.0	-51.1	17.087	µg/L	17.087	ppb	22:20:04
1	U 409.014†	-1254.7	-1135.8	-114.39	µg/L	-114.39	ppb	22:19:38
1	V 292.402†	26590.3	25749.5	266.66	µg/L	266.66	ppb	22:19:43
1	Zn 213.857†	12628.2	11673.2	265.86	µg/L	265.86	ppb	22:19:43
2	Sc RADIAL	59363.7	59363.7	105	%			22:18:38
2	Al 396.153Radial†	189878.0	180696.9	125700	µg/L	125700	ppb	22:18:38
2	Ca 317.933Radial†	32424.1	30646.3	26177	µg/L	26177	ppb	22:18:59
2	Fe 238.204 Radial†	17583.3	16717.3	131850	µg/L	131850	ppb	22:18:59
2	K 766.490 Radial†	27631.7	26131.7	17067	µg/L	17067	ppb	22:18:38
2	Mg 279.077 IEC†	2541.9	2406.3	21368	µg/L	21368	ppb	22:18:59
2	Na 589.592 Radial†	3515.3	2873.3	882.51	µg/L	882.51	ppb	22:18:59
2	Sr 421.552†	34419.0	32727.3	301.91	µg/L	301.91	ppb	22:18:38
2	Sc 361.383	2043828.3	2043828.3	104.11	%			22:20:12
2	Y 371.029	1447803.4	1447803.4	107.03	%			22:20:12
2	Ag 328.068†	-1925.5	-1447.8	-0.7978	µg/L	-0.7978	ppb	22:20:17
2	As 188.979†	7.7	7.8	20.328	µg/L	20.328	ppb	22:20:38
2	B 249.677†	1257.8	824.0	-35.053	µg/L	-35.053	ppb	22:20:17
2	Ba 233.527†	83139.1	79873.1	1918.0	µg/L	1918.0	ppb	22:20:17
2	Be 313.107†	21368.1	23380.0	12.004	µg/L	12.004	ppb	22:20:17
2	Cd 226.502†	364.7	492.0	-2.5439	µg/L	-2.5439	ppb	22:20:17
2	Co 228.616†	1517.6	1455.7	55.669	µg/L	55.669	ppb	22:20:38
2	Cr 267.716†	5144.1	4991.4	100.41	µg/L	100.41	ppb	22:20:17
2	Cu 324.752†	12083.5	9062.6	77.483	µg/L	77.483	ppb	22:20:17
2	Mn 257.610†	1130593.6	1086203.7	3418.1	µg/L	3418.1	ppb	22:20:12
2	Mo 202.031†	-20.1	-13.9	3.6467	µg/L	3.6467	ppb	22:20:38
2	Ni 231.604†	2105.1	1709.6	86.861	µg/L	86.861	ppb	22:20:38
2	P 214.914†	666.2	624.5	1159.1	µg/L	1159.1	ppb	22:20:38
2	Pb 220.353†	654.6	537.8	132.64	µg/L	132.64	ppb	22:20:38

2	S 181.975 Axial†	155.0	129.9	538.84 µg/L	538.84	ppb	22:20:38
2	Sb 206.836†	30.7	7.0	2.9690 µg/L	2.9690	ppb	22:20:38
2	Se 196.026†	-54.7	-71.9	233.03 µg/L	233.03	ppb	22:20:38
2	SiO2†	344790.1	329783.2	65095 µg/L	65095	ppb	22:20:12
2	Si 251.611†	413797.7	397146.7	30192 µg/L	30192	ppb	22:20:12
2	Sn 189.927†	-35.8	-34.7	-26.314 µg/L	-26.314	ppb	22:20:38
2	Ti 334.940†	2312703.0	2221201.9	4912.5 µg/L	4912.5	ppb	22:20:12
2	Tl 190.801†	-81.8	-56.2	9.9026 µg/L	9.9026	ppb	22:20:38
2	U 409.014†	-1311.3	-1182.5	-118.17 µg/L	-118.17	ppb	22:20:12
2	V 292.402†	26194.3	25204.7	261.26 µg/L	261.26	ppb	22:20:17
2	Zn 213.857†	12552.0	11521.9	262.37 µg/L	262.37	ppb	22:20:17
3	Sc RADIAL	59494.9	59494.9	105 %			22:19:04
3	Al 396.153Radial†	192936.3	183202.5	127450 µg/L	127450	ppb	22:19:04
3	Ca 317.933Radial†	32407.0	30562.0	26105 µg/L	26105	ppb	22:19:25
3	Fe 238.204 Radial†	17610.4	16706.0	131760 µg/L	131760	ppb	22:19:25
3	K 766.490 Radial†	27958.2	26383.7	17232 µg/L	17232	ppb	22:19:04
3	Mg 279.077 IEC†	2539.8	2398.9	21303 µg/L	21303	ppb	22:19:25
3	Na 589.592 Radial†	3499.9	2851.3	875.75 µg/L	875.75	ppb	22:19:25
3	Sr 421.552†	35009.9	33216.2	306.42 µg/L	306.42	ppb	22:19:04
3	Sc 361.383	2024486.8	2024486.8	103.13 %			22:20:46
3	Y 371.029	1432198.1	1432198.1	105.87 %			22:20:46
3	Ag 328.068†	-1867.8	-1409.5	-0.5860 µg/L	-0.5860	ppb	22:20:51
3	As 188.979†	10.4	10.6	25.230 µg/L	25.230	ppb	22:21:12
3	B 249.677†	1199.9	779.4	-36.832 µg/L	-36.832	ppb	22:20:51
3	Ba 233.527†	79677.4	77279.2	1855.7 µg/L	1855.7	ppb	22:20:51
3	Be 313.107†	19987.8	22237.7	11.394 µg/L	11.394	ppb	22:20:51
3	Cd 226.502†	329.2	460.9	-3.3148 µg/L	-3.3148	ppb	22:20:51
3	Co 228.616†	1380.7	1336.9	50.658 µg/L	50.658	ppb	22:21:12
3	Cr 267.716†	4887.6	4789.8	96.353 µg/L	96.353	ppb	22:20:51
3	Cu 324.752†	11747.1	8847.3	76.065 µg/L	76.065	ppb	22:20:51
3	Mn 257.610†	1085738.1	1053082.8	3314.4 µg/L	3314.4	ppb	22:20:46
3	Mo 202.031†	-28.6	-22.4	2.8179 µg/L	2.8179	ppb	22:21:12
3	Ni 231.604†	1942.1	1570.9	79.948 µg/L	79.948	ppb	22:21:12
3	P 214.914†	601.4	567.9	1047.7 µg/L	1047.7	ppb	22:21:12
3	Pb 220.353†	602.4	493.2	121.90 µg/L	121.90	ppb	22:21:12
3	S 181.975 Axial†	147.2	123.8	513.36 µg/L	513.36	ppb	22:21:12
3	Sb 206.836†	37.2	13.6	9.1093 µg/L	9.1093	ppb	22:21:12
3	Se 196.026†	-43.4	-61.4	247.56 µg/L	247.56	ppb	22:21:12
3	SiO2†	334139.6	322619.5	63681 µg/L	63681	ppb	22:20:46
3	Si 251.611†	400840.1	388379.1	29525 µg/L	29525	ppb	22:20:46
3	Sn 189.927†	-36.3	-35.6	-26.672 µg/L	-26.672	ppb	22:21:12
3	Ti 334.940†	2207924.2	2140821.7	4734.7 µg/L	4734.7	ppb	22:20:46
3	Tl 190.801†	-64.1	-39.8	29.382 µg/L	29.382	ppb	22:21:12
3	U 409.014†	-1248.9	-1134.0	-114.12 µg/L	-114.12	ppb	22:20:46
3	V 292.402†	24884.1	24174.6	251.20 µg/L	251.20	ppb	22:20:51
3	Zn 213.857†	11985.2	11087.5	252.22 µg/L	252.22	ppb	22:20:51

Mean Data: 245960001|948744|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2033023.5	103.56	%	0.503				0.49%
Sc RADIAL	59201.2	105	%	0.7				0.68%
Y 371.029	1439579.3	106.42	%	0.579				0.54%
Ag 328.068†	-1435.0	-0.7010	µg/L	0.10708	-0.7010	ppb	0.10708	15.27%
Al 396.153Radial†	181984.1	126600	µg/L	872.5	126600	ppb	872.5	0.69%
As 188.979†	10.7	25.445	µg/L	5.2274	25.445	ppb	5.2274	20.54%
B 249.677†	804.8	-35.936	µg/L	0.8900	-35.936	ppb	0.8900	2.48%
Ba 233.527†	79513.2	1909.3	µg/L	49.89	1909.3	ppb	49.89	2.61%
Be 313.107†	23087.3	11.848	µg/L	0.4000	11.848	ppb	0.4000	3.38%
Ca 317.933Radial†	30682.6	26208	µg/L	121.5	26208	ppb	121.5	0.46%
Cd 226.502†	480.3	-2.8564	µg/L	0.40562	-2.8564	ppb	0.40562	14.20%
Co 228.616†	1423.4	54.304	µg/L	3.1902	54.304	ppb	3.1902	5.87%
Cr 267.716†	4966.5	99.907	µg/L	3.3317	99.907	ppb	3.3317	3.33%
Cu 324.752†	9040.8	77.367	µg/L	1.2479	77.367	ppb	1.2479	1.61%
Fe 238.204 Radial†	16741.4	132040	µg/L	408.3	132040	ppb	408.3	0.31%
K 766.490 Radial†	26261.0	17152	µg/L	82.4	17152	ppb	82.4	0.48%
Mg 279.077 IEC†	2409.0	21392	µg/L	103.4	21392	ppb	103.4	0.48%
Mn 257.610†	1078225.3	3393.2	µg/L	69.72	3393.2	ppb	69.72	2.05%
Mo 202.031†	-17.3	3.3264	µg/L	0.44527	3.3264	ppb	0.44527	13.39%
Na 589.592 Radial†	2873.5	882.57	µg/L	6.849	882.57	ppb	6.849	0.78%

Ni 231.604†	1681.7	85.470	µg/L	4.9736	85.470	ppb	4.9736	5.82%
P 214.914†	607.6	1125.8	µg/L	67.84	1125.8	ppb	67.84	6.03%
Pb 220.353†	523.2	129.11	µg/L	6.252	129.11	ppb	6.252	4.84%
S 181.975 Axial†	128.9	534.39	µg/L	19.195	534.39	ppb	19.195	3.59%
Sb 206.836†	10.5	6.1876	µg/L	3.08088	6.1876	ppb	3.08088	49.79%
Se 196.026†	-64.1	244.41	µg/L	10.174	244.41	ppb	10.174	4.16%
SiO2†	328261.1	64794	µg/L	997.9	64794	ppb	997.9	1.54%
Si 251.611†	395231.0	30046	µg/L	465.5	30046	ppb	465.5	1.55%
Sn 189.927†	-35.7	-26.750	µg/L	0.4797	-26.750	ppb	0.4797	1.79%
Sr 421.552†	32950.1	303.97	µg/L	2.281	303.97	ppb	2.281	0.75%
Ti 334.940†	2199964.6	4865.5	µg/L	114.79	4865.5	ppb	114.79	2.36%
Tl 190.801†	-49.0	18.790	µg/L	9.8505	18.790	ppb	9.8505	52.42%
U 409.014†	-1150.7	-115.56	µg/L	2.261	-115.56	ppb	2.261	1.96%
V 292.402†	25042.9	259.71	µg/L	7.844	259.71	ppb	7.844	3.02%
Zn 213.857†	11427.5	260.15	µg/L	7.090	260.15	ppb	7.090	2.73%

Sequence No.: 18
Sample ID: 245960002|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 216
Date Collected: 2/19/2010 22:21:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960002|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58162.3	58162.3	103	%			22:21:54
1	Al 396.153Radial†	110465.8	107293.0	74639	µg/L	74639	ppb	22:21:54
1	Ca 317.933Radial†	20219.2	19428.6	16596	µg/L	16596	ppb	22:22:14
1	Fe 238.204 Radial†	14335.3	13908.0	109690	µg/L	109690	ppb	22:22:14
1	K 766.490 Radial†	21185.8	20413.8	13333	µg/L	13333	ppb	22:21:54
1	Mg 279.077 IEC†	1527.6	1471.0	13032	µg/L	13032	ppb	22:22:14
1	Na 589.592 Radial†	2888.4	2333.4	716.69	µg/L	716.69	ppb	22:22:14
1	Sr 421.552†	19697.1	19103.9	176.24	µg/L	176.24	ppb	22:21:54
1	Sc 361.383	2036604.6	2036604.6	103.74	%			22:23:19
1	Y 371.029	1439351.8	1439351.8	106.40	%			22:23:19
1	Ag 328.068†	-1586.1	-1127.2	-0.3213	µg/L	-0.3213	ppb	22:23:25
1	As 188.979†	8.3	8.4	20.580	µg/L	20.580	ppb	22:23:45
1	B 249.677†	1107.6	683.5	-29.246	µg/L	-29.246	ppb	22:23:25
1	Ba 233.527†	55075.7	53105.5	1275.2	µg/L	1275.2	ppb	22:23:25
1	Be 313.107†	13770.1	16129.0	8.0709	µg/L	8.0709	ppb	22:23:25
1	Cd 226.502†	351.6	480.6	-0.3532	µg/L	-0.3532	ppb	22:23:45
1	Co 228.616†	1417.0	1364.0	53.548	µg/L	53.548	ppb	22:23:45
1	Cr 267.716†	4205.9	4104.5	82.548	µg/L	82.548	ppb	22:23:25
1	Cu 324.752†	15147.2	12056.9	93.949	µg/L	93.949	ppb	22:23:25
1	Mn 257.610†	808710.6	779786.8	2456.0	µg/L	2456.0	ppb	22:23:19
1	Mo 202.031†	19.7	24.4	6.5554	µg/L	6.5554	ppb	22:23:45
1	Ni 231.604†	1497.7	1131.3	57.747	µg/L	57.747	ppb	22:23:45
1	P 214.914†	817.5	772.6	1453.7	µg/L	1453.7	ppb	22:23:45
1	Pb 220.353†	2274.6	2101.6	510.67	µg/L	510.67	ppb	22:23:45
1	S 181.975 Axial†	220.8	193.9	804.25	µg/L	804.25	ppb	22:23:45
1	Sb 206.836†	33.3	9.6	6.4942	µg/L	6.4942	ppb	22:23:45
1	Se 196.026†	-40.8	-58.6	201.23	µg/L	201.23	ppb	22:23:45
1	SiO2†	334903.3	321427.8	63446	µg/L	63446	ppb	22:23:19
1	Si 251.611†	401645.2	386842.4	29409	µg/L	29409	ppb	22:23:19
1	Sn 189.927†	-20.6	-20.3	-18.781	µg/L	-18.781	ppb	22:23:45
1	Ti 334.940†	1848630.5	1781753.2	3940.9	µg/L	3940.9	ppb	22:23:19
1	Tl 190.801†	-58.1	-33.6	20.504	µg/L	20.504	ppb	22:23:45
1	U 409.014†	14.3	90.9	-8.7104	µg/L	-8.7104	ppb	22:23:25
1	V 292.402†	17997.0	17392.4	182.62	µg/L	182.62	ppb	22:23:25
1	Zn 213.857†	14695.8	13631.1	313.47	µg/L	313.47	ppb	22:23:25
2	Sc RADIAL	58695.3	58695.3	104	%			22:22:20
2	Al 396.153Radial†	110885.6	106722.6	74242	µg/L	74242	ppb	22:22:20
2	Ca 317.933Radial†	20190.1	19222.1	16419	µg/L	16419	ppb	22:22:41
2	Fe 238.204 Radial†	14299.7	13747.2	108420	µg/L	108420	ppb	22:22:41
2	K 766.490 Radial†	21288.8	20326.0	13275	µg/L	13275	ppb	22:22:20
2	Mg 279.077 IEC†	1523.9	1454.0	12881	µg/L	12881	ppb	22:22:41
2	Na 589.592 Radial†	2881.2	2301.1	706.75	µg/L	706.75	ppb	22:22:41
2	Sr 421.552†	19792.1	19021.5	175.48	µg/L	175.48	ppb	22:22:20
2	Sc 361.383	2037663.0	2037663.0	103.80	%			22:23:52
2	Y 371.029	1439818.0	1439818.0	106.44	%			22:23:52
2	Ag 328.068†	-1568.2	-1109.2	-0.2738	µg/L	-0.2738	ppb	22:23:58
2	As 188.979†	5.5	5.8	15.769	µg/L	15.769	ppb	22:24:18
2	B 249.677†	1128.0	702.6	-27.810	µg/L	-27.810	ppb	22:23:58
2	Ba 233.527†	54649.1	52666.9	1264.7	µg/L	1264.7	ppb	22:23:58
2	Be 313.107†	13685.2	16040.2	8.0219	µg/L	8.0219	ppb	22:23:58
2	Cd 226.502†	344.4	473.5	-0.3868	µg/L	-0.3868	ppb	22:24:18
2	Co 228.616†	1387.2	1334.6	52.235	µg/L	52.235	ppb	22:24:18
2	Cr 267.716†	4148.4	4047.0	81.391	µg/L	81.391	ppb	22:23:58
2	Cu 324.752†	15015.9	11922.8	92.897	µg/L	92.897	ppb	22:23:58
2	Mn 257.610†	806761.3	777503.8	2448.7	µg/L	2448.7	ppb	22:23:52
2	Mo 202.031†	14.3	19.1	5.9881	µg/L	5.9881	ppb	22:24:18
2	Ni 231.604†	1480.6	1114.1	56.877	µg/L	56.877	ppb	22:24:18
2	P 214.914†	797.0	752.5	1414.9	µg/L	1414.9	ppb	22:24:18
2	Pb 220.353†	2266.6	2092.8	508.56	µg/L	508.56	ppb	22:24:18

2	S 181.975 Axial†	213.1	186.4	772.95	µg/L	772.95 ppb	22:24:18
2	Sb 206.836†	31.3	7.6	4.6817	µg/L	4.6817 ppb	22:24:18
2	Se 196.026†	-44.1	-61.8	193.42	µg/L	193.42 ppb	22:24:18
2	SiO2†	334470.9	320843.5	63330	µg/L	63330 ppb	22:23:52
2	Si 251.611†	400985.6	386005.8	29345	µg/L	29345 ppb	22:23:52
2	Sn 189.927†	-13.7	-13.5	-15.832	µg/L	-15.832 ppb	22:24:18
2	Ti 334.940†	1845091.8	1777418.3	3931.3	µg/L	3931.3 ppb	22:23:52
2	Tl 190.801†	-59.0	-34.5	19.110	µg/L	19.110 ppb	22:24:18
2	U 409.014†	40.8	116.3	-6.4058	µg/L	-6.4058 ppb	22:23:58
2	V 292.402†	17906.0	17295.7	181.52	µg/L	181.52 ppb	22:23:58
2	Zn 213.857†	14651.4	13581.0	312.37	µg/L	312.37 ppb	22:23:58
3	Sc RADIAL	58979.5	58979.5	104	%		22:22:46
3	Al 396.153Radial†	110617.1	105951.1	73705	µg/L	73705 ppb	22:22:46
3	Ca 317.933Radial†	20073.0	19016.4	16243	µg/L	16243 ppb	22:23:07
3	Fe 238.204 Radial†	14210.4	13595.3	107230	µg/L	107230 ppb	22:23:07
3	K 766.490 Radial†	21355.2	20290.9	13252	µg/L	13252 ppb	22:22:46
3	Mg 279.077 IEC†	1511.9	1435.4	12716	µg/L	12716 ppb	22:23:07
3	Na 589.592 Radial†	2869.7	2276.7	699.27	µg/L	699.27 ppb	22:23:07
3	Sr 421.552†	19749.8	18889.3	174.26	µg/L	174.26 ppb	22:22:46
3	Sc 361.383	2036951.3	2036951.3	103.76	%		22:24:26
3	Y 371.029	1437471.3	1437471.3	106.26	%		22:24:26
3	Ag 328.068†	-1543.7	-1086.1	-0.2376	µg/L	-0.2376 ppb	22:24:31
3	As 188.979†	8.0	8.1	19.952	µg/L	19.952 ppb	22:24:52
3	B 249.677†	1092.7	669.0	-28.561	µg/L	-28.561 ppb	22:24:31
3	Ba 233.527†	52316.0	50436.8	1211.1	µg/L	1211.1 ppb	22:24:31
3	Be 313.107†	12698.1	15093.5	7.5166	µg/L	7.5166 ppb	22:24:31
3	Cd 226.502†	294.9	425.9	-1.4439	µg/L	-1.4439 ppb	22:24:52
3	Co 228.616†	1269.9	1222.0	47.445	µg/L	47.445 ppb	22:24:52
3	Cr 267.716†	3914.8	3823.2	76.891	µg/L	76.891 ppb	22:24:31
3	Cu 324.752†	14485.7	11416.9	89.428	µg/L	89.428 ppb	22:24:31
3	Mn 257.610†	779742.3	751735.7	2367.8	µg/L	2367.8 ppb	22:24:26
3	Mo 202.031†	4.0	9.2	4.9744	µg/L	4.9744 ppb	22:24:52
3	Ni 231.604†	1373.4	1011.3	51.741	µg/L	51.741 ppb	22:24:52
3	P 214.914†	739.1	697.0	1306.2	µg/L	1306.2 ppb	22:24:52
3	Pb 220.353†	2093.7	1926.9	468.26	µg/L	468.26 ppb	22:24:52
3	S 181.975 Axial†	205.3	178.9	741.81	µg/L	741.81 ppb	22:24:52
3	Sb 206.836†	27.6	4.1	1.4609	µg/L	1.4609 ppb	22:24:52
3	Se 196.026†	-39.7	-57.6	196.24	µg/L	196.24 ppb	22:24:52
3	SiO2†	326046.0	312836.5	61750	µg/L	61750 ppb	22:24:26
3	Si 251.611†	390995.5	376512.8	28623	µg/L	28623 ppb	22:24:26
3	Sn 189.927†	-19.6	-19.3	-18.131	µg/L	-18.131 ppb	22:24:52
3	Ti 334.940†	1774725.7	1710223.8	3782.6	µg/L	3782.6 ppb	22:24:26
3	Tl 190.801†	-64.2	-39.5	10.802	µg/L	10.802 ppb	22:24:52
3	U 409.014†	32.1	108.0	-6.9242	µg/L	-6.9242 ppb	22:24:31
3	V 292.402†	16939.3	16370.0	172.34	µg/L	172.34 ppb	22:24:31
3	Zn 213.857†	14025.7	12982.9	298.43	µg/L	298.43 ppb	22:24:31

Mean Data: 245960002|948744|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2037073.0	103.77	%	0.027				0.03%
Sc RADIAL	58612.4	104	%	0.7				0.71%
Y 371.029	1438880.4	106.37	%	0.092				0.09%
Ag 328.068†	-1107.5	-0.2776	µg/L	0.04197	-0.2776	ppb	0.04197	15.12%
Al 396.153Radial†	106655.6	74195	µg/L	468.5	74195	ppb	468.5	0.63%
As 188.979†	7.4	18.767	µg/L	2.6151	18.767	ppb	2.6151	13.93%
B 249.677†	685.0	-28.539	µg/L	0.7186	-28.539	ppb	0.7186	2.52%
Ba 233.527†	52069.8	1250.3	µg/L	34.37	1250.3	ppb	34.37	2.75%
Be 313.107†	15754.2	7.8698	µg/L	0.30682	7.8698	ppb	0.30682	3.90%
Ca 317.933Radial†	19222.4	16419	µg/L	176.0	16419	ppb	176.0	1.07%
Cd 226.502†	460.0	-0.7280	µg/L	0.62025	-0.7280	ppb	0.62025	85.20%
Co 228.616†	1306.8	51.076	µg/L	3.2124	51.076	ppb	3.2124	6.29%
Cr 267.716†	3991.6	80.277	µg/L	2.9881	80.277	ppb	2.9881	3.72%
Cu 324.752†	11798.9	92.091	µg/L	2.3654	92.091	ppb	2.3654	2.57%
Fe 238.204 Radial†	13750.2	108450	µg/L	1233.2	108450	ppb	1233.2	1.14%
K 766.490 Radial†	20343.5	13287	µg/L	41.3	13287	ppb	41.3	0.31%
Mg 279.077 IEC†	1453.4	12876	µg/L	158.0	12876	ppb	158.0	1.23%
Mn 257.610†	769675.4	2424.2	µg/L	48.92	2424.2	ppb	48.92	2.02%
Mo 202.031†	17.5	5.8393	µg/L	0.80097	5.8393	ppb	0.80097	13.72%
Na 589.592 Radial†	2303.7	707.57	µg/L	8.738	707.57	ppb	8.738	1.23%

Ni 231.604†	1085.6	55.455	µg/L	3.2459	55.455	ppb	3.2459	5.85%
P 214.914†	740.7	1391.6	µg/L	76.49	1391.6	ppb	76.49	5.50%
Pb 220.353†	2040.4	495.83	µg/L	23.902	495.83	ppb	23.902	4.82%
S 181.975 Axial†	186.4	773.00	µg/L	31.221	773.00	ppb	31.221	4.04%
Sb 206.836†	7.1	4.2123	µg/L	2.54924	4.2123	ppb	2.54924	60.52%
Se 196.026†	-59.3	196.97	µg/L	3.957	196.97	ppb	3.957	2.01%
SiO2†	318369.3	62842	µg/L	947.5	62842	ppb	947.5	1.51%
Si 251.611†	383120.3	29126	µg/L	436.2	29126	ppb	436.2	1.50%
Sn 189.927†	-17.7	-17.581	µg/L	1.5496	-17.581	ppb	1.5496	8.81%
Sr 421.552†	19004.9	175.32	µg/L	0.999	175.32	ppb	0.999	0.57%
Ti 334.940†	1756465.1	3884.9	µg/L	88.71	3884.9	ppb	88.71	2.28%
Tl 190.801†	-35.8	16.805	µg/L	5.2453	16.805	ppb	5.2453	31.21%
U 409.014†	105.1	-7.3468	µg/L	1.20900	-7.3468	ppb	1.20900	16.46%
V 292.402†	17019.4	178.83	µg/L	5.643	178.83	ppb	5.643	3.16%
Zn 213.857†	13398.3	308.09	µg/L	8.383	308.09	ppb	8.383	2.72%

Sequence No.: 19
Sample ID: 245960003|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 217
Date Collected: 2/19/2010 22:25:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960003|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58562.1	58562.1	104	%			22:25:34
1	Al 396.153Radial†	182506.6	176059.2	122480	µg/L	122480	ppb	22:25:34
1	Ca 317.933Radial†	27794.0	26602.0	22723	µg/L	22723	ppb	22:25:55
1	Fe 238.204 Radial†	18203.7	17544.8	138380	µg/L	138380	ppb	22:25:55
1	K 766.490 Radial†	28904.2	27719.3	18104	µg/L	18104	ppb	22:25:34
1	Mg 279.077 IEC†	2600.0	2495.4	22158	µg/L	22158	ppb	22:25:55
1	Na 589.592 Radial†	2387.7	1831.3	562.46	µg/L	562.46	ppb	22:25:55
1	Sr 421.552†	33082.6	31886.4	294.16	µg/L	294.16	ppb	22:25:34
1	Sc 361.383	2007832.0	2007832.0	102.28	%			22:27:00
1	Y 371.029	1431331.4	1431331.4	105.81	%			22:27:00
1	Ag 328.068†	-2067.4	-1619.7	-1.5254	µg/L	-1.5254	ppb	22:27:05
1	As 188.979†	21.5	21.5	45.406	µg/L	45.406	ppb	22:27:26
1	B 249.677†	1282.2	869.6	-36.587	µg/L	-36.587	ppb	22:27:05
1	Ba 233.527†	82299.2	80483.6	1932.7	µg/L	1932.7	ppb	22:27:05
1	Be 313.107†	21480.3	23857.7	12.254	µg/L	12.254	ppb	22:27:05
1	Cd 226.502†	415.7	548.1	-1.8828	µg/L	-1.8828	ppb	22:27:05
1	Co 228.616†	1618.1	1580.1	61.118	µg/L	61.118	ppb	22:27:26
1	Cr 267.716†	5564.2	5490.7	110.45	µg/L	110.45	ppb	22:27:05
1	Cu 324.752†	11334.3	8538.1	74.967	µg/L	74.967	ppb	22:27:05
1	Mn 257.610†	1291997.3	1263482.0	3974.1	µg/L	3974.1	ppb	22:27:00
1	Mo 202.031†	-22.9	-17.0	3.5899	µg/L	3.5899	ppb	22:27:26
1	Ni 231.604†	2018.3	1661.0	84.514	µg/L	84.514	ppb	22:27:26
1	P 214.914†	703.0	672.0	1247.3	µg/L	1247.3	ppb	22:27:26
1	Pb 220.353†	685.9	579.7	142.41	µg/L	142.41	ppb	22:27:26
1	S 181.975 Axial†	187.4	164.3	681.42	µg/L	681.42	ppb	22:27:26
1	Sb 206.836†	38.7	15.3	10.785	µg/L	10.785	ppb	22:27:26
1	Se 196.026†	-55.5	-73.6	248.73	µg/L	248.73	ppb	22:27:26
1	SiO2†	384337.4	374387.1	73899	µg/L	73899	ppb	22:27:00
1	Si 251.611†	460795.8	450223.8	34227	µg/L	34227	ppb	22:27:00
1	Sn 189.927†	-38.5	-38.0	-28.276	µg/L	-28.276	ppb	22:27:26
1	Ti 334.940†	2312944.4	2261262.6	5001.0	µg/L	5001.0	ppb	22:27:00
1	Tl 190.801†	-71.7	-47.7	24.953	µg/L	24.953	ppb	22:27:26
1	U 409.014†	-1455.0	-1345.6	-132.41	µg/L	-132.41	ppb	22:27:00
1	V 292.402†	27877.4	27301.3	282.47	µg/L	282.47	ppb	22:27:05
1	Zn 213.857†	13351.5	12519.7	285.44	µg/L	285.44	ppb	22:27:05
2	Sc RADIAL	58659.0	58659.0	104	%			22:26:00
2	Al 396.153Radial†	183338.6	176569.6	122830	µg/L	122830	ppb	22:26:00
2	Ca 317.933Radial†	28018.0	26773.4	22869	µg/L	22869	ppb	22:26:21
2	Fe 238.204 Radial†	18357.8	17664.2	139320	µg/L	139320	ppb	22:26:21
2	K 766.490 Radial†	28930.2	27698.2	18090	µg/L	18090	ppb	22:26:00
2	Mg 279.077 IEC†	2621.5	2512.0	22305	µg/L	22305	ppb	22:26:21
2	Na 589.592 Radial†	2379.7	1819.7	558.91	µg/L	558.91	ppb	22:26:21
2	Sr 421.552†	33261.5	32006.0	295.26	µg/L	295.26	ppb	22:26:00
2	Sc 361.383	2001542.4	2001542.4	101.96	%			22:27:34
2	Y 371.029	1426472.2	1426472.2	105.45	%			22:27:34
2	Ag 328.068†	-2007.4	-1567.3	-1.0732	µg/L	-1.0732	ppb	22:27:39
2	As 188.979†	13.0	13.2	30.642	µg/L	30.642	ppb	22:28:00
2	B 249.677†	1265.0	856.6	-37.606	µg/L	-37.606	ppb	22:27:39
2	Ba 233.527†	82173.6	80613.2	1935.8	µg/L	1935.8	ppb	22:27:39
2	Be 313.107†	21644.7	24084.9	12.387	µg/L	12.387	ppb	22:27:39
2	Cd 226.502†	363.1	497.8	-3.2449	µg/L	-3.2449	ppb	22:27:39
2	Co 228.616†	1588.0	1555.6	60.001	µg/L	60.001	ppb	22:28:00
2	Cr 267.716†	5605.1	5547.9	111.60	µg/L	111.60	ppb	22:27:39
2	Cu 324.752†	11329.9	8568.7	75.297	µg/L	75.297	ppb	22:27:39
2	Mn 257.610†	1284841.6	1260433.1	3964.7	µg/L	3964.7	ppb	22:27:34
2	Mo 202.031†	-22.4	-16.6	3.6687	µg/L	3.6687	ppb	22:28:00
2	Ni 231.604†	1993.5	1642.9	83.624	µg/L	83.624	ppb	22:28:00
2	P 214.914†	697.4	668.7	1240.0	µg/L	1240.0	ppb	22:28:00
2	Pb 220.353†	679.2	575.3	141.31	µg/L	141.31	ppb	22:28:00

2	S 181.975 Axial†	191.0	168.4	698.35 µg/L	698.35 ppb	22:28:00
2	Sb 206.836†	44.9	21.5	16.493 µg/L	16.493 ppb	22:28:00
2	Se 196.026†	-55.8	-74.0	250.55 µg/L	250.55 ppb	22:28:00
2	SiO2†	383401.0	374649.4	73951 µg/L	73951 ppb	22:27:34
2	Si 251.611†	460030.2	450888.6	34277 µg/L	34277 ppb	22:27:34
2	Sn 189.927†	-43.3	-42.8	-30.376 µg/L	-30.376 ppb	22:28:00
2	Ti 334.940†	2307041.0	2262578.8	5003.9 µg/L	5003.9 ppb	22:27:34
2	Tl 190.801†	-76.1	-52.3	19.150 µg/L	19.150 ppb	22:28:00
2	U 409.014†	-1349.3	-1246.3	-124.31 µg/L	-124.31 ppb	22:27:34
2	V 292.402†	27854.2	27364.3	283.21 µg/L	283.21 ppb	22:27:39
2	Zn 213.857†	13281.7	12492.4	284.75 µg/L	284.75 ppb	22:27:39
3	Sc RADIAL	58406.2	58406.2	103 %		22:26:26
3	Al 396.153Radial†	184230.3	178196.4	123960 µg/L	123960 ppb	22:26:26
3	Ca 317.933Radial†	27960.9	26835.0	22922 µg/L	22922 ppb	22:26:46
3	Fe 238.204 Radial†	18344.3	17727.7	139820 µg/L	139820 ppb	22:26:46
3	K 766.490 Radial†	29116.2	27998.8	18286 µg/L	18286 ppb	22:26:26
3	Mg 279.077 IEC†	2612.0	2513.7	22320 µg/L	22320 ppb	22:26:46
3	Na 589.592 Radial†	2409.6	1858.6	570.86 µg/L	570.86 ppb	22:26:46
3	Sr 421.552†	33432.4	32309.9	298.06 µg/L	298.06 ppb	22:26:26
3	Sc 361.383	2001200.4	2001200.4	101.94 %		22:28:08
3	Y 371.029	1423880.9	1423880.9	105.26 %		22:28:08
3	Ag 328.068†	-1936.8	-1498.3	-0.6323 µg/L	-0.6323 ppb	22:28:13
3	As 188.979†	14.1	14.3	32.526 µg/L	32.526 ppb	22:28:34
3	B 249.677†	1210.3	803.1	-40.057 µg/L	-40.057 ppb	22:28:13
3	Ba 233.527†	78378.5	76904.1	1846.7 µg/L	1846.7 ppb	22:28:13
3	Be 313.107†	20121.2	22594.0	11.592 µg/L	11.592 ppb	22:28:13
3	Cd 226.502†	330.7	466.1	-4.1010 µg/L	-4.1010 ppb	22:28:13
3	Co 228.616†	1448.4	1418.9	54.304 µg/L	54.304 ppb	22:28:34
3	Cr 267.716†	5233.4	5184.2	104.28 µg/L	104.28 ppb	22:28:13
3	Cu 324.752†	10879.6	8128.8	72.495 µg/L	72.495 ppb	22:28:13
3	Mn 257.610†	1232391.7	1209196.7	3804.3 µg/L	3804.3 ppb	22:28:08
3	Mo 202.031†	-20.5	-14.7	3.8690 µg/L	3.8690 ppb	22:28:34
3	Ni 231.604†	1831.8	1484.6	75.750 µg/L	75.750 ppb	22:28:34
3	P 214.914†	625.4	598.2	1100.6 µg/L	1100.6 ppb	22:28:34
3	Pb 220.353†	635.7	532.6	131.00 µg/L	131.00 ppb	22:28:34
3	S 181.975 Axial†	177.1	154.8	641.80 µg/L	641.80 ppb	22:28:34
3	Sb 206.836†	33.9	10.7	6.6510 µg/L	6.6510 ppb	22:28:34
3	Se 196.026†	-52.2	-70.6	256.73 µg/L	256.73 ppb	22:28:34
3	SiO2†	370595.1	362151.5	71484 µg/L	71484 ppb	22:28:08
3	Si 251.611†	444309.3	435543.9	33111 µg/L	33111 ppb	22:28:08
3	Sn 189.927†	-38.4	-38.1	-28.441 µg/L	-28.441 ppb	22:28:34
3	Ti 334.940†	2198301.5	2156295.3	4768.8 µg/L	4768.8 ppb	22:28:08
3	Tl 190.801†	-77.0	-53.2	15.424 µg/L	15.424 ppb	22:28:34
3	U 409.014†	-1314.2	-1212.1	-121.54 µg/L	-121.54 ppb	22:28:08
3	V 292.402†	26246.1	25791.4	267.92 µg/L	267.92 ppb	22:28:13
3	Zn 213.857†	12742.1	11965.2	272.39 µg/L	272.39 ppb	22:28:13

Mean Data: 245960003|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2003524.9	102.06	%	0.190				0.19%
Sc RADIAL	58542.4	104	%	0.2				0.22%
Y 371.029	1427228.2	105.51	%	0.280				0.27%
Ag 328.068†	-1561.8	-1.0770	µg/L	0.44660	-1.0770	ppb	0.44660	41.47%
Al 396.153Radial†	176941.8	123090	µg/L	776.4	123090	ppb	776.4	0.63%
As 188.979†	16.3	36.191	µg/L	8.0357	36.191	ppb	8.0357	22.20%
B 249.677†	843.1	-38.083	µg/L	1.7838	-38.083	ppb	1.7838	4.68%
Ba 233.527†	79333.6	1905.0	µg/L	50.55	1905.0	ppb	50.55	2.65%
Be 313.107†	23512.2	12.078	µg/L	0.4258	12.078	ppb	0.4258	3.53%
Ca 317.933Radial†	26736.8	22838	µg/L	103.1	22838	ppb	103.1	0.45%
Cd 226.502†	504.0	-3.0762	µg/L	1.11864	-3.0762	ppb	1.11864	36.36%
Co 228.616†	1518.2	58.474	µg/L	3.6549	58.474	ppb	3.6549	6.25%
Cr 267.716†	5407.6	108.78	µg/L	3.933	108.78	ppb	3.933	3.62%
Cu 324.752†	8411.9	74.253	µg/L	1.5311	74.253	ppb	1.5311	2.06%
Fe 238.204 Radial†	17645.5	139170	µg/L	732.3	139170	ppb	732.3	0.53%
K 766.490 Radial†	27805.5	18160	µg/L	109.6	18160	ppb	109.6	0.60%
Mg 279.077 IEC†	2507.0	22261	µg/L	89.4	22261	ppb	89.4	0.40%
Mn 257.610†	1244370.6	3914.4	µg/L	95.43	3914.4	ppb	95.43	2.44%
Mo 202.031†	-16.1	3.7092	µg/L	0.14392	3.7092	ppb	0.14392	3.88%
Na 589.592 Radial†	1836.5	564.08	µg/L	6.137	564.08	ppb	6.137	1.09%

Ni 231.604†	1596.2	81.296 µg/L	4.8238	81.296 ppb	4.8238	5.93%
P 214.914†	646.3	1196.0 µg/L	82.67	1196.0 ppb	82.67	6.91%
Pb 220.353†	562.5	138.24 µg/L	6.295	138.24 ppb	6.295	4.55%
S 181.975 Axial†	162.5	673.86 µg/L	29.026	673.86 ppb	29.026	4.31%
Sb 206.836†	15.9	11.310 µg/L	4.9420	11.310 ppb	4.9420	43.70%
Se 196.026†	-72.7	252.00 µg/L	4.197	252.00 ppb	4.197	1.67%
SiO2†	370396.0	73111 µg/L	1409.6	73111 ppb	1409.6	1.93%
Si 251.611†	445552.1	33872 µg/L	659.4	33872 ppb	659.4	1.95%
Sn 189.927†	-39.6	-29.031 µg/L	1.1675	-29.031 ppb	1.1675	4.02%
Sr 421.552†	32067.5	295.83 µg/L	2.014	295.83 ppb	2.014	0.68%
Ti 334.940†	2226712.3	4924.6 µg/L	134.92	4924.6 ppb	134.92	2.74%
Tl 190.801†	-51.0	19.842 µg/L	4.8019	19.842 ppb	4.8019	24.20%
U 409.014†	-1268.0	-126.09 µg/L	5.653	-126.09 ppb	5.653	4.48%
V 292.402†	26819.0	277.87 µg/L	8.618	277.87 ppb	8.618	3.10%
Zn 213.857†	12325.8	280.86 µg/L	7.340	280.86 ppb	7.340	2.61%

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 22:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58682.4	58682.4	104	%			22:29:23
1	Al 396.153Radial†	7235.9	6958.9	4830.4	µg/L	4830.4	ppb	22:29:23
1	Ca 317.933Radial†	6077.6	5639.8	4817.4	µg/L	4817.4	ppb	22:29:43
1	Fe 238.204 Radial†	662.2	621.0	4908.0	µg/L	4908.0	ppb	22:29:43
1	K 766.490 Radial†	7780.1	7325.2	4784.2	µg/L	4784.2	ppb	22:29:23
1	Mg 279.077 IEC†	583.1	548.5	4906.8	µg/L	4906.8	ppb	22:29:43
1	Na 589.592 Radial†	33228.8	31518.4	9680.7	µg/L	9680.7	ppb	22:29:23
1	Sr 421.552†	53197.3	51186.2	472.20	µg/L	472.20	ppb	22:29:23
1	Sc 361.383	2035190.2	2035190.2	103.67	%			22:30:47
1	Y 371.029	1401651.0	1401651.0	103.61	%			22:30:47
1	Ag 328.068†	68081.1	66071.8	493.02	µg/L	493.02	ppb	22:30:52
1	As 188.979†	298.1	288.0	515.28	µg/L	515.28	ppb	22:31:13
1	B 249.677†	12768.6	11932.3	484.58	µg/L	484.58	ppb	22:30:52
1	Ba 233.527†	21458.8	20716.0	498.23	µg/L	498.23	ppb	22:30:52
1	Be 313.107†	860925.6	833294.1	494.38	µg/L	494.38	ppb	22:30:47
1	Cd 226.502†	20758.8	20165.3	502.89	µg/L	502.89	ppb	22:30:52
1	Co 228.616†	11490.7	11081.9	501.31	µg/L	501.31	ppb	22:30:52
1	Cr 267.716†	25945.3	25076.9	503.99	µg/L	503.99	ppb	22:30:52
1	Cu 324.752†	81109.4	75693.4	494.77	µg/L	494.77	ppb	22:30:52
1	Mn 257.610†	166674.7	161028.4	504.72	µg/L	504.72	ppb	22:30:47
1	Mo 202.031†	5452.5	5264.8	515.74	µg/L	515.74	ppb	22:31:13
1	Ni 231.604†	10771.6	10077.8	501.84	µg/L	501.84	ppb	22:30:52
1	P 214.914†	1361.8	1298.2	2523.1	µg/L	2523.1	ppb	22:31:13
1	Pb 220.353†	2268.4	2097.1	509.99	µg/L	509.99	ppb	22:31:13
1	S 181.975 Axial†	268.9	240.4	997.00	µg/L	997.00	ppb	22:31:13
1	Sb 206.836†	597.4	553.7	510.63	µg/L	510.63	ppb	22:31:13
1	Se 196.026†	391.9	358.7	511.47	µg/L	511.47	ppb	22:31:13
1	SiO2†	29507.1	27070.6	5343.4	µg/L	5343.4	ppb	22:30:52
1	Si 251.611†	34360.3	32832.9	2496.0	µg/L	2496.0	ppb	22:30:52
1	Sn 189.927†	1270.7	1225.3	516.77	µg/L	516.77	ppb	22:31:13
1	Ti 334.940†	231793.7	223410.4	493.92	µg/L	493.92	ppb	22:30:47
1	Tl 190.801†	377.5	386.5	507.97	µg/L	507.97	ppb	22:31:13
1	U 409.014†	6219.6	6076.5	503.89	µg/L	503.89	ppb	22:30:52
1	V 292.402†	52782.3	50957.9	502.84	µg/L	502.84	ppb	22:30:52
1	Zn 213.857†	22807.5	21465.4	500.08	µg/L	500.08	ppb	22:30:52
2	Sc RADIAL	58445.8	58445.8	103	%			22:29:48
2	Al 396.153Radial†	7285.7	7035.2	4883.8	µg/L	4883.8	ppb	22:29:48
2	Ca 317.933Radial†	6104.1	5689.2	4859.6	µg/L	4859.6	ppb	22:30:09
2	Fe 238.204 Radial†	671.9	632.9	5002.2	µg/L	5002.2	ppb	22:30:09
2	K 766.490 Radial†	7782.7	7358.0	4805.7	µg/L	4805.7	ppb	22:29:48
2	Mg 279.077 IEC†	586.2	553.8	4953.4	µg/L	4953.4	ppb	22:30:09
2	Na 589.592 Radial†	33236.1	31654.9	9722.6	µg/L	9722.6	ppb	22:29:48
2	Sr 421.552†	53434.9	51623.1	476.23	µg/L	476.23	ppb	22:29:48
2	Sc 361.383	2040505.4	2040505.4	103.94	%			22:31:20
2	Y 371.029	1405592.5	1405592.5	103.91	%			22:31:20
2	Ag 328.068†	67790.7	65621.3	489.67	µg/L	489.67	ppb	22:31:25
2	As 188.979†	293.5	282.9	506.01	µg/L	506.01	ppb	22:31:46
2	B 249.677†	12709.5	11843.4	480.90	µg/L	480.90	ppb	22:31:25
2	Ba 233.527†	21391.2	20597.0	495.37	µg/L	495.37	ppb	22:31:25
2	Be 313.107†	866523.4	836516.5	496.29	µg/L	496.29	ppb	22:31:20
2	Cd 226.502†	20685.6	20042.8	499.82	µg/L	499.82	ppb	22:31:25
2	Co 228.616†	11439.3	11003.5	497.74	µg/L	497.74	ppb	22:31:25
2	Cr 267.716†	25899.7	24967.8	501.80	µg/L	501.80	ppb	22:31:25
2	Cu 324.752†	80721.9	75116.8	491.02	µg/L	491.02	ppb	22:31:25
2	Mn 257.610†	167447.7	161353.3	505.75	µg/L	505.75	ppb	22:31:20
2	Mo 202.031†	5299.9	5104.2	500.03	µg/L	500.03	ppb	22:31:46
2	Ni 231.604†	10731.8	10012.5	498.59	µg/L	498.59	ppb	22:31:25
2	P 214.914†	1332.5	1266.7	2460.8	µg/L	2460.8	ppb	22:31:46
2	Pb 220.353†	2217.0	2041.9	496.54	µg/L	496.54	ppb	22:31:46

2	S 181.975 Axial†	267.7	238.6	989.64 µg/L	989.64 ppb	22:31:46
2	Sb 206.836†	589.1	544.2	501.70 µg/L	501.70 ppb	22:31:46
2	Se 196.026†	397.6	363.2	517.93 µg/L	517.93 ppb	22:31:46
2	SiO2†	29480.5	26970.9	5323.7 µg/L	5323.7 ppb	22:31:25
2	Si 251.611†	34410.2	32794.6	2493.1 µg/L	2493.1 ppb	22:31:25
2	Sn 189.927†	1238.8	1191.5	502.49 µg/L	502.49 ppb	22:31:46
2	Ti 334.940†	233343.5	224319.0	495.93 µg/L	495.93 ppb	22:31:20
2	Tl 190.801†	367.3	375.8	494.02 µg/L	494.02 ppb	22:31:46
2	U 409.014†	6220.8	6061.9	502.66 µg/L	502.66 ppb	22:31:25
2	V 292.402†	52607.1	50656.7	499.78 µg/L	499.78 ppb	22:31:25
2	Zn 213.857†	22751.7	21354.5	497.50 µg/L	497.50 ppb	22:31:25
3	Sc RADIAL	58365.6	58365.6	103 %		22:30:14
3	Al 396.153Radial†	7315.7	7074.0	4912.7 µg/L	4912.7 ppb	22:30:14
3	Ca 317.933Radial†	6114.6	5707.4	4875.1 µg/L	4875.1 ppb	22:30:35
3	Fe 238.204 Radial†	676.6	638.4	5044.0 µg/L	5044.0 ppb	22:30:35
3	K 766.490 Radial†	7852.7	7436.1	4856.6 µg/L	4856.6 ppb	22:30:14
3	Mg 279.077 IEC†	588.1	556.4	4975.0 µg/L	4975.0 ppb	22:30:35
3	Na 589.592 Radial†	33380.9	31839.2	9779.2 µg/L	9779.2 ppb	22:30:14
3	Sr 421.552†	53545.1	51800.8	477.87 µg/L	477.87 ppb	22:30:14
3	Sc 361.383	2043729.2	2043729.2	104.11 %		22:31:53
3	Y 371.029	1408593.8	1408593.8	104.13 %		22:31:53
3	Ag 328.068†	63043.1	60958.1	454.71 µg/L	454.71 ppb	22:31:59
3	As 188.979†	236.2	227.4	406.78 µg/L	406.78 ppb	22:32:19
3	B 249.677†	11737.4	10890.3	441.92 µg/L	441.92 ppb	22:31:59
3	Ba 233.527†	19144.9	18406.8	442.67 µg/L	442.67 ppb	22:31:59
3	Be 313.107†	787482.0	759277.6	450.47 µg/L	450.47 ppb	22:31:53
3	Cd 226.502†	18429.0	17843.8	444.91 µg/L	444.91 ppb	22:31:59
3	Co 228.616†	10101.0	9700.6	438.75 µg/L	438.75 ppb	22:31:59
3	Cr 267.716†	22032.4	21213.7	426.35 µg/L	426.35 ppb	22:31:59
3	Cu 324.752†	71814.1	66437.9	434.37 µg/L	434.37 ppb	22:31:59
3	Mn 257.610†	153006.9	147227.9	461.52 µg/L	461.52 ppb	22:31:53
3	Mo 202.031†	4291.5	4127.6	404.39 µg/L	404.39 ppb	22:32:19
3	Ni 231.604†	9506.0	8818.7	439.15 µg/L	439.15 ppb	22:31:59
3	P 214.914†	1088.9	1030.6	1997.8 µg/L	1997.8 ppb	22:32:19
3	Pb 220.353†	1879.9	1714.8	416.92 µg/L	416.92 ppb	22:32:19
3	S 181.975 Axial†	233.9	205.7	853.14 µg/L	853.14 ppb	22:32:19
3	Sb 206.836†	487.4	445.7	410.48 µg/L	410.48 ppb	22:32:19
3	Se 196.026†	334.7	302.2	432.42 µg/L	432.42 ppb	22:32:19
3	SiO2†	26915.4	24462.2	4828.5 µg/L	4828.5 ppb	22:31:59
3	Si 251.611†	31276.8	29732.5	2260.3 µg/L	2260.3 ppb	22:31:59
3	Sn 189.927†	992.2	952.7	401.80 µg/L	401.80 ppb	22:32:19
3	Ti 334.940†	210120.3	201657.6	445.80 µg/L	445.80 ppb	22:31:53
3	Tl 190.801†	321.4	331.1	435.55 µg/L	435.55 ppb	22:32:19
3	U 409.014†	5208.6	5080.2	421.09 µg/L	421.09 ppb	22:31:59
3	V 292.402†	46007.3	44237.5	436.24 µg/L	436.24 ppb	22:31:59
3	Zn 213.857†	20128.9	18800.6	437.93 µg/L	437.93 ppb	22:31:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2039808.3	103.91	%	0.220				0.21%
Sc RADIAL	58497.9	104	%	0.3				0.28%
Y 371.029	1405279.1	103.88	%	0.257				0.25%
Ag 328.068†	64217.1	479.13	µg/L	21.214	479.13	ppb	21.214	4.43%
QC value within limits for Ag 328.068 Recovery = 95.83%								
Al 396.153Radial†	7022.7	4875.6	µg/L	41.78	4875.6	ppb	41.78	0.86%
QC value within limits for Al 396.153Radial Recovery = 97.51%								
As 188.979†	266.1	476.03	µg/L	60.144	476.03	ppb	60.144	12.63%
QC value within limits for As 188.979 Recovery = 95.21%								
B 249.677†	11555.3	469.13	µg/L	23.641	469.13	ppb	23.641	5.04%
QC value within limits for B 249.677 Recovery = 93.83%								
Ba 233.527†	19906.6	478.76	µg/L	31.281	478.76	ppb	31.281	6.53%
QC value within limits for Ba 233.527 Recovery = 95.75%								
Be 313.107†	809696.0	480.38	µg/L	25.921	480.38	ppb	25.921	5.40%
QC value within limits for Be 313.107 Recovery = 96.08%								
Ca 317.933Radial†	5678.8	4850.7	µg/L	29.85	4850.7	ppb	29.85	0.62%
QC value within limits for Ca 317.933Radial Recovery = 97.01%								
Cd 226.502†	19350.6	482.54	µg/L	32.625	482.54	ppb	32.625	6.76%
QC value within limits for Cd 226.502 Recovery = 96.51%								
Co 228.616†	10595.3	479.27	µg/L	35.131	479.27	ppb	35.131	7.33%

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   QC value within limits for Co 228.616  Recovery = 95.85%
Cr 267.716†            23752.8      477.38 µg/L        44.202      477.38 ppb         44.202   9.26%
   QC value within limits for Cr 267.716  Recovery = 95.48%
Cu 324.752†            72416.0      473.39 µg/L        33.839      473.39 ppb         33.839   7.15%
   QC value within limits for Cu 324.752  Recovery = 94.68%
Fe 238.204 Radial†       630.7      4984.7 µg/L         69.64      4984.7 ppb          69.64   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.69%
K 766.490 Radial†       7373.1      4815.5 µg/L         37.19      4815.5 ppb          37.19   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.31%
Mg 279.077 IEC†          552.9      4945.1 µg/L         34.85      4945.1 ppb          34.85   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.90%
Mn 257.610†           156536.5      490.66 µg/L        25.244      490.66 ppb         25.244   5.14%
   QC value within limits for Mn 257.610  Recovery = 98.13%
Mo 202.031†             4832.2      473.39 µg/L        60.270      473.39 ppb         60.270  12.73%
   QC value within limits for Mo 202.031  Recovery = 94.68%
Na 589.592 Radial†     31670.8      9727.5 µg/L         49.45      9727.5 ppb          49.45   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 97.27%
Ni 231.604†             9636.3      479.86 µg/L        35.292      479.86 ppb         35.292   7.35%
   QC value within limits for Ni 231.604  Recovery = 95.97%
P 214.914†              1198.5      2327.3 µg/L        286.98      2327.3 ppb         286.98  12.33%
   QC value within limits for P 214.914  Recovery = 93.09%
Pb 220.353†             1951.3      474.48 µg/L        50.304      474.48 ppb         50.304  10.60%
   QC value within limits for Pb 220.353  Recovery = 94.90%
S 181.975 Axial†         228.3      946.59 µg/L        81.017      946.59 ppb         81.017   8.56%
   QC value within limits for S 181.975 Axial  Recovery = 94.66%
Sb 206.836†              514.5      474.27 µg/L        55.421      474.27 ppb         55.421  11.69%
   QC value within limits for Sb 206.836  Recovery = 94.85%
Se 196.026†              341.4      487.28 µg/L        47.618      487.28 ppb         47.618   9.77%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†                  26167.9      5165.2 µg/L        291.74      5165.2 ppb         291.74   5.65%
   QC value within limits for SiO2  Recovery = 96.59%
Si 251.611†            31786.7      2416.5 µg/L        135.25      2416.5 ppb         135.25   5.60%
   QC value within limits for Si 251.611  Recovery = 96.66%
Sn 189.927†             1123.2      473.68 µg/L        62.666      473.68 ppb         62.666  13.23%
   QC value within limits for Sn 189.927  Recovery = 94.74%
Sr 421.552†            51536.7      475.43 µg/L         2.918      475.43 ppb          2.918   0.61%
   QC value within limits for Sr 421.552  Recovery = 95.09%
Ti 334.940†           216462.3      478.55 µg/L        28.383      478.55 ppb         28.383   5.93%
   QC value within limits for Ti 334.940  Recovery = 95.71%
Tl 190.801†              364.5      479.18 µg/L        38.424      479.18 ppb         38.424   8.02%
   QC value within limits for Tl 190.801  Recovery = 95.84%
U 409.014†              5739.5      475.88 µg/L        47.453      475.88 ppb         47.453   9.97%
   QC value within limits for U 409.014  Recovery = 95.18%
V 292.402†             48617.4      479.62 µg/L        37.602      479.62 ppb         37.602   7.84%
   QC value within limits for V 292.402  Recovery = 95.92%
Zn 213.857†            20540.2      478.50 µg/L        35.162      478.50 ppb         35.162   7.35%
   QC value within limits for Zn 213.857  Recovery = 95.70%
All analyte(s) passed QC.
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Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 22:32:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57585.6	57585.6	102	%			22:33:01
1	Al 396.153Radial†	5.3	-2.2	-1.5487	µg/L	-1.5487	ppb	22:33:01
1	Ca 317.933Radial†	199.5	-15.5	-13.282	µg/L	-13.282	ppb	22:33:21
1	Fe 238.204 Radial†	20.4	3.4	26.948	µg/L	26.948	ppb	22:33:21
1	K 766.490 Radial†	158.3	-9.7	-6.3145	µg/L	-6.3145	ppb	22:33:01
1	Mg 279.077 IEC†	8.9	-4.1	-36.991	µg/L	-36.991	ppb	22:33:21
1	Na 589.592 Radial†	494.2	12.6	3.8754	µg/L	3.8754	ppb	22:33:01
1	Sr 421.552†	59.2	29.3	0.2704	µg/L	0.2704	ppb	22:33:01
1	Sc 361.383	2051484.5	2051484.5	104.50	%			22:34:23
1	Y 371.029	1418561.0	1418561.0	104.86	%			22:34:23
1	Ag 328.068†	-445.9	-25.1	-0.1823	µg/L	-0.1823	ppb	22:34:29
1	As 188.979†	-1.0	-0.5	-0.8315	µg/L	-0.8315	ppb	22:34:50
1	B 249.677†	342.4	-56.5	-2.3170	µg/L	-2.3170	ppb	22:34:50
1	Ba 233.527†	-1.6	15.5	0.3732	µg/L	0.3732	ppb	22:34:50
1	Be 313.107†	-2684.5	286.8	0.1700	µg/L	0.1700	ppb	22:34:29
1	Cd 226.502†	-134.7	12.8	0.3141	µg/L	0.3141	ppb	22:34:50
1	Co 228.616†	5.1	3.0	0.1333	µg/L	0.1333	ppb	22:34:50
1	Cr 267.716†	-65.0	-11.8	-0.2372	µg/L	-0.2372	ppb	22:34:29
1	Cu 324.752†	2592.8	-62.6	-0.4051	µg/L	-0.4051	ppb	22:34:29
1	Mn 257.610†	-124.4	137.0	0.4341	µg/L	0.4341	ppb	22:34:50
1	Mo 202.031†	5.4	10.5	1.0332	µg/L	1.0332	ppb	22:34:50
1	Ni 231.604†	295.9	-29.2	-1.4535	µg/L	-1.4535	ppb	22:34:50
1	P 214.914†	14.2	-1.7	-3.4035	µg/L	-3.4035	ppb	22:34:50
1	Pb 220.353†	72.1	-21.9	-5.3315	µg/L	-5.3315	ppb	22:34:50
1	S 181.975 Axial†	15.1	-4.5	-18.600	µg/L	-18.600	ppb	22:34:50
1	Sb 206.836†	20.6	-2.8	-2.5618	µg/L	-2.5618	ppb	22:34:50
1	Se 196.026†	11.2	-8.6	-11.983	µg/L	-11.983	ppb	22:34:50
1	SiO2†	1533.6	76.0	14.992	µg/L	14.992	ppb	22:34:29
1	Si 251.611†	415.1	86.5	6.5795	µg/L	6.5795	ppb	22:34:50
1	Sn 189.927†	6.3	5.6	2.3743	µg/L	2.3743	ppb	22:34:50
1	Ti 334.940†	459.3	264.5	0.5877	µg/L	0.5877	ppb	22:34:29
1	Tl 190.801†	-16.4	6.7	8.6669	µg/L	8.6669	ppb	22:34:50
1	U 409.014†	-23.7	54.4	4.5141	µg/L	4.5141	ppb	22:34:29
1	V 292.402†	-14.3	31.1	0.3185	µg/L	0.3185	ppb	22:34:29
1	Zn 213.857†	548.1	-9.9	-0.2254	µg/L	-0.2254	ppb	22:34:50
2	Sc RADIAL	57789.7	57789.7	102	%			22:33:27
2	Al 396.153Radial†	21.4	13.5	9.3709	µg/L	9.3709	ppb	22:33:27
2	Ca 317.933Radial†	195.9	-19.7	-16.863	µg/L	-16.863	ppb	22:33:47
2	Fe 238.204 Radial†	20.7	3.6	28.742	µg/L	28.742	ppb	22:33:47
2	K 766.490 Radial†	226.2	56.1	36.646	µg/L	36.646	ppb	22:33:27
2	Mg 279.077 IEC†	16.1	2.9	26.324	µg/L	26.324	ppb	22:33:47
2	Na 589.592 Radial†	490.2	7.0	2.1478	µg/L	2.1478	ppb	22:33:27
2	Sr 421.552†	22.7	-6.6	-0.0609	µg/L	-0.0609	ppb	22:33:27
2	Sc 361.383	2059030.4	2059030.4	104.89	%			22:34:56
2	Y 371.029	1423097.5	1423097.5	105.20	%			22:34:56
2	Ag 328.068†	-410.0	10.7	0.0820	µg/L	0.0820	ppb	22:35:01
2	As 188.979†	0.0	0.5	0.8834	µg/L	0.8834	ppb	22:35:22
2	B 249.677†	341.5	-58.6	-2.4029	µg/L	-2.4029	ppb	22:35:22
2	Ba 233.527†	-2.3	14.9	0.3573	µg/L	0.3573	ppb	22:35:22
2	Be 313.107†	-2672.8	307.4	0.1821	µg/L	0.1821	ppb	22:35:01
2	Cd 226.502†	-134.9	13.0	0.3213	µg/L	0.3213	ppb	22:35:22
2	Co 228.616†	2.8	0.8	0.0344	µg/L	0.0344	ppb	22:35:22
2	Cr 267.716†	-81.2	-27.0	-0.5422	µg/L	-0.5422	ppb	22:35:01
2	Cu 324.752†	2590.0	-74.3	-0.4813	µg/L	-0.4813	ppb	22:35:01
2	Mn 257.610†	-125.4	136.4	0.4300	µg/L	0.4300	ppb	22:35:22
2	Mo 202.031†	10.9	15.7	1.5422	µg/L	1.5422	ppb	22:35:22
2	Ni 231.604†	311.0	-15.8	-0.7893	µg/L	-0.7893	ppb	22:35:22
2	P 214.914†	11.5	-4.4	-8.6739	µg/L	-8.6739	ppb	22:35:22
2	Pb 220.353†	84.7	-10.2	-2.4785	µg/L	-2.4785	ppb	22:35:22

2	S 181.975 Axial†	13.6	-5.9	-24.609	µg/L	-24.609 ppb	22:35:22
2	Sb 206.836†	20.6	-2.9	-2.6273	µg/L	-2.6273 ppb	22:35:22
2	Se 196.026†	13.7	-6.2	-8.6858	µg/L	-8.6858 ppb	22:35:22
2	SiO2†	1497.0	35.7	7.0424	µg/L	7.0424 ppb	22:35:01
2	Si 251.611†	415.0	85.0	6.4614	µg/L	6.4614 ppb	22:35:22
2	Sn 189.927†	-0.4	-0.8	-0.3270	µg/L	-0.3270 ppb	22:35:22
2	Ti 334.940†	561.8	360.6	0.7953	µg/L	0.7953 ppb	22:35:01
2	Tl 190.801†	-23.2	0.3	0.4055	µg/L	0.4055 ppb	22:35:22
2	U 409.014†	-36.1	42.7	3.5443	µg/L	3.5443 ppb	22:35:01
2	V 292.402†	-37.1	9.3	0.1087	µg/L	0.1087 ppb	22:35:01
2	Zn 213.857†	547.0	-12.9	-0.3007	µg/L	-0.3007 ppb	22:35:22
3	Sc RADIAL	58397.7	58397.7	103	%		22:33:53
3	Al 396.153Radial†	22.9	14.8	10.265	µg/L	10.265 ppb	22:33:53
3	Ca 317.933Radial†	200.0	-17.8	-15.186	µg/L	-15.186 ppb	22:34:13
3	Fe 238.204 Radial†	19.3	2.1	16.862	µg/L	16.862 ppb	22:34:13
3	K 766.490 Radial†	136.3	-33.1	-21.647	µg/L	-21.647 ppb	22:33:53
3	Mg 279.077 IEC†	14.6	1.3	11.823	µg/L	11.823 ppb	22:34:13
3	Na 589.592 Radial†	421.2	-64.8	-19.889	µg/L	-19.889 ppb	22:33:53
3	Sr 421.552†	64.0	33.2	0.3059	µg/L	0.3059 ppb	22:33:53
3	Sc 361.383	2079286.4	2079286.4	105.92	%		22:35:28
3	Y 371.029	1436370.2	1436370.2	106.18	%		22:35:28
3	Ag 328.068†	-401.1	23.0	0.1715	µg/L	0.1715 ppb	22:35:33
3	As 188.979†	-1.6	-1.1	-1.9606	µg/L	-1.9606 ppb	22:35:54
3	B 249.677†	336.5	-66.4	-2.7154	µg/L	-2.7154 ppb	22:35:54
3	Ba 233.527†	1.7	18.7	0.4487	µg/L	0.4487 ppb	22:35:54
3	Be 313.107†	-2775.1	235.6	0.1396	µg/L	0.1396 ppb	22:35:33
3	Cd 226.502†	-139.5	10.0	0.2455	µg/L	0.2455 ppb	22:35:54
3	Co 228.616†	10.9	8.4	0.3796	µg/L	0.3796 ppb	22:35:54
3	Cr 267.716†	-70.2	-15.9	-0.3195	µg/L	-0.3195 ppb	22:35:33
3	Cu 324.752†	2569.1	-118.2	-0.7690	µg/L	-0.7690 ppb	22:35:33
3	Mn 257.610†	-151.1	113.3	0.3567	µg/L	0.3567 ppb	22:35:54
3	Mo 202.031†	3.0	8.2	0.8026	µg/L	0.8026 ppb	22:35:54
3	Ni 231.604†	308.0	-21.5	-1.0742	µg/L	-1.0742 ppb	22:35:54
3	P 214.914†	13.2	-2.9	-5.5667	µg/L	-5.5667 ppb	22:35:54
3	Pb 220.353†	82.0	-13.5	-3.2847	µg/L	-3.2847 ppb	22:35:54
3	S 181.975 Axial†	14.9	-4.9	-20.286	µg/L	-20.286 ppb	22:35:54
3	Sb 206.836†	22.1	-1.6	-1.4644	µg/L	-1.4644 ppb	22:35:54
3	Se 196.026†	20.9	0.5	0.6738	µg/L	0.6738 ppb	22:35:54
3	SiO2†	1489.3	14.6	2.8738	µg/L	2.8738 ppb	22:35:33
3	Si 251.611†	397.3	64.5	4.9030	µg/L	4.9030 ppb	22:35:54
3	Sn 189.927†	6.3	5.5	2.3325	µg/L	2.3325 ppb	22:35:54
3	Ti 334.940†	437.9	238.4	0.5262	µg/L	0.5262 ppb	22:35:33
3	Tl 190.801†	-21.4	2.1	2.7949	µg/L	2.7949 ppb	22:35:54
3	U 409.014†	-23.5	54.9	4.5578	µg/L	4.5578 ppb	22:35:33
3	V 292.402†	-40.4	6.6	0.0767	µg/L	0.0767 ppb	22:35:33
3	Zn 213.857†	544.4	-20.4	-0.4742	µg/L	-0.4742 ppb	22:35:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2063267.1	105.10	%	0.732				0.70%
Sc RADIAL	57924.4	103	%	0.7				0.73%
Y 371.029	1426009.6	105.42	%	0.684				0.65%
Ag 328.068†	2.9	0.0237	µg/L	0.18398	0.0237	ppb	0.18398	775.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.7	6.0290	µg/L	6.57768	6.0290	ppb	6.57768	109.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.6362	µg/L	1.43200	-0.6362	ppb	1.43200	225.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-60.5	-2.4784	µg/L	0.20968	-2.4784	ppb	0.20968	8.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.4	0.3931	µg/L	0.04879	0.3931	ppb	0.04879	12.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	276.6	0.1639	µg/L	0.02189	0.1639	ppb	0.02189	13.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.7	-15.110	µg/L	1.7919	-15.110	ppb	1.7919	11.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.9	0.2936	µg/L	0.04185	0.2936	ppb	0.04185	14.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.0	0.1824	µg/L	0.17774	0.1824	ppb	0.17774	97.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -18.2     -0.3663 µg/L       0.15776     -0.3663 ppb        0.15776  43.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -85.1     -0.5518 µg/L       0.19193     -0.5518 ppb        0.19193  34.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.1      24.184 µg/L        6.4042      24.184 ppb         6.4042  26.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          4.4      2.8948 µg/L      30.21809      2.8948 ppb       30.21809 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.0      0.3851 µg/L      33.17092      0.3851 ppb       33.17092 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              128.9      0.4069 µg/L       0.04360      0.4069 ppb        0.04360  10.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.5      1.1260 µg/L       0.37846      1.1260 ppb        0.37846  33.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -15.0     -4.6218 µg/L      13.24967     -4.6218 ppb       13.24967 286.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -22.2     -1.1057 µg/L       0.33322     -1.1057 ppb        0.33322  30.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -3.0     -5.8814 µg/L       2.64922     -5.8814 ppb        2.64922  45.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -15.2     -3.6982 µg/L       1.47080     -3.6982 ppb        1.47080  39.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.1     -21.165 µg/L        3.0996     -21.165 ppb         3.0996  14.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.4     -2.2178 µg/L       0.65333     -2.2178 ppb        0.65333  29.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.8     -6.6652 µg/L       6.56608     -6.6652 ppb        6.56608  98.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     42.1      8.3028 µg/L       6.15672      8.3028 ppb        6.15672  74.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.7      5.9813 µg/L       0.93570      5.9813 ppb        0.93570  15.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.5      1.4599 µg/L       1.54769      1.4599 ppb        1.54769 106.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               18.6      0.1718 µg/L       0.20227      0.1718 ppb        0.20227 117.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              287.8      0.6364 µg/L       0.14099      0.6364 ppb        0.14099  22.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.0      3.9558 µg/L       4.25132      3.9558 ppb        4.25132 107.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                50.6      4.2054 µg/L       0.57295      4.2054 ppb        0.57295  13.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                15.7      0.1680 µg/L       0.13134      0.1680 ppb        0.13134  78.20%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.4     -0.3334 µg/L       0.12760     -0.3334 ppb        0.12760  38.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 22
Sample ID: 245960004|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 218
Date Collected: 2/19/2010 22:36:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960004|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59192.2	59192.2	105	%			22:36:43
1	Al 396.153Radial†	201371.4	192190.4	133700	µg/L	133700	ppb	22:36:43
1	Ca 317.933Radial†	40267.2	38221.6	32648	µg/L	32648	ppb	22:36:43
1	Fe 238.204 Radial†	17552.9	16736.7	132000	µg/L	132000	ppb	22:37:03
1	K 766.490 Radial†	26008.5	24658.7	16105	µg/L	16105	ppb	22:36:43
1	Mg 279.077 IEC†	2521.5	2393.8	21257	µg/L	21257	ppb	22:37:03
1	Na 589.592 Radial†	2993.7	2385.1	732.57	µg/L	732.57	ppb	22:37:03
1	Sr 421.552†	35468.4	33823.8	312.03	µg/L	312.03	ppb	22:36:43
1	Sc 361.383	2052607.0	2052607.0	104.56	%			22:38:08
1	Y 371.029	1477195.2	1477195.2	109.20	%			22:38:08
1	Ag 328.068†	-2015.1	-1525.7	-1.3698	µg/L	-1.3698	ppb	22:38:14
1	As 188.979†	11.5	11.5	26.522	µg/L	26.522	ppb	22:38:34
1	B 249.677†	1275.0	835.2	-34.680	µg/L	-34.680	ppb	22:38:14
1	Ba 233.527†	89008.7	85145.2	2044.5	µg/L	2044.5	ppb	22:38:14
1	Be 313.107†	24255.5	26053.8	13.597	µg/L	13.597	ppb	22:38:14
1	Cd 226.502†	379.1	504.3	-2.2649	µg/L	-2.2649	ppb	22:38:14
1	Co 228.616†	1420.8	1356.9	51.231	µg/L	51.231	ppb	22:38:34
1	Cr 267.716†	5038.8	4869.5	97.960	µg/L	97.960	ppb	22:38:14
1	Cu 324.752†	11076.5	8049.9	70.894	µg/L	70.894	ppb	22:38:14
1	Mn 257.610†	1109229.8	1061127.0	3339.6	µg/L	3339.6	ppb	22:38:08
1	Mo 202.031†	-21.9	-15.6	3.4909	µg/L	3.4909	ppb	22:38:34
1	Ni 231.604†	1886.4	1491.8	76.011	µg/L	76.011	ppb	22:38:34
1	P 214.914†	980.3	922.2	1751.3	µg/L	1751.3	ppb	22:38:34
1	Pb 220.353†	643.9	524.9	129.97	µg/L	129.97	ppb	22:38:34
1	S 181.975 Axial†	162.6	136.6	566.29	µg/L	566.29	ppb	22:38:34
1	Sb 206.836†	30.8	7.0	2.4205	µg/L	2.4205	ppb	22:38:34
1	Se 196.026†	-52.8	-69.8	234.69	µg/L	234.69	ppb	22:38:34
1	SiO2†	380272.1	362301.9	71514	µg/L	71514	ppb	22:38:08
1	Si 251.611†	456185.2	435986.3	33145	µg/L	33145	ppb	22:38:08
1	Sn 189.927†	-39.0	-37.7	-27.617	µg/L	-27.617	ppb	22:38:34
1	Ti 334.940†	2314624.6	2213539.3	4895.7	µg/L	4895.7	ppb	22:38:08
1	Tl 190.801†	-78.1	-52.3	14.522	µg/L	14.522	ppb	22:38:34
1	U 409.014†	-1630.6	-1482.5	-143.51	µg/L	-143.51	ppb	22:38:08
1	V 292.402†	26224.1	25125.5	260.48	µg/L	260.48	ppb	22:38:14
1	Zn 213.857†	12279.0	11209.3	255.09	µg/L	255.09	ppb	22:38:14
2	Sc RADIAL	60134.6	60134.6	106	%			22:37:09
2	Al 396.153Radial†	204514.9	192131.6	133660	µg/L	133660	ppb	22:37:09
2	Ca 317.933Radial†	40926.8	38238.9	32663	µg/L	32663	ppb	22:37:09
2	Fe 238.204 Radial†	17466.5	16393.0	129290	µg/L	129290	ppb	22:37:29
2	K 766.490 Radial†	26375.7	24614.6	16076	µg/L	16076	ppb	22:37:09
2	Mg 279.077 IEC†	2521.6	2356.2	20923	µg/L	20923	ppb	22:37:29
2	Na 589.592 Radial†	2988.6	2335.5	717.34	µg/L	717.34	ppb	22:37:29
2	Sr 421.552†	36066.9	33855.6	312.32	µg/L	312.32	ppb	22:37:09
2	Sc 361.383	2051851.3	2051851.3	104.52	%			22:38:42
2	Y 371.029	1476243.0	1476243.0	109.13	%			22:38:42
2	Ag 328.068†	-2011.2	-1522.6	-1.5244	µg/L	-1.5244	ppb	22:38:48
2	As 188.979†	26.5	25.8	52.012	µg/L	52.012	ppb	22:39:08
2	B 249.677†	1263.6	824.8	-33.690	µg/L	-33.690	ppb	22:38:48
2	Ba 233.527†	88739.8	84919.3	2039.1	µg/L	2039.1	ppb	22:38:48
2	Be 313.107†	24047.7	25863.5	13.497	µg/L	13.497	ppb	22:38:48
2	Cd 226.502†	341.6	468.5	-2.8512	µg/L	-2.8512	ppb	22:38:48
2	Co 228.616†	1390.7	1328.6	50.015	µg/L	50.015	ppb	22:39:08
2	Cr 267.716†	5021.8	4855.1	97.669	µg/L	97.669	ppb	22:38:48
2	Cu 324.752†	11118.3	8093.8	70.803	µg/L	70.803	ppb	22:38:48
2	Mn 257.610†	1099969.3	1052657.6	3312.8	µg/L	3312.8	ppb	22:38:42
2	Mo 202.031†	-23.5	-17.1	3.2339	µg/L	3.2339	ppb	22:39:08
2	Ni 231.604†	1888.5	1494.5	76.108	µg/L	76.108	ppb	22:39:08
2	P 214.914†	992.1	933.8	1776.5	µg/L	1776.5	ppb	22:39:08
2	Pb 220.353†	654.8	535.6	132.66	µg/L	132.66	ppb	22:39:08

2	S 181.975 Axial†	164.1	138.0	572.39	µg/L	572.39 ppb	22:39:08
2	Sb 206.836†	26.1	2.4	-1.7284	µg/L	-1.7284 ppb	22:39:08
2	Se 196.026†	-49.1	-66.3	232.51	µg/L	232.51 ppb	22:39:08
2	SiO2†	377744.1	360017.1	71063	µg/L	71063 ppb	22:38:42
2	Si 251.611†	453111.4	433206.1	32933	µg/L	32933 ppb	22:38:42
2	Sn 189.927†	-42.8	-41.3	-28.886	µg/L	-28.886 ppb	22:39:08
2	Ti 334.940†	2298531.8	2198957.6	4863.4	µg/L	4863.4 ppb	22:38:42
2	Tl 190.801†	-73.1	-47.6	19.815	µg/L	19.815 ppb	22:39:08
2	U 409.014†	-1576.6	-1431.3	-138.88	µg/L	-138.88 ppb	22:38:42
2	V 292.402†	26107.2	25023.0	259.16	µg/L	259.16 ppb	22:38:48
2	Zn 213.857†	12266.8	11201.9	255.06	µg/L	255.06 ppb	22:38:48
3	Sc RADIAL	59452.2	59452.2	105	%		22:37:34
3	Al 396.153Radial†	203154.0	193043.7	134290	µg/L	134290 ppb	22:37:34
3	Ca 317.933Radial†	40441.5	38219.0	32646	µg/L	32646 ppb	22:37:34
3	Fe 238.204 Radial†	17590.1	16698.8	131700	µg/L	131700 ppb	22:37:55
3	K 766.490 Radial†	26190.7	24723.2	16147	µg/L	16147 ppb	22:37:34
3	Mg 279.077 IEC†	2527.4	2388.9	21213	µg/L	21213 ppb	22:37:55
3	Na 589.592 Radial†	3006.1	2384.4	732.35	µg/L	732.35 ppb	22:37:55
3	Sr 421.552†	35762.9	33955.5	313.24	µg/L	313.24 ppb	22:37:34
3	Sc 361.383	2059273.5	2059273.5	104.90	%		22:39:16
3	Y 371.029	1478569.7	1478569.7	109.30	%		22:39:16
3	Ag 328.068†	-1927.3	-1435.7	-0.8355	µg/L	-0.8355 ppb	22:39:21
3	As 188.979†	9.2	9.2	22.452	µg/L	22.452 ppb	22:39:42
3	B 249.677†	1206.6	766.2	-37.353	µg/L	-37.353 ppb	22:39:21
3	Ba 233.527†	83945.3	80042.7	1922.0	µg/L	1922.0 ppb	22:39:21
3	Be 313.107†	22424.4	24233.0	12.609	µg/L	12.609 ppb	22:39:21
3	Cd 226.502†	353.2	478.4	-2.8832	µg/L	-2.8832 ppb	22:39:21
3	Co 228.616†	1260.1	1199.4	44.600	µg/L	44.600 ppb	22:39:42
3	Cr 267.716†	4615.2	4450.1	89.525	µg/L	89.525 ppb	22:39:21
3	Cu 324.752†	10522.0	7487.0	67.178	µg/L	67.178 ppb	22:39:21
3	Mn 257.610†	1062934.2	1013558.7	3190.6	µg/L	3190.6 ppb	22:39:16
3	Mo 202.031†	-12.8	-6.8	4.3367	µg/L	4.3367 ppb	22:39:42
3	Ni 231.604†	1732.6	1339.3	68.413	µg/L	68.413 ppb	22:39:42
3	P 214.914†	886.9	830.2	1570.0	µg/L	1570.0 ppb	22:39:42
3	Pb 220.353†	618.6	498.7	123.65	µg/L	123.65 ppb	22:39:42
3	S 181.975 Axial†	152.8	126.7	525.48	µg/L	525.48 ppb	22:39:42
3	Sb 206.836†	28.9	5.1	0.8148	µg/L	0.8148 ppb	22:39:42
3	Se 196.026†	-39.2	-56.6	252.36	µg/L	252.36 ppb	22:39:42
3	SiO2†	368610.0	350006.9	69087	µg/L	69087 ppb	22:39:16
3	Si 251.611†	442154.8	421198.6	32020	µg/L	32020 ppb	22:39:16
3	Sn 189.927†	-39.3	-37.8	-27.637	µg/L	-27.637 ppb	22:39:42
3	Ti 334.940†	2207679.9	2104421.6	4654.3	µg/L	4654.3 ppb	22:39:16
3	Tl 190.801†	-68.5	-43.0	23.959	µg/L	23.959 ppb	22:39:42
3	U 409.014†	-1437.1	-1292.9	-127.72	µg/L	-127.72 ppb	22:39:16
3	V 292.402†	24463.1	23365.6	243.29	µg/L	243.29 ppb	22:39:21
3	Zn 213.857†	11598.4	10522.4	239.03	µg/L	239.03 ppb	22:39:21

Mean Data: 245960004|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2054577.2	104.66	%	0.208				0.20%
Sc RADIAL	59593.0	105	%	0.9				0.82%
Y 371.029	1477336.0	109.21	%	0.086				0.08%
Ag 328.068†	-1494.6	-1.2432	µg/L	0.36144	-1.2432	ppb	0.36144	29.07%
Al 396.153Radial†	192455.2	133880	µg/L	355.1	133880	ppb	355.1	0.27%
As 188.979†	15.5	33.662	µg/L	16.0216	33.662	ppb	16.0216	47.60%
B 249.677†	808.7	-35.241	µg/L	1.8948	-35.241	ppb	1.8948	5.38%
Ba 233.527†	83369.1	2001.9	µg/L	69.23	2001.9	ppb	69.23	3.46%
Be 313.107†	25383.4	13.234	µg/L	0.5441	13.234	ppb	0.5441	4.11%
Ca 317.933Radial†	38226.5	32652	µg/L	9.2	32652	ppb	9.2	0.03%
Cd 226.502†	483.7	-2.6664	µg/L	0.34807	-2.6664	ppb	0.34807	13.05%
Co 228.616†	1295.0	48.615	µg/L	3.5301	48.615	ppb	3.5301	7.26%
Cr 267.716†	4724.9	95.051	µg/L	4.7883	95.051	ppb	4.7883	5.04%
Cu 324.752†	7876.9	69.625	µg/L	2.1197	69.625	ppb	2.1197	3.04%
Fe 238.204 Radial†	16609.5	131000	µg/L	1486.3	131000	ppb	1486.3	1.13%
K 766.490 Radial†	24665.5	16109	µg/L	35.7	16109	ppb	35.7	0.22%
Mg 279.077 IEC†	2379.6	21131	µg/L	181.2	21131	ppb	181.2	0.86%
Mn 257.610†	1042447.7	3281.0	µg/L	79.41	3281.0	ppb	79.41	2.42%
Mo 202.031†	-13.2	3.6872	µg/L	0.57697	3.6872	ppb	0.57697	15.65%
Na 589.592 Radial†	2368.4	727.42	µg/L	8.728	727.42	ppb	8.728	1.20%

Ni 231.604†	1441.9	73.511 µg/L	4.4149	73.511 ppb	4.4149	6.01%
P 214.914†	895.4	1699.3 µg/L	112.67	1699.3 ppb	112.67	6.63%
Pb 220.353†	519.7	128.76 µg/L	4.628	128.76 ppb	4.628	3.59%
S 181.975 Axial†	133.8	554.72 µg/L	25.507	554.72 ppb	25.507	4.60%
Sb 206.836†	4.8	0.5023 µg/L	2.09202	0.5023 ppb	2.09202	416.49%
Se 196.026†	-64.2	239.85 µg/L	10.888	239.85 ppb	10.888	4.54%
SiO2†	357442.0	70554 µg/L	1290.8	70554 ppb	1290.8	1.83%
Si 251.611†	430130.4	32699 µg/L	597.5	32699 ppb	597.5	1.83%
Sn 189.927†	-38.9	-28.046 µg/L	0.7267	-28.046 ppb	0.7267	2.59%
Sr 421.552†	33878.3	312.53 µg/L	0.634	312.53 ppb	0.634	0.20%
Ti 334.940†	2172306.2	4804.5 µg/L	131.06	4804.5 ppb	131.06	2.73%
Tl 190.801†	-47.6	19.432 µg/L	4.7302	19.432 ppb	4.7302	24.34%
U 409.014†	-1402.2	-136.70 µg/L	8.117	-136.70 ppb	8.117	5.94%
V 292.402†	24504.7	254.31 µg/L	9.563	254.31 ppb	9.563	3.76%
Zn 213.857†	10977.9	249.73 µg/L	9.264	249.73 ppb	9.264	3.71%

Sequence No.: 23
Sample ID: 245960005|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 219
Date Collected: 2/19/2010 22:39:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960005|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59834.8	59834.8	106	%			22:40:24
1	Al 396.153Radial†	182554.6	172359.7	119900	µg/L	119900	ppb	22:40:24
1	Ca 317.933Radial†	32098.4	30095.8	25707	µg/L	25707	ppb	22:40:45
1	Fe 238.204 Radial†	15708.4	14815.2	116850	µg/L	116850	ppb	22:40:45
1	K 766.490 Radial†	25893.7	24283.7	15860	µg/L	15860	ppb	22:40:24
1	Mg 279.077 IEC†	2321.7	2179.3	19356	µg/L	19356	ppb	22:40:45
1	Na 589.592 Radial†	3496.2	2828.9	868.88	µg/L	868.88	ppb	22:40:45
1	Sr 421.552†	31470.7	29685.6	273.85	µg/L	273.85	ppb	22:40:24
1	Sc 361.383	2051963.7	2051963.7	104.53	%			22:41:50
1	Y 371.029	1460898.7	1460898.7	107.99	%			22:41:50
1	Ag 328.068†	-1870.6	-1388.0	-1.4850	µg/L	-1.4850	ppb	22:41:55
1	As 188.979†	14.3	14.2	30.854	µg/L	30.854	ppb	22:42:16
1	B 249.677†	1130.2	697.1	-32.414	µg/L	-32.414	ppb	22:41:55
1	Ba 233.527†	80875.2	77390.6	1858.3	µg/L	1858.3	ppb	22:41:55
1	Be 313.107†	21850.5	23760.1	12.414	µg/L	12.414	ppb	22:41:55
1	Cd 226.502†	317.0	444.9	-2.0345	µg/L	-2.0345	ppb	22:42:16
1	Co 228.616†	1229.1	1173.9	43.920	µg/L	43.920	ppb	22:42:16
1	Cr 267.716†	4608.3	4459.1	89.700	µg/L	89.700	ppb	22:41:55
1	Cu 324.752†	9772.0	6805.2	60.662	µg/L	60.662	ppb	22:41:55
1	Mn 257.610†	934741.4	894525.9	2816.0	µg/L	2816.0	ppb	22:41:50
1	Mo 202.031†	-20.0	-13.7	3.0944	µg/L	3.0944	ppb	22:42:16
1	Ni 231.604†	1846.3	1454.1	73.940	µg/L	73.940	ppb	22:42:16
1	P 214.914†	623.5	581.2	1085.4	µg/L	1085.4	ppb	22:42:16
1	Pb 220.353†	659.2	539.7	133.38	µg/L	133.38	ppb	22:42:16
1	S 181.975 Axial†	233.1	204.0	846.13	µg/L	846.13	ppb	22:42:16
1	Sb 206.836†	38.6	14.5	10.003	µg/L	10.003	ppb	22:42:16
1	Se 196.026†	-47.9	-65.1	203.42	µg/L	203.42	ppb	22:42:16
1	SiO2†	353292.7	336604.6	66441	µg/L	66441	ppb	22:41:50
1	Si 251.611†	423659.0	405005.2	30789	µg/L	30789	ppb	22:41:50
1	Sn 189.927†	-42.0	-40.6	-27.420	µg/L	-27.420	ppb	22:42:16
1	Ti 334.940†	2092675.0	2001893.4	4427.5	µg/L	4427.5	ppb	22:41:50
1	Tl 190.801†	-71.3	-45.8	14.197	µg/L	14.197	ppb	22:42:16
1	U 409.014†	-1302.6	-1169.1	-114.95	µg/L	-114.95	ppb	22:41:50
1	V 292.402†	23284.4	22321.0	231.37	µg/L	231.37	ppb	22:41:55
1	Zn 213.857†	11365.0	10338.5	235.51	µg/L	235.51	ppb	22:41:55
2	Sc RADIAL	59969.1	59969.1	106	%			22:40:50
2	Al 396.153Radial†	182777.1	172183.1	119780	µg/L	119780	ppb	22:40:50
2	Ca 317.933Radial†	32163.9	30089.7	25702	µg/L	25702	ppb	22:41:11
2	Fe 238.204 Radial†	15751.8	14822.9	116910	µg/L	116910	ppb	22:41:11
2	K 766.490 Radial†	25867.9	24204.7	15808	µg/L	15808	ppb	22:40:50
2	Mg 279.077 IEC†	2327.5	2179.8	19360	µg/L	19360	ppb	22:41:11
2	Na 589.592 Radial†	3504.0	2828.8	868.85	µg/L	868.85	ppb	22:41:11
2	Sr 421.552†	31496.8	29643.7	273.47	µg/L	273.47	ppb	22:40:50
2	Sc 361.383	2056719.8	2056719.8	104.77	%			22:42:24
2	Y 371.029	1463822.7	1463822.7	108.21	%			22:42:24
2	Ag 328.068†	-1925.5	-1436.3	-1.8336	µg/L	-1.8336	ppb	22:42:29
2	As 188.979†	13.3	13.1	28.990	µg/L	28.990	ppb	22:42:50
2	B 249.677†	1113.5	678.7	-33.194	µg/L	-33.194	ppb	22:42:29
2	Ba 233.527†	81727.8	78025.5	1873.6	µg/L	1873.6	ppb	22:42:29
2	Be 313.107†	22105.3	23955.0	12.530	µg/L	12.530	ppb	22:42:29
2	Cd 226.502†	306.7	434.4	-2.3045	µg/L	-2.3045	ppb	22:42:50
2	Co 228.616†	1235.6	1177.4	44.080	µg/L	44.080	ppb	22:42:50
2	Cr 267.716†	4681.4	4518.7	90.897	µg/L	90.897	ppb	22:42:29
2	Cu 324.752†	9863.0	6870.4	61.097	µg/L	61.097	ppb	22:42:29
2	Mn 257.610†	936654.1	894283.6	2815.2	µg/L	2815.2	ppb	22:42:24
2	Mo 202.031†	-19.6	-13.3	3.1363	µg/L	3.1363	ppb	22:42:50
2	Ni 231.604†	1831.2	1435.5	73.016	µg/L	73.016	ppb	22:42:50
2	P 214.914†	627.8	583.9	1090.6	µg/L	1090.6	ppb	22:42:50
2	Pb 220.353†	647.7	527.3	130.35	µg/L	130.35	ppb	22:42:50

2	S 181.975 Axial†	226.6	197.3	818.24	µg/L	818.24 ppb	22:42:50
2	Sb 206.836†	33.3	9.3	5.2737	µg/L	5.2737 ppb	22:42:50
2	Se 196.026†	-51.3	-68.3	199.21	µg/L	199.21 ppb	22:42:50
2	SiO2†	354339.5	336822.2	66484	µg/L	66484 ppb	22:42:24
2	Si 251.611†	425033.5	405379.9	30818	µg/L	30818 ppb	22:42:24
2	Sn 189.927†	-40.3	-38.8	-26.671	µg/L	-26.671 ppb	22:42:50
2	Ti 334.940†	2097310.8	2001688.5	4427.0	µg/L	4427.0 ppb	22:42:24
2	Tl 190.801†	-71.4	-45.8	14.146	µg/L	14.146 ppb	22:42:50
2	U 409.014†	-1389.4	-1249.1	-121.60	µg/L	-121.60 ppb	22:42:24
2	V 292.402†	23431.0	22409.4	232.24	µg/L	232.24 ppb	22:42:29
2	Zn 213.857†	11476.9	10420.2	237.43	µg/L	237.43 ppb	22:42:29
3	Sc RADIAL	60061.0	60061.0	106	%		22:41:16
3	Al 396.153Radial†	182908.8	172043.3	119680	µg/L	119680 ppb	22:41:16
3	Ca 317.933Radial†	32162.9	30042.3	25662	µg/L	25662 ppb	22:41:37
3	Fe 238.204 Radial†	15741.2	14790.2	116650	µg/L	116650 ppb	22:41:37
3	K 766.490 Radial†	25847.5	24148.2	15772	µg/L	15772 ppb	22:41:16
3	Mg 279.077 IEC†	2331.9	2180.6	19368	µg/L	19368 ppb	22:41:37
3	Na 589.592 Radial†	3515.7	2834.8	870.69	µg/L	870.69 ppb	22:41:37
3	Sr 421.552†	31486.3	29588.3	272.96	µg/L	272.96 ppb	22:41:16
3	Sc 361.383	2054274.1	2054274.1	104.64	%		22:42:58
3	Y 371.029	1459758.7	1459758.7	107.91	%		22:42:58
3	Ag 328.068†	-1785.2	-1304.4	-0.9494	µg/L	-0.9494 ppb	22:43:03
3	As 188.979†	14.1	13.9	30.395	µg/L	30.395 ppb	22:43:24
3	B 249.677†	1124.9	690.9	-32.573	µg/L	-32.573 ppb	22:43:03
3	Ba 233.527†	78082.9	74635.2	1792.2	µg/L	1792.2 ppb	22:43:03
3	Be 313.107†	20575.9	22518.6	11.747	µg/L	11.747 ppb	22:43:03
3	Cd 226.502†	264.4	394.4	-3.2804	µg/L	-3.2804 ppb	22:43:24
3	Co 228.616†	1110.7	1059.5	39.118	µg/L	39.118 ppb	22:43:24
3	Cr 267.716†	4357.9	4214.9	84.788	µg/L	84.788 ppb	22:43:03
3	Cu 324.752†	9532.5	6565.8	59.073	µg/L	59.073 ppb	22:43:03
3	Mn 257.610†	902735.6	862934.6	2717.0	µg/L	2717.0 ppb	22:42:58
3	Mo 202.031†	-19.0	-12.8	3.1823	µg/L	3.1823 ppb	22:43:24
3	Ni 231.604†	1691.0	1303.6	66.442	µg/L	66.442 ppb	22:43:24
3	P 214.914†	564.7	524.3	973.12	µg/L	973.12 ppb	22:43:24
3	Pb 220.353†	618.8	500.4	123.83	µg/L	123.83 ppb	22:43:24
3	S 181.975 Axial†	207.7	179.6	744.67	µg/L	744.67 ppb	22:43:24
3	Sb 206.836†	37.6	13.4	9.0961	µg/L	9.0961 ppb	22:43:24
3	Se 196.026†	-42.7	-60.1	209.97	µg/L	209.97 ppb	22:43:24
3	SiO2†	343995.6	327339.9	64613	µg/L	64613 ppb	22:42:58
3	Si 251.611†	412846.5	394216.7	29969	µg/L	29969 ppb	22:42:58
3	Sn 189.927†	-35.9	-34.7	-24.900	µg/L	-24.900 ppb	22:43:24
3	Ti 334.940†	2009258.7	1919926.8	4246.2	µg/L	4246.2 ppb	22:42:58
3	Tl 190.801†	-70.1	-44.6	13.756	µg/L	13.756 ppb	22:43:24
3	U 409.014†	-1441.0	-1299.9	-125.78	µg/L	-125.78 ppb	22:42:58
3	V 292.402†	22155.9	21217.5	220.57	µg/L	220.57 ppb	22:43:03
3	Zn 213.857†	10997.5	9975.1	227.03	µg/L	227.03 ppb	22:43:03

Mean Data: 245960005|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2054319.2	104.65	%	0.121				0.12%
Sc RADIAL	59955.0	106	%	0.2				0.19%
Y 371.029	1461493.4	108.04	%	0.155				0.14%
Ag 328.068†	-1376.2	-1.4226	µg/L	0.44538	-1.4226	ppb	0.44538	31.31%
Al 396.153Radial†	172195.4	119790	µg/L	110.3	119790	ppb	110.3	0.09%
As 188.979†	13.7	30.080	µg/L	0.9714	30.080	ppb	0.9714	3.23%
B 249.677†	688.9	-32.727	µg/L	0.4122	-32.727	ppb	0.4122	1.26%
Ba 233.527†	76683.8	1841.3	µg/L	43.28	1841.3	ppb	43.28	2.35%
Be 313.107†	23411.3	12.230	µg/L	0.4230	12.230	ppb	0.4230	3.46%
Ca 317.933Radial†	30075.9	25690	µg/L	25.0	25690	ppb	25.0	0.10%
Cd 226.502†	424.6	-2.5398	µg/L	0.65540	-2.5398	ppb	0.65540	25.80%
Co 228.616†	1137.0	42.373	µg/L	2.8196	42.373	ppb	2.8196	6.65%
Cr 267.716†	4397.6	88.462	µg/L	3.2371	88.462	ppb	3.2371	3.66%
Cu 324.752†	6747.1	60.277	µg/L	1.0656	60.277	ppb	1.0656	1.77%
Fe 238.204 Radial†	14809.4	116800	µg/L	134.9	116800	ppb	134.9	0.12%
K 766.490 Radial†	24212.2	15813	µg/L	44.5	15813	ppb	44.5	0.28%
Mg 279.077 IEC†	2179.9	19361	µg/L	6.1	19361	ppb	6.1	0.03%
Mn 257.610†	883914.7	2782.8	µg/L	56.92	2782.8	ppb	56.92	2.05%
Mo 202.031†	-13.3	3.1377	µg/L	0.04396	3.1377	ppb	0.04396	1.40%
Na 589.592 Radial†	2830.8	869.47	µg/L	1.051	869.47	ppb	1.051	0.12%

Ni 231.604†	1397.7	71.133	µg/L	4.0881	71.133	ppb	4.0881	5.75%
P 214.914†	563.1	1049.7	µg/L	66.37	1049.7	ppb	66.37	6.32%
Pb 220.353†	522.5	129.18	µg/L	4.881	129.18	ppb	4.881	3.78%
S 181.975 Axial†	193.6	803.01	µg/L	52.417	803.01	ppb	52.417	6.53%
Sb 206.836†	12.4	8.1243	µg/L	2.50994	8.1243	ppb	2.50994	30.89%
Se 196.026†	-64.5	204.20	µg/L	5.420	204.20	ppb	5.420	2.65%
SiO2†	333588.9	65846	µg/L	1068.4	65846	ppb	1068.4	1.62%
Si 251.611†	401533.9	30525	µg/L	482.0	30525	ppb	482.0	1.58%
Sn 189.927†	-38.0	-26.330	µg/L	1.2940	-26.330	ppb	1.2940	4.91%
Sr 421.552†	29639.2	273.43	µg/L	0.450	273.43	ppb	0.450	0.16%
Ti 334.940†	1974502.9	4366.9	µg/L	104.56	4366.9	ppb	104.56	2.39%
Tl 190.801†	-45.4	14.033	µg/L	0.2411	14.033	ppb	0.2411	1.72%
U 409.014†	-1239.4	-120.78	µg/L	5.466	-120.78	ppb	5.466	4.53%
V 292.402†	21982.6	228.06	µg/L	6.499	228.06	ppb	6.499	2.85%
Zn 213.857†	10244.6	233.32	µg/L	5.534	233.32	ppb	5.534	2.37%

Sequence No.: 24
Sample ID: 245960006|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 220
Date Collected: 2/19/2010 22:43:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960006|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59035.0	59035.0	104	%			22:44:07
1	Al 396.153Radial†	114132.2	109215.4	75976	µg/L	75976	ppb	22:44:07
1	Ca 317.933Radial†	22718.4	21529.9	18390	µg/L	18390	ppb	22:44:27
1	Fe 238.204 Radial†	13770.9	13162.0	103810	µg/L	103810	ppb	22:44:27
1	K 766.490 Radial†	26924.2	25601.1	16720	µg/L	16720	ppb	22:44:07
1	Mg 279.077 IEC†	1771.2	1682.2	14926	µg/L	14926	ppb	22:44:27
1	Na 589.592 Radial†	1798.3	1248.7	383.54	µg/L	383.54	ppb	22:44:27
1	Sr 421.552†	23299.3	22268.3	205.43	µg/L	205.43	ppb	22:44:07
1	Sc 361.383	2048919.0	2048919.0	104.37	%			22:45:31
1	Y 371.029	1443241.1	1443241.1	106.69	%			22:45:31
1	Ag 328.068†	-1606.4	-1137.6	-0.5642	µg/L	-0.5642	ppb	22:45:37
1	As 188.979†	8.4	8.5	20.249	µg/L	20.249	ppb	22:45:58
1	B 249.677†	1273.4	835.9	-19.933	µg/L	-19.933	ppb	22:45:37
1	Ba 233.527†	67917.7	65090.7	1563.0	µg/L	1563.0	ppb	22:45:37
1	Be 313.107†	15757.3	17953.2	9.0800	µg/L	9.0800	ppb	22:45:37
1	Cd 226.502†	276.7	406.8	-1.5161	µg/L	-1.5161	ppb	22:45:58
1	Co 228.616†	1900.9	1819.4	73.767	µg/L	73.767	ppb	22:45:58
1	Cr 267.716†	5240.1	5071.1	101.98	µg/L	101.98	ppb	22:45:37
1	Cu 324.752†	11558.8	8531.0	70.115	µg/L	70.115	ppb	22:45:37
1	Mn 257.610†	1678113.0	1608097.5	5049.0	µg/L	5049.0	ppb	22:45:31
1	Mo 202.031†	-9.5	-3.8	3.5764	µg/L	3.5764	ppb	22:45:58
1	Ni 231.604†	1772.8	1386.3	70.356	µg/L	70.356	ppb	22:45:58
1	P 214.914†	963.2	907.5	1728.3	µg/L	1728.3	ppb	22:45:58
1	Pb 220.353†	697.5	577.4	140.48	µg/L	140.48	ppb	22:45:58
1	S 181.975 Axial†	297.7	266.3	1104.2	µg/L	1104.2	ppb	22:45:58
1	Sb 206.836†	35.7	11.7	8.0205	µg/L	8.0205	ppb	22:45:58
1	Se 196.026†	-42.9	-60.5	180.36	µg/L	180.36	ppb	22:45:58
1	SiO2†	335445.3	320006.9	63165	µg/L	63165	ppb	22:45:31
1	Si 251.611†	402371.7	385211.6	29285	µg/L	29285	ppb	22:45:31
1	Sn 189.927†	-37.7	-36.5	-24.767	µg/L	-24.767	ppb	22:45:58
1	Ti 334.940†	1950846.8	1868979.4	4133.7	µg/L	4133.7	ppb	22:45:31
1	Tl 190.801†	-71.2	-45.8	16.029	µg/L	16.029	ppb	22:45:58
1	U 409.014†	76.9	150.8	-3.0254	µg/L	-3.0254	ppb	22:45:37
1	V 292.402†	21421.5	20569.2	212.91	µg/L	212.91	ppb	22:45:37
1	Zn 213.857†	13262.0	12172.3	279.40	µg/L	279.40	ppb	22:45:37
2	Sc RADIAL	59809.3	59809.3	106	%			22:44:33
2	Al 396.153Radial†	115808.4	109384.9	76094	µg/L	76094	ppb	22:44:33
2	Ca 317.933Radial†	22773.4	21300.4	18194	µg/L	18194	ppb	22:44:53
2	Fe 238.204 Radial†	13789.3	13008.8	102600	µg/L	102600	ppb	22:44:53
2	K 766.490 Radial†	27315.1	25636.7	16744	µg/L	16744	ppb	22:44:33
2	Mg 279.077 IEC†	1767.3	1656.5	14698	µg/L	14698	ppb	22:44:53
2	Na 589.592 Radial†	1800.3	1228.4	377.29	µg/L	377.29	ppb	22:44:53
2	Sr 421.552†	23610.2	22273.3	205.47	µg/L	205.47	ppb	22:44:33
2	Sc 361.383	2041994.1	2041994.1	104.02	%			22:46:05
2	Y 371.029	1440109.8	1440109.8	106.46	%			22:46:05
2	Ag 328.068†	-1593.6	-1130.4	-0.5750	µg/L	-0.5750	ppb	22:46:10
2	As 188.979†	15.7	15.6	32.919	µg/L	32.919	ppb	22:46:31
2	B 249.677†	1265.1	832.1	-19.457	µg/L	-19.457	ppb	22:46:10
2	Ba 233.527†	68131.8	65517.2	1573.2	µg/L	1573.2	ppb	22:46:10
2	Be 313.107†	15840.0	18083.9	9.1429	µg/L	9.1429	ppb	22:46:10
2	Cd 226.502†	284.9	415.6	-1.1586	µg/L	-1.1586	ppb	22:46:31
2	Co 228.616†	1898.6	1823.3	73.865	µg/L	73.865	ppb	22:46:31
2	Cr 267.716†	5265.8	5112.8	102.82	µg/L	102.82	ppb	22:46:10
2	Cu 324.752†	11597.3	8605.6	70.434	µg/L	70.434	ppb	22:46:10
2	Mn 257.610†	1689266.9	1624273.1	5099.5	µg/L	5099.5	ppb	22:46:05
2	Mo 202.031†	-6.5	-0.9	3.8103	µg/L	3.8103	ppb	22:46:31
2	Ni 231.604†	1766.6	1386.0	70.328	µg/L	70.328	ppb	22:46:31
2	P 214.914†	964.7	912.1	1738.2	µg/L	1738.2	ppb	22:46:31
2	Pb 220.353†	703.9	585.8	142.57	µg/L	142.57	ppb	22:46:31

2	S 181.975 Axial†	302.0	271.4	1125.3 µg/L	1125.3 ppb		22:46:31
2	Sb 206.836†	27.2	3.7	0.6402 µg/L	0.6402 ppb		22:46:31
2	Se 196.026†	-29.0	-47.2	195.96 µg/L	195.96 ppb		22:46:31
2	SiO2†	337032.6	322622.8	63682 µg/L	63682 ppb		22:46:05
2	Si 251.611†	404128.6	388208.1	29512 µg/L	29512 ppb		22:46:05
2	Sn 189.927†	-39.1	-38.0	-25.311 µg/L	-25.311 ppb		22:46:31
2	Ti 334.940†	1962433.9	1886457.7	4172.4 µg/L	4172.4 ppb		22:46:05
2	Tl 190.801†	-64.8	-39.9	24.155 µg/L	24.155 ppb		22:46:31
2	U 409.014†	92.0	165.5	-1.6191 µg/L	-1.6191 ppb		22:46:10
2	V 292.402†	21551.7	20764.0	214.68 µg/L	214.68 ppb		22:46:10
2	Zn 213.857†	13328.0	12278.8	281.97 µg/L	281.97 ppb		22:46:10
3	Sc RADIAL	58892.7	58892.7	104 %			22:44:58
3	Al 396.153Radial†	114976.4	110289.2	76723 µg/L	76723 ppb		22:44:58
3	Ca 317.933Radial†	22664.9	21531.1	18391 µg/L	18391 ppb		22:45:19
3	Fe 238.204 Radial†	13751.3	13175.0	103910 µg/L	103910 ppb		22:45:19
3	K 766.490 Radial†	27098.9	25830.9	16871 µg/L	16871 ppb		22:44:58
3	Mg 279.077 IEC†	1776.9	1691.8	15011 µg/L	15011 ppb		22:45:19
3	Na 589.592 Radial†	1804.1	1258.4	386.52 µg/L	386.52 ppb		22:45:19
3	Sr 421.552†	23404.9	22423.5	206.86 µg/L	206.86 ppb		22:44:58
3	Sc 361.383	2036171.7	2036171.7	103.72 %			22:46:38
3	Y 371.029	1434644.4	1434644.4	106.05 %			22:46:38
3	Ag 328.068†	-1549.6	-1092.4	-0.2724 µg/L	-0.2724 ppb		22:46:44
3	As 188.979†	13.6	13.6	29.447 µg/L	29.447 ppb		22:47:04
3	B 249.677†	1266.5	836.9	-19.954 µg/L	-19.954 ppb		22:46:44
3	Ba 233.527†	65471.1	63139.2	1516.1 µg/L	1516.1 ppb		22:46:44
3	Be 313.107†	14907.8	17228.7	8.6934 µg/L	8.6934 ppb		22:46:44
3	Cd 226.502†	247.4	380.2	-2.1955 µg/L	-2.1955 ppb		22:47:04
3	Co 228.616†	1738.4	1674.1	67.424 µg/L	67.424 ppb		22:47:04
3	Cr 267.716†	4963.7	4836.0	97.255 µg/L	97.255 ppb		22:46:44
3	Cu 324.752†	11174.8	8230.2	68.166 µg/L	68.166 ppb		22:46:44
3	Mn 257.610†	1631947.6	1573654.0	4941.1 µg/L	4941.1 ppb		22:46:38
3	Mo 202.031†	-7.1	-1.5	3.8008 µg/L	3.8008 ppb		22:47:04
3	Ni 231.604†	1643.2	1271.9	64.667 µg/L	64.667 ppb		22:47:04
3	P 214.914†	888.3	841.1	1597.0 µg/L	1597.0 ppb		22:47:04
3	Pb 220.353†	660.3	545.7	132.81 µg/L	132.81 ppb		22:47:04
3	S 181.975 Axial†	289.6	260.3	1079.3 µg/L	1079.3 ppb		22:47:04
3	Sb 206.836†	31.6	8.0	4.6531 µg/L	4.6531 ppb		22:47:04
3	Se 196.026†	-29.9	-48.2	197.80 µg/L	197.80 ppb		22:47:04
3	SiO2†	328212.9	315046.0	62186 µg/L	62186 ppb		22:46:38
3	Si 251.611†	393568.0	379137.3	28823 µg/L	28823 ppb		22:46:38
3	Sn 189.927†	-33.7	-32.8	-23.235 µg/L	-23.235 ppb		22:47:04
3	Ti 334.940†	1885341.7	1817526.1	4019.9 µg/L	4019.9 ppb		22:46:38
3	Tl 190.801†	-65.7	-41.0	20.999 µg/L	20.999 ppb		22:47:04
3	U 409.014†	152.3	223.9	3.0392 µg/L	3.0392 ppb		22:46:44
3	V 292.402†	20495.4	19804.8	205.47 µg/L	205.47 ppb		22:46:44
3	Zn 213.857†	12838.4	11843.4	271.70 µg/L	271.70 ppb		22:46:44

Mean Data: 245960006|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2042361.6	104.04	%	0.325				0.31%
Sc RADIAL	59245.7	105	%	0.9				0.83%
Y 371.029	1439331.8	106.40	%	0.322				0.30%
Ag 328.068†	-1120.1	-0.4706	µg/L	0.17165	-0.4706	ppb	0.17165	36.48%
Al 396.153Radial†	109629.8	76264	µg/L	401.6	76264	ppb	401.6	0.53%
As 188.979†	12.5	27.538	µg/L	6.5471	27.538	ppb	6.5471	23.77%
B 249.677†	835.0	-19.781	µg/L	0.2810	-19.781	ppb	0.2810	1.42%
Ba 233.527†	64582.4	1550.8	µg/L	30.45	1550.8	ppb	30.45	1.96%
Be 313.107†	17755.2	8.9721	µg/L	0.24340	8.9721	ppb	0.24340	2.71%
Ca 317.933Radial†	21453.8	18325	µg/L	113.5	18325	ppb	113.5	0.62%
Cd 226.502†	400.9	-1.6234	µg/L	0.52669	-1.6234	ppb	0.52669	32.44%
Co 228.616†	1772.3	71.685	µg/L	3.6906	71.685	ppb	3.6906	5.15%
Cr 267.716†	5006.6	100.68	µg/L	3.000	100.68	ppb	3.000	2.98%
Cu 324.752†	8455.6	69.572	µg/L	1.2279	69.572	ppb	1.2279	1.76%
Fe 238.204 Radial†	13115.2	103440	µg/L	729.0	103440	ppb	729.0	0.70%
K 766.490 Radial†	25689.6	16778	µg/L	80.8	16778	ppb	80.8	0.48%
Mg 279.077 IEC†	1676.8	14878	µg/L	162.0	14878	ppb	162.0	1.09%
Mn 257.610†	1602008.2	5029.9	µg/L	80.89	5029.9	ppb	80.89	1.61%
Mo 202.031†	-2.1	3.7292	µg/L	0.13238	3.7292	ppb	0.13238	3.55%
Na 589.592 Radial†	1245.2	382.45	µg/L	4.715	382.45	ppb	4.715	1.23%

Ni 231.604†	1348.1	68.450 µg/L	3.2768	68.450 ppb	3.2768	4.79%
P 214.914†	886.9	1687.8 µg/L	78.81	1687.8 ppb	78.81	4.67%
Pb 220.353†	569.6	138.62 µg/L	5.142	138.62 ppb	5.142	3.71%
S 181.975 Axial†	266.0	1103.0 µg/L	23.02	1103.0 ppb	23.02	2.09%
Sb 206.836†	7.8	4.4379 µg/L	3.69484	4.4379 ppb	3.69484	83.26%
Se 196.026†	-51.9	191.37 µg/L	9.582	191.37 ppb	9.582	5.01%
SiO2†	319225.2	63011 µg/L	759.6	63011 ppb	759.6	1.21%
Si 251.611†	384185.7	29207 µg/L	351.3	29207 ppb	351.3	1.20%
Sn 189.927†	-35.8	-24.438 µg/L	1.0766	-24.438 ppb	1.0766	4.41%
Sr 421.552†	22321.7	205.92 µg/L	0.813	205.92 ppb	0.813	0.39%
Ti 334.940†	1857654.4	4108.7 µg/L	79.28	4108.7 ppb	79.28	1.93%
Tl 190.801†	-42.2	20.394 µg/L	4.0966	20.394 ppb	4.0966	20.09%
U 409.014†	180.1	-0.5351 µg/L	3.17427	-0.5351 ppb	3.17427	593.19%
V 292.402†	20379.3	211.02 µg/L	4.884	211.02 ppb	4.884	2.31%
Zn 213.857†	12098.2	277.69 µg/L	5.343	277.69 ppb	5.343	1.92%

Sequence No.: 25
Sample ID: 245960007|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 221
Date Collected: 2/19/2010 22:47:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960007|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59411.7	59411.7	105	%			22:47:46
1	Al 396.153Radial†	208928.9	198667.0	138200	µg/L	138200	ppb	22:47:46
1	Ca 317.933Radial†	29723.0	28052.8	23962	µg/L	23962	ppb	22:48:06
1	Fe 238.204 Radial†	19280.7	18317.8	144470	µg/L	144470	ppb	22:48:06
1	K 766.490 Radial†	28096.2	26552.2	17342	µg/L	17342	ppb	22:47:46
1	Mg 279.077 IEC†	2974.5	2815.7	25015	µg/L	25015	ppb	22:48:06
1	Na 589.592 Radial†	3073.3	2450.2	752.57	µg/L	752.57	ppb	22:48:06
1	Sr 421.552†	35904.2	34113.2	314.70	µg/L	314.70	ppb	22:47:46
1	Sc 361.383	2037183.7	2037183.7	103.77	%			22:49:12
1	Y 371.029	1438041.6	1438041.6	106.30	%			22:49:12
1	Ag 328.068†	-2122.9	-1644.1	-1.3539	µg/L	-1.3539	ppb	22:49:17
1	As 188.979†	20.1	19.8	42.697	µg/L	42.697	ppb	22:49:38
1	B 249.677†	1340.4	907.6	-38.201	µg/L	-38.201	ppb	22:49:17
1	Ba 233.527†	77230.8	74440.0	1787.6	µg/L	1787.6	ppb	22:49:17
1	Be 313.107†	21746.3	23811.4	12.315	µg/L	12.315	ppb	22:49:17
1	Cd 226.502†	434.1	560.0	-2.2705	µg/L	-2.2705	ppb	22:49:17
1	Co 228.616†	1767.7	1701.5	67.100	µg/L	67.100	ppb	22:49:38
1	Cr 267.716†	6205.7	6030.5	121.29	µg/L	121.29	ppb	22:49:17
1	Cu 324.752†	10823.0	7885.8	71.556	µg/L	71.556	ppb	22:49:17
1	Mn 257.610†	1330451.2	1282337.3	4033.9	µg/L	4033.9	ppb	22:49:12
1	Mo 202.031†	-15.2	-9.3	4.5776	µg/L	4.5776	ppb	22:49:38
1	Ni 231.604†	2148.2	1757.8	89.411	µg/L	89.411	ppb	22:49:38
1	P 214.914†	648.7	609.7	1124.0	µg/L	1124.0	ppb	22:49:38
1	Pb 220.353†	704.7	588.1	145.10	µg/L	145.10	ppb	22:49:38
1	S 181.975 Axial†	166.5	141.6	587.01	µg/L	587.01	ppb	22:49:38
1	Sb 206.836†	28.7	5.1	1.2300	µg/L	1.2300	ppb	22:49:38
1	Se 196.026†	-59.1	-76.3	258.75	µg/L	258.75	ppb	22:49:38
1	SiO2†	378951.7	363782.9	71806	µg/L	71806	ppb	22:49:12
1	Si 251.611†	454347.3	437518.4	33261	µg/L	33261	ppb	22:49:12
1	Sn 189.927†	-32.7	-31.9	-26.017	µg/L	-26.017	ppb	22:49:38
1	Ti 334.940†	2238030.0	2156489.1	4769.0	µg/L	4769.0	ppb	22:49:12
1	Tl 190.801†	-79.2	-53.9	17.111	µg/L	17.111	ppb	22:49:38
1	U 409.014†	-1487.0	-1355.9	-134.20	µg/L	-134.20	ppb	22:49:12
1	V 292.402†	27767.7	26802.9	278.36	µg/L	278.36	ppb	22:49:17
1	Zn 213.857†	13937.2	12896.1	293.80	µg/L	293.80	ppb	22:49:17
2	Sc RADIAL	59297.3	59297.3	105	%			22:48:12
2	Al 396.153Radial†	208768.9	198897.7	138360	µg/L	138360	ppb	22:48:12
2	Ca 317.933Radial†	29783.7	28165.2	24058	µg/L	24058	ppb	22:48:32
2	Fe 238.204 Radial†	19278.1	18350.7	144730	µg/L	144730	ppb	22:48:32
2	K 766.490 Radial†	28024.2	26535.1	17331	µg/L	17331	ppb	22:48:12
2	Mg 279.077 IEC†	2989.7	2835.6	25193	µg/L	25193	ppb	22:48:32
2	Na 589.592 Radial†	3067.2	2450.0	752.51	µg/L	752.51	ppb	22:48:32
2	Sr 421.552†	35782.3	34062.9	314.24	µg/L	314.24	ppb	22:48:12
2	Sc 361.383	2030760.1	2030760.1	103.45	%			22:49:45
2	Y 371.029	1434013.7	1434013.7	106.01	%			22:49:45
2	Ag 328.068†	-2142.1	-1669.2	-1.5326	µg/L	-1.5326	ppb	22:49:51
2	As 188.979†	7.8	8.0	21.534	µg/L	21.534	ppb	22:50:11
2	B 249.677†	1365.0	935.4	-37.203	µg/L	-37.203	ppb	22:49:51
2	Ba 233.527†	76597.4	74063.2	1778.5	µg/L	1778.5	ppb	22:49:51
2	Be 313.107†	21571.9	23709.1	12.251	µg/L	12.251	ppb	22:49:51
2	Cd 226.502†	419.0	546.7	-2.6333	µg/L	-2.6333	ppb	22:49:51
2	Co 228.616†	1738.0	1678.2	66.028	µg/L	66.028	ppb	22:50:11
2	Cr 267.716†	6149.1	5994.6	120.57	µg/L	120.57	ppb	22:49:51
2	Cu 324.752†	10907.0	8000.0	72.337	µg/L	72.337	ppb	22:49:51
2	Mn 257.610†	1326957.9	1283015.7	4036.0	µg/L	4036.0	ppb	22:49:45
2	Mo 202.031†	-23.1	-17.0	3.8361	µg/L	3.8361	ppb	22:50:11
2	Ni 231.604†	2100.9	1718.6	87.461	µg/L	87.461	ppb	22:50:11
2	P 214.914†	650.9	613.9	1132.0	µg/L	1132.0	ppb	22:50:11
2	Pb 220.353†	692.6	578.6	142.78	µg/L	142.78	ppb	22:50:11

2	S 181.975 Axial†	159.7	135.5	561.80 µg/L	561.80	ppb	22:50:11
2	Sb 206.836†	41.1	17.3	12.379 µg/L	12.379	ppb	22:50:11
2	Se 196.026†	-58.6	-75.9	259.74 µg/L	259.74	ppb	22:50:11
2	SiO2†	378106.2	364120.7	71873 µg/L	71873	ppb	22:49:45
2	Si 251.611†	453639.5	438219.1	33314 µg/L	33314	ppb	22:49:45
2	Sn 189.927†	-42.4	-41.4	-30.011 µg/L	-30.011	ppb	22:50:11
2	Ti 334.940†	2234653.7	2160047.1	4776.9 µg/L	4776.9	ppb	22:49:45
2	Tl 190.801†	-75.9	-51.0	20.978 µg/L	20.978	ppb	22:50:11
2	U 409.014†	-1573.6	-1444.1	-141.57 µg/L	-141.57	ppb	22:49:45
2	V 292.402†	27528.3	26656.1	276.94 µg/L	276.94	ppb	22:49:51
2	Zn 213.857†	13855.0	12859.1	292.92 µg/L	292.92	ppb	22:49:51
3	Sc RADIAL	59478.4	59478.4	105 %			22:48:38
3	Al 396.153Radial†	208661.1	198189.6	137870 µg/L	137870	ppb	22:48:38
3	Ca 317.933Radial†	29778.7	28074.1	23980 µg/L	23980	ppb	22:48:58
3	Fe 238.204 Radial†	19307.6	18322.8	144510 µg/L	144510	ppb	22:48:58
3	K 766.490 Radial†	28109.6	26534.9	17330 µg/L	17330	ppb	22:48:38
3	Mg 279.077 IEC†	2998.5	2835.3	25190 µg/L	25190	ppb	22:48:58
3	Na 589.592 Radial†	3061.7	2436.0	748.20 µg/L	748.20	ppb	22:48:58
3	Sr 421.552†	35806.0	33981.6	313.49 µg/L	313.49	ppb	22:48:38
3	Sc 361.383	2042728.0	2042728.0	104.06 %			22:50:19
3	Y 371.029	1441337.5	1441337.5	106.55 %			22:50:19
3	Ag 328.068†	-2014.5	-1534.4	-0.6464 µg/L	-0.6464	ppb	22:50:25
3	As 188.979†	19.2	18.9	40.950 µg/L	40.950	ppb	22:50:45
3	B 249.677†	1275.3	841.5	-40.929 µg/L	-40.929	ppb	22:50:25
3	Ba 233.527†	73411.3	70567.4	1694.6 µg/L	1694.6	ppb	22:50:25
3	Be 313.107†	20476.8	22534.5	11.625 µg/L	11.625	ppb	22:50:25
3	Cd 226.502†	365.1	492.5	-3.9681 µg/L	-3.9681	ppb	22:50:25
3	Co 228.616†	1571.7	1508.6	58.733 µg/L	58.733	ppb	22:50:45
3	Cr 267.716†	5782.3	5607.4	112.78 µg/L	112.78	ppb	22:50:25
3	Cu 324.752†	10540.5	7586.0	69.604 µg/L	69.604	ppb	22:50:25
3	Mn 257.610†	1290101.9	1240080.7	3901.5 µg/L	3901.5	ppb	22:50:19
3	Mo 202.031†	-22.4	-16.1	3.9108 µg/L	3.9108	ppb	22:50:45
3	Ni 231.604†	1940.7	1552.7	79.200 µg/L	79.200	ppb	22:50:45
3	P 214.914†	594.9	556.4	1018.4 µg/L	1018.4	ppb	22:50:45
3	Pb 220.353†	659.4	542.8	134.05 µg/L	134.05	ppb	22:50:45
3	S 181.975 Axial†	153.2	128.3	531.95 µg/L	531.95	ppb	22:50:45
3	Sb 206.836†	32.2	8.4	4.3306 µg/L	4.3306	ppb	22:50:45
3	Se 196.026†	-46.1	-63.6	276.41 µg/L	276.41	ppb	22:50:45
3	SiO2†	371081.6	355228.4	70117 µg/L	70117	ppb	22:50:19
3	Si 251.611†	445021.8	427368.0	32489 µg/L	32489	ppb	22:50:19
3	Sn 189.927†	-42.2	-40.9	-29.800 µg/L	-29.800	ppb	22:50:45
3	Ti 334.940†	2160279.2	2075914.8	4590.8 µg/L	4590.8	ppb	22:50:19
3	Tl 190.801†	-72.7	-47.4	23.449 µg/L	23.449	ppb	22:50:45
3	U 409.014†	-1420.5	-1288.0	-128.57 µg/L	-128.57	ppb	22:50:19
3	V 292.402†	26097.7	25125.4	262.00 µg/L	262.00	ppb	22:50:25
3	Zn 213.857†	13326.0	12272.3	279.20 µg/L	279.20	ppb	22:50:25

Mean Data: 245960007|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2036890.6	103.76	%	0.305				0.29%
Sc RADIAL	59395.8	105	%	0.2				0.15%
Y 371.029	1437797.6	106.29	%	0.271				0.26%
Ag 328.068†	-1615.9	-1.1776	µg/L	0.46867	-1.1776	ppb	0.46867	39.80%
Al 396.153Radial†	198584.7	138150	µg/L	251.2	138150	ppb	251.2	0.18%
As 188.979†	15.6	35.060	µg/L	11.7468	35.060	ppb	11.7468	33.50%
B 249.677†	894.8	-38.778	µg/L	1.9288	-38.778	ppb	1.9288	4.97%
Ba 233.527†	73023.5	1753.5	µg/L	51.28	1753.5	ppb	51.28	2.92%
Be 313.107†	23351.6	12.063	µg/L	0.3813	12.063	ppb	0.3813	3.16%
Ca 317.933Radial†	28097.4	24000	µg/L	51.0	24000	ppb	51.0	0.21%
Cd 226.502†	533.1	-2.9573	µg/L	0.89396	-2.9573	ppb	0.89396	30.23%
Co 228.616†	1629.4	63.954	µg/L	4.5528	63.954	ppb	4.5528	7.12%
Cr 267.716†	5877.5	118.21	µg/L	4.718	118.21	ppb	4.718	3.99%
Cu 324.752†	7823.9	71.166	µg/L	1.4075	71.166	ppb	1.4075	1.98%
Fe 238.204 Radial†	18330.4	144570	µg/L	139.6	144570	ppb	139.6	0.10%
K 766.490 Radial†	26540.7	17334	µg/L	6.5	17334	ppb	6.5	0.04%
Mg 279.077 IEC†	2828.9	25133	µg/L	101.9	25133	ppb	101.9	0.41%
Mn 257.610†	1268477.9	3990.5	µg/L	77.03	3990.5	ppb	77.03	1.93%
Mo 202.031†	-14.1	4.1082	µg/L	0.40824	4.1082	ppb	0.40824	9.94%
Na 589.592 Radial†	2445.4	751.10	µg/L	2.506	751.10	ppb	2.506	0.33%

Ni 231.604†	1676.4	85.358	µg/L	5.4208	85.358	ppb	5.4208	6.35%
P 214.914†	593.3	1091.5	µg/L	63.39	1091.5	ppb	63.39	5.81%
Pb 220.353†	569.8	140.65	µg/L	5.824	140.65	ppb	5.824	4.14%
S 181.975 Axial†	135.1	560.25	µg/L	27.559	560.25	ppb	27.559	4.92%
Sb 206.836†	10.3	5.9799	µg/L	5.75455	5.9799	ppb	5.75455	96.23%
Se 196.026†	-71.9	264.97	µg/L	9.922	264.97	ppb	9.922	3.74%
SiO2†	361044.0	71265	µg/L	994.7	71265	ppb	994.7	1.40%
Si 251.611†	434368.5	33022	µg/L	461.7	33022	ppb	461.7	1.40%
Sn 189.927†	-38.1	-28.609	µg/L	2.2476	-28.609	ppb	2.2476	7.86%
Sr 421.552†	34052.5	314.14	µg/L	0.613	314.14	ppb	0.613	0.19%
Ti 334.940†	2130817.0	4712.2	µg/L	105.26	4712.2	ppb	105.26	2.23%
Tl 190.801†	-50.8	20.513	µg/L	3.1945	20.513	ppb	3.1945	15.57%
U 409.014†	-1362.7	-134.78	µg/L	6.520	-134.78	ppb	6.520	4.84%
V 292.402†	26194.8	272.43	µg/L	9.066	272.43	ppb	9.066	3.33%
Zn 213.857†	12675.8	288.64	µg/L	8.186	288.64	ppb	8.186	2.84%

Sequence No.: 26
Sample ID: 245960008|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 222
Date Collected: 2/19/2010 22:50:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960008|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59598.5	59598.5	105	%			22:51:27
1	Al 396.153Radial†	115112.0	109111.7	75904	µg/L	75904	ppb	22:51:27
1	Ca 317.933Radial†	21596.5	20260.9	17306	µg/L	17306	ppb	22:51:47
1	Fe 238.204 Radial†	12594.4	11922.1	94030	µg/L	94030	ppb	22:51:47
1	K 766.490 Radial†	22179.3	20859.6	13624	µg/L	13624	ppb	22:51:27
1	Mg 279.077 IEC†	1724.0	1621.4	14393	µg/L	14393	ppb	22:51:47
1	Na 589.592 Radial†	1786.3	1221.1	375.05	µg/L	375.05	ppb	22:51:47
1	Sr 421.552†	23340.7	22096.7	203.85	µg/L	203.85	ppb	22:51:27
1	Sc 361.383	2040003.9	2040003.9	103.92	%			22:52:52
1	Y 371.029	1440265.6	1440265.6	106.47	%			22:52:52
1	Ag 328.068†	-1539.3	-1079.7	-0.8406	µg/L	-0.8406	ppb	22:52:58
1	As 188.979†	14.3	14.3	30.098	µg/L	30.098	ppb	22:53:18
1	B 249.677†	1102.1	676.4	-21.374	µg/L	-21.374	ppb	22:52:58
1	Ba 233.527†	64023.7	61627.8	1479.8	µg/L	1479.8	ppb	22:52:58
1	Be 313.107†	14966.0	17257.7	8.7559	µg/L	8.7559	ppb	22:52:58
1	Cd 226.502†	251.1	383.3	-1.0103	µg/L	-1.0103	ppb	22:53:18
1	Co 228.616†	1158.0	1112.4	42.236	µg/L	42.236	ppb	22:53:18
1	Cr 267.716†	3879.2	3783.3	76.107	µg/L	76.107	ppb	22:52:58
1	Cu 324.752†	13237.4	10194.7	79.616	µg/L	79.616	ppb	22:52:58
1	Mn 257.610†	985463.0	948578.7	2982.4	µg/L	2982.4	ppb	22:52:52
1	Mo 202.031†	-13.9	-8.0	2.7881	µg/L	2.7881	ppb	22:53:18
1	Ni 231.604†	1468.5	1100.9	56.040	µg/L	56.040	ppb	22:53:18
1	P 214.914†	711.7	669.5	1263.9	µg/L	1263.9	ppb	22:53:18
1	Pb 220.353†	591.5	478.2	116.78	µg/L	116.78	ppb	22:53:18
1	S 181.975 Axial†	269.9	240.8	998.46	µg/L	998.46	ppb	22:53:18
1	Sb 206.836†	30.6	6.9	3.9958	µg/L	3.9958	ppb	22:53:18
1	Se 196.026†	-40.6	-58.3	157.37	µg/L	157.37	ppb	22:53:18
1	SiO2†	368492.2	353212.8	69720	µg/L	69720	ppb	22:52:52
1	Si 251.611†	441776.5	424816.1	32295	µg/L	32295	ppb	22:52:52
1	Sn 189.927†	-28.0	-27.3	-19.916	µg/L	-19.916	ppb	22:53:18
1	Ti 334.940†	1833100.8	1763839.5	3901.1	µg/L	3901.1	ppb	22:52:52
1	Tl 190.801†	-54.6	-30.2	24.612	µg/L	24.612	ppb	22:53:18
1	U 409.014†	-563.6	-465.3	-52.783	µg/L	-52.783	ppb	22:52:58
1	V 292.402†	19891.8	19186.8	198.18	µg/L	198.18	ppb	22:52:58
1	Zn 213.857†	11641.8	10668.6	244.66	µg/L	244.66	ppb	22:52:58
2	Sc RADIAL	60003.1	60003.1	106	%			22:51:53
2	Al 396.153Radial†	114831.2	108111.3	75208	µg/L	75208	ppb	22:51:53
2	Ca 317.933Radial†	21560.6	20089.0	17160	µg/L	17160	ppb	22:52:14
2	Fe 238.204 Radial†	12545.4	11795.5	93031	µg/L	93031	ppb	22:52:14
2	K 766.490 Radial†	22097.8	20641.1	13481	µg/L	13481	ppb	22:51:53
2	Mg 279.077 IEC†	1709.1	1596.4	14170	µg/L	14170	ppb	22:52:14
2	Na 589.592 Radial†	1798.5	1221.2	375.09	µg/L	375.09	ppb	22:52:14
2	Sr 421.552†	23275.1	21885.8	201.90	µg/L	201.90	ppb	22:51:53
2	Sc 361.383	2040972.5	2040972.5	103.97	%			22:53:26
2	Y 371.029	1441477.4	1441477.4	106.56	%			22:53:26
2	Ag 328.068†	-1528.1	-1068.2	-0.8400	µg/L	-0.8400	ppb	22:53:31
2	As 188.979†	13.6	13.6	28.814	µg/L	28.814	ppb	22:53:52
2	B 249.677†	1106.6	680.3	-20.696	µg/L	-20.696	ppb	22:53:31
2	Ba 233.527†	63061.7	60673.3	1456.9	µg/L	1456.9	ppb	22:53:31
2	Be 313.107†	14753.3	17046.3	8.6267	µg/L	8.6267	ppb	22:53:31
2	Cd 226.502†	244.1	376.5	-1.0681	µg/L	-1.0681	ppb	22:53:52
2	Co 228.616†	1131.2	1086.1	41.024	µg/L	41.024	ppb	22:53:52
2	Cr 267.716†	3847.6	3751.2	75.459	µg/L	75.459	ppb	22:53:31
2	Cu 324.752†	13114.6	10070.6	78.667	µg/L	78.667	ppb	22:53:31
2	Mn 257.610†	990273.3	952755.5	2995.4	µg/L	2995.4	ppb	22:53:26
2	Mo 202.031†	-1.2	4.2	3.9482	µg/L	3.9482	ppb	22:53:52
2	Ni 231.604†	1455.0	1087.2	55.346	µg/L	55.346	ppb	22:53:52
2	P 214.914†	710.9	668.5	1262.4	µg/L	1262.4	ppb	22:53:52
2	Pb 220.353†	578.2	465.2	113.61	µg/L	113.61	ppb	22:53:52

2	S 181.975 Axial†	267.6	238.4	988.78	µg/L	988.78 ppb	22:53:52
2	Sb 206.836†	28.7	5.2	2.3902	µg/L	2.3902 ppb	22:53:52
2	Se 196.026†	-34.3	-52.3	163.43	µg/L	163.43 ppb	22:53:52
2	SiO2†	369520.4	354033.6	69882	µg/L	69882 ppb	22:53:26
2	Si 251.611†	442776.5	425576.2	32353	µg/L	32353 ppb	22:53:26
2	Sn 189.927†	-30.1	-29.3	-20.676	µg/L	-20.676 ppb	22:53:52
2	Ti 334.940†	1838580.0	1768272.6	3911.0	µg/L	3911.0 ppb	22:53:26
2	Tl 190.801†	-60.2	-35.5	17.627	µg/L	17.627 ppb	22:53:52
2	U 409.014†	-545.3	-447.4	-51.148	µg/L	-51.148 ppb	22:53:31
2	V 292.402†	19554.7	18853.5	194.82	µg/L	194.82 ppb	22:53:31
2	Zn 213.857†	11486.2	10513.7	241.09	µg/L	241.09 ppb	22:53:31
3	Sc RADIAL	59571.3	59571.3	105	%		22:52:19
3	Al 396.153Radial†	114189.9	108286.9	75330	µg/L	75330 ppb	22:52:19
3	Ca 317.933Radial†	21552.6	20228.5	17279	µg/L	17279 ppb	22:52:40
3	Fe 238.204 Radial†	12534.6	11870.8	93625	µg/L	93625 ppb	22:52:40
3	K 766.490 Radial†	22026.6	20724.4	13535	µg/L	13535 ppb	22:52:19
3	Mg 279.077 IEC†	1717.6	1616.1	14346	µg/L	14346 ppb	22:52:40
3	Na 589.592 Radial†	1808.2	1242.6	381.67	µg/L	381.67 ppb	22:52:40
3	Sr 421.552†	23142.1	21918.5	202.20	µg/L	202.20 ppb	22:52:19
3	Sc 361.383	2032629.9	2032629.9	103.54	%		22:53:59
3	Y 371.029	1431786.4	1431786.4	105.84	%		22:53:59
3	Ag 328.068†	-1464.7	-1013.0	-0.4594	µg/L	-0.4594 ppb	22:54:05
3	As 188.979†	6.1	6.3	15.860	µg/L	15.860 ppb	22:54:25
3	B 249.677†	1068.1	647.4	-22.354	µg/L	-22.354 ppb	22:54:05
3	Ba 233.527†	59767.4	57740.6	1386.5	µg/L	1386.5 ppb	22:54:05
3	Be 313.107†	13625.9	16015.6	8.0925	µg/L	8.0925 ppb	22:54:05
3	Cd 226.502†	206.0	340.7	-2.0345	µg/L	-2.0345 ppb	22:54:25
3	Co 228.616†	1058.7	1020.6	38.482	µg/L	38.482 ppb	22:54:25
3	Cr 267.716†	3591.5	3519.0	70.790	µg/L	70.790 ppb	22:54:05
3	Cu 324.752†	12519.1	9547.3	75.333	µg/L	75.333 ppb	22:54:05
3	Mn 257.610†	937053.5	905265.0	2846.7	µg/L	2846.7 ppb	22:53:59
3	Mo 202.031†	-3.7	1.8	3.7347	µg/L	3.7347 ppb	22:54:25
3	Ni 231.604†	1336.5	978.5	49.938	µg/L	49.938 ppb	22:54:25
3	P 214.914†	652.3	614.7	1155.9	µg/L	1155.9 ppb	22:54:25
3	Pb 220.353†	534.2	425.0	103.83	µg/L	103.83 ppb	22:54:25
3	S 181.975 Axial†	250.4	222.9	924.43	µg/L	924.43 ppb	22:54:25
3	Sb 206.836†	30.7	7.1	4.2281	µg/L	4.2281 ppb	22:54:25
3	Se 196.026†	-25.5	-44.0	176.52	µg/L	176.52 ppb	22:54:25
3	SiO2†	353538.3	340056.8	67123	µg/L	67123 ppb	22:53:59
3	Si 251.611†	423959.9	409151.1	31104	µg/L	31104 ppb	22:53:59
3	Sn 189.927†	-27.2	-26.6	-19.587	µg/L	-19.587 ppb	22:54:25
3	Ti 334.940†	1735781.0	1676247.2	3707.4	µg/L	3707.4 ppb	22:53:59
3	Tl 190.801†	-59.9	-35.4	15.453	µg/L	15.453 ppb	22:54:25
3	U 409.014†	-523.3	-428.4	-49.658	µg/L	-49.658 ppb	22:54:05
3	V 292.402†	18412.1	17827.2	184.88	µg/L	184.88 ppb	22:54:05
3	Zn 213.857†	10903.2	9995.9	228.94	µg/L	228.94 ppb	22:54:05

Mean Data: 245960008|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2037868.7	103.81	%	0.232				0.22%
Sc RADIAL	59724.3	106	%	0.4				0.40%
Y 371.029	1437843.1	106.29	%	0.390				0.37%
Ag 328.068†	-1053.7	-0.7133	µg/L	0.21993	-0.7133	ppb	0.21993	30.83%
Al 396.153Radial†	108503.3	75481	µg/L	371.6	75481	ppb	371.6	0.49%
As 188.979†	11.4	24.924	µg/L	7.8763	24.924	ppb	7.8763	31.60%
B 249.677†	668.0	-21.474	µg/L	0.8335	-21.474	ppb	0.8335	3.88%
Ba 233.527†	60013.9	1441.1	µg/L	48.65	1441.1	ppb	48.65	3.38%
Be 313.107†	16773.2	8.4917	µg/L	0.35167	8.4917	ppb	0.35167	4.14%
Ca 317.933Radial†	20192.8	17248	µg/L	78.0	17248	ppb	78.0	0.45%
Cd 226.502†	366.8	-1.3709	µg/L	0.57537	-1.3709	ppb	0.57537	41.97%
Co 228.616†	1073.0	40.580	µg/L	1.9160	40.580	ppb	1.9160	4.72%
Cr 267.716†	3684.5	74.119	µg/L	2.9010	74.119	ppb	2.9010	3.91%
Cu 324.752†	9937.5	77.872	µg/L	2.2492	77.872	ppb	2.2492	2.89%
Fe 238.204 Radial†	11862.8	93562	µg/L	502.2	93562	ppb	502.2	0.54%
K 766.490 Radial†	20741.7	13547	µg/L	72.0	13547	ppb	72.0	0.53%
Mg 279.077 IEC†	1611.3	14303	µg/L	117.2	14303	ppb	117.2	0.82%
Mn 257.610†	935533.1	2941.5	µg/L	82.34	2941.5	ppb	82.34	2.80%
Mo 202.031†	-0.7	3.4903	µg/L	0.61743	3.4903	ppb	0.61743	17.69%
Na 589.592 Radial†	1228.3	377.27	µg/L	3.810	377.27	ppb	3.810	1.01%

Ni 231.604†	1055.5	53.775	µg/L	3.3405	53.775	ppb	3.3405	6.21%
P 214.914†	650.9	1227.4	µg/L	61.91	1227.4	ppb	61.91	5.04%
Pb 220.353†	456.1	111.41	µg/L	6.752	111.41	ppb	6.752	6.06%
S 181.975 Axial†	234.0	970.56	µg/L	40.240	970.56	ppb	40.240	4.15%
Sb 206.836†	6.4	3.5380	µg/L	1.00079	3.5380	ppb	1.00079	28.29%
Se 196.026†	-51.5	165.77	µg/L	9.788	165.77	ppb	9.788	5.90%
SiO2†	349101.0	68908	µg/L	1548.2	68908	ppb	1548.2	2.25%
Si 251.611†	419847.8	31918	µg/L	704.8	31918	ppb	704.8	2.21%
Sn 189.927†	-27.7	-20.060	µg/L	0.5580	-20.060	ppb	0.5580	2.78%
Sr 421.552†	21967.0	202.65	µg/L	1.047	202.65	ppb	1.047	0.52%
Ti 334.940†	1736119.8	3839.8	µg/L	114.81	3839.8	ppb	114.81	2.99%
Tl 190.801†	-33.7	19.231	µg/L	4.7855	19.231	ppb	4.7855	24.88%
U 409.014†	-447.0	-51.196	µg/L	1.5627	-51.196	ppb	1.5627	3.05%
V 292.402†	18622.5	192.62	µg/L	6.916	192.62	ppb	6.916	3.59%
Zn 213.857†	10392.8	238.23	µg/L	8.245	238.23	ppb	8.245	3.46%

Sequence No.: 27
Sample ID: 245960009|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 223
Date Collected: 2/19/2010 22:54:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960009|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58787.3	58787.3	104	%			22:55:07
1	Al 396.153Radial†	109131.8	104870.3	72953	µg/L	72953	ppb	22:55:07
1	Ca 317.933Radial†	18735.6	17794.0	15199	µg/L	15199	ppb	22:55:28
1	Fe 238.204 Radial†	11155.6	10704.1	84424	µg/L	84424	ppb	22:55:28
1	K 766.490 Radial†	21973.8	20952.2	13684	µg/L	13684	ppb	22:55:07
1	Mg 279.077 IEC†	1474.2	1403.9	12459	µg/L	12459	ppb	22:55:28
1	Na 589.592 Radial†	1894.3	1348.3	414.11	µg/L	414.11	ppb	22:55:28
1	Sr 421.552†	18638.7	17883.3	164.98	µg/L	164.98	ppb	22:55:07
1	Sc 361.383	2026776.1	2026776.1	103.24	%			22:56:32
1	Y 371.029	1424382.5	1424382.5	105.29	%			22:56:32
1	Ag 328.068†	-1411.3	-965.3	-0.8052	µg/L	-0.8052	ppb	22:56:38
1	As 188.979†	7.7	7.9	18.349	µg/L	18.349	ppb	22:56:58
1	B 249.677†	1055.5	638.2	-17.923	µg/L	-17.923	ppb	22:56:38
1	Ba 233.527†	52285.9	50660.8	1216.5	µg/L	1216.5	ppb	22:56:38
1	Be 313.107†	13064.9	15510.2	7.8205	µg/L	7.8205	ppb	22:56:38
1	Cd 226.502†	178.8	314.9	-1.6389	µg/L	-1.6389	ppb	22:56:58
1	Co 228.616†	1126.7	1089.3	41.747	µg/L	41.747	ppb	22:56:58
1	Cr 267.716†	3666.6	3601.8	72.442	µg/L	72.442	ppb	22:56:38
1	Cu 324.752†	9199.6	6366.9	53.295	µg/L	53.295	ppb	22:56:38
1	Mn 257.610†	877165.9	849872.2	2672.1	µg/L	2672.1	ppb	22:56:32
1	Mo 202.031†	-10.7	-5.0	2.7141	µg/L	2.7141	ppb	22:56:58
1	Ni 231.604†	1313.4	959.8	48.886	µg/L	48.886	ppb	22:56:58
1	P 214.914†	759.8	720.6	1374.6	µg/L	1374.6	ppb	22:56:58
1	Pb 220.353†	476.5	370.6	90.861	µg/L	90.861	ppb	22:56:58
1	S 181.975 Axial†	264.3	237.1	983.14	µg/L	983.14	ppb	22:56:58
1	Sb 206.836†	26.5	3.2	0.7737	µg/L	0.7737	ppb	22:56:58
1	Se 196.026†	-31.3	-49.6	145.72	µg/L	145.72	ppb	22:56:58
1	SiO2†	318217.8	306831.8	60565	µg/L	60565	ppb	22:56:32
1	Si 251.611†	381436.3	369145.6	28063	µg/L	28063	ppb	22:56:32
1	Sn 189.927†	-31.7	-31.1	-20.727	µg/L	-20.727	ppb	22:56:58
1	Ti 334.940†	1696586.3	1643125.4	3634.2	µg/L	3634.2	ppb	22:56:32
1	Tl 190.801†	-64.3	-39.9	7.0257	µg/L	7.0257	ppb	22:56:58
1	U 409.014†	-660.3	-562.5	-59.397	µg/L	-59.397	ppb	22:56:38
1	V 292.402†	16441.7	15970.0	165.68	µg/L	165.68	ppb	22:56:38
1	Zn 213.857†	8956.3	8140.6	185.99	µg/L	185.99	ppb	22:56:38
2	Sc RADIAL	59641.7	59641.7	106	%			22:55:33
2	Al 396.153Radial†	109497.2	103714.0	72149	µg/L	72149	ppb	22:55:33
2	Ca 317.933Radial†	18703.9	17506.0	14953	µg/L	14953	ppb	22:55:53
2	Fe 238.204 Radial†	11140.9	10536.6	83103	µg/L	83103	ppb	22:55:53
2	K 766.490 Radial†	22126.6	20794.4	13581	µg/L	13581	ppb	22:55:33
2	Mg 279.077 IEC†	1468.9	1378.6	12234	µg/L	12234	ppb	22:55:53
2	Na 589.592 Radial†	1871.9	1300.9	399.58	µg/L	399.58	ppb	22:55:53
2	Sr 421.552†	18810.1	17789.1	164.11	µg/L	164.11	ppb	22:55:33
2	Sc 361.383	2022068.6	2022068.6	103.00	%			22:57:05
2	Y 371.029	1420759.8	1420759.8	105.03	%			22:57:05
2	Ag 328.068†	-1359.3	-918.1	-0.5286	µg/L	-0.5286	ppb	22:57:11
2	As 188.979†	13.3	13.4	27.976	µg/L	27.976	ppb	22:57:31
2	B 249.677†	1057.1	642.1	-17.076	µg/L	-17.076	ppb	22:57:11
2	Ba 233.527†	52789.7	51267.8	1231.1	µg/L	1231.1	ppb	22:57:11
2	Be 313.107†	13116.4	15589.8	7.8826	µg/L	7.8826	ppb	22:57:11
2	Cd 226.502†	187.1	323.3	-1.2778	µg/L	-1.2778	ppb	22:57:31
2	Co 228.616†	1144.2	1108.9	42.714	µg/L	42.714	ppb	22:57:31
2	Cr 267.716†	3628.1	3572.7	71.858	µg/L	71.858	ppb	22:57:11
2	Cu 324.752†	9251.7	6438.3	53.577	µg/L	53.577	ppb	22:57:11
2	Mn 257.610†	864957.2	839997.4	2641.0	µg/L	2641.0	ppb	22:57:05
2	Mo 202.031†	-14.0	-8.2	2.3529	µg/L	2.3529	ppb	22:57:31
2	Ni 231.604†	1332.9	981.7	49.957	µg/L	49.957	ppb	22:57:31
2	P 214.914†	770.1	732.3	1398.5	µg/L	1398.5	ppb	22:57:31
2	Pb 220.353†	474.2	369.4	90.583	µg/L	90.583	ppb	22:57:31

2	S 181.975 Axial†	262.0	235.5	976.42 µg/L	976.42 ppb	22:57:31
2	Sb 206.836†	34.1	10.6	7.6153 µg/L	7.6153 ppb	22:57:31
2	Se 196.026†	-24.7	-43.3	151.24 µg/L	151.24 ppb	22:57:31
2	SiO2†	314458.7	303899.8	59986 µg/L	59986 ppb	22:57:05
2	Si 251.611†	376984.6	365683.9	27800 µg/L	27800 ppb	22:57:05
2	Sn 189.927†	-29.3	-28.9	-19.657 µg/L	-19.657 ppb	22:57:31
2	Ti 334.940†	1674374.5	1625387.0	3595.0 µg/L	3595.0 ppb	22:57:05
2	Tl 190.801†	-59.5	-35.4	12.104 µg/L	12.104 ppb	22:57:31
2	U 409.014†	-582.5	-488.5	-53.047 µg/L	-53.047 ppb	22:57:11
2	V 292.402†	16563.7	16125.5	167.05 µg/L	167.05 ppb	22:57:11
2	Zn 213.857†	9072.8	8273.9	189.19 µg/L	189.19 ppb	22:57:11
3	Sc RADIAL	58641.7	58641.7	104 %		22:55:59
3	Al 396.153Radial†	110346.7	106301.0	73949 µg/L	73949 ppb	22:55:59
3	Ca 317.933Radial†	18680.1	17785.2	15192 µg/L	15192 ppb	22:56:19
3	Fe 238.204 Radial†	11146.9	10722.4	84568 µg/L	84568 ppb	22:56:19
3	K 766.490 Radial†	22167.5	21191.3	13840 µg/L	13840 ppb	22:55:59
3	Mg 279.077 IEC†	1473.3	1406.5	12482 µg/L	12482 ppb	22:56:19
3	Na 589.592 Radial†	1878.0	1337.1	410.68 µg/L	410.68 ppb	22:56:19
3	Sr 421.552†	18848.0	18129.4	167.25 µg/L	167.25 ppb	22:55:59
3	Sc 361.383	2010546.7	2010546.7	102.42 %		22:57:39
3	Y 371.029	1413041.1	1413041.1	104.46 %		22:57:39
3	Ag 328.068†	-1324.5	-891.6	-0.3040 µg/L	-0.3040 ppb	22:57:44
3	As 188.979†	7.4	7.7	17.866 µg/L	17.866 ppb	22:58:05
3	B 249.677†	1034.9	626.4	-18.491 µg/L	-18.491 ppb	22:57:44
3	Ba 233.527†	49771.4	48614.4	1167.4 µg/L	1167.4 ppb	22:57:44
3	Be 313.107†	12126.8	14696.4	7.3789 µg/L	7.3789 ppb	22:57:44
3	Cd 226.502†	160.6	298.5	-2.0659 µg/L	-2.0659 ppb	22:58:05
3	Co 228.616†	1016.2	990.3	37.489 µg/L	37.489 ppb	22:58:05
3	Cr 267.716†	3393.5	3363.8	67.657 µg/L	67.657 ppb	22:57:44
3	Cu 324.752†	8868.4	6115.5	51.673 µg/L	51.673 ppb	22:57:44
3	Mn 257.610†	847683.9	827943.8	2603.5 µg/L	2603.5 ppb	22:57:39
3	Mo 202.031†	-6.6	-1.1	3.1031 µg/L	3.1031 ppb	22:58:05
3	Ni 231.604†	1242.9	901.2	45.970 µg/L	45.970 ppb	22:58:05
3	P 214.914†	694.2	662.5	1259.9 µg/L	1259.9 ppb	22:58:05
3	Pb 220.353†	436.3	335.0	82.266 µg/L	82.266 ppb	22:58:05
3	S 181.975 Axial†	246.9	222.2	921.34 µg/L	921.34 ppb	22:58:05
3	Sb 206.836†	35.0	11.7	8.6094 µg/L	8.6094 ppb	22:58:05
3	Se 196.026†	-24.8	-43.5	154.59 µg/L	154.59 ppb	22:58:05
3	SiO2†	310579.0	301861.1	59583 µg/L	59583 ppb	22:57:39
3	Si 251.611†	372319.6	363226.3	27613 µg/L	27613 ppb	22:57:39
3	Sn 189.927†	-32.6	-32.2	-21.190 µg/L	-21.190 ppb	22:58:05
3	Ti 334.940†	1632731.8	1594042.1	3525.6 µg/L	3525.6 ppb	22:57:39
3	Tl 190.801†	-50.8	-27.2	22.394 µg/L	22.394 ppb	22:58:05
3	U 409.014†	-546.2	-456.2	-50.585 µg/L	-50.585 ppb	22:57:44
3	V 292.402†	15452.8	15133.0	157.54 µg/L	157.54 ppb	22:57:44
3	Zn 213.857†	8557.9	7821.7	178.51 µg/L	178.51 ppb	22:57:44

Mean Data: 245960009|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019797.1	102.89	%	0.425				0.41%
Sc RADIAL	59023.6	104	%	1.0				0.92%
Y 371.029	1419394.4	104.93	%	0.428				0.41%
Ag 328.068†	-925.0	-0.5459	µg/L	0.25105	-0.5459	ppb	0.25105	45.99%
Al 396.153Radial†	104961.7	73017	µg/L	901.5	73017	ppb	901.5	1.23%
As 188.979†	9.7	21.397	µg/L	5.7029	21.397	ppb	5.7029	26.65%
B 249.677†	635.6	-17.830	µg/L	0.7118	-17.830	ppb	0.7118	3.99%
Ba 233.527†	50181.0	1205.0	µg/L	33.39	1205.0	ppb	33.39	2.77%
Be 313.107†	15265.5	7.6940	µg/L	0.27468	7.6940	ppb	0.27468	3.57%
Ca 317.933Radial†	17695.1	15115	µg/L	139.9	15115	ppb	139.9	0.93%
Cd 226.502†	312.2	-1.6609	µg/L	0.39453	-1.6609	ppb	0.39453	23.75%
Co 228.616†	1062.9	40.650	µg/L	2.7799	40.650	ppb	2.7799	6.84%
Cr 267.716†	3512.8	70.652	µg/L	2.6106	70.652	ppb	2.6106	3.69%
Cu 324.752†	6306.9	52.848	µg/L	1.0272	52.848	ppb	1.0272	1.94%
Fe 238.204 Radial†	10654.4	84031	µg/L	807.5	84031	ppb	807.5	0.96%
K 766.490 Radial†	20979.3	13702	µg/L	130.5	13702	ppb	130.5	0.95%
Mg 279.077 IEC†	1396.4	12392	µg/L	137.0	12392	ppb	137.0	1.11%
Mn 257.610†	839271.1	2638.9	µg/L	34.38	2638.9	ppb	34.38	1.30%
Mo 202.031†	-4.8	2.7234	µg/L	0.37520	2.7234	ppb	0.37520	13.78%
Na 589.592 Radial†	1328.8	408.12	µg/L	7.598	408.12	ppb	7.598	1.86%

Ni 231.604†	947.6	48.271	µg/L	2.0634	48.271	ppb	2.0634	4.27%
P 214.914†	705.1	1344.3	µg/L	74.10	1344.3	ppb	74.10	5.51%
Pb 220.353†	358.3	87.903	µg/L	4.8844	87.903	ppb	4.8844	5.56%
S 181.975 Axial†	231.6	960.30	µg/L	33.907	960.30	ppb	33.907	3.53%
Sb 206.836†	8.5	5.6661	µg/L	4.26602	5.6661	ppb	4.26602	75.29%
Se 196.026†	-45.5	150.52	µg/L	4.479	150.52	ppb	4.479	2.98%
SiO2†	304197.6	60045	µg/L	493.2	60045	ppb	493.2	0.82%
Si 251.611†	366018.6	27825	µg/L	226.1	27825	ppb	226.1	0.81%
Sn 189.927†	-30.7	-20.525	µg/L	0.7864	-20.525	ppb	0.7864	3.83%
Sr 421.552†	17933.9	165.44	µg/L	1.621	165.44	ppb	1.621	0.98%
Ti 334.940†	1620851.5	3584.9	µg/L	54.98	3584.9	ppb	54.98	1.53%
Tl 190.801†	-34.2	13.841	µg/L	7.8299	13.841	ppb	7.8299	56.57%
U 409.014†	-502.4	-54.343	µg/L	4.5464	-54.343	ppb	4.5464	8.37%
V 292.402†	15742.8	163.42	µg/L	5.138	163.42	ppb	5.138	3.14%
Zn 213.857†	8078.7	184.56	µg/L	5.478	184.56	ppb	5.478	2.97%

Sequence No.: 28
Sample ID: 245960010|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 224
Date Collected: 2/19/2010 22:58:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960010|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57733.7	57733.7	102	%			22:58:48
1	Al 396.153Radial†	78794.5	77097.5	53633	µg/L	53633	ppb	22:58:48
1	Ca 317.933Radial†	28130.8	27316.3	23333	µg/L	23333	ppb	22:58:48
1	Fe 238.204 Radial†	9296.1	9080.2	71615	µg/L	71615	ppb	22:59:08
1	K 766.490 Radial†	18318.3	17760.5	11600	µg/L	11600	ppb	22:58:48
1	Mg 279.077 IEC†	1173.4	1135.4	10072	µg/L	10072	ppb	22:59:08
1	Na 589.592 Radial†	2041.9	1525.9	468.68	µg/L	468.68	ppb	22:58:48
1	Sr 421.552†	17420.0	17017.7	156.99	µg/L	156.99	ppb	22:58:48
1	Sc 361.383	2026586.7	2026586.7	103.23	%			23:00:12
1	Y 371.029	1440983.7	1440983.7	106.52	%			23:00:12
1	Ag 328.068†	-1242.9	-802.4	-0.6306	µg/L	-0.6306	ppb	23:00:18
1	As 188.979†	3.8	4.1	10.301	µg/L	10.301	ppb	23:00:38
1	B 249.677†	933.2	519.8	-16.094	µg/L	-16.094	ppb	23:00:18
1	Ba 233.527†	39770.1	38541.7	925.50	µg/L	925.50	ppb	23:00:18
1	Be 313.107†	9734.5	12285.3	6.1676	µg/L	6.1676	ppb	23:00:18
1	Cd 226.502†	180.9	316.9	-0.1496	µg/L	-0.1496	ppb	23:00:38
1	Co 228.616†	765.1	739.2	27.323	µg/L	27.323	ppb	23:00:38
1	Cr 267.716†	2771.7	2735.3	55.016	µg/L	55.016	ppb	23:00:38
1	Cu 324.752†	16423.1	13365.0	97.195	µg/L	97.195	ppb	23:00:18
1	Mn 257.610†	660948.0	640505.0	2014.9	µg/L	2014.9	ppb	23:00:12
1	Mo 202.031†	12.5	17.5	4.4308	µg/L	4.4308	ppb	23:00:38
1	Ni 231.604†	1109.3	762.3	38.890	µg/L	38.890	ppb	23:00:38
1	P 214.914†	1652.6	1585.5	3087.0	µg/L	3087.0	ppb	23:00:38
1	Pb 220.353†	2787.9	2609.6	634.47	µg/L	634.47	ppb	23:00:38
1	S 181.975 Axial†	289.2	261.3	1083.4	µg/L	1083.4	ppb	23:00:38
1	Sb 206.836†	37.3	13.7	9.9300	µg/L	9.9300	ppb	23:00:38
1	Se 196.026†	-16.4	-35.2	130.86	µg/L	130.86	ppb	23:00:38
1	SiO2†	335884.6	323974.1	63948	µg/L	63948	ppb	23:00:12
1	Si 251.611†	402931.2	390002.0	29649	µg/L	29649	ppb	23:00:12
1	Sn 189.927†	-16.7	-16.5	-13.537	µg/L	-13.537	ppb	23:00:38
1	Ti 334.940†	1376591.9	1333305.9	2949.1	µg/L	2949.1	ppb	23:00:12
1	Tl 190.801†	-49.2	-25.2	13.237	µg/L	13.237	ppb	23:00:38
1	U 409.014†	-161.1	-79.0	-17.942	µg/L	-17.942	ppb	23:00:18
1	V 292.402†	12822.8	12466.0	130.05	µg/L	130.05	ppb	23:00:18
1	Zn 213.857†	11615.7	10717.6	247.16	µg/L	247.16	ppb	23:00:18
2	Sc RADIAL	58059.5	58059.5	103	%			22:59:13
2	Al 396.153Radial†	78779.8	76650.5	53322	µg/L	53322	ppb	22:59:13
2	Ca 317.933Radial†	28032.5	27066.1	23119	µg/L	23119	ppb	22:59:13
2	Fe 238.204 Radial†	9238.8	8973.4	70773	µg/L	70773	ppb	22:59:34
2	K 766.490 Radial†	18359.5	17700.0	11560	µg/L	11560	ppb	22:59:13
2	Mg 279.077 IEC†	1164.4	1120.3	9938.1	µg/L	9938.1	ppb	22:59:34
2	Na 589.592 Radial†	2049.9	1522.5	467.63	µg/L	467.63	ppb	22:59:13
2	Sr 421.552†	17426.6	16928.5	156.17	µg/L	156.17	ppb	22:59:13
2	Sc 361.383	2017133.9	2017133.9	102.75	%			23:00:46
2	Y 371.029	1434467.2	1434467.2	106.04	%			23:00:46
2	Ag 328.068†	-1188.9	-755.4	-0.3286	µg/L	-0.3286	ppb	23:00:51
2	As 188.979†	11.1	11.3	23.134	µg/L	23.134	ppb	23:01:12
2	B 249.677†	917.9	509.2	-16.089	µg/L	-16.089	ppb	23:00:51
2	Ba 233.527†	39836.8	38787.2	931.39	µg/L	931.39	ppb	23:00:51
2	Be 313.107†	9681.5	12278.0	6.1551	µg/L	6.1551	ppb	23:00:51
2	Cd 226.502†	164.1	301.4	-0.4426	µg/L	-0.4426	ppb	23:01:12
2	Co 228.616†	757.3	735.1	27.093	µg/L	27.093	ppb	23:01:12
2	Cr 267.716†	2748.6	2725.4	54.818	µg/L	54.818	ppb	23:01:12
2	Cu 324.752†	16545.6	13558.8	98.342	µg/L	98.342	ppb	23:00:51
2	Mn 257.610†	663090.9	645590.9	2030.7	µg/L	2030.7	ppb	23:00:46
2	Mo 202.031†	11.1	16.2	4.2742	µg/L	4.2742	ppb	23:01:12
2	Ni 231.604†	1087.3	745.9	38.061	µg/L	38.061	ppb	23:01:12
2	P 214.914†	1669.9	1609.8	3135.6	µg/L	3135.6	ppb	23:01:12
2	Pb 220.353†	2787.2	2621.7	637.39	µg/L	637.39	ppb	23:01:12

2	S 181.975 Axial†	291.9	265.1	1099.6	µg/L	1099.6	ppb	23:01:12
2	Sb 206.836†	36.7	13.2	9.4985	µg/L	9.4985	ppb	23:01:12
2	Se 196.026†	-25.9	-44.5	115.61	µg/L	115.61	ppb	23:01:12
2	SiO2†	336662.4	326255.8	64399	µg/L	64399	ppb	23:00:46
2	Si 251.611†	403611.6	392493.2	29838	µg/L	29838	ppb	23:00:46
2	Sn 189.927†	-23.5	-23.2	-16.278	µg/L	-16.278	ppb	23:01:12
2	Ti 334.940†	1380146.9	1343014.8	2970.6	µg/L	2970.6	ppb	23:00:46
2	Tl 190.801†	-52.6	-28.9	8.6662	µg/L	8.6662	ppb	23:01:12
2	U 409.014†	-53.8	24.7	-9.1961	µg/L	-9.1961	ppb	23:00:51
2	V 292.402†	12875.5	12575.5	131.02	µg/L	131.02	ppb	23:00:51
2	Zn 213.857†	11603.1	10758.0	248.16	µg/L	248.16	ppb	23:00:51
3	Sc RADIAL	58402.8	58402.8	103	%			22:59:39
3	Al 396.153Radial†	78235.3	75673.2	52642	µg/L	52642	ppb	22:59:39
3	Ca 317.933Radial†	27851.8	26731.0	22833	µg/L	22833	ppb	22:59:39
3	Fe 238.204 Radial†	9224.9	8907.1	70250	µg/L	70250	ppb	23:00:00
3	K 766.490 Radial†	18302.9	17540.2	11456	µg/L	11456	ppb	22:59:39
3	Mg 279.077 IEC†	1176.4	1125.2	9982.5	µg/L	9982.5	ppb	23:00:00
3	Na 589.592 Radial†	2027.1	1488.8	457.26	µg/L	457.26	ppb	22:59:39
3	Sr 421.552†	17307.3	16713.3	154.18	µg/L	154.18	ppb	22:59:39
3	Sc 361.383	2020216.4	2020216.4	102.91	%			23:01:19
3	Y 371.029	1433903.7	1433903.7	106.00	%			23:01:19
3	Ag 328.068†	-1144.4	-710.5	-0.0786	µg/L	-0.0786	ppb	23:01:24
3	As 188.979†	6.4	6.6	14.781	µg/L	14.781	ppb	23:01:45
3	B 249.677†	888.6	479.3	-17.041	µg/L	-17.041	ppb	23:01:24
3	Ba 233.527†	37781.3	36730.5	882.00	µg/L	882.00	ppb	23:01:24
3	Be 313.107†	8974.7	11576.8	5.7852	µg/L	5.7852	ppb	23:01:24
3	Cd 226.502†	154.6	291.9	-0.6229	µg/L	-0.6229	ppb	23:01:45
3	Co 228.616†	685.4	664.1	24.128	µg/L	24.128	ppb	23:01:45
3	Cr 267.716†	2466.8	2447.5	49.230	µg/L	49.230	ppb	23:01:45
3	Cu 324.752†	15715.7	12727.8	92.845	µg/L	92.845	ppb	23:01:24
3	Mn 257.610†	639471.4	621654.3	1955.7	µg/L	1955.7	ppb	23:01:19
3	Mo 202.031†	8.3	13.4	3.9833	µg/L	3.9833	ppb	23:01:45
3	Ni 231.604†	1024.1	682.8	34.917	µg/L	34.917	ppb	23:01:45
3	P 214.914†	1523.1	1464.7	2849.1	µg/L	2849.1	ppb	23:01:45
3	Pb 220.353†	2609.3	2444.6	594.34	µg/L	594.34	ppb	23:01:45
3	S 181.975 Axial†	269.7	243.2	1008.5	µg/L	1008.5	ppb	23:01:45
3	Sb 206.836†	31.1	7.7	4.5490	µg/L	4.5490	ppb	23:01:45
3	Se 196.026†	-17.3	-36.1	126.04	µg/L	126.04	ppb	23:01:45
3	SiO2†	327963.5	317302.8	62631	µg/L	62631	ppb	23:01:19
3	Si 251.611†	393328.9	381901.8	29033	µg/L	29033	ppb	23:01:19
3	Sn 189.927†	-17.2	-17.1	-13.652	µg/L	-13.652	ppb	23:01:45
3	Ti 334.940†	1325776.3	1288131.4	2849.2	µg/L	2849.2	ppb	23:01:19
3	Tl 190.801†	-57.7	-33.7	0.9108	µg/L	0.9108	ppb	23:01:45
3	U 409.014†	-15.6	61.9	-6.0163	µg/L	-6.0163	ppb	23:01:24
3	V 292.402†	12095.6	11798.5	123.38	µg/L	123.38	ppb	23:01:24
3	Zn 213.857†	10997.9	10152.7	234.00	µg/L	234.00	ppb	23:01:24

Mean Data: 245960010|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2021312.3	102.96	%	0.246				0.24%
Sc RADIAL	58065.3	103	%	0.6				0.58%
Y 371.029	1436451.5	106.19	%	0.291				0.27%
Ag 328.068†	-756.1	-0.3459	µg/L	0.27640	-0.3459	ppb	0.27640	79.90%
Al 396.153Radial†	76473.7	53199	µg/L	506.7	53199	ppb	506.7	0.95%
As 188.979†	7.3	16.072	µg/L	6.5127	16.072	ppb	6.5127	40.52%
B 249.677†	502.8	-16.408	µg/L	0.5483	-16.408	ppb	0.5483	3.34%
Ba 233.527†	38019.8	912.96	µg/L	26.974	912.96	ppb	26.974	2.95%
Be 313.107†	12046.7	6.0359	µg/L	0.21728	6.0359	ppb	0.21728	3.60%
Ca 317.933Radial†	27037.8	23095	µg/L	250.8	23095	ppb	250.8	1.09%
Cd 226.502†	303.4	-0.4050	µg/L	0.23890	-0.4050	ppb	0.23890	58.98%
Co 228.616†	712.8	26.181	µg/L	1.7824	26.181	ppb	1.7824	6.81%
Cr 267.716†	2636.1	53.021	µg/L	3.2846	53.021	ppb	3.2846	6.19%
Cu 324.752†	13217.2	96.127	µg/L	2.8998	96.127	ppb	2.8998	3.02%
Fe 238.204 Radial†	8986.9	70879	µg/L	688.7	70879	ppb	688.7	0.97%
K 766.490 Radial†	17666.9	11539	µg/L	74.3	11539	ppb	74.3	0.64%
Mg 279.077 IEC†	1126.9	9997.7	µg/L	68.40	9997.7	ppb	68.40	0.68%
Mn 257.610†	635916.7	2000.4	µg/L	39.55	2000.4	ppb	39.55	1.98%
Mo 202.031†	15.7	4.2294	µg/L	0.22705	4.2294	ppb	0.22705	5.37%
Na 589.592 Radial†	1512.4	464.52	µg/L	6.311	464.52	ppb	6.311	1.36%

Ni 231.604†	730.3	37.289	µg/L	2.0956	37.289	ppb	2.0956	5.62%
P 214.914†	1553.3	3023.9	µg/L	153.32	3023.9	ppb	153.32	5.07%
Pb 220.353†	2558.6	622.07	µg/L	24.055	622.07	ppb	24.055	3.87%
S 181.975 Axial†	256.5	1063.8	µg/L	48.60	1063.8	ppb	48.60	4.57%
Sb 206.836†	11.5	7.9925	µg/L	2.98995	7.9925	ppb	2.98995	37.41%
Se 196.026†	-38.6	124.17	µg/L	7.795	124.17	ppb	7.795	6.28%
SiO2†	322510.9	63659	µg/L	918.3	63659	ppb	918.3	1.44%
Si 251.611†	388132.3	29507	µg/L	421.0	29507	ppb	421.0	1.43%
Sn 189.927†	-19.0	-14.489	µg/L	1.5501	-14.489	ppb	1.5501	10.70%
Sr 421.552†	16886.5	155.78	µg/L	1.443	155.78	ppb	1.443	0.93%
Ti 334.940†	1321484.0	2923.0	µg/L	64.80	2923.0	ppb	64.80	2.22%
Tl 190.801†	-29.3	7.6046	µg/L	6.23116	7.6046	ppb	6.23116	81.94%
U 409.014†	2.5	-11.051	µg/L	6.1755	-11.051	ppb	6.1755	55.88%
V 292.402†	12280.0	128.15	µg/L	4.161	128.15	ppb	4.161	3.25%
Zn 213.857†	10542.7	243.11	µg/L	7.901	243.11	ppb	7.901	3.25%

Sequence No.: 29
Sample ID: 245960011|948744|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 225
Date Collected: 2/19/2010 23:01:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245960011|948744|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58311.5	58311.5	103	%			23:02:27
1	Al 396.153Radial†	194329.5	188270.4	130970	µg/L	130970	ppb	23:02:27
1	Ca 317.933Radial†	36745.0	35389.4	30229	µg/L	30229	ppb	23:02:47
1	Fe 238.204 Radial†	17480.8	16919.9	133450	µg/L	133450	ppb	23:02:47
1	K 766.490 Radial†	27578.2	26554.4	17343	µg/L	17343	ppb	23:02:27
1	Mg 279.077 IEC†	2575.9	2482.9	22051	µg/L	22051	ppb	23:02:47
1	Na 589.592 Radial†	3599.1	3014.8	925.99	µg/L	925.99	ppb	23:02:47
1	Sr 421.552†	35962.5	34813.7	321.16	µg/L	321.16	ppb	23:02:27
1	Sc 361.383	1994684.2	1994684.2	101.61	%			23:03:53
1	Y 371.029	1417418.6	1417418.6	104.78	%			23:03:53
1	Ag 328.068†	-2026.7	-1593.0	-1.7294	µg/L	-1.7294	ppb	23:03:58
1	As 188.979†	16.6	16.8	36.225	µg/L	36.225	ppb	23:04:19
1	B 249.677†	1264.5	860.4	-34.401	µg/L	-34.401	ppb	23:03:58
1	Ba 233.527†	84822.3	83497.1	2005.0	µg/L	2005.0	ppb	23:03:58
1	Be 313.107†	21763.6	24274.9	12.497	µg/L	12.497	ppb	23:03:58
1	Cd 226.502†	364.4	500.3	-2.5250	µg/L	-2.5250	ppb	23:04:19
1	Co 228.616†	1437.0	1412.3	53.493	µg/L	53.493	ppb	23:04:19
1	Cr 267.716†	5124.0	5093.3	102.46	µg/L	102.46	ppb	23:03:58
1	Cu 324.752†	10563.6	7852.7	69.807	µg/L	69.807	ppb	23:03:58
1	Mn 257.610†	1111143.6	1093816.6	3442.2	µg/L	3442.2	ppb	23:03:53
1	Mo 202.031†	-21.8	-16.1	3.4946	µg/L	3.4946	ppb	23:04:19
1	Ni 231.604†	1867.4	1525.5	77.705	µg/L	77.705	ppb	23:04:19
1	P 214.914†	827.4	798.9	1505.4	µg/L	1505.4	ppb	23:04:19
1	Pb 220.353†	630.4	529.5	130.88	µg/L	130.88	ppb	23:04:19
1	S 181.975 Axial†	148.9	127.6	529.04	µg/L	529.04	ppb	23:04:19
1	Sb 206.836†	44.0	20.8	15.288	µg/L	15.288	ppb	23:04:19
1	Se 196.026†	-57.4	-75.8	230.11	µg/L	230.11	ppb	23:04:19
1	SiO2†	355406.0	348390.4	68768	µg/L	68768	ppb	23:03:53
1	Si 251.611†	426215.8	419160.6	31865	µg/L	31865	ppb	23:03:53
1	Sn 189.927†	-48.6	-48.2	-32.083	µg/L	-32.083	ppb	23:04:19
1	Ti 334.940†	2303536.3	2266909.6	5013.6	µg/L	5013.6	ppb	23:03:53
1	Tl 190.801†	-75.1	-51.5	17.174	µg/L	17.174	ppb	23:04:19
1	U 409.014†	-1482.3	-1381.7	-135.19	µg/L	-135.19	ppb	23:03:53
1	V 292.402†	26249.5	25878.9	268.01	µg/L	268.01	ppb	23:03:58
1	Zn 213.857†	12605.5	11871.6	270.51	µg/L	270.51	ppb	23:03:58
2	Sc RADIAL	58012.2	58012.2	103	%			23:02:53
2	Al 396.153Radial†	194388.0	189298.8	131690	µg/L	131690	ppb	23:02:53
2	Ca 317.933Radial†	36994.1	35815.7	30593	µg/L	30593	ppb	23:03:14
2	Fe 238.204 Radial†	17574.9	17098.8	134860	µg/L	134860	ppb	23:03:14
2	K 766.490 Radial†	27554.2	26668.9	17418	µg/L	17418	ppb	23:02:53
2	Mg 279.077 IEC†	2586.4	2505.9	22256	µg/L	22256	ppb	23:03:14
2	Na 589.592 Radial†	3620.5	3053.7	937.91	µg/L	937.91	ppb	23:03:14
2	Sr 421.552†	35984.6	35015.1	323.02	µg/L	323.02	ppb	23:02:53
2	Sc 361.383	2009474.3	2009474.3	102.36	%			23:04:26
2	Y 371.029	1426306.6	1426306.6	105.44	%			23:04:26
2	Ag 328.068†	-1999.9	-1552.1	-1.3412	µg/L	-1.3412	ppb	23:04:32
2	As 188.979†	7.1	7.4	19.420	µg/L	19.420	ppb	23:04:52
2	B 249.677†	1241.6	828.9	-36.422	µg/L	-36.422	ppb	23:04:32
2	Ba 233.527†	85083.6	83138.0	1996.4	µg/L	1996.4	ppb	23:04:32
2	Be 313.107†	21981.8	24330.4	12.533	µg/L	12.533	ppb	23:04:32
2	Cd 226.502†	362.2	495.6	-2.8044	µg/L	-2.8044	ppb	23:04:52
2	Co 228.616†	1426.7	1391.8	52.583	µg/L	52.583	ppb	23:04:52
2	Cr 267.716†	5172.8	5103.8	102.67	µg/L	102.67	ppb	23:04:32
2	Cu 324.752†	10640.1	7850.9	69.992	µg/L	69.992	ppb	23:04:32
2	Mn 257.610†	1117555.6	1092031.9	3436.8	µg/L	3436.8	ppb	23:04:26
2	Mo 202.031†	-21.6	-15.8	3.5819	µg/L	3.5819	ppb	23:04:52
2	Ni 231.604†	1852.1	1497.0	76.305	µg/L	76.305	ppb	23:04:52
2	P 214.914†	807.5	773.5	1454.2	µg/L	1454.2	ppb	23:04:52
2	Pb 220.353†	637.7	532.0	131.48	µg/L	131.48	ppb	23:04:52

2	S 181.975 Axial†	145.8	123.5	512.06	µg/L	512.06 ppb	23:04:52
2	Sb 206.836†	39.5	16.1	10.966	µg/L	10.966 ppb	23:04:52
2	Se 196.026†	-57.3	-75.3	234.44	µg/L	234.44 ppb	23:04:52
2	SiO2†	357405.5	347769.4	68645	µg/L	68645 ppb	23:04:26
2	Si 251.611†	428508.2	418312.8	31801	µg/L	31801 ppb	23:04:26
2	Sn 189.927†	-49.0	-48.3	-32.253	µg/L	-32.253 ppb	23:04:52
2	Ti 334.940†	2316739.8	2263122.3	5005.2	µg/L	5005.2 ppb	23:04:26
2	Tl 190.801†	-77.5	-53.3	15.004	µg/L	15.004 ppb	23:04:52
2	U 409.014†	-1430.3	-1320.2	-130.30	µg/L	-130.30 ppb	23:04:26
2	V 292.402†	26389.1	25825.1	267.65	µg/L	267.65 ppb	23:04:32
2	Zn 213.857†	12633.2	11807.3	268.93	µg/L	268.93 ppb	23:04:32
3	Sc RADIAL	58193.2	58193.2	103	%		23:03:19
3	Al 396.153Radial†	194421.9	188743.1	131300	µg/L	131300 ppb	23:03:19
3	Ca 317.933Radial†	36790.5	35506.1	30329	µg/L	30329 ppb	23:03:40
3	Fe 238.204 Radial†	17503.9	16976.7	133900	µg/L	133900 ppb	23:03:40
3	K 766.490 Radial†	27529.8	26561.7	17348	µg/L	17348 ppb	23:03:19
3	Mg 279.077 IEC†	2576.2	2488.3	22099	µg/L	22099 ppb	23:03:40
3	Na 589.592 Radial†	3621.0	3043.2	934.69	µg/L	934.69 ppb	23:03:40
3	Sr 421.552†	35977.5	34899.2	321.95	µg/L	321.95 ppb	23:03:19
3	Sc 361.383	1994945.2	1994945.2	101.62	%		23:05:00
3	Y 371.029	1414140.4	1414140.4	104.54	%		23:05:00
3	Ag 328.068†	-1860.6	-1429.3	-0.5787	µg/L	-0.5787 ppb	23:05:06
3	As 188.979†	8.7	9.0	22.296	µg/L	22.296 ppb	23:05:27
3	B 249.677†	1207.7	804.3	-36.928	µg/L	-36.928 ppb	23:05:06
3	Ba 233.527†	80965.7	79691.1	1913.6	µg/L	1913.6 ppb	23:05:06
3	Be 313.107†	20437.5	22967.1	11.802	µg/L	11.802 ppb	23:05:06
3	Cd 226.502†	321.9	458.5	-3.6275	µg/L	-3.6275 ppb	23:05:27
3	Co 228.616†	1293.3	1270.7	47.525	µg/L	47.525 ppb	23:05:27
3	Cr 267.716†	4883.5	4856.0	97.685	µg/L	97.685 ppb	23:05:06
3	Cu 324.752†	10221.1	7514.3	67.661	µg/L	67.661 ppb	23:05:06
3	Mn 257.610†	1071825.7	1054982.9	3320.6	µg/L	3320.6 ppb	23:05:00
3	Mo 202.031†	-23.6	-17.9	3.3377	µg/L	3.3377 ppb	23:05:27
3	Ni 231.604†	1710.3	1370.7	70.001	µg/L	70.001 ppb	23:05:27
3	P 214.914†	751.7	724.3	1357.7	µg/L	1357.7 ppb	23:05:27
3	Pb 220.353†	594.2	493.7	122.18	µg/L	122.18 ppb	23:05:27
3	S 181.975 Axial†	145.3	124.1	514.52	µg/L	514.52 ppb	23:05:27
3	Sb 206.836†	36.7	13.6	8.7517	µg/L	8.7517 ppb	23:05:27
3	Se 196.026†	-42.1	-60.8	252.42	µg/L	252.42 ppb	23:05:27
3	SiO2†	344977.8	338082.8	66733	µg/L	66733 ppb	23:05:00
3	Si 251.611†	413931.8	407017.7	30942	µg/L	30942 ppb	23:05:00
3	Sn 189.927†	-42.4	-42.1	-29.560	µg/L	-29.560 ppb	23:05:27
3	Ti 334.940†	2206103.4	2170734.3	4800.9	µg/L	4800.9 ppb	23:05:00
3	Tl 190.801†	-70.6	-47.1	20.716	µg/L	20.716 ppb	23:05:27
3	U 409.014†	-1377.9	-1278.8	-126.71	µg/L	-126.71 ppb	23:05:00
3	V 292.402†	24826.4	24475.1	254.38	µg/L	254.38 ppb	23:05:06
3	Zn 213.857†	12045.1	11318.5	257.55	µg/L	257.55 ppb	23:05:06

Mean Data: 245960011|948744|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1999701.2	101.86	%	0.431				0.42%
Sc RADIAL	58172.3	103	%	0.3				0.26%
Y 371.029	1419288.5	104.92	%	0.465				0.44%
Ag 328.068†	-1524.8	-1.2164	µg/L	0.58540	-1.2164	ppb	0.58540	48.12%
Al 396.153Radial†	188770.8	131320	µg/L	358.1	131320	ppb	358.1	0.27%
As 188.979†	11.0	25.981	µg/L	8.9875	25.981	ppb	8.9875	34.59%
B 249.677†	831.2	-35.917	µg/L	1.3370	-35.917	ppb	1.3370	3.72%
Ba 233.527†	82108.7	1971.6	µg/L	50.46	1971.6	ppb	50.46	2.56%
Be 313.107†	23857.5	12.277	µg/L	0.4121	12.277	ppb	0.4121	3.36%
Ca 317.933Radial†	35570.4	30383	µg/L	188.2	30383	ppb	188.2	0.62%
Cd 226.502†	484.8	-2.9856	µg/L	0.57319	-2.9856	ppb	0.57319	19.20%
Co 228.616†	1358.3	51.200	µg/L	3.2152	51.200	ppb	3.2152	6.28%
Cr 267.716†	5017.7	100.94	µg/L	2.819	100.94	ppb	2.819	2.79%
Cu 324.752†	7739.3	69.153	µg/L	1.2957	69.153	ppb	1.2957	1.87%
Fe 238.204 Radial†	16998.5	134070	µg/L	721.2	134070	ppb	721.2	0.54%
K 766.490 Radial†	26595.0	17370	µg/L	41.9	17370	ppb	41.9	0.24%
Mg 279.077 IEC†	2492.4	22135	µg/L	107.2	22135	ppb	107.2	0.48%
Mn 257.610†	1080277.1	3399.8	µg/L	68.67	3399.8	ppb	68.67	2.02%
Mo 202.031†	-16.6	3.4714	µg/L	0.12371	3.4714	ppb	0.12371	3.56%
Na 589.592 Radial†	3037.2	932.86	µg/L	6.167	932.86	ppb	6.167	0.66%

Ni 231.604†	1464.4	74.670	µg/L	4.1041	74.670	ppb	4.1041	5.50%
P 214.914†	765.6	1439.1	µg/L	75.03	1439.1	ppb	75.03	5.21%
Pb 220.353†	518.4	128.18	µg/L	5.204	128.18	ppb	5.204	4.06%
S 181.975 Axial†	125.0	518.54	µg/L	9.177	518.54	ppb	9.177	1.77%
Sb 206.836†	16.9	11.669	µg/L	3.3241	11.669	ppb	3.3241	28.49%
Se 196.026†	-70.6	238.99	µg/L	11.831	238.99	ppb	11.831	4.95%
SiO2†	344747.5	68049	µg/L	1140.9	68049	ppb	1140.9	1.68%
Si 251.611†	414830.4	31536	µg/L	515.4	31536	ppb	515.4	1.63%
Sn 189.927†	-46.2	-31.299	µg/L	1.5081	-31.299	ppb	1.5081	4.82%
Sr 421.552†	34909.3	322.04	µg/L	0.932	322.04	ppb	0.932	0.29%
Ti 334.940†	2233588.7	4939.9	µg/L	120.49	4939.9	ppb	120.49	2.44%
Tl 190.801†	-50.6	17.632	µg/L	2.8830	17.632	ppb	2.8830	16.35%
U 409.014†	-1326.9	-130.73	µg/L	4.257	-130.73	ppb	4.257	3.26%
V 292.402†	25393.0	263.35	µg/L	7.770	263.35	ppb	7.770	2.95%
Zn 213.857†	11665.8	265.66	µg/L	7.072	265.66	ppb	7.072	2.66%

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 23:05:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57547.7	57547.7	102	%			23:06:14
1	Al 396.153Radial†	7371.7	7229.5	5018.7	µg/L	5018.7	ppb	23:06:14
1	Ca 317.933Radial†	6105.6	5782.7	4939.5	µg/L	4939.5	ppb	23:06:34
1	Fe 238.204 Radial†	677.8	648.8	5128.1	µg/L	5128.1	ppb	23:06:34
1	K 766.490 Radial†	7884.7	7575.6	4947.8	µg/L	4947.8	ppb	23:06:14
1	Mg 279.077 IEC†	592.4	568.8	5087.4	µg/L	5087.4	ppb	23:06:34
1	Na 589.592 Radial†	33515.4	32430.5	9960.8	µg/L	9960.8	ppb	23:06:14
1	Sr 421.552†	53729.8	52718.8	486.34	µg/L	486.34	ppb	23:06:14
1	Sc 361.383	2017392.3	2017392.3	102.76	%			23:07:38
1	Y 371.029	1390584.4	1390584.4	102.80	%			23:07:38
1	Ag 328.068†	68163.9	66731.8	497.94	µg/L	497.94	ppb	23:07:43
1	As 188.979†	293.3	285.9	511.44	µg/L	511.44	ppb	23:08:04
1	B 249.677†	12721.2	11994.8	487.02	µg/L	487.02	ppb	23:07:43
1	Ba 233.527†	21407.2	20848.3	501.41	µg/L	501.41	ppb	23:07:43
1	Be 313.107†	853098.2	833003.6	494.20	µg/L	494.20	ppb	23:07:38
1	Cd 226.502†	20695.3	20280.2	505.74	µg/L	505.74	ppb	23:07:43
1	Co 228.616†	11453.9	11143.8	504.11	µg/L	504.11	ppb	23:07:43
1	Cr 267.716†	25823.0	25178.7	506.03	µg/L	506.03	ppb	23:07:43
1	Cu 324.752†	81137.5	76410.9	499.48	µg/L	499.48	ppb	23:07:43
1	Mn 257.610†	165189.1	161001.2	504.66	µg/L	504.66	ppb	23:07:38
1	Mo 202.031†	5400.3	5260.4	515.32	µg/L	515.32	ppb	23:08:04
1	Ni 231.604†	10765.7	10163.7	506.12	µg/L	506.12	ppb	23:07:43
1	P 214.914†	1337.7	1286.4	2499.1	µg/L	2499.1	ppb	23:08:04
1	Pb 220.353†	2230.8	2079.9	505.79	µg/L	505.79	ppb	23:08:04
1	S 181.975 Axial†	266.5	240.4	997.09	µg/L	997.09	ppb	23:08:04
1	Sb 206.836†	602.9	564.2	520.17	µg/L	520.17	ppb	23:08:04
1	Se 196.026†	387.5	357.8	510.54	µg/L	510.54	ppb	23:08:04
1	SiO2†	29659.8	27470.3	5422.3	µg/L	5422.3	ppb	23:07:43
1	Si 251.611†	34569.1	33328.5	2533.7	µg/L	2533.7	ppb	23:07:43
1	Sn 189.927†	1265.3	1230.9	519.12	µg/L	519.12	ppb	23:08:04
1	Ti 334.940†	230288.9	223918.6	495.03	µg/L	495.03	ppb	23:07:38
1	Tl 190.801†	382.1	394.2	517.92	µg/L	517.92	ppb	23:08:04
1	U 409.014†	6115.9	6028.5	499.86	µg/L	499.86	ppb	23:07:43
1	V 292.402†	52555.8	51186.7	505.09	µg/L	505.09	ppb	23:07:43
1	Zn 213.857†	22705.6	21560.3	502.26	µg/L	502.26	ppb	23:07:43
2	Sc RADIAL	58133.5	58133.5	103	%			23:06:40
2	Al 396.153Radial†	7400.2	7184.4	4987.5	µg/L	4987.5	ppb	23:06:40
2	Ca 317.933Radial†	6079.1	5696.6	4865.9	µg/L	4865.9	ppb	23:07:00
2	Fe 238.204 Radial†	666.8	631.5	4990.8	µg/L	4990.8	ppb	23:07:00
2	K 766.490 Radial†	7854.7	7468.4	4877.7	µg/L	4877.7	ppb	23:06:40
2	Mg 279.077 IEC†	586.6	557.3	4984.4	µg/L	4984.4	ppb	23:07:00
2	Na 589.592 Radial†	33547.1	32129.7	9868.4	µg/L	9868.4	ppb	23:06:40
2	Sr 421.552†	53696.2	52154.6	481.13	µg/L	481.13	ppb	23:06:40
2	Sc 361.383	2020250.9	2020250.9	102.91	%			23:08:11
2	Y 371.029	1392254.8	1392254.8	102.92	%			23:08:11
2	Ag 328.068†	67963.7	66443.4	495.79	µg/L	495.79	ppb	23:08:17
2	As 188.979†	286.3	278.7	498.54	µg/L	498.54	ppb	23:08:37
2	B 249.677†	12735.8	11991.5	486.95	µg/L	486.95	ppb	23:08:17
2	Ba 233.527†	21372.1	20784.7	499.88	µg/L	499.88	ppb	23:08:17
2	Be 313.107†	852994.2	831727.9	493.45	µg/L	493.45	ppb	23:08:11
2	Cd 226.502†	20623.3	20181.8	503.29	µg/L	503.29	ppb	23:08:17
2	Co 228.616†	11402.9	11078.5	501.14	µg/L	501.14	ppb	23:08:17
2	Cr 267.716†	25758.8	25080.8	504.07	µg/L	504.07	ppb	23:08:17
2	Cu 324.752†	80891.5	76060.2	497.17	µg/L	497.17	ppb	23:08:17
2	Mn 257.610†	165915.6	161479.7	506.14	µg/L	506.14	ppb	23:08:11
2	Mo 202.031†	5271.3	5127.6	502.32	µg/L	502.32	ppb	23:08:37
2	Ni 231.604†	10727.4	10111.7	503.53	µg/L	503.53	ppb	23:08:17
2	P 214.914†	1325.0	1272.2	2471.2	µg/L	2471.2	ppb	23:08:37
2	Pb 220.353†	2215.0	2061.4	501.27	µg/L	501.27	ppb	23:08:37

2	S 181.975 Axial†	262.8	236.5	980.60 µg/L	980.60 ppb	23:08:37
2	Sb 206.836†	582.8	543.8	501.33 µg/L	501.33 ppb	23:08:37
2	Se 196.026†	386.4	356.2	508.06 µg/L	508.06 ppb	23:08:37
2	SiO2†	29491.0	27265.4	5381.8 µg/L	5381.8 ppb	23:08:17
2	Si 251.611†	34394.7	33111.4	2517.2 µg/L	2517.2 ppb	23:08:17
2	Sn 189.927†	1226.1	1191.1	502.33 µg/L	502.33 ppb	23:08:37
2	Ti 334.940†	230974.1	224267.3	495.81 µg/L	495.81 ppb	23:08:11
2	Tl 190.801†	376.6	388.4	510.38 µg/L	510.38 ppb	23:08:37
2	U 409.014†	6158.6	6061.5	502.63 µg/L	502.63 ppb	23:08:17
2	V 292.402†	52563.5	51121.8	504.34 µg/L	504.34 ppb	23:08:17
2	Zn 213.857†	22699.7	21523.3	501.42 µg/L	501.42 ppb	23:08:17
3	Sc RADIAL	58082.9	58082.9	103 %		23:07:06
3	Al 396.153Radial†	7360.7	7152.2	4967.1 µg/L	4967.1 ppb	23:07:06
3	Ca 317.933Radial†	6119.1	5740.6	4903.5 µg/L	4903.5 ppb	23:07:26
3	Fe 238.204 Radial†	671.6	636.7	5030.6 µg/L	5030.6 ppb	23:07:26
3	K 766.490 Radial†	7857.6	7477.9	4883.9 µg/L	4883.9 ppb	23:07:06
3	Mg 279.077 IEC†	592.2	563.2	5035.7 µg/L	5035.7 ppb	23:07:26
3	Na 589.592 Radial†	33558.5	32169.2	9880.5 µg/L	9880.5 ppb	23:07:06
3	Sr 421.552†	53798.8	52299.8	482.47 µg/L	482.47 ppb	23:07:06
3	Sc 361.383	2030492.5	2030492.5	103.43 %		23:08:44
3	Y 371.029	1399481.5	1399481.5	103.45 %		23:08:44
3	Ag 328.068†	61967.1	60312.6	449.89 µg/L	449.89 ppb	23:08:50
3	As 188.979†	236.7	229.3	410.26 µg/L	410.26 ppb	23:09:10
3	B 249.677†	11514.3	10748.1	436.11 µg/L	436.11 ppb	23:08:50
3	Ba 233.527†	18722.2	18118.1	435.73 µg/L	435.73 ppb	23:08:50
3	Be 313.107†	776418.3	753512.1	447.04 µg/L	447.04 ppb	23:08:44
3	Cd 226.502†	17928.8	17475.6	435.72 µg/L	435.72 ppb	23:08:50
3	Co 228.616†	9860.5	9531.4	431.09 µg/L	431.09 ppb	23:08:50
3	Cr 267.716†	21552.8	20888.1	419.81 µg/L	419.81 ppb	23:08:50
3	Cu 324.752†	70553.7	65668.9	429.35 µg/L	429.35 ppb	23:08:50
3	Mn 257.610†	151097.3	146339.8	458.73 µg/L	458.73 ppb	23:08:44
3	Mo 202.031†	4274.6	4138.1	405.42 µg/L	405.42 ppb	23:09:10
3	Ni 231.604†	9262.5	8642.8	430.39 µg/L	430.39 ppb	23:08:50
3	P 214.914†	1088.9	1037.4	2012.0 µg/L	2012.0 ppb	23:09:10
3	Pb 220.353†	1862.8	1710.1	415.78 µg/L	415.78 ppb	23:09:10
3	S 181.975 Axial†	230.4	203.8	845.05 µg/L	845.05 ppb	23:09:10
3	Sb 206.836†	487.9	449.2	413.81 µg/L	413.81 ppb	23:09:10
3	Se 196.026†	331.1	300.8	430.27 µg/L	430.27 ppb	23:09:10
3	SiO2†	26594.8	24320.8	4800.6 µg/L	4800.6 ppb	23:08:50
3	Si 251.611†	30776.4	29444.6	2238.4 µg/L	2238.4 ppb	23:08:50
3	Sn 189.927†	980.5	947.6	399.66 µg/L	399.66 ppb	23:09:10
3	Ti 334.940†	208127.5	201046.7	444.44 µg/L	444.44 ppb	23:08:44
3	Tl 190.801†	323.3	335.0	440.57 µg/L	440.57 ppb	23:09:10
3	U 409.014†	5266.7	5169.0	428.47 µg/L	428.47 ppb	23:08:50
3	V 292.402†	44963.5	43516.4	429.21 µg/L	429.21 ppb	23:08:50
3	Zn 213.857†	19740.8	18551.4	432.13 µg/L	432.13 ppb	23:08:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2022711.9	103.04	%	0.351				0.34%
Sc RADIAL	57921.3	103	%	0.6				0.56%
Y 371.029	1394106.9	103.06	%	0.350				0.34%
Ag 328.068†	64495.9	481.20	µg/L	27.143	481.20	ppb	27.143	5.64%
QC value within limits for Ag 328.068 Recovery = 96.24%								
Al 396.153Radial†	7188.7	4991.1	µg/L	25.95	4991.1	ppb	25.95	0.52%
QC value within limits for Al 396.153Radial Recovery = 99.82%								
As 188.979†	264.6	473.41	µg/L	55.075	473.41	ppb	55.075	11.63%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	11578.1	470.03	µg/L	29.369	470.03	ppb	29.369	6.25%
QC value within limits for B 249.677 Recovery = 94.01%								
Ba 233.527†	19917.0	479.01	µg/L	37.487	479.01	ppb	37.487	7.83%
QC value within limits for Ba 233.527 Recovery = 95.80%								
Be 313.107†	806081.2	478.23	µg/L	27.011	478.23	ppb	27.011	5.65%
QC value within limits for Be 313.107 Recovery = 95.65%								
Ca 317.933Radial†	5740.0	4903.0	µg/L	36.79	4903.0	ppb	36.79	0.75%
QC value within limits for Ca 317.933Radial Recovery = 98.06%								
Cd 226.502†	19312.5	481.58	µg/L	39.737	481.58	ppb	39.737	8.25%
QC value within limits for Cd 226.502 Recovery = 96.32%								
Co 228.616†	10584.5	478.78	µg/L	41.325	478.78	ppb	41.325	8.63%

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   QC value within limits for Co 228.616  Recovery = 95.76%
Cr 267.716†            23715.8      476.64 µg/L        49.224      476.64 ppb         49.224  10.33%
   QC value within limits for Cr 267.716  Recovery = 95.33%
Cu 324.752†            72713.4      475.34 µg/L        39.841      475.34 ppb         39.841   8.38%
   QC value within limits for Cu 324.752  Recovery = 95.07%
Fe 238.204 Radial†       639.0      5049.9 µg/L         70.60      5049.9 ppb          70.60   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.00%
K 766.490 Radial†       7507.3      4903.1 µg/L         38.76      4903.1 ppb          38.76   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 98.06%
Mg 279.077 IEC†          563.1      5035.8 µg/L         51.50      5035.8 ppb          51.50   1.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.72%
Mn 257.610†           156273.5      489.84 µg/L        26.952      489.84 ppb         26.952   5.50%
   QC value within limits for Mn 257.610  Recovery = 97.97%
Mo 202.031†             4842.0      474.35 µg/L        60.048      474.35 ppb         60.048  12.66%
   QC value within limits for Mo 202.031  Recovery = 94.87%
Na 589.592 Radial†     32243.1      9903.3 µg/L         50.20      9903.3 ppb          50.20   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 99.03%
Ni 231.604†             9639.4      480.01 µg/L        42.993      480.01 ppb         42.993   8.96%
   QC value within limits for Ni 231.604  Recovery = 96.00%
P 214.914†              1198.7      2327.4 µg/L        273.57      2327.4 ppb         273.57  11.75%
   QC value within limits for P 214.914  Recovery = 93.10%
Pb 220.353†             1950.4      474.28 µg/L        50.715      474.28 ppb         50.715  10.69%
   QC value within limits for Pb 220.353  Recovery = 94.86%
S 181.975 Axial†         226.9      940.92 µg/L        83.427      940.92 ppb         83.427   8.87%
   QC value within limits for S 181.975 Axial  Recovery = 94.09%
Sb 206.836†              519.1      478.43 µg/L        56.755      478.43 ppb         56.755  11.86%
   QC value within limits for Sb 206.836  Recovery = 95.69%
Se 196.026†              338.2      482.96 µg/L        45.644      482.96 ppb         45.644   9.45%
   QC value within limits for Se 196.026  Recovery = 96.59%
SiO2†                  26352.2      5201.6 µg/L        347.84      5201.6 ppb         347.84   6.69%
   QC value within limits for SiO2  Recovery = 97.27%
Si 251.611†            31961.5      2429.8 µg/L        165.91      2429.8 ppb         165.91   6.83%
   QC value within limits for Si 251.611  Recovery = 97.19%
Sn 189.927†             1123.2      473.71 µg/L        64.673      473.71 ppb         64.673  13.65%
   QC value within limits for Sn 189.927  Recovery = 94.74%
Sr 421.552†            52391.1      483.32 µg/L         2.703      483.32 ppb          2.703   0.56%
   QC value within limits for Sr 421.552  Recovery = 96.66%
Ti 334.940†           216410.9      478.43 µg/L        29.438      478.43 ppb         29.438   6.15%
   QC value within limits for Ti 334.940  Recovery = 95.69%
Tl 190.801†              372.5      489.62 µg/L        42.649      489.62 ppb         42.649   8.71%
   QC value within limits for Tl 190.801  Recovery = 97.92%
U 409.014†              5753.0      476.99 µg/L        42.039      476.99 ppb         42.039   8.81%
   QC value within limits for U 409.014  Recovery = 95.40%
V 292.402†             48608.3      479.54 µg/L        43.595      479.54 ppb         43.595   9.09%
   QC value within limits for V 292.402  Recovery = 95.91%
Zn 213.857†            20545.0      478.60 µg/L        40.255      478.60 ppb         40.255   8.41%
   QC value within limits for Zn 213.857  Recovery = 95.72%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 23:09:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57057.7	57057.7	101	%			23:09:52
1	Al 396.153Radial†	16.4	8.9	6.1575	µg/L	6.1575	ppb	23:09:52
1	Ca 317.933Radial†	206.6	-6.7	-5.7540	µg/L	-5.7540	ppb	23:10:13
1	Fe 238.204 Radial†	21.4	4.6	36.351	µg/L	36.351	ppb	23:10:13
1	K 766.490 Radial†	188.9	22.0	14.383	µg/L	14.383	ppb	23:09:52
1	Mg 279.077 IEC†	12.9	-0.0	-0.3283	µg/L	-0.3283	ppb	23:10:13
1	Na 589.592 Radial†	447.3	-29.3	-8.9850	µg/L	-8.9850	ppb	23:09:52
1	Sr 421.552†	72.3	42.8	0.3950	µg/L	0.3950	ppb	23:09:52
1	Sc 361.383	2009889.0	2009889.0	102.38	%			23:11:15
1	Y 371.029	1389446.2	1389446.2	102.71	%			23:11:15
1	Ag 328.068†	-351.8	58.0	0.4309	µg/L	0.4309	ppb	23:11:20
1	As 188.979†	-0.6	-0.1	-0.1425	µg/L	-0.1425	ppb	23:11:41
1	B 249.677†	354.2	-38.1	-1.5742	µg/L	-1.5742	ppb	23:11:41
1	Ba 233.527†	3.5	20.5	0.4911	µg/L	0.4911	ppb	23:11:41
1	Be 313.107†	-2657.6	259.9	0.1538	µg/L	0.1538	ppb	23:11:20
1	Cd 226.502†	-137.1	7.8	0.1907	µg/L	0.1907	ppb	23:11:41
1	Co 228.616†	3.7	1.7	0.0748	µg/L	0.0748	ppb	23:11:41
1	Cr 267.716†	-72.7	-20.6	-0.4139	µg/L	-0.4139	ppb	23:11:20
1	Cu 324.752†	2570.7	-32.8	-0.2093	µg/L	-0.2093	ppb	23:11:20
1	Mn 257.610†	-93.2	165.0	0.5214	µg/L	0.5214	ppb	23:11:41
1	Mo 202.031†	3.5	8.8	0.8615	µg/L	0.8615	ppb	23:11:41
1	Ni 231.604†	315.5	-4.1	-0.2065	µg/L	-0.2065	ppb	23:11:41
1	P 214.914†	6.9	-8.6	-17.030	µg/L	-17.030	ppb	23:11:41
1	Pb 220.353†	80.2	-12.6	-3.0691	µg/L	-3.0691	ppb	23:11:41
1	S 181.975 Axial†	13.9	-5.3	-22.180	µg/L	-22.180	ppb	23:11:41
1	Sb 206.836†	21.7	-1.3	-1.1333	µg/L	-1.1333	ppb	23:11:41
1	Se 196.026†	18.3	-1.4	-1.9095	µg/L	-1.9095	ppb	23:11:41
1	SiO2†	1515.1	88.3	17.432	µg/L	17.432	ppb	23:11:20
1	Si 251.611†	427.0	106.4	8.0899	µg/L	8.0899	ppb	23:11:41
1	Sn 189.927†	4.7	4.2	1.7607	µg/L	1.7607	ppb	23:11:41
1	Ti 334.940†	771.1	578.1	1.2789	µg/L	1.2789	ppb	23:11:20
1	Tl 190.801†	-21.8	1.1	1.4577	µg/L	1.4577	ppb	23:11:41
1	U 409.014†	-16.0	61.5	5.1011	µg/L	5.1011	ppb	23:11:20
1	V 292.402†	-58.9	-12.8	-0.1096	µg/L	-0.1096	ppb	23:11:20
1	Zn 213.857†	542.3	-4.8	-0.1123	µg/L	-0.1123	ppb	23:11:41
2	Sc RADIAL	57071.4	57071.4	101	%			23:10:18
2	Al 396.153Radial†	8.3	0.9	0.5821	µg/L	0.5821	ppb	23:10:18
2	Ca 317.933Radial†	214.5	1.1	0.8983	µg/L	0.8983	ppb	23:10:39
2	Fe 238.204 Radial†	18.1	1.4	10.777	µg/L	10.777	ppb	23:10:39
2	K 766.490 Radial†	267.4	99.8	65.151	µg/L	65.151	ppb	23:10:18
2	Mg 279.077 IEC†	10.1	-2.8	-24.932	µg/L	-24.932	ppb	23:10:39
2	Na 589.592 Radial†	432.3	-44.2	-13.583	µg/L	-13.583	ppb	23:10:18
2	Sr 421.552†	50.5	21.2	0.1956	µg/L	0.1956	ppb	23:10:18
2	Sc 361.383	2020781.7	2020781.7	102.94	%			23:11:47
2	Y 371.029	1396749.0	1396749.0	103.25	%			23:11:47
2	Ag 328.068†	-396.9	16.1	0.1175	µg/L	0.1175	ppb	23:11:52
2	As 188.979†	0.7	1.2	2.0940	µg/L	2.0940	ppb	23:12:13
2	B 249.677†	344.3	-49.7	-2.0296	µg/L	-2.0296	ppb	23:12:13
2	Ba 233.527†	10.9	27.7	0.6639	µg/L	0.6639	ppb	23:12:13
2	Be 313.107†	-2676.0	256.0	0.1515	µg/L	0.1515	ppb	23:11:52
2	Cd 226.502†	-146.1	-0.3	-0.0086	µg/L	-0.0086	ppb	23:12:13
2	Co 228.616†	4.5	2.5	0.1093	µg/L	0.1093	ppb	23:12:13
2	Cr 267.716†	-64.9	-12.7	-0.2549	µg/L	-0.2549	ppb	23:11:52
2	Cu 324.752†	2583.3	-34.1	-0.2211	µg/L	-0.2211	ppb	23:11:52
2	Mn 257.610†	33.5	288.6	0.9061	µg/L	0.9061	ppb	23:12:13
2	Mo 202.031†	-0.1	5.2	0.5097	µg/L	0.5097	ppb	23:12:13
2	Ni 231.604†	310.4	-10.8	-0.5376	µg/L	-0.5376	ppb	23:12:13
2	P 214.914†	14.3	-1.5	-2.8930	µg/L	-2.8930	ppb	23:12:13
2	Pb 220.353†	90.6	-3.0	-0.7206	µg/L	-0.7206	ppb	23:12:13

2	S 181.975 Axial†	16.0	-3.4	-13.920	µg/L	-13.920 ppb	23:12:13
2	Sb 206.836†	23.1	-0.0	-0.0297	µg/L	-0.0297 ppb	23:12:13
2	Se 196.026†	15.7	-4.0	-5.6316	µg/L	-5.6316 ppb	23:12:13
2	SiO2†	1556.9	120.9	23.873	µg/L	23.873 ppb	23:11:52
2	Si 251.611†	460.7	136.9	10.406	µg/L	10.406 ppb	23:12:13
2	Sn 189.927†	-0.9	-1.2	-0.5120	µg/L	-0.5120 ppb	23:12:13
2	Ti 334.940†	740.4	544.2	1.2058	µg/L	1.2058 ppb	23:11:52
2	Tl 190.801†	-24.4	-1.3	-1.6505	µg/L	-1.6505 ppb	23:12:13
2	U 409.014†	-55.3	23.4	1.9414	µg/L	1.9414 ppb	23:11:52
2	V 292.402†	-83.3	-36.2	-0.3461	µg/L	-0.3461 ppb	23:11:52
2	Zn 213.857†	542.3	-7.6	-0.1746	µg/L	-0.1746 ppb	23:12:13
3	Sc RADIAL	57024.4	57024.4	101	%		23:10:44
3	Al 396.153Radial†	28.2	20.6	14.312	µg/L	14.312 ppb	23:10:44
3	Ca 317.933Radial†	203.6	-9.6	-8.1744	µg/L	-8.1744 ppb	23:11:04
3	Fe 238.204 Radial†	19.9	3.1	24.715	µg/L	24.715 ppb	23:11:04
3	K 766.490 Radial†	255.2	87.8	57.354	µg/L	57.354 ppb	23:10:44
3	Mg 279.077 IEC†	13.0	0.1	0.7509	µg/L	0.7509 ppb	23:11:04
3	Na 589.592 Radial†	480.3	3.7	1.1222	µg/L	1.1222 ppb	23:10:44
3	Sr 421.552†	41.1	11.9	0.1098	µg/L	0.1098 ppb	23:10:44
3	Sc 361.383	2015035.0	2015035.0	102.64	%		23:12:19
3	Y 371.029	1393345.2	1393345.2	103.00	%		23:12:19
3	Ag 328.068†	-399.3	12.6	0.0933	µg/L	0.0933 ppb	23:12:25
3	As 188.979†	1.9	2.3	4.1656	µg/L	4.1656 ppb	23:12:45
3	B 249.677†	334.7	-58.0	-2.3782	µg/L	-2.3782 ppb	23:12:45
3	Ba 233.527†	-4.7	12.5	0.2988	µg/L	0.2988 ppb	23:12:45
3	Be 313.107†	-2569.3	352.6	0.2090	µg/L	0.2090 ppb	23:12:25
3	Cd 226.502†	-138.5	6.8	0.1657	µg/L	0.1657 ppb	23:12:45
3	Co 228.616†	7.6	5.5	0.2480	µg/L	0.2480 ppb	23:12:45
3	Cr 267.716†	-72.8	-20.5	-0.4127	µg/L	-0.4127 ppb	23:12:25
3	Cu 324.752†	2608.3	-2.6	-0.0135	µg/L	-0.0135 ppb	23:12:25
3	Mn 257.610†	-109.2	149.6	0.4717	µg/L	0.4717 ppb	23:12:45
3	Mo 202.031†	8.3	13.4	1.3150	µg/L	1.3150 ppb	23:12:45
3	Ni 231.604†	307.9	-12.4	-0.6185	µg/L	-0.6185 ppb	23:12:45
3	P 214.914†	9.6	-6.0	-11.945	µg/L	-11.945 ppb	23:12:45
3	Pb 220.353†	89.3	-3.9	-0.9624	µg/L	-0.9624 ppb	23:12:45
3	S 181.975 Axial†	17.3	-2.1	-8.6936	µg/L	-8.6936 ppb	23:12:45
3	Sb 206.836†	27.2	4.0	3.6685	µg/L	3.6685 ppb	23:12:45
3	Se 196.026†	14.5	-5.2	-7.2537	µg/L	-7.2537 ppb	23:12:45
3	SiO2†	1511.8	81.3	16.045	µg/L	16.045 ppb	23:12:25
3	Si 251.611†	407.9	86.8	6.5981	µg/L	6.5981 ppb	23:12:45
3	Sn 189.927†	1.5	1.1	0.4522	µg/L	0.4522 ppb	23:12:45
3	Ti 334.940†	528.4	339.7	0.7514	µg/L	0.7514 ppb	23:12:25
3	Tl 190.801†	-23.3	-0.4	-0.4507	µg/L	-0.4507 ppb	23:12:45
3	U 409.014†	10.8	87.6	7.2739	µg/L	7.2739 ppb	23:12:25
3	V 292.402†	-68.0	-21.5	-0.1901	µg/L	-0.1901 ppb	23:12:25
3	Zn 213.857†	544.0	-4.4	-0.1013	µg/L	-0.1013 ppb	23:12:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2015235.2	102.65	%	0.278				0.27%
Sc RADIAL	57051.2	101	%	0.0				0.04%
Y 371.029	1393180.1	102.99	%	0.270				0.26%
Ag 328.068†	28.9	0.2139	µg/L	0.18832	0.2139	ppb	0.18832	88.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.1	7.0174	µg/L	6.90546	7.0174	ppb	6.90546	98.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	2.0390	µg/L	2.15458	2.0390	ppb	2.15458	105.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.6	-1.9940	µg/L	0.40322	-1.9940	ppb	0.40322	20.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.2	0.4846	µg/L	0.18261	0.4846	ppb	0.18261	37.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	289.5	0.1714	µg/L	0.03254	0.1714	ppb	0.03254	18.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.1	-4.3434	µg/L	4.69799	-4.3434	ppb	4.69799	108.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.8	0.1159	µg/L	0.10856	0.1159	ppb	0.10856	93.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.2	0.1440	µg/L	0.09170	0.1440	ppb	0.09170	63.66%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.9     -0.3605 µg/L       0.09147     -0.3605 ppb        0.09147  25.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -23.2     -0.1480 µg/L       0.11660     -0.1480 ppb        0.11660  78.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.0      23.948 µg/L       12.8041      23.948 ppb        12.8041  53.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         69.9      45.629 µg/L       27.3393      45.629 ppb        27.3393  59.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.9     -8.1699 µg/L      14.52675     -8.1699 ppb       14.52675 177.81%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              201.0      0.6331 µg/L       0.23777      0.6331 ppb        0.23777  37.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.1      0.8954 µg/L       0.40369      0.8954 ppb        0.40369  45.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -23.3     -7.1485 µg/L       7.52241     -7.1485 ppb        7.52241 105.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -9.1     -0.4542 µg/L       0.21833     -0.4542 ppb        0.21833  48.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.4     -10.623 µg/L        7.1608     -10.623 ppb         7.1608  67.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -6.5     -1.5841 µg/L       1.29178     -1.5841 ppb        1.29178  81.55%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.6     -14.931 µg/L        6.7999     -14.931 ppb         6.7999  45.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.9      0.8352 µg/L       2.51500      0.8352 ppb        2.51500 301.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.6     -4.9316 µg/L       2.73998     -4.9316 ppb        2.73998  55.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     96.8      19.116 µg/L        4.1770      19.116 ppb         4.1770  21.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              110.0      8.3647 µg/L       1.91884      8.3647 ppb        1.91884  22.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.4      0.5669 µg/L       1.14067      0.5669 ppb        1.14067 201.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               25.3      0.2335 µg/L       0.14633      0.2335 ppb        0.14633  62.68%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              487.4      1.0787 µg/L       0.28581      1.0787 ppb        0.28581  26.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.2     -0.2145 µg/L       1.56752     -0.2145 ppb        1.56752 730.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                57.5      4.7722 µg/L       2.68141      4.7722 ppb        2.68141  56.19%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -23.5     -0.2153 µg/L       0.12024     -0.2153 ppb        0.12024  55.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -5.6     -0.1294 µg/L       0.03957     -0.1294 ppb        0.03957  30.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 21:10:56
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1673
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4426.7	4426.686	125.624	2.8
	Mg	24.0	33968.1	33968.140	360.627	1.1
	Co	58.9	55712.4	55712.441	767.844	1.4
	Rh	102.9	102017.2	102017.216	1333.173	1.3
	In	114.9	112334.6	112334.589	1361.480	1.2
	Pb	208.0	82895.7	82895.659	1277.395	1.5
⌈>	Ba	137.9	106971.7	106971.669	1685.235	1.6
⌊	Ba++	69.0	2397.2	0.022	0.001	3.1
⌈>	Ce	139.9	138161.7	138161.712	925.788	0.7
⌊	CeO	155.9	2844.6	0.021	0.000	1.6
	Bkgd	220.0	6.4	6.400	1.817	28.4

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.3	4785.5
Co	59	11	6.0	51167.5
In	115	11	6.8	111813.5

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.638
Be	9.0	9.0	2035	2080	0.652
Mg	24.0	24.0	5692	2124	0.597
Mg	25.0	25.1	5932	2080	0.693
Mg	26.0	26.1	6174	2120	0.666
Co	58.9	59.0	14165	2170	0.619
Rh	102.9	102.9	24868	2230	0.691
In	114.9	114.9	27795	2260	0.675
Ce	139.9	139.9	33858	2280	0.745
Pb	206.0	206.0	49960	2428	0.744
Pb	207.0	207.0	50135	2385	0.687
Pb	208.0	208.0	50463	2430	0.733
U	238.1	238.0	57717	2470	0.741

Report Date/Time: Thursday, February 25, 2010 21:07:47

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 26, 2010 05:50:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Blank.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		126	
	Be	9		ug/L		14	
	B	11		ug/L		1785	
	Na	23		ug/L		22685	
	Mg	24		ug/L		6335	
	Al	27		ug/L		6002	
	P	31		ug/L		8023	
	K	39		ug/L		545925	
	Ca	43		ug/L		316	
>	Sc	45		ug/L		1270510	
	V	51		ug/L		14063	
	Cr	52		ug/L		7870	
	Cr	53		ug/L		139450	
	Mn	55		ug/L		1956	
	Fe	57		ug/L		5598	
	Co	59		ug/L		161	
	Ni	60		ug/L		82	
	Cu	63		ug/L		160	
	Cu	65		ug/L		98	
	Zn	66		ug/L		239	
	Zn	67		ug/L		18403	
	Zn	68		ug/L		1253	
>	Ge	74		ug/L		280707	
	As	75		ug/L		488	
	Se	77		ug/L		8588	
	Se	82		ug/L		10	
	Kr	83		ug/L		80	
	Sr	88		ug/L		222	
	Y	89		ug/L		51	
	Ag	107		ug/L		69	
	Cd	111		ug/L		22	
	Cd	114		ug/L		37	
>	In	115		ug/L		151621	
	Sn	120		ug/L		663	
	Sb	121		ug/L		1969	
	Sb	123		ug/L		1582	
	Ba	135		ug/L		27	
	Ba	137		ug/L		54	
	Ho	165		ug/L		7	
>	Lu	175		ug/L		217268	
	Tl	205		ug/L		498	
	Pb	208		ug/L		2219	
	Bi	209		ug/L		46	
	U	238		ug/L		255	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 26, 2010 05:55:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Standard 1.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	0.638	16504	0.013
	Be	9	**10.000**	**ug/L**	1.800	4680	0.004
	B	11	**20.000**	**ug/L**	5.882	10140	0.007
	Na	23	**1000.000**	**ug/L**	1.551	3869748	3.013
	Mg	24	**1000.000**	**ug/L**	2.342	2958261	2.312
	Al	27	**1000.000**	**ug/L**	5.102	4638426	3.629
	P	31	**1000.000**	**ug/L**	0.859	256552	0.195
	K	39	**1000.000**	**ug/L**	1.162	5325916	3.742
	Ca	43	**1000.000**	**ug/L**	0.760	11850	0.009
>	Sc	45		**ug/L**		1276757	1276756.663
	V	51	**10.000**	**ug/L**	3.287	69497	0.043
	Cr	52	**10.000**	**ug/L**	1.467	53337	0.036
	Cr	53		**ug/L**		122139	-0.014
	Mn	55	**10.000**	**ug/L**	1.622	70697	0.054
	Fe	57	**1000.000**	**ug/L**	0.713	141337	0.106
	Co	59	**10.000**	**ug/L**	0.774	50894	0.040
	Ni	60	**10.000**	**ug/L**	1.888	10902	0.008
	Cu	63		**ug/L**		25838	0.020
	Cu	65	**10.000**	**ug/L**	1.140	12853	0.010
	Zn	66	**10.000**	**ug/L**	0.257	9041	0.031
	Zn	67		**ug/L**		16653	-0.007
	Zn	68		**ug/L**		7550	0.022
>	Ge	74		**ug/L**		284152	284152.073
	As	75	**10.000**	**ug/L**	1.396	9167	0.031
	Se	77		**ug/L**		7691	-0.004
	Se	82	**10.000**	**ug/L**	2.187	812	0.003
	Kr	83		**ug/L**		66	-0.000
	Sr	88	**10.000**	**ug/L**	0.917	103025	0.678
	Y	89		**ug/L**		58	0.000
	Ag	107	**10.000**	**ug/L**	0.412	39789	0.262
	Cd	111	**10.000**	**ug/L**	0.921	9407	0.062
	Cd	114		**ug/L**		21631	0.142
>	In	115		**ug/L**		151551	151551.354
	Sn	120	**10.000**	**ug/L**	0.342	39784	0.258
	Sb	121	**10.000**	**ug/L**	2.022	34972	0.218
	Sb	123		**ug/L**		27350	0.170
	Ba	135		**ug/L**		9928	0.045
	Ba	137	**10.000**	**ug/L**	1.549	17165	0.078
	Ho	165		**ug/L**		6	-0.000
>	Lu	175		**ug/L**		219029	219028.647
	Tl	205	**10.000**	**ug/L**	2.414	76964	0.349
	Pb	208	**10.000**	**ug/L**	1.774	143898	0.647
	Bi	209		**ug/L**		73	0.000
	U	238	**10.000**	**ug/L**	1.933	154654	0.705

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 26, 2010 06:01:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Standard 2.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	99.970	ug/L	1.932	138666	0.125
	Be	9	100.018	ug/L	1.272	41413	0.037
	B	11	200.241	ug/L	0.610	84360	0.074
	Na	23	10009.055	ug/L	6.775	36914669	33.163
	Mg	24	10001.447	ug/L	5.722	26108338	23.462
	Al	27	10000.450	ug/L	3.702	40560277	36.455
	P	31	9997.836	ug/L	0.644	2125857	1.905
	K	39	10005.454	ug/L	2.286	44536970	39.596
	Ca	43	10000.004	ug/L	0.542	100767	0.090
>	Sc	45		ug/L		1112481	1112480.561
	V	51	100.010	ug/L	0.677	499789	0.438
	Cr	52	100.033	ug/L	0.824	416424	0.368
	Cr	53		ug/L		153319	0.028
	Mn	55	99.995	ug/L	0.458	597764	0.536
	Fe	57	9996.927	ug/L	0.891	1151858	1.031
	Co	59	100.002	ug/L	0.935	443239	0.398
	Ni	60	100.005	ug/L	1.285	94838	0.085
	Cu	63		ug/L		224096	0.201
	Cu	65	99.997	ug/L	0.119	110906	0.100
	Zn	66	99.938	ug/L	0.716	73805	0.291
	Zn	67		ug/L		26702	0.040
	Zn	68		ug/L		55287	0.214
>	Ge	74		ug/L		252557	252557.059
	As	75	100.072	ug/L	0.561	83567	0.329
	Se	77		ug/L		12110	0.017
	Se	82	100.016	ug/L	0.608	7250	0.029
	Kr	83		ug/L		95	0.000
	Sr	88	99.975	ug/L	0.621	907025	6.618
	Y	89		ug/L		149	0.001
	Ag	107	99.980	ug/L	1.009	352129	2.569
	Cd	111	100.010	ug/L	1.745	85739	0.626
	Cd	114		ug/L		197519	1.441
>	In	115		ug/L		137036	137036.303
	Sn	120	100.016	ug/L	0.398	359967	2.623
	Sb	121	100.084	ug/L	2.160	327619	2.378
	Sb	123		ug/L		257801	1.871
	Ba	135		ug/L		91448	0.448
	Ba	137	100.018	ug/L	1.236	162463	0.796
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		204061	204060.953
	Tl	205	99.998	ug/L	0.280	711179	3.483
	Pb	208	100.002	ug/L	1.251	1324369	6.479
	Bi	209		ug/L		159	0.001
	U	238	99.950	ug/L	1.213	1369406	6.709

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 26, 2010 06:07:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 1.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.665**	**ug/L**	1.373	74489	0.064
	Be	9	**51.014**	**ug/L**	1.111	21947	0.019
	B	11	**102.379**	**ug/L**	0.878	45599	0.038
	Na	23	**4689.922**	**ug/L**	6.851	17977549	15.539
	Mg	24	**4986.687**	**ug/L**	4.777	13524249	11.698
	Al	27	**4859.259**	**ug/L**	2.302	20476821	17.714
	P	31	**4912.738**	**ug/L**	1.062	1088881	0.936
	K	39	**4819.141**	**ug/L**	6.266	22534642	19.071
	Ca	43	**4808.792**	**ug/L**	0.771	50486	0.043
>	Sc	45		**ug/L**		1155645	1155644.889
	V	51	**49.080**	**ug/L**	0.699	261285	0.215
	Cr	52	**50.074**	**ug/L**	0.674	220105	0.184
	Cr	53		**ug/L**		136686	0.009
	Mn	55	**51.252**	**ug/L**	1.136	319155	0.275
	Fe	57	**4919.736**	**ug/L**	1.079	591437	0.507
	Co	59	**49.180**	**ug/L**	0.437	226493	0.196
	Ni	60	**51.086**	**ug/L**	0.313	50357	0.044
	Cu	63		**ug/L**		117624	0.102
	Cu	65	**50.966**	**ug/L**	1.391	58764	0.051
	Zn	66	**51.071**	**ug/L**	0.550	39292	0.149
	Zn	67		**ug/L**		21331	0.016
	Zn	68		**ug/L**		30351	0.111
>	Ge	74		**ug/L**		262377	262377.192
	As	75	**47.551**	**ug/L**	0.959	41494	0.156
	Se	77		**ug/L**		9572	0.006
	Se	82	**50.282**	**ug/L**	1.476	3791	0.014
	Kr	83		**ug/L**		94	0.000
	Sr	88	**51.239**	**ug/L**	0.929	477279	3.392
	Y	89		**ug/L**		97	0.000
	Ag	107	**51.589**	**ug/L**	0.618	186514	1.326
	Cd	111	**49.964**	**ug/L**	1.983	43983	0.313
	Cd	114		**ug/L**		102043	0.725
>	In	115		**ug/L**		140669	140669.048
	Sn	120	**53.097**	**ug/L**	1.534	196442	1.392
	Sb	121	**52.907**	**ug/L**	2.712	178656	1.257
	Sb	123		**ug/L**		140124	0.986
	Ba	135		**ug/L**		47447	0.229
	Ba	137	**50.572**	**ug/L**	1.938	83517	0.402
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		207457	207456.982
	Tl	205	**48.470**	**ug/L**	1.810	350650	1.688
	Pb	208	**50.937**	**ug/L**	2.338	686578	3.300
	Bi	209		**ug/L**		181	0.001
	U	238	**54.450**	**ug/L**	2.223	758300	3.655

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.330				
	Be	9	102.028				
	B	11	102.379				
	Na	23	93.798				
	Mg	24	99.734				
	Al	27	96.223				
	P	31	98.255				
	K	39	96.383				
	Ca	43	96.176				
>	Sc	45		91.0			
	V	51	98.161				
	Cr	52	100.148				
	Cr	53					
	Mn	55	102.505				
	Fe	57	98.395				
	Co	59	98.360				
	Ni	60	102.173				
	Cu	63					
	Cu	65	101.932				
	Zn	66	102.142				
	Zn	67					
	Zn	68					
>	Ge	74		93.5			
	As	75	95.102				
	Se	77					
	Se	82	100.564				
	Kr	83					
	Sr	88	102.478				
	Y	89					
	Ag	107	103.178				
	Cd	111	99.928				
	Cd	114					
>	In	115		92.8			
	Sn	120	106.194				
	Sb	121	105.815				
	Sb	123					
	Ba	135					
	Ba	137	101.144				
	Ho	165					
>	Lu	175		95.5			
	Tl	205	96.939				
	Pb	208	101.874				
	Bi	209					
	U	238	108.900				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 26, 2010 06:13:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 2.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.004	ug/L	98.511	133	0.000
	Be	9	0.002	ug/L	722.061	15	0.000
	B	11	0.765	ug/L	88.503	2141	0.000
	Na	23	-0.153	ug/L	146.103	22017	-0.001
	Mg	24	-0.331	ug/L	160.658	5334	-0.001
	Al	27	0.510	ug/L	91.696	8336	0.002
	P	31	1.506	ug/L	75.853	8378	0.000
	K	39	1.369	ug/L	617.954	551818	0.005
	Ca	43	0.870	ug/L	589.729	325	0.000
>	Sc	45		ug/L		1269043	1269043.380
	V	51	0.360	ug/L	125.632	16026	0.002
	Cr	52	-0.012	ug/L	310.097	7804	-0.000
	Cr	53		ug/L		142854	0.003
	Mn	55	-0.003	ug/L	146.359	1932	-0.000
	Fe	57	0.850	ug/L	19.174	5702	0.000
	Co	59	0.002	ug/L	36.516	172	0.000
	Ni	60	0.008	ug/L	157.020	90	0.000
	Cu	63		ug/L		170	0.000
	Cu	65	0.012	ug/L	50.591	114	0.000
	Zn	66	0.024	ug/L	130.095	256	0.000
	Zn	67		ug/L		19157	0.003
	Zn	68		ug/L		1341	0.000
>	Ge	74		ug/L		277939	277938.950
	As	75	0.256	ug/L	139.993	717	0.001
	Se	77		ug/L		8673	0.001
	Se	82	0.135	ug/L	19.202	21	0.000
	Kr	83		ug/L		76	-0.000
	Sr	88	-0.000	ug/L	105.988	212	-0.000
	Y	89		ug/L		59	0.000
	Ag	107	-0.002	ug/L	71.460	61	-0.000
	Cd	111	0.002	ug/L	102.723	24	0.000
	Cd	114		ug/L		38	0.000
>	In	115		ug/L		147383	147382.611
	Sn	120	0.025	ug/L	73.119	742	0.001
	Sb	121	0.155	ug/L	78.074	2453	0.004
	Sb	123		ug/L		1925	0.003
	Ba	135		ug/L		28	0.000
	Ba	137	-0.003	ug/L	114.244	49	-0.000
	Ho	165		ug/L		9	0.000
>	Lu	175		ug/L		216001	216000.810
	Tl	205	0.010	ug/L	118.720	571	0.000
	Pb	208	0.002	ug/L	87.082	2229	0.000
	Bi	209		ug/L		48	0.000
	U	238	-0.001	ug/L	474.477	242	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 26, 2010 06:19:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 3.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.021**	**ug/L**	2.090	19556	0.015
	Be	9	**0.568**	**ug/L**	4.533	289	0.000
	B	11	**14.861**	**ug/L**	0.935	8988	0.006
	Na	23	**259.699**	**ug/L**	2.177	1139369	0.860
	Mg	24	**14.228**	**ug/L**	11.484	49754	0.033
	Al	27	**30.878**	**ug/L**	2.041	152139	0.113
	P	31	**49.961**	**ug/L**	2.181	20540	0.010
	K	39	**297.000**	**ug/L**	3.563	2082126	1.175
	Ca	43	**216.786**	**ug/L**	1.227	2863	0.002
>	Sc	45		**ug/L**		1297281	1297281.359
	V	51	**10.289**	**ug/L**	0.491	72838	0.045
	Cr	52	**10.699**	**ug/L**	1.453	59109	0.039
	Cr	53		**ug/L**		127807	-0.011
	Mn	55	**5.793**	**ug/L**	1.165	42262	0.031
	Fe	57	**112.822**	**ug/L**	1.621	20809	0.012
	Co	59	**1.111**	**ug/L**	1.461	5903	0.004
	Ni	60	**2.174**	**ug/L**	2.051	2486	0.002
	Cu	63		**ug/L**		3038	0.002
	Cu	65	**1.130**	**ug/L**	3.240	1561	0.001
	Zn	66	**12.000**	**ug/L**	0.622	10336	0.035
	Zn	67		**ug/L**		17481	-0.005
	Zn	68		**ug/L**		8541	0.025
>	Ge	74		**ug/L**		288427	288427.128
	As	75	**5.758**	**ug/L**	2.694	5965	0.019
	Se	77		**ug/L**		7456	-0.005
	Se	82	**6.051**	**ug/L**	5.402	510	0.002
	Kr	83		**ug/L**		73	-0.000
	Sr	88	**11.661**	**ug/L**	2.681	120917	0.772
	Y	89		**ug/L**		58	0.000
	Ag	107	**0.968**	**ug/L**	2.162	3959	0.025
	Cd	111	**1.082**	**ug/L**	4.116	1081	0.007
	Cd	114		**ug/L**		2508	0.016
>	In	115		**ug/L**		156409	156408.612
	Sn	120	**4.975**	**ug/L**	1.140	21084	0.130
	Sb	121	**2.552**	**ug/L**	3.155	11512	0.061
	Sb	123		**ug/L**		8906	0.047
	Ba	135		**ug/L**		2245	0.010
	Ba	137	**2.131**	**ug/L**	1.893	3884	0.017
	Ho	165		**ug/L**		7	-0.000
>	Lu	175		**ug/L**		225763	225762.505
	Tl	205	**1.051**	**ug/L**	1.131	8785	0.037
	Pb	208	**2.237**	**ug/L**	0.686	35025	0.145
	Bi	209		**ug/L**		75	0.000
	U	238	**0.246**	**ug/L**	2.327	3990	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	120.213				
	Be	9	113.544				
	B	11	99.072				
	Na	23	103.880				
	Mg	24	94.854				
	Al	27	102.925				
	P	31	99.921				
	K	39	99.000				
	Ca	43	108.393				
>	Sc	45		102.1			
	V	51	102.889				
	Cr	52	106.986				
	Cr	53					
	Mn	55	115.851				
	Fe	57	112.822				
	Co	59	111.078				
	Ni	60	108.717				
	Cu	63					
	Cu	65	113.046				
	Zn	66	119.997				
	Zn	67					
	Zn	68					
>	Ge	74		102.8			
	As	75	115.170				
	Se	77					
	Se	82	121.013				
	Kr	83					
	Sr	88	116.607				
	Y	89					
	Ag	107	96.764				
	Cd	111	108.227				
	Cd	114					
>	In	115		103.2			
	Sn	120	99.492				
	Sb	121	85.058				
	Sb	123					
	Ba	135					
	Ba	137	106.528				
	Ho	165					
>	Lu	175		103.9			
	Tl	205	105.145				
	Pb	208	111.838				
	Bi	209					
	U	238	122.904				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 26, 2010 06:25:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 4.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.126**	ug/L	20.273	231	0.000
	Be	9	**0.104**	ug/L	23.672	45	0.000
	B	11	**-0.974**	ug/L	13.646	939	-0.000
	Na	23	**100919.643**	ug/L	3.075	301357933	334.375
	Mg	24	**105013.769**	ug/L	1.832	222007322	246.349
	Al	27	**106551.430**	ug/L	4.925	350007222	388.413
	P	31	**104298.319**	ug/L	0.716	17910527	19.870
	K	39	**101300.825**	ug/L	2.593	361618904	400.892
	Ca	43	**98337.422**	ug/L	0.409	800652	0.888
>	Sc	45		ug/L		901085	901085.246
	V	51	**0.247**	ug/L	207.451	10951	0.001
	Cr	52	**3.481**	ug/L	1.245	17126	0.013
	Cr	53		ug/L		87615	-0.013
	Mn	55	**6.126**	ug/L	0.627	30967	0.033
	Fe	57	**99716.359**	ug/L	0.831	9270387	10.284
	Co	59	**0.507**	ug/L	2.218	1932	0.002
	Ni	60	**5.060**	ug/L	1.907	3941	0.004
	Cu	63		ug/L		5567	0.006
	Cu	65	**5.523**	ug/L	1.107	5027	0.006
	Zn	66	**6.915**	ug/L	0.884	4273	0.020
	Zn	67		ug/L		13562	0.001
	Zn	68		ug/L		1674	0.004
>	Ge	74		ug/L		203351	203350.597
	As	75	**0.088**	ug/L	168.745	413	0.000
	Se	77		ug/L		7182	0.005
	Se	82	**-2.630**	ug/L	18.151	-146	-0.001
	Kr	83		ug/L		254	0.001
	Sr	88	**3.021**	ug/L	0.294	23486	0.200
	Y	89		ug/L		341	0.003
	Ag	107	**0.156**	ug/L	6.553	521	0.004
	Cd	111	**0.714**	ug/L	33.833	537	0.004
	Cd	114		ug/L		8795	0.075
>	In	115		ug/L		116595	116595.345
	Sn	120	**0.201**	ug/L	1.856	1125	0.005
	Sb	121	**-0.280**	ug/L	10.998	739	-0.007
	Sb	123		ug/L		623	-0.005
	Ba	135		ug/L		660	0.003
	Ba	137	**0.746**	ug/L	1.256	1136	0.006
	Ho	165		ug/L		4486	0.024
>	Lu	175		ug/L		183612	183611.924
	Tl	205	**-0.025**	ug/L	3.607	260	-0.001
	Pb	208	**0.259**	ug/L	8.256	4956	0.017
	Bi	209		ug/L		2067	0.011
	U	238	**-0.014**	ug/L	2.506	40	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	100.920				
	Mg	24	105.014				
	Al	27	106.551				
	P	31	104.298				
	K	39	101.301				
	Ca	43	98.337				
>	Sc	45		70.9			
	V	51					
	Cr	52	105.494				
	Cr	53					
	Mn	55	105.627				
	Fe	57	99.716				
	Co	59	215.633				
	Ni	60	152.880				
	Cu	63					
	Cu	65	165.363				
	Zn	66	183.917				
	Zn	67					
	Zn	68					
>	Ge	74		72.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	102.057				
	Y	89					
	Ag	107					
	Cd	111	160.819				
	Cd	114					
>	In	115		76.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	93.525				
	Ho	165					
>	Lu	175		84.5			
	Tl	205					
	Pb	208	137.046				
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 4	Cu	65	ICSA is out of limits
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

Sample ID: QC Std 4

Report Date/Time: Friday, February 26, 2010 06:27:52

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 26, 2010 06:31:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 5.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.675**	**ug/L**	1.221	23267	0.026
	Be	9	**20.750**	**ug/L**	0.525	6958	0.008
	B	11	**18.158**	**ug/L**	1.563	7339	0.007
	Na	23	**93114.964**	**ug/L**	3.203	277698986	308.516
	Mg	24	**94097.957**	**ug/L**	2.037	198665430	220.742
	Al	27	**92408.223**	**ug/L**	2.269	303153108	336.857
	P	31	**91493.569**	**ug/L**	0.734	15692742	17.431
	K	39	**88768.305**	**ug/L**	0.135	316549620	351.295
	Ca	43	**87701.142**	**ug/L**	0.523	713189	0.792
>	Sc	45		**ug/L**		899994	899994.310
	V	51	**20.185**	**ug/L**	1.302	89553	0.088
	Cr	52	**22.096**	**ug/L**	1.034	78754	0.081
	Cr	53		**ug/L**		91761	-0.008
	Mn	55	**25.006**	**ug/L**	0.277	121976	0.134
	Fe	57	**89038.445**	**ug/L**	0.756	8267922	9.182
	Co	59	**19.848**	**ug/L**	0.567	71256	0.079
	Ni	60	**23.613**	**ug/L**	0.276	18158	0.020
	Cu	63		**ug/L**		38816	0.043
	Cu	65	**23.486**	**ug/L**	1.381	21125	0.023
	Zn	66	**24.195**	**ug/L**	1.601	14477	0.071
	Zn	67		**ug/L**		15101	0.009
	Zn	68		**ug/L**		9655	0.043
>	Ge	74		**ug/L**		202799	202799.049
	As	75	**21.200**	**ug/L**	1.327	14494	0.070
	Se	77		**ug/L**		7475	0.006
	Se	82	**19.328**	**ug/L**	3.317	1131	0.006
	Kr	83		**ug/L**		234	0.001
	Sr	88	**22.542**	**ug/L**	0.884	174671	1.492
	Y	89		**ug/L**		318	0.002
	Ag	107	**19.000**	**ug/L**	1.501	57144	0.488
	Cd	111	**20.023**	**ug/L**	0.621	14667	0.125
	Cd	114		**ug/L**		40357	0.345
>	In	115		**ug/L**		116948	116948.329
	Sn	120	**20.090**	**ug/L**	1.121	62116	0.527
	Sb	121	**20.157**	**ug/L**	0.331	57538	0.479
	Sb	123		**ug/L**		45117	0.375
	Ba	135		**ug/L**		16338	0.087
	Ba	137	**19.469**	**ug/L**	0.948	29155	0.155
	Ho	165		**ug/L**		4098	0.022
>	Lu	175		**ug/L**		187894	187893.956
	Tl	205	**19.011**	**ug/L**	1.046	124833	0.662
	Pb	208	**19.488**	**ug/L**	1.323	239139	1.263
	Bi	209		**ug/L**		2022	0.011
	U	238	**22.170**	**ug/L**	1.643	279819	1.488

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.375				
	Be	9	103.749				
	B	11	90.792				
	Na	23	93.115				
	Mg	24	94.098				
	Al	27	92.408				
	P	31	91.494				
	K	39	88.768				
	Ca	43	87.701				
>	Sc	45		70.8			
	V	51	100.926				
	Cr	52	94.834				
	Cr	53					
	Mn	55	96.924				
	Fe	57	89.038				
	Co	59	98.088				
	Ni	60	104.021				
	Cu	63					
	Cu	65	100.624				
	Zn	66	101.830				
	Zn	67					
	Zn	68					
>	Ge	74		72.2			
	As	75	105.998				
	Se	77					
	Se	82	96.638				
	Kr	83					
	Sr	88	98.181				
	Y	89					
	Ag	107	95.002				
	Cd	111	97.943				
	Cd	114					
>	In	115		77.1			
	Sn	120	100.449				
	Sb	121	100.783				
	Sb	123					
	Ba	135					
	Ba	137	93.612				
	Ho	165					
>	Lu	175		86.5			
	Tl	205	95.053				
	Pb	208	96.476				
	Bi	209					
	U	238	110.851				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 06:37:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.268**	**ug/L**	0.896	73915	0.065
	Be	9	**50.343**	**ug/L**	1.074	21241	0.019
	B	11	**97.088**	**ug/L**	3.391	42504	0.036
	Na	23	**4538.176**	**ug/L**	1.352	17065169	15.036
	Mg	24	**4960.643**	**ug/L**	7.779	13191951	11.637
	Al	27	**4758.078**	**ug/L**	3.900	19670970	17.345
	P	31	**4807.572**	**ug/L**	0.622	1045263	0.916
	K	39	**4445.527**	**ug/L**	1.292	20427564	17.593
	Ca	43	**4740.503**	**ug/L**	0.339	48817	0.043
>	Sc	45		**ug/L**		1133476	1133475.771
	V	51	**48.999**	**ug/L**	1.180	255868	0.215
	Cr	52	**49.804**	**ug/L**	0.403	214752	0.183
	Cr	53		**ug/L**		127801	0.003
	Mn	55	**50.662**	**ug/L**	0.433	309428	0.271
	Fe	57	**4885.558**	**ug/L**	0.935	576068	0.504
	Co	59	**49.252**	**ug/L**	0.613	222465	0.196
	Ni	60	**50.843**	**ug/L**	1.356	49151	0.043
	Cu	63		**ug/L**		114665	0.101
	Cu	65	**50.519**	**ug/L**	2.249	57122	0.050
	Zn	66	**51.360**	**ug/L**	1.026	38819	0.150
	Zn	67		**ug/L**		20756	0.015
	Zn	68		**ug/L**		29294	0.109
>	Ge	74		**ug/L**		257785	257784.719
	As	75	**47.006**	**ug/L**	2.392	40301	0.155
	Se	77		**ug/L**		8835	0.004
	Se	82	**50.546**	**ug/L**	1.335	3745	0.014
	Kr	83		**ug/L**		79	0.000
	Sr	88	**50.677**	**ug/L**	1.395	475585	3.354
	Y	89		**ug/L**		94	0.000
	Ag	107	**50.481**	**ug/L**	1.863	183864	1.297
	Cd	111	**49.649**	**ug/L**	3.463	44026	0.311
	Cd	114		**ug/L**		102471	0.723
>	In	115		**ug/L**		141737	141737.432
	Sn	120	**52.872**	**ug/L**	2.236	197065	1.386
	Sb	121	**51.944**	**ug/L**	0.623	176800	1.234
	Sb	123		**ug/L**		138842	0.969
	Ba	135		**ug/L**		47305	0.220
	Ba	137	**48.758**	**ug/L**	1.723	83314	0.388
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		214625	214624.896
	Tl	205	**48.520**	**ug/L**	0.666	363179	1.690
	Pb	208	**50.564**	**ug/L**	1.001	705281	3.276
	Bi	209		**ug/L**		188	0.001
	U	238	**53.515**	**ug/L**	1.739	771171	3.592

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	104.536				
	Be	9	100.687				
	B	11	97.088				
	Na	23	90.764				
	Mg	24	99.213				
	Al	27	94.219				
	P	31	96.151				
	K	39	88.911				
	Ca	43	94.810				
>	Sc	45		89.2			
	V	51	97.998				
	Cr	52	99.608				
	Cr	53					
	Mn	55	101.323				
	Fe	57	97.711				
	Co	59	98.504				
	Ni	60	101.686				
	Cu	63					
	Cu	65	101.037				
	Zn	66	102.719				
	Zn	67					
	Zn	68					
>	Ge	74		91.8			
	As	75	94.012				
	Se	77					
	Se	82	101.092				
	Kr	83					
	Sr	88	101.354				
	Y	89					
	Ag	107	100.962				
	Cd	111	99.297				
	Cd	114					
>	In	115		93.5			
	Sn	120	105.744				
	Sb	121	103.888				
	Sb	123					
	Ba	135					
	Ba	137	97.515				
	Ho	165					
>	Lu	175		98.8			
	Tl	205	97.041				
	Pb	208	101.129				
	Bi	209					
	U	238	107.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 06:43:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.070**	**ug/L**	9.061	239	0.000
	Be	9	**-0.003**	**ug/L**	117.082	13	-0.000
	B	11	**-0.488**	**ug/L**	111.127	1570	-0.000
	Na	23	**3.557**	**ug/L**	46.983	38052	0.012
	Mg	24	**1.858**	**ug/L**	30.250	12005	0.004
	Al	27	**1.054**	**ug/L**	19.249	11004	0.004
	P	31	**1.663**	**ug/L**	95.414	8515	0.000
	K	39	**-3.745**	**ug/L**	263.668	532811	-0.015
	Ca	43	**-1.038**	**ug/L**	353.284	307	-0.000
>	Sc	45		**ug/L**		1284207	1284207.092
	V	51	**0.207**	**ug/L**	196.330	15374	0.001
	Cr	52	**-0.273**	**ug/L**	4.431	6667	-0.001
	Cr	53		**ug/L**		133597	-0.006
	Mn	55	**-0.037**	**ug/L**	14.693	1721	-0.000
	Fe	57	**-2.999**	**ug/L**	36.196	5261	-0.000
	Co	59	**-0.002**	**ug/L**	166.299	155	-0.000
	Ni	60	**-0.008**	**ug/L**	42.687	74	-0.000
	Cu	63		**ug/L**		167	0.000
	Cu	65	**0.005**	**ug/L**	50.672	106	0.000
	Zn	66	**0.045**	**ug/L**	60.848	274	0.000
	Zn	67		**ug/L**		18311	0.000
	Zn	68		**ug/L**		1286	0.000
>	Ge	74		**ug/L**		278705	278705.348
	As	75	**0.797**	**ug/L**	27.637	1216	0.003
	Se	77		**ug/L**		7696	-0.003
	Se	82	**0.043**	**ug/L**	131.154	13	0.000
	Kr	83		**ug/L**		77	-0.000
	Sr	88	**-0.001**	**ug/L**	281.876	220	-0.000
	Y	89		**ug/L**		43	-0.000
	Ag	107	**0.002**	**ug/L**	97.220	80	0.000
	Cd	111	**0.000**	**ug/L**	1943.984	23	0.000
	Cd	114		**ug/L**		38	0.000
>	In	115		**ug/L**		154330	154329.538
	Sn	120	**-0.016**	**ug/L**	58.732	610	-0.000
	Sb	121	**-0.091**	**ug/L**	108.759	1673	-0.002
	Sb	123		**ug/L**		1290	-0.002
	Ba	135		**ug/L**		27	-0.000
	Ba	137	**-0.005**	**ug/L**	17.301	49	-0.000
	Ho	165		**ug/L**		12	0.000
>	Lu	175		**ug/L**		232238	232237.949
	Tl	205	**0.003**	**ug/L**	347.294	559	0.000
	Pb	208	**-0.002**	**ug/L**	23.406	2347	-0.000
	Bi	209		**ug/L**		60	0.000
	U	238	**-0.003**	**ug/L**	106.736	232	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, February 26, 2010 06:48:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 10.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1030.290**	ug/L	0.073	1172009	1.283
	Be	9	**1055.505**	ug/L	0.317	358598	0.393
	B	11	**-1.507**	ug/L	7.257	771	-0.001
	Na	23	**48968.547**	ug/L	2.692	148162057	162.247
	Mg	24	**51818.692**	ug/L	1.913	111003661	121.560
	Al	27	**50419.739**	ug/L	2.105	167835631	183.796
	P	31	**24092.784**	ug/L	0.652	4197022	4.590
	K	39	**48105.347**	ug/L	3.804	174244241	190.374
	Ca	43	**48835.884**	ug/L	0.643	403049	0.441
>	Sc	45		ug/L		913154	913153.783
	V	51	**974.339**	ug/L	0.268	3908083	4.269
	Cr	52	**970.749**	ug/L	0.425	3267656	3.572
	Cr	53		ug/L		489394	0.426
	Mn	55	**941.260**	ug/L	0.341	4606902	5.044
	Fe	57	**47372.075**	ug/L	0.201	4465176	4.885
	Co	59	**941.118**	ug/L	0.262	3422650	3.748
	Ni	60	**963.843**	ug/L	0.527	749676	0.821
	Cu	63		ug/L		1631240	1.786
	Cu	65	**928.793**	ug/L	0.162	844959	0.925
	Zn	66	**2238.002**	ug/L	0.214	1353662	6.525
	Zn	67		ug/L		248701	1.133
	Zn	68		ug/L		1005610	4.843
>	Ge	74		ug/L		207430	207429.832
	As	75	**929.761**	ug/L	0.309	634736	3.058
	Se	77		ug/L		28418	0.106
	Se	82	**498.805**	ug/L	0.122	29670	0.143
	Kr	83		ug/L		157	0.000
	Sr	88	**944.924**	ug/L	1.004	7182801	62.548
	Y	89		ug/L		346	0.003
	Ag	107	**248.817**	ug/L	1.243	734179	6.393
	Cd	111	**977.803**	ug/L	1.539	702456	6.117
	Cd	114		ug/L		1562394	13.605
>	In	115		ug/L		114841	114841.471
	Sn	120	**999.798**	ug/L	0.700	3011183	26.216
	Sb	121	**265.780**	ug/L	1.228	726795	6.316
	Sb	123		ug/L		575653	5.002
	Ba	135		ug/L		791773	4.296
	Ba	137	**918.687**	ug/L	0.956	1347266	7.311
	Ho	165		ug/L		59	0.000
>	Lu	175		ug/L		184292	184291.639
	Tl	205	**452.273**	ug/L	1.299	2903572	15.753
	Pb	208	**4753.944**	ug/L	0.309	56767003	308.022
	Bi	209		ug/L		1467	0.008
	U	238	**5010.756**	ug/L	0.637	61986383	336.357

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.029				
	Be	9	105.550				
	B	11					
	Na	23	97.937				
	Mg	24	103.637				
	Al	27	100.839				
	P	31	96.371				
	K	39	96.211				
	Ca	43	97.672				
>	Sc	45			71.9		
	V	51	97.434				
	Cr	52	97.075				
	Cr	53					
	Mn	55	94.126				
	Fe	57	94.744				
	Co	59	94.112				
	Ni	60	96.384				
	Cu	63					
	Cu	65	92.879				
	Zn	66	89.520				
	Zn	67					
	Zn	68					
>	Ge	74			73.9		
	As	75	92.976				
	Se	77					
	Se	82	99.761				
	Kr	83					
	Sr	88	94.492				
	Y	89					
	Ag	107	99.527				
	Cd	111	97.780				
	Cd	114					
>	In	115			75.7		
	Sn	120	99.980				
	Sb	121	106.312				
	Sb	123					
	Ba	135					
	Ba	137	91.869				
	Ho	165					
>	Lu	175			84.8		
	Tl	205	90.455				
	Pb	208	95.079				
	Bi	209					
	U	238	100.215				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, February 26, 2010 06:54:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 11.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.079**	ug/L	0.160	73424	0.065
	Be	9	**50.652**	ug/L	0.759	21309	0.019
	B	11	**97.709**	ug/L	3.239	42637	0.036
	Na	23	**4350.083**	ug/L	4.270	16310096	14.413
	Mg	24	**4783.217**	ug/L	3.070	12684049	11.221
	Al	27	**4650.542**	ug/L	6.935	19171069	16.953
	P	31	**4684.110**	ug/L	0.922	1015616	0.892
	K	39	**4414.264**	ug/L	2.439	20227947	17.469
	Ca	43	**4750.501**	ug/L	1.265	48775	0.043
>	Sc	45		ug/L		1130102	1130102.365
	V	51	**48.165**	ug/L	1.708	250977	0.211
	Cr	52	**49.072**	ug/L	0.405	211070	0.181
	Cr	53		ug/L		119507	-0.004
	Mn	55	**50.521**	ug/L	0.627	307662	0.271
	Fe	57	**4900.808**	ug/L	0.546	576160	0.505
	Co	59	**49.620**	ug/L	0.661	223458	0.198
	Ni	60	**50.517**	ug/L	0.729	48694	0.043
	Cu	63		ug/L		114029	0.101
	Cu	65	**50.294**	ug/L	0.914	56706	0.050
	Zn	66	**51.677**	ug/L	1.594	38622	0.151
	Zn	67		ug/L		20880	0.016
	Zn	68		ug/L		29191	0.110
>	Ge	74		ug/L		254918	254917.916
	As	75	**47.489**	ug/L	1.410	40261	0.156
	Se	77		ug/L		7604	-0.001
	Se	82	**50.682**	ug/L	1.834	3713	0.015
	Kr	83		ug/L		75	0.000
	Sr	88	**49.829**	ug/L	1.548	476832	3.298
	Y	89		ug/L		82	0.000
	Ag	107	**50.193**	ug/L	0.378	186444	1.290
	Cd	111	**49.438**	ug/L	1.205	44717	0.309
	Cd	114		ug/L		104135	0.720
>	In	115		ug/L		144520	144520.351
	Sn	120	**53.161**	ug/L	0.798	202078	1.394
	Sb	121	**51.716**	ug/L	2.240	179471	1.229
	Sb	123		ug/L		141115	0.966
	Ba	135		ug/L		47653	0.216
	Ba	137	**47.893**	ug/L	1.046	84035	0.381
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		220360	220359.878
	Tl	205	**48.370**	ug/L	1.378	371710	1.685
	Pb	208	**50.057**	ug/L	2.171	716831	3.243
	Bi	209		ug/L		195	0.001
	U	238	**53.289**	ug/L	1.020	788548	3.577

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.158				
	Be	9	101.305				
	B	11	97.709				
	Na	23	87.002				
	Mg	24	95.664				
	Al	27	92.090				
	P	31	93.682				
	K	39	88.285				
	Ca	43	95.010				
>	Sc	45		88.9			
	V	51	96.330				
	Cr	52	98.144				
	Cr	53					
	Mn	55	101.041				
	Fe	57	98.016				
	Co	59	99.239				
	Ni	60	101.035				
	Cu	63					
	Cu	65	100.588				
	Zn	66	103.354				
	Zn	67					
	Zn	68					
>	Ge	74		90.8			
	As	75	94.979				
	Se	77					
	Se	82	101.363				
	Kr	83					
	Sr	88	99.657				
	Y	89					
	Ag	107	100.386				
	Cd	111	98.877				
	Cd	114					
>	In	115		95.3			
	Sn	120	106.323				
	Sb	121	103.432				
	Sb	123					
	Ba	135					
	Ba	137	95.786				
	Ho	165					
>	Lu	175		101.4			
	Tl	205	96.740				
	Pb	208	100.114				
	Bi	209					
	U	238	106.578				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, February 26, 2010 07:00:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 12.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.131**	ug/L	6.897	328	0.000
	Be	9	**0.030**	ug/L	16.700	28	0.000
	B	11	**-0.534**	ug/L	86.040	1503	-0.000
	Na	23	**2.380**	ug/L	79.857	32037	0.008
	Mg	24	**1.961**	ug/L	122.823	12006	0.005
	Al	27	**1.053**	ug/L	25.334	10671	0.004
	P	31	**1.281**	ug/L	48.572	8177	0.000
	K	39	**-2.702**	ug/L	28.811	522380	-0.011
	Ca	43	**-0.769**	ug/L	170.464	301	-0.000
>	Sc	45		ug/L		1246759	1246759.433
	V	51	**-0.267**	ug/L	140.783	12336	-0.001
	Cr	52	**-0.345**	ug/L	8.090	6138	-0.001
	Cr	53		ug/L		121754	-0.012
	Mn	55	**-0.028**	ug/L	20.681	1731	-0.000
	Fe	57	**-5.017**	ug/L	17.331	4849	-0.001
	Co	59	**0.032**	ug/L	2.767	319	0.000
	Ni	60	**0.029**	ug/L	31.613	112	0.000
	Cu	63		ug/L		225	0.000
	Cu	65	**0.035**	ug/L	24.466	140	0.000
	Zn	66	**0.261**	ug/L	27.404	446	0.001
	Zn	67		ug/L		17796	-0.001
	Zn	68		ug/L		1437	0.001
>	Ge	74		ug/L		276726	276726.352
	As	75	**0.001**	ug/L	43750.466	482	0.000
	Se	77		ug/L		6503	-0.007
	Se	82	**-0.023**	ug/L	394.384	8	-0.000
	Kr	83		ug/L		83	0.000
	Sr	88	**0.005**	ug/L	80.447	281	0.000
	Y	89		ug/L		41	-0.000
	Ag	107	**0.001**	ug/L	408.125	74	0.000
	Cd	111	**0.005**	ug/L	37.891	28	0.000
	Cd	114		ug/L		48	0.000
>	In	115		ug/L		155738	155737.904
	Sn	120	**0.191**	ug/L	16.826	1458	0.005
	Sb	121	**0.009**	ug/L	1121.363	2052	0.000
	Sb	123		ug/L		1605	-0.000
	Ba	135		ug/L		33	0.000
	Ba	137	**0.009**	ug/L	159.095	74	0.000
	Ho	165		ug/L		9	0.000
>	Lu	175		ug/L		229769	229769.232
	Tl	205	**0.153**	ug/L	16.960	1748	0.005
	Pb	208	**0.011**	ug/L	87.789	2506	0.001
	Bi	209		ug/L		55	0.000
	U	238	**0.066**	ug/L	25.346	1284	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032573
Sample Date/Time: Friday, February 26, 2010 07:06:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032573.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.066**	**ug/L**	5.544	224	0.000
	Be	9	**0.096**	**ug/L**	23.143	58	0.000
	B	11	**-1.995**	**ug/L**	9.712	819	-0.001
	Na	23	**12.257**	**ug/L**	20.845	72184	0.041
	Mg	24	**5.232**	**ug/L**	28.601	21350	0.012
	Al	27	**52.209**	**ug/L**	1.419	241017	0.190
	P	31	**16.898**	**ug/L**	20.096	11779	0.003
	K	39	**2.992**	**ug/L**	35.977	545555	0.012
	Ca	43	**14.642**	**ug/L**	9.180	471	0.000
>	Sc	45		**ug/L**		1235666	1235665.550
	V	51	**-1.111**	**ug/L**	22.408	7667	-0.005
	Cr	52	**0.288**	**ug/L**	4.015	8963	0.001
	Cr	53		**ug/L**		74522	-0.049
	Mn	55	**1.383**	**ug/L**	2.044	11061	0.007
	Fe	57	**54.665**	**ug/L**	2.373	12409	0.006
	Co	59	**0.155**	**ug/L**	4.194	920	0.001
	Ni	60	**0.401**	**ug/L**	8.722	502	0.000
	Cu	63		**ug/L**		1259	0.001
	Cu	65	**0.430**	**ug/L**	4.570	626	0.000
	Zn	66	**2.274**	**ug/L**	3.535	2058	0.007
	Zn	67		**ug/L**		10675	-0.027
	Zn	68		**ug/L**		2214	0.004
>	Ge	74		**ug/L**		274979	274978.925
	As	75	**-0.213**	**ug/L**	127.551	285	-0.001
	Se	77		**ug/L**		3615	-0.017
	Se	82	**0.235**	**ug/L**	87.723	28	0.000
	Kr	83		**ug/L**		80	0.000
	Sr	88	**0.277**	**ug/L**	1.921	3146	0.018
	Y	89		**ug/L**		382	0.002
	Ag	107	**0.027**	**ug/L**	2.536	184	0.001
	Cd	111	**0.075**	**ug/L**	6.466	98	0.000
	Cd	114		**ug/L**		195	0.001
>	In	115		**ug/L**		158816	158816.303
	Sn	120	**0.258**	**ug/L**	5.462	1770	0.007
	Sb	121	**-0.304**	**ug/L**	7.067	913	-0.007
	Sb	123		**ug/L**		748	-0.006
	Ba	135		**ug/L**		610	0.002
	Ba	137	**0.517**	**ug/L**	1.742	1050	0.004
	Ho	165		**ug/L**		23	0.000
>	Lu	175		**ug/L**		240748	240747.671
	Tl	205	**0.172**	**ug/L**	4.771	1998	0.006
	Pb	208	**0.252**	**ug/L**	14.178	6388	0.016
	Bi	209		**ug/L**		107	0.000
	U	238	**0.033**	**ug/L**	13.236	817	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032578
Sample Date/Time: Friday, February 26, 2010 07:12:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|40|rmj
Method File: c:\elandata\Method\6020 no thtlmozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032578.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.646**	ug/L	1.211	4197	0.003
	Be	9	**18.826**	ug/L	1.177	8670	0.007
	B	11	**33.089**	ug/L	3.479	16937	0.012
	Na	23	**247.236**	ug/L	1.083	1034481	0.819
	Mg	24	**971.569**	ug/L	6.931	2823180	2.279
	Al	27	**2840.947**	ug/L	5.016	12803477	10.356
	P	31	**184.470**	ug/L	3.345	51236	0.035
	K	39	**1036.401**	ug/L	0.561	5600391	4.101
	Ca	43	**2339.317**	ug/L	1.096	26423	0.021
>	Sc	45		ug/L		1235947	1235946.951
	V	51	**25.150**	ug/L	2.443	149876	0.110
	Cr	52	**53.813**	ug/L	0.369	252404	0.198
	Cr	53		ug/L		125767	-0.008
	Mn	55	**142.748**	ug/L	0.726	947239	0.765
	Fe	57	**4174.897**	ug/L	1.108	537585	0.431
	Co	59	**22.482**	ug/L	0.212	110816	0.090
	Ni	60	**32.326**	ug/L	0.748	34109	0.028
	Cu	63		ug/L		101360	0.082
	Cu	65	**40.798**	ug/L	0.540	50327	0.041
	Zn	66	**144.007**	ug/L	0.385	115664	0.420
	Zn	67		ug/L		31873	0.050
	Zn	68		ug/L		84906	0.304
>	Ge	74		ug/L		274928	274928.458
	As	75	**25.127**	ug/L	3.247	23197	0.083
	Se	77		ug/L		8994	0.002
	Se	82	**71.352**	ug/L	1.651	5633	0.020
	Kr	83		ug/L		80	0.000
	Sr	88	**54.678**	ug/L	1.269	556058	3.619
	Y	89		ug/L		31129	0.202
	Ag	107	**5.279**	ug/L	1.327	20902	0.136
	Cd	111	**14.048**	ug/L	0.743	13520	0.088
	Cd	114		ug/L		31696	0.206
>	In	115		ug/L		153596	153595.924
	Sn	120	**6.444**	ug/L	1.000	26621	0.169
	Sb	121	**10.503**	ug/L	1.038	40328	0.250
	Sb	123		ug/L		31403	0.194
	Ba	135		ug/L		46813	0.205
	Ba	137	**45.459**	ug/L	1.326	82529	0.362
	Ho	165		ug/L		1590	0.007
>	Lu	175		ug/L		228017	228017.215
	Tl	205	**29.079**	ug/L	1.912	231427	1.013
	Pb	208	**20.726**	ug/L	1.312	308486	1.343
	Bi	209		ug/L		2527	0.011
	U	238	**0.451**	ug/L	3.680	7167	0.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	110.087				
	Be	9	106.867				
	B	11	102.587				
	Na	23	97.022				
	Mg	24	100.399				
	Al	27	98.394				
	P	31	96.675				
	K	39	96.836				
	Ca	43	97.424				
>	Sc	45		90.6			
	V	51	97.178				
	Cr	52	101.766				
	Cr	53					
	Mn	55	105.047				
	Fe	57	101.080				
	Co	59	102.175				
	Ni	60	105.812				
	Cu	63					
	Cu	65	105.160				
	Zn	66	107.336				
	Zn	67					
	Zn	68					
>	Ge	74		92.7			
	As	75	97.389				
	Se	77					
	Se	82	106.945				
	Kr	83					
	Sr	88	104.734				
	Y	89					
	Ag	107	104.617				
	Cd	111	103.497				
	Cd	114					
>	In	115		95.1			
	Sn	120	109.036				
	Sb	121	108.871				
	Sb	123					
	Ba	135					
	Ba	137	100.767				
	Ho	165					
>	Lu	175		100.2			
	Tl	205	99.874				
	Pb	208	102.015				
	Bi	209					
	U	238	108.615				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 07:24:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.053**	ug/L	26.922	208	0.000
	Be	9	**0.010**	ug/L	45.699	19	0.000
	B	11	**-0.187**	ug/L	309.358	1676	-0.000
	Na	23	**0.695**	ug/L	122.352	25356	0.002
	Mg	24	**-0.087**	ug/L	701.202	6001	-0.000
	Al	27	**1.619**	ug/L	43.827	13340	0.006
	P	31	**2.444**	ug/L	8.187	8532	0.000
	K	39	**0.568**	ug/L	1671.347	543175	0.002
	Ca	43	**-0.344**	ug/L	1213.753	309	-0.000
>	Sc	45		ug/L		1258290	1258289.527
	V	51	**-0.538**	ug/L	59.590	10971	-0.002
	Cr	52	**-0.322**	ug/L	15.056	6306	-0.001
	Cr	53		ug/L		124626	-0.011
	Mn	55	**-0.035**	ug/L	21.018	1702	-0.000
	Fe	57	**-4.500**	ug/L	33.225	4958	-0.000
	Co	59	**0.012**	ug/L	43.331	218	0.000
	Ni	60	**0.019**	ug/L	30.174	101	0.000
	Cu	63		ug/L		191	0.000
	Cu	65	**0.015**	ug/L	26.479	116	0.000
	Zn	66	**0.046**	ug/L	6.612	274	0.000
	Zn	67		ug/L		17976	-0.001
	Zn	68		ug/L		1373	0.000
>	Ge	74		ug/L		277804	277803.750
	As	75	**0.105**	ug/L	112.412	579	0.000
	Se	77		ug/L		6606	-0.007
	Se	82	**1.479**	ug/L	15.160	128	0.000
	Kr	83		ug/L		73	-0.000
	Sr	88	**0.002**	ug/L	106.480	248	0.000
	Y	89		ug/L		41	-0.000
	Ag	107	**0.000**	ug/L	2449.316	70	0.000
	Cd	111	**0.002**	ug/L	435.423	24	0.000
	Cd	114		ug/L		42	0.000
>	In	115		ug/L		152030	152030.084
	Sn	120	**0.067**	ug/L	25.811	931	0.002
	Sb	121	**-0.245**	ug/L	27.883	1088	-0.006
	Sb	123		ug/L		827	-0.005
	Ba	135		ug/L		30	0.000
	Ba	137	**-0.008**	ug/L	63.127	43	-0.000
	Ho	165		ug/L		8	0.000
>	Lu	175		ug/L		226127	226127.228
	Tl	205	**0.069**	ug/L	27.616	1062	0.002
	Pb	208	**0.002**	ug/L	175.918	2341	0.000
	Bi	209		ug/L		60	0.000
	U	238	**0.005**	ug/L	78.390	345	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032574
Sample Date/Time: Friday, February 26, 2010 07:36:16
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032574.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	17.164	ug/L	0.632	27070	0.021
	Be	9	1.835	ug/L	4.530	875	0.001
	B	11	0.167	ug/L	3.355	1849	0.000
	Na	23	591.853	ug/L	4.329	2493313	1.961
	Mg	24	1777.857	ug/L	1.459	5262732	4.171
	Al	27	6506.609	ug/L	10.715	29895722	23.719
	P	31	322.145	ug/L	1.187	85307	0.061
	K	39	1412.584	ug/L	4.774	7585480	5.590
	Ca	43	3491.034	ug/L	0.685	40055	0.032
>	Sc	45		ug/L		1260256	1260256.276
	V	51	14.615	ug/L	0.427	94644	0.064
	Cr	52	7.940	ug/L	1.046	44625	0.029
	Cr	53		ug/L		75346	-0.050
	Mn	55	373.403	ug/L	0.820	2523458	2.001
	Fe	57	8296.103	ug/L	0.852	1083745	0.856
	Co	59	2.367	ug/L	1.930	12041	0.009
	Ni	60	6.635	ug/L	0.954	7203	0.006
	Cu	63		ug/L		35663	0.028
	Cu	65	14.265	ug/L	1.498	18005	0.014
	Zn	66	62.268	ug/L	0.939	49785	0.182
	Zn	67		ug/L		17443	-0.002
	Zn	68		ug/L		37506	0.133
>	Ge	74		ug/L		272954	272954.082
	As	75	2.452	ug/L	16.769	2676	0.008
	Se	77		ug/L		4002	-0.016
	Se	82	0.923	ug/L	10.194	82	0.000
	Kr	83		ug/L		162	0.000
	Sr	88	13.136	ug/L	1.466	138573	0.870
	Y	89		ug/L		793290	4.986
	Ag	107	0.546	ug/L	1.548	2304	0.014
	Cd	111	1.057	ug/L	8.231	1075	0.007
	Cd	114		ug/L		455	0.003
>	In	115		ug/L		159105	159105.462
	Sn	120	2.026	ug/L	2.979	9150	0.053
	Sb	121	-0.339	ug/L	1.533	786	-0.008
	Sb	123		ug/L		633	-0.006
	Ba	135		ug/L		66930	0.269
	Ba	137	59.095	ug/L	0.985	116916	0.470
	Ho	165		ug/L		41951	0.169
>	Lu	175		ug/L		248511	248511.255
	Tl	205	0.092	ug/L	6.025	1368	0.003
	Pb	208	12.132	ug/L	1.311	197860	0.786
	Bi	209		ug/L		6716	0.027
	U	238	2.425	ug/L	1.259	40743	0.163

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		114.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032576
Sample Date/Time: Friday, February 26, 2010 07:42:09
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032576.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.181**	ug/L	1.403	72181	0.058
	Be	9	**24.722**	ug/L	0.882	11534	0.009
	B	11	**48.368**	ug/L	1.074	24279	0.018
	Na	23	**1567.229**	ug/L	3.619	6525612	5.193
	Mg	24	**3115.028**	ug/L	6.739	9158450	7.307
	Al	27	**9494.275**	ug/L	6.843	43357538	34.610
	P	31	**1229.757**	ug/L	0.566	301347	0.234
	K	39	**2832.979**	ug/L	6.407	14583196	11.211
	Ca	43	**5133.569**	ug/L	1.106	58394	0.046
>	Sc	45		ug/L		1252533	1252532.823
	V	51	**38.794**	ug/L	2.020	226738	0.170
	Cr	52	**33.789**	ug/L	1.143	163490	0.124
	Cr	53		ug/L		84946	-0.042
	Mn	55	**353.205**	ug/L	0.332	2372456	1.893
	Fe	57	**9115.331**	ug/L	1.016	1182897	0.940
	Co	59	**25.232**	ug/L	0.626	126019	0.100
	Ni	60	**30.023**	ug/L	0.413	32109	0.026
	Cu	63		ug/L		111364	0.089
	Cu	65	**44.563**	ug/L	1.277	55696	0.044
	Zn	66	**98.266**	ug/L	0.506	77341	0.287
	Zn	67		ug/L		21716	0.015
	Zn	68		ug/L		57492	0.209
>	Ge	74		ug/L		269149	269148.787
	As	75	**37.404**	ug/L	1.665	33581	0.123
	Se	77		ug/L		4389	-0.014
	Se	82	**9.965**	ug/L	1.503	779	0.003
	Kr	83		ug/L		175	0.000
	Sr	88	**39.235**	ug/L	0.302	410446	2.597
	Y	89		ug/L		958426	6.068
	Ag	107	**23.234**	ug/L	0.473	94360	0.597
	Cd	111	**6.055**	ug/L	1.516	6006	0.038
	Cd	114		ug/L		10779	0.068
>	In	115		ug/L		157948	157948.140
	Sn	120	**24.654**	ug/L	2.310	102787	0.646
	Sb	121	**73.954**	ug/L	0.512	279636	1.757
	Sb	123		ug/L		217229	1.365
	Ba	135		ug/L		107442	0.422
	Ba	137	**92.764**	ug/L	2.441	188019	0.738
	Ho	165		ug/L		52238	0.205
>	Lu	175		ug/L		254732	254731.998
	Tl	205	**41.872**	ug/L	0.126	372096	1.458
	Pb	208	**96.792**	ug/L	1.353	1599759	6.271
	Bi	209		ug/L		16302	0.064
	U	238	**26.267**	ug/L	3.811	449155	1.763

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		117.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032577
Sample Date/Time: Friday, February 26, 2010 07:48:04
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032577.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.523**	ug/L	1.617	65603	0.052
	Be	9	**25.084**	ug/L	2.298	11825	0.009
	B	11	**48.897**	ug/L	1.230	24785	0.018
	Na	23	**1673.578**	ug/L	5.996	7044724	5.545
	Mg	24	**2294.152**	ug/L	8.599	6813455	5.382
	Al	27	**7083.702**	ug/L	3.214	32692982	25.822
	P	31	**1260.745**	ug/L	1.454	311978	0.240
	K	39	**2208.772**	ug/L	3.150	11611107	8.741
	Ca	43	**4972.169**	ug/L	0.995	57160	0.045
>	Sc	45		ug/L		1265776	1265775.927
	V	51	**31.689**	ug/L	1.209	189738	0.139
	Cr	52	**28.843**	ug/L	0.982	142181	0.106
	Cr	53		ug/L		83003	-0.044
	Mn	55	**273.879**	ug/L	1.141	1859323	1.468
	Fe	57	**6075.545**	ug/L	2.023	798534	0.627
	Co	59	**25.037**	ug/L	1.949	126352	0.100
	Ni	60	**27.722**	ug/L	1.494	29964	0.024
	Cu	63		ug/L		89401	0.071
	Cu	65	**35.241**	ug/L	1.470	44529	0.035
	Zn	66	**73.150**	ug/L	1.954	59233	0.213
	Zn	67		ug/L		18676	0.002
	Zn	68		ug/L		44118	0.155
>	Ge	74		ug/L		276682	276682.470
	As	75	**36.264**	ug/L	1.882	33479	0.119
	Se	77		ug/L		4423	-0.015
	Se	82	**9.573**	ug/L	6.141	769	0.003
	Kr	83		ug/L		143	0.000
	Sr	88	**37.313**	ug/L	1.408	396412	2.470
	Y	89		ug/L		712811	4.443
	Ag	107	**23.000**	ug/L	0.757	94868	0.591
	Cd	111	**5.493**	ug/L	2.192	5535	0.034
	Cd	114		ug/L		10657	0.066
>	In	115		ug/L		160414	160414.044
	Sn	120	**23.720**	ug/L	1.594	100465	0.622
	Sb	121	**78.889**	ug/L	2.138	302795	1.875
	Sb	123		ug/L		238032	1.473
	Ba	135		ug/L		102580	0.403
	Ba	137	**89.643**	ug/L	0.496	181388	0.713
	Ho	165		ug/L		37622	0.148
>	Lu	175		ug/L		254189	254189.373
	Tl	205	**41.811**	ug/L	0.572	370755	1.456
	Pb	208	**93.507**	ug/L	1.916	1542639	6.059
	Bi	209		ug/L		5454	0.021
	U	238	**25.669**	ug/L	0.637	438297	1.723

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		117.0			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032575
Sample Date/Time: Friday, February 26, 2010 07:53:59
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948748|10|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032575.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**3.317**	**ug/L**	1.626	5480	0.004
	Be	9	**0.254**	**ug/L**	5.284	137	0.000
	B	11	**-1.073**	**ug/L**	27.834	1302	-0.000
	Na	23	**121.589**	**ug/L**	7.123	544536	0.403
	Mg	24	**315.084**	**ug/L**	4.867	964221	0.739
	Al	27	**1227.839**	**ug/L**	4.966	5804862	4.476
	P	31	**81.389**	**ug/L**	1.232	28260	0.016
	K	39	**292.425**	**ug/L**	8.070	2056137	1.157
	Ca	43	**691.714**	**ug/L**	0.490	8414	0.006
>	Sc	45		**ug/L**		1295165	1295164.642
	V	51	**1.970**	**ug/L**	16.337	25531	0.009
	Cr	52	**1.337**	**ug/L**	5.722	14393	0.005
	Cr	53		**ug/L**		96485	-0.035
	Mn	55	**63.302**	**ug/L**	1.302	441254	0.339
	Fe	57	**1459.313**	**ug/L**	0.898	200609	0.150
	Co	59	**0.427**	**ug/L**	1.818	2366	0.002
	Ni	60	**1.194**	**ug/L**	4.411	1400	0.001
	Cu	63		**ug/L**		9521	0.007
	Cu	65	**3.574**	**ug/L**	1.541	4712	0.004
	Zn	66	**12.904**	**ug/L**	2.016	10983	0.038
	Zn	67		**ug/L**		13967	-0.017
	Zn	68		**ug/L**		8837	0.026
>	Ge	74		**ug/L**		285466	285466.138
	As	75	**0.436**	**ug/L**	47.146	905	0.001
	Se	77		**ug/L**		5601	-0.011
	Se	82	**0.152**	**ug/L**	87.145	23	0.000
	Kr	83		**ug/L**		88	0.000
	Sr	88	**2.429**	**ug/L**	2.089	26113	0.161
	Y	89		**ug/L**		163119	1.013
	Ag	107	**0.096**	**ug/L**	4.997	469	0.002
	Cd	111	**0.163**	**ug/L**	6.650	188	0.001
	Cd	114		**ug/L**		86	0.000
>	In	115		**ug/L**		160952	160951.677
	Sn	120	**0.715**	**ug/L**	2.478	3722	0.019
	Sb	121	**-0.387**	**ug/L**	6.607	611	-0.009
	Sb	123		**ug/L**		484	-0.007
	Ba	135		**ug/L**		11063	0.047
	Ba	137	**10.058**	**ug/L**	0.508	19049	0.080
	Ho	165		**ug/L**		7889	0.033
>	Lu	175		**ug/L**		237248	237247.504
	Tl	205	**0.027**	**ug/L**	24.604	763	0.001
	Pb	208	**2.222**	**ug/L**	0.640	36572	0.144
	Bi	209		**ug/L**		1276	0.005
	U	238	**0.489**	**ug/L**	1.008	8069	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			101.9		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			101.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			106.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			109.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, February 26, 2010 08:17:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtlmozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 8.151

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.087**	**ug/L**	0.858	96536	0.076
	Be	9	**55.539**	**ug/L**	0.590	26194	0.021
	B	11	**106.554**	**ug/L**	2.151	51953	0.040
	Na	23	**4999.766**	**ug/L**	9.459	21016192	16.566
	Mg	24	**5257.694**	**ug/L**	2.316	15631503	12.334
	Al	27	**5070.937**	**ug/L**	4.996	23427057	18.485
	P	31	**4751.419**	**ug/L**	0.930	1154807	0.905
	K	39	**4633.522**	**ug/L**	1.020	23776709	18.337
	Ca	43	**4943.174**	**ug/L**	1.021	56884	0.045
>	Sc	45		**ug/L**		1266962	1266961.555
	V	51	**49.692**	**ug/L**	2.571	289853	0.218
	Cr	52	**51.351**	**ug/L**	1.452	247260	0.189
	Cr	53		**ug/L**		125566	-0.011
	Mn	55	**52.781**	**ug/L**	0.700	360272	0.283
	Fe	57	**5079.839**	**ug/L**	1.063	669292	0.524
	Co	59	**50.508**	**ug/L**	1.570	255018	0.201
	Ni	60	**51.916**	**ug/L**	0.155	56102	0.044
	Cu	63		**ug/L**		130672	0.103
	Cu	65	**51.766**	**ug/L**	0.369	65432	0.052
	Zn	66	**53.609**	**ug/L**	0.391	44180	0.156
	Zn	67		**ug/L**		20088	0.006
	Zn	68		**ug/L**		32957	0.113
>	Ge	74		**ug/L**		281132	281132.215
	As	75	**47.587**	**ug/L**	1.551	44497	0.157
	Se	77		**ug/L**		9091	0.002
	Se	82	**51.182**	**ug/L**	0.860	4135	0.015
	Kr	83		**ug/L**		77	-0.000
	Sr	88	**52.553**	**ug/L**	1.175	538751	3.479
	Y	89		**ug/L**		316	0.002
	Ag	107	**51.778**	**ug/L**	1.634	206010	1.330
	Cd	111	**51.148**	**ug/L**	0.604	49565	0.320
	Cd	114		**ug/L**		114608	0.740
>	In	115		**ug/L**		154833	154833.077
	Sn	120	**53.735**	**ug/L**	1.882	218783	1.409
	Sb	121	**52.324**	**ug/L**	2.128	194483	1.243
	Sb	123		**ug/L**		152407	0.974
	Ba	135		**ug/L**		51596	0.228
	Ba	137	**50.773**	**ug/L**	2.067	91599	0.404
	Ho	165		**ug/L**		33	0.000
>	Lu	175		**ug/L**		226554	226554.279
	Tl	205	**48.307**	**ug/L**	1.957	381673	1.683
	Pb	208	**50.818**	**ug/L**	0.915	748240	3.293
	Bi	209		**ug/L**		177	0.001
	U	238	**54.013**	**ug/L**	2.168	821609	3.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	122.174				
	Be	9	111.079				
	B	11	106.554				
	Na	23	99.995				
	Mg	24	105.154				
	Al	27	100.415				
	P	31	95.028				
	K	39	92.670				
	Ca	43	98.863				
>	Sc	45		99.7			
	V	51	99.385				
	Cr	52	102.702				
	Cr	53					
	Mn	55	105.562				
	Fe	57	101.597				
	Co	59	101.016				
	Ni	60	103.831				
	Cu	63					
	Cu	65	103.532				
	Zn	66	107.217				
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
	As	75	95.174				
	Se	77					
	Se	82	102.363				
	Kr	83					
	Sr	88	105.106				
	Y	89					
	Ag	107	103.557				
	Cd	111	102.296				
	Cd	114					
>	In	115		102.1			
	Sn	120	107.470				
	Sb	121	104.649				
	Sb	123					
	Ba	135					
	Ba	137	101.545				
	Ho	165					
>	Lu	175		104.3			
	Tl	205	96.615				
	Pb	208	101.635				
	Bi	209					
	U	238	108.026				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 08:23:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.152

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	ug/L	67.353	160	0.000
	Be	9	**-0.000**	ug/L	2603.058	15	-0.000
	B	11	**-0.567**	ug/L	82.365	1598	-0.000
	Na	23	**1.460**	ug/L	73.133	30366	0.005
	Mg	24	**0.105**	ug/L	304.349	7002	0.000
	Al	27	**1.847**	ug/L	84.483	15343	0.007
	P	31	**-0.732**	ug/L	91.865	8264	-0.000
	K	39	**-8.824**	ug/L	122.830	528335	-0.035
	Ca	43	**-5.971**	ug/L	14.319	261	-0.000
>	Sc	45		ug/L		1338137	1338137.236
	V	51	**-0.541**	ug/L	53.345	11639	-0.002
	Cr	52	**-0.057**	ug/L	116.227	8007	-0.000
	Cr	53		ug/L		123573	-0.017
	Mn	55	**-0.020**	ug/L	29.736	1919	-0.000
	Fe	57	**-5.329**	ug/L	9.661	5160	-0.001
	Co	59	**-0.000**	ug/L	2198.161	169	-0.000
	Ni	60	**-0.002**	ug/L	661.197	84	-0.000
	Cu	63		ug/L		155	-0.000
	Cu	65	**-0.012**	ug/L	121.286	88	-0.000
	Zn	66	**0.023**	ug/L	91.133	265	0.000
	Zn	67		ug/L		17120	-0.006
	Zn	68		ug/L		1163	-0.000
>	Ge	74		ug/L		288987	288987.245
	As	75	**-0.663**	ug/L	13.745	-128	-0.002
	Se	77		ug/L		7309	-0.005
	Se	82	**0.457**	ug/L	11.231	48	0.000
	Kr	83		ug/L		65	-0.000
	Sr	88	**0.004**	ug/L	80.282	272	0.000
	Y	89		ug/L		65	0.000
	Ag	107	**0.000**	ug/L	146150.407	72	0.000
	Cd	111	**-0.010**	ug/L	96.100	13	-0.000
	Cd	114		ug/L		31	-0.000
>	In	115		ug/L		156807	156806.734
	Sn	120	**0.013**	ug/L	130.985	737	0.000
	Sb	121	**-0.212**	ug/L	33.457	1246	-0.005
	Sb	123		ug/L		963	-0.004
	Ba	135		ug/L		36	0.000
	Ba	137	**-0.006**	ug/L	30.434	48	-0.000
	Ho	165		ug/L		9	0.000
>	Lu	175		ug/L		232973	232972.999
	Tl	205	**0.018**	ug/L	104.458	682	0.001
	Pb	208	**-0.016**	ug/L	25.035	2140	-0.001
	Bi	209		ug/L		41	-0.000
	U	238	**0.003**	ug/L	75.796	322	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960001
Sample Date/Time: Friday, February 26, 2010 08:53:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960001.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**86.965**	ug/L	2.250	124917	0.108
	Be	9	**5.086**	ug/L	1.114	2192	0.002
	B	11	**16.156**	ug/L	3.294	8531	0.006
	Na	23	**630.430**	ug/L	7.769	2419903	2.089
	Mg	24	**12483.065**	ug/L	5.032	33716065	29.284
	Al	27	**93811.776**	ug/L	6.896	393189931	341.973
	P	31	**503.288**	ug/L	0.636	117640	0.096
	K	39	**10026.448**	ug/L	3.764	46133913	39.679
	Ca	43	**11587.061**	ug/L	0.965	120823	0.105
>	Sc	45		ug/L		1151272	1151272.347
	V	51	**95.111**	ug/L	1.124	492425	0.417
	Cr	52	**41.910**	ug/L	0.349	184675	0.154
	Cr	53		ug/L		75549	-0.044
	Mn	55	**1643.324**	ug/L	0.367	10140070	8.805
	Fe	57	**52695.527**	ug/L	0.119	6261334	5.434
	Co	59	**29.057**	ug/L	0.792	133337	0.116
	Ni	60	**37.613**	ug/L	1.618	36946	0.032
	Cu	63		ug/L		68652	0.060
	Cu	65	**31.108**	ug/L	2.316	35742	0.031
	Zn	66	**132.145**	ug/L	1.467	92515	0.385
	Zn	67		ug/L		27252	0.048
	Zn	68		ug/L		80823	0.333
>	Ge	74		ug/L		239487	239487.164
	As	75	**7.652**	ug/L	7.761	6457	0.025
	Se	77		ug/L		3192	-0.017
	Se	82	**-2.950**	ug/L	7.582	-194	-0.001
	Kr	83		ug/L		363	0.001
	Sr	88	**145.280**	ug/L	1.299	1346080	9.617
	Y	89		ug/L		492291	3.518
	Ag	107	**0.526**	ug/L	2.015	1955	0.014
	Cd	111	**1.758**	ug/L	3.787	1561	0.011
	Cd	114		ug/L		564	0.004
>	In	115		ug/L		139928	139928.347
	Sn	120	**0.503**	ug/L	3.949	2460	0.013
	Sb	121	**-0.364**	ug/L	2.019	608	-0.009
	Sb	123		ug/L		481	-0.007
	Ba	135		ug/L		887845	3.948
	Ba	137	**838.874**	ug/L	0.971	1500943	6.675
	Ho	165		ug/L		26961	0.120
>	Lu	175		ug/L		224864	224864.124
	Tl	205	**0.956**	ug/L	2.414	7999	0.033
	Pb	208	**57.769**	ug/L	0.466	844031	3.743
	Bi	209		ug/L		10101	0.045
	U	238	**4.133**	ug/L	0.804	62643	0.277

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		90.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		85.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960002
Sample Date/Time: Friday, February 26, 2010 08:59:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960002.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**66.046**	ug/L	1.113	87624	0.082
	Be	9	**3.474**	ug/L	2.558	1387	0.001
	B	11	**11.758**	ug/L	1.694	6143	0.004
	Na	23	**636.344**	ug/L	4.614	2262597	2.108
	Mg	24	**7359.394**	ug/L	0.979	18370933	17.264
	Al	27	**63491.338**	ug/L	2.774	246333754	231.446
	P	31	**1035.395**	ug/L	0.883	216556	0.197
	K	39	**8154.584**	ug/L	2.841	34777873	32.271
	Ca	43	**8678.349**	ug/L	0.564	83662	0.078
>	Sc	45		ug/L		1063906	1063906.438
	V	51	**77.653**	ug/L	0.641	373721	0.340
	Cr	52	**34.925**	ug/L	0.293	143327	0.129
	Cr	53		ug/L		68954	-0.045
	Mn	55	**1231.151**	ug/L	0.939	7019247	6.597
	Fe	57	**45177.827**	ug/L	1.306	4960706	4.659
	Co	59	**25.164**	ug/L	1.179	106738	0.100
	Ni	60	**32.511**	ug/L	1.539	29522	0.028
	Cu	63		ug/L		104826	0.098
	Cu	65	**50.082**	ug/L	0.239	53161	0.050
	Zn	66	**157.175**	ug/L	0.606	103250	0.458
	Zn	67		ug/L		27015	0.055
	Zn	68		ug/L		84755	0.372
>	Ge	74		ug/L		224882	224882.022
	As	75	**7.126**	ug/L	4.194	5663	0.023
	Se	77		ug/L		2949	-0.017
	Se	82	**-1.715**	ug/L	22.646	-102	-0.000
	Kr	83		ug/L		268	0.001
	Sr	88	**95.018**	ug/L	0.560	845838	6.290
	Y	89		ug/L		454978	3.384
	Ag	107	**0.584**	ug/L	4.029	2081	0.015
	Cd	111	**2.532**	ug/L	5.825	2149	0.016
	Cd	114		ug/L		2203	0.016
>	In	115		ug/L		134450	134449.871
	Sn	120	**0.943**	ug/L	1.803	3913	0.025
	Sb	121	**-0.275**	ug/L	4.096	866	-0.007
	Sb	123		ug/L		715	-0.005
	Ba	135		ug/L		583337	2.633
	Ba	137	**569.540**	ug/L	0.705	1004072	4.532
	Ho	165		ug/L		25714	0.116
>	Lu	175		ug/L		221537	221536.890
	Tl	205	**0.612**	ug/L	1.813	5227	0.021
	Pb	208	**229.764**	ug/L	0.246	3300250	14.887
	Bi	209		ug/L		8119	0.036
	U	238	**32.310**	ug/L	1.108	480710	2.169

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			83.7		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			80.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			88.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			102.0		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960003
Sample Date/Time: Friday, February 26, 2010 09:04:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960003.159

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**87.667**	ug/L	1.336	108053	0.109
	Be	9	**5.040**	ug/L	4.397	1863	0.002
	B	11	**16.920**	ug/L	1.550	7605	0.006
	Na	23	**434.748**	ug/L	2.634	1442440	1.440
	Mg	24	**12974.230**	ug/L	2.480	30085104	30.436
	Al	27	**97117.966**	ug/L	1.168	350007222	354.025
	P	31	**560.723**	ug/L	1.764	111826	0.107
	K	39	**10924.634**	ug/L	6.512	43117465	43.234
	Ca	43	**9965.753**	ug/L	0.395	89243	0.090
>	Sc	45		ug/L		988671	988670.793
	V	51	**105.835**	ug/L	0.904	469305	0.464
	Cr	52	**47.897**	ug/L	0.434	180372	0.176
	Cr	53		ug/L		74054	-0.035
	Mn	55	**1406.943**	ug/L	0.874	7453753	7.539
	Fe	57	**56673.853**	ug/L	1.420	5781426	5.845
	Co	59	**25.745**	ug/L	1.114	101475	0.103
	Ni	60	**41.265**	ug/L	0.346	34809	0.035
	Cu	63		ug/L		66401	0.067
	Cu	65	**34.453**	ug/L	1.478	34000	0.034
	Zn	66	**141.782**	ug/L	0.299	85364	0.413
	Zn	67		ug/L		25977	0.060
	Zn	68		ug/L		74321	0.356
>	Ge	74		ug/L		206090	206089.694
	As	75	**8.593**	ug/L	2.570	6181	0.028
	Se	77		ug/L		3151	-0.015
	Se	82	**-3.107**	ug/L	10.680	-176	-0.001
	Kr	83		ug/L		353	0.001
	Sr	88	**138.299**	ug/L	1.216	1149081	9.154
	Y	89		ug/L		477019	3.801
	Ag	107	**0.562**	ug/L	2.555	1869	0.014
	Cd	111	**1.852**	ug/L	2.474	1472	0.012
	Cd	114		ug/L		508	0.004
>	In	115		ug/L		125494	125493.672
	Sn	120	**2.104**	ug/L	2.104	7470	0.055
	Sb	121	**-0.350**	ug/L	0.808	585	-0.008
	Sb	123		ug/L		471	-0.007
	Ba	135		ug/L		748831	3.619
	Ba	137	**780.969**	ug/L	0.498	1285940	6.215
	Ho	165		ug/L		28017	0.135
>	Lu	175		ug/L		206915	206914.932
	Tl	205	**0.950**	ug/L	1.867	7318	0.033
	Pb	208	**59.086**	ug/L	1.137	794187	3.828
	Bi	209		ug/L		10104	0.049
	U	238	**7.235**	ug/L	0.916	100736	0.486

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			77.8		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			73.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			82.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960004
Sample Date/Time: Friday, February 26, 2010 09:10:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960004.160

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**94.223**	ug/L	0.536	112068	0.117
	Be	9	**5.868**	ug/L	1.435	2094	0.002
	B	11	**17.233**	ug/L	0.320	7451	0.006
	Na	23	**576.850**	ug/L	3.659	1840931	1.911
	Mg	24	**11430.694**	ug/L	1.749	25589629	26.815
	Al	27	**111287.553**	ug/L	4.606	387070924	405.678
	P	31	**760.070**	ug/L	1.901	144138	0.145
	K	39	**10225.834**	ug/L	5.502	39036388	40.468
	Ca	43	**13232.249**	ug/L	0.901	114256	0.120
>	Sc	45		ug/L		953988	953987.578
	V	51	**100.777**	ug/L	0.981	431754	0.442
	Cr	52	**51.008**	ug/L	0.815	184972	0.188
	Cr	53		ug/L		75345	-0.031
	Mn	55	**1299.174**	ug/L	0.300	6642512	6.961
	Fe	57	**55696.235**	ug/L	0.700	5483468	5.744
	Co	59	**22.995**	ug/L	0.328	87486	0.092
	Ni	60	**43.716**	ug/L	2.027	35577	0.037
	Cu	63		ug/L		61726	0.065
	Cu	65	**33.868**	ug/L	0.650	32262	0.034
	Zn	66	**133.087**	ug/L	0.083	77412	0.388
	Zn	67		ug/L		24805	0.059
	Zn	68		ug/L		69848	0.346
>	Ge	74		ug/L		199065	199064.830
	As	75	**8.432**	ug/L	5.807	5865	0.028
	Se	77		ug/L		3190	-0.015
	Se	82	**-3.783**	ug/L	3.406	-209	-0.001
	Kr	83		ug/L		362	0.002
	Sr	88	**147.102**	ug/L	0.237	1175641	9.737
	Y	89		ug/L		491488	4.071
	Ag	107	**0.594**	ug/L	1.340	1898	0.015
	Cd	111	**1.949**	ug/L	7.283	1490	0.012
	Cd	114		ug/L		377	0.003
>	In	115		ug/L		120717	120717.481
	Sn	120	**0.528**	ug/L	3.216	2201	0.014
	Sb	121	**-0.368**	ug/L	2.020	513	-0.009
	Sb	123		ug/L		428	-0.007
	Ba	135		ug/L		804001	4.001
	Ba	137	**861.824**	ug/L	0.409	1378182	6.858
	Ho	165		ug/L		27751	0.138
>	Lu	175		ug/L		200948	200948.122
	Tl	205	**0.945**	ug/L	2.257	7074	0.033
	Pb	208	**57.990**	ug/L	0.217	757079	3.757
	Bi	209		ug/L		9764	0.048
	U	238	**4.928**	ug/L	0.870	66714	0.331

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			75.1		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			70.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			79.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			92.5		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, February 26, 2010 09:16:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 8.161

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.551**	ug/L	1.821	65995	0.067
	Be	9	**52.314**	ug/L	1.177	19237	0.019
	B	11	**104.012**	ug/L	1.637	39579	0.039
	Na	23	**4631.901**	ug/L	1.484	15177487	15.347
	Mg	24	**4992.256**	ug/L	6.136	11570986	11.711
	Al	27	**4847.671**	ug/L	4.222	17458293	17.671
	P	31	**5051.718**	ug/L	0.320	956965	0.962
	K	39	**4551.118**	ug/L	9.374	18220678	18.011
	Ca	43	**4845.111**	ug/L	1.328	43482	0.044
>	Sc	45		ug/L		987861	987860.672
	V	51	**50.974**	ug/L	2.352	231538	0.223
	Cr	52	**52.345**	ug/L	0.692	196410	0.193
	Cr	53		ug/L		110938	0.003
	Mn	55	**52.356**	ug/L	0.552	278649	0.281
	Fe	57	**5073.989**	ug/L	0.745	521259	0.523
	Co	59	**51.123**	ug/L	0.233	201251	0.204
	Ni	60	**52.859**	ug/L	0.791	44538	0.045
	Cu	63		ug/L		104533	0.106
	Cu	65	**52.832**	ug/L	0.368	52068	0.053
	Zn	66	**51.915**	ug/L	0.812	33649	0.151
	Zn	67		ug/L		17887	0.015
	Zn	68		ug/L		25396	0.110
>	Ge	74		ug/L		221069	221069.043
	As	75	**48.474**	ug/L	0.622	35632	0.159
	Se	77		ug/L		8076	0.006
	Se	82	**50.767**	ug/L	2.208	3225	0.015
	Kr	83		ug/L		66	0.000
	Sr	88	**52.122**	ug/L	0.592	436347	3.450
	Y	89		ug/L		195	0.001
	Ag	107	**51.899**	ug/L	0.748	168635	1.333
	Cd	111	**50.338**	ug/L	1.109	39829	0.315
	Cd	114		ug/L		93417	0.739
>	In	115		ug/L		126424	126424.143
	Sn	120	**54.617**	ug/L	0.385	181607	1.432
	Sb	121	**54.051**	ug/L	1.908	164016	1.285
	Sb	123		ug/L		129112	1.011
	Ba	135		ug/L		44759	0.223
	Ba	137	**49.974**	ug/L	1.749	79801	0.398
	Ho	165		ug/L		23	0.000
>	Lu	175		ug/L		200560	200560.448
	Tl	205	**49.722**	ug/L	0.693	347778	1.732
	Pb	208	**52.110**	ug/L	0.405	679201	3.376
	Bi	209		ug/L		173	0.001
	U	238	**54.877**	ug/L	1.353	739010	3.684

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.101				
	Be	9	104.628				
	B	11	104.012				
	Na	23	92.638				
	Mg	24	99.845				
	Al	27	95.993				
	P	31	101.034				
	K	39	91.022				
	Ca	43	96.902				
>	Sc	45		77.8			
	V	51	101.948				
	Cr	52	104.691				
	Cr	53					
	Mn	55	104.712				
	Fe	57	101.480				
	Co	59	102.246				
	Ni	60	105.718				
	Cu	63					
	Cu	65	105.664				
	Zn	66	103.830				
	Zn	67					
	Zn	68					
>	Ge	74		78.8			
	As	75	96.947				
	Se	77					
	Se	82	101.534				
	Kr	83					
	Sr	88	104.243				
	Y	89					
	Ag	107	103.798				
	Cd	111	100.676				
	Cd	114					
>	In	115		83.4			
	Sn	120	109.234				
	Sb	121	108.103				
	Sb	123					
	Ba	135					
	Ba	137	99.949				
	Ho	165					
>	Lu	175		92.3			
	Tl	205	99.444				
	Pb	208	104.220				
	Bi	209					
	U	238	109.754				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 09:22:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.047**	ug/L	37.689	179	0.000
	Be	9	**0.002**	ug/L	466.789	14	0.000
	B	11	**-0.427**	ug/L	125.826	1415	-0.000
	Na	23	**-0.091**	ug/L	646.826	20014	-0.000
	Mg	24	**0.754**	ug/L	157.456	7669	0.002
	Al	27	**3.461**	ug/L	30.947	19681	0.013
	P	31	**1.287**	ug/L	75.625	7466	0.000
	K	39	**1.002**	ug/L	149.134	493723	0.004
	Ca	43	**3.066**	ug/L	43.653	315	0.000
>	Sc	45		ug/L		1138539	1138539.212
	V	51	**0.037**	ug/L	889.785	12804	0.000
	Cr	52	**0.097**	ug/L	5.633	7458	0.000
	Cr	53		ug/L		120587	-0.004
	Mn	55	**0.063**	ug/L	10.524	2137	0.000
	Fe	57	**2.375**	ug/L	22.803	5294	0.000
	Co	59	**0.002**	ug/L	148.295	152	0.000
	Ni	60	**0.008**	ug/L	135.521	81	0.000
	Cu	63		ug/L		140	-0.000
	Cu	65	**-0.001**	ug/L	1390.347	87	-0.000
	Zn	66	**0.007**	ug/L	572.697	218	0.000
	Zn	67		ug/L		16708	0.001
	Zn	68		ug/L		1072	-0.000
>	Ge	74		ug/L		250717	250716.955
	As	75	**0.138**	ug/L	651.351	545	0.000
	Se	77		ug/L		7553	-0.000
	Se	82	**0.219**	ug/L	196.159	24	0.000
	Kr	83		ug/L		69	-0.000
	Sr	88	**0.007**	ug/L	73.998	275	0.000
	Y	89		ug/L		61	0.000
	Ag	107	**0.001**	ug/L	245.996	69	0.000
	Cd	111	**0.001**	ug/L	571.001	21	0.000
	Cd	114		ug/L		36	0.000
>	In	115		ug/L		141893	141892.908
	Sn	120	**-0.009**	ug/L	121.788	587	-0.000
	Sb	121	**-0.214**	ug/L	38.130	1117	-0.005
	Sb	123		ug/L		878	-0.004
	Ba	135		ug/L		52	0.000
	Ba	137	**0.025**	ug/L	27.997	97	0.000
	Ho	165		ug/L		7	0.000
>	Lu	175		ug/L		214147	214147.274
	Tl	205	**0.017**	ug/L	85.719	614	0.001
	Pb	208	**-0.013**	ug/L	16.090	2000	-0.001
	Bi	209		ug/L		36	-0.000
	U	238	**0.003**	ug/L	70.434	301	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		89.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960005
Sample Date/Time: Friday, February 26, 2010 09:28:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960005.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.289**	ug/L	0.158	120812	0.124
	Be	9	**6.443**	ug/L	1.105	2351	0.002
	B	11	**17.653**	ug/L	0.789	7776	0.007
	Na	23	**703.149**	ug/L	0.946	2291436	2.330
	Mg	24	**13001.954**	ug/L	4.703	29739299	30.501
	Al	27	**106030.541**	ug/L	2.177	377455341	386.514
	P	31	**580.087**	ug/L	0.132	114031	0.111
	K	39	**11278.082**	ug/L	5.815	44004656	44.632
	Ca	43	**13096.689**	ug/L	0.317	115715	0.118
>	Sc	45		ug/L		976035	976034.597
	V	51	**100.045**	ug/L	1.397	438551	0.438
	Cr	52	**44.909**	ug/L	0.909	167344	0.165
	Cr	53		ug/L		76327	-0.032
	Mn	55	**1461.442**	ug/L	0.704	7643412	7.831
	Fe	57	**56380.083**	ug/L	0.199	5679089	5.814
	Co	59	**26.721**	ug/L	0.678	104007	0.106
	Ni	60	**46.337**	ug/L	0.995	38573	0.039
	Cu	63		ug/L		64216	0.066
	Cu	65	**34.819**	ug/L	0.876	33924	0.035
	Zn	66	**138.548**	ug/L	1.215	81758	0.404
	Zn	67		ug/L		26346	0.065
	Zn	68		ug/L		73906	0.362
>	Ge	74		ug/L		201913	201913.165
	As	75	**9.007**	ug/L	2.740	6332	0.030
	Se	77		ug/L		3329	-0.014
	Se	82	**-3.997**	ug/L	14.761	-223	-0.001
	Kr	83		ug/L		399	0.002
	Sr	88	**151.977**	ug/L	0.403	1228715	10.060
	Y	89		ug/L		526394	4.310
	Ag	107	**0.658**	ug/L	1.831	2119	0.017
	Cd	111	**2.238**	ug/L	4.007	1728	0.014
	Cd	114		ug/L		512	0.004
>	In	115		ug/L		122116	122116.239
	Sn	120	**0.556**	ug/L	2.325	2314	0.015
	Sb	121	**-0.278**	ug/L	4.689	779	-0.007
	Sb	123		ug/L		632	-0.005
	Ba	135		ug/L		861746	4.256
	Ba	137	**912.906**	ug/L	0.740	1470969	7.265
	Ho	165		ug/L		30027	0.148
>	Lu	175		ug/L		202493	202493.267
	Tl	205	**1.086**	ug/L	0.897	8124	0.038
	Pb	208	**71.292**	ug/L	0.614	937369	4.619
	Bi	209		ug/L		10490	0.052
	U	238	**6.847**	ug/L	1.520	93281	0.460

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			76.8		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			71.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			80.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960006
Sample Date/Time: Friday, February 26, 2010 09:34:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960006.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.994**	ug/L	0.148	64563	0.069
	Be	9	**3.560**	ug/L	1.858	1257	0.001
	B	11	**15.941**	ug/L	2.303	6897	0.006
	Na	23	**341.914**	ug/L	3.654	1082910	1.133
	Mg	24	**8001.009**	ug/L	1.153	17668515	18.769
	Al	27	**59582.280**	ug/L	4.403	204374846	217.196
	P	31	**755.699**	ug/L	0.986	141429	0.144
	K	39	**9276.434**	ug/L	1.710	34955311	36.711
	Ca	43	**7784.626**	ug/L	0.778	66409	0.070
>	Sc	45		ug/L		941114	941114.332
	V	51	**74.160**	ug/L	1.021	316170	0.325
	Cr	52	**34.042**	ug/L	0.967	123719	0.125
	Cr	53		ug/L		69144	-0.036
	Mn	55	**1319.646**	ug/L	1.281	6655523	7.071
	Fe	57	**38019.565**	ug/L	1.412	3693862	3.921
	Co	59	**21.364**	ug/L	1.329	80186	0.085
	Ni	60	**29.763**	ug/L	0.619	23916	0.025
	Cu	63		ug/L		60021	0.064
	Cu	65	**32.847**	ug/L	1.164	30867	0.033
	Zn	66	**111.166**	ug/L	1.188	65015	0.324
	Zn	67		ug/L		21729	0.043
	Zn	68		ug/L		56644	0.279
>	Ge	74		ug/L		200081	200081.122
	As	75	**7.044**	ug/L	1.955	4984	0.023
	Se	77		ug/L		3060	-0.015
	Se	82	**-1.700**	ug/L	5.685	-90	-0.000
	Kr	83		ug/L		239	0.001
	Sr	88	**94.885**	ug/L	1.028	769541	6.281
	Y	89		ug/L		329971	2.693
	Ag	107	**0.468**	ug/L	3.763	1529	0.012
	Cd	111	**1.733**	ug/L	4.227	1345	0.011
	Cd	114		ug/L		774	0.006
>	In	115		ug/L		122501	122500.910
	Sn	120	**0.645**	ug/L	3.968	2606	0.017
	Sb	121	**-0.244**	ug/L	4.419	880	-0.006
	Sb	123		ug/L		701	-0.005
	Ba	135		ug/L		556217	2.734
	Ba	137	**593.357**	ug/L	0.617	960799	4.722
	Ho	165		ug/L		19164	0.094
>	Lu	175		ug/L		203470	203470.467
	Tl	205	**0.676**	ug/L	1.174	5259	0.024
	Pb	208	**52.374**	ug/L	0.496	692557	3.393
	Bi	209		ug/L		7458	0.036
	U	238	**64.601**	ug/L	0.660	882571	4.336

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		74.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		71.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		80.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960007
Sample Date/Time: Friday, February 26, 2010 09:40:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960007.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**94.415**	**ug/L**	0.789	105811	0.118
	Be	9	**5.597**	**ug/L**	3.257	1881	0.002
	B	11	**17.043**	**ug/L**	3.515	6955	0.006
	Na	23	**504.726**	**ug/L**	8.863	1517792	1.672
	Mg	24	**13765.955**	**ug/L**	4.304	29047687	32.293
	Al	27	**109021.598**	**ug/L**	1.741	357175202	397.418
	P	31	**539.674**	**ug/L**	1.137	98085	0.103
	K	39	**10562.615**	**ug/L**	5.275	37971759	41.801
	Ca	43	**11104.540**	**ug/L**	0.444	90388	0.100
>	Sc	45		**ug/L**		898921	898920.730
	V	51	**114.796**	**ug/L**	0.577	462041	0.503
	Cr	52	**53.523**	**ug/L**	0.374	182612	0.197
	Cr	53		**ug/L**		73371	-0.028
	Mn	55	**2007.927**	**ug/L**	0.888	9671914	10.759
	Fe	57	**62400.855**	**ug/L**	1.086	5788411	6.435
	Co	59	**35.203**	**ug/L**	1.038	126121	0.140
	Ni	60	**47.006**	**ug/L**	0.510	36044	0.040
	Cu	63		**ug/L**		62046	0.069
	Cu	65	**36.017**	**ug/L**	1.599	32316	0.036
	Zn	66	**151.800**	**ug/L**	0.781	82873	0.443
	Zn	67		**ug/L**		25819	0.073
	Zn	68		**ug/L**		73186	0.387
>	Ge	74		**ug/L**		186905	186904.823
	As	75	**9.923**	**ug/L**	3.149	6423	0.033
	Se	77		**ug/L**		2986	-0.015
	Se	82	**-3.701**	**ug/L**	13.176	-191	-0.001
	Kr	83		**ug/L**		358	0.002
	Sr	88	**155.134**	**ug/L**	0.885	1184452	10.269
	Y	89		**ug/L**		399737	3.466
	Ag	107	**0.605**	**ug/L**	2.466	1847	0.016
	Cd	111	**2.118**	**ug/L**	5.479	1544	0.013
	Cd	114		**ug/L**		571	0.005
>	In	115		**ug/L**		115342	115342.156
	Sn	120	**0.421**	**ug/L**	2.604	1778	0.011
	Sb	121	**-0.341**	**ug/L**	1.740	565	-0.008
	Sb	123		**ug/L**		472	-0.006
	Ba	135		**ug/L**		752212	3.875
	Ba	137	**833.657**	**ug/L**	0.466	1287743	6.634
	Ho	165		**ug/L**		24906	0.128
>	Lu	175		**ug/L**		194102	194101.734
	Tl	205	**1.176**	**ug/L**	2.465	8395	0.041
	Pb	208	**64.720**	**ug/L**	0.475	815905	4.193
	Bi	209		**ug/L**		10655	0.055
	U	238	**5.166**	**ug/L**	0.642	67540	0.347

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			70.8		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			66.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			76.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			89.3		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960008
Sample Date/Time: Friday, February 26, 2010 09:46:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960008.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.310**	ug/L	1.351	62054	0.069
	Be	9	**3.544**	ug/L	0.304	1196	0.001
	B	11	**12.520**	ug/L	1.588	5449	0.005
	Na	23	**303.357**	ug/L	1.118	920037	1.005
	Mg	24	**8092.862**	ug/L	3.082	17079564	18.985
	Al	27	**60150.831**	ug/L	3.669	197206866	219.269
	P	31	**615.569**	ug/L	0.756	111157	0.117
	K	39	**8266.559**	ug/L	1.847	29809605	32.714
	Ca	43	**7726.060**	ug/L	1.169	62991	0.070
>	Sc	45		ug/L		899402	899402.345
	V	51	**72.223**	ug/L	0.573	294543	0.316
	Cr	52	**30.999**	ug/L	0.838	108168	0.114
	Cr	53		ug/L		64841	-0.038
	Mn	55	**1161.755**	ug/L	0.305	5600138	6.225
	Fe	57	**38659.920**	ug/L	0.400	3589826	3.987
	Co	59	**19.677**	ug/L	0.415	70596	0.078
	Ni	60	**29.376**	ug/L	0.536	22560	0.025
	Cu	63		ug/L		61787	0.069
	Cu	65	**35.173**	ug/L	1.297	31583	0.035
	Zn	66	**115.633**	ug/L	0.019	64951	0.337
	Zn	67		ug/L		21628	0.047
	Zn	68		ug/L		56830	0.291
>	Ge	74		ug/L		192169	192168.794
	As	75	**7.607**	ug/L	5.859	5143	0.025
	Se	77		ug/L		2825	-0.016
	Se	82	**-1.395**	ug/L	28.909	-70	-0.000
	Kr	83		ug/L		228	0.001
	Sr	88	**98.861**	ug/L	0.511	771578	6.544
	Y	89		ug/L		336669	2.856
	Ag	107	**0.448**	ug/L	3.602	1410	0.012
	Cd	111	**1.681**	ug/L	5.364	1257	0.011
	Cd	114		ug/L		721	0.006
>	In	115		ug/L		117881	117880.859
	Sn	120	**0.528**	ug/L	2.453	2147	0.014
	Sb	121	**-0.271**	ug/L	4.062	771	-0.006
	Sb	123		ug/L		598	-0.005
	Ba	135		ug/L		561093	2.780
	Ba	137	**606.434**	ug/L	1.039	973901	4.826
	Ho	165		ug/L		19972	0.099
>	Lu	175		ug/L		201812	201812.228
	Tl	205	**0.698**	ug/L	1.615	5366	0.024
	Pb	208	**49.604**	ug/L	0.484	650661	3.214
	Bi	209		ug/L		7374	0.036
	U	238	**28.696**	ug/L	1.396	388953	1.926

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		70.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		68.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		77.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960009
Sample Date/Time: Friday, February 26, 2010 09:52:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960009.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**56.398**	**ug/L**	2.200	62781	0.070
	Be	9	**3.753**	**ug/L**	3.906	1256	0.001
	B	11	**13.792**	**ug/L**	4.489	5827	0.005
	Na	23	**352.067**	**ug/L**	8.461	1056087	1.166
	Mg	24	**8091.829**	**ug/L**	2.320	16947186	18.982
	Al	27	**62059.921**	**ug/L**	7.038	201752415	226.228
	P	31	**739.149**	**ug/L**	2.147	131284	0.141
	K	39	**9234.915**	**ug/L**	6.193	33003492	36.547
	Ca	43	**7902.432**	**ug/L**	0.591	63926	0.071
>	Sc	45		**ug/L**		892501	892500.945
	V	51	**71.648**	**ug/L**	1.071	290003	0.314
	Cr	52	**34.773**	**ug/L**	1.391	119716	0.128
	Cr	53		**ug/L**		66451	-0.035
	Mn	55	**1208.503**	**ug/L**	2.185	5779378	6.476
	Fe	57	**39283.687**	**ug/L**	1.815	3618962	4.051
	Co	59	**20.988**	**ug/L**	1.746	74699	0.084
	Ni	60	**30.784**	**ug/L**	1.051	23457	0.026
	Cu	63		**ug/L**		51289	0.057
	Cu	65	**29.683**	**ug/L**	1.320	26460	0.030
	Zn	66	**99.336**	**ug/L**	1.303	55834	0.290
	Zn	67		**ug/L**		19975	0.038
	Zn	68		**ug/L**		49918	0.255
>	Ge	74		**ug/L**		192204	192204.049
	As	75	**7.380**	**ug/L**	7.431	4999	0.024
	Se	77		**ug/L**		2762	-0.016
	Se	82	**-2.119**	**ug/L**	22.644	-110	-0.001
	Kr	83		**ug/L**		243	0.001
	Sr	88	**93.815**	**ug/L**	0.507	728891	6.210
	Y	89		**ug/L**		326566	2.782
	Ag	107	**0.550**	**ug/L**	2.826	1713	0.014
	Cd	111	**1.675**	**ug/L**	5.473	1246	0.010
	Cd	114		**ug/L**		650	0.005
>	In	115		**ug/L**		117352	117351.730
	Sn	120	**0.498**	**ug/L**	0.417	2046	0.013
	Sb	121	**-0.308**	**ug/L**	1.049	664	-0.007
	Sb	123		**ug/L**		559	-0.006
	Ba	135		**ug/L**		540377	2.729
	Ba	137	**592.530**	**ug/L**	0.684	933623	4.715
	Ho	165		**ug/L**		19261	0.097
>	Lu	175		**ug/L**		198002	198002.248
	Tl	205	**0.658**	**ug/L**	2.773	4989	0.023
	Pb	208	**50.855**	**ug/L**	0.687	654401	3.295
	Bi	209		**ug/L**		7599	0.038
	U	238	**21.643**	**ug/L**	1.209	287867	1.453

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		70.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		68.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		77.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960010
Sample Date/Time: Friday, February 26, 2010 09:58:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960010.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**48.051**	ug/L	1.156	54941	0.060
	Be	9	**2.521**	ug/L	2.011	870	0.001
	B	11	**8.164**	ug/L	5.062	4068	0.003
	Na	23	**346.582**	ug/L	4.100	1068552	1.148
	Mg	24	**6478.921**	ug/L	2.782	13932191	15.199
	Al	27	**43955.760**	ug/L	3.459	146856177	160.232
	P	31	**963.020**	ug/L	0.475	173917	0.183
	K	39	**6154.749**	ug/L	7.513	22712080	24.357
	Ca	43	**7067.873**	ug/L	1.319	58734	0.064
>	Sc	45		ug/L		916414	916413.774
	V	51	**45.906**	ug/L	0.247	194457	0.201
	Cr	52	**21.671**	ug/L	0.950	78754	0.080
	Cr	53		ug/L		61434	-0.043
	Mn	55	**768.846**	ug/L	1.480	3776577	4.120
	Fe	57	**26170.236**	ug/L	1.799	2477324	2.699
	Co	59	**12.469**	ug/L	1.218	45624	0.050
	Ni	60	**22.042**	ug/L	1.547	17263	0.019
	Cu	63		ug/L		70000	0.076
	Cu	65	**38.518**	ug/L	0.382	35234	0.038
	Zn	66	**95.876**	ug/L	0.672	55964	0.280
	Zn	67		ug/L		18526	0.027
	Zn	68		ug/L		46245	0.227
>	Ge	74		ug/L		199606	199605.516
	As	75	**4.953**	ug/L	6.183	3598	0.016
	Se	77		ug/L		2785	-0.017
	Se	82	**-1.040**	ug/L	54.816	-52	-0.000
	Kr	83		ug/L		180	0.001
	Sr	88	**67.620**	ug/L	0.837	542094	4.476
	Y	89		ug/L		254884	2.105
	Ag	107	**0.668**	ug/L	0.693	2134	0.017
	Cd	111	**1.611**	ug/L	2.186	1238	0.010
	Cd	114		ug/L		1255	0.010
>	In	115		ug/L		121074	121074.434
	Sn	120	**0.752**	ug/L	1.545	2918	0.020
	Sb	121	**-0.341**	ug/L	1.533	591	-0.008
	Sb	123		ug/L		471	-0.007
	Ba	135		ug/L		337140	1.638
	Ba	137	**358.317**	ug/L	1.176	586820	2.851
	Ho	165		ug/L		15007	0.073
>	Lu	175		ug/L		205791	205791.379
	Tl	205	**0.416**	ug/L	0.836	3454	0.014
	Pb	208	**173.898**	ug/L	1.209	2320764	11.267
	Bi	209		ug/L		6017	0.029
	U	238	**32.600**	ug/L	1.338	450563	2.188

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			72.1		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			71.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			79.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.7		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960011
Sample Date/Time: Friday, February 26, 2010 10:04:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245960011.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**86.241**	ug/L	1.685	96137	0.107
	Be	9	**5.376**	ug/L	2.931	1798	0.002
	B	11	**16.385**	ug/L	0.903	6700	0.006
	Na	23	**624.760**	ug/L	6.749	1865576	2.070
	Mg	24	**12121.108**	ug/L	4.054	25416726	28.435
	Al	27	**93123.101**	ug/L	2.770	303502766	339.463
	P	31	**598.644**	ug/L	1.001	107608	0.114
	K	39	**10518.181**	ug/L	6.880	37616883	41.625
	Ca	43	**12695.296**	ug/L	1.568	102751	0.115
>	Sc	45		ug/L		893931	893930.699
	V	51	**97.732**	ug/L	0.485	392635	0.428
	Cr	52	**44.328**	ug/L	0.689	151348	0.163
	Cr	53		ug/L		69292	-0.032
	Mn	55	**1337.700**	ug/L	0.343	6408620	7.168
	Fe	57	**52583.245**	ug/L	0.424	4851748	5.423
	Co	59	**25.022**	ug/L	0.976	89195	0.100
	Ni	60	**40.372**	ug/L	0.492	30796	0.034
	Cu	63		ug/L		55923	0.062
	Cu	65	**32.949**	ug/L	1.504	29406	0.033
	Zn	66	**129.351**	ug/L	0.674	70746	0.377
	Zn	67		ug/L		23125	0.058
	Zn	68		ug/L		63815	0.337
>	Ge	74		ug/L		187173	187173.131
	As	75	**7.722**	ug/L	3.806	5080	0.025
	Se	77		ug/L		3030	-0.014
	Se	82	**-3.610**	ug/L	6.682	-187	-0.001
	Kr	83		ug/L		332	0.001
	Sr	88	**147.890**	ug/L	1.509	1118632	9.789
	Y	89		ug/L		398584	3.488
	Ag	107	**0.547**	ug/L	1.966	1658	0.014
	Cd	111	**1.724**	ug/L	3.861	1249	0.011
	Cd	114		ug/L		404	0.003
>	In	115		ug/L		114245	114245.284
	Sn	120	**0.527**	ug/L	4.173	2080	0.014
	Sb	121	**-0.375**	ug/L	1.810	465	-0.009
	Sb	123		ug/L		401	-0.007
	Ba	135		ug/L		736343	3.776
	Ba	137	**813.035**	ug/L	1.063	1261825	6.470
	Ho	165		ug/L		24095	0.124
>	Lu	175		ug/L		195042	195041.593
	Tl	205	**0.906**	ug/L	2.466	6600	0.032
	Pb	208	**56.839**	ug/L	0.700	720256	3.683
	Bi	209		ug/L		8959	0.046
	U	238	**4.075**	ug/L	1.087	53592	0.274

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		70.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		66.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		75.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 10:10:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.882**	ug/L	0.733	57798	0.063
	Be	9	**50.547**	ug/L	0.909	17132	0.019
	B	11	**99.209**	ug/L	1.307	34855	0.037
	Na	23	**4650.235**	ug/L	3.026	14044878	15.408
	Mg	24	**4835.614**	ug/L	3.520	10333650	11.344
	Al	27	**4800.845**	ug/L	1.979	15936736	17.501
	P	31	**4894.841**	ug/L	0.660	854813	0.933
	K	39	**4606.660**	ug/L	0.364	16989701	18.231
	Ca	43	**4681.002**	ug/L	1.766	38727	0.042
>	Sc	45		ug/L		910477	910476.657
	V	51	**49.807**	ug/L	0.346	208755	0.218
	Cr	52	**50.289**	ug/L	0.906	174139	0.185
	Cr	53		ug/L		102785	0.003
	Mn	55	**50.417**	ug/L	0.873	247376	0.270
	Fe	57	**4893.577**	ug/L	0.496	463489	0.505
	Co	59	**49.931**	ug/L	0.754	181158	0.199
	Ni	60	**52.101**	ug/L	0.565	40461	0.044
	Cu	63		ug/L		94034	0.103
	Cu	65	**51.242**	ug/L	0.165	46546	0.051
	Zn	66	**49.362**	ug/L	1.064	29537	0.144
	Zn	67		ug/L		16643	0.016
	Zn	68		ug/L		22375	0.105
>	Ge	74		ug/L		204018	204018.260
	As	75	**47.996**	ug/L	0.530	32565	0.158
	Se	77		ug/L		7334	0.005
	Se	82	**50.916**	ug/L	1.532	2985	0.015
	Kr	83		ug/L		65	0.000
	Sr	88	**49.344**	ug/L	0.343	392338	3.266
	Y	89		ug/L		218	0.001
	Ag	107	**49.470**	ug/L	0.734	152667	1.271
	Cd	111	**47.979**	ug/L	0.672	36056	0.300
	Cd	114		ug/L		84618	0.705
>	In	115		ug/L		120066	120066.178
	Sn	120	**53.688**	ug/L	0.401	169551	1.408
	Sb	121	**52.055**	ug/L	2.237	150088	1.237
	Sb	123		ug/L		118640	0.978
	Ba	135		ug/L		41355	0.213
	Ba	137	**47.467**	ug/L	1.104	73188	0.378
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		193645	193644.630
	Tl	205	**48.344**	ug/L	0.152	326509	1.684
	Pb	208	**50.052**	ug/L	1.389	629912	3.243
	Bi	209		ug/L		155	0.001
	U	238	**53.065**	ug/L	0.245	690013	3.562

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.765				
	Be	9	101.095				
	B	11	99.209				
	Na	23	93.005				
	Mg	24	96.712				
	Al	27	95.066				
	P	31	97.897				
	K	39	92.133				
	Ca	43	93.620				
>	Sc	45		71.7			
	V	51	99.614				
	Cr	52	100.578				
	Cr	53					
	Mn	55	100.834				
	Fe	57	97.872				
	Co	59	99.861				
	Ni	60	104.202				
	Cu	63					
	Cu	65	102.483				
	Zn	66	98.724				
	Zn	67					
	Zn	68					
>	Ge	74		72.7			
	As	75	95.991				
	Se	77					
	Se	82	101.832				
	Kr	83					
	Sr	88	98.687				
	Y	89					
	Ag	107	98.941				
	Cd	111	95.958				
	Cd	114					
>	In	115		79.2			
	Sn	120	107.375				
	Sb	121	104.111				
	Sb	123					
	Ba	135					
	Ba	137	94.935				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	96.689				
	Pb	208	100.105				
	Bi	209					
	U	238	106.130				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

Sample ID: QC Std 6

Report Date/Time: Friday, February 26, 2010 10:12:40

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 10:16:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.038**	ug/L	19.957	155	0.000
	Be	9	**0.009**	ug/L	18.476	16	0.000
	B	11	**-0.558**	ug/L	95.981	1265	-0.000
	Na	23	**1.095**	ug/L	126.387	22685	0.004
	Mg	24	**-0.372**	ug/L	231.115	4334	-0.001
	Al	27	**2.606**	ug/L	42.154	15008	0.009
	P	31	**2.426**	ug/L	82.915	7171	0.000
	K	39	**-10.282**	ug/L	57.310	411522	-0.041
	Ca	43	**1.424**	ug/L	82.679	277	0.000
>	Sc	45		ug/L		1058106	1058105.899
	V	51	**0.359**	ug/L	59.484	13378	0.002
	Cr	52	**0.059**	ug/L	141.049	6785	0.000
	Cr	53		ug/L		111942	-0.004
	Mn	55	**0.146**	ug/L	7.451	2454	0.001
	Fe	57	**3.714**	ug/L	61.158	5065	0.000
	Co	59	**0.000**	ug/L	730.983	135	0.000
	Ni	60	**-0.008**	ug/L	112.397	61	-0.000
	Cu	63		ug/L		147	0.000
	Cu	65	**0.003**	ug/L	122.380	85	0.000
	Zn	66	**0.011**	ug/L	124.048	206	0.000
	Zn	67		ug/L		16092	0.003
	Zn	68		ug/L		1016	-0.000
>	Ge	74		ug/L		233288	233288.390
	As	75	**0.351**	ug/L	106.519	675	0.001
	Se	77		ug/L		6884	-0.001
	Se	82	**-0.039**	ug/L	128.058	6	-0.000
	Kr	83		ug/L		74	0.000
	Sr	88	**0.006**	ug/L	29.456	249	0.000
	Y	89		ug/L		73	0.000
	Ag	107	**0.002**	ug/L	103.820	68	0.000
	Cd	111	**0.005**	ug/L	150.113	23	0.000
	Cd	114		ug/L		37	0.000
>	In	115		ug/L		132790	132789.959
	Sn	120	**-0.023**	ug/L	75.592	501	-0.001
	Sb	121	**-0.180**	ug/L	50.227	1155	-0.004
	Sb	123		ug/L		902	-0.004
	Ba	135		ug/L		41	0.000
	Ba	137	**0.003**	ug/L	221.059	56	0.000
	Ho	165		ug/L		11	0.000
>	Lu	175		ug/L		205256	205255.854
	Tl	205	**0.005**	ug/L	269.392	505	0.000
	Pb	208	**-0.004**	ug/L	134.032	2046	-0.000
	Bi	209		ug/L		36	-0.000
	U	238	**0.004**	ug/L	78.598	302	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		83.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		83.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, February 26, 2010 21:33:32
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1676
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2874.9	2874.890	102.453	3.6
	Mg	24.0	18310.9	18310.933	447.610	2.4
	Co	58.9	34076.2	34076.202	570.365	1.7
	Rh	102.9	78681.9	78681.905	859.088	1.1
	In	114.9	92589.9	92589.892	600.865	0.6
	Pb	208.0	72499.7	72499.713	644.746	0.9
⌈>	Ba	137.9	88745.2	88745.243	431.744	0.5
⌊	Ba++	69.0	1220.3	0.014	0.000	3.4
⌈>	Ce	139.9	117167.7	117167.746	815.209	0.7
⌊	CeO	155.9	2319.6	0.020	0.000	2.5
	Bkgd	220.0	3.1	3.100	1.194	38.5

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.8	2790.6
Co	59	11	6.5	32715.1
In	115	11	7.5	87414.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	577	2080	0.649
Be	9.0	8.9	2022	2080	0.663
Mg	24.0	24.0	5686	2124	0.607
Mg	25.0	25.0	5914	2080	0.664
Mg	26.0	26.0	6168	2120	0.665
Co	58.9	58.9	14184	2170	0.640
Rh	102.9	102.9	24871	2230	0.698
In	114.9	114.9	27787	2260	0.683
Ce	139.9	139.9	33849	2280	0.761
Pb	206.0	206.0	49948	2430	0.696
Pb	207.0	207.0	50159	2385	0.705
Pb	208.0	207.9	50439	2430	0.745
U	238.1	238.1	57734	2470	0.743

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 26, 2010 21:46:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniasset1.mth
Dataset File: C:\elandata\Dataset\100226\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		8	
>	Sc	45		ug/L		802215	
	Ni	60		ug/L		60	
>	Ge	74		ug/L		226733	
	As	75		ug/L		286	
	Se	77		ug/L		2376	
	Se	82		ug/L		-7	
	Kr	83		ug/L		57	
>	Lu	175		ug/L		213403	
	Tl	205		ug/L		105	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 26, 2010 21:50:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	3.148	3106	0.004
>	Sc	45		ug/L		799606	799606.225
	Ni	60	10.000	ug/L	4.515	6800	0.008
>	Ge	74		ug/L		226088	226088.275
	As	75	10.000	ug/L	1.825	6372	0.027
	Se	77		ug/L		2793	0.002
	Se	82	10.000	ug/L	0.993	592	0.003
	Kr	83		ug/L		37	-0.000
>	Lu	175		ug/L		210671	210670.767
	Tl	205	10.000	ug/L	1.623	64784	0.307

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 26, 2010 21:54:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.962**	**ug/L**	9.136	30774	0.037
>	Sc	45		**ug/L**		829253	829253.257
	Ni	60	**99.955**	**ug/L**	11.729	66460	0.081
>	Ge	74		**ug/L**		219164	219163.879
	As	75	**100.006**	**ug/L**	0.598	59656	0.271
	Se	77		**ug/L**		6799	0.021
	Se	82	**99.955**	**ug/L**	0.632	5554	0.025
	Kr	83		**ug/L**		60	0.000
>	Lu	175		**ug/L**		201825	201824.842
	Tl	205	**100.008**	**ug/L**	1.225	624732	3.095

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 26, 2010 21:58:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.873**	**ug/L**	3.954	16566	0.019
>	Sc	45		**ug/L**		872171	872171.376
	Ni	60	**51.283**	**ug/L**	2.544	36164	0.041
>	Ge	74		**ug/L**		221503	221502.597
	As	75	**50.142**	**ug/L**	1.694	30367	0.136
	Se	77		**ug/L**		4908	0.012
	Se	82	**52.606**	**ug/L**	0.845	2951	0.013
	Kr	83		**ug/L**		58	0.000
>	Lu	175		**ug/L**		204620	204619.792
	Tl	205	**51.244**	**ug/L**	2.298	324588	1.586

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	101.747				
>	Sc	45		108.7			
	Ni	60	102.566				
>	Ge	74		97.7			
	As	75	100.283				
	Se	77					
	Se	82	105.212				
	Kr	83					
>	Lu	175		95.9			
	Tl	205	102.487				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 26, 2010 22:02:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.009**	**ug/L**	24.794	12	0.000
>	Sc	45		**ug/L**		915828	915827.609
	Ni	60	**0.003**	**ug/L**	737.658	70	0.000
>	Ge	74		**ug/L**		226448	226448.305
	As	75	**0.198**	**ug/L**	199.435	406	0.001
	Se	77		**ug/L**		2709	0.001
	Se	82	**0.205**	**ug/L**	76.565	4	0.000
	Kr	83		**ug/L**		44	-0.000
>	Lu	175		**ug/L**		206332	206332.432
	Tl	205	**0.037**	**ug/L**	7.266	340	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		114.2			
	Ni	60					
>	Ge	74		99.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 26, 2010 22:06:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.543**	**ug/L**	10.647	193	0.000
>	Sc	45		**ug/L**		907308	907307.935
	Ni	60	**2.169**	**ug/L**	2.801	1657	0.002
>	Ge	74		**ug/L**		223844	223844.440
	As	75	**5.984**	**ug/L**	4.130	3911	0.016
	Se	77		**ug/L**		2934	0.003
	Se	82	**5.909**	**ug/L**	1.985	328	0.001
	Kr	83		**ug/L**		44	-0.000
>	Lu	175		**ug/L**		206597	206596.547
	Tl	205	**1.085**	**ug/L**	2.428	7037	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	108.645				
>	Sc	45		113.1			
	Ni	60	108.455				
>	Ge	74		98.7			
	As	75	119.670				
	Se	77					
	Se	82	118.171				
	Kr	83					
>	Lu	175		96.8			
	Tl	205	108.476				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 26, 2010 22:11:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.068**	**ug/L**	45.106	27	0.000
>	Sc	45		**ug/L**		772992	772992.329
	Ni	60	**4.107**	**ug/L**	3.067	2621	0.003
>	Ge	74		**ug/L**		192574	192573.540
	As	75	**0.839**	**ug/L**	86.833	682	0.002
	Se	77		**ug/L**		3701	0.009
	Se	82	**-2.534**	**ug/L**	5.135	-130	-0.001
	Kr	83		**ug/L**		220	0.001
>	Lu	175		**ug/L**		192047	192046.838
	Tl	205	**0.016**	**ug/L**	31.498	187	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.4			
	Ni	60	152.101				
>	Ge	74		84.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		90.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 26, 2010 22:15:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**18.814**	**ug/L**	6.175	5156	0.007
>	Sc	45		**ug/L**		734706	734706.092
	Ni	60	**22.418**	**ug/L**	7.067	13316	0.018
>	Ge	74		**ug/L**		191063	191063.101
	As	75	**22.098**	**ug/L**	2.323	11680	0.060
	Se	77		**ug/L**		4466	0.013
	Se	82	**19.101**	**ug/L**	3.188	920	0.005
	Kr	83		**ug/L**		191	0.001
>	Lu	175		**ug/L**		189129	189129.043
	Tl	205	**19.511**	**ug/L**	0.974	114297	0.604

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	94.071				
>	Sc	45		91.6			
	Ni	60	98.756				
>	Ge	74		84.3			
	As	75	110.492				
	Se	77					
	Se	82	95.507				
	Kr	83					
>	Lu	175		88.6			
	Tl	205	97.555				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 22:19:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.079**	**ug/L**	8.144	16402	0.018
>	Sc	45		**ug/L**		917163	917163.384
	Ni	60	**48.055**	**ug/L**	9.927	35460	0.039
>	Ge	74		**ug/L**		221469	221469.385
	As	75	**49.928**	**ug/L**	1.460	30235	0.135
	Se	77		**ug/L**		5288	0.013
	Se	82	**51.725**	**ug/L**	1.694	2901	0.013
	Kr	83		**ug/L**		48	-0.000
>	Lu	175		**ug/L**		204705	204705.090
	Tl	205	**51.233**	**ug/L**	0.448	324704	1.586

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.157				
>	Sc	45		114.3			
	Ni	60	96.110				
>	Ge	74		97.7			
	As	75	99.857				
	Se	77					
	Se	82	103.449				
	Kr	83					
>	Lu	175		95.9			
	Tl	205	102.466				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 22:23:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.006**	**ug/L**	80.364	11	0.000
>	Sc	45		**ug/L**		959030	959029.618
	Ni	60	**-0.010**	**ug/L**	36.186	65	-0.000
>	Ge	74		**ug/L**		226649	226648.543
	As	75	**0.290**	**ug/L**	77.887	463	0.001
	Se	77		**ug/L**		3135	0.003
	Se	82	**0.268**	**ug/L**	48.826	8	0.000
	Kr	83		**ug/L**		49	-0.000
>	Lu	175		**ug/L**		208182	208181.989
	Tl	205	**0.032**	**ug/L**	7.678	309	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		119.5			
	Ni	60					
>	Ge	74		100.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032573
Sample Date/Time: Friday, February 26, 2010 22:27:10
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032573.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.080**	**ug/L**	16.777	37	0.000
>	Sc	45		**ug/L**		931191	931190.515
	Ni	60	**0.339**	**ug/L**	4.104	325	0.000
>	Ge	74		**ug/L**		228620	228619.892
	As	75	**0.214**	**ug/L**	123.895	420	0.001
	Se	77		**ug/L**		2222	-0.001
	Se	82	**0.684**	**ug/L**	63.091	32	0.000
	Kr	83		**ug/L**		40	-0.000
>	Lu	175		**ug/L**		218417	218417.367
	Tl	205	**0.106**	**ug/L**	4.325	827	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.1			
	Ni	60					
>	Ge	74		100.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032578
Sample Date/Time: Friday, February 26, 2010 22:31:13
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948748|40|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032578.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**17.057**	**ug/L**	1.334	6314	0.006
>	Sc	45		**ug/L**		990006	990006.448
	Ni	60	**29.883**	**ug/L**	2.802	23950	0.024
>	Ge	74		**ug/L**		229105	229104.511
	As	75	**26.877**	**ug/L**	1.215	16970	0.073
	Se	77		**ug/L**		5956	0.016
	Se	82	**71.424**	**ug/L**	1.596	4146	0.018
	Kr	83		**ug/L**		49	-0.000
>	Lu	175		**ug/L**		209607	209607.333
	Tl	205	**30.337**	**ug/L**	1.070	196905	0.939

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		123.4			
	Ni	60					
>	Ge	74		101.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 22:35:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.965**	**ug/L**	5.536	16605	0.018
>	Sc	45		**ug/L**		948571	948570.530
	Ni	60	**47.164**	**ug/L**	7.470	36074	0.038
>	Ge	74		**ug/L**		222648	222647.581
	As	75	**49.818**	**ug/L**	1.021	30333	0.135
	Se	77		**ug/L**		5108	0.012
	Se	82	**50.921**	**ug/L**	1.975	2870	0.013
	Kr	83		**ug/L**		85	0.000
>	Lu	175		**ug/L**		204563	204562.791
	Tl	205	**50.807**	**ug/L**	0.281	321779	1.572

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	93.930				
>	Sc	45		118.2			
	Ni	60	94.327				
>	Ge	74		98.2			
	As	75	99.637				
	Se	77					
	Se	82	101.841				
	Kr	83					
>	Lu	175		95.9			
	Tl	205	101.615				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 22:39:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.006**	**ug/L**	66.082	12	0.000
>	Sc	45		**ug/L**		998840	998839.894
	Ni	60	**-0.011**	**ug/L**	141.629	66	-0.000
>	Ge	74		**ug/L**		223989	223989.327
	As	75	**0.506**	**ug/L**	41.000	589	0.001
	Se	77		**ug/L**		2808	0.002
	Se	82	**0.475**	**ug/L**	62.708	20	0.000
	Kr	83		**ug/L**		43	-0.000
>	Lu	175		**ug/L**		207074	207073.875
	Tl	205	**0.054**	**ug/L**	6.015	447	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		124.5			
	Ni	60					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032574
Sample Date/Time: Friday, February 26, 2010 22:47:24
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032574.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.521**	**ug/L**	6.787	609	0.001
>	Sc	45		**ug/L**		1055202	1055202.424
	Ni	60	**5.707**	**ug/L**	4.887	4937	0.005
>	Ge	74		**ug/L**		223768	223768.135
	As	75	**3.158**	**ug/L**	6.107	2195	0.009
	Se	77		**ug/L**		2325	-0.000
	Se	82	**0.971**	**ug/L**	39.849	47	0.000
	Kr	83		**ug/L**		96	0.000
>	Lu	175		**ug/L**		222957	222956.747
	Tl	205	**0.112**	**ug/L**	0.648	880	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		131.5			
	Ni	60					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032576
Sample Date/Time: Friday, February 26, 2010 22:51:26
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032576.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.161**	**ug/L**	4.021	8354	0.008
>	Sc	45		**ug/L**		1009864	1009863.773
	Ni	60	**27.010**	**ug/L**	6.563	22042	0.022
>	Ge	74		**ug/L**		221805	221804.887
	As	75	**40.035**	**ug/L**	0.170	24338	0.108
	Se	77		**ug/L**		2750	0.002
	Se	82	**9.700**	**ug/L**	3.186	539	0.002
	Kr	83		**ug/L**		97	0.000
>	Lu	175		**ug/L**		225408	225408.167
	Tl	205	**44.594**	**ug/L**	1.672	311206	1.380

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		125.9			
	Ni	60					
>	Ge	74		97.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		105.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032577
Sample Date/Time: Friday, February 26, 2010 22:55:29
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032577.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.814**	**ug/L**	1.708	8359	0.008
>	Sc	45		**ug/L**		1024856	1024856.128
	Ni	60	**24.431**	**ug/L**	0.663	20293	0.020
>	Ge	74		**ug/L**		223281	223281.279
	As	75	**39.729**	**ug/L**	1.115	24315	0.108
	Se	77		**ug/L**		2799	0.002
	Se	82	**9.517**	**ug/L**	8.653	532	0.002
	Kr	83		**ug/L**		73	0.000
>	Lu	175		**ug/L**		222597	222597.373
	Tl	205	**45.018**	**ug/L**	1.621	310257	1.393

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		127.8			
	Ni	60					
>	Ge	74		98.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		104.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032575
Sample Date/Time: Friday, February 26, 2010 22:59:32
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948748|10|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\1202032575.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.242**	**ug/L**	18.632	104	0.000
>	Sc	45		**ug/L**		1045837	1045837.058
	Ni	60	**1.022**	**ug/L**	7.847	939	0.001
>	Ge	74		**ug/L**		230466	230466.436
	As	75	**1.058**	**ug/L**	30.375	950	0.003
	Se	77		**ug/L**		3312	0.004
	Se	82	**0.654**	**ug/L**	6.122	31	0.000
	Kr	83		**ug/L**		45	-0.000
>	Lu	175		**ug/L**		211871	211870.673
	Tl	205	**0.079**	**ug/L**	2.375	619	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		130.4			
	Ni	60					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 23:15:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.505**	**ug/L**	2.285	17743	0.018
>	Sc	45		**ug/L**		1000068	1000068.090
	Ni	60	**45.366**	**ug/L**	1.050	36699	0.037
>	Ge	74		**ug/L**		225260	225260.317
	As	75	**50.267**	**ug/L**	1.412	30957	0.136
	Se	77		**ug/L**		5601	0.014
	Se	82	**52.595**	**ug/L**	2.203	3000	0.013
	Kr	83		**ug/L**		40	-0.000
>	Lu	175		**ug/L**		204064	204063.537
	Tl	205	**49.960**	**ug/L**	0.580	315649	1.546

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.010				
>	Sc	45		124.7			
	Ni	60	90.732				
>	Ge	74		99.4			
	As	75	100.535				
	Se	77					
	Se	82	105.190				
	Kr	83					
>	Lu	175		95.6			
	Tl	205	99.921				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 23:19:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.004	ug/L	327.831	9	-0.000
>	Sc	45		ug/L		1073126	1073126.312
	Ni	60	-0.025	ug/L	14.211	59	-0.000
>	Ge	74		ug/L		228164	228164.347
	As	75	0.755	ug/L	106.230	756	0.002
	Se	77		ug/L		3322	0.004
	Se	82	0.423	ug/L	31.029	17	0.000
	Kr	83		ug/L		46	-0.000
>	Lu	175		ug/L		205016	205016.224
	Tl	205	0.029	ug/L	8.117	282	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		133.8			
	Ni	60					
>	Ge	74		100.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960001
Sample Date/Time: Friday, February 26, 2010 23:40:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960001.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.322**	**ug/L**	3.097	1653	0.002
>	Sc	45		**ug/L**		1018219	1018219.090
	Ni	60	**33.266**	**ug/L**	3.025	27412	0.027
>	Ge	74		**ug/L**		210679	210679.317
	As	75	**8.751**	**ug/L**	1.374	5260	0.024
	Se	77		**ug/L**		2030	-0.001
	Se	82	**-3.943**	**ug/L**	7.992	-218	-0.001
	Kr	83		**ug/L**		318	0.001
>	Lu	175		**ug/L**		204406	204406.153
	Tl	205	**1.092**	**ug/L**	1.621	7009	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		126.9			
	Ni	60					
>	Ge	74		92.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960002
Sample Date/Time: Friday, February 26, 2010 23:44:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniasset1.mth
Dataset File: C:\elandata\Dataset\100226\245960002.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.980**	**ug/L**	4.749	1120	0.001
>	Sc	45		**ug/L**		998670	998669.561
	Ni	60	**28.108**	**ug/L**	2.181	22736	0.023
>	Ge	74		**ug/L**		209855	209854.643
	As	75	**8.033**	**ug/L**	2.634	4832	0.022
	Se	77		**ug/L**		1967	-0.001
	Se	82	**-2.039**	**ug/L**	10.117	-116	-0.001
	Kr	83		**ug/L**		226	0.001
>	Lu	175		**ug/L**		208441	208441.434
	Tl	205	**0.698**	**ug/L**	1.883	4603	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		124.5			
	Ni	60					
>	Ge	74		92.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960003
Sample Date/Time: Friday, February 26, 2010 23:48:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960003.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.282**	**ug/L**	2.961	1623	0.002
>	Sc	45		**ug/L**		1009075	1009074.859
	Ni	60	**34.085**	**ug/L**	0.564	27846	0.028
>	Ge	74		**ug/L**		205763	205762.722
	As	75	**9.817**	**ug/L**	4.224	5733	0.027
	Se	77		**ug/L**		2014	-0.001
	Se	82	**-4.622**	**ug/L**	11.727	-248	-0.001
	Kr	83		**ug/L**		362	0.002
>	Lu	175		**ug/L**		202150	202149.967
	Tl	205	**1.042**	**ug/L**	1.331	6619	0.032

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		125.8			
	Ni	60					
>	Ge	74		90.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 23:52:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**43.081**	**ug/L**	2.855	16546	0.016
>	Sc	45		**ug/L**		1028158	1028158.211
	Ni	60	**42.275**	**ug/L**	2.739	35164	0.034
>	Ge	74		**ug/L**		219063	219063.080
	As	75	**50.415**	**ug/L**	1.435	30197	0.137
	Se	77		**ug/L**		5381	0.014
	Se	82	**50.432**	**ug/L**	1.899	2798	0.013
	Kr	83		**ug/L**		52	-0.000
>	Lu	175		**ug/L**		202619	202618.984
	Tl	205	**50.442**	**ug/L**	2.163	316373	1.561

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	86.161				
>	Sc	45		128.2			
	Ni	60	84.550				
>	Ge	74		96.6			
	As	75	100.829				
	Se	77					
	Se	82	100.865				
	Kr	83					
>	Lu	175		94.9			
	Tl	205	100.885				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 6

Report Date/Time: Friday, February 26, 2010 23:52:49

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 23:56:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	2089.553	10	0.000
>	Sc	45		**ug/L**		1079061	1079061.098
	Ni	60	**-0.013**	**ug/L**	32.594	70	-0.000
>	Ge	74		**ug/L**		228331	228331.070
	As	75	**0.458**	**ug/L**	13.870	572	0.001
	Se	77		**ug/L**		3481	0.005
	Se	82	**0.186**	**ug/L**	50.938	3	0.000
	Kr	83		**ug/L**		47	-0.000
>	Lu	175		**ug/L**		206510	206509.510
	Tl	205	**0.030**	**ug/L**	6.255	292	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		134.5			
	Ni	60					
>	Ge	74		100.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960004
Sample Date/Time: Saturday, February 27, 2010 00:00:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960004.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.928**	**ug/L**	3.684	1869	0.002
>	Sc	45		**ug/L**		1010467	1010467.412
	Ni	60	**36.534**	**ug/L**	1.591	29880	0.029
>	Ge	74		**ug/L**		204985	204985.311
	As	75	**9.276**	**ug/L**	1.753	5410	0.025
	Se	77		**ug/L**		2242	0.000
	Se	82	**-4.436**	**ug/L**	16.407	-238	-0.001
	Kr	83		**ug/L**		357	0.001
>	Lu	175		**ug/L**		199806	199806.388
	Tl	205	**1.052**	**ug/L**	1.085	6600	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		126.0			
	Ni	60					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960005
Sample Date/Time: Saturday, February 27, 2010 00:04:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960005.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.233**	**ug/L**	1.083	1922	0.002
>	Sc	45		**ug/L**		978525	978525.358
	Ni	60	**38.318**	**ug/L**	1.008	30347	0.031
>	Ge	74		**ug/L**		198119	198118.975
	As	75	**9.955**	**ug/L**	1.186	5593	0.027
	Se	77		**ug/L**		2086	0.000
	Se	82	**-4.753**	**ug/L**	9.316	-246	-0.001
	Kr	83		**ug/L**		375	0.002
>	Lu	175		**ug/L**		199114	199114.055
	Tl	205	**1.225**	**ug/L**	2.357	7644	0.038

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		122.0			
	Ni	60					
>	Ge	74		87.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960006
Sample Date/Time: Saturday, February 27, 2010 00:08:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960006.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.065**	**ug/L**	1.635	1135	0.001
>	Sc	45		**ug/L**		983363	983363.433
	Ni	60	**24.754**	**ug/L**	2.045	19724	0.020
>	Ge	74		**ug/L**		202976	202975.864
	As	75	**7.968**	**ug/L**	6.456	4638	0.022
	Se	77		**ug/L**		1977	-0.001
	Se	82	**-1.806**	**ug/L**	9.188	-100	-0.000
	Kr	83		**ug/L**		207	0.001
>	Lu	175		**ug/L**		203361	203360.949
	Tl	205	**0.762**	**ug/L**	2.993	4895	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		122.6			
	Ni	60					
>	Ge	74		89.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		95.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960007
Sample Date/Time: Saturday, February 27, 2010 00:12:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rm|
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960007.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.634**	**ug/L**	0.521	1663	0.002
>	Sc	45		**ug/L**		955889	955888.903
	Ni	60	**38.671**	**ug/L**	1.664	29910	0.031
>	Ge	74		**ug/L**		196699	196699.329
	As	75	**10.504**	**ug/L**	1.149	5846	0.028
	Se	77		**ug/L**		2046	-0.000
	Se	82	**-4.856**	**ug/L**	11.276	-249	-0.001
	Kr	83		**ug/L**		374	0.002
>	Lu	175		**ug/L**		195478	195477.628
	Tl	205	**1.304**	**ug/L**	0.660	7988	0.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		119.2			
	Ni	60					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960008
Sample Date/Time: Saturday, February 27, 2010 00:16:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960008.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.951**	**ug/L**	0.998	1067	0.001
>	Sc	45		**ug/L**		960099	960099.433
	Ni	60	**24.120**	**ug/L**	2.242	18768	0.019
>	Ge	74		**ug/L**		200119	200118.654
	As	75	**7.858**	**ug/L**	1.437	4513	0.021
	Se	77		**ug/L**		1971	-0.001
	Se	82	**-1.920**	**ug/L**	8.498	-104	-0.000
	Kr	83		**ug/L**		202	0.001
>	Lu	175		**ug/L**		201868	201867.649
	Tl	205	**0.764**	**ug/L**	2.001	4874	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		119.7			
	Ni	60					
>	Ge	74		88.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960009
Sample Date/Time: Saturday, February 27, 2010 00:20:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960009.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.060**	**ug/L**	6.358	1110	0.001
>	Sc	45		**ug/L**		965012	965012.216
	Ni	60	**24.708**	**ug/L**	3.110	19310	0.020
>	Ge	74		**ug/L**		200568	200568.217
	As	75	**7.822**	**ug/L**	6.151	4503	0.021
	Se	77		**ug/L**		1935	-0.001
	Se	82	**-2.107**	**ug/L**	6.249	-114	-0.001
	Kr	83		**ug/L**		216	0.001
>	Lu	175		**ug/L**		199688	199687.972
	Tl	205	**0.734**	**ug/L**	3.911	4636	0.023

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		120.3			
	Ni	60					
>	Ge	74		88.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960010
Sample Date/Time: Saturday, February 27, 2010 00:24:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960010.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.981**	**ug/L**	5.809	727	0.001
>	Sc	45		**ug/L**		969716	969715.817
	Ni	60	**17.833**	**ug/L**	1.337	14036	0.014
>	Ge	74		**ug/L**		202024	202024.186
	As	75	**5.692**	**ug/L**	4.440	3370	0.015
	Se	77		**ug/L**		1893	-0.001
	Se	82	**-1.147**	**ug/L**	29.194	-65	-0.000
	Kr	83		**ug/L**		165	0.001
>	Lu	175		**ug/L**		200645	200644.693
	Tl	205	**0.497**	**ug/L**	1.160	3183	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		120.9			
	Ni	60					
>	Ge	74		89.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245960011
Sample Date/Time: Saturday, February 27, 2010 00:28:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\245960011.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.365**	**ug/L**	3.432	1537	0.002
>	Sc	45		**ug/L**		937983	937983.407
	Ni	60	**33.940**	**ug/L**	2.082	25768	0.027
>	Ge	74		**ug/L**		195153	195153.214
	As	75	**8.397**	**ug/L**	3.446	4686	0.023
	Se	77		**ug/L**		2013	-0.000
	Se	82	**-4.638**	**ug/L**	11.612	-236	-0.001
	Kr	83		**ug/L**		339	0.001
>	Lu	175		**ug/L**		194783	194783.200
	Tl	205	**1.013**	**ug/L**	1.057	6202	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.9			
	Ni	60					
>	Ge	74		86.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 00:32:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**42.708**	**ug/L**	2.515	15562	0.016
>	Sc	45		**ug/L**		975217	975217.297
	Ni	60	**41.718**	**ug/L**	0.954	32924	0.034
>	Ge	74		**ug/L**		208252	208252.424
	As	75	**51.110**	**ug/L**	0.944	29100	0.138
	Se	77		**ug/L**		5267	0.015
	Se	82	**49.757**	**ug/L**	2.242	2623	0.013
	Kr	83		**ug/L**		53	0.000
>	Lu	175		**ug/L**		195653	195652.635
	Tl	205	**51.143**	**ug/L**	1.074	309797	1.583

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	85.417				
>	Sc	45		121.6			
	Ni	60	83.436				
>	Ge	74		91.8			
	As	75	102.220				
	Se	77					
	Se	82	99.513				
	Kr	83					
>	Lu	175		91.7			
	Tl	205	102.287				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 00:36:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.001**	**ug/L**	228.941	10	-0.000
>	Sc	45		**ug/L**		1035973	1035972.644
	Ni	60	**-0.018**	**ug/L**	30.107	63	-0.000
>	Ge	74		**ug/L**		218331	218330.919
	As	75	**0.649**	**ug/L**	56.780	660	0.002
	Se	77		**ug/L**		3262	0.004
	Se	82	**0.181**	**ug/L**	129.820	3	0.000
	Kr	83		**ug/L**		56	0.000
>	Lu	175		**ug/L**		200225	200224.717
	Tl	205	**0.031**	**ug/L**	18.792	292	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		129.1			
	Ni	60					
>	Ge	74		96.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, February 27, 2010 00:51:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\Blank.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		8	
>	Sc	45		ug/L		1054889	
	Ni	60		ug/L		60	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, February 27, 2010 00:55:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\Standard 1.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	0.999	2966	0.003
>	Sc	45		**ug/L**		1055591	1055590.905
	Ni	60	**10.000**	**ug/L**	1.710	6479	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, February 27, 2010 00:58:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\Standard 2.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**100.028**	**ug/L**	0.520	29918	0.029
|>	Sc	45		**ug/L**		1036355	1036355.148
⌊	Ni	60	**100.031**	**ug/L**	1.661	65121	0.063

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, February 27, 2010 01:01:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 1.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.345**	**ug/L**	1.893	16111	0.015
|>	Sc	45		**ug/L**		1066214	1066214.349
⌊	Ni	60	**52.760**	**ug/L**	0.743	35368	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	104.689				
|>	Sc	45		101.1			
⌊	Ni	60	105.521				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, February 27, 2010 01:03:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 2.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.009	ug/L	80.709	11	0.000
>	Sc	45		ug/L		1096441	1096441.113
	Ni	60	0.005	ug/L	231.076	66	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.9			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, February 27, 2010 01:06:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 3.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.579**	**ug/L**	8.539	192	0.000
|>	Sc	45		**ug/L**		1104112	1104112.107
⌊	Ni	60	**2.175**	**ug/L**	1.573	1570	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	115.762				
|>	Sc	45		104.7			
⌊	Ni	60	108.760				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, February 27, 2010 01:09:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 4.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.108**	**ug/L**	8.828	32	0.000
|>	Sc	45		**ug/L**		834984	834984.390
⌊	Ni	60	**4.675**	**ug/L**	1.243	2498	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45			79.2		
⌊	Ni	60	141.238				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc	45 Int Std for QC Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, February 27, 2010 01:11:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 5.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.549**	**ug/L**	2.086	4659	0.006
>	Sc	45		**ug/L**		825082	825081.867
	Ni	60	**24.124**	**ug/L**	1.378	12539	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	97.746				
>	Sc	45		78.2			
	Ni	60	106.271				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc	45	Int Std. for QC Sc	45

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 01:14:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.357**	**ug/L**	0.698	14999	0.015
>	Sc	45		**ug/L**		1031834	1031833.834
	Ni	60	**51.833**	**ug/L**	2.355	33622	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	100.713				
>	Sc	45		97.8			
	Ni	60	103.666				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 01:16:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.002	ug/L	521.779	8	0.000
>	Sc	45		ug/L		1055014	1055014.161
	Ni	60	0.008	ug/L	203.329	66	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.0			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032573
Sample Date/Time: Saturday, February 27, 2010 01:19:38
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032573.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.092**	**ug/L**	4.848	36	0.000
>	Sc	45		**ug/L**		1077181	1077181.450
	Ni	60	**0.361**	**ug/L**	4.781	305	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.1			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032578
Sample Date/Time: Saturday, February 27, 2010 01:22:45
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948748|40|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032578.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	18.667	ug/L	2.288	5945	0.005
|>	Sc	45		ug/L		1102495	1102495.431
⌊	Ni	60	33.855	ug/L	2.085	23484	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		104.5			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032574
Sample Date/Time: Saturday, February 27, 2010 01:29:01
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032574.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[	Be	9	1.829	ug/L	3.244	581	0.001
|>	Sc	45		ug/L		1085647	1085647.335
[	Ni	60	6.929	ug/L	0.729	4784	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[	Be	9					
|>	Sc	45		102.9			
[	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032576
Sample Date/Time: Saturday, February 27, 2010 01:32:09
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948748|2|rm|
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032576.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.556**	**ug/L**	2.566	7692	0.007
>	Sc	45		**ug/L**		1084826	1084825.549
	Ni	60	**31.146**	**ug/L**	2.726	21263	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.8			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032577
Sample Date/Time: Saturday, February 27, 2010 01:35:17
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032577.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**24.693**	**ug/L**	2.394	7717	0.007
|>	Sc	45		**ug/L**		1082321	1082321.051
⌊	Ni	60	**29.053**	**ug/L**	2.318	19793	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		102.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032575
Sample Date/Time: Saturday, February 27, 2010 01:38:24
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948748|10|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\1202032575.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.213**	**ug/L**	16.823	79	0.000
>	Sc	45		**ug/L**		1148378	1148377.955
	Ni	60	**1.166**	**ug/L**	3.401	905	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.9			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 01:44:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	52.551	ug/L	3.827	16777	0.015
>	Sc	45		ug/L		1106854	1106853.778
	Ni	60	52.380	ug/L	3.590	36422	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.101				
>	Sc	45		104.9			
	Ni	60	104.761				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 01:47:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.010	ug/L	41.355	12	0.000
|>	Sc	45		ug/L		1143576	1143575.739
⌊	Ni	60	0.002	ug/L	751.503	66	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		108.4			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960001
Sample Date/Time: Saturday, February 27, 2010 02:08:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960001.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	5.231	ug/L	1.824	1527	0.002
|>	Sc	45		ug/L		1007258	1007257.937
⌊	Ni	60	41.238	ug/L	2.003	26126	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		95.5			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960002
Sample Date/Time: Saturday, February 27, 2010 02:11:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960002.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	3.768	ug/L	2.081	1068	0.001
>	Sc	45		ug/L		975943	975942.908
	Ni	60	35.045	ug/L	2.564	21513	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 02:15:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.653**	**ug/L**	0.819	14939	0.015
>	Sc	45		**ug/L**		982872	982872.301
	Ni	60	**54.376**	**ug/L**	0.665	33603	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.306				
>	Sc	45		93.2			
	Ni	60	108.753				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 02:17:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.005	ug/L	142.515	9	0.000
>	Sc	45		ug/L		1040440	1040440.169
	Ni	60	0.016	ug/L	67.306	70	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.6			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960003
Sample Date/Time: Saturday, February 27, 2010 02:20:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960003.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**5.251**	**ug/L**	2.620	1470	0.002
|>	Sc	45		**ug/L**		965875	965874.842
⌊	Ni	60	**43.853**	**ug/L**	2.054	26635	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		91.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960004
Sample Date/Time: Saturday, February 27, 2010 02:23:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960004.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	5.904	ug/L	2.075	1589	0.002
>	Sc	45		ug/L		928928	928928.033
	Ni	60	47.441	ug/L	0.619	27713	0.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.1			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960005
Sample Date/Time: Saturday, February 27, 2010 02:26:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960005.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**6.759**	**ug/L**	2.066	1770	0.002
|>	Sc	45		**ug/L**		904305	904304.689
⌊	Ni	60	**50.147**	**ug/L**	1.102	28515	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		85.7			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960006
Sample Date/Time: Saturday, February 27, 2010 02:29:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960006.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**3.639**	**ug/L**	3.485	961	0.001
|>	Sc	45		**ug/L**		908761	908761.414
⌊	Ni	60	**32.133**	**ug/L**	2.385	18379	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		86.1			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960007
Sample Date/Time: Saturday, February 27, 2010 02:32:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960007.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.632**	**ug/L**	1.744	1472	0.002
>	Sc	45		**ug/L**		901869	901869.264
	Ni	60	**49.615**	**ug/L**	0.552	28137	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960008
Sample Date/Time: Saturday, February 27, 2010 02:36:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960008.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	3.661	ug/L	3.515	939	0.001
>	Sc	45		ug/L		882396	882395.883
	Ni	60	31.375	ug/L	2.057	17428	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.6			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960009
Sample Date/Time: Saturday, February 27, 2010 02:39:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960009.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.927**	**ug/L**	1.234	1016	0.001
>	Sc	45		**ug/L**		890573	890573.282
	Ni	60	**31.955**	**ug/L**	0.955	17912	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		84.4			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960010
Sample Date/Time: Saturday, February 27, 2010 02:42:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960010.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.514**	**ug/L**	2.713	665	0.001
>	Sc	45		**ug/L**		907569	907568.758
	Ni	60	**22.873**	**ug/L**	0.961	13080	0.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.0			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245960011
Sample Date/Time: Saturday, February 27, 2010 02:45:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948748|2|rmj
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\245960011.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	5.349	ug/L	2.036	1384	0.002
|>	Sc	45		ug/L		892866	892865.855
⌊	Ni	60	43.013	ug/L	0.952	24157	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		84.6			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 02:48:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.597**	**ug/L**	2.131	13619	0.015
>	Sc	45		**ug/L**		896998	896997.578
	Ni	60	**54.606**	**ug/L**	1.711	30794	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.195				
>	Sc	45			85.0		
	Ni	60	109.212				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 02:51:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beni.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.017**	**ug/L**	66.691	11	0.000
>	Sc	45		**ug/L**		937064	937064.355
	Ni	60	**0.020**	**ug/L**	56.377	65	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.8			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/18/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021810S1.SIF Results Data Set Name: 021810S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/18/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0046	0.0046	09:45:19	No
2			0.0045	0.0045	09:45:54	No
Mean:			0.0046			
SD :			0.0001			
%RSD:			2.6075			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/18/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0019	0.0065	09:47:17	No
2			0.0017	0.0063	09:47:51	No
Mean:			0.0018			
SD :			0.0001			
%RSD:			7.2627			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00908
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/18/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0052	0.0098	09:49:14	No
2			0.0054	0.0099	09:49:48	No
Mean:			0.0053			
SD :			0.0001			
%RSD:			2.3316			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99797 Slope: 0.01065
Intercept : -0.00012

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/18/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0209	0.0255	09:51:13	No
2			0.0210	0.0255	09:51:49	No
Mean:			0.0210			
SD :			0.0000			
%RSD:			0.1449			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99989 Slope: 0.01053
Intercept : -0.00009

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/18/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0521	0.0567	09:53:13	No
2			0.0519	0.0564	09:53:49	No
Mean:			0.0520			
SD :			0.0002			
%RSD:			0.3044			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01042
Intercept : -0.00003

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/18/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1014	0.1060	09:55:15	No
2			0.1009	0.1054	09:55:50	No
Mean:			0.1011			
SD :			0.0004			
%RSD:			0.3679			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99989 Slope: 0.01014
Intercept : 0.00028

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0046	---	----	----	----
S0.2	0.0018	0.200	0.152	0.0001	7.3
S0.5	0.0053	0.500	0.494	0.0001	2.3
S2.0	0.0210	2.000	2.039	0.0000	0.1
S5.0	0.0520	5.000	5.098	0.0002	0.3
S10	0.1011	10.000	9.944	0.0004	0.4

Correlation Coefficient: 0.99989 Slope: 0.01014 Intercept: 0.0003

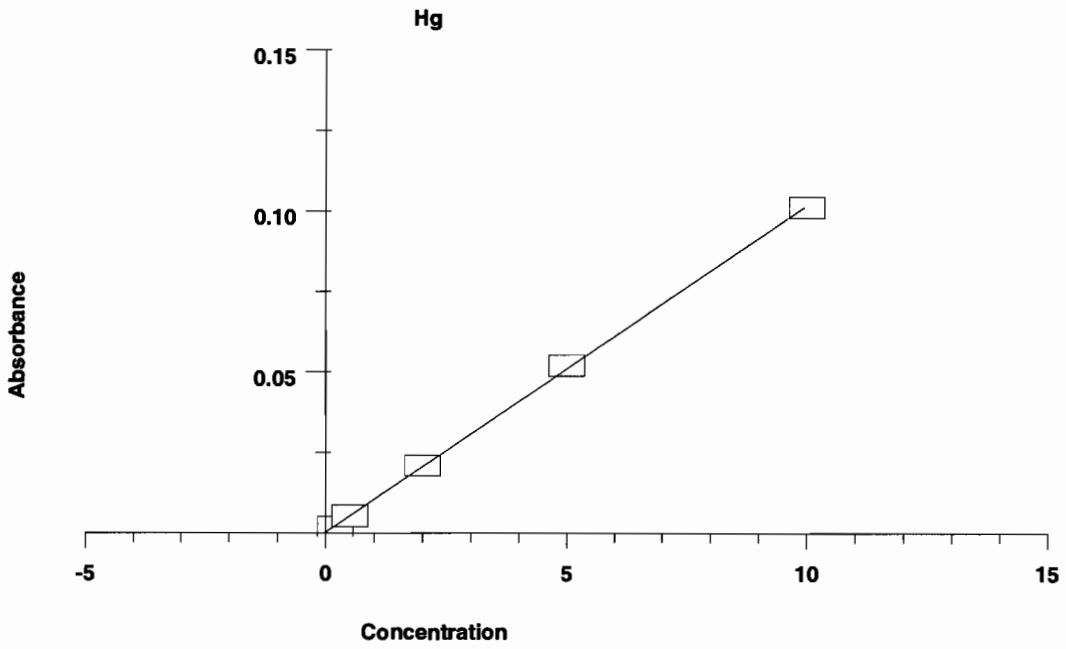

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/18/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.154	5.154	0.0525	0.0571	09:57:18	No
2	5.108	5.108	0.0521	0.0566	09:57:53	No
Mean:	5.131	5.131	0.0523			
SD :	0.0323	0.0323	0.0003			
%RSD:	0.6	0.6	0.6260			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/18/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.120	-0.120	-0.0009	0.0036	09:59:15	No
2	-0.138	-0.138	-0.0011	0.0034	09:59:50	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0127	0.0127	0.0001			
%RSD:	9.9	9.9	12.5442			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/18/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0026	0.0071	10:01:12	No
2	0.211	0.211	0.0024	0.0070	10:01:47	No
Mean:	0.218	0.218	0.0025			
SD :	0.0095	0.0095	0.0001			
%RSD:	4.3	4.3	3.8605			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.040	5.040	0.0514	0.0559	10:03:12	No
2	5.078	5.078	0.0518	0.0563	10:03:46	No
Mean:	5.059	5.059	0.0516			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5390			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0001	0.0044	10:05:14	No
2	-0.052	-0.052	-0.0003	0.0043	10:05:49	No
Mean:	-0.046	-0.046	-0.0002			
SD :	0.0083	0.0083	0.0001			
%RSD:	18.0	18.0	43.9084			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/18/2010
Sample ID: 1202037115|i||950565|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0005	0.0041	10:07:15	No
2	-0.088	-0.088	-0.0006	0.0039	10:07:50	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0102	0.0102	0.0001			
%RSD:	12.7	12.7	19.1745			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/18/2010
Sample ID: 1202037116|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.092	4.092	0.0418	0.0463	10:09:15	No
2	3.952	3.952	0.0404	0.0449	10:09:50	No
Mean:	4.022	4.022	0.0411			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.5	2.5	2.4475			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/18/2010
Sample ID: 245969001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.246	0.246	0.0028	0.0073	10:11:18	No
2	0.244	0.244	0.0027	0.0073	10:11:53	No
Mean:	0.245	0.245	0.0028			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.8	0.8	0.7089			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/18/2010
Sample ID: 1202037117|i|||DUP

%RSD: 1.2 1.2 1.1178

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/18/2010
Sample ID: 245969004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.121	0.121	0.0015	0.0061	10:25:06	No
2	0.086	0.086	0.0011	0.0057	10:25:41	No
Mean:	0.103	0.103	0.0013			
SD :	0.0247	0.0247	0.0003			
%RSD:	23.9	23.9	18.9148			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.046	5.046	0.0515	0.0560	10:27:06	No
2	5.089	5.089	0.0519	0.0565	10:27:40	No
Mean:	5.068	5.068	0.0517			
SD :	0.0301	0.0301	0.0003			
%RSD:	0.6	0.6	0.5903			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0004	0.0042	10:29:09	No
2	-0.067	-0.067	-0.0004	0.0042	10:29:44	No
Mean:	-0.065	-0.065	-0.0004			
SD :	0.0021	0.0021	0.0000			
%RSD:	3.3	3.3	5.6045			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/18/2010
Sample ID: 245969005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0017	0.0063	10:31:09	No
2	0.120	0.120	0.0015	0.0061	10:31:44	No
Mean:	0.130	0.130	0.0016			
SD :	0.0141	0.0141	0.0001			
%RSD:	10.8	10.8	8.9311			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/18/2010
Sample ID: 245969006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.096	0.096	0.0012	0.0058	10:33:07	No
2	0.085	0.085	0.0011	0.0057	10:33:42	No
Mean:	0.090	0.090	0.0012			
SD :	0.0078	0.0078	0.0001			
%RSD:	8.6	8.6	6.6265			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/18/2010
Sample ID: 245969007|i|||

%RSD: 3.1 3.1 2.4888

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/18/2010
Sample ID: 245969013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0028	0.0073	10:47:09	No
2	0.224	0.224	0.0025	0.0071	10:47:44	No
Mean:	0.234	0.234	0.0027			
SD :	0.0147	0.0147	0.0001			
%RSD:	6.3	6.3	5.6188			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/18/2010
Sample ID: 245969014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.144	0.144	0.0017	0.0063	10:49:12	No
2	0.132	0.132	0.0016	0.0062	10:49:47	No
Mean:	0.138	0.138	0.0017			
SD :	0.0087	0.0087	0.0001			
%RSD:	6.3	6.3	5.2634			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.163	5.163	0.0526	0.0572	10:51:15	No
2	5.285	5.285	0.0539	0.0584	10:51:50	No
Mean:	5.224	5.224	0.0533			
SD :	0.0865	0.0865	0.0009			
%RSD:	1.7	1.7	1.6467			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0005	0.0041	10:53:18	No
2	-0.083	-0.083	-0.0006	0.0040	10:53:53	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0044	0.0044	0.0000			
%RSD:	5.4	5.4	8.2472			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/18/2010
Sample ID: 245969015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.223	0.223	0.0025	0.0071	10:55:17	No
2	0.204	0.204	0.0023	0.0069	10:55:51	No
Mean:	0.213	0.213	0.0024			
SD :	0.0132	0.0132	0.0001			
%RSD:	6.2	6.2	5.4733			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/18/2010
Sample ID: 1202039079|i||951467|MB

%RSD: 1.1 1.1 1.0627

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/18/2010
Sample ID: 1202039087|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.127	-0.127	-0.0010	0.0035	11:08:50	No
2	-0.131	-0.131	-0.0011	0.0035	11:09:24	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0029	0.0029	0.0000			
%RSD:	2.2	2.2	2.8265			

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/18/2010
Sample ID: 246285002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.103	0.103	0.0013	0.0059	11:10:48	No
2	0.090	0.090	0.0012	0.0058	11:11:23	No
Mean:	0.097	0.097	0.0013			
SD :	0.0086	0.0086	0.0001			
%RSD:	8.9	8.9	6.9719			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/18/2010
Sample ID: 246285003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.328	0.328	0.0036	0.0082	11:12:47	No
2	0.310	0.310	0.0034	0.0080	11:13:23	No
Mean:	0.319	0.319	0.0035			
SD :	0.0125	0.0125	0.0001			
%RSD:	3.9	3.9	3.6171			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.195	5.195	0.0530	0.0575	11:14:47	No
2	5.107	5.107	0.0521	0.0566	11:15:22	No
Mean:	5.151	5.151	0.0525			
SD :	0.0627	0.0627	0.0006			
%RSD:	1.2	1.2	1.2114			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.105	-0.105	-0.0008	0.0038	11:16:50	No
2	-0.107	-0.107	-0.0008	0.0037	11:17:25	No
Mean:	-0.106	-0.106	-0.0008			
SD :	0.0020	0.0020	0.0000			
%RSD:	1.9	1.9	2.5083			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/18/2010
Sample ID: 246285004|i|||

%RSD: 2.1 2.1 1.9191

==========

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 02/18/2010
Sample ID: 246285010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.122	0.122	0.0015	0.0061	11:30:55	No
2	0.119	0.119	0.0015	0.0060	11:31:30	No
Mean:	0.121	0.121	0.0015			
SD :	0.0026	0.0026	0.0000			
%RSD:	2.2	2.2	1.7555			

==========

Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 02/18/2010
Sample ID: 246285011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0000	0.0046	11:32:50	No
2	-0.033	-0.033	-0.0001	0.0045	11:33:24	No
Mean:	-0.028	-0.028	0.0000			
SD :	0.0065	0.0065	0.0001			
%RSD:	22.9	22.9	658.9645			

==========

Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 02/18/2010
Sample ID: 246291001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.580	0.580	0.0062	0.0107	11:34:44	No
2	0.579	0.579	0.0061	0.0107	11:35:19	No
Mean:	0.579	0.579	0.0062			
SD :	0.0007	0.0007	0.0000			
%RSD:	0.1	0.1	0.1126			

==========

Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 02/18/2010
Sample ID: 246291002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.075	-0.075	-0.0005	0.0041	11:36:41	No
2	-0.092	-0.092	-0.0007	0.0039	11:37:16	No
Mean:	-0.084	-0.084	-0.0006			
SD :	0.0120	0.0120	0.0001			
%RSD:	14.3	14.3	21.3135			

==========

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.997	4.997	0.0510	0.0555	11:38:40	No
2	5.018	5.018	0.0512	0.0557	11:39:15	No
Mean:	5.007	5.007	0.0511			
SD :	0.0152	0.0152	0.0002			
%RSD:	0.3	0.3	0.3010			

QC value within specified limits.

==========

Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.154	-0.154	-0.0013	0.0033	11:40:43	No
2	-0.153	-0.153	-0.0013	0.0033	11:41:18	No
Mean:	-0.154	-0.154	-0.0013			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.7	0.7	0.8705			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/18/2010
Sample ID: 246291003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.117	1.117	0.0116	0.0162	11:42:43	No
2	1.113	1.113	0.0116	0.0161	11:43:18	No
Mean:	1.115	1.115	0.0116			
SD :	0.0031	0.0031	0.0000			
%RSD:	0.3	0.3	0.2711			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/18/2010
Sample ID: 246291004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.954	0.954	0.0099	0.0145	11:44:40	No
2	0.930	0.930	0.0097	0.0143	11:45:15	No
Mean:	0.942	0.942	0.0098			
SD :	0.0168	0.0168	0.0002			
%RSD:	1.8	1.8	1.7363			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/18/2010
Sample ID: 246291005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0005	0.0050	11:46:37	No
2	0.013	0.013	0.0004	0.0050	11:47:12	No
Mean:	0.016	0.016	0.0004			
SD :	0.0038	0.0038	0.0000			
%RSD:	24.1	24.1	8.8365			

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/18/2010
Sample ID: 246291006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0001	0.0047	11:48:34	No
2	-0.026	-0.026	0.0000	0.0046	11:49:09	No
Mean:	-0.020	-0.020	0.0001			
SD :	0.0078	0.0078	0.0001			
%RSD:	38.5	38.5	110.3645			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/18/2010
Sample ID: 246291007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0002	0.0043	11:50:33	No
2	-0.052	-0.052	-0.0003	0.0043	11:51:08	No
Mean:	-0.050	-0.050	-0.0002			
SD :	0.0027	0.0027	0.0000			

%RSD: 5.5 5.5 11.9973

==========

Element: Hg Seq. No.: 65 AS Loc.: 57 Date: 02/18/2010
Sample ID: 246291008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.378	0.378	0.0041	0.0087	11:52:32	No
2	0.374	0.374	0.0041	0.0086	11:53:06	No
Mean:	0.376	0.376	0.0041			
SD :	0.0033	0.0033	0.0000			
%RSD:	0.9	0.9	0.8199			

==========

Element: Hg Seq. No.: 66 AS Loc.: 58 Date: 02/18/2010
Sample ID: 246291009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.880	1.880	0.0193	0.0239	11:54:30	No
2	1.884	1.884	0.0194	0.0239	11:55:05	No
Mean:	1.882	1.882	0.0194			
SD :	0.0028	0.0028	0.0000			
%RSD:	0.1	0.1	0.1449			

==========

Element: Hg Seq. No.: 67 AS Loc.: 59 Date: 02/18/2010
Sample ID: 1202039184|i||951512|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.178	-0.178	-0.0015	0.0030	11:56:29	No
2	-0.189	-0.189	-0.0016	0.0029	11:57:04	No
Mean:	-0.183	-0.183	-0.0016			
SD :	0.0082	0.0082	0.0001			
%RSD:	4.5	4.5	5.2496			

==========

Element: Hg Seq. No.: 68 AS Loc.: 60 Date: 02/18/2010
Sample ID: 1202039185|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.043	4.043	0.0413	0.0458	11:58:29	No
2	4.136	4.136	0.0422	0.0468	11:59:04	No
Mean:	4.090	4.090	0.0418			
SD :	0.0663	0.0663	0.0007			
%RSD:	1.6	1.6	1.6101			

==========

Element: Hg Seq. No.: 69 AS Loc.: 61 Date: 02/18/2010
Sample ID: 245960001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0016	0.0062	12:00:31	No
2	0.129	0.129	0.0016	0.0061	12:01:06	No
Mean:	0.130	0.130	0.0016			
SD :	0.0018	0.0018	0.0000			
%RSD:	1.4	1.4	1.1554			

==========

Element: Hg Seq. No.: 70 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Time	Peak

#	µg/L	µg/L	Signal	Height		Stored
1	5.033	5.033	0.0513	0.0559	12:02:32	No
2	4.998	4.998	0.0510	0.0555	12:03:07	No
Mean:	5.015	5.015	0.0511			
SD :	0.0249	0.0249	0.0003			
%RSD:	0.5	0.5	0.4945			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0002	0.0047	12:04:35	No
2	-0.004	-0.004	0.0002	0.0048	12:05:09	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0053	0.0053	0.0001			
%RSD:	65.8	65.8	27.7211			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 02/18/2010
Sample ID: 245960002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.081	0.081	0.0011	0.0057	12:06:35	No
2	0.068	0.068	0.0010	0.0055	12:07:10	No
Mean:	0.074	0.074	0.0010			
SD :	0.0085	0.0085	0.0001			
%RSD:	11.4	11.4	8.3596			

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 02/18/2010
Sample ID: 245960003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0023	0.0068	12:08:32	No
2	0.194	0.194	0.0022	0.0068	12:09:06	No
Mean:	0.195	0.195	0.0023			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.5	0.5	0.3972			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 02/18/2010
Sample ID: 245960004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.164	0.164	0.0019	0.0065	12:10:26	No
2	0.162	0.162	0.0019	0.0065	12:11:01	No
Mean:	0.163	0.163	0.0019			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.6	0.6	0.5000			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 02/18/2010
Sample ID: 245960005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0022	0.0068	12:12:22	No
2	0.173	0.173	0.0020	0.0066	12:12:57	No
Mean:	0.181	0.181	0.0021			
SD :	0.0112	0.0112	0.0001			

%RSD: 6.2 6.2 5.3722

==========

Element: Hg Seq. No.: 76 AS Loc.: 66 Date: 02/18/2010
Sample ID: 245960006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.080	0.080	0.0011	0.0056	12:14:18	No
2	0.077	0.077	0.0011	0.0056	12:14:53	No
Mean:	0.078	0.078	0.0011			
SD :	0.0021	0.0021	0.0000			
%RSD:	2.7	2.7	2.0105			

==========

Element: Hg Seq. No.: 77 AS Loc.: 67 Date: 02/18/2010
Sample ID: 245960007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.154	0.154	0.0018	0.0064	12:16:14	No
2	0.157	0.157	0.0019	0.0064	12:16:49	No
Mean:	0.155	0.155	0.0019			
SD :	0.0019	0.0019	0.0000			
%RSD:	1.2	1.2	1.0166			

==========

Element: Hg Seq. No.: 78 AS Loc.: 68 Date: 02/18/2010
Sample ID: 245960008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0006	0.0051	12:18:10	No
2	0.038	0.038	0.0007	0.0052	12:18:45	No
Mean:	0.033	0.033	0.0006			
SD :	0.0070	0.0070	0.0001			
%RSD:	21.3	21.3	11.6470			

==========

Element: Hg Seq. No.: 79 AS Loc.: 69 Date: 02/18/2010
Sample ID: 245960009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.054	0.054	0.0008	0.0054	12:20:07	No
2	0.043	0.043	0.0007	0.0053	12:20:42	No
Mean:	0.048	0.048	0.0008			
SD :	0.0080	0.0080	0.0001			
%RSD:	16.6	16.6	10.5761			

==========

Element: Hg Seq. No.: 80 AS Loc.: 70 Date: 02/18/2010
Sample ID: 245960010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.101	0.101	0.0013	0.0059	12:22:04	No
2	0.094	0.094	0.0012	0.0058	12:22:38	No
Mean:	0.098	0.098	0.0013			
SD :	0.0048	0.0048	0.0000			
%RSD:	4.9	4.9	3.8069			

==========

Element: Hg Seq. No.: 81 AS Loc.: 71 Date: 02/18/2010
Sample ID: 245960011|i|||

Repl	SampleConc	StndConc	BlnkCorr	Peak	Time	Peak

#	µg/L	µg/L	Signal	Height		Stored
1	0.170	0.170	0.0020	0.0066	12:24:01	No
2	0.165	0.165	0.0020	0.0065	12:24:36	No
Mean:	0.168	0.168	0.0020			
SD :	0.0032	0.0032	0.0000			
%RSD:	1.9	1.9	1.6534			

==========

Element: Hg Seq. No.: 82 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0515	0.0560	12:26:01	No
2	5.085	5.085	0.0519	0.0564	12:26:36	No
Mean:	5.066	5.066	0.0517			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5371			

QC value within specified limits.

==========

Element: Hg Seq. No.: 83 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0002	0.0047	12:28:04	No
2	-0.005	-0.005	0.0002	0.0048	12:28:39	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0034	0.0034	0.0000			
%RSD:	43.5	43.5	17.5315			

QC value within specified limits.

==========

Element: Hg Seq. No.: 84 AS Loc.: 72 Date: 02/18/2010
Sample ID: 246470001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.300	9.300	0.0946	0.0992	12:30:05	No
2	9.140	9.140	0.0930	0.0975	12:30:40	No
Mean:	9.220	9.220	0.0938			
SD :	0.1128	0.1128	0.0011			
%RSD:	1.2	1.2	1.2200			

==========

Element: Hg Seq. No.: 85 AS Loc.: 73 Date: 02/18/2010
Sample ID: 1202039186|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.013	9.013	0.0917	0.0962	12:32:04	No
2	9.029	9.029	0.0918	0.0964	12:32:39	No
Mean:	9.021	9.021	0.0918			
SD :	0.0110	0.0110	0.0001			
%RSD:	0.1	0.1	0.1221			

==========

Element: Hg Seq. No.: 86 AS Loc.: 74 Date: 02/18/2010
Sample ID: 1202039187|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	12.91	12.91	0.1312	0.1358	12:34:03	No

Sample absorbance is greater than that of the highest standard.

2	12.95	12.95	0.1316	0.1362	12:34:37	No

Sample absorbance is greater than that of the highest standard.

```
Mean:      12.93      12.93     0.1314
SD  :     0.0303     0.0303     0.0003
%RSD:        0.2        0.2     0.2334
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 87       AS Loc.: 75   Date: 02/18/2010
Sample ID: 1202039193|i|||MSD
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        12.01      12.01    0.1221     0.1267   12:36:03  No
Sample absorbance is greater than that of the highest standard.
 2        12.11      12.11    0.1231     0.1276   12:36:37  No
Sample absorbance is greater than that of the highest standard.
Mean:      12.06      12.06    0.1226
SD  :     0.0675     0.0675    0.0007
%RSD:        0.6        0.6    0.5581
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 88       AS Loc.: 76   Date: 02/18/2010
Sample ID: 1202039192|i|5||SDILT
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        1.743      1.743    0.0180     0.0225   12:38:03  No
 2        1.765      1.765    0.0182     0.0227   12:38:38  No
Mean:      1.754      1.754    0.0181
SD  :     0.0156     0.0156    0.0002
%RSD:        0.9        0.9    0.8743

==========================================================================================
Element: Hg    Seq. No.: 89       AS Loc.: 77   Date: 02/18/2010
Sample ID: 246470002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        66.85      66.85    0.6782     0.6828   12:40:04  No
Sample absorbance is greater than that of the highest standard.
 2        66.08      66.08    0.6705     0.6751   12:40:39  No
Sample absorbance is greater than that of the highest standard.
Mean:      66.47      66.47    0.6744
SD  :     0.5392     0.5392    0.0055
%RSD:        0.8        0.8    0.8109
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 90       AS Loc.: 78   Date: 02/18/2010
Sample ID: 246470003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        7.193      7.193    0.0732     0.0778   12:42:01  No
 2        7.190      7.190    0.0732     0.0778   12:42:36  No
Mean:      7.192      7.192    0.0732
SD  :     0.0023     0.0023    0.0000
%RSD:

==========================================================================================
Element: Hg    Seq. No.: 91       AS Loc.: 79   Date: 02/18/2010
Sample ID: 246470004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        14.04      14.04    0.1426     0.1472   12:43:55  No
Sample absorbance is greater than that of the highest standard.
```

```
 2        14.03      14.03     0.1426      0.1471   12:44:30  No
Sample absorbance is greater than that of the highest standard.
Mean:     14.03      14.03     0.1426
SD  :    0.0063     0.0063     0.0001
%RSD:
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 92       AS Loc.: 80   Date: 02/18/2010
Sample ID: 246470005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        160.5     160.5    1.6280  1  1.6326   12:45:50  No
Sample absorbance is greater than that of the highest standard.
 2        148.3     148.3    1.5041  1  1.5087   12:46:24  No
Sample absorbance is greater than that of the highest standard.
Mean:     154.4     154.4    1.5661
SD  :     8.640     8.640    0.0876
%RSD:       5.6       5.6    5.5956
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 93       AS Loc.: 81   Date: 02/18/2010
Sample ID: 246470006|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.699     0.699    0.0074  -  0.0119   12:47:45  No
 2        1.028     1.028    0.0107     0.0153   12:48:20  No
Mean:     0.864     0.864    0.0090
SD  :    0.2332    0.2332    0.0024
%RSD:      27.0      27.0   26.1783

==========================================================================================
Element: Hg    Seq. No.: 94       AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        4.963     4.963    0.0506     0.0552   12:49:44  No
 2        5.078     5.078    0.0518     0.0563   12:50:19  No
Mean:     5.020     5.020    0.0512
SD  :    0.0809    0.0809    0.0008
%RSD:       1.6       1.6    1.6030
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 95       AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.001     0.001    0.0003     0.0049   12:51:47  No
 2        0.006     0.006    0.0003     0.0049   12:52:21  No
Mean:     0.004     0.004    0.0003
SD  :    0.0038    0.0038    0.0000
%RSD:      98.6      98.6   12.0691
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 96       AS Loc.: 82   Date: 02/18/2010
Sample ID: 246470007|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.659     0.659    0.0070     0.0115   12:53:45  No
```

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948743

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032572	UI062540-I	.535	g
MS	1202032570	UI100120-01	.25	mL
MS	1202032570	UI100120-06	.25	mL
MSD	1202032571	UI100120-01	.25	mL
MSD	1202032571	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032567		SW846 3050B	10-FEB-2010 13:30	0.65 g	50 mL	76.92308	SOIL
LCS	1202032572		SW846 3050B	10-FEB-2010 13:30	0.535 g	50 mL	93.45794	SOIL
SAMPLE	245938001		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
DUP	1202032568	245938001	SW846 3050B	10-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
SDILT	1202032569	245938001	SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
MS	1202032570	245938001	SW846 3050B	10-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
MSD	1202032571	245938001	SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245938002		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245938003		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245938004		SW846 3050B	10-FEB-2010 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245938005		SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245938006		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245938007		SW846 3050B	10-FEB-2010 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245938008		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960001		SW846 3050B	10-FEB-2010 13:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245960002		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960003		SW846 3050B	10-FEB-2010 13:30	0.509 g	50 mL	98.23183	SOIL
SAMPLE	245960004		SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245960005		SW846 3050B	10-FEB-2010 13:30	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245960006		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
SAMPLE	245960007		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245960008		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245960009		SW846 3050B	10-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
SAMPLE	245960010		SW846 3050B	10-FEB-2010 13:30	0.524 g	50 mL	95.41985	SOIL
SAMPLE	245960011		SW846 3050B	10-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID

Comments: Light,brown,soil w/rocky material.

Prep LogBook

1264396 1.25 mL Nitric Acid CONC.

Prep LogBook

Analyst: FGA Verified by:_____
Batch: 948745
Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032578	UI062540-MS	.5	g
MS	1202032576	UI091015-A	.5	mL
MS	1202032576	UI091015-B	.5	mL
MSD	1202032577	UI091015-A	.5	mL
MSD	1202032577	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032573		SW846 3050B	10-FEB-2010 13:30	0.638 g	50 mL	78.36991	SOIL
LCS	1202032578		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245938001		SW846 3050B	10-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
DUP	1202032574	245938001	SW846 3050B	10-FEB-2010 13:30	0.515 g	50 mL	97.08738	SOIL
SDILT	1202032575	245938001	SW846 3050B	10-FEB-2010 13:30	0.506 g	50 mL	98.81423	SOIL
MS	1202032576	245938001	SW846 3050B	10-FEB-2010 13:30	0.533 g	50 mL	93.80863	SOIL
MSD	1202032577	245938001	SW846 3050B	10-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245938002		SW846 3050B	10-FEB-2010 13:30	0.511 g	50 mL	97.84736	SOIL
SAMPLE	245938003		SW846 3050B	10-FEB-2010 13:30	0.511 g	50 mL	97.84736	SOIL
SAMPLE	245938004		SW846 3050B	10-FEB-2010 13:30	0.51 g	50 mL	98.03922	SOIL
SAMPLE	245938005		SW846 3050B	10-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245938006		SW846 3050B	10-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	245938007		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
SAMPLE	245938008		SW846 3050B	10-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL
SAMPLE	245960001		SW846 3050B	10-FEB-2010 13:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	245960002		SW846 3050B	10-FEB-2010 13:30	0.538 g	50 mL	92.9368	SOIL
SAMPLE	245960003		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960004		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245960005		SW846 3050B	10-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	245960006		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245960007		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245960008		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960009		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245960010		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245960011		SW846 3050B	10-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%

Comments: Light,brown soil w/rocky material.

Prep LogBook

1264396	5 mL	Nitric Acid CONC.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 951508

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202039185	UI031809A	.202	g
MS	1202039187	WHG100217-14	.3	mL
MSD	1202039193	WHG100217-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202039184		SW846 7471A Prep	17-FEB-2010 17:55	0.527 g	30 mL	56.926	SOIL
LCS	1202039185		SW846 7471A Prep	17-FEB-2010 17:55	0.202 g	30 mL	148.51485	SOIL
SAMPLE	245960001		SW846 7471A Prep	17-FEB-2010 17:55	0.542 g	30 mL	55.35055	SOIL
SAMPLE	245960002		SW846 7471A Prep	17-FEB-2010 17:55	0.6 g	30 mL	50	SOIL
SAMPLE	245960003		SW846 7471A Prep	17-FEB-2010 17:55	0.57 g	30 mL	52.63158	SOIL
SAMPLE	245960004		SW846 7471A Prep	17-FEB-2010 17:55	0.507 g	30 mL	59.1716	SOIL
SAMPLE	245960005		SW846 7471A Prep	17-FEB-2010 17:55	0.519 g	30 mL	57.80347	SOIL
SAMPLE	245960006		SW846 7471A Prep	17-FEB-2010 17:55	0.529 g	30 mL	56.71078	SOIL
SAMPLE	245960007		SW846 7471A Prep	17-FEB-2010 17:55	0.501 g	30 mL	59.88024	SOIL
SAMPLE	245960008		SW846 7471A Prep	17-FEB-2010 17:55	0.588 g	30 mL	51.02041	SOIL
SAMPLE	245960009		SW846 7471A Prep	17-FEB-2010 17:55	0.543 g	30 mL	55.24862	SOIL
SAMPLE	245960010		SW846 7471A Prep	17-FEB-2010 17:55	0.527 g	30 mL	56.926	SOIL
SAMPLE	245960011		SW846 7471A Prep	17-FEB-2010 17:55	0.514 g	30 mL	58.36576	SOIL
SAMPLE	246470001		SW846 7471A Prep	17-FEB-2010 17:55	0.504 g	30 mL	59.52381	SOIL
DUP	1202039186	246470001	SW846 7471A Prep	17-FEB-2010 17:55	0.555 g	30 mL	54.05405	SOIL
MS	1202039187	246470001	SW846 7471A Prep	17-FEB-2010 17:55	0.571 g	30 mL	52.5394	SOIL
MSD	1202039193	246470001	SW846 7471A Prep	17-FEB-2010 17:55	0.534 g	30 mL	56.17978	SOIL
SDILT	1202039192	246470001	SW846 7471A Prep	17-FEB-2010 17:55	0.504 g	30 mL	59.52381	SOIL
SAMPLE	246470002		SW846 7471A Prep	17-FEB-2010 17:55	0.527 g	30 mL	56.926	SOIL
SAMPLE	246470003		SW846 7471A Prep	17-FEB-2010 17:55	0.522 g	30 mL	57.47126	SOIL
SAMPLE	246470004		SW846 7471A Prep	17-FEB-2010 17:55	0.549 g	30 mL	54.64481	SOIL
SAMPLE	246470005		SW846 7471A Prep	17-FEB-2010 17:55	0.555 g	30 mL	54.05405	SOIL
SAMPLE	246470006		SW846 7471A Prep	17-FEB-2010 17:55	0.557 g	30 mL	53.85996	SOIL
SAMPLE	246470007		SW846 7471A Prep	17-FEB-2010 17:55	0.521 g	30 mL	57.58157	SOIL
SAMPLE	246470008		SW846 7471A Prep	17-FEB-2010 17:55	0.558 g	30 mL	53.76344	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent

Comments: Sample 246470001 is a dry brown rocky soil.
Digestion Start Date: 17-FEB-10 17:55
Digestion End Date: 17-FEB-10 18:25

Prep LogBook

WHG100217-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100217-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100217-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100217-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100217-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100217-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
948744	See Below		

Potentially affected work order(s)(SDG): 245938(10-1506),245960(10-1511)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202032570MS 2. Failed RPD for DUP: QC 1202032568DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202032571MSD 4. Failed Recovery for MSD/PSD: QC 1202032571MSD	1. The matrix spike recovery failed outside of the control limits for magnesium, calcium and aluminum due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for barium, calcium, chromium, copper and lead due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for calcium due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 4. The matrix spike duplicate recovery failed outside of the control limits for magnesium, calcium and aluminum due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Jerry Wigfall 20-FEB-10

Data Validator/Group Leader:
Louise Smith 23-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
27-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
948748	See Below		

Potentially affected work order(s)(SDG): 245938(10-1506),245960(10-1511)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202032574DUP	The sample and sample duplicate % RPD failed outside the control limits for Be due to possible sample homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 27-FEB-10

Data Validator/Group Leader:

Paul Boyd 27-FEB-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2,1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100217-49.2 **Opened:** 19-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 20-FEB-10 **Lot Number :** 1018879
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100217-01 **Opened:** 17-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 17-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 18-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 18-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100217-07 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100217-08 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100217-09 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100217-10 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-11 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100217-12 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-14 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100219-42 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100219-43 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100219-44 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100219-45 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100219-46 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100219-47 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100225-04AB **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100225-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100225-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-04B **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100225-05B
Name: ICPMS ICV
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Opened: 25-FEB-10
Received: 25-FEB-10
Expires: 26-FEB-10

Balance Id : 40245216
Pipet Id : 1758088
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100225-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 25-FEB-10
Received: 25-FEB-10
Expires: 26-FEB-10
Verified: 23-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100225-07B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-70B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100226-04AB **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 26-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100226-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100226-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100226-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100226-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100226-04B **Opened:** 26-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 26-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 27-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100226-05B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 26-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100226-06B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 26-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins **Verified:** 23-FEB-10
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100226-07B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 26-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 27-FEB-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100226-08B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 26-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Standard Logbook

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1270010 **Opened:** 15-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511-1

Sample Analysis

Sample ID	Client ID
245965001	RE15-10-7326
1202032557	Method Blank (MB) **ICP**
1202032558	Laboratory Control Sample (LCS)
1202032561	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032559	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032560	246000001(RE15-10-8124S) Matrix Spike (MS)
1202032562	Method Blank (MB) **ICP-MS**
1202032563	Laboratory Control Sample (LCS)
1202032566	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032564	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032565	246000001(RE15-10-8124S) Matrix Spike (MS)
1202033203	Method Blank (MB) **CVAA**
1202033204	Laboratory Control Sample (LCS)
1202033207	246056001(RE15-10-8233L) Serial Dilution (SD)
1202033205	246056001(RE15-10-8233D) Sample Duplicate (DUP)
1202033206	246056001(RE15-10-8233S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch: 948737, 948740 and 949020

Prep Batch :	948730, 948739 and 949018
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 246000001 (RE15-10-8124) and 246056001 (RE15-10-8233).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of thallium, as indicated by the "N" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 797043. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1511-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245965001 **BASIS:** As Received **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-7326 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 04:38	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 04:38	100224-2	948740
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 19:55	021110B-1	948737
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/25/10 15:28	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:01	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-09-7	Potassium	164	ug/L		50	150	150	1	P	HSC	02/11/10 19:55	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-23-5	Sodium	100	ug/L	J	100	300	300	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/28/10 14:30	100228-5	948740
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:20	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:55	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 19:55	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	4.96	ug/L	5	ug/L	99.1	90.0 – 110.0	AV	05–FEB–10 09:17	020510W1–6
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Arsenic	450	ug/L	500	ug/L	89.9	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Calcium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Cobalt	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Copper	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Nickel	485	ug/L	500	ug/L	97	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Potassium	2410	ug/L	2500	ug/L	96.3	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Selenium	2440	ug/L	2500	ug/L	97.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Silver	253	ug/L	250	ug/L	101.2	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Sodium	2390	ug/L	2500	ug/L	95.6	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	25–FEB–10 01:03	100224–2
	Cadmium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	25–FEB–10 01:03	100224–2
	Beryllium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	25–FEB–10 14:19	100225–3
	Lead	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	25–FEB–10 14:19	100225–3
	Manganese	54.5	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	25–FEB–10 14:19	100225–3
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 16:01	100225–4
	Thallium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	28–FEB–10 11:42	100228–5
CCV01										
	Mercury	4.99	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	05–FEB–10 09:22	020510W1–6
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Arsenic	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Calcium	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Magnesium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Nickel	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Selenium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Antimony	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	25-FEB-10 01:33	100224-2
	Cadmium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	25-FEB-10 01:33	100224-2
	Beryllium	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	25-FEB-10 14:32	100225-3
	Lead	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	25-FEB-10 14:32	100225-3
	Manganese	54.4	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	25-FEB-10 14:32	100225-3
	Uranium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25-FEB-10 16:10	100225-4
	Thallium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	28-FEB-10 11:57	100228-5
CCV02										
	Mercury	4.93	ug/L	5	ug/L	98.5	80.0 – 120.0	AV	05-FEB-10 09:45	020510W1-6
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Arsenic	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Calcium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Chromium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Cobalt	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Copper	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Magnesium	5300	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Selenium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Silver	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Vanadium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Zinc	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Antimony	54	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	25-FEB-10 01:52	100224-2
	Cadmium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	25-FEB-10 01:52	100224-2
	Beryllium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	25-FEB-10 14:56	100225-3
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	25-FEB-10 14:56	100225-3
	Manganese	55.1	ug/L	50	ug/L	110.2	90.0 – 110.0	MS	25-FEB-10 14:56	100225-3
	Uranium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	25-FEB-10 16:24	100225-4
	Thallium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	28-FEB-10 12:20	100228-5
CCV03										
	Mercury	5.05	ug/L	5	ug/L	101	80.0 – 120.0	AV	05-FEB-10 10:08	020510W1-6
	Aluminum	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Arsenic	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Barium	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Chromium	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Copper	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Nickel	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Selenium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Sodium	9790	ug/L	10000	ug/L	98	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Zinc	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Antimony	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	25-FEB-10 03:06	100224-2
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	25-FEB-10 03:06	100224-2
	Beryllium	54.2	ug/L	50	ug/L	108.4	90.0 – 110.0	MS	25-FEB-10 15:23	100225-3
	Lead	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	25-FEB-10 15:23	100225-3
	Manganese	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	25-FEB-10 15:23	100225-3
	Uranium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	25-FEB-10 16:36	100225-4
	Thallium	53.7	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	28-FEB-10 12:42	100228-5
CCV04										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	05-FEB-10 10:32	020510W1-6
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Arsenic	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Barium	460	ug/L	500	ug/L	92.1	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Chromium	459	ug/L	500	ug/L	91.9	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Cobalt	462	ug/L	500	ug/L	92.3	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Copper	455	ug/L	500	ug/L	91.1	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Iron	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Nickel	461	ug/L	500	ug/L	92.1	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Selenium	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Vanadium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 – 110.0	P	11-FEB-10 16:37	021110B-1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25-FEB-10 04:01	100224-2
	Cadmium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	25-FEB-10 04:01	100224-2
	Beryllium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25-FEB-10 15:50	100225-3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Manganese	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Thallium	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	28–FEB–10 13:06	100228–5
CCV05										
	Aluminum	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Calcium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Copper	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Magnesium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Nickel	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Potassium	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Selenium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Zinc	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Cadmium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Thallium	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	28–FEB–10 13:29	100228–5
CCV06										
	Aluminum	4740	ug/L	5000	ug/L	94.8	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Arsenic	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Barium	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Chromium	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Cobalt	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	467	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Magnesium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Nickel	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Potassium	4740	ug/L	5000	ug/L	94.7	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Selenium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Silver	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Sodium	9440	ug/L	10000	ug/L	94.4	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Vanadium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Zinc	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Antimony	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	25–FEB–10 05:34	100224–2
	Cadmium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	25–FEB–10 05:34	100224–2
	Thallium	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	28–FEB–10 13:51	100228–5
CCV07										
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Arsenic	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Barium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Calcium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Chromium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Nickel	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Potassium	4790	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Selenium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Sodium	9540	ug/L	10000	ug/L	95.4	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11–FEB–10 18:03	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	28-FEB-10 14:10	100228-5
CCV08										
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Arsenic	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Nickel	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Potassium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Selenium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Silver	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	28-FEB-10 14:39	100228-5
CCV09										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Arsenic	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Calcium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Nickel	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Selenium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Thallium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	28-FEB-10 14:58	100228-5
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Arsenic	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Calcium	4850	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Cobalt	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Nickel	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Selenium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
CCV11										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Arsenic	470	ug/L	500	ug/L	94	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Barium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Chromium	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Copper	472	ug/L	500	ug/L	94.3	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Magnesium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Nickel	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Potassium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Selenium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Silver	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Vanadium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Zinc	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.191	ug/L	.2	ug/L	95.5	70.0 – 130.0	AV	05–FEB–10 09:20	020510W1–6
	Antimony	3.37	ug/L	3	ug/L	112.3	70.0 – 130.0	MS	25–FEB–10 01:15	100224–2
	Cadmium	1.11	ug/L	1	ug/L	111.1	70.0 – 130.0	MS	25–FEB–10 01:15	100224–2
	Lead	2.55	ug/L	2	ug/L	127.6	70.0 – 130.0	MS	25–FEB–10 14:24	100225–3
	Beryllium	.557	ug/L	.5	ug/L	111.4	70.0 – 130.0	MS	25–FEB–10 14:24	100225–3
	Manganese	6.28	ug/L	5	ug/L	125.5	70.0 – 130.0	MS	25–FEB–10 14:24	100225–3
	Uranium	.244	ug/L	.2	ug/L	122	70.0 – 130.0	MS	25–FEB–10 16:05	100225–4
	Thallium	1.27	ug/L	1	ug/L	126.6	70.0 – 130.0	MS	28–FEB–10 11:48	100228–5
PQL01										
	Aluminum	201	ug/L	200	ug/L	100.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Iron	119	ug/L	100	ug/L	118.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Magnesium	304	ug/L	300	ug/L	101.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Nickel	4.56	ug/L	5	ug/L	91.2	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Potassium	185	ug/L	150	ug/L	123.1	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Silver	5.04	ug/L	5	ug/L	100.7	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Sodium	294	ug/L	300	ug/L	98	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Arsenic	28.6	ug/L	30	ug/L	95.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Barium	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Chromium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Cobalt	4.65	ug/L	5	ug/L	93.1	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Copper	9.86	ug/L	10	ug/L	98.6	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Vanadium	5.04	ug/L	5	ug/L	100.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Zinc	9.38	ug/L	10	ug/L	93.8	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Calcium	200	ug/L	200	ug/L	100	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Selenium	28.7	ug/L	30	ug/L	95.7	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:18	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 14:30	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 14:30	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:09	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:09	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:22	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:22	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:22	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:03	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 11:45	100228–5
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:24	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Chromium	1.23	+/–5	J	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Iron	39.3	+/–100	J	30.0	100	LIQ	P	11–FEB–10 14:53	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 14:53	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Potassium	77.71	+/–150	J	50.0	150	LIQ	P	11–FEB–10 14:53	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 14:53	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:40	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:40	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:34	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:34	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:34	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:12	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 12:01	100228–5
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:47	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 15:19	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 15:19	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 15:19	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 15:19	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Potassium	56.33	+/–150	J	50.0	150	LIQ	P	11–FEB–10 15:19	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 15:19	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:58	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:58	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:59	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:59	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:59	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:25	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 12:23	100228–5
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 10:10	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 16:01	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 16:01	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 16:01	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 16:01	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 16:01	021110B–1
	Selenium	–5.29	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Sodium	186.28	+/–300	J	100	300	LIQ	P	11–FEB–10 16:01	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 03:12	100224–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 03:12	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 15:26	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 15:26	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 15:26	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:37	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 12:45	100228–5
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 10:34	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 16:41	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 16:41	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 16:41	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 16:41	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 16:41	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Sodium	121.62	+/–300	J	100	300	LIQ	P	11–FEB–10 16:41	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 16:41	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 04:07	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 04:07	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 15:52	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 15:52	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 15:52	100225–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 13:09	100228–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 17:02	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 17:02	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 17:02	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 17:02	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 17:02	021110B–1
	Selenium	–6.0	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 17:02	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 05:03	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 05:03	100224–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 13:32	100228–5
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 17:31	021110B–1
	Arsenic	–8.04	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 17:31	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 17:31	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 17:31	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 17:31	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 17:31	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 05:40	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 05:40	100224–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 13:54	100228–5
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 18:07	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 18:07	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 18:07	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 18:07	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 18:07	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 18:07	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Thallium	0.304	+/–1	J	0.3	1.0	LIQ	MS	28–FEB–10 14:13	100228–5
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 18:36	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 18:36	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 18:36	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 18:36	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 14:42	100228–5
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Arsenic	–6.17	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 19:16	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 19:16	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 19:16	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 19:16	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Thallium	0.778	+/–1	J	0.3	1.0	LIQ	MS	28–FEB–10 15:01	100228–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 19:45	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 19:45	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 19:45	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 19:45	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 19:45	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 19:45	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 19:45	021110B–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 20:10	021110B–1
	Arsenic	–6.48	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 20:10	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 20:10	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 20:10	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 20:10	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 20:10	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1511–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 20:10	021110B–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1511–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032557								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Barium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Chromium	1	ug/L	+/–5	U	P	1	5
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Selenium	5	ug/L	+/–30	U	P	5	30
	Silver	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202032562								
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202033203								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	492000	ug/L	500000	ug/L	98.5	80.0 - 120.0	11-FEB-10 14:37	021110B-1
	Arsenic	-47.9	ug/L					11-FEB-10 14:37	021110B-1
	Barium	7.7	ug/L					11-FEB-10 14:37	021110B-1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 - 120.0	11-FEB-10 14:37	021110B-1
	Chromium	-0.331	ug/L					11-FEB-10 14:37	021110B-1
	Cobalt	1.88	ug/L					11-FEB-10 14:37	021110B-1
	Copper	-2.75	ug/L					11-FEB-10 14:37	021110B-1
	Iron	180000	ug/L	200000	ug/L	90.2	80.0 - 120.0	11-FEB-10 14:37	021110B-1
	Magnesium	469000	ug/L	500000	ug/L	93.8	80.0 - 120.0	11-FEB-10 14:37	021110B-1
	Nickel	-5.64	ug/L					11-FEB-10 14:37	021110B-1
	Potassium	-12.0	ug/L					11-FEB-10 14:37	021110B-1
	Selenium	-29.8	ug/L					11-FEB-10 14:37	021110B-1
	Silver	-8.02	ug/L					11-FEB-10 14:37	021110B-1
	Sodium	25.0	ug/L					11-FEB-10 14:37	021110B-1
	Vanadium	0.707	ug/L					11-FEB-10 14:37	021110B-1
	Zinc	-9.27	ug/L					11-FEB-10 14:37	021110B-1
ICSAB01									
	Aluminum	493000	ug/L	500000	ug/L	98.5	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Arsenic	460	ug/L	500	ug/L	92	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Barium	479	ug/L	500	ug/L	95.8	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Calcium	467000	ug/L	500000	ug/L	93.5	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Chromium	467	ug/L	500	ug/L	93.3	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Cobalt	417	ug/L	500	ug/L	83.3	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Copper	516	ug/L	500	ug/L	103	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Iron	181000	ug/L	200000	ug/L	90.5	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Magnesium	472000	ug/L	500000	ug/L	94.3	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Nickel	412	ug/L	500	ug/L	82.4	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Potassium	4870	ug/L	5000	ug/L	97.4	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Selenium	2240	ug/L	2500	ug/L	89.5	80.0 - 120.0	11-FEB-10 14:40	021110B-1

METALS
–4–
Interference Check Sample

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	244	ug/L	250	ug/L	97.7	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Sodium	4900	ug/L	5000	ug/L	98.1	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Vanadium	496	ug/L	500	ug/L	99.1	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Zinc	442	ug/L	500	ug/L	88.4	80.0 – 120.0	11–FEB–10 14:40	021110B–1

METALS
–4–
Interference Check Sample

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.383	ug/L					25–FEB–10 01:21	100224–2
	Cadmium	0.506	ug/L					25–FEB–10 01:21	100224–2
ICSAB01									
	Antimony	21.2	ug/L	20	ug/L	106	80.0 – 120.0	25–FEB–10 01:27	100224–2
	Cadmium	19.9	ug/L	20.44	ug/L	97.4	80.0 – 120.0	25–FEB–10 01:27	100224–2

METALS
-4-
Interference Check Sample

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.089	ug/L					25-FEB-10 14:27	100225-3
	Lead	0.239	ug/L					25-FEB-10 14:27	100225-3
	Manganese	6.37	ug/L					25-FEB-10 14:27	100225-3
ICSAB01									
	Beryllium	19.8	ug/L	20	ug/L	98.9	80.0 - 120.0	25-FEB-10 14:29	100225-3
	Lead	22.0	ug/L	20.19	ug/L	109	80.0 - 120.0	25-FEB-10 14:29	100225-3
	Manganese	28.5	ug/L	25.8	ug/L	110	80.0 - 120.0	25-FEB-10 14:29	100225-3

METALS
-4-
Interference Check Sample

SDG No: 10-1511-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	-0.001	ug/L					25-FEB-10 16:07	100225-4
ICSAB01									
	Uranium	23.4	ug/L	20	ug/L	117	80.0 - 120.0	25-FEB-10 16:08	100225-4

METALS
–4–
Interference Check Sample

SDG No: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.013	ug/L					28–FEB–10 11:51	100228–5
ICSAB01									
	Thallium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	28–FEB–10 11:54	100228–5

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1511–1 **Client ID** RE15–10–8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032560

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	4880		68	U	5000	97.2		P
Arsenic	ug/L	75–125	488		5	U	500	97.5		P
Barium	ug/L	75–125	489		1	U	500	97.7		P
Calcium	ug/L	75–125	4830		59.5	J	5000	95.3		P
Chromium	ug/L	75–125	487		1.31	J	500	97.2		P
Cobalt	ug/L	75–125	479		1	U	500	95.8		P
Copper	ug/L	75–125	490		3	U	500	97.9		P
Iron	ug/L	75–125	4890		34.7	J	5000	97.1		P
Magnesium	ug/L	75–125	4910		85	U	5000	97.7		P
Nickel	ug/L	75–125	489		1.5	U	500	97.9		P
Potassium	ug/L	75–125	5000		181		5000	96.3		P
Selenium	ug/L	75–125	470		5	U	500	94.1		P
Silver	ug/L	75–125	483		1	U	500	96.5		P
Sodium	ug/L	75–125	5010		200	J	5000	96.3		P
Vanadium	ug/L	75–125	493		1	U	500	98.5		P
Zinc	ug/L	75–125	475		3.3	U	500	94.6		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1511–1 **Client ID** RE15–10–8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032565

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	196		1	U	200	98		MS
Beryllium	ug/L	75–125	47.7		0.1	U	50	95.3		MS
Cadmium	ug/L	75–125	10.3		0.11	U	10	102		MS
Lead	ug/L	75–125	42.2		0.5	U	40	105		MS
Manganese	ug/L	75–125	48.9		1	U	50	96.6		MS
Thallium	ug/L	75–125	75		0.3	U	100	74.9	N	MS
Uranium	ug/L	75–125	49.5		0.05	U	50	98.9		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1511–1 **Client ID** RE15–10–8233S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246056001 **Spike ID:** 1202033206

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	1.5		0.066	U	2	75		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8124D

Sample ID: 246000001 **Duplicate ID:** 1202032559 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L	+/–200	59.5	J	52.6	J	12.4		P
Chromium	ug/L		1.31	J	1	U	200		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		34.7	J	30	U	200		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L	+/–150	181		193		6.09		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	200	J	180	J	10.5		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8124D

Sample ID: 246000001 **Duplicate ID:** 1202032564 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1511–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8233D

Sample ID: 246056001 **Duplicate ID:** 1202033205 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032558								
	Aluminum	ug/L	5000	4910		98.1	80-120	P
	Arsenic	ug/L	500	487		97.4	80-120	P
	Barium	ug/L	500	486		97.2	80-120	P
	Calcium	ug/L	5000	4880		97.6	80-120	P
	Chromium	ug/L	500	484		96.7	80-120	P
	Cobalt	ug/L	500	475		95.1	80-120	P
	Copper	ug/L	500	486		97.1	80-120	P
	Iron	ug/L	5000	4930		98.6	80-120	P
	Magnesium	ug/L	5000	4960		99.3	80-120	P
	Nickel	ug/L	500	487		97.4	80-120	P
	Potassium	ug/L	5000	4890		97.9	80-120	P
	Selenium	ug/L	500	481		96.3	80-120	P
	Silver	ug/L	500	481		96.2	80-120	P
	Sodium	ug/L	5000	4940		98.8	80-120	P
	Vanadium	ug/L	500	489		97.8	80-120	P
	Zinc	ug/L	500	474		94.8	80-120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1511–1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032563								
	Antimony	ug/L	50	52.3		105	80–120	MS
	Beryllium	ug/L	50	49.6		99.3	80–120	MS
	Cadmium	ug/L	50	48.6		97.1	80–120	MS
	Lead	ug/L	50	52.8		106	80–120	MS
	Manganese	ug/L	50	50.1		100	80–120	MS
	Thallium	ug/L	50	52.3		105	80–120	MS
	Uranium	ug/L	50	50.6		101	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1511-1

Contract: LANL01004

Aqueous LCS Source: GEL

Solid LCS Source:

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033204								
	Mercury	ug/L	2	2.01		100	80-120	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1511–1 **Client ID:** RE15–10–8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032561

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	59.5	J	250	U	100			P
Chromium	1.31	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	34.7	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	181		267	J	47.5			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	200	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1511-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032566

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1	U	5	U				MS
Thallium	.3	U	8.35					MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1511-1 **Client ID:** RE15-10-8233L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246056001 **Serial Dilution ID:** 1202033207

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1511–1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948730						
1202032557	MB for batch 948730	MB	W	10–FEB–10	50mL	50mL	
1202032558	LCS for batch 948730	LCS	W	10–FEB–10	50mL	50mL	
1202032560	RE15–10–8124S	MS	W	10–FEB–10	50mL	50mL	
1202032559	RE15–10–8124D	DUP	W	10–FEB–10	50mL	50mL	
245965001	RE15–10–7326	SAMPLE	W	10–FEB–10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1511–1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948739						
1202032562	MB for batch 948739	MB	W	10–FEB–10	50mL	50mL	
1202032563	LCS for batch 948739	LCS	W	10–FEB–10	50mL	50mL	
1202032565	RE15–10–8124S	MS	W	10–FEB–10	50mL	50mL	
1202032564	RE15–10–8124D	DUP	W	10–FEB–10	50mL	50mL	
245965001	RE15–10–7326	SAMPLE	W	10–FEB–10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1511-1 **Method Type**: AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 949018							
1202033203	MB for batch 949018	MB	W	04-FEB-10	20mL	20mL	
1202033204	LCS for batch 949018	LCS	W	04-FEB-10	20mL	20mL	
1202033206	RE15-10-8233S	MS	W	04-FEB-10	20mL	20mL	
1202033205	RE15-10-8233D	DUP	W	04-FEB-10	20mL	20mL	
245965001	RE15-10-7326	SAMPLE	W	04-FEB-10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1511–1
Method MS
Data File: 100224–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:45		X				X																		
S10	1	00:51		X				X																		
S100	1	00:57		X				X																		
ICV01	1	01:03		X				X																		
ICB01	1	01:09		X				X																		
CRDL01	1	01:15		X				X																		
ICSA01	1	01:21		X				X																		
ICSAB01	1	01:27		X				X																		
CCV01	1	01:33		X				X																		
CCB01	1	01:40		X				X																		
LR01	1	01:46		X				X																		
CCV02	1	01:52		X				X																		
CCB02	1	01:58		X				X																		
ZZZZZZ	1	02:04																								
ZZZZZZ	1	02:10																								
ZZZZZZ	1	02:16																								
ZZZZZZ	1	02:23																								
ZZZZZZ	1	02:29																								
ZZZZZZ	1	02:35																								
ZZZZZZ	1	02:41																								
ZZZZZZ	1	02:47																								
ZZZZZZ	1	02:54																								
ZZZZZZ	1	03:00																								
CCV03	1	03:06		X				X																		
CCB03	1	03:12		X				X																		
ZZZZZZ	1	03:18																								
ZZZZZZ	1	03:24																								
ZZZZZZ	1	03:31																								
ZZZZZZ	1	03:37																								
ZZZZZZ	1	03:43																								
ZZZZZZ	1	03:49																								
ZZZZZZ	5	03:55																								
CCV04	1	04:01		X				X																		
CCB04	1	04:07		X				X																		
1202032562	1	04:14		X				X																		
1202032563	1	04:20		X				X																		
ZZZZZZ	1	04:26																								
ZZZZZZ	1	04:32																								
245965001	1	04:38		X				X																		
ZZZZZZ	1	04:45																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	04:51																							
CCV05	1	04:57		X				X																	
CCB05	1	05:03		X				X																	
ZZZZZZ	1	05:09																							
1202032564	1	05:15		X				X																	
1202032565	1	05:22		X				X																	
1202032566	5	05:28		X				X																	
CCV06	1	05:34		X				X																	
CCB06	1	05:40		X				X																	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1511–1
Method MS
Data File: 100225–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:12					X							X		X										
S10	1	14:14					X							X		X										
S100	1	14:17					X							X		X										
ICV01	1	14:19					X							X		X										
ICB01	1	14:22					X							X		X										
CRDL01	1	14:24					X							X		X										
ICSA01	1	14:27					X							X		X										
ICSAB01	1	14:29					X							X		X										
CCV01	1	14:32					X							X		X										
CCB01	1	14:34					X							X		X										
ZZZZZZ	1	14:37																								
ZZZZZZ	1	14:40																								
ZZZZZZ	1	14:42																								
ZZZZZZ	1	14:46																								
ZZZZZZ	1	14:49																								
ZZZZZZ	1	14:51																								
ZZZZZZ	5	14:54																								
CCV02	1	14:56					X							X		X										
CCB02	1	14:59					X							X		X										
ZZZZZZ	1	15:02																								
ZZZZZZ	1	15:04																								
ZZZZZZ	1	15:07																								
ZZZZZZ	1	15:10																								
1202032562	1	15:13					X							X		X										
1202032563	1	15:15					X							X		X										
ZZZZZZ	1	15:18																								
ZZZZZZ	1	15:21																								
CCV03	1	15:23					X							X		X										
CCB03	1	15:26					X							X		X										
245965001	1	15:28					X							X		X										
ZZZZZZ	1	15:31																								
ZZZZZZ	1	15:34																								
ZZZZZZ	1	15:37																								
1202032564	1	15:39					X							X		X										
1202032565	1	15:42					X							X		X										
1202032566	5	15:44					X							X		X										
ZZZZZZ	5	15:47																								
CCV04	1	15:50					X							X		X										
CCB04	1	15:52					X							X		X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1511–1
Method MS
Data File: 100225–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:57																						X		
S10	1	15:58																						X		
S100	1	16:00																						X		
ICV01	1	16:01																						X		
ICB01	1	16:03																						X		
CRDL01	1	16:05																						X		
ICSA01	1	16:07																						X		
ICSAB01	1	16:08																						X		
CCV01	1	16:10																						X		
CCB01	1	16:12																						X		
1202032562	1	16:13																						X		
1202032563	1	16:15																						X		
ZZZZZZ	1	16:17																								
ZZZZZZ	1	16:18																								
245965001	1	16:20																						X		
ZZZZZZ	1	16:22																								
CCV02	1	16:24																						X		
CCB02	1	16:25																						X		
ZZZZZZ	1	16:27																								
ZZZZZZ	1	16:29																								
1202032564	1	16:30																						X		
1202032565	1	16:32																						X		
1202032566	5	16:34																						X		
CCV03	1	16:36																						X		
CCB03	1	16:37																						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 28–FEB–10 **End Date:** 28–FEB–10

Client Sdg: 10–1511–1
Method MS
Data File: 100228–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:32																					X			
S10	1	11:35																					X			
S100	1	11:38																					X			
ICV01	1	11:42																					X			
ICB01	1	11:45																					X			
CRDL01	1	11:48																					X			
ICSA01	1	11:51																					X			
ICSAB01	1	11:54																					X			
CCV01	1	11:57																					X			
CCB01	1	12:01																					X			
ZZZZZZ	1	12:04																								
ZZZZZZ	1	12:07																								
ZZZZZZ	1	12:10																								
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:16																								
CCV02	1	12:20																					X			
CCB02	1	12:23																					X			
ZZZZZZ	1	12:26																								
ZZZZZZ	1	12:29																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:36																								
ZZZZZZ	5	12:39																								
CCV03	1	12:42																					X			
CCB03	1	12:45																					X			
ZZZZZZ	1	12:50																								
ZZZZZZ	1	12:53																								
ZZZZZZ	1	12:57																								
ZZZZZZ	1	13:00																								
ZZZZZZ	1	13:03																								
CCV04	1	13:06																					X			
CCB04	1	13:09																					X			
ZZZZZZ	1	13:13																								
ZZZZZZ	1	13:16																								
ZZZZZZ	1	13:19																								
ZZZZZZ	5	13:22																								
ZZZZZZ	1	13:25																								
CCV05	1	13:29																					X			
CCB05	1	13:32																					X			
ZZZZZZ	1	13:35																								
ZZZZZZ	1	13:38																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	13:41																								
ZZZZZZ	1	13:45																								
ZZZZZZ	1	13:48																								
CCV06	1	13:51																				X			
CCB06	1	13:54																				X			
ZZZZZZ	1	13:57																							
ZZZZZZ	1	14:01																							
ZZZZZZ	1	14:04																							
ZZZZZZ	5	14:07																							
CCV07	1	14:10																				X			
CCB07	1	14:13																				X			
1202032562	1	14:17																				X			
1202032563	1	14:20																				X			
ZZZZZZ	1	14:23																							
ZZZZZZ	1	14:26																							
245965001	1	14:30																				X			
ZZZZZZ	1	14:33																							
ZZZZZZ	1	14:36																							
CCV08	1	14:39																				X			
CCB08	1	14:42																				X			
ZZZZZZ	1	14:46																							
1202032564	1	14:49																				X			
1202032565	1	14:52																				X			
1202032566	5	14:55																				X			
CCV09	1	14:58																				X			
CCB09	1	15:01																				X			

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 05-FEB-10 **End Date:** 05-FEB-10

Client Sdg: 10-1511-1
Method AV
Data File: 020510W1-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:05															X									
S0.2	1	09:07															X									
S0.5	1	09:09															X									
S2.0	1	09:11															X									
S5.0	1	09:13															X									
S10.0	1	09:15															X									
ICV01	1	09:17															X									
ICB01	1	09:18															X									
CRDL01	1	09:20															X									
CCV01	1	09:22															X									
CCB01	1	09:24															X									
ZZZZZZ	1	09:26																								
ZZZZZZ	1	09:28																								
ZZZZZZ	1	09:30																								
ZZZZZZ	1	09:32																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:40																								
ZZZZZZ	5	09:42																								
1202033203	1	09:43															X									
CCV02	1	09:45															X									
CCB02	1	09:47															X									
1202033204	1	09:49															X									
ZZZZZZ	1	09:51																								
ZZZZZZ	1	09:53																								
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:57																								
ZZZZZZ	1	09:59																								
245965001	1	10:01															X									
ZZZZZZ	1	10:03																								
ZZZZZZ	1	10:05																								
ZZZZZZ	1	10:07																								
CCV03	1	10:08															X									
CCB03	1	10:10															X									
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
1202033205	1	10:16															X									
1202033206	1	10:18															X									
1202033207	5	10:20															X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:22																							
ZZZZZZ	1	10:24																							
ZZZZZZ	1	10:26																							
ZZZZZZ	1	10:28																							
ZZZZZZ	1	10:30																							
CCV04	1	10:32														X									
CCB04	1	10:34														X									

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 11–FEB–10 **End Date:** 11–FEB–10

Client Sdg: 10–1511–1
Method P
Data File: 021110B–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	14:14			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	14:17	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	14:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	14:24	X						X				X		X							X				
ICV01	1	14:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	14:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	14:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	14:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	14:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	14:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	14:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	14:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	14:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	15:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR04	1	15:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	15:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	15:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:23																								
ZZZZZZ	1	15:26																								
ZZZZZZ	1	15:30																								
ZZZZZZ	1	15:34																								
ZZZZZZ	1	15:38																								
ZZZZZZ	5	15:42																								
ZZZZZZ	1	15:45																								
ZZZZZZ	1	15:49																								
ZZZZZZ	1	15:53																								
CCV03	1	15:57	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	16:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	16:04																								
ZZZZZZ	1	16:08																								
ZZZZZZ	1	16:12																								
ZZZZZZ	1	16:16																								
ZZZZZZ	1	16:20																								
ZZZZZZ	1	16:24																								
ZZZZZZ	1	16:28																								
ZZZZZZ	1	16:31																								
ZZZZZZ	1	16:34																								
CCV04	1	16:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	16:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCV05	1	16:58	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB05	1	17:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:06																								
ZZZZZZ	1	17:09																								
ZZZZZZ	1	17:13																								
ZZZZZZ	1	17:16																								
ZZZZZZ	1	17:20																								
ZZZZZZ	5	17:24																								
CCV06	1	17:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB06	1	17:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:35																								
ZZZZZZ	1	17:38																								
ZZZZZZ	1	17:42																								
ZZZZZZ	1	17:45																								
ZZZZZZ	1	17:49																								
ZZZZZZ	1	17:53																								
ZZZZZZ	1	17:56																								
ZZZZZZ	1	18:00																								
CCV07	1	18:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB07	1	18:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:11																								
ZZZZZZ	1	18:14																								
ZZZZZZ	1	18:18																								
ZZZZZZ	1	18:21																								
ZZZZZZ	1	18:25																								
ZZZZZZ	5	18:29																								
CCV08	1	18:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB08	1	18:36	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:40																								
ZZZZZZ	1	18:43																								
ZZZZZZ	1	18:47																								
ZZZZZZ	1	18:50																								
ZZZZZZ	1	18:54																								
ZZZZZZ	1	18:58																								
ZZZZZZ	1	19:01																								
ZZZZZZ	1	19:05																								
ZZZZZZ	1	19:08																								
CCV09	1	19:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB09	1	19:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032557	1	19:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
1202032558	1	19:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:27																								
1202032559	1	19:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032560	1	19:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032561	5	19:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV10	1	19:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB10	1	19:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:48																								
ZZZZZZ	1	19:52																								
245965001	1	19:55	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:59																								
ZZZZZZ	1	20:03																								
CCV11	1	20:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB11	1	20:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1511–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1511–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1511–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–1511–1
Effective Dates: 01–FEB–10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	–1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	–2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1511-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1511–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1511–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

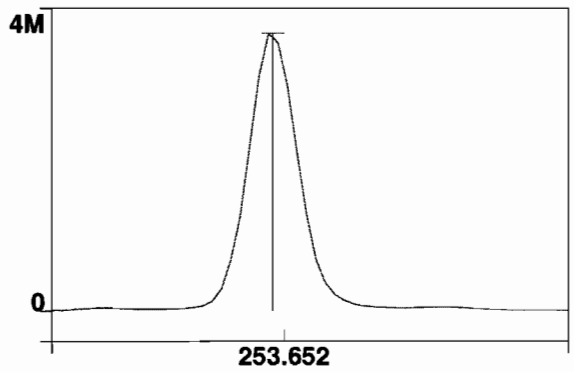

Intensity: 3672376.8 cps
Conc:

1

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Analysis Begun

Start Time: 2/11/2010 14:10:46 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/11/2010 14:10:48**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54739.4	54739.4	100	%	14:11:23
1	Al 396.153Radial†	-13.9	-13.8	[0.00]	µg/L	14:11:23
1	Ca 317.933Radial†	181.9	181.3	[0.00]	µg/L	14:11:43
1	Fe 238.204 Radial†	15.3	15.3	[0.00]	µg/L	14:11:43
1	K 766.490 Radial†	133.4	133.0	[0.00]	µg/L	14:11:23
1	Mg 279.077 IEC†	7.8	7.8	[0.00]	µg/L	14:11:43
1	Na 589.592 Radial†	544.1	542.5	[0.00]	µg/L	14:11:23
1	Sr 421.552†	47.1	46.9	[0.00]	µg/L	14:11:23
1	Sc 361.383	1911885.3	1911885.3	100.11	%	14:12:45
1	Y 371.029	1310700.1	1310700.1	100.06	%	14:12:45
1	Ag 328.068†	-547.3	-546.7	[0.00]	µg/L	14:12:50
1	As 188.979†	3.5	3.5	[0.00]	µg/L	14:13:11
1	B 249.677†	353.5	353.1	[0.00]	µg/L	14:13:11
1	Ba 233.527†	-32.2	-32.2	[0.00]	µg/L	14:13:11
1	Be 313.107†	-3446.9	-3443.2	[0.00]	µg/L	14:12:50
1	Cd 226.502†	-153.7	-153.5	[0.00]	µg/L	14:13:11
1	Co 228.616†	-1.3	-1.3	[0.00]	µg/L	14:13:11
1	Cr 267.716†	-55.4	-55.3	[0.00]	µg/L	14:12:50
1	Cu 324.752†	2504.0	2501.3	[0.00]	µg/L	14:12:50
1	Mn 257.610†	-239.6	-239.4	[0.00]	µg/L	14:13:11
1	Mo 202.031†	-2.8	-2.8	[0.00]	µg/L	14:13:11
1	Ni 231.604†	307.9	307.6	[0.00]	µg/L	14:13:11
1	P 214.914†	26.2	26.2	[0.00]	µg/L	14:13:11
1	Pb 220.353†	91.7	91.6	[0.00]	µg/L	14:13:11
1	S 181.975 Axial†	15.4	15.3	[0.00]	µg/L	14:13:11
1	Sb 206.836†	28.4	28.4	[0.00]	µg/L	14:13:11
1	Se 196.026†	16.7	16.7	[0.00]	µg/L	14:13:11
1	SiO2†	1235.3	1234.0	[0.00]	µg/L	14:12:50
1	Si 251.611†	309.0	308.7	[0.00]	µg/L	14:13:11
1	Sn 189.927†	-0.7	-0.7	[0.00]	µg/L	14:13:11
1	Ti 334.940†	89.4	89.3	[0.00]	µg/L	14:12:50
1	Tl 190.801†	-23.5	-23.5	[0.00]	µg/L	14:13:11
1	U 409.014†	-77.0	-76.9	[0.00]	µg/L	14:12:50
1	V 292.402†	-41.9	-41.9	[0.00]	µg/L	14:12:50
1	Zn 213.857†	474.5	474.0	[0.00]	µg/L	14:13:11
2	Sc RADIAL	54665.4	54665.4	100	%	14:11:49
2	Al 396.153Radial†	-1.2	-1.2	[0.00]	µg/L	14:11:49
2	Ca 317.933Radial†	175.4	175.1	[0.00]	µg/L	14:12:09
2	Fe 238.204 Radial†	14.9	14.8	[0.00]	µg/L	14:12:09
2	K 766.490 Radial†	144.1	143.8	[0.00]	µg/L	14:11:49
2	Mg 279.077 IEC†	11.1	11.1	[0.00]	µg/L	14:12:09
2	Na 589.592 Radial†	552.5	551.5	[0.00]	µg/L	14:11:49
2	Sr 421.552†	33.2	33.1	[0.00]	µg/L	14:11:49
2	Sc 361.383	1909838.0	1909838.0	100.000	%	14:13:17
2	Y 371.029	1310179.5	1310179.5	100.02	%	14:13:17
2	Ag 328.068†	-580.2	-580.2	[0.00]	µg/L	14:13:23
2	As 188.979†	-0.5	-0.5	[0.00]	µg/L	14:13:43

2	B 249.677†	311.8	311.8	[0.00]	µg/L	14:13:43
2	Ba 233.527†	-19.4	-19.4	[0.00]	µg/L	14:13:43
2	Be 313.107†	-3440.2	-3440.2	[0.00]	µg/L	14:13:23
2	Cd 226.502†	-136.8	-136.8	[0.00]	µg/L	14:13:43
2	Co 228.616†	-8.2	-8.2	[0.00]	µg/L	14:13:43
2	Cr 267.716†	-44.6	-44.6	[0.00]	µg/L	14:13:23
2	Cu 324.752†	2529.2	2529.2	[0.00]	µg/L	14:13:23
2	Mn 257.610†	-247.4	-247.4	[0.00]	µg/L	14:13:43
2	Mo 202.031†	-8.7	-8.7	[0.00]	µg/L	14:13:43
2	Ni 231.604†	295.5	295.5	[0.00]	µg/L	14:13:43
2	P 214.914†	27.9	27.9	[0.00]	µg/L	14:13:43
2	Pb 220.353†	98.3	98.3	[0.00]	µg/L	14:13:43
2	S 181.975 Axial†	16.8	16.8	[0.00]	µg/L	14:13:43
2	Sb 206.836†	27.6	27.6	[0.00]	µg/L	14:13:43
2	Se 196.026†	12.1	12.1	[0.00]	µg/L	14:13:43
2	SiO2†	1235.5	1235.5	[0.00]	µg/L	14:13:23
2	Si 251.611†	316.0	316.0	[0.00]	µg/L	14:13:43
2	Sn 189.927†	-2.2	-2.2	[0.00]	µg/L	14:13:43
2	Ti 334.940†	132.2	132.2	[0.00]	µg/L	14:13:23
2	Tl 190.801†	-27.5	-27.5	[0.00]	µg/L	14:13:43
2	U 409.014†	-52.6	-52.6	[0.00]	µg/L	14:13:23
2	V 292.402†	-46.9	-46.9	[0.00]	µg/L	14:13:23
2	Zn 213.857†	476.6	476.6	[0.00]	µg/L	14:13:43
3	Sc RADIAL	54318.4	54318.4	99.5	%	14:12:15
3	Al 396.153Radial†	-15.3	-15.3	[0.00]	µg/L	14:12:15
3	Ca 317.933Radial†	180.2	181.0	[0.00]	µg/L	14:12:35
3	Fe 238.204 Radial†	13.3	13.4	[0.00]	µg/L	14:12:35
3	K 766.490 Radial†	107.9	108.4	[0.00]	µg/L	14:12:15
3	Mg 279.077 IEC†	14.9	15.0	[0.00]	µg/L	14:12:35
3	Na 589.592 Radial†	529.1	531.6	[0.00]	µg/L	14:12:15
3	Sr 421.552†	38.4	38.6	[0.00]	µg/L	14:12:15
3	Sc 361.383	1907796.9	1907796.9	99.893	%	14:13:49
3	Y 371.029	1308876.2	1308876.2	99.920	%	14:13:49
3	Ag 328.068†	-566.0	-566.6	[0.00]	µg/L	14:13:55
3	As 188.979†	0.4	0.4	[0.00]	µg/L	14:14:15
3	B 249.677†	329.2	329.5	[0.00]	µg/L	14:14:15
3	Ba 233.527†	-26.4	-26.4	[0.00]	µg/L	14:14:15
3	Be 313.107†	-3434.3	-3437.9	[0.00]	µg/L	14:13:55
3	Cd 226.502†	-135.9	-136.0	[0.00]	µg/L	14:14:15
3	Co 228.616†	-17.0	-17.0	[0.00]	µg/L	14:14:15
3	Cr 267.716†	-57.1	-57.2	[0.00]	µg/L	14:13:55
3	Cu 324.752†	2425.2	2427.8	[0.00]	µg/L	14:13:55
3	Mn 257.610†	-245.3	-245.6	[0.00]	µg/L	14:14:15
3	Mo 202.031†	-11.1	-11.1	[0.00]	µg/L	14:14:15
3	Ni 231.604†	303.1	303.5	[0.00]	µg/L	14:14:15
3	P 214.914†	28.8	28.8	[0.00]	µg/L	14:14:15
3	Pb 220.353†	101.6	101.7	[0.00]	µg/L	14:14:15
3	S 181.975 Axial†	12.3	12.3	[0.00]	µg/L	14:14:15
3	Sb 206.836†	24.9	25.0	[0.00]	µg/L	14:14:15
3	Se 196.026†	18.7	18.7	[0.00]	µg/L	14:14:15
3	SiO2†	1279.2	1280.6	[0.00]	µg/L	14:13:55
3	Si 251.611†	313.6	313.9	[0.00]	µg/L	14:14:15
3	Sn 189.927†	0.3	0.3	[0.00]	µg/L	14:14:15
3	Ti 334.940†	126.8	126.9	[0.00]	µg/L	14:13:55
3	Tl 190.801†	-21.9	-21.9	[0.00]	µg/L	14:14:15
3	U 409.014†	-31.2	-31.3	[0.00]	µg/L	14:13:55
3	V 292.402†	-43.8	-43.9	[0.00]	µg/L	14:13:55
3	Zn 213.857†	475.5	476.0	[0.00]	µg/L	14:14:15

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Sc 361.383	1909840.1	2044.21	0.11%	100.00	%
Sc RADIAL	54574.4	224.80	0.41%	100	%
Y 371.029	1309918.6	939.52	0.07%	100.00	%
Ag 328.068†	-564.5	16.85	2.98%	[0.00]	µg/L
Al 396.153Radial†	-10.1	7.73	76.30%	[0.00]	µg/L
As 188.979†	1.1	2.09	182.38%	[0.00]	µg/L
B 249.677†	331.5	20.73	6.25%	[0.00]	µg/L
Ba 233.527†	-26.0	6.39	24.57%	[0.00]	µg/L

Be 313.107†	-3440.4	2.66	0.08%	[0.00]	µg/L
Ca 317.933Radial†	179.2	3.51	1.96%	[0.00]	µg/L
Cd 226.502†	-142.1	9.89	6.96%	[0.00]	µg/L
Co 228.616†	-8.8	7.85	88.83%	[0.00]	µg/L
Cr 267.716†	-52.4	6.82	13.02%	[0.00]	µg/L
Cu 324.752†	2486.1	52.42	2.11%	[0.00]	µg/L
Fe 238.204 Radial†	14.5	1.00	6.90%	[0.00]	µg/L
K 766.490 Radial†	128.4	18.15	14.13%	[0.00]	µg/L
Mg 279.077 IEC†	11.3	3.62	32.14%	[0.00]	µg/L
Mn 257.610†	-244.1	4.19	1.72%	[0.00]	µg/L
Mo 202.031†	-7.5	4.31	57.15%	[0.00]	µg/L
Na 589.592 Radial†	541.9	9.97	1.84%	[0.00]	µg/L
Ni 231.604†	302.2	6.13	2.03%	[0.00]	µg/L
P 214.914†	27.6	1.32	4.77%	[0.00]	µg/L
Pb 220.353†	97.2	5.13	5.27%	[0.00]	µg/L
S 181.975 Axial†	14.8	2.33	15.71%	[0.00]	µg/L
Sb 206.836†	27.0	1.78	6.62%	[0.00]	µg/L
Se 196.026†	15.8	3.37	21.27%	[0.00]	µg/L
SiO2†	1250.0	26.45	2.12%	[0.00]	µg/L
Si 251.611†	312.9	3.77	1.21%	[0.00]	µg/L
Sn 189.927†	-0.9	1.29	148.06%	[0.00]	µg/L
Sr 421.552†	39.6	6.94	17.54%	[0.00]	µg/L
Ti 334.940†	116.1	23.40	20.15%	[0.00]	µg/L
Tl 190.801†	-24.3	2.88	11.85%	[0.00]	µg/L
U 409.014†	-53.6	22.84	42.60%	[0.00]	µg/L
V 292.402†	-44.2	2.52	5.69%	[0.00]	µg/L
Zn 213.857†	475.5	1.38	0.29%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/11/2010 14:14:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55015.9	55015.9	101	%	14:15:00
1	K 766.490 Radial†	1529.6	1388.9	[1000]	µg/L	14:15:00
1	Sr 421.552†	9551.7	9435.5	[100]	µg/L	14:15:00
1	Sc 361.383	1906987.6	1906987.6	99.851	%	14:15:21
1	Y 371.029	1308080.3	1308080.3	99.860	%	14:15:21
1	Ag 328.068†	12337.2	12920.2	[100]	µg/L	14:15:27
1	As 188.979†	60.2	59.1	[100]	µg/L	14:15:48
1	B 249.677†	2597.7	2270.1	[100]	µg/L	14:15:27
1	Ba 233.527†	3962.5	3994.4	[100]	µg/L	14:15:27
1	Be 313.107†	151975.4	155643.2	[100]	µg/L	14:15:21
1	Cd 226.502†	3678.8	3826.5	[100]	µg/L	14:15:27
1	Co 228.616†	2095.6	2107.6	[100]	µg/L	14:15:48
1	Cr 267.716†	4700.6	4760.0	[100]	µg/L	14:15:27
1	Cu 324.752†	17516.6	15056.7	[100]	µg/L	14:15:27
1	Mn 257.610†	30035.0	30324.0	[100]	µg/L	14:15:27
1	Mo 202.031†	993.1	1002.1	[100]	µg/L	14:15:48
1	Ni 231.604†	2238.0	1939.1	[100]	µg/L	14:15:27
1	P 214.914†	275.5	248.3	[500]	µg/L	14:15:48
1	Pb 220.353†	495.9	399.5	[100]	µg/L	14:15:48
1	S 181.975 Axial†	61.0	46.2	[200]	µg/L	14:15:48
1	Sb 206.836†	127.3	100.5	[100]	µg/L	14:15:48
1	Se 196.026†	83.6	67.8	[100]	µg/L	14:15:48
1	SiO2†	6362.3	5121.8	[1069.5]	µg/L	14:15:27
1	Si 251.611†	6526.8	6223.6	[500]	µg/L	14:15:27
1	Sn 189.927†	236.7	237.9	[100]	µg/L	14:15:48
1	Ti 334.940†	41818.8	41765.2	[100]	µg/L	14:15:27
1	Tl 190.801†	52.7	77.0	[100]	µg/L	14:15:48
1	U 409.014†	1125.7	1181.0	[100]	µg/L	14:15:27
1	V 292.402†	9619.3	9677.9	[100]	µg/L	14:15:27
1	Zn 213.857†	4700.1	4231.6	[100]	µg/L	14:15:27
2	Sc RADIAL	55171.2	55171.2	101	%	14:15:05
2	K 766.490 Radial†	1577.1	1431.6	[1000]	µg/L	14:15:05
2	Sr 421.552†	9725.8	9581.1	[100]	µg/L	14:15:05
2	Sc 361.383	1919566.1	1919566.1	100.51	%	14:15:54
2	Y 371.029	1316225.3	1316225.3	100.48	%	14:15:54
2	Ag 328.068†	12296.8	12799.1	[100]	µg/L	14:16:00
2	As 188.979†	55.3	53.9	[100]	µg/L	14:16:20
2	B 249.677†	2620.3	2275.6	[100]	µg/L	14:16:00
2	Ba 233.527†	3925.8	3931.9	[100]	µg/L	14:16:00
2	Be 313.107†	153476.8	156139.6	[100]	µg/L	14:15:54
2	Cd 226.502†	3613.9	3737.7	[100]	µg/L	14:16:00
2	Co 228.616†	2078.6	2076.9	[100]	µg/L	14:16:20
2	Cr 267.716†	4668.3	4697.0	[100]	µg/L	14:16:00
2	Cu 324.752†	17487.1	14912.4	[100]	µg/L	14:16:00
2	Mn 257.610†	29867.9	29960.6	[100]	µg/L	14:16:00
2	Mo 202.031†	997.0	999.5	[100]	µg/L	14:16:20
2	Ni 231.604†	2232.7	1919.2	[100]	µg/L	14:16:00
2	P 214.914†	277.4	248.4	[500]	µg/L	14:16:20
2	Pb 220.353†	494.0	394.3	[100]	µg/L	14:16:20
2	S 181.975 Axial†	66.3	51.1	[200]	µg/L	14:16:20
2	Sb 206.836†	134.2	106.6	[100]	µg/L	14:16:20
2	Se 196.026†	81.0	64.7	[100]	µg/L	14:16:20
2	SiO2†	6316.5	5034.4	[1069.5]	µg/L	14:16:00
2	Si 251.611†	6524.6	6178.6	[500]	µg/L	14:16:00
2	Sn 189.927†	229.9	229.6	[100]	µg/L	14:16:20
2	Ti 334.940†	41713.2	41385.8	[100]	µg/L	14:16:00
2	Tl 190.801†	46.9	70.9	[100]	µg/L	14:16:20
2	U 409.014†	1094.4	1142.5	[100]	µg/L	14:16:00
2	V 292.402†	9634.9	9630.3	[100]	µg/L	14:16:00

2	Zn 213.857†	4683.2	4183.9	[100]	µg/L	14:16:00
3	Sc RADIAL	54696.3	54696.3	100	%	14:15:11
3	K 766.490 Radial†	1613.5	1481.5	[1000]	µg/L	14:15:11
3	Sr 421.552†	9663.0	9601.9	[100]	µg/L	14:15:11
3	Sc 361.383	1914175.0	1914175.0	100.23	%	14:16:26
3	Y 371.029	1314459.8	1314459.8	100.35	%	14:16:26
3	Ag 328.068†	12311.6	12848.2	[100]	µg/L	14:16:32
3	As 188.979†	52.2	51.0	[100]	µg/L	14:16:53
3	B 249.677†	2607.8	2270.5	[100]	µg/L	14:16:32
3	Ba 233.527†	3927.0	3944.1	[100]	µg/L	14:16:32
3	Be 313.107†	152121.7	155217.6	[100]	µg/L	14:16:26
3	Cd 226.502†	3649.8	3783.7	[100]	µg/L	14:16:32
3	Co 228.616†	2092.3	2096.4	[100]	µg/L	14:16:53
3	Cr 267.716†	4695.0	4736.7	[100]	µg/L	14:16:32
3	Cu 324.752†	17403.9	14878.4	[100]	µg/L	14:16:32
3	Mn 257.610†	29812.0	29988.6	[100]	µg/L	14:16:32
3	Mo 202.031†	994.2	999.5	[100]	µg/L	14:16:53
3	Ni 231.604†	2238.0	1930.8	[100]	µg/L	14:16:32
3	P 214.914†	276.9	248.7	[500]	µg/L	14:16:53
3	Pb 220.353†	496.4	398.1	[100]	µg/L	14:16:53
3	S 181.975 Axial†	63.6	48.7	[200]	µg/L	14:16:53
3	Sb 206.836†	131.7	104.5	[100]	µg/L	14:16:53
3	Se 196.026†	85.1	69.1	[100]	µg/L	14:16:53
3	SiO2†	6274.4	5010.2	[1069.5]	µg/L	14:16:32
3	Si 251.611†	6506.8	6179.2	[500]	µg/L	14:16:32
3	Sn 189.927†	233.2	233.5	[100]	µg/L	14:16:53
3	Ti 334.940†	41628.8	41418.4	[100]	µg/L	14:16:32
3	Tl 190.801†	52.0	76.1	[100]	µg/L	14:16:53
3	U 409.014†	1167.9	1218.9	[100]	µg/L	14:16:32
3	V 292.402†	9645.5	9667.9	[100]	µg/L	14:16:32
3	Zn 213.857†	4697.5	4211.3	[100]	µg/L	14:16:32

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1913576.2	6310.61	0.33%	100.20	%
Sc RADIAL	54961.1	242.12	0.44%	101	%
Y 371.029	1312921.8	4284.80	0.33%	100.23	%
Ag 328.068†	12855.8	60.90	0.47%	[100]	µg/L
As 188.979†	54.7	4.13	7.55%	[100]	µg/L
B 249.677†	2272.1	3.07	0.13%	[100]	µg/L
Ba 233.527†	3956.8	33.13	0.84%	[100]	µg/L
Be 313.107†	155666.8	461.42	0.30%	[100]	µg/L
Cd 226.502†	3782.6	44.38	1.17%	[100]	µg/L
Co 228.616†	2093.6	15.54	0.74%	[100]	µg/L
Cr 267.716†	4731.2	31.87	0.67%	[100]	µg/L
Cu 324.752†	14949.2	94.66	0.63%	[100]	µg/L
K 766.490 Radial†	1434.0	46.37	3.23%	[1000]	µg/L
Mn 257.610†	30091.1	202.22	0.67%	[100]	µg/L
Mo 202.031†	1000.4	1.54	0.15%	[100]	µg/L
Ni 231.604†	1929.7	10.00	0.52%	[100]	µg/L
P 214.914†	248.5	0.19	0.08%	[500]	µg/L
Pb 220.353†	397.3	2.68	0.67%	[100]	µg/L
S 181.975 Axial†	48.7	2.45	5.03%	[200]	µg/L
Sb 206.836†	103.8	3.08	2.97%	[100]	µg/L
Se 196.026†	67.2	2.24	3.33%	[100]	µg/L
SiO2†	5055.5	58.67	1.16%	[1069.5]	µg/L
Si 251.611†	6193.8	25.84	0.42%	[500]	µg/L
Sn 189.927†	233.7	4.16	1.78%	[100]	µg/L
Sr 421.552†	9539.5	90.63	0.95%	[100]	µg/L
Ti 334.940†	41523.1	210.28	0.51%	[100]	µg/L
Tl 190.801†	74.7	3.29	4.41%	[100]	µg/L
U 409.014†	1180.8	38.20	3.23%	[100]	µg/L
V 292.402†	9658.7	25.07	0.26%	[100]	µg/L
Zn 213.857†	4209.0	23.92	0.57%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/11/2010 14:17:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56431.2	56431.2	103	%	14:17:36
1	Al 396.153Radial†	6754.1	6542.0	[5000]	µg/L	14:17:36
1	Ca 317.933Radial†	5471.1	5111.9	[5000]	µg/L	14:17:56
1	K 766.490 Radial†	7121.7	6759.0	[5000]	µg/L	14:17:36
1	Mg 279.077 IEC†	566.8	536.8	[5000]	µg/L	14:17:56
1	Sr 421.552†	48100.9	46478.6	[500]	µg/L	14:17:36
1	Sc 361.383	1949267.7	1949267.7	102.06	%	14:18:59
1	Y 371.029	1332062.2	1332062.2	101.69	%	14:18:59
1	Ag 328.068†	62715.3	62011.3	[500]	µg/L	14:19:05
1	As 188.979†	268.2	261.6	[500]	µg/L	14:19:26
1	B 249.677†	11715.5	11147.1	[500]	µg/L	14:19:05
1	Ba 233.527†	19296.1	18931.8	[500]	µg/L	14:19:05
1	Be 313.107†	765143.4	753107.4	[500]	µg/L	14:18:59
1	Cd 226.502†	18181.3	17955.7	[500]	µg/L	14:19:05
1	Co 228.616†	10302.5	10103.0	[500]	µg/L	14:19:05
1	Cr 267.716†	23080.8	22666.4	[500]	µg/L	14:19:05
1	Cu 324.752†	74689.8	70693.0	[500]	µg/L	14:19:05
1	Mn 257.610†	147455.4	144716.9	[500]	µg/L	14:18:59
1	Mo 202.031†	4948.3	4855.8	[500]	µg/L	14:19:26
1	Ni 231.604†	9587.6	9091.5	[500]	µg/L	14:19:05
1	P 214.914†	1227.3	1174.8	[2500]	µg/L	14:19:26
1	Pb 220.353†	2024.6	1886.4	[500]	µg/L	14:19:26
1	S 181.975 Axial†	257.2	237.2	[1000]	µg/L	14:19:26
1	Sb 206.836†	565.6	527.2	[500]	µg/L	14:19:26
1	Se 196.026†	349.8	326.9	[500]	µg/L	14:19:26
1	SiO2†	26268.6	24487.3	[5347.5]	µg/L	14:19:05
1	Si 251.611†	30925.0	29986.6	[2500]	µg/L	14:19:05
1	Sn 189.927†	1150.8	1128.4	[500]	µg/L	14:19:26
1	Ti 334.940†	210237.3	205868.8	[500]	µg/L	14:18:59
1	Tl 190.801†	342.7	360.1	[500]	µg/L	14:19:26
1	U 409.014†	5574.8	5515.7	[500]	µg/L	14:19:05
1	V 292.402†	47320.5	46407.6	[500]	µg/L	14:19:05
1	Zn 213.857†	20885.0	19987.0	[500]	µg/L	14:19:05
2	Sc RADIAL	56400.3	56400.3	103	%	14:18:02
2	Al 396.153Radial†	6776.8	6567.5	[5000]	µg/L	14:18:02
2	Ca 317.933Radial†	5446.0	5090.5	[5000]	µg/L	14:18:22
2	K 766.490 Radial†	7209.5	6847.7	[5000]	µg/L	14:18:02
2	Mg 279.077 IEC†	558.9	529.5	[5000]	µg/L	14:18:22
2	Sr 421.552†	48009.1	46415.3	[500]	µg/L	14:18:02
2	Sc 361.383	1969776.8	1969776.8	103.14	%	14:19:33
2	Y 371.029	1347212.9	1347212.9	102.85	%	14:19:33
2	Ag 328.068†	63263.2	61902.7	[500]	µg/L	14:19:38
2	As 188.979†	264.1	254.9	[500]	µg/L	14:19:59
2	B 249.677†	11833.7	11142.2	[500]	µg/L	14:19:38
2	Ba 233.527†	19517.7	18949.8	[500]	µg/L	14:19:38
2	Be 313.107†	769998.9	750009.7	[500]	µg/L	14:19:33
2	Cd 226.502†	18459.9	18040.3	[500]	µg/L	14:19:38
2	Co 228.616†	10435.6	10126.9	[500]	µg/L	14:19:38
2	Cr 267.716†	23319.3	22662.1	[500]	µg/L	14:19:38
2	Cu 324.752†	75284.2	70507.3	[500]	µg/L	14:19:38
2	Mn 257.610†	148076.6	143815.0	[500]	µg/L	14:19:33
2	Mo 202.031†	4926.4	4784.1	[500]	µg/L	14:19:59
2	Ni 231.604†	9732.8	9134.4	[500]	µg/L	14:19:38
2	P 214.914†	1225.6	1160.7	[2500]	µg/L	14:19:59
2	Pb 220.353†	2028.4	1869.5	[500]	µg/L	14:19:59
2	S 181.975 Axial†	257.8	235.1	[1000]	µg/L	14:19:59
2	Sb 206.836†	552.2	508.4	[500]	µg/L	14:19:59
2	Se 196.026†	361.1	334.3	[500]	µg/L	14:19:59
2	SiO2†	26477.9	24422.2	[5347.5]	µg/L	14:19:38

2	Si 251.611†	31253.2	29989.4	[2500]	µg/L	14:19:38
2	Sn 189.927†	1150.3	1116.1	[500]	µg/L	14:19:59
2	Ti 334.940†	211105.1	204565.4	[500]	µg/L	14:19:33
2	Tl 190.801†	338.9	352.9	[500]	µg/L	14:19:59
2	U 409.014†	5592.5	5475.9	[500]	µg/L	14:19:38
2	V 292.402†	47778.9	46369.3	[500]	µg/L	14:19:38
2	Zn 213.857†	21066.0	19949.5	[500]	µg/L	14:19:38
3	Sc RADIAL	56116.0	56116.0	103	%	14:18:27
3	Al 396.153Radial†	6776.6	6600.6	[5000]	µg/L	14:18:27
3	Ca 317.933Radial†	5474.8	5145.3	[5000]	µg/L	14:18:48
3	K 766.490 Radial†	7167.4	6842.1	[5000]	µg/L	14:18:27
3	Mg 279.077 IEC†	570.0	543.0	[5000]	µg/L	14:18:48
3	Sr 421.552†	47985.8	46628.0	[500]	µg/L	14:18:27
3	Sc 361.383	1956384.8	1956384.8	102.44	%	14:20:06
3	Y 371.029	1336938.7	1336938.7	102.06	%	14:20:06
3	Ag 328.068†	58992.1	58153.2	[500]	µg/L	14:20:12
3	As 188.979†	227.0	220.5	[500]	µg/L	14:20:32
3	B 249.677†	10983.9	10391.2	[500]	µg/L	14:20:12
3	Ba 233.527†	17692.5	17297.6	[500]	µg/L	14:20:12
3	Be 313.107†	719301.4	705628.8	[500]	µg/L	14:20:06
3	Cd 226.502†	16595.4	16342.7	[500]	µg/L	14:20:12
3	Co 228.616†	9342.2	9128.8	[500]	µg/L	14:20:12
3	Cr 267.716†	20357.4	19925.5	[500]	µg/L	14:20:12
3	Cu 324.752†	68152.8	64045.2	[500]	µg/L	14:20:12
3	Mn 257.610†	138782.6	135724.9	[500]	µg/L	14:20:06
3	Mo 202.031†	4112.2	4021.9	[500]	µg/L	14:20:32
3	Ni 231.604†	8700.9	8191.7	[500]	µg/L	14:20:12
3	P 214.914†	1052.8	1000.2	[2500]	µg/L	14:20:32
3	Pb 220.353†	1780.7	1641.2	[500]	µg/L	14:20:32
3	S 181.975 Axial†	220.4	200.3	[1000]	µg/L	14:20:32
3	Sb 206.836†	483.7	445.3	[500]	µg/L	14:20:32
3	Se 196.026†	314.2	290.9	[500]	µg/L	14:20:32
3	SiO2†	24349.5	22520.2	[5347.5]	µg/L	14:20:12
3	Si 251.611†	28634.1	27640.0	[2500]	µg/L	14:20:12
3	Sn 189.927†	946.2	924.5	[500]	µg/L	14:20:32
3	Ti 334.940†	196408.6	191619.7	[500]	µg/L	14:20:06
3	Tl 190.801†	311.8	328.7	[500]	µg/L	14:20:32
3	U 409.014†	4970.2	4905.6	[500]	µg/L	14:20:12
3	V 292.402†	42533.9	41566.2	[500]	µg/L	14:20:12
3	Zn 213.857†	18957.2	18030.7	[500]	µg/L	14:20:12

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1958476.4	10413.33	0.53%	102.55	%
Sc RADIAL	56315.8	173.75	0.31%	103	%
Y 371.029	1338737.9	7733.97	0.58%	102.20	%
Ag 328.068†	60689.0	2196.81	3.62%	[500]	µg/L
Al 396.153Radial†	6570.0	29.39	0.45%	[5000]	µg/L
As 188.979†	245.7	22.07	8.99%	[500]	µg/L
B 249.677†	10893.5	435.04	3.99%	[500]	µg/L
Ba 233.527†	18393.1	948.76	5.16%	[500]	µg/L
Be 313.107†	736248.6	26562.75	3.61%	[500]	µg/L
Ca 317.933Radial†	5115.9	27.60	0.54%	[5000]	µg/L
Cd 226.502†	17446.2	956.62	5.48%	[500]	µg/L
Co 228.616†	9786.2	569.47	5.82%	[500]	µg/L
Cr 267.716†	21751.3	1581.21	7.27%	[500]	µg/L
Cu 324.752†	68415.2	3785.63	5.53%	[500]	µg/L
K 766.490 Radial†	6816.2	49.68	0.73%	[5000]	µg/L
Mg 279.077 IEC†	536.5	6.79	1.26%	[5000]	µg/L
Mn 257.610†	141419.0	4951.74	3.50%	[500]	µg/L
Mo 202.031†	4553.9	462.10	10.15%	[500]	µg/L
Ni 231.604†	8805.9	532.32	6.04%	[500]	µg/L
P 214.914†	1111.9	97.02	8.73%	[2500]	µg/L
Pb 220.353†	1799.0	136.97	7.61%	[500]	µg/L
S 181.975 Axial†	224.2	20.73	9.24%	[1000]	µg/L
Sb 206.836†	493.6	42.92	8.69%	[500]	µg/L
Se 196.026†	317.4	23.20	7.31%	[500]	µg/L
SiO2†	23809.9	1117.40	4.69%	[5347.5]	µg/L
Si 251.611†	29205.3	1355.64	4.64%	[2500]	µg/L

Sn 189.927†	1056.3	114.33	10.82%	[500] µg/L
Sr 421.552†	46507.3	109.22	0.23%	[500] µg/L
Ti 334.940†	200684.6	7877.46	3.93%	[500] µg/L
Tl 190.801†	347.2	16.45	4.74%	[500] µg/L
U 409.014†	5299.1	341.35	6.44%	[500] µg/L
V 292.402†	44781.0	2784.22	6.22%	[500] µg/L
Zn 213.857†	19322.4	1118.82	5.79%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 14:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54624.1	54624.1	100	%	14:21:14
1	Al 396.153Radial†	13945.5	13943.0	[10000]	µg/L	14:21:14
1	Ca 317.933Radial†	11091.0	10901.8	[10000]	µg/L	14:21:34
1	Fe 238.204 Radial†	1237.7	1222.1	[10000]	µg/L	14:21:34
1	K 766.490 Radial†	14553.2	14411.5	[10000]	µg/L	14:21:14
1	Mg 279.077 IEC†	1145.5	1133.2	[10000]	µg/L	14:21:34
1	Na 589.592 Radial†	32001.3	31430.3	[10000]	µg/L	14:21:14
1	Sr 421.552†	98763.5	98634.1	[1000]	µg/L	14:21:14
1	Sc 361.383	1918837.7	1918837.7	100.47	%	14:22:38
1	Y 371.029	1309873.4	1309873.4	99.997	%	14:22:38
1	Ag 328.068†	129789.4	129745.3	[1000]	µg/L	14:22:44
1	As 188.979†	545.1	541.4	[1000]	µg/L	14:23:05
1	B 249.677†	24100.3	23655.8	[1000]	µg/L	14:22:44
1	Ba 233.527†	40021.0	39859.3	[1000]	µg/L	14:22:44
1	Be 313.107†	1583359.7	1579375.6	[1000]	µg/L	14:22:38
1	Cd 226.502†	37676.7	37642.1	[1000]	µg/L	14:22:44
1	Co 228.616†	21224.5	21133.9	[1000]	µg/L	14:22:44
1	Cr 267.716†	47864.2	47692.2	[1000]	µg/L	14:22:44
1	Cu 324.752†	152208.7	149008.9	[1000]	µg/L	14:22:44
1	Mn 257.610†	300264.6	299100.8	[1000]	µg/L	14:22:44
1	Mo 202.031†	10059.0	10019.4	[1000]	µg/L	14:23:05
1	Ni 231.604†	19417.1	19023.9	[1000]	µg/L	14:22:44
1	P 214.914†	2522.7	2483.2	[5000]	µg/L	14:23:05
1	Pb 220.353†	4095.0	3978.6	[1000]	µg/L	14:23:05
1	S 181.975 Axial†	497.7	480.5	[2000]	µg/L	14:23:05
1	Sb 206.836†	1108.7	1076.5	[1000]	µg/L	14:23:05
1	Se 196.026†	705.0	685.9	[1000]	µg/L	14:23:05
1	SiO2†	52879.3	51381.3	[10695]	µg/L	14:22:44
1	Si 251.611†	63553.1	62942.2	[5000]	µg/L	14:22:44
1	Sn 189.927†	2343.4	2333.3	[1000]	µg/L	14:23:05
1	Ti 334.940†	431168.6	429030.7	[1000]	µg/L	14:22:38
1	Tl 190.801†	726.4	747.3	[1000]	µg/L	14:23:05
1	U 409.014†	11460.5	11460.4	[1000]	µg/L	14:22:44
1	V 292.402†	98389.1	97972.0	[1000]	µg/L	14:22:44
1	Zn 213.857†	42248.3	41574.6	[1000]	µg/L	14:22:44
2	Sc RADIAL	55757.6	55757.6	102	%	14:21:40
2	Al 396.153Radial†	13857.6	13573.7	[10000]	µg/L	14:21:40
2	Ca 317.933Radial†	11113.5	10698.5	[10000]	µg/L	14:22:00
2	Fe 238.204 Radial†	1242.3	1201.4	[10000]	µg/L	14:22:00
2	K 766.490 Radial†	14434.4	13999.7	[10000]	µg/L	14:21:40
2	Mg 279.077 IEC†	1155.1	1119.3	[10000]	µg/L	14:22:00
2	Na 589.592 Radial†	31736.9	30521.6	[10000]	µg/L	14:21:40
2	Sr 421.552†	98177.9	96055.0	[1000]	µg/L	14:21:40
2	Sc 361.383	1912891.8	1912891.8	100.16	%	14:23:11
2	Y 371.029	1304958.7	1304958.7	99.621	%	14:23:11
2	Ag 328.068†	130617.7	130973.8	[1000]	µg/L	14:23:17
2	As 188.979†	550.1	548.1	[1000]	µg/L	14:23:38
2	B 249.677†	24305.4	23935.1	[1000]	µg/L	14:23:17
2	Ba 233.527†	40326.4	40288.1	[1000]	µg/L	14:23:17
2	Be 313.107†	1586929.2	1587837.9	[1000]	µg/L	14:23:11
2	Cd 226.502†	37959.2	38040.8	[1000]	µg/L	14:23:17
2	Co 228.616†	21379.4	21354.1	[1000]	µg/L	14:23:17
2	Cr 267.716†	48340.5	48315.7	[1000]	µg/L	14:23:17
2	Cu 324.752†	153521.9	150790.9	[1000]	µg/L	14:23:17
2	Mn 257.610†	303225.9	302986.3	[1000]	µg/L	14:23:17
2	Mo 202.031†	10012.5	10004.1	[1000]	µg/L	14:23:38
2	Ni 231.604†	19568.5	19235.1	[1000]	µg/L	14:23:17
2	P 214.914†	2513.0	2481.4	[5000]	µg/L	14:23:38
2	Pb 220.353†	4075.3	3971.6	[1000]	µg/L	14:23:38

2	S 181.975 Axial†	494.3	478.7	[2000]	µg/L	14:23:38
2	Sb 206.836†	1106.5	1077.8	[1000]	µg/L	14:23:38
2	Se 196.026†	715.1	698.1	[1000]	µg/L	14:23:38
2	SiO2†	53340.3	52005.2	[10695]	µg/L	14:23:17
2	Si 251.611†	64000.9	63585.9	[5000]	µg/L	14:23:17
2	Sn 189.927†	2345.0	2342.2	[1000]	µg/L	14:23:38
2	Ti 334.940†	432325.2	431519.3	[1000]	µg/L	14:23:11
2	Tl 190.801†	726.1	749.2	[1000]	µg/L	14:23:38
2	U 409.014†	11741.1	11776.0	[1000]	µg/L	14:23:17
2	V 292.402†	99181.6	99067.5	[1000]	µg/L	14:23:17
2	Zn 213.857†	42614.4	42070.9	[1000]	µg/L	14:23:17
3	Sc RADIAL	54875.2	54875.2	101	%	14:22:06
3	Al 396.153Radial†	13886.4	13820.4	[10000]	µg/L	14:22:06
3	Ca 317.933Radial†	11079.2	10839.4	[10000]	µg/L	14:22:26
3	Fe 238.204 Radial†	1232.3	1211.0	[10000]	µg/L	14:22:26
3	K 766.490 Radial†	14321.1	14114.2	[10000]	µg/L	14:22:06
3	Mg 279.077 IEC†	1147.7	1130.1	[10000]	µg/L	14:22:26
3	Na 589.592 Radial†	31806.0	31089.8	[10000]	µg/L	14:22:06
3	Sr 421.552†	97911.9	97335.8	[1000]	µg/L	14:22:06
3	Sc 361.383	1943388.7	1943388.7	101.76	%	14:23:44
3	Y 371.029	1326037.1	1326037.1	101.23	%	14:23:44
3	Ag 328.068†	122308.3	120761.4	[1000]	µg/L	14:23:50
3	As 188.979†	468.8	459.6	[1000]	µg/L	14:24:11
3	B 249.677†	22603.8	21882.1	[1000]	µg/L	14:23:50
3	Ba 233.527†	36855.9	36245.6	[1000]	µg/L	14:23:50
3	Be 313.107†	1492194.6	1469875.4	[1000]	µg/L	14:23:44
3	Cd 226.502†	34480.3	34027.2	[1000]	µg/L	14:23:50
3	Co 228.616†	19338.4	19013.4	[1000]	µg/L	14:23:50
3	Cr 267.716†	42475.6	41794.7	[1000]	µg/L	14:23:50
3	Cu 324.752†	139121.1	134233.4	[1000]	µg/L	14:23:50
3	Mn 257.610†	272803.2	268337.9	[1000]	µg/L	14:23:50
3	Mo 202.031†	8402.4	8264.9	[1000]	µg/L	14:24:11
3	Ni 231.604†	17696.7	17089.1	[1000]	µg/L	14:23:50
3	P 214.914†	2160.3	2095.4	[5000]	µg/L	14:24:11
3	Pb 220.353†	3557.4	3398.8	[1000]	µg/L	14:24:11
3	S 181.975 Axial†	437.7	415.3	[2000]	µg/L	14:24:11
3	Sb 206.836†	957.8	914.3	[1000]	µg/L	14:24:11
3	Se 196.026†	625.8	599.2	[1000]	µg/L	14:24:11
3	SiO2†	49204.0	47104.6	[10695]	µg/L	14:23:50
3	Si 251.611†	59050.8	57718.6	[5000]	µg/L	14:23:50
3	Sn 189.927†	1920.9	1888.6	[1000]	µg/L	14:24:11
3	Ti 334.940†	404515.4	397416.1	[1000]	µg/L	14:23:44
3	Tl 190.801†	655.3	668.3	[1000]	µg/L	14:24:11
3	U 409.014†	10336.6	10211.8	[1000]	µg/L	14:23:50
3	V 292.402†	89071.2	87577.8	[1000]	µg/L	14:23:50
3	Zn 213.857†	38626.6	37484.3	[1000]	µg/L	14:23:50

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1925039.4	16166.66	0.84%	100.80	%
Sc RADIAL	55085.6	595.31	1.08%	101	%
Y 371.029	1313623.1	11028.13	0.84%	100.28	%
Ag 328.068†	127160.2	5575.45	4.38%	[1000]	µg/L
Al 396.153Radial†	13779.0	188.09	1.37%	[10000]	µg/L
As 188.979†	516.3	49.27	9.54%	[1000]	µg/L
B 249.677†	23157.7	1113.46	4.81%	[1000]	µg/L
Ba 233.527†	38797.7	2220.52	5.72%	[1000]	µg/L
Be 313.107†	1545696.3	65799.01	4.26%	[1000]	µg/L
Ca 317.933Radial†	10813.2	104.13	0.96%	[10000]	µg/L
Cd 226.502†	36570.0	2211.18	6.05%	[1000]	µg/L
Co 228.616†	20500.4	1292.54	6.30%	[1000]	µg/L
Cr 267.716†	45934.2	3598.42	7.83%	[1000]	µg/L
Cu 324.752†	144677.7	9088.85	6.28%	[1000]	µg/L
Fe 238.204 Radial†	1211.5	10.32	0.85%	[10000]	µg/L
K 766.490 Radial†	14175.1	212.58	1.50%	[10000]	µg/L
Mg 279.077 IEC†	1127.5	7.31	0.65%	[10000]	µg/L
Mn 257.610†	290141.7	18982.26	6.54%	[1000]	µg/L
Mo 202.031†	9429.5	1008.55	10.70%	[1000]	µg/L
Na 589.592 Radial†	31013.9	459.06	1.48%	[10000]	µg/L

Ni 231.604†	18449.4	1182.78	6.41%	[1000]	µg/L
P 214.914†	2353.3	223.38	9.49%	[5000]	µg/L
Pb 220.353†	3783.0	332.79	8.80%	[1000]	µg/L
S 181.975 Axial†	458.2	37.14	8.10%	[2000]	µg/L
Sb 206.836†	1022.9	94.00	9.19%	[1000]	µg/L
Se 196.026†	661.1	53.94	8.16%	[1000]	µg/L
SiO2†	50163.7	2667.59	5.32%	[10695]	µg/L
Si 251.611†	61415.6	3217.81	5.24%	[5000]	µg/L
Sn 189.927†	2188.0	259.31	11.85%	[1000]	µg/L
Sr 421.552†	97341.6	1289.53	1.32%	[1000]	µg/L
Ti 334.940†	419322.0	19011.87	4.53%	[1000]	µg/L
Tl 190.801†	721.6	46.19	6.40%	[1000]	µg/L
U 409.014†	11149.4	827.15	7.42%	[1000]	µg/L
V 292.402†	94872.5	6341.05	6.68%	[1000]	µg/L
Zn 213.857†	40376.6	2517.08	6.23%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 14:24:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55734.1	55734.1	102	%	14:24:53
1	Al 396.153Radial†	68477.1	67062.5	[50000]	µg/L	14:24:53
1	Ca 317.933Radial†	54301.8	52992.8	[50000]	µg/L	14:24:53
1	Fe 238.204 Radial†	2420.6	2355.7	[20000]	µg/L	14:25:13
1	Mg 279.077 IEC†	5505.9	5380.1	[50000]	µg/L	14:25:13
1	Na 589.592 Radial†	62235.4	60398.5	[20000]	µg/L	14:24:53
1	Sc 361.383	1922257.7	1922257.7	100.65	%	14:26:17
1	Y 371.029	1306511.6	1306511.6	99.740	%	14:26:17
2	Sc RADIAL	55997.4	55997.4	103	%	14:25:19
2	Al 396.153Radial†	68696.2	66960.7	[50000]	µg/L	14:25:19
2	Ca 317.933Radial†	54670.5	53102.1	[50000]	µg/L	14:25:19
2	Fe 238.204 Radial†	2419.7	2343.7	[20000]	µg/L	14:25:39
2	Mg 279.077 IEC†	5512.9	5361.5	[50000]	µg/L	14:25:39
2	Na 589.592 Radial†	62504.6	60374.4	[20000]	µg/L	14:25:19
2	Sc 361.383	1943938.9	1943938.9	101.79	%	14:26:25
2	Y 371.029	1321297.0	1321297.0	100.87	%	14:26:25
3	Sc RADIAL	56208.4	56208.4	103	%	14:25:45
3	Al 396.153Radial†	69051.1	67053.9	[50000]	µg/L	14:25:45
3	Ca 317.933Radial†	54933.8	53157.7	[50000]	µg/L	14:25:45
3	Fe 238.204 Radial†	2417.0	2332.2	[20000]	µg/L	14:26:05
3	Mg 279.077 IEC†	5516.6	5344.9	[50000]	µg/L	14:26:05
3	Na 589.592 Radial†	62899.5	60529.1	[20000]	µg/L	14:25:45
3	Sc 361.383	1959647.9	1959647.9	102.61	%	14:26:33
3	Y 371.029	1332766.9	1332766.9	101.74	%	14:26:33

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1941948.2	18774.43	0.97%	101.68	%
Sc RADIAL	55979.9	237.64	0.42%	103	%
Y 371.029	1320191.8	13162.49	1.00%	100.78	%
Al 396.153Radial†	67025.7	56.44	0.08%	[50000]	µg/L
Ca 317.933Radial†	53084.2	83.91	0.16%	[50000]	µg/L
Fe 238.204 Radial†	2343.9	11.76	0.50%	[20000]	µg/L
Mg 279.077 IEC†	5362.2	17.57	0.33%	[50000]	µg/L
Na 589.592 Radial†	60434.0	83.23	0.14%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	126.0	0.00000	0.999831	
Al 396.153Radial	3	Lin Thru 0	0.0	1.342	0.00000	0.999984	
As 188.979	3	Lin Thru 0	0.0	0.5116	0.00000	0.999791	
B 249.677	3	Lin Thru 0	0.0	22.88	0.00000	0.999715	
Ba 233.527	3	Lin Thru 0	0.0	38.40	0.00000	0.999779	
Be 313.107	3	Lin Thru 0	0.0	1531	0.00000	0.999818	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.062	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	36.25	0.00000	0.999822	
Co 228.616	3	Lin Thru 0	0.0	20.32	0.00000	0.999831	
Cr 267.716	3	Lin Thru 0	0.0	45.46	0.00000	0.999766	
Cu 324.752	3	Lin Thru 0	0.0	143.2	0.00000	0.999754	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1180	0.00000	0.999910	
K 766.490 Radial	3	Lin Thru 0	0.0	1.407	0.00000	0.999880	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1075	0.00000	0.999952	
Mn 257.610	3	Lin Thru 0	0.0	288.8	0.00000	0.999942	
Mo 202.031	3	Lin Thru 0	0.0	9.370	0.00000	0.999888	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.038	0.00000	0.999945	

Ni 231.604	3	Lin Thru 0	0.0	18.29	0.00000	0.999821
P 214.914	3	Lin Thru 0	0.0	0.4657	0.00000	0.999737
Pb 220.353	3	Lin Thru 0	0.0	3.748	0.00000	0.999792
S 181.975 Axial	3	Lin Thru 0	0.0	0.2282	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	1.016	0.00000	0.999901
Se 196.026	3	Lin Thru 0	0.0	0.6559	0.00000	0.999870
SiO2	3	Lin Thru 0	0.0	4.643	0.00000	0.999791
Si 251.611	3	Lin Thru 0	0.0	12.16	0.00000	0.999805
Sn 189.927	3	Lin Thru 0	0.0	2.174	0.00000	0.999882
Sr 421.552	3	Lin Thru 0	0.0	96.47	0.00000	0.999840
Ti 334.940	3	Lin Thru 0	0.0	415.7	0.00000	0.999852
Tl 190.801	3	Lin Thru 0	0.0	0.7164	0.00000	0.999879
U 409.014	3	Lin Thru 0	0.0	11.05	0.00000	0.999783
V 292.402	3	Lin Thru 0	0.0	93.83	0.00000	0.999742
Zn 213.857	3	Lin Thru 0	0.0	40.05	0.00000	0.999841

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 14:26:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56175.2	56175.2	103	%			14:27:15
1	Al 396.153Radial†	6827.4	6643.0	4939.9	µg/L	4939.9	ppb	14:27:35
1	Ca 317.933Radial†	5504.7	5168.7	4866.7	µg/L	4866.7	ppb	14:27:35
1	Fe 238.204 Radial†	619.4	587.3	4988.2	µg/L	4988.2	ppb	14:27:35
1	K 766.490 Radial†	3573.7	3343.4	2376.5	µg/L	2376.5	ppb	14:27:15
1	Mg 279.077 IEC†	579.7	551.9	5140.1	µg/L	5140.1	ppb	14:27:35
1	Na 589.592 Radial†	7985.2	7215.8	2375.5	µg/L	2375.5	ppb	14:27:15
1	Sr 421.552†	49736.5	48279.6	500.47	µg/L	500.47	ppb	14:27:15
1	Sc 361.383	1963746.6	1963746.6	102.82	%			14:28:38
1	Y 371.029	1343456.9	1343456.9	102.56	%			14:28:38
1	Ag 328.068†	32402.4	32077.4	258.20	µg/L	258.20	ppb	14:28:44
1	As 188.979†	252.0	244.0	475.79	µg/L	475.79	ppb	14:29:05
1	B 249.677†	12299.6	11630.5	506.47	µg/L	506.47	ppb	14:28:44
1	Ba 233.527†	19805.3	19287.7	503.14	µg/L	503.14	ppb	14:28:44
1	Be 313.107†	400944.5	393378.7	256.71	µg/L	256.71	ppb	14:28:38
1	Cd 226.502†	18448.5	18084.2	498.85	µg/L	498.85	ppb	14:28:44
1	Co 228.616†	10564.7	10283.6	505.57	µg/L	505.57	ppb	14:28:44
1	Cr 267.716†	22885.3	22309.5	491.04	µg/L	491.04	ppb	14:28:44
1	Cu 324.752†	76882.1	72285.6	505.62	µg/L	505.62	ppb	14:28:44
1	Mn 257.610†	151694.6	147774.6	512.18	µg/L	512.18	ppb	14:28:38
1	Mo 202.031†	5332.7	5193.9	554.49	µg/L	554.49	ppb	14:29:05
1	Ni 231.604†	9713.9	9145.0	499.47	µg/L	499.47	ppb	14:28:44
1	P 214.914†	1269.4	1206.9	2543.7	µg/L	2543.7	ppb	14:29:05
1	Pb 220.353†	2051.9	1898.4	506.85	µg/L	506.85	ppb	14:29:05
1	S 181.975 Axial†	610.0	578.4	2534.1	µg/L	2534.1	ppb	14:29:05
1	Sb 206.836†	565.9	523.4	518.27	µg/L	518.27	ppb	14:29:05
1	Se 196.026†	1740.7	1677.1	2564.5	µg/L	2564.5	ppb	14:29:05
1	SiO2†	50702.0	48060.2	10350	µg/L	10350	ppb	14:28:44
1	Si 251.611†	60656.9	58679.0	4823.7	µg/L	4823.7	ppb	14:28:44
1	Sn 189.927†	1247.6	1214.2	558.50	µg/L	558.50	ppb	14:29:05
1	Ti 334.940†	209346.8	203483.9	489.14	µg/L	489.14	ppb	14:28:38
1	Tl 190.801†	364.1	378.4	534.06	µg/L	534.06	ppb	14:29:05
1	U 409.014†	5596.2	5496.2	496.62	µg/L	496.62	ppb	14:28:44
1	V 292.402†	48924.8	47626.0	514.07	µg/L	514.07	ppb	14:28:44
1	Zn 213.857†	21567.2	20499.6	508.35	µg/L	508.35	ppb	14:28:44
2	Sc RADIAL	56033.1	56033.1	103	%			14:27:40
2	Al 396.153Radial†	6802.0	6635.1	4934.1	µg/L	4934.1	ppb	14:28:01
2	Ca 317.933Radial†	5475.3	5153.6	4852.4	µg/L	4852.4	ppb	14:28:01
2	Fe 238.204 Radial†	614.3	583.8	4958.8	µg/L	4958.8	ppb	14:28:01
2	K 766.490 Radial†	3641.5	3418.3	2429.7	µg/L	2429.7	ppb	14:27:40
2	Mg 279.077 IEC†	579.8	553.4	5154.4	µg/L	5154.4	ppb	14:28:01
2	Na 589.592 Radial†	8029.7	7278.8	2396.2	µg/L	2396.2	ppb	14:27:40
2	Sr 421.552†	50111.3	48767.2	505.53	µg/L	505.53	ppb	14:27:40
2	Sc 361.383	1959108.8	1959108.8	102.58	%			14:29:12
2	Y 371.029	1337906.1	1337906.1	102.14	%			14:29:12
2	Ag 328.068†	32371.7	32122.1	258.56	µg/L	258.56	ppb	14:29:17
2	As 188.979†	250.3	242.8	473.56	µg/L	473.56	ppb	14:29:38
2	B 249.677†	12349.9	11707.8	509.86	µg/L	509.86	ppb	14:29:17
2	Ba 233.527†	19859.1	19385.7	505.69	µg/L	505.69	ppb	14:29:17
2	Be 313.107†	397767.3	391204.5	255.29	µg/L	255.29	ppb	14:29:12
2	Cd 226.502†	18445.9	18124.1	499.96	µg/L	499.96	ppb	14:29:17
2	Co 228.616†	10616.9	10358.7	509.26	µg/L	509.26	ppb	14:29:17
2	Cr 267.716†	22880.0	22357.0	492.09	µg/L	492.09	ppb	14:29:17
2	Cu 324.752†	76966.8	72545.1	507.43	µg/L	507.43	ppb	14:29:17
2	Mn 257.610†	150503.7	146962.9	509.37	µg/L	509.37	ppb	14:29:12
2	Mo 202.031†	5249.3	5124.9	547.12	µg/L	547.12	ppb	14:29:38
2	Ni 231.604†	9710.9	9164.5	500.53	µg/L	500.53	ppb	14:29:17
2	P 214.914†	1234.6	1175.9	2476.8	µg/L	2476.8	ppb	14:29:38
2	Pb 220.353†	2014.2	1866.4	498.27	µg/L	498.27	ppb	14:29:38

2	S 181.975 Axial†	603.9	573.9	2514.5 µg/L	2514.5 ppb	14:29:38
2	Sb 206.836†	552.1	511.3	506.22 µg/L	506.22 ppb	14:29:38
2	Se 196.026†	1718.6	1659.6	2537.7 µg/L	2537.7 ppb	14:29:38
2	SiO2†	50804.5	48276.9	10397 µg/L	10397 ppb	14:29:17
2	Si 251.611†	60707.2	58867.6	4839.2 µg/L	4839.2 ppb	14:29:17
2	Sn 189.927†	1227.9	1197.9	551.01 µg/L	551.01 ppb	14:29:38
2	Ti 334.940†	208068.6	202719.9	487.30 µg/L	487.30 ppb	14:29:12
2	Tl 190.801†	356.4	371.7	524.72 µg/L	524.72 ppb	14:29:38
2	U 409.014†	5657.2	5568.6	503.18 µg/L	503.18 ppb	14:29:17
2	V 292.402†	48911.7	47725.9	515.09 µg/L	515.09 ppb	14:29:17
2	Zn 213.857†	21491.7	20475.7	507.74 µg/L	507.74 ppb	14:29:17
3	Sc RADIAL	55710.7	55710.7	102 %		14:28:06
3	Al 396.153Radial†	6837.6	6708.3	4990.5 µg/L	4990.5 ppb	14:28:27
3	Ca 317.933Radial†	5503.3	5211.9	4907.4 µg/L	4907.4 ppb	14:28:27
3	Fe 238.204 Radial†	619.1	592.0	5027.4 µg/L	5027.4 ppb	14:28:27
3	K 766.490 Radial†	3604.3	3402.4	2418.4 µg/L	2418.4 ppb	14:28:06
3	Mg 279.077 IEC†	577.0	553.9	5157.4 µg/L	5157.4 ppb	14:28:27
3	Na 589.592 Radial†	7999.1	7294.1	2401.2 µg/L	2401.2 ppb	14:28:06
3	Sr 421.552†	49756.2	48701.8	504.85 µg/L	504.85 ppb	14:28:06
3	Sc 361.383	1966591.1	1966591.1	102.97 %		14:29:45
3	Y 371.029	1344829.1	1344829.1	102.67 %		14:29:45
3	Ag 328.068†	30447.1	30133.0	242.44 µg/L	242.44 ppb	14:29:51
3	As 188.979†	212.1	204.8	399.46 µg/L	399.46 ppb	14:30:11
3	B 249.677†	11543.9	10879.3	473.52 µg/L	473.52 ppb	14:29:51
3	Ba 233.527†	18235.3	17735.1	462.62 µg/L	462.62 ppb	14:29:51
3	Be 313.107†	376544.4	369118.7	240.88 µg/L	240.88 ppb	14:29:45
3	Cd 226.502†	16808.4	16465.5	454.14 µg/L	454.14 ppb	14:29:51
3	Co 228.616†	9616.6	9347.9	459.50 µg/L	459.50 ppb	14:29:51
3	Cr 267.716†	20282.2	19749.2	434.69 µg/L	434.69 ppb	14:29:51
3	Cu 324.752†	70054.3	65546.6	458.56 µg/L	458.56 ppb	14:29:51
3	Mn 257.610†	142833.7	138956.0	481.65 µg/L	481.65 ppb	14:29:45
3	Mo 202.031†	4404.7	4285.1	457.51 µg/L	457.51 ppb	14:30:11
3	Ni 231.604†	8886.0	8327.4	454.82 µg/L	454.82 ppb	14:29:51
3	P 214.914†	1057.7	999.5	2101.9 µg/L	2101.9 ppb	14:30:11
3	Pb 220.353†	1779.9	1631.4	435.46 µg/L	435.46 ppb	14:30:11
3	S 181.975 Axial†	527.5	497.5	2179.7 µg/L	2179.7 ppb	14:30:11
3	Sb 206.836†	492.5	451.4	446.41 µg/L	446.41 ppb	14:30:11
3	Se 196.026†	1501.7	1442.5	2207.0 µg/L	2207.0 ppb	14:30:11
3	SiO2†	47105.5	44496.1	9582.5 µg/L	9582.5 ppb	14:29:51
3	Si 251.611†	56262.5	54326.1	4465.9 µg/L	4465.9 ppb	14:29:51
3	Sn 189.927†	1018.6	990.0	455.40 µg/L	455.40 ppb	14:30:11
3	Ti 334.940†	196112.8	190337.3	457.51 µg/L	457.51 ppb	14:29:45
3	Tl 190.801†	328.3	343.2	484.58 µg/L	484.58 ppb	14:30:11
3	U 409.014†	4922.5	4834.1	436.66 µg/L	436.66 ppb	14:29:51
3	V 292.402†	44109.1	42880.5	462.56 µg/L	462.56 ppb	14:29:51
3	Zn 213.857†	19646.9	18604.4	461.29 µg/L	461.29 ppb	14:29:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1963148.8	102.79	%	0.198				0.19%
Sc RADIAL	55973.0	103	%	0.4				0.43%
Y 371.029	1342064.0	102.45	%	0.280				0.27%
Ag 328.068†	31444.2	253.06	µg/L	9.205	253.06	ppb	9.205	3.64%
QC value within limits for Ag 328.068 Recovery = 101.23%								
Al 396.153Radial†	6662.1	4954.8	µg/L	31.04	4954.8	ppb	31.04	0.63%
QC value within limits for Al 396.153Radial Recovery = 99.10%								
As 188.979†	230.5	449.61	µg/L	43.438	449.61	ppb	43.438	9.66%
QC value less than the lower limit for As 188.979 Recovery = 89.92%								
B 249.677†	11405.9	496.62	µg/L	20.071	496.62	ppb	20.071	4.04%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	18802.8	490.48	µg/L	24.164	490.48	ppb	24.164	4.93%
QC value within limits for Ba 233.527 Recovery = 98.10%								
Be 313.107†	384567.3	250.96	µg/L	8.759	250.96	ppb	8.759	3.49%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	5178.1	4875.5	µg/L	28.51	4875.5	ppb	28.51	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.51%								
Cd 226.502†	17558.0	484.32	µg/L	26.137	484.32	ppb	26.137	5.40%
QC value within limits for Cd 226.502 Recovery = 96.86%								
Co 228.616†	9996.7	491.44	µg/L	27.727	491.44	ppb	27.727	5.64%

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   QC value within limits for Co 228.616  Recovery = 98.29%
Cr 267.716†            21471.9      472.61 µg/L        32.838      472.61 ppb         32.838   6.95%
   QC value within limits for Cr 267.716  Recovery = 94.52%
Cu 324.752†            70125.8      490.54 µg/L        27.712      490.54 ppb         27.712   5.65%
   QC value within limits for Cu 324.752  Recovery = 98.11%
Fe 238.204 Radial†       587.7      4991.5 µg/L         34.44      4991.5 ppb          34.44   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.83%
K 766.490 Radial†       3388.1      2408.2 µg/L         28.04      2408.2 ppb          28.04   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.33%
Mg 279.077 IEC†          553.1      5150.6 µg/L          9.21      5150.6 ppb           9.21   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.01%
Mn 257.610†           144564.5      501.06 µg/L        16.874      501.06 ppb         16.874   3.37%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†             4868.0      519.70 µg/L        53.991      519.70 ppb         53.991  10.39%
   QC value within limits for Mo 202.031  Recovery = 103.94%
Na 589.592 Radial†      7262.9      2391.0 µg/L         13.66      2391.0 ppb          13.66   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†             8879.0      484.94 µg/L        26.089      484.94 ppb         26.089   5.38%
   QC value within limits for Ni 231.604  Recovery = 96.99%
P 214.914†              1127.4      2374.2 µg/L        238.13      2374.2 ppb         238.13  10.03%
   QC value within limits for P 214.914  Recovery = 94.97%
Pb 220.353†             1798.7      480.19 µg/L        38.976      480.19 ppb         38.976   8.12%
   QC value within limits for Pb 220.353  Recovery = 96.04%
S 181.975 Axial†         549.9      2409.5 µg/L        199.20      2409.5 ppb         199.20   8.27%
   QC value within limits for S 181.975 Axial  Recovery = 96.38%
Sb 206.836†              495.4      490.30 µg/L        38.486      490.30 ppb         38.486   7.85%
   QC value within limits for Sb 206.836  Recovery = 98.06%
Se 196.026†             1593.1      2436.4 µg/L        199.13      2436.4 ppb         199.13   8.17%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†                  46944.4       10110 µg/L         457.2       10110 ppb          457.2   4.52%
   QC value within limits for SiO2  Recovery = 94.53%
Si 251.611†            57290.9      4709.6 µg/L        211.21      4709.6 ppb         211.21   4.48%
   QC value within limits for Si 251.611  Recovery = 94.19%
Sn 189.927†             1134.1      521.64 µg/L        57.487      521.64 ppb         57.487  11.02%
   QC value within limits for Sn 189.927  Recovery = 104.33%
Sr 421.552†            48582.8      503.62 µg/L         2.743      503.62 ppb          2.743   0.54%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           198847.0      477.98 µg/L        17.751      477.98 ppb         17.751   3.71%
   QC value within limits for Ti 334.940  Recovery = 95.60%
Tl 190.801†              364.4      514.45 µg/L        26.290      514.45 ppb         26.290   5.11%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†              5299.6      478.82 µg/L        36.655      478.82 ppb         36.655   7.66%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†             46077.4      497.24 µg/L        30.036      497.24 ppb         30.036   6.04%
   QC value within limits for V 292.402  Recovery = 99.45%
Zn 213.857†            19859.9      492.46 µg/L        26.995      492.46 ppb         26.995   5.48%
   QC value within limits for Zn 213.857  Recovery = 98.49%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 14:30:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55908.8	55908.8	102	%			14:30:53
1	Al 396.153Radial†	-5.0	5.2	3.8899	µg/L	3.8899	ppb	14:30:53
1	Ca 317.933Radial†	192.7	9.0	8.4299	µg/L	8.4299	ppb	14:31:14
1	Fe 238.204 Radial†	14.3	-0.6	-4.9645	µg/L	-4.9645	ppb	14:31:14
1	K 766.490 Radial†	107.9	-23.1	-16.426	µg/L	-16.426	ppb	14:30:53
1	Mg 279.077 IEC†	15.7	4.0	37.295	µg/L	37.295	ppb	14:31:14
1	Na 589.592 Radial†	574.2	18.7	6.1420	µg/L	6.1420	ppb	14:30:53
1	Sr 421.552†	57.3	16.3	0.1694	µg/L	0.1694	ppb	14:30:53
1	Sc 361.383	1944300.1	1944300.1	101.80	%			14:32:16
1	Y 371.029	1332393.9	1332393.9	101.72	%			14:32:16
1	Ag 328.068†	-508.2	65.3	0.5177	µg/L	0.5177	ppb	14:32:21
1	As 188.979†	2.4	1.2	2.3247	µg/L	2.3247	ppb	14:32:42
1	B 249.677†	341.3	3.8	0.1701	µg/L	0.1701	ppb	14:32:42
1	Ba 233.527†	-14.2	12.0	0.3135	µg/L	0.3135	ppb	14:32:42
1	Be 313.107†	-3420.4	80.6	0.0526	µg/L	0.0526	ppb	14:32:21
1	Cd 226.502†	-141.7	2.9	0.0816	µg/L	0.0816	ppb	14:32:42
1	Co 228.616†	-8.8	0.2	0.0094	µg/L	0.0094	ppb	14:32:42
1	Cr 267.716†	-52.4	0.9	0.0196	µg/L	0.0196	ppb	14:32:21
1	Cu 324.752†	2516.4	-14.3	-0.1006	µg/L	-0.1006	ppb	14:32:21
1	Mn 257.610†	-222.7	25.3	0.0856	µg/L	0.0856	ppb	14:32:42
1	Mo 202.031†	-0.2	7.3	0.7799	µg/L	0.7799	ppb	14:32:42
1	Ni 231.604†	301.0	-6.6	-0.3591	µg/L	-0.3591	ppb	14:32:42
1	P 214.914†	32.4	4.2	8.9740	µg/L	8.9740	ppb	14:32:42
1	Pb 220.353†	88.6	-10.1	-2.7035	µg/L	-2.7035	ppb	14:32:42
1	S 181.975 Axial†	16.5	1.4	6.0966	µg/L	6.0966	ppb	14:32:42
1	Sb 206.836†	22.8	-4.6	-4.5144	µg/L	-4.5144	ppb	14:32:42
1	Se 196.026†	21.7	5.5	8.3158	µg/L	8.3158	ppb	14:32:42
1	SiO2†	1261.7	-10.7	-2.2937	µg/L	-2.2937	ppb	14:32:21
1	Si 251.611†	339.4	20.5	1.6875	µg/L	1.6875	ppb	14:32:42
1	Sn 189.927†	1.1	2.0	0.9031	µg/L	0.9031	ppb	14:32:42
1	Ti 334.940†	148.3	29.6	0.0683	µg/L	0.0683	ppb	14:32:21
1	Tl 190.801†	-21.8	2.8	3.9713	µg/L	3.9713	ppb	14:32:42
1	U 409.014†	-33.0	21.2	1.9223	µg/L	1.9223	ppb	14:32:21
1	V 292.402†	-53.1	-7.9	-0.0767	µg/L	-0.0767	ppb	14:32:21
1	Zn 213.857†	482.8	-1.3	-0.0325	µg/L	-0.0325	ppb	14:32:42
2	Sc RADIAL	55881.3	55881.3	102	%			14:31:19
2	Al 396.153Radial†	-15.6	-5.1	-3.7901	µg/L	-3.7901	ppb	14:31:19
2	Ca 317.933Radial†	181.6	-1.8	-1.6610	µg/L	-1.6610	ppb	14:31:40
2	Fe 238.204 Radial†	14.4	-0.5	-4.0234	µg/L	-4.0234	ppb	14:31:40
2	K 766.490 Radial†	165.7	33.4	23.714	µg/L	23.714	ppb	14:31:19
2	Mg 279.077 IEC†	9.4	-2.1	-19.910	µg/L	-19.910	ppb	14:31:40
2	Na 589.592 Radial†	521.5	-32.6	-10.727	µg/L	-10.727	ppb	14:31:19
2	Sr 421.552†	60.7	19.7	0.2040	µg/L	0.2040	ppb	14:31:19
2	Sc 361.383	1964760.3	1964760.3	102.88	%			14:32:48
2	Y 371.029	1347613.8	1347613.8	102.88	%			14:32:48
2	Ag 328.068†	-518.5	60.5	0.4799	µg/L	0.4799	ppb	14:32:53
2	As 188.979†	-1.3	-2.4	-4.7694	µg/L	-4.7694	ppb	14:33:14
2	B 249.677†	344.7	3.6	0.1600	µg/L	0.1600	ppb	14:33:14
2	Ba 233.527†	-16.3	10.1	0.2637	µg/L	0.2637	ppb	14:33:14
2	Be 313.107†	-3298.7	234.0	0.1527	µg/L	0.1527	ppb	14:32:53
2	Cd 226.502†	-133.3	12.6	0.3477	µg/L	0.3477	ppb	14:33:14
2	Co 228.616†	-4.9	4.1	0.2028	µg/L	0.2028	ppb	14:33:14
2	Cr 267.716†	-12.9	39.8	0.8752	µg/L	0.8752	ppb	14:32:53
2	Cu 324.752†	2529.4	-27.4	-0.1918	µg/L	-0.1918	ppb	14:32:53
2	Mn 257.610†	-202.1	47.7	0.1654	µg/L	0.1654	ppb	14:33:14
2	Mo 202.031†	1.2	8.7	0.9303	µg/L	0.9303	ppb	14:33:14
2	Ni 231.604†	305.7	-5.0	-0.2753	µg/L	-0.2753	ppb	14:33:14
2	P 214.914†	24.2	-4.1	-8.8167	µg/L	-8.8167	ppb	14:33:14
2	Pb 220.353†	97.8	-2.1	-0.5597	µg/L	-0.5597	ppb	14:33:14

2	S 181.975 Axial†	15.1	-0.1	-0.5770	µg/L	-0.5770 ppb	14:33:14
2	Sb 206.836†	27.2	-0.5	-0.4890	µg/L	-0.4890 ppb	14:33:14
2	Se 196.026†	14.7	-1.6	-2.3575	µg/L	-2.3575 ppb	14:33:14
2	SiO2†	1242.8	-41.9	-9.0338	µg/L	-9.0338 ppb	14:32:53
2	Si 251.611†	360.2	37.3	3.0664	µg/L	3.0664 ppb	14:33:14
2	Sn 189.927†	0.7	1.6	0.7280	µg/L	0.7280 ppb	14:33:14
2	Ti 334.940†	261.8	138.4	0.3344	µg/L	0.3344 ppb	14:32:53
2	Tl 190.801†	-26.1	-1.1	-1.5598	µg/L	-1.5598 ppb	14:33:14
2	U 409.014†	-15.1	39.0	3.5273	µg/L	3.5273 ppb	14:32:53
2	V 292.402†	-42.6	2.8	0.0426	µg/L	0.0426 ppb	14:32:53
2	Zn 213.857†	491.7	2.4	0.0627	µg/L	0.0627 ppb	14:33:14
3	Sc RADIAL	56329.8	56329.8	103	%		14:31:45
3	Al 396.153Radial†	2.8	12.8	9.5317	µg/L	9.5317 ppb	14:31:45
3	Ca 317.933Radial†	174.0	-10.6	-9.9765	µg/L	-9.9765 ppb	14:32:05
3	Fe 238.204 Radial†	15.1	0.1	1.1942	µg/L	1.1942 ppb	14:32:05
3	K 766.490 Radial†	116.0	-16.0	-11.375	µg/L	-11.375 ppb	14:31:45
3	Mg 279.077 IEC†	9.4	-2.1	-19.858	µg/L	-19.858 ppb	14:32:05
3	Na 589.592 Radial†	536.5	-22.1	-7.2800	µg/L	-7.2800 ppb	14:31:45
3	Sr 421.552†	17.2	-22.9	-0.2369	µg/L	-0.2369 ppb	14:31:45
3	Sc 361.383	1963041.8	1963041.8	102.79	%		14:33:20
3	Y 371.029	1346546.9	1346546.9	102.80	%		14:33:20
3	Ag 328.068†	-542.7	36.6	0.2929	µg/L	0.2929 ppb	14:33:26
3	As 188.979†	1.8	0.6	1.1689	µg/L	1.1689 ppb	14:33:46
3	B 249.677†	343.0	2.2	0.0978	µg/L	0.0978 ppb	14:33:46
3	Ba 233.527†	-18.5	8.0	0.2082	µg/L	0.2082 ppb	14:33:46
3	Be 313.107†	-3230.6	297.4	0.1942	µg/L	0.1942 ppb	14:33:26
3	Cd 226.502†	-130.1	15.5	0.4281	µg/L	0.4281 ppb	14:33:46
3	Co 228.616†	-21.8	-12.4	-0.6104	µg/L	-0.6104 ppb	14:33:46
3	Cr 267.716†	-41.2	12.3	0.2708	µg/L	0.2708 ppb	14:33:26
3	Cu 324.752†	2546.0	-9.1	-0.0637	µg/L	-0.0637 ppb	14:33:26
3	Mn 257.610†	-170.0	78.8	0.2737	µg/L	0.2737 ppb	14:33:46
3	Mo 202.031†	0.3	7.9	0.8413	µg/L	0.8413 ppb	14:33:46
3	Ni 231.604†	307.9	-2.6	-0.1428	µg/L	-0.1428 ppb	14:33:46
3	P 214.914†	31.7	3.2	7.0023	µg/L	7.0023 ppb	14:33:46
3	Pb 220.353†	97.7	-2.1	-0.5651	µg/L	-0.5651 ppb	14:33:46
3	S 181.975 Axial†	14.0	-1.2	-5.1565	µg/L	-5.1565 ppb	14:33:46
3	Sb 206.836†	18.5	-9.0	-8.8540	µg/L	-8.8540 ppb	14:33:46
3	Se 196.026†	7.7	-8.4	-12.762	µg/L	-12.762 ppb	14:33:46
3	SiO2†	1231.2	-52.2	-11.239	µg/L	-11.239 ppb	14:33:26
3	Si 251.611†	338.7	16.6	1.3655	µg/L	1.3655 ppb	14:33:46
3	Sn 189.927†	2.7	3.5	1.5931	µg/L	1.5931 ppb	14:33:46
3	Ti 334.940†	206.7	84.9	0.2057	µg/L	0.2057 ppb	14:33:26
3	Tl 190.801†	-23.5	1.4	1.9821	µg/L	1.9821 ppb	14:33:46
3	U 409.014†	-82.4	-26.6	-2.4037	µg/L	-2.4037 ppb	14:33:26
3	V 292.402†	-5.0	39.3	0.4238	µg/L	0.4238 ppb	14:33:26
3	Zn 213.857†	490.6	1.7	0.0448	µg/L	0.0448 ppb	14:33:46

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1957367.4	102.49	%	0.594				0.58%
Sc RADIAL	56040.0	103	%	0.5				0.45%
Y 371.029	1342184.9	102.46	%	0.649				0.63%
Ag 328.068†	54.1	0.4302	µg/L	0.12036	0.4302	ppb	0.12036	27.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	3.2105	µg/L	6.68686	3.2105	ppb	6.68686	208.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.4253	µg/L	3.80624	-0.4253	ppb	3.80624	895.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.2	0.1426	µg/L	0.03915	0.1426	ppb	0.03915	27.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.0	0.2618	µg/L	0.05266	0.2618	ppb	0.05266	20.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.1331	µg/L	0.07275	0.1331	ppb	0.07275	54.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.1	-1.0692	µg/L	9.21745	-1.0692	ppb	9.21745	862.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.2858	µg/L	0.18136	0.2858	ppb	0.18136	63.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.7	-0.1327	µg/L	0.42483	-0.1327	ppb	0.42483	320.06%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.7      0.3886 µg/L       0.43975      0.3886 ppb        0.43975 113.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -16.9     -0.1187 µg/L       0.06593     -0.1187 ppb        0.06593  55.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -2.5979 µg/L       3.31761     -2.5979 ppb        3.31761 127.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -1.9     -1.3625 µg/L      21.86298     -1.3625 ppb       21.86298 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.1     -0.8244 µg/L      33.01203     -0.8244 ppb       33.01203 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.6      0.1749 µg/L       0.09441      0.1749 ppb        0.09441  53.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.0      0.8505 µg/L       0.07561      0.8505 ppb        0.07561   8.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -12.0     -3.9548 µg/L       8.91231     -3.9548 ppb        8.91231 225.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.7     -0.2590 µg/L       0.10906     -0.2590 ppb        0.10906  42.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.1      2.3865 µg/L       9.75229      2.3865 ppb        9.75229 408.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.8     -1.2761 µg/L       1.23617     -1.2761 ppb        1.23617  96.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.1210 µg/L       5.65896      0.1210 ppb        5.65896 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.7     -4.6191 µg/L       4.18349     -4.6191 ppb        4.18349  90.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.5     -2.2678 µg/L      10.53912     -2.2678 ppb       10.53912 464.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -34.9     -7.5220 µg/L       4.66014     -7.5220 ppb        4.66014  61.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                24.8      2.0398 µg/L       0.90350      2.0398 ppb        0.90350  44.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.3      1.0747 µg/L       0.45737      1.0747 ppb        0.45737  42.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 4.4      0.0455 µg/L       0.24518      0.0455 ppb        0.24518 539.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.3      0.2028 µg/L       0.13307      0.2028 ppb        0.13307  65.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.4645 µg/L       2.80164      1.4645 ppb        2.80164 191.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 11.2      1.0153 µg/L       3.06778      1.0153 ppb        3.06778 302.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 11.4      0.1299 µg/L       0.26143      0.1299 ppb        0.26143 201.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 0.9      0.0250 µg/L       0.05061      0.0250 ppb        0.05061 202.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/11/2010 14:33:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54747.4	54747.4	100	%			14:34:28
1	Al 396.153Radial†	273.1	282.4	210.27	µg/L	210.27	ppb	14:34:28
1	Ca 317.933Radial†	397.1	216.7	204.01	µg/L	204.01	ppb	14:34:49
1	Fe 238.204 Radial†	30.8	16.2	137.25	µg/L	137.25	ppb	14:34:49
1	K 766.490 Radial†	363.7	234.1	166.40	µg/L	166.40	ppb	14:34:28
1	Mg 279.077 IEC†	45.5	34.1	317.43	µg/L	317.43	ppb	14:34:49
1	Na 589.592 Radial†	1424.0	877.6	288.92	µg/L	288.92	ppb	14:34:28
1	Sr 421.552†	486.3	445.2	4.6152	µg/L	4.6152	ppb	14:34:28
1	Sc 361.383	1940350.4	1940350.4	101.60	%			14:35:51
1	Y 371.029	1331501.6	1331501.6	101.65	%			14:35:51
1	Ag 328.068†	65.6	629.1	5.0332	µg/L	5.0332	ppb	14:35:56
1	As 188.979†	15.0	13.6	26.557	µg/L	26.557	ppb	14:36:17
1	B 249.677†	1481.9	1127.1	49.194	µg/L	49.194	ppb	14:35:56
1	Ba 233.527†	167.0	190.4	4.9664	µg/L	4.9664	ppb	14:36:17
1	Be 313.107†	4123.9	7499.6	4.8957	µg/L	4.8957	ppb	14:35:56
1	Cd 226.502†	43.2	184.7	5.0837	µg/L	5.0837	ppb	14:36:17
1	Co 228.616†	90.6	98.0	4.8213	µg/L	4.8213	ppb	14:36:17
1	Cr 267.716†	181.4	230.9	5.0824	µg/L	5.0824	ppb	14:36:17
1	Cu 324.752†	4005.0	1456.0	10.189	µg/L	10.189	ppb	14:35:56
1	Mn 257.610†	2747.7	2948.6	10.216	µg/L	10.216	ppb	14:35:56
1	Mo 202.031†	89.7	95.8	10.232	µg/L	10.232	ppb	14:36:17
1	Ni 231.604†	390.7	82.4	4.5019	µg/L	4.5019	ppb	14:36:17
1	P 214.914†	110.5	81.1	173.12	µg/L	173.12	ppb	14:36:17
1	Pb 220.353†	141.4	42.0	11.169	µg/L	11.169	ppb	14:36:17
1	S 181.975 Axial†	37.1	21.7	95.029	µg/L	95.029	ppb	14:36:17
1	Sb 206.836†	32.7	5.2	5.2344	µg/L	5.2344	ppb	14:36:17
1	Se 196.026†	25.6	9.4	14.367	µg/L	14.367	ppb	14:36:17
1	SiO2†	2267.0	981.4	211.34	µg/L	211.34	ppb	14:35:56
1	Si 251.611†	1501.7	1165.2	95.786	µg/L	95.786	ppb	14:36:17
1	Sn 189.927†	16.7	17.3	7.9752	µg/L	7.9752	ppb	14:36:17
1	Ti 334.940†	2212.8	2061.9	4.9379	µg/L	4.9379	ppb	14:35:56
1	Tl 190.801†	-5.1	19.2	27.011	µg/L	27.011	ppb	14:36:17
1	U 409.014†	558.4	603.3	54.587	µg/L	54.587	ppb	14:35:56
1	V 292.402†	425.6	463.2	5.0996	µg/L	5.0996	ppb	14:35:56
1	Zn 213.857†	892.7	403.1	10.006	µg/L	10.006	ppb	14:36:17
2	Sc RADIAL	54832.7	54832.7	100	%			14:34:54
2	Al 396.153Radial†	256.5	265.4	197.60	µg/L	197.60	ppb	14:34:54
2	Ca 317.933Radial†	389.1	208.2	196.00	µg/L	196.00	ppb	14:35:15
2	Fe 238.204 Radial†	27.3	12.7	107.86	µg/L	107.86	ppb	14:35:15
2	K 766.490 Radial†	367.8	237.7	168.93	µg/L	168.93	ppb	14:34:54
2	Mg 279.077 IEC†	46.2	34.7	322.64	µg/L	322.64	ppb	14:35:15
2	Na 589.592 Radial†	1434.3	885.7	291.57	µg/L	291.57	ppb	14:34:54
2	Sr 421.552†	510.9	468.9	4.8611	µg/L	4.8611	ppb	14:34:54
2	Sc 361.383	1945380.3	1945380.3	101.86	%			14:36:23
2	Y 371.029	1334631.9	1334631.9	101.89	%			14:36:23
2	Ag 328.068†	83.1	646.1	5.1667	µg/L	5.1667	ppb	14:36:29
2	As 188.979†	13.7	12.3	23.962	µg/L	23.962	ppb	14:36:49
2	B 249.677†	1439.6	1081.8	47.230	µg/L	47.230	ppb	14:36:29
2	Ba 233.527†	163.8	186.8	4.8734	µg/L	4.8734	ppb	14:36:49
2	Be 313.107†	4161.3	7525.8	4.9129	µg/L	4.9129	ppb	14:36:29
2	Cd 226.502†	40.3	181.7	5.0056	µg/L	5.0056	ppb	14:36:49
2	Co 228.616†	95.9	103.0	5.0691	µg/L	5.0691	ppb	14:36:49
2	Cr 267.716†	184.6	233.6	5.1411	µg/L	5.1411	ppb	14:36:49
2	Cu 324.752†	3976.5	1417.8	9.9186	µg/L	9.9186	ppb	14:36:29
2	Mn 257.610†	2754.8	2948.6	10.212	µg/L	10.212	ppb	14:36:29
2	Mo 202.031†	93.7	99.6	10.631	µg/L	10.631	ppb	14:36:49
2	Ni 231.604†	392.3	82.9	4.5279	µg/L	4.5279	ppb	14:36:49
2	P 214.914†	107.2	77.6	165.67	µg/L	165.67	ppb	14:36:49
2	Pb 220.353†	143.7	43.9	11.669	µg/L	11.669	ppb	14:36:49

2	S 181.975 Axial†	37.9	22.4	98.282 µg/L	98.282 ppb	14:36:49
2	Sb 206.836†	37.0	9.4	9.3125 µg/L	9.3125 ppb	14:36:49
2	Se 196.026†	40.5	23.9	36.431 µg/L	36.431 ppb	14:36:49
2	SiO2†	2237.3	946.4	203.81 µg/L	203.81 ppb	14:36:29
2	Si 251.611†	1509.6	1169.2	96.111 µg/L	96.111 ppb	14:36:49
2	Sn 189.927†	28.9	29.3	13.482 µg/L	13.482 ppb	14:36:49
2	Ti 334.940†	2191.1	2034.9	4.8725 µg/L	4.8725 ppb	14:36:29
2	Tl 190.801†	-12.7	11.8	16.671 µg/L	16.671 ppb	14:36:49
2	U 409.014†	565.8	609.0	55.113 µg/L	55.113 ppb	14:36:29
2	V 292.402†	429.8	466.2	5.1319 µg/L	5.1319 ppb	14:36:29
2	Zn 213.857†	888.5	396.7	9.8472 µg/L	9.8472 ppb	14:36:49
3	Sc RADIAL	54719.3	54719.3	100 %		14:35:20
3	Al 396.153Radial†	252.3	261.8	194.95 µg/L	194.95 ppb	14:35:20
3	Ca 317.933Radial†	392.4	212.2	199.82 µg/L	199.82 ppb	14:35:41
3	Fe 238.204 Radial†	27.7	13.1	111.51 µg/L	111.51 ppb	14:35:41
3	K 766.490 Radial†	437.0	307.5	218.53 µg/L	218.53 ppb	14:35:20
3	Mg 279.077 IEC†	40.7	29.3	272.95 µg/L	272.95 ppb	14:35:41
3	Na 589.592 Radial†	1460.8	915.0	301.22 µg/L	301.22 ppb	14:35:20
3	Sr 421.552†	523.6	482.7	5.0036 µg/L	5.0036 ppb	14:35:20
3	Sc 361.383	1939953.9	1939953.9	101.58 %		14:36:55
3	Y 371.029	1330294.0	1330294.0	101.56 %		14:36:55
3	Ag 328.068†	50.3	614.0	4.9107 µg/L	4.9107 ppb	14:37:01
3	As 188.979†	19.6	18.1	35.385 µg/L	35.385 ppb	14:37:21
3	B 249.677†	1372.3	1019.5	44.505 µg/L	44.505 ppb	14:37:01
3	Ba 233.527†	145.4	169.2	4.4133 µg/L	4.4133 ppb	14:37:21
3	Be 313.107†	3478.0	6864.4	4.4811 µg/L	4.4811 ppb	14:37:01
3	Cd 226.502†	11.9	153.8	4.2359 µg/L	4.2359 ppb	14:37:21
3	Co 228.616†	75.0	82.7	4.0666 µg/L	4.0666 ppb	14:37:21
3	Cr 267.716†	166.3	216.1	4.7559 µg/L	4.7559 ppb	14:37:21
3	Cu 324.752†	3902.1	1355.5	9.4837 µg/L	9.4837 ppb	14:37:01
3	Mn 257.610†	2548.1	2752.7	9.5360 µg/L	9.5360 ppb	14:37:01
3	Mo 202.031†	79.0	85.3	9.1080 µg/L	9.1080 ppb	14:37:21
3	Ni 231.604†	393.4	85.1	4.6522 µg/L	4.6522 ppb	14:37:21
3	P 214.914†	100.3	71.1	151.77 µg/L	151.77 ppb	14:37:21
3	Pb 220.353†	126.2	27.0	7.1738 µg/L	7.1738 ppb	14:37:21
3	S 181.975 Axial†	34.7	19.3	84.720 µg/L	84.720 ppb	14:37:21
3	Sb 206.836†	29.4	2.0	2.0741 µg/L	2.0741 ppb	14:37:21
3	Se 196.026†	39.6	23.1	35.285 µg/L	35.285 ppb	14:37:21
3	SiO2†	2171.3	887.6	191.15 µg/L	191.15 ppb	14:37:01
3	Si 251.611†	1361.3	1027.3	84.447 µg/L	84.447 ppb	14:37:21
3	Sn 189.927†	21.9	22.4	10.338 µg/L	10.338 ppb	14:37:21
3	Ti 334.940†	2058.9	1910.8	4.5779 µg/L	4.5779 ppb	14:37:01
3	Tl 190.801†	-4.2	20.2	28.271 µg/L	28.271 ppb	14:37:21
3	U 409.014†	515.1	560.7	50.740 µg/L	50.740 ppb	14:37:01
3	V 292.402†	407.9	445.8	4.8980 µg/L	4.8980 ppb	14:37:01
3	Zn 213.857†	822.6	334.3	8.2901 µg/L	8.2901 ppb	14:37:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941894.9	101.68	%	0.158				0.16%
Sc RADIAL	54766.5	100	%	0.1				0.11%
Y 371.029	1332142.5	101.70	%	0.171				0.17%
Ag 328.068†	629.8	5.0369	µg/L	0.12806	5.0369	ppb	0.12806	2.54%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	269.9	200.94	µg/L	8.187	200.94	ppb	8.187	4.07%
QC value within limits for Al 396.153Radial Recovery = 100.47%								
As 188.979†	14.7	28.634	µg/L	5.9881	28.634	ppb	5.9881	20.91%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	1076.2	46.976	µg/L	2.3545	46.976	ppb	2.3545	5.01%
QC value within limits for B 249.677 Recovery = 93.95%								
Ba 233.527†	182.1	4.7510	µg/L	0.29615	4.7510	ppb	0.29615	6.23%
QC value within limits for Ba 233.527 Recovery = 95.02%								
Be 313.107†	7296.6	4.7633	µg/L	0.24448	4.7633	ppb	0.24448	5.13%
QC value within limits for Be 313.107 Recovery = 95.27%								
Ca 317.933Radial†	212.4	199.94	µg/L	4.009	199.94	ppb	4.009	2.00%
QC value within limits for Ca 317.933Radial Recovery = 99.97%								
Cd 226.502†	173.4	4.7751	µg/L	0.46856	4.7751	ppb	0.46856	9.81%
QC value within limits for Cd 226.502 Recovery = 95.50%								
Co 228.616†	94.6	4.6523	µg/L	0.52218	4.6523	ppb	0.52218	11.22%

```
   QC value within limits for Co 228.616  Recovery = 93.05%
Cr 267.716†              226.9      4.9931 µg/L       0.20751      4.9931 ppb        0.20751   4.16%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†             1409.7      9.8638 µg/L       0.35593      9.8638 ppb        0.35593   3.61%
   QC value within limits for Cu 324.752  Recovery = 98.64%
Fe 238.204 Radial†        14.0      118.87 µg/L        16.021      118.87 ppb         16.021  13.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 118.87%
K 766.490 Radial†        259.7      184.62 µg/L        29.396      184.62 ppb         29.396  15.92%
   QC value within limits for K 766.490 Radial  Recovery = 123.08%
Mg 279.077 IEC†           32.7      304.34 µg/L        27.307      304.34 ppb         27.307   8.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†             2883.3      9.9880 µg/L       0.39151      9.9880 ppb        0.39151   3.92%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†               93.6      9.9904 µg/L       0.78979      9.9904 ppb        0.78979   7.91%
   QC value within limits for Mo 202.031  Recovery = 99.90%
Na 589.592 Radial†       892.8      293.90 µg/L         6.477      293.90 ppb          6.477   2.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.97%
Ni 231.604†               83.5      4.5606 µg/L       0.08032      4.5606 ppb        0.08032   1.76%
   QC value within limits for Ni 231.604  Recovery = 91.21%
P 214.914†                76.6      163.52 µg/L        10.837      163.52 ppb         10.837   6.63%
   QC value within limits for P 214.914  Recovery = 109.01%
Pb 220.353†               37.6      10.004 µg/L        2.4639      10.004 ppb         2.4639  24.63%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†          21.2      92.677 µg/L        7.0801      92.677 ppb         7.0801   7.64%
   QC value within limits for S 181.975 Axial  Recovery = 92.68%
Sb 206.836†                5.5      5.5403 µg/L       3.62890      5.5403 ppb        3.62890  65.50%
   QC value less than the lower limit for Sb 206.836  Recovery = 55.40%
Se 196.026†               18.8      28.694 µg/L       12.4212      28.694 ppb        12.4212  43.29%
   QC value within limits for Se 196.026  Recovery = 95.65%
SiO2†                    938.5      202.10 µg/L        10.205      202.10 ppb         10.205   5.05%
   QC value within limits for SiO2  Recovery = 94.88%
Si 251.611†             1120.6      92.115 µg/L        6.6423      92.115 ppb         6.6423   7.21%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†               23.0      10.598 µg/L        2.7624      10.598 ppb         2.7624  26.06%
   QC value within limits for Sn 189.927  Recovery = 105.98%
Sr 421.552†              465.6      4.8266 µg/L       0.19650      4.8266 ppb        0.19650   4.07%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†             2002.5      4.7961 µg/L       0.19174      4.7961 ppb        0.19174   4.00%
   QC value within limits for Ti 334.940  Recovery = 95.92%
Tl 190.801†               17.1      23.984 µg/L        6.3650      23.984 ppb         6.3650  26.54%
   QC value within limits for Tl 190.801  Recovery = 119.92%
U 409.014†               591.0      53.480 µg/L        2.3877      53.480 ppb         2.3877   4.46%
   QC value within limits for U 409.014  Recovery = 106.96%
V 292.402†               458.4      5.0431 µg/L       0.12672      5.0431 ppb        0.12672   2.51%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†              378.0      9.3810 µg/L       0.94809      9.3810 ppb        0.94809  10.11%
   QC value within limits for Zn 213.857  Recovery = 93.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/11/2010 14:37:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54929.8	54929.8	101	%			14:38:12
1	Al 396.153Radial†	662864.4	658585.8	490860	µg/L	490860	ppb	14:38:07
1	Ca 317.933Radial†	501017.0	497596.3	468520	µg/L	468520	ppb	14:38:07
1	Fe 238.204 Radial†	21302.2	21149.9	179260	µg/L	179260	ppb	14:38:12
1	K 766.490 Radial†	133.6	4.3	3.0615	µg/L	3.0615	ppb	14:38:12
1	Mg 279.077 IEC†	50419.1	50081.6	465880	µg/L	465880	ppb	14:38:12
1	Na 589.592 Radial†	588.4	42.7	14.053	µg/L	14.053	ppb	14:38:12
1	Sr 421.552†	369.2	327.3	3.3927	µg/L	3.3927	ppb	14:38:12
1	Sc 361.383	1857257.4	1857257.4	97.247	%			14:38:45
1	Y 371.029	1267408.3	1267408.3	96.755	%			14:38:45
1	Ag 328.068†	-2882.1	-2399.2	-7.8752	µg/L	-7.8752	ppb	14:38:51
1	As 188.979†	-10.9	-12.4	-38.129	µg/L	-38.129	ppb	14:39:11
1	B 249.677†	826.3	518.2	-70.891	µg/L	-70.891	ppb	14:38:51
1	Ba 233.527†	265.1	298.7	7.7406	µg/L	7.7406	ppb	14:39:11
1	Be 313.107†	-4111.4	-787.4	-0.5240	µg/L	-0.5240	ppb	14:38:51
1	Cd 226.502†	352.3	504.4	-6.3482	µg/L	-6.3482	ppb	14:39:11
1	Co 228.616†	33.3	43.1	2.0584	µg/L	2.0584	ppb	14:39:11
1	Cr 267.716†	-59.0	-8.3	-0.1945	µg/L	-0.1945	ppb	14:39:11
1	Cu 324.752†	-1400.3	-3926.0	-2.5072	µg/L	-2.5072	ppb	14:38:51
1	Mn 257.610†	37.6	282.8	6.1777	µg/L	6.1777	ppb	14:38:51
1	Mo 202.031†	-107.0	-102.5	-4.1257	µg/L	-4.1257	ppb	14:39:11
1	Ni 231.604†	157.1	-140.7	-5.3633	µg/L	-5.3633	ppb	14:39:11
1	P 214.914†	101.4	76.6	162.80	µg/L	162.80	ppb	14:39:11
1	Pb 220.353†	54.2	-41.5	9.1341	µg/L	9.1341	ppb	14:39:11
1	S 181.975 Axial†	32.3	18.4	80.756	µg/L	80.756	ppb	14:39:11
1	Sb 206.836†	58.1	32.8	-8.6501	µg/L	-8.6501	ppb	14:39:11
1	Se 196.026†	34.1	19.3	-25.969	µg/L	-25.969	ppb	14:39:11
1	SiO2†	1033.7	-187.0	-40.276	µg/L	-40.276	ppb	14:39:11
1	Si 251.611†	428.1	127.4	10.470	µg/L	10.470	ppb	14:39:11
1	Sn 189.927†	-61.0	-61.9	5.0665	µg/L	5.0665	ppb	14:39:11
1	Ti 334.940†	10534.2	10716.3	-3.5463	µg/L	-3.5463	ppb	14:38:51
1	Tl 190.801†	-30.9	-7.5	8.6675	µg/L	8.6675	ppb	14:39:11
1	U 409.014†	-29.2	23.6	-51.357	µg/L	-51.357	ppb	14:38:51
1	V 292.402†	-1857.1	-1865.5	1.1351	µg/L	1.1351	ppb	14:38:51
1	Zn 213.857†	1452.2	1017.8	-9.4487	µg/L	-9.4487	ppb	14:39:11
2	Sc RADIAL	55009.9	55009.9	101	%			14:38:23
2	Al 396.153Radial†	661057.1	655833.6	488810	µg/L	488810	ppb	14:38:18
2	Ca 317.933Radial†	498837.3	494708.8	465800	µg/L	465800	ppb	14:38:18
2	Fe 238.204 Radial†	21470.3	21285.8	180410	µg/L	180410	ppb	14:38:23
2	K 766.490 Radial†	106.0	-23.2	-16.506	µg/L	-16.506	ppb	14:38:23
2	Mg 279.077 IEC†	50738.3	50325.3	468150	µg/L	468150	ppb	14:38:23
2	Na 589.592 Radial†	648.0	101.0	33.250	µg/L	33.250	ppb	14:38:23
2	Sr 421.552†	361.1	318.7	3.3032	µg/L	3.3032	ppb	14:38:23
2	Sc 361.383	1846098.6	1846098.6	96.662	%			14:39:17
2	Y 371.029	1260367.6	1260367.6	96.217	%			14:39:17
2	Ag 328.068†	-2932.2	-2468.9	-8.3594	µg/L	-8.3594	ppb	14:39:23
2	As 188.979†	-14.6	-16.3	-45.537	µg/L	-45.537	ppb	14:39:43
2	B 249.677†	858.5	556.6	-69.813	µg/L	-69.813	ppb	14:39:23
2	Ba 233.527†	262.3	297.4	7.7059	µg/L	7.7059	ppb	14:39:43
2	Be 313.107†	-4105.1	-806.4	-0.5367	µg/L	-0.5367	ppb	14:39:23
2	Cd 226.502†	337.6	491.4	-6.8376	µg/L	-6.8376	ppb	14:39:43
2	Co 228.616†	17.7	27.1	1.2707	µg/L	1.2707	ppb	14:39:43
2	Cr 267.716†	-53.0	-2.4	-0.0661	µg/L	-0.0661	ppb	14:39:43
2	Cu 324.752†	-1461.5	-3998.0	-2.8500	µg/L	-2.8500	ppb	14:39:23
2	Mn 257.610†	43.7	289.4	6.2629	µg/L	6.2629	ppb	14:39:23
2	Mo 202.031†	-104.0	-100.0	-3.8203	µg/L	-3.8203	ppb	14:39:43
2	Ni 231.604†	142.4	-154.9	-6.1246	µg/L	-6.1246	ppb	14:39:43
2	P 214.914†	112.7	89.0	187.84	µg/L	187.84	ppb	14:39:43
2	Pb 220.353†	58.0	-37.2	10.116	µg/L	10.116	ppb	14:39:43

2	S 181.975 Axial†	36.2	22.6	98.941 µg/L	98.941 ppb	14:39:43
2	Sb 206.836†	53.9	28.8	-12.353 µg/L	-12.353 ppb	14:39:43
2	Se 196.026†	26.7	11.8	-35.549 µg/L	-35.549 ppb	14:39:43
2	SiO2†	1052.3	-161.4	-34.761 µg/L	-34.761 ppb	14:39:43
2	Si 251.611†	458.0	160.9	13.230 µg/L	13.230 ppb	14:39:43
2	Sn 189.927†	-63.6	-65.0	3.8069 µg/L	3.8069 ppb	14:39:43
2	Ti 334.940†	10748.6	11003.6	-3.0781 µg/L	-3.0781 ppb	14:39:23
2	Tl 190.801†	-35.3	-12.3	2.2973 µg/L	2.2973 ppb	14:39:43
2	U 409.014†	-80.2	-29.4	-56.150 µg/L	-56.150 ppb	14:39:23
2	V 292.402†	-1894.8	-1916.0	0.7299 µg/L	0.7299 ppb	14:39:23
2	Zn 213.857†	1462.8	1037.8	-9.1272 µg/L	-9.1272 ppb	14:39:43
3	Sc RADIAL	54631.5	54631.5	100 %		14:38:35
3	Al 396.153Radial†	667869.4	667182.1	497270 µg/L	497270 ppb	14:38:29
3	Ca 317.933Radial†	503599.4	502894.4	473510 µg/L	473510 ppb	14:38:29
3	Fe 238.204 Radial†	21467.0	21430.1	181630 µg/L	181630 ppb	14:38:35
3	K 766.490 Radial†	96.7	-31.8	-22.617 µg/L	-22.617 ppb	14:38:35
3	Mg 279.077 IEC†	50895.3	50830.8	472850 µg/L	472850 ppb	14:38:35
3	Na 589.592 Radial†	627.0	84.4	27.800 µg/L	27.800 ppb	14:38:35
3	Sr 421.552†	372.9	333.0	3.4514 µg/L	3.4514 ppb	14:38:35
3	Sc 361.383	1825493.4	1825493.4	95.584 %		14:39:49
3	Y 371.029	1244094.0	1244094.0	94.975 %		14:39:49
3	Ag 328.068†	-2843.3	-2410.2	-7.8207 µg/L	-7.8207 ppb	14:39:55
3	As 188.979†	-21.3	-23.4	-59.893 µg/L	-59.893 ppb	14:40:16
3	B 249.677†	774.3	478.6	-73.863 µg/L	-73.863 ppb	14:39:55
3	Ba 233.527†	257.2	295.1	7.6465 µg/L	7.6465 ppb	14:40:16
3	Be 313.107†	-4046.5	-793.0	-0.5281 µg/L	-0.5281 ppb	14:39:55
3	Cd 226.502†	377.7	537.3	-5.7094 µg/L	-5.7094 ppb	14:40:16
3	Co 228.616†	37.6	48.2	2.3043 µg/L	2.3043 ppb	14:40:16
3	Cr 267.716†	-81.4	-32.7	-0.7334 µg/L	-0.7334 ppb	14:40:16
3	Cu 324.752†	-1475.8	-4030.1	-2.9042 µg/L	-2.9042 ppb	14:39:55
3	Mn 257.610†	50.9	297.4	6.2652 µg/L	6.2652 ppb	14:39:55
3	Mo 202.031†	-108.7	-106.2	-4.4310 µg/L	-4.4310 ppb	14:40:16
3	Ni 231.604†	152.6	-142.5	-5.4329 µg/L	-5.4329 ppb	14:40:16
3	P 214.914†	105.4	82.6	175.78 µg/L	175.78 ppb	14:40:16
3	Pb 220.353†	72.0	-21.8	14.642 µg/L	14.642 ppb	14:40:16
3	S 181.975 Axial†	29.0	15.5	67.783 µg/L	67.783 ppb	14:40:16
3	Sb 206.836†	45.6	20.7	-20.949 µg/L	-20.949 ppb	14:40:16
3	Se 196.026†	33.1	18.8	-27.759 µg/L	-27.759 ppb	14:40:16
3	SiO2†	1033.4	-168.9	-36.378 µg/L	-36.378 ppb	14:40:16
3	Si 251.611†	441.5	149.0	12.252 µg/L	12.252 ppb	14:40:16
3	Sn 189.927†	-53.7	-55.3	8.6518 µg/L	8.6518 ppb	14:40:16
3	Ti 334.940†	10848.2	11233.3	-2.7738 µg/L	-2.7738 ppb	14:39:55
3	Tl 190.801†	-26.7	-3.6	14.470 µg/L	14.470 ppb	14:40:16
3	U 409.014†	-83.2	-33.5	-57.162 µg/L	-57.162 ppb	14:39:55
3	V 292.402†	-1928.3	-1973.2	0.2572 µg/L	0.2572 ppb	14:39:55
3	Zn 213.857†	1454.4	1046.1	-9.2482 µg/L	-9.2482 ppb	14:40:16

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1842949.8	96.498	%	0.8438				0.87%
Sc RADIAL	54857.1	101	%	0.4				0.36%
Y 371.029	1257290.0	95.982	%	0.9129				0.95%
Ag 328.068†	-2426.1	-8.0184	µg/L	0.29656	-8.0184	ppb	0.29656	3.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660533.8	492320	µg/L	4412.2	492320	ppb	4412.2	0.90%
QC value within limits for Al 396.153Radial Recovery = 98.46%								
As 188.979†	-17.4	-47.853	µg/L	11.0657	-47.853	ppb	11.0657	23.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	517.8	-71.522	µg/L	2.0977	-71.522	ppb	2.0977	2.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	297.0	7.6977	µg/L	0.04758	7.6977	ppb	0.04758	0.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-795.6	-0.5296	µg/L	0.00649	-0.5296	ppb	0.00649	1.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	498399.8	469270	µg/L	3908.9	469270	ppb	3908.9	0.83%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	511.0	-6.2984	µg/L	0.56575	-6.2984	ppb	0.56575	8.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	39.5	1.8778	µg/L	0.53996	1.8778	ppb	0.53996	28.75%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.5     -0.3313 µg/L       0.35406     -0.3313 ppb        0.35406 106.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3984.7     -2.7538 µg/L       0.21524     -2.7538 ppb        0.21524   7.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21288.6      180430 µg/L        1187.5      180430 ppb         1187.5   0.66%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.22%
K 766.490 Radial†        -16.9     -12.020 µg/L       13.4139     -12.020 ppb        13.4139 111.59%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        50412.6      468960 µg/L        3555.4      468960 ppb         3555.4   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.79%
Mn 257.610†              289.9      6.2353 µg/L       0.04986      6.2353 ppb        0.04986   0.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -102.9     -4.1257 µg/L       0.30534     -4.1257 ppb        0.30534   7.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        76.0      25.034 µg/L        9.8929      25.034 ppb         9.8929  39.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†            -146.0     -5.6403 µg/L       0.42090     -5.6403 ppb        0.42090   7.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                82.7      175.47 µg/L        12.518      175.47 ppb         12.518   7.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -33.5      11.297 µg/L        2.9376      11.297 ppb         2.9376  26.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          18.8      82.493 µg/L       15.6511      82.493 ppb        15.6511  18.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               27.4     -13.984 µg/L        6.3094     -13.984 ppb         6.3094  45.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               16.6     -29.759 µg/L        5.0935     -29.759 ppb         5.0935  17.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                  -172.5     -37.139 µg/L        2.8350     -37.139 ppb         2.8350   7.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              145.8      11.984 µg/L        1.3994      11.984 ppb         1.3994  11.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -60.7      5.8417 µg/L       2.51374      5.8417 ppb        2.51374  43.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              326.3      3.3825 µg/L       0.07464      3.3825 ppb        0.07464   2.21%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            10984.4     -3.1328 µg/L       0.38914     -3.1328 ppb        0.38914  12.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -7.8      8.4783 µg/L       6.08871      8.4783 ppb        6.08871  71.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -13.1     -54.890 µg/L        3.1009     -54.890 ppb         3.1009   5.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -1918.2      0.7074 µg/L       0.43934      0.7074 ppb        0.43934  62.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1033.9     -9.2747 µg/L       0.16235     -9.2747 ppb        0.16235   1.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/11/2010 14:40:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54743.7	54743.7	100	%			14:41:04
1	Al 396.153Radial†	662601.8	660562.7	492330	µg/L	492330	ppb	14:40:59
1	Ca 317.933Radial†	498259.5	496539.4	467520	µg/L	467520	ppb	14:40:59
1	Fe 238.204 Radial†	21341.6	21261.1	180210	µg/L	180210	ppb	14:41:04
1	K 766.490 Radial†	6958.5	6808.5	4839.5	µg/L	4839.5	ppb	14:41:04
1	Mg 279.077 IEC†	50755.9	50587.7	470600	µg/L	470600	ppb	14:41:04
1	Na 589.592 Radial†	15455.3	14865.6	4893.8	µg/L	4893.8	ppb	14:41:04
1	Sr 421.552†	46875.8	46691.2	484.01	µg/L	484.01	ppb	14:41:04
1	Sc 361.383	1846856.3	1846856.3	96.702	%			14:41:38
1	Y 371.029	1258300.6	1258300.6	96.059	%			14:41:38
1	Ag 328.068†	27332.2	28828.8	243.20	µg/L	243.20	ppb	14:41:44
1	As 188.979†	237.2	244.2	462.48	µg/L	462.48	ppb	14:42:04
1	B 249.677†	11716.6	11784.7	421.73	µg/L	421.73	ppb	14:41:44
1	Ba 233.527†	17712.8	18342.8	478.47	µg/L	478.47	ppb	14:41:44
1	Be 313.107†	339671.1	354695.4	231.45	µg/L	231.45	ppb	14:41:38
1	Cd 226.502†	15868.9	16552.3	436.70	µg/L	436.70	ppb	14:41:44
1	Co 228.616†	8171.6	8459.1	415.69	µg/L	415.69	ppb	14:42:04
1	Cr 267.716†	20395.5	21143.4	465.37	µg/L	465.37	ppb	14:41:44
1	Cu 324.752†	70107.6	70012.4	514.10	µg/L	514.10	ppb	14:41:44
1	Mn 257.610†	126842.6	131412.5	460.20	µg/L	460.20	ppb	14:41:44
1	Mo 202.031†	4309.3	4463.8	483.23	µg/L	483.23	ppb	14:42:04
1	Ni 231.604†	7535.7	7490.5	411.39	µg/L	411.39	ppb	14:42:04
1	P 214.914†	1206.8	1220.3	2570.8	µg/L	2570.8	ppb	14:42:04
1	Pb 220.353†	1703.5	1664.4	464.39	µg/L	464.39	ppb	14:42:04
1	S 181.975 Axial†	587.6	592.8	2597.2	µg/L	2597.2	ppb	14:42:04
1	Sb 206.836†	550.1	541.9	495.21	µg/L	495.21	ppb	14:42:04
1	Se 196.026†	1471.2	1505.6	2238.6	µg/L	2238.6	ppb	14:42:04
1	SiO2†	47866.2	48248.6	10391	µg/L	10391	ppb	14:41:44
1	Si 251.611†	57854.9	59515.0	4892.4	µg/L	4892.4	ppb	14:41:44
1	Sn 189.927†	962.7	996.5	492.28	µg/L	492.28	ppb	14:42:04
1	Ti 334.940†	201101.7	207843.8	470.24	µg/L	470.24	ppb	14:41:44
1	Tl 190.801†	278.9	312.7	461.24	µg/L	461.24	ppb	14:42:04
1	U 409.014†	5055.9	5282.0	424.65	µg/L	424.65	ppb	14:41:44
1	V 292.402†	42477.1	43969.9	495.05	µg/L	495.05	ppb	14:41:44
1	Zn 213.857†	19021.9	19195.0	441.47	µg/L	441.47	ppb	14:41:44
2	Sc RADIAL	55060.7	55060.7	101	%			14:41:16
2	Al 396.153Radial†	664887.8	659025.8	491180	µg/L	491180	ppb	14:41:10
2	Ca 317.933Radial†	499367.7	494778.3	465860	µg/L	465860	ppb	14:41:10
2	Fe 238.204 Radial†	21754.5	21547.8	182640	µg/L	182640	ppb	14:41:16
2	K 766.490 Radial†	7103.8	6912.7	4913.5	µg/L	4913.5	ppb	14:41:16
2	Mg 279.077 IEC†	51410.3	50945.0	473920	µg/L	473920	ppb	14:41:16
2	Na 589.592 Radial†	15635.7	14955.7	4923.5	µg/L	4923.5	ppb	14:41:16
2	Sr 421.552†	47418.4	46960.1	486.80	µg/L	486.80	ppb	14:41:16
2	Sc 361.383	1837075.1	1837075.1	96.190	%			14:42:10
2	Y 371.029	1253427.6	1253427.6	95.687	%			14:42:10
2	Ag 328.068†	27052.1	28688.2	242.21	µg/L	242.21	ppb	14:42:16
2	As 188.979†	226.7	234.5	443.77	µg/L	443.77	ppb	14:42:37
2	B 249.677†	11617.2	11745.8	418.76	µg/L	418.76	ppb	14:42:16
2	Ba 233.527†	17456.8	18174.2	474.07	µg/L	474.07	ppb	14:42:16
2	Be 313.107†	337736.8	354554.8	231.36	µg/L	231.36	ppb	14:42:10
2	Cd 226.502†	15582.5	16341.8	430.62	µg/L	430.62	ppb	14:42:16
2	Co 228.616†	8172.6	8505.1	417.96	µg/L	417.96	ppb	14:42:37
2	Cr 267.716†	20089.6	20937.7	460.84	µg/L	460.84	ppb	14:42:16
2	Cu 324.752†	69141.0	69393.5	510.12	µg/L	510.12	ppb	14:42:16
2	Mn 257.610†	124994.1	130189.1	456.15	µg/L	456.15	ppb	14:42:16
2	Mo 202.031†	4295.8	4473.5	484.36	µg/L	484.36	ppb	14:42:37
2	Ni 231.604†	7541.0	7537.5	413.99	µg/L	413.99	ppb	14:42:37
2	P 214.914†	1237.1	1258.5	2651.1	µg/L	2651.1	ppb	14:42:37
2	Pb 220.353†	1701.2	1671.4	466.10	µg/L	466.10	ppb	14:42:37

2	S 181.975 Axial†	598.3	607.2	2660.4 µg/L	2660.4 ppb	14:42:37
2	Sb 206.836†	550.2	545.1	498.59 µg/L	498.59 ppb	14:42:37
2	Se 196.026†	1466.3	1508.6	2247.3 µg/L	2247.3 ppb	14:42:37
2	SiO2†	47231.2	47852.0	10305 µg/L	10305 ppb	14:42:16
2	Si 251.611†	57079.6	59027.6	4852.4 µg/L	4852.4 ppb	14:42:16
2	Sn 189.927†	972.7	1012.1	499.64 µg/L	499.64 ppb	14:42:37
2	Ti 334.940†	198343.7	206083.8	465.72 µg/L	465.72 ppb	14:42:16
2	Tl 190.801†	259.5	294.1	435.56 µg/L	435.56 ppb	14:42:37
2	U 409.014†	4974.7	5225.3	419.28 µg/L	419.28 ppb	14:42:16
2	V 292.402†	41844.6	43546.2	490.82 µg/L	490.82 ppb	14:42:16
2	Zn 213.857†	18719.4	18985.3	435.92 µg/L	435.92 ppb	14:42:16
3	Sc RADIAL	54836.5	54836.5	100 %		14:41:27
3	Al 396.153Radial†	666707.4	663530.3	494540 µg/L	494540 ppb	14:41:21
3	Ca 317.933Radial†	500342.9	497771.9	468680 µg/L	468680 ppb	14:41:21
3	Fe 238.204 Radial†	21386.7	21269.9	180290 µg/L	180290 ppb	14:41:27
3	K 766.490 Radial†	6994.6	6832.8	4856.7 µg/L	4856.7 ppb	14:41:27
3	Mg 279.077 IEC†	50805.9	50551.7	470260 µg/L	470260 ppb	14:41:27
3	Na 589.592 Radial†	15470.0	14854.1	4890.0 µg/L	4890.0 ppb	14:41:27
3	Sr 421.552†	46844.7	46581.2	482.87 µg/L	482.87 ppb	14:41:27
3	Sc 361.383	1833431.9	1833431.9	95.999 %		14:42:43
3	Y 371.029	1252123.0	1252123.0	95.588 %		14:42:43
3	Ag 328.068†	27588.4	29302.7	247.00 µg/L	247.00 ppb	14:42:49
3	As 188.979†	241.1	250.0	473.71 µg/L	473.71 ppb	14:43:09
3	B 249.677†	11855.2	12017.8	431.89 µg/L	431.89 ppb	14:42:49
3	Ba 233.527†	17813.9	18582.3	484.71 µg/L	484.71 ppb	14:42:49
3	Be 313.107†	338767.0	356325.5	232.51 µg/L	232.51 ppb	14:42:43
3	Cd 226.502†	15965.4	16772.9	442.77 µg/L	442.77 ppb	14:42:49
3	Co 228.616†	8119.3	8466.6	416.04 µg/L	416.04 ppb	14:43:09
3	Cr 267.716†	20600.1	21511.0	473.46 µg/L	473.46 ppb	14:42:49
3	Cu 324.752†	70720.9	71182.1	522.28 µg/L	522.28 ppb	14:42:49
3	Mn 257.610†	127685.2	133250.6	466.59 µg/L	466.59 ppb	14:42:49
3	Mo 202.031†	4277.4	4463.2	483.17 µg/L	483.17 ppb	14:43:09
3	Ni 231.604†	7478.0	7487.4	411.22 µg/L	411.22 ppb	14:43:09
3	P 214.914†	1197.0	1219.3	2568.4 µg/L	2568.4 ppb	14:43:09
3	Pb 220.353†	1703.7	1677.5	467.96 µg/L	467.96 ppb	14:43:09
3	S 181.975 Axial†	585.7	595.2	2608.0 µg/L	2608.0 ppb	14:43:09
3	Sb 206.836†	542.2	537.9	491.06 µg/L	491.06 ppb	14:43:09
3	Se 196.026†	1453.1	1497.9	2227.0 µg/L	2227.0 ppb	14:43:09
3	SiO2†	48266.6	49028.1	10558 µg/L	10558 ppb	14:42:49
3	Si 251.611†	58341.2	60459.7	4970.1 µg/L	4970.1 ppb	14:42:49
3	Sn 189.927†	964.4	1005.4	496.36 µg/L	496.36 ppb	14:43:09
3	Ti 334.940†	202865.6	211203.9	478.37 µg/L	478.37 ppb	14:42:49
3	Tl 190.801†	278.4	314.2	463.55 µg/L	463.55 ppb	14:43:09
3	U 409.014†	5159.4	5428.1	437.79 µg/L	437.79 ppb	14:42:49
3	V 292.402†	42697.4	44521.1	500.97 µg/L	500.97 ppb	14:42:49
3	Zn 213.857†	19157.2	19480.1	448.59 µg/L	448.59 ppb	14:42:49

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1839121.1	96.297	%	0.3635				0.38%
Sc RADIAL	54880.3	101	%	0.3				0.30%
Y 371.029	1254617.1	95.778	%	0.2486				0.26%
Ag 328.068†	28939.9	244.14	µg/L	2.532	244.14	ppb	2.532	1.04%
QC value within limits for Ag 328.068 Recovery = 97.66%								
Al 396.153Radial†	661039.6	492680	µg/L	1706.7	492680	ppb	1706.7	0.35%
QC value within limits for Al 396.153Radial Recovery = 98.54%								
As 188.979†	242.9	459.99	µg/L	15.123	459.99	ppb	15.123	3.29%
QC value within limits for As 188.979 Recovery = 92.00%								
B 249.677†	11849.4	424.12	µg/L	6.887	424.12	ppb	6.887	1.62%
QC value within limits for B 249.677 Recovery = 84.82%								
Ba 233.527†	18366.5	479.08	µg/L	5.348	479.08	ppb	5.348	1.12%
QC value within limits for Ba 233.527 Recovery = 95.82%								
Be 313.107†	355191.9	231.77	µg/L	0.640	231.77	ppb	0.640	0.28%
QC value within limits for Be 313.107 Recovery = 92.71%								
Ca 317.933Radial†	496363.2	467360	µg/L	1416.6	467360	ppb	1416.6	0.30%
QC value within limits for Ca 317.933Radial Recovery = 93.47%								
Cd 226.502†	16555.7	436.70	µg/L	6.077	436.70	ppb	6.077	1.39%
QC value within limits for Cd 226.502 Recovery = 87.34%								
Co 228.616†	8476.9	416.56	µg/L	1.225	416.56	ppb	1.225	0.29%

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   QC value within limits for Co 228.616  Recovery = 83.31%
Cr 267.716†          21197.4      466.55 µg/L        6.392      466.55 ppb        6.392   1.37%
   QC value within limits for Cr 267.716  Recovery = 93.31%
Cu 324.752†          70196.0      515.50 µg/L        6.202      515.50 ppb        6.202   1.20%
   QC value within limits for Cu 324.752  Recovery = 103.10%
Fe 238.204 Radial†   21359.6      181050 µg/L       1382.0      181050 ppb       1382.0   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.52%
K 766.490 Radial†     6851.3      4869.9 µg/L        38.72      4869.9 ppb        38.72   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 97.40%
Mg 279.077 IEC†      50694.8      471600 µg/L       2021.9      471600 ppb       2021.9   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.32%
Mn 257.610†         131617.4      460.98 µg/L        5.261      460.98 ppb        5.261   1.14%
   QC value within limits for Mn 257.610  Recovery = 92.20%
Mo 202.031†           4466.8      483.58 µg/L        0.671      483.58 ppb        0.671   0.14%
   QC value within limits for Mo 202.031  Recovery = 96.72%
Na 589.592 Radial†   14891.8      4902.4 µg/L        18.32      4902.4 ppb        18.32   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.05%
Ni 231.604†           7505.2      412.20 µg/L        1.552      412.20 ppb        1.552   0.38%
   QC value within limits for Ni 231.604  Recovery = 82.44%
P 214.914†            1232.7      2596.7 µg/L        47.05      2596.7 ppb        47.05   1.81%
   QC value within limits for P 214.914  Recovery = 103.87%
Pb 220.353†           1671.1      466.15 µg/L        1.785      466.15 ppb        1.785   0.38%
   QC value within limits for Pb 220.353  Recovery = 93.23%
S 181.975 Axial†       598.4      2621.9 µg/L        33.79      2621.9 ppb        33.79   1.29%
   QC value within limits for S 181.975 Axial  Recovery = 104.87%
Sb 206.836†            541.6      494.95 µg/L        3.768      494.95 ppb        3.768   0.76%
   QC value within limits for Sb 206.836  Recovery = 98.99%
Se 196.026†           1504.0      2237.7 µg/L        10.19      2237.7 ppb        10.19   0.46%
   QC value within limits for Se 196.026  Recovery = 89.51%
SiO2†                48376.2       10418 µg/L        128.9       10418 ppb        128.9   1.24%
   QC value within limits for SiO2  Recovery = 97.41%
Si 251.611†          59667.4      4905.0 µg/L        59.86      4905.0 ppb        59.86   1.22%
   QC value within limits for Si 251.611  Recovery = 98.10%
Sn 189.927†           1004.7      496.10 µg/L        3.686      496.10 ppb        3.686   0.74%
   QC value within limits for Sn 189.927  Recovery = 99.22%
Sr 421.552†          46744.2      484.56 µg/L        2.020      484.56 ppb        2.020   0.42%
   QC value within limits for Sr 421.552  Recovery = 96.91%
Ti 334.940†         208377.1      471.44 µg/L        6.410      471.44 ppb        6.410   1.36%
   QC value within limits for Ti 334.940  Recovery = 94.29%
Tl 190.801†            307.0      453.45 µg/L       15.538      453.45 ppb       15.538   3.43%
   QC value within limits for Tl 190.801  Recovery = 90.69%
U 409.014†            5311.8      427.24 µg/L        9.525      427.24 ppb        9.525   2.23%
   QC value within limits for U 409.014  Recovery = 85.45%
V 292.402†           44012.4      495.61 µg/L        5.099      495.61 ppb        5.099   1.03%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†          19220.1      441.99 µg/L        6.349      441.99 ppb        6.349   1.44%
   QC value within limits for Zn 213.857  Recovery = 88.40%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/11/2010 14:43:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54698.7	54698.7	100	%			14:43:59
1	Al 396.153Radial†	649050.7	647585.6	482670	µg/L	482670	ppb	14:43:54
1	Ca 317.933Radial†	489494.3	488202.6	459670	µg/L	459670	ppb	14:43:54
1	Fe 238.204 Radial†	51606.4	51474.6	436280	µg/L	436280	ppb	14:43:59
1	K 766.490 Radial†	59.9	-68.6	-48.776	µg/L	-48.776	ppb	14:43:59
1	Mg 279.077 IEC†	49787.3	49662.9	461710	µg/L	461710	ppb	14:43:59
1	Na 589.592 Radial†	1412387.5	1408635.5	463730	µg/L	463730	ppb	14:43:54
1	Sr 421.552†	535.1	494.4	5.1247	µg/L	5.1247	ppb	14:43:59
1	Sc 361.383	1832827.1	1832827.1	95.968	%			14:44:34
1	Y 371.029	1243371.2	1243371.2	94.920	%			14:44:34
1	Ag 328.068†	-5331.8	-4991.3	-12.516	µg/L	-12.516	ppb	14:44:40
1	As 188.979†	-25.3	-27.5	-52.401	µg/L	-52.401	ppb	14:45:01
1	B 249.677†	1493.7	1225.0	-174.11	µg/L	-174.11	ppb	14:44:40
1	Ba 233.527†	574.9	625.1	16.169	µg/L	16.169	ppb	14:45:01
1	Be 313.107†	-11067.4	-8092.0	-5.2972	µg/L	-5.2972	ppb	14:44:40
1	Cd 226.502†	1038.3	1224.0	-15.542	µg/L	-15.542	ppb	14:44:40
1	Co 228.616†	189.5	206.3	10.066	µg/L	10.066	ppb	14:45:01
1	Cr 267.716†	137.7	195.9	4.2704	µg/L	4.2704	ppb	14:45:01
1	Cu 324.752†	-8795.2	-11650.9	-20.741	µg/L	-20.741	ppb	14:44:40
1	Mn 257.610†	-7006.5	-7056.8	15.101	µg/L	15.101	ppb	14:44:34
1	Mo 202.031†	-203.3	-204.2	-5.2185	µg/L	-5.2185	ppb	14:45:01
1	Ni 231.604†	92.3	-206.0	-5.6060	µg/L	-5.6060	ppb	14:45:01
1	P 214.914†	278.7	262.7	357.28	µg/L	357.28	ppb	14:45:01
1	Pb 220.353†	191.0	101.8	23.594	µg/L	23.594	ppb	14:45:01
1	S 181.975 Axial†	34.6	21.2	93.001	µg/L	93.001	ppb	14:45:01
1	Sb 206.836†	60.3	35.8	-5.1147	µg/L	-5.1147	ppb	14:45:01
1	Se 196.026†	-124.6	-145.7	431.09	µg/L	431.09	ppb	14:45:01
1	SiO2†	971.9	-237.3	-51.105	µg/L	-51.105	ppb	14:45:01
1	Si 251.611†	-251.2	-574.6	-47.235	µg/L	-47.235	ppb	14:45:01
1	Sn 189.927†	-32.5	-33.0	-9.5042	µg/L	-9.5042	ppb	14:45:01
1	Ti 334.940†	13370.7	13816.4	4.0770	µg/L	4.0770	ppb	14:44:40
1	Tl 190.801†	-49.5	-27.3	33.449	µg/L	33.449	ppb	14:45:01
1	U 409.014†	138681.8	144562.6	13000	µg/L	13000	ppb	14:44:40
1	V 292.402†	-5434.6	-5618.7	4.9101	µg/L	4.9101	ppb	14:44:40
1	Zn 213.857†	2732.6	2371.8	12.479	µg/L	12.479	ppb	14:45:01
2	Sc RADIAL	54113.0	54113.0	99.2	%			14:44:11
2	Al 396.153Radial†	645987.5	651505.9	485590	µg/L	485590	ppb	14:44:06
2	Ca 317.933Radial†	485663.6	489625.6	461010	µg/L	461010	ppb	14:44:06
2	Fe 238.204 Radial†	51235.5	51657.9	437830	µg/L	437830	ppb	14:44:11
2	K 766.490 Radial†	83.9	-43.8	-31.167	µg/L	-31.167	ppb	14:44:11
2	Mg 279.077 IEC†	49624.6	50036.5	465180	µg/L	465180	ppb	14:44:11
2	Na 589.592 Radial†	1405673.5	1417117.7	466520	µg/L	466520	ppb	14:44:06
2	Sr 421.552†	505.9	470.7	4.8794	µg/L	4.8794	ppb	14:44:11
2	Sc 361.383	1837825.9	1837825.9	96.229	%			14:45:07
2	Y 371.029	1247268.6	1247268.6	95.217	%			14:45:07
2	Ag 328.068†	-5248.4	-4889.5	-11.624	µg/L	-11.624	ppb	14:45:13
2	As 188.979†	-21.7	-23.6	-44.761	µg/L	-44.761	ppb	14:45:33
2	B 249.677†	1467.3	1193.4	-176.30	µg/L	-176.30	ppb	14:45:13
2	Ba 233.527†	558.0	605.8	15.663	µg/L	15.663	ppb	14:45:33
2	Be 313.107†	-10966.6	-7955.9	-5.2083	µg/L	-5.2083	ppb	14:45:13
2	Cd 226.502†	1019.9	1202.0	-16.327	µg/L	-16.327	ppb	14:45:13
2	Co 228.616†	178.5	194.3	9.4767	µg/L	9.4767	ppb	14:45:33
2	Cr 267.716†	83.6	139.3	3.0246	µg/L	3.0246	ppb	14:45:33
2	Cu 324.752†	-8717.3	-11545.0	-19.786	µg/L	-19.786	ppb	14:45:13
2	Mn 257.610†	-6988.4	-7018.1	15.303	µg/L	15.303	ppb	14:45:07
2	Mo 202.031†	-191.4	-191.4	-3.7840	µg/L	-3.7840	ppb	14:45:33
2	Ni 231.604†	81.9	-217.1	-6.1913	µg/L	-6.1913	ppb	14:45:33
2	P 214.914†	298.0	282.1	398.14	µg/L	398.14	ppb	14:45:33
2	Pb 220.353†	188.3	98.5	22.919	µg/L	22.919	ppb	14:45:33

2	S 181.975 Axial†	34.5	21.1	92.318 µg/L	92.318 ppb	14:45:33
2	Sb 206.836†	49.5	24.4	-16.430 µg/L	-16.430 ppb	14:45:33
2	Se 196.026†	-135.7	-156.8	414.89 µg/L	414.89 ppb	14:45:33
2	SiO2†	995.7	-215.3	-46.357 µg/L	-46.357 ppb	14:45:33
2	Si 251.611†	-242.1	-564.4	-46.400 µg/L	-46.400 ppb	14:45:33
2	Sn 189.927†	-48.8	-49.9	-17.017 µg/L	-17.017 ppb	14:45:33
2	Ti 334.940†	13350.9	13757.9	3.6830 µg/L	3.6830 ppb	14:45:13
2	Tl 190.801†	-50.6	-28.2	32.395 µg/L	32.395 ppb	14:45:33
2	U 409.014†	138028.8	143491.0	12902 µg/L	12902 ppb	14:45:13
2	V 292.402†	-5635.2	-5811.8	2.9425 µg/L	2.9425 ppb	14:45:13
2	Zn 213.857†	2709.5	2340.1	11.417 µg/L	11.417 ppb	14:45:33
3	Sc RADIAL	54398.5	54398.5	99.7 %		14:44:23
3	Al 396.153Radial†	647423.4	649527.5	484110 µg/L	484110 ppb	14:44:18
3	Ca 317.933Radial†	488211.3	489611.2	461000 µg/L	461000 ppb	14:44:18
3	Fe 238.204 Radial†	51015.9	51166.4	433670 µg/L	433670 ppb	14:44:23
3	K 766.490 Radial†	138.6	10.6	7.5591 µg/L	7.5591 ppb	14:44:23
3	Mg 279.077 IEC†	49363.7	49512.1	460310 µg/L	460310 ppb	14:44:23
3	Na 589.592 Radial†	1412371.3	1416397.4	466280 µg/L	466280 ppb	14:44:18
3	Sr 421.552†	507.2	469.3	4.8646 µg/L	4.8646 ppb	14:44:23
3	Sc 361.383	1837461.1	1837461.1	96.210 %		14:45:40
3	Y 371.029	1245635.1	1245635.1	95.093 %		14:45:40
3	Ag 328.068†	-5107.3	-4744.0	-10.729 µg/L	-10.729 ppb	14:45:45
3	As 188.979†	-16.7	-18.5	-34.960 µg/L	-34.960 ppb	14:46:06
3	B 249.677†	1484.3	1211.3	-173.35 µg/L	-173.35 ppb	14:45:45
3	Ba 233.527†	553.8	601.6	15.554 µg/L	15.554 ppb	14:46:06
3	Be 313.107†	-10842.7	-7829.4	-5.1258 µg/L	-5.1258 ppb	14:45:45
3	Cd 226.502†	1000.6	1182.1	-16.404 µg/L	-16.404 ppb	14:45:45
3	Co 228.616†	166.8	182.2	8.8812 µg/L	8.8812 ppb	14:46:06
3	Cr 267.716†	114.6	171.5	3.7340 µg/L	3.7340 ppb	14:46:06
3	Cu 324.752†	-8778.8	-11610.6	-20.823 µg/L	-20.823 ppb	14:45:45
3	Mn 257.610†	-6849.7	-6875.4	15.438 µg/L	15.438 ppb	14:45:40
3	Mo 202.031†	-180.2	-179.7	-2.7014 µg/L	-2.7014 ppb	14:46:06
3	Ni 231.604†	78.6	-220.5	-6.4261 µg/L	-6.4261 ppb	14:46:06
3	P 214.914†	292.5	276.4	389.07 µg/L	389.07 ppb	14:46:06
3	Pb 220.353†	166.9	76.3	17.067 µg/L	17.067 ppb	14:46:06
3	S 181.975 Axial†	27.8	14.1	61.607 µg/L	61.607 ppb	14:46:06
3	Sb 206.836†	44.0	18.8	-21.940 µg/L	-21.940 ppb	14:46:06
3	Se 196.026†	-130.2	-151.2	416.38 µg/L	416.38 ppb	14:46:06
3	SiO2†	1012.2	-197.9	-42.626 µg/L	-42.626 ppb	14:46:06
3	Si 251.611†	-265.6	-588.9	-48.410 µg/L	-48.410 ppb	14:46:06
3	Sn 189.927†	-42.0	-42.7	-13.864 µg/L	-13.864 ppb	14:46:06
3	Ti 334.940†	13514.7	13930.9	4.4846 µg/L	4.4846 ppb	14:45:45
3	Tl 190.801†	-39.7	-17.0	47.407 µg/L	47.407 ppb	14:46:06
3	U 409.014†	138148.6	143644.0	12917 µg/L	12917 ppb	14:45:45
3	V 292.402†	-5603.1	-5779.6	2.8210 µg/L	2.8210 ppb	14:45:45
3	Zn 213.857†	2726.7	2358.5	12.353 µg/L	12.353 ppb	14:46:06

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1836038.0	96.136	%	0.1459				0.15%
Sc RADIAL	54403.4	99.7	%	0.54				0.54%
Y 371.029	1245425.0	95.077	%	0.1494				0.16%
Ag 328.068†	-4875.0	-11.623	µg/L	0.8935	-11.623	ppb	0.8935	7.69%
Al 396.153Radial†	649539.7	484120	µg/L	1461.0	484120	ppb	1461.0	0.30%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	-23.2	-44.041	µg/L	8.7426	-44.041	ppb	8.7426	19.85%
B 249.677†	1209.9	-174.59	µg/L	1.536	-174.59	ppb	1.536	0.88%
Ba 233.527†	610.9	15.795	µg/L	0.3282	15.795	ppb	0.3282	2.08%
Be 313.107†	-7959.1	-5.2104	µg/L	0.08573	-5.2104	ppb	0.08573	1.65%
Ca 317.933Radial†	489146.5	460560	µg/L	769.6	460560	ppb	769.6	0.17%
QC value within limits for Ca 317.933Radial Recovery = 92.11%								
Cd 226.502†	1202.7	-16.091	µg/L	0.4769	-16.091	ppb	0.4769	2.96%
Co 228.616†	194.3	9.4746	µg/L	0.59237	9.4746	ppb	0.59237	6.25%
Cr 267.716†	168.9	3.6764	µg/L	0.62486	3.6764	ppb	0.62486	17.00%
Cu 324.752†	-11602.2	-20.450	µg/L	0.5769	-20.450	ppb	0.5769	2.82%
Fe 238.204 Radial†	51433.0	435930	µg/L	2105.0	435930	ppb	2105.0	0.48%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.19%								
K 766.490 Radial†	-33.9	-24.128	µg/L	28.8197	-24.128	ppb	28.8197	119.44%
Mg 279.077 IEC†	49737.1	462400	µg/L	2510.3	462400	ppb	2510.3	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 92.48%

Mn 257.610†	-6983.5	15.281 µg/L	0.1695	15.281 ppb	0.1695	1.11%
Mo 202.031†	-191.8	-3.9013 µg/L	1.26264	-3.9013 ppb	1.26264	32.36%
Na 589.592 Radial†	1414050.2	465510 µg/L	1548.3	465510 ppb	1548.3	0.33%

QC value within limits for Na 589.592 Radial Recovery = 93.10%

Ni 231.604†	-214.5	-6.0745 µg/L	0.42234	-6.0745 ppb	0.42234	6.95%
P 214.914†	273.7	381.50 µg/L	21.461	381.50 ppb	21.461	5.63%
Pb 220.353†	92.2	21.194 µg/L	3.5893	21.194 ppb	3.5893	16.94%
S 181.975 Axial†	18.8	82.309 µg/L	17.9317	82.309 ppb	17.9317	21.79%
Sb 206.836†	26.4	-14.495 µg/L	8.5779	-14.495 ppb	8.5779	59.18%
Se 196.026†	-151.2	420.79 µg/L	8.956	420.79 ppb	8.956	2.13%
SiO2†	-216.8	-46.696 µg/L	4.2500	-46.696 ppb	4.2500	9.10%
Si 251.611†	-576.0	-47.348 µg/L	1.0098	-47.348 ppb	1.0098	2.13%
Sn 189.927†	-41.9	-13.462 µg/L	3.7726	-13.462 ppb	3.7726	28.02%
Sr 421.552†	478.1	4.9562 µg/L	0.14608	4.9562 ppb	0.14608	2.95%
Ti 334.940†	13835.1	4.0815 µg/L	0.40078	4.0815 ppb	0.40078	9.82%
Tl 190.801†	-24.2	37.750 µg/L	8.3798	37.750 ppb	8.3798	22.20%
U 409.014†	143899.2	12939 µg/L	52.5	12939 ppb	52.5	0.41%

QC value less than the lower limit for U 409.014 Recovery = 86.26%

V 292.402†	-5736.7	3.5579 µg/L	1.17264	3.5579 ppb	1.17264	32.96%
Zn 213.857†	2356.8	12.083 µg/L	0.5800	12.083 ppb	0.5800	4.80%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/11/2010 14:46:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55399.0	55399.0	102	%			14:46:58
1	Al 396.153Radial†	399.7	403.8	92.521	µg/L	92.521	ppb	14:46:58
1	Ca 317.933Radial†	334.1	149.9	141.18	µg/L	141.18	ppb	14:47:18
1	Fe 238.204 Radial†	7.1	-7.5	138.28	µg/L	138.28	ppb	14:47:18
1	K 766.490 Radial†	420398.0	414012.0	294280	µg/L	294280	ppb	14:46:52
1	Mg 279.077 IEC†	6.8	-4.5	128.44	µg/L	128.44	ppb	14:47:18
1	Na 589.592 Radial†	1342.1	780.2	256.86	µg/L	256.86	ppb	14:46:58
1	Sr 421.552†	951196.0	936997.9	9713.1	µg/L	9713.1	ppb	14:46:52
1	Sc 361.383	1973675.2	1973675.2	103.34	%			14:48:49
1	Y 371.029	1341693.6	1341693.6	102.43	%			14:48:49
1	Ag 328.068†	-7295.5	-6495.0	14.834	µg/L	14.834	ppb	14:48:55
1	As 188.979†	5210.7	5041.0	9833.2	µg/L	9833.2	ppb	14:48:55
1	B 249.677†	116645.4	112541.3	4957.2	µg/L	4957.2	ppb	14:48:49
1	Ba 233.527†	564583.2	546348.7	14244	µg/L	14244	ppb	14:48:49
1	Be 313.107†	4590165.2	4445144.6	2899.1	µg/L	2899.1	ppb	14:48:39
1	Cd 226.502†	360765.0	349238.8	9644.6	µg/L	9644.6	ppb	14:48:49
1	Co 228.616†	199452.7	193010.6	9487.0	µg/L	9487.0	ppb	14:48:49
1	Cr 267.716†	1141741.3	1104866.0	24309	µg/L	24309	ppb	14:48:49
1	Cu 324.752†	2993464.1	2894159.5	20216	µg/L	20216	ppb	14:48:49
1	Mn 257.610†	2858381.7	2766176.3	9578.9	µg/L	9578.9	ppb	14:48:49
1	Mo 202.031†	98264.3	95093.6	10148	µg/L	10148	ppb	14:48:49
1	Ni 231.604†	183070.7	176847.4	9657.8	µg/L	9657.8	ppb	14:48:49
1	P 214.914†	7469.6	7200.4	13482	µg/L	13482	ppb	14:48:55
1	Pb 220.353†	97644.4	94389.0	25180	µg/L	25180	ppb	14:48:49
1	S 181.975 Axial†	12516.5	12096.9	53001	µg/L	53001	ppb	14:48:55
1	Sb 206.836†	11239.2	10848.7	10569	µg/L	10569	ppb	14:48:55
1	Se 196.026†	6584.9	6356.1	9690.0	µg/L	9690.0	ppb	14:48:55
1	SiO2†	476520.0	459857.7	99033	µg/L	99033	ppb	14:48:49
1	Si 251.611†	580361.7	561278.0	46140	µg/L	46140	ppb	14:48:49
1	Sn 189.927†	23760.5	22992.8	10575	µg/L	10575	ppb	14:48:55
1	Ti 334.940†	4290484.1	4151599.7	9986.4	µg/L	9986.4	ppb	14:48:39
1	Tl 190.801†	7036.0	6832.7	9632.0	µg/L	9632.0	ppb	14:48:55
1	U 409.014†	835.4	862.0	78.046	µg/L	78.046	ppb	14:48:49
1	V 292.402†	975452.7	943947.6	10194	µg/L	10194	ppb	14:48:49
1	Zn 213.857†	598917.9	579071.4	14385	µg/L	14385	ppb	14:48:49
2	Sc RADIAL	55030.3	55030.3	101	%			14:47:30
2	Al 396.153Radial†	384.6	391.5	90.444	µg/L	90.444	ppb	14:47:30
2	Ca 317.933Radial†	398.0	215.6	202.97	µg/L	202.97	ppb	14:47:50
2	Fe 238.204 Radial†	10.5	-4.0	160.36	µg/L	160.36	ppb	14:47:50
2	K 766.490 Radial†	423060.2	419427.1	298130	µg/L	298130	ppb	14:47:24
2	Mg 279.077 IEC†	11.3	-0.0	164.54	µg/L	164.54	ppb	14:47:50
2	Na 589.592 Radial†	1212.5	660.6	217.48	µg/L	217.48	ppb	14:47:30
2	Sr 421.552†	957912.4	949937.4	9847.2	µg/L	9847.2	ppb	14:47:24
2	Sc 361.383	1973904.3	1973904.3	103.35	%			14:49:14
2	Y 371.029	1342735.7	1342735.7	102.51	%			14:49:14
2	Ag 328.068†	-6836.3	-6049.9	16.075	µg/L	16.075	ppb	14:49:19
2	As 188.979†	5005.3	4841.7	9444.3	µg/L	9444.3	ppb	14:49:19
2	B 249.677†	114403.0	110358.5	4860.1	µg/L	4860.1	ppb	14:49:14
2	Ba 233.527†	548071.4	530309.5	13826	µg/L	13826	ppb	14:49:14
2	Be 313.107†	4469193.3	4327583.5	2822.5	µg/L	2822.5	ppb	14:49:04
2	Cd 226.502†	349367.5	338170.7	9338.9	µg/L	9338.9	ppb	14:49:14
2	Co 228.616†	192536.9	186296.8	9156.8	µg/L	9156.8	ppb	14:49:14
2	Cr 267.716†	1093055.4	1057632.1	23270	µg/L	23270	ppb	14:49:14
2	Cu 324.752†	2898656.7	2802093.0	19573	µg/L	19573	ppb	14:49:14
2	Mn 257.610†	2761508.2	2672125.9	9253.2	µg/L	9253.2	ppb	14:49:14
2	Mo 202.031†	94921.3	91848.1	9802.1	µg/L	9802.1	ppb	14:49:14
2	Ni 231.604†	176871.2	170828.6	9329.1	µg/L	9329.1	ppb	14:49:14
2	P 214.914†	7023.8	6768.2	12612	µg/L	12612	ppb	14:49:19
2	Pb 220.353†	95131.3	91946.6	24529	µg/L	24529	ppb	14:49:14

2	S 181.975 Axial†	12036.4	11630.9	50959 µg/L	50959 ppb	14:49:19
2	Sb 206.836†	10693.6	10319.6	10054 µg/L	10054 ppb	14:49:19
2	Se 196.026†	6359.9	6137.7	9357.1 µg/L	9357.1 ppb	14:49:19
2	SiO2†	465181.8	448834.1	96659 µg/L	96659 ppb	14:49:14
2	Si 251.611†	566752.0	548044.9	45052 µg/L	45052 ppb	14:49:14
2	Sn 189.927†	22166.4	21447.8	9864.4 µg/L	9864.4 ppb	14:49:19
2	Ti 334.940†	4180020.8	4044239.7	9728.1 µg/L	9728.1 ppb	14:49:04
2	Tl 190.801†	6890.0	6690.7	9431.4 µg/L	9431.4 ppb	14:49:19
2	U 409.014†	947.2	970.1	87.818 µg/L	87.818 ppb	14:49:14
2	V 292.402†	941864.4	911339.9	9841.7 µg/L	9841.7 ppb	14:49:14
2	Zn 213.857†	579745.6	560454.1	13922 µg/L	13922 ppb	14:49:14
3	Sc RADIAL	56038.9	56038.9	103 %		14:48:02
3	Al 396.153Radial†	479.5	477.1	179.56 µg/L	179.56 ppb	14:48:02
3	Ca 317.933Radial†	383.6	194.4	183.07 µg/L	183.07 ppb	14:48:22
3	Fe 238.204 Radial†	9.4	-5.4	124.22 µg/L	124.22 ppb	14:48:22
3	K 766.490 Radial†	428756.3	417423.2	296700 µg/L	296700 ppb	14:47:56
3	Mg 279.077 IEC†	6.3	-5.2	95.926 µg/L	95.926 ppb	14:48:22
3	Na 589.592 Radial†	1260.6	685.8	225.77 µg/L	225.77 ppb	14:48:02
3	Sr 421.552†	974533.2	949026.3	9837.8 µg/L	9837.8 ppb	14:47:56
3	Sc 361.383	1967182.2	1967182.2	103.00 %		14:49:39
3	Y 371.029	1337106.2	1337106.2	102.08 %		14:49:39
3	Ag 328.068†	-5873.5	-5137.8	14.957 µg/L	14.957 ppb	14:49:44
3	As 188.979†	4335.2	4207.7	8207.5 µg/L	8207.5 ppb	14:49:44
3	B 249.677†	103256.6	99915.3	4398.2 µg/L	4398.2 ppb	14:49:39
3	Ba 233.527†	483121.0	469064.3	12229 µg/L	12229 ppb	14:49:39
3	Be 313.107†	4064814.3	3949767.9	2576.0 µg/L	2576.0 ppb	14:49:28
3	Cd 226.502†	306350.7	297562.9	8217.4 µg/L	8217.4 ppb	14:49:39
3	Co 228.616†	167417.3	162546.1	7988.6 µg/L	7988.6 ppb	14:49:39
3	Cr 267.716†	928569.1	901554.3	19836 µg/L	19836 ppb	14:49:39
3	Cu 324.752†	2527919.1	2451745.7	17126 µg/L	17126 ppb	14:49:39
3	Mn 257.610†	2402081.4	2332306.4	8076.5 µg/L	8076.5 ppb	14:49:39
3	Mo 202.031†	82713.5	80310.0	8570.8 µg/L	8570.8 ppb	14:49:39
3	Ni 231.604†	153785.8	149000.9	8137.1 µg/L	8137.1 ppb	14:49:39
3	P 214.914†	6020.9	5817.7	10807 µg/L	10807 ppb	14:49:44
3	Pb 220.353†	84806.2	82236.9	21938 µg/L	21938 ppb	14:49:39
3	S 181.975 Axial†	10412.0	10093.6	44224 µg/L	44224 ppb	14:49:44
3	Sb 206.836†	9221.8	8926.1	8701.4 µg/L	8701.4 ppb	14:49:44
3	Se 196.026†	5513.0	5336.4	8135.5 µg/L	8135.5 ppb	14:49:44
3	SiO2†	415353.7	401996.4	86572 µg/L	86572 ppb	14:49:39
3	Si 251.611†	505959.6	490898.3	40354 µg/L	40354 ppb	14:49:39
3	Sn 189.927†	18682.4	18138.7	8342.5 µg/L	8342.5 ppb	14:49:44
3	Ti 334.940†	3801346.2	3690423.2	8877.0 µg/L	8877.0 ppb	14:49:28
3	Tl 190.801†	6155.2	6000.1	8459.0 µg/L	8459.0 ppb	14:49:44
3	U 409.014†	834.8	864.1	78.225 µg/L	78.225 ppb	14:49:39
3	V 292.402†	816284.9	792534.9	8558.2 µg/L	8558.2 ppb	14:49:39
3	Zn 213.857†	507712.5	492437.5	12233 µg/L	12233 ppb	14:49:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1971587.2	103.23	%	0.200				0.19%
Sc RADIAL	55489.4	102	%	0.9				0.92%
Y 371.029	1340511.8	102.34	%	0.229				0.22%
Ag 328.068†	-5894.2	15.288	µg/L	0.6836	15.288	ppb	0.6836	4.47%
Al 396.153Radial†	424.2	120.84	µg/L	50.861	120.84	ppb	50.861	42.09%
As 188.979†	4696.8	9161.7	µg/L	848.90	9161.7	ppb	848.90	9.27%
QC value within limits for As 188.979 Recovery = 91.62%								
B 249.677†	107605.0	4738.5	µg/L	298.66	4738.5	ppb	298.66	6.30%
QC value within limits for B 249.677 Recovery = 94.77%								
Ba 233.527†	515240.8	13433	µg/L	1063.5	13433	ppb	1063.5	7.92%
QC value less than the lower limit for Ba 233.527 Recovery = 89.55%								
Be 313.107†	4240832.0	2765.9	µg/L	168.81	2765.9	ppb	168.81	6.10%
QC value within limits for Be 313.107 Recovery = 92.20%								
Ca 317.933Radial†	186.6	175.74	µg/L	31.540	175.74	ppb	31.540	17.95%
Cd 226.502†	328324.1	9067.0	µg/L	751.45	9067.0	ppb	751.45	8.29%
QC value within limits for Cd 226.502 Recovery = 90.67%								
Co 228.616†	180617.8	8877.5	µg/L	787.27	8877.5	ppb	787.27	8.87%
QC value less than the lower limit for Co 228.616 Recovery = 88.77%								
Cr 267.716†	1021350.8	22472	µg/L	2340.9	22472	ppb	2340.9	10.42%
QC value less than the lower limit for Cr 267.716 Recovery = 89.89%								

Cu 324.752†	2715999.4	18972 µg/L	1630.6	18972 ppb	1630.6	8.59%
QC value within limits for Cu 324.752 Recovery = 94.86%						
Fe 238.204 Radial†	-5.6	140.95 µg/L	18.221	140.95 ppb	18.221	12.93%
K 766.490 Radial†	416954.1	296370 µg/L	1946.1	296370 ppb	1946.1	0.66%
QC value within limits for K 766.490 Radial Recovery = 98.79%						
Mg 279.077 IEC†	-3.2	129.64 µg/L	34.323	129.64 ppb	34.323	26.48%
Mn 257.610†	2590202.9	8969.5 µg/L	790.37	8969.5 ppb	790.37	8.81%
QC value less than the lower limit for Mn 257.610 Recovery = 89.70%						
Mo 202.031†	89083.9	9507.1 µg/L	829.20	9507.1 ppb	829.20	8.72%
QC value within limits for Mo 202.031 Recovery = 95.07%						
Na 589.592 Radial†	708.9	233.37 µg/L	20.762	233.37 ppb	20.762	8.90%
Ni 231.604†	165559.0	9041.3 µg/L	800.17	9041.3 ppb	800.17	8.85%
QC value within limits for Ni 231.604 Recovery = 90.41%						
P 214.914†	6595.5	12300 µg/L	1364.7	12300 ppb	1364.7	11.09%
QC value less than the lower limit for P 214.914 Recovery = 82.00%						
Pb 220.353†	89524.2	23882 µg/L	1714.8	23882 ppb	1714.8	7.18%
QC value within limits for Pb 220.353 Recovery = 95.53%						
S 181.975 Axial†	11273.8	49394 µg/L	4592.8	49394 ppb	4592.8	9.30%
QC value within limits for S 181.975 Axial Recovery = 98.79%						
Sb 206.836†	10031.5	9774.9 µg/L	964.64	9774.9 ppb	964.64	9.87%
QC value within limits for Sb 206.836 Recovery = 97.75%						
Se 196.026†	5943.4	9060.9 µg/L	818.48	9060.9 ppb	818.48	9.03%
QC value within limits for Se 196.026 Recovery = 90.61%						
SiO2†	436896.1	94088 µg/L	6616.3	94088 ppb	6616.3	7.03%
QC value less than the lower limit for SiO2 Recovery = 87.93%						
Si 251.611†	533407.1	43849 µg/L	3074.8	43849 ppb	3074.8	7.01%
QC value less than the lower limit for Si 251.611 Recovery = 87.70%						
Sn 189.927†	20859.8	9594.0 µg/L	1140.59	9594.0 ppb	1140.59	11.89%
QC value within limits for Sn 189.927 Recovery = 95.94%						
Sr 421.552†	945320.6	9799.4 µg/L	74.86	9799.4 ppb	74.86	0.76%
QC value within limits for Sr 421.552 Recovery = 97.99%						
Ti 334.940†	3962087.5	9530.5 µg/L	580.46	9530.5 ppb	580.46	6.09%
QC value within limits for Ti 334.940 Recovery = 95.30%						
Tl 190.801†	6507.8	9174.1 µg/L	627.37	9174.1 ppb	627.37	6.84%
QC value within limits for Tl 190.801 Recovery = 91.74%						
U 409.014†	898.7	81.363 µg/L	5.5909	81.363 ppb	5.5909	6.87%
V 292.402†	882607.5	9531.4 µg/L	861.08	9531.4 ppb	861.08	9.03%
QC value within limits for V 292.402 Recovery = 95.31%						
Zn 213.857†	543987.7	13513 µg/L	1132.6	13513 ppb	1132.6	8.38%
QC value within limits for Zn 213.857 Recovery = 90.09%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 14:49:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56804.1	56804.1	104	%			14:50:31
1	Al 396.153Radial†	6842.1	6583.7	4896.3	µg/L	4896.3	ppb	14:50:31
1	Ca 317.933Radial†	5575.3	5177.3	4874.7	µg/L	4874.7	ppb	14:50:52
1	Fe 238.204 Radial†	620.0	581.2	4936.5	µg/L	4936.5	ppb	14:50:52
1	K 766.490 Radial†	7520.1	7096.5	5044.1	µg/L	5044.1	ppb	14:50:31
1	Mg 279.077 IEC†	574.4	540.6	5034.2	µg/L	5034.2	ppb	14:50:52
1	Na 589.592 Radial†	31573.0	29791.8	9807.5	µg/L	9807.5	ppb	14:50:31
1	Sr 421.552†	48614.5	46666.6	483.75	µg/L	483.75	ppb	14:50:31
1	Sc 361.383	1985086.2	1985086.2	103.94	%			14:51:55
1	Y 371.029	1355705.3	1355705.3	103.50	%			14:51:55
1	Ag 328.068†	63419.1	61579.6	492.20	µg/L	492.20	ppb	14:52:00
1	As 188.979†	283.1	271.2	529.04	µg/L	529.04	ppb	14:52:21
1	B 249.677†	12082.8	11293.3	491.77	µg/L	491.77	ppb	14:52:00
1	Ba 233.527†	19621.7	18904.0	493.12	µg/L	493.12	ppb	14:52:00
1	Be 313.107†	773609.6	747725.8	488.12	µg/L	488.12	ppb	14:51:55
1	Cd 226.502†	18494.8	17935.8	494.76	µg/L	494.76	ppb	14:52:00
1	Co 228.616†	10503.4	10114.1	497.19	µg/L	497.19	ppb	14:52:00
1	Cr 267.716†	23548.0	22707.7	499.79	µg/L	499.79	ppb	14:52:00
1	Cu 324.752†	76174.0	70800.5	495.24	µg/L	495.24	ppb	14:52:00
1	Mn 257.610†	149145.1	143735.7	498.19	µg/L	498.19	ppb	14:51:55
1	Mo 202.031†	5080.3	4895.3	522.62	µg/L	522.62	ppb	14:52:21
1	Ni 231.604†	9759.2	9087.1	496.31	µg/L	496.31	ppb	14:52:00
1	P 214.914†	1255.3	1180.1	2486.8	µg/L	2486.8	ppb	14:52:21
1	Pb 220.353†	2124.3	1946.6	519.63	µg/L	519.63	ppb	14:52:21
1	S 181.975 Axial†	258.7	234.1	1025.7	µg/L	1025.7	ppb	14:52:21
1	Sb 206.836†	589.1	539.9	533.84	µg/L	533.84	ppb	14:52:21
1	Se 196.026†	360.1	330.7	511.73	µg/L	511.73	ppb	14:52:21
1	SiO2†	26768.3	24503.7	5277.0	µg/L	5277.0	ppb	14:52:00
1	Si 251.611†	31600.0	30089.3	2473.5	µg/L	2473.5	ppb	14:52:00
1	Sn 189.927†	1182.0	1138.1	523.47	µg/L	523.47	ppb	14:52:21
1	Ti 334.940†	213092.8	204899.2	492.55	µg/L	492.55	ppb	14:51:55
1	Tl 190.801†	347.4	358.5	506.37	µg/L	506.37	ppb	14:52:21
1	U 409.014†	5696.3	5534.0	500.04	µg/L	500.04	ppb	14:52:00
1	V 292.402†	48064.4	46286.7	499.57	µg/L	499.57	ppb	14:52:00
1	Zn 213.857†	21219.3	19939.4	494.39	µg/L	494.39	ppb	14:52:00
2	Sc RADIAL	56818.7	56818.7	104	%			14:50:57
2	Al 396.153Radial†	6864.1	6603.1	4910.8	µg/L	4910.8	ppb	14:50:57
2	Ca 317.933Radial†	5535.1	5137.3	4837.1	µg/L	4837.1	ppb	14:51:17
2	Fe 238.204 Radial†	615.6	576.8	4899.1	µg/L	4899.1	ppb	14:51:17
2	K 766.490 Radial†	7426.8	7005.0	4979.1	µg/L	4979.1	ppb	14:50:57
2	Mg 279.077 IEC†	575.7	541.7	5044.4	µg/L	5044.4	ppb	14:51:17
2	Na 589.592 Radial†	31604.5	29814.2	9814.9	µg/L	9814.9	ppb	14:50:57
2	Sr 421.552†	48545.6	46588.5	482.94	µg/L	482.94	ppb	14:50:57
2	Sc 361.383	1982851.3	1982851.3	103.82	%			14:52:28
2	Y 371.029	1354649.3	1354649.3	103.41	%			14:52:28
2	Ag 328.068†	64081.0	62286.0	497.83	µg/L	497.83	ppb	14:52:34
2	As 188.979†	276.6	265.3	517.47	µg/L	517.47	ppb	14:52:54
2	B 249.677†	12111.5	11334.1	493.59	µg/L	493.59	ppb	14:52:34
2	Ba 233.527†	19855.9	19150.8	499.56	µg/L	499.56	ppb	14:52:34
2	Be 313.107†	767601.6	742777.9	484.89	µg/L	484.89	ppb	14:52:28
2	Cd 226.502†	18724.1	18176.8	501.42	µg/L	501.42	ppb	14:52:34
2	Co 228.616†	10623.9	10241.5	503.47	µg/L	503.47	ppb	14:52:34
2	Cr 267.716†	23965.4	23135.3	509.20	µg/L	509.20	ppb	14:52:34
2	Cu 324.752†	76944.2	71624.9	501.00	µg/L	501.00	ppb	14:52:34
2	Mn 257.610†	147951.6	142747.9	494.77	µg/L	494.77	ppb	14:52:28
2	Mo 202.031†	5059.8	4881.0	521.09	µg/L	521.09	ppb	14:52:54
2	Ni 231.604†	9897.9	9231.3	504.18	µg/L	504.18	ppb	14:52:34
2	P 214.914†	1254.5	1180.6	2487.4	µg/L	2487.4	ppb	14:52:54
2	Pb 220.353†	2113.7	1938.7	517.51	µg/L	517.51	ppb	14:52:54

2	S 181.975 Axial†	253.9	229.7	1006.6 µg/L	1006.6 ppb	14:52:54
2	Sb 206.836†	570.0	522.0	516.18 µg/L	516.18 ppb	14:52:54
2	Se 196.026†	357.5	328.5	508.28 µg/L	508.28 ppb	14:52:54
2	SiO2†	27016.3	24771.5	5334.7 µg/L	5334.7 ppb	14:52:34
2	Si 251.611†	31927.7	30439.2	2502.3 µg/L	2502.3 ppb	14:52:34
2	Sn 189.927†	1183.2	1140.5	524.61 µg/L	524.61 ppb	14:52:54
2	Ti 334.940†	211586.4	203679.4	489.61 µg/L	489.61 ppb	14:52:28
2	Tl 190.801†	345.3	356.8	503.93 µg/L	503.93 ppb	14:52:54
2	U 409.014†	5694.5	5538.4	500.46 µg/L	500.46 ppb	14:52:34
2	V 292.402†	48494.6	46753.2	504.55 µg/L	504.55 ppb	14:52:34
2	Zn 213.857†	21488.9	20222.1	501.41 µg/L	501.41 ppb	14:52:34
3	Sc RADIAL	57349.9	57349.9	105 %		14:51:23
3	Al 396.153Radial†	6954.4	6628.0	4931.1 µg/L	4931.1 ppb	14:51:23
3	Ca 317.933Radial†	5532.3	5085.5	4788.3 µg/L	4788.3 ppb	14:51:43
3	Fe 238.204 Radial†	617.1	572.8	4864.4 µg/L	4864.4 ppb	14:51:43
3	K 766.490 Radial†	7512.2	7020.2	4989.9 µg/L	4989.9 ppb	14:51:23
3	Mg 279.077 IEC†	569.2	530.4	4937.8 µg/L	4937.8 ppb	14:51:43
3	Na 589.592 Radial†	31885.8	29800.8	9810.5 µg/L	9810.5 ppb	14:51:23
3	Sr 421.552†	49101.8	46686.0	483.95 µg/L	483.95 ppb	14:51:23
3	Sc 361.383	1990626.4	1990626.4	104.23 %		14:53:01
3	Y 371.029	1359542.7	1359542.7	103.79 %		14:53:01
3	Ag 328.068†	60113.1	58238.1	465.39 µg/L	465.39 ppb	14:53:07
3	As 188.979†	235.3	224.6	438.16 µg/L	438.16 ppb	14:53:28
3	B 249.677†	11347.7	10555.7	459.50 µg/L	459.50 ppb	14:53:07
3	Ba 233.527†	18299.9	17583.2	458.65 µg/L	458.65 ppb	14:53:07
3	Be 313.107†	726470.7	700428.5	457.24 µg/L	457.24 ppb	14:53:01
3	Cd 226.502†	17137.6	16584.2	457.44 µg/L	457.44 ppb	14:53:07
3	Co 228.616†	9675.2	9291.3	456.68 µg/L	456.68 ppb	14:53:07
3	Cr 267.716†	21632.8	20807.2	457.96 µg/L	457.96 ppb	14:53:07
3	Cu 324.752†	71181.3	65806.4	460.35 µg/L	460.35 ppb	14:53:07
3	Mn 257.610†	140886.2	135412.6	469.36 µg/L	469.36 ppb	14:53:01
3	Mo 202.031†	4241.7	4077.1	435.30 µg/L	435.30 ppb	14:53:28
3	Ni 231.604†	9011.2	8343.3	455.69 µg/L	455.69 ppb	14:53:07
3	P 214.914†	1075.3	1004.1	2111.2 µg/L	2111.2 ppb	14:53:28
3	Pb 220.353†	1866.0	1693.1	451.84 µg/L	451.84 ppb	14:53:28
3	S 181.975 Axial†	232.5	208.2	912.40 µg/L	912.40 ppb	14:53:28
3	Sb 206.836†	504.7	457.3	451.62 µg/L	451.62 ppb	14:53:28
3	Se 196.026†	310.0	281.6	436.86 µg/L	436.86 ppb	14:53:28
3	SiO2†	25184.9	22912.8	4934.4 µg/L	4934.4 ppb	14:53:07
3	Si 251.611†	29623.3	28108.2	2310.6 µg/L	2310.6 ppb	14:53:07
3	Sn 189.927†	974.4	935.7	430.40 µg/L	430.40 ppb	14:53:28
3	Ti 334.940†	200395.3	192146.5	461.88 µg/L	461.88 ppb	14:53:01
3	Tl 190.801†	314.8	326.3	461.00 µg/L	461.00 ppb	14:53:28
3	U 409.014†	5084.0	4931.3	445.50 µg/L	445.50 ppb	14:53:07
3	V 292.402†	43900.0	42162.6	454.79 µg/L	454.79 ppb	14:53:07
3	Zn 213.857†	19753.8	18476.6	458.11 µg/L	458.11 ppb	14:53:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1986188.0	104.00	%	0.210				0.20%
Sc RADIAL	56990.9	104	%	0.6				0.55%
Y 371.029	1356632.4	103.57	%	0.197				0.19%
Ag 328.068†	60701.2	485.14	µg/L	17.336	485.14	ppb	17.336	3.57%
QC value within limits for Ag 328.068 Recovery = 97.03%								
Al 396.153Radial†	6604.9	4912.7	µg/L	17.49	4912.7	ppb	17.49	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.25%								
As 188.979†	253.7	494.89	µg/L	49.467	494.89	ppb	49.467	10.00%
QC value within limits for As 188.979 Recovery = 98.98%								
B 249.677†	11061.0	481.62	µg/L	19.175	481.62	ppb	19.175	3.98%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	18546.0	483.78	µg/L	21.996	483.78	ppb	21.996	4.55%
QC value within limits for Ba 233.527 Recovery = 96.76%								
Be 313.107†	730310.7	476.75	µg/L	16.971	476.75	ppb	16.971	3.56%
QC value within limits for Be 313.107 Recovery = 95.35%								
Ca 317.933Radial†	5133.4	4833.4	µg/L	43.35	4833.4	ppb	43.35	0.90%
QC value within limits for Ca 317.933Radial Recovery = 96.67%								
Cd 226.502†	17565.6	484.54	µg/L	23.706	484.54	ppb	23.706	4.89%
QC value within limits for Cd 226.502 Recovery = 96.91%								
Co 228.616†	9882.3	485.78	µg/L	25.392	485.78	ppb	25.392	5.23%

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   QC value within limits for Co 228.616  Recovery = 97.16%
Cr 267.716†            22216.8      488.98 µg/L        27.276      488.98 ppb         27.276   5.58%
   QC value within limits for Cr 267.716  Recovery = 97.80%
Cu 324.752†            69410.6      485.53 µg/L        21.996      485.53 ppb         21.996   4.53%
   QC value within limits for Cu 324.752  Recovery = 97.11%
Fe 238.204 Radial†       576.9      4900.0 µg/L         36.10      4900.0 ppb          36.10   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.00%
K 766.490 Radial†       7040.6      5004.4 µg/L         34.84      5004.4 ppb          34.84   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 100.09%
Mg 279.077 IEC†          537.5      5005.5 µg/L         58.81      5005.5 ppb          58.81   1.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.11%
Mn 257.610†           140632.1      487.44 µg/L        15.748      487.44 ppb         15.748   3.23%
   QC value within limits for Mn 257.610  Recovery = 97.49%
Mo 202.031†            4617.8      493.00 µg/L        49.981      493.00 ppb         49.981  10.14%
   QC value within limits for Mo 202.031  Recovery = 98.60%
Na 589.592 Radial†     29802.3      9811.0 µg/L          3.72      9811.0 ppb           3.72   0.04%
   QC value within limits for Na 589.592 Radial  Recovery = 98.11%
Ni 231.604†            8887.2      485.39 µg/L        26.026      485.39 ppb         26.026   5.36%
   QC value within limits for Ni 231.604  Recovery = 97.08%
P 214.914†             1121.6      2361.8 µg/L        217.03      2361.8 ppb         217.03   9.19%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†            1859.5      496.33 µg/L        38.539      496.33 ppb         38.539   7.76%
   QC value within limits for Pb 220.353  Recovery = 99.27%
S 181.975 Axial†         224.0      981.57 µg/L        60.664      981.57 ppb         60.664   6.18%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†              506.4      500.55 µg/L        43.281      500.55 ppb         43.281   8.65%
   QC value within limits for Sb 206.836  Recovery = 100.11%
Se 196.026†              313.6      485.62 µg/L        42.263      485.62 ppb         42.263   8.70%
   QC value within limits for Se 196.026  Recovery = 97.12%
SiO2†                  24062.6      5182.0 µg/L        216.38      5182.0 ppb         216.38   4.18%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†            29545.6      2428.8 µg/L        103.33      2428.8 ppb         103.33   4.25%
   QC value within limits for Si 251.611  Recovery = 97.15%
Sn 189.927†            1071.4      492.83 µg/L        54.065      492.83 ppb         54.065  10.97%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†            46647.0      483.55 µg/L         0.535      483.55 ppb          0.535   0.11%
   QC value within limits for Sr 421.552  Recovery = 96.71%
Ti 334.940†           200241.7      481.35 µg/L        16.923      481.35 ppb         16.923   3.52%
   QC value within limits for Ti 334.940  Recovery = 96.27%
Tl 190.801†              347.2      490.43 µg/L        25.519      490.43 ppb         25.519   5.20%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†             5334.6      482.00 µg/L        31.611      482.00 ppb         31.611   6.56%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             45067.5      486.30 µg/L        27.408      486.30 ppb         27.408   5.64%
   QC value within limits for V 292.402  Recovery = 97.26%
Zn 213.857†            19546.0      484.64 µg/L        23.239      484.64 ppb         23.239   4.80%
   QC value within limits for Zn 213.857  Recovery = 96.93%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 14:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56199.9	56199.9	103	%			14:54:10
1	Al 396.153Radial†	38.0	47.1	35.072	µg/L	35.072	ppb	14:54:10
1	Ca 317.933Radial†	231.4	45.6	42.930	µg/L	42.930	ppb	14:54:31
1	Fe 238.204 Radial†	23.4	8.2	69.822	µg/L	69.822	ppb	14:54:31
1	K 766.490 Radial†	243.5	108.1	76.828	µg/L	76.828	ppb	14:54:10
1	Mg 279.077 IEC†	18.5	6.7	62.643	µg/L	62.643	ppb	14:54:31
1	Na 589.592 Radial†	743.1	179.7	59.159	µg/L	59.159	ppb	14:54:10
1	Sr 421.552†	105.8	63.2	0.6552	µg/L	0.6552	ppb	14:54:10
1	Sc 361.383	1982476.6	1982476.6	103.80	%			14:55:33
1	Y 371.029	1357413.1	1357413.1	103.63	%			14:55:33
1	Ag 328.068†	-522.2	61.5	0.4946	µg/L	0.4946	ppb	14:55:38
1	As 188.979†	1.8	0.6	1.0901	µg/L	1.0901	ppb	14:55:59
1	B 249.677†	408.1	61.7	2.6625	µg/L	2.6625	ppb	14:55:59
1	Ba 233.527†	2.5	28.5	0.7415	µg/L	0.7415	ppb	14:55:59
1	Be 313.107†	-3213.4	344.8	0.2250	µg/L	0.2250	ppb	14:55:38
1	Cd 226.502†	-134.6	12.5	0.3368	µg/L	0.3368	ppb	14:55:59
1	Co 228.616†	-7.7	1.4	0.0712	µg/L	0.0712	ppb	14:55:59
1	Cr 267.716†	4.1	56.4	1.2401	µg/L	1.2401	ppb	14:55:59
1	Cu 324.752†	2752.9	165.9	1.1688	µg/L	1.1688	ppb	14:55:38
1	Mn 257.610†	-137.5	111.6	0.3934	µg/L	0.3934	ppb	14:55:59
1	Mo 202.031†	2.7	10.2	1.0859	µg/L	1.0859	ppb	14:55:59
1	Ni 231.604†	309.2	-4.3	-0.2339	µg/L	-0.2339	ppb	14:55:59
1	P 214.914†	25.1	-3.5	-7.5860	µg/L	-7.5860	ppb	14:55:59
1	Pb 220.353†	124.3	22.6	6.0147	µg/L	6.0147	ppb	14:55:59
1	S 181.975 Axial†	16.6	1.2	5.2644	µg/L	5.2644	ppb	14:55:59
1	Sb 206.836†	32.4	4.3	4.2069	µg/L	4.2069	ppb	14:55:59
1	Se 196.026†	17.5	1.0	1.6734	µg/L	1.6734	ppb	14:55:59
1	SiO2†	1299.2	1.6	0.3503	µg/L	0.3503	ppb	14:55:38
1	Si 251.611†	379.1	52.3	4.3027	µg/L	4.3027	ppb	14:55:59
1	Sn 189.927†	7.8	8.4	3.8780	µg/L	3.8780	ppb	14:55:59
1	Ti 334.940†	271.8	145.7	0.3462	µg/L	0.3462	ppb	14:55:38
1	Tl 190.801†	-19.8	5.2	7.2432	µg/L	7.2432	ppb	14:55:59
1	U 409.014†	-9.7	44.3	3.9980	µg/L	3.9980	ppb	14:55:38
1	V 292.402†	-10.8	33.8	0.3839	µg/L	0.3839	ppb	14:55:38
1	Zn 213.857†	539.3	44.0	1.0899	µg/L	1.0899	ppb	14:55:59
2	Sc RADIAL	56663.5	56663.5	104	%			14:54:36
2	Al 396.153Radial†	53.4	61.6	45.892	µg/L	45.892	ppb	14:54:36
2	Ca 317.933Radial†	224.0	36.6	34.458	µg/L	34.458	ppb	14:54:57
2	Fe 238.204 Radial†	18.3	3.1	26.399	µg/L	26.399	ppb	14:54:57
2	K 766.490 Radial†	257.1	119.2	84.727	µg/L	84.727	ppb	14:54:36
2	Mg 279.077 IEC†	17.6	5.7	53.162	µg/L	53.162	ppb	14:54:57
2	Na 589.592 Radial†	788.5	217.6	71.620	µg/L	71.620	ppb	14:54:36
2	Sr 421.552†	88.8	46.0	0.4764	µg/L	0.4764	ppb	14:54:36
2	Sc 361.383	1976808.7	1976808.7	103.51	%			14:56:05
2	Y 371.029	1355511.3	1355511.3	103.48	%			14:56:05
2	Ag 328.068†	-510.0	71.8	0.5752	µg/L	0.5752	ppb	14:56:10
2	As 188.979†	1.2	0.0	0.0279	µg/L	0.0279	ppb	14:56:31
2	B 249.677†	396.3	51.4	2.2364	µg/L	2.2364	ppb	14:56:31
2	Ba 233.527†	2.6	28.5	0.7438	µg/L	0.7438	ppb	14:56:31
2	Be 313.107†	-3268.6	282.6	0.1844	µg/L	0.1844	ppb	14:56:10
2	Cd 226.502†	-122.2	24.1	0.6618	µg/L	0.6618	ppb	14:56:31
2	Co 228.616†	-10.0	-0.8	-0.0395	µg/L	-0.0395	ppb	14:56:31
2	Cr 267.716†	5.1	57.3	1.2611	µg/L	1.2611	ppb	14:56:31
2	Cu 324.752†	2702.2	124.6	0.8738	µg/L	0.8738	ppb	14:56:10
2	Mn 257.610†	-107.9	139.8	0.4856	µg/L	0.4856	ppb	14:56:31
2	Mo 202.031†	-1.1	6.4	0.6888	µg/L	0.6888	ppb	14:56:31
2	Ni 231.604†	302.7	-9.7	-0.5298	µg/L	-0.5298	ppb	14:56:31
2	P 214.914†	20.2	-8.1	-17.441	µg/L	-17.441	ppb	14:56:31
2	Pb 220.353†	118.9	17.7	4.7183	µg/L	4.7183	ppb	14:56:31

2	S 181.975 Axial†	14.4	-0.9	-4.1582 µg/L	-4.1582 ppb	14:56:31
2	Sb 206.836†	28.3	0.4	0.3915 µg/L	0.3915 ppb	14:56:31
2	Se 196.026†	9.3	-6.9	-10.429 µg/L	-10.429 ppb	14:56:31
2	SiO2†	1222.9	-68.6	-14.765 µg/L	-14.765 ppb	14:56:10
2	Si 251.611†	359.0	34.0	2.7936 µg/L	2.7936 ppb	14:56:31
2	Sn 189.927†	7.1	7.7	3.5568 µg/L	3.5568 ppb	14:56:31
2	Ti 334.940†	232.6	108.6	0.2576 µg/L	0.2576 ppb	14:56:10
2	Tl 190.801†	-24.5	0.6	0.8244 µg/L	0.8244 ppb	14:56:31
2	U 409.014†	-107.5	-50.2	-4.5523 µg/L	-4.5523 ppb	14:56:10
2	V 292.402†	15.1	58.8	0.6333 µg/L	0.6333 ppb	14:56:10
2	Zn 213.857†	534.3	40.7	1.0126 µg/L	1.0126 ppb	14:56:31
3	Sc RADIAL	56320.6	56320.6	103 %		14:55:02
3	Al 396.153Radial†	8.5	18.4	13.663 µg/L	13.663 ppb	14:55:02
3	Ca 317.933Radial†	216.9	31.1	29.241 µg/L	29.241 ppb	14:55:23
3	Fe 238.204 Radial†	17.6	2.6	21.668 µg/L	21.668 ppb	14:55:23
3	K 766.490 Radial†	236.5	100.7	71.584 µg/L	71.584 ppb	14:55:02
3	Mg 279.077 IEC†	12.2	0.5	5.0859 µg/L	5.0859 ppb	14:55:23
3	Na 589.592 Radial†	760.7	195.3	64.287 µg/L	64.287 ppb	14:55:02
3	Sr 421.552†	71.7	29.9	0.3097 µg/L	0.3097 ppb	14:55:02
3	Sc 361.383	1993913.4	1993913.4	104.40 %		14:56:37
3	Y 371.029	1367504.2	1367504.2	104.40 %		14:56:37
3	Ag 328.068†	-498.3	87.2	0.6944 µg/L	0.6944 ppb	14:56:43
3	As 188.979†	0.4	-0.8	-1.5138 µg/L	-1.5138 ppb	14:57:03
3	B 249.677†	385.9	38.1	1.6564 µg/L	1.6564 ppb	14:57:03
3	Ba 233.527†	1.2	27.2	0.7082 µg/L	0.7082 ppb	14:57:03
3	Be 313.107†	-3126.9	445.4	0.2907 µg/L	0.2907 ppb	14:56:43
3	Cd 226.502†	-117.4	29.7	0.8162 µg/L	0.8162 ppb	14:57:03
3	Co 228.616†	-8.6	0.6	0.0304 µg/L	0.0304 ppb	14:57:03
3	Cr 267.716†	2.0	54.3	1.1938 µg/L	1.1938 ppb	14:57:03
3	Cu 324.752†	2701.6	101.6	0.7126 µg/L	0.7126 ppb	14:56:43
3	Mn 257.610†	-86.5	161.3	0.5611 µg/L	0.5611 ppb	14:57:03
3	Mo 202.031†	5.2	12.5	1.3355 µg/L	1.3355 ppb	14:57:03
3	Ni 231.604†	315.6	0.1	0.0043 µg/L	0.0043 ppb	14:57:03
3	P 214.914†	33.2	4.1	8.8077 µg/L	8.8077 ppb	14:57:03
3	Pb 220.353†	109.3	7.5	2.0114 µg/L	2.0114 ppb	14:57:03
3	S 181.975 Axial†	10.6	-4.7	-20.521 µg/L	-20.521 ppb	14:57:03
3	Sb 206.836†	25.8	-2.2	-2.1813 µg/L	-2.1813 ppb	14:57:03
3	Se 196.026†	17.8	1.2	1.8776 µg/L	1.8776 ppb	14:57:03
3	SiO2†	1292.2	-12.3	-2.6550 µg/L	-2.6550 ppb	14:56:43
3	Si 251.611†	371.3	42.8	3.5163 µg/L	3.5163 ppb	14:57:03
3	Sn 189.927†	-2.0	-1.0	-0.4777 µg/L	-0.4777 ppb	14:57:03
3	Ti 334.940†	313.8	184.5	0.4438 µg/L	0.4438 ppb	14:56:43
3	Tl 190.801†	-24.1	1.2	1.6892 µg/L	1.6892 ppb	14:57:03
3	U 409.014†	-22.6	31.9	2.8863 µg/L	2.8863 ppb	14:56:43
3	V 292.402†	-34.6	11.0	0.1363 µg/L	0.1363 ppb	14:56:43
3	Zn 213.857†	532.5	34.5	0.8590 µg/L	0.8590 ppb	14:57:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984399.6	103.90	%	0.456				0.44%
Sc RADIAL	56394.7	103	%	0.4				0.43%
Y 371.029	1360142.9	103.83	%	0.492				0.47%
Ag 328.068†	73.5	0.5881	µg/L	0.10050	0.5881	ppb	0.10050	17.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.3	31.542	µg/L	16.4016	31.542	ppb	16.4016	52.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1319	µg/L	1.30928	-0.1319	ppb	1.30928	992.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.4	2.1851	µg/L	0.50501	2.1851	ppb	0.50501	23.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	28.1	0.7312	µg/L	0.01993	0.7312	ppb	0.01993	2.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	357.6	0.2334	µg/L	0.05362	0.2334	ppb	0.05362	22.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.7	35.543	µg/L	6.9088	35.543	ppb	6.9088	19.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.1	0.6049	µg/L	0.24471	0.6049	ppb	0.24471	40.45%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0207	µg/L	0.05597	0.0207	ppb	0.05597	270.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 56.0      1.2317 µg/L       0.03444      1.2317 ppb        0.03444   2.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                130.7      0.9184 µg/L       0.23134      0.9184 ppb        0.23134  25.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.6      39.296 µg/L       26.5417      39.296 ppb        26.5417  67.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         109.3      77.713 µg/L        6.6157      77.713 ppb         6.6157   8.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.3      40.297 µg/L       30.8602      40.297 ppb        30.8602  76.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                137.6      0.4800 µg/L       0.08402      0.4800 ppb        0.08402  17.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      1.0367 µg/L       0.32615      1.0367 ppb        0.32615  31.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        197.5      65.022 µg/L        6.2628      65.022 ppb         6.2628   9.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.6     -0.2531 µg/L       0.26755     -0.2531 ppb        0.26755 105.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -5.4063 µg/L      13.25932     -5.4063 ppb       13.25932 245.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.9      4.2482 µg/L       2.04263      4.2482 ppb        2.04263  48.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -6.4715 µg/L      13.04721     -6.4715 ppb       13.04721 201.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.8      0.8057 µg/L       3.21418      0.8057 ppb        3.21418 398.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.5     -2.2926 µg/L       7.04698     -2.2926 ppb        7.04698 307.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -26.4     -5.6898 µg/L       8.00142     -5.6898 ppb        8.00142 140.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                43.0      3.5375 µg/L       0.75475      3.5375 ppb        0.75475  21.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.0      2.3190 µg/L       2.42737      2.3190 ppb        2.42737 104.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                46.3      0.4804 µg/L       0.17278      0.4804 ppb        0.17278  35.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               146.3      0.3492 µg/L       0.09310      0.3492 ppb        0.09310  26.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.3      3.2523 µg/L       3.48319      3.2523 ppb        3.48319 107.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  8.7      0.7773 µg/L       4.64898      0.7773 ppb        4.64898 598.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 34.6      0.3845 µg/L       0.24848      0.3845 ppb        0.24848  64.62%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.7      0.9871 µg/L       0.11756      0.9871 ppb        0.11756  11.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/11/2010 15:08:34 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/11/2010 13:51:13**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR1 **Date Collected: 2/11/2010 15:08:34**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55775.1	55775.1	102	%			15:09:19
1	Al 396.153Radial†	-12.5	-2.1	-1.5477	µg/L	-1.5477	ppb	15:09:19
1	Ca 317.933Radial†	109.7	-71.8	-67.596	µg/L	-67.596	ppb	15:09:39
1	Fe 238.204 Radial†	-12.5	-2.2	-18.859	µg/L	-18.859	ppb	15:09:39

1	K 766.490 Radial†	153.1	21.4	15.223	µg/L	15.223 ppb	15:09:19
1	Mg 279.077 IEC†	21.3	9.6	89.132	µg/L	89.132 ppb	15:09:39
1	Na 589.592 Radial†	561.6	7.7	2.5239	µg/L	2.5239 ppb	15:09:19
1	Sr 421.552†	60.6	19.8	0.2050	µg/L	0.2050 ppb	15:09:19
1	Sc 361.383	1979575.8	1979575.8	103.65	%		15:10:41
1	Y 371.029	1359463.7	1359463.7	103.78	%		15:10:41
1	Ag 328.068†	-475.7	105.6	0.7790	µg/L	0.7790 ppb	15:10:47
1	As 188.979†	3.5	2.2	4.2811	µg/L	4.2811 ppb	15:11:08
1	B 249.677†	236.6	-103.2	-4.4890	µg/L	-4.4890 ppb	15:10:47
1	Ba 233.527†	-43.0	-15.5	-0.4185	µg/L	-0.4185 ppb	15:11:08
1	Be 313.107†	-9167.3	-5403.9	-3.5311	µg/L	-3.5311 ppb	15:10:47
1	Cd 226.502†	-304.4	-151.6	-4.1785	µg/L	-4.1785 ppb	15:11:08
1	Co 228.616†	19.8	27.9	1.3617	µg/L	1.3617 ppb	15:11:08
1	Cr 267.716†	233.0	277.1	6.0903	µg/L	6.0903 ppb	15:10:47
1	Cu 324.752†	1310.7	-1221.6	-8.5355	µg/L	-8.5355 ppb	15:10:47
1	Mn 257.610†	14.0	257.6	0.8861	µg/L	0.8861 ppb	15:10:47
1	Mo 202.031†	-13.4	-5.4	-0.5763	µg/L	-0.5763 ppb	15:11:08
1	Ni 231.604†	324.2	10.6	0.5789	µg/L	0.5789 ppb	15:11:08
1	P 214.914†	39.4	10.4	23.307	µg/L	23.307 ppb	15:11:08
1	Pb 220.353†	132.9	31.0	-2.3589	µg/L	-2.3589 ppb	15:11:08
1	S 181.975 Axial†	17.0	1.6	6.9914	µg/L	6.9914 ppb	15:11:08
1	Sb 206.836†	24.0	-3.8	-3.8211	µg/L	-3.8211 ppb	15:11:08
1	Se 196.026†	11.2	-5.0	-7.7508	µg/L	-7.7508 ppb	15:11:08
1	SiO2†	1260.6	-33.8	-7.2860	µg/L	-7.2860 ppb	15:10:47
1	Si 251.611†	175.4	-143.6	-11.809	µg/L	-11.809 ppb	15:11:08
1	Sn 189.927†	6.2	6.9	3.1737	µg/L	3.1737 ppb	15:11:08
1	Ti 334.940†	2413.3	2212.1	5.3130	µg/L	5.3130 ppb	15:10:47
1	Tl 190.801†	-31.2	-5.9	4.3972	µg/L	4.3972 ppb	15:11:08
1	U 409.014†	117155.1	113081.6	10238	µg/L	10238 ppb	15:10:41
1	V 292.402†	-897.2	-821.4	1.8907	µg/L	1.8907 ppb	15:10:47
1	Zn 213.857†	499.8	6.6	0.1728	µg/L	0.1728 ppb	15:11:08
2	Sc RADIAL	55251.0	55251.0	101	%		15:09:44
2	Al 396.153Radial†	-27.7	-17.2	-12.820	µg/L	-12.820 ppb	15:09:44
2	Ca 317.933Radial†	107.7	-72.8	-68.561	µg/L	-68.561 ppb	15:10:05
2	Fe 238.204 Radial†	14.6	-0.1	-0.7560	µg/L	-0.7560 ppb	15:10:05
2	K 766.490 Radial†	163.9	33.5	23.798	µg/L	23.798 ppb	15:09:44
2	Mg 279.077 IEC†	21.5	10.0	92.921	µg/L	92.921 ppb	15:10:05
2	Na 589.592 Radial†	549.7	1.1	0.3683	µg/L	0.3683 ppb	15:09:44
2	Sr 421.552†	65.4	25.1	0.2600	µg/L	0.2600 ppb	15:09:44
2	Sc 361.383	1991488.7	1991488.7	104.28	%		15:11:14
2	Y 371.029	1367480.0	1367480.0	104.39	%		15:11:14
2	Ag 328.068†	-460.8	122.6	0.9153	µg/L	0.9153 ppb	15:11:20
2	As 188.979†	3.4	2.1	4.1976	µg/L	4.1976 ppb	15:11:40
2	B 249.677†	245.3	-96.3	-4.1987	µg/L	-4.1987 ppb	15:11:20
2	Ba 233.527†	-30.4	-3.2	-0.0984	µg/L	-0.0984 ppb	15:11:40
2	Be 313.107†	-9053.1	-5241.5	-3.4251	µg/L	-3.4251 ppb	15:11:20
2	Cd 226.502†	-307.5	-152.7	-4.2119	µg/L	-4.2119 ppb	15:11:40
2	Co 228.616†	2.2	10.9	0.5250	µg/L	0.5250 ppb	15:11:40
2	Cr 267.716†	184.1	229.0	5.0309	µg/L	5.0309 ppb	15:11:20
2	Cu 324.752†	1378.2	-1164.4	-8.1337	µg/L	-8.1337 ppb	15:11:20
2	Mn 257.610†	56.5	298.3	1.0291	µg/L	1.0291 ppb	15:11:20
2	Mo 202.031†	-9.4	-1.5	-0.1584	µg/L	-0.1584 ppb	15:11:40
2	Ni 231.604†	337.2	21.2	1.1562	µg/L	1.1562 ppb	15:11:40
2	P 214.914†	47.1	17.5	38.462	µg/L	38.462 ppb	15:11:40
2	Pb 220.353†	140.3	37.4	-0.6060	µg/L	-0.6060 ppb	15:11:40
2	S 181.975 Axial†	16.6	1.1	4.9128	µg/L	4.9128 ppb	15:11:40
2	Sb 206.836†	18.1	-9.6	-9.5490	µg/L	-9.5490 ppb	15:11:40
2	Se 196.026†	12.7	-3.7	-5.6705	µg/L	-5.6705 ppb	15:11:40
2	SiO2†	1277.1	-25.3	-5.4423	µg/L	-5.4423 ppb	15:11:20
2	Si 251.611†	186.7	-133.8	-10.999	µg/L	-10.999 ppb	15:11:40
2	Sn 189.927†	5.7	6.3	2.9120	µg/L	2.9120 ppb	15:11:40
2	Ti 334.940†	2507.4	2288.5	5.4964	µg/L	5.4964 ppb	15:11:20
2	Tl 190.801†	-28.7	-3.2	8.0207	µg/L	8.0207 ppb	15:11:40
2	U 409.014†	117240.7	112487.6	10184	µg/L	10184 ppb	15:11:14
2	V 292.402†	-895.5	-814.6	1.9102	µg/L	1.9102 ppb	15:11:20
2	Zn 213.857†	510.6	14.1	0.3551	µg/L	0.3551 ppb	15:11:40
3	Sc RADIAL	56112.5	56112.5	103	%		15:10:10
3	Al 396.153Radial†	-19.4	-8.8	-6.5548	µg/L	-6.5548 ppb	15:10:10
3	Ca 317.933Radial†	114.8	-67.5	-63.545	µg/L	-63.545 ppb	15:10:31
3	Fe 238.204 Radial†	16.7	1.7	14.838	µg/L	14.838 ppb	15:10:31
3	K 766.490 Radial†	156.5	23.8	16.907	µg/L	16.907 ppb	15:10:10

3	Mg 279.077 IEC†	18.3	6.5	60.273	µg/L	60.273 ppb	15:10:31
3	Na 589.592 Radial†	544.2	-12.6	-4.1463	µg/L	-4.1463 ppb	15:10:10
3	Sr 421.552†	60.1	18.9	0.1962	µg/L	0.1962 ppb	15:10:10
3	Sc 361.383	1998454.5	1998454.5	104.64	%		15:11:47
3	Y 371.029	1371253.2	1371253.2	104.68	%		15:11:47
3	Ag 328.068†	-504.4	82.5	0.6071	µg/L	0.6071 ppb	15:11:53
3	As 188.979†	2.1	0.9	1.6782	µg/L	1.6782 ppb	15:12:13
3	B 249.677†	284.2	-59.9	-2.6163	µg/L	-2.6163 ppb	15:11:53
3	Ba 233.527†	-15.1	11.6	0.2883	µg/L	0.2883 ppb	15:12:13
3	Be 313.107†	-8272.3	-4465.0	-2.9180	µg/L	-2.9180 ppb	15:11:53
3	Cd 226.502†	-264.9	-111.0	-3.0636	µg/L	-3.0636 ppb	15:12:13
3	Co 228.616†	14.5	22.7	1.1081	µg/L	1.1081 ppb	15:12:13
3	Cr 267.716†	231.8	273.9	6.0206	µg/L	6.0206 ppb	15:11:53
3	Cu 324.752†	1499.3	-1053.3	-7.3552	µg/L	-7.3552 ppb	15:11:53
3	Mn 257.610†	138.5	376.5	1.3032	µg/L	1.3032 ppb	15:11:53
3	Mo 202.031†	-2.6	5.1	0.5398	µg/L	0.5398 ppb	15:12:13
3	Ni 231.604†	337.9	20.7	1.1315	µg/L	1.1315 ppb	15:12:13
3	P 214.914†	49.3	19.5	42.611	µg/L	42.611 ppb	15:12:13
3	Pb 220.353†	138.7	35.4	-0.5823	µg/L	-0.5823 ppb	15:12:13
3	S 181.975 Axial†	15.8	0.3	1.1838	µg/L	1.1838 ppb	15:12:13
3	Sb 206.836†	21.8	-6.1	-6.0924	µg/L	-6.0924 ppb	15:12:13
3	Se 196.026†	12.8	-3.6	-5.5591	µg/L	-5.5591 ppb	15:12:13
3	SiO2†	1308.9	0.8	0.1805	µg/L	0.1805 ppb	15:11:53
3	Si 251.611†	268.0	-56.8	-4.6690	µg/L	-4.6690 ppb	15:12:13
3	Sn 189.927†	4.1	4.8	2.1976	µg/L	2.1976 ppb	15:12:13
3	Ti 334.940†	2521.6	2293.7	5.5115	µg/L	5.5115 ppb	15:11:53
3	Tl 190.801†	-25.5	-0.1	11.785	µg/L	11.785 ppb	15:12:13
3	U 409.014†	111497.5	106607.2	9651.9	µg/L	9651.9 ppb	15:11:47
3	V 292.402†	-762.7	-684.7	2.7514	µg/L	2.7514 ppb	15:11:53
3	Zn 213.857†	523.6	24.8	0.6223	µg/L	0.6223 ppb	15:12:13

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1989839.7	104.19	%	0.500				0.48%
Sc RADIAL	55712.9	102	%	0.8				0.78%
Y 371.029	1366065.6	104.29	%	0.460				0.44%
Ag 328.068†	103.5	0.7671	µg/L	0.15443	0.7671	ppb	0.15443	20.13%
Al 396.153Radial†	-9.4	-6.9743	µg/L	5.64801	-6.9743	ppb	5.64801	80.98%
As 188.979†	1.7	3.3856	µg/L	1.47930	3.3856	ppb	1.47930	43.69%
B 249.677†	-86.4	-3.7680	µg/L	1.00792	-3.7680	ppb	1.00792	26.75%
Ba 233.527†	-2.4	-0.0762	µg/L	0.35392	-0.0762	ppb	0.35392	464.36%
Be 313.107†	-5036.8	-3.2914	µg/L	0.32768	-3.2914	ppb	0.32768	9.96%
Ca 317.933Radial†	-70.7	-66.567	µg/L	2.6618	-66.567	ppb	2.6618	4.00%
Cd 226.502†	-138.4	-3.8180	µg/L	0.65352	-3.8180	ppb	0.65352	17.12%
Co 228.616†	20.5	0.9983	µg/L	0.42901	0.9983	ppb	0.42901	42.97%
Cr 267.716†	260.0	5.7139	µg/L	0.59254	5.7139	ppb	0.59254	10.37%
Cu 324.752†	-1146.4	-8.0081	µg/L	0.60007	-8.0081	ppb	0.60007	7.49%
Fe 238.204 Radial†	-0.2	-1.5922	µg/L	16.86410	-1.5922	ppb	16.86410	>999.9%
K 766.490 Radial†	26.2	18.643	µg/L	4.5435	18.643	ppb	4.5435	24.37%
Mg 279.077 IEC†	8.7	80.775	µg/L	17.8566	80.775	ppb	17.8566	22.11%
Mn 257.610†	310.8	1.0728	µg/L	0.21196	1.0728	ppb	0.21196	19.76%
Mo 202.031†	-0.6	-0.0649	µg/L	0.56388	-0.0649	ppb	0.56388	868.32%
Na 589.592 Radial†	-1.3	-0.4181	µg/L	3.40391	-0.4181	ppb	3.40391	814.20%
Ni 231.604†	17.5	0.9555	µg/L	0.32641	0.9555	ppb	0.32641	34.16%
P 214.914†	15.8	34.793	µg/L	10.1611	34.793	ppb	10.1611	29.20%
Pb 220.353†	34.6	-1.1824	µg/L	1.01895	-1.1824	ppb	1.01895	86.18%
S 181.975 Axial†	1.0	4.3627	µg/L	2.94264	4.3627	ppb	2.94264	67.45%
Sb 206.836†	-6.5	-6.4875	µg/L	2.88435	-6.4875	ppb	2.88435	44.46%
Se 196.026†	-4.1	-6.3268	µg/L	1.23447	-6.3268	ppb	1.23447	19.51%
SiO2†	-19.4	-4.1826	µg/L	3.88938	-4.1826	ppb	3.88938	92.99%
Si 251.611†	-111.4	-9.1588	µg/L	3.90936	-9.1588	ppb	3.90936	42.68%
Sn 189.927†	6.0	2.7611	µg/L	0.50522	2.7611	ppb	0.50522	18.30%
Sr 421.552†	21.3	0.2204	µg/L	0.03458	0.2204	ppb	0.03458	15.69%
Ti 334.940†	2264.8	5.4403	µg/L	0.11049	5.4403	ppb	0.11049	2.03%
Tl 190.801†	-3.0	8.0675	µg/L	3.69388	8.0675	ppb	3.69388	45.79%
U 409.014†	110725.5	10025	µg/L	324.0	10025	ppb	324.0	3.23%
V 292.402†	-773.6	2.1841	µg/L	0.49139	2.1841	ppb	0.49139	22.50%
Zn 213.857†	15.2	0.3834	µg/L	0.22607	0.3834	ppb	0.22607	58.97%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 2/11/2010 15:12:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53713.3	53713.3	98.4	%			15:12:55
1	Al 396.153Radial†	-16.2	-6.3	-4.7161	µg/L	-4.7161	ppb	15:12:55
1	Ca 317.933Radial†	188.0	11.9	11.198	µg/L	11.198	ppb	15:13:15
1	Fe 238.204 Radial†	4.2	-10.3	23.498	µg/L	23.498	ppb	15:13:15
1	K 766.490 Radial†	165.7	39.9	28.393	µg/L	28.393	ppb	15:12:55
1	Mg 279.077 IEC†	10.1	-1.1	-9.7514	µg/L	-9.7514	ppb	15:13:15
1	Na 589.592 Radial†	614.8	82.8	27.252	µg/L	27.252	ppb	15:12:55
1	Sr 421.552†	64.3	25.8	0.2675	µg/L	0.2675	ppb	15:12:55
1	Sc 361.383	1941418.8	1941418.8	101.65	%			15:14:18
1	Y 371.029	1323859.1	1323859.1	101.06	%			15:14:18
1	Ag 328.068†	-525.2	47.9	0.3781	µg/L	0.3781	ppb	15:14:24
1	As 188.979†	-3.1	-4.2	-8.1869	µg/L	-8.1869	ppb	15:14:45
1	B 249.677†	750.9	407.3	17.845	µg/L	17.845	ppb	15:14:24
1	Ba 233.527†	-16.3	10.0	0.2610	µg/L	0.2610	ppb	15:14:45
1	Be 313.107†	-3458.2	38.5	0.0250	µg/L	0.0250	ppb	15:14:24
1	Cd 226.502†	-114.7	29.2	0.8189	µg/L	0.8189	ppb	15:14:45
1	Co 228.616†	107569.3	105828.5	5208.2	µg/L	5208.2	ppb	15:14:24
1	Cr 267.716†	-25.9	26.9	0.5925	µg/L	0.5925	ppb	15:14:45
1	Cu 324.752†	1814.1	-701.5	-4.9124	µg/L	-4.9124	ppb	15:14:24
1	Mn 257.610†	-161.2	85.5	0.2849	µg/L	0.2849	ppb	15:14:45
1	Mo 202.031†	-1.5	6.0	0.6418	µg/L	0.6418	ppb	15:14:45
1	Ni 231.604†	346.8	39.0	-4.0742	µg/L	-4.0742	ppb	15:14:45
1	P 214.914†	5345.7	5231.1	11233	µg/L	11233	ppb	15:14:24
1	Pb 220.353†	111.4	12.4	3.3090	µg/L	3.3090	ppb	15:14:45
1	S 181.975 Axial†	16.5	1.4	5.9830	µg/L	5.9830	ppb	15:14:45
1	Sb 206.836†	21.7	-5.6	-5.5036	µg/L	-5.5036	ppb	15:14:45
1	Se 196.026†	12.6	-3.4	-5.4894	µg/L	-5.4894	ppb	15:14:45
1	SiO2†	400045.4	392288.3	84482	µg/L	84482	ppb	15:14:18
1	Si 251.611†	483396.1	475220.4	39066	µg/L	39066	ppb	15:14:18
1	Sn 189.927†	3.3	4.1	1.8920	µg/L	1.8920	ppb	15:14:45
1	Ti 334.940†	305.9	184.8	0.4456	µg/L	0.4456	ppb	15:14:24
1	Tl 190.801†	-3.7	20.7	11.360	µg/L	11.360	ppb	15:14:45
1	U 409.014†	25.3	78.5	7.1194	µg/L	7.1194	ppb	15:14:24
1	V 292.402†	5.9	50.0	0.5361	µg/L	0.5361	ppb	15:14:24
1	Zn 213.857†	522.6	38.6	0.9665	µg/L	0.9665	ppb	15:14:45
2	Sc RADIAL	54832.8	54832.8	100	%			15:13:21
2	Al 396.153Radial†	1.7	11.8	8.7929	µg/L	8.7929	ppb	15:13:21
2	Ca 317.933Radial†	190.7	10.6	10.005	µg/L	10.005	ppb	15:13:42
2	Fe 238.204 Radial†	3.0	-11.5	14.135	µg/L	14.135	ppb	15:13:42
2	K 766.490 Radial†	204.4	75.0	53.328	µg/L	53.328	ppb	15:13:21
2	Mg 279.077 IEC†	11.2	-0.1	-0.6600	µg/L	-0.6600	ppb	15:13:42
2	Na 589.592 Radial†	630.7	85.9	28.272	µg/L	28.272	ppb	15:13:21
2	Sr 421.552†	34.5	-5.2	-0.0538	µg/L	-0.0538	ppb	15:13:21
2	Sc 361.383	1946646.9	1946646.9	101.93	%			15:14:51
2	Y 371.029	1327034.0	1327034.0	101.31	%			15:14:51
2	Ag 328.068†	-584.6	-9.0	-0.0733	µg/L	-0.0733	ppb	15:14:57
2	As 188.979†	-0.2	-1.3	-2.6409	µg/L	-2.6409	ppb	15:15:17
2	B 249.677†	783.8	437.5	19.174	µg/L	19.174	ppb	15:14:57
2	Ba 233.527†	-20.0	6.4	0.1666	µg/L	0.1666	ppb	15:15:17
2	Be 313.107†	-3481.4	24.9	0.0161	µg/L	0.0161	ppb	15:14:57
2	Cd 226.502†	-101.1	42.9	1.1972	µg/L	1.1972	ppb	15:15:17
2	Co 228.616†	108800.7	106752.3	5253.6	µg/L	5253.6	ppb	15:14:57
2	Cr 267.716†	-17.5	35.2	0.7745	µg/L	0.7745	ppb	15:15:17
2	Cu 324.752†	1718.5	-800.1	-5.6024	µg/L	-5.6024	ppb	15:14:57
2	Mn 257.610†	-163.9	83.3	0.2757	µg/L	0.2757	ppb	15:15:17
2	Mo 202.031†	-3.8	3.8	0.4036	µg/L	0.4036	ppb	15:15:17
2	Ni 231.604†	346.9	38.2	-4.1724	µg/L	-4.1724	ppb	15:15:17
2	P 214.914†	5358.7	5229.8	11230	µg/L	11230	ppb	15:14:57
2	Pb 220.353†	113.9	14.6	3.8918	µg/L	3.8918	ppb	15:15:17

2	S 181.975 Axial†	13.2	-1.8	-7.9889	µg/L	-7.9889 ppb	15:15:17
2	Sb 206.836†	30.6	3.1	3.0533	µg/L	3.0533 ppb	15:15:17
2	Se 196.026†	12.9	-3.2	-5.1244	µg/L	-5.1244 ppb	15:15:17
2	SiO2†	401576.7	392733.7	84577	µg/L	84577 ppb	15:14:51
2	Si 251.611†	485309.6	475820.6	39115	µg/L	39115 ppb	15:14:51
2	Sn 189.927†	3.1	3.9	1.7899	µg/L	1.7899 ppb	15:15:17
2	Ti 334.940†	323.3	201.1	0.4839	µg/L	0.4839 ppb	15:14:57
2	Tl 190.801†	-4.0	20.4	10.781	µg/L	10.781 ppb	15:15:17
2	U 409.014†	85.0	137.0	12.417	µg/L	12.417 ppb	15:14:57
2	V 292.402†	14.9	58.8	0.6334	µg/L	0.6334 ppb	15:14:57
2	Zn 213.857†	510.4	25.2	0.6333	µg/L	0.6333 ppb	15:15:17
3	Sc RADIAL	54620.7	54620.7	100	%		15:13:47
3	Al 396.153Radial†	15.7	25.8	19.227	µg/L	19.227 ppb	15:13:47
3	Ca 317.933Radial†	200.8	21.5	20.218	µg/L	20.218 ppb	15:14:07
3	Fe 238.204 Radial†	4.8	-9.7	21.721	µg/L	21.721 ppb	15:14:07
3	K 766.490 Radial†	161.9	33.3	23.669	µg/L	23.669 ppb	15:13:47
3	Mg 279.077 IEC†	10.5	-0.8	-6.9228	µg/L	-6.9228 ppb	15:14:07
3	Na 589.592 Radial†	616.0	73.6	24.220	µg/L	24.220 ppb	15:13:47
3	Sr 421.552†	73.7	34.1	0.3532	µg/L	0.3532 ppb	15:13:47
3	Sc 361.383	1935972.8	1935972.8	101.37	%		15:15:24
3	Y 371.029	1321116.1	1321116.1	100.85	%		15:15:24
3	Ag 328.068†	-522.4	49.2	0.3871	µg/L	0.3871 ppb	15:15:29
3	As 188.979†	-0.6	-1.7	-3.3886	µg/L	-3.3886 ppb	15:15:50
3	B 249.677†	727.0	385.8	16.903	µg/L	16.903 ppb	15:15:29
3	Ba 233.527†	-11.4	14.8	0.3862	µg/L	0.3862 ppb	15:15:50
3	Be 313.107†	-3553.1	-64.7	-0.0425	µg/L	-0.0425 ppb	15:15:29
3	Cd 226.502†	-114.3	29.4	0.8217	µg/L	0.8217 ppb	15:15:50
3	Co 228.616†	100765.6	99414.3	4892.5	µg/L	4892.5 ppb	15:15:29
3	Cr 267.716†	-15.7	36.9	0.8110	µg/L	0.8110 ppb	15:15:50
3	Cu 324.752†	1744.4	-765.3	-5.3569	µg/L	-5.3569 ppb	15:15:29
3	Mn 257.610†	-168.6	77.8	0.2588	µg/L	0.2588 ppb	15:15:50
3	Mo 202.031†	0.8	8.3	0.8836	µg/L	0.8836 ppb	15:15:50
3	Ni 231.604†	347.2	40.4	-3.6217	µg/L	-3.6217 ppb	15:15:50
3	P 214.914†	4995.9	4900.9	10524	µg/L	10524 ppb	15:15:29
3	Pb 220.353†	111.9	13.2	3.5300	µg/L	3.5300 ppb	15:15:50
3	S 181.975 Axial†	14.6	-0.4	-1.9121	µg/L	-1.9121 ppb	15:15:50
3	Sb 206.836†	26.4	-0.9	-0.9265	µg/L	-0.9265 ppb	15:15:50
3	Se 196.026†	6.2	-9.7	-15.059	µg/L	-15.059 ppb	15:15:50
3	SiO2†	389837.5	383325.3	82551	µg/L	82551 ppb	15:15:24
3	Si 251.611†	470845.5	464176.9	38158	µg/L	38158 ppb	15:15:24
3	Sn 189.927†	2.7	3.6	1.6476	µg/L	1.6476 ppb	15:15:50
3	Ti 334.940†	325.3	204.8	0.4935	µg/L	0.4935 ppb	15:15:29
3	Tl 190.801†	-3.6	20.7	12.467	µg/L	12.467 ppb	15:15:50
3	U 409.014†	27.1	80.3	7.2810	µg/L	7.2810 ppb	15:15:29
3	V 292.402†	-16.9	27.5	0.3000	µg/L	0.3000 ppb	15:15:29
3	Zn 213.857†	508.1	25.7	0.6443	µg/L	0.6443 ppb	15:15:50

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941346.1	101.65	%	0.279				0.27%
Sc RADIAL	54388.9	99.7	%	1.09				1.09%
Y 371.029	1324003.1	101.08	%	0.226				0.22%
Ag 328.068†	29.4	0.2306	µg/L	0.26325	0.2306	ppb	0.26325	114.16%
Al 396.153Radial†	10.4	7.7681	µg/L	12.00458	7.7681	ppb	12.00458	154.54%
As 188.979†	-2.4	-4.7388	µg/L	3.00947	-4.7388	ppb	3.00947	63.51%
B 249.677†	410.2	17.974	µg/L	1.1410	17.974	ppb	1.1410	6.35%
Ba 233.527†	10.4	0.2713	µg/L	0.11018	0.2713	ppb	0.11018	40.61%
Be 313.107†	-0.4	-0.0005	µg/L	0.03663	-0.0005	ppb	0.03663	>999.9%
Ca 317.933Radial†	14.7	13.807	µg/L	5.5841	13.807	ppb	5.5841	40.44%
Cd 226.502†	33.8	0.9459	µg/L	0.21761	0.9459	ppb	0.21761	23.01%
Co 228.616†	103998.4	5118.1	µg/L	196.69	5118.1	ppb	196.69	3.84%
Cr 267.716†	33.0	0.7260	µg/L	0.11700	0.7260	ppb	0.11700	16.12%
Cu 324.752†	-755.6	-5.2906	µg/L	0.34975	-5.2906	ppb	0.34975	6.61%
Fe 238.204 Radial†	-10.5	19.785	µg/L	4.9725	19.785	ppb	4.9725	25.13%
K 766.490 Radial†	49.4	35.130	µg/L	15.9357	35.130	ppb	15.9357	45.36%
Mg 279.077 IEC†	-0.6	-5.7780	µg/L	4.65251	-5.7780	ppb	4.65251	80.52%
Mn 257.610†	82.2	0.2731	µg/L	0.01325	0.2731	ppb	0.01325	4.85%
Mo 202.031†	6.1	0.6430	µg/L	0.24004	0.6430	ppb	0.24004	37.33%
Na 589.592 Radial†	80.7	26.581	µg/L	2.1079	26.581	ppb	2.1079	7.93%

Ni 231.604†	39.2	-3.9561	µg/L	0.29375	-3.9561	ppb	0.29375	7.43%
P 214.914†	5120.6	10995	µg/L	408.6	10995	ppb	408.6	3.72%
Pb 220.353†	13.4	3.5769	µg/L	0.29424	3.5769	ppb	0.29424	8.23%
S 181.975 Axial†	-0.3	-1.3060	µg/L	7.00565	-1.3060	ppb	7.00565	536.41%
Sb 206.836†	-1.1	-1.1256	µg/L	4.28189	-1.1256	ppb	4.28189	380.41%
Se 196.026†	-5.5	-8.5576	µg/L	5.63334	-8.5576	ppb	5.63334	65.83%
SiO2†	389449.1	83870	µg/L	1143.1	83870	ppb	1143.1	1.36%
Si 251.611†	471739.3	38779	µg/L	538.9	38779	ppb	538.9	1.39%
Sn 189.927†	3.8	1.7765	µg/L	0.12277	1.7765	ppb	0.12277	6.91%
Sr 421.552†	18.2	0.1890	µg/L	0.21456	0.1890	ppb	0.21456	113.55%
Ti 334.940†	196.9	0.4743	µg/L	0.02534	0.4743	ppb	0.02534	5.34%
Tl 190.801†	20.6	11.536	µg/L	0.8566	11.536	ppb	0.8566	7.43%
U 409.014†	98.6	8.9390	µg/L	3.01276	8.9390	ppb	3.01276	33.70%
V 292.402†	45.5	0.4899	µg/L	0.17143	0.4899	ppb	0.17143	35.00%
Zn 213.857†	29.8	0.7480	µg/L	0.18929	0.7480	ppb	0.18929	25.31%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54231.5	54231.5	99.4	%			15:16:36
1	Al 396.153Radial†	7106.2	7161.2	5326.1	µg/L	5326.1	ppb	15:16:36
1	Ca 317.933Radial†	5688.9	5545.7	5221.6	µg/L	5221.6	ppb	15:16:56
1	Fe 238.204 Radial†	634.7	624.2	5302.1	µg/L	5302.1	ppb	15:16:56
1	K 766.490 Radial†	7456.0	7374.7	5241.9	µg/L	5241.9	ppb	15:16:36
1	Mg 279.077 IEC†	577.6	570.0	5308.0	µg/L	5308.0	ppb	15:16:56
1	Na 589.592 Radial†	32401.3	32064.3	10556	µg/L	10556	ppb	15:16:36
1	Sr 421.552†	50354.2	50633.0	524.87	µg/L	524.87	ppb	15:16:36
1	Sc 361.383	1899310.9	1899310.9	99.449	%			15:17:59
1	Y 371.029	1297484.4	1297484.4	99.051	%			15:17:59
1	Ag 328.068†	65095.3	66020.7	527.69	µg/L	527.69	ppb	15:18:05
1	As 188.979†	283.8	284.2	554.43	µg/L	554.43	ppb	15:18:26
1	B 249.677†	12153.8	11889.7	517.70	µg/L	517.70	ppb	15:18:05
1	Ba 233.527†	20078.6	20215.9	527.34	µg/L	527.34	ppb	15:18:05
1	Be 313.107†	797857.7	805721.3	525.98	µg/L	525.98	ppb	15:17:59
1	Cd 226.502†	18953.5	19200.7	529.65	µg/L	529.65	ppb	15:18:05
1	Co 228.616†	10779.9	10848.5	533.28	µg/L	533.28	ppb	15:18:05
1	Cr 267.716†	24091.2	24277.1	534.33	µg/L	534.33	ppb	15:18:05
1	Cu 324.752†	77848.6	75794.1	530.18	µg/L	530.18	ppb	15:18:05
1	Mn 257.610†	153606.0	154701.7	536.20	µg/L	536.20	ppb	15:17:59
1	Mo 202.031†	5175.2	5211.4	556.37	µg/L	556.37	ppb	15:18:26
1	Ni 231.604†	10008.1	9761.4	533.14	µg/L	533.14	ppb	15:18:05
1	P 214.914†	1295.2	1274.7	2686.7	µg/L	2686.7	ppb	15:18:26
1	Pb 220.353†	2124.5	2039.1	544.31	µg/L	544.31	ppb	15:18:26
1	S 181.975 Axial†	260.7	247.3	1083.6	µg/L	1083.6	ppb	15:18:26
1	Sb 206.836†	587.4	563.7	557.41	µg/L	557.41	ppb	15:18:26
1	Se 196.026†	370.9	357.1	552.71	µg/L	552.71	ppb	15:18:26
1	SiO2†	27461.3	26363.5	5677.5	µg/L	5677.5	ppb	15:18:05
1	Si 251.611†	32393.9	32260.7	2652.0	µg/L	2652.0	ppb	15:18:05
1	Sn 189.927†	1213.6	1221.2	561.69	µg/L	561.69	ppb	15:18:26
1	Ti 334.940†	219433.8	220534.1	530.14	µg/L	530.14	ppb	15:17:59
1	Tl 190.801†	358.1	384.4	542.92	µg/L	542.92	ppb	15:18:26
1	U 409.014†	5858.6	5944.7	537.16	µg/L	537.16	ppb	15:18:05
1	V 292.402†	49239.4	49556.6	534.84	µg/L	534.84	ppb	15:18:05
1	Zn 213.857†	21646.0	21290.4	527.88	µg/L	527.88	ppb	15:18:05
2	Sc RADIAL	54850.6	54850.6	101	%			15:17:02
2	Al 396.153Radial†	7137.6	7111.8	5289.4	µg/L	5289.4	ppb	15:17:02
2	Ca 317.933Radial†	5661.7	5454.1	5135.3	µg/L	5135.3	ppb	15:17:22
2	Fe 238.204 Radial†	627.5	609.8	5179.7	µg/L	5179.7	ppb	15:17:22
2	K 766.490 Radial†	7509.6	7343.3	5219.6	µg/L	5219.6	ppb	15:17:02
2	Mg 279.077 IEC†	583.7	569.5	5303.7	µg/L	5303.7	ppb	15:17:22
2	Na 589.592 Radial†	32499.9	31794.4	10467	µg/L	10467	ppb	15:17:02
2	Sr 421.552†	50507.4	50213.6	520.52	µg/L	520.52	ppb	15:17:02
2	Sc 361.383	1912998.8	1912998.8	100.17	%			15:18:33
2	Y 371.029	1306161.3	1306161.3	99.713	%			15:18:33
2	Ag 328.068†	65237.5	65694.3	525.07	µg/L	525.07	ppb	15:18:38
2	As 188.979†	280.6	279.0	544.24	µg/L	544.24	ppb	15:18:59
2	B 249.677†	12200.8	11849.2	515.98	µg/L	515.98	ppb	15:18:38
2	Ba 233.527†	20133.5	20126.3	525.01	µg/L	525.01	ppb	15:18:38
2	Be 313.107†	793302.5	795433.1	519.26	µg/L	519.26	ppb	15:18:33
2	Cd 226.502†	18921.4	19032.3	525.02	µg/L	525.02	ppb	15:18:38
2	Co 228.616†	10784.1	10775.1	529.68	µg/L	529.68	ppb	15:18:38
2	Cr 267.716†	24047.5	24060.2	529.56	µg/L	529.56	ppb	15:18:38
2	Cu 324.752†	77783.7	75169.2	525.79	µg/L	525.79	ppb	15:18:38
2	Mn 257.610†	152510.0	152502.3	528.57	µg/L	528.57	ppb	15:18:33
2	Mo 202.031†	5149.2	5148.2	549.62	µg/L	549.62	ppb	15:18:59
2	Ni 231.604†	10009.6	9690.9	529.28	µg/L	529.28	ppb	15:18:38
2	P 214.914†	1298.8	1269.0	2674.9	µg/L	2674.9	ppb	15:18:59
2	Pb 220.353†	2130.1	2029.4	541.73	µg/L	541.73	ppb	15:18:59

2	S 181.975 Axial†	263.5	248.2	1087.5 µg/L	1087.5 ppb	15:18:59
2	Sb 206.836†	579.7	551.8	545.70 µg/L	545.70 ppb	15:18:59
2	Se 196.026†	360.4	343.9	532.32 µg/L	532.32 ppb	15:18:59
2	SiO2†	27531.6	26236.1	5650.1 µg/L	5650.1 ppb	15:18:38
2	Si 251.611†	32505.0	32138.5	2641.9 µg/L	2641.9 ppb	15:18:38
2	Sn 189.927†	1205.3	1204.2	553.89 µg/L	553.89 ppb	15:18:59
2	Ti 334.940†	218053.7	217577.6	523.03 µg/L	523.03 ppb	15:18:33
2	Tl 190.801†	351.0	374.7	529.24 µg/L	529.24 ppb	15:18:59
2	U 409.014†	5767.6	5811.7	525.14 µg/L	525.14 ppb	15:18:38
2	V 292.402†	49305.2	49268.0	531.68 µg/L	531.68 ppb	15:18:38
2	Zn 213.857†	21685.0	21173.7	524.99 µg/L	524.99 ppb	15:18:38
3	Sc RADIAL	55041.7	55041.7	101 %		15:17:27
3	Al 396.153Radial†	7150.5	7100.0	5282.4 µg/L	5282.4 ppb	15:17:27
3	Ca 317.933Radial†	5679.0	5451.7	5133.1 µg/L	5133.1 ppb	15:17:48
3	Fe 238.204 Radial†	630.1	610.3	5182.9 µg/L	5182.9 ppb	15:17:48
3	K 766.490 Radial†	7530.7	7338.3	5216.0 µg/L	5216.0 ppb	15:17:27
3	Mg 279.077 IEC†	585.8	569.6	5302.7 µg/L	5302.7 ppb	15:17:48
3	Na 589.592 Radial†	32646.4	31827.3	10478 µg/L	10478 ppb	15:17:27
3	Sr 421.552†	50673.8	50204.0	520.42 µg/L	520.42 ppb	15:17:27
3	Sc 361.383	1908268.1	1908268.1	99.918 %		15:19:06
3	Y 371.029	1302480.0	1302480.0	99.432 %		15:19:06
3	Ag 328.068†	61722.8	62338.2	498.13 µg/L	498.13 ppb	15:19:11
3	As 188.979†	239.2	238.3	464.88 µg/L	464.88 ppb	15:19:32
3	B 249.677†	11534.0	11212.0	488.05 µg/L	488.05 ppb	15:19:11
3	Ba 233.527†	18616.9	18658.3	486.70 µg/L	486.70 ppb	15:19:11
3	Be 313.107†	758183.0	762248.0	497.60 µg/L	497.60 ppb	15:19:06
3	Cd 226.502†	17482.4	17638.9	486.53 µg/L	486.53 ppb	15:19:11
3	Co 228.616†	9936.5	9953.5	489.22 µg/L	489.22 ppb	15:19:11
3	Cr 267.716†	21502.9	21573.0	474.82 µg/L	474.82 ppb	15:19:11
3	Cu 324.752†	71603.1	69176.0	483.93 µg/L	483.93 ppb	15:19:11
3	Mn 257.610†	146044.9	146409.3	507.47 µg/L	507.47 ppb	15:19:06
3	Mo 202.031†	4268.9	4280.0	456.96 µg/L	456.96 ppb	15:19:32
3	Ni 231.604†	9195.7	8901.1	486.15 µg/L	486.15 ppb	15:19:11
3	P 214.914†	1105.2	1078.5	2268.7 µg/L	2268.7 ppb	15:19:32
3	Pb 220.353†	1828.3	1732.6	462.41 µg/L	462.41 ppb	15:19:32
3	S 181.975 Axial†	232.1	217.5	952.80 µg/L	952.80 ppb	15:19:32
3	Sb 206.836†	493.7	467.1	461.46 µg/L	461.46 ppb	15:19:32
3	Se 196.026†	316.9	301.3	467.33 µg/L	467.33 ppb	15:19:32
3	SiO2†	25842.8	24614.0	5300.8 µg/L	5300.8 ppb	15:19:11
3	Si 251.611†	30435.2	30147.4	2478.3 µg/L	2478.3 ppb	15:19:11
3	Sn 189.927†	977.2	978.9	450.28 µg/L	450.28 ppb	15:19:32
3	Ti 334.940†	207237.8	207292.4	498.29 µg/L	498.29 ppb	15:19:06
3	Tl 190.801†	318.0	342.6	484.22 µg/L	484.22 ppb	15:19:32
3	U 409.014†	5210.6	5268.5	475.96 µg/L	475.96 ppb	15:19:11
3	V 292.402†	44791.7	44872.9	483.94 µg/L	483.94 ppb	15:19:11
3	Zn 213.857†	19890.6	19431.5	481.75 µg/L	481.75 ppb	15:19:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1906859.3	99.844	%	0.3640				0.36%
Sc RADIAL	54707.9	100	%	0.8				0.77%
Y 371.029	1302041.9	99.399	%	0.3325				0.33%
Ag 328.068†	64684.4	516.97	µg/L	16.362	516.97	ppb	16.362	3.16%
QC value within limits for Ag 328.068 Recovery = 103.39%								
Al 396.153Radial†	7124.3	5299.3	µg/L	23.43	5299.3	ppb	23.43	0.44%
QC value within limits for Al 396.153Radial Recovery = 105.99%								
As 188.979†	267.2	521.18	µg/L	49.028	521.18	ppb	49.028	9.41%
QC value within limits for As 188.979 Recovery = 104.24%								
B 249.677†	11650.3	507.24	µg/L	16.645	507.24	ppb	16.645	3.28%
QC value within limits for B 249.677 Recovery = 101.45%								
Ba 233.527†	19666.8	513.02	µg/L	22.823	513.02	ppb	22.823	4.45%
QC value within limits for Ba 233.527 Recovery = 102.60%								
Be 313.107†	787800.8	514.28	µg/L	14.831	514.28	ppb	14.831	2.88%
QC value within limits for Be 313.107 Recovery = 102.86%								
Ca 317.933Radial†	5483.8	5163.4	µg/L	50.50	5163.4	ppb	50.50	0.98%
QC value within limits for Ca 317.933Radial Recovery = 103.27%								
Cd 226.502†	18623.9	513.73	µg/L	23.671	513.73	ppb	23.671	4.61%
QC value within limits for Cd 226.502 Recovery = 102.75%								
Co 228.616†	10525.7	517.39	µg/L	24.470	517.39	ppb	24.470	4.73%

QC value within limits for Co 228.616 Recovery = 103.48%

Cr 267.716†	23303.5	512.91 µg/L	33.067	512.91 ppb	33.067	6.45%

QC value within limits for Cr 267.716 Recovery = 102.58%

Cu 324.752†	73379.7	513.30 µg/L	25.529	513.30 ppb	25.529	4.97%

QC value within limits for Cu 324.752 Recovery = 102.66%

Fe 238.204 Radial†	614.8	5221.6 µg/L	69.73	5221.6 ppb	69.73	1.34%

QC value within limits for Fe 238.204 Radial Recovery = 104.43%

K 766.490 Radial†	7352.1	5225.8 µg/L	14.03	5225.8 ppb	14.03	0.27%

QC value within limits for K 766.490 Radial Recovery = 104.52%

Mg 279.077 IEC†	569.7	5304.8 µg/L	2.78	5304.8 ppb	2.78	0.05%

QC value within limits for Mg 279.077 IEC Recovery = 106.10%

Mn 257.610†	151204.4	524.08 µg/L	14.882	524.08 ppb	14.882	2.84%

QC value within limits for Mn 257.610 Recovery = 104.82%

Mo 202.031†	4879.9	520.98 µg/L	55.549	520.98 ppb	55.549	10.66%

QC value within limits for Mo 202.031 Recovery = 104.20%

Na 589.592 Radial†	31895.3	10500 µg/L	48.5	10500 ppb	48.5	0.46%

QC value within limits for Na 589.592 Radial Recovery = 105.00%

Ni 231.604†	9451.1	516.19 µg/L	26.085	516.19 ppb	26.085	5.05%

QC value within limits for Ni 231.604 Recovery = 103.24%

P 214.914†	1207.4	2543.4 µg/L	237.97	2543.4 ppb	237.97	9.36%

QC value within limits for P 214.914 Recovery = 101.74%

Pb 220.353†	1933.7	516.15 µg/L	46.558	516.15 ppb	46.558	9.02%

QC value within limits for Pb 220.353 Recovery = 103.23%

S 181.975 Axial†	237.7	1041.3 µg/L	76.67	1041.3 ppb	76.67	7.36%

QC value within limits for S 181.975 Axial Recovery = 104.13%

Sb 206.836†	527.5	521.52 µg/L	52.346	521.52 ppb	52.346	10.04%

QC value within limits for Sb 206.836 Recovery = 104.30%

Se 196.026†	334.1	517.45 µg/L	44.586	517.45 ppb	44.586	8.62%

QC value within limits for Se 196.026 Recovery = 103.49%

SiO2†	25737.9	5542.8 µg/L	210.05	5542.8 ppb	210.05	3.79%

QC value within limits for SiO2 Recovery = 103.65%

Si 251.611†	31515.5	2590.7 µg/L	97.53	2590.7 ppb	97.53	3.76%

QC value within limits for Si 251.611 Recovery = 103.63%

Sn 189.927†	1134.8	521.95 µg/L	62.194	521.95 ppb	62.194	11.92%

QC value within limits for Sn 189.927 Recovery = 104.39%

Sr 421.552†	50350.2	521.94 µg/L	2.539	521.94 ppb	2.539	0.49%

QC value within limits for Sr 421.552 Recovery = 104.39%

Ti 334.940†	215134.7	517.15 µg/L	16.720	517.15 ppb	16.720	3.23%

QC value within limits for Ti 334.940 Recovery = 103.43%

Tl 190.801†	367.2	518.79 µg/L	30.715	518.79 ppb	30.715	5.92%

QC value within limits for Tl 190.801 Recovery = 103.76%

U 409.014†	5675.0	512.76 µg/L	32.426	512.76 ppb	32.426	6.32%

QC value within limits for U 409.014 Recovery = 102.55%

V 292.402†	47899.1	516.82 µg/L	28.516	516.82 ppb	28.516	5.52%

QC value within limits for V 292.402 Recovery = 103.36%

Zn 213.857†	20631.8	511.54 µg/L	25.841	511.54 ppb	25.841	5.05%

QC value within limits for Zn 213.857 Recovery = 102.31%

All analyte(s) passed QC.

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:19:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53966.4	53966.4	98.9	%			15:20:14
1	Al 396.153Radial†	-26.0	-16.1	-12.005	µg/L	-12.005	ppb	15:20:14
1	Ca 317.933Radial†	184.6	7.5	7.0536	µg/L	7.0536	ppb	15:20:34
1	Fe 238.204 Radial†	14.2	-0.1	-0.8468	µg/L	-0.8468	ppb	15:20:34
1	K 766.490 Radial†	181.9	55.5	39.479	µg/L	39.479	ppb	15:20:14
1	Mg 279.077 IEC†	12.1	1.0	9.1967	µg/L	9.1967	ppb	15:20:34
1	Na 589.592 Radial†	657.2	122.7	40.408	µg/L	40.408	ppb	15:20:14
1	Sr 421.552†	65.1	26.3	0.2722	µg/L	0.2722	ppb	15:20:14
1	Sc 361.383	1911106.6	1911106.6	100.07	%			15:21:36
1	Y 371.029	1309549.6	1309549.6	99.972	%			15:21:36
1	Ag 328.068†	-559.4	5.5	0.0442	µg/L	0.0442	ppb	15:21:42
1	As 188.979†	-3.0	-4.1	-8.0395	µg/L	-8.0395	ppb	15:22:02
1	B 249.677†	346.9	15.2	0.6669	µg/L	0.6669	ppb	15:22:02
1	Ba 233.527†	-26.7	-0.7	-0.0185	µg/L	-0.0185	ppb	15:22:02
1	Be 313.107†	-3454.2	-11.4	-0.0075	µg/L	-0.0075	ppb	15:21:42
1	Cd 226.502†	-139.0	3.2	0.0893	µg/L	0.0893	ppb	15:22:02
1	Co 228.616†	-9.2	-0.3	-0.0170	µg/L	-0.0170	ppb	15:22:02
1	Cr 267.716†	-37.5	14.9	0.3282	µg/L	0.3282	ppb	15:21:42
1	Cu 324.752†	2557.0	69.2	0.4835	µg/L	0.4835	ppb	15:21:42
1	Mn 257.610†	-212.1	32.2	0.1110	µg/L	0.1110	ppb	15:22:02
1	Mo 202.031†	-8.5	-0.9	-0.1000	µg/L	-0.1000	ppb	15:22:02
1	Ni 231.604†	310.7	8.3	0.4558	µg/L	0.4558	ppb	15:22:02
1	P 214.914†	28.4	0.8	1.6386	µg/L	1.6386	ppb	15:22:02
1	Pb 220.353†	104.0	6.7	1.8057	µg/L	1.8057	ppb	15:22:02
1	S 181.975 Axial†	16.5	1.7	7.4394	µg/L	7.4394	ppb	15:22:02
1	Sb 206.836†	29.0	2.0	1.9993	µg/L	1.9993	ppb	15:22:02
1	Se 196.026†	21.9	6.0	9.1749	µg/L	9.1749	ppb	15:22:02
1	SiO2†	1293.6	42.7	9.2028	µg/L	9.2028	ppb	15:21:42
1	Si 251.611†	353.1	40.0	3.2887	µg/L	3.2887	ppb	15:22:02
1	Sn 189.927†	4.9	5.8	2.6719	µg/L	2.6719	ppb	15:22:02
1	Ti 334.940†	159.7	43.4	0.1039	µg/L	0.1039	ppb	15:21:42
1	Tl 190.801†	-23.8	0.5	0.6768	µg/L	0.6768	ppb	15:22:02
1	U 409.014†	-184.4	-130.7	-11.830	µg/L	-11.830	ppb	15:21:42
1	V 292.402†	-35.9	8.3	0.0760	µg/L	0.0760	ppb	15:21:42
1	Zn 213.857†	494.3	18.4	0.4572	µg/L	0.4572	ppb	15:22:02
2	Sc RADIAL	54869.8	54869.8	101	%			15:20:40
2	Al 396.153Radial†	13.7	23.8	17.738	µg/L	17.738	ppb	15:20:40
2	Ca 317.933Radial†	187.7	7.5	7.0950	µg/L	7.0950	ppb	15:21:00
2	Fe 238.204 Radial†	15.7	1.1	9.3064	µg/L	9.3064	ppb	15:21:00
2	K 766.490 Radial†	257.4	127.6	90.719	µg/L	90.719	ppb	15:20:40
2	Mg 279.077 IEC†	16.3	4.9	45.809	µg/L	45.809	ppb	15:21:00
2	Na 589.592 Radial†	606.0	60.8	20.024	µg/L	20.024	ppb	15:20:40
2	Sr 421.552†	22.5	-17.2	-0.1781	µg/L	-0.1781	ppb	15:20:40
2	Sc 361.383	1897412.4	1897412.4	99.349	%			15:22:08
2	Y 371.029	1298760.9	1298760.9	99.148	%			15:22:08
2	Ag 328.068†	-542.2	18.8	0.1523	µg/L	0.1523	ppb	15:22:14
2	As 188.979†	-3.1	-4.3	-8.3435	µg/L	-8.3435	ppb	15:22:34
2	B 249.677†	336.8	7.5	0.3241	µg/L	0.3241	ppb	15:22:34
2	Ba 233.527†	-16.5	9.4	0.2467	µg/L	0.2467	ppb	15:22:34
2	Be 313.107†	-3415.0	3.0	0.0019	µg/L	0.0019	ppb	15:22:14
2	Cd 226.502†	-128.8	12.5	0.3432	µg/L	0.3432	ppb	15:22:34
2	Co 228.616†	-5.7	3.1	0.1511	µg/L	0.1511	ppb	15:22:34
2	Cr 267.716†	-15.6	36.7	0.8074	µg/L	0.8074	ppb	15:22:14
2	Cu 324.752†	2549.9	80.5	0.5637	µg/L	0.5637	ppb	15:22:14
2	Mn 257.610†	-177.5	65.4	0.2260	µg/L	0.2260	ppb	15:22:34
2	Mo 202.031†	-7.3	0.2	0.0178	µg/L	0.0178	ppb	15:22:34
2	Ni 231.604†	306.5	6.3	0.3468	µg/L	0.3468	ppb	15:22:34
2	P 214.914†	31.7	4.3	9.0650	µg/L	9.0650	ppb	15:22:34
2	Pb 220.353†	106.2	9.7	2.5827	µg/L	2.5827	ppb	15:22:34

2	S 181.975 Axial†	17.2	2.5	10.929	µg/L	10.929 ppb	15:22:34
2	Sb 206.836†	25.7	-1.1	-1.0721	µg/L	-1.0721 ppb	15:22:34
2	Se 196.026†	18.6	2.9	4.4089	µg/L	4.4089 ppb	15:22:34
2	SiO2†	1247.0	5.2	1.1103	µg/L	1.1103 ppb	15:22:14
2	Si 251.611†	359.1	48.5	3.9904	µg/L	3.9904 ppb	15:22:34
2	Sn 189.927†	-1.6	-0.8	-0.3440	µg/L	-0.3440 ppb	15:22:34
2	Ti 334.940†	171.3	56.3	0.1319	µg/L	0.1319 ppb	15:22:14
2	Tl 190.801†	-21.8	2.3	3.2311	µg/L	3.2311 ppb	15:22:34
2	U 409.014†	-98.3	-45.3	-4.1055	µg/L	-4.1055 ppb	15:22:14
2	V 292.402†	-5.8	38.4	0.4080	µg/L	0.4080 ppb	15:22:14
2	Zn 213.857†	499.6	27.3	0.6761	µg/L	0.6761 ppb	15:22:34
3	Sc RADIAL	54385.0	54385.0	99.7	%		15:21:06
3	Al 396.153Radial†	-13.7	-3.6	-2.7248	µg/L	-2.7248 ppb	15:21:06
3	Ca 317.933Radial†	185.2	6.7	6.3429	µg/L	6.3429 ppb	15:21:26
3	Fe 238.204 Radial†	16.3	1.8	15.415	µg/L	15.415 ppb	15:21:26
3	K 766.490 Radial†	182.4	54.6	38.797	µg/L	38.797 ppb	15:21:06
3	Mg 279.077 IEC†	9.2	-2.0	-18.753	µg/L	-18.753 ppb	15:21:26
3	Na 589.592 Radial†	592.4	52.6	17.324	µg/L	17.324 ppb	15:21:06
3	Sr 421.552†	-3.5	-43.1	-0.4464	µg/L	-0.4464 ppb	15:21:06
3	Sc 361.383	1884488.6	1884488.6	98.673	%		15:22:40
3	Y 371.029	1291927.9	1291927.9	98.627	%		15:22:40
3	Ag 328.068†	-522.7	34.8	0.2806	µg/L	0.2806 ppb	15:22:46
3	As 188.979†	2.4	1.3	2.4649	µg/L	2.4649 ppb	15:23:06
3	B 249.677†	335.7	8.8	0.3768	µg/L	0.3768 ppb	15:23:06
3	Ba 233.527†	-11.8	14.1	0.3676	µg/L	0.3676 ppb	15:23:06
3	Be 313.107†	-3127.8	270.6	0.1766	µg/L	0.1766 ppb	15:22:46
3	Cd 226.502†	-124.4	16.0	0.4414	µg/L	0.4414 ppb	15:23:06
3	Co 228.616†	7.6	16.5	0.8149	µg/L	0.8149 ppb	15:23:06
3	Cr 267.716†	-23.5	28.6	0.6295	µg/L	0.6295 ppb	15:22:46
3	Cu 324.752†	2622.5	171.7	1.2017	µg/L	1.2017 ppb	15:22:46
3	Mn 257.610†	-142.0	100.2	0.3497	µg/L	0.3497 ppb	15:23:06
3	Mo 202.031†	3.2	10.8	1.1512	µg/L	1.1512 ppb	15:23:06
3	Ni 231.604†	306.2	8.2	0.4462	µg/L	0.4462 ppb	15:23:06
3	P 214.914†	29.6	2.4	5.0144	µg/L	5.0144 ppb	15:23:06
3	Pb 220.353†	103.4	7.6	2.0339	µg/L	2.0339 ppb	15:23:06
3	S 181.975 Axial†	18.5	3.9	17.268	µg/L	17.268 ppb	15:23:06
3	Sb 206.836†	29.4	2.8	2.8126	µg/L	2.8126 ppb	15:23:06
3	Se 196.026†	10.8	-4.9	-7.3717	µg/L	-7.3717 ppb	15:23:06
3	SiO2†	1294.7	62.1	13.372	µg/L	13.372 ppb	15:22:46
3	Si 251.611†	373.7	65.9	5.4177	µg/L	5.4177 ppb	15:23:06
3	Sn 189.927†	0.7	1.6	0.7177	µg/L	0.7177 ppb	15:23:06
3	Ti 334.940†	234.9	122.0	0.2950	µg/L	0.2950 ppb	15:22:46
3	Tl 190.801†	-24.9	-0.9	-1.2684	µg/L	-1.2684 ppb	15:23:06
3	U 409.014†	-88.3	-35.9	-3.2543	µg/L	-3.2543 ppb	15:22:46
3	V 292.402†	2.7	46.9	0.5091	µg/L	0.5091 ppb	15:22:46
3	Zn 213.857†	512.3	43.6	1.0859	µg/L	1.0859 ppb	15:23:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1897669.2	99.363	%	0.6970				0.70%
Sc RADIAL	54407.1	99.7	%	0.83				0.83%
Y 371.029	1300079.5	99.249	%	0.6782				0.68%
Ag 328.068†	19.7	0.1590	µg/L	0.11838	0.1590	ppb	0.11838	74.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	1.0028	µg/L	15.21758	1.0028	ppb	15.21758	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.6394	µg/L	6.15437	-4.6394	ppb	6.15437	132.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	10.5	0.4560	µg/L	0.18460	0.4560	ppb	0.18460	40.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1986	µg/L	0.19747	0.1986	ppb	0.19747	99.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	87.4	0.0570	µg/L	0.10368	0.0570	ppb	0.10368	181.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.3	6.8305	µg/L	0.42277	6.8305	ppb	0.42277	6.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.2913	µg/L	0.18170	0.2913	ppb	0.18170	62.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.4	0.3163	µg/L	0.43987	0.3163	ppb	0.43987	139.05%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 26.7      0.5884 µg/L       0.24227      0.5884 ppb        0.24227  41.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                107.2      0.7496 µg/L       0.39354      0.7496 ppb        0.39354  52.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9581 µg/L       8.21418      7.9581 ppb        8.21418 103.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          79.3      56.332 µg/L       29.7823      56.332 ppb        29.7823  52.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3      12.084 µg/L       32.3776      12.084 ppb        32.3776 267.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                65.9      0.2289 µg/L       0.11938      0.2289 ppb        0.11938  52.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.3      0.3563 µg/L       0.69086      0.3563 ppb        0.69086 193.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         78.7      25.918 µg/L       12.6205      25.918 ppb        12.6205  48.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.6      0.4162 µg/L       0.06037      0.4162 ppb        0.06037  14.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      5.2393 µg/L       3.71831      5.2393 ppb        3.71831  70.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.0      2.1408 µg/L       0.39934      2.1408 ppb        0.39934  18.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.7      11.879 µg/L        4.9829      11.879 ppb         4.9829  41.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.3      1.2466 µg/L       2.04884      1.2466 ppb        2.04884 164.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.4      2.0707 µg/L       8.51747      2.0707 ppb        8.51747 411.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      36.7      7.8950 µg/L       6.23447      7.8950 ppb        6.23447  78.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                51.5      4.2323 µg/L       1.08494      4.2323 ppb        1.08494  25.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.2      1.0152 µg/L       1.52977      1.0152 ppb        1.52977 150.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.3     -0.1174 µg/L       0.36313     -0.1174 ppb        0.36313 309.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.9      0.1769 µg/L       0.10323      0.1769 ppb        0.10323  58.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.6      0.8799 µg/L       2.25661      0.8799 ppb        2.25661 256.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -70.6     -6.3965 µg/L       4.72449     -6.3965 ppb        4.72449  73.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 31.2      0.3310 µg/L       0.22659      0.3310 ppb        0.22659  68.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                29.8      0.7397 µg/L       0.31916      0.7397 ppb        0.31916  43.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:57:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57410.8	57410.8	105	%			15:58:05
1	Al 396.153Radial†	6675.8	6356.1	4727.0	µg/L	4727.0	ppb	15:58:25
1	Ca 317.933Radial†	5505.2	5054.0	4758.7	µg/L	4758.7	ppb	15:58:25
1	Fe 238.204 Radial†	598.7	554.6	4711.3	µg/L	4711.3	ppb	15:58:25
1	K 766.490 Radial†	7251.0	6764.3	4808.0	µg/L	4808.0	ppb	15:58:05
1	Mg 279.077 IEC†	563.5	524.3	4883.2	µg/L	4883.2	ppb	15:58:25
1	Na 589.592 Radial†	31835.2	29720.5	9784.1	µg/L	9784.1	ppb	15:58:05
1	Sr 421.552†	47847.7	45444.2	471.08	µg/L	471.08	ppb	15:58:05
1	Sc 361.383	1983693.6	1983693.6	103.87	%			15:59:29
1	Y 371.029	1353410.2	1353410.2	103.32	%			15:59:29
1	Ag 328.068†	62797.6	61024.1	487.72	µg/L	487.72	ppb	15:59:34
1	As 188.979†	269.1	257.9	503.15	µg/L	503.15	ppb	15:59:55
1	B 249.677†	11717.3	10949.6	476.85	µg/L	476.85	ppb	15:59:34
1	Ba 233.527†	19343.1	18649.0	486.47	µg/L	486.47	ppb	15:59:34
1	Be 313.107†	754921.5	730256.0	476.72	µg/L	476.72	ppb	15:59:29
1	Cd 226.502†	18224.6	17688.2	487.95	µg/L	487.95	ppb	15:59:34
1	Co 228.616†	10367.0	9989.9	491.09	µg/L	491.09	ppb	15:59:34
1	Cr 267.716†	23052.3	22246.4	489.64	µg/L	489.64	ppb	15:59:34
1	Cu 324.752†	74680.1	69413.7	485.52	µg/L	485.52	ppb	15:59:34
1	Mn 257.610†	145483.3	140311.0	486.31	µg/L	486.31	ppb	15:59:29
1	Mo 202.031†	4926.8	4750.9	507.20	µg/L	507.20	ppb	15:59:55
1	Ni 231.604†	9598.3	8938.8	488.20	µg/L	488.20	ppb	15:59:34
1	P 214.914†	1237.2	1163.5	2452.0	µg/L	2452.0	ppb	15:59:55
1	Pb 220.353†	2038.1	1865.0	497.83	µg/L	497.83	ppb	15:59:55
1	S 181.975 Axial†	250.1	226.0	990.17	µg/L	990.17	ppb	15:59:55
1	Sb 206.836†	555.0	507.4	501.78	µg/L	501.78	ppb	15:59:55
1	Se 196.026†	350.7	321.8	497.82	µg/L	497.82	ppb	15:59:55
1	SiO2†	26261.5	24033.7	5175.8	µg/L	5175.8	ppb	15:59:34
1	Si 251.611†	31015.9	29548.3	2429.0	µg/L	2429.0	ppb	15:59:34
1	Sn 189.927†	1145.1	1103.3	507.48	µg/L	507.48	ppb	15:59:55
1	Ti 334.940†	207638.9	199792.4	480.28	µg/L	480.28	ppb	15:59:29
1	Tl 190.801†	339.0	350.7	495.21	µg/L	495.21	ppb	15:59:55
1	U 409.014†	5639.1	5482.7	495.44	µg/L	495.44	ppb	15:59:34
1	V 292.402†	47231.1	45516.9	491.19	µg/L	491.19	ppb	15:59:34
1	Zn 213.857†	20861.0	19608.8	486.21	µg/L	486.21	ppb	15:59:34
2	Sc RADIAL	56826.1	56826.1	104	%			15:58:31
2	Al 396.153Radial†	6645.2	6392.0	4754.0	µg/L	4754.0	ppb	15:58:51
2	Ca 317.933Radial†	5486.3	5089.8	4792.3	µg/L	4792.3	ppb	15:58:51
2	Fe 238.204 Radial†	599.8	561.5	4769.4	µg/L	4769.4	ppb	15:58:51
2	K 766.490 Radial†	7153.6	6741.7	4791.9	µg/L	4791.9	ppb	15:58:31
2	Mg 279.077 IEC†	560.2	526.7	4905.2	µg/L	4905.2	ppb	15:58:51
2	Na 589.592 Radial†	31532.3	29741.0	9790.8	µg/L	9790.8	ppb	15:58:31
2	Sr 421.552†	47455.8	45535.8	472.03	µg/L	472.03	ppb	15:58:31
2	Sc 361.383	1995410.5	1995410.5	104.48	%			16:00:02
2	Y 371.029	1361782.3	1361782.3	103.96	%			16:00:02
2	Ag 328.068†	62246.7	60141.9	480.68	µg/L	480.68	ppb	16:00:08
2	As 188.979†	257.7	245.5	478.82	µg/L	478.82	ppb	16:00:28
2	B 249.677†	11628.5	10798.3	470.20	µg/L	470.20	ppb	16:00:08
2	Ba 233.527†	19125.6	18331.5	478.19	µg/L	478.19	ppb	16:00:08
2	Be 313.107†	755807.0	726835.7	474.48	µg/L	474.48	ppb	16:00:02
2	Cd 226.502†	17996.1	17366.5	479.06	µg/L	479.06	ppb	16:00:08
2	Co 228.616†	10237.6	9807.4	482.11	µg/L	482.11	ppb	16:00:08
2	Cr 267.716†	22930.0	21999.0	484.19	µg/L	484.19	ppb	16:00:08
2	Cu 324.752†	74042.3	68381.0	478.32	µg/L	478.32	ppb	16:00:08
2	Mn 257.610†	145292.8	139306.3	482.84	µg/L	482.84	ppb	16:00:02
2	Mo 202.031†	4851.2	4650.7	496.51	µg/L	496.51	ppb	16:00:28
2	Ni 231.604†	9492.2	8782.9	479.69	µg/L	479.69	ppb	16:00:08
2	P 214.914†	1221.3	1141.3	2405.0	µg/L	2405.0	ppb	16:00:28
2	Pb 220.353†	1997.7	1814.9	484.45	µg/L	484.45	ppb	16:00:28

2	S 181.975 Axial†	253.2	227.5	996.93 µg/L	996.93 ppb	16:00:28
2	Sb 206.836†	551.9	501.3	495.60 µg/L	495.60 ppb	16:00:28
2	Se 196.026†	351.2	320.3	495.61 µg/L	495.61 ppb	16:00:28
2	SiO2†	26072.1	23704.0	5104.8 µg/L	5104.8 ppb	16:00:08
2	Si 251.611†	30669.0	29040.9	2387.3 µg/L	2387.3 ppb	16:00:08
2	Sn 189.927†	1132.5	1084.8	498.96 µg/L	498.96 ppb	16:00:28
2	Ti 334.940†	207816.1	198788.1	477.86 µg/L	477.86 ppb	16:00:02
2	Tl 190.801†	338.3	348.1	491.58 µg/L	491.58 ppb	16:00:28
2	U 409.014†	5511.6	5328.9	481.50 µg/L	481.50 ppb	16:00:08
2	V 292.402†	46887.0	44920.6	484.74 µg/L	484.74 ppb	16:00:08
2	Zn 213.857†	20639.1	19278.4	478.01 µg/L	478.01 ppb	16:00:08
3	Sc RADIAL	56910.2	56910.2	104 %		15:58:57
3	Al 396.153Radial†	6656.6	6393.5	4756.8 µg/L	4756.8 ppb	15:59:17
3	Ca 317.933Radial†	5495.6	5090.9	4793.4 µg/L	4793.4 ppb	15:59:17
3	Fe 238.204 Radial†	602.2	563.0	4781.1 µg/L	4781.1 ppb	15:59:17
3	K 766.490 Radial†	7220.2	6795.5	4830.2 µg/L	4830.2 ppb	15:58:57
3	Mg 279.077 IEC†	560.3	526.1	4897.6 µg/L	4897.6 ppb	15:59:17
3	Na 589.592 Radial†	31637.3	29796.9	9809.2 µg/L	9809.2 ppb	15:58:57
3	Sr 421.552†	47653.8	45658.4	473.30 µg/L	473.30 ppb	15:58:57
3	Sc 361.383	1998435.1	1998435.1	104.64 %		16:00:35
3	Y 371.029	1364968.8	1364968.8	104.20 %		16:00:35
3	Ag 328.068†	58612.3	56578.4	452.09 µg/L	452.09 ppb	16:00:41
3	As 188.979†	224.3	213.2	415.95 µg/L	415.95 ppb	16:01:01
3	B 249.677†	10895.6	10081.1	438.76 µg/L	438.76 ppb	16:00:41
3	Ba 233.527†	17588.9	16835.1	439.14 µg/L	439.14 ppb	16:00:41
3	Be 313.107†	714187.6	685966.5	447.80 µg/L	447.80 ppb	16:00:35
3	Cd 226.502†	16474.5	15886.3	438.17 µg/L	438.17 ppb	16:00:41
3	Co 228.616†	9303.8	8900.2	437.44 µg/L	437.44 ppb	16:00:41
3	Cr 267.716†	20256.0	19410.4	427.22 µg/L	427.22 ppb	16:00:41
3	Cu 324.752†	67621.8	62137.9	434.71 µg/L	434.71 ppb	16:00:41
3	Mn 257.610†	137721.9	131860.5	457.05 µg/L	457.05 ppb	16:00:35
3	Mo 202.031†	4037.0	3865.6	412.72 µg/L	412.72 ppb	16:01:01
3	Ni 231.604†	8629.5	7944.8	433.92 µg/L	433.92 ppb	16:00:41
3	P 214.914†	1036.7	963.1	2025.7 µg/L	2025.7 ppb	16:01:01
3	Pb 220.353†	1739.6	1565.3	417.74 µg/L	417.74 ppb	16:01:01
3	S 181.975 Axial†	221.7	197.0	863.32 µg/L	863.32 ppb	16:01:01
3	Sb 206.836†	474.2	426.2	421.04 µg/L	421.04 ppb	16:01:01
3	Se 196.026†	306.7	277.3	430.08 µg/L	430.08 ppb	16:01:01
3	SiO2†	24196.5	21873.8	4710.6 µg/L	4710.6 ppb	16:00:41
3	Si 251.611†	28513.0	26936.1	2214.3 µg/L	2214.3 ppb	16:00:41
3	Sn 189.927†	924.9	884.8	406.97 µg/L	406.97 ppb	16:01:01
3	Ti 334.940†	195303.4	186529.0	448.37 µg/L	448.37 ppb	16:00:35
3	Tl 190.801†	301.0	311.9	440.85 µg/L	440.85 ppb	16:01:01
3	U 409.014†	4905.4	4741.6	428.33 µg/L	428.33 ppb	16:00:41
3	V 292.402†	42233.7	40405.6	435.79 µg/L	435.79 ppb	16:00:41
3	Zn 213.857†	18819.8	17509.9	434.12 µg/L	434.12 ppb	16:00:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992513.1	104.33	%	0.408				0.39%
Sc RADIAL	57049.0	105	%	0.6				0.55%
Y 371.029	1360053.7	103.83	%	0.456				0.44%
Ag 328.068†	59248.1	473.50	µg/L	18.871	473.50	ppb	18.871	3.99%
QC value within limits for Ag 328.068 Recovery = 94.70%								
Al 396.153Radial†	6380.5	4745.9	µg/L	16.44	4745.9	ppb	16.44	0.35%
QC value within limits for Al 396.153Radial Recovery = 94.92%								
As 188.979†	238.9	465.97	µg/L	44.997	465.97	ppb	44.997	9.66%
QC value within limits for As 188.979 Recovery = 93.19%								
B 249.677†	10609.7	461.94	µg/L	20.345	461.94	ppb	20.345	4.40%
QC value within limits for B 249.677 Recovery = 92.39%								
Ba 233.527†	17938.5	467.93	µg/L	25.276	467.93	ppb	25.276	5.40%
QC value within limits for Ba 233.527 Recovery = 93.59%								
Be 313.107†	714352.7	466.33	µg/L	16.086	466.33	ppb	16.086	3.45%
QC value within limits for Be 313.107 Recovery = 93.27%								
Ca 317.933Radial†	5078.2	4781.5	µg/L	19.75	4781.5	ppb	19.75	0.41%
QC value within limits for Ca 317.933Radial Recovery = 95.63%								
Cd 226.502†	16980.3	468.39	µg/L	26.545	468.39	ppb	26.545	5.67%
QC value within limits for Cd 226.502 Recovery = 93.68%								
Co 228.616†	9565.8	470.21	µg/L	28.733	470.21	ppb	28.733	6.11%

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   QC value within limits for Co 228.616  Recovery = 94.04%
Cr 267.716†            21218.6      467.02 µg/L        34.571      467.02 ppb         34.571   7.40%
   QC value within limits for Cr 267.716  Recovery = 93.40%
Cu 324.752†            66644.2      466.19 µg/L        27.494      466.19 ppb         27.494   5.90%
   QC value within limits for Cu 324.752  Recovery = 93.24%
Fe 238.204 Radial†       559.7      4753.9 µg/L         37.39      4753.9 ppb          37.39   0.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.08%
K 766.490 Radial†       6767.2      4810.1 µg/L         19.19      4810.1 ppb          19.19   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 96.20%
Mg 279.077 IEC†          525.7      4895.3 µg/L         11.18      4895.3 ppb          11.18   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           137159.3      475.40 µg/L        15.982      475.40 ppb         15.982   3.36%
   QC value within limits for Mn 257.610  Recovery = 95.08%
Mo 202.031†             4422.4      472.14 µg/L        51.737      472.14 ppb         51.737  10.96%
   QC value within limits for Mo 202.031  Recovery = 94.43%
Na 589.592 Radial†     29752.8      9794.7 µg/L         13.02      9794.7 ppb          13.02   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 97.95%
Ni 231.604†             8555.5      467.27 µg/L        29.194      467.27 ppb         29.194   6.25%
   QC value within limits for Ni 231.604  Recovery = 93.45%
P 214.914†              1089.3      2294.2 µg/L        233.77      2294.2 ppb         233.77  10.19%
   QC value within limits for P 214.914  Recovery = 91.77%
Pb 220.353†             1748.4      466.67 µg/L        42.900      466.67 ppb         42.900   9.19%
   QC value within limits for Pb 220.353  Recovery = 93.33%
S 181.975 Axial†         216.9      950.14 µg/L        75.264      950.14 ppb         75.264   7.92%
   QC value within limits for S 181.975 Axial  Recovery = 95.01%
Sb 206.836†              478.3      472.81 µg/L        44.937      472.81 ppb         44.937   9.50%
   QC value within limits for Sb 206.836  Recovery = 94.56%
Se 196.026†              306.5      474.50 µg/L        38.486      474.50 ppb         38.486   8.11%
   QC value within limits for Se 196.026  Recovery = 94.90%
SiO2†                  23203.8      4997.1 µg/L        250.58      4997.1 ppb         250.58   5.01%
   QC value within limits for SiO2  Recovery = 93.45%
Si 251.611†            28508.4      2343.5 µg/L        113.86      2343.5 ppb         113.86   4.86%
   QC value within limits for Si 251.611  Recovery = 93.74%
Sn 189.927†             1024.3      471.14 µg/L        55.734      471.14 ppb         55.734  11.83%
   QC value within limits for Sn 189.927  Recovery = 94.23%
Sr 421.552†            45546.1      472.14 µg/L         1.114      472.14 ppb          1.114   0.24%
   QC value within limits for Sr 421.552  Recovery = 94.43%
Ti 334.940†           195036.5      468.84 µg/L        17.764      468.84 ppb         17.764   3.79%
   QC value within limits for Ti 334.940  Recovery = 93.77%
Tl 190.801†              336.9      475.88 µg/L        30.390      475.88 ppb         30.390   6.39%
   QC value within limits for Tl 190.801  Recovery = 95.18%
U 409.014†              5184.4      468.43 µg/L        35.417      468.43 ppb         35.417   7.56%
   QC value within limits for U 409.014  Recovery = 93.69%
V 292.402†             43614.3      470.57 µg/L        30.297      470.57 ppb         30.297   6.44%
   QC value within limits for V 292.402  Recovery = 94.11%
Zn 213.857†            18799.0      466.11 µg/L        28.010      466.11 ppb         28.010   6.01%
   QC value within limits for Zn 213.857  Recovery = 93.22%
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:01:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55658.0	55658.0	102	%			16:01:44
1	Al 396.153Radial†	-23.0	-12.4	-9.2620	µg/L	-9.2620	ppb	16:01:44
1	Ca 317.933Radial†	208.0	24.8	23.363	µg/L	23.363	ppb	16:02:05
1	Fe 238.204 Radial†	15.4	0.6	5.4204	µg/L	5.4204	ppb	16:02:05
1	K 766.490 Radial†	204.3	71.9	51.110	µg/L	51.110	ppb	16:01:44
1	Mg 279.077 IEC†	10.5	-1.0	-9.0434	µg/L	-9.0434	ppb	16:02:05
1	Na 589.592 Radial†	1039.6	477.5	157.20	µg/L	157.20	ppb	16:01:44
1	Sr 421.552†	56.9	16.2	0.1684	µg/L	0.1684	ppb	16:01:44
1	Sc 361.383	1982189.6	1982189.6	103.79	%			16:03:07
1	Y 371.029	1359337.0	1359337.0	103.77	%			16:03:07
1	Ag 328.068†	-578.1	7.5	0.0622	µg/L	0.0622	ppb	16:03:12
1	As 188.979†	-1.3	-2.4	-4.6084	µg/L	-4.6084	ppb	16:03:33
1	B 249.677†	325.8	-17.5	-0.7693	µg/L	-0.7693	ppb	16:03:33
1	Ba 233.527†	-23.3	3.6	0.0946	µg/L	0.0946	ppb	16:03:33
1	Be 313.107†	-3422.1	143.2	0.0935	µg/L	0.0935	ppb	16:03:12
1	Cd 226.502†	-146.3	1.2	0.0321	µg/L	0.0321	ppb	16:03:33
1	Co 228.616†	-12.7	-3.4	-0.1679	µg/L	-0.1679	ppb	16:03:33
1	Cr 267.716†	-41.9	12.0	0.2649	µg/L	0.2649	ppb	16:03:33
1	Cu 324.752†	2411.8	-162.3	-1.1332	µg/L	-1.1332	ppb	16:03:12
1	Mn 257.610†	-218.3	33.8	0.1180	µg/L	0.1180	ppb	16:03:33
1	Mo 202.031†	-10.7	-2.7	-0.2926	µg/L	-0.2926	ppb	16:03:33
1	Ni 231.604†	299.4	-13.7	-0.7472	µg/L	-0.7472	ppb	16:03:33
1	P 214.914†	42.9	13.7	29.528	µg/L	29.528	ppb	16:03:33
1	Pb 220.353†	92.5	-8.1	-2.1696	µg/L	-2.1696	ppb	16:03:33
1	S 181.975 Axial†	17.6	2.1	9.2574	µg/L	9.2574	ppb	16:03:33
1	Sb 206.836†	23.2	-4.6	-4.4961	µg/L	-4.4961	ppb	16:03:33
1	Se 196.026†	12.0	-4.3	-6.4748	µg/L	-6.4748	ppb	16:03:33
1	SiO2†	1238.2	-57.1	-12.288	µg/L	-12.288	ppb	16:03:12
1	Si 251.611†	320.8	-3.8	-0.3112	µg/L	-0.3112	ppb	16:03:33
1	Sn 189.927†	0.5	1.4	0.6395	µg/L	0.6395	ppb	16:03:33
1	Ti 334.940†	134.1	13.1	0.0325	µg/L	0.0325	ppb	16:03:12
1	Tl 190.801†	-24.9	0.3	0.4630	µg/L	0.4630	ppb	16:03:33
1	U 409.014†	-12.1	41.9	3.7948	µg/L	3.7948	ppb	16:03:12
1	V 292.402†	-10.2	34.4	0.3695	µg/L	0.3695	ppb	16:03:12
1	Zn 213.857†	479.7	-13.4	-0.3280	µg/L	-0.3280	ppb	16:03:33
2	Sc RADIAL	55313.8	55313.8	101	%			16:02:10
2	Al 396.153Radial†	-3.9	6.3	4.7164	µg/L	4.7164	ppb	16:02:10
2	Ca 317.933Radial†	201.6	19.8	18.599	µg/L	18.599	ppb	16:02:30
2	Fe 238.204 Radial†	15.1	0.4	3.5581	µg/L	3.5581	ppb	16:02:30
2	K 766.490 Radial†	165.7	35.0	24.913	µg/L	24.913	ppb	16:02:10
2	Mg 279.077 IEC†	9.2	-2.2	-20.801	µg/L	-20.801	ppb	16:02:30
2	Na 589.592 Radial†	1009.9	454.5	149.64	µg/L	149.64	ppb	16:02:10
2	Sr 421.552†	43.0	2.9	0.0298	µg/L	0.0298	ppb	16:02:10
2	Sc 361.383	2000056.5	2000056.5	104.72	%			16:03:39
2	Y 371.029	1371413.4	1371413.4	104.69	%			16:03:39
2	Ag 328.068†	-539.4	49.5	0.3929	µg/L	0.3929	ppb	16:03:44
2	As 188.979†	2.0	0.8	1.5259	µg/L	1.5259	ppb	16:04:05
2	B 249.677†	333.1	-13.4	-0.5861	µg/L	-0.5861	ppb	16:04:05
2	Ba 233.527†	-19.7	7.2	0.1863	µg/L	0.1863	ppb	16:04:05
2	Be 313.107†	-3284.4	304.2	0.1986	µg/L	0.1986	ppb	16:03:44
2	Cd 226.502†	-141.7	6.9	0.1883	µg/L	0.1883	ppb	16:04:05
2	Co 228.616†	-14.8	-5.3	-0.2603	µg/L	-0.2603	ppb	16:04:05
2	Cr 267.716†	-34.1	19.8	0.4350	µg/L	0.4350	ppb	16:04:05
2	Cu 324.752†	2452.1	-144.6	-1.0097	µg/L	-1.0097	ppb	16:03:44
2	Mn 257.610†	-201.5	51.7	0.1804	µg/L	0.1804	ppb	16:04:05
2	Mo 202.031†	-5.9	1.9	0.2060	µg/L	0.2060	ppb	16:04:05
2	Ni 231.604†	302.4	-13.4	-0.7317	µg/L	-0.7317	ppb	16:04:05
2	P 214.914†	22.4	-6.2	-13.288	µg/L	-13.288	ppb	16:04:05
2	Pb 220.353†	100.3	-1.4	-0.3652	µg/L	-0.3652	ppb	16:04:05

2	S 181.975 Axial†	18.4	2.7	12.047 µg/L	12.047 ppb	16:04:05
2	Sb 206.836†	25.7	-2.4	-2.3521 µg/L	-2.3521 ppb	16:04:05
2	Se 196.026†	11.2	-5.1	-7.8216 µg/L	-7.8216 ppb	16:04:05
2	SiO2†	1221.5	-83.6	-18.000 µg/L	-18.000 ppb	16:03:44
2	Si 251.611†	319.3	-8.0	-0.6538 µg/L	-0.6538 ppb	16:04:05
2	Sn 189.927†	1.8	2.6	1.1983 µg/L	1.1983 ppb	16:04:05
2	Ti 334.940†	170.3	46.5	0.1138 µg/L	0.1138 ppb	16:03:44
2	Tl 190.801†	-24.1	1.2	1.7367 µg/L	1.7367 ppb	16:04:05
2	U 409.014†	-68.4	-11.7	-1.0610 µg/L	-1.0610 ppb	16:03:44
2	V 292.402†	-47.0	-0.7	-0.0056 µg/L	-0.0056 ppb	16:03:44
2	Zn 213.857†	481.8	-15.5	-0.3808 µg/L	-0.3808 ppb	16:04:05
3	Sc RADIAL	56238.4	56238.4	103 %		16:02:36
3	Al 396.153Radial†	-4.5	5.7	4.2549 µg/L	4.2549 ppb	16:02:36
3	Ca 317.933Radial†	217.1	31.6	29.725 µg/L	29.725 ppb	16:02:56
3	Fe 238.204 Radial†	15.6	0.7	5.5166 µg/L	5.5166 ppb	16:02:56
3	K 766.490 Radial†	152.3	19.4	13.755 µg/L	13.755 ppb	16:02:36
3	Mg 279.077 IEC†	9.8	-1.7	-16.008 µg/L	-16.008 ppb	16:02:56
3	Na 589.592 Radial†	1347.3	765.5	252.01 µg/L	252.01 ppb	16:02:36
3	Sr 421.552†	41.3	0.5	0.0055 µg/L	0.0055 ppb	16:02:36
3	Sc 361.383	1997138.2	1997138.2	104.57 %		16:04:11
3	Y 371.029	1369234.6	1369234.6	104.53 %		16:04:11
3	Ag 328.068†	-498.6	87.7	0.6980 µg/L	0.6980 ppb	16:04:16
3	As 188.979†	2.9	1.6	3.1103 µg/L	3.1103 ppb	16:04:37
3	B 249.677†	327.9	-17.9	-0.7818 µg/L	-0.7818 ppb	16:04:37
3	Ba 233.527†	-15.6	11.1	0.2887 µg/L	0.2887 ppb	16:04:37
3	Be 313.107†	-3097.4	478.5	0.3124 µg/L	0.3124 ppb	16:04:16
3	Cd 226.502†	-131.7	16.2	0.4453 µg/L	0.4453 ppb	16:04:37
3	Co 228.616†	-2.6	6.4	0.3136 µg/L	0.3136 ppb	16:04:37
3	Cr 267.716†	-14.7	38.4	0.8440 µg/L	0.8440 ppb	16:04:37
3	Cu 324.752†	2433.5	-159.0	-1.1099 µg/L	-1.1099 ppb	16:04:16
3	Mn 257.610†	-172.9	78.8	0.2743 µg/L	0.2743 ppb	16:04:37
3	Mo 202.031†	-1.7	5.9	0.6314 µg/L	0.6314 ppb	16:04:37
3	Ni 231.604†	302.9	-12.6	-0.6873 µg/L	-0.6873 ppb	16:04:37
3	P 214.914†	28.9	0.0	0.1351 µg/L	0.1351 ppb	16:04:37
3	Pb 220.353†	98.8	-2.7	-0.7118 µg/L	-0.7118 ppb	16:04:37
3	S 181.975 Axial†	19.3	3.6	15.780 µg/L	15.780 ppb	16:04:37
3	Sb 206.836†	32.5	4.1	4.0170 µg/L	4.0170 ppb	16:04:37
3	Se 196.026†	15.5	-1.0	-1.5777 µg/L	-1.5777 ppb	16:04:37
3	SiO2†	1280.0	-25.9	-5.5874 µg/L	-5.5874 ppb	16:04:16
3	Si 251.611†	323.6	-3.4	-0.2805 µg/L	-0.2805 ppb	16:04:37
3	Sn 189.927†	1.4	2.2	1.0236 µg/L	1.0236 ppb	16:04:37
3	Ti 334.940†	204.8	79.7	0.1935 µg/L	0.1935 ppb	16:04:16
3	Tl 190.801†	-25.7	-0.3	-0.3909 µg/L	-0.3909 ppb	16:04:37
3	U 409.014†	-62.9	-6.5	-0.5917 µg/L	-0.5917 ppb	16:04:16
3	V 292.402†	-21.9	23.3	0.2547 µg/L	0.2547 ppb	16:04:16
3	Zn 213.857†	484.0	-12.7	-0.3127 µg/L	-0.3127 ppb	16:04:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1993128.1	104.36	%	0.502				0.48%
Sc RADIAL	55736.7	102	%	0.9				0.84%
Y 371.029	1366661.7	104.33	%	0.491				0.47%
Ag 328.068†	48.2	0.3844	µg/L	0.31802	0.3844	ppb	0.31802	82.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.1	-0.0969	µg/L	7.94054	-0.0969	ppb	7.94054	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.0	0.0093	µg/L	4.07671	0.0093	ppb	4.07671	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.7124	µg/L	0.10959	-0.7124	ppb	0.10959	15.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.1899	µg/L	0.09711	0.1899	ppb	0.09711	51.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.6	0.2015	µg/L	0.10946	0.2015	ppb	0.10946	54.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	25.4	23.896	µg/L	5.5823	23.896	ppb	5.5823	23.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.1	0.2219	µg/L	0.20862	0.2219	ppb	0.20862	94.02%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.8	-0.0382	µg/L	0.30817	-0.0382	ppb	0.30817	806.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              23.4      0.5146 µg/L       0.29767      0.5146 ppb        0.29767  57.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -155.3     -1.0843 µg/L       0.06563     -1.0843 ppb        0.06563   6.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.6      4.8317 µg/L       1.10403      4.8317 ppb        1.10403  22.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.1      29.926 µg/L       19.1758      29.926 ppb        19.1758  64.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -15.284 µg/L        5.9121     -15.284 ppb         5.9121  38.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.8      0.1909 µg/L       0.07866      0.1909 ppb        0.07866  41.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.7      0.1816 µg/L       0.46249      0.1816 ppb        0.46249 254.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       565.9      186.28 µg/L        57.047      186.28 ppb         57.047  30.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -13.2     -0.7220 µg/L       0.03109     -0.7220 ppb        0.03109   4.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      5.4583 µg/L      21.89861      5.4583 ppb       21.89861 401.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.1     -1.0822 µg/L       0.95750     -1.0822 ppb        0.95750  88.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.8      12.362 µg/L        3.2727      12.362 ppb         3.2727  26.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.0     -0.9437 µg/L       4.42784     -0.9437 ppb        4.42784 469.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5     -5.2914 µg/L       3.28586     -5.2914 ppb        3.28586  62.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -55.5     -11.958 µg/L        6.2126     -11.958 ppb         6.2126  51.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -5.1     -0.4151 µg/L       0.20723     -0.4151 ppb        0.20723  49.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.1      0.9538 µg/L       0.28585      0.9538 ppb        0.28585  29.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.6      0.0679 µg/L       0.08784      0.0679 ppb        0.08784 129.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              46.4      0.1133 µg/L       0.08046      0.1133 ppb        0.08046  71.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.6030 µg/L       1.07067      0.6030 ppb        1.07067 177.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                7.9      0.7140 µg/L       2.67833      0.7140 ppb        2.67833 375.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               19.0      0.2062 µg/L       0.19224      0.2062 ppb        0.19224  93.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -13.9     -0.3405 µg/L       0.03570     -0.3405 ppb        0.03570  10.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 16:37:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57270.5	57270.5	105	%			16:38:25
1	Al 396.153Radial†	6958.1	6640.6	4939.3	µg/L	4939.3	ppb	16:38:25
1	Ca 317.933Radial†	5712.0	5263.9	4956.3	µg/L	4956.3	ppb	16:38:46
1	Fe 238.204 Radial†	619.2	575.5	4888.0	µg/L	4888.0	ppb	16:38:46
1	K 766.490 Radial†	7274.3	6803.4	4835.8	µg/L	4835.8	ppb	16:38:25
1	Mg 279.077 IEC†	580.4	541.8	5044.9	µg/L	5044.9	ppb	16:38:46
1	Na 589.592 Radial†	31721.9	29686.7	9772.9	µg/L	9772.9	ppb	16:38:25
1	Sr 421.552†	48411.5	46092.9	477.81	µg/L	477.81	ppb	16:38:25
1	Sc 361.383	2050041.7	2050041.7	107.34	%			16:39:49
1	Y 371.029	1400914.7	1400914.7	106.95	%			16:39:49
1	Ag 328.068†	63102.9	59351.9	474.38	µg/L	474.38	ppb	16:39:55
1	As 188.979†	273.7	253.8	495.14	µg/L	495.14	ppb	16:40:15
1	B 249.677†	11802.0	10663.4	464.23	µg/L	464.23	ppb	16:39:55
1	Ba 233.527†	19451.3	18147.1	473.37	µg/L	473.37	ppb	16:39:55
1	Be 313.107†	769937.6	720722.3	470.49	µg/L	470.49	ppb	16:39:49
1	Cd 226.502†	18413.9	17296.7	477.11	µg/L	477.11	ppb	16:39:55
1	Co 228.616†	10377.6	9676.7	475.69	µg/L	475.69	ppb	16:39:55
1	Cr 267.716†	23222.4	21686.6	477.32	µg/L	477.32	ppb	16:39:55
1	Cu 324.752†	74708.1	67112.7	469.48	µg/L	469.48	ppb	16:39:55
1	Mn 257.610†	148224.3	138331.4	479.47	µg/L	479.47	ppb	16:39:49
1	Mo 202.031†	4976.6	4643.8	495.78	µg/L	495.78	ppb	16:40:15
1	Ni 231.604†	9664.7	8701.5	475.25	µg/L	475.25	ppb	16:39:55
1	P 214.914†	1251.0	1137.8	2398.4	µg/L	2398.4	ppb	16:40:15
1	Pb 220.353†	2064.6	1826.2	487.49	µg/L	487.49	ppb	16:40:15
1	S 181.975 Axial†	253.0	220.8	967.55	µg/L	967.55	ppb	16:40:15
1	Sb 206.836†	561.9	496.5	490.97	µg/L	490.97	ppb	16:40:15
1	Se 196.026†	348.6	308.9	478.47	µg/L	478.47	ppb	16:40:15
1	SiO2†	26407.2	23351.2	5028.8	µg/L	5028.8	ppb	16:39:55
1	Si 251.611†	31109.3	28668.8	2356.7	µg/L	2356.7	ppb	16:39:55
1	Sn 189.927†	1168.8	1089.7	501.23	µg/L	501.23	ppb	16:40:15
1	Ti 334.940†	210704.4	196178.3	471.57	µg/L	471.57	ppb	16:39:49
1	Tl 190.801†	345.6	346.3	489.05	µg/L	489.05	ppb	16:40:15
1	U 409.014†	5635.8	5304.0	479.22	µg/L	479.22	ppb	16:39:55
1	V 292.402†	47452.9	44251.8	477.60	µg/L	477.60	ppb	16:39:55
1	Zn 213.857†	20929.0	19022.1	471.63	µg/L	471.63	ppb	16:39:55
2	Sc RADIAL	57824.5	57824.5	106	%			16:38:51
2	Al 396.153Radial†	6951.6	6571.0	4887.5	µg/L	4887.5	ppb	16:38:51
2	Ca 317.933Radial†	5692.9	5193.8	4890.3	µg/L	4890.3	ppb	16:39:12
2	Fe 238.204 Radial†	614.8	565.7	4804.8	µg/L	4804.8	ppb	16:39:12
2	K 766.490 Radial†	7297.3	6758.7	4804.0	µg/L	4804.0	ppb	16:38:51
2	Mg 279.077 IEC†	578.6	534.8	4980.5	µg/L	4980.5	ppb	16:39:12
2	Na 589.592 Radial†	31791.5	29462.7	9699.2	µg/L	9699.2	ppb	16:38:51
2	Sr 421.552†	48548.0	45779.7	474.56	µg/L	474.56	ppb	16:38:51
2	Sc 361.383	2050967.6	2050967.6	107.39	%			16:40:22
2	Y 371.029	1401478.7	1401478.7	106.99	%			16:40:22
2	Ag 328.068†	63066.7	59291.5	473.89	µg/L	473.89	ppb	16:40:28
2	As 188.979†	260.8	241.7	471.43	µg/L	471.43	ppb	16:40:49
2	B 249.677†	11773.8	10632.2	462.91	µg/L	462.91	ppb	16:40:28
2	Ba 233.527†	19468.8	18155.2	473.58	µg/L	473.58	ppb	16:40:28
2	Be 313.107†	769423.9	719920.1	469.97	µg/L	469.97	ppb	16:40:22
2	Cd 226.502†	18369.5	17247.6	475.77	µg/L	475.77	ppb	16:40:28
2	Co 228.616†	10387.8	9681.8	475.93	µg/L	475.93	ppb	16:40:28
2	Cr 267.716†	23230.7	21684.6	477.27	µg/L	477.27	ppb	16:40:28
2	Cu 324.752†	74607.6	66987.7	468.59	µg/L	468.59	ppb	16:40:28
2	Mn 257.610†	147653.6	137737.6	477.41	µg/L	477.41	ppb	16:40:22
2	Mo 202.031†	4936.1	4604.0	491.53	µg/L	491.53	ppb	16:40:49
2	Ni 231.604†	9650.2	8684.0	474.29	µg/L	474.29	ppb	16:40:28
2	P 214.914†	1239.1	1126.2	2373.7	µg/L	2373.7	ppb	16:40:49
2	Pb 220.353†	2036.6	1799.3	480.30	µg/L	480.30	ppb	16:40:49

2	S 181.975 Axial†	251.7	219.6	962.01 µg/L	962.01 ppb	16:40:49
2	Sb 206.836†	560.6	495.1	489.53 µg/L	489.53 ppb	16:40:49
2	Se 196.026†	352.8	312.7	484.04 µg/L	484.04 ppb	16:40:49
2	SiO2†	26423.9	23355.6	5029.8 µg/L	5029.8 ppb	16:40:28
2	Si 251.611†	31116.7	28662.7	2356.2 µg/L	2356.2 ppb	16:40:28
2	Sn 189.927†	1158.0	1079.2	496.40 µg/L	496.40 ppb	16:40:49
2	Ti 334.940†	210552.3	195948.0	471.02 µg/L	471.02 ppb	16:40:22
2	Tl 190.801†	346.0	346.5	489.25 µg/L	489.25 ppb	16:40:49
2	U 409.014†	5584.5	5253.8	474.70 µg/L	474.70 ppb	16:40:28
2	V 292.402†	47503.1	44278.6	477.84 µg/L	477.84 ppb	16:40:28
2	Zn 213.857†	20951.2	19034.0	471.94 µg/L	471.94 ppb	16:40:28
3	Sc RADIAL	57919.3	57919.3	106 %		16:39:17
3	Al 396.153Radial†	6873.3	6486.5	4826.1 µg/L	4826.1 ppb	16:39:17
3	Ca 317.933Radial†	5675.3	5168.4	4866.3 µg/L	4866.3 ppb	16:39:38
3	Fe 238.204 Radial†	612.6	562.7	4778.5 µg/L	4778.5 ppb	16:39:38
3	K 766.490 Radial†	7223.5	6677.9	4746.6 µg/L	4746.6 ppb	16:39:17
3	Mg 279.077 IEC†	577.0	532.4	4956.6 µg/L	4956.6 ppb	16:39:38
3	Na 589.592 Radial†	31537.3	29174.1	9604.2 µg/L	9604.2 ppb	16:39:17
3	Sr 421.552†	47945.0	45136.6	467.89 µg/L	467.89 ppb	16:39:17
3	Sc 361.383	2047169.0	2047169.0	107.19 %		16:40:56
3	Y 371.029	1398213.9	1398213.9	106.74 %		16:40:56
3	Ag 328.068†	59282.1	55869.9	446.44 µg/L	446.44 ppb	16:41:01
3	As 188.979†	231.4	214.7	418.91 µg/L	418.91 ppb	16:41:22
3	B 249.677†	11101.6	10025.4	436.32 µg/L	436.32 ppb	16:41:01
3	Ba 233.527†	17825.1	16655.3	434.45 µg/L	434.45 ppb	16:41:01
3	Be 313.107†	720453.0	675563.8	441.01 µg/L	441.01 ppb	16:40:56
3	Cd 226.502†	16836.0	15848.7	437.13 µg/L	437.13 ppb	16:41:01
3	Co 228.616†	9439.7	8815.3	433.29 µg/L	433.29 ppb	16:41:01
3	Cr 267.716†	20551.5	19225.2	423.15 µg/L	423.15 ppb	16:41:01
3	Cu 324.752†	68186.1	61125.9	427.64 µg/L	427.64 ppb	16:41:01
3	Mn 257.610†	138984.9	129905.6	450.28 µg/L	450.28 ppb	16:40:56
3	Mo 202.031†	4143.4	3873.0	413.51 µg/L	413.51 ppb	16:41:22
3	Ni 231.604†	8808.1	7915.1	432.30 µg/L	432.30 ppb	16:41:01
3	P 214.914†	1067.2	968.0	2036.9 µg/L	2036.9 ppb	16:41:22
3	Pb 220.353†	1797.4	1579.7	421.60 µg/L	421.60 ppb	16:41:22
3	S 181.975 Axial†	226.2	196.2	859.46 µg/L	859.46 ppb	16:41:22
3	Sb 206.836†	485.7	426.1	420.98 µg/L	420.98 ppb	16:41:22
3	Se 196.026†	307.9	271.4	421.09 µg/L	421.09 ppb	16:41:22
3	SiO2†	24533.6	21637.8	4659.8 µg/L	4659.8 ppb	16:41:01
3	Si 251.611†	28891.7	26640.7	2190.0 µg/L	2190.0 ppb	16:41:01
3	Sn 189.927†	954.7	891.5	410.08 µg/L	410.08 ppb	16:41:22
3	Ti 334.940†	196335.7	183048.9	440.00 µg/L	440.00 ppb	16:40:56
3	Tl 190.801†	308.7	312.2	441.18 µg/L	441.18 ppb	16:41:22
3	U 409.014†	5011.7	4729.1	427.20 µg/L	427.20 ppb	16:41:01
3	V 292.402†	42781.7	39956.1	430.99 µg/L	430.99 ppb	16:41:01
3	Zn 213.857†	19123.4	17365.0	430.51 µg/L	430.51 ppb	16:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2049392.8	107.31	%	0.104				0.10%
Sc RADIAL	57671.4	106	%	0.6				0.61%
Y 371.029	1400202.5	106.89	%	0.133				0.12%
Ag 328.068†	58171.1	464.90	µg/L	15.993	464.90	ppb	15.993	3.44%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	6566.1	4884.3	µg/L	56.67	4884.3	ppb	56.67	1.16%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	236.7	461.83	µg/L	39.012	461.83	ppb	39.012	8.45%
QC value within limits for As 188.979 Recovery = 92.37%								
B 249.677†	10440.3	454.49	µg/L	15.747	454.49	ppb	15.747	3.46%
QC value within limits for B 249.677 Recovery = 90.90%								
Ba 233.527†	17652.5	460.47	µg/L	22.535	460.47	ppb	22.535	4.89%
QC value within limits for Ba 233.527 Recovery = 92.09%								
Be 313.107†	705402.1	460.49	µg/L	16.871	460.49	ppb	16.871	3.66%
QC value within limits for Be 313.107 Recovery = 92.10%								
Ca 317.933Radial†	5208.7	4904.3	µg/L	46.59	4904.3	ppb	46.59	0.95%
QC value within limits for Ca 317.933Radial Recovery = 98.09%								
Cd 226.502†	16797.7	463.34	µg/L	22.703	463.34	ppb	22.703	4.90%
QC value within limits for Cd 226.502 Recovery = 92.67%								
Co 228.616†	9391.3	461.63	µg/L	24.552	461.63	ppb	24.552	5.32%

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   QC value within limits for Co 228.616  Recovery = 92.33%
Cr 267.716†            20865.4      459.24 µg/L        31.262      459.24 ppb         31.262   6.81%
   QC value within limits for Cr 267.716  Recovery = 91.85%
Cu 324.752†            65075.5      455.24 µg/L        23.902      455.24 ppb         23.902   5.25%
   QC value within limits for Cu 324.752  Recovery = 91.05%
Fe 238.204 Radial†       568.0      4823.8 µg/L         57.17      4823.8 ppb          57.17   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.48%
K 766.490 Radial†       6746.7      4795.5 µg/L         45.22      4795.5 ppb          45.22   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 95.91%
Mg 279.077 IEC†          536.3      4994.0 µg/L         45.66      4994.0 ppb          45.66   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           135324.9      469.05 µg/L        16.289      469.05 ppb         16.289   3.47%
   QC value within limits for Mn 257.610  Recovery = 93.81%
Mo 202.031†             4373.6      466.94 µg/L        46.322      466.94 ppb         46.322   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.39%
Na 589.592 Radial†     29441.2      9692.1 µg/L         84.60      9692.1 ppb          84.60   0.87%
   QC value within limits for Na 589.592 Radial  Recovery = 96.92%
Ni 231.604†             8433.5      460.62 µg/L        24.525      460.62 ppb         24.525   5.32%
   QC value within limits for Ni 231.604  Recovery = 92.12%
P 214.914†              1077.3      2269.6 µg/L        201.96      2269.6 ppb         201.96   8.90%
   QC value within limits for P 214.914  Recovery = 90.79%
Pb 220.353†             1735.0      463.13 µg/L        36.146      463.13 ppb         36.146   7.80%
   QC value within limits for Pb 220.353  Recovery = 92.63%
S 181.975 Axial†         212.2      929.67 µg/L        60.871      929.67 ppb         60.871   6.55%
   QC value within limits for S 181.975 Axial  Recovery = 92.97%
Sb 206.836†              472.6      467.16 µg/L        39.999      467.16 ppb         39.999   8.56%
   QC value within limits for Sb 206.836  Recovery = 93.43%
Se 196.026†              297.7      461.20 µg/L        34.847      461.20 ppb         34.847   7.56%
   QC value within limits for Se 196.026  Recovery = 92.24%
SiO2†                  22781.6      4906.1 µg/L        213.31      4906.1 ppb         213.31   4.35%
   QC value within limits for SiO2  Recovery = 91.75%
Si 251.611†            27990.8      2301.0 µg/L         96.11      2301.0 ppb          96.11   4.18%
   QC value within limits for Si 251.611  Recovery = 92.04%
Sn 189.927†             1020.1      469.24 µg/L        51.288      469.24 ppb         51.288  10.93%
   QC value within limits for Sn 189.927  Recovery = 93.85%
Sr 421.552†            45669.7      473.42 µg/L         5.054      473.42 ppb          5.054   1.07%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           191725.1      460.86 µg/L        18.074      460.86 ppb         18.074   3.92%
   QC value within limits for Ti 334.940  Recovery = 92.17%
Tl 190.801†              335.0      473.16 µg/L        27.695      473.16 ppb         27.695   5.85%
   QC value within limits for Tl 190.801  Recovery = 94.63%
U 409.014†              5095.6      460.37 µg/L        28.818      460.37 ppb         28.818   6.26%
   QC value within limits for U 409.014  Recovery = 92.07%
V 292.402†             42828.8      462.14 µg/L        26.978      462.14 ppb         26.978   5.84%
   QC value within limits for V 292.402  Recovery = 92.43%
Zn 213.857†            18473.7      458.03 µg/L        23.826      458.03 ppb         23.826   5.20%
   QC value within limits for Zn 213.857  Recovery = 91.61%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58584.5	58584.5	107	%			16:42:04
1	Al 396.153Radial†	51.2	57.8	43.068	µg/L	43.068	ppb	16:42:04
1	Ca 317.933Radial†	241.7	46.0	43.344	µg/L	43.344	ppb	16:42:24
1	Fe 238.204 Radial†	14.5	-1.0	-8.1938	µg/L	-8.1938	ppb	16:42:24
1	K 766.490 Radial†	158.2	19.0	13.495	µg/L	13.495	ppb	16:42:04
1	Mg 279.077 IEC†	19.4	6.8	63.641	µg/L	63.641	ppb	16:42:24
1	Na 589.592 Radial†	1003.5	392.9	129.35	µg/L	129.35	ppb	16:42:04
1	Sr 421.552†	45.5	2.9	0.0298	µg/L	0.0298	ppb	16:42:04
1	Sc 361.383	2059865.1	2059865.1	107.86	%			16:43:26
1	Y 371.029	1412010.5	1412010.5	107.79	%			16:43:26
1	Ag 328.068†	-580.2	26.6	0.2127	µg/L	0.2127	ppb	16:43:32
1	As 188.979†	-2.2	-3.1	-6.1457	µg/L	-6.1457	ppb	16:43:52
1	B 249.677†	314.7	-39.7	-1.7298	µg/L	-1.7298	ppb	16:43:52
1	Ba 233.527†	-34.6	-6.1	-0.1574	µg/L	-0.1574	ppb	16:43:52
1	Be 313.107†	-3476.5	217.1	0.1418	µg/L	0.1418	ppb	16:43:32
1	Cd 226.502†	-142.5	10.0	0.2771	µg/L	0.2771	ppb	16:43:52
1	Co 228.616†	-11.6	-1.9	-0.0950	µg/L	-0.0950	ppb	16:43:52
1	Cr 267.716†	-40.1	15.2	0.3343	µg/L	0.3343	ppb	16:43:32
1	Cu 324.752†	2513.6	-155.6	-1.0878	µg/L	-1.0878	ppb	16:43:32
1	Mn 257.610†	-238.3	23.1	0.0765	µg/L	0.0765	ppb	16:43:52
1	Mo 202.031†	-4.7	3.2	0.3434	µg/L	0.3434	ppb	16:43:52
1	Ni 231.604†	310.9	-14.0	-0.7640	µg/L	-0.7640	ppb	16:43:52
1	P 214.914†	32.2	2.3	4.9663	µg/L	4.9663	ppb	16:43:52
1	Pb 220.353†	102.0	-2.6	-0.7002	µg/L	-0.7002	ppb	16:43:52
1	S 181.975 Axial†	19.3	3.1	13.368	µg/L	13.368	ppb	16:43:52
1	Sb 206.836†	23.2	-5.4	-5.3618	µg/L	-5.3618	ppb	16:43:52
1	Se 196.026†	20.8	3.4	5.1089	µg/L	5.1089	ppb	16:43:52
1	SiO2†	1256.8	-84.7	-18.250	µg/L	-18.250	ppb	16:43:32
1	Si 251.611†	299.6	-35.1	-2.8840	µg/L	-2.8840	ppb	16:43:52
1	Sn 189.927†	-1.9	-0.9	-0.4213	µg/L	-0.4213	ppb	16:43:52
1	Ti 334.940†	103.7	-20.0	-0.0524	µg/L	-0.0524	ppb	16:43:32
1	Tl 190.801†	-18.7	7.0	9.7650	µg/L	9.7650	ppb	16:43:52
1	U 409.014†	8.9	61.9	5.6031	µg/L	5.6031	ppb	16:43:32
1	V 292.402†	-13.8	31.5	0.3435	µg/L	0.3435	ppb	16:43:32
1	Zn 213.857†	488.8	-22.3	-0.5552	µg/L	-0.5552	ppb	16:43:52
2	Sc RADIAL	57826.0	57826.0	106	%			16:42:30
2	Al 396.153Radial†	36.0	44.1	32.860	µg/L	32.860	ppb	16:42:30
2	Ca 317.933Radial†	243.6	50.8	47.787	µg/L	47.787	ppb	16:42:50
2	Fe 238.204 Radial†	18.8	3.3	27.831	µg/L	27.831	ppb	16:42:50
2	K 766.490 Radial†	189.0	49.9	35.479	µg/L	35.479	ppb	16:42:30
2	Mg 279.077 IEC†	19.0	6.7	61.954	µg/L	61.954	ppb	16:42:50
2	Na 589.592 Radial†	991.6	394.0	129.71	µg/L	129.71	ppb	16:42:30
2	Sr 421.552†	62.3	19.3	0.1997	µg/L	0.1997	ppb	16:42:30
2	Sc 361.383	2019733.9	2019733.9	105.75	%			16:43:58
2	Y 371.029	1384706.2	1384706.2	105.71	%			16:43:58
2	Ag 328.068†	-558.4	36.5	0.2916	µg/L	0.2916	ppb	16:44:04
2	As 188.979†	-1.6	-2.7	-5.2610	µg/L	-5.2610	ppb	16:44:24
2	B 249.677†	316.8	-31.9	-1.4069	µg/L	-1.4069	ppb	16:44:24
2	Ba 233.527†	-28.3	-0.8	-0.0199	µg/L	-0.0199	ppb	16:44:24
2	Be 313.107†	-3437.1	190.3	0.1243	µg/L	0.1243	ppb	16:44:04
2	Cd 226.502†	-144.6	5.4	0.1447	µg/L	0.1447	ppb	16:44:24
2	Co 228.616†	-10.6	-1.2	-0.0595	µg/L	-0.0595	ppb	16:44:24
2	Cr 267.716†	-44.1	10.7	0.2350	µg/L	0.2350	ppb	16:44:04
2	Cu 324.752†	2441.7	-177.3	-1.2343	µg/L	-1.2343	ppb	16:44:04
2	Mn 257.610†	-221.2	34.9	0.1222	µg/L	0.1222	ppb	16:44:24
2	Mo 202.031†	-2.8	4.9	0.5203	µg/L	0.5203	ppb	16:44:24
2	Ni 231.604†	305.8	-13.1	-0.7134	µg/L	-0.7134	ppb	16:44:24
2	P 214.914†	32.5	3.1	6.8494	µg/L	6.8494	ppb	16:44:24
2	Pb 220.353†	110.5	7.3	1.9444	µg/L	1.9444	ppb	16:44:24

2	S 181.975 Axial†	18.0	2.2	9.5789 µg/L	9.5789 ppb		16:44:24
2	Sb 206.836†	26.9	-1.5	-1.5033 µg/L	-1.5033 ppb		16:44:24
2	Se 196.026†	9.1	-7.3	-11.082 µg/L	-11.082 ppb		16:44:24
2	SiO2†	1234.9	-82.3	-17.728 µg/L	-17.728 ppb		16:44:04
2	Si 251.611†	315.8	-14.3	-1.1723 µg/L	-1.1723 ppb		16:44:24
2	Sn 189.927†	-0.9	0.0	0.0122 µg/L	0.0122 ppb		16:44:24
2	Ti 334.940†	107.0	-14.9	-0.0400 µg/L	-0.0400 ppb		16:44:04
2	Tl 190.801†	-22.2	3.3	4.6398 µg/L	4.6398 ppb		16:44:24
2	U 409.014†	11.6	64.6	5.8396 µg/L	5.8396 ppb		16:44:04
2	V 292.402†	-47.1	-0.3	0.0106 µg/L	0.0106 ppb		16:44:04
2	Zn 213.857†	485.9	-16.1	-0.4022 µg/L	-0.4022 ppb		16:44:24
3	Sc RADIAL	58203.8	58203.8	107 %			16:42:56
3	Al 396.153Radial†	16.5	25.6	19.057 µg/L	19.057 ppb		16:42:56
3	Ca 317.933Radial†	234.3	40.6	38.198 µg/L	38.198 ppb		16:43:16
3	Fe 238.204 Radial†	16.0	0.5	4.0830 µg/L	4.0830 ppb		16:43:16
3	K 766.490 Radial†	180.9	41.2	29.300 µg/L	29.300 ppb		16:42:56
3	Mg 279.077 IEC†	18.0	5.6	52.283 µg/L	52.283 ppb		16:43:16
3	Na 589.592 Radial†	920.7	321.4	105.80 µg/L	105.80 ppb		16:42:56
3	Sr 421.552†	52.3	9.5	0.0985 µg/L	0.0985 ppb		16:42:56
3	Sc 361.383	1997484.6	1997484.6	104.59 %			16:44:31
3	Y 371.029	1369124.4	1369124.4	104.52 %			16:44:31
3	Ag 328.068†	-544.9	43.6	0.3481 µg/L	0.3481 ppb		16:44:36
3	As 188.979†	3.1	1.8	3.4746 µg/L	3.4746 ppb		16:44:57
3	B 249.677†	317.2	-28.2	-1.2336 µg/L	-1.2336 ppb		16:44:57
3	Ba 233.527†	-26.0	1.1	0.0301 µg/L	0.0301 ppb		16:44:57
3	Be 313.107†	-3380.0	208.8	0.1363 µg/L	0.1363 ppb		16:44:36
3	Cd 226.502†	-138.7	9.5	0.2617 µg/L	0.2617 ppb		16:44:57
3	Co 228.616†	-17.3	-7.7	-0.3772 µg/L	-0.3772 ppb		16:44:57
3	Cr 267.716†	-57.1	-2.2	-0.0487 µg/L	-0.0487 ppb		16:44:36
3	Cu 324.752†	2481.2	-113.8	-0.7943 µg/L	-0.7943 ppb		16:44:36
3	Mn 257.610†	-222.0	31.9	0.1088 µg/L	0.1088 ppb		16:44:57
3	Mo 202.031†	-5.2	2.6	0.2766 µg/L	0.2766 ppb		16:44:57
3	Ni 231.604†	300.3	-15.1	-0.8254 µg/L	-0.8254 ppb		16:44:57
3	P 214.914†	30.5	1.5	3.4004 µg/L	3.4004 ppb		16:44:57
3	Pb 220.353†	108.4	6.5	1.7342 µg/L	1.7342 ppb		16:44:57
3	S 181.975 Axial†	15.4	-0.1	-0.3301 µg/L	-0.3301 ppb		16:44:57
3	Sb 206.836†	27.4	-0.8	-0.7588 µg/L	-0.7588 ppb		16:44:57
3	Se 196.026†	19.0	2.4	3.5402 µg/L	3.5402 ppb		16:44:57
3	SiO2†	1246.0	-58.7	-12.639 µg/L	-12.639 ppb		16:44:36
3	Si 251.611†	309.0	-17.4	-1.4306 µg/L	-1.4306 ppb		16:44:57
3	Sn 189.927†	-0.1	0.8	0.3816 µg/L	0.3816 ppb		16:44:57
3	Ti 334.940†	122.3	0.8	-0.0015 µg/L	-0.0015 ppb		16:44:36
3	Tl 190.801†	-19.4	5.7	7.9510 µg/L	7.9510 ppb		16:44:57
3	U 409.014†	-119.0	-60.2	-5.4508 µg/L	-5.4508 ppb		16:44:36
3	V 292.402†	-13.3	31.5	0.3324 µg/L	0.3324 ppb		16:44:36
3	Zn 213.857†	491.8	-5.3	-0.1315 µg/L	-0.1315 ppb		16:44:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2025694.5	106.07	%	1.655				1.56%
Sc RADIAL	58204.8	107	%	0.7				0.65%
Y 371.029	1388613.7	106.01	%	1.657				1.56%
Ag 328.068†	35.6	0.2841	µg/L	0.06799	0.2841	ppb	0.06799	23.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.5	31.661	µg/L	12.0501	31.661	ppb	12.0501	38.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-2.6440	µg/L	5.31733	-2.6440	ppb	5.31733	201.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-33.2	-1.4568	µg/L	0.25185	-1.4568	ppb	0.25185	17.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.9	-0.0491	µg/L	0.09709	-0.0491	ppb	0.09709	197.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	205.4	0.1341	µg/L	0.00896	0.1341	ppb	0.00896	6.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	45.8	43.110	µg/L	4.7990	43.110	ppb	4.7990	11.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.3	0.2278	µg/L	0.07242	0.2278	ppb	0.07242	31.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.6	-0.1772	µg/L	0.17409	-0.1772	ppb	0.17409	98.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.9      0.1735 µg/L       0.19876      0.1735 ppb        0.19876 114.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -148.9     -1.0388 µg/L       0.22407     -1.0388 ppb        0.22407  21.57%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9067 µg/L      18.31420      7.9067 ppb       18.31420 231.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          36.7      26.091 µg/L       11.3376      26.091 ppb        11.3376  43.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             6.4      59.293 µg/L        6.1293      59.293 ppb         6.1293  10.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.0      0.1025 µg/L       0.02350      0.1025 ppb        0.02350  22.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.6      0.3801 µg/L       0.12595      0.3801 ppb        0.12595  33.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        369.4      121.62 µg/L        13.704      121.62 ppb         13.704  11.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.0     -0.7676 µg/L       0.05609     -0.7676 ppb        0.05609   7.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.3      5.0720 µg/L       1.72695      5.0720 ppb        1.72695  34.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.7      0.9928 µg/L       1.46997      0.9928 ppb        1.46997 148.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.7      7.5391 µg/L       7.07334      7.5391 ppb        7.07334  93.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.6     -2.5413 µg/L       2.47086     -2.5413 ppb        2.47086  97.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.5     -0.8111 µg/L       8.92964     -0.8111 ppb        8.92964 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -75.3     -16.206 µg/L        3.0998     -16.206 ppb         3.0998  19.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -22.2     -1.8290 µg/L       0.92279     -1.8290 ppb        0.92279  50.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.0     -0.0092 µg/L       0.40185     -0.0092 ppb        0.40185 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.5      0.1093 µg/L       0.08548      0.1093 ppb        0.08548  78.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -11.4     -0.0313 µg/L       0.02652     -0.0313 ppb        0.02652  84.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.3      7.4520 µg/L       2.59879      7.4520 ppb        2.59879  34.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 22.1      1.9973 µg/L       6.45136      1.9973 ppb        6.45136 323.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.9      0.2288 µg/L       0.18906      0.2288 ppb        0.18906  82.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -14.6     -0.3630 µg/L       0.21454     -0.3630 ppb        0.21454  59.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/11/2010 16:58:42 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 2/11/2010 16:58:44**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58304.7	58304.7	107	%			16:59:20
1	Al 396.153Radial†	6786.5	6362.5	4732.0	µg/L	4732.0	ppb	16:59:20
1	Ca 317.933Radial†	5536.9	5003.5	4711.1	µg/L	4711.1	ppb	16:59:40
1	Fe 238.204 Radial†	610.2	556.6	4728.2	µg/L	4728.2	ppb	16:59:40
1	K 766.490 Radial†	7283.7	6689.2	4754.7	µg/L	4754.7	ppb	16:59:20
1	Mg 279.077 IEC†	569.3	521.6	4857.3	µg/L	4857.3	ppb	16:59:40
1	Na 589.592 Radial†	31197.2	28659.4	9434.8	µg/L	9434.8	ppb	16:59:20
1	Sr 421.552†	48428.4	45290.4	469.49	µg/L	469.49	ppb	16:59:20
1	Sc 361.383	2048192.0	2048192.0	107.24	%			17:00:43
1	Y 371.029	1396873.4	1396873.4	106.64	%			17:00:43
1	Ag 328.068†	62792.0	59115.0	472.54	µg/L	472.54	ppb	17:00:49
1	As 188.979†	276.2	256.4	500.17	µg/L	500.17	ppb	17:01:09
1	B 249.677†	11976.6	10836.1	471.87	µg/L	471.87	ppb	17:00:49
1	Ba 233.527†	19779.6	18469.6	481.79	µg/L	481.79	ppb	17:00:49
1	Be 313.107†	782023.1	732639.2	478.28	µg/L	478.28	ppb	17:00:43
1	Cd 226.502†	18757.9	17632.9	486.42	µg/L	486.42	ppb	17:00:49
1	Co 228.616†	10618.7	9910.3	487.18	µg/L	487.18	ppb	17:00:49
1	Cr 267.716†	23605.9	22063.7	485.62	µg/L	485.62	ppb	17:00:49
1	Cu 324.752†	75656.1	68059.5	476.07	µg/L	476.07	ppb	17:00:49
1	Mn 257.610†	150274.2	140367.5	486.51	µg/L	486.51	ppb	17:00:43
1	Mo 202.031†	4970.8	4642.6	495.64	µg/L	495.64	ppb	17:01:09
1	Ni 231.604†	9869.6	8900.8	486.13	µg/L	486.13	ppb	17:00:49
1	P 214.914†	1275.8	1162.0	2449.8	µg/L	2449.8	ppb	17:01:09
1	Pb 220.353†	2092.9	1854.3	494.97	µg/L	494.97	ppb	17:01:09
1	S 181.975 Axial†	258.0	225.7	989.09	µg/L	989.09	ppb	17:01:09
1	Sb 206.836†	558.6	493.9	488.34	µg/L	488.34	ppb	17:01:09
1	Se 196.026†	360.2	320.1	495.20	µg/L	495.20	ppb	17:01:09
1	SiO2†	26598.5	23551.8	5072.0	µg/L	5072.0	ppb	17:00:49
1	Si 251.611†	31394.2	28960.7	2380.7	µg/L	2380.7	ppb	17:00:49
1	Sn 189.927†	1171.7	1093.4	502.93	µg/L	502.93	ppb	17:01:09
1	Ti 334.940†	209687.5	195407.3	469.73	µg/L	469.73	ppb	17:00:43
1	Tl 190.801†	351.0	351.5	496.34	µg/L	496.34	ppb	17:01:09
1	U 409.014†	5705.8	5374.0	485.60	µg/L	485.60	ppb	17:00:49
1	V 292.402†	48262.6	45046.7	486.08	µg/L	486.08	ppb	17:00:49
1	Zn 213.857†	21405.2	19483.8	483.11	µg/L	483.11	ppb	17:00:49
2	Sc RADIAL	57809.4	57809.4	106	%			16:59:45
2	Al 396.153Radial†	6713.1	6347.6	4720.4	µg/L	4720.4	ppb	16:59:45
2	Ca 317.933Radial†	5573.2	5082.2	4785.2	µg/L	4785.2	ppb	17:00:06
2	Fe 238.204 Radial†	613.9	565.0	4800.0	µg/L	4800.0	ppb	17:00:06
2	K 766.490 Radial†	7246.0	6712.1	4770.9	µg/L	4770.9	ppb	16:59:45
2	Mg 279.077 IEC†	566.2	523.3	4873.4	µg/L	4873.4	ppb	17:00:06
2	Na 589.592 Radial†	31072.8	28792.1	9478.5	µg/L	9478.5	ppb	16:59:45
2	Sr 421.552†	48008.7	45282.6	469.41	µg/L	469.41	ppb	16:59:45
2	Sc 361.383	1951160.7	1951160.7	102.16	%			17:01:16
2	Y 371.029	1331856.8	1331856.8	101.67	%			17:01:16
2	Ag 328.068†	64120.5	63327.2	506.22	µg/L	506.22	ppb	17:01:22
2	As 188.979†	277.7	270.7	528.08	µg/L	528.08	ppb	17:01:43

2	B 249.677†	12297.9	11706.0	509.91 µg/L	509.91 ppb	17:01:22
2	Ba 233.527†	20306.8	19902.8	519.17 µg/L	519.17 ppb	17:01:22
2	Be 313.107†	802212.2	788663.9	514.85 µg/L	514.85 ppb	17:01:16
2	Cd 226.502†	19256.8	18991.1	523.92 µg/L	523.92 ppb	17:01:22
2	Co 228.616†	10882.2	10660.6	524.05 µg/L	524.05 ppb	17:01:22
2	Cr 267.716†	24198.0	23738.0	522.47 µg/L	522.47 ppb	17:01:22
2	Cu 324.752†	77364.3	73239.8	512.26 µg/L	512.26 ppb	17:01:22
2	Mn 257.610†	154462.4	151435.4	524.84 µg/L	524.84 ppb	17:01:16
2	Mo 202.031†	4974.0	4876.2	520.57 µg/L	520.57 ppb	17:01:43
2	Ni 231.604†	10143.4	9626.4	525.76 µg/L	525.76 ppb	17:01:22
2	P 214.914†	1278.9	1224.2	2579.9 µg/L	2579.9 ppb	17:01:43
2	Pb 220.353†	2103.7	1962.0	523.68 µg/L	523.68 ppb	17:01:43
2	S 181.975 Axial†	261.1	240.7	1054.7 µg/L	1054.7 ppb	17:01:43
2	Sb 206.836†	565.0	526.1	520.02 µg/L	520.02 ppb	17:01:43
2	Se 196.026†	363.5	340.0	525.72 µg/L	525.72 ppb	17:01:43
2	SiO2†	27321.6	25493.0	5490.1 µg/L	5490.1 ppb	17:01:22
2	Si 251.611†	32162.6	31168.6	2562.2 µg/L	2562.2 ppb	17:01:22
2	Sn 189.927†	1172.7	1148.8	528.40 µg/L	528.40 ppb	17:01:43
2	Ti 334.940†	216025.0	211334.0	508.04 µg/L	508.04 ppb	17:01:16
2	Tl 190.801†	350.8	367.7	519.30 µg/L	519.30 ppb	17:01:43
2	U 409.014†	5846.6	5776.4	522.02 µg/L	522.02 ppb	17:01:22
2	V 292.402†	49557.7	48552.4	523.76 µg/L	523.76 ppb	17:01:22
2	Zn 213.857†	21845.1	20906.9	518.41 µg/L	518.41 ppb	17:01:22
3	Sc RADIAL	58043.7	58043.7	106 %		17:00:11
3	Al 396.153Radial†	6748.6	6355.4	4728.2 µg/L	4728.2 ppb	17:00:11
3	Ca 317.933Radial†	5566.3	5054.5	4759.1 µg/L	4759.1 ppb	17:00:32
3	Fe 238.204 Radial†	616.6	565.2	4800.6 µg/L	4800.6 ppb	17:00:32
3	K 766.490 Radial†	7187.1	6629.1	4711.9 µg/L	4711.9 ppb	17:00:11
3	Mg 279.077 IEC†	562.5	517.6	4819.1 µg/L	4819.1 ppb	17:00:32
3	Na 589.592 Radial†	31179.2	28773.8	9472.4 µg/L	9472.4 ppb	17:00:11
3	Sr 421.552†	48277.8	45352.7	470.13 µg/L	470.13 ppb	17:00:11
3	Sc 361.383	2003631.8	2003631.8	104.91 %		17:01:50
3	Y 371.029	1367447.8	1367447.8	104.39 %		17:01:50
3	Ag 328.068†	59826.0	57590.0	460.26 µg/L	460.26 ppb	17:01:56
3	As 188.979†	236.7	224.5	438.03 µg/L	438.03 ppb	17:02:16
3	B 249.677†	11388.2	10523.6	458.12 µg/L	458.12 ppb	17:01:56
3	Ba 233.527†	18491.5	17651.9	460.45 µg/L	460.45 ppb	17:01:56
3	Be 313.107†	746381.1	714882.8	466.69 µg/L	466.69 ppb	17:01:50
3	Cd 226.502†	17452.2	16777.4	462.78 µg/L	462.78 ppb	17:01:56
3	Co 228.616†	9792.8	9343.2	459.24 µg/L	459.24 ppb	17:01:56
3	Cr 267.716†	21341.5	20394.9	448.89 µg/L	448.89 ppb	17:01:56
3	Cu 324.752†	70171.6	64400.7	450.52 µg/L	450.52 ppb	17:01:56
3	Mn 257.610†	143677.7	137196.1	475.54 µg/L	475.54 ppb	17:01:50
3	Mo 202.031†	4142.0	3955.7	422.34 µg/L	422.34 ppb	17:02:16
3	Ni 231.604†	9135.9	8406.0	459.11 µg/L	459.11 ppb	17:01:56
3	P 214.914†	1088.5	1009.9	2124.6 µg/L	2124.6 ppb	17:02:16
3	Pb 220.353†	1832.8	1649.8	440.26 µg/L	440.26 ppb	17:02:16
3	S 181.975 Axial†	227.5	202.0	885.22 µg/L	885.22 ppb	17:02:16
3	Sb 206.836†	480.8	431.3	425.93 µg/L	425.93 ppb	17:02:16
3	Se 196.026†	317.8	287.1	445.21 µg/L	445.21 ppb	17:02:16
3	SiO2†	25159.1	22731.4	4895.3 µg/L	4895.3 ppb	17:01:56
3	Si 251.611†	29597.8	27899.4	2293.5 µg/L	2293.5 ppb	17:01:56
3	Sn 189.927†	953.9	910.2	418.64 µg/L	418.64 ppb	17:02:16
3	Ti 334.940†	199390.2	189940.4	456.58 µg/L	456.58 ppb	17:01:50
3	Tl 190.801†	316.4	325.9	460.38 µg/L	460.38 ppb	17:02:16
3	U 409.014†	5187.8	4998.6	451.60 µg/L	451.60 ppb	17:01:56
3	V 292.402†	44415.7	42380.8	456.99 µg/L	456.99 ppb	17:01:56
3	Zn 213.857†	19887.4	18480.9	458.23 µg/L	458.23 ppb	17:01:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2000994.9	104.77	%	2.543				2.43%
Sc RADIAL	58052.6	106	%	0.5				0.43%
Y 371.029	1365392.6	104.23	%	2.485				2.38%
Ag 328.068†	60010.7	479.67	µg/L	23.794	479.67	ppb	23.794	4.96%
QC value within limits for Ag 328.068 Recovery = 95.93%								
Al 396.153Radial†	6355.1	4726.8	µg/L	5.90	4726.8	ppb	5.90	0.12%
QC value within limits for Al 396.153Radial Recovery = 94.54%								
As 188.979†	250.5	488.76	µg/L	46.092	488.76	ppb	46.092	9.43%

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   QC value within limits for As 188.979  Recovery = 97.75%
B 249.677†            11021.9      479.97 µg/L        26.827      479.97 ppb        26.827   5.59%
   QC value within limits for B 249.677  Recovery = 95.99%
Ba 233.527†           18674.8      487.13 µg/L        29.727      487.13 ppb        29.727   6.10%
   QC value within limits for Ba 233.527  Recovery = 97.43%
Be 313.107†          745395.3      486.60 µg/L        25.138      486.60 ppb        25.138   5.17%
   QC value within limits for Be 313.107  Recovery = 97.32%
Ca 317.933Radial†      5046.7      4751.8 µg/L         37.61      4751.8 ppb         37.61   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 95.04%
Cd 226.502†           17800.5      491.04 µg/L        30.831      491.04 ppb        30.831   6.28%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            9971.4      490.16 µg/L        32.508      490.16 ppb        32.508   6.63%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†           22065.5      485.66 µg/L        36.788      485.66 ppb        36.788   7.57%
   QC value within limits for Cr 267.716  Recovery = 97.13%
Cu 324.752†           68566.7      479.62 µg/L        31.024      479.62 ppb        31.024   6.47%
   QC value within limits for Cu 324.752  Recovery = 95.92%
Fe 238.204 Radial†      562.3      4776.3 µg/L         41.61      4776.3 ppb         41.61   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.53%
K 766.490 Radial†      6676.8      4745.8 µg/L         30.47      4745.8 ppb         30.47   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 94.92%
Mg 279.077 IEC†         520.8      4849.9 µg/L         27.89      4849.9 ppb         27.89   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.00%
Mn 257.610†          142999.7      495.63 µg/L        25.888      495.63 ppb        25.888   5.22%
   QC value within limits for Mn 257.610  Recovery = 99.13%
Mo 202.031†            4491.5      479.52 µg/L        51.064      479.52 ppb        51.064  10.65%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†    28741.7      9461.9 µg/L         23.68      9461.9 ppb         23.68   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 94.62%
Ni 231.604†            8977.7      490.33 µg/L        33.521      490.33 ppb        33.521   6.84%
   QC value within limits for Ni 231.604  Recovery = 98.07%
P 214.914†             1132.0      2384.7 µg/L        234.53      2384.7 ppb        234.53   9.83%
   QC value within limits for P 214.914  Recovery = 95.39%
Pb 220.353†            1822.0      486.30 µg/L        42.376      486.30 ppb        42.376   8.71%
   QC value within limits for Pb 220.353  Recovery = 97.26%
S 181.975 Axial†        222.8      976.34 µg/L        85.462      976.34 ppb        85.462   8.75%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†             483.8      478.10 µg/L        47.873      478.10 ppb        47.873  10.01%
   QC value within limits for Sb 206.836  Recovery = 95.62%
Se 196.026†             315.7      488.71 µg/L        40.646      488.71 ppb        40.646   8.32%
   QC value within limits for Se 196.026  Recovery = 97.74%
SiO2†                  23925.4      5152.5 µg/L        305.42      5152.5 ppb        305.42   5.93%
   QC value within limits for SiO2  Recovery = 96.35%
Si 251.611†            29342.9      2412.1 µg/L        137.10      2412.1 ppb        137.10   5.68%
   QC value within limits for Si 251.611  Recovery = 96.49%
Sn 189.927†            1050.8      483.32 µg/L        57.445      483.32 ppb        57.445  11.89%
   QC value within limits for Sn 189.927  Recovery = 96.66%
Sr 421.552†            45308.6      469.68 µg/L         0.398      469.68 ppb         0.398   0.08%
   QC value within limits for Sr 421.552  Recovery = 93.94%
Ti 334.940†           198893.9      478.12 µg/L        26.734      478.12 ppb        26.734   5.59%
   QC value within limits for Ti 334.940  Recovery = 95.62%
Tl 190.801†             348.4      492.01 µg/L        29.696      492.01 ppb        29.696   6.04%
   QC value within limits for Tl 190.801  Recovery = 98.40%
U 409.014†             5383.0      486.40 µg/L        35.218      486.40 ppb        35.218   7.24%
   QC value within limits for U 409.014  Recovery = 97.28%
V 292.402†             45326.6      488.94 µg/L        33.478      488.94 ppb        33.478   6.85%
   QC value within limits for V 292.402  Recovery = 97.79%
Zn 213.857†            19623.9      486.59 µg/L        30.241      486.59 ppb        30.241   6.21%
   QC value within limits for Zn 213.857  Recovery = 97.32%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:02:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56368.9	56368.9	103	%			17:03:01
1	Al 396.153Radial†	-30.7	-19.6	-14.585	µg/L	-14.585	ppb	17:03:01
1	Ca 317.933Radial†	198.1	12.6	11.864	µg/L	11.864	ppb	17:03:21
1	Fe 238.204 Radial†	17.2	2.2	18.515	µg/L	18.515	ppb	17:03:21
1	K 766.490 Radial†	209.8	74.8	53.133	µg/L	53.133	ppb	17:03:01
1	Mg 279.077 IEC†	16.1	4.3	39.936	µg/L	39.936	ppb	17:03:21
1	Na 589.592 Radial†	774.1	207.6	68.329	µg/L	68.329	ppb	17:03:01
1	Sr 421.552†	33.0	-7.6	-0.0789	µg/L	-0.0789	ppb	17:03:01
1	Sc 361.383	2029236.5	2029236.5	106.25	%			17:04:24
1	Y 371.029	1388942.8	1388942.8	106.03	%			17:04:24
1	Ag 328.068†	-592.1	7.2	0.0607	µg/L	0.0607	ppb	17:04:29
1	As 188.979†	-0.6	-1.7	-3.3695	µg/L	-3.3695	ppb	17:04:50
1	B 249.677†	324.7	-25.9	-1.1417	µg/L	-1.1417	ppb	17:04:50
1	Ba 233.527†	-22.4	4.9	0.1278	µg/L	0.1278	ppb	17:04:50
1	Be 313.107†	-3566.1	84.2	0.0549	µg/L	0.0549	ppb	17:04:29
1	Cd 226.502†	-151.8	-0.8	-0.0243	µg/L	-0.0243	ppb	17:04:50
1	Co 228.616†	-13.1	-3.5	-0.1727	µg/L	-0.1727	ppb	17:04:50
1	Cr 267.716†	-46.3	8.8	0.1931	µg/L	0.1931	ppb	17:04:50
1	Cu 324.752†	2496.7	-136.3	-0.9495	µg/L	-0.9495	ppb	17:04:29
1	Mn 257.610†	-248.9	9.9	0.0351	µg/L	0.0351	ppb	17:04:50
1	Mo 202.031†	-5.8	2.1	0.2273	µg/L	0.2273	ppb	17:04:50
1	Ni 231.604†	303.7	-16.3	-0.8932	µg/L	-0.8932	ppb	17:04:50
1	P 214.914†	32.7	3.2	6.8843	µg/L	6.8843	ppb	17:04:50
1	Pb 220.353†	96.4	-6.5	-1.7203	µg/L	-1.7203	ppb	17:04:50
1	S 181.975 Axial†	20.6	4.6	20.049	µg/L	20.049	ppb	17:04:50
1	Sb 206.836†	26.8	-1.7	-1.7124	µg/L	-1.7124	ppb	17:04:50
1	Se 196.026†	16.1	-0.6	-0.9715	µg/L	-0.9715	ppb	17:04:50
1	SiO2†	1235.6	-87.2	-18.769	µg/L	-18.769	ppb	17:04:29
1	Si 251.611†	286.6	-43.1	-3.5447	µg/L	-3.5447	ppb	17:04:50
1	Sn 189.927†	-4.0	-2.9	-1.3291	µg/L	-1.3291	ppb	17:04:50
1	Ti 334.940†	152.5	27.4	0.0631	µg/L	0.0631	ppb	17:04:29
1	Tl 190.801†	-22.1	3.5	4.9105	µg/L	4.9105	ppb	17:04:50
1	U 409.014†	-71.0	-13.2	-1.1992	µg/L	-1.1992	ppb	17:04:29
1	V 292.402†	-14.4	30.7	0.3301	µg/L	0.3301	ppb	17:04:29
1	Zn 213.857†	481.1	-22.7	-0.5654	µg/L	-0.5654	ppb	17:04:50
2	Sc RADIAL	56481.9	56481.9	103	%			17:03:27
2	Al 396.153Radial†	9.3	19.1	14.233	µg/L	14.233	ppb	17:03:27
2	Ca 317.933Radial†	192.6	6.9	6.5217	µg/L	6.5217	ppb	17:03:47
2	Fe 238.204 Radial†	14.6	-0.3	-2.9604	µg/L	-2.9604	ppb	17:03:47
2	K 766.490 Radial†	162.5	28.6	20.329	µg/L	20.329	ppb	17:03:27
2	Mg 279.077 IEC†	13.0	1.3	11.979	µg/L	11.979	ppb	17:03:47
2	Na 589.592 Radial†	797.1	228.3	75.169	µg/L	75.169	ppb	17:03:27
2	Sr 421.552†	46.5	5.4	0.0561	µg/L	0.0561	ppb	17:03:27
2	Sc 361.383	2012770.6	2012770.6	105.39	%			17:04:56
2	Y 371.029	1377597.1	1377597.1	105.17	%			17:04:56
2	Ag 328.068†	-578.5	15.6	0.1231	µg/L	0.1231	ppb	17:05:01
2	As 188.979†	2.2	1.0	1.9088	µg/L	1.9088	ppb	17:05:22
2	B 249.677†	310.5	-36.9	-1.6105	µg/L	-1.6105	ppb	17:05:22
2	Ba 233.527†	-26.6	0.8	0.0202	µg/L	0.0202	ppb	17:05:22
2	Be 313.107†	-3607.4	17.5	0.0114	µg/L	0.0114	ppb	17:05:01
2	Cd 226.502†	-140.3	9.0	0.2482	µg/L	0.2482	ppb	17:05:22
2	Co 228.616†	-20.8	-10.9	-0.5380	µg/L	-0.5380	ppb	17:05:22
2	Cr 267.716†	-50.1	4.9	0.1067	µg/L	0.1067	ppb	17:05:22
2	Cu 324.752†	2459.5	-152.4	-1.0650	µg/L	-1.0650	ppb	17:05:01
2	Mn 257.610†	-250.9	6.1	0.0201	µg/L	0.0201	ppb	17:05:22
2	Mo 202.031†	-3.2	4.5	0.4823	µg/L	0.4823	ppb	17:05:22
2	Ni 231.604†	300.2	-17.4	-0.9488	µg/L	-0.9488	ppb	17:05:22
2	P 214.914†	25.9	-3.0	-6.3600	µg/L	-6.3600	ppb	17:05:22
2	Pb 220.353†	99.5	-2.8	-0.7298	µg/L	-0.7298	ppb	17:05:22

2	S 181.975 Axial†	20.2	4.3	19.053	µg/L	19.053 ppb	17:05:22
2	Sb 206.836†	24.6	-3.6	-3.5810	µg/L	-3.5810 ppb	17:05:22
2	Se 196.026†	10.7	-5.7	-8.7427	µg/L	-8.7427 ppb	17:05:22
2	SiO2†	1253.5	-60.7	-13.065	µg/L	-13.065 ppb	17:05:01
2	Si 251.611†	291.0	-36.8	-3.0237	µg/L	-3.0237 ppb	17:05:22
2	Sn 189.927†	-0.9	-0.0	-0.0009	µg/L	-0.0009 ppb	17:05:22
2	Ti 334.940†	142.1	18.7	0.0441	µg/L	0.0441 ppb	17:05:01
2	Tl 190.801†	-21.2	4.2	5.8568	µg/L	5.8568 ppb	17:05:22
2	U 409.014†	-66.1	-9.1	-0.8270	µg/L	-0.8270 ppb	17:05:01
2	V 292.402†	-52.0	-5.1	-0.0519	µg/L	-0.0519 ppb	17:05:01
2	Zn 213.857†	477.8	-22.2	-0.5493	µg/L	-0.5493 ppb	17:05:22
3	Sc RADIAL	56062.3	56062.3	103	%		17:03:53
3	Al 396.153Radial†	-13.3	-2.8	-2.1100	µg/L	-2.1100 ppb	17:03:53
3	Ca 317.933Radial†	193.5	9.2	8.6834	µg/L	8.6834 ppb	17:04:13
3	Fe 238.204 Radial†	13.9	-1.0	-8.5236	µg/L	-8.5236 ppb	17:04:13
3	K 766.490 Radial†	145.6	13.3	9.4734	µg/L	9.4734 ppb	17:03:53
3	Mg 279.077 IEC†	12.4	0.8	7.7063	µg/L	7.7063 ppb	17:04:13
3	Na 589.592 Radial†	762.5	200.4	65.960	µg/L	65.960 ppb	17:03:53
3	Sr 421.552†	41.6	1.0	0.0099	µg/L	0.0099 ppb	17:03:53
3	Sc 361.383	1996457.8	1996457.8	104.54	%		17:05:28
3	Y 371.029	1367454.7	1367454.7	104.39	%		17:05:28
3	Ag 328.068†	-552.2	36.3	0.2878	µg/L	0.2878 ppb	17:05:33
3	As 188.979†	-1.4	-2.4	-4.7806	µg/L	-4.7806 ppb	17:05:54
3	B 249.677†	316.6	-28.6	-1.2466	µg/L	-1.2466 ppb	17:05:54
3	Ba 233.527†	-26.5	0.6	0.0163	µg/L	0.0163 ppb	17:05:54
3	Be 313.107†	-3498.2	94.1	0.0615	µg/L	0.0615 ppb	17:05:33
3	Cd 226.502†	-139.5	8.7	0.2407	µg/L	0.2407 ppb	17:05:54
3	Co 228.616†	-2.0	6.9	0.3417	µg/L	0.3417 ppb	17:05:54
3	Cr 267.716†	-37.2	16.7	0.3684	µg/L	0.3684 ppb	17:05:54
3	Cu 324.752†	2465.1	-128.0	-0.8950	µg/L	-0.8950 ppb	17:05:33
3	Mn 257.610†	-235.5	18.8	0.0637	µg/L	0.0637 ppb	17:05:54
3	Mo 202.031†	0.7	8.2	0.8795	µg/L	0.8795 ppb	17:05:54
3	Ni 231.604†	298.8	-16.4	-0.8963	µg/L	-0.8963 ppb	17:05:54
3	P 214.914†	31.0	2.0	4.4888	µg/L	4.4888 ppb	17:05:54
3	Pb 220.353†	112.9	10.8	2.8917	µg/L	2.8917 ppb	17:05:54
3	S 181.975 Axial†	16.6	1.1	4.7192	µg/L	4.7192 ppb	17:05:54
3	Sb 206.836†	24.2	-3.9	-3.7807	µg/L	-3.7807 ppb	17:05:54
3	Se 196.026†	10.9	-5.4	-8.2970	µg/L	-8.2970 ppb	17:05:54
3	SiO2†	1240.9	-63.0	-13.561	µg/L	-13.561 ppb	17:05:33
3	Si 251.611†	299.0	-26.9	-2.2074	µg/L	-2.2074 ppb	17:05:54
3	Sn 189.927†	0.3	1.1	0.5288	µg/L	0.5288 ppb	17:05:54
3	Ti 334.940†	59.1	-59.6	-0.1438	µg/L	-0.1438 ppb	17:05:33
3	Tl 190.801†	-24.5	0.9	1.2389	µg/L	1.2389 ppb	17:05:54
3	U 409.014†	-14.3	40.0	3.6190	µg/L	3.6190 ppb	17:05:33
3	V 292.402†	-38.2	7.6	0.0916	µg/L	0.0916 ppb	17:05:33
3	Zn 213.857†	475.0	-21.1	-0.5227	µg/L	-0.5227 ppb	17:05:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012821.6	105.39	%	0.858				0.81%
Sc RADIAL	56304.4	103	%	0.4				0.39%
Y 371.029	1377998.2	105.20	%	0.821				0.78%
Ag 328.068†	19.7	0.1572	µg/L	0.11730	0.1572	ppb	0.11730	74.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.1	-0.8207	µg/L	14.45235	-0.8207	ppb	14.45235	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-2.0804	µg/L	3.52609	-2.0804	ppb	3.52609	169.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.5	-1.3329	µg/L	0.24603	-1.3329	ppb	0.24603	18.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0547	µg/L	0.06331	0.0547	ppb	0.06331	115.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.3	0.0426	µg/L	0.02720	0.0426	ppb	0.02720	63.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	9.0232	µg/L	2.68752	9.0232	ppb	2.68752	29.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.7	0.1549	µg/L	0.15521	0.1549	ppb	0.15521	100.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.5	-0.1230	µg/L	0.44196	-0.1230	ppb	0.44196	359.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.1      0.2228 µg/L       0.13336      0.2228 ppb        0.13336  59.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -138.9     -0.9698 µg/L       0.08678     -0.9698 ppb        0.08678   8.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      2.3437 µg/L      14.27846      2.3437 ppb       14.27846 609.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        38.9      27.645 µg/L       22.7308      27.645 ppb        22.7308  82.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1      19.874 µg/L       17.5054      19.874 ppb        17.5054  88.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.6      0.0396 µg/L       0.02217      0.0396 ppb        0.02217  55.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.0      0.5297 µg/L       0.32865      0.5297 ppb        0.32865  62.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       212.1      69.819 µg/L        4.7822      69.819 ppb         4.7822   6.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -16.7     -0.9128 µg/L       0.03120     -0.9128 ppb        0.03120   3.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.7      1.6710 µg/L       7.05748      1.6710 ppb        7.05748 422.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.1472 µg/L       2.42781      0.1472 ppb        2.42781 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.3      14.607 µg/L        8.5775      14.607 ppb         8.5775  58.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.1     -3.0247 µg/L       1.14085     -3.0247 ppb        1.14085  37.72%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9     -6.0037 µg/L       4.36372     -6.0037 ppb        4.36372  72.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -70.3     -15.131 µg/L        3.1599     -15.131 ppb         3.1599  20.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -35.6     -2.9252 µg/L       0.67407     -2.9252 ppb        0.67407  23.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.6     -0.2671 µg/L       0.95712     -0.2671 ppb        0.95712 358.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -0.4     -0.0043 µg/L       0.06861     -0.0043 ppb        0.06861 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -4.5     -0.0122 µg/L       0.11438     -0.0122 ppb        0.11438 935.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      4.0021 µg/L       2.43930      4.0021 ppb        2.43930  60.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                5.9      0.5309 µg/L       2.68081      0.5309 ppb        2.68081 504.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               11.1      0.1233 µg/L       0.19295      0.1233 ppb        0.19295 156.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -22.0     -0.5458 µg/L       0.02154     -0.5458 ppb        0.02154   3.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 17:27:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59035.7	59035.7	108	%			17:28:20
1	Al 396.153Radial†	6783.5	6281.0	4671.2	µg/L	4671.2	ppb	17:28:41
1	Ca 317.933Radial†	5601.2	4998.8	4706.7	µg/L	4706.7	ppb	17:28:41
1	Fe 238.204 Radial†	616.0	555.0	4714.2	µg/L	4714.2	ppb	17:28:41
1	K 766.490 Radial†	7145.2	6476.8	4603.7	µg/L	4603.7	ppb	17:28:20
1	Mg 279.077 IEC†	569.6	515.2	4798.3	µg/L	4798.3	ppb	17:28:41
1	Na 589.592 Radial†	30872.0	27997.1	9216.7	µg/L	9216.7	ppb	17:28:20
1	Sr 421.552†	47604.8	43967.8	455.78	µg/L	455.78	ppb	17:28:20
1	Sc 361.383	2041194.6	2041194.6	106.88	%			17:29:44
1	Y 371.029	1394791.7	1394791.7	106.48	%			17:29:44
1	Ag 328.068†	63072.7	59578.4	476.23	µg/L	476.23	ppb	17:29:50
1	As 188.979†	267.6	249.3	486.27	µg/L	486.27	ppb	17:30:10
1	B 249.677†	11989.2	10886.2	474.07	µg/L	474.07	ppb	17:29:50
1	Ba 233.527†	19747.0	18502.3	482.64	µg/L	482.64	ppb	17:29:50
1	Be 313.107†	767703.3	721740.7	471.16	µg/L	471.16	ppb	17:29:44
1	Cd 226.502†	18704.8	17643.2	486.70	µg/L	486.70	ppb	17:29:50
1	Co 228.616†	10605.3	9931.7	488.25	µg/L	488.25	ppb	17:29:50
1	Cr 267.716†	23632.0	22163.6	487.82	µg/L	487.82	ppb	17:29:50
1	Cu 324.752†	76228.6	68837.1	481.50	µg/L	481.50	ppb	17:29:50
1	Mn 257.610†	148178.1	138886.7	481.38	µg/L	481.38	ppb	17:29:44
1	Mo 202.031†	4955.0	4643.6	495.75	µg/L	495.75	ppb	17:30:10
1	Ni 231.604†	9868.1	8930.9	487.78	µg/L	487.78	ppb	17:29:50
1	P 214.914†	1270.5	1161.1	2447.3	µg/L	2447.3	ppb	17:30:10
1	Pb 220.353†	2082.6	1851.4	494.18	µg/L	494.18	ppb	17:30:10
1	S 181.975 Axial†	249.9	219.0	959.68	µg/L	959.68	ppb	17:30:10
1	Sb 206.836†	563.4	500.2	494.49	µg/L	494.49	ppb	17:30:10
1	Se 196.026†	362.5	323.3	500.24	µg/L	500.24	ppb	17:30:10
1	SiO2†	26645.9	23681.2	5099.9	µg/L	5099.9	ppb	17:29:50
1	Si 251.611†	31439.9	29103.8	2392.5	µg/L	2392.5	ppb	17:29:50
1	Sn 189.927†	1158.8	1085.1	499.11	µg/L	499.11	ppb	17:30:10
1	Ti 334.940†	206788.8	193365.5	464.82	µg/L	464.82	ppb	17:29:44
1	Tl 190.801†	353.5	355.1	501.20	µg/L	501.20	ppb	17:30:10
1	U 409.014†	5796.1	5476.7	494.90	µg/L	494.90	ppb	17:29:50
1	V 292.402†	48354.5	45287.0	488.65	µg/L	488.65	ppb	17:29:50
1	Zn 213.857†	21383.2	19531.6	484.30	µg/L	484.30	ppb	17:29:50
2	Sc RADIAL	57479.6	57479.6	105	%			17:28:46
2	Al 396.153Radial†	6775.5	6443.2	4792.2	µg/L	4792.2	ppb	17:29:07
2	Ca 317.933Radial†	5568.2	5107.6	4809.2	µg/L	4809.2	ppb	17:29:07
2	Fe 238.204 Radial†	613.4	567.9	4823.2	µg/L	4823.2	ppb	17:29:07
2	K 766.490 Radial†	7368.3	6867.5	4881.4	µg/L	4881.4	ppb	17:28:46
2	Mg 279.077 IEC†	569.1	529.1	4927.1	µg/L	4927.1	ppb	17:29:07
2	Na 589.592 Radial†	31686.3	29543.0	9725.6	µg/L	9725.6	ppb	17:28:46
2	Sr 421.552†	49060.1	46540.9	482.45	µg/L	482.45	ppb	17:28:46
2	Sc 361.383	2046028.0	2046028.0	107.13	%			17:30:18
2	Y 371.029	1397859.6	1397859.6	106.71	%			17:30:18
2	Ag 328.068†	62181.8	58607.4	468.48	µg/L	468.48	ppb	17:30:23
2	As 188.979†	270.5	251.3	490.33	µg/L	490.33	ppb	17:30:44
2	B 249.677†	11883.0	10760.6	468.51	µg/L	468.51	ppb	17:30:23
2	Ba 233.527†	19447.6	18179.1	474.21	µg/L	474.21	ppb	17:30:23
2	Be 313.107†	766991.4	719379.3	469.62	µg/L	469.62	ppb	17:30:18
2	Cd 226.502†	18417.3	17333.6	478.14	µg/L	478.14	ppb	17:30:23
2	Co 228.616†	10411.2	9727.0	478.18	µg/L	478.18	ppb	17:30:23
2	Cr 267.716†	23232.1	21738.1	478.45	µg/L	478.45	ppb	17:30:23
2	Cu 324.752†	75095.1	67610.5	472.94	µg/L	472.94	ppb	17:30:23
2	Mn 257.610†	147694.9	138108.1	478.69	µg/L	478.69	ppb	17:30:18
2	Mo 202.031†	4924.2	4604.0	491.52	µg/L	491.52	ppb	17:30:44
2	Ni 231.604†	9689.5	8742.4	477.48	µg/L	477.48	ppb	17:30:23
2	P 214.914†	1255.9	1144.7	2412.6	µg/L	2412.6	ppb	17:30:44
2	Pb 220.353†	2059.1	1824.8	487.10	µg/L	487.10	ppb	17:30:44

2	S 181.975 Axial†	252.0	220.4	965.86 µg/L	965.86 ppb	17:30:44
2	Sb 206.836†	552.5	488.7	483.25 µg/L	483.25 ppb	17:30:44
2	Se 196.026†	360.1	320.3	495.71 µg/L	495.71 ppb	17:30:44
2	SiO2†	26270.0	23271.4	5011.6 µg/L	5011.6 ppb	17:30:23
2	Si 251.611†	31001.1	28624.7	2353.1 µg/L	2353.1 ppb	17:30:23
2	Sn 189.927†	1147.6	1072.1	493.14 µg/L	493.14 ppb	17:30:44
2	Ti 334.940†	206329.6	192479.8	462.68 µg/L	462.68 ppb	17:30:18
2	Tl 190.801†	343.3	344.8	486.80 µg/L	486.80 ppb	17:30:44
2	U 409.014†	5690.4	5365.3	484.79 µg/L	484.79 ppb	17:30:23
2	V 292.402†	47623.9	44498.2	480.19 µg/L	480.19 ppb	17:30:23
2	Zn 213.857†	21043.3	19167.1	475.24 µg/L	475.24 ppb	17:30:23
3	Sc RADIAL	58545.2	58545.2	107 %		17:29:12
3	Al 396.153Radial†	6838.5	6384.8	4750.3 µg/L	4750.3 ppb	17:29:33
3	Ca 317.933Radial†	5643.2	5081.3	4784.4 µg/L	4784.4 ppb	17:29:33
3	Fe 238.204 Radial†	621.5	564.8	4796.6 µg/L	4796.6 ppb	17:29:33
3	K 766.490 Radial†	7265.1	6643.9	4722.5 µg/L	4722.5 ppb	17:29:12
3	Mg 279.077 IEC†	574.9	524.6	4884.3 µg/L	4884.3 ppb	17:29:33
3	Na 589.592 Radial†	31113.3	28461.2	9369.5 µg/L	9369.5 ppb	17:29:12
3	Sr 421.552†	48089.7	44788.5	464.29 µg/L	464.29 ppb	17:29:12
3	Sc 361.383	2017377.3	2017377.3	105.63 %		17:30:51
3	Y 371.029	1378304.1	1378304.1	105.22 %		17:30:51
3	Ag 328.068†	59471.1	56865.5	454.46 µg/L	454.46 ppb	17:30:57
3	As 188.979†	229.9	216.5	422.47 µg/L	422.47 ppb	17:31:17
3	B 249.677†	11339.4	10403.4	452.85 µg/L	452.85 ppb	17:30:57
3	Ba 233.527†	18247.7	17301.0	451.29 µg/L	451.29 ppb	17:30:57
3	Be 313.107†	738207.7	702297.7	458.47 µg/L	458.47 ppb	17:30:51
3	Cd 226.502†	17185.8	16411.8	452.68 µg/L	452.68 ppb	17:30:57
3	Co 228.616†	9649.4	9143.9	449.43 µg/L	449.43 ppb	17:30:57
3	Cr 267.716†	20989.9	19923.4	438.52 µg/L	438.52 ppb	17:30:57
3	Cu 324.752†	69862.4	63652.3	445.29 µg/L	445.29 ppb	17:30:57
3	Mn 257.610†	142669.2	135308.3	469.00 µg/L	469.00 ppb	17:30:51
3	Mo 202.031†	4082.7	3872.6	413.47 µg/L	413.47 ppb	17:31:17
3	Ni 231.604†	8980.8	8199.9	447.86 µg/L	447.86 ppb	17:30:57
3	P 214.914†	1067.7	983.2	2067.7 µg/L	2067.7 ppb	17:31:17
3	Pb 220.353†	1798.7	1605.6	428.46 µg/L	428.46 ppb	17:31:17
3	S 181.975 Axial†	223.6	196.9	862.47 µg/L	862.47 ppb	17:31:17
3	Sb 206.836†	480.2	427.6	422.29 µg/L	422.29 ppb	17:31:17
3	Se 196.026†	311.3	278.8	432.49 µg/L	432.49 ppb	17:31:17
3	SiO2†	24862.0	22286.7	4799.6 µg/L	4799.6 ppb	17:30:57
3	Si 251.611†	29262.2	27389.5	2251.6 µg/L	2251.6 ppb	17:30:57
3	Sn 189.927†	942.0	892.7	410.61 µg/L	410.61 ppb	17:31:17
3	Ti 334.940†	197920.3	187254.0	450.12 µg/L	450.12 ppb	17:30:51
3	Tl 190.801†	315.4	322.9	456.18 µg/L	456.18 ppb	17:31:17
3	U 409.014†	5127.6	4907.9	443.39 µg/L	443.39 ppb	17:30:57
3	V 292.402†	43917.4	41620.5	448.79 µg/L	448.79 ppb	17:30:57
3	Zn 213.857†	19595.2	18075.2	448.15 µg/L	448.15 ppb	17:30:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2034866.6	106.55	%	0.803				0.75%
Sc RADIAL	58353.5	107	%	1.5				1.36%
Y 371.029	1390318.5	106.14	%	0.803				0.76%
Ag 328.068†	58350.4	466.39	µg/L	11.039	466.39	ppb	11.039	2.37%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	6369.7	4737.9	µg/L	61.46	4737.9	ppb	61.46	1.30%
QC value within limits for Al 396.153Radial Recovery = 94.76%								
As 188.979†	239.1	466.36	µg/L	38.059	466.36	ppb	38.059	8.16%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	10683.4	465.15	µg/L	11.003	465.15	ppb	11.003	2.37%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	17994.1	469.38	µg/L	16.223	469.38	ppb	16.223	3.46%
QC value within limits for Ba 233.527 Recovery = 93.88%								
Be 313.107†	714472.6	466.42	µg/L	6.926	466.42	ppb	6.926	1.48%
QC value within limits for Be 313.107 Recovery = 93.28%								
Ca 317.933Radial†	5062.6	4766.7	µg/L	53.48	4766.7	ppb	53.48	1.12%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17129.5	472.51	µg/L	17.696	472.51	ppb	17.696	3.75%
QC value within limits for Cd 226.502 Recovery = 94.50%								
Co 228.616†	9600.9	471.95	µg/L	20.142	471.95	ppb	20.142	4.27%

```
   QC value within limits for Co 228.616  Recovery = 94.39%
Cr 267.716†            21275.0      468.26 µg/L        26.182      468.26 ppb         26.182   5.59%
   QC value within limits for Cr 267.716  Recovery = 93.65%
Cu 324.752†            66699.9      466.58 µg/L        18.924      466.58 ppb         18.924   4.06%
   QC value within limits for Cu 324.752  Recovery = 93.32%
Fe 238.204 Radial†       562.6      4778.0 µg/L         56.85      4778.0 ppb          56.85   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.56%
K 766.490 Radial†       6662.7      4735.8 µg/L        139.33      4735.8 ppb         139.33   2.94%
   QC value within limits for K 766.490 Radial  Recovery = 94.72%
Mg 279.077 IEC†          523.0      4869.9 µg/L         65.60      4869.9 ppb          65.60   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†           137434.4      476.36 µg/L         6.514      476.36 ppb          6.514   1.37%
   QC value within limits for Mn 257.610  Recovery = 95.27%
Mo 202.031†            4373.4      466.91 µg/L        46.335      466.91 ppb         46.335   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.38%
Na 589.592 Radial†     28667.1      9437.3 µg/L        261.13      9437.3 ppb         261.13   2.77%
   QC value within limits for Na 589.592 Radial  Recovery = 94.37%
Ni 231.604†            8624.4      471.04 µg/L        20.725      471.04 ppb         20.725   4.40%
   QC value within limits for Ni 231.604  Recovery = 94.21%
P 214.914†             1096.3      2309.2 µg/L        209.89      2309.2 ppb         209.89   9.09%
   QC value within limits for P 214.914  Recovery = 92.37%
Pb 220.353†            1760.6      469.91 µg/L        36.070      469.91 ppb         36.070   7.68%
   QC value within limits for Pb 220.353  Recovery = 93.98%
S 181.975 Axial†        212.1      929.34 µg/L        57.991      929.34 ppb         57.991   6.24%
   QC value within limits for S 181.975 Axial  Recovery = 92.93%
Sb 206.836†             472.2      466.68 µg/L        38.846      466.68 ppb         38.846   8.32%
   QC value within limits for Sb 206.836  Recovery = 93.34%
Se 196.026†             307.5      476.15 µg/L        37.872      476.15 ppb         37.872   7.95%
   QC value within limits for Se 196.026  Recovery = 95.23%
SiO2†                  23079.8      4970.4 µg/L        154.36      4970.4 ppb         154.36   3.11%
   QC value within limits for SiO2  Recovery = 92.95%
Si 251.611†            28372.7      2332.4 µg/L         72.71      2332.4 ppb          72.71   3.12%
   QC value within limits for Si 251.611  Recovery = 93.30%
Sn 189.927†            1016.6      467.62 µg/L        49.463      467.62 ppb         49.463  10.58%
   QC value within limits for Sn 189.927  Recovery = 93.52%
Sr 421.552†            45099.0      467.50 µg/L        13.625      467.50 ppb         13.625   2.91%
   QC value within limits for Sr 421.552  Recovery = 93.50%
Ti 334.940†           191033.1      459.21 µg/L         7.946      459.21 ppb          7.946   1.73%
   QC value within limits for Ti 334.940  Recovery = 91.84%
Tl 190.801†             340.9      481.40 µg/L        22.992      481.40 ppb         22.992   4.78%
   QC value within limits for Tl 190.801  Recovery = 96.28%
U 409.014†             5250.0      474.36 µg/L        27.295      474.36 ppb         27.295   5.75%
   QC value within limits for U 409.014  Recovery = 94.87%
V 292.402†             43801.9      472.54 µg/L        21.006      472.54 ppb         21.006   4.45%
   QC value within limits for V 292.402  Recovery = 94.51%
Zn 213.857†            18924.6      469.23 µg/L        18.806      469.23 ppb         18.806   4.01%
   QC value within limits for Zn 213.857  Recovery = 93.85%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:31:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57249.4	57249.4	105	%			17:32:01
1	Al 396.153Radial†	-19.1	-8.1	-6.0314	µg/L	-6.0314	ppb	17:32:01
1	Ca 317.933Radial†	186.6	-1.3	-1.1941	µg/L	-1.1941	ppb	17:32:21
1	Fe 238.204 Radial†	16.2	0.9	8.0275	µg/L	8.0275	ppb	17:32:21
1	K 766.490 Radial†	205.8	67.8	48.166	µg/L	48.166	ppb	17:32:01
1	Mg 279.077 IEC†	11.8	-0.0	-0.3578	µg/L	-0.3578	ppb	17:32:21
1	Na 589.592 Radial†	713.1	137.9	45.390	µg/L	45.390	ppb	17:32:01
1	Sr 421.552†	47.1	5.3	0.0553	µg/L	0.0553	ppb	17:32:01
1	Sc 361.383	2021263.0	2021263.0	105.83	%			17:33:23
1	Y 371.029	1385458.4	1385458.4	105.77	%			17:33:23
1	Ag 328.068†	-548.3	46.5	0.3696	µg/L	0.3696	ppb	17:33:29
1	As 188.979†	-3.1	-4.1	-8.0437	µg/L	-8.0437	ppb	17:33:50
1	B 249.677†	328.8	-20.8	-0.9109	µg/L	-0.9109	ppb	17:33:50
1	Ba 233.527†	-23.9	3.4	0.0895	µg/L	0.0895	ppb	17:33:50
1	Be 313.107†	-3534.2	101.1	0.0660	µg/L	0.0660	ppb	17:33:29
1	Cd 226.502†	-135.6	14.0	0.3833	µg/L	0.3833	ppb	17:33:50
1	Co 228.616†	-7.8	1.5	0.0715	µg/L	0.0715	ppb	17:33:50
1	Cr 267.716†	-39.7	14.9	0.3275	µg/L	0.3275	ppb	17:33:29
1	Cu 324.752†	2441.6	-179.0	-1.2495	µg/L	-1.2495	ppb	17:33:29
1	Mn 257.610†	-227.7	28.9	0.1013	µg/L	0.1013	ppb	17:33:50
1	Mo 202.031†	-11.3	-3.1	-0.3352	µg/L	-0.3352	ppb	17:33:50
1	Ni 231.604†	297.1	-21.4	-1.1721	µg/L	-1.1721	ppb	17:33:50
1	P 214.914†	29.1	-0.1	-0.1206	µg/L	-0.1206	ppb	17:33:50
1	Pb 220.353†	93.1	-9.2	-2.4716	µg/L	-2.4716	ppb	17:33:50
1	S 181.975 Axial†	17.0	1.2	5.2600	µg/L	5.2600	ppb	17:33:50
1	Sb 206.836†	21.2	-7.0	-6.8579	µg/L	-6.8579	ppb	17:33:50
1	Se 196.026†	17.1	0.4	0.5587	µg/L	0.5587	ppb	17:33:50
1	SiO2†	1257.7	-61.7	-13.286	µg/L	-13.286	ppb	17:33:29
1	Si 251.611†	315.2	-15.0	-1.2350	µg/L	-1.2350	ppb	17:33:50
1	Sn 189.927†	-0.7	0.2	0.0875	µg/L	0.0875	ppb	17:33:50
1	Ti 334.940†	99.4	-22.2	-0.0533	µg/L	-0.0533	ppb	17:33:29
1	Tl 190.801†	-25.0	0.6	0.8769	µg/L	0.8769	ppb	17:33:50
1	U 409.014†	-2.8	50.9	4.6107	µg/L	4.6107	ppb	17:33:29
1	V 292.402†	-42.3	4.3	0.0496	µg/L	0.0496	ppb	17:33:29
1	Zn 213.857†	478.9	-23.0	-0.5682	µg/L	-0.5682	ppb	17:33:50
2	Sc RADIAL	57058.0	57058.0	105	%			17:32:27
2	Al 396.153Radial†	-2.2	8.1	5.9887	µg/L	5.9887	ppb	17:32:27
2	Ca 317.933Radial†	185.4	-1.8	-1.6973	µg/L	-1.6973	ppb	17:32:47
2	Fe 238.204 Radial†	16.9	1.6	13.808	µg/L	13.808	ppb	17:32:47
2	K 766.490 Radial†	159.2	23.8	16.947	µg/L	16.947	ppb	17:32:27
2	Mg 279.077 IEC†	16.4	4.4	41.355	µg/L	41.355	ppb	17:32:47
2	Na 589.592 Radial†	724.2	150.8	49.634	µg/L	49.634	ppb	17:32:27
2	Sr 421.552†	-4.4	-43.8	-0.4540	µg/L	-0.4540	ppb	17:32:27
2	Sc 361.383	2001081.9	2001081.9	104.78	%			17:33:56
2	Y 371.029	1372125.9	1372125.9	104.75	%			17:33:56
2	Ag 328.068†	-553.2	36.5	0.2946	µg/L	0.2946	ppb	17:34:01
2	As 188.979†	-0.6	-1.7	-3.3761	µg/L	-3.3761	ppb	17:34:22
2	B 249.677†	320.5	-25.5	-1.1231	µg/L	-1.1231	ppb	17:34:22
2	Ba 233.527†	-11.0	15.5	0.4048	µg/L	0.4048	ppb	17:34:22
2	Be 313.107†	-3526.3	74.9	0.0489	µg/L	0.0489	ppb	17:34:01
2	Cd 226.502†	-133.8	14.4	0.3950	µg/L	0.3950	ppb	17:34:22
2	Co 228.616†	-11.0	-1.6	-0.0801	µg/L	-0.0801	ppb	17:34:22
2	Cr 267.716†	-44.3	10.1	0.2231	µg/L	0.2231	ppb	17:34:01
2	Cu 324.752†	2455.1	-143.0	-0.9967	µg/L	-0.9967	ppb	17:34:01
2	Mn 257.610†	-230.3	24.3	0.0842	µg/L	0.0842	ppb	17:34:22
2	Mo 202.031†	-2.3	5.3	0.5710	µg/L	0.5710	ppb	17:34:22
2	Ni 231.604†	304.4	-11.7	-0.6402	µg/L	-0.6402	ppb	17:34:22
2	P 214.914†	29.3	0.4	0.8548	µg/L	0.8548	ppb	17:34:22
2	Pb 220.353†	101.4	-0.5	-0.1165	µg/L	-0.1165	ppb	17:34:22

2	S 181.975 Axial†	19.4	3.7	16.024 µg/L	16.024 ppb	17:34:22
2	Sb 206.836†	27.6	-0.6	-0.5726 µg/L	-0.5726 ppb	17:34:22
2	Se 196.026†	16.9	0.3	0.5139 µg/L	0.5139 ppb	17:34:22
2	SiO2†	1231.1	-75.1	-16.163 µg/L	-16.163 ppb	17:34:01
2	Si 251.611†	308.3	-18.6	-1.5330 µg/L	-1.5330 ppb	17:34:22
2	Sn 189.927†	-2.5	-1.5	-0.6783 µg/L	-0.6783 ppb	17:34:22
2	Ti 334.940†	155.7	32.5	0.0749 µg/L	0.0749 ppb	17:34:01
2	Tl 190.801†	-24.6	0.8	1.0677 µg/L	1.0677 ppb	17:34:22
2	U 409.014†	-70.7	-13.8	-1.2553 µg/L	-1.2553 ppb	17:34:01
2	V 292.402†	13.1	56.7	0.6099 µg/L	0.6099 ppb	17:34:01
2	Zn 213.857†	482.3	-15.3	-0.3800 µg/L	-0.3800 ppb	17:34:22
3	Sc RADIAL	57391.7	57391.7	105 %		17:32:53
3	Al 396.153Radial†	-24.1	-12.7	-9.5161 µg/L	-9.5161 ppb	17:32:53
3	Ca 317.933Radial†	189.2	0.7	0.6854 µg/L	0.6854 ppb	17:33:13
3	Fe 238.204 Radial†	14.2	-1.0	-8.3318 µg/L	-8.3318 ppb	17:33:13
3	K 766.490 Radial†	170.0	33.2	23.601 µg/L	23.601 ppb	17:32:53
3	Mg 279.077 IEC†	13.6	1.6	15.113 µg/L	15.113 ppb	17:33:13
3	Na 589.592 Radial†	706.7	130.1	42.833 µg/L	42.833 ppb	17:32:53
3	Sr 421.552†	21.4	-19.2	-0.1993 µg/L	-0.1993 ppb	17:32:53
3	Sc 361.383	2035877.5	2035877.5	106.60 %		17:34:28
3	Y 371.029	1396783.1	1396783.1	106.63 %		17:34:28
3	Ag 328.068†	-558.0	41.1	0.3273 µg/L	0.3273 ppb	17:34:33
3	As 188.979†	-5.7	-6.5	-12.714 µg/L	-12.714 ppb	17:34:54
3	B 249.677†	310.2	-40.5	-1.7628 µg/L	-1.7628 ppb	17:34:54
3	Ba 233.527†	-23.8	3.7	0.0975 µg/L	0.0975 ppb	17:34:54
3	Be 313.107†	-3295.5	348.9	0.2278 µg/L	0.2278 ppb	17:34:33
3	Cd 226.502†	-134.4	16.1	0.4439 µg/L	0.4439 ppb	17:34:54
3	Co 228.616†	-16.8	-6.9	-0.3385 µg/L	-0.3385 ppb	17:34:54
3	Cr 267.716†	-31.9	22.4	0.4933 µg/L	0.4933 ppb	17:34:33
3	Cu 324.752†	2431.1	-205.5	-1.4364 µg/L	-1.4364 ppb	17:34:33
3	Mn 257.610†	-224.1	33.9	0.1156 µg/L	0.1156 ppb	17:34:54
3	Mo 202.031†	2.2	9.6	1.0266 µg/L	1.0266 ppb	17:34:54
3	Ni 231.604†	311.7	-9.8	-0.5337 µg/L	-0.5337 ppb	17:34:54
3	P 214.914†	26.4	-2.8	-5.9346 µg/L	-5.9346 ppb	17:34:54
3	Pb 220.353†	98.3	-5.0	-1.3370 µg/L	-1.3370 ppb	17:34:54
3	S 181.975 Axial†	14.7	-1.0	-4.4979 µg/L	-4.4979 ppb	17:34:54
3	Sb 206.836†	25.7	-2.9	-2.8125 µg/L	-2.8125 ppb	17:34:54
3	Se 196.026†	12.1	-4.5	-6.8217 µg/L	-6.8217 ppb	17:34:54
3	SiO2†	1207.8	-117.0	-25.202 µg/L	-25.202 ppb	17:34:33
3	Si 251.611†	320.7	-12.0	-0.9854 µg/L	-0.9854 ppb	17:34:54
3	Sn 189.927†	3.6	4.2	1.9540 µg/L	1.9540 ppb	17:34:54
3	Ti 334.940†	152.2	26.6	0.0629 µg/L	0.0629 ppb	17:34:33
3	Tl 190.801†	-31.1	-4.8	-6.7573 µg/L	-6.7573 ppb	17:34:54
3	U 409.014†	18.4	70.9	6.4223 µg/L	6.4223 ppb	17:34:33
3	V 292.402†	-21.9	23.7	0.2672 µg/L	0.2672 ppb	17:34:33
3	Zn 213.857†	481.8	-23.6	-0.5847 µg/L	-0.5847 ppb	17:34:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019407.5	105.74	%	0.915				0.87%
Sc RADIAL	57233.0	105	%	0.3				0.29%
Y 371.029	1384789.1	105.72	%	0.942				0.89%
Ag 328.068†	41.4	0.3305	µg/L	0.03757	0.3305	ppb	0.03757	11.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-3.1863	µg/L	8.13450	-3.1863	ppb	8.13450	255.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-8.0447	µg/L	4.66908	-8.0447	ppb	4.66908	58.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-28.9	-1.2656	µg/L	0.44348	-1.2656	ppb	0.44348	35.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1973	µg/L	0.17977	0.1973	ppb	0.17977	91.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	175.0	0.1143	µg/L	0.09874	0.1143	ppb	0.09874	86.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.8	-0.7353	µg/L	1.25585	-0.7353	ppb	1.25585	170.79%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.8	0.4074	µg/L	0.03216	0.4074	ppb	0.03216	7.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.4	-0.1157	µg/L	0.20732	-0.1157	ppb	0.20732	179.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.8      0.3480 µg/L       0.13629      0.3480 ppb        0.13629  39.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -175.8     -1.2276 µg/L       0.22068     -1.2276 ppb        0.22068  17.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      4.5012 µg/L      11.48343      4.5012 ppb       11.48343 255.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          41.6      29.571 µg/L       16.4438      29.571 ppb        16.4438  55.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.0      18.703 µg/L       21.0870      18.703 ppb        21.0870 112.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                29.0      0.1004 µg/L       0.01570      0.1004 ppb        0.01570  15.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.9      0.4208 µg/L       0.69318      0.4208 ppb        0.69318 164.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        139.6      45.952 µg/L        3.4354      45.952 ppb         3.4354   7.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.3     -0.7820 µg/L       0.34199     -0.7820 ppb        0.34199  43.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.9     -1.7335 µg/L       3.67082     -1.7335 ppb        3.67082 211.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.9     -1.3084 µg/L       1.17784     -1.3084 ppb        1.17784  90.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      5.5955 µg/L      10.26528      5.5955 ppb       10.26528 183.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.5     -3.4143 µg/L       3.18555     -3.4143 ppb        3.18555  93.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -1.9164 µg/L       4.24816     -1.9164 ppb        4.24816 221.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -84.6     -18.217 µg/L        6.2180     -18.217 ppb         6.2180  34.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -15.2     -1.2511 µg/L       0.27411     -1.2511 ppb        0.27411  21.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.0      0.4544 µg/L       1.35398      0.4544 ppb        1.35398 297.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -19.2     -0.1993 µg/L       0.25463     -0.1993 ppb        0.25463 127.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.3      0.0282 µg/L       0.07081      0.0282 ppb        0.07081 251.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.6042 µg/L       4.46370     -1.6042 ppb        4.46370 278.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 36.0      3.2592 µg/L       4.01326      3.2592 ppb        4.01326 123.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.2      0.3089 µg/L       0.28245      0.3089 ppb        0.28245  91.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.6     -0.5110 µg/L       0.11370     -0.5110 ppb        0.11370  22.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:03:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57726.1	57726.1	106	%			18:04:22
1	Al 396.153Radial†	6766.7	6407.4	4765.2	µg/L	4765.2	ppb	18:04:22
1	Ca 317.933Radial†	5597.5	5112.8	4814.0	µg/L	4814.0	ppb	18:04:43
1	Fe 238.204 Radial†	618.0	569.7	4839.6	µg/L	4839.6	ppb	18:04:43
1	K 766.490 Radial†	7228.2	6705.1	4766.0	µg/L	4766.0	ppb	18:04:22
1	Mg 279.077 IEC†	567.3	525.0	4889.6	µg/L	4889.6	ppb	18:04:43
1	Na 589.592 Radial†	31079.1	28840.4	9494.4	µg/L	9494.4	ppb	18:04:22
1	Sr 421.552†	47930.5	45274.1	469.32	µg/L	469.32	ppb	18:04:22
1	Sc 361.383	1995865.2	1995865.2	104.50	%			18:05:46
1	Y 371.029	1362757.5	1362757.5	104.03	%			18:05:46
1	Ag 328.068†	63483.9	61312.1	490.10	µg/L	490.10	ppb	18:05:52
1	As 188.979†	273.1	260.2	507.53	µg/L	507.53	ppb	18:06:12
1	B 249.677†	12082.3	11230.0	489.06	µg/L	489.06	ppb	18:05:52
1	Ba 233.527†	19988.9	19153.3	499.62	µg/L	499.62	ppb	18:05:52
1	Be 313.107†	781981.3	751717.1	490.73	µg/L	490.73	ppb	18:05:46
1	Cd 226.502†	18909.7	18236.8	503.08	µg/L	503.08	ppb	18:05:52
1	Co 228.616†	10693.9	10241.8	503.48	µg/L	503.48	ppb	18:05:52
1	Cr 267.716†	23838.7	22863.6	503.22	µg/L	503.22	ppb	18:05:52
1	Cu 324.752†	76544.4	70759.2	494.94	µg/L	494.94	ppb	18:05:52
1	Mn 257.610†	150825.0	144568.3	501.07	µg/L	501.07	ppb	18:05:46
1	Mo 202.031†	4977.2	4770.3	509.27	µg/L	509.27	ppb	18:06:12
1	Ni 231.604†	9935.5	9205.0	502.75	µg/L	502.75	ppb	18:05:52
1	P 214.914†	1265.8	1183.6	2494.1	µg/L	2494.1	ppb	18:06:12
1	Pb 220.353†	2092.9	1905.5	508.60	µg/L	508.60	ppb	18:06:12
1	S 181.975 Axial†	254.0	228.2	999.80	µg/L	999.80	ppb	18:06:12
1	Sb 206.836†	555.5	504.6	498.91	µg/L	498.91	ppb	18:06:12
1	Se 196.026†	366.1	334.5	517.42	µg/L	517.42	ppb	18:06:12
1	SiO2†	26867.3	24459.3	5267.4	µg/L	5267.4	ppb	18:05:52
1	Si 251.611†	31625.0	29949.0	2462.0	µg/L	2462.0	ppb	18:05:52
1	Sn 189.927†	1151.3	1102.5	507.11	µg/L	507.11	ppb	18:06:12
1	Ti 334.940†	210462.3	201274.9	483.84	µg/L	483.84	ppb	18:05:46
1	Tl 190.801†	351.8	360.9	509.62	µg/L	509.62	ppb	18:06:12
1	U 409.014†	5780.2	5584.7	504.65	µg/L	504.65	ppb	18:05:52
1	V 292.402†	48773.6	46715.6	504.04	µg/L	504.04	ppb	18:05:52
1	Zn 213.857†	21610.6	20203.6	500.98	µg/L	500.98	ppb	18:05:52
2	Sc RADIAL	58137.3	58137.3	107	%			18:04:48
2	Al 396.153Radial†	6794.0	6387.8	4750.7	µg/L	4750.7	ppb	18:04:48
2	Ca 317.933Radial†	5592.3	5070.5	4774.2	µg/L	4774.2	ppb	18:05:09
2	Fe 238.204 Radial†	618.1	565.7	4805.7	µg/L	4805.7	ppb	18:05:09
2	K 766.490 Radial†	7287.3	6712.3	4771.1	µg/L	4771.1	ppb	18:04:48
2	Mg 279.077 IEC†	568.2	522.1	4862.2	µg/L	4862.2	ppb	18:05:09
2	Na 589.592 Radial†	31238.6	28782.3	9475.2	µg/L	9475.2	ppb	18:04:48
2	Sr 421.552†	48291.3	45292.3	469.51	µg/L	469.51	ppb	18:04:48
2	Sc 361.383	2007163.9	2007163.9	105.10	%			18:06:19
2	Y 371.029	1370434.0	1370434.0	104.62	%			18:06:19
2	Ag 328.068†	63627.6	61107.0	488.46	µg/L	488.46	ppb	18:06:25
2	As 188.979†	273.7	259.2	505.75	µg/L	505.75	ppb	18:06:46
2	B 249.677†	12114.9	11196.0	487.59	µg/L	487.59	ppb	18:06:25
2	Ba 233.527†	19979.9	19037.1	496.59	µg/L	496.59	ppb	18:06:25
2	Be 313.107†	784264.0	749676.9	489.40	µg/L	489.40	ppb	18:06:19
2	Cd 226.502†	18871.7	18098.7	499.27	µg/L	499.27	ppb	18:06:25
2	Co 228.616†	10694.5	10184.8	500.67	µg/L	500.67	ppb	18:06:25
2	Cr 267.716†	23892.4	22786.3	501.52	µg/L	501.52	ppb	18:06:25
2	Cu 324.752†	76884.7	70670.6	494.32	µg/L	494.32	ppb	18:06:25
2	Mn 257.610†	151108.1	144025.3	499.18	µg/L	499.18	ppb	18:06:19
2	Mo 202.031†	4921.9	4690.8	500.79	µg/L	500.79	ppb	18:06:46
2	Ni 231.604†	9959.3	9174.2	501.07	µg/L	501.07	ppb	18:06:25
2	P 214.914†	1267.5	1178.4	2483.0	µg/L	2483.0	ppb	18:06:46
2	Pb 220.353†	2074.4	1876.6	500.89	µg/L	500.89	ppb	18:06:46

2	S 181.975 Axial†	247.1	220.3	965.20 µg/L	965.20 ppb	18:06:46
2	Sb 206.836†	553.1	499.3	493.56 µg/L	493.56 ppb	18:06:46
2	Se 196.026†	362.2	328.8	508.76 µg/L	508.76 ppb	18:06:46
2	SiO2†	26954.0	24397.1	5254.0 µg/L	5254.0 ppb	18:06:25
2	Si 251.611†	31693.0	29843.4	2453.3 µg/L	2453.3 ppb	18:06:25
2	Sn 189.927†	1148.2	1093.4	502.92 µg/L	502.92 ppb	18:06:46
2	Ti 334.940†	211069.7	200719.2	482.51 µg/L	482.51 ppb	18:06:19
2	Tl 190.801†	350.2	357.5	504.86 µg/L	504.86 ppb	18:06:46
2	U 409.014†	5713.5	5490.1	496.10 µg/L	496.10 ppb	18:06:25
2	V 292.402†	48839.6	46515.7	501.83 µg/L	501.83 ppb	18:06:25
2	Zn 213.857†	21586.8	20064.5	497.52 µg/L	497.52 ppb	18:06:25
3	Sc RADIAL	57420.7	57420.7	105 %		18:05:14
3	Al 396.153Radial†	6887.1	6555.8	4877.6 µg/L	4877.6 ppb	18:05:14
3	Ca 317.933Radial†	5594.0	5137.6	4837.4 µg/L	4837.4 ppb	18:05:34
3	Fe 238.204 Radial†	619.5	574.3	4877.2 µg/L	4877.2 ppb	18:05:34
3	K 766.490 Radial†	7272.3	6783.4	4821.6 µg/L	4821.6 ppb	18:05:14
3	Mg 279.077 IEC†	569.6	530.1	4935.2 µg/L	4935.2 ppb	18:05:34
3	Na 589.592 Radial†	31447.7	29346.9	9661.1 µg/L	9661.1 ppb	18:05:14
3	Sr 421.552†	48895.8	46432.5	481.33 µg/L	481.33 ppb	18:05:14
3	Sc 361.383	2010251.9	2010251.9	105.26 %		18:06:53
3	Y 371.029	1371909.0	1371909.0	104.73 %		18:06:53
3	Ag 328.068†	59865.9	57440.1	459.05 µg/L	459.05 ppb	18:06:58
3	As 188.979†	229.2	216.7	422.67 µg/L	422.67 ppb	18:07:19
3	B 249.677†	11370.0	10470.6	455.76 µg/L	455.76 ppb	18:06:58
3	Ba 233.527†	18395.6	17502.7	456.55 µg/L	456.55 ppb	18:06:58
3	Be 313.107†	741644.3	708039.7	462.22 µg/L	462.22 ppb	18:06:53
3	Cd 226.502†	17275.3	16554.5	456.62 µg/L	456.62 ppb	18:06:58
3	Co 228.616†	9741.1	9263.3	455.31 µg/L	455.31 ppb	18:06:58
3	Cr 267.716†	21256.7	20247.3	445.64 µg/L	445.64 ppb	18:06:58
3	Cu 324.752†	70381.9	64380.2	450.39 µg/L	450.39 ppb	18:06:58
3	Mn 257.610†	143060.5	136158.7	471.95 µg/L	471.95 ppb	18:06:53
3	Mo 202.031†	4127.0	3928.4	419.43 µg/L	419.43 ppb	18:07:19
3	Ni 231.604†	9089.8	8333.5	455.16 µg/L	455.16 ppb	18:06:58
3	P 214.914†	1084.0	1002.2	2108.1 µg/L	2108.1 ppb	18:07:19
3	Pb 220.353†	1818.2	1630.2	435.03 µg/L	435.03 ppb	18:07:19
3	S 181.975 Axial†	224.4	198.4	869.26 µg/L	869.26 ppb	18:07:19
3	Sb 206.836†	480.4	429.5	424.14 µg/L	424.14 ppb	18:07:19
3	Se 196.026†	313.7	282.2	437.85 µg/L	437.85 ppb	18:07:19
3	SiO2†	25019.5	22519.8	4849.8 µg/L	4849.8 ppb	18:06:58
3	Si 251.611†	29405.8	27624.1	2270.8 µg/L	2270.8 ppb	18:06:58
3	Sn 189.927†	955.0	908.2	417.73 µg/L	417.73 ppb	18:07:19
3	Ti 334.940†	198942.9	188889.6	454.05 µg/L	454.05 ppb	18:06:53
3	Tl 190.801†	316.9	325.4	459.73 µg/L	459.73 ppb	18:07:19
3	U 409.014†	5179.0	4973.9	449.35 µg/L	449.35 ppb	18:06:58
3	V 292.402†	44254.0	42087.7	453.84 µg/L	453.84 ppb	18:06:58
3	Zn 213.857†	19673.0	18214.8	451.59 µg/L	451.59 ppb	18:06:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004427.0	104.95	%	0.397				0.38%
Sc RADIAL	57761.4	106	%	0.7				0.62%
Y 371.029	1368366.8	104.46	%	0.375				0.36%
Ag 328.068†	59953.1	479.20	µg/L	17.470	479.20	ppb	17.470	3.65%
QC value within limits for Ag 328.068 Recovery = 95.84%								
Al 396.153Radial†	6450.3	4797.9	µg/L	69.48	4797.9	ppb	69.48	1.45%
QC value within limits for Al 396.153Radial Recovery = 95.96%								
As 188.979†	245.3	478.65	µg/L	48.486	478.65	ppb	48.486	10.13%
QC value within limits for As 188.979 Recovery = 95.73%								
B 249.677†	10965.6	477.47	µg/L	18.814	477.47	ppb	18.814	3.94%
QC value within limits for B 249.677 Recovery = 95.49%								
Ba 233.527†	18564.4	484.26	µg/L	24.039	484.26	ppb	24.039	4.96%
QC value within limits for Ba 233.527 Recovery = 96.85%								
Be 313.107†	736477.9	480.78	µg/L	16.091	480.78	ppb	16.091	3.35%
QC value within limits for Be 313.107 Recovery = 96.16%								
Ca 317.933Radial†	5106.9	4808.5	µg/L	31.95	4808.5	ppb	31.95	0.66%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	17630.0	486.32	µg/L	25.796	486.32	ppb	25.796	5.30%
QC value within limits for Cd 226.502 Recovery = 97.26%								
Co 228.616†	9896.7	486.49	µg/L	27.038	486.49	ppb	27.038	5.56%

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   QC value within limits for Co 228.616  Recovery = 97.30%
Cr 267.716†            21965.7      483.46 µg/L        32.763      483.46 ppb         32.763   6.78%
   QC value within limits for Cr 267.716  Recovery = 96.69%
Cu 324.752†            68603.3      479.88 µg/L        25.545      479.88 ppb         25.545   5.32%
   QC value within limits for Cu 324.752  Recovery = 95.98%
Fe 238.204 Radial†       569.9      4840.8 µg/L         35.77      4840.8 ppb          35.77   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.82%
K 766.490 Radial†       6733.6      4786.2 µg/L         30.77      4786.2 ppb          30.77   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 95.72%
Mg 279.077 IEC†          525.8      4895.7 µg/L         36.85      4895.7 ppb          36.85   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           141584.1      490.73 µg/L        16.295      490.73 ppb         16.295   3.32%
   QC value within limits for Mn 257.610  Recovery = 98.15%
Mo 202.031†            4463.2      476.50 µg/L        49.601      476.50 ppb         49.601  10.41%
   QC value within limits for Mo 202.031  Recovery = 95.30%
Na 589.592 Radial†     28989.9      9543.6 µg/L        102.24      9543.6 ppb         102.24   1.07%
   QC value within limits for Na 589.592 Radial  Recovery = 95.44%
Ni 231.604†            8904.3      486.32 µg/L        27.004      486.32 ppb         27.004   5.55%
   QC value within limits for Ni 231.604  Recovery = 97.26%
P 214.914†             1121.4      2361.7 µg/L        219.74      2361.7 ppb         219.74   9.30%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†            1804.1      481.51 µg/L        40.435      481.51 ppb         40.435   8.40%
   QC value within limits for Pb 220.353  Recovery = 96.30%
S 181.975 Axial†        215.6      944.76 µg/L        67.630      944.76 ppb         67.630   7.16%
   QC value within limits for S 181.975 Axial  Recovery = 94.48%
Sb 206.836†             477.8      472.20 µg/L        41.713      472.20 ppb         41.713   8.83%
   QC value within limits for Sb 206.836  Recovery = 94.44%
Se 196.026†             315.2      488.01 µg/L        43.651      488.01 ppb         43.651   8.94%
   QC value within limits for Se 196.026  Recovery = 97.60%
SiO2†                  23792.0      5123.7 µg/L        237.37      5123.7 ppb         237.37   4.63%
   QC value within limits for SiO2  Recovery = 95.82%
Si 251.611†            29138.9      2395.4 µg/L        107.92      2395.4 ppb         107.92   4.51%
   QC value within limits for Si 251.611  Recovery = 95.81%
Sn 189.927†            1034.7      475.92 µg/L        50.437      475.92 ppb         50.437  10.60%
   QC value within limits for Sn 189.927  Recovery = 95.18%
Sr 421.552†            45666.3      473.38 µg/L         6.879      473.38 ppb          6.879   1.45%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           196961.2      473.47 µg/L        16.830      473.47 ppb         16.830   3.55%
   QC value within limits for Ti 334.940  Recovery = 94.69%
Tl 190.801†             348.0      491.40 µg/L        27.532      491.40 ppb         27.532   5.60%
   QC value within limits for Tl 190.801  Recovery = 98.28%
U 409.014†             5349.6      483.37 µg/L        29.770      483.37 ppb         29.770   6.16%
   QC value within limits for U 409.014  Recovery = 96.67%
V 292.402†             45106.3      486.57 µg/L        28.365      486.57 ppb         28.365   5.83%
   QC value within limits for V 292.402  Recovery = 97.31%
Zn 213.857†            19494.3      483.36 µg/L        27.567      483.36 ppb         27.567   5.70%
   QC value within limits for Zn 213.857  Recovery = 96.67%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:07:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56532.0	56532.0	104	%			18:08:03
1	Al 396.153Radial†	-15.4	-4.8	-3.5570	µg/L	-3.5570	ppb	18:08:03
1	Ca 317.933Radial†	184.3	-1.2	-1.1516	µg/L	-1.1516	ppb	18:08:24
1	Fe 238.204 Radial†	15.7	0.7	5.7821	µg/L	5.7821	ppb	18:08:24
1	K 766.490 Radial†	164.9	30.8	21.873	µg/L	21.873	ppb	18:08:03
1	Mg 279.077 IEC†	16.1	4.2	39.497	µg/L	39.497	ppb	18:08:24
1	Na 589.592 Radial†	629.4	65.8	21.647	µg/L	21.647	ppb	18:08:03
1	Sr 421.552†	25.1	-15.3	-0.1589	µg/L	-0.1589	ppb	18:08:03
1	Sc 361.383	1970116.9	1970116.9	103.16	%			18:09:26
1	Y 371.029	1351478.3	1351478.3	103.17	%			18:09:26
1	Ag 328.068†	-586.1	-3.7	-0.0267	µg/L	-0.0267	ppb	18:09:32
1	As 188.979†	0.4	-0.7	-1.4081	µg/L	-1.4081	ppb	18:09:52
1	B 249.677†	319.9	-21.4	-0.9375	µg/L	-0.9375	ppb	18:09:52
1	Ba 233.527†	-23.6	3.1	0.0818	µg/L	0.0818	ppb	18:09:52
1	Be 313.107†	-3504.0	43.7	0.0286	µg/L	0.0286	ppb	18:09:32
1	Cd 226.502†	-151.5	-4.7	-0.1322	µg/L	-0.1322	ppb	18:09:52
1	Co 228.616†	-11.0	-1.8	-0.0886	µg/L	-0.0886	ppb	18:09:52
1	Cr 267.716†	-63.6	-9.3	-0.2036	µg/L	-0.2036	ppb	18:09:32
1	Cu 324.752†	2393.3	-166.0	-1.1590	µg/L	-1.1590	ppb	18:09:32
1	Mn 257.610†	-254.5	-2.6	-0.0100	µg/L	-0.0100	ppb	18:09:52
1	Mo 202.031†	-8.7	-0.9	-0.0948	µg/L	-0.0948	ppb	18:09:52
1	Ni 231.604†	290.0	-21.0	-1.1506	µg/L	-1.1506	ppb	18:09:52
1	P 214.914†	32.8	4.2	9.1562	µg/L	9.1562	ppb	18:09:52
1	Pb 220.353†	95.7	-4.4	-1.1812	µg/L	-1.1812	ppb	18:09:52
1	S 181.975 Axial†	14.0	-1.2	-5.3162	µg/L	-5.3162	ppb	18:09:52
1	Sb 206.836†	31.3	3.4	3.3775	µg/L	3.3775	ppb	18:09:52
1	Se 196.026†	11.2	-4.9	-7.5535	µg/L	-7.5535	ppb	18:09:52
1	SiO2†	1234.7	-53.1	-11.434	µg/L	-11.434	ppb	18:09:32
1	Si 251.611†	295.0	-26.9	-2.2136	µg/L	-2.2136	ppb	18:09:52
1	Sn 189.927†	1.4	2.3	1.0452	µg/L	1.0452	ppb	18:09:52
1	Ti 334.940†	70.3	-48.0	-0.1186	µg/L	-0.1186	ppb	18:09:32
1	Tl 190.801†	-29.3	-4.1	-5.6836	µg/L	-5.6836	ppb	18:09:52
1	U 409.014†	-64.3	-8.7	-0.7862	µg/L	-0.7862	ppb	18:09:32
1	V 292.402†	-16.1	28.6	0.3039	µg/L	0.3039	ppb	18:09:32
1	Zn 213.857†	475.3	-14.8	-0.3645	µg/L	-0.3645	ppb	18:09:52
2	Sc RADIAL	55658.7	55658.7	102	%			18:08:29
2	Al 396.153Radial†	8.4	18.4	13.722	µg/L	13.722	ppb	18:08:29
2	Ca 317.933Radial†	182.4	-0.3	-0.2942	µg/L	-0.2942	ppb	18:08:50
2	Fe 238.204 Radial†	17.1	2.3	19.276	µg/L	19.276	ppb	18:08:50
2	K 766.490 Radial†	186.5	54.5	38.722	µg/L	38.722	ppb	18:08:29
2	Mg 279.077 IEC†	15.0	3.4	31.500	µg/L	31.500	ppb	18:08:50
2	Na 589.592 Radial†	680.0	124.9	41.106	µg/L	41.106	ppb	18:08:29
2	Sr 421.552†	30.6	-9.6	-0.0993	µg/L	-0.0993	ppb	18:08:29
2	Sc 361.383	2007038.7	2007038.7	105.09	%			18:09:58
2	Y 371.029	1377314.4	1377314.4	105.15	%			18:09:58
2	Ag 328.068†	-493.3	95.1	0.7576	µg/L	0.7576	ppb	18:10:04
2	As 188.979†	-1.7	-2.7	-5.3378	µg/L	-5.3378	ppb	18:10:25
2	B 249.677†	329.1	-18.3	-0.8077	µg/L	-0.8077	ppb	18:10:25
2	Ba 233.527†	-25.2	2.0	0.0533	µg/L	0.0533	ppb	18:10:25
2	Be 313.107†	-3351.2	251.6	0.1643	µg/L	0.1643	ppb	18:10:04
2	Cd 226.502†	-144.2	4.9	0.1335	µg/L	0.1335	ppb	18:10:25
2	Co 228.616†	-14.3	-4.7	-0.2334	µg/L	-0.2334	ppb	18:10:25
2	Cr 267.716†	-47.8	6.9	0.1524	µg/L	0.1524	ppb	18:10:04
2	Cu 324.752†	2466.3	-139.3	-0.9702	µg/L	-0.9702	ppb	18:10:04
2	Mn 257.610†	-245.5	10.5	0.0378	µg/L	0.0378	ppb	18:10:25
2	Mo 202.031†	-7.5	0.4	0.0445	µg/L	0.0445	ppb	18:10:25
2	Ni 231.604†	299.7	-17.0	-0.9313	µg/L	-0.9313	ppb	18:10:25
2	P 214.914†	31.3	2.2	4.7306	µg/L	4.7306	ppb	18:10:25
2	Pb 220.353†	108.5	6.1	1.6290	µg/L	1.6290	ppb	18:10:25

2	S 181.975 Axial†	16.7	1.1	4.8755 µg/L	4.8755 ppb	18:10:25
2	Sb 206.836†	20.8	-7.2	-7.0445 µg/L	-7.0445 ppb	18:10:25
2	Se 196.026†	16.5	-0.1	-0.1477 µg/L	-0.1477 ppb	18:10:25
2	SiO2†	1217.3	-91.6	-19.736 µg/L	-19.736 ppb	18:10:04
2	Si 251.611†	298.1	-29.3	-2.4046 µg/L	-2.4046 ppb	18:10:25
2	Sn 189.927†	0.2	1.0	0.4758 µg/L	0.4758 ppb	18:10:25
2	Ti 334.940†	145.5	22.4	0.0513 µg/L	0.0513 ppb	18:10:04
2	Tl 190.801†	-26.0	-0.5	-0.6548 µg/L	-0.6548 ppb	18:10:25
2	U 409.014†	-106.1	-47.3	-4.2862 µg/L	-4.2862 ppb	18:10:04
2	V 292.402†	-24.2	21.2	0.2243 µg/L	0.2243 ppb	18:10:04
2	Zn 213.857†	472.5	-25.9	-0.6440 µg/L	-0.6440 ppb	18:10:25
3	Sc RADIAL	55952.9	55952.9	103 %		18:08:56
3	Al 396.153Radial†	-23.9	-13.2	-9.8258 µg/L	-9.8258 ppb	18:08:56
3	Ca 317.933Radial†	192.5	8.6	8.1332 µg/L	8.1332 ppb	18:09:16
3	Fe 238.204 Radial†	17.2	2.3	19.451 µg/L	19.451 ppb	18:09:16
3	K 766.490 Radial†	199.1	65.8	46.778 µg/L	46.778 ppb	18:08:56
3	Mg 279.077 IEC†	13.0	1.4	13.321 µg/L	13.321 ppb	18:09:16
3	Na 589.592 Radial†	622.9	65.7	21.628 µg/L	21.628 ppb	18:08:56
3	Sr 421.552†	22.5	-17.6	-0.1825 µg/L	-0.1825 ppb	18:08:56
3	Sc 361.383	1969215.9	1969215.9	103.11 %		18:10:31
3	Y 371.029	1350905.5	1350905.5	103.13 %		18:10:31
3	Ag 328.068†	-575.5	6.4	0.0513 µg/L	0.0513 ppb	18:10:36
3	As 188.979†	-0.8	-1.9	-3.6705 µg/L	-3.6705 ppb	18:10:57
3	B 249.677†	315.0	-25.9	-1.1434 µg/L	-1.1434 ppb	18:10:57
3	Ba 233.527†	-24.5	2.2	0.0583 µg/L	0.0583 ppb	18:10:57
3	Be 313.107†	-3286.5	253.0	0.1652 µg/L	0.1652 ppb	18:10:36
3	Cd 226.502†	-133.6	12.5	0.3430 µg/L	0.3430 ppb	18:10:57
3	Co 228.616†	-14.1	-4.9	-0.2403 µg/L	-0.2403 ppb	18:10:57
3	Cr 267.716†	-66.1	-11.7	-0.2584 µg/L	-0.2584 ppb	18:10:36
3	Cu 324.752†	2477.5	-83.3	-0.5792 µg/L	-0.5792 ppb	18:10:36
3	Mn 257.610†	-225.9	25.1	0.0888 µg/L	0.0888 ppb	18:10:57
3	Mo 202.031†	-9.8	-2.0	-0.2112 µg/L	-0.2112 ppb	18:10:57
3	Ni 231.604†	298.6	-12.6	-0.6902 µg/L	-0.6902 ppb	18:10:57
3	P 214.914†	27.1	-1.4	-2.9216 µg/L	-2.9216 ppb	18:10:57
3	Pb 220.353†	95.5	-4.6	-1.2298 µg/L	-1.2298 ppb	18:10:57
3	S 181.975 Axial†	18.9	3.5	15.355 µg/L	15.355 ppb	18:10:57
3	Sb 206.836†	19.3	-8.3	-8.1417 µg/L	-8.1417 ppb	18:10:57
3	Se 196.026†	11.7	-4.5	-6.8172 µg/L	-6.8172 ppb	18:10:57
3	SiO2†	1221.9	-65.0	-13.993 µg/L	-13.993 ppb	18:10:36
3	Si 251.611†	305.8	-16.3	-1.3398 µg/L	-1.3398 ppb	18:10:57
3	Sn 189.927†	-1.0	-0.1	-0.0571 µg/L	-0.0571 ppb	18:10:57
3	Ti 334.940†	185.2	63.5	0.1517 µg/L	0.1517 ppb	18:10:36
3	Tl 190.801†	-28.1	-3.0	-4.1975 µg/L	-4.1975 ppb	18:10:57
3	U 409.014†	-9.8	44.1	3.9892 µg/L	3.9892 ppb	18:10:36
3	V 292.402†	-52.5	-6.8	-0.0677 µg/L	-0.0677 ppb	18:10:36
3	Zn 213.857†	470.6	-19.2	-0.4765 µg/L	-0.4765 ppb	18:10:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1982123.8	103.78	%	1.130				1.09%
Sc RADIAL	56047.9	103	%	0.8				0.79%
Y 371.029	1359899.4	103.82	%	1.152				1.11%
Ag 328.068†	32.6	0.2608	µg/L	0.43206	0.2608	ppb	0.43206	165.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.1130	µg/L	12.19532	0.1130	ppb	12.19532	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-3.4721	µg/L	1.97235	-3.4721	ppb	1.97235	56.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21.9	-0.9628	µg/L	0.16927	-0.9628	ppb	0.16927	17.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.5	0.0645	µg/L	0.01519	0.0645	ppb	0.01519	23.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.7	0.1193	µg/L	0.07861	0.1193	ppb	0.07861	65.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.2291	µg/L	5.13097	2.2291	ppb	5.13097	230.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.3	0.1147	µg/L	0.23817	0.1147	ppb	0.23817	207.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.8	-0.1875	µg/L	0.08565	-0.1875	ppb	0.08565	45.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.7     -0.1032 µg/L       0.22302     -0.1032 ppb        0.22302 216.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -129.5     -0.9028 µg/L       0.29572     -0.9028 ppb        0.29572  32.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.8      14.837 µg/L        7.8419      14.837 ppb         7.8419  52.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          50.4      35.791 µg/L       12.7089      35.791 ppb        12.7089  35.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.0      28.106 µg/L       13.4141      28.106 ppb        13.4141  47.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.0       0.0389 µg/L       0.04940       0.0389 ppb        0.04940 127.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.8      -0.0872 µg/L       0.12800      -0.0872 ppb        0.12800 146.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         85.4      28.127 µg/L       11.2402      28.127 ppb        11.2402  39.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -16.9      -0.9240 µg/L       0.23026      -0.9240 ppb        0.23026  24.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.7       3.6551 µg/L       6.11031       3.6551 ppb        6.11031 167.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.0      -0.2607 µg/L       1.63670      -0.2607 ppb        1.63670 627.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.1       4.9715 µg/L      10.33607       4.9715 ppb       10.33607 207.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.0      -3.9362 µg/L       6.35757      -3.9362 ppb        6.35757 161.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.2      -4.8394 µg/L       4.07986      -4.8394 ppb        4.07986  84.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -69.9     -15.054 µg/L        4.2514     -15.054 ppb         4.2514  28.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -24.2      -1.9860 µg/L       0.56769      -1.9860 ppb        0.56769  28.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.1       0.4880 µg/L       0.55125       0.4880 ppb        0.55125 112.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.2      -0.1469 µg/L       0.04288      -0.1469 ppb        0.04288  29.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.6       0.0281 µg/L       0.13664       0.0281 ppb        0.13664 485.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.5      -3.5120 µg/L       2.58356      -3.5120 ppb        2.58356  73.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -4.0      -0.3611 µg/L       4.15405      -0.3611 ppb        4.15405 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 14.4       0.1535 µg/L       0.19568       0.1535 ppb        0.19568 127.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.0      -0.4950 µg/L       0.14064      -0.4950 ppb        0.14064  28.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:32:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55441.9	55441.9	102	%			18:33:25
1	Al 396.153Radial†	6917.9	6819.8	5072.2	µg/L	5072.2	ppb	18:33:25
1	Ca 317.933Radial†	5691.9	5423.7	5106.8	µg/L	5106.8	ppb	18:33:45
1	Fe 238.204 Radial†	625.4	601.1	5105.5	µg/L	5105.5	ppb	18:33:45
1	K 766.490 Radial†	7360.4	7116.9	5058.6	µg/L	5058.6	ppb	18:33:25
1	Mg 279.077 IEC†	579.1	558.7	5203.2	µg/L	5203.2	ppb	18:33:45
1	Na 589.592 Radial†	31674.9	30637.4	10086	µg/L	10086	ppb	18:33:25
1	Sr 421.552†	48916.5	48111.6	498.73	µg/L	498.73	ppb	18:33:25
1	Sc 361.383	1949198.7	1949198.7	102.06	%			18:34:49
1	Y 371.029	1332613.7	1332613.7	101.73	%			18:34:49
1	Ag 328.068†	63737.9	63015.4	503.72	µg/L	503.72	ppb	18:34:54
1	As 188.979†	273.4	266.7	520.31	µg/L	520.31	ppb	18:35:15
1	B 249.677†	12085.6	11510.1	501.18	µg/L	501.18	ppb	18:34:54
1	Ba 233.527†	19929.9	19553.5	510.07	µg/L	510.07	ppb	18:34:54
1	Be 313.107†	791453.2	778912.4	508.48	µg/L	508.48	ppb	18:34:49
1	Cd 226.502†	18764.5	18527.7	511.09	µg/L	511.09	ppb	18:34:54
1	Co 228.616†	10683.8	10476.9	515.03	µg/L	515.03	ppb	18:34:54
1	Cr 267.716†	23886.3	23456.4	516.27	µg/L	516.27	ppb	18:34:54
1	Cu 324.752†	77115.4	73072.1	511.13	µg/L	511.13	ppb	18:34:54
1	Mn 257.610†	152507.4	149672.0	518.76	µg/L	518.76	ppb	18:34:49
1	Mo 202.031†	5014.5	4920.8	525.34	µg/L	525.34	ppb	18:35:15
1	Ni 231.604†	9902.4	9400.2	513.41	µg/L	513.41	ppb	18:34:54
1	P 214.914†	1289.3	1235.7	2604.5	µg/L	2604.5	ppb	18:35:15
1	Pb 220.353†	2098.8	1959.2	522.95	µg/L	522.95	ppb	18:35:15
1	S 181.975 Axial†	252.9	233.0	1020.8	µg/L	1020.8	ppb	18:35:15
1	Sb 206.836†	562.5	524.2	518.28	µg/L	518.28	ppb	18:35:15
1	Se 196.026†	361.5	338.4	523.78	µg/L	523.78	ppb	18:35:15
1	SiO2†	26807.5	25016.2	5387.4	µg/L	5387.4	ppb	18:34:54
1	Si 251.611†	31683.4	30730.8	2526.2	µg/L	2526.2	ppb	18:34:54
1	Sn 189.927†	1171.2	1148.4	528.25	µg/L	528.25	ppb	18:35:15
1	Ti 334.940†	213415.9	208990.5	502.38	µg/L	502.38	ppb	18:34:49
1	Tl 190.801†	344.1	361.4	510.53	µg/L	510.53	ppb	18:35:15
1	U 409.014†	5808.1	5744.4	519.06	µg/L	519.06	ppb	18:34:54
1	V 292.402†	48900.4	47957.2	517.47	µg/L	517.47	ppb	18:34:54
1	Zn 213.857†	21532.1	20621.7	511.32	µg/L	511.32	ppb	18:34:54
2	Sc RADIAL	56230.3	56230.3	103	%			18:33:51
2	Al 396.153Radial†	6941.0	6746.8	5018.0	µg/L	5018.0	ppb	18:33:51
2	Ca 317.933Radial†	5664.7	5318.7	5007.9	µg/L	5007.9	ppb	18:34:11
2	Fe 238.204 Radial†	623.7	590.8	5018.6	µg/L	5018.6	ppb	18:34:11
2	K 766.490 Radial†	7345.4	7000.7	4976.0	µg/L	4976.0	ppb	18:33:51
2	Mg 279.077 IEC†	581.5	553.1	5150.5	µg/L	5150.5	ppb	18:34:11
2	Na 589.592 Radial†	31761.7	30284.4	9969.7	µg/L	9969.7	ppb	18:33:51
2	Sr 421.552†	49439.7	47944.2	497.00	µg/L	497.00	ppb	18:33:51
2	Sc 361.383	1968654.4	1968654.4	103.08	%			18:35:22
2	Y 371.029	1345275.7	1345275.7	102.70	%			18:35:22
2	Ag 328.068†	64265.9	62910.5	502.88	µg/L	502.88	ppb	18:35:28
2	As 188.979†	279.7	270.2	527.15	µg/L	527.15	ppb	18:35:48
2	B 249.677†	12199.0	11503.1	500.92	µg/L	500.92	ppb	18:35:28
2	Ba 233.527†	20118.0	19543.0	509.79	µg/L	509.79	ppb	18:35:28
2	Be 313.107†	797156.7	776781.8	507.09	µg/L	507.09	ppb	18:35:22
2	Cd 226.502†	19012.6	18586.7	512.73	µg/L	512.73	ppb	18:35:28
2	Co 228.616†	10795.4	10481.7	515.26	µg/L	515.26	ppb	18:35:28
2	Cr 267.716†	24075.5	23408.6	515.22	µg/L	515.22	ppb	18:35:28
2	Cu 324.752†	77661.1	72854.9	509.61	µg/L	509.61	ppb	18:35:28
2	Mn 257.610†	153284.1	148948.8	516.25	µg/L	516.25	ppb	18:35:22
2	Mo 202.031†	4982.7	4841.3	516.86	µg/L	516.86	ppb	18:35:48
2	Ni 231.604†	10038.8	9436.7	515.40	µg/L	515.40	ppb	18:35:28
2	P 214.914†	1275.2	1209.5	2548.3	µg/L	2548.3	ppb	18:35:48
2	Pb 220.353†	2089.9	1930.2	515.20	µg/L	515.20	ppb	18:35:48

2	S 181.975 Axial†	253.9	231.5	1014.3 µg/L	1014.3 ppb	18:35:48
2	Sb 206.836†	566.6	522.7	516.68 µg/L	516.68 ppb	18:35:48
2	Se 196.026†	362.7	336.1	520.05 µg/L	520.05 ppb	18:35:48
2	SiO2†	27183.9	25121.8	5410.1 µg/L	5410.1 ppb	18:35:28
2	Si 251.611†	31985.4	30716.9	2525.1 µg/L	2525.1 ppb	18:35:28
2	Sn 189.927†	1162.1	1128.3	518.97 µg/L	518.97 ppb	18:35:48
2	Ti 334.940†	214911.2	208374.5	500.90 µg/L	500.90 ppb	18:35:22
2	Tl 190.801†	347.2	361.1	510.11 µg/L	510.11 ppb	18:35:48
2	U 409.014†	5833.8	5713.1	516.25 µg/L	516.25 ppb	18:35:28
2	V 292.402†	49382.2	47951.1	517.33 µg/L	517.33 ppb	18:35:28
2	Zn 213.857†	21765.8	20640.0	511.77 µg/L	511.77 ppb	18:35:28
3	Sc RADIAL	56202.6	56202.6	103 %		18:34:17
3	Al 396.153Radial†	7002.2	6809.5	5066.3 µg/L	5066.3 ppb	18:34:17
3	Ca 317.933Radial†	5645.9	5303.2	4993.3 µg/L	4993.3 ppb	18:34:37
3	Fe 238.204 Radial†	622.2	589.7	5007.8 µg/L	5007.8 ppb	18:34:37
3	K 766.490 Radial†	7390.9	7048.4	5010.0 µg/L	5010.0 ppb	18:34:17
3	Mg 279.077 IEC†	576.6	548.6	5107.8 µg/L	5107.8 ppb	18:34:37
3	Na 589.592 Radial†	31993.1	30524.4	10049 µg/L	10049 ppb	18:34:17
3	Sr 421.552†	49671.5	48193.0	499.58 µg/L	499.58 ppb	18:34:17
3	Sc 361.383	1949854.5	1949854.5	102.10 %		18:35:55
3	Y 371.029	1332440.6	1332440.6	101.72 %		18:35:55
3	Ag 328.068†	60532.1	59854.4	478.35 µg/L	478.35 ppb	18:36:01
3	As 188.979†	230.7	224.8	438.55 µg/L	438.55 ppb	18:36:21
3	B 249.677†	11478.3	10911.2	474.98 µg/L	474.98 ppb	18:36:01
3	Ba 233.527†	18573.8	18218.6	475.23 µg/L	475.23 ppb	18:36:01
3	Be 313.107†	747182.5	735289.5	480.01 µg/L	480.01 ppb	18:35:55
3	Cd 226.502†	17437.8	17222.1	475.04 µg/L	475.04 ppb	18:36:01
3	Co 228.616†	9818.6	9625.9	473.13 µg/L	473.13 ppb	18:36:01
3	Cr 267.716†	21497.4	21108.6	464.60 µg/L	464.60 ppb	18:36:01
3	Cu 324.752†	71198.9	67251.7	470.46 µg/L	470.46 ppb	18:36:01
3	Mn 257.610†	144456.6	141736.2	491.27 µg/L	491.27 ppb	18:35:55
3	Mo 202.031†	4165.5	4087.6	436.42 µg/L	436.42 ppb	18:36:21
3	Ni 231.604†	9187.6	8696.9	475.00 µg/L	475.00 ppb	18:36:01
3	P 214.914†	1084.2	1034.3	2175.1 µg/L	2175.1 ppb	18:36:21
3	Pb 220.353†	1818.3	1683.8	449.34 µg/L	449.34 ppb	18:36:21
3	S 181.975 Axial†	223.4	204.0	893.71 µg/L	893.71 ppb	18:36:21
3	Sb 206.836†	482.5	445.7	440.11 µg/L	440.11 ppb	18:36:21
3	Se 196.026†	316.7	294.4	456.49 µg/L	456.49 ppb	18:36:21
3	SiO2†	25304.0	23534.7	5068.3 µg/L	5068.3 ppb	18:36:01
3	Si 251.611†	29685.2	28763.1	2364.5 µg/L	2364.5 ppb	18:36:01
3	Sn 189.927†	961.6	942.7	433.62 µg/L	433.62 ppb	18:36:21
3	Ti 334.940†	200490.3	196259.8	471.76 µg/L	471.76 ppb	18:35:55
3	Tl 190.801†	316.1	333.9	471.83 µg/L	471.83 ppb	18:36:21
3	U 409.014†	5179.3	5126.6	463.15 µg/L	463.15 ppb	18:36:01
3	V 292.402†	44764.1	43889.7	473.25 µg/L	473.25 ppb	18:36:01
3	Zn 213.857†	19900.8	19016.9	471.49 µg/L	471.49 ppb	18:36:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1955902.5	102.41	%	0.578				0.56%
Sc RADIAL	55958.3	103	%	0.8				0.80%
Y 371.029	1336776.6	102.05	%	0.562				0.55%
Ag 328.068†	61926.8	494.98	µg/L	14.414	494.98	ppb	14.414	2.91%
QC value within limits for Ag 328.068 Recovery = 99.00%								
Al 396.153Radial†	6792.0	5052.2	µg/L	29.77	5052.2	ppb	29.77	0.59%
QC value within limits for Al 396.153Radial Recovery = 101.04%								
As 188.979†	253.9	495.34	µg/L	49.299	495.34	ppb	49.299	9.95%
QC value within limits for As 188.979 Recovery = 99.07%								
B 249.677†	11308.1	492.36	µg/L	15.053	492.36	ppb	15.053	3.06%
QC value within limits for B 249.677 Recovery = 98.47%								
Ba 233.527†	19105.0	498.36	µg/L	20.034	498.36	ppb	20.034	4.02%
QC value within limits for Ba 233.527 Recovery = 99.67%								
Be 313.107†	763661.2	498.53	µg/L	16.055	498.53	ppb	16.055	3.22%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	5348.5	5036.0	µg/L	61.72	5036.0	ppb	61.72	1.23%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	18112.2	499.62	µg/L	21.301	499.62	ppb	21.301	4.26%
QC value within limits for Cd 226.502 Recovery = 99.92%								
Co 228.616†	10194.8	501.14	µg/L	24.256	501.14	ppb	24.256	4.84%

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   QC value within limits for Co 228.616  Recovery = 100.23%
Cr 267.716†            22657.9      498.70 µg/L        29.533      498.70 ppb        29.533   5.92%
   QC value within limits for Cr 267.716  Recovery = 99.74%
Cu 324.752†            71059.6      497.07 µg/L        23.052      497.07 ppb        23.052   4.64%
   QC value within limits for Cu 324.752  Recovery = 99.41%
Fe 238.204 Radial†       593.9      5044.0 µg/L         53.59      5044.0 ppb         53.59   1.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.88%
K 766.490 Radial†       7055.3      5014.9 µg/L         41.51      5014.9 ppb         41.51   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 100.30%
Mg 279.077 IEC†          553.5      5153.8 µg/L         47.82      5153.8 ppb         47.82   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.08%
Mn 257.610†           146785.7      508.76 µg/L        15.198      508.76 ppb        15.198   2.99%
   QC value within limits for Mn 257.610  Recovery = 101.75%
Mo 202.031†             4616.6      492.88 µg/L        49.074      492.88 ppb        49.074   9.96%
   QC value within limits for Mo 202.031  Recovery = 98.58%
Na 589.592 Radial†     30482.1       10035 µg/L          59.3       10035 ppb          59.3   0.59%
   QC value within limits for Na 589.592 Radial  Recovery = 100.35%
Ni 231.604†             9177.9      501.27 µg/L        22.771      501.27 ppb        22.771   4.54%
   QC value within limits for Ni 231.604  Recovery = 100.25%
P 214.914†              1159.8      2442.6 µg/L       233.37      2442.6 ppb       233.37   9.55%
   QC value within limits for P 214.914  Recovery = 97.71%
Pb 220.353†             1857.7      495.83 µg/L        40.446      495.83 ppb        40.446   8.16%
   QC value within limits for Pb 220.353  Recovery = 99.17%
S 181.975 Axial†         222.8      976.27 µg/L        71.572      976.27 ppb        71.572   7.33%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†              497.5      491.69 µg/L        44.681      491.69 ppb        44.681   9.09%
   QC value within limits for Sb 206.836  Recovery = 98.34%
Se 196.026†              322.9      500.11 µg/L        37.818      500.11 ppb        37.818   7.56%
   QC value within limits for Se 196.026  Recovery = 100.02%
SiO2†                  24557.5      5288.6 µg/L       191.11      5288.6 ppb       191.11   3.61%
   QC value within limits for SiO2  Recovery = 98.90%
Si 251.611†            30070.3      2471.9 µg/L        93.06      2471.9 ppb        93.06   3.76%
   QC value within limits for Si 251.611  Recovery = 98.88%
Sn 189.927†             1073.1      493.61 µg/L        52.162      493.61 ppb        52.162  10.57%
   QC value within limits for Sn 189.927  Recovery = 98.72%
Sr 421.552†            48082.9      498.44 µg/L         1.315      498.44 ppb         1.315   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.69%
Ti 334.940†           204541.6      491.68 µg/L        17.266      491.68 ppb        17.266   3.51%
   QC value within limits for Ti 334.940  Recovery = 98.34%
Tl 190.801†              352.2      497.49 µg/L        22.222      497.49 ppb        22.222   4.47%
   QC value within limits for Tl 190.801  Recovery = 99.50%
U 409.014†              5528.1      499.49 µg/L        31.500      499.49 ppb        31.500   6.31%
   QC value within limits for U 409.014  Recovery = 99.90%
V 292.402†             46599.3      502.68 µg/L        25.490      502.68 ppb        25.490   5.07%
   QC value within limits for V 292.402  Recovery = 100.54%
Zn 213.857†            20092.9      498.19 µg/L        23.129      498.19 ppb        23.129   4.64%
   QC value within limits for Zn 213.857  Recovery = 99.64%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:36:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56577.3	56577.3	104	%			18:37:06
1	Al 396.153Radial†	-31.7	-20.5	-15.254	µg/L	-15.254	ppb	18:37:06
1	Ca 317.933Radial†	178.1	-7.3	-6.9019	µg/L	-6.9019	ppb	18:37:27
1	Fe 238.204 Radial†	15.3	0.2	1.9399	µg/L	1.9399	ppb	18:37:27
1	K 766.490 Radial†	151.5	17.7	12.611	µg/L	12.611	ppb	18:37:06
1	Mg 279.077 IEC†	8.3	-3.3	-30.287	µg/L	-30.287	ppb	18:37:27
1	Na 589.592 Radial†	633.9	69.6	22.897	µg/L	22.897	ppb	18:37:06
1	Sr 421.552†	44.5	3.3	0.0346	µg/L	0.0346	ppb	18:37:06
1	Sc 361.383	1997175.6	1997175.6	104.57	%			18:38:28
1	Y 371.029	1371834.1	1371834.1	104.73	%			18:38:28
1	Ag 328.068†	-518.3	68.9	0.5460	µg/L	0.5460	ppb	18:38:34
1	As 188.979†	-0.7	-1.8	-3.4701	µg/L	-3.4701	ppb	18:38:54
1	B 249.677†	333.0	-13.0	-0.5696	µg/L	-0.5696	ppb	18:38:54
1	Ba 233.527†	-20.3	6.6	0.1716	µg/L	0.1716	ppb	18:38:54
1	Be 313.107†	-3492.3	100.9	0.0658	µg/L	0.0658	ppb	18:38:34
1	Cd 226.502†	-135.3	12.8	0.3518	µg/L	0.3518	ppb	18:38:54
1	Co 228.616†	-16.0	-6.4	-0.3169	µg/L	-0.3169	ppb	18:38:54
1	Cr 267.716†	-59.9	-4.9	-0.1071	µg/L	-0.1071	ppb	18:38:34
1	Cu 324.752†	2440.0	-152.8	-1.0669	µg/L	-1.0669	ppb	18:38:34
1	Mn 257.610†	-253.9	1.3	0.0061	µg/L	0.0061	ppb	18:38:54
1	Mo 202.031†	-12.2	-4.2	-0.4445	µg/L	-0.4445	ppb	18:38:54
1	Ni 231.604†	302.8	-12.6	-0.6910	µg/L	-0.6910	ppb	18:38:54
1	P 214.914†	25.9	-2.9	-6.0063	µg/L	-6.0063	ppb	18:38:54
1	Pb 220.353†	96.6	-4.8	-1.2749	µg/L	-1.2749	ppb	18:38:54
1	S 181.975 Axial†	16.8	1.3	5.5555	µg/L	5.5555	ppb	18:38:54
1	Sb 206.836†	26.1	-2.0	-1.9561	µg/L	-1.9561	ppb	18:38:54
1	Se 196.026†	17.3	0.7	1.1140	µg/L	1.1140	ppb	18:38:54
1	SiO2†	1249.6	-55.1	-11.856	µg/L	-11.856	ppb	18:38:34
1	Si 251.611†	302.7	-23.4	-1.9253	µg/L	-1.9253	ppb	18:38:54
1	Sn 189.927†	1.0	1.9	0.8554	µg/L	0.8554	ppb	18:38:54
1	Ti 334.940†	152.6	29.8	0.0741	µg/L	0.0741	ppb	18:38:34
1	Tl 190.801†	-22.3	3.0	4.1717	µg/L	4.1717	ppb	18:38:54
1	U 409.014†	-116.8	-58.1	-5.2596	µg/L	-5.2596	ppb	18:38:34
1	V 292.402†	-54.7	-8.1	-0.0953	µg/L	-0.0953	ppb	18:38:34
1	Zn 213.857†	472.6	-23.6	-0.5840	µg/L	-0.5840	ppb	18:38:54
2	Sc RADIAL	55383.9	55383.9	101	%			18:37:32
2	Al 396.153Radial†	-17.3	-7.0	-5.1964	µg/L	-5.1964	ppb	18:37:32
2	Ca 317.933Radial†	188.8	6.9	6.4546	µg/L	6.4546	ppb	18:37:52
2	Fe 238.204 Radial†	14.1	-0.6	-4.8767	µg/L	-4.8767	ppb	18:37:52
2	K 766.490 Radial†	126.5	-3.8	-2.6779	µg/L	-2.6779	ppb	18:37:32
2	Mg 279.077 IEC†	12.6	1.1	10.292	µg/L	10.292	ppb	18:37:52
2	Na 589.592 Radial†	623.8	72.8	23.955	µg/L	23.955	ppb	18:37:32
2	Sr 421.552†	31.5	-8.5	-0.0883	µg/L	-0.0883	ppb	18:37:32
2	Sc 361.383	2013350.1	2013350.1	105.42	%			18:39:00
2	Y 371.029	1381993.5	1381993.5	105.50	%			18:39:00
2	Ag 328.068†	-537.9	54.3	0.4351	µg/L	0.4351	ppb	18:39:06
2	As 188.979†	2.2	1.0	1.8812	µg/L	1.8812	ppb	18:39:26
2	B 249.677†	318.3	-29.5	-1.2874	µg/L	-1.2874	ppb	18:39:26
2	Ba 233.527†	-25.9	1.4	0.0380	µg/L	0.0380	ppb	18:39:26
2	Be 313.107†	-3437.1	180.0	0.1176	µg/L	0.1176	ppb	18:39:06
2	Cd 226.502†	-146.1	3.5	0.0976	µg/L	0.0976	ppb	18:39:26
2	Co 228.616†	-6.0	3.1	0.1553	µg/L	0.1553	ppb	18:39:26
2	Cr 267.716†	-56.6	-1.3	-0.0276	µg/L	-0.0276	ppb	18:39:06
2	Cu 324.752†	2488.4	-125.7	-0.8785	µg/L	-0.8785	ppb	18:39:06
2	Mn 257.610†	-244.3	12.4	0.0419	µg/L	0.0419	ppb	18:39:26
2	Mo 202.031†	-1.5	6.1	0.6511	µg/L	0.6511	ppb	18:39:26
2	Ni 231.604†	301.7	-16.0	-0.8752	µg/L	-0.8752	ppb	18:39:26
2	P 214.914†	26.3	-2.6	-5.5596	µg/L	-5.5596	ppb	18:39:26
2	Pb 220.353†	100.7	-1.7	-0.4405	µg/L	-0.4405	ppb	18:39:26

2	S 181.975 Axial†	19.5	3.7	16.100	µg/L	16.100 ppb	18:39:26
2	Sb 206.836†	25.7	-2.6	-2.5687	µg/L	-2.5687 ppb	18:39:26
2	Se 196.026†	18.4	1.6	2.4087	µg/L	2.4087 ppb	18:39:26
2	SiO2†	1290.6	-25.8	-5.5589	µg/L	-5.5589 ppb	18:39:06
2	Si 251.611†	298.6	-29.7	-2.4388	µg/L	-2.4388 ppb	18:39:26
2	Sn 189.927†	1.6	2.4	1.0965	µg/L	1.0965 ppb	18:39:26
2	Ti 334.940†	143.9	20.4	0.0483	µg/L	0.0483 ppb	18:39:06
2	Tl 190.801†	-19.4	5.9	8.2322	µg/L	8.2322 ppb	18:39:26
2	U 409.014†	-143.2	-82.3	-7.4471	µg/L	-7.4471 ppb	18:39:06
2	V 292.402†	19.9	63.0	0.6686	µg/L	0.6686 ppb	18:39:06
2	Zn 213.857†	478.6	-21.5	-0.5326	µg/L	-0.5326 ppb	18:39:26
3	Sc RADIAL	56905.3	56905.3	104	%		18:37:58
3	Al 396.153Radial†	-1.7	8.5	6.3212	µg/L	6.3212 ppb	18:37:58
3	Ca 317.933Radial†	181.4	-5.2	-4.9145	µg/L	-4.9145 ppb	18:38:18
3	Fe 238.204 Radial†	13.2	-1.8	-15.607	µg/L	-15.607 ppb	18:38:18
3	K 766.490 Radial†	186.8	50.7	36.048	µg/L	36.048 ppb	18:37:58
3	Mg 279.077 IEC†	11.5	-0.3	-2.5813	µg/L	-2.5813 ppb	18:38:18
3	Na 589.592 Radial†	645.3	77.0	25.346	µg/L	25.346 ppb	18:37:58
3	Sr 421.552†	17.2	-23.1	-0.2393	µg/L	-0.2393 ppb	18:37:58
3	Sc 361.383	1996384.7	1996384.7	104.53	%		18:39:32
3	Y 371.029	1369220.3	1369220.3	104.53	%		18:39:32
3	Ag 328.068†	-541.0	47.0	0.3741	µg/L	0.3741 ppb	18:39:38
3	As 188.979†	-1.0	-2.1	-4.0939	µg/L	-4.0939 ppb	18:39:59
3	B 249.677†	333.0	-12.9	-0.5555	µg/L	-0.5555 ppb	18:39:59
3	Ba 233.527†	-17.3	9.5	0.2478	µg/L	0.2478 ppb	18:39:59
3	Be 313.107†	-3308.4	275.5	0.1799	µg/L	0.1799 ppb	18:39:38
3	Cd 226.502†	-144.0	4.4	0.1228	µg/L	0.1228 ppb	18:39:59
3	Co 228.616†	-11.0	-1.7	-0.0836	µg/L	-0.0836 ppb	18:39:59
3	Cr 267.716†	-55.8	-1.0	-0.0220	µg/L	-0.0220 ppb	18:39:38
3	Cu 324.752†	2440.9	-151.0	-1.0572	µg/L	-1.0572 ppb	18:39:38
3	Mn 257.610†	-222.1	31.7	0.1077	µg/L	0.1077 ppb	18:39:59
3	Mo 202.031†	-3.2	4.5	0.4771	µg/L	0.4771 ppb	18:39:59
3	Ni 231.604†	303.2	-12.1	-0.6637	µg/L	-0.6637 ppb	18:39:59
3	P 214.914†	30.5	1.6	3.5034	µg/L	3.5034 ppb	18:39:59
3	Pb 220.353†	89.5	-11.6	-3.0790	µg/L	-3.0790 ppb	18:39:59
3	S 181.975 Axial†	17.8	2.2	9.6185	µg/L	9.6185 ppb	18:39:59
3	Sb 206.836†	27.7	-0.5	-0.4700	µg/L	-0.4700 ppb	18:39:59
3	Se 196.026†	15.0	-1.5	-2.2806	µg/L	-2.2806 ppb	18:39:59
3	SiO2†	1247.6	-56.5	-12.175	µg/L	-12.175 ppb	18:39:38
3	Si 251.611†	300.0	-25.8	-2.1244	µg/L	-2.1244 ppb	18:39:59
3	Sn 189.927†	3.2	3.9	1.8070	µg/L	1.8070 ppb	18:39:59
3	Ti 334.940†	156.9	34.0	0.0818	µg/L	0.0818 ppb	18:39:38
3	Tl 190.801†	-23.6	1.7	2.3286	µg/L	2.3286 ppb	18:39:59
3	U 409.014†	-48.9	6.8	0.6203	µg/L	0.6203 ppb	18:39:38
3	V 292.402†	-14.3	30.6	0.3283	µg/L	0.3283 ppb	18:39:38
3	Zn 213.857†	478.7	-17.6	-0.4352	µg/L	-0.4352 ppb	18:39:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2002303.4	104.84	%	0.501				0.48%
Sc RADIAL	56288.9	103	%	1.5				1.42%
Y 371.029	1374349.3	104.92	%	0.515				0.49%
Ag 328.068†	56.7	0.4517	µg/L	0.08717	0.4517	ppb	0.08717	19.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-4.7097	µg/L	10.79578	-4.7097	ppb	10.79578	229.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.8943	µg/L	3.28450	-1.8943	ppb	3.28450	173.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-18.5	-0.8042	µg/L	0.41854	-0.8042	ppb	0.41854	52.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.8	0.1525	µg/L	0.10621	0.1525	ppb	0.10621	69.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.5	0.1211	µg/L	0.05710	0.1211	ppb	0.05710	47.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-1.7872	µg/L	7.20651	-1.7872	ppb	7.20651	403.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1907	µg/L	0.14008	0.1907	ppb	0.14008	73.44%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0817	µg/L	0.23614	-0.0817	ppb	0.23614	288.95%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.4     -0.0522 µg/L       0.04756     -0.0522 ppb        0.04756  91.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -143.2     -1.0009 µg/L       0.10608     -1.0009 ppb        0.10608  10.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.7     -6.1811 µg/L       8.84567     -6.1811 ppb        8.84567 143.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          21.6      15.327 µg/L      19.5055      15.327 ppb       19.5055 127.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.5253 µg/L      20.73608     -7.5253 ppb      20.73608 275.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.1      0.0519 µg/L       0.05154      0.0519 ppb        0.05154  99.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.1      0.2279 µg/L       0.58875      0.2279 ppb        0.58875 258.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         73.1      24.066 µg/L        1.2283      24.066 ppb         1.2283   5.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -13.6     -0.7433 µg/L       0.11501     -0.7433 ppb        0.11501  15.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.3     -2.6875 µg/L       5.36613     -2.6875 ppb        5.36613 199.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.0     -1.5981 µg/L       1.34866     -1.5981 ppb        1.34866  84.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.4      10.425 µg/L        5.3180      10.425 ppb         5.3180  51.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.7     -1.6649 µg/L       1.07918     -1.6649 ppb        1.07918  64.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.4141 µg/L       2.42173      0.4141 ppb        2.42173 584.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -45.8     -9.8634 µg/L       3.73124     -9.8634 ppb        3.73124  37.83%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -26.3     -2.1628 µg/L       0.25893     -2.1628 ppb        0.25893  11.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      1.2530 µg/L       0.49474      1.2530 ppb        0.49474  39.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.4     -0.0977 µg/L       0.13720     -0.0977 ppb        0.13720 140.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.1      0.0681 µg/L       0.01753      0.0681 ppb        0.01753  25.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.5      4.9108 µg/L       3.02042      4.9108 ppb        3.02042  61.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -44.5     -4.0288 µg/L       4.17218     -4.0288 ppb        4.17218 103.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.5      0.3005 µg/L       0.38270      0.3005 ppb        0.38270 127.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.9     -0.5173 µg/L       0.07558     -0.5173 ppb        0.07558  14.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55671.1	55671.1	102	%			19:13:03
1	Al 396.153Radial†	7032.4	6904.0	5134.7	µg/L	5134.7	ppb	19:13:03
1	Ca 317.933Radial†	5628.4	5338.4	5026.4	µg/L	5026.4	ppb	19:13:23
1	Fe 238.204 Radial†	628.5	601.6	5110.3	µg/L	5110.3	ppb	19:13:23
1	K 766.490 Radial†	7390.7	7116.7	5058.5	µg/L	5058.5	ppb	19:13:03
1	Mg 279.077 IEC†	581.4	558.7	5202.9	µg/L	5202.9	ppb	19:13:23
1	Na 589.592 Radial†	32145.4	30970.2	10196	µg/L	10196	ppb	19:13:03
1	Sr 421.552†	49522.9	48507.7	502.84	µg/L	502.84	ppb	19:13:03
1	Sc 361.383	1951144.3	1951144.3	102.16	%			19:14:27
1	Y 371.029	1335064.4	1335064.4	101.92	%			19:14:27
1	Ag 328.068†	64845.5	64037.3	511.83	µg/L	511.83	ppb	19:14:32
1	As 188.979†	275.5	268.5	523.78	µg/L	523.78	ppb	19:14:53
1	B 249.677†	12049.2	11462.7	499.11	µg/L	499.11	ppb	19:14:32
1	Ba 233.527†	20008.0	19610.4	511.55	µg/L	511.55	ppb	19:14:32
1	Be 313.107†	795598.6	782196.8	510.62	µg/L	510.62	ppb	19:14:27
1	Cd 226.502†	18839.6	18582.9	512.61	µg/L	512.61	ppb	19:14:32
1	Co 228.616†	10676.1	10458.9	514.13	µg/L	514.13	ppb	19:14:32
1	Cr 267.716†	23927.2	23473.1	516.64	µg/L	516.64	ppb	19:14:32
1	Cu 324.752†	77230.7	73109.7	511.40	µg/L	511.40	ppb	19:14:32
1	Mn 257.610†	153022.2	150027.0	519.99	µg/L	519.99	ppb	19:14:27
1	Mo 202.031†	5147.6	5046.1	538.72	µg/L	538.72	ppb	19:14:53
1	Ni 231.604†	9909.1	9397.1	513.24	µg/L	513.24	ppb	19:14:32
1	P 214.914†	1284.0	1229.2	2590.7	µg/L	2590.7	ppb	19:14:53
1	Pb 220.353†	2100.1	1958.5	522.80	µg/L	522.80	ppb	19:14:53
1	S 181.975 Axial†	260.7	240.4	1053.2	µg/L	1053.2	ppb	19:14:53
1	Sb 206.836†	579.1	539.9	533.92	µg/L	533.92	ppb	19:14:53
1	Se 196.026†	368.4	344.8	533.59	µg/L	533.59	ppb	19:14:53
1	SiO2†	27092.9	25269.3	5441.9	µg/L	5441.9	ppb	19:14:32
1	Si 251.611†	31889.8	30901.8	2540.3	µg/L	2540.3	ppb	19:14:32
1	Sn 189.927†	1200.9	1176.4	541.09	µg/L	541.09	ppb	19:14:53
1	Ti 334.940†	218380.7	213641.7	513.57	µg/L	513.57	ppb	19:14:27
1	Tl 190.801†	350.6	367.5	519.14	µg/L	519.14	ppb	19:14:53
1	U 409.014†	5814.6	5745.1	519.13	µg/L	519.13	ppb	19:14:32
1	V 292.402†	48982.0	47989.3	517.92	µg/L	517.92	ppb	19:14:32
1	Zn 213.857†	21483.0	20552.7	509.59	µg/L	509.59	ppb	19:14:32
2	Sc RADIAL	56100.7	56100.7	103	%			19:13:29
2	Al 396.153Radial†	6945.6	6766.8	5032.6	µg/L	5032.6	ppb	19:13:29
2	Ca 317.933Radial†	5631.2	5298.9	4989.2	µg/L	4989.2	ppb	19:13:49
2	Fe 238.204 Radial†	627.7	596.1	5063.7	µg/L	5063.7	ppb	19:13:49
2	K 766.490 Radial†	7341.2	7013.0	4984.8	µg/L	4984.8	ppb	19:13:29
2	Mg 279.077 IEC†	586.0	558.8	5203.5	µg/L	5203.5	ppb	19:13:49
2	Na 589.592 Radial†	31976.7	30564.8	10062	µg/L	10062	ppb	19:13:29
2	Sr 421.552†	49170.9	47793.6	495.44	µg/L	495.44	ppb	19:13:29
2	Sc 361.383	1954250.3	1954250.3	102.33	%			19:15:00
2	Y 371.029	1335611.5	1335611.5	101.96	%			19:15:00
2	Ag 328.068†	65212.5	64295.1	513.88	µg/L	513.88	ppb	19:15:06
2	As 188.979†	274.4	267.0	520.94	µg/L	520.94	ppb	19:15:26
2	B 249.677†	12164.5	11556.6	503.24	µg/L	503.24	ppb	19:15:06
2	Ba 233.527†	20057.8	19628.0	512.01	µg/L	512.01	ppb	19:15:06
2	Be 313.107†	786582.3	772147.7	504.06	µg/L	504.06	ppb	19:15:00
2	Cd 226.502†	18912.0	18624.4	513.76	µg/L	513.76	ppb	19:15:06
2	Co 228.616†	10732.8	10497.7	516.05	µg/L	516.05	ppb	19:15:06
2	Cr 267.716†	24011.5	23518.2	517.63	µg/L	517.63	ppb	19:15:06
2	Cu 324.752†	77632.9	73382.6	513.30	µg/L	513.30	ppb	19:15:06
2	Mn 257.610†	151747.3	148542.9	514.85	µg/L	514.85	ppb	19:15:00
2	Mo 202.031†	5096.3	4988.0	532.52	µg/L	532.52	ppb	19:15:26
2	Ni 231.604†	9986.9	9457.7	516.55	µg/L	516.55	ppb	19:15:06
2	P 214.914†	1269.9	1213.4	2556.6	µg/L	2556.6	ppb	19:15:26
2	Pb 220.353†	2103.2	1958.2	522.70	µg/L	522.70	ppb	19:15:26

2	S 181.975 Axial†	261.6	240.8	1055.1 µg/L	1055.1 ppb	19:15:26
2	Sb 206.836†	583.1	542.9	536.77 µg/L	536.77 ppb	19:15:26
2	Se 196.026†	358.4	334.4	517.63 µg/L	517.63 ppb	19:15:26
2	SiO2†	27219.9	25351.3	5459.5 µg/L	5459.5 ppb	19:15:06
2	Si 251.611†	32020.8	30980.3	2546.7 µg/L	2546.7 ppb	19:15:06
2	Sn 189.927†	1194.0	1167.7	537.13 µg/L	537.13 ppb	19:15:26
2	Ti 334.940†	216182.4	211153.6	507.58 µg/L	507.58 ppb	19:15:00
2	Tl 190.801†	351.8	368.1	519.85 µg/L	519.85 ppb	19:15:26
2	U 409.014†	5813.7	5735.2	518.24 µg/L	518.24 ppb	19:15:06
2	V 292.402†	49127.5	48055.3	518.57 µg/L	518.57 ppb	19:15:06
2	Zn 213.857†	21549.0	20583.8	510.35 µg/L	510.35 ppb	19:15:06
3	Sc RADIAL	56646.4	56646.4	104 %		19:13:55
3	Al 396.153Radial†	6990.5	6744.9	5018.4 µg/L	5018.4 ppb	19:13:55
3	Ca 317.933Radial†	5597.5	5213.6	4908.9 µg/L	4908.9 ppb	19:14:15
3	Fe 238.204 Radial†	629.8	592.2	5029.2 µg/L	5029.2 ppb	19:14:15
3	K 766.490 Radial†	7441.3	7040.7	5004.5 µg/L	5004.5 ppb	19:13:55
3	Mg 279.077 IEC†	585.3	552.6	5144.3 µg/L	5144.3 ppb	19:14:15
3	Na 589.592 Radial†	32200.7	30481.0	10034 µg/L	10034 ppb	19:13:55
3	Sr 421.552†	49653.3	47797.6	495.48 µg/L	495.48 ppb	19:13:55
3	Sc 361.383	1989206.7	1989206.7	104.16 %		19:15:33
3	Y 371.029	1360871.5	1360871.5	103.89 %		19:15:33
3	Ag 328.068†	60452.0	58604.6	468.29 µg/L	468.29 ppb	19:15:39
3	As 188.979†	231.4	221.0	431.16 µg/L	431.16 ppb	19:15:59
3	B 249.677†	11200.8	10422.4	453.57 µg/L	453.57 ppb	19:15:39
3	Ba 233.527†	18155.6	17457.3	455.37 µg/L	455.37 ppb	19:15:39
3	Be 313.107†	746723.2	720370.4	470.26 µg/L	470.26 ppb	19:15:33
3	Cd 226.502†	17034.9	16497.4	455.02 µg/L	455.02 ppb	19:15:39
3	Co 228.616†	9575.0	9201.8	452.26 µg/L	452.26 ppb	19:15:39
3	Cr 267.716†	20898.9	20117.4	442.78 µg/L	442.78 ppb	19:15:39
3	Cu 324.752†	69759.8	64490.4	451.18 µg/L	451.18 ppb	19:15:39
3	Mn 257.610†	144303.8	138790.3	481.07 µg/L	481.07 ppb	19:15:33
3	Mo 202.031†	4187.5	4027.9	430.06 µg/L	430.06 ppb	19:15:59
3	Ni 231.604†	8969.1	8309.0	453.82 µg/L	453.82 ppb	19:15:39
3	P 214.914†	1074.2	1003.7	2111.2 µg/L	2111.2 ppb	19:15:59
3	Pb 220.353†	1799.2	1630.2	435.08 µg/L	435.08 ppb	19:15:59
3	S 181.975 Axial†	224.9	201.1	880.92 µg/L	880.92 ppb	19:15:59
3	Sb 206.836†	494.9	448.2	442.71 µg/L	442.71 ppb	19:15:59
3	Se 196.026†	304.8	276.8	429.75 µg/L	429.75 ppb	19:15:59
3	SiO2†	24880.7	22637.9	4875.2 µg/L	4875.2 ppb	19:15:39
3	Si 251.611†	29305.2	27823.1	2287.2 µg/L	2287.2 ppb	19:15:39
3	Sn 189.927†	959.0	921.6	423.93 µg/L	423.93 ppb	19:15:59
3	Ti 334.940†	203896.7	195645.3	470.28 µg/L	470.28 ppb	19:15:33
3	Tl 190.801†	305.5	317.6	449.03 µg/L	449.03 ppb	19:15:59
3	U 409.014†	5068.3	4919.7	444.42 µg/L	444.42 ppb	19:15:39
3	V 292.402†	43582.6	41887.9	451.80 µg/L	451.80 ppb	19:15:39
3	Zn 213.857†	19376.0	18127.3	449.39 µg/L	449.39 ppb	19:15:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1964867.1	102.88	%	1.107				1.08%
Sc RADIAL	56139.4	103	%	0.9				0.87%
Y 371.029	1343849.1	102.59	%	1.126				1.10%
Ag 328.068†	62312.3	498.00	µg/L	25.750	498.00	ppb	25.750	5.17%
QC value within limits for Ag 328.068 Recovery = 99.60%								
Al 396.153Radial†	6805.2	5061.9	µg/L	63.45	5061.9	ppb	63.45	1.25%
QC value within limits for Al 396.153Radial Recovery = 101.24%								
As 188.979†	252.2	491.96	µg/L	52.673	491.96	ppb	52.673	10.71%
QC value within limits for As 188.979 Recovery = 98.39%								
B 249.677†	11147.2	485.30	µg/L	27.561	485.30	ppb	27.561	5.68%
QC value within limits for B 249.677 Recovery = 97.06%								
Ba 233.527†	18898.6	492.97	µg/L	32.570	492.97	ppb	32.570	6.61%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	758238.3	494.98	µg/L	21.658	494.98	ppb	21.658	4.38%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	5283.6	4974.8	µg/L	60.06	4974.8	ppb	60.06	1.21%
QC value within limits for Ca 317.933Radial Recovery = 99.50%								
Cd 226.502†	17901.6	493.80	µg/L	33.585	493.80	ppb	33.585	6.80%
QC value within limits for Cd 226.502 Recovery = 98.76%								
Co 228.616†	10052.8	494.14	µg/L	36.289	494.14	ppb	36.289	7.34%

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   QC value within limits for Co 228.616  Recovery = 98.83%
Cr 267.716†            22369.6      492.35 µg/L        42.929      492.35 ppb         42.929   8.72%
   QC value within limits for Cr 267.716  Recovery = 98.47%
Cu 324.752†            70327.6      491.96 µg/L        35.329      491.96 ppb         35.329   7.18%
   QC value within limits for Cu 324.752  Recovery = 98.39%
Fe 238.204 Radial†       596.7      5067.7 µg/L         40.70      5067.7 ppb          40.70   0.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†       7056.8      5015.9 µg/L         38.15      5015.9 ppb          38.15   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 100.32%
Mg 279.077 IEC†          556.7      5183.6 µg/L         33.98      5183.6 ppb          33.98   0.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.67%
Mn 257.610†           145786.8      505.31 µg/L        21.142      505.31 ppb         21.142   4.18%
   QC value within limits for Mn 257.610  Recovery = 101.06%
Mo 202.031†             4687.4      500.43 µg/L        61.026      500.43 ppb         61.026  12.19%
   QC value within limits for Mo 202.031  Recovery = 100.09%
Na 589.592 Radial†     30672.0       10097 µg/L          86.1       10097 ppb           86.1   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 100.97%
Ni 231.604†             9054.6      494.54 µg/L        35.300      494.54 ppb         35.300   7.14%
   QC value within limits for Ni 231.604  Recovery = 98.91%
P 214.914†              1148.8      2419.5 µg/L        267.56      2419.5 ppb         267.56  11.06%
   QC value within limits for P 214.914  Recovery = 96.78%
Pb 220.353†             1849.0      493.53 µg/L        50.614      493.53 ppb         50.614  10.26%
   QC value within limits for Pb 220.353  Recovery = 98.71%
S 181.975 Axial†         227.4      996.40 µg/L       100.008      996.40 ppb        100.008  10.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†              510.3      504.47 µg/L        53.501      504.47 ppb         53.501  10.61%
   QC value within limits for Sb 206.836  Recovery = 100.89%
Se 196.026†              318.7      493.66 µg/L        55.921      493.66 ppb         55.921  11.33%
   QC value within limits for Se 196.026  Recovery = 98.73%
SiO2†                  24419.5      5258.9 µg/L        332.39      5258.9 ppb         332.39   6.32%
   QC value within limits for SiO2  Recovery = 98.34%
Si 251.611†            29901.8      2458.1 µg/L        148.02      2458.1 ppb         148.02   6.02%
   QC value within limits for Si 251.611  Recovery = 98.32%
Sn 189.927†             1088.6      500.71 µg/L        66.525      500.71 ppb         66.525  13.29%
   QC value within limits for Sn 189.927  Recovery = 100.14%
Sr 421.552†            48033.0      497.92 µg/L         4.262      497.92 ppb          4.262   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.58%
Ti 334.940†           206813.5      497.14 µg/L        23.455      497.14 ppb         23.455   4.72%
   QC value within limits for Ti 334.940  Recovery = 99.43%
Tl 190.801†              351.1      496.01 µg/L        40.687      496.01 ppb         40.687   8.20%
   QC value within limits for Tl 190.801  Recovery = 99.20%
U 409.014†              5466.7      493.93 µg/L        42.881      493.93 ppb         42.881   8.68%
   QC value within limits for U 409.014  Recovery = 98.79%
V 292.402†             45977.5      496.10 µg/L        38.364      496.10 ppb         38.364   7.73%
   QC value within limits for V 292.402  Recovery = 99.22%
Zn 213.857†            19754.6      489.78 µg/L        34.976      489.78 ppb         34.976   7.14%
   QC value within limits for Zn 213.857  Recovery = 97.96%
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55600.7	55600.7	102	%			19:16:41
1	Al 396.153Radial†	-4.5	5.7	4.2256	µg/L	4.2256	ppb	19:16:41
1	Ca 317.933Radial†	176.7	-5.7	-5.4036	µg/L	-5.4036	ppb	19:17:01
1	Fe 238.204 Radial†	16.9	2.1	17.440	µg/L	17.440	ppb	19:17:01
1	K 766.490 Radial†	120.8	-9.9	-7.0161	µg/L	-7.0161	ppb	19:16:41
1	Mg 279.077 IEC†	10.9	-0.6	-5.3345	µg/L	-5.3345	ppb	19:17:01
1	Na 589.592 Radial†	652.7	98.7	32.500	µg/L	32.500	ppb	19:16:41
1	Sr 421.552†	22.7	-17.3	-0.1790	µg/L	-0.1790	ppb	19:16:41
1	Sc 361.383	1934829.6	1934829.6	101.31	%			19:18:03
1	Y 371.029	1327190.7	1327190.7	101.32	%			19:18:03
1	Ag 328.068†	-516.6	54.6	0.4388	µg/L	0.4388	ppb	19:18:09
1	As 188.979†	1.2	0.0	0.0845	µg/L	0.0845	ppb	19:18:29
1	B 249.677†	321.4	-14.2	-0.6284	µg/L	-0.6284	ppb	19:18:29
1	Ba 233.527†	-23.7	2.6	0.0683	µg/L	0.0683	ppb	19:18:29
1	Be 313.107†	-3408.1	76.3	0.0498	µg/L	0.0498	ppb	19:18:09
1	Cd 226.502†	-144.3	-0.3	-0.0100	µg/L	-0.0100	ppb	19:18:29
1	Co 228.616†	-6.0	2.9	0.1456	µg/L	0.1456	ppb	19:18:29
1	Cr 267.716†	-15.9	36.7	0.8069	µg/L	0.8069	ppb	19:18:09
1	Cu 324.752†	2442.5	-75.1	-0.5222	µg/L	-0.5222	ppb	19:18:09
1	Mn 257.610†	-225.9	21.1	0.0756	µg/L	0.0756	ppb	19:18:29
1	Mo 202.031†	-2.6	4.9	0.5275	µg/L	0.5275	ppb	19:18:29
1	Ni 231.604†	310.8	4.6	0.2529	µg/L	0.2529	ppb	19:18:29
1	P 214.914†	22.3	-5.6	-12.052	µg/L	-12.052	ppb	19:18:29
1	Pb 220.353†	97.2	-1.3	-0.3391	µg/L	-0.3391	ppb	19:18:29
1	S 181.975 Axial†	15.8	0.7	3.2436	µg/L	3.2436	ppb	19:18:29
1	Sb 206.836†	30.1	2.8	2.7305	µg/L	2.7305	ppb	19:18:29
1	Se 196.026†	14.9	-1.1	-1.6720	µg/L	-1.6720	ppb	19:18:29
1	SiO2†	1241.8	-24.3	-5.2260	µg/L	-5.2260	ppb	19:18:09
1	Si 251.611†	314.2	-2.7	-0.2249	µg/L	-0.2249	ppb	19:18:29
1	Sn 189.927†	3.0	3.9	1.7687	µg/L	1.7687	ppb	19:18:29
1	Ti 334.940†	129.2	11.4	0.0278	µg/L	0.0278	ppb	19:18:09
1	Tl 190.801†	-22.4	2.2	3.0821	µg/L	3.0821	ppb	19:18:29
1	U 409.014†	-44.2	10.0	0.9045	µg/L	0.9045	ppb	19:18:09
1	V 292.402†	22.3	66.2	0.7146	µg/L	0.7146	ppb	19:18:09
1	Zn 213.857†	480.2	-1.5	-0.0391	µg/L	-0.0391	ppb	19:18:29
2	Sc RADIAL	55841.1	55841.1	102	%			19:17:07
2	Al 396.153Radial†	-0.2	10.0	7.4245	µg/L	7.4245	ppb	19:17:07
2	Ca 317.933Radial†	185.5	2.1	1.9861	µg/L	1.9861	ppb	19:17:27
2	Fe 238.204 Radial†	13.8	-1.1	-8.9579	µg/L	-8.9579	ppb	19:17:27
2	K 766.490 Radial†	118.8	-12.3	-8.7251	µg/L	-8.7251	ppb	19:17:07
2	Mg 279.077 IEC†	12.4	0.9	8.1129	µg/L	8.1129	ppb	19:17:27
2	Na 589.592 Radial†	684.6	127.2	41.869	µg/L	41.869	ppb	19:17:07
2	Sr 421.552†	48.5	7.8	0.0810	µg/L	0.0810	ppb	19:17:07
2	Sc 361.383	1955516.9	1955516.9	102.39	%			19:18:35
2	Y 371.029	1342161.2	1342161.2	102.46	%			19:18:35
2	Ag 328.068†	-513.3	63.2	0.5022	µg/L	0.5022	ppb	19:18:41
2	As 188.979†	-5.0	-6.0	-11.703	µg/L	-11.703	ppb	19:19:01
2	B 249.677†	317.0	-21.8	-0.9495	µg/L	-0.9495	ppb	19:19:01
2	Ba 233.527†	-19.8	6.7	0.1743	µg/L	0.1743	ppb	19:19:01
2	Be 313.107†	-3409.1	110.9	0.0724	µg/L	0.0724	ppb	19:18:41
2	Cd 226.502†	-125.7	19.4	0.5362	µg/L	0.5362	ppb	19:19:01
2	Co 228.616†	-4.9	4.1	0.1998	µg/L	0.1998	ppb	19:19:01
2	Cr 267.716†	-35.7	17.5	0.3848	µg/L	0.3848	ppb	19:18:41
2	Cu 324.752†	2432.5	-110.5	-0.7728	µg/L	-0.7728	ppb	19:18:41
2	Mn 257.610†	-217.1	32.1	0.1097	µg/L	0.1097	ppb	19:19:01
2	Mo 202.031†	-0.2	7.4	0.7857	µg/L	0.7857	ppb	19:19:01
2	Ni 231.604†	307.3	-2.1	-0.1144	µg/L	-0.1144	ppb	19:19:01
2	P 214.914†	26.8	-1.4	-2.9443	µg/L	-2.9443	ppb	19:19:01
2	Pb 220.353†	98.0	-1.5	-0.3841	µg/L	-0.3841	ppb	19:19:01

2	S 181.975 Axial†	16.0	0.8	3.5945 µg/L	3.5945 ppb	19:19:01
2	Sb 206.836†	19.9	-7.6	-7.4359 µg/L	-7.4359 ppb	19:19:01
2	Se 196.026†	24.3	7.9	11.982 µg/L	11.982 ppb	19:19:01
2	SiO2†	1252.6	-26.7	-5.7496 µg/L	-5.7496 ppb	19:18:41
2	Si 251.611†	335.5	14.8	1.2146 µg/L	1.2146 ppb	19:19:01
2	Sn 189.927†	0.8	1.7	0.7658 µg/L	0.7658 ppb	19:19:01
2	Ti 334.940†	159.2	39.3	0.0940 µg/L	0.0940 ppb	19:18:41
2	Tl 190.801†	-19.6	5.1	7.1712 µg/L	7.1712 ppb	19:19:01
2	U 409.014†	-39.3	15.2	1.3764 µg/L	1.3764 ppb	19:18:41
2	V 292.402†	-32.1	12.8	0.1441 µg/L	0.1441 ppb	19:18:41
2	Zn 213.857†	480.1	-6.6	-0.1635 µg/L	-0.1635 ppb	19:19:01
3	Sc RADIAL	54991.0	54991.0	101 %		19:17:32
3	Al 396.153Radial†	-25.8	-15.4	-11.501 µg/L	-11.501 ppb	19:17:32
3	Ca 317.933Radial†	179.1	-1.4	-1.2826 µg/L	-1.2826 ppb	19:17:53
3	Fe 238.204 Radial†	16.1	1.5	12.918 µg/L	12.918 ppb	19:17:53
3	K 766.490 Radial†	157.4	27.8	19.781 µg/L	19.781 ppb	19:17:32
3	Mg 279.077 IEC†	9.1	-2.2	-20.551 µg/L	-20.551 ppb	19:17:53
3	Na 589.592 Radial†	624.4	77.8	25.618 µg/L	25.618 ppb	19:17:32
3	Sr 421.552†	39.8	-0.1	-0.0009 µg/L	-0.0009 ppb	19:17:32
3	Sc 361.383	1967438.1	1967438.1	103.02 %		19:19:07
3	Y 371.029	1348776.4	1348776.4	102.97 %		19:19:07
3	Ag 328.068†	-543.2	37.2	0.2976 µg/L	0.2976 ppb	19:19:13
3	As 188.979†	-2.4	-3.5	-6.8853 µg/L	-6.8853 ppb	19:19:33
3	B 249.677†	305.4	-35.0	-1.5334 µg/L	-1.5334 ppb	19:19:33
3	Ba 233.527†	-26.9	-0.1	-0.0009 µg/L	-0.0009 ppb	19:19:33
3	Be 313.107†	-3287.9	248.8	0.1624 µg/L	0.1624 ppb	19:19:13
3	Cd 226.502†	-133.1	12.9	0.3539 µg/L	0.3539 ppb	19:19:33
3	Co 228.616†	-14.2	-5.0	-0.2450 µg/L	-0.2450 ppb	19:19:33
3	Cr 267.716†	-20.7	32.3	0.7108 µg/L	0.7108 ppb	19:19:13
3	Cu 324.752†	2481.8	-76.9	-0.5355 µg/L	-0.5355 ppb	19:19:13
3	Mn 257.610†	-209.8	40.5	0.1427 µg/L	0.1427 ppb	19:19:33
3	Mo 202.031†	-10.0	-2.2	-0.2320 µg/L	-0.2320 ppb	19:19:33
3	Ni 231.604†	301.2	-9.8	-0.5340 µg/L	-0.5340 ppb	19:19:33
3	P 214.914†	26.0	-2.4	-5.0576 µg/L	-5.0576 ppb	19:19:33
3	Pb 220.353†	96.7	-3.3	-0.8887 µg/L	-0.8887 ppb	19:19:33
3	S 181.975 Axial†	14.9	-0.4	-1.5487 µg/L	-1.5487 ppb	19:19:33
3	Sb 206.836†	32.3	4.4	4.3137 µg/L	4.3137 ppb	19:19:33
3	Se 196.026†	14.2	-2.1	-3.1442 µg/L	-3.1442 ppb	19:19:33
3	SiO2†	1256.2	-30.6	-6.5854 µg/L	-6.5854 ppb	19:19:13
3	Si 251.611†	309.4	-12.5	-1.0288 µg/L	-1.0288 ppb	19:19:33
3	Sn 189.927†	-1.0	-0.1	-0.0403 µg/L	-0.0403 ppb	19:19:33
3	Ti 334.940†	153.9	33.3	0.0816 µg/L	0.0816 ppb	19:19:13
3	Tl 190.801†	-21.2	3.7	5.1463 µg/L	5.1463 ppb	19:19:33
3	U 409.014†	-6.3	47.5	4.3005 µg/L	4.3005 ppb	19:19:13
3	V 292.402†	-20.0	24.8	0.2699 µg/L	0.2699 ppb	19:19:13
3	Zn 213.857†	479.8	-9.8	-0.2409 µg/L	-0.2409 ppb	19:19:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952594.9	102.24	%	0.864				0.84%
Sc RADIAL	55477.6	102	%	0.8				0.79%
Y 371.029	1339376.1	102.25	%	0.844				0.83%
Ag 328.068†	51.7	0.4129	µg/L	0.10471	0.4129	ppb	0.10471	25.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.0498	µg/L	10.13010	0.0498	ppb	10.13010	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-6.1678	µg/L	5.92624	-6.1678	ppb	5.92624	96.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.7	-1.0371	µg/L	0.45878	-1.0371	ppb	0.45878	44.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0805	µg/L	0.08826	0.0805	ppb	0.08826	109.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.3	0.0949	µg/L	0.05957	0.0949	ppb	0.05957	62.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-1.5667	µg/L	3.70306	-1.5667	ppb	3.70306	236.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.7	0.2934	µg/L	0.27809	0.2934	ppb	0.27809	94.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0335	µg/L	0.24267	0.0335	ppb	0.24267	724.80%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.8      0.6341 µg/L       0.22120      0.6341 ppb        0.22120  34.88%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -87.5     -0.6102 µg/L       0.14102     -0.6102 ppb        0.14102  23.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      7.1335 µg/L      14.11778      7.1335 ppb       14.11778 197.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           1.9      1.3465 µg/L      15.98731      1.3465 ppb       15.98731 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -5.9243 µg/L      14.34120     -5.9243 ppb       14.34120 242.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                31.2      0.1094 µg/L       0.03354      0.1094 ppb        0.03354  30.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.3604 µg/L       0.52901      0.3604 ppb        0.52901 146.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.2     33.329 µg/L        8.1571     33.329 ppb         8.1571  24.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.4     -0.1318 µg/L       0.39372     -0.1318 ppb        0.39372 298.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.1     -6.6846 µg/L       4.76680     -6.6846 ppb        4.76680  71.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.0     -0.5373 µg/L       0.30511     -0.5373 ppb        0.30511  56.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      1.7632 µg/L       2.87351      1.7632 ppb        2.87351 162.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.1306 µg/L       6.37594     -0.1306 ppb        6.37594 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.6      2.3884 µg/L       8.34041      2.3884 ppb        8.34041 349.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -27.2     -5.8537 µg/L       0.68563     -5.8537 ppb        0.68563  11.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                -0.2     -0.0130 µg/L       1.13664     -0.0130 ppb        1.13664 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.8314 µg/L       0.90630      0.8314 ppb        0.90630 109.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -3.2     -0.0330 µg/L       0.13293     -0.0330 ppb        0.13293 403.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.0      0.0678 µg/L       0.03518      0.0678 ppb        0.03518  51.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.7      5.1332 µg/L       2.04457      5.1332 ppb        2.04457  39.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.2      2.1938 µg/L       1.83966      2.1938 ppb        1.83966  83.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 34.6      0.3762 µg/L       0.29972      0.3762 ppb        0.29972  79.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -6.0     -0.1478 µg/L       0.10182     -0.1478 ppb        0.10182  68.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: 1202032557|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 2/11/2010 19:19:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032557|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56162.6	56162.6	103	%			19:20:21
1	Al 396.153Radial†	-0.9	9.2	6.8694	µg/L	6.8694	ppb	19:20:21
1	Ca 317.933Radial†	193.4	8.8	8.2949	µg/L	8.2949	ppb	19:20:41
1	Fe 238.204 Radial†	17.5	2.5	21.049	µg/L	21.049	ppb	19:20:41
1	K 766.490 Radial†	140.5	8.2	5.7964	µg/L	5.7964	ppb	19:20:21
1	Mg 279.077 IEC†	14.7	3.0	27.583	µg/L	27.583	ppb	19:20:41
1	Na 589.592 Radial†	619.9	60.5	19.922	µg/L	19.922	ppb	19:20:21
1	Sr 421.552†	24.9	-15.4	-0.1597	µg/L	-0.1597	ppb	19:20:21
1	Sc 361.383	1969009.3	1969009.3	103.10	%			19:21:43
1	Y 371.029	1347307.8	1347307.8	102.85	%			19:21:43
1	Ag 328.068†	-572.7	9.0	0.0759	µg/L	0.0759	ppb	19:21:49
1	As 188.979†	4.3	3.1	5.9676	µg/L	5.9676	ppb	19:22:09
1	B 249.677†	319.3	-21.8	-0.9629	µg/L	-0.9629	ppb	19:22:09
1	Ba 233.527†	-16.2	10.3	0.2702	µg/L	0.2702	ppb	19:22:09
1	Be 313.107†	-3531.0	15.6	0.0101	µg/L	0.0101	ppb	19:21:49
1	Cd 226.502†	-147.1	-0.5	-0.0161	µg/L	-0.0161	ppb	19:22:09
1	Co 228.616†	-17.1	-7.8	-0.3825	µg/L	-0.3825	ppb	19:22:09
1	Cr 267.716†	-24.9	28.2	0.6201	µg/L	0.6201	ppb	19:22:09
1	Cu 324.752†	2344.0	-212.5	-1.4815	µg/L	-1.4815	ppb	19:21:49
1	Mn 257.610†	-173.7	75.6	0.2635	µg/L	0.2635	ppb	19:22:09
1	Mo 202.031†	-7.4	0.3	0.0356	µg/L	0.0356	ppb	19:22:09
1	Ni 231.604†	312.9	1.3	0.0735	µg/L	0.0735	ppb	19:22:09
1	P 214.914†	30.5	2.0	4.4454	µg/L	4.4454	ppb	19:22:09
1	Pb 220.353†	103.9	3.6	0.9614	µg/L	0.9614	ppb	19:22:09
1	S 181.975 Axial†	17.6	2.3	9.8847	µg/L	9.8847	ppb	19:22:09
1	Sb 206.836†	28.0	0.2	0.2152	µg/L	0.2152	ppb	19:22:09
1	Se 196.026†	17.5	1.2	1.8091	µg/L	1.8091	ppb	19:22:09
1	SiO2†	1345.3	54.8	11.812	µg/L	11.812	ppb	19:21:49
1	Si 251.611†	418.6	93.2	7.6584	µg/L	7.6584	ppb	19:22:09
1	Sn 189.927†	-0.5	0.4	0.1929	µg/L	0.1929	ppb	19:22:09
1	Ti 334.940†	191.4	69.5	0.1652	µg/L	0.1652	ppb	19:21:49
1	Tl 190.801†	-19.7	5.2	7.2052	µg/L	7.2052	ppb	19:22:09
1	U 409.014†	-22.0	32.3	2.9184	µg/L	2.9184	ppb	19:21:49
1	V 292.402†	-1.5	42.8	0.4631	µg/L	0.4631	ppb	19:21:49
1	Zn 213.857†	523.7	32.4	0.8081	µg/L	0.8081	ppb	19:22:09
2	Sc RADIAL	57033.0	57033.0	105	%			19:20:47
2	Al 396.153Radial†	-29.2	-17.8	-13.303	µg/L	-13.303	ppb	19:20:47
2	Ca 317.933Radial†	198.1	10.4	9.7767	µg/L	9.7767	ppb	19:21:07
2	Fe 238.204 Radial†	15.7	0.5	4.2922	µg/L	4.2922	ppb	19:21:07
2	K 766.490 Radial†	163.1	27.6	19.636	µg/L	19.636	ppb	19:20:47
2	Mg 279.077 IEC†	8.2	-3.5	-32.175	µg/L	-32.175	ppb	19:21:07
2	Na 589.592 Radial†	627.1	58.2	19.145	µg/L	19.145	ppb	19:20:47
2	Sr 421.552†	15.7	-24.5	-0.2542	µg/L	-0.2542	ppb	19:20:47
2	Sc 361.383	1951926.6	1951926.6	102.20	%			19:22:15
2	Y 371.029	1336400.0	1336400.0	102.02	%			19:22:15
2	Ag 328.068†	-524.4	51.4	0.4117	µg/L	0.4117	ppb	19:22:21
2	As 188.979†	-1.8	-2.9	-5.6797	µg/L	-5.6797	ppb	19:22:41
2	B 249.677†	313.0	-25.2	-1.1037	µg/L	-1.1037	ppb	19:22:41
2	Ba 233.527†	-15.7	10.7	0.2791	µg/L	0.2791	ppb	19:22:41
2	Be 313.107†	-3486.1	29.5	0.0193	µg/L	0.0193	ppb	19:22:21
2	Cd 226.502†	-132.0	13.0	0.3577	µg/L	0.3577	ppb	19:22:41
2	Co 228.616†	-14.0	-4.8	-0.2372	µg/L	-0.2372	ppb	19:22:41
2	Cr 267.716†	-26.4	26.5	0.5835	µg/L	0.5835	ppb	19:22:41
2	Cu 324.752†	2384.5	-153.0	-1.0685	µg/L	-1.0685	ppb	19:22:21
2	Mn 257.610†	-179.0	69.0	0.2407	µg/L	0.2407	ppb	19:22:41
2	Mo 202.031†	-5.7	1.9	0.2054	µg/L	0.2054	ppb	19:22:41
2	Ni 231.604†	320.7	11.6	0.6340	µg/L	0.6340	ppb	19:22:41
2	P 214.914†	24.8	-3.3	-7.0323	µg/L	-7.0323	ppb	19:22:41
2	Pb 220.353†	91.9	-7.2	-1.9278	µg/L	-1.9278	ppb	19:22:41

2	S 181.975 Axial†	19.7	4.5	19.528	µg/L	19.528 ppb	19:22:41
2	Sb 206.836†	24.0	-3.5	-3.4566	µg/L	-3.4566 ppb	19:22:41
2	Se 196.026†	13.6	-2.5	-3.7596	µg/L	-3.7596 ppb	19:22:41
2	SiO2†	1333.2	54.4	11.718	µg/L	11.718 ppb	19:22:21
2	Si 251.611†	413.0	91.2	7.4996	µg/L	7.4996 ppb	19:22:41
2	Sn 189.927†	0.9	1.7	0.7999	µg/L	0.7999 ppb	19:22:41
2	Ti 334.940†	113.7	-4.8	-0.0089	µg/L	-0.0089 ppb	19:22:21
2	Tl 190.801†	-24.7	0.1	0.1231	µg/L	0.1231 ppb	19:22:41
2	U 409.014†	-59.8	-4.9	-0.4425	µg/L	-0.4425 ppb	19:22:21
2	V 292.402†	4.4	48.6	0.5204	µg/L	0.5204 ppb	19:22:21
2	Zn 213.857†	510.3	23.7	0.5934	µg/L	0.5934 ppb	19:22:41
3	Sc RADIAL	55968.5	55968.5	103	%		19:21:13
3	Al 396.153Radial†	-7.1	3.2	2.3751	µg/L	2.3751 ppb	19:21:13
3	Ca 317.933Radial†	199.5	15.4	14.455	µg/L	14.455 ppb	19:21:33
3	Fe 238.204 Radial†	15.7	0.8	6.8156	µg/L	6.8156 ppb	19:21:33
3	K 766.490 Radial†	147.8	15.7	11.190	µg/L	11.190 ppb	19:21:13
3	Mg 279.077 IEC†	15.9	4.2	39.435	µg/L	39.435 ppb	19:21:33
3	Na 589.592 Radial†	631.7	74.1	24.401	µg/L	24.401 ppb	19:21:13
3	Sr 421.552†	49.4	8.6	0.0895	µg/L	0.0895 ppb	19:21:13
3	Sc 361.383	1933204.1	1933204.1	101.22	%		19:22:47
3	Y 371.029	1323935.5	1323935.5	101.07	%		19:22:47
3	Ag 328.068†	-593.9	-22.2	-0.1725	µg/L	-0.1725 ppb	19:22:53
3	As 188.979†	2.3	1.1	2.1309	µg/L	2.1309 ppb	19:23:13
3	B 249.677†	321.0	-14.3	-0.6295	µg/L	-0.6295 ppb	19:23:13
3	Ba 233.527†	-21.8	4.5	0.1184	µg/L	0.1184 ppb	19:23:13
3	Be 313.107†	-3438.4	43.6	0.0285	µg/L	0.0285 ppb	19:22:53
3	Cd 226.502†	-140.8	3.0	0.0822	µg/L	0.0822 ppb	19:23:13
3	Co 228.616†	-13.8	-4.8	-0.2340	µg/L	-0.2340 ppb	19:23:13
3	Cr 267.716†	-34.4	18.4	0.4049	µg/L	0.4049 ppb	19:23:13
3	Cu 324.752†	2432.8	-82.7	-0.5764	µg/L	-0.5764 ppb	19:22:53
3	Mn 257.610†	-182.3	64.0	0.2209	µg/L	0.2209 ppb	19:23:13
3	Mo 202.031†	-4.6	3.0	0.3226	µg/L	0.3226 ppb	19:23:13
3	Ni 231.604†	307.3	1.4	0.0745	µg/L	0.0745 ppb	19:23:13
3	P 214.914†	29.5	1.5	3.2678	µg/L	3.2678 ppb	19:23:13
3	Pb 220.353†	88.5	-9.8	-2.6006	µg/L	-2.6006 ppb	19:23:13
3	S 181.975 Axial†	15.9	0.9	3.7746	µg/L	3.7746 ppb	19:23:13
3	Sb 206.836†	23.1	-4.2	-4.0869	µg/L	-4.0869 ppb	19:23:13
3	Se 196.026†	8.2	-7.7	-11.834	µg/L	-11.834 ppb	19:23:13
3	SiO2†	1331.0	64.9	13.967	µg/L	13.967 ppb	19:22:53
3	Si 251.611†	405.4	87.6	7.2021	µg/L	7.2021 ppb	19:23:13
3	Sn 189.927†	-4.0	-3.1	-1.4085	µg/L	-1.4085 ppb	19:23:13
3	Ti 334.940†	115.8	-1.7	-0.0070	µg/L	-0.0070 ppb	19:22:53
3	Tl 190.801†	-23.4	1.2	1.6907	µg/L	1.6907 ppb	19:23:13
3	U 409.014†	-46.8	7.4	0.6668	µg/L	0.6668 ppb	19:22:53
3	V 292.402†	-2.1	42.2	0.4542	µg/L	0.4542 ppb	19:22:53
3	Zn 213.857†	517.2	35.4	0.8820	µg/L	0.8820 ppb	19:23:13

Mean Data: 1202032557|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1951380.0	102.18	%	0.938				0.92%
Sc RADIAL	56388.0	103	%	1.0				1.01%
Y 371.029	1335881.1	101.98	%	0.893				0.88%
Ag 328.068†	12.8	0.1050	µg/L	0.29320	0.1050	ppb	0.29320	279.21%
Al 396.153Radial†	-1.8	-1.3527	µg/L	10.59010	-1.3527	ppb	10.59010	782.87%
As 188.979†	0.4	0.8062	µg/L	5.93558	0.8062	ppb	5.93558	736.20%
B 249.677†	-20.5	-0.8987	µg/L	0.24350	-0.8987	ppb	0.24350	27.09%
Ba 233.527†	8.5	0.2226	µg/L	0.09033	0.2226	ppb	0.09033	40.59%
Be 313.107†	29.6	0.0193	µg/L	0.00919	0.0193	ppb	0.00919	47.63%
Ca 317.933Radial†	11.5	10.842	µg/L	3.2155	10.842	ppb	3.2155	29.66%
Cd 226.502†	5.2	0.1413	µg/L	0.19380	0.1413	ppb	0.19380	137.20%
Co 228.616†	-5.8	-0.2846	µg/L	0.08480	-0.2846	ppb	0.08480	29.80%
Cr 267.716†	24.4	0.5362	µg/L	0.11516	0.5362	ppb	0.11516	21.48%
Cu 324.752†	-149.4	-1.0421	µg/L	0.45311	-1.0421	ppb	0.45311	43.48%
Fe 238.204 Radial†	1.3	10.719	µg/L	9.0344	10.719	ppb	9.0344	84.29%
K 766.490 Radial†	17.2	12.207	µg/L	6.9755	12.207	ppb	6.9755	57.14%
Mg 279.077 IEC†	1.2	11.614	µg/L	38.3828	11.614	ppb	38.3828	330.48%
Mn 257.610†	69.5	0.2417	µg/L	0.02130	0.2417	ppb	0.02130	8.81%
Mo 202.031†	1.8	0.1879	µg/L	0.14430	0.1879	ppb	0.14430	76.81%
Na 589.592 Radial†	64.3	21.156	µg/L	2.8374	21.156	ppb	2.8374	13.41%

Ni 231.604†	4.8	0.2607	µg/L	0.32337	0.2607	ppb	0.32337 124.06%
P 214.914†	0.1	0.2270	µg/L	6.31420	0.2270	ppb	6.31420 >999.9%
Pb 220.353†	-4.5	-1.1890	µg/L	1.89244	-1.1890	ppb	1.89244 159.16%
S 181.975 Axial†	2.5	11.063	µg/L	7.9427	11.063	ppb	7.9427 71.80%
Sb 206.836†	-2.5	-2.4428	µg/L	2.32335	-2.4428	ppb	2.32335 95.11%
Se 196.026†	-3.0	-4.5949	µg/L	6.85979	-4.5949	ppb	6.85979 149.29%
SiO2†	58.0	12.499	µg/L	1.2722	12.499	ppb	1.2722 10.18%
Si 251.611†	90.7	7.4534	µg/L	0.23165	7.4534	ppb	0.23165 3.11%
Sn 189.927†	-0.3	-0.1385	µg/L	1.14090	-0.1385	ppb	1.14090 823.53%
Sr 421.552†	-10.4	-0.1081	µg/L	0.17752	-0.1081	ppb	0.17752 164.18%
Ti 334.940†	21.0	0.0497	µg/L	0.09997	0.0497	ppb	0.09997 200.99%
Tl 190.801†	2.2	3.0063	µg/L	3.71983	3.0063	ppb	3.71983 123.73%
U 409.014†	11.6	1.0476	µg/L	1.71251	1.0476	ppb	1.71251 163.48%
V 292.402†	44.5	0.4792	µg/L	0.03595	0.4792	ppb	0.03595 7.50%
Zn 213.857†	30.5	0.7612	µg/L	0.14993	0.7612	ppb	0.14993 19.70%

Sequence No.: 41
Sample ID: 1202032558|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 2/11/2010 19:23:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032558|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55855.2	55855.2	102	%			19:23:56
1	Al 396.153Radial†	6859.1	6711.9	4992.3	µg/L	4992.3	ppb	19:24:17
1	Ca 317.933Radial†	5588.0	5280.7	4972.1	µg/L	4972.1	ppb	19:24:17
1	Fe 238.204 Radial†	622.5	593.7	5042.2	µg/L	5042.2	ppb	19:24:17
1	K 766.490 Radial†	7222.5	6928.5	4924.7	µg/L	4924.7	ppb	19:23:56
1	Mg 279.077 IEC†	568.8	544.5	5070.0	µg/L	5070.0	ppb	19:24:17
1	Na 589.592 Radial†	16067.2	15156.9	4989.7	µg/L	4989.7	ppb	19:23:56
1	Sr 421.552†	48385.5	47236.4	489.66	µg/L	489.66	ppb	19:23:56
1	Sc 361.383	1989589.0	1989589.0	104.18	%			19:25:20
1	Y 371.029	1358828.2	1358828.2	103.73	%			19:25:20
1	Ag 328.068†	62403.6	60466.8	483.35	µg/L	483.35	ppb	19:25:26
1	As 188.979†	266.7	254.9	497.19	µg/L	497.19	ppb	19:25:46
1	B 249.677†	11770.1	10966.8	477.43	µg/L	477.43	ppb	19:25:26
1	Ba 233.527†	19609.2	18849.2	491.69	µg/L	491.69	ppb	19:25:26
1	Be 313.107†	765769.4	738515.5	482.11	µg/L	482.11	ppb	19:25:20
1	Cd 226.502†	18133.6	17548.9	484.07	µg/L	484.07	ppb	19:25:26
1	Co 228.616†	10204.7	9804.5	481.95	µg/L	481.95	ppb	19:25:26
1	Cr 267.716†	23258.1	22378.3	492.54	µg/L	492.54	ppb	19:25:26
1	Cu 324.752†	75730.0	70208.4	491.12	µg/L	491.12	ppb	19:25:26
1	Mn 257.610†	147968.6	142281.7	493.17	µg/L	493.17	ppb	19:25:20
1	Mo 202.031†	4884.5	4696.3	501.38	µg/L	501.38	ppb	19:25:46
1	Ni 231.604†	9732.2	9040.0	493.75	µg/L	493.75	ppb	19:25:26
1	P 214.914†	274.6	235.9	460.07	µg/L	460.07	ppb	19:25:46
1	Pb 220.353†	2040.6	1861.6	496.90	µg/L	496.90	ppb	19:25:46
1	S 181.975 Axial†	1213.5	1150.0	5038.6	µg/L	5038.6	ppb	19:25:46
1	Sb 206.836†	565.3	515.7	509.80	µg/L	509.80	ppb	19:25:46
1	Se 196.026†	348.9	319.1	494.37	µg/L	494.37	ppb	19:25:46
1	SiO2†	50535.9	47260.3	10178	µg/L	10178	ppb	19:25:26
1	Si 251.611†	60336.9	57605.6	4735.5	µg/L	4735.5	ppb	19:25:26
1	Sn 189.927†	1211.5	1163.8	535.30	µg/L	535.30	ppb	19:25:46
1	Ti 334.940†	209639.9	201120.8	483.46	µg/L	483.46	ppb	19:25:20
1	Tl 190.801†	344.0	354.5	500.64	µg/L	500.64	ppb	19:25:46
1	U 409.014†	5812.7	5633.3	509.02	µg/L	509.02	ppb	19:25:26
1	V 292.402†	47804.6	45932.7	495.64	µg/L	495.64	ppb	19:25:26
1	Zn 213.857†	20684.3	19379.7	480.43	µg/L	480.43	ppb	19:25:26
2	Sc RADIAL	56621.3	56621.3	104	%			19:24:22
2	Al 396.153Radial†	6761.1	6526.9	4854.4	µg/L	4854.4	ppb	19:24:42
2	Ca 317.933Radial†	5510.9	5132.5	4832.6	µg/L	4832.6	ppb	19:24:42
2	Fe 238.204 Radial†	611.2	574.6	4880.2	µg/L	4880.2	ppb	19:24:42
2	K 766.490 Radial†	7318.8	6925.8	4922.8	µg/L	4922.8	ppb	19:24:22
2	Mg 279.077 IEC†	555.6	524.2	4881.7	µg/L	4881.7	ppb	19:24:42
2	Na 589.592 Radial†	16134.1	15009.0	4941.0	µg/L	4941.0	ppb	19:24:22
2	Sr 421.552†	48688.4	46888.7	486.06	µg/L	486.06	ppb	19:24:22
2	Sc 361.383	1981021.9	1981021.9	103.73	%			19:25:53
2	Y 371.029	1354467.5	1354467.5	103.40	%			19:25:53
2	Ag 328.068†	62083.9	60417.6	482.95	µg/L	482.95	ppb	19:25:59
2	As 188.979†	268.8	258.0	503.27	µg/L	503.27	ppb	19:26:19
2	B 249.677†	11697.0	10945.2	476.57	µg/L	476.57	ppb	19:25:59
2	Ba 233.527†	19543.5	18867.3	492.16	µg/L	492.16	ppb	19:25:59
2	Be 313.107†	766542.7	742439.8	484.67	µg/L	484.67	ppb	19:25:53
2	Cd 226.502†	18043.5	17537.3	483.77	µg/L	483.77	ppb	19:25:59
2	Co 228.616†	10157.9	9801.8	481.81	µg/L	481.81	ppb	19:25:59
2	Cr 267.716†	23124.1	22345.6	491.82	µg/L	491.82	ppb	19:25:59
2	Cu 324.752†	75467.1	70269.3	491.53	µg/L	491.53	ppb	19:25:59
2	Mn 257.610†	148155.6	143076.2	495.91	µg/L	495.91	ppb	19:25:53
2	Mo 202.031†	4832.3	4666.2	498.17	µg/L	498.17	ppb	19:26:19
2	Ni 231.604†	9667.7	9018.1	492.55	µg/L	492.55	ppb	19:25:59
2	P 214.914†	272.2	234.8	457.67	µg/L	457.67	ppb	19:26:19
2	Pb 220.353†	2044.7	1874.1	500.20	µg/L	500.20	ppb	19:26:19

2	S 181.975 Axial†	1199.8	1141.9	5003.1 µg/L	5003.1 ppb	19:26:19
2	Sb 206.836†	565.3	518.0	512.02 µg/L	512.02 ppb	19:26:19
2	Se 196.026†	343.0	314.9	487.68 µg/L	487.68 ppb	19:26:19
2	SiO2†	50279.9	47223.2	10170 µg/L	10170 ppb	19:25:59
2	Si 251.611†	60047.4	57576.9	4733.1 µg/L	4733.1 ppb	19:25:59
2	Sn 189.927†	1201.8	1159.5	533.31 µg/L	533.31 ppb	19:26:19
2	Ti 334.940†	209553.6	201907.8	485.37 µg/L	485.37 ppb	19:25:53
2	Tl 190.801†	347.4	359.2	507.29 µg/L	507.29 ppb	19:26:19
2	U 409.014†	5749.9	5596.9	505.75 µg/L	505.75 ppb	19:25:59
2	V 292.402†	47601.0	45934.8	495.61 µg/L	495.61 ppb	19:25:59
2	Zn 213.857†	20543.3	19329.6	479.20 µg/L	479.20 ppb	19:25:59
3	Sc RADIAL	56667.3	56667.3	104 %		19:24:48
3	Al 396.153Radial†	6785.5	6545.0	4869.0 µg/L	4869.0 ppb	19:25:08
3	Ca 317.933Radial†	5519.1	5136.1	4836.0 µg/L	4836.0 ppb	19:25:08
3	Fe 238.204 Radial†	610.2	573.1	4867.6 µg/L	4867.6 ppb	19:25:08
3	K 766.490 Radial†	7189.7	6795.7	4830.4 µg/L	4830.4 ppb	19:24:48
3	Mg 279.077 IEC†	562.6	530.6	4940.1 µg/L	4940.1 ppb	19:25:08
3	Na 589.592 Radial†	15967.1	14835.5	4883.9 µg/L	4883.9 ppb	19:24:48
3	Sr 421.552†	48078.7	46263.5	479.58 µg/L	479.58 ppb	19:24:48
3	Sc 361.383	1962516.7	1962516.7	102.76 %		19:26:26
3	Y 371.029	1343125.0	1343125.0	102.53 %		19:26:26
3	Ag 328.068†	60804.7	59737.2	477.42 µg/L	477.42 ppb	19:26:32
3	As 188.979†	243.9	236.2	460.84 µg/L	460.84 ppb	19:26:53
3	B 249.677†	11399.3	10761.9	468.53 µg/L	468.53 ppb	19:26:32
3	Ba 233.527†	18655.7	18181.0	474.25 µg/L	474.25 ppb	19:26:32
3	Be 313.107†	740791.3	724347.9	472.86 µg/L	472.86 ppb	19:26:26
3	Cd 226.502†	17306.9	16984.5	468.50 µg/L	468.50 ppb	19:26:32
3	Co 228.616†	9664.7	9414.2	462.72 µg/L	462.72 ppb	19:26:32
3	Cr 267.716†	21731.9	21201.0	466.63 µg/L	466.63 ppb	19:26:32
3	Cu 324.752†	72256.6	67831.0	474.49 µg/L	474.49 ppb	19:26:32
3	Mn 257.610†	143350.8	139747.2	484.37 µg/L	484.37 ppb	19:26:26
3	Mo 202.031†	4322.8	4214.3	449.94 µg/L	449.94 ppb	19:26:53
3	Ni 231.604†	9237.2	8687.0	474.47 µg/L	474.47 ppb	19:26:32
3	P 214.914†	257.0	222.5	432.24 µg/L	432.24 ppb	19:26:53
3	Pb 220.353†	1875.5	1728.0	461.14 µg/L	461.14 ppb	19:26:53
3	S 181.975 Axial†	1113.0	1068.4	4680.8 µg/L	4680.8 ppb	19:26:53
3	Sb 206.836†	514.5	473.7	467.94 µg/L	467.94 ppb	19:26:53
3	Se 196.026†	322.8	298.3	462.30 µg/L	462.30 ppb	19:26:53
3	SiO2†	48695.4	46138.3	9936.1 µg/L	9936.1 ppb	19:26:32
3	Si 251.611†	58040.6	56169.8	4617.4 µg/L	4617.4 ppb	19:26:32
3	Sn 189.927†	1062.2	1034.6	475.87 µg/L	475.87 ppb	19:26:53
3	Ti 334.940†	202050.2	196510.8	472.38 µg/L	472.38 ppb	19:26:26
3	Tl 190.801†	308.7	324.7	458.96 µg/L	458.96 ppb	19:26:53
3	U 409.014†	5501.6	5407.5	488.61 µg/L	488.61 ppb	19:26:32
3	V 292.402†	45248.4	44078.0	475.38 µg/L	475.38 ppb	19:26:32
3	Zn 213.857†	19651.1	18648.0	462.29 µg/L	462.29 ppb	19:26:32

Mean Data: 1202032558|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1977709.2	103.55	%	0.725				0.70%
Sc RADIAL	56381.3	103	%	0.8				0.81%
Y 371.029	1352140.2	103.22	%	0.619				0.60%
Ag 328.068†	60207.2	481.24	µg/L	3.315	481.24	ppb	3.315	0.69%
Al 396.153Radial†	6594.6	4905.2	µg/L	75.76	4905.2	ppb	75.76	1.54%
As 188.979†	249.7	487.10	µg/L	22.947	487.10	ppb	22.947	4.71%
B 249.677†	10891.3	474.18	µg/L	4.912	474.18	ppb	4.912	1.04%
Ba 233.527†	18632.5	486.03	µg/L	10.205	486.03	ppb	10.205	2.10%
Be 313.107†	735101.0	479.88	µg/L	6.212	479.88	ppb	6.212	1.29%
Ca 317.933Radial†	5183.1	4880.2	µg/L	79.59	4880.2	ppb	79.59	1.63%
Cd 226.502†	17356.9	478.78	µg/L	8.903	478.78	ppb	8.903	1.86%
Co 228.616†	9673.5	475.49	µg/L	11.063	475.49	ppb	11.063	2.33%
Cr 267.716†	21975.0	483.67	µg/L	14.755	483.67	ppb	14.755	3.05%
Cu 324.752†	69436.2	485.71	µg/L	9.720	485.71	ppb	9.720	2.00%
Fe 238.204 Radial†	580.5	4930.0	µg/L	97.39	4930.0	ppb	97.39	1.98%
K 766.490 Radial†	6883.3	4892.6	µg/L	53.94	4892.6	ppb	53.94	1.10%
Mg 279.077 IEC†	533.1	4963.9	µg/L	96.41	4963.9	ppb	96.41	1.94%
Mn 257.610†	141701.7	491.15	µg/L	6.025	491.15	ppb	6.025	1.23%
Mo 202.031†	4525.6	483.16	µg/L	28.817	483.16	ppb	28.817	5.96%
Na 589.592 Radial†	15000.5	4938.2	µg/L	52.96	4938.2	ppb	52.96	1.07%

Ni 231.604†	8915.0	486.93 µg/L	10.800	486.93 ppb	10.800	2.22%
P 214.914†	231.1	450.00 µg/L	15.419	450.00 ppb	15.419	3.43%
Pb 220.353†	1821.2	486.08 µg/L	21.661	486.08 ppb	21.661	4.46%
S 181.975 Axial†	1120.1	4907.5 µg/L	197.13	4907.5 ppb	197.13	4.02%
Sb 206.836†	502.5	496.59 µg/L	24.834	496.59 ppb	24.834	5.00%
Se 196.026†	310.8	481.45 µg/L	16.915	481.45 ppb	16.915	3.51%
SiO2†	46873.9	10095 µg/L	137.3	10095 ppb	137.3	1.36%
Si 251.611†	57117.4	4695.3 µg/L	67.47	4695.3 ppb	67.47	1.44%
Sn 189.927†	1119.3	514.83 µg/L	33.750	514.83 ppb	33.750	6.56%
Sr 421.552†	46796.2	485.10 µg/L	5.111	485.10 ppb	5.111	1.05%
Ti 334.940†	199846.5	480.40 µg/L	7.013	480.40 ppb	7.013	1.46%
Tl 190.801†	346.1	488.96 µg/L	26.193	488.96 ppb	26.193	5.36%
U 409.014†	5545.9	501.13 µg/L	10.961	501.13 ppb	10.961	2.19%
V 292.402†	45315.2	488.88 µg/L	11.691	488.88 ppb	11.691	2.39%
Zn 213.857†	19119.1	473.97 µg/L	10.138	473.97 ppb	10.138	2.14%

Sequence No.: 43
Sample ID: 1202032559|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 333
Date Collected: 2/11/2010 19:30:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032559|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55369.8	55369.8	101	%			19:31:10
1	Al 396.153Radial†	27.3	37.1	27.641	µg/L	27.641	ppb	19:31:10
1	Ca 317.933Radial†	243.4	60.7	57.167	µg/L	57.167	ppb	19:31:30
1	Fe 238.204 Radial†	16.5	1.8	15.034	µg/L	15.034	ppb	19:31:30
1	K 766.490 Radial†	376.1	242.3	172.24	µg/L	172.24	ppb	19:31:10
1	Mg 279.077 IEC†	13.4	1.9	17.989	µg/L	17.989	ppb	19:31:30
1	Na 589.592 Radial†	1118.3	560.4	184.47	µg/L	184.47	ppb	19:31:10
1	Sr 421.552†	80.8	40.1	0.4152	µg/L	0.4152	ppb	19:31:10
1	Sc 361.383	1957288.3	1957288.3	102.48	%			19:32:32
1	Y 371.029	1341003.8	1341003.8	102.37	%			19:32:32
1	Ag 328.068†	-492.7	83.8	0.6666	µg/L	0.6666	ppb	19:32:37
1	As 188.979†	-0.9	-2.0	-4.0031	µg/L	-4.0031	ppb	19:32:58
1	B 249.677†	719.9	371.0	16.207	µg/L	16.207	ppb	19:32:37
1	Ba 233.527†	-10.5	15.7	0.4102	µg/L	0.4102	ppb	19:32:58
1	Be 313.107†	-3539.8	-13.5	-0.0090	µg/L	-0.0090	ppb	19:32:37
1	Cd 226.502†	-150.2	-4.4	-0.1235	µg/L	-0.1235	ppb	19:32:58
1	Co 228.616†	-12.4	-3.3	-0.1634	µg/L	-0.1634	ppb	19:32:58
1	Cr 267.716†	-22.0	30.9	0.6806	µg/L	0.6806	ppb	19:32:58
1	Cu 324.752†	2532.9	-14.6	-0.0998	µg/L	-0.0998	ppb	19:32:37
1	Mn 257.610†	-105.5	141.2	0.4903	µg/L	0.4903	ppb	19:32:58
1	Mo 202.031†	-9.0	-1.2	-0.1312	µg/L	-0.1312	ppb	19:32:58
1	Ni 231.604†	309.3	-0.4	-0.0191	µg/L	-0.0191	ppb	19:32:58
1	P 214.914†	35.6	7.1	15.341	µg/L	15.341	ppb	19:32:58
1	Pb 220.353†	89.9	-9.5	-2.5338	µg/L	-2.5338	ppb	19:32:58
1	S 181.975 Axial†	30.4	14.9	65.128	µg/L	65.128	ppb	19:32:58
1	Sb 206.836†	22.5	-5.0	-4.9601	µg/L	-4.9601	ppb	19:32:58
1	Se 196.026†	14.9	-1.3	-1.9004	µg/L	-1.9004	ppb	19:32:58
1	SiO2†	14720.0	13113.1	2824.0	µg/L	2824.0	ppb	19:32:37
1	Si 251.611†	16745.8	16026.9	1317.5	µg/L	1317.5	ppb	19:32:37
1	Sn 189.927†	4.4	5.2	2.3867	µg/L	2.3867	ppb	19:32:58
1	Ti 334.940†	342.8	218.3	0.5247	µg/L	0.5247	ppb	19:32:37
1	Tl 190.801†	-18.4	6.4	8.8912	µg/L	8.8912	ppb	19:32:58
1	U 409.014†	-31.7	22.7	2.0510	µg/L	2.0510	ppb	19:32:37
1	V 292.402†	-35.4	9.7	0.1073	µg/L	0.1073	ppb	19:32:37
1	Zn 213.857†	550.1	61.2	1.5266	µg/L	1.5266	ppb	19:32:58
2	Sc RADIAL	56232.0	56232.0	103	%			19:31:36
2	Al 396.153Radial†	20.5	30.0	22.366	µg/L	22.366	ppb	19:31:36
2	Ca 317.933Radial†	234.1	48.1	45.285	µg/L	45.285	ppb	19:31:56
2	Fe 238.204 Radial†	18.9	3.9	32.938	µg/L	32.938	ppb	19:31:56
2	K 766.490 Radial†	401.7	261.4	185.83	µg/L	185.83	ppb	19:31:36
2	Mg 279.077 IEC†	11.2	-0.4	-3.5186	µg/L	-3.5186	ppb	19:31:56
2	Na 589.592 Radial†	1117.4	542.6	178.63	µg/L	178.63	ppb	19:31:36
2	Sr 421.552†	60.4	19.0	0.1974	µg/L	0.1974	ppb	19:31:36
2	Sc 361.383	1985418.5	1985418.5	103.96	%			19:33:04
2	Y 371.029	1359374.4	1359374.4	103.78	%			19:33:04
2	Ag 328.068†	-475.1	107.5	0.8590	µg/L	0.8590	ppb	19:33:09
2	As 188.979†	-4.1	-5.1	-9.9165	µg/L	-9.9165	ppb	19:33:30
2	B 249.677†	718.8	360.0	15.716	µg/L	15.716	ppb	19:33:09
2	Ba 233.527†	-18.1	8.6	0.2255	µg/L	0.2255	ppb	19:33:30
2	Be 313.107†	-3406.7	163.4	0.1065	µg/L	0.1065	ppb	19:33:09
2	Cd 226.502†	-148.4	-0.7	-0.0227	µg/L	-0.0227	ppb	19:33:30
2	Co 228.616†	-10.8	-1.5	-0.0755	µg/L	-0.0755	ppb	19:33:30
2	Cr 267.716†	-16.3	36.7	0.8072	µg/L	0.8072	ppb	19:33:30
2	Cu 324.752†	2453.0	-126.5	-0.8788	µg/L	-0.8788	ppb	19:33:09
2	Mn 257.610†	-109.7	138.6	0.4845	µg/L	0.4845	ppb	19:33:30
2	Mo 202.031†	-6.5	1.3	0.1397	µg/L	0.1397	ppb	19:33:30
2	Ni 231.604†	303.1	-10.6	-0.5795	µg/L	-0.5795	ppb	19:33:30
2	P 214.914†	27.9	-0.8	-1.7271	µg/L	-1.7271	ppb	19:33:30
2	Pb 220.353†	100.2	-0.8	-0.2107	µg/L	-0.2107	ppb	19:33:30

2	S 181.975 Axial†	24.6	8.8	38.629 µg/L	38.629 ppb	19:33:30
2	Sb 206.836†	25.5	-2.4	-2.3573 µg/L	-2.3573 ppb	19:33:30
2	Se 196.026†	13.5	-2.9	-4.3357 µg/L	-4.3357 ppb	19:33:30
2	SiO2†	14565.5	12761.0	2748.2 µg/L	2748.2 ppb	19:33:09
2	Si 251.611†	16534.1	15591.9	1281.7 µg/L	1281.7 ppb	19:33:09
2	Sn 189.927†	-3.4	-2.4	-1.0908 µg/L	-1.0908 ppb	19:33:30
2	Ti 334.940†	415.8	283.9	0.6838 µg/L	0.6838 ppb	19:33:09
2	Tl 190.801†	-24.3	0.9	1.3234 µg/L	1.3234 ppb	19:33:30
2	U 409.014†	-74.6	-18.1	-1.6482 µg/L	-1.6482 ppb	19:33:09
2	V 292.402†	9.6	53.5	0.5749 µg/L	0.5749 ppb	19:33:09
2	Zn 213.857†	541.1	45.0	1.1253 µg/L	1.1253 ppb	19:33:30
3	Sc RADIAL	56023.2	56023.2	103 %		19:32:01
3	Al 396.153Radial†	23.5	33.0	24.583 µg/L	24.583 ppb	19:32:01
3	Ca 317.933Radial†	244.2	58.7	55.281 µg/L	55.281 ppb	19:32:22
3	Fe 238.204 Radial†	14.9	-0.0	-0.0783 µg/L	-0.0783 ppb	19:32:22
3	K 766.490 Radial†	448.8	308.8	219.46 µg/L	219.46 ppb	19:32:01
3	Mg 279.077 IEC†	9.0	-2.5	-23.358 µg/L	-23.358 ppb	19:32:22
3	Na 589.592 Radial†	1105.2	534.7	176.03 µg/L	176.03 ppb	19:32:01
3	Sr 421.552†	62.1	20.9	0.2170 µg/L	0.2170 ppb	19:32:01
3	Sc 361.383	1953368.2	1953368.2	102.28 %		19:33:36
3	Y 371.029	1335404.5	1335404.5	101.95 %		19:33:36
3	Ag 328.068†	-556.7	20.3	0.1596 µg/L	0.1596 ppb	19:33:41
3	As 188.979†	0.2	-0.9	-1.8467 µg/L	-1.8467 ppb	19:34:02
3	B 249.677†	701.7	354.6	15.499 µg/L	15.499 ppb	19:33:41
3	Ba 233.527†	-16.3	10.1	0.2614 µg/L	0.2614 ppb	19:34:02
3	Be 313.107†	-3559.8	-40.0	-0.0263 µg/L	-0.0263 ppb	19:33:41
3	Cd 226.502†	-146.9	-1.5	-0.0404 µg/L	-0.0404 ppb	19:34:02
3	Co 228.616†	-11.4	-2.3	-0.1134 µg/L	-0.1134 ppb	19:34:02
3	Cr 267.716†	-18.4	34.4	0.7558 µg/L	0.7558 ppb	19:34:02
3	Cu 324.752†	2463.5	-77.5	-0.5416 µg/L	-0.5416 ppb	19:33:41
3	Mn 257.610†	-124.1	122.8	0.4261 µg/L	0.4261 ppb	19:34:02
3	Mo 202.031†	-6.9	0.8	0.0892 µg/L	0.0892 ppb	19:34:02
3	Ni 231.604†	309.7	0.6	0.0333 µg/L	0.0333 ppb	19:34:02
3	P 214.914†	32.7	4.3	9.3269 µg/L	9.3269 ppb	19:34:02
3	Pb 220.353†	89.9	-9.3	-2.4747 µg/L	-2.4747 ppb	19:34:02
3	S 181.975 Axial†	20.7	5.5	23.923 µg/L	23.923 ppb	19:34:02
3	Sb 206.836†	18.4	-9.0	-8.8834 µg/L	-8.8834 ppb	19:34:02
3	Se 196.026†	8.1	-8.0	-12.127 µg/L	-12.127 ppb	19:34:02
3	SiO2†	14525.8	12952.1	2789.3 µg/L	2789.3 ppb	19:33:41
3	Si 251.611†	16428.3	15749.4	1294.7 µg/L	1294.7 ppb	19:33:41
3	Sn 189.927†	-0.7	0.2	0.1014 µg/L	0.1014 ppb	19:34:02
3	Ti 334.940†	337.4	213.7	0.5169 µg/L	0.5169 ppb	19:33:41
3	Tl 190.801†	-27.2	-2.3	-3.2110 µg/L	-3.2110 ppb	19:34:02
3	U 409.014†	-73.9	-18.6	-1.6874 µg/L	-1.6874 ppb	19:33:41
3	V 292.402†	-61.9	-16.4	-0.1736 µg/L	-0.1736 ppb	19:33:41
3	Zn 213.857†	546.4	58.6	1.4662 µg/L	1.4662 ppb	19:34:02

Mean Data: 1202032559|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1965358.3	102.91	%	0.915				0.89%
Sc RADIAL	55875.0	102	%	0.8				0.81%
Y 371.029	1345260.9	102.70	%	0.957				0.93%
Ag 328.068†	70.5	0.5618	µg/L	0.36128	0.5618	ppb	0.36128	64.31%
Al 396.153Radial†	33.4	24.863	µg/L	2.6486	24.863	ppb	2.6486	10.65%
As 188.979†	-2.7	-5.2554	µg/L	4.17812	-5.2554	ppb	4.17812	79.50%
B 249.677†	361.9	15.807	µg/L	0.3629	15.807	ppb	0.3629	2.30%
Ba 233.527†	11.5	0.2990	µg/L	0.09794	0.2990	ppb	0.09794	32.75%
Be 313.107†	36.6	0.0237	µg/L	0.07220	0.0237	ppb	0.07220	304.72%
Ca 317.933Radial†	55.8	52.578	µg/L	6.3860	52.578	ppb	6.3860	12.15%
Cd 226.502†	-2.2	-0.0622	µg/L	0.05384	-0.0622	ppb	0.05384	86.58%
Co 228.616†	-2.4	-0.1174	µg/L	0.04408	-0.1174	ppb	0.04408	37.55%
Cr 267.716†	34.0	0.7479	µg/L	0.06369	0.7479	ppb	0.06369	8.52%
Cu 324.752†	-72.9	-0.5067	µg/L	0.39067	-0.5067	ppb	0.39067	77.10%
Fe 238.204 Radial†	1.9	15.964	µg/L	16.5276	15.964	ppb	16.5276	103.53%
K 766.490 Radial†	270.8	192.51	µg/L	24.311	192.51	ppb	24.311	12.63%
Mg 279.077 IEC†	-0.3	-2.9625	µg/L	20.67888	-2.9625	ppb	20.67888	698.02%
Mn 257.610†	134.2	0.4670	µg/L	0.03550	0.4670	ppb	0.03550	7.60%
Mo 202.031†	0.3	0.0326	µg/L	0.14408	0.0326	ppb	0.14408	442.34%
Na 589.592 Radial†	545.9	179.71	µg/L	4.323	179.71	ppb	4.323	2.41%

Ni 231.604†	-3.5	-0.1884	µg/L	0.33968	-0.1884	ppb	0.33968 180.30%
P 214.914†	3.5	7.6469	µg/L	8.65706	7.6469	ppb	8.65706 113.21%
Pb 220.353†	-6.5	-1.7397	µg/L	1.32454	-1.7397	ppb	1.32454 76.13%
S 181.975 Axial†	9.7	42.560	µg/L	20.8819	42.560	ppb	20.8819 49.07%
Sb 206.836†	-5.5	-5.4003	µg/L	3.28526	-5.4003	ppb	3.28526 60.84%
Se 196.026†	-4.0	-6.1210	µg/L	5.34190	-6.1210	ppb	5.34190 87.27%
SiO2†	12942.1	2787.1	µg/L	37.96	2787.1	ppb	37.96 1.36%
Si 251.611†	15789.4	1298.0	µg/L	18.11	1298.0	ppb	18.11 1.40%
Sn 189.927†	1.0	0.4657	µg/L	1.76718	0.4657	ppb	1.76718 379.43%
Sr 421.552†	26.7	0.2766	µg/L	0.12050	0.2766	ppb	0.12050 43.57%
Ti 334.940†	238.7	0.5751	µg/L	0.09422	0.5751	ppb	0.09422 16.38%
Tl 190.801†	1.7	2.3345	µg/L	6.11411	2.3345	ppb	6.11411 261.90%
U 409.014†	-4.7	-0.4282	µg/L	2.14716	-0.4282	ppb	2.14716 501.43%
V 292.402†	15.6	0.1695	µg/L	0.37811	0.1695	ppb	0.37811 223.01%
Zn 213.857†	54.9	1.3727	µg/L	0.21636	1.3727	ppb	0.21636 15.76%

Sequence No.: 44
Sample ID: 1202032560|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 2/11/2010 19:34:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032560|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56464.8	56464.8	103	%			19:34:44
1	Al 396.153Radial†	6806.1	6588.3	4900.2	µg/L	4900.2	ppb	19:35:04
1	Ca 317.933Radial†	5506.4	5142.9	4842.4	µg/L	4842.4	ppb	19:35:04
1	Fe 238.204 Radial†	611.9	576.9	4899.7	µg/L	4899.7	ppb	19:35:04
1	K 766.490 Radial†	7333.3	6959.3	4946.6	µg/L	4946.6	ppb	19:34:44
1	Mg 279.077 IEC†	557.7	527.7	4914.4	µg/L	4914.4	ppb	19:35:04
1	Na 589.592 Radial†	16217.5	15132.6	4981.7	µg/L	4981.7	ppb	19:34:44
1	Sr 421.552†	47317.0	45693.3	473.66	µg/L	473.66	ppb	19:34:44
1	Sc 361.383	1969504.1	1969504.1	103.12	%			19:36:08
1	Y 371.029	1344490.8	1344490.8	102.64	%			19:36:08
1	Ag 328.068†	61777.8	60470.9	483.38	µg/L	483.38	ppb	19:36:14
1	As 188.979†	267.3	258.0	503.42	µg/L	503.42	ppb	19:36:34
1	B 249.677†	12031.5	11335.6	493.62	µg/L	493.62	ppb	19:36:14
1	Ba 233.527†	19428.6	18866.0	492.13	µg/L	492.13	ppb	19:36:14
1	Be 313.107†	757639.6	738128.1	481.85	µg/L	481.85	ppb	19:36:08
1	Cd 226.502†	17872.8	17473.5	482.01	µg/L	482.01	ppb	19:36:14
1	Co 228.616†	10159.6	9860.7	484.72	µg/L	484.72	ppb	19:36:14
1	Cr 267.716†	23006.4	22361.8	492.18	µg/L	492.18	ppb	19:36:14
1	Cu 324.752†	75411.0	70640.4	494.12	µg/L	494.12	ppb	19:36:14
1	Mn 257.610†	147190.3	142975.5	495.56	µg/L	495.56	ppb	19:36:08
1	Mo 202.031†	4839.3	4700.2	501.80	µg/L	501.80	ppb	19:36:34
1	Ni 231.604†	9637.5	9043.3	493.93	µg/L	493.93	ppb	19:36:14
1	P 214.914†	274.0	238.0	464.37	µg/L	464.37	ppb	19:36:34
1	Pb 220.353†	2045.5	1886.3	503.48	µg/L	503.48	ppb	19:36:34
1	S 181.975 Axial†	1203.8	1152.6	5049.8	µg/L	5049.8	ppb	19:36:34
1	Sb 206.836†	563.5	519.5	513.56	µg/L	513.56	ppb	19:36:34
1	Se 196.026†	338.7	312.6	484.26	µg/L	484.26	ppb	19:36:34
1	SiO2†	63253.8	60087.6	12940	µg/L	12940	ppb	19:36:14
1	Si 251.611†	75809.8	73200.4	6017.4	µg/L	6017.4	ppb	19:36:14
1	Sn 189.927†	1195.5	1160.1	533.61	µg/L	533.61	ppb	19:36:34
1	Ti 334.940†	208361.9	201933.7	485.43	µg/L	485.43	ppb	19:36:08
1	Tl 190.801†	343.5	357.4	504.78	µg/L	504.78	ppb	19:36:34
1	U 409.014†	5786.5	5664.8	511.90	µg/L	511.90	ppb	19:36:14
1	V 292.402†	47433.2	46040.5	496.78	µg/L	496.78	ppb	19:36:14
1	Zn 213.857†	20405.0	19311.3	478.73	µg/L	478.73	ppb	19:36:14
2	Sc RADIAL	56738.3	56738.3	104	%			19:35:10
2	Al 396.153Radial†	6857.8	6606.4	4913.7	µg/L	4913.7	ppb	19:35:30
2	Ca 317.933Radial†	5550.5	5159.7	4858.2	µg/L	4858.2	ppb	19:35:30
2	Fe 238.204 Radial†	618.4	580.3	4928.8	µg/L	4928.8	ppb	19:35:30
2	K 766.490 Radial†	7512.7	7097.8	5045.0	µg/L	5045.0	ppb	19:35:10
2	Mg 279.077 IEC†	561.6	528.9	4925.0	µg/L	4925.0	ppb	19:35:30
2	Na 589.592 Radial†	16499.1	15328.0	5046.0	µg/L	5046.0	ppb	19:35:10
2	Sr 421.552†	48452.7	46565.3	482.70	µg/L	482.70	ppb	19:35:10
2	Sc 361.383	1963144.1	1963144.1	102.79	%			19:36:41
2	Y 371.029	1340072.9	1340072.9	102.30	%			19:36:41
2	Ag 328.068†	61611.8	60503.4	483.66	µg/L	483.66	ppb	19:36:47
2	As 188.979†	260.2	252.0	491.59	µg/L	491.59	ppb	19:37:07
2	B 249.677†	12050.1	11391.4	496.05	µg/L	496.05	ppb	19:36:47
2	Ba 233.527†	19468.1	18965.5	494.72	µg/L	494.72	ppb	19:36:47
2	Be 313.107†	756552.9	739451.1	482.72	µg/L	482.72	ppb	19:36:41
2	Cd 226.502†	17837.5	17495.3	482.61	µg/L	482.61	ppb	19:36:47
2	Co 228.616†	10063.1	9798.7	481.66	µg/L	481.66	ppb	19:36:47
2	Cr 267.716†	23000.6	22428.5	493.65	µg/L	493.65	ppb	19:36:47
2	Cu 324.752†	75255.1	70725.6	494.72	µg/L	494.72	ppb	19:36:47
2	Mn 257.610†	146664.2	142926.0	495.39	µg/L	495.39	ppb	19:36:41
2	Mo 202.031†	4791.0	4668.4	498.41	µg/L	498.41	ppb	19:37:07
2	Ni 231.604†	9624.9	9061.3	494.92	µg/L	494.92	ppb	19:36:47
2	P 214.914†	259.0	224.3	434.79	µg/L	434.79	ppb	19:37:07
2	Pb 220.353†	2029.3	1877.0	500.98	µg/L	500.98	ppb	19:37:07

2	S 181.975 Axial†	1194.9	1147.6	5028.2 µg/L	5028.2 ppb	19:37:07
2	Sb 206.836†	555.9	513.8	507.88 µg/L	507.88 ppb	19:37:07
2	Se 196.026†	334.4	309.5	479.52 µg/L	479.52 ppb	19:37:07
2	SiO2†	63264.3	60296.5	12985 µg/L	12985 ppb	19:36:47
2	Si 251.611†	75806.3	73435.1	6036.7 µg/L	6036.7 ppb	19:36:47
2	Sn 189.927†	1179.8	1148.7	528.34 µg/L	528.34 ppb	19:37:07
2	Ti 334.940†	208026.1	202261.6	486.21 µg/L	486.21 ppb	19:36:41
2	Tl 190.801†	339.5	354.5	500.78 µg/L	500.78 ppb	19:37:07
2	U 409.014†	5762.6	5659.8	511.44 µg/L	511.44 ppb	19:36:47
2	V 292.402†	47518.7	46272.7	499.23 µg/L	499.23 ppb	19:36:47
2	Zn 213.857†	20383.6	19354.6	479.81 µg/L	479.81 ppb	19:36:47
3	Sc RADIAL	56983.3	56983.3	104 %		19:35:36
3	Al 396.153Radial†	6778.1	6501.7	4836.4 µg/L	4836.4 ppb	19:35:56
3	Ca 317.933Radial†	5483.7	5072.7	4776.3 µg/L	4776.3 ppb	19:35:56
3	Fe 238.204 Radial†	610.2	569.9	4840.0 µg/L	4840.0 ppb	19:35:56
3	K 766.490 Radial†	7476.8	7032.3	4998.5 µg/L	4998.5 ppb	19:35:36
3	Mg 279.077 IEC†	558.6	523.7	4875.9 µg/L	4875.9 ppb	19:35:56
3	Na 589.592 Radial†	16463.0	15225.1	5012.2 µg/L	5012.2 ppb	19:35:36
3	Sr 421.552†	48028.2	45958.3	476.41 µg/L	476.41 ppb	19:35:36
3	Sc 361.383	1953228.5	1953228.5	102.27 %		19:37:14
3	Y 371.029	1334981.2	1334981.2	101.91 %		19:37:14
3	Ag 328.068†	60906.6	60118.1	480.49 µg/L	480.49 ppb	19:37:20
3	As 188.979†	246.6	240.0	468.20 µg/L	468.20 ppb	19:37:41
3	B 249.677†	11806.2	11212.5	488.25 µg/L	488.25 ppb	19:37:20
3	Ba 233.527†	18817.3	18425.3	480.63 µg/L	480.63 ppb	19:37:20
3	Be 313.107†	740878.0	727860.9	475.15 µg/L	475.15 ppb	19:37:14
3	Cd 226.502†	17362.9	17119.4	472.23 µg/L	472.23 ppb	19:37:20
3	Co 228.616†	9771.9	9563.6	470.08 µg/L	470.08 ppb	19:37:20
3	Cr 267.716†	22087.4	21649.1	476.50 µg/L	476.50 ppb	19:37:20
3	Cu 324.752†	72706.1	68604.9	479.89 µg/L	479.89 ppb	19:37:20
3	Mn 257.610†	143804.2	140853.9	488.21 µg/L	488.21 ppb	19:37:14
3	Mo 202.031†	4405.4	4315.1	460.70 µg/L	460.70 ppb	19:37:41
3	Ni 231.604†	9285.9	8777.4	479.41 µg/L	479.41 ppb	19:37:20
3	P 214.914†	254.1	220.8	428.19 µg/L	428.19 ppb	19:37:41
3	Pb 220.353†	1906.4	1766.9	471.52 µg/L	471.52 ppb	19:37:41
3	S 181.975 Axial†	1137.3	1097.2	4807.1 µg/L	4807.1 ppb	19:37:41
3	Sb 206.836†	512.2	473.8	468.13 µg/L	468.13 ppb	19:37:41
3	Se 196.026†	311.2	288.4	447.26 µg/L	447.26 ppb	19:37:41
3	SiO2†	61664.2	59044.4	12716 µg/L	12716 ppb	19:37:20
3	Si 251.611†	73998.6	72042.0	5922.2 µg/L	5922.2 ppb	19:37:20
3	Sn 189.927†	1081.7	1058.6	486.89 µg/L	486.89 ppb	19:37:41
3	Ti 334.940†	203268.0	198636.6	477.50 µg/L	477.50 ppb	19:37:14
3	Tl 190.801†	317.8	335.0	473.39 µg/L	473.39 ppb	19:37:41
3	U 409.014†	5643.9	5572.1	503.52 µg/L	503.52 ppb	19:37:20
3	V 292.402†	45704.3	44733.2	482.48 µg/L	482.48 ppb	19:37:20
3	Zn 213.857†	19736.3	18822.4	466.62 µg/L	466.62 ppb	19:37:20

Mean Data: 1202032560|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1961958.9	102.73	%	0.429				0.42%
Sc RADIAL	56728.8	104	%	0.5				0.46%
Y 371.029	1339848.3	102.28	%	0.363				0.36%
Ag 328.068†	60364.1	482.51	µg/L	1.756	482.51	ppb	1.756	0.36%
Al 396.153Radial†	6565.5	4883.4	µg/L	41.27	4883.4	ppb	41.27	0.85%
As 188.979†	250.0	487.74	µg/L	17.922	487.74	ppb	17.922	3.67%
B 249.677†	11313.1	492.64	µg/L	3.992	492.64	ppb	3.992	0.81%
Ba 233.527†	18752.3	489.16	µg/L	7.501	489.16	ppb	7.501	1.53%
Be 313.107†	735146.7	479.91	µg/L	4.141	479.91	ppb	4.141	0.86%
Ca 317.933Radial†	5125.1	4825.6	µg/L	43.45	4825.6	ppb	43.45	0.90%
Cd 226.502†	17362.7	478.95	µg/L	5.826	478.95	ppb	5.826	1.22%
Co 228.616†	9741.0	478.82	µg/L	7.722	478.82	ppb	7.722	1.61%
Cr 267.716†	22146.5	487.44	µg/L	9.508	487.44	ppb	9.508	1.95%
Cu 324.752†	69990.3	489.58	µg/L	8.392	489.58	ppb	8.392	1.71%
Fe 238.204 Radial†	575.7	4889.5	µg/L	45.26	4889.5	ppb	45.26	0.93%
K 766.490 Radial†	7029.8	4996.7	µg/L	49.22	4996.7	ppb	49.22	0.98%
Mg 279.077 IEC†	526.8	4905.1	µg/L	25.83	4905.1	ppb	25.83	0.53%
Mn 257.610†	142251.8	493.05	µg/L	4.198	493.05	ppb	4.198	0.85%
Mo 202.031†	4561.2	486.97	µg/L	22.812	486.97	ppb	22.812	4.68%
Na 589.592 Radial†	15228.6	5013.3	µg/L	32.17	5013.3	ppb	32.17	0.64%

Ni 231.604†	8960.7	489.42 µg/L	8.683	489.42 ppb	8.683	1.77%
P 214.914†	227.7	442.45 µg/L	19.267	442.45 ppb	19.267	4.35%
Pb 220.353†	1843.4	491.99 µg/L	17.777	491.99 ppb	17.777	3.61%
S 181.975 Axial†	1132.5	4961.7 µg/L	134.32	4961.7 ppb	134.32	2.71%
Sb 206.836†	502.4	496.52 µg/L	24.756	496.52 ppb	24.756	4.99%
Se 196.026†	303.5	470.34 µg/L	20.133	470.34 ppb	20.133	4.28%
SiO2†	59809.5	12880 µg/L	144.5	12880 ppb	144.5	1.12%
Si 251.611†	72892.5	5992.1 µg/L	61.31	5992.1 ppb	61.31	1.02%
Sn 189.927†	1122.5	516.28 µg/L	25.587	516.28 ppb	25.587	4.96%
Sr 421.552†	46072.3	477.59 µg/L	4.634	477.59 ppb	4.634	0.97%
Ti 334.940†	200944.0	483.04 µg/L	4.822	483.04 ppb	4.822	1.00%
Tl 190.801†	349.0	492.98 µg/L	17.083	492.98 ppb	17.083	3.47%
U 409.014†	5632.2	508.95 µg/L	4.711	508.95 ppb	4.711	0.93%
V 292.402†	45682.1	492.83 µg/L	9.049	492.83 ppb	9.049	1.84%
Zn 213.857†	19162.7	475.05 µg/L	7.325	475.05 ppb	7.325	1.54%

Sequence No.: 45
Sample ID: 1202032561|948737|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 2/11/2010 19:37:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032561|948737|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55556.9	55556.9	102	%			19:38:23
1	Al 396.153Radial†	-14.4	-4.0	-3.0016	µg/L	-3.0016	ppb	19:38:23
1	Ca 317.933Radial†	193.6	11.0	10.352	µg/L	10.352	ppb	19:38:43
1	Fe 238.204 Radial†	16.0	1.2	10.568	µg/L	10.568	ppb	19:38:43
1	K 766.490 Radial†	200.3	68.3	48.549	µg/L	48.549	ppb	19:38:23
1	Mg 279.077 IEC†	17.4	5.8	54.431	µg/L	54.431	ppb	19:38:43
1	Na 589.592 Radial†	748.0	192.9	63.499	µg/L	63.499	ppb	19:38:23
1	Sr 421.552†	52.3	11.8	0.1221	µg/L	0.1221	ppb	19:38:23
1	Sc 361.383	1967786.0	1967786.0	103.03	%			19:39:45
1	Y 371.029	1347427.9	1347427.9	102.86	%			19:39:45
1	Ag 328.068†	-513.7	65.9	0.5269	µg/L	0.5269	ppb	19:39:51
1	As 188.979†	0.2	-0.9	-1.7879	µg/L	-1.7879	ppb	19:40:11
1	B 249.677†	392.7	49.7	2.1660	µg/L	2.1660	ppb	19:40:11
1	Ba 233.527†	-17.5	9.0	0.2357	µg/L	0.2357	ppb	19:40:11
1	Be 313.107†	-3261.5	274.9	0.1795	µg/L	0.1795	ppb	19:39:51
1	Cd 226.502†	-143.1	3.3	0.0883	µg/L	0.0883	ppb	19:40:11
1	Co 228.616†	-14.2	-4.9	-0.2416	µg/L	-0.2416	ppb	19:40:11
1	Cr 267.716†	-7.4	45.2	0.9940	µg/L	0.9940	ppb	19:40:11
1	Cu 324.752†	2443.8	-114.2	-0.7963	µg/L	-0.7963	ppb	19:39:51
1	Mn 257.610†	-169.1	79.9	0.2761	µg/L	0.2761	ppb	19:40:11
1	Mo 202.031†	-6.4	1.4	0.1476	µg/L	0.1476	ppb	19:40:11
1	Ni 231.604†	306.2	-5.0	-0.2754	µg/L	-0.2754	ppb	19:40:11
1	P 214.914†	36.4	7.7	16.712	µg/L	16.712	ppb	19:40:11
1	Pb 220.353†	91.5	-8.3	-2.2188	µg/L	-2.2188	ppb	19:40:11
1	S 181.975 Axial†	15.5	0.3	1.1200	µg/L	1.1200	ppb	19:40:11
1	Sb 206.836†	23.6	-4.0	-3.9935	µg/L	-3.9935	ppb	19:40:11
1	Se 196.026†	10.4	-5.8	-8.8371	µg/L	-8.8371	ppb	19:40:11
1	SiO2†	4053.3	2683.9	578.00	µg/L	578.00	ppb	19:39:51
1	Si 251.611†	3735.4	3312.5	272.31	µg/L	272.31	ppb	19:39:51
1	Sn 189.927†	1.4	2.2	1.0392	µg/L	1.0392	ppb	19:40:11
1	Ti 334.940†	209.0	86.7	0.2045	µg/L	0.2045	ppb	19:39:51
1	Tl 190.801†	-28.8	-3.6	-5.0793	µg/L	-5.0793	ppb	19:40:11
1	U 409.014†	-114.0	-57.1	-5.1684	µg/L	-5.1684	ppb	19:39:51
1	V 292.402†	0.4	44.6	0.4745	µg/L	0.4745	ppb	19:39:51
1	Zn 213.857†	490.8	0.8	0.0180	µg/L	0.0180	ppb	19:40:11
2	Sc RADIAL	55453.1	55453.1	102	%			19:38:49
2	Al 396.153Radial†	-1.2	8.9	6.6613	µg/L	6.6613	ppb	19:38:49
2	Ca 317.933Radial†	195.9	13.6	12.817	µg/L	12.817	ppb	19:39:09
2	Fe 238.204 Radial†	14.7	0.0	0.0944	µg/L	0.0944	ppb	19:39:09
2	K 766.490 Radial†	238.4	106.2	75.456	µg/L	75.456	ppb	19:38:49
2	Mg 279.077 IEC†	15.6	4.1	37.981	µg/L	37.981	ppb	19:39:09
2	Na 589.592 Radial†	708.0	154.9	51.000	µg/L	51.000	ppb	19:38:49
2	Sr 421.552†	57.2	16.8	0.1737	µg/L	0.1737	ppb	19:38:49
2	Sc 361.383	1975775.5	1975775.5	103.45	%			19:40:18
2	Y 371.029	1355586.5	1355586.5	103.49	%			19:40:18
2	Ag 328.068†	-512.8	68.9	0.5480	µg/L	0.5480	ppb	19:40:23
2	As 188.979†	-0.8	-1.9	-3.7879	µg/L	-3.7879	ppb	19:40:44
2	B 249.677†	398.7	53.9	2.3572	µg/L	2.3572	ppb	19:40:44
2	Ba 233.527†	-16.5	10.0	0.2613	µg/L	0.2613	ppb	19:40:44
2	Be 313.107†	-3291.3	258.9	0.1690	µg/L	0.1690	ppb	19:40:23
2	Cd 226.502†	-132.6	13.9	0.3835	µg/L	0.3835	ppb	19:40:44
2	Co 228.616†	-7.1	2.0	0.0984	µg/L	0.0984	ppb	19:40:44
2	Cr 267.716†	-22.7	30.4	0.6696	µg/L	0.6696	ppb	19:40:44
2	Cu 324.752†	2469.7	-98.8	-0.6905	µg/L	-0.6905	ppb	19:40:23
2	Mn 257.610†	-143.9	105.0	0.3620	µg/L	0.3620	ppb	19:40:44
2	Mo 202.031†	-4.2	3.5	0.3717	µg/L	0.3717	ppb	19:40:44
2	Ni 231.604†	302.9	-9.4	-0.5143	µg/L	-0.5143	ppb	19:40:44
2	P 214.914†	29.9	1.3	2.7919	µg/L	2.7919	ppb	19:40:44
2	Pb 220.353†	97.3	-3.1	-0.8261	µg/L	-0.8261	ppb	19:40:44

2	S 181.975 Axial†	20.0	4.5	19.710 µg/L	19.710 ppb	19:40:44
2	Sb 206.836†	23.7	-4.1	-4.0300 µg/L	-4.0300 ppb	19:40:44
2	Se 196.026†	9.3	-6.9	-10.492 µg/L	-10.492 ppb	19:40:44
2	SiO2†	4038.7	2653.9	571.53 µg/L	571.53 ppb	19:40:23
2	Si 251.611†	3707.4	3270.8	268.87 µg/L	268.87 ppb	19:40:23
2	Sn 189.927†	2.0	2.8	1.2773 µg/L	1.2773 ppb	19:40:44
2	Ti 334.940†	221.6	98.1	0.2331 µg/L	0.2331 ppb	19:40:23
2	Tl 190.801†	-21.6	3.4	4.7965 µg/L	4.7965 ppb	19:40:44
2	U 409.014†	-59.9	-4.3	-0.3880 µg/L	-0.3880 ppb	19:40:23
2	V 292.402†	-21.0	23.9	0.2589 µg/L	0.2589 ppb	19:40:23
2	Zn 213.857†	511.8	19.2	0.4807 µg/L	0.4807 ppb	19:40:44
3	Sc RADIAL	54997.2	54997.2	101 %		19:39:15
3	Al 396.153Radial†	-9.6	0.6	0.4496 µg/L	0.4496 ppb	19:39:15
3	Ca 317.933Radial†	197.1	16.5	15.498 µg/L	15.498 ppb	19:39:35
3	Fe 238.204 Radial†	17.3	2.6	22.415 µg/L	22.415 ppb	19:39:35
3	K 766.490 Radial†	180.6	50.8	36.115 µg/L	36.115 ppb	19:39:15
3	Mg 279.077 IEC†	14.5	3.2	29.331 µg/L	29.331 ppb	19:39:35
3	Na 589.592 Radial†	763.4	215.7	70.994 µg/L	70.994 ppb	19:39:15
3	Sr 421.552†	65.9	25.9	0.2681 µg/L	0.2681 ppb	19:39:15
3	Sc 361.383	1964922.8	1964922.8	102.88 %		19:40:50
3	Y 371.029	1347749.0	1347749.0	102.89 %		19:40:50
3	Ag 328.068†	-485.9	92.3	0.7322 µg/L	0.7322 ppb	19:40:55
3	As 188.979†	0.6	-0.6	-1.1015 µg/L	-1.1015 ppb	19:41:16
3	B 249.677†	385.4	43.2	1.8762 µg/L	1.8762 ppb	19:41:16
3	Ba 233.527†	-20.3	6.2	0.1623 µg/L	0.1623 ppb	19:41:16
3	Be 313.107†	-3155.8	373.1	0.2435 µg/L	0.2435 ppb	19:40:55
3	Cd 226.502†	-137.1	8.9	0.2432 µg/L	0.2432 ppb	19:41:16
3	Co 228.616†	-0.5	8.4	0.4121 µg/L	0.4121 ppb	19:41:16
3	Cr 267.716†	-8.2	44.4	0.9768 µg/L	0.9768 ppb	19:41:16
3	Cu 324.752†	2483.7	-72.0	-0.4999 µg/L	-0.4999 ppb	19:40:55
3	Mn 257.610†	-138.7	109.3	0.3805 µg/L	0.3805 ppb	19:41:16
3	Mo 202.031†	-5.4	2.3	0.2508 µg/L	0.2508 ppb	19:41:16
3	Ni 231.604†	316.9	5.9	0.3198 µg/L	0.3198 ppb	19:41:16
3	P 214.914†	26.0	-2.4	-5.0548 µg/L	-5.0548 ppb	19:41:16
3	Pb 220.353†	90.0	-9.7	-2.5999 µg/L	-2.5999 ppb	19:41:16
3	S 181.975 Axial†	20.6	5.2	22.743 µg/L	22.743 ppb	19:41:16
3	Sb 206.836†	23.9	-3.7	-3.6360 µg/L	-3.6360 ppb	19:41:16
3	Se 196.026†	14.1	-2.1	-3.2432 µg/L	-3.2432 ppb	19:41:16
3	SiO2†	3923.3	2563.3	552.03 µg/L	552.03 ppb	19:40:55
3	Si 251.611†	3574.4	3161.3	259.88 µg/L	259.88 ppb	19:40:55
3	Sn 189.927†	1.0	1.8	0.8318 µg/L	0.8318 ppb	19:41:16
3	Ti 334.940†	247.5	124.4	0.2972 µg/L	0.2972 ppb	19:40:55
3	Tl 190.801†	-20.5	4.4	6.0916 µg/L	6.0916 ppb	19:41:16
3	U 409.014†	-23.0	31.3	2.8278 µg/L	2.8278 ppb	19:40:55
3	V 292.402†	-67.0	-20.9	-0.2134 µg/L	-0.2134 ppb	19:40:55
3	Zn 213.857†	498.6	9.1	0.2239 µg/L	0.2239 ppb	19:41:16

Mean Data: 1202032561|948737|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1969494.8	103.12	%	0.295				0.29%
Sc RADIAL	55335.7	101	%	0.5				0.54%
Y 371.029	1350254.5	103.08	%	0.353				0.34%
Ag 328.068†	75.7	0.6024	µg/L	0.11293	0.6024	ppb	0.11293	18.75%
Al 396.153Radial†	1.8	1.3697	µg/L	4.89673	1.3697	ppb	4.89673	357.50%
As 188.979†	-1.1	-2.2258	µg/L	1.39574	-2.2258	ppb	1.39574	62.71%
B 249.677†	48.9	2.1331	µg/L	0.24218	2.1331	ppb	0.24218	11.35%
Ba 233.527†	8.4	0.2198	µg/L	0.05138	0.2198	ppb	0.05138	23.38%
Be 313.107†	302.3	0.1973	µg/L	0.04034	0.1973	ppb	0.04034	20.44%
Ca 317.933Radial†	13.7	12.889	µg/L	2.5739	12.889	ppb	2.5739	19.97%
Cd 226.502†	8.7	0.2383	µg/L	0.14769	0.2383	ppb	0.14769	61.96%
Co 228.616†	1.8	0.0896	µg/L	0.32695	0.0896	ppb	0.32695	364.74%
Cr 267.716†	40.0	0.8801	µg/L	0.18253	0.8801	ppb	0.18253	20.74%
Cu 324.752†	-95.0	-0.6622	µg/L	0.15020	-0.6622	ppb	0.15020	22.68%
Fe 238.204 Radial†	1.3	11.026	µg/L	11.1673	11.026	ppb	11.1673	101.28%
K 766.490 Radial†	75.1	53.373	µg/L	20.1092	53.373	ppb	20.1092	37.68%
Mg 279.077 IEC†	4.4	40.581	µg/L	12.7501	40.581	ppb	12.7501	31.42%
Mn 257.610†	98.1	0.3395	µg/L	0.05572	0.3395	ppb	0.05572	16.41%
Mo 202.031†	2.4	0.2567	µg/L	0.11216	0.2567	ppb	0.11216	43.69%
Na 589.592 Radial†	187.8	61.831	µg/L	10.1008	61.831	ppb	10.1008	16.34%

Ni 231.604†	-2.9	-0.1566 µg/L	0.42953	-0.1566 ppb	0.42953	274.22%
P 214.914†	2.2	4.8165 µg/L	11.02392	4.8165 ppb	11.02392	228.88%
Pb 220.353†	-7.1	-1.8816 µg/L	0.93377	-1.8816 ppb	0.93377	49.63%
S 181.975 Axial†	3.3	14.524 µg/L	11.7071	14.524 ppb	11.7071	80.60%
Sb 206.836†	-3.9	-3.8865 µg/L	0.21773	-3.8865 ppb	0.21773	5.60%
Se 196.026†	-4.9	-7.5242 µg/L	3.79864	-7.5242 ppb	3.79864	50.49%
SiO2†	2633.7	567.19 µg/L	13.522	567.19 ppb	13.522	2.38%
Si 251.611†	3248.2	267.02 µg/L	6.418	267.02 ppb	6.418	2.40%
Sn 189.927†	2.3	1.0494 µg/L	0.22288	1.0494 ppb	0.22288	21.24%
Sr 421.552†	18.1	0.1880 µg/L	0.07405	0.1880 ppb	0.07405	39.39%
Ti 334.940†	103.1	0.2449 µg/L	0.04745	0.2449 ppb	0.04745	19.37%
Tl 190.801†	1.4	1.9362 µg/L	6.11008	1.9362 ppb	6.11008	315.56%
U 409.014†	-10.0	-0.9095 µg/L	4.02356	-0.9095 ppb	4.02356	442.37%
V 292.402†	15.9	0.1733 µg/L	0.35183	0.1733 ppb	0.35183	203.00%
Zn 213.857†	9.7	0.2409 µg/L	0.23181	0.2409 ppb	0.23181	96.23%

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:41:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56419.4	56419.4	103	%			19:42:04
1	Al 396.153Radial†	6864.6	6650.3	4946.1	µg/L	4946.1	ppb	19:42:25
1	Ca 317.933Radial†	5559.4	5198.4	4894.6	µg/L	4894.6	ppb	19:42:25
1	Fe 238.204 Radial†	616.6	581.9	4942.5	µg/L	4942.5	ppb	19:42:25
1	K 766.490 Radial†	7352.0	6983.2	4963.6	µg/L	4963.6	ppb	19:42:04
1	Mg 279.077 IEC†	570.1	540.2	5030.2	µg/L	5030.2	ppb	19:42:25
1	Na 589.592 Radial†	31600.6	30025.3	9884.4	µg/L	9884.4	ppb	19:42:04
1	Sr 421.552†	48468.4	46843.8	485.59	µg/L	485.59	ppb	19:42:04
1	Sc 361.383	2003108.1	2003108.1	104.88	%			19:43:28
1	Y 371.029	1370730.2	1370730.2	104.64	%			19:43:28
1	Ag 328.068†	64726.1	62276.9	497.74	µg/L	497.74	ppb	19:43:34
1	As 188.979†	267.5	253.9	495.37	µg/L	495.37	ppb	19:43:54
1	B 249.677†	12041.2	11149.1	485.46	µg/L	485.46	ppb	19:43:34
1	Ba 233.527†	19842.7	18944.8	494.19	µg/L	494.19	ppb	19:43:34
1	Be 313.107†	766666.1	734409.3	479.43	µg/L	479.43	ppb	19:43:28
1	Cd 226.502†	18686.6	17958.6	495.39	µg/L	495.39	ppb	19:43:34
1	Co 228.616†	10595.4	10110.9	497.04	µg/L	497.04	ppb	19:43:34
1	Cr 267.716†	23720.3	22668.2	498.92	µg/L	498.92	ppb	19:43:34
1	Cu 324.752†	76984.9	70914.3	496.04	µg/L	496.04	ppb	19:43:34
1	Mn 257.610†	147751.2	141115.8	489.12	µg/L	489.12	ppb	19:43:28
1	Mo 202.031†	5026.0	4799.5	512.40	µg/L	512.40	ppb	19:43:54
1	Ni 231.604†	9826.5	9066.7	495.20	µg/L	495.20	ppb	19:43:34
1	P 214.914†	1254.6	1168.6	2461.8	µg/L	2461.8	ppb	19:43:54
1	Pb 220.353†	2050.1	1857.4	495.79	µg/L	495.79	ppb	19:43:54
1	S 181.975 Axial†	255.6	228.9	1003.0	µg/L	1003.0	ppb	19:43:54
1	Sb 206.836†	570.4	516.9	511.09	µg/L	511.09	ppb	19:43:54
1	Se 196.026†	360.0	327.4	506.74	µg/L	506.74	ppb	19:43:54
1	SiO2†	26928.3	24424.4	5259.9	µg/L	5259.9	ppb	19:43:34
1	Si 251.611†	31785.6	29992.7	2465.6	µg/L	2465.6	ppb	19:43:34
1	Sn 189.927†	1167.3	1113.9	512.34	µg/L	512.34	ppb	19:43:54
1	Ti 334.940†	210971.9	201032.6	483.25	µg/L	483.25	ppb	19:43:28
1	Tl 190.801†	351.0	358.9	506.83	µg/L	506.83	ppb	19:43:54
1	U 409.014†	5847.6	5628.9	508.64	µg/L	508.64	ppb	19:43:34
1	V 292.402†	48650.0	46429.0	501.02	µg/L	501.02	ppb	19:43:34
1	Zn 213.857†	21378.5	19907.5	493.60	µg/L	493.60	ppb	19:43:34
2	Sc RADIAL	57083.7	57083.7	105	%			19:42:30
2	Al 396.153Radial†	6804.1	6515.2	4845.3	µg/L	4845.3	ppb	19:42:51
2	Ca 317.933Radial†	5545.5	5122.6	4823.3	µg/L	4823.3	ppb	19:42:51
2	Fe 238.204 Radial†	613.4	571.9	4857.7	µg/L	4857.7	ppb	19:42:51
2	K 766.490 Radial†	7292.4	6843.5	4864.3	µg/L	4864.3	ppb	19:42:30
2	Mg 279.077 IEC†	572.7	536.3	4994.3	µg/L	4994.3	ppb	19:42:51
2	Na 589.592 Radial†	31703.2	29767.7	9799.6	µg/L	9799.6	ppb	19:42:30
2	Sr 421.552†	48760.9	46577.9	482.83	µg/L	482.83	ppb	19:42:30
2	Sc 361.383	1956478.6	1956478.6	102.44	%			19:44:02
2	Y 371.029	1338013.6	1338013.6	102.14	%			19:44:02
2	Ag 328.068†	63625.9	62673.7	500.90	µg/L	500.90	ppb	19:44:07
2	As 188.979†	268.7	261.1	509.35	µg/L	509.35	ppb	19:44:28
2	B 249.677†	11834.0	11220.4	488.63	µg/L	488.63	ppb	19:44:07
2	Ba 233.527†	19447.5	19009.9	495.89	µg/L	495.89	ppb	19:44:07
2	Be 313.107†	783080.7	767854.0	501.26	µg/L	501.26	ppb	19:44:02
2	Cd 226.502†	18262.0	17968.8	495.68	µg/L	495.68	ppb	19:44:07
2	Co 228.616†	10399.7	10160.6	499.45	µg/L	499.45	ppb	19:44:07
2	Cr 267.716†	23262.6	22760.4	500.95	µg/L	500.95	ppb	19:44:07
2	Cu 324.752†	75552.4	71265.3	498.48	µg/L	498.48	ppb	19:44:07
2	Mn 257.610†	151080.8	147723.5	511.99	µg/L	511.99	ppb	19:44:02
2	Mo 202.031†	4987.4	4876.0	520.56	µg/L	520.56	ppb	19:44:28
2	Ni 231.604†	9658.6	9126.2	498.44	µg/L	498.44	ppb	19:44:07
2	P 214.914†	1238.9	1181.7	2490.0	µg/L	2490.0	ppb	19:44:28
2	Pb 220.353†	2049.2	1903.2	508.02	µg/L	508.02	ppb	19:44:28

2	S 181.975 Axial†	249.6	228.9	1002.7 µg/L	1002.7 ppb	19:44:28
2	Sb 206.836†	564.1	523.7	517.93 µg/L	517.93 ppb	19:44:28
2	Se 196.026†	358.2	333.9	516.45 µg/L	516.45 ppb	19:44:28
2	SiO2†	26483.3	24601.9	5298.2 µg/L	5298.2 ppb	19:44:07
2	Si 251.611†	31145.7	30090.4	2473.6 µg/L	2473.6 ppb	19:44:07
2	Sn 189.927†	1159.9	1133.1	521.19 µg/L	521.19 ppb	19:44:28
2	Ti 334.940†	215458.6	210206.4	505.32 µg/L	505.32 ppb	19:44:02
2	Tl 190.801†	341.6	357.7	505.37 µg/L	505.37 ppb	19:44:28
2	U 409.014†	5729.0	5646.0	510.20 µg/L	510.20 ppb	19:44:07
2	V 292.402†	47728.9	46635.3	503.28 µg/L	503.28 ppb	19:44:07
2	Zn 213.857†	20977.4	20001.8	495.95 µg/L	495.95 ppb	19:44:07
3	Sc RADIAL	57202.6	57202.6	105 %		19:42:56
3	Al 396.153Radial†	6841.2	6537.0	4863.4 µg/L	4863.4 ppb	19:43:17
3	Ca 317.933Radial†	5579.2	5143.7	4843.1 µg/L	4843.1 ppb	19:43:17
3	Fe 238.204 Radial†	619.6	576.6	4896.7 µg/L	4896.7 ppb	19:43:17
3	K 766.490 Radial†	7296.8	6833.1	4856.9 µg/L	4856.9 ppb	19:42:56
3	Mg 279.077 IEC†	570.0	532.5	4957.7 µg/L	4957.7 ppb	19:43:17
3	Na 589.592 Radial†	31651.4	29655.3	9762.6 µg/L	9762.6 ppb	19:42:56
3	Sr 421.552†	48633.6	46359.5	480.57 µg/L	480.57 ppb	19:42:56
3	Sc 361.383	1968483.8	1968483.8	103.07 %		19:44:35
3	Y 371.029	1347474.9	1347474.9	102.87 %		19:44:35
3	Ag 328.068†	60287.4	59055.9	471.87 µg/L	471.87 ppb	19:44:40
3	As 188.979†	225.2	217.3	423.99 µg/L	423.99 ppb	19:45:01
3	B 249.677†	11150.7	10487.1	456.47 µg/L	456.47 ppb	19:44:40
3	Ba 233.527†	17981.9	17472.2	455.76 µg/L	455.76 ppb	19:44:40
3	Be 313.107†	731612.9	713257.7	465.62 µg/L	465.62 ppb	19:44:35
3	Cd 226.502†	16841.2	16481.6	454.60 µg/L	454.60 ppb	19:44:40
3	Co 228.616†	9509.8	9235.4	453.92 µg/L	453.92 ppb	19:44:40
3	Cr 267.716†	20728.9	20163.7	443.80 µg/L	443.80 ppb	19:44:40
3	Cu 324.752†	69473.8	64918.0	454.15 µg/L	454.15 ppb	19:44:40
3	Mn 257.610†	141487.4	137516.4	476.65 µg/L	476.65 ppb	19:44:35
3	Mo 202.031†	4166.6	4050.0	432.41 µg/L	432.41 ppb	19:45:01
3	Ni 231.604†	8868.9	8302.5	453.46 µg/L	453.46 ppb	19:44:40
3	P 214.914†	1068.6	1009.2	2122.7 µg/L	2122.7 ppb	19:45:01
3	Pb 220.353†	1791.6	1641.0	437.94 µg/L	437.94 ppb	19:45:01
3	S 181.975 Axial†	225.5	204.0	893.82 µg/L	893.82 ppb	19:45:01
3	Sb 206.836†	488.9	447.4	442.01 µg/L	442.01 ppb	19:45:01
3	Se 196.026†	320.0	294.7	456.84 µg/L	456.84 ppb	19:45:01
3	SiO2†	24830.7	22841.0	4918.9 µg/L	4918.9 ppb	19:44:40
3	Si 251.611†	29062.2	27883.6	2292.2 µg/L	2292.2 ppb	19:44:40
3	Sn 189.927†	952.2	924.7	425.35 µg/L	425.35 ppb	19:45:01
3	Ti 334.940†	200541.4	194450.9	467.42 µg/L	467.42 ppb	19:44:35
3	Tl 190.801†	313.2	328.1	463.67 µg/L	463.67 ppb	19:45:01
3	U 409.014†	5147.7	5048.0	456.05 µg/L	456.05 ppb	19:44:40
3	V 292.402†	43287.8	42042.5	453.47 µg/L	453.47 ppb	19:44:40
3	Zn 213.857†	19269.8	18220.2	451.73 µg/L	451.73 ppb	19:44:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1976023.5	103.47	%	1.268				1.23%
Sc RADIAL	56901.9	104	%	0.8				0.74%
Y 371.029	1352072.9	103.22	%	1.285				1.25%
Ag 328.068†	61335.5	490.17	µg/L	15.926	490.17	ppb	15.926	3.25%
QC value within limits for Ag 328.068 Recovery = 98.03%								
Al 396.153Radial†	6567.5	4884.9	µg/L	53.78	4884.9	ppb	53.78	1.10%
QC value within limits for Al 396.153Radial Recovery = 97.70%								
As 188.979†	244.1	476.24	µg/L	45.784	476.24	ppb	45.784	9.61%
QC value within limits for As 188.979 Recovery = 95.25%								
B 249.677†	10952.2	476.85	µg/L	17.725	476.85	ppb	17.725	3.72%
QC value within limits for B 249.677 Recovery = 95.37%								
Ba 233.527†	18475.6	481.94	µg/L	22.693	481.94	ppb	22.693	4.71%
QC value within limits for Ba 233.527 Recovery = 96.39%								
Be 313.107†	738507.0	482.10	µg/L	17.970	482.10	ppb	17.970	3.73%
QC value within limits for Be 313.107 Recovery = 96.42%								
Ca 317.933Radial†	5154.9	4853.7	µg/L	36.83	4853.7	ppb	36.83	0.76%
QC value within limits for Ca 317.933Radial Recovery = 97.07%								
Cd 226.502†	17469.7	481.89	µg/L	23.632	481.89	ppb	23.632	4.90%
QC value within limits for Cd 226.502 Recovery = 96.38%								
Co 228.616†	9835.6	483.47	µg/L	25.623	483.47	ppb	25.623	5.30%

```
   QC value within limits for Co 228.616  Recovery = 96.69%
Cr 267.716†          21864.1      481.23 µg/L        32.425      481.23 ppb        32.425   6.74%
   QC value within limits for Cr 267.716  Recovery = 96.25%
Cu 324.752†          69032.5      482.89 µg/L        24.920      482.89 ppb        24.920   5.16%
   QC value within limits for Cu 324.752  Recovery = 96.58%
Fe 238.204 Radial†     576.8      4899.0 µg/L         42.44      4899.0 ppb         42.44   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.98%
K 766.490 Radial†     6886.6      4894.9 µg/L         59.56      4894.9 ppb         59.56   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 97.90%
Mg 279.077 IEC†        536.3      4994.1 µg/L         36.28      4994.1 ppb         36.28   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†         142118.5      492.59 µg/L        17.923      492.59 ppb        17.923   3.64%
   QC value within limits for Mn 257.610  Recovery = 98.52%
Mo 202.031†          4575.2      488.46 µg/L        48.709      488.46 ppb        48.709   9.97%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†   29816.1      9815.6 µg/L         62.45      9815.6 ppb         62.45   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 98.16%
Ni 231.604†          8831.8      482.37 µg/L        25.085      482.37 ppb        25.085   5.20%
   QC value within limits for Ni 231.604  Recovery = 96.47%
P 214.914†           1119.8      2358.2 µg/L        204.40      2358.2 ppb        204.40   8.67%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†          1800.5      480.58 µg/L        37.434      480.58 ppb        37.434   7.79%
   QC value within limits for Pb 220.353  Recovery = 96.12%
S 181.975 Axial†       220.6      966.52 µg/L        62.959      966.52 ppb        62.959   6.51%
   QC value within limits for S 181.975 Axial  Recovery = 96.65%
Sb 206.836†            496.0      490.35 µg/L        41.996      490.35 ppb        41.996   8.56%
   QC value within limits for Sb 206.836  Recovery = 98.07%
Se 196.026†            318.6      493.35 µg/L        31.983      493.35 ppb        31.983   6.48%
   QC value within limits for Se 196.026  Recovery = 98.67%
SiO2†               23955.8      5159.0 µg/L        208.79      5159.0 ppb        208.79   4.05%
   QC value within limits for SiO2  Recovery = 96.48%
Si 251.611†         29322.2      2410.4 µg/L        102.50      2410.4 ppb        102.50   4.25%
   QC value within limits for Si 251.611  Recovery = 96.42%
Sn 189.927†          1057.2      486.29 µg/L        52.962      486.29 ppb        52.962  10.89%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†         46593.7      483.00 µg/L         2.514      483.00 ppb         2.514   0.52%
   QC value within limits for Sr 421.552  Recovery = 96.60%
Ti 334.940†        201896.6      485.33 µg/L        19.033      485.33 ppb        19.033   3.92%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†            348.3      491.96 µg/L        24.505      491.96 ppb        24.505   4.98%
   QC value within limits for Tl 190.801  Recovery = 98.39%
U 409.014†            5441.0      491.63 µg/L        30.821      491.63 ppb        30.821   6.27%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†          45035.6      485.92 µg/L        28.129      485.92 ppb        28.129   5.79%
   QC value within limits for V 292.402  Recovery = 97.18%
Zn 213.857†         19376.5      480.43 µg/L        24.881      480.43 ppb        24.881   5.18%
   QC value within limits for Zn 213.857  Recovery = 96.09%
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:45:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56376.8	56376.8	103	%			19:45:43
1	Al 396.153Radial†	-19.0	-8.3	-6.1741	µg/L	-6.1741	ppb	19:45:43
1	Ca 317.933Radial†	190.5	5.3	4.9933	µg/L	4.9933	ppb	19:46:03
1	Fe 238.204 Radial†	14.9	-0.1	-0.5495	µg/L	-0.5495	ppb	19:46:03
1	K 766.490 Radial†	145.1	12.1	8.5950	µg/L	8.5950	ppb	19:45:43
1	Mg 279.077 IEC†	10.6	-1.0	-9.5449	µg/L	-9.5449	ppb	19:46:03
1	Na 589.592 Radial†	582.4	21.9	7.2091	µg/L	7.2091	ppb	19:45:43
1	Sr 421.552†	18.5	-21.6	-0.2243	µg/L	-0.2243	ppb	19:45:43
1	Sc 361.383	1992362.0	1992362.0	104.32	%			19:47:05
1	Y 371.029	1368353.4	1368353.4	104.46	%			19:47:05
1	Ag 328.068†	-598.5	-9.1	-0.0730	µg/L	-0.0730	ppb	19:47:10
1	As 188.979†	-0.0	-1.2	-2.2711	µg/L	-2.2711	ppb	19:47:31
1	B 249.677†	346.6	0.7	0.0326	µg/L	0.0326	ppb	19:47:31
1	Ba 233.527†	-24.2	2.9	0.0744	µg/L	0.0744	ppb	19:47:31
1	Be 313.107†	-3339.3	239.4	0.1563	µg/L	0.1563	ppb	19:47:10
1	Cd 226.502†	-124.4	22.9	0.6311	µg/L	0.6311	ppb	19:47:31
1	Co 228.616†	-16.5	-7.0	-0.3445	µg/L	-0.3445	ppb	19:47:31
1	Cr 267.716†	-47.2	7.2	0.1575	µg/L	0.1575	ppb	19:47:31
1	Cu 324.752†	2430.9	-155.9	-1.0892	µg/L	-1.0892	ppb	19:47:10
1	Mn 257.610†	-240.7	13.4	0.0467	µg/L	0.0467	ppb	19:47:31
1	Mo 202.031†	-8.3	-0.4	-0.0415	µg/L	-0.0415	ppb	19:47:31
1	Ni 231.604†	297.2	-17.3	-0.9473	µg/L	-0.9473	ppb	19:47:31
1	P 214.914†	35.0	6.0	12.897	µg/L	12.897	ppb	19:47:31
1	Pb 220.353†	95.0	-6.2	-1.6460	µg/L	-1.6460	ppb	19:47:31
1	S 181.975 Axial†	14.6	-0.8	-3.7140	µg/L	-3.7140	ppb	19:47:31
1	Sb 206.836†	19.5	-8.3	-8.1804	µg/L	-8.1804	ppb	19:47:31
1	Se 196.026†	15.6	-0.9	-1.2950	µg/L	-1.2950	ppb	19:47:31
1	SiO2†	1248.6	-53.2	-11.446	µg/L	-11.446	ppb	19:47:10
1	Si 251.611†	306.0	-19.6	-1.6096	µg/L	-1.6096	ppb	19:47:31
1	Sn 189.927†	-6.1	-5.0	-2.2944	µg/L	-2.2944	ppb	19:47:31
1	Ti 334.940†	214.1	89.1	0.2152	µg/L	0.2152	ppb	19:47:10
1	Tl 190.801†	-21.4	3.7	5.2299	µg/L	5.2299	ppb	19:47:31
1	U 409.014†	10.3	63.5	5.7486	µg/L	5.7486	ppb	19:47:10
1	V 292.402†	-52.5	-6.1	-0.0596	µg/L	-0.0596	ppb	19:47:10
1	Zn 213.857†	478.7	-16.6	-0.4092	µg/L	-0.4092	ppb	19:47:31
2	Sc RADIAL	56044.6	56044.6	103	%			19:46:09
2	Al 396.153Radial†	-6.3	4.0	2.9768	µg/L	2.9768	ppb	19:46:09
2	Ca 317.933Radial†	183.8	-0.2	-0.1847	µg/L	-0.1847	ppb	19:46:29
2	Fe 238.204 Radial†	14.3	-0.6	-4.7213	µg/L	-4.7213	ppb	19:46:29
2	K 766.490 Radial†	167.1	34.3	24.398	µg/L	24.398	ppb	19:46:09
2	Mg 279.077 IEC†	11.1	-0.4	-4.0659	µg/L	-4.0659	ppb	19:46:29
2	Na 589.592 Radial†	618.2	60.1	19.792	µg/L	19.792	ppb	19:46:09
2	Sr 421.552†	69.0	27.6	0.2866	µg/L	0.2866	ppb	19:46:09
2	Sc 361.383	1989518.4	1989518.4	104.17	%			19:47:37
2	Y 371.029	1365606.7	1365606.7	104.25	%			19:47:37
2	Ag 328.068†	-547.2	39.3	0.3111	µg/L	0.3111	ppb	19:47:43
2	As 188.979†	-3.9	-4.9	-9.5988	µg/L	-9.5988	ppb	19:48:03
2	B 249.677†	322.6	-21.8	-0.9478	µg/L	-0.9478	ppb	19:48:03
2	Ba 233.527†	-14.9	11.7	0.3048	µg/L	0.3048	ppb	19:48:03
2	Be 313.107†	-3365.6	209.6	0.1369	µg/L	0.1369	ppb	19:47:43
2	Cd 226.502†	-135.4	12.1	0.3352	µg/L	0.3352	ppb	19:48:03
2	Co 228.616†	-12.8	-3.4	-0.1669	µg/L	-0.1669	ppb	19:48:03
2	Cr 267.716†	-34.1	19.6	0.4310	µg/L	0.4310	ppb	19:48:03
2	Cu 324.752†	2392.5	-189.4	-1.3239	µg/L	-1.3239	ppb	19:47:43
2	Mn 257.610†	-233.6	19.8	0.0682	µg/L	0.0682	ppb	19:48:03
2	Mo 202.031†	1.3	8.8	0.9388	µg/L	0.9388	ppb	19:48:03
2	Ni 231.604†	308.4	-6.2	-0.3371	µg/L	-0.3371	ppb	19:48:03
2	P 214.914†	38.1	8.9	19.315	µg/L	19.315	ppb	19:48:03
2	Pb 220.353†	86.4	-14.2	-3.7968	µg/L	-3.7968	ppb	19:48:03

2	S 181.975 Axial†	18.4	2.9	12.528 µg/L	12.528 ppb	19:48:03
2	Sb 206.836†	29.9	1.8	1.7421 µg/L	1.7421 ppb	19:48:03
2	Se 196.026†	17.4	0.9	1.3573 µg/L	1.3573 ppb	19:48:03
2	SiO2†	1243.9	-56.0	-12.052 µg/L	-12.052 ppb	19:47:43
2	Si 251.611†	297.9	-26.9	-2.2125 µg/L	-2.2125 ppb	19:48:03
2	Sn 189.927†	-3.7	-2.7	-1.2451 µg/L	-1.2451 ppb	19:48:03
2	Ti 334.940†	113.7	-7.0	-0.0165 µg/L	-0.0165 ppb	19:47:43
2	Tl 190.801†	-21.7	3.4	4.7734 µg/L	4.7734 ppb	19:48:03
2	U 409.014†	-37.3	17.8	1.6161 µg/L	1.6161 ppb	19:47:43
2	V 292.402†	-50.7	-4.5	-0.0381 µg/L	-0.0381 ppb	19:47:43
2	Zn 213.857†	476.3	-18.3	-0.4528 µg/L	-0.4528 ppb	19:48:03
3	Sc RADIAL	56131.1	56131.1	103 %		19:46:34
3	Al 396.153Radial†	10.7	20.5	15.284 µg/L	15.284 ppb	19:46:34
3	Ca 317.933Radial†	181.6	-2.5	-2.4004 µg/L	-2.4004 ppb	19:46:55
3	Fe 238.204 Radial†	13.6	-1.3	-10.669 µg/L	-10.669 ppb	19:46:55
3	K 766.490 Radial†	173.8	40.6	28.846 µg/L	28.846 ppb	19:46:34
3	Mg 279.077 IEC†	10.5	-1.0	-9.5132 µg/L	-9.5132 ppb	19:46:55
3	Na 589.592 Radial†	587.6	29.4	9.6947 µg/L	9.6947 ppb	19:46:34
3	Sr 421.552†	41.1	0.4	0.0044 µg/L	0.0044 ppb	19:46:34
3	Sc 361.383	1993278.2	1993278.2	104.37 %		19:48:09
3	Y 371.029	1367625.5	1367625.5	104.41 %		19:48:09
3	Ag 328.068†	-556.8	31.0	0.2472 µg/L	0.2472 ppb	19:48:15
3	As 188.979†	0.5	-0.7	-1.3924 µg/L	-1.3924 ppb	19:48:35
3	B 249.677†	311.8	-32.7	-1.4217 µg/L	-1.4217 ppb	19:48:35
3	Ba 233.527†	-24.9	2.1	0.0565 µg/L	0.0565 ppb	19:48:35
3	Be 313.107†	-3343.9	236.6	0.1544 µg/L	0.1544 ppb	19:48:15
3	Cd 226.502†	-139.6	8.3	0.2308 µg/L	0.2308 ppb	19:48:35
3	Co 228.616†	-13.5	-4.1	-0.2026 µg/L	-0.2026 ppb	19:48:35
3	Cr 267.716†	-29.8	23.8	0.5241 µg/L	0.5241 ppb	19:48:35
3	Cu 324.752†	2398.4	-188.1	-1.3155 µg/L	-1.3155 ppb	19:48:15
3	Mn 257.610†	-235.9	18.1	0.0616 µg/L	0.0616 ppb	19:48:35
3	Mo 202.031†	-7.4	0.5	0.0513 µg/L	0.0513 ppb	19:48:35
3	Ni 231.604†	308.0	-7.0	-0.3852 µg/L	-0.3852 ppb	19:48:35
3	P 214.914†	25.9	-2.8	-5.9057 µg/L	-5.9057 ppb	19:48:35
3	Pb 220.353†	95.4	-5.8	-1.5343 µg/L	-1.5343 ppb	19:48:35
3	S 181.975 Axial†	16.1	0.6	2.8080 µg/L	2.8080 ppb	19:48:35
3	Sb 206.836†	23.7	-4.2	-4.1849 µg/L	-4.1849 ppb	19:48:35
3	Se 196.026†	19.8	3.2	4.8107 µg/L	4.8107 ppb	19:48:35
3	SiO2†	1250.9	-51.4	-11.079 µg/L	-11.079 ppb	19:48:15
3	Si 251.611†	298.1	-27.3	-2.2426 µg/L	-2.2426 ppb	19:48:35
3	Sn 189.927†	2.3	3.1	1.4084 µg/L	1.4084 ppb	19:48:35
3	Ti 334.940†	175.4	51.9	0.1256 µg/L	0.1256 ppb	19:48:15
3	Tl 190.801†	-26.8	-1.4	-1.9510 µg/L	-1.9510 ppb	19:48:35
3	U 409.014†	-48.8	6.9	0.6237 µg/L	0.6237 ppb	19:48:15
3	V 292.402†	-16.2	28.7	0.3071 µg/L	0.3071 ppb	19:48:15
3	Zn 213.857†	476.7	-18.8	-0.4644 µg/L	-0.4644 ppb	19:48:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1991719.6	104.29	%	0.103				0.10%
Sc RADIAL	56184.2	103	%	0.3				0.31%
Y 371.029	1367195.2	104.37	%	0.109				0.10%
Ag 328.068†	20.4	0.1617	µg/L	0.20583	0.1617	ppb	0.20583	127.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	4.0289	µg/L	10.76761	4.0289	ppb	10.76761	267.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4208	µg/L	4.50578	-4.4208	ppb	4.50578	101.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.9	-0.7790	µg/L	0.74170	-0.7790	ppb	0.74170	95.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.1452	µg/L	0.13851	0.1452	ppb	0.13851	95.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	228.6	0.1492	µg/L	0.01069	0.1492	ppb	0.01069	7.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	0.8027	µg/L	3.79444	0.8027	ppb	3.79444	472.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.5	0.3990	µg/L	0.20768	0.3990	ppb	0.20768	52.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.8	-0.2380	µg/L	0.09392	-0.2380	ppb	0.09392	39.46%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.9      0.3709 µg/L       0.19057      0.3709 ppb        0.19057  51.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -177.8     -1.2429 µg/L       0.13310     -1.2429 ppb        0.13310  10.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -5.3132 µg/L       5.08561     -5.3132 ppb        5.08561  95.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.0      20.613 µg/L       10.6427      20.613 ppb        10.6427  51.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.7080 µg/L       3.15418     -7.7080 ppb        3.15418  40.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                17.1      0.0589 µg/L       0.01100      0.0589 ppb        0.01100  18.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.0      0.3162 µg/L       0.54117      0.3162 ppb        0.54117 171.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         37.2      12.232 µg/L        6.6641      12.232 ppb         6.6641  54.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.2     -0.5566 µg/L       0.33928     -0.5566 ppb        0.33928  60.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.0      8.7689 µg/L      13.10740      8.7689 ppb       13.10740 149.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.7     -2.3257 µg/L       1.27525     -2.3257 ppb        1.27525  54.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.9      3.8739 µg/L       8.17318      3.8739 ppb        8.17318 210.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.6     -3.5411 µg/L       4.99248     -3.5411 ppb        4.99248 140.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      1.6243 µg/L       3.06159      1.6243 ppb        3.06159 188.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -53.5     -11.526 µg/L        0.4912     -11.526 ppb         0.4912   4.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -24.6     -2.0216 µg/L       0.35706     -2.0216 ppb        0.35706  17.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.5     -0.7104 µg/L       1.90848     -0.7104 ppb        1.90848 268.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.1      0.0222 µg/L       0.25591      0.0222 ppb        0.25591 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                44.7      0.1081 µg/L       0.11683      0.1081 ppb        0.11683 108.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.9      2.6841 µg/L       4.02062      2.6841 ppb        4.02062 149.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 29.4      2.6628 µg/L       2.71803      2.6628 ppb        2.71803 102.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  6.0      0.0698 µg/L       0.20578      0.0698 ppb        0.20578 294.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -17.9     -0.4421 µg/L       0.02911     -0.4421 ppb        0.02911   6.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 50
Sample ID: 245965001|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 338
Date Collected: 2/11/2010 19:55:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245965001|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55818.6	55818.6	102	%			19:56:32
1	Al 396.153Radial†	-3.4	6.8	5.0697	µg/L	5.0697	ppb	19:56:32
1	Ca 317.933Radial†	214.5	30.5	28.739	µg/L	28.739	ppb	19:56:52
1	Fe 238.204 Radial†	14.6	-0.2	-2.0255	µg/L	-2.0255	ppb	19:56:52
1	K 766.490 Radial†	371.1	234.4	166.64	µg/L	166.64	ppb	19:56:32
1	Mg 279.077 IEC†	12.7	1.2	10.726	µg/L	10.726	ppb	19:56:52
1	Na 589.592 Radial†	887.6	325.9	107.28	µg/L	107.28	ppb	19:56:32
1	Sr 421.552†	30.8	-9.5	-0.0981	µg/L	-0.0981	ppb	19:56:32
1	Sc 361.383	1971948.8	1971948.8	103.25	%			19:57:54
1	Y 371.029	1350291.8	1350291.8	103.08	%			19:57:54
1	Ag 328.068†	-484.1	95.7	0.7598	µg/L	0.7598	ppb	19:58:00
1	As 188.979†	4.1	2.8	5.5565	µg/L	5.5565	ppb	19:58:20
1	B 249.677†	710.6	356.8	15.594	µg/L	15.594	ppb	19:58:00
1	Ba 233.527†	-12.9	13.5	0.3520	µg/L	0.3520	ppb	19:58:20
1	Be 313.107†	-3562.3	-9.7	-0.0065	µg/L	-0.0065	ppb	19:58:00
1	Cd 226.502†	-145.9	0.8	0.0221	µg/L	0.0221	ppb	19:58:20
1	Co 228.616†	-12.7	-3.5	-0.1705	µg/L	-0.1705	ppb	19:58:20
1	Cr 267.716†	-35.0	18.5	0.4067	µg/L	0.4067	ppb	19:58:20
1	Cu 324.752†	2514.8	-50.5	-0.3528	µg/L	-0.3528	ppb	19:58:00
1	Mn 257.610†	-139.4	109.1	0.3770	µg/L	0.3770	ppb	19:58:20
1	Mo 202.031†	-6.0	1.8	0.1899	µg/L	0.1899	ppb	19:58:20
1	Ni 231.604†	295.7	-15.8	-0.8620	µg/L	-0.8620	ppb	19:58:20
1	P 214.914†	23.8	-4.6	-9.7304	µg/L	-9.7304	ppb	19:58:20
1	Pb 220.353†	93.0	-7.1	-1.8988	µg/L	-1.8988	ppb	19:58:20
1	S 181.975 Axial†	25.4	9.8	43.035	µg/L	43.035	ppb	19:58:20
1	Sb 206.836†	23.0	-4.7	-4.5815	µg/L	-4.5815	ppb	19:58:20
1	Se 196.026†	15.7	-0.7	-1.0348	µg/L	-1.0348	ppb	19:58:20
1	SiO2†	14682.9	12970.5	2793.3	µg/L	2793.3	ppb	19:58:00
1	Si 251.611†	16635.9	15799.0	1298.8	µg/L	1298.8	ppb	19:58:00
1	Sn 189.927†	-0.2	0.7	0.3022	µg/L	0.3022	ppb	19:58:20
1	Ti 334.940†	278.9	154.0	0.3701	µg/L	0.3701	ppb	19:58:00
1	Tl 190.801†	-24.0	1.0	1.4421	µg/L	1.4421	ppb	19:58:20
1	U 409.014†	-83.4	-27.2	-2.4610	µg/L	-2.4610	ppb	19:58:00
1	V 292.402†	-38.2	7.2	0.0760	µg/L	0.0760	ppb	19:58:00
1	Zn 213.857†	537.2	44.7	1.1202	µg/L	1.1202	ppb	19:58:20
2	Sc RADIAL	56239.5	56239.5	103	%			19:56:58
2	Al 396.153Radial†	-9.5	0.9	0.6781	µg/L	0.6781	ppb	19:56:58
2	Ca 317.933Radial†	220.2	34.5	32.480	µg/L	32.480	ppb	19:57:18
2	Fe 238.204 Radial†	20.5	5.4	45.767	µg/L	45.767	ppb	19:57:18
2	K 766.490 Radial†	377.7	238.1	169.24	µg/L	169.24	ppb	19:56:58
2	Mg 279.077 IEC†	15.4	3.7	34.346	µg/L	34.346	ppb	19:57:18
2	Na 589.592 Radial†	881.6	313.6	103.25	µg/L	103.25	ppb	19:56:58
2	Sr 421.552†	20.4	-19.8	-0.2050	µg/L	-0.2050	ppb	19:56:58
2	Sc 361.383	1987485.5	1987485.5	104.07	%			19:58:26
2	Y 371.029	1360766.6	1360766.6	103.88	%			19:58:26
2	Ag 328.068†	-550.3	35.7	0.2854	µg/L	0.2854	ppb	19:58:32
2	As 188.979†	-1.9	-3.0	-5.8079	µg/L	-5.8079	ppb	19:58:52
2	B 249.677†	700.3	341.5	14.900	µg/L	14.900	ppb	19:58:32
2	Ba 233.527†	-20.8	6.0	0.1572	µg/L	0.1572	ppb	19:58:52
2	Be 313.107†	-3376.1	196.2	0.1280	µg/L	0.1280	ppb	19:58:32
2	Cd 226.502†	-135.7	11.7	0.3183	µg/L	0.3183	ppb	19:58:52
2	Co 228.616†	-6.5	2.6	0.1279	µg/L	0.1279	ppb	19:58:52
2	Cr 267.716†	-27.3	26.2	0.5754	µg/L	0.5754	ppb	19:58:52
2	Cu 324.752†	2495.3	-88.3	-0.6102	µg/L	-0.6102	ppb	19:58:32
2	Mn 257.610†	-155.0	95.2	0.3343	µg/L	0.3343	ppb	19:58:52
2	Mo 202.031†	-5.8	2.0	0.2113	µg/L	0.2113	ppb	19:58:52
2	Ni 231.604†	305.2	-8.9	-0.4876	µg/L	-0.4876	ppb	19:58:52
2	P 214.914†	32.8	3.9	8.3615	µg/L	8.3615	ppb	19:58:52
2	Pb 220.353†	97.2	-3.8	-1.0168	µg/L	-1.0168	ppb	19:58:52

2	S 181.975 Axial†	26.6	10.8	47.257 µg/L	47.257 ppb	19:58:52
2	Sb 206.836†	21.6	-6.2	-6.0712 µg/L	-6.0712 ppb	19:58:52
2	Se 196.026†	10.3	-5.9	-8.9664 µg/L	-8.9664 ppb	19:58:52
2	SiO2†	14407.3	12594.4	2712.3 µg/L	2712.3 ppb	19:58:32
2	Si 251.611†	16336.4	15385.3	1264.7 µg/L	1264.7 ppb	19:58:32
2	Sn 189.927†	0.7	1.5	0.6987 µg/L	0.6987 ppb	19:58:52
2	Ti 334.940†	230.2	105.1	0.2505 µg/L	0.2505 ppb	19:58:32
2	Tl 190.801†	-27.4	-2.0	-2.8378 µg/L	-2.8378 ppb	19:58:52
2	U 409.014†	-15.9	38.3	3.4597 µg/L	3.4597 ppb	19:58:32
2	V 292.402†	-63.0	-16.3	-0.1621 µg/L	-0.1621 ppb	19:58:32
2	Zn 213.857†	539.0	42.4	1.0584 µg/L	1.0584 ppb	19:58:52
3	Sc RADIAL	56774.7	56774.7	104 %		19:57:24
3	Al 396.153Radial†	-2.1	8.1	6.0330 µg/L	6.0330 ppb	19:57:24
3	Ca 317.933Radial†	216.2	28.7	26.996 µg/L	26.996 ppb	19:57:44
3	Fe 238.204 Radial†	17.0	1.9	15.817 µg/L	15.817 ppb	19:57:44
3	K 766.490 Radial†	361.9	219.5	156.01 µg/L	156.01 ppb	19:57:24
3	Mg 279.077 IEC†	14.7	2.9	26.721 µg/L	26.721 ppb	19:57:44
3	Na 589.592 Radial†	850.9	276.1	90.884 µg/L	90.884 ppb	19:57:24
3	Sr 421.552†	50.4	8.9	0.0925 µg/L	0.0925 ppb	19:57:24
3	Sc 361.383	1981613.8	1981613.8	103.76 %		19:58:58
3	Y 371.029	1357539.9	1357539.9	103.64 %		19:58:58
3	Ag 328.068†	-478.4	103.5	0.8213 µg/L	0.8213 ppb	19:59:04
3	As 188.979†	-2.5	-3.5	-6.8823 µg/L	-6.8823 ppb	19:59:24
3	B 249.677†	666.4	310.8	13.575 µg/L	13.575 ppb	19:59:04
3	Ba 233.527†	-12.6	13.9	0.3612 µg/L	0.3612 ppb	19:59:24
3	Be 313.107†	-3441.4	123.7	0.0807 µg/L	0.0807 ppb	19:59:04
3	Cd 226.502†	-149.8	-2.2	-0.0638 µg/L	-0.0638 ppb	19:59:24
3	Co 228.616†	-19.4	-9.9	-0.4852 µg/L	-0.4852 ppb	19:59:24
3	Cr 267.716†	-24.6	28.6	0.6299 µg/L	0.6299 ppb	19:59:24
3	Cu 324.752†	2470.1	-105.5	-0.7344 µg/L	-0.7344 ppb	19:59:04
3	Mn 257.610†	-165.0	85.1	0.2956 µg/L	0.2956 ppb	19:59:24
3	Mo 202.031†	-4.4	3.3	0.3577 µg/L	0.3577 ppb	19:59:24
3	Ni 231.604†	306.9	-6.4	-0.3504 µg/L	-0.3504 ppb	19:59:24
3	P 214.914†	30.5	1.7	3.7771 µg/L	3.7771 ppb	19:59:24
3	Pb 220.353†	96.7	-4.0	-1.0578 µg/L	-1.0578 ppb	19:59:24
3	S 181.975 Axial†	19.5	4.0	17.559 µg/L	17.559 ppb	19:59:24
3	Sb 206.836†	20.4	-7.3	-7.2101 µg/L	-7.2101 ppb	19:59:24
3	Se 196.026†	20.0	3.5	5.3109 µg/L	5.3109 ppb	19:59:24
3	SiO2†	14093.7	12333.2	2656.0 µg/L	2656.0 ppb	19:59:04
3	Si 251.611†	16003.4	15110.9	1242.2 µg/L	1242.2 ppb	19:59:04
3	Sn 189.927†	-0.4	0.5	0.2467 µg/L	0.2467 ppb	19:59:24
3	Ti 334.940†	161.3	39.3	0.0929 µg/L	0.0929 ppb	19:59:04
3	Tl 190.801†	-23.1	2.1	2.8824 µg/L	2.8824 ppb	19:59:24
3	U 409.014†	-71.2	-15.0	-1.3618 µg/L	-1.3618 ppb	19:59:04
3	V 292.402†	-59.1	-12.8	-0.1316 µg/L	-0.1316 ppb	19:59:04
3	Zn 213.857†	520.5	26.1	0.6520 µg/L	0.6520 ppb	19:59:24

Mean Data: 245965001|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1980349.4	103.69	%	0.411				0.40%
Sc RADIAL	56277.6	103	%	0.9				0.85%
Y 371.029	1356199.5	103.53	%	0.410				0.40%
Ag 328.068†	78.3	0.6221	µg/L	0.29329	0.6221	ppb	0.29329	47.14%
Al 396.153Radial†	5.3	3.9269	µg/L	2.85448	3.9269	ppb	2.85448	72.69%
As 188.979†	-1.2	-2.3779	µg/L	6.89237	-2.3779	ppb	6.89237	289.85%
B 249.677†	336.3	14.690	µg/L	1.0257	14.690	ppb	1.0257	6.98%
Ba 233.527†	11.1	0.2901	µg/L	0.11523	0.2901	ppb	0.11523	39.72%
Be 313.107†	103.4	0.0674	µg/L	0.06824	0.0674	ppb	0.06824	101.19%
Ca 317.933Radial†	31.2	29.405	µg/L	2.8024	29.405	ppb	2.8024	9.53%
Cd 226.502†	3.4	0.0922	µg/L	0.20045	0.0922	ppb	0.20045	217.46%
Co 228.616†	-3.6	-0.1759	µg/L	0.30657	-0.1759	ppb	0.30657	174.27%
Cr 267.716†	24.4	0.5373	µg/L	0.11639	0.5373	ppb	0.11639	21.66%
Cu 324.752†	-81.4	-0.5658	µg/L	0.19463	-0.5658	ppb	0.19463	34.40%
Fe 238.204 Radial†	2.3	19.853	µg/L	24.1502	19.853	ppb	24.1502	121.65%
K 766.490 Radial†	230.7	163.96	µg/L	7.006	163.96	ppb	7.006	4.27%
Mg 279.077 IEC†	2.6	23.931	µg/L	12.0543	23.931	ppb	12.0543	50.37%
Mn 257.610†	96.4	0.3356	µg/L	0.04069	0.3356	ppb	0.04069	12.12%
Mo 202.031†	2.4	0.2529	µg/L	0.09132	0.2529	ppb	0.09132	36.10%
Na 589.592 Radial†	305.2	100.47	µg/L	8.546	100.47	ppb	8.546	8.51%

Ni 231.604†	-10.4	-0.5667	µg/L	0.26478	-0.5667	ppb	0.26478 46.72%
P 214.914†	0.4	0.8027	µg/L	9.40557	0.8027	ppb	9.40557 >999.9%
Pb 220.353†	-5.0	-1.3244	µg/L	0.49781	-1.3244	ppb	0.49781 37.59%
S 181.975 Axial†	8.2	35.951	µg/L	16.0665	35.951	ppb	16.0665 44.69%
Sb 206.836†	-6.0	-5.9542	µg/L	1.31818	-5.9542	ppb	1.31818 22.14%
Se 196.026†	-1.0	-1.5634	µg/L	7.15332	-1.5634	ppb	7.15332 457.55%
SiO2†	12632.7	2720.5	µg/L	68.99	2720.5	ppb	68.99 2.54%
Si 251.611†	15431.7	1268.6	µg/L	28.48	1268.6	ppb	28.48 2.24%
Sn 189.927†	0.9	0.4159	µg/L	0.24652	0.4159	ppb	0.24652 59.28%
Sr 421.552†	-6.8	-0.0702	µg/L	0.15074	-0.0702	ppb	0.15074 214.71%
Ti 334.940†	99.5	0.2378	µg/L	0.13902	0.2378	ppb	0.13902 58.45%
Tl 190.801†	0.4	0.4956	µg/L	2.97526	0.4956	ppb	2.97526 600.39%
U 409.014†	-1.3	-0.1210	µg/L	3.14934	-0.1210	ppb	3.14934 >999.9%
V 292.402†	-7.3	-0.0725	µg/L	0.12957	-0.0725	ppb	0.12957 178.61%
Zn 213.857†	37.7	0.9435	µg/L	0.25437	0.9435	ppb	0.25437 26.96%

Sequence No.: 53
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 20:06:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56942.5	56942.5	104	%			20:07:20
1	Al 396.153Radial†	6750.2	6479.6	4819.0	µg/L	4819.0	ppb	20:07:41
1	Ca 317.933Radial†	5453.5	5047.5	4752.6	µg/L	4752.6	ppb	20:07:41
1	Fe 238.204 Radial†	600.4	561.0	4764.9	µg/L	4764.9	ppb	20:07:41
1	K 766.490 Radial†	7140.8	6715.4	4773.3	µg/L	4773.3	ppb	20:07:20
1	Mg 279.077 IEC†	558.8	524.3	4882.8	µg/L	4882.8	ppb	20:07:41
1	Na 589.592 Radial†	31379.2	29532.3	9722.1	µg/L	9722.1	ppb	20:07:20
1	Sr 421.552†	47923.4	45890.8	475.71	µg/L	475.71	ppb	20:07:20
1	Sc 361.383	1997110.3	1997110.3	104.57	%			20:08:44
1	Y 371.029	1366245.8	1366245.8	104.30	%			20:08:44
1	Ag 328.068†	63028.6	60838.9	486.24	µg/L	486.24	ppb	20:08:50
1	As 188.979†	264.1	251.4	490.37	µg/L	490.37	ppb	20:09:10
1	B 249.677†	11700.4	10857.6	472.80	µg/L	472.80	ppb	20:08:50
1	Ba 233.527†	19297.5	18480.3	482.07	µg/L	482.07	ppb	20:08:50
1	Be 313.107†	767522.7	737423.7	481.39	µg/L	481.39	ppb	20:08:44
1	Cd 226.502†	18128.7	17478.6	482.15	µg/L	482.15	ppb	20:08:50
1	Co 228.616†	10328.3	9885.8	485.96	µg/L	485.96	ppb	20:08:50
1	Cr 267.716†	23066.4	22110.8	486.65	µg/L	486.65	ppb	20:08:50
1	Cu 324.752†	74922.7	69162.6	483.78	µg/L	483.78	ppb	20:08:50
1	Mn 257.610†	148210.1	141977.7	492.09	µg/L	492.09	ppb	20:08:44
1	Mo 202.031†	4970.4	4760.7	508.25	µg/L	508.25	ppb	20:09:10
1	Ni 231.604†	9599.0	8877.3	484.85	µg/L	484.85	ppb	20:08:50
1	P 214.914†	1239.8	1158.0	2440.4	µg/L	2440.4	ppb	20:09:10
1	Pb 220.353†	2032.4	1846.4	492.88	µg/L	492.88	ppb	20:09:10
1	S 181.975 Axial†	252.7	226.8	993.68	µg/L	993.68	ppb	20:09:10
1	Sb 206.836†	559.2	507.8	502.18	µg/L	502.18	ppb	20:09:10
1	Se 196.026†	353.9	322.6	499.11	µg/L	499.11	ppb	20:09:10
1	SiO2†	26266.3	23868.5	5140.2	µg/L	5140.2	ppb	20:08:50
1	Si 251.611†	30881.9	29219.5	2402.0	µg/L	2402.0	ppb	20:08:50
1	Sn 189.927†	1160.9	1111.0	511.04	µg/L	511.04	ppb	20:09:10
1	Ti 334.940†	211075.5	201735.7	484.95	µg/L	484.95	ppb	20:08:44
1	Tl 190.801†	335.9	345.5	488.04	µg/L	488.04	ppb	20:09:10
1	U 409.014†	5659.0	5465.3	493.86	µg/L	493.86	ppb	20:08:50
1	V 292.402†	47264.8	45243.6	488.29	µg/L	488.29	ppb	20:08:50
1	Zn 213.857†	20837.6	19451.4	482.30	µg/L	482.30	ppb	20:08:50
2	Sc RADIAL	56409.7	56409.7	103	%			20:07:46
2	Al 396.153Radial†	6758.8	6549.0	4870.9	µg/L	4870.9	ppb	20:08:07
2	Ca 317.933Radial†	5494.9	5136.9	4836.7	µg/L	4836.7	ppb	20:08:07
2	Fe 238.204 Radial†	605.0	570.8	4848.5	µg/L	4848.5	ppb	20:08:07
2	K 766.490 Radial†	7175.4	6813.5	4843.0	µg/L	4843.0	ppb	20:07:46
2	Mg 279.077 IEC†	565.5	535.8	4989.7	µg/L	4989.7	ppb	20:08:07
2	Na 589.592 Radial†	31167.2	29611.2	9748.1	µg/L	9748.1	ppb	20:07:46
2	Sr 421.552†	47693.8	46102.5	477.91	µg/L	477.91	ppb	20:07:46
2	Sc 361.383	1996473.0	1996473.0	104.54	%			20:09:17
2	Y 371.029	1365976.8	1365976.8	104.28	%			20:09:17
2	Ag 328.068†	63356.2	61171.5	488.90	µg/L	488.90	ppb	20:09:23
2	As 188.979†	265.4	252.7	492.96	µg/L	492.96	ppb	20:09:43
2	B 249.677†	11790.3	10947.2	476.67	µg/L	476.67	ppb	20:09:23
2	Ba 233.527†	19374.2	18559.5	484.14	µg/L	484.14	ppb	20:09:23
2	Be 313.107†	761432.1	731831.7	477.74	µg/L	477.74	ppb	20:09:17
2	Cd 226.502†	18272.2	17621.4	486.09	µg/L	486.09	ppb	20:09:23
2	Co 228.616†	10339.5	9899.7	486.64	µg/L	486.64	ppb	20:09:23
2	Cr 267.716†	23187.0	22233.3	489.35	µg/L	489.35	ppb	20:09:23
2	Cu 324.752†	75285.0	69532.0	486.37	µg/L	486.37	ppb	20:09:23
2	Mn 257.610†	147018.2	140882.8	488.30	µg/L	488.30	ppb	20:09:17
2	Mo 202.031†	4907.1	4701.7	501.95	µg/L	501.95	ppb	20:09:43
2	Ni 231.604†	9622.8	8903.0	486.25	µg/L	486.25	ppb	20:09:23
2	P 214.914†	1220.2	1139.7	2400.7	µg/L	2400.7	ppb	20:09:43
2	Pb 220.353†	2020.4	1835.5	489.96	µg/L	489.96	ppb	20:09:43

2	S 181.975 Axial†	249.1	223.5	979.20 µg/L	979.20 ppb	20:09:43
2	Sb 206.836†	560.4	509.1	503.33 µg/L	503.33 ppb	20:09:43
2	Se 196.026†	351.0	319.9	495.14 µg/L	495.14 ppb	20:09:43
2	SiO2†	26327.8	23935.4	5154.6 µg/L	5154.6 ppb	20:09:23
2	Si 251.611†	31017.5	29358.7	2413.4 µg/L	2413.4 ppb	20:09:23
2	Sn 189.927†	1146.8	1097.9	505.00 µg/L	505.00 ppb	20:09:43
2	Ti 334.940†	209321.5	200122.3	481.06 µg/L	481.06 ppb	20:09:17
2	Tl 190.801†	343.4	352.8	498.21 µg/L	498.21 ppb	20:09:43
2	U 409.014†	5590.8	5401.8	488.10 µg/L	488.10 ppb	20:09:23
2	V 292.402†	47490.4	45473.8	490.70 µg/L	490.70 ppb	20:09:23
2	Zn 213.857†	20893.3	19511.1	483.77 µg/L	483.77 ppb	20:09:23
3	Sc RADIAL	57472.2	57472.2	105 %		20:08:12
3	Al 396.153Radial†	6740.6	6410.8	4769.5 µg/L	4769.5 ppb	20:08:33
3	Ca 317.933Radial†	5456.3	5002.0	4709.7 µg/L	4709.7 ppb	20:08:33
3	Fe 238.204 Radial†	608.4	563.2	4782.9 µg/L	4782.9 ppb	20:08:33
3	K 766.490 Radial†	7228.0	6735.1	4787.3 µg/L	4787.3 ppb	20:08:12
3	Mg 279.077 IEC†	560.3	520.7	4848.2 µg/L	4848.2 ppb	20:08:33
3	Na 589.592 Radial†	31427.6	29301.1	9646.0 µg/L	9646.0 ppb	20:08:12
3	Sr 421.552†	48320.2	45844.2	475.23 µg/L	475.23 ppb	20:08:12
3	Sc 361.383	1990939.7	1990939.7	104.25 %		20:09:51
3	Y 371.029	1362789.8	1362789.8	104.04 %		20:09:51
3	Ag 328.068†	59813.6	57941.7	462.97 µg/L	462.97 ppb	20:09:56
3	As 188.979†	228.8	218.3	425.89 µg/L	425.89 ppb	20:10:17
3	B 249.677†	11049.5	10268.0	446.94 µg/L	446.94 ppb	20:09:56
3	Ba 233.527†	17851.9	17150.7	447.37 µg/L	447.37 ppb	20:09:56
3	Be 313.107†	719449.8	693583.9	452.78 µg/L	452.78 ppb	20:09:51
3	Cd 226.502†	16778.6	16237.3	447.87 µg/L	447.87 ppb	20:09:56
3	Co 228.616†	9445.5	9069.5	445.78 µg/L	445.78 ppb	20:09:56
3	Cr 267.716†	20616.8	19829.4	436.45 µg/L	436.45 ppb	20:09:56
3	Cu 324.752†	68837.1	63547.0	444.55 µg/L	444.55 ppb	20:09:56
3	Mn 257.610†	138989.4	133571.8	462.98 µg/L	462.98 ppb	20:09:51
3	Mo 202.031†	4137.7	3976.7	424.58 µg/L	424.58 ppb	20:10:17
3	Ni 231.604†	8822.5	8161.0	445.73 µg/L	445.73 ppb	20:09:56
3	P 214.914†	1060.6	989.8	2082.0 µg/L	2082.0 ppb	20:10:17
3	Pb 220.353†	1778.7	1609.0	429.41 µg/L	429.41 ppb	20:10:17
3	S 181.975 Axial†	221.0	197.1	863.74 µg/L	863.74 ppb	20:10:17
3	Sb 206.836†	483.5	436.9	431.61 µg/L	431.61 ppb	20:10:17
3	Se 196.026†	316.1	287.4	445.59 µg/L	445.59 ppb	20:10:17
3	SiO2†	24611.0	22358.5	4815.0 µg/L	4815.0 ppb	20:09:56
3	Si 251.611†	28930.7	27439.4	2255.7 µg/L	2255.7 ppb	20:09:56
3	Sn 189.927†	943.6	906.1	416.76 µg/L	416.76 ppb	20:10:17
3	Ti 334.940†	196865.3	188730.0	453.67 µg/L	453.67 ppb	20:09:51
3	Tl 190.801†	309.3	321.0	453.52 µg/L	453.52 ppb	20:10:17
3	U 409.014†	5049.6	4897.5	442.45 µg/L	442.45 ppb	20:09:56
3	V 292.402†	42971.8	41265.5	445.08 µg/L	445.08 ppb	20:09:56
3	Zn 213.857†	19124.6	17870.0	443.04 µg/L	443.04 ppb	20:09:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1994841.0	104.45	%	0.178				0.17%
Sc RADIAL	56941.5	104	%	1.0				0.93%
Y 371.029	1365004.1	104.21	%	0.147				0.14%
Ag 328.068†	59984.0	479.37	µg/L	14.264	479.37	ppb	14.264	2.98%
QC value within limits for Ag 328.068 Recovery = 95.87%								
Al 396.153Radial†	6479.8	4819.8	µg/L	50.70	4819.8	ppb	50.70	1.05%
QC value within limits for Al 396.153Radial Recovery = 96.40%								
As 188.979†	240.8	469.74	µg/L	37.997	469.74	ppb	37.997	8.09%
QC value within limits for As 188.979 Recovery = 93.95%								
B 249.677†	10690.9	465.47	µg/L	16.165	465.47	ppb	16.165	3.47%
QC value within limits for B 249.677 Recovery = 93.09%								
Ba 233.527†	18063.5	471.19	µg/L	20.654	471.19	ppb	20.654	4.38%
QC value within limits for Ba 233.527 Recovery = 94.24%								
Be 313.107†	720946.5	470.64	µg/L	15.576	470.64	ppb	15.576	3.31%
QC value within limits for Be 313.107 Recovery = 94.13%								
Ca 317.933Radial†	5062.2	4766.3	µg/L	64.62	4766.3	ppb	64.62	1.36%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17112.5	472.04	µg/L	21.023	472.04	ppb	21.023	4.45%
QC value within limits for Cd 226.502 Recovery = 94.41%								
Co 228.616†	9618.4	472.79	µg/L	23.399	472.79	ppb	23.399	4.95%

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   QC value within limits for Co 228.616  Recovery = 94.56%
Cr 267.716†            21391.1      470.82 µg/L        29.796      470.82 ppb         29.796   6.33%
   QC value within limits for Cr 267.716  Recovery = 94.16%
Cu 324.752†            67413.9      471.57 µg/L        23.430      471.57 ppb         23.430   4.97%
   QC value within limits for Cu 324.752  Recovery = 94.31%
Fe 238.204 Radial†       565.0      4798.8 µg/L         43.99      4798.8 ppb          43.99   0.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.98%
K 766.490 Radial†       6754.7      4801.2 µg/L         36.89      4801.2 ppb          36.89   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.02%
Mg 279.077 IEC†          527.0      4906.9 µg/L         73.74      4906.9 ppb          73.74   1.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.14%
Mn 257.610†           138810.8      481.12 µg/L        15.825      481.12 ppb         15.825   3.29%
   QC value within limits for Mn 257.610  Recovery = 96.22%
Mo 202.031†             4479.7      478.26 µg/L        46.598      478.26 ppb         46.598   9.74%
   QC value within limits for Mo 202.031  Recovery = 95.65%
Na 589.592 Radial†     29481.5      9705.4 µg/L         53.07      9705.4 ppb          53.07   0.55%
   QC value within limits for Na 589.592 Radial  Recovery = 97.05%
Ni 231.604†             8647.1      472.28 µg/L        23.002      472.28 ppb         23.002   4.87%
   QC value within limits for Ni 231.604  Recovery = 94.46%
P 214.914†              1095.8      2307.7 µg/L        196.48      2307.7 ppb         196.48   8.51%
   QC value within limits for P 214.914  Recovery = 92.31%
Pb 220.353†             1763.7      470.75 µg/L        35.831      470.75 ppb         35.831   7.61%
   QC value within limits for Pb 220.353  Recovery = 94.15%
S 181.975 Axial†         215.8      945.54 µg/L        71.212      945.54 ppb         71.212   7.53%
   QC value within limits for S 181.975 Axial  Recovery = 94.55%
Sb 206.836†              484.6      479.04 µg/L        41.080      479.04 ppb         41.080   8.58%
   QC value within limits for Sb 206.836  Recovery = 95.81%
Se 196.026†              310.0      479.95 µg/L        29.823      479.95 ppb         29.823   6.21%
   QC value within limits for Se 196.026  Recovery = 95.99%
SiO2†                  23387.4      5036.6 µg/L        192.04      5036.6 ppb         192.04   3.81%
   QC value within limits for SiO2  Recovery = 94.19%
Si 251.611†            28672.5      2357.0 µg/L         87.98      2357.0 ppb          87.98   3.73%
   QC value within limits for Si 251.611  Recovery = 94.28%
Sn 189.927†             1038.3      477.60 µg/L        52.775      477.60 ppb         52.775  11.05%
   QC value within limits for Sn 189.927  Recovery = 95.52%
Sr 421.552†            45945.8      476.28 µg/L         1.427      476.28 ppb          1.427   0.30%
   QC value within limits for Sr 421.552  Recovery = 95.26%
Ti 334.940†           196862.7      473.23 µg/L        17.050      473.23 ppb         17.050   3.60%
   QC value within limits for Ti 334.940  Recovery = 94.65%
Tl 190.801†              339.7      479.92 µg/L        23.425      479.92 ppb         23.425   4.88%
   QC value within limits for Tl 190.801  Recovery = 95.98%
U 409.014†              5254.9      474.80 µg/L        28.164      474.80 ppb         28.164   5.93%
   QC value within limits for U 409.014  Recovery = 94.96%
V 292.402†             43994.3      474.69 µg/L        25.672      474.69 ppb         25.672   5.41%
   QC value within limits for V 292.402  Recovery = 94.94%
Zn 213.857†            18944.2      469.70 µg/L        23.098      469.70 ppb         23.098   4.92%
   QC value within limits for Zn 213.857  Recovery = 93.94%
All analyte(s) passed QC.
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Sequence No.: 54
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 20:10:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56659.4	56659.4	104	%			20:10:59
1	Al 396.153Radial†	-34.5	-23.1	-17.229	µg/L	-17.229	ppb	20:10:59
1	Ca 317.933Radial†	185.2	-0.8	-0.7364	µg/L	-0.7364	ppb	20:11:19
1	Fe 238.204 Radial†	15.5	0.4	3.7111	µg/L	3.7111	ppb	20:11:19
1	K 766.490 Radial†	206.6	70.6	50.163	µg/L	50.163	ppb	20:10:59
1	Mg 279.077 IEC†	8.1	-3.5	-32.649	µg/L	-32.649	ppb	20:11:19
1	Na 589.592 Radial†	618.2	53.6	17.641	µg/L	17.641	ppb	20:10:59
1	Sr 421.552†	7.1	-32.7	-0.3390	µg/L	-0.3390	ppb	20:10:59
1	Sc 361.383	1969865.1	1969865.1	103.14	%			20:12:22
1	Y 371.029	1352232.0	1352232.0	103.23	%			20:12:22
1	Ag 328.068†	-590.3	-7.8	-0.0586	µg/L	-0.0586	ppb	20:12:27
1	As 188.979†	-2.7	-3.7	-7.3059	µg/L	-7.3059	ppb	20:12:48
1	B 249.677†	327.3	-14.1	-0.6180	µg/L	-0.6180	ppb	20:12:48
1	Ba 233.527†	-20.7	5.9	0.1552	µg/L	0.1552	ppb	20:12:48
1	Be 313.107†	-3325.3	216.5	0.1414	µg/L	0.1414	ppb	20:12:27
1	Cd 226.502†	-131.0	15.1	0.4157	µg/L	0.4157	ppb	20:12:48
1	Co 228.616†	-10.2	-1.0	-0.0509	µg/L	-0.0509	ppb	20:12:48
1	Cr 267.716†	-35.9	17.6	0.3870	µg/L	0.3870	ppb	20:12:48
1	Cu 324.752†	2456.0	-104.9	-0.7325	µg/L	-0.7325	ppb	20:12:27
1	Mn 257.610†	-254.6	-2.7	-0.0075	µg/L	-0.0075	ppb	20:12:48
1	Mo 202.031†	-3.1	4.5	0.4855	µg/L	0.4855	ppb	20:12:48
1	Ni 231.604†	302.7	-8.8	-0.4785	µg/L	-0.4785	ppb	20:12:48
1	P 214.914†	28.8	0.3	0.6377	µg/L	0.6377	ppb	20:12:48
1	Pb 220.353†	100.4	0.1	0.0373	µg/L	0.0373	ppb	20:12:48
1	S 181.975 Axial†	15.9	0.6	2.7080	µg/L	2.7080	ppb	20:12:48
1	Sb 206.836†	20.6	-7.0	-6.8374	µg/L	-6.8374	ppb	20:12:48
1	Se 196.026†	19.3	2.8	4.3630	µg/L	4.3630	ppb	20:12:48
1	SiO2†	1240.9	-46.9	-10.106	µg/L	-10.106	ppb	20:12:27
1	Si 251.611†	312.6	-9.8	-0.8084	µg/L	-0.8084	ppb	20:12:48
1	Sn 189.927†	-1.6	-0.7	-0.3378	µg/L	-0.3378	ppb	20:12:48
1	Ti 334.940†	146.3	25.8	0.0645	µg/L	0.0645	ppb	20:12:27
1	Tl 190.801†	-19.3	5.6	7.7671	µg/L	7.7671	ppb	20:12:48
1	U 409.014†	-42.1	12.8	1.1542	µg/L	1.1542	ppb	20:12:27
1	V 292.402†	-0.1	44.1	0.4765	µg/L	0.4765	ppb	20:12:27
1	Zn 213.857†	476.2	-13.8	-0.3400	µg/L	-0.3400	ppb	20:12:48
2	Sc RADIAL	56311.6	56311.6	103	%			20:11:25
2	Al 396.153Radial†	-11.1	-0.7	-0.4964	µg/L	-0.4964	ppb	20:11:25
2	Ca 317.933Radial†	182.9	-1.9	-1.7833	µg/L	-1.7833	ppb	20:11:45
2	Fe 238.204 Radial†	16.1	1.1	8.9693	µg/L	8.9693	ppb	20:11:45
2	K 766.490 Radial†	135.0	2.4	1.7375	µg/L	1.7375	ppb	20:11:25
2	Mg 279.077 IEC†	9.0	-2.6	-24.083	µg/L	-24.083	ppb	20:11:45
2	Na 589.592 Radial†	609.7	49.0	16.131	µg/L	16.131	ppb	20:11:25
2	Sr 421.552†	43.9	3.0	0.0309	µg/L	0.0309	ppb	20:11:25
2	Sc 361.383	1993246.1	1993246.1	104.37	%			20:12:54
2	Y 371.029	1369824.9	1369824.9	104.57	%			20:12:54
2	Ag 328.068†	-496.4	88.9	0.7074	µg/L	0.7074	ppb	20:12:59
2	As 188.979†	-2.4	-3.4	-6.6828	µg/L	-6.6828	ppb	20:13:20
2	B 249.677†	317.7	-27.1	-1.1866	µg/L	-1.1866	ppb	20:13:20
2	Ba 233.527†	-24.2	2.8	0.0739	µg/L	0.0739	ppb	20:13:20
2	Be 313.107†	-3271.8	305.5	0.1995	µg/L	0.1995	ppb	20:12:59
2	Cd 226.502†	-139.8	8.1	0.2223	µg/L	0.2223	ppb	20:13:20
2	Co 228.616†	-3.3	5.7	0.2808	µg/L	0.2808	ppb	20:13:20
2	Cr 267.716†	-45.4	8.9	0.1956	µg/L	0.1956	ppb	20:13:20
2	Cu 324.752†	2435.6	-152.4	-1.0631	µg/L	-1.0631	ppb	20:12:59
2	Mn 257.610†	-234.4	19.5	0.0698	µg/L	0.0698	ppb	20:13:20
2	Mo 202.031†	-9.1	-1.2	-0.1266	µg/L	-0.1266	ppb	20:13:20
2	Ni 231.604†	294.8	-19.7	-1.0788	µg/L	-1.0788	ppb	20:13:20
2	P 214.914†	30.0	1.1	2.4718	µg/L	2.4718	ppb	20:13:20
2	Pb 220.353†	93.1	-8.0	-2.1208	µg/L	-2.1208	ppb	20:13:20

2	S 181.975 Axial†	16.5	1.0	4.2685 µg/L	4.2685 ppb	20:13:20
2	Sb 206.836†	17.7	-10.0	-9.8534 µg/L	-9.8534 ppb	20:13:20
2	Se 196.026†	12.6	-3.8	-5.7175 µg/L	-5.7175 ppb	20:13:20
2	SiO2†	1249.7	-52.6	-11.333 µg/L	-11.333 ppb	20:12:59
2	Si 251.611†	320.2	-6.0	-0.4973 µg/L	-0.4973 ppb	20:13:20
2	Sn 189.927†	2.8	3.5	1.6248 µg/L	1.6248 ppb	20:13:20
2	Ti 334.940†	188.9	64.9	0.1579 µg/L	0.1579 ppb	20:12:59
2	Tl 190.801†	-28.5	-3.0	-4.1956 µg/L	-4.1956 ppb	20:13:20
2	U 409.014†	-69.7	-13.1	-1.1905 µg/L	-1.1905 ppb	20:12:59
2	V 292.402†	-23.7	21.5	0.2285 µg/L	0.2285 ppb	20:12:59
2	Zn 213.857†	474.3	-21.1	-0.5199 µg/L	-0.5199 ppb	20:13:20
3	Sc RADIAL	56279.9	56279.9	103 %		20:11:51
3	Al 396.153Radial†	-12.9	-2.4	-1.8112 µg/L	-1.8112 ppb	20:11:51
3	Ca 317.933Radial†	188.4	3.5	3.3406 µg/L	3.3406 ppb	20:12:11
3	Fe 238.204 Radial†	17.4	2.4	20.436 µg/L	20.436 ppb	20:12:11
3	K 766.490 Radial†	198.2	63.7	45.307 µg/L	45.307 ppb	20:11:51
3	Mg 279.077 IEC†	8.4	-3.1	-29.101 µg/L	-29.101 ppb	20:12:11
3	Na 589.592 Radial†	580.8	21.4	7.0316 µg/L	7.0316 ppb	20:11:51
3	Sr 421.552†	36.6	-4.1	-0.0421 µg/L	-0.0421 ppb	20:11:51
3	Sc 361.383	2002874.1	2002874.1	104.87 %		20:13:26
3	Y 371.029	1375774.7	1375774.7	105.03 %		20:13:26
3	Ag 328.068†	-572.9	18.2	0.1450 µg/L	0.1450 ppb	20:13:32
3	As 188.979†	-1.7	-2.8	-5.4427 µg/L	-5.4427 ppb	20:13:52
3	B 249.677†	315.7	-30.5	-1.3417 µg/L	-1.3417 ppb	20:13:52
3	Ba 233.527†	-28.2	-0.8	-0.0221 µg/L	-0.0221 ppb	20:13:52
3	Be 313.107†	-3166.3	421.2	0.2751 µg/L	0.2751 ppb	20:13:32
3	Cd 226.502†	-127.4	20.6	0.5649 µg/L	0.5649 ppb	20:13:52
3	Co 228.616†	-19.4	-9.7	-0.4770 µg/L	-0.4770 ppb	20:13:52
3	Cr 267.716†	-37.3	16.8	0.3689 µg/L	0.3689 ppb	20:13:52
3	Cu 324.752†	2426.7	-172.1	-1.1996 µg/L	-1.1996 ppb	20:13:32
3	Mn 257.610†	-224.6	30.0	0.1076 µg/L	0.1076 ppb	20:13:52
3	Mo 202.031†	-4.1	3.6	0.3852 µg/L	0.3852 ppb	20:13:52
3	Ni 231.604†	290.3	-25.4	-1.3870 µg/L	-1.3870 ppb	20:13:52
3	P 214.914†	33.5	4.4	9.4816 µg/L	9.4816 ppb	20:13:52
3	Pb 220.353†	90.7	-10.7	-2.8672 µg/L	-2.8672 ppb	20:13:52
3	S 181.975 Axial†	18.5	2.8	12.161 µg/L	12.161 ppb	20:13:52
3	Sb 206.836†	24.3	-3.8	-3.7594 µg/L	-3.7594 ppb	20:13:52
3	Se 196.026†	15.9	-0.7	-0.9888 µg/L	-0.9888 ppb	20:13:52
3	SiO2†	1207.7	-98.4	-21.190 µg/L	-21.190 ppb	20:13:32
3	Si 251.611†	302.6	-24.3	-2.0003 µg/L	-2.0003 ppb	20:13:52
3	Sn 189.927†	0.7	1.5	0.6894 µg/L	0.6894 ppb	20:13:52
3	Ti 334.940†	101.8	-19.1	-0.0435 µg/L	-0.0435 ppb	20:13:32
3	Tl 190.801†	-25.1	0.4	0.5052 µg/L	0.5052 ppb	20:13:52
3	U 409.014†	-6.5	47.4	4.2901 µg/L	4.2901 ppb	20:13:32
3	V 292.402†	-56.7	-9.8	-0.0938 µg/L	-0.0938 ppb	20:13:32
3	Zn 213.857†	464.1	-33.0	-0.8147 µg/L	-0.8147 ppb	20:13:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1988661.8	104.13	%	0.889				0.85%
Sc RADIAL	56417.0	103	%	0.4				0.37%
Y 371.029	1365943.9	104.28	%	0.935				0.90%
Ag 328.068†	33.1	0.2646	µg/L	0.39674	0.2646	ppb	0.39674	149.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.7	-6.5121	µg/L	9.30422	-6.5121	ppb	9.30422	142.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-6.4771	µg/L	0.94849	-6.4771	ppb	0.94849	14.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.9	-1.0488	µg/L	0.38103	-1.0488	ppb	0.38103	36.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.6	0.0690	µg/L	0.08875	0.0690	ppb	0.08875	128.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	314.4	0.2053	µg/L	0.06705	0.2053	ppb	0.06705	32.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.3	0.2736	µg/L	2.70720	0.2736	ppb	2.70720	989.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.6	0.4010	µg/L	0.17178	0.4010	ppb	0.17178	42.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0824	µg/L	0.37989	-0.0824	ppb	0.37989	461.28%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.4      0.3172 µg/L       0.10569      0.3172 ppb        0.10569  33.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -143.1     -0.9984 µg/L       0.24020     -0.9984 ppb        0.24020  24.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.3      11.039 µg/L        8.5525      11.039 ppb         8.5525  77.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        45.6      32.402 µg/L       26.6673      32.402 ppb        26.6673  82.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.1     -28.611 µg/L        4.3042     -28.611 ppb         4.3042  15.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.6      0.0566 µg/L       0.05870      0.0566 ppb        0.05870 103.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.3      0.2480 µg/L       0.32829      0.2480 ppb        0.32829 132.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       41.3      13.602 µg/L        5.7396      13.602 ppb         5.7396  42.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -18.0     -0.9814 µg/L       0.46200     -0.9814 ppb        0.46200  47.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.9      4.1970 µg/L       4.66758      4.1970 ppb        4.66758 111.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.2     -1.6502 µg/L       1.50832     -1.6502 ppb        1.50832  91.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      6.3791 µg/L       5.06750      6.3791 ppb        5.06750  79.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.9     -6.8167 µg/L       3.04704     -6.8167 ppb        3.04704  44.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.5     -0.7811 µg/L       5.04348     -0.7811 ppb        5.04348 645.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -66.0     -14.210 µg/L        6.0766     -14.210 ppb         6.0766  42.76%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -13.4     -1.1020 µg/L       0.79337     -1.1020 ppb        0.79337  71.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.6588 µg/L       0.98163      0.6588 ppb        0.98163 149.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -11.3     -0.1167 µg/L       0.19593     -0.1167 ppb        0.19593 167.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              23.9      0.0596 µg/L       0.10080      0.0596 ppb        0.10080 168.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      1.3589 µg/L       6.02688      1.3589 ppb        6.02688 443.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               15.7      1.4179 µg/L       2.74983      1.4179 ppb        2.74983 193.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               18.6      0.2037 µg/L       0.28596      0.2037 ppb        0.28596 140.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.6     -0.5582 µg/L       0.23967     -0.5582 ppb        0.23967  42.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 24, 2010 13:58:21
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.583
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	8010.6	8010.646	132.493	1.7
	Mg	24.0	80464.0	80463.987	802.940	1.0
	Co	58.9	170262.1	170262.103	1828.524	1.1
	Rh	102.9	306904.0	306903.996	3738.938	1.2
	In	114.9	394981.4	394981.376	4192.916	1.1
	Pb	208.0	384651.8	384651.804	1928.620	0.5
⌈>	Ba	137.9	372209.0	372209.012	2646.026	0.7
⌊	Ba++	69.0	6742.3	0.018	0.000	0.8
⌈>	Ce	139.9	454620.9	454620.904	3860.277	0.8
⌊	CeO	155.9	12716.3	0.028	0.000	1.2
	Bkgd	220.0	18.7	18.700	3.546	19.0

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	8280.1
Co	59	13	6.3	167068.6
In	115	13	7.0	394570.1

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2072	0.636
Be	9.0	9.0	2050	2088	0.616
Mg	24.0	24.0	5687	2100	0.608
Mg	25.0	25.0	5927	2100	0.597
Mg	26.0	26.0	6169	2100	0.611
Co	58.9	58.9	14169	2125	0.599
Rh	102.9	102.9	24868	2180	0.588
In	114.9	114.9	27782	2200	0.587
Ce	139.9	139.9	33866	2220	0.600
Pb	206.0	206.0	49948	2305	0.610
Pb	207.0	207.0	50159	2240	0.654
Pb	208.0	208.0	50451	2265	0.722
U	238.1	238.0	57720	2275	0.768

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 00:45:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Blank.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		116	
	Be	9		ug/L		27	
	B	11		ug/L		596	
	Na	23		ug/L		18679	
	Mg	24		ug/L		4334	
	Al	27		ug/L		7669	
	P	31		ug/L		5857	
	K	39		ug/L		561175	
	Ca	43		ug/L		363	
>	Sc	45		ug/L		466836	
	Ti	47		ug/L		402	
	V	51		ug/L		9348	
	Cr	52		ug/L		4541	
	Cr	53		ug/L		129660	
	Mn	55		ug/L		1656	
	Fe	57		ug/L		6902	
	Co	59		ug/L		147	
	Ni	60		ug/L		140	
	Cu	63		ug/L		473	
	Cu	65		ug/L		257	
	Zn	66		ug/L		698	
	Zn	67		ug/L		15316	
	Zn	68		ug/L		1656	
>	Ge	74		ug/L		572003	
	As	75		ug/L		-744	
	Se	77		ug/L		8264	
	Se	82		ug/L		0	
	Kr	83		ug/L		173	
	Sr	88		ug/L		291	
	Y	89		ug/L		76	
	Mo	98		ug/L		141	
	Ag	107		ug/L		88	
	Cd	111		ug/L		33	
	Cd	114		ug/L		69	
>	In	115		ug/L		379864	
	Sn	120		ug/L		422	
	Sb	121		ug/L		582	
	Sb	123		ug/L		457	
	Ba	135		ug/L		54	
	Ba	137		ug/L		91	
	Ho	165		ug/L		21	
>	Lu	175		ug/L		708476	
	Tl	205		ug/L		2105	
	Pb	208		ug/L		998	
	Bi	209		ug/L		589	
	Th	232		ug/L		830	
	U	238		ug/L		643	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	0.9999
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 00:51:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 1.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.105	26890	0.057
	Be	9	10.000	ug/L	4.739	5729	0.012
	B	11	20.000	ug/L	0.321	12031	0.024
	Na	23	1000.000	ug/L	2.963	4393258	9.347
	Mg	24	1000.000	ug/L	10.705	3479543	7.430
	Al	27	1000.000	ug/L	4.107	5204106	11.105
	P	31	1000.000	ug/L	1.944	293596	0.615
	K	39	1000.000	ug/L	4.538	6809758	13.354
	Ca	43	1000.000	ug/L	3.254	17644	0.037
>	Sc	45		ug/L		468066	468065.824
	Ti	47	10.000	ug/L	0.987	9225	0.019
	V	51	10.000	ug/L	7.478	106749	0.208
	Cr	52	10.000	ug/L	3.903	84753	0.171
	Cr	53		ug/L		176266	0.099
	Mn	55	10.000	ug/L	2.802	130192	0.275
	Fe	57	1000.000	ug/L	3.218	274624	0.572
	Co	59	10.000	ug/L	0.895	105959	0.226
	Ni	60	10.000	ug/L	0.801	23096	0.049
	Cu	63		ug/L		56074	0.119
	Cu	65	10.000	ug/L	1.060	27358	0.058
	Zn	66	10.000	ug/L	2.012	16798	0.028
	Zn	67		ug/L		24399	0.016
	Zn	68		ug/L		13648	0.021
>	Ge	74		ug/L		567866	567865.985
	As	75	10.000	ug/L	1.836	16324	0.030
	Se	77		ug/L		12599	0.008
	Se	82	10.000	ug/L	1.240	1805	0.003
	Kr	83		ug/L		149	-0.000
	Sr	88	10.000	ug/L	1.351	227001	0.612
	Y	89		ug/L		106	0.000
	Mo	98	10.000	ug/L	1.107	53630	0.144
	Ag	107	10.000	ug/L	2.532	96282	0.259
	Cd	111	10.000	ug/L	1.876	22621	0.061
	Cd	114		ug/L		53302	0.144
>	In	115		ug/L		370762	370762.000
	Sn	120	10.000	ug/L	1.295	97007	0.261
	Sb	121	10.000	ug/L	1.532	76721	0.205
	Sb	123		ug/L		59935	0.160
	Ba	135		ug/L		24863	0.035
	Ba	137	10.000	ug/L	1.030	44448	0.063
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		703071	703070.874
	Tl	205	10.000	ug/L	1.004	339248	0.480
	Pb	208	10.000	ug/L	1.089	600186	0.852
	Bi	209		ug/L		399	-0.000
	Th	232	10.000	ug/L	1.736	730929	1.038
	U	238	10.000	ug/L	0.633	764002	1.086

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 00:57:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 2.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.000**	ug/L	2.449	264489	0.572
	Be	9	**100.013**	ug/L	2.463	57085	0.123
	B	11	**200.038**	ug/L	4.593	115722	0.249
	Na	23	**10012.267**	ug/L	1.503	49330670	106.666
	Mg	24	**9994.280**	ug/L	2.912	32487077	70.242
	Al	27	**9977.507**	ug/L	5.822	41846838	90.451
	P	31	**9996.741**	ug/L	2.033	2758099	5.952
	K	39	**10004.212**	ug/L	7.305	65060133	139.467
	Ca	43	**9997.043**	ug/L	1.635	166192	0.359
>	Sc	45		ug/L		462373	462373.423
	Ti	47	**99.998**	ug/L	0.744	87343	0.188
	V	51	**99.954**	ug/L	3.260	929215	1.990
	Cr	52	**99.922**	ug/L	0.634	739071	1.589
	Cr	53		ug/L		234272	0.229
	Mn	55	**99.921**	ug/L	1.467	1177738	2.544
	Fe	57	**9998.285**	ug/L	1.799	2606334	5.623
	Co	59	**99.889**	ug/L	1.148	940185	2.033
	Ni	60	**99.956**	ug/L	1.897	217299	0.470
	Cu	63		ug/L		516746	1.117
	Cu	65	**99.972**	ug/L	2.114	260459	0.563
	Zn	66	**100.028**	ug/L	2.779	162696	0.292
	Zn	67		ug/L		45738	0.056
	Zn	68		ug/L		118988	0.211
>	Ge	74		ug/L		555091	555090.637
	As	75	**100.021**	ug/L	0.615	169753	0.307
	Se	77		ug/L		22553	0.026
	Se	82	**100.000**	ug/L	2.418	17642	0.032
	Kr	83		ug/L		176	0.000
	Sr	88	**99.847**	ug/L	2.397	1924500	5.295
	Y	89		ug/L		300	0.001
	Mo	98	**99.989**	ug/L	2.112	518934	1.427
	Ag	107	**99.918**	ug/L	1.456	871308	2.397
	Cd	111	**99.998**	ug/L	1.800	221055	0.608
	Cd	114		ug/L		511858	1.408
>	In	115		ug/L		363514	363514.297
	Sn	120	**99.927**	ug/L	2.597	881818	2.426
	Sb	121	**99.981**	ug/L	1.760	733263	2.016
	Sb	123		ug/L		577455	1.588
	Ba	135		ug/L		238428	0.344
	Ba	137	**99.967**	ug/L	2.692	423069	0.610
	Ho	165		ug/L		44	0.000
>	Lu	175		ug/L		693126	693125.998
	Tl	205	**99.819**	ug/L	1.206	2810893	4.052
	Pb	208	**99.830**	ug/L	3.632	5037257	7.270
	Bi	209		ug/L		848	0.000
	Th	232	**99.839**	ug/L	1.412	6188011	8.928
	U	238	**99.841**	ug/L	2.806	6479656	9.351

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 01:03:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.254**	ug/L	1.528	138357	0.293
	Be	9	**51.212**	ug/L	3.907	29827	0.063
	B	11	**103.919**	ug/L	2.684	61625	0.129
	Na	23	**4509.685**	ug/L	8.125	22670943	48.044
	Mg	24	**5347.344**	ug/L	7.877	17720997	37.582
	Al	27	**5620.619**	ug/L	10.095	24041127	50.954
	P	31	**4774.087**	ug/L	1.484	1346497	2.843
	K	39	**5130.417**	ug/L	9.736	34293745	71.522
	Ca	43	**4924.759**	ug/L	1.318	83672	0.177
>	Sc	45		ug/L		471629	471628.507
	Ti	47	**50.265**	ug/L	0.852	44987	0.095
	V	51	**51.480**	ug/L	3.069	492659	1.025
	Cr	52	**52.523**	ug/L	2.178	398384	0.835
	Cr	53		ug/L		196456	0.139
	Mn	55	**53.204**	ug/L	1.701	640426	1.355
	Fe	57	**4590.215**	ug/L	0.475	1224465	2.582
	Co	59	**51.968**	ug/L	2.609	498978	1.058
	Ni	60	**51.394**	ug/L	1.632	114032	0.241
	Cu	63		ug/L		269542	0.571
	Cu	65	**51.228**	ug/L	2.806	136262	0.288
	Zn	66	**53.041**	ug/L	2.954	87537	0.155
	Zn	67		ug/L		33730	0.033
	Zn	68		ug/L		63866	0.111
>	Ge	74		ug/L		561190	561190.119
	As	75	**48.840**	ug/L	3.695	83406	0.150
	Se	77		ug/L		16616	0.015
	Se	82	**51.104**	ug/L	2.320	9114	0.016
	Kr	83		ug/L		151	-0.000
	Sr	88	**54.911**	ug/L	2.149	1076141	2.912
	Y	89		ug/L		145	0.000
	Mo	98	**49.596**	ug/L	0.309	261705	0.708
	Ag	107	**51.305**	ug/L	0.925	454836	1.231
	Cd	111	**50.703**	ug/L	1.377	113953	0.308
	Cd	114		ug/L		265227	0.718
>	In	115		ug/L		369463	369462.806
	Sn	120	**51.875**	ug/L	1.341	465621	1.259
	Sb	121	**51.410**	ug/L	1.168	383561	1.037
	Sb	123		ug/L		300315	0.812
	Ba	135		ug/L		122938	0.178
	Ba	137	**51.554**	ug/L	2.548	217508	0.315
	Ho	165		ug/L		64	0.000
>	Lu	175		ug/L		690737	690736.635
	Tl	205	**50.995**	ug/L	2.545	1431651	2.070
	Pb	208	**54.050**	ug/L	1.463	2719376	3.936
	Bi	209		ug/L		944	0.001
	Th	232	**52.084**	ug/L	1.833	3217656	4.658
	U	238	**53.616**	ug/L	0.733	3469103	5.022

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	102.508				
	Be	9	102.424				
	B	11	103.919				
	Na	23	90.194				
	Mg	24	106.947				
	Al	27	111.299				
	P	31	95.482				
	K	39	102.608				
	Ca	43	98.495				
>	Sc	45		101.0			
	Ti	47	100.531				
	V	51	102.959				
	Cr	52	105.046				
	Cr	53					
	Mn	55	106.409				
	Fe	57	91.804				
	Co	59	103.937				
	Ni	60	102.788				
	Cu	63					
	Cu	65	102.456				
	Zn	66	106.082				
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75	97.681				
	Se	77					
	Se	82	102.207				
	Kr	83					
	Sr	88	109.822				
	Y	89					
	Mo	98	99.192				
	Ag	107	102.610				
	Cd	111	101.405				
	Cd	114					
>	In	115		97.3			
	Sn	120	103.750				
	Sb	121	102.819				
	Sb	123					
	Ba	135					
	Ba	137	103.108				
	Ho	165					
>	Lu	175		97.5			
	Tl	205	101.990				
	Pb	208	108.100				
	Bi	209					
	Th	232	104.169				
	U	238	107.231				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Al	27	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 01:09:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 2.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.021	ug/L	19.019	172	0.000
	Be	9	0.008	ug/L	121.338	32	0.000
	B	11	4.097	ug/L	16.405	2984	0.005
	Na	23	0.870	ug/L	129.311	23019	0.009
	Mg	24	-0.105	ug/L	1050.249	4001	-0.001
	Al	27	-0.861	ug/L	96.914	4001	-0.008
	P	31	0.980	ug/L	180.971	6126	0.001
	K	39	1.158	ug/L	397.345	569148	0.016
	Ca	43	-0.503	ug/L	329.039	354	-0.000
>	Sc	45		ug/L		467005	467005.242
	Ti	47	-0.009	ug/L	325.615	395	-0.000
	V	51	-0.308	ug/L	153.633	6437	-0.006
	Cr	52	-0.165	ug/L	44.444	3309	-0.003
	Cr	53		ug/L		125809	-0.008
	Mn	55	-0.010	ug/L	32.542	1539	-0.000
	Fe	57	0.291	ug/L	190.434	6980	0.000
	Co	59	0.004	ug/L	70.690	182	0.000
	Ni	60	0.004	ug/L	50.335	150	0.000
	Cu	63		ug/L		487	0.000
	Cu	65	-0.004	ug/L	95.984	246	-0.000
	Zn	66	0.001	ug/L	1593.283	698	0.000
	Zn	67		ug/L		14449	-0.001
	Zn	68		ug/L		1604	-0.000
>	Ge	74		ug/L		569988	569987.791
	As	75	-0.179	ug/L	145.005	-1056	-0.001
	Se	77		ug/L		8396	0.000
	Se	82	0.091	ug/L	153.517	17	0.000
	Kr	83		ug/L		156	-0.000
	Sr	88	0.006	ug/L	12.878	419	0.000
	Y	89		ug/L		79	0.000
	Mo	98	0.027	ug/L	3.432	289	0.000
	Ag	107	0.006	ug/L	31.976	141	0.000
	Cd	111	0.002	ug/L	466.095	37	0.000
	Cd	114		ug/L		108	0.000
>	In	115		ug/L		378529	378529.037
	Sn	120	0.012	ug/L	32.804	534	0.000
	Sb	121	0.437	ug/L	10.437	3917	0.009
	Sb	123		ug/L		3199	0.007
	Ba	135		ug/L		72	0.000
	Ba	137	0.004	ug/L	36.133	109	0.000
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		707983	707982.913
	Tl	205	0.158	ug/L	22.647	6640	0.006
	Pb	208	0.007	ug/L	21.254	1362	0.001
	Bi	209		ug/L		584	-0.000
	Th	232	0.024	ug/L	5.204	2323	0.002
	U	238	0.008	ug/L	26.689	1170	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 01:15:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 3.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.006**	ug/L	2.281	29478	0.063
	Be	9	**0.537**	ug/L	5.699	336	0.001
	B	11	**17.326**	ug/L	3.791	10659	0.022
	Na	23	**239.283**	ug/L	8.349	1207054	2.549
	Mg	24	**15.408**	ug/L	14.004	54772	0.108
	Al	27	**41.259**	ug/L	6.550	182157	0.374
	P	31	**65.019**	ug/L	7.889	23901	0.039
	K	39	**308.141**	ug/L	13.361	2562845	4.296
	Ca	43	**218.114**	ug/L	5.808	4012	0.008
>	Sc	45		ug/L		466658	466658.134
	Ti	47	**8.651**	ug/L	2.543	7993	0.016
	V	51	**10.208**	ug/L	9.674	104042	0.203
	Cr	52	**11.238**	ug/L	4.848	87857	0.179
	Cr	53		ug/L		157299	0.060
	Mn	55	**5.897**	ug/L	2.990	71691	0.150
	Fe	57	**105.485**	ug/L	2.669	34574	0.059
	Co	59	**1.130**	ug/L	3.872	10879	0.023
	Ni	60	**2.182**	ug/L	2.802	4924	0.010
	Cu	63		ug/L		6465	0.013
	Cu	65	**1.120**	ug/L	3.630	3199	0.006
	Zn	66	**11.321**	ug/L	1.546	18871	0.033
	Zn	67		ug/L		20464	0.010
	Zn	68		ug/L		14797	0.024
>	Ge	74		ug/L		550773	550772.701
	As	75	**5.563**	ug/L	3.738	8690	0.017
	Se	77		ug/L		10811	0.005
	Se	82	**5.873**	ug/L	3.974	1028	0.002
	Kr	83		ug/L		145	-0.000
	Sr	88	**12.294**	ug/L	0.262	241551	0.652
	Y	89		ug/L		69	-0.000
	Mo	98	**0.527**	ug/L	4.885	2922	0.008
	Ag	107	**1.067**	ug/L	2.030	9561	0.026
	Cd	111	**1.111**	ug/L	1.215	2532	0.007
	Cd	114		ug/L		5724	0.015
>	In	115		ug/L		370061	370060.601
	Sn	120	**5.583**	ug/L	1.724	50556	0.136
	Sb	121	**3.368**	ug/L	1.093	25697	0.068
	Sb	123		ug/L		20218	0.053
	Ba	135		ug/L		5288	0.007
	Ba	137	**2.158**	ug/L	2.765	9314	0.013
	Ho	165		ug/L		27	0.000
>	Lu	175		ug/L		700109	700108.585
	Tl	205	**1.260**	ug/L	1.742	37884	0.051
	Pb	208	**2.501**	ug/L	1.391	128493	0.182
	Bi	209		ug/L		429	-0.000
	Th	232	**1.296**	ug/L	2.070	81953	0.116
	U	238	**0.284**	ug/L	0.865	19262	0.027

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	110.055				
	Be	9	107.409				
	B	11	115.509				
	Na	23	95.713				
	Mg	24	102.717				
	Al	27	137.530				
	P	31	130.038				
	K	39	102.714				
	Ca	43	109.057				
>	Sc	45		100.0			
	Ti	47	86.512				
	V	51	102.076				
	Cr	52	112.379				
	Cr	53					
	Mn	55	117.941				
	Fe	57	105.485				
	Co	59	113.043				
	Ni	60	109.121				
	Cu	63					
	Cu	65	112.029				
	Zn	66	113.212				
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75	111.254				
	Se	77					
	Se	82	117.453				
	Kr	83					
	Sr	88	122.942				
	Y	89					
	Mo	98	105.486				
	Ag	107	106.734				
	Cd	111	111.062				
	Cd	114					
>	In	115		97.4			
	Sn	120	111.664				
	Sb	121	112.266				
	Sb	123					
	Ba	135					
	Ba	137	107.890				
	Ho	165					
>	Lu	175		98.8			
	Tl	205	125.991				
	Pb	208	125.060				
	Bi	209					
	Th	232	129.605				
	U	238	142.033				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	P	31	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 01:21:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 4.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	ug/L	10.445	293	0.000
	Be	9	**0.069**	ug/L	19.825	59	0.000
	B	11	**1.597**	ug/L	19.431	1342	0.002
	Na	23	**76847.089**	ug/L	3.522	336523083	818.695
	Mg	24	**85091.727**	ug/L	8.994	245740237	598.043
	Al	27	**103851.194**	ug/L	11.407	387083249	941.464
	P	31	**82063.023**	ug/L	0.909	20088465	48.862
	K	39	**91466.419**	ug/L	0.853	524596315	1275.113
	Ca	43	**86955.724**	ug/L	1.654	1282259	3.119
>	Sc	45		ug/L		411013	411012.564
	Ti	47	**1517.851**	ug/L	0.321	1173570	2.854
	V	51	**-0.573**	ug/L	51.787	3536	-0.011
	Cr	52	**1.914**	ug/L	0.983	16506	0.030
	Cr	53		ug/L		118979	0.012
	Mn	55	**6.009**	ug/L	1.140	64334	0.153
	Fe	57	**94815.587**	ug/L	1.958	21921908	53.325
	Co	59	**0.371**	ug/L	5.093	3231	0.008
	Ni	60	**3.499**	ug/L	2.633	6881	0.016
	Cu	63		ug/L		11210	0.026
	Cu	65	**3.194**	ug/L	0.963	7617	0.018
	Zn	66	**4.370**	ug/L	5.913	6859	0.013
	Zn	67		ug/L		18056	0.010
	Zn	68		ug/L		2656	0.003
>	Ge	74		ug/L		490891	490890.577
	As	75	**0.176**	ug/L	570.093	-374	0.001
	Se	77		ug/L		11647	0.009
	Se	82	**-1.193**	ug/L	6.261	-186	-0.000
	Kr	83		ug/L		452	0.001
	Sr	88	**3.263**	ug/L	1.596	57326	0.173
	Y	89		ug/L		801	0.002
	Mo	98	**1814.342**	ug/L	1.582	8542173	25.899
	Ag	107	**0.140**	ug/L	4.308	1188	0.003
	Cd	111	**0.506**	ug/L	47.944	1046	0.003
	Cd	114		ug/L		14916	0.045
>	In	115		ug/L		329854	329854.132
	Sn	120	**0.262**	ug/L	2.872	2462	0.006
	Sb	121	**0.383**	ug/L	21.682	3049	0.008
	Sb	123		ug/L		2369	0.006
	Ba	135		ug/L		1601	0.002
	Ba	137	**0.714**	ug/L	1.305	2815	0.004
	Ho	165		ug/L		13545	0.022
>	Lu	175		ug/L		626869	626869.274
	Tl	205	**0.005**	ug/L	69.273	1989	0.000
	Pb	208	**0.229**	ug/L	0.450	11334	0.017
	Bi	209		ug/L		8402	0.013
	Th	232	**0.049**	ug/L	38.303	3510	0.004
	U	238	**-0.006**	ug/L	5.247	219	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	76.847				
	Mg	24	85.092				
	Al	27	103.851				
	P	31	82.063				
	K	39	91.466				
	Ca	43	86.956				
>	Sc	45		88.0			
	Ti	47	75.893				
	V	51					
	Cr	52	58.005				
	Cr	53					
	Mn	55	103.602				
	Fe	57	94.816				
	Co	59	157.727				
	Ni	60	105.723				
	Cu	63					
	Cu	65	95.623				
	Zn	66	116.221				
	Zn	67					
	Zn	68					
>	Ge	74		85.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	110.235				
	Y	89					
	Mo	98	90.717				
	Ag	107					
	Cd	111	114.002				
	Cd	114					
>	In	115		86.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	89.518				
	Ho	165					
>	Lu	175		88.5			
	Tl	205					
	Pb	208	121.132				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Na	23	ICSA is out of limits
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 01:27:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 5.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.541**	ug/L	1.142	41347	0.106
	Be	9	**17.910**	ug/L	2.065	8621	0.022
	B	11	**17.544**	ug/L	2.456	8996	0.022
	Na	23	**79986.935**	ug/L	2.610	331638859	852.145
	Mg	24	**87477.193**	ug/L	2.329	239206523	614.808
	Al	27	**104014.873**	ug/L	4.416	366730469	942.948
	P	31	**86226.228**	ug/L	1.257	19977908	51.341
	K	39	**89267.225**	ug/L	4.445	484619607	1244.455
	Ca	43	**89016.291**	ug/L	1.517	1242724	3.193
>	Sc	45		ug/L		389069	389069.436
	Ti	47	**1547.426**	ug/L	0.509	1132579	2.910
	V	51	**21.352**	ug/L	2.752	173144	0.425
	Cr	52	**23.295**	ug/L	2.523	147846	0.370
	Cr	53		ug/L		113519	0.014
	Mn	55	**28.422**	ug/L	0.512	282925	0.724
	Fe	57	**99769.769**	ug/L	2.675	21831986	56.111
	Co	59	**21.406**	ug/L	2.926	169597	0.436
	Ni	60	**22.852**	ug/L	1.826	41883	0.107
	Cu	63		ug/L		96563	0.247
	Cu	65	**22.637**	ug/L	2.014	49801	0.127
	Zn	66	**22.923**	ug/L	2.431	33260	0.067
	Zn	67		ug/L		18838	0.012
	Zn	68		ug/L		21732	0.042
>	Ge	74		ug/L		488347	488346.958
	As	75	**20.501**	ug/L	3.271	30109	0.063
	Se	77		ug/L		11207	0.009
	Se	82	**19.340**	ug/L	2.416	3002	0.006
	Kr	83		ug/L		429	0.001
	Sr	88	**25.956**	ug/L	2.112	455843	1.376
	Y	89		ug/L		717	0.002
	Mo	98	**1795.815**	ug/L	0.228	8485446	25.635
	Ag	107	**19.454**	ug/L	2.322	154561	0.467
	Cd	111	**19.913**	ug/L	1.616	40113	0.121
	Cd	114		ug/L		104916	0.317
>	In	115		ug/L		331007	331007.181
	Sn	120	**21.124**	ug/L	1.565	170090	0.513
	Sb	121	**21.156**	ug/L	0.969	141717	0.427
	Sb	123		ug/L		110137	0.332
	Ba	135		ug/L		44251	0.071
	Ba	137	**20.377**	ug/L	1.178	77727	0.124
	Ho	165		ug/L		13358	0.021
>	Lu	175		ug/L		624039	624039.312
	Tl	205	**20.864**	ug/L	1.138	530352	0.847
	Pb	208	**21.830**	ug/L	0.626	992892	1.590
	Bi	209		ug/L		9139	0.014
	Th	232	**22.315**	ug/L	1.168	1245990	1.996
	U	238	**22.980**	ug/L	0.724	1343671	2.152

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	92.705				
	Be	9	89.548				
	B	11	87.719				
	Na	23	79.987				
	Mg	24	87.477				
	Al	27	104.015				
	P	31	86.226				
	K	39	89.267				
	Ca	43	89.016				
>	Sc	45		83.3			
	Ti	47	77.371				
	V	51	106.760				
	Cr	52	99.977				
	Cr	53					
	Mn	55	110.163				
	Fe	57	99.770				
	Co	59	105.787				
	Ni	60	98.036				
	Cu	63					
	Cu	65	96.989				
	Zn	66	96.476				
	Zn	67					
	Zn	68					
>	Ge	74		85.4			
	As	75	102.506				
	Se	77					
	Se	82	96.699				
	Kr	83					
	Sr	88	113.049				
	Y	89					
	Mo	98	89.791				
	Ag	107	97.271				
	Cd	111	97.402				
	Cd	114					
>	In	115		87.1			
	Sn	120	105.621				
	Sb	121	105.778				
	Sb	123					
	Ba	135					
	Ba	137	97.974				
	Ho	165					
>	Lu	175		88.1			
	Tl	205	104.321				
	Pb	208	108.130				
	Bi	209					
	Th	232	111.574				
	U	238	114.899				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Na	23	ICSAB is out of limits
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 01:33:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.856**	ug/L	2.578	121226	0.291
	Be	9	**51.752**	ug/L	3.240	26620	0.064
	B	11	**98.342**	ug/L	3.613	51527	0.122
	Na	23	**4552.550**	ug/L	15.725	20195760	48.501
	Mg	24	**5042.300**	ug/L	2.663	14768916	35.438
	Al	27	**5207.421**	ug/L	7.037	19690007	47.208
	P	31	**4703.749**	ug/L	3.584	1171450	2.801
	K	39	**4332.637**	ug/L	4.484	25671318	60.400
	Ca	43	**4771.309**	ug/L	3.390	71592	0.171
>	Sc	45		ug/L		416580	416580.161
	Ti	47	**49.205**	ug/L	3.521	38889	0.093
	V	51	**52.394**	ug/L	4.403	442610	1.043
	Cr	52	**52.723**	ug/L	2.378	353165	0.838
	Cr	53		ug/L		173110	0.138
	Mn	55	**53.516**	ug/L	2.938	568853	1.362
	Fe	57	**4645.346**	ug/L	3.429	1094022	2.613
	Co	59	**52.672**	ug/L	3.053	446599	1.072
	Ni	60	**52.519**	ug/L	1.808	102895	0.247
	Cu	63		ug/L		246344	0.590
	Cu	65	**50.727**	ug/L	1.756	119188	0.286
	Zn	66	**51.222**	ug/L	2.930	77548	0.150
	Zn	67		ug/L		29593	0.031
	Zn	68		ug/L		56556	0.107
>	Ge	74		ug/L		514672	514672.218
	As	75	**48.752**	ug/L	2.768	76358	0.150
	Se	77		ug/L		14469	0.014
	Se	82	**50.062**	ug/L	2.082	8188	0.016
	Kr	83		ug/L		141	-0.000
	Sr	88	**53.781**	ug/L	1.710	984550	2.852
	Y	89		ug/L		168	0.000
	Mo	98	**49.077**	ug/L	0.791	241922	0.701
	Ag	107	**51.743**	ug/L	1.540	428488	1.241
	Cd	111	**50.768**	ug/L	0.996	106604	0.309
	Cd	114		ug/L		248527	0.720
>	In	115		ug/L		345156	345156.356
	Sn	120	**51.493**	ug/L	1.373	431744	1.250
	Sb	121	**51.330**	ug/L	1.027	357761	1.035
	Sb	123		ug/L		282382	0.817
	Ba	135		ug/L		115385	0.169
	Ba	137	**49.242**	ug/L	1.246	205400	0.301
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		682807	682807.409
	Tl	205	**49.827**	ug/L	1.117	1383033	2.023
	Pb	208	**53.468**	ug/L	1.497	2659287	3.894
	Bi	209		ug/L		957	0.001
	Th	232	**51.536**	ug/L	1.197	3147381	4.609
	U	238	**51.542**	ug/L	1.737	3296507	4.828

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	101.711				
	Be	9	103.504				
	B	11	98.342				
	Na	23	91.051				
	Mg	24	100.846				
	Al	27	103.117				
	P	31	94.075				
	K	39	86.653				
	Ca	43	95.426				
>	Sc	45		89.2			
	Ti	47	98.410				
	V	51	104.788				
	Cr	52	105.446				
	Cr	53					
	Mn	55	107.032				
	Fe	57	92.907				
	Co	59	105.344				
	Ni	60	105.038				
	Cu	63					
	Cu	65	101.454				
	Zn	66	102.443				
	Zn	67					
	Zn	68					
>	Ge	74		90.0			
	As	75	97.504				
	Se	77					
	Se	82	100.123				
	Kr	83					
	Sr	88	107.563				
	Y	89					
	Mo	98	98.154				
	Ag	107	103.486				
	Cd	111	101.536				
	Cd	114					
>	In	115		90.9			
	Sn	120	102.986				
	Sb	121	102.661				
	Sb	123					
	Ba	135					
	Ba	137	98.484				
	Ho	165					
>	Lu	175		96.4			
	Tl	205	99.655				
	Pb	208	106.936				
	Bi	209					
	Th	232	103.073				
	U	238	103.085				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 01:40:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	ug/L	19.141	149	0.000
	Be	9	**0.002**	ug/L	728.636	25	0.000
	B	11	**2.533**	ug/L	22.205	1848	0.003
	Na	23	**2.396**	ug/L	51.756	27360	0.026
	Mg	24	**0.956**	ug/L	114.511	6668	0.007
	Al	27	**2.695**	ug/L	31.242	17010	0.024
	P	31	**1.126**	ug/L	68.843	5507	0.001
	K	39	**5.504**	ug/L	74.073	532758	0.077
	Ca	43	**1.125**	ug/L	68.383	341	0.000
>	Sc	45		ug/L		416774	416774.349
	Ti	47	**0.051**	ug/L	49.426	400	0.000
	V	51	**-0.473**	ug/L	18.561	4423	-0.009
	Cr	52	**-0.473**	ug/L	9.957	914	-0.008
	Cr	53		ug/L		108799	-0.017
	Mn	55	**-0.012**	ug/L	34.432	1356	-0.000
	Fe	57	**-0.949**	ug/L	26.247	5940	-0.001
	Co	59	**0.004**	ug/L	38.201	167	0.000
	Ni	60	**0.010**	ug/L	18.742	146	0.000
	Cu	63		ug/L		387	-0.000
	Cu	65	**0.001**	ug/L	229.755	233	0.000
	Zn	66	**-0.024**	ug/L	53.198	599	-0.000
	Zn	67		ug/L		12866	-0.002
	Zn	68		ug/L		1437	-0.000
>	Ge	74		ug/L		521240	521240.111
	As	75	**0.221**	ug/L	53.128	-323	0.001
	Se	77		ug/L		6939	-0.001
	Se	82	**0.016**	ug/L	370.605	3	0.000
	Kr	83		ug/L		144	-0.000
	Sr	88	**0.005**	ug/L	47.801	374	0.000
	Y	89		ug/L		70	-0.000
	Mo	98	**0.063**	ug/L	5.593	450	0.001
	Ag	107	**0.006**	ug/L	14.955	132	0.000
	Cd	111	**0.005**	ug/L	128.110	43	0.000
	Cd	114		ug/L		91	0.000
>	In	115		ug/L		355440	355440.489
	Sn	120	**0.011**	ug/L	35.866	490	0.000
	Sb	121	**0.155**	ug/L	8.034	1659	0.003
	Sb	123		ug/L		1327	0.003
	Ba	135		ug/L		62	0.000
	Ba	137	**0.004**	ug/L	49.014	105	0.000
	Ho	165		ug/L		27	0.000
>	Lu	175		ug/L		691627	691626.720
	Tl	205	**0.224**	ug/L	18.598	8345	0.009
	Pb	208	**0.006**	ug/L	37.321	1281	0.000
	Bi	209		ug/L		617	0.000
	Th	232	**0.021**	ug/L	5.469	2137	0.002
	U	238	**0.007**	ug/L	32.882	1054	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, February 25, 2010 01:46:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 10.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**908.148**	ug/L	2.424	1874486	5.194
	Be	9	**951.375**	ug/L	1.719	423800	1.174
	B	11	**1.566**	ug/L	15.177	1165	0.002
	Na	23	**48963.331**	ug/L	5.462	188368267	521.633
	Mg	24	**52502.636**	ug/L	11.268	133033673	369.000
	Al	27	**54937.246**	ug/L	2.656	179751189	498.034
	P	31	**21975.073**	ug/L	2.357	4726633	13.085
	K	39	**47751.459**	ug/L	3.116	240644107	665.693
	Ca	43	**47390.870**	ug/L	1.958	613793	1.700
>	Sc	45		ug/L		361004	361003.669
	Ti	47	**43.749**	ug/L	1.635	30006	0.082
	V	51	**904.479**	ug/L	2.586	6505041	18.006
	Cr	52	**894.043**	ug/L	3.388	5132659	14.214
	Cr	53		ug/L		774563	1.869
	Mn	55	**965.413**	ug/L	1.448	8874170	24.579
	Fe	57	**49460.687**	ug/L	0.018	10047325	27.817
	Co	59	**879.775**	ug/L	2.549	6462298	17.907
	Ni	60	**855.509**	ug/L	3.761	1450545	4.019
	Cu	63		ug/L		3370054	9.337
	Cu	65	**809.449**	ug/L	1.865	1645282	4.558
	Zn	66	**2256.169**	ug/L	0.467	2956197	6.585
	Zn	67		ug/L		473424	1.028
	Zn	68		ug/L		1846360	4.111
>	Ge	74		ug/L		448846	448845.629
	As	75	**816.633**	ug/L	0.627	1125003	2.508
	Se	77		ug/L		55858	0.110
	Se	82	**459.331**	ug/L	2.018	65518	0.146
	Kr	83		ug/L		270	0.000
	Sr	88	**991.112**	ug/L	0.957	16759897	52.560
	Y	89		ug/L		613	0.002
	Mo	98	**915.334**	ug/L	1.384	4166215	13.066
	Ag	107	**211.925**	ug/L	0.351	1621230	5.084
	Cd	111	**830.235**	ug/L	0.459	1609938	5.049
	Cd	114		ug/L		3840458	12.044
>	In	115		ug/L		318855	318855.037
	Sn	120	**888.428**	ug/L	0.778	6876169	21.565
	Sb	121	**222.617**	ug/L	1.988	1431814	4.489
	Sb	123		ug/L		1131261	3.547
	Ba	135		ug/L		1734671	2.749
	Ba	137	**844.735**	ug/L	0.281	3255477	5.159
	Ho	165		ug/L		194	0.000
>	Lu	175		ug/L		631074	631073.614
	Tl	205	**466.428**	ug/L	3.113	11948443	18.934
	Pb	208	**4781.042**	ug/L	1.641	219700515	348.163
	Bi	209		ug/L		6701	0.010
	Th	232	**2537.017**	ug/L	2.540	143156342	226.877
	U	238	**5256.734**	ug/L	0.889	310701302	492.353

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	90.815				
	Be	9	95.138				
	B	11					
	Na	23	97.927				
	Mg	24	105.005				
	Al	27	109.874				
	P	31	87.900				
	K	39	95.503				
	Ca	43	94.782				
>	Sc	45		77.3			
	Ti	47					
	V	51	90.448				
	Cr	52	89.404				
	Cr	53					
	Mn	55	96.541				
	Fe	57	98.921				
	Co	59	87.977				
	Ni	60	85.551				
	Cu	63					
	Cu	65	80.945				
	Zn	66	90.247				
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75	81.663				
	Se	77					
	Se	82	91.866				
	Kr	83					
	Sr	88	99.111				
	Y	89					
	Mo	98	91.533				
	Ag	107	84.770				
	Cd	111	83.024				
	Cd	114					
>	In	115		83.9			
	Sn	120	88.843				
	Sb	121	89.047				
	Sb	123					
	Ba	135					
	Ba	137	84.474				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	93.286				
	Pb	208	95.621				
	Bi	209					
	Th	232	101.481				
	U	238	105.135				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	P	31	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	

QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Sb	121LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, February 25, 2010 01:52:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 11.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.196**	ug/L	0.675	124156	0.310
	Be	9	**54.193**	ug/L	1.593	26794	0.067
	B	11	**102.665**	ug/L	4.172	51685	0.128
	Na	23	**4788.488**	ug/L	4.856	20434884	51.014
	Mg	24	**5400.192**	ug/L	4.677	15194288	37.954
	Al	27	**5449.235**	ug/L	5.070	19779169	49.400
	P	31	**4764.081**	ug/L	0.169	1140414	2.837
	K	39	**5151.257**	ug/L	13.117	29223170	71.813
	Ca	43	**4933.715**	ug/L	1.733	71145	0.177
>	Sc	45		ug/L		400258	400258.051
	Ti	47	**50.075**	ug/L	2.048	38038	0.094
	V	51	**52.375**	ug/L	2.015	425346	1.043
	Cr	52	**52.430**	ug/L	1.642	337549	0.834
	Cr	53		ug/L		165024	0.135
	Mn	55	**54.510**	ug/L	0.980	556900	1.388
	Fe	57	**4766.520**	ug/L	1.578	1078880	2.681
	Co	59	**53.611**	ug/L	1.011	436890	1.091
	Ni	60	**53.600**	ug/L	1.754	100915	0.252
	Cu	63		ug/L		236140	0.589
	Cu	65	**52.077**	ug/L	1.536	117580	0.293
	Zn	66	**52.112**	ug/L	1.547	76044	0.152
	Zn	67		ug/L		29932	0.034
	Zn	68		ug/L		55232	0.108
>	Ge	74		ug/L		496057	496057.360
	As	75	**48.906**	ug/L	0.967	73856	0.150
	Se	77		ug/L		12992	0.012
	Se	82	**49.965**	ug/L	2.870	7876	0.016
	Kr	83		ug/L		137	-0.000
	Sr	88	**54.271**	ug/L	2.485	961158	2.878
	Y	89		ug/L		119	0.000
	Mo	98	**49.006**	ug/L	3.544	233635	0.700
	Ag	107	**52.610**	ug/L	2.993	421432	1.262
	Cd	111	**51.427**	ug/L	2.143	104455	0.313
	Cd	114		ug/L		244311	0.732
>	In	115		ug/L		334023	334023.113
	Sn	120	**52.691**	ug/L	3.573	427313	1.279
	Sb	121	**54.043**	ug/L	3.070	364319	1.090
	Sb	123		ug/L		286486	0.857
	Ba	135		ug/L		115314	0.174
	Ba	137	**49.566**	ug/L	2.291	200991	0.303
	Ho	165		ug/L		59	0.000
>	Lu	175		ug/L		663851	663850.793
	Tl	205	**52.389**	ug/L	2.109	1413544	2.127
	Pb	208	**55.266**	ug/L	1.770	2672392	4.025
	Bi	209		ug/L		902	0.001
	Th	232	**53.892**	ug/L	1.577	3199837	4.819
	U	238	**55.370**	ug/L	0.825	3443184	5.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	108.391				
	Be	9	108.386				
	B	11	102.665				
	Na	23	95.770				
	Mg	24	108.004				
	Al	27	107.906				
	P	31	95.282				
	K	39	103.025				
	Ca	43	98.674				
>	Sc	45		85.7			
	Ti	47	100.150				
	V	51	104.750				
	Cr	52	104.861				
	Cr	53					
	Mn	55	109.021				
	Fe	57	95.330				
	Co	59	107.223				
	Ni	60	107.200				
	Cu	63					
	Cu	65	104.154				
	Zn	66	104.223				
	Zn	67					
	Zn	68					
>	Ge	74		86.7			
	As	75	97.812				
	Se	77					
	Se	82	99.930				
	Kr	83					
	Sr	88	108.542				
	Y	89					
	Mo	98	98.011				
	Ag	107	105.220				
	Cd	111	102.854				
	Cd	114					
>	In	115		87.9			
	Sn	120	105.383				
	Sb	121	108.087				
	Sb	123					
	Ba	135					
	Ba	137	99.132				
	Ho	165					
>	Lu	175		93.7			
	Tl	205	104.778				
	Pb	208	110.532				
	Bi	209					
	Th	232	107.784				
	U	238	110.740				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, February 25, 2010 01:58:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 12.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	ug/L	10.197	299	0.000
	Be	9	**0.018**	ug/L	51.844	33	0.000
	B	11	**2.579**	ug/L	15.125	1884	0.003
	Na	23	**1.316**	ug/L	84.987	22685	0.014
	Mg	24	**0.489**	ug/L	108.302	5334	0.003
	Al	27	**1.173**	ug/L	112.531	11338	0.011
	P	31	**1.722**	ug/L	86.879	5697	0.001
	K	39	**3.328**	ug/L	55.503	524112	0.046
	Ca	43	**0.968**	ug/L	59.645	341	0.000
>	Sc	45		ug/L		419767	419767.140
	Ti	47	**0.004**	ug/L	877.318	365	0.000
	V	51	**-1.017**	ug/L	82.790	-111	-0.020
	Cr	52	**-0.487**	ug/L	21.332	828	-0.008
	Cr	53		ug/L		109105	-0.018
	Mn	55	**-0.010**	ug/L	62.129	1378	-0.000
	Fe	57	**-2.374**	ug/L	42.893	5645	-0.001
	Co	59	**0.017**	ug/L	11.866	281	0.000
	Ni	60	**0.018**	ug/L	17.750	162	0.000
	Cu	63		ug/L		554	0.000
	Cu	65	**0.028**	ug/L	53.165	297	0.000
	Zn	66	**0.008**	ug/L	100.614	644	0.000
	Zn	67		ug/L		13924	0.000
	Zn	68		ug/L		1632	0.000
>	Ge	74		ug/L		518179	518178.770
	As	75	**0.331**	ug/L	97.478	-143	0.001
	Se	77		ug/L		6369	-0.002
	Se	82	**0.194**	ug/L	18.296	32	0.000
	Kr	83		ug/L		147	-0.000
	Sr	88	**0.016**	ug/L	25.521	573	0.001
	Y	89		ug/L		59	-0.000
	Mo	98	**0.086**	ug/L	12.447	565	0.001
	Ag	107	**0.009**	ug/L	7.425	155	0.000
	Cd	111	**0.019**	ug/L	49.545	72	0.000
	Cd	114		ug/L		158	0.000
>	In	115		ug/L		354160	354159.678
	Sn	120	**0.048**	ug/L	27.503	801	0.001
	Sb	121	**0.877**	ug/L	10.887	6799	0.018
	Sb	123		ug/L		5313	0.014
	Ba	135		ug/L		88	0.000
	Ba	137	**0.015**	ug/L	32.187	150	0.000
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		692811	692811.033
	Tl	205	**0.297**	ug/L	15.828	10425	0.012
	Pb	208	**0.072**	ug/L	19.153	4624	0.005
	Bi	209		ug/L		573	-0.000
	Th	232	**0.062**	ug/L	6.357	4669	0.006
	U	238	**0.087**	ug/L	17.296	6259	0.008

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 03:06:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.465**	**ug/L**	1.954	118632	0.306
	Be	9	**53.925**	**ug/L**	1.997	25821	0.067
	B	11	**99.750**	**ug/L**	1.592	48652	0.124
	Na	23	**4455.631**	**ug/L**	3.102	18422685	47.468
	Mg	24	**4776.217**	**ug/L**	5.396	13019219	33.568
	Al	27	**5033.646**	**ug/L**	3.899	17701688	45.633
	P	31	**4544.170**	**ug/L**	0.649	1053826	2.706
	K	39	**4592.157**	**ug/L**	5.447	25279389	64.018
	Ca	43	**4816.015**	**ug/L**	1.923	67269	0.173
>	Sc	45		**ug/L**		387700	387700.329
	Ti	47	**49.528**	**ug/L**	3.202	36438	0.093
	V	51	**49.899**	**ug/L**	3.841	392794	0.993
	Cr	52	**51.839**	**ug/L**	1.935	323304	0.824
	Cr	53		**ug/L**		170480	0.162
	Mn	55	**54.104**	**ug/L**	2.127	535329	1.377
	Fe	57	**4692.131**	**ug/L**	2.583	1028649	2.639
	Co	59	**52.684**	**ug/L**	1.709	415824	1.072
	Ni	60	**52.046**	**ug/L**	2.538	94908	0.245
	Cu	63		**ug/L**		227636	0.586
	Cu	65	**51.237**	**ug/L**	1.995	112052	0.288
	Zn	66	**50.843**	**ug/L**	0.318	71998	0.148
	Zn	67		**ug/L**		29748	0.035
	Zn	68		**ug/L**		51891	0.105
>	Ge	74		**ug/L**		481221	481220.561
	As	75	**47.765**	**ug/L**	1.495	69952	0.147
	Se	77		**ug/L**		13474	0.014
	Se	82	**49.353**	**ug/L**	3.993	7546	0.016
	Kr	83		**ug/L**		134	-0.000
	Sr	88	**52.285**	**ug/L**	2.686	918989	2.773
	Y	89		**ug/L**		155	0.000
	Mo	98	**47.993**	**ug/L**	2.726	227104	0.685
	Ag	107	**51.141**	**ug/L**	2.709	406585	1.227
	Cd	111	**49.932**	**ug/L**	3.069	100630	0.304
	Cd	114		**ug/L**		235139	0.709
>	In	115		**ug/L**		331469	331469.489
	Sn	120	**52.088**	**ug/L**	3.245	419230	1.264
	Sb	121	**51.190**	**ug/L**	3.297	342473	1.032
	Sb	123		**ug/L**		271371	0.818
	Ba	135		**ug/L**		110871	0.165
	Ba	137	**48.101**	**ug/L**	0.597	197420	0.294
	Ho	165		**ug/L**		62	0.000
>	Lu	175		**ug/L**		671772	671772.270
	Tl	205	**50.110**	**ug/L**	2.090	1368390	2.034
	Pb	208	**53.590**	**ug/L**	2.298	2621957	3.902
	Bi	209		**ug/L**		848	0.000
	Th	232	**50.971**	**ug/L**	1.947	3062468	4.558
	U	238	**51.964**	**ug/L**	0.543	3270061	4.867

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.929				
	Be	9	107.850				
	B	11	99.750				
	Na	23	89.113				
	Mg	24	95.524				
	Al	27	99.676				
	P	31	90.883				
	K	39	91.843				
	Ca	43	96.320				
>	Sc	45		83.0			
	Ti	47	99.055				
	V	51	99.799				
	Cr	52	103.679				
	Cr	53					
	Mn	55	108.207				
	Fe	57	93.843				
	Co	59	105.369				
	Ni	60	104.092				
	Cu	63					
	Cu	65	102.474				
	Zn	66	101.686				
	Zn	67					
	Zn	68					
>	Ge	74		84.1			
	As	75	95.529				
	Se	77					
	Se	82	98.706				
	Kr	83					
	Sr	88	104.570				
	Y	89					
	Mo	98	95.986				
	Ag	107	102.281				
	Cd	111	99.864				
	Cd	114					
>	In	115		87.3			
	Sn	120	104.176				
	Sb	121	102.380				
	Sb	123					
	Ba	135					
	Ba	137	96.202				
	Ho	165					
>	Lu	175		94.8			
	Tl	205	100.221				
	Pb	208	107.179				
	Bi	209					
	Th	232	101.942				
	U	238	103.927				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 03:12:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.002	ug/L	181.797	93	-0.000
	Be	9	0.013	ug/L	92.819	29	0.000
	B	11	2.538	ug/L	12.464	1751	0.003
	Na	23	0.699	ug/L	252.559	18680	0.007
	Mg	24	-0.119	ug/L	174.163	3334	-0.001
	Al	27	0.522	ug/L	164.908	8336	0.005
	P	31	1.329	ug/L	32.453	5261	0.001
	K	39	7.771	ug/L	109.355	516903	0.108
	Ca	43	2.269	ug/L	113.069	339	0.000
>	Sc	45		ug/L		394424	394423.568
	Ti	47	0.008	ug/L	876.599	346	0.000
	V	51	-1.188	ug/L	23.281	-1433	-0.024
	Cr	52	-0.577	ug/L	10.875	218	-0.009
	Cr	53		ug/L		112822	0.008
	Mn	55	-0.016	ug/L	16.502	1237	-0.000
	Fe	57	-2.116	ug/L	7.287	5362	-0.001
	Co	59	0.004	ug/L	23.457	153	0.000
	Ni	60	0.003	ug/L	344.680	124	0.000
	Cu	63		ug/L		385	-0.000
	Cu	65	-0.003	ug/L	129.972	211	-0.000
	Zn	66	-0.014	ug/L	215.355	588	-0.000
	Zn	67		ug/L		13821	0.001
	Zn	68		ug/L		1600	0.000
>	Ge	74		ug/L		497771	497770.977
	As	75	0.140	ug/L	10.133	-434	0.000
	Se	77		ug/L		6583	-0.001
	Se	82	-0.002	ug/L	3289.256	-0	-0.000
	Kr	83		ug/L		151	0.000
	Sr	88	0.003	ug/L	27.952	314	0.000
	Y	89		ug/L		62	-0.000
	Mo	98	0.020	ug/L	18.977	229	0.000
	Ag	107	0.003	ug/L	65.382	102	0.000
	Cd	111	0.007	ug/L	30.382	44	0.000
	Cd	114		ug/L		74	0.000
>	In	115		ug/L		347292	347291.835
	Sn	120	0.009	ug/L	15.923	465	0.000
	Sb	121	0.142	ug/L	15.937	1529	0.003
	Sb	123		ug/L		1169	0.002
	Ba	135		ug/L		65	0.000
	Ba	137	-0.000	ug/L	430.105	87	-0.000
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		688217	688216.705
	Tl	205	0.228	ug/L	22.575	8414	0.009
	Pb	208	0.005	ug/L	6.134	1229	0.000
	Bi	209		ug/L		507	-0.000
	Th	232	0.025	ug/L	11.434	2360	0.002
	U	238	0.006	ug/L	7.177	1001	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		84.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:01:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.297**	ug/L	0.876	110710	0.305
	Be	9	**54.146**	ug/L	3.019	24265	0.067
	B	11	**100.480**	ug/L	3.587	45859	0.125
	Na	23	**4171.471**	ug/L	2.958	16138293	44.441
	Mg	24	**4586.782**	ug/L	5.716	11694894	32.237
	Al	27	**5055.741**	ug/L	4.486	16631740	45.833
	P	31	**4577.718**	ug/L	2.256	993543	2.726
	K	39	**4802.389**	ug/L	2.715	24743549	66.949
	Ca	43	**4846.935**	ug/L	0.926	63379	0.174
>	Sc	45		ug/L		362947	362947.495
	Ti	47	**49.047**	ug/L	3.723	33775	0.092
	V	51	**50.336**	ug/L	6.076	370668	1.002
	Cr	52	**51.846**	ug/L	1.989	302704	0.824
	Cr	53		ug/L		167069	0.183
	Mn	55	**53.537**	ug/L	2.899	495800	1.363
	Fe	57	**4713.288**	ug/L	3.470	967035	2.651
	Co	59	**53.158**	ug/L	2.348	392706	1.082
	Ni	60	**52.434**	ug/L	1.328	89505	0.246
	Cu	63		ug/L		213057	0.586
	Cu	65	**51.062**	ug/L	1.162	104532	0.287
	Zn	66	**50.557**	ug/L	2.303	67110	0.148
	Zn	67		ug/L		27645	0.035
	Zn	68		ug/L		49177	0.106
>	Ge	74		ug/L		451139	451139.409
	As	75	**48.399**	ug/L	2.181	66454	0.149
	Se	77		ug/L		13618	0.016
	Se	82	**50.015**	ug/L	0.660	7172	0.016
	Kr	83		ug/L		136	-0.000
	Sr	88	**53.795**	ug/L	2.400	874162	2.853
	Y	89		ug/L		146	0.000
	Mo	98	**48.885**	ug/L	0.506	213906	0.698
	Ag	107	**51.628**	ug/L	1.230	379525	1.239
	Cd	111	**50.511**	ug/L	0.583	94137	0.307
	Cd	114		ug/L		218241	0.712
>	In	115		ug/L		306374	306373.728
	Sn	120	**52.632**	ug/L	1.336	391718	1.278
	Sb	121	**52.095**	ug/L	0.572	322301	1.050
	Sb	123		ug/L		255324	0.832
	Ba	135		ug/L		104261	0.162
	Ba	137	**47.032**	ug/L	1.624	184518	0.287
	Ho	165		ug/L		64	0.000
>	Lu	175		ug/L		642286	642285.524
	Tl	205	**47.409**	ug/L	2.192	1238198	1.924
	Pb	208	**53.506**	ug/L	1.974	2502884	3.896
	Bi	209		ug/L		767	0.000
	Th	232	**50.854**	ug/L	1.982	2920992	4.548
	U	238	**52.228**	ug/L	2.841	3141856	4.892

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.593				
	Be	9	108.292				
	B	11	100.480				
	Na	23	83.429				
	Mg	24	91.736				
	Al	27	100.114				
	P	31	91.554				
	K	39	96.048				
	Ca	43	96.939				
>	Sc	45		77.7			
	Ti	47	98.095				
	V	51	100.671				
	Cr	52	103.692				
	Cr	53					
	Mn	55	107.074				
	Fe	57	94.266				
	Co	59	106.317				
	Ni	60	104.868				
	Cu	63					
	Cu	65	102.124				
	Zn	66	101.114				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.798				
	Se	77					
	Se	82	100.031				
	Kr	83					
	Sr	88	107.591				
	Y	89					
	Mo	98	97.769				
	Ag	107	103.257				
	Cd	111	101.022				
	Cd	114					
>	In	115		80.7			
	Sn	120	105.263				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	94.064				
	Ho	165					
>	Lu	175		90.7			
	Tl	205	94.818				
	Pb	208	107.012				
	Bi	209					
	Th	232	101.709				
	U	238	104.456				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 04:07:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.007	ug/L	70.600	75	-0.000
	Be	9	0.001	ug/L	427.705	21	0.000
	B	11	2.858	ug/L	13.649	1735	0.004
	Na	23	2.439	ug/L	61.149	23687	0.026
	Mg	24	-0.394	ug/L	209.953	2334	-0.003
	Al	27	0.134	ug/L	261.103	6335	0.001
	P	31	1.182	ug/L	136.933	4755	0.001
	K	39	5.490	ug/L	106.207	458943	0.077
	Ca	43	3.046	ug/L	45.207	318	0.000
>	Sc	45		ug/L		358890	358890.056
	Ti	47	0.028	ug/L	71.080	328	0.000
	V	51	-1.351	ug/L	6.580	-2470	-0.027
	Cr	52	-0.516	ug/L	15.492	547	-0.008
	Cr	53		ug/L		104474	0.013
	Mn	55	-0.015	ug/L	1.320	1138	-0.000
	Fe	57	-3.066	ug/L	9.844	4687	-0.002
	Co	59	0.004	ug/L	29.358	141	0.000
	Ni	60	0.018	ug/L	28.015	139	0.000
	Cu	63		ug/L		370	0.000
	Cu	65	-0.003	ug/L	222.559	192	-0.000
	Zn	66	-0.088	ug/L	17.806	449	-0.000
	Zn	67		ug/L		12172	-0.001
	Zn	68		ug/L		1411	0.000
>	Ge	74		ug/L		466737	466736.805
	As	75	0.324	ug/L	144.041	-140	0.001
	Se	77		ug/L		6273	-0.001
	Se	82	0.082	ug/L	142.286	12	0.000
	Kr	83		ug/L		123	-0.000
	Sr	88	0.003	ug/L	29.478	298	0.000
	Y	89		ug/L		55	-0.000
	Mo	98	0.024	ug/L	22.589	233	0.000
	Ag	107	0.003	ug/L	88.056	98	0.000
	Cd	111	0.002	ug/L	268.427	32	0.000
	Cd	114		ug/L		77	0.000
>	In	115		ug/L		324681	324681.252
	Sn	120	0.012	ug/L	31.440	456	0.000
	Sb	121	0.144	ug/L	16.700	1443	0.003
	Sb	123		ug/L		1182	0.002
	Ba	135		ug/L		58	0.000
	Ba	137	-0.000	ug/L	774.420	84	-0.000
	Ho	165		ug/L		23	0.000
>	Lu	175		ug/L		664658	664658.160
	Tl	205	1.290	ug/L	8.742	36744	0.052
	Pb	208	0.004	ug/L	43.036	1148	0.000
	Bi	209		ug/L		514	-0.000
	Th	232	0.027	ug/L	8.660	2372	0.002
	U	238	0.006	ug/L	26.064	963	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			76.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			81.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			85.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.8		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 04:14:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032562.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	ug/L	22.151	128	0.000
	Be	9	**-0.009**	ug/L	29.117	17	-0.000
	B	11	**1.401**	ug/L	17.463	1134	0.002
	Na	23	**4.350**	ug/L	35.523	32371	0.046
	Mg	24	**-0.560**	ug/L	68.232	2000	-0.004
	Al	27	**7.783**	ug/L	4.956	32704	0.071
	P	31	**6.164**	ug/L	43.133	6087	0.004
	K	39	**21.005**	ug/L	11.696	561489	0.293
	Ca	43	**30.231**	ug/L	3.138	699	0.001
>	Sc	45		ug/L		375746	375745.796
	Ti	47	**0.449**	ug/L	5.663	641	0.001
	V	51	**-7.066**	ug/L	16.943	-45278	-0.141
	Cr	52	**-0.014**	ug/L	288.062	3574	-0.000
	Cr	53		ug/L		299123	0.519
	Mn	55	**0.270**	ug/L	5.227	3919	0.007
	Fe	57	**19.815**	ug/L	3.550	9741	0.011
	Co	59	**-0.002**	ug/L	64.075	105	-0.000
	Ni	60	**0.059**	ug/L	20.296	218	0.000
	Cu	63		ug/L		660	0.001
	Cu	65	**0.067**	ug/L	16.819	348	0.000
	Zn	66	**1.501**	ug/L	2.297	2515	0.004
	Zn	67		ug/L		55765	0.097
	Zn	68		ug/L		4784	0.008
>	Ge	74		ug/L		449040	449040.038
	As	75	**-1.259**	ug/L	75.403	-2320	-0.004
	Se	77		ug/L		21464	0.033
	Se	82	**0.095**	ug/L	50.908	14	0.000
	Kr	83		ug/L		116	-0.000
	Sr	88	**0.103**	ug/L	3.988	1818	0.005
	Y	89		ug/L		82	0.000
	Mo	98	**0.030**	ug/L	15.255	234	0.000
	Ag	107	**-0.001**	ug/L	75.904	61	-0.000
	Cd	111	**-0.003**	ug/L	179.448	20	-0.000
	Cd	114		ug/L		35	-0.000
>	In	115		ug/L		291215	291215.233
	Sn	120	**0.147**	ug/L	3.602	1361	0.004
	Sb	121	**0.093**	ug/L	28.490	990	0.002
	Sb	123		ug/L		800	0.002
	Ba	135		ug/L		131	0.000
	Ba	137	**0.040**	ug/L	11.205	230	0.000
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		620339	620338.726
	Tl	205	**0.831**	ug/L	3.621	22760	0.034
	Pb	208	**0.012**	ug/L	8.330	1401	0.001
	Bi	209		ug/L		329	-0.000
	Th	232	**0.032**	ug/L	27.318	2528	0.003
	U	238	**-0.006**	ug/L	5.233	219	-0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			80.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			78.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			76.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			87.6		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 04:20:19
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032563.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.569**	ug/L	1.851	104603	0.283
	Be	9	**53.487**	ug/L	0.551	24361	0.066
	B	11	**98.988**	ug/L	1.738	45918	0.123
	Na	23	**1723.869**	ug/L	3.011	6784493	18.365
	Mg	24	**1958.303**	ug/L	5.903	5078942	13.763
	Al	27	**2003.800**	ug/L	6.081	6705005	18.165
	P	31	**1877.731**	ug/L	2.492	416782	1.118
	K	39	**1949.349**	ug/L	7.980	10459592	27.175
	Ca	43	**1885.290**	ug/L	1.577	25220	0.068
>	Sc	45		ug/L		368745	368744.994
	Ti	47	**42.497**	ug/L	2.978	29779	0.080
	V	51	**38.420**	ug/L	4.356	289276	0.765
	Cr	52	**47.878**	ug/L	3.131	284186	0.761
	Cr	53		ug/L		324168	0.602
	Mn	55	**50.570**	ug/L	2.495	475927	1.287
	Fe	57	**1870.062**	ug/L	1.803	393191	1.052
	Co	59	**49.544**	ug/L	3.461	371830	1.008
	Ni	60	**48.465**	ug/L	2.757	84051	0.228
	Cu	63		ug/L		202473	0.548
	Cu	65	**47.455**	ug/L	2.259	98703	0.267
	Zn	66	**49.371**	ug/L	2.096	64352	0.144
	Zn	67		ug/L		66996	0.125
	Zn	68		ug/L		49465	0.109
>	Ge	74		ug/L		442864	442864.089
	As	75	**45.802**	ug/L	0.542	61708	0.141
	Se	77		ug/L		25591	0.043
	Se	82	**49.700**	ug/L	0.975	6997	0.016
	Kr	83		ug/L		127	-0.000
	Sr	88	**52.381**	ug/L	1.355	801820	2.778
	Y	89		ug/L		124	0.000
	Mo	98	**48.629**	ug/L	2.407	200393	0.694
	Ag	107	**51.470**	ug/L	2.157	356353	1.235
	Cd	111	**48.569**	ug/L	2.043	85251	0.295
	Cd	114		ug/L		197890	0.685
>	In	115		ug/L		288597	288597.458
	Sn	120	**50.304**	ug/L	2.798	352607	1.221
	Sb	121	**52.327**	ug/L	2.756	304870	1.055
	Sb	123		ug/L		240133	0.831
	Ba	135		ug/L		92888	0.152
	Ba	137	**44.194**	ug/L	2.352	165053	0.270
	Ho	165		ug/L		52	0.000
>	Lu	175		ug/L		611402	611401.608
	Tl	205	**43.929**	ug/L	5.775	1091482	1.783
	Pb	208	**52.668**	ug/L	1.824	2345327	3.835
	Bi	209		ug/L		1852324	3.029
	Th	232	**47.940**	ug/L	2.144	2621285	4.287
	U	238	**49.516**	ug/L	2.470	2835286	4.638

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			79.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			77.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			76.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			86.3		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245965001
Sample Date/Time: Thursday, February 25, 2010 04:38:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\245965001.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.121**	**ug/L**	14.200	342	0.001
	Be	9	**-0.003**	**ug/L**	560.931	20	-0.000
	B	11	**18.337**	**ug/L**	1.675	8749	0.023
	Na	23	**92.785**	**ug/L**	3.700	373147	0.988
	Mg	24	**4.557**	**ug/L**	36.551	15008	0.032
	Al	27	**21.167**	**ug/L**	17.587	75536	0.192
	P	31	**7.994**	**ug/L**	15.725	6279	0.005
	K	39	**218.840**	**ug/L**	3.598	1543092	3.051
	Ca	43	**47.151**	**ug/L**	13.763	895	0.002
>	Sc	45		**ug/L**		362863	362863.027
	Ti	47	**0.872**	**ug/L**	4.653	908	0.002
	V	51	**-6.286**	**ug/L**	9.059	-38145	-0.125
	Cr	52	**0.314**	**ug/L**	70.409	5348	0.005
	Cr	53		**ug/L**		304190	0.561
	Mn	55	**0.537**	**ug/L**	1.229	6244	0.014
	Fe	57	**16.645**	**ug/L**	2.886	8762	0.009
	Co	59	**0.006**	**ug/L**	14.668	156	0.000
	Ni	60	**0.151**	**ug/L**	6.891	367	0.001
	Cu	63		**ug/L**		2570	0.006
	Cu	65	**0.509**	**ug/L**	8.148	1239	0.003
	Zn	66	**1.406**	**ug/L**	3.515	2297	0.004
	Zn	67		**ug/L**		59279	0.111
	Zn	68		**ug/L**		4822	0.008
>	Ge	74		**ug/L**		431644	431643.921
	As	75	**-1.714**	**ug/L**	32.473	-2837	-0.005
	Se	77		**ug/L**		22065	0.037
	Se	82	**-0.003**	**ug/L**	5240.051	-0	-0.000
	Kr	83		**ug/L**		132	0.000
	Sr	88	**0.191**	**ug/L**	3.537	3078	0.010
	Y	89		**ug/L**		218	0.001
	Mo	98	**0.046**	**ug/L**	13.385	292	0.001
	Ag	107	**0.003**	**ug/L**	22.215	87	0.000
	Cd	111	**0.002**	**ug/L**	275.413	28	0.000
	Cd	114		**ug/L**		33	-0.000
>	In	115		**ug/L**		282899	282899.208
	Sn	120	**0.386**	**ug/L**	4.590	2962	0.009
	Sb	121	**-0.005**	**ug/L**	37.115	404	-0.000
	Sb	123		**ug/L**		315	-0.000
	Ba	135		**ug/L**		1794	0.003
	Ba	137	**0.835**	**ug/L**	4.334	3156	0.005
	Ho	165		**ug/L**		36	0.000
>	Lu	175		**ug/L**		604228	604227.989
	Tl	205	**0.503**	**ug/L**	4.506	14143	0.020
	Pb	208	**0.055**	**ug/L**	3.927	3284	0.004
	Bi	209		**ug/L**		356	-0.000
	Th	232	**0.007**	**ug/L**	8.400	1088	0.001
	U	238	**-0.002**	**ug/L**	15.290	452	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		77.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		75.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		74.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		85.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:57:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.506**	ug/L	0.339	109582	0.306
	Be	9	**54.515**	ug/L	0.898	24094	0.067
	B	11	**99.038**	ug/L	1.385	44587	0.123
	Na	23	**4616.235**	ug/L	9.139	17595928	49.179
	Mg	24	**5036.190**	ug/L	4.456	12664742	35.395
	Al	27	**5078.636**	ug/L	3.934	16474220	46.040
	P	31	**4592.433**	ug/L	3.138	982657	2.734
	K	39	**4762.234**	ug/L	3.561	24180152	66.389
	Ca	43	**4847.075**	ug/L	1.802	62484	0.174
>	Sc	45		ug/L		357833	357833.029
	Ti	47	**49.687**	ug/L	0.710	33742	0.093
	V	51	**50.563**	ug/L	4.728	367223	1.007
	Cr	52	**51.936**	ug/L	2.975	298873	0.826
	Cr	53		ug/L		170179	0.198
	Mn	55	**54.215**	ug/L	1.908	495131	1.380
	Fe	57	**4774.446**	ug/L	3.694	965925	2.685
	Co	59	**53.053**	ug/L	2.866	386422	1.080
	Ni	60	**53.199**	ug/L	1.625	89530	0.250
	Cu	63		ug/L		210242	0.587
	Cu	65	**51.309**	ug/L	2.290	103546	0.289
	Zn	66	**49.773**	ug/L	1.522	66136	0.145
	Zn	67		ug/L		28288	0.036
	Zn	68		ug/L		48867	0.105
>	Ge	74		ug/L		451461	451460.838
	As	75	**48.008**	ug/L	0.832	65967	0.147
	Se	77		ug/L		13698	0.016
	Se	82	**49.592**	ug/L	2.864	7117	0.016
	Kr	83		ug/L		128	-0.000
	Sr	88	**52.768**	ug/L	1.425	855952	2.798
	Y	89		ug/L		149	0.000
	Mo	98	**48.988**	ug/L	3.210	213900	0.699
	Ag	107	**51.362**	ug/L	2.086	376828	1.232
	Cd	111	**50.212**	ug/L	2.678	93390	0.305
	Cd	114		ug/L		216323	0.707
>	In	115		ug/L		305832	305831.645
	Sn	120	**51.900**	ug/L	2.512	385500	1.260
	Sb	121	**52.095**	ug/L	1.504	321698	1.050
	Sb	123		ug/L		251575	0.821
	Ba	135		ug/L		102932	0.163
	Ba	137	**47.701**	ug/L	2.112	184012	0.291
	Ho	165		ug/L		65	0.000
>	Lu	175		ug/L		631515	631515.344
	Tl	205	**46.443**	ug/L	1.654	1192587	1.885
	Pb	208	**54.462**	ug/L	2.067	2505112	3.966
	Bi	209		ug/L		753	0.000
	Th	232	**51.448**	ug/L	0.273	2906226	4.601
	U	238	**52.522**	ug/L	1.676	3106822	4.919

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.011				
	Be	9	109.029				
	B	11	99.038				
	Na	23	92.325				
	Mg	24	100.724				
	Al	27	100.567				
	P	31	91.849				
	K	39	95.245				
	Ca	43	96.942				
>	Sc	45		76.7			
	Ti	47	99.375				
	V	51	101.126				
	Cr	52	103.872				
	Cr	53					
	Mn	55	108.431				
	Fe	57	95.489				
	Co	59	106.105				
	Ni	60	106.397				
	Cu	63					
	Cu	65	102.617				
	Zn	66	99.546				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.016				
	Se	77					
	Se	82	99.183				
	Kr	83					
	Sr	88	105.535				
	Y	89					
	Mo	98	97.976				
	Ag	107	102.723				
	Cd	111	100.424				
	Cd	114					
>	In	115		80.5			
	Sn	120	103.799				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	95.401				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	92.886				
	Pb	208	108.923				
	Bi	209					
	Th	232	102.896				
	U	238	105.044				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 05:03:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.012	ug/L	7.011	65	-0.000
	Be	9	0.018	ug/L	81.045	29	0.000
	B	11	2.520	ug/L	20.602	1581	0.003
	Na	23	1.317	ug/L	109.316	19347	0.014
	Mg	24	-0.261	ug/L	317.906	2667	-0.002
	Al	27	-0.580	ug/L	91.800	4001	-0.005
	P	31	0.653	ug/L	186.201	4630	0.000
	K	39	4.170	ug/L	428.340	451196	0.058
	Ca	43	1.918	ug/L	39.840	303	0.000
>	Sc	45		ug/L		357906	357906.486
	Ti	47	-0.014	ug/L	177.898	299	-0.000
	V	51	-1.313	ug/L	9.952	-2185	-0.026
	Cr	52	-0.637	ug/L	9.607	-145	-0.010
	Cr	53		ug/L		103662	0.012
	Mn	55	-0.012	ug/L	60.588	1158	-0.000
	Fe	57	-2.516	ug/L	16.303	4785	-0.001
	Co	59	0.005	ug/L	11.714	149	0.000
	Ni	60	0.003	ug/L	57.184	112	0.000
	Cu	63		ug/L		346	-0.000
	Cu	65	0.006	ug/L	92.591	210	0.000
	Zn	66	-0.091	ug/L	4.032	435	-0.000
	Zn	67		ug/L		12332	0.000
	Zn	68		ug/L		1377	0.000
>	Ge	74		ug/L		455989	455989.224
	As	75	0.415	ug/L	33.315	-11	0.001
	Se	77		ug/L		6238	-0.001
	Se	82	0.102	ug/L	102.734	15	0.000
	Kr	83		ug/L		125	-0.000
	Sr	88	0.004	ug/L	21.231	308	0.000
	Y	89		ug/L		59	-0.000
	Mo	98	0.022	ug/L	28.215	216	0.000
	Ag	107	0.004	ug/L	88.816	106	0.000
	Cd	111	0.006	ug/L	78.285	39	0.000
	Cd	114		ug/L		85	0.000
>	In	115		ug/L		318667	318667.410
	Sn	120	0.016	ug/L	16.376	477	0.000
	Sb	121	0.142	ug/L	18.622	1397	0.003
	Sb	123		ug/L		1102	0.002
	Ba	135		ug/L		65	0.000
	Ba	137	-0.000	ug/L	3212.883	83	-0.000
	Ho	165		ug/L		22	0.000
>	Lu	175		ug/L		652645	652644.906
	Tl	205	1.016	ug/L	10.806	28833	0.041
	Pb	208	0.005	ug/L	2.478	1156	0.000
	Bi	209		ug/L		551	0.000
	Th	232	0.027	ug/L	8.748	2327	0.002
	U	238	0.006	ug/L	19.481	960	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			76.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			79.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			83.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			92.1		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 05:15:52
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032564.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.124**	ug/L	3.159	347	0.001
	Be	9	**-0.001**	ug/L	1434.911	21	-0.000
	B	11	**18.592**	ug/L	1.446	8852	0.023
	Na	23	**251.160**	ug/L	6.598	984201	2.676
	Mg	24	**9.424**	ug/L	27.192	27360	0.066
	Al	27	**41.416**	ug/L	11.427	142042	0.375
	P	31	**8.631**	ug/L	15.302	6409	0.005
	K	39	**182.608**	ug/L	5.241	1357995	2.546
	Ca	43	**57.893**	ug/L	8.766	1034	0.002
>	Sc	45		ug/L		362357	362357.332
	Ti	47	**1.030**	ug/L	0.840	1014	0.002
	V	51	**-6.936**	ug/L	16.071	-42796	-0.138
	Cr	52	**0.861**	ug/L	29.754	8488	0.014
	Cr	53		ug/L		307959	0.572
	Mn	55	**0.615**	ug/L	0.837	6960	0.016
	Fe	57	**18.038**	ug/L	7.781	9033	0.010
	Co	59	**0.004**	ug/L	3.140	146	0.000
	Ni	60	**0.110**	ug/L	11.094	296	0.001
	Cu	63		ug/L		2657	0.006
	Cu	65	**0.543**	ug/L	1.168	1308	0.003
	Zn	66	**1.349**	ug/L	0.752	2194	0.004
	Zn	67		ug/L		53014	0.098
	Zn	68		ug/L		4405	0.007
>	Ge	74		ug/L		425364	425364.422
	As	75	**-1.587**	ug/L	30.338	-2626	-0.005
	Se	77		ug/L		24785	0.044
	Se	82	**0.113**	ug/L	126.016	15	0.000
	Kr	83		ug/L		114	-0.000
	Sr	88	**0.222**	ug/L	1.047	3507	0.012
	Y	89		ug/L		359	0.001
	Mo	98	**0.012**	ug/L	14.229	151	0.000
	Ag	107	**0.011**	ug/L	24.348	139	0.000
	Cd	111	**0.001**	ug/L	1063.766	26	0.000
	Cd	114		ug/L		47	-0.000
>	In	115		ug/L		280041	280040.501
	Sn	120	**0.276**	ug/L	0.637	2189	0.007
	Sb	121	**0.011**	ug/L	90.073	488	0.000
	Sb	123		ug/L		386	0.000
	Ba	135		ug/L		796	0.001
	Ba	137	**0.345**	ug/L	4.685	1343	0.002
	Ho	165		ug/L		45	0.000
>	Lu	175		ug/L		600179	600178.698
	Tl	205	**0.274**	ug/L	4.149	8469	0.011
	Pb	208	**0.137**	ug/L	3.445	6828	0.010
	Bi	209		ug/L		768	0.000
	Th	232	**0.014**	ug/L	11.562	1439	0.001
	U	238	**0.007**	ug/L	10.552	920	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		77.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 05:22:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032565.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.348**	ug/L	0.616	100386	0.265
	Be	9	**51.058**	ug/L	1.288	23862	0.063
	B	11	**112.113**	ug/L	3.218	53293	0.140
	Na	23	**2102.246**	ug/L	1.918	8491428	22.396
	Mg	24	**2025.051**	ug/L	9.582	5393717	14.232
	Al	27	**2096.404**	ug/L	8.492	7192425	19.005
	P	31	**1776.591**	ug/L	2.501	404903	1.058
	K	39	**1918.428**	ug/L	2.266	10575946	26.744
	Ca	43	**1903.254**	ug/L	3.144	26117	0.068
>	Sc	45		ug/L		378395	378394.950
	Ti	47	**41.965**	ug/L	2.097	30182	0.079
	V	51	**35.766**	ug/L	2.849	276914	0.712
	Cr	52	**48.741**	ug/L	1.558	296849	0.775
	Cr	53		ug/L		334865	0.607
	Mn	55	**47.573**	ug/L	2.893	459466	1.211
	Fe	57	**1784.687**	ug/L	3.326	385228	1.004
	Co	59	**46.837**	ug/L	3.092	360716	0.953
	Ni	60	**45.989**	ug/L	2.969	81841	0.216
	Cu	63		ug/L		194638	0.514
	Cu	65	**44.187**	ug/L	1.800	94328	0.249
	Zn	66	**48.302**	ug/L	2.556	61956	0.141
	Zn	67		ug/L		65350	0.123
	Zn	68		ug/L		47075	0.105
>	Ge	74		ug/L		435812	435811.885
	As	75	**69.840**	ug/L	2.673	92868	0.214
	Se	77		ug/L		25509	0.044
	Se	82	**19.025**	ug/L	4.187	2635	0.006
	Kr	83		ug/L		139	0.000
	Sr	88	**51.998**	ug/L	1.358	767904	2.758
	Y	89		ug/L		361	0.001
	Mo	98	**49.210**	ug/L	2.112	195647	0.702
	Ag	107	**52.208**	ug/L	1.463	348760	1.253
	Cd	111	**10.250**	ug/L	2.148	17377	0.062
	Cd	114		ug/L		38530	0.138
>	In	115		ug/L		278448	278447.753
	Sn	120	**50.999**	ug/L	1.680	344926	1.238
	Sb	121	**196.030**	ug/L	2.833	1100667	3.953
	Sb	123		ug/L		889988	3.196
	Ba	135		ug/L		90502	0.147
	Ba	137	**42.890**	ug/L	1.118	161441	0.262
	Ho	165		ug/L		363	0.001
>	Lu	175		ug/L		616160	616160.306
	Tl	205	**58.182**	ug/L	9.183	1455510	2.362
	Pb	208	**41.180**	ug/L	0.863	1848411	2.999
	Bi	209		ug/L		1068	0.001
	Th	232	**46.865**	ug/L	2.967	2582182	4.191
	U	238	**47.673**	ug/L	3.116	2750697	4.465

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		81.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		76.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 05:28:16
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032566.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.006	ug/L	54.667	104	0.000
	Be	9	0.006	ug/L	35.881	24	0.000
	B	11	5.792	ug/L	13.589	3137	0.007
	Na	23	24.488	ug/L	2.682	111434	0.261
	Mg	24	0.719	ug/L	72.606	5334	0.005
	Al	27	6.155	ug/L	11.270	26692	0.056
	P	31	0.485	ug/L	351.904	4746	0.000
	K	39	38.380	ug/L	33.080	641813	0.535
	Ca	43	15.310	ug/L	11.022	491	0.001
>	Sc	45		ug/L		370232	370232.331
	Ti	47	0.207	ug/L	11.588	463	0.000
	V	51	-2.110	ug/L	32.082	-8236	-0.042
	Cr	52	0.149	ug/L	116.356	4463	0.002
	Cr	53		ug/L		162376	0.161
	Mn	55	0.103	ug/L	10.337	2279	0.003
	Fe	57	-0.969	ug/L	127.725	5267	-0.001
	Co	59	0.000	ug/L	2365.380	117	0.000
	Ni	60	0.023	ug/L	10.007	152	0.000
	Cu	63		ug/L		665	0.001
	Cu	65	0.071	ug/L	8.532	351	0.000
	Zn	66	0.311	ug/L	4.184	961	0.001
	Zn	67		ug/L		17816	0.013
	Zn	68		ug/L		2050	0.002
>	Ge	74		ug/L		451489	451488.745
	As	75	-0.393	ug/L	65.339	-1130	-0.001
	Se	77		ug/L		12404	0.013
	Se	82	0.092	ug/L	176.230	13	0.000
	Kr	83		ug/L		114	-0.000
	Sr	88	0.043	ug/L	7.643	920	0.002
	Y	89		ug/L		105	0.000
	Mo	98	0.011	ug/L	20.574	161	0.000
	Ag	107	0.000	ug/L	504.683	73	0.000
	Cd	111	-0.002	ug/L	40.906	22	-0.000
	Cd	114		ug/L		40	-0.000
>	In	115		ug/L		303525	303525.381
	Sn	120	0.059	ug/L	8.927	775	0.001
	Sb	121	0.003	ug/L	180.420	486	0.000
	Sb	123		ug/L		379	0.000
	Ba	135		ug/L		167	0.000
	Ba	137	0.056	ug/L	7.739	299	0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		636269	636269.192
	Tl	205	3.215	ug/L	9.914	84931	0.130
	Pb	208	0.015	ug/L	2.741	1592	0.001
	Bi	209		ug/L		410	-0.000
	Th	232	0.013	ug/L	9.472	1473	0.001
	U	238	-0.000	ug/L	1010.928	572	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		79.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		79.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 05:34:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.917**	ug/L	1.868	108597	0.303
	Be	9	**54.344**	ug/L	3.265	24062	0.067
	B	11	**98.597**	ug/L	4.825	44462	0.123
	Na	23	**4364.899**	ug/L	10.122	16677592	46.502
	Mg	24	**5166.651**	ug/L	5.836	13022055	36.312
	Al	27	**5309.819**	ug/L	5.270	17255876	48.136
	P	31	**4490.103**	ug/L	3.876	962807	2.674
	K	39	**4761.044**	ug/L	2.718	24229143	66.373
	Ca	43	**4781.332**	ug/L	1.206	61786	0.172
>	Sc	45		ug/L		358648	358648.450
	Ti	47	**49.162**	ug/L	3.254	33457	0.092
	V	51	**48.521**	ug/L	5.223	353326	0.966
	Cr	52	**51.502**	ug/L	4.424	296952	0.819
	Cr	53		ug/L		159249	0.166
	Mn	55	**53.828**	ug/L	3.683	492501	1.370
	Fe	57	**4662.444**	ug/L	3.954	945190	2.622
	Co	59	**52.524**	ug/L	2.604	383384	1.069
	Ni	60	**51.967**	ug/L	2.640	87643	0.244
	Cu	63		ug/L		208193	0.580
	Cu	65	**51.065**	ug/L	2.197	103281	0.288
	Zn	66	**50.165**	ug/L	2.388	65743	0.146
	Zn	67		ug/L		26546	0.033
	Zn	68		ug/L		48197	0.105
>	Ge	74		ug/L		445320	445319.542
	As	75	**47.833**	ug/L	2.613	64826	0.147
	Se	77		ug/L		13497	0.016
	Se	82	**50.120**	ug/L	1.860	7094	0.016
	Kr	83		ug/L		138	0.000
	Sr	88	**52.759**	ug/L	3.617	862826	2.798
	Y	89		ug/L		136	0.000
	Mo	98	**47.856**	ug/L	2.730	210771	0.683
	Ag	107	**50.495**	ug/L	4.061	373528	1.211
	Cd	111	**49.369**	ug/L	3.327	92594	0.300
	Cd	114		ug/L		215515	0.699
>	In	115		ug/L		308474	308473.645
	Sn	120	**50.731**	ug/L	1.832	380087	1.231
	Sb	121	**50.710**	ug/L	3.139	315747	1.023
	Sb	123		ug/L		248882	0.806
	Ba	135		ug/L		103265	0.162
	Ba	137	**46.919**	ug/L	2.371	183074	0.287
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		638898	638898.483
	Tl	205	**46.584**	ug/L	5.676	1208963	1.891
	Pb	208	**54.008**	ug/L	2.258	2512712	3.933
	Bi	209		ug/L		723	0.000
	Th	232	**50.785**	ug/L	5.054	2899879	4.542
	U	238	**52.456**	ug/L	4.393	3137205	4.913

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.835				
	Be	9	108.687				
	B	11	98.597				
	Na	23	87.298				
	Mg	24	103.333				
	Al	27	105.145				
	P	31	89.802				
	K	39	95.221				
	Ca	43	95.627				
>	Sc	45		76.8			
	Ti	47	98.324				
	V	51	97.043				
	Cr	52	103.003				
	Cr	53					
	Mn	55	107.655				
	Fe	57	93.249				
	Co	59	105.048				
	Ni	60	103.935				
	Cu	63					
	Cu	65	102.130				
	Zn	66	100.329				
	Zn	67					
	Zn	68					
>	Ge	74		77.9			
	As	75	95.665				
	Se	77					
	Se	82	100.239				
	Kr	83					
	Sr	88	105.518				
	Y	89					
	Mo	98	95.711				
	Ag	107	100.990				
	Cd	111	98.739				
	Cd	114					
>	In	115		81.2			
	Sn	120	101.463				
	Sb	121	101.420				
	Sb	123					
	Ba	135					
	Ba	137	93.838				
	Ho	165					
>	Lu	175		90.2			
	Tl	205	93.168				
	Pb	208	108.016				
	Bi	209					
	Th	232	101.570				
	U	238	104.911				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 05:40:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.008	ug/L	35.434	71	-0.000
	Be	9	0.012	ug/L	44.342	26	0.000
	B	11	2.894	ug/L	15.369	1738	0.004
	Na	23	1.175	ug/L	54.758	18679	0.013
	Mg	24	-0.791	ug/L	27.434	1333	-0.006
	Al	27	1.002	ug/L	131.615	9003	0.009
	P	31	-0.273	ug/L	450.430	4404	-0.000
	K	39	5.024	ug/L	159.839	452058	0.070
	Ca	43	1.755	ug/L	118.621	299	0.000
>	Sc	45		ug/L		355897	355897.204
	Ti	47	0.024	ug/L	59.762	323	0.000
	V	51	-1.430	ug/L	43.242	-3078	-0.028
	Cr	52	-0.546	ug/L	13.221	364	-0.009
	Cr	53		ug/L		100757	0.005
	Mn	55	-0.012	ug/L	22.218	1151	-0.000
	Fe	57	-2.595	ug/L	49.371	4738	-0.001
	Co	59	0.003	ug/L	75.329	136	0.000
	Ni	60	0.006	ug/L	57.367	117	0.000
	Cu	63		ug/L		374	0.000
	Cu	65	0.001	ug/L	1267.111	198	0.000
	Zn	66	-0.105	ug/L	6.230	414	-0.000
	Zn	67		ug/L		11868	-0.001
	Zn	68		ug/L		1291	-0.000
>	Ge	74		ug/L		453770	453770.256
	As	75	0.178	ug/L	92.795	-343	0.001
	Se	77		ug/L		6176	-0.001
	Se	82	-0.039	ug/L	402.610	-5	-0.000
	Kr	83		ug/L		130	-0.000
	Sr	88	0.002	ug/L	136.865	273	0.000
	Y	89		ug/L		58	-0.000
	Mo	98	0.027	ug/L	29.378	238	0.000
	Ag	107	0.004	ug/L	72.977	103	0.000
	Cd	111	0.006	ug/L	24.325	40	0.000
	Cd	114		ug/L		74	0.000
>	In	115		ug/L		316780	316780.065
	Sn	120	0.009	ug/L	42.527	422	0.000
	Sb	121	0.141	ug/L	22.448	1380	0.003
	Sb	123		ug/L		1128	0.002
	Ba	135		ug/L		52	0.000
	Ba	137	-0.002	ug/L	173.345	75	-0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		652981	652980.698
	Tl	205	2.263	ug/L	3.135	61943	0.092
	Pb	208	0.005	ug/L	17.380	1143	0.000
	Bi	209		ug/L		536	-0.000
	Th	232	0.025	ug/L	6.004	2231	0.002
	U	238	0.005	ug/L	19.730	901	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 10:21:12
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.587
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	7667.7	7667.657	92.696	1.2
	Mg	24.0	65438.4	65438.352	810.719	1.2
	Co	58.9	148768.2	148768.250	1242.721	0.8
	Rh	102.9	281248.6	281248.630	3259.965	1.2
	In	114.9	364299.1	364299.123	3937.746	1.1
	Pb	208.0	327198.7	327198.660	900.422	0.3
⌈>	Ba	137.9	337284.3	337284.262	1053.536	0.3
⌊	Ba++	69.0	6381.2	0.019	0.000	1.2
⌈>	Ce	139.9	411857.7	411857.650	5034.814	1.2
⌊	CeO	155.9	10883.8	0.026	0.000	1.5
	Bkgd	220.0	24.6	24.600	6.358	25.8

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	7423.9
Co	59	13	6.3	140852.6
In	115	13	6.8	347281.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2072	0.604
Be	9.0	9.0	2056	2088	0.598
Mg	24.0	24.0	5695	2100	0.591
Mg	25.0	25.0	5935	2100	0.577
Mg	26.0	26.0	6177	2100	0.596
Co	58.9	59.0	14189	2125	0.594
Rh	102.9	102.9	24878	2180	0.579
In	114.9	114.9	27792	2200	0.585
Ce	139.9	139.9	33864	2220	0.581
Pb	206.0	206.0	49948	2305	0.587
Pb	207.0	207.0	50159	2240	0.631
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57732	2275	0.744

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 14:12:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Blank.347

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		25	
>	Sc	45		ug/L		668888	
	Mn	55		ug/L		2291	
>	Lu	175		ug/L		595837	
	Tl	205		ug/L		883	
	Pb	208		ug/L		475	
	U	238		ug/L		204	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Mn	55	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 14:14:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.348

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	0.828	6540	0.010
>	Sc	45		**ug/L**		676851	676850.534
	Mn	55	**10.000**	**ug/L**	1.904	177072	0.258
>	Lu	175		**ug/L**		589758	589757.524
	Tl	205	**10.000**	**ug/L**	0.453	263884	0.446
	Pb	208	**10.000**	**ug/L**	2.877	474859	0.805
	U	238	**10.000**	**ug/L**	0.241	601643	1.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 14:17:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.349

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.022**	**ug/L**	1.049	63615	0.098
>	Sc	45		**ug/L**		645973	645972.524
	Mn	55	**99.878**	**ug/L**	2.401	1486823	2.298
>	Lu	175		**ug/L**		584303	584303.328
	Tl	205	**99.812**	**ug/L**	2.029	2189635	3.747
	Pb	208	**99.844**	**ug/L**	1.355	4061519	6.951
	U	238	**99.831**	**ug/L**	0.936	5089463	8.710

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 14:19:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.350

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.337**	**ug/L**	0.831	31823	0.051
>	Sc	45		**ug/L**		629483	629482.623
	Mn	55	**54.535**	**ug/L**	2.129	791888	1.255
>	Lu	175		**ug/L**		589274	589274.225
	Tl	205	**52.420**	**ug/L**	0.813	1160354	1.968
	Pb	208	**53.310**	**ug/L**	1.745	2187052	3.711
	U	238	**52.301**	**ug/L**	0.705	2689274	4.563

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	102.674				
>	Sc	45		94.1			
	Mn	55	109.069				
>	Lu	175		98.9			
	Tl	205	104.839				
	Pb	208	106.620				
	U	238	104.602				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 14:22:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.002**	**ug/L**	214.675	24	-0.000
>	Sc	45		**ug/L**		654529	654529.493
	Mn	55	**-0.004**	**ug/L**	100.755	2183	-0.000
>	Lu	175		**ug/L**		595331	595330.522
	Tl	205	**0.102**	**ug/L**	6.118	3167	0.004
	Pb	208	**0.003**	**ug/L**	26.105	579	0.000
	U	238	**0.008**	**ug/L**	1.572	602	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.9			
	Mn	55					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 14:24:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.352

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.557**	**ug/L**	9.676	385	0.001
>	Sc	45		**ug/L**		658791	658790.794
	Mn	55	**6.275**	**ug/L**	4.301	97305	0.144
>	Lu	175		**ug/L**		592978	592978.327
	Tl	205	**1.277**	**ug/L**	1.263	29298	0.048
	Pb	208	**2.551**	**ug/L**	2.809	105733	0.178
	U	238	**0.290**	**ug/L**	0.556	15199	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	111.411				
>	Sc	45		98.5			
	Mn	55	125.508				
>	Lu	175		99.5			
	Tl	205	127.675				
	Pb	208	127.538				
	U	238	144.913				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 14:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.089**	**ug/L**	12.417	70	0.000
>	Sc	45		**ug/L**		556722	556721.917
	Mn	55	**6.374**	**ug/L**	2.843	83520	0.147
>	Lu	175		**ug/L**		546173	546173.398
	Tl	205	**0.027**	**ug/L**	7.143	1352	0.001
	Pb	208	**0.239**	**ug/L**	1.772	9511	0.017
	U	238	**-0.001**	**ug/L**	7.538	150	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.2			
	Mn	55	109.892				
>	Lu	175		91.7			
	Tl	205					
	Pb	208	126.313				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 14:29:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.354

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.782**	**ug/L**	1.989	10470	0.019
>	Sc	45		**ug/L**		536856	536856.079
	Mn	55	**28.447**	**ug/L**	1.663	353252	0.655
>	Lu	175		**ug/L**		544762	544762.461
	Tl	205	**21.404**	**ug/L**	1.003	438467	0.803
	Pb	208	**21.975**	**ug/L**	2.109	833709	1.530
	U	238	**23.745**	**ug/L**	0.446	1128817	2.072

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.910				
>	Sc	45		80.3			
	Mn	55	110.258				
>	Lu	175		91.4			
	Tl	205	107.019				
	Pb	208	108.847				
	U	238	118.723				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 14:32:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.355

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.548**	**ug/L**	3.801	31989	0.053
>	Sc	45		**ug/L**		606838	606838.403
	Mn	55	**54.439**	**ug/L**	2.137	762096	1.253
>	Lu	175		**ug/L**		601484	601484.197
	Tl	205	**51.997**	**ug/L**	0.762	1174882	1.952
	Pb	208	**54.077**	**ug/L**	2.248	2264396	3.765
	U	238	**53.307**	**ug/L**	0.482	2797685	4.651

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.095				
>	Sc	45		90.7			
	Mn	55	108.878				
>	Lu	175		100.9			
	Tl	205	103.993				
	Pb	208	108.154				
	U	238	106.613				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 14:34:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.356

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	739.982	24	-0.000
>	Sc	45		ug/L		649200	649199.690
	Mn	55	-0.021	ug/L	1.269	1911	-0.000
>	Lu	175		ug/L		625070	625069.607
	Tl	205	0.087	ug/L	3.030	2978	0.003
	Pb	208	0.000	ug/L	61.802	513	0.000
	U	238	0.005	ug/L	17.144	503	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.1			
	Mn	55					
>	Lu	175		104.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 14:56:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 8.364

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.970**	**ug/L**	1.302	31179	0.052
>	Sc	45		**ug/L**		597786	597786.220
	Mn	55	**55.100**	**ug/L**	1.866	759807	1.268
>	Lu	175		**ug/L**		595134	595133.877
	Tl	205	**52.325**	**ug/L**	0.329	1169829	1.964
	Pb	208	**53.592**	**ug/L**	1.336	2220837	3.731
	U	238	**52.623**	**ug/L**	2.770	2733100	4.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	105.941				
>	Sc	45		89.4			
	Mn	55	110.199				
>	Lu	175		99.9			
	Tl	205	104.651				
	Pb	208	107.184				
	U	238	105.247				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 14:59:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 9.365

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.001	ug/L	1466.131	23	0.000
>	Sc	45		ug/L		607338	607337.892
	Mn	55	0.001	ug/L	693.699	2089	0.000
>	Lu	175		ug/L		599774	599774.272
	Tl	205	0.874	ug/L	1.983	20554	0.033
	Pb	208	0.003	ug/L	4.189	607	0.000
	U	238	0.008	ug/L	2.310	641	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Mn	55					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 15:13:21
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.370

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	99.825	21	-0.000
>	Sc	45		ug/L		643470	643470.488
	Mn	55	0.283	ug/L	5.774	6389	0.007
>	Lu	175		ug/L		585134	585134.328
	Tl	205	0.483	ug/L	1.138	11475	0.018
	Pb	208	0.021	ug/L	5.320	1327	0.001
	U	238	-0.000	ug/L	198.800	193	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 15:15:56
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.371

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	49.625	ug/L	4.308	32048	0.049
>	Sc	45		ug/L		656083	656083.082
	Mn	55	50.137	ug/L	2.054	758987	1.154
>	Lu	175		ug/L		589037	589037.009
	Tl	205	42.034	ug/L	2.037	930318	1.578
	Pb	208	52.764	ug/L	2.619	2163992	3.673
	U	238	51.774	ug/L	0.516	2660967	4.517

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.1			
	Mn	55					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:23:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.374

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.183**	**ug/L**	1.937	31055	0.053
>	Sc	45		**ug/L**		582090	582090.176
	Mn	55	**54.374**	**ug/L**	3.736	730010	1.251
>	Lu	175		**ug/L**		593497	593496.547
	Tl	205	**52.300**	**ug/L**	3.630	1165289	1.963
	Pb	208	**54.421**	**ug/L**	2.513	2248095	3.789
	U	238	**53.119**	**ug/L**	0.451	2750767	4.635

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	108.365				
>	Sc	45		87.0			
	Mn	55	108.748				
>	Lu	175		99.6			
	Tl	205	104.601				
	Pb	208	108.842				
	U	238	106.238				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:26:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.375

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.005	ug/L	23.854	26	0.000
>	Sc	45		ug/L		602746	602745.952
	Mn	55	0.003	ug/L	113.169	2105	0.000
>	Lu	175		ug/L		615579	615578.706
	Tl	205	0.490	ug/L	4.079	12233	0.018
	Pb	208	0.001	ug/L	113.914	533	0.000
	U	238	0.006	ug/L	6.248	549	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Mn	55					
>	Lu	175		103.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245965001
Sample Date/Time: Thursday, February 25, 2010 15:28:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\245965001.376

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.000	ug/L	5640.172	24	0.000
>	Sc	45		ug/L		631919	631918.742
	Mn	55	0.531	ug/L	2.839	9887	0.012
>	Lu	175		ug/L		588208	588207.946
	Tl	205	0.308	ug/L	4.530	7670	0.012
	Pb	208	0.067	ug/L	2.168	3226	0.005
	U	238	0.006	ug/L	9.873	512	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.5			
	Mn	55					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 15:39:45
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.380

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	216.799	22	-0.000
>	Sc	45		ug/L		643322	643321.984
	Mn	55	0.626	ug/L	2.225	11465	0.014
>	Lu	175		ug/L		594600	594599.800
	Tl	205	0.097	ug/L	3.017	3045	0.004
	Pb	208	0.145	ug/L	1.845	6466	0.010
	U	238	0.013	ug/L	4.690	878	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 15:42:21
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.381

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.665**	**ug/L**	3.328	29818	0.047
>	Sc	45		**ug/L**		635371	635371.076
	Mn	55	**48.892**	**ug/L**	0.732	717113	1.125
>	Lu	175		**ug/L**		588240	588240.219
	Tl	205	**57.057**	**ug/L**	5.253	1260682	2.142
	Pb	208	**42.232**	**ug/L**	0.828	1729953	2.940
	U	238	**51.407**	**ug/L**	1.109	2638697	4.485

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.0			
	Mn	55					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 15:44:58
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.382

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	11232.568	23	0.000
>	Sc	45		**ug/L**		614367	614367.315
	Mn	55	**0.101**	**ug/L**	4.725	3533	0.002
>	Lu	175		**ug/L**		627621	627620.913
	Tl	205	**2.853**	**ug/L**	3.675	68114	0.107
	Pb	208	**0.023**	**ug/L**	6.465	1516	0.002
	U	238	**0.004**	**ug/L**	2.553	424	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.8			
	Mn	55					
>	Lu	175		105.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:50:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.384

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	51.732	ug/L	4.848	29509	0.051
>	Sc	45		ug/L		579534	579534.140
	Mn	55	53.551	ug/L	1.178	716125	1.232
>	Lu	175		ug/L		613922	613922.104
	Tl	205	50.004	ug/L	1.850	1153173	1.877
	Pb	208	52.325	ug/L	1.116	2236872	3.643
	U	238	51.422	ug/L	0.906	2754482	4.487

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.463				
>	Sc	45		86.6			
	Mn	55	107.101				
>	Lu	175		103.0			
	Tl	205	100.009				
	Pb	208	104.651				
	U	238	102.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:52:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.385

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.002	ug/L	176.091	23	0.000
>	Sc	45		ug/L		580751	580751.122
	Mn	55	0.006	ug/L	93.107	2066	0.000
>	Lu	175		ug/L		608046	608045.886
	Tl	205	1.444	ug/L	1.703	33844	0.054
	Pb	208	0.002	ug/L	22.146	571	0.000
	U	238	0.007	ug/L	7.541	605	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.8			
	Mn	55					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 15:57:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Blank.386

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		599602	
⌊	U	238		ug/L		354	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 15:58:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.387

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		598286	598285.760
⌊	U	238	10.000	ug/L	1.095	639626	1.069

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 16:00:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.388

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		591647	591647.028
⌊	U	238	99.816	ug/L	0.480	5330455	9.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 16:01:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.389

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		594744	594744.465
	U	238	**52.109**	**ug/L**	1.185	2797259	4.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.2			
	U	238	104.217				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 16:03:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.390

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		616563	616563.277
	U	238	0.017	ug/L	6.946	1307	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		102.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 16:05:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.391

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		600065	600064.857
⌊	U	238	0.244	ug/L	1.225	13546	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		100.1			
⌊	U	238	121.797				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 16:07:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.392

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		544306	544305.822
⌊	U	238	-0.001	ug/L	6.362	248	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		90.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 16:08:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.393

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		539792	539791.708
	U	238	23.423	ug/L	0.126	1141451	2.114

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		90.0			
	U	238	117.115				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:10:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.394

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		596598	596598.137
	U	238	51.765	ug/L	0.946	2787532	4.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.5			
	U	238	103.530				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:12:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.395

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		594162	594161.567
	U	238	**0.010**	**ug/L**	6.225	887	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 16:13:44
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.396

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		561602	561602.446
	U	238	-0.000	ug/L	231.891	321	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 16:15:27
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.397

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		570802	570802.292
	U	238	50.564	ug/L	1.023	2605073	4.564

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245965001
Sample Date/Time: Thursday, February 25, 2010 16:20:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\245965001.400

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		573133	573132.564
	U	238	0.002	ug/L	6.374	467	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:24:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.402

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		619346	619345.966
	U	238	**49.089**	**ug/L**	0.403	2744254	4.430

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		103.3			
	U	238	98.177				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:25:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.403

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		622016	622015.783
	U	238	0.010	ug/L	6.333	921	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		103.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 16:30:55
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.406

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		587644	587643.561
⌊	U	238	0.010	ug/L	6.425	883	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 16:32:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.407

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		587968	587967.926
	U	238	49.454	ug/L	1.450	2624658	4.463

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 16:34:25
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.408

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		624063	624063.010
⌊	U	238	0.006	ug/L	8.896	693	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		104.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:36:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.409

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		604405	604404.935
⌊	U	238	**50.306**	**ug/L**	0.810	2744319	4.540

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		100.8			
⌊	U	238	100.612				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:37:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.410

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		601216	601215.925
⌊	U	238	0.010	ug/L	9.203	908	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		100.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, February 28, 2010 11:19:11
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.612
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6196.3	6196.344	143.347	2.3
	Mg	24.0	67234.2	67234.247	309.860	0.5
	Co	58.9	132558.2	132558.202	1103.361	0.8
	Rh	102.9	258781.3	258781.341	1982.494	0.8
	In	114.9	336320.1	336320.050	2837.596	0.8
	Pb	208.0	320426.5	320426.537	1072.771	0.3
⌈>	Ba	137.9	331832.6	331832.612	2204.656	0.7
⌊	Ba++	69.0	5415.4	0.016	0.000	1.6
⌈>	Ce	139.9	412164.8	412164.835	3829.750	0.9
⌊	CeO	155.9	10667.4	0.026	0.001	3.8
	Bkgd	220.0	21.3	21.300	4.604	21.6

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	6.0	6925.3
Co	59	13	6.5	130705.5
In	115	13	7.3	340695.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2050	0.661
Be	9.0	9.0	2061	2075	0.622
Mg	24.0	24.0	5689	2080	0.610
Mg	25.0	25.0	5941	2080	0.625
Mg	26.0	26.0	6167	2080	0.630
Co	58.9	58.9	14183	2110	0.614
Rh	102.9	102.9	24875	2160	0.629
In	114.9	114.9	27789	2180	0.626
Ce	139.9	139.9	33873	2200	0.627
Pb	206.0	206.0	49948	2295	0.581
Pb	207.0	207.0	50171	2240	0.628
Pb	208.0	208.0	50451	2265	0.688
U	238.1	238.1	57734	2275	0.722

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 11:32:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		677057	
⌊	Tl	205		ug/L		808	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 11:35:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		667556	667556.025
⌊	Tl	205	10.000	ug/L	0.862	294295	0.440

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 11:38:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 2.003

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		659367	659366.978
⌊	Tl	205	**99.812**	**ug/L**	1.331	2437008	3.695

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 11:42:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 1.004

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		673365	673364.882
	Tl	205	**53.184**	**ug/L**	1.645	1326362	1.969

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.5			
	Tl	205	106.368				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 11:45:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		681777	681776.982
	Tl	205	0.030	ug/L	1.811	1560	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 11:48:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 3.006

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		672467	672467.132
⌊	Tl	205	**1.266**	**ug/L**	0.670	32318	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.3			
⌊	Tl	205	126.599				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 11:51:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		588832	588831.842
	Tl	205	0.013	ug/L	10.715	984	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		87.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 11:54:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 5.008

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		590656	590656.176
⌊	Tl	205	**22.733**	**ug/L**	1.043	497747	0.842

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		87.2			
⌊	Tl	205	113.667				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 11:57:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.009

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		670145	670145.439
	Tl	205	**53.996**	**ug/L**	0.427	1340274	1.999

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.0			
	Tl	205	107.992				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 12:01:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686615	686614.820
	Tl	205	0.021	ug/L	4.777	1342	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:20:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686305	686304.568
	Tl	205	52.972	ug/L	1.323	1346565	1.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205	105.943				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:23:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		688824	688824.054
⌊	Tl	205	0.058	ug/L	1.241	2291	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		101.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:42:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		668337	668336.676
	Tl	205	53.656	ug/L	1.715	1328080	1.986

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.7			
	Tl	205	107.312				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:45:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		670679	670678.529
	Tl	205	0.170	ug/L	2.585	5015	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:06:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		668176	668175.537
⌊	Tl	205	52.327	ug/L	0.462	1295066	1.937

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.7			
⌊	Tl	205	104.655				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:09:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		649044	649044.468
	Tl	205	0.080	ug/L	1.399	2707	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:29:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.037

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		635047	635047.332
	Tl	205	**53.266**	**ug/L**	1.058	1252817	1.972

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		93.8			
	Tl	205	106.531				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:32:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		653533	653533.489
	Tl	205	0.138	ug/L	1.085	4121	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175		96.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:51:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.044

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		630598	630597.877
	Tl	205	**53.890**	**ug/L**	0.285	1258712	1.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.1			
	Tl	205	107.780				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:54:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		655368	655368.483
⌊	Tl	205	0.124	ug/L	1.141	3781	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		96.8			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:10:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		656527	656526.813
⌊	Tl	205	52.015	ug/L	0.912	1264760	1.925

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.0			
⌊	Tl	205	104.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:13:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.051

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		633750	633749.781
	Tl	205	**0.304**	**ug/L**	2.392	7889	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Sunday, February 28, 2010 14:17:07
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032562.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		637279	637278.987
⌊	Tl	205	0.165	ug/L	0.459	4652	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.1			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Sunday, February 28, 2010 14:20:21
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032563.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		618802	618801.549
⌊	Tl	205	52.260	ug/L	0.827	1197858	1.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		91.4			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245965001
Sample Date/Time: Sunday, February 28, 2010 14:30:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\245965001.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		636730	636730.318
⌊	Tl	205	0.149	ug/L	2.413	4277	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		94.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:39:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		636661	636661.313
⌊	Tl	205	51.753	ug/L	1.268	1220367	1.916

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.0			
⌊	Tl	205	103.507				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:42:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		646420	646420.439
	Tl	205	0.124	ug/L	3.474	3745	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Sunday, February 28, 2010 14:49:15
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032564.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		606403	606402.736
	Tl	205	0.035	ug/L	8.276	1508	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		89.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Sunday, February 28, 2010 14:52:24
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\ti only.mth
Dataset File: C:\elandata\Dataset\100228\1202032565.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		604264	604263.531
	Tl	205	**74.988**	ug/L	1.789	1678038	2.776

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		89.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Sunday, February 28, 2010 14:55:34
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032566.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		622697	622697.219
	Tl	205	1.665	ug/L	1.459	39115	0.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		92.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 14:58:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.065

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		639572	639571.983
	Tl	205	**52.103**	**ug/L**	0.346	1234316	1.929

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.5			
	Tl	205	104.206				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 15:01:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.066

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		627865	627864.641
⌊	Tl	205	**0.778**	**ug/L**	1.776	18837	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		92.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\020510W1.SIF
Batch ID:
Results Data Set: 020510W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/5/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0006	0.0003	09:04:56	Yes
2		[0.00]	0.0002	-0.0003	0.0002	09:05:30	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	20.18				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/5/2010 09:05:49**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0019	0.0085	0.0021	09:06:50	Yes
2		[0.2]	0.0019	0.0079	0.0021	09:07:24	Yes
Mean:		[0.2]	0.0019				
SD:		0.0	0.0000				
%RSD:		0.0	0.42				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00933 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/5/2010 09:07:43**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0047	0.0201	0.0049	09:08:45	Yes
2		[0.5]	0.0048	0.0214	0.0050	09:09:19	Yes
Mean:		[0.5]	0.0047				
SD:		0.0	0.0001				
%RSD:		0.0	1.87				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999967 Slope: 0.00950 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/5/2010 09:09:39**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0191	0.0825	0.0194	09:10:40	Yes
2		[2.0]	0.0190	0.0814	0.0192	09:11:15	Yes
Mean:		[2.0]	0.0190				
SD:		0.0	0.0001				
%RSD:		0.0	0.73				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.00953 Intercept: -0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/5/2010 09:11:35**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0473	0.2057	0.0476	09:12:37	Yes
2		[5.0]	0.0469	0.2028	0.0471	09:13:12	Yes
Mean:		[5.0]	0.0471				
SD:		0.0	0.0003				
%RSD:		0.0	0.72				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00942 Intercept: 0.00004

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/5/2010 09:13:32**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0944	0.4143	0.0947	09:14:32	Yes
2		[10.0]	0.0937	0.4076	0.0940	09:15:07	Yes
Mean:		[10.0]	0.0941				
SD:		0.0	0.0005				
%RSD:		0.0	0.53				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

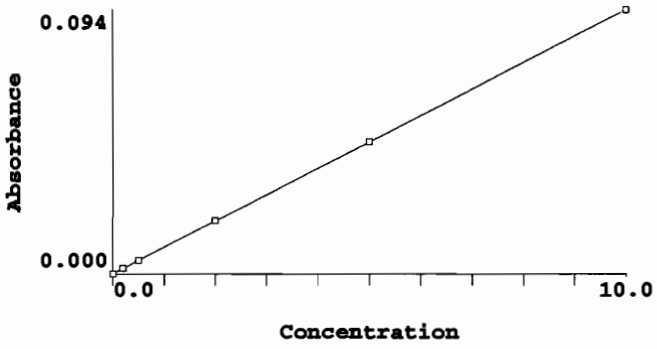

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.006	0.00	20.2
S0.2	0.0019	0.2	0.192	0.00	0.4
S0.5	0.0047	0.5	0.498	0.00	1.9
S2.0	0.0190	2.0	2.019	0.00	0.7

S5.0	0.0471	5.0	5.001	0.00	0.7
S10.0	0.0941	10.0	9.996	0.00	0.5

Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/5/2010 09:15:26**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.965	4.965	0.0468	0.2021	0.0470	09:16:27	Yes
2	4.945	4.945	0.0466	0.2010	0.0468	09:17:02	Yes
Mean:	4.955	4.955	0.0467				
SD:	0.014	0.014	0.0001				
%RSD:	0.281	0.281	0.28				

QC value within limits for Hg 253.7 Recovery = 99.10%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/5/2010 09:17:22**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	-0.0008	0.0002	09:18:23	Yes
2	-0.012	-0.012	-0.0000	-0.0006	0.0002	09:18:58	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.89	11.89	23.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/5/2010 09:19:18**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.191	0.191	0.0019	0.0082	0.0021	09:20:19	Yes
2	0.191	0.191	0.0019	0.0082	0.0021	09:20:54	Yes
Mean:	0.191	0.191	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.034	0.034	0.03				

QC value within limits for Hg 253.7 Recovery = 95.30%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 09:21:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.014	5.014	0.0472	0.2051	0.0475	09:22:14	Yes
2	4.974	4.974	0.0468	0.2038	0.0471	09:22:50	Yes
Mean:	4.994	4.994	0.0470				
SD:	0.029	0.029	0.0003				
%RSD:	0.577	0.577	0.58				

QC value within limits for Hg 253.7 Recovery = 99.88%
All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 09:23:09
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0000	-0.0002	0.0002	09:24:10	Yes
2	-0.006	-0.006	0.0000	0.0002	0.0002	09:24:45	Yes
Mean:	-0.009	-0.009	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	42.32	42.32	156.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 12
Sample ID: 1202029931|947628|1 Date Collected: 2/5/2010 09:25:04
Analyst: JXL Data Type: Original

Replicate Data: 1202029931|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	-0.0005	0.0002	09:26:06	Yes
2	-0.005	-0.005	0.0000	-0.0001	0.0002	09:26:40	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	44.19	44.19	224.20				

Sequence No.: 13 Autosampler Location: 13
Sample ID: 1202029932|947628|1 Date Collected: 2/5/2010 09:27:01
Analyst: JXL Data Type: Original

Replicate Data: 1202029932|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0191	0.0835	0.0193	09:28:02	Yes
2	2.026	2.026	0.0191	0.0827	0.0193	09:28:37	Yes
Mean:	2.024	2.024	0.0191				
SD:	0.003	0.003	0.0000				
%RSD:	0.144	0.144	0.14				

Sequence No.: 14 Autosampler Location: 14
Sample ID: 245601001|947628|1 Date Collected: 2/5/2010 09:28:58
Analyst: JXL Data Type: Original

Replicate Data: 245601001|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0002	0.0002	09:29:58	Yes
2	0.002	0.002	0.0001	0.0008	0.0003	09:30:33	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	299.4	299.4	87.21				

Sequence No.: 15 Autosampler Location: 15
Sample ID: 245614001|947628|1 Date Collected: 2/5/2010 09:30:52
Analyst: JXL Data Type: Original

Replicate Data: 245614001|947628|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202029937|947628|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	09:41:26	Yes
2	-0.008	-0.008	-0.0000	-0.0004	0.0002	09:42:01	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.270	1.270	5.82				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 1202033203|949020|1 Date Collected: 2/5/2010 09:42:20
Analyst: JXL Data Type: Original

Replicate Data: 1202033203|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0006	0.0003	09:43:21	Yes
2	0.003	0.003	0.0001	0.0014	0.0003	09:43:56	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	53.61	53.61	15.02				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 2/5/2010 09:44:15
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.947	4.947	0.0466	0.2056	0.0468	09:45:17	Yes
2	4.906	4.906	0.0462	0.2030	0.0464	09:45:52	Yes
Mean:	4.927	4.927	0.0464				
SD:	0.029	0.029	0.0003				
%RSD:	0.589	0.589	0.59				

QC value within limits for Hg 253.7 Recovery = 98.53%
All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 09:46:11
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0003	0.0002	09:47:12	Yes
2	0.006	0.006	0.0001	0.0006	0.0003	09:47:46	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.009	0.009	0.0001				
%RSD:	>999.9%	>999.9%	153.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 Autosampler Location: 22
Sample ID: 1202033204|949020|1 Date Collected: 2/5/2010 09:48:06
Analyst: JXL Data Type: Original

Replicate Data: 1202033204|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.013	2.013	0.0190	0.0852	0.0192	09:49:07	Yes
2	2.004	2.004	0.0189	0.0839	0.0191	09:49:42	Yes

Mean:	2.009	2.009	0.0190
SD:	0.006	0.006	0.0001
%RSD:	0.312	0.312	0.31

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 245911001|949020|1 **Date Collected: 2/5/2010 09:50:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 245911001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0002	0.0022	0.0004	09:51:03	Yes
2	0.017	0.017	0.0002	0.0028	0.0005	09:51:38	Yes
Mean:	0.016	0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	7.972	7.972	5.75				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 245922001|949020|1 **Date Collected: 2/5/2010 09:51:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 245922001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0012	0.0003	09:53:00	Yes
2	0.007	0.007	0.0001	0.0009	0.0004	09:53:35	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	44.12	44.12	20.60				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 245939001|949020|1 **Date Collected: 2/5/2010 09:53:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0030	0.0005	09:54:57	Yes
2	0.022	0.022	0.0003	0.0034	0.0005	09:55:32	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	14.54	14.54	11.04				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 245939002|949020|1 **Date Collected: 2/5/2010 09:55:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0010	0.0003	09:56:53	Yes
2	0.006	0.006	0.0001	0.0011	0.0003	09:57:28	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	80.46	80.46	31.18				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 245953001|949020|1 **Date Collected: 2/5/2010 09:57:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 245953001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	-0.0001	0.0003	09:58:48	Yes
2	0.005	0.005	0.0001	0.0008	0.0003	09:59:23	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	292.1	292.1	59.58				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 245965001|949020|1 **Date Collected: 2/5/2010 09:59:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 245965001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0007	0.0003	10:00:43	Yes
2	0.004	0.004	0.0001	0.0002	0.0003	10:01:18	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	33.02	33.02	15.09				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 245975001|949020|1 **Date Collected: 2/5/2010 10:01:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 245975001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0010	0.0003	10:02:38	Yes
2	0.004	0.004	0.0001	0.0015	0.0003	10:03:12	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	165.2	165.2	34.46				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 245981001|949020|1 **Date Collected: 2/5/2010 10:03:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 245981001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0021	0.0004	10:04:32	Yes
2	0.019	0.019	0.0002	0.0034	0.0005	10:05:07	Yes
Mean:	0.015	0.015	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	43.49	43.49	30.52				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246000001|949020|1 **Date Collected: 2/5/2010 10:05:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 246000001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0018	0.0003	10:06:27	Yes
2	0.012	0.012	0.0002	0.0024	0.0004	10:07:02	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	42.51	42.51	25.13				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 10:07:22**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.069	5.069	0.0477	0.2135	0.0480	10:08:22	Yes
2	5.033	5.033	0.0474	0.2110	0.0476	10:08:58	Yes
Mean:	5.051	5.051	0.0476				
SD:	0.025	0.025	0.0002				
%RSD:	0.502	0.502	0.50				

QC value within limits for Hg 253.7 Recovery = 101.01%
All analyte(s) passed QC.

==========

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 10:09:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0004	0.0003	10:10:17	Yes
2	0.005	0.005	0.0001	0.0009	0.0003	10:10:52	Yes
Mean:	0.001	0.001	0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	>999.9%	>999.9%	94.99				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246010001|949020|1 Date Collected: 2/5/2010 10:11:11
Analyst: JXL Data Type: Original

Replicate Data: 246010001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0003	0.0002	10:12:12	Yes
2	-0.004	-0.004	0.0000	0.0007	0.0002	10:12:47	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.81	17.81	51.51				

==========

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246056001|949020|1 Date Collected: 2/5/2010 10:13:07
Analyst: JXL Data Type: Original

Replicate Data: 246056001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0004	0.0003	10:14:08	Yes
2	0.002	0.002	0.0001	0.0012	0.0003	10:14:43	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	>999.9%	>999.9%	65.75				

==========

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202033205|949020|1 Date Collected: 2/5/2010 10:15:03
Analyst: JXL Data Type: Original

Replicate Data: 1202033205|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0008	0.0002	10:16:04	Yes

2	0.005	0.005	0.0001	0.0017	0.0003	10:16:39	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	>999.9%	>999.9%	95.21				

==========

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 1202033206|949020|1 **Date Collected: 2/5/2010 10:16:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033206|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.503	1.503	0.0142	0.0680	0.0144	10:18:00	Yes
2	1.495	1.495	0.0141	0.0670	0.0143	10:18:35	Yes
Mean:	1.499	1.499	0.0142				
SD:	0.006	0.006	0.0001				
%RSD:	0.393	0.393	0.39				

==========

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 1202033207|949020|5 **Date Collected: 2/5/2010 10:18:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033207|949020|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	10:19:57	Yes
2	-0.002	-0.002	0.0000	0.0011	0.0003	10:20:32	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	84.26	84.26	326.78				

==========

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 246056002|949020|1 **Date Collected: 2/5/2010 10:20:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	0.0010	0.0003	10:21:54	Yes
2	-0.003	-0.003	0.0000	0.0008	0.0003	10:22:29	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	8.003	8.003	5.22				

==========

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 246056003|949020|1 **Date Collected: 2/5/2010 10:22:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056003|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0024	0.0005	10:23:50	Yes
2	0.023	0.023	0.0003	0.0022	0.0005	10:24:25	Yes
Mean:	0.021	0.021	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	10.47	10.47	8.06				

==========

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 246056004|949020|1 **Date Collected: 2/5/2010 10:24:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056004|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0004	0.0044	0.0006	10:25:45	Yes
2	0.016	0.016	0.0002	0.0017	0.0004	10:26:21	Yes
Mean:	0.026	0.026	0.0003				
SD:	0.015	0.015	0.0001				
%RSD:	56.65	56.65	45.73				

==========

Sequence No.: 44 — **Autosampler Location: 40**
Sample ID: 1202033224|949028|1 — **Date Collected: 2/5/2010 10:26:40**
Analyst: JXL — **Data Type: Original**

Replicate Data: 1202033224|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0003	0.0022	0.0005	10:27:41	Yes
2	0.017	0.017	0.0002	0.0020	0.0005	10:28:17	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	11.82	11.82	8.89				

==========

Sequence No.: 45 — **Autosampler Location: 41**
Sample ID: 1202033226|949028|1 — **Date Collected: 2/5/2010 10:28:36**
Analyst: JXL — **Data Type: Original**

Replicate Data: 1202033226|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.106	2.106	0.0199	0.0883	0.0201	10:29:37	Yes
2	2.076	2.076	0.0196	0.0876	0.0198	10:30:12	Yes
Mean:	2.091	2.091	0.0197				
SD:	0.022	0.022	0.0002				
%RSD:	1.033	1.033	1.03				

==========

Sequence No.: 46 — **Autosampler Location: 7**
Sample ID: CCV — **Date Collected: 2/5/2010 10:30:32**
Analyst: — **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.111	5.111	0.0481	0.2129	0.0484	10:31:32	Yes
2	5.088	5.088	0.0479	0.2132	0.0481	10:32:08	Yes
Mean:	5.099	5.099	0.0480				
SD:	0.016	0.016	0.0001				
%RSD:	0.309	0.309	0.31				

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

==========

Sequence No.: 47 — **Autosampler Location: 8**
Sample ID: CCB — **Date Collected: 2/5/2010 10:32:26**
Analyst: — **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0010	0.0002	10:33:27	Yes
2	-0.005	-0.005	0.0000	0.0011	0.0002	10:34:02	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.051	7.051	16.61				

QC value within limits for Hg 253.7 Recovery = Not calculated

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948730

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032558	UI100120-01	.25	mL
LCS	1202032558	UI100120-06	.25	mL
MS	1202032560	UI100120-01	.25	mL
MS	1202032560	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032557		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032558		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032559	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032560	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032561	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948739

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032563	UI100120-A	.5	mL
LCS	1202032563	UI100120-B	.5	mL
MS	1202032565	UI090930-A	.5	mL
MS	1202032565	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032562		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032563		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032564	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032565	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032566	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 949018

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033204	WHG100204-13	.2	mL
MS	1202033206	WHG100204-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033203		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
LCS	1202033204		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245911001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245922001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245953001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245965001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245975001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245981001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246000001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246010001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
DUP	1202033205	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
MS	1202033206	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SDILT	1202033207	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056003		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056004		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1257474-1	.5 mL	NITRIC ACID
1261483-C	1.5 mL	5% Potassium Persulfate
1264984-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100204-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100204-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100204-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100204-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100204-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100204-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 04-FEB-10 12:15
Digestion End Date: 04-FEB-10 14:15

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	LANL
Batch ID:	**Sample Numbers:**		
948740	See Below		

Potentially affected work order(s)(SDG): 245939(10-1506-1),245965(10-1511-1),245975(10-1512-1),245981(10-1514-1),246000(10-1517-1)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202032565MS	The matrix spike recovery failed outside of the control limits for Tl due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 01-MAR-10

Data Validator/Group Leader:

Samantha Jacobs 01-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100114-48 **Opened:** 22-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-JAN-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 22-JAN-11 **Lot Number :** 1018466
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100114-49.16 **Opened:** 11-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-JAN-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 12-FEB-10 **Lot Number :** 1018458
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100120-A **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1018097
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100120-B **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1017644
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100128-40 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100128-41 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Standard Logbook

Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100204-01 **Opened:** 04-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 05-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100204-01a **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100204-03 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100204-04 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-05 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100204-06 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-13 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100211-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100211-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100224-04 **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100224-04A **Opened:** 24-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100224-04B **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100224-05 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100224-06 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 24-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100224-07 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 24-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-08 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-70 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100225-04 **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100225-04A **Opened:** 25-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-05 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100225-06 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100225-07 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100228-04 **Opened:** 28-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 28-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100228-04A **Opened:** 28-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100228-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100228-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100228-05 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100228-06 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 28-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100228-07 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 28-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100228-08 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 28-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.

Standard Logbook

Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948614 and 948618	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948612 and 948616	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202032232	Method Blank (MB)
1202032233	245950006(RE16-10-12065) Sample Duplicate (DUP)
1202032234	245950007(RE16-10-12062) Sample Duplicate (DUP)
1202032235	245950006(RE16-10-12065) Matrix Spike (MS)
1202032236	245950007(RE16-10-12062) Matrix Spike (MS)
1202032237	245950006(RE16-10-12065) Matrix Spike Duplicate (MSD)
1202032238	245950007(RE16-10-12062) Matrix Spike Duplicate (MSD)
1202032239	Laboratory Control Sample (LCS)
1202032248	Method Blank (MB)
1202032249	245960007(RE15-10-7313) Sample Duplicate (DUP)
1202032250	245960008(RE15-10-7314) Sample Duplicate (DUP)
1202032251	245960007(RE15-10-7313) Matrix Spike (MS)
1202032252	245960008(RE15-10-7314) Matrix Spike (MS)
1202032253	245960007(RE15-10-7313) Matrix Spike Duplicate (MSD)
1202032254	245960008(RE15-10-7314) Matrix Spike Duplicate (MSD)
1202032255	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 245950006 (RE16-10-12065), 245950007 (RE16-10-12062)- Batch 948614, 245960007 (RE15-10-7313) and 245960008 (RE15-10-7314)- Batch 948618.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202032235 (RE16-10-12065)- Batch 948614. The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202032236 (RE16-10-12062)- Batch 948614.

Matrix Spike Duplicate (MSD) Recovery Statement

The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202032237 (RE16-10-12065)- Batch 948614. The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202032253 (RE15-10-7313) and 1202032254 (RE15-10-7314)- Batch 948618.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202032233 (RE16-10-12065)- Batch 948614. The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202032234 (RE16-10-12062)- Batch 948614, 1202032249 (RE15-10-7313), 1202032250 (RE15-10-7314), 245960007 (RE15-10-7313) and 245960008 (RE15-10-7314)- Batch 948618.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202032239 (LCS)- Batch 948614 and 1202032255 (LCS)- Batch 948618.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 790754 1202032235 (RE16-10-12065), 1202032236 (RE16-10-12062) and 1202032237 (RE16-10-12065)- Batch 948614. The following DERs were generated for this SDG: 790788 1202032253 (RE15-10-7313) and 1202032254 (RE15-10-7314)- Batch 948618.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 26Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1511 GEL Work Order: 245960

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7309	Project:	LANL01004
Sample ID:	245960001	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.84%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.2	243	ug/kg	1	AXC2 02/11/10	1342	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7308	Project:	LANL01004
Sample ID:	245960002	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.4	277	ug/kg	1	AXC2 02/11/10	1343	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7315	Project:	LANL01004
Sample ID:	245960003	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.92%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.7	245	ug/kg	1	AXC2 02/11/10	1344	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010
Client SDG: 10-1511

Client Sample ID:	RE15-10-7317	Project:	LANL01004
Sample ID:	245960004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.3	269	ug/kg	1	AXC2 02/11/10	1345	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7319	Project:	LANL01004
Sample ID:	245960005	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	65.7	242	ug/kg	1	AXC2 02/11/10	1346	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7312	Project:	LANL01004
Sample ID:	245960006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	92.5	340	ug/kg	1	AXC2 02/11/10	1347	948614	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1446	948612

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7313	Project:	LANL01004
Sample ID:	245960007	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.72%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	63.8	235	ug/kg	1	AXC2 02/11/10	1353	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7314	Project:	LANL01004
Sample ID:	245960008	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	32.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	209	91.7	337	ug/kg	1	AXC2 02/11/10	1356	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7316	Project:	LANL01004
Sample ID:	245960009	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	35.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	230	96.0	353	ug/kg	1	AXC2 02/11/10	1400	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7318	Project:	LANL01004
Sample ID:	245960010	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.3	277	ug/kg	1	AXC2 02/11/10	1401	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1511

Client Sample ID:	RE15-10-7324	Project:	LANL01004
Sample ID:	245960011	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.9	268	ug/kg	1	AXC2 02/11/10	1405	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC
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QC Summary

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **245960**

Parmname	NOM		Sample	Qual	QC	Units	RPD%		REC%	Range	Anlst	Date Time
Flow Injection Analysis												
Batch 948614												
QC1202032233 245950006 DUP												
Cyanide, Total			345	J	211	ug/kg	48.2	^		(+/-259)	AXC2	02/11/10 13:29
QC1202032234 245950007 DUP												
Cyanide, Total		J	150	U	ND	ug/kg	200	^				02/11/10 13:32
QC1202032239 LCS												
Cyanide, Total	67900				59800	ug/kg			88	(32%-157%)		02/11/10 13:17
QC1202032232 MB												
Cyanide, Total				U	250	ug/kg						02/11/10 13:16
QC1202032235 245950006 MS												
Cyanide, Total	4640		345		3620	ug/kg			70.7	(26%-158%)		02/11/10 13:30
QC1202032236 245950007 MS												
Cyanide, Total	4870	J	150		3680	ug/kg			72.6	(26%-158%)		02/11/10 13:33
QC1202032237 245950006 MSD												
Cyanide, Total	5070		345		3900	ug/kg	7.33		70	(0%-30%)		02/11/10 13:31
QC1202032238 245950007 MSD												
Cyanide, Total	5140	J	150		4140	ug/kg	11.6		77.6	(0%-30%)		02/11/10 13:34
Batch 948618												
QC1202032249 245960007 DUP												
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				AXC2	02/11/10 13:54
QC1202032250 245960008 DUP												
Cyanide, Total		J	209	U	ND	ug/kg	200	^				02/11/10 13:57
QC1202032255 LCS												
Cyanide, Total	67900				73500	ug/kg			108	(32%-157%)		02/11/10 13:48
QC1202032248 MB												
Cyanide, Total				U	250	ug/kg						02/11/10 13:47
QC1202032251 245960007 MS												
Cyanide, Total	5130	U	ND		4380	ug/kg			85.5	(26%-158%)		02/11/10 13:55
QC1202032252 245960008 MS												
Cyanide, Total	6290	J	209		5440	ug/kg			83.2	(26%-158%)		02/11/10 13:58
QC1202032253 245960007 MSD												
Cyanide, Total	5040	U	ND		3410	ug/kg	25.0		67.7	(0%-30%)		02/11/10 13:56
QC1202032254 245960008 MSD												
Cyanide, Total	6750	J	209		5240	ug/kg	3.71		74.6	(0%-30%)		02/11/10 13:59

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-FEB-2010 18:47

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1511**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**11-FEB-2010 09:59:47**	**OM_2-11-2010_09-49-17**	**146**	**150**	**97.3**	**(90%-110%)**	**Yes**
CCV	11-FEB-2010 13:12:27	OM_2-11-2010_13-11-41	94.8	100	94.8	(90%-110%)	Yes
CCV	11-FEB-2010 13:24:54	OM_2-11-2010_13-11-41	92.8	100	92.8	(90%-110%)	Yes
CCV	11-FEB-2010 13:37:21	OM_2-11-2010_13-11-41	93.7	100	93.7	(90%-110%)	Yes
CCV	11-FEB-2010 13:49:43	OM_2-11-2010_13-11-41	94.6	100	94.6	(90%-110%)	Yes
CCV	11-FEB-2010 14:02:14	OM_2-11-2010_13-11-41	93.9	100	93.9	(90%-110%)	Yes
CCV	11-FEB-2010 14:14:42	OM_2-11-2010_13-11-41	97.6	100	97.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**11-FEB-2010 10:01:38**	**OM_2-11-2010_09-49-17**	**-1.07**	**10**	**Yes**
CCB	11-FEB-2010 13:14:17	OM_2-11-2010_13-11-41	1.93	10	Yes
CCB	11-FEB-2010 13:26:45	OM_2-11-2010_13-11-41	1.48	10	Yes
CCB	11-FEB-2010 13:39:10	OM_2-11-2010_13-11-41	2.68	10	Yes
CCB	11-FEB-2010 13:51:33	OM_2-11-2010_13-11-41	2.13	10	Yes
CCB	11-FEB-2010 14:04:04	OM_2-11-2010_13-11-41	1.78	10	Yes
CCB	11-FEB-2010 14:16:32	OM_2-11-2010_13-11-41	1.36	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948612

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032239	URF1200957-01	.25	g
MS	1202032235	URF1184831-02	.025	mL
MS	1202032236	URF1184831-02	.025	mL
MSD	1202032237	URF1184831-02	.025	mL
MSD	1202032238	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032232		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.5 g	25 mL	50	SOIL
LCS	1202032239		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245938001		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245938002		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245938003		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245938004		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245938005		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245938006		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245938007		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245938008		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950006		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
DUP	1202032233	245950006	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202032235	245950006	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
MSD	1202032237	245950006	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950007		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
DUP	1202032234	245950007	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202032236	245950007	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.56 g	25 mL	44.64286	SOIL
MSD	1202032238	245950007	SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950008		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950009		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245955001		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245955002		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960001		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245960002		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245960003		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245960004		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245960005		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245960006		SW846 9010B Prep	10-FEB-2010 14:46	>12	0.52 g	25 mL	48.07692	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100210-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948616

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032255	URF1200957-01	.25	g
MS	1202032251	URF1184831-02	.025	mL
MS	1202032252	URF1184831-02	.025	mL
MSD	1202032253	URF1184831-02	.025	mL
MSD	1202032254	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032248		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.5 g	25 mL	50	SOIL
LCS	1202032255		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245960007		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
DUP	1202032249	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202032251	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202032253	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960008		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
DUP	1202032250	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202032252	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
MSD	1202032254	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960009		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960010		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245960011		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245998001		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245998002		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
SAMPLE	245998003		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245998004		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245998005		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245998006		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245998007		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245998008		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245998009		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246012001		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246012002		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246012003		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246012004		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246012005		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246012006		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.56 g	25 mL	44.64286	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100210-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/11/2010 9:52:37	OM_2-11-2010_09-49-17
150 ppb		1	axc2	2/11/2010 9:53:30	OM_2-11-2010_09-49-17
100 ppb		1	axc2	2/11/2010 9:54:22	OM_2-11-2010_09-49-17
50 ppb		1	axc2	2/11/2010 9:55:15	OM_2-11-2010_09-49-17
10 ppb		1	axc2	2/11/2010 9:56:08	OM_2-11-2010_09-49-17
CRDL 5.0 ppb		1	axc2	2/11/2010 9:57:02	OM_2-11-2010_09-49-17
ICAL-00		1	axc2	2/11/2010 9:57:56	OM_2-11-2010_09-49-17
ICV		1	axc2	2/11/2010 9:59:47	OM_2-11-2010_09-49-17
ICB		1	axc2	2/11/2010 10:01:38	OM_2-11-2010_09-49-17
		1	axc2	2/11/2010 10:03:27	OM_2-11-2010_09-49-17
1202034323	949511	1	axc2	2/11/2010 10:05:17	OM_2-11-2010_09-49-17
1202034330	949511	1	axc2	2/11/2010 10:06:10	OM_2-11-2010_09-49-17
245934002	949511	1	axc2	2/11/2010 10:07:04	OM_2-11-2010_09-49-17
1202034324	949511	1	axc2	2/11/2010 10:07:57	OM_2-11-2010_09-49-17
1202034326	949511	1	axc2	2/11/2010 10:08:50	OM_2-11-2010_09-49-17
1202034328	949511	1	axc2	2/11/2010 10:09:43	OM_2-11-2010_09-49-17
245934003	949511	1	axc2	2/11/2010 10:10:35	OM_2-11-2010_09-49-17
246064001	949511	1	axc2	2/11/2010 10:11:28	OM_2-11-2010_09-49-17
1202034325	949511	1	axc2	2/11/2010 10:12:20	OM_2-11-2010_09-49-17
1202034327	949511	1	axc2	2/11/2010 10:13:12	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:14:05	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:15:55	OM_2-11-2010_09-49-17
1202034329	949511	1	axc2	2/11/2010 10:17:43	OM_2-11-2010_09-49-17
246064005	949511	1	axc2	2/11/2010 10:18:36	OM_2-11-2010_09-49-17
246064009	949511	1	axc2	2/11/2010 10:19:27	OM_2-11-2010_09-49-17
246225002	949511	1	axc2	2/11/2010 10:20:19	OM_2-11-2010_09-49-17
246264001	949511	1	axc2	2/11/2010 10:21:11	OM_2-11-2010_09-49-17
246269001	949511	1	axc2	2/11/2010 10:22:05	OM_2-11-2010_09-49-17
246278001	949511	1	axc2	2/11/2010 10:22:58	OM_2-11-2010_09-49-17
246292001	949511	1	axc2	2/11/2010 10:23:52	OM_2-11-2010_09-49-17
246292002	949511	1	axc2	2/11/2010 10:24:45	OM_2-11-2010_09-49-17
246293001	949511	1	axc2	2/11/2010 10:25:38	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:26:31	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:28:21	OM_2-11-2010_09-49-17
246293003	949511	1	axc2	2/11/2010 10:30:10	OM_2-11-2010_09-49-17
246306001	949511	1	axc2	2/11/2010 10:31:03	OM_2-11-2010_09-49-17
246313001	949511	1	axc2	2/11/2010 10:31:55	OM_2-11-2010_09-49-17
246323001	949511	1	axc2	2/11/2010 10:32:47	OM_2-11-2010_09-49-17
246334001	949511	1	axc2	2/11/2010 10:33:40	OM_2-11-2010_09-49-17
246436001	949511	1	axc2	2/11/2010 10:34:33	OM_2-11-2010_09-49-17
246448001	949511	1	axc2	2/11/2010 10:35:25	OM_2-11-2010_09-49-17
246472001	949511	1	axc2	2/11/2010 10:36:17	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:37:09	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:38:59	OM_2-11-2010_09-49-17

Author: axc2 Date : 2/11/2010

Original Run Filename: OM_2-11-2010_09-49-17.OMN created 2/11/2010 09:49:17
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-11-2010_09-49-17.OMN last modified 2/11/2010 10:40:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100211-01	1	S1	200	8.83	2/11/2010@09:52:37			200 ppb
WCN100211-02	1	S2	150	6.63	2/11/2010@09:53:30			150 ppb
WCN100211-03	1	S3	100	4.36	2/11/2010@09:54:22			100 ppb
WCN100211-04	1	S4	50.0	2.20	2/11/2010@09:55:15			50 ppb
WCN100211-05	1	S5	10.0	0.540	2/11/2010@09:56:08			10 ppb
WCN100211-06	1	S6	5.00	0.362	2/11/2010@09:57:02			CRDL 5.0 ppb
WCN100211-08	1	S7	0.00	0.0328	2/11/2010@09:57:56			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99988 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100211-07	1	S8	146	6.43	2/11/2010@09:59:47			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100211-08	1	S7	-1.07	0.0209	2/11/2010@10:01:38			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.07 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.07 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100211-06	1	S6	6.35	0.345	2/11/2010@10:03:27			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.35 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.35 > 2.50					
		Message	Pass					
		Action	None					
1202034323|949511|MB	1	1	-1.45	0.00419	2/11/2010@10:05:17			
1202034330||LCS	1	2	48.1	2.17	2/11/2010@10:06:10			
245934002	1	3	2.66	0.183	2/11/2010@10:07:04			
1202034324||DUP	1	4	4.23	0.252	2/11/2010@10:07:57			
1202034326||MS	1	5	105	4.65	2/11/2010@10:08:50			
1202034328||MSD	1	6	92.5	4.10	2/11/2010@10:09:43			
245934003	1	7	-0.642	0.0396	2/11/2010@10:10:35			
246064001	1	8	1.58	0.136	2/11/2010@10:11:28			
1202034325||DUP	1	9	2.13	0.161	2/11/2010@10:12:20			
1202034327||MS	1	10	104	4.59	2/11/2010@10:13:12			
WCN100211-03	1	S3	102	4.52	2/11/2010@10:14:05			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.1 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-0.943	0.0264	2/11/2010@10:15:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.943 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.943 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202034329||MSD	1	11	104	4.62	2/11/2010@10:17:43			
246064005	1	12	2.07	0.158	2/11/2010@10:18:36			
246064009	1	13	0.264	0.0791	2/11/2010@10:19:27			
246225002	1	14	39.6	1.80	2/11/2010@10:20:19			
246264001	1	15	-0.705	0.0368	2/11/2010@10:21:11			
246269001	1	16	0.112	0.0725	2/11/2010@10:22:05			
246278001	1	17	-1.45	0.00411	2/11/2010@10:22:58			
246292001	1	18	-0.826	0.0315	2/11/2010@10:23:52			
246292002	1	19	-1.37	0.00769	2/11/2010@10:24:45			
246293001	1	20	0.188	0.0758	2/11/2010@10:25:38			
WCN100211-03	1	S3	103	4.55	2/11/2010@10:26:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-1.02	0.0233	2/11/2010@10:28:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.02 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246293003	1	21	-0.359	0.0519	2/11/2010@10:30:10			
246306001	1	22	-0.770	0.0340	2/11/2010@10:31:03			
246313001	1	23	-1.08	0.0206	2/11/2010@10:31:55			
246323001	1	24	-0.601	0.0413	2/11/2010@10:32:47			
246334001	1	25	-2.72	-0.0512	2/11/2010@10:33:40			
246436001	1	26	-0.864	0.0299	2/11/2010@10:34:33			
246448001	1	27	-1.37	0.00777	2/11/2010@10:35:25			
246472001	1	28	-0.472	0.0470	2/11/2010@10:36:17			
WCN100211-03	1	S3	103	4.55	2/11/2010@10:37:09			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-0.764	0.0342	2/11/2010@10:38:59			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.764 < 5.00					

Author: axc2 Date : 2/11/2010

Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-0.764 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_2-11-2010_09-49-17.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

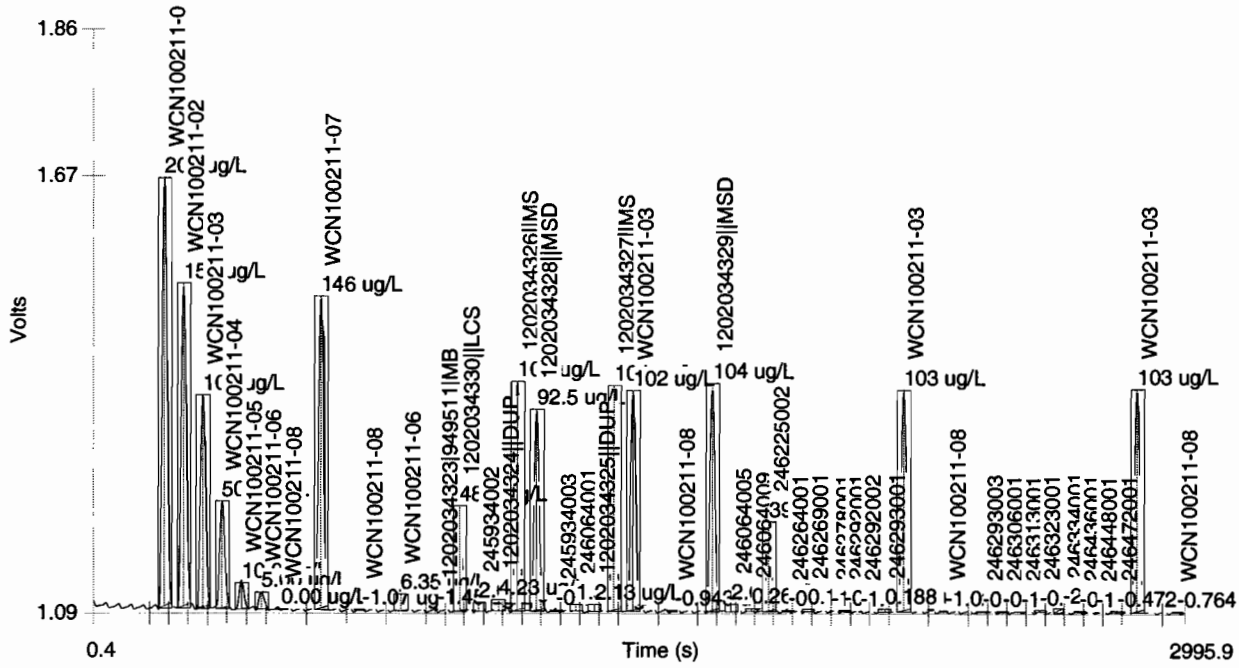

Author: axc2 Date : 2/11/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.83	0.563	-0.4	2/11/2010	09:53:41
2	150	1	6.63	0.424	-0.2	2/11/2010	09:54:33
3	100	1	4.36	0.279	1.6	2/11/2010	09:55:25
4	50.0	1	2.20	0.140	2.4	2/11/2010	09:56:18
5	10.0	1	0.540	0.0343	-7.1	2/11/2010	09:57:11
6	5.00	1	0.362	0.0225	-26.4	2/11/2010	09:58:05
7	0.00	1	0.0328	0.00101		2/11/2010	09:58:59

Figure 1: TCYANIDE

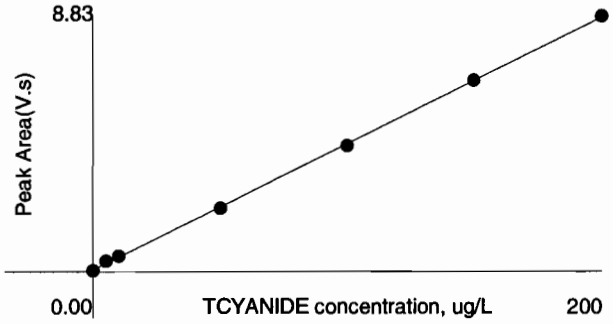

Area = 0.0436 * Conc + 0.0684
Conc = 22.9 * Area - 1.55
Correlation Coefficient (r) = 0.99988

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	2/11/2010 13:12:27	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:14:17	OM_2-11-2010_13-11-41
1202032232	948614	1	axc2	2/11/2010 13:16:06	OM_2-11-2010_13-11-41
1202032239	948614	25	axc2	2/11/2010 13:17:00	OM_2-11-2010_13-11-41
245938001	948614	1	axc2	2/11/2010 13:17:53	OM_2-11-2010_13-11-41
245938002	948614	1	axc2	2/11/2010 13:18:46	OM_2-11-2010_13-11-41
245938003	948614	1	axc2	2/11/2010 13:19:39	OM_2-11-2010_13-11-41
245938004	948614	1	axc2	2/11/2010 13:20:32	OM_2-11-2010_13-11-41
245938005	948614	1	axc2	2/11/2010 13:21:25	OM_2-11-2010_13-11-41
245938006	948614	1	axc2	2/11/2010 13:22:17	OM_2-11-2010_13-11-41
245938007	948614	1	axc2	2/11/2010 13:23:10	OM_2-11-2010_13-11-41
245938008	948614	1	axc2	2/11/2010 13:24:02	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:24:54	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:26:45	OM_2-11-2010_13-11-41
245950006	948614	1	axc2	2/11/2010 13:28:34	OM_2-11-2010_13-11-41
1202032233	948614	1	axc2	2/11/2010 13:29:26	OM_2-11-2010_13-11-41
1202032235	948614	1	axc2	2/11/2010 13:30:17	OM_2-11-2010_13-11-41
1202032237	948614	1	axc2	2/11/2010 13:31:09	OM_2-11-2010_13-11-41
245950007	948614	1	axc2	2/11/2010 13:32:00	OM_2-11-2010_13-11-41
1202032234	948614	1	axc2	2/11/2010 13:32:54	OM_2-11-2010_13-11-41
1202032236	948614	1	axc2	2/11/2010 13:33:48	OM_2-11-2010_13-11-41
1202032238	948614	1	axc2	2/11/2010 13:34:42	OM_2-11-2010_13-11-41
245950008	948614	1	axc2	2/11/2010 13:35:35	OM_2-11-2010_13-11-41
245950009	948614	1	axc2	2/11/2010 13:36:28	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:37:21	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:39:10	OM_2-11-2010_13-11-41
245955001	948614	1	axc2	2/11/2010 13:40:59	OM_2-11-2010_13-11-41
245955002	948614	1	axc2	2/11/2010 13:41:53	OM_2-11-2010_13-11-41
245960001	948614	1	axc2	2/11/2010 13:42:45	OM_2-11-2010_13-11-41
245960002	948614	1	axc2	2/11/2010 13:43:37	OM_2-11-2010_13-11-41
245960003	948614	1	axc2	2/11/2010 13:44:30	OM_2-11-2010_13-11-41
245960004	948614	1	axc2	2/11/2010 13:45:22	OM_2-11-2010_13-11-41
245960005	948614	1	axc2	2/11/2010 13:46:14	OM_2-11-2010_13-11-41
245960006	948614	1	axc2	2/11/2010 13:47:06	OM_2-11-2010_13-11-41
1202032248	948618	1	axc2	2/11/2010 13:47:59	OM_2-11-2010_13-11-41
1202032255	948618	25	axc2	2/11/2010 13:48:50	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:49:43	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:51:33	OM_2-11-2010_13-11-41
245960007	948618	1	axc2	2/11/2010 13:53:23	OM_2-11-2010_13-11-41
1202032249	948618	1	axc2	2/11/2010 13:54:17	OM_2-11-2010_13-11-41
1202032251	948618	1	axc2	2/11/2010 13:55:10	OM_2-11-2010_13-11-41
1202032253	948618	1	axc2	2/11/2010 13:56:04	OM_2-11-2010_13-11-41
245960008	948618	1	axc2	2/11/2010 13:56:58	OM_2-11-2010_13-11-41
1202032250	948618	1	axc2	2/11/2010 13:57:50	OM_2-11-2010_13-11-41
1202032252	948618	1	axc2	2/11/2010 13:58:43	OM_2-11-2010_13-11-41
1202032254	948618	1	axc2	2/11/2010 13:59:37	OM_2-11-2010_13-11-41
245960009	948618	1	axc2	2/11/2010 14:00:29	OM_2-11-2010_13-11-41
245960010	948618	1	axc2	2/11/2010 14:01:22	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 14:02:14	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 14:04:04	OM_2-11-2010_13-11-41
245960011	948618	1	axc2	2/11/2010 14:05:52	OM_2-11-2010_13-11-41
245998001	948618	1	axc2	2/11/2010 14:06:45	OM_2-11-2010_13-11-41
245998002	948618	1	axc2	2/11/2010 14:07:37	OM_2-11-2010_13-11-41
245998003	948618	1	axc2	2/11/2010 14:08:29	OM_2-11-2010_13-11-41
245998004	948618	1	axc2	2/11/2010 14:09:21	OM_2-11-2010_13-11-41
245998005	948618	1	axc2	2/11/2010 14:10:15	OM_2-11-2010_13-11-41
245998006	948618	1	axc2	2/11/2010 14:11:10	OM_2-11-2010_13-11-41
245998007	948618	1	axc2	2/11/2010 14:12:03	OM_2-11-2010_13-11-41

245998008	948618	1	axc2	2/11/2010	14:12:56	OM_2-11-2010_13-11-41
245998009	948618	1	axc2	2/11/2010	14:13:50	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	14:14:42	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	14:16:32	OM_2-11-2010_13-11-41
246012001	948618	1	axc2	2/11/2010	14:18:21	OM_2-11-2010_13-11-41
246012002	948618	1	axc2	2/11/2010	14:19:15	OM_2-11-2010_13-11-41
246012003	948618	1	axc2	2/11/2010	14:20:08	OM_2-11-2010_13-11-41
246012004	948618	1	axc2	2/11/2010	14:21:01	OM_2-11-2010_13-11-41
246012005	948618	1	axc2	2/11/2010	14:21:53	OM_2-11-2010_13-11-41
246012006	948618	1	axc2	2/11/2010	14:22:47	OM_2-11-2010_13-11-41
1202040197	951938	1	axc2	2/11/2010	14:23:39	OM_2-11-2010_13-11-41
1202040204	951938	25	axc2	2/11/2010	14:24:31	OM_2-11-2010_13-11-41
246280011	951938	1	axc2	2/11/2010	14:25:23	OM_2-11-2010_13-11-41
1202040198	951938	1	axc2	2/11/2010	14:26:15	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	14:27:08	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	14:28:58	OM_2-11-2010_13-11-41
1202040200	951938	1	axc2	2/11/2010	14:30:48	OM_2-11-2010_13-11-41
1202040202	951938	1	axc2	2/11/2010	14:31:43	OM_2-11-2010_13-11-41
246291009	951938	1	axc2	2/11/2010	14:32:37	OM_2-11-2010_13-11-41
1202040199	951938	1	axc2	2/11/2010	14:33:30	OM_2-11-2010_13-11-41
1202040201	951938	1	axc2	2/11/2010	14:34:25	OM_2-11-2010_13-11-41
1202040203	951938	1	axc2	2/11/2010	14:35:17	OM_2-11-2010_13-11-41
246557001	951938	1	axc2	2/11/2010	14:36:10	OM_2-11-2010_13-11-41
246562001	951938	1	axc2	2/11/2010	14:37:04	OM_2-11-2010_13-11-41
246587007	951938	1	axc2	2/11/2010	14:37:58	OM_2-11-2010_13-11-41
246592001	951938	1	axc2	2/11/2010	14:38:49	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	14:39:42	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	14:41:33	OM_2-11-2010_13-11-41
246592002	951938	1	axc2	2/11/2010	14:43:22	OM_2-11-2010_13-11-41
246592003	951938	1	axc2	2/11/2010	14:44:15	OM_2-11-2010_13-11-41
246592004	951938	1	axc2	2/11/2010	14:45:07	OM_2-11-2010_13-11-41
246594001	951938	1	axc2	2/11/2010	14:45:59	OM_2-11-2010_13-11-41
246594002	951938	1	axc2	2/11/2010	14:46:51	OM_2-11-2010_13-11-41
246594003	951938	1	axc2	2/11/2010	14:47:46	OM_2-11-2010_13-11-41
246594004	951938	1	axc2	2/11/2010	14:48:40	OM_2-11-2010_13-11-41
246594005	951938	1	axc2	2/11/2010	14:49:34	OM_2-11-2010_13-11-41
246594006	951938	1	axc2	2/11/2010	14:50:28	OM_2-11-2010_13-11-41
246610001	951938	1	axc2	2/11/2010	14:51:22	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	14:52:15	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	14:54:05	OM_2-11-2010_13-11-41
246610002*	951938	1	axc2	2/11/2010	14:55:56	OM_2-11-2010_13-11-41
246610003*	951938	1	axc2	2/11/2010	14:56:50	OM_2-11-2010_13-11-41
246612001*	951938	1	axc2	2/11/2010	14:57:43	OM_2-11-2010_13-11-41
246615001*	951938	1	axc2	2/11/2010	14:58:36	OM_2-11-2010_13-11-41
1202040194*	951932	1	axc2	2/11/2010	14:59:31	OM_2-11-2010_13-11-41
1202040196*	951932	1	axc2	2/11/2010	15:00:25	OM_2-11-2010_13-11-41
246612001*	951932	1	axc2	2/11/2010	15:01:18	OM_2-11-2010_13-11-41
1202040195*	951932	1	axc2	2/11/2010	15:02:12	OM_2-11-2010_13-11-41
246615001*	951932	1	axc2	2/11/2010	15:03:05	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	15:03:58	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	15:05:48	OM_2-11-2010_13-11-41

Author: axc2 Date : 2/11/2010

Original Run Filename: OM_2-11-2010_13-11-41.OMN created 2/11/2010 13:11:41
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-11-2010_13-11-41.OMN last modified 2/11/2010 15:06:53
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100211-03	1	S3	94.8	4.20	2/11/2010@13:12:27			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.93	0.152	2/11/2010@13:14:17			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	1.93 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202032232|948614|MB	1	1	-0.686	0.0376	2/11/2010@13:16:06			
1202032239||LCS	1	2	23.9	1.11	2/11/2010@13:17:00		25.00	
245938001	1	3	2.59	0.180	2/11/2010@13:17:53			
245938002	1	4	-0.603	0.0412	2/11/2010@13:18:46			
245938003	1	5	0.184	0.0756	2/11/2010@13:19:39			
245938004	1	6	-0.847	0.0306	2/11/2010@13:20:32			
245938005	1	7	1.39	0.128	2/11/2010@13:21:25			
245938006	1	8	-0.839	0.0309	2/11/2010@13:22:17			
245938007	1	9	-0.337	0.0529	2/11/2010@13:23:10			
245938008	1	10	0.766	0.101	2/11/2010@13:24:02			
WCN100211-03	1	S3	92.8	4.12	2/11/2010@13:24:54			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.48	0.132	2/11/2010@13:26:45			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	1.48 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.48 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245950006	1	11	6.80	0.364	2/11/2010@13:28:34			
1202032233||DUP	1	12	4.08	0.246	2/11/2010@13:29:26			
1202032235||MS	1	13	78.1	3.48	2/11/2010@13:30:17			
1202032237||MSD	1	14	76.8	3.42	2/11/2010@13:31:09			
245950007	1	15	2.92	0.195	2/11/2010@13:32:00			

1202032234||DUP	1	16	1.00	0.111	2/11/2010@13:32:54			
1202032236||MS	1	17	75.7	3.37	2/11/2010@13:33:48			
1202032238||MSD	1	18	80.5	3.58	2/11/2010@13:34:42			
245950008	1	19	2.77	0.189	2/11/2010@13:35:35			
245950009	1	20	13.9	0.676	2/11/2010@13:36:28			
WCN100211-03	1	S3	93.7	4.16	2/11/2010@13:37:21			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-6.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-6.3 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100211-08	1	S7	2.68	0.185	2/11/2010@13:39:10			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		2.68 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		2.68 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245955001	1	21	-0.0162	0.0669	2/11/2010@13:40:59			
245955002	1	22	-1.55	-1.59e-4	2/11/2010@13:41:53			
245960001	1	23	0.0402	0.0693	2/11/2010@13:42:45			
245960002	1	24	1.17	0.118	2/11/2010@13:43:37			
245960003	1	25	0.304	0.0808	2/11/2010@13:44:30			
245960004	1	26	0.287	0.0801	2/11/2010@13:45:22			
245960005	1	27	0.431	0.0864	2/11/2010@13:46:14			
245960006	1	28	0.770	0.101	2/11/2010@13:47:06			
1202032248|948618|MB	1	29	0.407	0.0853	2/11/2010@13:47:59			
1202032255||LCS	1	30	29.4	1.35	2/11/2010@13:48:50		25.00	
WCN100211-03	1	S3	94.6	4.19	2/11/2010@13:49:43			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-5.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-5.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100211-08	1	S7	2.13	0.160	2/11/2010@13:51:33			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		2.13 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		2.13 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245960007	1	31	0.0379	0.0692	2/11/2010@13:53:23			
1202032249||DUP	1	32	0.746	0.100	2/11/2010@13:54:17			
1202032251||MS	1	33	85.5	3.80	2/11/2010@13:55:10			
1202032253||MSD	1	34	67.7	3.02	2/11/2010@13:56:04			
245960008	1	35	3.10	0.203	2/11/2010@13:56:58			
1202032250||DUP	1	36	0.363	0.0834	2/11/2010@13:57:50			
1202032252||MS	1	37	86.5	3.84	2/11/2010@13:58:43			
1202032254||MSD	1	38	77.7	3.46	2/11/2010@13:59:37			
245960009	1	39	3.26	0.210	2/11/2010@14:00:29			
245960010	1	40	1.29	0.124	2/11/2010@14:01:22			
WCN100211-03	1	S3	93.9	4.17	2/11/2010@14:02:14			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	-6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.78	0.145	2/11/2010@14:04:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245960011	1	41	0.196	0.0761	2/11/2010@14:05:52			
245998001	1	42	-0.395	0.0503	2/11/2010@14:06:45			
245998002	1	43	0.821	0.103	2/11/2010@14:07:37			
245998003	1	44	-0.139	0.0615	2/11/2010@14:08:29			
245998004	1	45	0.289	0.0802	2/11/2010@14:09:21			
245998005	1	46	-0.410	0.0497	2/11/2010@14:10:15			
245998006	1	47	5.12	0.291	2/11/2010@14:11:10			
245998007	1	48	0.146	0.0739	2/11/2010@14:12:03			
245998008	1	49	-1.76	-0.00916	2/11/2010@14:12:56			
245998009	1	50	0.375	0.0839	2/11/2010@14:13:50			
WCN100211-03	1	S3	97.6	4.33	2/11/2010@14:14:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.36	0.127	2/11/2010@14:16:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.36 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.36 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246012001	1	51	0.266	0.0792	2/11/2010@14:18:21			
246012002	1	52	-0.481	0.0466	2/11/2010@14:19:15			
246012003	1	53	0.188	0.0758	2/11/2010@14:20:08			
246012004	1	54	-0.326	0.0533	2/11/2010@14:21:01			
246012005	1	55	-0.0652	0.0647	2/11/2010@14:21:53			
246012006	1	56	-0.712	0.0365	2/11/2010@14:22:47			
1202040197|951938|MB	1	57	-2.19	-0.0282	2/11/2010@14:23:39			
1202040204||LCS	1	58	23.2	1.08	2/11/2010@14:24:31		25.00	
246280011	1	59	-0.125	0.0621	2/11/2010@14:25:23			
1202040198||DUP	1	60	-0.908	0.0280	2/11/2010@14:26:15			
WCN100211-03	1	S3	93.4	4.15	2/11/2010@14:27:08			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.94	0.152	2/11/2010@14:28:58			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.94 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.94 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202040200||MS	1	61	91.2	4.05	2/11/2010@14:30:48			
1202040202||MSD	1	62	92.5	4.11	2/11/2010@14:31:43			
246291009	1	63	2.70	0.186	2/11/2010@14:32:37			
1202040199||DUP	1	64	-0.845	0.0307	2/11/2010@14:33:30			
1202040201||MS	1	65	80.2	3.57	2/11/2010@14:34:25			
1202040203||MSD	1	66	81.0	3.60	2/11/2010@14:35:17			
246557001	1	67	2.25	0.166	2/11/2010@14:36:10			
246562001	1	68	-0.806	0.0324	2/11/2010@14:37:04			
246587007	1	69	-0.127	0.0620	2/11/2010@14:37:58			
246592001	1	70	1.11	0.116	2/11/2010@14:38:49			
WCN100211-03	1	S3	93.3	4.14	2/11/2010@14:39:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.81	0.147	2/11/2010@14:41:33			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246592002	1	71	0.567	0.0923	2/11/2010@14:43:22			
246592003	1	72	1.71	0.142	2/11/2010@14:44:15			
246592004	1	73	0.407	0.0853	2/11/2010@14:45:07			
246594001	1	74	-0.143	0.0613	2/11/2010@14:45:59			
246594002	1	75	-0.134	0.0617	2/11/2010@14:46:51			
246594003	1	76	-0.329	0.0532	2/11/2010@14:47:46			
246594004	1	77	0.0585	0.0701	2/11/2010@14:48:40			
246594005	1	78	-2.65	-0.0480	2/11/2010@14:49:34			
246594006	1	79	-1.79	-0.0107	2/11/2010@14:50:28			
246610001	1	80	-1.55	0.00	2/11/2010@14:51:22			
WCN100211-03	1	S3	93.6	4.15	2/11/2010@14:52:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.02	0.112	2/11/2010@14:54:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > -5.00					
		Message	CCB Passed					

		Action	Continue					
246610002	1	81	-0.827	0.0315	2/11/2010@14:55:56			
246610003	1	82	-1.05	0.0217	2/11/2010@14:56:50			
246612001	1	83	0.0685	0.0706	2/11/2010@14:57:43			
246615001	1	84	22.5	1.05	2/11/2010@14:58:36			
1202040194|951932|MB	1	95	-0.101	0.0631	2/11/2010@14:59:31			
1202040196||LCS	1	96	-0.953	0.0259	2/11/2010@15:00:25			
246612001	1	97	1.37	0.128	2/11/2010@15:01:18			
1202040195||DUP	1	98	3.09	0.203	2/11/2010@15:02:12			
246615001	1	99	39.0	1.77	2/11/2010@15:03:05			
WCN100211-03	1	S3	94.2	4.18	2/11/2010@15:03:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-39.9	-1.67	2/11/2010@15:05:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-39.9 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-39.9 < -5.00					
		Message	CCB Failed					
		Action	Stop Run					

Analyte Properties Table for OM_2-11-2010_13-11-41.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/11/2010

Channel 1: Current View

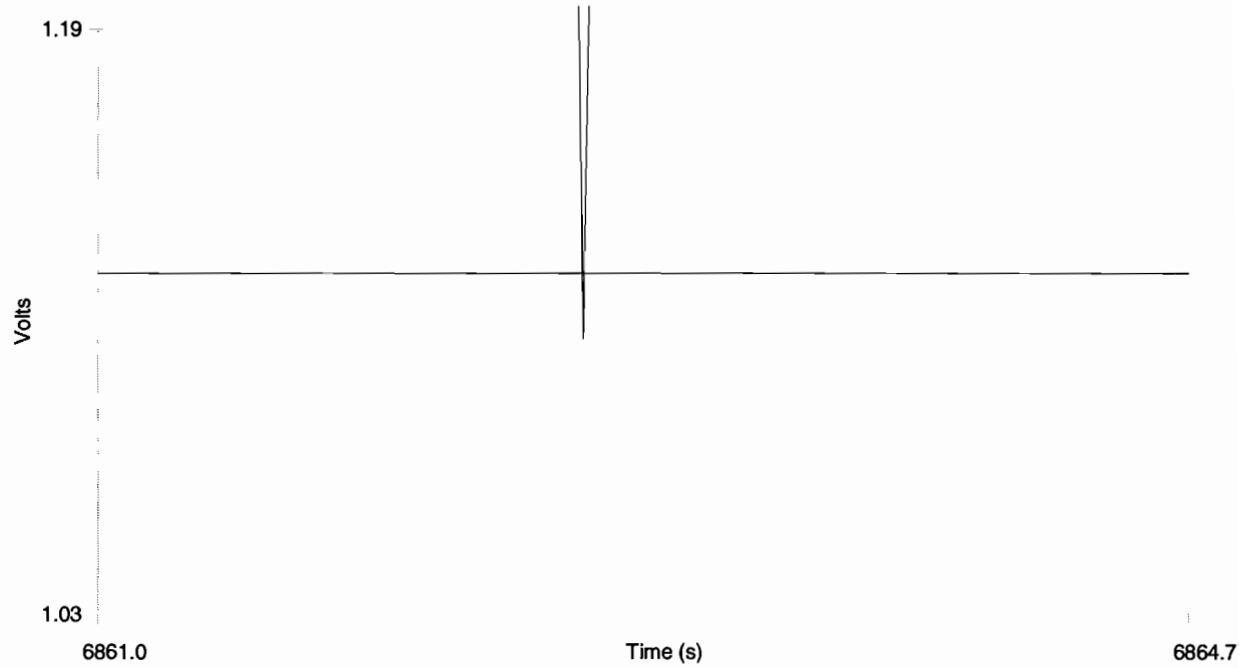

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.83	0.563	-0.4	2/11/2010	09:53:41
2	150	1	6.63	0.424	-0.2	2/11/2010	09:54:33
3	100	1	4.36	0.279	1.6	2/11/2010	09:55:25
4	50.0	1	2.20	0.140	2.4	2/11/2010	09:56:18
5	10.0	1	0.540	0.0343	-7.1	2/11/2010	09:57:11
6	5.00	1	0.362	0.0225	-26.4	2/11/2010	09:58:05
7	0.00	1	0.0328	0.00101		2/11/2010	09:58:59

Figure 1: TCYANIDE

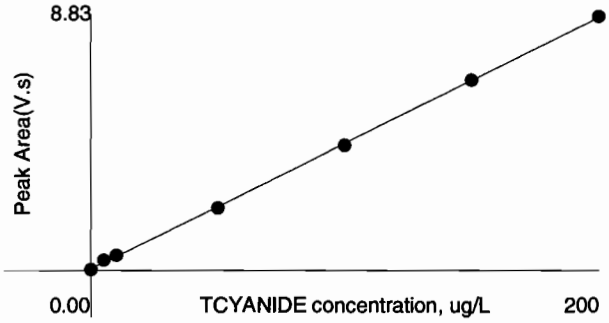

Area = 0.0436 * Conc + 0.0684
Conc = 22.9 * Area - 1.55
Correlation Coefficient (r) = 0.99988

No Weighting

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-FEB-10			
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
948614	See Below		

Potentially affected work order(s)(SDG): 245938(10-1506),245950(10-1508),245955(10-1509),245960(10-1511)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202032235MS 1202032237MSD	1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD(soil sample).
2. Failed Recovery for MS: QC 1202032237MS	2. The matrix spike recovery falls outside of the client specified acceptance limits. Since both the matrix spike duplicate and the RPD are within acceptance limits, the data is reported(soil sample).

Originator's Name:

Ashley Earl 15-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 16-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-FEB-10			
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
948618	See Below		

Potentially affected work order(s)(SDG): 245960(10-1511),245998(10-1517),246012(10-1523)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD: QC 1202032253MSD 1202032254MSD	1. The spike recovery falls duplicate outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.

Originator's Name:

Ashley Earl 15-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 22-FEB-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1511-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948940	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948939	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245965001	RE15-10-7326
1202033006	Method Blank (MB)
1202033007	246004001(RE16-10-11766) Sample Duplicate (DUP)
1202033008	245926003(CAMO-10-9289) Sample Duplicate (DUP)
1202033009	246004001(RE16-10-11766) Matrix Spike (MS)
1202033010	245926003(CAMO-10-9289) Matrix Spike (MS)
1202033011	246004001(RE16-10-11766) Matrix Spike Duplicate (MSD)
1202033012	245926003(CAMO-10-9289) Matrix Spike Duplicate (MSD)
1202033013	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245926003 (CAMO-10-9289) and 246004001 (RE16-10-11766).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033008 (CAMO-10-9289).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 245965001 (RE15-10-7326).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 26Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1511-1 GEL Work Order: 245965

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1511-1

Client Sample ID:	RE15-10-7326	Project:	LANL01004
Sample ID:	245965001	Client ID:	LANL010
Matrix:	W		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1509	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245965

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948940										
QC1202033007 246004001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	02/08/10 15:01
QC1202033008 245926003 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				02/08/10 14:44
QC1202033013 LCS										
Cyanide, Total	50.0			51.4	ug/L		103	(90%-110%)		02/08/10 14:37
QC1202033006 MB										
Cyanide, Total			U	5.00	ug/L					02/08/10 14:36
QC1202033009 246004001 MS										
Cyanide, Total	100	U	ND	96.2	ug/L		96.2	(60%-144%)		02/08/10 15:02
QC1202033010 245926003 MS										
Cyanide, Total	100	U	ND	93.6	ug/L		92.2	(60%-144%)		02/08/10 14:45
QC1202033011 246004001 MSD										
Cyanide, Total	100	U	ND	94.3	ug/L	1.99	94.3	(0%-20%)		02/08/10 15:03
QC1202033012 245926003 MSD										
Cyanide, Total	100	U	ND	94.0	ug/L	0.426	92.6	(0%-20%)		02/08/10 14:46

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

QC Summary

Workorder: 245965

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-FEB-2010 13:10

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1511-1

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 14:26:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:39:11	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:51:47	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:04:19	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes
CCV	08-FEB-2010 15:16:55	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 14:28:32	OM_2-8-2010_13-14-40	-1.47	10	Yes
CCB	08-FEB-2010 14:41:01	OM_2-8-2010_13-14-40	-1.57	10	Yes
CCB	08-FEB-2010 14:53:37	OM_2-8-2010_13-14-40	-1.83	10	Yes
CCB	08-FEB-2010 15:06:09	OM_2-8-2010_13-14-40	-1.82	10	Yes
CCB	08-FEB-2010 15:18:45	OM_2-8-2010_13-14-40	-1.49	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948939

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033013	URF1184831-02	.0125	mL
MS	1202033009	URF1184831-02	.025	mL
MS	1202033010	URF1184831-02	.025	mL
MSD	1202033011	URF1184831-02	.025	mL
MSD	1202033012	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033006		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
LCS	1202033013		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245926001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926002		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926003		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202033008	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MS	1202033010	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202033012	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926004		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926005		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926006		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926007		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245939001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245939002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245953001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245965001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245975001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245981001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246000001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246004001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
DUP	1202033007	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MS	1202033009	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MSD	1202033011	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056003		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056004		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246080001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100205-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010	15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010	15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010	15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010	15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010	15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010	15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010	15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010	15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010	15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010	15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010	15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010	15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010	15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010	15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010	15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010	15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010	15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010	15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010	15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010	15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010	15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010	15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010	15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010	15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010	15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010	15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010	15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010	15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010	15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010	15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010	15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010	15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010	15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	16:02:41	OM_2-8-2010_13-14-40

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029237||LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231||DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233||MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235||MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232||DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234||MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236||MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.47 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.47 > -5.00					
		Message	CCB Passed					
		Action	Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/8/2010

Channel 1: Current View

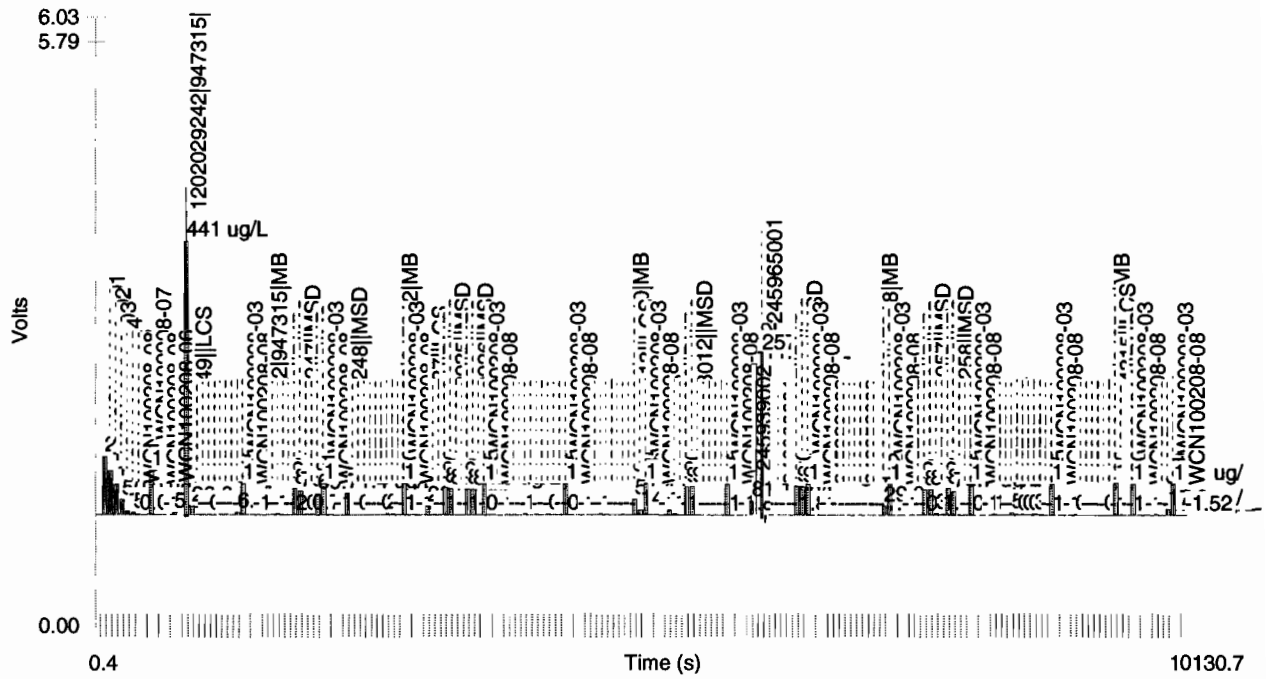

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE

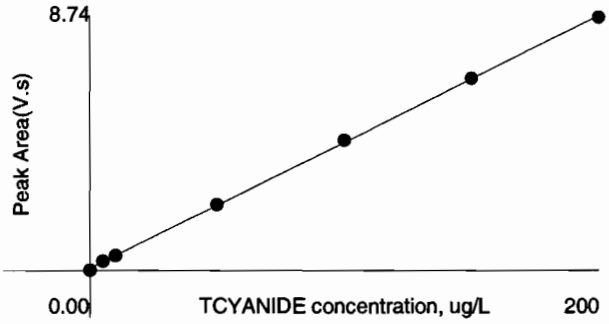

Area = 0.0436 * Conc + 0.0819
Conc = 23.0 * Area - 1.86
Correlation Coefficient (r) = 0.99989

No Weighting

RADIOLOGICAL ANALYSIS

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202032013	245955001(RE16-10-1474) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 245955001 (RE16-10-1474). The QC was from LANL work order 245955.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949823
Prep Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960007	RE15-10-7313
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202034998	Method Blank (MB)
1202034999	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035000	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202034998 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202035000 (LCS) was recounted due to high carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202035000 (LCS), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	955380
Prep Batch Number:	948542

Sample ID	Client ID
245960006	RE15-10-7312
245960008	RE15-10-7314
1202048270	Method Blank (MB)
1202048271	245785015(RE46-10-11882) Sample Duplicate (DUP)
1202048272	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202048270 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245785015 (RE46-10-11882). The QC was from LANL work order 245785.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 245960006 (RE15-10-7312) and 245960008 (RE15-10-7314) were reprepped due to high carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949824
Prep Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202035001	Method Blank (MB)
1202035002	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035003	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035001 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245960004 (RE15-10-7317) was recounted due to low carrier/tracer yield. Sample 1202035003 (LCS) was recounted due to poor resolution. Sample 1202035002 (RE15-10-7880) was recounted due to a negative result greater than three times the error. Second count being reported.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949825
Prep Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202035005	Method Blank (MB)
1202035006	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035007	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035005 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and 238 blank result 1202035005 (MB) is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202035005 (MB) was recounted due to high carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234 and 238 blank result 1202035005 (MB) is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	954007
Prep Batch Number:	948542

Sample ID	**Client ID**
245960008	RE15-10-7314
1202045181	Method Blank (MB)
1202045182	245960008(RE15-10-7314) Sample Duplicate (DUP)
1202045183	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202045181 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245960008 (RE15-10-7314). The QC was from LANL work order 245960.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-238 blank, 1202045181 (MB), result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245960008 (RE15-10-7314) was reprepped due to low carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234 blank, 1202045181 (MB), result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	948717
Prep Batch Number:	948542

Sample ID	Client ID
245960001	RE15-10-7309
245960002	RE15-10-7308
245960003	RE15-10-7315
245960004	RE15-10-7317
245960005	RE15-10-7319
245960006	RE15-10-7312
245960007	RE15-10-7313
245960008	RE15-10-7314
245960009	RE15-10-7316
245960010	RE15-10-7318
245960011	RE15-10-7324
1202032510	Method Blank (MB)
1202032511	245960002(RE15-10-7308) Sample Duplicate (DUP)
1202032512	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, April 2009, May 2009, June 2009, July 2009, October 2009, November 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245960002 (RE15-10-7308). The QC was from LANL work order 245960.

QC Information
Refer to Data Exception Report (DER).

CSU

The blank 1202032510 (MB) result is greater than 1.65 times the CSU but less than the MDC for Na-22.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 791258 was generated due to Other. 1. Samples 245960002 and duplicate 1202032511 did not meet the relative error ratio limits for K-40. However, all other nuclides meet the relative error ratio requirements. 1. Reporting results.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank, 1202032510 (MB), result for Pb-212 is greater than the decision level, but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	245960001	RE15-10-7309
			245960002	RE15-10-7308
			245960003	RE15-10-7315
			245960004	RE15-10-7317
			245960005	RE15-10-7319
			245960006	RE15-10-7312
			245960007	RE15-10-7313
			245960008	RE15-10-7314
			245960009	RE15-10-7316
			245960010	RE15-10-7318

			245960011	RE15-10-7324
			1202032511	RE15-10-7308(245960002DUP)
		Cadmium-109	245960001	RE15-10-7309
			245960002	RE15-10-7308
			245960003	RE15-10-7315
			245960004	RE15-10-7317
			245960005	RE15-10-7319
			245960006	RE15-10-7312
			245960007	RE15-10-7313
			245960008	RE15-10-7314
			245960009	RE15-10-7316
			245960010	RE15-10-7318
			245960011	RE15-10-7324
			1202032511	RE15-10-7308(245960002DUP)
		Mercury-203	245960004	RE15-10-7317
			245960007	RE15-10-7313
		Radium-224	245960001	RE15-10-7309
			245960002	RE15-10-7308
			245960003	RE15-10-7315
			245960004	RE15-10-7317
			245960005	RE15-10-7319
			245960006	RE15-10-7312
			245960007	RE15-10-7313
			245960008	RE15-10-7314
			245960009	RE15-10-7316
			245960010	RE15-10-7318
			245960011	RE15-10-7324
			1202032511	RE15-10-7308(245960002DUP)
UI	Data rejected due to low abundance.	Cesium-134	245960002	RE15-10-7308

	245960003	RE15-10-7315
	245960004	RE15-10-7317
	245960005	RE15-10-7319
	245960009	RE15-10-7316
	245960011	RE15-10-7324
	1202032511	RE15-10-7308(245960002DUP)
Strontium-85	245960003	RE15-10-7315
	245960007	RE15-10-7313
	245960008	RE15-10-7314
	245960010	RE15-10-7318
	1202032510	MB for batch 948717

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Kath Bell 2/25/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GAMMA SPECTROMETER	DOE HASL 300, 4.5.2.3/Ga-01-R	Solid	LANL
Batch ID:	**Sample Numbers:**		
948717	See Below		

Potentially affected work order(s)(SDG): 245955(10-1509),245960(10-1511)

Application Issues:

Other

Specification and Requirements Exception Description:	DER Disposition:
1. Samples 245960002 and duplicate 1202032511 did not meet the relative error ratio limits for K-40. However, all other nuclides meet the relative error ratio requirements.	1. Reporting results.

Originator's Name:

Jimmy Hartley 16-FEB-10

Data Validator/Group Leader:

Kenshalla Oston 16-FEB-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1511 GEL Work Order: 245960

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC
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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7309	Project:	LANL01004
Sample ID:	245960001	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.84%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00144	0.0241	+/-0.00162	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00108	0.023	+/-0.00185	0.050	pCi/g		HAKB	02/13/10	2134	949824	3
Plutonium-239/240	U	-0.00282	0.0174	+/-0.00263	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.07	0.0919	+/-0.098	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236	U	0.0405	0.0586	+/-0.0165	0.100	pCi/g						
Uranium-238		1.07	0.0628	+/-0.0984	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.033	0.0844	+/-0.0256	0.200	pCi/g		MXR1	02/12/10	1444	948717	5
Bismuth-211	UI	4.74	0.318	+/-0.329		pCi/g						
Bismuth-214		1.41	0.132	+/-0.129	0.200	pCi/g						
Cadmium-109	UI	4.01	0.734	+/-0.399		pCi/g						
Cerium-139	U	0.00731	0.044	+/-0.0124	0.050	pCi/g						
Cesium-134	U	0.0869	0.122	+/-0.0463	0.100	pCi/g						
Cesium-137	U	-0.0133	0.0798	+/-0.025	0.100	pCi/g						
Cobalt-60	U	-0.0193	0.0808	+/-0.0256	0.100	pCi/g						
Europium-152	U	-0.0479	0.153	+/-0.0489	0.200	pCi/g						
Lanthanum-140	U	-0.0369	0.181	+/-0.0694		pCi/g						
Lead-212		1.95	0.0877	+/-0.115	0.100	pCi/g						
Lead-214		1.65	0.111	+/-0.122	0.100	pCi/g						
Mercury-203	U	0.0289	0.0654	+/-0.0206	0.100	pCi/g						
Potassium-40		22.5	0.713	+/-1.38	1.00	pCi/g						
Radium-223	U	0.0234	1.09	+/-0.371		pCi/g						
Radium-224	UI	5.48	1.00	+/-0.545		pCi/g						
Radium-226		1.41	0.132	+/-0.129		pCi/g						
Radium-228		1.72	0.266	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	-0.224	0.589	+/-0.196	0.800	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7309
Sample ID: 245960001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0324	0.103	+/-0.0299	0.080	pCi/g						
Strontium-85	U	0.0221	0.0667	+/-0.0212		pCi/g						
Thallium-208		0.543	0.0709	+/-0.0594	0.080	pCi/g						
Thorium-227	U	0.0974	0.587	+/-0.171		pCi/g						
Thorium-231	U	0.0234	1.09	+/-0.371		pCi/g						
Thorium-234		1.01	0.775	+/-0.430	2.00	pCi/g						
Tin-113	U	-0.0445	0.081	+/-0.0271	0.100	pCi/g						
Uranium-235	U	0.147	0.305	+/-0.0921	0.500	pCi/g						
Yttrium-88	U	0.0151	0.0875	+/-0.0253	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	100	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7309
Sample ID: 245960001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7308	Project:	LANL01004
Sample ID:	245960002	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0029	0.0234	+/-0.00214	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0231	+/-0.00151	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00751	0.0174	+/-0.00338	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.62	0.102	+/-0.285	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.215	0.0652	+/-0.0363	0.100	pCi/g						
Uranium-238		4.59	0.0699	+/-0.354	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.235	0.377	+/-0.119	0.200	pCi/g		MXR1	02/12/10	1445	948717	5
Bismuth-211	UI	3.58	0.425	+/-0.282		pCi/g						
Bismuth-214		1.26	0.131	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	3.47	1.61	+/-0.615		pCi/g						
Cerium-139	U	0.00945	0.0588	+/-0.0176	0.050	pCi/g						
Cesium-134	UI	0.107	0.106	+/-0.0301	0.100	pCi/g						
Cesium-137		0.223	0.0674	+/-0.0486	0.100	pCi/g						
Cobalt-60	U	-0.015	0.0729	+/-0.0235	0.100	pCi/g						
Europium-152	U	-0.0814	0.179	+/-0.0641	0.200	pCi/g						
Lanthanum-140	U	-0.159	0.0984	+/-0.0458		pCi/g						
Lead-212		1.50	0.101	+/-0.0807	0.100	pCi/g						
Lead-214		1.24	0.141	+/-0.103	0.100	pCi/g						
Mercury-203	U	-0.00814	0.0794	+/-0.0233	0.100	pCi/g						
Potassium-40		20.0	0.519	+/-1.14	1.00	pCi/g						
Radium-223	U	-0.917	1.14	+/-0.429		pCi/g						
Radium-224	UI	4.25	1.14	+/-0.728		pCi/g						
Radium-226		1.26	0.131	+/-0.102		pCi/g						
Radium-228		1.41	0.186	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.126	0.572	+/-0.180	0.800	pCi/g						
Sodium-22	U	-0.0441	0.0699	+/-0.0243	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7308 Project: LANL01004
Sample ID: 245960002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0664	0.0751	+/-0.0205		pCi/g						
Thallium-208		0.576	0.0613	+/-0.0455	0.080	pCi/g						
Thorium-227	U	0.00271	0.703	+/-0.215		pCi/g						
Thorium-231	U	-0.917	1.14	+/-0.429		pCi/g						
Thorium-234		6.32	2.99	+/-1.56	2.00	pCi/g						
Tin-113	U	-0.0534	0.0742	+/-0.0239	0.100	pCi/g						
Uranium-235		0.421	0.409	+/-0.168	0.500	pCi/g						
Yttrium-88	U	-0.00168	0.057	+/-0.0175	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	88.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7308
Sample ID: 245960002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7315	Project:	LANL01004
Sample ID:	245960003	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.92%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00131	0.0274	+/-0.00226	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00106	0.0227	+/-0.00182	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00739	0.0172	+/-0.00333	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.07	0.0857	+/-0.0962	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0714	0.0547	+/-0.018	0.100	pCi/g						
Uranium-238		1.25	0.0585	+/-0.110	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0949	0.213	+/-0.0658	0.200	pCi/g		MXR1	02/12/10	1547	948717	5
Bismuth-211	UI	4.51	0.273	+/-0.334		pCi/g						
Bismuth-214		1.30	0.101	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	3.13	1.17	+/-0.459		pCi/g						
Cerium-139	U	0.000265	0.0484	+/-0.014	0.050	pCi/g						
Cesium-134	UI	0.132	0.077	+/-0.0337	0.100	pCi/g						
Cesium-137	U	0.0375	0.0606	+/-0.0173	0.100	pCi/g						
Cobalt-60	U	0.00324	0.0458	+/-0.0137	0.100	pCi/g						
Europium-152	U	0.0788	0.154	+/-0.0562	0.200	pCi/g						
Lanthanum-140	U	-0.116	0.108	+/-0.0386		pCi/g						
Lead-212		1.79	0.0798	+/-0.129	0.100	pCi/g						
Lead-214		1.57	0.095	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.032	0.068	+/-0.0201	0.100	pCi/g						
Potassium-40		20.5	0.417	+/-1.12	1.00	pCi/g						
Radium-223	U	0.557	0.988	+/-0.319		pCi/g						
Radium-224	UI	5.02	0.907	+/-0.649		pCi/g						
Radium-226		1.30	0.101	+/-0.104		pCi/g						
Radium-228		1.63	0.181	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	0.127	0.480	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0332	0.0547	+/-0.0178	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7315
Sample ID: 245960003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.175	0.0711	+/-0.0215		pCi/g						
Thallium-208		0.509	0.0521	+/-0.0433	0.080	pCi/g						
Thorium-227	U	0.299	0.605	+/-0.178		pCi/g						
Thorium-231	U	0.557	0.988	+/-0.319		pCi/g						
Thorium-234		1.79	1.77	+/-0.816	2.00	pCi/g						
Tin-113	U	-0.00411	0.0678	+/-0.0203	0.100	pCi/g						
Uranium-235	U	0.100	0.331	+/-0.096	0.500	pCi/g						
Yttrium-88	U	-0.0101	0.041	+/-0.0133	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	69.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7315
Sample ID: 245960003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7317	Project:	LANL01004
Sample ID:	245960004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00455	0.0238	+/-0.00271	0.050	pCi/g		HAKB	02/15/10	0739	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00106	0.0172	+/-0.00149	0.050	pCi/g		HAKB	02/18/10	1842	949824	3
Plutonium-239/240	U	0.00211	0.013	+/-0.0015	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.09	0.0794	+/-0.0962	0.100	pCi/g		HAKB	02/13/10	2124	949825	5
Uranium-235/236		0.0777	0.0506	+/-0.0182	0.100	pCi/g						
Uranium-238		1.17	0.0542	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.00338	0.0777	+/-0.0253	0.200	pCi/g		MXR1	02/12/10	1547	948717	6
Bismuth-211	UI	4.22	0.301	+/-0.317		pCi/g						
Bismuth-214		1.25	0.125	+/-0.113	0.200	pCi/g						
Cadmium-109	UI	4.08	0.773	+/-0.418		pCi/g						
Cerium-139	U	0.00339	0.0416	+/-0.0122	0.050	pCi/g						
Cesium-134	UI	0.159	0.103	+/-0.0385	0.100	pCi/g						
Cesium-137	U	0.0122	0.0691	+/-0.0315	0.100	pCi/g						
Cobalt-60	U	-0.000929	0.0702	+/-0.0219	0.100	pCi/g						
Europium-152	U	0.0242	0.148	+/-0.0483	0.200	pCi/g						
Lanthanum-140	U	0.00201	0.174	+/-0.0522		pCi/g						
Lead-212		1.90	0.122	+/-0.124	0.100	pCi/g						
Lead-214		1.47	0.105	+/-0.117	0.100	pCi/g						
Mercury-203	UI	0.0703	0.0599	+/-0.0247	0.100	pCi/g						
Potassium-40		20.8	0.542	+/-1.16	1.00	pCi/g						
Radium-223	U	0.276	1.03	+/-0.331		pCi/g						
Radium-224	UI	3.66	1.05	+/-0.499		pCi/g						
Radium-226		1.25	0.125	+/-0.113		pCi/g						
Radium-228		1.67	0.213	+/-0.191	0.500	pCi/g						
Ruthenium-106	U	0.0466	0.553	+/-0.161	0.800	pCi/g						
Sodium-22	U	0.0175	0.0797	+/-0.0233	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7317
Sample ID: 245960004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0254	0.0639	+/-0.0211		pCi/g						
Thallium-208		0.598	0.0595	+/-0.0569	0.080	pCi/g						
Thorium-227	U	-0.246	0.587	+/-0.189		pCi/g						
Thorium-231	U	0.276	1.03	+/-0.331		pCi/g						
Thorium-234		1.78	0.732	+/-0.471	2.00	pCi/g						
Tin-113	U	-0.0176	0.0681	+/-0.0209	0.100	pCi/g						
Uranium-235	U	0.0801	0.302	+/-0.0885	0.500	pCi/g						
Yttrium-88	U	-0.022	0.0495	+/-0.0177	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- BD Results are either below the MDC or tracer recovery is low
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- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7317
Sample ID: 245960004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7319	Project:	LANL01004
Sample ID:	245960005	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0102	0.0256	+/-0.00422	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00583	0.0222	+/-0.00311	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.00433	0.0167	+/-0.00251	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.38	0.0898	+/-0.120	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0924	0.0573	+/-0.0212	0.100	pCi/g						
Uranium-238		1.49	0.0613	+/-0.128	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0423	0.253	+/-0.078	0.200	pCi/g		MXR1	02/12/10	1548	948717	5
Bismuth-211	UI	4.43	0.308	+/-0.262		pCi/g						
Bismuth-214		1.35	0.117	+/-0.0926	0.200	pCi/g						
Cadmium-109	UI	3.98	1.29	+/-0.470		pCi/g						
Cerium-139	U	-0.000378	0.0468	+/-0.0141	0.050	pCi/g						
Cesium-134	UI	0.125	0.0977	+/-0.0354	0.100	pCi/g						
Cesium-137	U	-0.0125	0.0625	+/-0.0194	0.100	pCi/g						
Cobalt-60	U	-0.0188	0.0603	+/-0.0196	0.100	pCi/g						
Europium-152	U	-0.0246	0.148	+/-0.0463	0.200	pCi/g						
Lanthanum-140	U	0.0476	0.168	+/-0.0542		pCi/g						
Lead-212		1.70	0.0911	+/-0.0814	0.100	pCi/g						
Lead-214		1.54	0.107	+/-0.0995	0.100	pCi/g						
Mercury-203	U	0.00869	0.0682	+/-0.0197	0.100	pCi/g						
Potassium-40		19.0	0.578	+/-1.05	1.00	pCi/g						
Radium-223	U	-0.345	1.07	+/-0.374		pCi/g						
Radium-224	UI	4.94	1.04	+/-0.676		pCi/g						
Radium-226		1.35	0.117	+/-0.0926		pCi/g						
Radium-228		1.60	0.209	+/-0.169	0.500	pCi/g						
Ruthenium-106	U	-0.0347	0.506	+/-0.151	0.800	pCi/g						
Sodium-22	U	-0.0225	0.0758	+/-0.0241	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7319
Sample ID: 245960005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0483	0.0664	+/-0.0211		pCi/g						
Thallium-208		0.552	0.0529	+/-0.0459	0.080	pCi/g						
Thorium-227	U	0.269	0.628	+/-0.177		pCi/g						
Thorium-231	U	-0.345	1.07	+/-0.374		pCi/g						
Thorium-234		2.27	2.09	+/-1.05	2.00	pCi/g						
Tin-113	U	0.0066	0.0715	+/-0.0212	0.100	pCi/g						
Uranium-235	U	0.00721	0.345	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0285	0.0501	+/-0.0181	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Report Date: February 25, 2010

Client Sample ID: RE15-10-7319
Sample ID: 245960005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7312	Project:	LANL01004
Sample ID:	245960006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	29.4%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00509	0.022	+/-0.00267	0.050	pCi/g		CXM2	02/20/10	1337	955380	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00183	0.0219	+/-0.00227	0.050	pCi/g		HAKB	02/13/10	2135	949824	5
Plutonium-239/240	U	0.0133	0.0166	+/-0.00469	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		7.59	0.0951	+/-0.565	0.100	pCi/g		HAKB	02/13/10	2124	949825	6
Uranium-235/236		0.405	0.0606	+/-0.0521	0.100	pCi/g						
Uranium-238		7.64	0.0649	+/-0.568	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.00654	0.125	+/-0.0396	0.200	pCi/g		MXR1	02/12/10	1548	948717	7
Bismuth-211	UI	4.20	0.395	+/-0.340		pCi/g						
Bismuth-214		1.32	0.148	+/-0.120	0.200	pCi/g						
Cadmium-109	UI	2.11	1.34	+/-0.445		pCi/g						
Cerium-139	U	-0.0234	0.0562	+/-0.0175	0.050	pCi/g						
Cesium-134	U	0.111	0.118	+/-0.0473	0.100	pCi/g						
Cesium-137		0.348	0.0764	+/-0.0519	0.100	pCi/g						
Cobalt-60	U	0.0248	0.0902	+/-0.0253	0.100	pCi/g						
Europium-152	U	-0.000504	0.197	+/-0.060	0.200	pCi/g						
Lanthanum-140	U	-0.103	0.167	+/-0.0606		pCi/g						
Lead-212		1.69	0.0986	+/-0.107	0.100	pCi/g						
Lead-214		1.46	0.138	+/-0.124	0.100	pCi/g						
Mercury-203	U	-0.0187	0.0798	+/-0.0237	0.100	pCi/g						
Potassium-40		19.9	0.509	+/-1.29	1.00	pCi/g						
Radium-223	U	-0.261	1.24	+/-0.426		pCi/g						
Radium-224	UI	4.50	1.12	+/-0.552		pCi/g						
Radium-226		1.32	0.148	+/-0.120		pCi/g						
Radium-228		1.54	0.254	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.156	0.701	+/-0.209	0.800	pCi/g						
Sodium-22	U	-0.03	0.082	+/-0.0274	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7312
Sample ID: 245960006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0042	0.0766	+/-0.0264		pCi/g						
Thallium-208		0.570	0.0694	+/-0.0534	0.080	pCi/g						
Thorium-227	U	-0.263	0.682	+/-0.222		pCi/g						
Thorium-231	U	-0.261	1.24	+/-0.426		pCi/g						
Thorium-234		8.43	1.16	+/-1.04	2.00	pCi/g						
Tin-113	U	-0.00517	0.0912	+/-0.0273	0.100	pCi/g						
Uranium-235		0.549	0.369	+/-0.232	0.500	pCi/g						
Yttrium-88	U	0.0029	0.0745	+/-0.0226	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Am-05-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	66.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
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D Results are reported from a diluted aliquot of the sample

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Report Date: February 25, 2010

Client Sample ID: RE15-10-7312
Sample ID: 245960006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7313	Project:	LANL01004
Sample ID:	245960007	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.72%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00181	0.0232	+/-0.00155	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0218	+/-0.00142	0.050	pCi/g		HAKB	02/13/10	2135	949824	3
Plutonium-239/240	U	0.000793	0.0164	+/-0.00247	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.984	0.091	+/-0.0917	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.102	0.058	+/-0.0226	0.100	pCi/g						
Uranium-238		1.17	0.0621	+/-0.105	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.16	0.261	+/-0.0862	0.200	pCi/g		MXR1	02/12/10	1549	948717	5
Bismuth-211	UI	3.64	0.234	+/-0.213		pCi/g						
Bismuth-214		1.16	0.083	+/-0.0813	0.200	pCi/g						
Cadmium-109	UI	2.59	1.13	+/-0.434		pCi/g						
Cerium-139	U	0.0103	0.0406	+/-0.0113	0.050	pCi/g						
Cesium-134	U	0.064	0.0661	+/-0.0207	0.100	pCi/g						
Cesium-137	U	0.00697	0.0474	+/-0.0137	0.100	pCi/g						
Cobalt-60	U	-0.0152	0.0488	+/-0.0156	0.100	pCi/g						
Europium-152	U	0.0302	0.122	+/-0.0443	0.200	pCi/g						
Lanthanum-140	U	-0.0221	0.0936	+/-0.0351		pCi/g						
Lead-212		1.57	0.0723	+/-0.0723	0.100	pCi/g						
Lead-214		1.27	0.0814	+/-0.081	0.100	pCi/g						
Mercury-203	UI	0.0601	0.0487	+/-0.0207	0.100	pCi/g						
Potassium-40		19.2	0.347	+/-0.912	1.00	pCi/g						
Radium-223	U	-0.0218	0.835	+/-0.289		pCi/g						
Radium-224	UI	4.21	0.822	+/-0.552		pCi/g						
Radium-226		1.16	0.083	+/-0.0813		pCi/g						
Radium-228		1.57	0.147	+/-0.151	0.500	pCi/g						
Ruthenium-106	U	0.083	0.407	+/-0.121	0.800	pCi/g						
Sodium-22	U	-0.00867	0.0504	+/-0.0156	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7313
Sample ID: 245960007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0899	0.0554	+/-0.0161		pCi/g						
Thallium-208		0.480	0.0448	+/-0.0361	0.080	pCi/g						
Thorium-227	U	-0.0212	0.517	+/-0.153		pCi/g						
Thorium-231	U	-0.0218	0.835	+/-0.289		pCi/g						
Thorium-234		2.31	2.08	+/-0.930	2.00	pCi/g						
Tin-113	U	-0.00883	0.0544	+/-0.016	0.100	pCi/g						
Uranium-235	U	-0.172	0.289	+/-0.0924	0.500	pCi/g						
Yttrium-88	U	-0.00487	0.0397	+/-0.0125	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7313
Sample ID: 245960007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7314	Project:	LANL01004
Sample ID:	245960008	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	32.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00281	0.0183	+/-0.0018	0.050	pCi/g		CXM2	02/20/10	1337	955380	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.000397	0.0218	+/-0.00175	0.050	pCi/g		HAKB	02/13/10	2135	949824	5
Plutonium-239/240	U	0.00567	0.0164	+/-0.00285	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.47	0.0968	+/-0.203	0.100	pCi/g		HAKB	02/23/10	2117	954007	6
Uranium-235/236		0.166	0.0617	+/-0.0305	0.100	pCi/g						
Uranium-238		2.99	0.0661	+/-0.241	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0119	0.302	+/-0.0999	0.200	pCi/g		MXR1	02/12/10	1553	948717	9
Bismuth-211	UI	4.07	0.386	+/-0.339		pCi/g						
Bismuth-214		1.21	0.119	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.10	1.46	+/-0.507		pCi/g						
Cerium-139	U	0.0111	0.0598	+/-0.0171	0.050	pCi/g						
Cesium-134	U	0.0437	0.107	+/-0.031	0.100	pCi/g						
Cesium-137		0.271	0.0681	+/-0.0347	0.100	pCi/g						
Cobalt-60	U	0.0239	0.0773	+/-0.0217	0.100	pCi/g						
Europium-152	U	-0.00967	0.182	+/-0.063	0.200	pCi/g						
Lanthanum-140	U	-0.0192	0.149	+/-0.0482		pCi/g						
Lead-212		1.64	0.107	+/-0.105	0.100	pCi/g						
Lead-214		1.41	0.139	+/-0.123	0.100	pCi/g						
Mercury-203	U	0.0362	0.0838	+/-0.024	0.100	pCi/g						
Potassium-40		22.0	0.554	+/-1.30	1.00	pCi/g						
Radium-223	U	-0.283	1.30	+/-0.398		pCi/g						
Radium-224	UI	4.84	1.22	+/-0.661		pCi/g						
Radium-226		1.21	0.119	+/-0.107		pCi/g						
Radium-228		1.59	0.228	+/-0.180	0.500	pCi/g						
Ruthenium-106	U	-0.168	0.601	+/-0.185	0.800	pCi/g						
Sodium-22	U	-0.0113	0.0825	+/-0.0253	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7314
Sample ID: 245960008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0988	0.0872	+/-0.0266		pCi/g						
Thallium-208		0.566	0.0609	+/-0.0548	0.080	pCi/g						
Thorium-227	U	-0.274	0.748	+/-0.229		pCi/g						
Thorium-231	U	-0.283	1.30	+/-0.398		pCi/g						
Thorium-234		3.12	2.47	+/-1.27	2.00	pCi/g						
Tin-113	U	-0.0293	0.0841	+/-0.0266	0.100	pCi/g						
Uranium-235	U	-0.0861	0.406	+/-0.120	0.500	pCi/g						
Yttrium-88	U	-0.0122	0.0634	+/-0.0209	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Am-05-RC Modified
4	DOE EML HASL-300, Am-05-RC Modified
5	DOE EML HASL-300, Pu-11-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE EML HASL-300, U-02-RC Modified
8	DOE EML HASL-300, U-02-RC Modified
9	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7314
Sample ID: 245960008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7316	Project:	LANL01004
Sample ID:	245960009	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	35.6%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00352	0.0243	+/-0.003	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00254	0.0207	+/-0.00802	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.00888	0.0156	+/-0.00383	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.05	0.101	+/-0.172	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.108	0.0641	+/-0.0244	0.100	pCi/g						
Uranium-238		2.95	0.0686	+/-0.237	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.149	0.361	+/-0.115	0.200	pCi/g		MXR1	02/12/10	1554	948717	5
Bismuth-211	UI	4.03	0.414	+/-0.316		pCi/g						
Bismuth-214		1.28	0.138	+/-0.112	0.200	pCi/g						
Cadmium-109	UI	2.82	2.03	+/-0.617		pCi/g						
Cerium-139	U	0.0017	0.0605	+/-0.0182	0.050	pCi/g						
Cesium-134	UI	0.186	0.115	+/-0.057	0.100	pCi/g						
Cesium-137		0.260	0.0733	+/-0.0485	0.100	pCi/g						
Cobalt-60	U	0.0285	0.0699	+/-0.0193	0.100	pCi/g						
Europium-152	U	-0.0635	0.193	+/-0.0682	0.200	pCi/g						
Lanthanum-140	U	0.0626	0.189	+/-0.0525		pCi/g						
Lead-212		1.61	0.119	+/-0.0865	0.100	pCi/g						
Lead-214		1.40	0.144	+/-0.116	0.100	pCi/g						
Mercury-203	U	0.0255	0.0885	+/-0.0253	0.100	pCi/g						
Potassium-40		18.7	0.557	+/-1.03	1.00	pCi/g						
Radium-223	U	-0.822	1.33	+/-0.420		pCi/g						
Radium-224	UI	4.80	1.36	+/-0.706		pCi/g						
Radium-226		1.28	0.138	+/-0.112		pCi/g						
Radium-228		1.68	0.258	+/-0.222	0.500	pCi/g						
Ruthenium-106	U	0.0585	0.604	+/-0.182	0.800	pCi/g						
Sodium-22	U	-0.0131	0.0782	+/-0.0249	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316
Sample ID: 245960009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0668	0.0874	+/-0.0275		pCi/g						
Thallium-208		0.553	0.0693	+/-0.0496	0.080	pCi/g						
Thorium-227	U	-0.0604	0.772	+/-0.239		pCi/g						
Thorium-231	U	-0.822	1.33	+/-0.420		pCi/g						
Thorium-234		4.91	2.98	+/-1.17	2.00	pCi/g						
Tin-113	U	-0.00475	0.0902	+/-0.027	0.100	pCi/g						
Uranium-235	U	-0.0472	0.414	+/-0.125	0.500	pCi/g						
Yttrium-88	U	0.0194	0.0699	+/-0.0193	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	83.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7316
Sample ID: 245960009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318
Sample ID: 245960010
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0136	0.0231	+/-0.00467	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00264	0.0216	+/-0.00264	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.0145	0.0162	+/-0.00444	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		4.65	0.0859	+/-0.349	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.252	0.0547	+/-0.0371	0.100	pCi/g						
Uranium-238		7.77	0.0586	+/-0.568	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0199	0.213	+/-0.0708	0.200	pCi/g		MXR1	02/12/10	1624	948717	5
Bismuth-211	UI	4.26	0.399	+/-0.341		pCi/g						
Bismuth-214		1.30	0.132	+/-0.117	0.200	pCi/g						
Cadmium-109	UI	3.32	1.33	+/-0.528		pCi/g						
Cerium-139	U	-0.019	0.0545	+/-0.0176	0.050	pCi/g						
Cesium-134	U	0.0886	0.0999	+/-0.0417	0.100	pCi/g						
Cesium-137		0.259	0.0751	+/-0.0529	0.100	pCi/g						
Cobalt-60	U	-0.000576	0.0728	+/-0.0223	0.100	pCi/g						
Europium-152	U	-0.0389	0.182	+/-0.0652	0.200	pCi/g						
Lanthanum-140	U	0.0676	0.171	+/-0.0536		pCi/g						
Lead-212		1.86	0.100	+/-0.111	0.100	pCi/g						
Lead-214		1.48	0.139	+/-0.125	0.100	pCi/g						
Mercury-203	U	0.00503	0.0782	+/-0.0234	0.100	pCi/g						
Potassium-40		23.6	0.518	+/-1.35	1.00	pCi/g						
Radium-223	U	-0.132	1.30	+/-0.400		pCi/g						
Radium-224	UI	5.99	1.14	+/-0.966		pCi/g						
Radium-226		1.30	0.132	+/-0.117		pCi/g						
Radium-228		1.74	0.258	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	-0.135	0.576	+/-0.179	0.800	pCi/g						
Sodium-22	U	-0.00621	0.0736	+/-0.0228	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318
Sample ID: 245960010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.089	0.0839	+/-0.025		pCi/g						
Thallium-208		0.553	0.0654	+/-0.0521	0.080	pCi/g						
Thorium-227	U	0.143	0.730	+/-0.215		pCi/g						
Thorium-231	U	-0.132	1.30	+/-0.400		pCi/g						
Thorium-234		9.31	1.88	+/-1.32	2.00	pCi/g						
Tin-113	U	0.0183	0.0849	+/-0.0255	0.100	pCi/g						
Uranium-235		0.492	0.376	+/-0.169	0.500	pCi/g						
Yttrium-88	U	-0.0405	0.040	+/-0.0176	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	105	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7318
Sample ID: 245960010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID:	RE15-10-7324	Project:	LANL01004
Sample ID:	245960011	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.3%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00316	0.0248	+/-0.0023	0.050	pCi/g		HAKB	02/15/10	0741	949823	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00249	0.0203	+/-0.00249	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.00248	0.0153	+/-0.00176	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.04	0.0995	+/-0.0977	0.100	pCi/g		HAKB	02/13/10	2124	949825	4
Uranium-235/236		0.0682	0.0634	+/-0.0189	0.100	pCi/g						
Uranium-238		1.06	0.0679	+/-0.0996	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0971	0.355	+/-0.102	0.200	pCi/g		MXR1	02/12/10	1631	948717	5
Bismuth-211	UI	4.14	0.303	+/-0.268		pCi/g						
Bismuth-214		1.20	0.103	+/-0.0822	0.200	pCi/g						
Cadmium-109	UI	2.71	1.36	+/-0.517		pCi/g						
Cerium-139	U	0.00232	0.046	+/-0.0136	0.050	pCi/g						
Cesium-134	UI	0.096	0.0959	+/-0.0286	0.100	pCi/g						
Cesium-137	U	-0.0302	0.0604	+/-0.0187	0.100	pCi/g						
Cobalt-60	U	0.00303	0.0635	+/-0.0188	0.100	pCi/g						
Europium-152	U	0.0866	0.154	+/-0.0473	0.200	pCi/g						
Lanthanum-140	U	-0.106	0.127	+/-0.0472		pCi/g						
Lead-212		1.65	0.0865	+/-0.0866	0.100	pCi/g						
Lead-214		1.44	0.106	+/-0.100	0.100	pCi/g						
Mercury-203	U	0.00405	0.0661	+/-0.0189	0.100	pCi/g						
Potassium-40		19.8	0.603	+/-1.06	1.00	pCi/g						
Radium-223	U	-0.576	1.05	+/-0.324		pCi/g						
Radium-224	UI	4.64	0.985	+/-0.654		pCi/g						
Radium-226		1.20	0.103	+/-0.0822		pCi/g						
Radium-228		1.68	0.194	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.00296	0.474	+/-0.146	0.800	pCi/g						
Sodium-22	U	0.00202	0.0696	+/-0.0206	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7324
Sample ID: 245960011
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0123	0.0576	+/-0.0193		pCi/g						
Thallium-208		0.504	0.0557	+/-0.0458	0.080	pCi/g						
Thorium-227	U	0.0518	0.588	+/-0.167		pCi/g						
Thorium-231	U	-0.576	1.05	+/-0.324		pCi/g						
Thorium-234	U	1.38	2.99	+/-0.828	2.00	pCi/g						
Tin-113	U	-0.0291	0.0646	+/-0.0202	0.100	pCi/g						
Uranium-235	U	-0.0498	0.314	+/-0.0939	0.500	pCi/g						
Yttrium-88	U	0.0162	0.0546	+/-0.0151	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	85.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 25, 2010

Client Sample ID: RE15-10-7324
Sample ID: 245960011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: February 25, 2010
Page 1 of 7

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949823										
QC1202034999 245978001 DUP										
Americium-241	U	-0.0018	U	0.00234	pCi/g	0.552		(0-1)	HAKB	02/15/1007:41
	TPU:	+/-0.00194		+/-0.00181						
	Yield:	68.2		93.4						
QC1202035000 LCS										
Americium-241	33.2			30.0	pCi/g		90.4	(75%-125%)		02/18/1018:42
	TPU:			+/-2.13						
	Yield:			106						
QC1202034998 MB										
Americium-241			U	-0.00331	pCi/g					02/15/1007:41
	TPU:			+/-0.00355						
	Yield:			97.1						
Batch 949824										
QC1202035002 245978001 DUP										
Plutonium-238	U	0.00493	U	-0.00203	pCi/g	0.712		(0-1)	HAKB	02/18/1018:43
	TPU:	+/-0.00286		+/-0.00203						
	Yield:	70.1		93.8						
Plutonium-239/240	U	0.00493	U	0.00203	pCi/g	0.337		(0-1)		
	TPU:	+/-0.00286		+/-0.00144						
	Yield:	70.1		93.8						
QC1202035003 LCS										
Plutonium-238				7.01	pCi/g			(75%-125%)		02/18/1018:43
	TPU:			+/-0.502						
	Yield:			98.7						
Plutonium-239/240	41.8			36.9	pCi/g		88.4	(75%-125%)		
	TPU:			+/-2.25						
	Yield:			98.7						
QC1202035001 MB										
Plutonium-238			U	0.00	pCi/g					02/13/1021:40
	TPU:			+/-0.00164						
	Yield:			85.7						
Plutonium-239/240			U	0.00327	pCi/g					
	TPU:			+/-0.00462						
	Yield:			85.7						
Batch 949825										
QC1202035006 245978001 DUP										
Uranium-233/234		0.753		0.691	pCi/g	0.209		(0-1)	HAKB	02/13/1021:25
	TPU:	+/-0.0791		+/-0.0699						
	Yield:	81.6		99.7						
Uranium-235/236	U	0.0219		0.0661	pCi/g	0.741		(0-1)		
	TPU:	+/-0.0111		+/-0.0188						
	Yield:	81.6		99.7						
Uranium-238		0.957		1.23	pCi/g	0.662		(0-1)		
	TPU:	+/-0.0946		+/-0.109						

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949825										
	Yield:	81.6		99.7						
QC1202035007 LCS										
Uranium-233/234				5.82	pCi/g			(75%-125%)		02/13/1021:25
	TPU:			+/-0.576						
	Yield:			87.3						
Uranium-235/236			U	0.329	pCi/g			(75%-125%)		
	TPU:			+/-0.0949						
	Yield:			87.3						
Uranium-238	5.75			6.82	pCi/g		119	(75%-125%)		
	TPU:			+/-0.657						
	Yield:			87.3						
QC1202035005 MB										
Uranium-233/234			U	0.0197	pCi/g					02/15/1021:17
	TPU:			+/-0.00624						
	Yield:			102						
Uranium-235/236			U	0.00359	pCi/g					
	TPU:			+/-0.0036						
	Yield:			102						
Uranium-238			U	0.016	pCi/g					
	TPU:			+/-0.00535						
	Yield:			102						
Batch 954007										
QC1202045182 245960008 DUP										
Uranium-233/234		2.47		2.88	pCi/g	0.473		(0-1)	HAKB	02/23/1021:17
	TPU:	+/-0.203		+/-0.228						
	Yield:	93.6		98.3						
Uranium-235/236		0.166		0.136	pCi/g	0.262		(0-1)		
	TPU:	+/-0.0305		+/-0.0266						
	Yield:	93.6		98.3						
Uranium-238		2.99		3.16	pCi/g	0.181		(0-1)		
	TPU:	+/-0.241		+/-0.248						
	Yield:	93.6		98.3						
QC1202045183 LCS										
Uranium-233/234				5.70	pCi/g			(75%-125%)		02/23/1021:17
	TPU:			+/-0.548						
	Yield:			101						
Uranium-235/236			U	0.197	pCi/g			(75%-125%)		
	TPU:			+/-0.0675						
	Yield:			101						
Uranium-238	5.75			5.93	pCi/g		103	(75%-125%)		
	TPU:			+/-0.566						
	Yield:			101						
QC1202045181 MB										
Uranium-233/234			U	0.0185	pCi/g					02/23/1010:41
	TPU:			+/-0.00528						
	Yield:			104						
Uranium-235/236			U	0.00	pCi/g					
	TPU:			+/-0.002						
	Yield:			104						
Uranium-238			U	0.00799	pCi/g					

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 954007										
	TPU:			+/-0.00383						
	Yield:			104						
Batch 955380										
QC1202048271 245785015 DUP										
Americium-241	U	0.004	U	0.0015	pCi/g	0.362		(0-1)	CXM2	02/20/1013:37
	TPU:	+/-0.00217		+/-0.00129						
	Yield:	81.0		84.1						
QC1202048272 LCS										
Americium-241	33.2			35.0	pCi/g		105	(75%-125%)		02/20/1013:39
	TPU:			+/-2.54						
	Yield:			97.4						
QC1202048270 MB										
Americium-241			U	-0.0066	pCi/g					02/20/1013:37
	TPU:			+/-0.00322						
	Yield:			79.5						
Rad Gamma Spec										
Batch 948717										
QC1202032511 245960002 DUP										
Americium-241	U	0.235	U	0.113	pCi/g	0.303		(0-1)	MXR1	02/12/1016:38
	TPU:	+/-0.119		+/-0.0826						
Bismuth-211	UI	3.58	UI	4.14	pCi/g	0.480		(0-1)		
	TPU:	+/-0.282		+/-0.305						
Bismuth-214		1.26		1.26	pCi/g	0.00969		(0-1)		
	TPU:	+/-0.102		+/-0.104						
Cadmium-109	UI	3.47	UI	2.27	pCi/g	0.517		(0-1)		
	TPU:	+/-0.615		+/-0.550						
Cerium-139	U	0.00945	U	-0.0133	pCi/g	0.357		(0-1)		
	TPU:	+/-0.0176		+/-0.0144						
Cesium-134	UI	0.107	UI	0.162	pCi/g	0.389		(0-1)		
	TPU:	+/-0.0301		+/-0.0414						
Cesium-137		0.223		0.248	pCi/g	0.145		(0-1)		
	TPU:	+/-0.0486		+/-0.0371						
Cobalt-60	U	-0.015	U	-0.00954	pCi/g	0.0691		(0-1)		
	TPU:	+/-0.0235		+/-0.0164						
Europium-152	U	-0.0814	U	-0.0521	pCi/g	0.138		(0-1)		
	TPU:	+/-0.0641		+/-0.0422						
Lanthanum-140	U	-0.159	U	-0.0558	pCi/g	0.601		(0-1)		
	TPU:	+/-0.0458		+/-0.0404						
Lead-212		1.50		1.62	pCi/g	0.295		(0-1)		
	TPU:	+/-0.0807		+/-0.117						
Lead-214		1.24		1.44	pCi/g	0.455		(0-1)		
	TPU:	+/-0.103		+/-0.112						
Mercury-203	U	-0.00814	U	-0.00312	pCi/g	0.0586		(0-1)		
	TPU:	+/-0.0233		+/-0.0195						
Potassium-40		20.0		25.3	pCi/g	1.04		(0-1)		
	TPU:	+/-1.14		+/-1.39						
Radium-223	U	-0.917	U	-0.39	pCi/g	0.334		(0-1)		
	TPU:	+/-0.429		+/-0.361						
Radium-224	UI	4.25	UI	2.82	pCi/g	0.583		(0-1)		
	TPU:	+/-0.728		+/-0.499						

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948717										
Radium-226		1.26		1.26	pCi/g	0.00969		(0-1)		
	TPU:	+/-0.102		+/-0.104						
Radium-228		1.41		1.63	pCi/g	0.302		(0-1)		
	TPU:	+/-0.176		+/-0.178						
Ruthenium-106	U	-0.126	U	-0.036	pCi/g	0.141		(0-1)		
	TPU:	+/-0.180		+/-0.140						
Sodium-22	U	-0.0441	U	0.0342	pCi/g	0.892		(0-1)		
	TPU:	+/-0.0243		+/-0.0196						
Strontium-85	U	0.0664	U	0.0233	pCi/g	0.550		(0-1)		
	TPU:	+/-0.0205		+/-0.0188						
Thallium-208		0.576		0.511	pCi/g	0.348		(0-1)		
	TPU:	+/-0.0455		+/-0.0469						
Thorium-227	U	0.00271	U	-0.263	pCi/g	0.330		(0-1)		
	TPU:	+/-0.215		+/-0.187						
Thorium-231	U	-0.917	U	-0.39	pCi/g	0.334		(0-1)		
	TPU:	+/-0.429		+/-0.361						
Thorium-234		6.32		4.83	pCi/g	0.282		(0-1)		
	TPU:	+/-1.56		+/-1.08						
Tin-113	U	-0.0534	U	-0.0184	pCi/g	0.400		(0-1)		
	TPU:	+/-0.0239		+/-0.0198						
Uranium-235		0.421		0.343	pCi/g	0.125		(0-1)		
	TPU:	+/-0.168		+/-0.145						
Yttrium-88	U	-0.00168	U	0.00812	pCi/g	0.144		(0-1)		
	TPU:	+/-0.0175		+/-0.0165						
QC1202032512 LCS										
Americium-241	15.9			13.8	pCi/g		86.6	(75%-125%)		02/12/1016:33
	TPU:			+/-0.983						
Bismuth-211				1.97	pCi/g					
	TPU:			+/-0.337						
Bismuth-214				0.679	pCi/g					
	TPU:			+/-0.129						
Cadmium-109				31.9	pCi/g					
	TPU:			+/-2.39						
Cerium-139			U	0.0119	pCi/g					
	TPU:			+/-0.0286						
Cesium-134			U	0.0896	pCi/g					
	TPU:			+/-0.0528						
Cesium-137	5.56			5.70	pCi/g		102	(75%-125%)		
	TPU:			+/-0.284						
Cobalt-60	6.40			6.42	pCi/g		100	(75%-125%)		
	TPU:			+/-0.360						
Europium-152			U	0.130	pCi/g					
	TPU:			+/-0.112						
Lanthanum-140			U	0.0302	pCi/g					
	TPU:			+/-0.0453						
Lead-212				1.09	pCi/g					
	TPU:			+/-0.139						
Lead-214				0.687	pCi/g					
	TPU:			+/-0.119						
Mercury-203			U	0.0726	pCi/g					
	TPU:			+/-0.0398						

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948717										
Potassium-40			U	0.361	pCi/g					
	TPU:			+/-0.289						
Radium-223			U	-1.68	pCi/g					
	TPU:			+/-0.757						
Radium-224				10.9	pCi/g					
	TPU:			+/-1.08						
Radium-226				0.679	pCi/g					
	TPU:			+/-0.129						
Radium-228				1.33	pCi/g					
	TPU:			+/-0.294						
Ruthenium-106			U	0.206	pCi/g					
	TPU:			+/-0.351						
Sodium-22			U	0.0228	pCi/g					
	TPU:			+/-0.0277						
Strontium-85				0.136	pCi/g					
	TPU:			+/-0.0412						
Thallium-208				0.368	pCi/g					
	TPU:			+/-0.0643						
Thorium-227			U	-0.302	pCi/g					
	TPU:			+/-0.418						
Thorium-231			U	-1.68	pCi/g					
	TPU:			+/-0.757						
Thorium-234			U	-1.29	pCi/g					
	TPU:			+/-1.86						
Tin-113			U	0.0777	pCi/g					
	TPU:			+/-0.0476						
Uranium-235			U	0.0119	pCi/g					
	TPU:			+/-0.202						
Yttrium-88			U	0.0544	pCi/g					
	TPU:			+/-0.0252						
QC1202032510 MB										
Americium-241			U	-0.0499	pCi/g					02/12/1016:32
	TPU:			+/-0.0281						
Bismuth-211			U	-0.204	pCi/g					
	TPU:			+/-0.0567						
Bismuth-214			U	-0.0388	pCi/g					
	TPU:			+/-0.0224						
Cadmium-109			U	-0.0332	pCi/g					
	TPU:			+/-0.182						
Cerium-139			U	0.00552	pCi/g					
	TPU:			+/-0.00696						
Cesium-134			U	0.0112	pCi/g					
	TPU:			+/-0.0111						
Cesium-137			U	-0.0112	pCi/g					
	TPU:			+/-0.00993						
Cobalt-60			U	0.00291	pCi/g					
	TPU:			+/-0.0103						
Europium-152			U	0.00033	pCi/g					
	TPU:			+/-0.0264						
Lanthanum-140			U	0.0123	pCi/g					
	TPU:			+/-0.0174						

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948717										
Lead-212			U	0.0366	pCi/g					
	TPU:			+/-0.0274						
Lead-214			U	-0.0459	pCi/g					
	TPU:			+/-0.0192						
Mercury-203			U	-0.0105	pCi/g					
	TPU:			+/-0.0093						
Potassium-40			U	0.0305	pCi/g					
	TPU:			+/-0.133						
Radium-223			U	-0.0536	pCi/g					
	TPU:			+/-0.158						
Radium-224			U	0.214	pCi/g					
	TPU:			+/-0.172						
Radium-226			U	-0.0388	pCi/g					
	TPU:			+/-0.0224						
Radium-228			U	0.0424	pCi/g					
	TPU:			+/-0.0401						
Ruthenium-106			U	-0.0442	pCi/g					
	TPU:			+/-0.0739						
Sodium-22			U	0.0184	pCi/g					
	TPU:			+/-0.0098						
Strontium-85			UI	0.0547	pCi/g					
	TPU:			+/-0.0111						
Thallium-208			U	-0.00937	pCi/g					
	TPU:			+/-0.010						
Thorium-227			U	-0.116	pCi/g					
	TPU:			+/-0.0923						
Thorium-231			U	-0.0536	pCi/g					
	TPU:			+/-0.158						
Thorium-234			U	-0.46	pCi/g					
	TPU:			+/-0.256						
Tin-113			U	0.00387	pCi/g					
	TPU:			+/-0.0112						
Uranium-235			U	0.00905	pCi/g					
	TPU:			+/-0.0528						
Yttrium-88			U	0.0191	pCi/g					
	TPU:			+/-0.0134						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample

QC Summary

Workorder: 245960

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 949823 Product: AM Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/21/10

Secondary Review Performed By: 02/22/10

2/13-2/23

CAN

√P

Am/Cm Que Sheet

05-FEB-10

Batch #: 949823 | Analyst: HAKB | First Client Due Date: 23-FEB-10 | Internal Due Date: 13-FEB-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 5/11/10 | Vol: Ø.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): SPM 0244-B / NA | Expiration Date: 4/30/20 / NA | Vol(s): Ø.103 / NA

Spike Isotope(s): Am241/Cm244 | Spike Code(s): NA / NA | Expiration Date: NA / NA | Vol(s): NA / NA

Prep Date: 2/8/10 | Initials: HAKB | Pipet ID: 2971058 | Balance ID: 50410272 | Witness: JMO 02/08/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (1/f)	Am/Cm Det #
245955001-1	RE16-10-1474	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.260	246
245955002-1	RE16-10-1475	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.271	248
245960001-1	RE15-10-7309	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.281	250
245960002-1	RE15-10-7308	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.268	252
245960003-1	RE15-10-7315	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.253	254
245960004-1	RE15-10-7317	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.252	256
245960005-1	RE15-10-7319	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.257	213
~~245960006-1~~	~~RE15-10-7312~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	~~8~~	~~8~~	~~1.284~~	~~214~~
245960007-1	RE15-10-7313	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	~~1.268~~ 1.261	215
~~245960008-1~~	~~RE15-10-7314~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	~~10~~	~~10~~	~~1.282~~	~~216~~ 216
245960009-1	RE15-10-7316	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	11	11	1.260	217
245960010-1	RE15-10-7318	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	12	12	1.270	224
245960011-1	RE15-10-7324	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	13	13	1.261	225
*245978001-1	RE15-10-7880	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.271	226
245978002-1	RE15-10-7891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.267	227
245978003-1	RE15-10-7892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.264	228
245978004-1	RE15-10-7967	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.252	~~229~~ 235
245978005-1	RE15-10-7976	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.258	230
245978006-1	RE15-10-7968	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.258	231
~~245978007-1~~	~~RE15-10-7965~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~20~~	~~20~~	~~1.284~~	~~232~~
1202034998-1	MB for batch 949823	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.00	218
1202034999-1	RE15-10-7880(245978001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.260	219
1202035000-1	LCS for batch 949823	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.103	~~220~~ 236

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/21/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 949823

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202034999	DUP	Americium-241	1.26 g	0.00234	0.00181	0.0207	-.00262698	pCi/g	NO
1202035000	LCS	Americium-241	0.103 g	30.0	2.13	0.223	-.03213592	pCi/g	NO
1202034998	MB	Americium-241	1.00 g	-0.00331	0.00355	0.0257	-.00331	pCi/g	NO
245955001	RE16-10-1474	Americium-241	1.26 g	0.00421	0.00253	0.0225	-.00262698	pCi/g	NO
245955002	RE16-10-1475	Americium-241	1.27 g	-0.0018	0.00142	0.0212	-.00260630	pCi/g	NO
245960001	RE15-10-7309	Americium-241	1.28 g	0.00144	0.00162	0.0241	-.00258594	pCi/g	NO
245960002	RE15-10-7308	Americium-241	1.27 g	0.0029	0.00214	0.0234	-.00260630	pCi/g	NO
245960003	RE15-10-7315	Americium-241	1.25 g	-0.00131	0.00226	0.0274	-.002648	pCi/g	NO
245960004	RE15-10-7317	Americium-241	1.25 g	0.00455	0.00271	0.0238	-.002648	pCi/g	NO
245960005	RE15-10-7319	Americium-241	1.26 g	0.0102	0.00422	0.0256	-.00262698	pCi/g	NO
245960007	RE15-10-7313	Americium-241	1.26 g	-0.00181	0.00155	0.0232	-.00262698	pCi/g	NO
245960009	RE15-10-7316	Americium-241	1.26 g	0.00352	0.003	0.0243	-.00262698	pCi/g	NO
245960010	RE15-10-7318	Americium-241	1.27 g	0.0136	0.00467	0.0231	-.00260630	pCi/g	NO
245960011	RE15-10-7324	Americium-241	1.26 g	0.00316	0.0023	0.0248	-.00262698	pCi/g	NO
245978001	RE15-10-7880	Americium-241	1.27 g	-0.0018	0.00194	0.029	-.00260630	pCi/g	NO
245978002	RE15-10-7891	Americium-241	1.27 g	0.0102	0.00424	0.0257	-.00260630	pCi/g	NO
245978003	RE15-10-7892	Americium-241	1.26 g	0.00303	0.00268	0.0221	-.00262698	pCi/g	NO
245978004	RE15-10-7967	Americium-241	1.25 g	0.0142	0.00485	0.0239	-.002648	pCi/g	NO
245978005	RE15-10-7976	Americium-241	1.26 g	6.35E-06	0.00176	0.0213	-.00262698	pCi/g	NO
245978006	RE15-10-7968	Americium-241	1.26 g	0.00487	0.00287	0.025	-.00262698	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 250	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960001_AM	DETECTOR S/N : 79443	BKG FILE : B250.CNF;80
SAMPLE QTY : 1.281 G	AVERAGE %EFFICIENCY : 39.2720	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:39:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W250.CNF;29
% YIELD : 77.169		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2507E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5446.674	4.906	2.000	0.895	0.000	2.8409	99.94000	1.44E-03	1.62E-03	9.88E-03	2.41E-02	1.61E-03
AM243	5270.000	5273.595	80.051	635.000	635.000	0.000	0.0000	99.78000	1.03E+00	7.65E-02	0.00E+00	4.38E-03	4.07E-02
CM-242	6102.000	6067.408	58.877	2.000	2.000	0.000	4.3413	100.0000	3.49E-03	2.48E-03	1.51E-02	3.46E-02	2.47E-03
CM-3/4	5795.020	5717.801	4.906	3.000	1.560	1.440	5.1799	100.0000	2.52E-03	3.25E-03	1.80E-02	4.04E-02	3.24E-03
CM-5/6	5386.000	5378.925	0.000	7.000	7.000	0.000	14.2480	86.09000	1.31E-02	5.02E-03	5.75E-02	1.20E-01	4.95E-03
CM-247	4946.000	4891.035	29.439	13.000	13.000	0.000	13.7917	79.30000	2.64E-02	7.51E-03	6.05E-02	1.26E-01	7.33E-03
CM-248	5078.600	5077.872	7.206	21.000	21.000	0.000	19.5080	91.00000	3.72E-02	8.45E-03	7.45E-02	1.54E-01	8.12E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

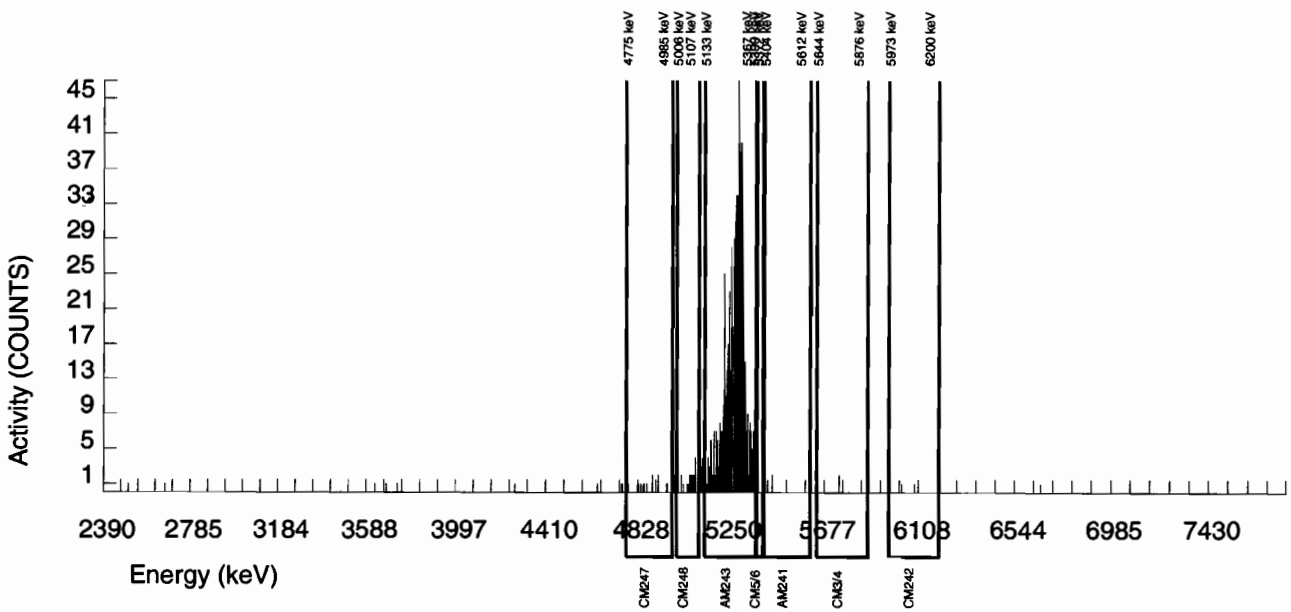

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 252	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960002_AM	DETECTOR S/N : 79445	BKG FILE : B252.CNF;80
SAMPLE QTY : 1.268 G	AVERAGE %EFFICIENCY : 37.8334	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:39:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W252.CNF;29
% YIELD : 83.328		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4303E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.546	68.606	3.000	1.851	0.000	2.8409	99.94000	2.90E-03	2.14E-03	9.60E-03	2.34E-02	2.13E-03
AM243	5270.000	5272.475	66.570	662.000	660.560	1.440	1.2000	99.78000	1.04E+00	7.65E-02	4.06E-03	1.24E-02	4.04E-02
CM-242	6102.000	6072.563	4.900	1.000	1.000	0.000	4.3413	100.0000	1.69E-03	1.70E-03	1.47E-02	3.36E-02	1.69E-03
CM-3/4	5795.020	5758.569	34.303	2.000	2.000	0.000	5.1799	100.0000	3.14E-03	2.23E-03	1.75E-02	3.92E-02	2.22E-03
CM-5/6	5386.000	5377.629	7.351	5.000	5.000	0.000	14.2480	86.09000	9.09E-03	4.10E-03	5.59E-02	1.17E-01	4.07E-03
CM-247	4946.000	4906.200	4.900	7.000	6.280	0.720	13.7917	79.30000	1.24E-02	5.47E-03	5.87E-02	1.23E-01	5.41E-03
CM-248	5078.600	5068.064	0.000	18.000	18.000	0.000	19.5080	91.00000	3.10E-02	7.55E-03	7.24E-02	1.49E-01	7.30E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

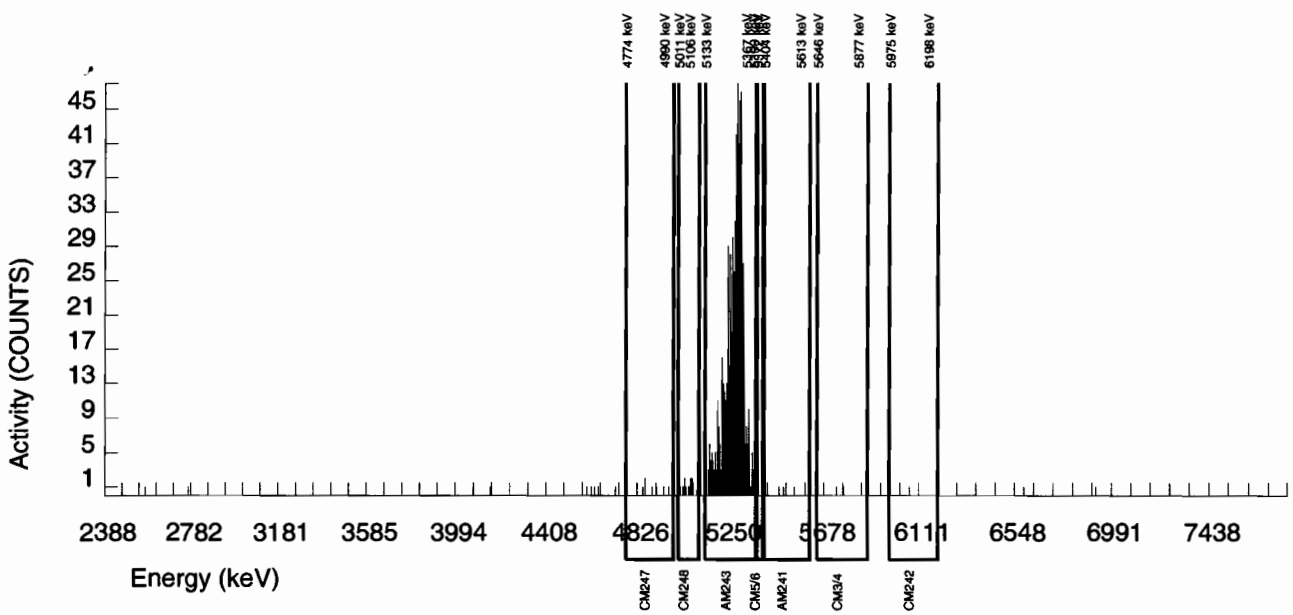

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 254	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960003_AM	DETECTOR S/N : 79447	BKG FILE : B254.CNF;80
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 39.2943	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:39:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W254.CNF;28
% YIELD : 69.352		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.0227E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5445.703	4.937	1.000	-0.714	0.720	2.8409	99.94000	-1.31E-03	2.26E-03	1.12E-02	2.74E-02	2.26E-03
AM243	5270.000	5273.121	22.743	571.000	571.000	0.000	0.0000	99.78000	1.05E+00	8.07E-02	0.00E+00	4.98E-03	4.39E-02
CM-242	6102.000	6029.968	64.182	4.000	4.000	0.000	4.3413	100.0000	7.93E-03	4.00E-03	1.72E-02	3.93E-02	3.97E-03
CM-3/4	5795.020	5773.529	147.494	5.000	3.560	1.440	5.1799	100.0000	6.54E-03	4.53E-03	2.05E-02	4.59E-02	4.51E-03
CM-5/6	5386.000	5377.989	0.000	10.000	9.280	0.720	14.2480	86.09000	1.98E-02	7.02E-03	6.54E-02	1.37E-01	6.90E-03
CM-247	4946.000	4898.128	172.797	7.000	7.000	0.000	13.7917	79.30000	1.62E-02	6.20E-03	6.87E-02	1.44E-01	6.11E-03
CM-248	5078.600	5063.898	0.000	16.000	16.000	0.000	19.5080	91.00000	3.22E-02	8.32E-03	8.47E-02	1.75E-01	8.05E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

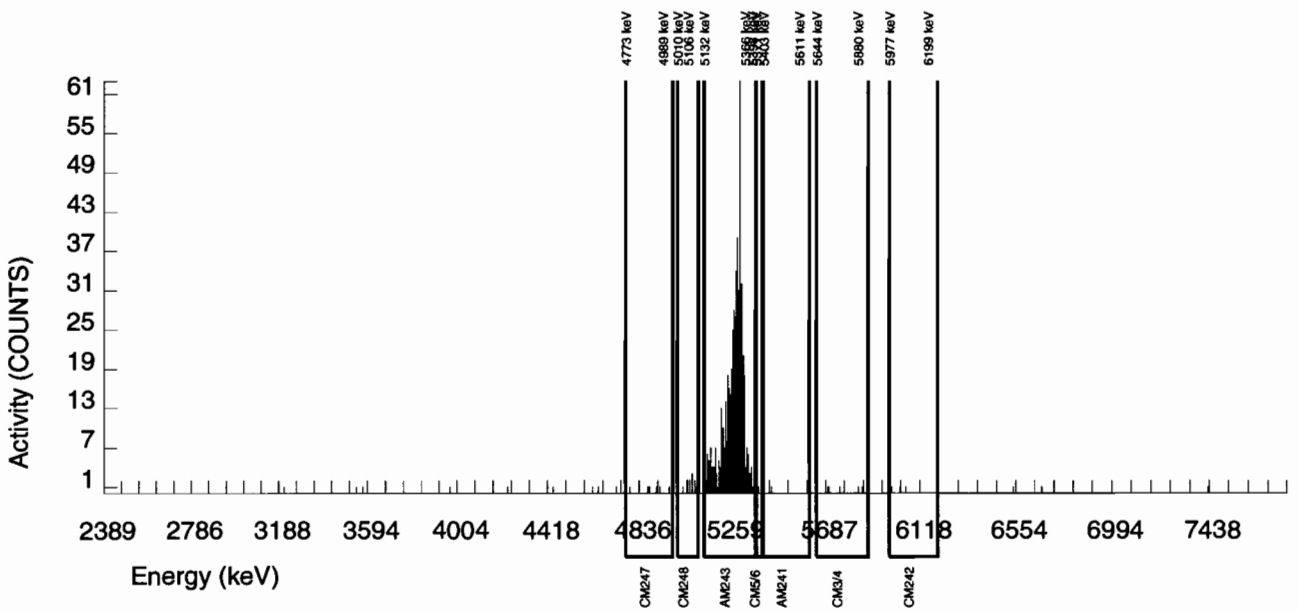

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 256	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960004_AM	DETECTOR S/N : 79449	BKG FILE : B256.CNF;82
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.7639	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:39:32	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;28
% YIELD : 83.158		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4254E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5536.192	102.731	4.000	2.855	0.000	2.8409	99.94000	4.55E-03	2.71E-03	9.76E-03	2.38E-02	2.69E-03
AM243	5270.000	5266.472	75.694	658.000	658.000	0.000	0.0000	99.78000	1.05E+00	7.75E-02	0.00E+00	4.32E-03	4.09E-02
CM-242	6102.000	6031.732	53.709	11.000	11.000	0.000	4.3413	100.0000	1.89E-02	5.83E-03	1.49E-02	3.41E-02	5.71E-03
CM-3/4	5795.020	5765.668	19.568	13.000	11.560	1.440	5.1799	100.0000	1.84E-02	6.08E-03	1.78E-02	3.99E-02	5.97E-03
CM-5/6	5386.000	5384.781	4.892	1.000	1.000	0.000	14.2480	86.09000	1.85E-03	1.85E-03	5.68E-02	1.19E-01	1.85E-03
CM-247	4946.000	4855.559	4.892	6.000	4.560	1.440	13.7917	79.30000	9.15E-03	5.35E-03	5.97E-02	1.25E-01	5.32E-03
CM-248	5078.600	5063.139	0.000	20.000	19.280	0.720	19.5080	91.00000	3.37E-02	8.20E-03	7.36E-02	1.52E-01	7.92E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

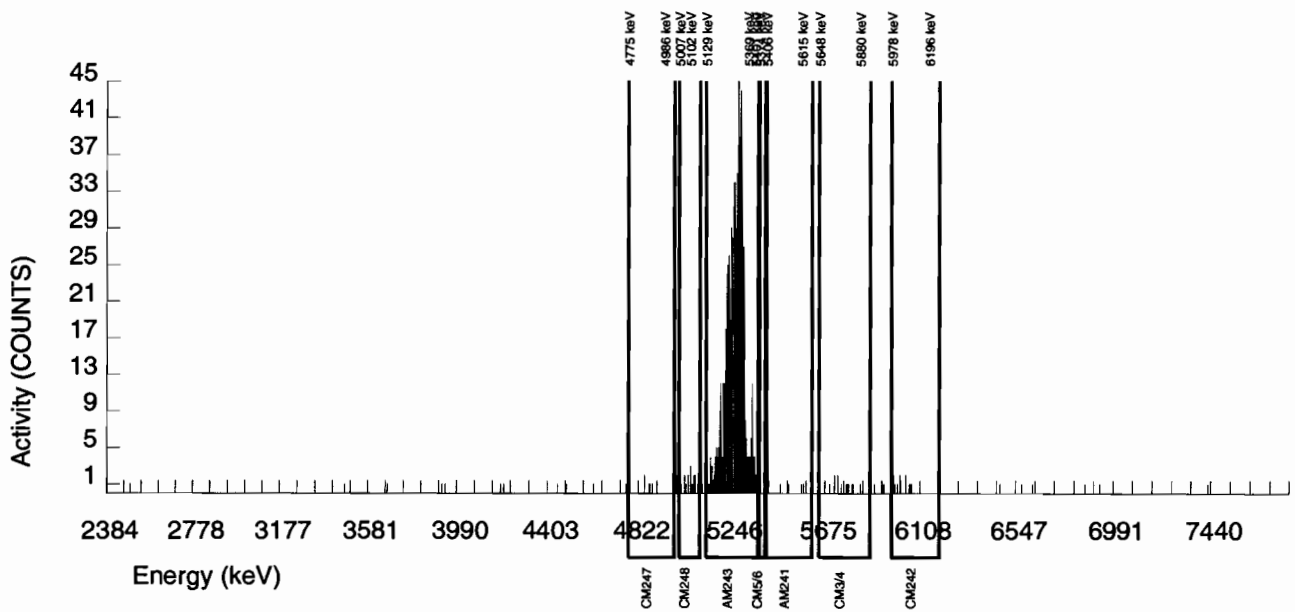

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 213	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960005_AM	DETECTOR S/N : 79192	BKG FILE : B213.CNF;80
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 37.3130	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W213.CNF;28
% YIELD : 78.059		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2766E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.516	118.527	7.000	5.938	0.000	2.8409	99.94000	1.02E-02	4.22E-03	1.05E-02	2.56E-02	4.17E-03
AM243	5270.000	5277.816	42.184	611.000	610.280	0.720	0.8485	99.78000	1.05E+00	7.89E-02	3.14E-03	1.09E-02	4.24E-02
CM-242	6102.000	6058.498	58.646	4.000	4.000	0.000	4.3413	100.0000	7.40E-03	3.73E-03	1.60E-02	3.66E-02	3.70E-03
CM-3/4	5795.020	5750.538	4.939	7.000	6.280	0.720	5.1799	100.0000	1.08E-02	4.74E-03	1.91E-02	4.28E-02	4.69E-03
CM-5/6	5386.000	5378.214	0.000	10.000	10.000	0.000	14.2480	86.09000	1.98E-02	6.40E-03	6.10E-02	1.27E-01	6.28E-03
CM-247	4946.000	4916.093	93.731	11.000	11.000	0.000	13.7917	79.30000	2.37E-02	7.30E-03	6.41E-02	1.34E-01	7.15E-03
CM-248	5078.600	5076.579	0.000	22.000	22.000	0.000	19.5080	91.00000	4.13E-02	9.19E-03	7.90E-02	1.63E-01	8.81E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

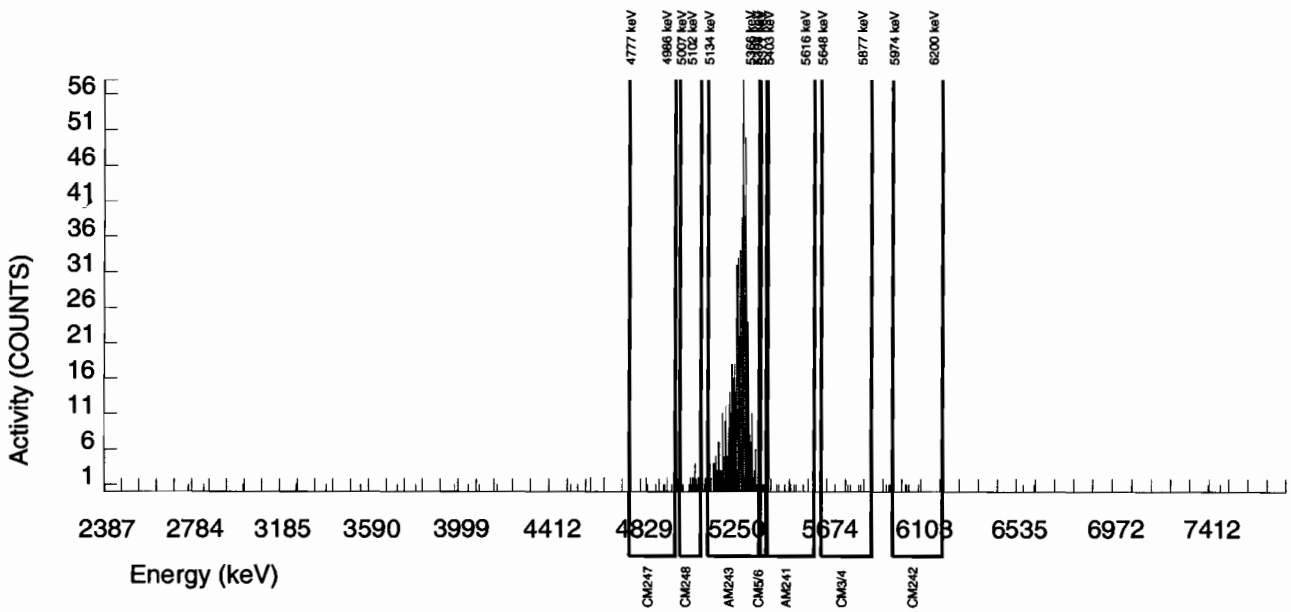

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 215	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960007_AM	DETECTOR S/N : 79468	BKG FILE : B215.CNF;80
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 37.5541	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W215.CNF;33
% YIELD : 85.402		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4908E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5506.799	0.000	0.000	-1.169	0.000	2.8409	99.94000	-1.81E-03	1.55E-03	9.49E-03	2.32E-02	1.55E-03
AM243	5270.000	5271.186	41.131	672.000	672.000	0.000	0.0000	99.78000	1.04E+00	7.65E-02	0.00E+00	4.20E-03	4.02E-02
CM-242	6102.000	6046.508	63.433	5.000	5.000	0.000	4.3413	100.0000	8.37E-03	3.78E-03	1.45E-02	3.32E-02	3.74E-03
CM-3/4	5795.020	5753.882	167.513	3.000	2.280	0.720	5.1799	100.0000	3.53E-03	2.92E-03	1.73E-02	3.88E-02	2.91E-03
CM-5/6	5386.000	5384.904	12.317	8.000	8.000	0.000	14.2480	86.09000	1.44E-02	5.16E-03	5.52E-02	1.15E-01	5.08E-03
CM-247	4946.000	4939.938	9.854	9.000	9.000	0.000	13.7917	79.30000	1.76E-02	5.95E-03	5.80E-02	1.21E-01	5.85E-03
CM-248	5078.600	5073.230	37.927	12.000	12.000	0.000	19.5080	91.00000	2.04E-02	6.03E-03	7.15E-02	1.48E-01	5.89E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

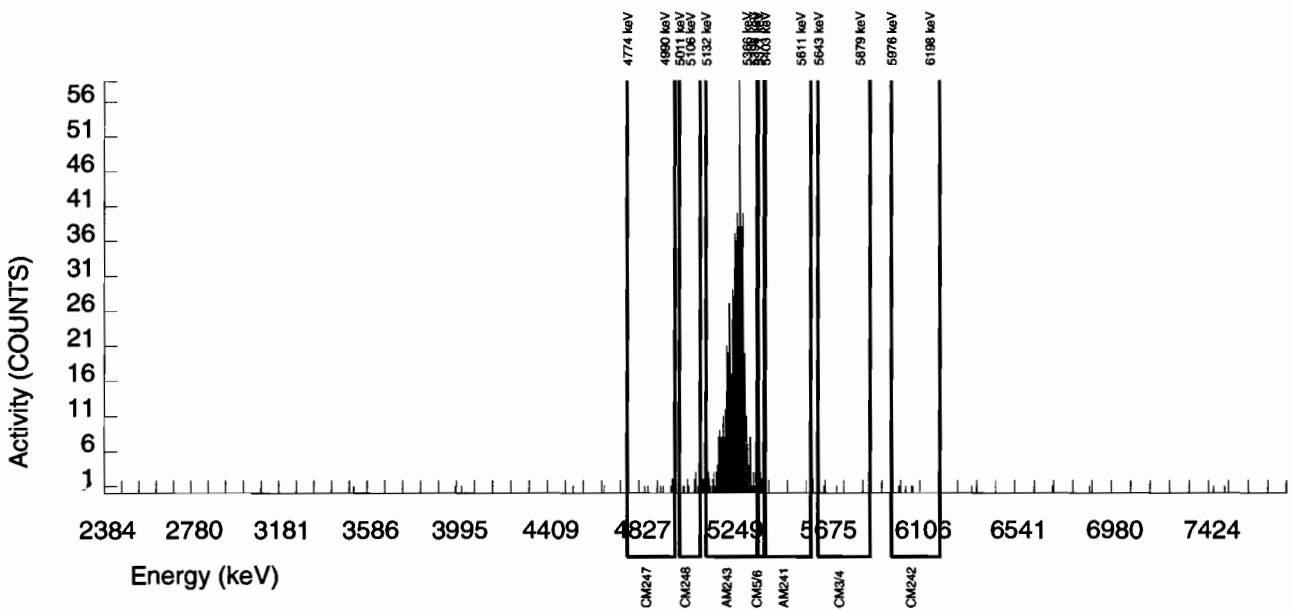

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 217	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960009_AM	DETECTOR S/N : 79410	BKG FILE : B217.CNF;82
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 36.8046	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W217.CNF;30
% YIELD : 83.121		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4243E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.846	4.928	4.000	2.165	0.720	2.8409	99.94000	3.52E-03	3.00E-03	9.95E-03	2.43E-02	3.00E-03
AM243	5270.000	5266.669	50.446	641.000	641.000	0.000	0.0000	99.78000	1.04E+00	7.76E-02	0.00E+00	4.41E-03	4.12E-02
CM-242	6102.000	6039.005	98.562	6.000	6.000	0.000	4.3413	100.0000	1.05E-02	4.35E-03	1.52E-02	3.48E-02	4.30E-03
CM-3/4	5795.020	5765.683	192.196	5.000	5.000	0.000	5.1799	100.0000	8.13E-03	3.67E-03	1.81E-02	4.07E-02	3.64E-03
CM-5/6	5386.000	5374.721	4.928	2.000	2.000	0.000	14.2480	86.09000	3.77E-03	2.68E-03	5.80E-02	1.21E-01	2.67E-03
CM-247	4946.000	4938.425	48.460	16.000	16.000	0.000	13.7917	79.30000	3.27E-02	8.44E-03	6.09E-02	1.27E-01	8.19E-03
CM-248	5078.600	5063.920	22.121	22.000	22.000	0.000	19.5080	91.00000	3.92E-02	8.72E-03	7.51E-02	1.55E-01	8.37E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

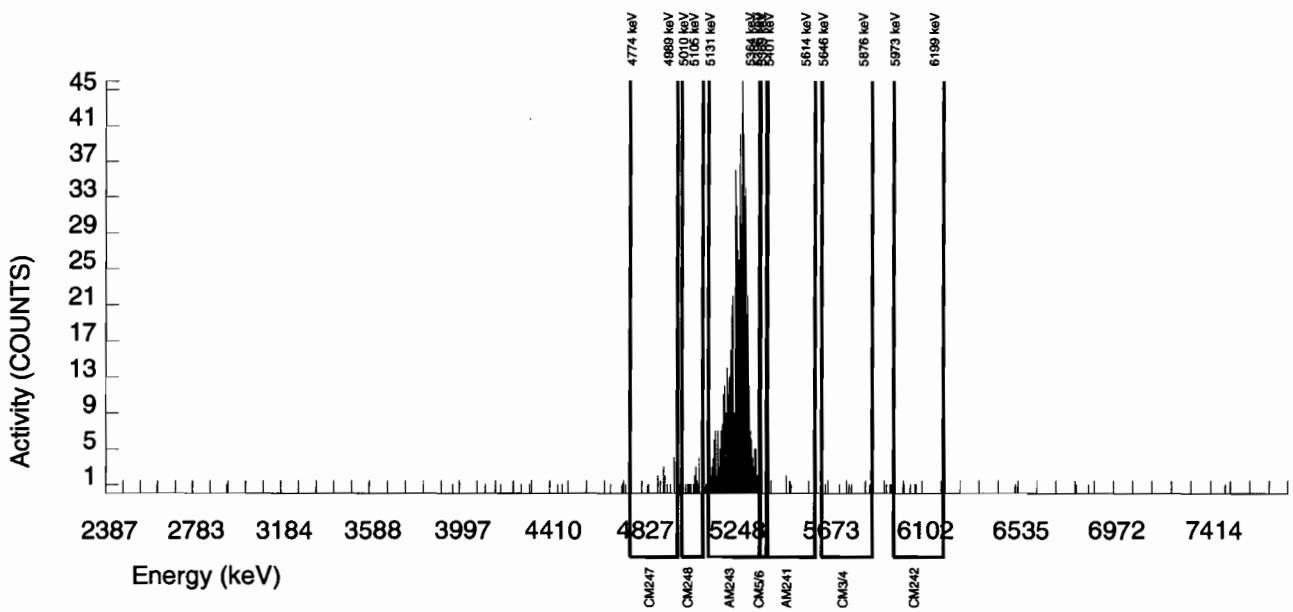

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 224	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960010_AM	DETECTOR S/N : 79417	BKG FILE : B224.CNF;80
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 37.7809	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W224.CNF;28
% YIELD : 84.545		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4658E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5515.612	4.981	10.000	8.835	0.000	2.8409	99.94000	1.36E-02	4.67E-03	9.46E-03	2.31E-02	4.59E-03
AM243	5270.000	5276.583	67.989	670.000	669.280	0.720	0.8485	99.78000	1.03E+00	7.61E-02	2.83E-03	9.85E-03	4.00E-02
CM-242	6102.000	6031.279	11.519	6.000	6.000	0.000	4.3413	100.0000	1.00E-02	4.14E-03	1.44E-02	3.31E-02	4.09E-03
CM-3/4	5795.020	5769.925	4.981	4.000	3.280	0.720	5.1799	100.0000	5.07E-03	3.30E-03	1.72E-02	3.86E-02	3.28E-03
CM-5/6	5386.000	5379.774	0.000	8.000	8.000	0.000	14.2480	86.09000	1.43E-02	5.15E-03	5.51E-02	1.15E-01	5.07E-03
CM-247	4946.000	4899.192	129.512	12.000	12.000	0.000	13.7917	79.30000	2.33E-02	6.89E-03	5.79E-02	1.21E-01	6.74E-03
CM-248	5078.600	5067.000	65.908	12.000	12.000	0.000	19.5080	91.00000	2.03E-02	6.01E-03	7.13E-02	1.47E-01	5.87E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

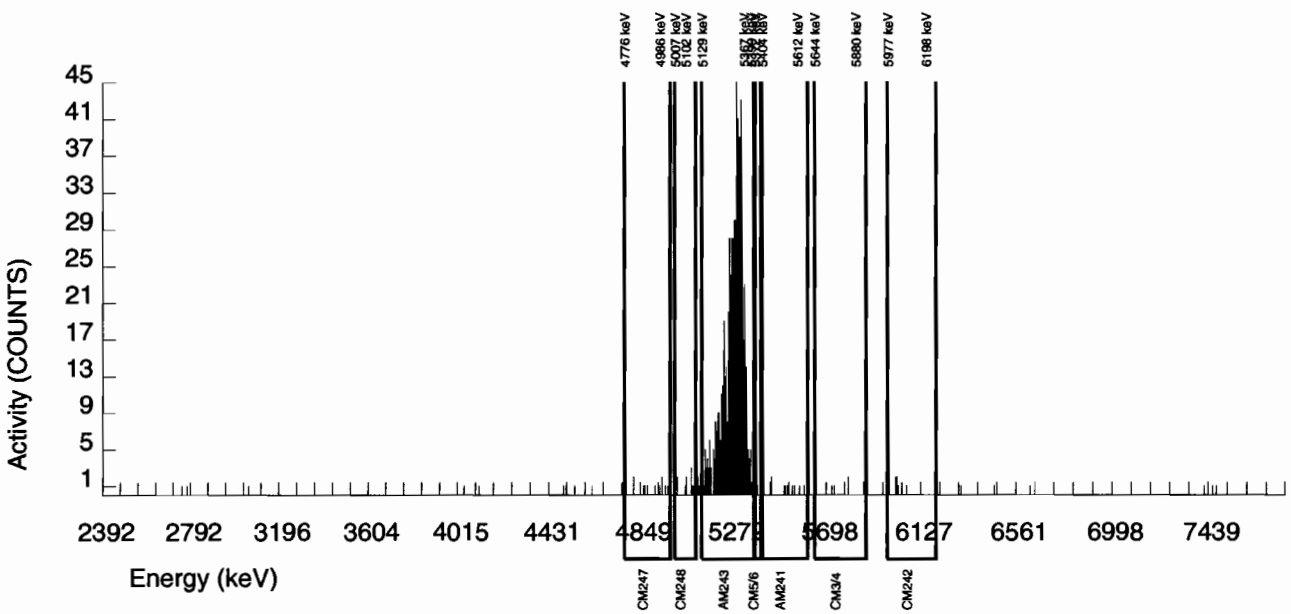

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 225	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960011_AM	DETECTOR S/N : 79418	BKG FILE : B225.CNF;80
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 38.7926	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W225.CNF;28
% YIELD : 77.296		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2544E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC ~~pCi/G~~
AM-241	5479.150	5500.097	148.544	3.000	1.907	0.000	2.8409	99.94000	3.16E-03	2.29E-03	1.01E-02	2.48E-02	2.29E-03
AM243	5270.000	5275.832	68.985	629.000	628.280	0.720	0.8485	99.78000	1.04E+00	7.80E-02	3.04E-03	1.06E-02	4.16E-02
CM-242	6102.000	6035.578	94.078	3.000	3.000	0.000	4.3413	100.0000	5.37E-03	3.12E-03	1.55E-02	3.55E-02	3.10E-03
CM-3/4	5795.020	5728.530	4.951	5.000	4.280	0.720	5.1799	100.0000	7.10E-03	3.92E-03	1.85E-02	4.15E-02	3.89E-03
CM-5/6	5386.000	5379.576	0.000	3.000	3.000	0.000	14.2480	86.09000	5.77E-03	3.35E-03	5.91E-02	1.23E-01	3.33E-03
CM-247	4946.000	4933.065	0.000	18.000	17.280	0.720	13.7917	79.30000	3.61E-02	9.26E-03	6.21E-02	1.30E-01	8.98E-03
CM-248	5078.600	5072.372	24.757	14.000	12.560	1.440	19.5080	91.00000	2.28E-02	7.20E-03	7.65E-02	1.58E-01	7.05E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

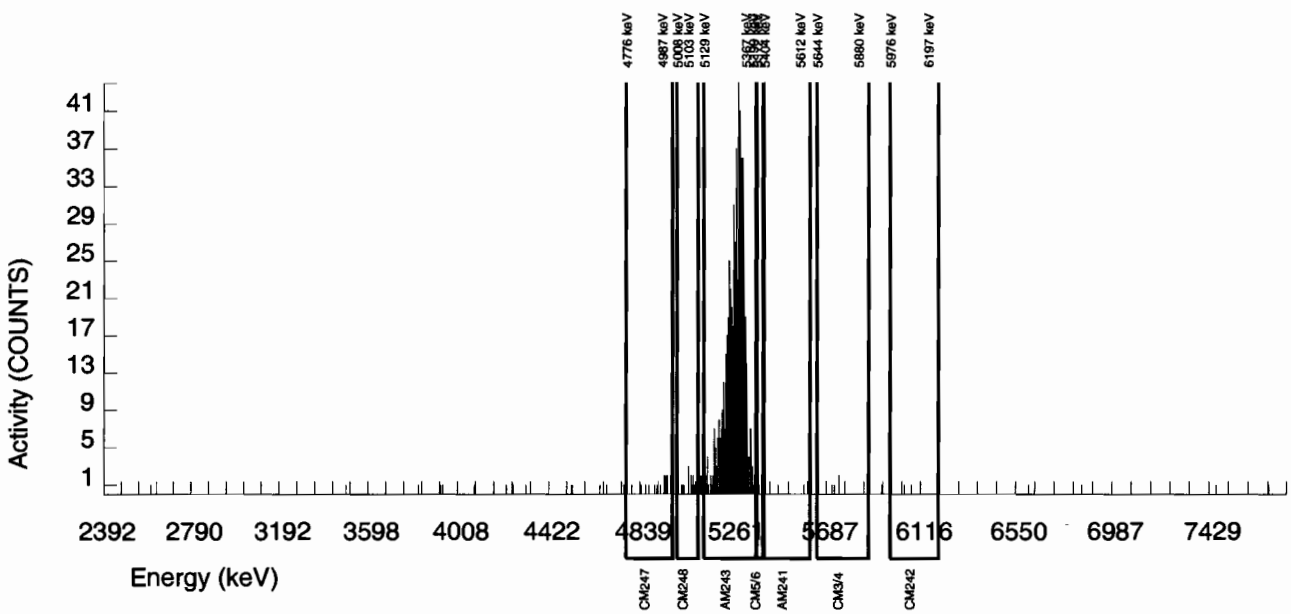

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 226	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978001_AM	DETECTOR S/N : 79419	BKG FILE : B226.CNF;80
SAMPLE QTY : 1.271 G	AVERAGE %EFFICIENCY : 37.2343	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W226.CNF;28
% YIELD : 68.190		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.9888E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.883	0.000	0.000	-0.926	0.000	2.8409	99.94000	-1.80E-03	1.94E-03	1.19E-02	2.90E-02	1.94E-03
AM243	5270.000	5276.667	39.465	532.000	532.000	0.000	0.0000	99.78000	1.03E+00	8.12E-02	0.00E+00	5.27E-03	4.48E-02
CM-242	6102.000	6037.050	4.955	1.000	1.000	0.000	4.3413	100.0000	2.11E-03	2.11E-03	1.82E-02	4.16E-02	2.11E-03
CM-3/4	5795.020	5741.394	79.274	5.000	4.280	0.720	5.1799	100.0000	8.31E-03	4.60E-03	2.17E-02	4.86E-02	4.56E-03
CM-5/6	5386.000	5379.774	7.277	4.000	4.000	0.000	14.2480	86.09000	9.01E-03	4.54E-03	6.92E-02	1.45E-01	4.50E-03
CM-247	4946.000	4848.850	4.955	5.000	2.840	2.160	13.7917	79.30000	6.94E-03	6.28E-03	7.27E-02	1.52E-01	6.26E-03
CM-248	5078.600	5068.201	32.205	9.000	9.000	0.000	19.5080	91.00000	1.92E-02	6.51E-03	8.97E-02	1.85E-01	6.39E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

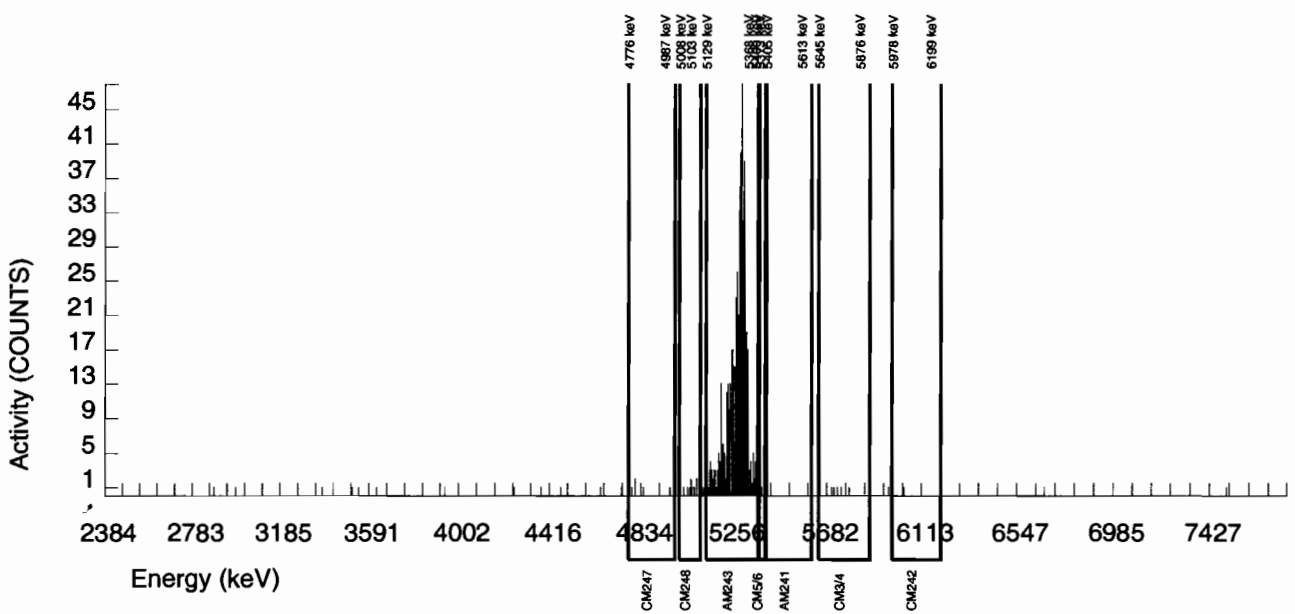

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 218	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202034998_AM	DETECTOR S/N : 79411	BKG FILE : B218.CNF;80
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.5225	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 15-FEB-2010 07:41:22	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W218.CNF;28
% YIELD : 97.083		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.8315E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5560.936	0.000	3.000	-1.928	3.600	2.8409	99.94000	-3.31E-03	3.55E-03	1.05E-02	2.57E-02	3.55E-03
AM243	5270.000	5277.232	48.018	764.000	763.280	0.720	0.8485	99.78000	1.31E+00	9.33E-02	3.15E-03	1.10E-02	4.76E-02
CM-242	6102.000	6043.712	4.944	9.000	9.000	0.000	4.3413	100.0000	1.60E-02	5.41E-03	1.61E-02	3.68E-02	5.32E-03
CM-3/4	5795.020	5759.040	168.093	11.000	11.000	0.000	5.1799	100.0000	1.89E-02	5.82E-03	1.92E-02	4.30E-02	5.70E-03
CM-5/6	5386.000	5372.661	0.000	5.000	4.280	0.720	14.2480	86.09000	8.54E-03	4.72E-03	6.13E-02	1.28E-01	4.69E-03
CM-247	4946.000	4899.614	148.318	5.000	2.840	2.160	13.7917	79.30000	6.15E-03	5.56E-03	6.44E-02	1.35E-01	5.54E-03
CM-248	5078.600	5078.091	0.000	24.000	22.560	1.440	19.5080	91.00000	4.26E-02	9.79E-03	7.94E-02	1.64E-01	9.44E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

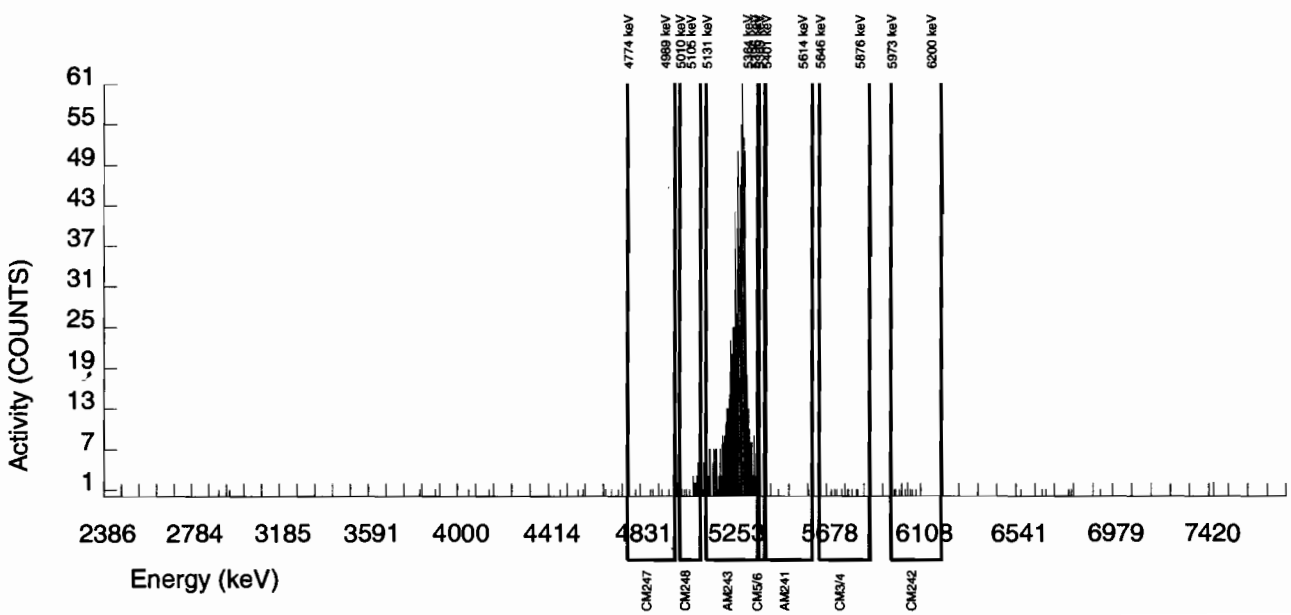

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 219	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202034999_AM	DETECTOR S/N : 79412	BKG FILE : B219.CNF;80
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 38.4458	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W219.CNF;28
% YIELD : 93.352		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7227E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5484.873	0.000	3.000	1.691	0.000	2.8409	99.94000	2.34E-03	1.81E-03	8.48E-03	2.07E-02	1.80E-03
AM243	5270.000	5276.857	49.546	752.000	752.000	0.000	0.0000	99.78000	1.04E+00	7.43E-02	0.00E+00	3.76E-03	3.80E-02
CM-242	6102.000	6040.348	7.220	8.000	8.000	0.000	4.3413	100.0000	1.20E-02	4.32E-03	1.30E-02	2.97E-02	4.25E-03
CM-3/4	5795.020	5779.022	7.220	12.000	12.000	0.000	5.1799	100.0000	1.66E-02	4.91E-03	1.55E-02	3.47E-02	4.80E-03
CM-5/6	5386.000	5378.583	0.000	11.000	11.000	0.000	14.2480	86.09000	1.77E-02	5.44E-03	4.94E-02	1.03E-01	5.33E-03
CM-247	4946.000	4924.962	7.220	9.000	7.560	1.440	13.7917	79.30000	1.32E-02	5.59E-03	5.19E-02	1.09E-01	5.53E-03
CM-248	5078.600	5072.415	0.000	38.000	38.000	0.000	19.5080	91.00000	5.78E-02	1.00E-02	6.40E-02	1.32E-01	9.37E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

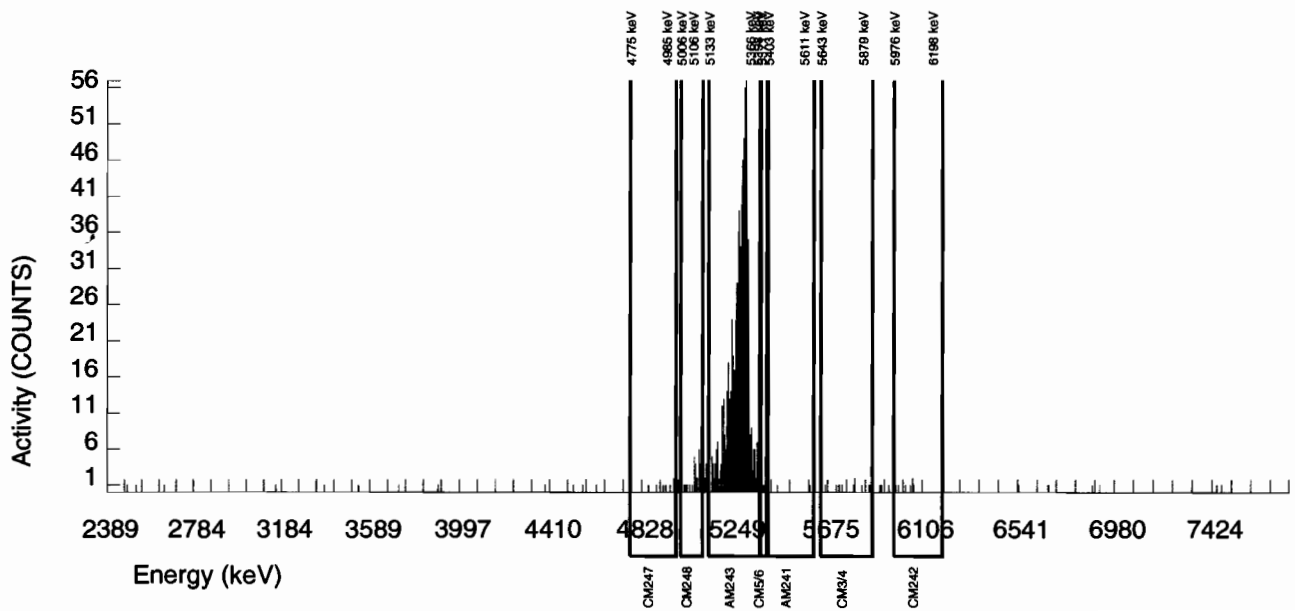

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 236	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202035000_AM	DETECTOR S/N : 79429	BKG FILE : B236.CNF;80
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 38.6953	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 18-FEB-2010 18:42:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W236.CNF;28
% YIELD : 105.646		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 3.0812E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.946	51.735	2017.000	2015.510	0.000	2.8409	99.94000	3.00E+01	2.13E+00	9.11E-02	2.23E-01	6.67E-01
AM243	5270.000	5273.112	66.354	858.000	856.560	1.440	1.2000	99.78000	1.28E+01	9.66E-01	3.86E-02	1.17E-01	4.36E-01
CM-242	6102.000	6049.406	58.191	5.000	5.000	0.000	4.3413	100.0000	7.79E-02	3.52E-02	1.39E-01	3.19E-01	3.48E-02
CM-3/4	5795.020	5765.562	4.900	5.000	5.000	0.000	5.1799	100.0000	7.44E-02	3.36E-02	1.66E-01	3.72E-01	3.33E-02
CM-5/6	5386.000	5384.850	0.000	98.000	98.000	0.000	14.2480	86.09000	1.69E+00	2.06E-01	5.31E-01	1.11E+00	1.71E-01
CM-247	4946.000	4913.693	4.900	11.000	10.280	0.720	13.7917	79.30000	1.93E-01	6.49E-02	5.57E-01	1.17E+00	6.36E-02
CM-248	5078.600	5066.467	36.625	30.000	30.000	0.000	19.5080	91.00000	4.90E-01	9.54E-02	6.87E-01	1.42E+00	8.94E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

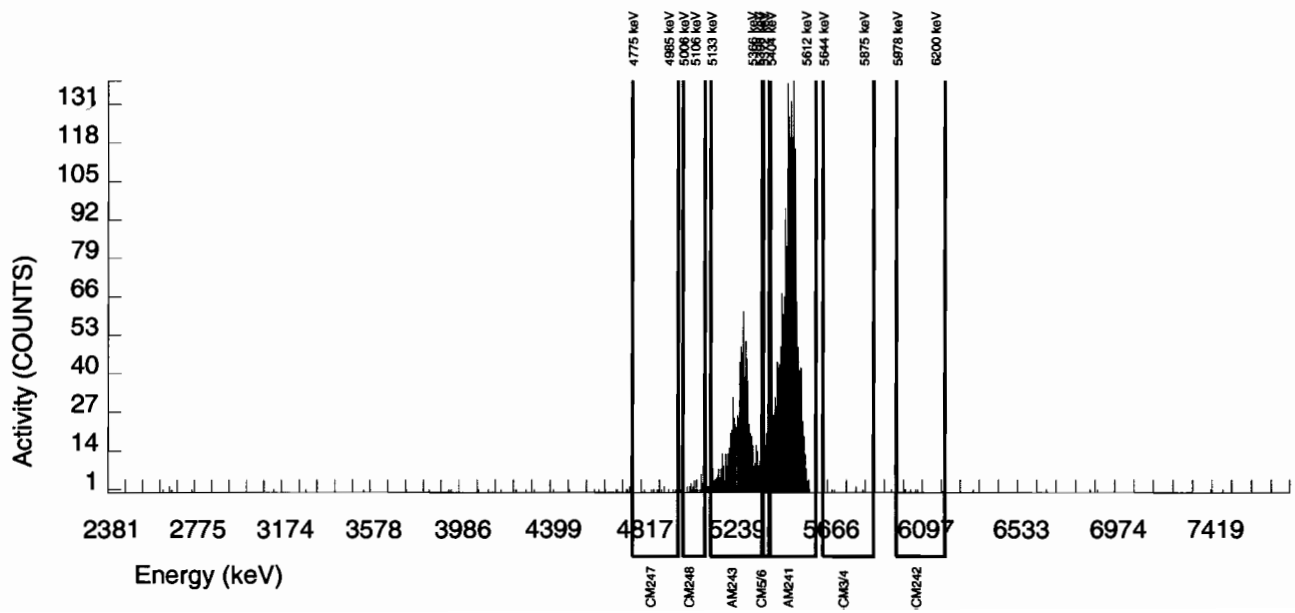

Radiochemistry Batch Checklist, Rev10

Batch# 949824 Product: Pu Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/21/10

Secondary Review Performed By: 2/22/10

2/23

✓P

Plutonium Que Sheet

05-FEB-10

Batch #: 949824 Analyst: HAKB First Client Due Date:23-FEB-10 Internal Due Date:13-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 1/8/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: SRM 0244-B Expiration Date: 4/30/20 Vol: 0.103

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/8/10 Initials: HAKB Pipet ID: 29710 58 Balance ID: 50410272 Witness: [illegible] 02/08/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/l)	Pu Det #
245955001-1	RE16-10-1474	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.260	247
245955002-1	RE16-10-1475	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.271	248
245960001-1	RE15-10-7309	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.281	249
245960002-1	RE15-10-7308	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.268	250
245960003-1	RE15-10-7315	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.253	251
245960004-1	RE15-10-7317	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.252	223 ~~252~~
245960005-1	RE15-10-7319	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.257	253
245960006-1	RE15-10-7312	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	8	8	1.284	254
245960007-1	RE15-10-7313	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	1.261	255
245960008-1	RE15-10-7314	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	10	10	1.252	256
245960009-1	RE15-10-7316	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	11	11	1.260	25
245960010-1	RE15-10-7318	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	12	12	1.270	26
245960011-1	RE15-10-7324	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	13	13	1.261	27
245978001-1	RE15-10-7880	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.271	28
245978002-1	RE15-10-7891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.267	213 ~~29~~
245978003-1	RE15-10-7892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.264	30
245978004-1	RE15-10-7967	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.252	214 ~~77~~ *
245978005-1	RE15-10-7976	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.258	79
245978006-1	RE15-10-7968	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.258	80
245978007-1	RE15-10-7965	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	20	1.281	81
1202835001-1	MB for batch 949824	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	82
1202835002-1	RE15-10-7880(245978001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.260 *	~~211~~ 221 *
1202835003-1	LCS for batch 949824	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.103 *	~~212~~ 222

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/12/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 949824

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035002	DUP	Plutonium-238	1.26 g	-0.00203	0.00203	0.0166	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00203	0.00144	0.0125	.002595238	pCi/g	YES
1202035003	LCS	Plutonium-238	0.103 g	7.01	0.502	0.201	0	pCi/g	NO
		Plutonium-239/240	0.103 g	36.9	2.25	0.152	.031747573	pCi/g	NO
1202035001	MB	Plutonium-238	1.00 g	0.00	0.00164	0.0267	0	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00327	0.00462	0.0201	.00327	pCi/g	YES
245955001	RE16-10-1474	Plutonium-238	1.26 g	-0.00111	0.00189	0.0236	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0105	0.00502	0.0178	.002595238	pCi/g	YES
245955002	RE16-10-1475	Plutonium-238	1.27 g	0.00281	0.00199	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0014	0.00141	0.0163	.002574803	pCi/g	YES
245960001	RE15-10-7309	Plutonium-238	1.28 g	-0.00108	0.00185	0.023	0	pCi/g	YES
		Plutonium-239/240	1.28 g	-0.00282	0.00263	0.0174	.002554688	pCi/g	YES
245960002	RE15-10-7308	Plutonium-238	1.27 g	0.00	0.00151	0.0231	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00751	0.00338	0.0174	.002574803	pCi/g	YES
245960003	RE15-10-7315	Plutonium-238	1.25 g	-0.00106	0.00182	0.0227	0	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00739	0.00333	0.0172	.002616	pCi/g	YES
245960004	RE15-10-7317	Plutonium-238	1.25 g	-0.00106	0.00149	0.0172	0	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00211	0.0015	0.013	.002616	pCi/g	YES
245960005	RE15-10-7319	Plutonium-238	1.26 g	-0.00583	0.00311	0.0222	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00433	0.00251	0.0167	.002595238	pCi/g	YES
245960006	RE15-10-7312	Plutonium-238	1.28 g	0.00183	0.00227	0.0219	0	pCi/g	NO
		Plutonium-239/240	1.28 g	0.0133	0.00469	0.0166	.002554688	pCi/g	NO
245960007	RE15-10-7313	Plutonium-238	1.26 g	0.00	0.00142	0.0218	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.000793	0.00247	0.0164	.002595238	pCi/g	YES
245960008	RE15-10-7314	Plutonium-238	1.25 g	0.000397	0.00175	0.0218	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00567	0.00285	0.0164	.002616	pCi/g	YES
245960009	RE15-10-7316	Plutonium-238	1.26 g	-0.00254	0.00802	0.0207	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00888	0.00383	0.0156	.002595238	pCi/g	YES
245960010	RE15-10-7318	Plutonium-238	1.27 g	0.00264	0.00264	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0145	0.00444	0.0162	.002574803	pCi/g	NO
245960011	RE15-10-7324	Plutonium-238	1.26 g	0.00249	0.00249	0.0203	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00248	0.00176	0.0153	.002595238	pCi/g	YES
245978001	RE15-10-7880	Plutonium-238	1.27 g	0.00493	0.00286	0.0269	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00493	0.00286	0.0202	.002574803	pCi/g	YES
245978002	RE15-10-7891	Plutonium-238	1.27 g	0.00225	0.0016	0.0184	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0214	0.00527	0.0139	.002574803	pCi/g	NO
245978003	RE15-10-7892	Plutonium-238	1.26 g	-0.00666	0.0061	0.0218	0	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00266	0.00231	0.0164	.002595238	pCi/g	YES
245978004	RE15-10-7967	Plutonium-238	1.25 g	0.0012	0.00121	0.0197	0	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245978004	RE15-10-7967	Plutonium-239/240	1.25 g	0.0723	0.0102	0.0148	.002616	pCi/g	NO
245978005	RE15-10-7976	Plutonium-238	1.26 g	-0.00126	0.00178	0.0206	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0151	0.00477	0.0155	.002595238	pCi/g	NO
245978006	RE15-10-7968	Plutonium-238	1.26 g	-0.00123	0.00276	0.0202	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0123	0.00432	0.0152	.002595238	pCi/g	YES
245978007	RE15-10-7965	Plutonium-238	1.28 g	0.00397	0.0023	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.28 g	0.0159	0.00466	0.0163	.002554688	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 249	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960001_PU	DETECTOR S/N : 79442	BKG FILE : B249.CNF;78
SAMPLE QTY : 1.281 G	AVERAGE %EFFICIENCY : 38.9612	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:34:59	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W249.CNF;31
% YIELD : 83.646		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8279E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5697.892	4.932	1.000	1.000	0.000	2.6925	100.0000	1.52E-03	1.52E-03	8.71E-03	2.15E-02	1.52E-03
PU-238	5499.000	5467.323	0.000	0.000	-0.720	0.720	2.9312	99.90000	-1.08E-03	1.85E-03	9.49E-03	2.30E-02	1.85E-03
PU-9/0	5155.000	5168.969	4.932	1.000	-1.880	2.880	2.0604	99.90000	-2.82E-03	2.63E-03	6.67E-03	1.74E-02	2.63E-03
PU242	4890.000	4878.378	62.219	794.000	793.280	0.720	0.8485	100.0000	1.19E+00	7.61E-02	2.74E-03	9.55E-03	4.22E-02
PU-244	4589.000	4543.928	27.125	9.000	9.000	0.000	3.7241	99.90000	1.35E-02	4.56E-03	1.21E-02	2.82E-02	4.50E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

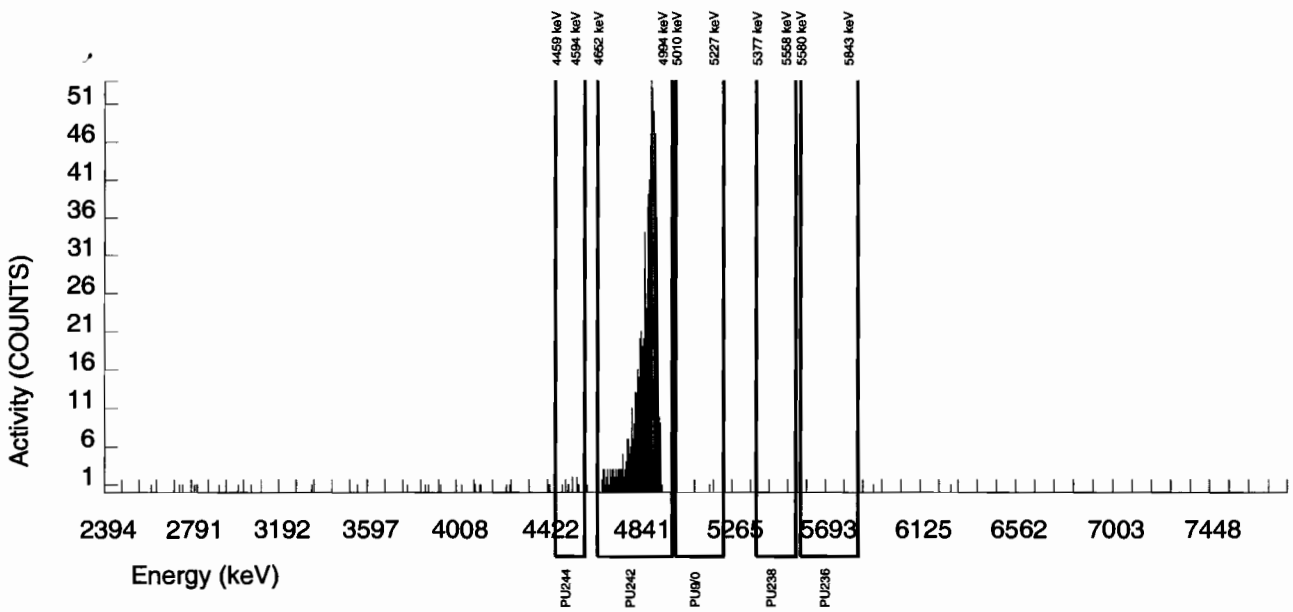

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 250	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960002_PU	DETECTOR S/N : 79443	BKG FILE : B250.CNF;78
SAMPLE QTY : 1.268 G	AVERAGE %EFFICIENCY : 39.2720	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W250.CNF;29
% YIELD : 83.687		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8293E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.538	0.000	0.000	-1.440	1.440	2.6925	100.0000	-2.19E-03	2.17E-03	8.72E-03	2.15E-02	2.17E-03
PU-238	5499.000	5468.013	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.51E-03	9.50E-03	2.31E-02	1.50E-03
PU-9/0	5155.000	5158.667	4.906	5.000	5.000	0.000	2.0604	99.90000	7.51E-03	3.38E-03	6.68E-03	1.74E-02	3.36E-03
PU242	4890.000	4873.821	59.353	800.000	800.000	0.000	0.0000	100.0000	1.20E+00	7.66E-02	0.00E+00	4.07E-03	4.25E-02
PU-244	4589.000	4552.672	0.000	9.000	9.000	0.000	3.7241	99.90000	1.35E-02	4.57E-03	1.21E-02	2.82E-02	4.51E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

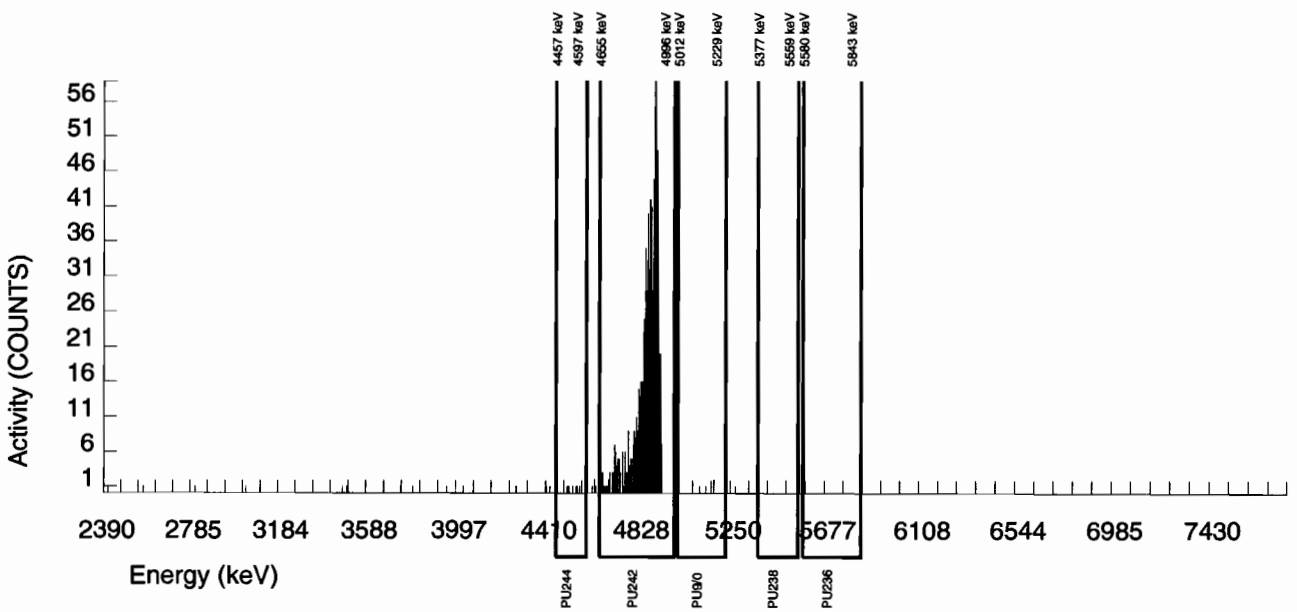

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 251	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960003_PU	DETECTOR S/N : 79444	BKG FILE : B251.CNF;78
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 38.7077	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W251.CNF;29
% YIELD : 87.331		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9525E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.736	4.944	1.000	1.000	0.000	2.6925	100.0000	1.49E-03	1.50E-03	8.58E-03	2.12E-02	1.49E-03
PU-238	5499.000	5467.235	0.000	0.000	-0.720	0.720	2.9312	99.90000	-1.06E-03	1.82E-03	9.35E-03	2.27E-02	1.82E-03
PU-9/0	5155.000	5129.668	153.276	5.000	5.000	0.000	2.0604	99.90000	7.39E-03	3.33E-03	6.57E-03	1.72E-02	3.31E-03
PU242	4890.000	4879.582	59.395	825.000	822.840	2.160	1.4697	100.0000	1.22E+00	7.69E-02	4.68E-03	1.34E-02	4.25E-02
PU-244	4589.000	4525.915	74.166	12.000	11.280	0.720	3.7241	99.90000	1.67E-02	5.30E-03	1.19E-02	2.78E-02	5.23E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

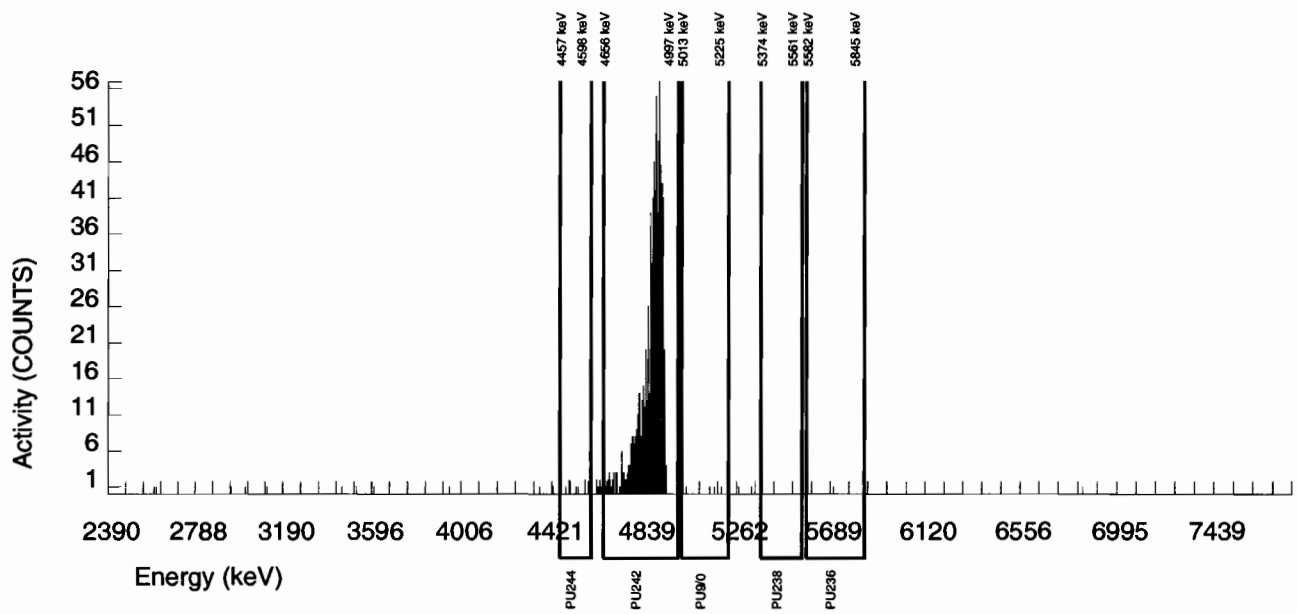

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 223	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960004_PU	DETECTOR S/N : 79416	BKG FILE : B223.CNF;82
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.1371	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:42:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W223.CNF;28
% YIELD : 91.914		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1074E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	~~UNC~~ pCi/G
PU-236	5749.000	5713.184	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.07E-03	6.60E-03	1.61E-02	1.07E-03
PU-238	5499.000	5469.503	0.000	0.000	-1.000	1.000	2.9312	99.90000	-1.06E-03	1.49E-03	7.19E-03	1.72E-02	1.49E-03
PU-9/0	5155.000	5168.796	4.948	2.000	2.000	0.000	2.0604	99.90000	2.11E-03	1.50E-03	5.06E-03	1.30E-02	1.49E-03
PU242	4890.000	4878.105	59.480	1154.000	1154.000	0.000	0.0000	100.0000	1.22E+00	6.98E-02	0.00E+00	2.86E-03	3.58E-02
PU-244	4589.000	4548.265	7.267	7.000	7.000	0.000	3.7241	99.90000	7.39E-03	2.82E-03	9.14E-03	2.11E-02	2.79E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

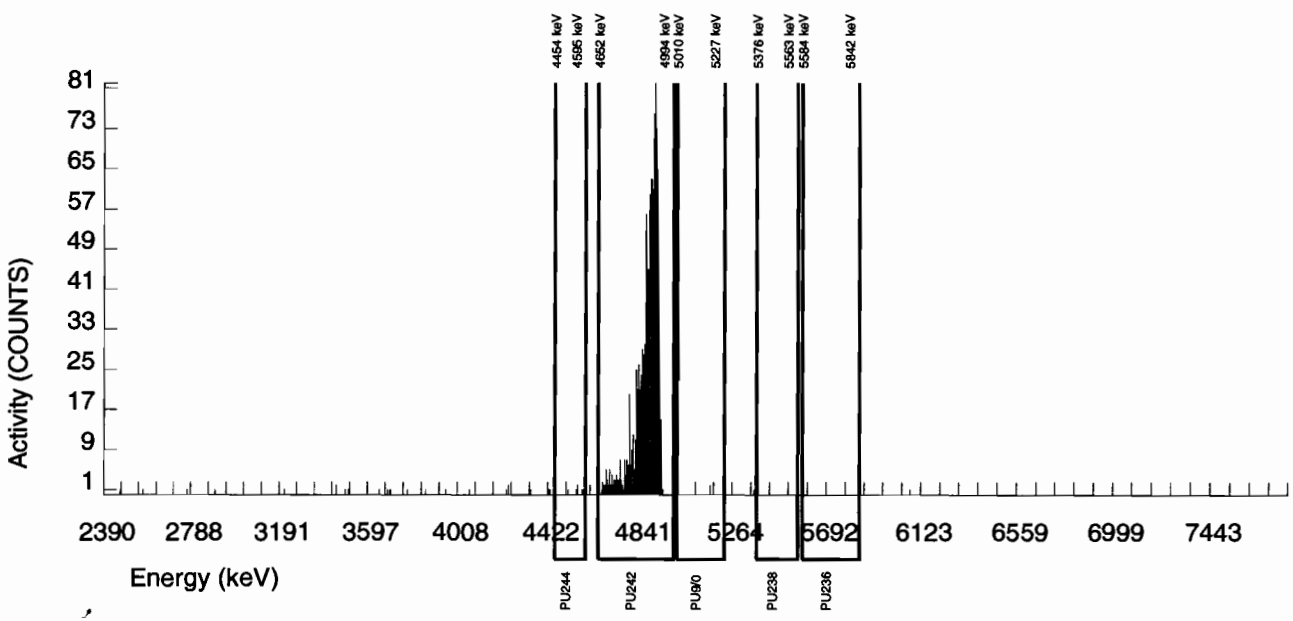

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 253	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960005_PU	DETECTOR S/N : 79446	BKG FILE : B253.CNF;80
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 38.1689	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W253.CNF;28
% YIELD : 90.472		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0586E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5685.016	4.942	1.000	1.000	0.000	2.6925	100.0000	1.46E-03	1.46E-03	8.37E-03	2.07E-02	1.46E-03
PU-238	5499.000	5448.394	4.942	1.000	-4.040	5.040	2.9312	99.90000	-5.83E-03	3.11E-03	9.12E-03	2.22E-02	3.11E-03
PU-9/0	5155.000	5133.258	163.070	3.000	3.000	0.000	2.0604	99.90000	4.33E-03	2.51E-03	6.41E-03	1.67E-02	2.50E-03
PU242	4890.000	4871.512	76.096	842.000	840.560	1.440	1.2000	100.0000	1.21E+00	7.62E-02	3.73E-03	1.14E-02	4.18E-02
PU-244	4589.000	4542.979	38.245	18.000	16.560	1.440	3.7241	99.90000	2.39E-02	6.42E-03	1.16E-02	2.71E-02	6.29E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

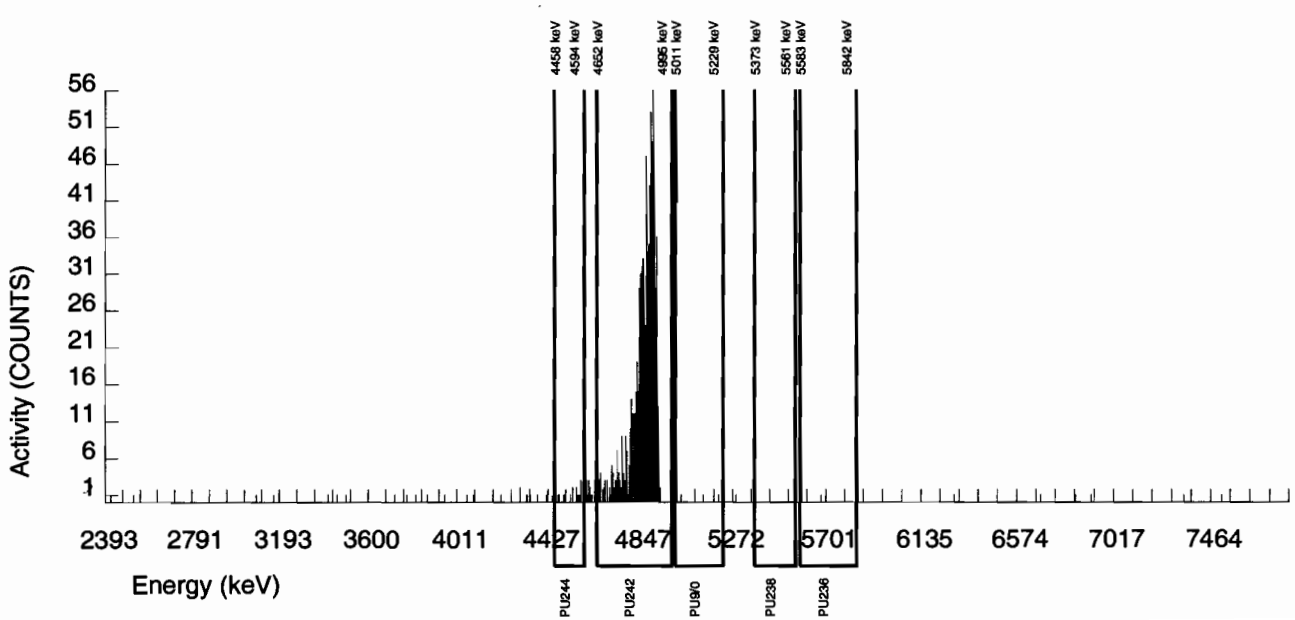

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 254	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960006_PU	DETECTOR S/N : 79447	BKG FILE : B254.CNF;78
SAMPLE QTY : 1.284 G	AVERAGE %EFFICIENCY : 39.2943	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W254.CNF;28
% YIELD : 86.881		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9372E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5756.326	54.308	2.000	1.280	0.720	2.6925	100.0000	1.85E-03	2.29E-03	8.29E-03	2.04E-02	2.29E-03
PU-238	5499.000	5453.708	88.867	2.000	1.280	0.720	2.9312	99.90000	1.83E-03	2.27E-03	9.03E-03	2.19E-02	2.27E-03
PU-9/0	5155.000	5159.058	22.217	10.000	9.280	0.720	2.0604	99.90000	1.33E-02	4.69E-03	6.35E-03	1.66E-02	4.63E-03
PU242	4890.000	4874.908	54.856	831.000	831.000	0.000	0.0000	100.0000	1.19E+00	7.48E-02	0.00E+00	3.87E-03	4.11E-02
PU-244	4589.000	4526.951	14.708	13.000	13.000	0.000	3.7241	99.90000	1.86E-02	5.24E-03	1.15E-02	2.68E-02	5.15E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

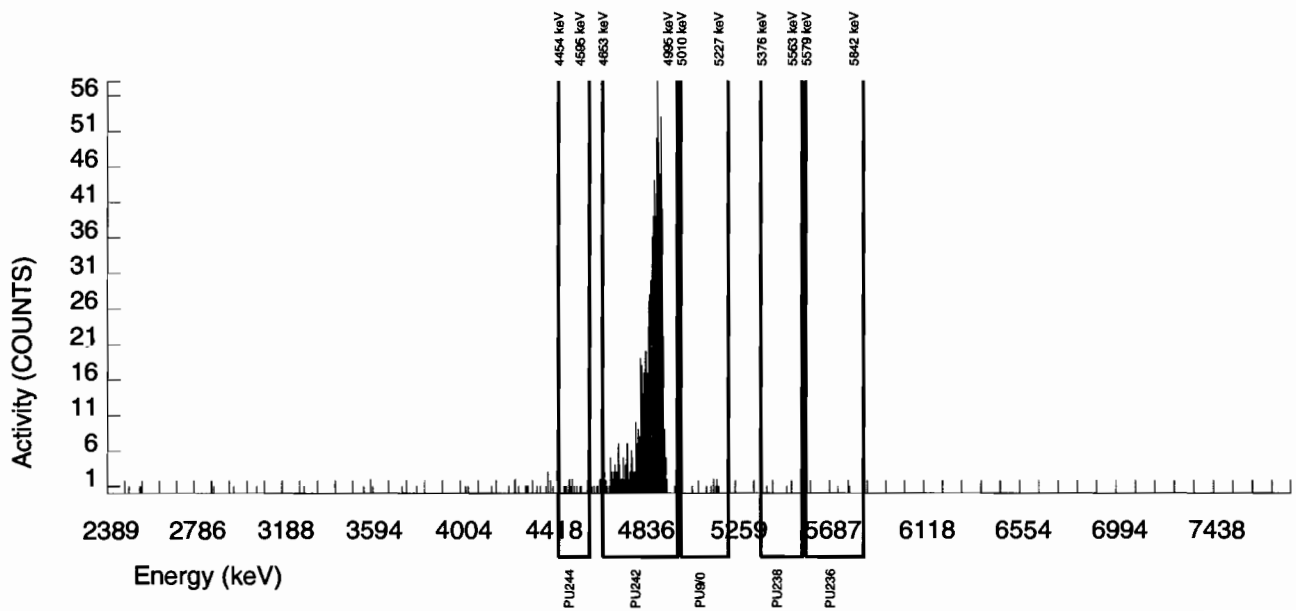

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 255	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960007_PU	DETECTOR S/N : 79448	BKG FILE : B255.CNF;78
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 38.1825	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:18	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W255.CNF;28
% YIELD : 91.808		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1038E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.398	0.000	0.000	-0.720	0.720	2.6925	100.0000	-1.03E-03	1.77E-03	8.22E-03	2.03E-02	1.76E-03
PU-238	5499.000	5468.180	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.42E-03	8.96E-03	2.18E-02	1.42E-03
PU-9/0	5155.000	5153.660	44.377	2.000	0.560	1.440	2.0604	99.90000	7.93E-04	2.47E-03	6.30E-03	1.64E-02	2.47E-03
PU242	4890.000	4869.306	58.624	854.000	853.280	0.720	0.8485	100.0000	1.21E+00	7.56E-02	2.59E-03	9.02E-03	4.14E-02
PU-244	4589.000	4548.922	4.931	8.000	7.280	0.720	3.7241	99.90000	1.03E-02	4.17E-03	1.14E-02	2.66E-02	4.13E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

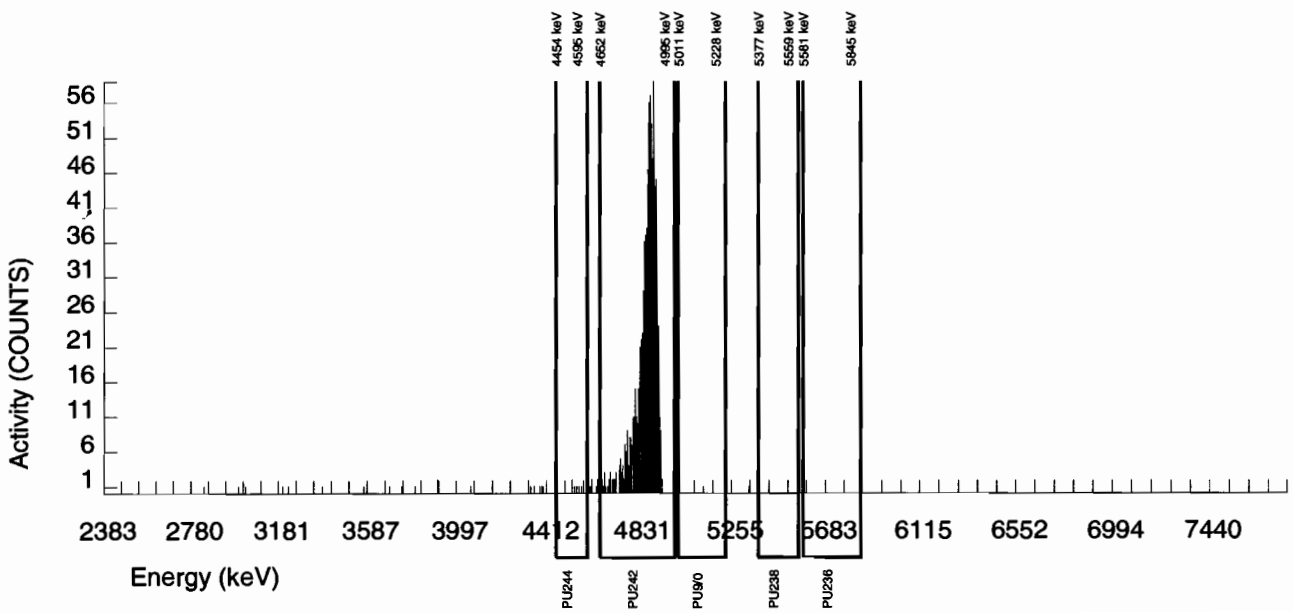

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 256	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960008_PU	DETECTOR S/N : 79449	BKG FILE : B256.CNF;80
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.7639	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:35:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;28
% YIELD : 93.431		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1587E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	~~UNC~~ pCi/G
PU-236	5749.000	5723.292	4.892	1.000	-0.440	1.440	2.6925	100.0000	-6.30E-04	2.05E-03	8.23E-03	2.03E-02	2.04E-03
PU-238	5499.000	5475.821	4.892	1.000	0.280	0.720	2.9312	99.90000	3.97E-04	1.75E-03	8.97E-03	2.18E-02	1.75E-03
PU-9/0	5155.000	5164.810	29.352	4.000	4.000	0.000	2.0604	99.90000	5.67E-03	2.85E-03	6.30E-03	1.64E-02	2.84E-03
PU242	4890.000	4867.818	53.013	861.000	858.840	2.160	1.4697	100.0000	1.22E+00	7.60E-02	4.49E-03	1.28E-02	4.16E-02
PU-244	4589.000	4541.361	9.784	13.000	13.000	0.000	3.7241	99.90000	1.84E-02	5.20E-03	1.14E-02	2.66E-02	5.11E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

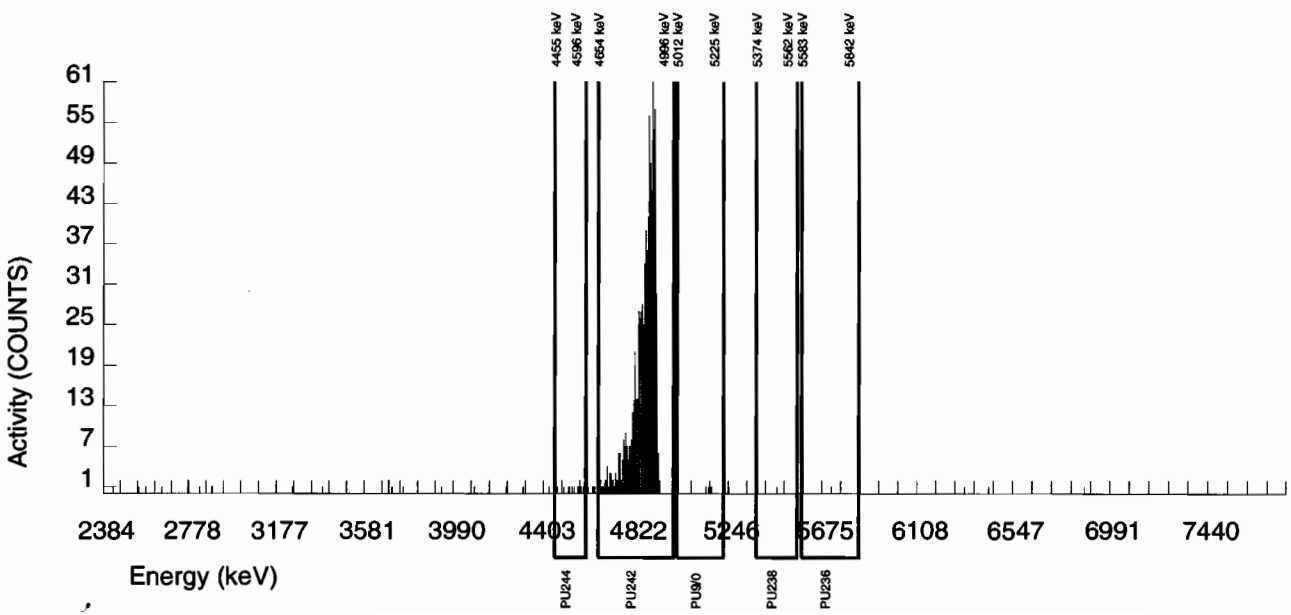

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 025	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960009_PU	DETECTOR S/N : 45-149AA5	BKG FILE : B025.CNF;1110
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 32.2436	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W025.CNF;328
% YIELD : 87.516		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9587E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5721.091	87.596	11.000	-7.000	18.000	2.6925	100.0000	-8.97E-03	6.90E-03	7.94E-03	1.93E-02	6.90E-03
PU-238	5499.000	5448.277	5.460	19.000	-2.000	21.000	2.9312	99.90000	-2.54E-03	8.02E-03	8.65E-03	2.07E-02	8.02E-03
PU-9/0	5155.000	5153.436	4.866	8.000	7.000	1.000	2.0604	99.90000	8.88E-03	3.83E-03	6.08E-03	1.56E-02	3.80E-03
PU242	4890.000	4877.567	76.296	955.000	954.000	1.000	1.0000	100.0000	1.21E+00	7.34E-02	2.95E-03	9.33E-03	3.92E-02
PU-244	4589.000	4530.125	126.527	7.000	7.000	0.000	3.7241	99.90000	8.88E-03	3.39E-03	1.10E-02	2.54E-02	3.36E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

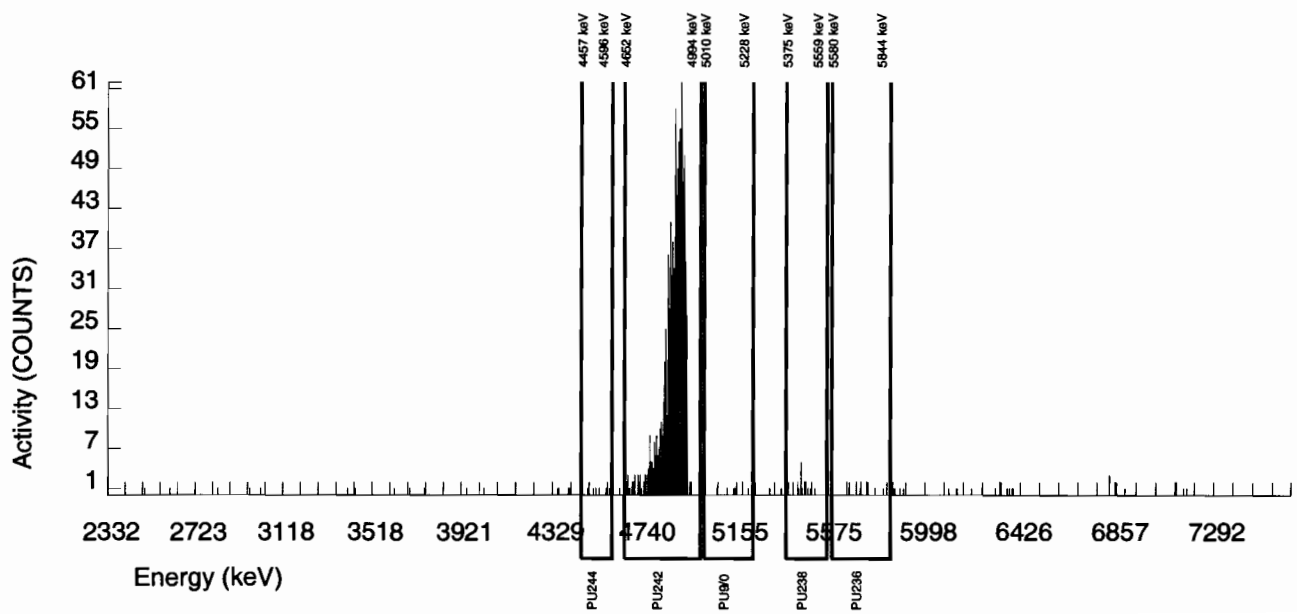

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 026	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960010_PU	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1111
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 31.5547	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W026.CNF;302
% YIELD : 85.303		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8839E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5704.860	172.146	2.000	-1.000	3.000	2.6925	100.0000	-1.33E-03	2.98E-03	8.25E-03	2.01E-02	2.98E-03
PU-238	5499.000	5480.036	103.288	3.000	2.000	1.000	2.9312	99.90000	2.64E-03	2.64E-03	8.99E-03	2.16E-02	2.64E-03
PU-9/0	5155.000	5122.454	4.918	11.000	11.000	0.000	2.0604	99.90000	1.45E-02	4.44E-03	6.32E-03	1.62E-02	4.37E-03
PU242	4890.000	4869.184	37.500	910.000	910.000	0.000	0.0000	100.0000	1.20E+00	7.56E-02	0.00E+00	3.57E-03	3.97E-02
PU-244	4589.000	4518.073	0.000	3.000	0.000	3.000	3.7241	99.90000	0.00E+00	3.23E-03	1.14E-02	2.64E-02	3.23E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

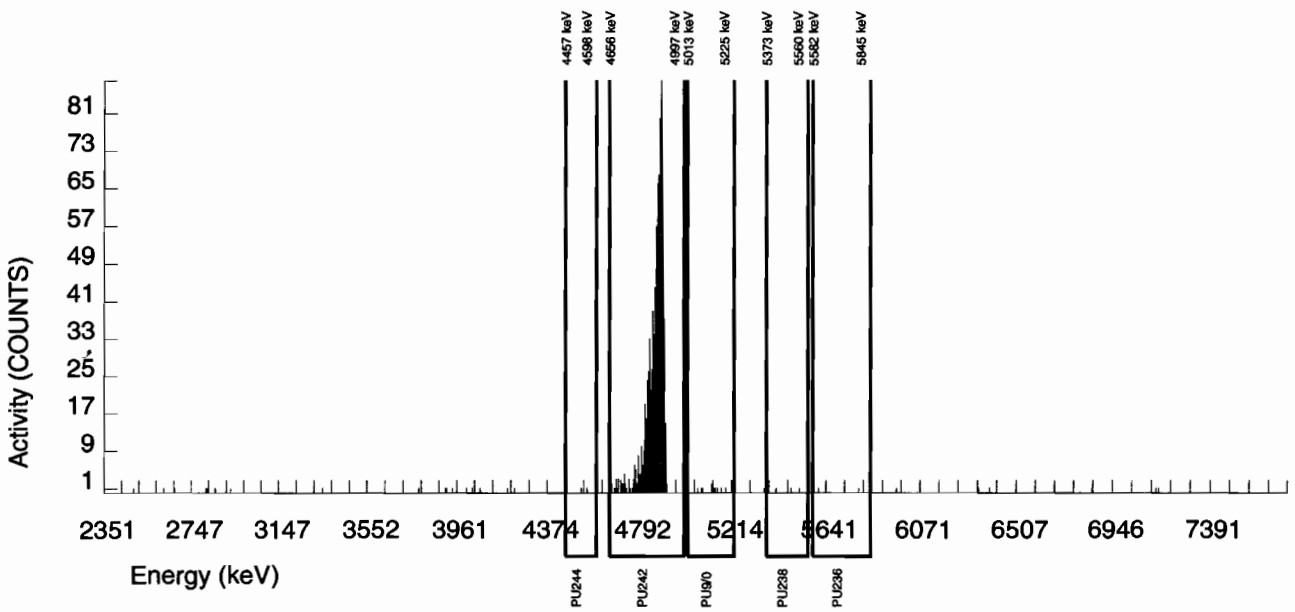

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 027	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245960011_PU	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1117
SAMPLE QTY : 1.261 G	AVERAGE %EFFICIENCY : 33.6745	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W027.CNF;329
% YIELD : 85.467		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8894E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5755.202	9.924	13.000	9.000	4.000	2.6925	100.0000	1.13E-02	5.21E-03	7.77E-03	1.89E-02	5.18E-03
PU-238	5499.000	5440.317	109.168	3.000	2.000	1.000	2.9312	99.90000	2.49E-03	2.49E-03	8.47E-03	2.03E-02	2.49E-03
PU-9/0	5155.000	5146.132	99.243	2.000	2.000	0.000	2.0604	99.90000	2.48E-03	1.76E-03	5.96E-03	1.53E-02	1.76E-03
PU242	4890.000	4876.466	48.873	974.000	973.000	1.000	1.0000	100.0000	1.21E+00	7.48E-02	2.89E-03	9.14E-03	3.88E-02
PU-244	4589.000	4516.721	0.000	10.000	10.000	0.000	3.7241	99.90000	1.24E-02	3.98E-03	1.08E-02	2.49E-02	3.93E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

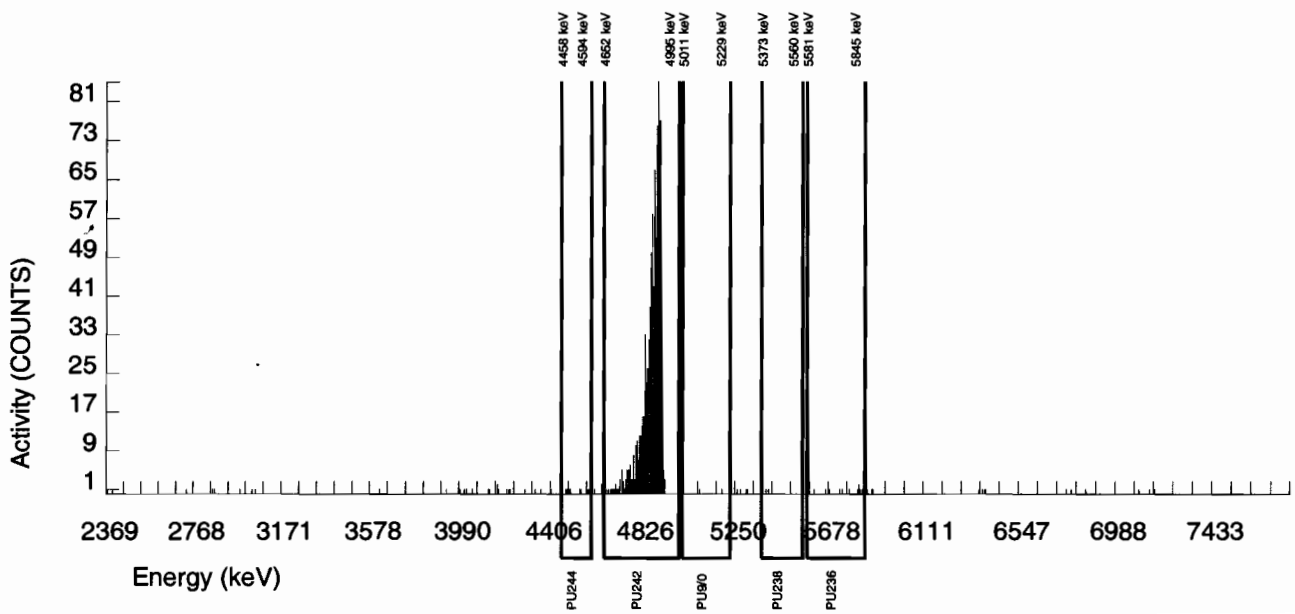

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 028	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978001_PU	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1121
SAMPLE QTY : 1.271 G	AVERAGE %EFFICIENCY : 30.7898	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W028.CNF;321
% YIELD : 70.130		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3709E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5706.793	4.947	5.000	-3.000	8.000	2.6925	100.0000	-4.98E-03	5.99E-03	1.03E-02	2.50E-02	5.99E-03
PU-238	5499.000	5425.808	84.091	3.000	3.000	0.000	2.9312	99.90000	4.93E-03	2.86E-03	1.12E-02	2.69E-02	2.85E-03
PU-9/0	5155.000	5139.904	158.288	3.000	3.000	0.000	2.0604	99.90000	4.93E-03	2.86E-03	7.88E-03	2.02E-02	2.85E-03
PU242	4890.000	4876.693	47.862	730.000	730.000	0.000	0.0000	100.0000	1.20E+00	8.06E-02	0.00E+00	4.45E-03	4.43E-02
PU-244	4589.000	4540.873	89.037	7.000	6.000	1.000	3.7241	99.90000	9.86E-03	4.68E-03	1.42E-02	3.29E-02	4.65E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

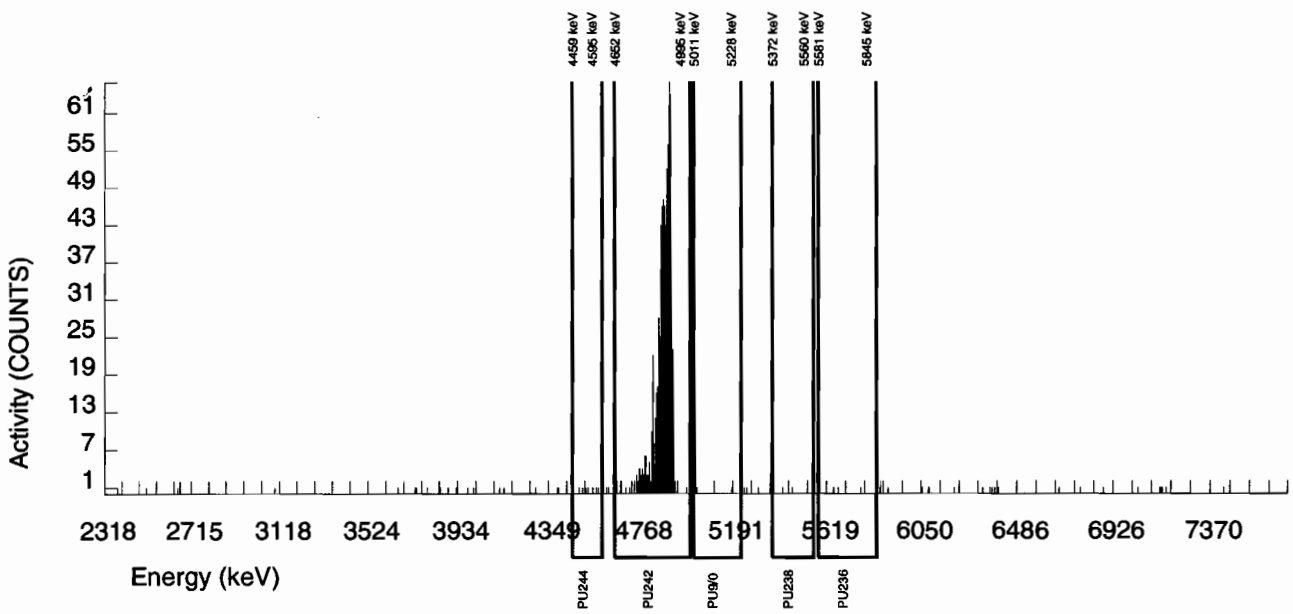

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 082	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035001_PU	DETECTOR S/N : 79997	BKG FILE : B082.CNF;1014
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.1841	BKG DATE : 7-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 13-FEB-2010 21:40:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.01	EFF FILE : W082.CNF;257
% YIELD : 85.748		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8989E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5690.966	34.596	2.000	1.000	1.000	2.6925	100.0000	1.64E-03	2.84E-03	1.02E-02	2.49E-02	2.84E-03
PU-238	5499.000	5469.501	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.64E-03	1.11E-02	2.67E-02	1.63E-03
PU-9/0	5155.000	5115.829	88.962	5.000	2.000	3.000	2.0604	99.90000	3.27E-03	4.62E-03	7.83E-03	2.01E-02	4.62E-03
PU242	4890.000	4882.608	49.152	934.000	933.000	1.000	1.0000	100.0000	1.52E+00	9.30E-02	3.80E-03	1.20E-02	4.99E-02
PU-244	4589.000	4513.667	74.135	2.000	0.000	2.000	3.7241	99.90000	-7.79E-10	3.27E-03	1.42E-02	3.27E-02	3.27E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

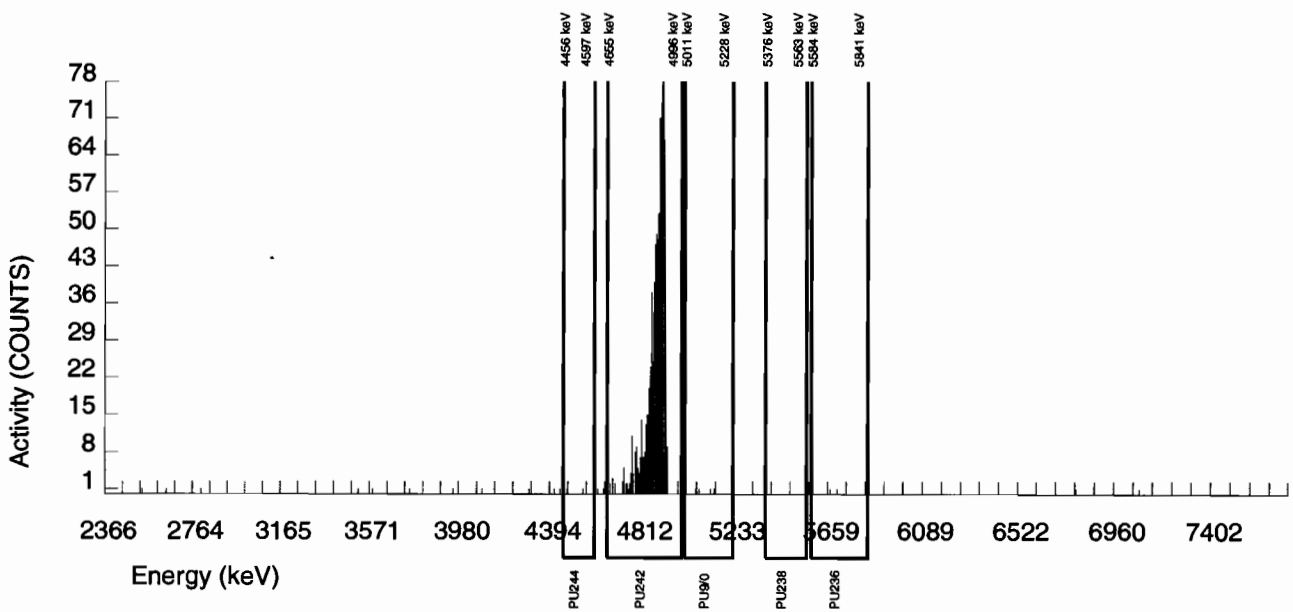

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 221	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035002_PU	DETECTOR S/N : 79414	BKG FILE : B221.CNF;80
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 37.5959	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:43:04	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W221.CNF;28
% YIELD : 93.782		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1706E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.673	0.000	0.000	-1.000	1.000	2.6925	100.0000	-1.03E-03	1.46E-03	6.35E-03	1.55E-02	1.46E-03
PU-238	5499.000	5397.583	4.951	1.000	-2.000	3.000	2.9312	99.90000	-2.03E-03	2.03E-03	6.92E-03	1.66E-02	2.03E-03
PU-9/0	5155.000	5137.570	4.951	2.000	2.000	0.000	2.0604	99.90000	2.03E-03	1.44E-03	4.86E-03	1.25E-02	1.44E-03
PU242	4890.000	4875.339	64.164	1192.000	1192.000	0.000	0.0000	100.0000	1.21E+00	6.88E-02	0.00E+00	2.75E-03	3.50E-02
PU-244	4589.000	4552.438	118.817	6.000	6.000	0.000	3.7241	99.90000	6.09E-03	2.50E-03	8.79E-03	2.03E-02	2.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

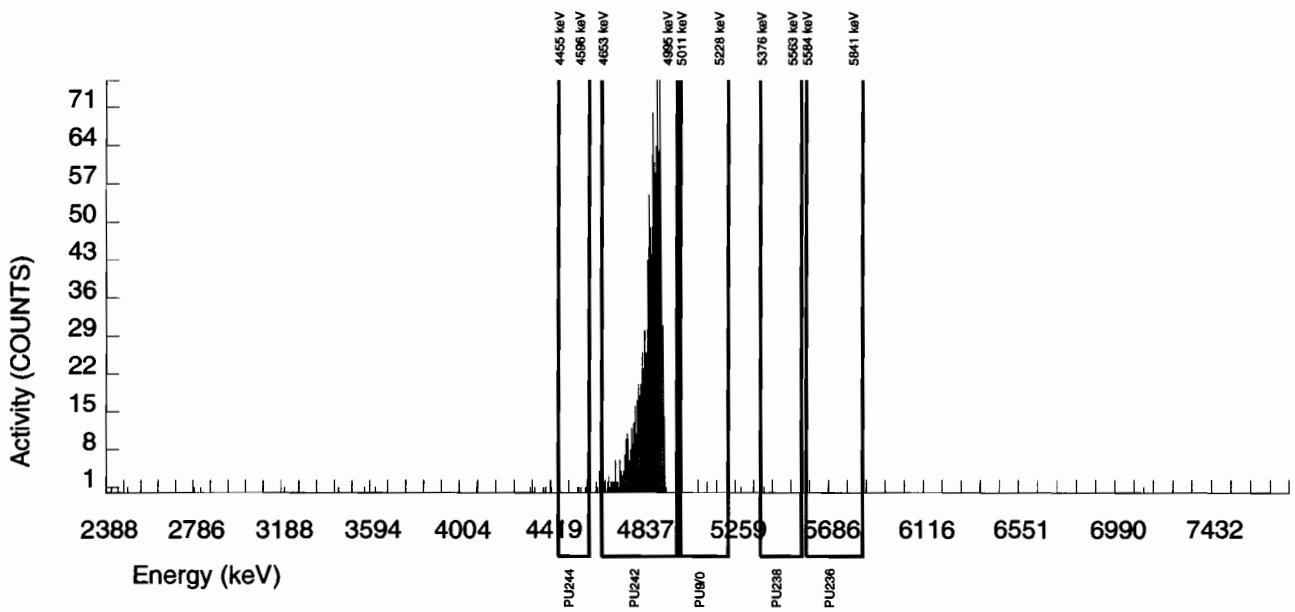

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 222	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035003_PU	DETECTOR S/N : 79415	BKG FILE : B222.CNF;80
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 36.0091	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 18-FEB-2010 18:43:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W222.CNF;28
% YIELD : 98.654		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3353E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.860	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.24E-02	7.71E-02	1.88E-01	1.24E-02
PU-238	5499.000	5498.090	54.481	569.000	569.000	0.000	2.9312	99.90000	7.01E+00	5.02E-01	8.40E-02	2.01E-01	2.94E-01
PU-9/0	5155.000	5155.416	53.382	2997.000	2996.000	1.000	2.0604	99.90000	3.69E+01	2.25E+00	5.91E-02	1.52E-01	6.75E-01
PU242	4890.000	4886.232	63.509	1201.000	1201.000	0.000	0.0000	100.0000	1.48E+01	9.59E-01	0.00E+00	3.34E-02	4.27E-01
PU-244	4589.000	4535.408	35.247	17.000	17.000	0.000	3.7241	99.90000	2.09E-01	5.22E-02	1.07E-01	2.47E-01	5.08E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

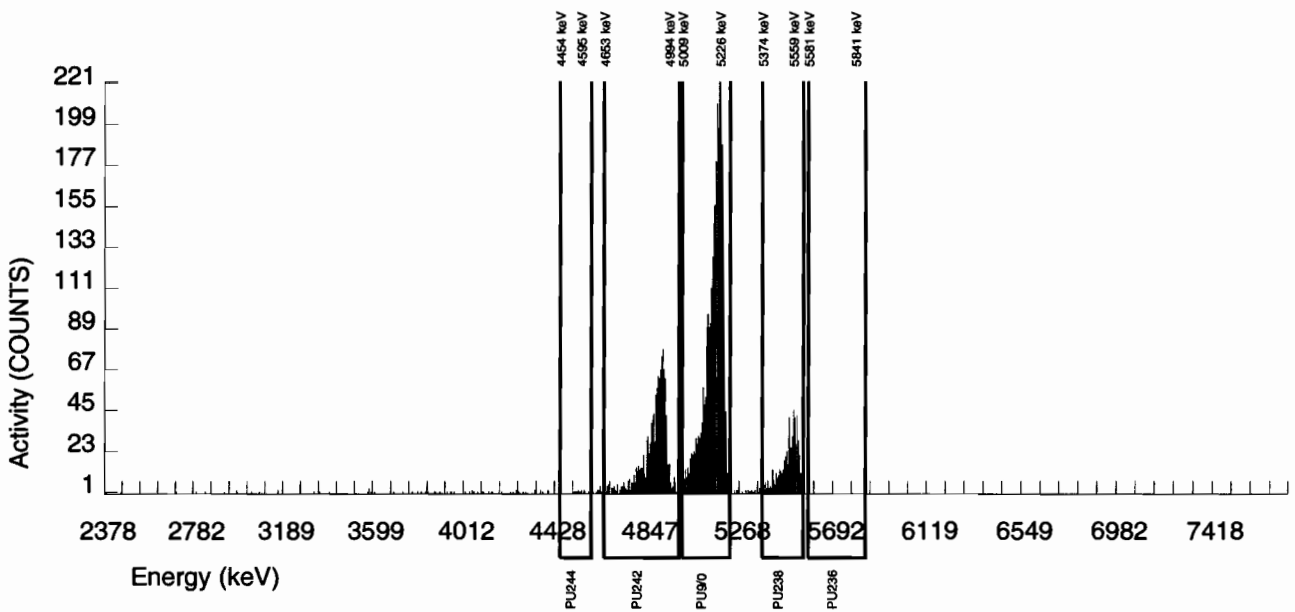

Radiochemistry Batch Checklist, Rev10

Batch# 949825 Product: U Date: 2/16/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		~~case narrative~~ 02/18/10
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		case narrative
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/16/10

Secondary Review Performed By: 2/18/10

2/13 2/23

CAW

✓P

Uranium Que Sheet

05-FEB-10

Batch #: 949825 Analyst: HAKB First Client Due Date:23-FEB-10 Internal Due Date:13-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-11 Expiration Date: 12/9/10 Vol: 0.1
LCS Isotope: U-238 LCS Code: SBM 0244-A Expiration Date: 10/31/20 Vol: 0.101 g
Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA
Prep Date: 2/8/10 Initials: HAKB Pipet ID: 2071058 Balance ID: 5041027Z Witness: QMD 02/08/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (1/1)	U Det #
245955001-1	RE16-10-1474	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	1	1	0.515	119 ~~118~~ 2/12/10
245955002-1	RE16-10-1475	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	2	2	0.506	120 ~~114~~
245960001-1	RE15-10-7309	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	3	3	0.504	121 ~~115~~
245960002-1	RE15-10-7308	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	4	4	0.505	122
245960003-1	RE15-10-7315	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	5	5	0.528	123
245960004-1	RE15-10-7317	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	6	6	0.551	124
245960005-1	RE15-10-7319	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	7	7	0.504	125
245960006-1	RE15-10-7312	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	8	8	0.524	126
245960007-1	RE15-10-7313	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	9	9	0.527	127
~~245960008-1~~	~~RE15-10-7314~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	~~10~~	~~10~~	~~0.526~~	~~128~~ HAK 2/10/10
245960009-1	RE15-10-7316	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	11	11	0.515	129
245960010-1	RE15-10-7318	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	12	12	0.508	130
245960011-1	RE15-10-7324	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	13	13	0.507	131
•245978001-1	RE15-10-7880	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	14	14	0.500	132
~~245978002-1~~	~~RE15-10-7891~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~15~~	~~15~~	~~0.545~~	~~133~~
245978003-1	RE15-10-7892	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	16	16	0.506	~~138~~ HAK 2/10/10
~~245978004-1~~	~~RE15-10-7967~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~17~~	~~17~~	~~0.506~~	~~139~~
245978005-1	RE15-10-7976	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	18	18	0.507	140
245978006-1	RE15-10-7968	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	19	19	0.526	141
245978007-1	RE15-10-7965	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	20	20	0.513	142
1202035005-1	MB for batch 949825	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	143 4 HAK 2/10/10
1202035006-1	RE15-10-7880(245978001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	0.504	~~143~~ 144
1202035007-1	LCS for batch 949825	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.101	145 QMD 2/11/10

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: [signature] 2/10/10

+/MS

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 949825

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035006	DUP	Uranium-233/234	0.504 g	0.691	0.0699	0.090	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0661	0.0188	0.0574	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.23	0.109	0.0614	.031746032	pCi/g	NO
1202035007	LCS	Uranium-233/234	0.101 g	5.82	0.576	0.517	.195049505	pCi/g	NO
		Uranium-235/236	0.101 g	0.329	0.0949	0.329	.035544554	pCi/g	NO
		Uranium-238	0.101 g	6.82	0.657	0.353	.158415842	pCi/g	NO
1202035005	MB	Uranium-233/234	1.00 g	0.0197	0.00624	0.0366	.0197	pCi/g	YES
		Uranium-235/236	1.00 g	0.00359	0.0036	0.0234	.00359	pCi/g	YES
		Uranium-238	1.00 g	0.016	0.00535	0.025	.016	pCi/g	YES
245955001	RE16-10-1474	Uranium-233/234	0.515 g	0.903	0.0837	0.0835	.038252427	pCi/g	NO
		Uranium-235/236	0.515 g	0.0491	0.0146	0.0533	.006970874	pCi/g	NO
		Uranium-238	0.515 g	0.821	0.0779	0.057	.031067961	pCi/g	NO
245955002	RE16-10-1475	Uranium-233/234	0.506 g	0.710	0.0698	0.0854	.038932806	pCi/g	NO
		Uranium-235/236	0.506 g	0.046	0.0142	0.0544	.007094862	pCi/g	NO
		Uranium-238	0.506 g	0.819	0.078	0.0583	.031620553	pCi/g	NO
245960001	RE15-10-7309	Uranium-233/234	0.504 g	1.07	0.098	0.0919	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0405	0.0165	0.0586	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.07	0.0984	0.0628	.031746032	pCi/g	NO
245960002	RE15-10-7308	Uranium-233/234	0.505 g	3.62	0.285	0.102	.039009901	pCi/g	NO
		Uranium-235/236	0.505 g	0.215	0.0363	0.0652	.007108911	pCi/g	NO
		Uranium-238	0.505 g	4.59	0.354	0.0699	.031683168	pCi/g	NO
245960003	RE15-10-7315	Uranium-233/234	0.528 g	1.07	0.0962	0.0857	.037310606	pCi/g	NO
		Uranium-235/236	0.528 g	0.0714	0.018	0.0547	.006799242	pCi/g	NO
		Uranium-238	0.528 g	1.25	0.110	0.0585	.030303030	pCi/g	NO
245960004	RE15-10-7317	Uranium-233/234	0.551 g	1.09	0.0962	0.0794	.035753176	pCi/g	NO
		Uranium-235/236	0.551 g	0.0777	0.0182	0.0506	.006515426	pCi/g	NO
		Uranium-238	0.551 g	1.17	0.102	0.0542	.029038113	pCi/g	NO
245960005	RE15-10-7319	Uranium-233/234	0.504 g	1.38	0.120	0.0898	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0924	0.0212	0.0573	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.49	0.128	0.0613	.031746032	pCi/g	NO
245960006	RE15-10-7312	Uranium-233/234	0.524 g	7.59	0.565	0.0951	.037595420	pCi/g	NO
		Uranium-235/236	0.524 g	0.405	0.0521	0.0606	.006851145	pCi/g	NO
		Uranium-238	0.524 g	7.64	0.568	0.0649	.030534351	pCi/g	NO
245960007	RE15-10-7313	Uranium-233/234	0.526 g	0.984	0.0917	0.091	.037452471	pCi/g	NO
		Uranium-235/236	0.526 g	0.102	0.0226	0.058	.006825095	pCi/g	NO
		Uranium-238	0.526 g	1.17	0.105	0.0621	.030418251	pCi/g	NO
245960009	RE15-10-7316	Uranium-233/234	0.515 g	2.05	0.172	0.101	.038252427	pCi/g	NO
		Uranium-235/236	0.515 g	0.108	0.0244	0.0641	.006970874	pCi/g	NO
		Uranium-238	0.515 g	2.95	0.237	0.0686	.031067961	pCi/g	NO
245960010	RE15-10-7318	Uranium-233/234	0.508 g	4.65	0.349	0.0859	.038779528	pCi/g	NO
		Uranium-235/236	0.508 g	0.252	0.0371	0.0547	.007066929	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245960010	RE15-10-7318	Uranium-238	0.508 g	7.77	0.568	0.0586	.031496063	pCi/g	NO
245960011	RE15-10-7324	Uranium-233/234	0.507 g	1.04	0.0977	0.0995	.038856016	pCi/g	NO
		Uranium-235/236	0.507 g	0.0682	0.0189	0.0634	.007080868	pCi/g	NO
		Uranium-238	0.507 g	1.06	0.0996	0.0679	.031558185	pCi/g	NO
245978001	RE15-10-7880	Uranium-233/234	0.500 g	0.753	0.0791	0.112	.0394	pCi/g	NO
		Uranium-235/236	0.500 g	0.0219	0.0111	0.0713	.00718	pCi/g	YES
		Uranium-238	0.500 g	0.957	0.0946	0.0763	.032	pCi/g	NO
245978003	RE15-10-7892	Uranium-233/234	0.506 g	1.17	0.105	0.0911	.038932806	pCi/g	NO
		Uranium-235/236	0.506 g	0.0803	0.0207	0.0581	.007094862	pCi/g	NO
		Uranium-238	0.506 g	2.42	0.195	0.0622	.031620553	pCi/g	NO
245978005	RE15-10-7976	Uranium-233/234	0.507 g	0.969	0.0899	0.0893	.038856016	pCi/g	NO
		Uranium-235/236	0.507 g	0.0612	0.018	0.0569	.007080868	pCi/g	NO
		Uranium-238	0.507 g	2.16	0.175	0.061	.031558185	pCi/g	NO
245978006	RE15-10-7968	Uranium-233/234	0.526 g	3.24	0.257	0.0893	.037452471	pCi/g	NO
		Uranium-235/236	0.526 g	0.363	0.0477	0.0569	.006825095	pCi/g	NO
		Uranium-238	0.526 g	19.4	1.42	0.061	.030418251	pCi/g	NO
245978007	RE15-10-7965	Uranium-233/234	0.513 g	8.51	0.630	0.0947	.038401559	pCi/g	NO
		Uranium-235/236	0.513 g	0.830	0.0856	0.0604	.006998051	pCi/g	NO
		Uranium-238	0.513 g	35.3	2.53	0.0647	.031189084	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 121	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960001_UU	DETECTOR S/N : 75545	BKG FILE : B121.CNF;444
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 24.4776	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:31	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W121.CNF;117
% YIELD : 100.229		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5165E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.827	53.168	1110.000	1105.000	5.000	2.2361	100.0000	4.03E+00	3.09E-01	1.90E-02	4.78E-02	1.22E-01
U-3/4	4763.020	4748.750	76.002	295.000	293.882	0.000	4.8416	100.0000	1.07E+00	9.80E-02	4.10E-02	9.19E-02	6.25E-02
U-235	4391.000	4409.940	4.944	11.000	9.000	2.000	2.2152	80.90000	4.05E-02	1.65E-02	2.32E-02	5.86E-02	1.62E-02
U-238	4184.730	4182.952	47.416	296.000	295.000	1.000	3.1208	100.0000	1.07E+00	9.84E-02	2.64E-02	6.28E-02	6.28E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

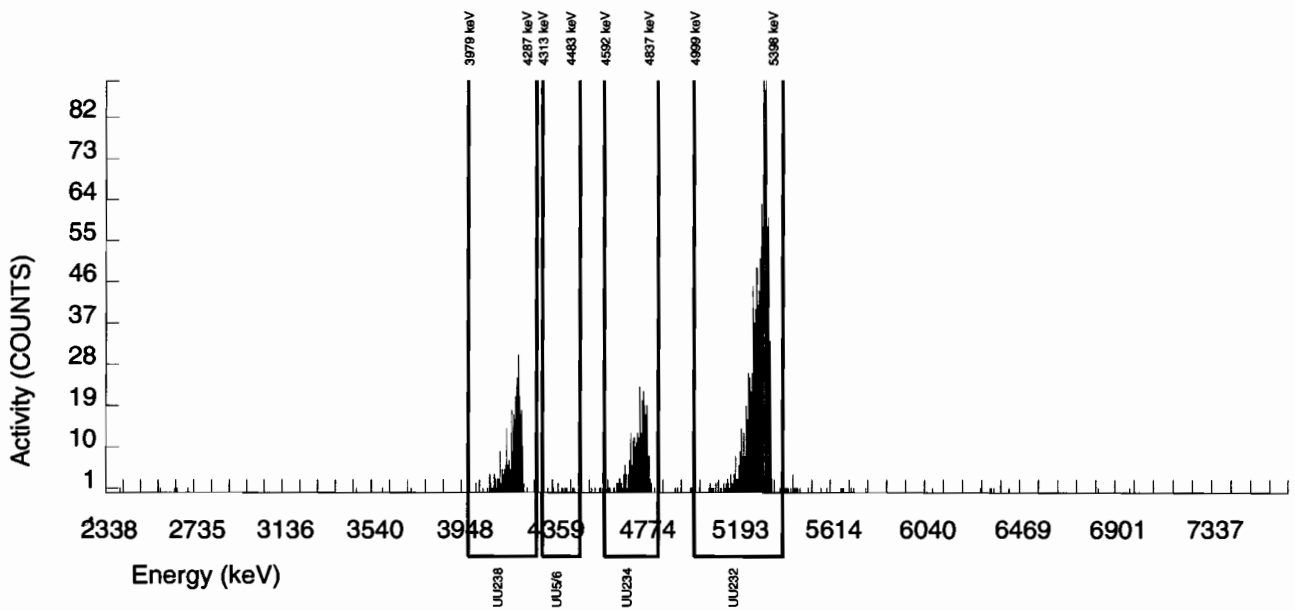

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 122	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960002_UU	DETECTOR S/N : 75546	BKG FILE : B122.CNF;446
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 24.9662	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W122.CNF;120
% YIELD : 88.129		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9713E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.630	62.097	994.000	991.000	3.000	1.7321	100.0000	4.02E+00	3.14E-01	1.63E-02	4.37E-02	1.28E-01
U-3/4	4763.020	4754.126	63.363	895.000	893.997	0.000	4.8416	100.0000	3.62E+00	2.85E-01	4.57E-02	1.02E-01	1.21E-01
U-235	4391.000	4398.660	54.218	43.000	43.000	0.000	2.2152	80.90000	2.15E-01	3.63E-02	2.58E-02	6.52E-02	3.29E-02
U-238	4184.730	4181.466	71.962	1132.000	1132.000	0.000	3.1208	100.0000	4.59E+00	3.54E-01	2.94E-02	6.99E-02	1.36E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

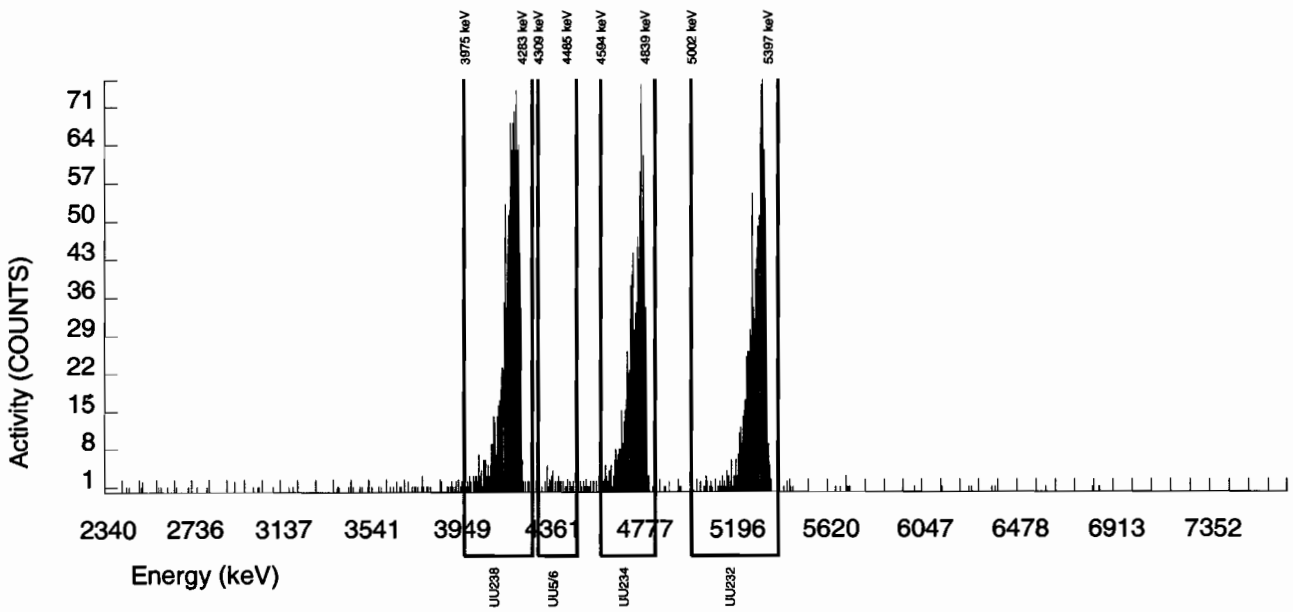

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 123	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960003_UU	DETECTOR S/N : 45-142V3	BKG FILE : B123.CNF;444
SAMPLE QTY : 0.528 G	AVERAGE %EFFICIENCY : 25.9975	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:36	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W123.CNF;116
% YIELD : 96.589		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3525E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.394	80.053	1136.000	1131.000	5.000	2.2361	100.0000	3.84E+00	2.94E-01	1.77E-02	4.46E-02	1.15E-01
U-3/4	4763.020	4757.407	43.045	315.000	313.855	0.000	4.8416	100.0000	1.07E+00	9.62E-02	3.83E-02	8.57E-02	6.02E-02
U-235	4391.000	4394.528	74.416	17.000	17.000	0.000	2.2152	80.90000	7.14E-02	1.80E-02	2.16E-02	5.47E-02	1.73E-02
U-238	4184.730	4185.093	69.524	369.000	368.000	1.000	3.1208	100.0000	1.25E+00	1.10E-01	2.47E-02	5.85E-02	6.54E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

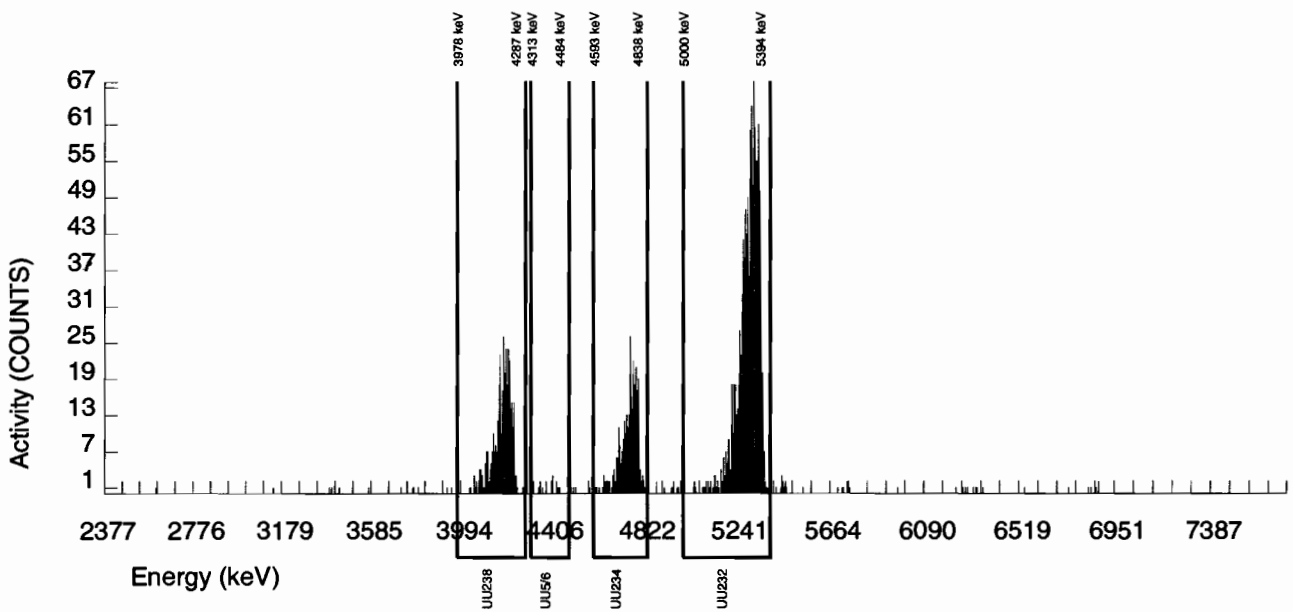

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 124	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960004_UU	DETECTOR S/N : 45-142V2	BKG FILE : B124.CNF;440
SAMPLE QTY : 0.551 G	AVERAGE %EFFICIENCY : 25.8260	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W124.CNF;112
% YIELD : 100.670		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5363E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.283	73.409	1176.000	1171.000	5.000	2.2361	100.0000	3.68E+00	2.80E-01	1.64E-02	4.12E-02	1.08E-01
U-3/4	4763.020	4754.241	62.322	348.000	345.815	1.000	4.8416	100.0000	1.09E+00	9.62E-02	3.54E-02	7.94E-02	5.86E-02
U-235	4391.000	4376.376	70.351	20.000	20.000	0.000	2.2152	80.90000	7.77E-02	1.82E-02	2.00E-02	5.06E-02	1.74E-02
U-238	4184.730	4182.790	78.860	373.000	373.000	0.000	3.1208	100.0000	1.17E+00	1.02E-01	2.28E-02	5.42E-02	6.07E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

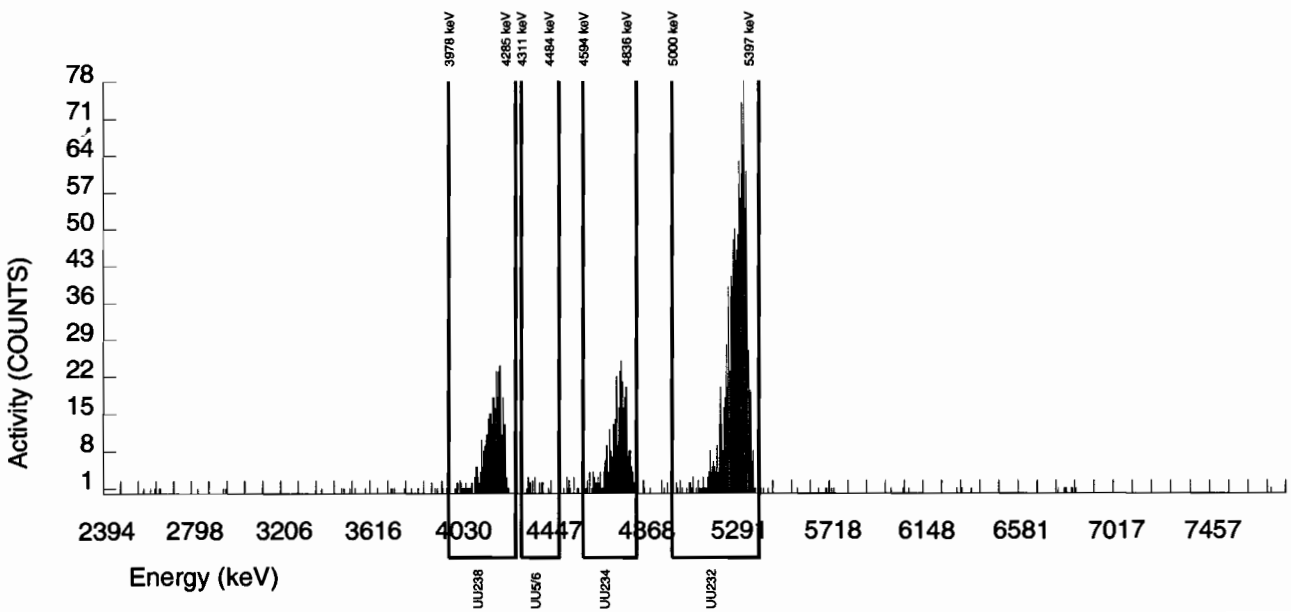

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 125	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960005_UU	DETECTOR S/N : 75547	BKG FILE : B125.CNF;450
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 25.8749	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W125.CNF;130
% YIELD : 97.047		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3731E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.868	58.757	1135.000	1131.000	4.000	2.0000	100.0000	4.03E+00	3.08E-01	1.66E-02	4.28E-02	1.20E-01
U-3/4	4763.020	4755.204	58.846	392.000	388.855	2.000	4.8416	100.0000	1.38E+00	1.20E-01	4.01E-02	8.98E-02	7.05E-02
U-235	4391.000	4405.476	82.338	21.000	21.000	0.000	2.2152	80.90000	9.24E-02	2.12E-02	2.27E-02	5.73E-02	2.02E-02
U-238	4184.730	4189.251	51.342	422.000	419.000	3.000	3.1208	100.0000	1.49E+00	1.28E-01	2.58E-02	6.13E-02	7.34E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

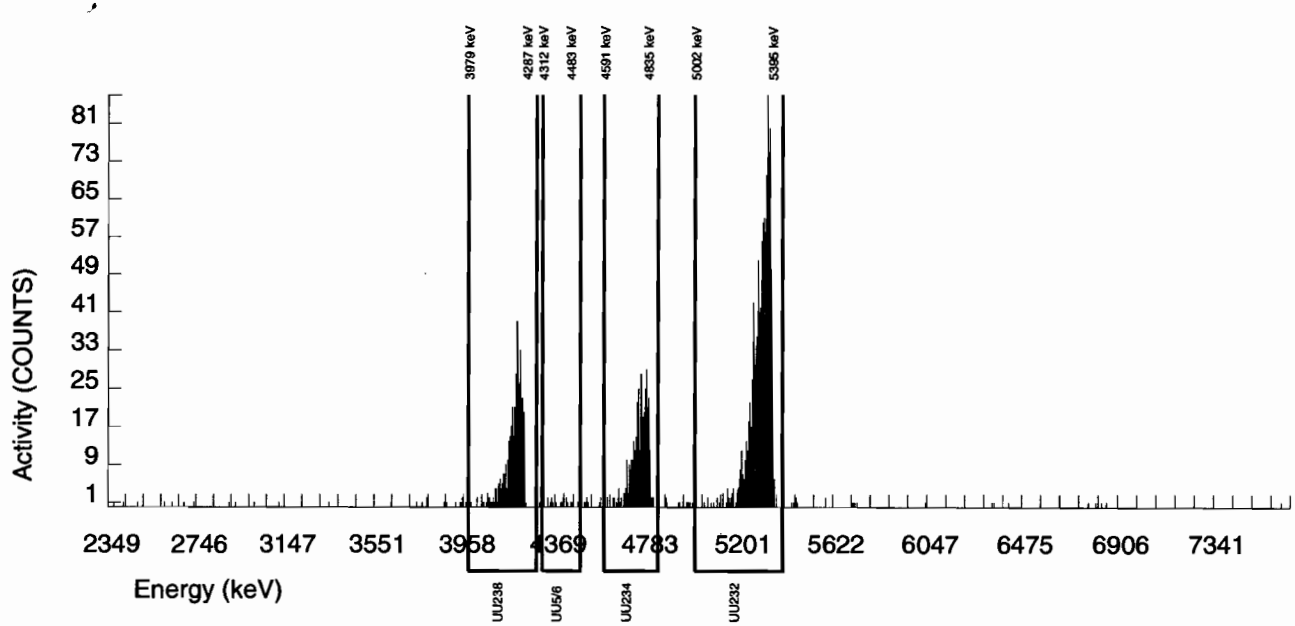

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 126	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960006_UU	DETECTOR S/N : 75548	BKG FILE : B126.CNF;449
SAMPLE QTY : 0.524 G	AVERAGE %EFFICIENCY : 25.0717	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W126.CNF;132
% YIELD : 91.035		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1022E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.694	54.495	1030.000	1028.000	2.000	1.4142	100.0000	3.87E+00	3.00E-01	1.24E-02	3.50E-02	1.21E-01
U-3/4	4763.020	4768.599	65.210	2017.000	2015.960	0.000	4.8416	100.0000	7.59E+00	5.65E-01	4.24E-02	9.51E-02	1.69E-01
U-235	4391.000	4407.121	44.756	87.000	87.000	0.000	2.2152	80.90000	4.05E-01	5.21E-02	2.40E-02	6.06E-02	4.34E-02
U-238	4184.730	4195.765	66.210	2029.000	2029.000	0.000	3.1208	100.0000	7.64E+00	5.68E-01	2.73E-02	6.49E-02	1.70E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

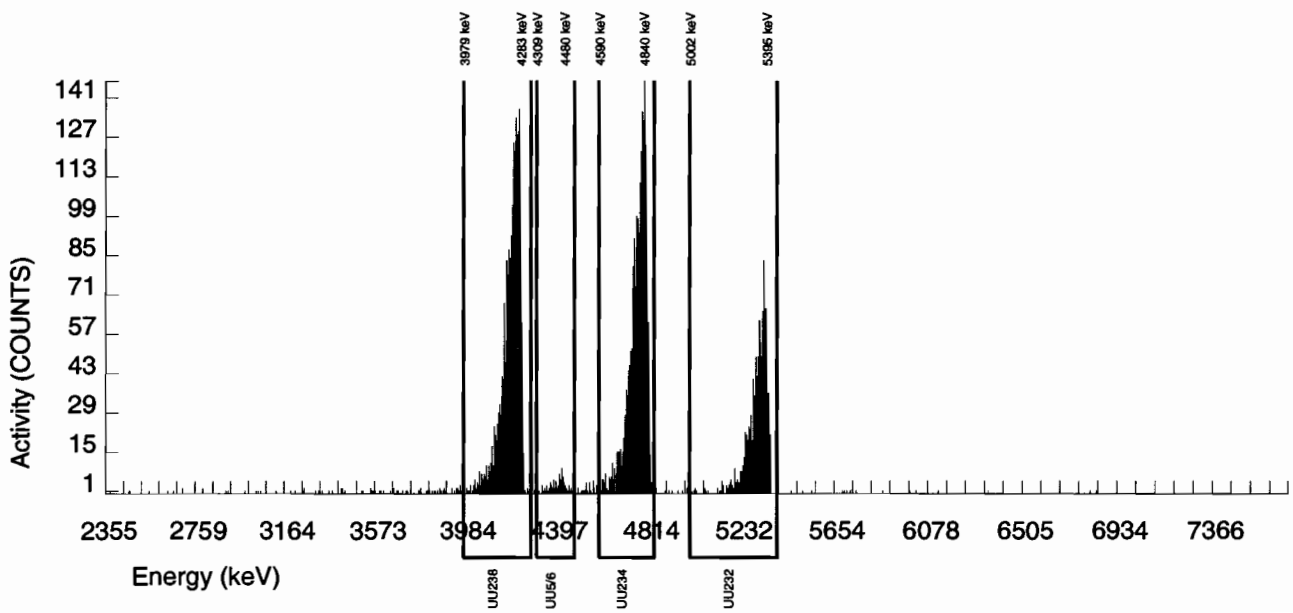

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 127	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960007_UU	DETECTOR S/N : 78770	BKG FILE : B127.CNF;453
SAMPLE QTY : 0.526 G	AVERAGE %EFFICIENCY : 24.3481	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W127.CNF;123
% YIELD : 97.570		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3967E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.030	38.714	1070.000	1070.000	0.000	0.0000	100.0000	3.86E+00	2.97E-01	0.00E+00	9.77E-03	1.18E-01
U-3/4	4763.020	4751.324	54.103	275.000	272.917	1.000	4.8416	100.0000	9.84E-01	9.17E-02	4.06E-02	9.10E-02	5.98E-02
U-235	4391.000	4400.919	0.000	23.000	23.000	0.000	2.2152	80.90000	1.02E-01	2.26E-02	2.30E-02	5.80E-02	2.14E-02
U-238	4184.730	4184.127	40.708	324.000	324.000	0.000	3.1208	100.0000	1.17E+00	1.05E-01	2.62E-02	6.21E-02	6.49E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

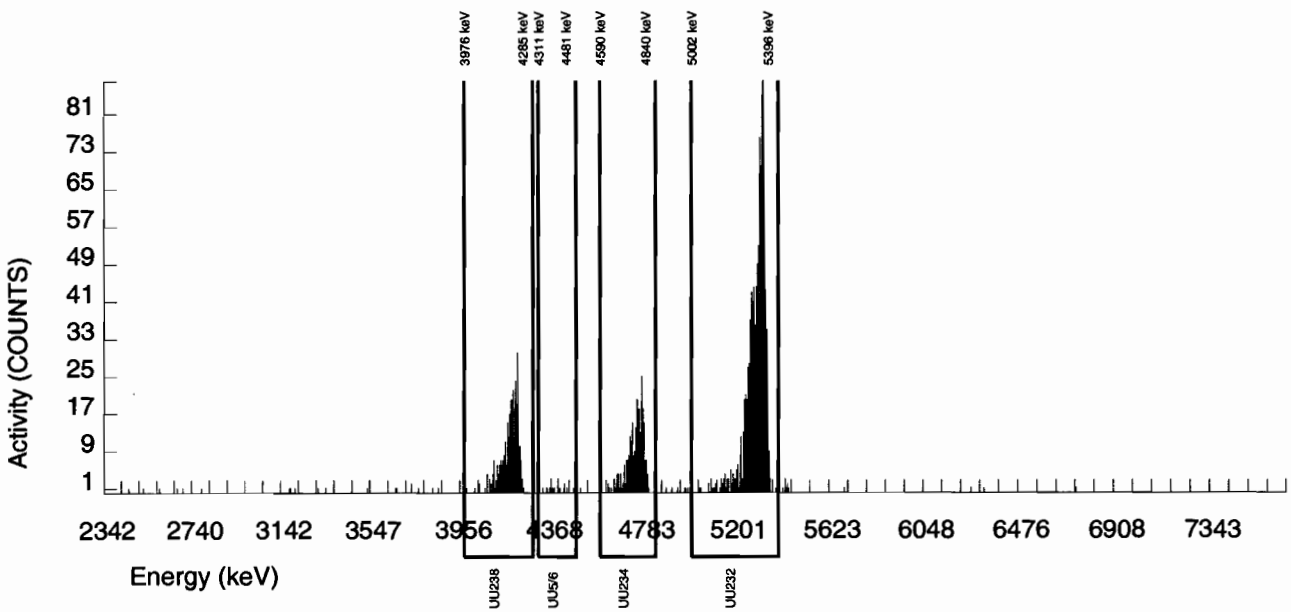

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 129	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960009_UU	DETECTOR S/N : 76227	BKG FILE : B129.CNF;448
SAMPLE QTY : 0.515 G	AVERAGE %EFFICIENCY : 26.4183	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:49	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W129.CNF;128
% YIELD : 83.117		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.7454E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.276	58.184	992.000	989.000	3.000	1.7321	100.0000	3.94E+00	3.08E-01	1.61E-02	4.29E-02	1.26E-01
U-3/4	4763.020	4748.085	85.818	518.000	514.999	2.000	4.8416	100.0000	2.05E+00	1.72E-01	4.49E-02	1.01E-01	9.07E-02
U-235	4391.000	4398.626	76.395	22.000	22.000	0.000	2.2152	80.90000	1.08E-01	2.43E-02	2.54E-02	6.41E-02	2.31E-02
U-238	4184.730	4176.354	61.031	741.000	741.000	0.000	3.1208	100.0000	2.95E+00	2.37E-01	2.89E-02	6.86E-02	1.08E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

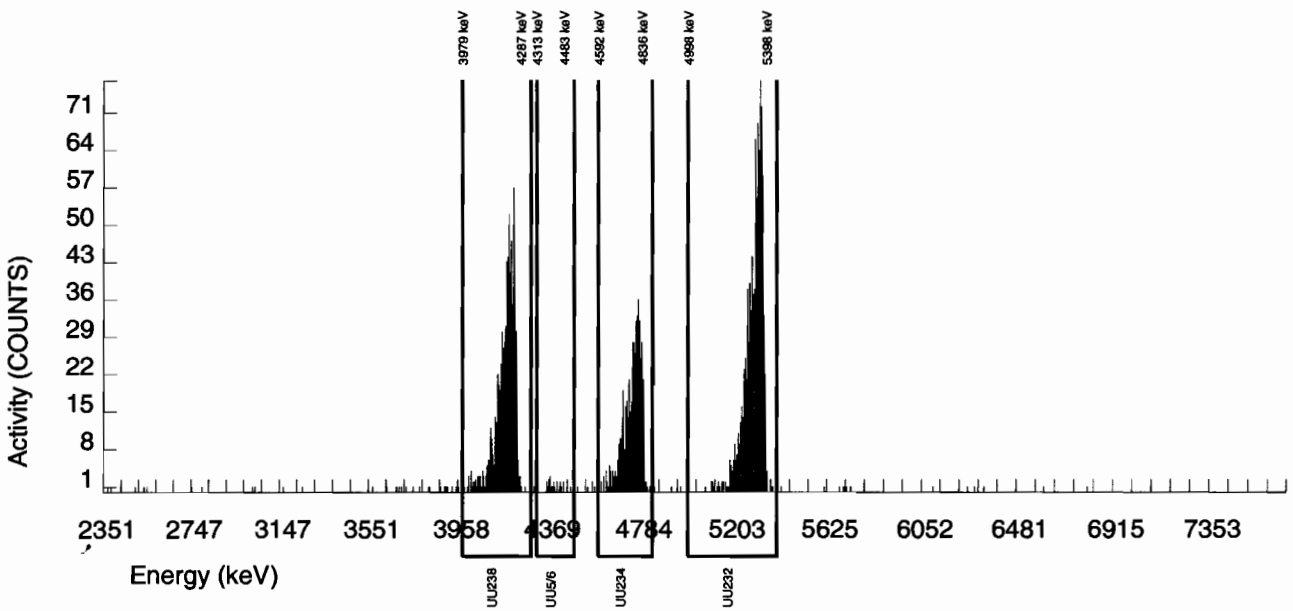

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 130	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960010_UU	DETECTOR S/N : 76228	BKG FILE : B130.CNF;448
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 24.7378	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W130.CNF;130
% YIELD : 105.367		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.7480E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5296.821	66.496	1176.000	1174.000	2.000	1.4142	100.0000	4.00E+00	3.04E-01	1.12E-02	3.16E-02	1.17E-01
U-3/4	4763.020	4754.508	64.194	1369.000	1366.812	1.000	4.8416	100.0000	4.65E+00	3.49E-01	3.83E-02	8.59E-02	1.26E-01
U-235	4391.000	4399.582	46.546	60.000	60.000	0.000	2.2152	80.90000	2.52E-01	3.71E-02	2.17E-02	5.47E-02	3.26E-02
U-238	4184.730	4181.849	60.749	2283.000	2283.000	0.000	3.1208	100.0000	7.77E+00	5.68E-01	2.47E-02	5.86E-02	1.63E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

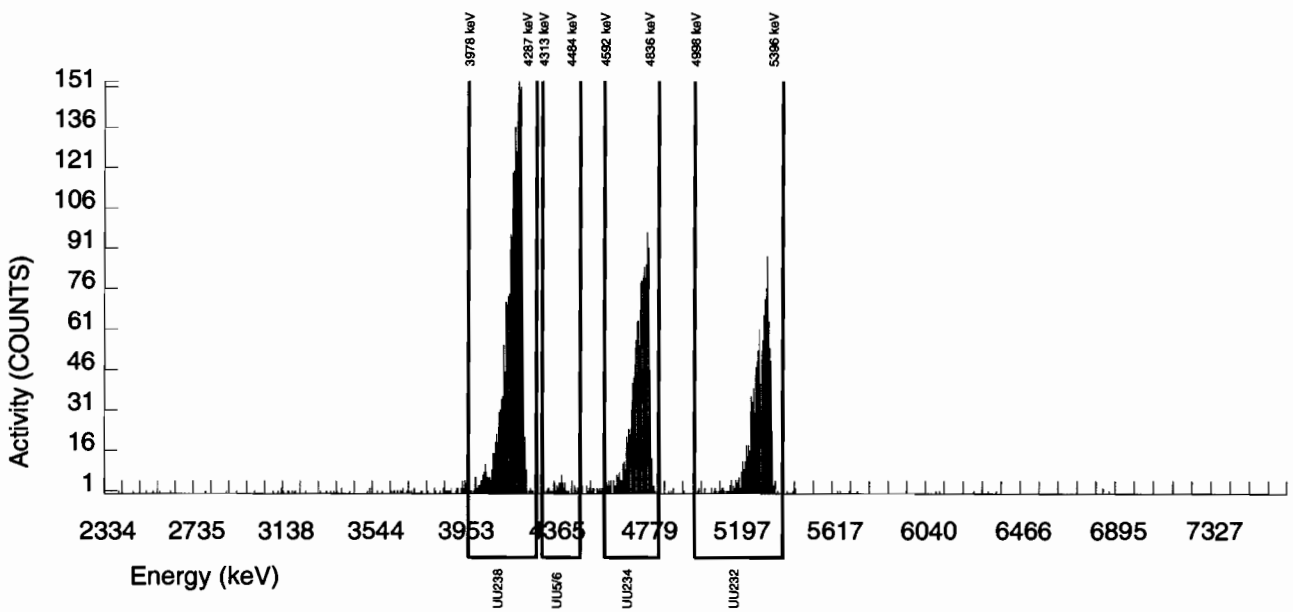

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 131	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960011_UU	DETECTOR S/N : 80008	BKG FILE : B131.CNF;446
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.6996	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W131.CNF;132
% YIELD : 87.688		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9513E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.502	65.054	1016.000	1015.000	1.000	1.0000	100.0000	4.00E+00	3.11E-01	9.17E-03	2.90E-02	1.26E-01
U-3/4	4763.020	4748.377	58.029	265.000	262.973	1.000	4.8416	100.0000	1.04E+00	9.77E-02	4.44E-02	9.95E-02	6.42E-02
U-235	4391.000	4381.173	14.300	14.000	14.000	0.000	2.2152	80.90000	6.82E-02	1.89E-02	2.51E-02	6.34E-02	1.82E-02
U-238	4184.730	4175.612	57.030	270.000	270.000	0.000	3.1208	100.0000	1.06E+00	9.96E-02	2.86E-02	6.79E-02	6.48E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

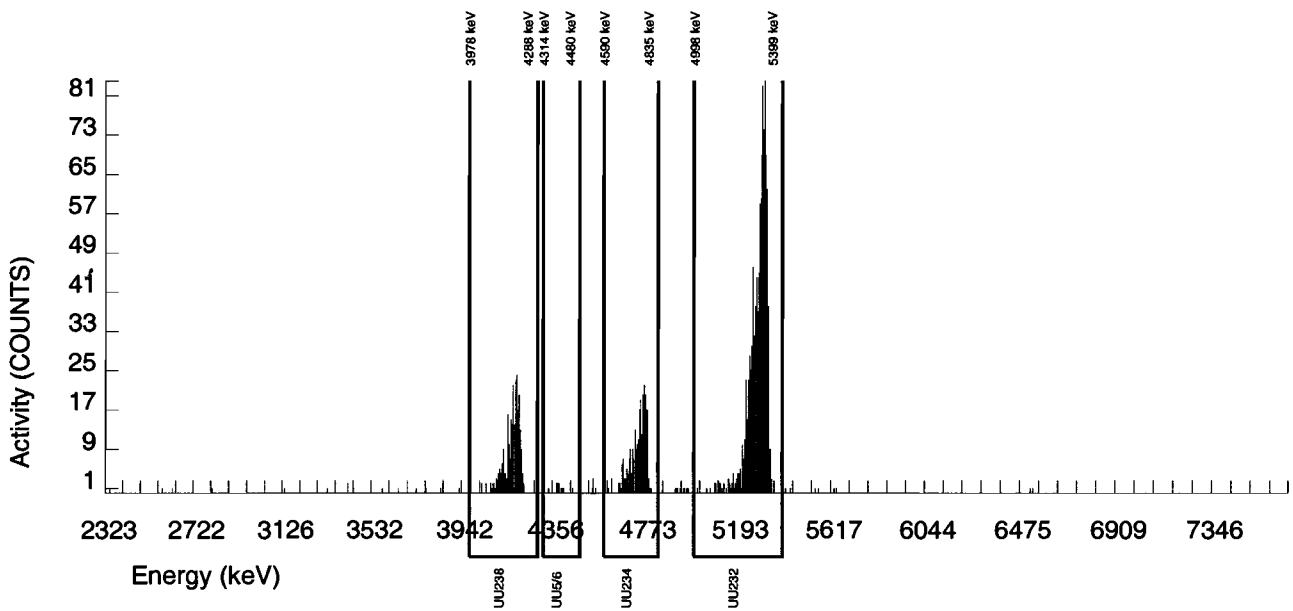

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 132	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978001_UU	DETECTOR S/N : 67579	BKG FILE : B132.CNF;440
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 24.9091	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W132.CNF;130
% YIELD : 81.646		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6792E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.428	59.667	916.000	916.000	0.000	0.0000	100.0000	4.06E+00	3.21E-01	0.00E+00	1.20E-02	1.34E-01
U-3/4	4763.020	4762.426	69.464	171.000	170.073	0.000	4.8416	100.0000	7.53E-01	7.91E-02	4.99E-02	1.12E-01	5.78E-02
U-235	4391.000	4413.984	39.572	4.000	4.000	0.000	2.2152	80.90000	2.19E-02	1.11E-02	2.82E-02	7.13E-02	1.10E-02
U-238	4184.730	4189.479	46.356	216.000	216.000	0.000	3.1208	100.0000	9.57E-01	9.46E-02	3.22E-02	7.63E-02	6.51E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

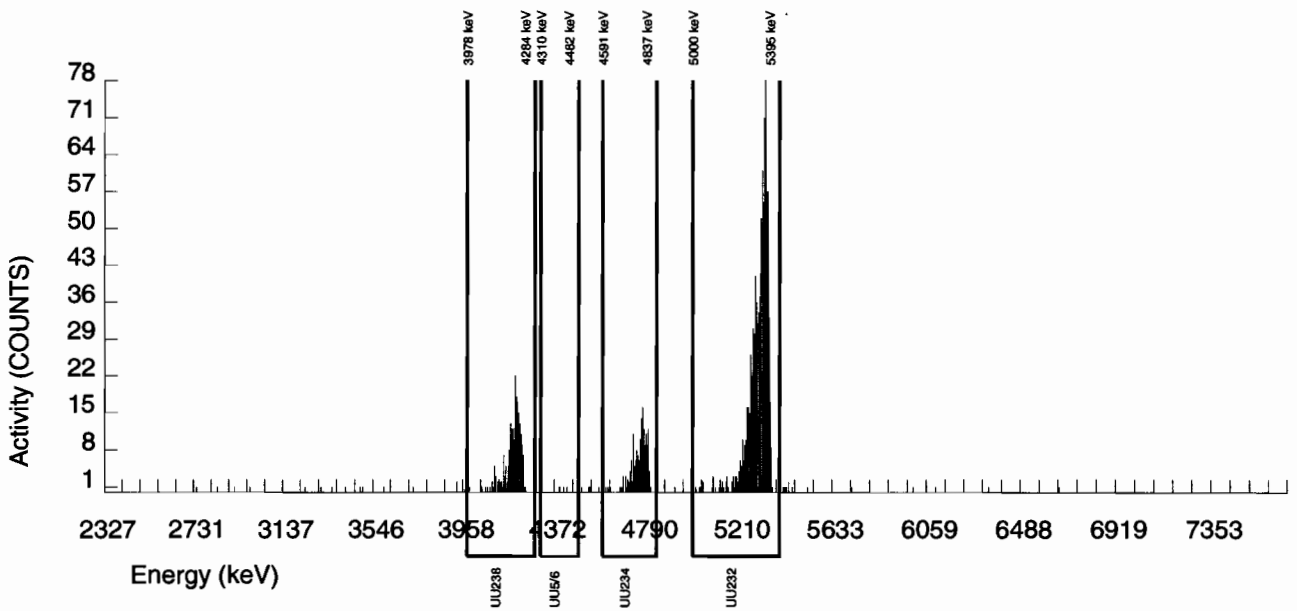

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 004	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035005_UU	DETECTOR S/N : 68548	BKG FILE : B004.CNF;1119
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 30.4786	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 15-FEB-2010 21:17:42	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W004.CNF;330
% YIELD : 101.771		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5846E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.982	61.273	1402.000	1397.000	5.000	2.2361	100.0000	2.03E+00	1.50E-01	7.55E-03	1.90E-02	5.45E-02
U-3/4	4763.020	4721.488	200.062	17.000	13.586	2.000	4.8416	100.0000	1.97E-02	6.24E-03	1.64E-02	3.66E-02	6.09E-03
U-235	4391.000	4376.544	0.000	3.000	2.000	1.000	2.2152	80.90000	3.59E-03	3.60E-03	9.25E-03	2.34E-02	3.59E-03
U-238	4184.730	4182.872	97.890	12.000	11.000	1.000	3.1208	100.0000	1.60E-02	5.35E-03	1.05E-02	2.50E-02	5.24E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

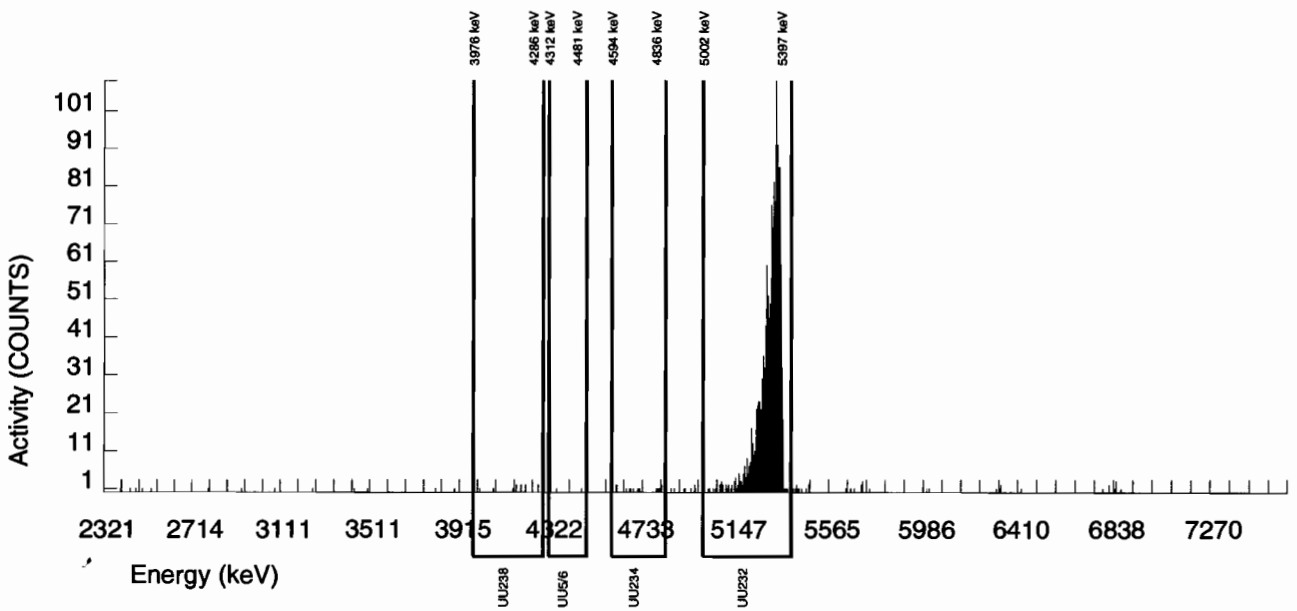

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 144	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035006_UU	DETECTOR S/N : 75551	BKG FILE : B144.CNF;393
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 25.1526	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:25:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W144.CNF;106
% YIELD : 99.657		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4909E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.750	56.886	1134.000	1129.000	5.000	2.2361	100.0000	4.03E+00	3.08E-01	1.85E-02	4.68E-02	1.20E-01
U-3/4	4763.020	4744.952	36.624	197.000	193.857	2.000	4.8416	100.0000	6.91E-01	6.99E-02	4.02E-02	9.00E-02	5.02E-02
U-235	4391.000	4396.632	6.134	16.000	15.000	1.000	2.2152	80.90000	6.61E-02	1.88E-02	2.27E-02	5.74E-02	1.82E-02
U-238	4184.730	4177.830	32.338	346.000	344.000	2.000	3.1208	100.0000	1.23E+00	1.09E-01	2.59E-02	6.14E-02	6.65E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

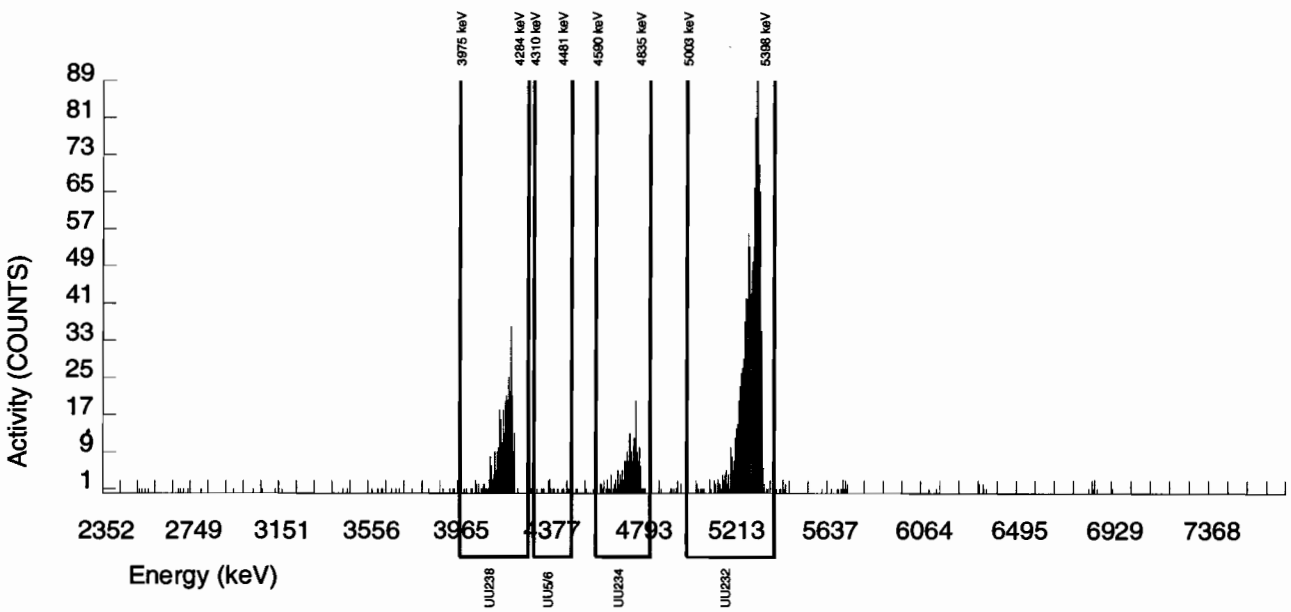

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 145	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035007_UU	DETECTOR S/N : 72526	BKG FILE : B145.CNF;391
SAMPLE QTY : 0.101 G	AVERAGE %EFFICIENCY : 24.9580	BKG DATE : 7-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 13-FEB-2010 21:25:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W145.CNF;111
% YIELD : 87.269		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9313E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.035	51.621	984.000	981.000	3.000	1.7321	100.0000	2.01E+01	1.72E+00	8.25E-02	2.21E-01	6.43E-01
U-3/4	4763.020	4751.526	45.112	286.000	284.007	1.000	4.8416	100.0000	5.82E+00	5.76E-01	2.31E-01	5.17E-01	3.46E-01
U-235	4391.000	4393.771	44.478	13.000	13.000	0.000	2.2152	80.90000	3.29E-01	9.49E-02	1.30E-01	3.29E-01	9.13E-02
U-238	4184.730	4178.924	46.672	334.000	333.000	1.000	3.1208	100.0000	6.82E+00	6.57E-01	1.49E-01	3.53E-01	3.75E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

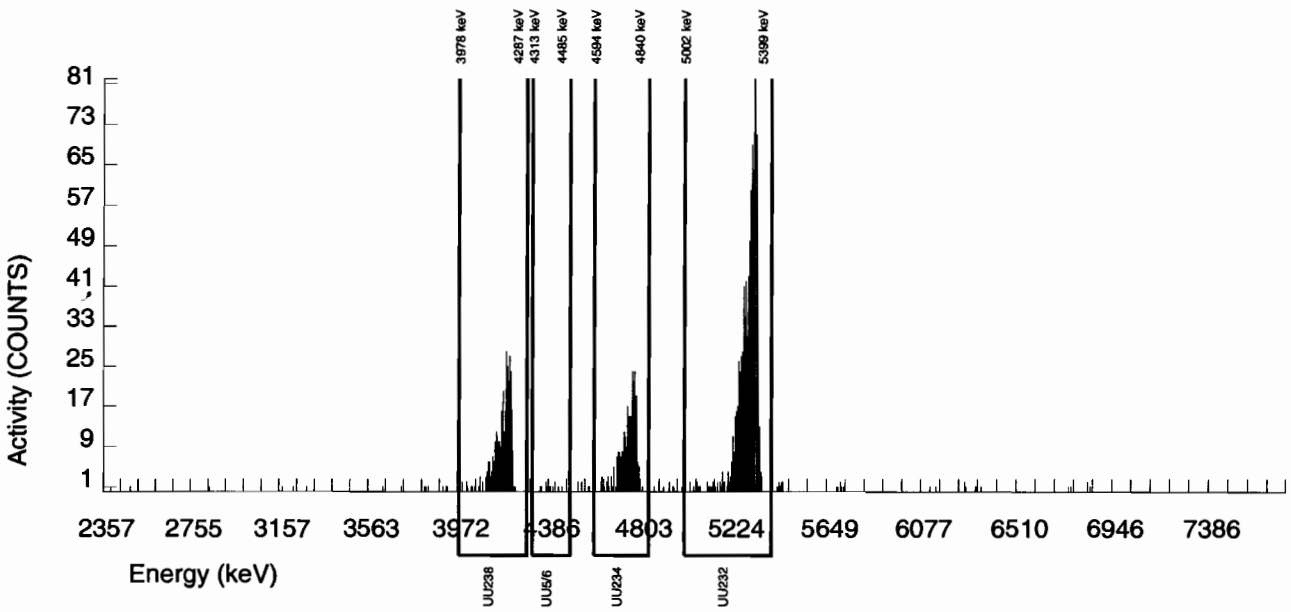

Radiochemistry Batch Checklist, Rev10

Batch# 954007 Product: U Date: 2/24/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/24/10

Secondary Review Performed By: [illegible] 2/24/10

3/2

Uranium Que Sheet

16-FEB-10

Batch #: 954007 Analyst: HAKB First Client Due Date:02-MAR-10 Internal Due Date24-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: SRM 0244-A Expiration Date: 10/31/20 Vol: 0.103g

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/17/10 Initials: HAKB Pipet ID: 29710058 Balance ID: 19350208 Witness: [illegible] 02/17/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) l/f)	U Det #
245960008-3	RE15-10-7314	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	1	1	0.503	145
1202045181-1	MB for batch 954007	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		2	2		164
1202045182-3	RE15-10-7314(245960008DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	28-JAN-10	3	3	0.505	146
1202045183-1	LCS for batch 954007	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		4	4	0.103	147

SRM 0244-A

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [illegible] 2/24/10

Blank Correction Report

Batch ID 954007

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202045182	DUP	Uranium-233/234	0.505 g	2.88	0.228	0.0926	.036633663	pCi/g	NO
		Uranium-235/236	0.505 g	0.136	0.0266	0.059	0	pCi/g	NO
		Uranium-238	0.505 g	3.16	0.248	0.0632	.015821782	pCi/g	NO
1202045183	LCS	Uranium-233/234	0.103 g	5.70	0.548	0.447	.179611650	pCi/g	NO
		Uranium-235/236	0.103 g	0.197	0.0675	0.285	0	pCi/g	NO
		Uranium-238	0.103 g	5.93	0.566	0.305	.077572816	pCi/g	NO
1202045181	MB	Uranium-233/234	1.00 g	0.0185	0.00528	0.0288	.0185	pCi/g	YES
		Uranium-235/236	1.00 g	0.00	0.002	0.0184	0	pCi/g	NO
		Uranium-238	1.00 g	0.00799	0.00383	0.0197	.00799	pCi/g	YES
245960008	RE15-10-7314	Uranium-233/234	0.503 g	2.47	0.203	0.0968	.036779324	pCi/g	NO
		Uranium-235/236	0.503 g	0.166	0.0305	0.0617	0	pCi/g	NO
		Uranium-238	0.503 g	2.99	0.241	0.0661	.015884692	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954007	CHAMBER : 145	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245960008_UU	DETECTOR S/N : 72526	BKG FILE : B145.CNF;395
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 24.9308	BKG DATE : 21-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:17:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W145.CNF;113
% YIELD : 93.623		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2188E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5292.838	57.478	1054.000	1051.000	3.000	1.7321	100.0000	4.04E+00	3.17E-01	1.55E-02	4.13E-02	1.25E-01
U-3/4	4763.020	4745.572	34.155	645.000	643.936	0.000	4.8416	100.0000	2.47E+00	2.03E-01	4.32E-02	9.68E-02	9.74E-02
U-235	4391.000	4391.478	60.334	35.000	35.000	0.000	2.2152	80.90000	1.66E-01	3.05E-02	2.44E-02	6.17E-02	2.81E-02
U-238	4184.730	4176.812	49.629	778.000	778.000	0.000	3.1208	100.0000	2.98E+00	2.41E-01	2.79E-02	6.61E-02	1.07E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

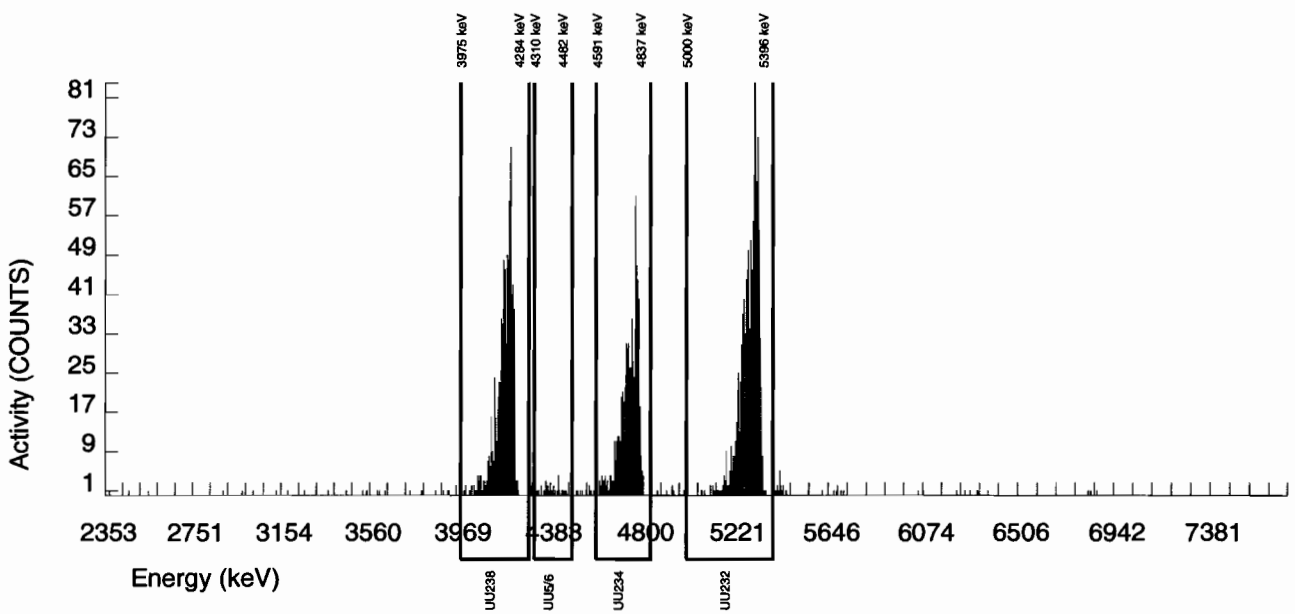

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954007	CHAMBER : 164	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202045181_UU	DETECTOR S/N : 70325	BKG FILE : B164.CNF;172
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.7598	BKG DATE : 21-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 10:41:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W164.CNF;58
% YIELD : 104.454		CAL DATE : 22-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5037E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.7043E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5296.328	68.045	1778.000	1776.000	2.000	1.4142	100.0000	2.03E+00	1.45E-01	3.76E-03	1.06E-02	4.82E-02
U-3/4	4763.020	4739.897	162.423	20.000	16.202	2.000	4.8416	100.0000	1.85E-02	5.28E-03	1.29E-02	2.88E-02	5.13E-03
U-235	4391.000	4464.070	4.925	1.000	0.000	1.000	2.2152	80.90000	0.00E+00	2.00E-03	7.28E-03	1.84E-02	2.00E-03
U-238	4184.730	4164.018	0.000	9.000	7.000	2.000	3.1208	100.0000	7.99E-03	3.83E-03	8.29E-03	1.97E-02	3.79E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

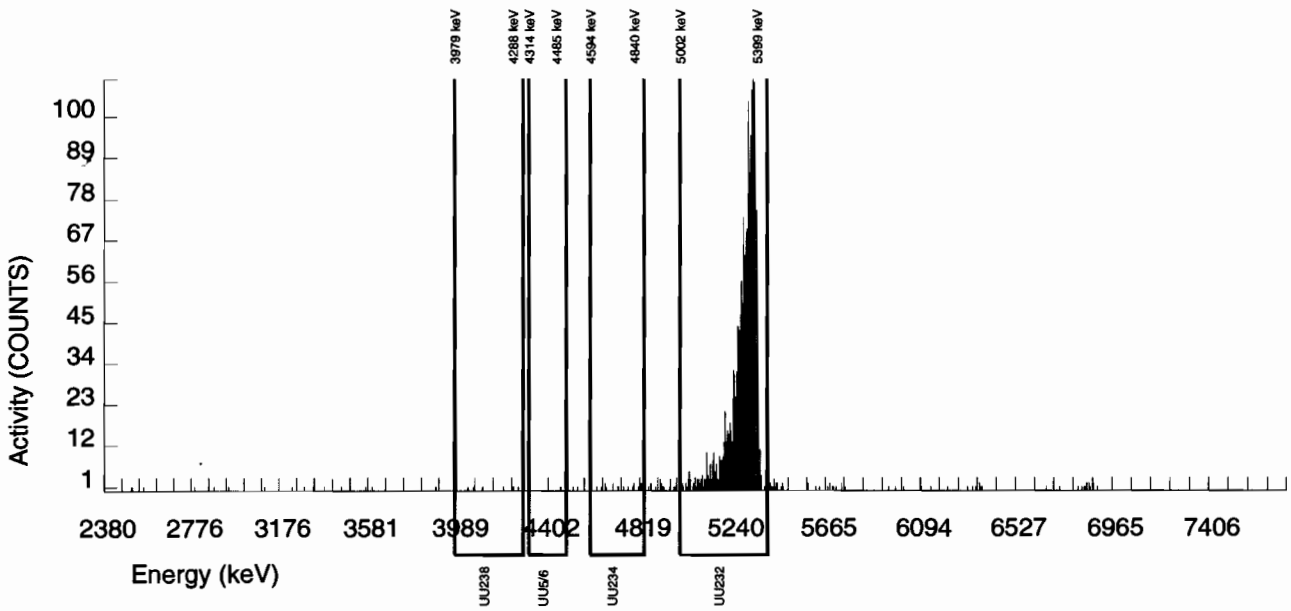

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954007	CHAMBER : 146	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202045182_UU	DETECTOR S/N : 72527	BKG FILE : B146.CNF;400
SAMPLE QTY : 0.505 G	AVERAGE %EFFICIENCY : 24.7373	BKG DATE : 21-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:17:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W146.CNF;115
% YIELD : 98.306		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4298E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.605	64.124	1102.000	1095.000	7.000	2.6458	100.0000	4.02E+00	3.09E-01	2.26E-02	5.51E-02	1.22E-01
U-3/4	4763.020	4748.854	60.025	786.000	784.892	0.000	4.8416	100.0000	2.88E+00	2.28E-01	4.13E-02	9.26E-02	1.03E-01
U-235	4391.000	4392.693	9.888	30.000	30.000	0.000	2.2152	80.90000	1.36E-01	2.66E-02	2.34E-02	5.90E-02	2.48E-02
U-238	4184.730	4178.601	78.402	862.000	862.000	0.000	3.1208	100.0000	3.16E+00	2.48E-01	2.66E-02	6.32E-02	1.08E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

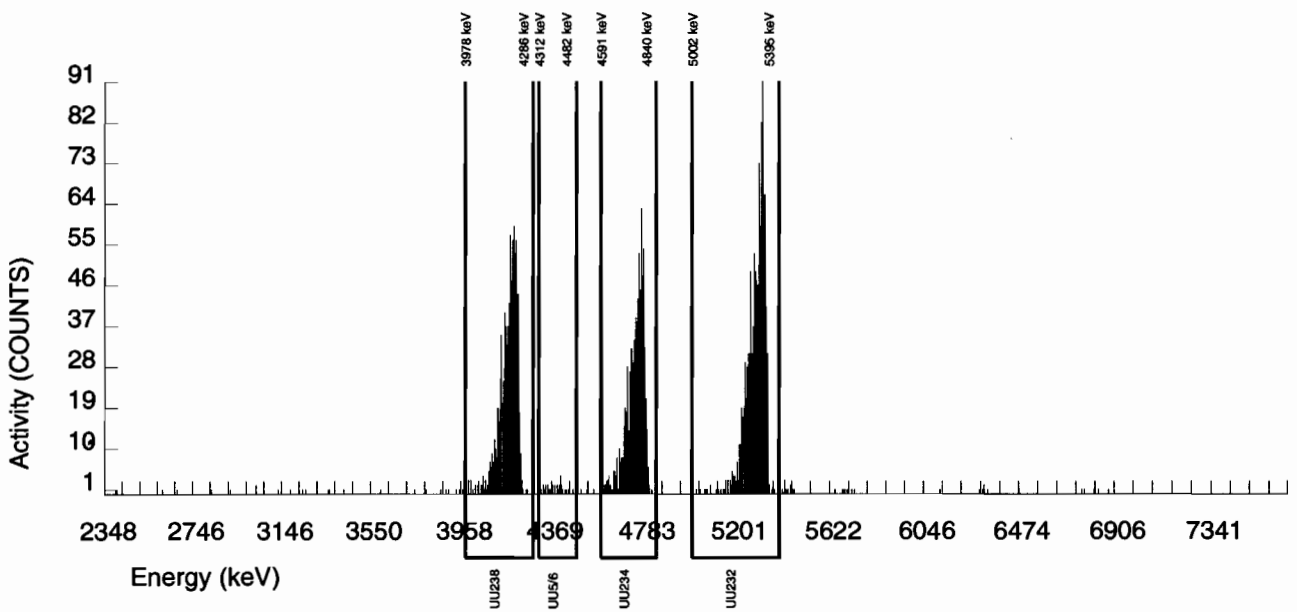

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954007	CHAMBER : 147	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202045183_UU	DETECTOR S/N : 75550	BKG FILE : B147.CNF;400
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 24.4814	BKG DATE : 21-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:17:44	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W147.CNF;114
% YIELD : 100.876		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5037E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5431E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.507	49.597	1114.000	1112.000	2.000	1.4142	100.0000	1.97E+01	1.65E+00	5.83E-02	1.65E-01	5.92E-01
U-3/4	4763.020	4755.471	70.230	324.000	321.874	1.000	4.8416	100.0000	5.70E+00	5.48E-01	1.99E-01	4.47E-01	3.19E-01
U-235	4391.000	4392.768	4.940	9.000	9.000	0.000	2.2152	80.90000	1.97E-01	6.75E-02	1.13E-01	2.85E-01	6.57E-02
U-238	4184.730	4181.253	46.590	335.000	335.000	0.000	3.1208	100.0000	5.93E+00	5.66E-01	1.29E-01	3.05E-01	3.24E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

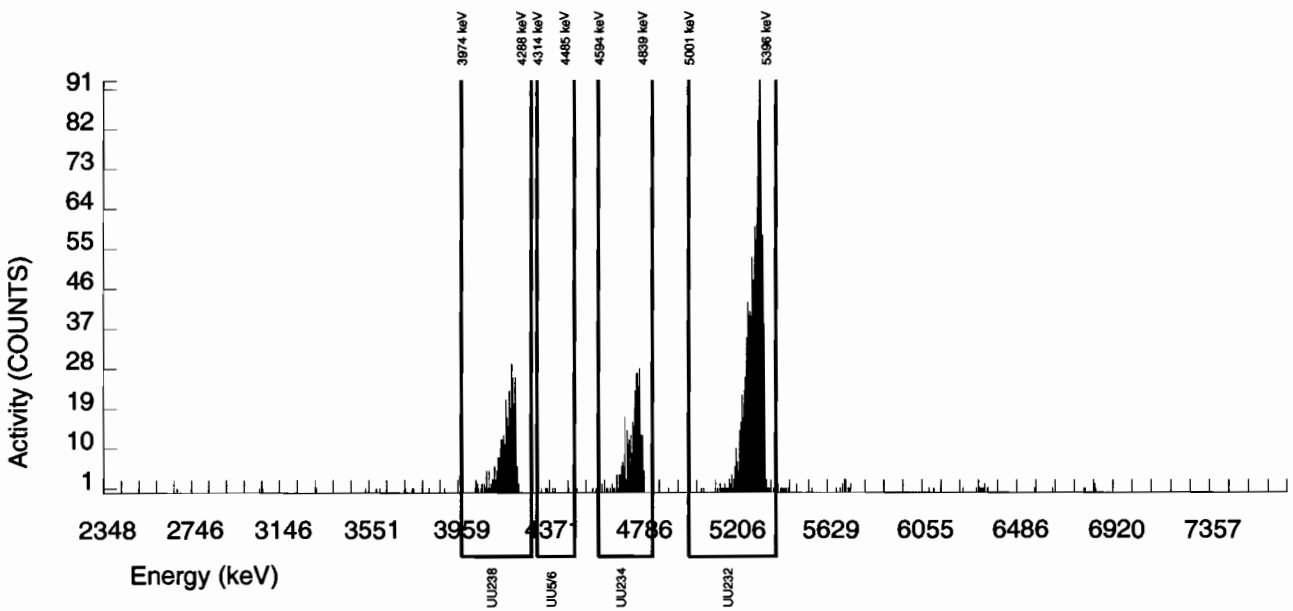

Radiochemistry Batch Checklist, Rev10

Batch# 955880 Product: Am Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/21/10

Secondary Review Performed By: [signature] 2/22/10

LANL

2/15 - 2/24

P

Am/Cm Que Sheet

19-FEB-10

Batch #: 955380 Analyst: CXM2 First Client Due Date: 24-FEB-10 Internal Due Date18-FEB-10 Comments:
Tracer(s): Am243/Cm244 Tracer Code: 445-96-255 Expiration Date: 5/11/10 Vol: 0 ml
LCS Isotope(s): Am241/Cm244 LCS Code(s): / / Expiration Date: / / Vol(s): / /
Spike Isotope(s): Am241/Cm244 Spike Code(s): / / Expiration Date: / / Vol(s): / /
Prep Date: 2/18/10 Initials: JMO Pipet ID: 29710598 Balance ID: 50410272 Witness: JEH 2-19-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245617007-2	RE46-10-11823	SAMPLE		.05 pCi/g	SOIL	LANL010	25-JAN-10	1	1	1.262	223
245785015-3	RE46-10-11882	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	2	2	1.270	224
245960006-3	RE15-10-7312	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.262	225
245960008-3	RE15-10-7314	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.283	226
1202048270-1	MB for batch 955380	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		5	5	1	237
1202048271-3	RE46-10-11882(245785015DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	6	6	1.254	227
1202048272-1	LCS for batch 955380	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		7	7	0.104	197

* SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: 2/21/10

Page 1 of 1

EL Laboratories LLC, Radiochemistry Division

2/22/10

Blank Correction Report

Batch ID 955380

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202048271	DUP	Americium-241	1.25 g	0.0015	0.00129	0.0176	-.00528	pCi/g	NO
1202048272	LCS	Americium-241	0.104 g	35.0	2.54	0.277	-.06346154	pCi/g	NO
1202048270	MB	Americium-241	1.00 g	-0.0066	0.00322	0.0229	-.0066	pCi/g	NO
245617007	RE46-10-11823	Americium-241	1.26 g	0.0344	0.00647	0.0165	-.00523810	pCi/g	NO
245785015	RE46-10-11882	Americium-241	1.27 g	0.004	0.00217	0.0185	-.00519685	pCi/g	NO
245960006	RE15-10-7312	Americium-241	1.26 g	0.00509	0.00267	0.022	-.00523810	pCi/g	NO
245960008	RE15-10-7314	Americium-241	1.28 g	0.00281	0.0018	0.0183	-.00515625	pCi/g	NO

2/22/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 224	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245785015_AM	DETECTOR S/N : 79417	BKG FILE : B224.CNF;80
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 37.7809	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W224.CNF;28
% YIELD : 81.038		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3635E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5509.750	94.643	5.000	3.450	0.000	2.8409	99.94000	4.00E-03	2.17E-03	7.66E-03	1.85E-02	2.15E-03
AM243	5270.000	5280.685	52.425	892.000	891.000	1.000	1.0000	99.78000	1.03E+00	7.06E-02	2.70E-03	8.55E-03	3.47E-02
CM-242	6102.000	6041.920	103.983	7.000	7.000	0.000	4.3413	100.0000	9.02E-03	3.45E-03	1.17E-02	2.65E-02	3.41E-03
CM-3/4	5795.020	5777.960	34.869	4.000	3.000	1.000	5.1799	100.0000	3.48E-03	2.61E-03	1.40E-02	3.11E-02	2.60E-03
CM-5/6	5386.000	5379.332	0.000	24.000	24.000	0.000	14.2480	86.09000	3.23E-02	6.87E-03	4.46E-02	9.29E-02	6.59E-03
CM-247	4946.000	4918.140	5.786	20.000	20.000	0.000	13.7917	79.30000	2.92E-02	6.76E-03	4.69E-02	9.77E-02	6.53E-03
CM-248	5078.600	5061.080	54.586	33.000	33.000	0.000	19.5080	91.00000	4.20E-02	7.73E-03	5.78E-02	1.19E-01	7.31E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

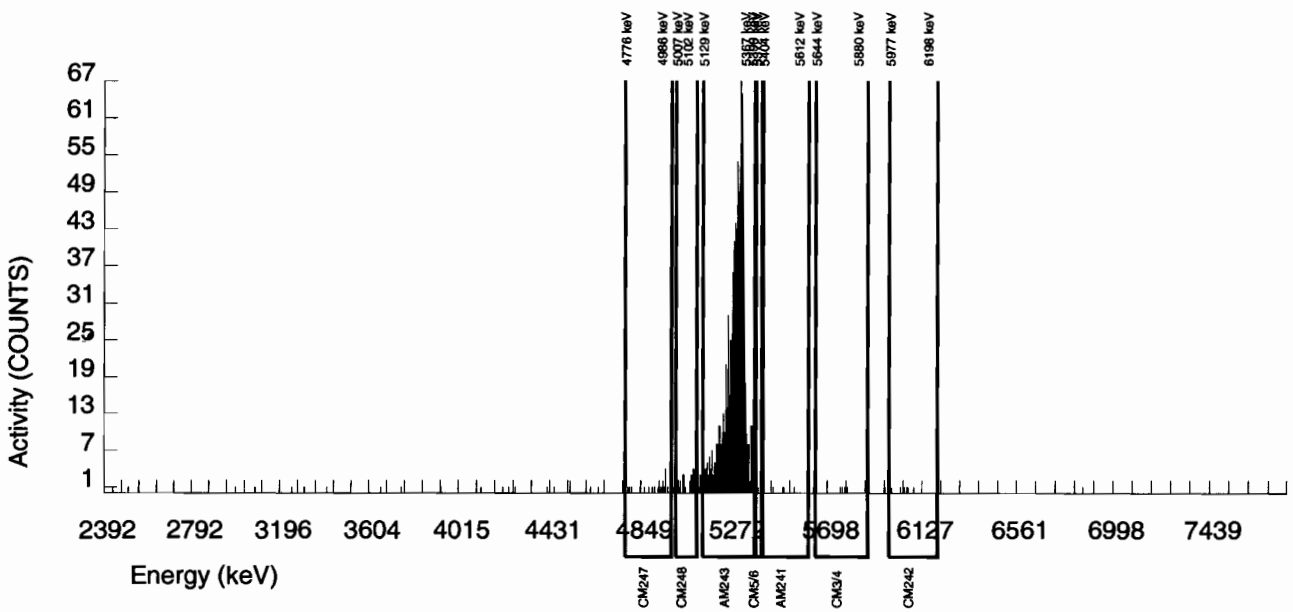

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 225	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960006_AM	DETECTOR S/N : 79418	BKG FILE : B225.CNF;80
SAMPLE QTY : 1.262 G	AVERAGE %EFFICIENCY : 38.7926	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W225.CNF;28
% YIELD : 66.701		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.9454E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5487.321	83.556	5.000	3.690	0.000	2.8409	99.94000	5.09E-03	2.67E-03	9.12E-03	2.20E-02	2.65E-03
AM243	5270.000	5278.209	62.441	754.000	753.000	1.000	1.0000	99.78000	1.04E+00	7.42E-02	3.22E-03	1.02E-02	3.80E-02
CM-242	6102.000	6051.738	54.466	3.000	3.000	0.000	4.3413	100.0000	4.58E-03	2.66E-03	1.39E-02	3.16E-02	2.65E-03
CM-3/4	5795.020	5782.065	4.951	5.000	4.000	1.000	5.1799	100.0000	5.53E-03	3.40E-03	1.66E-02	3.70E-02	3.39E-03
CM-5/6	5386.000	5383.117	9.800	8.000	8.000	0.000	14.2480	86.09000	1.28E-02	4.60E-03	5.31E-02	1.11E-01	4.53E-03
CM-247	4946.000	4930.186	81.699	14.000	13.000	1.000	13.7917	79.30000	2.26E-02	6.88E-03	5.58E-02	1.16E-01	6.74E-03
CM-248	5078.600	5067.097	7.272	21.000	19.000	2.000	19.5080	91.00000	2.88E-02	7.48E-03	6.88E-02	1.42E-01	7.27E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

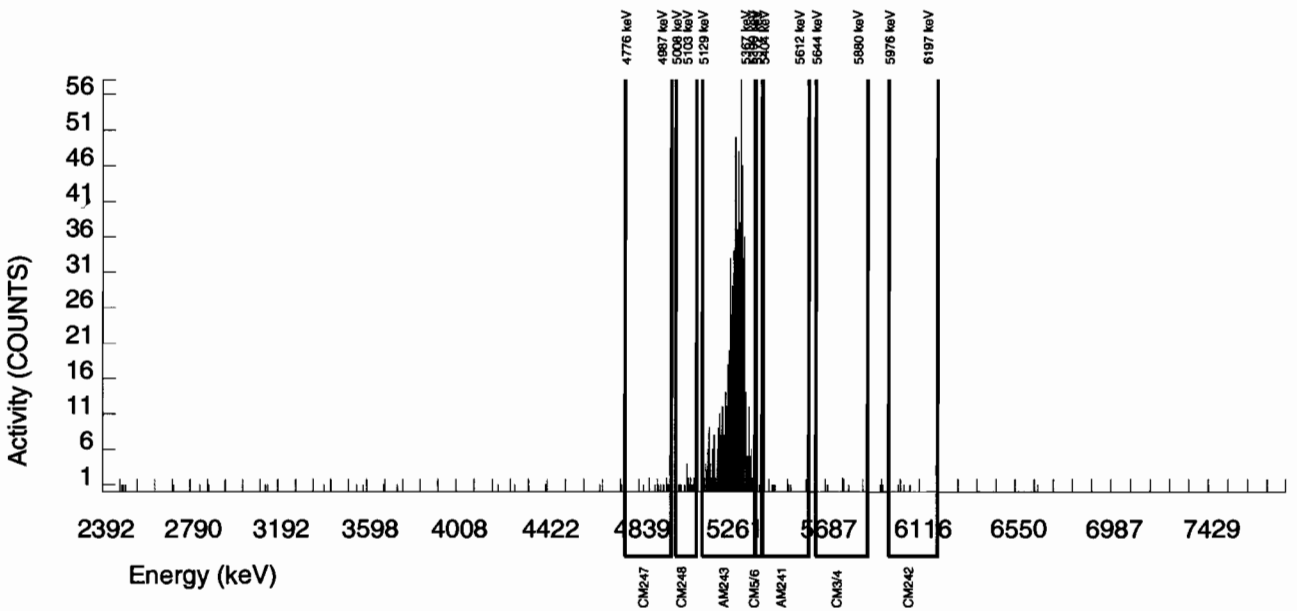

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 226	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245960008_AM	DETECTOR S/N : 79419	BKG FILE : B226.CNF;80
SAMPLE QTY : 1.283 G	AVERAGE %EFFICIENCY : 37.2343	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W226.CNF;28
% YIELD : 82.228		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3982E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5491.559	44.592	4.000	2.450	0.000	2.8409	99.94000	2.81E-03	1.80E-03	7.58E-03	1.83E-02	1.80E-03
AM243	5270.000	5271.550	51.231	891.000	891.000	0.000	0.0000	99.78000	1.02E+00	6.99E-02	0.00E+00	3.11E-03	3.43E-02
CM-242	6102.000	6023.186	4.955	7.000	7.000	0.000	4.3413	100.0000	8.89E-03	3.40E-03	1.16E-02	2.63E-02	3.36E-03
CM-3/4	5795.020	5758.142	4.955	8.000	7.000	1.000	5.1799	100.0000	8.05E-03	3.48E-03	1.38E-02	3.07E-02	3.45E-03
CM-5/6	5386.000	5377.194	0.000	17.000	17.000	0.000	14.2480	86.09000	2.26E-02	5.65E-03	4.42E-02	9.19E-02	5.49E-03
CM-247	4946.000	4886.321	4.955	14.000	11.000	3.000	13.7917	79.30000	1.59E-02	6.04E-03	4.64E-02	9.67E-02	5.96E-03
CM-248	5078.600	5061.602	80.823	36.000	36.000	0.000	19.5080	91.00000	4.54E-02	8.03E-03	5.72E-02	1.18E-01	7.56E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

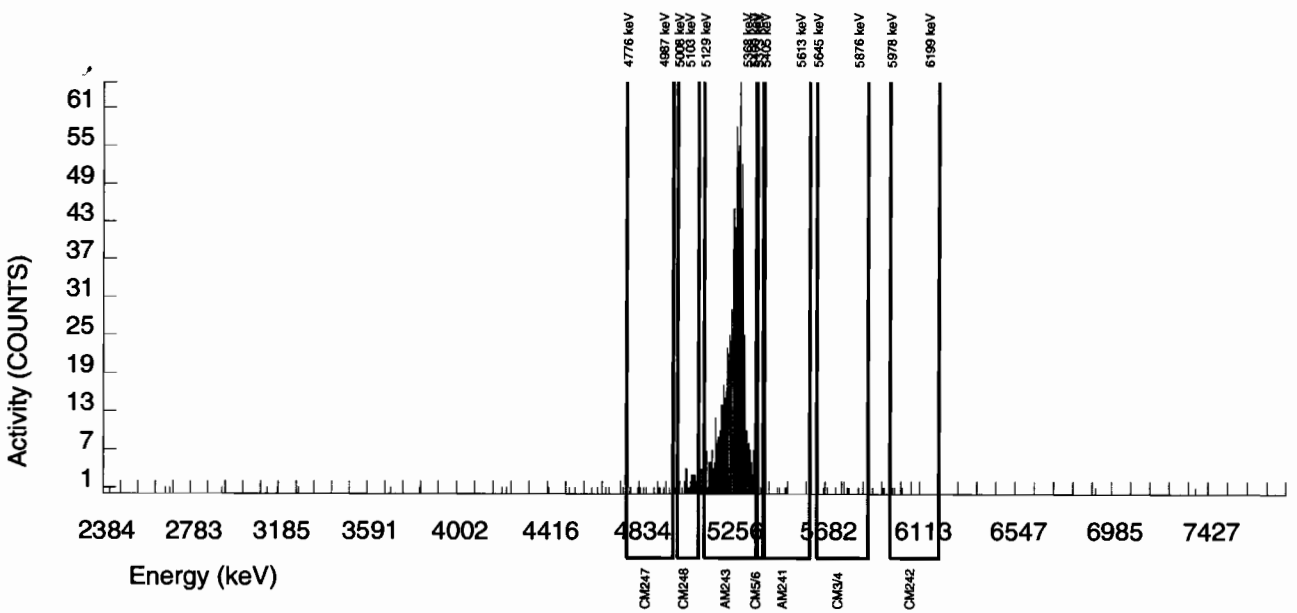

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 237	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202048270_AM	DETECTOR S/N : 79430	BKG FILE : B237.CNF;80
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 39.3990	BKG DATE : 14-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:36	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W237.CNF;28
% YIELD : 79.455		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.3173E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5454.433	4.920	1.000	-4.585	4.000	2.8409	99.94000	-6.60E-03	3.22E-03	9.52E-03	2.29E-02	3.22E-03
AM243	5270.000	5274.829	56.616	913.000	911.000	2.000	1.4142	99.78000	1.31E+00	9.12E-02	4.74E-03	1.34E-02	4.36E-02
CM-242	6102.000	6076.565	39.358	4.000	4.000	0.000	4.3413	100.0000	5.83E-03	2.94E-03	1.45E-02	3.30E-02	2.91E-03
CM-3/4	5795.020	5816.999	78.716	3.000	2.000	1.000	5.1799	100.0000	2.88E-03	2.88E-03	1.73E-02	3.86E-02	2.88E-03
CM-5/6	5386.000	5377.154	0.000	24.000	24.000	0.000	14.2480	86.09000	4.01E-02	8.55E-03	5.54E-02	1.15E-01	8.19E-03
CM-247	4946.000	4933.583	29.519	19.000	17.000	2.000	13.7917	79.30000	3.08E-02	8.53E-03	5.82E-02	1.21E-01	8.32E-03
CM-248	5078.600	5066.164	0.000	23.000	23.000	0.000	19.5080	91.00000	3.64E-02	7.90E-03	7.18E-02	1.48E-01	7.58E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

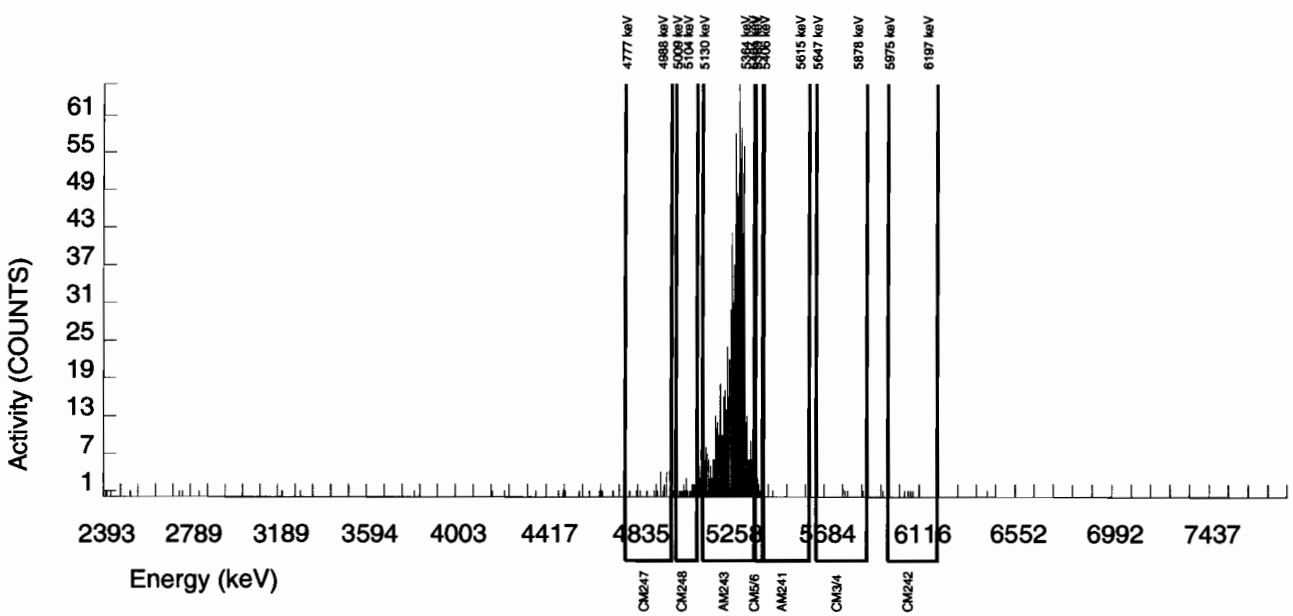

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 227	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202048271_AM	DETECTOR S/N : 79420	BKG FILE : B227.CNF;80
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 38.6409	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:37:10	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W227.CNF;28
% YIELD : 84.126		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4536E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5454.161	44.507	3.000	1.354	0.000	2.8409	99.94000	1.50E-03	1.29E-03	7.31E-03	1.76E-02	1.29E-03
AM243	5270.000	5280.389	48.326	947.000	946.000	1.000	1.0000	99.78000	1.05E+00	7.05E-02	2.58E-03	8.15E-03	3.41E-02
CM-242	6102.000	6051.068	58.725	5.000	5.000	0.000	4.3413	100.0000	6.14E-03	2.77E-03	1.12E-02	2.53E-02	2.75E-03
CM-3/4	5795.020	5777.174	17.308	12.000	11.000	1.000	5.1799	100.0000	1.22E-02	4.06E-03	1.33E-02	2.96E-02	3.99E-03
CM-5/6	5386.000	5379.563	0.000	20.000	20.000	0.000	14.2480	86.09000	2.57E-02	5.94E-03	4.25E-02	8.86E-02	5.74E-03
CM-247	4946.000	4911.014	77.887	21.000	21.000	0.000	13.7917	79.30000	2.93E-02	6.61E-03	4.47E-02	9.32E-02	6.39E-03
CM-248	5078.600	5062.578	0.000	27.000	27.000	0.000	19.5080	91.00000	3.28E-02	6.60E-03	5.51E-02	1.14E-01	6.31E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

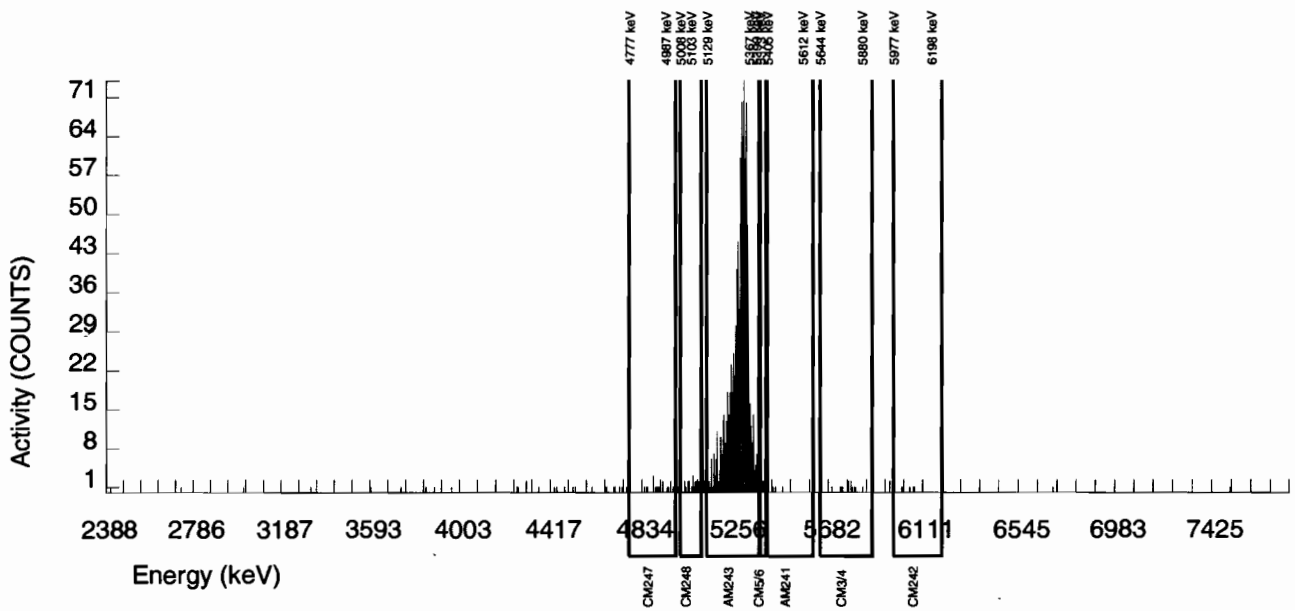

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 955380	CHAMBER : 197	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202048272_AM	DETECTOR S/N : 78894	BKG FILE : B197.CNF;100
SAMPLE QTY : 0.104 G	AVERAGE %EFFICIENCY : 25.5731	BKG DATE : 14-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 20-FEB-2010 13:39:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W197.CNF;51
% YIELD : 97.418		CAL DATE : 22-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.8413E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	~~UNC~~ pCi/G
AM-241	5479.150	5495.550	38.653	2018.000	2013.738	3.000	2.8409	99.94000	3.50E+01	2.54E+00	1.15E-01	2.77E-01	7.82E-01
AM243	5270.000	5278.492	34.027	725.000	725.000	0.000	0.0000	99.78000	1.26E+01	9.91E-01	0.00E+00	4.72E-02	4.69E-01
CM-242	6102.000	6076.670	7.291	12.000	11.000	1.000	4.3413	100.0000	1.94E-01	6.49E-02	1.76E-01	3.98E-01	6.35E-02
CM-3/4	5795.020	5803.341	0.000	23.000	7.000	16.000	5.1799	100.0000	1.22E-01	1.09E-01	2.10E-01	4.66E-01	1.09E-01
CM-5/6	5386.000	5388.323	0.000	33.000	33.000	0.000	14.2480	86.09000	6.66E-01	1.25E-01	6.69E-01	1.39E+00	1.16E-01
CM-247	4946.000	4899.943	193.604	8.000	7.000	1.000	13.7917	79.30000	1.53E-01	6.66E-02	7.03E-01	1.47E+00	6.58E-02
CM-248	5078.600	5076.603	0.000	10.000	10.000	0.000	19.5080	91.00000	1.91E-01	6.18E-02	8.67E-01	1.79E+00	6.04E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

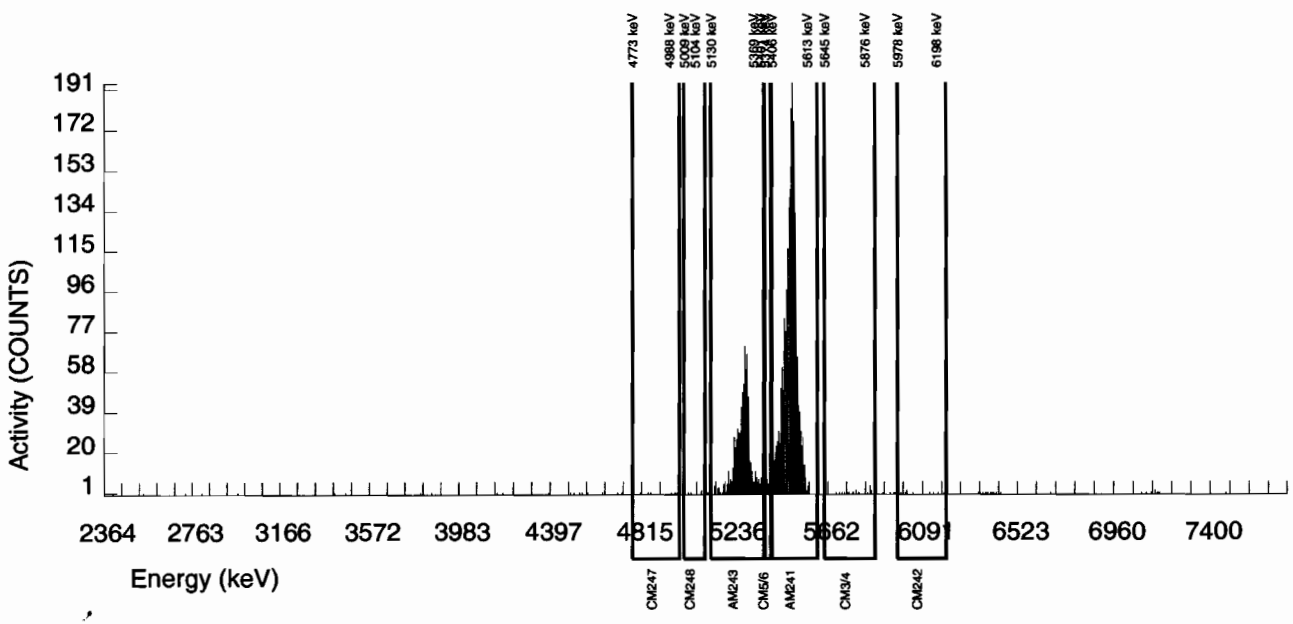

Radiochemistry Batch Checklist, Rev10

Batch# 948717 Product: Gamma Solid LANL Date: 02/16/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		DER 791258
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 791258
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 2/16/10

Secondary Review Performed By: [illegible] 2/16/10

2b3

Gamma Spec Que Sheet I.G.-2/12/10

02/12/2010

Batch #:948717 **Analyst:** CRO **First Client DueDate**02/23/2010 **Internal Due Date:** 02/13/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** n/a **Vol:** n/a **Nominal Concentration:** n/a

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Cs137-5.561 Co60-6.404 Am241-15.90

Initials: RF **Prep Date:** 2/5/10 **Library:** Solid **Witness:** n/a

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1/g/F)	Detector	Sealing Date/Time (if Applicable)
245955001-1	RE16-10-1474	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF	can	132.91	10	2/5/10
245955002-1	RE16-10-1475	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		123.56	11	
245960001-1	RE15-10-7309	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		120.48	21	
245960002-1	RE15-10-7308	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		121.12	23	
245960003-1	RE15-10-7315	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		130.30	22	
245960004-1	RE15-10-7317	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		121.72	25	
245960005-1	RE15-10-7319	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		127.60	12	
245960006-1	RE15-10-7312	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		117.77	17	
245960007-1	RE15-10-7313	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		136.21	18	
245960008-1	RE15-10-7314	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		123.38	1	
245960009-1	RE15-10-7316	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		117.96	6	
245960010-1	RE15-10-7318	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		105.20	7	
245960011-1	RE15-10-7324	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		132.02	4	
1202032510-1	MB	MB		QC ACCOUNT	SOIL	02/05/10	RF		136.21	14	
1202032511-1	DUP RE15-10-7308(245960002)	DUP		QC ACCOUNT	SOIL	28-JAN-10 12:00:00	RF		~~121.12~~ 121.30 RF 2/12/10	16	
1202032512-1	LCS	LCS		QC ACCOUNT	SOIL	02/05/10	RF		155.44	15	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 2/10/10

✓ no history
✓ duplicates

2/16/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
948717	245955001	SAMPLE	12-FEB-10		Americium-241	0.01303	0.3505	0.200
					Thorium-234	2.1	2.5	2.00
948717	245955002	SAMPLE	12-FEB-10					
948717	245960001	SAMPLE	12-FEB-10		Cesium-134	0.08686	0.1216	0.100
					Sodium-22	0.03244	0.1031	0.080
948717	245960002	SAMPLE	12-FEB-10		Americium-241	0.2347	0.3768	0.200
					Cerium-139	0.00945	0.05877	0.050
948717	245960003	SAMPLE	12-FEB-10		Americium-241	0.0949	0.2133	0.200
948717	245960004	SAMPLE	12-FEB-10					
948717	245960005	SAMPLE	12-FEB-10		Americium-241	0.04225	0.2528	0.200
948717	245960006	SAMPLE	12-FEB-10		Cerium-139	-0.0234	0.05618	0.050
					Cesium-134	0.1109	0.1183	0.100
					Sodium-22	-0.02995	0.08195	0.080
948717	245960007	SAMPLE	12-FEB-10		Americium-241	-0.1597	0.2614	0.200
948717	245960008	SAMPLE	12-FEB-10		Americium-241	0.0119	0.3024	0.200
					Cerium-139	0.01105	0.05981	0.050
					Cesium-134	0.04373	0.1071	0.100
					Sodium-22	-0.01132	0.08251	0.080
948717	245960009	SAMPLE	12-FEB-10		Americium-241	0.1489	0.3609	0.200
					Cerium-139	0.0017	0.06047	0.050
948717	245960010	SAMPLE	12-FEB-10		Americium-241	0.01994	0.2131	0.200
					Cerium-139	-0.01904	0.05445	0.050
948717	245960011	SAMPLE	12-FEB-10		Americium-241	-0.0971	0.3546	0.200
					Thorium-234	1.383	2.993	2.00
948717	1202032510	MB	12-FEB-10					
948717	1202032511	DUP	12-FEB-10		Americium-241	0.1127	0.255	0.200
948717	1202032512	LCS	12-FEB-10		Cerium-139	0.01185	0.09923	0.050
					Cesium-134	0.08958	0.1896	0.100
					Europium-152	0.1301	0.367	0.200
					Mercury-203	0.0726	0.145	0.100
					Potassium-40	0.3613	1.105	1.00
					Ruthenium-106	0.2062	1.19	0.800
					Sodium-22	0.02278	0.09684	0.080
					Thorium-234	-1.288	5.851	2.00
					Tin-113	0.07766	0.1706	0.100
					Uranium-235	0.01192	0.7054	0.500
					Yttrium-88	0.05441	0.102	0.100

GEL QUALS

Batch ID: 948717

Report run on: February 16, 2010 9:36 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245955001-1 12-FEB-2010 14:44	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.097			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.91			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.449			
245955002-1 12-FEB-2010 14:44	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.763			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.798			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.907			
245960001-1 12-FEB-2010 14:44	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.735			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.008			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.477			
245960002-1 12-FEB-2010 14:45	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.577			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.471			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1068		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.25			
245960003-1 12-FEB-2010 15:47	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.508			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.126			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1318		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.015			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.175			
245960004-1 12-FEB-2010 15:47	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.222			

GEL QUALS

Batch ID: 948717

Report run on: February 16, 2010 9:36 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245960004-1 12-FEB-2010 15:47	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.082			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1585		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.07027		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.657			
245960005-1 12-FEB-2010 15:48	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.428			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.98			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1251		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.936			
245960006-1 12-FEB-2010 15:48	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.2			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.108			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.496			
245960007-1 12-FEB-2010 15:49	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.635			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.588			
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.06006		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.214			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08986			
245960008-1 12-FEB-2010 15:53	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.065			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.099			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.843			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09877			

GEL QUALS

Batch ID: 948717

Report run on: February 16, 2010 9:36 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245960009-1 12-FEB-2010 15:54	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.028			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.823			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1857		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.795			
245960010-1 12-FEB-2010 16:24	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.257			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.319			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.994			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08903			
245960011-1 12-FEB-2010 16:31	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.141			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.71			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09597		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.64			
1202032510-1 MB 12-FEB-2010 16:32	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.0547			
1202032511-1 DUP 12-FEB-2010 16:38	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.14			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.267			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1623		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.818			

Gamma Review Report based on Result > MDA for Batch:948717

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245955001	28-JAN-10 12:00	12-FEB-10 14:44	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.222	0.1636	pCi/g	0.1895	N	910.3	3	1.991	IDENTIFIED	11.88		
Americium-243	int nr	0.2764	0.03941	pCi/g	0.0936	N	74.5	1	1.074	IDENTIFIED	13.16		
Annihilation Rad.	HE	0.1001	0.03249	pCi/g	0.04223	N	510.2	1	1.593	IDENTIFIED	32.31		
Barium-137m	HE	0.06988	0.02054	pCi/g	0.05572	N	661.1	2	1.402	IDENTIFIED	29.28		
Bismuth-211	int	2.097	0.2221	pCi/g	0.297	Y	351.5	4	1.143	IDENTIFIED	9.943	ui	
Bismuth-212	HE	0.7158	0.2876	pCi/g	0.6129	N	0	5	0	FAIL_ABUND	0		
Bismuth-214		0.7322	0.07263	pCi/g	0.1035	0.200	608.8	4	1.237	IDENTIFIED	9.159		
Cadmium-109	int	1.91	0.4104	pCi/g	1.357	Y	86.93	3	1.194	IDENTIFIED	20.73	ui	
Cerium-143		624	96.27	pCi/g	0	N	0	5	0	SHORT_HLIF	0		
Cesium-135	HE	0.2445	0.0958	pCi/g	0.2224	N	269.7	1	0.8027	IDENTIFIED	38.97		
Cesium-137		0.07387	0.02171	pCi/g	0.0589	0.100	661.1	2	1.402	IDENTIFIED	29.28		
Gross Gamma		7.872	1.46	pCi/g	2.2	N		0					
Lead-212		1.187	0.06565	pCi/g	0.0814	0.100	238.3	4	1.099	IDENTIFIED	4.029		
Lead-214		0.7296	0.07957	pCi/g	0.1035	0.100	351.5	4	1.143	IDENTIFIED	9.943		
Lutetium-177	HE	2.525	0.6055	pCi/g	1.825	N	0	5	0	FAIL_ABUND	0		
Neptunium-237	HE	0.5514	0.1314	pCi/g	0.4138	N	86.93	3	1.194	IDENTIFIED	20.73		
Polonium-212	nr	1.187	0.06565	pCi/g	0.0814	N	238.3	4	1.099	IDENTIFIED	4.029		
Polonium-214	nr	0.7296	0.07957	pCi/g	0.1035	N	351.5	4	1.143	IDENTIFIED	9.943		
Polonium-216	nr	1.187	0.06565	pCi/g	0.0814	N	238.3	4	1.099	IDENTIFIED	4.029		
Polonium-218	nr	0.7296	0.07957	pCi/g	0.1035	N	351.5	4	1.143	IDENTIFIED	9.943		
Potassium-40		35.1	1.79	pCi/g	0.4716	1.00	1459	1	2.046	IDENTIFIED	2.727		
Radium-224	int	2.449	0.5505	pCi/g	0.926	Y	241.2	1	1.696	IDENTIFIED	22.27	ui	
Radium-226		0.7322	0.07263	pCi/g	0.1035	Y	608.8	4	1.237	IDENTIFIED	9.159		
Radium-228		1.222	0.1636	pCi/g	0.1895	0.500	910.3	3	1.991	IDENTIFIED	11.88		
Thallium-208		0.4263	0.03903	pCi/g	0.04492	0.080	582.7	1	1.34	IDENTIFIED	8.516		
Thorium-228	nr	1.205	0.06664	pCi/g	0.08263	N	238.3	4	1.099	IDENTIFIED	4.029		
Thorium-230	nr	0.7322	0.07263	pCi/g	0.1035	N	608.8	4	1.237	IDENTIFIED	9.159		
Thorium-232	nr	1.222	0.1636	pCi/g	0.1895	N	910.3	3	1.991	IDENTIFIED	11.88		
Tin-126	HE	0.1878	0.04034	pCi/g	0.1343	N	86.93	3	1.194	IDENTIFIED	20.73		
Titanium-44	HE	0.09651	0.01892	pCi/g	0.06898	N	0	5	0	NOT_IDENTI	0		
Total Uranium		6.2555	4.90E-06	ug/g	3.7211	N		0					
Uranium-234	nr	0.7322	0.07263	pCi/g	0.1035	N	608.8	4	1.237	IDENTIFIED	9.159		
Zirconium-97		4.46E+06	9.20E+05	pCi/g	0	N	0	5	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245955002	28-JAN-10 12:00	12-FEB-10 14:44	15.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.38	0.1627	pCi/g	0.1681	N	911.4	3	1.234	IDENTIFIED	10.1		
Americium-243	int nr	0.2612	0.02976	pCi/g	0.06198	N	74.93	1	0.9549	IDENTIFIED	10.65		
Annihilation Rad.	HE	0.07068	0.0322	pCi/g	0.04056	N	511	1	1.716	IDENTIFIED	45.24		

Bismuth-211	int	2.763	0.2528	pCi/g	0.2647	Y	351.9	4	1.132	IDENTIFIED	6.365	☐	ui
Bismuth-212	HE	0.672	0.1965	pCi/g	0.5713	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		0.8457	0.08077	pCi/g	0.104	0.200	609.4	4	1.426	IDENTIFIED	7.698	☐	
Cadmium-109	int	2.798	0.4378	pCi/g	1.009	Y	87.24	3	1.113	IDENTIFIED	14.93	☐	ui
Cerium-143	—	250.3	71.28	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.418	1.22	pCi/g	2.104	N		0				☐	
Iodine-123	HE	2.69E+06	2.30E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-133	HE	3783	2468	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.261	0.1004	pCi/g	0.07674	0.100	238.6	4	0.9577	IDENTIFIED	3.782	☐	
Lead-214 ✔		0.961	0.09145	pCi/g	0.0961	0.100	351.9	4	1.132	IDENTIFIED	6.365	☐	
Neptunium-237	int nr	0.8076	0.1514	pCi/g	0.3089	N	87.24	3	1.113	IDENTIFIED	14.93	☐	
Polonium-212	nr	1.261	0.1004	pCi/g	0.07674	N	238.6	4	0.9577	IDENTIFIED	3.782	☐	
Polonium-214	nr	0.961	0.09145	pCi/g	0.0961	N	351.9	4	1.132	IDENTIFIED	6.365	☐	
Polonium-216	nr	1.261	0.1004	pCi/g	0.07674	N	238.6	4	0.9577	IDENTIFIED	3.782	☐	
Polonium-218	nr	0.961	0.09145	pCi/g	0.0961	N	351.9	4	1.132	IDENTIFIED	6.365	☐	
Potassium-40 ✔		37.22	1.876	pCi/g	0.4521	1.00	1461	1	1.931	IDENTIFIED	2.592	☐	
Protactinium-234m	HE	8.809	2.672	pCi/g	7.831	N	0	8	0	FAIL_ABUND	0	☐	
Radium-224	int	3.907	0.4954	pCi/g	0.8736	Y	241.6	1	1.659	IDENTIFIED	10.76	☐	ui
Radium-226 ✔		0.8457	0.08077	pCi/g	0.104	Y	609.4	4	1.426	IDENTIFIED	7.698	☐	
Radium-228 ✔		1.38	0.1627	pCi/g	0.1681	0.500	911.4	3	1.234	IDENTIFIED	10.1	☐	
Sodium-24	HE	2.25E+05	2.90E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.4139	0.04475	pCi/g	0.04856	0.080	583.4	1	1.248	IDENTIFIED	9.369	☐	
Thorium-228	nr	1.28	0.1019	pCi/g	0.07791	N	238.6	4	0.9577	IDENTIFIED	3.782	☐	
Thorium-230	nr	0.8457	0.08077	pCi/g	0.104	N	609.4	4	1.426	IDENTIFIED	7.698	☐	
Thorium-232	nr	1.38	0.1627	pCi/g	0.1681	N	911.4	3	1.234	IDENTIFIED	10.1	☐	
Tin-126	int nr	0.275	0.04303	pCi/g	0.0995	N	87.24	3	1.113	IDENTIFIED	14.93	☐	
Titanium-44	la nr	0.2905	0.02294	pCi/g	0.0533	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium		2.9185	2.13E-06	ug/g	2.0985	N		0				☐	
Uranium-234	nr	0.8457	0.08077	pCi/g	0.104	N	609.4	4	1.426	IDENTIFIED	7.698	☐	
Zirconium-97	HE	5.60E+05	7.91E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960001	28-JAN-10 12:00	12-FEB-10 14:44	15.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.724	0.1972	pCi/g	0.2661	N	910.7	3	1.796	IDENTIFIED	9.931	☐	
Americium-243	int nr	0.3937	0.02806	pCi/g	0.04746	N	74.84	1	0.7555	IDENTIFIED	5.727	☐	
Annihilation Rad.	HE	0.1291	0.04017	pCi/g	0.0509	N	510.8	1	1.722	IDENTIFIED	30.76	☐	
Bismuth-210	HE	1.045	0.2939	pCi/g	0.6648	N	46.49	3	0.6833	IDENTIFIED	27.71	☐	
Bismuth-211	int	4.735	0.3289	pCi/g	0.3175	Y	351.7	4	1.061	IDENTIFIED	5.284	☐	ui
Bismuth-212	HE	1.191	0.3303	pCi/g	0.9313	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.406	0.1292	pCi/g	0.1321	0.200	609	4	1.187	IDENTIFIED	7.036	☐	
Cadmium-109	int	4.008	0.3991	pCi/g	0.734	Y	87.19	3	1.001	IDENTIFIED	8.795	☐	ui
Cerium-143	—	499	92.45	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Europium-155	HE	0.1912	0.06639	pCi/g	0.1155	N	105.4	1	1.013	IDENTIFIED	34.33	☐	
Gross Gamma	—	9.763	1.488	pCi/g	5.435	N		0				☐	
Iodine-123	HE	3.07E+06	2.34E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	3.48E+15	3.83E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

Lead-210	HE	1.045	0.2939	pCi/g	0.6648	N	46.49	3	0.6833	IDENTIFIED	27.71	☐		
Lead-212		1.945	0.1146	pCi/g	0.08767	0.100	238.4	4	0.9364	IDENTIFIED	3.163	☐		
Lead-214		1.647	0.1222	pCi/g	0.1107	0.100	351.7	4	1.061	IDENTIFIED	5.284	☐		
Lutetium-177	HE	2.975	0.7115	pCi/g	1.924	N	0	10	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.157	0.1659	pCi/g	0.2085	N	87.19	3	1.001	IDENTIFIED	8.795	☐		
Polonium-210	HE	1.045	0.2932	pCi/g	0.6648	N	46.49	3	0.6833	IDENTIFIED	27.71	☐		
Polonium-212	nr	1.945	0.1146	pCi/g	0.08767	N	238.4	4	0.9364	IDENTIFIED	3.163	☐		
Polonium-214	nr	1.647	0.1222	pCi/g	0.1107	N	351.7	4	1.061	IDENTIFIED	5.284	☐		
Polonium-216	nr	1.945	0.1146	pCi/g	0.08767	N	238.4	4	0.9364	IDENTIFIED	3.163	☐		
Polonium-218	nr	1.647	0.1222	pCi/g	0.1107	N	351.7	4	1.061	IDENTIFIED	5.284	☐		
Potassium-40		22.49	1.384	pCi/g	0.7127	1.00	1460	1	1.824	IDENTIFIED	4.43	☐		
Radium-224	int	5.477	0.5448	pCi/g	1	Y	241.4	1	1.662	IDENTIFIED	8.899	☐	ui	
Radium-226		1.406	0.1292	pCi/g	0.1321	Y	609	4	1.187	IDENTIFIED	7.036	☐		
Radium-228		1.724	0.1972	pCi/g	0.2661	0.500	910.7	3	1.796	IDENTIFIED	9.931	☐		
Sodium-24	HE	3.51E+05	4.04E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Technetium-99m		2.08E+16	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Thallium-200	HE	176.6	247.9	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Thallium-208		0.5432	0.05938	pCi/g	0.07091	0.080	583.1	1	1.268	IDENTIFIED	9.478	☐		
Thorium-228	nr	1.975	0.1164	pCi/g	0.089	N	238.4	4	0.9364	IDENTIFIED	3.163	☐		
Thorium-230	nr	1.406	0.1292	pCi/g	0.1321	N	609	4	1.187	IDENTIFIED	7.036	☐		
Thorium-232	nr	1.724	0.1972	pCi/g	0.2661	N	910.7	3	1.796	IDENTIFIED	9.931	☐		
Thorium-234		1.012	0.4304	pCi/g	0.7748	2.00	63.29	2	0.8096	IDENTIFIED	41.62	☐		
Tin-126	int nr	0.3939	0.03923	pCi/g	0.07202	N	87.19	3	1.001	IDENTIFIED	8.795	☐		
Titanium-44	la nr	0.4181	0.02398	pCi/g	0.04038	N	0	10	0	FAIL_ABUND	0	☐		
Total Uranium		3.078	1.28E-06	ug/g	1.1554	N		0				☐		
Uranium-234	nr	1.406	0.1292	pCi/g	0.1321	N	609	4	1.187	IDENTIFIED	7.036	☐		
Uranium-238	HE	1.012	0.4304	pCi/g	0.7748	N	63.29	2	0.8096	IDENTIFIED	41.62	☐		
Zirconium-97	HE	1.96E+06	1.05E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960002	28-JAN-10 12:00	12-FEB-10 14:45	15.1	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.411	0.1757	pCi/g	0.1856	N	910.2	3	1.454	IDENTIFIED	11.04	☐	
Americium-243	int nr	0.3876	0.05254	pCi/g	0.1162	N	74.76	1	1.279	IDENTIFIED	12.81	☐	
Annihilation Rad.		0.156	0.04858	pCi/g	0.04978	N	510.8	1	2.767	IDENTIFIED	31.01	☐	
Barium-137m		0.2111	0.04598	pCi/g	0.06377	N	660.9	2	1.701	IDENTIFIED	21.63	☐	
Bismuth-211	int	3.577	0.2816	pCi/g	0.4245	Y	351.4	4	1.473	IDENTIFIED	7.166	☐	ui
Bismuth-212	HE	0.9801	0.2732	pCi/g	0.7342	N	0	11	0	FAIL_ABUND	0	☐	
Bismuth-214		1.263	0.1024	pCi/g	0.1309	0.200	608.6	4	1.477	IDENTIFIED	7.181	☐	
Cadmium-109	int	3.471	0.615	pCi/g	1.607	Y	87.13	3	1.155	IDENTIFIED	17.04	☐	ui
Cerium-143	—	1231	168.6	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1068	0.03005	pCi/g	0.1056	0.100	0	11	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-135	int nr	0.677	0.1492	pCi/g	0.2606	N	269.6	1	1.188	IDENTIFIED	21.71	☐	
Cesium-137		0.2232	0.04861	pCi/g	0.06741	0.100	660.9	2	1.701	IDENTIFIED	21.63	☐	
Gross Gamma		8.793	1.334	pCi/g	3.376	N		0				☐	
Iodine-123	HE	1.64E+06	3.20E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Lead-212		1.501	0.08074	pCi/g	0.1006	0.100	238.4	4	1.258	IDENTIFIED	4.004	☐	

Lead-214	✔		1.244	0.1032	pCi/g	0.1406	0.100	351.4	4	1.473	IDENTIFIED	7.166	☐	
Lutetium-177		HE	3.375	0.8221	pCi/g	2.244	N	0	11	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr		1.002	0.2054	pCi/g	0.4667	N	87.13	3	1.155	IDENTIFIED	17.04	☐	
Niobium-95m	la nr		0.621	0.09215	pCi/g	0.305	N	0	11	0	NOT_IDENTI	0	☐	
Niobium-97	—		1.74E+05	70360	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-212	nr		1.501	0.08074	pCi/g	0.1006	N	238.4	4	1.258	IDENTIFIED	4.004	☐	
Polonium-214	nr		1.244	0.1032	pCi/g	0.1406	N	351.4	4	1.473	IDENTIFIED	7.166	☐	
Polonium-216	nr		1.501	0.08074	pCi/g	0.1006	N	238.4	4	1.258	IDENTIFIED	4.004	☐	
Polonium-218	nr		1.244	0.1032	pCi/g	0.1406	N	351.4	4	1.473	IDENTIFIED	7.166	☐	
Potassium-40	✔		20.01	1.143	pCi/g	0.5188	1.00	1460	1	2.529	IDENTIFIED	4.312	☐	
Radium-224	int		4.25	0.7283	pCi/g	1.144	Y	241.2	1	1.756	IDENTIFIED	16.9	☐	ui
Radium-226	✔		1.263	0.1024	pCi/g	0.1309	Y	608.6	4	1.477	IDENTIFIED	7.181	☐	
Radium-228	✔		1.411	0.1757	pCi/g	0.1856	0.500	910.2	3	1.454	IDENTIFIED	11.04	☐	
Technetium-99m	—		7.61E+14	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-200		HE	117.3	257.2	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-208	✔		0.5758	0.0455	pCi/g	0.06129	0.080	582.4	1	1.623	IDENTIFIED	7.203	☐	
Thorium-228	nr		1.523	0.08196	pCi/g	0.1021	N	238.4	4	1.258	IDENTIFIED	4.004	☐	
Thorium-230	nr		1.263	0.1024	pCi/g	0.1309	N	608.6	4	1.477	IDENTIFIED	7.181	☐	
Thorium-232	nr		1.411	0.1757	pCi/g	0.1856	N	910.2	3	1.454	IDENTIFIED	11.04	☐	
Thorium-234	✔		6.321	1.563	pCi/g	2.985	2.00	63.34	2	1.147	IDENTIFIED	23.02	☐	
Tin-126	int nr		0.3412	0.06044	pCi/g	0.1589	N	87.13	3	1.155	IDENTIFIED	17.04	☐	
Titanium-44	la nr		0.3841	0.0343	pCi/g	0.1004	N	0	11	0	FAIL_ABUND	0	☐	
Total Uranium			18.999	4.65E-06	ug/g	4.4439	N		0				☐	
Uranium-234	nr		1.263	0.1024	pCi/g	0.1309	N	608.6	4	1.477	IDENTIFIED	7.181	☐	
Uranium-235	✔		0.4213	0.1683	pCi/g	0.4087	0.500	143.4	1	1.435	IDENTIFIED	39.11	☐	
Uranium-238	nr		6.321	1.563	pCi/g	2.985	N	63.34	2	1.147	IDENTIFIED	23.02	☐	
Zirconium-97			5.59E+06	1.26E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960003	28-JAN-10 12:00	12-FEB-10 15:47	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.629	0.1661	pCi/g	0.1813	N	911.3	3	2.163	IDENTIFIED	7.748	☐		
Americium-243	int nr	0.3779	0.03581	pCi/g	0.0775	N	74.87	1	1.155	IDENTIFIED	8.551	☐		
Annihilation Rad.	—	0.1393	0.0325	pCi/g	0.04099	N	510.9	1	2.056	IDENTIFIED	22.78	☐		
Bismuth-211	int	4.508	0.3337	pCi/g	0.2725	Y	351.9	4	1.344	IDENTIFIED	4.58	☐	ui	
Bismuth-212	la nr	1.308	0.2561	pCi/g	0.5859	N	0	13	0	FAIL_ABUND	0	☐		
Bismuth-214	✔	1.295	0.1041	pCi/g	0.101	0.200	609.4	4	1.739	IDENTIFIED	5.55	☐		
Cadmium-109	int	3.126	0.4589	pCi/g	1.174	Y	87.28	3	1.155	IDENTIFIED	13.91	☐	ui	
Cerium-143	—	981.3	145.9	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.1318	0.03371	pCi/g	0.07697	0.100	0	13	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	8.651	1.088	pCi/g	2.217	N		0				☐		
Iodine-123		HE	3.02E+06	2.80E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135		HE	8.25E+13	2.50E+15	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Krypton-85	la nr		34.11	4.185	pCi/g	13.87	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212	✔		1.785	0.1287	pCi/g	0.0798	0.100	238.7	4	1.254	IDENTIFIED	2.887	☐	
Lead-214	✔		1.568	0.1231	pCi/g	0.09497	0.100	351.9	4	1.344	IDENTIFIED	4.58	☐	
Lutetium-177		HE	3.357	0.8919	pCi/g	2.003	N	0	13	0	FAIL_ABUND	0	☐	

Neptunium-237	int nr	0.9021	0.1619	pCi/g	0.3754	N	87.28	3	1.155	IDENTIFIED	13.91	☐		
Niobium-95m	HE	0.2272	0.066	pCi/g	0.2049	N	0	13	0	NOT_IDENTI	0	☐		
Polonium-212	nr	1.785	0.1287	pCi/g	0.0798	N	238.7	4	1.254	IDENTIFIED	2.887	☐		
Polonium-214	nr	1.568	0.1231	pCi/g	0.09497	N	351.9	4	1.344	IDENTIFIED	4.58	☐		
Polonium-216	nr	1.785	0.1287	pCi/g	0.0798	N	238.7	4	1.254	IDENTIFIED	2.887	☐		
Polonium-218	nr	1.568	0.1231	pCi/g	0.09497	N	351.9	4	1.344	IDENTIFIED	4.58	☐		
Potassium-40 ✔		20.46	1.122	pCi/g	0.4169	1.00	1461	1	2.594	IDENTIFIED	3.011	☐		
Radium-224	int	5.015	0.6489	pCi/g	0.907	Y	241.8	1	1.886	IDENTIFIED	11.31	☐	ui	
Radium-226 ✔		1.295	0.1041	pCi/g	0.101	Y	609.4	4	1.739	IDENTIFIED	5.55	☐		
Radium-228 ✔		1.629	0.1661	pCi/g	0.1813	0.500	911.3	3	2.163	IDENTIFIED	7.748	☐		
Sodium-24	HE	2.83E+05	3.48E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Strontium-85	la	0.175	0.02146	pCi/g	0.07114	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	78.46	206.4	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.5086	0.04331	pCi/g	0.05206	0.080	583.3	1	1.649	IDENTIFIED	6.567	☐		
Thorium-228	nr	1.812	0.1307	pCi/g	0.08101	N	238.7	4	1.254	IDENTIFIED	2.887	☐		
Thorium-230	nr	1.295	0.1041	pCi/g	0.101	N	609.4	4	1.739	IDENTIFIED	5.55	☐		
Thorium-232	nr	1.629	0.1661	pCi/g	0.1813	N	911.3	3	2.163	IDENTIFIED	7.748	☐		
Thorium-234 ✔		1.785	0.8164	pCi/g	1.772	2.00	63.32	2	0.8341	IDENTIFIED	44.9	☐		
Tin-126	int nr	0.3072	0.04511	pCi/g	0.1158	N	87.28	3	1.155	IDENTIFIED	13.91	☐		
Titanium-44	la nr	0.3737	0.02567	pCi/g	0.07153	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium		5.3568	2.43E-06	ug/g	2.6389	N		0				☐		
Uranium-234	nr	1.295	0.1041	pCi/g	0.101	N	609.4	4	1.739	IDENTIFIED	5.55	☐		
Uranium-238	HE	1.785	0.8164	pCi/g	1.772	N	63.32	2	0.8341	IDENTIFIED	44.9	☐		
Zirconium-97		5.81E+06	9.89E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960004	28-JAN-10 12:00	12-FEB-10 15:47	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.668	0.1908	pCi/g	0.2132	N	911	3	1.451	IDENTIFIED	9.772	☐	
Americium-243	int nr	0.3908	0.0285	pCi/g	0.04724	N	74.86	1	0.8099	IDENTIFIED	5.23	☐	
Annihilation Rad.		0.1778	0.03517	pCi/g	0.04701	N	510.4	1	1.591	IDENTIFIED	19.1	☐	
Bismuth-210	nr	1.167	0.2868	pCi/g	0.5642	N	46.65	3	0.8352	IDENTIFIED	24.04	☐	
Bismuth-211	int	4.222	0.3167	pCi/g	0.3007	Y	351.9	4	1.042	IDENTIFIED	5.347	☐	ui
Bismuth-212	la nr	1.356	0.2528	pCi/g	0.7669	N	0	11	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.251	0.1132	pCi/g	0.1249	0.200	609.2	4	1.52	IDENTIFIED	6.744	☐	
Cadmium-109	int	4.082	0.4181	pCi/g	0.7732	Y	87.24	3	1.205	IDENTIFIED	8.732	☐	ui
Cerium-143	-	484.8	90.57	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1585	0.03849	pCi/g	0.1027	0.100	0	11	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Gross Gamma	-	9.562	1.4	pCi/g	3.866	N		0				☐	
Iodine-123	HE	6.93E+05	2.46E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2113	3215	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Lead-210	nr	1.167	0.2868	pCi/g	0.5642	N	46.65	3	0.8352	IDENTIFIED	24.04	☐	
Lead-212 ✔		1.9	0.1238	pCi/g	0.1216	0.100	238.6	4	1.063	IDENTIFIED	3.166	☐	
Lead-214 ✔		1.469	0.1166	pCi/g	0.1049	0.100	351.9	4	1.042	IDENTIFIED	5.347	☐	
Lutetium-177	la nr	3.12	0.6259	pCi/g	1.816	N	0	11	0	FAIL_ABUND	0	☐	
Mercury-203	int	0.07027	0.02469	pCi/g	0.05987	0.100	277.9	1	0.9783	IDENTIFIED	34.67	☐	ui
Neptunium-237	int nr	1.178	0.1713	pCi/g	0.2217	N	87.24	3	1.205	IDENTIFIED	8.732	☐	

Niobium-97	HE	15010	58130	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-210	nr	1.167	0.2859	pCi/g	0.5642	N	46.65	3	0.8352	IDENTIFIED	24.04	☐	
Polonium-212	nr	1.9	0.1238	pCi/g	0.1216	N	238.6	4	1.063	IDENTIFIED	3.166	☐	
Polonium-214	nr	1.469	0.1166	pCi/g	0.1049	N	351.9	4	1.042	IDENTIFIED	5.347	☐	
Polonium-216	nr	1.9	0.1238	pCi/g	0.1216	N	238.6	4	1.063	IDENTIFIED	3.166	☐	
Polonium-218	nr	1.469	0.1166	pCi/g	0.1049	N	351.9	4	1.042	IDENTIFIED	5.347	☐	
Potassium-40	✔	20.76	1.156	pCi/g	0.5421	1.00	1460	1	2.077	IDENTIFIED	3.587	☐	
Radium-224	int	3.657	0.4989	pCi/g	1.047	Y	241.7	1	1.684	IDENTIFIED	12.59	☐	ui
Radium-226	✔	1.251	0.1132	pCi/g	0.1249	Y	609.2	4	1.52	IDENTIFIED	6.744	☐	
Radium-228	✔	1.668	0.1908	pCi/g	0.2132	0.500	911	3	1.451	IDENTIFIED	9.772	☐	
Sodium-24	HE	1.79E+05	4.33E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Technetium-99m		2.62E+15	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5978	0.05694	pCi/g	0.05949	0.080	583.1	1	1.319	IDENTIFIED	7.679	☐	
Thorium-228	nr	1.929	0.1257	pCi/g	0.1235	N	238.6	4	1.063	IDENTIFIED	3.166	☐	
Thorium-230	nr	1.251	0.1132	pCi/g	0.1249	N	609.2	4	1.52	IDENTIFIED	6.744	☐	
Thorium-232	nr	1.668	0.1908	pCi/g	0.2132	N	911	3	1.451	IDENTIFIED	9.772	☐	
Thorium-234	✔	1.778	0.4709	pCi/g	0.7324	2.00	63.53	2	0.8598	IDENTIFIED	24.8	☐	
Tin-126	int nr	0.4012	0.04109	pCi/g	0.07584	N	87.24	3	1.205	IDENTIFIED	8.732	☐	
Titanium-44	la nr	0.3933	0.02542	pCi/g	0.04815	N	0	11	0	FAIL_ABUND	0	☐	
Total Uranium		5.3265	1.40E-06	ug/g	1.0923	N		0				☐	
Uranium-234	nr	1.251	0.1132	pCi/g	0.1249	N	609.2	4	1.52	IDENTIFIED	6.744	☐	
Uranium-238	nr	1.778	0.4709	pCi/g	0.7324	N	63.53	2	0.8598	IDENTIFIED	24.8	☐	
Zirconium-97	HE	1.55E+06	1.03E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960005	28-JAN-10 12:00	12-FEB-10 15:48	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.6	0.1689	pCi/g	0.2087	N	910.6	3	1.811	IDENTIFIED	9.018	☐	
Americium-243	int nr	0.3897	0.04049	pCi/g	0.09558	N	74.72	1	0.9635	IDENTIFIED	9.817	☐	
Annihilation Rad.		0.1517	0.03225	pCi/g	0.04859	N	510.4	1	1.826	IDENTIFIED	21.04	☐	
Bismuth-211	int	4.428	0.2618	pCi/g	0.3076	Y	351.6	4	1.371	IDENTIFIED	5.007	☐	ui
Bismuth-212	nr	1.866	0.239	pCi/g	0.424	N	726.5	1	1.736	IDENTIFIED	12.05	☐	
Bismuth-214	✔	1.347	0.09264	pCi/g	0.117	0.200	608.9	4	1.373	IDENTIFIED	5.51	☐	
Cadmium-109	int	3.98	0.4696	pCi/g	1.292	Y	87.03	3	1.162	IDENTIFIED	11.17	☐	ui
Cerium-143	—	850	128.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1251	0.03538	pCi/g	0.09771	0.100	0	10	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Gross Gamma	—	9.146	1.428	pCi/g	4.141	N		0				☐	
Iodine-133	HE	627.1	2908	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	HE	3.19E+15	3.08E+15	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.696	0.08144	pCi/g	0.09112	0.100	238.4	4	1.082	IDENTIFIED	3.232	☐	
Lead-214	✔	1.54	0.09953	pCi/g	0.1072	0.100	351.6	4	1.371	IDENTIFIED	5.007	☐	
Lutetium-177	HE	3.497	0.9145	pCi/g	2.019	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	1.149	0.18	pCi/g	0.3506	N	87.03	3	1.162	IDENTIFIED	11.17	☐	
Niobium-95	HE	0.1054	0.02714	pCi/g	0.09213	N	0	10	0	NOT_IDENTI	0	☐	
Niobium-97	HE	38050	50490	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.696	0.08144	pCi/g	0.09112	N	238.4	4	1.082	IDENTIFIED	3.232	☐	
Polonium-214	nr	1.54	0.09953	pCi/g	0.1072	N	351.6	4	1.371	IDENTIFIED	5.007	☐	

Polonium-216	nr	1.696	0.08144	pCi/g	0.09112	N	238.4	4	1.082	IDENTIFIED	3.232	☐	
Polonium-218	nr	1.54	0.09953	pCi/g	0.1072	N	351.6	4	1.371	IDENTIFIED	5.007	☐	
Potassium-40	✔	19.04	1.054	pCi/g	0.5778	1.00	1460	1	1.942	IDENTIFIED	4.233	☐	
Radium-224	int	4.936	0.6757	pCi/g	1.037	Y	241.4	1	1.844	IDENTIFIED	13.41	☐	ui
Radium-226	✔	1.347	0.09264	pCi/g	0.117	Y	608.9	4	1.373	IDENTIFIED	5.51	☐	
Radium-228	✔	1.6	0.1689	pCi/g	0.2087	0.500	910.6	3	1.811	IDENTIFIED	9.018	☐	
Thallium-200	HE	23.2	223.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5516	0.0459	pCi/g	0.0529	0.080	582.8	1	1.353	IDENTIFIED	7.514	☐	
Thorium-228	nr	1.722	0.08268	pCi/g	0.09251	N	238.4	4	1.082	IDENTIFIED	3.232	☐	
Thorium-230	nr	1.347	0.09264	pCi/g	0.117	N	608.9	4	1.373	IDENTIFIED	5.51	☐	
Thorium-232	nr	1.6	0.1689	pCi/g	0.2087	N	910.6	3	1.811	IDENTIFIED	9.018	☐	
Thorium-234	✔	2.268	1.045	pCi/g	2.094	2.00	63.31	2	0.8345	IDENTIFIED	45.29	☐	
Tin-126	int nr	0.3912	0.04615	pCi/g	0.1276	N	87.03	3	1.162	IDENTIFIED	11.17	☐	
Titanium-44	la nr	0.4287	0.03014	pCi/g	0.07831	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		6.752	3.11E-06	ug/g	3.1174	N		0				☐	
Uranium-234	nr	1.347	0.09264	pCi/g	0.117	N	608.9	4	1.373	IDENTIFIED	5.51	☐	
Uranium-238	HE	2.268	1.045	pCi/g	2.094	N	63.31	2	0.8345	IDENTIFIED	45.29	☐	
Zirconium-97		3.32E+06	1.11E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960006	28-JAN-10 12:00	12-FEB-10 15:48	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.54	0.1962	pCi/g	0.2543	N	910.6	3	1.656	IDENTIFIED	11.41	☐	
Americium-243	int nr	0.3633	0.03361	pCi/g	0.06513	N	74.8	1	1.082	IDENTIFIED	7.86	☐	
Annihilation Rad.		0.2285	0.04619	pCi/g	0.05904	N	510.5	1	2.043	IDENTIFIED	19.72	☐	
Barium-137m		0.329	0.04906	pCi/g	0.0723	N	661.5	2	1.217	IDENTIFIED	14.31	☐	
Bismuth-210	nr	2.081	0.4631	pCi/g	0.9319	N	46.66	3	0.8764	IDENTIFIED	21.58	☐	
Bismuth-211	int	4.2	0.3402	pCi/g	0.3954	Y	351.7	4	1.288	IDENTIFIED	6.624	☐	ui
Bismuth-212	HE	1.478	0.3359	pCi/g	0.9324	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.317	0.1204	pCi/g	0.1484	0.200	609	4	1.471	IDENTIFIED	7.597	☐	
Cadmium-109	int	2.108	0.4447	pCi/g	1.335	Y	87.17	3	0.8045	IDENTIFIED	20.52	☐	ui
Cerium-141	HE	0.1648	0.0686	pCi/g	0.102	N	144.1	2	1.426	IDENTIFIED	41.32	☐	
Cerium-143	—	648.7	123.6	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-137	✔	0.3478	0.05187	pCi/g	0.07642	0.100	661.5	2	1.217	IDENTIFIED	14.31	☐	
Gadolinium-153	HE	0.1327	0.04874	pCi/g	0.1325	N	0	10	0	FAIL_ABUND	0	☐	
Gold-195	HE	0.6568	0.1869	pCi/g	0.4216	N	0	10	0	FAIL_ABUND	0	☐	
Gross Gamma	—	9.96	1.428	pCi/g	4.87	N		0				☐	
Iodine-123	HE	1.79E+06	3.23E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-133	HE	400.6	4116	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-210	nr	2.081	0.4631	pCi/g	0.9319	N	46.66	3	0.8764	IDENTIFIED	21.58	☐	
Lead-212	✔	1.692	0.1068	pCi/g	0.09857	0.100	238.6	4	1.073	IDENTIFIED	3.798	☐	
Lead-214	✔	1.461	0.1243	pCi/g	0.1379	0.100	351.7	4	1.288	IDENTIFIED	6.624	☐	
Lutetium-177	HE	2.809	0.9606	pCi/g	2.285	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6084	0.1429	pCi/g	0.3835	N	87.17	3	0.8045	IDENTIFIED	20.52	☐	
Polonium-210	nr	2.081	0.4612	pCi/g	0.9319	N	46.66	3	0.8764	IDENTIFIED	21.58	☐	
Polonium-212	nr	1.692	0.1068	pCi/g	0.09857	N	238.6	4	1.073	IDENTIFIED	3.798	☐	
Polonium-214	nr	1.461	0.1243	pCi/g	0.1379	N	351.7	4	1.288	IDENTIFIED	6.624	☐	

Polonium-216	nr	1.692	0.1068	pCi/g	0.09857	N	238.6	4	1.073	IDENTIFIED	3.798	☐	
Polonium-218	nr	1.461	0.1243	pCi/g	0.1379	N	351.7	4	1.288	IDENTIFIED	6.624	☐	
Potassium-40	✔	19.93	1.286	pCi/g	0.5094	1.00	1460	1	2.029	IDENTIFIED	4.678	☐	
Radium-224	int	4.496	0.5521	pCi/g	1.123	Y	241.7	1	1.245	IDENTIFIED	11.42	☐	ui
Radium-226	✔	1.317	0.1204	pCi/g	0.1484	Y	609	4	1.471	IDENTIFIED	7.597	☐	
Radium-228	✔	1.54	0.1962	pCi/g	0.2543	0.500	910.6	3	1.656	IDENTIFIED	11.41	☐	
Technetium-99m		4.18E+15	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5699	0.05336	pCi/g	0.06941	0.080	583	1	1.141	IDENTIFIED	8.082	☐	
Thorium-228	nr	1.718	0.1084	pCi/g	0.1001	N	238.6	4	1.073	IDENTIFIED	3.798	☐	
Thorium-230	nr	1.317	0.1204	pCi/g	0.1484	N	609	4	1.471	IDENTIFIED	7.597	☐	
Thorium-232	nr	1.54	0.1962	pCi/g	0.2543	N	910.6	3	1.656	IDENTIFIED	11.41	☐	
Thorium-234	✔	8.425	1.035	pCi/g	1.162	2.00	63.3	2	1.049	IDENTIFIED	7.992	☐	
Tin-126	HE	0.2072	0.04371	pCi/g	0.131	N	87.17	3	0.8045	IDENTIFIED	20.52	☐	
Titanium-44	la nr	0.4072	0.02917	pCi/g	0.07073	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium	.	25.319	3.08E-06	ug/g	1.7311	N		0				☐	
Uranium-234	nr	1.317	0.1204	pCi/g	0.1484	N	609	4	1.471	IDENTIFIED	7.597	☐	
Uranium-235	✔	0.5492	0.2324	pCi/g	0.3694	0.500	144.1	2	1.426	IDENTIFIED	41.32	☐	
Uranium-238	nr	8.425	1.035	pCi/g	1.162	N	63.3	2	1.049	IDENTIFIED	7.992	☐	
Zirconium-97		3.55E+06	1.32E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960007	28-JAN-10 12:00	12-FEB-10 15:49	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.566	0.1509	pCi/g	0.1472	N	910.9	3	1.852	IDENTIFIED	6.998	☐	
Americium-243	int nr	0.3772	0.03894	pCi/g	0.08558	N	75.08	1	1.134	IDENTIFIED	9.439	☐	
Annihilation Rad.		0.1084	0.02595	pCi/g	0.03553	N	510.9	1	2.047	IDENTIFIED	23.72	☐	
Bismuth-211	int	3.635	0.2126	pCi/g	0.2336	Y	352	4	1.27	IDENTIFIED	4.889	☐	ui
Bismuth-212	la nr	0.9771	0.1992	pCi/g	0.5099	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.156	0.08126	pCi/g	0.08295	0.200	609.2	4	1.591	IDENTIFIED	5.425	☐	
Cadmium-109	int	2.588	0.4341	pCi/g	1.129	Y	87.46	3	1.055	IDENTIFIED	16.13	☐	ui
Cerium-143	—	684.4	101.1	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Gross Gamma	—	7.998	1.132	pCi/g	2.217	N		0				☐	
Iodine-123	HE	5.44E+05	2.25E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-133	HE	3869	2187	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Krypton-85	la nr	17.52	3.133	pCi/g	10.8	N	0	10	0	NOT_IDENTI	0	☐	
Lead-212	✔	1.571	0.07225	pCi/g	0.07232	0.100	238.8	4	1.214	IDENTIFIED	2.896	☐	
Lead-214	✔	1.265	0.08098	pCi/g	0.0814	0.100	352	4	1.27	IDENTIFIED	4.889	☐	
Lutetium-177	HE	2.737	0.7163	pCi/g	1.731	N	0	10	0	FAIL_ABUND	0	☐	
Mercury-203	int	0.06006	0.02073	pCi/g	0.04871	0.100	278.2	1	1.686	IDENTIFIED	34.39	☐	ui
Neptunium-237	int nr	0.7468	0.1471	pCi/g	0.3331	N	87.46	3	1.055	IDENTIFIED	16.13	☐	
Niobium-95	HE	0.06176	0.01793	pCi/g	0.05952	N	0	10	0	NOT_IDENTI	0	☐	
Polonium-212	nr	1.571	0.07225	pCi/g	0.07232	N	238.8	4	1.214	IDENTIFIED	2.896	☐	
Polonium-214	nr	1.265	0.08098	pCi/g	0.0814	N	352	4	1.27	IDENTIFIED	4.889	☐	
Polonium-216	nr	1.571	0.07225	pCi/g	0.07232	N	238.8	4	1.214	IDENTIFIED	2.896	☐	
Polonium-218	nr	1.265	0.08098	pCi/g	0.0814	N	352	4	1.27	IDENTIFIED	4.889	☐	
Potassium-40	✔	19.22	0.9123	pCi/g	0.3465	1.00	1460	1	2.427	IDENTIFIED	2.85	☐	
Radium-224	int	4.214	0.5518	pCi/g	0.8219	Y	241.7	1	1.767	IDENTIFIED	12.79	☐	ui

Radium-226		1.156	0.08126	pCi/g	0.08295	Y	609.2	4	1.591	IDENTIFIED	5.425	☐	
Radium-228		1.566	0.1509	pCi/g	0.1472	0.500	910.9	3	1.852	IDENTIFIED	6.998	☐	
Strontium-85	la	0.08986	0.01607	pCi/g	0.05542	Y	0	10	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.4802	0.03611	pCi/g	0.04483	0.080	583.1	1	1.541	IDENTIFIED	6.417	☐	
Thorium-228	nr	1.595	0.07335	pCi/g	0.07342	N	238.8	4	1.214	IDENTIFIED	2.896	☐	
Thorium-230	nr	1.156	0.08125	pCi/g	0.08295	N	609.2	4	1.591	IDENTIFIED	5.425	☐	
Thorium-232	nr	1.566	0.1509	pCi/g	0.1472	N	910.9	3	1.852	IDENTIFIED	6.998	☐	
Thorium-234		2.305	0.9302	pCi/g	2.077	2.00	63.26	2	1.356	IDENTIFIED	39.38	☐	
Tin-126	int nr	0.2543	0.04267	pCi/g	0.1117	N	87.46	3	1.055	IDENTIFIED	16.13	☐	
Titanium-44	la nr	0.363	0.02702	pCi/g	0.0789	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		6.7786	2.77E-06	ug/g	3.092	N		0				☐	
Uranium-234	nf	1.156	0.08125	pCi/g	0.08295	N	609.2	4	1.591	IDENTIFIED	5.425	☐	
Uranium-238	HE	2.305	0.9302	pCi/g	2.077	N	63.26	2	1.356	IDENTIFIED	39.38	☐	
Zirconium-97		3.15E+06	8.69E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960008	28-JAN-10 12:00	12-FEB-10 15:53	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.585	0.1795	pCi/g	0.2281	N	911.4	3	1.788	IDENTIFIED	9.732	☐	
Americium-243	int nr	0.4101	0.04825	pCi/g	0.09947	N	74.81	1	1.305	IDENTIFIED	11.01	☐	
Annihilation Rad.		0.1368	0.04018	pCi/g	0.05593	N	511.1	1	2.154	IDENTIFIED	29.07	☐	
Barium-137m		0.2559	0.03286	pCi/g	0.06438	N	661.8	2	1.743	IDENTIFIED	12.17	☐	
Bismuth-211	int	4.065	0.3386	pCi/g	0.3856	Y	352.2	4	1.336	IDENTIFIED	6.984	☐	ui
Bismuth-212	HE	1.273	0.387	pCi/g	0.7906	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214		1.206	0.1068	pCi/g	0.119	0.200	609.6	4	1.433	IDENTIFIED	7.353	☐	
Cadmium-109	int	3.099	0.5068	pCi/g	1.457	Y	87.37	3	1.366	IDENTIFIED	15.66	☐	ui
Cerium-143	—	302.5	96.46	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-137		0.2705	0.03474	pCi/g	0.06806	0.100	661.8	2	1.743	IDENTIFIED	12.17	☐	
Gross Gamma	—	9.144	1.378	pCi/g	3.79	N		0				☐	
Iodine-135	HE	2.44E+15	3.29E+15	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Krypton-85	HE	19.25	5.18	pCi/g	16.99	N	0	8	0	NOT_IDENTI	0	☐	
Lead-212		1.644	0.1052	pCi/g	0.1069	0.100	239	4	1.286	IDENTIFIED	3.909	☐	
Lead-214		1.414	0.1234	pCi/g	0.139	0.100	352.2	4	1.336	IDENTIFIED	6.984	☐	
Neptunium-237	int nr	0.8945	0.173	pCi/g	0.4655	N	87.37	3	1.366	IDENTIFIED	15.66	☐	
Niobium-97	HE	9576	67500	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.644	0.1052	pCi/g	0.1069	N	239	4	1.286	IDENTIFIED	3.909	☐	
Polonium-214	nr	1.414	0.1234	pCi/g	0.139	N	352.2	4	1.336	IDENTIFIED	6.984	☐	
Polonium-216	nr	1.644	0.1052	pCi/g	0.1069	N	239	4	1.286	IDENTIFIED	3.909	☐	
Polonium-218	nr	1.414	0.1234	pCi/g	0.139	N	352.2	4	1.336	IDENTIFIED	6.984	☐	
Potassium-40		22.02	1.3	pCi/g	0.5536	1.00	1461	1	2.216	IDENTIFIED	3.883	☐	
Radium-224	int	4.843	0.6611	pCi/g	1.217	Y	242.1	1	1.708	IDENTIFIED	12.87	☐	ui
Radium-226		1.206	0.1068	pCi/g	0.119	Y	609.6	4	1.433	IDENTIFIED	7.353	☐	
Radium-228		1.585	0.1795	pCi/g	0.2281	0.500	911.4	3	1.788	IDENTIFIED	9.732	☐	
Strontium-85	la	0.09877	0.02657	pCi/g	0.08717	Y	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Thallium-208		0.5658	0.05478	pCi/g	0.06088	0.080	583.4	1	1.682	IDENTIFIED	8.552	☐	
Thorium-228	nr	1.669	0.1068	pCi/g	0.1085	N	239	4	1.286	IDENTIFIED	3.909	☐	
Thorium-230	nr	1.206	0.1068	pCi/g	0.119	N	609.6	4	1.433	IDENTIFIED	7.353	☐	

Thorium-232	nr	1.585	0.1795	pCi/g	0.2281	N	911.4	3	1.788	IDENTIFIED	9.732	☐
Thorium-234	✔	3.124	1.272	pCi/g	2.468	2.00	62.99	2	1.068	IDENTIFIED	39.78	☐
Tin-126	int nr	0.3046	0.04981	pCi/g	0.1439	N	87.37	3	1.366	IDENTIFIED	15.66	☐
Titanium-44	la nr	0.3754	0.03329	pCi/g	0.09047	N	0	8	0	FAIL_ABUND	0	☐
Total Uranium		9.2527	3.79E-06	ug/g	3.6751	N		0				☐
Uranium-234	nr	1.206	0.1068	pCi/g	0.119	N	609.6	4	1.433	IDENTIFIED	7.353	☐
Uranium-238	HE	3.124	1.272	pCi/g	2.468	N	62.99	2	1.068	IDENTIFIED	39.78	☐
Zirconium-97		2.60E+06	1.03E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960009	28-JAN-10 12:00	12-FEB-10 15:54	15.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.684	0.2222	pCi/g	0.2578	N	911	3	1.557	IDENTIFIED	12.16	☐	
Americium-243	int nr	0.3847	0.0457	pCi/g	0.109	N	74.71	1	1.121	IDENTIFIED	10.99	☐	
Annihilation Rad.		0.1722	0.03929	pCi/g	0.0539	N	510.8	1	2.06	IDENTIFIED	22.65	☐	
Barium-137m		0.2461	0.04584	pCi/g	0.06932	N	661.8	2	1.41	IDENTIFIED	18.46	☐	
Bismuth-211	int	4.028	0.3159	pCi/g	0.4143	Y	351.6	4	1.268	IDENTIFIED	7.146	☐	ui
Bismuth-212	HE	0.8296	0.2598	pCi/g	0.7622	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.284	0.112	pCi/g	0.1378	0.200	609	4	1.611	IDENTIFIED	7.907	☐	
Cadmium-109	int	2.823	0.6166	pCi/g	2.034	Y	86.83	3	1.056	IDENTIFIED	21.29	☐	ui
Cerium-143	–	902.5	153.7	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1857	0.057	pCi/g	0.1148	0.100	0	10	0	FAIL_ABUND	0	☑	UI Data rejected due to low abundance.
Cesium-137	✔	0.2601	0.04846	pCi/g	0.07328	0.100	661.8	2	1.41	IDENTIFIED	18.46	☐	
Gross Gamma		8.518	1.439	pCi/g	3.816	N		0				☐	
Iodine-133	HE	2290	3524	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.609	0.0865	pCi/g	0.119	0.100	238.4	4	1.057	IDENTIFIED	3.912	☐	
Lead-214	✔	1.401	0.1158	pCi/g	0.1444	0.100	351.6	4	1.268	IDENTIFIED	7.146	☐	
Neptunium-237	HE	0.8148	0.1968	pCi/g	0.5512	N	86.83	3	1.056	IDENTIFIED	21.29	☐	
Niobium-95m	HE	0.4725	0.1011	pCi/g	0.3215	N	0	10	0	NOT_IDENTI	0	☐	
Niobium-97	HE	1.22E+05	65700	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.609	0.0865	pCi/g	0.119	N	238.4	4	1.057	IDENTIFIED	3.912	☐	
Polonium-214	nr	1.401	0.1158	pCi/g	0.1444	N	351.6	4	1.268	IDENTIFIED	7.146	☐	
Polonium-216	nr	1.609	0.0865	pCi/g	0.119	N	238.4	4	1.057	IDENTIFIED	3.912	☐	
Polonium-218	nr	1.401	0.1158	pCi/g	0.1444	N	351.6	4	1.268	IDENTIFIED	7.146	☐	
Potassium-40	✔	18.72	1.029	pCi/g	0.5569	1.00	1461	1	1.973	IDENTIFIED	4.389	☐	
Radium-224	int	4.795	0.7059	pCi/g	1.355	Y	241.4	1	1.709	IDENTIFIED	14.43	☐	ui
Radium-226	✔	1.284	0.112	pCi/g	0.1378	Y	609	4	1.611	IDENTIFIED	7.907	☐	
Radium-228	✔	1.684	0.2222	pCi/g	0.2578	0.500	911	3	1.557	IDENTIFIED	12.16	☐	
Sodium-24	HE	3.81E+05	4.20E+05	pCi/g	0	N	0.	10	0	SHORT_HLIF	0	☐	
Thallium-200	HE	149.5	289.3	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5533	0.04958	pCi/g	0.06932	0.080	582.9	1	1.431	IDENTIFIED	8.384	☐	
Thorium-228	nr	1.634	0.08781	pCi/g	0.1208	N	238.4	4	1.057	IDENTIFIED	3.912	☐	
Thorium-230	nr	1.284	0.112	pCi/g	0.1378	N	609	4	1.611	IDENTIFIED	7.907	☐	
Thorium-232	nr	1.684	0.2222	pCi/g	0.2578	N	911	3	1.557	IDENTIFIED	12.16	☐	
Thorium-234	✔	4.906	1.166	pCi/g	2.976	2.00	62.65	2	0.9224	IDENTIFIED	21.97	☐	
Tin-126	HE	0.2775	0.06061	pCi/g	0.1902	N	86.83	3	1.056	IDENTIFIED	21.29	☐	
Titanium-44	la nr	0.4078	0.03438	pCi/g	0.0994	N	0	10	0	FAIL_ABUND	0	☐	

Total Uranium		14.574	3.47E-06	ug/g	4.4309	N		0				☐
Uranium-234	nr	1.284	0.112	pCi/g	0.1378	N	609	4	1.611	IDENTIFIED	7.907	☐
Uranium-238	HE	4.906	1.166	pCi/g	2.976	N	62.65	2	0.9224	IDENTIFIED	21.97	☐
Zirconium-97		6.15E+06	1.38E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960010	28-JAN-10 12:00	12-FEB-10 16:24	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.736	0.1958	pCi/g	0.2583	N	911.4	3	1.233	IDENTIFIED	9.657	☐	
Americium-243	int nr	0.3669	0.04408	pCi/g	0.08734	N	74.76	1	1.339	IDENTIFIED	11.32	☐	
Annihilation Rad.	—	0.1444	0.04334	pCi/g	0.05369	N	511.4	1	1.778	IDENTIFIED	29.69	☐	
Barium-137m		0.245	0.05003	pCi/g	0.07106	N	661.8	2	1.223	IDENTIFIED	19.93	☐	
Bismuth-211	int	4.257	0.3405	pCi/g	0.3991	Y	352	4	1.142	IDENTIFIED	6.623	☐ ui	
Bismuth-212	la nr	1.854	0.4017	pCi/g	0.8243	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.3	0.117	pCi/g	0.1323	0.200	609.4	4	1.586	IDENTIFIED	7.365	☐	
Cadmium-109	int	3.319	0.5279	pCi/g	1.332	Y	87.18	3	1.338	IDENTIFIED	15.21	☐ ui	
Cerium-143	—	525.1	111.5	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.259	0.05289	pCi/g	0.07511	0.100	661.8	2	1.223	IDENTIFIED	19.93	☐	
Gross Gamma	—	10.53	1.579	pCi/g	5.075	N		0				☐	
Iodine-133	HE	2205	3626	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Krypton-85	HE	17.35	4.876	pCi/g	16.35	N	0	9	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.864	0.1107	pCi/g	0.1003	0.100	238.8	4	1.165	IDENTIFIED	3.522	☐	
Lead-214	✓	1.481	0.1246	pCi/g	0.1391	0.100	352	4	1.142	IDENTIFIED	6.623	☐	
Lutetium-177	HE	3.522	0.934	pCi/g	2.25	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	0.9578	0.1816	pCi/g	0.3782	N	87.18	3	1.338	IDENTIFIED	15.21	☐	
Niobium-97	HE	56790	66510	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.864	0.1107	pCi/g	0.1003	N	238.8	4	1.165	IDENTIFIED	3.522	☐	
Polonium-214	nr	1.481	0.1246	pCi/g	0.1391	N	352	4	1.142	IDENTIFIED	6.623	☐	
Polonium-216	nr	1.864	0.1107	pCi/g	0.1003	N	238.8	4	1.165	IDENTIFIED	3.522	☐	
Polonium-218	nr	1.481	0.1246	pCi/g	0.1391	N	352	4	1.142	IDENTIFIED	6.623	☐	
Potassium-40	✓	23.63	1.351	pCi/g	0.5176	1.00	1461	1	1.706	IDENTIFIED	3.778	☐	
Radium-224	int	5.994	0.9658	pCi/g	1.142	Y	241.7	1	2.211	IDENTIFIED	15.55	☐ ui	
Radium-226	✓	1.3	0.117	pCi/g	0.1323	Y	609.4	4	1.586	IDENTIFIED	7.365	☐	
Radium-228	✓	1.736	0.1958	pCi/g	0.2583	0.500	911.4	3	1.233	IDENTIFIED	9.657	☐	
Strontium-85	la	0.08903	0.02502	pCi/g	0.08387	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.553	0.05212	pCi/g	0.06544	0.080	583.3	1	1.486	IDENTIFIED	8.121	☐	
Thorium-228	nr	1.892	0.1124	pCi/g	0.1019	N	238.8	4	1.165	IDENTIFIED	3.522	☐	
Thorium-230	nr	1.3	0.117	pCi/g	0.1323	N	609.4	4	1.586	IDENTIFIED	7.365	☐	
Thorium-232	nr	1.736	0.1958	pCi/g	0.2583	N	911.4	3	1.233	IDENTIFIED	9.657	☐	
Thorium-234	✓	9.312	1.322	pCi/g	1.88	2.00	63.25	2	1.015	IDENTIFIED	11.22	☐	
Tin-126	int nr	0.3262	0.05188	pCi/g	0.1342	N	87.18	3	1.338	IDENTIFIED	15.21	☐	
Titanium-44	la nr	0.4044	0.02978	pCi/g	0.08306	N	0	9	0	FAIL_ABUND	0	☐	
Total Uranium		27.931	3.93E-06	ug/g	2.7989	N		0				☐	
Uranium-234	nr	1.3	0.117	pCi/g	0.1323	N	609.4	4	1.586	IDENTIFIED	7.365	☐	
Uranium-235	✓	0.4921	0.1693	pCi/g	0.3764	0.500	143.8	1	1.371	IDENTIFIED	33.29	☐	
Uranium-238	nr	9.312	1.322	pCi/g	1.88	N	63.25	2	1.015	IDENTIFIED	11.22	☐	
Zirconium-97	HE	1.11E+06	1.27E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245960011	28-JAN-10 12:00	12-FEB-10 16:31	15.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.679	0.1657	pCi/g	0.1935	N	911.1	3	1.58	IDENTIFIED	8.225		
Americium-243	int nr	0.3966	0.04892	pCi/g	0.09725	N	74.79	1	1.108	IDENTIFIED	10.92		
Annihilation Rad.		0.1252	0.02955	pCi/g	0.0433	N	510.8	1	1.735	IDENTIFIED	23.43		
Bismuth-211	int	4.141	0.2677	pCi/g	0.3033	Y	351.8	4	1.242	IDENTIFIED	5.513	ui	
Bismuth-212	la nr	1.005	0.1886	pCi/g	0.6203	N	0	7	0	FAIL_ABUND	0		
Bismuth-214	✔	1.201	0.08222	pCi/g	0.1032	0.200	609.2	4	1.364	IDENTIFIED	5.779		
Cadmium-109	int	2.71	0.5166	pCi/g	1.362	Y	87.17	3	1.019	IDENTIFIED	18.1	ui	
Cerium-143		700.8	110.4	pCi/g	0	N	0	7	0	SHORT_HLIF	0		
Cesium-134	la	0.09597	0.02856	pCi/g	0.09594	0.100	0	7	0	FAIL_ABUND	0	UI	Data rejected due to low abundance.
Cesium-135	int nr	0.6146	0.1363	pCi/g	0.2293	N	269.6	1	1.211	IDENTIFIED	21.77		
Gross Gamma		8.35	1.153	pCi/g	2.826	N		0					
Lead-212	✔	1.646	0.08661	pCi/g	0.08651	0.100	238.6	4	1.121	IDENTIFIED	3.4		
Lead-214	✔	1.44	0.1004	pCi/g	0.1057	0.100	351.8	4	1.242	IDENTIFIED	5.513		
Lutetium-177	HE	2.799	0.624	pCi/g	2.023	N	0	7	0	FAIL_ABUND	0		
Neptunium-237	int nr	0.7822	0.1695	pCi/g	0.4036	N	87.17	3	1.019	IDENTIFIED	18.1		
Polonium-212	nr	1.646	0.08661	pCi/g	0.08651	N	238.6	4	1.121	IDENTIFIED	3.4		
Polonium-214	nr	1.44	0.1004	pCi/g	0.1057	N	351.8	4	1.242	IDENTIFIED	5.513		
Polonium-216	nr	1.646	0.08661	pCi/g	0.08651	N	238.6	4	1.121	IDENTIFIED	3.4		
Polonium-218	nr	1.44	0.1004	pCi/g	0.1057	N	351.8	4	1.242	IDENTIFIED	5.513		
Potassium-40	✔	19.78	1.056	pCi/g	0.6031	1.00	1461	1	1.917	IDENTIFIED	3.981		
Radium-224	int	4.64	0.6538	pCi/g	0.9846	Y	241.6	1	1.863	IDENTIFIED	13.69	ui	
Radium-226	✔	1.201	0.08222	pCi/g	0.1032	Y	609.2	4	1.364	IDENTIFIED	5.779		
Radium-228	✔	1.679	0.1657	pCi/g	0.1935	0.500	911.1	3	1.58	IDENTIFIED	8.225		
Sodium-24	HE	6.67E+05	3.70E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0		
Thallium-208	✔	0.504	0.04578	pCi/g	0.0557	0.080	583.1	1	1.458	IDENTIFIED	8.521		
Thorium-228	nr	1.671	0.08793	pCi/g	0.08783	N	238.6	4	1.121	IDENTIFIED	3.4		
Thorium-230	nr	1.201	0.08222	pCi/g	0.1032	N	609.2	4	1.364	IDENTIFIED	5.779		
Thorium-232	nr	1.679	0.1657	pCi/g	0.1935	N	911.1	3	1.58	IDENTIFIED	8.225		
Tin-126	int nr	0.2664	0.05077	pCi/g	0.1349	N	87.17	3	1.019	IDENTIFIED	18.1		
Titanium-44	la nr	0.4079	0.03582	pCi/g	0.08508	N	0	7	0	FAIL_ABUND	0		
Uranium-234	nr	1.201	0.08222	pCi/g	0.1032	N	609.2	4	1.364	IDENTIFIED	5.779		
Zirconium-97	HE	1.40E+06	9.61E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032510		12-FEB-10 16:32	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Annihilation Rad.	HE	0.04025	0.01747	pCi/g	0.0223	N	511.1	1	2.997	IDENTIFIED	43.3		
Iodine-133	HE	1.352	4.299	pCi/g	0	N	0	8	0	SHORT_HLIF	0		
Iodine-135	HE	1.39E+07	9.48E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0		
Krypton-85	HE	11.54	2.337	pCi/g	8.876	N	0	8	0	NOT_IDENTI	0		
Niobium-97	HE	13.07	17.44	pCi/g	0	N	0	8	0	SHORT_HLIF	0		
Sodium-24	HE	38.27	60.09	pCi/g	0	N	0	8	0	SHORT_HLIF	0		

Strontium-85	la	0.0547	0.01108	pCi/g	0.04209	Y	0	8	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	HE	2.55E+06	1.06E+07	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Zirconium-97		1338	427.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032511	28-JAN-10 12:00	12-FEB-10 16:38	15.2	DUP	LOAD	1		LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.625	0.1782	pCi/g	0.2038	N	911	3	1.327	IDENTIFIED	9.215	☐	
Americium-243	int nr	0.3771	0.03877	pCi/g	0.08637	N	74.88	1	0.9538	IDENTIFIED	9.407	☐	
Annihilation Rad.		0.122	0.03301	pCi/g	0.04597	N	511	1	1.854	IDENTIFIED	26.64	☐	
Barium-137m		0.2346	0.03511	pCi/g	0.0583	N	661.4	2	1.202	IDENTIFIED	14.29	☐	
Bismuth-211	int	4.14	0.3047	pCi/g	0.305	Y	351.8	4	1.116	IDENTIFIED	4.938	☐ ui	
Bismuth-212	la nr	1.069	0.2025	pCi/g	0.6634	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.259	0.1039	pCi/g	0.1046	0.200	609.3	4	1.241	IDENTIFIED	6.339	☐	
Cadmium-109	int	2.267	0.5501	pCi/g	1.173	Y	87	3	1.131	IDENTIFIED	23.8	☐ ui	
Cerium-143	—	468.7	97.89	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1623	0.04136	pCi/g	0.09631	0.100	0	8	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✔	0.248	0.03712	pCi/g	0.06163	0.100	661.4	2	1.202	IDENTIFIED	14.29	☐	
Gross Gamma		9.908	1.42	pCi/g	3.35	N		0				☐	
Iodine-123	HE	4.78E+06	3.03E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✔	1.618	0.1174	pCi/g	0.1328	0.100	238.5	4	1.045	IDENTIFIED	4.2	☐	
Lead-214	✔	1.44	0.1124	pCi/g	0.1002	0.100	351.8	4	1.116	IDENTIFIED	4.938	☐	
Lutetium-177	la nr	4.529	0.816	pCi/g	2.005	N	0	8	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6542	0.1725	pCi/g	0.411	N	87	3	1.131	IDENTIFIED	23.8	☐	
Polonium-212	nr	1.618	0.1174	pCi/g	0.1328	N	238.5	4	1.045	IDENTIFIED	4.2	☐	
Polonium-214	nr	1.44	0.1124	pCi/g	0.1002	N	351.8	4	1.116	IDENTIFIED	4.938	☐	
Polonium-216	nr	1.618	0.1174	pCi/g	0.1328	N	238.5	4	1.045	IDENTIFIED	4.2	☐	
Polonium-218	nr	1.44	0.1124	pCi/g	0.1002	N	351.8	4	1.116	IDENTIFIED	4.938	☐	
Potassium-40	✔	25.3	1.391	pCi/g	0.4658	1.00	1461	1	2.021	IDENTIFIED	3.304	☐	
Radium-224	int	2.818	0.4992	pCi/g	1.362	Y	241.8	1	0.9734	IDENTIFIED	16.83	☐ ui	
Radium-226	✔	1.259	0.1039	pCi/g	0.1046	Y	609.3	4	1.241	IDENTIFIED	6.339	☐	
Radium-228	✔	1.625	0.1782	pCi/g	0.2038	0.500	911	3	1.327	IDENTIFIED	9.215	☐	
Thallium-200	HE	186.4	219	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.5114	0.04693	pCi/g	0.05926	0.080	583.2	1	1.274	IDENTIFIED	7.725	☐	
Thorium-228	nr	1.643	0.1192	pCi/g	0.1348	N	238.5	4	1.045	IDENTIFIED	4.2	☐	
Thorium-230	nr	1.259	0.1039	pCi/g	0.1045	N	609.3	4	1.241	IDENTIFIED	6.339	☐	
Thorium-232	nr	1.625	0.1782	pCi/g	0.2038	N	911	3	1.327	IDENTIFIED	9.215	☐	
Thorium-234	✔	4.833	1.079	pCi/g	2.071	2.00	63.28	2	0.8853	IDENTIFIED	20.56	☐	
Tin-126	HE	0.2228	0.05407	pCi/g	0.1374	N	87	3	1.131	IDENTIFIED	23.8	☐	
Titanium-44	la nr	0.4065	0.02865	pCi/g	0.07478	N	0	8	0	FAIL_ABUND	0	☐	
Total Uranium		14.537	3.21E-06	ug/g	3.084	N		0				☐	
Uranium-234	nr	1.259	0.1039	pCi/g	0.1045	N	609.3	4	1.241	IDENTIFIED	6.339	☐	
Uranium-235	✔	0.3428	0.1452	pCi/g	0.3133	0.500	143.8	1	1.048	IDENTIFIED	41.44	☐	
Uranium-238	nr	4.833	1.079	pCi/g	2.071	N	63.28	2	0.8853	IDENTIFIED	20.56	☐	
Zirconium-97	—	2.28E+06	8.95E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032512		12-FEB-10 16:33	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228		1.333	0.294	pCi/g	0.6256	N	911	3	1.322	IDENTIFIED	21.26	☐	
Americium-241		13.78	0.9826	pCi/g	0.9896	0.200	59.73	1	1.271	IDENTIFIED	4.041	☐	
Annihilation Rad.	HE	0.1659	0.07194	pCi/g	0.1107	N	510.9	1	2.189	IDENTIFIED	43.14	☐	
Barium-137m		5.39	0.2685	pCi/g	0.1295	N	661.6	2	1.706	IDENTIFIED	2.814	☐	
Bismuth-211		1.974	0.3367	pCi/g	0.704	Y	351.9	4	1.088	IDENTIFIED	16.32	☐	
Bismuth-214		0.6789	0.1286	pCi/g	0.3592	0.200	0	13	0	FAIL_ABUND	0	☐	
Cadmium-109		31.88	2.394	pCi/g	2.713	Y	88.25	2	1.475	IDENTIFIED	4.259	☐	
Cerium-143	HE	15.7	4.128	pCi/g	12.89	N	0	13	0	FAIL_ABUND	0	☐	
Cesium-137		5.697	0.2842	pCi/g	0.1368	0.100	661.6	2	1.706	IDENTIFIED	2.814	☐	
Cobalt-57		0.2458	0.03557	pCi/g	0.08317	N	122.2	1	1.305	IDENTIFIED	13.57	☐	
Cobalt-60		6.423	0.36	pCi/g	0.0879	0.100	1332	1	2.109	IDENTIFIED	2.886	☐	
Gross Gamma		26.76	3.058	pCi/g	3.61	N		0				☐	
Krypton-85	HE	28.76	8.688	pCi/g	28.71	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212		1.086	0.1387	pCi/g	0.202	0.100	238.8	4	1.214	IDENTIFIED	11.3	☐	
Lead-214		0.6865	0.1185	pCi/g	0.2643	0.100	351.9	4	1.088	IDENTIFIED	16.32	☐	
Neptunium-237		6.101	0.8185	pCi/g	1.467	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-97		1080	120.2	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212		1.086	0.1387	pCi/g	0.202	N	238.8	4	1.214	IDENTIFIED	11.3	☐	
Polonium-214		0.6865	0.1185	pCi/g	0.2643	N	351.9	4	1.088	IDENTIFIED	16.32	☐	
Polonium-216		1.086	0.1387	pCi/g	0.202	N	238.8	4	1.214	IDENTIFIED	11.3	☐	
Polonium-218		0.6865	0.1185	pCi/g	0.2643	N	351.9	4	1.088	IDENTIFIED	16.32	☐	
Radium-224		10.89	1.084	pCi/g	3.546	Y	0	13	0	NOT_IDENTI	0	☐	
Radium-226		0.6789	0.1286	pCi/g	0.3592	Y	0	13	0	FAIL_ABUND	0	☐	
Radium-228		1.333	0.294	pCi/g	0.6256	0.500	911	3	1.322	IDENTIFIED	21.26	☐	
Silver-110m		0.4194	0.05904	pCi/g	0.2092	N	0	13	0	NOT_IDENTI	0	☐	
Strontium-85		0.1364	0.04119	pCi/g	0.1361	Y	0	13	0	NOT_IDENTI	0	☐	
Thallium-208		0.3682	0.06431	pCi/g	0.1376	0.080	583.3	1	1.691	IDENTIFIED	16.86	☐	
Thorium-228		1.094	0.1397	pCi/g	0.2036	N	238.8	4	1.214	IDENTIFIED	11.3	☐	
Thorium-230		0.6789	0.1286	pCi/g	0.3592	N	0	13	0	FAIL_ABUND	0	☐	
Thorium-232		1.333	0.294	pCi/g	0.6256	N	911	3	1.322	IDENTIFIED	21.26	☐	
Tin-126		3.169	0.2379	pCi/g	0.3121	N	88.25	2	1.475	IDENTIFIED	4.259	☐	
Titanium-44	HE	0.1778	0.04877	pCi/g	0.1595	N	0	13	0	FAIL_ABUND	0	☐	
Uranium-234		0.6789	0.1286	pCi/g	0.3592	N	0	13	0	FAIL_ABUND	0	☐	
Zirconium-97		4612	1464	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
948717	245960010	SAMPLE	12-FEB-10	Radium-228	1.736	0.1958	pCi/g	0.1292	0.500
				Strontium-85	0.08903	0.02502	pCi/g	0.04196	Y
				Thallium-208	0.553	0.05212	pCi/g	0.03274	0.080
				Thorium-234	9.312	1.322	pCi/g	0.9404	2.00
				Uranium-235	0.4921	0.1693	pCi/g	0.1883	0.500
				Uranium-238	9.312	1.322	pCi/g	0.9404	N
				Zirconium-97	1.11E+06	1.27E+06	pCi/g	0	N
948717	245960011	SAMPLE	12-FEB-10	Bismuth-211	4.141	0.2677	pCi/g	0.1517	Y
				Bismuth-214	1.201	0.08222	pCi/g	0.05165	0.200
				Cadmium-109	2.71	0.5166	pCi/g	0.6815	Y
				Cadmium-115	11.42	5.337	pCi/g	9.551	N
				Cerium-143	700.8	110.4	pCi/g	0	N
				Cesium-134	0.09597	0.02856	pCi/g	0.048	0.100
				Europium-152	0.0866	0.04733	pCi/g	0.07699	0.200
				Gross Gamma	8.35	1.153	pCi/g	1.36	N
				Lead-212	1.646	0.08661	pCi/g	0.04328	0.100
				Lead-214	1.44	0.1004	pCi/g	0.05289	0.100
				Potassium-40	19.78	1.056	pCi/g	0.3017	1.00
				Radium-224	4.64	0.6538	pCi/g	0.4926	Y
				Radium-226	1.201	0.08222	pCi/g	0.05165	Y
				Radium-228	1.679	0.1657	pCi/g	0.09682	0.500
				Sodium-24	6.67E+05	3.70E+05	pCi/g	0	N
				Thallium-208	0.504	0.04578	pCi/g	0.02787	0.080
				Zirconium-97	1.40E+06	9.61E+05	pCi/g	0	N
948717	1202032510	MB	12-FEB-10	Iodine-135	1.39E+07	9.48E+06	pCi/g	0	N
				Krypton-85	11.54	2.337	pCi/g	4.44	N
				Lead-212	0.03658	0.02737	pCi/g	0.02892	0.100
				Niobium-97	13.07	17.44	pCi/g	0	N
				Sodium-24	38.27	60.09	pCi/g	0	N
				Strontium-85	0.0547	0.01108	pCi/g	0.02106	Y
				Technetium-99m	2.55E+06	1.06E+07	pCi/g	0	N
				Zirconium-97	1338	427.9	pCi/g	0	N
948717	1202032511	DUP	12-FEB-10	Bismuth-211	4.14	0.3047	pCi/g	0.1526	Y
				Bismuth-214	1.259	0.1039	pCi/g	0.05231	0.200
				Cadmium-109	2.267	0.5501	pCi/g	0.5868	Y
				Cerium-143	468.7	97.89	pCi/g	0	N
				Cesium-134	0.1623	0.04136	pCi/g	0.04818	0.100

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:47:06.39

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:44:51
Sample ID         : G245960001           Sample quantity  : 1.20480E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.56  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.49*	100	249	0.68	92.97	90	6	1.39E-02	27.7	
2	0	63.29	101	556	0.81	126.54	123	8	1.40E-02	41.6	
3	3	74.84*	690	415	0.76	149.63	146	11	9.58E-02	5.7	2.23E+00
4	3	77.09*	1082	277	0.67	154.14	146	11	1.50E-01	3.8	
5	0	84.13*	134	285	1.08	168.21	166	6	1.86E-02	21.9	
6	4	87.19	381	307	1.00	174.31	171	12	5.29E-02	8.8	1.16E+00
7	4	89.94	237	240	0.90	179.82	171	12	3.29E-02	11.8	
8	0	93.10*	378	396	1.56	186.14	183	10	5.26E-02	11.3	
9	0	105.43*	97	307	1.01	210.79	206	9	1.35E-02	34.3	
10	0	128.93	81	280	0.89	257.76	254	8	1.12E-02	37.7	
11	0	185.67*	243	211	1.12	371.20	367	9	3.37E-02	12.8	
12	0	209.15	108	181	0.93	418.14	414	8	1.50E-02	23.5	
13	7	238.41*	1222	100	0.94	476.63	473	14	1.70E-01	3.2	6.40E+00
14	7	241.41*	301	139	1.66	482.63	473	14	4.18E-02	8.9	
15	0	270.48	81	181	1.27	540.75	536	11	1.13E-02	34.1	
16	0	276.93*	51	132	1.07	553.65	550	8	7.13E-03	41.8	
17	0	294.98*	393	113	0.98	589.74	584	11	5.45E-02	7.4	
18	0	299.54	83	130	1.00	598.85	595	10	1.15E-02	27.8	
19	0	328.19	38	103	1.03	656.14	650	8	5.29E-03	49.0	
20	0	338.19	228	165	0.91	676.13	670	11	3.16E-02	12.8	
21	0	351.70*	589	96	1.06	703.15	698	11	8.19E-02	5.3	
22	0	409.74	39	82	1.40	819.21	813	10	5.37E-03	46.8	
23	0	462.75	55	93	1.32	925.20	920	11	7.64E-03	36.6	
24	0	510.79*	84	88	1.72	1021.27	1015	16	1.17E-02	30.8	
25	0	583.08*	261	75	1.27	1165.86	1160	13	3.62E-02	9.5	
26	0	608.98*	355	65	1.19	1217.65	1213	11	4.93E-02	7.0	
27	0	727.18	64	63	0.93	1454.06	1449	11	8.89E-03	27.1	
28	0	768.12	30	48	1.01	1535.95	1530	10	4.21E-03	46.2	
29	0	795.32	27	49	1.22	1590.37	1585	11	3.81E-03	53.1	
30	0	860.88	67	34	2.06	1721.50	1712	18	9.25E-03	24.4	
31	0	910.72	174	30	1.80	1821.22	1816	13	2.42E-02	9.9	
32	0	969.06	85	74	1.16	1937.93	1931	11	1.18E-02	22.5	
33	0	1120.06	71	33	2.28	2240.06	2234	12	9.85E-03	20.1	
34	0	1262.65	25	12	0.59	2525.40	2518	12	3.47E-03	34.2	
35	0	1377.29	18	8	0.82	2754.83	2749	11	2.50E-03	38.8	
36	0	1460.15	555	9	1.82	2920.68	2913	18	7.71E-02	4.4	
37	0	1509.12	11	5	1.08	3018.68	3011	10	1.53E-03	48.5	
38	0	1591.94	19	6	1.92	3184.48	3180	9	2.57E-03	34.2	

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1728.55	13	8	0.96	3457.97	3453	10	1.85E-03	47.5	
40	0	1764.06*	52	7	2.64	3529.06	3522	15	7.23E-03	18.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 16:47:09

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:44:51
Sample ID : G245960001 Sample quantity : 120.48 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA21 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:25.56 0.4%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.249E+01	2.767E+00	7.143E-01	6.099E-02	31.486
CD-109	+	88.03	*	4.008E+00	7.983E-01	7.115E-01	6.694E-02	5.633
SN-126	+	64.28		4.005E-01	3.385E-01	2.961E-01	4.387E-02	1.353
	+	86.94		1.638E+00	7.384E-01	2.895E-01	1.202E-01	5.656
	+	87.57	*	3.939E-01	7.846E-02	6.981E-02	6.543E-03	5.643
EU-155		48.70		-3.249E-02	3.424E-01	5.315E-01	4.496E-02	-0.061
		60.01		8.494E-01	1.649E+00	2.607E+00	2.036E-01	0.326
	+	86.54		4.744E-01	9.468E-02	8.290E-02	7.771E-03	5.723
	+	105.31	*	1.912E-01	1.328E-01	1.122E-01	1.170E-02	1.704
TL-208	+	277.35		6.176E-01	5.224E-01	5.901E-01	7.404E-02	1.047
	+	510.84		5.975E-01	3.753E-01	2.331E-01	2.960E-02	2.564
	+	583.14	*	5.432E-01	1.188E-01	7.029E-02	7.657E-03	7.728
	+	860.37		1.387E+00	6.895E-01	5.510E-01	5.470E-02	2.517
BI-210	+	46.50	*	1.045E+00	5.879E-01	6.397E-01	6.100E-02	1.634
PB-210	+	46.50	*	1.045E+00	5.879E-01	6.397E-01	6.100E-02	1.634
PO-210	+	46.50	*	1.045E+00	5.864E-01	6.397E-01	5.552E-02	1.634
BI-211		72.87		1.482E+00	1.619E+00	2.559E+00	2.142E-01	0.579
	+	351.07	*	4.735E+00	6.578E-01	3.127E-01	2.823E-02	15.140
PB-212	+	74.81		2.428E+00	4.139E-01	2.833E-01	3.576E-02	8.570
	+	77.11		2.266E+00	2.599E-01	1.693E-01	1.461E-02	13.381
	+	87.30		1.822E+00	4.060E-01	3.225E-01	4.416E-02	5.649
	+	238.63	*	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
	+	300.09		2.152E+00	1.217E+00	1.119E+00	1.194E-01	1.923
PO-212	+	74.81		2.428E+00	4.139E-01	2.833E-01	3.576E-02	8.570
	+	77.11		2.266E+00	2.599E-01	1.693E-01	1.461E-02	13.381
	+	87.30		1.822E+00	4.060E-01	3.225E-01	4.416E-02	5.649
		115.19		6.376E-01	2.741E+00	4.406E+00	4.841E-01	0.145
	+	238.63	*	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
	+	300.09		2.152E+00	1.217E+00	1.119E+00	1.194E-01	1.923
BI-214	+	609.31	*	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
	+	1120.29		1.574E+00	6.546E-01	6.485E-01	6.963E-02	2.427
	+	1764.49		1.715E+00	6.454E-01	4.681E-01	3.892E-02	3.664
PB-214	+	74.81		4.184E+00	6.721E-01	4.882E-01	5.498E-02	8.570
	+	77.11		3.884E+00	5.348E-01	2.903E-01	3.341E-02	13.381

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		3.121E+00	6.666E-01	5.525E-01	6.696E-02	5.649
	+	241.98		2.889E+00	5.970E-01	4.660E-01	4.898E-02	6.199
	+	295.21		1.780E+00	3.261E-01	1.704E-01	1.856E-02	10.450
	+	351.92	*	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
PO-214	+	74.81		4.184E+00	6.721E-01	4.882E-01	5.498E-02	8.570
	+	77.11		3.884E+00	5.348E-01	2.903E-01	3.341E-02	13.381
	+	87.30		3.121E+00	6.666E-01	5.525E-01	6.696E-02	5.649
	+	241.98		2.889E+00	5.970E-01	4.660E-01	4.898E-02	6.199
	+	295.21		1.780E+00	3.261E-01	1.704E-01	1.856E-02	10.450
	+	351.92	*	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
PO-216	+	74.81		2.428E+00	4.139E-01	2.833E-01	3.576E-02	8.570
	+	77.11		2.266E+00	2.599E-01	1.693E-01	1.461E-02	13.381
	+	87.30		1.822E+00	4.060E-01	3.225E-01	4.416E-02	5.649
	+	238.63	*	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
	+	300.09		2.152E+00	1.217E+00	1.119E+00	1.194E-01	1.923
PO-218	+	74.81		4.184E+00	6.721E-01	4.882E-01	5.498E-02	8.570
	+	77.11		3.884E+00	5.348E-01	2.903E-01	3.341E-02	13.381
	+	87.30		3.121E+00	6.666E-01	5.525E-01	6.696E-02	5.649
	+	241.98		2.889E+00	5.970E-01	4.660E-01	4.898E-02	6.199
	+	295.21		1.780E+00	3.261E-01	1.704E-01	1.856E-02	10.450
	+	351.92	*	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
RA-224	+	240.98	*	5.477E+00	1.090E+00	9.812E-01	8.719E-02	5.582
RA-226	+	609.31	*	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
	+	1120.29		1.574E+00	6.546E-01	6.485E-01	6.963E-02	2.427
	+	1764.49		1.715E+00	6.454E-01	4.681E-01	3.892E-02	3.664
AC-228	+	338.32		1.996E+00	9.689E-01	4.005E-01	1.653E-01	4.983
	+	911.07	*	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
	+	969.11		1.486E+00	7.540E-01	4.870E-01	1.139E-01	3.052
RA-228	+	338.32		1.996E+00	9.689E-01	4.005E-01	1.653E-01	4.983
	+	911.07	*	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
	+	969.11		1.486E+00	7.540E-01	4.870E-01	1.139E-01	3.052
TH-228	+	74.81		2.465E+00	3.525E-01	2.876E-01	2.461E-02	8.570
	+	77.11		2.300E+00	2.638E-01	1.719E-01	1.483E-02	13.381
	+	87.30		1.850E+00	3.684E-01	3.274E-01	3.062E-02	5.649
	+	238.63	*	1.975E+00	2.327E-01	8.728E-02	8.678E-03	22.626
	+	300.09		2.185E+00	1.776E+00	1.136E+00	6.738E-01	1.923
TH-230	+	609.31	*	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
	+	1120.29		1.573E+00	6.546E-01	6.484E-01	6.962E-02	2.427
	+	1764.49		1.715E+00	6.454E-01	4.681E-01	3.892E-02	3.664
TH-232	+	338.32		1.996E+00	5.387E-01	4.005E-01	3.491E-02	4.983
	+	911.07	*	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
	+	969.11		1.486E+00	7.540E-01	4.870E-01	1.139E-01	3.052
TH-234	+	63.29	*	1.012E+00	8.608E-01	7.483E-01	1.322E-01	1.352
	+	92.38		2.719E+00	7.952E-01	4.448E-01	8.264E-02	6.112
U-234	+	609.31	*	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
	+	1120.29		1.573E+00	6.546E-01	6.484E-01	6.962E-02	2.427
	+	1764.49		1.715E+00	6.454E-01	4.681E-01	3.892E-02	3.664
U-235	+	89.95		3.381E+00	1.319E+00	9.656E-01	3.004E-01	3.501
	+	93.35		3.269E+00	1.185E+00	5.370E-01	1.523E-01	6.087

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	105.00		1.874E+00	1.407E+00	1.098E+00	3.335E-01	1.707
		143.76	*	1.474E-01	1.842E-01	2.976E-01	5.427E-02	0.495
		163.35		1.000E-01	3.931E-01	6.793E-01	1.288E-01	0.147
	+	185.71		2.568E-01	6.902E-02	6.368E-02	5.345E-03	4.033
		205.31		4.933E-01	5.080E-01	8.058E-01	1.537E-01	0.612
NP-237	+	86.50	*	1.157E+00	3.318E-01	2.021E-01	4.573E-02	5.724
		95.87		-5.143E-01	6.640E-01	9.147E-01	2.293E-01	-0.562
U-238	+	63.29	*	1.012E+00	8.608E-01	7.483E-01	1.322E-01	1.352
	+	92.38		2.719E+00	6.675E-01	4.448E-01	4.277E-02	6.112
AM-243	+	74.67	*	3.937E-01	5.612E-02	4.592E-02	3.892E-03	8.573
	+	86.72		4.338E+01	8.640E+00	7.585E+00	7.059E-01	5.719
		117.66		1.777E-01	3.004E+00	4.775E+00	5.330E-01	0.037
		142.18		6.873E-01	1.525E+01	2.385E+01	2.417E+00	0.029
ANH-511	+	511.00	*	1.291E-01	8.035E-02	5.037E-02	4.828E-03	2.563

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-9.481E-02	3.315E-01	5.408E-01	5.298E-02	-0.175
NA-22		1274.54	*	3.244E-02	5.977E-02	1.032E-01	8.463E-03	0.314
NA-24		1368.53	*	3.513E-01	5.977E-02	Half-Life too short		
AL-26		1129.67		-1.795E+00	2.278E+00	3.328E+00	2.801E-01	-0.539
		1808.65	*	-5.732E-03	5.079E-02	8.045E-02	6.658E-03	-0.071
TI-44		67.85		7.835E-03	1.979E-02	3.312E-02	2.686E-03	0.237
	+	78.38	*	4.181E-01	4.796E-02	3.909E-02	3.404E-03	10.696
SC-46		889.25	*	6.989E-03	4.580E-02	7.793E-02	6.930E-03	0.090
	+	1120.51		2.694E-01	1.106E-01	1.797E-01	1.519E-02	1.499
V-48		944.10		2.845E-01	1.198E+00	2.042E+00	1.790E-01	0.139
		983.50	*	3.288E-02	9.248E-02	1.593E-01	1.394E-02	0.206
		1312.09		-3.430E-02	1.025E-01	1.550E-01	1.263E-02	-0.221
CR-51		320.08	*	8.322E-02	3.574E-01	5.894E-01	5.479E-02	0.141
MN-52		744.21		1.159E-01	3.208E-01	5.356E-01	5.693E-02	0.216
		848.13		-3.534E+00	7.478E+00	1.177E+01	1.120E+00	-0.300
		935.52		1.280E-02	3.037E-01	5.073E-01	4.447E-02	0.025
		1246.25		4.927E+00	1.019E+01	1.737E+01	1.428E+00	0.284
		1333.61		-5.929E+00	6.613E+00	9.534E+00	7.740E-01	-0.622
		1434.06	*	-2.058E-01	2.938E-01	4.221E-01	3.486E-02	-0.488
MN-54		834.83	*	3.729E-02	4.384E-02	7.996E-02	7.750E-03	0.466
CO-56		846.75	*	-6.023E-03	4.018E-02	6.606E-02	6.297E-03	-0.091
		977.42		-1.999E+00	3.971E+00	6.169E+00	5.400E-01	-0.324
		1037.82		-2.025E-01	3.287E-01	4.857E-01	4.435E-02	-0.417
		1175.09		3.773E-01	2.847E+00	4.714E+00	3.885E-01	0.080
		1238.25		1.671E-01	1.266E-01	2.303E-01	1.954E-02	0.726
		1360.21		-3.377E-01	1.161E+00	1.844E+00	1.504E-01	-0.183
		1771.40		-7.558E-02	3.557E-01	5.508E-01	4.577E-02	-0.137
CO-57		122.06	*	1.203E-02	2.083E-02	3.393E-02	3.898E-03	0.355
		136.48		1.076E-01	1.840E-01	2.972E-01	3.293E-02	0.362
CO-58		810.76	*	-3.354E-03	4.756E-02	7.952E-02	7.958E-03	-0.042

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59		142.65		-7.200E-01	2.454E+00	3.760E+00	3.797E-01	-0.192
		192.34		2.897E-01	8.518E-01	1.461E+00	1.948E-01	0.198
		1099.22	*	-8.057E-02	1.186E-01	1.743E-01	1.608E-02	-0.462
		1291.56		-5.788E-02	1.693E-01	2.581E-01	2.425E-02	-0.224
CO-60		1173.22		6.512E-03	5.831E-02	9.604E-02	7.914E-03	0.068
		1332.49	*	-1.928E-02	5.111E-02	8.092E-02	6.568E-03	-0.238
ZN-65		1115.52	*	1.975E-02	1.243E-01	1.806E-01	1.531E-02	0.109
GE-68		1077.35	*	1.724E-01	1.788E+00	2.962E+00	2.543E-01	0.058
AS-73		53.44	*	1.607E-01	1.692E-01	2.949E-01	2.388E-02	0.545
AS-74		595.88	*	-8.356E-02	1.122E-01	1.699E-01	1.783E-02	-0.492
		634.78		2.153E-01	5.003E-01	8.479E-01	9.188E-02	0.254
SE-75		66.05		-1.351E+00	2.125E+00	3.138E+00	3.124E-01	-0.430
		96.73		-1.153E-01	5.260E-01	7.683E-01	1.109E-01	-0.150
		121.11		-6.993E-02	1.137E-01	1.725E-01	2.326E-02	-0.405
		136.00		7.900E-03	3.548E-02	5.623E-02	5.976E-03	0.140
		198.60		9.904E-02	1.630E+00	2.754E+00	2.615E-01	0.036
		264.65	*	8.317E-03	4.052E-02	6.763E-02	6.072E-03	0.123
		279.53		-1.409E-03	1.138E-01	1.664E-01	1.536E-02	-0.008
		303.91		-8.352E-01	2.272E+00	3.168E+00	3.705E-01	-0.264
		400.65		1.589E-01	2.976E-01	4.925E-01	5.272E-02	0.323
BR-77	+	87.88		8.653E+02	1.724E+02	2.381E+02	2.238E+01	3.634
		200.40		5.603E+01	1.451E+02	2.491E+02	2.134E+01	0.225
	+	239.00		3.122E+02	3.402E+01	4.324E+01	3.839E+00	7.219
		249.79		3.426E+00	6.214E+01	1.031E+02	9.196E+00	0.033
		281.68		-1.220E+01	8.928E+01	1.377E+02	1.228E+01	-0.089
		297.23		8.278E+01	6.461E+01	8.788E+01	7.843E+00	0.942
		303.76		-5.551E+01	1.927E+02	2.711E+02	2.416E+01	-0.205
		439.47		-1.499E+02	1.438E+02	2.188E+02	1.893E+01	-0.685
		484.57		7.244E+01	2.144E+02	3.713E+02	3.438E+01	0.195
		520.65	*	8.599E+00	1.236E+01	2.175E+01	2.110E+00	0.395
		574.64		2.314E+02	2.325E+02	4.188E+02	4.310E+01	0.552
		578.91		-7.886E+01	1.175E+02	1.537E+02	1.588E+01	-0.513
		585.48		3.923E+02	2.407E+02	4.072E+02	4.234E+01	0.963
		755.35		4.608E+00	2.129E+02	3.426E+02	3.611E+01	0.013
		817.79		-7.501E+01	1.674E+02	2.678E+02	2.652E+01	-0.280
SR-82		698.33		-1.509E+00	4.335E+01	6.987E+01	7.623E+00	-0.022
		776.49	*	-1.848E-01	4.583E-01	6.938E-01	7.182E-02	-0.266
		1395.20		-7.877E+00	1.314E+01	1.945E+01	1.597E+00	-0.405
RB-83		520.41	*	4.498E-02	8.187E-02	1.426E-01	1.383E-02	0.316
		529.64		-1.803E-02	1.105E-01	1.804E-01	1.769E-02	-0.100
		552.65		-2.059E-01	2.330E-01	3.499E-01	3.520E-02	-0.588
RB-84		881.50	*	5.507E-02	8.311E-02	1.495E-01	1.348E-02	0.368
KR-85		513.99	*	4.300E+00	8.250E+00	1.287E+01	1.239E+00	0.334
SR-85		513.99	*	2.205E-02	4.230E-02	6.601E-02	6.352E-03	0.334
RB-86		1076.63	*	1.320E-01	1.151E+00	1.910E+00	1.640E-01	0.069
Y-88		898.02		6.027E-03	4.968E-02	8.410E-02	7.392E-03	0.072
		1836.01	*	1.507E-02	5.061E-02	8.799E-02	7.265E-03	0.171
ZR-88		392.90	*	-3.015E-04	3.374E-02	5.353E-02	4.264E-03	-0.006
Y-91		1204.90	*	-5.722E+00	2.479E+01	3.899E+01	3.212E+00	-0.147

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.63	*	2.237E-02	4.081E-02	6.976E-02	7.597E-03	0.321
		871.10		-2.170E-02	4.131E-02	6.462E-02	5.931E-03	-0.336
NB-95		765.79	*	2.288E-02	6.802E-02	9.943E-02	1.039E-02	0.230
NB-95M		235.69	*	-1.869E-02	1.204E-01	1.771E-01	1.784E-02	-0.106
ZR-95		724.18		-6.229E-03	1.510E-01	2.113E-01	2.403E-02	-0.029
		756.15	*	3.901E-02	9.175E-02	1.542E-01	1.736E-02	0.253
NB-97		657.90	*	-9.272E-02	9.175E-02	Half-Life too short		
		1024.50		-2.679E+00	9.175E-02	Half-Life too short		
ZR-97		254.15		-4.965E+00	9.175E-02	Half-Life too short		
		355.39		2.155E+00	9.175E-02	Half-Life too short		
		507.63	*	1.956E+00	9.175E-02	Half-Life too short		
		602.52		-2.627E+00	9.175E-02	Half-Life too short		
		1021.30		3.908E+00	9.175E-02	Half-Life too short		
		1147.95		-1.636E+00	9.175E-02	Half-Life too short		
		1362.66		-5.601E+00	9.175E-02	Half-Life too short		
		1750.46		-5.447E+00	9.175E-02	Half-Life too short		
MO-99		140.51		1.437E+01	2.336E+01	3.660E+01	1.034E+01	0.393
		181.06		6.308E+00	1.638E+01	2.559E+01	4.645E+00	0.247
		366.43		7.785E+01	9.104E+01	1.558E+02	1.306E+01	0.500
		739.58	*	-1.134E+01	1.465E+01	2.109E+01	3.465E+00	-0.537
		778.00		-1.159E+01	3.986E+01	6.124E+01	6.331E+00	-0.189
TC-99M		140.51	*	2.076E+10	3.986E+01	Half-Life too short		
RH-101		127.23		3.543E-03	2.783E-02	4.069E-02	4.542E-03	0.087
		198.01	*	3.513E-03	2.960E-02	5.017E-02	4.285E-03	0.070
		325.23		5.908E-02	2.483E-01	3.666E-01	3.233E-02	0.161
RH-102		418.52		2.270E-02	2.831E-01	4.835E-01	4.037E-02	0.047
		475.06	*	-8.032E-03	3.080E-02	5.044E-02	4.607E-03	-0.159
		631.29		5.926E-03	6.906E-02	1.138E-01	1.230E-02	0.052
		697.49		-1.305E-02	1.021E-01	1.630E-01	1.780E-02	-0.080
	+	766.84		2.089E-01	1.944E-01	2.785E-01	2.908E-02	0.750
		1046.59		-7.170E-02	1.589E-01	2.467E-01	2.136E-02	-0.291
		1112.84		7.117E-02	3.238E-01	4.959E-01	4.204E-02	0.144
RU-103		497.08	*	3.027E-02	4.744E-02	8.318E-02	1.219E-02	0.364
	+	610.33		1.518E+01	3.444E+00	3.843E+00	6.842E-01	3.950
RH-106	+	511.85		6.447E-01	4.013E-01	4.759E-01	4.567E-02	1.355
		621.84	*	-2.244E-01	3.916E-01	5.840E-01	8.648E-02	-0.384
		1050.47		7.395E-01	2.956E+00	5.008E+00	4.331E-01	0.148
RU-106	+	511.85		6.447E-01	4.013E-01	4.759E-01	4.567E-02	1.355
		621.84	*	-2.244E-01	3.910E-01	5.840E-01	6.266E-02	-0.384
		1050.47		7.395E-01	2.956E+00	5.008E+00	4.331E-01	0.148
AG-108M		433.93	*	4.622E-02	3.566E-02	6.583E-02	5.870E-03	0.702
		614.37		4.379E-03	4.879E-02	7.097E-02	7.764E-03	0.062
		722.95		1.465E-02	6.344E-02	9.221E-02	1.019E-02	0.159
AG-110M		657.75	*	-1.859E-02	4.290E-02	6.644E-02	7.452E-03	-0.280
		677.61		2.260E-01	3.778E-01	6.512E-01	7.286E-02	0.347
		706.67		-9.880E-02	2.439E-01	3.745E-01	4.141E-02	-0.264
		763.93		3.076E-02	2.413E-01	3.440E-01	3.671E-02	0.089
		884.67		-2.303E-04	6.268E-02	1.047E-01	9.667E-03	-0.002
		937.48		-5.344E-02	1.327E-01	2.091E-01	1.897E-02	-0.256

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		1384.27		9.210E-02	2.203E-01	3.689E-01	3.118E-02	0.250
IN-111		171.28		-5.920E-01	8.275E-01	1.355E+00	1.111E-01	-0.437
		245.39	*	-1.588E-01	1.038E+00	1.518E+00	1.352E-01	-0.105
IN-113M		391.69	*	-4.449E-02	5.424E-02	7.986E-02	6.577E-03	-0.557
SN-113		391.69	*	-4.449E-02	5.424E-02	7.986E-02	6.577E-03	-0.557
IN-114M		190.27	*	2.879E-02	1.739E-01	2.835E-01	2.396E-02	0.102
CD-115		260.90		-1.250E+02	1.171E+02	1.767E+02	1.579E+01	-0.708
		492.35		-6.739E+00	4.225E+01	6.967E+01	6.519E+00	-0.097
		527.90	*	-3.712E-01	1.161E+01	1.923E+01	1.881E+00	-0.019
SN-117M		156.02		-1.467E+00	1.922E+00	3.173E+00	2.863E-01	-0.462
		158.56	*	1.710E-02	4.509E-02	7.857E-02	6.916E-03	0.218
SB-122		563.90	*	2.391E-01	2.453E+00	4.088E+00	4.161E-01	0.058
		692.80		-1.075E+01	5.974E+01	9.496E+01	1.039E+01	-0.113
I-123		159.00	*	3.070E+00	5.974E+01	Half-Life too short		
		528.96		1.164E+02	5.974E+01	Half-Life too short		
TE-123M		159.00	*	1.521E-02	2.316E-02	4.083E-02	3.599E-03	0.372
I-124		602.71	*	-2.969E-01	8.002E-01	1.215E+00	1.283E-01	-0.244
		722.78		1.436E+00	6.615E+00	9.598E+00	1.034E+00	0.150
		1325.50		-1.481E+01	4.387E+01	6.988E+01	5.679E+00	-0.212
	+	1376.25		5.600E+01	4.371E+01	7.335E+01	6.003E+00	0.763
	+	1509.49		2.083E+01	2.030E+01	3.940E+01	3.279E+00	0.529
		1691.02		3.837E+00	5.825E+00	1.078E+01	9.004E-01	0.356
SB-124		602.71		-1.726E-02	4.652E-02	7.065E-02	7.461E-03	-0.244
		645.85		1.872E-02	6.230E-01	1.019E+00	1.155E-01	0.018
		709.31		2.901E-01	3.107E+00	5.076E+00	5.510E-01	0.057
		713.82		-2.165E+00	2.155E+00	3.043E+00	4.171E-01	-0.711
		722.78		1.210E-01	5.576E-01	8.089E-01	8.839E-02	0.150
	+	968.20		1.530E+01	7.017E+00	1.040E+01	9.107E-01	1.472
		1045.16		2.008E+00	3.167E+00	5.601E+00	4.851E-01	0.358
		1325.50		-1.333E+00	3.949E+00	6.290E+00	5.112E-01	-0.212
		1368.21		-4.669E-01	1.979E+00	3.164E+00	4.175E-01	-0.148
		1436.60		4.399E-02	4.539E+00	7.569E+00	6.252E-01	0.006
		1691.02	*	7.628E-02	1.158E-01	2.143E-01	1.865E-02	0.356
SB-125		427.89	*	3.305E-02	9.382E-02	1.633E-01	1.414E-02	0.202
	+	463.38		7.414E-01	5.471E-01	6.711E-01	6.463E-02	1.105
		600.56		4.780E-02	2.088E-01	3.503E-01	3.876E-02	0.136
		635.90		1.851E-01	3.707E-01	6.324E-01	7.213E-02	0.293
TE-125M		109.28	*	9.976E+00	7.188E+00	1.144E+01	1.375E+00	0.872
I-126		388.63		1.782E-01	2.484E-01	4.167E-01	3.337E-02	0.428
		666.33	*	9.895E-02	2.265E-01	3.841E-01	4.237E-02	0.258
		753.82		-1.181E+00	2.026E+00	3.031E+00	3.199E-01	-0.390
SB-126		223.80		8.528E-01	3.814E+00	6.442E+00	5.658E-01	0.132
		278.60		2.965E+00	2.629E+00	4.215E+00	3.759E-01	0.703
		296.50		1.061E+01	2.278E+00	3.671E+00	3.277E-01	2.890
		414.70		8.151E-03	7.822E-02	1.297E-01	1.076E-02	0.063
		415.30		1.809E-01	6.365E+00	1.083E+01	8.990E-01	0.017
		555.20		2.092E+00	4.601E+00	7.932E+00	8.002E-01	0.264
		573.80		-1.245E-02	1.213E+00	1.998E+00	2.054E-01	-0.006
		593.00		2.438E-01	1.056E+00	1.777E+00	1.860E-01	0.137

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		656.30		-4.935E-01	3.976E+00	6.381E+00	7.023E-01	-0.077
		666.33		4.135E-02	9.465E-02	1.605E-01	1.771E-02	0.258
		675.00		-5.709E-01	2.324E+00	3.661E+00	4.029E-01	-0.156
		695.00		2.355E-02	1.052E-01	1.739E-01	1.900E-02	0.135
		697.00		-3.705E-03	3.615E-01	5.842E-01	6.378E-02	-0.006
		720.50	*	-1.002E-01	2.174E-01	3.206E-01	3.460E-02	-0.312
		856.80		-3.061E-01	7.007E-01	9.518E-01	8.937E-02	-0.322
		989.30		-2.912E-01	1.569E+00	2.531E+00	2.213E-01	-0.115
		1034.80		-3.561E+00	9.267E+00	1.430E+01	1.241E+00	-0.249
		1213.00		1.840E+00	6.651E+00	1.109E+01	9.136E-01	0.166
SB-127		61.10		-8.058E+00	2.013E+01	3.026E+01	3.199E+00	-0.266
		252.40		1.283E+00	4.169E+00	6.966E+00	2.932E+00	0.184
		290.80		-7.194E+00	2.075E+01	2.908E+01	3.314E+00	-0.247
		411.60		-1.012E+01	1.559E+01	1.994E+01	3.096E+00	-0.507
		444.90		7.561E+00	1.021E+01	1.821E+01	2.295E+00	0.415
		473.00		-6.421E-01	1.805E+00	2.880E+00	3.800E-01	-0.223
		543.00		1.203E+01	1.791E+01	3.151E+01	4.800E+00	0.382
		603.60		3.167E+00	1.451E+01	2.151E+01	2.995E+00	0.147
		685.20	*	1.443E-01	1.629E+00	2.666E+00	3.532E-01	0.054
		698.50		-3.450E-01	1.933E+01	3.121E+01	5.361E+00	-0.011
		722.20		1.460E+00	4.622E+01	6.536E+01	8.432E+00	0.022
		783.80		1.122E+00	4.724E+00	7.754E+00	1.056E+00	0.145
XE-127		57.60		-9.163E-01	1.638E+00	2.654E+00	2.090E-01	-0.345
		145.22		-4.116E-02	6.097E-01	9.454E-01	9.365E-02	-0.044
		172.10		5.850E-02	1.002E-01	1.753E-01	1.439E-02	0.334
		202.84	*	-1.290E-02	4.172E-02	6.898E-02	5.928E-03	-0.187
		374.96		2.427E-01	2.148E-01	3.741E-01	3.087E-02	0.649
I-131		80.18		2.145E+00	2.574E+00	4.049E+00	3.596E-01	0.530
		284.30		1.751E+00	1.356E+00	2.414E+00	2.259E-01	0.725
		364.48	*	-1.517E-02	1.230E-01	1.944E-01	1.729E-02	-0.078
		636.97		1.250E+00	2.174E+00	3.725E+00	4.187E-01	0.335
		722.89		2.414E+00	1.068E+01	1.551E+01	1.678E+00	0.156
TE-132		49.72		-1.376E+00	2.871E+00	4.699E+00	5.008E-01	-0.293
		111.76		-1.044E+01	2.112E+01	3.250E+01	4.099E+00	-0.321
		116.30		-4.109E+00	2.140E+01	3.353E+01	4.319E+00	-0.123
		228.16	*	-1.630E-01	6.540E-01	1.073E+00	1.698E-01	-0.152
BA-133		53.15		7.346E-01	7.272E-01	1.270E+00	1.031E-01	0.578
		79.62		3.601E-01	7.229E-01	1.117E+00	1.712E-01	0.322
		81.00		-4.397E-02	5.645E-02	8.047E-02	1.289E-02	-0.546
	+	276.40		6.103E-01	5.183E-01	7.026E-01	1.028E-01	0.869
		302.84		-6.348E-03	1.546E-01	2.235E-01	3.012E-02	-0.028
		356.01	*	2.216E-02	5.008E-02	7.490E-02	9.843E-03	0.296
		383.85		-1.617E-01	3.490E-01	5.320E-01	6.519E-02	-0.304
I-133	+	510.53		1.311E+00	3.490E-01	Half-Life too short		
		529.87	*	-4.633E-04	3.490E-01	Half-Life too short		
		706.58		-1.807E-01	3.490E-01	Half-Life too short		
		856.28		-7.218E-01	3.490E-01	Half-Life too short		
		875.33		1.185E-01	3.490E-01	Half-Life too short		
		1236.41		1.391E+00	3.490E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1298.22		1.623E-01	3.490E-01	Half-Life too short		
CS-134		475.35		4.100E-01	1.915E+00	3.277E+00	2.995E-01	0.125
		563.23		3.388E-01	4.267E-01	7.536E-01	7.718E-02	0.450
		569.32		7.410E-02	2.143E-01	3.657E-01	3.780E-02	0.203
		604.70		-3.136E-02	4.609E-02	5.984E-02	6.340E-03	-0.524
	+	795.84	*	8.686E-02	9.265E-02	1.210E-01	1.235E-02	0.718
		801.93		-4.047E-01	5.446E-01	7.868E-01	7.971E-02	-0.514
		1038.57		-3.624E+00	4.315E+00	6.143E+00	5.328E-01	-0.590
		1167.94		-1.550E-01	3.483E+00	5.631E+00	4.653E-01	-0.028
		1365.15		-1.164E-01	1.332E+00	2.192E+00	1.882E-01	-0.053
CS-135		268.24	*	7.861E-02	1.669E-01	2.552E-01	2.613E-02	0.308
I-135		288.45		1.495E+10	1.669E-01	Half-Life too short		
		417.63		-9.831E+09	1.669E-01	Half-Life too short		
		546.56		-3.923E+08	1.669E-01	Half-Life too short		
		836.80		-1.287E+09	1.669E-01	Half-Life too short		
		1038.76		-1.607E+10	1.669E-01	Half-Life too short		
		1124.00		1.681E+10	1.669E-01	Half-Life too short		
		1131.51		-2.061E+09	1.669E-01	Half-Life too short		
		1260.41	*	3.480E+09	1.669E-01	Half-Life too short		
		1457.56		6.208E+11	1.669E-01	Half-Life too short		
		1678.03		-6.380E+08	1.669E-01	Half-Life too short		
		1706.46		-5.506E+09	1.669E-01	Half-Life too short		
		1791.20		-6.716E+09	1.669E-01	Half-Life too short		
CS-136		66.91		1.068E-01	3.438E-01	5.329E-01	8.065E-02	0.200
	+	86.29		5.140E+00	1.135E+00	1.337E+00	1.779E-01	3.843
		153.22		4.718E-01	5.631E-01	9.982E-01	1.020E-01	0.473
		163.89		1.253E-01	8.889E-01	1.529E+00	1.435E-01	0.082
		176.55		-1.127E-02	3.161E-01	5.363E-01	4.714E-02	-0.021
		273.65		7.197E-02	5.551E-01	6.562E-01	6.220E-02	0.110
		340.57		4.347E-02	1.419E-01	2.098E-01	1.877E-02	0.207
		818.51		-1.685E-02	9.410E-02	1.554E-01	1.539E-02	-0.108
		1048.07	*	-1.273E-01	1.427E-01	2.063E-01	1.861E-02	-0.617
		1235.34		3.435E-01	8.284E-01	1.395E+00	1.613E-01	0.246
BA-137M		661.65	*	-1.261E-02	4.736E-02	7.495E-02	8.278E-03	-0.168
CS-137		661.65	*	-1.333E-02	5.006E-02	7.923E-02	8.760E-03	-0.168
CE-139		165.85	*	7.306E-03	2.484E-02	4.299E-02	3.495E-03	0.170
BA-140		162.64		3.687E-02	6.399E-01	1.097E+00	9.811E-02	0.034
		304.84		-1.040E+00	1.493E+00	1.971E+00	5.541E-01	-0.528
		423.70		1.281E+00	2.074E+00	3.608E+00	1.168E+00	0.355
		537.32	*	5.882E-02	3.063E-01	5.150E-01	1.725E-01	0.114
LA-140	+	328.77		4.094E-01	4.033E-01	5.312E-01	4.924E-02	0.771
		432.53		6.475E-01	2.218E+00	3.837E+00	3.443E-01	0.169
		487.03		-3.389E-02	1.369E-01	2.234E-01	2.187E-02	-0.152
		751.79		-3.331E-01	2.271E+00	3.584E+00	4.062E-01	-0.093
		815.85		-1.421E-01	3.735E-01	6.002E-01	6.483E-02	-0.237
		867.82		1.750E+00	1.748E+00	2.976E+00	2.873E-01	0.588
		919.63		7.204E-01	3.357E+00	5.733E+00	6.170E-01	0.126
		925.24		-5.273E-01	1.309E+00	2.060E+00	1.915E-01	-0.256
		1596.49	*	-3.688E-02	1.388E-01	1.812E-01	1.515E-02	-0.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-141		145.44	*	-1.396E-02	5.488E-02	8.408E-02	8.429E-03	-0.166
CE-143		57.37		-2.091E-04	5.488E-02	Half-Life too short		
		231.56		-1.651E-03	5.488E-02	Half-Life too short		
		293.26	*	4.990E-04	5.488E-02	Half-Life too short		
	+	350.59		3.749E-02	5.488E-02	Half-Life too short		
		490.36		1.071E-03	5.488E-02	Half-Life too short		
		664.57		1.248E-03	5.488E-02	Half-Life too short		
		721.93		-1.042E-03	5.488E-02	Half-Life too short		
CE-144		80.11		9.415E-01	1.182E+00	1.856E+00	1.637E-01	0.507
		133.54	*	-1.004E-01	1.788E-01	2.697E-01	4.541E-02	-0.372
PM-144		476.78		-9.509E-03	6.855E-02	1.134E-01	1.126E-02	-0.084
		618.01		2.643E-02	3.728E-02	6.529E-02	7.109E-03	0.405
		696.49	*	1.847E-02	4.464E-02	7.520E-02	8.214E-03	0.246
		778.57		-1.723E+00	2.886E+00	4.253E+00	4.396E-01	-0.405
PR-144		696.49	*	1.252E+00	3.025E+00	5.096E+00	5.565E-01	0.246
		1489.15		-2.771E+00	1.457E+01	2.321E+01	1.929E+00	-0.119
PM-146		453.90	*	1.348E-02	4.686E-02	8.077E-02	8.813E-03	0.167
		633.02		4.993E-01	1.869E+00	3.114E+00	1.182E+00	0.160
		735.90		7.083E-02	1.744E-01	2.929E-01	8.579E-02	0.242
		747.13		-9.146E-02	1.347E-01	1.995E-01	3.060E-02	-0.458
ND-147	+	91.11		8.488E-01	2.174E-01	3.015E-01	3.076E-02	2.815
		319.41		7.006E-01	3.246E+00	5.345E+00	4.733E-01	0.131
		439.89		-6.199E+00	5.714E+00	8.621E+00	7.465E-01	-0.719
		531.02	*	-3.831E-02	5.908E-01	9.746E-01	1.527E-01	-0.039
PM-149		285.90	*	-5.974E+01	8.588E+01	1.320E+02	2.074E+01	-0.453
EU-152		121.78		1.357E-02	6.092E-02	9.745E-02	1.216E-02	0.139
		244.69		1.826E-02	3.154E-01	4.704E-01	4.188E-02	0.039
		344.27	*	-4.793E-02	9.773E-02	1.502E-01	1.377E-02	-0.319
		443.98		1.134E+00	9.905E-01	1.820E+00	1.586E-01	0.623
		778.89		1.153E-01	2.983E-01	5.016E-01	5.181E-02	0.230
		867.32		7.783E-01	1.067E+00	1.747E+00	1.613E-01	0.446
		964.01		6.036E-01	4.939E-01	8.131E-01	7.124E-02	0.742
		1085.78		-5.637E-01	4.834E-01	6.480E-01	5.548E-02	-0.870
		1112.02		-3.717E-02	4.248E-01	6.671E-01	5.657E-02	-0.056
		1407.95		6.624E-02	2.434E-01	4.228E-01	3.479E-02	0.157
GD-153		69.67		-3.462E-01	7.288E-01	1.174E+00	9.624E-02	-0.295
	+	83.37		2.423E+01	1.086E+01	1.428E+01	1.293E+00	1.696
		97.43	*	-2.188E-02	5.873E-02	8.490E-02	8.387E-03	-0.258
		103.18		2.767E-02	7.422E-02	1.125E-01	1.148E-02	0.246
EU-154		123.07		2.878E-03	4.357E-02	6.903E-02	9.398E-03	0.042
		247.94		-2.695E-01	3.323E-01	5.171E-01	6.048E-02	-0.521
		591.81		-5.302E-02	7.489E-01	1.223E+00	1.600E-01	-0.043
		723.30		1.179E-01	2.524E-01	3.792E-01	4.366E-02	0.311
		756.87		-6.659E-02	1.010E+00	1.609E+00	2.158E-01	-0.041
		873.19		-7.005E-02	3.607E-01	5.893E-01	7.437E-02	-0.119
		996.32		-1.095E-01	4.610E-01	7.379E-01	1.315E-01	-0.148
		1004.76		3.433E-02	2.750E-01	4.607E-01	5.399E-02	0.075
		1274.45	*	9.347E-02	1.675E-01	2.893E-01	3.180E-02	0.323
TB-160	+	86.79		1.267E+00	2.524E-01	3.715E-01	3.460E-02	3.411

---- Non-Identified Nuclides ----

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		197.04		8.951E-02	4.907E-01	8.348E-01	7.121E-02	0.107
		215.65		-1.745E-01	6.528E-01	1.075E+00	9.373E-02	-0.162
	+	298.57		3.131E-01	1.762E-01	2.066E-01	1.844E-02	1.515
		879.36	*	-1.842E-02	1.661E-01	2.740E-01	2.480E-02	-0.067
		962.29		4.333E-01	8.822E-01	1.414E+00	1.239E-01	0.306
		966.15		9.335E-01	4.346E-01	7.413E-01	6.494E-02	1.259
		1177.93		-2.223E-01	4.823E-01	7.389E-01	6.089E-02	-0.301
		1271.85		4.876E-01	9.308E-01	1.608E+00	1.318E-01	0.303
HO-166M		80.57		3.914E-03	1.407E-01	2.296E-01	2.033E-02	0.017
	+	184.41		1.926E-01	5.177E-02	5.821E-02	4.875E-03	3.309
		280.46		-5.861E-03	8.681E-02	1.262E-01	1.125E-02	-0.046
	+	410.95		4.201E-01	3.945E-01	4.501E-01	3.708E-02	0.933
		711.68	*	2.758E-02	6.926E-02	1.171E-01	1.269E-02	0.236
		752.31		-1.778E-01	3.689E-01	5.587E-01	5.902E-02	-0.318
		810.29		-2.026E-02	7.417E-02	1.213E-01	1.212E-02	-0.167
TM-171		51.35		-3.888E+00	5.433E+00	8.773E+00	7.230E-01	-0.443
		52.39		2.198E+00	2.996E+00	5.183E+00	4.233E-01	0.424
		59.40		6.052E+00	8.772E+00	1.399E+01	1.091E+00	0.433
		66.72	*	-1.657E-01	1.254E+01	1.915E+01	1.543E+00	-0.009
LU-176	+	88.36		9.343E-01	1.861E-01	2.215E-01	2.088E-02	4.218
		201.83		-2.226E-02	2.575E-02	4.121E-02	3.537E-03	-0.540
		306.84	*	1.726E-02	2.521E-02	4.294E-02	3.823E-03	0.402
		401.10		2.360E+00	7.573E+00	1.233E+01	9.975E-01	0.191
LU-177		112.95		2.674E-02	1.172E+00	1.865E+00	2.021E-01	0.014
	+	208.36	*	2.975E+00	1.423E+00	1.883E+00	1.629E-01	1.580
LU-177M		52.97		3.406E-01	3.259E-01	5.700E-01	4.633E-02	0.598
		54.07		-3.945E-02	1.828E-01	3.022E-01	2.436E-02	-0.131
		61.30		-2.747E-01	5.270E-01	7.870E-01	6.177E-02	-0.349
		121.62		3.051E-02	3.121E-01	4.959E-01	5.676E-02	0.062
		147.16		-7.747E-01	5.615E-01	7.852E-01	7.660E-02	-0.987
		171.86		7.435E-02	3.992E-01	6.860E-01	5.630E-02	0.108
		218.09		3.398E-01	7.654E-01	1.311E+00	1.145E-01	0.259
		268.79		1.219E+00	8.782E-01	1.427E+00	1.275E-01	0.854
		319.02		4.696E-02	2.540E-01	4.173E-01	3.695E-02	0.113
		367.43		7.794E-01	9.657E-01	1.647E+00	1.379E-01	0.473
		413.65	*	1.094E-01	2.043E-01	3.065E-01	2.537E-02	0.357
HF-181		56.28		-7.100E-02	2.221E-01	3.643E-01	2.892E-02	-0.195
		57.53		-8.406E-02	1.371E-01	2.214E-01	1.744E-02	-0.380
		65.20		-5.353E-02	3.879E-01	5.894E-01	4.711E-02	-0.091
		133.02		-5.317E-02	5.742E-02	8.461E-02	9.124E-03	-0.628
		136.25		2.399E-01	4.030E-01	6.514E-01	6.880E-02	0.368
		345.85		-5.075E-03	2.050E-01	3.127E-01	2.703E-02	-0.016
		482.03	*	-1.170E-04	4.163E-02	6.973E-02	6.433E-03	-0.002
W-181		56.28		-2.789E-02	8.696E-02	1.426E-01	1.132E-02	-0.196
		57.53		-3.301E-02	5.369E-02	8.672E-02	6.832E-03	-0.381
		65.20	*	-2.081E-02	1.507E-01	2.291E-01	1.831E-02	-0.091
TA-182		67.75		3.089E-02	4.668E-02	7.891E-02	6.396E-03	0.391
		100.10		1.166E-01	1.252E-01	2.099E-01	2.105E-02	0.556
		152.43		-1.272E-01	3.227E-01	4.884E-01	4.556E-02	-0.261

---- Non-Identified Nuclides ----

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		222.10		-1.084E-01	3.327E-01	5.454E-01	4.783E-02	-0.199
		1001.68		4.204E-01	2.584E+00	4.348E+00	3.796E-01	0.097
	+	1121.28		7.439E-01	3.056E-01	4.742E-01	4.006E-02	1.569
		1189.05		1.936E-01	4.320E-01	7.359E-01	6.064E-02	0.263
		1221.42	*	-1.156E-01	2.817E-01	4.339E-01	3.572E-02	-0.266
		1230.97		6.470E-02	6.486E-01	1.060E+00	8.722E-02	0.061
RE-183		57.98		-9.503E-03	5.569E-02	9.196E-02	7.226E-03	-0.103
		59.32		2.577E-02	3.599E-02	5.746E-02	4.484E-03	0.448
		67.20		3.364E-02	8.904E-02	1.385E-01	1.119E-02	0.243
		162.32	*	6.489E-03	9.263E-02	1.589E-01	1.344E-02	0.041
	+	208.81		2.675E+00	1.280E+00	1.764E+00	1.527E-01	1.516
		291.72		-4.502E-01	8.983E-01	1.234E+00	1.102E-01	-0.365
RE-184		57.98		-3.502E-02	2.052E-01	3.389E-01	2.663E-02	-0.103
		59.32		9.489E-02	1.325E-01	2.116E-01	1.651E-02	0.448
		67.20		1.239E-01	3.280E-01	5.103E-01	4.123E-02	0.243
		161.27		6.164E-02	2.955E-01	5.104E-01	4.367E-02	0.121
		216.55		2.963E-02	2.333E-01	3.931E-01	3.430E-02	0.075
		252.85	*	-1.129E-01	2.202E-01	3.509E-01	3.132E-02	-0.322
		318.01		-1.009E-01	4.375E-01	6.948E-01	6.156E-02	-0.145
		792.07		1.031E-01	1.633E+00	2.294E+00	2.339E-01	0.045
		903.28		9.211E-01	1.253E+00	2.213E+00	1.937E-01	0.416
		920.93		4.879E-02	5.456E-01	9.182E-01	8.046E-02	0.053
OS-185		59.72		5.704E-02	9.755E-02	1.548E-01	1.207E-02	0.369
		61.14		-2.381E-02	5.731E-02	8.613E-02	6.756E-03	-0.276
		69.30		-4.731E-02	1.299E-01	2.104E-01	1.721E-02	-0.225
		592.07		4.533E-01	2.943E+00	4.913E+00	5.139E-01	0.092
		646.12	*	9.874E-03	5.212E-02	8.665E-02	9.469E-03	0.114
		717.42		6.659E-01	1.270E+00	2.152E+00	2.326E-01	0.309
		874.81		3.475E-01	6.667E-01	1.185E+00	1.081E-01	0.293
		880.27		-4.684E-01	9.362E-01	1.467E+00	1.326E-01	-0.319
RE-188		155.03	*	5.100E-02	1.458E-01	2.538E-01	2.312E-02	0.201
		477.96		-3.485E-01	3.148E+00	5.223E+00	4.791E-01	-0.067
		633.10		1.009E+00	3.759E+00	6.294E+00	6.813E-01	0.160
W-188	+	63.58		4.066E+01	3.400E+01	3.681E+01	2.918E+00	1.105
		227.08		-5.867E+00	1.199E+01	1.941E+01	1.709E+00	-0.302
		290.67	*	-2.165E+00	7.207E+00	1.016E+01	9.070E-01	-0.213
IR-192	+	295.96		1.358E+00	2.341E-01	3.325E-01	2.988E-02	4.083
		308.46		3.163E-02	1.018E-01	1.689E-01	1.510E-02	0.187
		316.51	*	-5.682E-03	3.370E-02	5.382E-02	4.783E-03	-0.106
		468.07		-6.446E-02	8.033E-02	1.063E-01	1.024E-02	-0.606
		604.41		-2.568E-01	6.005E-01	8.097E-01	1.165E-01	-0.317
		612.46		-5.948E-01	9.375E-01	1.219E+00	1.427E-01	-0.488
AU-195		65.12		-8.288E-03	6.970E-02	1.060E-01	8.470E-03	-0.078
		66.83		1.203E-02	4.114E-02	6.379E-02	5.143E-03	0.189
	+	75.70		1.274E+00	1.816E-01	2.489E-01	2.125E-02	5.118
		98.88	*	2.393E-01	1.570E-01	2.691E-01	2.680E-02	0.889
	+	129.76		4.683E+00	3.566E+00	4.151E+00	4.565E-01	1.128
TL-200		367.94	*	1.766E-04	3.566E+00	Half-Life too short		
		579.30		-2.420E-03	3.566E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		828.27		2.286E-03	3.566E+00	Half-Life too short		
		1205.75		-8.453E-04	3.566E+00	Half-Life too short		
TL-201		68.90		-5.768E-01	2.066E+00	3.360E+00	2.741E-01	-0.172
		70.82		-2.328E-01	1.311E+00	1.975E+00	1.631E-01	-0.118
		80.30		1.858E+00	2.826E+00	4.408E+00	3.895E-01	0.422
		135.34		1.417E+01	2.238E+01	3.625E+01	3.851E+00	0.391
		167.43	*	-3.413E-01	5.672E+00	9.647E+00	7.857E-01	-0.035
TL-202		68.90		-5.190E-02	1.858E-01	3.023E-01	2.467E-02	-0.172
		70.82		-2.088E-02	1.176E-01	1.772E-01	1.464E-02	-0.118
		80.30		1.668E-01	2.537E-01	3.956E-01	3.496E-02	0.422
		439.56	*	-7.445E-02	6.950E-02	1.053E-01	9.115E-03	-0.707
HG-203		70.83		-9.013E-02	5.100E-01	7.684E-01	1.028E-01	-0.117
		72.87		2.948E-01	3.233E-01	5.089E-01	6.637E-02	0.579
		82.60		-3.025E-01	6.183E-01	8.994E-01	1.258E-01	-0.336
		279.20	*	2.888E-02	4.121E-02	6.426E-02	5.882E-03	0.449
BI-207		72.80		8.084E-02	9.413E-02	1.485E-01	1.242E-02	0.544
	+	74.97		7.066E-01	1.007E-01	1.497E-01	1.271E-02	4.721
	+	84.90		3.134E-01	1.405E-01	1.943E-01	1.782E-02	1.613
		569.67		4.891E-03	3.378E-02	5.655E-02	5.790E-03	0.086
		1063.62	*	-2.807E-02	6.274E-02	9.636E-02	8.305E-03	-0.291
		1770.23		3.222E-02	7.667E-01	1.085E+00	9.017E-02	0.030
TL-207		81.07		-9.749E-02	1.240E-01	1.777E-01	1.580E-02	-0.549
	+	83.78		2.067E-01	9.263E-02	1.297E-01	1.178E-02	1.594
		94.90		1.027E-01	1.513E-01	2.344E-01	2.284E-02	0.438
		122.32		1.002E+00	1.443E+00	2.363E+00	2.824E-01	0.424
		144.24		9.192E-01	5.907E-01	9.916E-01	1.078E-01	0.927
		154.21		4.242E-01	3.402E-01	6.105E-01	6.100E-02	0.695
	+	269.46		4.776E-01	3.290E-01	3.579E-01	3.260E-02	1.335
		323.87	*	2.344E-02	7.411E-01	1.072E+00	1.908E-01	0.022
	+	338.28		8.334E+00	2.366E+00	3.116E+00	3.858E-01	2.675
		445.03		1.645E+00	2.366E+00	4.209E+00	5.121E-01	0.391
PO-209		260.50		-8.103E+00	8.602E+00	1.314E+01	1.174E+00	-0.617
		262.80		6.014E+00	2.405E+01	4.029E+01	3.601E+00	0.149
		896.60	*	8.588E+00	8.709E+00	1.617E+01	1.418E+00	0.531
PB-211		404.84	*	-7.641E-01	1.304E+00	1.572E+00	9.843E-01	-0.486
		427.08		6.253E-02	2.177E+00	3.694E+00	2.295E+00	0.017
		831.96		-5.944E-01	1.442E+00	2.225E+00	1.398E+00	-0.267
BI-212	+	727.18	*	1.191E+00	6.605E-01	9.255E-01	1.100E-01	1.286
		785.46		1.426E+00	2.373E+00	4.035E+00	4.142E-01	0.353
		1620.62		4.540E-01	1.926E+00	3.298E+00	2.758E-01	0.138
PO-215		81.07		-9.749E-02	1.240E-01	1.777E-01	1.580E-02	-0.549
	+	83.78		2.067E-01	9.263E-02	1.297E-01	1.178E-02	1.594
		94.90		1.027E-01	1.513E-01	2.344E-01	2.284E-02	0.438
		122.32		1.002E+00	1.443E+00	2.363E+00	2.824E-01	0.424
		144.24		9.192E-01	5.907E-01	9.916E-01	1.078E-01	0.927
		154.21		4.242E-01	3.402E-01	6.105E-01	6.100E-02	0.695
	+	269.46		4.776E-01	3.290E-01	3.579E-01	3.260E-02	1.335
		323.87	*	2.344E-02	7.411E-01	1.072E+00	1.908E-01	0.022
	+	338.28		8.334E+00	2.366E+00	3.116E+00	3.858E-01	2.675

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.645E+00	2.366E+00	4.209E+00	5.121E-01	0.391
RN-219	+	271.23		6.128E-01	4.234E-01	4.504E-01	4.764E-02	1.360
		401.81	*	-2.954E-01	4.978E-01	7.446E-01	1.097E-01	-0.397
RN-220		549.76	*	1.247E+01	2.950E+01	5.079E+01	5.094E+00	0.245
RA-223		81.07		-9.749E-02	1.240E-01	1.777E-01	1.580E-02	-0.549
	+	83.78		2.067E-01	9.263E-02	1.297E-01	1.178E-02	1.594
		94.90		1.027E-01	1.513E-01	2.344E-01	2.284E-02	0.438
		122.32		1.002E+00	1.443E+00	2.363E+00	2.824E-01	0.424
		144.24		9.192E-01	5.907E-01	9.916E-01	1.078E-01	0.927
		154.21		4.242E-01	3.402E-01	6.105E-01	6.100E-02	0.695
	+	269.46		4.776E-01	3.290E-01	3.579E-01	3.260E-02	1.335
		323.87	*	2.344E-02	7.411E-01	1.072E+00	1.908E-01	0.022
	+	338.28		8.334E+00	2.366E+00	3.116E+00	3.858E-01	2.675
		445.03		1.645E+00	2.366E+00	4.209E+00	5.121E-01	0.391
AC-227		79.80		9.380E-01	9.029E-01	1.408E+00	3.037E-01	0.666
		236.00		-2.770E-02	2.309E-01	3.407E-01	4.230E-02	-0.081
		256.20	*	9.741E-02	3.428E-01	5.761E-01	8.944E-02	0.169
		286.10		-9.178E-01	1.444E+00	2.236E+00	2.997E-01	-0.411
	+	299.80		3.988E+00	2.325E+00	2.814E+00	4.963E-01	1.417
		304.40		-1.145E+00	2.075E+00	2.822E+00	5.241E-01	-0.406
		334.20		-1.316E+00	2.760E+00	3.751E+00	7.303E-01	-0.351
TH-227		79.80		9.380E-01	9.034E-01	1.408E+00	3.076E-01	0.666
	+	94.00		1.051E+01	3.327E+00	2.501E+00	5.559E-01	4.201
		236.00		-2.770E-02	2.309E-01	3.407E-01	3.839E-02	-0.081
		256.20	*	9.741E-02	3.429E-01	5.761E-01	1.049E-01	0.169
		286.10		-9.178E-01	1.708E+00	2.236E+00	2.245E+00	-0.411
	+	299.80		3.988E+00	2.325E+00	2.814E+00	4.963E-01	1.417
		304.40		-1.145E+00	2.075E+00	2.822E+00	5.241E-01	-0.406
		334.20		-1.316E+00	2.760E+00	3.751E+00	7.303E-01	-0.351
TH-229	+	85.43		3.094E-01	1.387E-01	1.814E-01	1.670E-02	1.706
	+	88.47		5.378E-01	1.071E-01	1.254E-01	1.182E-02	4.289
		100.00		1.283E-01	1.303E-01	2.189E-01	2.194E-02	0.586
		193.63	*	-3.877E-01	4.579E-01	7.369E-01	6.256E-02	-0.526
		210.97		5.904E-01	7.249E-01	1.153E+00	1.000E-01	0.512
PA-231		283.67	*	9.854E-01	1.451E+00	2.477E+00	3.805E-01	0.398
		301.29		6.798E-01	6.379E-01	1.008E+00	1.256E-01	0.674
TH-231		81.07		-9.749E-02	1.240E-01	1.777E-01	1.580E-02	-0.549
	+	83.78		2.067E-01	9.263E-02	1.297E-01	1.178E-02	1.594
		94.90		1.027E-01	1.513E-01	2.344E-01	2.284E-02	0.438
		122.32		1.002E+00	1.443E+00	2.363E+00	2.824E-01	0.424
		144.24		9.192E-01	5.907E-01	9.916E-01	1.078E-01	0.927
		154.21		4.242E-01	3.402E-01	6.105E-01	6.100E-02	0.695
	+	269.46		4.776E-01	3.290E-01	3.579E-01	3.260E-02	1.335
		323.87	*	2.344E-02	7.411E-01	1.072E+00	1.908E-01	0.022
	+	338.28		8.334E+00	2.366E+00	3.116E+00	3.858E-01	2.675
		445.03		1.645E+00	2.366E+00	4.209E+00	5.121E-01	0.391
U-231	+	84.21		8.896E+00	3.987E+00	5.741E+00	5.234E-01	1.549
	+	92.29		1.037E+01	2.546E+00	2.725E+00	2.619E-01	3.806
		95.87	*	-5.825E-01	7.400E-01	1.036E+00	1.015E-01	-0.562

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-5.095E-02	1.616E+00	2.355E+00	2.475E-01	-0.022
PA-233	+	75.28		2.062E+01	3.937E+00	4.338E+00	6.631E-01	4.754
	+	86.59		7.712E+00	2.489E+00	2.183E+00	5.903E-01	3.533
	+	300.12		1.112E+00	6.400E-01	7.799E-01	1.174E-01	1.426
		311.98	*	-2.353E-02	6.223E-02	9.774E-02	8.920E-03	-0.241
		340.50		2.389E-01	6.922E-01	1.024E+00	2.444E-01	0.233
		398.62		2.058E+00	2.458E+00	4.081E+00	1.079E+00	0.504
		415.76		-1.124E-01	1.626E+00	2.743E+00	5.878E-01	-0.041
PA-234	+	63.00		1.179E+00	9.976E-01	1.059E+00	1.600E-01	1.114
		94.67		1.577E-01	1.133E-01	1.801E-01	2.377E-02	0.876
		98.44		5.767E-02	7.150E-02	1.073E-01	6.008E-02	0.538
		99.86		2.867E-01	3.337E-01	5.574E-01	5.582E-02	0.514
		111.00		-8.117E-02	1.341E-01	2.048E-01	2.795E-02	-0.396
		131.20		2.598E-03	9.589E-02	1.388E-01	1.514E-02	0.019
		152.70		6.468E-02	3.064E-01	4.805E-01	8.363E-02	0.135
	+	186.00		6.934E+00	2.793E+00	2.508E+00	7.812E-01	2.765
		226.40		1.265E-02	3.769E-01	6.295E-01	8.386E-02	0.020
		227.20		-2.211E-01	4.039E-01	6.510E-01	5.734E-02	-0.340
		248.90		-5.915E-01	7.800E-01	1.206E+00	2.718E-01	-0.490
	+	293.70		8.546E+00	1.951E+00	1.848E+00	3.225E-01	4.626
		369.80		-4.948E-01	9.147E-01	1.378E+00	2.985E-01	-0.359
		568.70		-3.263E-02	1.100E+00	1.810E+00	1.851E-01	-0.018
		569.50		5.395E-02	3.008E-01	5.053E-01	5.173E-02	0.107
		574.00		5.092E-01	1.711E+00	2.902E+00	2.984E-01	0.175
		699.00		5.664E-02	9.090E-01	1.480E+00	2.992E-01	0.038
		706.10		-3.117E-01	1.228E+00	1.912E+00	8.618E-01	-0.163
		733.00		-9.272E-02	5.401E-01	7.370E-01	1.702E-01	-0.126
		742.81		1.726E+00	2.115E+00	3.142E+00	2.121E+00	0.549
	+	796.30		1.688E+00	1.852E+00	2.271E+00	6.264E-01	0.743
		805.60		-1.181E-01	1.243E+00	2.074E+00	6.446E-01	-0.057
		819.60		9.350E-01	1.564E+00	2.729E+00	1.046E+00	0.343
		826.30		1.417E-02	9.775E-01	1.647E+00	7.407E-01	0.009
		831.60		-4.102E-01	7.188E-01	1.108E+00	3.343E-01	-0.370
		876.40		-1.649E-01	1.002E+00	1.617E+00	1.663E+00	-0.102
		880.51		-1.694E-01	3.385E-01	5.304E-01	4.791E-02	-0.319
		883.24		-1.403E-01	3.679E-01	5.663E-01	3.810E-01	-0.248
		899.00		-9.627E-01	1.112E+00	1.516E+00	6.632E-01	-0.635
		925.00		-5.482E-01	1.360E+00	2.140E+00	1.875E-01	-0.256
		926.50		-8.304E-03	1.983E-01	3.280E-01	8.306E-02	-0.025
		946.00	*	-1.212E-01	3.931E-01	6.277E-01	1.182E-01	-0.193
		949.00		4.465E-02	5.982E-01	1.001E+00	8.775E-02	0.045
		980.50		1.108E+00	9.557E-01	1.781E+00	1.558E-01	0.622
		1394.10		4.272E-01	1.315E+00	2.281E+00	1.484E+00	0.187
PA-234M		766.42		1.711E+01	2.056E+01	2.910E+01	1.486E+01	0.588
		1001.03	*	-1.645E+00	5.973E+00	9.530E+00	9.589E-01	-0.173
NP-236		94.67		1.211E-01	8.538E-02	1.368E-01	1.332E-02	0.885
		98.44		4.356E-02	4.841E-02	8.109E-02	8.055E-03	0.537
		111.00		-6.140E-02	1.013E-01	1.549E-01	1.658E-02	-0.396
		160.31	*	-3.802E-02	6.754E-02	1.124E-01	9.718E-03	-0.338

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		9.821E-02	1.118E-01	1.869E-01	1.869E-02	0.525
		117.00	*	-1.060E-01	1.526E-01	2.312E-01	2.570E-02	-0.459
	+	209.75		2.110E+00	1.010E+00	1.421E+00	1.231E-01	1.485
		228.18		-4.977E-02	2.141E-01	3.519E-01	3.102E-02	-0.141
	+	277.60		2.979E-01	2.506E-01	3.361E-01	2.998E-02	0.886
		334.30		-8.092E-01	1.555E+00	2.110E+00	1.847E-01	-0.383
AM-241		59.54	*	3.295E-02	5.117E-02	8.140E-02	6.905E-03	0.405
CM-243		99.55		1.011E-01	1.151E-01	1.923E-01	1.923E-02	0.525
		103.76	*	5.048E-02	6.963E-02	1.079E-01	1.105E-02	0.468
		117.00		-1.091E-01	1.570E-01	2.379E-01	2.644E-02	-0.459
	+	209.75		2.081E+00	9.952E-01	1.401E+00	1.214E-01	1.485
		228.18		-5.029E-02	2.164E-01	3.556E-01	3.134E-02	-0.141
	+	277.60		3.003E-01	2.526E-01	3.388E-01	3.023E-02	0.886
AM-246		798.80		-2.309E-02	2.069E-01	2.821E-01	2.856E-02	-0.082
		1036.00		-1.383E-01	2.947E-01	4.451E-01	3.863E-02	-0.311
		1062.04		-1.207E-01	2.639E-01	4.036E-01	3.480E-02	-0.299
		1078.86	*	2.002E-01	2.013E-01	3.651E-01	3.133E-02	0.548
CM-247	+	278.00		1.235E+00	1.039E+00	1.386E+00	1.236E-01	0.892
		287.40		-5.435E-01	1.120E+00	1.759E+00	1.570E-01	-0.309
		402.60	*	-1.521E-02	4.354E-02	6.680E-02	5.420E-03	-0.228
CF-249		252.85		-4.237E-01	8.261E-01	1.317E+00	1.175E-01	-0.322
		333.44		3.204E-02	1.961E-01	2.865E-01	2.510E-02	0.112
		387.95	*	5.252E-02	4.710E-02	8.133E-02	6.523E-03	0.646
CF-251		176.60	*	-5.136E-03	1.090E-01	1.848E-01	1.528E-02	-0.028
		227.00		-1.619E-01	3.606E-01	5.851E-01	5.152E-02	-0.277
		285.00		3.227E-03	1.685E+00	2.755E+00	2.459E-01	0.001

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001      *
* Acquisition date : 12-FEB-2010 14:44:51 Detector SN#     :               *
* Detector ID      : GAM21                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:25.56     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G245960001           Analyst initials: MXR1           *
* Batch Number     : 948717               Sample Quantity : 1.2048E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                             *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.249E+01	2.712E+00	7.127E-01	0.000E+00
CD-109	4.008E+00	7.823E-01	7.340E-01	0.000E+00
SN-126	3.939E-01	7.689E-02	7.202E-02	0.000E+00
EU-155	1.912E-01	1.301E-01	1.155E-01	0.000E+00
TL-208	5.432E-01	1.164E-01	7.091E-02	0.000E+00
BI-210	1.045E+00	5.761E-01	6.648E-01	0.000E+00
PB-210	1.045E+00	5.761E-01	6.648E-01	0.000E+00
PO-210	1.045E+00	5.747E-01	6.648E-01	0.000E+00
BI-211	4.735E+00	6.447E-01	3.175E-01	0.000E+00
PB-212	1.945E+00	2.246E-01	8.767E-02	0.000E+00
PO-212	1.945E+00	2.246E-01	8.767E-02	0.000E+00
BI-214	1.406E+00	2.531E-01	1.321E-01	0.000E+00
PB-214	1.647E+00	2.396E-01	1.107E-01	0.000E+00
PO-214	1.647E+00	2.396E-01	1.107E-01	0.000E+00
PO-216	1.945E+00	2.246E-01	8.767E-02	0.000E+00
PO-218	1.647E+00	2.396E-01	1.107E-01	0.000E+00
RA-224	5.477E+00	1.068E+00	1.000E+00	0.000E+00
RA-226	1.406E+00	2.531E-01	1.321E-01	0.000E+00
AC-228	1.724E+00	3.865E-01	2.661E-01	0.000E+00
RA-228	1.724E+00	3.865E-01	2.661E-01	0.000E+00
TH-228	1.975E+00	2.281E-01	8.900E-02	0.000E+00
TH-230	1.406E+00	2.531E-01	1.321E-01	0.000E+00
TH-232	1.724E+00	3.865E-01	2.661E-01	0.000E+00
TH-234	1.012E+00	8.436E-01	7.748E-01	0.000E+00
U-234	1.406E+00	2.531E-01	1.321E-01	0.000E+00
U-235	1.474E-01	1.805E-01	3.053E-01	0.000E+00
NP-237	1.157E+00	3.251E-01	2.085E-01	0.000E+00
U-238	1.012E+00	8.436E-01	7.748E-01	0.000E+00
AM-243	3.937E-01	5.500E-02	4.746E-02	0.000E+00
ANH-511	1.291E-01	7.874E-02	5.090E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-9.481E-02	3.249E-01	5.469E-01	0.000E+00	NOT IDENT.
NA-22	3.244E-02	5.858E-02	1.031E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.923E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-5.732E-03	4.978E-02	8.005E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.700E-02	4.038E-02	0.000E+00	FAIL ABUN
SC-46	6.989E-03	4.488E-02	7.822E-02	0.000E+00	FAIL ABUN
V-48	3.288E-02	9.063E-02	1.597E-01	0.000E+00	NOT IDENT.
CR-51	8.322E-02	3.502E-01	5.989E-01	0.000E+00	NOT IDENT.
MN-52	-2.058E-01	2.879E-01	4.212E-01	0.000E+00	NOT IDENT.
MN-54	3.729E-02	4.297E-02	8.032E-02	0.000E+00	NOT IDENT.
CO-56	-6.023E-03	3.938E-02	6.635E-02	0.000E+00	NOT IDENT.
CO-57	1.203E-02	2.042E-02	3.487E-02	0.000E+00	NOT IDENT.
CO-58	-3.354E-03	4.661E-02	7.991E-02	0.000E+00	NOT IDENT.
FE-59	-8.057E-02	1.162E-01	1.745E-01	0.000E+00	NOT IDENT.
CO-60	-1.928E-02	5.009E-02	8.083E-02	0.000E+00	NOT IDENT.
ZN-65	1.975E-02	1.218E-01	1.808E-01	0.000E+00	NOT IDENT.
GE-68	1.724E-01	1.752E+00	2.966E+00	0.000E+00	NOT IDENT.
AS-73	1.607E-01	1.658E-01	3.060E-01	0.000E+00	NOT IDENT.
AS-74	-8.356E-02	1.099E-01	1.714E-01	0.000E+00	NOT IDENT.
SE-75	8.317E-03	3.971E-02	6.888E-02	0.000E+00	NOT IDENT.
BR-77	8.599E+00	1.211E+01	2.198E+01	0.000E+00	FAIL ABUN
SR-82	-1.848E-01	4.492E-01	6.976E-01	0.000E+00	NOT IDENT.
RB-83	4.498E-02	8.024E-02	1.440E-01	0.000E+00	NOT IDENT.
RB-84	5.507E-02	8.145E-02	1.500E-01	0.000E+00	NOT IDENT.
KR-85	4.300E+00	8.085E+00	1.301E+01	0.000E+00	NOT IDENT.
SR-85	2.205E-02	4.145E-02	6.670E-02	0.000E+00	NOT IDENT.
RB-86	1.320E-01	1.128E+00	1.913E+00	0.000E+00	NOT IDENT.
Y-88	1.507E-02	4.959E-02	8.754E-02	0.000E+00	NOT IDENT.
ZR-88	-3.015E-04	3.307E-02	5.426E-02	0.000E+00	NOT IDENT.
Y-91	-5.722E+00	2.429E+01	3.899E+01	0.000E+00	NOT IDENT.
NB-94	2.237E-02	3.999E-02	7.022E-02	0.000E+00	NOT IDENT.
NB-95	2.288E-02	6.666E-02	9.999E-02	0.000E+00	NOT IDENT.
NB-95M	-1.869E-02	1.180E-01	1.806E-01	0.000E+00	NOT IDENT.
ZR-95	3.901E-02	8.992E-02	1.551E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.196E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.066E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.134E+01	1.436E+01	2.122E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.313E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.513E-03	2.901E-02	5.127E-02	0.000E+00	NOT IDENT.
RH-102	-8.032E-03	3.019E-02	5.101E-02	0.000E+00	FAIL ABUN
RU-103	3.027E-02	4.649E-02	8.408E-02	0.000E+00	FAIL ABUN
RH-106	-2.244E-01	3.838E-01	5.888E-01	0.000E+00	FAIL ABUN
RU-106	-2.244E-01	3.832E-01	5.888E-01	0.000E+00	FAIL ABUN
AG-108M	4.622E-02	3.495E-02	6.666E-02	0.000E+00	NOT IDENT.
AG-110M	-1.859E-02	4.205E-02	6.693E-02	0.000E+00	NOT IDENT.
IN-111	-1.588E-01	1.017E+00	1.548E+00	0.000E+00	NOT IDENT.
IN-113M	-4.449E-02	5.315E-02	8.096E-02	0.000E+00	NOT IDENT.
SN-113	-4.449E-02	5.315E-02	8.096E-02	0.000E+00	NOT IDENT.
IN-114M	2.879E-02	1.705E-01	2.899E-01	0.000E+00	NOT IDENT.
CD-115	-3.712E-01	1.138E+01	1.942E+01	0.000E+00	NOT IDENT.
SN-117M	1.710E-02	4.419E-02	8.050E-02	0.000E+00	NOT IDENT.
SB-122	2.391E-01	2.404E+00	4.126E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.582E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.521E-02	2.270E-02	4.184E-02	0.000E+00	NOT IDENT.
I-124	-2.969E-01	7.842E-01	1.225E+00	0.000E+00	FAIL ABUN
SB-124	7.628E-02	1.135E-01	2.134E-01	0.000E+00	FAIL ABUN
SB-125	3.305E-02	9.195E-02	1.654E-01	0.000E+00	FAIL ABUN
TE-125M	9.976E+00	7.044E+00	1.177E+01	0.000E+00	NOT IDENT.
I-126	9.895E-02	2.220E-01	3.869E-01	0.000E+00	NOT IDENT.
SB-126	-1.002E-01	2.130E-01	3.227E-01	0.000E+00	NOT IDENT.
SB-127	1.443E-01	1.596E+00	2.685E+00	0.000E+00	NOT IDENT.
XE-127	-1.290E-02	4.089E-02	7.048E-02	0.000E+00	NOT IDENT.
I-131	-1.517E-02	1.205E-01	1.973E-01	0.000E+00	NOT IDENT.
TE-132	-1.630E-01	6.409E-01	1.095E+00	0.000E+00	NOT IDENT.
BA-133	2.216E-02	4.908E-02	7.602E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.181E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.686E-02	9.080E-02	1.216E-01	0.000E+00	FAIL ABUN
CS-135	7.861E-02	1.636E-01	2.599E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.497E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.273E-01	1.399E-01	2.067E-01	0.000E+00	FAIL ABUN
BA-137M	-1.261E-02	4.641E-02	7.550E-02	0.000E+00	NOT IDENT.
CS-137	-1.333E-02	4.906E-02	7.982E-02	0.000E+00	NOT IDENT.
CE-139	7.306E-03	2.434E-02	4.403E-02	0.000E+00	NOT IDENT.
BA-140	5.882E-02	3.001E-01	5.201E-01	0.000E+00	NOT IDENT.
LA-140	-3.688E-02	1.360E-01	1.806E-01	0.000E+00	FAIL ABUN

CE-141	-1.396E-02	5.379E-02	8.623E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.812E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.004E-01	1.752E-01	2.769E-01	0.000E+00	NOT IDENT.
PM-144	1.847E-02	4.375E-02	7.571E-02	0.000E+00	NOT IDENT.
PR-144	1.252E+00	2.965E+00	5.130E+00	0.000E+00	NOT IDENT.
PM-146	1.348E-02	4.592E-02	8.173E-02	0.000E+00	NOT IDENT.
ND-147	-3.831E-02	5.790E-01	9.844E-01	0.000E+00	FAIL ABUN
PM-149	-5.974E+01	8.417E+01	1.343E+02	0.000E+00	NOT IDENT.
EU-152	-4.793E-02	9.578E-02	1.525E-01	0.000E+00	NOT IDENT.
GD-153	-2.188E-02	5.755E-02	8.748E-02	0.000E+00	FAIL ABUN
EU-154	9.347E-02	1.641E-01	2.891E-01	0.000E+00	NOT IDENT.
TB-160	-1.842E-02	1.628E-01	2.751E-01	0.000E+00	FAIL ABUN
HO-166M	2.758E-02	6.787E-02	1.178E-01	0.000E+00	FAIL ABUN
TM-171	-1.657E-01	1.229E+01	1.982E+01	0.000E+00	NOT IDENT.
LU-176	1.726E-02	2.470E-02	4.365E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.395E+00	1.924E+00	0.000E+00	FAIL ABUN
LU-177M	1.094E-01	2.002E-01	3.105E-01	0.000E+00	NOT IDENT.
HF-181	-1.170E-04	4.080E-02	7.051E-02	0.000E+00	NOT IDENT.
W-181	-2.081E-02	1.477E-01	2.371E-01	0.000E+00	NOT IDENT.
TA-182	-1.156E-01	2.760E-01	4.339E-01	0.000E+00	FAIL ABUN
RE-183	6.489E-03	9.077E-02	1.628E-01	0.000E+00	FAIL ABUN
RE-184	-1.129E-01	2.158E-01	3.576E-01	0.000E+00	NOT IDENT.
OS-185	9.874E-03	5.107E-02	8.732E-02	0.000E+00	NOT IDENT.
RE-188	5.100E-02	1.429E-01	2.601E-01	0.000E+00	NOT IDENT.
W-188	-2.165E+00	7.063E+00	1.034E+01	0.000E+00	FAIL ABUN
IR-192	-5.682E-03	3.302E-02	5.470E-02	0.000E+00	FAIL ABUN
AU-195	2.393E-01	1.538E-01	2.773E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.859E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.413E-01	5.558E+00	9.879E+00	0.000E+00	NOT IDENT.
TL-202	-7.445E-02	6.811E-02	1.066E-01	0.000E+00	NOT IDENT.
HG-203	2.888E-02	4.039E-02	6.541E-02	0.000E+00	NOT IDENT.
BI-207	-2.807E-02	6.149E-02	9.651E-02	0.000E+00	FAIL ABUN
TL-207	2.344E-02	7.263E-01	1.089E+00	0.000E+00	FAIL ABUN
PO-209	8.588E+00	8.534E+00	1.623E+01	0.000E+00	NOT IDENT.
PB-211	-7.641E-01	1.278E+00	1.593E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.473E-01	9.313E-01	0.000E+00	FAIL ABUN
PO-215	2.344E-02	7.263E-01	1.089E+00	0.000E+00	FAIL ABUN
RN-219	-2.954E-01	4.879E-01	7.546E-01	0.000E+00	FAIL ABUN
RN-220	1.247E+01	2.891E+01	5.128E+01	0.000E+00	NOT IDENT.
RA-223	2.344E-02	7.263E-01	1.089E+00	0.000E+00	FAIL ABUN
AC-227	9.741E-02	3.359E-01	5.870E-01	0.000E+00	FAIL ABUN
TH-227	9.741E-02	3.360E-01	5.870E-01	0.000E+00	FAIL ABUN
TH-229	-3.877E-01	4.487E-01	7.532E-01	0.000E+00	FAIL ABUN
PA-231	9.854E-01	1.422E+00	2.521E+00	0.000E+00	NOT IDENT.
TH-231	2.344E-02	7.263E-01	1.089E+00	0.000E+00	FAIL ABUN
U-231	-5.825E-01	7.252E-01	1.068E+00	0.000E+00	FAIL ABUN
PA-233	-2.353E-02	6.098E-02	9.935E-02	0.000E+00	FAIL ABUN
PA-234	-1.212E-01	3.852E-01	6.296E-01	0.000E+00	FAIL ABUN
PA-234M	-1.645E+00	5.853E+00	9.553E+00	0.000E+00	NOT IDENT.
NP-236	-3.802E-02	6.619E-02	1.152E-01	0.000E+00	NOT IDENT.
NP-239	-1.060E-01	1.495E-01	2.377E-01	0.000E+00	FAIL ABUN
AM-241	3.295E-02	5.014E-02	8.435E-02	0.000E+00	NOT IDENT.
CM-243	5.048E-02	6.824E-02	1.111E-01	0.000E+00	FAIL ABUN
AM-246	2.002E-01	1.973E-01	3.657E-01	0.000E+00	NOT IDENT.
CM-247	-1.521E-02	4.267E-02	6.769E-02	0.000E+00	FAIL ABUN
CF-249	5.252E-02	4.616E-02	8.246E-02	0.000E+00	NOT IDENT.
CF-251	-5.136E-03	1.068E-01	1.891E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:47:07.48

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:44:51
Sample ID         : G245960001           Sample quantity  : 1.20480E+02 GRAM
Detector name     : GAM21                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:25.56  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	555	10.67*	7.206E-01	2.249E+01	2.249E+01	12.30
CD-109	88.03	381	3.72*	8.137E+00	3.918E+00	4.008E+00	19.92
SN-126	64.28	101	9.60	8.182E+00	4.005E-01	4.005E-01	84.54
	86.94	381	8.90	8.137E+00	1.638E+00	1.638E+00	45.09
	87.57	381	37.00*	8.137E+00	3.939E-01	3.939E-01	19.92
EU-155	48.70	------	4.60	7.522E+00	------ Line Not Found		------
	60.01	------	1.11	8.097E+00	------ Line Not Found		------
	86.54	381	30.90	8.137E+00	4.717E-01	4.744E-01	19.96
	105.31	97	20.70*	7.704E+00	1.901E-01	1.912E-01	69.46
TL-208	277.35	51	6.80	3.807E+00	6.176E-01	6.176E-01	84.58
	510.84	84	21.60	2.038E+00	5.975E-01	5.975E-01	62.81
	583.14	261	84.20*	1.777E+00	5.432E-01	5.432E-01	21.86
	860.37	67	12.46	1.200E+00	1.387E+00	1.387E+00	49.73
BI-210	46.50	100	4.05*	7.348E+00	1.044E+00	1.045E+00	56.23
PB-210	46.50	100	4.05*	7.348E+00	1.044E+00	1.045E+00	56.23
PO-210	46.50	100	4.05*	7.348E+00	1.044E+00	1.045E+00	56.09
BI-211	72.87	------	1.27	8.278E+00	------ Line Not Found		------
	351.07	589	12.94*	2.998E+00	4.735E+00	4.735E+00	13.89
PB-212	74.81	690	10.70	8.275E+00	2.428E+00	2.428E+00	17.05
	77.11	1082	18.00	8.264E+00	2.266E+00	2.266E+00	11.47
	87.30	381	8.00	8.137E+00	1.822E+00	1.822E+00	22.29
	238.63	1222	44.60*	4.389E+00	1.945E+00	1.945E+00	11.78
	300.09	83	3.41	3.524E+00	2.152E+00	2.152E+00	56.58
PO-212	74.81	690	10.70	8.275E+00	2.428E+00	2.428E+00	17.05
	77.11	1082	18.00	8.264E+00	2.266E+00	2.266E+00	11.47
	87.30	381	8.00	8.137E+00	1.822E+00	1.822E+00	22.29
	115.19	------	0.60	7.423E+00	------ Line Not Found		------
	238.63	1222	44.60*	4.389E+00	1.945E+00	1.945E+00	11.78
	300.09	83	3.41	3.524E+00	2.152E+00	2.152E+00	56.58
BI-214	609.31	355	46.30*	1.700E+00	1.406E+00	1.406E+00	18.37
	1120.29	71	15.10	9.296E-01	1.573E+00	1.574E+00	41.60
	1764.49	52	15.80	5.984E-01	1.715E+00	1.715E+00	37.63

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	690	6.21	8.275E+00	4.184E+00	4.184E+00	16.06
	77.11	1082	10.50	8.264E+00	3.884E+00	3.884E+00	13.77
	87.30	381	4.67	8.137E+00	3.121E+00	3.121E+00	21.36
	241.98	301	7.49	4.338E+00	2.888E+00	2.889E+00	20.67
	295.21	393	19.20	3.578E+00	1.780E+00	1.780E+00	18.31
	351.92	589	37.20*	2.998E+00	1.647E+00	1.647E+00	14.84
PO-214	74.81	690	6.21	8.275E+00	4.184E+00	4.184E+00	16.06
	77.11	1082	10.50	8.264E+00	3.884E+00	3.884E+00	13.77
	87.30	381	4.67	8.137E+00	3.121E+00	3.121E+00	21.36
	241.98	301	7.49	4.338E+00	2.888E+00	2.889E+00	20.67
	295.21	393	19.20	3.578E+00	1.780E+00	1.780E+00	18.31
	351.92	589	37.20*	2.998E+00	1.647E+00	1.647E+00	14.84
PO-216	74.81	690	10.70	8.275E+00	2.428E+00	2.428E+00	17.05
	77.11	1082	18.00	8.264E+00	2.266E+00	2.266E+00	11.47
	87.30	381	8.00	8.137E+00	1.822E+00	1.822E+00	22.29
	238.63	1222	44.60*	4.389E+00	1.945E+00	1.945E+00	11.78
	300.09	83	3.41	3.524E+00	2.152E+00	2.152E+00	56.58
PO-218	74.81	690	6.21	8.275E+00	4.184E+00	4.184E+00	16.06
	77.11	1082	10.50	8.264E+00	3.884E+00	3.884E+00	13.77
	87.30	381	4.67	8.137E+00	3.121E+00	3.121E+00	21.36
	241.98	301	7.49	4.338E+00	2.888E+00	2.889E+00	20.67
	295.21	393	19.20	3.578E+00	1.780E+00	1.780E+00	18.31
	351.92	589	37.20*	2.998E+00	1.647E+00	1.647E+00	14.84
RA-224	240.98	301	3.95*	4.338E+00	5.477E+00	5.477E+00	19.89
RA-226	609.31	355	46.30*	1.700E+00	1.406E+00	1.406E+00	18.37
	1120.29	71	15.10	9.296E-01	1.573E+00	1.574E+00	41.60
	1764.49	52	15.80	5.984E-01	1.715E+00	1.715E+00	37.63
AC-228	338.32	228	11.40	3.120E+00	1.996E+00	1.996E+00	48.55
	911.07	174	27.70*	1.136E+00	1.724E+00	1.724E+00	22.88
	969.11	85	16.60	1.069E+00	1.486E+00	1.486E+00	50.72
RA-228	338.32	228	11.40	3.120E+00	1.996E+00	1.996E+00	48.55
	911.07	174	27.70*	1.136E+00	1.724E+00	1.724E+00	22.88
	969.11	85	16.60	1.069E+00	1.486E+00	1.486E+00	50.72
TH-228	74.81	690	10.70	8.275E+00	2.428E+00	2.465E+00	14.30
	77.11	1082	18.00	8.264E+00	2.266E+00	2.300E+00	11.47
	87.30	381	8.00	8.137E+00	1.822E+00	1.850E+00	19.92
	238.63	1222	44.60*	4.389E+00	1.945E+00	1.975E+00	11.78
	300.09	83	3.41	3.524E+00	2.152E+00	2.185E+00	81.28
TH-230	609.31	355	46.30*	1.700E+00	1.406E+00	1.406E+00	18.37
	1120.29	71	15.10	9.296E-01	1.573E+00	1.573E+00	41.60
	1764.49	52	15.80	5.984E-01	1.715E+00	1.715E+00	37.63
TH-232	338.32	228	11.40	3.120E+00	1.996E+00	1.996E+00	26.99
	911.07	174	27.70*	1.136E+00	1.724E+00	1.724E+00	22.88
	969.11	85	16.60	1.069E+00	1.486E+00	1.486E+00	50.72
TH-234	63.29	101	3.80*	8.182E+00	1.012E+00	1.012E+00	85.09
	92.38	378	5.41	8.017E+00	2.719E+00	2.719E+00	29.25
U-234	609.31	355	46.30*	1.700E+00	1.406E+00	1.406E+00	18.37
	1120.29	71	15.10	9.296E-01	1.573E+00	1.573E+00	41.60
	1764.49	52	15.80	5.984E-01	1.715E+00	1.715E+00	37.63

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-235	89.95	237	2.70	8.084E+00	3.381E+00	3.381E+00	39.00
	93.35	378	4.50	8.017E+00	3.269E+00	3.269E+00	36.25
	105.00	97	2.10	7.704E+00	1.874E+00	1.874E+00	75.09
	143.76	------	10.50*	6.567E+00	------	Line Not Found	------
	163.35	------	4.70	6.016E+00	------	Line Not Found	------
	185.71	243	54.00	5.452E+00	2.568E-01	2.568E-01	26.88
	205.31	------	4.70	5.015E+00	------	Line Not Found	------
NP-237	86.50	381	12.60*	8.137E+00	1.157E+00	1.157E+00	28.68
	95.87	------	2.60	7.953E+00	------	Line Not Found	------
U-238	63.29	101	3.80*	8.182E+00	1.012E+00	1.012E+00	85.09
	92.38	378	5.41	8.017E+00	2.719E+00	2.719E+00	24.55
AM-243	74.67	690	66.00*	8.275E+00	3.937E-01	3.937E-01	14.26
	86.72	381	0.34	8.137E+00	4.338E+01	4.338E+01	19.92
	117.66	------	0.55	7.349E+00	------	Line Not Found	------
	142.18	------	0.13	6.613E+00	------	Line Not Found	------
ANH-511	511.00	84	100.00*	2.038E+00	1.291E-01	1.291E-01	62.25

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

Total number of lines in spectrum 40
Number of unidentified lines 3
Number of lines tentatively identified by NID 37 92.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.249E+01	2.249E+01	0.277E+01	12.30	
CD-109	464.00D	1.02	3.918E+00	4.008E+00	0.798E+00	19.92	
SN-126	1.00E+05Y	1.00	3.939E-01	3.939E-01	0.785E-01	19.92	
EU-155	4.96Y	1.01	1.901E-01	1.912E-01	1.328E-01	69.46	
TL-208	1.41E+10Y	1.00	5.432E-01	5.432E-01	1.188E-01	21.86	
BI-210	22.26Y	1.00	1.044E+00	1.045E+00	0.588E+00	56.23	
PB-210	22.26Y	1.00	1.044E+00	1.045E+00	0.588E+00	56.23	
PO-210	22.26Y	1.00	1.044E+00	1.045E+00	0.586E+00	56.09	
BI-211	7.04E+08Y	1.00	4.735E+00	4.735E+00	0.658E+00	13.89	
PB-212	1.41E+10Y	1.00	1.945E+00	1.945E+00	0.229E+00	11.78	
PO-212	1.41E+10Y	1.00	1.945E+00	1.945E+00	0.229E+00	11.78	
BI-214	1600.00Y	1.00	1.406E+00	1.406E+00	0.258E+00	18.37	
PB-214	1600.00Y	1.00	1.647E+00	1.647E+00	0.244E+00	14.84	
PO-214	1600.00Y	1.00	1.647E+00	1.647E+00	0.244E+00	14.84	
PO-216	1.41E+10Y	1.00	1.945E+00	1.945E+00	0.229E+00	11.78	
PO-218	1600.00Y	1.00	1.647E+00	1.647E+00	0.244E+00	14.84	
RA-224	1.41E+10Y	1.00	5.477E+00	5.477E+00	1.090E+00	19.89	
RA-226	1600.00Y	1.00	1.406E+00	1.406E+00	0.258E+00	18.37	
AC-228	1.41E+10Y	1.00	1.724E+00	1.724E+00	0.394E+00	22.88	
RA-228	1.41E+10Y	1.00	1.724E+00	1.724E+00	0.394E+00	22.88	
TH-228	1.91Y	1.02	1.945E+00	1.975E+00	0.233E+00	11.78	
TH-230	4.47E+09Y	1.00	1.406E+00	1.406E+00	0.258E+00	18.37	
TH-232	1.41E+10Y	1.00	1.724E+00	1.724E+00	0.394E+00	22.88	
TH-234	4.47E+09Y	1.00	1.012E+00	1.012E+00	0.861E+00	85.09	
U-234	4.47E+09Y	1.00	1.406E+00	1.406E+00	0.258E+00	18.37	
U-235	7.04E+08Y	1.00	2.568E-01	2.568E-01	0.690E-01	26.88	K
NP-237	2.14E+06Y	1.00	1.157E+00	1.157E+00	0.332E+00	28.68	
U-238	4.47E+09Y	1.00	1.012E+00	1.012E+00	0.861E+00	85.09	
AM-243	7380.00Y	1.00	3.937E-01	3.937E-01	0.561E-01	14.26	
ANH-511	1.00E+09Y	1.00	1.291E-01	1.291E-01	0.803E-01	62.25	
	Total Activity :		6.836E+01	6.848E+01			

Grand Total Activity : 6.836E+01 6.848E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.13	134	285	1.08	168.21	166	6	1.86E-02	43.9	8.19E+00	T
0	128.93	81	280	0.89	257.76	254	8	1.12E-02	75.3	7.01E+00	T
0	209.15	108	181	0.93	418.14	414	8	1.50E-02	47.0	4.93E+00	T
0	270.48	81	181	1.27	540.75	536	11	1.13E-02	68.3	3.90E+00	T
0	328.19	38	103	1.03	656.14	650	8	5.29E-03	98.0	3.22E+00	T
0	409.74	39	82	1.40	819.21	813	10	5.37E-03	93.5	2.56E+00	T
0	462.75	55	93	1.32	925.20	920	11	7.64E-03	73.2	2.26E+00	T
0	727.18	64	63	0.93	1454.06	1449	11	8.89E-03	54.2	1.42E+00	T
0	768.12	30	48	1.01	1535.95	1530	10	4.21E-03	92.5	1.34E+00	T
0	795.32	27	49	1.22	1590.37	1585	11	3.81E-03	****	1.30E+00	T
0	1262.65	25	12	0.59	2525.40	2518	12	3.47E-03	68.4	8.29E-01	
0	1377.29	18	8	0.82	2754.83	2749	11	2.50E-03	77.6	7.62E-01	T
0	1509.12	11	5	1.08	3018.68	3011	10	1.53E-03	97.1	6.98E-01	T
0	1591.94	19	6	1.92	3184.48	3180	9	2.57E-03	68.5	6.62E-01	
0	1728.55	13	8	0.96	3457.97	3453	10	1.85E-03	94.9	6.11E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:47:12.07

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960001.CNF;1    *
* Acquisition date : 12-FEB-2010 14:44:51  Detector SN#     :                 *
* Detector ID      : GAM21                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:25.56         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245960001            Analyst initials: MXR1             *
* Batch Number     : 948717                Sample Quantity : 1.20480E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51.9MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.249E+01	2.767E+00	7.143E-01	6.099E-02	31.486
CD-109	4.008E+00	7.983E-01	7.115E-01	6.694E-02	5.633
SN-126	3.939E-01	7.846E-02	6.981E-02	6.543E-03	5.643
EU-155	1.912E-01	1.328E-01	1.122E-01	1.170E-02	1.704
TL-208	5.432E-01	1.188E-01	7.029E-02	7.657E-03	7.728
BI-210	1.045E+00	5.879E-01	6.397E-01	6.100E-02	1.634
PB-210	1.045E+00	5.879E-01	6.397E-01	6.100E-02	1.634
PO-210	1.045E+00	5.864E-01	6.397E-01	5.552E-02	1.634
BI-211	4.735E+00	6.578E-01	3.127E-01	2.823E-02	15.140
PB-212	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
PO-212	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
BI-214	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
PB-214	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
PO-214	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
PO-216	1.945E+00	2.292E-01	8.597E-02	8.549E-03	22.626
PO-218	1.647E+00	2.444E-01	1.091E-01	1.137E-02	15.096
RA-224	5.477E+00	1.090E+00	9.812E-01	8.719E-02	5.582
RA-226	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
RA-228	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
TH-228	1.975E+00	2.327E-01	8.728E-02	8.678E-03	22.626
TH-230	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
TH-232	1.724E+00	3.944E-01	2.652E-01	3.010E-02	6.502
TH-234	1.012E+00	8.608E-01	7.483E-01	1.322E-01	1.352
U-234	1.406E+00	2.583E-01	1.310E-01	1.548E-02	10.734
U-235	2.568E-01	6.902E-02	2.976E-01	5.427E-02	0.863
NP-237	1.157E+00	3.318E-01	2.021E-01	4.573E-02	5.724
U-238	1.012E+00	8.608E-01	7.483E-01	1.322E-01	1.352
AM-243	3.937E-01	5.612E-02	4.592E-02	3.892E-03	8.573
ANH-511	1.291E-01	8.035E-02	5.037E-02	4.828E-03	2.563

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-9.481E-02		3.315E-01	5.408E-01	5.298E-02	-0.175
NA-22	3.244E-02		5.977E-02	1.032E-01	8.463E-03	0.314
NA-24	3.513E-01		4.042E-01	Half-Life too short		
AL-26	-5.732E-03		5.079E-02	8.045E-02	6.658E-03	-0.071
TI-44	4.181E-01	+	4.796E-02	3.909E-02	3.404E-03	10.696
SC-46	6.989E-03		4.580E-02	7.793E-02	6.930E-03	0.090
V-48	3.288E-02		9.248E-02	1.593E-01	1.394E-02	0.206
CR-51	8.322E-02		3.574E-01	5.894E-01	5.479E-02	0.141
MN-52	-2.058E-01		2.938E-01	4.221E-01	3.486E-02	-0.488
MN-54	3.729E-02		4.384E-02	7.996E-02	7.750E-03	0.466
CO-56	-6.023E-03		4.018E-02	6.606E-02	6.297E-03	-0.091
CO-57	1.203E-02		2.083E-02	3.393E-02	3.898E-03	0.355
CO-58	-3.354E-03		4.756E-02	7.952E-02	7.958E-03	-0.042
FE-59	-8.057E-02		1.186E-01	1.743E-01	1.608E-02	-0.462
CO-60	-1.928E-02		5.111E-02	8.092E-02	6.568E-03	-0.238
ZN-65	1.975E-02		1.243E-01	1.806E-01	1.531E-02	0.109
GE-68	1.724E-01		1.788E+00	2.962E+00	2.543E-01	0.058
AS-73	1.607E-01		1.692E-01	2.949E-01	2.388E-02	0.545
AS-74	-8.356E-02		1.122E-01	1.699E-01	1.783E-02	-0.492
SE-75	8.317E-03		4.052E-02	6.763E-02	6.072E-03	0.123
BR-77	8.599E+00		1.236E+01	2.175E+01	2.110E+00	0.395
SR-82	-1.848E-01		4.583E-01	6.938E-01	7.182E-02	-0.266
RB-83	4.498E-02		8.187E-02	1.426E-01	1.383E-02	0.316
RB-84	5.507E-02		8.311E-02	1.495E-01	1.348E-02	0.368
KR-85	4.300E+00		8.250E+00	1.287E+01	1.239E+00	0.334
SR-85	2.205E-02		4.230E-02	6.601E-02	6.352E-03	0.334
RB-86	1.320E-01		1.151E+00	1.910E+00	1.640E-01	0.069
Y-88	1.507E-02		5.061E-02	8.799E-02	7.265E-03	0.171
ZR-88	-3.015E-04		3.374E-02	5.353E-02	4.264E-03	-0.006
Y-91	-5.722E+00		2.479E+01	3.899E+01	3.212E+00	-0.147
NB-94	2.237E-02		4.081E-02	6.976E-02	7.597E-03	0.321

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	2.288E-02		6.802E-02	9.943E-02	1.039E-02	0.230
NB-95M	-1.869E-02		1.204E-01	1.771E-01	1.784E-02	-0.106
ZR-95	3.901E-02		9.175E-02	1.542E-01	1.736E-02	0.253
NB-97	-9.272E-02		6.103E-02	Half-Life too short		
ZR-97	1.956E+00		1.054E+00	Half-Life too short		
MO-99	-1.134E+01		1.465E+01	2.109E+01	3.465E+00	-0.537
TC-99M	2.076E+10		1.690E+10	Half-Life too short		
RH-101	3.513E-03		2.960E-02	5.017E-02	4.285E-03	0.070
RH-102	-8.032E-03		3.080E-02	5.044E-02	4.607E-03	-0.159
RU-103	3.027E-02		4.744E-02	8.318E-02	1.219E-02	0.364
RH-106	-2.244E-01		3.916E-01	5.840E-01	8.648E-02	-0.384
RU-106	-2.244E-01		3.910E-01	5.840E-01	6.266E-02	-0.384
AG-108M	4.622E-02		3.566E-02	6.583E-02	5.870E-03	0.702
AG-110M	-1.859E-02		4.290E-02	6.644E-02	7.452E-03	-0.280
IN-111	-1.588E-01		1.038E+00	1.518E+00	1.352E-01	-0.105
IN-113M	-4.449E-02		5.424E-02	7.986E-02	6.577E-03	-0.557
SN-113	-4.449E-02		5.424E-02	7.986E-02	6.577E-03	-0.557
IN-114M	2.879E-02		1.739E-01	2.835E-01	2.396E-02	0.102
CD-115	-3.712E-01		1.161E+01	1.923E+01	1.881E+00	-0.019
SN-117M	1.710E-02		4.509E-02	7.857E-02	6.916E-03	0.218
SB-122	2.391E-01		2.453E+00	4.088E+00	4.161E-01	0.058
I-123	3.070E+00		2.338E+00	Half-Life too short		
TE-123M	1.521E-02		2.316E-02	4.083E-02	3.599E-03	0.372
I-124	-2.969E-01		8.002E-01	1.215E+00	1.283E-01	-0.244
SB-124	7.628E-02		1.158E-01	2.143E-01	1.865E-02	0.356
SB-125	3.305E-02		9.382E-02	1.633E-01	1.414E-02	0.202
TE-125M	9.976E+00		7.188E+00	1.144E+01	1.375E+00	0.872
I-126	9.895E-02		2.265E-01	3.841E-01	4.237E-02	0.258
SB-126	-1.002E-01		2.174E-01	3.206E-01	3.460E-02	-0.312
SB-127	1.443E-01		1.629E+00	2.666E+00	3.532E-01	0.054
XE-127	-1.290E-02		4.172E-02	6.898E-02	5.928E-03	-0.187
I-131	-1.517E-02		1.230E-01	1.944E-01	1.729E-02	-0.078
TE-132	-1.630E-01		6.540E-01	1.073E+00	1.698E-01	-0.152
BA-133	2.216E-02		5.008E-02	7.490E-02	9.843E-03	0.296
I-133	-4.633E-04		3.154E-03	Half-Life too short		
CS-134	8.686E-02	+	9.265E-02	1.210E-01	1.235E-02	0.718
CS-135	7.861E-02		1.669E-01	2.552E-01	2.613E-02	0.308
I-135	3.480E+09		3.825E+09	Half-Life too short		
CS-136	-1.273E-01		1.427E-01	2.063E-01	1.861E-02	-0.617
BA-137M	-1.261E-02		4.736E-02	7.495E-02	8.278E-03	-0.168
CS-137	-1.333E-02		5.006E-02	7.923E-02	8.760E-03	-0.168
CE-139	7.306E-03		2.484E-02	4.299E-02	3.495E-03	0.170
BA-140	5.882E-02		3.063E-01	5.150E-01	1.725E-01	0.114
LA-140	-3.688E-02		1.388E-01	1.812E-01	1.515E-02	-0.204
CE-141	-1.396E-02		5.488E-02	8.408E-02	8.429E-03	-0.166
CE-143	4.990E-04		9.245E-05	Half-Life too short		
CE-144	-1.004E-01		1.788E-01	2.697E-01	4.541E-02	-0.372
PM-144	1.847E-02		4.464E-02	7.520E-02	8.214E-03	0.246

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	1.252E+00		3.025E+00	5.096E+00	5.565E-01	0.246
PM-146	1.348E-02		4.686E-02	8.077E-02	8.813E-03	0.167
ND-147	-3.831E-02		5.908E-01	9.746E-01	1.527E-01	-0.039
PM-149	-5.974E+01		8.588E+01	1.320E+02	2.074E+01	-0.453
EU-152	-4.793E-02		9.773E-02	1.502E-01	1.377E-02	-0.319
GD-153	-2.188E-02		5.873E-02	8.490E-02	8.387E-03	-0.258
EU-154	9.347E-02		1.675E-01	2.893E-01	3.180E-02	0.323
TB-160	-1.842E-02		1.661E-01	2.740E-01	2.480E-02	-0.067
HO-166M	2.758E-02		6.926E-02	1.171E-01	1.269E-02	0.236
TM-171	-1.657E-01		1.254E+01	1.915E+01	1.543E+00	-0.009
LU-176	1.726E-02		2.521E-02	4.294E-02	3.823E-03	0.402
LU-177	2.975E+00	+	1.423E+00	1.883E+00	1.629E-01	1.580
LU-177M	1.094E-01		2.043E-01	3.065E-01	2.537E-02	0.357
HF-181	-1.170E-04		4.163E-02	6.973E-02	6.433E-03	-0.002
W-181	-2.081E-02		1.507E-01	2.291E-01	1.831E-02	-0.091
TA-182	-1.156E-01		2.817E-01	4.339E-01	3.572E-02	-0.266
RE-183	6.489E-03		9.263E-02	1.589E-01	1.344E-02	0.041
RE-184	-1.129E-01		2.202E-01	3.509E-01	3.132E-02	-0.322
OS-185	9.874E-03		5.212E-02	8.665E-02	9.469E-03	0.114
RE-188	5.100E-02		1.458E-01	2.538E-01	2.312E-02	0.201
W-188	-2.165E+00		7.207E+00	1.016E+01	9.070E-01	-0.213
IR-192	-5.682E-03		3.370E-02	5.382E-02	4.783E-03	-0.106
AU-195	2.393E-01		1.570E-01	2.691E-01	2.680E-02	0.889
TL-200	1.766E-04		2.479E-04	Half-Life too short		
TL-201	-3.413E-01		5.672E+00	9.647E+00	7.857E-01	-0.035
TL-202	-7.445E-02		6.950E-02	1.053E-01	9.115E-03	-0.707
HG-203	2.888E-02		4.121E-02	6.426E-02	5.882E-03	0.449
BI-207	-2.807E-02		6.274E-02	9.636E-02	8.305E-03	-0.291
TL-207	2.344E-02		7.411E-01	1.072E+00	1.908E-01	0.022
PO-209	8.588E+00		8.709E+00	1.617E+01	1.418E+00	0.531
PB-211	-7.641E-01		1.304E+00	1.572E+00	9.843E-01	-0.486
BI-212	1.191E+00	+	6.605E-01	9.255E-01	1.100E-01	1.286
PO-215	2.344E-02		7.411E-01	1.072E+00	1.908E-01	0.022
RN-219	-2.954E-01		4.978E-01	7.446E-01	1.097E-01	-0.397
RN-220	1.247E+01		2.950E+01	5.079E+01	5.094E+00	0.245
RA-223	2.344E-02		7.411E-01	1.072E+00	1.908E-01	0.022
AC-227	9.741E-02		3.428E-01	5.761E-01	8.944E-02	0.169
TH-227	9.741E-02		3.429E-01	5.761E-01	1.049E-01	0.169
TH-229	-3.877E-01		4.579E-01	7.369E-01	6.256E-02	-0.526
PA-231	9.854E-01		1.451E+00	2.477E+00	3.805E-01	0.398
TH-231	2.344E-02		7.411E-01	1.072E+00	1.908E-01	0.022
U-231	-5.825E-01		7.400E-01	1.036E+00	1.015E-01	-0.562
PA-233	-2.353E-02		6.223E-02	9.774E-02	8.920E-03	-0.241
PA-234	-1.212E-01		3.931E-01	6.277E-01	1.182E-01	-0.193
PA-234M	-1.645E+00		5.973E+00	9.530E+00	9.589E-01	-0.173
NP-236	-3.802E-02		6.754E-02	1.124E-01	9.718E-03	-0.338
NP-239	-1.060E-01		1.526E-01	2.312E-01	2.570E-02	-0.459
AM-241	3.295E-02		5.117E-02	8.140E-02	6.905E-03	0.405

Sample ID : G245960001 Acquisition date : 12-FEB-2010 14:44:51

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.048E-02		6.963E-02	1.079E-01	1.105E-02	0.468
AM-246	2.002E-01		2.013E-01	3.651E-01	3.133E-02	0.548
CM-247	-1.521E-02		4.354E-02	6.680E-02	5.420E-03	-0.228
CF-249	5.252E-02		4.710E-02	8.133E-02	6.523E-03	0.646
CF-251	-5.136E-03		1.090E-01	1.848E-01	1.528E-02	-0.028

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960001            *
* Acquisition date : 12-FEB-2010 14:44:51 Detector SN#    :                 *
* Detector ID      : GAM21                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:25.56     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245960001           Analyst initials: MXR1            *
* Batch Number     : 948717               Sample Quantity : 1.2048E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 28-JUL-2009 10:09:51 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.249E+01	2.712E+00	3.566E-01	1.384E+00
CD-109	4.008E+00	7.823E-01	3.672E-01	3.991E-01
SN-126	3.939E-01	7.689E-02	3.603E-02	3.923E-02
EU-155	1.912E-01	1.301E-01	5.778E-02	6.639E-02
TL-208	5.432E-01	1.164E-01	3.548E-02	5.938E-02
BI-210	1.045E+00	5.761E-01	3.326E-01	2.939E-01
PB-210	1.045E+00	5.761E-01	3.326E-01	2.939E-01
PO-210	1.045E+00	5.747E-01	3.326E-01	2.932E-01
BI-211	4.735E+00	6.447E-01	1.588E-01	3.289E-01
PB-212	1.945E+00	2.246E-01	4.386E-02	1.146E-01
PO-212	1.945E+00	2.246E-01	4.386E-02	1.146E-01
BI-214	1.406E+00	2.531E-01	6.607E-02	1.292E-01
PB-214	1.647E+00	2.396E-01	5.541E-02	1.222E-01
PO-214	1.647E+00	2.396E-01	5.541E-02	1.222E-01
PO-216	1.945E+00	2.246E-01	4.386E-02	1.146E-01
PO-218	1.647E+00	2.396E-01	5.541E-02	1.222E-01
RA-224	5.477E+00	1.068E+00	5.005E-01	5.448E-01
RA-226	1.406E+00	2.531E-01	6.607E-02	1.292E-01
AC-228	1.724E+00	3.865E-01	1.331E-01	1.972E-01
RA-228	1.724E+00	3.865E-01	1.331E-01	1.972E-01
TH-228	1.975E+00	2.281E-01	4.452E-02	1.164E-01
TH-230	1.406E+00	2.531E-01	6.607E-02	1.292E-01
TH-232	1.724E+00	3.865E-01	1.331E-01	1.972E-01
TH-234	1.012E+00	8.436E-01	3.877E-01	4.304E-01
U-234	1.406E+00	2.531E-01	6.607E-02	1.292E-01
U-235	1.474E-01	1.805E-01	1.527E-01	9.210E-02
NP-237	1.157E+00	3.251E-01	1.043E-01	1.659E-01
U-238	1.012E+00	8.436E-01	3.877E-01	4.304E-01
AM-243	3.937E-01	5.500E-02	2.375E-02	2.806E-02
ANH-511	1.291E-01	7.874E-02	2.546E-02	4.017E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-9.481E-02	3.249E-01	2.736E-01	1.658E-01	NOT IDENT.
NA-22	3.244E-02	5.858E-02	5.158E-02	2.989E-02	NOT IDENT.
NA-24	3.513E+05	7.923E+05	0.000E+00	4.042E+05	SHORT HLIF
AL-26	-5.732E-03	4.978E-02	4.005E-02	2.540E-02	NOT IDENT.
TI-44	4.181E-01	4.700E-02	2.020E-02	2.398E-02	FAIL ABUN
SC-46	6.989E-03	4.488E-02	3.913E-02	2.290E-02	FAIL ABUN
V-48	3.288E-02	9.063E-02	7.990E-02	4.624E-02	NOT IDENT.
CR-51	8.322E-02	3.502E-01	2.996E-01	1.787E-01	NOT IDENT.
MN-52	-2.058E-01	2.879E-01	2.107E-01	1.469E-01	NOT IDENT.
MN-54	3.729E-02	4.297E-02	4.019E-02	2.192E-02	NOT IDENT.
CO-56	-6.023E-03	3.938E-02	3.319E-02	2.009E-02	NOT IDENT.
CO-57	1.203E-02	2.042E-02	1.745E-02	1.042E-02	NOT IDENT.
CO-58	-3.354E-03	4.661E-02	3.998E-02	2.378E-02	NOT IDENT.
FE-59	-8.057E-02	1.162E-01	8.731E-02	5.928E-02	NOT IDENT.
CO-60	-1.928E-02	5.009E-02	4.044E-02	2.556E-02	NOT IDENT.
ZN-65	1.975E-02	1.218E-01	9.045E-02	6.214E-02	NOT IDENT.
GE-68	1.724E-01	1.752E+00	1.484E+00	8.940E-01	NOT IDENT.
AS-73	1.607E-01	1.658E-01	1.531E-01	8.459E-02	NOT IDENT.
AS-74	-8.356E-02	1.099E-01	8.573E-02	5.608E-02	NOT IDENT.
SE-75	8.317E-03	3.971E-02	3.446E-02	2.026E-02	NOT IDENT.
BR-77	8.599E+00	1.211E+01	1.100E+01	6.178E+00	FAIL ABUN
SR-82	-1.848E-01	4.492E-01	3.490E-01	2.292E-01	NOT IDENT.
RB-83	4.498E-02	8.024E-02	7.206E-02	4.094E-02	NOT IDENT.
RB-84	5.507E-02	8.145E-02	7.507E-02	4.156E-02	NOT IDENT.
KR-85	4.300E+00	8.085E+00	6.508E+00	4.125E+00	NOT IDENT.
SR-85	2.205E-02	4.145E-02	3.337E-02	2.115E-02	NOT IDENT.
RB-86	1.320E-01	1.128E+00	9.571E-01	5.754E-01	NOT IDENT.
Y-88	1.507E-02	4.959E-02	4.380E-02	2.530E-02	NOT IDENT.
ZR-88	-3.015E-04	3.307E-02	2.715E-02	1.687E-02	NOT IDENT.
Y-91	-5.722E+00	2.429E+01	1.951E+01	1.239E+01	NOT IDENT.
NB-94	2.237E-02	3.999E-02	3.513E-02	2.040E-02	NOT IDENT.
NB-95	2.288E-02	6.666E-02	5.002E-02	3.401E-02	NOT IDENT.
NB-95M	-1.869E-02	1.180E-01	9.036E-02	6.020E-02	NOT IDENT.
ZR-95	3.901E-02	8.992E-02	7.758E-02	4.588E-02	NOT IDENT.
NB-97	-9.272E+04	1.196E+05	0.000E+00	6.103E+04	SHORT HLIF
ZR-97	1.956E+06	2.066E+06	0.000E+00	1.054E+06	SHORT HLIF
MO-99	-1.134E+01	1.436E+01	1.062E+01	7.326E+00	NOT IDENT.
TC-99M	2.076E+16	3.313E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.513E-03	2.901E-02	2.565E-02	1.480E-02	NOT IDENT.
RH-102	-8.032E-03	3.019E-02	2.552E-02	1.540E-02	FAIL ABUN
RU-103	3.027E-02	4.649E-02	4.207E-02	2.372E-02	FAIL ABUN
RH-106	-2.244E-01	3.838E-01	2.946E-01	1.958E-01	FAIL ABUN
RU-106	-2.244E-01	3.832E-01	2.946E-01	1.955E-01	FAIL ABUN
AG-108M	4.622E-02	3.495E-02	3.335E-02	1.783E-02	NOT IDENT.
AG-110M	-1.859E-02	4.205E-02	3.349E-02	2.145E-02	NOT IDENT.
IN-111	-1.588E-01	1.017E+00	7.744E-01	5.190E-01	NOT IDENT.
IN-113M	-4.449E-02	5.315E-02	4.051E-02	2.712E-02	NOT IDENT.
SN-113	-4.449E-02	5.315E-02	4.051E-02	2.712E-02	NOT IDENT.
IN-114M	2.879E-02	1.705E-01	1.450E-01	8.697E-02	NOT IDENT.
CD-115	-3.712E-01	1.138E+01	9.716E+00	5.804E+00	NOT IDENT.
SN-117M	1.710E-02	4.419E-02	4.027E-02	2.254E-02	NOT IDENT.
SB-122	2.391E-01	2.404E+00	2.064E+00	1.226E+00	NOT IDENT.
I-123	3.070E+06	4.582E+06	0.000E+00	2.338E+06	SHORT HLIF
TE-123M	1.521E-02	2.270E-02	2.093E-02	1.158E-02	NOT IDENT.
I-124	-2.969E-01	7.842E-01	6.131E-01	4.001E-01	FAIL ABUN
SB-124	7.628E-02	1.135E-01	1.068E-01	5.791E-02	FAIL ABUN
SB-125	3.305E-02	9.195E-02	8.276E-02	4.691E-02	FAIL ABUN
TE-125M	9.976E+00	7.044E+00	5.889E+00	3.594E+00	NOT IDENT.
I-126	9.895E-02	2.220E-01	1.936E-01	1.133E-01	NOT IDENT.
SB-126	-1.002E-01	2.130E-01	1.614E-01	1.087E-01	NOT IDENT.
SB-127	1.443E-01	1.596E+00	1.343E+00	8.143E-01	NOT IDENT.
XE-127	-1.290E-02	4.089E-02	3.526E-02	2.086E-02	NOT IDENT.
I-131	-1.517E-02	1.205E-01	9.869E-02	6.148E-02	NOT IDENT.
TE-132	-1.630E-01	6.409E-01	5.478E-01	3.270E-01	NOT IDENT.
BA-133	2.216E-02	4.908E-02	3.803E-02	2.504E-02	FAIL ABUN
I-133	-4.633E+02	6.181E+03	0.000E+00	3.154E+03	SHORT HLIF
CS-134	8.686E-02	9.080E-02	6.085E-02	4.633E-02	FAIL ABUN
CS-135	7.861E-02	1.636E-01	1.300E-01	8.345E-02	NOT IDENT.
I-135	3.480E+15	7.497E+15	0.000E+00	3.825E+15	SHORT HLIF
CS-136	-1.273E-01	1.399E-01	1.034E-01	7.137E-02	FAIL ABUN
BA-137M	-1.261E-02	4.641E-02	3.777E-02	2.368E-02	NOT IDENT.
CS-137	-1.333E-02	4.906E-02	3.993E-02	2.503E-02	NOT IDENT.
CE-139	7.306E-03	2.434E-02	2.203E-02	1.242E-02	NOT IDENT.
BA-140	5.882E-02	3.001E-01	2.602E-01	1.531E-01	NOT IDENT.
LA-140	-3.688E-02	1.360E-01	9.036E-02	6.938E-02	FAIL ABUN

CE-141	-1.396E-02	5.379E-02	4.314E-02	2.744E-02	NOT IDENT.
CE-143	4.990E+02	1.812E+02	0.000E+00	9.245E+01	SHORT HLIF
CE-144	-1.004E-01	1.752E-01	1.385E-01	8.940E-02	NOT IDENT.
PM-144	1.847E-02	4.375E-02	3.788E-02	2.232E-02	NOT IDENT.
PR-144	1.252E+00	2.965E+00	2.567E+00	1.513E+00	NOT IDENT.
PM-146	1.348E-02	4.592E-02	4.089E-02	2.343E-02	NOT IDENT.
ND-147	-3.831E-02	5.790E-01	4.925E-01	2.954E-01	FAIL ABUN
PM-149	-5.974E+01	8.417E+01	6.718E+01	4.294E+01	NOT IDENT.
EU-152	-4.793E-02	9.578E-02	7.628E-02	4.887E-02	NOT IDENT.
GD-153	-2.188E-02	5.755E-02	4.377E-02	2.936E-02	FAIL ABUN
EU-154	9.347E-02	1.641E-01	1.447E-01	8.374E-02	NOT IDENT.
TB-160	-1.842E-02	1.628E-01	1.376E-01	8.307E-02	FAIL ABUN
HO-166M	2.758E-02	6.787E-02	5.895E-02	3.463E-02	FAIL ABUN
TM-171	-1.657E-01	1.229E+01	9.914E+00	6.270E+00	NOT IDENT.
LU-176	1.726E-02	2.470E-02	2.184E-02	1.260E-02	FAIL ABUN
LU-177	2.975E+00	1.395E+00	9.624E-01	7.115E-01	FAIL ABUN
LU-177M	1.094E-01	2.002E-01	1.554E-01	1.022E-01	NOT IDENT.
HF-181	-1.170E-04	4.080E-02	3.528E-02	2.081E-02	NOT IDENT.
W-181	-2.081E-02	1.477E-01	1.186E-01	7.537E-02	NOT IDENT.
TA-182	-1.156E-01	2.760E-01	2.171E-01	1.408E-01	FAIL ABUN
RE-183	6.489E-03	9.077E-02	8.143E-02	4.631E-02	FAIL ABUN
RE-184	-1.129E-01	2.158E-01	1.789E-01	1.101E-01	NOT IDENT.
OS-185	9.874E-03	5.107E-02	4.369E-02	2.606E-02	NOT IDENT.
RE-188	5.100E-02	1.429E-01	1.301E-01	7.289E-02	NOT IDENT.
W-188	-2.165E+00	7.063E+00	5.171E+00	3.604E+00	FAIL ABUN
IR-192	-5.682E-03	3.302E-02	2.737E-02	1.685E-02	FAIL ABUN
AU-195	2.393E-01	1.538E-01	1.387E-01	7.849E-02	FAIL ABUN
TL-200	1.766E+02	4.859E+02	0.000E+00	2.479E+02	SHORT HLIF
TL-201	-3.413E-01	5.558E+00	4.942E+00	2.836E+00	NOT IDENT.
TL-202	-7.445E-02	6.811E-02	5.335E-02	3.475E-02	NOT IDENT.
HG-203	2.888E-02	4.039E-02	3.272E-02	2.061E-02	NOT IDENT.
BI-207	-2.807E-02	6.149E-02	4.828E-02	3.137E-02	FAIL ABUN
TL-207	2.344E-02	7.263E-01	5.447E-01	3.706E-01	FAIL ABUN
PO-209	8.588E+00	8.534E+00	8.118E+00	4.354E+00	NOT IDENT.
PB-211	-7.641E-01	1.278E+00	7.971E-01	6.519E-01	NOT IDENT.
BI-212	1.191E+00	6.473E-01	4.659E-01	3.303E-01	FAIL ABUN
PO-215	2.344E-02	7.263E-01	5.447E-01	3.706E-01	FAIL ABUN
RN-219	-2.954E-01	4.879E-01	3.775E-01	2.489E-01	FAIL ABUN
RN-220	1.247E+01	2.891E+01	2.566E+01	1.475E+01	NOT IDENT.
RA-223	2.344E-02	7.263E-01	5.447E-01	3.706E-01	FAIL ABUN
AC-227	9.741E-02	3.359E-01	2.936E-01	1.714E-01	FAIL ABUN
TH-227	9.741E-02	3.360E-01	2.936E-01	1.714E-01	FAIL ABUN
TH-229	-3.877E-01	4.487E-01	3.768E-01	2.289E-01	FAIL ABUN
PA-231	9.854E-01	1.422E+00	1.261E+00	7.256E-01	NOT IDENT.
TH-231	2.344E-02	7.263E-01	5.447E-01	3.706E-01	FAIL ABUN
U-231	-5.825E-01	7.252E-01	5.342E-01	3.700E-01	FAIL ABUN
PA-233	-2.353E-02	6.098E-02	4.971E-02	3.111E-02	FAIL ABUN
PA-234	-1.212E-01	3.852E-01	3.150E-01	1.965E-01	FAIL ABUN
PA-234M	-1.645E+00	5.853E+00	4.779E+00	2.986E+00	NOT IDENT.
NP-236	-3.802E-02	6.619E-02	5.761E-02	3.377E-02	NOT IDENT.
NP-239	-1.060E-01	1.495E-01	1.189E-01	7.630E-02	FAIL ABUN
AM-241	3.295E-02	5.014E-02	4.220E-02	2.558E-02	NOT IDENT.
CM-243	5.048E-02	6.824E-02	5.556E-02	3.481E-02	FAIL ABUN
AM-246	2.002E-01	1.973E-01	1.829E-01	1.007E-01	NOT IDENT.
CM-247	-1.521E-02	4.267E-02	3.387E-02	2.177E-02	FAIL ABUN
CF-249	5.252E-02	4.616E-02	4.125E-02	2.355E-02	NOT IDENT.
CF-251	-5.136E-03	1.068E-01	9.459E-02	5.449E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	172.2172
46.50	172.2172
46.50	172.2172
48.70	162.8838
49.72	182.3289
51.35	204.9984
52.39	174.4535
52.97	173.9942
53.15	174.1390
53.44	170.6424
54.07	199.1910
56.28	192.6757
56.28	192.6780
57.37	0.0000
57.53	230.7760
57.53	230.7788
57.60	230.8465
57.98	232.1790
57.98	232.1790
59.32	234.7945
59.32	234.7945
59.40	234.8740
59.54	235.0144
59.72	235.1931
60.01	234.2016
61.10	267.4151
61.14	267.4596
61.30	272.7841
63.00	257.5275
63.29	257.8312
63.29	257.8312
63.58	258.1335
64.28	258.8618
65.12	277.0445
65.20	277.1329
65.20	277.1329
66.05	310.8528
66.72	287.9944
66.83	274.9652
66.91	275.0502
67.20	275.3585
67.20	275.3585
67.75	269.3417
67.85	281.3349
68.90	290.4227
68.90	290.4227
69.30	293.8522
69.67	294.2640
70.82	285.8471
70.82	285.8471
70.83	285.8580
72.80	294.6667
72.87	294.7402
72.87	294.7402
74.67	299.7084
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.81	299.8592
74.97	300.0302
75.28	300.3611
75.70	300.8067
77.11	302.2989
77.11	302.2989

77.11	302.2989
77.11	302.2989
77.11	302.2989
77.11	302.2989
77.11	302.2989
78.38	230.5557
79.62	237.0476
79.80	206.8542
79.80	206.8542
80.11	226.3992
80.18	226.4526
80.30	233.4512
80.30	233.4512
80.57	242.6515
81.00	264.4630
81.07	264.5252
81.07	264.5252
81.07	264.5252
81.07	264.5252
82.60	231.0768
83.37	196.7709
83.78	197.0377
83.78	197.0377
83.78	197.0377
83.78	197.0377
84.21	221.1042
84.90	197.7577
85.43	198.0962
86.29	198.6427
86.50	205.1200
86.54	205.1467
86.59	205.1792
86.72	205.2636
86.79	205.3080
86.94	209.6439
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.30	209.8825
87.57	210.0623
87.88	210.2677
88.03	210.3674
88.36	210.5850
88.47	210.6575
89.95	211.6303
91.11	199.5166
92.29	200.2347
92.38	178.0356
92.38	178.0356
93.35	178.5565
94.00	178.9059
94.67	179.2604
94.67	179.2629
94.90	179.3853
94.90	179.3853
94.90	179.3853
94.90	179.3853
95.87	204.5650
95.87	204.5650
96.73	181.8110
97.43	209.8726
98.44	183.0793
98.44	183.0799
98.88	164.6519
99.55	185.8636
99.55	185.8636
99.86	183.8272
100.00	176.1914
100.10	176.2439
103.18	149.6270
103.76	146.9008
105.00	150.7534
105.31	150.8811
108.00	174.1251
109.28	143.0905

111.00	181.5686
111.00	181.5686
111.76	172.8334
112.95	165.3840
115.19	175.5148
116.30	181.7629
117.00	198.2176
117.00	198.2176
117.66	177.7676
121.11	199.0860
121.62	183.0141
121.78	180.7531
122.06	170.3742
122.32	168.1458
122.32	168.1458
122.32	168.1458
122.32	168.1458
123.07	188.3390
127.23	173.2827
129.76	194.9102
131.20	182.8391
133.02	209.5428
133.54	200.2007
135.34	179.3475
136.00	195.2820
136.25	177.2990
136.48	177.3910
140.51	168.0127
140.51	0.0000
142.18	183.2840
142.65	206.7063
143.76	167.9659
144.24	148.5008
144.24	148.5008
144.24	148.5008
144.24	148.5008
145.22	185.7063
145.44	185.7916
147.16	193.8759
152.43	210.9767
152.70	193.6057
153.22	180.0549
154.21	169.5569
154.21	169.5569
154.21	169.5569
154.21	169.5569
155.03	185.7339
156.02	204.5446
158.56	163.4527
159.00	0.0000
159.00	154.3169
160.31	191.0668
161.27	168.5561
162.32	175.6880
162.64	179.1946
163.35	166.6830
163.89	167.7077
165.85	162.3554
167.43	157.7001
171.28	167.4706
171.86	152.0951
172.10	147.8385
176.55	165.6044
176.60	165.6199
181.06	163.4293
184.41	164.3942
185.71	167.4226
186.00	167.5072
190.27	174.6301
192.34	160.3687
193.63	181.3672
197.04	154.4069
198.01	163.6980
198.60	167.4756
200.40	150.7195
201.83	175.6405
202.84	162.2541
205.31	134.5272

208.36	155.4101
208.81	155.5201
209.75	147.9169
209.75	147.9169
210.97	131.5788
215.65	139.5096
216.55	133.1810
218.09	131.6267
222.10	160.5995
223.80	144.0585
226.40	142.7222
227.00	151.3623
227.08	151.3802
227.20	151.4063
228.16	148.7766
228.18	148.7814
228.18	148.7814
231.56	0.0000
235.69	137.9458
236.00	148.0704
236.00	148.0704
238.63	134.6737
238.63	134.6737
238.63	134.6737
238.63	134.6737
239.00	134.7435
240.98	135.1180
241.98	108.7280
241.98	108.7280
241.98	108.7280
244.69	106.2263
245.39	110.6984
247.94	122.7790
248.90	126.8420
249.79	113.3190
252.40	110.7769
252.85	121.6349
252.85	121.6349
254.15	0.0000
256.20	97.5458
256.20	97.5458
260.50	109.9905
260.90	112.0321
262.80	93.4244
264.65	97.6331
268.24	106.5910
268.79	102.1598
269.46	101.2445
269.46	101.2445
269.46	101.2445
269.46	101.2445
271.23	101.4706
273.65	93.7190
276.40	100.1098
277.35	110.8567
277.60	110.8924
277.60	110.8924
278.00	104.8666
278.60	91.2561
279.20	85.2356
279.53	100.4965
280.46	94.5156
281.68	100.1517
283.67	84.6836
284.30	68.4108
285.00	97.0835
285.90	100.2590
286.10	100.2829
286.10	100.2829
287.40	92.2412
288.45	0.0000
290.67	84.8868
290.80	84.8985
291.72	84.9925
293.26	0.0000
293.70	65.0559
295.21	65.1713
295.21	65.1713

295.21	65.1713
295.96	65.2289
296.50	65.2700
297.23	65.3264
298.57	65.4289
299.80	85.8032
299.80	85.8032
300.09	85.8318
300.09	85.8318
300.09	85.8318
300.09	85.8318
300.12	85.8351
301.29	90.6392
302.84	92.3676
303.76	94.0320
303.91	95.6159
304.40	100.3750
304.40	100.3750
304.84	109.8407
306.84	84.9271
308.46	96.6382
311.98	87.5323
316.51	83.7350
318.01	83.8748
319.02	79.7165
319.41	78.6867
320.08	75.5531
323.87	86.5519
323.87	86.5519
323.87	86.5519
323.87	86.5519
325.23	85.0737
328.77	93.4570
333.44	89.0645
334.20	103.7227
334.20	103.7227
334.30	103.7344
338.28	96.5742
338.28	96.5742
338.28	96.5742
338.28	96.5742
338.32	96.5778
338.32	96.5778
338.32	96.5778
340.50	86.4663
340.57	86.4727
344.27	82.9827
345.85	78.7441
350.59	0.0000
351.07	70.3685
351.92	70.4297
351.92	70.4297
351.92	70.4297
355.39	0.0000
356.01	71.2726
364.48	75.7751
366.43	64.7544
367.43	63.7006
367.94	0.0000
369.80	79.5298
374.96	60.7896
383.85	88.5514
387.95	70.6569
388.63	80.9656
391.69	99.4928
391.69	99.4928
392.90	72.1273
398.62	66.7510
400.65	72.6400
401.10	71.5159
401.81	92.3372
402.60	85.4737
404.84	85.0666
410.95	68.0762
411.60	80.3414
413.65	54.2415
414.70	63.0483
415.30	64.8336

415.76	61.3536
417.63	0.0000
418.52	58.8663
423.70	60.8972
427.08	65.4998
427.89	56.6875
432.53	62.2476
433.93	50.7474
439.47	67.0853
439.56	67.0898
439.89	64.4249
443.98	44.8917
444.90	50.3168
445.03	50.3228
445.03	50.3228
445.03	50.3228
445.03	50.3228
453.90	57.9316
463.38	55.6396
468.07	65.9180
473.00	56.0650
475.06	57.0758
475.35	46.9604
476.78	51.6216
477.59	54.4212
477.96	51.6686
482.03	45.3528
484.57	38.0227
487.03	48.3152
490.36	0.0000
492.35	63.4377
497.08	53.3653
507.63	0.0000
510.53	0.0000
510.84	50.1299
511.00	50.1363
511.85	50.1675
511.85	50.1675
513.99	48.5391
513.99	48.5391
520.41	52.3849
520.65	50.4897
527.90	46.9214
528.96	0.0000
529.64	46.0210
529.87	0.0000
531.02	45.1067
537.32	50.1274
543.00	38.7134
546.56	0.0000
549.76	44.7281
552.65	61.3812
555.20	45.8712
563.23	46.1222
563.90	53.9963
568.70	47.2764
569.32	42.3688
569.50	45.3304
569.67	45.3360
573.80	51.3906
574.00	46.4550
574.64	36.5867
578.91	61.8763
579.30	0.0000
583.14	52.7008
585.48	46.2088
591.81	51.9984
592.07	46.0056
593.00	43.0315
595.88	61.1582
600.56	49.2737
602.52	0.0000
602.71	55.2388
602.71	55.2388
603.60	45.1377
604.41	56.4512
604.70	62.9142
609.31	50.5585

609.31	50.5585
609.31	50.5585
609.31	50.5585
610.33	38.8535
612.46	58.3576
614.37	43.8209
618.01	38.6332
621.84	48.9155
621.84	48.9155
631.29	49.1997
633.02	53.3568
633.10	53.3584
634.78	56.4955
635.90	52.4225
636.97	54.5123
645.85	46.5326
646.12	43.4368
656.30	44.7401
657.75	51.0262
657.90	0.0000
661.65	58.4490
661.65	58.4490
664.57	0.0000
666.33	45.0025
666.33	45.0025
675.00	42.0728
677.61	37.9226
685.20	40.2022
692.80	58.4375
695.00	53.1906
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696.49	46.8467
697.00	55.3801
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698.33	50.0924
698.50	50.0967
699.00	49.0449
702.63	39.5293
706.10	42.8162
706.58	0.0000
706.67	43.9003
709.31	35.3858
711.68	33.2838
713.82	56.9724
717.42	49.5446
720.50	64.1150
721.93	0.0000
722.20	53.5598
722.78	50.1199
722.78	50.1199
722.89	50.1234
722.95	50.1255
723.30	43.2190
724.18	60.5356
727.18	53.0539
733.00	43.4448
735.90	31.5462
739.58	46.8672
742.81	33.8457
744.21	42.6110
747.13	61.2791
751.79	46.0708
752.31	50.4725
753.82	53.8061
755.35	41.7608
756.15	38.4799
756.87	43.9935
763.93	44.1541
765.79	53.0361
766.42	51.2838
766.84	44.2200
776.49	38.8837
778.00	35.5771
778.57	43.3727
778.89	27.8076
783.80	41.2569
785.46	40.1759
792.07	51.9536

795.84	37.6913
796.30	41.2911
798.80	41.3416
801.93	46.1313
805.60	40.5791
810.29	41.5752
810.76	37.0652
815.85	35.3447
817.79	41.7268
818.51	39.9266
819.60	30.8689
826.30	33.7011
828.27	0.0000
831.60	37.4395
831.96	37.4455
834.83	29.2656
836.80	0.0000
846.75	25.7517
848.13	32.2109
856.28	0.0000
856.80	44.6611
860.37	32.3947
867.32	23.2129
867.82	20.1226
871.10	36.2750
873.19	33.5171
874.81	24.2246
875.33	0.0000
876.40	31.7007
879.36	31.7438
880.27	35.4923
880.51	35.4970
881.50	25.2327
883.24	36.4759
884.67	34.6279
889.25	28.1345
896.60	21.6406
898.02	30.1273
899.00	40.5015
903.28	27.2618
911.07	33.1423
911.07	33.1423
911.07	33.1423
919.63	28.5146
920.93	29.4818
925.00	30.4867
925.24	30.4898
926.50	26.6930
935.52	30.6250
937.48	33.5243
944.10	34.5797
946.00	37.4908
949.00	36.5769
962.29	41.9443
964.01	45.2026
966.15	64.6322
968.20	71.8031
969.11	35.5916
969.11	35.5916
969.11	35.5916
977.42	39.9350
980.50	23.4064
983.50	30.2704
989.30	31.3211
996.32	33.3733
1001.03	37.3710
1001.68	32.4618
1004.76	28.5625
1021.30	0.0000
1024.50	0.0000
1034.80	22.9248
1036.00	20.9405
1037.82	24.9475
1038.57	28.9476
1038.76	0.0000
1045.16	26.0190
1046.59	40.0527
1048.07	40.0762

1050.47	29.0821
1050.47	29.0821
1062.04	28.2037
1063.62	30.2373
1076.63	38.4898
1077.35	37.4860
1078.86	28.3842
1085.78	35.5725
1099.22	34.7305
1112.02	34.2106
1112.84	32.2649
1115.52	29.1164
1120.29	39.4601
1120.29	39.4601
1120.29	39.4601
1120.29	39.4601
1120.51	39.4639
1121.28	48.0566
1124.00	0.0000
1129.67	41.3164
1131.51	0.0000
1147.95	0.0000
1167.94	38.7416
1173.22	32.5197
1175.09	29.3918
1177.93	37.8264
1189.05	35.8627
1204.90	38.1797
1205.75	0.0000
1213.00	40.4121
1221.42	47.9927
1230.97	40.6570
1235.34	43.9309
1236.41	0.0000
1238.25	35.3928
1246.25	33.3356
1260.41	0.0000
1271.85	22.7729
1274.45	24.9631
1274.54	24.9631
1291.56	29.4653
1298.22	0.0000
1312.09	23.0672
1325.50	22.9808
1325.50	22.9808
1332.49	23.9529
1333.61	27.6465
1360.21	16.7249
1362.66	0.0000
1365.15	13.0276
1368.21	14.9023
1368.53	0.0000
1376.25	20.8076
1384.27	14.9753
1394.10	10.3255
1395.20	17.8411
1407.95	16.9658
1434.06	18.0460
1436.60	13.3073
1457.56	0.0000
1460.81	14.3573
1489.15	12.5435
1509.49	14.9715
1596.49	15.3275
1620.62	13.9966
1678.03	0.0000
1691.02	8.1426
1691.02	8.1426
1706.46	0.0000
1750.46	0.0000
1764.49	9.3267
1764.49	9.3267
1764.49	9.3267
1764.49	9.3267
1770.23	8.8947
1771.40	11.4181
1791.20	0.0000
1808.65	11.5197

1836.01 7.3774

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960001

Total Uranium Activity	3.0780E+00	ug/g
Total Uranium Counting Unc.	2.5111E+00	ug/g
Total Uranium Tpu	1.2811E-06	ug/g
Total Uranium Mda	1.1554E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G245960001      *
*   ANALYST       : MXR1                      DETECTOR    : GAM21           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 14:44:51.80    SAMPLE ALQT:  120.480 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.763E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.488E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 5.435E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 2.623E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:46:17.33

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:45:14
Sample ID         : G245960002           Sample quantity  : 1.21120E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948717                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.34*	201	503	1.15	126.68	121	11	2.79E-02	23.0	
2	3	74.76*	334	478	1.28	149.51	145	16	4.64E-02	12.8	2.80E+00
3	3	77.04	520	376	1.15	154.07	145	16	7.22E-02	7.7	
4	1	83.97	88	258	1.22	167.94	165	13	1.23E-02	29.3	9.48E-01
5	1	87.13*	213	382	1.15	174.25	165	13	2.95E-02	17.0	
6	1	89.63	86	165	1.16	179.26	178	17	1.20E-02	22.5	5.35E+00
7	1	92.58*	650	448	1.42	185.16	178	17	9.02E-02	7.2	
8	0	143.39*	88	326	1.43	286.79	283	9	1.23E-02	39.1	
9	0	185.59*	295	333	1.17	371.18	366	10	4.10E-02	13.4	
10	0	209.04	127	236	1.41	418.08	414	10	1.77E-02	24.2	
11	2	238.38*	1001	185	1.26	476.76	468	21	1.39E-01	4.0	1.80E+00
12	2	241.22	249	242	1.76	482.43	468	21	3.46E-02	16.9	
13	0	269.62	148	196	1.19	539.24	532	14	2.05E-02	21.7	
14	0	294.81*	333	241	1.15	589.63	583	13	4.62E-02	11.2	
15	0	299.37	27	171	1.28	598.74	596	8	3.70E-03	87.0	
16	0	327.53	87	72	1.58	655.06	652	7	1.21E-02	19.4	
17	0	338.12	238	138	0.98	676.23	671	11	3.31E-02	11.6	
18	0	351.41*	514	196	1.47	702.81	698	13	7.14E-02	7.2	
19	0	409.04	75	101	1.09	818.07	813	11	1.04E-02	28.4	
20	0	462.88*	71	83	1.10	925.77	920	11	9.92E-03	27.9	
21	0	510.78*	128	178	2.77	1021.55	1012	25	1.78E-02	31.0	
22	0	582.44*	356	60	1.62	1164.89	1157	15	4.95E-02	7.2	
23	0	608.64*	414	98	1.48	1217.28	1211	14	5.75E-02	7.2	
24	0	660.94	125	119	1.70	1321.88	1315	17	1.74E-02	21.6	
25	0	727.04	70	71	1.62	1454.07	1446	13	9.73E-03	27.6	
26	0	794.34	45	33	1.25	1588.69	1584	10	6.28E-03	27.9	
27	0	860.21	37	42	1.28	1720.41	1714	12	5.12E-03	38.8	
28	0	910.18*	193	53	1.45	1820.36	1814	14	2.67E-02	11.0	
29	0	968.49	89	65	1.43	1936.99	1932	13	1.24E-02	21.5	
30	0	1118.76	106	39	1.89	2237.52	2229	19	1.47E-02	17.0	
31	0	1459.51*	687	34	2.53	2919.02	2909	18	9.55E-02	4.3	
32	0	1763.17*	71	4	2.49	3526.34	3520	15	9.87E-03	13.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 16:46:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:45:14
Sample ID : G245960002 Sample quantity : 121.12 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.65 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.001E+01	2.285E+00	5.199E-01	3.889E-02	38.496
CD-109	+	88.03	*	3.471E+00	1.230E+00	1.556E+00	1.519E-01	2.231
SN-126	+	64.28		2.502E+00	1.213E+00	1.074E+00	1.635E-01	2.330
	+	86.94		1.418E+00	7.627E-01	7.490E-01	3.115E-01	1.893
	+	87.57	*	3.412E-01	1.209E-01	1.538E-01	1.497E-02	2.217
CS-135	+	268.24	*	6.770E-01	2.985E-01	2.558E-01	1.954E-02	2.647
BA-137M	+	661.65	*	2.111E-01	9.197E-02	6.327E-02	3.232E-03	3.336
CS-137	+	661.65	*	2.232E-01	9.722E-02	6.689E-02	3.435E-03	3.336
TL-208		277.35		1.020E+00	4.448E-01	7.762E-01	8.201E-02	1.314
	+	510.84		7.221E-01	4.538E-01	2.279E-01	2.315E-02	3.169
	+	583.14	*	5.758E-01	9.099E-02	6.071E-02	3.942E-03	9.484
	+	860.37		5.701E-01	4.456E-01	4.828E-01	4.364E-02	1.181
BI-211		72.87		9.481E+00	4.717E+00	7.317E+00	6.454E-01	1.296
	+	351.07	*	3.577E+00	5.631E-01	4.180E-01	2.723E-02	8.558
PB-212	+	74.81		2.391E+00	6.856E-01	6.900E-01	8.901E-02	3.465
	+	77.11		2.082E+00	3.717E-01	3.866E-01	3.478E-02	5.384
	+	87.30		1.578E+00	5.809E-01	7.141E-01	9.952E-02	2.209
	+	238.63	*	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
	+	300.09		6.212E-01	1.082E+00	1.415E+00	1.175E-01	0.439
PO-212	+	74.81		2.391E+00	6.856E-01	6.900E-01	8.901E-02	3.465
	+	77.11		2.082E+00	3.717E-01	3.866E-01	3.478E-02	5.384
	+	87.30		1.578E+00	5.809E-01	7.141E-01	9.952E-02	2.209
		115.19		-5.692E-01	4.230E+00	6.933E+00	4.423E-01	-0.082
	+	238.63	*	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
	+	300.09		6.212E-01	1.082E+00	1.415E+00	1.175E-01	0.439
BI-214	+	609.31	*	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
		1120.29		1.154E+00	4.328E-01	8.237E-01	7.654E-02	1.401
	+	1764.49		1.594E+00	4.472E-01	3.038E-01	1.889E-02	5.246
PB-214	+	74.81		4.119E+00	1.158E+00	1.189E+00	1.376E-01	3.465
	+	77.11		3.568E+00	6.928E-01	6.628E-01	7.814E-02	5.384
	+	87.30		2.703E+00	9.802E-01	1.223E+00	1.516E-01	2.209
	+	241.98		2.242E+00	7.784E-01	5.936E-01	4.721E-02	3.777
	+	295.21		1.359E+00	3.249E-01	2.354E-01	2.018E-02	5.774
	+	351.92	*	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987

Sample ID : G245960002 Acquisition date : 12-FEB-2010 14:45:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.119E+00	1.158E+00	1.189E+00	1.376E-01	3.465
	+	77.11		3.568E+00	6.928E-01	6.628E-01	7.814E-02	5.384
	+	87.30		2.703E+00	9.802E-01	1.223E+00	1.516E-01	2.209
	+	241.98		2.242E+00	7.784E-01	5.936E-01	4.721E-02	3.777
	+	295.21		1.359E+00	3.249E-01	2.354E-01	2.018E-02	5.774
	+	351.92	*	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
PO-216	+	74.81		2.391E+00	6.856E-01	6.900E-01	8.901E-02	3.465
	+	77.11		2.082E+00	3.717E-01	3.866E-01	3.478E-02	5.384
	+	87.30		1.578E+00	5.809E-01	7.141E-01	9.952E-02	2.209
	+	238.63	*	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
	+	300.09		6.212E-01	1.082E+00	1.415E+00	1.175E-01	0.439
PO-218	+	74.81		4.119E+00	1.158E+00	1.189E+00	1.376E-01	3.465
	+	77.11		3.568E+00	6.928E-01	6.628E-01	7.814E-02	5.384
	+	87.30		2.703E+00	9.802E-01	1.223E+00	1.516E-01	2.209
	+	241.98		2.242E+00	7.784E-01	5.936E-01	4.721E-02	3.777
	+	295.21		1.359E+00	3.249E-01	2.354E-01	2.018E-02	5.774
	+	351.92	*	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
RA-224	+	240.98	*	4.250E+00	1.457E+00	1.122E+00	6.320E-02	3.789
RA-226	+	609.31	*	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
		1120.29		1.154E+00	4.328E-01	8.237E-01	7.654E-02	1.401
	+	1764.49		1.594E+00	4.472E-01	3.038E-01	1.889E-02	5.246
AC-228	+	338.32		1.823E+00	8.554E-01	4.127E-01	1.683E-01	4.418
	+	911.07	*	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
	+	969.11		1.153E+00	5.634E-01	5.465E-01	1.272E-01	2.110
RA-228	+	338.32		1.823E+00	8.554E-01	4.127E-01	1.683E-01	4.418
	+	911.07	*	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
	+	969.11		1.153E+00	5.634E-01	5.465E-01	1.272E-01	2.110
TH-228	+	74.81		2.427E+00	6.586E-01	7.005E-01	6.278E-02	3.465
	+	77.11		2.113E+00	3.773E-01	3.925E-01	3.531E-02	5.384
	+	87.30		1.602E+00	5.676E-01	7.250E-01	7.037E-02	2.209
	+	238.63	*	1.523E+00	1.639E-01	1.001E-01	7.193E-03	15.226
	+	300.09		6.306E-01	1.158E+00	1.437E+00	8.469E-01	0.439
TH-230	+	609.31	*	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
		1120.29		1.154E+00	4.328E-01	8.237E-01	7.654E-02	1.401
	+	1764.49		1.594E+00	4.472E-01	3.038E-01	1.889E-02	5.246
TH-232	+	338.32		1.823E+00	4.364E-01	4.127E-01	2.437E-02	4.418
	+	911.07	*	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
	+	969.11		1.153E+00	5.634E-01	5.465E-01	1.272E-01	2.110
TH-234	+	63.29	*	6.321E+00	3.125E+00	2.880E+00	5.189E-01	2.195
	+	92.38		6.668E+00	1.550E+00	9.404E-01	1.715E-01	7.090
U-234	+	609.31	*	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
		1120.29		1.154E+00	4.328E-01	8.237E-01	7.654E-02	1.401
	+	1764.49		1.594E+00	4.472E-01	3.038E-01	1.889E-02	5.246
U-235	+	89.95		1.838E+00	1.005E+00	2.580E+00	8.019E-01	0.712
	+	93.35		8.016E+00	2.533E+00	1.120E+00	3.144E-01	7.157
		105.00		1.406E+00	1.344E+00	2.176E+00	6.416E-01	0.646
	+	143.76	*	4.213E-01	3.365E-01	3.981E-01	6.438E-02	1.058
		163.35		3.035E-01	5.437E-01	9.022E-01	1.604E-01	0.336
	+	185.71		3.084E-01	8.420E-02	8.119E-02	4.251E-03	3.798

Sample ID : G245960002 Acquisition date : 12-FEB-2010 14:45:14

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		1.717E-01	6.568E-01	9.417E-01	1.681E-01	0.182
NP-237	+	86.50	*	1.002E+00	4.108E-01	4.519E-01	1.029E-01	2.217
		95.87		-5.192E-01	1.324E+00	1.881E+00	4.618E-01	-0.276
U-238	+	63.29	*	6.321E+00	3.125E+00	2.880E+00	5.189E-01	2.195
	+	92.38		6.668E+00	1.131E+00	9.404E-01	8.403E-02	7.090
AM-243	+	74.67	*	3.876E-01	1.051E-01	1.123E-01	9.980E-03	3.451
	+	86.72		3.757E+01	1.331E+01	1.689E+01	1.631E+00	2.224
		117.66		-3.403E+00	4.402E+00	7.011E+00	4.342E-01	-0.485
	+	142.18		3.539E+01	2.775E+01	3.360E+01	1.830E+00	1.053
ANH-511	+	511.00	*	1.560E-01	9.717E-02	4.924E-02	2.860E-03	3.168

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.651E-01	3.753E-01	6.582E-01	4.473E-02	0.555
NA-22		1274.54	*	-4.407E-02	4.861E-02	6.996E-02	4.698E-03	-0.630
NA-24		1368.53	*	-1.518E-01	4.861E-02	Half-Life too short		
AL-26		1129.67		5.450E-01	1.913E+00	3.170E+00	2.020E-01	0.172
		1808.65	*	-2.045E-02	3.012E-02	4.113E-02	2.472E-03	-0.497
TI-44		67.85		-1.906E-02	6.764E-02	9.818E-02	8.550E-03	-0.194
	+	78.38	*	3.841E-01	6.859E-02	9.713E-02	8.804E-03	3.955
SC-46		889.25	*	-8.413E-03	4.367E-02	7.137E-02	6.377E-03	-0.118
		1120.51		1.927E-01	7.249E-02	1.400E-01	9.119E-03	1.377
V-48		944.10		-4.263E-01	1.032E+00	1.642E+00	1.430E-01	-0.260
		983.50	*	6.078E-03	7.438E-02	1.243E-01	1.034E-02	0.049
		1312.09		-4.443E-02	9.345E-02	1.425E-01	1.014E-02	-0.312
CR-51		320.08	*	1.968E-01	4.254E-01	7.307E-01	4.791E-02	0.269
MN-52		744.21		-4.571E-02	2.733E-01	4.322E-01	2.751E-02	-0.106
		848.13		-2.690E+00	7.218E+00	1.161E+01	9.472E-01	-0.232
		935.52		8.982E-02	2.888E-01	4.937E-01	4.340E-02	0.182
		1246.25		5.413E+00	8.774E+00	1.514E+01	9.688E-01	0.358
		1333.61		-1.790E+00	5.950E+00	9.276E+00	6.809E-01	-0.193
		1434.06	*	-8.505E-02	2.802E-01	4.314E-01	3.121E-02	-0.197
MN-54		834.83	*	5.809E-03	4.283E-02	7.242E-02	5.734E-03	0.080
CO-56		846.75	*	6.749E-03	4.037E-02	6.856E-02	5.578E-03	0.098
		977.42		-1.738E+00	3.418E+00	5.062E+00	4.244E-01	-0.343
		1037.82		8.969E-02	3.708E-01	6.266E-01	5.137E-02	0.143
		1175.09		-3.440E-01	2.324E+00	3.743E+00	2.119E-01	-0.092
		1238.25		8.979E-02	1.060E-01	1.854E-01	1.234E-02	0.484
		1360.21		1.017E+00	1.218E+00	2.185E+00	1.600E-01	0.466
		1771.40		-4.761E-01	2.770E-01	2.746E-01	1.699E-02	-1.734
CO-57		122.06	*	-6.367E-03	2.905E-02	4.734E-02	2.791E-03	-0.135
		136.48		-3.109E-03	2.360E-01	3.865E-01	2.514E-02	-0.008
CO-58		810.76	*	1.350E-02	4.046E-02	6.991E-02	5.252E-03	0.193
FE-59	+	142.65		5.435E+00	4.261E+00	5.761E+00	3.133E-01	0.943
		192.34		-1.934E+00	1.162E+00	1.703E+00	1.971E-01	-1.136
		1099.22	*	-4.452E-02	1.134E-01	1.794E-01	1.382E-02	-0.248
		1291.56		7.385E-02	1.400E-01	2.420E-01	2.009E-02	0.305

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.22		-4.212E-02	5.017E-02	7.454E-02	4.205E-03	-0.565
		1332.49	*	-1.504E-02	4.692E-02	7.299E-02	5.358E-03	-0.206
ZN-65		1115.52	*	1.700E-01	1.122E-01	1.911E-01	1.262E-02	0.890
GE-68		1077.35	*	2.703E-01	1.379E+00	2.318E+00	1.659E-01	0.117
AS-73		53.44	*	2.386E-01	1.257E+00	2.128E+00	1.879E-01	0.112
AS-74		595.88	*	1.841E-02	1.048E-01	1.731E-01	9.548E-03	0.106
		634.78		-3.386E-02	4.239E-01	6.364E-01	3.369E-02	-0.053
SE-75		66.05		-1.997E+00	7.092E+00	1.030E+01	1.081E+00	-0.194
		96.73		-4.334E-01	1.068E+00	1.520E+00	2.037E-01	-0.285
		121.11		-7.731E-02	1.553E-01	2.499E-01	2.331E-02	-0.309
		136.00		1.599E-03	4.380E-02	7.190E-02	4.060E-03	0.022
		198.60		-2.023E+00	2.128E+00	3.286E+00	2.219E-01	-0.616
		264.65	*	-1.619E-02	5.840E-02	7.951E-02	4.628E-03	-0.204
		279.53		-6.590E-02	1.245E-01	2.045E-01	1.286E-02	-0.322
		303.91		3.405E-01	2.761E+00	4.078E+00	3.912E-01	0.083
		400.65		8.213E-02	2.873E-01	4.855E-01	4.418E-02	0.169
BR-77	+	87.88		7.494E+02	2.656E+02	4.210E+02	4.108E+01	1.780
		200.40		-5.827E+01	1.868E+02	2.976E+02	1.592E+01	-0.196
	+	239.00		2.408E+02	2.356E+01	4.064E+01	2.285E+00	5.925
		249.79		2.575E+01	7.396E+01	1.208E+02	6.870E+00	0.213
		281.68		-1.015E+02	9.987E+01	1.593E+02	9.286E+00	-0.637
		297.23		2.598E+02	1.093E+02	1.366E+02	8.024E+00	1.902
		303.76		3.748E+01	2.355E+02	3.487E+02	2.052E+01	0.108
		439.47		7.028E+01	1.614E+02	2.748E+02	1.608E+01	0.256
		484.57		-2.362E+00	2.649E+02	4.356E+02	2.547E+01	-0.005
		520.65	*	-9.650E-01	1.375E+01	1.935E+01	1.120E+00	-0.050
		574.64		1.199E+01	2.716E+02	4.033E+02	2.264E+01	0.030
		578.91		8.749E+01	1.140E+02	1.741E+02	9.740E+00	0.503
		585.48		6.646E+02	2.449E+02	4.267E+02	2.375E+01	1.558
		755.35		1.343E+01	1.703E+02	2.760E+02	1.807E+01	0.049
		817.79		2.035E+00	1.393E+02	2.335E+02	1.777E+01	0.009
SR-82		698.33		-2.414E+01	4.025E+01	6.146E+01	3.472E+00	-0.393
		776.49	*	-7.400E-01	4.052E-01	5.515E-01	3.804E-02	-1.342
		1395.20		3.001E+00	1.412E+01	2.351E+01	1.713E+00	0.128
RB-83		520.41	*	9.024E-04	9.142E-02	1.299E-01	7.518E-03	0.007
		529.64		-2.088E-02	1.275E-01	2.063E-01	1.190E-02	-0.101
		552.65		-1.187E-01	2.359E-01	3.700E-01	2.108E-02	-0.321
RB-84		881.50	*	3.829E-02	8.221E-02	1.427E-01	1.254E-02	0.268
KR-85		513.99	*	1.296E+01	7.989E+00	1.449E+01	8.410E-01	0.894
SR-85		513.99	*	6.644E-02	4.096E-02	7.431E-02	4.312E-03	0.894
RB-86		1076.63	*	-5.666E-02	9.194E-01	1.505E+00	1.078E-01	-0.038
Y-88		898.02		5.555E-02	4.792E-02	8.764E-02	8.013E-03	0.634
		1836.01	*	-1.683E-03	3.504E-02	5.728E-02	3.372E-03	-0.029
ZR-88		392.90	*	-2.001E-02	3.228E-02	5.131E-02	2.962E-03	-0.390
Y-91		1204.90	*	-1.424E+00	2.163E+01	3.514E+01	2.096E+00	-0.041
NB-94		702.63	*	-1.162E-02	3.916E-02	6.149E-02	3.514E-03	-0.189
		871.10		-1.970E-03	3.671E-02	6.090E-02	5.230E-03	-0.032
NB-95		765.79	*	4.957E-02	5.114E-02	8.790E-02	5.907E-03	0.564
NB-95M		235.69	*	6.210E-01	1.843E-01	2.988E-01	2.204E-02	2.078

---- Non-Identified Nuclides ----

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ZR-95		724.18		1.502E-01	1.384E-01	2.144E-01	1.516E-02	0.701
		756.15	*	-3.788E-02	8.005E-02	1.223E-01	9.383E-03	-0.310
NB-97		657.90	*	1.735E-01	8.005E-02	Half-Life too short		
		1024.50		7.559E-02	8.005E-02	Half-Life too short		
ZR-97		254.15		-4.045E+00	8.005E-02	Half-Life too short		
		355.39		-1.677E-01	8.005E-02	Half-Life too short		
		507.63	*	5.593E+00	8.005E-02	Half-Life too short		
		602.52		6.392E+00	8.005E-02	Half-Life too short		
		1021.30		-2.433E+00	8.005E-02	Half-Life too short		
		1147.95		-2.712E+00	8.005E-02	Half-Life too short		
		1362.66		2.094E+00	8.005E-02	Half-Life too short		
		1750.46		5.676E+00	8.005E-02	Half-Life too short		
MO-99		140.51		5.265E-01	3.504E+01	4.988E+01	1.341E+01	0.011
		181.06		-8.555E-01	2.202E+01	3.117E+01	5.283E+00	-0.027
		366.43		4.121E+00	9.218E+01	1.541E+02	9.033E+00	0.027
		739.58	*	-1.952E-01	1.346E+01	2.163E+01	3.026E+00	-0.009
		778.00		-1.742E+01	3.579E+01	5.731E+01	3.969E+00	-0.304
TC-99M		140.51	*	7.611E+08	3.579E+01	Half-Life too short		
RH-101		127.23		2.079E-02	3.868E-02	6.478E-02	3.720E-03	0.321
		198.01	*	9.616E-04	3.847E-02	6.228E-02	3.320E-03	0.015
		325.23		8.753E-02	2.824E-01	4.219E-01	2.493E-02	0.207
RH-102		418.52		-3.552E-01	3.112E-01	4.719E-01	2.750E-02	-0.753
		475.06	*	2.945E-02	3.472E-02	6.041E-02	3.536E-03	0.487
		631.29		-2.822E-03	6.159E-02	9.954E-02	5.291E-03	-0.028
		697.49		-2.631E-02	8.987E-02	1.413E-01	7.962E-03	-0.186
		766.84		1.436E-01	1.275E-01	2.236E-01	1.506E-02	0.642
		1046.59		1.704E-02	1.235E-01	2.068E-01	1.566E-02	0.082
		1112.84		2.120E-01	2.420E-01	3.923E-01	2.603E-02	0.540
RU-103		497.08	*	3.390E-02	4.492E-02	7.773E-02	9.840E-03	0.436
		610.33		1.199E+01	2.455E+00	3.284E+00	5.020E-01	3.652
RH-106	+	511.85		7.791E-01	4.853E-01	4.446E-01	2.582E-02	1.752
		621.84	*	-1.260E-01	3.605E-01	5.668E-01	6.536E-02	-0.222
		1050.47		7.329E-01	2.555E+00	4.341E+00	3.265E-01	0.169
RU-106	+	511.85		7.791E-01	4.853E-01	4.446E-01	2.582E-02	1.752
		621.84	*	-1.260E-01	3.603E-01	5.668E-01	3.046E-02	-0.222
		1050.47		7.329E-01	2.555E+00	4.341E+00	3.265E-01	0.169
AG-108M		433.93	*	-1.606E-02	3.886E-02	6.249E-02	3.962E-03	-0.257
		614.37		1.393E-02	4.907E-02	7.124E-02	4.232E-03	0.195
		722.95		1.067E-02	5.849E-02	8.297E-02	5.395E-03	0.129
AG-110M		657.75	*	4.883E-02	4.964E-02	7.695E-02	4.276E-03	0.635
		677.61		2.269E-01	3.818E-01	6.473E-01	3.704E-02	0.351
		706.67		8.405E-02	2.482E-01	4.118E-01	2.522E-02	0.204
		763.93		-2.640E-01	2.075E-01	2.896E-01	2.028E-02	-0.912
		884.67		3.230E-02	6.034E-02	1.051E-01	9.586E-03	0.307
		937.48		-1.612E-01	1.308E-01	1.891E-01	1.717E-02	-0.853
		1384.27		-9.356E-03	1.587E-01	2.545E-01	1.931E-02	-0.037
IN-111		171.28		-6.793E-01	1.163E+00	1.841E+00	9.443E-02	-0.369
		245.39	*	-1.886E-02	1.319E+00	1.842E+00	1.043E-01	-0.010
IN-113M		391.69	*	-5.337E-02	4.782E-02	7.317E-02	4.507E-03	-0.729

---- Non-Identified Nuclides ----

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SN-113		391.69	*	-5.337E-02	4.782E-02	7.317E-02	4.507E-03	-0.729
IN-114M		190.27	*	1.289E-02	2.339E-01	3.324E-01	1.752E-02	0.039
CD-115		260.90		9.622E+01	1.541E+02	2.547E+02	1.463E+01	0.378
		492.35		1.084E+01	4.109E+01	6.888E+01	4.021E+00	0.157
		527.90	*	-4.861E+00	1.340E+01	2.136E+01	1.232E+00	-0.228
SN-117M		156.02		-8.244E-03	2.526E+00	4.120E+00	2.156E-01	-0.002
		158.56	*	1.433E-02	6.087E-02	1.003E-01	5.211E-03	0.143
SB-122		563.90	*	-1.028E+00	2.350E+00	3.698E+00	2.092E-01	-0.278
		692.80		4.250E+01	4.969E+01	8.613E+01	4.793E+00	0.494
I-123		159.00	*	1.637E+00	4.969E+01	Half-Life too short		
		528.96		4.550E+01	4.969E+01	Half-Life too short		
TE-123M		159.00	*	8.112E-03	3.167E-02	5.221E-02	2.755E-03	0.155
I-124		602.71	*	3.981E-01	8.656E-01	1.280E+00	7.017E-02	0.311
		722.78		4.024E-01	6.058E+00	8.476E+00	5.107E-01	0.047
		1325.50		5.174E+00	3.621E+01	6.008E+01	4.363E+00	0.086
		1376.25		2.244E+01	3.621E+01	6.327E+01	4.623E+00	0.355
		1509.49		1.431E+01	1.896E+01	3.388E+01	2.403E+00	0.422
		1691.02		-1.560E-01	3.802E+00	6.262E+00	4.088E-01	-0.025
SB-124		602.71		2.315E-02	5.033E-02	7.444E-02	4.081E-03	0.311
		645.85		-1.747E-01	5.653E-01	8.899E-01	5.372E-02	-0.196
		709.31		-5.410E-01	3.202E+00	5.082E+00	2.956E-01	-0.106
		713.82		-1.084E+00	1.861E+00	2.824E+00	2.898E-01	-0.384
		722.78		3.392E-02	5.105E-01	7.144E-01	4.493E-02	0.047
	+	968.20		1.187E+01	5.197E+00	7.459E+00	6.324E-01	1.592
		1045.16		-1.101E+00	2.781E+00	4.393E+00	3.335E-01	-0.251
		1325.50		4.657E-01	3.260E+00	5.408E+00	3.928E-01	0.086
		1368.21		-4.694E-01	2.036E+00	3.188E+00	4.043E-01	-0.147
		1436.60		-1.686E+00	4.222E+00	6.364E+00	4.602E-01	-0.265
		1691.02	*	-3.100E-03	7.557E-02	1.245E-01	8.679E-03	-0.025
SB-125		427.89	*	5.331E-03	1.058E-01	1.758E-01	1.069E-02	0.030
	+	463.38		7.829E-01	4.407E-01	6.222E-01	4.239E-02	1.258
		600.56		-4.196E-02	2.138E-01	3.327E-01	2.144E-02	-0.126
		635.90		-9.853E-02	3.048E-01	4.797E-01	3.050E-02	-0.205
TE-125M		109.28	*	-1.256E+01	1.143E+01	1.800E+01	1.605E+00	-0.698
I-126		388.63		1.601E-01	2.190E-01	3.810E-01	2.203E-02	0.420
		666.33	*	1.937E-02	2.358E-01	3.326E-01	1.721E-02	0.058
		753.82		8.195E-01	1.562E+00	2.643E+00	1.724E-01	0.310
SB-126		223.80		-6.112E-01	4.783E+00	7.649E+00	4.224E-01	-0.080
		278.60		1.673E+00	2.773E+00	4.806E+00	2.796E-01	0.348
		296.50		1.205E+01	3.060E+00	4.171E+00	2.449E-01	2.889
		414.70		8.784E-02	9.328E-02	1.461E-01	8.501E-03	0.601
		415.30		1.636E+00	7.593E+00	1.165E+01	6.783E-01	0.140
		555.20		1.500E+00	4.645E+00	7.783E+00	4.427E-01	0.193
		573.80		-3.738E-01	1.338E+00	2.003E+00	1.125E-01	-0.187
		593.00		1.318E-02	1.062E+00	1.731E+00	9.573E-02	0.008
		656.30		9.317E-02	4.560E+00	6.388E+00	3.288E-01	0.015
		666.33		8.093E-03	9.854E-02	1.390E-01	7.193E-03	0.058
		675.00		-2.342E-01	2.474E+00	3.968E+00	2.103E-01	-0.059
		695.00		8.390E-02	8.899E-02	1.551E-01	8.686E-03	0.541

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		697.00		-7.361E-02	3.139E-01	4.961E-01	2.792E-02	-0.148
		720.50	*	1.296E-01	1.936E-01	2.914E-01	1.746E-02	0.445
		856.80		4.750E-01	5.377E-01	8.699E-01	7.238E-02	0.546
		989.30		-3.818E-01	1.324E+00	2.121E+00	1.751E-01	-0.180
		1034.80		-6.209E+00	1.066E+01	1.654E+01	1.277E+00	-0.375
		1213.00		3.464E+00	4.797E+00	8.437E+00	5.104E-01	0.411
SB-127		61.10		9.952E+01	8.817E+01	1.362E+02	1.527E+01	0.731
		252.40		2.053E-01	4.883E+00	7.838E+00	3.255E+00	0.026
		290.80		-8.345E+00	2.605E+01	3.726E+01	3.426E+00	-0.224
		411.60		1.255E+01	1.601E+01	2.452E+01	3.525E+00	0.512
		444.90		-1.136E+01	1.104E+01	1.676E+01	1.812E+00	-0.678
		473.00		-6.985E-01	2.046E+00	3.290E+00	3.685E-01	-0.212
		543.00		-1.776E+00	1.895E+01	3.076E+01	3.960E+00	-0.058
		603.60		7.523E-01	1.532E+01	2.165E+01	2.292E+00	0.035
		685.20	*	-4.656E-01	1.497E+00	2.344E+00	2.161E-01	-0.199
		698.50		-1.040E+01	1.774E+01	2.702E+01	3.895E+00	-0.385
		722.20		9.428E-01	4.098E+01	5.704E+01	5.303E+00	0.017
		783.80		2.512E+00	4.213E+00	7.384E+00	8.392E-01	0.340
XE-127		57.60		1.885E+00	9.898E+00	1.460E+01	1.279E+00	0.129
		145.22		1.245E-01	9.524E-01	1.374E+00	7.413E-02	0.091
		172.10		-1.098E-01	1.408E-01	2.209E-01	1.134E-02	-0.497
		202.84	*	2.319E-02	5.462E-02	8.702E-02	4.671E-03	0.267
		374.96		1.791E-01	2.259E-01	3.937E-01	2.297E-02	0.455
I-131		80.18		2.564E+00	8.307E+00	9.039E+00	8.336E-01	0.284
		284.30		1.481E-01	1.630E+00	2.759E+00	1.788E-01	0.054
		364.48	*	-1.585E-02	1.302E-01	2.155E-01	1.408E-02	-0.074
		636.97		-8.260E-01	1.746E+00	2.707E+00	1.634E-01	-0.305
		722.89		1.391E+00	9.820E+00	1.387E+01	8.466E-01	0.100
TE-132		49.72		-1.146E+01	3.204E+01	5.313E+01	5.673E+00	-0.216
		111.76		1.424E+01	3.629E+01	6.066E+01	5.685E+00	0.235
		116.30		-1.651E+01	3.258E+01	5.253E+01	4.790E+00	-0.314
		228.16	*	1.341E-01	7.820E-01	1.268E+00	1.809E-01	0.106
BA-133		53.15		3.097E+00	5.476E+00	9.388E+00	8.281E-01	0.330
		79.62		1.783E+00	2.371E+00	2.657E+00	4.124E-01	0.671
		81.00		1.723E-02	1.745E-01	1.865E-01	3.024E-02	0.092
		276.40		7.467E-01	4.746E-01	7.564E-01	9.809E-02	0.987
		302.84		1.514E-01	1.861E-01	2.872E-01	3.360E-02	0.527
		356.01	*	-1.092E-02	5.595E-02	7.982E-02	9.261E-03	-0.137
		383.85		2.085E-01	3.321E-01	5.730E-01	6.231E-02	0.364
I-133	+	510.53		1.584E+00	3.321E-01	Half-Life too short		
		529.87	*	-1.349E-03	3.321E-01	Half-Life too short		
		706.58		1.623E-01	3.321E-01	Half-Life too short		
		856.28		6.052E-01	3.321E-01	Half-Life too short		
		875.33		-1.588E-02	3.321E-01	Half-Life too short		
		1236.41		9.833E-01	3.321E-01	Half-Life too short		
		1298.22		-1.508E-01	3.321E-01	Half-Life too short		
CS-134		475.35		1.825E+00	2.339E+00	4.047E+00	2.369E-01	0.451
		563.23		-2.205E-01	4.141E-01	6.468E-01	3.740E-02	-0.341
		569.32		9.055E-02	2.348E-01	3.854E-01	2.240E-02	0.235

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		604.70		1.775E-02	4.573E-02	6.695E-02	3.685E-03	0.265
	+	795.84	*	1.068E-01	6.010E-02	1.050E-01	7.667E-03	1.018
		801.93		2.276E-01	4.757E-01	7.919E-01	5.853E-02	0.287
		1038.57		-3.297E-03	4.690E+00	7.742E+00	5.942E-01	0.000
		1167.94		6.884E-01	2.951E+00	4.947E+00	2.836E-01	0.139
		1365.15		-6.970E-01	1.504E+00	2.239E+00	1.741E-01	-0.311
I-135		288.45		1.167E+10	1.504E+00	Half-Life too short		
		417.63		-3.157E+10	1.504E+00	Half-Life too short		
		546.56		-2.730E+09	1.504E+00	Half-Life too short		
		836.80		1.654E+10	1.504E+00	Half-Life too short		
		1038.76		2.323E+09	1.504E+00	Half-Life too short		
		1124.00		4.808E+10	1.504E+00	Half-Life too short		
		1131.51		-4.324E+09	1.504E+00	Half-Life too short		
		1260.41	*	-1.115E+08	1.504E+00	Half-Life too short		
		1457.56		8.339E+11	1.504E+00	Half-Life too short		
		1678.03		-1.327E+10	1.504E+00	Half-Life too short		
		1706.46		1.541E+10	1.504E+00	Half-Life too short		
		1791.20		1.453E+10	1.504E+00	Half-Life too short		
CS-136		66.91		-6.767E-01	1.149E+00	1.638E+00	2.535E-01	-0.413
	+	86.29		4.451E+00	1.633E+00	2.483E+00	3.362E-01	1.793
		153.22		4.051E-01	7.664E-01	1.254E+00	8.539E-02	0.323
		163.89		5.352E-01	1.229E+00	2.037E+00	1.370E-01	0.263
		176.55		2.469E-01	4.223E-01	7.031E-01	4.192E-02	0.351
		273.65		-5.187E-01	6.178E-01	8.013E-01	5.300E-02	-0.647
		340.57		2.901E-01	1.541E-01	2.548E-01	1.596E-02	1.138
		818.51		-6.067E-03	7.618E-02	1.265E-01	9.657E-03	-0.048
		1048.07	*	-5.804E-02	1.206E-01	1.885E-01	1.502E-02	-0.308
		1235.34		8.079E-01	6.997E-01	1.247E+00	1.282E-01	0.648
CE-139		165.85	*	9.453E-03	3.522E-02	5.734E-02	2.923E-03	0.165
BA-140		162.64		-9.854E-02	8.679E-01	1.407E+00	8.362E-02	-0.070
		304.84		-1.501E+00	1.777E+00	2.368E+00	6.467E-01	-0.634
		423.70		7.319E-01	2.089E+00	3.522E+00	1.120E+00	0.208
		537.32	*	1.867E-01	3.180E-01	5.334E-01	1.734E-01	0.350
LA-140	+	328.77		8.222E-01	3.233E-01	6.229E-01	4.108E-02	1.320
		432.53		8.719E-01	2.354E+00	3.991E+00	2.573E-01	0.218
		487.03		3.404E-02	1.601E-01	2.674E-01	1.766E-02	0.127
		751.79		1.902E+00	1.740E+00	3.107E+00	2.384E-01	0.612
		815.85		6.122E-03	3.431E-01	5.753E-01	5.000E-02	0.011
		867.82		-1.354E-01	1.563E+00	2.466E+00	2.216E-01	-0.055
		919.63		-5.799E-01	2.902E+00	4.721E+00	5.146E-01	-0.123
		925.24		3.891E-01	1.280E+00	2.172E+00	2.043E-01	0.179
		1596.49	*	-1.594E-01	9.154E-02	9.874E-02	6.774E-03	-1.615
CE-141		145.44	*	-2.594E-03	8.597E-02	1.230E-01	6.934E-03	-0.021
CE-143		57.37		5.025E-05	8.597E-02	Half-Life too short		
		231.56		1.444E-05	8.597E-02	Half-Life too short		
		293.26	*	1.231E-03	8.597E-02	Half-Life too short		
	+	350.59		2.832E-02	8.597E-02	Half-Life too short		
		490.36		-4.852E-04	8.597E-02	Half-Life too short		
		664.57		1.007E-03	8.597E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		721.93		2.101E-04	8.597E-02	Half-Life too short		
CE-144		80.11		1.299E+00	3.829E+00	4.177E+00	3.829E-01	0.311
		133.54	*	-3.005E-01	2.383E-01	3.639E-01	5.139E-02	-0.826
PM-144		476.78		1.554E-02	7.967E-02	1.330E-01	9.291E-03	0.117
		618.01		-3.269E-03	3.582E-02	5.774E-02	3.331E-03	-0.057
		696.49	*	-3.625E-03	4.022E-02	6.439E-02	3.622E-03	-0.056
		778.57		-8.744E-01	2.420E+00	3.925E+00	2.723E-01	-0.223
PR-144		696.49	*	-2.456E-01	2.725E+00	4.363E+00	2.453E-01	-0.056
		1489.15		-9.794E+00	1.389E+01	1.951E+01	1.392E+00	-0.502
PM-146		453.90	*	8.087E-03	5.294E-02	8.826E-02	7.644E-03	0.092
		633.02		-3.566E-01	1.657E+00	2.448E+00	8.996E-01	-0.146
		735.90		-1.151E-01	1.680E-01	2.459E-01	6.879E-02	-0.468
		747.13		-5.194E-02	1.011E-01	1.535E-01	1.965E-02	-0.338
ND-147	+	91.11		3.354E+00	5.815E-01	7.747E-01	7.616E-02	4.329
		319.41		5.480E+00	3.806E+00	6.837E+00	4.040E-01	0.801
		439.89		3.837E-01	6.720E+00	1.115E+01	6.529E-01	0.034
		531.02	*	-1.616E-01	6.893E-01	1.109E+00	1.498E-01	-0.146
PM-149		285.90	*	2.966E+01	1.004E+02	1.716E+02	2.436E+01	0.173
EU-152		121.78		-2.040E-02	8.423E-02	1.371E-01	1.054E-02	-0.149
		244.69		1.258E-01	4.081E-01	5.844E-01	3.306E-02	0.215
		344.27	*	-8.138E-02	1.282E-01	1.764E-01	1.169E-02	-0.461
		443.98		-8.405E-01	1.067E+00	1.660E+00	9.719E-02	-0.506
		778.89		-6.555E-02	2.828E-01	4.646E-01	3.224E-02	-0.141
		867.32		-9.549E-02	9.607E-01	1.469E+00	1.251E-01	-0.065
		964.01		7.714E-01	3.849E-01	6.669E-01	5.683E-02	1.157
		1085.78		5.305E-02	4.923E-01	8.189E-01	5.763E-02	0.065
		1112.02		1.765E-01	3.383E-01	5.216E-01	3.467E-02	0.338
		1407.95		2.060E-01	2.312E-01	4.159E-01	3.025E-02	0.495
GD-153		69.67		-3.775E-01	2.395E+00	3.496E+00	3.055E-01	-0.108
	+	83.37		2.615E+01	1.551E+01	3.003E+01	2.819E+00	0.871
		97.43	*	4.693E-02	1.075E-01	1.597E-01	1.305E-02	0.294
		103.18		-2.150E-01	1.307E-01	1.988E-01	1.486E-02	-1.082
EU-154		123.07		-1.122E-02	5.930E-02	9.673E-02	9.130E-03	-0.116
		247.94		-2.595E-01	4.436E-01	6.276E-01	5.941E-02	-0.413
		591.81		-1.267E-01	7.017E-01	1.125E+00	1.082E-01	-0.113
		723.30		1.066E-01	2.489E-01	3.628E-01	2.638E-02	0.294
		756.87		-5.010E-01	8.644E-01	1.302E+00	1.380E-01	-0.385
		873.19		9.050E-02	3.161E-01	5.420E-01	6.639E-02	0.167
		996.32		-3.581E-01	4.319E-01	6.465E-01	1.135E-01	-0.554
		1004.76		-2.638E-01	2.540E-01	3.728E-01	4.193E-02	-0.708
		1274.45	*	-1.273E-01	1.356E-01	1.936E-01	1.922E-02	-0.658
EU-155		48.70		-3.716E+00	4.185E+00	6.789E+00	5.476E-01	-0.547
		60.01		6.292E+00	7.626E+00	1.157E+01	1.005E+00	0.544
	+	86.54		4.109E-01	1.457E-01	2.268E-01	2.204E-02	1.812
		105.31	*	1.697E-01	1.301E-01	2.241E-01	1.653E-02	0.757
TB-160	+	86.79		1.097E+00	3.889E-01	6.004E-01	5.801E-02	1.828
		197.04		6.864E-01	6.568E-01	1.110E+00	5.907E-02	0.619
		215.65		1.351E-01	8.561E-01	1.343E+00	7.339E-02	0.101
	+	298.57		9.039E-02	1.573E-01	2.302E-01	1.352E-02	0.393

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		879.36	*	-1.050E-01	1.618E-01	2.525E-01	2.208E-02	-0.416
		962.29		1.033E+00	6.923E-01	1.159E+00	9.893E-02	0.891
		966.15		9.842E-01	3.405E-01	5.970E-01	5.074E-02	1.649
		1177.93		-1.847E-01	3.733E-01	5.761E-01	3.277E-02	-0.321
		1271.85		-2.705E-01	7.912E-01	1.217E+00	8.124E-02	-0.222
HO-166M		80.57		1.224E-01	4.855E-01	5.258E-01	4.835E-02	0.233
	+	184.41		2.313E-01	6.315E-02	8.949E-02	4.677E-03	2.584
		280.46		-8.600E-02	9.596E-02	1.544E-01	8.993E-03	-0.557
		410.95		3.251E-01	3.414E-01	5.295E-01	3.078E-02	0.614
		711.68	*	-5.689E-03	7.022E-02	1.124E-01	6.576E-03	-0.051
		752.31		1.650E-01	2.832E-01	4.827E-01	3.136E-02	0.342
		810.29		-2.860E-02	6.353E-02	1.018E-01	7.613E-03	-0.281
TM-171		51.35		-1.259E+00	4.920E+01	8.266E+01	7.185E+00	-0.015
		52.39		1.288E+01	2.443E+01	4.184E+01	3.676E+00	0.308
		59.40		3.911E+01	4.096E+01	6.252E+01	5.432E+00	0.626
		66.72	*	-1.635E+01	4.130E+01	5.962E+01	5.185E+00	-0.274
LU-176	+	88.36		8.091E-01	2.867E-01	4.648E-01	4.505E-02	1.741
		201.83		-1.731E-02	3.274E-02	5.156E-02	2.764E-03	-0.336
		306.84	*	-1.498E-02	2.816E-02	4.594E-02	2.707E-03	-0.326
		401.10		3.464E+00	7.564E+00	1.292E+01	7.482E-01	0.268
LU-177		112.95		2.566E+00	1.952E+00	3.361E+00	2.204E-01	0.763
	+	208.36	*	3.375E+00	1.644E+00	2.196E+00	1.188E-01	1.537
LU-177M		52.97		1.669E+00	2.496E+00	4.294E+00	3.785E-01	0.389
		54.07		-4.574E-01	1.287E+00	2.132E+00	1.884E-01	-0.215
		61.30		2.439E+00	2.362E+00	3.638E+00	3.160E-01	0.670
		121.62		-1.471E-01	4.317E-01	6.999E-01	4.137E-02	-0.210
		147.16		1.624E-01	8.559E-01	1.239E+00	6.645E-02	0.131
		171.86		-4.817E-01	5.659E-01	8.845E-01	4.541E-02	-0.545
		218.09		-5.002E-01	9.740E-01	1.528E+00	8.377E-02	-0.327
	+	268.79		3.402E+00	1.490E+00	1.671E+00	9.656E-02	2.036
		319.02		4.234E-01	2.920E-01	5.254E-01	3.103E-02	0.806
		367.43		5.675E-02	1.022E+00	1.710E+00	1.001E-01	0.033
		413.65	*	3.368E-01	2.076E-01	3.442E-01	2.002E-02	0.979
HF-181		56.28		-1.444E+00	1.374E+00	2.203E+00	1.939E-01	-0.656
		57.53		-4.071E-03	8.411E-01	1.228E+00	1.076E-01	-0.003
		65.20		1.248E+00	1.432E+00	2.187E+00	1.900E-01	0.571
		133.02		-9.164E-02	7.660E-02	1.192E-01	6.692E-03	-0.769
		136.25		3.897E-02	5.118E-01	8.414E-01	4.670E-02	0.046
		345.85		1.465E-01	2.433E-01	3.711E-01	2.189E-02	0.395
		482.03	*	-2.749E-02	4.946E-02	7.802E-02	4.563E-03	-0.352
W-181		56.28		-5.655E-01	5.376E-01	8.621E-01	7.591E-02	-0.656
		57.53		-1.755E-03	3.295E-01	4.812E-01	4.217E-02	-0.004
		65.20	*	4.852E-01	5.565E-01	8.499E-01	7.384E-02	0.571
TA-182		67.75		-5.215E-02	1.614E-01	2.339E-01	2.036E-02	-0.223
		100.10		2.648E-01	2.370E-01	3.631E-01	2.842E-02	0.729
		152.43		3.078E-01	3.951E-01	6.532E-01	3.452E-02	0.471
		222.10		1.708E-01	4.063E-01	6.673E-01	3.677E-02	0.256
		1001.68		1.051E+00	2.360E+00	4.064E+00	3.300E-01	0.259
		1121.28		3.797E-01	2.190E-01	3.664E-01	2.383E-02	1.036

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		1.692E-01	3.500E-01	6.003E-01	3.483E-02	0.282
		1221.42	*	1.396E-02	1.980E-01	3.260E-01	2.001E-02	0.043
		1230.97		-3.216E-01	5.671E-01	8.757E-01	5.463E-02	-0.367
RE-183		57.98		1.498E-01	3.183E-01	4.758E-01	4.161E-02	0.315
		59.32		1.583E-01	1.686E-01	2.572E-01	2.235E-02	0.615
		67.20		-1.771E-01	2.925E-01	4.175E-01	3.633E-02	-0.424
		162.32	*	-2.402E-02	1.278E-01	2.065E-01	1.062E-02	-0.116
	+	208.81		3.035E+00	1.478E+00	2.006E+00	1.086E-01	1.513
		291.72		4.072E-01	1.144E+00	1.722E+00	1.009E-01	0.236
RE-184		57.98		5.519E-01	1.173E+00	1.753E+00	1.533E-01	0.315
		59.32		5.827E-01	6.207E-01	9.469E-01	8.229E-02	0.615
		67.20		-6.524E-01	1.077E+00	1.538E+00	1.338E-01	-0.424
		161.27		-1.597E-01	4.050E-01	6.485E-01	3.345E-02	-0.246
		216.55		-6.965E-03	2.982E-01	4.801E-01	2.626E-02	-0.015
		252.85	*	-1.686E-02	2.609E-01	4.163E-01	2.374E-02	-0.040
		318.01		3.271E-01	5.154E-01	8.929E-01	5.273E-02	0.366
		792.07		1.331E+00	1.233E+00	2.013E+00	1.442E-01	0.661
		903.28		-1.030E+00	1.373E+00	1.756E+00	1.591E-01	-0.586
		920.93		1.967E-01	4.663E-01	8.093E-01	7.219E-02	0.243
OS-185		59.72		3.437E-01	4.552E-01	6.887E-01	5.980E-02	0.499
		61.14		1.669E-01	2.568E-01	3.901E-01	3.388E-02	0.428
		69.30		1.016E-01	4.266E-01	6.341E-01	5.536E-02	0.160
		592.07		-4.567E-01	2.849E+00	4.576E+00	2.532E-01	-0.100
		646.12	*	-1.630E-02	4.876E-02	7.660E-02	3.998E-03	-0.213
		717.42		-5.037E-01	1.058E+00	1.629E+00	9.677E-02	-0.309
		874.81		-1.779E-01	6.222E-01	1.007E+00	8.717E-02	-0.177
		880.27		6.182E-02	9.084E-01	1.524E+00	1.335E-01	0.041
RE-188		155.03	*	-2.558E-03	1.947E-01	3.175E-01	1.666E-02	-0.008
		477.96		2.908E+00	3.642E+00	6.318E+00	3.697E-01	0.460
		633.10		-7.638E-01	3.335E+00	4.935E+00	2.618E-01	-0.155
W-188	+	63.58		2.540E+02	1.190E+02	1.372E+02	1.192E+01	1.852
		227.08		1.940E+00	1.483E+01	2.401E+01	1.331E+00	0.081
		290.67	*	-2.831E+00	9.026E+00	1.292E+01	7.566E-01	-0.219
IR-192	+	295.96		1.036E+00	2.393E-01	3.280E-01	1.955E-02	3.159
		308.46		2.529E-02	1.086E-01	1.846E-01	1.100E-02	0.137
		316.51	*	-5.961E-03	4.012E-02	6.677E-02	3.961E-03	-0.089
		468.07		1.497E-03	8.655E-02	1.239E-01	8.343E-03	0.012
		604.41		1.316E-01	6.113E-01	8.793E-01	9.835E-02	0.150
		612.46		7.193E-01	9.095E-01	1.389E+00	1.012E-01	0.518
AU-195		65.12		2.747E-01	2.600E-01	3.996E-01	3.471E-02	0.688
		66.83		-5.251E-02	1.364E-01	1.970E-01	1.713E-02	-0.267
	+	75.70		1.254E+00	3.401E-01	5.804E-01	5.183E-02	2.161
		98.88	*	4.820E-01	3.000E-01	4.685E-01	3.738E-02	1.029
		129.76		6.015E+00	3.409E+00	5.931E+00	3.371E-01	1.014
TL-200		367.94	*	1.173E-04	3.409E+00	Half-Life too short		
		579.30		8.547E-03	3.409E+00	Half-Life too short		
		828.27		-1.196E-03	3.409E+00	Half-Life too short		
		1205.75		-1.007E-03	3.409E+00	Half-Life too short		
TL-201		68.90		-1.109E+00	7.494E+00	1.020E+01	8.894E-01	-0.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		1.175E+00	3.883E+00	5.782E+00	5.066E-01	0.203
		80.30		2.495E+00	9.034E+00	9.804E+00	8.999E-01	0.254
		135.34		-1.668E+01	2.840E+01	4.537E+01	2.526E+00	-0.368
		167.43	*	8.306E-01	8.302E+00	1.342E+01	6.847E-01	0.062
TL-202		68.90		-9.977E-02	6.743E-01	9.174E-01	8.002E-02	-0.109
		70.82		1.055E-01	3.484E-01	5.188E-01	4.546E-02	0.203
		80.30		2.239E-01	8.108E-01	8.800E-01	8.076E-02	0.254
		439.56	*	3.254E-02	7.807E-02	1.327E-01	7.766E-03	0.245
HG-203		70.83		4.588E-01	1.510E+00	2.248E+00	3.079E-01	0.204
		72.87		1.886E+00	9.569E-01	1.455E+00	1.941E-01	1.296
	+	82.60		1.944E+00	1.171E+00	2.257E+00	3.206E-01	0.861
		279.20	*	-8.136E-03	4.660E-02	7.793E-02	4.814E-03	-0.104
BI-207		72.80		4.948E-01	2.731E-01	4.220E-01	3.721E-02	1.173
	+	74.97		6.957E-01	1.886E-01	2.914E-01	2.593E-02	2.387
	+	84.90		3.382E-01	2.005E-01	4.027E-01	3.828E-02	0.840
		569.67		9.423E-03	3.669E-02	5.963E-02	3.360E-03	0.158
		1063.62	*	-8.982E-03	5.809E-02	9.415E-02	6.917E-03	-0.095
		1770.23		-1.291E-01	4.696E-01	5.921E-01	3.666E-02	-0.218
TL-207		81.07		2.626E-02	3.845E-01	4.101E-01	3.784E-02	0.064
	+	83.78		2.230E-01	1.322E-01	2.553E-01	2.405E-02	0.873
		94.90		8.076E-01	3.367E-01	5.307E-01	4.528E-02	1.522
		122.32		-4.789E-01	2.010E+00	3.273E+00	2.214E-01	-0.146
	+	144.24		1.365E+00	1.072E+00	1.410E+00	9.762E-02	0.968
		154.21		1.230E-01	4.477E-01	7.390E-01	4.857E-02	0.166
	+	269.46		7.965E-01	3.491E-01	3.967E-01	2.398E-02	2.008
		323.87	*	-9.174E-01	8.579E-01	1.120E+00	1.855E-01	-0.819
	+	338.28		7.614E+00	1.941E+00	2.797E+00	2.962E-01	2.722
		445.03		-2.502E+00	2.581E+00	3.942E+00	4.060E-01	-0.635
PO-209		260.50		6.444E+00	1.135E+01	1.871E+01	1.074E+00	0.344
		262.80		2.671E+01	3.522E+01	5.196E+01	2.989E+00	0.514
		896.60	*	1.300E+01	8.398E+00	1.581E+01	1.435E+00	0.822
BI-210		46.50	*	4.143E+00	6.333E+00	1.083E+01	8.435E-01	0.382
PB-210		46.50	*	4.143E+00	6.333E+00	1.083E+01	8.435E-01	0.382
PO-210		46.50	*	4.143E+00	6.331E+00	1.083E+01	7.268E-01	0.382
PB-211		404.84	*	-7.626E-01	1.369E+00	1.752E+00	1.092E+00	-0.435
		427.08		-2.370E-01	2.349E+00	3.856E+00	2.383E+00	-0.061
		831.96		1.053E+00	1.513E+00	2.428E+00	1.519E+00	0.434
BI-212	+	727.18	*	9.801E-01	5.465E-01	7.294E-01	5.789E-02	1.344
		785.46		6.539E-01	2.031E+00	3.495E+00	2.464E-01	0.187
		1620.62		1.840E+00	1.601E+00	3.073E+00	2.084E-01	0.599
PO-215		81.07		2.626E-02	3.845E-01	4.101E-01	3.784E-02	0.064
	+	83.78		2.230E-01	1.322E-01	2.553E-01	2.405E-02	0.873
		94.90		8.076E-01	3.367E-01	5.307E-01	4.528E-02	1.522
		122.32		-4.789E-01	2.010E+00	3.273E+00	2.214E-01	-0.146
	+	144.24		1.365E+00	1.072E+00	1.410E+00	9.762E-02	0.968
		154.21		1.230E-01	4.477E-01	7.390E-01	4.857E-02	0.166
	+	269.46		7.965E-01	3.491E-01	3.967E-01	2.398E-02	2.008
		323.87	*	-9.174E-01	8.579E-01	1.120E+00	1.855E-01	-0.819
	+	338.28		7.614E+00	1.941E+00	2.797E+00	2.962E-01	2.722

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-2.502E+00	2.581E+00	3.942E+00	4.060E-01	-0.635
RN-219		271.23		4.838E-01	3.237E-01	4.965E-01	4.020E-02	0.975
		401.81	*	3.543E-01	4.792E-01	8.096E-01	1.101E-01	0.438
RN-220		549.76	*	4.569E+00	2.969E+01	4.914E+01	2.804E+00	0.093
RA-223		81.07		2.626E-02	3.845E-01	4.101E-01	3.784E-02	0.064
	+	83.78		2.230E-01	1.322E-01	2.553E-01	2.405E-02	0.873
		94.90		8.076E-01	3.367E-01	5.307E-01	4.528E-02	1.522
		122.32		-4.789E-01	2.010E+00	3.273E+00	2.214E-01	-0.146
	+	144.24		1.365E+00	1.072E+00	1.410E+00	9.762E-02	0.968
		154.21		1.230E-01	4.477E-01	7.390E-01	4.857E-02	0.166
	+	269.46		7.965E-01	3.491E-01	3.967E-01	2.398E-02	2.008
		323.87	*	-9.174E-01	8.579E-01	1.120E+00	1.855E-01	-0.819
	+	338.28		7.614E+00	1.941E+00	2.797E+00	2.962E-01	2.722
		445.03		-2.502E+00	2.581E+00	3.942E+00	4.060E-01	-0.635
AC-227		79.80		1.664E+00	2.992E+00	3.300E+00	7.168E-01	0.504
		236.00		2.374E+00	4.132E-01	6.630E-01	6.859E-02	3.580
		256.20	*	2.708E-03	4.307E-01	6.896E-01	9.604E-02	0.004
		286.10		6.742E-01	1.667E+00	2.863E+00	3.316E-01	0.235
	+	299.80		1.151E+00	2.011E+00	3.000E+00	4.893E-01	0.384
		304.40		3.570E-01	2.413E+00	3.569E+00	6.185E-01	0.100
		334.20		-6.022E-01	2.916E+00	4.173E+00	7.664E-01	-0.144
TH-227		79.80		1.664E+00	2.993E+00	3.300E+00	7.258E-01	0.504
	+	94.00		2.577E+01	6.757E+00	5.599E+00	1.220E+00	4.602
		236.00		2.374E+00	3.942E-01	6.630E-01	5.923E-02	3.580
		256.20	*	2.708E-03	4.307E-01	6.896E-01	1.164E-01	0.004
		286.10		6.742E-01	1.797E+00	2.863E+00	2.868E+00	0.235
	+	299.80		1.151E+00	2.011E+00	3.000E+00	4.893E-01	0.384
		304.40		3.570E-01	2.413E+00	3.569E+00	6.185E-01	0.100
		334.20		-6.022E-01	2.916E+00	4.173E+00	7.664E-01	-0.144
TH-229	+	85.43		3.338E-01	1.979E-01	4.236E-01	4.044E-02	0.788
	+	88.47		1.831E-01	8.421E-02	2.658E-01	2.570E-02	0.689
		100.00		2.864E-01	2.466E-01	3.784E-01	2.966E-02	0.757
		193.63	*	3.512E-01	5.826E-01	9.684E-01	5.130E-02	0.363
		210.97		1.288E+00	9.874E-01	1.502E+00	8.156E-02	0.857
PA-231		283.67	*	8.621E-02	1.661E+00	2.807E+00	3.872E-01	0.031
		301.29		1.396E+00	7.645E-01	1.234E+00	1.296E-01	1.131
TH-231		81.07		2.626E-02	3.845E-01	4.101E-01	3.784E-02	0.064
	+	83.78		2.230E-01	1.322E-01	2.553E-01	2.405E-02	0.873
		94.90		8.076E-01	3.367E-01	5.307E-01	4.528E-02	1.522
		122.32		-4.789E-01	2.010E+00	3.273E+00	2.214E-01	-0.146
	+	144.24		1.365E+00	1.072E+00	1.410E+00	9.762E-02	0.968
		154.21		1.230E-01	4.477E-01	7.390E-01	4.857E-02	0.166
	+	269.46		7.965E-01	3.491E-01	3.967E-01	2.398E-02	2.008
		323.87	*	-9.174E-01	8.579E-01	1.120E+00	1.855E-01	-0.819
	+	338.28		7.614E+00	1.941E+00	2.797E+00	2.962E-01	2.722
		445.03		-2.502E+00	2.581E+00	3.942E+00	4.060E-01	-0.635
U-231	+	84.21		9.599E+00	5.692E+00	1.096E+01	1.036E+00	0.876
	+	92.29		2.544E+01	4.315E+00	5.951E+00	5.327E-01	4.274
		95.87	*	-5.881E-01	1.494E+00	2.131E+00	1.787E-01	-0.276

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.489E+00	2.495E+00	4.023E+00	2.811E-01	-0.370
PA-233	+	75.28		2.030E+01	6.078E+00	9.042E+00	1.403E+00	2.245
	+	86.59		6.679E+00	2.912E+00	3.677E+00	9.990E-01	1.816
	+	300.12		3.209E-01	5.598E-01	8.435E-01	1.136E-01	0.380
		311.98	*	-2.261E-02	7.019E-02	1.157E-01	7.233E-03	-0.195
		340.50		1.664E+00	8.470E-01	1.279E+00	2.941E-01	1.301
		398.62		-4.835E-01	2.345E+00	3.837E+00	9.921E-01	-0.126
		415.76		-1.293E+00	1.982E+00	2.909E+00	5.991E-01	-0.444
PA-234	+	63.00		7.368E+00	3.580E+00	4.083E+00	6.343E-01	1.805
		94.67		8.596E-01	2.659E-01	4.063E-01	5.024E-02	2.116
		98.44		1.446E-01	1.468E-01	1.893E-01	1.054E-01	0.764
		99.86		7.642E-01	6.261E-01	9.630E-01	7.566E-02	0.794
		111.00		4.716E-02	2.238E-01	3.719E-01	4.022E-02	0.127
		131.20		6.392E-02	1.231E-01	2.060E-01	1.165E-02	0.310
		152.70		3.528E-01	3.796E-01	6.253E-01	9.771E-02	0.564
	+	186.00		8.326E+00	3.377E+00	3.297E+00	1.004E+00	2.525
		226.40		-4.831E-03	4.665E-01	7.501E-01	8.575E-02	-0.006
		227.20		6.276E-02	5.008E-01	8.106E-01	4.495E-02	0.077
		248.90		4.569E-02	9.203E-01	1.479E+00	3.173E-01	0.031
	+	293.70		6.523E+00	1.795E+00	2.028E+00	3.266E-01	3.217
		369.80		-4.881E-02	9.602E-01	1.595E+00	3.324E-01	-0.031
		568.70		6.371E-01	1.161E+00	1.929E+00	1.087E-01	0.330
		569.50		9.186E-02	3.262E-01	5.312E-01	2.993E-02	0.173
		574.00		-1.942E-02	1.859E+00	2.854E+00	1.603E-01	-0.007
		699.00		-4.355E-01	8.229E-01	1.258E+00	2.256E-01	-0.346
		706.10		9.246E-01	1.273E+00	2.075E+00	9.157E-01	0.446
		733.00		1.472E-01	4.400E-01	6.666E-01	1.425E-01	0.221
		742.81		1.854E+00	1.952E+00	2.709E+00	1.814E+00	0.684
		796.30		1.156E+00	1.314E+00	2.029E+00	5.406E-01	0.570
		805.60		-2.317E-01	1.082E+00	1.774E+00	5.380E-01	-0.131
		819.60		1.850E-01	1.313E+00	2.224E+00	8.412E-01	0.083
		826.30		-2.466E-01	8.902E-01	1.438E+00	6.411E-01	-0.171
		831.60		4.975E-01	7.159E-01	1.243E+00	3.684E-01	0.400
		876.40		-3.194E-01	9.584E-01	1.447E+00	1.488E+00	-0.221
		880.51		5.504E-02	3.345E-01	5.659E-01	4.961E-02	0.097
		883.24		2.183E-01	3.761E-01	6.089E-01	4.095E-01	0.358
		899.00		3.152E-01	9.789E-01	1.662E+00	7.282E-01	0.190
		925.00		4.214E-01	1.332E+00	2.262E+00	2.010E-01	0.186
		926.50		-1.197E-02	2.022E-01	3.313E-01	8.402E-02	-0.036
		946.00	*	-1.612E-01	3.652E-01	5.789E-01	1.088E-01	-0.278
		949.00		4.377E-01	5.282E-01	9.406E-01	8.153E-02	0.465
		980.50		4.648E-01	7.767E-01	1.366E+00	1.141E-01	0.340
		1394.10		1.348E+00	1.659E+00	2.581E+00	1.676E+00	0.522
PA-234M		766.42		1.343E+01	1.541E+01	2.380E+01	1.201E+01	0.564
		1001.03	*	3.827E+00	5.304E+00	9.348E+00	8.920E-01	0.409
NP-236		94.67		6.588E-01	1.935E-01	3.088E-01	2.645E-02	2.134
		98.44		1.093E-01	9.324E-02	1.431E-01	1.150E-02	0.764
		111.00		3.567E-02	1.692E-01	2.813E-01	1.890E-02	0.127
		160.31	*	-2.825E-02	8.934E-02	1.436E-01	7.425E-03	-0.197

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		3.269E-01	2.083E-01	3.249E-01	2.565E-02	1.006
		117.00	*	-1.597E-01	2.229E-01	3.562E-01	2.223E-02	-0.448
	+	209.75		2.395E+00	1.166E+00	1.584E+00	8.584E-02	1.512
		228.18		4.121E-02	2.557E-01	4.147E-01	2.302E-02	0.099
		277.60		3.612E-01	2.149E-01	3.719E-01	2.162E-02	0.971
		334.30		-2.475E-01	1.656E+00	2.383E+00	1.408E-01	-0.104
AM-241		59.54	*	2.347E-01	2.378E-01	3.632E-01	3.379E-02	0.646
CM-243		99.55		3.364E-01	2.143E-01	3.343E-01	2.639E-02	1.006
		103.76	*	-3.740E-02	1.176E-01	1.899E-01	1.407E-02	-0.197
		117.00		-1.643E-01	2.294E-01	3.665E-01	2.287E-02	-0.448
	+	209.75		2.360E+00	1.150E+00	1.561E+00	8.462E-02	1.512
		228.18		4.164E-02	2.584E-01	4.190E-01	2.326E-02	0.099
		277.60		3.641E-01	2.166E-01	3.749E-01	2.180E-02	0.971
AM-246		798.80		3.061E-02	1.857E-01	2.740E-01	1.995E-02	0.112
		1036.00		2.611E-02	3.588E-01	5.966E-01	4.599E-02	0.044
		1062.04		1.816E-01	2.576E-01	4.545E-01	3.349E-02	0.399
		1078.86	*	-1.806E-02	1.596E-01	2.596E-01	1.853E-02	-0.070
CM-247		278.00		1.293E+00	8.400E-01	1.511E+00	8.788E-02	0.855
		287.40		2.155E-01	1.415E+00	2.275E+00	1.330E-01	0.095
		402.60	*	3.208E-02	4.470E-02	7.140E-02	4.139E-03	0.449
CF-249		252.85		-6.325E-02	9.791E-01	1.562E+00	8.907E-02	-0.040
		333.44		2.586E-02	2.390E-01	3.084E-01	1.822E-02	0.084
		387.95	*	4.697E-02	4.333E-02	7.684E-02	4.446E-03	0.611
CF-251		176.60	*	8.268E-02	1.455E-01	2.422E-01	1.251E-02	0.341
		227.00		1.373E-01	4.401E-01	7.189E-01	3.986E-02	0.191
		285.00		9.956E-01	1.878E+00	3.249E+00	1.897E-01	0.306

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002      *
* Acquisition date : 12-FEB-2010 14:45:14 Detector SN#     :               *
* Detector ID        : GAM23               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.65     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245960002           Analyst initials: MXR1          *
* Batch Number       : 948717               Sample Quantity : 1.2112E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME :   2-JUN-2009 11:17:00 MS Isotope      :                *
* MSD DPM          :     0.000             MSD Isotope      :               *
* LCS DPM          :     0.000             LCS Isotope      :               *
* LCSD DPM         :     0.000             LCSD Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.001E+01	2.240E+00	5.188E-01	0.000E+00
CD-109	3.471E+00	1.205E+00	1.607E+00	0.000E+00
SN-126	3.412E-01	1.185E-01	1.589E-01	0.000E+00
CS-135	6.770E-01	2.925E-01	2.606E-01	0.000E+00
BA-137M	2.111E-01	9.013E-02	6.377E-02	0.000E+00
CS-137	2.232E-01	9.528E-02	6.741E-02	0.000E+00
TL-208	5.758E-01	8.917E-02	6.129E-02	0.000E+00
BI-211	3.577E+00	5.519E-01	4.245E-01	0.000E+00
PB-212	1.501E+00	1.582E-01	1.006E-01	0.000E+00
PO-212	1.501E+00	1.582E-01	1.006E-01	0.000E+00
BI-214	1.263E+00	2.006E-01	1.309E-01	0.000E+00
PB-214	1.244E+00	2.022E-01	1.406E-01	0.000E+00
PO-214	1.244E+00	2.022E-01	1.406E-01	0.000E+00
PO-216	1.501E+00	1.582E-01	1.006E-01	0.000E+00
PO-218	1.244E+00	2.022E-01	1.406E-01	0.000E+00
RA-224	4.250E+00	1.427E+00	1.144E+00	0.000E+00
RA-226	1.263E+00	2.006E-01	1.309E-01	0.000E+00
AC-228	1.411E+00	3.444E-01	1.856E-01	0.000E+00
RA-228	1.411E+00	3.444E-01	1.856E-01	0.000E+00
TH-228	1.523E+00	1.606E-01	1.021E-01	0.000E+00
TH-230	1.263E+00	2.006E-01	1.309E-01	0.000E+00
TH-232	1.411E+00	3.444E-01	1.856E-01	0.000E+00
TH-234	6.321E+00	3.063E+00	2.985E+00	0.000E+00
U-234	1.263E+00	2.006E-01	1.309E-01	0.000E+00
U-235	4.213E-01	3.298E-01	4.087E-01	0.000E+00
NP-237	1.002E+00	4.026E-01	4.667E-01	0.000E+00
U-238	6.321E+00	3.063E+00	2.985E+00	0.000E+00
AM-243	3.876E-01	1.030E-01	1.162E-01	0.000E+00
ANH-511	1.560E-01	9.522E-02	4.978E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	3.651E-01	3.678E-01	6.660E-01	0.000E+00	NOT IDENT.
NA-22	-4.407E-02	4.764E-02	6.993E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.104E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.045E-02	2.952E-02	4.094E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.722E-02	1.004E-01	0.000E+00	FAIL ABUN
SC-46	-8.413E-03	4.280E-02	7.167E-02	0.000E+00	NOT IDENT.
V-48	6.078E-03	7.289E-02	1.246E-01	0.000E+00	NOT IDENT.
CR-51	1.968E-01	4.169E-01	7.430E-01	0.000E+00	NOT IDENT.
MN-52	-8.505E-02	2.746E-01	4.306E-01	0.000E+00	NOT IDENT.
MN-54	5.809E-03	4.197E-02	7.278E-02	0.000E+00	NOT IDENT.
CO-56	6.749E-03	3.956E-02	6.889E-02	0.000E+00	NOT IDENT.
CO-57	-6.367E-03	2.847E-02	4.869E-02	0.000E+00	NOT IDENT.
CO-58	1.350E-02	3.965E-02	7.028E-02	0.000E+00	NOT IDENT.
FE-59	-4.452E-02	1.112E-01	1.797E-01	0.000E+00	FAIL ABUN
CO-60	-1.504E-02	4.599E-02	7.292E-02	0.000E+00	NOT IDENT.
ZN-65	1.700E-01	1.099E-01	1.914E-01	0.000E+00	NOT IDENT.
GE-68	2.703E-01	1.351E+00	2.322E+00	0.000E+00	NOT IDENT.
AS-73	2.386E-01	1.232E+00	2.210E+00	0.000E+00	NOT IDENT.
AS-74	1.841E-02	1.027E-01	1.747E-01	0.000E+00	NOT IDENT.
SE-75	-1.619E-02	5.723E-02	8.103E-02	0.000E+00	NOT IDENT.
BR-77	-9.650E-01	1.347E+01	1.956E+01	0.000E+00	FAIL ABUN
SR-82	-7.400E-01	3.971E-01	5.547E-01	0.000E+00	NOT IDENT.
RB-83	9.024E-04	8.959E-02	1.313E-01	0.000E+00	NOT IDENT.
RB-84	3.829E-02	8.057E-02	1.433E-01	0.000E+00	NOT IDENT.
KR-85	1.296E+01	7.829E+00	1.465E+01	0.000E+00	NOT IDENT.
SR-85	6.644E-02	4.014E-02	7.513E-02	0.000E+00	NOT IDENT.
RB-86	-5.666E-02	9.010E-01	1.507E+00	0.000E+00	NOT IDENT.
Y-88	-1.683E-03	3.434E-02	5.699E-02	0.000E+00	NOT IDENT.
ZR-88	-2.001E-02	3.164E-02	5.204E-02	0.000E+00	NOT IDENT.
Y-91	-1.424E+00	2.119E+01	3.515E+01	0.000E+00	NOT IDENT.
NB-94	-1.162E-02	3.838E-02	6.193E-02	0.000E+00	NOT IDENT.
NB-95	4.957E-02	5.012E-02	8.843E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.806E-01	3.050E-01	0.000E+00	NOT IDENT.
ZR-95	-3.788E-02	7.845E-02	1.230E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.379E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.467E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.952E-01	1.319E+01	2.176E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.964E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.616E-04	3.770E-02	6.370E-02	0.000E+00	NOT IDENT.
RH-102	2.945E-02	3.403E-02	6.113E-02	0.000E+00	NOT IDENT.
RU-103	3.390E-02	4.402E-02	7.861E-02	0.000E+00	NOT IDENT.
RH-106	-1.260E-01	3.533E-01	5.717E-01	0.000E+00	FAIL ABUN
RU-106	-1.260E-01	3.531E-01	5.717E-01	0.000E+00	FAIL ABUN
AG-108M	-1.606E-02	3.808E-02	6.331E-02	0.000E+00	NOT IDENT.
AG-110M	4.883E-02	4.865E-02	7.756E-02	0.000E+00	NOT IDENT.
IN-111	-1.886E-02	1.293E+00	1.879E+00	0.000E+00	NOT IDENT.
IN-113M	-5.337E-02	4.686E-02	7.421E-02	0.000E+00	NOT IDENT.
SN-113	-5.337E-02	4.686E-02	7.421E-02	0.000E+00	NOT IDENT.
IN-114M	1.289E-02	2.292E-01	3.401E-01	0.000E+00	NOT IDENT.
CD-115	-4.861E+00	1.313E+01	2.158E+01	0.000E+00	NOT IDENT.
SN-117M	1.433E-02	5.965E-02	1.028E-01	0.000E+00	NOT IDENT.
SB-122	-1.028E+00	2.303E+00	3.735E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.265E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	8.112E-03	3.104E-02	5.354E-02	0.000E+00	NOT IDENT.
I-124	3.981E-01	8.483E-01	1.292E+00	0.000E+00	NOT IDENT.
SB-124	-3.100E-03	7.406E-02	1.240E-01	0.000E+00	FAIL ABUN
SB-125	5.331E-03	1.037E-01	1.781E-01	0.000E+00	FAIL ABUN
TE-125M	-1.256E+01	1.120E+01	1.854E+01	0.000E+00	NOT IDENT.
I-126	1.937E-02	2.311E-01	3.352E-01	0.000E+00	NOT IDENT.
SB-126	1.296E-01	1.897E-01	2.934E-01	0.000E+00	NOT IDENT.
SB-127	-4.656E-01	1.467E+00	2.361E+00	0.000E+00	NOT IDENT.
XE-127	2.319E-02	5.353E-02	8.897E-02	0.000E+00	NOT IDENT.
I-131	-1.585E-02	1.276E-01	2.188E-01	0.000E+00	NOT IDENT.
TE-132	1.341E-01	7.664E-01	1.295E+00	0.000E+00	NOT IDENT.
BA-133	-1.092E-02	5.483E-02	8.106E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.133E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.889E-02	1.056E-01	0.000E+00	FAIL ABUN
I-135	0.000E+00	6.237E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.804E-02	1.182E-01	1.889E-01	0.000E+00	FAIL ABUN
CE-139	9.453E-03	3.452E-02	5.877E-02	0.000E+00	NOT IDENT.
BA-140	1.867E-01	3.116E-01	5.390E-01	0.000E+00	NOT IDENT.
LA-140	-1.594E-01	8.971E-02	9.842E-02	0.000E+00	FAIL ABUN
CE-141	-2.594E-03	8.425E-02	1.262E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.305E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.005E-01	2.335E-01	3.739E-01	0.000E+00	NOT IDENT.
PM-144	-3.625E-03	3.941E-02	6.485E-02	0.000E+00	NOT IDENT.

PR-144	-2.456E-01	2.671E+00	4.395E+00	0.000E+00	NOT IDENT.
PM-146	8.087E-03	5.188E-02	8.936E-02	0.000E+00	NOT IDENT.
ND-147	-1.616E-01	6.755E-01	1.121E+00	0.000E+00	FAIL ABUN
PM-149	2.966E+01	9.843E+01	1.748E+02	0.000E+00	NOT IDENT.
EU-152	-8.138E-02	1.257E-01	1.792E-01	0.000E+00	NOT IDENT.
GD-153	4.693E-02	1.053E-01	1.647E-01	0.000E+00	FAIL ABUN
EU-154	-1.273E-01	1.329E-01	1.935E-01	0.000E+00	NOT IDENT.
EU-155	1.697E-01	1.275E-01	2.310E-01	0.000E+00	FAIL ABUN
TB-160	-1.050E-01	1.586E-01	2.536E-01	0.000E+00	FAIL ABUN
HO-166M	-5.689E-03	6.882E-02	1.131E-01	0.000E+00	FAIL ABUN
TM-171	-1.635E+01	4.048E+01	6.177E+01	0.000E+00	NOT IDENT.
LU-176	-1.498E-02	2.760E-02	4.674E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.611E+00	2.244E+00	0.000E+00	FAIL ABUN
LU-177M	3.368E-01	2.034E-01	3.489E-01	0.000E+00	FAIL ABUN
HF-181	-2.749E-02	4.847E-02	7.894E-02	0.000E+00	NOT IDENT.
W-181	4.852E-01	5.454E-01	8.808E-01	0.000E+00	NOT IDENT.
TA-182	1.396E-02	1.940E-01	3.261E-01	0.000E+00	NOT IDENT.
RE-183	-2.402E-02	1.252E-01	2.117E-01	0.000E+00	FAIL ABUN
RE-184	-1.686E-02	2.557E-01	4.245E-01	0.000E+00	NOT IDENT.
OS-185	-1.630E-02	4.778E-02	7.722E-02	0.000E+00	NOT IDENT.
RE-188	-2.558E-03	1.908E-01	3.257E-01	0.000E+00	NOT IDENT.
W-188	-2.831E+00	8.845E+00	1.315E+01	0.000E+00	FAIL ABUN
IR-192	-5.961E-03	3.931E-02	6.791E-02	0.000E+00	FAIL ABUN
AU-195	4.820E-01	2.940E-01	4.831E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.040E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	8.306E-01	8.135E+00	1.375E+01	0.000E+00	NOT IDENT.
TL-202	3.254E-02	7.651E-02	1.344E-01	0.000E+00	NOT IDENT.
HG-203	-8.136E-03	4.567E-02	7.937E-02	0.000E+00	FAIL ABUN
BI-207	-8.982E-03	5.693E-02	9.433E-02	0.000E+00	FAIL ABUN
TL-207	-9.174E-01	8.407E-01	1.139E+00	0.000E+00	FAIL ABUN
PO-209	1.300E+01	8.230E+00	1.588E+01	0.000E+00	NOT IDENT.
BI-210	4.143E+00	6.207E+00	1.127E+01	0.000E+00	NOT IDENT.
PB-210	4.143E+00	6.207E+00	1.127E+01	0.000E+00	NOT IDENT.
PO-210	4.143E+00	6.205E+00	1.127E+01	0.000E+00	NOT IDENT.
PB-211	-7.626E-01	1.342E+00	1.777E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.356E-01	7.342E-01	0.000E+00	FAIL ABUN
PO-215	-9.174E-01	8.407E-01	1.139E+00	0.000E+00	FAIL ABUN
RN-219	3.543E-01	4.697E-01	8.209E-01	0.000E+00	NOT IDENT.
RN-220	4.569E+00	2.909E+01	4.964E+01	0.000E+00	NOT IDENT.
RA-223	-9.174E-01	8.407E-01	1.139E+00	0.000E+00	FAIL ABUN
AC-227	2.708E-03	4.221E-01	7.031E-01	0.000E+00	FAIL ABUN
TH-227	2.708E-03	4.221E-01	7.031E-01	0.000E+00	FAIL ABUN
TH-229	3.512E-01	5.709E-01	9.907E-01	0.000E+00	FAIL ABUN
PA-231	8.621E-02	1.628E+00	2.858E+00	0.000E+00	NOT IDENT.
TH-231	-9.174E-01	8.407E-01	1.139E+00	0.000E+00	FAIL ABUN
U-231	-5.881E-01	1.464E+00	2.198E+00	0.000E+00	FAIL ABUN
PA-233	-2.261E-02	6.879E-02	1.177E-01	0.000E+00	FAIL ABUN
PA-234	-1.612E-01	3.579E-01	5.808E-01	0.000E+00	FAIL ABUN
PA-234M	3.827E+00	5.198E+00	9.373E+00	0.000E+00	NOT IDENT.
NP-236	-2.825E-02	8.755E-02	1.472E-01	0.000E+00	NOT IDENT.
NP-239	-1.597E-01	2.185E-01	3.666E-01	0.000E+00	FAIL ABUN
AM-241	2.347E-01	2.330E-01	3.768E-01	0.000E+00	NOT IDENT.
CM-243	-3.740E-02	1.152E-01	1.957E-01	0.000E+00	FAIL ABUN
AM-246	-1.806E-02	1.564E-01	2.601E-01	0.000E+00	NOT IDENT.
CM-247	3.208E-02	4.380E-02	7.240E-02	0.000E+00	NOT IDENT.
CF-249	4.697E-02	4.247E-02	7.795E-02	0.000E+00	NOT IDENT.
CF-251	8.268E-02	1.426E-01	2.480E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:46:18.40

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:45:14
Sample ID         : G245960002           Sample quantity  : 1.21120E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	687	10.67*	9.974E-01	2.001E+01	2.001E+01	11.42
CD-109	88.03	213	3.72*	5.219E+00	3.393E+00	3.471E+00	35.44
SN-126	64.28	201	9.60	2.596E+00	2.502E+00	2.502E+00	48.49
	86.94	213	8.90	5.219E+00	1.418E+00	1.418E+00	53.78
	87.57	213	37.00*	5.219E+00	3.412E-01	3.412E-01	35.44
CS-135	268.24	148	16.00*	4.230E+00	6.770E-01	6.770E-01	44.08
BA-137M	661.65	125	89.98*	2.042E+00	2.109E-01	2.111E-01	43.57
CS-137	661.65	125	85.12*	2.042E+00	2.229E-01	2.232E-01	43.57
TL-208	277.35	------	6.80	4.140E+00	------ Line Not Found		------
	510.84	128	21.60	2.544E+00	7.221E-01	7.221E-01	62.85
	583.14	356	84.20*	2.278E+00	5.758E-01	5.758E-01	15.80
	860.37	37	12.46	1.609E+00	5.701E-01	5.701E-01	78.16
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	514	12.94*	3.442E+00	3.577E+00	3.577E+00	15.74
PB-212	74.81	334	10.70	4.049E+00	2.391E+00	2.391E+00	28.68
	77.11	520	18.00	4.302E+00	2.082E+00	2.082E+00	17.86
	87.30	213	8.00	5.219E+00	1.578E+00	1.578E+00	36.82
	238.63	1001	44.60*	4.637E+00	1.501E+00	1.501E+00	10.76
	300.09	27	3.41	3.903E+00	6.212E-01	6.212E-01	174.11
PO-212	74.81	334	10.70	4.049E+00	2.391E+00	2.391E+00	28.68
	77.11	520	18.00	4.302E+00	2.082E+00	2.082E+00	17.86
	87.30	213	8.00	5.219E+00	1.578E+00	1.578E+00	36.82
	115.19	------	0.60	6.293E+00	------ Line Not Found		------
	238.63	1001	44.60*	4.637E+00	1.501E+00	1.501E+00	10.76
	300.09	27	3.41	3.903E+00	6.212E-01	6.212E-01	174.11
BI-214	609.31	414	46.30*	2.194E+00	1.263E+00	1.263E+00	16.21
	1120.29	------	15.10	1.258E+00	------ Line Not Found		------
	1764.49	71	15.80	8.744E-01	1.594E+00	1.594E+00	28.06
PB-214	74.81	334	6.21	4.049E+00	4.119E+00	4.119E+00	28.11
	77.11	520	10.50	4.302E+00	3.568E+00	3.568E+00	19.41
	87.30	213	4.67	5.219E+00	2.703E+00	2.703E+00	36.26
	241.98	249	7.49	4.597E+00	2.242E+00	2.242E+00	34.72

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	333	19.20	3.949E+00	1.359E+00	1.359E+00	23.91
	351.92	514	37.20*	3.442E+00	1.244E+00	1.244E+00	16.59
PO-214	74.81	334	6.21	4.049E+00	4.119E+00	4.119E+00	28.11
	77.11	520	10.50	4.302E+00	3.568E+00	3.568E+00	19.41
	87.30	213	4.67	5.219E+00	2.703E+00	2.703E+00	36.26
	241.98	249	7.49	4.597E+00	2.242E+00	2.242E+00	34.72
	295.21	333	19.20	3.949E+00	1.359E+00	1.359E+00	23.91
	351.92	514	37.20*	3.442E+00	1.244E+00	1.244E+00	16.59
PO-216	74.81	334	10.70	4.049E+00	2.391E+00	2.391E+00	28.68
	77.11	520	18.00	4.302E+00	2.082E+00	2.082E+00	17.86
	87.30	213	8.00	5.219E+00	1.578E+00	1.578E+00	36.82
	238.63	1001	44.60*	4.637E+00	1.501E+00	1.501E+00	10.76
	300.09	27	3.41	3.903E+00	6.212E-01	6.212E-01	174.11
PO-218	74.81	334	6.21	4.049E+00	4.119E+00	4.119E+00	28.11
	77.11	520	10.50	4.302E+00	3.568E+00	3.568E+00	19.41
	87.30	213	4.67	5.219E+00	2.703E+00	2.703E+00	36.26
	241.98	249	7.49	4.597E+00	2.242E+00	2.242E+00	34.72
	295.21	333	19.20	3.949E+00	1.359E+00	1.359E+00	23.91
	351.92	514	37.20*	3.442E+00	1.244E+00	1.244E+00	16.59
RA-224	240.98	249	3.95*	4.597E+00	4.250E+00	4.250E+00	34.27
RA-226	609.31	414	46.30*	2.194E+00	1.263E+00	1.263E+00	16.21
	1120.29	------	15.10	1.258E+00	------ Line Not Found		------
	1764.49	71	15.80	8.744E-01	1.594E+00	1.594E+00	28.06
AC-228	338.32	238	11.40	3.548E+00	1.823E+00	1.823E+00	46.91
	911.07	193	27.70*	1.527E+00	1.411E+00	1.411E+00	24.91
	969.11	89	16.60	1.441E+00	1.153E+00	1.153E+00	48.85
RA-228	338.32	238	11.40	3.548E+00	1.823E+00	1.823E+00	46.91
	911.07	193	27.70*	1.527E+00	1.411E+00	1.411E+00	24.91
	969.11	89	16.60	1.441E+00	1.153E+00	1.153E+00	48.85
TH-228	74.81	334	10.70	4.049E+00	2.391E+00	2.427E+00	27.14
	77.11	520	18.00	4.302E+00	2.082E+00	2.113E+00	17.86
	87.30	213	8.00	5.219E+00	1.578E+00	1.602E+00	35.44
	238.63	1001	44.60*	4.637E+00	1.501E+00	1.523E+00	10.76
	300.09	27	3.41	3.903E+00	6.212E-01	6.306E-01	183.63
TH-230	609.31	414	46.30*	2.194E+00	1.263E+00	1.263E+00	16.21
	1120.29	------	15.10	1.258E+00	------ Line Not Found		------
	1764.49	71	15.80	8.744E-01	1.594E+00	1.594E+00	28.06
TH-232	338.32	238	11.40	3.548E+00	1.823E+00	1.823E+00	23.93
	911.07	193	27.70*	1.527E+00	1.411E+00	1.411E+00	24.91
	969.11	89	16.60	1.441E+00	1.153E+00	1.153E+00	48.85
TH-234	63.29	201	3.80*	2.596E+00	6.321E+00	6.321E+00	49.44
	92.38	650	5.41	5.581E+00	6.668E+00	6.668E+00	23.25
U-234	609.31	414	46.30*	2.194E+00	1.263E+00	1.263E+00	16.21
	1120.29	------	15.10	1.258E+00	------ Line Not Found		------
	1764.49	71	15.80	8.744E-01	1.594E+00	1.594E+00	28.06
U-235	89.95	86	2.70	5.396E+00	1.838E+00	1.838E+00	54.70
	93.35	650	4.50	5.581E+00	8.016E+00	8.016E+00	31.61
	105.00	------	2.10	6.104E+00	------ Line Not Found		------
	143.76	88	10.50*	6.194E+00	4.213E-01	4.213E-01	79.87

Sample ID : G245960002 Acquisition date : 12-FEB-2010 14:45:14

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	163.35	------	4.70	5.886E+00	------	Line Not Found	------
	185.71	295	54.00	5.492E+00	3.084E-01	3.084E-01	27.30
	205.31	------	4.70	5.150E+00	------	Line Not Found	------
NP-237	86.50	213	12.60*	5.219E+00	1.002E+00	1.002E+00	41.01
	95.87	------	2.60	5.757E+00	------	Line Not Found	------
U-238	63.29	201	3.80*	2.596E+00	6.321E+00	6.321E+00	49.44
	92.38	650	5.41	5.581E+00	6.668E+00	6.668E+00	16.96
AM-243	74.67	334	66.00*	4.049E+00	3.876E-01	3.876E-01	27.11
	86.72	213	0.34	5.219E+00	3.757E+01	3.757E+01	35.44
	117.66	------	0.55	6.314E+00	------	Line Not Found	------
	142.18	88	0.13	6.194E+00	3.539E+01	3.539E+01	78.41
ANH-511	511.00	128	100.00*	2.544E+00	1.560E-01	1.560E-01	62.29

Flag: "*" = Keyline

Sample ID : G245960002 Acquisition date : 12-FEB-2010 14:45:14

Total number of lines in spectrum 32
Number of unidentified lines 2
Number of lines tentatively identified by NID 30 93.75%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.001E+01	2.001E+01	0.229E+01	11.42	
CD-109	464.00D	1.02	3.393E+00	3.471E+00	1.230E+00	35.44	
SN-126	1.00E+05Y	1.00	3.412E-01	3.412E-01	1.209E-01	35.44	
CS-135	2.30E+06Y	1.00	6.770E-01	6.770E-01	2.985E-01	44.08	
BA-137M	30.17Y	1.00	2.109E-01	2.111E-01	0.920E-01	43.57	
CS-137	30.17Y	1.00	2.229E-01	2.232E-01	0.972E-01	43.57	
TL-208	1.41E+10Y	1.00	5.758E-01	5.758E-01	0.910E-01	15.80	
BI-211	7.04E+08Y	1.00	3.577E+00	3.577E+00	0.563E+00	15.74	
PB-212	1.41E+10Y	1.00	1.501E+00	1.501E+00	0.161E+00	10.76	
PO-212	1.41E+10Y	1.00	1.501E+00	1.501E+00	0.161E+00	10.76	
BI-214	1600.00Y	1.00	1.263E+00	1.263E+00	0.205E+00	16.21	
PB-214	1600.00Y	1.00	1.244E+00	1.244E+00	0.206E+00	16.59	
PO-214	1600.00Y	1.00	1.244E+00	1.244E+00	0.206E+00	16.59	
PO-216	1.41E+10Y	1.00	1.501E+00	1.501E+00	0.161E+00	10.76	
PO-218	1600.00Y	1.00	1.244E+00	1.244E+00	0.206E+00	16.59	
RA-224	1.41E+10Y	1.00	4.250E+00	4.250E+00	1.457E+00	34.27	
RA-226	1600.00Y	1.00	1.263E+00	1.263E+00	0.205E+00	16.21	
AC-228	1.41E+10Y	1.00	1.411E+00	1.411E+00	0.351E+00	24.91	
RA-228	1.41E+10Y	1.00	1.411E+00	1.411E+00	0.351E+00	24.91	
TH-228	1.91Y	1.02	1.501E+00	1.523E+00	0.164E+00	10.76	
TH-230	4.47E+09Y	1.00	1.263E+00	1.263E+00	0.205E+00	16.21	
TH-232	1.41E+10Y	1.00	1.411E+00	1.411E+00	0.351E+00	24.91	
TH-234	4.47E+09Y	1.00	6.321E+00	6.321E+00	3.125E+00	49.44	
U-234	4.47E+09Y	1.00	1.263E+00	1.263E+00	0.205E+00	16.21	
U-235	7.04E+08Y	1.00	4.213E-01	4.213E-01	3.365E-01	79.87	
NP-237	2.14E+06Y	1.00	1.002E+00	1.002E+00	0.411E+00	41.01	
U-238	4.47E+09Y	1.00	6.321E+00	6.321E+00	3.125E+00	49.44	
AM-243	7380.00Y	1.00	3.876E-01	3.876E-01	1.051E-01	27.11	
ANH-511	1.00E+09Y	1.00	1.560E-01	1.560E-01	0.972E-01	62.29	
	Total Activity :		6.689E+01	6.699E+01			

Grand Total Activity : 6.689E+01 6.699E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245960002 Acquisition date : 12-FEB-2010 14:45:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	83.97	88	258	1.22	167.94	165	13	1.23E-02	58.5	4.97E+00	T
0	209.04	127	236	1.41	418.08	414	10	1.77E-02	48.4	5.09E+00	T
0	327.53	87	72	1.58	655.06	652	7	1.21E-02	38.8	3.64E+00	T
0	409.04	75	101	1.09	818.07	813	11	1.04E-02	56.8	3.05E+00	
0	462.88	71	83	1.10	925.77	920	11	9.92E-03	55.9	2.76E+00	T
0	727.04	70	71	1.62	1454.07	1446	13	9.73E-03	55.2	1.88E+00	T
0	794.34	45	33	1.25	1588.69	1584	10	6.28E-03	55.8	1.73E+00	T
0	1118.76	106	39	1.89	2237.52	2229	19	1.47E-02	34.0	1.26E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:46:22.92

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960002.CNF;1   *
* Acquisition date  : 12-FEB-2010 14:45:14  Detector SN#     :               *
* Detector ID       : GAM23                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.65          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID         : G245960002            Analyst initials: MXR1           *
* Batch Number      : 948717                Sample Quantity : 1.21120E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.001E+01	2.285E+00	5.199E-01	3.889E-02	38.496
CD-109	3.471E+00	1.230E+00	1.556E+00	1.519E-01	2.231
SN-126	3.412E-01	1.209E-01	1.538E-01	1.497E-02	2.217
CS-135	6.770E-01	2.985E-01	2.558E-01	1.954E-02	2.647
BA-137M	2.111E-01	9.197E-02	6.327E-02	3.232E-03	3.336
CS-137	2.232E-01	9.722E-02	6.689E-02	3.435E-03	3.336
TL-208	5.758E-01	9.099E-02	6.071E-02	3.942E-03	9.484
BI-211	3.577E+00	5.631E-01	4.180E-01	2.723E-02	8.558
PB-212	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
PO-212	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
BI-214	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
PB-214	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
PO-214	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
PO-216	1.501E+00	1.615E-01	9.855E-02	7.086E-03	15.226
PO-218	1.244E+00	2.064E-01	1.384E-01	1.156E-02	8.987
RA-224	4.250E+00	1.457E+00	1.122E+00	6.320E-02	3.789
RA-226	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
AC-228	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
TH-228	1.523E+00	1.639E-01	1.001E-01	7.193E-03	15.226
TH-230	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
TH-232	1.411E+00	3.514E-01	1.849E-01	2.134E-02	7.629
TH-234	6.321E+00	3.125E+00	2.880E+00	5.189E-01	2.195
U-234	1.263E+00	2.047E-01	1.298E-01	9.758E-03	9.728
U-235	4.213E-01	3.365E-01	3.981E-01	6.438E-02	1.058
NP-237	1.002E+00	4.108E-01	4.519E-01	1.029E-01	2.217
U-238	6.321E+00	3.125E+00	2.880E+00	5.189E-01	2.195
AM-243	3.876E-01	1.051E-01	1.123E-01	9.980E-03	3.451
ANH-511	1.560E-01	9.717E-02	4.924E-02	2.860E-03	3.168

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.651E-01		3.753E-01	6.582E-01	4.473E-02	0.555
NA-22	-4.407E-02		4.861E-02	6.996E-02	4.698E-03	-0.630
NA-24	-1.518E-01		4.135E-01	Half-Life too short		
AL-26	-2.045E-02		3.012E-02	4.113E-02	2.472E-03	-0.497
TI-44	3.841E-01	+	6.859E-02	9.713E-02	8.804E-03	3.955
SC-46	-8.413E-03		4.367E-02	7.137E-02	6.377E-03	-0.118
V-48	6.078E-03		7.438E-02	1.243E-01	1.034E-02	0.049
CR-51	1.968E-01		4.254E-01	7.307E-01	4.791E-02	0.269
MN-52	-8.505E-02		2.802E-01	4.314E-01	3.121E-02	-0.197
MN-54	5.809E-03		4.283E-02	7.242E-02	5.734E-03	0.080
CO-56	6.749E-03		4.037E-02	6.856E-02	5.578E-03	0.098
CO-57	-6.367E-03		2.905E-02	4.734E-02	2.791E-03	-0.135
CO-58	1.350E-02		4.046E-02	6.991E-02	5.252E-03	0.193
FE-59	-4.452E-02		1.134E-01	1.794E-01	1.382E-02	-0.248
CO-60	-1.504E-02		4.692E-02	7.299E-02	5.358E-03	-0.206
ZN-65	1.700E-01		1.122E-01	1.911E-01	1.262E-02	0.890
GE-68	2.703E-01		1.379E+00	2.318E+00	1.659E-01	0.117
AS-73	2.386E-01		1.257E+00	2.128E+00	1.879E-01	0.112
AS-74	1.841E-02		1.048E-01	1.731E-01	9.548E-03	0.106
SE-75	-1.619E-02		5.840E-02	7.951E-02	4.628E-03	-0.204
BR-77	-9.650E-01		1.375E+01	1.935E+01	1.120E+00	-0.050
SR-82	-7.400E-01		4.052E-01	5.515E-01	3.804E-02	-1.342
RB-83	9.024E-04		9.142E-02	1.299E-01	7.518E-03	0.007
RB-84	3.829E-02		8.221E-02	1.427E-01	1.254E-02	0.268
KR-85	1.296E+01		7.989E+00	1.449E+01	8.410E-01	0.894
SR-85	6.644E-02		4.096E-02	7.431E-02	4.312E-03	0.894
RB-86	-5.666E-02		9.194E-01	1.505E+00	1.078E-01	-0.038
Y-88	-1.683E-03		3.504E-02	5.728E-02	3.372E-03	-0.029
ZR-88	-2.001E-02		3.228E-02	5.131E-02	2.962E-03	-0.390
Y-91	-1.424E+00		2.163E+01	3.514E+01	2.096E+00	-0.041
NB-94	-1.162E-02		3.916E-02	6.149E-02	3.514E-03	-0.189
NB-95	4.957E-02		5.114E-02	8.790E-02	5.907E-03	0.564

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	6.210E-01		1.843E-01	2.988E-01	2.204E-02	2.078
ZR-95	-3.788E-02		8.005E-02	1.223E-01	9.383E-03	-0.310
NB-97	1.735E-01		7.036E-02	Half-Life too short		
ZR-97	5.593E+00		1.258E+00	Half-Life too short		
MO-99	-1.952E-01		1.346E+01	2.163E+01	3.026E+00	-0.009
TC-99M	7.611E+08		2.533E+10	Half-Life too short		
RH-101	9.616E-04		3.847E-02	6.228E-02	3.320E-03	0.015
RH-102	2.945E-02		3.472E-02	6.041E-02	3.536E-03	0.487
RU-103	3.390E-02		4.492E-02	7.773E-02	9.840E-03	0.436
RH-106	-1.260E-01		3.605E-01	5.668E-01	6.536E-02	-0.222
RU-106	-1.260E-01		3.603E-01	5.668E-01	3.046E-02	-0.222
AG-108M	-1.606E-02		3.886E-02	6.249E-02	3.962E-03	-0.257
AG-110M	4.883E-02		4.964E-02	7.695E-02	4.276E-03	0.635
IN-111	-1.886E-02		1.319E+00	1.842E+00	1.043E-01	-0.010
IN-113M	-5.337E-02		4.782E-02	7.317E-02	4.507E-03	-0.729
SN-113	-5.337E-02		4.782E-02	7.317E-02	4.507E-03	-0.729
IN-114M	1.289E-02		2.339E-01	3.324E-01	1.752E-02	0.039
CD-115	-4.861E+00		1.340E+01	2.136E+01	1.232E+00	-0.228
SN-117M	1.433E-02		6.087E-02	1.003E-01	5.211E-03	0.143
SB-122	-1.028E+00		2.350E+00	3.698E+00	2.092E-01	-0.278
I-123	1.637E+00		3.197E+00	Half-Life too short		
TE-123M	8.112E-03		3.167E-02	5.221E-02	2.755E-03	0.155
I-124	3.981E-01		8.656E-01	1.280E+00	7.017E-02	0.311
SB-124	-3.100E-03		7.557E-02	1.245E-01	8.679E-03	-0.025
SB-125	5.331E-03		1.058E-01	1.758E-01	1.069E-02	0.030
TE-125M	-1.256E+01		1.143E+01	1.800E+01	1.605E+00	-0.698
I-126	1.937E-02		2.358E-01	3.326E-01	1.721E-02	0.058
SB-126	1.296E-01		1.936E-01	2.914E-01	1.746E-02	0.445
SB-127	-4.656E-01		1.497E+00	2.344E+00	2.161E-01	-0.199
XE-127	2.319E-02		5.462E-02	8.702E-02	4.671E-03	0.267
I-131	-1.585E-02		1.302E-01	2.155E-01	1.408E-02	-0.074
TE-132	1.341E-01		7.820E-01	1.268E+00	1.809E-01	0.106
BA-133	-1.092E-02		5.595E-02	7.982E-02	9.261E-03	-0.137
I-133	-1.349E-03		3.639E-03	Half-Life too short		
CS-134	1.068E-01	+	6.010E-02	1.050E-01	7.667E-03	1.018
I-135	-1.115E+08		3.182E+09	Half-Life too short		
CS-136	-5.804E-02		1.206E-01	1.885E-01	1.502E-02	-0.308
CE-139	9.453E-03		3.522E-02	5.734E-02	2.923E-03	0.165
BA-140	1.867E-01		3.180E-01	5.334E-01	1.734E-01	0.350
LA-140	-1.594E-01		9.154E-02	9.874E-02	6.774E-03	-1.615
CE-141	-2.594E-03		8.597E-02	1.230E-01	6.934E-03	-0.021
CE-143	1.231E-03		1.686E-04	Half-Life too short		
CE-144	-3.005E-01		2.383E-01	3.639E-01	5.139E-02	-0.826
PM-144	-3.625E-03		4.022E-02	6.439E-02	3.622E-03	-0.056
PR-144	-2.456E-01		2.725E+00	4.363E+00	2.453E-01	-0.056
PM-146	8.087E-03		5.294E-02	8.826E-02	7.644E-03	0.092
ND-147	-1.616E-01		6.893E-01	1.109E+00	1.498E-01	-0.146
PM-149	2.966E+01		1.004E+02	1.716E+02	2.436E+01	0.173

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-8.138E-02		1.282E-01	1.764E-01	1.169E-02	-0.461
GD-153	4.693E-02		1.075E-01	1.597E-01	1.305E-02	0.294
EU-154	-1.273E-01		1.356E-01	1.936E-01	1.922E-02	-0.658
EU-155	1.697E-01		1.301E-01	2.241E-01	1.653E-02	0.757
TB-160	-1.050E-01		1.618E-01	2.525E-01	2.208E-02	-0.416
HO-166M	-5.689E-03		7.022E-02	1.124E-01	6.576E-03	-0.051
TM-171	-1.635E+01		4.130E+01	5.962E+01	5.185E+00	-0.274
LU-176	-1.498E-02		2.816E-02	4.594E-02	2.707E-03	-0.326
LU-177	3.375E+00	+	1.644E+00	2.196E+00	1.188E-01	1.537
LU-177M	3.368E-01		2.076E-01	3.442E-01	2.002E-02	0.979
HF-181	-2.749E-02		4.946E-02	7.802E-02	4.563E-03	-0.352
W-181	4.852E-01		5.565E-01	8.499E-01	7.384E-02	0.571
TA-182	1.396E-02		1.980E-01	3.260E-01	2.001E-02	0.043
RE-183	-2.402E-02		1.278E-01	2.065E-01	1.062E-02	-0.116
RE-184	-1.686E-02		2.609E-01	4.163E-01	2.374E-02	-0.040
OS-185	-1.630E-02		4.876E-02	7.660E-02	3.998E-03	-0.213
RE-188	-2.558E-03		1.947E-01	3.175E-01	1.666E-02	-0.008
W-188	-2.831E+00		9.026E+00	1.292E+01	7.566E-01	-0.219
IR-192	-5.961E-03		4.012E-02	6.677E-02	3.961E-03	-0.089
AU-195	4.820E-01		3.000E-01	4.685E-01	3.738E-02	1.029
TL-200	1.173E-04		2.572E-04	Half-Life too short		
TL-201	8.306E-01		8.302E+00	1.342E+01	6.847E-01	0.062
TL-202	3.254E-02		7.807E-02	1.327E-01	7.766E-03	0.245
HG-203	-8.136E-03		4.660E-02	7.793E-02	4.814E-03	-0.104
BI-207	-8.982E-03		5.809E-02	9.415E-02	6.917E-03	-0.095
TL-207	-9.174E-01		8.579E-01	1.120E+00	1.855E-01	-0.819
PO-209	1.300E+01		8.398E+00	1.581E+01	1.435E+00	0.822
BI-210	4.143E+00		6.333E+00	1.083E+01	8.435E-01	0.382
PB-210	4.143E+00		6.333E+00	1.083E+01	8.435E-01	0.382
PO-210	4.143E+00		6.331E+00	1.083E+01	7.268E-01	0.382
PB-211	-7.626E-01		1.369E+00	1.752E+00	1.092E+00	-0.435
BI-212	9.801E-01	+	5.465E-01	7.294E-01	5.789E-02	1.344
PO-215	-9.174E-01		8.579E-01	1.120E+00	1.855E-01	-0.819
RN-219	3.543E-01		4.792E-01	8.096E-01	1.101E-01	0.438
RN-220	4.569E+00		2.969E+01	4.914E+01	2.804E+00	0.093
RA-223	-9.174E-01		8.579E-01	1.120E+00	1.855E-01	-0.819
AC-227	2.708E-03		4.307E-01	6.896E-01	9.604E-02	0.004
TH-227	2.708E-03		4.307E-01	6.896E-01	1.164E-01	0.004
TH-229	3.512E-01		5.826E-01	9.684E-01	5.130E-02	0.363
PA-231	8.621E-02		1.661E+00	2.807E+00	3.872E-01	0.031
TH-231	-9.174E-01		8.579E-01	1.120E+00	1.855E-01	-0.819
U-231	-5.881E-01		1.494E+00	2.131E+00	1.787E-01	-0.276
PA-233	-2.261E-02		7.019E-02	1.157E-01	7.233E-03	-0.195
PA-234	-1.612E-01		3.652E-01	5.789E-01	1.088E-01	-0.278
PA-234M	3.827E+00		5.304E+00	9.348E+00	8.920E-01	0.409
NP-236	-2.825E-02		8.934E-02	1.436E-01	7.425E-03	-0.197
NP-239	-1.597E-01		2.229E-01	3.562E-01	2.223E-02	-0.448
AM-241	2.347E-01		2.378E-01	3.632E-01	3.379E-02	0.646

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.740E-02		1.176E-01	1.899E-01	1.407E-02	-0.197
AM-246	-1.806E-02		1.596E-01	2.596E-01	1.853E-02	-0.070
CM-247	3.208E-02		4.470E-02	7.140E-02	4.139E-03	0.449
CF-249	4.697E-02		4.333E-02	7.684E-02	4.446E-03	0.611
CF-251	8.268E-02		1.455E-01	2.422E-01	1.251E-02	0.341

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960002           *
* Acquisition date  : 12-FEB-2010 14:45:14 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.65      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960002           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.2112E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.001E+01	2.240E+00	2.596E-01	1.143E+00
CD-109	3.471E+00	1.205E+00	8.038E-01	6.150E-01
SN-126	3.412E-01	1.185E-01	7.949E-02	6.044E-02
CS-135	6.770E-01	2.925E-01	1.304E-01	1.492E-01
BA-137M	2.111E-01	9.013E-02	3.190E-02	4.598E-02
CS-137	2.232E-01	9.528E-02	3.372E-02	4.861E-02
TL-208	5.758E-01	8.917E-02	3.066E-02	4.550E-02
BI-211	3.577E+00	5.519E-01	2.124E-01	2.816E-01
PB-212	1.501E+00	1.582E-01	5.031E-02	8.074E-02
PO-212	1.501E+00	1.582E-01	5.031E-02	8.074E-02
BI-214	1.263E+00	2.006E-01	6.551E-02	1.024E-01
PB-214	1.244E+00	2.022E-01	7.035E-02	1.032E-01
PO-214	1.244E+00	2.022E-01	7.035E-02	1.032E-01
PO-216	1.501E+00	1.582E-01	5.031E-02	8.074E-02
PO-218	1.244E+00	2.022E-01	7.035E-02	1.032E-01
RA-224	4.250E+00	1.427E+00	5.726E-01	7.283E-01
RA-226	1.263E+00	2.006E-01	6.551E-02	1.024E-01
AC-228	1.411E+00	3.444E-01	9.286E-02	1.757E-01
RA-228	1.411E+00	3.444E-01	9.286E-02	1.757E-01
TH-228	1.523E+00	1.606E-01	5.108E-02	8.196E-02
TH-230	1.263E+00	2.006E-01	6.551E-02	1.024E-01
TH-232	1.411E+00	3.444E-01	9.286E-02	1.757E-01
TH-234	6.321E+00	3.063E+00	1.493E+00	1.563E+00
U-234	1.263E+00	2.006E-01	6.551E-02	1.024E-01
U-235	4.213E-01	3.298E-01	2.045E-01	1.683E-01
NP-237	1.002E+00	4.026E-01	2.335E-01	2.054E-01
U-238	6.321E+00	3.063E+00	1.493E+00	1.563E+00
AM-243	3.876E-01	1.030E-01	5.813E-02	5.254E-02
ANH-511	1.560E-01	9.522E-02	2.491E-02	4.858E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	3.651E-01	3.678E-01	3.332E-01	1.876E-01	NOT IDENT.
NA-22	-4.407E-02	4.764E-02	3.499E-02	2.431E-02	NOT IDENT.
NA-24	-1.518E+05	8.104E+05	0.000E+00	4.135E+05	SHORT HLIF
AL-26	-2.045E-02	2.952E-02	2.048E-02	1.506E-02	NOT IDENT.
TI-44	3.841E-01	6.722E-02	5.025E-02	3.430E-02	FAIL ABUN
SC-46	-8.413E-03	4.280E-02	3.585E-02	2.184E-02	NOT IDENT.
V-48	6.078E-03	7.289E-02	6.236E-02	3.719E-02	NOT IDENT.
CR-51	1.968E-01	4.169E-01	3.717E-01	2.127E-01	NOT IDENT.
MN-52	-8.505E-02	2.746E-01	2.154E-01	1.401E-01	NOT IDENT.
MN-54	5.809E-03	4.197E-02	3.641E-02	2.141E-02	NOT IDENT.
CO-56	6.749E-03	3.956E-02	3.446E-02	2.018E-02	NOT IDENT.
CO-57	-6.367E-03	2.847E-02	2.436E-02	1.452E-02	NOT IDENT.
CO-58	1.350E-02	3.965E-02	3.516E-02	2.023E-02	NOT IDENT.
FE-59	-4.452E-02	1.112E-01	8.989E-02	5.672E-02	FAIL ABUN
CO-60	-1.504E-02	4.599E-02	3.648E-02	2.346E-02	NOT IDENT.
ZN-65	1.700E-01	1.099E-01	9.574E-02	5.610E-02	NOT IDENT.
GE-68	2.703E-01	1.351E+00	1.162E+00	6.893E-01	NOT IDENT.
AS-73	2.386E-01	1.232E+00	1.106E+00	6.287E-01	NOT IDENT.
AS-74	1.841E-02	1.027E-01	8.740E-02	5.241E-02	NOT IDENT.
SE-75	-1.619E-02	5.723E-02	4.054E-02	2.920E-02	NOT IDENT.
BR-77	-9.650E-01	1.347E+01	9.787E+00	6.873E+00	FAIL ABUN
SR-82	-7.400E-01	3.971E-01	2.775E-01	2.026E-01	NOT IDENT.
RB-83	9.024E-04	8.959E-02	6.568E-02	4.571E-02	NOT IDENT.
RB-84	3.829E-02	8.057E-02	7.169E-02	4.111E-02	NOT IDENT.
KR-85	1.296E+01	7.829E+00	7.331E+00	3.995E+00	NOT IDENT.
SR-85	6.644E-02	4.014E-02	3.759E-02	2.048E-02	NOT IDENT.
RB-86	-5.666E-02	9.010E-01	7.542E-01	4.597E-01	NOT IDENT.
Y-88	-1.683E-03	3.434E-02	2.851E-02	1.752E-02	NOT IDENT.
ZR-88	-2.001E-02	3.164E-02	2.604E-02	1.614E-02	NOT IDENT.
Y-91	-1.424E+00	2.119E+01	1.759E+01	1.081E+01	NOT IDENT.
NB-94	-1.162E-02	3.838E-02	3.098E-02	1.958E-02	NOT IDENT.
NB-95	4.957E-02	5.012E-02	4.424E-02	2.557E-02	NOT IDENT.
NB-95M	6.210E-01	1.806E-01	1.526E-01	9.215E-02	NOT IDENT.
ZR-95	-3.788E-02	7.845E-02	6.156E-02	4.003E-02	NOT IDENT.
NB-97	1.735E+05	1.379E+05	0.000E+00	7.036E+04	SHORT HLIF
ZR-97	5.593E+06	2.467E+06	0.000E+00	1.258E+06	SHORT HLIF
MO-99	-1.952E-01	1.319E+01	1.089E+01	6.732E+00	NOT IDENT.
TC-99M	7.611E+14	4.964E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.616E-04	3.770E-02	3.187E-02	1.923E-02	NOT IDENT.
RH-102	2.945E-02	3.403E-02	3.059E-02	1.736E-02	NOT IDENT.
RU-103	3.390E-02	4.402E-02	3.933E-02	2.246E-02	NOT IDENT.
RH-106	-1.260E-01	3.533E-01	2.860E-01	1.802E-01	FAIL ABUN
RU-106	-1.260E-01	3.531E-01	2.860E-01	1.801E-01	FAIL ABUN
AG-108M	-1.606E-02	3.808E-02	3.167E-02	1.943E-02	NOT IDENT.
AG-110M	4.883E-02	4.865E-02	3.880E-02	2.482E-02	NOT IDENT.
IN-111	-1.886E-02	1.293E+00	9.403E-01	6.595E-01	NOT IDENT.
IN-113M	-5.337E-02	4.686E-02	3.713E-02	2.391E-02	NOT IDENT.
SN-113	-5.337E-02	4.686E-02	3.713E-02	2.391E-02	NOT IDENT.
IN-114M	1.289E-02	2.292E-01	1.701E-01	1.170E-01	NOT IDENT.
CD-115	-4.861E+00	1.313E+01	1.080E+01	6.698E+00	NOT IDENT.
SN-117M	1.433E-02	5.965E-02	5.144E-02	3.044E-02	NOT IDENT.
SB-122	-1.028E+00	2.303E+00	1.868E+00	1.175E+00	NOT IDENT.
I-123	1.637E+06	6.265E+06	0.000E+00	3.197E+06	SHORT HLIF
TE-123M	8.112E-03	3.104E-02	2.678E-02	1.584E-02	NOT IDENT.
I-124	3.981E-01	8.483E-01	6.463E-01	4.328E-01	NOT IDENT.
SB-124	-3.100E-03	7.406E-02	6.204E-02	3.779E-02	FAIL ABUN
SB-125	5.331E-03	1.037E-01	8.910E-02	5.291E-02	FAIL ABUN
TE-125M	-1.256E+01	1.120E+01	9.273E+00	5.715E+00	NOT IDENT.
I-126	1.937E-02	2.311E-01	1.677E-01	1.179E-01	NOT IDENT.
SB-126	1.296E-01	1.897E-01	1.468E-01	9.681E-02	NOT IDENT.
SB-127	-4.656E-01	1.467E+00	1.181E+00	7.485E-01	NOT IDENT.
XE-127	2.319E-02	5.353E-02	4.451E-02	2.731E-02	NOT IDENT.
I-131	-1.585E-02	1.276E-01	1.094E-01	6.509E-02	NOT IDENT.
TE-132	1.341E-01	7.664E-01	6.479E-01	3.910E-01	NOT IDENT.
BA-133	-1.092E-02	5.483E-02	4.056E-02	2.797E-02	NOT IDENT.
I-133	-1.349E+03	7.133E+03	0.000E+00	3.639E+03	SHORT HLIF
CS-134	1.068E-01	5.889E-02	5.281E-02	3.005E-02	FAIL ABUN
I-135	-1.115E+14	6.237E+15	0.000E+00	3.182E+15	SHORT HLIF
CS-136	-5.804E-02	1.182E-01	9.448E-02	6.030E-02	FAIL ABUN
CE-139	9.453E-03	3.452E-02	2.940E-02	1.761E-02	NOT IDENT.
BA-140	1.867E-01	3.116E-01	2.697E-01	1.590E-01	NOT IDENT.
LA-140	-1.594E-01	8.971E-02	4.924E-02	4.577E-02	FAIL ABUN
CE-141	-2.594E-03	8.425E-02	6.314E-02	4.299E-02	NOT IDENT.
CE-143	1.231E+03	3.305E+02	0.000E+00	1.686E+02	SHORT HLIF
CE-144	-3.005E-01	2.335E-01	1.871E-01	1.191E-01	NOT IDENT.
PM-144	-3.625E-03	3.941E-02	3.245E-02	2.011E-02	NOT IDENT.

PR-144	-2.456E-01	2.671E+00	2.199E+00	1.363E+00	NOT IDENT.
PM-146	8.087E-03	5.188E-02	4.471E-02	2.647E-02	NOT IDENT.
ND-147	-1.616E-01	6.755E-01	5.606E-01	3.446E-01	FAIL ABUN
PM-149	2.966E+01	9.843E+01	8.743E+01	5.022E+01	NOT IDENT.
EU-152	-8.138E-02	1.257E-01	8.967E-02	6.412E-02	NOT IDENT.
GD-153	4.693E-02	1.053E-01	8.240E-02	5.374E-02	FAIL ABUN
EU-154	-1.273E-01	1.329E-01	9.680E-02	6.781E-02	NOT IDENT.
EU-155	1.697E-01	1.275E-01	1.155E-01	6.505E-02	FAIL ABUN
TB-160	-1.050E-01	1.586E-01	1.269E-01	8.091E-02	FAIL ABUN
HO-166M	-5.689E-03	6.882E-02	5.660E-02	3.511E-02	FAIL ABUN
TM-171	-1.635E+01	4.048E+01	3.090E+01	2.065E+01	NOT IDENT.
LU-176	-1.498E-02	2.760E-02	2.338E-02	1.408E-02	FAIL ABUN
LU-177	3.375E+00	1.611E+00	1.123E+00	8.221E-01	FAIL ABUN
LU-177M	3.368E-01	2.034E-01	1.745E-01	1.038E-01	FAIL ABUN
HF-181	-2.749E-02	4.847E-02	3.949E-02	2.473E-02	NOT IDENT.
W-181	4.852E-01	5.454E-01	4.406E-01	2.783E-01	NOT IDENT.
TA-182	1.396E-02	1.940E-01	1.631E-01	9.898E-02	NOT IDENT.
RE-183	-2.402E-02	1.252E-01	1.059E-01	6.390E-02	FAIL ABUN
RE-184	-1.686E-02	2.557E-01	2.124E-01	1.305E-01	NOT IDENT.
OS-185	-1.630E-02	4.778E-02	3.863E-02	2.438E-02	NOT IDENT.
RE-188	-2.558E-03	1.908E-01	1.630E-01	9.736E-02	NOT IDENT.
W-188	-2.831E+00	8.845E+00	6.581E+00	4.513E+00	FAIL ABUN
IR-192	-5.961E-03	3.931E-02	3.397E-02	2.006E-02	FAIL ABUN
AU-195	4.820E-01	2.940E-01	2.417E-01	1.500E-01	FAIL ABUN
TL-200	1.173E+02	5.040E+02	0.000E+00	2.572E+02	SHORT HLIF
TL-201	8.306E-01	8.135E+00	6.878E+00	4.151E+00	NOT IDENT.
TL-202	3.254E-02	7.651E-02	6.726E-02	3.904E-02	NOT IDENT.
HG-203	-8.136E-03	4.567E-02	3.971E-02	2.330E-02	FAIL ABUN
BI-207	-8.982E-03	5.693E-02	4.719E-02	2.904E-02	FAIL ABUN
TL-207	-9.174E-01	8.407E-01	5.699E-01	4.289E-01	FAIL ABUN
PO-209	1.300E+01	8.230E+00	7.943E+00	4.199E+00	NOT IDENT.
BI-210	4.143E+00	6.207E+00	5.639E+00	3.167E+00	NOT IDENT.
PB-210	4.143E+00	6.207E+00	5.639E+00	3.167E+00	NOT IDENT.
PO-210	4.143E+00	6.205E+00	5.639E+00	3.166E+00	NOT IDENT.
PB-211	-7.626E-01	1.342E+00	8.888E-01	6.846E-01	NOT IDENT.
BI-212	9.801E-01	5.356E-01	3.673E-01	2.732E-01	FAIL ABUN
PO-215	-9.174E-01	8.407E-01	5.699E-01	4.289E-01	FAIL ABUN
RN-219	3.543E-01	4.697E-01	4.107E-01	2.396E-01	NOT IDENT.
RN-220	4.569E+00	2.909E+01	2.483E+01	1.484E+01	NOT IDENT.
RA-223	-9.174E-01	8.407E-01	5.699E-01	4.289E-01	FAIL ABUN
AC-227	2.708E-03	4.221E-01	3.518E-01	2.154E-01	FAIL ABUN
TH-227	2.708E-03	4.221E-01	3.518E-01	2.154E-01	FAIL ABUN
TH-229	3.512E-01	5.709E-01	4.956E-01	2.913E-01	FAIL ABUN
PA-231	8.621E-02	1.628E+00	1.430E+00	8.306E-01	NOT IDENT.
TH-231	-9.174E-01	8.407E-01	5.699E-01	4.289E-01	FAIL ABUN
U-231	-5.881E-01	1.464E+00	1.100E+00	7.469E-01	FAIL ABUN
PA-233	-2.261E-02	6.879E-02	5.887E-02	3.509E-02	FAIL ABUN
PA-234	-1.612E-01	3.579E-01	2.906E-01	1.826E-01	FAIL ABUN
PA-234M	3.827E+00	5.198E+00	4.689E+00	2.652E+00	NOT IDENT.
NP-236	-2.825E-02	8.755E-02	7.364E-02	4.467E-02	NOT IDENT.
NP-239	-1.597E-01	2.185E-01	1.834E-01	1.115E-01	FAIL ABUN
AM-241	2.347E-01	2.330E-01	1.885E-01	1.189E-01	NOT IDENT.
CM-243	-3.740E-02	1.152E-01	9.790E-02	5.878E-02	FAIL ABUN
AM-246	-1.806E-02	1.564E-01	1.301E-01	7.979E-02	NOT IDENT.
CM-247	3.208E-02	4.380E-02	3.622E-02	2.235E-02	NOT IDENT.
CF-249	4.697E-02	4.247E-02	3.900E-02	2.167E-02	NOT IDENT.
CF-251	8.268E-02	1.426E-01	1.241E-01	7.275E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	275.5459
46.50	275.5459
46.50	275.5459
48.70	328.3401
49.72	306.2162
51.35	301.6178
52.39	280.2471
52.97	280.5229
53.15	281.5224
53.44	290.8047
54.07	310.3366
56.28	338.1150
56.28	338.1164
57.37	0.0000
57.53	324.0723
57.53	324.0730
57.60	313.7960
57.98	300.7207
57.98	300.7207
59.32	293.9768
59.32	293.9768
59.40	294.0139
59.54	294.0789
59.72	308.9447
60.01	309.0857
61.10	334.7963
61.14	368.8913
61.30	368.9832
63.00	386.2930
63.29	386.4632
63.29	386.4632
63.58	386.6342
64.28	379.6004
65.12	394.9849
65.20	395.0318
65.20	395.0318
66.05	408.9664
66.72	410.8635
66.83	410.9323
66.91	424.4313
67.20	424.6115
67.20	424.6115
67.75	418.9678
67.85	419.0293
68.90	430.9113
68.90	430.9113
69.30	410.9147
69.67	430.6419
70.82	428.3419
70.82	428.3419
70.83	428.3489
72.80	456.6711
72.87	456.7155
72.87	456.7155
74.67	431.6034
74.81	431.6870
74.81	431.6870
74.81	431.6870
74.81	431.6870
74.81	431.6870
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74.81	431.6870
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75.28	431.9660
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77.11	433.0433

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77.11	433.0433
77.11	433.0433
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79.80	391.8090
80.11	395.7764
80.18	395.8129
80.30	395.8748
80.30	395.8748
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81.07	392.4659
81.07	392.4659
81.07	392.4659
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83.78	397.6727
83.78	397.6727
83.78	397.6727
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84.90	416.6245
85.43	416.9051
86.29	417.3600
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86.54	417.4911
86.59	417.5177
86.72	417.5874
86.79	417.6223
86.94	579.7150
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87.30	430.1821
87.30	430.1821
87.30	430.1821
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87.30	430.1821
87.30	430.1821
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87.88	430.4949
88.03	430.5752
88.36	430.7512
88.47	430.8110
89.95	685.9366
91.11	385.9070
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92.38	386.5036
92.38	386.5036
93.35	386.9568
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94.67	387.5664
94.67	387.5687
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94.90	387.6755
94.90	387.6755
94.90	387.6755
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95.87	406.7524
96.73	390.0718
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98.44	314.5511
98.88	294.4577
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99.55	293.1281
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100.00	305.7595
100.10	305.7966
103.18	400.2269
103.76	350.5503
105.00	312.7975
105.31	313.8867
108.00	374.8376
109.28	394.0826

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111.00	349.4167
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112.95	312.5633
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116.30	340.4773
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117.00	335.7604
117.66	328.0400
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121.62	305.4292
121.78	303.4816
122.06	303.5686
122.32	304.6475
122.32	304.6475
122.32	304.6475
122.32	304.6475
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144.24	334.6340
144.24	334.6340
144.24	334.6340
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145.44	341.5385
147.16	306.0664
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154.21	285.1448
154.21	285.1448
154.21	285.1448
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162.64	293.4545
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163.89	276.1197
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171.28	289.3166
171.86	301.9957
172.10	302.0552
176.55	255.9476
176.60	255.9569
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186.00	279.0115
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205.31	236.7849

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208.81	259.7524
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209.75	230.6642
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227.00	214.5324
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227.20	223.2757
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228.18	210.3457
228.18	210.3457
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236.00	199.4082
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238.63	199.7582
238.63	199.7582
238.63	199.7582
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241.98	200.2011
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252.85	175.0293
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256.20	175.4018
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268.79	145.4546
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269.46	145.5141
269.46	145.5141
269.46	145.5141
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278.60	177.3866
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284.30	159.0166
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286.10	151.0441
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290.80	163.2502
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293.26	0.0000
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295.21	153.0596

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300.09	170.2057
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323.87	164.7690
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338.28	134.0736
338.28	134.0736
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338.32	134.0754
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351.92	150.9650
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366.43	113.3481
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367.94	0.0000
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387.95	93.5450
388.63	96.4395
391.69	122.3984
391.69	122.3984
392.90	110.0305
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400.65	110.4334
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401.81	104.6221
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404.84	139.5147
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439.56	93.8285
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445.03	111.6885
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511.85	75.5429
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513.99	75.6061
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546.56	0.0000
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552.65	92.0830
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569.32	76.1824
569.50	78.2470
569.67	78.2507
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579.30	0.0000
583.14	65.1841
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592.07	74.7352
593.00	74.7598
595.88	74.8354
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602.71	74.6691
603.60	83.3789
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609.31	83.5449

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609.31	83.5449
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610.33	80.0920
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614.37	69.7445
618.01	71.2290
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621.84	73.4197
631.29	67.3453
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633.10	64.2272
634.78	62.1574
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636.97	71.6922
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657.90	0.0000
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661.65	64.8438
664.57	0.0000
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695.00	58.0250
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696.49	73.1033
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697.49	76.3527
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706.10	60.3846
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722.78	74.0673
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723.30	74.0806
724.18	74.1006
727.18	48.8430
733.00	49.7065
735.90	63.1217
739.58	61.0121
742.81	42.5325
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747.13	60.0609
751.79	36.0865
752.31	42.6543
753.82	45.9570
755.35	47.0722
756.15	62.4133
756.87	62.4272
763.93	88.8983
765.79	58.2004
766.42	61.5057
766.84	59.3169
776.49	73.4391
778.00	57.8589
778.57	56.9494
778.89	56.9544
783.80	60.7162
785.46	62.5865
792.07	47.4254

795.84	71.2149
796.30	64.8933
798.80	61.7727
801.93	51.0481
805.60	55.5444
810.29	55.6189
810.76	43.5739
815.85	48.2792
817.79	46.4478
818.51	45.5278
819.60	46.4711
826.30	52.1457
828.27	0.0000
831.60	49.4255
831.96	49.4309
834.83	61.6051
836.80	0.0000
846.75	43.0782
848.13	51.5267
856.28	0.0000
856.80	35.4162
860.37	45.1191
867.32	47.7154
867.82	47.4705
871.10	46.1927
873.19	41.5024
874.81	47.1832
875.33	0.0000
876.40	49.0907
879.36	59.5226
880.27	52.9227
880.51	53.8712
881.50	49.1584
883.24	50.1264
884.67	52.0381
889.25	50.2072
896.60	33.2205
898.02	39.8792
899.00	49.3869
903.28	63.5695
911.07	29.3994
911.07	29.3994
911.07	29.3994
919.63	42.9694
920.93	36.2976
925.00	42.0727
925.24	42.0754
926.50	47.8292
935.52	47.9401
937.48	66.1896
944.10	53.8102
946.00	59.6046
949.00	44.2565
962.29	44.6801
964.01	39.7324
966.15	59.6313
968.20	111.0365
969.11	82.1916
969.11	82.1916
969.11	82.1916
977.42	48.8353
980.50	34.9087
983.50	38.8167
989.30	41.7875
996.32	58.4082
1001.03	38.9836
1001.68	42.8882
1004.76	62.4297
1021.30	0.0000
1024.50	0.0000
1034.80	56.0050
1036.00	49.1394
1037.82	47.1953
1038.57	51.1367
1038.76	0.0000
1045.16	48.2623
1046.59	39.4108
1048.07	48.2942

1050.47	40.4328
1050.47	40.4328
1062.04	37.6763
1063.62	44.5148
1076.63	47.6250
1077.35	40.6864
1078.86	44.6704
1085.78	51.7017
1099.22	58.8416
1112.02	27.4342
1112.84	25.7247
1115.52	32.6032
1120.29	47.0975
1120.29	47.0975
1120.29	47.0975
1120.29	47.0975
1120.51	47.0994
1121.28	54.9821
1124.00	0.0000
1129.67	41.6266
1131.51	0.0000
1147.95	0.0000
1167.94	49.6181
1173.22	54.7449
1175.09	41.5822
1177.93	44.6517
1189.05	44.7591
1204.90	53.0749
1205.75	0.0000
1213.00	35.7847
1221.42	40.9701
1230.97	66.7086
1235.34	51.3611
1236.41	0.0000
1238.25	55.5029
1246.25	43.2407
1260.41	0.0000
1271.85	37.2583
1274.45	44.5257
1274.54	44.5275
1291.56	31.1719
1298.22	0.0000
1312.09	37.5601
1325.50	24.0603
1325.50	24.0603
1332.49	34.5697
1333.61	33.5286
1360.21	23.1709
1362.66	0.0000
1365.15	30.5718
1368.21	27.4261
1368.53	0.0000
1376.25	26.4119
1384.27	19.0459
1394.10	19.0811
1395.20	28.6282
1407.95	23.3822
1434.06	25.6328
1436.60	23.5075
1457.56	0.0000
1460.81	14.7199
1489.15	23.7349
1509.49	18.4070
1596.49	27.3261
1620.62	14.1922
1678.03	0.0000
1691.02	10.5300
1691.02	10.5300
1706.46	0.0000
1750.46	0.0000
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1770.23	8.4833
1771.40	23.2726
1791.20	0.0000
1808.65	11.7045

1836.01	9.7949

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960002

Total Uranium Activity	1.8999E+01	ug/g
Total Uranium Counting Unc.	9.1123E+00	ug/g
Total Uranium Tpu	4.6491E-06	ug/g
Total Uranium Mda	4.4439E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                      GEL Laboratories LLC                                 *
*                           2040 SAVAGE ROAD                                *
*                         CHARLESTON ,SC 29417                              *
*                          GROSS GAMMA REPORT                               *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID  : G245960002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM23            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 14:45:14.66    SAMPLE ALQT:  121.120 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.793E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.334E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.376E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.636E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:04.79

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:29
Sample ID         : G245960003           Sample quantity  : 1.30300E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.18  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.32*	102	581	0.83	126.89	123	9	1.42E-02	44.9	
2	3	74.87	535	540	1.15	149.97	143	17	7.42E-02	8.6	1.25E+00
3	3	77.17	819	457	1.02	154.57	143	17	1.14E-01	5.4	
4	2	87.28*	295	532	1.16	174.76	171	24	4.10E-02	13.9	1.19E+00
5	2	90.05	177	421	1.04	180.31	171	24	2.46E-02	19.6	
6	2	92.84*	316	508	1.29	185.87	171	24	4.40E-02	15.0	
7	0	185.97*	387	603	1.48	371.95	366	13	5.37E-02	14.5	
8	0	209.79	191	565	1.20	419.55	413	12	2.66E-02	26.0	
9	3	238.71*	1854	282	1.25	477.34	470	20	2.57E-01	2.9	1.46E+00
10	3	241.76	458	317	1.89	483.44	470	20	6.36E-02	11.3	
11	0	269.96*	132	288	1.28	539.80	536	9	1.83E-02	25.3	
12	0	295.30*	549	303	1.37	590.42	585	10	7.62E-02	7.4	
13	0	300.07*	71	241	1.34	599.95	596	8	9.91E-03	40.4	
14	0	327.82	95	227	0.72	655.40	651	9	1.33E-02	30.2	
15	0	338.43*	385	336	1.43	676.61	671	14	5.35E-02	11.5	
16	0	351.92*	1094	289	1.34	703.57	697	15	1.52E-01	4.6	
17	0	462.73	128	217	1.13	925.02	918	14	1.78E-02	26.0	
18	0	510.88*	208	280	2.06	1021.27	1011	19	2.89E-02	22.8	
19	0	583.26*	584	162	1.65	1165.94	1160	15	8.11E-02	6.6	
20	0	609.38*	793	201	1.74	1218.14	1211	17	1.10E-01	5.6	
21	0	727.49*	179	163	1.83	1454.24	1446	18	2.49E-02	18.6	
22	0	768.24	43	138	1.83	1535.71	1532	11	5.90E-03	55.6	
23	0	795.66	108	113	2.04	1590.51	1582	18	1.50E-02	25.0	
24	0	860.49	110	94	1.99	1720.13	1713	16	1.53E-02	21.7	
25	0	911.27*	437	121	2.16	1821.65	1815	17	6.07E-02	7.7	
26	5	964.87	32	71	1.37	1928.83	1926	20	4.38E-03	43.4	1.76E+00
27	5	969.04*	274	126	2.27	1937.17	1926	20	3.80E-02	10.9	
28	0	1120.29*	144	84	2.76	2239.61	2233	12	2.00E-02	16.2	
29	0	1377.27	88	15	2.82	2753.55	2745	16	1.22E-02	14.8	
30	0	1460.60*	1447	53	2.59	2920.22	2908	26	2.01E-01	3.0	
31	0	1729.72	63	17	2.79	3458.60	3449	17	8.75E-03	19.6	
32	0	1764.55*	142	27	2.86	3528.29	3517	22	1.98E-02	13.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:48:07

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:29
Sample ID : G245960003 Sample quantity : 130.30 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.18 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.046E+01	2.243E+00	4.166E-01	3.816E-02	49.121
CD-109	+	88.03	*	3.126E+00	9.179E-01	1.121E+00	1.064E-01	2.789
SN-126	+	64.28		7.066E-01	6.427E-01	6.830E-01	9.920E-02	1.034
	+	86.94		1.277E+00	6.384E-01	4.624E-01	1.920E-01	2.762
	+	87.57	*	3.072E-01	9.021E-02	1.106E-01	1.044E-02	2.778
TL-208		277.35		4.536E-01	3.751E-01	6.177E-01	1.019E-01	0.734
	+	510.84		6.451E-01	3.057E-01	1.863E-01	2.428E-02	3.463
	+	583.14	*	5.086E-01	8.663E-02	5.123E-02	5.555E-03	9.928
	+	860.37		8.737E-01	3.918E-01	3.815E-01	4.446E-02	2.290
BI-211		72.87		4.155E+00	2.577E+00	4.399E+00	3.521E-01	0.944
	+	351.07	*	4.508E+00	6.674E-01	2.660E-01	3.103E-02	16.949
PB-212	+	74.81		2.331E+00	4.926E-01	4.541E-01	5.635E-02	5.133
	+	77.11		2.025E+00	2.782E-01	2.586E-01	2.162E-02	7.833
	+	87.30		1.421E+00	4.408E-01	5.128E-01	7.041E-02	2.771
	+	238.63	*	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
	+	300.09		1.019E+00	8.358E-01	9.990E-01	1.457E-01	1.020
PO-212	+	74.81		2.331E+00	4.926E-01	4.541E-01	5.635E-02	5.133
	+	77.11		2.025E+00	2.782E-01	2.586E-01	2.162E-02	7.833
	+	87.30		1.421E+00	4.408E-01	5.128E-01	7.041E-02	2.771
		115.19		2.376E+00	3.445E+00	5.614E+00	4.650E-01	0.423
	+	238.63	*	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
	+	300.09		1.019E+00	8.358E-01	9.990E-01	1.457E-01	1.020
BI-214	+	609.31	*	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
	+	1120.29		1.173E+00	4.009E-01	3.688E-01	4.075E-02	3.180
	+	1764.49		1.512E+00	4.234E-01	2.599E-01	2.165E-02	5.819
PB-214	+	74.81		4.017E+00	8.173E-01	7.825E-01	8.625E-02	5.133
	+	77.11		3.472E+00	5.454E-01	4.433E-01	5.015E-02	7.833
	+	87.30		2.434E+00	7.390E-01	8.784E-01	1.069E-01	2.771
	+	241.98		2.645E+00	7.003E-01	4.654E-01	6.400E-02	5.683
	+	295.21		1.379E+00	2.904E-01	1.974E-01	2.940E-02	6.986
	+	351.92	*	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
PO-214	+	74.81		4.017E+00	8.173E-01	7.825E-01	8.625E-02	5.133
	+	77.11		3.472E+00	5.454E-01	4.433E-01	5.015E-02	7.833
	+	87.30		2.434E+00	7.390E-01	8.784E-01	1.069E-01	2.771

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.645E+00	7.003E-01	4.654E-01	6.400E-02	5.683
	+	295.21		1.379E+00	2.904E-01	1.974E-01	2.940E-02	6.986
	+	351.92	*	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
PO-216	+	74.81		2.331E+00	4.926E-01	4.541E-01	5.635E-02	5.133
	+	77.11		2.025E+00	2.782E-01	2.586E-01	2.162E-02	7.833
	+	87.30		1.421E+00	4.408E-01	5.128E-01	7.041E-02	2.771
	+	238.63	*	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
	+	300.09		1.019E+00	8.358E-01	9.990E-01	1.457E-01	1.020
PO-218	+	74.81		4.017E+00	8.173E-01	7.825E-01	8.625E-02	5.133
	+	77.11		3.472E+00	5.454E-01	4.433E-01	5.015E-02	7.833
	+	87.30		2.434E+00	7.390E-01	8.784E-01	1.069E-01	2.771
	+	241.98		2.645E+00	7.003E-01	4.654E-01	6.400E-02	5.683
	+	295.21		1.379E+00	2.904E-01	1.974E-01	2.940E-02	6.986
	+	351.92	*	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
RA-224	+	240.98	*	5.015E+00	1.298E+00	8.800E-01	1.102E-01	5.700
RA-226	+	609.31	*	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
	+	1120.29		1.173E+00	4.009E-01	3.688E-01	4.075E-02	3.180
	+	1764.49		1.512E+00	4.234E-01	2.599E-01	2.165E-02	5.819
AC-228	+	338.32		1.761E+00	8.441E-01	3.372E-01	1.419E-01	5.223
	+	911.07	*	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
	+	969.11		1.792E+00	5.825E-01	3.221E-01	7.778E-02	5.565
RA-228	+	338.32		1.761E+00	8.441E-01	3.372E-01	1.419E-01	5.223
	+	911.07	*	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
	+	969.11		1.792E+00	5.825E-01	3.221E-01	7.778E-02	5.565
TH-228	+	74.81		2.367E+00	4.493E-01	4.610E-01	3.798E-02	5.133
	+	77.11		2.056E+00	2.824E-01	2.625E-01	2.195E-02	7.833
	+	87.30		1.442E+00	4.236E-01	5.206E-01	4.899E-02	2.771
	+	238.63	*	1.812E+00	2.613E-01	7.858E-02	1.038E-02	23.057
	+	300.09		1.035E+00	1.041E+00	1.014E+00	6.100E-01	1.020
TH-230	+	609.31	*	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
	+	1120.29		1.173E+00	4.009E-01	3.688E-01	4.075E-02	3.180
	+	1764.49		1.512E+00	4.234E-01	2.599E-01	2.165E-02	5.819
TH-232	+	338.32		1.761E+00	4.556E-01	3.372E-01	4.010E-02	5.223
	+	911.07	*	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
	+	969.11		1.792E+00	5.825E-01	3.221E-01	7.778E-02	5.565
TH-234	+	63.29	*	1.785E+00	1.633E+00	1.684E+00	2.931E-01	1.060
	+	92.38		2.142E+00	7.518E-01	7.294E-01	1.336E-01	2.937
U-234	+	609.31	*	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
	+	1120.29		1.173E+00	4.009E-01	3.688E-01	4.075E-02	3.180
	+	1764.49		1.512E+00	4.234E-01	2.599E-01	2.165E-02	5.819
NP-237	+	86.50	*	9.021E-01	3.238E-01	3.584E-01	8.115E-02	2.517
		95.87		-6.288E-01	9.333E-01	1.278E+00	3.161E-01	-0.492
U-238	+	63.29	*	1.785E+00	1.633E+00	1.684E+00	2.931E-01	1.060
	+	92.38		2.142E+00	6.703E-01	7.294E-01	6.646E-02	2.937
AM-243	+	74.67	*	3.779E-01	7.163E-02	7.383E-02	6.018E-03	5.119
	+	86.72		3.383E+01	9.934E+00	1.341E+01	1.253E+00	2.522
		117.66		-1.961E+00	3.590E+00	5.580E+00	4.609E-01	-0.352
		142.18		1.107E+00	1.566E+01	2.646E+01	2.337E+00	0.042
ANH-511	+	511.00	*	1.393E-01	6.500E-02	4.025E-02	4.033E-03	3.462

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-7.084E-02	2.797E-01	4.451E-01	4.646E-02	-0.159
NA-22		1274.54	*	-3.324E-02	3.568E-02	5.456E-02	4.702E-03	-0.609
NA-24		1368.53	*	2.833E-01	3.568E-02	Half-Life too short		
AL-26		1129.67		6.219E-01	1.394E+00	2.293E+00	1.996E-01	0.271
		1808.65	*	-1.518E-02	2.380E-02	3.535E-02	2.891E-03	-0.430
TI-44		67.85		-1.309E-02	4.280E-02	6.236E-02	4.760E-03	-0.210
	+	78.38	*	3.737E-01	5.134E-02	6.819E-02	5.782E-03	5.481
SC-46		889.25	*	-3.399E-02	3.253E-02	4.957E-02	5.548E-03	-0.686
	+	1120.51		2.008E-01	6.735E-02	1.079E-01	9.543E-03	1.861
V-48		944.10		-4.121E-01	7.411E-01	1.171E+00	1.270E-01	-0.352
		983.50	*	-2.241E-02	6.068E-02	9.697E-02	1.017E-02	-0.231
		1312.09		1.081E-02	7.009E-02	1.170E-01	1.031E-02	0.092
CR-51		320.08	*	4.080E-02	3.288E-01	5.530E-01	7.160E-02	0.074
MN-52		744.21		-1.018E-01	2.021E-01	3.163E-01	3.437E-02	-0.322
		848.13		-1.103E+00	5.696E+00	9.370E+00	1.043E+00	-0.118
		935.52		3.617E-01	2.213E-01	3.971E-01	4.336E-02	0.911
		1246.25		-7.291E+00	6.126E+00	9.273E+00	7.839E-01	-0.786
		1333.61		5.059E-01	3.473E+00	5.808E+00	5.180E-01	0.087
		1434.06	*	7.697E-02	1.801E-01	3.080E-01	2.753E-02	0.250
MN-54		834.83	*	-3.476E-05	3.294E-02	5.496E-02	6.106E-03	-0.001
CO-56		846.75	*	-2.273E-02	3.464E-02	5.522E-02	6.147E-03	-0.412
		977.42		-4.663E-01	2.972E+00	4.097E+00	4.321E-01	-0.114
		1037.82		-1.253E-01	2.591E-01	4.073E-01	4.200E-02	-0.308
		1175.09		1.778E-01	1.772E+00	2.976E+00	2.396E-01	0.060
		1238.25		1.156E-01	7.414E-02	1.333E-01	1.155E-02	0.868
		1360.21		-2.482E-02	7.300E-01	1.196E+00	1.068E-01	-0.021
		1771.40		-1.990E-01	2.579E-01	3.075E-01	2.555E-02	-0.647
CO-57		122.06	*	-3.545E-03	2.288E-02	3.603E-02	2.971E-03	-0.098
		136.48		1.892E-02	1.871E-01	3.173E-01	2.944E-02	0.060
CO-58		810.76	*	-2.963E-02	3.236E-02	5.063E-02	5.606E-03	-0.585
FE-59		142.65		1.669E+00	2.475E+00	4.141E+00	3.664E-01	0.403
		192.34		-7.742E-02	9.546E-01	1.453E+00	2.158E-01	-0.053
		1099.22	*	1.112E-02	8.212E-02	1.346E-01	1.319E-02	0.083
		1291.56		6.216E-02	1.038E-01	1.789E-01	1.764E-02	0.347
CO-60		1173.22		1.117E-02	3.586E-02	6.106E-02	4.910E-03	0.183
		1332.49	*	3.240E-03	2.739E-02	4.567E-02	4.073E-03	0.071
ZN-65		1115.52	*	8.251E-02	8.912E-02	1.338E-01	1.193E-02	0.617
GE-68		1077.35	*	-3.808E-01	1.066E+00	1.688E+00	1.592E-01	-0.226
AS-73		53.44	*	4.043E-02	6.594E-01	1.071E+00	8.092E-02	0.038
AS-74		595.88	*	-3.616E-02	8.245E-02	1.333E-01	1.382E-02	-0.271
		634.78		1.115E-02	2.957E-01	4.884E-01	5.119E-02	0.023
SE-75		66.05		-1.777E-01	4.415E+00	6.439E+00	6.143E-01	-0.028
		96.73		-5.752E-01	7.619E-01	1.047E+00	1.442E-01	-0.549
		121.11		-7.319E-02	1.252E-01	1.934E-01	2.115E-02	-0.378
		136.00		7.170E-03	3.526E-02	6.001E-02	5.207E-03	0.119
		198.60		5.090E-01	1.787E+00	2.892E+00	3.380E-01	0.176
		264.65	*	2.736E-02	4.524E-02	6.566E-02	8.837E-03	0.417
		279.53		5.089E-02	1.059E-01	1.724E-01	2.448E-02	0.295
		303.91		-1.023E+00	2.103E+00	2.979E+00	4.539E-01	-0.343

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		-1.392E-01	2.257E-01	3.581E-01	4.191E-02	-0.389
BR-77	+	87.88		6.834E+02	2.007E+02	2.959E+02	2.804E+01	2.310
		200.40		-8.237E+01	1.581E+02	2.548E+02	2.802E+01	-0.323
	+	239.00		2.901E+02	3.976E+01	3.498E+01	4.353E+00	8.291
		249.79		7.181E+01	5.943E+01	9.995E+01	1.285E+01	0.718
		281.68		-5.515E+01	8.811E+01	1.364E+02	1.900E+01	-0.404
		297.23		3.629E+02	1.028E+02	1.196E+02	1.608E+01	3.035
		303.76		-8.813E+01	1.812E+02	2.568E+02	3.397E+01	-0.343
		439.47		8.414E+01	1.265E+02	2.128E+02	2.048E+01	0.395
		484.57		8.637E+01	2.044E+02	3.375E+02	3.336E+01	0.256
		520.65	*	-9.131E+00	9.002E+00	1.382E+01	1.391E+00	-0.661
		574.64		1.651E+01	1.901E+02	3.109E+02	3.199E+01	0.053
		578.91		6.931E+01	8.648E+01	1.309E+02	1.349E+01	0.529
		585.48		1.938E+03	3.082E+02	4.636E+02	4.788E+01	4.181
		755.35		9.081E+01	1.463E+02	2.460E+02	2.682E+01	0.369
		817.79		2.704E+01	1.054E+02	1.792E+02	1.984E+01	0.151
SR-82		698.33		-7.459E+00	2.977E+01	4.790E+01	5.124E+00	-0.156
		776.49	*	-4.438E-01	3.884E-01	5.227E-01	5.733E-02	-0.849
		1395.20		-1.046E+01	9.034E+00	1.294E+01	1.157E+00	-0.808
RB-83		520.41	*	-6.206E-02	5.871E-02	8.985E-02	9.042E-03	-0.691
		529.64		-4.022E-02	8.744E-02	1.426E-01	1.441E-02	-0.282
		552.65		-7.749E-02	1.641E-01	2.662E-01	2.716E-02	-0.291
RB-84		881.50	*	8.729E-03	6.238E-02	1.044E-01	1.168E-02	0.084
KR-85		513.99	*	3.411E+01	8.369E+00	1.362E+01	1.367E+00	2.504
SR-85		513.99	*	1.750E-01	4.293E-02	6.986E-02	7.010E-03	2.504
RB-86		1076.63	*	-2.684E-01	6.821E-01	1.077E+00	1.017E-01	-0.249
Y-88		898.02		2.622E-03	3.464E-02	5.770E-02	6.483E-03	0.045
		1836.01	*	-1.010E-02	2.652E-02	4.108E-02	3.321E-03	-0.246
ZR-88		392.90	*	-1.711E-02	2.799E-02	4.460E-02	4.152E-03	-0.384
Y-91		1204.90	*	3.895E+00	1.502E+01	2.541E+01	2.089E+00	0.153
NB-94		702.63	*	7.404E-03	2.954E-02	4.890E-02	5.240E-03	0.151
		871.10		-3.161E-02	3.039E-02	4.561E-02	5.095E-03	-0.693
NB-95		765.79	*	6.348E-02	4.527E-02	6.909E-02	7.555E-03	0.919
NB-95M		235.69	*	2.272E-01	1.320E-01	1.987E-01	2.626E-02	1.143
ZR-95		724.18		1.638E-01	1.014E-01	1.567E-01	1.787E-02	1.045
		756.15	*	7.139E-02	6.235E-02	1.074E-01	1.247E-02	0.665
NB-97		657.90	*	-2.883E-02	6.235E-02	Half-Life too short		
		1024.50		2.684E+00	6.235E-02	Half-Life too short		
ZR-97		254.15		-5.215E+00	6.235E-02	Half-Life too short		
		355.39		4.807E+00	6.235E-02	Half-Life too short		
		507.63	*	5.812E+00	6.235E-02	Half-Life too short		
		602.52		4.144E+00	6.235E-02	Half-Life too short		
		1021.30		3.678E+00	6.235E-02	Half-Life too short		
		1147.95		-2.153E+00	6.235E-02	Half-Life too short		
		1362.66		-4.080E+00	6.235E-02	Half-Life too short		
		1750.46		-3.379E+00	6.235E-02	Half-Life too short		
MO-99		140.51		-2.099E+01	2.529E+01	3.933E+01	1.091E+01	-0.534
		181.06		1.127E+00	1.794E+01	2.619E+01	5.013E+00	0.043
		366.43		4.445E+01	7.427E+01	1.261E+02	1.338E+01	0.352

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	2.324E+00	9.731E+00	1.605E+01	2.657E+00	0.145
		778.00		-4.013E+01	3.250E+01	4.787E+01	5.253E+00	-0.838
TC-99M		140.51	*	-3.382E+10	3.250E+01	Half-Life too short		
RH-101		127.23		4.979E-03	3.158E-02	5.019E-02	4.195E-03	0.099
		198.01	*	1.064E-02	3.262E-02	5.288E-02	5.769E-03	0.201
		325.23		-2.504E-02	2.201E-01	3.175E-01	3.946E-02	-0.079
RH-102		418.52		-1.076E-01	2.516E-01	4.020E-01	3.815E-02	-0.268
		475.06	*	2.369E-03	2.505E-02	4.072E-02	4.004E-03	0.058
		631.29		-3.211E-02	4.538E-02	7.132E-02	7.468E-03	-0.450
		697.49		-1.720E-02	6.647E-02	1.069E-01	1.143E-02	-0.161
	+	766.84		1.136E-01	1.269E-01	1.762E-01	1.928E-02	0.644
		1046.59		8.599E-02	1.033E-01	1.775E-01	1.741E-02	0.485
		1112.84		3.279E-02	2.144E-01	3.005E-01	2.690E-02	0.109
RU-103		497.08	*	-8.998E-03	3.294E-02	5.205E-02	7.812E-03	-0.173
	+	610.33		1.399E+01	2.920E+00	2.531E+00	4.474E-01	5.527
RH-106	+	511.85		6.960E-01	3.247E-01	3.893E-01	3.902E-02	1.788
		621.84	*	1.274E-01	2.797E-01	4.726E-01	6.901E-02	0.270
		1050.47		8.009E-01	2.096E+00	3.507E+00	3.423E-01	0.228
RU-106	+	511.85		6.960E-01	3.247E-01	3.893E-01	3.902E-02	1.788
		621.84	*	1.274E-01	2.794E-01	4.726E-01	4.936E-02	0.270
		1050.47		8.009E-01	2.096E+00	3.507E+00	3.423E-01	0.228
AG-108M		433.93	*	3.018E-03	2.877E-02	4.716E-02	4.668E-03	0.064
		614.37		3.775E-02	3.793E-02	5.785E-02	6.192E-03	0.653
		722.95		3.349E-02	4.141E-02	6.156E-02	6.811E-03	0.544
AG-110M		657.75	*	-1.020E-02	3.131E-02	5.044E-02	5.421E-03	-0.202
		677.61		6.370E-02	2.467E-01	4.108E-01	4.442E-02	0.155
		706.67		4.390E-02	1.850E-01	3.059E-01	3.342E-02	0.143
		763.93		1.658E-03	1.668E-01	2.311E-01	2.571E-02	0.007
		884.67		-2.196E-03	4.275E-02	7.070E-02	8.062E-03	-0.031
		937.48		-1.411E-02	9.792E-02	1.601E-01	1.785E-02	-0.088
		1384.27		7.792E-02	1.438E-01	2.162E-01	1.983E-02	0.360
IN-111		171.28		4.573E-01	9.371E-01	1.583E+00	1.580E-01	0.289
		245.39	*	-6.344E-01	1.045E+00	1.416E+00	1.796E-01	-0.448
IN-113M		391.69	*	-4.112E-03	4.053E-02	6.634E-02	6.335E-03	-0.062
SN-113		391.69	*	-4.112E-03	4.053E-02	6.634E-02	6.335E-03	-0.062
IN-114M		190.27	*	2.747E-02	1.898E-01	2.769E-01	2.944E-02	0.099
CD-115		260.90		-5.899E+01	1.253E+02	1.971E+02	2.619E+01	-0.299
		492.35		-1.418E+01	3.054E+01	4.772E+01	4.736E+00	-0.297
		527.90	*	5.526E+00	8.978E+00	1.552E+01	1.567E+00	0.356
SN-117M		156.02		-8.027E-03	2.050E+00	3.434E+00	3.219E-01	-0.002
		158.56	*	3.104E-02	5.047E-02	8.599E-02	8.155E-03	0.361
SB-122		563.90	*	-1.039E+00	1.781E+00	2.867E+00	2.939E-01	-0.362
		692.80		4.829E+00	3.717E+01	6.123E+01	6.538E+00	0.079
I-123		159.00	*	3.023E+00	3.717E+01	Half-Life too short		
		528.96		-5.368E+01	3.717E+01	Half-Life too short		
TE-123M		159.00	*	1.418E-02	2.623E-02	4.460E-02	4.259E-03	0.318
I-124		602.71	*	2.750E-01	6.860E-01	1.006E+00	1.045E-01	0.273
		722.78		2.737E+00	4.308E+00	6.329E+00	6.830E-01	0.432
		1325.50		3.040E+00	3.026E+01	4.677E+01	4.154E+00	0.065

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1376.25		9.726E+01	3.000E+01	5.242E+01	4.685E+00	1.855
		1509.49		1.630E+01	1.529E+01	2.705E+01	2.404E+00	0.603
		1691.02		4.583E-01	2.870E+00	4.856E+00	4.152E-01	0.094
SB-124		602.71		1.588E-02	3.962E-02	5.809E-02	6.034E-03	0.273
		645.85		1.567E-01	4.213E-01	7.083E-01	7.747E-02	0.221
		709.31		1.233E+00	2.393E+00	4.019E+00	4.317E-01	0.307
		713.82		-8.199E-01	1.378E+00	2.151E+00	2.937E-01	-0.381
		722.78		2.291E-01	3.607E-01	5.299E-01	5.797E-02	0.432
	+	968.20		1.846E+01	4.469E+00	6.469E+00	6.878E-01	2.853
		1045.16		9.352E-01	2.240E+00	3.756E+00	3.690E-01	0.249
		1325.50		2.718E-01	2.706E+00	4.182E+00	3.714E-01	0.065
		1368.21		5.943E-01	1.605E+00	2.357E+00	3.224E-01	0.252
		1436.60		-1.507E-01	3.057E+00	4.972E+00	4.443E-01	-0.030
		1691.02	*	9.050E-03	5.668E-02	9.589E-02	8.529E-03	0.094
SB-125		427.89	*	-2.049E-02	8.571E-02	1.382E-01	1.341E-02	-0.148
	+	463.38		7.848E-01	4.162E-01	4.851E-01	5.030E-02	1.618
		600.56		1.125E-01	1.686E-01	2.760E-01	3.012E-02	0.408
		635.90		1.423E-01	2.287E-01	3.819E-01	4.225E-02	0.373
TE-125M		109.28	*	8.593E-01	8.373E+00	1.343E+01	1.360E+00	0.064
I-126		388.63		1.041E-01	1.795E-01	3.032E-01	2.871E-02	0.343
		666.33	*	-3.982E-02	1.605E-01	2.594E-01	2.741E-02	-0.153
		753.82		-5.220E-01	1.299E+00	2.050E+00	2.234E-01	-0.255
SB-126		223.80		-9.384E-01	3.754E+00	6.056E+00	7.186E-01	-0.155
		278.60		3.394E+00	2.449E+00	4.067E+00	5.685E-01	0.835
	+	296.50		1.376E+01	2.768E+00	3.372E+00	4.543E-01	4.082
		414.70		1.428E-02	6.746E-02	1.115E-01	1.056E-02	0.128
		415.30		1.424E+00	5.541E+00	9.181E+00	8.694E-01	0.155
		555.20		-3.472E+00	3.265E+00	5.074E+00	5.183E-01	-0.684
		573.80		-5.294E-02	9.185E-01	1.523E+00	1.567E-01	-0.035
		593.00		-3.631E-01	8.218E-01	1.297E+00	1.343E-01	-0.280
		656.30		-1.611E+00	3.064E+00	4.876E+00	5.136E-01	-0.331
		666.33		-1.664E-02	6.706E-02	1.084E-01	1.146E-02	-0.153
		675.00		5.822E-01	1.595E+00	2.674E+00	2.835E-01	0.218
		695.00		-1.337E-02	6.584E-02	1.062E-01	1.135E-02	-0.126
		697.00		5.590E-03	2.314E-01	3.786E-01	4.049E-02	0.015
		720.50	*	7.378E-02	1.367E-01	2.001E-01	2.157E-02	0.369
		856.80		4.005E-01	4.518E-01	6.933E-01	7.730E-02	0.578
		989.30		-8.661E-01	1.083E+00	1.669E+00	1.740E-01	-0.519
		1034.80		2.414E+00	7.317E+00	1.225E+01	1.218E+00	0.197
		1213.00		2.206E+00	3.683E+00	6.358E+00	5.257E-01	0.347
SB-127		61.10		-1.255E+01	4.918E+01	7.226E+01	7.301E+00	-0.174
		252.40		-1.688E+00	4.054E+00	6.315E+00	2.724E+00	-0.267
		290.80		-1.150E+01	2.092E+01	2.963E+01	4.561E+00	-0.388
		411.60		-5.604E+00	1.122E+01	1.788E+01	2.896E+00	-0.313
		444.90		-5.202E+00	8.600E+00	1.347E+01	1.789E+00	-0.386
		473.00		1.184E-01	1.448E+00	2.353E+00	3.225E-01	0.050
		543.00		-6.514E-01	1.435E+01	2.393E+01	3.681E+00	-0.027
		603.60		-6.795E+00	1.211E+01	1.645E+01	2.269E+00	-0.413
		685.20	*	6.454E-02	1.114E+00	1.829E+00	2.377E-01	0.035

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		-2.825E+00	1.338E+01	2.156E+01	3.676E+00	-0.131
		722.20		1.997E+01	2.874E+01	4.245E+01	5.484E+00	0.471
		783.80		5.780E+00	3.364E+00	5.829E+00	8.261E-01	0.992
XE-127		57.60		4.272E+00	4.772E+00	8.182E+00	5.877E-01	0.522
		145.22		-3.011E-02	6.267E-01	1.024E+00	9.160E-02	-0.029
		172.10		-6.752E-03	1.110E-01	1.842E-01	1.844E-02	-0.037
		202.84	*	-2.291E-02	4.803E-02	7.140E-02	7.915E-03	-0.321
		374.96		6.038E-02	1.693E-01	2.841E-01	2.893E-02	0.212
I-131		80.18		-2.437E+00	4.226E+00	5.997E+00	5.220E-01	-0.406
		284.30		-1.022E+00	1.426E+00	2.190E+00	3.096E-01	-0.467
		364.48	*	-4.245E-02	1.007E-01	1.631E-01	1.807E-02	-0.260
		636.97		1.459E+00	1.323E+00	2.259E+00	2.459E-01	0.646
		722.89		5.214E+00	6.971E+00	1.032E+01	1.119E+00	0.505
TE-132		49.72		6.412E+00	1.502E+01	2.560E+01	2.659E+00	0.250
		111.76		4.273E+00	2.850E+01	4.483E+01	4.770E+00	0.095
		116.30		2.645E+01	2.652E+01	4.352E+01	4.610E+00	0.608
		228.16	*	4.005E-01	6.496E-01	1.076E+00	1.917E-01	0.372
BA-133		53.15		2.837E-01	2.858E+00	4.651E+00	3.529E-01	0.061
		79.62		6.095E-01	1.153E+00	1.716E+00	2.610E-01	0.355
		81.00		-1.062E-01	9.290E-02	1.263E-01	2.013E-02	-0.841
		276.40		3.221E-01	3.820E-01	6.051E-01	1.095E-01	0.532
		302.84		1.105E-02	1.439E-01	2.115E-01	3.527E-02	0.052
		356.01	*	9.995E-03	4.059E-02	5.940E-02	8.876E-03	0.168
		383.85		-9.649E-02	2.608E-01	4.213E-01	5.637E-02	-0.229
I-133	+	510.53		1.465E+00	2.608E-01	Half-Life too short		
		529.87	*	-2.290E-03	2.608E-01	Half-Life too short		
		706.58		1.051E-01	2.608E-01	Half-Life too short		
		856.28		3.256E-01	2.608E-01	Half-Life too short		
		875.33		8.224E-02	2.608E-01	Half-Life too short		
		1236.41		8.400E-01	2.608E-01	Half-Life too short		
		1298.22		-8.823E-02	2.608E-01	Half-Life too short		
CS-134		475.35		-8.307E-02	1.662E+00	2.679E+00	2.635E-01	-0.031
		563.23		9.228E-04	3.031E-01	5.050E-01	5.210E-02	0.002
		569.32		9.761E-02	1.706E-01	2.919E-01	3.027E-02	0.334
		604.70		-1.409E-02	3.550E-02	4.900E-02	5.102E-03	-0.288
	+	795.84	*	1.318E-01	6.742E-02	7.614E-02	8.427E-03	1.731
		801.93		-4.899E-02	4.248E-01	5.654E-01	6.260E-02	-0.087
		1038.57		-2.503E+00	3.235E+00	4.957E+00	4.908E-01	-0.505
		1167.94		-2.153E-03	2.019E+00	3.370E+00	2.739E-01	-0.001
		1365.15		-7.418E-01	1.049E+00	1.503E+00	1.400E-01	-0.494
CS-135		268.24	*	1.303E-01	1.734E-01	2.473E-01	3.577E-02	0.527
I-135		288.45		-1.859E+09	1.734E-01	Half-Life too short		
		417.63		5.401E+09	1.734E-01	Half-Life too short		
		546.56		-5.329E+09	1.734E-01	Half-Life too short		
		836.80		1.546E+10	1.734E-01	Half-Life too short		
		1038.76		-1.684E+10	1.734E-01	Half-Life too short		
		1124.00		1.121E+11	1.734E-01	Half-Life too short		
		1131.51		3.194E+09	1.734E-01	Half-Life too short		
		1260.41	*	8.251E+07	1.734E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1457.56		8.549E+11	1.734E-01	Half-Life too short		
		1678.03		1.904E+09	1.734E-01	Half-Life too short		
		1706.46		1.964E+10	1.734E-01	Half-Life too short		
		1791.20		1.013E+10	1.734E-01	Half-Life too short		
CS-136		66.91		-3.000E-01	7.246E-01	1.037E+00	1.542E-01	-0.289
	+	86.29		4.018E+00	1.240E+00	1.751E+00	2.332E-01	2.294
		153.22		2.075E-01	6.131E-01	1.038E+00	1.060E-01	0.200
		163.89		2.157E-01	9.966E-01	1.675E+00	1.783E-01	0.129
		176.55		6.247E-02	3.481E-01	5.812E-01	6.151E-02	0.107
		273.65		-7.886E-01	5.444E-01	6.826E-01	9.656E-02	-1.155
		340.57		5.046E-01	1.635E-01	2.496E-01	2.990E-02	2.022
		818.51		-1.438E-02	5.859E-02	9.628E-02	1.067E-02	-0.149
		1048.07	*	1.005E-01	9.937E-02	1.721E-01	1.740E-02	0.584
		1235.34		6.417E-01	4.833E-01	8.547E-01	9.988E-02	0.751
BA-137M		661.65	*	3.546E-02	3.275E-02	5.654E-02	5.962E-03	0.627
CS-137		661.65	*	3.748E-02	3.462E-02	5.977E-02	6.311E-03	0.627
CE-139		165.85	*	2.647E-04	2.796E-02	4.664E-02	4.574E-03	0.006
BA-140		162.64		-6.733E-03	6.998E-01	1.168E+00	1.182E-01	-0.006
		304.84		-7.405E-01	1.305E+00	1.817E+00	5.405E-01	-0.408
		423.70		5.113E-01	1.697E+00	2.802E+00	9.153E-01	0.182
		537.32	*	2.402E-03	2.210E-01	3.700E-01	1.242E-01	0.006
LA-140	+	328.77		5.432E-01	3.348E-01	4.947E-01	6.249E-02	1.098
		432.53		-5.465E-01	1.908E+00	3.035E+00	3.024E-01	-0.180
		487.03		1.411E-01	1.203E-01	2.056E-01	2.131E-02	0.686
		751.79		-2.777E-01	1.492E+00	2.389E+00	2.780E-01	-0.116
		815.85		1.003E-01	2.559E-01	4.385E-01	5.199E-02	0.229
		867.82		-5.446E-01	1.360E+00	1.854E+00	2.136E-01	-0.294
		919.63		-2.653E-01	2.541E+00	3.547E+00	4.501E-01	-0.075
		925.24		5.009E-02	9.072E-01	1.505E+00	1.720E-01	0.033
		1596.49	*	-1.155E-01	7.721E-02	1.078E-01	9.450E-03	-1.071
CE-141		145.44	*	1.030E-03	5.478E-02	9.226E-02	8.399E-03	0.011
CE-143		57.37		5.576E-04	5.478E-02	Half-Life too short		
		231.56		-1.710E-03	5.478E-02	Half-Life too short		
		293.26	*	9.813E-04	5.478E-02	Half-Life too short		
	+	350.59		3.649E-02	5.478E-02	Half-Life too short		
		490.36		-2.435E-03	5.478E-02	Half-Life too short		
		664.57		4.538E-04	5.478E-02	Half-Life too short		
		721.93		7.609E-04	5.478E-02	Half-Life too short		
CE-144		80.11		-1.038E+00	1.941E+00	2.760E+00	2.386E-01	-0.376
		133.54	*	-4.527E-02	1.825E-01	3.064E-01	4.756E-02	-0.148
PM-144		476.78		-1.216E-02	5.888E-02	9.400E-02	9.924E-03	-0.129
		618.01		-1.257E-02	3.185E-02	4.568E-02	4.857E-03	-0.275
		696.49	*	2.399E-03	2.967E-02	4.870E-02	5.208E-03	0.049
		778.57		-2.788E+00	2.162E+00	3.167E+00	3.476E-01	-0.880
PR-144		696.49	*	1.626E-01	2.010E+00	3.300E+00	3.528E-01	0.049
		1489.15		-1.491E+01	1.144E+01	1.600E+01	1.425E+00	-0.932
PM-146		453.90	*	1.077E-02	4.090E-02	6.552E-02	7.614E-03	0.164
		633.02		-5.338E-01	1.180E+00	1.863E+00	7.050E-01	-0.287
		735.90		2.567E-02	1.451E-01	2.050E-01	6.017E-02	0.125

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		747.13		5.108E-02	7.552E-02	1.274E-01	1.979E-02	0.401
ND-147	+	91.11		6.191E-01	2.501E-01	4.494E-01	4.440E-02	1.378
		319.41		-2.104E+00	3.007E+00	4.863E+00	6.156E-01	-0.433
		439.89		2.567E+00	5.056E+00	8.447E+00	8.134E-01	0.304
		531.02	*	-2.948E-01	4.741E-01	7.632E-01	1.210E-01	-0.386
PM-149		285.90	*	8.697E+00	8.470E+01	1.359E+02	2.570E+01	0.064
EU-152		121.78		-1.782E-02	6.622E-02	1.038E-01	9.962E-03	-0.172
		244.69		1.247E-01	3.211E-01	4.643E-01	5.878E-02	0.269
		344.27	*	7.880E-02	1.124E-01	1.497E-01	1.800E-02	0.526
		443.98		-2.720E-01	8.230E-01	1.313E+00	1.268E-01	-0.207
		778.89		-2.572E-01	2.450E-01	3.663E-01	4.020E-02	-0.702
		867.32		-2.389E-01	8.007E-01	1.104E+00	1.232E-01	-0.216
	+	964.01		2.377E-01	2.081E-01	4.957E-01	5.289E-02	0.480
		1085.78		-1.616E-01	3.301E-01	5.160E-01	4.808E-02	-0.313
		1112.02		-7.513E-02	2.966E-01	4.134E-01	3.704E-02	-0.182
		1407.95		6.463E-02	1.779E-01	2.999E-01	2.681E-02	0.216
GD-153		69.67		5.219E-01	1.524E+00	2.265E+00	1.758E-01	0.230
		83.37		1.603E+01	1.375E+01	2.087E+01	1.873E+00	0.768
		97.43	*	-2.441E-02	7.821E-02	1.105E-01	9.716E-03	-0.221
		103.18		-8.908E-02	9.424E-02	1.452E-01	1.241E-02	-0.613
EU-154		123.07		1.518E-02	4.664E-02	7.484E-02	8.301E-03	0.203
		247.94		-1.340E-01	3.460E-01	5.044E-01	7.497E-02	-0.266
		591.81		-5.358E-01	6.170E-01	8.514E-01	1.107E-01	-0.629
		723.30		2.314E-01	1.747E-01	2.682E-01	3.093E-02	0.863
		756.87		7.619E-01	6.740E-01	1.157E+00	1.587E-01	0.658
		873.19		-1.259E-01	2.631E-01	4.227E-01	5.984E-02	-0.298
		996.32		-2.737E-01	3.122E-01	4.723E-01	8.818E-02	-0.580
		1004.76		3.357E-02	1.790E-01	2.973E-01	3.838E-02	0.113
		1274.45	*	-9.144E-02	9.999E-02	1.528E-01	1.727E-02	-0.599
EU-155		48.70		-2.027E+00	1.917E+00	3.084E+00	2.511E-01	-0.657
		60.01		-1.316E+00	4.342E+00	6.375E+00	4.527E-01	-0.206
	+	86.54		3.700E-01	1.087E-01	1.632E-01	1.535E-02	2.267
		105.31	*	4.267E-02	9.513E-02	1.550E-01	1.330E-02	0.275
TB-160	+	86.79		9.887E-01	2.903E-01	4.345E-01	4.064E-02	2.275
		197.04		1.906E-01	5.594E-01	9.077E-01	9.871E-02	0.210
		215.65		-1.113E-02	7.278E-01	1.100E+00	1.271E-01	-0.010
	+	298.57		1.483E-01	1.214E-01	1.842E-01	2.469E-02	0.805
		879.36	*	4.085E-02	1.306E-01	2.207E-01	2.468E-02	0.185
		962.29		1.002E+00	5.089E-01	8.242E-01	8.808E-02	1.216
	+	966.15		1.633E-01	1.429E-01	4.785E-01	5.097E-02	0.341
		1177.93		-1.567E-01	2.985E-01	4.801E-01	3.874E-02	-0.326
		1271.85		-1.096E-01	5.628E-01	9.172E-01	7.883E-02	-0.120
HO-166M		80.57		-1.709E-01	2.475E-01	3.491E-01	3.033E-02	-0.490
		184.41		9.498E-02	4.127E-02	6.497E-02	6.774E-03	1.462
		280.46		-7.048E-02	8.436E-02	1.291E-01	1.803E-02	-0.546
		410.95		-3.813E-03	2.217E-01	3.629E-01	3.425E-02	-0.011
		711.68	*	1.658E-02	5.083E-02	8.453E-02	9.088E-03	0.196
		752.31		-1.101E-01	2.431E-01	3.823E-01	4.164E-02	-0.288
		810.29		-4.647E-02	4.878E-02	7.609E-02	8.412E-03	-0.611

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-6.768E+00	2.372E+01	3.933E+01	3.068E+00	-0.172
		52.39		-1.523E+00	1.258E+01	2.031E+01	1.559E+00	-0.075
		59.40		1.730E+01	2.269E+01	3.499E+01	2.474E+00	0.494
		66.72	*	-1.304E+01	2.620E+01	3.739E+01	2.825E+00	-0.349
LU-176	+	88.36		7.286E-01	2.140E-01	3.152E-01	2.981E-02	2.312
		201.83		-1.406E-02	2.737E-02	4.409E-02	4.871E-03	-0.319
		306.84	*	7.762E-04	2.201E-02	3.701E-02	4.855E-03	0.021
		401.10		-3.144E+00	5.827E+00	9.292E+00	8.707E-01	-0.338
LU-177		112.95		-1.134E+00	1.612E+00	2.453E+00	2.039E-01	-0.462
	+	208.36	*	3.357E+00	1.784E+00	1.939E+00	2.189E-01	1.732
LU-177M		52.97		1.137E-01	1.297E+00	2.111E+00	1.606E-01	0.054
		54.07		-1.226E-01	6.781E-01	1.091E+00	8.169E-02	-0.112
		61.30		-7.589E-02	1.268E+00	1.881E+00	1.353E-01	-0.040
		121.62		-9.534E-02	3.394E-01	5.318E-01	4.381E-02	-0.179
		147.16		-1.008E+00	5.837E-01	9.130E-01	8.232E-02	-1.105
		171.86		-4.382E-04	4.480E-01	7.451E-01	7.451E-02	-0.001
		218.09		-5.337E-01	7.909E-01	1.254E+00	1.461E-01	-0.426
	+	268.79		1.900E+00	9.941E-01	1.325E+00	1.802E-01	1.434
		319.02		-2.964E-01	2.367E-01	3.699E-01	4.688E-02	-0.801
		367.43		1.153E-01	7.969E-01	1.327E+00	1.401E-01	0.087
		413.65	*	-5.113E-02	1.589E-01	2.559E-01	2.420E-02	-0.200
HF-181		56.28		-4.901E-01	7.386E-01	1.200E+00	8.744E-02	-0.408
		57.53		3.257E-01	4.007E-01	6.854E-01	4.927E-02	0.475
		65.20		-1.926E-01	8.659E-01	1.254E+00	9.345E-02	-0.154
		133.02		-6.133E-02	5.870E-02	9.568E-02	8.156E-03	-0.641
		136.25		5.429E-02	4.105E-01	6.969E-01	6.012E-02	0.078
		345.85		1.265E-01	2.417E-01	2.887E-01	3.339E-02	0.438
		482.03	*	-3.929E-02	3.879E-02	5.868E-02	5.792E-03	-0.670
W-181		56.28		-1.910E-01	2.890E-01	4.698E-01	3.422E-02	-0.407
		57.53		1.272E-01	1.569E-01	2.684E-01	1.929E-02	0.474
		65.20	*	-7.482E-02	3.364E-01	4.870E-01	3.630E-02	-0.154
TA-182		67.75		-2.861E-02	1.023E-01	1.492E-01	1.138E-02	-0.192
		100.10		1.213E-01	1.670E-01	2.629E-01	2.278E-02	0.461
		152.43		2.825E-01	3.116E-01	5.359E-01	4.944E-02	0.527
		222.10		5.835E-02	3.227E-01	5.297E-01	6.251E-02	0.110
		1001.68		1.092E-01	1.788E+00	2.846E+00	2.933E-01	0.038
	+	1121.28		5.547E-01	1.860E-01	2.965E-01	2.618E-02	1.871
		1189.05		1.582E-01	2.614E-01	4.514E-01	3.671E-02	0.350
		1221.42	*	-9.960E-02	1.581E-01	2.515E-01	2.091E-02	-0.396
		1230.97		-6.307E-01	4.043E-01	5.989E-01	5.012E-02	-1.053
RE-183		57.98		2.039E-01	1.574E-01	2.727E-01	1.951E-02	0.748
		59.32		7.344E-02	9.347E-02	1.443E-01	1.021E-02	0.509
		67.20		-1.028E-01	1.876E-01	2.672E-01	2.027E-02	-0.385
		162.32	*	1.617E-02	1.013E-01	1.701E-01	1.641E-02	0.095
	+	208.81		3.007E+00	1.597E+00	1.740E+00	1.967E-01	1.728
		291.72		-8.555E-01	9.356E-01	1.290E+00	1.758E-01	-0.663
RE-184		57.98		7.511E-01	5.797E-01	1.005E+00	7.189E-02	0.748
		59.32		2.703E-01	3.441E-01	5.311E-01	3.757E-02	0.509
		67.20		-3.786E-01	6.907E-01	9.839E-01	7.466E-02	-0.385

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		-9.350E-02	3.300E-01	5.461E-01	5.243E-02	-0.171
		216.55		-2.654E-02	2.407E-01	3.916E-01	4.539E-02	-0.068
		252.85	*	-1.137E-01	2.139E-01	3.362E-01	4.362E-02	-0.338
		318.01		-3.906E-01	4.098E-01	6.532E-01	8.302E-02	-0.598
		792.07		5.839E-01	1.043E+00	1.508E+00	1.660E-01	0.387
		903.28		-4.660E-01	9.370E-01	1.308E+00	1.461E-01	-0.356
		920.93		-2.048E-01	4.129E-01	5.733E-01	6.326E-02	-0.357
OS-185		59.72		-4.910E-02	2.598E-01	3.837E-01	2.717E-02	-0.128
		61.14		-3.310E-02	1.389E-01	2.043E-01	1.468E-02	-0.162
		69.30		-3.966E-02	2.757E-01	4.016E-01	3.107E-02	-0.099
		592.07		-1.698E+00	2.393E+00	3.489E+00	3.612E-01	-0.487
		646.12	*	1.883E-02	3.567E-02	6.048E-02	6.356E-03	0.311
		717.42		-2.771E-01	7.627E-01	1.183E+00	1.274E-01	-0.234
		874.81		2.405E-01	5.192E-01	8.863E-01	9.905E-02	0.271
		880.27		3.528E-01	7.178E-01	1.225E+00	1.370E-01	0.288
RE-188		155.03	*	9.152E-02	1.598E-01	2.722E-01	2.541E-02	0.336
		477.96		-5.315E-01	2.696E+00	4.305E+00	4.241E-01	-0.123
		633.10		-1.112E+00	2.361E+00	3.775E+00	3.955E-01	-0.295
W-188	+	63.58		7.177E+01	6.467E+01	7.581E+01	5.570E+00	0.947
		227.08		6.435E-01	1.189E+01	1.940E+01	2.326E+00	0.033
		290.67	*	-3.883E+00	7.191E+00	1.020E+01	1.393E+00	-0.381
IR-192	+	295.96		1.052E+00	2.118E-01	2.595E-01	3.510E-02	4.055
		308.46		8.789E-02	8.619E-02	1.493E-01	1.955E-02	0.589
		316.51	*	1.986E-02	3.113E-02	5.333E-02	6.815E-03	0.372
		468.07		-1.037E-02	6.580E-02	9.070E-02	9.383E-03	-0.114
		604.41		-1.950E-01	4.720E-01	6.498E-01	9.263E-02	-0.300
		612.46		6.067E+00	1.129E+00	1.713E+00	1.970E-01	3.541
AU-195		65.12		-3.802E-02	1.560E-01	2.256E-01	1.681E-02	-0.169
		66.83		-3.896E-02	8.670E-02	1.240E-01	9.382E-03	-0.314
	+	75.70		1.223E+00	2.318E-01	3.882E-01	3.198E-02	3.151
		98.88	*	1.978E-01	2.243E-01	3.346E-01	2.918E-02	0.591
		129.76		5.727E+00	2.652E+00	4.704E+00	3.964E-01	1.218
TL-200		367.94	*	7.846E-05	2.652E+00	Half-Life too short		
		579.30		5.440E-03	2.652E+00	Half-Life too short		
		828.27		-9.060E-04	2.652E+00	Half-Life too short		
		1205.75		3.588E-04	2.652E+00	Half-Life too short		
TL-201		68.90		-9.397E-01	4.438E+00	6.448E+00	4.969E-01	-0.146
		70.82		1.223E+00	2.483E+00	3.708E+00	2.909E-01	0.330
		80.30		-2.834E+00	4.627E+00	6.554E+00	5.677E-01	-0.432
		135.34		1.462E+01	2.253E+01	3.884E+01	3.339E+00	0.376
		167.43	*	-4.626E-02	6.528E+00	1.088E+01	1.072E+00	-0.004
TL-202		68.90		-8.392E-02	3.964E-01	5.759E-01	4.438E-02	-0.146
		70.82		1.090E-01	2.212E-01	3.302E-01	2.591E-02	0.330
		80.30		-2.524E-01	4.123E-01	5.839E-01	5.058E-02	-0.432
		439.56	*	4.257E-02	6.043E-02	1.019E-01	9.804E-03	0.418
HG-203		70.83		4.749E-01	9.581E-01	1.429E+00	1.876E-01	0.332
		72.87		8.269E-01	5.196E-01	8.755E-01	1.121E-01	0.944
		82.60		1.337E-01	1.129E+00	1.506E+00	2.096E-01	0.089
		279.20	*	3.195E-02	4.025E-02	6.611E-02	9.357E-03	0.483

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		2.048E-01	1.490E-01	2.533E-01	2.026E-02	0.809
	+	74.97		6.784E-01	1.286E-01	1.906E-01	1.559E-02	3.559
		84.90		2.701E-01	1.782E-01	2.725E-01	2.491E-02	0.991
		569.67		2.862E-02	2.662E-02	4.650E-02	4.776E-03	0.615
		1063.62	*	9.740E-03	4.606E-02	7.617E-02	7.313E-03	0.128
		1770.23		3.941E-01	5.400E-01	8.359E-01	6.949E-02	0.471
TL-207		81.07		-2.336E-01	2.026E-01	2.787E-01	2.436E-02	-0.838
		83.78		1.266E-01	1.184E-01	1.789E-01	1.614E-02	0.708
		94.90		-4.206E-02	2.139E-01	3.430E-01	3.066E-02	-0.123
		122.32		3.629E-03	1.591E+00	2.522E+00	2.244E-01	0.001
		144.24		4.889E-01	6.187E-01	1.037E+00	1.026E-01	0.472
		154.21		-3.199E-02	3.691E-01	6.171E-01	6.233E-02	-0.052
	+	269.46		4.448E-01	2.328E-01	3.161E-01	4.341E-02	1.407
		323.87	*	5.570E-01	6.369E-01	9.630E-01	1.914E-01	0.578
	+	338.28		7.354E+00	2.009E+00	2.185E+00	3.232E-01	3.365
		445.03		-1.121E+00	1.992E+00	3.129E+00	4.021E-01	-0.358
PO-209		260.50		-2.690E+00	9.061E+00	1.438E+01	1.909E+00	-0.187
		262.80		-1.598E-01	2.461E+01	3.956E+01	5.286E+00	-0.004
		896.60	*	2.788E+00	6.224E+00	1.061E+01	1.189E+00	0.263
BI-210		46.50	*	1.132E+00	2.840E+00	4.743E+00	4.407E-01	0.239
PB-210		46.50	*	1.132E+00	2.840E+00	4.743E+00	4.407E-01	0.239
PO-210		46.50	*	1.132E+00	2.840E+00	4.743E+00	3.988E-01	0.239
PB-211		404.84	*	-9.260E-01	1.006E+00	1.270E+00	7.971E-01	-0.729
		427.08		3.434E-01	1.919E+00	3.140E+00	1.956E+00	0.109
		831.96		-3.058E-01	1.044E+00	1.681E+00	1.060E+00	-0.182
BI-212	+	727.18	*	1.308E+00	5.122E-01	5.787E-01	6.912E-02	2.261
		785.46		1.800E+00	1.671E+00	2.742E+00	3.014E-01	0.656
		1620.62		1.005E+00	1.223E+00	2.177E+00	1.898E-01	0.462
PO-215		81.07		-2.336E-01	2.026E-01	2.787E-01	2.436E-02	-0.838
		83.78		1.266E-01	1.184E-01	1.789E-01	1.614E-02	0.708
		94.90		-4.206E-02	2.139E-01	3.430E-01	3.066E-02	-0.123
		122.32		3.629E-03	1.591E+00	2.522E+00	2.244E-01	0.001
		144.24		4.889E-01	6.187E-01	1.037E+00	1.026E-01	0.472
		154.21		-3.199E-02	3.691E-01	6.171E-01	6.233E-02	-0.052
	+	269.46		4.448E-01	2.328E-01	3.161E-01	4.341E-02	1.407
		323.87	*	5.570E-01	6.369E-01	9.630E-01	1.914E-01	0.578
	+	338.28		7.354E+00	2.009E+00	2.185E+00	3.232E-01	3.365
		445.03		-1.121E+00	1.992E+00	3.129E+00	4.021E-01	-0.358
RN-219	+	271.23		5.707E-01	3.003E-01	4.240E-01	6.282E-02	1.346
		401.81	*	-3.798E-02	3.486E-01	5.688E-01	8.800E-02	-0.067
RN-220		549.76	*	2.885E+01	2.202E+01	3.900E+01	3.975E+00	0.740
RA-223		81.07		-2.336E-01	2.026E-01	2.787E-01	2.436E-02	-0.838
		83.78		1.266E-01	1.184E-01	1.789E-01	1.614E-02	0.708
		94.90		-4.206E-02	2.139E-01	3.430E-01	3.066E-02	-0.123
		122.32		3.629E-03	1.591E+00	2.522E+00	2.244E-01	0.001
		144.24		4.889E-01	6.187E-01	1.037E+00	1.026E-01	0.472
		154.21		-3.199E-02	3.691E-01	6.171E-01	6.233E-02	-0.052
	+	269.46		4.448E-01	2.328E-01	3.161E-01	4.341E-02	1.407
		323.87	*	5.570E-01	6.369E-01	9.630E-01	1.914E-01	0.578

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.354E+00	2.009E+00	2.185E+00	3.232E-01	3.365
		445.03		-1.121E+00	1.992E+00	3.129E+00	4.021E-01	-0.358
AC-227		79.80		5.196E-01	1.454E+00	2.149E+00	4.621E-01	0.242
		236.00		1.077E+00	3.070E-01	4.368E-01	6.590E-02	2.466
		256.20	*	2.987E-01	3.557E-01	5.871E-01	1.071E-01	0.509
		286.10		3.455E-01	1.396E+00	2.253E+00	3.839E-01	0.153
	+	299.80		1.889E+00	1.572E+00	2.335E+00	4.728E-01	0.809
		304.40		-3.835E-01	1.848E+00	2.668E+00	5.595E-01	-0.144
		334.20		-6.296E-01	2.703E+00	3.360E+00	7.113E-01	-0.187
TH-227		79.80		5.196E-01	1.454E+00	2.149E+00	4.680E-01	0.242
	+	94.00		8.277E+00	3.074E+00	3.427E+00	7.516E-01	2.415
		236.00		1.077E+00	3.018E-01	4.368E-01	6.183E-02	2.466
		256.20	*	2.987E-01	3.568E-01	5.871E-01	1.208E-01	0.509
		286.10		3.455E-01	1.438E+00	2.253E+00	2.274E+00	0.153
	+	299.80		1.889E+00	1.572E+00	2.335E+00	4.728E-01	0.809
		304.40		-3.835E-01	1.848E+00	2.668E+00	5.595E-01	-0.144
		334.20		-6.296E-01	2.703E+00	3.360E+00	7.113E-01	-0.187
TH-229		85.43		2.224E-01	1.828E-01	2.765E-01	2.543E-02	0.805
	+	88.47		4.194E-01	1.232E-01	1.813E-01	1.712E-02	2.314
		100.00		1.031E-01	1.747E-01	2.736E-01	2.372E-02	0.377
		193.63	*	-1.773E-01	4.789E-01	7.786E-01	8.371E-02	-0.228
	+	210.97		2.354E+00	1.250E+00	1.313E+00	1.495E-01	1.793
PA-231		283.67	*	-5.269E-01	1.451E+00	2.274E+00	4.247E-01	-0.232
	+	301.29		7.554E-01	6.215E-01	9.223E-01	1.466E-01	0.819
TH-231		81.07		-2.336E-01	2.026E-01	2.787E-01	2.436E-02	-0.838
		83.78		1.266E-01	1.184E-01	1.789E-01	1.614E-02	0.708
		94.90		-4.206E-02	2.139E-01	3.430E-01	3.066E-02	-0.123
		122.32		3.629E-03	1.591E+00	2.522E+00	2.244E-01	0.001
		144.24		4.889E-01	6.187E-01	1.037E+00	1.026E-01	0.472
		154.21		-3.199E-02	3.691E-01	6.171E-01	6.233E-02	-0.052
	+	269.46		4.448E-01	2.328E-01	3.161E-01	4.341E-02	1.407
		323.87	*	5.570E-01	6.369E-01	9.630E-01	1.914E-01	0.578
	+	338.28		7.354E+00	2.009E+00	2.185E+00	3.232E-01	3.365
		445.03		-1.121E+00	1.992E+00	3.129E+00	4.021E-01	-0.358
U-231		84.21		5.893E+00	5.093E+00	7.718E+00	6.997E-01	0.763
	+	92.29		8.230E+00	2.575E+00	3.636E+00	3.315E-01	2.264
		95.87	*	-7.174E-01	1.052E+00	1.458E+00	1.295E-01	-0.492
		108.00		-1.501E+00	1.872E+00	2.895E+00	2.434E-01	-0.519
PA-233	+	75.28		1.980E+01	4.516E+00	5.805E+00	8.775E-01	3.410
	+	86.59		6.014E+00	2.335E+00	2.655E+00	7.184E-01	2.265
	+	300.12		5.265E-01	4.354E-01	6.509E-01	1.174E-01	0.809
		311.98	*	-5.278E-03	5.940E-02	9.922E-02	1.300E-02	-0.053
		340.50		2.609E+00	9.896E-01	1.225E+00	3.082E-01	2.130
		398.62		1.113E-01	1.810E+00	2.981E+00	8.013E-01	0.037
		415.76		4.628E-01	1.453E+00	2.409E+00	5.278E-01	0.192
PA-234	+	63.00		2.081E+00	1.894E+00	2.234E+00	3.310E-01	0.931
		94.67		1.139E-01	1.577E-01	2.592E-01	3.276E-02	0.439
		98.44		2.913E-02	9.367E-02	1.344E-01	7.498E-02	0.217
		99.86		2.810E-01	4.429E-01	6.950E-01	6.029E-02	0.404

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-6.070E-02	1.708E-01	2.687E-01	3.196E-02	-0.226
		131.20		-1.306E-01	9.769E-02	1.577E-01	1.336E-02	-0.828
		152.70		2.394E-01	3.020E-01	5.144E-01	8.933E-02	0.465
	+	186.00		7.323E+00	3.153E+00	2.510E+00	7.976E-01	2.918
		226.40		-5.512E-02	3.754E-01	6.076E-01	9.474E-02	-0.091
		227.20		1.330E-01	3.971E-01	6.543E-01	7.847E-02	0.203
		248.90		5.636E-01	7.516E-01	1.195E+00	2.910E-01	0.472
		293.70		6.725E+00	1.584E+00	1.572E+00	3.179E-01	4.278
		369.80		4.269E-01	7.459E-01	1.256E+00	2.835E-01	0.340
		568.70		-1.076E-01	8.590E-01	1.420E+00	1.458E-01	-0.076
		569.50		2.316E-01	2.347E-01	4.088E-01	4.199E-02	0.567
		574.00		-2.267E-01	1.327E+00	2.186E+00	2.249E-01	-0.104
		699.00		-2.392E-01	6.273E-01	9.984E-01	2.007E-01	-0.240
		706.10		5.044E-01	9.362E-01	1.530E+00	6.893E-01	0.330
		733.00		5.885E-02	3.534E-01	4.995E-01	1.156E-01	0.118
		742.81		-8.161E-01	1.264E+00	1.755E+00	1.185E+00	-0.465
	+	796.30		2.562E+00	1.465E+00	1.495E+00	4.173E-01	1.713
		805.60		7.611E-01	8.916E-01	1.440E+00	4.523E-01	0.529
		819.60		-4.966E-01	1.009E+00	1.600E+00	6.184E-01	-0.310
		826.30		9.055E-02	6.533E-01	1.099E+00	4.977E-01	0.082
		831.60		-4.530E-01	5.685E-01	8.470E-01	2.596E-01	-0.535
		876.40		4.360E-01	8.790E-01	1.299E+00	1.339E+00	0.336
		880.51		1.109E-01	2.583E-01	4.395E-01	4.915E-02	0.252
		883.24		1.622E-01	2.775E-01	4.399E-01	2.973E-01	0.369
		899.00		-2.783E-01	7.154E-01	1.137E+00	5.034E-01	-0.245
		925.00		2.132E-01	9.377E-01	1.575E+00	1.732E-01	0.135
		926.50		-8.409E-02	1.481E-01	2.321E-01	6.075E-02	-0.362
		946.00	*	-3.375E-02	2.416E-01	3.942E-01	7.835E-02	-0.086
		949.00		-2.226E-01	3.653E-01	5.742E-01	6.204E-02	-0.388
		980.50		3.293E-02	6.185E-01	1.020E+00	1.073E-01	0.032
		1394.10		-1.103E+00	1.208E+00	1.405E+00	9.154E-01	-0.785
PA-234M		766.42		2.158E+01	1.616E+01	1.874E+01	9.591E+00	1.151
		1001.03	*	-5.049E-01	4.043E+00	6.347E+00	7.274E-01	-0.080
U-235	+	89.95		2.460E+00	1.229E+00	1.601E+00	4.972E-01	1.537
	+	93.35		2.575E+00	1.059E+00	1.135E+00	3.197E-01	2.268
		105.00		2.528E-01	9.305E-01	1.502E+00	4.478E-01	0.168
		143.76	*	1.004E-01	1.920E-01	3.188E-01	5.624E-02	0.315
		163.35		-4.854E-02	4.394E-01	7.307E-01	1.431E-01	-0.066
	+	185.71		2.712E-01	8.375E-02	9.293E-02	9.731E-03	2.919
		205.31		-1.535E-01	5.585E-01	7.836E-01	1.596E-01	-0.196
NP-236		94.67		8.944E-02	1.194E-01	1.969E-01	1.763E-02	0.454
		98.44		2.196E-02	6.976E-02	1.016E-01	8.878E-03	0.216
		111.00		-4.591E-02	1.291E-01	2.032E-01	1.696E-02	-0.226
		160.31	*	-3.142E-02	7.445E-02	1.226E-01	1.172E-02	-0.256
NP-239		99.55		1.515E-01	1.563E-01	2.338E-01	2.032E-02	0.648
		117.00	*	1.291E-01	1.794E-01	2.925E-01	2.418E-02	0.441
	+	209.75		2.371E+00	1.260E+00	1.380E+00	1.565E-01	1.718
		228.18		1.310E-01	2.100E-01	3.489E-01	4.198E-02	0.375
		277.60		2.492E-01	1.796E-01	2.982E-01	4.157E-02	0.836

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-2.618E-01	1.407E+00	1.899E+00	2.290E-01	-0.138
AM-241		59.54	*	9.490E-02	1.316E-01	2.025E-01	1.583E-02	0.469
CM-243		99.55		1.559E-01	1.608E-01	2.406E-01	2.091E-02	0.648
		103.76	*	-2.392E-02	8.596E-02	1.364E-01	1.163E-02	-0.175
		117.00		1.328E-01	1.845E-01	3.010E-01	2.488E-02	0.441
	+	209.75		2.337E+00	1.242E+00	1.361E+00	1.543E-01	1.718
		228.18		1.323E-01	2.122E-01	3.526E-01	4.242E-02	0.375
		277.60		2.512E-01	1.811E-01	3.006E-01	4.191E-02	0.836
AM-246		798.80		-3.086E-02	1.412E-01	1.902E-01	2.097E-02	-0.162
		1036.00		1.270E-01	2.419E-01	4.104E-01	4.075E-02	0.309
		1062.04		1.937E-01	1.955E-01	3.396E-01	3.267E-02	0.571
		1078.86	*	6.451E-02	1.186E-01	2.005E-01	1.886E-02	0.322
CM-247		278.00		1.238E+00	7.451E-01	1.240E+00	1.731E-01	0.998
		287.40		8.050E-01	1.114E+00	1.830E+00	2.518E-01	0.440
		402.60	*	3.635E-04	3.153E-02	5.177E-02	4.856E-03	0.007
CF-249		252.85		-4.266E-01	8.025E-01	1.261E+00	1.637E-01	-0.338
		333.44		2.965E-02	2.192E-01	2.534E-01	3.066E-02	0.117
		387.95	*	8.542E-03	3.486E-02	5.806E-02	5.518E-03	0.147
CF-251		176.60	*	2.650E-02	1.200E-01	2.006E-01	2.037E-02	0.132
		227.00		2.257E-02	3.568E-01	5.822E-01	6.979E-02	0.039
		285.00		-6.516E-01	1.622E+00	2.537E+00	3.509E-01	-0.257

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003       *
* Acquisition date : 12-FEB-2010 15:47:29 Detector SN#    :                 *
* Detector ID       : GAM22               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.18     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960003           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.3030E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.046E+01	2.198E+00	4.169E-01	0.000E+00
CD-109	3.126E+00	8.995E-01	1.174E+00	0.000E+00
SN-126	3.072E-01	8.841E-02	1.158E-01	0.000E+00
TL-208	5.086E-01	8.490E-02	5.206E-02	0.000E+00
BI-211	4.508E+00	6.541E-01	2.725E-01	0.000E+00
PB-212	1.785E+00	2.522E-01	7.980E-02	0.000E+00
PO-212	1.785E+00	2.522E-01	7.980E-02	0.000E+00
BI-214	1.295E+00	2.040E-01	1.010E-01	0.000E+00
PB-214	1.568E+00	2.413E-01	9.497E-02	0.000E+00
PO-214	1.568E+00	2.413E-01	9.497E-02	0.000E+00
PO-216	1.785E+00	2.522E-01	7.980E-02	0.000E+00
PO-218	1.568E+00	2.413E-01	9.497E-02	0.000E+00
RA-224	5.015E+00	1.272E+00	9.070E-01	0.000E+00
RA-226	1.295E+00	2.040E-01	1.010E-01	0.000E+00
AC-228	1.629E+00	3.255E-01	1.813E-01	0.000E+00
RA-228	1.629E+00	3.255E-01	1.813E-01	0.000E+00
TH-228	1.812E+00	2.561E-01	8.101E-02	0.000E+00
TH-230	1.295E+00	2.040E-01	1.010E-01	0.000E+00
TH-232	1.629E+00	3.255E-01	1.813E-01	0.000E+00
TH-234	1.785E+00	1.600E+00	1.772E+00	0.000E+00
U-234	1.295E+00	2.040E-01	1.010E-01	0.000E+00
NP-237	9.021E-01	3.173E-01	3.754E-01	0.000E+00
U-238	1.785E+00	1.600E+00	1.772E+00	0.000E+00
AM-243	3.779E-01	7.019E-02	7.750E-02	0.000E+00
ANH-511	1.393E-01	6.370E-02	4.099E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-7.084E-02		2.741E-01	4.538E-01	0.000E+00	NOT IDENT.
NA-22	-3.324E-02		3.497E-02	5.473E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	6.829E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.518E-02	2.332E-02	3.525E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.031E-02	7.153E-02	0.000E+00	FAIL ABUN
SC-46	-3.399E-02	3.188E-02	5.002E-02	0.000E+00	FAIL ABUN
V-48	-2.241E-02	5.946E-02	9.768E-02	0.000E+00	NOT IDENT.
CR-51	4.080E-02	3.222E-01	5.674E-01	0.000E+00	NOT IDENT.
MN-52	7.697E-02	1.765E-01	3.084E-01	0.000E+00	NOT IDENT.
MN-54	-3.476E-05	3.228E-02	5.552E-02	0.000E+00	NOT IDENT.
CO-56	-2.273E-02	3.395E-02	5.577E-02	0.000E+00	NOT IDENT.
CO-57	-3.545E-03	2.242E-02	3.754E-02	0.000E+00	NOT IDENT.
CO-58	-2.963E-02	3.172E-02	5.117E-02	0.000E+00	NOT IDENT.
FE-59	1.112E-02	8.048E-02	1.354E-01	0.000E+00	NOT IDENT.
CO-60	3.240E-03	2.684E-02	4.578E-02	0.000E+00	NOT IDENT.
ZN-65	8.251E-02	8.734E-02	1.345E-01	0.000E+00	NOT IDENT.
GE-68	-3.808E-01	1.045E+00	1.698E+00	0.000E+00	NOT IDENT.
AS-73	4.043E-02	6.462E-01	1.130E+00	0.000E+00	NOT IDENT.
AS-74	-3.616E-02	8.081E-02	1.355E-01	0.000E+00	NOT IDENT.
SE-75	2.736E-02	4.434E-02	6.758E-02	0.000E+00	NOT IDENT.
BR-77	-9.131E+00	8.822E+00	1.407E+01	0.000E+00	FAIL ABUN
SR-82	-4.438E-01	3.806E-01	5.287E-01	0.000E+00	NOT IDENT.
RB-83	-6.206E-02	5.754E-02	9.147E-02	0.000E+00	NOT IDENT.
RB-84	8.729E-03	6.113E-02	1.054E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.202E+00	1.387E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.207E-02	7.114E-02	0.000E+00	NOT IDENT.
RB-86	-2.684E-01	6.685E-01	1.084E+00	0.000E+00	NOT IDENT.
Y-88	-1.010E-02	2.599E-02	4.095E-02	0.000E+00	NOT IDENT.
ZR-88	-1.711E-02	2.743E-02	4.561E-02	0.000E+00	NOT IDENT.
Y-91	3.895E+00	1.472E+01	2.551E+01	0.000E+00	NOT IDENT.
NB-94	7.404E-03	2.894E-02	4.954E-02	0.000E+00	NOT IDENT.
NB-95	6.348E-02	4.436E-02	6.989E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.294E-01	2.049E-01	0.000E+00	NOT IDENT.
ZR-95	7.139E-02	6.110E-02	1.087E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.911E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.938E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.324E+00	9.537E+00	1.624E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.006E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.064E-02	3.197E-02	5.467E-02	0.000E+00	NOT IDENT.
RH-102	2.369E-03	2.455E-02	4.151E-02	0.000E+00	FAIL ABUN
RU-103	-8.998E-03	3.228E-02	5.303E-02	0.000E+00	FAIL ABUN
RH-106	1.274E-01	2.741E-01	4.797E-01	0.000E+00	FAIL ABUN
RU-106	1.274E-01	2.738E-01	4.797E-01	0.000E+00	FAIL ABUN
AG-108M	3.018E-03	2.820E-02	4.815E-02	0.000E+00	NOT IDENT.
AG-110M	-1.020E-02	3.068E-02	5.116E-02	0.000E+00	NOT IDENT.
IN-111	-6.344E-01	1.024E+00	1.459E+00	0.000E+00	NOT IDENT.
IN-113M	-4.112E-03	3.972E-02	6.784E-02	0.000E+00	NOT IDENT.
SN-113	-4.112E-03	3.972E-02	6.784E-02	0.000E+00	NOT IDENT.
IN-114M	2.747E-02	1.860E-01	2.865E-01	0.000E+00	NOT IDENT.
CD-115	5.526E+00	8.799E+00	1.579E+01	0.000E+00	NOT IDENT.
SN-117M	3.104E-02	4.946E-02	8.922E-02	0.000E+00	NOT IDENT.
SB-122	-1.039E+00	1.745E+00	2.915E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.481E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.418E-02	2.571E-02	4.627E-02	0.000E+00	NOT IDENT.
I-124	2.750E-01	6.722E-01	1.021E+00	0.000E+00	FAIL ABUN
SB-124	9.050E-03	5.555E-02	9.572E-02	0.000E+00	FAIL ABUN
SB-125	-2.049E-02	8.400E-02	1.411E-01	0.000E+00	FAIL ABUN
TE-125M	8.593E-01	8.205E+00	1.402E+01	0.000E+00	NOT IDENT.
I-126	-3.982E-02	1.573E-01	2.630E-01	0.000E+00	NOT IDENT.
SB-126	7.378E-02	1.340E-01	2.026E-01	0.000E+00	FAIL ABUN
SB-127	6.454E-02	1.091E+00	1.854E+00	0.000E+00	NOT IDENT.
XE-127	-2.291E-02	4.707E-02	7.380E-02	0.000E+00	NOT IDENT.
I-131	-4.245E-02	9.868E-02	1.670E-01	0.000E+00	NOT IDENT.
TE-132	4.005E-01	6.366E-01	1.110E+00	0.000E+00	NOT IDENT.
BA-133	9.995E-03	3.978E-02	6.084E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.049E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.607E-02	7.697E-02	0.000E+00	FAIL ABUN
CS-135	1.303E-01	1.699E-01	2.544E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.897E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.005E-01	9.738E-02	1.732E-01	0.000E+00	FAIL ABUN
BA-137M	3.546E-02	3.210E-02	5.733E-02	0.000E+00	NOT IDENT.
CS-137	3.748E-02	3.393E-02	6.061E-02	0.000E+00	NOT IDENT.
CE-139	2.647E-04	2.740E-02	4.836E-02	0.000E+00	NOT IDENT.
BA-140	2.402E-03	2.166E-01	3.765E-01	0.000E+00	NOT IDENT.
LA-140	-1.155E-01	7.566E-02	1.077E-01	0.000E+00	FAIL ABUN
CE-141	1.030E-03	5.368E-02	9.586E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.859E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.527E-02	1.789E-01	3.187E-01	0.000E+00	NOT IDENT.
PM-144	2.399E-03	2.907E-02	4.934E-02	0.000E+00	NOT IDENT.
PR-144	1.626E-01	1.970E+00	3.344E+00	0.000E+00	NOT IDENT.

PM-146	1.077E-02	4.008E-02	6.685E-02	0.000E+00	NOT IDENT.
ND-147	-2.948E-01	4.646E-01	7.767E-01	0.000E+00	FAIL ABUN
PM-149	8.697E+00	8.301E+01	1.397E+02	0.000E+00	NOT IDENT.
EU-152	7.880E-02	1.102E-01	1.535E-01	0.000E+00	FAIL ABUN
GD-153	-2.441E-02	7.665E-02	1.155E-01	0.000E+00	NOT IDENT.
EU-154	-9.144E-02	9.799E-02	1.532E-01	0.000E+00	NOT IDENT.
EU-155	4.267E-02	9.323E-02	1.618E-01	0.000E+00	FAIL ABUN
TB-160	4.085E-02	1.280E-01	2.228E-01	0.000E+00	FAIL ABUN
HO-166M	1.658E-02	4.981E-02	8.562E-02	0.000E+00	NOT IDENT.
TM-171	-1.304E+01	2.567E+01	3.932E+01	0.000E+00	NOT IDENT.
LU-176	7.762E-04	2.157E-02	3.800E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.748E+00	2.003E+00	0.000E+00	FAIL ABUN
LU-177M	-5.113E-02	1.558E-01	2.615E-01	0.000E+00	FAIL ABUN
HF-181	-3.929E-02	3.802E-02	5.981E-02	0.000E+00	NOT IDENT.
W-181	-7.482E-02	3.296E-01	5.123E-01	0.000E+00	NOT IDENT.
TA-182	-9.960E-02	1.549E-01	2.524E-01	0.000E+00	FAIL ABUN
RE-183	1.617E-02	9.931E-02	1.765E-01	0.000E+00	FAIL ABUN
RE-184	-1.137E-01	2.096E-01	3.463E-01	0.000E+00	NOT IDENT.
OS-185	1.883E-02	3.496E-02	6.135E-02	0.000E+00	NOT IDENT.
RE-188	9.152E-02	1.566E-01	2.825E-01	0.000E+00	NOT IDENT.
W-188	-3.883E+00	7.047E+00	1.048E+01	0.000E+00	FAIL ABUN
IR-192	1.986E-02	3.051E-02	5.473E-02	0.000E+00	FAIL ABUN
AU-195	1.978E-01	2.198E-01	3.497E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.046E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.626E-02	6.397E+00	1.127E+01	0.000E+00	NOT IDENT.
TL-202	4.257E-02	5.922E-02	1.040E-01	0.000E+00	NOT IDENT.
HG-203	3.195E-02	3.945E-02	6.798E-02	0.000E+00	NOT IDENT.
BI-207	9.740E-03	4.514E-02	7.664E-02	0.000E+00	FAIL ABUN
TL-207	5.570E-01	6.242E-01	9.879E-01	0.000E+00	FAIL ABUN
PO-209	2.788E+00	6.099E+00	1.071E+01	0.000E+00	NOT IDENT.
BI-210	1.132E+00	2.783E+00	5.015E+00	0.000E+00	NOT IDENT.
PB-210	1.132E+00	2.783E+00	5.015E+00	0.000E+00	NOT IDENT.
PO-210	1.132E+00	2.783E+00	5.015E+00	0.000E+00	NOT IDENT.
PB-211	-9.260E-01	9.859E-01	1.298E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.019E-01	5.859E-01	0.000E+00	FAIL ABUN
PO-215	5.570E-01	6.242E-01	9.879E-01	0.000E+00	FAIL ABUN
RN-219	-3.798E-02	3.416E-01	5.815E-01	0.000E+00	FAIL ABUN
RN-220	2.885E+01	2.158E+01	3.967E+01	0.000E+00	NOT IDENT.
RA-223	5.570E-01	6.242E-01	9.879E-01	0.000E+00	FAIL ABUN
AC-227	2.987E-01	3.486E-01	6.045E-01	0.000E+00	FAIL ABUN
TH-227	2.987E-01	3.497E-01	6.045E-01	0.000E+00	FAIL ABUN
TH-229	-1.773E-01	4.693E-01	8.053E-01	0.000E+00	FAIL ABUN
PA-231	-5.269E-01	1.422E+00	2.338E+00	0.000E+00	FAIL ABUN
TH-231	5.570E-01	6.242E-01	9.879E-01	0.000E+00	FAIL ABUN
U-231	-7.174E-01	1.031E+00	1.525E+00	0.000E+00	FAIL ABUN
PA-233	-5.278E-03	5.821E-02	1.019E-01	0.000E+00	FAIL ABUN
PA-234	-3.375E-02	2.368E-01	3.974E-01	0.000E+00	FAIL ABUN
PA-234M	-5.049E-01	3.962E+00	6.392E+00	0.000E+00	NOT IDENT.
U-235	1.004E-01	1.882E-01	3.313E-01	0.000E+00	FAIL ABUN
NP-236	-3.142E-02	7.296E-02	1.272E-01	0.000E+00	NOT IDENT.
NP-239	1.291E-01	1.758E-01	3.050E-01	0.000E+00	FAIL ABUN
AM-241	9.490E-02	1.289E-01	2.133E-01	0.000E+00	NOT IDENT.
CM-243	-2.392E-02	8.424E-02	1.424E-01	0.000E+00	FAIL ABUN
AM-246	6.451E-02	1.162E-01	2.017E-01	0.000E+00	NOT IDENT.
CM-247	3.635E-04	3.090E-02	5.292E-02	0.000E+00	NOT IDENT.
CF-249	8.542E-03	3.417E-02	5.939E-02	0.000E+00	NOT IDENT.
CF-251	2.650E-02	1.176E-01	2.078E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:05.95

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:29
Sample ID        : G245960003           Sample quantity  : 1.30300E+02 GRAM
Detector name    : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:02.18  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1447	10.67*	1.909E+00	2.046E+01	2.046E+01	10.96
CD-109	88.03	295	3.72*	7.485E+00	3.056E+00	3.126E+00	29.37
SN-126	64.28	102	9.60	4.339E+00	7.066E-01	7.066E-01	90.96
	86.94	295	8.90	7.485E+00	1.277E+00	1.277E+00	49.98
	87.57	295	37.00*	7.485E+00	3.072E-01	3.072E-01	29.37
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	208	21.60	4.298E+00	6.451E-01	6.451E-01	47.39
	583.14	584	84.20*	3.930E+00	5.086E-01	5.086E-01	17.03
	860.37	110	12.46	2.923E+00	8.737E-01	8.737E-01	44.84
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	1094	12.94*	5.401E+00	4.508E+00	4.508E+00	14.80
PB-212	74.81	535	10.70	6.174E+00	2.331E+00	2.331E+00	21.13
	77.11	819	18.00	6.469E+00	2.025E+00	2.025E+00	13.74
	87.30	295	8.00	7.485E+00	1.421E+00	1.421E+00	31.02
	238.63	1854	44.60*	6.709E+00	1.785E+00	1.785E+00	14.42
	300.09	71	3.41	5.916E+00	1.019E+00	1.019E+00	82.02
PO-212	74.81	535	10.70	6.174E+00	2.331E+00	2.331E+00	21.13
	77.11	819	18.00	6.469E+00	2.025E+00	2.025E+00	13.74
	87.30	295	8.00	7.485E+00	1.421E+00	1.421E+00	31.02
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	1854	44.60*	6.709E+00	1.785E+00	1.785E+00	14.42
	300.09	71	3.41	5.916E+00	1.019E+00	1.019E+00	82.02
BI-214	609.31	793	46.30*	3.811E+00	1.295E+00	1.295E+00	16.08
	1120.29	144	15.10	2.346E+00	1.173E+00	1.173E+00	34.18
	1764.49	142	15.80	1.716E+00	1.512E+00	1.512E+00	28.00
PB-214	74.81	535	6.21	6.174E+00	4.017E+00	4.017E+00	20.35
	77.11	819	10.50	6.469E+00	3.472E+00	3.472E+00	15.71
	87.30	295	4.67	7.485E+00	2.434E+00	2.434E+00	30.36
	241.98	458	7.49	6.663E+00	2.645E+00	2.645E+00	26.48
	295.21	549	19.20	5.969E+00	1.379E+00	1.379E+00	21.06
	351.92	1094	37.20*	5.401E+00	1.568E+00	1.568E+00	15.70
PO-214	74.81	535	6.21	6.174E+00	4.017E+00	4.017E+00	20.35

Sample ID : G245960003 Acquisition date : 12-FEB-2010 15:47:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	819	10.50	6.469E+00	3.472E+00	3.472E+00	15.71
	87.30	295	4.67	7.485E+00	2.434E+00	2.434E+00	30.36
	241.98	458	7.49	6.663E+00	2.645E+00	2.645E+00	26.48
	295.21	549	19.20	5.969E+00	1.379E+00	1.379E+00	21.06
	351.92	1094	37.20*	5.401E+00	1.568E+00	1.568E+00	15.70
PO-216	74.81	535	10.70	6.174E+00	2.331E+00	2.331E+00	21.13
	77.11	819	18.00	6.469E+00	2.025E+00	2.025E+00	13.74
	87.30	295	8.00	7.485E+00	1.421E+00	1.421E+00	31.02
	238.63	1854	44.60*	6.709E+00	1.785E+00	1.785E+00	14.42
	300.09	71	3.41	5.916E+00	1.019E+00	1.019E+00	82.02
PO-218	74.81	535	6.21	6.174E+00	4.017E+00	4.017E+00	20.35
	77.11	819	10.50	6.469E+00	3.472E+00	3.472E+00	15.71
	87.30	295	4.67	7.485E+00	2.434E+00	2.434E+00	30.36
	241.98	458	7.49	6.663E+00	2.645E+00	2.645E+00	26.48
	295.21	549	19.20	5.969E+00	1.379E+00	1.379E+00	21.06
	351.92	1094	37.20*	5.401E+00	1.568E+00	1.568E+00	15.70
RA-224	240.98	458	3.95*	6.663E+00	5.015E+00	5.015E+00	25.87
RA-226	609.31	793	46.30*	3.811E+00	1.295E+00	1.295E+00	16.08
	1120.29	144	15.10	2.346E+00	1.173E+00	1.173E+00	34.18
	1764.49	142	15.80	1.716E+00	1.512E+00	1.512E+00	28.00
AC-228	338.32	385	11.40	5.525E+00	1.761E+00	1.761E+00	47.93
	911.07	437	27.70*	2.788E+00	1.629E+00	1.629E+00	20.39
	969.11	274	16.60	2.649E+00	1.792E+00	1.792E+00	32.50
RA-228	338.32	385	11.40	5.525E+00	1.761E+00	1.761E+00	47.93
	911.07	437	27.70*	2.788E+00	1.629E+00	1.629E+00	20.39
	969.11	274	16.60	2.649E+00	1.792E+00	1.792E+00	32.50
TH-228	74.81	535	10.70	6.174E+00	2.331E+00	2.367E+00	18.99
	77.11	819	18.00	6.469E+00	2.025E+00	2.056E+00	13.74
	87.30	295	8.00	7.485E+00	1.421E+00	1.442E+00	29.37
	238.63	1854	44.60*	6.709E+00	1.785E+00	1.812E+00	14.42
	300.09	71	3.41	5.916E+00	1.019E+00	1.035E+00	100.66
TH-230	609.31	793	46.30*	3.811E+00	1.295E+00	1.295E+00	16.08
	1120.29	144	15.10	2.346E+00	1.173E+00	1.173E+00	34.18
	1764.49	142	15.80	1.716E+00	1.512E+00	1.512E+00	28.00
TH-232	338.32	385	11.40	5.525E+00	1.761E+00	1.761E+00	25.87
	911.07	437	27.70*	2.788E+00	1.629E+00	1.629E+00	20.39
	969.11	274	16.60	2.649E+00	1.792E+00	1.792E+00	32.50
TH-234	63.29	102	3.80*	4.339E+00	1.785E+00	1.785E+00	91.47
	92.38	316	5.41	7.868E+00	2.142E+00	2.142E+00	35.10
U-234	609.31	793	46.30*	3.811E+00	1.295E+00	1.295E+00	16.08
	1120.29	144	15.10	2.346E+00	1.173E+00	1.173E+00	34.18
	1764.49	142	15.80	1.716E+00	1.512E+00	1.512E+00	28.00
NP-237	86.50	295	12.60*	7.485E+00	9.021E-01	9.021E-01	35.89
	95.87	------	2.60	8.032E+00	------ Line Not Found		------
U-238	63.29	102	3.80*	4.339E+00	1.785E+00	1.785E+00	91.47
	92.38	316	5.41	7.868E+00	2.142E+00	2.142E+00	31.29
AM-243	74.67	535	66.00*	6.174E+00	3.779E-01	3.779E-01	18.95
	86.72	295	0.34	7.485E+00	3.383E+01	3.383E+01	29.37
	117.66	------	0.55	8.550E+00	------ Line Not Found		------

Sample ID : G245960003 Acquisition date : 12-FEB-2010 15:47:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	8.387E+00	------	Line Not Found	------
ANH-511	511.00	208	100.00*	4.298E+00	1.393E-01	1.393E-01	46.65

Flag: "*" = Keyline

Sample ID : G245960003 Acquisition date : 12-FEB-2010 15:47:29

Total number of lines in spectrum 32
Number of unidentified lines 1
Number of lines tentatively identified by NID 31 96.88%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.046E+01	2.046E+01	0.224E+01	10.96	
CD-109	464.00D	1.02	3.056E+00	3.126E+00	0.918E+00	29.37	
SN-126	1.00E+05Y	1.00	3.072E-01	3.072E-01	0.902E-01	29.37	
TL-208	1.41E+10Y	1.00	5.086E-01	5.086E-01	0.866E-01	17.03	
BI-211	7.04E+08Y	1.00	4.508E+00	4.508E+00	0.667E+00	14.80	
PB-212	1.41E+10Y	1.00	1.785E+00	1.785E+00	0.257E+00	14.42	
PO-212	1.41E+10Y	1.00	1.785E+00	1.785E+00	0.257E+00	14.42	
BI-214	1600.00Y	1.00	1.295E+00	1.295E+00	0.208E+00	16.08	
PB-214	1600.00Y	1.00	1.568E+00	1.568E+00	0.246E+00	15.70	
PO-214	1600.00Y	1.00	1.568E+00	1.568E+00	0.246E+00	15.70	
PO-216	1.41E+10Y	1.00	1.785E+00	1.785E+00	0.257E+00	14.42	
PO-218	1600.00Y	1.00	1.568E+00	1.568E+00	0.246E+00	15.70	
RA-224	1.41E+10Y	1.00	5.015E+00	5.015E+00	1.298E+00	25.87	
RA-226	1600.00Y	1.00	1.295E+00	1.295E+00	0.208E+00	16.08	
AC-228	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.332E+00	20.39	
RA-228	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.332E+00	20.39	
TH-228	1.91Y	1.02	1.785E+00	1.812E+00	0.261E+00	14.42	
TH-230	4.47E+09Y	1.00	1.295E+00	1.295E+00	0.208E+00	16.08	
TH-232	1.41E+10Y	1.00	1.629E+00	1.629E+00	0.332E+00	20.39	
TH-234	4.47E+09Y	1.00	1.785E+00	1.785E+00	1.633E+00	91.47	
U-234	4.47E+09Y	1.00	1.295E+00	1.295E+00	0.208E+00	16.08	
NP-237	2.14E+06Y	1.00	9.021E-01	9.021E-01	3.238E-01	35.89	
U-238	4.47E+09Y	1.00	1.785E+00	1.785E+00	1.633E+00	91.47	
AM-243	7380.00Y	1.00	3.779E-01	3.779E-01	0.716E-01	18.95	
ANH-511	1.00E+09Y	1.00	1.393E-01	1.393E-01	0.650E-01	46.65	
	Total Activity :		6.076E+01	6.086E+01			

Grand Total Activity : 6.076E+01 6.086E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245960003

Acquisition date : 12-FEB-2010 15:47:29

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	90.05	177	421	1.04	180.31	171	24	2.46E-02	39.2	7.69E+00	T
0	185.97	387	603	1.48	371.95	366	13	5.37E-02	29.0	7.61E+00	T
0	209.79	191	565	1.20	419.55	413	12	2.66E-02	51.9	7.18E+00	T
0	269.96	132	288	1.28	539.80	536	9	1.83E-02	50.5	6.27E+00	T
0	327.82	95	227	0.72	655.40	651	9	1.33E-02	60.3	5.63E+00	T
0	462.73	128	217	1.13	925.02	918	14	1.78E-02	52.0	4.58E+00	T
0	727.49	179	163	1.83	1454.24	1446	18	2.49E-02	37.3	3.34E+00	T
0	768.24	43	138	1.83	1535.71	1532	11	5.90E-03	****	3.20E+00	T
0	795.66	108	113	2.04	1590.51	1582	18	1.50E-02	49.9	3.11E+00	T
5	964.87	32	71	1.37	1928.83	1926	20	4.38E-03	86.9	2.66E+00	T
0	1377.27	88	15	2.82	2753.55	2745	16	1.22E-02	29.5	1.99E+00	T
0	1729.72	63	17	2.79	3458.60	3449	17	8.75E-03	39.2	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:10.50

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960003.CNF;1  *
* Acquisition date : 12-FEB-2010 15:47:29  Detector SN#    :                *
* Detector ID      : GAM22                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.18         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245960003            Analyst initials: MXR1           *
* Batch Number     : 948717                Sample Quantity : 1.30300E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.046E+01	2.243E+00	4.166E-01	3.816E-02	49.121
CD-109	3.126E+00	9.179E-01	1.121E+00	1.064E-01	2.789
SN-126	3.072E-01	9.021E-02	1.106E-01	1.044E-02	2.778
TL-208	5.086E-01	8.663E-02	5.123E-02	5.555E-03	9.928
BI-211	4.508E+00	6.674E-01	2.660E-01	3.103E-02	16.949
PB-212	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
PO-212	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
BI-214	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
PB-214	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
PO-214	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
PO-216	1.785E+00	2.574E-01	7.740E-02	1.023E-02	23.057
PO-218	1.568E+00	2.462E-01	9.270E-02	1.182E-02	16.919
RA-224	5.015E+00	1.298E+00	8.800E-01	1.102E-01	5.700
RA-226	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
AC-228	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
RA-228	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
TH-228	1.812E+00	2.613E-01	7.858E-02	1.038E-02	23.057
TH-230	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018

Sample ID : G245960003 Acquisition date : 12-FEB-2010 15:47:29

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.629E+00	3.322E-01	1.797E-01	2.381E-02	9.067
TH-234	1.785E+00	1.633E+00	1.684E+00	2.931E-01	1.060
U-234	1.295E+00	2.081E-01	9.945E-02	1.156E-02	13.018
NP-237	9.021E-01	3.238E-01	3.584E-01	8.115E-02	2.517
U-238	1.785E+00	1.633E+00	1.684E+00	2.931E-01	1.060
AM-243	3.779E-01	7.163E-02	7.383E-02	6.018E-03	5.119
ANH-511	1.393E-01	6.500E-02	4.025E-02	4.033E-03	3.462

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.084E-02		2.797E-01	4.451E-01	4.646E-02	-0.159
NA-22	-3.324E-02		3.568E-02	5.456E-02	4.702E-03	-0.609
NA-24	2.833E-01		3.484E-01	Half-Life too short		
AL-26	-1.518E-02		2.380E-02	3.535E-02	2.891E-03	-0.430
TI-44	3.737E-01	+	5.134E-02	6.819E-02	5.782E-03	5.481
SC-46	-3.399E-02		3.253E-02	4.957E-02	5.548E-03	-0.686
V-48	-2.241E-02		6.068E-02	9.697E-02	1.017E-02	-0.231
CR-51	4.080E-02		3.288E-01	5.530E-01	7.160E-02	0.074
MN-52	7.697E-02		1.801E-01	3.080E-01	2.753E-02	0.250
MN-54	-3.476E-05		3.294E-02	5.496E-02	6.106E-03	-0.001
CO-56	-2.273E-02		3.464E-02	5.522E-02	6.147E-03	-0.412
CO-57	-3.545E-03		2.288E-02	3.603E-02	2.971E-03	-0.098
CO-58	-2.963E-02		3.236E-02	5.063E-02	5.606E-03	-0.585
FE-59	1.112E-02		8.212E-02	1.346E-01	1.319E-02	0.083
CO-60	3.240E-03		2.739E-02	4.567E-02	4.073E-03	0.071
ZN-65	8.251E-02		8.912E-02	1.338E-01	1.193E-02	0.617
GE-68	-3.808E-01		1.066E+00	1.688E+00	1.592E-01	-0.226
AS-73	4.043E-02		6.594E-01	1.071E+00	8.092E-02	0.038
AS-74	-3.616E-02		8.245E-02	1.333E-01	1.382E-02	-0.271
SE-75	2.736E-02		4.524E-02	6.566E-02	8.837E-03	0.417
BR-77	-9.131E+00		9.002E+00	1.382E+01	1.391E+00	-0.661
SR-82	-4.438E-01		3.884E-01	5.227E-01	5.733E-02	-0.849
RB-83	-6.206E-02		5.871E-02	8.985E-02	9.042E-03	-0.691
RB-84	8.729E-03		6.238E-02	1.044E-01	1.168E-02	0.084
KR-85	3.411E+01		8.369E+00	1.362E+01	1.367E+00	2.504
SR-85	1.750E-01		4.293E-02	6.986E-02	7.010E-03	2.504
RB-86	-2.684E-01		6.821E-01	1.077E+00	1.017E-01	-0.249
Y-88	-1.010E-02		2.652E-02	4.108E-02	3.321E-03	-0.246
ZR-88	-1.711E-02		2.799E-02	4.460E-02	4.152E-03	-0.384
Y-91	3.895E+00		1.502E+01	2.541E+01	2.089E+00	0.153
NB-94	7.404E-03		2.954E-02	4.890E-02	5.240E-03	0.151
NB-95	6.348E-02		4.527E-02	6.909E-02	7.555E-03	0.919
NB-95M	2.272E-01		1.320E-01	1.987E-01	2.626E-02	1.143
ZR-95	7.139E-02		6.235E-02	1.074E-01	1.247E-02	0.665
NB-97	-2.883E-02		4.546E-02	Half-Life too short		
ZR-97	5.812E+00		9.887E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	2.324E+00		9.731E+00	1.605E+01	2.657E+00	0.145
TC-99M	-3.382E+10		2.044E+10	Half-Life too short		
RH-101	1.064E-02		3.262E-02	5.288E-02	5.769E-03	0.201
RH-102	2.369E-03		2.505E-02	4.072E-02	4.004E-03	0.058
RU-103	-8.998E-03		3.294E-02	5.205E-02	7.812E-03	-0.173
RH-106	1.274E-01		2.797E-01	4.726E-01	6.901E-02	0.270
RU-106	1.274E-01		2.794E-01	4.726E-01	4.936E-02	0.270
AG-108M	3.018E-03		2.877E-02	4.716E-02	4.668E-03	0.064
AG-110M	-1.020E-02		3.131E-02	5.044E-02	5.421E-03	-0.202
IN-111	-6.344E-01		1.045E+00	1.416E+00	1.796E-01	-0.448
IN-113M	-4.112E-03		4.053E-02	6.634E-02	6.335E-03	-0.062
SN-113	-4.112E-03		4.053E-02	6.634E-02	6.335E-03	-0.062
IN-114M	2.747E-02		1.898E-01	2.769E-01	2.944E-02	0.099
CD-115	5.526E+00		8.978E+00	1.552E+01	1.567E+00	0.356
SN-117M	3.104E-02		5.047E-02	8.599E-02	8.155E-03	0.361
SB-122	-1.039E+00		1.781E+00	2.867E+00	2.939E-01	-0.362
I-123	3.023E+00		2.796E+00	Half-Life too short		
TE-123M	1.418E-02		2.623E-02	4.460E-02	4.259E-03	0.318
I-124	2.750E-01		6.860E-01	1.006E+00	1.045E-01	0.273
SB-124	9.050E-03		5.668E-02	9.589E-02	8.529E-03	0.094
SB-125	-2.049E-02		8.571E-02	1.382E-01	1.341E-02	-0.148
TE-125M	8.593E-01		8.373E+00	1.343E+01	1.360E+00	0.064
I-126	-3.982E-02		1.605E-01	2.594E-01	2.741E-02	-0.153
SB-126	7.378E-02		1.367E-01	2.001E-01	2.157E-02	0.369
SB-127	6.454E-02		1.114E+00	1.829E+00	2.377E-01	0.035
XE-127	-2.291E-02		4.803E-02	7.140E-02	7.915E-03	-0.321
I-131	-4.245E-02		1.007E-01	1.631E-01	1.807E-02	-0.260
TE-132	4.005E-01		6.496E-01	1.076E+00	1.917E-01	0.372
BA-133	9.995E-03		4.059E-02	5.940E-02	8.876E-03	0.168
I-133	-2.290E-03		2.576E-03	Half-Life too short		
CS-134	1.318E-01	+	6.742E-02	7.614E-02	8.427E-03	1.731
CS-135	1.303E-01		1.734E-01	2.473E-01	3.577E-02	0.527
I-135	8.251E+07		2.498E+09	Half-Life too short		
CS-136	1.005E-01		9.937E-02	1.721E-01	1.740E-02	0.584
BA-137M	3.546E-02		3.275E-02	5.654E-02	5.962E-03	0.627
CS-137	3.748E-02		3.462E-02	5.977E-02	6.311E-03	0.627
CE-139	2.647E-04		2.796E-02	4.664E-02	4.574E-03	0.006
BA-140	2.402E-03		2.210E-01	3.700E-01	1.242E-01	0.006
LA-140	-1.155E-01		7.721E-02	1.078E-01	9.450E-03	-1.071
CE-141	1.030E-03		5.478E-02	9.226E-02	8.399E-03	0.011
CE-143	9.813E-04		1.459E-04	Half-Life too short		
CE-144	-4.527E-02		1.825E-01	3.064E-01	4.756E-02	-0.148
PM-144	2.399E-03		2.967E-02	4.870E-02	5.208E-03	0.049
PR-144	1.626E-01		2.010E+00	3.300E+00	3.528E-01	0.049
PM-146	1.077E-02		4.090E-02	6.552E-02	7.614E-03	0.164
ND-147	-2.948E-01		4.741E-01	7.632E-01	1.210E-01	-0.386
PM-149	8.697E+00		8.470E+01	1.359E+02	2.570E+01	0.064
EU-152	7.880E-02		1.124E-01	1.497E-01	1.800E-02	0.526

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-2.441E-02		7.821E-02	1.105E-01	9.716E-03	-0.221
EU-154	-9.144E-02		9.999E-02	1.528E-01	1.727E-02	-0.599
EU-155	4.267E-02		9.513E-02	1.550E-01	1.330E-02	0.275
TB-160	4.085E-02		1.306E-01	2.207E-01	2.468E-02	0.185
HO-166M	1.658E-02		5.083E-02	8.453E-02	9.088E-03	0.196
TM-171	-1.304E+01		2.620E+01	3.739E+01	2.825E+00	-0.349
LU-176	7.762E-04		2.201E-02	3.701E-02	4.855E-03	0.021
LU-177	3.357E+00	+	1.784E+00	1.939E+00	2.189E-01	1.732
LU-177M	-5.113E-02		1.589E-01	2.559E-01	2.420E-02	-0.200
HF-181	-3.929E-02		3.879E-02	5.868E-02	5.792E-03	-0.670
W-181	-7.482E-02		3.364E-01	4.870E-01	3.630E-02	-0.154
TA-182	-9.960E-02		1.581E-01	2.515E-01	2.091E-02	-0.396
RE-183	1.617E-02		1.013E-01	1.701E-01	1.641E-02	0.095
RE-184	-1.137E-01		2.139E-01	3.362E-01	4.362E-02	-0.338
OS-185	1.883E-02		3.567E-02	6.048E-02	6.356E-03	0.311
RE-188	9.152E-02		1.598E-01	2.722E-01	2.541E-02	0.336
W-188	-3.883E+00		7.191E+00	1.020E+01	1.393E+00	-0.381
IR-192	1.986E-02		3.113E-02	5.333E-02	6.815E-03	0.372
AU-195	1.978E-01		2.243E-01	3.346E-01	2.918E-02	0.591
TL-200	7.846E-05		2.064E-04	Half-Life too short		
TL-201	-4.626E-02		6.528E+00	1.088E+01	1.072E+00	-0.004
TL-202	4.257E-02		6.043E-02	1.019E-01	9.804E-03	0.418
HG-203	3.195E-02		4.025E-02	6.611E-02	9.357E-03	0.483
BI-207	9.740E-03		4.606E-02	7.617E-02	7.313E-03	0.128
TL-207	5.570E-01		6.369E-01	9.630E-01	1.914E-01	0.578
PO-209	2.788E+00		6.224E+00	1.061E+01	1.189E+00	0.263
BI-210	1.132E+00		2.840E+00	4.743E+00	4.407E-01	0.239
PB-210	1.132E+00		2.840E+00	4.743E+00	4.407E-01	0.239
PO-210	1.132E+00		2.840E+00	4.743E+00	3.988E-01	0.239
PB-211	-9.260E-01		1.006E+00	1.270E+00	7.971E-01	-0.729
BI-212	1.308E+00	+	5.122E-01	5.787E-01	6.912E-02	2.261
PO-215	5.570E-01		6.369E-01	9.630E-01	1.914E-01	0.578
RN-219	-3.798E-02		3.486E-01	5.688E-01	8.800E-02	-0.067
RN-220	2.885E+01		2.202E+01	3.900E+01	3.975E+00	0.740
RA-223	5.570E-01		6.369E-01	9.630E-01	1.914E-01	0.578
AC-227	2.987E-01		3.557E-01	5.871E-01	1.071E-01	0.509
TH-227	2.987E-01		3.568E-01	5.871E-01	1.208E-01	0.509
TH-229	-1.773E-01		4.789E-01	7.786E-01	8.371E-02	-0.228
PA-231	-5.269E-01		1.451E+00	2.274E+00	4.247E-01	-0.232
TH-231	5.570E-01		6.369E-01	9.630E-01	1.914E-01	0.578
U-231	-7.174E-01		1.052E+00	1.458E+00	1.295E-01	-0.492
PA-233	-5.278E-03		5.940E-02	9.922E-02	1.300E-02	-0.053
PA-234	-3.375E-02		2.416E-01	3.942E-01	7.835E-02	-0.086
PA-234M	-5.049E-01		4.043E+00	6.347E+00	7.274E-01	-0.080
U-235	1.004E-01		1.920E-01	3.188E-01	5.624E-02	0.315
NP-236	-3.142E-02		7.445E-02	1.226E-01	1.172E-02	-0.256
NP-239	1.291E-01		1.794E-01	2.925E-01	2.418E-02	0.441
AM-241	9.490E-02		1.316E-01	2.025E-01	1.583E-02	0.469

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.392E-02		8.596E-02	1.364E-01	1.163E-02	-0.175
AM-246	6.451E-02		1.186E-01	2.005E-01	1.886E-02	0.322
CM-247	3.635E-04		3.153E-02	5.177E-02	4.856E-03	0.007
CF-249	8.542E-03		3.486E-02	5.806E-02	5.518E-03	0.147
CF-251	2.650E-02		1.200E-01	2.006E-01	2.037E-02	0.132

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960003           *
* Acquisition date  : 12-FEB-2010 15:47:29 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.18      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960003           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.3030E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.046E+01	2.198E+00	2.086E-01	1.122E+00
CD-109	3.126E+00	8.995E-01	5.871E-01	4.589E-01
SN-126	3.072E-01	8.841E-02	5.794E-02	4.511E-02
TL-208	5.086E-01	8.490E-02	2.604E-02	4.331E-02
BI-211	4.508E+00	6.541E-01	1.363E-01	3.337E-01
PB-212	1.785E+00	2.522E-01	3.992E-02	1.287E-01
PO-212	1.785E+00	2.522E-01	3.992E-02	1.287E-01
BI-214	1.295E+00	2.040E-01	5.052E-02	1.041E-01
PB-214	1.568E+00	2.413E-01	4.751E-02	1.231E-01
PO-214	1.568E+00	2.413E-01	4.751E-02	1.231E-01
PO-216	1.785E+00	2.522E-01	3.992E-02	1.287E-01
PO-218	1.568E+00	2.413E-01	4.751E-02	1.231E-01
RA-224	5.015E+00	1.272E+00	4.538E-01	6.489E-01
RA-226	1.295E+00	2.040E-01	5.052E-02	1.041E-01
AC-228	1.629E+00	3.255E-01	9.068E-02	1.661E-01
RA-228	1.629E+00	3.255E-01	9.068E-02	1.661E-01
TH-228	1.812E+00	2.561E-01	4.053E-02	1.307E-01
TH-230	1.295E+00	2.040E-01	5.052E-02	1.041E-01
TH-232	1.629E+00	3.255E-01	9.068E-02	1.661E-01
TH-234	1.785E+00	1.600E+00	8.866E-01	8.164E-01
U-234	1.295E+00	2.040E-01	5.052E-02	1.041E-01
NP-237	9.021E-01	3.173E-01	1.878E-01	1.619E-01
U-238	1.785E+00	1.600E+00	8.866E-01	8.164E-01
AM-243	3.779E-01	7.019E-02	3.877E-02	3.581E-02
ANH-511	1.393E-01	6.370E-02	2.051E-02	3.250E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-7.084E-02	2.741E-01	2.270E-01	1.398E-01 NOT IDENT.
NA-22	-3.324E-02	3.497E-02	2.738E-02	1.784E-02 NOT IDENT.

NA-24	2.833E+05	6.829E+05	0.000E+00	3.484E+05	SHORT HLIF
AL-26	-1.518E-02	2.332E-02	1.763E-02	1.190E-02	NOT IDENT.
TI-44	3.737E-01	5.031E-02	3.579E-02	2.567E-02	FAIL ABUN
SC-46	-3.399E-02	3.188E-02	2.502E-02	1.626E-02	FAIL ABUN
V-48	-2.241E-02	5.946E-02	4.887E-02	3.034E-02	NOT IDENT.
CR-51	4.080E-02	3.222E-01	2.839E-01	1.644E-01	NOT IDENT.
MN-52	7.697E-02	1.765E-01	1.543E-01	9.005E-02	NOT IDENT.
MN-54	-3.476E-05	3.228E-02	2.778E-02	1.647E-02	NOT IDENT.
CO-56	-2.273E-02	3.395E-02	2.790E-02	1.732E-02	NOT IDENT.
CO-57	-3.545E-03	2.242E-02	1.878E-02	1.144E-02	NOT IDENT.
CO-58	-2.963E-02	3.172E-02	2.560E-02	1.618E-02	NOT IDENT.
FE-59	1.112E-02	8.048E-02	6.773E-02	4.106E-02	NOT IDENT.
CO-60	3.240E-03	2.684E-02	2.290E-02	1.369E-02	NOT IDENT.
ZN-65	8.251E-02	8.734E-02	6.729E-02	4.456E-02	NOT IDENT.
GE-68	-3.808E-01	1.045E+00	8.497E-01	5.330E-01	NOT IDENT.
AS-73	4.043E-02	6.462E-01	5.653E-01	3.297E-01	NOT IDENT.
AS-74	-3.616E-02	8.081E-02	6.777E-02	4.123E-02	NOT IDENT.
SE-75	2.736E-02	4.434E-02	3.381E-02	2.262E-02	NOT IDENT.
BR-77	-9.131E+00	8.822E+00	7.040E+00	4.501E+00	FAIL ABUN
SR-82	-4.438E-01	3.806E-01	2.645E-01	1.942E-01	NOT IDENT.
RB-83	-6.206E-02	5.754E-02	4.576E-02	2.935E-02	NOT IDENT.
RB-84	8.729E-03	6.113E-02	5.274E-02	3.119E-02	NOT IDENT.
KR-85	3.411E+01	8.202E+00	6.938E+00	4.185E+00	NOT IDENT.
SR-85	1.750E-01	4.207E-02	3.559E-02	2.146E-02	NOT IDENT.
RB-86	-2.684E-01	6.685E-01	5.422E-01	3.411E-01	NOT IDENT.
Y-88	-1.010E-02	2.599E-02	2.049E-02	1.326E-02	NOT IDENT.
ZR-88	-1.711E-02	2.743E-02	2.282E-02	1.399E-02	NOT IDENT.
Y-91	3.895E+00	1.472E+01	1.276E+01	7.509E+00	NOT IDENT.
NB-94	7.404E-03	2.894E-02	2.478E-02	1.477E-02	NOT IDENT.
NB-95	6.348E-02	4.436E-02	3.497E-02	2.264E-02	NOT IDENT.
NB-95M	2.272E-01	1.294E-01	1.025E-01	6.600E-02	NOT IDENT.
ZR-95	7.139E-02	6.110E-02	5.437E-02	3.117E-02	NOT IDENT.
NB-97	-2.883E+04	8.911E+04	0.000E+00	4.546E+04	SHORT HLIF
ZR-97	5.812E+06	1.938E+06	0.000E+00	9.887E+05	SHORT HLIF
MO-99	2.324E+00	9.537E+00	8.127E+00	4.866E+00	NOT IDENT.
TC-99M	-3.382E+16	4.006E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.064E-02	3.197E-02	2.735E-02	1.631E-02	NOT IDENT.
RH-102	2.369E-03	2.455E-02	2.077E-02	1.253E-02	FAIL ABUN
RU-103	-8.998E-03	3.228E-02	2.653E-02	1.647E-02	FAIL ABUN
RH-106	1.274E-01	2.741E-01	2.400E-01	1.398E-01	FAIL ABUN
RU-106	1.274E-01	2.738E-01	2.400E-01	1.397E-01	FAIL ABUN
AG-108M	3.018E-03	2.820E-02	2.409E-02	1.439E-02	NOT IDENT.
AG-110M	-1.020E-02	3.068E-02	2.559E-02	1.565E-02	NOT IDENT.
IN-111	-6.344E-01	1.024E+00	7.298E-01	5.227E-01	NOT IDENT.
IN-113M	-4.112E-03	3.972E-02	3.394E-02	2.026E-02	NOT IDENT.
SN-113	-4.112E-03	3.972E-02	3.394E-02	2.026E-02	NOT IDENT.
IN-114M	2.747E-02	1.860E-01	1.433E-01	9.488E-02	NOT IDENT.
CD-115	5.526E+00	8.799E+00	7.902E+00	4.489E+00	NOT IDENT.
SN-117M	3.104E-02	4.946E-02	4.464E-02	2.524E-02	NOT IDENT.
SB-122	-1.039E+00	1.745E+00	1.459E+00	8.904E-01	NOT IDENT.
I-123	3.023E+06	5.481E+06	0.000E+00	2.796E+06	SHORT HLIF
TE-123M	1.418E-02	2.571E-02	2.315E-02	1.312E-02	NOT IDENT.
I-124	2.750E-01	6.722E-01	5.110E-01	3.430E-01	FAIL ABUN
SB-124	9.050E-03	5.555E-02	4.789E-02	2.834E-02	FAIL ABUN
SB-125	-2.049E-02	8.400E-02	7.060E-02	4.286E-02	FAIL ABUN
TE-125M	8.593E-01	8.205E+00	7.014E+00	4.186E+00	NOT IDENT.
I-126	-3.982E-02	1.573E-01	1.316E-01	8.023E-02	NOT IDENT.
SB-126	7.378E-02	1.340E-01	1.014E-01	6.836E-02	FAIL ABUN
SB-127	6.454E-02	1.091E+00	9.274E-01	5.568E-01	NOT IDENT.
XE-127	-2.291E-02	4.707E-02	3.692E-02	2.401E-02	NOT IDENT.
I-131	-4.245E-02	9.868E-02	8.353E-02	5.034E-02	NOT IDENT.
TE-132	4.005E-01	6.366E-01	5.552E-01	3.248E-01	NOT IDENT.
BA-133	9.995E-03	3.978E-02	3.044E-02	2.030E-02	NOT IDENT.
I-133	-2.290E+03	5.049E+03	0.000E+00	2.576E+03	SHORT HLIF
CS-134	1.318E-01	6.607E-02	3.851E-02	3.371E-02	FAIL ABUN
CS-135	1.303E-01	1.699E-01	1.273E-01	8.668E-02	NOT IDENT.
I-135	8.251E+13	4.897E+15	0.000E+00	2.498E+15	SHORT HLIF
CS-136	1.005E-01	9.738E-02	8.664E-02	4.968E-02	FAIL ABUN
BA-137M	3.546E-02	3.210E-02	2.868E-02	1.638E-02	NOT IDENT.
CS-137	3.748E-02	3.393E-02	3.032E-02	1.731E-02	NOT IDENT.
CE-139	2.647E-04	2.740E-02	2.419E-02	1.398E-02	NOT IDENT.
BA-140	2.402E-03	2.166E-01	1.884E-01	1.105E-01	NOT IDENT.
LA-140	-1.155E-01	7.566E-02	5.390E-02	3.860E-02	FAIL ABUN
CE-141	1.030E-03	5.368E-02	4.796E-02	2.739E-02	NOT IDENT.
CE-143	9.813E+02	2.859E+02	0.000E+00	1.459E+02	SHORT HLIF
CE-144	-4.527E-02	1.789E-01	1.595E-01	9.126E-02	NOT IDENT.
PM-144	2.399E-03	2.907E-02	2.469E-02	1.483E-02	NOT IDENT.
PR-144	1.626E-01	1.970E+00	1.673E+00	1.005E+00	NOT IDENT.

PM-146	1.077E-02	4.008E-02	3.344E-02	2.045E-02	NOT IDENT.
ND-147	-2.948E-01	4.646E-01	3.886E-01	2.371E-01	FAIL ABUN
PM-149	8.697E+00	8.301E+01	6.987E+01	4.235E+01	NOT IDENT.
EU-152	7.880E-02	1.102E-01	7.678E-02	5.621E-02	FAIL ABUN
GD-153	-2.441E-02	7.665E-02	5.780E-02	3.911E-02	NOT IDENT.
EU-154	-9.144E-02	9.799E-02	7.666E-02	5.000E-02	NOT IDENT.
EU-155	4.267E-02	9.323E-02	8.096E-02	4.757E-02	FAIL ABUN
TB-160	4.085E-02	1.280E-01	1.115E-01	6.529E-02	FAIL ABUN
HO-166M	1.658E-02	4.981E-02	4.283E-02	2.542E-02	NOT IDENT.
TM-171	-1.304E+01	2.567E+01	1.967E+01	1.310E+01	NOT IDENT.
LU-176	7.762E-04	2.157E-02	1.901E-02	1.101E-02	FAIL ABUN
LU-177	3.357E+00	1.748E+00	1.002E+00	8.919E-01	FAIL ABUN
LU-177M	-5.113E-02	1.558E-01	1.308E-01	7.947E-02	FAIL ABUN
HF-181	-3.929E-02	3.802E-02	2.992E-02	1.940E-02	NOT IDENT.
W-181	-7.482E-02	3.296E-01	2.563E-01	1.682E-01	NOT IDENT.
TA-182	-9.960E-02	1.549E-01	1.263E-01	7.905E-02	FAIL ABUN
RE-183	1.617E-02	9.931E-02	8.828E-02	5.067E-02	FAIL ABUN
RE-184	-1.137E-01	2.096E-01	1.732E-01	1.070E-01	NOT IDENT.
OS-185	1.883E-02	3.496E-02	3.069E-02	1.783E-02	NOT IDENT.
RE-188	9.152E-02	1.566E-01	1.414E-01	7.990E-02	NOT IDENT.
W-188	-3.883E+00	7.047E+00	5.245E+00	3.596E+00	FAIL ABUN
IR-192	1.986E-02	3.051E-02	2.738E-02	1.557E-02	FAIL ABUN
AU-195	1.978E-01	2.198E-01	1.749E-01	1.122E-01	FAIL ABUN
TL-200	7.846E+01	4.046E+02	0.000E+00	2.064E+02	SHORT HLIF
TL-201	-4.626E-02	6.397E+00	5.641E+00	3.264E+00	NOT IDENT.
TL-202	4.257E-02	5.922E-02	5.202E-02	3.021E-02	NOT IDENT.
HG-203	3.195E-02	3.945E-02	3.401E-02	2.013E-02	NOT IDENT.
BI-207	9.740E-03	4.514E-02	3.834E-02	2.303E-02	FAIL ABUN
TL-207	5.570E-01	6.242E-01	4.943E-01	3.185E-01	FAIL ABUN
PO-209	2.788E+00	6.099E+00	5.356E+00	3.112E+00	NOT IDENT.
BI-210	1.132E+00	2.783E+00	2.509E+00	1.420E+00	NOT IDENT.
PB-210	1.132E+00	2.783E+00	2.509E+00	1.420E+00	NOT IDENT.
PO-210	1.132E+00	2.783E+00	2.509E+00	1.420E+00	NOT IDENT.
PB-211	-9.260E-01	9.859E-01	6.494E-01	5.030E-01	NOT IDENT.
BI-212	1.308E+00	5.019E-01	2.931E-01	2.561E-01	FAIL ABUN
PO-215	5.570E-01	6.242E-01	4.943E-01	3.185E-01	FAIL ABUN
RN-219	-3.798E-02	3.416E-01	2.909E-01	1.743E-01	FAIL ABUN
RN-220	2.885E+01	2.158E+01	1.985E+01	1.101E+01	NOT IDENT.
RA-223	5.570E-01	6.242E-01	4.943E-01	3.185E-01	FAIL ABUN
AC-227	2.987E-01	3.486E-01	3.024E-01	1.778E-01	FAIL ABUN
TH-227	2.987E-01	3.497E-01	3.024E-01	1.784E-01	FAIL ABUN
TH-229	-1.773E-01	4.693E-01	4.029E-01	2.394E-01	FAIL ABUN
PA-231	-5.269E-01	1.422E+00	1.170E+00	7.256E-01	FAIL ABUN
TH-231	5.570E-01	6.242E-01	4.943E-01	3.185E-01	FAIL ABUN
U-231	-7.174E-01	1.031E+00	7.630E-01	5.259E-01	FAIL ABUN
PA-233	-5.278E-03	5.821E-02	5.096E-02	2.970E-02	FAIL ABUN
PA-234	-3.375E-02	2.368E-01	1.988E-01	1.208E-01	FAIL ABUN
PA-234M	-5.049E-01	3.962E+00	3.198E+00	2.021E+00	NOT IDENT.
U-235	1.004E-01	1.882E-01	1.657E-01	9.602E-02	FAIL ABUN
NP-236	-3.142E-02	7.296E-02	6.365E-02	3.722E-02	NOT IDENT.
NP-239	1.291E-01	1.758E-01	1.526E-01	8.968E-02	FAIL ABUN
AM-241	9.490E-02	1.289E-01	1.067E-01	6.578E-02	NOT IDENT.
CM-243	-2.392E-02	8.424E-02	7.126E-02	4.298E-02	FAIL ABUN
AM-246	6.451E-02	1.162E-01	1.009E-01	5.930E-02	NOT IDENT.
CM-247	3.635E-04	3.090E-02	2.648E-02	1.576E-02	NOT IDENT.
CF-249	8.542E-03	3.417E-02	2.971E-02	1.743E-02	NOT IDENT.
CF-251	2.650E-02	1.176E-01	1.039E-01	5.999E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	312.4978
46.50	312.4978
46.50	312.4978
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49.72	301.6201
51.35	325.9946
52.39	305.2221
52.97	303.2025
53.15	301.5772
53.44	301.0218
54.07	310.2452
56.28	364.0680
56.28	364.0719
57.37	0.0000
57.53	337.5045
57.53	337.5072
57.60	336.6531
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57.98	331.4744
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59.32	346.6324
59.40	346.7423
59.54	346.9352
59.72	401.7000
60.01	402.1614
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61.14	396.7345
61.30	396.9815
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63.29	428.6377
63.58	429.1086
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65.12	452.5890
65.20	451.2588
65.20	451.2588
66.05	445.3295
66.72	468.5230
66.83	468.7123
66.91	468.8506
67.20	487.0567
67.20	487.0567
67.75	501.3358
67.85	501.5181
68.90	487.0752
68.90	487.0752
69.30	496.6910
69.67	475.0100
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70.83	467.9765
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74.81	500.1588
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77.11	503.9857

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79.80	448.3090
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80.30	506.1163
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81.07	542.9290
81.07	542.9290
81.07	542.9290
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83.78	483.5756
83.78	483.5756
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84.90	471.1507
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86.50	626.0046
86.54	626.0806
86.59	626.1747
86.72	626.4207
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86.94	524.9863
87.30	525.5508
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87.30	525.5508
87.30	525.5508
87.57	525.9730
87.88	526.4587
88.03	526.6927
88.36	527.2064
88.47	527.3794
89.95	529.6733
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92.29	533.2667
92.38	533.4041
92.38	533.4041
93.35	534.8765
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94.67	536.8652
94.67	536.8729
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94.90	537.2188
94.90	537.2188
94.90	537.2188
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95.87	442.7896
96.73	438.9877
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98.44	410.1229
98.44	410.1248
98.88	382.9149
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99.55	378.7134
99.86	396.0193
100.00	396.1692
100.10	385.8173
103.18	421.9453
103.76	396.1761
105.00	373.1671
105.31	372.3613
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109.28	395.1207

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111.00	424.8444
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112.95	469.6934
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117.00	386.7265
117.00	386.7265
117.66	421.5100
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121.78	368.0794
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122.32	367.3851
122.32	367.3851
122.32	367.3851
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135.34	382.2601
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136.48	411.7014
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144.24	372.1677
144.24	372.1677
144.24	372.1677
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147.16	462.7043
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152.70	414.3494
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154.21	448.7988
154.21	448.7988
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163.89	418.4437
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167.43	411.6722
171.28	384.9608
171.86	403.4753
172.10	403.6463
176.55	412.5499
176.60	412.5858
181.06	406.2311
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186.00	402.5575
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192.34	402.7798
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198.01	399.4458
198.60	403.8011
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202.84	422.8602
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208.81	369.6617
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209.75	370.1824
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227.20	337.0073
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228.18	333.3032
228.18	333.3032
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236.00	350.3906
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238.63	299.0185
238.63	299.0185
238.63	299.0185
239.00	299.1675
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241.98	300.3636
241.98	300.3636
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249.79	241.2666
252.40	299.1058
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252.85	305.7368
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256.20	275.6952
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264.65	256.9952
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268.79	288.1772
269.46	265.5514
269.46	265.5514
269.46	265.5514
269.46	265.5514
271.23	322.5196
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277.60	300.7936
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279.53	309.2716
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284.30	299.8193
285.00	279.9110
285.90	261.1508
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286.10	255.6059
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290.80	275.0250
291.72	297.8822
293.26	0.0000
293.70	230.6984
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295.21	285.4688

295.21	285.4688
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297.23	317.9095
298.57	318.3881
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299.80	230.7677
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300.09	226.2889
300.09	226.2889
300.09	226.2889
300.12	226.2950
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304.40	259.4167
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306.84	258.8878
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323.87	207.2361
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334.30	266.4921
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338.28	251.4362
338.28	251.4362
338.28	251.4362
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338.32	251.4492
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351.92	193.3079
351.92	193.3079
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387.95	202.9118
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391.69	225.5476
392.90	234.7820
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401.10	214.3442
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402.60	195.4801
404.84	233.2136
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427.89	217.2126
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445.03	188.9408
445.03	188.9408
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473.00	162.1568
475.06	162.4092
475.35	169.9274
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477.96	173.4737
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484.57	161.4185
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507.63	0.0000
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511.00	166.7361
511.85	166.8354
511.85	166.8354
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513.99	135.5763
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520.65	171.6870
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529.87	0.0000
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537.32	158.2648
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546.56	0.0000
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555.20	159.2283
563.23	157.2258
563.90	171.5103
568.70	166.3411
569.32	154.9946
569.50	144.5534
569.67	144.5688
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574.00	174.5373
574.64	166.5448
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579.30	0.0000
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591.81	176.5180
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593.00	161.1159
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602.52	0.0000
602.71	169.8055
602.71	169.8055
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604.41	193.3145
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609.31	171.6064

609.31	171.6064
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609.31	171.6064
610.33	171.7139
612.46	135.6507
614.37	139.1593
618.01	167.6115
621.84	143.4366
621.84	143.4366
631.29	143.2536
633.02	142.4121
633.10	143.4070
634.78	130.6787
635.90	115.9050
636.97	109.0399
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646.12	122.5771
656.30	170.4081
657.75	162.5240
657.90	0.0000
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661.65	145.7906
664.57	0.0000
666.33	160.2907
666.33	160.2907
675.00	113.4583
677.61	114.6369
685.20	120.2135
692.80	136.0576
695.00	143.3895
696.49	144.5313
696.49	144.5313
697.00	145.5968
697.49	152.8135
698.33	155.9614
698.50	155.9769
699.00	159.0964
702.63	148.0957
706.10	137.0372
706.58	0.0000
706.67	147.3873
709.31	131.0798
711.68	124.0112
713.82	137.6027
717.42	130.0437
720.50	113.9129
721.93	0.0000
722.20	119.3578
722.78	128.3052
722.78	128.3052
722.89	128.3128
722.95	128.3153
723.30	121.2104
724.18	140.8813
727.18	132.3201
733.00	112.8647
735.90	116.6246
739.58	113.2493
742.81	129.1935
744.21	128.2325
747.13	104.2126
751.79	131.8944
752.31	141.4290
753.82	139.4229
755.35	119.4464
756.15	111.0349
756.87	108.9597
763.93	140.1345
765.79	136.6202
766.42	129.3734
766.84	138.5134
776.49	163.7979
778.00	165.6998
778.57	165.7471
778.89	157.2163
783.80	110.4245
785.46	122.3171
792.07	132.8580

795.84	105.6782
796.30	105.7021
798.80	127.7361
801.93	118.6585
805.60	99.2802
810.29	126.5774
810.76	125.6750
815.85	95.1821
817.79	94.3352
818.51	102.7759
819.60	110.3061
826.30	99.4009
828.27	0.0000
831.60	135.3666
831.96	128.8078
834.83	141.2188
836.80	0.0000
846.75	134.4201
848.13	114.6128
856.28	0.0000
856.80	99.8492
860.37	107.6282
867.32	108.6818
867.82	112.0504
871.10	128.8335
873.19	123.5740
874.81	110.2411
875.33	0.0000
876.40	113.1972
879.36	125.8326
880.27	119.1562
880.51	119.1692
881.50	116.3367
883.24	107.7656
884.67	111.6852
889.25	115.7687
896.60	97.7504
898.02	103.6208
899.00	112.3831
903.28	113.2385
911.07	107.3680
911.07	107.3680
911.07	107.3680
919.63	88.9449
920.93	100.4036
925.00	88.1668
925.24	91.1155
926.50	108.8088
935.52	85.6057
937.48	118.1731
944.10	105.6603
946.00	94.8733
949.00	105.8748
962.29	90.5350
964.01	81.8857
966.15	101.1389
968.20	111.6934
969.11	111.7363
969.11	111.7363
969.11	111.7363
977.42	105.1025
980.50	98.2170
983.50	106.3623
989.30	111.6368
996.32	112.9570
1001.03	94.9786
1001.68	92.9819
1004.76	98.1536
1021.30	0.0000
1024.50	0.0000
1034.80	87.0159
1036.00	80.9094
1037.82	100.4370
1038.57	104.5685
1038.76	0.0000
1045.16	105.8559
1046.59	97.6871
1048.07	98.7723

1050.47	107.0977
1050.47	107.0977
1062.04	84.8085
1063.62	102.4529
1076.63	106.0662
1077.35	104.0144
1078.86	86.3811
1085.78	99.1185
1099.22	110.0903
1112.02	101.5842
1112.84	94.0344
1115.52	97.8158
1120.29	95.0757
1120.29	95.0757
1120.29	95.0757
1120.29	95.0757
1120.51	94.0286
1121.28	99.8657
1124.00	0.0000
1129.67	86.7503
1131.51	0.0000
1147.95	0.0000
1167.94	102.4436
1173.22	96.0359
1175.09	97.0403
1177.93	115.9957
1189.05	106.9651
1204.90	102.7760
1205.75	0.0000
1213.00	96.3735
1221.42	121.5197
1230.97	153.5742
1235.34	106.6945
1236.41	0.0000
1238.25	92.3643
1246.25	125.3979
1260.41	0.0000
1271.85	81.6929
1274.45	96.3594
1274.54	96.3625
1291.56	75.3504
1298.22	0.0000
1312.09	78.7866
1325.50	57.3557
1325.50	57.3557
1332.49	45.5859
1333.61	43.6187
1360.21	45.9677
1362.66	0.0000
1365.15	55.5090
1368.21	46.2998
1368.53	0.0000
1376.25	59.2395
1384.27	42.9414
1394.10	64.5977
1395.20	64.6172
1407.95	72.9646
1434.06	37.7769
1436.60	48.0227
1457.56	0.0000
1460.81	40.1212
1489.15	70.5048
1509.49	53.1727
1596.49	67.3310
1620.62	46.7563
1678.03	0.0000
1691.02	24.2778
1691.02	24.2778
1706.46	0.0000
1750.46	0.0000
1764.49	27.6742
1764.49	27.6742
1764.49	27.6742
1764.49	27.6742
1770.23	37.4104
1771.40	44.5483
1791.20	0.0000
1808.65	28.9583

1836.01 27.1304

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960003

Total Uranium Activity	5.3568E+00	ug/g
Total Uranium Counting Unc.	4.7612E+00	ug/g
Total Uranium Tpu	2.4292E-06	ug/g
Total Uranium Mda	2.6389E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID  : G245960003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 15:47:29.94    SAMPLE ALQT:  130.300 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.651E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.088E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.217E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.076E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:57.14

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:53
Sample ID         : G245960004           Sample quantity  : 1.21720E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.65*	141	310	0.84	92.86	89	7	1.95E-02	24.0	
2	0	63.53*	214	698	0.86	126.61	122	10	2.98E-02	24.8	
3	3	74.86	811	443	0.81	149.27	143	15	1.13E-01	5.2	9.76E-01
4	3	77.11*	1201	420	0.81	153.77	143	15	1.67E-01	3.9	
5	4	84.12*	163	421	1.19	167.79	164	19	2.26E-02	22.2	1.77E+00
6	4	87.24*	453	381	1.20	174.04	164	19	6.29E-02	8.7	
7	4	89.85	308	335	1.21	179.25	164	19	4.27E-02	11.9	
8	0	92.91*	295	415	1.34	185.37	182	7	4.10E-02	13.8	
9	0	128.83	179	365	1.20	257.20	252	10	2.49E-02	21.3	
10	0	186.07*	289	334	1.26	371.68	367	12	4.01E-02	14.5	
11	0	209.33	136	188	0.81	418.20	415	8	1.89E-02	19.4	
12	0	238.63*	1467	231	1.06	476.78	473	7	2.04E-01	3.2	
13	0	241.73	248	230	1.68	483.00	481	7	3.44E-02	12.6	
14	0	270.20	115	204	0.93	539.93	535	10	1.59E-02	25.1	
15	0	277.89	66	153	0.98	555.29	552	8	9.23E-03	34.7	
16	0	295.21*	457	141	1.12	589.95	586	10	6.35E-02	6.8	
17	0	300.04	122	155	1.27	599.59	596	9	1.70E-02	20.4	
18	0	328.29	80	178	1.08	656.10	651	11	1.11E-02	34.2	
19	0	338.21*	268	196	1.14	675.94	671	12	3.73E-02	12.2	
20	0	351.90*	688	173	1.04	703.30	697	11	9.56E-02	5.3	
21	0	408.88	47	127	1.59	817.27	813	10	6.59E-03	46.8	
22	0	463.02	71	76	1.50	925.54	921	8	9.89E-03	24.3	
23	0	510.40*	162	127	1.59	1020.30	1013	15	2.25E-02	19.1	
24	0	583.06*	407	108	1.32	1165.61	1158	16	5.66E-02	7.7	
25	0	609.20*	451	108	1.52	1217.90	1211	12	6.26E-02	6.7	
26	0	661.64*	8	81	1.06	1322.77	1318	11	1.04E-03	258.1	
27	0	727.29	106	65	1.41	1454.08	1449	11	1.48E-02	17.7	
28	0	768.78	39	85	0.95	1537.05	1532	12	5.39E-03	49.9	
29	0	795.04	74	49	1.76	1589.56	1583	15	1.02E-02	23.7	
30	0	860.77	47	49	1.52	1721.03	1715	14	6.53E-03	34.8	
31	0	910.96*	251	72	1.45	1821.41	1814	15	3.49E-02	9.8	
32	4	964.37	58	39	1.83	1928.22	1923	31	7.99E-03	25.2	1.61E+00
33	4	968.66*	179	46	2.14	1936.81	1923	31	2.48E-02	11.1	
34	0	1120.05	139	40	2.18	2239.60	2231	16	1.94E-02	13.2	
35	0	1238.23	47	44	4.20	2475.96	2468	16	6.48E-03	35.0	
36	0	1377.88	40	17	1.93	2755.29	2747	15	5.58E-03	28.1	
37	0	1460.47*	796	0	2.08	2920.46	2913	16	1.11E-01	3.6	
38	0	1729.13	29	2	1.68	3457.83	3452	10	4.01E-03	21.1	

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1763.99*	74	0	1.67	3527.56	3520	14	1.03E-02	12.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:49:00

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:53
Sample ID : G245960004 Sample quantity : 121.72 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.94 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.076E+01	2.312E+00	5.432E-01	4.626E-02	38.221
CD-109	+	88.03	*	4.082E+00	8.361E-01	7.480E-01	8.038E-02	5.457
SN-126	+	64.28		7.038E-01	3.666E-01	2.798E-01	4.458E-02	2.515
	+	86.94		1.668E+00	7.562E-01	3.042E-01	1.273E-01	5.483
	+	87.57	*	4.012E-01	8.218E-02	7.337E-02	7.867E-03	5.468
BA-137M	+	661.65	*	1.154E-02	5.959E-02	6.478E-02	7.176E-03	0.178
CS-137	+	661.65	*	1.220E-02	6.299E-02	6.848E-02	7.595E-03	0.178
HG-203		70.83		-1.301E-01	5.455E-01	7.826E-01	1.138E-01	-0.166
		72.87		2.829E-01	3.098E-01	5.004E-01	7.110E-02	0.565
		82.60		1.793E-01	6.917E-01	1.006E+00	1.507E-01	0.178
	+	279.20	*	7.027E-02	4.937E-02	5.874E-02	6.667E-03	1.196
TL-208	+	277.35		6.372E-01	4.510E-01	5.666E-01	8.048E-02	1.125
	+	510.84		8.229E-01	3.328E-01	2.151E-01	2.849E-02	3.826
	+	583.14	*	5.978E-01	1.139E-01	5.891E-02	6.641E-03	10.147
	+	860.37		6.592E-01	4.639E-01	4.677E-01	4.889E-02	1.410
BI-210	+	46.50	*	1.167E+00	5.737E-01	5.417E-01	5.586E-02	2.153
PB-210	+	46.50	*	1.167E+00	5.737E-01	5.417E-01	5.586E-02	2.153
PO-210	+	46.50	*	1.167E+00	5.718E-01	5.417E-01	5.160E-02	2.153
BI-211		72.87		1.421E+00	1.550E+00	2.514E+00	2.538E-01	0.565
	+	351.07	*	4.222E+00	6.333E-01	2.959E-01	3.118E-02	14.268
PB-212	+	74.81		2.411E+00	4.175E-01	2.815E-01	3.886E-02	8.563
	+	77.11		2.131E+00	2.755E-01	1.687E-01	1.729E-02	12.634
	+	87.30		1.855E+00	4.229E-01	3.389E-01	4.966E-02	5.475
	+	238.63	*	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
	+	300.09		2.488E+00	1.061E+00	1.092E+00	1.360E-01	2.279
PO-212	+	74.81		2.411E+00	4.175E-01	2.815E-01	3.886E-02	8.563
	+	77.11		2.131E+00	2.755E-01	1.687E-01	1.729E-02	12.634
	+	87.30		1.855E+00	4.229E-01	3.389E-01	4.966E-02	5.475
		115.19		7.116E-01	2.541E+00	4.352E+00	5.397E-01	0.164
	+	238.63	*	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
	+	300.09		2.488E+00	1.061E+00	1.092E+00	1.360E-01	2.279
BI-214	+	609.31	*	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
	+	1120.29		2.037E+00	5.816E-01	4.240E-01	4.602E-02	4.803
	+	1764.49		1.540E+00	3.962E-01	2.820E-01	2.324E-02	5.459

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-214	+	74.81		4.154E+00	6.794E-01	4.850E-01	6.099E-02	8.563
	+	77.11		3.654E+00	5.483E-01	2.892E-01	3.693E-02	12.634
	+	87.30		3.178E+00	6.957E-01	5.806E-01	7.661E-02	5.475
	+	241.98		1.929E+00	5.372E-01	4.750E-01	5.665E-02	4.060
	+	295.21		1.632E+00	3.029E-01	1.888E-01	2.394E-02	8.646
	+	351.92	*	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
PO-214	+	74.81		4.154E+00	6.794E-01	4.850E-01	6.099E-02	8.563
	+	77.11		3.654E+00	5.483E-01	2.892E-01	3.693E-02	12.634
	+	87.30		3.178E+00	6.957E-01	5.806E-01	7.661E-02	5.475
	+	241.98		1.929E+00	5.372E-01	4.750E-01	5.665E-02	4.060
	+	295.21		1.632E+00	3.029E-01	1.888E-01	2.394E-02	8.646
	+	351.92	*	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
PO-216	+	74.81		2.411E+00	4.175E-01	2.815E-01	3.886E-02	8.563
	+	77.11		2.131E+00	2.755E-01	1.687E-01	1.729E-02	12.634
	+	87.30		1.855E+00	4.229E-01	3.389E-01	4.966E-02	5.475
	+	238.63	*	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
	+	300.09		2.488E+00	1.061E+00	1.092E+00	1.360E-01	2.279
PO-218	+	74.81		4.154E+00	6.794E-01	4.850E-01	6.099E-02	8.563
	+	77.11		3.654E+00	5.483E-01	2.892E-01	3.693E-02	12.634
	+	87.30		3.178E+00	6.957E-01	5.806E-01	7.661E-02	5.475
	+	241.98		1.929E+00	5.372E-01	4.750E-01	5.665E-02	4.060
	+	295.21		1.632E+00	3.029E-01	1.888E-01	2.394E-02	8.646
	+	351.92	*	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
RA-224	+	240.98	*	3.657E+00	9.978E-01	1.026E+00	1.078E-01	3.564
RA-226	+	609.31	*	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
	+	1120.29		2.037E+00	5.816E-01	4.240E-01	4.602E-02	4.803
	+	1764.49		1.540E+00	3.962E-01	2.820E-01	2.324E-02	5.459
AC-228	+	338.32		1.807E+00	8.720E-01	3.385E-01	1.411E-01	5.339
	+	911.07	*	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
	+	969.11		2.089E+00	6.777E-01	3.291E-01	7.768E-02	6.349
RA-228	+	338.32		1.807E+00	8.720E-01	3.385E-01	1.411E-01	5.339
	+	911.07	*	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
	+	969.11		2.089E+00	6.777E-01	3.291E-01	7.768E-02	6.349
TH-228	+	74.81		2.447E+00	3.580E-01	2.858E-01	2.921E-02	8.563
	+	77.11		2.164E+00	2.797E-01	1.713E-01	1.755E-02	12.634
	+	87.30		1.884E+00	3.859E-01	3.441E-01	3.685E-02	5.475
	+	238.63	*	1.929E+00	2.513E-01	1.209E-01	1.377E-02	15.957
	+	300.09		2.526E+00	1.826E+00	1.108E+00	6.614E-01	2.279
TH-230	+	609.31	*	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
	+	1120.29		2.037E+00	5.816E-01	4.240E-01	4.602E-02	4.803
	+	1764.49		1.540E+00	3.962E-01	2.820E-01	2.324E-02	5.459
TH-232	+	338.32		1.807E+00	4.781E-01	3.385E-01	3.528E-02	5.339
	+	911.07	*	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
	+	969.11		2.089E+00	6.777E-01	3.291E-01	7.768E-02	6.349
TH-234	+	63.29	*	1.778E+00	9.419E-01	7.058E-01	1.314E-01	2.519
	+	92.38		1.820E+00	6.124E-01	4.904E-01	9.474E-02	3.711
U-234	+	609.31	*	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
	+	1120.29		2.037E+00	5.816E-01	4.240E-01	4.602E-02	4.803
	+	1764.49		1.540E+00	3.962E-01	2.820E-01	2.324E-02	5.459

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	+	86.50	*	1.178E+00	3.425E-01	2.144E-01	4.981E-02	5.494
		95.87		-3.565E-01	6.552E-01	9.742E-01	2.498E-01	-0.366
U-238	+	63.29	*	1.778E+00	9.419E-01	7.058E-01	1.314E-01	2.519
	+	92.38		1.820E+00	5.398E-01	4.904E-01	5.383E-02	3.711
AM-243	+	74.67	*	3.908E-01	5.699E-02	4.562E-02	4.633E-03	8.567
	+	86.72		4.418E+01	9.049E+00	8.049E+00	8.596E-01	5.489
		117.66		-2.346E+00	2.798E+00	4.535E+00	5.702E-01	-0.517
		142.18		-9.619E+00	1.466E+01	2.324E+01	2.624E+00	-0.414
ANH-511	+	511.00	*	1.778E-01	7.033E-02	4.648E-02	4.784E-03	3.824

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.539E-01	3.362E-01	5.761E-01	6.099E-02	0.441
NA-22		1274.54	*	1.750E-02	4.664E-02	7.967E-02	6.533E-03	0.220
NA-24		1368.53	*	1.788E-01	4.664E-02	Half-Life too short		
AL-26		1129.67		3.415E-01	1.611E+00	2.738E+00	2.338E-01	0.125
		1808.65	*	-1.640E-02	2.403E-02	3.120E-02	2.557E-03	-0.526
TI-44		67.85		-2.548E-03	2.108E-02	3.042E-02	3.028E-03	-0.084
	+	78.38	*	3.933E-01	5.085E-02	4.652E-02	4.790E-03	8.455
SC-46		889.25	*	-5.024E-02	4.255E-02	5.999E-02	5.745E-03	-0.837
	+	1120.51		3.488E-01	9.687E-02	1.501E-01	1.291E-02	2.323
V-48		944.10		-3.766E-01	9.772E-01	1.515E+00	1.422E-01	-0.249
		983.50	*	-6.545E-03	6.787E-02	1.080E-01	1.001E-02	-0.061
		1312.09		-4.471E-02	8.324E-02	1.271E-01	1.035E-02	-0.352
CR-51		320.08	*	-3.307E-01	3.502E-01	5.544E-01	6.157E-02	-0.597
MN-52		744.21		3.725E-02	2.346E-01	3.939E-01	4.256E-02	0.095
		848.13		1.907E+00	6.434E+00	1.085E+01	1.087E+00	0.176
		935.52		5.021E-02	2.975E-01	4.891E-01	4.599E-02	0.103
		1246.25		2.567E+00	8.473E+00	1.298E+01	1.066E+00	0.198
		1333.61		4.481E+00	5.475E+00	9.671E+00	7.856E-01	0.463
		1434.06	*	1.056E-01	2.226E-01	3.893E-01	3.209E-02	0.271
MN-54		834.83	*	9.325E-03	4.499E-02	7.483E-02	7.593E-03	0.125
CO-56		846.75	*	-2.957E-03	3.685E-02	5.970E-02	5.990E-03	-0.050
		977.42		-1.236E-01	3.230E+00	4.457E+00	4.139E-01	-0.028
		1037.82		2.635E-01	3.323E-01	5.956E-01	5.652E-02	0.442
		1175.09		-1.430E+00	2.244E+00	3.469E+00	2.855E-01	-0.412
	+	1238.25		1.918E-01	1.353E-01	1.638E-01	1.389E-02	1.171
		1360.21		7.415E-02	8.646E-01	1.432E+00	1.169E-01	0.052
		1771.40		-5.536E-01	3.212E-01	3.642E-01	2.998E-02	-1.520
CO-57		122.06	*	-5.070E-03	1.804E-02	3.003E-02	3.873E-03	-0.169
		136.48		-5.610E-02	1.564E-01	2.574E-01	3.155E-02	-0.218
CO-58		810.76	*	-4.869E-02	4.342E-02	6.316E-02	6.553E-03	-0.771
FE-59		142.65		1.402E+00	2.216E+00	3.715E+00	4.180E-01	0.377
		192.34		1.899E-01	8.645E-01	1.362E+00	1.908E-01	0.139
		1099.22	*	1.653E-02	1.027E-01	1.737E-01	1.636E-02	0.095
		1291.56		9.810E-03	1.293E-01	2.142E-01	2.012E-02	0.046
CO-60		1173.22		2.362E-03	4.349E-02	7.248E-02	5.966E-03	0.033

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-9.293E-04	4.372E-02	7.024E-02	5.704E-03	-0.013
ZN-65		1115.52	*	-5.779E-02	1.008E-01	1.317E-01	1.138E-02	-0.439
GE-68		1077.35	*	5.738E-01	1.224E+00	2.140E+00	1.894E-01	0.268
AS-73		53.44	*	1.390E-01	1.692E-01	2.808E-01	2.696E-02	0.495
AS-74		595.88	*	3.662E-02	9.327E-02	1.540E-01	1.669E-02	0.238
		634.78		1.891E-01	3.528E-01	6.166E-01	6.782E-02	0.307
SE-75		66.05		-1.308E+00	2.023E+00	2.835E+00	3.268E-01	-0.461
		96.73		-9.823E-01	5.624E-01	7.555E-01	1.164E-01	-1.300
		121.11		3.741E-02	9.797E-02	1.679E-01	2.468E-02	0.223
		136.00		1.400E-03	2.880E-02	4.835E-02	5.737E-03	0.029
		198.60		1.526E+00	1.577E+00	2.637E+00	2.768E-01	0.579
		264.65	*	2.293E-02	4.211E-02	6.615E-02	7.250E-03	0.347
		279.53		2.645E-02	1.137E-01	1.631E-01	1.861E-02	0.162
		303.91		-2.191E-01	2.086E+00	3.091E+00	4.115E-01	-0.071
		400.65		2.499E-01	2.602E-01	4.536E-01	5.247E-02	0.551
BR-77	+	87.88		8.925E+02	1.828E+02	2.421E+02	2.600E+01	3.686
		200.40		1.326E+02	1.437E+02	2.439E+02	2.363E+01	0.544
	+	239.00		3.089E+02	3.778E+01	4.101E+01	4.294E+00	7.533
		249.79		-5.185E+00	5.946E+01	9.461E+01	1.009E+01	-0.055
		281.68		4.028E+01	9.413E+01	1.372E+02	1.529E+01	0.294
		297.23		1.928E+02	7.329E+01	1.020E+02	1.124E+01	1.890
		303.76		-2.915E+01	1.793E+02	2.644E+02	2.894E+01	-0.110
		439.47		2.134E+02	1.440E+02	2.584E+02	2.488E+01	0.826
		484.57		-9.459E+00	2.145E+02	3.478E+02	3.502E+01	-0.027
		520.65	*	-5.596E+00	1.023E+01	1.570E+01	1.627E+00	-0.357
		574.64		-1.465E+02	2.268E+02	3.419E+02	3.667E+01	-0.428
		578.91		7.084E+00	1.033E+02	1.453E+02	1.562E+01	0.049
		585.48		1.093E+03	2.665E+02	4.600E+02	4.961E+01	2.376
		755.35		-1.786E+01	1.845E+02	3.012E+02	3.236E+01	-0.059
		817.79		1.788E+02	1.491E+02	2.683E+02	2.763E+01	0.666
SR-82		698.33		1.408E+01	3.531E+01	6.055E+01	6.658E+00	0.233
		776.49	*	-1.355E-01	3.783E-01	5.834E-01	6.191E-02	-0.232
		1395.20		-9.216E+00	1.176E+01	1.686E+01	1.383E+00	-0.547
RB-83		520.41	*	-3.847E-02	6.568E-02	1.003E-01	1.039E-02	-0.384
		529.64		1.532E-02	1.084E-01	1.770E-01	1.847E-02	0.087
		552.65		1.088E-01	1.994E-01	3.352E-01	3.550E-02	0.325
RB-84		881.50	*	-1.033E-02	7.815E-02	1.256E-01	1.214E-02	-0.082
KR-85		513.99	*	4.944E+00	8.219E+00	1.232E+01	1.271E+00	0.401
SR-85		513.99	*	2.536E-02	4.216E-02	6.320E-02	6.520E-03	0.401
RB-86		1076.63	*	-1.088E-01	7.839E-01	1.291E+00	1.144E-01	-0.084
Y-88		898.02		-4.856E-02	4.436E-02	6.317E-02	6.008E-03	-0.769
		1836.01	*	-2.199E-02	3.530E-02	4.977E-02	4.067E-03	-0.442
ZR-88		392.90	*	-1.441E-02	2.861E-02	4.569E-02	4.158E-03	-0.316
Y-91		1204.90	*	-1.645E+01	1.809E+01	2.756E+01	2.268E+00	-0.597
NB-94		702.63	*	-1.289E-02	3.502E-02	5.648E-02	6.203E-03	-0.228
		871.10		8.423E-03	3.292E-02	5.515E-02	5.395E-03	0.153
NB-95		765.79	*	3.733E-02	5.361E-02	8.235E-02	8.797E-03	0.453
NB-95M		235.69	*	-2.859E-02	1.190E-01	1.672E-01	1.917E-02	-0.171
ZR-95		724.18		2.496E-02	1.129E-01	1.665E-01	1.915E-02	0.150

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		756.15	*	-5.317E-02	8.098E-02	1.257E-01	1.439E-02	-0.423
NB-97		657.90	*	1.501E-02	8.098E-02	Half-Life too short		
		1024.50		4.189E+00	8.098E-02	Half-Life too short		
ZR-97		254.15		3.883E+00	8.098E-02	Half-Life too short		
		355.39		2.006E+00	8.098E-02	Half-Life too short		
		507.63	*	1.551E+00	8.098E-02	Half-Life too short		
		602.52		2.628E+00	8.098E-02	Half-Life too short		
		1021.30		-4.070E+00	8.098E-02	Half-Life too short		
		1147.95		2.430E+00	8.098E-02	Half-Life too short		
		1362.66		-7.722E+00	8.098E-02	Half-Life too short		
		1750.46		2.514E-01	8.098E-02	Half-Life too short		
MO-99		140.51		1.627E+00	2.086E+01	3.497E+01	1.003E+01	0.047
		181.06		8.396E+00	1.590E+01	2.403E+01	4.468E+00	0.349
		366.43		-2.416E+01	7.505E+01	1.222E+02	1.198E+01	-0.198
		739.58	*	-4.498E+00	1.118E+01	1.774E+01	2.933E+00	-0.254
		778.00		-1.483E+01	3.391E+01	5.342E+01	5.665E+00	-0.278
TC-99M		140.51	*	2.623E+09	3.391E+01	Half-Life too short		
RH-101		127.23		1.096E-02	2.673E-02	4.132E-02	5.171E-03	0.265
		198.01	*	-5.896E-03	2.946E-02	4.678E-02	4.508E-03	-0.126
		325.23		-4.370E-02	2.237E-01	3.266E-01	3.479E-02	-0.134
RH-102		418.52		-1.145E-01	2.712E-01	4.329E-01	4.070E-02	-0.265
		475.06	*	2.470E-02	3.019E-02	5.199E-02	5.191E-03	0.475
		631.29		-6.017E-02	5.625E-02	8.552E-02	9.395E-03	-0.704
		697.49		5.837E-03	7.739E-02	1.296E-01	1.425E-02	0.045
		766.84		1.384E-01	1.452E-01	2.267E-01	2.420E-02	0.610
		1046.59		-2.208E-02	1.055E-01	1.727E-01	1.556E-02	-0.128
		1112.84		1.698E-01	2.334E-01	3.719E-01	3.215E-02	0.457
RU-103		497.08	*	-2.456E-02	3.796E-02	5.773E-02	8.752E-03	-0.425
	+	610.33		1.352E+01	3.037E+00	3.229E+00	5.803E-01	4.186
RH-106	+	511.85		8.879E-01	3.513E-01	4.579E-01	4.716E-02	1.939
		621.84	*	4.658E-02	3.222E-01	5.478E-01	8.200E-02	0.085
		1050.47		2.123E-01	2.146E+00	3.633E+00	3.266E-01	0.058
RU-106	+	511.85		8.879E-01	3.513E-01	4.579E-01	4.716E-02	1.939
		621.84	*	4.658E-02	3.222E-01	5.478E-01	5.999E-02	0.085
		1050.47		2.123E-01	2.146E+00	3.633E+00	3.266E-01	0.058
AG-108M		433.93	*	1.001E-02	3.142E-02	5.281E-02	5.219E-03	0.189
		614.37		1.759E-02	4.566E-02	6.956E-02	7.783E-03	0.253
		722.95		-1.746E-02	4.646E-02	6.360E-02	7.107E-03	-0.275
AG-110M		657.75	*	-3.804E-04	4.052E-02	5.892E-02	6.640E-03	-0.006
		677.61		1.948E-02	3.223E-01	5.405E-01	6.075E-02	0.036
		706.67		-3.042E-02	2.259E-01	3.716E-01	4.146E-02	-0.082
		763.93		-4.571E-04	1.984E-01	2.838E-01	3.091E-02	-0.002
		884.67		5.672E-02	5.190E-02	9.308E-02	9.194E-03	0.609
		937.48		-9.830E-02	1.292E-01	1.929E-01	1.868E-02	-0.510
		1384.27		-1.507E-01	2.169E-01	2.600E-01	2.196E-02	-0.580
IN-111		171.28		5.508E-01	8.627E-01	1.462E+00	1.321E-01	0.377
		245.39	*	4.337E-01	9.938E-01	1.469E+00	1.555E-01	0.295
IN-113M		391.69	*	-1.762E-02	4.170E-02	6.705E-02	6.263E-03	-0.263
SN-113		391.69	*	-1.762E-02	4.170E-02	6.705E-02	6.263E-03	-0.263

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-114M		190.27	*	-9.681E-02	1.666E-01	2.329E-01	2.205E-02	-0.416
CD-115		260.90		-1.174E+02	1.244E+02	1.853E+02	2.013E+01	-0.634
		492.35		4.345E+01	3.482E+01	6.189E+01	6.275E+00	0.702
		527.90	*	4.694E+00	1.145E+01	1.908E+01	1.989E+00	0.246
SN-117M		156.02		-1.186E+00	1.875E+00	3.014E+00	3.006E-01	-0.393
		158.56	*	2.598E-03	4.510E-02	7.494E-02	7.276E-03	0.035
SB-122		563.90	*	2.241E+00	2.319E+00	3.980E+00	4.243E-01	0.563
		692.80		2.050E+01	4.320E+01	7.468E+01	8.224E+00	0.274
I-123		159.00	*	6.933E-01	4.320E+01	Half-Life too short		
		528.96		-4.530E+01	4.320E+01	Half-Life too short		
TE-123M		159.00	*	3.251E-03	2.310E-02	3.853E-02	3.741E-03	0.084
I-124		602.71	*	2.956E-01	8.054E-01	1.226E+00	1.332E-01	0.241
		722.78		-2.348E+00	4.974E+00	6.721E+00	7.330E-01	-0.349
		1325.50		1.990E+01	3.638E+01	6.352E+01	5.165E+00	0.313
		1376.25		4.482E+01	4.177E+01	6.809E+01	5.570E+00	0.658
		1509.49		2.979E+01	1.564E+01	3.210E+01	2.662E+00	0.928
		1691.02		1.899E+00	3.939E+00	7.108E+00	5.892E-01	0.267
SB-124		602.71		1.707E-02	4.651E-02	7.078E-02	7.694E-03	0.241
		645.85		-9.758E-03	5.154E-01	8.625E-01	9.869E-02	-0.011
		709.31		9.707E-01	2.950E+00	5.027E+00	5.509E-01	0.193
		713.82		-2.237E-01	1.727E+00	2.838E+00	3.916E-01	-0.079
		722.78		-1.966E-01	4.164E-01	5.627E-01	6.219E-02	-0.349
	+	968.20		2.152E+01	5.190E+00	8.302E+00	7.733E-01	2.592
		1045.16		-1.313E+00	2.340E+00	3.679E+00	3.317E-01	-0.357
		1325.50		1.780E+00	3.253E+00	5.679E+00	4.618E-01	0.313
		1368.21		3.182E-01	1.940E+00	3.095E+00	4.083E-01	0.103
		1436.60		-3.062E+00	3.861E+00	5.427E+00	4.474E-01	-0.564
		1691.02	*	3.749E-02	7.778E-02	1.403E-01	1.213E-02	0.267
SB-125		427.89	*	6.712E-02	8.807E-02	1.524E-01	1.472E-02	0.440
	+	463.38		6.998E-01	3.478E-01	5.656E-01	5.921E-02	1.237
		600.56		5.067E-02	1.941E-01	3.161E-01	3.594E-02	0.160
		635.90		-1.376E-02	2.635E-01	4.402E-01	5.087E-02	-0.031
TE-125M		109.28	*	3.835E+00	6.303E+00	1.094E+01	1.453E+00	0.350
I-126		388.63		6.209E-02	2.049E-01	3.421E-01	3.141E-02	0.182
		666.33	*	1.972E-01	2.090E-01	3.340E-01	3.698E-02	0.591
		753.82		1.212E+00	1.636E+00	2.848E+00	3.062E-01	0.426
SB-126		223.80		2.483E-01	3.819E+00	6.186E+00	6.295E-01	0.040
	+	278.60		4.223E+00	2.965E+00	4.134E+00	4.610E-01	1.022
	+	296.50		1.629E+01	2.846E+00	3.663E+00	4.038E-01	4.446
		414.70		1.174E-02	7.785E-02	1.205E-01	1.128E-02	0.097
		415.30		-1.003E+00	6.261E+00	9.854E+00	9.229E-01	-0.102
		555.20		2.600E+00	4.061E+00	6.870E+00	7.288E-01	0.379
		573.80		-2.348E-01	1.083E+00	1.702E+00	1.825E-01	-0.138
		593.00		-3.135E-01	9.152E-01	1.412E+00	1.528E-01	-0.222
		656.30		6.348E-01	3.870E+00	5.742E+00	6.352E-01	0.111
		666.33		8.243E-02	8.734E-02	1.396E-01	1.545E-02	0.591
		675.00		1.322E+00	2.017E+00	3.537E+00	3.910E-01	0.374
		695.00		1.250E-02	7.833E-02	1.321E-01	1.454E-02	0.095
		697.00		-6.924E-02	2.734E-01	4.455E-01	4.900E-02	-0.155

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		720.50	*	-7.172E-02	1.560E-01	2.310E-01	2.521E-02	-0.311
		856.80		1.539E-01	5.411E-01	7.947E-01	7.894E-02	0.194
		989.30		5.322E-01	1.185E+00	2.010E+00	1.859E-01	0.265
		1034.80		2.727E+00	9.339E+00	1.609E+01	1.458E+00	0.169
		1213.00		2.492E+00	4.983E+00	8.592E+00	7.069E-01	0.290
SB-127		61.10		-4.651E+00	2.003E+01	2.903E+01	3.525E+00	-0.160
		252.40		-2.324E+00	4.212E+00	6.316E+00	2.685E+00	-0.368
		290.80		-1.054E+01	2.114E+01	3.043E+01	4.004E+00	-0.346
		411.60		5.095E+00	1.320E+01	1.980E+01	3.193E+00	0.257
		444.90		-4.787E+00	9.302E+00	1.459E+01	1.941E+00	-0.328
		473.00		-1.939E+00	1.785E+00	2.633E+00	3.636E-01	-0.737
		543.00		-9.025E+00	1.681E+01	2.491E+01	3.892E+00	-0.362
		603.60		2.457E+00	1.360E+01	2.035E+01	2.882E+00	0.121
		685.20	*	7.947E-02	1.334E+00	2.236E+00	2.977E-01	0.036
		698.50		8.065E+00	1.561E+01	2.694E+01	4.643E+00	0.299
		722.20		-3.142E+01	3.634E+01	4.652E+01	6.057E+00	-0.675
		783.80		3.686E+00	3.894E+00	6.864E+00	9.505E-01	0.537
XE-127		57.60		1.371E+00	1.596E+00	2.640E+00	2.573E-01	0.519
		145.22		9.084E-02	5.639E-01	9.468E-01	1.043E-01	0.096
		172.10		3.836E-02	1.016E-01	1.704E-01	1.542E-02	0.225
		202.84	*	-4.544E-02	4.136E-02	6.304E-02	6.141E-03	-0.721
		374.96		4.658E-02	1.890E-01	3.193E-01	3.057E-02	0.146
I-131		80.18		4.628E-01	3.218E+00	4.087E+00	4.258E-01	0.113
		284.30		-7.772E-01	1.444E+00	2.199E+00	2.524E-01	-0.353
		364.48	*	-1.007E-02	1.059E-01	1.754E-01	1.800E-02	-0.057
		636.97		-7.906E-01	1.470E+00	2.346E+00	2.671E-01	-0.337
		722.89		-3.842E+00	7.988E+00	1.078E+01	1.180E+00	-0.356
TE-132		49.72		6.932E-01	2.901E+00	4.380E+00	5.080E-01	0.158
		111.76		-1.154E+01	2.069E+01	3.417E+01	4.732E+00	-0.338
		116.30		4.166E+00	1.979E+01	3.378E+01	4.771E+00	0.123
		228.16	*	9.059E-02	6.318E-01	1.026E+00	1.712E-01	0.088
BA-133		53.15		6.126E-01	7.160E-01	1.191E+00	1.142E-01	0.515
		79.62		1.370E-01	7.794E-01	1.132E+00	1.841E-01	0.121
		81.00		-2.021E-02	6.861E-02	8.433E-02	1.426E-02	-0.240
	+	276.40		6.297E-01	4.482E-01	6.295E-01	1.011E-01	1.000
		302.84		2.582E-02	1.431E-01	2.168E-01	3.232E-02	0.119
		356.01	*	4.993E-02	4.392E-02	7.024E-02	9.959E-03	0.711
		383.85		-1.153E-01	2.851E-01	4.598E-01	6.021E-02	-0.251
I-133	+	510.53		1.869E+00	2.851E-01	Half-Life too short		
		529.87	*	2.113E-03	2.851E-01	Half-Life too short		
		706.58		7.488E-03	2.851E-01	Half-Life too short		
		856.28		-2.127E-01	2.851E-01	Half-Life too short		
		875.33		-3.889E-02	2.851E-01	Half-Life too short		
		1236.41		5.508E-01	2.851E-01	Half-Life too short		
		1298.22		-2.525E-01	2.851E-01	Half-Life too short		
CS-134		475.35		1.657E+00	1.977E+00	3.409E+00	3.404E-01	0.486
		563.23		6.098E-01	3.949E-01	7.005E-01	7.512E-02	0.871
		569.32		1.106E-01	1.926E-01	3.239E-01	3.494E-02	0.341
		604.70		-1.968E-03	3.905E-02	5.708E-02	6.219E-03	-0.034

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	795.84	*	1.585E-01	7.697E-02	1.021E-01	1.075E-02	1.552
		801.93		-3.148E-01	5.431E-01	7.285E-01	7.627E-02	-0.432
		1038.57		3.051E+00	4.075E+00	7.288E+00	6.593E-01	0.419
		1167.94		8.965E-01	2.579E+00	4.417E+00	3.653E-01	0.203
		1365.15		5.163E-01	1.126E+00	1.967E+00	1.688E-01	0.262
CS-135		268.24	*	8.973E-02	1.652E-01	2.432E-01	2.936E-02	0.369
I-135		288.45		2.613E+10	1.652E-01	Half-Life too short		
		417.63		1.811E+10	1.652E-01	Half-Life too short		
		546.56		-8.621E+09	1.652E-01	Half-Life too short		
		836.80		1.605E+10	1.652E-01	Half-Life too short		
		1038.76		1.381E+10	1.652E-01	Half-Life too short		
		1124.00		-4.023E+09	1.652E-01	Half-Life too short		
		1131.51		4.847E+09	1.652E-01	Half-Life too short		
		1260.41	*	-6.294E+09	1.652E-01	Half-Life too short		
		1457.56		6.352E+11	1.652E-01	Half-Life too short		
		1678.03		-2.368E+09	1.652E-01	Half-Life too short		
		1706.46		-6.836E+09	1.652E-01	Half-Life too short		
		1791.20		3.320E+09	1.652E-01	Half-Life too short		
CS-136		66.91		-6.521E-02	3.419E-01	4.918E-01	7.970E-02	-0.133
	+	86.29		5.247E+00	1.185E+00	1.343E+00	1.920E-01	3.906
		153.22		5.495E-01	5.543E-01	9.546E-01	1.062E-01	0.576
		163.89		2.133E-01	8.851E-01	1.464E+00	1.482E-01	0.146
		176.55		-9.625E-03	3.048E-01	5.004E-01	4.817E-02	-0.019
		273.65		-3.232E-01	6.346E-01	6.443E-01	7.423E-02	-0.502
		340.57		1.905E-01	1.368E-01	2.206E-01	2.336E-02	0.863
		818.51		4.277E-02	7.946E-02	1.366E-01	1.407E-02	0.313
		1048.07	*	-2.202E-02	1.006E-01	1.645E-01	1.539E-02	-0.134
		1235.34		2.966E-01	7.104E-01	1.058E+00	1.223E-01	0.280
CE-139		165.85	*	3.387E-03	2.438E-02	4.054E-02	3.615E-03	0.084
BA-140		162.64		1.147E-01	6.217E-01	1.027E+00	1.000E-01	0.112
		304.84		1.239E-01	1.255E+00	1.889E+00	5.445E-01	0.066
		423.70		-1.019E+00	1.853E+00	2.877E+00	9.395E-01	-0.354
		537.32	*	-6.441E-02	2.716E-01	4.222E-01	1.422E-01	-0.153
LA-140	+	328.77		6.659E-01	4.614E-01	5.476E-01	6.019E-02	1.216
		432.53		-1.979E-01	1.981E+00	3.233E+00	3.212E-01	-0.061
		487.03		-5.076E-02	1.303E-01	2.047E-01	2.160E-02	-0.248
		751.79		1.564E+00	1.837E+00	3.237E+00	3.727E-01	0.483
		815.85		1.051E-01	3.542E-01	5.963E-01	6.654E-02	0.176
		867.82		-1.300E-01	1.561E+00	2.171E+00	2.219E-01	-0.060
		919.63		5.148E-01	2.864E+00	4.612E+00	5.220E-01	0.112
		925.24		-5.214E-01	1.091E+00	1.665E+00	1.652E-01	-0.313
		1596.49	*	2.007E-03	1.045E-01	1.749E-01	1.454E-02	0.011
CE-141		145.44	*	-4.009E-03	5.114E-02	8.497E-02	9.450E-03	-0.047
CE-143		57.37		-1.132E-05	5.114E-02	Half-Life too short		
		231.56		8.858E-04	5.114E-02	Half-Life too short		
		293.26	*	4.848E-04	5.114E-02	Half-Life too short		
	+	350.59		3.417E-02	5.114E-02	Half-Life too short		
		490.36		5.285E-04	5.114E-02	Half-Life too short		
		664.57		1.340E-03	5.114E-02	Half-Life too short		

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		721.93		-1.135E-03	5.114E-02	Half-Life too short		
CE-144		80.11		2.092E-01	1.474E+00	1.872E+00	1.942E-01	0.112
		133.54	*	-1.476E-01	1.631E-01	2.454E-01	4.338E-02	-0.601
PM-144		476.78		6.916E-02	7.091E-02	1.230E-01	1.317E-02	0.562
		618.01		-1.327E-02	3.311E-02	5.396E-02	6.002E-03	-0.246
		696.49	*	-9.641E-03	3.498E-02	5.689E-02	6.259E-03	-0.169
		778.57		-1.719E+00	2.338E+00	3.569E+00	3.784E-01	-0.482
PR-144		696.49	*	-6.533E-01	2.371E+00	3.855E+00	4.241E-01	-0.169
		1489.15		1.108E+00	1.179E+01	1.939E+01	1.606E+00	0.057
PM-146		453.90	*	3.436E-02	4.463E-02	7.673E-02	8.959E-03	0.448
		633.02		9.089E-01	1.377E+00	2.363E+00	8.976E-01	0.385
		735.90		5.622E-02	1.437E-01	2.450E-01	7.192E-02	0.229
		747.13		3.353E-03	9.335E-02	1.549E-01	2.396E-02	0.022
ND-147	+	91.11		9.482E-01	2.495E-01	3.119E-01	3.580E-02	3.040
		319.41		-3.491E+00	3.181E+00	4.987E+00	5.358E-01	-0.700
		439.89		5.502E+00	5.857E+00	1.021E+01	9.836E-01	0.539
		531.02	*	4.557E-01	5.752E-01	9.815E-01	1.577E-01	0.464
PM-149		285.90	*	-8.425E+01	9.139E+01	1.338E+02	2.282E+01	-0.630
EU-152		121.78		6.908E-03	5.244E-02	8.900E-02	1.226E-02	0.078
		244.69		5.086E-02	3.128E-01	4.521E-01	4.782E-02	0.112
		344.27	*	2.424E-02	9.669E-02	1.459E-01	1.566E-02	0.166
		443.98		-9.854E-01	9.404E-01	1.408E+00	1.363E-01	-0.700
		778.89		-1.904E-01	2.706E-01	4.147E-01	4.394E-02	-0.459
		867.32		2.091E-01	8.997E-01	1.315E+00	1.291E-01	0.159
	+	964.01		7.741E-01	3.964E-01	6.258E-01	5.837E-02	1.237
		1085.78		1.345E-01	4.081E-01	7.031E-01	6.191E-02	0.191
		1112.02		9.242E-02	3.564E-01	5.310E-01	4.594E-02	0.174
		1407.95		1.232E-01	1.764E-01	3.160E-01	2.596E-02	0.390
GD-153		69.67		-4.602E-01	8.291E-01	1.171E+00	1.171E-01	-0.393
	+	83.37		2.512E+01	1.148E+01	1.517E+01	1.595E+00	1.656
		97.43	*	-6.808E-02	5.314E-02	8.410E-02	9.471E-03	-0.810
		103.18		-4.320E-02	7.111E-02	1.180E-01	1.370E-02	-0.366
EU-154		123.07		-2.840E-02	3.787E-02	6.130E-02	9.078E-03	-0.463
		247.94		-1.162E-01	3.201E-01	5.000E-01	6.530E-02	-0.232
		591.81		-4.420E-01	6.065E-01	8.934E-01	1.195E-01	-0.495
		723.30		-6.960E-02	1.945E-01	2.670E-01	3.106E-02	-0.261
		756.87		-3.908E-01	8.463E-01	1.340E+00	1.820E-01	-0.292
		873.19		-9.815E-03	2.997E-01	4.867E-01	6.361E-02	-0.020
		996.32		-1.563E-01	3.819E-01	5.842E-01	1.055E-01	-0.268
		1004.76		-1.244E-01	2.288E-01	3.448E-01	4.160E-02	-0.361
		1274.45	*	7.413E-02	1.272E-01	2.216E-01	2.435E-02	0.334
EU-155		48.70		-3.435E-01	3.270E-01	4.511E-01	4.294E-02	-0.762
		60.01		-4.977E-02	1.644E+00	2.412E+00	2.374E-01	-0.021
	+	86.54		4.832E-01	9.915E-02	1.284E-01	1.380E-02	3.762
		105.31	*	7.029E-02	7.476E-02	1.312E-01	1.551E-02	0.536
TB-160	+	86.79		1.291E+00	2.645E-01	3.541E-01	3.783E-02	3.646
		197.04		-9.151E-01	5.191E-01	7.458E-01	7.170E-02	-1.227
		215.65		2.667E-01	6.369E-01	1.054E+00	1.055E-01	0.253
	+	298.57		3.622E-01	1.530E-01	1.916E-01	2.108E-02	1.890

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	5.247E-02	1.494E-01	2.517E-01	2.438E-02	0.208
		962.29		8.169E-01	6.471E-01	1.040E+00	9.703E-02	0.786
		966.15		1.502E+00	3.181E-01	6.068E-01	5.657E-02	2.474
		1177.93		8.323E-02	3.409E-01	5.790E-01	4.766E-02	0.144
		1271.85		-2.232E-01	7.219E-01	1.145E+00	9.377E-02	-0.195
HO-166M		80.57		6.288E-02	1.831E-01	2.357E-01	2.449E-02	0.267
		184.41		4.474E-02	3.584E-02	5.792E-02	5.406E-03	0.772
		280.46		-1.148E-02	8.856E-02	1.232E-01	1.374E-02	-0.093
		410.95		3.775E-01	2.580E-01	4.215E-01	3.927E-02	0.895
		711.68	*	7.154E-03	6.357E-02	1.066E-01	1.167E-02	0.067
		752.31		1.710E-01	2.986E-01	5.159E-01	5.551E-02	0.332
		810.29		-3.983E-02	6.323E-02	9.732E-02	1.008E-02	-0.409
TM-171		51.35		-9.019E-01	5.119E+00	8.164E+00	7.796E-01	-0.110
		52.39		7.789E-01	2.919E+00	4.749E+00	4.545E-01	0.164
		59.40		-5.388E-02	8.647E+00	1.271E+01	1.250E+00	-0.004
		66.72	*	3.183E+00	1.192E+01	1.757E+01	1.744E+00	0.181
LU-176	+	88.36		9.515E-01	1.949E-01	2.437E-01	2.623E-02	3.904
		201.83		-3.126E-02	2.525E-02	3.813E-02	3.706E-03	-0.820
		306.84	*	2.777E-03	2.167E-02	3.691E-02	4.027E-03	0.075
		401.10		4.253E-01	7.160E+00	1.189E+01	1.094E+00	0.036
LU-177		112.95		2.026E-01	1.125E+00	1.921E+00	2.352E-01	0.105
	+	208.36	*	3.120E+00	1.252E+00	1.776E+00	1.751E-01	1.757
LU-177M		52.97		2.352E-01	3.201E-01	5.300E-01	5.081E-02	0.444
		54.07		2.334E-01	1.797E-01	3.031E-01	2.915E-02	0.770
		61.30		4.778E-02	5.099E-01	7.518E-01	7.403E-02	0.064
		121.62		1.075E-01	2.687E-01	4.609E-01	5.926E-02	0.233
		147.16		2.578E-01	5.213E-01	8.862E-01	9.605E-02	0.291
		171.86		2.634E-01	4.054E-01	6.876E-01	6.222E-02	0.383
		218.09		-4.872E-01	7.561E-01	1.177E+00	1.184E-01	-0.414
	+	268.79		2.298E+00	1.182E+00	1.398E+00	1.537E-01	1.644
		319.02		-2.686E-01	2.451E-01	3.840E-01	4.127E-02	-0.700
		367.43		5.134E-02	8.034E-01	1.345E+00	1.315E-01	0.038
		413.65	*	-1.135E-01	1.953E-01	2.662E-01	2.488E-02	-0.426
HF-181		56.28		-1.102E-01	2.273E-01	3.550E-01	3.441E-02	-0.310
		57.53		2.632E-02	1.363E-01	2.196E-01	2.140E-02	0.120
		65.20		7.046E-02	3.791E-01	5.572E-01	5.515E-02	0.126
		133.02		-2.429E-02	5.507E-02	8.062E-02	9.726E-03	-0.301
		136.25		-7.192E-02	3.397E-01	5.631E-01	6.645E-02	-0.128
		345.85		-2.177E-01	1.974E-01	2.596E-01	2.667E-02	-0.839
		482.03	*	7.508E-03	4.161E-02	6.871E-02	6.904E-03	0.109
W-181		56.28		-4.315E-02	8.894E-02	1.389E-01	1.347E-02	-0.311
		57.53		1.015E-02	5.335E-02	8.597E-02	8.378E-03	0.118
		65.20	*	2.737E-02	1.473E-01	2.165E-01	2.142E-02	0.126
TA-182		67.75		-1.339E-02	5.047E-02	7.229E-02	7.192E-03	-0.185
		100.10		5.646E-03	1.221E-01	2.054E-01	2.346E-02	0.027
		152.43		2.074E-01	2.768E-01	4.738E-01	4.895E-02	0.438
		222.10		2.589E-01	3.205E-01	5.376E-01	5.452E-02	0.481
		1001.68		6.769E-01	2.251E+00	3.685E+00	3.390E-01	0.184
	+	1121.28		9.632E-01	2.675E-01	4.137E-01	3.554E-02	2.328

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		4.982E-02	3.113E-01	5.233E-01	4.307E-02	0.095
		1221.42	*	-1.959E-01	2.028E-01	3.020E-01	2.484E-02	-0.649
		1230.97		-1.937E-01	5.939E-01	8.051E-01	6.618E-02	-0.241
RE-183		57.98		5.525E-02	5.442E-02	9.035E-02	8.823E-03	0.612
		59.32		-8.038E-03	3.574E-02	5.194E-02	5.105E-03	-0.155
		67.20		-1.369E-02	8.795E-02	1.268E-01	1.260E-02	-0.108
		162.32	*	-3.291E-02	9.251E-02	1.489E-01	1.386E-02	-0.221
	+	208.81		2.794E+00	1.121E+00	1.630E+00	1.609E-01	1.714
		291.72		-6.901E-01	8.965E-01	1.257E+00	1.391E-01	-0.549
RE-184		57.98		2.035E-01	2.005E-01	3.328E-01	3.250E-02	0.612
		59.32		-2.959E-02	1.316E-01	1.912E-01	1.879E-02	-0.155
		67.20		-5.041E-02	3.239E-01	4.668E-01	4.639E-02	-0.108
		161.27		-1.936E-01	2.914E-01	4.660E-01	4.390E-02	-0.415
		216.55		1.342E-01	2.269E-01	3.785E-01	3.796E-02	0.354
		252.85	*	-1.090E-01	2.233E-01	3.460E-01	3.710E-02	-0.315
		318.01		1.931E-01	4.200E-01	7.254E-01	7.808E-02	0.266
		792.07		6.766E-01	1.132E+00	1.735E+00	1.822E-01	0.390
		903.28		5.027E-01	1.107E+00	1.726E+00	1.633E-01	0.291
		920.93		2.643E-02	4.353E-01	7.106E-01	6.704E-02	0.037
OS-185		59.72		2.455E-02	9.610E-02	1.431E-01	1.408E-02	0.172
		61.14		4.601E-03	5.574E-02	8.215E-02	8.088E-03	0.056
		69.30		-1.056E-01	1.342E-01	2.046E-01	2.044E-02	-0.516
		592.07		-1.805E+00	2.473E+00	3.648E+00	3.947E-01	-0.495
		646.12	*	-6.949E-03	4.333E-02	7.166E-02	7.908E-03	-0.097
		717.42		-6.968E-02	9.167E-01	1.512E+00	1.652E-01	-0.046
		874.81		-1.575E-01	6.140E-01	9.736E-01	9.484E-02	-0.162
		880.27		-2.707E-01	8.844E-01	1.397E+00	1.352E-01	-0.194
RE-188		155.03	*	4.868E-02	1.426E-01	2.401E-01	2.419E-02	0.203
		477.96		1.214E+00	3.267E+00	5.462E+00	5.468E-01	0.222
		633.10		1.857E+00	2.705E+00	4.783E+00	5.257E-01	0.388
W-188	+	63.58		7.149E+01	3.615E+01	3.863E+01	3.813E+00	1.851
		227.08		1.536E-01	1.186E+01	1.914E+01	1.960E+00	0.008
		290.67	*	-4.992E-01	7.097E+00	1.059E+01	1.173E+00	-0.047
IR-192	+	295.96		1.245E+00	2.179E-01	2.988E-01	3.310E-02	4.167
		308.46		2.890E-03	8.290E-02	1.404E-01	1.534E-02	0.021
		316.51	*	3.847E-02	3.254E-02	5.797E-02	6.261E-03	0.664
		468.07		2.932E-02	6.562E-02	1.073E-01	1.122E-02	0.273
		604.41		2.541E-02	5.316E-01	7.850E-01	1.147E-01	0.032
		612.46		7.586E-01	8.398E-01	1.333E+00	1.592E-01	0.569
AU-195		65.12		1.632E-02	6.816E-02	1.004E-01	9.940E-03	0.162
		66.83		-7.683E-03	4.088E-02	5.885E-02	5.843E-03	-0.131
	+	75.70		1.265E+00	1.845E-01	2.777E-01	2.831E-02	4.555
		98.88	*	2.271E-01	1.538E-01	2.692E-01	3.054E-02	0.844
	+	129.76		8.976E+00	3.986E+00	4.351E+00	5.361E-01	2.063
TL-200		367.94	*	-1.263E-04	3.986E+00	Half-Life too short		
		579.30		9.518E-04	3.986E+00	Half-Life too short		
		828.27		3.455E-03	3.986E+00	Half-Life too short		
		1205.75		-3.477E-03	3.986E+00	Half-Life too short		
TL-201		68.90		-5.022E-01	2.113E+00	3.306E+00	3.298E-01	-0.152

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		-3.436E-01	1.415E+00	2.030E+00	2.036E-01	-0.169
		80.30		1.869E+00	3.425E+00	4.463E+00	4.632E-01	0.419
		135.34		5.760E+00	1.874E+01	3.183E+01	3.780E+00	0.181
		167.43	*	-2.639E+00	5.894E+00	9.512E+00	8.509E-01	-0.277
TL-202		68.90		-4.485E-02	1.887E-01	2.952E-01	2.945E-02	-0.152
		70.82		-3.060E-02	1.260E-01	1.808E-01	1.813E-02	-0.169
		80.30		1.665E-01	3.051E-01	3.976E-01	4.127E-02	0.419
		439.56	*	7.523E-02	7.037E-02	1.234E-01	1.189E-02	0.610
BI-207		72.80		6.488E-02	8.963E-02	1.446E-01	1.460E-02	0.449
	+	74.97		7.015E-01	1.023E-01	1.418E-01	1.442E-02	4.946
	+	84.90		3.249E-01	1.484E-01	1.967E-01	2.083E-02	1.652
		569.67		2.072E-02	3.034E-02	5.142E-02	5.500E-03	0.403
		1063.62	*	4.943E-02	5.555E-02	1.002E-01	8.941E-03	0.493
		1770.23		2.085E-02	4.679E-01	6.707E-01	5.522E-02	0.031
TL-207		81.07		-4.768E-02	1.514E-01	1.859E-01	1.936E-02	-0.256
	+	83.78		2.142E-01	9.788E-02	1.325E-01	1.396E-02	1.617
		94.90		2.107E-01	1.541E-01	2.511E-01	2.791E-02	0.839
		122.32		-1.199E+00	1.267E+00	2.027E+00	2.698E-01	-0.592
		144.24		-5.615E-02	5.763E-01	9.390E-01	1.119E-01	-0.060
		154.21		1.626E-01	3.285E-01	5.566E-01	6.064E-02	0.292
	+	269.46		5.380E-01	2.768E-01	3.424E-01	3.817E-02	1.571
		323.87	*	2.762E-01	6.615E-01	1.013E+00	1.904E-01	0.273
	+	338.28		7.547E+00	2.104E+00	2.611E+00	3.560E-01	2.891
		445.03		-6.381E-01	2.119E+00	3.389E+00	4.362E-01	-0.188
PO-209		260.50		-4.272E+00	8.911E+00	1.375E+01	1.493E+00	-0.311
		262.80		-1.555E+00	2.422E+01	3.843E+01	4.187E+00	-0.040
		896.60	*	-6.635E-01	7.152E+00	1.150E+01	1.092E+00	-0.058
PB-211		404.84	*	-9.394E-02	1.075E+00	1.546E+00	9.700E-01	-0.061
		427.08		8.299E-01	2.038E+00	3.342E+00	2.081E+00	0.248
		831.96		-4.875E-01	1.490E+00	2.322E+00	1.460E+00	-0.210
BI-212	+	727.18	*	1.356E+00	5.056E-01	7.615E-01	9.150E-02	1.780
		785.46		1.166E+00	1.954E+00	3.259E+00	3.439E-01	0.358
		1620.62		7.918E-01	1.306E+00	2.377E+00	1.975E-01	0.333
PO-215		81.07		-4.768E-02	1.514E-01	1.859E-01	1.936E-02	-0.256
	+	83.78		2.142E-01	9.788E-02	1.325E-01	1.396E-02	1.617
		94.90		2.107E-01	1.541E-01	2.511E-01	2.791E-02	0.839
		122.32		-1.199E+00	1.267E+00	2.027E+00	2.698E-01	-0.592
		144.24		-5.615E-02	5.763E-01	9.390E-01	1.119E-01	-0.060
		154.21		1.626E-01	3.285E-01	5.566E-01	6.064E-02	0.292
	+	269.46		5.380E-01	2.768E-01	3.424E-01	3.817E-02	1.571
		323.87	*	2.762E-01	6.615E-01	1.013E+00	1.904E-01	0.273
	+	338.28		7.547E+00	2.104E+00	2.611E+00	3.560E-01	2.891
		445.03		-6.381E-01	2.119E+00	3.389E+00	4.362E-01	-0.188
RN-219	+	271.23		6.902E-01	3.571E-01	4.380E-01	5.432E-02	1.576
		401.81	*	1.038E-02	4.306E-01	7.133E-01	1.096E-01	0.015
RN-220		549.76	*	-3.970E+00	2.499E+01	3.959E+01	4.186E+00	-0.100
RA-223		81.07		-4.768E-02	1.514E-01	1.859E-01	1.936E-02	-0.256
	+	83.78		2.142E-01	9.788E-02	1.325E-01	1.396E-02	1.617
		94.90		2.107E-01	1.541E-01	2.511E-01	2.791E-02	0.839

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-1.199E+00	1.267E+00	2.027E+00	2.698E-01	-0.592
		144.24		-5.615E-02	5.763E-01	9.390E-01	1.119E-01	-0.060
		154.21		1.626E-01	3.285E-01	5.566E-01	6.064E-02	0.292
	+	269.46		5.380E-01	2.768E-01	3.424E-01	3.817E-02	1.571
		323.87	*	2.762E-01	6.615E-01	1.013E+00	1.904E-01	0.273
	+	338.28		7.547E+00	2.104E+00	2.611E+00	3.560E-01	2.891
		445.03		-6.381E-01	2.119E+00	3.389E+00	4.362E-01	-0.188
AC-227		79.80		1.513E-01	1.135E+00	1.440E+00	3.206E-01	0.105
		236.00		1.007E-01	2.269E-01	3.344E-01	4.537E-02	0.301
		256.20	*	-2.456E-01	3.771E-01	5.753E-01	9.585E-02	-0.427
		286.10		-1.394E+00	1.508E+00	2.214E+00	3.311E-01	-0.630
	+	299.80		4.611E+00	2.070E+00	2.752E+00	5.166E-01	1.675
		304.40		7.910E-01	1.822E+00	2.807E+00	5.511E-01	0.282
		334.20		-7.649E-01	2.785E+00	3.370E+00	6.847E-01	-0.227
TH-227		79.80		1.513E-01	1.135E+00	1.440E+00	3.244E-01	0.105
	+	94.00		7.033E+00	2.516E+00	2.694E+00	6.158E-01	2.611
		236.00		1.007E-01	2.268E-01	3.344E-01	4.188E-02	0.301
		256.20	*	-2.456E-01	3.778E-01	5.753E-01	1.104E-01	-0.427
		286.10		-1.394E+00	2.049E+00	2.214E+00	2.228E+00	-0.630
	+	299.80		4.611E+00	2.070E+00	2.752E+00	5.166E-01	1.675
		304.40		7.910E-01	1.822E+00	2.807E+00	5.511E-01	0.282
		334.20		-7.649E-01	2.785E+00	3.370E+00	6.847E-01	-0.227
TH-229	+	85.43		3.206E-01	1.465E-01	1.930E-01	2.049E-02	1.661
	+	88.47		5.477E-01	1.122E-01	1.390E-01	1.496E-02	3.942
		100.00		1.104E-02	1.268E-01	2.137E-01	2.439E-02	0.052
		193.63	*	5.035E-01	4.460E-01	7.641E-01	7.289E-02	0.659
		210.97		7.585E-01	6.982E-01	1.082E+00	1.073E-01	0.701
PA-231		283.67	*	6.272E-01	1.433E+00	2.328E+00	3.896E-01	0.269
	+	301.29		1.844E+00	7.954E-01	1.084E+00	1.518E-01	1.702
TH-231		81.07		-4.768E-02	1.514E-01	1.859E-01	1.936E-02	-0.256
	+	83.78		2.142E-01	9.788E-02	1.325E-01	1.396E-02	1.617
		94.90		2.107E-01	1.541E-01	2.511E-01	2.791E-02	0.839
		122.32		-1.199E+00	1.267E+00	2.027E+00	2.698E-01	-0.592
		144.24		-5.615E-02	5.763E-01	9.390E-01	1.119E-01	-0.060
		154.21		1.626E-01	3.285E-01	5.566E-01	6.064E-02	0.292
	+	269.46		5.380E-01	2.768E-01	3.424E-01	3.817E-02	1.571
		323.87	*	2.762E-01	6.615E-01	1.013E+00	1.904E-01	0.273
	+	338.28		7.547E+00	2.104E+00	2.611E+00	3.560E-01	2.891
		445.03		-6.381E-01	2.119E+00	3.389E+00	4.362E-01	-0.188
U-231	+	84.21		9.286E+00	4.243E+00	5.783E+00	6.105E-01	1.606
	+	92.29		6.993E+00	2.074E+00	2.923E+00	3.206E-01	2.393
		95.87	*	-4.068E-01	7.416E-01	1.111E+00	1.242E-01	-0.366
		108.00		2.232E-01	1.433E+00	2.451E+00	2.921E-01	0.091
PA-233	+	75.28		2.047E+01	3.958E+00	4.136E+00	6.731E-01	4.950
	+	86.59		7.854E+00	2.562E+00	2.103E+00	5.793E-01	3.735
	+	300.12		1.285E+00	5.649E-01	7.689E-01	1.258E-01	1.672
		311.98	*	-2.798E-02	5.595E-02	9.147E-02	1.010E-02	-0.306
		340.50		1.128E+00	7.205E-01	1.103E+00	2.705E-01	1.023
		398.62		-1.624E-01	2.179E+00	3.590E+00	9.626E-01	-0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		6.969E-01	1.570E+00	2.658E+00	5.812E-01	0.262
PA-234	+	63.00		2.072E+00	1.081E+00	1.106E+00	1.794E-01	1.875
		94.67		2.411E-01	1.167E-01	1.897E-01	2.701E-02	1.271
		98.44		5.939E-02	6.929E-02	1.058E-01	5.955E-02	0.561
		99.86		4.559E-02	3.214E-01	5.429E-01	6.193E-02	0.084
		111.00		-1.780E-01	1.288E-01	2.009E-01	2.970E-02	-0.886
		131.20		8.247E-02	8.445E-02	1.340E-01	1.636E-02	0.615
		152.70		2.836E-01	2.697E-01	4.607E-01	8.274E-02	0.616
	+	186.00		6.945E+00	2.972E+00	2.511E+00	7.893E-01	2.766
		226.40		1.021E-01	3.673E-01	6.009E-01	8.595E-02	0.170
		227.20		1.274E-01	3.924E-01	6.435E-01	6.591E-02	0.198
		248.90		4.702E-01	7.261E-01	1.196E+00	2.783E-01	0.393
		293.70		5.149E+00	1.266E+00	1.625E+00	3.027E-01	3.169
		369.80		1.083E-01	7.660E-01	1.288E+00	2.863E-01	0.084
		568.70		-5.482E-01	1.051E+00	1.605E+00	1.716E-01	-0.341
		569.50		1.689E-01	2.678E-01	4.523E-01	4.838E-02	0.373
		574.00		-4.337E-01	1.545E+00	2.412E+00	2.586E-01	-0.180
		699.00		1.568E-01	7.188E-01	1.216E+00	2.464E-01	0.129
		706.10		1.396E-01	1.111E+00	1.863E+00	8.404E-01	0.075
		733.00		-2.275E-01	4.384E-01	5.826E-01	1.349E-01	-0.390
		742.81		1.081E+00	1.490E+00	2.314E+00	1.563E+00	0.467
	+	796.30		3.079E+00	1.691E+00	1.926E+00	5.334E-01	1.599
		805.60		5.589E-01	1.145E+00	1.935E+00	6.038E-01	0.289
		819.60		1.345E-01	1.370E+00	2.265E+00	8.706E-01	0.059
		826.30		-5.170E-01	9.451E-01	1.422E+00	6.408E-01	-0.364
		831.60		-2.741E-01	7.577E-01	1.196E+00	3.627E-01	-0.229
		876.40		-6.076E-02	8.772E-01	1.415E+00	1.456E+00	-0.043
		880.51		-5.078E-02	3.182E-01	5.103E-01	4.938E-02	-0.100
		883.24		8.472E-02	3.288E-01	5.402E-01	3.639E-01	0.157
		899.00		-8.661E-01	9.445E-01	1.249E+00	5.483E-01	-0.693
		925.00		-6.337E-01	1.136E+00	1.715E+00	1.617E-01	-0.369
		926.50		-6.656E-02	1.727E-01	2.658E-01	6.796E-02	-0.250
		946.00	*	-1.361E-01	3.340E-01	5.157E-01	9.861E-02	-0.264
		949.00		-9.739E-02	4.917E-01	7.785E-01	7.294E-02	-0.125
		980.50		-1.433E-01	8.140E-01	1.095E+00	1.016E-01	-0.131
		1394.10		-6.598E-01	1.356E+00	1.940E+00	1.262E+00	-0.340
PA-234M		766.42		1.550E+01	1.669E+01	2.332E+01	1.192E+01	0.665
		1001.03	*	1.919E+00	5.143E+00	8.475E+00	8.877E-01	0.226
U-235	+	89.95		3.767E+00	1.487E+00	1.310E+00	4.134E-01	2.875
	+	93.35		2.188E+00	8.727E-01	9.442E-01	2.725E-01	2.317
		105.00		7.009E-01	7.567E-01	1.281E+00	3.957E-01	0.547
		143.76	*	8.008E-02	1.770E-01	2.941E-01	5.554E-02	0.272
		163.35		1.746E-01	3.870E-01	6.446E-01	1.247E-01	0.271
	+	185.71		2.572E-01	7.852E-02	9.340E-02	8.745E-03	2.754
		205.31		1.527E-01	4.969E-01	7.247E-01	1.423E-01	0.211
NP-236		94.67		1.855E-01	8.717E-02	1.442E-01	1.601E-02	1.287
		98.44		4.483E-02	4.616E-02	8.000E-02	9.056E-03	0.560
		111.00		-1.346E-01	9.675E-02	1.520E-01	1.841E-02	-0.886
		160.31	*	-1.219E-02	6.431E-02	1.055E-01	1.005E-02	-0.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.218E-01	1.061E-01	1.845E-01	2.101E-02	0.660
		117.00	*	-9.838E-03	1.355E-01	2.285E-01	2.863E-02	-0.043
	+	209.75		2.203E+00	8.841E-01	1.276E+00	1.262E-01	1.726
		228.18		2.770E-02	2.047E-01	3.324E-01	3.412E-02	0.083
	+	277.60		3.073E-01	2.158E-01	3.047E-01	3.393E-02	1.009
		334.30		-3.961E-01	1.578E+00	1.918E+00	2.013E-01	-0.207
AM-241		59.54	*	3.383E-03	5.068E-02	7.478E-02	7.769E-03	0.045
CM-243		99.55		1.253E-01	1.092E-01	1.898E-01	2.162E-02	0.660
		103.76	*	6.517E-03	6.463E-02	1.106E-01	1.288E-02	0.059
		117.00		-1.012E-02	1.394E-01	2.351E-01	2.945E-02	-0.043
	+	209.75		2.172E+00	8.715E-01	1.258E+00	1.244E-01	1.726
		228.18		2.799E-02	2.069E-01	3.359E-01	3.447E-02	0.083
	+	277.60		3.098E-01	2.176E-01	3.072E-01	3.421E-02	1.009
AM-246		798.80		-1.627E-01	1.755E-01	2.176E-01	2.275E-02	-0.748
		1036.00		7.245E-02	3.273E-01	5.599E-01	5.072E-02	0.129
		1062.04		1.337E-01	2.451E-01	4.300E-01	3.842E-02	0.311
		1078.86	*	6.579E-02	1.414E-01	2.470E-01	2.185E-02	0.266
CM-247	+	278.00		1.274E+00	8.949E-01	1.262E+00	1.406E-01	1.010
		287.40		1.244E+00	1.127E+00	1.900E+00	2.110E-01	0.655
		402.60	*	-1.467E-02	4.028E-02	6.274E-02	5.783E-03	-0.234
CF-249		252.85		-4.088E-01	8.377E-01	1.298E+00	1.392E-01	-0.315
		333.44		9.550E-02	2.222E-01	2.551E-01	2.682E-02	0.374
		387.95	*	2.379E-02	3.991E-02	6.779E-02	6.239E-03	0.351
CF-251		176.60	*	-3.839E-03	1.049E-01	1.721E-01	1.576E-02	-0.022
		227.00		3.198E-03	3.556E-01	5.738E-01	5.876E-02	0.006
		285.00		-1.049E+00	1.646E+00	2.484E+00	2.763E-01	-0.422

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004       *
* Acquisition date : 12-FEB-2010 15:47:53 Detector SN#    :                 *
* Detector ID       : GAM25               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.94     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960004           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.2172E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.076E+01	2.265E+00	5.421E-01	0.000E+00
CD-109	4.082E+00	8.194E-01	7.732E-01	0.000E+00
SN-126	4.012E-01	8.053E-02	7.584E-02	0.000E+00
BA-137M	1.154E-02	5.840E-02	6.532E-02	0.000E+00
CS-137	1.220E-02	6.174E-02	6.905E-02	0.000E+00
HG-203	7.027E-02	4.838E-02	5.987E-02	0.000E+00
TL-208	5.978E-01	1.116E-01	5.949E-02	0.000E+00
BI-210	1.167E+00	5.622E-01	5.642E-01	0.000E+00
PB-210	1.167E+00	5.622E-01	5.642E-01	0.000E+00
PO-210	1.167E+00	5.604E-01	5.642E-01	0.000E+00
BI-211	4.222E+00	6.207E-01	3.007E-01	0.000E+00
PB-212	1.900E+00	2.426E-01	1.216E-01	0.000E+00
PO-212	1.900E+00	2.426E-01	1.216E-01	0.000E+00
BI-214	1.251E+00	2.218E-01	1.249E-01	0.000E+00
PB-214	1.469E+00	2.286E-01	1.049E-01	0.000E+00
PO-214	1.469E+00	2.286E-01	1.049E-01	0.000E+00
PO-216	1.900E+00	2.426E-01	1.216E-01	0.000E+00
PO-218	1.469E+00	2.286E-01	1.049E-01	0.000E+00
RA-224	3.657E+00	9.778E-01	1.047E+00	0.000E+00
RA-226	1.251E+00	2.218E-01	1.249E-01	0.000E+00
AC-228	1.668E+00	3.740E-01	2.132E-01	0.000E+00
RA-228	1.668E+00	3.740E-01	2.132E-01	0.000E+00
TH-228	1.929E+00	2.463E-01	1.235E-01	0.000E+00
TH-230	1.251E+00	2.218E-01	1.249E-01	0.000E+00
TH-232	1.668E+00	3.740E-01	2.132E-01	0.000E+00
TH-234	1.778E+00	9.230E-01	7.324E-01	0.000E+00
U-234	1.251E+00	2.218E-01	1.249E-01	0.000E+00
NP-237	1.178E+00	3.357E-01	2.217E-01	0.000E+00
U-238	1.778E+00	9.230E-01	7.324E-01	0.000E+00
AM-243	3.908E-01	5.585E-02	4.724E-02	0.000E+00
ANH-511	1.778E-01	6.893E-02	4.701E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	2.539E-01	3.295E-01	5.832E-01	0.000E+00	NOT IDENT.
NA-22	1.750E-02	4.571E-02	7.966E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.482E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.640E-02	2.355E-02	3.106E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.983E-02	4.815E-02	0.000E+00	FAIL ABUN
SC-46	-5.024E-02	4.170E-02	6.026E-02	0.000E+00	FAIL ABUN
V-48	-6.545E-03	6.651E-02	1.084E-01	0.000E+00	NOT IDENT.
CR-51	-3.307E-01	3.431E-01	5.641E-01	0.000E+00	NOT IDENT.
MN-52	1.056E-01	2.181E-01	3.887E-01	0.000E+00	NOT IDENT.
MN-54	9.325E-03	4.409E-02	7.522E-02	0.000E+00	NOT IDENT.
CO-56	-2.957E-03	3.611E-02	6.000E-02	0.000E+00	FAIL ABUN
CO-57	-5.070E-03	1.768E-02	3.092E-02	0.000E+00	NOT IDENT.
CO-58	-4.869E-02	4.255E-02	6.351E-02	0.000E+00	NOT IDENT.
FE-59	1.653E-02	1.006E-01	1.740E-01	0.000E+00	NOT IDENT.
CO-60	-9.293E-04	4.285E-02	7.019E-02	0.000E+00	NOT IDENT.
ZN-65	-5.779E-02	9.875E-02	1.319E-01	0.000E+00	NOT IDENT.
GE-68	5.738E-01	1.200E+00	2.144E+00	0.000E+00	NOT IDENT.
AS-73	1.390E-01	1.658E-01	2.920E-01	0.000E+00	NOT IDENT.
AS-74	3.662E-02	9.140E-02	1.555E-01	0.000E+00	NOT IDENT.
SE-75	2.293E-02	4.127E-02	6.746E-02	0.000E+00	NOT IDENT.
BR-77	-5.596E+00	1.003E+01	1.587E+01	0.000E+00	FAIL ABUN
SR-82	-1.355E-01	3.708E-01	5.870E-01	0.000E+00	NOT IDENT.
RB-83	-3.847E-02	6.437E-02	1.014E-01	0.000E+00	NOT IDENT.
RB-84	-1.033E-02	7.659E-02	1.262E-01	0.000E+00	NOT IDENT.
KR-85	4.944E+00	8.054E+00	1.246E+01	0.000E+00	NOT IDENT.
SR-85	2.536E-02	4.131E-02	6.392E-02	0.000E+00	NOT IDENT.
RB-86	-1.088E-01	7.682E-01	1.294E+00	0.000E+00	NOT IDENT.
Y-88	-2.199E-02	3.459E-02	4.953E-02	0.000E+00	NOT IDENT.
ZR-88	-1.441E-02	2.804E-02	4.636E-02	0.000E+00	NOT IDENT.
Y-91	-1.645E+01	1.772E+01	2.757E+01	0.000E+00	NOT IDENT.
NB-94	-1.289E-02	3.432E-02	5.691E-02	0.000E+00	NOT IDENT.
NB-95	3.733E-02	5.254E-02	8.288E-02	0.000E+00	NOT IDENT.
NB-95M	-2.859E-02	1.166E-01	1.708E-01	0.000E+00	NOT IDENT.
ZR-95	-5.317E-02	7.936E-02	1.265E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.139E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.024E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.498E+00	1.095E+01	1.786E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.296E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.896E-03	2.888E-02	4.788E-02	0.000E+00	NOT IDENT.
RH-102	2.470E-02	2.959E-02	5.264E-02	0.000E+00	NOT IDENT.
RU-103	-2.456E-02	3.720E-02	5.841E-02	0.000E+00	FAIL ABUN
RH-106	4.658E-02	3.158E-01	5.528E-01	0.000E+00	FAIL ABUN
RU-106	4.658E-02	3.158E-01	5.528E-01	0.000E+00	FAIL ABUN
AG-108M	1.001E-02	3.079E-02	5.353E-02	0.000E+00	NOT IDENT.
AG-110M	-3.804E-04	3.971E-02	5.941E-02	0.000E+00	NOT IDENT.
IN-111	4.337E-01	9.739E-01	1.499E+00	0.000E+00	NOT IDENT.
IN-113M	-1.762E-02	4.087E-02	6.805E-02	0.000E+00	NOT IDENT.
SN-113	-1.762E-02	4.087E-02	6.805E-02	0.000E+00	NOT IDENT.
IN-114M	-9.681E-02	1.633E-01	2.385E-01	0.000E+00	NOT IDENT.
CD-115	4.694E+00	1.122E+01	1.929E+01	0.000E+00	NOT IDENT.
SN-117M	2.598E-03	4.419E-02	7.691E-02	0.000E+00	NOT IDENT.
SB-122	2.241E+00	2.273E+00	4.021E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.828E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	3.251E-03	2.264E-02	3.954E-02	0.000E+00	NOT IDENT.
I-124	2.956E-01	7.893E-01	1.237E+00	0.000E+00	NOT IDENT.
SB-124	3.749E-02	7.622E-02	1.398E-01	0.000E+00	FAIL ABUN
SB-125	6.712E-02	8.630E-02	1.545E-01	0.000E+00	FAIL ABUN
TE-125M	3.835E+00	6.177E+00	1.128E+01	0.000E+00	NOT IDENT.
I-126	1.972E-01	2.048E-01	3.368E-01	0.000E+00	NOT IDENT.
SB-126	-7.172E-02	1.528E-01	2.326E-01	0.000E+00	FAIL ABUN
SB-127	7.947E-02	1.307E+00	2.253E+00	0.000E+00	NOT IDENT.
XE-127	-4.544E-02	4.053E-02	6.451E-02	0.000E+00	NOT IDENT.
I-131	-1.007E-02	1.037E-01	1.782E-01	0.000E+00	NOT IDENT.
TE-132	9.059E-02	6.192E-01	1.048E+00	0.000E+00	NOT IDENT.
BA-133	4.993E-02	4.304E-02	7.137E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.300E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.543E-02	1.027E-01	0.000E+00	FAIL ABUN
CS-135	8.973E-02	1.619E-01	2.480E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.035E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.202E-02	9.857E-02	1.649E-01	0.000E+00	FAIL ABUN
CE-139	3.387E-03	2.389E-02	4.158E-02	0.000E+00	NOT IDENT.
BA-140	-6.441E-02	2.662E-01	4.267E-01	0.000E+00	NOT IDENT.
LA-140	2.007E-03	1.024E-01	1.743E-01	0.000E+00	FAIL ABUN
CE-141	-4.009E-03	5.011E-02	8.730E-02	0.000E+00	NOT IDENT.

CE-143	0.000E+00	1.775E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.476E-01	1.508E-01	2.524E-01	0.000E+00	NOT IDENT.
PM-144	-9.641E-03	3.428E-02	5.732E-02	0.000E+00	NOT IDENT.
PR-144	-6.533E-01	2.323E+00	3.884E+00	0.000E+00	NOT IDENT.
PM-146	3.436E-02	4.373E-02	7.772E-02	0.000E+00	NOT IDENT.
ND-147	4.557E-01	5.637E-01	9.923E-01	0.000E+00	FAIL ABUN
PM-149	-8.425E+01	8.956E+01	1.364E+02	0.000E+00	NOT IDENT.
EU-152	2.424E-02	9.475E-02	1.483E-01	0.000E+00	FAIL ABUN
GD-153	-6.808E-02	5.208E-02	8.682E-02	0.000E+00	FAIL ABUN
EU-154	7.413E-02	1.246E-01	2.216E-01	0.000E+00	NOT IDENT.
EU-155	7.029E-02	7.327E-02	1.353E-01	0.000E+00	FAIL ABUN
TB-160	5.247E-02	1.464E-01	2.528E-01	0.000E+00	FAIL ABUN
HO-166M	7.154E-03	6.230E-02	1.074E-01	0.000E+00	NOT IDENT.
TM-171	3.183E+00	1.168E+01	1.822E+01	0.000E+00	NOT IDENT.
LU-176	2.777E-03	2.124E-02	3.757E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.227E+00	1.816E+00	0.000E+00	FAIL ABUN
LU-177M	-1.135E-01	1.914E-01	2.700E-01	0.000E+00	FAIL ABUN
HF-181	7.508E-03	4.078E-02	6.955E-02	0.000E+00	NOT IDENT.
W-181	2.737E-02	1.443E-01	2.245E-01	0.000E+00	NOT IDENT.
TA-182	-1.959E-01	1.988E-01	3.021E-01	0.000E+00	FAIL ABUN
RE-183	-3.291E-02	9.066E-02	1.528E-01	0.000E+00	FAIL ABUN
RE-184	-1.090E-01	2.188E-01	3.530E-01	0.000E+00	NOT IDENT.
OS-185	-6.949E-03	4.246E-02	7.227E-02	0.000E+00	NOT IDENT.
RE-188	4.868E-02	1.397E-01	2.465E-01	0.000E+00	NOT IDENT.
W-188	-4.992E-01	6.955E+00	1.079E+01	0.000E+00	FAIL ABUN
IR-192	3.847E-02	3.189E-02	5.899E-02	0.000E+00	FAIL ABUN
AU-195	2.271E-01	1.507E-01	2.778E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.123E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.639E+00	5.776E+00	9.755E+00	0.000E+00	NOT IDENT.
TL-202	7.523E-02	6.897E-02	1.251E-01	0.000E+00	NOT IDENT.
BI-207	4.943E-02	5.444E-02	1.004E-01	0.000E+00	FAIL ABUN
TL-207	2.762E-01	6.483E-01	1.031E+00	0.000E+00	FAIL ABUN
PO-209	-6.635E-01	7.009E+00	1.155E+01	0.000E+00	NOT IDENT.
PB-211	-9.394E-02	1.053E+00	1.568E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.955E-01	7.669E-01	0.000E+00	FAIL ABUN
PO-215	2.762E-01	6.483E-01	1.031E+00	0.000E+00	FAIL ABUN
RN-219	1.038E-02	4.220E-01	7.237E-01	0.000E+00	FAIL ABUN
RN-220	-3.970E+00	2.449E+01	4.001E+01	0.000E+00	NOT IDENT.
RA-223	2.762E-01	6.483E-01	1.031E+00	0.000E+00	FAIL ABUN
AC-227	-2.456E-01	3.695E-01	5.870E-01	0.000E+00	FAIL ABUN
TH-227	-2.456E-01	3.703E-01	5.870E-01	0.000E+00	FAIL ABUN
TH-229	5.035E-01	4.371E-01	7.822E-01	0.000E+00	FAIL ABUN
PA-231	6.272E-01	1.404E+00	2.372E+00	0.000E+00	FAIL ABUN
TH-231	2.762E-01	6.483E-01	1.031E+00	0.000E+00	FAIL ABUN
U-231	-4.068E-01	7.268E-01	1.148E+00	0.000E+00	FAIL ABUN
PA-233	-2.798E-02	5.483E-02	9.309E-02	0.000E+00	FAIL ABUN
PA-234	-1.361E-01	3.274E-01	5.176E-01	0.000E+00	FAIL ABUN
PA-234M	1.919E+00	5.040E+00	8.500E+00	0.000E+00	NOT IDENT.
U-235	8.008E-02	1.734E-01	3.022E-01	0.000E+00	FAIL ABUN
NP-236	-1.219E-02	6.303E-02	1.083E-01	0.000E+00	NOT IDENT.
NP-239	-9.838E-03	1.328E-01	2.354E-01	0.000E+00	FAIL ABUN
AM-241	3.383E-03	4.967E-02	7.765E-02	0.000E+00	NOT IDENT.
CM-243	6.517E-03	6.334E-02	1.141E-01	0.000E+00	FAIL ABUN
AM-246	6.579E-02	1.386E-01	2.475E-01	0.000E+00	NOT IDENT.
CM-247	-1.467E-02	3.948E-02	6.365E-02	0.000E+00	FAIL ABUN
CF-249	2.379E-02	3.911E-02	6.881E-02	0.000E+00	NOT IDENT.
CF-251	-3.839E-03	1.028E-01	1.764E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:48:58.26

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:47:53
Sample ID         : G245960004           Sample quantity  : 1.21720E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.94  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	796	10.67*	1.109E+00	2.076E+01	2.076E+01	11.14
CD-109	88.03	453	3.72*	9.404E+00	3.990E+00	4.082E+00	20.48
SN-126	64.28	214	9.60	9.779E+00	7.038E-01	7.038E-01	52.09
	86.94	453	8.90	9.404E+00	1.668E+00	1.668E+00	45.34
	87.57	453	37.00*	9.404E+00	4.012E-01	4.012E-01	20.48
BA-137M	661.65	8	89.98*	2.231E+00	1.153E-02	1.154E-02	516.31
CS-137	661.65	8	85.12*	2.231E+00	1.219E-02	1.220E-02	516.31
HG-203	70.83	------	4.75	9.750E+00	------ Line Not Found		------
	72.87	------	8.00	9.724E+00	------ Line Not Found		------
	82.60	------	3.55	9.528E+00	------ Line Not Found		------
	279.20	66	77.30*	4.731E+00	5.605E-02	7.027E-02	70.25
TL-208	277.35	66	6.80	4.731E+00	6.372E-01	6.372E-01	70.78
	510.84	162	21.60	2.810E+00	8.229E-01	8.229E-01	40.44
	583.14	407	84.20*	2.497E+00	5.978E-01	5.978E-01	19.05
	860.37	47	12.46	1.765E+00	6.592E-01	6.592E-01	70.38
BI-210	46.50	141	4.05*	9.199E+00	1.165E+00	1.167E+00	49.18
PB-210	46.50	141	4.05*	9.199E+00	1.165E+00	1.167E+00	49.18
PO-210	46.50	141	4.05*	9.199E+00	1.165E+00	1.167E+00	49.02
BI-211	72.87	------	1.27	9.724E+00	------ Line Not Found		------
	351.07	688	12.94*	3.886E+00	4.222E+00	4.222E+00	15.00
PB-212	74.81	811	10.70	9.693E+00	2.411E+00	2.411E+00	17.32
	77.11	1201	18.00	9.652E+00	2.131E+00	2.131E+00	12.93
	87.30	453	8.00	9.404E+00	1.855E+00	1.855E+00	22.80
	238.63	1467	44.60*	5.339E+00	1.900E+00	1.900E+00	13.03
	300.09	122	3.41	4.443E+00	2.488E+00	2.488E+00	42.65
PO-212	74.81	811	10.70	9.693E+00	2.411E+00	2.411E+00	17.32
	77.11	1201	18.00	9.652E+00	2.131E+00	2.131E+00	12.93
	87.30	453	8.00	9.404E+00	1.855E+00	1.855E+00	22.80
	115.19	------	0.60	8.498E+00	------ Line Not Found		------
	238.63	1467	44.60*	5.339E+00	1.900E+00	1.900E+00	13.03
	300.09	122	3.41	4.443E+00	2.488E+00	2.488E+00	42.65
BI-214	609.31	451	46.30*	2.401E+00	1.251E+00	1.251E+00	18.10

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1120.29	139	15.10	1.398E+00	2.037E+00	2.037E+00	28.55
	1764.49	74	15.80	9.415E-01	1.540E+00	1.540E+00	25.73
PB-214	74.81	811	6.21	9.693E+00	4.154E+00	4.154E+00	16.36
	77.11	1201	10.50	9.652E+00	3.654E+00	3.654E+00	15.01
	87.30	453	4.67	9.404E+00	3.178E+00	3.178E+00	21.89
	241.98	248	7.49	5.285E+00	1.928E+00	1.929E+00	27.86
	295.21	457	19.20	4.503E+00	1.632E+00	1.632E+00	18.56
	351.92	688	37.20*	3.886E+00	1.469E+00	1.469E+00	15.88
PO-214	74.81	811	6.21	9.693E+00	4.154E+00	4.154E+00	16.36
	77.11	1201	10.50	9.652E+00	3.654E+00	3.654E+00	15.01
	87.30	453	4.67	9.404E+00	3.178E+00	3.178E+00	21.89
	241.98	248	7.49	5.285E+00	1.928E+00	1.929E+00	27.86
	295.21	457	19.20	4.503E+00	1.632E+00	1.632E+00	18.56
	351.92	688	37.20*	3.886E+00	1.469E+00	1.469E+00	15.88
PO-216	74.81	811	10.70	9.693E+00	2.411E+00	2.411E+00	17.32
	77.11	1201	18.00	9.652E+00	2.131E+00	2.131E+00	12.93
	87.30	453	8.00	9.404E+00	1.855E+00	1.855E+00	22.80
	238.63	1467	44.60*	5.339E+00	1.900E+00	1.900E+00	13.03
	300.09	122	3.41	4.443E+00	2.488E+00	2.488E+00	42.65
PO-218	74.81	811	6.21	9.693E+00	4.154E+00	4.154E+00	16.36
	77.11	1201	10.50	9.652E+00	3.654E+00	3.654E+00	15.01
	87.30	453	4.67	9.404E+00	3.178E+00	3.178E+00	21.89
	241.98	248	7.49	5.285E+00	1.928E+00	1.929E+00	27.86
	295.21	457	19.20	4.503E+00	1.632E+00	1.632E+00	18.56
	351.92	688	37.20*	3.886E+00	1.469E+00	1.469E+00	15.88
RA-224	240.98	248	3.95*	5.285E+00	3.657E+00	3.657E+00	27.29
RA-226	609.31	451	46.30*	2.401E+00	1.251E+00	1.251E+00	18.10
	1120.29	139	15.10	1.398E+00	2.037E+00	2.037E+00	28.55
	1764.49	74	15.80	9.415E-01	1.540E+00	1.540E+00	25.73
AC-228	338.32	268	11.40	4.019E+00	1.807E+00	1.807E+00	48.25
	911.07	251	27.70*	1.678E+00	1.668E+00	1.668E+00	22.88
	969.11	179	16.60	1.589E+00	2.089E+00	2.089E+00	32.43
RA-228	338.32	268	11.40	4.019E+00	1.807E+00	1.807E+00	48.25
	911.07	251	27.70*	1.678E+00	1.668E+00	1.668E+00	22.88
	969.11	179	16.60	1.589E+00	2.089E+00	2.089E+00	32.43
TH-228	74.81	811	10.70	9.693E+00	2.411E+00	2.447E+00	14.63
	77.11	1201	18.00	9.652E+00	2.131E+00	2.164E+00	12.93
	87.30	453	8.00	9.404E+00	1.855E+00	1.884E+00	20.48
	238.63	1467	44.60*	5.339E+00	1.900E+00	1.929E+00	13.03
	300.09	122	3.41	4.443E+00	2.488E+00	2.526E+00	72.28
TH-230	609.31	451	46.30*	2.401E+00	1.251E+00	1.251E+00	18.10
	1120.29	139	15.10	1.398E+00	2.037E+00	2.037E+00	28.55
	1764.49	74	15.80	9.415E-01	1.540E+00	1.540E+00	25.73
TH-232	338.32	268	11.40	4.019E+00	1.807E+00	1.807E+00	26.46
	911.07	251	27.70*	1.678E+00	1.668E+00	1.668E+00	22.88
	969.11	179	16.60	1.589E+00	2.089E+00	2.089E+00	32.43
TH-234	63.29	214	3.80*	9.779E+00	1.778E+00	1.778E+00	52.97
	92.38	295	5.41	9.236E+00	1.820E+00	1.820E+00	33.65
U-234	609.31	451	46.30*	2.401E+00	1.251E+00	1.251E+00	18.10

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1120.29	139	15.10	1.398E+00	2.037E+00	2.037E+00	28.55
	1764.49	74	15.80	9.415E-01	1.540E+00	1.540E+00	25.73
NP-237	86.50	453	12.60*	9.404E+00	1.178E+00	1.178E+00	29.08
	95.87	------	2.60	9.143E+00	------ Line Not Found		------
U-238	63.29	214	3.80*	9.779E+00	1.778E+00	1.778E+00	52.97
	92.38	295	5.41	9.236E+00	1.820E+00	1.820E+00	29.66
AM-243	74.67	811	66.00*	9.693E+00	3.908E-01	3.908E-01	14.58
	86.72	453	0.34	9.404E+00	4.418E+01	4.418E+01	20.48
	117.66	------	0.55	8.415E+00	------ Line Not Found		------
	142.18	------	0.13	7.617E+00	------ Line Not Found		------
ANH-511	511.00	162	100.00*	2.810E+00	1.778E-01	1.778E-01	39.57

Flag: "*" = Keyline

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

Total number of lines in spectrum 39
Number of unidentified lines 4
Number of lines tentatively identified by NID 35 89.74%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.076E+01	2.076E+01	0.231E+01	11.14	
CD-109	464.00D	1.02	3.990E+00	4.082E+00	0.836E+00	20.48	
SN-126	1.00E+05Y	1.00	4.012E-01	4.012E-01	0.822E-01	20.48	
BA-137M	30.17Y	1.00	1.153E-02	1.154E-02	5.959E-02	516.31	
CS-137	30.17Y	1.00	1.219E-02	1.220E-02	6.299E-02	516.31	
HG-203	46.60D	1.25	5.605E-02	7.027E-02	4.937E-02	70.25	
TL-208	1.41E+10Y	1.00	5.978E-01	5.978E-01	1.139E-01	19.05	
BI-210	22.26Y	1.00	1.165E+00	1.167E+00	0.574E+00	49.18	
PB-210	22.26Y	1.00	1.165E+00	1.167E+00	0.574E+00	49.18	
PO-210	22.26Y	1.00	1.165E+00	1.167E+00	0.572E+00	49.02	
BI-211	7.04E+08Y	1.00	4.222E+00	4.222E+00	0.633E+00	15.00	
PB-212	1.41E+10Y	1.00	1.900E+00	1.900E+00	0.248E+00	13.03	
PO-212	1.41E+10Y	1.00	1.900E+00	1.900E+00	0.248E+00	13.03	
BI-214	1600.00Y	1.00	1.251E+00	1.251E+00	0.226E+00	18.10	
PB-214	1600.00Y	1.00	1.469E+00	1.469E+00	0.233E+00	15.88	
PO-214	1600.00Y	1.00	1.469E+00	1.469E+00	0.233E+00	15.88	
PO-216	1.41E+10Y	1.00	1.900E+00	1.900E+00	0.248E+00	13.03	
PO-218	1600.00Y	1.00	1.469E+00	1.469E+00	0.233E+00	15.88	
RA-224	1.41E+10Y	1.00	3.657E+00	3.657E+00	0.998E+00	27.29	
RA-226	1600.00Y	1.00	1.251E+00	1.251E+00	0.226E+00	18.10	
AC-228	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.382E+00	22.88	
RA-228	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.382E+00	22.88	
TH-228	1.91Y	1.02	1.900E+00	1.929E+00	0.251E+00	13.03	
TH-230	4.47E+09Y	1.00	1.251E+00	1.251E+00	0.226E+00	18.10	
TH-232	1.41E+10Y	1.00	1.668E+00	1.668E+00	0.382E+00	22.88	
TH-234	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.942E+00	52.97	
U-234	4.47E+09Y	1.00	1.251E+00	1.251E+00	0.226E+00	18.10	
NP-237	2.14E+06Y	1.00	1.178E+00	1.178E+00	0.343E+00	29.08	
U-238	4.47E+09Y	1.00	1.778E+00	1.778E+00	0.942E+00	52.97	
AM-243	7380.00Y	1.00	3.908E-01	3.908E-01	0.570E-01	14.58	
ANH-511	1.00E+09Y	1.00	1.778E-01	1.778E-01	0.703E-01	39.57	
	Total Activity :		6.452E+01	6.466E+01			

Grand Total Activity : 6.452E+01 6.466E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.12	163	421	1.19	167.79	164	19	2.26E-02	44.5	9.49E+00	T
4	89.85	308	335	1.21	179.25	164	19	4.27E-02	23.7	9.33E+00	T
0	128.83	179	365	1.20	257.20	252	10	2.49E-02	42.6	8.04E+00	T
0	186.07	289	334	1.26	371.68	367	12	4.01E-02	29.0	6.41E+00	T
0	209.33	136	188	0.81	418.20	415	8	1.89E-02	38.9	5.89E+00	T
0	270.20	115	204	0.93	539.93	535	10	1.59E-02	50.2	4.84E+00	T
0	328.29	80	178	1.08	656.10	651	11	1.11E-02	68.4	4.12E+00	T
0	408.88	47	127	1.59	817.27	813	10	6.59E-03	93.6	3.41E+00	
0	463.02	71	76	1.50	925.54	921	8	9.89E-03	48.6	3.06E+00	T
0	727.29	106	65	1.41	1454.08	1449	11	1.48E-02	35.3	2.05E+00	T
0	768.78	39	85	0.95	1537.05	1532	12	5.39E-03	99.9	1.95E+00	
0	795.04	74	49	1.76	1589.56	1583	15	1.02E-02	47.4	1.89E+00	T
4	964.37	58	39	1.83	1928.22	1923	31	7.99E-03	50.3	1.60E+00	T
0	1238.23	47	44	4.20	2475.96	2468	16	6.48E-03	70.0	1.28E+00	T
0	1377.88	40	17	1.93	2755.29	2747	15	5.58E-03	56.2	1.17E+00	
0	1729.13	29	2	1.68	3457.83	3452	10	4.01E-03	42.3	9.58E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:49:04.22

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960004.CNF;1  *
* Acquisition date : 12-FEB-2010 15:47:53  Detector SN#    :                *
* Detector ID      : GAM25                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.94         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245960004            Analyst initials: MXR1           *
* Batch Number     : 948717                Sample Quantity : 1.21720E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.076E+01	2.312E+00	5.432E-01	4.626E-02	38.221
CD-109	4.082E+00	8.361E-01	7.480E-01	8.038E-02	5.457
SN-126	4.012E-01	8.218E-02	7.337E-02	7.867E-03	5.468
BA-137M	1.154E-02	5.959E-02	6.478E-02	7.176E-03	0.178
CS-137	1.220E-02	6.299E-02	6.848E-02	7.595E-03	0.178
HG-203	7.027E-02	4.937E-02	5.874E-02	6.667E-03	1.196
TL-208	5.978E-01	1.139E-01	5.891E-02	6.641E-03	10.147
BI-210	1.167E+00	5.737E-01	5.417E-01	5.586E-02	2.153
PB-210	1.167E+00	5.737E-01	5.417E-01	5.586E-02	2.153
PO-210	1.167E+00	5.718E-01	5.417E-01	5.160E-02	2.153
BI-211	4.222E+00	6.333E-01	2.959E-01	3.118E-02	14.268
PB-212	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
PO-212	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
BI-214	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
PB-214	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
PO-214	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233
PO-216	1.900E+00	2.476E-01	1.191E-01	1.356E-02	15.957
PO-218	1.469E+00	2.333E-01	1.032E-01	1.212E-02	14.233

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	3.657E+00	9.978E-01	1.026E+00	1.078E-01	3.564
RA-226	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
AC-228	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
RA-228	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
TH-228	1.929E+00	2.513E-01	1.209E-01	1.377E-02	15.957
TH-230	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
TH-232	1.668E+00	3.817E-01	2.123E-01	2.525E-02	7.858
TH-234	1.778E+00	9.419E-01	7.058E-01	1.314E-01	2.519
U-234	1.251E+00	2.264E-01	1.237E-01	1.493E-02	10.109
NP-237	1.178E+00	3.425E-01	2.144E-01	4.981E-02	5.494
U-238	1.778E+00	9.419E-01	7.058E-01	1.314E-01	2.519
AM-243	3.908E-01	5.699E-02	4.562E-02	4.633E-03	8.567
ANH-511	1.778E-01	7.033E-02	4.648E-02	4.784E-03	3.824

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.539E-01		3.362E-01	5.761E-01	6.099E-02	0.441
NA-22	1.750E-02		4.664E-02	7.967E-02	6.533E-03	0.220
NA-24	1.788E-01		4.328E-01	Half-Life too short		
AL-26	-1.640E-02		2.403E-02	3.120E-02	2.557E-03	-0.526
TI-44	3.933E-01	+	5.085E-02	4.652E-02	4.790E-03	8.455
SC-46	-5.024E-02		4.255E-02	5.999E-02	5.745E-03	-0.837
V-48	-6.545E-03		6.787E-02	1.080E-01	1.001E-02	-0.061
CR-51	-3.307E-01		3.502E-01	5.544E-01	6.157E-02	-0.597
MN-52	1.056E-01		2.226E-01	3.893E-01	3.209E-02	0.271
MN-54	9.325E-03		4.499E-02	7.483E-02	7.593E-03	0.125
CO-56	-2.957E-03		3.685E-02	5.970E-02	5.990E-03	-0.050
CO-57	-5.070E-03		1.804E-02	3.003E-02	3.873E-03	-0.169
CO-58	-4.869E-02		4.342E-02	6.316E-02	6.553E-03	-0.771
FE-59	1.653E-02		1.027E-01	1.737E-01	1.636E-02	0.095
CO-60	-9.293E-04		4.372E-02	7.024E-02	5.704E-03	-0.013
ZN-65	-5.779E-02		1.008E-01	1.317E-01	1.138E-02	-0.439
GE-68	5.738E-01		1.224E+00	2.140E+00	1.894E-01	0.268
AS-73	1.390E-01		1.692E-01	2.808E-01	2.696E-02	0.495
AS-74	3.662E-02		9.327E-02	1.540E-01	1.669E-02	0.238
SE-75	2.293E-02		4.211E-02	6.615E-02	7.250E-03	0.347
BR-77	-5.596E+00		1.023E+01	1.570E+01	1.627E+00	-0.357
SR-82	-1.355E-01		3.783E-01	5.834E-01	6.191E-02	-0.232
RB-83	-3.847E-02		6.568E-02	1.003E-01	1.039E-02	-0.384
RB-84	-1.033E-02		7.815E-02	1.256E-01	1.214E-02	-0.082
KR-85	4.944E+00		8.219E+00	1.232E+01	1.271E+00	0.401
SR-85	2.536E-02		4.216E-02	6.320E-02	6.520E-03	0.401
RB-86	-1.088E-01		7.839E-01	1.291E+00	1.144E-01	-0.084
Y-88	-2.199E-02		3.530E-02	4.977E-02	4.067E-03	-0.442
ZR-88	-1.441E-02		2.861E-02	4.569E-02	4.158E-03	-0.316
Y-91	-1.645E+01		1.809E+01	2.756E+01	2.268E+00	-0.597

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	-1.289E-02		3.502E-02	5.648E-02	6.203E-03	-0.228
NB-95	3.733E-02		5.361E-02	8.235E-02	8.797E-03	0.453
NB-95M	-2.859E-02		1.190E-01	1.672E-01	1.917E-02	-0.171
ZR-95	-5.317E-02		8.098E-02	1.257E-01	1.439E-02	-0.423
NB-97	1.501E-02		5.813E-02	Half-Life too short		
ZR-97	1.551E+00		1.033E+00	Half-Life too short		
MO-99	-4.498E+00		1.118E+01	1.774E+01	2.933E+00	-0.254
TC-99M	2.623E+09		1.682E+10	Half-Life too short		
RH-101	-5.896E-03		2.946E-02	4.678E-02	4.508E-03	-0.126
RH-102	2.470E-02		3.019E-02	5.199E-02	5.191E-03	0.475
RU-103	-2.456E-02		3.796E-02	5.773E-02	8.752E-03	-0.425
RH-106	4.658E-02		3.222E-01	5.478E-01	8.200E-02	0.085
RU-106	4.658E-02		3.222E-01	5.478E-01	5.999E-02	0.085
AG-108M	1.001E-02		3.142E-02	5.281E-02	5.219E-03	0.189
AG-110M	-3.804E-04		4.052E-02	5.892E-02	6.640E-03	-0.006
IN-111	4.337E-01		9.938E-01	1.469E+00	1.555E-01	0.295
IN-113M	-1.762E-02		4.170E-02	6.705E-02	6.263E-03	-0.263
SN-113	-1.762E-02		4.170E-02	6.705E-02	6.263E-03	-0.263
IN-114M	-9.681E-02		1.666E-01	2.329E-01	2.205E-02	-0.416
CD-115	4.694E+00		1.145E+01	1.908E+01	1.989E+00	0.246
SN-117M	2.598E-03		4.510E-02	7.494E-02	7.276E-03	0.035
SB-122	2.241E+00		2.319E+00	3.980E+00	4.243E-01	0.563
I-123	6.933E-01		2.463E+00	Half-Life too short		
TE-123M	3.251E-03		2.310E-02	3.853E-02	3.741E-03	0.084
I-124	2.956E-01		8.054E-01	1.226E+00	1.332E-01	0.241
SB-124	3.749E-02		7.778E-02	1.403E-01	1.213E-02	0.267
SB-125	6.712E-02		8.807E-02	1.524E-01	1.472E-02	0.440
TE-125M	3.835E+00		6.303E+00	1.094E+01	1.453E+00	0.350
I-126	1.972E-01		2.090E-01	3.340E-01	3.698E-02	0.591
SB-126	-7.172E-02		1.560E-01	2.310E-01	2.521E-02	-0.311
SB-127	7.947E-02		1.334E+00	2.236E+00	2.977E-01	0.036
XE-127	-4.544E-02		4.136E-02	6.304E-02	6.141E-03	-0.721
I-131	-1.007E-02		1.059E-01	1.754E-01	1.800E-02	-0.057
TE-132	9.059E-02		6.318E-01	1.026E+00	1.712E-01	0.088
BA-133	4.993E-02		4.392E-02	7.024E-02	9.959E-03	0.711
I-133	2.113E-03		3.215E-03	Half-Life too short		
CS-134	1.585E-01	+	7.697E-02	1.021E-01	1.075E-02	1.552
CS-135	8.973E-02		1.652E-01	2.432E-01	2.936E-02	0.369
I-135	-6.294E+09		3.079E+09	Half-Life too short		
CS-136	-2.202E-02		1.006E-01	1.645E-01	1.539E-02	-0.134
CE-139	3.387E-03		2.438E-02	4.054E-02	3.615E-03	0.084
BA-140	-6.441E-02		2.716E-01	4.222E-01	1.422E-01	-0.153
LA-140	2.007E-03		1.045E-01	1.749E-01	1.454E-02	0.011
CE-141	-4.009E-03		5.114E-02	8.497E-02	9.450E-03	-0.047
CE-143	4.848E-04		9.057E-05	Half-Life too short		
CE-144	-1.476E-01		1.631E-01	2.454E-01	4.338E-02	-0.601
PM-144	-9.641E-03		3.498E-02	5.689E-02	6.259E-03	-0.169
PR-144	-6.533E-01		2.371E+00	3.855E+00	4.241E-01	-0.169

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	3.436E-02		4.463E-02	7.673E-02	8.959E-03	0.448
ND-147	4.557E-01		5.752E-01	9.815E-01	1.577E-01	0.464
PM-149	-8.425E+01		9.139E+01	1.338E+02	2.282E+01	-0.630
EU-152	2.424E-02		9.669E-02	1.459E-01	1.566E-02	0.166
GD-153	-6.808E-02		5.314E-02	8.410E-02	9.471E-03	-0.810
EU-154	7.413E-02		1.272E-01	2.216E-01	2.435E-02	0.334
EU-155	7.029E-02		7.476E-02	1.312E-01	1.551E-02	0.536
TB-160	5.247E-02		1.494E-01	2.517E-01	2.438E-02	0.208
HO-166M	7.154E-03		6.357E-02	1.066E-01	1.167E-02	0.067
TM-171	3.183E+00		1.192E+01	1.757E+01	1.744E+00	0.181
LU-176	2.777E-03		2.167E-02	3.691E-02	4.027E-03	0.075
LU-177	3.120E+00	+	1.252E+00	1.776E+00	1.751E-01	1.757
LU-177M	-1.135E-01		1.953E-01	2.662E-01	2.488E-02	-0.426
HF-181	7.508E-03		4.161E-02	6.871E-02	6.904E-03	0.109
W-181	2.737E-02		1.473E-01	2.165E-01	2.142E-02	0.126
TA-182	-1.959E-01		2.028E-01	3.020E-01	2.484E-02	-0.649
RE-183	-3.291E-02		9.251E-02	1.489E-01	1.386E-02	-0.221
RE-184	-1.090E-01		2.233E-01	3.460E-01	3.710E-02	-0.315
OS-185	-6.949E-03		4.333E-02	7.166E-02	7.908E-03	-0.097
RE-188	4.868E-02		1.426E-01	2.401E-01	2.419E-02	0.203
W-188	-4.992E-01		7.097E+00	1.059E+01	1.173E+00	-0.047
IR-192	3.847E-02		3.254E-02	5.797E-02	6.261E-03	0.664
AU-195	2.271E-01		1.538E-01	2.692E-01	3.054E-02	0.844
TL-200	-1.263E-04		2.104E-04	Half-Life too short		
TL-201	-2.639E+00		5.894E+00	9.512E+00	8.509E-01	-0.277
TL-202	7.523E-02		7.037E-02	1.234E-01	1.189E-02	0.610
BI-207	4.943E-02		5.555E-02	1.002E-01	8.941E-03	0.493
TL-207	2.762E-01		6.615E-01	1.013E+00	1.904E-01	0.273
PO-209	-6.635E-01		7.152E+00	1.150E+01	1.092E+00	-0.058
PB-211	-9.394E-02		1.075E+00	1.546E+00	9.700E-01	-0.061
BI-212	1.356E+00	+	5.056E-01	7.615E-01	9.150E-02	1.780
PO-215	2.762E-01		6.615E-01	1.013E+00	1.904E-01	0.273
RN-219	1.038E-02		4.306E-01	7.133E-01	1.096E-01	0.015
RN-220	-3.970E+00		2.499E+01	3.959E+01	4.186E+00	-0.100
RA-223	2.762E-01		6.615E-01	1.013E+00	1.904E-01	0.273
AC-227	-2.456E-01		3.771E-01	5.753E-01	9.585E-02	-0.427
TH-227	-2.456E-01		3.778E-01	5.753E-01	1.104E-01	-0.427
TH-229	5.035E-01		4.460E-01	7.641E-01	7.289E-02	0.659
PA-231	6.272E-01		1.433E+00	2.328E+00	3.896E-01	0.269
TH-231	2.762E-01		6.615E-01	1.013E+00	1.904E-01	0.273
U-231	-4.068E-01		7.416E-01	1.111E+00	1.242E-01	-0.366
PA-233	-2.798E-02		5.595E-02	9.147E-02	1.010E-02	-0.306
PA-234	-1.361E-01		3.340E-01	5.157E-01	9.861E-02	-0.264
PA-234M	1.919E+00		5.143E+00	8.475E+00	8.877E-01	0.226
U-235	8.008E-02		1.770E-01	2.941E-01	5.554E-02	0.272
NP-236	-1.219E-02		6.431E-02	1.055E-01	1.005E-02	-0.116
NP-239	-9.838E-03		1.355E-01	2.285E-01	2.863E-02	-0.043
AM-241	3.383E-03		5.068E-02	7.478E-02	7.769E-03	0.045

Sample ID : G245960004 Acquisition date : 12-FEB-2010 15:47:53

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	6.517E-03		6.463E-02	1.106E-01	1.288E-02	0.059
AM-246	6.579E-02		1.414E-01	2.470E-01	2.185E-02	0.266
CM-247	-1.467E-02		4.028E-02	6.274E-02	5.783E-03	-0.234
CF-249	2.379E-02		3.991E-02	6.779E-02	6.239E-03	0.351
CF-251	-3.839E-03		1.049E-01	1.721E-01	1.576E-02	-0.022

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960004           *
* Acquisition date  : 12-FEB-2010 15:47:53 Detector SN#     :               *
* Detector ID       : GAM25                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.94      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960004           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.2172E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.076E+01	2.265E+00	2.712E-01	1.156E+00
CD-109	4.082E+00	8.194E-01	3.868E-01	4.181E-01
SN-126	4.012E-01	8.053E-02	3.794E-02	4.109E-02
BA-137M	1.154E-02	5.840E-02	3.268E-02	2.980E-02
CS-137	1.220E-02	6.174E-02	3.454E-02	3.150E-02
HG-203	7.027E-02	4.838E-02	2.995E-02	2.469E-02
TL-208	5.978E-01	1.116E-01	2.976E-02	5.694E-02
BI-210	1.167E+00	5.622E-01	2.823E-01	2.868E-01
PB-210	1.167E+00	5.622E-01	2.823E-01	2.868E-01
PO-210	1.167E+00	5.604E-01	2.823E-01	2.859E-01
BI-211	4.222E+00	6.207E-01	1.504E-01	3.167E-01
PB-212	1.900E+00	2.426E-01	6.085E-02	1.238E-01
PO-212	1.900E+00	2.426E-01	6.085E-02	1.238E-01
BI-214	1.251E+00	2.218E-01	6.248E-02	1.132E-01
PB-214	1.469E+00	2.286E-01	5.246E-02	1.166E-01
PO-214	1.469E+00	2.286E-01	5.246E-02	1.166E-01
PO-216	1.900E+00	2.426E-01	6.085E-02	1.238E-01
PO-218	1.469E+00	2.286E-01	5.246E-02	1.166E-01
RA-224	3.657E+00	9.778E-01	5.241E-01	4.989E-01
RA-226	1.251E+00	2.218E-01	6.248E-02	1.132E-01
AC-228	1.668E+00	3.740E-01	1.066E-01	1.908E-01
RA-228	1.668E+00	3.740E-01	1.066E-01	1.908E-01
TH-228	1.929E+00	2.463E-01	6.177E-02	1.257E-01
TH-230	1.251E+00	2.218E-01	6.248E-02	1.132E-01
TH-232	1.668E+00	3.740E-01	1.066E-01	1.908E-01
TH-234	1.778E+00	9.230E-01	3.664E-01	4.709E-01
U-234	1.251E+00	2.218E-01	6.248E-02	1.132E-01
NP-237	1.178E+00	3.357E-01	1.109E-01	1.713E-01
U-238	1.778E+00	9.230E-01	3.664E-01	4.709E-01
AM-243	3.908E-01	5.585E-02	2.363E-02	2.850E-02
ANH-511	1.778E-01	6.893E-02	2.352E-02	3.517E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.539E-01	3.295E-01	2.918E-01	1.681E-01	NOT IDENT.
NA-22	1.750E-02	4.571E-02	3.985E-02	2.332E-02	NOT IDENT.
NA-24	1.788E+05	8.482E+05	0.000E+00	4.328E+05	SHORT HLIF
AL-26	-1.640E-02	2.355E-02	1.554E-02	1.201E-02	NOT IDENT.
TI-44	3.933E-01	4.983E-02	2.409E-02	2.542E-02	FAIL ABUN
SC-46	-5.024E-02	4.170E-02	3.015E-02	2.127E-02	FAIL ABUN
V-48	-6.545E-03	6.651E-02	5.421E-02	3.393E-02	NOT IDENT.
CR-51	-3.307E-01	3.431E-01	2.822E-01	1.751E-01	NOT IDENT.
MN-52	1.056E-01	2.181E-01	1.945E-01	1.113E-01	NOT IDENT.
MN-54	9.325E-03	4.409E-02	3.763E-02	2.249E-02	NOT IDENT.
CO-56	-2.957E-03	3.611E-02	3.002E-02	1.842E-02	FAIL ABUN
CO-57	-5.070E-03	1.768E-02	1.547E-02	9.022E-03	NOT IDENT.
CO-58	-4.869E-02	4.255E-02	3.177E-02	2.171E-02	NOT IDENT.
FE-59	1.653E-02	1.006E-01	8.707E-02	5.135E-02	NOT IDENT.
CO-60	-9.293E-04	4.285E-02	3.511E-02	2.186E-02	NOT IDENT.
ZN-65	-5.779E-02	9.875E-02	6.600E-02	5.038E-02	NOT IDENT.
GE-68	5.738E-01	1.200E+00	1.073E+00	6.120E-01	NOT IDENT.
AS-73	1.390E-01	1.658E-01	1.461E-01	8.459E-02	NOT IDENT.
AS-74	3.662E-02	9.140E-02	7.778E-02	4.664E-02	NOT IDENT.
SE-75	2.293E-02	4.127E-02	3.375E-02	2.105E-02	NOT IDENT.
BR-77	-5.596E+00	1.003E+01	7.941E+00	5.115E+00	FAIL ABUN
SR-82	-1.355E-01	3.708E-01	2.937E-01	1.892E-01	NOT IDENT.
RB-83	-3.847E-02	6.437E-02	5.073E-02	3.284E-02	NOT IDENT.
RB-84	-1.033E-02	7.659E-02	6.313E-02	3.908E-02	NOT IDENT.
KR-85	4.944E+00	8.054E+00	6.235E+00	4.109E+00	NOT IDENT.
SR-85	2.536E-02	4.131E-02	3.198E-02	2.108E-02	NOT IDENT.
RB-86	-1.088E-01	7.682E-01	6.473E-01	3.919E-01	NOT IDENT.
Y-88	-2.199E-02	3.459E-02	2.478E-02	1.765E-02	NOT IDENT.
ZR-88	-1.441E-02	2.804E-02	2.320E-02	1.430E-02	NOT IDENT.
Y-91	-1.645E+01	1.772E+01	1.379E+01	9.043E+00	NOT IDENT.
NB-94	-1.289E-02	3.432E-02	2.847E-02	1.751E-02	NOT IDENT.
NB-95	3.733E-02	5.254E-02	4.146E-02	2.680E-02	NOT IDENT.
NB-95M	-2.859E-02	1.166E-01	8.544E-02	5.949E-02	NOT IDENT.
ZR-95	-5.317E-02	7.936E-02	6.328E-02	4.049E-02	NOT IDENT.
NB-97	1.501E+04	1.139E+05	0.000E+00	5.813E+04	SHORT HLIF
ZR-97	1.551E+06	2.024E+06	0.000E+00	1.033E+06	SHORT HLIF
MO-99	-4.498E+00	1.095E+01	8.934E+00	5.588E+00	NOT IDENT.
TC-99M	2.623E+15	3.296E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.896E-03	2.888E-02	2.395E-02	1.473E-02	NOT IDENT.
RH-102	2.470E-02	2.959E-02	2.634E-02	1.510E-02	NOT IDENT.
RU-103	-2.456E-02	3.720E-02	2.922E-02	1.898E-02	FAIL ABUN
RH-106	4.658E-02	3.158E-01	2.766E-01	1.611E-01	FAIL ABUN
RU-106	4.658E-02	3.158E-01	2.766E-01	1.611E-01	FAIL ABUN
AG-108M	1.001E-02	3.079E-02	2.678E-02	1.571E-02	NOT IDENT.
AG-110M	-3.804E-04	3.971E-02	2.972E-02	2.026E-02	NOT IDENT.
IN-111	4.337E-01	9.739E-01	7.500E-01	4.969E-01	NOT IDENT.
IN-113M	-1.762E-02	4.087E-02	3.405E-02	2.085E-02	NOT IDENT.
SN-113	-1.762E-02	4.087E-02	3.405E-02	2.085E-02	NOT IDENT.
IN-114M	-9.681E-02	1.633E-01	1.193E-01	8.331E-02	NOT IDENT.
CD-115	4.694E+00	1.122E+01	9.652E+00	5.723E+00	NOT IDENT.
SN-117M	2.598E-03	4.419E-02	3.848E-02	2.255E-02	NOT IDENT.
SB-122	2.241E+00	2.273E+00	2.011E+00	1.160E+00	NOT IDENT.
I-123	6.933E+05	4.828E+06	0.000E+00	2.463E+06	SHORT HLIF
TE-123M	3.251E-03	2.264E-02	1.978E-02	1.155E-02	NOT IDENT.
I-124	2.956E-01	7.893E-01	6.189E-01	4.027E-01	NOT IDENT.
SB-124	3.749E-02	7.622E-02	6.995E-02	3.889E-02	FAIL ABUN
SB-125	6.712E-02	8.630E-02	7.729E-02	4.403E-02	FAIL ABUN
TE-125M	3.835E+00	6.177E+00	5.644E+00	3.152E+00	NOT IDENT.
I-126	1.972E-01	2.048E-01	1.685E-01	1.045E-01	NOT IDENT.
SB-126	-7.172E-02	1.528E-01	1.164E-01	7.798E-02	FAIL ABUN
SB-127	7.947E-02	1.307E+00	1.127E+00	6.671E-01	NOT IDENT.
XE-127	-4.544E-02	4.053E-02	3.227E-02	2.068E-02	NOT IDENT.
I-131	-1.007E-02	1.037E-01	8.915E-02	5.293E-02	NOT IDENT.
TE-132	9.059E-02	6.192E-01	5.245E-01	3.159E-01	NOT IDENT.
BA-133	4.993E-02	4.304E-02	3.570E-02	2.196E-02	FAIL ABUN
I-133	2.113E+03	6.300E+03	0.000E+00	3.215E+03	SHORT HLIF
CS-134	1.585E-01	7.543E-02	5.139E-02	3.849E-02	FAIL ABUN
CS-135	8.973E-02	1.619E-01	1.241E-01	8.261E-02	NOT IDENT.
I-135	-6.294E+15	6.035E+15	0.000E+00	3.079E+15	SHORT HLIF
CS-136	-2.202E-02	9.857E-02	8.249E-02	5.029E-02	FAIL ABUN
CE-139	3.387E-03	2.389E-02	2.080E-02	1.219E-02	NOT IDENT.
BA-140	-6.441E-02	2.662E-01	2.135E-01	1.358E-01	NOT IDENT.
LA-140	2.007E-03	1.024E-01	8.722E-02	5.223E-02	FAIL ABUN
CE-141	-4.009E-03	5.011E-02	4.367E-02	2.557E-02	NOT IDENT.

CE-143	4.848E+02	1.775E+02	0.000E+00	9.057E+01	SHORT HLIF
CE-144	-1.476E+01	1.598E-01	1.263E-01	8.154E-02	NOT IDENT.
PM-144	-9.641E+03	3.428E-02	2.868E-02	1.749E-02	NOT IDENT.
PR-144	-6.533E+01	2.323E+00	1.943E+00	1.185E+00	NOT IDENT.
PM-146	3.436E-02	4.373E-02	3.889E-02	2.231E-02	NOT IDENT.
ND-147	4.557E-01	5.637E-01	4.964E-01	2.876E-01	FAIL ABUN
PM-149	-8.425E+01	8.956E+01	6.822E+01	4.569E+01	NOT IDENT.
EU-152	2.424E-02	9.475E-02	7.418E-02	4.834E-02	FAIL ABUN
GD-153	-6.808E-02	5.208E-02	4.344E-02	2.657E-02	FAIL ABUN
EU-154	7.413E-02	1.246E-01	1.109E-01	6.358E-02	NOT IDENT.
EU-155	7.029E-02	7.327E-02	6.768E-02	3.738E-02	FAIL ABUN
TB-160	5.247E-02	1.464E-01	1.265E-01	7.471E-02	FAIL ABUN
HO-166M	7.154E-03	6.230E-02	5.371E-02	3.179E-02	NOT IDENT.
TM-171	3.183E+00	1.168E+01	9.113E+00	5.961E+00	NOT IDENT.
LU-176	2.777E-03	2.124E-02	1.880E-02	1.084E-02	FAIL ABUN
LU-177	3.120E+00	1.227E+00	9.087E-01	6.259E-01	FAIL ABUN
LU-177M	-1.135E-01	1.914E-01	1.351E-01	9.765E-02	FAIL ABUN
HF-181	7.508E-03	4.078E-02	3.480E-02	2.081E-02	NOT IDENT.
W-181	2.737E-02	1.443E-01	1.123E-01	7.364E-02	NOT IDENT.
TA-182	-1.959E-01	1.988E-01	1.512E-01	1.014E-01	FAIL ABUN
RE-183	-3.291E-02	9.066E-02	7.643E-02	4.626E-02	FAIL ABUN
RE-184	-1.090E-01	2.188E-01	1.766E-01	1.116E-01	NOT IDENT.
OS-185	-6.949E-03	4.246E-02	3.616E-02	2.166E-02	NOT IDENT.
RE-188	4.868E-02	1.397E-01	1.233E-01	7.129E-02	NOT IDENT.
W-188	-4.992E-01	6.955E+00	5.398E+00	3.548E+00	FAIL ABUN
IR-192	3.847E-02	3.189E-02	2.951E-02	1.627E-02	FAIL ABUN
AU-195	2.271E-01	1.507E-01	1.390E-01	7.690E-02	FAIL ABUN
TL-200	-1.263E+02	4.123E+02	0.000E+00	2.104E+02	SHORT HLIF
TL-201	-2.639E+00	5.776E+00	4.881E+00	2.947E+00	NOT IDENT.
TL-202	7.523E-02	6.897E-02	6.257E-02	3.519E-02	NOT IDENT.
BI-207	4.943E-02	5.444E-02	5.023E-02	2.777E-02	FAIL ABUN
TL-207	2.762E-01	6.483E-01	5.156E-01	3.307E-01	FAIL ABUN
PO-209	-6.635E-01	7.009E+00	5.780E+00	3.576E+00	NOT IDENT.
PB-211	-9.394E-02	1.053E+00	7.845E-01	5.374E-01	NOT IDENT.
BI-212	1.356E+00	4.955E-01	3.837E-01	2.528E-01	FAIL ABUN
PO-215	2.762E-01	6.483E-01	5.156E-01	3.307E-01	FAIL ABUN
RN-219	1.038E-02	4.220E-01	3.621E-01	2.153E-01	FAIL ABUN
RN-220	-3.970E+00	2.449E+01	2.002E+01	1.249E+01	NOT IDENT.
RA-223	2.762E-01	6.483E-01	5.156E-01	3.307E-01	FAIL ABUN
AC-227	-2.456E-01	3.695E-01	2.937E-01	1.885E-01	FAIL ABUN
TH-227	-2.456E-01	3.703E-01	2.937E-01	1.889E-01	FAIL ABUN
TH-229	5.035E-01	4.371E-01	3.914E-01	2.230E-01	FAIL ABUN
PA-231	6.272E-01	1.404E+00	1.187E+00	7.165E-01	FAIL ABUN
TH-231	2.762E-01	6.483E-01	5.156E-01	3.307E-01	FAIL ABUN
U-231	-4.068E-01	7.268E-01	5.742E-01	3.708E-01	FAIL ABUN
PA-233	-2.798E-02	5.483E-02	4.657E-02	2.797E-02	FAIL ABUN
PA-234	-1.361E-01	3.274E-01	2.589E-01	1.670E-01	FAIL ABUN
PA-234M	1.919E+00	5.040E+00	4.252E+00	2.571E+00	NOT IDENT.
U-235	8.008E-02	1.734E-01	1.512E-01	8.849E-02	FAIL ABUN
NP-236	-1.219E-02	6.303E-02	5.417E-02	3.216E-02	NOT IDENT.
NP-239	-9.838E-03	1.328E-01	1.178E-01	6.776E-02	FAIL ABUN
AM-241	3.383E-03	4.967E-02	3.885E-02	2.534E-02	NOT IDENT.
CM-243	6.517E-03	6.334E-02	5.708E-02	3.231E-02	FAIL ABUN
AM-246	6.579E-02	1.386E-01	1.238E-01	7.071E-02	NOT IDENT.
CM-247	-1.467E-02	3.948E-02	3.184E-02	2.014E-02	FAIL ABUN
CF-249	2.379E-02	3.911E-02	3.443E-02	1.996E-02	NOT IDENT.
CF-251	-3.839E-03	1.028E-01	8.825E-02	5.243E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	197.0932
46.50	197.0932
46.50	197.0932
48.70	228.1226
49.72	208.9774
51.35	246.0228
52.39	249.3028
52.97	249.9125
53.15	246.8104
53.44	248.2083
54.07	231.2400
56.28	281.1062
56.28	281.1100
57.37	0.0000
57.53	292.5642
57.53	292.5662
57.60	264.7210
57.98	272.9474
57.98	272.9474
59.32	338.8483
59.32	338.8483
59.40	328.4554
59.54	328.6326
59.72	318.3494
60.01	329.2274
61.10	344.1825
61.14	326.1171
61.30	326.3148
63.00	334.0958
63.29	334.4540
63.29	334.4540
63.58	334.8106
64.28	335.6696
65.12	327.8840
65.20	327.9792
65.20	327.9792
66.05	355.1169
66.72	322.0595
66.83	356.1039
66.91	356.2025
67.20	353.4820
67.20	353.4820
67.75	368.0836
67.85	360.4788
68.90	388.9727
68.90	388.9727
69.30	418.6681
69.67	420.3726
70.82	422.0233
70.82	422.0233
70.83	422.0370
72.80	411.8574
72.87	411.9532
72.87	411.9532
74.67	414.4029
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74.81	414.5919
74.81	414.5919
74.81	414.5919
74.81	414.5919
74.81	414.5919
74.81	414.5919
74.97	414.8076
75.28	415.2256
75.70	415.7928
77.11	417.6779
77.11	417.6779

77.11	417.6779
77.11	417.6779
77.11	417.6779
77.11	417.6779
77.11	417.6779
78.38	379.7077
79.62	360.2744
79.80	362.0865
79.80	362.0865
80.11	362.4344
80.18	362.5122
80.30	331.2178
80.30	331.2178
80.57	331.4938
81.00	363.4300
81.07	363.5078
81.07	363.5078
81.07	363.5078
81.07	363.5078
82.60	342.4844
83.37	312.3652
83.78	312.7520
83.78	312.7520
83.78	312.7520
83.78	312.7520
84.21	313.1543
84.90	313.7988
85.43	314.2910
86.29	315.0859
86.50	315.2793
86.54	315.3164
86.59	315.3633
86.72	315.4824
86.79	315.5449
86.94	315.6855
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.30	316.0156
87.57	316.2637
87.88	316.5469
88.03	316.6836
88.36	316.9844
88.47	317.0859
89.95	318.4297
91.11	174.7127
92.29	292.9847
92.38	293.0588
92.38	293.0588
93.35	285.0558
94.00	252.8587
94.67	250.7996
94.67	250.8027
94.90	253.4828
94.90	253.4828
94.90	253.4828
94.90	253.4828
95.87	288.2911
95.87	288.2911
96.73	315.5776
97.43	300.5063
98.44	229.1693
98.44	229.1693
98.88	221.7879
99.55	223.8833
99.55	223.8833
99.86	258.1436
100.00	258.2377
100.10	258.3086
103.18	268.9653
103.76	243.5471
105.00	233.0901
105.31	235.0006
108.00	247.0194
109.28	219.8771

111.00	262.8571
111.00	262.8571
111.76	247.5389
112.95	226.2371
115.19	229.2110
116.30	223.5967
117.00	225.7382
117.00	225.7382
117.66	252.7873
121.11	205.4464
121.62	200.2937
121.78	206.6558
122.06	213.9782
122.32	231.1952
122.32	231.1952
122.32	231.1952
122.32	231.1952
123.07	232.4845
127.23	227.8062
129.76	235.9121
131.20	187.1100
133.02	229.2632
133.54	236.7035
135.34	197.0701
136.00	201.9711
136.25	211.3448
136.48	217.9363
140.51	234.6946
140.51	0.0000
142.18	254.2444
142.65	215.0439
143.76	231.5159
144.24	247.7504
144.24	247.7504
144.24	247.7504
144.24	247.7504
145.22	241.6224
145.44	246.4478
147.16	220.7484
152.43	217.2461
152.70	208.7393
153.22	220.4447
154.21	225.6554
154.21	225.6554
154.21	225.6554
154.21	225.6554
155.03	228.8871
156.02	243.7606
158.56	217.8017
159.00	0.0000
159.00	211.1942
160.31	214.6131
161.27	229.5781
162.32	220.2663
162.64	199.9138
163.35	189.4275
163.89	197.4300
165.85	206.9454
167.43	224.2427
171.28	200.9949
171.86	195.2485
172.10	205.2438
176.55	200.8078
176.60	200.8242
181.06	193.2617
184.41	211.0240
185.71	199.8056
186.00	199.8978
190.27	199.2252
192.34	204.1808
193.63	185.9013
197.04	252.9678
198.01	209.9158
198.60	174.9139
200.40	183.6980
201.83	230.9022
202.84	228.1295
205.31	180.3561

208.36	212.6802
208.81	192.3283
209.75	179.9637
209.75	179.9637
210.97	161.3080
215.65	168.7709
216.55	164.7380
218.09	199.1840
222.10	182.1027
223.80	204.0088
226.40	184.2689
227.00	195.2069
227.08	195.2290
227.20	181.2361
228.16	182.5538
228.18	182.5590
228.18	182.5590
231.56	0.0000
235.69	188.2402
236.00	188.3174
236.00	188.3174
238.63	391.0970
238.63	391.0970
238.63	391.0970
238.63	391.0970
239.00	223.5919
240.98	224.1750
241.98	171.6517
241.98	171.6517
241.98	171.6517
244.69	145.7554
245.39	130.9667
247.94	154.1282
248.90	133.2227
249.79	147.8229
252.40	170.6137
252.85	177.4064
252.85	177.4064
254.15	0.0000
256.20	188.2344
256.20	188.2344
260.50	159.9522
260.90	171.3000
262.80	144.5885
264.65	134.4984
268.24	151.7954
268.79	148.4825
269.46	154.8649
269.46	154.8649
269.46	154.8649
269.46	154.8649
271.23	150.6270
273.65	175.0915
276.40	156.7145
277.35	162.0588
277.60	162.1075
277.60	162.1075
278.00	156.4310
278.60	132.9453
279.20	141.6757
279.53	143.4592
280.46	145.3440
281.68	131.6873
283.67	130.8287
284.30	154.0951
285.00	148.4219
285.90	163.6624
286.10	163.6996
286.10	163.6996
287.40	111.6211
288.45	0.0000
290.67	135.8403
290.80	148.4647
291.72	145.8133
293.26	0.0000
293.70	111.0070
295.21	129.4918
295.21	129.4918

295.21	129.4918
295.96	129.5996
296.50	109.2379
297.23	109.3268
298.57	109.4877
299.80	132.9769
299.80	132.9769
300.09	133.0182
300.09	133.0182
300.09	133.0182
300.09	133.0182
300.12	133.0228
301.29	130.3588
302.84	133.4176
303.76	134.9714
303.91	134.9923
304.40	119.4252
304.40	119.4252
304.84	126.5947
306.84	122.0553
308.46	118.6987
311.98	127.2054
316.51	114.3109
318.01	126.2106
319.02	154.3190
319.41	157.0901
320.08	149.9714
323.87	116.0938
323.87	116.0938
323.87	116.0938
323.87	116.0938
325.23	129.3346
328.77	123.9659
333.44	106.2348
334.20	131.9788
334.20	131.9788
334.30	131.9919
338.28	116.8708
338.28	116.8708
338.28	116.8708
338.28	116.8708
338.32	116.8746
338.32	116.8746
338.32	116.8746
340.50	125.4269
340.57	125.4352
344.27	105.1566
345.85	129.0514
350.59	0.0000
351.07	108.0862
351.92	108.1747
351.92	108.1747
351.92	108.1747
355.39	0.0000
356.01	89.8726
364.48	104.7451
366.43	99.2626
367.43	95.5690
367.94	0.0000
369.80	96.7254
374.96	106.7107
383.85	112.3690
387.95	99.2830
388.63	104.1652
391.69	108.3137
391.69	108.3137
392.90	107.4601
398.62	125.5061
400.65	102.3340
401.10	130.6488
401.81	124.8750
402.60	132.7689
404.84	118.9393
410.95	78.6548
411.60	96.0110
413.65	111.9411
414.70	97.3117
415.30	102.6226

415.76	89.8295
417.63	0.0000
418.52	99.9289
423.70	102.3430
427.08	87.6804
427.89	81.7560
432.53	92.0716
433.93	86.1627
439.47	73.4623
439.56	83.5319
439.89	83.5535
443.98	105.0331
444.90	90.9599
445.03	85.9157
445.03	85.9157
445.03	85.9157
445.03	85.9157
453.90	86.5110
463.38	95.1364
468.07	77.6027
473.00	110.4907
475.06	81.7026
475.35	81.7207
476.78	81.8075
477.59	83.9280
477.96	92.2430
482.03	79.0059
484.57	72.9031
487.03	79.2946
490.36	0.0000
492.35	57.6058
497.08	77.7691
507.63	0.0000
510.53	0.0000
510.84	82.7732
511.00	82.7828
511.85	82.8316
511.85	82.8316
513.99	88.4857
513.99	88.4857
520.41	75.8470
520.65	77.9947
527.90	76.2349
528.96	0.0000
529.64	77.4009
529.87	0.0000
531.02	66.7113
537.32	77.8008
543.00	72.6719
546.56	0.0000
549.76	67.5495
552.65	65.4932
555.20	65.6030
563.23	65.9436
563.90	76.9684
568.70	87.1295
569.32	62.8900
569.50	62.8987
569.67	62.9056
573.80	79.6663
574.00	79.6772
574.64	89.6740
578.91	78.1473
579.30	0.0000
583.14	74.5694
585.48	57.0672
591.81	71.6152
592.07	71.6250
593.00	68.3067
595.88	66.1841
600.56	82.1228
602.52	0.0000
602.71	85.6090
602.71	85.6090
603.60	84.1527
604.41	87.2006
604.70	87.2171
609.31	91.9815

609.31	91.9815
609.31	91.9815
609.31	91.9815
610.33	101.0916
612.46	78.5586
614.37	78.6496
618.01	82.7598
621.84	70.1854
621.84	70.1854
631.29	84.3251
633.02	55.0488
633.10	55.0518
634.78	59.6981
635.90	64.3313
636.97	66.2098
645.85	70.2462
646.12	70.2573
656.30	66.6329
657.75	69.7888
657.90	0.0000
661.65	82.0660
661.65	82.0660
664.57	0.0000
666.33	59.2157
666.33	59.2157
675.00	58.2476
677.61	69.6207
685.20	59.5178
692.80	58.8137
695.00	66.4795
696.49	73.1857
696.49	73.1857
697.00	73.2064
697.49	68.4703
698.33	68.5020
698.50	64.7013
699.00	66.6230
702.63	78.1943
706.10	73.5598
706.58	0.0000
706.67	79.3161
709.31	68.9010
711.68	68.0272
713.82	70.9811
717.42	65.3487
720.50	63.7689
721.93	0.0000
722.20	75.4666
722.78	69.0649
722.78	69.0649
722.89	69.0684
722.95	65.8576
723.30	65.8693
724.18	72.3285
727.18	53.1241
733.00	66.1996
735.90	49.4797
739.58	56.3772
742.81	43.8124
744.21	53.5861
747.13	59.5197
751.79	55.7462
752.31	61.6296
753.82	55.8032
755.35	64.6626
756.15	76.4499
756.87	74.5175
763.93	68.8738
765.79	70.5784
766.42	72.2412
766.84	78.8262
776.49	56.0981
778.00	58.4512
778.57	65.4038
778.89	65.4151
783.80	54.6415
785.46	55.6787
792.07	51.5342

795.84	54.9570
796.30	54.9691
798.80	75.0458
801.93	73.4873
805.60	62.2376
810.29	65.3936
810.76	74.4643
815.85	56.4854
817.79	46.4402
818.51	50.4956
819.60	59.6151
826.30	67.9078
828.27	0.0000
831.60	81.2813
831.96	81.2949
834.83	78.3479
836.80	0.0000
846.75	43.9900
848.13	40.9463
856.28	0.0000
856.80	47.9564
860.37	51.4636
867.32	39.5762
867.82	44.7489
871.10	40.3321
873.19	46.5787
874.81	52.8266
875.33	0.0000
876.40	50.7908
879.36	48.7809
880.27	62.2983
880.51	60.2274
881.50	58.1752
883.24	55.1001
884.67	38.4905
889.25	64.6247
896.60	42.8708
898.02	62.7759
899.00	58.6154
903.28	43.4423
911.07	47.3434
911.07	47.3434
911.07	47.3434
919.63	42.2349
920.93	40.1449
925.00	45.5048
925.24	44.4507
926.50	45.5332
935.52	60.5834
937.48	69.1418
944.10	55.4633
946.00	57.6413
949.00	55.5750
962.29	48.3530
964.01	53.7622
966.15	36.5898
968.20	36.6197
969.11	36.6330
969.11	36.6330
969.11	36.6330
977.42	37.8352
980.50	39.6852
983.50	39.0103
989.30	32.5825
996.32	50.0969
1001.03	48.0068
1001.68	48.0187
1004.76	54.6326
1021.30	0.0000
1024.50	0.0000
1034.80	46.0510
1036.00	50.6807
1037.82	42.4156
1038.57	41.5045
1038.76	0.0000
1045.16	45.3055
1046.59	39.7806
1048.07	40.7272

1050.47	37.9837
1050.47	37.9837
1062.04	45.5906
1063.62	40.9618
1076.63	44.9004
1077.35	38.3624
1078.86	39.3186
1085.78	43.1718
1099.22	55.6390
1112.02	42.2246
1112.84	32.4902
1115.52	52.0335
1120.29	38.9547
1120.29	38.9547
1120.29	38.9547
1120.29	38.9547
1120.51	38.9580
1121.28	32.5865
1124.00	0.0000
1129.67	40.0364
1131.51	0.0000
1147.95	0.0000
1167.94	47.3252
1173.22	44.5082
1175.09	54.2181
1177.93	40.7012
1189.05	48.6348
1204.90	50.8468
1205.75	0.0000
1213.00	52.9431
1221.42	65.8686
1230.97	65.9322
1235.34	59.2529
1236.41	0.0000
1238.25	47.4473
1246.25	47.5684
1260.41	0.0000
1271.85	41.9607
1274.45	35.9956
1274.54	39.9951
1291.56	38.1979
1298.22	0.0000
1312.09	38.4391
1325.50	27.4230
1325.50	27.4230
1332.49	33.5881
1333.61	24.4355
1360.21	18.4724
1362.66	0.0000
1365.15	17.4718
1368.21	25.9219
1368.53	0.0000
1376.25	30.0488
1384.27	37.2056
1394.10	31.0938
1395.20	32.1403
1407.95	17.6897
1434.06	15.7245
1436.60	27.2748
1457.56	0.0000
1460.81	20.0669
1489.15	17.0299
1509.49	7.4916
1596.49	27.2158
1620.62	14.1635
1678.03	0.0000
1691.02	10.5688
1691.02	10.5688
1706.46	0.0000
1750.46	0.0000
1764.49	8.5550
1764.49	8.5550
1764.49	8.5550
1764.49	8.5550
1770.23	8.5663
1771.40	33.2956
1791.20	0.0000
1808.65	8.8892

1836.01 13.9136

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960004

Total Uranium Activity	5.3265E+00	ug/g
Total Uranium Counting Unc.	2.7472E+00	ug/g
Total Uranium Tpu	1.4016E-06	ug/g
Total Uranium Mda	1.0923E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID  : G245960004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 15:47:53.61    SAMPLE ALQT:  121.720 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.562E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.400E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.866E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.872E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:49:52.38

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:18
Sample ID         : G245960005           Sample quantity  : 1.27600E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.46  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948717                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.31*	94	506	0.83	126.10	122	9	1.31E-02	45.3	
2	4	74.72*	401	469	0.96	148.94	145	21	5.57E-02	9.8	1.14E+00
3	4	77.00	685	414	0.95	153.49	145	21	9.51E-02	6.1	
4	0	83.92*	94	304	1.31	167.34	165	6	1.31E-02	32.0	
5	3	87.03*	277	279	1.16	173.55	171	12	3.85E-02	11.2	1.11E+00
6	3	89.71	162	302	0.84	178.93	171	12	2.25E-02	17.9	
7	0	92.87*	306	464	1.45	185.25	182	10	4.25E-02	15.2	
8	0	128.28	145	361	1.18	256.11	252	10	2.01E-02	25.8	
9	0	185.76*	289	299	1.16	371.13	366	11	4.01E-02	13.7	
10	0	209.34	149	338	1.20	418.31	414	12	2.06E-02	26.0	
11	5	238.39*	1290	158	1.08	476.43	470	19	1.79E-01	3.2	2.56E+00
12	5	241.36	330	257	1.84	482.38	470	19	4.58E-02	13.4	
13	0	270.16	134	188	1.86	540.01	535	11	1.86E-02	21.7	
14	0	294.90*	402	125	1.15	589.51	585	8	5.59E-02	7.0	
15	0	299.54	79	198	1.60	598.78	595	10	1.10E-02	35.1	
16	0	327.54	83	132	0.79	654.80	651	9	1.15E-02	27.5	
17	0	337.86*	227	168	1.37	675.46	671	10	3.15E-02	12.7	
18	0	351.55*	733	147	1.37	702.85	697	12	1.02E-01	5.0	
19	0	408.86	36	91	1.35	817.51	814	8	5.05E-03	48.2	
20	0	462.81	112	131	1.81	925.46	919	16	1.56E-02	24.5	
21	0	510.38*	144	123	1.83	1020.63	1014	14	2.00E-02	21.0	
22	0	563.82	42	92	0.78	1127.53	1120	14	5.85E-03	51.2	
23	0	582.84*	396	112	1.35	1165.57	1158	13	5.49E-02	7.5	
24	0	608.85*	512	63	1.37	1217.63	1212	11	7.11E-02	5.5	
25	0	726.53	156	41	1.74	1453.03	1445	15	2.16E-02	12.1	
26	0	767.95	52	70	1.04	1535.90	1530	10	7.27E-03	33.2	
27	0	794.50	62	60	1.66	1589.00	1585	12	8.61E-03	28.0	
28	0	860.03	71	39	2.10	1720.07	1717	10	9.88E-03	20.7	
29	0	910.60*	257	53	1.81	1821.24	1816	15	3.57E-02	9.0	
30	0	968.28*	158	66	1.49	1936.61	1932	11	2.20E-02	13.0	
31	0	1119.67	114	56	2.26	2239.41	2229	17	1.58E-02	17.7	
32	0	1237.56	52	39	1.51	2475.18	2470	13	7.28E-03	27.5	
33	0	1377.10	25	24	1.92	2754.23	2749	9	3.48E-03	40.8	
34	0	1459.83*	786	53	1.94	2919.67	2912	19	1.09E-01	4.2	
35	0	1495.55	12	18	1.12	2991.11	2985	14	1.67E-03	79.6	
36	0	1579.68	9	15	0.58	3159.33	3147	15	1.30E-03	96.0	
37	0	1589.78	17	43	0.64	3179.53	3168	19	2.35E-03	96.0	
38	0	1619.58	19	6	1.18	3239.11	3233	11	2.57E-03	33.8	

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1763.27	75	11	1.83	3526.42	3519	15	1.04E-02	15.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:49:55

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:18
Sample ID : G245960005 Sample quantity : 127.60 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.46 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.904E+01	2.108E+00	5.779E-01	4.120E-02	32.956
CD-109	+	88.03	*	3.980E+00	9.391E-01	1.239E+00	9.482E-02	3.212
SB-122	+	563.90	*	3.371E+00	3.460E+00	3.397E+00	2.133E-01	0.992
		692.80		-1.753E+01	4.225E+01	6.738E+01	4.536E+00	-0.260
SN-126	+	64.28		8.979E-01	8.231E-01	7.517E-01	1.056E-01	1.195
	+	86.94		1.626E+00	7.616E-01	5.121E-01	2.107E-01	3.176
	+	87.57	*	3.912E-01	9.230E-02	1.224E-01	9.326E-03	3.197
TL-208		277.35		2.646E-01	3.579E-01	6.190E-01	6.483E-02	0.427
	+	510.84		7.022E-01	3.043E-01	2.213E-01	2.285E-02	3.173
	+	583.14	*	5.516E-01	9.181E-02	5.216E-02	3.731E-03	10.576
	+	860.37		9.357E-01	3.953E-01	4.851E-01	4.239E-02	1.929
BI-211		72.87		5.510E+00	3.355E+00	5.383E+00	3.611E-01	1.024
	+	351.07	*	4.428E+00	5.235E-01	3.010E-01	1.892E-02	14.711
BI-212	+	727.18	*	1.866E+00	4.779E-01	4.195E-01	3.632E-02	4.449
		785.46		2.793E-01	1.758E+00	2.918E+00	2.180E-01	0.096
	+	1620.62		1.883E+00	1.279E+00	1.355E+00	8.727E-02	1.390
PB-212	+	74.81		2.404E+00	5.476E-01	5.623E-01	6.499E-02	4.275
	+	77.11		2.323E+00	3.266E-01	3.191E-01	2.209E-02	7.281
	+	87.30		1.809E+00	4.637E-01	5.675E-01	7.128E-02	3.188
	+	238.63	*	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
	+	300.09		1.605E+00	1.134E+00	1.164E+00	9.504E-02	1.379
PO-212	+	74.81		2.404E+00	5.476E-01	5.623E-01	6.499E-02	4.275
	+	77.11		2.323E+00	3.266E-01	3.191E-01	2.209E-02	7.281
	+	87.30		1.809E+00	4.637E-01	5.675E-01	7.128E-02	3.188
		115.19		1.142E+00	3.355E+00	5.593E+00	3.548E-01	0.204
	+	238.63	*	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
	+	300.09		1.605E+00	1.134E+00	1.164E+00	9.504E-02	1.379
BI-214	+	609.31	*	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.669
	+	1120.29		1.558E+00	5.687E-01	4.539E-01	4.123E-02	3.433
	+	1764.49		1.405E+00	4.337E-01	2.542E-01	1.506E-02	5.528
PB-214	+	74.81		4.142E+00	9.136E-01	9.689E-01	9.743E-02	4.275
	+	77.11		3.983E+00	6.369E-01	5.470E-01	5.631E-02	7.281
	+	87.30		3.100E+00	7.693E-01	9.722E-01	1.052E-01	3.188
	+	241.98		2.603E+00	7.275E-01	5.340E-01	4.202E-02	4.875

Sample ID : G245960005 Acquisition date : 12-FEB-2010 15:48:18

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.432E+00	2.352E-01	1.960E-01	1.654E-02	7.306
	+	351.92	*	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
PO-214	+	74.81		4.142E+00	9.136E-01	9.689E-01	9.743E-02	4.275
	+	77.11		3.983E+00	6.369E-01	5.470E-01	5.631E-02	7.281
	+	87.30		3.100E+00	7.693E-01	9.722E-01	1.052E-01	3.188
	+	241.98		2.603E+00	7.275E-01	5.340E-01	4.202E-02	4.875
	+	295.21		1.432E+00	2.352E-01	1.960E-01	1.654E-02	7.306
	+	351.92	*	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
PO-216	+	74.81		2.404E+00	5.476E-01	5.623E-01	6.499E-02	4.275
	+	77.11		2.323E+00	3.266E-01	3.191E-01	2.209E-02	7.281
	+	87.30		1.809E+00	4.637E-01	5.675E-01	7.128E-02	3.188
	+	238.63	*	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
	+	300.09		1.605E+00	1.134E+00	1.164E+00	9.504E-02	1.379
PO-218	+	74.81		4.142E+00	9.136E-01	9.689E-01	9.743E-02	4.275
	+	77.11		3.983E+00	6.369E-01	5.470E-01	5.631E-02	7.281
	+	87.30		3.100E+00	7.693E-01	9.722E-01	1.052E-01	3.188
	+	241.98		2.603E+00	7.275E-01	5.340E-01	4.202E-02	4.875
	+	295.21		1.432E+00	2.352E-01	1.960E-01	1.654E-02	7.306
	+	351.92	*	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
RA-224	+	240.98	*	4.936E+00	1.351E+00	1.009E+00	5.566E-02	4.891
RA-226	+	609.31	*	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.669
	+	1120.29		1.558E+00	5.687E-01	4.539E-01	4.123E-02	3.433
	+	1764.49		1.405E+00	4.337E-01	2.542E-01	1.506E-02	5.528
AC-228	+	338.32		1.508E+00	7.248E-01	3.603E-01	1.468E-01	4.186
	+	911.07	*	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
	+	969.11		1.734E+00	6.030E-01	3.368E-01	7.767E-02	5.146
RA-228	+	338.32		1.508E+00	7.248E-01	3.603E-01	1.468E-01	4.186
	+	911.07	*	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
	+	969.11		1.734E+00	6.030E-01	3.368E-01	7.767E-02	5.146
TH-228	+	74.81		2.440E+00	5.078E-01	5.708E-01	3.935E-02	4.275
	+	77.11		2.359E+00	3.316E-01	3.240E-01	2.243E-02	7.281
	+	87.30		1.837E+00	4.334E-01	5.762E-01	4.379E-02	3.188
	+	238.63	*	1.722E+00	1.654E-01	9.000E-02	6.391E-03	19.135
	+	300.09		1.630E+00	1.493E+00	1.182E+00	6.964E-01	1.379
TH-230	+	609.31	*	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.668
	+	1120.29		1.558E+00	5.687E-01	4.539E-01	4.123E-02	3.433
	+	1764.49		1.405E+00	4.337E-01	2.542E-01	1.506E-02	5.528
TH-232	+	338.32		1.508E+00	3.938E-01	3.603E-01	2.041E-02	4.186
	+	911.07	*	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
	+	969.11		1.734E+00	6.030E-01	3.368E-01	7.767E-02	5.146
TH-234	+	63.29	*	2.268E+00	2.091E+00	1.998E+00	3.402E-01	1.135
	+	92.38		2.778E+00	9.730E-01	7.549E-01	1.320E-01	3.681
U-234	+	609.31	*	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.668
	+	1120.29		1.558E+00	5.687E-01	4.539E-01	4.123E-02	3.433
	+	1764.49		1.405E+00	4.337E-01	2.542E-01	1.506E-02	5.528
NP-237	+	86.50	*	1.149E+00	3.601E-01	3.361E-01	7.383E-02	3.418
		95.87		-1.754E-01	9.734E-01	1.431E+00	3.452E-01	-0.123
U-238	+	63.29	*	2.268E+00	2.091E+00	1.998E+00	3.402E-01	1.135
	+	92.38		2.778E+00	8.670E-01	7.549E-01	5.495E-02	3.681

Sample ID : G245960005 Acquisition date : 12-FEB-2010 15:48:18

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	+	74.67	*	3.897E-01	8.097E-02	9.144E-02	6.213E-03	4.262
	+	86.72		4.308E+01	1.016E+01	1.257E+01	9.499E-01	3.427
		117.66		-2.299E+00	3.586E+00	5.707E+00	3.595E-01	-0.403
		142.18		1.042E+00	1.710E+01	2.753E+01	1.558E+00	0.038
ANH-511	+	511.00	*	1.517E-01	6.449E-02	4.782E-02	2.914E-03	3.172

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-9.507E-02	3.241E-01	5.096E-01	3.507E-02	-0.187
NA-22		1274.54	*	-2.252E-02	4.829E-02	7.566E-02	4.873E-03	-0.298
NA-24		1368.53	*	-3.061E-01	4.829E-02	Half-Life too short		
AL-26		1129.67		5.727E-01	1.719E+00	2.943E+00	1.794E-01	0.195
		1808.65	*	1.292E-02	2.408E-02	4.476E-02	2.568E-03	0.289
TI-44		67.85		-6.493E-03	4.798E-02	7.182E-02	4.675E-03	-0.090
	+	78.38	*	4.287E-01	6.028E-02	7.496E-02	5.243E-03	5.719
SC-46		889.25	*	-5.407E-02	3.986E-02	5.445E-02	4.513E-03	-0.993
	+	1120.51		2.668E-01	9.577E-02	1.289E-01	8.008E-03	2.070
V-48		944.10		9.744E-01	9.228E-01	1.637E+00	1.315E-01	0.595
		983.50	*	4.152E-03	7.771E-02	1.098E-01	8.456E-03	0.038
		1312.09		1.353E-02	6.623E-02	1.117E-01	7.582E-03	0.121
CR-51		320.08	*	2.013E-01	3.727E-01	6.360E-01	4.043E-02	0.317
MN-52		744.21		2.510E-02	2.484E-01	4.120E-01	2.943E-02	0.061
		848.13		5.177E+00	7.482E+00	1.288E+01	1.026E+00	0.402
		935.52		2.012E-01	2.741E-01	4.717E-01	3.819E-02	0.427
		1246.25		-2.754E+00	6.974E+00	1.041E+01	6.416E-01	-0.264
		1333.61		-2.484E+00	4.904E+00	7.479E+00	5.223E-01	-0.332
		1434.06	*	-1.907E-01	2.389E-01	3.393E-01	2.331E-02	-0.562
MN-54		834.83	*	1.971E-02	3.953E-02	6.707E-02	5.272E-03	0.294
CO-56		846.75	*	4.073E-02	4.238E-02	7.454E-02	5.929E-03	0.546
		977.42		-9.516E-01	2.653E+00	4.070E+00	3.157E-01	-0.234
		1037.82		3.339E-01	2.807E-01	5.231E-01	4.040E-02	0.638
		1175.09		5.185E-01	2.041E+00	3.467E+00	1.911E-01	0.150
	+	1238.25		2.016E-01	1.115E-01	1.693E-01	1.090E-02	1.190
		1360.21		2.201E-02	8.819E-01	1.447E+00	1.007E-01	0.015
		1771.40		-4.280E-01	2.770E-01	3.305E-01	1.949E-02	-1.295
CO-57		122.06	*	2.456E-02	2.476E-02	4.222E-02	2.640E-03	0.582
		136.48		6.396E-02	2.027E-01	3.344E-01	2.249E-02	0.191
CO-58		810.76	*	-2.640E-02	3.860E-02	5.862E-02	4.510E-03	-0.450
FE-59		142.65		3.595E-01	2.645E+00	4.271E+00	2.413E-01	0.084
		192.34		3.668E-01	9.014E-01	1.465E+00	1.693E-01	0.250
		1099.22	*	2.805E-02	9.145E-02	1.566E-01	1.157E-02	0.179
		1291.56		-4.616E-03	1.060E-01	1.730E-01	1.393E-02	-0.027
CO-60		1173.22		4.887E-03	4.328E-02	7.245E-02	3.982E-03	0.067
		1332.49	*	-1.876E-02	3.924E-02	6.024E-02	4.208E-03	-0.311
ZN-65		1115.52	*	2.191E-02	1.059E-01	1.557E-01	9.796E-03	0.141
GE-68		1077.35	*	7.129E-01	1.256E+00	2.204E+00	1.486E-01	0.324
AS-73		53.44	*	-3.748E-01	7.758E-01	1.271E+00	8.205E-02	-0.295

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-74		595.88	*	-4.266E-02	8.466E-02	1.358E-01	8.646E-03	-0.314
		634.78		1.163E-01	3.402E-01	5.823E-01	3.752E-02	0.200
SE-75		66.05		-4.283E+00	5.027E+00	7.255E+00	6.334E-01	-0.590
		96.73		-5.294E-01	8.086E-01	1.153E+00	1.460E-01	-0.459
		121.11		2.444E-02	1.325E-01	2.189E-01	2.084E-02	0.112
		136.00		3.317E-02	3.758E-02	6.351E-02	3.750E-03	0.522
		198.60		2.663E-01	1.798E+00	2.841E+00	1.909E-01	0.094
		264.65	*	7.693E-03	4.409E-02	6.610E-02	3.747E-03	0.116
		279.53		-4.757E-02	1.055E-01	1.724E-01	1.056E-02	-0.276
		303.91		-1.107E-01	2.207E+00	3.215E+00	3.045E-01	-0.034
		400.65		-8.763E-03	2.465E-01	4.012E-01	3.585E-02	-0.022
BR-77	+	87.88		8.705E+02	2.054E+02	3.591E+02	2.745E+01	2.424
		200.40		1.456E+02	1.598E+02	2.655E+02	1.408E+01	0.548
	+	239.00		2.757E+02	2.341E+01	3.947E+01	2.174E+00	6.986
		249.79		6.287E+01	5.957E+01	1.056E+02	5.862E+00	0.596
		281.68		8.443E+00	8.755E+01	1.471E+02	8.313E+00	0.057
		297.23		1.228E+02	7.424E+01	9.533E+01	5.411E+00	1.288
		303.76		-5.549E+00	1.904E+02	2.780E+02	1.579E+01	-0.020
		439.47		3.454E+01	1.494E+02	2.461E+02	1.417E+01	0.140
		484.57		-2.053E+02	2.230E+02	3.294E+02	1.971E+01	-0.623
		520.65	*	6.858E+00	1.057E+01	1.779E+01	1.091E+00	0.385
		574.64		3.918E+01	2.297E+02	3.681E+02	2.323E+01	0.106
		578.91		-1.649E+01	9.608E+01	1.377E+02	8.705E+00	-0.120
		585.48		4.993E+02	2.178E+02	3.743E+02	2.373E+01	1.334
		755.35		1.075E+02	1.605E+02	2.753E+02	1.991E+01	0.391
		817.79		4.176E+01	1.376E+02	2.308E+02	1.784E+01	0.181
SR-82		698.33		2.649E+01	3.724E+01	6.208E+01	4.207E+00	0.427
		776.49	*	-5.148E-01	4.005E-01	5.763E-01	4.264E-02	-0.893
		1395.20		-6.729E+00	1.075E+01	1.585E+01	1.098E+00	-0.424
RB-83		520.41	*	3.731E-02	6.942E-02	1.159E-01	7.104E-03	0.322
		529.64		6.879E-03	9.797E-02	1.574E-01	9.707E-03	0.044
		552.65		8.215E-03	1.853E-01	3.128E-01	1.954E-02	0.026
RB-84		881.50	*	-8.872E-03	7.230E-02	1.158E-01	9.525E-03	-0.077
KR-85		513.99	*	9.421E+00	8.206E+00	1.274E+01	7.780E-01	0.739
SR-85		513.99	*	4.832E-02	4.209E-02	6.535E-02	3.991E-03	0.739
RB-86		1076.63	*	7.542E-02	8.249E-01	1.387E+00	9.366E-02	0.054
Y-88		898.02		-3.882E-02	4.506E-02	6.432E-02	5.403E-03	-0.604
		1836.01	*	-2.846E-02	3.615E-02	5.030E-02	2.832E-03	-0.566
ZR-88		392.90	*	-4.154E-03	3.004E-02	4.862E-02	2.667E-03	-0.085
Y-91		1204.90	*	-1.128E+00	1.935E+01	3.180E+01	1.839E+00	-0.035
NB-94		702.63	*	-3.276E-04	3.338E-02	5.510E-02	3.753E-03	-0.006
		871.10		-2.060E-02	3.591E-02	5.487E-02	4.470E-03	-0.375
NB-95		765.79	*	1.054E-01	5.428E-02	9.122E-02	6.673E-03	1.155
NB-95M		235.69	*	1.600E-01	1.327E-01	2.110E-01	1.539E-02	0.758
ZR-95		724.18		1.708E-01	1.137E-01	1.864E-01	1.469E-02	0.916
		756.15	*	3.849E-02	6.902E-02	1.172E-01	9.683E-03	0.328
NB-97		657.90	*	3.805E-02	6.902E-02	Half-Life too short		
		1024.50		5.025E-01	6.902E-02	Half-Life too short		
ZR-97		254.15		-2.446E+00	6.902E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		355.39		-3.583E+00	6.902E-02	Half-Life too short		
		507.63	*	3.315E+00	6.902E-02	Half-Life too short		
		602.52		6.131E+00	6.902E-02	Half-Life too short		
		1021.30		-8.802E-02	6.902E-02	Half-Life too short		
		1147.95		7.185E+00	6.902E-02	Half-Life too short		
		1362.66		-2.040E+00	6.902E-02	Half-Life too short		
		1750.46		3.698E+00	6.902E-02	Half-Life too short		
MO-99		140.51		-2.629E+01	2.716E+01	3.962E+01	1.067E+01	-0.664
		181.06		-1.041E+01	1.862E+01	2.539E+01	4.302E+00	-0.410
		366.43		2.875E+01	8.199E+01	1.377E+02	7.701E+00	0.209
		739.58	*	-5.653E+00	1.184E+01	1.860E+01	2.675E+00	-0.304
		778.00		-1.780E+01	3.327E+01	5.167E+01	3.830E+00	-0.344
TC-99M		140.51	*	-4.242E+10	3.327E+01	Half-Life too short		
RH-101	+	127.23		9.529E-02	4.953E-02	5.280E-02	3.204E-03	1.805
		198.01	*	4.853E-03	3.307E-02	5.226E-02	2.765E-03	0.093
		325.23		6.375E-02	2.489E-01	3.693E-01	2.098E-02	0.173
RH-102		418.52		-1.551E-02	2.803E-01	4.541E-01	2.562E-02	-0.034
		475.06	*	1.598E-02	2.851E-02	4.792E-02	2.846E-03	0.333
		631.29		-1.308E-02	5.286E-02	8.628E-02	5.555E-03	-0.152
		697.49		4.277E-02	7.860E-02	1.353E-01	9.156E-03	0.316
	+	766.84		2.310E-01	1.545E-01	2.297E-01	1.682E-02	1.005
		1046.59		-3.050E-02	1.044E-01	1.692E-01	1.199E-02	-0.180
		1112.84		-3.187E-02	2.619E-01	3.688E-01	2.328E-02	-0.086
RU-103		497.08	*	2.284E-03	3.995E-02	6.409E-02	8.175E-03	0.036
	+	610.33		1.456E+01	2.786E+00	3.095E+00	4.845E-01	4.703
RH-106	+	511.85		7.577E-01	3.222E-01	4.468E-01	2.725E-02	1.696
		621.84	*	-3.474E-02	3.021E-01	4.992E-01	6.018E-02	-0.070
		1050.47		7.234E-01	2.243E+00	3.864E+00	2.722E-01	0.187
RU-106	+	511.85		7.577E-01	3.222E-01	4.468E-01	2.724E-02	1.696
		621.84	*	-3.474E-02	3.021E-01	4.992E-01	3.205E-02	-0.070
		1050.47		7.234E-01	2.243E+00	3.864E+00	2.722E-01	0.187
AG-108M		433.93	*	-2.786E-02	3.182E-02	4.681E-02	2.917E-03	-0.595
		614.37		2.221E-03	4.084E-02	5.966E-02	4.090E-03	0.037
		722.95		-2.107E-03	4.580E-02	6.505E-02	4.805E-03	-0.032
AG-110M		657.75	*	9.339E-03	3.512E-02	5.952E-02	4.057E-03	0.157
		677.61		6.751E-02	3.191E-01	5.375E-01	3.721E-02	0.126
		706.67		1.077E-01	1.936E-01	3.348E-01	2.390E-02	0.322
		763.93		1.066E-01	1.891E-01	2.863E-01	2.172E-02	0.372
		884.67		1.221E-02	4.579E-02	7.637E-02	6.524E-03	0.160
		937.48		-1.542E-01	1.218E-01	1.697E-01	1.428E-02	-0.909
		1384.27		-2.854E-02	1.462E-01	2.191E-01	1.586E-02	-0.130
IN-111		171.28		5.712E-01	9.587E-01	1.584E+00	8.149E-02	0.361
		245.39	*	-5.728E-02	1.056E+00	1.566E+00	8.667E-02	-0.037
IN-113M		391.69	*	6.602E-03	4.242E-02	7.007E-02	4.125E-03	0.094
SN-113		391.69	*	6.602E-03	4.242E-02	7.007E-02	4.125E-03	0.094
IN-114M		190.27	*	1.452E-01	1.842E-01	2.755E-01	1.445E-02	0.527
CD-115		260.90		-7.401E+01	1.192E+02	1.935E+02	1.083E+01	-0.382
		492.35		-2.382E+01	3.563E+01	5.387E+01	3.241E+00	-0.442
		527.90	*	-9.617E-01	9.798E+00	1.550E+01	9.547E-01	-0.062

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SN-117M		156.02		1.580E+00	2.147E+00	3.584E+00	1.913E-01	0.441
		158.56	*	-4.849E-03	5.053E-02	8.111E-02	4.285E-03	-0.060
I-123		159.00	*	-3.145E+00	5.053E-02	Half-Life too short		
		528.96		-2.190E+02	5.053E-02	Half-Life too short		
TE-123M		159.00	*	-1.474E-02	2.636E-02	4.130E-02	2.213E-03	-0.357
I-124		602.71	*	4.735E-01	7.646E-01	1.180E+00	7.533E-02	0.401
		722.78		-6.444E-01	4.786E+00	6.721E+00	4.685E-01	-0.096
		1325.50		2.545E+01	3.321E+01	5.950E+01	4.115E+00	0.428
	+	1376.25		4.745E+01	3.888E+01	6.768E+01	4.701E+00	0.701
		1509.49		1.056E+01	1.514E+01	2.707E+01	1.821E+00	0.390
		1691.02		-6.175E-01	3.880E+00	6.277E+00	3.896E-01	-0.098
SB-124		602.71		2.735E-02	4.416E-02	6.817E-02	4.351E-03	0.401
		645.85		6.411E-02	5.150E-01	8.648E-01	6.172E-02	0.074
		709.31		-1.277E+00	2.627E+00	4.148E+00	2.847E-01	-0.308
		713.82		3.694E-01	1.546E+00	2.604E+00	2.831E-01	0.142
		722.78		-5.394E-02	4.006E-01	5.626E-01	4.051E-02	-0.096
	+	968.20		1.785E+01	4.856E+00	7.959E+00	6.237E-01	2.243
		1045.16		-7.363E-01	2.214E+00	3.570E+00	2.535E-01	-0.206
		1325.50		2.275E+00	2.970E+00	5.319E+00	3.679E-01	0.428
		1368.21		-7.406E-01	1.735E+00	2.582E+00	3.222E-01	-0.287
		1436.60		2.384E+00	3.419E+00	6.153E+00	4.224E-01	0.387
		1691.02	*	-1.219E-02	7.661E-02	1.239E-01	8.270E-03	-0.098
SB-125		427.89	*	-2.759E-02	8.993E-02	1.427E-01	8.481E-03	-0.193
	+	463.38		1.064E+00	5.264E-01	5.605E-01	3.830E-02	1.899
		600.56		5.641E-02	1.844E-01	3.116E-01	2.248E-02	0.181
		635.90		9.992E-02	2.618E-01	4.492E-01	3.302E-02	0.222
TE-125M		109.28	*	4.369E+00	8.495E+00	1.430E+01	1.233E+00	0.306
I-126		388.63		2.670E-02	2.022E-01	3.336E-01	1.832E-02	0.080
		666.33	*	6.107E-02	1.776E-01	3.026E-01	1.973E-02	0.202
		753.82		-1.207E+00	1.460E+00	2.174E+00	1.570E-01	-0.555
SB-126		223.80		1.696E-01	3.687E+00	6.266E+00	3.404E-01	0.027
		278.60		3.457E+00	2.338E+00	4.183E+00	2.361E-01	0.827
		296.50		1.051E+01	2.234E+00	3.413E+00	1.937E-01	3.080
		414.70		2.736E-02	7.360E-02	1.190E-01	6.688E-03	0.230
		415.30		1.380E+00	5.928E+00	9.808E+00	5.514E-01	0.141
		555.20		-2.823E+00	3.782E+00	5.796E+00	3.624E-01	-0.487
		573.80		4.397E-01	1.070E+00	1.846E+00	1.165E-01	0.238
		593.00		-1.202E+00	8.583E-01	1.258E+00	8.002E-02	-0.955
		656.30		2.321E+00	3.247E+00	5.695E+00	3.688E-01	0.408
		666.33		2.552E-02	7.421E-02	1.265E-01	8.244E-03	0.202
		675.00		-1.490E-01	1.995E+00	3.286E+00	2.165E-01	-0.045
		695.00		4.317E-02	7.806E-02	1.346E-01	9.085E-03	0.321
		697.00		1.823E-01	2.752E-01	4.775E-01	3.231E-02	0.382
		720.50	*	7.725E-02	1.419E-01	2.177E-01	1.514E-02	0.355
		856.80		6.023E-01	5.460E-01	8.731E-01	7.015E-02	0.690
		989.30		3.982E-01	1.125E+00	1.882E+00	1.440E-01	0.212
		1034.80		3.002E+00	8.351E+00	1.447E+01	1.043E+00	0.208
		1213.00		9.344E-01	4.581E+00	7.704E+00	4.511E-01	0.121
SB-127		61.10		1.730E+01	5.777E+01	8.973E+01	8.530E+00	0.193

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		-4.356E+00	4.399E+00	6.369E+00	2.644E+00	-0.684
		290.80		-1.643E+00	2.287E+01	3.341E+01	3.037E+00	-0.049
		411.60		1.279E+00	1.305E+01	1.878E+01	2.687E+00	0.068
		444.90		-6.936E-02	9.958E+00	1.611E+01	1.739E+00	-0.004
		473.00		-7.312E-01	1.709E+00	2.658E+00	2.991E-01	-0.275
		543.00		4.735E+00	1.605E+01	2.760E+01	3.618E+00	0.172
		603.60		1.364E-01	1.312E+01	1.909E+01	2.119E+00	0.007
		685.20	*	-1.434E-01	1.266E+00	2.075E+00	2.075E-01	-0.069
		698.50		1.208E+01	1.678E+01	2.788E+01	4.154E+00	0.433
		722.20		-1.085E+01	3.200E+01	4.367E+01	4.346E+00	-0.249
		783.80		4.697E+00	3.602E+00	6.489E+00	7.560E-01	0.724
XE-127		57.60		1.887E-02	5.578E+00	9.466E+00	5.982E-01	0.002
		145.22		1.066E-02	6.740E-01	1.094E+00	6.111E-02	0.010
		172.10		8.314E-02	1.116E-01	1.857E-01	9.559E-03	0.448
		202.84	*	-1.404E-02	4.648E-02	7.266E-02	3.864E-03	-0.193
		374.96		2.703E-02	1.879E-01	3.111E-01	1.729E-02	0.087
I-131		80.18		-7.145E+00	4.927E+00	6.841E+00	4.905E-01	-1.045
		284.30		-2.939E-01	1.456E+00	2.407E+00	1.521E-01	-0.122
		364.48	*	1.136E-02	1.114E-01	1.842E-01	1.159E-02	0.062
		636.97		-3.357E-01	1.504E+00	2.459E+00	1.741E-01	-0.137
		722.89		-6.006E-01	7.723E+00	1.093E+01	7.693E-01	-0.055
TE-132		49.72		5.332E+00	1.770E+01	3.056E+01	2.843E+00	0.174
		111.76		-9.924E+00	2.883E+01	4.620E+01	4.257E+00	-0.215
		116.30		-2.510E+01	2.671E+01	4.184E+01	3.829E+00	-0.600
		228.16	*	1.906E-01	6.411E-01	1.100E+00	1.566E-01	0.173
BA-133		53.15		-2.372E-01	3.307E+00	5.512E+00	3.564E-01	-0.043
		79.62		-1.855E+00	1.404E+00	1.937E+00	2.790E-01	-0.957
		81.00		-1.757E-01	1.065E-01	1.419E-01	2.147E-02	-1.238
		276.40		2.941E-01	3.631E-01	6.107E-01	7.874E-02	0.482
		302.84		7.409E-02	1.503E-01	2.281E-01	2.646E-02	0.325
		356.01	*	-3.949E-02	4.722E-02	6.254E-02	7.175E-03	-0.632
		383.85		-6.959E-02	2.895E-01	4.659E-01	4.996E-02	-0.149
I-133	+	510.53		1.595E+00	2.895E-01	Half-Life too short		
		529.87	*	6.271E-04	2.895E-01	Half-Life too short		
		706.58		2.295E-01	2.895E-01	Half-Life too short		
		856.28		4.292E-01	2.895E-01	Half-Life too short		
		875.33		1.470E-03	2.895E-01	Half-Life too short		
	+	1236.41		1.509E+00	2.895E-01	Half-Life too short		
		1298.22		-5.810E-02	2.895E-01	Half-Life too short		
CS-134		475.35		7.983E-01	1.857E+00	3.091E+00	1.836E-01	0.258
	+	563.23		5.817E-01	5.971E-01	6.204E-01	3.964E-02	0.938
		569.32		-1.279E-01	2.328E-01	3.209E-01	2.071E-02	-0.399
		604.70		-3.788E-02	3.975E-02	5.196E-02	3.333E-03	-0.729
	+	795.84	*	1.251E-01	7.076E-02	9.680E-02	7.381E-03	1.292
		801.93		-3.158E-02	4.378E-01	6.431E-01	4.924E-02	-0.049
		1038.57		1.621E-01	3.663E+00	6.156E+00	4.414E-01	0.026
		1167.94		6.768E-01	2.543E+00	4.313E+00	2.403E-01	0.157
		1365.15		7.191E-01	1.136E+00	2.020E+00	1.503E-01	0.356
CS-135		268.24	*	1.740E-01	1.637E-01	2.590E-01	1.948E-02	0.672

---- Non-Identified Nuclides ----

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I-135		288.45		1.780E+10	1.637E-01	Half-Life too short		
		417.63		-4.204E+10	1.637E-01	Half-Life too short		
		546.56		-3.271E+09	1.637E-01	Half-Life too short		
		836.80		2.660E+10	1.637E-01	Half-Life too short		
		1038.76		8.292E+08	1.637E-01	Half-Life too short		
		1124.00		-3.175E+10	1.637E-01	Half-Life too short		
		1131.51		1.957E+09	1.637E-01	Half-Life too short		
		1260.41	*	3.194E+09	1.637E-01	Half-Life too short		
		1457.56		8.504E+11	1.637E-01	Half-Life too short		
		1678.03		-9.748E+09	1.637E-01	Half-Life too short		
		1706.46		-1.357E+10	1.637E-01	Half-Life too short		
		1791.20		1.006E+10	1.637E-01	Half-Life too short		
CS-136		66.91		-7.742E-01	8.265E-01	1.180E+00	1.693E-01	-0.656
	+	86.29		5.117E+00	1.302E+00	2.080E+00	2.525E-01	2.460
		153.22		6.275E-01	6.193E-01	1.046E+00	7.224E-02	0.600
		163.89		-7.557E-01	1.059E+00	1.596E+00	1.078E-01	-0.474
		176.55		-3.336E-03	3.573E-01	5.722E-01	3.413E-02	-0.006
		273.65		-7.284E-01	4.914E-01	6.434E-01	4.162E-02	-1.132
		340.57		1.715E-01	1.234E-01	1.992E-01	1.202E-02	0.861
		818.51		-1.789E-02	7.828E-02	1.250E-01	9.674E-03	-0.143
		1048.07	*	-2.578E-02	9.992E-02	1.626E-01	1.221E-02	-0.159
		1235.34		6.661E-01	6.718E-01	1.061E+00	1.076E-01	0.628
BA-137M		661.65	*	-1.185E-02	3.676E-02	5.836E-02	3.783E-03	-0.203
CS-137		661.65	*	-1.252E-02	3.886E-02	6.169E-02	4.013E-03	-0.203
CE-139		165.85	*	-3.775E-04	2.819E-02	4.532E-02	2.322E-03	-0.008
BA-140		162.64		5.663E-01	7.190E-01	1.167E+00	6.989E-02	0.485
		304.84		-3.974E-01	1.356E+00	1.931E+00	5.264E-01	-0.206
		423.70		-9.874E-01	1.913E+00	2.950E+00	9.368E-01	-0.335
		537.32	*	-1.872E-02	2.356E-01	3.947E-01	1.287E-01	-0.047
LA-140	+	328.77		6.791E-01	3.754E-01	5.222E-01	3.335E-02	1.301
		432.53		-4.020E-01	1.999E+00	3.121E+00	1.977E-01	-0.129
		487.03		9.315E-02	1.285E-01	2.189E-01	1.474E-02	0.426
		751.79		-6.797E-01	1.623E+00	2.559E+00	2.119E-01	-0.266
		815.85		9.155E-02	3.371E-01	5.562E-01	4.899E-02	0.165
		867.82		1.184E+00	1.529E+00	2.532E+00	2.178E-01	0.468
		919.63		4.499E-01	2.714E+00	4.216E+00	4.351E-01	0.107
		925.24		-3.423E-01	1.064E+00	1.654E+00	1.446E-01	-0.207
		1596.49	*	4.761E-02	1.084E-01	1.684E-01	1.097E-02	0.283
CE-141		145.44	*	-1.550E-02	6.214E-02	9.964E-02	5.801E-03	-0.156
CE-143		57.37		1.317E-05	6.214E-02	Half-Life too short		
		231.56		-1.373E-03	6.214E-02	Half-Life too short		
		293.26	*	8.500E-04	6.214E-02	Half-Life too short		
	+	350.59		3.585E-02	6.214E-02	Half-Life too short		
		490.36		-2.823E-04	6.214E-02	Half-Life too short		
		664.57		1.493E-04	6.214E-02	Half-Life too short		
		721.93		-4.814E-04	6.214E-02	Half-Life too short		
CE-144		80.11		-3.262E+00	2.261E+00	3.141E+00	2.229E-01	-1.039
		133.54	*	8.788E-02	2.133E-01	3.373E-01	4.802E-02	0.261
PM-144		476.78		-3.649E-02	6.945E-02	1.072E-01	7.573E-03	-0.340

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		618.01		5.026E-03	2.976E-02	5.034E-02	3.388E-03	0.100
		696.49	*	1.714E-02	3.498E-02	6.000E-02	4.059E-03	0.286
		778.57		3.308E-01	2.122E+00	3.530E+00	2.619E-01	0.094
PR-144		696.49	*	1.162E+00	2.370E+00	4.066E+00	2.749E-01	0.286
		1489.15		1.077E+00	1.178E+01	1.674E+01	1.134E+00	0.064
PM-146		453.90	*	7.236E-02	4.285E-02	7.704E-02	6.661E-03	0.939
		633.02		6.195E-01	1.362E+00	2.319E+00	8.564E-01	0.267
		735.90		-5.584E-02	1.557E-01	2.471E-01	6.963E-02	-0.226
		747.13		4.545E-02	9.127E-02	1.562E-01	2.061E-02	0.291
ND-147	+	91.11		7.641E-01	2.805E-01	5.156E-01	4.227E-02	1.482
		319.41		2.431E+00	3.248E+00	5.608E+00	3.189E-01	0.433
		439.89		1.142E+00	6.043E+00	9.920E+00	5.718E-01	0.115
		531.02	*	1.423E-01	5.212E-01	8.524E-01	1.167E-01	0.167
PM-149		285.90	*	-3.386E+01	9.006E+01	1.472E+02	2.078E+01	-0.230
EU-152		121.78		5.896E-02	7.272E-02	1.230E-01	9.784E-03	0.479
		244.69		1.733E-01	3.214E-01	4.963E-01	2.746E-02	0.349
		344.27	*	-2.457E-02	9.255E-02	1.447E-01	9.272E-03	-0.170
		443.98		-3.180E-01	9.857E-01	1.558E+00	9.010E-02	-0.204
		778.89		7.860E-02	2.466E-01	4.162E-01	3.088E-02	0.189
		867.32		8.250E-01	9.338E-01	1.517E+00	1.231E-01	0.544
		964.01		7.417E-01	3.351E-01	5.826E-01	4.586E-02	1.273
		1085.78		-1.654E-01	3.693E-01	5.861E-01	3.893E-02	-0.282
		1112.02		2.980E-01	3.311E-01	5.349E-01	3.381E-02	0.557
		1407.95		7.965E-03	1.821E-01	2.871E-01	1.983E-02	0.028
GD-153		69.67		1.458E-02	1.645E+00	2.627E+00	1.727E-01	0.006
	+	83.37		2.428E+01	1.563E+01	2.426E+01	1.774E+00	1.001
		97.43	*	-5.340E-02	8.588E-02	1.220E-01	8.486E-03	-0.438
		103.18		-1.095E-03	9.791E-02	1.617E-01	1.081E-02	-0.007
EU-154		123.07		6.391E-02	5.203E-02	8.561E-02	8.272E-03	0.747
		247.94		-1.307E-01	3.348E-01	5.336E-01	5.010E-02	-0.245
		591.81		5.411E-01	5.406E-01	9.747E-01	9.858E-02	0.555
		723.30		1.885E-02	1.959E-01	2.831E-01	2.285E-02	0.067
		756.87		2.558E-02	7.489E-01	1.234E+00	1.360E-01	0.021
		873.19		-6.072E-02	3.134E-01	4.986E-01	5.947E-02	-0.122
		996.32		-1.502E-02	3.494E-01	5.842E-01	1.010E-01	-0.026
		1004.76		-1.323E-01	1.882E-01	2.910E-01	3.155E-02	-0.455
		1274.45	*	-6.174E-02	1.351E-01	2.117E-01	2.063E-02	-0.292
EU-155		48.70		-2.083E+00	2.255E+00	3.643E+00	2.381E-01	-0.572
		60.01		1.693E+00	4.956E+00	7.726E+00	4.855E-01	0.219
	+	86.54		4.712E-01	1.113E-01	1.950E-01	1.490E-02	2.416
		105.31	*	1.031E-01	1.006E-01	1.729E-01	1.165E-02	0.596
TB-160	+	86.79		1.259E+00	2.971E-01	5.235E-01	3.958E-02	2.405
		197.04		-8.435E-02	5.634E-01	8.773E-01	4.636E-02	-0.096
		215.65		-1.696E-01	7.980E-01	1.102E+00	5.942E-02	-0.154
	+	298.57		2.337E-01	1.644E-01	2.045E-01	1.161E-02	1.143
		879.36	*	4.065E-03	1.431E-01	2.327E-01	1.911E-02	0.017
		962.29		4.957E-01	6.343E-01	9.743E-01	7.683E-02	0.509
		966.15		1.445E+00	3.421E-01	6.122E-01	4.808E-02	2.361
		1177.93		-1.646E-01	3.335E-01	5.235E-01	2.900E-02	-0.314

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		-1.338E-01	7.492E-01	1.209E+00	7.740E-02	-0.111
HO-166M		80.57		-4.404E-01	2.886E-01	3.986E-01	2.841E-02	-1.105
	+	184.41		2.012E-01	5.599E-02	6.797E-02	3.543E-03	2.960
		280.46		-6.734E-02	8.447E-02	1.354E-01	7.650E-03	-0.497
		410.95		1.166E-02	2.743E-01	3.925E-01	2.196E-02	0.030
		711.68	*	-4.268E-02	5.865E-02	9.039E-02	6.221E-03	-0.472
		752.31		-9.255E-02	2.583E-01	4.098E-01	2.953E-02	-0.226
		810.29		-2.944E-02	5.952E-02	9.247E-02	7.090E-03	-0.318
TM-171		51.35		-1.296E+01	2.797E+01	4.676E+01	3.048E+00	-0.277
		52.39		-4.363E+00	1.463E+01	2.417E+01	1.569E+00	-0.181
		59.40		6.694E+00	2.683E+01	4.145E+01	2.599E+00	0.162
		66.72	*	-3.048E+01	2.993E+01	4.287E+01	2.775E+00	-0.711
LU-176	+	88.36		9.279E-01	2.189E-01	3.735E-01	2.846E-02	2.484
		201.83		-1.760E-02	2.891E-02	4.448E-02	2.363E-03	-0.396
		306.84	*	-1.619E-02	2.310E-02	3.677E-02	2.090E-03	-0.440
		401.10		1.597E+00	6.381E+00	1.059E+01	5.863E-01	0.151
LU-177		112.95		-4.349E-01	1.594E+00	2.562E+00	1.637E-01	-0.170
	+	208.36	*	3.497E+00	1.829E+00	1.961E+00	1.049E-01	1.784
LU-177M		52.97		7.721E-02	1.506E+00	2.523E+00	1.633E-01	0.031
		54.07		-1.734E-01	8.018E-01	1.329E+00	8.549E-02	-0.130
		61.30		5.907E-01	1.486E+00	2.319E+00	1.465E-01	0.255
		121.62		3.076E-01	3.729E-01	6.317E-01	3.944E-02	0.487
		147.16		4.364E-01	6.131E-01	1.025E+00	5.680E-02	0.426
		171.86		3.853E-01	4.518E-01	7.555E-01	3.888E-02	0.510
		218.09		5.909E-01	8.171E-01	1.342E+00	7.249E-02	0.440
	+	268.79		2.691E+00	1.179E+00	1.406E+00	7.901E-02	1.914
		319.02		9.473E-02	2.511E-01	4.252E-01	2.417E-02	0.223
		367.43		-2.860E-01	8.774E-01	1.409E+00	7.871E-02	-0.203
		413.65	*	5.985E-02	1.877E-01	2.759E-01	1.548E-02	0.217
HF-181		56.28		-1.384E-01	8.746E-01	1.476E+00	9.388E-02	-0.094
		57.53		2.947E-03	4.694E-01	7.968E-01	5.037E-02	0.004
		65.20		5.382E-01	9.532E-01	1.479E+00	9.502E-02	0.364
		133.02		6.589E-02	6.923E-02	1.063E-01	6.270E-03	0.620
		136.25		2.314E-01	4.430E-01	7.375E-01	4.285E-02	0.314
		345.85		3.291E-02	2.018E-01	2.963E-01	1.674E-02	0.111
		482.03	*	9.285E-03	4.080E-02	6.685E-02	3.992E-03	0.139
W-181		56.28		-5.410E-02	3.422E-01	5.775E-01	3.673E-02	-0.094
		57.53		1.170E-03	1.838E-01	3.120E-01	1.972E-02	0.004
		65.20	*	2.091E-01	3.703E-01	5.745E-01	3.691E-02	0.364
TA-182		67.75		-1.348E-02	1.147E-01	1.718E-01	1.117E-02	-0.078
		100.10		1.190E-02	1.666E-01	2.764E-01	1.884E-02	0.043
		152.43		7.097E-03	3.113E-01	5.039E-01	2.731E-02	0.014
		222.10		-2.563E-01	3.184E-01	5.085E-01	2.758E-02	-0.504
		1001.68		4.489E-01	1.986E+00	3.325E+00	2.506E-01	0.135
		1121.28		4.963E-01	1.944E-01	3.445E-01	2.137E-02	1.441
		1189.05		9.572E-02	2.889E-01	4.931E-01	2.780E-02	0.194
		1221.42	*	9.070E-02	1.989E-01	3.412E-01	2.024E-02	0.266
		1230.97		1.364E-02	5.100E-01	7.252E-01	4.365E-02	0.019
RE-183		57.98		-4.447E-02	1.834E-01	3.082E-01	1.944E-02	-0.144

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		3.277E-03	1.115E-01	1.704E-01	1.069E-02	0.019
		67.20		-1.194E-01	2.057E-01	3.013E-01	1.955E-02	-0.396
		162.32	*	8.494E-02	1.054E-01	1.713E-01	8.907E-03	0.496
	+	208.81		3.132E+00	1.638E+00	1.755E+00	9.390E-02	1.785
		291.72		-4.943E-01	9.806E-01	1.382E+00	7.837E-02	-0.358
RE-184		57.98		-1.638E-01	6.757E-01	1.135E+00	7.162E-02	-0.144
		59.32		1.206E-02	4.105E-01	6.272E-01	3.935E-02	0.019
		67.20		-4.397E-01	7.574E-01	1.110E+00	7.199E-02	-0.396
		161.27		-2.218E-02	3.272E-01	5.255E-01	2.744E-02	-0.042
		216.55		1.607E-01	2.496E-01	4.086E-01	2.204E-02	0.393
		252.85	*	-1.962E-01	2.126E-01	3.402E-01	1.893E-02	-0.577
		318.01		-5.190E-02	4.328E-01	7.127E-01	4.051E-02	-0.073
		792.07		2.648E+00	1.145E+00	2.025E+00	1.523E-01	1.308
		903.28		3.405E-01	1.040E+00	1.645E+00	1.369E-01	0.207
		920.93		5.705E-02	4.216E-01	6.912E-01	5.670E-02	0.083
OS-185		59.72		1.284E-01	2.941E-01	4.584E-01	2.877E-02	0.280
		61.14		4.884E-02	1.631E-01	2.533E-01	1.600E-02	0.193
		69.30		-2.397E-02	2.839E-01	4.723E-01	3.099E-02	-0.051
		592.07		9.167E-01	2.243E+00	3.881E+00	2.467E-01	0.236
		646.12	*	3.232E-03	4.444E-02	7.433E-02	4.803E-03	0.043
		717.42		-1.950E-01	8.853E-01	1.391E+00	9.640E-02	-0.140
		874.81		-3.247E-03	6.094E-01	9.881E-01	8.078E-02	-0.003
		880.27		3.436E-01	7.977E-01	1.347E+00	1.107E-01	0.255
RE-188		155.03	*	1.441E-01	1.647E-01	2.765E-01	1.482E-02	0.521
		477.96		-8.510E-01	3.092E+00	4.868E+00	2.898E-01	-0.175
		633.10		1.327E+00	2.723E+00	4.709E+00	3.033E-01	0.282
W-188	+	63.58		9.121E+01	8.283E+01	9.336E+01	5.955E+00	0.977
		227.08		9.738E+00	1.163E+01	2.043E+01	1.113E+00	0.477
		290.67	*	-2.272E+00	8.003E+00	1.150E+01	6.518E-01	-0.198
IR-192	+	295.96		1.092E+00	1.663E-01	2.876E-01	1.659E-02	3.797
		308.46		4.123E-02	8.803E-02	1.503E-01	8.644E-03	0.274
		316.51	*	-1.364E-02	3.300E-02	5.339E-02	3.051E-03	-0.256
		468.07		3.252E-02	7.284E-02	1.075E-01	7.287E-03	0.302
		604.41		-3.924E-01	5.289E-01	7.064E-01	8.237E-02	-0.555
		612.46		7.376E-01	7.040E-01	1.138E+00	9.153E-02	0.648
AU-195		65.12		7.658E-02	1.736E-01	2.679E-01	1.720E-02	0.286
		66.83		-1.011E-01	9.892E-02	1.416E-01	9.171E-03	-0.714
	+	75.70		1.261E+00	2.621E-01	4.823E-01	3.303E-02	2.615
		98.88	*	2.357E-01	2.244E-01	3.671E-01	2.524E-02	0.642
	+	129.76		8.400E+00	4.366E+00	4.914E+00	2.944E-01	1.710
TL-200		367.94	*	2.320E-05	4.366E+00	Half-Life too short		
		579.30		1.358E-03	4.366E+00	Half-Life too short		
		828.27		-6.198E-04	4.366E+00	Half-Life too short		
		1205.75		-1.523E-03	4.366E+00	Half-Life too short		
TL-201		68.90		2.282E+00	4.544E+00	7.711E+00	5.048E-01	0.296
		70.82		-1.324E+00	2.901E+00	4.291E+00	2.841E-01	-0.308
		80.30		-7.896E+00	5.397E+00	7.487E+00	5.324E-01	-1.055
		135.34		1.289E+00	2.550E+01	4.160E+01	2.428E+00	0.031
		167.43	*	2.386E+00	6.631E+00	1.085E+01	5.561E-01	0.220

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		2.037E-01	4.058E-01	6.885E-01	4.508E-02	0.296
		70.82		-1.179E-01	2.584E-01	3.822E-01	2.530E-02	-0.308
		80.30		-7.034E-01	4.808E-01	6.670E-01	4.742E-02	-1.055
		439.56	*	1.612E-02	7.161E-02	1.179E-01	6.788E-03	0.137
HG-203		70.83		-5.013E-01	1.119E+00	1.654E+00	2.057E-01	-0.303
		72.87		1.097E+00	6.767E-01	1.071E+00	1.290E-01	1.024
	+	82.60		1.806E+00	1.179E+00	1.711E+00	2.213E-01	1.055
		279.20	*	8.688E-03	3.932E-02	6.649E-02	3.999E-03	0.131
BI-207		72.80		2.711E-01	1.940E-01	3.090E-01	2.072E-02	0.877
	+	74.97		6.995E-01	1.453E-01	2.401E-01	1.635E-02	2.914
	+	84.90		3.140E-01	2.022E-01	3.158E-01	2.343E-02	0.994
		569.67		-1.155E-02	3.594E-02	5.079E-02	3.198E-03	-0.227
		1063.62	*	-1.077E-02	5.224E-02	8.550E-02	5.898E-03	-0.126
		1770.23		-2.266E+00	7.198E-01	5.706E-01	3.367E-02	-3.971
TL-207		81.07		-3.940E-01	2.291E-01	3.122E-01	2.235E-02	-1.262
	+	83.78		2.070E-01	1.333E-01	2.074E-01	1.522E-02	0.998
		94.90		2.127E-01	2.284E-01	3.558E-01	2.528E-02	0.598
		122.32		1.543E+00	1.706E+00	2.897E+00	2.051E-01	0.533
		144.24		1.348E-01	6.715E-01	1.087E+00	7.696E-02	0.124
		154.21		2.832E-01	3.781E-01	6.313E-01	4.211E-02	0.449
	+	269.46		6.299E-01	2.762E-01	3.462E-01	2.040E-02	1.819
		323.87	*	-3.446E-01	7.488E-01	1.046E+00	1.724E-01	-0.329
	+	338.28		6.297E+00	1.735E+00	2.468E+00	2.581E-01	2.551
		445.03		8.050E-02	2.297E+00	3.728E+00	3.826E-01	0.022
PO-209		260.50		-2.610E+00	8.642E+00	1.429E+01	7.990E-01	-0.183
		262.80		-1.301E+01	2.337E+01	3.801E+01	2.129E+00	-0.342
		896.60	*	-7.250E+00	8.356E+00	1.198E+01	1.000E+00	-0.605
BI-210		46.50	*	1.452E+00	3.219E+00	5.567E+00	4.193E-01	0.261
PB-210		46.50	*	1.452E+00	3.219E+00	5.567E+00	4.193E-01	0.261
PO-210		46.50	*	1.452E+00	3.218E+00	5.567E+00	3.570E-01	0.261
PB-211		404.84	*	6.613E-02	1.045E+00	1.499E+00	9.343E-01	0.044
		427.08		4.771E-01	1.975E+00	3.229E+00	1.996E+00	0.148
		831.96		-3.585E-01	1.264E+00	1.973E+00	1.235E+00	-0.182
PO-215		81.07		-3.940E-01	2.291E-01	3.122E-01	2.235E-02	-1.262
	+	83.78		2.070E-01	1.333E-01	2.074E-01	1.522E-02	0.998
		94.90		2.127E-01	2.284E-01	3.558E-01	2.528E-02	0.598
		122.32		1.543E+00	1.706E+00	2.897E+00	2.051E-01	0.533
		144.24		1.348E-01	6.715E-01	1.087E+00	7.696E-02	0.124
		154.21		2.832E-01	3.781E-01	6.313E-01	4.211E-02	0.449
	+	269.46		6.299E-01	2.762E-01	3.462E-01	2.040E-02	1.819
		323.87	*	-3.446E-01	7.488E-01	1.046E+00	1.724E-01	-0.329
	+	338.28		6.297E+00	1.735E+00	2.468E+00	2.581E-01	2.551
		445.03		8.050E-02	2.297E+00	3.728E+00	3.826E-01	0.022
RN-219	+	271.23		8.082E-01	3.570E-01	4.322E-01	3.449E-02	1.870
		401.81	*	1.502E-01	3.898E-01	6.520E-01	8.801E-02	0.230
RN-220		549.76	*	-1.304E+00	2.569E+01	4.309E+01	2.687E+00	-0.030
RA-223		81.07		-3.940E-01	2.291E-01	3.122E-01	2.235E-02	-1.262
	+	83.78		2.070E-01	1.333E-01	2.074E-01	1.522E-02	0.998
		94.90		2.127E-01	2.284E-01	3.558E-01	2.528E-02	0.598

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		1.543E+00	1.706E+00	2.897E+00	2.051E-01	0.533
		144.24		1.348E-01	6.715E-01	1.087E+00	7.696E-02	0.124
		154.21		2.832E-01	3.781E-01	6.313E-01	4.211E-02	0.449
	+	269.46		6.299E-01	2.762E-01	3.462E-01	2.040E-02	1.819
		323.87	*	-3.446E-01	7.488E-01	1.046E+00	1.724E-01	-0.329
	+	338.28		6.297E+00	1.735E+00	2.468E+00	2.581E-01	2.551
		445.03		8.050E-02	2.297E+00	3.728E+00	3.826E-01	0.022
AC-227		79.80		-2.456E+00	1.818E+00	2.442E+00	5.113E-01	-1.006
		236.00		8.163E-01	2.739E-01	4.517E-01	4.645E-02	1.807
		256.20	*	2.687E-01	3.520E-01	6.113E-01	8.479E-02	0.439
		286.10		-2.746E-01	1.483E+00	2.452E+00	2.817E-01	-0.112
	+	299.80		2.975E+00	2.142E+00	2.667E+00	4.332E-01	1.115
		304.40		1.045E+00	1.899E+00	2.891E+00	4.989E-01	0.362
		334.20		1.091E-01	2.505E+00	3.649E+00	6.674E-01	0.030
TH-227		79.80		-2.456E+00	1.820E+00	2.442E+00	5.182E-01	-1.006
	+	94.00		1.074E+01	3.979E+00	3.740E+00	7.945E-01	2.871
		236.00		8.163E-01	2.706E-01	4.517E-01	4.003E-02	1.807
		256.20	*	2.687E-01	3.529E-01	6.113E-01	1.029E-01	0.439
		286.10		-2.746E-01	1.508E+00	2.452E+00	2.456E+00	-0.112
	+	299.80		2.975E+00	2.142E+00	2.667E+00	4.332E-01	1.115
		304.40		1.045E+00	1.899E+00	2.891E+00	4.989E-01	0.362
		334.20		1.091E-01	2.505E+00	3.649E+00	6.674E-01	0.030
TH-229		85.43		4.491E-01	2.389E-01	3.251E-01	2.425E-02	1.381
	+	88.47		3.024E-01	1.105E-01	2.143E-01	1.630E-02	1.412
		100.00		5.376E-02	1.715E-01	2.876E-01	1.961E-02	0.187
		193.63	*	-1.867E-01	4.865E-01	7.591E-01	3.997E-02	-0.246
		210.97		1.027E+00	7.245E-01	1.227E+00	6.583E-02	0.837
PA-231		283.67	*	5.993E-02	1.481E+00	2.480E+00	3.403E-01	0.024
		301.29		8.757E-01	6.411E-01	1.018E+00	1.057E-01	0.860
TH-231		81.07		-3.940E-01	2.291E-01	3.122E-01	2.235E-02	-1.262
	+	83.78		2.070E-01	1.333E-01	2.074E-01	1.522E-02	0.998
		94.90		2.127E-01	2.284E-01	3.558E-01	2.528E-02	0.598
		122.32		1.543E+00	1.706E+00	2.897E+00	2.051E-01	0.533
		144.24		1.348E-01	6.715E-01	1.087E+00	7.696E-02	0.124
		154.21		2.832E-01	3.781E-01	6.313E-01	4.211E-02	0.449
	+	269.46		6.299E-01	2.762E-01	3.462E-01	2.040E-02	1.819
		323.87	*	-3.446E-01	7.488E-01	1.046E+00	1.724E-01	-0.329
	+	338.28		6.297E+00	1.735E+00	2.468E+00	2.581E-01	2.551
		445.03		8.050E-02	2.297E+00	3.728E+00	3.826E-01	0.022
U-231	+	84.21		8.977E+00	5.779E+00	8.997E+00	6.632E-01	0.998
	+	92.29		1.068E+01	3.331E+00	4.254E+00	3.099E-01	2.510
		95.87	*	-2.002E-01	1.110E+00	1.632E+00	1.150E-01	-0.123
		108.00		-1.597E+00	1.920E+00	3.042E+00	1.982E-01	-0.525
PA-233	+	75.28		2.041E+01	4.971E+00	7.318E+00	1.055E+00	2.789
	+	86.59		7.659E+00	2.655E+00	3.180E+00	8.426E-01	2.408
	+	300.12		8.293E-01	5.922E-01	7.493E-01	1.003E-01	1.107
		311.98	*	-2.279E-02	6.008E-02	9.749E-02	5.899E-03	-0.234
		340.50		9.414E-01	6.389E-01	9.850E-01	2.259E-01	0.956
		398.62		-1.511E+00	2.024E+00	3.062E+00	7.899E-01	-0.493

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		2.953E-01	1.546E+00	2.549E+00	5.234E-01	0.116
PA-234	+	63.00		2.644E+00	2.425E+00	2.761E+00	3.967E-01	0.958
		94.67		2.865E-01	1.710E-01	2.713E-01	3.096E-02	1.056
		98.44		7.690E-02	1.055E-01	1.483E-01	8.236E-02	0.519
		99.86		2.254E-01	4.408E-01	7.346E-01	5.016E-02	0.307
		111.00		-5.722E-02	1.738E-01	2.818E-01	2.998E-02	-0.203
		131.20		1.866E-03	1.151E-01	1.678E-01	9.983E-03	0.011
		152.70		-4.186E-02	3.049E-01	4.897E-01	7.673E-02	-0.085
	+	186.00		7.243E+00	2.964E+00	2.645E+00	8.053E-01	2.739
		226.40		3.169E-01	3.738E-01	6.542E-01	7.450E-02	0.484
		227.20		1.811E-01	3.979E-01	6.877E-01	3.748E-02	0.263
		248.90		2.080E-01	7.402E-01	1.263E+00	2.705E-01	0.165
	+	293.70		6.873E+00	1.467E+00	1.784E+00	2.861E-01	3.853
		369.80		-6.269E-02	8.004E-01	1.306E+00	2.712E-01	-0.048
		568.70		-5.302E-01	1.158E+00	1.611E+00	1.014E-01	-0.329
		569.50		-1.620E-01	3.231E-01	4.478E-01	2.819E-02	-0.362
		574.00		5.834E-01	1.530E+00	2.635E+00	1.662E-01	0.221
		699.00		2.563E-01	7.882E-01	1.277E+00	2.340E-01	0.201
		706.10		4.187E-01	9.953E-01	1.674E+00	7.412E-01	0.250
		733.00		2.378E-01	4.185E-01	6.349E-01	1.374E-01	0.375
		742.81		1.251E-01	1.382E+00	2.287E+00	1.533E+00	0.055
		796.30		1.737E+00	1.206E+00	1.846E+00	4.934E-01	0.941
		805.60		1.464E-01	9.787E-01	1.620E+00	4.922E-01	0.090
		819.60		-7.344E-01	1.365E+00	2.070E+00	7.832E-01	-0.355
		826.30		-1.309E-02	8.658E-01	1.409E+00	6.285E-01	-0.009
		831.60		-2.457E-01	6.482E-01	1.012E+00	2.999E-01	-0.243
		876.40		2.617E-01	9.112E-01	1.453E+00	1.494E+00	0.180
		880.51		1.907E-01	2.836E-01	4.897E-01	4.025E-02	0.389
		883.24		1.952E-01	3.045E-01	4.783E-01	3.213E-01	0.408
		899.00		-6.926E-01	9.405E-01	1.284E+00	5.606E-01	-0.539
		925.00		-4.917E-01	1.116E+00	1.710E+00	1.398E-01	-0.288
		926.50		-4.744E-02	1.691E-01	2.637E-01	6.626E-02	-0.180
		946.00	*	-1.783E-02	3.167E-01	5.073E-01	9.383E-02	-0.035
		949.00		5.924E-02	4.223E-01	6.909E-01	5.522E-02	0.086
		980.50		1.017E-01	6.614E-01	1.082E+00	8.363E-02	0.094
		1394.10		-3.160E-01	1.163E+00	1.790E+00	1.161E+00	-0.177
PA-234M		766.42		2.872E+01	2.036E+01	2.432E+01	1.229E+01	1.181
		1001.03	*	5.854E-02	4.565E+00	7.497E+00	6.785E-01	0.008
U-235	+	89.95		3.035E+00	1.428E+00	1.956E+00	5.978E-01	1.552
	+	93.35		3.340E+00	1.371E+00	1.307E+00	3.609E-01	2.557
		105.00		1.161E+00	1.044E+00	1.711E+00	5.018E-01	0.679
		143.76	*	7.207E-03	2.070E-01	3.327E-01	5.404E-02	0.022
		163.35		-6.159E-02	4.592E-01	7.131E-01	1.269E-01	-0.086
	+	185.71		2.682E-01	7.465E-02	9.822E-02	5.127E-03	2.731
		205.31		1.775E-01	5.599E-01	8.053E-01	1.436E-01	0.220
NP-236		94.67		2.195E-01	1.283E-01	2.060E-01	1.467E-02	1.066
		98.44		5.811E-02	7.305E-02	1.121E-01	7.732E-03	0.518
		111.00		-4.328E-02	1.314E-01	2.132E-01	1.371E-02	-0.203
		160.31	*	-1.664E-02	7.396E-02	1.179E-01	6.181E-03	-0.141

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.128E-01	1.489E-01	2.505E-01	1.714E-02	0.451
		117.00	*	-2.722E-01	1.816E-01	2.761E-01	1.742E-02	-0.986
	+	209.75		2.470E+00	1.292E+00	1.415E+00	7.578E-02	1.746
		228.18		3.350E-02	2.085E-01	3.558E-01	1.941E-02	0.094
		277.60		1.381E-01	1.748E-01	3.034E-01	1.712E-02	0.455
		334.30		1.211E-01	1.423E+00	2.079E+00	1.179E-01	0.058
AM-241		59.54	*	4.225E-02	1.559E-01	2.410E-01	1.713E-02	0.175
CM-243		99.55		1.161E-01	1.532E-01	2.577E-01	1.764E-02	0.451
		103.76	*	7.389E-02	9.060E-02	1.546E-01	1.030E-02	0.478
		117.00		-2.800E-01	1.868E-01	2.840E-01	1.792E-02	-0.986
	+	209.75		2.435E+00	1.273E+00	1.395E+00	7.471E-02	1.746
		228.18		3.385E-02	2.107E-01	3.595E-01	1.961E-02	0.094
		277.60		1.392E-01	1.762E-01	3.058E-01	1.726E-02	0.455
AM-246		798.80		-6.724E-02	1.588E-01	2.115E-01	1.602E-02	-0.318
		1036.00		2.754E-01	2.890E-01	5.258E-01	3.784E-02	0.524
		1062.04		4.418E-02	2.247E-01	3.822E-01	2.644E-02	0.116
		1078.86	*	9.851E-02	1.358E-01	2.422E-01	1.629E-02	0.407
CM-247		278.00		7.409E-01	7.222E-01	1.267E+00	7.148E-02	0.585
		287.40		-6.220E-01	1.220E+00	1.937E+00	1.097E-01	-0.321
		402.60	*	2.618E-02	3.598E-02	6.149E-02	3.410E-03	0.426
CF-249		252.85		-7.362E-01	7.976E-01	1.276E+00	7.102E-02	-0.577
		333.44		1.307E-02	1.982E-01	2.697E-01	1.530E-02	0.048
		387.95	*	2.294E-02	3.972E-02	6.735E-02	3.702E-03	0.341
CF-251		176.60	*	5.072E-04	1.230E-01	1.972E-01	1.019E-02	0.003
		227.00		3.039E-01	3.495E-01	6.146E-01	3.349E-02	0.494
		285.00		3.572E-01	1.658E+00	2.801E+00	1.585E-01	0.128

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005      *
* Acquisition date : 12-FEB-2010 15:48:18 Detector SN#     :               *
* Detector ID        : GAM12               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.46     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G245960005           Analyst initials: MXR1         *
* Batch Number       : 948717               Sample Quantity : 1.2760E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.904E+01	2.066E+00	5.778E-01	0.000E+00
CD-109	3.980E+00	9.203E-01	1.292E+00	0.000E+00
SB-122	3.371E+00	3.391E+00	3.447E+00	0.000E+00
SN-126	3.912E-01	9.045E-02	1.276E-01	0.000E+00
TL-208	5.516E-01	8.997E-02	5.290E-02	0.000E+00
BI-211	4.428E+00	5.131E-01	3.076E-01	0.000E+00
BI-212	1.866E+00	4.684E-01	4.240E-01	0.000E+00
PB-212	1.696E+00	1.596E-01	9.112E-02	0.000E+00
PO-212	1.696E+00	1.596E-01	9.112E-02	0.000E+00
BI-214	1.347E+00	1.816E-01	1.170E-01	0.000E+00
PB-214	1.540E+00	1.951E-01	1.072E-01	0.000E+00
PO-214	1.540E+00	1.951E-01	1.072E-01	0.000E+00
PO-216	1.696E+00	1.596E-01	9.112E-02	0.000E+00
PO-218	1.540E+00	1.951E-01	1.072E-01	0.000E+00
RA-224	4.936E+00	1.324E+00	1.037E+00	0.000E+00
RA-226	1.347E+00	1.816E-01	1.170E-01	0.000E+00
AC-228	1.600E+00	3.310E-01	2.087E-01	0.000E+00
RA-228	1.600E+00	3.310E-01	2.087E-01	0.000E+00
TH-228	1.722E+00	1.620E-01	9.251E-02	0.000E+00
TH-230	1.347E+00	1.816E-01	1.170E-01	0.000E+00
TH-232	1.600E+00	3.310E-01	2.087E-01	0.000E+00
TH-234	2.268E+00	2.049E+00	2.094E+00	0.000E+00
U-234	1.347E+00	1.816E-01	1.170E-01	0.000E+00
NP-237	1.149E+00	3.529E-01	3.506E-01	0.000E+00
U-238	2.268E+00	2.049E+00	2.094E+00	0.000E+00
AM-243	3.897E-01	7.935E-02	9.558E-02	0.000E+00
ANH-511	1.517E-01	6.320E-02	4.859E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-9.507E-02	3.176E-01	5.184E-01	0.000E+00	NOT IDENT.
NA-22	-2.252E-02	4.732E-02	7.582E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.686E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.292E-02	2.360E-02	4.461E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.907E-02	7.831E-02	0.000E+00	FAIL ABUN
SC-46	-5.407E-02	3.906E-02	5.487E-02	0.000E+00	FAIL ABUN
V-48	4.152E-03	7.616E-02	1.104E-01	0.000E+00	NOT IDENT.
CR-51	2.013E-01	3.653E-01	6.508E-01	0.000E+00	NOT IDENT.
MN-52	-1.907E-01	2.341E-01	3.394E-01	0.000E+00	NOT IDENT.
MN-54	1.971E-02	3.874E-02	6.765E-02	0.000E+00	NOT IDENT.
CO-56	4.073E-02	4.153E-02	7.516E-02	0.000E+00	FAIL ABUN
CO-57	2.456E-02	2.427E-02	4.382E-02	0.000E+00	NOT IDENT.
CO-58	-2.640E-02	3.783E-02	5.915E-02	0.000E+00	NOT IDENT.
FE-59	2.805E-02	8.962E-02	1.573E-01	0.000E+00	NOT IDENT.
CO-60	-1.876E-02	3.845E-02	6.033E-02	0.000E+00	NOT IDENT.
ZN-65	2.191E-02	1.038E-01	1.564E-01	0.000E+00	NOT IDENT.
GE-68	7.129E-01	1.231E+00	2.214E+00	0.000E+00	NOT IDENT.
AS-73	-3.748E-01	7.603E-01	1.335E+00	0.000E+00	NOT IDENT.
AS-74	-4.266E-02	8.296E-02	1.377E-01	0.000E+00	NOT IDENT.
SE-75	7.693E-03	4.321E-02	6.784E-02	0.000E+00	NOT IDENT.
BR-77	6.858E+00	1.036E+01	1.808E+01	0.000E+00	FAIL ABUN
SR-82	-5.148E-01	3.925E-01	5.819E-01	0.000E+00	NOT IDENT.
RB-83	3.731E-02	6.803E-02	1.177E-01	0.000E+00	NOT IDENT.
RB-84	-8.872E-03	7.085E-02	1.167E-01	0.000E+00	NOT IDENT.
KR-85	9.421E+00	8.042E+00	1.295E+01	0.000E+00	NOT IDENT.
SR-85	4.832E-02	4.125E-02	6.641E-02	0.000E+00	NOT IDENT.
RB-86	7.542E-02	8.084E-01	1.394E+00	0.000E+00	NOT IDENT.
Y-88	-2.846E-02	3.543E-02	5.012E-02	0.000E+00	NOT IDENT.
ZR-88	-4.154E-03	2.944E-02	4.960E-02	0.000E+00	NOT IDENT.
Y-91	-1.128E+00	1.897E+01	3.190E+01	0.000E+00	NOT IDENT.
NB-94	-3.276E-04	3.271E-02	5.572E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	5.320E-02	9.213E-02	0.000E+00	NOT IDENT.
NB-95M	1.600E-01	1.300E-01	2.169E-01	0.000E+00	NOT IDENT.
ZR-95	3.849E-02	6.764E-02	1.184E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.896E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.166E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-5.653E+00	1.160E+01	1.880E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.313E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.853E-03	3.241E-02	5.387E-02	0.000E+00	FAIL ABUN
RH-102	1.598E-02	2.794E-02	4.875E-02	0.000E+00	FAIL ABUN
RU-103	2.284E-03	3.915E-02	6.515E-02	0.000E+00	FAIL ABUN
RH-106	-3.474E-02	2.961E-01	5.058E-01	0.000E+00	FAIL ABUN
RU-106	-3.474E-02	2.960E-01	5.058E-01	0.000E+00	FAIL ABUN
AG-108M	-2.786E-02	3.119E-02	4.768E-02	0.000E+00	NOT IDENT.
AG-110M	9.339E-03	3.441E-02	6.025E-02	0.000E+00	NOT IDENT.
IN-111	-5.728E-02	1.035E+00	1.609E+00	0.000E+00	NOT IDENT.
IN-113M	6.602E-03	4.157E-02	7.149E-02	0.000E+00	NOT IDENT.
SN-113	6.602E-03	4.157E-02	7.149E-02	0.000E+00	NOT IDENT.
IN-114M	1.452E-01	1.805E-01	2.841E-01	0.000E+00	NOT IDENT.
CD-115	-9.617E-01	9.602E+00	1.574E+01	0.000E+00	NOT IDENT.
SN-117M	-4.849E-03	4.952E-02	8.387E-02	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.511E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.474E-02	2.583E-02	4.270E-02	0.000E+00	NOT IDENT.
I-124	4.735E-01	7.493E-01	1.197E+00	0.000E+00	FAIL ABUN
SB-124	-1.219E-02	7.508E-02	1.236E-01	0.000E+00	FAIL ABUN
SB-125	-2.759E-02	8.814E-02	1.454E-01	0.000E+00	FAIL ABUN
TE-125M	4.369E+00	8.325E+00	1.486E+01	0.000E+00	NOT IDENT.
I-126	6.107E-02	1.740E-01	3.062E-01	0.000E+00	NOT IDENT.
SB-126	7.725E-02	1.391E-01	2.201E-01	0.000E+00	NOT IDENT.
SB-127	-1.434E-01	1.241E+00	2.099E+00	0.000E+00	NOT IDENT.
XE-127	-1.404E-02	4.555E-02	7.486E-02	0.000E+00	NOT IDENT.
I-131	1.136E-02	1.091E-01	1.881E-01	0.000E+00	NOT IDENT.
TE-132	1.906E-01	6.283E-01	1.131E+00	0.000E+00	NOT IDENT.
BA-133	-3.949E-02	4.627E-02	6.390E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.700E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.934E-02	9.771E-02	0.000E+00	FAIL ABUN
CS-135	1.740E-01	1.604E-01	2.658E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.030E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.578E-02	9.792E-02	1.634E-01	0.000E+00	FAIL ABUN
BA-137M	-1.185E-02	3.602E-02	5.907E-02	0.000E+00	NOT IDENT.
CS-137	-1.252E-02	3.808E-02	6.245E-02	0.000E+00	NOT IDENT.
CE-139	-3.775E-04	2.763E-02	4.683E-02	0.000E+00	NOT IDENT.
BA-140	-1.872E-02	2.308E-01	4.008E-01	0.000E+00	NOT IDENT.
LA-140	4.761E-02	1.062E-01	1.681E-01	0.000E+00	FAIL ABUN
CE-141	-1.550E-02	6.090E-02	1.032E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.520E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	8.788E-02	2.090E-01	3.497E-01	0.000E+00	NOT IDENT.
PM-144	1.714E-02	3.428E-02	6.069E-02	0.000E+00	NOT IDENT.

PR-144	1.162E+00	2.323E+00	4.112E+00	0.000E+00	NOT IDENT.
PM-146	7.236E-02	4.200E-02	7.843E-02	0.000E+00	NOT IDENT.
ND-147	1.423E-01	5.108E-01	8.657E-01	0.000E+00	FAIL ABUN
PM-149	-3.386E+01	8.825E+01	1.509E+02	0.000E+00	NOT IDENT.
EU-152	-2.457E-02	9.069E-02	1.479E-01	0.000E+00	NOT IDENT.
GD-153	-5.340E-02	8.417E-02	1.271E-01	0.000E+00	FAIL ABUN
EU-154	-6.174E-02	1.324E-01	2.122E-01	0.000E+00	NOT IDENT.
EU-155	1.031E-01	9.860E-02	1.799E-01	0.000E+00	FAIL ABUN
TB-160	4.065E-03	1.402E-01	2.345E-01	0.000E+00	FAIL ABUN
HO-166M	-4.268E-02	5.747E-02	9.139E-02	0.000E+00	FAIL ABUN
TM-171	-3.048E+01	2.933E+01	4.489E+01	0.000E+00	NOT IDENT.
LU-176	-1.619E-02	2.264E-02	3.765E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.792E+00	2.019E+00	0.000E+00	FAIL ABUN
LU-177M	5.985E-02	1.839E-01	2.813E-01	0.000E+00	FAIL ABUN
HF-181	9.285E-03	3.998E-02	6.799E-02	0.000E+00	NOT IDENT.
W-181	2.091E-01	3.629E-01	6.017E-01	0.000E+00	NOT IDENT.
TA-182	9.070E-02	1.949E-01	3.421E-01	0.000E+00	NOT IDENT.
RE-183	8.494E-02	1.033E-01	1.771E-01	0.000E+00	FAIL ABUN
RE-184	-1.962E-01	2.083E-01	3.493E-01	0.000E+00	NOT IDENT.
OS-185	3.232E-03	4.355E-02	7.526E-02	0.000E+00	NOT IDENT.
RE-188	1.441E-01	1.614E-01	2.860E-01	0.000E+00	NOT IDENT.
W-188	-2.272E+00	7.843E+00	1.179E+01	0.000E+00	FAIL ABUN
IR-192	-1.364E-02	3.234E-02	5.465E-02	0.000E+00	FAIL ABUN
AU-195	2.357E-01	2.199E-01	3.822E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.382E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.386E+00	6.499E+00	1.121E+01	0.000E+00	NOT IDENT.
TL-202	1.612E-02	7.018E-02	1.200E-01	0.000E+00	NOT IDENT.
HG-203	8.688E-03	3.853E-02	6.819E-02	0.000E+00	FAIL ABUN
BI-207	-1.077E-02	5.120E-02	8.591E-02	0.000E+00	FAIL ABUN
TL-207	-3.446E-01	7.338E-01	1.071E+00	0.000E+00	FAIL ABUN
PO-209	-7.250E+00	8.189E+00	1.207E+01	0.000E+00	NOT IDENT.
BI-210	1.452E+00	3.155E+00	5.858E+00	0.000E+00	NOT IDENT.
PB-210	1.452E+00	3.155E+00	5.858E+00	0.000E+00	NOT IDENT.
PO-210	1.452E+00	3.154E+00	5.858E+00	0.000E+00	NOT IDENT.
PB-211	6.613E-02	1.024E+00	1.529E+00	0.000E+00	NOT IDENT.
PO-215	-3.446E-01	7.338E-01	1.071E+00	0.000E+00	FAIL ABUN
RN-219	1.502E-01	3.820E-01	6.650E-01	0.000E+00	FAIL ABUN
RN-220	-1.304E+00	2.517E+01	4.374E+01	0.000E+00	NOT IDENT.
RA-223	-3.446E-01	7.338E-01	1.071E+00	0.000E+00	FAIL ABUN
AC-227	2.687E-01	3.449E-01	6.277E-01	0.000E+00	FAIL ABUN
TH-227	2.687E-01	3.459E-01	6.277E-01	0.000E+00	FAIL ABUN
TH-229	-1.867E-01	4.768E-01	7.827E-01	0.000E+00	FAIL ABUN
PA-231	5.993E-02	1.451E+00	2.543E+00	0.000E+00	NOT IDENT.
TH-231	-3.446E-01	7.338E-01	1.071E+00	0.000E+00	FAIL ABUN
U-231	-2.002E-01	1.087E+00	1.700E+00	0.000E+00	FAIL ABUN
PA-233	-2.279E-02	5.888E-02	9.980E-02	0.000E+00	FAIL ABUN
PA-234	-1.783E-02	3.104E-01	5.107E-01	0.000E+00	FAIL ABUN
PA-234M	5.854E-02	4.473E+00	7.541E+00	0.000E+00	NOT IDENT.
U-235	7.207E-03	2.029E-01	3.445E-01	0.000E+00	FAIL ABUN
NP-236	-1.664E-02	7.248E-02	1.219E-01	0.000E+00	NOT IDENT.
NP-239	-2.722E-01	1.780E-01	2.867E-01	0.000E+00	FAIL ABUN
AM-241	4.225E-02	1.528E-01	2.528E-01	0.000E+00	NOT IDENT.
CM-243	7.389E-02	8.878E-02	1.609E-01	0.000E+00	FAIL ABUN
AM-246	9.851E-02	1.331E-01	2.433E-01	0.000E+00	NOT IDENT.
CM-247	2.618E-02	3.526E-02	6.271E-02	0.000E+00	NOT IDENT.
CF-249	2.294E-02	3.893E-02	6.873E-02	0.000E+00	NOT IDENT.
CF-251	5.072E-04	1.206E-01	2.035E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:49:53.31

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:18
Sample ID         : G245960005           Sample quantity  : 1.27600E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.46  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	786	10.67*	1.138E+00	1.904E+01	1.904E+01	11.07
CD-109	88.03	277	3.72*	5.639E+00	3.891E+00	3.980E+00	23.59
SB-122	563.90	42	70.60*	2.576E+00	6.809E-02	3.371E+00	102.64
	692.80	------	3.70	2.165E+00	------ Line Not Found		------
SN-126	64.28	94	9.60	3.209E+00	8.979E-01	8.979E-01	91.66
	86.94	277	8.90	5.639E+00	1.626E+00	1.626E+00	46.83
	87.57	277	37.00*	5.639E+00	3.912E-01	3.912E-01	23.59
TL-208	277.35	------	6.80	4.505E+00	------ Line Not Found		------
	510.84	144	21.60	2.796E+00	7.022E-01	7.022E-01	43.33
	583.14	396	84.20*	2.506E+00	5.516E-01	5.516E-01	16.64
	860.37	71	12.46	1.795E+00	9.357E-01	9.357E-01	42.25
BI-211	72.87	------	1.27	4.387E+00	------ Line Not Found		------
	351.07	733	12.94*	3.764E+00	4.428E+00	4.428E+00	11.82
BI-212	727.18	156	11.80*	2.079E+00	1.866E+00	1.866E+00	25.61
	785.46	------	1.97	1.943E+00	------ Line Not Found		------
	1620.62	19	2.75	1.051E+00	1.883E+00	1.883E+00	67.93
PB-212	74.81	401	10.70	4.586E+00	2.404E+00	2.404E+00	22.78
	77.11	685	18.00	4.816E+00	2.323E+00	2.323E+00	14.06
	87.30	277	8.00	5.639E+00	1.809E+00	1.809E+00	25.63
	238.63	1290	44.60*	5.017E+00	1.696E+00	1.696E+00	9.60
	300.09	79	3.41	4.254E+00	1.605E+00	1.605E+00	70.62
PO-212	74.81	401	10.70	4.586E+00	2.404E+00	2.404E+00	22.78
	77.11	685	18.00	4.816E+00	2.323E+00	2.323E+00	14.06
	87.30	277	8.00	5.639E+00	1.809E+00	1.809E+00	25.63
	115.19	------	0.60	6.604E+00	------ Line Not Found		------
	238.63	1290	44.60*	5.017E+00	1.696E+00	1.696E+00	9.60
	300.09	79	3.41	4.254E+00	1.605E+00	1.605E+00	70.62
BI-214	609.31	512	46.30*	2.416E+00	1.347E+00	1.347E+00	13.76
	1120.29	114	15.10	1.423E+00	1.558E+00	1.558E+00	36.50
	1764.49	75	15.80	9.906E-01	1.405E+00	1.405E+00	30.87
PB-214	74.81	401	6.21	4.586E+00	4.142E+00	4.142E+00	22.06
	77.11	685	10.50	4.816E+00	3.983E+00	3.983E+00	15.99

Sample ID : G245960005 Acquisition date : 12-FEB-2010 15:48:18

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	277	4.67	5.639E+00	3.100E+00	3.100E+00	24.82
	241.98	330	7.49	4.975E+00	2.603E+00	2.603E+00	27.95
	295.21	402	19.20	4.304E+00	1.432E+00	1.432E+00	16.42
	351.92	733	37.20*	3.764E+00	1.540E+00	1.540E+00	12.92
PO-214	74.81	401	6.21	4.586E+00	4.142E+00	4.142E+00	22.06
	77.11	685	10.50	4.816E+00	3.983E+00	3.983E+00	15.99
	87.30	277	4.67	5.639E+00	3.100E+00	3.100E+00	24.82
	241.98	330	7.49	4.975E+00	2.603E+00	2.603E+00	27.95
	295.21	402	19.20	4.304E+00	1.432E+00	1.432E+00	16.42
	351.92	733	37.20*	3.764E+00	1.540E+00	1.540E+00	12.92
PO-216	74.81	401	10.70	4.586E+00	2.404E+00	2.404E+00	22.78
	77.11	685	18.00	4.816E+00	2.323E+00	2.323E+00	14.06
	87.30	277	8.00	5.639E+00	1.809E+00	1.809E+00	25.63
	238.63	1290	44.60*	5.017E+00	1.696E+00	1.696E+00	9.60
	300.09	79	3.41	4.254E+00	1.605E+00	1.605E+00	70.62
PO-218	74.81	401	6.21	4.586E+00	4.142E+00	4.142E+00	22.06
	77.11	685	10.50	4.816E+00	3.983E+00	3.983E+00	15.99
	87.30	277	4.67	5.639E+00	3.100E+00	3.100E+00	24.82
	241.98	330	7.49	4.975E+00	2.603E+00	2.603E+00	27.95
	295.21	402	19.20	4.304E+00	1.432E+00	1.432E+00	16.42
	351.92	733	37.20*	3.764E+00	1.540E+00	1.540E+00	12.92
RA-224	240.98	330	3.95*	4.975E+00	4.936E+00	4.936E+00	27.38
RA-226	609.31	512	46.30*	2.416E+00	1.347E+00	1.347E+00	13.76
	1120.29	114	15.10	1.423E+00	1.558E+00	1.558E+00	36.50
	1764.49	75	15.80	9.906E-01	1.405E+00	1.405E+00	30.87
AC-228	338.32	227	11.40	3.882E+00	1.508E+00	1.508E+00	48.07
	911.07	257	27.70*	1.707E+00	1.600E+00	1.600E+00	21.12
	969.11	158	16.60	1.617E+00	1.734E+00	1.734E+00	34.79
RA-228	338.32	227	11.40	3.882E+00	1.508E+00	1.508E+00	48.07
	911.07	257	27.70*	1.707E+00	1.600E+00	1.600E+00	21.12
	969.11	158	16.60	1.617E+00	1.734E+00	1.734E+00	34.79
TH-228	74.81	401	10.70	4.586E+00	2.404E+00	2.440E+00	20.81
	77.11	685	18.00	4.816E+00	2.323E+00	2.359E+00	14.06
	87.30	277	8.00	5.639E+00	1.809E+00	1.837E+00	23.59
	238.63	1290	44.60*	5.017E+00	1.696E+00	1.722E+00	9.60
	300.09	79	3.41	4.254E+00	1.605E+00	1.630E+00	91.61
TH-230	609.31	512	46.30*	2.416E+00	1.347E+00	1.347E+00	13.76
	1120.29	114	15.10	1.423E+00	1.558E+00	1.558E+00	36.50
	1764.49	75	15.80	9.906E-01	1.405E+00	1.405E+00	30.87
TH-232	338.32	227	11.40	3.882E+00	1.508E+00	1.508E+00	26.12
	911.07	257	27.70*	1.707E+00	1.600E+00	1.600E+00	21.12
	969.11	158	16.60	1.617E+00	1.734E+00	1.734E+00	34.79
TH-234	63.29	94	3.80*	3.209E+00	2.268E+00	2.268E+00	92.17
	92.38	306	5.41	5.982E+00	2.778E+00	2.778E+00	35.02
U-234	609.31	512	46.30*	2.416E+00	1.347E+00	1.347E+00	13.76
	1120.29	114	15.10	1.423E+00	1.558E+00	1.558E+00	36.50
	1764.49	75	15.80	9.906E-01	1.405E+00	1.405E+00	30.87
NP-237	86.50	277	12.60*	5.639E+00	1.149E+00	1.149E+00	31.34
	95.87	------	2.60	6.124E+00	------ Line Not Found		------

Sample ID : G245960005 Acquisition date : 12-FEB-2010 15:48:18

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-238	63.29	94	3.80*	3.209E+00	2.268E+00	2.268E+00	92.17
	92.38	306	5.41	5.982E+00	2.778E+00	2.778E+00	31.20
AM-243	74.67	401	66.00*	4.586E+00	3.897E-01	3.897E-01	20.78
	86.72	277	0.34	5.639E+00	4.308E+01	4.308E+01	23.59
	117.66	------	0.55	6.624E+00	------	Line Not Found	------
	142.18	------	0.13	6.534E+00	------	Line Not Found	------
ANH-511	511.00	144	100.00*	2.796E+00	1.517E-01	1.517E-01	42.52

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G245960005

Acquisition date : 12-FEB-2010 15:48:18

Total number of lines in spectrum 39
Number of unidentified lines 4
Number of lines tentatively identified by NID 35 89.74%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.904E+01	1.904E+01	0.211E+01	11.07	
CD-109	464.00D	1.02	3.891E+00	3.980E+00	0.939E+00	23.59	
SB-122	2.70D	49.5	6.809E-02	3.371E+00	3.460E+00	102.64	
SN-126	1.00E+05Y	1.00	3.912E-01	3.912E-01	0.923E-01	23.59	
TL-208	1.41E+10Y	1.00	5.516E-01	5.516E-01	0.918E-01	16.64	
BI-211	7.04E+08Y	1.00	4.428E+00	4.428E+00	0.524E+00	11.82	
BI-212	1.41E+10Y	1.00	1.866E+00	1.866E+00	0.478E+00	25.61	
PB-212	1.41E+10Y	1.00	1.696E+00	1.696E+00	0.163E+00	9.60	
PO-212	1.41E+10Y	1.00	1.696E+00	1.696E+00	0.163E+00	9.60	
BI-214	1600.00Y	1.00	1.347E+00	1.347E+00	0.185E+00	13.76	
PB-214	1600.00Y	1.00	1.540E+00	1.540E+00	0.199E+00	12.92	
PO-214	1600.00Y	1.00	1.540E+00	1.540E+00	0.199E+00	12.92	
PO-216	1.41E+10Y	1.00	1.696E+00	1.696E+00	0.163E+00	9.60	
PO-218	1600.00Y	1.00	1.540E+00	1.540E+00	0.199E+00	12.92	
RA-224	1.41E+10Y	1.00	4.936E+00	4.936E+00	1.351E+00	27.38	
RA-226	1600.00Y	1.00	1.347E+00	1.347E+00	0.185E+00	13.76	
AC-228	1.41E+10Y	1.00	1.600E+00	1.600E+00	0.338E+00	21.12	
RA-228	1.41E+10Y	1.00	1.600E+00	1.600E+00	0.338E+00	21.12	
TH-228	1.91Y	1.02	1.696E+00	1.722E+00	0.165E+00	9.60	
TH-230	4.47E+09Y	1.00	1.347E+00	1.347E+00	0.185E+00	13.76	
TH-232	1.41E+10Y	1.00	1.600E+00	1.600E+00	0.338E+00	21.12	
TH-234	4.47E+09Y	1.00	2.268E+00	2.268E+00	2.091E+00	92.17	
U-234	4.47E+09Y	1.00	1.347E+00	1.347E+00	0.185E+00	13.76	
NP-237	2.14E+06Y	1.00	1.149E+00	1.149E+00	0.360E+00	31.34	
U-238	4.47E+09Y	1.00	2.268E+00	2.268E+00	2.091E+00	92.17	
AM-243	7380.00Y	1.00	3.897E-01	3.897E-01	0.810E-01	20.78	
ANH-511	1.00E+09Y	1.00	1.517E-01	1.517E-01	0.645E-01	42.52	
		Total Activity :	6.300E+01	6.642E+01			

Grand Total Activity : 6.300E+01 6.642E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245960005 Acquisition date : 12-FEB-2010 15:48:18

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.92	94	304	1.31	167.34	165	6	1.31E-02	64.0	5.42E+00	T
3	89.71	162	302	0.84	178.93	171	12	2.25E-02	35.8	5.81E+00	T
0	128.28	145	361	1.18	256.11	252	10	2.01E-02	51.6	6.64E+00	T
0	185.76	289	299	1.16	371.13	366	11	4.01E-02	27.3	5.86E+00	T
0	209.34	149	338	1.20	418.31	414	12	2.06E-02	52.0	5.46E+00	T
0	270.16	134	188	1.86	540.01	535	11	1.86E-02	43.4	4.59E+00	T
0	327.54	83	132	0.79	654.80	651	9	1.15E-02	54.9	3.98E+00	T
0	408.86	36	91	1.35	817.51	814	8	5.05E-03	96.4	3.34E+00	
0	462.81	112	131	1.81	925.46	919	16	1.56E-02	49.0	3.03E+00	T
0	767.95	52	70	1.04	1535.90	1530	10	7.27E-03	66.5	1.98E+00	T
0	794.50	62	60	1.66	1589.00	1585	12	8.61E-03	56.1	1.92E+00	T
0	1237.56	52	39	1.51	2475.18	2470	13	7.28E-03	54.9	1.31E+00	T
0	1377.10	25	24	1.92	2754.23	2749	9	3.48E-03	81.7	1.19E+00	T
0	1495.55	12	18	1.12	2991.11	2985	14	1.67E-03	****	1.12E+00	
0	1579.68	9	15	0.58	3159.33	3147	15	1.30E-03	****	1.07E+00	
0	1589.78	17	43	0.64	3179.53	3168	19	2.35E-03	****	1.07E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:49:57.80

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960005.CNF;1   *
* Acquisition date  : 12-FEB-2010 15:48:18  Detector SN#     :               *
* Detector ID       : GAM12                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.46          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245960005            Analyst initials: MXR1            *
* Batch Number      : 948717                Sample Quantity : 1.27600E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24.5MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.904E+01	2.108E+00	5.779E-01	4.120E-02	32.956
CD-109	3.980E+00	9.391E-01	1.239E+00	9.482E-02	3.212
SB-122	3.371E+00	3.460E+00	3.397E+00	2.133E-01	0.992
SN-126	3.912E-01	9.230E-02	1.224E-01	9.326E-03	3.197
TL-208	5.516E-01	9.181E-02	5.216E-02	3.731E-03	10.576
BI-211	4.428E+00	5.235E-01	3.010E-01	1.892E-02	14.711
BI-212	1.866E+00	4.779E-01	4.195E-01	3.632E-02	4.449
PB-212	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
PO-212	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
BI-214	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.669
PB-214	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
PO-214	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
PO-216	1.696E+00	1.629E-01	8.865E-02	6.295E-03	19.135
PO-218	1.540E+00	1.991E-01	1.049E-01	8.572E-03	14.678
RA-224	4.936E+00	1.351E+00	1.009E+00	5.566E-02	4.891
RA-226	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.669
AC-228	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
RA-228	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720

Sample ID : G245960005 Acquisition date : 12-FEB-2010 15:48:18

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.722E+00	1.654E-01	9.000E-02	6.391E-03	19.135
TH-230	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.668
TH-232	1.600E+00	3.378E-01	2.072E-01	2.275E-02	7.720
TH-234	2.268E+00	2.091E+00	1.998E+00	3.402E-01	1.135
U-234	1.347E+00	1.853E-01	1.154E-01	9.503E-03	11.668
NP-237	1.149E+00	3.601E-01	3.361E-01	7.383E-02	3.418
U-238	2.268E+00	2.091E+00	1.998E+00	3.402E-01	1.135
AM-243	3.897E-01	8.097E-02	9.144E-02	6.213E-03	4.262
ANH-511	1.517E-01	6.449E-02	4.782E-02	2.914E-03	3.172

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-9.507E-02		3.241E-01	5.096E-01	3.507E-02	-0.187
NA-22	-2.252E-02		4.829E-02	7.566E-02	4.873E-03	-0.298
NA-24	-3.061E-01		3.921E-01	Half-Life too short		
AL-26	1.292E-02		2.408E-02	4.476E-02	2.568E-03	0.289
TI-44	4.287E-01	+	6.028E-02	7.496E-02	5.243E-03	5.719
SC-46	-5.407E-02		3.986E-02	5.445E-02	4.513E-03	-0.993
V-48	4.152E-03		7.771E-02	1.098E-01	8.456E-03	0.038
CR-51	2.013E-01		3.727E-01	6.360E-01	4.043E-02	0.317
MN-52	-1.907E-01		2.389E-01	3.393E-01	2.331E-02	-0.562
MN-54	1.971E-02		3.953E-02	6.707E-02	5.272E-03	0.294
CO-56	4.073E-02		4.238E-02	7.454E-02	5.929E-03	0.546
CO-57	2.456E-02		2.476E-02	4.222E-02	2.640E-03	0.582
CO-58	-2.640E-02		3.860E-02	5.862E-02	4.510E-03	-0.450
FE-59	2.805E-02		9.145E-02	1.566E-01	1.157E-02	0.179
CO-60	-1.876E-02		3.924E-02	6.024E-02	4.208E-03	-0.311
ZN-65	2.191E-02		1.059E-01	1.557E-01	9.796E-03	0.141
GE-68	7.129E-01		1.256E+00	2.204E+00	1.486E-01	0.324
AS-73	-3.748E-01		7.758E-01	1.271E+00	8.205E-02	-0.295
AS-74	-4.266E-02		8.466E-02	1.358E-01	8.646E-03	-0.314
SE-75	7.693E-03		4.409E-02	6.610E-02	3.747E-03	0.116
BR-77	6.858E+00		1.057E+01	1.779E+01	1.091E+00	0.385
SR-82	-5.148E-01		4.005E-01	5.763E-01	4.264E-02	-0.893
RB-83	3.731E-02		6.942E-02	1.159E-01	7.104E-03	0.322
RB-84	-8.872E-03		7.230E-02	1.158E-01	9.525E-03	-0.077
KR-85	9.421E+00		8.206E+00	1.274E+01	7.780E-01	0.739
SR-85	4.832E-02		4.209E-02	6.535E-02	3.991E-03	0.739
RB-86	7.542E-02		8.249E-01	1.387E+00	9.366E-02	0.054
Y-88	-2.846E-02		3.615E-02	5.030E-02	2.832E-03	-0.566
ZR-88	-4.154E-03		3.004E-02	4.862E-02	2.667E-03	-0.085
Y-91	-1.128E+00		1.935E+01	3.180E+01	1.839E+00	-0.035
NB-94	-3.276E-04		3.338E-02	5.510E-02	3.753E-03	-0.006
NB-95	1.054E-01		5.428E-02	9.122E-02	6.673E-03	1.155
NB-95M	1.600E-01		1.327E-01	2.110E-01	1.539E-02	0.758
ZR-95	3.849E-02		6.902E-02	1.172E-01	9.683E-03	0.328

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	3.805E-02		5.049E-02	Half-Life too short		
ZR-97	3.315E+00		1.105E+00	Half-Life too short		
MO-99	-5.653E+00		1.184E+01	1.860E+01	2.675E+00	-0.304
TC-99M	-4.242E+10		2.200E+10	Half-Life too short		
RH-101	4.853E-03		3.307E-02	5.226E-02	2.765E-03	0.093
RH-102	1.598E-02		2.851E-02	4.792E-02	2.846E-03	0.333
RU-103	2.284E-03		3.995E-02	6.409E-02	8.175E-03	0.036
RH-106	-3.474E-02		3.021E-01	4.992E-01	6.018E-02	-0.070
RU-106	-3.474E-02		3.021E-01	4.992E-01	3.205E-02	-0.070
AG-108M	-2.786E-02		3.182E-02	4.681E-02	2.917E-03	-0.595
AG-110M	9.339E-03		3.512E-02	5.952E-02	4.057E-03	0.157
IN-111	-5.728E-02		1.056E+00	1.566E+00	8.667E-02	-0.037
IN-113M	6.602E-03		4.242E-02	7.007E-02	4.125E-03	0.094
SN-113	6.602E-03		4.242E-02	7.007E-02	4.125E-03	0.094
IN-114M	1.452E-01		1.842E-01	2.755E-01	1.445E-02	0.527
CD-115	-9.617E-01		9.798E+00	1.550E+01	9.547E-01	-0.062
SN-117M	-4.849E-03		5.053E-02	8.111E-02	4.285E-03	-0.060
I-123	-3.145E+00		2.812E+00	Half-Life too short		
TE-123M	-1.474E-02		2.636E-02	4.130E-02	2.213E-03	-0.357
I-124	4.735E-01		7.646E-01	1.180E+00	7.533E-02	0.401
SB-124	-1.219E-02		7.661E-02	1.239E-01	8.270E-03	-0.098
SB-125	-2.759E-02		8.993E-02	1.427E-01	8.481E-03	-0.193
TE-125M	4.369E+00		8.495E+00	1.430E+01	1.233E+00	0.306
I-126	6.107E-02		1.776E-01	3.026E-01	1.973E-02	0.202
SB-126	7.725E-02		1.419E-01	2.177E-01	1.514E-02	0.355
SB-127	-1.434E-01		1.266E+00	2.075E+00	2.075E-01	-0.069
XE-127	-1.404E-02		4.648E-02	7.266E-02	3.864E-03	-0.193
I-131	1.136E-02		1.114E-01	1.842E-01	1.159E-02	0.062
TE-132	1.906E-01		6.411E-01	1.100E+00	1.566E-01	0.173
BA-133	-3.949E-02		4.722E-02	6.254E-02	7.175E-03	-0.632
I-133	6.271E-04		2.908E-03	Half-Life too short		
CS-134	1.251E-01	+	7.076E-02	9.680E-02	7.381E-03	1.292
CS-135	1.740E-01		1.637E-01	2.590E-01	1.948E-02	0.672
I-135	3.194E+09		3.077E+09	Half-Life too short		
CS-136	-2.578E-02		9.992E-02	1.626E-01	1.221E-02	-0.159
BA-137M	-1.185E-02		3.676E-02	5.836E-02	3.783E-03	-0.203
CS-137	-1.252E-02		3.886E-02	6.169E-02	4.013E-03	-0.203
CE-139	-3.775E-04		2.819E-02	4.532E-02	2.322E-03	-0.008
BA-140	-1.872E-02		2.356E-01	3.947E-01	1.287E-01	-0.047
LA-140	4.761E-02		1.084E-01	1.684E-01	1.097E-02	0.283
CE-141	-1.550E-02		6.214E-02	9.964E-02	5.801E-03	-0.156
CE-143	8.500E-04		1.286E-04	Half-Life too short		
CE-144	8.788E-02		2.133E-01	3.373E-01	4.802E-02	0.261
PM-144	1.714E-02		3.498E-02	6.000E-02	4.059E-03	0.286
PR-144	1.162E+00		2.370E+00	4.066E+00	2.749E-01	0.286
PM-146	7.236E-02		4.285E-02	7.704E-02	6.661E-03	0.939
ND-147	1.423E-01		5.212E-01	8.524E-01	1.167E-01	0.167
PM-149	-3.386E+01		9.006E+01	1.472E+02	2.078E+01	-0.230

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-2.457E-02		9.255E-02	1.447E-01	9.272E-03	-0.170
GD-153	-5.340E-02		8.588E-02	1.220E-01	8.486E-03	-0.438
EU-154	-6.174E-02		1.351E-01	2.117E-01	2.063E-02	-0.292
EU-155	1.031E-01		1.006E-01	1.729E-01	1.165E-02	0.596
TB-160	4.065E-03		1.431E-01	2.327E-01	1.911E-02	0.017
HO-166M	-4.268E-02		5.865E-02	9.039E-02	6.221E-03	-0.472
TM-171	-3.048E+01		2.993E+01	4.287E+01	2.775E+00	-0.711
LU-176	-1.619E-02		2.310E-02	3.677E-02	2.090E-03	-0.440
LU-177	3.497E+00	+	1.829E+00	1.961E+00	1.049E-01	1.784
LU-177M	5.985E-02		1.877E-01	2.759E-01	1.548E-02	0.217
HF-181	9.285E-03		4.080E-02	6.685E-02	3.992E-03	0.139
W-181	2.091E-01		3.703E-01	5.745E-01	3.691E-02	0.364
TA-182	9.070E-02		1.989E-01	3.412E-01	2.024E-02	0.266
RE-183	8.494E-02		1.054E-01	1.713E-01	8.907E-03	0.496
RE-184	-1.962E-01		2.126E-01	3.402E-01	1.893E-02	-0.577
OS-185	3.232E-03		4.444E-02	7.433E-02	4.803E-03	0.043
RE-188	1.441E-01		1.647E-01	2.765E-01	1.482E-02	0.521
W-188	-2.272E+00		8.003E+00	1.150E+01	6.518E-01	-0.198
IR-192	-1.364E-02		3.300E-02	5.339E-02	3.051E-03	-0.256
AU-195	2.357E-01		2.244E-01	3.671E-01	2.524E-02	0.642
TL-200	2.320E-05		2.236E-04	Half-Life too short		
TL-201	2.386E+00		6.631E+00	1.085E+01	5.561E-01	0.220
TL-202	1.612E-02		7.161E-02	1.179E-01	6.788E-03	0.137
HG-203	8.688E-03		3.932E-02	6.649E-02	3.999E-03	0.131
BI-207	-1.077E-02		5.224E-02	8.550E-02	5.898E-03	-0.126
TL-207	-3.446E-01		7.488E-01	1.046E+00	1.724E-01	-0.329
PO-209	-7.250E+00		8.356E+00	1.198E+01	1.000E+00	-0.605
BI-210	1.452E+00		3.219E+00	5.567E+00	4.193E-01	0.261
PB-210	1.452E+00		3.219E+00	5.567E+00	4.193E-01	0.261
PO-210	1.452E+00		3.218E+00	5.567E+00	3.570E-01	0.261
PB-211	6.613E-02		1.045E+00	1.499E+00	9.343E-01	0.044
PO-215	-3.446E-01		7.488E-01	1.046E+00	1.724E-01	-0.329
RN-219	1.502E-01		3.898E-01	6.520E-01	8.801E-02	0.230
RN-220	-1.304E+00		2.569E+01	4.309E+01	2.687E+00	-0.030
RA-223	-3.446E-01		7.488E-01	1.046E+00	1.724E-01	-0.329
AC-227	2.687E-01		3.520E-01	6.113E-01	8.479E-02	0.439
TH-227	2.687E-01		3.529E-01	6.113E-01	1.029E-01	0.439
TH-229	-1.867E-01		4.865E-01	7.591E-01	3.997E-02	-0.246
PA-231	5.993E-02		1.481E+00	2.480E+00	3.403E-01	0.024
TH-231	-3.446E-01		7.488E-01	1.046E+00	1.724E-01	-0.329
U-231	-2.002E-01		1.110E+00	1.632E+00	1.150E-01	-0.123
PA-233	-2.279E-02		6.008E-02	9.749E-02	5.899E-03	-0.234
PA-234	-1.783E-02		3.167E-01	5.073E-01	9.383E-02	-0.035
PA-234M	5.854E-02		4.565E+00	7.497E+00	6.785E-01	0.008
U-235	7.207E-03		2.070E-01	3.327E-01	5.404E-02	0.022
NP-236	-1.664E-02		7.396E-02	1.179E-01	6.181E-03	-0.141
NP-239	-2.722E-01		1.816E-01	2.761E-01	1.742E-02	-0.986
AM-241	4.225E-02		1.559E-01	2.410E-01	1.713E-02	0.175

Sample ID : G2459600005 Acquisition date : 12-FEB-2010 15:48:18

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	7.389E-02		9.060E-02	1.546E-01	1.030E-02	0.478
AM-246	9.851E-02		1.358E-01	2.422E-01	1.629E-02	0.407
CM-247	2.618E-02		3.598E-02	6.149E-02	3.410E-03	0.426
CF-249	2.294E-02		3.972E-02	6.735E-02	3.702E-03	0.341
CF-251	5.072E-04		1.230E-01	1.972E-01	1.019E-02	0.003

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960005            *
* Acquisition date : 12-FEB-2010 15:48:18 Detector SN#    :                 *
* Detector ID      : GAM12                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.46     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245960005           Analyst initials: MXR1            *
* Batch Number     : 948717               Sample Quantity : 1.2760E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.904E+01	2.066E+00	2.891E-01	1.054E+00
CD-109	3.980E+00	9.203E-01	6.465E-01	4.696E-01
SB-122	3.371E+00	3.391E+00	1.725E+00	1.730E+00
SN-126	3.912E-01	9.045E-02	6.385E-02	4.615E-02
TL-208	5.516E-01	8.997E-02	2.647E-02	4.590E-02
BI-211	4.428E+00	5.131E-01	1.539E-01	2.618E-01
BI-212	1.866E+00	4.684E-01	2.121E-01	2.390E-01
PB-212	1.696E+00	1.596E-01	4.559E-02	8.144E-02
PO-212	1.696E+00	1.596E-01	4.559E-02	8.144E-02
BI-214	1.347E+00	1.816E-01	5.853E-02	9.264E-02
PB-214	1.540E+00	1.951E-01	5.365E-02	9.953E-02
PO-214	1.540E+00	1.951E-01	5.365E-02	9.953E-02
PO-216	1.696E+00	1.596E-01	4.559E-02	8.144E-02
PO-218	1.540E+00	1.951E-01	5.365E-02	9.953E-02
RA-224	4.936E+00	1.324E+00	5.188E-01	6.757E-01
RA-226	1.347E+00	1.816E-01	5.853E-02	9.264E-02
AC-228	1.600E+00	3.310E-01	1.044E-01	1.689E-01
RA-228	1.600E+00	3.310E-01	1.044E-01	1.689E-01
TH-228	1.722E+00	1.620E-01	4.628E-02	8.268E-02
TH-230	1.347E+00	1.816E-01	5.853E-02	9.264E-02
TH-232	1.600E+00	3.310E-01	1.044E-01	1.689E-01
TH-234	2.268E+00	2.049E+00	1.048E+00	1.045E+00
U-234	1.347E+00	1.816E-01	5.853E-02	9.264E-02
NP-237	1.149E+00	3.529E-01	1.754E-01	1.800E-01
U-238	2.268E+00	2.049E+00	1.048E+00	1.045E+00
AM-243	3.897E-01	7.935E-02	4.782E-02	4.049E-02
ANH-511	1.517E-01	6.320E-02	2.431E-02	3.225E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-9.507E-02	3.176E-01	2.593E-01	1.621E-01	NOT IDENT.
NA-22	-2.252E-02	4.732E-02	3.793E-02	2.414E-02	NOT IDENT.
NA-24	-3.061E+05	7.686E+05	0.000E+00	3.921E+05	SHORT HLIF
AL-26	1.292E-02	2.360E-02	2.232E-02	1.204E-02	NOT IDENT.
TI-44	4.287E-01	5.907E-02	3.918E-02	3.014E-02	FAIL ABUN
SC-46	-5.407E-02	3.906E-02	2.745E-02	1.993E-02	FAIL ABUN
V-48	4.152E-03	7.616E-02	5.525E-02	3.886E-02	NOT IDENT.
CR-51	2.013E-01	3.653E-01	3.256E-01	1.864E-01	NOT IDENT.
MN-52	-1.907E-01	2.341E-01	1.698E-01	1.194E-01	NOT IDENT.
MN-54	1.971E-02	3.874E-02	3.384E-02	1.977E-02	NOT IDENT.
CO-56	4.073E-02	4.153E-02	3.760E-02	2.119E-02	FAIL ABUN
CO-57	2.456E-02	2.427E-02	2.192E-02	1.238E-02	NOT IDENT.
CO-58	-2.640E-02	3.783E-02	2.959E-02	1.930E-02	NOT IDENT.
FE-59	2.805E-02	8.962E-02	7.869E-02	4.573E-02	NOT IDENT.
CO-60	-1.876E-02	3.845E-02	3.018E-02	1.962E-02	NOT IDENT.
ZN-65	2.191E-02	1.038E-01	7.824E-02	5.297E-02	NOT IDENT.
GE-68	7.129E-01	1.231E+00	1.108E+00	6.282E-01	NOT IDENT.
AS-73	-3.748E-01	7.603E-01	6.678E-01	3.879E-01	NOT IDENT.
AS-74	-4.266E-02	8.296E-02	6.889E-02	4.233E-02	NOT IDENT.
SE-75	7.693E-03	4.321E-02	3.394E-02	2.205E-02	NOT IDENT.
BR-77	6.858E+00	1.036E+01	9.044E+00	5.286E+00	FAIL ABUN
SR-82	-5.148E-01	3.925E-01	2.911E-01	2.003E-01	NOT IDENT.
RB-83	3.731E-02	6.803E-02	5.888E-02	3.471E-02	NOT IDENT.
RB-84	-8.872E-03	7.085E-02	5.837E-02	3.615E-02	NOT IDENT.
KR-85	9.421E+00	8.042E+00	6.477E+00	4.103E+00	NOT IDENT.
SR-85	4.832E-02	4.125E-02	3.322E-02	2.105E-02	NOT IDENT.
RB-86	7.542E-02	8.084E-01	6.974E-01	4.125E-01	NOT IDENT.
Y-88	-2.846E-02	3.543E-02	2.507E-02	1.808E-02	NOT IDENT.
ZR-88	-4.154E-03	2.944E-02	2.481E-02	1.502E-02	NOT IDENT.
Y-91	-1.128E+00	1.897E+01	1.596E+01	9.676E+00	NOT IDENT.
NB-94	-3.276E-04	3.271E-02	2.788E-02	1.669E-02	NOT IDENT.
NB-95	1.054E-01	5.320E-02	4.609E-02	2.714E-02	NOT IDENT.
NB-95M	1.600E-01	1.300E-01	1.085E-01	6.635E-02	NOT IDENT.
ZR-95	3.849E-02	6.764E-02	5.925E-02	3.451E-02	NOT IDENT.
NB-97	3.805E+04	9.896E+04	0.000E+00	5.049E+04	SHORT HLIF
ZR-97	3.315E+06	2.166E+06	0.000E+00	1.105E+06	SHORT HLIF
MO-99	-5.653E+00	1.160E+01	9.404E+00	5.919E+00	NOT IDENT.
TC-99M	-4.242E+16	4.313E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.853E-03	3.241E-02	2.695E-02	1.654E-02	FAIL ABUN
RH-102	1.598E-02	2.794E-02	2.439E-02	1.426E-02	FAIL ABUN
RU-103	2.284E-03	3.915E-02	3.260E-02	1.998E-02	FAIL ABUN
RH-106	-3.474E-02	2.961E-01	2.530E-01	1.511E-01	FAIL ABUN
RU-106	-3.474E-02	2.960E-01	2.530E-01	1.510E-01	FAIL ABUN
AG-108M	-2.786E-02	3.119E-02	2.385E-02	1.591E-02	NOT IDENT.
AG-110M	9.339E-03	3.441E-02	3.014E-02	1.756E-02	NOT IDENT.
IN-111	-5.728E-02	1.035E+00	8.048E-01	5.281E-01	NOT IDENT.
IN-113M	6.602E-03	4.157E-02	3.576E-02	2.121E-02	NOT IDENT.
SN-113	6.602E-03	4.157E-02	3.576E-02	2.121E-02	NOT IDENT.
IN-114M	1.452E-01	1.805E-01	1.421E-01	9.208E-02	NOT IDENT.
CD-115	-9.617E-01	9.602E+00	7.876E+00	4.899E+00	NOT IDENT.
SN-117M	-4.849E-03	4.952E-02	4.196E-02	2.526E-02	NOT IDENT.
I-123	-3.145E+06	5.511E+06	0.000E+00	2.812E+06	SHORT HLIF
TE-123M	-1.474E-02	2.583E-02	2.137E-02	1.318E-02	NOT IDENT.
I-124	4.735E-01	7.493E-01	5.986E-01	3.823E-01	FAIL ABUN
SB-124	-1.219E-02	7.508E-02	6.186E-02	3.830E-02	FAIL ABUN
SB-125	-2.759E-02	8.814E-02	7.272E-02	4.497E-02	FAIL ABUN
TE-125M	4.369E+00	8.325E+00	7.437E+00	4.247E+00	NOT IDENT.
I-126	6.107E-02	1.740E-01	1.532E-01	8.879E-02	NOT IDENT.
SB-126	7.725E-02	1.391E-01	1.101E-01	7.095E-02	NOT IDENT.
SB-127	-1.434E-01	1.241E+00	1.050E+00	6.330E-01	NOT IDENT.
XE-127	-1.404E-02	4.555E-02	3.745E-02	2.324E-02	NOT IDENT.
I-131	1.136E-02	1.091E-01	9.411E-02	5.568E-02	NOT IDENT.
TE-132	1.906E-01	6.283E-01	5.659E-01	3.206E-01	NOT IDENT.
BA-133	-3.949E-02	4.627E-02	3.197E-02	2.361E-02	NOT IDENT.
I-133	6.271E+02	5.700E+03	0.000E+00	2.908E+03	SHORT HLIF
CS-134	1.251E-01	6.934E-02	4.888E-02	3.538E-02	FAIL ABUN
CS-135	1.740E-01	1.604E-01	1.330E-01	8.185E-02	NOT IDENT.
I-135	3.194E+15	6.030E+15	0.000E+00	3.077E+15	SHORT HLIF
CS-136	-2.578E-02	9.792E-02	8.174E-02	4.996E-02	FAIL ABUN
BA-137M	-1.185E-02	3.602E-02	2.955E-02	1.838E-02	NOT IDENT.
CS-137	-1.252E-02	3.808E-02	3.124E-02	1.943E-02	NOT IDENT.
CE-139	-3.775E-04	2.763E-02	2.343E-02	1.410E-02	NOT IDENT.
BA-140	-1.872E-02	2.308E-01	2.005E-01	1.178E-01	NOT IDENT.
LA-140	4.761E-02	1.062E-01	8.412E-02	5.419E-02	FAIL ABUN
CE-141	-1.550E-02	6.090E-02	5.161E-02	3.107E-02	NOT IDENT.
CE-143	8.500E+02	2.520E+02	0.000E+00	1.286E+02	SHORT HLIF
CE-144	8.788E-02	2.090E-01	1.749E-01	1.067E-01	NOT IDENT.
PM-144	1.714E-02	3.428E-02	3.036E-02	1.749E-02	NOT IDENT.

PR-144	1.162E+00	2.323E+00	2.057E+00	1.185E+00	NOT IDENT.
PM-146	7.236E-02	4.200E-02	3.924E-02	2.143E-02	NOT IDENT.
ND-147	1.423E-01	5.108E-01	4.331E-01	2.606E-01	FAIL ABUN
PM-149	-3.386E+01	8.825E+01	7.549E+01	4.503E+01	NOT IDENT.
EU-152	-2.457E-02	9.069E-02	7.399E-02	4.627E-02	NOT IDENT.
GD-153	-5.340E-02	8.417E-02	6.358E-02	4.294E-02	FAIL ABUN
EU-154	-6.174E-02	1.324E-01	1.061E-01	6.753E-02	NOT IDENT.
EU-155	1.031E-01	9.860E-02	8.998E-02	5.031E-02	FAIL ABUN
TB-160	4.065E-03	1.402E-01	1.173E-01	7.155E-02	FAIL ABUN
HO-166M	-4.268E-02	5.747E-02	4.572E-02	2.932E-02	FAIL ABUN
TM-171	-3.048E+01	2.933E+01	2.246E+01	1.497E+01	NOT IDENT.
LU-176	-1.619E-02	2.264E-02	1.884E-02	1.155E-02	FAIL ABUN
LU-177	3.497E+00	1.792E+00	1.010E+00	9.145E-01	FAIL ABUN
LU-177M	5.985E-02	1.839E-01	1.407E-01	9.384E-02	FAIL ABUN
HF-181	9.285E-03	3.998E-02	3.402E-02	2.040E-02	NOT IDENT.
W-181	2.091E-01	3.629E-01	3.010E-01	1.851E-01	NOT IDENT.
TA-182	9.070E-02	1.949E-01	1.712E-01	9.946E-02	NOT IDENT.
RE-183	8.494E-02	1.033E-01	8.860E-02	5.272E-02	FAIL ABUN
RE-184	-1.962E-01	2.083E-01	1.748E-01	1.063E-01	NOT IDENT.
OS-185	3.232E-03	4.355E-02	3.765E-02	2.222E-02	NOT IDENT.
RE-188	1.441E-01	1.614E-01	1.431E-01	8.237E-02	NOT IDENT.
W-188	-2.272E+00	7.843E+00	5.897E+00	4.002E+00	FAIL ABUN
IR-192	-1.364E-02	3.234E-02	2.734E-02	1.650E-02	FAIL ABUN
AU-195	2.357E-01	2.199E-01	1.912E-01	1.122E-01	FAIL ABUN
TL-200	2.320E+01	4.382E+02	0.000E+00	2.236E+02	SHORT HLIF
TL-201	2.386E+00	6.499E+00	5.608E+00	3.316E+00	NOT IDENT.
TL-202	1.612E-02	7.018E-02	6.006E-02	3.580E-02	NOT IDENT.
HG-203	8.688E-03	3.853E-02	3.411E-02	1.966E-02	FAIL ABUN
BI-207	-1.077E-02	5.120E-02	4.298E-02	2.612E-02	FAIL ABUN
TL-207	-3.446E-01	7.338E-01	5.357E-01	3.744E-01	FAIL ABUN
PO-209	-7.250E+00	8.189E+00	6.040E+00	4.178E+00	NOT IDENT.
BI-210	1.452E+00	3.155E+00	2.931E+00	1.609E+00	NOT IDENT.
PB-210	1.452E+00	3.155E+00	2.931E+00	1.609E+00	NOT IDENT.
PO-210	1.452E+00	3.154E+00	2.931E+00	1.609E+00	NOT IDENT.
PB-211	6.613E-02	1.024E+00	7.649E-01	5.225E-01	NOT IDENT.
PO-215	-3.446E-01	7.338E-01	5.357E-01	3.744E-01	FAIL ABUN
RN-219	1.502E-01	3.820E-01	3.327E-01	1.949E-01	FAIL ABUN
RN-220	-1.304E+00	2.517E+01	2.188E+01	1.284E+01	NOT IDENT.
RA-223	-3.446E-01	7.338E-01	5.357E-01	3.744E-01	FAIL ABUN
AC-227	2.687E-01	3.449E-01	3.140E-01	1.760E-01	FAIL ABUN
TH-227	2.687E-01	3.459E-01	3.140E-01	1.765E-01	FAIL ABUN
TH-229	-1.867E-01	4.768E-01	3.916E-01	2.432E-01	FAIL ABUN
PA-231	5.993E-02	1.451E+00	1.272E+00	7.404E-01	NOT IDENT.
TH-231	-3.446E-01	7.338E-01	5.357E-01	3.744E-01	FAIL ABUN
U-231	-2.002E-01	1.087E+00	8.505E-01	5.548E-01	FAIL ABUN
PA-233	-2.279E-02	5.888E-02	4.993E-02	3.004E-02	FAIL ABUN
PA-234	-1.783E-02	3.104E-01	2.555E-01	1.584E-01	FAIL ABUN
PA-234M	5.854E-02	4.473E+00	3.773E+00	2.282E+00	NOT IDENT.
U-235	7.207E-03	2.029E-01	1.724E-01	1.035E-01	FAIL ABUN
NP-236	-1.664E-02	7.248E-02	6.097E-02	3.698E-02	NOT IDENT.
NP-239	-2.722E-01	1.780E-01	1.435E-01	9.080E-02	FAIL ABUN
AM-241	4.225E-02	1.528E-01	1.265E-01	7.795E-02	NOT IDENT.
CM-243	7.389E-02	8.878E-02	8.049E-02	4.530E-02	FAIL ABUN
AM-246	9.851E-02	1.331E-01	1.217E-01	6.792E-02	NOT IDENT.
CM-247	2.618E-02	3.526E-02	3.138E-02	1.799E-02	NOT IDENT.
CF-249	2.294E-02	3.893E-02	3.438E-02	1.986E-02	NOT IDENT.
CF-251	5.072E-04	1.206E-01	1.018E-01	6.151E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	235.3876
46.50	235.3876
46.50	235.3876
48.70	267.8705
49.72	239.6794
51.35	259.0347
52.39	246.9515
52.97	239.6227
53.15	239.7594
53.44	256.4398
54.07	254.3445
56.28	270.9425
56.28	270.9449
57.37	0.0000
57.53	271.0940
57.53	271.0956
57.60	271.1514
57.98	281.1238
57.98	281.1238
59.32	287.0939
59.32	287.0939
59.40	276.5744
59.54	276.6884
59.72	270.2115
60.01	267.7896
61.10	281.9365
61.14	281.9693
61.30	282.0987
63.00	316.4522
63.29	316.7104
63.29	316.7104
63.58	316.9691
64.28	309.9864
65.12	308.0193
65.20	297.3245
65.20	297.3245
66.05	351.9593
66.72	367.4611
66.83	367.5731
66.91	362.2474
67.20	340.8879
67.20	340.8879
67.75	334.6180
67.85	334.7103
68.90	327.9502
68.90	327.9502
69.30	357.3190
69.67	351.8598
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70.83	389.2614
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72.87	376.2148
72.87	376.2148
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74.81	408.4250
74.81	408.4250
74.81	408.4250
74.81	408.4250
74.81	408.4250
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75.70	409.3351
77.11	410.7668
77.11	410.7668

77.11	410.7668
77.11	410.7668
77.11	410.7668
77.11	410.7668
77.11	410.7668
78.38	412.0450
79.62	413.2826
79.80	413.4610
79.80	413.4610
80.11	413.7704
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80.30	413.9578
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80.57	414.2243
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81.07	414.7189
81.07	414.7189
81.07	414.7189
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83.37	253.5603
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83.78	363.7869
83.78	363.7869
84.21	287.9318
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86.29	300.6547
86.50	300.7986
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86.79	300.9959
86.94	352.2296
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.30	352.5153
87.57	352.7310
87.88	352.9769
88.03	353.0961
88.36	353.3572
88.47	353.4443
89.95	354.6079
91.11	315.3772
92.29	316.1896
92.38	316.2517
92.38	316.2517
93.35	273.6990
94.00	274.0817
94.67	264.3596
94.67	264.3623
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94.90	264.4922
95.87	286.7610
95.87	286.7610
96.73	297.4402
97.43	299.3280
98.44	244.6249
98.44	244.6262
98.88	237.8535
99.55	241.2957
99.55	241.2957
99.86	241.4496
100.00	254.1792
100.10	263.9744
103.18	257.7857
103.76	239.4404
105.00	232.1624
105.31	234.2740
108.00	275.0943
109.28	236.0970

111.00	268.7256
111.00	268.7256
111.76	271.1077
112.95	275.7136
115.19	248.7821
116.30	282.4664
117.00	287.8620
117.00	287.8620
117.66	263.0178
121.11	255.5376
121.62	248.6661
121.78	248.7372
122.06	238.7042
122.32	238.8141
122.32	238.8141
122.32	238.8141
122.32	238.8141
123.07	223.4613
127.23	219.8661
129.76	296.4902
131.20	273.9967
133.02	231.3597
133.54	267.3039
135.34	276.4177
136.00	235.1063
136.25	248.7346
136.48	255.0737
140.51	278.7583
140.51	0.0000
142.18	256.3882
142.65	257.6308
143.76	264.4074
144.24	260.3897
144.24	260.3897
144.24	260.3897
144.24	260.3897
145.22	271.3501
145.44	286.2311
147.16	235.1094
152.43	237.0200
152.70	248.8661
153.22	222.3372
154.21	235.5158
154.21	235.5158
154.21	235.5158
154.21	235.5158
155.03	234.7348
156.02	228.6418
158.56	226.2717
159.00	0.0000
159.00	239.3550
160.31	233.3342
161.27	226.0892
162.32	203.6820
162.64	201.6078
163.35	231.1097
163.89	250.8351
165.85	234.1174
167.43	220.4567
171.28	211.7750
171.86	202.0623
172.10	202.1297
176.55	235.4215
176.60	235.4378
181.06	248.5342
184.41	221.1588
185.71	205.8713
186.00	205.9500
190.27	187.3989
192.34	211.0313
193.63	229.4633
197.04	230.4545
198.01	223.9135
198.60	221.8030
200.40	205.2008
201.83	256.9542
202.84	241.2664
205.31	218.4828

208.36	226.1977
208.81	191.1911
209.75	191.4073
209.75	191.4073
210.97	191.6859
215.65	202.0389
216.55	181.3287
218.09	185.1474
222.10	207.0654
223.80	201.3132
226.40	188.6835
227.00	181.7525
227.08	181.7698
227.20	195.0307
228.16	196.1250
228.18	200.5474
228.18	200.5474
231.56	0.0000
235.69	215.2303
236.00	206.7489
236.00	206.7489
238.63	210.0248
238.63	210.0248
238.63	210.0248
238.63	210.0248
239.00	210.1073
240.98	210.5591
241.98	210.7850
241.98	210.7850
241.98	210.7850
244.69	156.8831
245.39	165.6424
247.94	171.2483
248.90	159.9336
249.79	139.2817
252.40	187.7264
252.85	183.2783
252.85	183.2783
254.15	0.0000
256.20	152.9575
256.20	152.9575
260.50	161.8620
260.90	168.3307
262.80	155.8238
264.65	145.4618
268.24	151.8822
268.79	149.0145
269.46	141.1776
269.46	141.1776
269.46	141.1776
269.46	141.1776
271.23	155.2903
273.65	211.9933
276.40	161.3834
277.35	164.5898
277.60	168.3480
277.60	168.3480
278.00	161.9010
278.60	144.3050
279.20	172.3366
279.53	186.3678
280.46	198.6605
281.68	166.2096
283.67	163.7180
284.30	168.4973
285.00	152.6857
285.90	170.6278
286.10	165.9726
286.10	165.9726
287.40	168.0529
288.45	0.0000
290.67	168.7574
290.80	159.7375
291.72	162.8912
293.26	0.0000
293.70	163.1892
295.21	139.9650
295.21	139.9650

295.21	139.9650
295.96	128.7057
296.50	128.7679
297.23	128.8551
298.57	113.8348
299.80	151.9507
299.80	151.9507
300.09	151.9922
300.09	151.9922
300.09	151.9922
300.09	151.9922
300.12	151.9946
301.29	152.1582
302.84	137.1335
303.76	144.8727
303.91	144.8912
304.40	123.5942
304.40	123.5942
304.84	148.0671
306.84	149.0969
308.46	123.4708
311.98	141.1389
316.51	144.5938
318.01	141.8881
319.02	135.2512
319.41	130.4640
320.08	141.1768
323.87	159.8763
323.87	159.8763
323.87	159.8763
323.87	159.8763
325.23	149.1867
328.77	135.6083
333.44	140.8381
334.20	142.4941
334.20	142.4941
334.30	142.5052
338.28	135.5153
338.28	135.5153
338.28	135.5153
338.28	135.5153
338.32	135.5216
338.32	135.5216
338.32	135.5216
340.50	100.7422
340.57	100.7469
344.27	122.9348
345.85	116.9944
350.59	0.0000
351.07	115.1097
351.92	115.1893
351.92	115.1893
351.92	115.1893
355.39	0.0000
356.01	133.8976
364.48	113.3345
366.43	108.4845
367.43	120.6317
367.94	0.0000
369.80	109.7751
374.96	108.1902
383.85	115.0294
387.95	110.2791
388.63	115.4433
391.69	105.4659
391.69	105.4659
392.90	114.7839
398.62	116.2950
400.65	109.2527
401.10	103.1021
401.81	99.0293
402.60	100.1171
404.84	112.4789
410.95	112.9720
411.60	99.7280
413.65	94.8794
414.70	93.9971
415.30	95.8226

415.76	93.7711
417.63	0.0000
418.52	104.3915
423.70	112.1038
427.08	91.3635
427.89	104.0243
432.53	91.7074
433.93	101.2896
439.47	103.7900
439.56	103.7960
439.89	104.8793
443.98	109.4171
444.90	100.9810
445.03	99.9266
445.03	99.9266
445.03	99.9266
445.03	99.9266
453.90	69.5058
463.38	86.0767
468.07	82.8832
473.00	99.6002
475.06	80.2182
475.35	81.3171
476.78	104.1812
477.59	96.6335
477.96	95.5706
482.03	79.4828
484.57	93.7869
487.03	67.7174
490.36	0.0000
492.35	89.8577
497.08	78.0300
507.63	0.0000
510.53	0.0000
510.84	95.3052
511.00	95.3144
511.85	113.5484
511.85	113.5484
513.99	87.0462
513.99	87.0462
520.41	75.7861
520.65	73.5692
527.90	64.9261
528.96	0.0000
529.64	68.3532
529.87	0.0000
531.02	65.0447
537.32	73.8360
543.00	76.7864
546.56	0.0000
549.76	84.3357
552.65	74.4807
555.20	81.8635
563.23	83.1441
563.90	83.1752
568.70	90.1157
569.32	94.7306
569.50	94.7407
569.67	90.1637
573.80	85.4665
574.00	85.4755
574.64	81.5976
578.91	84.4739
579.30	0.0000
583.14	64.6560
585.48	83.2324
591.81	50.1082
592.07	59.3969
593.00	85.4234
595.88	77.1843
600.56	82.9682
602.52	0.0000
602.71	80.8840
602.71	80.8840
603.60	87.1468
604.41	102.7517
604.70	108.9962
609.31	88.9674

609.31	88.9674
609.31	88.9674
609.31	88.9674
610.33	73.3973
612.46	57.8456
614.37	71.9873
618.01	66.7913
621.84	70.6915
621.84	70.6915
631.29	72.9263
633.02	64.4572
633.10	64.4605
634.78	63.5666
635.90	64.5519
636.97	72.1833
645.85	75.3663
646.12	78.2383
656.30	61.3703
657.75	72.9292
657.90	0.0000
661.65	78.8349
661.65	78.8349
664.57	0.0000
666.33	69.3773
666.33	69.3773
675.00	72.5702
677.61	73.6287
685.20	61.2543
692.80	73.1818
695.00	68.3730
696.49	71.3532
696.49	71.3532
697.00	70.3916
697.49	72.3632
698.33	70.4355
698.50	70.4408
699.00	77.3085
702.63	74.4971
706.10	59.8890
706.58	0.0000
706.67	56.9592
709.31	69.8092
711.68	73.8226
713.82	59.1152
717.42	65.7926
720.50	46.1187
721.93	0.0000
722.20	65.9342
722.78	67.6010
722.78	67.6010
722.89	67.6043
722.95	67.6060
723.30	69.2651
724.18	65.9928
727.18	56.5004
733.00	56.3167
735.90	74.6320
739.58	70.7677
742.81	64.8794
744.21	67.9153
747.13	58.0028
751.79	62.1287
752.31	61.1415
753.82	68.2025
755.35	47.1710
756.15	50.1990
756.87	60.2578
763.93	63.8003
765.79	65.5316
766.42	65.5491
766.84	79.6828
776.49	84.0618
778.00	63.8475
778.57	51.6985
778.89	50.6921
783.80	47.7493
785.46	63.0323
792.07	40.7793

795.84	59.5624
796.30	57.8717
798.80	64.7481
801.93	61.4194
805.60	55.3619
810.29	63.6862
810.76	62.6709
815.85	51.4771
817.79	54.6084
818.51	63.8997
819.60	71.1461
826.30	62.0347
828.27	0.0000
831.60	67.3470
831.96	66.3203
834.83	64.3220
836.80	0.0000
846.75	53.1615
848.13	58.4049
856.28	0.0000
856.80	47.0929
860.37	62.8784
867.32	46.5357
867.82	48.6088
871.10	63.1406
873.19	58.9791
874.81	55.8544
875.33	0.0000
876.40	52.7246
879.36	53.8401
880.27	49.6346
880.51	45.4146
881.50	55.9981
883.24	40.1755
884.67	41.2556
889.25	65.7009
896.60	66.9452
898.02	62.7293
899.00	59.5615
903.28	47.9388
911.07	51.2836
911.07	51.2836
911.07	51.2836
919.63	40.1926
920.93	41.8203
925.00	48.3267
925.24	46.1830
926.50	48.3530
935.52	51.7465
937.48	74.4395
944.10	41.0940
946.00	55.1898
949.00	43.3330
962.29	56.2380
964.01	39.9350
966.15	63.5813
968.20	89.4413
969.11	43.6445
969.11	43.6445
969.11	43.6445
977.42	41.5838
980.50	37.2464
983.50	38.3821
989.30	34.0644
996.32	48.6502
1001.03	45.9707
1001.68	42.3024
1004.76	47.8708
1021.30	0.0000
1024.50	0.0000
1034.80	40.9206
1036.00	37.2152
1037.82	29.7904
1038.57	44.6953
1038.76	0.0000
1045.16	43.8617
1046.59	44.8145
1048.07	45.7720

1050.47	44.8730
1050.47	44.8730
1062.04	46.9198
1063.62	52.5775
1076.63	53.7437
1077.35	45.2676
1078.86	38.6844
1085.78	47.2819
1099.22	48.4351
1112.02	35.9633
1112.84	55.5939
1115.52	57.2754
1120.29	50.8053
1120.29	50.8053
1120.29	50.8053
1120.29	50.8053
1120.51	50.8096
1121.28	54.1015
1124.00	0.0000
1129.67	50.8175
1131.51	0.0000
1147.95	0.0000
1167.94	53.3551
1173.22	49.5536
1175.09	42.7772
1177.93	51.5702
1189.05	45.8831
1204.90	61.7926
1205.75	0.0000
1213.00	54.0735
1221.42	56.1766
1230.97	52.5201
1235.34	54.2835
1236.41	0.0000
1238.25	42.4438
1246.25	47.6465
1260.41	0.0000
1271.85	49.9919
1274.45	58.0330
1274.54	58.0354
1291.56	30.1599
1298.22	0.0000
1312.09	23.2536
1325.50	24.3535
1325.50	24.3535
1332.49	36.5991
1333.61	34.5755
1360.21	22.5317
1362.66	0.0000
1365.15	19.4847
1368.21	29.1115
1368.53	0.0000
1376.25	19.5420
1384.27	22.2627
1394.10	26.8665
1395.20	29.9747
1407.95	22.8146
1434.06	30.2744
1436.60	15.6689
1457.56	0.0000
1460.81	26.2736
1489.15	14.5145
1509.49	17.0176
1596.49	22.7987
1620.62	8.1876
1678.03	0.0000
1691.02	16.1593
1691.02	16.1593
1706.46	0.0000
1750.46	0.0000
1764.49	8.4497
1764.49	8.4497
1764.49	8.4497
1764.49	8.4497
1770.23	59.9436
1771.40	29.9794
1791.20	0.0000
1808.65	5.8477

1836.01 18.6223

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960005

Total Uranium Activity	6.7520E+00	ug/g
Total Uranium Counting Unc.	6.0965E+00	ug/g
Total Uranium Tpu	3.1105E-06	ug/g
Total Uranium Mda	3.1174E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G245960005      *
*   ANALYST       : MXR1                      DETECTOR    : GAM12           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 15:48:18.45    SAMPLE ALQT:  127.600 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.146E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.428E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 4.141E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 2.003E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:50:42.20

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:42
Sample ID         : G245960006           Sample quantity  : 1.17770E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:09.59  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.66*	167	330	0.88	92.94	89	8	2.32E-02	21.6	
2	0	63.30*	681	618	1.05	126.24	121	10	9.45E-02	8.0	
3	2	74.80*	511	447	1.08	149.25	144	17	7.10E-02	7.9	2.69E+00
4	2	77.16*	845	399	0.93	153.98	144	17	1.17E-01	5.3	
5	3	83.91*	110	495	1.21	167.48	164	15	1.53E-02	36.9	7.15E+00
6	3	87.17	161	445	0.80	173.99	164	15	2.23E-02	20.5	
7	4	90.02	198	171	0.87	179.70	178	16	2.75E-02	10.7	2.20E+00
8	4	92.75*	1028	342	1.22	185.17	178	16	1.43E-01	4.5	
9	0	98.96	138	383	1.68	197.58	193	10	1.91E-02	28.0	
10	0	129.41	121	353	0.92	258.50	254	10	1.67E-02	30.7	
11	0	144.08*	101	399	1.43	287.86	281	12	1.40E-02	41.3	
12	0	185.83*	463	184	1.18	371.38	368	9	6.43E-02	7.3	
13	0	209.26	89	236	1.32	418.26	413	10	1.24E-02	33.9	
14	1	238.60*	952	116	1.07	476.98	472	16	1.32E-01	3.8	2.46E+00
15	1	241.67	222	134	1.24	483.12	472	16	3.08E-02	11.4	
16	0	270.20	40	186	1.45	540.19	536	10	5.56E-03	65.5	
17	0	295.10*	299	153	1.14	590.02	585	9	4.15E-02	9.6	
18	0	327.44	86	121	1.18	654.73	650	11	1.19E-02	27.0	
19	0	338.44*	189	156	1.14	676.74	670	12	2.62E-02	15.3	
20	0	351.75*	496	127	1.29	703.36	697	13	6.89E-02	6.6	
21	0	462.95	48	67	0.85	925.87	922	8	6.69E-03	32.9	
22	0	510.54*	148	102	2.04	1021.11	1013	17	2.05E-02	19.7	
23	0	582.98*	273	45	1.14	1166.06	1161	12	3.79E-02	8.1	
24	0	608.98*	332	68	1.47	1218.09	1212	12	4.61E-02	7.6	
25	0	661.47*	149	74	1.22	1323.12	1319	11	2.07E-02	14.3	
26	0	726.85	80	56	1.71	1453.98	1449	13	1.11E-02	22.2	
27	0	795.23	35	47	0.88	1590.81	1584	12	4.92E-03	42.4	
28	0	860.18	48	35	1.02	1720.80	1715	12	6.60E-03	29.1	
29	0	910.58*	158	36	1.66	1821.67	1816	13	2.20E-02	11.4	
30	0	963.90	38	34	1.59	1928.38	1923	9	5.31E-03	31.8	
31	0	968.21*	98	32	1.38	1937.00	1932	11	1.37E-02	15.5	
32	0	1119.59	76	46	1.00	2239.98	2232	13	1.06E-02	21.6	
33	0	1459.77*	519	12	2.03	2920.90	2913	16	7.21E-02	4.7	
34	0	1587.78	9	12	0.94	3177.16	3172	8	1.32E-03	70.8	
35	0	1763.30*	55	7	2.26	3528.54	3521	14	7.62E-03	17.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:50:44

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:42
Sample ID : G245960006 Sample quantity : 117.77 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:09.59 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.993E+01	2.571E+00	5.110E-01	4.537E-02	39.007
CD-109	+	88.03	*	2.108E+00	8.894E-01	1.299E+00	1.268E-01	1.622
SN-126	+	64.28		3.335E+00	7.538E-01	4.342E-01	6.931E-02	7.680
	+	86.94		8.613E-01	5.034E-01	5.291E-01	2.202E-01	1.628
	+	87.57	*	2.072E-01	8.741E-02	1.275E-01	1.244E-02	1.625
BA-137M	+	661.65	*	3.290E-01	9.812E-02	7.190E-02	6.057E-03	4.576
CS-137	+	661.65	*	3.478E-01	1.037E-01	7.600E-02	6.415E-03	4.576
CE-141	+	145.44	*	1.648E-01	1.372E-01	9.979E-02	1.018E-02	1.651
TL-208		277.35		2.907E-01	4.314E-01	7.553E-01	9.616E-02	0.385
	+	510.84		1.058E+00	4.367E-01	2.710E-01	3.310E-02	3.904
	+	583.14	*	5.699E-01	1.067E-01	6.893E-02	6.520E-03	8.267
	+	860.37		9.751E-01	5.744E-01	6.069E-01	5.710E-02	1.607
BI-210	+	46.50	*	2.081E+00	9.261E-01	9.011E-01	9.775E-02	2.309
PB-210	+	46.50	*	2.081E+00	9.261E-01	9.011E-01	9.775E-02	2.309
PO-210	+	46.50	*	2.081E+00	9.224E-01	9.011E-01	9.104E-02	2.309
BI-211		72.87		2.389E+00	2.376E+00	3.745E+00	3.661E-01	0.638
	+	351.07	*	4.200E+00	6.804E-01	3.905E-01	3.645E-02	10.753
PB-212	+	74.81		2.241E+00	4.646E-01	3.905E-01	5.277E-02	5.739
	+	77.11		2.206E+00	3.162E-01	2.332E-01	2.273E-02	9.463
	+	87.30		9.582E-01	4.155E-01	5.893E-01	8.233E-02	1.626
	+	238.63	*	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
		300.09		8.390E-01	9.685E-01	1.602E+00	1.745E-01	0.524
PO-212	+	74.81		2.241E+00	4.646E-01	3.905E-01	5.277E-02	5.739
	+	77.11		2.206E+00	3.162E-01	2.332E-01	2.273E-02	9.463
	+	87.30		9.582E-01	4.155E-01	5.893E-01	8.233E-02	1.626
		115.19		-1.950E+00	3.847E+00	6.227E+00	7.011E-01	-0.313
	+	238.63	*	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
		300.09		8.390E-01	9.685E-01	1.602E+00	1.745E-01	0.524
BI-214	+	609.31	*	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
	+	1120.29		1.644E+00	7.310E-01	6.230E-01	6.660E-02	2.639
	+	1764.49		1.649E+00	5.917E-01	4.889E-01	4.134E-02	3.372
PB-214	+	74.81		3.861E+00	7.696E-01	6.728E-01	8.245E-02	5.739
	+	77.11		3.783E+00	6.139E-01	3.997E-01	4.946E-02	9.463
	+	87.30		1.641E+00	7.040E-01	1.010E+00	1.255E-01	1.626

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.371E+00	5.973E-01	5.845E-01	6.223E-02	4.057
	+	295.21		1.464E+00	3.245E-01	2.494E-01	2.770E-02	5.870
	+	351.92	*	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
PO-214	+	74.81		3.861E+00	7.696E-01	6.728E-01	8.245E-02	5.739
	+	77.11		3.783E+00	6.139E-01	3.997E-01	4.946E-02	9.463
	+	87.30		1.641E+00	7.040E-01	1.010E+00	1.255E-01	1.626
	+	241.98		2.371E+00	5.973E-01	5.845E-01	6.223E-02	4.057
	+	295.21		1.464E+00	3.245E-01	2.494E-01	2.770E-02	5.870
	+	351.92	*	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
PO-216	+	74.81		2.241E+00	4.646E-01	3.905E-01	5.277E-02	5.739
	+	77.11		2.206E+00	3.162E-01	2.332E-01	2.273E-02	9.463
	+	87.30		9.582E-01	4.155E-01	5.893E-01	8.233E-02	1.626
	+	238.63	*	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
		300.09		8.390E-01	9.685E-01	1.602E+00	1.745E-01	0.524
PO-218	+	74.81		3.861E+00	7.696E-01	6.728E-01	8.245E-02	5.739
	+	77.11		3.783E+00	6.139E-01	3.997E-01	4.946E-02	9.463
	+	87.30		1.641E+00	7.040E-01	1.010E+00	1.255E-01	1.626
	+	241.98		2.371E+00	5.973E-01	5.845E-01	6.223E-02	4.057
	+	295.21		1.464E+00	3.245E-01	2.494E-01	2.770E-02	5.870
	+	351.92	*	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
RA-224	+	240.98	*	4.496E+00	1.104E+00	1.104E+00	9.987E-02	4.072
RA-226	+	609.31	*	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
	+	1120.29		1.644E+00	7.310E-01	6.230E-01	6.660E-02	2.639
	+	1764.49		1.649E+00	5.917E-01	4.889E-01	4.134E-02	3.372
AC-228	+	338.32		1.755E+00	9.017E-01	4.505E-01	1.862E-01	3.895
	+	911.07	*	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
	+	969.11		1.694E+00	6.569E-01	4.135E-01	9.668E-02	4.098
RA-228	+	338.32		1.755E+00	9.017E-01	4.505E-01	1.862E-01	3.895
	+	911.07	*	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
	+	969.11		1.694E+00	6.569E-01	4.135E-01	9.668E-02	4.098
TH-228	+	74.81		2.275E+00	4.218E-01	3.964E-01	3.895E-02	5.739
	+	77.11		2.240E+00	3.210E-01	2.367E-01	2.308E-02	9.463
	+	87.30		9.728E-01	4.104E-01	5.983E-01	5.837E-02	1.626
	+	238.63	*	1.718E+00	2.169E-01	9.843E-02	9.923E-03	17.455
		300.09		8.517E-01	1.102E+00	1.627E+00	9.657E-01	0.524
TH-230	+	609.31	*	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
	+	1120.29		1.644E+00	7.310E-01	6.230E-01	6.660E-02	2.639
	+	1764.49		1.649E+00	5.917E-01	4.888E-01	4.134E-02	3.372
TH-232	+	338.32		1.755E+00	5.583E-01	4.505E-01	4.059E-02	3.895
	+	911.07	*	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
	+	969.11		1.694E+00	6.569E-01	4.135E-01	9.668E-02	4.098
TH-234	+	63.29	*	8.425E+00	2.070E+00	1.127E+00	2.103E-01	7.476
	+	92.38		9.185E+00	1.911E+00	7.165E-01	1.344E-01	12.819
U-234	+	609.31	*	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
	+	1120.29		1.644E+00	7.310E-01	6.230E-01	6.660E-02	2.639
	+	1764.49		1.649E+00	5.917E-01	4.888E-01	4.134E-02	3.372
U-235	+	89.95		3.525E+00	1.335E+00	1.470E+00	4.590E-01	2.398
	+	93.35		1.104E+01	3.297E+00	8.642E-01	2.462E-01	12.777
		105.00		1.686E+00	1.186E+00	1.895E+00	5.776E-01	0.890

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	143.76	*	5.492E-01	4.648E-01	3.614E-01	6.625E-02	1.520
		163.35		-5.030E-02	5.107E-01	8.275E-01	1.577E-01	-0.061
	+	185.71		5.684E-01	9.619E-02	7.682E-02	6.578E-03	7.399
		205.31		-1.885E-01	6.883E-01	9.633E-01	1.844E-01	-0.196
NP-237	+	86.50	*	6.084E-01	2.857E-01	3.733E-01	8.519E-02	1.630
		95.87		1.129E+00	1.128E+00	1.425E+00	3.593E-01	0.792
U-238	+	63.29	*	8.425E+00	2.070E+00	1.127E+00	2.103E-01	7.476
	+	92.38		9.185E+00	1.234E+00	7.165E-01	7.141E-02	12.819
AM-243	+	74.67	*	3.633E-01	6.723E-02	6.329E-02	6.179E-03	5.741
	+	86.72		2.281E+01	9.626E+00	1.401E+01	1.366E+00	1.629
		117.66		-1.720E+00	3.852E+00	6.236E+00	7.120E-01	-0.276
		142.18		2.049E+01	1.947E+01	3.332E+01	3.436E+00	0.615
ANH-511	+	511.00	*	2.285E-01	9.239E-02	5.855E-02	5.229E-03	3.903

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.625E-01	4.247E-01	7.171E-01	6.823E-02	0.227
NA-22		1274.54	*	-2.995E-02	5.476E-02	8.208E-02	6.915E-03	-0.365
NA-24		1368.53	*	-4.117E-03	5.476E-02	Half-Life too short		
AL-26		1129.67		-6.483E-01	2.106E+00	3.276E+00	2.738E-01	-0.198
		1808.65	*	-7.166E-03	3.222E-02	4.883E-02	4.093E-03	-0.147
TI-44		67.85		-4.284E-03	2.870E-02	4.626E-02	4.556E-03	-0.093
	+	78.38	*	4.072E-01	5.835E-02	6.876E-02	6.700E-03	5.921
SC-46		889.25	*	5.391E-03	5.174E-02	8.663E-02	7.584E-03	0.062
	+	1120.51		2.815E-01	1.238E-01	1.817E-01	1.525E-02	1.550
V-48		944.10		2.371E-01	1.248E+00	2.098E+00	1.836E-01	0.113
		983.50	*	3.793E-02	8.917E-02	1.540E-01	1.343E-02	0.246
		1312.09		-4.844E-02	1.090E-01	1.721E-01	1.461E-02	-0.281
CR-51		320.08	*	2.605E-01	4.357E-01	7.590E-01	7.248E-02	0.343
MN-52		744.21		1.054E-01	3.262E-01	5.630E-01	4.894E-02	0.187
		848.13		4.119E+00	9.036E+00	1.571E+01	1.381E+00	0.262
		935.52		3.572E-01	3.813E-01	6.829E-01	5.977E-02	0.523
		1246.25		-3.507E+00	8.482E+00	1.281E+01	1.070E+00	-0.274
		1333.61		2.912E+00	6.228E+00	1.112E+01	9.478E-01	0.262
		1434.06	*	-6.087E-02	3.373E-01	5.462E-01	4.709E-02	-0.111
MN-54		834.83	*	-1.719E-02	5.085E-02	8.172E-02	7.186E-03	-0.210
CO-56		846.75	*	9.005E-03	5.215E-02	8.820E-02	7.753E-03	0.102
		977.42		-1.573E+00	3.641E+00	5.637E+00	4.920E-01	-0.279
		1037.82		-5.574E-02	4.335E-01	6.979E-01	6.347E-02	-0.080
		1175.09		5.442E-01	3.376E+00	5.555E+00	4.541E-01	0.098
		1238.25		1.469E-01	1.201E-01	2.169E-01	1.864E-02	0.677
		1360.21		-7.369E-01	1.108E+00	1.622E+00	1.388E-01	-0.454
		1771.40		1.519E-03	3.193E-01	5.226E-01	4.414E-02	0.003
CO-57		122.06	*	-4.294E-03	2.639E-02	4.329E-02	5.072E-03	-0.099
		136.48		1.136E-01	2.274E-01	3.821E-01	4.302E-02	0.297
CO-58		810.76	*	-1.944E-02	4.736E-02	7.515E-02	6.618E-03	-0.259
FE-59	+	142.65		7.089E+00	5.902E+00	5.448E+00	5.599E-01	1.301

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		192.34		-8.309E-01	1.098E+00	1.689E+00	2.269E-01	-0.492
		1099.22	*	-4.084E-02	1.211E-01	1.886E-01	1.731E-02	-0.217
		1291.56		-1.017E-01	1.804E-01	2.666E-01	2.568E-02	-0.381
CO-60		1173.22		1.092E-02	6.204E-02	1.024E-01	8.367E-03	0.107
		1332.49	*	2.478E-02	5.064E-02	9.039E-02	7.704E-03	0.274
ZN-65		1115.52	*	3.748E-02	1.347E-01	1.979E-01	1.666E-02	0.189
GE-68		1077.35	*	1.845E+00	1.684E+00	3.079E+00	2.628E-01	0.599
AS-73		53.44	*	2.266E-01	2.680E-01	4.626E-01	4.628E-02	0.490
AS-74		595.88	*	1.955E-02	1.178E-01	1.931E-01	1.701E-02	0.101
		634.78		1.824E-02	4.879E-01	7.862E-01	6.772E-02	0.023
SE-75		66.05		-8.588E-01	2.900E+00	4.367E+00	5.023E-01	-0.197
		96.73		6.610E-01	9.078E-01	1.150E+00	1.686E-01	0.575
		121.11		5.450E-02	1.384E-01	2.330E-01	3.188E-02	0.234
		136.00		1.521E-02	4.321E-02	7.219E-02	7.807E-03	0.211
		198.60		-1.731E-01	2.101E+00	3.321E+00	3.200E-01	-0.052
		264.65	*	-1.617E-02	4.983E-02	7.277E-02	6.686E-03	-0.222
		279.53		-6.285E-02	1.261E-01	2.078E-01	1.971E-02	-0.302
		303.91		-1.795E+00	2.409E+00	3.865E+00	4.597E-01	-0.464
		400.65		8.486E-02	3.116E-01	5.269E-01	5.800E-02	0.161
BR-77	+	87.88		4.610E+02	1.945E+02	3.229E+02	3.151E+01	1.428
		200.40		-8.900E+01	1.898E+02	2.974E+02	2.592E+01	-0.299
	+	239.00		2.751E+02	3.246E+01	4.535E+01	4.096E+00	6.067
		249.79		-7.872E+00	7.696E+01	1.214E+02	1.104E+01	-0.065
		281.68		7.898E+01	1.035E+02	1.825E+02	1.676E+01	0.433
		297.23		1.821E+01	8.275E+01	1.253E+02	1.150E+01	0.145
		303.76		-1.403E+02	2.082E+02	3.365E+02	3.085E+01	-0.417
		439.47		1.116E+02	1.738E+02	3.010E+02	2.623E+01	0.371
		484.57		1.761E+02	3.036E+02	5.200E+02	4.620E+01	0.339
		520.65	*	-6.212E+00	1.369E+01	2.136E+01	1.910E+00	-0.291
		574.64		-4.400E+00	2.723E+02	4.397E+02	3.904E+01	-0.010
		578.91		6.227E+01	1.147E+02	1.745E+02	1.547E+01	0.357
		585.48		3.981E+02	2.545E+02	4.220E+02	3.733E+01	0.943
		755.35		-1.292E+01	2.135E+02	3.556E+02	3.099E+01	-0.036
		817.79		3.894E+01	1.720E+02	2.934E+02	2.578E+01	0.133
SR-82		698.33		-9.676E+00	4.263E+01	7.035E+01	6.025E+00	-0.138
		776.49	*	-9.704E-02	5.019E-01	8.233E-01	7.205E-02	-0.118
		1395.20		-1.250E+00	1.508E+01	2.487E+01	2.137E+00	-0.050
RB-83		520.41	*	-4.430E-02	8.914E-02	1.384E-01	1.237E-02	-0.320
		529.64		8.421E-03	1.392E-01	2.277E-01	2.036E-02	0.037
		552.65		6.416E-02	2.572E-01	4.268E-01	3.809E-02	0.150
RB-84		881.50	*	5.517E-02	8.897E-02	1.574E-01	1.380E-02	0.350
KR-85		513.99	*	8.181E-01	1.028E+01	1.482E+01	1.324E+00	0.055
SR-85		513.99	*	4.197E-03	5.274E-02	7.599E-02	6.789E-03	0.055
RB-86		1076.63	*	4.581E-01	1.090E+00	1.863E+00	1.591E-01	0.246
Y-88		898.02		-2.161E-04	5.672E-02	9.330E-02	8.195E-03	-0.002
		1836.01	*	2.897E-03	4.526E-02	7.493E-02	6.248E-03	0.039
ZR-88		392.90	*	-2.674E-02	3.857E-02	6.076E-02	5.119E-03	-0.440
Y-91		1204.90	*	-1.648E+01	2.680E+01	4.014E+01	3.313E+00	-0.410
NB-94		702.63	*	-6.123E-04	4.207E-02	7.077E-02	6.070E-03	-0.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.10		-8.423E-03	4.415E-02	7.159E-02	6.282E-03	-0.118
NB-95		765.79	*	1.005E-01	6.064E-02	1.137E-01	9.927E-03	0.884
NB-95M		235.69	*	2.901E-02	1.400E-01	2.021E-01	2.063E-02	0.144
ZR-95		724.18		1.582E-01	1.440E-01	2.368E-01	2.222E-02	0.668
		756.15	*	-4.174E-03	8.961E-02	1.495E-01	1.432E-02	-0.028
NB-97		657.90	*	-8.707E-02	8.961E-02	Half-Life too short		
		1024.50		-3.032E+00	8.961E-02	Half-Life too short		
ZR-97		254.15		1.918E+00	8.961E-02	Half-Life too short		
		355.39		6.993E-01	8.961E-02	Half-Life too short		
		507.63	*	3.552E+00	8.961E-02	Half-Life too short		
		602.52		4.093E+00	8.961E-02	Half-Life too short		
		1021.30		-2.815E+00	8.961E-02	Half-Life too short		
		1147.95		-1.581E-01	8.961E-02	Half-Life too short		
		1362.66		-5.164E+00	8.961E-02	Half-Life too short		
		1750.46		-3.813E-01	8.961E-02	Half-Life too short		
MO-99		140.51		2.586E+00	3.052E+01	4.463E+01	1.264E+01	0.058
		181.06		-1.633E+00	2.023E+01	3.104E+01	5.662E+00	-0.053
		366.43		-2.952E+00	1.026E+02	1.709E+02	1.496E+01	-0.017
		739.58	*	-1.262E+01	1.677E+01	2.604E+01	3.963E+00	-0.485
		778.00		-5.023E+01	4.509E+01	6.620E+01	5.795E+00	-0.759
TC-99M		140.51	*	4.176E+09	4.509E+01	Half-Life too short		
RH-101		127.23		1.165E-03	3.961E-02	5.860E-02	6.665E-03	0.020
		198.01	*	7.915E-03	3.838E-02	6.163E-02	5.358E-03	0.128
		325.23		2.250E-01	2.764E-01	4.384E-01	3.985E-02	0.513
RH-102		418.52		-3.773E-02	3.502E-01	5.744E-01	4.939E-02	-0.066
		475.06	*	-1.944E-02	3.867E-02	6.075E-02	5.381E-03	-0.320
		631.29		4.838E-04	7.564E-02	1.216E-01	1.050E-02	0.004
		697.49		1.622E-02	9.749E-02	1.667E-01	1.427E-02	0.097
		766.84		2.255E-01	1.564E-01	2.889E-01	2.524E-02	0.781
		1046.59		-3.421E-02	1.624E-01	2.587E-01	2.229E-02	-0.132
		1112.84		1.153E-01	3.147E-01	4.715E-01	3.970E-02	0.245
RU-103		497.08	*	1.048E-02	5.076E-02	8.447E-02	1.211E-02	0.124
	+	610.33		1.423E+01	3.218E+00	3.773E+00	6.320E-01	3.771
RH-106	+	511.85		1.141E+00	4.615E-01	5.710E-01	5.100E-02	1.999
		621.84	*	1.563E-01	4.182E-01	6.970E-01	9.341E-02	0.224
		1050.47		2.962E+00	3.341E+00	5.962E+00	5.131E-01	0.497
RU-106	+	511.85		1.141E+00	4.615E-01	5.710E-01	5.100E-02	1.999
		621.84	*	1.563E-01	4.179E-01	6.970E-01	6.055E-02	0.224
		1050.47		2.962E+00	3.341E+00	5.962E+00	5.131E-01	0.497
AG-108M		433.93	*	1.569E-02	3.998E-02	6.799E-02	6.137E-03	0.231
		614.37		1.953E-03	5.503E-02	7.770E-02	7.040E-03	0.025
		722.95		4.390E-03	5.976E-02	8.836E-02	7.931E-03	0.050
AG-110M		657.75	*	-2.751E-02	5.440E-02	7.017E-02	6.115E-03	-0.392
		677.61		-2.602E-01	3.947E-01	5.805E-01	5.071E-02	-0.448
		706.67		1.118E-01	2.719E-01	4.739E-01	4.185E-02	0.236
		763.93		-1.094E-01	2.365E-01	3.800E-01	3.409E-02	-0.288
		884.67		-2.649E-02	6.716E-02	1.062E-01	9.596E-03	-0.249
		937.48		-3.274E-01	1.725E-01	2.207E-01	1.999E-02	-1.483
		1384.27		-1.284E-01	1.866E-01	2.723E-01	2.404E-02	-0.472

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-111		171.28		-1.152E+00	1.134E+00	1.733E+00	1.455E-01	-0.665
		245.39	*	-1.520E-01	1.361E+00	1.905E+00	1.728E-01	-0.080
IN-113M		391.69	*	-5.169E-03	5.465E-02	9.018E-02	7.835E-03	-0.057
SN-113		391.69	*	-5.169E-03	5.465E-02	9.018E-02	7.835E-03	-0.057
IN-114M		190.27	*	4.126E-02	2.239E-01	3.268E-01	2.814E-02	0.126
CD-115		260.90		-5.606E-01	1.502E+02	2.379E+02	2.174E+01	-0.002
		492.35		-3.413E+01	4.720E+01	7.208E+01	6.416E+00	-0.474
		527.90	*	6.025E-01	1.411E+01	2.305E+01	2.061E+00	0.026
SN-117M		156.02		-3.316E-01	2.571E+00	4.171E+00	3.840E-01	-0.079
		158.56	*	1.881E-02	5.846E-02	9.697E-02	8.716E-03	0.194
SB-122		563.90	*	2.411E-01	2.889E+00	4.715E+00	4.198E-01	0.051
		692.80		1.882E+01	5.778E+01	1.001E+02	8.554E+00	0.188
I-123		159.00	*	1.790E+00	5.778E+01	Half-Life too short		
		528.96		2.798E+02	5.778E+01	Half-Life too short		
TE-123M		159.00	*	8.386E-03	3.030E-02	5.014E-02	4.513E-03	0.167
I-124		602.71	*	2.223E-01	1.029E+00	1.488E+00	1.306E-01	0.149
		722.78		2.776E+00	6.019E+00	9.359E+00	8.085E-01	0.297
		1325.50		3.086E+00	4.342E+01	7.351E+01	6.257E+00	0.042
		1376.25		5.647E+01	4.171E+01	8.099E+01	6.945E+00	0.697
		1509.49		6.254E+00	2.208E+01	3.820E+01	3.304E+00	0.164
		1691.02		2.834E+00	5.908E+00	1.055E+01	9.026E-01	0.269
SB-124		602.71		1.284E-02	5.942E-02	8.590E-02	7.545E-03	0.149
		645.85		5.919E-02	6.201E-01	1.005E+00	9.105E-02	0.059
		709.31		1.421E+00	3.815E+00	6.425E+00	5.524E-01	0.221
		713.82		-4.344E-01	2.086E+00	3.441E+00	4.140E-01	-0.126
		722.78		2.324E-01	5.038E-01	7.835E-01	6.914E-02	0.297
	+	968.20		1.745E+01	5.609E+00	9.433E+00	8.241E-01	1.850
		1045.16		-1.910E+00	3.504E+00	5.347E+00	4.609E-01	-0.357
		1325.50		2.759E-01	3.882E+00	6.572E+00	5.594E-01	0.042
		1368.21		-3.341E-01	2.042E+00	3.318E+00	4.460E-01	-0.101
		1436.60		-6.981E-01	5.406E+00	8.826E+00	7.611E-01	-0.079
		1691.02	*	5.596E-02	1.167E-01	2.083E-01	1.854E-02	0.269
SB-125		427.89	*	9.833E-02	1.124E-01	1.975E-01	1.742E-02	0.498
	+	463.38		6.641E-01	4.411E-01	6.811E-01	6.457E-02	0.975
		600.56		-6.242E-02	2.392E-01	3.761E-01	3.541E-02	-0.166
		635.90		-3.682E-02	3.776E-01	6.003E-01	5.584E-02	-0.061
TE-125M		109.28	*	7.867E+00	9.762E+00	1.669E+01	2.051E+00	0.471
I-126		388.63		3.561E-02	2.573E-01	4.317E-01	3.653E-02	0.082
		666.33	*	-4.359E-02	2.660E-01	3.615E-01	3.052E-02	-0.121
		753.82		2.172E-01	1.869E+00	3.167E+00	2.759E-01	0.069
SB-126		223.80		-1.981E+00	4.550E+00	7.075E+00	6.315E-01	-0.280
		278.60		7.878E-02	2.836E+00	4.818E+00	4.422E-01	0.016
	+	296.50		1.461E+01	3.107E+00	4.377E+00	4.018E-01	3.338
		414.70		9.031E-02	9.281E-02	1.639E-01	1.406E-02	0.551
		415.30		7.124E+00	7.797E+00	1.372E+01	1.177E+00	0.519
		555.20		3.227E+00	5.056E+00	8.679E+00	7.742E-01	0.372
		573.80		-3.871E-01	1.356E+00	2.133E+00	1.895E-01	-0.181
		593.00		-3.477E-01	1.146E+00	1.788E+00	1.577E-01	-0.194
		656.30		-2.679E+00	4.897E+00	6.232E+00	5.276E-01	-0.430

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		666.33		-1.822E-02	1.112E-01	1.511E-01	1.276E-02	-0.121
		675.00		1.989E+00	2.454E+00	4.266E+00	3.617E-01	0.466
		695.00		1.063E-02	1.036E-01	1.762E-01	1.507E-02	0.060
		697.00		2.081E-01	3.404E-01	6.036E-01	5.166E-02	0.345
		720.50	*	5.568E-02	2.055E-01	3.248E-01	2.804E-02	0.171
		856.80		4.542E-02	7.228E-01	1.051E+00	9.237E-02	0.043
		989.30		-3.451E-01	1.594E+00	2.543E+00	2.216E-01	-0.136
		1034.80		-7.903E+00	1.220E+01	1.831E+01	1.583E+00	-0.432
		1213.00		-5.351E+00	7.038E+00	1.039E+01	8.594E-01	-0.515
SB-127		61.10		1.493E+00	3.068E+01	4.714E+01	5.792E+00	0.032
		252.40		2.549E-01	4.811E+00	7.667E+00	3.231E+00	0.033
		290.80		-3.272E+00	2.769E+01	4.099E+01	4.760E+00	-0.080
		411.60		2.272E+00	1.536E+01	2.569E+01	4.033E+00	0.088
		444.90		4.092E+00	1.208E+01	2.042E+01	2.579E+00	0.200
		473.00		-1.373E+00	2.176E+00	3.366E+00	4.387E-01	-0.408
		543.00		-9.460E-01	2.061E+01	3.332E+01	4.863E+00	-0.028
		603.60		-5.601E-01	1.812E+01	2.540E+01	3.208E+00	-0.022
		685.20	*	-8.523E-01	1.884E+00	2.854E+00	3.230E-01	-0.299
		698.50		-8.635E+00	1.938E+01	3.125E+01	4.937E+00	-0.276
		722.20		3.383E+01	4.084E+01	6.624E+01	7.410E+00	0.511
		783.80		-4.384E-01	4.905E+00	8.127E+00	1.018E+00	-0.054
XE-127		57.60		-3.868E-01	2.571E+00	4.362E+00	4.381E-01	-0.089
	+	145.22		1.816E+00	1.512E+00	1.363E+00	1.374E-01	1.333
		172.10		-2.174E-02	1.286E-01	2.068E-01	1.739E-02	-0.105
		202.84	*	1.105E-02	5.381E-02	8.757E-02	7.655E-03	0.126
		374.96		-1.990E-01	2.413E-01	3.770E-01	3.261E-02	-0.528
I-131		80.18		2.134E+00	4.770E+00	5.940E+00	5.815E-01	0.359
		284.30		-1.626E+00	1.757E+00	2.806E+00	2.695E-01	-0.580
		364.48	*	1.218E-02	1.425E-01	2.393E-01	2.209E-02	0.051
		636.97		-7.808E-02	2.177E+00	3.482E+00	3.162E-01	-0.022
		722.89		4.117E+00	9.639E+00	1.493E+01	1.298E+00	0.276
TE-132		49.72		3.252E-01	4.644E+00	7.207E+00	8.659E-01	0.045
		111.76		-1.013E+01	3.260E+01	5.338E+01	6.872E+00	-0.190
		116.30		3.679E+00	2.885E+01	4.807E+01	6.308E+00	0.077
		228.16	*	1.160E-01	7.899E-01	1.273E+00	2.026E-01	0.091
BA-133		53.15		2.231E-01	1.127E+00	1.910E+00	1.911E-01	0.117
		79.62		9.404E-01	1.330E+00	1.678E+00	2.666E-01	0.560
		81.00		1.542E-02	1.009E-01	1.231E-01	2.032E-02	0.125
		276.40		3.721E-01	4.409E-01	7.543E-01	1.115E-01	0.493
		302.84		-6.593E-02	1.661E-01	2.735E-01	3.733E-02	-0.241
		356.01	*	-8.692E-03	5.529E-02	8.007E-02	1.070E-02	-0.109
		383.85		-1.407E-01	3.686E-01	5.957E-01	7.472E-02	-0.236
I-133	+	510.53		2.404E+00	3.686E-01	Half-Life too short		
		529.87	*	4.006E-04	3.686E-01	Half-Life too short		
		706.58		2.235E-01	3.686E-01	Half-Life too short		
		856.28		-8.290E-02	3.686E-01	Half-Life too short		
		875.33		3.361E-02	3.686E-01	Half-Life too short		
		1236.41		8.517E-01	3.686E-01	Half-Life too short		
		1298.22		1.617E-01	3.686E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134		475.35		5.439E-01	2.425E+00	4.051E+00	3.588E-01	0.134
		563.23		3.557E-01	4.799E-01	8.266E-01	7.427E-02	0.430
		569.32		2.503E-01	2.710E-01	4.719E-01	4.250E-02	0.531
		604.70		1.157E-02	5.228E-02	7.555E-02	6.644E-03	0.153
	+	795.84	*	1.109E-01	9.462E-02	1.179E-01	1.042E-02	0.940
		801.93		-7.818E-01	5.319E-01	7.020E-01	6.197E-02	-1.114
		1038.57		-3.144E-01	5.515E+00	8.957E+00	7.733E-01	-0.035
		1167.94		-3.035E+00	3.615E+00	5.256E+00	4.307E-01	-0.577
		1365.15		5.170E-01	1.310E+00	2.343E+00	2.099E-01	0.221
CS-135		268.24	*	9.409E-02	1.983E-01	2.905E-01	3.031E-02	0.324
I-135		288.45		1.337E+09	1.983E-01	Half-Life too short		
		417.63		-1.491E+10	1.983E-01	Half-Life too short		
		546.56		1.149E+10	1.983E-01	Half-Life too short		
		836.80		7.146E+09	1.983E-01	Half-Life too short		
		1038.76		-4.084E+08	1.983E-01	Half-Life too short		
		1124.00		6.179E+10	1.983E-01	Half-Life too short		
		1131.51		6.185E+09	1.983E-01	Half-Life too short		
		1260.41	*	-3.808E+09	1.983E-01	Half-Life too short		
		1457.56		7.746E+11	1.983E-01	Half-Life too short		
		1678.03		3.910E+09	1.983E-01	Half-Life too short		
		1706.46		-2.475E+10	1.983E-01	Half-Life too short		
		1791.20		1.063E+10	1.983E-01	Half-Life too short		
CS-136		66.91		1.314E-01	4.891E-01	7.552E-01	1.221E-01	0.174
	+	86.29		2.710E+00	1.172E+00	1.918E+00	2.616E-01	1.412
		153.22		5.292E-01	7.491E-01	1.262E+00	1.310E-01	0.419
		163.89		6.151E-01	1.169E+00	1.954E+00	1.868E-01	0.315
		176.55		4.449E-02	4.066E-01	6.635E-01	5.949E-02	0.067
		273.65		-5.405E-01	6.298E-01	8.117E-01	7.880E-02	-0.666
		340.57		1.284E-01	1.701E-01	2.662E-01	2.458E-02	0.482
		818.51		-1.434E-02	9.662E-02	1.584E-01	1.393E-02	-0.091
		1048.07	*	-1.636E-02	1.569E-01	2.532E-01	2.274E-02	-0.065
		1235.34		-7.803E-02	8.992E-01	1.360E+00	1.583E-01	-0.057
CE-139		165.85	*	-2.340E-02	3.505E-02	5.505E-02	4.590E-03	-0.425
BA-140		162.64		1.397E-02	8.073E-01	1.317E+00	1.202E-01	0.011
		304.84		-9.591E-01	1.430E+00	2.266E+00	6.389E-01	-0.423
		423.70		-2.471E+00	2.512E+00	3.545E+00	1.149E+00	-0.697
		537.32	*	-2.041E-01	3.158E-01	4.668E-01	1.551E-01	-0.437
LA-140	+	328.77		9.835E-01	5.396E-01	6.459E-01	6.157E-02	1.523
		432.53		9.693E-01	2.516E+00	4.277E+00	3.890E-01	0.227
		487.03		-1.295E-02	1.805E-01	2.937E-01	2.763E-02	-0.044
		751.79		-8.618E-01	2.126E+00	3.412E+00	3.283E-01	-0.253
		815.85		1.514E-01	3.975E-01	6.897E-01	6.734E-02	0.219
		867.82		3.283E-01	1.853E+00	3.055E+00	2.818E-01	0.107
		919.63		-3.644E-01	3.618E+00	5.901E+00	6.345E-01	-0.062
		925.24		-4.520E-01	1.526E+00	2.430E+00	2.257E-01	-0.186
		1596.49	*	-1.034E-01	1.213E-01	1.679E-01	1.449E-02	-0.616
CE-143		57.37		-1.396E-04	1.213E-01	Half-Life too short		
		231.56		-3.021E-03	1.213E-01	Half-Life too short		
		293.26	*	6.487E-04	1.213E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	350.59		3.400E-02	1.213E-01	Half-Life too short		
		490.36		-3.483E-05	1.213E-01	Half-Life too short		
		664.57		1.126E-03	1.213E-01	Half-Life too short		
		721.93		1.599E-03	1.213E-01	Half-Life too short		
CE-144		80.11		1.033E+00	2.187E+00	2.729E+00	2.658E-01	0.379
		133.54	*	-5.955E-02	2.471E-01	3.580E-01	6.072E-02	-0.166
PM-144		476.78		1.004E-01	8.654E-02	1.541E-01	1.487E-02	0.651
		618.01		2.688E-02	4.113E-02	7.037E-02	6.294E-03	0.382
		696.49	*	1.726E-02	4.414E-02	7.689E-02	6.582E-03	0.224
		778.57		-1.327E+00	2.964E+00	4.726E+00	4.138E-01	-0.281
PR-144		696.49	*	1.169E+00	2.991E+00	5.210E+00	4.459E-01	0.224
		1489.15		2.794E+00	1.314E+01	2.276E+01	1.968E+00	0.123
PM-146		453.90	*	2.672E-02	5.754E-02	9.788E-02	1.062E-02	0.273
		633.02		-1.353E+00	2.008E+00	2.900E+00	1.084E+00	-0.467
		735.90		8.954E-02	1.906E-01	3.315E-01	9.488E-02	0.270
		747.13		-6.704E-02	1.220E-01	1.931E-01	2.721E-02	-0.347
ND-147	+	91.11		8.874E-01	2.116E-01	5.871E-01	6.182E-02	1.512
		319.41		6.293E-01	3.800E+00	6.461E+00	5.892E-01	0.097
		439.89		3.607E+00	7.079E+00	1.214E+01	1.058E+00	0.297
		531.02	*	-5.268E-02	7.376E-01	1.192E+00	1.805E-01	-0.044
PM-149		285.90	*	-2.332E+01	1.088E+02	1.820E+02	2.886E+01	-0.128
EU-152		121.78		8.075E-03	7.556E-02	1.256E-01	1.593E-02	0.064
		244.69		-2.570E-02	4.136E-01	5.816E-01	5.272E-02	-0.044
		344.27	*	-5.035E-04	1.200E-01	1.944E-01	1.839E-02	-0.003
		443.98		-4.310E-01	1.213E+00	1.940E+00	1.695E-01	-0.222
		778.89		-6.356E-02	3.265E-01	5.345E-01	4.679E-02	-0.119
		867.32		3.767E-01	1.115E+00	1.822E+00	1.600E-01	0.207
	+	964.01		7.567E-01	4.860E-01	8.283E-01	7.239E-02	0.914
		1085.78		1.044E-01	4.854E-01	8.132E-01	6.920E-02	0.128
		1112.02		-6.272E-03	4.525E-01	6.335E-01	5.336E-02	-0.010
		1407.95		1.745E-01	2.213E-01	4.133E-01	3.556E-02	0.422
GD-153		69.67		1.323E-01	1.147E+00	1.758E+00	1.726E-01	0.075
	+	83.37		2.478E+01	1.842E+01	2.340E+01	2.280E+00	1.059
		97.43	*	1.327E-01	9.747E-02	1.291E-01	1.320E-02	1.027
		103.18		-1.380E-01	1.185E-01	1.637E-01	1.725E-02	-0.843
EU-154		123.07		9.088E-03	5.428E-02	9.040E-02	1.248E-02	0.101
		247.94		8.398E-03	4.123E-01	6.564E-01	7.762E-02	0.013
		591.81		-5.948E-01	7.529E-01	1.103E+00	1.304E-01	-0.539
		723.30		2.608E-02	2.506E-01	3.720E-01	3.551E-02	0.070
		756.87		3.032E-01	9.930E-01	1.712E+00	2.062E-01	0.177
		873.19		-2.225E-01	3.949E-01	6.106E-01	7.543E-02	-0.364
		996.32		-5.094E-01	5.778E-01	8.473E-01	1.509E-01	-0.601
		1004.76		-1.869E-01	3.229E-01	4.952E-01	5.792E-02	-0.377
		1274.45	*	-2.444E-02	1.446E-01	2.306E-01	2.572E-02	-0.106
EU-155		48.70		9.040E-02	5.003E-01	7.817E-01	7.853E-02	0.116
		60.01		4.084E-01	2.551E+00	3.924E+00	3.948E-01	0.104
	+	86.54		2.495E-01	1.053E-01	1.803E-01	1.772E-02	1.384
		105.31	*	1.511E-01	1.095E-01	1.907E-01	2.048E-02	0.792
TB-160	+	86.79		6.668E-01	2.813E-01	4.802E-01	4.684E-02	1.389

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-2.450E-01	6.705E-01	1.044E+00	9.067E-02	-0.235
		215.65		-2.211E-01	8.163E-01	1.286E+00	1.140E-01	-0.172
		298.57		4.689E-02	1.513E-01	2.310E-01	2.120E-02	0.203
		879.36	*	-9.832E-02	1.880E-01	2.928E-01	2.567E-02	-0.336
		962.29		1.035E+00	9.213E-01	1.498E+00	1.309E-01	0.691
		966.15		1.238E+00	5.071E-01	7.247E-01	6.332E-02	1.708
		1177.93		3.834E-01	5.366E-01	9.316E-01	7.622E-02	0.411
		1271.85		3.053E-01	8.603E-01	1.455E+00	1.224E-01	0.210
HO-166M		80.57		8.283E-02	2.783E-01	3.430E-01	3.341E-02	0.241
	+	184.41		4.263E-01	7.214E-02	9.245E-02	7.903E-03	4.611
		280.46		7.343E-03	9.848E-02	1.677E-01	1.540E-02	0.044
		410.95		6.946E-02	3.043E-01	5.121E-01	4.379E-02	0.136
		711.68	*	-5.490E-02	7.986E-02	1.256E-01	1.081E-02	-0.437
		752.31		-1.847E-01	3.417E-01	5.402E-01	4.704E-02	-0.342
		810.29		-5.449E-02	7.389E-02	1.126E-01	9.891E-03	-0.484
TM-171		51.35		-7.569E+00	7.823E+00	1.284E+01	1.285E+00	-0.589
		52.39		-1.248E+00	4.632E+00	7.717E+00	7.721E-01	-0.162
		59.40		-9.240E-01	1.356E+01	2.067E+01	2.083E+00	-0.045
		66.72	*	3.837E+00	1.753E+01	2.703E+01	2.668E+00	0.142
LU-176	+	88.36		4.914E-01	2.073E-01	3.392E-01	3.317E-02	1.449
		201.83		-1.193E-02	3.379E-02	5.332E-02	4.656E-03	-0.224
		306.84	*	-1.340E-02	2.717E-02	4.430E-02	4.059E-03	-0.302
		401.10		-4.225E-01	8.249E+00	1.363E+01	1.157E+00	-0.031
LU-177		112.95		1.927E+00	1.782E+00	3.067E+00	3.410E-01	0.628
	+	208.36	*	2.809E+00	1.921E+00	2.244E+00	1.974E-01	1.251
LU-177M		52.97		8.899E-02	5.037E-01	8.530E-01	8.533E-02	0.104
		54.07		2.320E-01	2.909E-01	5.015E-01	5.018E-02	0.463
		61.30		4.307E-02	8.170E-01	1.255E+00	1.257E-01	0.034
		121.62		7.193E-02	3.889E-01	6.486E-01	7.576E-02	0.111
		147.16		-3.297E-02	7.691E-01	1.123E+00	1.115E-01	-0.029
		171.86		-4.068E-01	5.374E-01	8.351E-01	7.018E-02	-0.487
		218.09		-7.379E-01	9.542E-01	1.451E+00	1.289E-01	-0.509
	+	268.79		1.100E+00	1.445E+00	1.583E+00	1.451E-01	0.695
		319.02		3.850E-02	2.882E-01	4.893E-01	4.462E-02	0.079
		367.43		-1.089E-01	1.090E+00	1.805E+00	1.578E-01	-0.060
		413.65	*	-1.178E-01	2.288E-01	3.645E-01	3.123E-02	-0.323
HF-181		56.28		-1.186E-01	3.704E-01	6.252E-01	6.267E-02	-0.190
		57.53		-4.240E-02	2.152E-01	3.645E-01	3.661E-02	-0.116
		65.20		3.888E-01	5.657E-01	8.888E-01	8.802E-02	0.437
		133.02		2.605E-02	7.647E-02	1.151E-01	1.263E-02	0.226
		136.25		1.714E-01	5.043E-01	8.420E-01	9.050E-02	0.204
		345.85		2.309E-02	2.600E-01	3.866E-01	3.461E-02	0.060
		482.03	*	-1.341E-02	5.588E-02	8.970E-02	7.963E-03	-0.150
W-181		56.28		-4.623E-02	1.450E-01	2.447E-01	2.453E-02	-0.189
		57.53		-1.672E-02	8.424E-02	1.427E-01	1.433E-02	-0.117
		65.20	*	1.510E-01	2.197E-01	3.453E-01	3.419E-02	0.437
TA-182		67.75		6.287E-03	7.187E-02	1.101E-01	1.084E-02	0.057
	+	100.10		5.254E-01	2.991E-01	3.066E-01	3.178E-02	1.714
		152.43		-3.505E-02	3.747E-01	6.098E-01	5.797E-02	-0.057

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		222.10		5.906E-02	3.884E-01	6.275E-01	5.593E-02	0.094
		1001.68		4.200E+00	3.180E+00	5.821E+00	5.064E-01	0.722
		1121.28		6.117E-01	2.755E-01	4.797E-01	4.024E-02	1.275
		1189.05		4.770E-01	4.278E-01	7.730E-01	6.348E-02	0.617
		1221.42	*	2.252E-02	2.978E-01	4.840E-01	4.014E-02	0.047
		1230.97		5.930E-02	6.557E-01	1.067E+00	8.877E-02	0.056
RE-183		57.98		1.646E-02	8.983E-02	1.465E-01	1.473E-02	0.112
		59.32		-3.331E-03	5.562E-02	8.479E-02	8.543E-03	-0.039
		67.20		2.611E-02	1.281E-01	1.972E-01	1.945E-02	0.132
		162.32	*	-4.284E-02	1.188E-01	1.897E-01	1.642E-02	-0.226
	+	208.81		2.515E+00	1.720E+00	2.016E+00	1.774E-01	1.248
		291.72		-1.488E-03	1.209E+00	1.807E+00	1.659E-01	-0.001
RE-184		57.98		6.063E-02	3.309E-01	5.398E-01	5.425E-02	0.112
		59.32		-1.226E-02	2.047E-01	3.121E-01	3.145E-02	-0.039
		67.20		9.618E-02	4.717E-01	7.264E-01	7.162E-02	0.132
		161.27		-2.478E-01	3.784E-01	5.939E-01	5.197E-02	-0.417
		216.55		-5.988E-02	2.892E-01	4.574E-01	4.056E-02	-0.131
		252.85	*	-1.682E-01	2.683E-01	4.063E-01	3.700E-02	-0.414
		318.01		-1.447E-01	5.116E-01	8.452E-01	7.711E-02	-0.171
		792.07		1.388E-01	1.659E+00	2.434E+00	2.134E-01	0.057
		903.28		-2.317E-01	1.366E+00	2.081E+00	1.820E-01	-0.111
		920.93		3.761E-01	6.070E-01	1.069E+00	9.352E-02	0.352
OS-185		59.72		-6.885E-03	1.518E-01	2.314E-01	2.331E-02	-0.030
		61.14		5.512E-03	8.683E-02	1.335E-01	1.337E-02	0.041
		69.30		1.853E-02	1.922E-01	3.124E-01	3.068E-02	0.059
		592.07		-2.572E+00	3.089E+00	4.512E+00	3.981E-01	-0.570
		646.12	*	-1.912E-03	5.333E-02	8.516E-02	7.271E-03	-0.022
		717.42		-2.922E-01	1.176E+00	1.932E+00	1.666E-01	-0.151
		874.81		3.072E-01	7.329E-01	1.272E+00	1.116E-01	0.241
		880.27		1.910E-02	1.022E+00	1.697E+00	1.487E-01	0.011
RE-188		155.03	*	1.547E-01	1.930E-01	3.266E-01	3.034E-02	0.474
		477.96		2.110E+00	3.983E+00	6.802E+00	6.031E-01	0.310
		633.10		-2.651E+00	3.944E+00	5.891E+00	5.080E-01	-0.450
W-188	+	63.58		3.388E+02	6.379E+01	7.423E+01	7.383E+00	4.564
		227.08		-2.367E+00	1.450E+01	2.294E+01	2.053E+00	-0.103
		290.67	*	-9.830E-01	9.529E+00	1.412E+01	1.297E+00	-0.070
IR-192	+	295.96		1.117E+00	2.378E-01	3.582E-01	3.309E-02	3.118
		308.46		7.756E-02	1.062E-01	1.870E-01	1.720E-02	0.415
		316.51	*	-1.021E-02	3.813E-02	6.303E-02	5.767E-03	-0.162
		468.07		-4.907E-03	8.864E-02	1.339E-01	1.264E-02	-0.037
		604.41		1.160E-01	7.041E-01	1.011E+00	1.326E-01	0.115
		612.46		3.352E-01	9.163E-01	1.356E+00	1.356E-01	0.247
AU-195		65.12		1.387E-01	1.045E-01	1.673E-01	1.657E-02	0.829
		66.83		1.333E-02	5.839E-02	9.005E-02	8.886E-03	0.148
	+	75.70		1.176E+00	2.176E-01	3.656E-01	3.567E-02	3.216
	+	98.88	*	6.568E-01	3.739E-01	4.109E-01	4.232E-02	1.598
	+	129.76		8.537E+00	5.326E+00	5.805E+00	6.503E-01	1.471
TL-200		367.94	*	-1.637E-04	5.326E+00	Half-Life too short		
		579.30		2.722E-03	5.326E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		828.27		-3.594E-03	5.326E+00	Half-Life too short		
		1205.75		-8.775E-04	5.326E+00	Half-Life too short		
TL-201		68.90		2.836E-02	2.960E+00	5.016E+00	4.930E-01	0.006
		70.82		5.848E-01	1.954E+00	3.013E+00	2.953E-01	0.194
		80.30		2.088E+00	5.231E+00	6.492E+00	6.323E-01	0.322
		135.34		6.067E+00	2.769E+01	4.601E+01	4.976E+00	0.132
		167.43	*	9.185E+00	8.070E+00	1.381E+01	1.154E+00	0.665
TL-202		68.90		2.533E-03	2.643E-01	4.479E-01	4.403E-02	0.006
		70.82		5.208E-02	1.740E-01	2.683E-01	2.630E-02	0.194
		80.30		1.859E-01	4.659E-01	5.783E-01	5.633E-02	0.322
		439.56	*	5.287E-02	8.327E-02	1.441E-01	1.256E-02	0.367
HG-203		70.83		2.273E-01	7.533E-01	1.161E+00	1.670E-01	0.196
		72.87		4.755E-01	4.752E-01	7.453E-01	1.042E-01	0.638
	+	82.60		1.843E+00	1.384E+00	1.604E+00	2.321E-01	1.149
		279.20	*	-1.874E-02	4.743E-02	7.865E-02	7.402E-03	-0.238
BI-207		72.80		1.245E-01	1.379E-01	2.167E-01	2.119E-02	0.574
	+	74.97		6.522E-01	1.207E-01	1.808E-01	1.764E-02	3.608
	+	84.90		3.204E-01	2.382E-01	3.067E-01	2.990E-02	1.045
		569.67		1.353E-02	4.322E-02	7.181E-02	6.385E-03	0.188
		1063.62	*	6.848E-02	6.926E-02	1.257E-01	1.078E-02	0.545
		1770.23		-1.083E+00	8.647E-01	1.074E+00	9.071E-02	-1.009
TL-207		81.07		3.361E-02	2.229E-01	2.718E-01	2.647E-02	0.124
	+	83.78		2.113E-01	1.571E-01	2.037E-01	1.985E-02	1.037
		94.90		3.328E-01	3.042E-01	3.913E-01	3.949E-02	0.851
		122.32		-1.361E-01	1.834E+00	3.021E+00	3.677E-01	-0.045
	+	144.24		1.780E+00	1.484E+00	1.474E+00	1.627E-01	1.207
		154.21		5.723E-01	4.455E-01	7.664E-01	7.783E-02	0.747
	+	269.46		2.575E-01	3.383E-01	3.873E-01	3.614E-02	0.665
		323.87	*	-2.612E-01	8.527E-01	1.227E+00	2.201E-01	-0.213
	+	338.28		7.327E+00	2.419E+00	3.138E+00	3.950E-01	2.335
		445.03		9.764E-01	2.795E+00	4.730E+00	5.759E-01	0.206
PO-209		260.50		-4.098E-01	1.099E+01	1.737E+01	1.587E+00	-0.024
		262.80		-2.008E+01	2.981E+01	4.472E+01	4.089E+00	-0.449
		896.60	*	-5.354E-01	1.036E+01	1.705E+01	1.490E+00	-0.031
PB-211		404.84	*	-6.358E-01	1.175E+00	1.752E+00	1.098E+00	-0.363
		427.08		2.047E+00	2.778E+00	4.341E+00	2.698E+00	0.471
		831.96		8.626E-01	1.677E+00	2.785E+00	1.746E+00	0.310
BI-212	+	727.18	*	1.478E+00	6.719E-01	9.282E-01	9.313E-02	1.593
		785.46		-1.059E-01	2.430E+00	4.044E+00	3.544E-01	-0.026
		1620.62		4.104E-01	1.593E+00	2.758E+00	2.376E-01	0.149
PO-215		81.07		3.361E-02	2.229E-01	2.718E-01	2.647E-02	0.124
	+	83.78		2.113E-01	1.571E-01	2.037E-01	1.985E-02	1.037
		94.90		3.328E-01	3.042E-01	3.913E-01	3.949E-02	0.851
		122.32		-1.361E-01	1.834E+00	3.021E+00	3.677E-01	-0.045
	+	144.24		1.780E+00	1.484E+00	1.474E+00	1.627E-01	1.207
		154.21		5.723E-01	4.455E-01	7.664E-01	7.783E-02	0.747
	+	269.46		2.575E-01	3.383E-01	3.873E-01	3.614E-02	0.665
		323.87	*	-2.612E-01	8.527E-01	1.227E+00	2.201E-01	-0.213
	+	338.28		7.327E+00	2.419E+00	3.138E+00	3.950E-01	2.335

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		9.764E-01	2.795E+00	4.730E+00	5.759E-01	0.206
RN-219	+	271.23		3.304E-01	4.344E-01	5.056E-01	5.447E-02	0.653
		401.81	*	-2.764E-01	4.968E-01	7.865E-01	1.176E-01	-0.351
RN-220		549.76	*	-4.825E+00	3.485E+01	5.584E+01	4.985E+00	-0.086
RA-223		81.07		3.361E-02	2.229E-01	2.718E-01	2.647E-02	0.124
	+	83.78		2.113E-01	1.571E-01	2.037E-01	1.985E-02	1.037
		94.90		3.328E-01	3.042E-01	3.913E-01	3.949E-02	0.851
		122.32		-1.361E-01	1.834E+00	3.021E+00	3.677E-01	-0.045
	+	144.24		1.780E+00	1.484E+00	1.474E+00	1.627E-01	1.207
		154.21		5.723E-01	4.455E-01	7.664E-01	7.783E-02	0.747
	+	269.46		2.575E-01	3.383E-01	3.873E-01	3.614E-02	0.665
		323.87	*	-2.612E-01	8.527E-01	1.227E+00	2.201E-01	-0.213
	+	338.28		7.327E+00	2.419E+00	3.138E+00	3.950E-01	2.335
		445.03		9.764E-01	2.795E+00	4.730E+00	5.759E-01	0.206
AC-227		79.80		1.038E+00	1.692E+00	2.116E+00	4.650E-01	0.491
		236.00		1.810E-01	2.660E-01	3.975E-01	4.978E-02	0.455
		256.20	*	-2.634E-01	4.438E-01	6.715E-01	1.050E-01	-0.392
		286.10		2.635E-02	1.807E+00	3.063E+00	4.159E-01	0.009
		299.80		1.488E+00	1.824E+00	2.990E+00	5.312E-01	0.498
		304.40		-9.063E-01	2.066E+00	3.379E+00	6.318E-01	-0.268
		334.20		-1.101E+00	2.968E+00	4.228E+00	8.288E-01	-0.260
TH-227		79.80		1.038E+00	1.692E+00	2.116E+00	4.706E-01	0.491
	+	94.00		3.549E+01	8.551E+00	4.997E+00	1.118E+00	7.102
		236.00		1.810E-01	2.658E-01	3.975E-01	4.526E-02	0.455
		256.20	*	-2.634E-01	4.445E-01	6.715E-01	1.229E-01	-0.392
		286.10		2.635E-02	1.807E+00	3.063E+00	3.076E+00	0.009
		299.80		1.488E+00	1.824E+00	2.990E+00	5.312E-01	0.498
		304.40		-9.063E-01	2.066E+00	3.379E+00	6.318E-01	-0.268
		334.20		-1.101E+00	2.968E+00	4.228E+00	8.288E-01	-0.260
TH-229		85.43		1.349E-01	1.970E-01	3.027E-01	2.951E-02	0.446
	+	88.47		2.829E-01	1.193E-01	1.938E-01	1.896E-02	1.459
	+	100.00		5.450E-01	3.103E-01	3.230E-01	3.346E-02	1.688
		193.63	*	3.222E-01	5.804E-01	9.637E-01	8.335E-02	0.334
		210.97		8.455E-01	9.219E-01	1.406E+00	1.240E-01	0.601
PA-231		283.67	*	-9.245E-01	1.773E+00	2.904E+00	4.504E-01	-0.318
		301.29		8.719E-01	6.705E-01	1.197E+00	1.513E-01	0.728
TH-231		81.07		3.361E-02	2.229E-01	2.718E-01	2.647E-02	0.124
	+	83.78		2.113E-01	1.571E-01	2.037E-01	1.985E-02	1.037
		94.90		3.328E-01	3.042E-01	3.913E-01	3.949E-02	0.851
		122.32		-1.361E-01	1.834E+00	3.021E+00	3.677E-01	-0.045
	+	144.24		1.780E+00	1.484E+00	1.474E+00	1.627E-01	1.207
		154.21		5.723E-01	4.455E-01	7.664E-01	7.783E-02	0.747
	+	269.46		2.575E-01	3.383E-01	3.873E-01	3.614E-02	0.665
		323.87	*	-2.612E-01	8.527E-01	1.227E+00	2.201E-01	-0.213
	+	338.28		7.327E+00	2.419E+00	3.138E+00	3.950E-01	2.335
		445.03		9.764E-01	2.795E+00	4.730E+00	5.759E-01	0.206
U-231	+	84.21		9.160E+00	6.811E+00	8.874E+00	8.647E-01	1.032
	+	92.29		3.529E+01	4.741E+00	5.829E+00	5.807E-01	6.055
		95.87	*	1.289E+00	1.253E+00	1.626E+00	1.650E-01	0.792

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-4.700E-01	2.166E+00	3.569E+00	3.860E-01	-0.132
PA-233	+	75.28		1.903E+01	4.271E+00	5.449E+00	8.727E-01	3.492
	+	86.59		4.056E+00	1.997E+00	2.930E+00	7.970E-01	1.384
		300.12		4.300E-01	5.023E-01	8.273E-01	1.258E-01	0.520
		311.98	*	-2.620E-02	7.003E-02	1.150E-01	1.078E-02	-0.228
		340.50		8.233E-01	8.555E-01	1.328E+00	3.183E-01	0.620
		398.62		-1.281E-01	2.621E+00	4.335E+00	1.152E+00	-0.030
		415.76		9.948E-01	2.067E+00	3.522E+00	7.586E-01	0.282
PA-234	+	63.00		9.821E+00	2.241E+00	2.166E+00	3.528E-01	4.534
		94.67		5.440E-01	2.357E-01	3.135E-01	4.220E-02	1.735
	+	98.44		2.661E-01	2.108E-01	1.669E-01	9.360E-02	1.594
	+	99.86		1.379E+00	7.851E-01	8.331E-01	8.625E-02	1.655
		111.00		-1.337E-01	1.991E-01	3.198E-01	4.440E-02	-0.418
		131.20		4.302E-02	1.244E-01	1.873E-01	2.079E-02	0.230
		152.70		-8.562E-02	3.664E-01	5.917E-01	1.035E-01	-0.145
	+	186.00		1.535E+01	5.286E+00	3.877E+00	1.209E+00	3.959
		226.40		-3.157E-01	4.639E-01	7.069E-01	9.485E-02	-0.447
		227.20		7.286E-02	4.819E-01	7.775E-01	6.960E-02	0.094
		248.90		7.444E-01	9.311E-01	1.536E+00	3.472E-01	0.485
	+	293.70		7.028E+00	1.829E+00	2.060E+00	3.624E-01	3.411
		369.80		1.443E-01	1.015E+00	1.709E+00	3.728E-01	0.084
		568.70		1.539E+00	1.334E+00	2.366E+00	2.104E-01	0.650
		569.50		2.521E-01	3.780E-01	6.457E-01	5.741E-02	0.390
		574.00		-1.509E-01	1.928E+00	3.095E+00	2.749E-01	-0.049
		699.00		-2.466E-01	8.827E-01	1.447E+00	2.757E-01	-0.170
		706.10		3.234E-01	1.364E+00	2.331E+00	1.039E+00	0.139
		733.00		-2.431E-01	5.437E-01	7.393E-01	1.642E-01	-0.329
		742.81		1.049E+00	2.010E+00	3.313E+00	2.227E+00	0.317
	+	796.30		2.155E+00	1.920E+00	2.190E+00	5.936E-01	0.984
		805.60		1.396E+00	1.323E+00	2.322E+00	7.127E-01	0.601
		819.60		-7.748E-01	1.646E+00	2.557E+00	9.732E-01	-0.303
		826.30		-1.009E+00	1.186E+00	1.640E+00	7.344E-01	-0.615
		831.60		6.227E-01	8.439E-01	1.472E+00	4.399E-01	0.423
		876.40		6.930E-01	1.303E+00	1.932E+00	1.987E+00	0.359
		880.51		3.506E-02	3.680E-01	6.161E-01	5.400E-02	0.057
		883.24		2.984E-02	3.814E-01	6.362E-01	4.278E-01	0.047
		899.00		-5.388E-01	1.177E+00	1.798E+00	7.864E-01	-0.300
		925.00		-1.921E-01	1.572E+00	2.557E+00	2.238E-01	-0.075
		926.50		-1.487E-01	2.353E-01	3.538E-01	8.959E-02	-0.420
		946.00	*	1.874E-01	4.057E-01	7.001E-01	1.318E-01	0.268
		949.00		-3.424E-01	6.120E-01	9.415E-01	8.236E-02	-0.364
		980.50		4.419E-01	9.397E-01	1.629E+00	1.422E-01	0.271
		1394.10		-4.776E-01	1.603E+00	2.500E+00	1.627E+00	-0.191
PA-234M		766.42		2.078E+01	1.940E+01	2.996E+01	1.521E+01	0.694
		1001.03	*	1.167E+01	7.191E+00	1.341E+01	1.346E+00	0.870
NP-236		94.67		4.192E-01	1.753E-01	2.385E-01	2.404E-02	1.758
	+	98.44		2.011E-01	1.145E-01	1.262E-01	1.297E-02	1.594
		111.00		-1.011E-01	1.503E-01	2.419E-01	2.660E-02	-0.418
		160.31	*	-4.793E-02	8.501E-02	1.342E-01	1.186E-02	-0.357

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		4.597E-01	2.617E-01	2.836E-01	2.932E-02	1.621
		117.00	*	4.639E-02	1.936E-01	3.242E-01	3.688E-02	0.143
	+	209.75		1.983E+00	1.357E+00	1.582E+00	1.393E-01	1.254
		228.18		3.990E-02	2.562E-01	4.133E-01	3.703E-02	0.097
		277.60		1.434E-01	2.081E-01	3.651E-01	3.351E-02	0.393
		334.30		-7.269E-01	1.672E+00	2.372E+00	2.144E-01	-0.306
AM-241		59.54	*	-6.541E-03	7.924E-02	1.207E-01	1.281E-02	-0.054
CM-243	+	99.55		4.731E-01	2.693E-01	2.919E-01	3.017E-02	1.621
		103.76	*	-3.304E-03	1.072E-01	1.598E-01	1.689E-02	-0.021
		117.00		4.773E-02	1.992E-01	3.335E-01	3.794E-02	0.143
	+	209.75		1.955E+00	1.337E+00	1.559E+00	1.373E-01	1.254
		228.18		4.032E-02	2.588E-01	4.176E-01	3.741E-02	0.097
		277.60		1.445E-01	2.098E-01	3.681E-01	3.379E-02	0.393
AM-246		798.80		1.223E-01	1.735E-01	2.804E-01	2.461E-02	0.436
		1036.00		-1.357E-01	4.087E-01	6.409E-01	5.537E-02	-0.212
		1062.04		-1.439E-01	3.254E-01	5.027E-01	4.312E-02	-0.286
		1078.86	*	1.860E-01	1.893E-01	3.430E-01	2.926E-02	0.542
CM-247		278.00		6.085E-01	8.490E-01	1.493E+00	1.370E-01	0.408
		287.40		1.145E+00	1.425E+00	2.515E+00	2.310E-01	0.455
		402.60	*	-1.071E-02	4.352E-02	7.080E-02	6.015E-03	-0.151
CF-249		252.85		-6.312E-01	1.006E+00	1.524E+00	1.388E-01	-0.414
		333.44		-1.007E-02	2.625E-01	3.270E-01	2.957E-02	-0.031
		387.95	*	2.932E-02	5.032E-02	8.686E-02	7.359E-03	0.338
CF-251		176.60	*	2.003E-02	1.402E-01	2.291E-01	1.938E-02	0.087
		227.00		-8.402E-02	4.341E-01	6.855E-01	6.135E-02	-0.123
		285.00		-1.129E+00	2.048E+00	3.356E+00	3.082E-01	-0.336

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006      *
* Acquisition date : 12-FEB-2010 15:48:42 Detector SN#     :               *
* Detector ID        : GAM17               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:09.59     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245960006           Analyst initials: MXR1          *
* Batch Number       : 948717               Sample Quantity : 1.1777E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.993E+01	2.520E+00	5.094E-01	0.000E+00
CD-109	2.108E+00	8.716E-01	1.335E+00	0.000E+00
SN-126	2.072E-01	8.566E-02	1.310E-01	0.000E+00
BA-137M	3.290E-01	9.616E-02	7.230E-02	0.000E+00
CS-137	3.478E-01	1.017E-01	7.642E-02	0.000E+00
CE-141	1.648E-01	1.345E-01	1.020E-01	0.000E+00
TL-208	5.699E-01	1.046E-01	6.941E-02	0.000E+00
BI-210	2.081E+00	9.076E-01	9.319E-01	0.000E+00
PB-210	2.081E+00	9.076E-01	9.319E-01	0.000E+00
PO-210	2.081E+00	9.040E-01	9.319E-01	0.000E+00
BI-211	4.200E+00	6.668E-01	3.954E-01	0.000E+00
PB-212	1.692E+00	2.094E-01	9.857E-02	0.000E+00
PO-212	1.692E+00	2.094E-01	9.857E-02	0.000E+00
BI-214	1.317E+00	2.360E-01	1.484E-01	0.000E+00
PB-214	1.461E+00	2.437E-01	1.379E-01	0.000E+00
PO-214	1.461E+00	2.437E-01	1.379E-01	0.000E+00
PO-216	1.692E+00	2.094E-01	9.857E-02	0.000E+00
PO-218	1.461E+00	2.437E-01	1.379E-01	0.000E+00
RA-224	4.496E+00	1.082E+00	1.123E+00	0.000E+00
RA-226	1.317E+00	2.360E-01	1.484E-01	0.000E+00
AC-228	1.540E+00	3.845E-01	2.543E-01	0.000E+00
RA-228	1.540E+00	3.845E-01	2.543E-01	0.000E+00
TH-228	1.718E+00	2.125E-01	1.001E-01	0.000E+00
TH-230	1.317E+00	2.360E-01	1.484E-01	0.000E+00
TH-232	1.540E+00	3.845E-01	2.543E-01	0.000E+00
TH-234	8.425E+00	2.029E+00	1.162E+00	0.000E+00
U-234	1.317E+00	2.360E-01	1.484E-01	0.000E+00
U-235	5.492E-01	4.555E-01	3.694E-01	0.000E+00
NP-237	6.084E-01	2.800E-01	3.835E-01	0.000E+00
U-238	8.425E+00	2.029E+00	1.162E+00	0.000E+00
AM-243	3.633E-01	6.588E-02	6.513E-02	0.000E+00
ANH-511	2.285E-01	9.054E-02	5.904E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	1.625E-01	4.162E-01	7.236E-01	0.000E+00	NOT IDENT.
NA-22	-2.995E-02	5.367E-02	8.195E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.564E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-7.166E-03	3.158E-02	4.856E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.718E-02	7.073E-02	0.000E+00	FAIL ABUN
SC-46	5.391E-03	5.070E-02	8.683E-02	0.000E+00	FAIL ABUN
V-48	3.793E-02	8.738E-02	1.542E-01	0.000E+00	NOT IDENT.
CR-51	2.605E-01	4.270E-01	7.692E-01	0.000E+00	NOT IDENT.
MN-52	-6.087E-02	3.305E-01	5.446E-01	0.000E+00	NOT IDENT.
MN-54	-1.719E-02	4.983E-02	8.197E-02	0.000E+00	NOT IDENT.
CO-56	9.005E-03	5.111E-02	8.845E-02	0.000E+00	NOT IDENT.
CO-57	-4.294E-03	2.587E-02	4.432E-02	0.000E+00	NOT IDENT.
CO-58	-1.944E-02	4.641E-02	7.540E-02	0.000E+00	NOT IDENT.
FE-59	-4.084E-02	1.187E-01	1.886E-01	0.000E+00	FAIL ABUN
CO-60	2.478E-02	4.963E-02	9.020E-02	0.000E+00	NOT IDENT.
ZN-65	3.748E-02	1.320E-01	1.979E-01	0.000E+00	NOT IDENT.
GE-68	1.845E+00	1.650E+00	3.080E+00	0.000E+00	NOT IDENT.
AS-73	2.266E-01	2.626E-01	4.777E-01	0.000E+00	NOT IDENT.
AS-74	1.955E-02	1.154E-01	1.944E-01	0.000E+00	NOT IDENT.
SE-75	-1.617E-02	4.883E-02	7.390E-02	0.000E+00	NOT IDENT.
BR-77	-6.212E+00	1.342E+01	2.154E+01	0.000E+00	FAIL ABUN
SR-82	-9.704E-02	4.919E-01	8.265E-01	0.000E+00	NOT IDENT.
RB-83	-4.430E-02	8.736E-02	1.396E-01	0.000E+00	NOT IDENT.
RB-84	5.517E-02	8.719E-02	1.578E-01	0.000E+00	NOT IDENT.
KR-85	8.181E-01	1.008E+01	1.494E+01	0.000E+00	NOT IDENT.
SR-85	4.197E-03	5.169E-02	7.662E-02	0.000E+00	NOT IDENT.
RB-86	4.581E-01	1.069E+00	1.864E+00	0.000E+00	NOT IDENT.
Y-88	2.897E-03	4.435E-02	7.450E-02	0.000E+00	NOT IDENT.
ZR-88	-2.674E-02	3.780E-02	6.144E-02	0.000E+00	NOT IDENT.
Y-91	-1.648E+01	2.626E+01	4.010E+01	0.000E+00	NOT IDENT.
NB-94	-6.123E-04	4.123E-02	7.112E-02	0.000E+00	NOT IDENT.
NB-95	1.005E-01	5.942E-02	1.141E-01	0.000E+00	NOT IDENT.
NB-95M	2.901E-02	1.372E-01	2.055E-01	0.000E+00	NOT IDENT.
ZR-95	-4.174E-03	8.782E-02	1.501E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.568E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.583E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.262E+01	1.644E+01	2.615E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.830E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.915E-03	3.761E-02	6.277E-02	0.000E+00	NOT IDENT.
RH-102	-1.944E-02	3.790E-02	6.130E-02	0.000E+00	NOT IDENT.
RU-103	1.048E-02	4.975E-02	8.520E-02	0.000E+00	FAIL ABUN
RH-106	1.563E-01	4.099E-01	7.013E-01	0.000E+00	FAIL ABUN
RU-106	1.563E-01	4.096E-01	7.013E-01	0.000E+00	FAIL ABUN
AG-108M	1.569E-02	3.918E-02	6.868E-02	0.000E+00	NOT IDENT.
AG-110M	-2.751E-02	5.331E-02	7.056E-02	0.000E+00	NOT IDENT.
IN-111	-1.520E-01	1.334E+00	1.937E+00	0.000E+00	NOT IDENT.
IN-113M	-5.169E-03	5.356E-02	9.119E-02	0.000E+00	NOT IDENT.
SN-113	-5.169E-03	5.356E-02	9.119E-02	0.000E+00	NOT IDENT.
IN-114M	4.126E-02	2.194E-01	3.330E-01	0.000E+00	NOT IDENT.
CD-115	6.025E-01	1.382E+01	2.324E+01	0.000E+00	NOT IDENT.
SN-117M	1.881E-02	5.729E-02	9.901E-02	0.000E+00	NOT IDENT.
SB-122	2.411E-01	2.832E+00	4.749E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.337E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	8.386E-03	2.969E-02	5.119E-02	0.000E+00	NOT IDENT.
I-124	2.223E-01	1.008E+00	1.497E+00	0.000E+00	NOT IDENT.
SB-124	5.596E-02	1.143E-01	2.073E-01	0.000E+00	FAIL ABUN
SB-125	9.833E-02	1.102E-01	1.996E-01	0.000E+00	FAIL ABUN
TE-125M	7.867E+00	9.566E+00	1.710E+01	0.000E+00	NOT IDENT.
I-126	-4.359E-02	2.607E-01	3.635E-01	0.000E+00	NOT IDENT.
SB-126	5.568E-02	2.014E-01	3.263E-01	0.000E+00	FAIL ABUN
SB-127	-8.523E-01	1.846E+00	2.869E+00	0.000E+00	NOT IDENT.
XE-127	1.105E-02	5.273E-02	8.917E-02	0.000E+00	FAIL ABUN
I-131	1.218E-02	1.397E-01	2.421E-01	0.000E+00	NOT IDENT.
TE-132	1.160E-01	7.741E-01	1.295E+00	0.000E+00	NOT IDENT.
BA-133	-8.692E-03	5.418E-02	8.105E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.067E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.109E-01	9.273E-02	1.183E-01	0.000E+00	FAIL ABUN
CS-135	9.409E-02	1.943E-01	2.949E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.953E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.636E-02	1.537E-01	2.534E-01	0.000E+00	FAIL ABUN
CE-139	-2.340E-02	3.435E-02	5.618E-02	0.000E+00	NOT IDENT.
BA-140	-2.041E-01	3.095E-01	4.705E-01	0.000E+00	NOT IDENT.
LA-140	-1.034E-01	1.188E-01	1.672E-01	0.000E+00	FAIL ABUN

CE-143	0.000E+00	2.422E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.956E-02	2.422E-01	3.662E-01	0.000E+00	NOT IDENT.
PM-144	1.726E-02	4.326E-02	7.727E-02	0.000E+00	NOT IDENT.
PR-144	1.169E+00	2.931E+00	5.236E+00	0.000E+00	NOT IDENT.
PM-146	2.672E-02	5.639E-02	9.882E-02	0.000E+00	NOT IDENT.
ND-147	-5.268E-02	7.229E-01	1.202E+00	0.000E+00	FAIL ABUN
PM-149	-2.332E+01	1.066E+02	1.846E+02	0.000E+00	NOT IDENT.
EU-152	-5.035E-04	1.176E-01	1.969E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	9.552E-02	1.325E-01	0.000E+00	FAIL ABUN
EU-154	-2.444E-02	1.417E-01	2.302E-01	0.000E+00	NOT IDENT.
EU-155	1.511E-01	1.073E-01	1.955E-01	0.000E+00	FAIL ABUN
TB-160	-9.832E-02	1.843E-01	2.935E-01	0.000E+00	FAIL ABUN
HO-166M	-5.490E-02	7.826E-02	1.262E-01	0.000E+00	FAIL ABUN
TM-171	3.837E+00	1.718E+01	2.785E+01	0.000E+00	NOT IDENT.
LU-176	-1.340E-02	2.662E-02	4.492E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.883E+00	2.285E+00	0.000E+00	FAIL ABUN
LU-177M	-1.178E-01	2.243E-01	3.684E-01	0.000E+00	FAIL ABUN
HF-181	-1.341E-02	5.476E-02	9.051E-02	0.000E+00	NOT IDENT.
W-181	1.510E-01	2.153E-01	3.558E-01	0.000E+00	NOT IDENT.
TA-182	2.252E-02	2.919E-01	4.834E-01	0.000E+00	FAIL ABUN
RE-183	-4.284E-02	1.164E-01	1.936E-01	0.000E+00	FAIL ABUN
RE-184	-1.682E-01	2.629E-01	4.128E-01	0.000E+00	NOT IDENT.
OS-185	-1.912E-03	5.227E-02	8.565E-02	0.000E+00	NOT IDENT.
RE-188	1.547E-01	1.892E-01	3.336E-01	0.000E+00	NOT IDENT.
W-188	-9.830E-01	9.338E+00	1.433E+01	0.000E+00	FAIL ABUN
IR-192	-1.021E-02	3.737E-02	6.389E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.664E-01	4.216E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.444E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	9.185E+00	7.908E+00	1.410E+01	0.000E+00	NOT IDENT.
TL-202	5.287E-02	8.161E-02	1.456E-01	0.000E+00	NOT IDENT.
HG-203	-1.874E-02	4.648E-02	7.982E-02	0.000E+00	FAIL ABUN
BI-207	6.848E-02	6.788E-02	1.258E-01	0.000E+00	FAIL ABUN
TL-207	-2.612E-01	8.356E-01	1.243E+00	0.000E+00	FAIL ABUN
PO-209	-5.354E-01	1.016E+01	1.708E+01	0.000E+00	NOT IDENT.
PB-211	-6.358E-01	1.152E+00	1.771E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.584E-01	9.324E-01	0.000E+00	FAIL ABUN
PO-215	-2.612E-01	8.356E-01	1.243E+00	0.000E+00	FAIL ABUN
RN-219	-2.764E-01	4.869E-01	7.952E-01	0.000E+00	FAIL ABUN
RN-220	-4.825E+00	3.415E+01	5.626E+01	0.000E+00	NOT IDENT.
RA-223	-2.612E-01	8.356E-01	1.243E+00	0.000E+00	FAIL ABUN
AC-227	-2.634E-01	4.349E-01	6.821E-01	0.000E+00	NOT IDENT.
TH-227	-2.634E-01	4.356E-01	6.821E-01	0.000E+00	FAIL ABUN
TH-229	3.222E-01	5.688E-01	9.819E-01	0.000E+00	FAIL ABUN
PA-231	-9.245E-01	1.737E+00	2.946E+00	0.000E+00	NOT IDENT.
TH-231	-2.612E-01	8.356E-01	1.243E+00	0.000E+00	FAIL ABUN
U-231	1.289E+00	1.228E+00	1.669E+00	0.000E+00	FAIL ABUN
PA-233	-2.620E-02	6.863E-02	1.166E-01	0.000E+00	FAIL ABUN
PA-234	1.874E-01	3.976E-01	7.013E-01	0.000E+00	FAIL ABUN
PA-234M	1.167E+01	7.047E+00	1.342E+01	0.000E+00	NOT IDENT.
NP-236	-4.793E-02	8.331E-02	1.370E-01	0.000E+00	FAIL ABUN
NP-239	4.639E-02	1.897E-01	3.321E-01	0.000E+00	FAIL ABUN
AM-241	-6.541E-03	7.766E-02	1.245E-01	0.000E+00	NOT IDENT.
CM-243	-3.304E-03	1.050E-01	1.639E-01	0.000E+00	FAIL ABUN
AM-246	1.860E-01	1.855E-01	3.431E-01	0.000E+00	NOT IDENT.
CM-247	-1.071E-02	4.265E-02	7.158E-02	0.000E+00	NOT IDENT.
CF-249	2.932E-02	4.932E-02	8.785E-02	0.000E+00	NOT IDENT.
CF-251	2.003E-02	1.374E-01	2.337E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:50:43.11

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:48:42
Sample ID         : G245960006           Sample quantity  : 1.17770E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:09.59  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	519	10.67*	7.782E-01	1.993E+01	1.993E+01	12.90
CD-109	88.03	161	3.72*	6.676E+00	2.061E+00	2.108E+00	42.19
SN-126	64.28	681	9.60	6.777E+00	3.335E+00	3.335E+00	22.60
	86.94	161	8.90	6.676E+00	8.613E-01	8.613E-01	58.45
	87.57	161	37.00*	6.676E+00	2.072E-01	2.072E-01	42.19
BA-137M	661.65	149	89.98*	1.604E+00	3.287E-01	3.290E-01	29.83
CS-137	661.65	149	85.12*	1.604E+00	3.474E-01	3.478E-01	29.83
CE-141	145.44	101	48.40*	5.586E+00	1.191E-01	1.648E-01	83.27
TL-208	277.35	------	6.80	3.568E+00	------ Line Not Found		------
	510.84	148	21.60	2.058E+00	1.058E+00	1.058E+00	41.28
	583.14	273	84.20*	1.812E+00	5.699E-01	5.699E-01	18.73
	860.37	48	12.46	1.247E+00	9.751E-01	9.751E-01	58.91
BI-210	46.50	167	4.05*	6.320E+00	2.078E+00	2.081E+00	44.51
PB-210	46.50	167	4.05*	6.320E+00	2.078E+00	2.081E+00	44.51
PO-210	46.50	167	4.05*	6.320E+00	2.078E+00	2.081E+00	44.33
BI-211	72.87	------	1.27	6.803E+00	------ Line Not Found		------
	351.07	496	12.94*	2.909E+00	4.200E+00	4.200E+00	16.20
PB-212	74.81	511	10.70	6.795E+00	2.241E+00	2.241E+00	20.73
	77.11	845	18.00	6.781E+00	2.206E+00	2.206E+00	14.33
	87.30	161	8.00	6.676E+00	9.582E-01	9.582E-01	43.36
	238.63	952	44.60*	4.022E+00	1.692E+00	1.692E+00	12.62
	300.09	------	3.41	3.340E+00	------ Line Not Found		------
PO-212	74.81	511	10.70	6.795E+00	2.241E+00	2.241E+00	20.73
	77.11	845	18.00	6.781E+00	2.206E+00	2.206E+00	14.33
	87.30	161	8.00	6.676E+00	9.582E-01	9.582E-01	43.36
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	952	44.60*	4.022E+00	1.692E+00	1.692E+00	12.62
	300.09	------	3.41	3.340E+00	------ Line Not Found		------
BI-214	609.31	332	46.30*	1.737E+00	1.317E+00	1.317E+00	18.29
	1120.29	76	15.10	9.774E-01	1.644E+00	1.644E+00	44.47
	1764.49	55	15.80	6.717E-01	1.649E+00	1.649E+00	35.89
PB-214	74.81	511	6.21	6.795E+00	3.861E+00	3.861E+00	19.93

Sample ID : G245960006 Acquisition date : 12-FEB-2010 15:48:42

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	845	10.50	6.781E+00	3.783E+00	3.783E+00	16.23
	87.30	161	4.67	6.676E+00	1.641E+00	1.641E+00	42.89
	241.98	222	7.49	3.983E+00	2.371E+00	2.371E+00	25.19
	295.21	299	19.20	3.388E+00	1.464E+00	1.464E+00	22.17
	351.92	496	37.20*	2.909E+00	1.461E+00	1.461E+00	17.02
PO-214	74.81	511	6.21	6.795E+00	3.861E+00	3.861E+00	19.93
	77.11	845	10.50	6.781E+00	3.783E+00	3.783E+00	16.23
	87.30	161	4.67	6.676E+00	1.641E+00	1.641E+00	42.89
	241.98	222	7.49	3.983E+00	2.371E+00	2.371E+00	25.19
	295.21	299	19.20	3.388E+00	1.464E+00	1.464E+00	22.17
	351.92	496	37.20*	2.909E+00	1.461E+00	1.461E+00	17.02
PO-216	74.81	511	10.70	6.795E+00	2.241E+00	2.241E+00	20.73
	77.11	845	18.00	6.781E+00	2.206E+00	2.206E+00	14.33
	87.30	161	8.00	6.676E+00	9.582E-01	9.582E-01	43.36
	238.63	952	44.60*	4.022E+00	1.692E+00	1.692E+00	12.62
	300.09	------	3.41	3.340E+00	------ Line Not Found		------
PO-218	74.81	511	6.21	6.795E+00	3.861E+00	3.861E+00	19.93
	77.11	845	10.50	6.781E+00	3.783E+00	3.783E+00	16.23
	87.30	161	4.67	6.676E+00	1.641E+00	1.641E+00	42.89
	241.98	222	7.49	3.983E+00	2.371E+00	2.371E+00	25.19
	295.21	299	19.20	3.388E+00	1.464E+00	1.464E+00	22.17
	351.92	496	37.20*	2.909E+00	1.461E+00	1.461E+00	17.02
RA-224	240.98	222	3.95*	3.983E+00	4.496E+00	4.496E+00	24.56
RA-226	609.31	332	46.30*	1.737E+00	1.317E+00	1.317E+00	18.29
	1120.29	76	15.10	9.774E-01	1.644E+00	1.644E+00	44.47
	1764.49	55	15.80	6.717E-01	1.649E+00	1.649E+00	35.89
AC-228	338.32	189	11.40	3.010E+00	1.755E+00	1.755E+00	51.39
	911.07	158	27.70*	1.182E+00	1.540E+00	1.540E+00	25.49
	969.11	98	16.60	1.116E+00	1.694E+00	1.694E+00	38.77
RA-228	338.32	189	11.40	3.010E+00	1.755E+00	1.755E+00	51.39
	911.07	158	27.70*	1.182E+00	1.540E+00	1.540E+00	25.49
	969.11	98	16.60	1.116E+00	1.694E+00	1.694E+00	38.77
TH-228	74.81	511	10.70	6.795E+00	2.241E+00	2.275E+00	18.54
	77.11	845	18.00	6.781E+00	2.206E+00	2.240E+00	14.33
	87.30	161	8.00	6.676E+00	9.582E-01	9.728E-01	42.19
	238.63	952	44.60*	4.022E+00	1.692E+00	1.718E+00	12.62
	300.09	------	3.41	3.340E+00	------ Line Not Found		------
TH-230	609.31	332	46.30*	1.737E+00	1.317E+00	1.317E+00	18.29
	1120.29	76	15.10	9.774E-01	1.644E+00	1.644E+00	44.47
	1764.49	55	15.80	6.717E-01	1.649E+00	1.649E+00	35.89
TH-232	338.32	189	11.40	3.010E+00	1.755E+00	1.755E+00	31.82
	911.07	158	27.70*	1.182E+00	1.540E+00	1.540E+00	25.49
	969.11	98	16.60	1.116E+00	1.694E+00	1.694E+00	38.77
TH-234	63.29	681	3.80*	6.777E+00	8.425E+00	8.425E+00	24.57
	92.38	1028	5.41	6.594E+00	9.185E+00	9.185E+00	20.81
U-234	609.31	332	46.30*	1.737E+00	1.317E+00	1.317E+00	18.29
	1120.29	76	15.10	9.774E-01	1.644E+00	1.644E+00	44.47
	1764.49	55	15.80	6.717E-01	1.649E+00	1.649E+00	35.89
U-235	89.95	198	2.70	6.636E+00	3.525E+00	3.525E+00	37.86

Sample ID : G245960006 Acquisition date : 12-FEB-2010 15:48:42

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	93.35	1028	4.50	6.594E+00	1.104E+01	1.104E+01	29.86
	105.00	------	2.10	6.378E+00	------	Line Not Found	------
	143.76	101	10.50*	5.586E+00	5.492E-01	5.492E-01	84.64
	163.35	------	4.70	5.210E+00	------	Line Not Found	------
	185.71	463	54.00	4.808E+00	5.684E-01	5.684E-01	16.92
	205.31	------	4.70	4.493E+00	------	Line Not Found	------
NP-237	86.50	161	12.60*	6.676E+00	6.084E-01	6.084E-01	46.97
	95.87	------	2.60	6.543E+00	------	Line Not Found	------
U-238	63.29	681	3.80*	6.777E+00	8.425E+00	8.425E+00	24.57
	92.38	1028	5.41	6.594E+00	9.185E+00	9.185E+00	13.43
AM-243	74.67	511	66.00*	6.795E+00	3.633E-01	3.633E-01	18.50
	86.72	161	0.34	6.676E+00	2.281E+01	2.281E+01	42.19
	117.66	------	0.55	6.127E+00	------	Line Not Found	------
	142.18	------	0.13	5.624E+00	------	Line Not Found	------
ANH-511	511.00	148	100.00*	2.058E+00	2.285E-01	2.285E-01	40.43

Flag: "*" = Keyline

Sample ID : G245960006 Acquisition date : 12-FEB-2010 15:48:42

Total number of lines in spectrum 35
Number of unidentified lines 1
Number of lines tentatively identified by NID 34 97.14%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.993E+01	1.993E+01	0.257E+01	12.90	
CD-109	464.00D	1.02	2.061E+00	2.108E+00	0.889E+00	42.19	
SN-126	1.00E+05Y	1.00	2.072E-01	2.072E-01	0.874E-01	42.19	
BA-137M	30.17Y	1.00	3.287E-01	3.290E-01	0.981E-01	29.83	
CS-137	30.17Y	1.00	3.474E-01	3.478E-01	1.037E-01	29.83	
CE-141	32.50D	1.38	1.191E-01	1.648E-01	1.372E-01	83.27	
TL-208	1.41E+10Y	1.00	5.699E-01	5.699E-01	1.067E-01	18.73	
BI-210	22.26Y	1.00	2.078E+00	2.081E+00	0.926E+00	44.51	
PB-210	22.26Y	1.00	2.078E+00	2.081E+00	0.926E+00	44.51	
PO-210	22.26Y	1.00	2.078E+00	2.081E+00	0.922E+00	44.33	
BI-211	7.04E+08Y	1.00	4.200E+00	4.200E+00	0.680E+00	16.20	
PB-212	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.214E+00	12.62	
PO-212	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.214E+00	12.62	
BI-214	1600.00Y	1.00	1.317E+00	1.317E+00	0.241E+00	18.29	
PB-214	1600.00Y	1.00	1.461E+00	1.461E+00	0.249E+00	17.02	
PO-214	1600.00Y	1.00	1.461E+00	1.461E+00	0.249E+00	17.02	
PO-216	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.214E+00	12.62	
PO-218	1600.00Y	1.00	1.461E+00	1.461E+00	0.249E+00	17.02	
RA-224	1.41E+10Y	1.00	4.496E+00	4.496E+00	1.104E+00	24.56	
RA-226	1600.00Y	1.00	1.317E+00	1.317E+00	0.241E+00	18.29	
AC-228	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.392E+00	25.49	
RA-228	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.392E+00	25.49	
TH-228	1.91Y	1.02	1.692E+00	1.718E+00	0.217E+00	12.62	
TH-230	4.47E+09Y	1.00	1.317E+00	1.317E+00	0.241E+00	18.29	
TH-232	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.392E+00	25.49	
TH-234	4.47E+09Y	1.00	8.425E+00	8.425E+00	2.070E+00	24.57	
U-234	4.47E+09Y	1.00	1.317E+00	1.317E+00	0.241E+00	18.29	
U-235	7.04E+08Y	1.00	5.492E-01	5.492E-01	4.648E-01	84.64	
NP-237	2.14E+06Y	1.00	6.084E-01	6.084E-01	2.857E-01	46.97	
U-238	4.47E+09Y	1.00	8.425E+00	8.425E+00	2.070E+00	24.57	
AM-243	7380.00Y	1.00	3.633E-01	3.633E-01	0.672E-01	18.50	
ANH-511	1.00E+09Y	1.00	2.285E-01	2.285E-01	0.924E-01	40.43	
	Total Activity :		7.813E+01	7.826E+01			

Grand Total Activity : 7.813E+01 7.826E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245960006
Acquisition date : 12-FEB-2010 15:48:42

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	83.91	110	495	1.21	167.48	164	15	1.53E-02	73.7	6.72E+00	T
0	98.96	138	383	1.68	197.58	193	10	1.91E-02	56.0	6.49E+00	T
0	129.41	121	353	0.92	258.50	254	10	1.67E-02	61.4	5.89E+00	T
0	209.26	89	236	1.32	418.26	413	10	1.24E-02	67.8	4.43E+00	T
0	270.20	40	186	1.45	540.19	536	10	5.56E-03	****	3.65E+00	T
0	327.44	86	121	1.18	654.73	650	11	1.19E-02	54.0	3.10E+00	T
0	462.95	48	67	0.85	925.87	922	8	6.69E-03	65.7	2.26E+00	T
0	726.85	80	56	1.71	1453.98	1449	13	1.11E-02	44.3	1.46E+00	T
0	795.23	35	47	0.88	1590.81	1584	12	4.92E-03	84.9	1.34E+00	T
0	963.90	38	34	1.59	1928.38	1923	9	5.31E-03	63.6	1.12E+00	T
0	1587.78	9	12	0.94	3177.16	3172	8	1.32E-03	****	7.28E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:50:47.82

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960006.CNF;1 *
* Acquisition date  : 12-FEB-2010 15:48:42  Detector SN#     :             *
* Detector ID       : GAM17                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:09.59          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245960006            Analyst initials: MXR1         *
* Batch Number      : 948717                Sample Quantity : 1.17770E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.993E+01	2.571E+00	5.110E-01	4.537E-02	39.007
CD-109	2.108E+00	8.894E-01	1.299E+00	1.268E-01	1.622
SN-126	2.072E-01	8.741E-02	1.275E-01	1.244E-02	1.625
BA-137M	3.290E-01	9.812E-02	7.190E-02	6.057E-03	4.576
CS-137	3.478E-01	1.037E-01	7.600E-02	6.415E-03	4.576
CE-141	1.648E-01	1.372E-01	9.979E-02	1.018E-02	1.651
TL-208	5.699E-01	1.067E-01	6.893E-02	6.520E-03	8.267
BI-210	2.081E+00	9.261E-01	9.011E-01	9.775E-02	2.309
PB-210	2.081E+00	9.261E-01	9.011E-01	9.775E-02	2.309
PO-210	2.081E+00	9.224E-01	9.011E-01	9.104E-02	2.309
BI-211	4.200E+00	6.804E-01	3.905E-01	3.645E-02	10.753
PB-212	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
PO-212	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
BI-214	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
PB-214	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
PO-214	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727
PO-216	1.692E+00	2.136E-01	9.696E-02	9.775E-03	17.455
PO-218	1.461E+00	2.487E-01	1.362E-01	1.455E-02	10.727

Sample ID : G245960006 Acquisition date : 12-FEB-2010 15:48:42

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	4.496E+00	1.104E+00	1.104E+00	9.987E-02	4.072
RA-226	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
AC-228	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
RA-228	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
TH-228	1.718E+00	2.169E-01	9.843E-02	9.923E-03	17.455
TH-230	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
TH-232	1.540E+00	3.924E-01	2.538E-01	2.878E-02	6.067
TH-234	8.425E+00	2.070E+00	1.127E+00	2.103E-01	7.476
U-234	1.317E+00	2.408E-01	1.475E-01	1.500E-02	8.929
U-235	5.492E-01	4.648E-01	3.614E-01	6.625E-02	1.520
NP-237	6.084E-01	2.857E-01	3.733E-01	8.519E-02	1.630
U-238	8.425E+00	2.070E+00	1.127E+00	2.103E-01	7.476
AM-243	3.633E-01	6.723E-02	6.329E-02	6.179E-03	5.741
ANH-511	2.285E-01	9.239E-02	5.855E-02	5.229E-03	3.903

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.625E-01		4.247E-01	7.171E-01	6.823E-02	0.227
NA-22	-2.995E-02		5.476E-02	8.208E-02	6.915E-03	-0.365
NA-24	-4.117E-03		4.369E-01	Half-Life too short		
AL-26	-7.166E-03		3.222E-02	4.883E-02	4.093E-03	-0.147
TI-44	4.072E-01	+	5.835E-02	6.876E-02	6.700E-03	5.921
SC-46	5.391E-03		5.174E-02	8.663E-02	7.584E-03	0.062
V-48	3.793E-02		8.917E-02	1.540E-01	1.343E-02	0.246
CR-51	2.605E-01		4.357E-01	7.590E-01	7.248E-02	0.343
MN-52	-6.087E-02		3.373E-01	5.462E-01	4.709E-02	-0.111
MN-54	-1.719E-02		5.085E-02	8.172E-02	7.186E-03	-0.210
CO-56	9.005E-03		5.215E-02	8.820E-02	7.753E-03	0.102
CO-57	-4.294E-03		2.639E-02	4.329E-02	5.072E-03	-0.099
CO-58	-1.944E-02		4.736E-02	7.515E-02	6.618E-03	-0.259
FE-59	-4.084E-02		1.211E-01	1.886E-01	1.731E-02	-0.217
CO-60	2.478E-02		5.064E-02	9.039E-02	7.704E-03	0.274
ZN-65	3.748E-02		1.347E-01	1.979E-01	1.666E-02	0.189
GE-68	1.845E+00		1.684E+00	3.079E+00	2.628E-01	0.599
AS-73	2.266E-01		2.680E-01	4.626E-01	4.628E-02	0.490
AS-74	1.955E-02		1.178E-01	1.931E-01	1.701E-02	0.101
SE-75	-1.617E-02		4.983E-02	7.277E-02	6.686E-03	-0.222
BR-77	-6.212E+00		1.369E+01	2.136E+01	1.910E+00	-0.291
SR-82	-9.704E-02		5.019E-01	8.233E-01	7.205E-02	-0.118
RB-83	-4.430E-02		8.914E-02	1.384E-01	1.237E-02	-0.320
RB-84	5.517E-02		8.897E-02	1.574E-01	1.380E-02	0.350
KR-85	8.181E-01		1.028E+01	1.482E+01	1.324E+00	0.055
SR-85	4.197E-03		5.274E-02	7.599E-02	6.789E-03	0.055
RB-86	4.581E-01		1.090E+00	1.863E+00	1.591E-01	0.246
Y-88	2.897E-03		4.526E-02	7.493E-02	6.248E-03	0.039
ZR-88	-2.674E-02		3.857E-02	6.076E-02	5.119E-03	-0.440

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-1.648E+01		2.680E+01	4.014E+01	3.313E+00	-0.410
NB-94	-6.123E-04		4.207E-02	7.077E-02	6.070E-03	-0.009
NB-95	1.005E-01		6.064E-02	1.137E-01	9.927E-03	0.884
NB-95M	2.901E-02		1.400E-01	2.021E-01	2.063E-02	0.144
ZR-95	-4.174E-03		8.961E-02	1.495E-01	1.432E-02	-0.028
NB-97	-8.707E-02		8.000E-02	Half-Life too short		
ZR-97	3.552E+00		1.318E+00	Half-Life too short		
MO-99	-1.262E+01		1.677E+01	2.604E+01	3.963E+00	-0.485
TC-99M	4.176E+09		2.464E+10	Half-Life too short		
RH-101	7.915E-03		3.838E-02	6.163E-02	5.358E-03	0.128
RH-102	-1.944E-02		3.867E-02	6.075E-02	5.381E-03	-0.320
RU-103	1.048E-02		5.076E-02	8.447E-02	1.211E-02	0.124
RH-106	1.563E-01		4.182E-01	6.970E-01	9.341E-02	0.224
RU-106	1.563E-01		4.179E-01	6.970E-01	6.055E-02	0.224
AG-108M	1.569E-02		3.998E-02	6.799E-02	6.137E-03	0.231
AG-110M	-2.751E-02		5.440E-02	7.017E-02	6.115E-03	-0.392
IN-111	-1.520E-01		1.361E+00	1.905E+00	1.728E-01	-0.080
IN-113M	-5.169E-03		5.465E-02	9.018E-02	7.835E-03	-0.057
SN-113	-5.169E-03		5.465E-02	9.018E-02	7.835E-03	-0.057
IN-114M	4.126E-02		2.239E-01	3.268E-01	2.814E-02	0.126
CD-115	6.025E-01		1.411E+01	2.305E+01	2.061E+00	0.026
SN-117M	1.881E-02		5.846E-02	9.697E-02	8.716E-03	0.194
SB-122	2.411E-01		2.889E+00	4.715E+00	4.198E-01	0.051
I-123	1.790E+00		3.233E+00	Half-Life too short		
TE-123M	8.386E-03		3.030E-02	5.014E-02	4.513E-03	0.167
I-124	2.223E-01		1.029E+00	1.488E+00	1.306E-01	0.149
SB-124	5.596E-02		1.167E-01	2.083E-01	1.854E-02	0.269
SB-125	9.833E-02		1.124E-01	1.975E-01	1.742E-02	0.498
TE-125M	7.867E+00		9.762E+00	1.669E+01	2.051E+00	0.471
I-126	-4.359E-02		2.660E-01	3.615E-01	3.052E-02	-0.121
SB-126	5.568E-02		2.055E-01	3.248E-01	2.804E-02	0.171
SB-127	-8.523E-01		1.884E+00	2.854E+00	3.230E-01	-0.299
XE-127	1.105E-02		5.381E-02	8.757E-02	7.655E-03	0.126
I-131	1.218E-02		1.425E-01	2.393E-01	2.209E-02	0.051
TE-132	1.160E-01		7.899E-01	1.273E+00	2.026E-01	0.091
BA-133	-8.692E-03		5.529E-02	8.007E-02	1.070E-02	-0.109
I-133	4.006E-04		4.116E-03	Half-Life too short		
CS-134	1.109E-01	+	9.462E-02	1.179E-01	1.042E-02	0.940
CS-135	9.409E-02		1.983E-01	2.905E-01	3.031E-02	0.324
I-135	-3.808E+09		4.568E+09	Half-Life too short		
CS-136	-1.636E-02		1.569E-01	2.532E-01	2.274E-02	-0.065
CE-139	-2.340E-02		3.505E-02	5.505E-02	4.590E-03	-0.425
BA-140	-2.041E-01		3.158E-01	4.668E-01	1.551E-01	-0.437
LA-140	-1.034E-01		1.213E-01	1.679E-01	1.449E-02	-0.616
CE-143	6.487E-04		1.236E-04	Half-Life too short		
CE-144	-5.955E-02		2.471E-01	3.580E-01	6.072E-02	-0.166
PM-144	1.726E-02		4.414E-02	7.689E-02	6.582E-03	0.224
PR-144	1.169E+00		2.991E+00	5.210E+00	4.459E-01	0.224

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	2.672E-02		5.754E-02	9.788E-02	1.062E-02	0.273
ND-147	-5.268E-02		7.376E-01	1.192E+00	1.805E-01	-0.044
PM-149	-2.332E+01		1.088E+02	1.820E+02	2.886E+01	-0.128
EU-152	-5.035E-04		1.200E-01	1.944E-01	1.839E-02	-0.003
GD-153	1.327E-01		9.747E-02	1.291E-01	1.320E-02	1.027
EU-154	-2.444E-02		1.446E-01	2.306E-01	2.572E-02	-0.106
EU-155	1.511E-01		1.095E-01	1.907E-01	2.048E-02	0.792
TB-160	-9.832E-02		1.880E-01	2.928E-01	2.567E-02	-0.336
HO-166M	-5.490E-02		7.986E-02	1.256E-01	1.081E-02	-0.437
TM-171	3.837E+00		1.753E+01	2.703E+01	2.668E+00	0.142
LU-176	-1.340E-02		2.717E-02	4.430E-02	4.059E-03	-0.302
LU-177	2.809E+00	+	1.921E+00	2.244E+00	1.974E-01	1.251
LU-177M	-1.178E-01		2.288E-01	3.645E-01	3.123E-02	-0.323
HF-181	-1.341E-02		5.588E-02	8.970E-02	7.963E-03	-0.150
W-181	1.510E-01		2.197E-01	3.453E-01	3.419E-02	0.437
TA-182	2.252E-02		2.978E-01	4.840E-01	4.014E-02	0.047
RE-183	-4.284E-02		1.188E-01	1.897E-01	1.642E-02	-0.226
RE-184	-1.682E-01		2.683E-01	4.063E-01	3.700E-02	-0.414
OS-185	-1.912E-03		5.333E-02	8.516E-02	7.271E-03	-0.022
RE-188	1.547E-01		1.930E-01	3.266E-01	3.034E-02	0.474
W-188	-9.830E-01		9.529E+00	1.412E+01	1.297E+00	-0.070
IR-192	-1.021E-02		3.813E-02	6.303E-02	5.767E-03	-0.162
AU-195	6.568E-01	+	3.739E-01	4.109E-01	4.232E-02	1.598
TL-200	-1.637E-04		2.778E-04	Half-Life too short		
TL-201	9.185E+00		8.070E+00	1.381E+01	1.154E+00	0.665
TL-202	5.287E-02		8.327E-02	1.441E-01	1.256E-02	0.367
HG-203	-1.874E-02		4.743E-02	7.865E-02	7.402E-03	-0.238
BI-207	6.848E-02		6.926E-02	1.257E-01	1.078E-02	0.545
TL-207	-2.612E-01		8.527E-01	1.227E+00	2.201E-01	-0.213
PO-209	-5.354E-01		1.036E+01	1.705E+01	1.490E+00	-0.031
PB-211	-6.358E-01		1.175E+00	1.752E+00	1.098E+00	-0.363
BI-212	1.478E+00	+	6.719E-01	9.282E-01	9.313E-02	1.593
PO-215	-2.612E-01		8.527E-01	1.227E+00	2.201E-01	-0.213
RN-219	-2.764E-01		4.968E-01	7.865E-01	1.176E-01	-0.351
RN-220	-4.825E+00		3.485E+01	5.584E+01	4.985E+00	-0.086
RA-223	-2.612E-01		8.527E-01	1.227E+00	2.201E-01	-0.213
AC-227	-2.634E-01		4.438E-01	6.715E-01	1.050E-01	-0.392
TH-227	-2.634E-01		4.445E-01	6.715E-01	1.229E-01	-0.392
TH-229	3.222E-01		5.804E-01	9.637E-01	8.335E-02	0.334
PA-231	-9.245E-01		1.773E+00	2.904E+00	4.504E-01	-0.318
TH-231	-2.612E-01		8.527E-01	1.227E+00	2.201E-01	-0.213
U-231	1.289E+00		1.253E+00	1.626E+00	1.650E-01	0.792
PA-233	-2.620E-02		7.003E-02	1.150E-01	1.078E-02	-0.228
PA-234	1.874E-01		4.057E-01	7.001E-01	1.318E-01	0.268
PA-234M	1.167E+01		7.191E+00	1.341E+01	1.346E+00	0.870
NP-236	-4.793E-02		8.501E-02	1.342E-01	1.186E-02	-0.357
NP-239	4.639E-02		1.936E-01	3.242E-01	3.688E-02	0.143
AM-241	-6.541E-03		7.924E-02	1.207E-01	1.281E-02	-0.054

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.304E-03		1.072E-01	1.598E-01	1.689E-02	-0.021
AM-246	1.860E-01		1.893E-01	3.430E-01	2.926E-02	0.542
CM-247	-1.071E-02		4.352E-02	7.080E-02	6.015E-03	-0.151
CF-249	2.932E-02		5.032E-02	8.686E-02	7.359E-03	0.338
CF-251	2.003E-02		1.402E-01	2.291E-01	1.938E-02	0.087

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960006            *
* Acquisition date : 12-FEB-2010 15:48:42 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:09.59     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245960006           Analyst initials: MXR1            *
* Batch Number     : 948717               Sample Quantity : 1.1777E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.993E+01	2.520E+00	2.549E-01	1.286E+00
CD-109	2.108E+00	8.716E-01	6.678E-01	4.447E-01
SN-126	2.072E-01	8.566E-02	6.554E-02	4.371E-02
BA-137M	3.290E-01	9.616E-02	3.617E-02	4.906E-02
CS-137	3.478E-01	1.017E-01	3.823E-02	5.187E-02
CE-141	1.648E-01	1.345E-01	5.102E-02	6.860E-02
TL-208	5.699E-01	1.046E-01	3.473E-02	5.336E-02
BI-210	2.081E+00	9.076E-01	4.662E-01	4.631E-01
PB-210	2.081E+00	9.076E-01	4.662E-01	4.631E-01
PO-210	2.081E+00	9.040E-01	4.662E-01	4.612E-01
BI-211	4.200E+00	6.668E-01	1.978E-01	3.402E-01
PB-212	1.692E+00	2.094E-01	4.931E-02	1.068E-01
PO-212	1.692E+00	2.094E-01	4.931E-02	1.068E-01
BI-214	1.317E+00	2.360E-01	7.426E-02	1.204E-01
PB-214	1.461E+00	2.437E-01	6.898E-02	1.243E-01
PO-214	1.461E+00	2.437E-01	6.898E-02	1.243E-01
PO-216	1.692E+00	2.094E-01	4.931E-02	1.068E-01
PO-218	1.461E+00	2.437E-01	6.898E-02	1.243E-01
RA-224	4.496E+00	1.082E+00	5.616E-01	5.521E-01
RA-226	1.317E+00	2.360E-01	7.426E-02	1.204E-01
AC-228	1.540E+00	3.845E-01	1.272E-01	1.962E-01
RA-228	1.540E+00	3.845E-01	1.272E-01	1.962E-01
TH-228	1.718E+00	2.125E-01	5.006E-02	1.084E-01
TH-230	1.317E+00	2.360E-01	7.426E-02	1.204E-01
TH-232	1.540E+00	3.845E-01	1.272E-01	1.962E-01
TH-234	8.425E+00	2.029E+00	5.812E-01	1.035E+00
U-234	1.317E+00	2.360E-01	7.426E-02	1.204E-01
U-235	5.492E-01	4.555E-01	1.848E-01	2.324E-01
NP-237	6.084E-01	2.800E-01	1.919E-01	1.429E-01
U-238	8.425E+00	2.029E+00	5.812E-01	1.035E+00
AM-243	3.633E-01	6.588E-02	3.258E-02	3.361E-02
ANH-511	2.285E-01	9.054E-02	2.954E-02	4.619E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.625E-01	4.162E-01	3.620E-01	2.124E-01	NOT IDENT.
NA-22	-2.995E-02	5.367E-02	4.100E-02	2.738E-02	NOT IDENT.
NA-24	-4.117E+03	8.564E+05	0.000E+00	4.369E+05	SHORT HLIF
AL-26	-7.166E-03	3.158E-02	2.430E-02	1.611E-02	NOT IDENT.
TI-44	4.072E-01	5.718E-02	3.538E-02	2.917E-02	FAIL ABUN
SC-46	5.391E-03	5.070E-02	4.344E-02	2.587E-02	FAIL ABUN
V-48	3.793E-02	8.738E-02	7.713E-02	4.458E-02	NOT IDENT.
CR-51	2.605E-01	4.270E-01	3.848E-01	2.179E-01	NOT IDENT.
MN-52	-6.087E-02	3.305E-01	2.725E-01	1.686E-01	NOT IDENT.
MN-54	-1.719E-02	4.983E-02	4.101E-02	2.542E-02	NOT IDENT.
CO-56	9.005E-03	5.111E-02	4.425E-02	2.607E-02	NOT IDENT.
CO-57	-4.294E-03	2.587E-02	2.217E-02	1.320E-02	NOT IDENT.
CO-58	-1.944E-02	4.641E-02	3.772E-02	2.368E-02	NOT IDENT.
FE-59	-4.084E-02	1.187E-01	9.435E-02	6.056E-02	FAIL ABUN
CO-60	2.478E-02	4.963E-02	4.513E-02	2.532E-02	NOT IDENT.
ZN-65	3.748E-02	1.320E-01	9.898E-02	6.735E-02	NOT IDENT.
GE-68	1.845E+00	1.650E+00	1.541E+00	8.419E-01	NOT IDENT.
AS-73	2.266E-01	2.626E-01	2.390E-01	1.340E-01	NOT IDENT.
AS-74	1.955E-02	1.154E-01	9.725E-02	5.889E-02	NOT IDENT.
SE-75	-1.617E-02	4.883E-02	3.697E-02	2.491E-02	NOT IDENT.
BR-77	-6.212E+00	1.342E+01	1.078E+01	6.847E+00	FAIL ABUN
SR-82	-9.704E-02	4.919E-01	4.135E-01	2.510E-01	NOT IDENT.
RB-83	-4.430E-02	8.736E-02	6.982E-02	4.457E-02	NOT IDENT.
RB-84	5.517E-02	8.719E-02	7.894E-02	4.449E-02	NOT IDENT.
KR-85	8.181E-01	1.008E+01	7.473E+00	5.141E+00	NOT IDENT.
SR-85	4.197E-03	5.169E-02	3.833E-02	2.637E-02	NOT IDENT.
RB-86	4.581E-01	1.069E+00	9.324E-01	5.452E-01	NOT IDENT.
Y-88	2.897E-03	4.435E-02	3.727E-02	2.263E-02	NOT IDENT.
ZR-88	-2.674E-02	3.780E-02	3.074E-02	1.929E-02	NOT IDENT.
Y-91	-1.648E+01	2.626E+01	2.006E+01	1.340E+01	NOT IDENT.
NB-94	-6.123E-04	4.123E-02	3.558E-02	2.103E-02	NOT IDENT.
NB-95	1.005E-01	5.942E-02	5.708E-02	3.032E-02	NOT IDENT.
NB-95M	2.901E-02	1.372E-01	1.028E-01	6.998E-02	NOT IDENT.
ZR-95	-4.174E-03	8.782E-02	7.508E-02	4.481E-02	NOT IDENT.
NB-97	-8.707E+04	1.568E+05	0.000E+00	8.000E+04	SHORT HLIF
ZR-97	3.552E+06	2.583E+06	0.000E+00	1.318E+06	SHORT HLIF
MO-99	-1.262E+01	1.644E+01	1.308E+01	8.386E+00	NOT IDENT.
TC-99M	4.176E+15	4.830E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.915E-03	3.761E-02	3.141E-02	1.919E-02	NOT IDENT.
RH-102	-1.944E-02	3.790E-02	3.067E-02	1.934E-02	NOT IDENT.
RU-103	1.048E-02	4.975E-02	4.262E-02	2.538E-02	FAIL ABUN
RH-106	1.563E-01	4.099E-01	3.509E-01	2.091E-01	FAIL ABUN
RU-106	1.563E-01	4.096E-01	3.509E-01	2.090E-01	FAIL ABUN
AG-108M	1.569E-02	3.918E-02	3.436E-02	1.999E-02	NOT IDENT.
AG-110M	-2.751E-02	5.331E-02	3.530E-02	2.720E-02	NOT IDENT.
IN-111	-1.520E-01	1.334E+00	9.688E-01	6.807E-01	NOT IDENT.
IN-113M	-5.169E-03	5.356E-02	4.562E-02	2.733E-02	NOT IDENT.
SN-113	-5.169E-03	5.356E-02	4.562E-02	2.733E-02	NOT IDENT.
IN-114M	4.126E-02	2.194E-01	1.666E-01	1.119E-01	NOT IDENT.
CD-115	6.025E-01	1.382E+01	1.162E+01	7.053E+00	NOT IDENT.
SN-117M	1.881E-02	5.729E-02	4.953E-02	2.923E-02	NOT IDENT.
SB-122	2.411E-01	2.832E+00	2.376E+00	1.445E+00	NOT IDENT.
I-123	1.790E+06	6.337E+06	0.000E+00	3.233E+06	SHORT HLIF
TE-123M	8.386E-03	2.969E-02	2.561E-02	1.515E-02	NOT IDENT.
I-124	2.223E-01	1.008E+00	7.491E-01	5.145E-01	NOT IDENT.
SB-124	5.596E-02	1.143E-01	1.037E-01	5.833E-02	FAIL ABUN
SB-125	9.833E-02	1.102E-01	9.985E-02	5.620E-02	FAIL ABUN
TE-125M	7.867E+00	9.566E+00	8.557E+00	4.881E+00	NOT IDENT.
I-126	-4.359E-02	2.607E-01	1.818E-01	1.330E-01	NOT IDENT.
SB-126	5.568E-02	2.014E-01	1.633E-01	1.028E-01	FAIL ABUN
SB-127	-8.523E-01	1.846E+00	1.435E+00	9.419E-01	NOT IDENT.
XE-127	1.105E-02	5.273E-02	4.461E-02	2.690E-02	FAIL ABUN
I-131	1.218E-02	1.397E-01	1.211E-01	7.126E-02	NOT IDENT.
TE-132	1.160E-01	7.741E-01	6.480E-01	3.950E-01	NOT IDENT.
BA-133	-8.692E-03	5.418E-02	4.055E-02	2.764E-02	NOT IDENT.
I-133	4.006E+02	8.067E+03	0.000E+00	4.116E+03	SHORT HLIF
CS-134	1.109E-01	9.273E-02	5.920E-02	4.731E-02	FAIL ABUN
CS-135	9.409E-02	1.943E-01	1.476E-01	9.914E-02	NOT IDENT.
I-135	-3.808E+15	8.953E+15	0.000E+00	4.568E+15	SHORT HLIF
CS-136	-1.636E-02	1.537E-01	1.268E-01	7.844E-02	FAIL ABUN
CE-139	-2.340E-02	3.435E-02	2.811E-02	1.752E-02	NOT IDENT.
BA-140	-2.041E-01	3.095E-01	2.354E-01	1.579E-01	NOT IDENT.
LA-140	-1.034E-01	1.188E-01	8.364E-02	6.063E-02	FAIL ABUN

CE-143	6.487E+02	2.422E+02	0.000E+00	1.236E+02	SHORT HLIF
CE-144	-5.955E-02	2.422E-01	1.832E-01	1.236E-01	NOT IDENT.
PM-144	1.726E-02	4.326E-02	3.866E-02	2.207E-02	NOT IDENT.
PR-144	1.169E+00	2.931E+00	2.620E+00	1.496E+00	NOT IDENT.
PM-146	2.672E-02	5.639E-02	4.944E-02	2.877E-02	NOT IDENT.
ND-147	-5.268E-02	7.229E-01	6.012E-01	3.688E-01	FAIL ABUN
PM-149	-2.332E+01	1.066E+02	9.236E+01	5.440E+01	NOT IDENT.
EU-152	-5.035E-04	1.176E-01	9.849E-02	6.001E-02	FAIL ABUN
GD-153	1.327E-01	9.552E-02	6.629E-02	4.874E-02	FAIL ABUN
EU-154	-2.444E-02	1.417E-01	1.152E-01	7.230E-02	NOT IDENT.
EU-155	1.511E-01	1.073E-01	9.781E-02	5.473E-02	FAIL ABUN
TB-160	-9.832E-02	1.843E-01	1.469E-01	9.402E-02	FAIL ABUN
HO-166M	-5.490E-02	7.826E-02	6.313E-02	3.993E-02	FAIL ABUN
TM-171	3.837E+00	1.718E+01	1.393E+01	8.765E+00	NOT IDENT.
LU-176	-1.340E-02	2.662E-02	2.247E-02	1.358E-02	FAIL ABUN
LU-177	2.809E+00	1.883E+00	1.143E+00	9.606E-01	FAIL ABUN
LU-177M	-1.178E-01	2.243E-01	1.843E-01	1.144E-01	FAIL ABUN
HF-181	-1.341E-02	5.476E-02	4.528E-02	2.794E-02	NOT IDENT.
W-181	1.510E-01	2.153E-01	1.780E-01	1.099E-01	NOT IDENT.
TA-182	2.252E-02	2.919E-01	2.418E-01	1.489E-01	FAIL ABUN
RE-183	-4.284E-02	1.164E-01	9.688E-02	5.938E-02	FAIL ABUN
RE-184	-1.682E-01	2.629E-01	2.065E-01	1.341E-01	NOT IDENT.
OS-185	-1.912E-03	5.227E-02	4.285E-02	2.667E-02	NOT IDENT.
RE-188	1.547E-01	1.892E-01	1.669E-01	9.652E-02	NOT IDENT.
W-188	-9.830E-01	9.338E+00	7.167E+00	4.765E+00	FAIL ABUN
IR-192	-1.021E-02	3.737E-02	3.196E-02	1.906E-02	FAIL ABUN
AU-195	6.568E-01	3.664E-01	2.109E-01	1.869E-01	FAIL ABUN
TL-200	-1.637E+02	5.444E+02	0.000E+00	2.778E+02	SHORT HLIF
TL-201	9.185E+00	7.908E+00	7.053E+00	4.035E+00	NOT IDENT.
TL-202	5.287E-02	8.161E-02	7.282E-02	4.164E-02	NOT IDENT.
HG-203	-1.874E-02	4.648E-02	3.994E-02	2.371E-02	FAIL ABUN
BI-207	6.848E-02	6.788E-02	6.292E-02	3.463E-02	FAIL ABUN
TL-207	-2.612E-01	8.356E-01	6.220E-01	4.263E-01	FAIL ABUN
PO-209	-5.354E-01	1.016E+01	8.547E+00	5.181E+00	NOT IDENT.
PB-211	-6.358E-01	1.152E+00	8.862E-01	5.877E-01	NOT IDENT.
BI-212	1.478E+00	6.584E-01	4.665E-01	3.359E-01	FAIL ABUN
PO-215	-2.612E-01	8.356E-01	6.220E-01	4.263E-01	FAIL ABUN
RN-219	-2.764E-01	4.869E-01	3.978E-01	2.484E-01	FAIL ABUN
RN-220	-4.825E+00	3.415E+01	2.815E+01	1.743E+01	NOT IDENT.
RA-223	-2.612E-01	8.356E-01	6.220E-01	4.263E-01	FAIL ABUN
AC-227	-2.634E-01	4.349E-01	3.413E-01	2.219E-01	NOT IDENT.
TH-227	-2.634E-01	4.356E-01	3.413E-01	2.222E-01	FAIL ABUN
TH-229	3.222E-01	5.688E-01	4.912E-01	2.902E-01	FAIL ABUN
PA-231	-9.245E-01	1.737E+00	1.474E+00	8.863E-01	NOT IDENT.
TH-231	-2.612E-01	8.356E-01	6.220E-01	4.263E-01	FAIL ABUN
U-231	1.289E+00	1.228E+00	8.352E-01	6.264E-01	FAIL ABUN
PA-233	-2.620E-02	6.863E-02	5.832E-02	3.501E-02	FAIL ABUN
PA-234	1.874E-01	3.976E-01	3.508E-01	2.029E-01	FAIL ABUN
PA-234M	1.167E+01	7.047E+00	6.716E+00	3.596E+00	NOT IDENT.
NP-236	-4.793E-02	8.331E-02	6.855E-02	4.250E-02	FAIL ABUN
NP-239	4.639E-02	1.897E-01	1.661E-01	9.680E-02	FAIL ABUN
AM-241	-6.541E-03	7.766E-02	6.226E-02	3.962E-02	NOT IDENT.
CM-243	-3.304E-03	1.050E-01	8.200E-02	5.358E-02	FAIL ABUN
AM-246	1.860E-01	1.855E-01	1.717E-01	9.463E-02	NOT IDENT.
CM-247	-1.071E-02	4.265E-02	3.581E-02	2.176E-02	NOT IDENT.
CF-249	2.932E-02	4.932E-02	4.395E-02	2.516E-02	NOT IDENT.
CF-251	2.003E-02	1.374E-01	1.169E-01	7.008E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	240.9364
46.50	240.9364
46.50	240.9364
48.70	231.2122
49.72	259.6280
51.35	304.7407
52.39	306.4824
52.97	305.2835
53.15	305.4355
53.44	290.3977
54.07	301.9598
56.28	372.2263
56.28	372.2285
57.37	0.0000
57.53	381.1933
57.53	381.1955
57.60	381.2633
57.98	359.9840
57.98	359.9840
59.32	381.6846
59.32	381.6846
59.40	381.7634
59.54	381.9018
59.72	382.0785
60.01	368.1056
61.10	387.3270
61.14	387.3657
61.30	410.9300
63.00	383.0838
63.29	383.3590
63.29	383.3590
63.58	383.6343
64.28	364.2069
65.12	359.7039
65.20	359.7734
65.20	359.7734
66.05	367.0922
66.72	359.7747
66.83	362.5069
66.91	362.5761
67.20	376.0216
67.20	376.0216
67.75	375.1898
67.85	389.0234
68.90	392.1042
68.90	392.1042
69.30	389.2902
69.67	387.5051
70.82	389.8649
70.82	389.8649
70.83	389.8738
72.80	411.6779
72.87	411.7413
72.87	411.7413
74.67	366.8746
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.81	366.9872
74.97	367.1186
75.28	367.3688
75.70	367.7108
77.11	368.8453
77.11	368.8453

77.11	368.8453
77.11	368.8453
77.11	368.8453
77.11	368.8453
77.11	368.8453
78.38	369.8588
79.62	328.3299
79.80	328.4555
79.80	328.4555
80.11	334.1041
80.18	334.1548
80.30	334.2392
80.30	334.2392
80.57	328.9909
81.00	329.2900
81.07	329.3380
81.07	329.3380
81.07	329.3380
81.07	329.3380
82.60	330.3923
83.37	447.1476
83.78	447.5294
83.78	447.5294
83.78	447.5294
83.78	447.5294
84.21	447.9236
84.90	448.5547
85.43	449.0387
86.29	449.8221
86.50	450.0117
86.54	450.0466
86.59	450.0940
86.72	450.2113
86.79	450.2711
86.94	450.4084
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.30	450.7352
87.57	450.9772
87.88	451.2566
88.03	451.3913
88.36	314.9368
88.47	315.0064
89.95	315.9266
91.11	297.1986
92.29	297.8778
92.38	297.9301
92.38	297.9301
93.35	298.4852
94.00	298.8542
94.67	299.2314
94.67	299.2346
94.90	299.3652
94.90	299.3652
94.90	299.3652
94.90	299.3652
95.87	207.4159
95.87	207.4159
96.73	207.7513
97.43	208.0211
98.44	207.0014
98.44	207.0014
98.88	207.1696
99.55	207.4242
99.55	207.4242
99.86	207.5419
100.00	207.5947
100.10	201.9840
103.18	285.4871
103.76	253.0802
105.00	222.2886
105.31	222.4100
108.00	273.1131
109.28	243.0911

111.00	285.0797
111.00	285.0797
111.76	283.5246
112.95	243.6461
115.19	266.7896
116.30	227.5738
117.00	212.3233
117.00	212.3233
117.66	222.2584
121.11	196.1715
121.62	206.0998
121.78	206.1524
122.06	216.9956
122.32	217.0848
122.32	217.0848
122.32	217.0848
122.32	217.0848
123.07	212.4483
127.23	248.3227
129.76	220.6000
131.20	211.1691
133.02	199.8182
133.54	223.8510
135.34	212.4800
136.00	215.6836
136.25	215.7627
136.48	206.8421
140.51	188.4594
140.51	0.0000
142.18	204.5302
142.65	204.6665
143.76	204.9907
144.24	205.1290
144.24	205.1290
144.24	205.1290
144.24	205.1290
145.22	188.2119
145.44	171.5674
147.16	200.8984
152.43	216.6711
152.70	225.9526
153.22	207.6958
154.21	187.4845
154.21	187.4845
154.21	187.4845
154.21	187.4845
155.03	198.9731
156.02	219.7776
158.56	178.2725
159.00	0.0000
159.00	179.4074
160.31	195.2100
161.27	195.4542
162.32	195.7234
162.64	185.4441
163.35	190.8000
163.89	180.5562
165.85	231.9877
167.43	179.2926
171.28	206.3546
171.86	200.2135
172.10	176.1570
176.55	179.2381
176.60	179.2502
181.06	193.3677
184.41	185.2042
185.71	181.2251
186.00	181.2873
190.27	172.0137
192.34	203.0446
193.63	173.2211
197.04	193.3358
198.01	171.9233
198.60	178.5284
200.40	191.9012
201.83	199.8087
202.84	178.2906
205.31	191.3131

208.36	169.5297
208.81	169.6133
209.75	147.8787
209.75	147.8787
210.97	148.0737
215.65	155.4293
216.55	152.2683
218.09	167.9880
222.10	149.8274
223.80	158.9839
226.40	168.3282
227.00	155.0459
227.08	155.0586
227.20	145.0373
228.16	148.5291
228.18	148.5318
228.18	148.5318
231.56	0.0000
235.69	129.9657
236.00	130.0068
236.00	130.0068
238.63	137.6806
238.63	137.6806
238.63	137.6806
238.63	137.6806
239.00	137.7303
240.98	137.9984
241.98	138.1324
241.98	138.1324
241.98	138.1324
244.69	136.2268
245.39	136.3184
247.94	128.6814
248.90	110.5627
249.79	130.0498
252.40	115.5052
252.85	137.2925
252.85	137.2925
254.15	0.0000
256.20	137.7246
256.20	137.7246
260.50	122.1441
260.90	119.8840
262.80	123.5577
264.65	109.6549
268.24	114.8877
268.79	104.4946
269.46	109.7847
269.46	109.7847
269.46	109.7847
269.46	109.7847
271.23	115.1959
273.65	160.9242
276.40	128.2522
277.35	130.7410
277.60	130.7706
277.60	130.7706
278.00	125.5483
278.60	139.6685
279.20	147.6537
279.53	147.6947
280.46	135.4973
281.68	115.3846
283.67	136.7579
284.30	145.6615
285.00	139.5663
285.90	134.3707
286.10	131.7414
286.10	131.7414
287.40	113.3008
288.45	0.0000
290.67	129.2396
290.80	129.2529
291.72	129.3551
293.26	0.0000
293.70	128.1489
295.21	119.7574
295.21	119.7574

295.21	119.7574
295.96	139.8055
296.50	162.7033
297.23	182.7969
298.57	132.9632
299.80	125.2258
299.80	125.2258
300.09	121.6791
300.09	121.6791
300.09	121.6791
300.09	121.6791
300.12	121.6812
301.29	111.0524
302.84	130.0256
303.76	131.0226
303.91	131.0382
304.40	115.8276
304.40	115.8276
304.84	118.5635
306.84	109.7620
308.46	91.8881
311.98	103.8959
316.51	102.4614
318.01	108.9386
319.02	98.1238
319.41	102.6976
320.08	100.9325
323.87	110.9032
323.87	110.9032
323.87	110.9032
323.87	110.9032
325.23	90.5706
328.77	111.3281
333.44	110.2588
334.20	111.7938
334.20	111.7938
334.30	111.8031
338.28	108.8227
338.28	108.8227
338.28	108.8227
338.28	108.8227
338.32	108.8263
338.32	108.8263
338.32	108.8263
340.50	110.8539
340.57	110.8594
344.27	105.8751
345.85	103.8806
350.59	0.0000
351.07	98.6973
351.92	98.7588
351.92	98.7588
351.92	98.7588
355.39	0.0000
356.01	91.2051
364.48	96.8438
366.43	93.2128
367.43	94.2215
367.94	0.0000
369.80	88.7174
374.96	105.1448
383.85	98.1719
387.95	89.8462
388.63	95.6253
391.69	92.9504
391.69	92.9504
392.90	104.5359
398.62	94.3483
400.65	84.8364
401.10	91.6123
401.81	93.5854
402.60	85.9118
404.84	91.8399
410.95	89.2977
411.60	90.3066
413.65	104.0416
414.70	72.0025
415.30	73.9775

415.76	79.8416
417.63	0.0000
418.52	82.9105
423.70	89.0588
427.08	65.7119
427.89	66.7269
432.53	70.8596
433.93	70.9222
439.47	64.2492
439.56	64.2522
439.89	67.2322
443.98	83.2617
444.90	69.4243
445.03	69.4296
445.03	69.4296
445.03	69.4296
445.03	69.4296
453.90	77.7846
463.38	72.2109
468.07	72.4131
473.00	81.7020
475.06	84.8293
475.35	69.6938
476.78	58.6319
477.59	72.8185
477.96	67.7760
482.03	78.0762
484.57	67.0212
487.03	74.2342
490.36	0.0000
492.35	77.5203
497.08	62.3869
507.63	0.0000
510.53	0.0000
510.84	65.9604
511.00	65.9663
511.85	65.9976
511.85	65.9976
513.99	75.9859
513.99	75.9859
520.41	70.4529
520.65	70.4612
527.90	62.4170
528.96	0.0000
529.64	65.5994
529.87	0.0000
531.02	65.6474
537.32	59.5953
543.00	56.6285
546.56	0.0000
549.76	66.3011
552.65	57.9692
555.20	50.6587
563.23	57.2267
563.90	69.9679
568.70	52.0730
569.32	58.4677
569.50	62.7253
569.67	69.1101
573.80	63.9276
574.00	60.7365
574.64	59.6914
578.91	44.4374
579.30	0.0000
583.14	50.3119
585.48	49.7276
591.81	56.9789
592.07	58.0605
593.00	53.7842
595.88	54.9377
600.56	68.0199
602.52	0.0000
602.71	63.9840
602.71	63.9840
603.60	69.2012
604.41	67.4978
604.70	67.5073
609.31	63.9713

609.31	63.9713
609.31	63.9713
609.31	63.9713
610.33	50.3337
612.46	45.1737
614.37	53.9094
618.01	46.8174
621.84	50.1749
621.84	50.1749
631.29	58.0674
633.02	66.8863
633.10	66.8900
634.78	55.9680
635.90	59.2916
636.97	59.3212
645.85	44.1223
646.12	46.3336
656.30	53.1987
657.75	60.3317
657.90	0.0000
661.65	48.8837
661.65	48.8837
664.57	0.0000
666.33	51.6591
666.33	51.6591
675.00	35.7646
677.61	52.5896
685.20	57.2567
692.80	53.1663
695.00	57.7281
696.49	50.5436
696.49	50.5436
697.00	46.9447
697.49	52.3713
698.33	55.1010
698.50	58.7190
699.00	54.2124
702.63	52.4875
706.10	52.5667
706.58	0.0000
706.67	50.7664
709.31	51.7300
711.68	60.8676
713.82	51.8302
717.42	54.6416
720.50	49.5013
721.93	0.0000
722.20	38.0219
722.78	42.5947
722.78	42.5947
722.89	42.5970
722.95	50.2036
723.30	50.2117
724.18	48.7083
727.18	47.5503
733.00	50.4158
735.90	41.2987
739.58	65.2590
742.81	47.8588
744.21	48.8076
747.13	55.3198
751.79	47.1115
752.31	48.9694
753.82	44.3766
755.35	46.2537
756.15	45.3441
756.87	43.5060
763.93	68.6939
765.79	44.5910
766.42	52.0365
766.84	50.1860
776.49	49.4468
778.00	56.9448
778.57	49.4869
778.89	42.9565
783.80	52.3961
785.46	54.3028
792.07	59.4492

795.84	36.0358
796.30	26.6400
798.80	26.6656
801.93	51.3022
805.60	30.1953
810.29	45.3750
810.76	39.7103
815.85	33.1560
817.79	36.9729
818.51	41.7248
819.60	45.5367
826.30	51.3580
828.27	0.0000
831.60	37.1662
831.96	39.0771
834.83	53.4311
836.80	0.0000
846.75	40.2507
848.13	37.3947
856.28	0.0000
856.80	43.2861
860.37	40.4527
867.32	33.7960
867.82	36.4847
871.10	38.6768
873.19	43.5443
874.81	30.9828
875.33	0.0000
876.40	31.9696
879.36	44.6108
880.27	37.8346
880.51	36.8672
881.50	30.0865
883.24	37.8746
884.67	43.7234
889.25	36.9823
896.60	42.9333
898.02	37.0973
899.00	41.9932
903.28	39.1221
911.07	31.3828
911.07	31.3828
911.07	31.3828
919.63	36.3939
920.93	32.4739
925.00	38.4325
925.24	40.4064
926.50	42.3964
935.52	39.5605
937.48	70.2668
944.10	38.6839
946.00	33.7460
949.00	44.7089
962.29	43.2445
964.01	39.9414
966.15	39.9697
968.20	24.9976
969.11	26.6725
969.11	26.6725
969.11	26.6725
977.42	34.1004
980.50	29.1154
983.50	28.1388
989.30	33.2264
996.32	58.5310
1001.03	34.3636
1001.68	38.4147
1004.76	52.6195
1021.30	0.0000
1024.50	0.0000
1034.80	41.8849
1036.00	38.8350
1037.82	38.8572
1038.57	39.8893
1038.76	0.0000
1045.16	44.0708
1046.59	41.0137
1048.07	42.0590

1050.47	32.8516
1050.47	32.8516
1062.04	43.2715
1063.62	25.7690
1076.63	33.1156
1077.35	25.8777
1078.86	25.8887
1085.78	26.9813
1099.22	37.5082
1112.02	31.3770
1112.84	27.8971
1115.52	34.8991
1120.29	38.4427
1120.29	38.4427
1120.29	38.4427
1120.29	38.4427
1120.51	38.4445
1121.28	41.9492
1124.00	0.0000
1129.67	33.6422
1131.51	0.0000
1147.95	0.0000
1167.94	51.0211
1173.22	38.3238
1175.09	45.7988
1177.93	39.4408
1189.05	31.0093
1204.90	50.4768
1205.75	0.0000
1213.00	58.1265
1221.42	51.7852
1230.97	44.3493
1235.34	46.5672
1236.41	0.0000
1238.25	34.6828
1246.25	30.4131
1260.41	0.0000
1271.85	21.8721
1274.45	21.8867
1274.54	27.3596
1291.56	37.3751
1298.22	0.0000
1312.09	31.3119
1325.50	21.2546
1325.50	21.2546
1332.49	19.4406
1333.61	17.5945
1360.21	18.6450
1362.66	0.0000
1365.15	11.2007
1368.21	16.8135
1368.53	0.0000
1376.25	14.9753
1384.27	19.6943
1394.10	21.6215
1395.20	21.6280
1407.95	12.2621
1434.06	21.8320
1436.60	21.8451
1457.56	0.0000
1460.81	8.1878
1489.15	9.6159
1509.49	17.3892
1596.49	21.6706
1620.62	10.8921
1678.03	0.0000
1691.02	11.0555
1691.02	11.0555
1706.46	0.0000
1750.46	0.0000
1764.49	12.2427
1764.49	12.2427
1764.49	12.2427
1764.49	12.2427
1770.23	26.5565
1771.40	10.2165
1791.20	0.0000
1808.65	6.1750

1836.01 8.2777

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960006

Total Uranium Activity	2.5319E+01	ug/g
Total Uranium Counting Unc.	6.0401E+00	ug/g
Total Uranium Tpu	3.0817E-06	ug/g
Total Uranium Mda	1.7311E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G245960006      *
*   ANALYST       : MXR1                      DETECTOR    : GAM17           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 15:48:42.48    SAMPLE ALQT:  117.770 GRAM    *
*                                                                           *
*****************************************************************************
```

GROSS GAMMA ACTIVITY (pCi/GRAM) : 9.960E+00
GROSS GAMMA ERROR (pCi/GRAM) : 1.428E+00
GROSS GAMMA MDA (pCi/GRAM) : 4.870E+00
GROSS GAMMA DLC (pCi/GRAM) : 2.363E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:51:34.06

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:49:09
Sample ID         : G245960007           Sample quantity  : 1.36210E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.63  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948717                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.26*	98	442	1.36	125.64	122	8	1.36E-02	39.4	
2	2	75.08	447	463	1.13	149.27	143	15	6.21E-02	9.4	8.18E-01
3	2	77.30	676	398	1.00	153.72	143	15	9.38E-02	6.1	
4	3	87.46	221	463	1.06	174.03	169	22	3.07E-02	16.1	2.24E+00
5	3	90.18	110	413	1.00	179.47	169	22	1.53E-02	30.3	
6	3	93.00*	170	410	1.11	185.11	169	22	2.36E-02	23.6	
7	0	185.96*	225	356	1.31	370.97	367	9	3.13E-02	17.1	
8	0	208.96*	165	440	1.05	416.93	412	11	2.29E-02	26.0	
9	3	238.75*	1727	255	1.21	476.51	472	19	2.40E-01	2.9	1.12E+00
10	3	241.70	408	353	1.77	482.41	472	19	5.66E-02	12.8	
11	0	270.97	82	269	1.29	540.92	536	9	1.14E-02	37.8	
12	0	278.16	84	228	1.69	555.30	551	9	1.17E-02	34.4	
13	2	295.27*	608	194	1.65	589.50	584	20	8.44E-02	6.0	2.59E+00
14	2	300.00	133	199	1.68	598.95	584	20	1.84E-02	21.5	
15	0	327.92	112	213	1.39	654.77	650	11	1.56E-02	26.9	
16	0	338.49*	376	288	1.23	675.92	670	13	5.23E-02	10.7	
17	0	351.96*	930	234	1.27	702.86	696	14	1.29E-01	4.9	
18	0	409.41	57	154	0.68	817.72	814	9	7.95E-03	41.5	
19	0	463.63	136	180	1.78	926.11	919	16	1.89E-02	23.8	
20	0	510.90*	169	194	2.05	1020.64	1013	17	2.35E-02	23.7	
21	0	583.13*	577	148	1.54	1165.05	1158	16	8.02E-02	6.4	
22	0	609.22*	741	160	1.59	1217.22	1209	16	1.03E-01	5.4	
23	0	727.25*	140	124	1.83	1453.22	1444	15	1.94E-02	19.8	
24	0	769.53	141	118	5.91	1537.77	1529	19	1.95E-02	20.4	
25	0	794.28*	59	88	1.72	1587.26	1580	13	8.18E-03	36.3	
26	0	862.20	35	150	1.47	1723.06	1715	16	4.89E-03	80.8	
27	0	910.86*	437	98	1.85	1820.36	1813	15	6.08E-02	7.0	
28	3	964.30	71	76	1.79	1927.22	1923	21	9.87E-03	24.3	1.74E+00
29	3	968.72*	221	79	1.90	1936.07	1923	21	3.07E-02	10.5	
30	0	1120.01*	223	48	1.77	2238.59	2230	19	3.10E-02	10.2	
31	0	1237.63	51	81	1.58	2473.79	2466	13	7.05E-03	39.2	
32	0	1377.33	46	32	1.76	2753.17	2748	11	6.32E-03	29.2	
33	0	1460.03*	1409	28	2.43	2918.54	2906	22	1.96E-01	2.8	
34	0	1589.30	33	42	1.48	3177.07	3171	16	4.62E-03	52.0	
35	0	1763.63*	155	15	2.08	3525.70	3517	19	2.15E-02	10.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:51:36

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:49:09
Sample ID : G245960007 Sample quantity : 136.21 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.63 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.922E+01	1.825E+00	3.456E-01	2.622E-02	55.627
CD-109	+	88.03	*	2.588E+00	8.683E-01	1.069E+00	9.880E-02	2.421
SN-126	+	64.28		9.125E-01	7.311E-01	8.099E-01	1.197E-01	1.127
	+	86.94		1.057E+00	5.557E-01	4.434E-01	1.839E-01	2.384
	+	87.57	*	2.543E-01	8.534E-02	1.057E-01	9.740E-03	2.406
HG-203		70.83		-1.871E-02	1.062E+00	1.577E+00	2.101E-01	-0.012
		72.87		4.993E-01	6.093E-01	9.310E-01	1.207E-01	0.536
		82.60		-7.318E-01	1.093E+00	1.550E+00	2.151E-01	-0.472
	+	279.20	*	6.006E-02	4.146E-02	4.708E-02	2.855E-03	1.276
TL-208	+	277.35		5.446E-01	3.788E-01	4.875E-01	5.120E-02	1.117
	+	510.84		5.018E-01	2.439E-01	1.607E-01	1.709E-02	3.122
	+	583.14	*	4.802E-01	7.222E-02	4.393E-02	3.444E-03	10.932
		860.37		3.655E-01	2.836E-01	4.402E-01	4.924E-02	0.830
BI-211		72.87		2.509E+00	3.051E+00	4.678E+00	3.862E-01	0.536
	+	351.07	*	3.635E+00	4.252E-01	2.267E-01	1.455E-02	16.033
PB-212	+	74.81		2.327E+00	5.273E-01	4.963E-01	6.221E-02	4.687
	+	77.11		1.967E+00	2.928E-01	2.777E-01	2.354E-02	7.083
	+	87.30		1.176E+00	4.118E-01	4.908E-01	6.666E-02	2.397
	+	238.63	*	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
	+	300.09		1.793E+00	7.846E-01	8.708E-01	7.150E-02	2.059
PO-212	+	74.81		2.327E+00	5.273E-01	4.963E-01	6.221E-02	4.687
	+	77.11		1.967E+00	2.928E-01	2.777E-01	2.354E-02	7.083
	+	87.30		1.176E+00	4.118E-01	4.908E-01	6.666E-02	2.397
		115.19		1.279E+00	3.126E+00	5.114E+00	3.221E-01	0.250
	+	238.63	*	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
	+	300.09		1.793E+00	7.846E-01	8.708E-01	7.150E-02	2.059
BI-214	+	609.31	*	1.156E+00	1.625E-01	8.136E-02	7.267E-03	14.213
	+	1120.29		1.744E+00	3.936E-01	3.100E-01	2.968E-02	5.624
	+	1764.49		1.594E+00	3.426E-01	2.392E-01	1.454E-02	6.667
PB-214	+	74.81		4.009E+00	8.794E-01	8.552E-01	9.547E-02	4.687
	+	77.11		3.372E+00	5.638E-01	4.760E-01	5.425E-02	7.083
	+	87.30		2.015E+00	6.937E-01	8.408E-01	1.009E-01	2.397
	+	241.98		2.223E+00	5.952E-01	4.190E-01	3.313E-02	5.305
	+	295.21		1.445E+00	2.126E-01	1.528E-01	1.297E-02	9.454

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
PO-214	+	74.81		4.009E+00	8.794E-01	8.552E-01	9.547E-02	4.687
	+	77.11		3.372E+00	5.638E-01	4.760E-01	5.425E-02	7.083
	+	87.30		2.015E+00	6.937E-01	8.408E-01	1.009E-01	2.397
	+	241.98		2.223E+00	5.952E-01	4.190E-01	3.313E-02	5.305
	+	295.21		1.445E+00	2.126E-01	1.528E-01	1.297E-02	9.454
	+	351.92	*	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
PO-216	+	74.81		2.327E+00	5.273E-01	4.963E-01	6.221E-02	4.687
	+	77.11		1.967E+00	2.928E-01	2.777E-01	2.354E-02	7.083
	+	87.30		1.176E+00	4.118E-01	4.908E-01	6.666E-02	2.397
	+	238.63	*	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
	+	300.09		1.793E+00	7.846E-01	8.708E-01	7.150E-02	2.059
PO-218	+	74.81		4.009E+00	8.794E-01	8.552E-01	9.547E-02	4.687
	+	77.11		3.372E+00	5.638E-01	4.760E-01	5.425E-02	7.083
	+	87.30		2.015E+00	6.937E-01	8.408E-01	1.009E-01	2.397
	+	241.98		2.223E+00	5.952E-01	4.190E-01	3.313E-02	5.305
	+	295.21		1.445E+00	2.126E-01	1.528E-01	1.297E-02	9.454
	+	351.92	*	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
RA-224	+	240.98	*	4.214E+00	1.104E+00	7.923E-01	4.413E-02	5.320
RA-226	+	609.31	*	1.156E+00	1.625E-01	8.136E-02	7.267E-03	14.213
	+	1120.29		1.744E+00	3.936E-01	3.100E-01	2.968E-02	5.624
	+	1764.49		1.594E+00	3.426E-01	2.392E-01	1.454E-02	6.667
AC-228	+	338.32		1.631E+00	7.515E-01	2.750E-01	1.121E-01	5.929
	+	911.07	*	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
	+	969.11		1.389E+00	4.426E-01	2.570E-01	6.154E-02	5.403
RA-228	+	338.32		1.631E+00	7.515E-01	2.750E-01	1.121E-01	5.929
	+	911.07	*	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
	+	969.11		1.389E+00	4.426E-01	2.570E-01	6.154E-02	5.403
TH-228	+	74.81		2.362E+00	4.884E-01	5.039E-01	4.246E-02	4.687
	+	77.11		1.997E+00	2.972E-01	2.819E-01	2.389E-02	7.083
	+	87.30		1.194E+00	4.007E-01	4.983E-01	4.580E-02	2.397
	+	238.63	*	1.595E+00	1.467E-01	7.076E-02	5.055E-03	22.542
	+	300.09		1.820E+00	1.328E+00	8.840E-01	5.210E-01	2.059
TH-230	+	609.31	*	1.156E+00	1.625E-01	8.135E-02	7.267E-03	14.213
	+	1120.29		1.744E+00	3.936E-01	3.100E-01	2.968E-02	5.624
	+	1764.49		1.594E+00	3.426E-01	2.392E-01	1.454E-02	6.667
TH-232	+	338.32		1.631E+00	3.630E-01	2.750E-01	1.591E-02	5.929
	+	911.07	*	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
	+	969.11		1.389E+00	4.426E-01	2.570E-01	6.154E-02	5.403
TH-234	+	63.29	*	2.305E+00	1.860E+00	1.955E+00	3.446E-01	1.179
	+	92.38		1.241E+00	6.272E-01	6.815E-01	1.228E-01	1.821
U-234	+	609.31	*	1.156E+00	1.625E-01	8.135E-02	7.267E-03	14.213
	+	1120.29		1.744E+00	3.936E-01	3.100E-01	2.968E-02	5.624
	+	1764.49		1.594E+00	3.426E-01	2.392E-01	1.454E-02	6.667
NP-237	+	86.50	*	7.468E-01	2.942E-01	3.153E-01	7.113E-02	2.369
		95.87		-2.927E-01	8.391E-01	1.193E+00	2.913E-01	-0.245
U-238	+	63.29	*	2.305E+00	1.860E+00	1.955E+00	3.446E-01	1.179
	+	92.38		1.241E+00	5.954E-01	6.815E-01	5.792E-02	1.821
AM-243	+	74.67	*	3.772E-01	7.788E-02	8.079E-02	6.741E-03	4.669

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.72		2.801E+01	9.397E+00	1.178E+01	1.077E+00	2.377
		117.66		-4.643E-01	3.272E+00	5.232E+00	3.218E-01	-0.089
		142.18		-6.302E+00	1.494E+01	2.308E+01	1.271E+00	-0.273
ANH-511	+	511.00	*	1.084E-01	5.191E-02	3.473E-02	2.293E-03	3.121

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	7.958E-02	2.333E-01	3.925E-01	2.844E-02	0.203
NA-22		1274.54	*	-8.665E-03	3.128E-02	5.013E-02	3.411E-03	-0.173
NA-24		1368.53	*	-2.138E-01	3.128E-02	Half-Life too short		
AL-26		1129.67		-2.262E-01	1.332E+00	1.926E+00	1.286E-01	-0.117
		1808.65	*	1.503E-02	2.176E-02	3.926E-02	2.292E-03	0.383
TI-44		67.85		8.987E-03	4.635E-02	7.371E-02	5.928E-03	0.122
	+	78.38	*	3.630E-01	5.403E-02	7.454E-02	6.373E-03	4.869
SC-46		889.25	*	-9.180E-03	2.943E-02	4.691E-02	5.232E-03	-0.196
	+	1120.51		2.986E-01	6.443E-02	9.785E-02	6.760E-03	3.051
V-48		944.10		1.811E-01	6.684E-01	1.109E+00	1.174E-01	0.163
		983.50	*	2.674E-02	4.889E-02	8.280E-02	8.190E-03	0.323
		1312.09		8.480E-03	6.132E-02	1.016E-01	7.402E-03	0.083
CR-51		320.08	*	-1.456E-02	2.885E-01	4.634E-01	2.984E-02	-0.031
MN-52		744.21		-7.404E-03	1.690E-01	2.798E-01	2.468E-02	-0.026
		848.13		2.712E-01	4.874E+00	8.035E+00	8.406E-01	0.034
		935.52		7.337E-02	1.957E-01	3.269E-01	3.506E-02	0.224
		1246.25		-4.861E+00	5.742E+00	8.413E+00	5.410E-01	-0.578
		1333.61		-3.296E+00	4.171E+00	6.201E+00	4.684E-01	-0.531
		1434.06	*	-2.992E-02	1.633E-01	2.591E-01	1.909E-02	-0.115
MN-54		834.83	*	-1.147E-02	2.872E-02	4.590E-02	4.702E-03	-0.250
CO-56		846.75	*	-5.206E-03	2.869E-02	4.645E-02	4.849E-03	-0.112
		977.42		-4.786E-01	2.084E+00	3.035E+00	3.035E-01	-0.158
		1037.82		3.094E-02	2.303E-01	3.892E-01	3.606E-02	0.079
		1175.09		-5.289E-01	1.543E+00	2.484E+00	1.379E-01	-0.213
	+	1238.25		1.111E-01	8.741E-02	1.226E-01	8.171E-03	0.906
		1360.21		2.388E-01	6.994E-01	1.182E+00	8.886E-02	0.202
		1771.40		-6.804E-02	1.987E-01	2.559E-01	1.546E-02	-0.266
CO-57		122.06	*	-3.137E-03	2.161E-02	3.446E-02	2.041E-03	-0.091
		136.48		-6.499E-02	1.711E-01	2.678E-01	1.753E-02	-0.243
CO-58		810.76	*	-1.839E-02	2.776E-02	4.332E-02	4.276E-03	-0.425
FE-59		142.65		-1.841E+00	2.326E+00	3.534E+00	1.944E-01	-0.521
		192.34		5.338E-01	7.407E-01	1.268E+00	1.470E-01	0.421
		1099.22	*	-8.606E-02	6.103E-02	8.848E-02	7.283E-03	-0.973
		1291.56		-2.685E-02	9.317E-02	1.490E-01	1.252E-02	-0.180
CO-60		1173.22		-8.260E-03	3.070E-02	4.972E-02	2.748E-03	-0.166
		1332.49	*	-1.518E-02	3.114E-02	4.860E-02	3.672E-03	-0.312
ZN-65		1115.52	*	3.949E-02	7.066E-02	1.067E-01	7.515E-03	0.370
GE-68		1077.35	*	-7.527E-02	9.188E-01	1.523E+00	1.210E-01	-0.049
AS-73		53.44	*	-4.743E-02	9.694E-01	1.627E+00	1.290E-01	-0.029
AS-74		595.88	*	3.754E-02	7.325E-02	1.218E-01	8.753E-03	0.308

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		634.78		9.753E-02	2.755E-01	4.538E-01	3.378E-02	0.215
SE-75		66.05		-5.877E+00	5.200E+00	7.284E+00	7.214E-01	-0.807
		96.73		-1.114E+00	7.317E-01	9.524E-01	1.256E-01	-1.169
		121.11		-1.970E-02	1.169E-01	1.863E-01	1.739E-02	-0.106
		136.00		1.117E-02	3.161E-02	5.112E-02	2.911E-03	0.219
		198.60		6.220E-01	1.407E+00	2.342E+00	1.589E-01	0.266
		264.65	*	-3.760E-03	3.447E-02	5.411E-02	3.095E-03	-0.069
	+	279.53		1.605E-01	1.108E-01	1.453E-01	8.980E-03	1.104
		303.91		2.946E-01	1.719E+00	2.461E+00	2.341E-01	0.120
		400.65		5.672E-02	1.938E-01	3.289E-01	2.996E-02	0.172
BR-77	+	87.88		5.660E+02	1.899E+02	2.988E+02	2.761E+01	1.894
		200.40		-6.936E+01	1.272E+02	2.077E+02	1.119E+01	-0.334
	+	239.00		2.554E+02	2.051E+01	3.170E+01	1.763E+00	8.058
		249.79		-1.632E+01	5.058E+01	8.179E+01	4.584E+00	-0.200
		281.68		6.590E+01	7.302E+01	1.106E+02	6.311E+00	0.596
		297.23		3.194E+02	5.537E+01	1.009E+02	5.794E+00	3.165
		303.76		2.342E+01	1.482E+02	2.119E+02	1.219E+01	0.111
		439.47		3.364E+01	1.043E+02	1.764E+02	1.076E+01	0.191
		484.57		-8.842E+01	1.657E+02	2.636E+02	1.692E+01	-0.335
		520.65	*	5.302E+00	7.207E+00	1.237E+01	8.251E-01	0.429
		574.64		3.938E+01	1.719E+02	2.755E+02	1.940E+01	0.143
		578.91		2.470E+00	7.620E+01	1.070E+02	7.567E+00	0.023
		585.48		1.462E+03	2.237E+02	3.908E+02	2.780E+01	3.742
		755.35		1.967E+01	1.148E+02	1.927E+02	1.732E+01	0.102
		817.79		-4.950E+01	9.712E+01	1.535E+02	1.530E+01	-0.323
SR-82		698.33		-1.987E+01	2.501E+01	3.961E+01	3.225E+00	-0.502
		776.49	*	3.805E-02	2.870E-01	4.144E-01	3.860E-02	0.092
		1395.20		3.537E-01	7.987E+00	1.306E+01	9.735E-01	0.027
RB-83		520.41	*	2.548E-02	4.643E-02	7.882E-02	5.257E-03	0.323
		529.64		5.224E-02	7.357E-02	1.258E-01	8.471E-03	0.415
		552.65		-3.428E-02	1.532E-01	2.460E-01	1.696E-02	-0.139
RB-84		881.50	*	1.700E-02	5.237E-02	8.770E-02	9.666E-03	0.194
KR-85		513.99	*	1.752E+01	6.266E+00	1.056E+01	6.997E-01	1.659
SR-85		513.99	*	8.986E-02	3.214E-02	5.418E-02	3.589E-03	1.659
RB-86		1076.63	*	2.211E-02	5.921E-01	9.904E-01	7.885E-02	0.022
Y-88		898.02		-4.141E-03	2.976E-02	4.805E-02	5.447E-03	-0.086
		1836.01	*	-4.869E-03	2.501E-02	3.976E-02	2.265E-03	-0.122
ZR-88		392.90	*	-1.815E-02	2.201E-02	3.519E-02	2.024E-03	-0.516
Y-91		1204.90	*	-7.281E-01	1.276E+01	2.097E+01	1.240E+00	-0.035
NB-94		702.63	*	5.339E-04	2.470E-02	4.129E-02	3.387E-03	0.013
		871.10		2.328E-02	2.769E-02	4.600E-02	4.989E-03	0.506
NB-95		765.79	*	6.176E-02	3.586E-02	5.862E-02	5.363E-03	1.053
NB-95M		235.69	*	1.008E-01	1.058E-01	1.608E-01	1.180E-02	0.627
ZR-95		724.18		1.499E-01	8.673E-02	1.397E-01	1.296E-02	1.073
		756.15	*	1.391E-02	4.876E-02	8.249E-02	8.117E-03	0.169
NB-97		657.90	*	-7.728E-02	4.876E-02	Half-Life too short		
		1024.50		2.354E-01	4.876E-02	Half-Life too short		
ZR-97		254.15		2.772E+00	4.876E-02	Half-Life too short		
		355.39		-4.758E-01	4.876E-02	Half-Life too short		

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		507.63	*	3.154E+00	4.876E-02	Half-Life too short		
		602.52		-2.531E+00	4.876E-02	Half-Life too short		
		1021.30		-1.302E+00	4.876E-02	Half-Life too short		
		1147.95		-2.673E+00	4.876E-02	Half-Life too short		
		1362.66		-4.456E+00	4.876E-02	Half-Life too short		
		1750.46		-3.636E+00	4.876E-02	Half-Life too short		
MO-99		140.51		-9.150E+00	2.299E+01	3.547E+01	9.537E+00	-0.258
		181.06		7.665E+00	1.441E+01	2.186E+01	3.711E+00	0.351
		366.43		-1.765E+01	6.037E+01	1.001E+02	5.784E+00	-0.176
		739.58	*	-1.688E+00	8.085E+00	1.323E+01	2.018E+00	-0.128
		778.00		-2.718E+01	2.861E+01	3.627E+01	3.387E+00	-0.749
TC-99M		140.51	*	-1.479E+10	2.861E+01	Half-Life too short		
RH-101		127.23		-1.502E-02	2.731E-02	4.269E-02	2.466E-03	-0.352
		198.01	*	2.848E-02	2.560E-02	4.361E-02	2.344E-03	0.653
		325.23		8.131E-02	1.902E-01	2.754E-01	1.592E-02	0.295
RH-102		418.52		-1.389E-02	2.101E-01	3.491E-01	2.074E-02	-0.040
		475.06	*	-2.188E-02	2.162E-02	3.340E-02	2.121E-03	-0.655
		631.29		4.831E-03	4.313E-02	6.994E-02	5.191E-03	0.069
		697.49		-2.346E-02	5.644E-02	9.179E-02	7.462E-03	-0.256
		766.84		1.771E-01	9.496E-02	1.555E-01	1.424E-02	1.140
		1046.59		1.969E-02	8.164E-02	1.390E-01	1.199E-02	0.142
		1112.84		-1.515E-01	1.821E-01	2.326E-01	1.651E-02	-0.651
RU-103		497.08	*	2.722E-02	2.744E-02	4.766E-02	6.189E-03	0.571
	+	610.33		1.250E+01	2.419E+00	2.309E+00	3.703E-01	5.411
RH-106	+	511.85		5.414E-01	2.593E-01	3.360E-01	2.221E-02	1.611
		621.84	*	8.304E-02	2.423E-01	3.993E-01	5.024E-02	0.208
		1050.47		-4.567E-06	1.619E+00	2.706E+00	2.312E-01	0.000
RU-106	+	511.85		5.414E-01	2.593E-01	3.360E-01	2.221E-02	1.611
		621.84	*	8.304E-02	2.422E-01	3.993E-01	2.939E-02	0.208
		1050.47		-4.567E-06	1.619E+00	2.706E+00	2.312E-01	0.000
AG-108M		433.93	*	-5.919E-03	2.343E-02	3.838E-02	2.507E-03	-0.154
		614.37		8.508E-03	3.075E-02	4.398E-02	3.389E-03	0.193
		722.95		2.332E-02	3.557E-02	5.392E-02	4.768E-03	0.432
AG-110M		657.75	*	-2.608E-02	2.501E-02	3.903E-02	3.078E-03	-0.668
		677.61		-1.677E-02	2.161E-01	3.599E-01	2.920E-02	-0.047
		706.67		2.419E-02	1.525E-01	2.570E-01	2.187E-02	0.094
		763.93		5.047E-02	1.241E-01	1.843E-01	1.723E-02	0.274
		884.67		-8.016E-03	3.817E-02	6.142E-02	6.936E-03	-0.131
		937.48		-8.087E-02	8.619E-02	1.291E-01	1.414E-02	-0.626
		1384.27		3.840E-02	1.255E-01	1.829E-01	1.418E-02	0.210
IN-111		171.28		-2.403E-01	7.635E-01	1.272E+00	6.690E-02	-0.189
		245.39	*	1.658E-01	8.878E-01	1.296E+00	7.241E-02	0.128
IN-113M		391.69	*	-8.830E-03	3.202E-02	5.287E-02	3.243E-03	-0.167
SN-113		391.69	*	-8.830E-03	3.202E-02	5.287E-02	3.243E-03	-0.167
IN-114M		190.27	*	1.047E-01	1.604E-01	2.443E-01	1.304E-02	0.428
CD-115		260.90		-1.475E+01	1.018E+02	1.654E+02	9.338E+00	-0.089
		492.35		-1.252E+01	2.513E+01	3.993E+01	2.585E+00	-0.314
		527.90	*	-2.456E+00	7.719E+00	1.235E+01	8.299E-01	-0.199
SN-117M		156.02		-1.242E-01	1.744E+00	2.950E+00	1.576E-01	-0.042

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		158.56	*	-2.675E-02	4.137E-02	6.837E-02	3.634E-03	-0.391
SB-122		563.90	*	-1.891E-01	1.575E+00	2.542E+00	1.771E-01	-0.074
		692.80		1.522E+01	3.204E+01	5.507E+01	4.440E+00	0.276
I-123		159.00	*	5.441E-01	3.204E+01	Half-Life too short		
		528.96		1.547E+02	3.204E+01	Half-Life too short		
TE-123M		159.00	*	2.548E-03	2.107E-02	3.585E-02	1.934E-03	0.071
I-124		602.71	*	-3.316E-01	6.420E-01	8.528E-01	6.166E-02	-0.389
		722.78		2.094E+00	3.720E+00	5.599E+00	4.759E-01	0.374
		1325.50		4.221E+00	2.624E+01	4.357E+01	3.251E+00	0.097
	+	1376.25		4.875E+01	2.867E+01	4.907E+01	3.675E+00	0.993
		1509.49		1.171E+01	1.104E+01	2.040E+01	1.461E+00	0.574
		1691.02		-1.773E+00	2.759E+00	4.123E+00	2.659E-01	-0.430
SB-124		602.71		-1.915E-02	3.707E-02	4.924E-02	3.562E-03	-0.389
		645.85		1.243E-01	3.625E-01	5.969E-01	4.839E-02	0.208
		709.31		9.615E-01	2.032E+00	3.486E+00	2.893E-01	0.276
		713.82		-5.815E-01	1.209E+00	1.949E+00	2.311E-01	-0.298
		722.78		1.753E-01	3.114E-01	4.687E-01	4.072E-02	0.374
	+	968.20		1.430E+01	3.341E+00	5.423E+00	5.515E-01	2.637
		1045.16		5.132E-01	1.806E+00	3.082E+00	2.669E-01	0.166
		1325.50		3.774E-01	2.346E+00	3.895E+00	2.907E-01	0.097
		1368.21		-4.301E-01	1.385E+00	2.088E+00	2.671E-01	-0.206
		1436.60		1.060E-01	2.700E+00	4.402E+00	3.241E-01	0.024
		1691.02	*	-3.501E-02	5.448E-02	8.140E-02	5.616E-03	-0.430
SB-125		427.89	*	-1.667E-02	6.758E-02	1.109E-01	6.931E-03	-0.150
	+	463.38		7.974E-01	3.842E-01	4.125E-01	2.957E-02	1.933
		600.56		2.319E-02	1.568E-01	2.394E-01	1.907E-02	0.097
		635.90		1.241E-01	2.063E-01	3.452E-01	2.847E-02	0.360
TE-125M		109.28	*	-1.316E+00	7.787E+00	1.250E+01	1.099E+00	-0.105
I-126		388.63		1.533E-01	1.457E-01	2.571E-01	1.478E-02	0.596
		666.33	*	4.257E-02	1.346E-01	2.299E-01	1.767E-02	0.185
		753.82		-1.765E-01	1.028E+00	1.684E+00	1.510E-01	-0.105
SB-126		223.80		1.751E+00	3.132E+00	5.300E+00	2.913E-01	0.330
	+	278.60		3.609E+00	2.490E+00	3.417E+00	1.947E-01	1.056
	+	296.50		1.442E+01	1.921E+00	2.923E+00	1.678E-01	4.932
		414.70		-2.374E-02	6.345E-02	8.928E-02	5.280E-03	-0.266
		415.30		-1.518E+00	5.038E+00	7.483E+00	4.429E-01	-0.203
		555.20		3.645E-01	3.035E+00	4.979E+00	3.440E-01	0.073
		573.80		8.326E-02	8.267E-01	1.350E+00	9.501E-02	0.062
		593.00		-5.635E-01	7.166E-01	1.097E+00	7.858E-02	-0.514
		656.30		-1.245E+00	2.395E+00	3.885E+00	2.948E-01	-0.320
		666.33		1.779E-02	5.626E-02	9.606E-02	7.385E-03	0.185
		675.00		1.165E+00	1.436E+00	2.521E+00	1.969E-01	0.462
		695.00		3.787E-02	5.560E-02	9.666E-02	7.824E-03	0.392
		697.00		-2.680E-02	1.963E-01	3.252E-01	2.641E-02	-0.082
		720.50	*	5.725E-02	1.223E-01	1.829E-01	1.548E-02	0.313
		856.80		1.412E-01	4.439E-01	6.433E-01	6.823E-02	0.219
		989.30		-2.915E-01	8.838E-01	1.387E+00	1.357E-01	-0.210
		1034.80		-6.570E-01	6.713E+00	1.073E+01	9.522E-01	-0.061
		1213.00		-3.311E+00	3.307E+00	5.028E+00	3.023E-01	-0.659

---- Non-Identified Nuclides ----

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SB-127		61.10		3.481E+01	5.862E+01	9.043E+01	9.486E+00	0.385
		252.40		-6.540E-01	3.427E+00	5.557E+00	2.308E+00	-0.118
		290.80		1.078E+00	1.761E+01	2.511E+01	2.292E+00	0.043
		411.60		8.754E-01	1.047E+01	1.529E+01	2.206E+00	0.057
		444.90		-7.814E-01	6.672E+00	1.099E+01	1.207E+00	-0.071
		473.00		-1.020E-01	1.226E+00	2.013E+00	2.309E-01	-0.051
		543.00		-4.531E+00	1.270E+01	2.022E+01	2.711E+00	-0.224
		603.60		-7.648E+00	1.114E+01	1.452E+01	1.686E+00	-0.527
		685.20	*	7.448E-01	9.682E-01	1.694E+00	1.846E-01	0.440
		698.50		-9.525E+00	1.125E+01	1.762E+01	2.743E+00	-0.541
		722.20		7.724E+00	2.570E+01	3.785E+01	4.191E+00	0.204
		783.80		4.476E+00	2.700E+00	4.838E+00	6.289E-01	0.925
XE-127		57.60		2.195E+00	6.270E+00	1.064E+01	8.203E-01	0.206
		145.22		7.496E-01	5.645E-01	9.426E-01	5.153E-02	0.795
		172.10		-5.362E-02	9.027E-02	1.486E-01	7.823E-03	-0.361
		202.84	*	6.111E-03	3.734E-02	6.059E-02	3.271E-03	0.101
		374.96		-7.633E-02	1.433E-01	2.342E-01	1.351E-02	-0.326
I-131		80.18		2.635E+00	4.331E+00	6.554E+00	5.714E-01	0.402
		284.30		-9.944E-01	1.144E+00	1.701E+00	1.084E-01	-0.585
		364.48	*	9.580E-03	7.904E-02	1.341E-01	8.654E-03	0.071
		636.97		3.130E-01	1.172E+00	1.920E+00	1.538E-01	0.163
		722.89		3.738E+00	6.000E+00	9.073E+00	7.763E-01	0.412
TE-132		49.72		4.067E+00	2.456E+01	4.171E+01	4.260E+00	0.098
		111.76		-1.177E+01	2.609E+01	4.132E+01	3.839E+00	-0.285
		116.30		-1.266E+01	2.458E+01	3.871E+01	3.518E+00	-0.327
		228.16	*	1.800E-02	5.356E-01	8.866E-01	1.264E-01	0.020
BA-133		53.15		1.264E+00	4.150E+00	7.060E+00	5.602E-01	0.179
		79.62		2.648E-01	1.256E+00	1.868E+00	2.844E-01	0.142
		81.00		1.600E-02	9.358E-02	1.388E-01	2.211E-02	0.115
		276.40		3.038E-01	3.688E-01	5.147E-01	6.648E-02	0.590
		302.84		3.859E-02	1.203E-01	1.739E-01	2.023E-02	0.222
		356.01	*	5.672E-03	3.539E-02	4.990E-02	5.764E-03	0.114
		383.85		-9.621E-02	2.166E-01	3.547E-01	3.847E-02	-0.271
I-133	+	510.53		1.140E+00	2.166E-01	Half-Life too short		
		529.87	*	3.869E-03	2.166E-01	Half-Life too short		
		706.58		4.387E-02	2.166E-01	Half-Life too short		
		856.28		1.653E-01	2.166E-01	Half-Life too short		
		875.33		-3.273E-02	2.166E-01	Half-Life too short		
	+	1236.41		8.320E-01	2.166E-01	Half-Life too short		
		1298.22		-3.094E-02	2.166E-01	Half-Life too short		
CS-134		475.35		-1.241E+00	1.404E+00	2.188E+00	1.390E-01	-0.567
		563.23		-8.449E-04	2.669E-01	4.340E-01	3.066E-02	-0.002
		569.32		-2.207E-02	1.572E-01	2.486E-01	1.777E-02	-0.089
		604.70		-2.180E-02	3.151E-02	4.111E-02	2.989E-03	-0.530
		795.84	*	6.397E-02	4.136E-02	6.519E-02	6.305E-03	0.981
		801.93		-3.309E-01	3.172E-01	4.547E-01	4.436E-02	-0.728
		1038.57		2.484E-01	2.826E+00	4.761E+00	4.189E-01	0.052
		1167.94		-6.607E-03	1.809E+00	2.994E+00	1.698E-01	-0.002
		1365.15		-1.845E-01	8.889E-01	1.417E+00	1.127E-01	-0.130

---- Non-Identified Nuclides ----

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CS-135		268.24	*	1.284E-01	1.354E-01	2.049E-01	1.548E-02	0.627
I-135		288.45		1.651E+10	1.354E-01	Half-Life too short		
		417.63		1.768E+10	1.354E-01	Half-Life too short		
		546.56		4.791E+09	1.354E-01	Half-Life too short		
		836.80		3.246E+10	1.354E-01	Half-Life too short		
		1038.76		1.549E+09	1.354E-01	Half-Life too short		
		1124.00		6.245E+10	1.354E-01	Half-Life too short		
		1131.51		-1.379E+09	1.354E-01	Half-Life too short		
		1260.41	*	-1.111E+08	1.354E-01	Half-Life too short		
		1457.56		8.534E+11	1.354E-01	Half-Life too short		
		1678.03		-6.451E+08	1.354E-01	Half-Life too short		
		1706.46		-1.189E+10	1.354E-01	Half-Life too short		
		1791.20		7.248E+09	1.354E-01	Half-Life too short		
CS-136		66.91		-6.142E-02	8.120E-01	1.205E+00	1.819E-01	-0.051
	+	86.29		3.326E+00	1.160E+00	1.791E+00	2.361E-01	1.857
		153.22		4.844E-01	5.142E-01	8.991E-01	6.189E-02	0.539
		163.89		-4.755E-01	8.243E-01	1.344E+00	9.180E-02	-0.354
		176.55		9.625E-02	2.759E-01	4.703E-01	2.850E-02	0.205
		273.65		3.896E-01	5.130E-01	5.733E-01	3.735E-02	0.680
		340.57		5.716E-01	1.288E-01	2.190E-01	1.347E-02	2.610
		818.51		-1.495E-02	5.392E-02	8.690E-02	8.677E-03	-0.172
		1048.07	*	-2.187E-02	7.784E-02	1.274E-01	1.142E-02	-0.172
		1235.34		5.399E-01	4.996E-01	7.708E-01	7.924E-02	0.701
BA-137M		661.65	*	6.594E-03	2.585E-02	4.403E-02	3.356E-03	0.150
CS-137		661.65	*	6.971E-03	2.732E-02	4.654E-02	3.557E-03	0.150
CE-139		165.85	*	1.033E-02	2.263E-02	3.886E-02	2.040E-03	0.266
BA-140		162.64		-3.249E-01	5.769E-01	9.417E-01	5.708E-02	-0.345
		304.84		5.861E-01	1.061E+00	1.544E+00	4.213E-01	0.380
		423.70		-2.130E-01	1.394E+00	2.300E+00	7.317E-01	-0.093
		537.32	*	-1.059E-01	1.888E-01	2.912E-01	9.527E-02	-0.364
LA-140	+	328.77		6.039E-01	3.271E-01	4.175E-01	2.705E-02	1.446
		432.53		-5.798E-01	1.499E+00	2.437E+00	1.616E-01	-0.238
		487.03		4.172E-02	9.564E-02	1.618E-01	1.154E-02	0.258
		751.79		-1.195E+00	1.258E+00	1.940E+00	1.906E-01	-0.616
		815.85		-1.723E-01	2.243E-01	3.455E-01	3.734E-02	-0.499
		867.82		-5.111E-01	1.307E+00	1.759E+00	1.963E-01	-0.291
		919.63		1.014E-01	2.122E+00	3.307E+00	4.178E-01	0.031
		925.24		-4.862E-01	8.313E-01	1.285E+00	1.455E-01	-0.378
		1596.49	*	-2.214E-02	7.027E-02	9.352E-02	6.416E-03	-0.237
CE-141		145.44	*	6.719E-02	5.121E-02	8.543E-02	4.877E-03	0.786
CE-143		57.37		3.944E-04	5.121E-02	Half-Life too short		
		231.56		7.021E-04	5.121E-02	Half-Life too short		
		293.26	*	6.844E-04	5.121E-02	Half-Life too short		
	+	350.59		2.944E-02	5.121E-02	Half-Life too short		
		490.36		-1.716E-03	5.121E-02	Half-Life too short		
		664.57		1.039E-03	5.121E-02	Half-Life too short		
		721.93		2.659E-04	5.121E-02	Half-Life too short		
CE-144		80.11		1.205E+00	1.987E+00	3.008E+00	2.604E-01	0.401
		133.54	*	-3.562E-05	1.648E-01	2.628E-01	3.716E-02	0.000

---- Non-Identified Nuclides ----

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PM-144		476.78		-1.298E-02	4.989E-02	8.101E-02	6.011E-03	-0.160
		618.01		-1.287E-03	2.417E-02	3.775E-02	2.874E-03	-0.034
		696.49	*	5.729E-03	2.518E-02	4.265E-02	3.462E-03	0.134
		778.57		-1.244E+00	1.797E+00	2.471E+00	2.310E-01	-0.504
PR-144		696.49	*	3.882E-01	1.707E+00	2.890E+00	2.345E-01	0.134
		1489.15		-7.599E+00	9.394E+00	1.366E+01	9.871E-01	-0.556
PM-146		453.90	*	1.838E-02	3.365E-02	5.732E-02	5.099E-03	0.321
		633.02		-2.588E-01	1.110E+00	1.751E+00	6.498E-01	-0.148
		735.90		8.996E-02	1.040E-01	1.780E-01	5.096E-02	0.505
		747.13		2.816E-02	6.537E-02	1.115E-01	1.582E-02	0.253
ND-147	+	91.11		4.216E-01	2.590E-01	4.080E-01	3.837E-02	1.033
		319.41		-1.199E+00	2.653E+00	4.170E+00	2.409E-01	-0.287
		439.89		7.821E-01	4.131E+00	6.935E+00	4.231E-01	0.113
		531.02	*	5.099E-01	4.009E-01	6.991E-01	9.754E-02	0.729
PM-149		285.90	*	-5.839E+01	6.846E+01	1.054E+02	1.490E+01	-0.554
EU-152		121.78		-1.193E-02	6.292E-02	1.002E-01	7.719E-03	-0.119
		244.69		3.412E-01	2.733E-01	4.238E-01	2.367E-02	0.805
		344.27	*	3.016E-02	8.863E-02	1.185E-01	7.732E-03	0.255
		443.98		-4.486E-01	6.546E-01	1.039E+00	6.365E-02	-0.432
		778.89		-2.038E-01	2.023E-01	2.797E-01	2.615E-02	-0.728
		867.32		-5.643E-01	7.956E-01	1.032E+00	1.112E-01	-0.547
	+	964.01		5.141E-01	2.553E-01	4.552E-01	4.663E-02	1.129
		1085.78		-4.139E-02	2.814E-01	4.637E-01	3.593E-02	-0.089
		1112.02		-2.165E-02	2.489E-01	3.505E-01	2.495E-02	-0.062
		1407.95		1.160E-01	1.568E-01	2.713E-01	2.015E-02	0.427
GD-153		69.67		9.229E-01	1.696E+00	2.582E+00	2.096E-01	0.357
		83.37		-5.803E+00	1.478E+01	2.117E+01	1.881E+00	-0.274
		97.43	*	-7.599E-02	7.385E-02	1.009E-01	7.887E-03	-0.753
		103.18		-1.064E-01	8.840E-02	1.356E-01	9.781E-03	-0.785
EU-154		123.07		2.076E-03	4.369E-02	7.020E-02	6.640E-03	0.030
		247.94		-2.098E-02	3.024E-01	4.337E-01	4.085E-02	-0.048
		591.81		-6.351E-01	5.111E-01	6.935E-01	7.376E-02	-0.916
		723.30		1.237E-01	1.524E-01	2.333E-01	2.199E-02	0.530
		756.87		2.566E-01	5.307E-01	9.087E-01	1.114E-01	0.282
		873.19		1.725E-01	2.320E-01	3.980E-01	5.543E-02	0.433
		996.32		-8.153E-02	2.728E-01	4.295E-01	7.855E-02	-0.190
		1004.76		-6.713E-02	1.640E-01	2.559E-01	3.147E-02	-0.262
		1274.45	*	-4.197E-02	8.848E-02	1.392E-01	1.390E-02	-0.302
EU-155		48.70		-1.284E+00	3.170E+00	5.270E+00	3.998E-01	-0.244
		60.01		-1.605E+00	5.304E+00	7.833E+00	5.977E-01	-0.205
	+	86.54		3.063E-01	1.028E-01	1.669E-01	1.537E-02	1.835
		105.31	*	8.870E-02	9.035E-02	1.518E-01	1.085E-02	0.584
TB-160	+	86.79		8.185E-01	2.746E-01	4.476E-01	4.095E-02	1.829
		197.04		2.424E-01	4.236E-01	7.226E-01	3.881E-02	0.335
		215.65		3.361E-01	6.037E-01	9.916E-01	5.413E-02	0.339
	+	298.57		2.610E-01	1.132E-01	1.557E-01	8.943E-03	1.676
		879.36	*	-7.074E-02	1.080E-01	1.674E-01	1.839E-02	-0.423
		962.29		1.115E+00	4.848E-01	7.944E-01	8.161E-02	1.404
		966.15		1.364E+00	2.495E-01	4.338E-01	4.427E-02	3.143

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1177.93		-9.242E-02	2.489E-01	3.996E-01	2.231E-02	-0.231
		1271.85		-1.751E-01	5.106E-01	8.136E-01	5.498E-02	-0.215
HO-166M		80.57		1.951E-01	2.547E-01	3.877E-01	3.368E-02	0.503
		184.41		1.062E-01	3.054E-02	5.148E-02	2.735E-03	2.062
		280.46		9.762E-02	6.917E-02	1.078E-01	6.151E-03	0.905
		410.95		2.646E-01	2.103E-01	3.317E-01	1.953E-02	0.798
		711.68	*	6.272E-03	4.406E-02	7.413E-02	6.179E-03	0.085
		752.31		-1.635E-01	1.968E-01	3.065E-01	2.740E-02	-0.534
		810.29		-1.382E-02	4.180E-02	6.714E-02	6.610E-03	-0.206
TM-171		51.35		-2.504E+01	3.763E+01	6.171E+01	4.891E+00	-0.406
		52.39		3.116E+00	1.855E+01	3.143E+01	2.497E+00	0.099
		59.40		-2.741E+01	2.976E+01	4.245E+01	3.223E+00	-0.646
		66.72	*	-1.828E+01	3.002E+01	4.338E+01	3.468E+00	-0.421
LU-176	+	88.36		6.032E-01	2.024E-01	3.179E-01	2.919E-02	1.897
		201.83		-1.951E-02	2.243E-02	3.611E-02	1.947E-03	-0.540
		306.84	*	9.892E-04	1.836E-02	2.976E-02	1.713E-03	0.033
		401.10		1.904E+00	5.019E+00	8.554E+00	4.972E-01	0.223
LU-177		112.95		1.120E+00	1.414E+00	2.348E+00	1.513E-01	0.477
	+	208.36	*	2.737E+00	1.433E+00	1.664E+00	9.025E-02	1.645
LU-177M		52.97		9.808E-01	1.872E+00	3.210E+00	2.549E-01	0.306
		54.07		3.835E-02	9.712E-01	1.635E+00	1.293E-01	0.023
		61.30		9.865E-01	1.501E+00	2.324E+00	1.795E-01	0.425
		121.62		-6.495E-02	3.226E-01	5.134E-01	3.046E-02	-0.126
		147.16		-1.973E-01	5.487E-01	8.558E-01	4.657E-02	-0.231
		171.86		2.918E-02	3.588E-01	6.067E-01	3.193E-02	0.048
		218.09		-5.530E-01	6.707E-01	1.074E+00	5.875E-02	-0.515
		268.79		1.147E+00	7.003E-01	1.097E+00	6.221E-02	1.045
		319.02		-8.976E-02	2.032E-01	3.196E-01	1.845E-02	-0.281
		367.43		-1.160E-01	6.354E-01	1.060E+00	6.120E-02	-0.109
		413.65	*	2.187E-02	1.403E-01	2.061E-01	1.217E-02	0.106
HF-181		56.28		2.872E-01	1.024E+00	1.736E+00	1.352E-01	0.165
		57.53		1.774E-01	5.295E-01	8.985E-01	6.928E-02	0.197
		65.20		-7.127E-01	1.013E+00	1.458E+00	1.156E-01	-0.489
		133.02		-1.415E-02	5.394E-02	8.507E-02	4.812E-03	-0.166
		136.25		-1.706E-01	3.793E-01	5.921E-01	3.316E-02	-0.288
		345.85		3.650E-02	1.732E-01	2.289E-01	1.324E-02	0.159
		482.03	*	-6.437E-03	3.103E-02	5.049E-02	3.232E-03	-0.127
W-181		56.28		1.134E-01	4.006E-01	6.792E-01	5.291E-02	0.167
		57.53		6.950E-02	2.074E-01	3.518E-01	2.713E-02	0.198
		65.20	*	-2.769E-01	3.934E-01	5.662E-01	4.491E-02	-0.489
TA-182		67.75		4.914E-02	1.099E-01	1.764E-01	1.418E-02	0.279
		100.10		2.712E-01	1.455E-01	2.518E-01	1.893E-02	1.077
		152.43		-1.244E-01	2.883E-01	4.471E-01	2.405E-02	-0.278
		222.10		1.994E-01	2.701E-01	4.603E-01	2.526E-02	0.433
		1001.68		5.360E-01	1.579E+00	2.585E+00	2.468E-01	0.207
	+	1121.28		8.246E-01	1.779E-01	2.695E-01	1.857E-02	3.060
		1189.05		6.410E-02	2.227E-01	3.758E-01	2.149E-02	0.171
		1221.42	*	-6.447E-03	1.434E-01	2.357E-01	1.442E-02	-0.027
		1230.97		-7.509E-02	3.776E-01	5.189E-01	3.236E-02	-0.145

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RE-183		57.98		6.737E-02	2.005E-01	3.401E-01	2.613E-02	0.198
		59.32		-1.126E-01	1.226E-01	1.750E-01	1.329E-02	-0.643
		67.20		-1.575E-02	2.111E-01	3.132E-01	2.510E-02	-0.050
		162.32	*	-6.102E-02	8.433E-02	1.368E-01	7.221E-03	-0.446
	+	208.81		2.451E+00	1.283E+00	1.496E+00	8.120E-02	1.638
		291.72		1.143E-02	8.033E-01	1.141E+00	6.537E-02	0.010
RE-184		57.98		2.482E-01	7.385E-01	1.253E+00	9.626E-02	0.198
		59.32		-4.143E-01	4.514E-01	6.440E-01	4.893E-02	-0.643
		67.20		-5.800E-02	7.775E-01	1.153E+00	9.245E-02	-0.050
		161.27		-6.286E-02	2.625E-01	4.403E-01	2.329E-02	-0.143
		216.55		4.501E-02	2.041E-01	3.417E-01	1.867E-02	0.132
		252.85	*	-2.955E-02	1.829E-01	2.979E-01	1.673E-02	-0.099
		318.01		-1.030E-04	3.469E-01	5.589E-01	3.226E-02	0.000
		792.07		9.448E-01	8.619E-01	1.342E+00	1.282E-01	0.704
		903.28		-3.583E-01	8.521E-01	1.132E+00	1.270E-01	-0.317
		920.93		-2.804E-03	3.228E-01	5.254E-01	5.758E-02	-0.005
OS-185		59.72		-1.823E-01	3.198E-01	4.653E-01	3.539E-02	-0.392
		61.14		9.999E-02	1.653E-01	2.554E-01	1.971E-02	0.391
		69.30		1.053E-01	3.054E-01	4.613E-01	3.737E-02	0.228
		592.07		-2.521E+00	1.998E+00	2.836E+00	2.031E-01	-0.889
		646.12	*	2.741E-03	3.112E-02	5.031E-02	3.784E-03	0.054
		717.42		-3.210E-01	6.995E-01	1.074E+00	9.042E-02	-0.299
		874.81		-1.521E-01	4.596E-01	7.335E-01	8.001E-02	-0.207
		880.27		-1.349E-01	5.901E-01	9.483E-01	1.043E-01	-0.142
RE-188		155.03	*	9.242E-02	1.348E-01	2.339E-01	1.252E-02	0.395
		477.96		1.677E+00	2.219E+00	3.821E+00	2.434E-01	0.439
		633.10		-2.993E-01	2.220E+00	3.540E+00	2.632E-01	-0.085
W-188	+	63.58		9.269E+01	7.336E+01	8.934E+01	7.020E+00	1.037
		227.08		-1.449E+01	1.009E+01	1.562E+01	8.610E-01	-0.928
		290.67	*	2.664E-01	6.050E+00	8.615E+00	4.934E-01	0.031
IR-192	+	295.96		1.102E+00	1.472E-01	2.297E-01	1.339E-02	4.799
		308.46		-5.752E-02	7.388E-02	1.142E-01	6.655E-03	-0.504
		316.51	*	-2.668E-03	2.674E-02	4.288E-02	2.487E-03	-0.062
		468.07		-5.018E-03	5.541E-02	7.876E-02	5.613E-03	-0.064
		604.41		-1.723E-01	4.201E-01	5.624E-01	6.834E-02	-0.306
		612.46		2.077E+00	6.982E-01	1.154E+00	1.012E-01	1.800
AU-195		65.12		-1.199E-01	1.827E-01	2.636E-01	2.090E-02	-0.455
		66.83		-1.329E-02	9.727E-02	1.439E-01	1.151E-02	-0.092
	+	75.70		1.221E+00	2.521E-01	4.087E-01	3.432E-02	2.987
		98.88	*	2.608E-01	1.840E-01	3.145E-01	2.406E-02	0.829
		129.76		3.711E+00	2.405E+00	4.062E+00	2.324E-01	0.914
TL-200		367.94	*	-1.542E-04	2.405E+00	Half-Life too short		
		579.30		5.549E-04	2.405E+00	Half-Life too short		
		828.27		-1.875E-03	2.405E+00	Half-Life too short		
		1205.75		1.524E-03	2.405E+00	Half-Life too short		
TL-201		68.90		2.282E+00	4.644E+00	7.495E+00	6.060E-01	0.304
		70.82		-5.559E-02	2.758E+00	4.093E+00	3.342E-01	-0.014
		80.30		3.200E+00	4.746E+00	7.201E+00	6.243E-01	0.444
		135.34		-9.149E+00	2.099E+01	3.280E+01	1.842E+00	-0.279

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		167.43	*	5.104E+00	5.383E+00	9.389E+00	4.929E-01	0.544
TL-202		68.90		2.038E-01	4.147E-01	6.693E-01	5.411E-02	0.304
		70.82		-4.950E-03	2.456E-01	3.645E-01	2.976E-02	-0.014
		80.30		2.851E-01	4.228E-01	6.414E-01	5.561E-02	0.444
		439.56	*	1.396E-02	4.988E-02	8.415E-02	5.130E-03	0.166
BI-207		72.80		1.162E-01	1.772E-01	2.700E-01	2.229E-02	0.430
	+	74.97		6.771E-01	1.398E-01	2.075E-01	1.734E-02	3.264
		84.90		2.039E-01	1.859E-01	2.828E-01	2.545E-02	0.721
		569.67		-2.881E-03	2.454E-02	3.888E-02	2.724E-03	-0.074
		1063.62	*	-2.992E-02	3.966E-02	6.058E-02	5.001E-03	-0.494
		1770.23		-9.718E-02	3.988E-01	5.267E-01	3.186E-02	-0.185
TL-207		81.07		2.899E-02	2.062E-01	3.054E-01	2.664E-02	0.095
		83.78		-4.575E-02	1.262E-01	1.811E-01	1.614E-02	-0.253
		94.90		5.276E-01	2.052E-01	3.307E-01	2.691E-02	1.596
		122.32		-7.058E-02	1.499E+00	2.400E+00	1.630E-01	-0.029
		144.24		2.002E-01	5.729E-01	9.131E-01	6.372E-02	0.219
		154.21		3.940E-01	3.081E-01	5.437E-01	3.618E-02	0.725
		269.46		3.261E-01	1.684E-01	2.668E-01	1.585E-02	1.222
		323.87	*	-2.177E-02	5.776E-01	8.090E-01	1.335E-01	-0.027
	+	338.28		6.809E+00	1.630E+00	2.018E+00	2.124E-01	3.374
		445.03		-1.199E-01	1.540E+00	2.543E+00	2.660E-01	-0.047
PO-209		260.50		-1.067E+00	7.442E+00	1.210E+01	6.829E-01	-0.088
		262.80		4.277E+00	2.025E+01	3.345E+01	1.890E+00	0.128
		896.60	*	-2.293E+00	5.470E+00	8.625E+00	9.729E-01	-0.266
BI-210		46.50	*	-1.461E-01	4.905E+00	8.091E+00	6.260E-01	-0.018
PB-210		46.50	*	-1.461E-01	4.905E+00	8.091E+00	6.260E-01	-0.018
PO-210		46.50	*	-1.461E-01	4.905E+00	8.091E+00	5.382E-01	-0.018
PB-211		404.84	*	1.695E-01	8.169E-01	1.195E+00	7.453E-01	0.142
		427.08		-1.622E-01	1.460E+00	2.408E+00	1.489E+00	-0.067
		831.96		-4.846E-01	9.312E-01	1.388E+00	8.732E-01	-0.349
BI-212	+	727.18	*	9.771E-01	3.983E-01	5.018E-01	4.997E-02	1.947
		785.46		2.151E+00	1.370E+00	2.348E+00	2.220E-01	0.916
		1620.62		1.107E+00	1.017E+00	1.870E+00	1.264E-01	0.592
PO-215		81.07		2.899E-02	2.062E-01	3.054E-01	2.664E-02	0.095
		83.78		-4.575E-02	1.262E-01	1.811E-01	1.614E-02	-0.253
		94.90		5.276E-01	2.052E-01	3.307E-01	2.691E-02	1.596
		122.32		-7.058E-02	1.499E+00	2.400E+00	1.630E-01	-0.029
		144.24		2.002E-01	5.729E-01	9.131E-01	6.372E-02	0.219
		154.21		3.940E-01	3.081E-01	5.437E-01	3.618E-02	0.725
		269.46		3.261E-01	1.684E-01	2.668E-01	1.585E-02	1.222
		323.87	*	-2.177E-02	5.776E-01	8.090E-01	1.335E-01	-0.027
	+	338.28		6.809E+00	1.630E+00	2.018E+00	2.124E-01	3.374
		445.03		-1.199E-01	1.540E+00	2.543E+00	2.660E-01	-0.047
RN-219	+	271.23		3.365E-01	2.560E-01	3.459E-01	2.773E-02	0.973
		401.81	*	1.648E-01	3.118E-01	5.339E-01	7.268E-02	0.309
RN-220		549.76	*	2.351E+00	1.990E+01	3.268E+01	2.246E+00	0.072
RA-223		81.07		2.899E-02	2.062E-01	3.054E-01	2.664E-02	0.095
		83.78		-4.575E-02	1.262E-01	1.811E-01	1.614E-02	-0.253
		94.90		5.276E-01	2.052E-01	3.307E-01	2.691E-02	1.596

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-7.058E-02	1.499E+00	2.400E+00	1.630E-01	-0.029
		144.24		2.002E-01	5.729E-01	9.131E-01	6.372E-02	0.219
		154.21		3.940E-01	3.081E-01	5.437E-01	3.618E-02	0.725
		269.46		3.261E-01	1.684E-01	2.668E-01	1.585E-02	1.222
		323.87	*	-2.177E-02	5.776E-01	8.090E-01	1.335E-01	-0.027
	+	338.28		6.809E+00	1.630E+00	2.018E+00	2.124E-01	3.374
		445.03		-1.199E-01	1.540E+00	2.543E+00	2.660E-01	-0.047
AC-227		79.80		9.186E-01	1.552E+00	2.332E+00	5.016E-01	0.394
		236.00		4.907E-01	2.209E-01	3.459E-01	3.568E-02	1.419
		256.20	*	-2.121E-02	3.052E-01	4.987E-01	6.927E-02	-0.043
		286.10		-8.873E-01	1.133E+00	1.756E+00	2.023E-01	-0.505
	+	299.80		3.323E+00	1.527E+00	1.983E+00	3.225E-01	1.676
		304.40		6.026E-01	1.532E+00	2.224E+00	3.843E-01	0.271
		334.20		-4.490E-02	2.331E+00	2.728E+00	5.000E-01	-0.016
TH-227		79.80		9.186E-01	1.552E+00	2.332E+00	5.080E-01	0.394
	+	94.00		4.796E+00	2.493E+00	3.178E+00	6.876E-01	1.509
		236.00		4.907E-01	2.194E-01	3.459E-01	3.078E-02	1.419
		256.20	*	-2.121E-02	3.052E-01	4.987E-01	8.398E-02	-0.043
		286.10		-8.873E-01	1.436E+00	1.756E+00	1.759E+00	-0.505
	+	299.80		3.323E+00	1.527E+00	1.983E+00	3.225E-01	1.676
		304.40		6.026E-01	1.532E+00	2.224E+00	3.843E-01	0.271
		334.20		-4.490E-02	2.331E+00	2.728E+00	5.000E-01	-0.016
TH-229		85.43		2.453E-01	1.835E-01	2.811E-01	2.541E-02	0.873
	+	88.47		3.472E-01	1.165E-01	1.826E-01	1.673E-02	1.902
		100.00		2.952E-01	1.517E-01	2.631E-01	1.981E-02	1.122
		193.63	*	-1.463E-01	3.914E-01	6.450E-01	3.454E-02	-0.227
		210.97		8.886E-01	7.259E-01	1.108E+00	6.022E-02	0.802
PA-231		283.67	*	9.771E-01	1.170E+00	1.843E+00	2.532E-01	0.530
	+	301.29		1.329E+00	5.879E-01	7.777E-01	8.107E-02	1.709
TH-231		81.07		2.899E-02	2.062E-01	3.054E-01	2.664E-02	0.095
		83.78		-4.575E-02	1.262E-01	1.811E-01	1.614E-02	-0.253
		94.90		5.276E-01	2.052E-01	3.307E-01	2.691E-02	1.596
		122.32		-7.058E-02	1.499E+00	2.400E+00	1.630E-01	-0.029
		144.24		2.002E-01	5.729E-01	9.131E-01	6.372E-02	0.219
		154.21		3.940E-01	3.081E-01	5.437E-01	3.618E-02	0.725
		269.46		3.261E-01	1.684E-01	2.668E-01	1.585E-02	1.222
		323.87	*	-2.177E-02	5.776E-01	8.090E-01	1.335E-01	-0.027
	+	338.28		6.809E+00	1.630E+00	2.018E+00	2.124E-01	3.374
		445.03		-1.199E-01	1.540E+00	2.543E+00	2.660E-01	-0.047
U-231		84.21		8.851E-01	5.411E+00	7.951E+00	7.112E-01	0.111
	+	92.29		4.770E+00	2.288E+00	3.273E+00	2.787E-01	1.457
		95.87	*	-3.340E-01	9.544E-01	1.361E+00	1.090E-01	-0.245
		108.00		-1.130E+00	1.753E+00	2.757E+00	1.875E-01	-0.410
PA-233	+	75.28		1.976E+01	4.789E+00	6.129E+00	9.323E-01	3.224
	+	86.59		4.979E+00	2.095E+00	2.719E+00	7.338E-01	1.831
	+	300.12		9.263E-01	4.171E-01	5.538E-01	7.428E-02	1.673
		311.98	*	1.565E-02	4.928E-02	8.086E-02	4.954E-03	0.194
		340.50		2.997E+00	9.182E-01	1.085E+00	2.492E-01	2.761
		398.62		-7.138E-01	1.583E+00	2.570E+00	6.643E-01	-0.278

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		9.290E-03	1.268E+00	1.998E+00	4.120E-01	0.005
PA-234	+	63.00		2.687E+00	2.155E+00	2.674E+00	4.030E-01	1.005
		94.67		4.873E-01	1.586E-01	2.486E-01	3.006E-02	1.960
		98.44		6.188E-02	8.568E-02	1.260E-01	7.012E-02	0.491
		99.86		7.942E-01	3.866E-01	6.721E-01	5.070E-02	1.182
		111.00		-9.118E-02	1.583E-01	2.492E-01	2.673E-02	-0.366
		131.20		-1.827E-03	8.889E-02	1.418E-01	8.072E-03	-0.013
		152.70		-4.895E-02	2.765E-01	4.333E-01	6.785E-02	-0.113
	+	186.00		4.063E+00	1.864E+00	2.043E+00	6.225E-01	1.988
		226.40		-4.684E-01	3.179E-01	4.856E-01	5.543E-02	-0.965
		227.20		-3.452E-01	3.358E-01	5.304E-01	2.923E-02	-0.651
		248.90		-2.996E-01	6.675E-01	9.836E-01	2.108E-01	-0.305
		293.70		5.289E+00	1.115E+00	1.366E+00	2.194E-01	3.871
		369.80		2.327E-01	6.042E-01	1.034E+00	2.153E-01	0.225
		568.70		-8.306E-02	7.952E-01	1.261E+00	8.826E-02	-0.066
		569.50		-2.346E-02	2.179E-01	3.454E-01	2.420E-02	-0.068
		574.00		2.819E-01	1.177E+00	1.938E+00	1.364E-01	0.145
		699.00		-3.106E-01	5.213E-01	8.323E-01	1.571E-01	-0.373
		706.10		9.591E-02	7.672E-01	1.288E+00	5.734E-01	0.074
		733.00		1.449E-02	2.945E-01	4.238E-01	9.412E-02	0.034
		742.81		-8.579E-01	1.123E+00	1.498E+00	1.007E+00	-0.573
		796.30		1.224E+00	8.454E-01	1.241E+00	3.399E-01	0.986
		805.60		9.486E-01	7.644E-01	1.274E+00	3.948E-01	0.745
		819.60		2.553E-02	8.905E-01	1.469E+00	5.637E-01	0.017
		826.30		6.580E-02	6.059E-01	1.004E+00	4.522E-01	0.066
		831.60		-1.341E-01	4.515E-01	7.231E-01	2.194E-01	-0.185
		876.40		-5.061E-01	8.244E-01	9.813E-01	1.011E+00	-0.516
		880.51		5.482E-03	2.112E-01	3.463E-01	3.810E-02	0.016
		883.24		1.662E-01	2.411E-01	3.692E-01	2.495E-01	0.450
		899.00		3.882E-01	6.123E-01	1.010E+00	4.475E-01	0.384
		925.00		-2.841E-01	8.610E-01	1.363E+00	1.485E-01	-0.208
		926.50		-9.128E-02	1.329E-01	2.008E-01	5.246E-02	-0.455
		946.00	*	4.179E-02	2.226E-01	3.668E-01	7.236E-02	0.114
		949.00		-1.044E-01	3.322E-01	5.257E-01	5.521E-02	-0.199
		980.50		-1.693E-01	5.048E-01	7.922E-01	7.879E-02	-0.214
		1394.10		2.722E-01	8.534E-01	1.408E+00	9.145E-01	0.193
PA-234M		766.42		2.095E+01	1.432E+01	1.628E+01	8.277E+00	1.287
		1001.03	*	2.227E+00	3.579E+00	5.973E+00	6.443E-01	0.373
U-235	+	89.95		1.675E+00	1.141E+00	1.584E+00	4.899E-01	1.058
	+	93.35		1.492E+00	8.190E-01	1.030E+00	2.877E-01	1.449
		105.00		1.230E+00	9.459E-01	1.496E+00	4.402E-01	0.822
		143.76	*	-1.717E-01	1.849E-01	2.762E-01	4.473E-02	-0.621
		163.35		-2.073E-01	3.601E-01	5.843E-01	1.041E-01	-0.355
	+	185.71		1.505E-01	5.222E-02	7.568E-02	4.025E-03	1.988
		205.31		5.189E-02	4.578E-01	6.689E-01	1.195E-01	0.078
NP-236		94.67		3.719E-01	1.158E-01	1.888E-01	1.543E-02	1.970
		98.44		4.673E-02	5.941E-02	9.524E-02	7.335E-03	0.491
		111.00		-6.897E-02	1.196E-01	1.885E-01	1.240E-02	-0.366
		160.31	*	2.075E-02	5.810E-02	9.968E-02	5.281E-03	0.208

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.800E-01	1.284E-01	2.240E-01	1.698E-02	1.250
		117.00	*	-1.159E-01	1.661E-01	2.593E-01	1.605E-02	-0.447
	+	209.75		1.933E+00	1.012E+00	1.176E+00	6.386E-02	1.644
		228.18		9.392E-03	1.738E-01	2.879E-01	1.588E-02	0.033
	+	277.60		2.626E-01	1.812E-01	2.509E-01	1.429E-02	1.047
		334.30		-5.451E-02	1.320E+00	1.541E+00	8.912E-02	-0.035
AM-241		59.54	*	-1.597E-01	1.724E-01	2.457E-01	2.038E-02	-0.650
CM-243		99.55		2.881E-01	1.321E-01	2.305E-01	1.747E-02	1.250
		103.76	*	1.936E-02	8.079E-02	1.323E-01	9.467E-03	0.146
		117.00		-1.193E-01	1.708E-01	2.668E-01	1.651E-02	-0.447
	+	209.75		1.905E+00	9.972E-01	1.159E+00	6.295E-02	1.644
		228.18		9.490E-03	1.756E-01	2.909E-01	1.605E-02	0.033
	+	277.60		2.648E-01	1.827E-01	2.530E-01	1.441E-02	1.047
AM-246		798.80		-8.998E-02	1.152E-01	1.488E-01	1.438E-02	-0.605
		1036.00		8.817E-02	2.232E-01	3.839E-01	3.399E-02	0.230
		1062.04		-4.778E-02	1.692E-01	2.687E-01	2.227E-02	-0.178
		1078.86	*	4.266E-02	1.031E-01	1.772E-01	1.402E-02	0.241
CM-247	+	278.00		1.089E+00	7.516E-01	1.037E+00	5.906E-02	1.051
		287.40		-3.396E-01	9.052E-01	1.441E+00	8.244E-02	-0.236
		402.60	*	1.876E-02	2.905E-02	4.892E-02	2.849E-03	0.384
CF-249		252.85		-1.109E-01	6.863E-01	1.118E+00	6.278E-02	-0.099
		333.44		2.035E-02	1.999E-01	2.030E-01	1.174E-02	0.100
		387.95	*	1.410E-02	2.893E-02	4.972E-02	2.858E-03	0.284
CF-251		176.60	*	3.172E-02	9.487E-02	1.616E-01	8.535E-03	0.196
		227.00		-4.470E-01	3.021E-01	4.668E-01	2.573E-02	-0.958
		285.00		-1.723E+00	1.301E+00	1.959E+00	1.120E-01	-0.880

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007      *
* Acquisition date : 12-FEB-2010 15:49:09 Detector SN#     :               *
* Detector ID      : GAM18                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.63     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245960007           Analyst initials: MXR1            *
* Batch Number     : 948717               Sample Quantity : 1.3621E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.922E+01	1.788E+00	3.465E-01	0.000E+00
CD-109	2.588E+00	8.509E-01	1.129E+00	0.000E+00
SN-126	2.543E-01	8.363E-02	1.117E-01	0.000E+00
HG-203	6.006E-02	4.063E-02	4.871E-02	0.000E+00
TL-208	4.802E-01	7.078E-02	4.483E-02	0.000E+00
BI-211	3.635E+00	4.167E-01	2.336E-01	0.000E+00
PB-212	1.571E+00	1.416E-01	7.232E-02	0.000E+00
PO-212	1.571E+00	1.416E-01	7.232E-02	0.000E+00
BI-214	1.156E+00	1.593E-01	8.295E-02	0.000E+00
PB-214	1.265E+00	1.587E-01	8.140E-02	0.000E+00
PO-214	1.265E+00	1.587E-01	8.140E-02	0.000E+00
PO-216	1.571E+00	1.416E-01	7.232E-02	0.000E+00
PO-218	1.265E+00	1.587E-01	8.140E-02	0.000E+00
RA-224	4.214E+00	1.082E+00	8.219E-01	0.000E+00
RA-226	1.156E+00	1.593E-01	8.295E-02	0.000E+00
AC-228	1.566E+00	2.958E-01	1.472E-01	0.000E+00
RA-228	1.566E+00	2.958E-01	1.472E-01	0.000E+00
TH-228	1.595E+00	1.438E-01	7.342E-02	0.000E+00
TH-230	1.156E+00	1.593E-01	8.295E-02	0.000E+00
TH-232	1.566E+00	2.958E-01	1.472E-01	0.000E+00
TH-234	2.305E+00	1.823E+00	2.077E+00	0.000E+00
U-234	1.156E+00	1.593E-01	8.295E-02	0.000E+00
NP-237	7.468E-01	2.883E-01	3.331E-01	0.000E+00
U-238	2.305E+00	1.823E+00	2.077E+00	0.000E+00
AM-243	3.772E-01	7.632E-02	8.558E-02	0.000E+00
ANH-511	1.084E-01	5.087E-02	3.553E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	7.958E-02		2.286E-01	4.021E-01	0.000E+00	NOT IDENT.

NA-22	-8.665E-03	3.065E-02	5.039E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.182E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.503E-02	2.133E-02	3.920E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.295E-02	7.890E-02	0.000E+00	FAIL ABUN
SC-46	-9.180E-03	2.885E-02	4.749E-02	0.000E+00	FAIL ABUN
V-48	2.674E-02	4.792E-02	8.366E-02	0.000E+00	NOT IDENT.
CR-51	-1.456E-02	2.828E-01	4.783E-01	0.000E+00	NOT IDENT.
MN-52	-2.992E-02	1.601E-01	2.599E-01	0.000E+00	NOT IDENT.
MN-54	-1.147E-02	2.814E-02	4.652E-02	0.000E+00	NOT IDENT.
CO-56	-5.206E-03	2.812E-02	4.706E-02	0.000E+00	FAIL ABUN
CO-57	-3.137E-03	2.118E-02	3.619E-02	0.000E+00	NOT IDENT.
CO-58	-1.839E-02	2.720E-02	4.393E-02	0.000E+00	NOT IDENT.
FE-59	-8.606E-02	5.981E-02	8.920E-02	0.000E+00	NOT IDENT.
CO-60	-1.518E-02	3.052E-02	4.881E-02	0.000E+00	NOT IDENT.
ZN-65	3.949E-02	6.925E-02	1.075E-01	0.000E+00	NOT IDENT.
GE-68	-7.527E-02	9.005E-01	1.537E+00	0.000E+00	NOT IDENT.
AS-73	-4.743E-02	9.500E-01	1.734E+00	0.000E+00	NOT IDENT.
AS-74	3.754E-02	7.179E-02	1.243E-01	0.000E+00	NOT IDENT.
SE-75	-3.760E-03	3.378E-02	5.604E-02	0.000E+00	FAIL ABUN
BR-77	5.302E+00	7.063E+00	1.265E+01	0.000E+00	FAIL ABUN
SR-82	3.805E-02	2.813E-01	4.206E-01	0.000E+00	NOT IDENT.
RB-83	2.548E-02	4.550E-02	8.061E-02	0.000E+00	NOT IDENT.
RB-84	1.700E-02	5.132E-02	8.879E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.141E+00	1.080E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.150E-02	5.542E-02	0.000E+00	NOT IDENT.
RB-86	2.211E-02	5.802E-01	9.989E-01	0.000E+00	NOT IDENT.
Y-88	-4.869E-03	2.451E-02	3.969E-02	0.000E+00	NOT IDENT.
ZR-88	-1.815E-02	2.157E-02	3.618E-02	0.000E+00	NOT IDENT.
Y-91	-7.281E-01	1.251E+01	2.111E+01	0.000E+00	NOT IDENT.
NB-94	5.339E-04	2.421E-02	4.199E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	3.514E-02	5.952E-02	0.000E+00	NOT IDENT.
NB-95M	1.008E-01	1.037E-01	1.669E-01	0.000E+00	NOT IDENT.
ZR-95	1.391E-02	4.779E-02	8.376E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.114E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.703E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.688E+00	7.923E+00	1.344E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.643E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.848E-02	2.509E-02	4.540E-02	0.000E+00	NOT IDENT.
RH-102	-2.188E-02	2.119E-02	3.422E-02	0.000E+00	NOT IDENT.
RU-103	2.722E-02	2.689E-02	4.879E-02	0.000E+00	FAIL ABUN
RH-106	8.304E-02	2.375E-01	4.070E-01	0.000E+00	FAIL ABUN
RU-106	8.304E-02	2.373E-01	4.070E-01	0.000E+00	FAIL ABUN
AG-108M	-5.919E-03	2.296E-02	3.938E-02	0.000E+00	NOT IDENT.
AG-110M	-2.608E-02	2.451E-02	3.974E-02	0.000E+00	NOT IDENT.
IN-111	1.658E-01	8.700E-01	1.344E+00	0.000E+00	NOT IDENT.
IN-113M	-8.830E-03	3.138E-02	5.436E-02	0.000E+00	NOT IDENT.
SN-113	-8.830E-03	3.138E-02	5.436E-02	0.000E+00	NOT IDENT.
IN-114M	1.047E-01	1.572E-01	2.545E-01	0.000E+00	NOT IDENT.
CD-115	-2.456E+00	7.565E+00	1.262E+01	0.000E+00	NOT IDENT.
SN-117M	-2.675E-02	4.054E-02	7.146E-02	0.000E+00	NOT IDENT.
SB-122	-1.891E-01	1.544E+00	2.596E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.408E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.548E-03	2.065E-02	3.747E-02	0.000E+00	NOT IDENT.
I-124	-3.316E-01	6.292E-01	8.697E-01	0.000E+00	FAIL ABUN
SB-124	-3.501E-02	5.339E-02	8.138E-02	0.000E+00	FAIL ABUN
SB-125	-1.667E-02	6.623E-02	1.138E-01	0.000E+00	FAIL ABUN
TE-125M	-1.316E+00	7.631E+00	1.315E+01	0.000E+00	NOT IDENT.
I-126	4.257E-02	1.319E-01	2.340E-01	0.000E+00	NOT IDENT.
SB-126	5.725E-02	1.198E-01	1.859E-01	0.000E+00	FAIL ABUN
SB-127	7.448E-01	9.488E-01	1.723E+00	0.000E+00	NOT IDENT.
XE-127	6.111E-03	3.659E-02	6.306E-02	0.000E+00	NOT IDENT.
I-131	9.580E-03	7.746E-02	1.380E-01	0.000E+00	NOT IDENT.
TE-132	1.800E-02	5.249E-01	9.207E-01	0.000E+00	NOT IDENT.
BA-133	5.672E-03	3.468E-02	5.140E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.286E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.397E-02	4.053E-02	6.613E-02	0.000E+00	NOT IDENT.
CS-135	1.284E-01	1.327E-01	2.121E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.540E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.187E-02	7.628E-02	1.285E-01	0.000E+00	FAIL ABUN
BA-137M	6.594E-03	2.533E-02	4.482E-02	0.000E+00	NOT IDENT.
CS-137	6.971E-03	2.678E-02	4.738E-02	0.000E+00	NOT IDENT.
CE-139	1.033E-02	2.218E-02	4.059E-02	0.000E+00	NOT IDENT.
BA-140	-1.059E-01	1.850E-01	2.977E-01	0.000E+00	NOT IDENT.
LA-140	-2.214E-02	6.886E-02	9.360E-02	0.000E+00	FAIL ABUN
CE-141	6.719E-02	5.018E-02	8.944E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.982E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.562E-05	1.615E-01	2.755E-01	0.000E+00	NOT IDENT.
PM-144	5.729E-03	2.468E-02	4.337E-02	0.000E+00	NOT IDENT.

PR-144	3.882E-01	1.672E+00	2.939E+00	0.000E+00	NOT IDENT.
PM-146	1.838E-02	3.298E-02	5.877E-02	0.000E+00	NOT IDENT.
ND-147	5.099E-01	3.928E-01	7.147E-01	0.000E+00	FAIL ABUN
PM-149	-5.839E+01	6.709E+01	1.090E+02	0.000E+00	NOT IDENT.
EU-152	3.016E-02	8.686E-02	1.221E-01	0.000E+00	FAIL ABUN
GD-153	-7.599E-02	7.237E-02	1.064E-01	0.000E+00	NOT IDENT.
EU-154	-4.197E-02	8.671E-02	1.399E-01	0.000E+00	NOT IDENT.
EU-155	8.870E-02	8.855E-02	1.598E-01	0.000E+00	FAIL ABUN
TB-160	-7.074E-02	1.058E-01	1.695E-01	0.000E+00	FAIL ABUN
HO-166M	6.272E-03	4.318E-02	7.536E-02	0.000E+00	NOT IDENT.
TM-171	-1.828E+01	2.942E+01	4.604E+01	0.000E+00	NOT IDENT.
LU-176	9.892E-04	1.799E-02	3.073E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.404E+00	1.731E+00	0.000E+00	FAIL ABUN
LU-177M	2.187E-02	1.375E-01	2.117E-01	0.000E+00	NOT IDENT.
HF-181	-6.437E-03	3.041E-02	5.171E-02	0.000E+00	NOT IDENT.
W-181	-2.769E-01	3.855E-01	6.013E-01	0.000E+00	NOT IDENT.
TA-182	-6.447E-03	1.406E-01	2.372E-01	0.000E+00	FAIL ABUN
RE-183	-6.102E-02	8.265E-02	1.429E-01	0.000E+00	FAIL ABUN
RE-184	-2.955E-02	1.793E-01	3.088E-01	0.000E+00	NOT IDENT.
OS-185	2.741E-03	3.050E-02	5.124E-02	0.000E+00	NOT IDENT.
RE-188	9.242E-02	1.321E-01	2.446E-01	0.000E+00	NOT IDENT.
W-188	2.664E-01	5.929E+00	8.906E+00	0.000E+00	FAIL ABUN
IR-192	-2.668E-03	2.621E-02	4.426E-02	0.000E+00	FAIL ABUN
AU-195	2.608E-01	1.803E-01	3.315E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.249E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.104E+00	5.275E+00	9.804E+00	0.000E+00	NOT IDENT.
TL-202	1.396E-02	4.888E-02	8.633E-02	0.000E+00	NOT IDENT.
BI-207	-2.992E-02	3.887E-02	6.111E-02	0.000E+00	FAIL ABUN
TL-207	-2.177E-02	5.661E-01	8.347E-01	0.000E+00	FAIL ABUN
PO-209	-2.293E+00	5.361E+00	8.730E+00	0.000E+00	NOT IDENT.
BI-210	-1.461E-01	4.807E+00	8.642E+00	0.000E+00	NOT IDENT.
PB-210	-1.461E-01	4.807E+00	8.642E+00	0.000E+00	NOT IDENT.
PO-210	-1.461E-01	4.807E+00	8.642E+00	0.000E+00	NOT IDENT.
PB-211	1.695E-01	8.005E-01	1.228E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.903E-01	5.099E-01	0.000E+00	FAIL ABUN
PO-215	-2.177E-02	5.661E-01	8.347E-01	0.000E+00	FAIL ABUN
RN-219	1.648E-01	3.056E-01	5.487E-01	0.000E+00	FAIL ABUN
RN-220	2.351E+00	1.951E+01	3.339E+01	0.000E+00	NOT IDENT.
RA-223	-2.177E-02	5.661E-01	8.347E-01	0.000E+00	FAIL ABUN
AC-227	-2.121E-02	2.991E-01	5.167E-01	0.000E+00	FAIL ABUN
TH-227	-2.121E-02	2.991E-01	5.167E-01	0.000E+00	FAIL ABUN
TH-229	-1.463E-01	3.836E-01	6.718E-01	0.000E+00	FAIL ABUN
PA-231	9.771E-01	1.147E+00	1.906E+00	0.000E+00	FAIL ABUN
TH-231	-2.177E-02	5.661E-01	8.347E-01	0.000E+00	FAIL ABUN
U-231	-3.340E-01	9.353E-01	1.435E+00	0.000E+00	FAIL ABUN
PA-233	1.565E-02	4.830E-02	8.349E-02	0.000E+00	FAIL ABUN
PA-234	4.179E-02	2.181E-01	3.709E-01	0.000E+00	FAIL ABUN
PA-234M	2.227E+00	3.507E+00	6.032E+00	0.000E+00	NOT IDENT.
U-235	-1.717E-01	1.812E-01	2.892E-01	0.000E+00	FAIL ABUN
NP-236	2.075E-02	5.694E-02	1.042E-01	0.000E+00	NOT IDENT.
NP-239	-1.159E-01	1.627E-01	2.726E-01	0.000E+00	FAIL ABUN
AM-241	-1.597E-01	1.690E-01	2.614E-01	0.000E+00	NOT IDENT.
CM-243	1.936E-02	7.917E-02	1.393E-01	0.000E+00	FAIL ABUN
AM-246	4.266E-02	1.011E-01	1.787E-01	0.000E+00	NOT IDENT.
CM-247	1.876E-02	2.847E-02	5.027E-02	0.000E+00	FAIL ABUN
CF-249	1.410E-02	2.836E-02	5.113E-02	0.000E+00	NOT IDENT.
CF-251	3.172E-02	9.297E-02	1.686E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:51:35.07

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007.CNF;1
Sample date      : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:49:09
Sample ID        : G245960007           Sample quantity  : 1.36210E+02 GRAM
Detector name    : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:01.63  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948717               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1409	10.67*	1.893E+00	1.922E+01	1.922E+01	9.49
CD-109	88.03	221	3.72*	6.463E+00	2.530E+00	2.588E+00	33.55
SN-126	64.28	98	9.60	3.075E+00	9.125E-01	9.125E-01	80.12
	86.94	221	8.90	6.463E+00	1.057E+00	1.057E+00	52.55
	87.57	221	37.00*	6.463E+00	2.543E-01	2.543E-01	33.55
HG-203	70.83	------	4.75	4.309E+00	------	Line Not Found	------
	72.87	------	8.00	4.622E+00	------	Line Not Found	------
	82.60	------	3.55	5.935E+00	------	Line Not Found	------
	279.20	84	77.30*	6.248E+00	4.791E-02	6.006E-02	69.04
TL-208	277.35	84	6.80	6.248E+00	5.446E-01	5.446E-01	69.57
	510.84	169	21.60	4.309E+00	5.018E-01	5.018E-01	48.61
	583.14	577	84.20*	3.934E+00	4.802E-01	4.802E-01	15.04
	860.37	------	12.46	2.915E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	4.622E+00	------	Line Not Found	------
	351.07	930	12.94*	5.451E+00	3.635E+00	3.635E+00	11.70
PB-212	74.81	447	10.70	4.948E+00	2.327E+00	2.327E+00	22.66
	77.11	676	18.00	5.260E+00	1.967E+00	1.967E+00	14.89
	87.30	221	8.00	6.463E+00	1.176E+00	1.176E+00	35.01
	238.63	1727	44.60*	6.792E+00	1.571E+00	1.571E+00	9.20
	300.09	133	3.41	5.986E+00	1.793E+00	1.793E+00	43.76
PO-212	74.81	447	10.70	4.948E+00	2.327E+00	2.327E+00	22.66
	77.11	676	18.00	5.260E+00	1.967E+00	1.967E+00	14.89
	87.30	221	8.00	6.463E+00	1.176E+00	1.176E+00	35.01
	115.19	------	0.60	8.058E+00	------	Line Not Found	------
	238.63	1727	44.60*	6.792E+00	1.571E+00	1.571E+00	9.20
	300.09	133	3.41	5.986E+00	1.793E+00	1.793E+00	43.76
BI-214	609.31	741	46.30*	3.812E+00	1.156E+00	1.156E+00	14.05
	1120.29	223	15.10	2.334E+00	1.744E+00	1.744E+00	22.57
	1764.49	155	15.80	1.695E+00	1.594E+00	1.594E+00	21.49
PB-214	74.81	447	6.21	4.948E+00	4.009E+00	4.009E+00	21.94
	77.11	676	10.50	5.260E+00	3.372E+00	3.372E+00	16.72
	87.30	221	4.67	6.463E+00	2.015E+00	2.015E+00	34.43

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	408	7.49	6.748E+00	2.223E+00	2.223E+00	26.78
	295.21	608	19.20	6.040E+00	1.445E+00	1.445E+00	14.71
	351.92	930	37.20*	5.451E+00	1.265E+00	1.265E+00	12.81
PO-214	74.81	447	6.21	4.948E+00	4.009E+00	4.009E+00	21.94
	77.11	676	10.50	5.260E+00	3.372E+00	3.372E+00	16.72
	87.30	221	4.67	6.463E+00	2.015E+00	2.015E+00	34.43
	241.98	408	7.49	6.748E+00	2.223E+00	2.223E+00	26.78
	295.21	608	19.20	6.040E+00	1.445E+00	1.445E+00	14.71
	351.92	930	37.20*	5.451E+00	1.265E+00	1.265E+00	12.81
PO-216	74.81	447	10.70	4.948E+00	2.327E+00	2.327E+00	22.66
	77.11	676	18.00	5.260E+00	1.967E+00	1.967E+00	14.89
	87.30	221	8.00	6.463E+00	1.176E+00	1.176E+00	35.01
	238.63	1727	44.60*	6.792E+00	1.571E+00	1.571E+00	9.20
	300.09	133	3.41	5.986E+00	1.793E+00	1.793E+00	43.76
PO-218	74.81	447	6.21	4.948E+00	4.009E+00	4.009E+00	21.94
	77.11	676	10.50	5.260E+00	3.372E+00	3.372E+00	16.72
	87.30	221	4.67	6.463E+00	2.015E+00	2.015E+00	34.43
	241.98	408	7.49	6.748E+00	2.223E+00	2.223E+00	26.78
	295.21	608	19.20	6.040E+00	1.445E+00	1.445E+00	14.71
	351.92	930	37.20*	5.451E+00	1.265E+00	1.265E+00	12.81
RA-224	240.98	408	3.95*	6.748E+00	4.214E+00	4.214E+00	26.19
RA-226	609.31	741	46.30*	3.812E+00	1.156E+00	1.156E+00	14.05
	1120.29	223	15.10	2.334E+00	1.744E+00	1.744E+00	22.57
	1764.49	155	15.80	1.695E+00	1.594E+00	1.594E+00	21.49
AC-228	338.32	376	11.40	5.579E+00	1.631E+00	1.631E+00	46.08
	911.07	437	27.70*	2.780E+00	1.566E+00	1.566E+00	19.28
	969.11	221	16.60	2.639E+00	1.389E+00	1.389E+00	31.87
RA-228	338.32	376	11.40	5.579E+00	1.631E+00	1.631E+00	46.08
	911.07	437	27.70*	2.780E+00	1.566E+00	1.566E+00	19.28
	969.11	221	16.60	2.639E+00	1.389E+00	1.389E+00	31.87
TH-228	74.81	447	10.70	4.948E+00	2.327E+00	2.362E+00	20.68
	77.11	676	18.00	5.260E+00	1.967E+00	1.997E+00	14.89
	87.30	221	8.00	6.463E+00	1.176E+00	1.194E+00	33.55
	238.63	1727	44.60*	6.792E+00	1.571E+00	1.595E+00	9.20
	300.09	133	3.41	5.986E+00	1.793E+00	1.820E+00	72.94
TH-230	609.31	741	46.30*	3.812E+00	1.156E+00	1.156E+00	14.05
	1120.29	223	15.10	2.334E+00	1.744E+00	1.744E+00	22.57
	1764.49	155	15.80	1.695E+00	1.594E+00	1.594E+00	21.49
TH-232	338.32	376	11.40	5.579E+00	1.631E+00	1.631E+00	22.26
	911.07	437	27.70*	2.780E+00	1.566E+00	1.566E+00	19.28
	969.11	221	16.60	2.639E+00	1.389E+00	1.389E+00	31.87
TH-234	63.29	98	3.80*	3.075E+00	2.305E+00	2.305E+00	80.70
	92.38	170	5.41	6.963E+00	1.241E+00	1.241E+00	50.54
U-234	609.31	741	46.30*	3.812E+00	1.156E+00	1.156E+00	14.05
	1120.29	223	15.10	2.334E+00	1.744E+00	1.744E+00	22.57
	1764.49	155	15.80	1.695E+00	1.594E+00	1.594E+00	21.49
NP-237	86.50	221	12.60*	6.463E+00	7.468E-01	7.468E-01	39.39
	95.87	------	2.60	7.180E+00	------ Line Not Found		------
U-238	63.29	98	3.80*	3.075E+00	2.305E+00	2.305E+00	80.70

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	170	5.41	6.963E+00	1.241E+00	1.241E+00	47.97
AM-243	74.67	447	66.00*	4.948E+00	3.772E-01	3.772E-01	20.65
	86.72	221	0.34	6.463E+00	2.801E+01	2.801E+01	33.55
	117.66	------	0.55	8.112E+00	------ Line Not Found		------
	142.18	------	0.13	8.232E+00	------ Line Not Found		------
ANH-511	511.00	169	100.00*	4.309E+00	1.084E-01	1.084E-01	47.89

Flag: "*" = Keyline

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

Total number of lines in spectrum 35
Number of unidentified lines 5
Number of lines tentatively identified by NID 30 85.71%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.922E+01	1.922E+01	0.182E+01	9.49	
CD-109	464.00D	1.02	2.530E+00	2.588E+00	0.868E+00	33.55	
SN-126	1.00E+05Y	1.00	2.543E-01	2.543E-01	0.853E-01	33.55	
HG-203	46.60D	1.25	4.791E-02	6.006E-02	4.146E-02	69.04	
TL-208	1.41E+10Y	1.00	4.802E-01	4.802E-01	0.722E-01	15.04	
BI-211	7.04E+08Y	1.00	3.635E+00	3.635E+00	0.425E+00	11.70	
PB-212	1.41E+10Y	1.00	1.571E+00	1.571E+00	0.145E+00	9.20	
PO-212	1.41E+10Y	1.00	1.571E+00	1.571E+00	0.145E+00	9.20	
BI-214	1600.00Y	1.00	1.156E+00	1.156E+00	0.163E+00	14.05	
PB-214	1600.00Y	1.00	1.265E+00	1.265E+00	0.162E+00	12.81	
PO-214	1600.00Y	1.00	1.265E+00	1.265E+00	0.162E+00	12.81	
PO-216	1.41E+10Y	1.00	1.571E+00	1.571E+00	0.145E+00	9.20	
PO-218	1600.00Y	1.00	1.265E+00	1.265E+00	0.162E+00	12.81	
RA-224	1.41E+10Y	1.00	4.214E+00	4.214E+00	1.104E+00	26.19	
RA-226	1600.00Y	1.00	1.156E+00	1.156E+00	0.163E+00	14.05	
AC-228	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.302E+00	19.28	
RA-228	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.302E+00	19.28	
TH-228	1.91Y	1.02	1.571E+00	1.595E+00	0.147E+00	9.20	
TH-230	4.47E+09Y	1.00	1.156E+00	1.156E+00	0.163E+00	14.05	
TH-232	1.41E+10Y	1.00	1.566E+00	1.566E+00	0.302E+00	19.28	
TH-234	4.47E+09Y	1.00	2.305E+00	2.305E+00	1.860E+00	80.70	
U-234	4.47E+09Y	1.00	1.156E+00	1.156E+00	0.163E+00	14.05	
NP-237	2.14E+06Y	1.00	7.468E-01	7.468E-01	2.942E-01	39.39	
U-238	4.47E+09Y	1.00	2.305E+00	2.305E+00	1.860E+00	80.70	
AM-243	7380.00Y	1.00	3.772E-01	3.772E-01	0.779E-01	20.65	
ANH-511	1.00E+09Y	1.00	1.084E-01	1.084E-01	0.519E-01	47.89	
	Total Activity :		5.563E+01	5.572E+01			

Grand Total Activity : 5.563E+01 5.572E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245960007

Acquisition date : 12-FEB-2010 15:49:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	90.18	110	413	1.00	179.47	169	22	1.53E-02	60.7	6.72E+00	T
0	185.96	225	356	1.31	370.97	367	9	3.13E-02	34.3	7.65E+00	T
0	208.96	165	440	1.05	416.93	412	11	2.29E-02	52.1	7.26E+00	T
0	270.97	82	269	1.29	540.92	536	9	1.14E-02	75.6	6.34E+00	T
0	327.92	112	213	1.39	654.77	650	11	1.56E-02	53.8	5.68E+00	T
0	409.41	57	154	0.68	817.72	814	9	7.95E-03	83.1	4.97E+00	
0	463.63	136	180	1.78	926.11	919	16	1.89E-02	47.6	4.59E+00	T
0	727.25	140	124	1.83	1453.22	1444	15	1.94E-02	39.5	3.34E+00	T
0	769.53	141	118	5.91	1537.77	1529	19	1.95E-02	40.8	3.19E+00	
0	794.28	59	88	1.72	1587.26	1580	13	8.18E-03	72.5	3.11E+00	
0	862.20	35	150	1.47	1723.06	1715	16	4.89E-03	****	2.91E+00	
3	964.30	71	76	1.79	1927.22	1923	21	9.87E-03	48.6	2.65E+00	T
0	1237.63	51	81	1.58	2473.79	2466	13	7.05E-03	78.4	2.15E+00	T
0	1377.33	46	32	1.76	2753.17	2748	11	6.32E-03	58.3	1.98E+00	T
0	1589.30	33	42	1.48	3177.07	3171	16	4.62E-03	****	1.79E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:51:39.58

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960007.CNF;1  *
* Acquisition date : 12-FEB-2010 15:49:09  Detector SN#     :              *
* Detector ID      : GAM18                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.63         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245960007            Analyst initials: MXR1           *
* Batch Number     : 948717                Sample Quantity : 1.36210E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.922E+01	1.825E+00	3.456E-01	2.622E-02	55.627
CD-109	2.588E+00	8.683E-01	1.069E+00	9.880E-02	2.421
SN-126	2.543E-01	8.534E-02	1.057E-01	9.740E-03	2.406
HG-203	6.006E-02	4.146E-02	4.708E-02	2.855E-03	1.276
TL-208	4.802E-01	7.222E-02	4.393E-02	3.444E-03	10.932
BI-211	3.635E+00	4.252E-01	2.267E-01	1.455E-02	16.033
PB-212	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
PO-212	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
BI-214	1.156E+00	1.625E-01	8.136E-02	7.267E-03	14.213
PB-214	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
PO-214	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
PO-216	1.571E+00	1.445E-01	6.970E-02	4.980E-03	22.542
PO-218	1.265E+00	1.620E-01	7.902E-02	6.537E-03	16.003
RA-224	4.214E+00	1.104E+00	7.923E-01	4.413E-02	5.320
RA-226	1.156E+00	1.625E-01	8.136E-02	7.267E-03	14.213
AC-228	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
RA-228	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
TH-228	1.595E+00	1.467E-01	7.076E-02	5.055E-03	22.542

Sample ID : G245960007 Acquisition date : 12-FEB-2010 15:49:09

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.156E+00	1.625E-01	8.135E-02	7.267E-03	14.213
TH-232	1.566E+00	3.018E-01	1.455E-01	1.928E-02	10.759
TH-234	2.305E+00	1.860E+00	1.955E+00	3.446E-01	1.179
U-234	1.156E+00	1.625E-01	8.135E-02	7.267E-03	14.213
NP-237	7.468E-01	2.942E-01	3.153E-01	7.113E-02	2.369
U-238	2.305E+00	1.860E+00	1.955E+00	3.446E-01	1.179
AM-243	3.772E-01	7.788E-02	8.079E-02	6.741E-03	4.669
ANH-511	1.084E-01	5.191E-02	3.473E-02	2.293E-03	3.121

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.958E-02		2.333E-01	3.925E-01	2.844E-02	0.203
NA-22	-8.665E-03		3.128E-02	5.013E-02	3.411E-03	-0.173
NA-24	-2.138E-01		3.154E-01	Half-Life too short		
AL-26	1.503E-02		2.176E-02	3.926E-02	2.292E-03	0.383
TI-44	3.630E-01	+	5.403E-02	7.454E-02	6.373E-03	4.869
SC-46	-9.180E-03		2.943E-02	4.691E-02	5.232E-03	-0.196
V-48	2.674E-02		4.889E-02	8.280E-02	8.190E-03	0.323
CR-51	-1.456E-02		2.885E-01	4.634E-01	2.984E-02	-0.031
MN-52	-2.992E-02		1.633E-01	2.591E-01	1.909E-02	-0.115
MN-54	-1.147E-02		2.872E-02	4.590E-02	4.702E-03	-0.250
CO-56	-5.206E-03		2.869E-02	4.645E-02	4.849E-03	-0.112
CO-57	-3.137E-03		2.161E-02	3.446E-02	2.041E-03	-0.091
CO-58	-1.839E-02		2.776E-02	4.332E-02	4.276E-03	-0.425
FE-59	-8.606E-02		6.103E-02	8.848E-02	7.283E-03	-0.973
CO-60	-1.518E-02		3.114E-02	4.860E-02	3.672E-03	-0.312
ZN-65	3.949E-02		7.066E-02	1.067E-01	7.515E-03	0.370
GE-68	-7.527E-02		9.188E-01	1.523E+00	1.210E-01	-0.049
AS-73	-4.743E-02		9.694E-01	1.627E+00	1.290E-01	-0.029
AS-74	3.754E-02		7.325E-02	1.218E-01	8.753E-03	0.308
SE-75	-3.760E-03		3.447E-02	5.411E-02	3.095E-03	-0.069
BR-77	5.302E+00		7.207E+00	1.237E+01	8.251E-01	0.429
SR-82	3.805E-02		2.870E-01	4.144E-01	3.860E-02	0.092
RB-83	2.548E-02		4.643E-02	7.882E-02	5.257E-03	0.323
RB-84	1.700E-02		5.237E-02	8.770E-02	9.666E-03	0.194
KR-85	1.752E+01		6.266E+00	1.056E+01	6.997E-01	1.659
SR-85	8.986E-02		3.214E-02	5.418E-02	3.589E-03	1.659
RB-86	2.211E-02		5.921E-01	9.904E-01	7.885E-02	0.022
Y-88	-4.869E-03		2.501E-02	3.976E-02	2.265E-03	-0.122
ZR-88	-1.815E-02		2.201E-02	3.519E-02	2.024E-03	-0.516
Y-91	-7.281E-01		1.276E+01	2.097E+01	1.240E+00	-0.035
NB-94	5.339E-04		2.470E-02	4.129E-02	3.387E-03	0.013
NB-95	6.176E-02		3.586E-02	5.862E-02	5.363E-03	1.053
NB-95M	1.008E-01		1.058E-01	1.608E-01	1.180E-02	0.627
ZR-95	1.391E-02		4.876E-02	8.249E-02	8.117E-03	0.169
NB-97	-7.728E-02		3.630E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	3.154E+00		8.689E-01	Half-Life too short		
MO-99	-1.688E+00		8.085E+00	1.323E+01	2.018E+00	-0.128
TC-99M	-1.479E+10		1.858E+10	Half-Life too short		
RH-101	2.848E-02		2.560E-02	4.361E-02	2.344E-03	0.653
RH-102	-2.188E-02		2.162E-02	3.340E-02	2.121E-03	-0.655
RU-103	2.722E-02		2.744E-02	4.766E-02	6.189E-03	0.571
RH-106	8.304E-02		2.423E-01	3.993E-01	5.024E-02	0.208
RU-106	8.304E-02		2.422E-01	3.993E-01	2.939E-02	0.208
AG-108M	-5.919E-03		2.343E-02	3.838E-02	2.507E-03	-0.154
AG-110M	-2.608E-02		2.501E-02	3.903E-02	3.078E-03	-0.668
IN-111	1.658E-01		8.878E-01	1.296E+00	7.241E-02	0.128
IN-113M	-8.830E-03		3.202E-02	5.287E-02	3.243E-03	-0.167
SN-113	-8.830E-03		3.202E-02	5.287E-02	3.243E-03	-0.167
IN-114M	1.047E-01		1.604E-01	2.443E-01	1.304E-02	0.428
CD-115	-2.456E+00		7.719E+00	1.235E+01	8.299E-01	-0.199
SN-117M	-2.675E-02		4.137E-02	6.837E-02	3.634E-03	-0.391
SB-122	-1.891E-01		1.575E+00	2.542E+00	1.771E-01	-0.074
I-123	5.441E-01		2.249E+00	Half-Life too short		
TE-123M	2.548E-03		2.107E-02	3.585E-02	1.934E-03	0.071
I-124	-3.316E-01		6.420E-01	8.528E-01	6.166E-02	-0.389
SB-124	-3.501E-02		5.448E-02	8.140E-02	5.616E-03	-0.430
SB-125	-1.667E-02		6.758E-02	1.109E-01	6.931E-03	-0.150
TE-125M	-1.316E+00		7.787E+00	1.250E+01	1.099E+00	-0.105
I-126	4.257E-02		1.346E-01	2.299E-01	1.767E-02	0.185
SB-126	5.725E-02		1.223E-01	1.829E-01	1.548E-02	0.313
SB-127	7.448E-01		9.682E-01	1.694E+00	1.846E-01	0.440
XE-127	6.111E-03		3.734E-02	6.059E-02	3.271E-03	0.101
I-131	9.580E-03		7.904E-02	1.341E-01	8.654E-03	0.071
TE-132	1.800E-02		5.356E-01	8.866E-01	1.264E-01	0.020
BA-133	5.672E-03		3.539E-02	4.990E-02	5.764E-03	0.114
I-133	3.869E-03		2.187E-03	Half-Life too short		
CS-134	6.397E-02		4.136E-02	6.519E-02	6.305E-03	0.981
CS-135	1.284E-01		1.354E-01	2.049E-01	1.548E-02	0.627
I-135	-1.111E+08		2.317E+09	Half-Life too short		
CS-136	-2.187E-02		7.784E-02	1.274E-01	1.142E-02	-0.172
BA-137M	6.594E-03		2.585E-02	4.403E-02	3.356E-03	0.150
CS-137	6.971E-03		2.732E-02	4.654E-02	3.557E-03	0.150
CE-139	1.033E-02		2.263E-02	3.886E-02	2.040E-03	0.266
BA-140	-1.059E-01		1.888E-01	2.912E-01	9.527E-02	-0.364
LA-140	-2.214E-02		7.027E-02	9.352E-02	6.416E-03	-0.237
CE-141	6.719E-02		5.121E-02	8.543E-02	4.877E-03	0.786
CE-143	6.844E-04		1.011E-04	Half-Life too short		
CE-144	-3.562E-05		1.648E-01	2.628E-01	3.716E-02	0.000
PM-144	5.729E-03		2.518E-02	4.265E-02	3.462E-03	0.134
PR-144	3.882E-01		1.707E+00	2.890E+00	2.345E-01	0.134
PM-146	1.838E-02		3.365E-02	5.732E-02	5.099E-03	0.321
ND-147	5.099E-01		4.009E-01	6.991E-01	9.754E-02	0.729
PM-149	-5.839E+01		6.846E+01	1.054E+02	1.490E+01	-0.554

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	3.016E-02		8.863E-02	1.185E-01	7.732E-03	0.255
GD-153	-7.599E-02		7.385E-02	1.009E-01	7.887E-03	-0.753
EU-154	-4.197E-02		8.848E-02	1.392E-01	1.390E-02	-0.302
EU-155	8.870E-02		9.035E-02	1.518E-01	1.085E-02	0.584
TB-160	-7.074E-02		1.080E-01	1.674E-01	1.839E-02	-0.423
HO-166M	6.272E-03		4.406E-02	7.413E-02	6.179E-03	0.085
TM-171	-1.828E+01		3.002E+01	4.338E+01	3.468E+00	-0.421
LU-176	9.892E-04		1.836E-02	2.976E-02	1.713E-03	0.033
LU-177	2.737E+00	+	1.433E+00	1.664E+00	9.025E-02	1.645
LU-177M	2.187E-02		1.403E-01	2.061E-01	1.217E-02	0.106
HF-181	-6.437E-03		3.103E-02	5.049E-02	3.232E-03	-0.127
W-181	-2.769E-01		3.934E-01	5.662E-01	4.491E-02	-0.489
TA-182	-6.447E-03		1.434E-01	2.357E-01	1.442E-02	-0.027
RE-183	-6.102E-02		8.433E-02	1.368E-01	7.221E-03	-0.446
RE-184	-2.955E-02		1.829E-01	2.979E-01	1.673E-02	-0.099
OS-185	2.741E-03		3.112E-02	5.031E-02	3.784E-03	0.054
RE-188	9.242E-02		1.348E-01	2.339E-01	1.252E-02	0.395
W-188	2.664E-01		6.050E+00	8.615E+00	4.934E-01	0.031
IR-192	-2.668E-03		2.674E-02	4.288E-02	2.487E-03	-0.062
AU-195	2.608E-01		1.840E-01	3.145E-01	2.406E-02	0.829
TL-200	-1.542E-04		1.658E-04	Half-Life too short		
TL-201	5.104E+00		5.383E+00	9.389E+00	4.929E-01	0.544
TL-202	1.396E-02		4.988E-02	8.415E-02	5.130E-03	0.166
BI-207	-2.992E-02		3.966E-02	6.058E-02	5.001E-03	-0.494
TL-207	-2.177E-02		5.776E-01	8.090E-01	1.335E-01	-0.027
PO-209	-2.293E+00		5.470E+00	8.625E+00	9.729E-01	-0.266
BI-210	-1.461E-01		4.905E+00	8.091E+00	6.260E-01	-0.018
PB-210	-1.461E-01		4.905E+00	8.091E+00	6.260E-01	-0.018
PO-210	-1.461E-01		4.905E+00	8.091E+00	5.382E-01	-0.018
PB-211	1.695E-01		8.169E-01	1.195E+00	7.453E-01	0.142
BI-212	9.771E-01	+	3.983E-01	5.018E-01	4.997E-02	1.947
PO-215	-2.177E-02		5.776E-01	8.090E-01	1.335E-01	-0.027
RN-219	1.648E-01		3.118E-01	5.339E-01	7.268E-02	0.309
RN-220	2.351E+00		1.990E+01	3.268E+01	2.246E+00	0.072
RA-223	-2.177E-02		5.776E-01	8.090E-01	1.335E-01	-0.027
AC-227	-2.121E-02		3.052E-01	4.987E-01	6.927E-02	-0.043
TH-227	-2.121E-02		3.052E-01	4.987E-01	8.398E-02	-0.043
TH-229	-1.463E-01		3.914E-01	6.450E-01	3.454E-02	-0.227
PA-231	9.771E-01		1.170E+00	1.843E+00	2.532E-01	0.530
TH-231	-2.177E-02		5.776E-01	8.090E-01	1.335E-01	-0.027
U-231	-3.340E-01		9.544E-01	1.361E+00	1.090E-01	-0.245
PA-233	1.565E-02		4.928E-02	8.086E-02	4.954E-03	0.194
PA-234	4.179E-02		2.226E-01	3.668E-01	7.236E-02	0.114
PA-234M	2.227E+00		3.579E+00	5.973E+00	6.443E-01	0.373
U-235	-1.717E-01		1.849E-01	2.762E-01	4.473E-02	-0.621
NP-236	2.075E-02		5.810E-02	9.968E-02	5.281E-03	0.208
NP-239	-1.159E-01		1.661E-01	2.593E-01	1.605E-02	-0.447
AM-241	-1.597E-01		1.724E-01	2.457E-01	2.038E-02	-0.650

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.936E-02		8.079E-02	1.323E-01	9.467E-03	0.146
AM-246	4.266E-02		1.031E-01	1.772E-01	1.402E-02	0.241
CM-247	1.876E-02		2.905E-02	4.892E-02	2.849E-03	0.384
CF-249	1.410E-02		2.893E-02	4.972E-02	2.858E-03	0.284
CF-251	3.172E-02		9.487E-02	1.616E-01	8.535E-03	0.196

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960007            *
* Acquisition date : 12-FEB-2010 15:49:09 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.63     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245960007           Analyst initials: MXR1            *
* Batch Number     : 948717               Sample Quantity : 1.3621E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.922E+01	1.788E+00	1.733E-01	9.123E-01
CD-109	2.588E+00	8.509E-01	5.648E-01	4.341E-01
SN-126	2.543E-01	8.363E-02	5.587E-02	4.267E-02
HG-203	6.006E-02	4.063E-02	2.437E-02	2.073E-02
TL-208	4.802E-01	7.078E-02	2.243E-02	3.611E-02
BI-211	3.635E+00	4.167E-01	1.169E-01	2.126E-01
PB-212	1.571E+00	1.416E-01	3.618E-02	7.225E-02
PO-212	1.571E+00	1.416E-01	3.618E-02	7.225E-02
BI-214	1.156E+00	1.593E-01	4.150E-02	8.126E-02
PB-214	1.265E+00	1.587E-01	4.073E-02	8.098E-02
PO-214	1.265E+00	1.587E-01	4.073E-02	8.098E-02
PO-216	1.571E+00	1.416E-01	3.618E-02	7.225E-02
PO-218	1.265E+00	1.587E-01	4.073E-02	8.098E-02
RA-224	4.214E+00	1.082E+00	4.112E-01	5.518E-01
RA-226	1.156E+00	1.593E-01	4.150E-02	8.126E-02
AC-228	1.566E+00	2.958E-01	7.367E-02	1.509E-01
RA-228	1.566E+00	2.958E-01	7.367E-02	1.509E-01
TH-228	1.595E+00	1.438E-01	3.673E-02	7.335E-02
TH-230	1.156E+00	1.593E-01	4.150E-02	8.125E-02
TH-232	1.566E+00	2.958E-01	7.367E-02	1.509E-01
TH-234	2.305E+00	1.823E+00	1.039E+00	9.302E-01
U-234	1.156E+00	1.593E-01	4.150E-02	8.125E-02
NP-237	7.468E-01	2.883E-01	1.667E-01	1.471E-01
U-238	2.305E+00	1.823E+00	1.039E+00	9.302E-01
AM-243	3.772E-01	7.632E-02	4.282E-02	3.894E-02
ANH-511	1.084E-01	5.087E-02	1.777E-02	2.595E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	7.958E-02	2.286E-01	2.012E-01	1.166E-01 NOT IDENT.

NA-22	-8.665E-03	3.065E-02	2.521E-02	1.564E-02	NOT IDENT.
NA-24	-2.138E+05	6.182E+05	0.000E+00	3.154E+05	SHORT HLIF
AL-26	1.503E-02	2.133E-02	1.961E-02	1.088E-02	NOT IDENT.
TI-44	3.630E-01	5.295E-02	3.947E-02	2.702E-02	FAIL ABUN
SC-46	-9.180E-03	2.885E-02	2.376E-02	1.472E-02	FAIL ABUN
V-48	2.674E-02	4.792E-02	4.185E-02	2.445E-02	NOT IDENT.
CR-51	-1.456E-02	2.828E-01	2.393E-01	1.443E-01	NOT IDENT.
MN-52	-2.992E-02	1.601E-01	1.300E-01	8.167E-02	NOT IDENT.
MN-54	-1.147E-02	2.814E-02	2.327E-02	1.436E-02	NOT IDENT.
CO-56	-5.206E-03	2.812E-02	2.355E-02	1.434E-02	FAIL ABUN
CO-57	-3.137E-03	2.118E-02	1.811E-02	1.080E-02	NOT IDENT.
CO-58	-1.839E-02	2.720E-02	2.198E-02	1.388E-02	NOT IDENT.
FE-59	-8.606E-02	5.981E-02	4.463E-02	3.052E-02	NOT IDENT.
CO-60	-1.518E-02	3.052E-02	2.442E-02	1.557E-02	NOT IDENT.
ZN-65	3.949E-02	6.925E-02	5.380E-02	3.533E-02	NOT IDENT.
GE-68	-7.527E-02	9.005E-01	7.687E-01	4.594E-01	NOT IDENT.
AS-73	-4.743E-02	9.500E-01	8.676E-01	4.847E-01	NOT IDENT.
AS-74	3.754E-02	7.179E-02	6.217E-02	3.663E-02	NOT IDENT.
SE-75	-3.760E-03	3.378E-02	2.804E-02	1.724E-02	FAIL ABUN
BR-77	5.302E+00	7.063E+00	6.328E+00	3.603E+00	FAIL ABUN
SR-82	3.805E-02	2.813E-01	2.104E-01	1.435E-01	NOT IDENT.
RB-83	2.548E-02	4.550E-02	4.033E-02	2.321E-02	NOT IDENT.
RB-84	1.700E-02	5.132E-02	4.442E-02	2.618E-02	NOT IDENT.
KR-85	1.752E+01	6.141E+00	5.405E+00	3.133E+00	NOT IDENT.
SR-85	8.986E-02	3.150E-02	2.773E-02	1.607E-02	NOT IDENT.
RB-86	2.211E-02	5.802E-01	4.998E-01	2.960E-01	NOT IDENT.
Y-88	-4.869E-03	2.451E-02	1.986E-02	1.251E-02	NOT IDENT.
ZR-88	-1.815E-02	2.157E-02	1.810E-02	1.101E-02	NOT IDENT.
Y-91	-7.281E-01	1.251E+01	1.056E+01	6.381E+00	NOT IDENT.
NB-94	5.339E-04	2.421E-02	2.101E-02	1.235E-02	NOT IDENT.
NB-95	6.176E-02	3.514E-02	2.978E-02	1.793E-02	NOT IDENT.
NB-95M	1.008E-01	1.037E-01	8.350E-02	5.289E-02	NOT IDENT.
ZR-95	1.391E-02	4.779E-02	4.191E-02	2.438E-02	NOT IDENT.
NB-97	-7.728E+04	7.114E+04	0.000E+00	3.630E+04	SHORT HLIF
ZR-97	3.154E+06	1.703E+06	0.000E+00	8.689E+05	SHORT HLIF
MO-99	-1.688E+00	7.923E+00	6.722E+00	4.043E+00	NOT IDENT.
TC-99M	-1.479E+16	3.643E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.848E-02	2.509E-02	2.272E-02	1.280E-02	NOT IDENT.
RH-102	-2.188E-02	2.119E-02	1.712E-02	1.081E-02	NOT IDENT.
RU-103	2.722E-02	2.689E-02	2.441E-02	1.372E-02	FAIL ABUN
RH-106	8.304E-02	2.375E-01	2.036E-01	1.212E-01	FAIL ABUN
RU-106	8.304E-02	2.373E-01	2.036E-01	1.211E-01	FAIL ABUN
AG-108M	-5.919E-03	2.296E-02	1.970E-02	1.172E-02	NOT IDENT.
AG-110M	-2.608E-02	2.451E-02	1.988E-02	1.251E-02	NOT IDENT.
IN-111	1.658E-01	8.700E-01	6.723E-01	4.439E-01	NOT IDENT.
IN-113M	-8.830E-03	3.138E-02	2.719E-02	1.601E-02	NOT IDENT.
SN-113	-8.830E-03	3.138E-02	2.719E-02	1.601E-02	NOT IDENT.
IN-114M	1.047E-01	1.572E-01	1.273E-01	8.018E-02	NOT IDENT.
CD-115	-2.456E+00	7.565E+00	6.316E+00	3.860E+00	NOT IDENT.
SN-117M	-2.675E-02	4.054E-02	3.575E-02	2.068E-02	NOT IDENT.
SB-122	-1.891E-01	1.544E+00	1.299E+00	7.877E-01	NOT IDENT.
I-123	5.441E+05	4.408E+06	0.000E+00	2.249E+06	SHORT HLIF
TE-123M	2.548E-03	2.065E-02	1.875E-02	1.053E-02	NOT IDENT.
I-124	-3.316E-01	6.292E-01	4.351E-01	3.210E-01	FAIL ABUN
SB-124	-3.501E-02	5.339E-02	4.072E-02	2.724E-02	FAIL ABUN
SB-125	-1.667E-02	6.623E-02	5.696E-02	3.379E-02	FAIL ABUN
TE-125M	-1.316E+00	7.631E+00	6.579E+00	3.894E+00	NOT IDENT.
I-126	4.257E-02	1.319E-01	1.171E-01	6.731E-02	NOT IDENT.
SB-126	5.725E-02	1.198E-01	9.300E-02	6.113E-02	FAIL ABUN
SB-127	7.448E-01	9.488E-01	8.622E-01	4.841E-01	NOT IDENT.
XE-127	6.111E-03	3.659E-02	3.155E-02	1.867E-02	NOT IDENT.
I-131	9.580E-03	7.746E-02	6.905E-02	3.952E-02	NOT IDENT.
TE-132	1.800E-02	5.249E-01	4.606E-01	2.678E-01	NOT IDENT.
BA-133	5.672E-03	3.468E-02	2.571E-02	1.770E-02	NOT IDENT.
I-133	3.869E+03	4.286E+03	0.000E+00	2.187E+03	SHORT HLIF
CS-134	6.397E-02	4.053E-02	3.309E-02	2.068E-02	NOT IDENT.
CS-135	1.284E-01	1.327E-01	1.061E-01	6.769E-02	NOT IDENT.
I-135	-1.111E+14	4.540E+15	0.000E+00	2.317E+15	SHORT HLIF
CS-136	-2.187E-02	7.628E-02	6.430E-02	3.892E-02	FAIL ABUN
BA-137M	6.594E-03	2.533E-02	2.242E-02	1.292E-02	NOT IDENT.
CS-137	6.971E-03	2.678E-02	2.370E-02	1.366E-02	NOT IDENT.
CE-139	1.033E-02	2.218E-02	2.031E-02	1.132E-02	NOT IDENT.
BA-140	-1.059E-01	1.850E-01	1.489E-01	9.439E-02	NOT IDENT.
LA-140	-2.214E-02	6.886E-02	4.683E-02	3.513E-02	FAIL ABUN
CE-141	6.719E-02	5.018E-02	4.475E-02	2.560E-02	NOT IDENT.
CE-143	6.844E+02	1.982E+02	0.000E+00	1.011E+02	SHORT HLIF
CE-144	-3.562E-05	1.615E-01	1.378E-01	8.238E-02	NOT IDENT.
PM-144	5.729E-03	2.468E-02	2.170E-02	1.259E-02	NOT IDENT.

PR-144	3.882E-01	1.672E+00	1.470E+00	8.533E-01	NOT IDENT.
PM-146	1.838E-02	3.298E-02	2.940E-02	1.683E-02	NOT IDENT.
ND-147	5.099E-01	3.928E-01	3.576E-01	2.004E-01	FAIL ABUN
PM-149	-5.839E+01	6.709E+01	5.452E+01	3.423E+01	NOT IDENT.
EU-152	3.016E-02	8.686E-02	6.109E-02	4.432E-02	FAIL ABUN
GD-153	-7.599E-02	7.237E-02	5.322E-02	3.692E-02	NOT IDENT.
EU-154	-4.197E-02	8.671E-02	7.000E-02	4.424E-02	NOT IDENT.
EU-155	8.870E-02	8.855E-02	7.994E-02	4.518E-02	FAIL ABUN
TB-160	-7.074E-02	1.058E-01	8.480E-02	5.399E-02	FAIL ABUN
HO-166M	6.272E-03	4.318E-02	3.770E-02	2.203E-02	NOT IDENT.
TM-171	-1.828E+01	2.942E+01	2.304E+01	1.501E+01	NOT IDENT.
LU-176	9.892E-04	1.799E-02	1.538E-02	9.180E-03	FAIL ABUN
LU-177	2.737E+00	1.404E+00	8.658E-01	7.163E-01	FAIL ABUN
LU-177M	2.187E-02	1.375E-01	1.059E-01	7.015E-02	NOT IDENT.
HF-181	-6.437E-03	3.041E-02	2.587E-02	1.552E-02	NOT IDENT.
W-181	-2.769E-01	3.855E-01	3.008E-01	1.967E-01	NOT IDENT.
TA-182	-6.447E-03	1.406E-01	1.187E-01	7.172E-02	FAIL ABUN
RE-183	-6.102E-02	8.265E-02	7.151E-02	4.217E-02	FAIL ABUN
RE-184	-2.955E-02	1.793E-01	1.545E-01	9.147E-02	NOT IDENT.
OS-185	2.741E-03	3.050E-02	2.564E-02	1.556E-02	NOT IDENT.
RE-188	9.242E-02	1.321E-01	1.224E-01	6.741E-02	NOT IDENT.
W-188	2.664E-01	5.929E+00	4.456E+00	3.025E+00	FAIL ABUN
IR-192	-2.668E-03	2.621E-02	2.214E-02	1.337E-02	FAIL ABUN
AU-195	2.608E-01	1.803E-01	1.659E-01	9.198E-02	FAIL ABUN
TL-200	-1.542E+02	3.249E+02	0.000E+00	1.658E+02	SHORT HLIF
TL-201	5.104E+00	5.275E+00	4.905E+00	2.691E+00	NOT IDENT.
TL-202	1.396E-02	4.888E-02	4.319E-02	2.494E-02	NOT IDENT.
BI-207	-2.992E-02	3.887E-02	3.057E-02	1.983E-02	FAIL ABUN
TL-207	-2.177E-02	5.661E-01	4.176E-01	2.888E-01	FAIL ABUN
PO-209	-2.293E+00	5.361E+00	4.367E+00	2.735E+00	NOT IDENT.
BI-210	-1.461E-01	4.807E+00	4.324E+00	2.452E+00	NOT IDENT.
PB-210	-1.461E-01	4.807E+00	4.324E+00	2.452E+00	NOT IDENT.
PO-210	-1.461E-01	4.807E+00	4.324E+00	2.452E+00	NOT IDENT.
PB-211	1.695E-01	8.005E-01	6.145E-01	4.084E-01	NOT IDENT.
BI-212	9.771E-01	3.903E-01	2.551E-01	1.992E-01	FAIL ABUN
PO-215	-2.177E-02	5.661E-01	4.176E-01	2.888E-01	FAIL ABUN
RN-219	1.648E-01	3.056E-01	2.745E-01	1.559E-01	FAIL ABUN
RN-220	2.351E+00	1.951E+01	1.670E+01	9.952E+00	NOT IDENT.
RA-223	-2.177E-02	5.661E-01	4.176E-01	2.888E-01	FAIL ABUN
AC-227	-2.121E-02	2.991E-01	2.585E-01	1.526E-01	FAIL ABUN
TH-227	-2.121E-02	2.991E-01	2.585E-01	1.526E-01	FAIL ABUN
TH-229	-1.463E-01	3.836E-01	3.361E-01	1.957E-01	FAIL ABUN
PA-231	9.771E-01	1.147E+00	9.535E-01	5.850E-01	FAIL ABUN
TH-231	-2.177E-02	5.661E-01	4.176E-01	2.888E-01	FAIL ABUN
U-231	-3.340E-01	9.353E-01	7.181E-01	4.772E-01	FAIL ABUN
PA-233	1.565E-02	4.830E-02	4.177E-02	2.464E-02	FAIL ABUN
PA-234	4.179E-02	2.181E-01	1.855E-01	1.113E-01	FAIL ABUN
PA-234M	2.227E+00	3.507E+00	3.018E+00	1.789E+00	NOT IDENT.
U-235	-1.717E-01	1.812E-01	1.447E-01	9.244E-02	FAIL ABUN
NP-236	2.075E-02	5.694E-02	5.212E-02	2.905E-02	NOT IDENT.
NP-239	-1.159E-01	1.627E-01	1.364E-01	8.303E-02	FAIL ABUN
AM-241	-1.597E-01	1.690E-01	1.308E-01	8.622E-02	NOT IDENT.
CM-243	1.936E-02	7.917E-02	6.969E-02	4.040E-02	FAIL ABUN
AM-246	4.266E-02	1.011E-01	8.942E-02	5.157E-02	NOT IDENT.
CM-247	1.876E-02	2.847E-02	2.515E-02	1.453E-02	FAIL ABUN
CF-249	1.410E-02	2.836E-02	2.558E-02	1.447E-02	NOT IDENT.
CF-251	3.172E-02	9.297E-02	8.436E-02	4.743E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	290.6219
46.50	290.6219
46.50	290.6219
48.70	312.0388
49.72	290.8762
51.35	319.8582
52.39	289.3972
52.97	277.3114
53.15	287.5097
53.44	306.0441
54.07	297.6428
56.28	297.3270
56.28	297.3303
57.37	0.0000
57.53	291.2838
57.53	291.2854
57.60	289.5069
57.98	281.5666
57.98	281.5666
59.32	337.8163
59.32	337.8163
59.40	337.9114
59.54	338.0775
59.72	318.7202
60.01	309.2486
61.10	279.5196
61.14	279.5583
61.30	279.7124
63.00	318.5667
63.29	318.8778
63.29	318.8778
63.58	319.1881
64.28	387.6147
65.12	382.9990
65.20	383.1001
65.20	383.1001
66.05	402.7351
66.72	386.4359
66.83	360.8042
66.91	360.8965
67.20	377.0031
67.20	377.0031
67.75	364.1708
67.85	378.0789
68.90	377.0380
68.90	377.0380
69.30	389.6370
69.67	384.3151
70.82	404.5428
70.82	404.5428
70.83	404.5555
72.80	405.5531
72.87	405.6401
72.87	405.6401
74.67	413.7142
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74.81	413.8874
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74.81	413.8874
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77.11	416.7047

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77.11	416.7047
77.11	416.7047
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77.11	416.7047
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79.80	376.7629
80.11	377.0949
80.18	377.1702
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80.30	375.8063
80.57	376.0947
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81.07	408.0108
81.07	408.0108
81.07	408.0108
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83.78	463.8023
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84.90	410.8472
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86.59	389.4608
86.72	389.5959
86.79	389.6664
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87.30	390.2010
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87.88	390.8022
88.03	390.9588
88.36	391.2996
88.47	391.4131
89.95	392.9366
91.11	394.1213
92.29	395.3198
92.38	395.4118
92.38	395.4118
93.35	396.3889
94.00	397.0430
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94.67	269.6182
94.90	269.7736
94.90	269.7736
94.90	269.7736
94.90	269.7736
95.87	321.7161
95.87	321.7161
96.73	373.8043
97.43	355.7247
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98.44	295.2939
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99.55	253.0163
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105.31	303.1302
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111.00	362.9140
111.76	375.3586
112.95	337.5264
115.19	352.1875
116.30	376.9324
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117.00	368.7967
117.66	344.2621
121.11	339.0988
121.62	338.3617
121.78	338.4745
122.06	335.3731
122.32	335.5530
122.32	335.5530
122.32	335.5530
122.32	335.5530
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129.76	314.9687
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133.02	331.6079
133.54	310.5618
135.34	331.9702
136.00	300.7328
136.25	338.2030
136.48	329.2991
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143.76	385.4409
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144.24	326.0753
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147.16	360.1279
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152.70	360.1951
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154.21	305.0469
154.21	305.0469
154.21	305.0469
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158.56	325.0042
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159.00	296.0796
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162.64	313.9059
163.35	308.9357
163.89	316.3425
165.85	301.2771
167.43	287.7176
171.28	305.7497
171.86	288.8818
172.10	313.3754
176.55	287.3972
176.60	287.4189
181.06	285.7516
184.41	279.8511
185.71	317.2956
186.00	317.4347
190.27	307.5764
192.34	299.9441
193.63	320.1101
197.04	289.8054
198.01	261.0938
198.60	283.8738
200.40	324.1849
201.83	343.7272
202.84	306.9304
205.31	303.6548

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208.81	302.2688
209.75	302.6582
209.75	302.6582
210.97	335.1058
215.65	287.0754
216.55	284.2553
218.09	320.5662
222.10	272.7611
223.80	271.4200
226.40	323.0932
227.00	327.2507
227.08	327.2839
227.20	309.7469
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228.18	276.8724
228.18	276.8724
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236.00	309.8580
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238.63	271.6169
238.63	271.6169
238.63	271.6169
239.00	271.7402
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241.98	272.7374
241.98	272.7374
241.98	272.7374
244.69	212.5191
245.39	227.0925
247.94	222.9786
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249.79	238.1428
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252.85	253.1275
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256.20	260.2009
260.50	240.1340
260.90	237.1917
262.80	220.3671
264.65	225.5055
268.24	218.4467
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269.46	222.0348
269.46	222.0348
269.46	222.0348
271.23	250.4920
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276.40	252.7606
277.35	262.1504
277.60	262.2198
277.60	262.2198
278.00	241.7887
278.60	220.9729
279.20	199.5029
279.53	199.5732
280.46	171.4764
281.68	171.7027
283.67	167.0605
284.30	214.9365
285.00	227.9460
285.90	213.5127
286.10	213.5563
286.10	213.5563
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290.80	195.2686
291.72	217.3631
293.26	0.0000
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295.21	191.3127
295.21	191.3127

295.21	191.3127
295.96	191.4619
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297.23	191.7132
298.57	191.9811
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299.80	192.2241
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300.09	192.2821
300.09	192.2821
300.09	192.2821
300.12	192.2876
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303.91	182.5818
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308.46	214.2822
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318.01	195.7758
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319.41	217.7060
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323.87	198.4201
323.87	198.4201
323.87	198.4201
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334.20	190.4244
334.30	190.4429
338.28	186.3755
338.28	186.3755
338.28	186.3755
338.28	186.3755
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338.32	186.3833
338.32	186.3833
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351.92	156.3422
351.92	156.3422
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356.01	152.4335
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388.63	139.2658
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391.69	165.5094
392.90	173.0800
398.62	182.2642
400.65	171.3859
401.10	166.7921
401.81	165.9548
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413.65	142.7503
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415.30	162.9082

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433.93	145.3333
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443.98	136.8033
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445.03	124.3767
445.03	124.3767
445.03	124.3767
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511.85	136.4131
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513.99	116.3673
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592.07	145.1716
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602.71	153.1980
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609.31	125.5265
609.31	125.5265
609.31	125.5265
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621.84	113.4543
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661.65	115.0360
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666.33	119.9337
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696.49	116.2071
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697.49	128.4570
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722.78	110.6992
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884.67	96.0482
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911.07	76.4360
911.07	76.4360
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969.11	77.1481
969.11	77.1481
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1112.84	88.4897
1115.52	73.5303
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1120.29	72.6920
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1325.50	57.1211
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1365.15	47.4600
1368.21	53.0073
1368.53	0.0000
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1395.20	43.7007
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1457.56	0.0000
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1596.49	35.8294
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1691.02	29.4543
1691.02	29.4543
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1750.46	0.0000
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1764.49	24.9634
1764.49	24.9634
1764.49	24.9634
1770.23	26.6618
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1791.20	0.0000
1808.65	17.1432

1836.01 24.3479

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960007

Total Uranium Activity	6.7786E+00	ug/g
Total Uranium Counting Unc.	5.4246E+00	ug/g
Total Uranium Tpu	2.7677E-06	ug/g
Total Uranium Mda	3.0920E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G245960007      *
*   ANALYST       : MXR1                      DETECTOR    : GAM18           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 15:49:09.14    SAMPLE ALQT:  136.210 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 7.998E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.132E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 2.217E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.074E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:54:13.79

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:53:44
Sample ID         : G245960008           Sample quantity  : 1.23380E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.12  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948717                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.99*	107	458	1.07	126.70	122	10	1.48E-02	39.8	
2	2	74.81	369	421	1.30	150.33	145	16	5.13E-02	11.0	5.56E-01
3	2	77.11	527	355	1.15	154.94	145	16	7.32E-02	7.8	
4	3	87.37	193	322	1.37	175.44	172	21	2.67E-02	15.7	1.58E+00
5	3	89.97	179	438	1.42	180.63	172	21	2.48E-02	22.8	
6	3	92.80*	389	340	1.40	186.30	172	21	5.41E-02	10.6	
7	0	186.26*	309	365	1.48	373.12	368	12	4.30E-02	14.1	
8	0	209.37	42	286	1.22	419.30	417	9	5.77E-03	75.6	
9	3	239.01*	1047	178	1.29	478.55	472	18	1.45E-01	3.9	5.65E-01
10	3	242.05	271	197	1.71	484.64	472	18	3.76E-02	12.9	
11	0	270.57	103	214	1.62	541.64	536	12	1.43E-02	29.9	
12	1	295.64	336	124	1.20	591.75	587	20	4.67E-02	7.7	1.68E+00
13	1	300.69	61	154	1.47	601.84	587	20	8.52E-03	38.4	
14	0	338.94	240	217	1.52	678.29	670	17	3.34E-02	15.4	
15	0	352.18*	558	201	1.34	704.77	699	14	7.75E-02	7.0	
16	0	463.35*	83	98	1.91	926.97	921	12	1.16E-02	26.7	
17	0	511.09*	108	126	2.15	1022.38	1013	17	1.49E-02	29.1	
18	0	583.36*	336	97	1.68	1166.85	1159	15	4.66E-02	8.6	
19	0	609.62*	379	81	1.43	1219.33	1214	13	5.26E-02	7.4	
20	1	661.85	145	43	1.74	1323.71	1316	24	2.02E-02	12.2	9.51E-01
21	1	665.65	44	41	1.75	1331.32	1316	24	6.08E-03	33.4	
22	0	727.52	87	104	1.75	1454.98	1446	19	1.21E-02	30.0	
23	0	911.40*	208	46	1.79	1822.50	1815	13	2.89E-02	9.7	
24	2	964.56	42	45	2.11	1928.73	1921	27	5.83E-03	34.2	1.54E+00
25	2	969.24*	106	23	1.67	1938.08	1921	27	1.47E-02	13.7	
26	0	1120.67*	95	46	2.02	2240.74	2232	19	1.32E-02	20.6	
27	0	1238.10*	57	45	1.61	2475.43	2466	15	7.92E-03	29.2	
28	0	1460.94*	730	12	2.22	2920.76	2912	16	1.01E-01	3.9	
29	0	1588.11	23	0	3.35	3174.91	3169	12	3.19E-03	20.9	
30	0	1661.27	20	3	2.35	3321.12	3316	11	2.79E-03	27.5	
31	0	1764.90*	77	11	1.05	3528.20	3522	14	1.07E-02	15.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:54:16

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:53:44
Sample ID : G245960008 Sample quantity : 123.38 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.12 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.202E+01	2.599E+00	5.543E-01	4.928E-02	39.722
CD-109	+	88.03	*	3.099E+00	1.014E+00	1.406E+00	1.330E-01	2.205
SN-126	+	64.28		1.236E+00	1.000E+00	9.695E-01	1.427E-01	1.275
	+	86.94		1.266E+00	6.587E-01	6.410E-01	2.661E-01	1.976
	+	87.57	*	3.046E-01	9.962E-02	1.389E-01	1.308E-02	2.193
BA-137M	+	661.65	*	2.559E-01	6.571E-02	6.379E-02	5.225E-03	4.011
CS-137	+	661.65	*	2.705E-01	6.948E-02	6.743E-02	5.535E-03	4.011
TL-208		277.35		4.749E-01	4.596E-01	7.682E-01	9.763E-02	0.618
	+	510.84		6.332E-01	3.758E-01	2.556E-01	3.038E-02	2.477
	+	583.14	*	5.658E-01	1.096E-01	6.022E-02	5.469E-03	9.396
		860.37		5.937E-01	3.512E-01	6.527E-01	6.255E-02	0.910
BI-211		72.87		3.882E+00	3.955E+00	5.943E+00	4.874E-01	0.653
	+	351.07	*	4.065E+00	6.772E-01	3.788E-01	3.445E-02	10.730
PB-212	+	74.81		2.529E+00	6.405E-01	5.888E-01	7.370E-02	4.296
	+	77.11		2.034E+00	3.608E-01	3.323E-01	2.820E-02	6.122
	+	87.30		1.409E+00	4.818E-01	6.443E-01	8.839E-02	2.187
	+	238.63	*	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
	+	300.09		1.500E+00	1.162E+00	1.472E+00	1.591E-01	1.019
PO-212	+	74.81		2.529E+00	6.405E-01	5.888E-01	7.370E-02	4.296
	+	77.11		2.034E+00	3.608E-01	3.323E-01	2.820E-02	6.122
	+	87.30		1.409E+00	4.818E-01	6.443E-01	8.839E-02	2.187
		115.19		-3.466E-01	4.148E+00	6.568E+00	5.707E-01	-0.053
	+	238.63	*	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
	+	300.09		1.500E+00	1.162E+00	1.472E+00	1.591E-01	1.019
BI-214	+	609.31	*	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
	+	1120.29		1.601E+00	6.826E-01	4.632E-01	4.956E-02	3.456
	+	1764.49		1.799E+00	5.701E-01	3.535E-01	2.964E-02	5.088
PB-214	+	74.81		4.358E+00	1.075E+00	1.015E+00	1.131E-01	4.296
	+	77.11		3.487E+00	6.732E-01	5.696E-01	6.496E-02	6.122
	+	87.30		2.414E+00	8.109E-01	1.104E+00	1.341E-01	2.187
	+	241.98		2.554E+00	7.119E-01	6.294E-01	6.723E-02	4.058
	+	295.21		1.441E+00	2.732E-01	2.577E-01	2.845E-02	5.594
	+	351.92	*	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
PO-214	+	74.81		4.358E+00	1.075E+00	1.015E+00	1.131E-01	4.296

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.487E+00	6.732E-01	5.696E-01	6.496E-02	6.122
	+	87.30		2.414E+00	8.109E-01	1.104E+00	1.341E-01	2.187
	+	241.98		2.554E+00	7.119E-01	6.294E-01	6.723E-02	4.058
	+	295.21		1.441E+00	2.732E-01	2.577E-01	2.845E-02	5.594
	+	351.92	*	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
PO-216	+	74.81		2.529E+00	6.405E-01	5.888E-01	7.370E-02	4.296
	+	77.11		2.034E+00	3.608E-01	3.323E-01	2.820E-02	6.122
	+	87.30		1.409E+00	4.818E-01	6.443E-01	8.839E-02	2.187
	+	238.63	*	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
	+	300.09		1.500E+00	1.162E+00	1.472E+00	1.591E-01	1.019
PO-218	+	74.81		4.358E+00	1.075E+00	1.015E+00	1.131E-01	4.296
	+	77.11		3.487E+00	6.732E-01	5.696E-01	6.496E-02	6.122
	+	87.30		2.414E+00	8.109E-01	1.104E+00	1.341E-01	2.187
	+	241.98		2.554E+00	7.119E-01	6.294E-01	6.723E-02	4.058
	+	295.21		1.441E+00	2.732E-01	2.577E-01	2.845E-02	5.594
	+	351.92	*	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
RA-224	+	240.98	*	4.843E+00	1.322E+00	1.189E+00	1.081E-01	4.072
RA-226	+	609.31	*	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
	+	1120.29		1.601E+00	6.826E-01	4.632E-01	4.956E-02	3.456
	+	1764.49		1.799E+00	5.701E-01	3.535E-01	2.964E-02	5.088
AC-228	+	338.32		1.930E+00	9.952E-01	4.046E-01	1.671E-01	4.770
	+	911.07	*	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
	+	969.11		1.419E+00	5.115E-01	3.887E-01	9.120E-02	3.651
RA-228	+	338.32		1.930E+00	9.952E-01	4.046E-01	1.671E-01	4.770
	+	911.07	*	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
	+	969.11		1.419E+00	5.115E-01	3.887E-01	9.120E-02	3.651
TH-228	+	74.81		2.568E+00	6.050E-01	5.978E-01	5.022E-02	4.296
	+	77.11		2.065E+00	3.663E-01	3.373E-01	2.863E-02	6.122
	+	87.30		1.430E+00	4.678E-01	6.541E-01	6.143E-02	2.187
	+	238.63	*	1.669E+00	2.135E-01	1.061E-01	1.074E-02	15.737
	+	300.09		1.523E+00	1.477E+00	1.494E+00	8.867E-01	1.019
TH-230	+	609.31	*	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
	+	1120.29		1.601E+00	6.826E-01	4.632E-01	4.956E-02	3.456
	+	1764.49		1.799E+00	5.701E-01	3.535E-01	2.964E-02	5.088
TH-232	+	338.32		1.930E+00	6.197E-01	4.046E-01	3.562E-02	4.770
	+	911.07	*	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
	+	969.11		1.419E+00	5.115E-01	3.887E-01	9.120E-02	3.651
TH-234	+	63.29	*	3.124E+00	2.545E+00	2.372E+00	4.169E-01	1.317
	+	92.38		3.980E+00	1.114E+00	9.062E-01	1.661E-01	4.392
U-234	+	609.31	*	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
	+	1120.29		1.601E+00	6.826E-01	4.632E-01	4.956E-02	3.456
	+	1764.49		1.799E+00	5.701E-01	3.535E-01	2.964E-02	5.088
NP-237	+	86.50	*	8.945E-01	3.459E-01	4.491E-01	1.017E-01	1.992
		95.87		-1.129E+00	1.278E+00	1.683E+00	4.167E-01	-0.671
U-238	+	63.29	*	3.124E+00	2.545E+00	2.372E+00	4.169E-01	1.317
	+	92.38		3.980E+00	9.171E-01	9.062E-01	8.275E-02	4.392
AM-243	+	74.67	*	4.101E-01	9.650E-02	9.579E-02	7.966E-03	4.281
	+	86.72		3.354E+01	1.097E+01	1.702E+01	1.589E+00	1.970
		117.66		-3.235E+00	4.484E+00	6.866E+00	5.986E-01	-0.471

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		1.570E+01	1.815E+01	3.173E+01	2.714E+00	0.495
ANH-511	+	511.00	*	1.368E-01	8.037E-02	5.522E-02	4.680E-03	2.477

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.121E-01	3.814E-01	6.605E-01	6.009E-02	0.624
NA-22		1274.54	*	-1.132E-02	5.064E-02	8.247E-02	6.925E-03	-0.137
NA-24		1368.53	*	-1.438E-01	5.064E-02	Half-Life too short		
AL-26		1129.67		-1.392E+00	1.996E+00	2.551E+00	2.131E-01	-0.546
		1808.65	*	3.759E-03	3.362E-02	5.612E-02	4.650E-03	0.067
TI-44		67.85		2.799E-02	6.111E-02	9.015E-02	7.148E-03	0.311
	+	78.38	*	3.754E-01	6.659E-02	8.718E-02	7.482E-03	4.306
SC-46		889.25	*	4.070E-02	4.740E-02	8.370E-02	7.567E-03	0.486
	+	1120.51		2.741E-01	1.155E-01	1.489E-01	1.251E-02	1.841
V-48		944.10		-9.334E-01	1.014E+00	1.465E+00	1.320E-01	-0.637
		983.50	*	1.809E-02	8.411E-02	1.397E-01	1.247E-02	0.129
		1312.09		-5.555E-02	9.755E-02	1.515E-01	1.284E-02	-0.367
CR-51		320.08	*	-3.748E-01	4.431E-01	6.860E-01	6.452E-02	-0.546
MN-52		744.21		-2.082E-01	2.691E-01	4.105E-01	3.521E-02	-0.507
		848.13		3.303E+00	7.163E+00	1.232E+01	1.101E+00	0.268
		935.52		3.529E-01	3.348E-01	5.943E-01	5.360E-02	0.594
		1246.25		-3.826E-01	7.723E+00	1.257E+01	1.044E+00	-0.030
		1333.61		7.007E+00	5.177E+00	1.009E+01	8.604E-01	0.694
		1434.06	*	8.964E-02	2.787E-01	4.824E-01	4.164E-02	0.186
MN-54		834.83	*	-2.059E-04	4.200E-02	6.890E-02	6.133E-03	-0.003
CO-56		846.75	*	-2.091E-02	4.283E-02	6.643E-02	5.935E-03	-0.315
		977.42		-1.206E+00	4.043E+00	5.502E+00	4.920E-01	-0.219
		1037.82		1.095E-01	3.522E-01	5.899E-01	5.439E-02	0.186
		1175.09		5.246E-01	2.331E+00	4.004E+00	3.243E-01	0.131
	+	1238.25		2.716E-01	1.601E-01	2.078E-01	1.777E-02	1.307
		1360.21		-4.943E-01	9.833E-01	1.498E+00	1.282E-01	-0.330
		1771.40		1.604E-02	3.221E-01	4.564E-01	3.821E-02	0.035
CO-57		122.06	*	-1.451E-02	2.872E-02	4.436E-02	3.905E-03	-0.327
		136.48		1.050E-01	2.184E-01	3.775E-01	3.488E-02	0.278
CO-58		810.76	*	4.453E-03	4.284E-02	7.120E-02	6.299E-03	0.063
FE-59		142.65		1.554E+00	2.967E+00	5.048E+00	4.317E-01	0.308
		192.34		1.334E-01	1.136E+00	1.778E+00	2.402E-01	0.075
		1099.22	*	-2.801E-03	9.942E-02	1.596E-01	1.471E-02	-0.018
		1291.56		5.740E-03	1.349E-01	2.261E-01	2.174E-02	0.025
CO-60		1173.22		1.526E-02	4.614E-02	8.011E-02	6.484E-03	0.190
		1332.49	*	2.391E-02	4.347E-02	7.731E-02	6.590E-03	0.309
ZN-65		1115.52	*	9.548E-02	1.020E-01	1.638E-01	1.382E-02	0.583
GE-68		1077.35	*	1.199E+00	1.251E+00	2.256E+00	1.942E-01	0.531
AS-73		53.44	*	-3.856E-01	1.096E+00	1.756E+00	1.421E-01	-0.220
AS-74		595.88	*	4.583E-03	9.595E-02	1.614E-01	1.360E-02	0.028
		634.78		-4.883E-02	3.443E-01	5.666E-01	4.707E-02	-0.086
SE-75		66.05		-2.176E+00	6.489E+00	9.198E+00	9.019E-01	-0.237

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		-4.461E-01	1.013E+00	1.402E+00	1.937E-01	-0.318
		121.11		-7.840E-02	1.574E-01	2.433E-01	2.760E-02	-0.322
		136.00		4.314E-02	4.138E-02	7.283E-02	6.303E-03	0.592
		198.60		1.450E+00	2.139E+00	3.611E+00	3.513E-01	0.401
		264.65	*	-2.419E-02	5.438E-02	7.604E-02	6.985E-03	-0.318
		279.53		4.888E-02	1.282E-01	2.154E-01	2.036E-02	0.227
		303.91		-1.163E+00	2.790E+00	3.877E+00	4.580E-01	-0.300
		400.65		1.914E-02	3.171E-01	5.157E-01	5.526E-02	0.037
BR-77	+	87.88		6.785E+02	2.219E+02	3.872E+02	3.659E+01	1.753
		200.40		-6.959E-01	1.922E+02	3.215E+02	2.836E+01	-0.002
	+	239.00		2.676E+02	3.206E+01	4.234E+01	3.844E+00	6.319
		249.79		-8.167E+01	7.695E+01	1.197E+02	1.092E+01	-0.682
		281.68		-6.760E+01	1.050E+02	1.666E+02	1.523E+01	-0.406
		297.23		3.788E+02	8.650E+01	1.545E+02	1.406E+01	2.452
		303.76		-1.058E+02	2.404E+02	3.335E+02	3.024E+01	-0.317
		439.47		-1.807E+00	1.630E+02	2.624E+02	2.176E+01	-0.007
		484.57		3.434E+00	2.640E+02	4.236E+02	3.571E+01	0.008
		520.65	*	2.205E+00	1.325E+01	2.142E+01	1.817E+00	0.103
		574.64		-7.118E+01	2.397E+02	3.818E+02	3.232E+01	-0.186
		578.91		7.368E+01	9.620E+01	1.534E+02	1.297E+01	0.480
		585.48		1.751E+03	3.359E+02	6.075E+02	5.132E+01	2.881
		755.35		2.067E+02	1.827E+02	3.317E+02	2.861E+01	0.623
		817.79		-1.404E+01	1.486E+02	2.419E+02	2.140E+01	-0.058
SR-82		698.33		-1.118E+01	3.662E+01	5.908E+01	4.947E+00	-0.189
		776.49	*	-1.120E-01	4.247E-01	6.821E-01	5.939E-02	-0.164
		1395.20		9.470E-01	1.337E+01	2.239E+01	1.926E+00	0.042
RB-83		520.41	*	2.049E-02	8.690E-02	1.413E-01	1.199E-02	0.145
		529.64		-7.622E-02	1.131E-01	1.801E-01	1.529E-02	-0.423
		552.65		-1.023E-01	2.176E-01	3.520E-01	2.988E-02	-0.290
RB-84		881.50	*	-6.326E-03	7.388E-02	1.196E-01	1.079E-02	-0.053
KR-85		513.99	*	1.925E+01	1.036E+01	1.678E+01	1.423E+00	1.147
SR-85		513.99	*	9.877E-02	5.315E-02	8.607E-02	7.298E-03	1.147
RB-86		1076.63	*	5.642E-01	7.960E-01	1.398E+00	1.204E-01	0.404
Y-88		898.02		-1.292E-02	4.881E-02	7.750E-02	7.051E-03	-0.167
		1836.01	*	-1.215E-02	4.181E-02	6.367E-02	5.237E-03	-0.191
ZR-88		392.90	*	-1.164E-02	3.650E-02	5.783E-02	4.656E-03	-0.201
Y-91		1204.90	*	6.605E+00	2.081E+01	3.592E+01	2.943E+00	0.184
NB-94		702.63	*	2.412E-02	3.860E-02	6.720E-02	5.641E-03	0.359
		871.10		2.015E-03	3.402E-02	5.608E-02	5.046E-03	0.036
NB-95		765.79	*	-2.107E-02	4.679E-02	7.397E-02	6.410E-03	-0.285
NB-95M		235.69	*	7.759E-02	1.504E-01	2.269E-01	2.327E-02	0.342
ZR-95		724.18		6.508E-02	1.209E-01	1.847E-01	1.708E-02	0.352
		756.15	*	4.829E-02	7.753E-02	1.353E-01	1.285E-02	0.357
NB-97		657.90	*	9.576E-03	7.753E-02	Half-Life too short		
		1024.50		-1.850E+00	7.753E-02	Half-Life too short		
ZR-97		254.15		5.810E+00	7.753E-02	Half-Life too short		
		355.39		2.980E+00	7.753E-02	Half-Life too short		
		507.63	*	2.600E+00	7.753E-02	Half-Life too short		
		602.52		-9.596E-01	7.753E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		3.695E+00	7.753E-02	Half-Life too short		
		1147.95		-1.709E+00	7.753E-02	Half-Life too short		
		1362.66		-2.686E-01	7.753E-02	Half-Life too short		
		1750.46		-5.201E+00	7.753E-02	Half-Life too short		
MO-99		140.51		-2.113E+01	2.837E+01	4.564E+01	1.263E+01	-0.463
		181.06		5.502E+00	2.136E+01	3.208E+01	5.870E+00	0.172
		366.43		-7.248E+00	9.970E+01	1.614E+02	1.365E+01	-0.045
		739.58	*	7.199E+00	1.367E+01	2.358E+01	3.572E+00	0.305
		778.00		-2.978E+01	3.998E+01	6.105E+01	5.319E+00	-0.488
TC-99M		140.51	*	-3.442E+10	3.998E+01	Half-Life too short		
RH-101		127.23		-2.239E-04	3.834E-02	6.070E-02	5.280E-03	-0.004
		198.01	*	2.205E-02	3.900E-02	6.561E-02	5.773E-03	0.336
		325.23		-1.680E-01	2.672E-01	4.205E-01	3.753E-02	-0.400
RH-102		418.52		8.298E-02	3.448E-01	5.666E-01	4.643E-02	0.146
		475.06	*	-3.771E-03	3.414E-02	5.427E-02	4.563E-03	-0.069
		631.29		-2.081E-02	5.722E-02	9.230E-02	7.680E-03	-0.225
		697.49		-2.154E-02	8.294E-02	1.344E-01	1.125E-02	-0.160
		766.84		1.532E-01	1.182E-01	2.154E-01	1.867E-02	0.711
		1046.59		-6.108E-02	1.340E-01	2.050E-01	1.790E-02	-0.298
		1112.84		-5.449E-02	2.798E-01	3.746E-01	3.162E-02	-0.145
RU-103		497.08	*	2.578E-02	4.761E-02	7.940E-02	1.117E-02	0.325
	+	610.33		1.303E+01	2.887E+00	3.424E+00	5.673E-01	3.806
RH-106	+	511.85		6.832E-01	4.015E-01	5.122E-01	4.341E-02	1.334
		621.84	*	-1.680E-01	3.704E-01	5.950E-01	7.847E-02	-0.282
		1050.47		-6.309E-01	2.820E+00	4.446E+00	3.877E-01	-0.142
RU-106	+	511.85		6.832E-01	4.015E-01	5.122E-01	4.341E-02	1.334
		621.84	*	-1.680E-01	3.700E-01	5.950E-01	4.970E-02	-0.282
		1050.47		-6.309E-01	2.820E+00	4.446E+00	3.877E-01	-0.142
AG-108M		433.93	*	6.575E-03	3.863E-02	6.309E-02	5.440E-03	0.104
		614.37		-1.317E-02	4.744E-02	6.666E-02	5.816E-03	-0.198
		722.95		2.343E-02	5.334E-02	8.073E-02	7.129E-03	0.290
AG-110M		657.75	*	-1.035E-03	4.598E-02	6.636E-02	5.627E-03	-0.016
		677.61		2.055E-01	3.585E-01	6.233E-01	5.314E-02	0.330
		706.67		-1.013E-01	2.379E-01	3.798E-01	3.288E-02	-0.267
		763.93		-6.513E-02	1.836E-01	2.930E-01	2.608E-02	-0.222
		884.67		-4.328E-02	5.362E-02	7.907E-02	7.349E-03	-0.547
		937.48		1.028E-02	1.432E-01	2.348E-01	2.187E-02	0.044
		1384.27		-7.911E-02	2.020E-01	3.181E-01	2.810E-02	-0.249
IN-111		171.28		4.683E-02	1.143E+00	1.928E+00	1.651E-01	0.024
		245.39	*	3.379E-01	1.312E+00	1.948E+00	1.774E-01	0.173
IN-113M		391.69	*	-2.931E-02	5.315E-02	8.276E-02	6.893E-03	-0.354
SN-113		391.69	*	-2.931E-02	5.315E-02	8.276E-02	6.893E-03	-0.354
IN-114M		190.27	*	-2.876E-02	2.260E-01	3.313E-01	2.892E-02	-0.087
CD-115		260.90		1.478E+02	1.520E+02	2.631E+02	2.406E+01	0.562
		492.35		-1.222E+01	4.555E+01	7.132E+01	6.025E+00	-0.171
		527.90	*	4.781E+00	1.189E+01	2.065E+01	1.753E+00	0.232
SN-117M		156.02		-1.281E+00	2.492E+00	4.119E+00	3.508E-01	-0.311
		158.56	*	-2.648E-02	6.112E-02	1.013E-01	8.628E-03	-0.261
SB-122		563.90	*	2.263E+00	2.292E+00	4.122E+00	3.495E-01	0.549

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		1.462E+01	4.787E+01	8.158E+01	6.810E+00	0.179
I-123		159.00	*	-5.337E+00	4.787E+01	Half-Life too short		
		528.96		-4.103E+02	4.787E+01	Half-Life too short		
TE-123M		159.00	*	-2.490E-02	3.189E-02	5.203E-02	4.457E-03	-0.479
I-124		602.71	*	-1.137E-01	7.401E-01	1.153E+00	9.693E-02	-0.099
		722.78		2.102E+00	5.584E+00	8.394E+00	7.124E-01	0.250
		1325.50		-3.743E+01	3.832E+01	5.480E+01	4.663E+00	-0.683
		1376.25		3.041E+01	4.084E+01	7.306E+01	6.269E+00	0.416
		1509.49		1.582E+01	1.805E+01	3.348E+01	2.899E+00	0.473
		1691.02		-1.233E-01	4.723E+00	7.688E+00	6.550E-01	-0.016
SB-124		602.71		-6.561E-03	4.271E-02	6.653E-02	5.595E-03	-0.099
		645.85		-1.036E-01	5.997E-01	9.858E-01	8.676E-02	-0.105
		709.31		-2.245E+00	3.178E+00	4.930E+00	4.154E-01	-0.455
		713.82		8.620E-01	1.904E+00	3.273E+00	3.899E-01	0.263
		722.78		1.758E-01	4.672E-01	7.023E-01	6.093E-02	0.250
	+	968.20		1.462E+01	4.209E+00	7.786E+00	6.978E-01	1.877
		1045.16		-1.987E+00	3.013E+00	4.543E+00	3.971E-01	-0.437
		1325.50		-3.344E+00	3.424E+00	4.897E+00	4.167E-01	-0.683
		1368.21		-2.751E-01	1.901E+00	3.089E+00	4.154E-01	-0.089
		1436.60		-1.069E+00	4.437E+00	7.082E+00	6.115E-01	-0.151
		1691.02	*	-2.434E-03	9.320E-02	1.517E-01	1.345E-02	-0.016
SB-125		427.89	*	-5.819E-02	1.118E-01	1.733E-01	1.458E-02	-0.336
	+	463.38		9.559E-01	5.176E-01	6.580E-01	5.968E-02	1.453
		600.56		-7.566E-02	1.850E-01	2.987E-01	2.708E-02	-0.253
		635.90		-1.268E-01	2.808E-01	4.485E-01	4.047E-02	-0.283
TE-125M		109.28	*	3.818E+00	1.072E+01	1.733E+01	1.796E+00	0.220
I-126		388.63		7.354E-02	2.491E-01	4.119E-01	3.336E-02	0.179
	+	666.33	*	3.911E-01	2.635E-01	3.879E-01	3.187E-02	1.008
		753.82		1.795E+00	1.613E+00	2.924E+00	2.520E-01	0.614
SB-126		223.80		9.374E-01	4.465E+00	7.509E+00	6.755E-01	0.125
		278.60		2.977E+00	2.890E+00	4.997E+00	4.570E-01	0.596
	+	296.50		1.439E+01	2.574E+00	4.306E+00	3.918E-01	3.341
		414.70		-8.041E-02	9.381E-02	1.420E-01	1.161E-02	-0.566
		415.30		-5.610E+00	8.244E+00	1.186E+01	9.700E-01	-0.473
		555.20		2.395E+00	4.410E+00	7.715E+00	6.546E-01	0.310
		573.80		-2.330E-01	1.156E+00	1.910E+00	1.617E-01	-0.122
		593.00		1.523E-01	9.809E-01	1.665E+00	1.404E-01	0.091
		656.30		-1.180E+00	4.301E+00	6.009E+00	4.937E-01	-0.196
	+	666.33		1.635E-01	1.101E-01	1.621E-01	1.332E-02	1.008
		675.00		1.027E-01	2.335E+00	3.896E+00	3.218E-01	0.026
		695.00		3.913E-02	8.279E-02	1.431E-01	1.196E-02	0.274
		697.00		-1.028E-01	2.934E-01	4.716E-01	3.946E-02	-0.218
		720.50	*	-1.128E-01	1.963E-01	2.613E-01	2.215E-02	-0.432
		856.80		-4.225E-01	5.577E-01	8.424E-01	7.549E-02	-0.502
		989.30		-6.512E-02	1.371E+00	2.213E+00	1.972E-01	-0.029
		1034.80		-3.412E+00	9.757E+00	1.510E+01	1.325E+00	-0.226
		1213.00		-7.836E-01	4.830E+00	7.952E+00	6.535E-01	-0.099
SB-127		61.10		4.259E+00	7.323E+01	1.064E+02	1.108E+01	0.040
		252.40		1.854E+00	5.107E+00	8.519E+00	3.590E+00	0.218

---- Non-Identified Nuclides ----

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		290.80		9.383E+00	2.634E+01	3.911E+01	4.523E+00	0.240
		411.60		4.944E+00	1.510E+01	2.493E+01	3.861E+00	0.198
		444.90		4.874E+00	1.096E+01	1.825E+01	2.251E+00	0.267
		473.00		-1.303E+00	1.939E+00	2.920E+00	3.718E-01	-0.446
		543.00		1.319E+01	1.881E+01	3.315E+01	4.750E+00	0.398
		603.60		-1.216E+00	1.375E+01	1.981E+01	2.451E+00	-0.061
		685.20	*	-1.140E-01	1.409E+00	2.322E+00	2.592E-01	-0.049
		698.50		-5.643E+00	1.638E+01	2.630E+01	4.128E+00	-0.215
		722.20		-5.541E+00	4.073E+01	5.757E+01	6.372E+00	-0.096
		783.80		1.522E+00	4.132E+00	7.030E+00	8.793E-01	0.217
XE-127		57.60		4.672E+00	7.905E+00	1.257E+01	9.655E-01	0.372
		145.22		3.801E-01	7.756E-01	1.318E+00	1.125E-01	0.288
		172.10		-5.400E-02	1.332E-01	2.202E-01	1.887E-02	-0.245
		202.84	*	-6.723E-02	5.531E-02	8.718E-02	7.708E-03	-0.771
		374.96		1.316E-01	2.263E-01	3.821E-01	3.182E-02	0.344
I-131		80.18		-7.624E-01	5.455E+00	7.759E+00	6.812E-01	-0.098
		284.30		-9.946E-01	1.673E+00	2.656E+00	2.539E-01	-0.375
		364.48	*	3.754E-02	1.322E-01	2.193E-01	1.965E-02	0.171
		636.97		-4.391E-01	1.596E+00	2.593E+00	2.281E-01	-0.169
		722.89		3.666E+00	8.994E+00	1.357E+01	1.159E+00	0.270
TE-132		49.72		1.433E+01	2.631E+01	4.387E+01	4.719E+00	0.327
		111.76		-3.797E+01	3.620E+01	5.350E+01	5.834E+00	-0.710
		116.30		9.432E+00	3.241E+01	5.217E+01	5.703E+00	0.181
		228.16	*	9.474E-02	7.980E-01	1.335E+00	2.129E-01	0.071
BA-133		53.15		-2.923E+00	4.719E+00	7.467E+00	6.067E-01	-0.392
		79.62		1.061E+00	1.525E+00	2.258E+00	3.446E-01	0.470
		81.00		-1.711E-01	1.250E-01	1.615E-01	2.579E-02	-1.059
		276.40		5.201E-01	4.931E-01	7.588E-01	1.121E-01	0.685
		302.84		1.091E-01	1.892E-01	2.841E-01	3.860E-02	0.384
		356.01	*	-4.032E-03	5.869E-02	8.320E-02	1.097E-02	-0.048
		383.85		-1.718E-01	3.721E-01	5.844E-01	7.193E-02	-0.294
I-133	+	510.53		1.443E+00	3.721E-01	Half-Life too short		
		529.87	*	-5.189E-03	3.721E-01	Half-Life too short		
		706.58		-1.767E-01	3.721E-01	Half-Life too short		
		856.28		-4.387E-01	3.721E-01	Half-Life too short		
		875.33		-4.229E-02	3.721E-01	Half-Life too short		
		1236.41		1.624E+00	3.721E-01	Half-Life too short		
		1298.22		-2.603E-01	3.721E-01	Half-Life too short		
CS-134		475.35		-6.478E-01	2.260E+00	3.539E+00	2.976E-01	-0.183
		563.23		3.077E-01	3.922E-01	6.966E-01	5.965E-02	0.442
		569.32		9.217E-02	2.233E-01	3.862E-01	3.318E-02	0.239
		604.70		7.365E-03	3.883E-02	5.782E-02	4.872E-03	0.127
		795.84	*	4.373E-02	6.205E-02	1.064E-01	9.402E-03	0.411
		801.93		-1.140E-01	4.717E-01	7.618E-01	6.738E-02	-0.150
		1038.57		2.255E+00	4.429E+00	7.570E+00	6.634E-01	0.298
		1167.94		-2.899E+00	2.778E+00	4.139E+00	3.364E-01	-0.700
		1365.15		-1.939E-01	1.273E+00	2.065E+00	1.851E-01	-0.094
CS-135		268.24	*	-7.149E-03	1.843E-01	2.666E-01	2.779E-02	-0.027
I-135		288.45		1.628E+10	1.843E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		417.63		3.011E+09	1.843E-01	Half-Life too short		
		546.56		3.228E+09	1.843E-01	Half-Life too short		
		836.80		1.241E+10	1.843E-01	Half-Life too short		
		1038.76		1.887E+10	1.843E-01	Half-Life too short		
		1124.00		6.124E+10	1.843E-01	Half-Life too short		
		1131.51		-2.066E+09	1.843E-01	Half-Life too short		
		1260.41	*	2.435E+09	1.843E-01	Half-Life too short		
		1457.56		3.583E+11	1.843E-01	Half-Life too short		
		1678.03		-3.145E+09	1.843E-01	Half-Life too short		
		1706.46		-2.472E+10	1.843E-01	Half-Life too short		
		1791.20		-2.583E+09	1.843E-01	Half-Life too short		
CS-136		66.91		-6.156E-01	1.056E+00	1.471E+00	2.212E-01	-0.418
	+	86.29		3.985E+00	1.357E+00	2.219E+00	2.953E-01	1.796
		153.22		-4.153E-02	7.238E-01	1.221E+00	1.165E-01	-0.034
		163.89		2.816E-01	1.224E+00	2.082E+00	1.991E-01	0.135
		176.55		4.251E-02	4.075E-01	6.883E-01	6.267E-02	0.062
		273.65		-5.079E-01	6.226E-01	8.469E-01	8.204E-02	-0.600
		340.57		5.820E-01	1.762E-01	3.179E-01	2.869E-02	1.831
		818.51		-4.563E-02	8.609E-02	1.337E-01	1.184E-02	-0.341
		1048.07	*	-1.887E-03	1.259E-01	2.033E-01	1.848E-02	-0.009
		1235.34		3.855E-01	8.321E-01	1.264E+00	1.467E-01	0.305
CE-139		165.85	*	1.105E-02	3.410E-02	5.819E-02	4.956E-03	0.190
BA-140		162.64		3.886E-01	8.584E-01	1.472E+00	1.328E-01	0.264
		304.84		4.522E-01	1.667E+00	2.446E+00	6.889E-01	0.185
		423.70		1.168E+00	2.244E+00	3.711E+00	1.199E+00	0.315
		537.32	*	-9.381E-03	2.722E-01	4.572E-01	1.514E-01	-0.021
LA-140		328.77		3.324E-01	3.565E-01	6.113E-01	5.724E-02	0.544
		432.53		2.250E-02	2.434E+00	3.927E+00	3.416E-01	0.006
		487.03		4.834E-02	1.624E-01	2.665E-01	2.393E-02	0.181
		751.79		-3.133E+00	2.040E+00	2.835E+00	2.703E-01	-1.105
		815.85		5.650E-02	3.449E-01	5.768E-01	5.660E-02	0.098
		867.82		-9.931E-01	1.346E+00	1.988E+00	1.874E-01	-0.500
		919.63		5.230E-01	3.099E+00	5.149E+00	5.658E-01	0.102
		925.24		-1.109E+00	1.374E+00	2.038E+00	1.946E-01	-0.544
		1596.49	*	-1.918E-02	9.637E-02	1.490E-01	1.285E-02	-0.129
CE-141		145.44	*	6.958E-02	6.824E-02	1.196E-01	1.040E-02	0.582
CE-143		57.37		6.856E-04	6.824E-02	Half-Life too short		
		231.56		-1.955E-03	6.824E-02	Half-Life too short		
		293.26	*	3.025E-04	6.824E-02	Half-Life too short		
		350.59		2.494E-02	6.824E-02	Half-Life too short		
		490.36		3.191E-03	6.824E-02	Half-Life too short		
	+	664.57		2.852E-03	6.824E-02	Half-Life too short		
		721.93		-3.775E-04	6.824E-02	Half-Life too short		
CE-144		80.11		-3.317E-01	2.503E+00	3.561E+00	3.106E-01	-0.093
		133.54	*	9.825E-03	2.380E-01	3.769E-01	5.867E-02	0.026
PM-144		476.78		1.302E-01	7.908E-02	1.416E-01	1.309E-02	0.919
		618.01		5.264E-03	3.726E-02	6.140E-02	5.287E-03	0.086
		696.49	*	-7.839E-03	3.690E-02	6.007E-02	5.026E-03	-0.130
		778.57		-1.315E+00	2.583E+00	4.042E+00	3.523E-01	-0.325

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144		696.49	*	-5.312E-01	2.501E+00	4.070E+00	3.405E-01	-0.130
		1489.15		-7.648E+00	1.322E+01	1.957E+01	1.694E+00	-0.391
PM-146		453.90	*	2.506E-02	5.063E-02	8.448E-02	8.874E-03	0.297
		633.02		-8.382E-01	1.395E+00	2.131E+00	7.949E-01	-0.393
		735.90		8.309E-02	1.873E-01	2.937E-01	8.394E-02	0.283
		747.13		6.130E-02	1.010E-01	1.757E-01	2.464E-02	0.349
ND-147	+	91.11		9.480E-01	4.422E-01	6.405E-01	6.331E-02	1.480
		319.41		-1.700E+00	3.920E+00	6.249E+00	5.606E-01	-0.272
		439.89		4.703E-01	6.447E+00	1.045E+01	8.666E-01	0.045
		531.02	*	-3.492E-01	5.890E-01	9.404E-01	1.399E-01	-0.371
PM-149		285.90	*	-4.737E+01	1.034E+02	1.652E+02	2.616E+01	-0.287
EU-152		121.78		-2.621E-02	8.395E-02	1.311E-01	1.320E-02	-0.200
		244.69		3.417E-01	4.166E-01	6.401E-01	5.826E-02	0.534
		344.27	*	-9.665E-03	1.261E-01	1.789E-01	1.654E-02	-0.054
		443.98		-7.967E-02	1.061E+00	1.698E+00	1.411E-01	-0.047
		778.89		-1.533E-01	2.980E-01	4.660E-01	4.061E-02	-0.329
		867.32		-1.040E+00	8.446E-01	1.157E+00	1.040E-01	-0.899
	+	964.01		6.490E-01	4.475E-01	6.581E-01	5.903E-02	0.986
		1085.78		-8.918E-02	4.297E-01	6.746E-01	5.784E-02	-0.132
		1112.02		-1.612E-01	3.936E-01	5.362E-01	4.529E-02	-0.301
		1407.95		1.736E-01	2.251E-01	4.080E-01	3.514E-02	0.426
GD-153		69.67		-5.710E-01	2.224E+00	3.151E+00	2.527E-01	-0.181
		83.37		1.581E+01	1.828E+01	2.696E+01	2.427E+00	0.587
		97.43	*	3.141E-02	1.040E-01	1.492E-01	1.325E-02	0.210
		103.18		-1.805E-02	1.185E-01	1.878E-01	1.638E-02	-0.096
EU-154		123.07		-2.845E-02	5.944E-02	9.190E-02	1.055E-02	-0.310
		247.94		2.126E-01	4.136E-01	6.814E-01	8.075E-02	0.312
		591.81		3.138E-01	6.625E-01	1.152E+00	1.328E-01	0.273
		723.30		2.154E-01	2.155E-01	3.466E-01	3.262E-02	0.621
		756.87		3.034E-02	8.640E-01	1.432E+00	1.716E-01	0.021
		873.19		3.165E-02	3.159E-01	5.229E-01	6.545E-02	0.061
		996.32		-2.980E-01	4.324E-01	6.411E-01	1.148E-01	-0.465
		1004.76		-3.133E-01	2.521E-01	3.442E-01	4.071E-02	-0.910
		1274.45	*	1.339E-03	1.384E-01	2.313E-01	2.576E-02	0.006
EU-155		48.70		-3.888E-01	3.366E+00	5.467E+00	4.679E-01	-0.071
		60.01		2.032E+00	6.248E+00	9.221E+00	6.970E-01	0.220
	+	86.54		3.669E-01	1.201E-01	2.042E-01	1.918E-02	1.797
		105.31	*	1.827E-02	1.217E-01	1.954E-01	1.719E-02	0.093
TB-160	+	86.79		9.804E-01	3.206E-01	5.466E-01	5.104E-02	1.794
		197.04		-1.059E-01	6.417E-01	1.067E+00	9.380E-02	-0.099
		215.65		3.220E-02	9.452E-01	1.466E+00	1.310E-01	0.022
		298.57		-3.810E-02	1.277E-01	2.063E-01	1.876E-02	-0.185
		879.36	*	4.833E-02	1.519E-01	2.570E-01	2.318E-02	0.188
		962.29		5.864E-01	6.981E-01	1.089E+00	9.770E-02	0.539
		966.15		7.279E-01	2.664E-01	5.117E-01	4.588E-02	1.423
		1177.93		-2.510E-01	3.842E-01	5.990E-01	4.857E-02	-0.419
		1271.85		2.577E-01	7.967E-01	1.377E+00	1.154E-01	0.187
HO-166M		80.57		-1.576E-01	3.264E-01	4.550E-01	3.985E-02	-0.346
		184.41		1.445E-01	4.696E-02	7.745E-02	6.721E-03	1.866

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		-7.283E-02	9.949E-02	1.571E-01	1.436E-02	-0.464
		410.95		2.303E-01	3.023E-01	5.124E-01	4.179E-02	0.449
		711.68	*	4.103E-02	6.880E-02	1.197E-01	1.010E-02	0.343
		752.31		-3.286E-01	3.103E-01	4.574E-01	3.939E-02	-0.718
		810.29		1.068E-02	6.418E-02	1.073E-01	9.472E-03	0.100
TM-171		51.35		-2.375E+01	4.100E+01	6.505E+01	5.414E+00	-0.365
		52.39		-1.514E+01	2.047E+01	3.218E+01	2.641E+00	-0.471
		59.40		-3.776E+00	3.471E+01	4.998E+01	3.767E+00	-0.076
		66.72	*	-2.964E+01	3.859E+01	5.337E+01	4.204E+00	-0.555
LU-176	+	88.36		7.225E-01	2.363E-01	4.187E-01	3.949E-02	1.726
		201.83		-4.982E-02	3.384E-02	5.255E-02	4.642E-03	-0.948
		306.84	*	-7.081E-03	2.935E-02	4.579E-02	4.144E-03	-0.155
		401.10		2.962E+00	8.228E+00	1.364E+01	1.105E+00	0.217
LU-177		112.95		-8.082E-01	1.936E+00	2.965E+00	2.571E-01	-0.273
	+	208.36	*	1.158E+00	1.752E+00	2.218E+00	1.971E-01	0.522
LU-177M		52.97		-1.680E+00	2.128E+00	3.338E+00	2.719E-01	-0.503
		54.07		5.341E-01	1.105E+00	1.834E+00	1.472E-01	0.291
		61.30		5.176E-01	1.888E+00	2.774E+00	2.116E-01	0.187
		121.62		-2.660E-02	4.273E-01	6.758E-01	5.936E-02	-0.039
		147.16		-5.351E-01	7.238E-01	1.188E+00	1.014E-01	-0.450
		171.86		-1.527E-01	5.390E-01	8.965E-01	7.678E-02	-0.170
		218.09		3.470E-01	9.721E-01	1.646E+00	1.475E-01	0.211
		268.79		8.543E-01	9.666E-01	1.491E+00	1.365E-01	0.573
		319.02		-9.468E-02	3.014E-01	4.841E-01	4.344E-02	-0.196
		367.43		-1.828E-01	1.050E+00	1.688E+00	1.425E-01	-0.108
		413.65	*	-2.136E-01	2.203E-01	3.308E-01	2.703E-02	-0.646
HF-181		56.28		2.455E-01	1.214E+00	1.991E+00	1.553E-01	0.123
		57.53		4.004E-01	6.659E-01	1.060E+00	8.143E-02	0.378
		65.20		4.301E-01	1.252E+00	1.839E+00	1.436E-01	0.234
		133.02		-5.889E-02	7.785E-02	1.184E-01	1.021E-02	-0.497
		136.25		3.261E-01	4.835E-01	8.413E-01	7.229E-02	0.388
		345.85		3.162E-01	2.733E-01	3.761E-01	3.280E-02	0.841
		482.03	*	-5.398E-02	5.062E-02	7.335E-02	6.180E-03	-0.736
W-181		56.28		9.557E-02	4.750E-01	7.790E-01	6.076E-02	0.123
		57.53		1.569E-01	2.607E-01	4.149E-01	3.189E-02	0.378
		65.20	*	1.671E-01	4.864E-01	7.144E-01	5.577E-02	0.234
TA-182		67.75		4.779E-03	1.488E-01	2.149E-01	1.703E-02	0.022
		100.10		4.867E-02	2.106E-01	3.397E-01	2.987E-02	0.143
		152.43		1.794E-01	3.697E-01	6.364E-01	5.422E-02	0.282
		222.10		-3.225E-01	3.841E-01	6.121E-01	5.500E-02	-0.527
		1001.68		1.308E+00	2.542E+00	4.279E+00	3.800E-01	0.306
	+	1121.28		7.571E-01	3.189E-01	4.013E-01	3.370E-02	1.886
		1189.05		1.209E-01	3.401E-01	5.897E-01	4.803E-02	0.205
		1221.42	*	6.091E-02	2.256E-01	3.868E-01	3.188E-02	0.157
		1230.97		-9.411E-02	6.295E-01	8.901E-01	7.361E-02	-0.106
RE-183		57.98		1.096E-01	2.733E-01	4.051E-01	3.098E-02	0.271
		59.32		-1.641E-02	1.429E-01	2.057E-01	1.552E-02	-0.080
		67.20		-1.745E-01	2.731E-01	3.806E-01	3.006E-02	-0.459
		162.32	*	3.761E-02	1.243E-01	2.121E-01	1.806E-02	0.177

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	+	208.81		1.036E+00	1.569E+00	2.004E+00	1.782E-01	0.517
		291.72		-1.145E+00	1.234E+00	1.643E+00	1.498E-01	-0.697
RE-184		57.98		4.038E-01	1.007E+00	1.492E+00	1.141E-01	0.271
		59.32		-6.039E-02	5.261E-01	7.572E-01	5.711E-02	-0.080
		67.20		-6.426E-01	1.006E+00	1.402E+00	1.107E-01	-0.459
		161.27		1.249E-01	4.033E-01	6.886E-01	5.862E-02	0.181
		216.55		4.353E-02	3.128E-01	5.248E-01	4.696E-02	0.083
		252.85	*	1.747E-01	2.676E-01	4.573E-01	4.174E-02	0.382
		318.01		1.368E-01	5.311E-01	8.836E-01	7.935E-02	0.155
		792.07		-1.411E+00	1.251E+00	1.845E+00	1.617E-01	-0.765
		903.28		2.648E-01	1.254E+00	1.977E+00	1.790E-01	0.134
		920.93		4.451E-01	5.184E-01	9.187E-01	8.303E-02	0.484
OS-185		59.72		3.777E-02	3.788E-01	5.520E-01	4.163E-02	0.068
		61.14		2.103E-02	2.069E-01	3.012E-01	2.295E-02	0.070
		69.30		-7.735E-02	3.966E-01	5.637E-01	4.510E-02	-0.137
		592.07		1.329E+00	2.688E+00	4.684E+00	3.950E-01	0.284
		646.12	*	1.332E-03	4.985E-02	8.328E-02	6.881E-03	0.016
		717.42		-5.937E-01	1.072E+00	1.689E+00	1.430E-01	-0.351
		874.81		-8.916E-02	6.436E-01	1.037E+00	9.340E-02	-0.086
		880.27		1.771E-01	8.367E-01	1.401E+00	1.263E-01	0.126
RE-188		155.03	*	-3.028E-02	1.879E-01	3.155E-01	2.687E-02	-0.096
		477.96		4.345E+00	3.569E+00	6.249E+00	5.259E-01	0.695
		633.10		-2.397E+00	2.815E+00	4.294E+00	3.570E-01	-0.558
W-188	+	63.58		1.256E+02	1.004E+02	1.138E+02	8.798E+00	1.104
		227.08		8.904E+00	1.429E+01	2.445E+01	2.205E+00	0.364
		290.67	*	2.913E+00	9.030E+00	1.338E+01	1.220E+00	0.218
IR-192	+	295.96		1.100E+00	1.971E-01	3.292E-01	3.016E-02	3.340
		308.46		-2.631E-02	1.067E-01	1.723E-01	1.565E-02	-0.153
		316.51	*	1.146E-03	4.139E-02	6.796E-02	6.123E-03	0.017
		468.07		1.398E-02	7.795E-02	1.116E-01	1.008E-02	0.125
		604.41		6.071E-02	5.286E-01	7.801E-01	1.005E-01	0.078
		612.46		2.609E+00	1.023E+00	1.782E+00	1.727E-01	1.464
AU-195		65.12		9.208E-02	2.260E-01	3.329E-01	2.598E-02	0.277
		66.83		-7.740E-02	1.262E-01	1.761E-01	1.388E-02	-0.440
	+	75.70		1.327E+00	3.124E-01	5.229E-01	4.385E-02	2.538
		98.88	*	3.251E-01	2.831E-01	4.470E-01	3.947E-02	0.727
		129.76		3.478E+00	3.398E+00	5.599E+00	4.850E-01	0.621
TL-200		367.94	*	-2.129E-04	3.398E+00	Half-Life too short		
		579.30		2.829E-03	3.398E+00	Half-Life too short		
		828.27		-2.999E-03	3.398E+00	Half-Life too short		
		1205.75		2.112E-03	3.398E+00	Half-Life too short		
TL-201		68.90		1.820E-01	6.017E+00	9.214E+00	7.354E-01	0.020
		70.82		-5.572E-01	3.529E+00	5.020E+00	4.058E-01	-0.111
		80.30		-3.006E+00	6.101E+00	8.501E+00	7.426E-01	-0.354
		135.34		2.994E+01	2.904E+01	4.798E+01	4.127E+00	0.624
		167.43	*	-8.944E-01	8.077E+00	1.355E+01	1.155E+00	-0.066
TL-202		68.90		1.624E-02	5.370E-01	8.223E-01	6.563E-02	0.020
		70.82		-4.959E-02	3.141E-01	4.468E-01	3.611E-02	-0.111
		80.30		-2.676E-01	5.432E-01	7.568E-01	6.611E-02	-0.354

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		439.56	*	-2.958E-03	7.792E-02	1.252E-01	1.038E-02	-0.024
HG-203		70.83		-2.197E-01	1.358E+00	1.932E+00	2.564E-01	-0.114
		72.87		7.726E-01	7.911E-01	1.183E+00	1.530E-01	0.653
		82.60		1.173E-01	1.357E+00	1.952E+00	2.721E-01	0.060
		279.20	*	3.616E-02	4.803E-02	8.210E-02	7.698E-03	0.440
BI-207		72.80		1.630E-01	2.287E-01	3.401E-01	2.788E-02	0.479
	+	74.97		7.361E-01	1.732E-01	2.604E-01	2.171E-02	2.827
		84.90		2.965E-01	2.344E-01	3.509E-01	3.211E-02	0.845
		569.67		2.266E-02	3.430E-02	6.033E-02	5.111E-03	0.376
		1063.62	*	1.169E-02	6.097E-02	1.006E-01	8.719E-03	0.116
		1770.23		2.578E-01	6.328E-01	9.861E-01	8.257E-02	0.261
TL-207		81.07		-3.799E-01	2.711E-01	3.559E-01	3.132E-02	-1.067
		83.78		1.703E-01	1.554E-01	2.313E-01	2.092E-02	0.736
		94.90		4.539E-01	3.013E-01	4.589E-01	4.126E-02	0.989
		122.32		-9.602E-01	1.978E+00	3.059E+00	2.878E-01	-0.314
		144.24		-2.120E-01	7.685E-01	1.270E+00	1.216E-01	-0.167
		154.21		-1.519E-01	4.321E-01	7.197E-01	6.755E-02	-0.211
	+	269.46		5.835E-01	3.536E-01	3.853E-01	3.590E-02	1.515
		323.87	*	-2.826E-01	7.967E-01	1.275E+00	2.277E-01	-0.222
	+	338.28		8.059E+00	2.683E+00	2.835E+00	3.527E-01	2.843
		445.03		1.133E+00	2.532E+00	4.219E+00	5.008E-01	0.268
PO-209		260.50		1.179E+01	1.097E+01	1.908E+01	1.744E+00	0.618
		262.80		-2.271E+01	2.942E+01	4.640E+01	4.244E+00	-0.489
		896.60	*	-4.893E+00	8.800E+00	1.351E+01	1.223E+00	-0.362
BI-210		46.50	*	5.986E-01	5.011E+00	8.072E+00	7.620E-01	0.074
PB-210		46.50	*	5.986E-01	5.011E+00	8.072E+00	7.620E-01	0.074
PO-210		46.50	*	5.986E-01	5.011E+00	8.072E+00	6.920E-01	0.074
PB-211		404.84	*	-3.180E-01	1.166E+00	1.824E+00	1.142E+00	-0.174
		427.08		-1.341E+00	2.610E+00	3.830E+00	2.378E+00	-0.350
		831.96		-1.374E+00	1.627E+00	2.033E+00	1.275E+00	-0.676
BI-212	+	727.18	*	1.273E+00	7.740E-01	7.843E-01	7.772E-02	1.623
		785.46		1.446E+00	1.983E+00	3.476E+00	3.038E-01	0.416
		1620.62		8.929E-01	1.632E+00	2.895E+00	2.492E-01	0.308
PO-215		81.07		-3.799E-01	2.711E-01	3.559E-01	3.132E-02	-1.067
		83.78		1.703E-01	1.554E-01	2.313E-01	2.092E-02	0.736
		94.90		4.539E-01	3.013E-01	4.589E-01	4.126E-02	0.989
		122.32		-9.602E-01	1.978E+00	3.059E+00	2.878E-01	-0.314
		144.24		-2.120E-01	7.685E-01	1.270E+00	1.216E-01	-0.167
		154.21		-1.519E-01	4.321E-01	7.197E-01	6.755E-02	-0.211
	+	269.46		5.835E-01	3.536E-01	3.853E-01	3.590E-02	1.515
		323.87	*	-2.826E-01	7.967E-01	1.275E+00	2.277E-01	-0.222
	+	338.28		8.059E+00	2.683E+00	2.835E+00	3.527E-01	2.843
		445.03		1.133E+00	2.532E+00	4.219E+00	5.008E-01	0.268
RN-219	+	271.23		7.487E-01	4.555E-01	5.331E-01	5.736E-02	1.404
		401.81	*	3.208E-01	5.134E-01	8.619E-01	1.270E-01	0.372
RN-220		549.76	*	-7.175E+00	2.872E+01	4.735E+01	4.019E+00	-0.152
RA-223		81.07		-3.799E-01	2.711E-01	3.559E-01	3.132E-02	-1.067
		83.78		1.703E-01	1.554E-01	2.313E-01	2.092E-02	0.736
		94.90		4.539E-01	3.013E-01	4.589E-01	4.126E-02	0.989

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-9.602E-01	1.978E+00	3.059E+00	2.878E-01	-0.314
		144.24		-2.120E-01	7.685E-01	1.270E+00	1.216E-01	-0.167
		154.21		-1.519E-01	4.321E-01	7.197E-01	6.755E-02	-0.211
	+	269.46		5.835E-01	3.536E-01	3.853E-01	3.590E-02	1.515
		323.87	*	-2.826E-01	7.967E-01	1.275E+00	2.277E-01	-0.222
	+	338.28		8.059E+00	2.683E+00	2.835E+00	3.527E-01	2.843
		445.03		1.133E+00	2.532E+00	4.219E+00	5.008E-01	0.268
AC-227		79.80		2.472E-01	1.958E+00	2.825E+00	6.083E-01	0.087
		236.00		1.557E-01	2.835E-01	4.278E-01	5.374E-02	0.364
		256.20	*	-2.744E-01	4.577E-01	7.315E-01	1.144E-01	-0.375
		286.10		-4.020E-01	1.686E+00	2.736E+00	3.705E-01	-0.147
	+	299.80		2.780E+00	2.189E+00	2.841E+00	5.035E-01	0.978
		304.40		2.372E-01	2.432E+00	3.530E+00	6.583E-01	0.067
		334.20		-1.849E+00	2.991E+00	4.016E+00	7.836E-01	-0.460
TH-227		79.80		2.472E-01	1.958E+00	2.825E+00	6.161E-01	0.087
	+	94.00		1.538E+01	4.693E+00	4.802E+00	1.054E+00	3.203
		236.00		1.557E-01	2.834E-01	4.278E-01	4.889E-02	0.364
		256.20	*	-2.744E-01	4.584E-01	7.315E-01	1.340E-01	-0.375
		286.10		-4.020E-01	1.733E+00	2.736E+00	2.748E+00	-0.147
	+	299.80		2.780E+00	2.189E+00	2.841E+00	5.035E-01	0.978
		304.40		2.372E-01	2.432E+00	3.530E+00	6.583E-01	0.067
		334.20		-1.849E+00	2.991E+00	4.016E+00	7.836E-01	-0.460
TH-229		85.43		3.590E-01	2.401E-01	3.615E-01	3.327E-02	0.993
	+	88.47		4.159E-01	1.360E-01	2.411E-01	2.272E-02	1.725
		100.00		1.663E-01	2.152E-01	3.546E-01	3.119E-02	0.469
		193.63	*	3.423E-01	5.739E-01	9.844E-01	8.624E-02	0.348
		210.97		5.847E-01	1.005E+00	1.524E+00	1.358E-01	0.384
PA-231		283.67	*	-4.875E-01	1.692E+00	2.738E+00	4.239E-01	-0.178
	+	301.29		1.112E+00	8.646E-01	1.121E+00	1.409E-01	0.992
TH-231		81.07		-3.799E-01	2.711E-01	3.559E-01	3.132E-02	-1.067
		83.78		1.703E-01	1.554E-01	2.313E-01	2.092E-02	0.736
		94.90		4.539E-01	3.013E-01	4.589E-01	4.126E-02	0.989
		122.32		-9.602E-01	1.978E+00	3.059E+00	2.878E-01	-0.314
		144.24		-2.120E-01	7.685E-01	1.270E+00	1.216E-01	-0.167
		154.21		-1.519E-01	4.321E-01	7.197E-01	6.755E-02	-0.211
	+	269.46		5.835E-01	3.536E-01	3.853E-01	3.590E-02	1.515
		323.87	*	-2.826E-01	7.967E-01	1.275E+00	2.277E-01	-0.222
	+	338.28		8.059E+00	2.683E+00	2.835E+00	3.527E-01	2.843
		445.03		1.133E+00	2.532E+00	4.219E+00	5.008E-01	0.268
U-231		84.21		7.469E+00	6.735E+00	1.003E+01	9.109E-01	0.745
	+	92.29		1.530E+01	3.526E+00	5.207E+00	4.758E-01	2.939
		95.87	*	-1.289E+00	1.428E+00	1.922E+00	1.719E-01	-0.671
		108.00		1.218E+00	2.366E+00	3.853E+00	3.340E-01	0.316
PA-233	+	75.28		2.148E+01	5.744E+00	7.902E+00	1.201E+00	2.718
	+	86.59		5.963E+00	2.469E+00	3.320E+00	8.982E-01	1.796
	+	300.12		7.749E-01	6.061E-01	7.956E-01	1.205E-01	0.974
		311.98	*	5.870E-03	7.220E-02	1.190E-01	1.102E-02	0.049
		340.50		2.970E+00	1.085E+00	1.560E+00	3.727E-01	1.904
		398.62		9.781E-02	2.522E+00	4.096E+00	1.084E+00	0.024

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-5.753E-01	2.152E+00	3.193E+00	6.827E-01	-0.180
PA-234	+	63.00		3.641E+00	2.948E+00	3.348E+00	5.026E-01	1.088
		94.67		6.661E-01	2.300E-01	3.522E-01	4.463E-02	1.891
		98.44		1.336E-01	1.418E-01	1.807E-01	1.009E-01	0.740
		99.86		4.018E-01	5.586E-01	9.057E-01	7.970E-02	0.444
		111.00		-4.620E-02	2.093E-01	3.295E-01	3.994E-02	-0.140
		131.20		-1.272E-01	1.291E-01	1.942E-01	1.679E-02	-0.655
		152.70		8.978E-02	3.576E-01	6.099E-01	1.037E-01	0.147
	+	186.00		9.125E+00	3.840E+00	3.348E+00	1.046E+00	2.725
		226.40		2.614E-01	4.581E-01	7.805E-01	1.051E-01	0.335
		227.20		2.979E-01	4.825E-01	8.251E-01	7.440E-02	0.361
		248.90		-6.143E-01	9.335E-01	1.476E+00	3.338E-01	-0.416
		293.70		3.594E+00	1.150E+00	1.704E+00	2.991E-01	2.109
		369.80		2.547E-01	9.636E-01	1.594E+00	3.458E-01	0.160
		568.70		-5.429E-01	1.129E+00	1.824E+00	1.545E-01	-0.298
		569.50		2.140E-01	3.054E-01	5.386E-01	4.563E-02	0.397
		574.00		-9.454E-01	1.669E+00	2.673E+00	2.262E-01	-0.354
		699.00		-5.822E-01	7.859E-01	1.204E+00	2.284E-01	-0.484
		706.10		2.103E-01	1.219E+00	2.044E+00	9.106E-01	0.103
		733.00		-6.356E-01	5.223E-01	5.949E-01	1.318E-01	-1.068
		742.81		-1.285E+00	1.803E+00	2.417E+00	1.625E+00	-0.532
		796.30		1.333E+00	1.220E+00	2.090E+00	5.665E-01	0.638
		805.60		-4.452E-01	1.080E+00	1.685E+00	5.174E-01	-0.264
		819.60		1.779E-01	1.395E+00	2.319E+00	8.832E-01	0.077
		826.30		1.137E-01	9.457E-01	1.570E+00	7.030E-01	0.072
		831.60		-4.913E-01	7.031E-01	1.044E+00	3.124E-01	-0.471
		876.40		4.957E-01	1.042E+00	1.575E+00	1.620E+00	0.315
		880.51		1.942E-01	2.905E-01	5.102E-01	4.602E-02	0.381
		883.24		-2.185E-01	3.493E-01	4.774E-01	3.212E-01	-0.458
		899.00		-3.995E-01	1.006E+00	1.550E+00	6.790E-01	-0.258
		925.00		-1.081E+00	1.430E+00	2.137E+00	1.930E-01	-0.506
		926.50		-9.841E-02	2.043E-01	3.128E-01	7.951E-02	-0.315
		946.00	*	5.551E-02	3.326E-01	5.513E-01	1.044E-01	0.101
		949.00		8.624E-02	4.973E-01	8.248E-01	7.422E-02	0.105
		980.50		4.107E-01	8.500E-01	1.452E+00	1.297E-01	0.283
		1394.10		6.183E-02	1.356E+00	2.263E+00	1.473E+00	0.027
PA-234M		766.42		1.098E+01	1.349E+01	2.185E+01	1.109E+01	0.503
		1001.03	*	5.428E+00	5.565E+00	9.751E+00	9.939E-01	0.557
U-235	+	89.95		3.765E+00	2.076E+00	2.239E+00	6.953E-01	1.682
	+	93.35		4.785E+00	1.686E+00	1.588E+00	4.473E-01	3.013
		105.00		1.327E-01	1.183E+00	1.895E+00	5.659E-01	0.070
		143.76	*	-8.610E-02	2.397E-01	3.944E-01	6.890E-02	-0.218
		163.35		9.774E-02	5.387E-01	9.145E-01	1.740E-01	0.107
	+	185.71		3.379E-01	9.975E-02	1.233E-01	1.071E-02	2.742
		205.31		5.060E-01	6.730E-01	1.024E+00	1.965E-01	0.494
NP-236		94.67		5.089E-01	1.687E-01	2.675E-01	2.408E-02	1.902
		98.44		1.010E-01	9.157E-02	1.366E-01	1.208E-02	0.740
		111.00		-3.494E-02	1.583E-01	2.492E-01	2.160E-02	-0.140
		160.31	*	1.248E-02	8.915E-02	1.513E-01	1.288E-02	0.082

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.008E-01	1.882E-01	3.088E-01	2.720E-02	0.650
		117.00	*	3.627E-03	2.210E-01	3.514E-01	3.060E-02	0.010
	+	209.75		8.171E-01	1.237E+00	1.570E+00	1.397E-01	0.520
		228.18		3.195E-02	2.585E-01	4.327E-01	3.904E-02	0.074
		277.60		2.022E-01	2.145E-01	3.692E-01	3.377E-02	0.548
		334.30		-1.181E+00	1.679E+00	2.247E+00	1.987E-01	-0.526
AM-241		59.54	*	1.190E-02	1.997E-01	2.904E-01	2.393E-02	0.041
CM-243		99.55		2.066E-01	1.936E-01	3.178E-01	2.799E-02	0.650
		103.76	*	-4.600E-02	1.085E-01	1.696E-01	1.477E-02	-0.271
		117.00		3.731E-03	2.274E-01	3.615E-01	3.148E-02	0.010
	+	209.75		8.055E-01	1.219E+00	1.548E+00	1.377E-01	0.520
		228.18		3.229E-02	2.612E-01	4.372E-01	3.945E-02	0.074
		277.60		2.038E-01	2.162E-01	3.722E-01	3.404E-02	0.548
AM-246		798.80		-1.230E-01	1.815E-01	2.809E-01	2.468E-02	-0.438
		1036.00		-1.636E-01	3.374E-01	5.131E-01	4.502E-02	-0.319
		1062.04		-5.678E-02	2.683E-01	4.228E-01	3.668E-02	-0.134
		1078.86	*	5.056E-02	1.512E-01	2.539E-01	2.185E-02	0.199
CM-247		278.00		6.327E-01	8.830E-01	1.506E+00	1.378E-01	0.420
		287.40		3.680E-01	1.367E+00	2.285E+00	2.086E-01	0.161
		402.60	*	2.988E-02	4.478E-02	7.565E-02	6.135E-03	0.395
CF-249		252.85		6.554E-01	1.004E+00	1.716E+00	1.566E-01	0.382
		333.44		-8.420E-02	2.201E-01	3.045E-01	2.695E-02	-0.277
		387.95	*	4.416E-02	4.864E-02	8.337E-02	6.762E-03	0.530
CF-251		176.60	*	1.398E-02	1.402E-01	2.367E-01	2.037E-02	0.059
		227.00		2.542E-01	4.310E-01	7.361E-01	6.637E-02	0.345
		285.00		-3.434E-01	1.933E+00	3.151E+00	2.878E-01	-0.109

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008      *
* Acquisition date : 12-FEB-2010 15:53:44 Detector SN#     :               *
* Detector ID        : GAM01               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.12     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245960008           Analyst initials: MXR1          *
* Batch Number       : 948717               Sample Quantity : 1.2338E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :     0.000            MSD Isotope     :                 *
* LCS DPM          :     0.000            LCS Isotope     :                 *
* LCSD DPM         :     0.000            LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.202E+01	2.547E+00	5.536E-01	0.000E+00
CD-109	3.099E+00	9.933E-01	1.457E+00	0.000E+00
SN-126	3.046E-01	9.763E-02	1.439E-01	0.000E+00
BA-137M	2.559E-01	6.440E-02	6.438E-02	0.000E+00
CS-137	2.705E-01	6.809E-02	6.806E-02	0.000E+00
TL-208	5.658E-01	1.074E-01	6.088E-02	0.000E+00
BI-211	4.065E+00	6.637E-01	3.856E-01	0.000E+00
PB-212	1.644E+00	2.061E-01	1.069E-01	0.000E+00
PO-212	1.644E+00	2.061E-01	1.069E-01	0.000E+00
BI-214	1.206E+00	2.092E-01	1.190E-01	0.000E+00
PB-214	1.414E+00	2.419E-01	1.390E-01	0.000E+00
PO-214	1.414E+00	2.419E-01	1.390E-01	0.000E+00
PO-216	1.644E+00	2.061E-01	1.069E-01	0.000E+00
PO-218	1.414E+00	2.419E-01	1.390E-01	0.000E+00
RA-224	4.843E+00	1.296E+00	1.217E+00	0.000E+00
RA-226	1.206E+00	2.092E-01	1.190E-01	0.000E+00
AC-228	1.585E+00	3.518E-01	2.281E-01	0.000E+00
RA-228	1.585E+00	3.518E-01	2.281E-01	0.000E+00
TH-228	1.669E+00	2.093E-01	1.085E-01	0.000E+00
TH-230	1.206E+00	2.092E-01	1.190E-01	0.000E+00
TH-232	1.585E+00	3.518E-01	2.281E-01	0.000E+00
TH-234	3.124E+00	2.494E+00	2.468E+00	0.000E+00
U-234	1.206E+00	2.092E-01	1.190E-01	0.000E+00
NP-237	8.945E-01	3.390E-01	4.655E-01	0.000E+00
U-238	3.124E+00	2.494E+00	2.468E+00	0.000E+00
AM-243	4.101E-01	9.457E-02	9.947E-02	0.000E+00
ANH-511	1.368E-01	7.876E-02	5.593E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	4.121E-01	3.738E-01	6.696E-01	0.000E+00	NOT IDENT.
NA-22	-1.132E-02	4.963E-02	8.251E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.575E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.759E-03	3.295E-02	5.588E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.525E-02	9.047E-02	0.000E+00	FAIL ABUN
SC-46	4.070E-02	4.645E-02	8.415E-02	0.000E+00	FAIL ABUN
V-48	1.809E-02	8.243E-02	1.403E-01	0.000E+00	NOT IDENT.
CR-51	-3.748E-01	4.342E-01	6.991E-01	0.000E+00	NOT IDENT.
MN-52	8.964E-02	2.731E-01	4.818E-01	0.000E+00	NOT IDENT.
MN-54	-2.059E-04	4.116E-02	6.933E-02	0.000E+00	NOT IDENT.
CO-56	-2.091E-02	4.198E-02	6.683E-02	0.000E+00	FAIL ABUN
CO-57	-1.451E-02	2.814E-02	4.578E-02	0.000E+00	NOT IDENT.
CO-58	4.453E-03	4.199E-02	7.167E-02	0.000E+00	NOT IDENT.
FE-59	-2.801E-03	9.743E-02	1.600E-01	0.000E+00	NOT IDENT.
CO-60	2.391E-02	4.260E-02	7.730E-02	0.000E+00	NOT IDENT.
ZN-65	9.548E-02	9.993E-02	1.641E-01	0.000E+00	NOT IDENT.
GE-68	1.199E+00	1.226E+00	2.262E+00	0.000E+00	NOT IDENT.
AS-73	-3.856E-01	1.074E+00	1.831E+00	0.000E+00	NOT IDENT.
AS-74	4.583E-03	9.403E-02	1.631E-01	0.000E+00	NOT IDENT.
SE-75	-2.419E-02	5.329E-02	7.769E-02	0.000E+00	NOT IDENT.
BR-77	2.205E+00	1.298E+01	2.169E+01	0.000E+00	FAIL ABUN
SR-82	-1.120E-01	4.162E-01	6.870E-01	0.000E+00	NOT IDENT.
RB-83	2.049E-02	8.516E-02	1.431E-01	0.000E+00	NOT IDENT.
RB-84	-6.326E-03	7.240E-02	1.203E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.015E+01	1.699E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.208E-02	8.717E-02	0.000E+00	NOT IDENT.
RB-86	5.642E-01	7.801E-01	1.402E+00	0.000E+00	NOT IDENT.
Y-88	-1.215E-02	4.097E-02	6.339E-02	0.000E+00	NOT IDENT.
ZR-88	-1.164E-02	3.577E-02	5.877E-02	0.000E+00	NOT IDENT.
Y-91	6.605E+00	2.040E+01	3.597E+01	0.000E+00	NOT IDENT.
NB-94	2.412E-02	3.783E-02	6.778E-02	0.000E+00	NOT IDENT.
NB-95	-2.107E-02	4.585E-02	7.452E-02	0.000E+00	NOT IDENT.
NB-95M	7.759E-02	1.474E-01	2.321E-01	0.000E+00	NOT IDENT.
ZR-95	4.829E-02	7.598E-02	1.363E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.323E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.015E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	7.199E+00	1.339E+01	2.376E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.540E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.205E-02	3.822E-02	6.728E-02	0.000E+00	NOT IDENT.
RH-102	-3.771E-03	3.346E-02	5.502E-02	0.000E+00	NOT IDENT.
RU-103	2.578E-02	4.666E-02	8.045E-02	0.000E+00	FAIL ABUN
RH-106	-1.680E-01	3.630E-01	6.011E-01	0.000E+00	FAIL ABUN
RU-106	-1.680E-01	3.626E-01	6.011E-01	0.000E+00	FAIL ABUN
AG-108M	6.575E-03	3.786E-02	6.404E-02	0.000E+00	NOT IDENT.
AG-110M	-1.035E-03	4.506E-02	6.699E-02	0.000E+00	NOT IDENT.
IN-111	3.379E-01	1.286E+00	1.993E+00	0.000E+00	NOT IDENT.
IN-113M	-2.931E-02	5.209E-02	8.412E-02	0.000E+00	NOT IDENT.
SN-113	-2.931E-02	5.209E-02	8.412E-02	0.000E+00	NOT IDENT.
IN-114M	-2.876E-02	2.215E-01	3.399E-01	0.000E+00	NOT IDENT.
CD-115	4.781E+00	1.165E+01	2.091E+01	0.000E+00	NOT IDENT.
SN-117M	-2.648E-02	5.990E-02	1.042E-01	0.000E+00	NOT IDENT.
SB-122	2.263E+00	2.246E+00	4.169E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.698E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.490E-02	3.125E-02	5.350E-02	0.000E+00	NOT IDENT.
I-124	-1.137E-01	7.253E-01	1.165E+00	0.000E+00	NOT IDENT.
SB-124	-2.434E-03	9.134E-02	1.512E-01	0.000E+00	FAIL ABUN
SB-125	-5.819E-02	1.096E-01	1.759E-01	0.000E+00	FAIL ABUN
TE-125M	3.818E+00	1.050E+01	1.791E+01	0.000E+00	NOT IDENT.
I-126	3.911E-01	2.582E-01	3.915E-01	0.000E+00	FAIL ABUN
SB-126	-1.128E-01	1.924E-01	2.634E-01	0.000E+00	FAIL ABUN
SB-127	-1.140E-01	1.380E+00	2.343E+00	0.000E+00	NOT IDENT.
XE-127	-6.723E-02	5.421E-02	8.938E-02	0.000E+00	NOT IDENT.
I-131	3.754E-02	1.296E-01	2.231E-01	0.000E+00	NOT IDENT.
TE-132	9.474E-02	7.820E-01	1.367E+00	0.000E+00	NOT IDENT.
BA-133	-4.032E-03	5.752E-02	8.467E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.554E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.373E-02	6.081E-02	1.071E-01	0.000E+00	NOT IDENT.
CS-135	-7.149E-03	1.806E-01	2.723E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.449E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.887E-03	1.234E-01	2.039E-01	0.000E+00	FAIL ABUN
CE-139	1.105E-02	3.342E-02	5.981E-02	0.000E+00	NOT IDENT.
BA-140	-9.381E-03	2.667E-01	4.628E-01	0.000E+00	NOT IDENT.
LA-140	-1.918E-02	9.444E-02	1.486E-01	0.000E+00	NOT IDENT.
CE-141	6.958E-02	6.688E-02	1.231E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.891E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.825E-03	2.332E-01	3.885E-01	0.000E+00	NOT IDENT.
PM-144	-7.839E-03	3.616E-02	6.059E-02	0.000E+00	NOT IDENT.
PR-144	-5.312E-01	2.451E+00	4.106E+00	0.000E+00	NOT IDENT.

PM-146	2.506E-02	4.962E-02	8.570E-02	0.000E+00	NOT IDENT.
ND-147	-3.492E-01	5.772E-01	9.520E-01	0.000E+00	FAIL ABUN
PM-149	-4.737E+01	1.013E+02	1.686E+02	0.000E+00	NOT IDENT.
EU-152	-9.665E-03	1.235E-01	1.822E-01	0.000E+00	FAIL ABUN
GD-153	3.141E-02	1.020E-01	1.544E-01	0.000E+00	NOT IDENT.
EU-154	1.339E-03	1.356E-01	2.314E-01	0.000E+00	NOT IDENT.
EU-155	1.827E-02	1.193E-01	2.020E-01	0.000E+00	FAIL ABUN
TB-160	4.833E-02	1.489E-01	2.585E-01	0.000E+00	FAIL ABUN
HO-166M	4.103E-02	6.742E-02	1.207E-01	0.000E+00	NOT IDENT.
TM-171	-2.964E+01	3.782E+01	5.550E+01	0.000E+00	NOT IDENT.
LU-176	-7.081E-03	2.876E-02	4.669E-02	0.000E+00	FAIL ABUN
LU-177	1.158E+00	1.717E+00	2.273E+00	0.000E+00	FAIL ABUN
LU-177M	-2.136E-01	2.159E-01	3.360E-01	0.000E+00	NOT IDENT.
HF-181	-5.398E-02	4.960E-02	7.435E-02	0.000E+00	NOT IDENT.
W-181	1.671E-01	4.767E-01	7.431E-01	0.000E+00	NOT IDENT.
TA-182	6.091E-02	2.211E-01	3.872E-01	0.000E+00	FAIL ABUN
RE-183	3.761E-02	1.218E-01	2.181E-01	0.000E+00	FAIL ABUN
RE-184	1.747E-01	2.623E-01	4.675E-01	0.000E+00	NOT IDENT.
OS-185	1.332E-03	4.885E-02	8.409E-02	0.000E+00	NOT IDENT.
RE-188	-3.028E-02	1.841E-01	3.245E-01	0.000E+00	NOT IDENT.
W-188	2.913E+00	8.849E+00	1.365E+01	0.000E+00	FAIL ABUN
IR-192	1.146E-03	4.056E-02	6.927E-02	0.000E+00	FAIL ABUN
AU-195	3.251E-01	2.775E-01	4.625E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.362E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-8.944E-01	7.915E+00	1.393E+01	0.000E+00	NOT IDENT.
TL-202	-2.958E-03	7.636E-02	1.270E-01	0.000E+00	NOT IDENT.
HG-203	3.616E-02	4.707E-02	8.382E-02	0.000E+00	NOT IDENT.
BI-207	1.169E-02	5.975E-02	1.009E-01	0.000E+00	FAIL ABUN
TL-207	-2.826E-01	7.807E-01	1.299E+00	0.000E+00	FAIL ABUN
PO-209	-4.893E+00	8.624E+00	1.358E+01	0.000E+00	NOT IDENT.
BI-210	5.986E-01	4.911E+00	8.432E+00	0.000E+00	NOT IDENT.
PB-210	5.986E-01	4.911E+00	8.432E+00	0.000E+00	NOT IDENT.
PO-210	5.986E-01	4.911E+00	8.432E+00	0.000E+00	NOT IDENT.
PB-211	-3.180E-01	1.142E+00	1.853E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.585E-01	7.906E-01	0.000E+00	FAIL ABUN
PO-215	-2.826E-01	7.807E-01	1.299E+00	0.000E+00	FAIL ABUN
RN-219	3.208E-01	5.032E-01	8.758E-01	0.000E+00	FAIL ABUN
RN-220	-7.175E+00	2.814E+01	4.791E+01	0.000E+00	NOT IDENT.
RA-223	-2.826E-01	7.807E-01	1.299E+00	0.000E+00	FAIL ABUN
AC-227	-2.744E-01	4.485E-01	7.476E-01	0.000E+00	FAIL ABUN
TH-227	-2.744E-01	4.493E-01	7.476E-01	0.000E+00	FAIL ABUN
TH-229	3.423E-01	5.624E-01	1.010E+00	0.000E+00	FAIL ABUN
PA-231	-4.875E-01	1.658E+00	2.794E+00	0.000E+00	FAIL ABUN
TH-231	-2.826E-01	7.807E-01	1.299E+00	0.000E+00	FAIL ABUN
U-231	-1.289E+00	1.400E+00	1.989E+00	0.000E+00	FAIL ABUN
PA-233	5.870E-03	7.076E-02	1.214E-01	0.000E+00	FAIL ABUN
PA-234	5.551E-02	3.259E-01	5.538E-01	0.000E+00	FAIL ABUN
PA-234M	5.428E+00	5.454E+00	9.788E+00	0.000E+00	NOT IDENT.
U-235	-8.610E-02	2.349E-01	4.061E-01	0.000E+00	FAIL ABUN
NP-236	1.248E-02	8.737E-02	1.556E-01	0.000E+00	NOT IDENT.
NP-239	3.627E-03	2.166E-01	3.628E-01	0.000E+00	FAIL ABUN
AM-241	1.190E-02	1.957E-01	3.024E-01	0.000E+00	NOT IDENT.
CM-243	-4.600E-02	1.063E-01	1.753E-01	0.000E+00	FAIL ABUN
AM-246	5.056E-02	1.482E-01	2.546E-01	0.000E+00	NOT IDENT.
CM-247	2.988E-02	4.389E-02	7.686E-02	0.000E+00	NOT IDENT.
CF-249	4.416E-02	4.767E-02	8.474E-02	0.000E+00	NOT IDENT.
CF-251	1.398E-02	1.374E-01	2.431E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:54:14.75

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*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:53:44
Sample ID         : G245960008           Sample quantity  : 1.23380E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.12  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXRl
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	730	10.67*	9.456E-01	2.202E+01	2.202E+01	11.80
CD-109	88.03	193	3.72*	5.198E+00	3.030E+00	3.099E+00	32.70
SN-126	64.28	107	9.60	2.737E+00	1.236E+00	1.236E+00	80.90
	86.94	193	8.90	5.198E+00	1.266E+00	1.266E+00	52.02
	87.57	193	37.00*	5.198E+00	3.046E-01	3.046E-01	32.70
BA-137M	661.65	145	89.98*	1.924E+00	2.556E-01	2.559E-01	25.68
CS-137	661.65	145	85.12*	1.924E+00	2.702E-01	2.705E-01	25.69
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	108	21.60	2.392E+00	6.332E-01	6.332E-01	59.35
	583.14	336	84.20*	2.143E+00	5.658E-01	5.658E-01	19.37
	860.37	------	12.46	1.522E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.944E+00	------ Line Not Found		------
	351.07	558	12.94*	3.226E+00	4.065E+00	4.065E+00	16.66
PB-212	74.81	369	10.70	4.150E+00	2.529E+00	2.529E+00	25.32
	77.11	527	18.00	4.381E+00	2.034E+00	2.034E+00	17.74
	87.30	193	8.00	5.198E+00	1.409E+00	1.409E+00	34.20
	238.63	1047	44.60*	4.345E+00	1.644E+00	1.644E+00	12.79
	300.09	61	3.41	3.650E+00	1.500E+00	1.500E+00	77.49
PO-212	74.81	369	10.70	4.150E+00	2.529E+00	2.529E+00	25.32
	77.11	527	18.00	4.381E+00	2.034E+00	2.034E+00	17.74
	87.30	193	8.00	5.198E+00	1.409E+00	1.409E+00	34.20
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	1047	44.60*	4.345E+00	1.644E+00	1.644E+00	12.79
	300.09	61	3.41	3.650E+00	1.500E+00	1.500E+00	77.49
BI-214	609.31	379	46.30*	2.064E+00	1.206E+00	1.206E+00	17.71
	1120.29	95	15.10	1.193E+00	1.601E+00	1.601E+00	42.64
	1764.49	77	15.80	8.256E-01	1.799E+00	1.799E+00	31.69
PB-214	74.81	369	6.21	4.150E+00	4.358E+00	4.358E+00	24.67
	77.11	527	10.50	4.381E+00	3.487E+00	3.487E+00	19.30
	87.30	193	4.67	5.198E+00	2.413E+00	2.414E+00	33.60
	241.98	271	7.49	4.305E+00	2.554E+00	2.554E+00	27.87
	295.21	336	19.20	3.699E+00	1.441E+00	1.441E+00	18.95

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	558	37.20*	3.226E+00	1.414E+00	1.414E+00	17.46
PO-214	74.81	369	6.21	4.150E+00	4.358E+00	4.358E+00	24.67
	77.11	527	10.50	4.381E+00	3.487E+00	3.487E+00	19.30
	87.30	193	4.67	5.198E+00	2.413E+00	2.414E+00	33.60
	241.98	271	7.49	4.305E+00	2.554E+00	2.554E+00	27.87
	295.21	336	19.20	3.699E+00	1.441E+00	1.441E+00	18.95
	351.92	558	37.20*	3.226E+00	1.414E+00	1.414E+00	17.46
PO-216	74.81	369	10.70	4.150E+00	2.529E+00	2.529E+00	25.32
	77.11	527	18.00	4.381E+00	2.034E+00	2.034E+00	17.74
	87.30	193	8.00	5.198E+00	1.409E+00	1.409E+00	34.20
	238.63	1047	44.60*	4.345E+00	1.644E+00	1.644E+00	12.79
	300.09	61	3.41	3.650E+00	1.500E+00	1.500E+00	77.49
PO-218	74.81	369	6.21	4.150E+00	4.358E+00	4.358E+00	24.67
	77.11	527	10.50	4.381E+00	3.487E+00	3.487E+00	19.30
	87.30	193	4.67	5.198E+00	2.413E+00	2.414E+00	33.60
	241.98	271	7.49	4.305E+00	2.554E+00	2.554E+00	27.87
	295.21	336	19.20	3.699E+00	1.441E+00	1.441E+00	18.95
	351.92	558	37.20*	3.226E+00	1.414E+00	1.414E+00	17.46
RA-224	240.98	271	3.95*	4.305E+00	4.843E+00	4.843E+00	27.30
RA-226	609.31	379	46.30*	2.064E+00	1.206E+00	1.206E+00	17.71
	1120.29	95	15.10	1.193E+00	1.601E+00	1.601E+00	42.64
	1764.49	77	15.80	8.256E-01	1.799E+00	1.799E+00	31.69
AC-228	338.32	240	11.40	3.325E+00	1.930E+00	1.930E+00	51.57
	911.07	208	27.70*	1.444E+00	1.585E+00	1.585E+00	22.65
	969.11	106	16.60	1.364E+00	1.419E+00	1.419E+00	36.05
RA-228	338.32	240	11.40	3.325E+00	1.930E+00	1.930E+00	51.57
	911.07	208	27.70*	1.444E+00	1.585E+00	1.585E+00	22.65
	969.11	106	16.60	1.364E+00	1.419E+00	1.419E+00	36.05
TH-228	74.81	369	10.70	4.150E+00	2.529E+00	2.568E+00	23.56
	77.11	527	18.00	4.381E+00	2.034E+00	2.065E+00	17.74
	87.30	193	8.00	5.198E+00	1.409E+00	1.430E+00	32.70
	238.63	1047	44.60*	4.345E+00	1.644E+00	1.669E+00	12.79
	300.09	61	3.41	3.650E+00	1.500E+00	1.523E+00	97.01
TH-230	609.31	379	46.30*	2.064E+00	1.206E+00	1.206E+00	17.71
	1120.29	95	15.10	1.193E+00	1.601E+00	1.601E+00	42.64
	1764.49	77	15.80	8.256E-01	1.799E+00	1.799E+00	31.69
TH-232	338.32	240	11.40	3.325E+00	1.930E+00	1.930E+00	32.11
	911.07	208	27.70*	1.444E+00	1.585E+00	1.585E+00	22.65
	969.11	106	16.60	1.364E+00	1.419E+00	1.419E+00	36.05
TH-234	63.29	107	3.80*	2.737E+00	3.124E+00	3.124E+00	81.48
	92.38	389	5.41	5.501E+00	3.980E+00	3.980E+00	27.99
U-234	609.31	379	46.30*	2.064E+00	1.206E+00	1.206E+00	17.71
	1120.29	95	15.10	1.193E+00	1.601E+00	1.601E+00	42.64
	1764.49	77	15.80	8.256E-01	1.799E+00	1.799E+00	31.69
NP-237	86.50	193	12.60*	5.198E+00	8.945E-01	8.945E-01	38.67
	95.87	------	2.60	5.636E+00	------ Line Not Found		------
U-238	63.29	107	3.80*	2.737E+00	3.124E+00	3.124E+00	81.48
	92.38	389	5.41	5.501E+00	3.980E+00	3.980E+00	23.04
AM-243	74.67	369	66.00*	4.150E+00	4.101E-01	4.101E-01	23.53

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	193	0.34	5.198E+00	3.354E+01	3.354E+01	32.70
	117.66	------	0.55	6.054E+00	------	Line Not Found	------
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	108	100.00*	2.392E+00	1.368E-01	1.368E-01	58.76

Flag: "*" = Keyline

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

Total number of lines in spectrum 31
Number of unidentified lines 2
Number of lines tentatively identified by NID 29 93.55%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.202E+01	2.202E+01	0.260E+01	11.80	
CD-109	464.00D	1.02	3.030E+00	3.099E+00	1.014E+00	32.70	
SN-126	1.00E+05Y	1.00	3.046E-01	3.046E-01	0.996E-01	32.70	
BA-137M	30.17Y	1.00	2.556E-01	2.559E-01	0.657E-01	25.68	
CS-137	30.17Y	1.00	2.702E-01	2.705E-01	0.695E-01	25.69	
TL-208	1.41E+10Y	1.00	5.658E-01	5.658E-01	1.096E-01	19.37	
BI-211	7.04E+08Y	1.00	4.065E+00	4.065E+00	0.677E+00	16.66	
PB-212	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.210E+00	12.79	
PO-212	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.210E+00	12.79	
BI-214	1600.00Y	1.00	1.206E+00	1.206E+00	0.214E+00	17.71	
PB-214	1600.00Y	1.00	1.414E+00	1.414E+00	0.247E+00	17.46	
PO-214	1600.00Y	1.00	1.414E+00	1.414E+00	0.247E+00	17.46	
PO-216	1.41E+10Y	1.00	1.644E+00	1.644E+00	0.210E+00	12.79	
PO-218	1600.00Y	1.00	1.414E+00	1.414E+00	0.247E+00	17.46	
RA-224	1.41E+10Y	1.00	4.843E+00	4.843E+00	1.322E+00	27.30	
RA-226	1600.00Y	1.00	1.206E+00	1.206E+00	0.214E+00	17.71	
AC-228	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.359E+00	22.65	
RA-228	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.359E+00	22.65	
TH-228	1.91Y	1.02	1.644E+00	1.669E+00	0.214E+00	12.79	
TH-230	4.47E+09Y	1.00	1.206E+00	1.206E+00	0.214E+00	17.71	
TH-232	1.41E+10Y	1.00	1.585E+00	1.585E+00	0.359E+00	22.65	
TH-234	4.47E+09Y	1.00	3.124E+00	3.124E+00	2.545E+00	81.48	
U-234	4.47E+09Y	1.00	1.206E+00	1.206E+00	0.214E+00	17.71	
NP-237	2.14E+06Y	1.00	8.945E-01	8.945E-01	3.459E-01	38.67	
U-238	4.47E+09Y	1.00	3.124E+00	3.124E+00	2.545E+00	81.48	
AM-243	7380.00Y	1.00	4.101E-01	4.101E-01	0.965E-01	23.53	
ANH-511	1.00E+09Y	1.00	1.368E-01	1.368E-01	0.804E-01	58.76	
	Total Activity :		6.344E+01	6.353E+01			

Grand Total Activity : 6.344E+01 6.353E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	89.97	179	438	1.42	180.63	172	21	2.48E-02	45.6	5.35E+00	T
0	186.26	309	365	1.48	373.12	368	12	4.30E-02	28.2	5.16E+00	T
0	209.37	42	286	1.22	419.30	417	9	5.77E-03	****	4.78E+00	T
0	270.57	103	214	1.62	541.64	536	12	1.43E-02	59.9	3.96E+00	T
0	463.35	83	98	1.91	926.97	921	12	1.16E-02	53.4	2.59E+00	T
1	665.65	44	41	1.75	1331.32	1316	24	6.08E-03	66.9	1.91E+00	T
0	727.52	87	104	1.75	1454.98	1446	19	1.21E-02	60.0	1.77E+00	T
2	964.56	42	45	2.11	1928.73	1921	27	5.83E-03	68.4	1.37E+00	T
0	1238.10	57	45	1.61	2475.43	2466	15	7.92E-03	58.3	1.09E+00	T
0	1588.11	23	0	3.35	3174.91	3169	12	3.19E-03	41.7	8.86E-01	
0	1661.27	20	3	2.35	3321.12	3316	11	2.79E-03	55.0	8.59E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:54:20.75

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960008.CNF;1 *
* Acquisition date  : 12-FEB-2010 15:53:44  Detector SN#     :             *
* Detector ID       : GAM01                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.12          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245960008            Analyst initials: MXR1         *
* Batch Number      : 948717                Sample Quantity : 1.23380E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.202E+01	2.599E+00	5.543E-01	4.928E-02	39.722
CD-109	3.099E+00	1.014E+00	1.406E+00	1.330E-01	2.205
SN-126	3.046E-01	9.962E-02	1.389E-01	1.308E-02	2.193
BA-137M	2.559E-01	6.571E-02	6.379E-02	5.225E-03	4.011
CS-137	2.705E-01	6.948E-02	6.743E-02	5.535E-03	4.011
TL-208	5.658E-01	1.096E-01	6.022E-02	5.469E-03	9.396
BI-211	4.065E+00	6.772E-01	3.788E-01	3.445E-02	10.730
PB-212	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
PO-212	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
BI-214	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
PB-214	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
PO-214	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
PO-216	1.644E+00	2.103E-01	1.045E-01	1.058E-02	15.737
PO-218	1.414E+00	2.469E-01	1.365E-01	1.431E-02	10.356
RA-224	4.843E+00	1.322E+00	1.189E+00	1.081E-01	4.072
RA-226	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
AC-228	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
RA-228	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.669E+00	2.135E-01	1.061E-01	1.074E-02	15.737
TH-230	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
TH-232	1.585E+00	3.590E-01	2.269E-01	2.627E-02	6.986
TH-234	3.124E+00	2.545E+00	2.372E+00	4.169E-01	1.317
U-234	1.206E+00	2.135E-01	1.178E-01	1.162E-02	10.239
NP-237	8.945E-01	3.459E-01	4.491E-01	1.017E-01	1.992
U-238	3.124E+00	2.545E+00	2.372E+00	4.169E-01	1.317
AM-243	4.101E-01	9.650E-02	9.579E-02	7.966E-03	4.281
ANH-511	1.368E-01	8.037E-02	5.522E-02	4.680E-03	2.477

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.121E-01		3.814E-01	6.605E-01	6.009E-02	0.624
NA-22	-1.132E-02		5.064E-02	8.247E-02	6.925E-03	-0.137
NA-24	-1.438E-01		4.375E-01	Half-Life too short		
AL-26	3.759E-03		3.362E-02	5.612E-02	4.650E-03	0.067
TI-44	3.754E-01	+	6.659E-02	8.718E-02	7.482E-03	4.306
SC-46	4.070E-02		4.740E-02	8.370E-02	7.567E-03	0.486
V-48	1.809E-02		8.411E-02	1.397E-01	1.247E-02	0.129
CR-51	-3.748E-01		4.431E-01	6.860E-01	6.452E-02	-0.546
MN-52	8.964E-02		2.787E-01	4.824E-01	4.164E-02	0.186
MN-54	-2.059E-04		4.200E-02	6.890E-02	6.133E-03	-0.003
CO-56	-2.091E-02		4.283E-02	6.643E-02	5.935E-03	-0.315
CO-57	-1.451E-02		2.872E-02	4.436E-02	3.905E-03	-0.327
CO-58	4.453E-03		4.284E-02	7.120E-02	6.299E-03	0.063
FE-59	-2.801E-03		9.942E-02	1.596E-01	1.471E-02	-0.018
CO-60	2.391E-02		4.347E-02	7.731E-02	6.590E-03	0.309
ZN-65	9.548E-02		1.020E-01	1.638E-01	1.382E-02	0.583
GE-68	1.199E+00		1.251E+00	2.256E+00	1.942E-01	0.531
AS-73	-3.856E-01		1.096E+00	1.756E+00	1.421E-01	-0.220
AS-74	4.583E-03		9.595E-02	1.614E-01	1.360E-02	0.028
SE-75	-2.419E-02		5.438E-02	7.604E-02	6.985E-03	-0.318
BR-77	2.205E+00		1.325E+01	2.142E+01	1.817E+00	0.103
SR-82	-1.120E-01		4.247E-01	6.821E-01	5.939E-02	-0.164
RB-83	2.049E-02		8.690E-02	1.413E-01	1.199E-02	0.145
RB-84	-6.326E-03		7.388E-02	1.196E-01	1.079E-02	-0.053
KR-85	1.925E+01		1.036E+01	1.678E+01	1.423E+00	1.147
SR-85	9.877E-02		5.315E-02	8.607E-02	7.298E-03	1.147
RB-86	5.642E-01		7.960E-01	1.398E+00	1.204E-01	0.404
Y-88	-1.215E-02		4.181E-02	6.367E-02	5.237E-03	-0.191
ZR-88	-1.164E-02		3.650E-02	5.783E-02	4.656E-03	-0.201
Y-91	6.605E+00		2.081E+01	3.592E+01	2.943E+00	0.184
NB-94	2.412E-02		3.860E-02	6.720E-02	5.641E-03	0.359
NB-95	-2.107E-02		4.679E-02	7.397E-02	6.410E-03	-0.285
NB-95M	7.759E-02		1.504E-01	2.269E-01	2.327E-02	0.342
ZR-95	4.829E-02		7.753E-02	1.353E-01	1.285E-02	0.357

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	9.576E-03		6.750E-02	Half-Life too short		
ZR-97	2.600E+00		1.028E+00	Half-Life too short		
MO-99	7.199E+00		1.367E+01	2.358E+01	3.572E+00	0.305
TC-99M	-3.442E+10		2.316E+10	Half-Life too short		
RH-101	2.205E-02		3.900E-02	6.561E-02	5.773E-03	0.336
RH-102	-3.771E-03		3.414E-02	5.427E-02	4.563E-03	-0.069
RU-103	2.578E-02		4.761E-02	7.940E-02	1.117E-02	0.325
RH-106	-1.680E-01		3.704E-01	5.950E-01	7.847E-02	-0.282
RU-106	-1.680E-01		3.700E-01	5.950E-01	4.970E-02	-0.282
AG-108M	6.575E-03		3.863E-02	6.309E-02	5.440E-03	0.104
AG-110M	-1.035E-03		4.598E-02	6.636E-02	5.627E-03	-0.016
IN-111	3.379E-01		1.312E+00	1.948E+00	1.774E-01	0.173
IN-113M	-2.931E-02		5.315E-02	8.276E-02	6.893E-03	-0.354
SN-113	-2.931E-02		5.315E-02	8.276E-02	6.893E-03	-0.354
IN-114M	-2.876E-02		2.260E-01	3.313E-01	2.892E-02	-0.087
CD-115	4.781E+00		1.189E+01	2.065E+01	1.753E+00	0.232
SN-117M	-2.648E-02		6.112E-02	1.013E-01	8.628E-03	-0.261
SB-122	2.263E+00		2.292E+00	4.122E+00	3.495E-01	0.549
I-123	-5.337E+00		3.417E+00	Half-Life too short		
TE-123M	-2.490E-02		3.189E-02	5.203E-02	4.457E-03	-0.479
I-124	-1.137E-01		7.401E-01	1.153E+00	9.693E-02	-0.099
SB-124	-2.434E-03		9.320E-02	1.517E-01	1.345E-02	-0.016
SB-125	-5.819E-02		1.118E-01	1.733E-01	1.458E-02	-0.336
TE-125M	3.818E+00		1.072E+01	1.733E+01	1.796E+00	0.220
I-126	3.911E-01	+	2.635E-01	3.879E-01	3.187E-02	1.008
SB-126	-1.128E-01		1.963E-01	2.613E-01	2.215E-02	-0.432
SB-127	-1.140E-01		1.409E+00	2.322E+00	2.592E-01	-0.049
XE-127	-6.723E-02		5.531E-02	8.718E-02	7.708E-03	-0.771
I-131	3.754E-02		1.322E-01	2.193E-01	1.965E-02	0.171
TE-132	9.474E-02		7.980E-01	1.335E+00	2.129E-01	0.071
BA-133	-4.032E-03		5.869E-02	8.320E-02	1.097E-02	-0.048
I-133	-5.189E-03		3.344E-03	Half-Life too short		
CS-134	4.373E-02		6.205E-02	1.064E-01	9.402E-03	0.411
CS-135	-7.149E-03		1.843E-01	2.666E-01	2.779E-02	-0.027
I-135	2.435E+09		3.290E+09	Half-Life too short		
CS-136	-1.887E-03		1.259E-01	2.033E-01	1.848E-02	-0.009
CE-139	1.105E-02		3.410E-02	5.819E-02	4.956E-03	0.190
BA-140	-9.381E-03		2.722E-01	4.572E-01	1.514E-01	-0.021
LA-140	-1.918E-02		9.637E-02	1.490E-01	1.285E-02	-0.129
CE-141	6.958E-02		6.824E-02	1.196E-01	1.040E-02	0.582
CE-143	3.025E-04		9.646E-05	Half-Life too short		
CE-144	9.825E-03		2.380E-01	3.769E-01	5.867E-02	0.026
PM-144	-7.839E-03		3.690E-02	6.007E-02	5.026E-03	-0.130
PR-144	-5.312E-01		2.501E+00	4.070E+00	3.405E-01	-0.130
PM-146	2.506E-02		5.063E-02	8.448E-02	8.874E-03	0.297
ND-147	-3.492E-01		5.890E-01	9.404E-01	1.399E-01	-0.371
PM-149	-4.737E+01		1.034E+02	1.652E+02	2.616E+01	-0.287
EU-152	-9.665E-03		1.261E-01	1.789E-01	1.654E-02	-0.054

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	3.141E-02		1.040E-01	1.492E-01	1.325E-02	0.210
EU-154	1.339E-03		1.384E-01	2.313E-01	2.576E-02	0.006
EU-155	1.827E-02		1.217E-01	1.954E-01	1.719E-02	0.093
TB-160	4.833E-02		1.519E-01	2.570E-01	2.318E-02	0.188
HO-166M	4.103E-02		6.880E-02	1.197E-01	1.010E-02	0.343
TM-171	-2.964E+01		3.859E+01	5.337E+01	4.204E+00	-0.555
LU-176	-7.081E-03		2.935E-02	4.579E-02	4.144E-03	-0.155
LU-177	1.158E+00	+	1.752E+00	2.218E+00	1.971E-01	0.522
LU-177M	-2.136E-01		2.203E-01	3.308E-01	2.703E-02	-0.646
HF-181	-5.398E-02		5.062E-02	7.335E-02	6.180E-03	-0.736
W-181	1.671E-01		4.864E-01	7.144E-01	5.577E-02	0.234
TA-182	6.091E-02		2.256E-01	3.868E-01	3.188E-02	0.157
RE-183	3.761E-02		1.243E-01	2.121E-01	1.806E-02	0.177
RE-184	1.747E-01		2.676E-01	4.573E-01	4.174E-02	0.382
OS-185	1.332E-03		4.985E-02	8.328E-02	6.881E-03	0.016
RE-188	-3.028E-02		1.879E-01	3.155E-01	2.687E-02	-0.096
W-188	2.913E+00		9.030E+00	1.338E+01	1.220E+00	0.218
IR-192	1.146E-03		4.139E-02	6.796E-02	6.123E-03	0.017
AU-195	3.251E-01		2.831E-01	4.470E-01	3.947E-02	0.727
TL-200	-2.129E-04		2.736E-04	Half-Life too short		
TL-201	-8.944E-01		8.077E+00	1.355E+01	1.155E+00	-0.066
TL-202	-2.958E-03		7.792E-02	1.252E-01	1.038E-02	-0.024
HG-203	3.616E-02		4.803E-02	8.210E-02	7.698E-03	0.440
BI-207	1.169E-02		6.097E-02	1.006E-01	8.719E-03	0.116
TL-207	-2.826E-01		7.967E-01	1.275E+00	2.277E-01	-0.222
PO-209	-4.893E+00		8.800E+00	1.351E+01	1.223E+00	-0.362
BI-210	5.986E-01		5.011E+00	8.072E+00	7.620E-01	0.074
PB-210	5.986E-01		5.011E+00	8.072E+00	7.620E-01	0.074
PO-210	5.986E-01		5.011E+00	8.072E+00	6.920E-01	0.074
PB-211	-3.180E-01		1.166E+00	1.824E+00	1.142E+00	-0.174
BI-212	1.273E+00	+	7.740E-01	7.843E-01	7.772E-02	1.623
PO-215	-2.826E-01		7.967E-01	1.275E+00	2.277E-01	-0.222
RN-219	3.208E-01		5.134E-01	8.619E-01	1.270E-01	0.372
RN-220	-7.175E+00		2.872E+01	4.735E+01	4.019E+00	-0.152
RA-223	-2.826E-01		7.967E-01	1.275E+00	2.277E-01	-0.222
AC-227	-2.744E-01		4.577E-01	7.315E-01	1.144E-01	-0.375
TH-227	-2.744E-01		4.584E-01	7.315E-01	1.340E-01	-0.375
TH-229	3.423E-01		5.739E-01	9.844E-01	8.624E-02	0.348
PA-231	-4.875E-01		1.692E+00	2.738E+00	4.239E-01	-0.178
TH-231	-2.826E-01		7.967E-01	1.275E+00	2.277E-01	-0.222
U-231	-1.289E+00		1.428E+00	1.922E+00	1.719E-01	-0.671
PA-233	5.870E-03		7.220E-02	1.190E-01	1.102E-02	0.049
PA-234	5.551E-02		3.326E-01	5.513E-01	1.044E-01	0.101
PA-234M	5.428E+00		5.565E+00	9.751E+00	9.939E-01	0.557
U-235	-8.610E-02		2.397E-01	3.944E-01	6.890E-02	-0.218
NP-236	1.248E-02		8.915E-02	1.513E-01	1.288E-02	0.082
NP-239	3.627E-03		2.210E-01	3.514E-01	3.060E-02	0.010
AM-241	1.190E-02		1.997E-01	2.904E-01	2.393E-02	0.041

Sample ID : G245960008 Acquisition date : 12-FEB-2010 15:53:44

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.600E-02		1.085E-01	1.696E-01	1.477E-02	-0.271
AM-246	5.056E-02		1.512E-01	2.539E-01	2.185E-02	0.199
CM-247	2.988E-02		4.478E-02	7.565E-02	6.135E-03	0.395
CF-249	4.416E-02		4.864E-02	8.337E-02	6.762E-03	0.530
CF-251	1.398E-02		1.402E-01	2.367E-01	2.037E-02	0.059

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960008           *
* Acquisition date  : 12-FEB-2010 15:53:44 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.12      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960008           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.2338E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.202E+01	2.547E+00	2.769E-01	1.300E+00
CD-109	3.099E+00	9.933E-01	7.288E-01	5.068E-01
SN-126	3.046E-01	9.763E-02	7.201E-02	4.981E-02
BA-137M	2.559E-01	6.440E-02	3.221E-02	3.286E-02
CS-137	2.705E-01	6.809E-02	3.405E-02	3.474E-02
TL-208	5.658E-01	1.074E-01	3.046E-02	5.478E-02
BI-211	4.065E+00	6.637E-01	1.929E-01	3.386E-01
PB-212	1.644E+00	2.061E-01	5.347E-02	1.052E-01
PO-212	1.644E+00	2.061E-01	5.347E-02	1.052E-01
BI-214	1.206E+00	2.092E-01	5.954E-02	1.068E-01
PB-214	1.414E+00	2.419E-01	6.953E-02	1.234E-01
PO-214	1.414E+00	2.419E-01	6.953E-02	1.234E-01
PO-216	1.644E+00	2.061E-01	5.347E-02	1.052E-01
PO-218	1.414E+00	2.419E-01	6.953E-02	1.234E-01
RA-224	4.843E+00	1.296E+00	6.086E-01	6.611E-01
RA-226	1.206E+00	2.092E-01	5.954E-02	1.068E-01
AC-228	1.585E+00	3.518E-01	1.141E-01	1.795E-01
RA-228	1.585E+00	3.518E-01	1.141E-01	1.795E-01
TH-228	1.669E+00	2.093E-01	5.429E-02	1.068E-01
TH-230	1.206E+00	2.092E-01	5.954E-02	1.068E-01
TH-232	1.585E+00	3.518E-01	1.141E-01	1.795E-01
TH-234	3.124E+00	2.494E+00	1.235E+00	1.272E+00
U-234	1.206E+00	2.092E-01	5.954E-02	1.068E-01
NP-237	8.945E-01	3.390E-01	2.329E-01	1.730E-01
U-238	3.124E+00	2.494E+00	1.235E+00	1.272E+00
AM-243	4.101E-01	9.457E-02	4.976E-02	4.825E-02
ANH-511	1.368E-01	7.876E-02	2.798E-02	4.018E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	4.121E-01	3.738E-01	3.350E-01	1.907E-01	NOT IDENT.
NA-22	-1.132E-02	4.963E-02	4.128E-02	2.532E-02	NOT IDENT.
NA-24	-1.438E+05	8.575E+05	0.000E+00	4.375E+05	SHORT HLIF
AL-26	3.759E-03	3.295E-02	2.796E-02	1.681E-02	NOT IDENT.
TI-44	3.754E-01	6.525E-02	4.526E-02	3.329E-02	FAIL ABUN
SC-46	4.070E-02	4.645E-02	4.210E-02	2.370E-02	FAIL ABUN
V-48	1.809E-02	8.243E-02	7.018E-02	4.205E-02	NOT IDENT.
CR-51	-3.748E-01	4.342E-01	3.497E-01	2.215E-01	NOT IDENT.
MN-52	8.964E-02	2.731E-01	2.411E-01	1.393E-01	NOT IDENT.
MN-54	-2.059E-04	4.116E-02	3.468E-02	2.100E-02	NOT IDENT.
CO-56	-2.091E-02	4.198E-02	3.343E-02	2.142E-02	FAIL ABUN
CO-57	-1.451E-02	2.814E-02	2.290E-02	1.436E-02	NOT IDENT.
CO-58	4.453E-03	4.199E-02	3.586E-02	2.142E-02	NOT IDENT.
FE-59	-2.801E-03	9.743E-02	8.007E-02	4.971E-02	NOT IDENT.
CO-60	2.391E-02	4.260E-02	3.867E-02	2.173E-02	NOT IDENT.
ZN-65	9.548E-02	9.993E-02	8.212E-02	5.098E-02	NOT IDENT.
GE-68	1.199E+00	1.226E+00	1.132E+00	6.255E-01	NOT IDENT.
AS-73	-3.856E-01	1.074E+00	9.162E-01	5.478E-01	NOT IDENT.
AS-74	4.583E-03	9.403E-02	8.160E-02	4.798E-02	NOT IDENT.
SE-75	-2.419E-02	5.329E-02	3.887E-02	2.719E-02	NOT IDENT.
BR-77	2.205E+00	1.298E+01	1.085E+01	6.623E+00	FAIL ABUN
SR-82	-1.120E-01	4.162E-01	3.437E-01	2.123E-01	NOT IDENT.
RB-83	2.049E-02	8.516E-02	7.157E-02	4.345E-02	NOT IDENT.
RB-84	-6.326E-03	7.240E-02	6.018E-02	3.694E-02	NOT IDENT.
KR-85	1.925E+01	1.015E+01	8.502E+00	5.180E+00	NOT IDENT.
SR-85	9.877E-02	5.208E-02	4.361E-02	2.657E-02	NOT IDENT.
RB-86	5.642E-01	7.801E-01	7.014E-01	3.980E-01	NOT IDENT.
Y-88	-1.215E-02	4.097E-02	3.171E-02	2.090E-02	NOT IDENT.
ZR-88	-1.164E-02	3.577E-02	2.940E-02	1.825E-02	NOT IDENT.
Y-91	6.605E+00	2.040E+01	1.799E+01	1.041E+01	NOT IDENT.
NB-94	2.412E-02	3.783E-02	3.391E-02	1.930E-02	NOT IDENT.
NB-95	-2.107E-02	4.585E-02	3.728E-02	2.339E-02	NOT IDENT.
NB-95M	7.759E-02	1.474E-01	1.161E-01	7.519E-02	NOT IDENT.
ZR-95	4.829E-02	7.598E-02	6.819E-02	3.877E-02	NOT IDENT.
NB-97	9.576E+03	1.323E+05	0.000E+00	6.750E+04	SHORT HLIF
ZR-97	2.600E+06	2.015E+06	0.000E+00	1.028E+06	SHORT HLIF
MO-99	7.199E+00	1.339E+01	1.189E+01	6.833E+00	NOT IDENT.
TC-99M	-3.442E+16	4.540E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.205E-02	3.822E-02	3.366E-02	1.950E-02	NOT IDENT.
RH-102	-3.771E-03	3.346E-02	2.753E-02	1.707E-02	NOT IDENT.
RU-103	2.578E-02	4.666E-02	4.025E-02	2.380E-02	FAIL ABUN
RH-106	-1.680E-01	3.630E-01	3.007E-01	1.852E-01	FAIL ABUN
RU-106	-1.680E-01	3.626E-01	3.007E-01	1.850E-01	FAIL ABUN
AG-108M	6.575E-03	3.786E-02	3.204E-02	1.932E-02	NOT IDENT.
AG-110M	-1.035E-03	4.506E-02	3.351E-02	2.299E-02	NOT IDENT.
IN-111	3.379E-01	1.286E+00	9.969E-01	6.560E-01	NOT IDENT.
IN-113M	-2.931E-02	5.209E-02	4.208E-02	2.658E-02	NOT IDENT.
SN-113	-2.931E-02	5.209E-02	4.208E-02	2.658E-02	NOT IDENT.
IN-114M	-2.876E-02	2.215E-01	1.700E-01	1.130E-01	NOT IDENT.
CD-115	4.781E+00	1.165E+01	1.046E+01	5.945E+00	NOT IDENT.
SN-117M	-2.648E-02	5.990E-02	5.214E-02	3.056E-02	NOT IDENT.
SB-122	2.263E+00	2.246E+00	2.086E+00	1.146E+00	NOT IDENT.
I-123	-5.337E+06	6.698E+06	0.000E+00	3.417E+06	SHORT HLIF
TE-123M	-2.490E-02	3.125E-02	2.677E-02	1.594E-02	NOT IDENT.
I-124	-1.137E-01	7.253E-01	5.828E-01	3.700E-01	NOT IDENT.
SB-124	-2.434E-03	9.134E-02	7.564E-02	4.660E-02	FAIL ABUN
SB-125	-5.819E-02	1.096E-01	8.801E-02	5.591E-02	FAIL ABUN
TE-125M	3.818E+00	1.050E+01	8.959E+00	5.358E+00	NOT IDENT.
I-126	3.911E-01	2.582E-01	1.959E-01	1.317E-01	FAIL ABUN
SB-126	-1.128E-01	1.924E-01	1.318E-01	9.817E-02	FAIL ABUN
SB-127	-1.140E-01	1.380E+00	1.172E+00	7.043E-01	NOT IDENT.
XE-127	-6.723E-02	5.421E-02	4.471E-02	2.766E-02	NOT IDENT.
I-131	3.754E-02	1.296E-01	1.116E-01	6.610E-02	NOT IDENT.
TE-132	9.474E-02	7.820E-01	6.837E-01	3.990E-01	NOT IDENT.
BA-133	-4.032E-03	5.752E-02	4.236E-02	2.934E-02	NOT IDENT.
I-133	-5.189E+03	6.554E+03	0.000E+00	3.344E+03	SHORT HLIF
CS-134	4.373E-02	6.081E-02	5.359E-02	3.103E-02	NOT IDENT.
CS-135	-7.149E-03	1.806E-01	1.362E-01	9.215E-02	NOT IDENT.
I-135	2.435E+15	6.449E+15	0.000E+00	3.290E+15	SHORT HLIF
CS-136	-1.887E-03	1.234E-01	1.020E-01	6.297E-02	FAIL ABUN
CE-139	1.105E-02	3.342E-02	2.992E-02	1.705E-02	NOT IDENT.
BA-140	-9.381E-03	2.667E-01	2.315E-01	1.361E-01	NOT IDENT.
LA-140	-1.918E-02	9.444E-02	7.433E-02	4.818E-02	NOT IDENT.
CE-141	6.958E-02	6.688E-02	6.161E-02	3.412E-02	NOT IDENT.
CE-143	3.025E+02	1.891E+02	0.000E+00	9.646E+01	SHORT HLIF
CE-144	9.825E-03	2.332E-01	1.943E-01	1.190E-01	NOT IDENT.
PM-144	-7.839E-03	3.616E-02	3.031E-02	1.845E-02	NOT IDENT.
PR-144	-5.312E-01	2.451E+00	2.054E+00	1.250E+00	NOT IDENT.

PM-146	2.506E-02	4.962E-02	4.287E-02	2.532E-02	NOT IDENT.
ND-147	-3.492E-01	5.772E-01	4.763E-01	2.945E-01	FAIL ABUN
PM-149	-4.737E+01	1.013E+02	8.436E+01	5.168E+01	NOT IDENT.
EU-152	-9.665E-03	1.235E-01	9.114E-02	6.303E-02	FAIL ABUN
GD-153	3.141E-02	1.020E-01	7.726E-02	5.202E-02	NOT IDENT.
EU-154	1.339E-03	1.356E-01	1.158E-01	6.920E-02	NOT IDENT.
EU-155	1.827E-02	1.193E-01	1.011E-01	6.086E-02	FAIL ABUN
TB-160	4.833E-02	1.489E-01	1.293E-01	7.595E-02	FAIL ABUN
HO-166M	4.103E-02	6.742E-02	6.040E-02	3.440E-02	NOT IDENT.
TM-171	-2.964E+01	3.782E+01	2.777E+01	1.930E+01	NOT IDENT.
LU-176	-7.081E-03	2.876E-02	2.336E-02	1.468E-02	FAIL ABUN
LU-177	1.158E+00	1.717E+00	1.137E+00	8.761E-01	FAIL ABUN
LU-177M	-2.136E-01	2.159E-01	1.681E-01	1.102E-01	NOT IDENT.
HF-181	-5.398E-02	4.960E-02	3.719E-02	2.531E-02	NOT IDENT.
W-181	1.671E-01	4.767E-01	3.718E-01	2.432E-01	NOT IDENT.
TA-182	6.091E-02	2.211E-01	1.937E-01	1.128E-01	FAIL ABUN
RE-183	3.761E-02	1.218E-01	1.091E-01	6.215E-02	FAIL ABUN
RE-184	1.747E-01	2.623E-01	2.339E-01	1.338E-01	NOT IDENT.
OS-185	1.332E-03	4.885E-02	4.207E-02	2.492E-02	NOT IDENT.
RE-188	-3.028E-02	1.841E-01	1.624E-01	9.394E-02	NOT IDENT.
W-188	2.913E+00	8.849E+00	6.831E+00	4.515E+00	FAIL ABUN
IR-192	1.146E-03	4.056E-02	3.466E-02	2.069E-02	FAIL ABUN
AU-195	3.251E-01	2.775E-01	2.314E-01	1.416E-01	FAIL ABUN
TL-200	-2.129E+02	5.362E+02	0.000E+00	2.736E+02	SHORT HLIF
TL-201	-8.944E-01	7.915E+00	6.967E+00	4.038E+00	NOT IDENT.
TL-202	-2.958E-03	7.636E-02	6.355E-02	3.896E-02	NOT IDENT.
HG-203	3.616E-02	4.707E-02	4.193E-02	2.402E-02	NOT IDENT.
BI-207	1.169E-02	5.975E-02	5.047E-02	3.048E-02	FAIL ABUN
TL-207	-2.826E-01	7.807E-01	6.498E-01	3.983E-01	FAIL ABUN
PO-209	-4.893E+00	8.624E+00	6.795E+00	4.400E+00	NOT IDENT.
BI-210	5.986E-01	4.911E+00	4.218E+00	2.506E+00	NOT IDENT.
PB-210	5.986E-01	4.911E+00	4.218E+00	2.506E+00	NOT IDENT.
PO-210	5.986E-01	4.911E+00	4.218E+00	2.506E+00	NOT IDENT.
PB-211	-3.180E-01	1.142E+00	9.273E-01	5.829E-01	NOT IDENT.
BI-212	1.273E+00	7.585E-01	3.956E-01	3.870E-01	FAIL ABUN
PO-215	-2.826E-01	7.807E-01	6.498E-01	3.983E-01	FAIL ABUN
RN-219	3.208E-01	5.032E-01	4.381E-01	2.567E-01	FAIL ABUN
RN-220	-7.175E+00	2.814E+01	2.397E+01	1.436E+01	NOT IDENT.
RA-223	-2.826E-01	7.807E-01	6.498E-01	3.983E-01	FAIL ABUN
AC-227	-2.744E-01	4.485E-01	3.740E-01	2.288E-01	FAIL ABUN
TH-227	-2.744E-01	4.493E-01	3.740E-01	2.292E-01	FAIL ABUN
TH-229	3.423E-01	5.624E-01	5.052E-01	2.869E-01	FAIL ABUN
PA-231	-4.875E-01	1.658E+00	1.398E+00	8.458E-01	FAIL ABUN
TH-231	-2.826E-01	7.807E-01	6.498E-01	3.983E-01	FAIL ABUN
U-231	-1.289E+00	1.400E+00	9.953E-01	7.142E-01	FAIL ABUN
PA-233	5.870E-03	7.076E-02	6.072E-02	3.610E-02	FAIL ABUN
PA-234	5.551E-02	3.259E-01	2.771E-01	1.663E-01	FAIL ABUN
PA-234M	5.428E+00	5.454E+00	4.897E+00	2.783E+00	NOT IDENT.
U-235	-8.610E-02	2.349E-01	2.032E-01	1.199E-01	FAIL ABUN
NP-236	1.248E-02	8.737E-02	7.784E-02	4.458E-02	NOT IDENT.
NP-239	3.627E-03	2.166E-01	1.815E-01	1.105E-01	FAIL ABUN
AM-241	1.190E-02	1.957E-01	1.513E-01	9.987E-02	NOT IDENT.
CM-243	-4.600E-02	1.063E-01	8.772E-02	5.426E-02	FAIL ABUN
AM-246	5.056E-02	1.482E-01	1.274E-01	7.561E-02	NOT IDENT.
CM-247	2.988E-02	4.389E-02	3.845E-02	2.239E-02	NOT IDENT.
CF-249	4.416E-02	4.767E-02	4.240E-02	2.432E-02	NOT IDENT.
CF-251	1.398E-02	1.374E-01	1.216E-01	7.009E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	265.1197
46.50	265.1197
46.50	265.1197
48.70	281.7688
49.72	256.5957
51.35	290.5266
52.39	284.9113
52.97	296.6468
53.15	296.7508
53.44	294.8431
54.07	269.2180
56.28	294.3668
56.28	294.3682
57.37	0.0000
57.53	279.9937
57.53	279.9947
57.60	280.0301
57.98	282.7414
57.98	282.7414
59.32	286.5911
59.32	286.5911
59.40	286.6328
59.54	278.8298
59.72	278.9217
60.01	266.4556
61.10	292.2580
61.14	292.2788
61.30	292.3632
63.00	312.7991
63.29	312.9591
63.29	312.9591
63.58	313.1190
64.28	365.4004
65.12	332.5225
65.20	332.5688
65.20	332.5688
66.05	363.3333
66.72	386.0845
66.83	374.9884
66.91	375.0386
67.20	389.5936
67.20	389.5936
67.75	362.7875
67.85	358.0544
68.90	367.6540
68.90	367.6540
69.30	381.3589
69.67	389.6117
70.82	367.8620
70.82	367.8620
70.83	367.8672
72.80	378.7195
72.87	378.7625
72.87	378.7625
74.67	341.6012
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.81	341.6786
74.81	341.6786
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75.70	342.1590
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77.11	342.9168

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77.11	342.9168
77.11	342.9168
77.11	342.9168
77.11	342.9168
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79.80	334.0243
79.80	334.0243
80.11	334.1823
80.18	334.2167
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80.30	355.4758
80.57	355.6222
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81.07	403.2350
81.07	403.2350
81.07	403.2350
81.07	403.2350
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83.78	326.1929
83.78	326.1929
84.21	329.6813
84.90	328.3737
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86.50	422.9485
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86.72	434.6074
86.79	434.6497
86.94	434.7444
87.30	358.0830
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87.30	358.0830
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87.88	358.3814
88.03	358.4594
88.36	358.6285
88.47	358.6849
89.95	359.4427
91.11	360.0313
92.29	360.6249
92.38	360.6713
92.38	360.6713
93.35	361.1571
94.00	361.4805
94.67	284.6773
94.67	284.6786
94.90	319.7402
94.90	319.7402
94.90	319.7402
94.90	319.7402
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95.87	358.5165
96.73	333.8943
97.43	299.1168
98.44	274.4227
98.44	274.4240
98.88	278.6037
99.55	279.2994
99.55	279.2994
99.86	283.8845
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100.10	307.4546
103.18	281.7558
103.76	283.0924
105.00	271.1679
105.31	275.7783
108.00	274.4651
109.28	281.6942

111.00	283.4333
111.00	283.4333
111.76	322.2821
112.95	296.6159
115.19	289.4500
116.30	276.1457
117.00	277.5192
117.00	277.5192
117.66	300.5984
121.11	277.7274
121.62	258.3721
121.78	267.6090
122.06	267.6961
122.32	265.4794
122.32	265.4794
122.32	265.4794
122.32	265.4794
123.07	274.9130
127.23	305.1245
129.76	279.3378
131.20	334.3535
133.02	303.6185
133.54	273.5308
135.34	234.4182
136.00	231.0846
136.25	241.6548
136.48	241.7148
140.51	280.5877
140.51	0.0000
142.18	234.3837
142.65	243.3172
143.76	288.6148
144.24	279.9290
144.24	279.9290
144.24	279.9290
144.24	279.9290
145.22	251.9299
145.44	251.9864
147.16	305.5811
152.43	262.7051
152.70	270.7941
153.22	276.2830
154.21	278.3439
154.21	278.3439
154.21	278.3439
154.21	278.3439
155.03	275.0010
156.02	281.5274
158.56	277.7564
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159.00	289.5300
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161.27	270.4090
162.32	268.8860
162.64	268.9704
163.35	276.3567
163.89	274.6983
165.85	269.8031
167.43	276.5351
171.28	256.6804
171.86	259.5410
172.10	259.5999
176.55	244.2654
176.60	244.2756
181.06	243.0729
184.41	240.8670
185.71	223.3167
186.00	223.3742
190.27	240.6379
192.34	237.8672
193.63	232.2715
197.04	259.8660
198.01	234.0736
198.60	233.2616
200.40	257.8172
201.83	296.3321
202.84	290.0558
205.31	233.2707

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208.81	280.4338
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209.75	277.6468
210.97	249.3810
215.65	240.0207
216.55	237.6804
218.09	215.3086
222.10	222.6254
223.80	198.2576
226.40	200.5604
227.00	194.9480
227.08	192.1074
227.20	192.1259
228.16	211.3041
228.18	211.3075
228.18	211.3075
231.56	0.0000
235.69	199.1212
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236.00	206.8292
238.63	205.3190
238.63	205.3190
238.63	205.3190
238.63	205.3190
239.00	205.3761
240.98	205.6798
241.98	205.8333
241.98	205.8333
241.98	205.8333
244.69	172.7072
245.39	166.6248
247.94	160.0919
248.90	187.5482
249.79	198.3107
252.40	172.5176
252.85	165.7867
252.85	165.7867
254.15	0.0000
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256.20	204.0880
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260.90	153.0903
262.80	169.8927
264.65	157.9901
268.24	145.8393
268.79	142.7585
269.46	130.2691
269.46	130.2691
269.46	130.2691
269.46	130.2691
271.23	146.3377
273.65	215.6412
276.40	160.8492
277.35	164.5606
277.60	167.6888
277.60	167.6888
278.00	169.7062
278.60	157.9321
279.20	162.9330
279.53	169.8820
280.46	184.8143
281.68	174.0852
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284.30	156.5535
285.00	146.7128
285.90	152.7522
286.10	145.8291
286.10	145.8291
287.40	139.9953
288.45	0.0000
290.67	135.3214
290.80	135.3339
291.72	178.4289
293.26	0.0000
293.70	145.1623
295.21	167.6591
295.21	167.6591

295.21	167.6591
295.96	167.7385
296.50	167.7975
297.23	167.8770
298.57	168.0231
299.80	168.1538
299.80	168.1538
300.09	168.1871
300.09	168.1871
300.09	168.1871
300.09	168.1871
300.12	168.1897
301.29	157.0943
302.84	144.4131
303.76	160.5518
303.91	160.5688
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304.40	144.5559
304.84	141.3822
306.84	143.6310
308.46	133.8564
311.98	130.1161
316.51	145.6567
318.01	137.6913
319.02	142.8417
319.41	147.9426
320.08	157.1262
323.87	157.4905
323.87	157.4905
323.87	157.4905
323.87	157.4905
325.23	164.7389
328.77	141.6512
333.44	140.6171
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334.20	143.9539
334.30	143.9625
338.28	117.8603
338.28	117.8603
338.28	117.8603
338.28	117.8603
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338.32	117.8620
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340.57	118.0182
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351.07	125.5540
351.92	134.2926
351.92	134.2926
351.92	134.2926
355.39	0.0000
356.01	129.2218
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366.43	114.5688
367.43	114.6326
367.94	0.0000
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374.96	99.4125
383.85	131.4411
387.95	106.4371
388.63	115.9653
391.69	122.4889
391.69	122.4889
392.90	117.2854
398.62	114.4600
400.65	120.9476
401.10	114.6099
401.81	112.5280
402.60	106.2027
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413.65	134.5806
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415.30	114.3830

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427.08	110.7640
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433.93	93.8765
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439.56	86.5637
439.89	82.2483
443.98	83.4973
444.90	77.0257
445.03	77.0301
445.03	77.0301
445.03	77.0301
445.03	77.0301
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468.07	66.6920
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475.35	91.3524
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477.59	72.7172
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511.85	87.2733
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513.99	84.2190
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563.23	62.2077
563.90	60.3942
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569.32	72.4501
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569.67	66.9565
573.80	75.3375
574.00	80.8564
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578.91	49.1016
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591.81	58.2996
592.07	57.3803
593.00	60.1774
595.88	62.0993
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602.71	68.5392
603.60	66.6259
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604.70	62.0052
609.31	63.3582

609.31	63.3582
609.31	63.3582
609.31	63.3582
610.33	63.3831
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614.37	70.0159
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621.84	76.7699
631.29	60.1328
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661.65	60.8125
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666.33	60.9156
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677.61	59.2512
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692.80	56.6881
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696.49	61.5719
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698.33	63.5379
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699.00	70.2928
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722.89	58.2524
722.95	58.2539
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763.93	63.9764
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766.42	50.2380
766.84	46.3035
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783.80	53.4924
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792.07	84.4231

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881.50	39.8074
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896.60	54.3366
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903.28	48.7919
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911.07	41.1797
911.07	41.1797
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969.11	38.7136
969.11	38.7136
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1001.68	40.1106
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1021.30	0.0000
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1038.76	0.0000
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1046.59	46.9928
1048.07	42.7363

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1050.47	49.1782
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1077.35	23.6812
1078.86	32.3042
1085.78	37.7532
1099.22	37.8796
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1112.84	39.8177
1115.52	27.1655
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1120.29	34.8125
1120.29	34.8125
1120.29	34.8125
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1147.95	0.0000
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1175.09	37.6617
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1205.75	0.0000
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1238.25	35.1515
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1274.54	41.3431
1291.56	32.0673
1298.22	0.0000
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1325.50	34.2026
1332.49	22.8359
1333.61	13.3244
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1362.66	0.0000
1365.15	21.0780
1368.21	23.0088
1368.53	0.0000
1376.25	31.6908
1384.27	32.7051
1394.10	23.1328
1395.20	26.0299
1407.95	22.2316
1434.06	20.4070
1436.60	24.3062
1457.56	0.0000
1460.81	15.6309
1489.15	20.6309
1509.49	14.7943
1596.49	17.5007
1620.62	17.1211
1678.03	0.0000
1691.02	14.2791
1691.02	14.2791
1706.46	0.0000
1750.46	0.0000
1764.49	10.6251
1764.49	10.6251
1764.49	10.6251
1764.49	10.6251
1770.23	10.6356
1771.40	12.4106
1791.20	0.0000
1808.65	9.3669

1836.01 13.5914

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960008

Total Uranium Activity	9.2527E+00	ug/g
Total Uranium Counting Unc.	7.4205E+00	ug/g
Total Uranium Tpu	3.7860E-06	ug/g
Total Uranium Mda	3.6751E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G245960008      *
*   ANALYST       : MXR1                      DETECTOR    : GAM01           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 15:53:44.15    SAMPLE ALQT:  123.380 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.144E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.378E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.790E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.832E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:55:05.73

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:54:12
Sample ID         : G245960009           Sample quantity  : 1.17960E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.65*	156	326	0.92	125.30	122	8	2.17E-02	22.0	
2	3	72.89	107	441	1.67	145.78	141	22	1.48E-02	41.8	1.30E+00
3	3	74.71	328	313	1.12	149.42	141	22	4.55E-02	11.0	
4	3	76.91*	541	322	1.10	153.81	141	22	7.52E-02	7.1	
5	0	86.83	166	391	1.06	173.67	171	7	2.30E-02	21.3	
6	0	93.23*	194	615	1.34	186.46	180	9	2.70E-02	24.8	
7	0	129.17	62	379	1.00	258.35	253	10	8.66E-03	59.8	
8	0	185.86*	150	313	1.08	371.72	367	9	2.08E-02	23.9	
9	0	209.19	80	282	1.44	418.38	413	10	1.12E-02	40.6	
10	4	238.44*	985	174	1.06	476.87	472	16	1.37E-01	3.9	1.15E+00
11	4	241.43	258	208	1.71	482.87	472	16	3.58E-02	14.4	
12	0	269.75	94	137	1.33	539.50	536	8	1.31E-02	23.8	
13	3	295.03*	313	114	1.17	590.06	586	19	4.35E-02	8.1	2.46E+00
14	3	299.65	90	184	2.02	599.30	586	19	1.25E-02	32.4	
15	0	338.12	206	129	1.31	676.24	671	9	2.87E-02	12.1	
16	0	351.62*	531	196	1.27	703.24	696	14	7.38E-02	7.1	
17	0	409.61	46	110	1.40	819.22	814	11	6.39E-03	46.5	
18	0	463.18	123	48	2.08	926.37	921	13	1.71E-02	15.0	
19	0	510.85*	130	120	2.06	1021.69	1015	14	1.81E-02	22.6	
20	0	582.94*	316	83	1.43	1165.88	1160	13	4.39E-02	8.4	
21	0	609.00*	389	105	1.61	1218.00	1211	16	5.40E-02	7.9	
22	0	661.77	135	100	1.41	1323.53	1316	16	1.87E-02	18.5	
23	0	727.34	55	63	1.41	1454.69	1449	11	7.63E-03	31.1	
24	0	795.76	73	60	2.50	1591.51	1582	23	1.01E-02	30.5	
25	0	911.01*	214	82	1.56	1822.03	1813	18	2.98E-02	12.2	
26	0	933.19	36	31	1.25	1866.38	1859	14	4.96E-03	37.3	
27	3	964.37	40	32	2.02	1928.73	1925	18	5.59E-03	28.7	1.28E+00
28	3	968.57*	123	48	1.96	1937.15	1925	18	1.71E-02	14.8	
29	0	1120.25	68	60	1.75	2240.51	2231	16	9.46E-03	28.2	
30	0	1460.52	604	18	1.97	2921.03	2912	18	8.39E-02	4.4	
31	0	1764.69*	43	11	2.82	3529.38	3521	14	5.95E-03	23.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:55:08

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:54:12
Sample ID : G245960009 Sample quantity : 117.96 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.17 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.872E+01	2.057E+00	5.586E-01	3.695E-02	33.506
CD-109	+	88.03	*	2.823E+00	1.233E+00	1.979E+00	1.954E-01	1.426
SN-126		64.28		-7.405E-02	7.821E-01	1.157E+00	1.780E-01	-0.064
	+	86.94		1.153E+00	6.867E-01	7.762E-01	3.230E-01	1.486
	+	87.57	*	2.775E-01	1.212E-01	1.851E-01	1.821E-02	1.499
BA-137M	+	661.65	*	2.461E-01	9.168E-02	6.893E-02	3.404E-03	3.570
CS-137	+	661.65	*	2.601E-01	9.692E-02	7.286E-02	3.619E-03	3.570
TL-208		277.35		4.532E-01	4.916E-01	8.193E-01	8.726E-02	0.553
	+	510.84		7.972E-01	3.698E-01	2.474E-01	2.482E-02	3.222
	+	583.14	*	5.533E-01	9.915E-02	6.883E-02	4.350E-03	8.039
		860.37		2.506E-01	3.338E-01	5.941E-01	4.543E-02	0.422
BI-211	+	72.87		6.842E+00	5.750E+00	5.766E+00	5.176E-01	1.187
	+	351.07	*	4.028E+00	6.317E-01	4.092E-01	2.641E-02	9.846
PB-212	+	74.81		2.373E+00	6.058E-01	6.509E-01	8.462E-02	3.646
	+	77.11		2.210E+00	3.727E-01	3.671E-01	3.352E-02	6.019
	+	87.30		1.283E+00	5.751E-01	8.723E-01	1.222E-01	1.471
	+	238.63	*	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
	+	300.09		2.286E+00	1.494E+00	1.428E+00	1.196E-01	1.600
PO-212	+	74.81		2.373E+00	6.058E-01	6.509E-01	8.462E-02	3.646
	+	77.11		2.210E+00	3.727E-01	3.671E-01	3.352E-02	6.019
	+	87.30		1.283E+00	5.751E-01	8.723E-01	1.222E-01	1.471
		115.19		2.194E+00	4.296E+00	7.218E+00	4.763E-01	0.304
	+	238.63	*	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
	+	300.09		2.286E+00	1.494E+00	1.428E+00	1.196E-01	1.600
BI-214	+	609.31	*	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
	+	1120.29		1.186E+00	6.764E-01	6.000E-01	5.480E-02	1.976
	+	1764.49		1.028E+00	4.854E-01	3.839E-01	2.248E-02	2.677
PB-214	+	74.81		4.089E+00	1.017E+00	1.122E+00	1.311E-01	3.646
	+	77.11		3.788E+00	7.010E-01	6.293E-01	7.484E-02	6.019
	+	87.30		2.198E+00	9.752E-01	1.494E+00	1.865E-01	1.471
	+	241.98		2.529E+00	7.580E-01	6.535E-01	5.303E-02	3.869
	+	295.21		1.396E+00	2.575E-01	2.548E-01	2.203E-02	5.481
	+	351.92	*	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
PO-214	+	74.81		4.089E+00	1.017E+00	1.122E+00	1.311E-01	3.646

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.788E+00	7.010E-01	6.293E-01	7.484E-02	6.019
	+	87.30		2.198E+00	9.752E-01	1.494E+00	1.865E-01	1.471
	+	241.98		2.529E+00	7.580E-01	6.535E-01	5.303E-02	3.869
	+	295.21		1.396E+00	2.575E-01	2.548E-01	2.203E-02	5.481
	+	351.92	*	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
PO-216	+	74.81		2.373E+00	6.058E-01	6.509E-01	8.462E-02	3.646
	+	77.11		2.210E+00	3.727E-01	3.671E-01	3.352E-02	6.019
	+	87.30		1.283E+00	5.751E-01	8.723E-01	1.222E-01	1.471
	+	238.63	*	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
	+	300.09		2.286E+00	1.494E+00	1.428E+00	1.196E-01	1.600
PO-218	+	74.81		4.089E+00	1.017E+00	1.122E+00	1.311E-01	3.646
	+	77.11		3.788E+00	7.010E-01	6.293E-01	7.484E-02	6.019
	+	87.30		2.198E+00	9.752E-01	1.494E+00	1.865E-01	1.471
	+	241.98		2.529E+00	7.580E-01	6.535E-01	5.303E-02	3.869
	+	295.21		1.396E+00	2.575E-01	2.548E-01	2.203E-02	5.481
	+	351.92	*	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
RA-224	+	240.98	*	4.795E+00	1.412E+00	1.332E+00	7.808E-02	3.599
RA-226	+	609.31	*	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
	+	1120.29		1.186E+00	6.764E-01	6.000E-01	5.480E-02	1.976
	+	1764.49		1.028E+00	4.854E-01	3.839E-01	2.248E-02	2.677
AC-228	+	338.32		1.723E+00	8.170E-01	4.640E-01	1.892E-01	3.713
	+	911.07	*	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
	+	969.11		1.706E+00	6.384E-01	4.236E-01	9.659E-02	4.027
RA-228	+	338.32		1.723E+00	8.170E-01	4.640E-01	1.892E-01	3.713
	+	911.07	*	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
	+	969.11		1.706E+00	6.384E-01	4.236E-01	9.659E-02	4.027
TH-228	+	74.81		2.409E+00	5.729E-01	6.608E-01	6.017E-02	3.646
	+	77.11		2.243E+00	3.783E-01	3.727E-01	3.403E-02	6.019
	+	87.30		1.303E+00	5.691E-01	8.856E-01	8.694E-02	1.471
	+	238.63	*	1.634E+00	1.756E-01	1.188E-01	8.760E-03	13.748
	+	300.09		2.320E+00	2.033E+00	1.450E+00	8.549E-01	1.600
TH-230	+	609.31	*	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
	+	1120.29		1.186E+00	6.764E-01	6.000E-01	5.480E-02	1.976
	+	1764.49		1.028E+00	4.854E-01	3.839E-01	2.248E-02	2.677
TH-232	+	338.32		1.723E+00	4.290E-01	4.640E-01	2.729E-02	3.713
	+	911.07	*	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
	+	969.11		1.706E+00	6.384E-01	4.236E-01	9.659E-02	4.027
TH-234	+	63.29	*	4.906E+00	2.333E+00	2.886E+00	5.247E-01	1.700
	+	92.38		2.079E+00	1.099E+00	9.397E-01	1.721E-01	2.212
U-234	+	609.31	*	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
	+	1120.29		1.186E+00	6.764E-01	6.000E-01	5.480E-02	1.976
	+	1764.49		1.028E+00	4.854E-01	3.839E-01	2.248E-02	2.677
NP-237	+	86.50	*	8.148E-01	3.936E-01	5.363E-01	1.224E-01	1.519
		95.87		-3.037E-01	1.321E+00	1.896E+00	4.667E-01	-0.160
U-238	+	63.29	*	4.906E+00	2.333E+00	2.886E+00	5.247E-01	1.700
	+	92.38		2.079E+00	1.048E+00	9.397E-01	8.543E-02	2.212
AM-243	+	74.67	*	3.847E-01	9.139E-02	1.059E-01	9.564E-03	3.633
	+	86.72		3.055E+01	1.335E+01	2.048E+01	2.000E+00	1.492
		117.66		-3.293E+00	4.607E+00	7.351E+00	4.713E-01	-0.448

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		2.583E+00	2.115E+01	3.478E+01	1.986E+00	0.074
ANH-511	+	511.00	*	1.722E-01	7.858E-02	5.345E-02	2.988E-03	3.222

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-4.871E-01	4.073E-01	6.085E-01	4.020E-02	-0.800
NA-22		1274.54	*	-1.310E-02	4.970E-02	7.828E-02	4.834E-03	-0.167
NA-24		1368.53	*	3.811E-01	4.970E-02	Half-Life too short		
AL-26		1129.67		-6.264E-01	2.017E+00	3.202E+00	1.995E-01	-0.196
		1808.65	*	-3.449E-03	3.124E-02	5.029E-02	2.889E-03	-0.069
TI-44		67.85		9.260E-02	7.497E-02	1.004E-01	8.958E-03	0.922
	+	78.38	*	4.078E-01	6.877E-02	9.661E-02	8.881E-03	4.220
SC-46		889.25	*	2.276E-02	4.555E-02	7.956E-02	5.703E-03	0.286
	+	1120.51		2.030E-01	1.150E-01	1.488E-01	9.357E-03	1.365
V-48		944.10		6.494E-02	9.810E-01	1.641E+00	1.171E-01	0.040
		983.50	*	1.631E-02	7.587E-02	1.287E-01	9.013E-03	0.127
		1312.09		4.473E-02	9.678E-02	1.665E-01	1.039E-02	0.269
CR-51		320.08	*	2.492E-01	4.691E-01	8.081E-01	5.324E-02	0.308
MN-52		744.21		2.575E-01	3.050E-01	5.278E-01	3.010E-02	0.488
		848.13		-6.514E-01	7.800E+00	1.292E+01	8.707E-01	-0.050
		935.52		2.754E-01	3.251E-01	5.224E-01	3.743E-02	0.527
		1246.25		-3.127E+00	8.238E+00	1.285E+01	7.837E-01	-0.243
		1333.61		-9.678E-01	5.201E+00	8.193E+00	5.147E-01	-0.118
		1434.06	*	-1.055E-02	2.280E-01	3.651E-01	2.298E-02	-0.029
MN-54		834.83	*	1.307E-02	5.233E-02	8.910E-02	5.881E-03	0.147
CO-56		846.75	*	-1.343E-02	4.477E-02	7.256E-02	4.878E-03	-0.185
		977.42		2.129E+00	3.387E+00	5.972E+00	4.196E-01	0.356
		1037.82		2.302E-01	3.528E-01	6.228E-01	4.571E-02	0.370
		1175.09		1.502E+00	2.560E+00	4.452E+00	2.636E-01	0.337
		1238.25		1.212E-01	1.134E-01	2.016E-01	1.296E-02	0.601
		1360.21		-3.567E-01	1.093E+00	1.679E+00	1.056E-01	-0.212
		1771.40		-8.079E-01	3.648E-01	3.442E-01	2.010E-02	-2.347
CO-57		122.06	*	2.190E-02	3.124E-02	5.279E-02	3.225E-03	0.415
		136.48		-1.054E-02	2.610E-01	4.270E-01	2.869E-02	-0.025
CO-58		810.76	*	-3.456E-03	4.746E-02	7.897E-02	5.042E-03	-0.044
FE-59		142.65		1.020E+00	3.263E+00	5.408E+00	3.085E-01	0.189
		192.34		1.081E+00	1.223E+00	2.047E+00	2.396E-01	0.528
		1099.22	*	-6.298E-03	9.731E-02	1.588E-01	1.165E-02	-0.040
		1291.56		-1.480E-02	1.278E-01	2.046E-01	1.583E-02	-0.072
CO-60		1173.22		-3.690E-02	5.132E-02	7.715E-02	4.564E-03	-0.478
		1332.49	*	2.847E-02	3.865E-02	7.004E-02	4.400E-03	0.406
ZN-65		1115.52	*	-4.131E-02	1.260E-01	1.690E-01	1.070E-02	-0.244
GE-68		1077.35	*	3.150E-01	1.422E+00	2.400E+00	1.573E-01	0.131
AS-73		53.44	*	1.266E+00	1.239E+00	2.147E+00	1.963E-01	0.590
AS-74		595.88	*	-1.251E-02	1.063E-01	1.712E-01	9.104E-03	-0.073
		634.78		-2.976E-01	4.405E-01	6.698E-01	3.423E-02	-0.444
SE-75		66.05		1.821E+00	6.836E+00	1.017E+01	1.088E+00	0.179

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		6.015E-01	1.066E+00	1.592E+00	2.153E-01	0.378
		121.11		6.234E-02	1.681E-01	2.805E-01	2.655E-02	0.222
		136.00		-1.299E-02	4.971E-02	8.060E-02	4.750E-03	-0.161
		198.60		-3.178E-01	2.427E+00	3.774E+00	2.634E-01	-0.084
		264.65	*	-2.410E-02	6.276E-02	8.461E-02	5.075E-03	-0.285
		279.53		-1.091E-02	1.337E-01	2.246E-01	1.443E-02	-0.049
		303.91		-1.100E+00	2.843E+00	4.031E+00	3.888E-01	-0.273
		400.65		7.532E-02	3.333E-01	5.608E-01	5.024E-02	0.134
BR-77	+	87.88		6.181E+02	2.700E+02	4.373E+02	4.315E+01	1.413
		200.40		4.039E+01	2.109E+02	3.439E+02	1.937E+01	0.117
	+	239.00		2.619E+02	2.559E+01	4.538E+01	2.656E+00	5.771
		249.79		-2.740E+01	8.145E+01	1.279E+02	7.541E+00	-0.214
		281.68		-1.424E+02	1.143E+02	1.802E+02	1.076E+01	-0.790
		297.23		3.597E+02	8.052E+01	1.533E+02	9.158E+00	2.346
		303.76		-9.494E+01	2.453E+02	3.480E+02	2.077E+01	-0.273
		439.47		1.711E+01	1.806E+02	3.005E+02	1.691E+01	0.057
		484.57		1.707E+02	2.811E+02	4.832E+02	2.718E+01	0.353
		520.65	*	-2.652E+00	1.370E+01	2.214E+01	1.234E+00	-0.120
		574.64		-4.006E+01	2.573E+02	4.143E+02	2.241E+01	-0.097
		578.91		-3.276E+00	1.237E+02	1.738E+02	9.370E+00	-0.019
		585.48		1.124E+03	3.105E+02	5.534E+02	2.969E+01	2.032
		755.35		-9.290E+00	2.154E+02	3.446E+02	2.002E+01	-0.027
		817.79		3.059E+01	1.503E+02	2.566E+02	1.649E+01	0.119
SR-82		698.33		-4.703E+01	4.527E+01	6.634E+01	3.497E+00	-0.709
		776.49	*	-6.572E-01	4.661E-01	6.805E-01	4.094E-02	-0.966
		1395.20		4.061E+00	1.159E+01	1.988E+01	1.252E+00	0.204
RB-83		520.41	*	-1.730E-02	8.942E-02	1.445E-01	8.051E-03	-0.120
		529.64		1.394E-02	1.209E-01	2.000E-01	1.111E-02	0.070
		552.65		-1.965E-02	2.406E-01	3.907E-01	2.144E-02	-0.050
RB-84		881.50	*	4.839E-02	7.929E-02	1.401E-01	9.925E-03	0.345
KR-85		513.99	*	1.302E+01	1.072E+01	1.689E+01	9.430E-01	0.771
SR-85		513.99	*	6.680E-02	5.501E-02	8.662E-02	4.838E-03	0.771
RB-86		1076.63	*	-1.704E-01	9.397E-01	1.517E+00	9.952E-02	-0.112
Y-88		898.02		-1.080E-02	4.775E-02	7.766E-02	5.677E-03	-0.139
		1836.01	*	1.937E-02	3.853E-02	7.031E-02	3.996E-03	0.276
ZR-88		392.90	*	-1.394E-03	3.734E-02	6.192E-02	3.436E-03	-0.023
Y-91		1204.90	*	-3.529E+00	2.193E+01	3.525E+01	2.114E+00	-0.100
NB-94		702.63	*	2.075E-03	4.312E-02	6.985E-02	3.710E-03	0.030
		871.10		3.055E-02	4.461E-02	7.870E-02	5.490E-03	0.388
NB-95		765.79	*	2.417E-02	5.463E-02	9.103E-02	5.381E-03	0.265
NB-95M		235.69	*	4.725E-01	2.022E-01	3.161E-01	2.389E-02	1.495
ZR-95		724.18		1.722E-01	1.227E-01	2.005E-01	1.327E-02	0.858
		756.15	*	-7.740E-03	8.839E-02	1.408E-01	9.921E-03	-0.055
NB-97		657.90	*	1.222E-01	8.839E-02	Half-Life too short		
		1024.50		2.556E-01	8.839E-02	Half-Life too short		
ZR-97		254.15		8.717E-01	8.839E-02	Half-Life too short		
		355.39		4.393E+00	8.839E-02	Half-Life too short		
		507.63	*	6.145E+00	8.839E-02	Half-Life too short		
		602.52		5.341E+00	8.839E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		1.228E+01	8.839E-02	Half-Life too short		
		1147.95		-2.073E+00	8.839E-02	Half-Life too short		
		1362.66		-8.746E+00	8.839E-02	Half-Life too short		
		1750.46		-5.485E+00	8.839E-02	Half-Life too short		
MO-99		140.51		-7.116E+00	3.251E+01	5.266E+01	1.418E+01	-0.135
		181.06		-8.969E+00	2.498E+01	3.460E+01	5.897E+00	-0.259
		366.43		3.745E+01	1.051E+02	1.789E+02	1.026E+01	0.209
		739.58	*	-1.153E+01	1.456E+01	2.138E+01	2.933E+00	-0.540
		778.00		-2.554E+01	4.068E+01	6.439E+01	3.883E+00	-0.397
TC-99M		140.51	*	-1.160E+10	4.068E+01	Half-Life too short		
RH-101		127.23		3.906E-02	4.580E-02	6.890E-02	4.114E-03	0.567
		198.01	*	-9.205E-03	4.493E-02	6.969E-02	3.914E-03	-0.132
		325.23		-1.091E-01	2.748E-01	4.506E-01	2.671E-02	-0.242
RH-102		418.52		-1.224E-01	3.625E-01	5.874E-01	3.290E-02	-0.208
		475.06	*	3.967E-02	3.642E-02	6.444E-02	3.628E-03	0.616
		631.29		4.562E-02	6.556E-02	1.129E-01	5.793E-03	0.404
		697.49		-6.045E-02	9.800E-02	1.494E-01	7.864E-03	-0.405
		766.84		7.823E-02	1.430E-01	2.399E-01	1.420E-02	0.326
		1046.59		8.744E-02	1.380E-01	2.421E-01	1.627E-02	0.361
		1112.84		-1.025E-02	3.104E-01	4.358E-01	2.763E-02	-0.024
RU-103		497.08	*	2.662E-02	5.027E-02	8.569E-02	1.076E-02	0.311
	+	610.33		1.387E+01	3.045E+00	3.555E+00	5.411E-01	3.903
RH-106	+	511.85		8.601E-01	3.925E-01	5.596E-01	3.128E-02	1.537
		621.84	*	5.850E-02	3.640E-01	6.001E-01	6.869E-02	0.097
		1050.47		7.145E-01	2.753E+00	4.663E+00	3.124E-01	0.153
RU-106	+	511.85		8.601E-01	3.925E-01	5.596E-01	3.128E-02	1.537
		621.84	*	5.850E-02	3.640E-01	6.001E-01	3.112E-02	0.097
		1050.47		7.145E-01	2.753E+00	4.663E+00	3.124E-01	0.153
AG-108M		433.93	*	-9.128E-03	4.244E-02	6.922E-02	4.245E-03	-0.132
		614.37		2.012E-02	4.743E-02	7.035E-02	4.057E-03	0.286
		722.95		9.804E-03	5.137E-02	7.332E-02	4.411E-03	0.134
AG-110M		657.75	*	3.485E-02	4.448E-02	6.873E-02	3.710E-03	0.507
		677.61		5.535E-02	3.785E-01	6.201E-01	3.400E-02	0.089
		706.67		-1.801E-01	2.774E-01	4.218E-01	2.414E-02	-0.427
		763.93		-1.184E-01	2.149E-01	3.275E-01	2.045E-02	-0.362
		884.67		-1.910E-02	5.940E-02	9.584E-02	7.142E-03	-0.199
		937.48		-4.803E-02	1.345E-01	1.805E-01	1.359E-02	-0.266
		1384.27		6.336E-02	1.802E-01	3.080E-01	2.041E-02	0.206
IN-111		171.28		2.328E-01	1.262E+00	2.069E+00	1.125E-01	0.112
		245.39	*	6.639E-01	1.428E+00	2.071E+00	1.217E-01	0.321
IN-113M		391.69	*	-4.752E-03	5.397E-02	8.921E-02	5.309E-03	-0.053
SN-113		391.69	*	-4.752E-03	5.397E-02	8.921E-02	5.309E-03	-0.053
IN-114M		190.27	*	-9.328E-02	2.667E-01	3.693E-01	2.055E-02	-0.253
CD-115		260.90		-8.358E+00	1.697E+02	2.706E+02	1.605E+01	-0.031
		492.35		2.702E+01	4.490E+01	7.710E+01	4.331E+00	0.350
		527.90	*	-1.341E+01	1.291E+01	1.920E+01	1.067E+00	-0.699
SN-117M		156.02		-1.160E+00	2.878E+00	4.418E+00	2.441E-01	-0.263
		158.56	*	-4.104E-02	6.566E-02	1.040E-01	5.712E-03	-0.395
SB-122		563.90	*	1.601E-01	2.596E+00	4.260E+00	2.321E-01	0.038

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		3.309E+01	5.485E+01	9.318E+01	4.865E+00	0.355
I-123		159.00	*	-3.560E+00	5.485E+01	Half-Life too short		
		528.96		-2.094E+02	5.485E+01	Half-Life too short		
TE-123M		159.00	*	-1.660E-02	3.386E-02	5.395E-02	3.005E-03	-0.308
I-124		602.71	*	6.614E-01	8.974E-01	1.371E+00	7.244E-02	0.483
		722.78		8.777E-01	5.393E+00	7.668E+00	4.217E-01	0.114
		1325.50		-1.082E+01	3.284E+01	5.024E+01	3.149E+00	-0.215
		1376.25		4.796E+01	3.515E+01	6.718E+01	4.229E+00	0.714
		1509.49		3.677E+01	1.925E+01	3.935E+01	2.462E+00	0.934
		1691.02		1.829E+00	4.152E+00	7.507E+00	4.515E-01	0.244
SB-124		602.71		3.817E-02	5.179E-02	7.910E-02	4.183E-03	0.483
		645.85		-2.277E-01	6.374E-01	1.000E+00	5.884E-02	-0.228
		709.31		1.229E+00	3.607E+00	5.985E+00	3.216E-01	0.205
		713.82		-3.452E-01	1.991E+00	3.155E+00	3.155E-01	-0.109
		722.78		7.342E-02	4.512E-01	6.415E-01	3.712E-02	0.114
	+	968.20		1.757E+01	5.360E+00	8.999E+00	6.352E-01	1.952
		1045.16		3.469E-01	2.936E+00	4.905E+00	3.299E-01	0.071
		1325.50		-9.672E-01	2.935E+00	4.489E+00	2.814E-01	-0.215
		1368.21		7.028E-01	1.920E+00	3.292E+00	3.990E-01	0.214
		1436.60		-5.452E+00	4.102E+00	4.895E+00	3.080E-01	-1.114
		1691.02	*	3.608E-02	8.193E-02	1.481E-01	9.619E-03	0.244
SB-125		427.89	*	-7.288E-02	1.206E-01	1.916E-01	1.124E-02	-0.380
	+	463.38		1.465E+00	4.503E-01	6.856E-01	4.540E-02	2.136
		600.56		5.086E-02	2.226E-01	3.594E-01	2.256E-02	0.142
		635.90		-3.045E-01	3.315E-01	4.904E-01	3.044E-02	-0.621
TE-125M		109.28	*	-8.402E+00	1.209E+01	1.903E+01	1.730E+00	-0.441
I-126		388.63		4.686E-02	2.529E-01	4.254E-01	2.370E-02	0.110
		666.33	*	3.145E-02	2.528E-01	3.586E-01	1.786E-02	0.088
		753.82		5.897E-02	1.915E+00	3.085E+00	1.788E-01	0.019
SB-126		223.80		-1.133E+00	5.049E+00	8.034E+00	4.640E-01	-0.141
		278.60		2.907E+00	3.070E+00	5.394E+00	3.218E-01	0.539
	+	296.50		1.394E+01	2.418E+00	4.510E+00	2.694E-01	3.091
		414.70		4.793E-02	1.075E-01	1.610E-01	9.008E-03	0.298
		415.30		1.187E+00	9.184E+00	1.337E+01	7.481E-01	0.089
		555.20		-2.729E+00	4.834E+00	7.517E+00	4.118E-01	-0.363
		573.80		-9.502E-02	1.249E+00	2.024E+00	1.096E-01	-0.047
		593.00		-1.132E+00	1.134E+00	1.678E+00	8.948E-02	-0.675
		656.30		-3.572E+00	4.615E+00	5.738E+00	2.855E-01	-0.622
		666.33		1.314E-02	1.057E-01	1.499E-01	7.463E-03	0.088
		675.00		3.198E-01	2.458E+00	4.021E+00	2.034E-01	0.080
		695.00		6.525E-02	9.635E-02	1.646E-01	8.627E-03	0.396
		697.00		7.034E-02	3.368E-01	5.535E-01	2.911E-02	0.127
		720.50	*	-3.486E-02	1.749E-01	2.477E-01	1.357E-02	-0.141
		856.80		-1.800E-01	5.350E-01	8.637E-01	5.896E-02	-0.208
		989.30		1.515E-01	1.413E+00	2.368E+00	1.653E-01	0.064
		1034.80		2.739E+00	1.003E+01	1.706E+01	1.156E+00	0.161
		1213.00		-1.819E+00	5.437E+00	8.573E+00	5.159E-01	-0.212
SB-127		61.10		1.227E+02	8.627E+01	1.342E+02	1.550E+01	0.915
		252.40		3.390E-01	5.308E+00	8.530E+00	3.546E+00	0.040

---- Non-Identified Nuclides ----

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		290.80		-6.286E+00	3.089E+01	4.465E+01	4.147E+00	-0.141
		411.60		3.043E+00	1.828E+01	2.669E+01	3.817E+00	0.114
		444.90		-8.182E+00	1.306E+01	2.063E+01	2.210E+00	-0.397
		473.00		2.843E-01	2.272E+00	3.773E+00	4.189E-01	0.075
		543.00		1.219E+01	2.071E+01	3.535E+01	4.522E+00	0.345
		603.60		6.237E+00	1.640E+01	2.403E+01	2.524E+00	0.260
		685.20	*	8.860E-01	1.669E+00	2.824E+00	2.559E-01	0.314
		698.50		-1.441E+01	1.995E+01	2.997E+01	4.281E+00	-0.481
		722.20		4.844E+00	3.698E+01	5.233E+01	4.702E+00	0.093
		783.80		4.126E+00	4.426E+00	7.947E+00	8.604E-01	0.519
XE-127		57.60		1.288E+00	9.119E+00	1.429E+01	1.315E+00	0.090
		145.22		-2.673E-02	8.277E-01	1.352E+00	7.659E-02	-0.020
		172.10		4.298E-03	1.495E-01	2.434E-01	1.325E-02	0.018
		202.84	*	-5.164E-02	6.609E-02	9.419E-02	5.321E-03	-0.548
		374.96		-9.683E-02	2.413E-01	3.917E-01	2.224E-02	-0.247
I-131		80.18		-8.145E+00	6.531E+00	8.934E+00	8.348E-01	-0.912
		284.30		-1.006E-01	1.848E+00	3.106E+00	2.051E-01	-0.032
		364.48	*	3.864E-02	1.476E-01	2.498E-01	1.606E-02	0.155
		636.97		-9.869E-01	1.858E+00	2.861E+00	1.681E-01	-0.345
		722.89		1.570E+00	8.678E+00	1.237E+01	6.911E-01	0.127
TE-132		49.72		-4.194E+01	3.075E+01	4.861E+01	5.303E+00	-0.863
		111.76		1.926E+01	3.768E+01	6.327E+01	6.038E+00	0.304
		116.30		-2.792E+01	3.474E+01	5.520E+01	5.126E+00	-0.506
		228.16	*	-1.252E-01	8.916E-01	1.424E+00	2.046E-01	-0.088
BA-133		53.15		4.408E+00	5.398E+00	9.304E+00	8.493E-01	0.474
		79.62		-8.434E-01	1.760E+00	2.511E+00	3.915E-01	-0.336
		81.00		-2.877E-01	1.483E-01	1.861E-01	3.030E-02	-1.546
		276.40		5.589E-01	4.861E-01	8.146E-01	1.062E-01	0.686
		302.84		-3.389E-02	1.930E-01	2.787E-01	3.272E-02	-0.122
		356.01	*	1.620E-02	6.386E-02	9.454E-02	1.093E-02	0.171
		383.85		-2.159E-01	3.811E-01	6.108E-01	6.579E-02	-0.353
I-133	+	510.53		1.817E+00	3.811E-01	Half-Life too short		
		529.87	*	2.290E-03	3.811E-01	Half-Life too short		
		706.58		-3.530E-01	3.811E-01	Half-Life too short		
		856.28		-3.869E-01	3.811E-01	Half-Life too short		
		875.33		-1.582E-01	3.811E-01	Half-Life too short		
		1236.41		8.805E-01	3.811E-01	Half-Life too short		
		1298.22		8.411E-02	3.811E-01	Half-Life too short		
CS-134		475.35		2.040E+00	2.414E+00	4.204E+00	2.367E-01	0.485
		563.23		1.368E-01	4.415E-01	7.386E-01	4.122E-02	0.185
		569.32		8.006E-02	2.364E-01	3.964E-01	2.225E-02	0.202
		604.70		2.495E-02	4.642E-02	6.922E-02	3.676E-03	0.360
	+	795.84	*	1.857E-01	1.140E-01	1.144E-01	7.201E-03	1.623
		801.93		-6.922E-01	5.228E-01	6.214E-01	3.936E-02	-1.114
		1038.57		2.362E+00	4.499E+00	7.836E+00	5.297E-01	0.301
		1167.94		-2.070E+00	2.860E+00	4.298E+00	2.560E-01	-0.482
		1365.15		4.495E-01	1.303E+00	2.232E+00	1.523E-01	0.201
CS-135		268.24	*	3.534E-01	2.328E-01	3.577E-01	2.780E-02	0.988
I-135		288.45		2.812E+10	2.328E-01	Half-Life too short		

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		417.63		3.371E+09	2.328E-01	Half-Life too short		
		546.56		-9.793E+09	2.328E-01	Half-Life too short		
		836.80		1.593E+10	2.328E-01	Half-Life too short		
		1038.76		1.543E+10	2.328E-01	Half-Life too short		
		1124.00		4.338E+10	2.328E-01	Half-Life too short		
		1131.51		2.460E+09	2.328E-01	Half-Life too short		
		1260.41	*	-9.273E+08	2.328E-01	Half-Life too short		
		1457.56		5.644E+11	2.328E-01	Half-Life too short		
		1678.03		2.315E+09	2.328E-01	Half-Life too short		
		1706.46		1.584E+10	2.328E-01	Half-Life too short		
		1791.20		1.963E+09	2.328E-01	Half-Life too short		
CS-136		66.91		2.340E+00	1.249E+00	1.691E+00	2.639E-01	1.384
	+	86.29		3.630E+00	1.623E+00	2.561E+00	3.489E-01	1.417
		153.22		1.029E+00	8.048E-01	1.378E+00	9.691E-02	0.747
		163.89		1.294E+00	1.297E+00	2.199E+00	1.530E-01	0.589
		176.55		2.707E-01	4.643E-01	7.729E-01	4.812E-02	0.350
		273.65		-9.348E-01	7.146E-01	8.918E-01	6.023E-02	-1.048
		340.57		4.608E-01	1.854E-01	3.125E-01	1.948E-02	1.475
		818.51		-2.161E-02	8.304E-02	1.354E-01	8.723E-03	-0.160
		1048.07	*	6.961E-02	1.302E-01	2.264E-01	1.625E-02	0.307
		1235.34		6.061E-01	7.854E-01	1.360E+00	1.380E-01	0.446
CE-139		165.85	*	1.695E-03	3.632E-02	5.924E-02	3.203E-03	0.029
BA-140		162.64		5.356E-01	9.199E-01	1.535E+00	9.532E-02	0.349
		304.84		7.731E-01	1.673E+00	2.519E+00	6.884E-01	0.307
		423.70		9.856E-01	2.375E+00	4.006E+00	1.272E+00	0.246
		537.32	*	-3.169E-02	3.073E-01	4.985E-01	1.619E-01	-0.064
LA-140		328.77		1.250E-01	3.709E-01	6.320E-01	4.171E-02	0.198
		432.53		2.955E+00	2.651E+00	4.688E+00	2.927E-01	0.630
		487.03		1.020E-03	1.781E-01	2.932E-01	1.879E-02	0.003
		751.79		9.460E-01	2.253E+00	3.756E+00	2.658E-01	0.252
		815.85		4.650E-02	3.668E-01	6.216E-01	4.781E-02	0.075
		867.82		-4.604E-02	1.807E+00	3.008E+00	2.257E-01	-0.015
		919.63		1.234E+00	3.371E+00	5.440E+00	5.190E-01	0.227
		925.24		2.589E-01	1.405E+00	2.149E+00	1.684E-01	0.120
		1596.49	*	6.258E-02	1.050E-01	1.902E-01	1.173E-02	0.329
CE-141		145.44	*	-1.136E-03	7.424E-02	1.213E-01	7.158E-03	-0.009
CE-143		57.37		-5.333E-04	7.424E-02	Half-Life too short		
		231.56		5.292E-06	7.424E-02	Half-Life too short		
		293.26	*	9.025E-04	7.424E-02	Half-Life too short		
	+	350.59		3.268E-02	7.424E-02	Half-Life too short		
		490.36		-2.351E-03	7.424E-02	Half-Life too short		
		664.57		1.852E-03	7.424E-02	Half-Life too short		
		721.93		9.853E-05	7.424E-02	Half-Life too short		
CE-144		80.11		-3.753E+00	2.995E+00	4.096E+00	3.805E-01	-0.916
		133.54	*	5.347E-02	2.924E-01	4.244E-01	6.036E-02	0.126
PM-144		476.78		-5.840E-02	8.648E-02	1.353E-01	9.204E-03	-0.432
		618.01		-3.951E-02	3.788E-02	5.320E-02	2.975E-03	-0.743
		696.49	*	2.378E-02	4.310E-02	7.285E-02	3.832E-03	0.326
		778.57		9.284E-02	2.661E+00	4.480E+00	2.706E-01	0.021

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144		696.49	*	1.611E+00	2.921E+00	4.937E+00	2.594E-01	0.326
		1489.15		3.232E+00	1.113E+01	1.909E+01	1.197E+00	0.169
PM-146		453.90	*	-3.131E-02	5.406E-02	8.544E-02	7.272E-03	-0.366
		633.02		-3.436E-01	1.688E+00	2.680E+00	9.841E-01	-0.128
		735.90		4.900E-02	1.716E-01	2.834E-01	7.892E-02	0.173
		747.13		-5.651E-02	1.231E-01	1.892E-01	2.361E-02	-0.299
ND-147		91.11		9.164E-01	6.001E-01	7.087E-01	7.063E-02	1.293
		319.41		3.157E+00	4.209E+00	7.328E+00	4.357E-01	0.431
		439.89		1.651E+00	7.416E+00	1.244E+01	7.003E-01	0.133
		531.02	*	5.391E-01	6.105E-01	1.070E+00	1.436E-01	0.504
PM-149		285.90	*	-2.209E+01	1.159E+02	1.934E+02	2.755E+01	-0.114
EU-152		121.78		6.977E-02	9.099E-02	1.540E-01	1.209E-02	0.453
		244.69		3.226E-01	4.406E-01	6.506E-01	3.823E-02	0.496
		344.27	*	-6.352E-02	1.364E-01	1.904E-01	1.254E-02	-0.334
		443.98		-1.127E-02	1.240E+00	2.048E+00	1.153E-01	-0.006
		778.89		-8.335E-03	3.053E-01	5.112E-01	3.087E-02	-0.016
		867.32		-2.846E-01	1.076E+00	1.753E+00	1.216E-01	-0.162
	+	964.01		6.419E-01	3.708E-01	7.042E-01	4.981E-02	0.912
		1085.78		-1.818E-01	4.806E-01	7.586E-01	4.935E-02	-0.240
		1112.02		3.645E-01	3.986E-01	6.428E-01	4.078E-02	0.567
		1407.95		7.839E-02	2.360E-01	3.993E-01	2.515E-02	0.196
GD-153		69.67		-1.074E+00	2.301E+00	3.304E+00	2.949E-01	-0.325
		83.37		2.587E+01	2.750E+01	3.128E+01	2.973E+00	0.827
		97.43	*	1.508E-01	1.013E-01	1.650E-01	1.379E-02	0.914
		103.18		-9.347E-02	1.252E-01	2.004E-01	1.540E-02	-0.466
EU-154		123.07		-2.990E-02	7.049E-02	1.050E-01	1.005E-02	-0.285
		247.94		-1.054E-01	4.524E-01	6.887E-01	6.608E-02	-0.153
		591.81		3.259E-02	7.358E-01	1.203E+00	1.144E-01	0.027
		723.30		1.232E-01	2.103E-01	3.170E-01	2.168E-02	0.389
		756.87		8.132E-02	9.501E-01	1.539E+00	1.562E-01	0.053
		873.19		1.524E-01	3.824E-01	6.597E-01	7.363E-02	0.231
		996.32		-2.801E-01	4.336E-01	6.634E-01	1.129E-01	-0.422
		1004.76		-1.962E-01	2.503E-01	3.773E-01	3.939E-02	-0.520
		1274.45	*	-3.658E-02	1.388E-01	2.186E-01	2.093E-02	-0.167
EU-155		48.70		-3.701E+00	3.821E+00	6.187E+00	5.181E-01	-0.598
		60.01		7.626E+00	7.229E+00	1.119E+01	1.025E+00	0.682
	+	86.54		3.342E-01	1.460E-01	2.327E-01	2.287E-02	1.436
		105.31	*	5.332E-02	1.305E-01	2.189E-01	1.660E-02	0.244
TB-160	+	86.79		8.930E-01	3.901E-01	6.141E-01	6.002E-02	1.454
		197.04		-4.274E-01	7.688E-01	1.173E+00	6.584E-02	-0.364
		215.65		4.086E-02	9.572E-01	1.546E+00	8.859E-02	0.026
	+	298.57		3.327E-01	2.165E-01	2.595E-01	1.550E-02	1.282
		879.36	*	4.576E-02	1.623E-01	2.781E-01	1.964E-02	0.165
		962.29		1.611E+00	7.118E-01	1.282E+00	9.077E-02	1.256
		966.15		1.461E+00	3.473E-01	6.876E-01	4.858E-02	2.124
		1177.93		1.001E-01	4.295E-01	7.203E-01	4.271E-02	0.139
		1271.85		1.513E-01	8.168E-01	1.361E+00	8.380E-02	0.111
HO-166M		80.57		-6.408E-01	3.916E-01	5.228E-01	4.870E-02	-1.226
	+	184.41		1.277E-01	6.157E-02	8.853E-02	4.891E-03	1.443

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		-8.404E-02	1.036E-01	1.674E-01	9.987E-03	-0.502
	+	410.95		4.547E-01	4.241E-01	5.446E-01	3.044E-02	0.835
		711.68	*	5.480E-02	7.605E-02	1.304E-01	7.034E-03	0.420
		752.31		2.944E-01	3.453E-01	5.980E-01	3.457E-02	0.492
		810.29		0.000E+00	7.131E-02	1.194E-01	7.586E-03	0.000
TM-171		51.35		-1.080E+01	4.658E+01	7.767E+01	6.965E+00	-0.139
		52.39		1.823E+01	2.369E+01	4.080E+01	3.703E+00	0.447
		59.40		2.139E+01	3.947E+01	5.981E+01	5.497E+00	0.358
		66.72	*	6.071E+01	4.173E+01	6.141E+01	5.486E+00	0.989
LU-176		88.36		5.453E-02	4.362E-01	4.646E-01	4.557E-02	0.117
		201.83		-2.355E-02	3.652E-02	5.722E-02	3.228E-03	-0.412
		306.84	*	1.536E-02	2.997E-02	5.052E-02	3.014E-03	0.304
		401.10		5.053E+00	8.647E+00	1.485E+01	8.269E-01	0.340
LU-177		112.95		2.344E-01	2.051E+00	3.396E+00	2.302E-01	0.069
	+	208.36	*	2.335E+00	1.903E+00	2.433E+00	1.383E-01	0.960
LU-177M		52.97		1.976E+00	2.455E+00	4.229E+00	3.856E-01	0.467
		54.07		8.616E-01	1.269E+00	2.178E+00	1.997E-01	0.396
	+	61.30		5.240E+00	2.350E+00	3.513E+00	3.194E-01	1.492
		121.62		3.906E-01	4.632E-01	7.868E-01	4.819E-02	0.496
		147.16		-5.994E-01	7.862E-01	1.242E+00	7.003E-02	-0.483
		171.86		3.573E-02	6.030E-01	9.829E-01	5.347E-02	0.036
		218.09		-2.771E-01	1.101E+00	1.752E+00	1.006E-01	-0.158
	+	268.79		2.370E+00	1.139E+00	1.871E+00	1.113E-01	1.267
		319.02		3.009E-01	3.229E-01	5.673E-01	3.372E-02	0.530
		367.43		5.382E-01	1.115E+00	1.912E+00	1.095E-01	0.282
		413.65	*	-2.842E-02	2.547E-01	3.627E-01	2.029E-02	-0.078
HF-181		56.28		-1.145E+00	1.374E+00	2.232E+00	2.055E-01	-0.513
		57.53		1.071E-01	7.652E-01	1.199E+00	1.104E-01	0.089
		65.20		-6.870E-01	1.406E+00	2.018E+00	1.807E-01	-0.340
		133.02		2.588E-02	9.301E-02	1.358E-01	7.955E-03	0.191
		136.25		-6.561E-02	5.742E-01	9.366E-01	5.434E-02	-0.070
		345.85		-8.726E-02	2.627E-01	3.707E-01	2.169E-02	-0.235
		482.03	*	-3.571E-02	5.335E-02	8.336E-02	4.691E-03	-0.428
W-181		56.28		-4.482E-01	5.377E-01	8.733E-01	8.039E-02	-0.513
		57.53		4.154E-02	2.996E-01	4.695E-01	4.321E-02	0.088
		65.20	*	-2.669E-01	5.463E-01	7.838E-01	7.021E-02	-0.340
TA-182		67.75		2.223E-01	1.792E-01	2.400E-01	2.141E-02	0.926
		100.10		2.596E-02	2.085E-01	3.466E-01	2.782E-02	0.075
		152.43		4.617E-01	4.148E-01	7.069E-01	3.938E-02	0.653
		222.10		2.297E-01	4.369E-01	7.211E-01	4.159E-02	0.318
		1001.68		2.086E+00	2.365E+00	4.246E+00	2.942E-01	0.491
	+	1121.28		5.607E-01	3.177E-01	4.179E-01	2.626E-02	1.342
		1189.05		-2.245E-01	3.551E-01	5.402E-01	3.218E-02	-0.416
		1221.42	*	9.892E-02	2.199E-01	3.761E-01	2.271E-02	0.263
		1230.97		7.174E-02	6.253E-01	1.032E+00	6.254E-02	0.070
RE-183		57.98		8.151E-02	3.170E-01	4.744E-01	4.365E-02	0.172
		59.32		8.587E-02	1.625E-01	2.460E-01	2.262E-02	0.349
		67.20		3.420E-01	3.258E-01	4.328E-01	3.864E-02	0.790
		162.32	*	3.694E-02	1.346E-01	2.219E-01	1.209E-02	0.166

---- Non-Identified Nuclides ----

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	+	208.81		2.090E+00	1.703E+00	2.178E+00	1.239E-01	0.960
		291.72		-9.253E-01	1.353E+00	1.886E+00	1.127E-01	-0.491
RE-184		57.98		3.003E-01	1.168E+00	1.748E+00	1.608E-01	0.172
		59.32		3.161E-01	5.980E-01	9.057E-01	8.325E-02	0.349
		67.20		1.259E+00	1.200E+00	1.594E+00	1.423E-01	0.790
		161.27		-7.330E-02	4.263E-01	6.892E-01	3.763E-02	-0.106
		216.55		-9.551E-02	3.427E-01	5.448E-01	3.124E-02	-0.175
		252.85	*	-3.853E-02	2.835E-01	4.504E-01	2.660E-02	-0.086
		318.01		3.290E-01	5.602E-01	9.684E-01	5.758E-02	0.340
		792.07		5.322E-01	1.358E+00	2.059E+00	1.270E-01	0.258
		903.28		8.735E-01	1.376E+00	2.141E+00	1.552E-01	0.408
		920.93		3.601E-01	5.209E-01	9.103E-01	6.559E-02	0.396
OS-185		59.72		4.352E-01	4.312E-01	6.662E-01	6.114E-02	0.653
		61.14		3.392E-01	2.437E-01	3.803E-01	3.461E-02	0.892
		69.30		-2.003E-02	4.086E-01	5.995E-01	5.350E-02	-0.033
		592.07		-5.247E-01	3.017E+00	4.838E+00	2.581E-01	-0.108
		646.12	*	-2.094E-02	5.369E-02	8.395E-02	4.232E-03	-0.249
		717.42		-6.148E-01	1.019E+00	1.536E+00	8.368E-02	-0.400
		874.81		-1.698E-01	7.244E-01	1.181E+00	8.285E-02	-0.144
		880.27		2.308E-01	8.933E-01	1.527E+00	1.080E-01	0.151
RE-188		155.03	*	9.519E-02	2.204E-01	3.517E-01	1.947E-02	0.271
		477.96		-3.383E+00	3.807E+00	5.839E+00	3.287E-01	-0.579
		633.10		-8.116E-01	3.393E+00	5.385E+00	2.758E-01	-0.151
W-188	+	63.58		1.973E+02	8.848E+01	1.228E+02	1.106E+01	1.606
		227.08		-1.035E+01	1.600E+01	2.486E+01	1.440E+00	-0.416
		290.67	*	-1.448E+00	1.064E+01	1.547E+01	9.239E-01	-0.094
IR-192	+	295.96		1.065E+00	1.852E-01	3.483E-01	2.111E-02	3.059
		308.46		1.373E-02	1.118E-01	1.891E-01	1.140E-02	0.073
		316.51	*	7.582E-03	4.275E-02	7.241E-02	4.328E-03	0.105
		468.07		-1.026E-02	9.417E-02	1.330E-01	8.701E-03	-0.077
		604.41		3.647E-01	6.308E-01	9.430E-01	1.046E-01	0.387
		612.46		1.800E+00	9.639E-01	1.618E+00	1.157E-01	1.112
AU-195		65.12		-1.095E-01	2.536E-01	3.650E-01	3.270E-02	-0.300
		66.83		2.001E-01	1.378E-01	2.028E-01	1.811E-02	0.987
	+	75.70		1.245E+00	2.958E-01	5.894E-01	5.346E-02	2.113
		98.88	*	2.147E-01	2.730E-01	4.644E-01	3.796E-02	0.462
	+	129.76		4.309E+00	5.164E+00	6.182E+00	3.659E-01	0.697
TL-200		367.94	*	1.495E-04	5.164E+00	Half-Life too short		
		579.30		2.529E-03	5.164E+00	Half-Life too short		
		828.27		-1.332E-03	5.164E+00	Half-Life too short		
		1205.75		-9.823E-04	5.164E+00	Half-Life too short		
TL-201		68.90		1.860E+00	6.655E+00	9.916E+00	8.848E-01	0.188
		70.82		-2.939E-01	3.752E+00	5.494E+00	4.910E-01	-0.053
		80.30		-8.954E+00	7.158E+00	9.790E+00	9.105E-01	-0.915
		135.34		-6.037E+00	3.225E+01	5.247E+01	3.052E+00	-0.115
		167.43	*	-3.286E+00	8.545E+00	1.366E+01	7.393E-01	-0.241
TL-202		68.90		1.660E-01	5.939E-01	8.849E-01	7.896E-02	0.188
		70.82		-2.615E-02	3.339E-01	4.889E-01	4.370E-02	-0.053
		80.30		-7.971E-01	6.372E-01	8.715E-01	8.105E-02	-0.915

---- Non-Identified Nuclides ----

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		439.56	*	1.256E-02	8.680E-02	1.449E-01	8.153E-03	0.087
HG-203		70.83		-1.085E-01	1.444E+00	2.115E+00	2.921E-01	-0.051
	+	72.87		1.362E+00	1.153E+00	1.490E+00	2.003E-01	0.914
		82.60		4.291E-01	2.123E+00	2.286E+00	3.264E-01	0.188
		279.20	*	2.548E-02	5.051E-02	8.715E-02	5.504E-03	0.292
BI-207	+	72.80		3.990E-01	3.353E-01	4.311E-01	3.870E-02	0.925
	+	74.97		6.906E-01	1.640E-01	3.000E-01	2.713E-02	2.302
		84.90		5.485E-01	2.909E-01	4.269E-01	4.106E-02	1.285
		569.67		1.241E-02	3.585E-02	6.019E-02	3.267E-03	0.206
		1063.62	*	3.576E-02	6.054E-02	1.060E-01	7.027E-03	0.337
		1770.23		1.616E-01	4.530E-01	7.302E-01	4.265E-02	0.221
TL-207		81.07		-6.449E-01	3.158E-01	4.094E-01	3.827E-02	-1.575
		83.78		1.212E-01	2.410E-01	2.653E-01	2.529E-02	0.457
		94.90		4.589E-01	3.344E-01	5.142E-01	4.476E-02	0.892
		122.32		9.786E-01	2.240E+00	3.626E+00	2.521E-01	0.270
		144.24		-1.825E-01	8.136E-01	1.318E+00	9.406E-02	-0.138
		154.21		5.565E-01	5.056E-01	8.274E-01	5.631E-02	0.673
	+	269.46		5.548E-01	2.669E-01	4.335E-01	2.691E-02	1.280
		323.87	*	-8.215E-01	8.393E-01	1.313E+00	2.175E-01	-0.626
	+	338.28		7.195E+00	1.900E+00	3.009E+00	3.183E-01	2.391
		445.03		-1.812E+00	3.022E+00	4.785E+00	4.868E-01	-0.379
PO-209		260.50		-6.754E+00	1.238E+01	1.918E+01	1.137E+00	-0.352
		262.80		3.261E+01	3.301E+01	5.568E+01	3.305E+00	0.586
		896.60	*	-8.346E+00	8.641E+00	1.288E+01	9.333E-01	-0.648
BI-210		46.50	*	3.752E+00	5.872E+00	9.816E+00	8.082E-01	0.382
PB-210		46.50	*	3.752E+00	5.872E+00	9.816E+00	8.082E-01	0.382
PO-210		46.50	*	3.752E+00	5.870E+00	9.816E+00	7.091E-01	0.382
PB-211		404.84	*	-4.904E-01	1.432E+00	1.953E+00	1.217E+00	-0.251
		427.08		-2.162E+00	3.008E+00	4.228E+00	2.613E+00	-0.511
		831.96		1.655E+00	1.859E+00	2.807E+00	1.752E+00	0.589
BI-212	+	727.18	*	8.296E-01	5.197E-01	7.587E-01	5.705E-02	1.093
		785.46		1.677E+00	2.175E+00	3.806E+00	2.323E-01	0.441
		1620.62		-2.562E-02	1.575E+00	2.618E+00	1.606E-01	-0.010
PO-215		81.07		-6.449E-01	3.158E-01	4.094E-01	3.827E-02	-1.575
		83.78		1.212E-01	2.410E-01	2.653E-01	2.529E-02	0.457
		94.90		4.589E-01	3.344E-01	5.142E-01	4.476E-02	0.892
		122.32		9.786E-01	2.240E+00	3.626E+00	2.521E-01	0.270
		144.24		-1.825E-01	8.136E-01	1.318E+00	9.406E-02	-0.138
		154.21		5.565E-01	5.056E-01	8.274E-01	5.631E-02	0.673
	+	269.46		5.548E-01	2.669E-01	4.335E-01	2.691E-02	1.280
		323.87	*	-8.215E-01	8.393E-01	1.313E+00	2.175E-01	-0.626
	+	338.28		7.195E+00	1.900E+00	3.009E+00	3.183E-01	2.391
		445.03		-1.812E+00	3.022E+00	4.785E+00	4.868E-01	-0.379
RN-219	+	271.23		7.118E-01	3.445E-01	5.477E-01	4.499E-02	1.300
		401.81	*	2.904E-01	5.388E-01	9.207E-01	1.244E-01	0.315
RN-220		549.76	*	1.196E+01	3.316E+01	5.572E+01	3.062E+00	0.215
RA-223		81.07		-6.449E-01	3.158E-01	4.094E-01	3.827E-02	-1.575
		83.78		1.212E-01	2.410E-01	2.653E-01	2.529E-02	0.457
		94.90		4.589E-01	3.344E-01	5.142E-01	4.476E-02	0.892

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		9.786E-01	2.240E+00	3.626E+00	2.521E-01	0.270
		144.24		-1.825E-01	8.136E-01	1.318E+00	9.406E-02	-0.138
		154.21		5.565E-01	5.056E-01	8.274E-01	5.631E-02	0.673
	+	269.46		5.548E-01	2.669E-01	4.335E-01	2.691E-02	1.280
		323.87	*	-8.215E-01	8.393E-01	1.313E+00	2.175E-01	-0.626
	+	338.28		7.195E+00	1.900E+00	3.009E+00	3.183E-01	2.391
		445.03		-1.812E+00	3.022E+00	4.785E+00	4.868E-01	-0.379
AC-227		79.80		-1.225E+00	2.235E+00	3.163E+00	6.887E-01	-0.387
		236.00		1.999E+00	4.560E-01	7.038E-01	7.371E-02	2.840
		256.20	*	-6.036E-02	4.782E-01	7.598E-01	1.064E-01	-0.079
		286.10		-7.371E-02	1.911E+00	3.213E+00	3.743E-01	-0.023
	+	299.80		4.236E+00	2.831E+00	3.270E+00	5.345E-01	1.296
		304.40		-1.092E-01	2.490E+00	3.631E+00	6.302E-01	-0.030
		334.20		1.615E+00	3.156E+00	4.762E+00	8.745E-01	0.339
TH-227		79.80		-1.225E+00	2.236E+00	3.163E+00	6.973E-01	-0.387
	+	94.00		8.032E+00	4.356E+00	5.031E+00	1.100E+00	1.596
		236.00		1.999E+00	4.439E-01	7.038E-01	6.392E-02	2.840
		256.20	*	-6.036E-02	4.782E-01	7.598E-01	1.287E-01	-0.079
		286.10		-7.371E-02	1.912E+00	3.213E+00	3.219E+00	-0.023
	+	299.80		4.236E+00	2.831E+00	3.270E+00	5.345E-01	1.296
		304.40		-1.092E-01	2.490E+00	3.631E+00	6.302E-01	-0.030
		334.20		1.615E+00	3.156E+00	4.762E+00	8.745E-01	0.339
TH-229	+	85.43		6.222E-01	2.718E-01	4.464E-01	4.313E-02	1.394
		88.47		1.458E-02	2.505E-01	2.656E-01	2.599E-02	0.055
		100.00		4.266E-02	2.170E-01	3.618E-01	2.909E-02	0.118
		193.63	*	2.385E-01	6.665E-01	1.096E+00	6.121E-02	0.218
		210.97		9.898E-01	1.117E+00	1.657E+00	9.449E-02	0.597
PA-231		283.67	*	-6.745E-01	1.880E+00	3.108E+00	4.305E-01	-0.217
		301.29		1.066E+00	7.976E-01	1.265E+00	1.334E-01	0.843
TH-231		81.07		-6.449E-01	3.158E-01	4.094E-01	3.827E-02	-1.575
		83.78		1.212E-01	2.410E-01	2.653E-01	2.529E-02	0.457
		94.90		4.589E-01	3.344E-01	5.142E-01	4.476E-02	0.892
		122.32		9.786E-01	2.240E+00	3.626E+00	2.521E-01	0.270
		144.24		-1.825E-01	8.136E-01	1.318E+00	9.406E-02	-0.138
		154.21		5.565E-01	5.056E-01	8.274E-01	5.631E-02	0.673
	+	269.46		5.548E-01	2.669E-01	4.335E-01	2.691E-02	1.280
		323.87	*	-8.215E-01	8.393E-01	1.313E+00	2.175E-01	-0.626
	+	338.28		7.195E+00	1.900E+00	3.009E+00	3.183E-01	2.391
		445.03		-1.812E+00	3.022E+00	4.785E+00	4.868E-01	-0.379
U-231		84.21		7.747E+00	8.931E+00	1.158E+01	1.108E+00	0.669
	+	92.29		7.992E+00	4.028E+00	5.341E+00	4.864E-01	1.496
		95.87	*	-3.467E-01	1.506E+00	2.165E+00	1.855E-01	-0.160
		108.00		-1.009E+00	2.571E+00	4.178E+00	3.011E-01	-0.241
PA-233	+	75.28		2.015E+01	5.428E+00	9.274E+00	1.446E+00	2.173
	+	86.59		5.432E+00	2.745E+00	3.771E+00	1.026E+00	1.440
	+	300.12		1.181E+00	7.818E-01	9.067E-01	1.225E-01	1.302
		311.98	*	-5.261E-02	7.306E-02	1.173E-01	7.397E-03	-0.449
		340.50		2.458E+00	1.060E+00	1.546E+00	3.554E-01	1.590
		398.62		4.451E-02	2.701E+00	4.490E+00	1.159E+00	0.010

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		3.439E-01	2.294E+00	3.497E+00	7.179E-01	0.098
PA-234	+	63.00		5.719E+00	2.669E+00	3.686E+00	5.798E-01	1.551
	+	94.67		7.162E-01	3.666E-01	3.876E-01	4.840E-02	1.848
		98.44		8.077E-02	1.216E-01	1.920E-01	1.070E-01	0.421
		99.86		1.616E-01	5.518E-01	9.233E-01	7.438E-02	0.175
		111.00		1.052E-01	2.371E-01	3.899E-01	4.271E-02	0.270
		131.20		6.977E-02	1.491E-01	2.200E-01	1.296E-02	0.317
		152.70		4.405E-01	4.064E-01	6.833E-01	1.074E-01	0.645
	+	186.00		4.597E+00	2.611E+00	3.200E+00	9.761E-01	1.437
		226.40		-1.970E-01	4.977E-01	7.834E-01	9.053E-02	-0.252
		227.20		-3.346E-01	5.409E-01	8.418E-01	4.878E-02	-0.397
		248.90		-8.715E-01	1.047E+00	1.571E+00	3.380E-01	-0.555
	+	293.70		6.703E+00	1.537E+00	2.126E+00	3.432E-01	3.153
		369.80		-4.097E-01	1.026E+00	1.660E+00	3.453E-01	-0.247
		568.70		3.802E-01	1.212E+00	2.028E+00	1.101E-01	0.188
		569.50		1.369E-01	3.203E-01	5.412E-01	2.938E-02	0.253
		574.00		-4.276E-01	1.815E+00	2.902E+00	1.571E-01	-0.147
		699.00		-5.186E-01	9.374E-01	1.433E+00	2.554E-01	-0.362
		706.10		-2.726E-01	1.391E+00	2.197E+00	9.683E-01	-0.124
		733.00		-9.167E-02	5.137E-01	6.932E-01	1.470E-01	-0.132
		742.81		1.021E+00	1.782E+00	2.805E+00	1.877E+00	0.364
	+	796.30		3.608E+00	2.401E+00	2.188E+00	5.772E-01	1.649
		805.60		-6.325E-01	1.451E+00	1.960E+00	5.895E-01	-0.323
		819.60		-6.776E-01	1.437E+00	2.255E+00	8.477E-01	-0.301
		826.30		-4.293E-01	9.868E-01	1.551E+00	6.885E-01	-0.277
		831.60		6.806E-01	8.593E-01	1.486E+00	4.356E-01	0.458
		876.40		-9.282E-01	1.411E+00	1.585E+00	1.628E+00	-0.585
		880.51		3.450E-02	3.277E-01	5.520E-01	3.906E-02	0.062
		883.24		-1.069E-01	3.483E-01	5.504E-01	3.690E-01	-0.194
		899.00		3.301E-01	9.812E-01	1.670E+00	7.261E-01	0.198
		925.00		-3.999E-01	1.542E+00	2.215E+00	1.593E-01	-0.181
		926.50		-1.331E-01	2.441E-01	3.165E-01	7.858E-02	-0.420
		946.00	*	3.030E-02	3.215E-01	5.393E-01	9.776E-02	0.056
		949.00		6.083E-02	4.513E-01	7.608E-01	5.419E-02	0.080
		980.50		-4.656E-01	8.422E-01	1.309E+00	9.179E-02	-0.356
		1394.10		2.155E-01	1.258E+00	2.084E+00	1.351E+00	0.103
PA-234M		766.42		7.542E+00	1.545E+01	2.505E+01	1.261E+01	0.301
		1001.03	*	5.238E+00	5.254E+00	9.529E+00	8.144E-01	0.550
U-235		89.95		-2.553E+00	2.555E+00	2.366E+00	7.363E-01	-1.079
	+	93.35		2.499E+00	1.425E+00	1.644E+00	4.623E-01	1.520
		105.00		7.374E-01	1.276E+00	2.126E+00	6.279E-01	0.347
		143.76	*	-4.722E-02	2.494E-01	4.045E-01	6.579E-02	-0.117
		163.35		4.765E-01	5.701E-01	9.523E-01	1.702E-01	0.500
	+	185.71		1.703E-01	8.209E-02	1.182E-01	6.539E-03	1.441
		205.31		6.162E-02	7.377E-01	1.046E+00	1.877E-01	0.059
NP-236	+	94.67		5.432E-01	2.738E-01	2.944E-01	2.573E-02	1.845
		98.44		6.109E-02	8.558E-02	1.452E-01	1.195E-02	0.421
		111.00		7.961E-02	1.792E-01	2.949E-01	2.047E-02	0.270
		160.31	*	-3.246E-02	9.495E-02	1.523E-01	8.335E-03	-0.213

Sample ID : G245960009 Acquisition date : 12-FEB-2010 15:54:12

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		5.625E-02	1.881E-01	3.148E-01	2.548E-02	0.179
		117.00	*	-2.637E-01	2.366E-01	3.708E-01	2.396E-02	-0.711
	+	209.75		1.648E+00	1.343E+00	1.718E+00	9.781E-02	0.960
		228.18		-4.028E-02	2.888E-01	4.612E-01	2.675E-02	-0.087
		277.60		2.107E-01	2.354E-01	3.931E-01	2.345E-02	0.536
		334.30		7.665E-01	1.773E+00	2.670E+00	1.575E-01	0.287
AM-241		59.54	*	1.489E-01	2.299E-01	3.498E-01	3.420E-02	0.426
CM-243		99.55		5.788E-02	1.936E-01	3.239E-01	2.621E-02	0.179
		103.76	*	1.236E-01	1.128E-01	1.939E-01	1.478E-02	0.637
		117.00		-2.713E-01	2.434E-01	3.815E-01	2.465E-02	-0.711
	+	209.75		1.625E+00	1.324E+00	1.694E+00	9.642E-02	0.960
		228.18		-4.070E-02	2.918E-01	4.660E-01	2.703E-02	-0.087
		277.60		2.124E-01	2.373E-01	3.963E-01	2.364E-02	0.536
AM-246		798.80		2.719E-02	1.441E-01	2.460E-01	1.534E-02	0.111
		1036.00		9.736E-02	3.471E-01	5.902E-01	3.998E-02	0.165
		1062.04		2.258E-01	2.564E-01	4.621E-01	3.068E-02	0.489
		1078.86	*	9.946E-02	1.677E-01	2.931E-01	1.919E-02	0.339
CM-247		278.00		5.459E-01	9.342E-01	1.617E+00	9.644E-02	0.338
		287.40		8.060E-01	1.567E+00	2.703E+00	1.615E-01	0.298
		402.60	*	5.474E-02	5.017E-02	8.443E-02	4.704E-03	0.648
CF-249		252.85		-1.446E-01	1.064E+00	1.690E+00	9.980E-02	-0.086
		333.44		4.881E-02	2.413E-01	3.569E-01	2.106E-02	0.137
		387.95	*	1.044E-02	4.995E-02	8.412E-02	4.692E-03	0.124
CF-251		176.60	*	9.581E-02	1.598E-01	2.663E-01	1.457E-02	0.360
		227.00		-3.368E-01	4.822E-01	7.472E-01	4.329E-02	-0.451
		285.00		-3.148E-01	2.175E+00	3.639E+00	2.173E-01	-0.087

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009      *
* Acquisition date : 12-FEB-2010 15:54:12 Detector SN#     :               *
* Detector ID        : GAM06               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.17     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245960009           Analyst initials: MXR1          *
* Batch Number       : 948717               Sample Quantity : 1.1796E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME :   4-FEB-2009 13:05:54 MS Isotope      :                *
* MSD DPM          :     0.000             MSD Isotope     :                *
* LCS DPM          :     0.000             LCS Isotope     :                *
* LCSD DPM         :     0.000             LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.872E+01	2.016E+00	5.569E-01	0.000E+00
CD-109	2.823E+00	1.209E+00	2.034E+00	0.000E+00
SN-126	2.775E-01	1.188E-01	1.902E-01	0.000E+00
BA-137M	2.461E-01	8.984E-02	6.932E-02	0.000E+00
CS-137	2.601E-01	9.498E-02	7.328E-02	0.000E+00
TL-208	5.533E-01	9.717E-02	6.932E-02	0.000E+00
BI-211	4.028E+00	6.191E-01	4.143E-01	0.000E+00
PB-212	1.609E+00	1.695E-01	1.190E-01	0.000E+00
PO-212	1.609E+00	1.695E-01	1.190E-01	0.000E+00
BI-214	1.284E+00	2.196E-01	1.378E-01	0.000E+00
PB-214	1.401E+00	2.270E-01	1.444E-01	0.000E+00
PO-214	1.401E+00	2.270E-01	1.444E-01	0.000E+00
PO-216	1.609E+00	1.695E-01	1.190E-01	0.000E+00
PO-218	1.401E+00	2.270E-01	1.444E-01	0.000E+00
RA-224	4.795E+00	1.384E+00	1.355E+00	0.000E+00
RA-226	1.284E+00	2.196E-01	1.378E-01	0.000E+00
AC-228	1.684E+00	4.355E-01	2.578E-01	0.000E+00
RA-228	1.684E+00	4.355E-01	2.578E-01	0.000E+00
TH-228	1.634E+00	1.721E-01	1.208E-01	0.000E+00
TH-230	1.284E+00	2.196E-01	1.378E-01	0.000E+00
TH-232	1.684E+00	4.355E-01	2.578E-01	0.000E+00
TH-234	4.906E+00	2.286E+00	2.976E+00	0.000E+00
U-234	1.284E+00	2.196E-01	1.378E-01	0.000E+00
NP-237	8.148E-01	3.858E-01	5.512E-01	0.000E+00
U-238	4.906E+00	2.286E+00	2.976E+00	0.000E+00
AM-243	3.847E-01	8.956E-02	1.090E-01	0.000E+00
ANH-511	1.722E-01	7.701E-02	5.390E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	-4.871E-01	3.992E-01	6.142E-01	0.000E+00	NOT IDENT.
NA-22	-1.310E-02	4.870E-02	7.816E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.230E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-3.449E-03	3.062E-02	5.002E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.739E-02	9.940E-02	0.000E+00	FAIL ABUN
SC-46	2.276E-02	4.464E-02	7.976E-02	0.000E+00	FAIL ABUN
V-48	1.631E-02	7.435E-02	1.289E-01	0.000E+00	NOT IDENT.
CR-51	2.492E-01	4.597E-01	8.192E-01	0.000E+00	NOT IDENT.
MN-52	-1.055E-02	2.234E-01	3.641E-01	0.000E+00	NOT IDENT.
MN-54	1.307E-02	5.128E-02	8.938E-02	0.000E+00	NOT IDENT.
CO-56	-1.343E-02	4.387E-02	7.277E-02	0.000E+00	NOT IDENT.
CO-57	2.190E-02	3.062E-02	5.406E-02	0.000E+00	NOT IDENT.
CO-58	-3.456E-03	4.651E-02	7.924E-02	0.000E+00	NOT IDENT.
FE-59	-6.298E-03	9.536E-02	1.589E-01	0.000E+00	NOT IDENT.
CO-60	2.847E-02	3.788E-02	6.990E-02	0.000E+00	NOT IDENT.
ZN-65	-4.131E-02	1.235E-01	1.689E-01	0.000E+00	NOT IDENT.
GE-68	3.150E-01	1.394E+00	2.400E+00	0.000E+00	NOT IDENT.
AS-73	1.266E+00	1.214E+00	2.217E+00	0.000E+00	NOT IDENT.
AS-74	-1.251E-02	1.041E-01	1.724E-01	0.000E+00	NOT IDENT.
SE-75	-2.410E-02	6.150E-02	8.593E-02	0.000E+00	NOT IDENT.
BR-77	-2.652E+00	1.343E+01	2.232E+01	0.000E+00	FAIL ABUN
SR-82	-6.572E-01	4.568E-01	6.832E-01	0.000E+00	NOT IDENT.
RB-83	-1.730E-02	8.763E-02	1.457E-01	0.000E+00	NOT IDENT.
RB-84	4.839E-02	7.770E-02	1.404E-01	0.000E+00	NOT IDENT.
KR-85	1.302E+01	1.051E+01	1.703E+01	0.000E+00	NOT IDENT.
SR-85	6.680E-02	5.391E-02	8.735E-02	0.000E+00	NOT IDENT.
RB-86	-1.704E-01	9.209E-01	1.518E+00	0.000E+00	NOT IDENT.
Y-88	1.937E-02	3.776E-02	6.992E-02	0.000E+00	NOT IDENT.
ZR-88	-1.394E-03	3.660E-02	6.262E-02	0.000E+00	NOT IDENT.
Y-91	-3.529E+00	2.149E+01	3.522E+01	0.000E+00	NOT IDENT.
NB-94	2.075E-03	4.226E-02	7.020E-02	0.000E+00	NOT IDENT.
NB-95	2.417E-02	5.354E-02	9.140E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.981E-01	3.215E-01	0.000E+00	NOT IDENT.
ZR-95	-7.740E-03	8.662E-02	1.414E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.288E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.695E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.153E+01	1.427E+01	2.147E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.196E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-9.205E-03	4.403E-02	7.100E-02	0.000E+00	NOT IDENT.
RH-102	3.967E-02	3.569E-02	6.504E-02	0.000E+00	NOT IDENT.
RU-103	2.662E-02	4.926E-02	8.644E-02	0.000E+00	FAIL ABUN
RH-106	5.850E-02	3.568E-01	6.039E-01	0.000E+00	FAIL ABUN
RU-106	5.850E-02	3.567E-01	6.039E-01	0.000E+00	FAIL ABUN
AG-108M	-9.128E-03	4.159E-02	6.993E-02	0.000E+00	NOT IDENT.
AG-110M	3.485E-02	4.359E-02	6.912E-02	0.000E+00	NOT IDENT.
IN-111	6.639E-01	1.400E+00	2.105E+00	0.000E+00	NOT IDENT.
IN-113M	-4.752E-03	5.289E-02	9.023E-02	0.000E+00	NOT IDENT.
SN-113	-4.752E-03	5.289E-02	9.023E-02	0.000E+00	NOT IDENT.
IN-114M	-9.328E-02	2.614E-01	3.764E-01	0.000E+00	NOT IDENT.
CD-115	-1.341E+01	1.265E+01	1.936E+01	0.000E+00	NOT IDENT.
SN-117M	-4.104E-02	6.435E-02	1.062E-01	0.000E+00	NOT IDENT.
SB-122	1.601E-01	2.544E+00	4.291E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.115E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.660E-02	3.318E-02	5.510E-02	0.000E+00	NOT IDENT.
I-124	6.614E-01	8.794E-01	1.380E+00	0.000E+00	NOT IDENT.
SB-124	3.608E-02	8.029E-02	1.474E-01	0.000E+00	FAIL ABUN
SB-125	-7.288E-02	1.182E-01	1.936E-01	0.000E+00	FAIL ABUN
TE-125M	-8.402E+00	1.185E+01	1.952E+01	0.000E+00	NOT IDENT.
I-126	3.145E-02	2.478E-01	3.606E-01	0.000E+00	NOT IDENT.
SB-126	-3.486E-02	1.714E-01	2.489E-01	0.000E+00	FAIL ABUN
SB-127	8.860E-01	1.635E+00	2.839E+00	0.000E+00	NOT IDENT.
XE-127	-5.164E-02	6.477E-02	9.594E-02	0.000E+00	NOT IDENT.
I-131	3.864E-02	1.446E-01	2.529E-01	0.000E+00	NOT IDENT.
TE-132	-1.252E-01	8.738E-01	1.448E+00	0.000E+00	NOT IDENT.
BA-133	1.620E-02	6.258E-02	9.572E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.907E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	1.117E-01	1.148E-01	0.000E+00	FAIL ABUN
CS-135	3.534E-01	2.282E-01	3.633E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.122E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.961E-02	1.276E-01	2.265E-01	0.000E+00	FAIL ABUN
CE-139	1.695E-03	3.559E-02	6.047E-02	0.000E+00	NOT IDENT.
BA-140	-3.169E-02	3.012E-01	5.024E-01	0.000E+00	NOT IDENT.
LA-140	6.258E-02	1.029E-01	1.894E-01	0.000E+00	NOT IDENT.
CE-141	-1.136E-03	7.276E-02	1.240E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.012E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.347E-02	2.865E-01	4.343E-01	0.000E+00	NOT IDENT.
PM-144	2.378E-02	4.224E-02	7.323E-02	0.000E+00	NOT IDENT.
PR-144	1.611E+00	2.862E+00	4.962E+00	0.000E+00	NOT IDENT.

PM-146	-3.131E-02	5.298E-02	8.628E-02	0.000E+00	NOT IDENT.
ND-147	5.391E-01	5.983E-01	1.079E+00	0.000E+00	NOT IDENT.
PM-149	-2.209E+01	1.136E+02	1.963E+02	0.000E+00	NOT IDENT.
EU-152	-6.352E-02	1.337E-01	1.928E-01	0.000E+00	FAIL ABUN
GD-153	1.508E-01	9.927E-02	1.694E-01	0.000E+00	NOT IDENT.
EU-154	-3.658E-02	1.361E-01	2.183E-01	0.000E+00	NOT IDENT.
EU-155	5.332E-02	1.279E-01	2.245E-01	0.000E+00	FAIL ABUN
TB-160	4.576E-02	1.591E-01	2.788E-01	0.000E+00	FAIL ABUN
HO-166M	5.480E-02	7.453E-02	1.310E-01	0.000E+00	FAIL ABUN
TM-171	6.071E+01	4.089E+01	6.329E+01	0.000E+00	NOT IDENT.
LU-176	1.536E-02	2.937E-02	5.124E-02	0.000E+00	NOT IDENT.
LU-177	2.335E+00	1.865E+00	2.478E+00	0.000E+00	FAIL ABUN
LU-177M	-2.842E-02	2.496E-01	3.666E-01	0.000E+00	FAIL ABUN
HF-181	-3.571E-02	5.229E-02	8.413E-02	0.000E+00	NOT IDENT.
W-181	-2.669E-01	5.354E-01	8.080E-01	0.000E+00	NOT IDENT.
TA-182	9.892E-02	2.155E-01	3.757E-01	0.000E+00	FAIL ABUN
RE-183	3.694E-02	1.319E-01	2.266E-01	0.000E+00	FAIL ABUN
RE-184	-3.853E-02	2.778E-01	4.577E-01	0.000E+00	NOT IDENT.
OS-185	-2.094E-02	5.261E-02	8.445E-02	0.000E+00	NOT IDENT.
RE-188	9.519E-02	2.160E-01	3.593E-01	0.000E+00	NOT IDENT.
W-188	-1.448E+00	1.043E+01	1.569E+01	0.000E+00	FAIL ABUN
IR-192	7.582E-03	4.190E-02	7.341E-02	0.000E+00	FAIL ABUN
AU-195	2.147E-01	2.675E-01	4.766E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.671E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.286E+00	8.374E+00	1.394E+01	0.000E+00	NOT IDENT.
TL-202	1.256E-02	8.506E-02	1.464E-01	0.000E+00	NOT IDENT.
HG-203	2.548E-02	4.950E-02	8.847E-02	0.000E+00	FAIL ABUN
BI-207	3.576E-02	5.933E-02	1.060E-01	0.000E+00	FAIL ABUN
TL-207	-8.215E-01	8.225E-01	1.331E+00	0.000E+00	FAIL ABUN
PO-209	-8.346E+00	8.468E+00	1.291E+01	0.000E+00	NOT IDENT.
BI-210	3.752E+00	5.755E+00	1.015E+01	0.000E+00	NOT IDENT.
PB-210	3.752E+00	5.755E+00	1.015E+01	0.000E+00	NOT IDENT.
PO-210	3.752E+00	5.753E+00	1.015E+01	0.000E+00	NOT IDENT.
PB-211	-4.904E-01	1.403E+00	1.975E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.093E-01	7.622E-01	0.000E+00	FAIL ABUN
PO-215	-8.215E-01	8.225E-01	1.331E+00	0.000E+00	FAIL ABUN
RN-219	2.904E-01	5.280E-01	9.309E-01	0.000E+00	FAIL ABUN
RN-220	1.196E+01	3.249E+01	5.615E+01	0.000E+00	NOT IDENT.
RA-223	-8.215E-01	8.225E-01	1.331E+00	0.000E+00	FAIL ABUN
AC-227	-6.036E-02	4.686E-01	7.720E-01	0.000E+00	FAIL ABUN
TH-227	-6.036E-02	4.687E-01	7.720E-01	0.000E+00	FAIL ABUN
TH-229	2.385E-01	6.532E-01	1.116E+00	0.000E+00	FAIL ABUN
PA-231	-6.745E-01	1.843E+00	3.154E+00	0.000E+00	NOT IDENT.
TH-231	-8.215E-01	8.225E-01	1.331E+00	0.000E+00	FAIL ABUN
U-231	-3.467E-01	1.476E+00	2.222E+00	0.000E+00	FAIL ABUN
PA-233	-5.261E-02	7.160E-02	1.189E-01	0.000E+00	FAIL ABUN
PA-234	3.030E-02	3.151E-01	5.402E-01	0.000E+00	FAIL ABUN
PA-234M	5.238E+00	5.149E+00	9.540E+00	0.000E+00	NOT IDENT.
U-235	-4.722E-02	2.444E-01	4.135E-01	0.000E+00	FAIL ABUN
NP-236	-3.246E-02	9.305E-02	1.556E-01	0.000E+00	FAIL ABUN
NP-239	-2.637E-01	2.318E-01	3.799E-01	0.000E+00	FAIL ABUN
AM-241	1.489E-01	2.253E-01	3.609E-01	0.000E+00	NOT IDENT.
CM-243	1.236E-01	1.105E-01	1.989E-01	0.000E+00	FAIL ABUN
AM-246	9.946E-02	1.643E-01	2.932E-01	0.000E+00	NOT IDENT.
CM-247	5.474E-02	4.916E-02	8.537E-02	0.000E+00	NOT IDENT.
CF-249	1.044E-02	4.895E-02	8.509E-02	0.000E+00	NOT IDENT.
CF-251	9.581E-02	1.566E-01	2.716E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:55:06.82

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 15:54:12
Sample ID         : G245960009           Sample quantity  : 1.17960E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	604	10.67*	9.625E-01	1.872E+01	1.872E+01	10.99
CD-109	88.03	166	3.72*	5.134E+00	2.760E+00	2.823E+00	43.69
SN-126	64.28	------	9.60	2.881E+00	------ Line Not Found		------
	86.94	166	8.90	5.134E+00	1.153E+00	1.153E+00	59.54
	87.57	166	37.00*	5.134E+00	2.775E-01	2.775E-01	43.69
BA-137M	661.65	135	89.98*	1.938E+00	2.458E-01	2.461E-01	37.26
CS-137	661.65	135	85.12*	1.938E+00	2.599E-01	2.601E-01	37.26
TL-208	277.35	------	6.80	3.899E+00	------ Line Not Found		------
	510.84	130	21.60	2.406E+00	7.972E-01	7.972E-01	46.39
	583.14	316	84.20*	2.158E+00	5.533E-01	5.533E-01	17.92
	860.37	------	12.46	1.539E+00	------ Line Not Found		------
BI-211	72.87	107	1.27	3.915E+00	6.842E+00	6.842E+00	84.04
	351.07	531	12.94*	3.243E+00	4.028E+00	4.028E+00	15.68
PB-212	74.81	328	10.70	4.109E+00	2.373E+00	2.373E+00	25.53
	77.11	541	18.00	4.329E+00	2.210E+00	2.210E+00	16.87
	87.30	166	8.00	5.134E+00	1.283E+00	1.283E+00	44.82
	238.63	985	44.60*	4.367E+00	1.609E+00	1.609E+00	10.75
	300.09	90	3.41	3.674E+00	2.286E+00	2.286E+00	65.35
PO-212	74.81	328	10.70	4.109E+00	2.373E+00	2.373E+00	25.53
	77.11	541	18.00	4.329E+00	2.210E+00	2.210E+00	16.87
	87.30	166	8.00	5.134E+00	1.283E+00	1.283E+00	44.82
	115.19	------	0.60	6.030E+00	------ Line Not Found		------
	238.63	985	44.60*	4.367E+00	1.609E+00	1.609E+00	10.75
	300.09	90	3.41	3.674E+00	2.286E+00	2.286E+00	65.35
BI-214	609.31	389	46.30*	2.080E+00	1.284E+00	1.284E+00	17.45
	1120.29	68	15.10	1.211E+00	1.186E+00	1.186E+00	57.05
	1764.49	43	15.80	8.403E-01	1.028E+00	1.028E+00	47.24
PB-214	74.81	328	6.21	4.109E+00	4.089E+00	4.089E+00	24.88
	77.11	541	10.50	4.329E+00	3.788E+00	3.788E+00	18.51
	87.30	166	4.67	5.134E+00	2.198E+00	2.198E+00	44.36
	241.98	258	7.49	4.327E+00	2.529E+00	2.529E+00	29.98
	295.21	313	19.20	3.718E+00	1.396E+00	1.396E+00	18.44

Sample ID : G245960009 Acquisition date : 12-FEB-2010 15:54:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	531	37.20*	3.243E+00	1.401E+00	1.401E+00	16.53
PO-214	74.81	328	6.21	4.109E+00	4.089E+00	4.089E+00	24.88
	77.11	541	10.50	4.329E+00	3.788E+00	3.788E+00	18.51
	87.30	166	4.67	5.134E+00	2.198E+00	2.198E+00	44.36
	241.98	258	7.49	4.327E+00	2.529E+00	2.529E+00	29.98
	295.21	313	19.20	3.718E+00	1.396E+00	1.396E+00	18.44
	351.92	531	37.20*	3.243E+00	1.401E+00	1.401E+00	16.53
PO-216	74.81	328	10.70	4.109E+00	2.373E+00	2.373E+00	25.53
	77.11	541	18.00	4.329E+00	2.210E+00	2.210E+00	16.87
	87.30	166	8.00	5.134E+00	1.283E+00	1.283E+00	44.82
	238.63	985	44.60*	4.367E+00	1.609E+00	1.609E+00	10.75
	300.09	90	3.41	3.674E+00	2.286E+00	2.286E+00	65.35
PO-218	74.81	328	6.21	4.109E+00	4.089E+00	4.089E+00	24.88
	77.11	541	10.50	4.329E+00	3.788E+00	3.788E+00	18.51
	87.30	166	4.67	5.134E+00	2.198E+00	2.198E+00	44.36
	241.98	258	7.49	4.327E+00	2.529E+00	2.529E+00	29.98
	295.21	313	19.20	3.718E+00	1.396E+00	1.396E+00	18.44
	351.92	531	37.20*	3.243E+00	1.401E+00	1.401E+00	16.53
RA-224	240.98	258	3.95*	4.327E+00	4.795E+00	4.795E+00	29.45
RA-226	609.31	389	46.30*	2.080E+00	1.284E+00	1.284E+00	17.45
	1120.29	68	15.10	1.211E+00	1.186E+00	1.186E+00	57.05
	1764.49	43	15.80	8.403E-01	1.028E+00	1.028E+00	47.24
AC-228	338.32	206	11.40	3.344E+00	1.723E+00	1.723E+00	47.42
	911.07	214	27.70*	1.461E+00	1.684E+00	1.684E+00	26.38
	969.11	123	16.60	1.382E+00	1.706E+00	1.706E+00	37.43
RA-228	338.32	206	11.40	3.344E+00	1.723E+00	1.723E+00	47.42
	911.07	214	27.70*	1.461E+00	1.684E+00	1.684E+00	26.38
	969.11	123	16.60	1.382E+00	1.706E+00	1.706E+00	37.43
TH-228	74.81	328	10.70	4.109E+00	2.373E+00	2.409E+00	23.78
	77.11	541	18.00	4.329E+00	2.210E+00	2.243E+00	16.87
	87.30	166	8.00	5.134E+00	1.283E+00	1.303E+00	43.69
	238.63	985	44.60*	4.367E+00	1.609E+00	1.634E+00	10.75
	300.09	90	3.41	3.674E+00	2.286E+00	2.320E+00	87.61
TH-230	609.31	389	46.30*	2.080E+00	1.284E+00	1.284E+00	17.45
	1120.29	68	15.10	1.211E+00	1.186E+00	1.186E+00	57.05
	1764.49	43	15.80	8.403E-01	1.028E+00	1.028E+00	47.24
TH-232	338.32	206	11.40	3.344E+00	1.723E+00	1.723E+00	24.90
	911.07	214	27.70*	1.461E+00	1.684E+00	1.684E+00	26.38
	969.11	123	16.60	1.382E+00	1.706E+00	1.706E+00	37.43
TH-234	63.29	156	3.80*	2.669E+00	4.906E+00	4.906E+00	47.55
	92.38	194	5.41	5.494E+00	2.079E+00	2.079E+00	52.85
U-234	609.31	389	46.30*	2.080E+00	1.284E+00	1.284E+00	17.45
	1120.29	68	15.10	1.211E+00	1.186E+00	1.186E+00	57.05
	1764.49	43	15.80	8.403E-01	1.028E+00	1.028E+00	47.24
NP-237	86.50	166	12.60*	5.134E+00	8.148E-01	8.148E-01	48.31
	95.87	------	2.60	5.611E+00	------ Line Not Found		------
U-238	63.29	156	3.80*	2.669E+00	4.906E+00	4.906E+00	47.55
	92.38	194	5.41	5.494E+00	2.079E+00	2.079E+00	50.40
AM-243	74.67	328	66.00*	4.109E+00	3.847E-01	3.847E-01	23.75

Sample ID : G245960009 Acquisition date : 12-FEB-2010 15:54:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	166	0.34	5.134E+00	3.055E+01	3.055E+01	43.69
	117.66	------	0.55	6.042E+00	------	Line Not Found	------
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	130	100.00*	2.406E+00	1.722E-01	1.722E-01	45.64

Flag: "*" = Keyline

Sample ID : G245960009
Acquisition date : 12-FEB-2010 15:54:12

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.872E+01	1.872E+01	0.206E+01	10.99	
CD-109	464.00D	1.02	2.760E+00	2.823E+00	1.233E+00	43.69	
SN-126	1.00E+05Y	1.00	2.775E-01	2.775E-01	1.212E-01	43.69	
BA-137M	30.17Y	1.00	2.458E-01	2.461E-01	0.917E-01	37.26	
CS-137	30.17Y	1.00	2.599E-01	2.601E-01	0.969E-01	37.26	
TL-208	1.41E+10Y	1.00	5.533E-01	5.533E-01	0.992E-01	17.92	
BI-211	7.04E+08Y	1.00	4.028E+00	4.028E+00	0.632E+00	15.68	
PB-212	1.41E+10Y	1.00	1.609E+00	1.609E+00	0.173E+00	10.75	
PO-212	1.41E+10Y	1.00	1.609E+00	1.609E+00	0.173E+00	10.75	
BI-214	1600.00Y	1.00	1.284E+00	1.284E+00	0.224E+00	17.45	
PB-214	1600.00Y	1.00	1.401E+00	1.401E+00	0.232E+00	16.53	
PO-214	1600.00Y	1.00	1.401E+00	1.401E+00	0.232E+00	16.53	
PO-216	1.41E+10Y	1.00	1.609E+00	1.609E+00	0.173E+00	10.75	
PO-218	1600.00Y	1.00	1.401E+00	1.401E+00	0.232E+00	16.53	
RA-224	1.41E+10Y	1.00	4.795E+00	4.795E+00	1.412E+00	29.45	
RA-226	1600.00Y	1.00	1.284E+00	1.284E+00	0.224E+00	17.45	
AC-228	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.444E+00	26.38	
RA-228	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.444E+00	26.38	
TH-228	1.91Y	1.02	1.609E+00	1.634E+00	0.176E+00	10.75	
TH-230	4.47E+09Y	1.00	1.284E+00	1.284E+00	0.224E+00	17.45	
TH-232	1.41E+10Y	1.00	1.684E+00	1.684E+00	0.444E+00	26.38	
TH-234	4.47E+09Y	1.00	4.906E+00	4.906E+00	2.333E+00	47.55	
U-234	4.47E+09Y	1.00	1.284E+00	1.284E+00	0.224E+00	17.45	
NP-237	2.14E+06Y	1.00	8.148E-01	8.148E-01	3.936E-01	48.31	
U-238	4.47E+09Y	1.00	4.906E+00	4.906E+00	2.333E+00	47.55	
AM-243	7380.00Y	1.00	3.847E-01	3.847E-01	0.914E-01	23.75	
ANH-511	1.00E+09Y	1.00	1.722E-01	1.722E-01	0.786E-01	45.64	
		Total Activity :	6.365E+01	6.374E+01			

Grand Total Activity : 6.365E+01 6.374E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245960009 Acquisition date : 12-FEB-2010 15:54:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.17	62	379	1.00	258.35	253	10	8.66E-03	****	6.02E+00	T
0	185.86	150	313	1.08	371.72	367	9	2.08E-02	47.9	5.17E+00	T
0	209.19	80	282	1.44	418.38	413	10	1.12E-02	81.3	4.79E+00	T
0	269.75	94	137	1.33	539.50	536	8	1.31E-02	47.7	3.98E+00	T
0	409.61	46	110	1.40	819.22	814	11	6.39E-03	93.1	2.87E+00	T
0	463.18	123	48	2.08	926.37	921	13	1.71E-02	30.0	2.61E+00	T
0	727.34	55	63	1.41	1454.69	1449	11	7.63E-03	62.2	1.79E+00	T
0	795.76	73	60	2.50	1591.51	1582	23	1.01E-02	61.1	1.65E+00	T
0	933.19	36	31	1.25	1866.38	1859	14	4.96E-03	74.6	1.43E+00	
3	964.37	40	32	2.02	1928.73	1925	18	5.59E-03	57.3	1.39E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:55:11.58

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960009.CNF;1 *
* Acquisition date  : 12-FEB-2010 15:54:12  Detector SN#     :             *
* Detector ID       : GAM06                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.17          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245960009            Analyst initials: MXR1         *
* Batch Number      : 948717                Sample Quantity : 1.17960E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 4-FEB-2009 13:05:54.47MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.872E+01	2.057E+00	5.586E-01	3.695E-02	33.506
CD-109	2.823E+00	1.233E+00	1.979E+00	1.954E-01	1.426
SN-126	2.775E-01	1.212E-01	1.851E-01	1.821E-02	1.499
BA-137M	2.461E-01	9.168E-02	6.893E-02	3.404E-03	3.570
CS-137	2.601E-01	9.692E-02	7.286E-02	3.619E-03	3.570
TL-208	5.533E-01	9.915E-02	6.883E-02	4.350E-03	8.039
BI-211	4.028E+00	6.317E-01	4.092E-01	2.641E-02	9.846
PB-212	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
PO-212	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
BI-214	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
PB-214	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
PO-214	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
PO-216	1.609E+00	1.730E-01	1.171E-01	8.629E-03	13.748
PO-218	1.401E+00	2.316E-01	1.426E-01	1.183E-02	9.825
RA-224	4.795E+00	1.412E+00	1.332E+00	7.808E-02	3.599
RA-226	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
AC-228	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
RA-228	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547

Sample ID : G245960009 Acquisition date : 12-FEB-2010 15:54:12

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.634E+00	1.756E-01	1.188E-01	8.760E-03	13.748
TH-230	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
TH-232	1.684E+00	4.444E-01	2.573E-01	2.629E-02	6.547
TH-234	4.906E+00	2.333E+00	2.886E+00	5.247E-01	1.700
U-234	1.284E+00	2.241E-01	1.369E-01	1.010E-02	9.376
NP-237	8.148E-01	3.936E-01	5.363E-01	1.224E-01	1.519
U-238	4.906E+00	2.333E+00	2.886E+00	5.247E-01	1.700
AM-243	3.847E-01	9.139E-02	1.059E-01	9.564E-03	3.633
ANH-511	1.722E-01	7.858E-02	5.345E-02	2.988E-03	3.222

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-4.871E-01		4.073E-01	6.085E-01	4.020E-02	-0.800
NA-22	-1.310E-02		4.970E-02	7.828E-02	4.834E-03	-0.167
NA-24	3.811E-01		4.199E-01	Half-Life too short		
AL-26	-3.449E-03		3.124E-02	5.029E-02	2.889E-03	-0.069
TI-44	4.078E-01	+	6.877E-02	9.661E-02	8.881E-03	4.220
SC-46	2.276E-02		4.555E-02	7.956E-02	5.703E-03	0.286
V-48	1.631E-02		7.587E-02	1.287E-01	9.013E-03	0.127
CR-51	2.492E-01		4.691E-01	8.081E-01	5.324E-02	0.308
MN-52	-1.055E-02		2.280E-01	3.651E-01	2.298E-02	-0.029
MN-54	1.307E-02		5.233E-02	8.910E-02	5.881E-03	0.147
CO-56	-1.343E-02		4.477E-02	7.256E-02	4.878E-03	-0.185
CO-57	2.190E-02		3.124E-02	5.279E-02	3.225E-03	0.415
CO-58	-3.456E-03		4.746E-02	7.897E-02	5.042E-03	-0.044
FE-59	-6.298E-03		9.731E-02	1.588E-01	1.165E-02	-0.040
CO-60	2.847E-02		3.865E-02	7.004E-02	4.400E-03	0.406
ZN-65	-4.131E-02		1.260E-01	1.690E-01	1.070E-02	-0.244
GE-68	3.150E-01		1.422E+00	2.400E+00	1.573E-01	0.131
AS-73	1.266E+00		1.239E+00	2.147E+00	1.963E-01	0.590
AS-74	-1.251E-02		1.063E-01	1.712E-01	9.104E-03	-0.073
SE-75	-2.410E-02		6.276E-02	8.461E-02	5.075E-03	-0.285
BR-77	-2.652E+00		1.370E+01	2.214E+01	1.234E+00	-0.120
SR-82	-6.572E-01		4.661E-01	6.805E-01	4.094E-02	-0.966
RB-83	-1.730E-02		8.942E-02	1.445E-01	8.051E-03	-0.120
RB-84	4.839E-02		7.929E-02	1.401E-01	9.925E-03	0.345
KR-85	1.302E+01		1.072E+01	1.689E+01	9.430E-01	0.771
SR-85	6.680E-02		5.501E-02	8.662E-02	4.838E-03	0.771
RB-86	-1.704E-01		9.397E-01	1.517E+00	9.952E-02	-0.112
Y-88	1.937E-02		3.853E-02	7.031E-02	3.996E-03	0.276
ZR-88	-1.394E-03		3.734E-02	6.192E-02	3.436E-03	-0.023
Y-91	-3.529E+00		2.193E+01	3.525E+01	2.114E+00	-0.100
NB-94	2.075E-03		4.312E-02	6.985E-02	3.710E-03	0.030
NB-95	2.417E-02		5.463E-02	9.103E-02	5.381E-03	0.265
NB-95M	4.725E-01		2.022E-01	3.161E-01	2.389E-02	1.495
ZR-95	-7.740E-03		8.839E-02	1.408E-01	9.921E-03	-0.055

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	1.222E-01		6.570E-02	Half-Life too short		
ZR-97	6.145E+00		1.375E+00	Half-Life too short		
MO-99	-1.153E+01		1.456E+01	2.138E+01	2.933E+00	-0.540
TC-99M	-1.160E+10		2.651E+10	Half-Life too short		
RH-101	-9.205E-03		4.493E-02	6.969E-02	3.914E-03	-0.132
RH-102	3.967E-02		3.642E-02	6.444E-02	3.628E-03	0.616
RU-103	2.662E-02		5.027E-02	8.569E-02	1.076E-02	0.311
RH-106	5.850E-02		3.640E-01	6.001E-01	6.869E-02	0.097
RU-106	5.850E-02		3.640E-01	6.001E-01	3.112E-02	0.097
AG-108M	-9.128E-03		4.244E-02	6.922E-02	4.245E-03	-0.132
AG-110M	3.485E-02		4.448E-02	6.873E-02	3.710E-03	0.507
IN-111	6.639E-01		1.428E+00	2.071E+00	1.217E-01	0.321
IN-113M	-4.752E-03		5.397E-02	8.921E-02	5.309E-03	-0.053
SN-113	-4.752E-03		5.397E-02	8.921E-02	5.309E-03	-0.053
IN-114M	-9.328E-02		2.667E-01	3.693E-01	2.055E-02	-0.253
CD-115	-1.341E+01		1.291E+01	1.920E+01	1.067E+00	-0.699
SN-117M	-4.104E-02		6.566E-02	1.040E-01	5.712E-03	-0.395
SB-122	1.601E-01		2.596E+00	4.260E+00	2.321E-01	0.038
I-123	-3.560E+00		3.630E+00	Half-Life too short		
TE-123M	-1.660E-02		3.386E-02	5.395E-02	3.005E-03	-0.308
I-124	6.614E-01		8.974E-01	1.371E+00	7.244E-02	0.483
SB-124	3.608E-02		8.193E-02	1.481E-01	9.619E-03	0.244
SB-125	-7.288E-02		1.206E-01	1.916E-01	1.124E-02	-0.380
TE-125M	-8.402E+00		1.209E+01	1.903E+01	1.730E+00	-0.441
I-126	3.145E-02		2.528E-01	3.586E-01	1.786E-02	0.088
SB-126	-3.486E-02		1.749E-01	2.477E-01	1.357E-02	-0.141
SB-127	8.860E-01		1.669E+00	2.824E+00	2.559E-01	0.314
XE-127	-5.164E-02		6.609E-02	9.419E-02	5.321E-03	-0.548
I-131	3.864E-02		1.476E-01	2.498E-01	1.606E-02	0.155
TE-132	-1.252E-01		8.916E-01	1.424E+00	2.046E-01	-0.088
BA-133	1.620E-02		6.386E-02	9.454E-02	1.093E-02	0.171
I-133	2.290E-03		3.524E-03	Half-Life too short		
CS-134	1.857E-01	+	1.140E-01	1.144E-01	7.201E-03	1.623
CS-135	3.534E-01		2.328E-01	3.577E-01	2.780E-02	0.988
I-135	-9.273E+08		3.123E+09	Half-Life too short		
CS-136	6.961E-02		1.302E-01	2.264E-01	1.625E-02	0.307
CE-139	1.695E-03		3.632E-02	5.924E-02	3.203E-03	0.029
BA-140	-3.169E-02		3.073E-01	4.985E-01	1.619E-01	-0.064
LA-140	6.258E-02		1.050E-01	1.902E-01	1.173E-02	0.329
CE-141	-1.136E-03		7.424E-02	1.213E-01	7.158E-03	-0.009
CE-143	9.025E-04		1.537E-04	Half-Life too short		
CE-144	5.347E-02		2.924E-01	4.244E-01	6.036E-02	0.126
PM-144	2.378E-02		4.310E-02	7.285E-02	3.832E-03	0.326
PR-144	1.611E+00		2.921E+00	4.937E+00	2.594E-01	0.326
PM-146	-3.131E-02		5.406E-02	8.544E-02	7.272E-03	-0.366
ND-147	5.391E-01		6.105E-01	1.070E+00	1.436E-01	0.504
PM-149	-2.209E+01		1.159E+02	1.934E+02	2.755E+01	-0.114
EU-152	-6.352E-02		1.364E-01	1.904E-01	1.254E-02	-0.334

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	1.508E-01		1.013E-01	1.650E-01	1.379E-02	0.914
EU-154	-3.658E-02		1.388E-01	2.186E-01	2.093E-02	-0.167
EU-155	5.332E-02		1.305E-01	2.189E-01	1.660E-02	0.244
TB-160	4.576E-02		1.623E-01	2.781E-01	1.964E-02	0.165
HO-166M	5.480E-02		7.605E-02	1.304E-01	7.034E-03	0.420
TM-171	6.071E+01		4.173E+01	6.141E+01	5.486E+00	0.989
LU-176	1.536E-02		2.997E-02	5.052E-02	3.014E-03	0.304
LU-177	2.335E+00	+	1.903E+00	2.433E+00	1.383E-01	0.960
LU-177M	-2.842E-02		2.547E-01	3.627E-01	2.029E-02	-0.078
HF-181	-3.571E-02		5.335E-02	8.336E-02	4.691E-03	-0.428
W-181	-2.669E-01		5.463E-01	7.838E-01	7.021E-02	-0.340
TA-182	9.892E-02		2.199E-01	3.761E-01	2.271E-02	0.263
RE-183	3.694E-02		1.346E-01	2.219E-01	1.209E-02	0.166
RE-184	-3.853E-02		2.835E-01	4.504E-01	2.660E-02	-0.086
OS-185	-2.094E-02		5.369E-02	8.395E-02	4.232E-03	-0.249
RE-188	9.519E-02		2.204E-01	3.517E-01	1.947E-02	0.271
W-188	-1.448E+00		1.064E+01	1.547E+01	9.239E-01	-0.094
IR-192	7.582E-03		4.275E-02	7.241E-02	4.328E-03	0.105
AU-195	2.147E-01		2.730E-01	4.644E-01	3.796E-02	0.462
TL-200	1.495E-04		2.893E-04	Half-Life too short		
TL-201	-3.286E+00		8.545E+00	1.366E+01	7.393E-01	-0.241
TL-202	1.256E-02		8.680E-02	1.449E-01	8.153E-03	0.087
HG-203	2.548E-02		5.051E-02	8.715E-02	5.504E-03	0.292
BI-207	3.576E-02		6.054E-02	1.060E-01	7.027E-03	0.337
TL-207	-8.215E-01		8.393E-01	1.313E+00	2.175E-01	-0.626
PO-209	-8.346E+00		8.641E+00	1.288E+01	9.333E-01	-0.648
BI-210	3.752E+00		5.872E+00	9.816E+00	8.082E-01	0.382
PB-210	3.752E+00		5.872E+00	9.816E+00	8.082E-01	0.382
PO-210	3.752E+00		5.870E+00	9.816E+00	7.091E-01	0.382
PB-211	-4.904E-01		1.432E+00	1.953E+00	1.217E+00	-0.251
BI-212	8.296E-01	+	5.197E-01	7.587E-01	5.705E-02	1.093
PO-215	-8.215E-01		8.393E-01	1.313E+00	2.175E-01	-0.626
RN-219	2.904E-01		5.388E-01	9.207E-01	1.244E-01	0.315
RN-220	1.196E+01		3.316E+01	5.572E+01	3.062E+00	0.215
RA-223	-8.215E-01		8.393E-01	1.313E+00	2.175E-01	-0.626
AC-227	-6.036E-02		4.782E-01	7.598E-01	1.064E-01	-0.079
TH-227	-6.036E-02		4.782E-01	7.598E-01	1.287E-01	-0.079
TH-229	2.385E-01		6.665E-01	1.096E+00	6.121E-02	0.218
PA-231	-6.745E-01		1.880E+00	3.108E+00	4.305E-01	-0.217
TH-231	-8.215E-01		8.393E-01	1.313E+00	2.175E-01	-0.626
U-231	-3.467E-01		1.506E+00	2.165E+00	1.855E-01	-0.160
PA-233	-5.261E-02		7.306E-02	1.173E-01	7.397E-03	-0.449
PA-234	3.030E-02		3.215E-01	5.393E-01	9.776E-02	0.056
PA-234M	5.238E+00		5.254E+00	9.529E+00	8.144E-01	0.550
U-235	-4.722E-02		2.494E-01	4.045E-01	6.579E-02	-0.117
NP-236	-3.246E-02		9.495E-02	1.523E-01	8.335E-03	-0.213
NP-239	-2.637E-01		2.366E-01	3.708E-01	2.396E-02	-0.711
AM-241	1.489E-01		2.299E-01	3.498E-01	3.420E-02	0.426

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.236E-01		1.128E-01	1.939E-01	1.478E-02	0.637
AM-246	9.946E-02		1.677E-01	2.931E-01	1.919E-02	0.339
CM-247	5.474E-02		5.017E-02	8.443E-02	4.704E-03	0.648
CF-249	1.044E-02		4.995E-02	8.412E-02	4.692E-03	0.124
CF-251	9.581E-02		1.598E-01	2.663E-01	1.457E-02	0.360

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960009           *
* Acquisition date  : 12-FEB-2010 15:54:12 Detector SN#     :               *
* Detector ID       : GAM06                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.17      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960009           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.1796E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.872E+01	2.016E+00	2.786E-01	1.029E+00
CD-109	2.823E+00	1.209E+00	1.017E+00	6.166E-01
SN-126	2.775E-01	1.188E-01	9.515E-02	6.061E-02
BA-137M	2.461E-01	8.984E-02	3.468E-02	4.584E-02
CS-137	2.601E-01	9.498E-02	3.666E-02	4.846E-02
TL-208	5.533E-01	9.717E-02	3.468E-02	4.958E-02
BI-211	4.028E+00	6.191E-01	2.073E-01	3.159E-01
PB-212	1.609E+00	1.695E-01	5.955E-02	8.650E-02
PO-212	1.609E+00	1.695E-01	5.955E-02	8.650E-02
BI-214	1.284E+00	2.196E-01	6.896E-02	1.120E-01
PB-214	1.401E+00	2.270E-01	7.226E-02	1.158E-01
PO-214	1.401E+00	2.270E-01	7.226E-02	1.158E-01
PO-216	1.609E+00	1.695E-01	5.955E-02	8.650E-02
PO-218	1.401E+00	2.270E-01	7.226E-02	1.158E-01
RA-224	4.795E+00	1.384E+00	6.777E-01	7.059E-01
RA-226	1.284E+00	2.196E-01	6.896E-02	1.120E-01
AC-228	1.684E+00	4.355E-01	1.290E-01	2.222E-01
RA-228	1.684E+00	4.355E-01	1.290E-01	2.222E-01
TH-228	1.634E+00	1.721E-01	6.046E-02	8.781E-02
TH-230	1.284E+00	2.196E-01	6.896E-02	1.120E-01
TH-232	1.684E+00	4.355E-01	1.290E-01	2.222E-01
TH-234	4.906E+00	2.286E+00	1.489E+00	1.166E+00
U-234	1.284E+00	2.196E-01	6.896E-02	1.120E-01
NP-237	8.148E-01	3.858E-01	2.758E-01	1.968E-01
U-238	4.906E+00	2.286E+00	1.489E+00	1.166E+00
AM-243	3.847E-01	8.956E-02	5.453E-02	4.570E-02
ANH-511	1.722E-01	7.701E-02	2.697E-02	3.929E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-4.871E-01	3.992E-01	3.073E-01	2.037E-01	NOT IDENT.
NA-22	-1.310E-02	4.870E-02	3.910E-02	2.485E-02	NOT IDENT.
NA-24	3.811E+05	8.230E+05	0.000E+00	4.199E+05	SHORT HLIF
AL-26	-3.449E-03	3.062E-02	2.502E-02	1.562E-02	NOT IDENT.
TI-44	4.078E-01	6.739E-02	4.973E-02	3.438E-02	FAIL ABUN
SC-46	2.276E-02	4.464E-02	3.990E-02	2.277E-02	FAIL ABUN
V-48	1.631E-02	7.435E-02	6.449E-02	3.793E-02	NOT IDENT.
CR-51	2.492E-01	4.597E-01	4.098E-01	2.345E-01	NOT IDENT.
MN-52	-1.055E-02	2.234E-01	1.821E-01	1.140E-01	NOT IDENT.
MN-54	1.307E-02	5.128E-02	4.471E-02	2.617E-02	NOT IDENT.
CO-56	-1.343E-02	4.387E-02	3.641E-02	2.238E-02	NOT IDENT.
CO-57	2.190E-02	3.062E-02	2.705E-02	1.562E-02	NOT IDENT.
CO-58	-3.456E-03	4.651E-02	3.964E-02	2.373E-02	NOT IDENT.
FE-59	-6.298E-03	9.536E-02	7.948E-02	4.865E-02	NOT IDENT.
CO-60	2.847E-02	3.788E-02	3.497E-02	1.933E-02	NOT IDENT.
ZN-65	-4.131E-02	1.235E-01	8.452E-02	6.300E-02	NOT IDENT.
GE-68	3.150E-01	1.394E+00	1.201E+00	7.111E-01	NOT IDENT.
AS-73	1.266E+00	1.214E+00	1.109E+00	6.194E-01	NOT IDENT.
AS-74	-1.251E-02	1.041E-01	8.624E-02	5.314E-02	NOT IDENT.
SE-75	-2.410E-02	6.150E-02	4.299E-02	3.138E-02	NOT IDENT.
BR-77	-2.652E+00	1.343E+01	1.117E+01	6.851E+00	FAIL ABUN
SR-82	-6.572E-01	4.568E-01	3.418E-01	2.331E-01	NOT IDENT.
RB-83	-1.730E-02	8.763E-02	7.288E-02	4.471E-02	NOT IDENT.
RB-84	4.839E-02	7.770E-02	7.026E-02	3.964E-02	NOT IDENT.
KR-85	1.302E+01	1.051E+01	8.519E+00	5.362E+00	NOT IDENT.
SR-85	6.680E-02	5.391E-02	4.370E-02	2.751E-02	NOT IDENT.
RB-86	-1.704E-01	9.209E-01	7.594E-01	4.699E-01	NOT IDENT.
Y-88	1.937E-02	3.776E-02	3.498E-02	1.927E-02	NOT IDENT.
ZR-88	-1.394E-03	3.660E-02	3.133E-02	1.867E-02	NOT IDENT.
Y-91	-3.529E+00	2.149E+01	1.762E+01	1.096E+01	NOT IDENT.
NB-94	2.075E-03	4.226E-02	3.512E-02	2.156E-02	NOT IDENT.
NB-95	2.417E-02	5.354E-02	4.572E-02	2.731E-02	NOT IDENT.
NB-95M	4.725E-01	1.981E-01	1.608E-01	1.011E-01	NOT IDENT.
ZR-95	-7.740E-03	8.662E-02	7.072E-02	4.419E-02	NOT IDENT.
NB-97	1.222E+05	1.288E+05	0.000E+00	6.570E+04	SHORT HLIF
ZR-97	6.145E+06	2.695E+06	0.000E+00	1.375E+06	SHORT HLIF
MO-99	-1.153E+01	1.427E+01	1.074E+01	7.278E+00	NOT IDENT.
TC-99M	-1.160E+16	5.196E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-9.205E-03	4.403E-02	3.552E-02	2.246E-02	NOT IDENT.
RH-102	3.967E-02	3.569E-02	3.254E-02	1.821E-02	NOT IDENT.
RU-103	2.662E-02	4.926E-02	4.325E-02	2.513E-02	FAIL ABUN
RH-106	5.850E-02	3.568E-01	3.021E-01	1.820E-01	FAIL ABUN
RU-106	5.850E-02	3.567E-01	3.021E-01	1.820E-01	FAIL ABUN
AG-108M	-9.128E-03	4.159E-02	3.499E-02	2.122E-02	NOT IDENT.
AG-110M	3.485E-02	4.359E-02	3.458E-02	2.224E-02	NOT IDENT.
IN-111	6.639E-01	1.400E+00	1.053E+00	7.142E-01	NOT IDENT.
IN-113M	-4.752E-03	5.289E-02	4.514E-02	2.699E-02	NOT IDENT.
SN-113	-4.752E-03	5.289E-02	4.514E-02	2.699E-02	NOT IDENT.
IN-114M	-9.328E-02	2.614E-01	1.883E-01	1.333E-01	NOT IDENT.
CD-115	-1.341E+01	1.265E+01	9.685E+00	6.456E+00	NOT IDENT.
SN-117M	-4.104E-02	6.435E-02	5.312E-02	3.283E-02	NOT IDENT.
SB-122	1.601E-01	2.544E+00	2.147E+00	1.298E+00	NOT IDENT.
I-123	-3.560E+06	7.115E+06	0.000E+00	3.630E+06	SHORT HLIF
TE-123M	-1.660E-02	3.318E-02	2.756E-02	1.693E-02	NOT IDENT.
I-124	6.614E-01	8.794E-01	6.903E-01	4.487E-01	NOT IDENT.
SB-124	3.608E-02	8.029E-02	7.376E-02	4.097E-02	FAIL ABUN
SB-125	-7.288E-02	1.182E-01	9.688E-02	6.029E-02	FAIL ABUN
TE-125M	-8.402E+00	1.185E+01	9.764E+00	6.047E+00	NOT IDENT.
I-126	3.145E-02	2.478E-01	1.804E-01	1.264E-01	NOT IDENT.
SB-126	-3.486E-02	1.714E-01	1.245E-01	8.743E-02	FAIL ABUN
SB-127	8.860E-01	1.635E+00	1.420E+00	8.344E-01	NOT IDENT.
XE-127	-5.164E-02	6.477E-02	4.800E-02	3.305E-02	NOT IDENT.
I-131	3.864E-02	1.446E-01	1.265E-01	7.378E-02	NOT IDENT.
TE-132	-1.252E-01	8.738E-01	7.246E-01	4.458E-01	NOT IDENT.
BA-133	1.620E-02	6.258E-02	4.789E-02	3.193E-02	NOT IDENT.
I-133	2.290E+03	6.907E+03	0.000E+00	3.524E+03	SHORT HLIF
CS-134	1.857E-01	1.117E-01	5.745E-02	5.700E-02	FAIL ABUN
CS-135	3.534E-01	2.282E-01	1.818E-01	1.164E-01	NOT IDENT.
I-135	-9.273E+14	6.122E+15	0.000E+00	3.123E+15	SHORT HLIF
CS-136	6.961E-02	1.276E-01	1.133E-01	6.510E-02	FAIL ABUN
CE-139	1.695E-03	3.559E-02	3.025E-02	1.816E-02	NOT IDENT.
BA-140	-3.169E-02	3.012E-01	2.514E-01	1.537E-01	NOT IDENT.
LA-140	6.258E-02	1.029E-01	9.476E-02	5.248E-02	NOT IDENT.
CE-141	-1.136E-03	7.276E-02	6.205E-02	3.712E-02	NOT IDENT.
CE-143	9.025E+02	3.012E+02	0.000E+00	1.537E+02	SHORT HLIF
CE-144	5.347E-02	2.865E-01	2.173E-01	1.462E-01	NOT IDENT.
PM-144	2.378E-02	4.224E-02	3.663E-02	2.155E-02	NOT IDENT.
PR-144	1.611E+00	2.862E+00	2.483E+00	1.460E+00	NOT IDENT.

PM-146	-3.131E-02	5.298E-02	4.316E-02	2.703E-02	NOT IDENT.
ND-147	5.391E-01	5.983E-01	5.398E-01	3.052E-01	NOT IDENT.
PM-149	-2.209E+01	1.136E+02	9.820E+01	5.797E+01	NOT IDENT.
EU-152	-6.352E-02	1.337E-01	9.646E-02	6.819E-02	FAIL ABUN
GD-153	1.508E-01	9.927E-02	8.475E-02	5.065E-02	NOT IDENT.
EU-154	-3.658E-02	1.361E-01	1.092E-01	6.942E-02	NOT IDENT.
EU-155	5.332E-02	1.279E-01	1.123E-01	6.524E-02	FAIL ABUN
TB-160	4.576E-02	1.591E-01	1.395E-01	8.117E-02	FAIL ABUN
HO-166M	5.480E-02	7.453E-02	6.554E-02	3.803E-02	FAIL ABUN
TM-171	6.071E+01	4.089E+01	3.167E+01	2.086E+01	NOT IDENT.
LU-176	1.536E-02	2.937E-02	2.563E-02	1.498E-02	NOT IDENT.
LU-177	2.335E+00	1.865E+00	1.240E+00	9.514E-01	FAIL ABUN
LU-177M	-2.842E-02	2.496E-01	1.834E-01	1.273E-01	FAIL ABUN
HF-181	-3.571E-02	5.229E-02	4.209E-02	2.668E-02	NOT IDENT.
W-181	-2.669E-01	5.354E-01	4.042E-01	2.731E-01	NOT IDENT.
TA-182	9.892E-02	2.155E-01	1.880E-01	1.099E-01	FAIL ABUN
RE-183	3.694E-02	1.319E-01	1.134E-01	6.731E-02	FAIL ABUN
RE-184	-3.853E-02	2.778E-01	2.290E-01	1.417E-01	NOT IDENT.
OS-185	-2.094E-02	5.261E-02	4.225E-02	2.684E-02	NOT IDENT.
RE-188	9.519E-02	2.160E-01	1.797E-01	1.102E-01	NOT IDENT.
W-188	-1.448E+00	1.043E+01	7.851E+00	5.322E+00	FAIL ABUN
IR-192	7.582E-03	4.190E-02	3.672E-02	2.138E-02	FAIL ABUN
AU-195	2.147E-01	2.675E-01	2.384E-01	1.365E-01	FAIL ABUN
TL-200	1.495E+02	5.671E+02	0.000E+00	2.893E+02	SHORT HLIF
TL-201	-3.286E+00	8.374E+00	6.975E+00	4.272E+00	NOT IDENT.
TL-202	1.256E-02	8.506E-02	7.324E-02	4.340E-02	NOT IDENT.
HG-203	2.548E-02	4.950E-02	4.426E-02	2.526E-02	FAIL ABUN
BI-207	3.576E-02	5.933E-02	5.304E-02	3.027E-02	FAIL ABUN
TL-207	-8.215E-01	8.225E-01	6.659E-01	4.196E-01	FAIL ABUN
PO-209	-8.346E+00	8.468E+00	6.459E+00	4.321E+00	NOT IDENT.
BI-210	3.752E+00	5.755E+00	5.080E+00	2.936E+00	NOT IDENT.
PB-210	3.752E+00	5.755E+00	5.080E+00	2.936E+00	NOT IDENT.
PO-210	3.752E+00	5.753E+00	5.080E+00	2.935E+00	NOT IDENT.
PB-211	-4.904E-01	1.403E+00	9.880E-01	7.159E-01	NOT IDENT.
BI-212	8.296E-01	5.093E-01	3.813E-01	2.598E-01	FAIL ABUN
PO-215	-8.215E-01	8.225E-01	6.659E-01	4.196E-01	FAIL ABUN
RN-219	2.904E-01	5.280E-01	4.657E-01	2.694E-01	FAIL ABUN
RN-220	1.196E+01	3.249E+01	2.809E+01	1.658E+01	NOT IDENT.
RA-223	-8.215E-01	8.225E-01	6.659E-01	4.196E-01	FAIL ABUN
AC-227	-6.036E-02	4.686E-01	3.862E-01	2.391E-01	FAIL ABUN
TH-227	-6.036E-02	4.687E-01	3.862E-01	2.391E-01	FAIL ABUN
TH-229	2.385E-01	6.532E-01	5.586E-01	3.333E-01	FAIL ABUN
PA-231	-6.745E-01	1.843E+00	1.578E+00	9.402E-01	NOT IDENT.
TH-231	-8.215E-01	8.225E-01	6.659E-01	4.196E-01	FAIL ABUN
U-231	-3.467E-01	1.476E+00	1.112E+00	7.528E-01	FAIL ABUN
PA-233	-5.261E-02	7.160E-02	5.949E-02	3.653E-02	FAIL ABUN
PA-234	3.030E-02	3.151E-01	2.703E-01	1.607E-01	FAIL ABUN
PA-234M	5.238E+00	5.149E+00	4.773E+00	2.627E+00	NOT IDENT.
U-235	-4.722E-02	2.444E-01	2.069E-01	1.247E-01	FAIL ABUN
NP-236	-3.246E-02	9.305E-02	7.782E-02	4.747E-02	FAIL ABUN
NP-239	-2.637E-01	2.318E-01	1.901E-01	1.183E-01	FAIL ABUN
AM-241	1.489E-01	2.253E-01	1.806E-01	1.149E-01	NOT IDENT.
CM-243	1.236E-01	1.105E-01	9.953E-02	5.638E-02	FAIL ABUN
AM-246	9.946E-02	1.643E-01	1.467E-01	8.383E-02	NOT IDENT.
CM-247	5.474E-02	4.916E-02	4.271E-02	2.508E-02	NOT IDENT.
CF-249	1.044E-02	4.895E-02	4.257E-02	2.498E-02	NOT IDENT.
CF-251	9.581E-02	1.566E-01	1.359E-01	7.991E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.50	320.7173
46.50	320.7173
46.50	320.7173
48.70	368.2488
49.72	382.5430
51.35	349.0019
52.39	322.2386
52.97	331.6932
53.15	329.9662
53.44	320.0681
54.07	335.0537
56.28	387.7297
56.28	387.7313
57.37	0.0000
57.53	349.8508
57.53	349.8515
57.60	352.3453
57.98	359.6855
57.98	359.6855
59.32	329.4313
59.32	329.4313
59.40	329.4728
59.54	329.5457
59.72	313.3793
60.01	313.5223
61.10	334.7963
61.14	340.7430
61.30	340.8279
63.00	392.7931
63.29	416.1911
63.29	416.1911
63.58	435.7069
64.28	446.5887
65.12	424.7951
65.20	424.8455
65.20	424.8455
66.05	370.1594
66.72	319.3530
66.83	319.4065
66.91	281.4597
67.20	341.3837
67.20	341.3837
67.75	341.6583
67.85	341.7084
68.90	379.2020
68.90	379.2020
69.30	389.9191
69.67	409.6349
70.82	402.7917
70.82	402.7917
70.83	402.7982
72.80	374.9074
72.87	374.9439
72.87	374.9439
74.67	375.8821
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.81	375.9550
74.97	376.0370
75.28	376.1979
75.70	376.4135
77.11	377.1362
77.11	377.1362

77.11	377.1362
77.11	377.1362
77.11	377.1362
77.11	377.1362
77.11	377.1362
78.38	377.7815
79.62	421.3802
79.80	421.4799
79.80	421.4799
80.11	473.4094
80.18	473.4531
80.30	473.5271
80.30	473.5271
80.57	501.1126
81.00	518.1597
81.07	518.2074
81.07	518.2074
81.07	518.2074
81.07	518.2074
82.60	427.6118
83.37	389.8182
83.78	428.2629
83.78	428.2629
83.78	428.2629
83.78	428.2629
84.21	418.2981
84.90	411.6465
85.43	404.6432
86.29	489.4773
86.50	544.8613
86.54	544.8873
86.59	544.9220
86.72	568.0417
86.79	568.0891
86.94	575.8759
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.30	593.0367
87.57	574.7945
87.88	641.8986
88.03	642.0184
88.36	642.2808
88.47	642.3701
89.95	643.5473
91.11	540.2698
92.29	459.8885
92.38	350.9453
92.38	350.9453
93.35	329.6872
94.00	357.8272
94.67	378.2648
94.67	378.2670
94.90	379.9220
94.90	379.9220
94.90	379.9220
94.90	379.9220
95.87	363.2827
95.87	363.2827
96.73	326.3549
97.43	278.6663
98.44	317.2750
98.44	317.2762
98.88	301.8581
99.55	307.9404
99.55	307.9404
99.86	295.3771
100.00	295.4245
100.10	295.4604
103.18	319.9858
103.76	259.4856
105.00	287.3030
105.31	302.1160
108.00	340.4037
109.28	351.7188

111.00	309.9346
111.00	309.9346
111.76	323.0308
112.95	331.3566
115.19	288.5223
116.30	336.5067
117.00	337.7471
117.00	337.7471
117.66	311.1409
121.11	289.3075
121.62	274.4870
121.78	280.5208
122.06	280.6013
122.32	288.8087
122.32	288.8087
122.32	288.8087
122.32	288.8087
123.07	322.5399
127.23	308.3643
129.76	312.3561
131.20	304.7348
133.02	303.6572
133.54	308.6590
135.34	318.7034
136.00	322.9525
136.25	312.9040
136.48	308.9209
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140.51	0.0000
142.18	293.2668
142.65	290.3381
143.76	292.6755
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144.24	296.8856
144.24	296.8856
144.24	296.8856
145.22	288.9829
145.44	281.8918
147.16	307.9077
152.43	267.2264
152.70	270.3740
153.22	257.1278
154.21	259.4097
154.21	259.4097
154.21	259.4097
154.21	259.4097
155.03	280.2012
156.02	289.7234
158.56	277.9645
159.00	0.0000
159.00	272.9006
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161.27	269.2914
162.32	270.5681
162.64	261.3093
163.35	243.8283
163.89	244.9784
165.85	268.2592
167.43	270.6958
171.28	264.2494
171.86	269.6017
172.10	269.6548
176.55	260.1434
176.60	260.1529
181.06	293.0876
184.41	280.3520
185.71	264.1544
186.00	258.7198
190.27	286.7224
192.34	253.8281
193.63	276.4027
197.04	289.9069
198.01	278.3858
198.60	269.9706
200.40	261.7873
201.83	280.2480
202.84	292.5896
205.31	255.6590

208.36	276.8642
208.81	270.9338
209.75	265.0917
209.75	265.0917
210.97	254.9875
215.65	245.2539
216.55	254.0586
218.09	251.0879
222.10	218.1492
223.80	227.0997
226.40	224.2406
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227.08	234.1475
227.20	234.1671
228.16	232.1400
228.18	232.1432
228.18	232.1432
231.56	0.0000
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236.00	261.2029
236.00	261.2029
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238.63	237.0756
238.63	237.0756
238.63	237.0756
239.00	237.1333
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241.98	204.1611
241.98	204.1611
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247.94	177.9478
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249.79	179.1082
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252.85	175.0293
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256.20	184.2829
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264.65	176.7788
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268.79	146.7972
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269.46	149.9914
269.46	149.9914
269.46	149.9914
271.23	190.0469
273.65	247.7834
276.40	171.9826
277.35	177.7042
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277.60	176.6058
278.00	186.3253
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280.46	194.7111
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283.67	178.8260
284.30	173.4727
285.00	178.0623
285.90	179.9672
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286.10	176.3688
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291.72	199.6355
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293.70	183.2109
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295.21	150.9380

295.21	150.9380
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296.50	151.0515
297.23	151.1143
298.57	151.2298
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299.80	151.3372
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300.09	145.8906
300.09	145.8906
300.12	145.8926
301.29	150.5524
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303.76	158.3783
303.91	158.3910
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304.40	146.2480
304.84	131.0454
306.84	134.2451
308.46	135.5884
311.98	141.3615
316.51	147.2363
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319.02	135.4600
319.41	142.8622
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323.87	176.4722
323.87	176.4722
323.87	176.4722
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334.20	136.2629
334.30	136.2700
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338.28	142.7636
338.28	142.7636
338.28	142.7636
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338.32	142.7655
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344.27	143.2109
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351.92	135.0246
351.92	135.0246
351.92	135.0246
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356.01	140.9436
364.48	127.3914
366.43	116.1818
367.43	114.3488
367.94	0.0000
369.80	122.0524
374.96	125.2083
383.85	135.2779
387.95	120.2722
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391.69	115.7048
391.69	115.7048
392.90	114.8145
398.62	127.5969
400.65	126.7583
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402.60	109.3330
404.84	136.3075
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411.60	125.4741
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415.30	116.0186

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433.93	116.0192
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439.89	103.6179
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445.03	123.4452
445.03	123.4452
445.03	123.4452
445.03	123.4452
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477.59	113.2444
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511.00	75.5168
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511.85	72.1854
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513.99	97.4478
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520.65	93.9968
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529.87	0.0000
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537.32	75.2755
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546.56	0.0000
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563.90	81.1679
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569.32	72.0645
569.50	67.9513
569.67	67.9545
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574.64	78.3936
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579.30	0.0000
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591.81	68.5008
592.07	71.6212
593.00	84.1047
595.88	68.5991
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602.71	64.2502
602.71	64.2502
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604.70	72.9839
609.31	79.3677

609.31	79.3677
609.31	79.3677
609.31	79.3677
610.33	79.3955
612.46	55.7578
614.37	54.0520
618.01	74.4878
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621.84	58.7357
631.29	56.8226
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633.10	68.4388
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635.90	76.9352
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646.12	74.0281
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657.75	47.7740
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661.65	65.9068
661.65	65.9068
664.57	0.0000
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666.33	65.6533
675.00	64.0591
677.61	63.0447
685.20	56.7719
692.80	62.2792
695.00	61.2486
696.49	64.5029
696.49	64.5029
697.00	68.8141
697.49	81.7297
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717.42	59.5171
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722.78	48.7760
722.78	48.7760
722.89	48.7782
722.95	48.7793
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724.18	45.1833
727.18	55.3554
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735.90	48.9738
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742.81	50.1665
744.21	53.4610
747.13	75.3491
751.79	62.3312
752.31	52.4977
753.82	65.6528
755.35	64.5874
756.15	61.3184
756.87	58.0464
763.93	79.0207
765.79	68.0834
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766.84	72.4985
776.49	78.0291
778.00	64.2877
778.57	55.1123
778.89	55.1172
783.80	52.4367
785.46	54.2193
792.07	56.9104

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796.30	42.4708
798.80	42.5017
801.93	58.6577
805.60	65.0663
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810.76	56.5533
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828.27	0.0000
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836.80	0.0000
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848.13	48.7161
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860.37	44.1792
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873.19	51.8781
874.81	54.7325
875.33	0.0000
876.40	62.3074
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880.51	45.3652
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883.24	51.0721
884.67	52.0381
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896.60	55.0511
898.02	47.4752
899.00	42.7386
903.28	44.0097
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911.07	49.5435
911.07	49.5435
919.63	38.1950
920.93	35.4292
925.00	47.3318
925.24	38.7285
926.50	50.8356
935.52	34.5168
937.48	39.4671
944.10	38.4359
946.00	36.5319
949.00	32.7113
962.29	33.0964
964.01	41.3879
966.15	48.3124
968.20	48.3368
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969.11	43.0988
969.11	43.0988
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980.50	46.5449
983.50	33.9646
989.30	37.9003
996.32	50.6204
1001.03	34.1106
1001.68	37.0398
1004.76	51.6996
1021.30	0.0000
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1036.00	38.3287
1037.82	33.4300
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1038.76	0.0000
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1046.59	38.4255
1048.07	39.4238

1050.47	41.4189
1050.47	41.4189
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1063.62	35.6118
1076.63	44.6484
1077.35	37.7093
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1085.78	47.7246
1099.22	35.9033
1112.02	30.8634
1112.84	46.3046
1115.52	53.1948
1120.29	54.9710
1120.29	54.9710
1120.29	54.9710
1120.29	54.9710
1120.51	54.9732
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1124.00	0.0000
1129.67	48.1992
1131.51	0.0000
1147.95	0.0000
1167.94	49.6181
1173.22	49.6759
1175.09	37.5254
1177.93	44.6517
1189.05	50.8626
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1205.75	0.0000
1213.00	51.1210
1221.42	40.9701
1230.97	63.6297
1235.34	62.6605
1236.41	0.0000
1238.25	53.4473
1246.25	44.2703
1260.41	0.0000
1271.85	33.1185
1274.45	36.2419
1274.54	36.2433
1291.56	27.0156
1298.22	0.0000
1312.09	28.1700
1325.50	19.8759
1325.50	19.8759
1332.49	14.6659
1333.61	22.0032
1360.21	23.1709
1362.66	0.0000
1365.15	16.8672
1368.21	17.9325
1368.53	0.0000
1376.25	15.8472
1384.27	19.0459
1394.10	16.9609
1395.20	15.9045
1407.95	25.5078
1434.06	13.8844
1436.60	22.4390
1457.56	0.0000
1460.81	15.0265
1489.15	9.7097
1509.49	8.6621
1596.49	16.0187
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1678.03	0.0000
1691.02	8.6155
1691.02	8.6155
1706.46	0.0000
1750.46	0.0000
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1764.49	11.8659
1764.49	11.8659
1764.49	11.8659
1770.23	5.0900
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1791.20	0.0000
1808.65	8.7784

1836.01 7.8359

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960009

Total Uranium Activity	1.4574E+01	ug/g
Total Uranium Counting Unc.	6.8023E+00	ug/g
Total Uranium Tpu	3.4705E-06	ug/g
Total Uranium Mda	4.4309E+00	ug/g

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*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G245960009      *
*   ANALYST       : MXR1                      DETECTOR    : GAM06           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 15:54:12.86    SAMPLE ALQT:  117.960 GRAM    *
*                                                                           *
*****************************************************************************
```

GROSS GAMMA ACTIVITY (pCi/GRAM) : 8.518E+00
GROSS GAMMA ERROR (pCi/GRAM) : 1.439E+00
GROSS GAMMA MDA (pCi/GRAM) : 3.816E+00
GROSS GAMMA DLC (pCi/GRAM) : 1.851E+00

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:24:30.91

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:24:06
Sample ID         : G245960010           Sample quantity  : 1.05200E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.74*	74	471	1.08	93.15	89	9	1.02E-02	55.7	
2	0	63.25*	475	651	1.02	126.16	121	10	6.60E-02	11.2	
3	3	74.76	412	573	1.34	149.17	143	18	5.72E-02	11.3	2.70E+00
4	3	77.21*	693	392	1.03	154.07	143	18	9.62E-02	6.1	
5	0	84.08*	177	488	1.89	167.81	164	8	2.45E-02	23.2	
6	0	87.18	231	406	1.34	174.00	172	6	3.21E-02	15.2	
7	2	89.97	145	420	1.00	179.59	177	13	2.01E-02	23.6	2.70E+00
8	2	92.72*	1056	480	1.12	185.08	177	13	1.47E-01	4.7	
9	0	128.85	172	395	1.90	257.33	252	12	2.39E-02	24.2	
10	0	143.83*	97	297	1.37	287.28	284	8	1.35E-02	33.3	
11	0	186.03*	406	354	1.21	371.67	365	12	5.65E-02	10.8	
12	0	209.49*	121	242	1.10	418.58	414	10	1.68E-02	26.2	
13	6	238.77*	1143	138	1.17	477.13	469	23	1.59E-01	3.5	1.40E+00
14	6	241.67	323	236	2.21	482.93	469	23	4.48E-02	15.5	
15	0	270.41	104	198	1.43	540.40	535	11	1.45E-02	27.9	
16	1	295.34*	312	115	1.21	590.26	585	23	4.33E-02	8.1	1.47E+00
17	1	300.32*	74	129	1.44	600.21	585	23	1.03E-02	31.6	
18	0	338.55	241	158	1.18	676.65	671	13	3.35E-02	12.5	
19	0	352.04*	568	192	1.14	703.63	697	13	7.89E-02	6.6	
20	0	409.65	24	103	0.78	818.83	815	8	3.36E-03	75.2	
21	0	511.38*	111	137	1.78	1022.25	1014	18	1.55E-02	29.7	
22	0	583.30*	323	78	1.49	1166.08	1159	13	4.49E-02	8.1	
23	0	609.43*	403	102	1.59	1218.34	1211	15	5.59E-02	7.4	
24	0	661.79	138	138	1.22	1323.04	1317	14	1.91E-02	19.9	
25	0	728.10	126	83	2.13	1455.64	1447	21	1.75E-02	21.0	
26	0	796.21	36	57	1.63	1591.84	1583	13	4.99E-03	46.9	
27	0	861.03	57	61	1.85	1721.48	1716	14	7.88E-03	31.8	
28	0	911.41*	228	55	1.23	1822.21	1816	13	3.17E-02	9.7	
29	1	964.78	57	49	1.98	1928.95	1924	20	7.94E-03	24.0	2.30E+00
30	1	969.38*	112	37	1.85	1938.14	1924	20	1.56E-02	15.6	
31	0	1001.62	37	43	1.80	2002.61	1997	10	5.19E-03	36.5	
32	0	1121.05	59	51	0.80	2241.46	2233	13	8.16E-03	26.8	
33	0	1378.59	24	26	4.35	2756.48	2747	15	3.30E-03	51.2	
34	0	1461.16*	798	18	1.71	2921.61	2912	17	1.11E-01	3.8	
35	0	1588.15	23	3	1.46	3175.57	3169	11	3.19E-03	25.3	
36	0	1592.65	17	10	1.67	3184.59	3179	10	2.36E-03	42.4	
37	0	1765.22*	51	8	2.49	3529.70	3524	11	7.04E-03	19.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:24:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:24:06
Sample ID : G245960010 Sample quantity : 105.20 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.24 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.363E+01	2.703E+00	5.213E-01	4.476E-02	45.322
CD-109	+	88.03	*	3.319E+00	1.056E+00	1.323E+00	1.246E-01	2.510
SN-126	+	64.28		3.686E+00	9.842E-01	7.301E-01	1.059E-01	5.048
	+	86.94		1.356E+00	6.978E-01	5.782E-01	2.400E-01	2.345
	+	87.57	*	3.262E-01	1.038E-01	1.333E-01	1.249E-02	2.447
BA-137M	+	661.65	*	2.450E-01	1.001E-01	7.127E-02	6.308E-03	3.438
CS-137	+	661.65	*	2.590E-01	1.058E-01	7.534E-02	6.680E-03	3.438
TL-208		277.35		3.492E-01	4.248E-01	7.316E-01	8.959E-02	0.477
	+	510.84		6.684E-01	4.051E-01	2.489E-01	3.032E-02	2.685
	+	583.14	*	5.530E-01	1.042E-01	6.560E-02	6.275E-03	8.431
	+	860.37		9.122E-01	5.874E-01	5.205E-01	5.089E-02	1.753
BI-210	+	46.50	*	3.077E+00	3.442E+00	3.337E+00	3.131E-01	0.922
PB-210	+	46.50	*	3.077E+00	3.442E+00	3.337E+00	3.131E-01	0.922
PO-210	+	46.50	*	3.077E+00	3.440E+00	3.337E+00	2.840E-01	0.922
BI-211		72.87		6.520E+00	3.331E+00	5.237E+00	4.133E-01	1.245
	+	351.07	*	4.257E+00	6.810E-01	3.990E-01	3.580E-02	10.669
PB-212	+	74.81		2.263E+00	5.834E-01	5.336E-01	6.581E-02	4.241
	+	77.11		2.191E+00	3.228E-01	3.085E-01	2.546E-02	7.103
	+	87.30		1.509E+00	5.030E-01	7.054E-01	9.651E-02	2.139
	+	238.63	*	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
	+	300.09		1.866E+00	1.195E+00	1.409E+00	1.462E-01	1.324
PO-212	+	74.81		2.263E+00	5.834E-01	5.336E-01	6.581E-02	4.241
	+	77.11		2.191E+00	3.228E-01	3.085E-01	2.546E-02	7.103
	+	87.30		1.509E+00	5.030E-01	7.054E-01	9.651E-02	2.139
		115.19		-4.486E+00	4.099E+00	6.254E+00	5.387E-01	-0.717
	+	238.63	*	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
	+	300.09		1.866E+00	1.195E+00	1.409E+00	1.462E-01	1.324
BI-214	+	609.31	*	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
	+	1120.29		9.822E-01	5.364E-01	4.933E-01	5.297E-02	1.991
	+	1764.49		1.165E+00	4.590E-01	3.577E-01	2.941E-02	3.256
PB-214	+	74.81		3.899E+00	9.804E-01	9.193E-01	1.006E-01	4.241
	+	77.11		3.757E+00	6.230E-01	5.289E-01	5.941E-02	7.103
	+	87.30		2.584E+00	8.459E-01	1.208E+00	1.463E-01	2.139
	+	241.98		3.161E+00	1.034E+00	6.032E-01	6.122E-02	5.241

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.381E+00	2.664E-01	2.468E-01	2.613E-02	5.593
	+	351.92	*	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
PO-214	+	74.81		3.899E+00	9.804E-01	9.193E-01	1.006E-01	4.241
	+	77.11		3.757E+00	6.230E-01	5.289E-01	5.941E-02	7.103
	+	87.30		2.584E+00	8.459E-01	1.208E+00	1.463E-01	2.139
	+	241.98		3.161E+00	1.034E+00	6.032E-01	6.122E-02	5.241
	+	295.21		1.381E+00	2.664E-01	2.468E-01	2.613E-02	5.593
	+	351.92	*	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
PO-216	+	74.81		2.263E+00	5.834E-01	5.336E-01	6.581E-02	4.241
	+	77.11		2.191E+00	3.228E-01	3.085E-01	2.546E-02	7.103
	+	87.30		1.509E+00	5.030E-01	7.054E-01	9.651E-02	2.139
	+	238.63	*	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
	+	300.09		1.866E+00	1.195E+00	1.409E+00	1.462E-01	1.324
PO-218	+	74.81		3.899E+00	9.804E-01	9.193E-01	1.006E-01	4.241
	+	77.11		3.757E+00	6.230E-01	5.289E-01	5.941E-02	7.103
	+	87.30		2.584E+00	8.459E-01	1.208E+00	1.463E-01	2.139
	+	241.98		3.161E+00	1.034E+00	6.032E-01	6.122E-02	5.241
	+	295.21		1.381E+00	2.664E-01	2.468E-01	2.613E-02	5.593
	+	351.92	*	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
RA-224	+	240.98	*	5.994E+00	1.932E+00	1.140E+00	9.639E-02	5.259
RA-226	+	609.31	*	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
	+	1120.29		9.822E-01	5.364E-01	4.933E-01	5.297E-02	1.991
	+	1764.49		1.165E+00	4.590E-01	3.577E-01	2.941E-02	3.256
AC-228	+	338.32		1.989E+00	9.591E-01	4.140E-01	1.707E-01	4.804
	+	911.07	*	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
	+	969.11		1.499E+00	5.858E-01	4.524E-01	1.063E-01	3.314
RA-228	+	338.32		1.989E+00	9.591E-01	4.140E-01	1.707E-01	4.804
	+	911.07	*	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
	+	969.11		1.499E+00	5.858E-01	4.524E-01	1.063E-01	3.314
TH-228	+	74.81		2.297E+00	5.526E-01	5.417E-01	4.403E-02	4.241
	+	77.11		2.225E+00	3.277E-01	3.132E-01	2.585E-02	7.103
	+	87.30		1.532E+00	4.872E-01	7.161E-01	6.687E-02	2.139
	+	238.63	*	1.892E+00	2.247E-01	1.017E-01	9.724E-03	18.611
	+	300.09		1.895E+00	1.641E+00	1.431E+00	8.482E-01	1.324
TH-230	+	609.31	*	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
	+	1120.29		9.821E-01	5.364E-01	4.933E-01	5.297E-02	1.991
	+	1764.49		1.165E+00	4.590E-01	3.577E-01	2.941E-02	3.256
TH-232	+	338.32		1.989E+00	5.254E-01	4.140E-01	3.543E-02	4.804
	+	911.07	*	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
	+	969.11		1.499E+00	5.858E-01	4.524E-01	1.063E-01	3.314
TH-234	+	63.29	*	9.312E+00	2.644E+00	1.863E+00	3.242E-01	4.997
	+	92.38		9.929E+00	2.049E+00	9.113E-01	1.672E-01	10.895
U-234	+	609.31	*	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
	+	1120.29		9.821E-01	5.364E-01	4.933E-01	5.297E-02	1.991
	+	1764.49		1.165E+00	4.590E-01	3.577E-01	2.941E-02	3.256
U-235	+	89.95		2.760E+00	1.557E+00	1.767E+00	5.486E-01	1.562
	+	93.35		1.194E+01	3.549E+00	1.093E+00	3.079E-01	10.924
		105.00		1.144E+00	1.227E+00	1.985E+00	5.931E-01	0.576
	+	143.76	*	4.921E-01	3.385E-01	3.747E-01	6.489E-02	1.313

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		163.35		9.016E-02	5.679E-01	8.939E-01	1.679E-01	0.101
	+	185.71		4.621E-01	1.063E-01	7.905E-02	6.400E-03	5.845
		205.31		3.498E-01	6.401E-01	9.644E-01	1.825E-01	0.363
NP-237	+	86.50	*	9.578E-01	3.632E-01	3.755E-01	8.490E-02	2.551
		95.87		-8.153E-01	1.247E+00	1.726E+00	4.276E-01	-0.472
U-238	+	63.29	*	9.312E+00	2.644E+00	1.863E+00	3.242E-01	4.997
	+	92.38		9.929E+00	1.306E+00	9.113E-01	8.348E-02	10.895
AM-243	+	74.67	*	3.669E-01	8.815E-02	8.666E-02	6.966E-03	4.233
	+	86.72		3.592E+01	1.143E+01	1.406E+01	1.303E+00	2.554
		117.66		-1.496E+00	4.082E+00	6.455E+00	5.552E-01	-0.232
		142.18		1.333E+01	2.368E+01	3.470E+01	2.864E+00	0.384
ANH-511	+	511.00	*	1.444E-01	8.668E-02	5.379E-02	4.779E-03	2.684

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	9.418E-02	4.215E-01	6.867E-01	6.481E-02	0.137
NA-22		1274.54	*	-6.213E-03	4.560E-02	7.407E-02	6.080E-03	-0.084
NA-24		1368.53	*	-2.588E-01	4.560E-02	Half-Life too short		
AL-26		1129.67		-1.236E-01	1.972E+00	3.269E+00	2.746E-01	-0.038
		1808.65	*	1.043E-02	3.815E-02	6.673E-02	5.442E-03	0.156
TI-44		67.85		2.529E-02	4.693E-02	7.082E-02	5.343E-03	0.357
	+	78.38	*	4.044E-01	5.957E-02	8.243E-02	6.901E-03	4.906
SC-46		889.25	*	-3.206E-02	4.891E-02	7.384E-02	6.766E-03	-0.434
	+	1120.51		1.682E-01	9.120E-02	1.357E-01	1.146E-02	1.240
V-48		944.10		5.191E-01	1.050E+00	1.786E+00	1.623E-01	0.291
		983.50	*	-4.328E-02	8.040E-02	1.209E-01	1.088E-02	-0.358
		1312.09		-7.036E-03	7.789E-02	1.267E-01	1.039E-02	-0.056
CR-51		320.08	*	-4.552E-01	4.697E-01	7.035E-01	6.358E-02	-0.647
MN-52		744.21		1.062E-02	2.795E-01	4.614E-01	4.188E-02	0.023
		848.13		-1.101E+00	7.461E+00	1.196E+01	1.098E+00	-0.092
		935.52		2.518E-01	2.960E-01	5.196E-01	4.732E-02	0.485
		1246.25		-2.219E+00	8.785E+00	1.418E+01	1.162E+00	-0.156
		1333.61		2.708E+00	6.046E+00	1.049E+01	8.598E-01	0.258
		1434.06	*	-4.799E-02	2.626E-01	4.170E-01	3.468E-02	-0.115
MN-54		834.83	*	2.160E-02	4.569E-02	7.760E-02	7.123E-03	0.278
CO-56		846.75	*	3.645E-03	4.387E-02	7.211E-02	6.620E-03	0.051
		977.42		-1.190E+00	3.250E+00	4.998E+00	4.507E-01	-0.238
		1037.82		-1.112E-01	3.490E-01	5.664E-01	5.254E-02	-0.196
		1175.09		-2.461E-01	2.574E+00	4.240E+00	3.452E-01	-0.058
		1238.25		2.216E-01	1.093E-01	2.071E-01	1.750E-02	1.070
		1360.21		-4.217E-01	1.197E+00	1.873E+00	1.542E-01	-0.225
		1771.40		-1.113E+00	4.192E-01	3.942E-01	3.237E-02	-2.823
CO-57		122.06	*	2.542E-02	2.849E-02	4.756E-02	4.092E-03	0.535
		136.48		-2.719E-02	2.406E-01	3.828E-01	3.446E-02	-0.071
CO-58		810.76	*	6.127E-03	4.346E-02	7.208E-02	6.622E-03	0.085
FE-59	+	142.65		6.355E+00	4.263E+00	5.679E+00	4.684E-01	1.119
		192.34		7.917E-01	1.017E+00	1.769E+00	2.323E-01	0.447

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1099.22	*	-4.668E-03	1.032E-01	1.717E-01	1.591E-02	-0.027
		1291.56		-1.154E-01	1.425E-01	2.113E-01	1.990E-02	-0.546
CO-60		1173.22		-3.459E-02	5.158E-02	7.984E-02	6.497E-03	-0.433
		1332.49	*	-5.760E-04	4.459E-02	7.329E-02	6.004E-03	-0.008
ZN-65		1115.52	*	-2.523E-02	1.119E-01	1.555E-01	1.320E-02	-0.162
GE-68		1077.35	*	5.342E-01	1.497E+00	2.589E+00	2.244E-01	0.206
AS-73		53.44	*	2.908E-01	6.417E-01	1.070E+00	8.036E-02	0.272
AS-74		595.88	*	3.777E-02	1.067E-01	1.830E-01	1.640E-02	0.206
		634.78		6.016E-02	3.834E-01	6.466E-01	5.765E-02	0.093
SE-75		66.05		-1.656E+00	4.861E+00	7.040E+00	6.679E-01	-0.235
		96.73		2.680E-01	9.692E-01	1.424E+00	1.973E-01	0.188
		121.11		8.488E-02	1.510E-01	2.489E-01	2.788E-02	0.341
		136.00		-1.457E-03	4.542E-02	7.255E-02	6.100E-03	-0.020
		198.60		8.401E-02	1.955E+00	3.237E+00	2.975E-01	0.026
		264.65	*	4.282E-02	5.430E-02	8.411E-02	7.183E-03	0.509
		279.53		-6.725E-02	1.262E-01	2.028E-01	1.787E-02	-0.332
		303.91		1.256E+00	2.551E+00	3.846E+00	4.397E-01	0.327
		400.65		4.791E-02	2.992E-01	4.908E-01	5.366E-02	0.098
BR-77	+	87.88		7.310E+02	2.325E+02	3.775E+02	3.552E+01	1.936
		200.40		1.749E+01	1.822E+02	3.087E+02	2.538E+01	0.057
	+	239.00		3.051E+02	3.356E+01	4.644E+01	3.924E+00	6.571
		249.79		-1.242E+01	7.582E+01	1.210E+02	1.027E+01	-0.103
		281.68		-6.801E+01	1.084E+02	1.730E+02	1.470E+01	-0.393
		297.23		2.918E+02	7.819E+01	1.429E+02	1.221E+01	2.042
		303.76		1.165E+02	2.218E+02	3.354E+02	2.872E+01	0.347
		439.47		1.585E+02	1.642E+02	2.842E+02	2.448E+01	0.558
		484.57		-9.956E+01	2.879E+02	4.477E+02	3.943E+01	-0.222
		520.65	*	-4.113E+00	1.206E+01	1.923E+01	1.712E+00	-0.214
		574.64		4.068E+01	2.384E+02	4.046E+02	3.629E+01	0.101
		578.91		4.673E+01	1.043E+02	1.599E+02	1.434E+01	0.292
		585.48		1.575E+03	3.386E+02	6.018E+02	5.397E+01	2.618
		755.35		1.795E+02	2.140E+02	3.750E+02	3.412E+01	0.479
		817.79		-5.833E+01	1.598E+02	2.512E+02	2.304E+01	-0.232
SR-82		698.33		1.499E+01	4.306E+01	7.301E+01	6.547E+00	0.205
		776.49	*	-3.252E-01	4.271E-01	6.443E-01	5.884E-02	-0.505
		1395.20		-5.967E+00	1.062E+01	1.562E+01	1.293E+00	-0.382
RB-83		520.41	*	-2.822E-02	7.808E-02	1.243E-01	1.107E-02	-0.227
		529.64		1.548E-02	1.212E-01	2.059E-01	1.838E-02	0.075
		552.65		9.981E-02	2.185E-01	3.798E-01	3.401E-02	0.263
RB-84		881.50	*	-2.926E-02	8.943E-02	1.405E-01	1.288E-02	-0.208
KR-85		513.99	*	1.735E+01	9.752E+00	1.638E+01	1.456E+00	1.060
SR-85		513.99	*	8.903E-02	5.004E-02	8.402E-02	7.472E-03	1.060
RB-86		1076.63	*	4.432E-01	9.624E-01	1.678E+00	1.455E-01	0.264
Y-88		898.02		-3.388E-03	4.921E-02	7.925E-02	7.288E-03	-0.043
		1836.01	*	-4.052E-02	3.511E-02	4.037E-02	3.276E-03	-1.004
ZR-88		392.90	*	6.931E-03	3.528E-02	5.811E-02	4.840E-03	0.119
Y-91		1204.90	*	-1.035E+01	2.187E+01	3.461E+01	2.827E+00	-0.299
NB-94		702.63	*	9.967E-03	4.117E-02	6.929E-02	6.222E-03	0.144
		871.10		-1.889E-02	3.773E-02	5.773E-02	5.297E-03	-0.327

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.79	*	6.592E-02	5.303E-02	9.492E-02	8.653E-03	0.695
NB-95M		235.69	*	4.860E-02	1.515E-01	2.279E-01	2.212E-02	0.213
ZR-95		724.18		1.026E-01	1.310E-01	2.031E-01	1.980E-02	0.505
		756.15	*	3.367E-02	9.078E-02	1.537E-01	1.526E-02	0.219
NB-97		657.90	*	5.679E-02	9.078E-02	Half-Life too short		
		1024.50		1.136E+01	9.078E-02	Half-Life too short		
ZR-97		254.15		-5.466E+00	9.078E-02	Half-Life too short		
		355.39		3.430E+00	9.078E-02	Half-Life too short		
		507.63	*	1.108E+00	9.078E-02	Half-Life too short		
		602.52		-2.234E+00	9.078E-02	Half-Life too short		
		1021.30		-7.418E+00	9.078E-02	Half-Life too short		
		1147.95		-3.320E+00	9.078E-02	Half-Life too short		
		1362.66		7.119E-01	9.078E-02	Half-Life too short		
		1750.46		4.331E+00	9.078E-02	Half-Life too short		
MO-99		140.51		-1.059E+01	3.525E+01	4.865E+01	1.342E+01	-0.218
		181.06		-6.795E+00	2.164E+01	3.175E+01	5.724E+00	-0.214
		366.43		-4.750E+00	9.712E+01	1.579E+02	1.337E+01	-0.030
		739.58	*	3.494E-01	1.357E+01	2.239E+01	3.458E+00	0.016
		778.00		-3.232E+01	3.953E+01	5.929E+01	5.415E+00	-0.545
TC-99M		140.51	*	-1.818E+10	3.953E+01	Half-Life too short		
RH-101		127.23		4.098E-02	3.968E-02	6.005E-02	5.100E-03	0.682
		198.01	*	4.801E-04	3.543E-02	5.858E-02	4.805E-03	0.008
		325.23		-2.336E-01	2.780E-01	4.333E-01	3.716E-02	-0.539
RH-102		418.52		-7.376E-02	3.465E-01	5.515E-01	4.686E-02	-0.134
		475.06	*	6.678E-04	3.609E-02	5.796E-02	5.085E-03	0.012
		631.29		-2.770E-02	5.940E-02	9.458E-02	8.438E-03	-0.293
		697.49		1.251E-02	9.292E-02	1.552E-01	1.391E-02	0.081
		766.84		2.862E-01	1.344E-01	2.521E-01	2.298E-02	1.135
		1046.59		-1.228E-01	1.347E-01	2.044E-01	1.798E-02	-0.601
		1112.84		-1.228E-01	3.034E-01	4.108E-01	3.488E-02	-0.299
RU-103		497.08	*	1.585E-02	4.494E-02	7.406E-02	1.059E-02	0.214
	+	610.33		1.405E+01	3.145E+00	3.511E+00	5.919E-01	4.002
RH-106	+	511.85		7.212E-01	4.330E-01	5.306E-01	4.716E-02	1.359
		621.84	*	-1.348E-01	3.589E-01	5.779E-01	7.839E-02	-0.233
		1050.47		2.498E+00	2.623E+00	4.785E+00	4.201E-01	0.522
RU-106	+	511.85		7.212E-01	4.330E-01	5.306E-01	4.716E-02	1.359
		621.84	*	-1.348E-01	3.587E-01	5.779E-01	5.165E-02	-0.233
		1050.47		2.498E+00	2.623E+00	4.785E+00	4.201E-01	0.522
AG-108M		433.93	*	9.746E-03	3.786E-02	6.231E-02	5.563E-03	0.156
		614.37		-6.811E-03	4.905E-02	6.989E-02	6.482E-03	-0.097
		722.95		4.459E-03	5.443E-02	7.856E-02	7.349E-03	0.057
AG-110M		657.75	*	2.382E-02	4.509E-02	6.904E-02	6.290E-03	0.345
		677.61		1.298E-01	3.670E-01	6.254E-01	5.715E-02	0.207
		706.67		6.531E-02	2.524E-01	4.255E-01	3.922E-02	0.154
		763.93		-3.077E-02	2.054E-01	3.330E-01	3.111E-02	-0.092
		884.67		3.551E-03	5.960E-02	9.738E-02	9.182E-03	0.036
		937.48		-9.904E-02	1.318E-01	1.947E-01	1.830E-02	-0.509
		1384.27		8.660E-02	1.732E-01	2.735E-01	2.329E-02	0.317
IN-111		171.28		8.294E-02	1.166E+00	1.851E+00	1.473E-01	0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	8.346E-03	1.288E+00	1.893E+00	1.603E-01	0.004
IN-113M		391.69	*	1.830E-02	5.101E-02	8.496E-02	7.303E-03	0.215
SN-113		391.69	*	1.830E-02	5.101E-02	8.496E-02	7.303E-03	0.215
IN-114M		190.27	*	3.083E-02	2.183E-01	3.289E-01	2.676E-02	0.094
CD-115		260.90		-2.013E+02	1.500E+02	2.289E+02	1.945E+01	-0.880
		492.35		2.445E+01	4.311E+01	7.222E+01	6.379E+00	0.339
		527.90	*	-6.162E+00	1.237E+01	1.999E+01	1.784E+00	-0.308
SN-117M		156.02		-4.176E-01	2.630E+00	4.146E+00	3.340E-01	-0.101
		158.56	*	-2.352E-02	6.192E-02	9.630E-02	7.721E-03	-0.244
SB-122		563.90	*	1.471E+00	2.467E+00	4.310E+00	3.864E-01	0.341
		692.80		-8.428E+00	5.281E+01	8.615E+01	7.711E+00	-0.098
I-123		159.00	*	-3.871E+00	5.281E+01	Half-Life too short		
		528.96		3.816E+01	5.281E+01	Half-Life too short		
TE-123M		159.00	*	-1.759E-02	3.246E-02	5.001E-02	4.035E-03	-0.352
I-124		602.71	*	8.760E-02	8.207E-01	1.206E+00	1.081E-01	0.073
		722.78		6.219E-01	5.760E+00	8.341E+00	7.532E-01	0.075
		1325.50		2.435E+00	3.903E+01	6.483E+01	5.312E+00	0.038
		1376.25		4.833E+01	3.967E+01	6.803E+01	5.615E+00	0.710
		1509.49		1.069E+01	2.007E+01	3.509E+01	2.934E+00	0.305
		1691.02		2.245E+00	4.573E+00	8.083E+00	6.716E-01	0.278
SB-124		602.71		5.039E-03	4.722E-02	6.939E-02	6.218E-03	0.073
		645.85		3.555E-01	5.749E-01	1.003E+00	9.422E-02	0.354
		709.31		1.342E+00	3.251E+00	5.551E+00	4.994E-01	0.242
		713.82		2.436E-01	1.841E+00	3.074E+00	3.787E-01	0.079
		722.78		5.186E-02	4.803E-01	6.955E-01	6.405E-02	0.075
	+	968.20		1.544E+01	5.020E+00	8.420E+00	7.612E-01	1.834
		1045.16		-1.734E+00	2.821E+00	4.429E+00	3.897E-01	-0.391
		1325.50		2.169E-01	3.477E+00	5.774E+00	4.731E-01	0.038
		1368.21		-8.436E-01	2.112E+00	3.082E+00	4.081E-01	-0.274
		1436.60		-3.915E-01	4.423E+00	7.142E+00	5.940E-01	-0.055
		1691.02	*	4.416E-02	8.995E-02	1.590E-01	1.377E-02	0.278
SB-125		427.89	*	7.842E-02	1.031E-01	1.762E-01	1.536E-02	0.445
		463.38		3.383E-01	3.444E-01	5.901E-01	5.543E-02	0.573
		600.56		-3.743E-02	2.066E-01	3.402E-01	3.257E-02	-0.110
		635.90		9.040E-02	2.934E-01	5.012E-01	4.805E-02	0.180
TE-125M		109.28	*	3.285E+00	1.089E+01	1.782E+01	1.847E+00	0.184
I-126		388.63		-1.503E-01	2.351E-01	3.635E-01	3.032E-02	-0.413
		666.33	*	1.107E-01	2.544E-01	3.836E-01	3.401E-02	0.289
		753.82		1.382E+00	1.875E+00	3.262E+00	2.967E-01	0.424
SB-126		223.80		-3.968E+00	4.533E+00	7.259E+00	6.084E-01	-0.547
		278.60		1.700E+00	2.852E+00	4.872E+00	4.135E-01	0.349
	+	296.50		1.380E+01	2.519E+00	4.255E+00	3.636E-01	3.243
		414.70		-2.427E-03	1.029E-01	1.536E-01	1.301E-02	-0.016
		415.30		-5.984E-01	8.171E+00	1.269E+01	1.076E+00	-0.047
		555.20		1.601E+00	4.436E+00	7.653E+00	6.856E-01	0.209
		573.80		2.550E-01	1.180E+00	2.009E+00	1.802E-01	0.127
		593.00		-9.103E-01	1.073E+00	1.662E+00	1.490E-01	-0.548
		656.30		3.164E+00	4.424E+00	6.902E+00	6.118E-01	0.458
		666.33		4.626E-02	1.063E-01	1.603E-01	1.421E-02	0.289

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		675.00		-1.891E+00	2.476E+00	3.831E+00	3.407E-01	-0.494
		695.00		-2.242E-02	9.317E-02	1.509E-01	1.352E-02	-0.149
		697.00		-5.357E-02	3.273E-01	5.336E-01	4.783E-02	-0.100
		720.50	*	-3.551E-02	1.872E-01	2.607E-01	2.352E-02	-0.136
		856.80		1.900E-01	5.358E-01	7.978E-01	7.324E-02	0.238
		989.30		6.228E-01	1.338E+00	2.276E+00	2.045E-01	0.274
		1034.80		6.455E+00	8.990E+00	1.624E+01	1.436E+00	0.397
		1213.00		4.102E+00	5.526E+00	9.760E+00	7.977E-01	0.420
SB-127		61.10		2.386E+01	5.463E+01	8.245E+01	8.368E+00	0.289
		252.40		3.295E+00	5.005E+00	8.314E+00	3.493E+00	0.396
		290.80		-2.136E+01	2.880E+01	3.920E+01	4.355E+00	-0.545
		411.60		1.054E+01	1.799E+01	2.671E+01	4.180E+00	0.395
		444.90		4.232E+00	1.131E+01	1.876E+01	2.357E+00	0.226
		473.00		-6.603E-01	2.110E+00	3.298E+00	4.281E-01	-0.200
		543.00		-2.000E+01	1.965E+01	3.002E+01	4.385E+00	-0.666
		603.60		-9.739E+00	1.561E+01	2.099E+01	2.679E+00	-0.464
		685.20	*	-2.306E-01	1.435E+00	2.336E+00	2.719E-01	-0.099
		698.50		1.133E+01	1.922E+01	3.306E+01	5.297E+00	0.343
		722.20		1.125E+01	3.913E+01	5.791E+01	6.659E+00	0.194
		783.80		4.422E+00	4.690E+00	8.220E+00	1.052E+00	0.538
XE-127		57.60		2.474E+00	5.050E+00	8.144E+00	5.903E-01	0.304
	+	145.22		1.628E+00	1.092E+00	1.423E+00	1.168E-01	1.145
		172.10		7.273E-02	1.346E-01	2.188E-01	1.743E-02	0.332
		202.84	*	5.055E-03	5.164E-02	8.743E-02	7.206E-03	0.058
		374.96		4.215E-02	2.244E-01	3.704E-01	3.121E-02	0.114
I-131		80.18		3.281E+00	6.187E+00	7.457E+00	6.417E-01	0.440
		284.30		9.224E-01	1.818E+00	3.090E+00	2.769E-01	0.299
		364.48	*	-5.513E-03	1.353E-01	2.202E-01	1.971E-02	-0.025
		636.97		4.219E-01	1.717E+00	2.916E+00	2.735E-01	0.145
		722.89		8.407E-01	9.226E+00	1.333E+01	1.211E+00	0.063
TE-132		49.72		-6.652E+00	1.458E+01	2.122E+01	2.194E+00	-0.313
		111.76		3.369E+01	3.593E+01	5.991E+01	6.523E+00	0.562
		116.30		-8.421E+00	3.057E+01	4.861E+01	5.280E+00	-0.173
		228.16	*	2.207E-01	7.593E-01	1.289E+00	2.013E-01	0.171
BA-133		53.15		1.220E+00	2.777E+00	4.630E+00	3.489E-01	0.264
		79.62		8.266E-01	1.738E+00	2.083E+00	3.157E-01	0.397
		81.00		3.175E-02	1.317E-01	1.554E-01	2.469E-02	0.204
		276.40		3.359E-01	4.387E-01	7.303E-01	1.050E-01	0.460
		302.84		8.698E-02	1.733E-01	2.614E-01	3.464E-02	0.333
		356.01	*	-7.397E-03	6.017E-02	8.403E-02	1.103E-02	-0.088
		383.85		-2.518E-02	3.253E-01	5.259E-01	6.540E-02	-0.048
I-133	+	510.53		1.549E+00	3.253E-01	Half-Life too short		
		529.87	*	2.205E-03	3.253E-01	Half-Life too short		
		706.58		1.163E-01	3.253E-01	Half-Life too short		
		856.28		-3.503E-02	3.253E-01	Half-Life too short		
		875.33		1.359E-02	3.253E-01	Half-Life too short		
		1236.41		8.718E-01	3.253E-01	Half-Life too short		
		1298.22		3.759E-01	3.253E-01	Half-Life too short		
CS-134		475.35		-1.680E+00	2.491E+00	3.779E+00	3.316E-01	-0.445

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		563.23		2.518E-01	4.153E-01	7.265E-01	6.570E-02	0.347
		569.32		6.891E-02	2.261E-01	3.874E-01	3.518E-02	0.178
		604.70		1.445E-02	4.303E-02	6.473E-02	5.812E-03	0.223
	+	795.84	*	8.862E-02	8.348E-02	1.003E-01	9.237E-03	0.884
		801.93		1.812E-01	4.778E-01	7.433E-01	6.843E-02	0.244
		1038.57		1.157E+00	4.393E+00	7.564E+00	6.676E-01	0.153
		1167.94		-7.820E-01	2.703E+00	4.359E+00	3.562E-01	-0.179
		1365.15		2.973E-01	1.454E+00	2.455E+00	2.123E-01	0.121
CS-135		268.24	*	1.832E-01	1.982E-01	3.082E-01	3.039E-02	0.595
I-135		288.45		5.062E+09	1.982E-01	Half-Life too short		
		417.63		-2.520E+09	1.982E-01	Half-Life too short		
		546.56		1.484E+10	1.982E-01	Half-Life too short		
		836.80		1.126E+10	1.982E-01	Half-Life too short		
		1038.76		8.294E+09	1.982E-01	Half-Life too short		
		1124.00		6.523E+10	1.982E-01	Half-Life too short		
		1131.51		9.121E+09	1.982E-01	Half-Life too short		
		1260.41	*	-3.815E+09	1.982E-01	Half-Life too short		
		1457.56		3.366E+11	1.982E-01	Half-Life too short		
		1678.03		5.167E+09	1.982E-01	Half-Life too short		
		1706.46		2.072E+10	1.982E-01	Half-Life too short		
		1791.20		-8.277E+07	1.982E-01	Half-Life too short		
CS-136		66.91		7.253E-01	7.831E-01	1.190E+00	1.765E-01	0.610
	+	86.29		4.272E+00	1.418E+00	2.208E+00	2.927E-01	1.935
		153.22		1.068E+00	7.841E-01	1.316E+00	1.207E-01	0.811
		163.89		3.059E-01	1.286E+00	2.032E+00	1.840E-01	0.151
		176.55		1.927E-01	3.992E-01	6.909E-01	5.902E-02	0.279
		273.65		-1.609E-01	5.845E-01	8.347E-01	7.571E-02	-0.193
		340.57		4.493E-01	1.830E-01	3.032E-01	2.671E-02	1.482
		818.51		-2.807E-02	8.638E-02	1.363E-01	1.251E-02	-0.206
		1048.07	*	-3.462E-02	1.230E-01	2.004E-01	1.833E-02	-0.173
		1235.34		-2.863E-01	7.158E-01	1.144E+00	1.320E-01	-0.250
CE-139		165.85	*	-1.904E-02	3.525E-02	5.423E-02	4.290E-03	-0.351
BA-140		162.64		7.511E-01	8.954E-01	1.454E+00	1.236E-01	0.517
		304.84		1.662E-01	1.583E+00	2.311E+00	6.473E-01	0.072
		423.70		-1.390E+00	2.197E+00	3.292E+00	1.066E+00	-0.422
		537.32	*	-4.814E-02	2.886E-01	4.784E-01	1.589E-01	-0.101
LA-140		328.77		5.894E-01	3.621E-01	6.414E-01	5.810E-02	0.919
		432.53		1.661E+00	2.397E+00	4.068E+00	3.660E-01	0.408
		487.03		-4.579E-02	1.633E-01	2.551E-01	2.382E-02	-0.180
		751.79		-1.856E-01	2.233E+00	3.645E+00	3.634E-01	-0.051
		815.85		-1.768E-02	3.724E-01	6.056E-01	6.122E-02	-0.029
		867.82		9.425E-01	1.692E+00	2.586E+00	2.485E-01	0.364
		919.63		1.082E+00	3.123E+00	5.126E+00	5.672E-01	0.211
		925.24		-4.901E-01	1.183E+00	1.812E+00	1.746E-01	-0.270
		1596.49	*	6.757E-02	1.073E-01	1.723E-01	1.442E-02	0.392
CE-141		145.44	*	9.768E-02	8.304E-02	1.255E-01	1.051E-02	0.778
CE-143		57.37		2.338E-04	8.304E-02	Half-Life too short		
		231.56		1.719E-03	8.304E-02	Half-Life too short		
		293.26	*	5.251E-04	8.304E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	350.59		3.490E-02	8.304E-02	Half-Life too short		
		490.36		3.341E-04	8.304E-02	Half-Life too short		
		664.57		5.986E-03	8.304E-02	Half-Life too short		
		721.93		4.346E-04	8.304E-02	Half-Life too short		
CE-144		80.11		1.542E+00	2.832E+00	3.417E+00	2.919E-01	0.451
		133.54	*	2.193E-01	2.553E-01	3.804E-01	5.872E-02	0.576
PM-144		476.78		-5.104E-02	8.966E-02	1.374E-01	1.315E-02	-0.372
		618.01		-7.213E-03	3.571E-02	5.848E-02	5.364E-03	-0.123
		696.49	*	-1.946E-02	4.254E-02	6.765E-02	6.064E-03	-0.288
		778.57		-3.039E+00	2.709E+00	3.922E+00	3.584E-01	-0.775
PR-144		696.49	*	-1.319E+00	2.883E+00	4.584E+00	4.108E-01	-0.288
		1489.15		-2.245E+00	1.314E+01	1.993E+01	1.665E+00	-0.113
PM-146		453.90	*	-7.349E-03	5.480E-02	8.726E-02	9.402E-03	-0.084
		633.02		-2.848E-01	1.452E+00	2.365E+00	8.855E-01	-0.120
		735.90		5.862E-02	1.803E-01	2.681E-01	7.706E-02	0.219
		747.13		-4.330E-02	1.096E-01	1.734E-01	2.484E-02	-0.250
ND-147	+	91.11		6.957E-01	3.350E-01	7.173E-01	7.099E-02	0.970
		319.41		-1.753E+00	4.027E+00	6.250E+00	5.361E-01	-0.281
		439.89		6.658E+00	6.485E+00	1.128E+01	9.718E-01	0.590
		531.02	*	3.840E-01	6.583E-01	1.150E+00	1.741E-01	0.334
PM-149		285.90	*	6.059E+01	1.114E+02	1.893E+02	2.931E+01	0.320
EU-152		121.78		7.088E-02	8.236E-02	1.372E-01	1.360E-02	0.516
		244.69		1.345E-01	4.112E-01	6.183E-01	5.235E-02	0.217
		344.27	*	-3.887E-02	1.303E-01	1.818E-01	1.648E-02	-0.214
		443.98		-4.002E-01	1.137E+00	1.779E+00	1.536E-01	-0.225
		778.89		-3.416E-01	3.134E-01	4.559E-01	4.164E-02	-0.749
		867.32		4.372E-01	1.036E+00	1.552E+00	1.424E-01	0.282
	+	964.01		8.797E-01	4.297E-01	7.038E-01	6.369E-02	1.250
		1085.78		3.257E-02	4.700E-01	7.916E-01	6.829E-02	0.041
		1112.02		-7.828E-02	3.832E-01	5.786E-01	4.916E-02	-0.135
		1407.95		1.865E-01	2.088E-01	3.830E-01	3.175E-02	0.487
GD-153		69.67		-8.601E-01	1.719E+00	2.471E+00	1.893E-01	-0.348
	+	83.37		4.471E+01	2.116E+01	2.739E+01	2.433E+00	1.633
		97.43	*	-4.407E-02	1.032E-01	1.462E-01	1.308E-02	-0.301
		103.18		-1.665E-01	1.217E-01	1.843E-01	1.618E-02	-0.903
EU-154		123.07		5.928E-02	5.974E-02	9.568E-02	1.084E-02	0.620
		247.94		2.626E-02	4.362E-01	6.434E-01	7.315E-02	0.041
		591.81		-5.677E-01	7.165E-01	1.114E+00	1.329E-01	-0.509
		723.30		-1.589E-02	2.394E-01	3.392E-01	3.359E-02	-0.047
		756.87		1.074E-01	9.719E-01	1.612E+00	1.987E-01	0.067
		873.19		-2.767E-01	3.436E-01	5.047E-01	6.380E-02	-0.548
		996.32		1.407E-01	4.167E-01	6.130E-01	1.100E-01	0.229
		1004.76		4.122E-02	3.305E-01	4.645E-01	5.518E-02	0.089
		1274.45	*	-1.042E-02	1.263E-01	2.065E-01	2.270E-02	-0.050
EU-155		48.70		-5.995E-01	1.754E+00	2.573E+00	2.083E-01	-0.233
		60.01		1.408E+00	4.601E+00	6.915E+00	4.979E-01	0.204
	+	86.54		3.929E-01	1.251E-01	2.041E-01	1.903E-02	1.925
		105.31	*	8.999E-02	1.220E-01	2.031E-01	1.795E-02	0.443
TB-160	+	86.79		1.050E+00	3.340E-01	5.404E-01	5.013E-02	1.943

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-9.185E-02	6.070E-01	9.964E-01	8.165E-02	-0.092
		215.65		8.180E-02	8.568E-01	1.400E+00	1.166E-01	0.058
		298.57		8.776E-02	1.348E-01	2.239E-01	1.915E-02	0.392
		879.36	*	1.122E-01	1.758E-01	3.026E-01	2.775E-02	0.371
		962.29		3.296E-01	8.076E-01	1.179E+00	1.067E-01	0.280
	+	966.15		6.044E-01	2.952E-01	5.404E-01	4.888E-02	1.118
		1177.93		4.516E-01	4.287E-01	7.782E-01	6.336E-02	0.580
		1271.85		-2.737E-01	7.557E-01	1.193E+00	9.778E-02	-0.230
HO-166M		80.57		1.286E-01	3.643E-01	4.337E-01	3.724E-02	0.296
		184.41		2.567E-01	5.014E-02	9.047E-02	7.313E-03	2.837
		280.46		-1.356E-01	1.022E-01	1.559E-01	1.324E-02	-0.870
	+	410.95		2.352E-01	3.544E-01	5.547E-01	4.687E-02	0.424
		711.68	*	-4.460E-02	7.080E-02	1.100E-01	9.906E-03	-0.405
		752.31		-9.016E-02	3.585E-01	5.768E-01	5.244E-02	-0.156
		810.29		-2.526E-02	6.611E-02	1.037E-01	9.501E-03	-0.244
TM-171		51.35		-1.003E+01	2.533E+01	3.703E+01	2.859E+00	-0.271
		52.39		1.753E+01	1.189E+01	2.044E+01	1.555E+00	0.857
		59.40		2.853E+00	2.430E+01	3.624E+01	2.605E+00	0.079
		66.72	*	1.014E+01	2.861E+01	4.276E+01	3.198E+00	0.237
LU-176	+	88.36		7.736E-01	2.461E-01	4.006E-01	3.764E-02	1.931
		201.83		-8.942E-03	3.199E-02	5.327E-02	4.386E-03	-0.168
		306.84	*	-3.497E-03	3.101E-02	4.441E-02	3.804E-03	-0.079
		401.10		9.175E-01	7.753E+00	1.268E+01	1.063E+00	0.072
LU-177		112.95		1.766E+00	1.912E+00	3.193E+00	2.756E-01	0.553
	+	208.36	*	3.522E+00	1.868E+00	2.244E+00	1.858E-01	1.570
LU-177M		52.97		8.974E-01	1.249E+00	2.101E+00	1.587E-01	0.427
		54.07		9.435E-02	6.686E-01	1.104E+00	8.235E-02	0.085
		61.30		1.109E+00	1.415E+00	2.166E+00	1.568E-01	0.512
		121.62		3.577E-01	4.217E-01	7.031E-01	6.042E-02	0.509
		147.16		-4.810E-01	8.356E-01	1.138E+00	9.307E-02	-0.423
		171.86		3.050E-01	5.425E-01	8.827E-01	7.030E-02	0.345
		218.09		-5.633E-01	9.531E-01	1.554E+00	1.297E-01	-0.362
		268.79		1.341E+00	1.058E+00	1.673E+00	1.421E-01	0.802
		319.02		-1.143E-01	3.140E-01	4.898E-01	4.201E-02	-0.233
		367.43		6.471E-02	1.027E+00	1.683E+00	1.425E-01	0.038
		413.65	*	-1.874E-02	2.572E-01	3.613E-01	3.059E-02	-0.052
HF-181		56.28		-8.101E-01	7.609E-01	1.208E+00	8.834E-02	-0.670
		57.53		1.995E-01	4.241E-01	6.835E-01	4.956E-02	0.292
		65.20		7.747E-01	9.936E-01	1.510E+00	1.117E-01	0.513
		133.02		2.430E-02	8.317E-02	1.207E-01	1.013E-02	0.201
		136.25		-4.987E-02	5.256E-01	8.370E-01	6.982E-02	-0.060
		345.85		-1.160E-02	2.763E-01	3.671E-01	3.137E-02	-0.032
		482.03	*	1.270E-02	5.513E-02	8.986E-02	7.906E-03	0.141
W-181		56.28		-3.164E-01	2.977E-01	4.727E-01	3.456E-02	-0.669
		57.53		7.800E-02	1.660E-01	2.676E-01	1.940E-02	0.292
		65.20	*	3.009E-01	3.859E-01	5.863E-01	4.338E-02	0.513
TA-182		67.75		4.917E-02	1.127E-01	1.689E-01	1.273E-02	0.291
		100.10		-4.341E-02	2.063E-01	3.280E-01	2.904E-02	-0.132
		152.43		3.286E-01	3.971E-01	6.548E-01	5.308E-02	0.502

---- Non-Identified Nuclides ----

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		222.10		1.375E-01	3.829E-01	6.531E-01	5.468E-02	0.210
	+	1001.68		4.486E+00	3.299E+00	5.175E+00	4.632E-01	0.867
	+	1121.28		4.645E-01	2.518E-01	3.735E-01	3.154E-02	1.244
		1189.05		1.619E-01	3.580E-01	6.213E-01	5.065E-02	0.261
		1221.42	*	1.304E-02	2.283E-01	3.806E-01	3.113E-02	0.034
		1230.97		-4.326E-01	5.471E-01	8.357E-01	6.839E-02	-0.518
RE-183		57.98		7.337E-02	1.781E-01	2.695E-01	1.950E-02	0.272
		59.32		2.107E-02	9.965E-02	1.492E-01	1.073E-02	0.141
		67.20		1.888E-01	1.982E-01	3.034E-01	2.277E-02	0.622
		162.32	*	1.137E-01	1.262E-01	2.087E-01	1.661E-02	0.545
	+	208.81		3.147E+00	1.669E+00	2.052E+00	1.700E-01	1.533
		291.72		-8.569E-01	1.245E+00	1.705E+00	1.455E-01	-0.503
RE-184		57.98		2.703E-01	6.560E-01	9.927E-01	7.181E-02	0.272
		59.32		7.754E-02	3.668E-01	5.493E-01	3.951E-02	0.141
		67.20		6.951E-01	7.297E-01	1.117E+00	8.386E-02	0.622
		161.27		6.603E-02	4.064E-01	6.499E-01	5.185E-02	0.102
		216.55		-8.769E-02	2.904E-01	4.807E-01	4.008E-02	-0.182
		252.85	*	1.935E-01	2.554E-01	4.422E-01	3.753E-02	0.438
		318.01		2.975E-01	5.122E-01	8.720E-01	7.478E-02	0.341
		792.07		-1.278E-02	1.383E+00	1.958E+00	1.791E-01	-0.007
		903.28		-1.161E-01	1.208E+00	1.883E+00	1.723E-01	-0.062
		920.93		-1.548E-01	4.999E-01	7.794E-01	7.115E-02	-0.199
OS-185		59.72		6.683E-02	2.701E-01	4.050E-01	2.913E-02	0.165
		61.14		7.809E-02	1.540E-01	2.332E-01	1.687E-02	0.335
		69.30		-1.534E-01	3.064E-01	4.406E-01	3.364E-02	-0.348
		592.07		-2.624E+00	2.935E+00	4.529E+00	4.061E-01	-0.579
		646.12	*	2.550E-02	4.955E-02	8.576E-02	7.624E-03	0.297
		717.42		4.445E-01	9.657E-01	1.660E+00	1.497E-01	0.268
		874.81		-3.252E-01	6.874E-01	1.059E+00	9.714E-02	-0.307
		880.27		2.537E-01	9.993E-01	1.663E+00	1.525E-01	0.153
RE-188		155.03	*	1.613E-01	2.016E-01	3.320E-01	2.679E-02	0.486
		477.96		1.442E+00	4.033E+00	6.633E+00	5.826E-01	0.217
		633.10		-7.125E-01	2.916E+00	4.739E+00	4.226E-01	-0.150
W-188	+	63.58		3.745E+02	8.836E+01	1.087E+02	7.963E+00	3.445
		227.08		6.121E-01	1.428E+01	2.398E+01	2.014E+00	0.026
		290.67	*	-6.671E+00	9.875E+00	1.355E+01	1.155E+00	-0.492
IR-192	+	295.96		1.053E+00	1.926E-01	3.317E-01	2.855E-02	3.176
		308.46		-7.397E-02	1.076E-01	1.692E-01	1.458E-02	-0.437
		316.51	*	-7.208E-04	3.890E-02	6.394E-02	5.495E-03	-0.011
		468.07		-6.968E-03	8.198E-02	1.307E-01	1.223E-02	-0.053
		604.41		1.592E-01	5.797E-01	8.663E-01	1.147E-01	0.184
		612.46		1.942E+00	1.002E+00	1.691E+00	1.723E-01	1.149
AU-195		65.12		2.139E-01	1.812E-01	2.790E-01	2.063E-02	0.767
		66.83		3.840E-02	9.485E-02	1.420E-01	1.063E-02	0.270
	+	75.70		1.188E+00	2.853E-01	4.521E-01	3.674E-02	2.627
		98.88	*	2.109E-01	2.611E-01	4.313E-01	3.836E-02	0.489
	+	129.76		1.154E+01	5.679E+00	5.767E+00	4.872E-01	2.000
TL-200		367.94	*	-2.097E-04	5.679E+00	Half-Life too short		
		579.30		2.166E-03	5.679E+00	Half-Life too short		

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		828.27		4.729E-04	5.679E+00	Half-Life too short		
		1205.75		-1.601E-03	5.679E+00	Half-Life too short		
TL-201		68.90		-2.358E+00	4.727E+00	7.274E+00	5.536E-01	-0.324
		70.82		-1.920E+00	2.892E+00	4.122E+00	3.190E-01	-0.466
		80.30		3.446E+00	6.804E+00	8.188E+00	7.010E-01	0.421
		135.34		1.230E+01	2.907E+01	4.743E+01	3.963E+00	0.259
		167.43	*	3.047E+00	8.139E+00	1.313E+01	1.040E+00	0.232
TL-202		68.90		-2.097E-01	4.204E-01	6.468E-01	4.922E-02	-0.324
		70.82		-1.703E-01	2.565E-01	3.655E-01	2.829E-02	-0.466
		80.30		3.057E-01	6.036E-01	7.263E-01	6.218E-02	0.421
		439.56	*	7.446E-02	7.818E-02	1.352E-01	1.164E-02	0.551
HG-203		70.83		-7.365E-01	1.111E+00	1.580E+00	2.064E-01	-0.466
		72.87		1.298E+00	6.758E-01	1.043E+00	1.328E-01	1.245
	+	82.60		3.327E+00	1.614E+00	1.975E+00	2.738E-01	1.684
		279.20	*	5.032E-03	4.685E-02	7.811E-02	6.823E-03	0.064
BI-207		72.80		3.587E-01	1.935E-01	3.035E-01	2.394E-02	1.182
	+	74.97		6.585E-01	1.582E-01	2.221E-01	1.791E-02	2.965
	+	84.90		5.782E-01	2.737E-01	3.530E-01	3.197E-02	1.638
		569.67		8.716E-03	3.509E-02	5.988E-02	5.370E-03	0.146
		1063.62	*	3.591E-02	6.104E-02	1.079E-01	9.413E-03	0.333
		1770.23		-2.596E-01	6.209E-01	7.769E-01	6.382E-02	-0.334
TL-207		81.07		7.268E-02	2.907E-01	3.434E-01	2.967E-02	0.212
	+	83.78		3.812E-01	1.805E-01	2.393E-01	2.137E-02	1.593
		94.90		6.396E-01	3.097E-01	4.827E-01	4.365E-02	1.325
		122.32		2.296E+00	1.961E+00	3.306E+00	3.049E-01	0.694
	+	144.24		1.595E+00	1.072E+00	1.454E+00	1.351E-01	1.097
		154.21		2.107E-01	4.708E-01	7.638E-01	6.868E-02	0.276
	+	269.46		6.108E-01	3.445E-01	4.153E-01	3.605E-02	1.471
		323.87	*	-1.322E-01	8.007E-01	1.303E+00	2.303E-01	-0.101
	+	338.28		8.304E+00	2.312E+00	2.888E+00	3.543E-01	2.876
		445.03		1.026E+00	2.608E+00	4.330E+00	5.241E-01	0.237
PO-209		260.50		-1.440E+01	1.095E+01	1.676E+01	1.424E+00	-0.859
		262.80		-9.160E+00	2.987E+01	4.881E+01	4.147E+00	-0.188
		896.60	*	-1.165E+00	8.790E+00	1.406E+01	1.287E+00	-0.083
PB-211		404.84	*	-5.244E-01	1.321E+00	1.739E+00	1.089E+00	-0.302
		427.08		-5.145E-01	2.376E+00	3.736E+00	2.321E+00	-0.138
		831.96		-2.831E-01	1.474E+00	2.344E+00	1.471E+00	-0.121
BI-212	+	727.18	*	1.854E+00	8.034E-01	8.272E-01	8.580E-02	2.241
		785.46		3.196E+00	2.257E+00	4.089E+00	3.738E-01	0.782
		1620.62		1.539E+00	1.551E+00	2.898E+00	2.421E-01	0.531
PO-215		81.07		7.268E-02	2.907E-01	3.434E-01	2.967E-02	0.212
	+	83.78		3.812E-01	1.805E-01	2.393E-01	2.137E-02	1.593
		94.90		6.396E-01	3.097E-01	4.827E-01	4.365E-02	1.325
		122.32		2.296E+00	1.961E+00	3.306E+00	3.049E-01	0.694
	+	144.24		1.595E+00	1.072E+00	1.454E+00	1.351E-01	1.097
		154.21		2.107E-01	4.708E-01	7.638E-01	6.868E-02	0.276
	+	269.46		6.108E-01	3.445E-01	4.153E-01	3.605E-02	1.471
		323.87	*	-1.322E-01	8.007E-01	1.303E+00	2.303E-01	-0.101
	+	338.28		8.304E+00	2.312E+00	2.888E+00	3.543E-01	2.876

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.026E+00	2.608E+00	4.330E+00	5.241E-01	0.237
RN-219	+	271.23		7.837E-01	4.441E-01	5.350E-01	5.462E-02	1.465
		401.81	*	5.364E-02	4.778E-01	7.810E-01	1.163E-01	0.069
RN-220		549.76	*	-2.649E+01	3.023E+01	4.711E+01	4.218E+00	-0.562
RA-223		81.07		7.268E-02	2.907E-01	3.434E-01	2.967E-02	0.212
	+	83.78		3.812E-01	1.805E-01	2.393E-01	2.137E-02	1.593
		94.90		6.396E-01	3.097E-01	4.827E-01	4.365E-02	1.325
		122.32		2.296E+00	1.961E+00	3.306E+00	3.049E-01	0.694
	+	144.24		1.595E+00	1.072E+00	1.454E+00	1.351E-01	1.097
		154.21		2.107E-01	4.708E-01	7.638E-01	6.868E-02	0.276
	+	269.46		6.108E-01	3.445E-01	4.153E-01	3.605E-02	1.471
		323.87	*	-1.322E-01	8.007E-01	1.303E+00	2.303E-01	-0.101
	+	338.28		8.304E+00	2.312E+00	2.888E+00	3.543E-01	2.876
		445.03		1.026E+00	2.608E+00	4.330E+00	5.241E-01	0.237
AC-227		79.80		1.110E+00	2.215E+00	2.651E+00	5.690E-01	0.419
		236.00		2.878E-01	2.874E-01	4.472E-01	5.418E-02	0.644
		256.20	*	1.425E-01	4.303E-01	7.283E-01	1.113E-01	0.196
		286.10		4.345E-01	1.843E+00	3.088E+00	4.055E-01	0.141
	+	299.80		3.459E+00	2.267E+00	2.985E+00	5.211E-01	1.158
		304.40		7.602E-01	2.311E+00	3.436E+00	6.325E-01	0.221
		334.20		-9.276E-01	2.876E+00	4.004E+00	7.762E-01	-0.232
TH-227		79.80		1.110E+00	2.215E+00	2.651E+00	5.763E-01	0.419
	+	94.00		3.837E+01	9.185E+00	5.917E+00	1.300E+00	6.485
		236.00		2.878E-01	2.870E-01	4.472E-01	4.890E-02	0.644
		256.20	*	1.425E-01	4.305E-01	7.283E-01	1.311E-01	0.196
		286.10		4.345E-01	1.893E+00	3.088E+00	3.099E+00	0.141
	+	299.80		3.459E+00	2.267E+00	2.985E+00	5.211E-01	1.158
		304.40		7.602E-01	2.311E+00	3.436E+00	6.325E-01	0.221
		334.20		-9.276E-01	2.876E+00	4.004E+00	7.762E-01	-0.232
TH-229	+	85.43		5.707E-01	2.701E-01	3.557E-01	3.243E-02	1.604
	+	88.47		4.453E-01	1.417E-01	2.308E-01	2.167E-02	1.929
		100.00		2.853E-02	2.135E-01	3.441E-01	3.049E-02	0.083
		193.63	*	-1.030E-01	5.362E-01	8.978E-01	7.331E-02	-0.115
	+	210.97		2.462E+00	1.306E+00	1.545E+00	1.283E-01	1.593
PA-231		283.67	*	1.135E+00	1.836E+00	3.129E+00	4.731E-01	0.363
	+	301.29		1.383E+00	8.900E-01	1.198E+00	1.462E-01	1.155
TH-231		81.07		7.268E-02	2.907E-01	3.434E-01	2.967E-02	0.212
	+	83.78		3.812E-01	1.805E-01	2.393E-01	2.137E-02	1.593
		94.90		6.396E-01	3.097E-01	4.827E-01	4.365E-02	1.325
		122.32		2.296E+00	1.961E+00	3.306E+00	3.049E-01	0.694
	+	144.24		1.595E+00	1.072E+00	1.454E+00	1.351E-01	1.097
		154.21		2.107E-01	4.708E-01	7.638E-01	6.868E-02	0.276
	+	269.46		6.108E-01	3.445E-01	4.153E-01	3.605E-02	1.471
		323.87	*	-1.322E-01	8.007E-01	1.303E+00	2.303E-01	-0.101
	+	338.28		8.304E+00	2.312E+00	2.888E+00	3.543E-01	2.876
		445.03		1.026E+00	2.608E+00	4.330E+00	5.241E-01	0.237
U-231	+	84.21		1.660E+01	7.856E+00	1.039E+01	9.332E-01	1.597
	+	92.29		3.831E+01	5.039E+00	6.601E+00	6.050E-01	5.803
		95.87	*	-9.340E-01	1.413E+00	1.978E+00	1.780E-01	-0.472

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-9.643E-01	2.419E+00	3.844E+00	3.339E-01	-0.251
PA-233	+	75.28		1.922E+01	5.223E+00	6.737E+00	1.014E+00	2.853
	+	86.59		6.386E+00	2.599E+00	3.311E+00	8.949E-01	1.929
	+	300.12		9.642E-01	6.256E-01	8.292E-01	1.230E-01	1.163
		311.98	*	3.662E-02	6.985E-02	1.188E-01	1.048E-02	0.308
		340.50		2.395E+00	1.044E+00	1.499E+00	3.570E-01	1.597
		398.62		-3.762E-01	2.396E+00	3.838E+00	1.019E+00	-0.098
		415.76		6.708E-01	2.056E+00	3.395E+00	7.298E-01	0.198
PA-234	+	63.00		1.085E+01	2.918E+00	3.206E+00	4.748E-01	3.386
		94.67		9.959E-01	2.616E-01	3.908E-01	4.966E-02	2.548
		98.44		-2.039E-02	1.082E-01	1.715E-01	9.574E-02	-0.119
		99.86		1.293E-01	5.424E-01	8.782E-01	7.783E-02	0.147
		111.00		4.018E-02	2.170E-01	3.531E-01	4.276E-02	0.114
		131.20		7.251E-02	1.347E-01	1.983E-01	1.670E-02	0.366
		152.70		4.587E-01	3.869E-01	6.374E-01	1.070E-01	0.720
	+	186.00		1.248E+01	4.717E+00	3.683E+00	1.144E+00	3.387
		226.40		2.602E-01	4.418E-01	7.595E-01	9.916E-02	0.343
		227.20		7.386E-02	4.813E-01	8.126E-01	6.825E-02	0.091
		248.90		-6.538E-01	9.917E-01	1.449E+00	3.241E-01	-0.451
		293.70		4.272E+00	1.263E+00	1.846E+00	3.186E-01	2.314
		369.80		3.093E-01	9.226E-01	1.538E+00	3.339E-01	0.201
		568.70		-3.634E-01	1.135E+00	1.854E+00	1.663E-01	-0.196
		569.50		8.608E-02	3.121E-01	5.336E-01	4.785E-02	0.161
		574.00		8.118E-02	1.697E+00	2.852E+00	2.558E-01	0.028
		699.00		6.561E-01	8.881E-01	1.536E+00	2.956E-01	0.427
		706.10		-8.495E-05	1.258E+00	2.078E+00	9.281E-01	0.000
		733.00		-1.471E-01	4.584E-01	6.215E-01	1.390E-01	-0.237
		742.81		1.293E-02	1.593E+00	2.623E+00	1.765E+00	0.005
	+	796.30		1.722E+00	1.681E+00	1.967E+00	5.356E-01	0.875
		805.60		4.141E-01	1.086E+00	1.834E+00	5.649E-01	0.226
		819.60		8.212E-02	1.368E+00	2.248E+00	8.578E-01	0.037
		826.30		-3.953E-01	9.199E-01	1.403E+00	6.291E-01	-0.282
		831.60		-3.988E-01	7.769E-01	1.190E+00	3.572E-01	-0.335
		876.40		9.913E-01	1.405E+00	1.735E+00	1.785E+00	0.571
		880.51		1.134E-01	3.566E-01	5.968E-01	5.473E-02	0.190
		883.24		1.779E-01	3.763E-01	6.078E-01	4.090E-01	0.293
		899.00		3.128E-01	9.971E-01	1.655E+00	7.252E-01	0.189
		925.00		-6.244E-01	1.247E+00	1.890E+00	1.724E-01	-0.330
		926.50		2.503E-03	1.803E-01	2.922E-01	7.438E-02	0.009
		946.00	*	1.127E-01	3.579E-01	5.966E-01	1.133E-01	0.189
		949.00		-2.440E-01	5.459E-01	8.386E-01	7.615E-02	-0.291
		980.50		4.629E-01	7.822E-01	1.348E+00	1.214E-01	0.343
		1394.10		1.055E-01	1.103E+00	1.837E+00	1.195E+00	0.057
PA-234M		766.42		2.534E+01	1.891E+01	2.593E+01	1.318E+01	0.978
	+	1001.03	*	1.018E+01	7.503E+00	1.155E+01	1.184E+00	0.882
NP-236		94.67		7.634E-01	1.871E-01	2.971E-01	2.690E-02	2.569
		98.44		-1.547E-02	8.134E-02	1.296E-01	1.155E-02	-0.119
		111.00		3.039E-02	1.641E-01	2.671E-01	2.310E-02	0.114
		160.31	*	-3.654E-02	9.204E-02	1.430E-01	1.143E-02	-0.256

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.160E-01	1.805E-01	2.965E-01	2.631E-02	0.391
		117.00	*	4.189E-02	2.012E-01	3.274E-01	2.817E-02	0.128
	+	209.75		2.481E+00	1.316E+00	1.622E+00	1.345E-01	1.530
		228.18		7.144E-02	2.447E-01	4.159E-01	3.495E-02	0.172
		277.60		9.984E-02	2.076E-01	3.528E-01	2.995E-02	0.283
		334.30		-5.257E-01	1.627E+00	2.269E+00	1.944E-01	-0.232
AM-241		59.54	*	1.994E-02	1.415E-01	2.112E-01	1.674E-02	0.094
CM-243		99.55		1.194E-01	1.857E-01	3.051E-01	2.707E-02	0.391
		103.76	*	-7.097E-02	1.096E-01	1.724E-01	1.511E-02	-0.412
		117.00		4.310E-02	2.070E-01	3.369E-01	2.898E-02	0.128
	+	209.75		2.445E+00	1.297E+00	1.599E+00	1.326E-01	1.530
		228.18		7.219E-02	2.473E-01	4.202E-01	3.531E-02	0.172
		277.60		1.007E-01	2.093E-01	3.557E-01	3.019E-02	0.283
AM-246		798.80		-2.535E-02	1.721E-01	2.382E-01	2.182E-02	-0.106
		1036.00		-1.248E-01	3.382E-01	5.460E-01	4.824E-02	-0.229
		1062.04		8.373E-02	2.640E-01	4.559E-01	3.981E-02	0.184
		1078.86	*	-7.171E-02	1.783E-01	2.872E-01	2.486E-02	-0.250
CM-247		278.00		3.953E-01	8.561E-01	1.453E+00	1.234E-01	0.272
		287.40		-3.677E-01	1.489E+00	2.430E+00	2.070E-01	-0.151
		402.60	*	2.171E-02	4.295E-02	7.209E-02	6.053E-03	0.301
CF-249		252.85		7.258E-01	9.583E-01	1.659E+00	1.408E-01	0.438
		333.44		-9.832E-02	2.222E-01	3.068E-01	2.628E-02	-0.321
		387.95	*	-1.707E-02	4.515E-02	7.128E-02	5.950E-03	-0.240
CF-251		176.60	*	6.554E-02	1.372E-01	2.373E-01	1.901E-02	0.276
		227.00		1.292E-02	4.279E-01	7.182E-01	6.031E-02	0.018
		285.00		7.913E-01	2.122E+00	3.581E+00	3.048E-01	0.221

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010       *
* Acquisition date : 12-FEB-2010 16:24:06 Detector SN#     :               *
* Detector ID       : GAM07                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.24      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960010           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.0520E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.363E+01	2.649E+00	5.176E-01	0.000E+00
CD-109	3.319E+00	1.035E+00	1.332E+00	0.000E+00
SN-126	3.262E-01	1.017E-01	1.342E-01	0.000E+00
BA-137M	2.450E-01	9.806E-02	7.106E-02	0.000E+00
CS-137	2.590E-01	1.037E-01	7.511E-02	0.000E+00
TL-208	5.530E-01	1.022E-01	6.544E-02	0.000E+00
BI-210	3.077E+00	3.373E+00	3.371E+00	0.000E+00
PB-210	3.077E+00	3.373E+00	3.371E+00	0.000E+00
PO-210	3.077E+00	3.371E+00	3.371E+00	0.000E+00
BI-211	4.257E+00	6.674E-01	3.991E-01	0.000E+00
PB-212	1.864E+00	2.169E-01	1.003E-01	0.000E+00
PO-212	1.864E+00	2.169E-01	1.003E-01	0.000E+00
BI-214	1.300E+00	2.292E-01	1.323E-01	0.000E+00
PB-214	1.481E+00	2.442E-01	1.391E-01	0.000E+00
PO-214	1.481E+00	2.442E-01	1.391E-01	0.000E+00
PO-216	1.864E+00	2.169E-01	1.003E-01	0.000E+00
PO-218	1.481E+00	2.442E-01	1.391E-01	0.000E+00
RA-224	5.994E+00	1.893E+00	1.142E+00	0.000E+00
RA-226	1.300E+00	2.292E-01	1.323E-01	0.000E+00
AC-228	1.736E+00	3.837E-01	2.583E-01	0.000E+00
RA-228	1.736E+00	3.837E-01	2.583E-01	0.000E+00
TH-228	1.892E+00	2.203E-01	1.019E-01	0.000E+00
TH-230	1.300E+00	2.292E-01	1.323E-01	0.000E+00
TH-232	1.736E+00	3.837E-01	2.583E-01	0.000E+00
TH-234	9.312E+00	2.591E+00	1.880E+00	0.000E+00
U-234	1.300E+00	2.292E-01	1.323E-01	0.000E+00
U-235	4.921E-01	3.317E-01	3.764E-01	0.000E+00
NP-237	9.578E-01	3.559E-01	3.782E-01	0.000E+00
U-238	9.312E+00	2.591E+00	1.880E+00	0.000E+00
AM-243	3.669E-01	8.639E-02	8.734E-02	0.000E+00
ANH-511	1.444E-01	8.495E-02	5.369E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	9.418E-02	4.130E-01	6.858E-01	0.000E+00	NOT IDENT.
NA-22	-6.213E-03	4.468E-02	7.360E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	9.542E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.043E-02	3.739E-02	6.618E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.838E-02	8.306E-02	0.000E+00	FAIL ABUN
SC-46	-3.206E-02	4.793E-02	7.350E-02	0.000E+00	FAIL ABUN
V-48	-4.328E-02	7.879E-02	1.203E-01	0.000E+00	NOT IDENT.
CR-51	-4.552E-01	4.603E-01	7.040E-01	0.000E+00	NOT IDENT.
MN-52	-4.799E-02	2.573E-01	4.141E-01	0.000E+00	NOT IDENT.
MN-54	2.160E-02	4.478E-02	7.728E-02	0.000E+00	NOT IDENT.
CO-56	3.645E-03	4.299E-02	7.180E-02	0.000E+00	NOT IDENT.
CO-57	2.542E-02	2.792E-02	4.782E-02	0.000E+00	NOT IDENT.
CO-58	6.127E-03	4.259E-02	7.178E-02	0.000E+00	NOT IDENT.
FE-59	-4.668E-03	1.011E-01	1.707E-01	0.000E+00	FAIL ABUN
CO-60	-5.760E-04	4.369E-02	7.281E-02	0.000E+00	NOT IDENT.
ZN-65	-2.523E-02	1.097E-01	1.546E-01	0.000E+00	NOT IDENT.
GE-68	5.342E-01	1.467E+00	2.575E+00	0.000E+00	NOT IDENT.
AS-73	2.908E-01	6.289E-01	1.080E+00	0.000E+00	NOT IDENT.
AS-74	3.777E-02	1.045E-01	1.825E-01	0.000E+00	NOT IDENT.
SE-75	4.282E-02	5.322E-02	8.424E-02	0.000E+00	NOT IDENT.
BR-77	-4.113E+00	1.181E+01	1.919E+01	0.000E+00	FAIL ABUN
SR-82	-3.252E-01	4.186E-01	6.419E-01	0.000E+00	NOT IDENT.
RB-83	-2.822E-02	7.652E-02	1.241E-01	0.000E+00	NOT IDENT.
RB-84	-2.926E-02	8.764E-02	1.399E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	9.557E+00	1.635E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.904E-02	8.387E-02	0.000E+00	NOT IDENT.
RB-86	4.432E-01	9.431E-01	1.669E+00	0.000E+00	NOT IDENT.
Y-88	-4.052E-02	3.441E-02	4.004E-02	0.000E+00	NOT IDENT.
ZR-88	6.931E-03	3.458E-02	5.808E-02	0.000E+00	NOT IDENT.
Y-91	-1.035E+01	2.143E+01	3.440E+01	0.000E+00	NOT IDENT.
NB-94	9.967E-03	4.034E-02	6.906E-02	0.000E+00	NOT IDENT.
NB-95	6.592E-02	5.197E-02	9.456E-02	0.000E+00	NOT IDENT.
NB-95M	4.860E-02	1.485E-01	2.284E-01	0.000E+00	NOT IDENT.
ZR-95	3.367E-02	8.896E-02	1.531E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.304E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.479E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.494E-01	1.330E+01	2.231E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.936E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.801E-04	3.472E-02	5.875E-02	0.000E+00	NOT IDENT.
RH-102	6.678E-04	3.537E-02	5.788E-02	0.000E+00	NOT IDENT.
RU-103	1.585E-02	4.404E-02	7.394E-02	0.000E+00	FAIL ABUN
RH-106	-1.348E-01	3.518E-01	5.763E-01	0.000E+00	FAIL ABUN
RU-106	-1.348E-01	3.515E-01	5.763E-01	0.000E+00	FAIL ABUN
AG-108M	9.746E-03	3.710E-02	6.225E-02	0.000E+00	NOT IDENT.
AG-110M	2.382E-02	4.419E-02	6.883E-02	0.000E+00	NOT IDENT.
IN-111	8.346E-03	1.262E+00	1.897E+00	0.000E+00	NOT IDENT.
IN-113M	1.830E-02	4.999E-02	8.492E-02	0.000E+00	NOT IDENT.
SN-113	1.830E-02	4.999E-02	8.492E-02	0.000E+00	NOT IDENT.
IN-114M	3.083E-02	2.140E-01	3.299E-01	0.000E+00	NOT IDENT.
CD-115	-6.162E+00	1.212E+01	1.995E+01	0.000E+00	NOT IDENT.
SN-117M	-2.352E-02	6.069E-02	9.670E-02	0.000E+00	NOT IDENT.
SB-122	1.471E+00	2.418E+00	4.301E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.001E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.759E-02	3.181E-02	5.022E-02	0.000E+00	NOT IDENT.
I-124	8.760E-02	8.043E-01	1.203E+00	0.000E+00	NOT IDENT.
SB-124	4.416E-02	8.815E-02	1.578E-01	0.000E+00	FAIL ABUN
SB-125	7.842E-02	1.011E-01	1.760E-01	0.000E+00	NOT IDENT.
TE-125M	3.285E+00	1.068E+01	1.792E+01	0.000E+00	NOT IDENT.
I-126	1.107E-01	2.493E-01	3.824E-01	0.000E+00	NOT IDENT.
SB-126	-3.551E-02	1.834E-01	2.597E-01	0.000E+00	FAIL ABUN
SB-127	-2.306E-01	1.406E+00	2.329E+00	0.000E+00	NOT IDENT.
XE-127	5.055E-03	5.061E-02	8.769E-02	0.000E+00	FAIL ABUN
I-131	-5.513E-03	1.326E-01	2.202E-01	0.000E+00	NOT IDENT.
TE-132	2.207E-01	7.441E-01	1.292E+00	0.000E+00	NOT IDENT.
BA-133	-7.397E-03	5.897E-02	8.403E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.108E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.862E-02	8.181E-02	9.986E-02	0.000E+00	FAIL ABUN
CS-135	1.832E-01	1.942E-01	3.086E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.581E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.462E-02	1.205E-01	1.993E-01	0.000E+00	FAIL ABUN
CE-139	-1.904E-02	3.455E-02	5.445E-02	0.000E+00	NOT IDENT.
BA-140	-4.814E-02	2.829E-01	4.774E-01	0.000E+00	NOT IDENT.
LA-140	6.757E-02	1.051E-01	1.711E-01	0.000E+00	NOT IDENT.
CE-141	9.768E-02	8.138E-02	1.261E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	2.186E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.193E-01	2.502E-01	3.823E-01	0.000E+00	NOT IDENT.
PM-144	-1.946E-02	4.169E-02	6.742E-02	0.000E+00	NOT IDENT.
PR-144	-1.319E+00	2.825E+00	4.569E+00	0.000E+00	NOT IDENT.
PM-146	-7.349E-03	5.371E-02	8.716E-02	0.000E+00	NOT IDENT.
ND-147	3.840E-01	6.451E-01	1.148E+00	0.000E+00	FAIL ABUN
PM-149	6.059E+01	1.092E+02	1.895E+02	0.000E+00	NOT IDENT.
EU-152	-3.887E-02	1.277E-01	1.819E-01	0.000E+00	FAIL ABUN
GD-153	-4.407E-02	1.012E-01	1.472E-01	0.000E+00	FAIL ABUN
EU-154	-1.042E-02	1.238E-01	2.052E-01	0.000E+00	NOT IDENT.
EU-155	8.999E-02	1.196E-01	2.044E-01	0.000E+00	FAIL ABUN
TB-160	1.122E-01	1.722E-01	3.012E-01	0.000E+00	FAIL ABUN
HO-166M	-4.460E-02	6.939E-02	1.097E-01	0.000E+00	FAIL ABUN
TM-171	1.014E+01	2.804E+01	4.312E+01	0.000E+00	NOT IDENT.
LU-176	-3.497E-03	3.039E-02	4.444E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.831E+00	2.250E+00	0.000E+00	FAIL ABUN
LU-177M	-1.874E-02	2.520E-01	3.610E-01	0.000E+00	NOT IDENT.
HF-181	1.270E-02	5.403E-02	8.973E-02	0.000E+00	NOT IDENT.
W-181	3.009E-01	3.782E-01	5.913E-01	0.000E+00	NOT IDENT.
TA-182	1.304E-02	2.238E-01	3.783E-01	0.000E+00	FAIL ABUN
RE-183	1.137E-01	1.237E-01	2.095E-01	0.000E+00	FAIL ABUN
RE-184	1.935E-01	2.503E-01	4.430E-01	0.000E+00	NOT IDENT.
OS-185	2.550E-02	4.856E-02	8.551E-02	0.000E+00	NOT IDENT.
RE-188	1.613E-01	1.976E-01	3.334E-01	0.000E+00	NOT IDENT.
W-188	-6.671E+00	9.678E+00	1.356E+01	0.000E+00	FAIL ABUN
IR-192	-7.208E-04	3.812E-02	6.398E-02	0.000E+00	FAIL ABUN
AU-195	2.109E-01	2.559E-01	4.341E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.285E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.047E+00	7.976E+00	1.318E+01	0.000E+00	NOT IDENT.
TL-202	7.446E-02	7.662E-02	1.350E-01	0.000E+00	NOT IDENT.
HG-203	5.032E-03	4.591E-02	7.821E-02	0.000E+00	FAIL ABUN
BI-207	3.591E-02	5.982E-02	1.073E-01	0.000E+00	FAIL ABUN
TL-207	-1.322E-01	7.847E-01	1.303E+00	0.000E+00	FAIL ABUN
PO-209	-1.165E+00	8.614E+00	1.399E+01	0.000E+00	NOT IDENT.
PB-211	-5.244E-01	1.295E+00	1.738E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.873E-01	8.243E-01	0.000E+00	FAIL ABUN
PO-215	-1.322E-01	7.847E-01	1.303E+00	0.000E+00	FAIL ABUN
RN-219	5.364E-02	4.682E-01	7.806E-01	0.000E+00	FAIL ABUN
RN-220	-2.649E+01	2.962E+01	4.701E+01	0.000E+00	NOT IDENT.
RA-223	-1.322E-01	7.847E-01	1.303E+00	0.000E+00	FAIL ABUN
AC-227	1.425E-01	4.217E-01	7.295E-01	0.000E+00	FAIL ABUN
TH-227	1.425E-01	4.219E-01	7.295E-01	0.000E+00	FAIL ABUN
TH-229	-1.030E-01	5.254E-01	9.006E-01	0.000E+00	FAIL ABUN
PA-231	1.135E+00	1.800E+00	3.133E+00	0.000E+00	FAIL ABUN
TH-231	-1.322E-01	7.847E-01	1.303E+00	0.000E+00	FAIL ABUN
U-231	-9.340E-01	1.385E+00	1.991E+00	0.000E+00	FAIL ABUN
PA-233	3.662E-02	6.845E-02	1.189E-01	0.000E+00	FAIL ABUN
PA-234	1.127E-01	3.507E-01	5.937E-01	0.000E+00	FAIL ABUN
PA-234M	1.018E+01	7.353E+00	1.149E+01	0.000E+00	FAIL ABUN
NP-236	-3.654E-02	9.020E-02	1.436E-01	0.000E+00	NOT IDENT.
NP-239	4.189E-02	1.972E-01	3.293E-01	0.000E+00	FAIL ABUN
AM-241	1.994E-02	1.387E-01	2.131E-01	0.000E+00	NOT IDENT.
CM-243	-7.097E-02	1.075E-01	1.735E-01	0.000E+00	FAIL ABUN
AM-246	-7.171E-02	1.748E-01	2.856E-01	0.000E+00	NOT IDENT.
CM-247	2.171E-02	4.209E-02	7.205E-02	0.000E+00	NOT IDENT.
CF-249	-1.707E-02	4.425E-02	7.126E-02	0.000E+00	NOT IDENT.
CF-251	6.554E-02	1.344E-01	2.382E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:24:31.89

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*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:24:06
Sample ID         : G245960010           Sample quantity  : 1.05200E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	798	10.67*	1.129E+00	2.363E+01	2.363E+01	11.44
CD-109	88.03	231	3.72*	6.834E+00	3.244E+00	3.319E+00	31.81
SN-126	64.28	475	9.60	4.792E+00	3.686E+00	3.686E+00	26.70
	86.94	231	8.90	6.834E+00	1.356E+00	1.356E+00	51.46
	87.57	231	37.00*	6.834E+00	3.262E-01	3.262E-01	31.81
BA-137M	661.65	138	89.98*	2.231E+00	2.448E-01	2.450E-01	40.84
CS-137	661.65	138	85.12*	2.231E+00	2.588E-01	2.590E-01	40.84
TL-208	277.35	------	6.80	4.401E+00	------	Line Not Found	------
	510.84	111	21.60	2.753E+00	6.684E-01	6.684E-01	60.62
	583.14	323	84.20*	2.476E+00	5.530E-01	5.530E-01	18.85
	860.37	57	12.46	1.782E+00	9.122E-01	9.122E-01	64.39
BI-210	46.50	74	4.05*	2.110E+00	3.073E+00	3.077E+00	111.86
PB-210	46.50	74	4.05*	2.110E+00	3.073E+00	3.077E+00	111.86
PO-210	46.50	74	4.05*	2.110E+00	3.073E+00	3.077E+00	111.79
BI-211	72.87	------	1.27	5.899E+00	------	Line Not Found	------
	351.07	568	12.94*	3.680E+00	4.257E+00	4.257E+00	16.00
PB-212	74.81	412	10.70	6.068E+00	2.263E+00	2.263E+00	25.78
	77.11	693	18.00	6.265E+00	2.191E+00	2.191E+00	14.73
	87.30	231	8.00	6.834E+00	1.509E+00	1.509E+00	33.35
	238.63	1143	44.60*	4.908E+00	1.864E+00	1.864E+00	11.88
	300.09	74	3.41	4.149E+00	1.866E+00	1.866E+00	64.01
PO-212	74.81	412	10.70	6.068E+00	2.263E+00	2.263E+00	25.78
	77.11	693	18.00	6.265E+00	2.191E+00	2.191E+00	14.73
	87.30	231	8.00	6.834E+00	1.509E+00	1.509E+00	33.35
	115.19	------	0.60	7.150E+00	------	Line Not Found	------
	238.63	1143	44.60*	4.908E+00	1.864E+00	1.864E+00	11.88
	300.09	74	3.41	4.149E+00	1.866E+00	1.866E+00	64.01
BI-214	609.31	403	46.30*	2.389E+00	1.300E+00	1.300E+00	18.00
	1120.29	59	15.10	1.413E+00	9.821E-01	9.822E-01	54.62
	1764.49	51	15.80	9.831E-01	1.165E+00	1.165E+00	39.41
PB-214	74.81	412	6.21	6.068E+00	3.899E+00	3.899E+00	25.14
	77.11	693	10.50	6.265E+00	3.757E+00	3.757E+00	16.58

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	231	4.67	6.834E+00	2.584E+00	2.584E+00	32.73
	241.98	323	7.49	4.866E+00	3.161E+00	3.161E+00	32.71
	295.21	312	19.20	4.201E+00	1.381E+00	1.381E+00	19.30
	351.92	568	37.20*	3.680E+00	1.481E+00	1.481E+00	16.83
PO-214	74.81	412	6.21	6.068E+00	3.899E+00	3.899E+00	25.14
	77.11	693	10.50	6.265E+00	3.757E+00	3.757E+00	16.58
	87.30	231	4.67	6.834E+00	2.584E+00	2.584E+00	32.73
	241.98	323	7.49	4.866E+00	3.161E+00	3.161E+00	32.71
	295.21	312	19.20	4.201E+00	1.381E+00	1.381E+00	19.30
	351.92	568	37.20*	3.680E+00	1.481E+00	1.481E+00	16.83
PO-216	74.81	412	10.70	6.068E+00	2.263E+00	2.263E+00	25.78
	77.11	693	18.00	6.265E+00	2.191E+00	2.191E+00	14.73
	87.30	231	8.00	6.834E+00	1.509E+00	1.509E+00	33.35
	238.63	1143	44.60*	4.908E+00	1.864E+00	1.864E+00	11.88
	300.09	74	3.41	4.149E+00	1.866E+00	1.866E+00	64.01
PO-218	74.81	412	6.21	6.068E+00	3.899E+00	3.899E+00	25.14
	77.11	693	10.50	6.265E+00	3.757E+00	3.757E+00	16.58
	87.30	231	4.67	6.834E+00	2.584E+00	2.584E+00	32.73
	241.98	323	7.49	4.866E+00	3.161E+00	3.161E+00	32.71
	295.21	312	19.20	4.201E+00	1.381E+00	1.381E+00	19.30
	351.92	568	37.20*	3.680E+00	1.481E+00	1.481E+00	16.83
RA-224	240.98	323	3.95*	4.866E+00	5.994E+00	5.994E+00	32.22
RA-226	609.31	403	46.30*	2.389E+00	1.300E+00	1.300E+00	18.00
	1120.29	59	15.10	1.413E+00	9.821E-01	9.822E-01	54.62
	1764.49	51	15.80	9.831E-01	1.165E+00	1.165E+00	39.41
AC-228	338.32	241	11.40	3.791E+00	1.989E+00	1.989E+00	48.23
	911.07	228	27.70*	1.695E+00	1.736E+00	1.736E+00	22.55
	969.11	112	16.60	1.606E+00	1.499E+00	1.499E+00	39.07
RA-228	338.32	241	11.40	3.791E+00	1.989E+00	1.989E+00	48.23
	911.07	228	27.70*	1.695E+00	1.736E+00	1.736E+00	22.55
	969.11	112	16.60	1.606E+00	1.499E+00	1.499E+00	39.07
TH-228	74.81	412	10.70	6.068E+00	2.263E+00	2.297E+00	24.05
	77.11	693	18.00	6.265E+00	2.191E+00	2.225E+00	14.73
	87.30	231	8.00	6.834E+00	1.509E+00	1.532E+00	31.81
	238.63	1143	44.60*	4.908E+00	1.864E+00	1.892E+00	11.88
	300.09	74	3.41	4.149E+00	1.866E+00	1.895E+00	86.62
TH-230	609.31	403	46.30*	2.389E+00	1.300E+00	1.300E+00	18.00
	1120.29	59	15.10	1.413E+00	9.821E-01	9.821E-01	54.62
	1764.49	51	15.80	9.831E-01	1.165E+00	1.165E+00	39.41
TH-232	338.32	241	11.40	3.791E+00	1.989E+00	1.989E+00	26.42
	911.07	228	27.70*	1.695E+00	1.736E+00	1.736E+00	22.55
	969.11	112	16.60	1.606E+00	1.499E+00	1.499E+00	39.07
TH-234	63.29	475	3.80*	4.792E+00	9.312E+00	9.312E+00	28.39
	92.38	1056	5.41	7.017E+00	9.929E+00	9.929E+00	20.63
U-234	609.31	403	46.30*	2.389E+00	1.300E+00	1.300E+00	18.00
	1120.29	59	15.10	1.413E+00	9.821E-01	9.821E-01	54.62
	1764.49	51	15.80	9.831E-01	1.165E+00	1.165E+00	39.41
U-235	89.95	145	2.70	6.936E+00	2.760E+00	2.760E+00	56.43
	93.35	1056	4.50	7.017E+00	1.194E+01	1.194E+01	29.73

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	105.00	------	2.10	7.182E+00	------	Line Not Found	------
	143.76	97	10.50*	6.689E+00	4.921E-01	4.921E-01	68.79
	163.35	------	4.70	6.279E+00	------	Line Not Found	------
	185.71	406	54.00	5.813E+00	4.621E-01	4.621E-01	23.02
	205.31	------	4.70	5.451E+00	------	Line Not Found	------
NP-237	86.50	231	12.60*	6.834E+00	9.578E-01	9.578E-01	37.92
	95.87	------	2.60	7.087E+00	------	Line Not Found	------
U-238	63.29	475	3.80*	4.792E+00	9.312E+00	9.312E+00	28.39
	92.38	1056	5.41	7.017E+00	9.929E+00	9.929E+00	13.15
AM-243	74.67	412	66.00*	6.068E+00	3.669E-01	3.669E-01	24.03
	86.72	231	0.34	6.834E+00	3.592E+01	3.592E+01	31.81
	117.66	------	0.55	7.126E+00	------	Line Not Found	------
	142.18	------	0.13	6.723E+00	------	Line Not Found	------
ANH-511	511.00	111	100.00*	2.753E+00	1.444E-01	1.444E-01	60.04

Flag: "*" = Keyline

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

Total number of lines in spectrum 37
Number of unidentified lines 3
Number of lines tentatively identified by NID 34 91.89%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.363E+01	2.363E+01	0.270E+01	11.44	
CD-109	464.00D	1.02	3.244E+00	3.319E+00	1.056E+00	31.81	
SN-126	1.00E+05Y	1.00	3.262E-01	3.262E-01	1.038E-01	31.81	
BA-137M	30.17Y	1.00	2.448E-01	2.450E-01	1.001E-01	40.84	
CS-137	30.17Y	1.00	2.588E-01	2.590E-01	1.058E-01	40.84	
TL-208	1.41E+10Y	1.00	5.530E-01	5.530E-01	1.042E-01	18.85	
BI-210	22.26Y	1.00	3.073E+00	3.077E+00	3.442E+00	111.86	
PB-210	22.26Y	1.00	3.073E+00	3.077E+00	3.442E+00	111.86	
PO-210	22.26Y	1.00	3.073E+00	3.077E+00	3.440E+00	111.79	
BI-211	7.04E+08Y	1.00	4.257E+00	4.257E+00	0.681E+00	16.00	
PB-212	1.41E+10Y	1.00	1.864E+00	1.864E+00	0.221E+00	11.88	
PO-212	1.41E+10Y	1.00	1.864E+00	1.864E+00	0.221E+00	11.88	
BI-214	1600.00Y	1.00	1.300E+00	1.300E+00	0.234E+00	18.00	
PB-214	1600.00Y	1.00	1.481E+00	1.481E+00	0.249E+00	16.83	
PO-214	1600.00Y	1.00	1.481E+00	1.481E+00	0.249E+00	16.83	
PO-216	1.41E+10Y	1.00	1.864E+00	1.864E+00	0.221E+00	11.88	
PO-218	1600.00Y	1.00	1.481E+00	1.481E+00	0.249E+00	16.83	
RA-224	1.41E+10Y	1.00	5.994E+00	5.994E+00	1.932E+00	32.22	
RA-226	1600.00Y	1.00	1.300E+00	1.300E+00	0.234E+00	18.00	
AC-228	1.41E+10Y	1.00	1.736E+00	1.736E+00	0.392E+00	22.55	
RA-228	1.41E+10Y	1.00	1.736E+00	1.736E+00	0.392E+00	22.55	
TH-228	1.91Y	1.02	1.864E+00	1.892E+00	0.225E+00	11.88	
TH-230	4.47E+09Y	1.00	1.300E+00	1.300E+00	0.234E+00	18.00	
TH-232	1.41E+10Y	1.00	1.736E+00	1.736E+00	0.392E+00	22.55	
TH-234	4.47E+09Y	1.00	9.312E+00	9.312E+00	2.644E+00	28.39	
U-234	4.47E+09Y	1.00	1.300E+00	1.300E+00	0.234E+00	18.00	
U-235	7.04E+08Y	1.00	4.921E-01	4.921E-01	3.385E-01	68.79	
NP-237	2.14E+06Y	1.00	9.578E-01	9.578E-01	3.632E-01	37.92	
U-238	4.47E+09Y	1.00	9.312E+00	9.312E+00	2.644E+00	28.39	
AM-243	7380.00Y	1.00	3.669E-01	3.669E-01	0.882E-01	24.03	
ANH-511	1.00E+09Y	1.00	1.444E-01	1.444E-01	0.867E-01	60.04	
			---	---			
	Total Activity :		9.061E+01	9.073E+01			

Grand Total Activity : 9.061E+01 9.073E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.08	177	488	1.89	167.81	164	8	2.45E-02	46.5	6.69E+00	T
0	128.85	172	395	1.90	257.33	252	12	2.39E-02	48.5	6.97E+00	T
0	209.49	121	242	1.10	418.58	414	10	1.68E-02	52.4	5.38E+00	T
0	270.41	104	198	1.43	540.40	535	11	1.45E-02	55.7	4.48E+00	T
0	409.65	24	103	0.78	818.83	815	8	3.36E-03	****	3.28E+00	T
0	728.10	126	83	2.13	1455.64	1447	21	1.75E-02	42.1	2.06E+00	T
0	796.21	36	57	1.63	1591.84	1583	13	4.99E-03	93.7	1.91E+00	T
1	964.78	57	49	1.98	1928.95	1924	20	7.94E-03	48.0	1.61E+00	T
0	1001.62	37	43	1.80	2002.61	1997	10	5.19E-03	73.0	1.56E+00	T
0	1378.59	24	26	4.35	2756.48	2747	15	3.30E-03	****	1.18E+00	
0	1588.15	23	3	1.46	3175.57	3169	11	3.19E-03	50.5	1.06E+00	
0	1592.65	17	10	1.67	3184.59	3179	10	2.36E-03	84.8	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:24:36.50

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960010.CNF;1 *
* Acquisition date  : 12-FEB-2010 16:24:06  Detector SN#     :             *
* Detector ID       : GAM07                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.24          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245960010            Analyst initials: MXR1         *
* Batch Number      : 948717                Sample Quantity : 1.05200E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.363E+01	2.703E+00	5.213E-01	4.476E-02	45.322
CD-109	3.319E+00	1.056E+00	1.323E+00	1.246E-01	2.510
SN-126	3.262E-01	1.038E-01	1.333E-01	1.249E-02	2.447
BA-137M	2.450E-01	1.001E-01	7.127E-02	6.308E-03	3.438
CS-137	2.590E-01	1.058E-01	7.534E-02	6.680E-03	3.438
TL-208	5.530E-01	1.042E-01	6.560E-02	6.275E-03	8.431
BI-210	3.077E+00	3.442E+00	3.337E+00	3.131E-01	0.922
PB-210	3.077E+00	3.442E+00	3.337E+00	3.131E-01	0.922
PO-210	3.077E+00	3.440E+00	3.337E+00	2.840E-01	0.922
BI-211	4.257E+00	6.810E-01	3.990E-01	3.580E-02	10.669
PB-212	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
PO-212	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
BI-214	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
PB-214	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
PO-214	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
PO-216	1.864E+00	2.214E-01	1.001E-01	9.578E-03	18.611
PO-218	1.481E+00	2.492E-01	1.391E-01	1.443E-02	10.647
RA-224	5.994E+00	1.932E+00	1.140E+00	9.639E-02	5.259

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
AC-228	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
RA-228	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
TH-228	1.892E+00	2.247E-01	1.017E-01	9.724E-03	18.611
TH-230	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
TH-232	1.736E+00	3.915E-01	2.595E-01	3.023E-02	6.689
TH-234	9.312E+00	2.644E+00	1.863E+00	3.242E-01	4.997
U-234	1.300E+00	2.339E-01	1.327E-01	1.372E-02	9.796
U-235	4.921E-01	3.385E-01	3.747E-01	6.489E-02	1.313
NP-237	9.578E-01	3.632E-01	3.755E-01	8.490E-02	2.551
U-238	9.312E+00	2.644E+00	1.863E+00	3.242E-01	4.997
AM-243	3.669E-01	8.815E-02	8.666E-02	6.966E-03	4.233
ANH-511	1.444E-01	8.668E-02	5.379E-02	4.779E-03	2.684

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.418E-02		4.215E-01	6.867E-01	6.481E-02	0.137
NA-22	-6.213E-03		4.560E-02	7.407E-02	6.080E-03	-0.084
NA-24	-2.588E-01		4.869E-01	Half-Life too short		
AL-26	1.043E-02		3.815E-02	6.673E-02	5.442E-03	0.156
TI-44	4.044E-01	+	5.957E-02	8.243E-02	6.901E-03	4.906
SC-46	-3.206E-02		4.891E-02	7.384E-02	6.766E-03	-0.434
V-48	-4.328E-02		8.040E-02	1.209E-01	1.088E-02	-0.358
CR-51	-4.552E-01		4.697E-01	7.035E-01	6.358E-02	-0.647
MN-52	-4.799E-02		2.626E-01	4.170E-01	3.468E-02	-0.115
MN-54	2.160E-02		4.569E-02	7.760E-02	7.123E-03	0.278
CO-56	3.645E-03		4.387E-02	7.211E-02	6.620E-03	0.051
CO-57	2.542E-02		2.849E-02	4.756E-02	4.092E-03	0.535
CO-58	6.127E-03		4.346E-02	7.208E-02	6.622E-03	0.085
FE-59	-4.668E-03		1.032E-01	1.717E-01	1.591E-02	-0.027
CO-60	-5.760E-04		4.459E-02	7.329E-02	6.004E-03	-0.008
ZN-65	-2.523E-02		1.119E-01	1.555E-01	1.320E-02	-0.162
GE-68	5.342E-01		1.497E+00	2.589E+00	2.244E-01	0.206
AS-73	2.908E-01		6.417E-01	1.070E+00	8.036E-02	0.272
AS-74	3.777E-02		1.067E-01	1.830E-01	1.640E-02	0.206
SE-75	4.282E-02		5.430E-02	8.411E-02	7.183E-03	0.509
BR-77	-4.113E+00		1.206E+01	1.923E+01	1.712E+00	-0.214
SR-82	-3.252E-01		4.271E-01	6.443E-01	5.884E-02	-0.505
RB-83	-2.822E-02		7.808E-02	1.243E-01	1.107E-02	-0.227
RB-84	-2.926E-02		8.943E-02	1.405E-01	1.288E-02	-0.208
KR-85	1.735E+01		9.752E+00	1.638E+01	1.456E+00	1.060
SR-85	8.903E-02		5.004E-02	8.402E-02	7.472E-03	1.060
RB-86	4.432E-01		9.624E-01	1.678E+00	1.455E-01	0.264
Y-88	-4.052E-02		3.511E-02	4.037E-02	3.276E-03	-1.004
ZR-88	6.931E-03		3.528E-02	5.811E-02	4.840E-03	0.119
Y-91	-1.035E+01		2.187E+01	3.461E+01	2.827E+00	-0.299

Sample ID : G245960010 Acquisition date : 12-FEB-2010 16:24:06

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	9.967E-03		4.117E-02	6.929E-02	6.222E-03	0.144
NB-95	6.592E-02		5.303E-02	9.492E-02	8.653E-03	0.695
NB-95M	4.860E-02		1.515E-01	2.279E-01	2.212E-02	0.213
ZR-95	3.367E-02		9.078E-02	1.537E-01	1.526E-02	0.219
NB-97	5.679E-02		6.651E-02	Half-Life too short		
ZR-97	1.108E+00		1.265E+00	Half-Life too short		
MO-99	3.494E-01		1.357E+01	2.239E+01	3.458E+00	0.016
TC-99M	-1.818E+10		3.028E+10	Half-Life too short		
RH-101	4.801E-04		3.543E-02	5.858E-02	4.805E-03	0.008
RH-102	6.678E-04		3.609E-02	5.796E-02	5.085E-03	0.012
RU-103	1.585E-02		4.494E-02	7.406E-02	1.059E-02	0.214
RH-106	-1.348E-01		3.589E-01	5.779E-01	7.839E-02	-0.233
RU-106	-1.348E-01		3.587E-01	5.779E-01	5.165E-02	-0.233
AG-108M	9.746E-03		3.786E-02	6.231E-02	5.563E-03	0.156
AG-110M	2.382E-02		4.509E-02	6.904E-02	6.290E-03	0.345
IN-111	8.346E-03		1.288E+00	1.893E+00	1.603E-01	0.004
IN-113M	1.830E-02		5.101E-02	8.496E-02	7.303E-03	0.215
SN-113	1.830E-02		5.101E-02	8.496E-02	7.303E-03	0.215
IN-114M	3.083E-02		2.183E-01	3.289E-01	2.676E-02	0.094
CD-115	-6.162E+00		1.237E+01	1.999E+01	1.784E+00	-0.308
SN-117M	-2.352E-02		6.192E-02	9.630E-02	7.721E-03	-0.244
SB-122	1.471E+00		2.467E+00	4.310E+00	3.864E-01	0.341
I-123	-3.871E+00		3.572E+00	Half-Life too short		
TE-123M	-1.759E-02		3.246E-02	5.001E-02	4.035E-03	-0.352
I-124	8.760E-02		8.207E-01	1.206E+00	1.081E-01	0.073
SB-124	4.416E-02		8.995E-02	1.590E-01	1.377E-02	0.278
SB-125	7.842E-02		1.031E-01	1.762E-01	1.536E-02	0.445
TE-125M	3.285E+00		1.089E+01	1.782E+01	1.847E+00	0.184
I-126	1.107E-01		2.544E-01	3.836E-01	3.401E-02	0.289
SB-126	-3.551E-02		1.872E-01	2.607E-01	2.352E-02	-0.136
SB-127	-2.306E-01		1.435E+00	2.336E+00	2.719E-01	-0.099
XE-127	5.055E-03		5.164E-02	8.743E-02	7.206E-03	0.058
I-131	-5.513E-03		1.353E-01	2.202E-01	1.971E-02	-0.025
TE-132	2.207E-01		7.593E-01	1.289E+00	2.013E-01	0.171
BA-133	-7.397E-03		6.017E-02	8.403E-02	1.103E-02	-0.088
I-133	2.205E-03		3.626E-03	Half-Life too short		
CS-134	8.862E-02	+	8.348E-02	1.003E-01	9.237E-03	0.884
CS-135	1.832E-01		1.982E-01	3.082E-01	3.039E-02	0.595
I-135	-3.815E+09		3.868E+09	Half-Life too short		
CS-136	-3.462E-02		1.230E-01	2.004E-01	1.833E-02	-0.173
CE-139	-1.904E-02		3.525E-02	5.423E-02	4.290E-03	-0.351
BA-140	-4.814E-02		2.886E-01	4.784E-01	1.589E-01	-0.101
LA-140	6.757E-02		1.073E-01	1.723E-01	1.442E-02	0.392
CE-141	9.768E-02		8.304E-02	1.255E-01	1.051E-02	0.778
CE-143	5.251E-04		1.115E-04	Half-Life too short		
CE-144	2.193E-01		2.553E-01	3.804E-01	5.872E-02	0.576
PM-144	-1.946E-02		4.254E-02	6.765E-02	6.064E-03	-0.288
PR-144	-1.319E+00		2.883E+00	4.584E+00	4.108E-01	-0.288

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-7.349E-03		5.480E-02	8.726E-02	9.402E-03	-0.084
ND-147	3.840E-01		6.583E-01	1.150E+00	1.741E-01	0.334
PM-149	6.059E+01		1.114E+02	1.893E+02	2.931E+01	0.320
EU-152	-3.887E-02		1.303E-01	1.818E-01	1.648E-02	-0.214
GD-153	-4.407E-02		1.032E-01	1.462E-01	1.308E-02	-0.301
EU-154	-1.042E-02		1.263E-01	2.065E-01	2.270E-02	-0.050
EU-155	8.999E-02		1.220E-01	2.031E-01	1.795E-02	0.443
TB-160	1.122E-01		1.758E-01	3.026E-01	2.775E-02	0.371
HO-166M	-4.460E-02		7.080E-02	1.100E-01	9.906E-03	-0.405
TM-171	1.014E+01		2.861E+01	4.276E+01	3.198E+00	0.237
LU-176	-3.497E-03		3.101E-02	4.441E-02	3.804E-03	-0.079
LU-177	3.522E+00	+	1.868E+00	2.244E+00	1.858E-01	1.570
LU-177M	-1.874E-02		2.572E-01	3.613E-01	3.059E-02	-0.052
HF-181	1.270E-02		5.513E-02	8.986E-02	7.906E-03	0.141
W-181	3.009E-01		3.859E-01	5.863E-01	4.338E-02	0.513
TA-182	1.304E-02		2.283E-01	3.806E-01	3.113E-02	0.034
RE-183	1.137E-01		1.262E-01	2.087E-01	1.661E-02	0.545
RE-184	1.935E-01		2.554E-01	4.422E-01	3.753E-02	0.438
OS-185	2.550E-02		4.955E-02	8.576E-02	7.624E-03	0.297
RE-188	1.613E-01		2.016E-01	3.320E-01	2.679E-02	0.486
W-188	-6.671E+00		9.875E+00	1.355E+01	1.155E+00	-0.492
IR-192	-7.208E-04		3.890E-02	6.394E-02	5.495E-03	-0.011
AU-195	2.109E-01		2.611E-01	4.313E-01	3.836E-02	0.489
TL-200	-2.097E-04		2.696E-04	Half-Life too short		
TL-201	3.047E+00		8.139E+00	1.313E+01	1.040E+00	0.232
TL-202	7.446E-02		7.818E-02	1.352E-01	1.164E-02	0.551
HG-203	5.032E-03		4.685E-02	7.811E-02	6.823E-03	0.064
BI-207	3.591E-02		6.104E-02	1.079E-01	9.413E-03	0.333
TL-207	-1.322E-01		8.007E-01	1.303E+00	2.303E-01	-0.101
PO-209	-1.165E+00		8.790E+00	1.406E+01	1.287E+00	-0.083
PB-211	-5.244E-01		1.321E+00	1.739E+00	1.089E+00	-0.302
BI-212	1.854E+00	+	8.034E-01	8.272E-01	8.580E-02	2.241
PO-215	-1.322E-01		8.007E-01	1.303E+00	2.303E-01	-0.101
RN-219	5.364E-02		4.778E-01	7.810E-01	1.163E-01	0.069
RN-220	-2.649E+01		3.023E+01	4.711E+01	4.218E+00	-0.562
RA-223	-1.322E-01		8.007E-01	1.303E+00	2.303E-01	-0.101
AC-227	1.425E-01		4.303E-01	7.283E-01	1.113E-01	0.196
TH-227	1.425E-01		4.305E-01	7.283E-01	1.311E-01	0.196
TH-229	-1.030E-01		5.362E-01	8.978E-01	7.331E-02	-0.115
PA-231	1.135E+00		1.836E+00	3.129E+00	4.731E-01	0.363
TH-231	-1.322E-01		8.007E-01	1.303E+00	2.303E-01	-0.101
U-231	-9.340E-01		1.413E+00	1.978E+00	1.780E-01	-0.472
PA-233	3.662E-02		6.985E-02	1.188E-01	1.048E-02	0.308
PA-234	1.127E-01		3.579E-01	5.966E-01	1.133E-01	0.189
PA-234M	1.018E+01	+	7.503E+00	1.155E+01	1.184E+00	0.882
NP-236	-3.654E-02		9.204E-02	1.430E-01	1.143E-02	-0.256
NP-239	4.189E-02		2.012E-01	3.274E-01	2.817E-02	0.128
AM-241	1.994E-02		1.415E-01	2.112E-01	1.674E-02	0.094

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-7.097E-02		1.096E-01	1.724E-01	1.511E-02	-0.412
AM-246	-7.171E-02		1.783E-01	2.872E-01	2.486E-02	-0.250
CM-247	2.171E-02		4.295E-02	7.209E-02	6.053E-03	0.301
CF-249	-1.707E-02		4.515E-02	7.128E-02	5.950E-03	-0.240
CF-251	6.554E-02		1.372E-01	2.373E-01	1.901E-02	0.276

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960010           *
* Acquisition date  : 12-FEB-2010 16:24:06 Detector SN#     :               *
* Detector ID       : GAM07                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.24      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245960010           Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.0520E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.363E+01	2.649E+00	2.590E-01	1.351E+00
CD-109	3.319E+00	1.035E+00	6.663E-01	5.279E-01
SN-126	3.262E-01	1.017E-01	6.715E-02	5.188E-02
BA-137M	2.450E-01	9.806E-02	3.555E-02	5.003E-02
CS-137	2.590E-01	1.037E-01	3.758E-02	5.289E-02
TL-208	5.530E-01	1.022E-01	3.274E-02	5.212E-02
BI-210	3.077E+00	3.373E+00	1.687E+00	1.721E+00
PB-210	3.077E+00	3.373E+00	1.687E+00	1.721E+00
PO-210	3.077E+00	3.371E+00	1.687E+00	1.720E+00
BI-211	4.257E+00	6.674E-01	1.997E-01	3.405E-01
PB-212	1.864E+00	2.169E-01	5.020E-02	1.107E-01
PO-212	1.864E+00	2.169E-01	5.020E-02	1.107E-01
BI-214	1.300E+00	2.292E-01	6.619E-02	1.170E-01
PB-214	1.481E+00	2.442E-01	6.960E-02	1.246E-01
PO-214	1.481E+00	2.442E-01	6.960E-02	1.246E-01
PO-216	1.864E+00	2.169E-01	5.020E-02	1.107E-01
PO-218	1.481E+00	2.442E-01	6.960E-02	1.246E-01
RA-224	5.994E+00	1.893E+00	5.714E-01	9.658E-01
RA-226	1.300E+00	2.292E-01	6.619E-02	1.170E-01
AC-228	1.736E+00	3.837E-01	1.292E-01	1.958E-01
RA-228	1.736E+00	3.837E-01	1.292E-01	1.958E-01
TH-228	1.892E+00	2.203E-01	5.097E-02	1.124E-01
TH-230	1.300E+00	2.292E-01	6.619E-02	1.170E-01
TH-232	1.736E+00	3.837E-01	1.292E-01	1.958E-01
TH-234	9.312E+00	2.591E+00	9.404E-01	1.322E+00
U-234	1.300E+00	2.292E-01	6.619E-02	1.170E-01
U-235	4.921E-01	3.317E-01	1.883E-01	1.693E-01
NP-237	9.578E-01	3.559E-01	1.892E-01	1.816E-01
U-238	9.312E+00	2.591E+00	9.404E-01	1.322E+00
AM-243	3.669E-01	8.639E-02	4.370E-02	4.408E-02
ANH-511	1.444E-01	8.495E-02	2.686E-02	4.334E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	9.418E-02	4.130E-01	3.431E-01	2.107E-01	NOT IDENT.
NA-22	-6.213E-03	4.468E-02	3.682E-02	2.280E-02	NOT IDENT.
NA-24	-2.588E+05	9.542E+05	0.000E+00	4.869E+05	SHORT HLIF
AL-26	1.043E-02	3.739E-02	3.311E-02	1.908E-02	NOT IDENT.
TI-44	4.044E-01	5.838E-02	4.156E-02	2.978E-02	FAIL ABUN
SC-46	-3.206E-02	4.793E-02	3.677E-02	2.446E-02	FAIL ABUN
V-48	-4.328E-02	7.879E-02	6.016E-02	4.020E-02	NOT IDENT.
CR-51	-4.552E-01	4.603E-01	3.522E-01	2.348E-01	NOT IDENT.
MN-52	-4.799E-02	2.573E-01	2.072E-01	1.313E-01	NOT IDENT.
MN-54	2.160E-02	4.478E-02	3.866E-02	2.284E-02	NOT IDENT.
CO-56	3.645E-03	4.299E-02	3.592E-02	2.193E-02	NOT IDENT.
CO-57	2.542E-02	2.792E-02	2.392E-02	1.424E-02	NOT IDENT.
CO-58	6.127E-03	4.259E-02	3.591E-02	2.173E-02	NOT IDENT.
FE-59	-4.668E-03	1.011E-01	8.541E-02	5.159E-02	FAIL ABUN
CO-60	-5.760E-04	4.369E-02	3.643E-02	2.229E-02	NOT IDENT.
ZN-65	-2.523E-02	1.097E-01	7.736E-02	5.595E-02	NOT IDENT.
GE-68	5.342E-01	1.467E+00	1.288E+00	7.487E-01	NOT IDENT.
AS-73	2.908E-01	6.289E-01	5.405E-01	3.209E-01	NOT IDENT.
AS-74	3.777E-02	1.045E-01	9.131E-02	5.334E-02	NOT IDENT.
SE-75	4.282E-02	5.322E-02	4.215E-02	2.715E-02	NOT IDENT.
BR-77	-4.113E+00	1.181E+01	9.601E+00	6.028E+00	FAIL ABUN
SR-82	-3.252E-01	4.186E-01	3.211E-01	2.136E-01	NOT IDENT.
RB-83	-2.822E-02	7.652E-02	6.207E-02	3.904E-02	NOT IDENT.
RB-84	-2.926E-02	8.764E-02	6.997E-02	4.471E-02	NOT IDENT.
KR-85	1.735E+01	9.557E+00	8.178E+00	4.876E+00	NOT IDENT.
SR-85	8.903E-02	4.904E-02	4.196E-02	2.502E-02	NOT IDENT.
RB-86	4.432E-01	9.431E-01	8.351E-01	4.812E-01	NOT IDENT.
Y-88	-4.052E-02	3.441E-02	2.003E-02	1.756E-02	NOT IDENT.
ZR-88	6.931E-03	3.458E-02	2.906E-02	1.764E-02	NOT IDENT.
Y-91	-1.035E+01	2.143E+01	1.721E+01	1.094E+01	NOT IDENT.
NB-94	9.967E-03	4.034E-02	3.455E-02	2.058E-02	NOT IDENT.
NB-95	6.592E-02	5.197E-02	4.731E-02	2.652E-02	NOT IDENT.
NB-95M	4.860E-02	1.485E-01	1.143E-01	7.577E-02	NOT IDENT.
ZR-95	3.367E-02	8.896E-02	7.659E-02	4.539E-02	NOT IDENT.
NB-97	5.679E+04	1.304E+05	0.000E+00	6.651E+04	SHORT HLIF
ZR-97	1.108E+06	2.479E+06	0.000E+00	1.265E+06	SHORT HLIF
MO-99	3.494E-01	1.330E+01	1.116E+01	6.786E+00	NOT IDENT.
TC-99M	-1.818E+16	5.936E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.801E-04	3.472E-02	2.939E-02	1.771E-02	NOT IDENT.
RH-102	6.678E-04	3.537E-02	2.896E-02	1.804E-02	NOT IDENT.
RU-103	1.585E-02	4.404E-02	3.699E-02	2.247E-02	FAIL ABUN
RH-106	-1.348E-01	3.518E-01	2.883E-01	1.795E-01	FAIL ABUN
RU-106	-1.348E-01	3.515E-01	2.883E-01	1.793E-01	FAIL ABUN
AG-108M	9.746E-03	3.710E-02	3.114E-02	1.893E-02	NOT IDENT.
AG-110M	2.382E-02	4.419E-02	3.444E-02	2.254E-02	NOT IDENT.
IN-111	8.346E-03	1.262E+00	9.488E-01	6.438E-01	NOT IDENT.
IN-113M	1.830E-02	4.999E-02	4.249E-02	2.550E-02	NOT IDENT.
SN-113	1.830E-02	4.999E-02	4.249E-02	2.550E-02	NOT IDENT.
IN-114M	3.083E-02	2.140E-01	1.651E-01	1.092E-01	NOT IDENT.
CD-115	-6.162E+00	1.212E+01	9.982E+00	6.183E+00	NOT IDENT.
SN-117M	-2.352E-02	6.069E-02	4.838E-02	3.096E-02	NOT IDENT.
SB-122	1.471E+00	2.418E+00	2.152E+00	1.234E+00	NOT IDENT.
I-123	-3.871E+06	7.001E+06	0.000E+00	3.572E+06	SHORT HLIF
TE-123M	-1.759E-02	3.181E-02	2.512E-02	1.623E-02	NOT IDENT.
I-124	8.760E-02	8.043E-01	6.019E-01	4.104E-01	NOT IDENT.
SB-124	4.416E-02	8.815E-02	7.893E-02	4.497E-02	FAIL ABUN
SB-125	7.842E-02	1.011E-01	8.805E-02	5.157E-02	NOT IDENT.
TE-125M	3.285E+00	1.068E+01	8.968E+00	5.447E+00	NOT IDENT.
I-126	1.107E-01	2.493E-01	1.913E-01	1.272E-01	NOT IDENT.
SB-126	-3.551E-02	1.834E-01	1.300E-01	9.358E-02	FAIL ABUN
SB-127	-2.306E-01	1.406E+00	1.165E+00	7.173E-01	NOT IDENT.
XE-127	5.055E-03	5.061E-02	4.387E-02	2.582E-02	FAIL ABUN
I-131	-5.513E-03	1.326E-01	1.101E-01	6.766E-02	NOT IDENT.
TE-132	2.207E-01	7.441E-01	6.466E-01	3.797E-01	NOT IDENT.
BA-133	-7.397E-03	5.897E-02	4.204E-02	3.009E-02	NOT IDENT.
I-133	2.205E+03	7.108E+03	0.000E+00	3.626E+03	SHORT HLIF
CS-134	8.862E-02	8.181E-02	4.996E-02	4.174E-02	FAIL ABUN
CS-135	1.832E-01	1.942E-01	1.544E-01	9.911E-02	NOT IDENT.
I-135	-3.815E+15	7.581E+15	0.000E+00	3.868E+15	SHORT HLIF
CS-136	-3.462E-02	1.205E-01	9.970E-02	6.150E-02	FAIL ABUN
CE-139	-1.904E-02	3.455E-02	2.724E-02	1.763E-02	NOT IDENT.
BA-140	-4.814E-02	2.829E-01	2.389E-01	1.443E-01	NOT IDENT.
LA-140	6.757E-02	1.051E-01	8.558E-02	5.364E-02	NOT IDENT.
CE-141	9.768E-02	8.138E-02	6.309E-02	4.152E-02	NOT IDENT.

CE-143	5.251E+02	2.186E+02	0.000E+00	1.115E+02	SHORT HLIF
CE-144	2.193E-01	2.502E-01	1.913E-01	1.276E-01	NOT IDENT.
PM-144	-1.946E-02	4.169E-02	3.373E-02	2.127E-02	NOT IDENT.
PR-144	-1.319E+00	2.825E+00	2.286E+00	1.441E+00	NOT IDENT.
PM-146	-7.349E-03	5.371E-02	4.360E-02	2.740E-02	NOT IDENT.
ND-147	3.840E-01	6.451E-01	5.744E-01	3.291E-01	FAIL ABUN
PM-149	6.059E+01	1.092E+02	9.481E+01	5.572E+01	NOT IDENT.
EU-152	-3.887E-02	1.277E-01	9.099E-02	6.516E-02	FAIL ABUN
GD-153	-4.407E-02	1.012E-01	7.364E-02	5.162E-02	FAIL ABUN
EU-154	-1.042E-02	1.238E-01	1.027E-01	6.314E-02	NOT IDENT.
EU-155	8.999E-02	1.196E-01	1.022E-01	6.100E-02	FAIL ABUN
TB-160	1.122E-01	1.722E-01	1.507E-01	8.788E-02	FAIL ABUN
HO-166M	-4.460E-02	6.939E-02	5.486E-02	3.540E-02	FAIL ABUN
TM-171	1.014E+01	2.804E+01	2.157E+01	1.431E+01	NOT IDENT.
LU-176	-3.497E-03	3.039E-02	2.224E-02	1.550E-02	FAIL ABUN
LU-177	3.522E+00	1.831E+00	1.126E+00	9.340E-01	FAIL ABUN
LU-177M	-1.874E-02	2.520E-01	1.806E-01	1.286E-01	NOT IDENT.
HF-181	1.270E-02	5.403E-02	4.489E-02	2.757E-02	NOT IDENT.
W-181	3.009E-01	3.782E-01	2.958E-01	1.929E-01	NOT IDENT.
TA-182	1.304E-02	2.238E-01	1.892E-01	1.142E-01	FAIL ABUN
RE-183	1.137E-01	1.237E-01	1.048E-01	6.311E-02	FAIL ABUN
RE-184	1.935E-01	2.503E-01	2.216E-01	1.277E-01	NOT IDENT.
OS-185	2.550E-02	4.856E-02	4.278E-02	2.478E-02	NOT IDENT.
RE-188	1.613E-01	1.976E-01	1.668E-01	1.008E-01	NOT IDENT.
W-188	-6.671E+00	9.678E+00	6.785E+00	4.938E+00	FAIL ABUN
IR-192	-7.208E-04	3.812E-02	3.201E-02	1.945E-02	FAIL ABUN
AU-195	2.109E-01	2.559E-01	2.172E-01	1.306E-01	FAIL ABUN
TL-200	-2.097E+02	5.285E+02	0.000E+00	2.696E+02	SHORT HLIF
TL-201	3.047E+00	7.976E+00	6.594E+00	4.070E+00	NOT IDENT.
TL-202	7.446E-02	7.662E-02	6.756E-02	3.909E-02	NOT IDENT.
HG-203	5.032E-03	4.591E-02	3.913E-02	2.343E-02	FAIL ABUN
BI-207	3.591E-02	5.982E-02	5.368E-02	3.052E-02	FAIL ABUN
TL-207	-1.322E-01	7.847E-01	6.520E-01	4.004E-01	FAIL ABUN
PO-209	-1.165E+00	8.614E+00	7.001E+00	4.395E+00	NOT IDENT.
PB-211	-5.244E-01	1.295E+00	8.694E-01	6.606E-01	NOT IDENT.
BI-212	1.854E+00	7.873E-01	4.124E-01	4.017E-01	FAIL ABUN
PO-215	-1.322E-01	7.847E-01	6.520E-01	4.004E-01	FAIL ABUN
RN-219	5.364E-02	4.682E-01	3.905E-01	2.389E-01	FAIL ABUN
RN-220	-2.649E+01	2.962E+01	2.352E+01	1.511E+01	NOT IDENT.
RA-223	-1.322E-01	7.847E-01	6.520E-01	4.004E-01	FAIL ABUN
AC-227	1.425E-01	4.217E-01	3.650E-01	2.151E-01	FAIL ABUN
TH-227	1.425E-01	4.219E-01	3.650E-01	2.152E-01	FAIL ABUN
TH-229	-1.030E-01	5.254E-01	4.506E-01	2.681E-01	FAIL ABUN
PA-231	1.135E+00	1.800E+00	1.567E+00	9.182E-01	FAIL ABUN
TH-231	-1.322E-01	7.847E-01	6.520E-01	4.004E-01	FAIL ABUN
U-231	-9.340E-01	1.385E+00	9.960E-01	7.064E-01	FAIL ABUN
PA-233	3.662E-02	6.845E-02	5.948E-02	3.493E-02	FAIL ABUN
PA-234	1.127E-01	3.507E-01	2.970E-01	1.789E-01	FAIL ABUN
PA-234M	1.018E+01	7.353E+00	5.749E+00	3.752E+00	FAIL ABUN
NP-236	-3.654E-02	9.020E-02	7.182E-02	4.602E-02	NOT IDENT.
NP-239	4.189E-02	1.972E-01	1.647E-01	1.006E-01	FAIL ABUN
AM-241	1.994E-02	1.387E-01	1.066E-01	7.075E-02	NOT IDENT.
CM-243	-7.097E-02	1.075E-01	8.681E-02	5.482E-02	FAIL ABUN
AM-246	-7.171E-02	1.748E-01	1.429E-01	8.917E-02	NOT IDENT.
CM-247	2.171E-02	4.209E-02	3.605E-02	2.147E-02	NOT IDENT.
CF-249	-1.707E-02	4.425E-02	3.565E-02	2.258E-02	NOT IDENT.
CF-251	6.554E-02	1.344E-01	1.192E-01	6.858E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	283.3824
46.50	283.3824
46.50	283.3824
48.70	319.6421
49.72	321.9308
51.35	366.2168
52.39	292.6072
52.97	323.6829
53.15	334.3687
53.44	328.8601
54.07	344.7437
56.28	390.0722
56.28	390.0743
57.37	0.0000
57.53	334.6963
57.53	334.6980
57.60	334.7525
57.98	343.2004
57.98	343.2004
59.32	364.7165
59.32	364.7165
59.40	369.1617
59.54	369.2833
59.72	369.4396
60.01	376.9957
61.10	389.6708
61.14	389.7063
61.30	389.8504
63.00	418.8301
63.29	419.1048
63.29	419.1048
63.58	419.3790
64.28	433.8088
65.12	449.4032
65.20	449.4827
65.20	449.4827
66.05	434.0299
66.72	412.4124
66.83	412.5142
66.91	381.4197
67.20	377.2037
67.20	377.2037
67.75	408.8766
67.85	408.9647
68.90	455.4972
68.90	455.4972
69.30	447.5327
69.67	450.8734
70.82	466.9312
70.82	466.9312
70.83	466.9407
72.80	422.2718
72.87	422.3340
72.87	422.3340
74.67	436.4613
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.81	436.5849
74.97	436.7262
75.28	436.9999
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77.11	438.6025
77.11	438.6025

77.11	438.6025
77.11	438.6025
77.11	438.6025
77.11	438.6025
77.11	438.6025
78.38	439.7040
79.62	371.7094
79.80	371.8398
79.80	371.8398
80.11	365.9637
80.18	366.0132
80.30	366.0974
80.30	366.0974
80.57	372.3926
81.00	372.7017
81.07	372.7519
81.07	372.7519
81.07	372.7519
81.07	372.7519
82.60	373.8428
83.37	427.5757
83.78	420.7436
83.78	420.7436
83.78	420.7436
83.78	420.7436
84.21	421.0844
84.90	375.4624
85.43	375.8328
86.29	376.4323
86.50	376.5775
86.54	376.6054
86.59	376.6407
86.72	376.7301
86.79	376.7766
86.94	447.9344
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.30	540.9656
87.57	414.4296
87.88	414.6647
88.03	396.2051
88.36	396.4434
88.47	396.5234
89.95	397.5820
91.11	432.6464
92.29	433.5500
92.38	433.6199
92.38	433.6199
93.35	434.3580
94.00	347.2561
94.67	372.7139
94.67	372.7175
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94.90	388.5331
94.90	388.5331
95.87	409.5847
95.87	409.5847
96.73	345.7541
97.43	379.2084
98.44	349.9119
98.44	349.9119
98.88	310.2115
99.55	307.4029
99.55	307.4029
99.86	320.2029
100.00	320.2771
100.10	330.8700
103.18	357.9766
103.76	326.5137
105.00	277.2461
105.31	290.1389
108.00	333.0187
109.28	315.5111

111.00	315.2910
111.00	315.2910
111.76	303.8528
112.95	288.2778
115.19	317.3321
116.30	265.9695
117.00	234.8637
117.00	234.8637
117.66	252.4309
121.11	238.4809
121.62	235.3909
121.78	235.4458
122.06	236.6330
122.32	226.9044
122.32	226.9044
122.32	226.9044
122.32	226.9044
123.07	222.7847
127.23	237.3041
129.76	253.5892
131.20	256.8630
133.02	250.8656
133.54	226.1071
135.34	243.3318
136.00	264.6801
136.25	261.4323
136.48	263.7392
140.51	266.8471
140.51	0.0000
142.18	277.5286
142.65	265.9210
143.76	251.6992
144.24	251.8587
144.24	251.8587
144.24	251.8587
144.24	251.8587
145.22	254.9945
145.44	246.6201
147.16	264.0974
152.43	243.1490
152.70	231.8657
153.22	232.0172
154.21	255.0784
154.21	255.0784
154.21	255.0784
154.21	255.0784
155.03	239.3796
156.02	251.0874
158.56	233.5549
159.00	0.0000
159.00	242.8433
160.31	245.5262
161.27	228.5816
162.32	213.9197
162.64	214.0010
163.35	236.0616
163.89	231.6068
165.85	254.0908
167.43	217.5376
171.28	215.0298
171.86	197.7281
172.10	197.7834
176.55	211.3623
176.60	211.3751
181.06	243.9929
184.41	223.8438
185.71	224.1623
186.00	224.2337
190.27	206.5754
192.34	190.9709
193.63	205.5316
197.04	201.7897
198.01	195.7097
198.60	199.4226
200.40	212.3968
201.83	228.9356
202.84	213.8356
205.31	192.4863

208.36	216.3119
208.81	201.5229
209.75	201.7126
209.75	201.7126
210.97	209.6016
215.65	199.5051
216.55	200.3351
218.09	212.5475
222.10	184.8644
223.80	211.8821
226.40	173.6209
227.00	191.2766
227.08	191.2924
227.20	188.5403
228.16	173.9106
228.18	173.9149
228.18	173.9149
231.56	0.0000
235.69	193.7717
236.00	189.3543
236.00	189.3543
238.63	174.6790
238.63	174.6790
238.63	174.6790
238.63	174.6790
239.00	174.7390
240.98	175.0543
241.98	175.2133
241.98	175.2133
241.98	175.2133
244.69	166.8130
245.39	153.3847
247.94	146.1986
248.90	170.9615
249.79	154.2030
252.40	139.9672
252.85	139.0765
252.85	139.0765
254.15	0.0000
256.20	154.6667
256.20	154.6667
260.50	181.9099
260.90	178.1630
262.80	157.4570
264.65	129.9882
268.24	142.6537
268.79	154.9965
269.46	151.6304
269.46	151.6304
269.46	151.6304
269.46	151.6304
271.23	161.4657
273.65	172.5773
276.40	150.0260
277.35	144.8982
277.60	156.5222
277.60	156.5222
278.00	154.6411
278.60	152.7828
279.20	157.6948
279.53	171.2851
280.46	193.6890
281.68	172.5543
283.67	148.5596
284.30	153.4916
285.00	156.4945
285.90	146.8803
286.10	155.6592
286.10	155.6592
287.40	166.5356
288.45	0.0000
290.67	168.7263
290.80	168.7447
291.72	168.8687
293.26	0.0000
293.70	150.3398
295.21	144.0504
295.21	144.0504

295.21	144.0504
295.96	144.1356
296.50	144.1962
297.23	144.2792
298.57	144.4295
299.80	144.5685
299.80	144.5685
300.09	144.5999
300.09	144.5999
300.09	144.5999
300.09	144.5999
300.12	144.6044
301.29	144.7345
302.84	115.1372
303.76	115.2192
303.91	115.2316
304.40	120.0136
304.40	120.0136
304.84	123.2137
306.84	123.4023
308.46	135.6328
311.98	108.2000
316.51	122.5120
318.01	115.6690
319.02	134.7157
319.41	134.7549
320.08	155.7929
323.87	148.2168
323.87	148.2168
323.87	148.2168
323.87	148.2168
325.23	172.4225
328.77	123.6212
333.44	137.1476
334.20	124.3073
334.20	124.3073
334.30	124.3167
338.28	116.3722
338.28	116.3722
338.28	116.3722
338.28	116.3722
338.32	116.3757
338.32	116.3757
338.32	116.3757
340.50	121.6223
340.57	121.6278
344.27	128.4502
345.85	124.1147
350.59	0.0000
351.07	131.7124
351.92	131.7912
351.92	131.7912
351.92	131.7912
355.39	0.0000
356.01	118.0230
364.48	109.2219
366.43	102.1436
367.43	101.1791
367.94	0.0000
369.80	87.8962
374.96	98.5718
383.85	91.8390
387.95	104.6387
388.63	110.9655
391.69	95.4489
391.69	95.4489
392.90	97.6219
398.62	101.1357
400.65	101.2646
401.10	100.2374
401.81	100.2823
402.60	95.0510
404.84	115.0671
410.95	115.5021
411.60	113.8493
413.65	120.7971
414.70	114.9164
415.30	114.3494

415.76	105.4081
417.63	0.0000
418.52	105.5848
423.70	96.2856
427.08	92.1925
427.89	75.0768
432.53	79.5859
433.93	85.0332
439.47	70.1922
439.56	70.1952
439.89	66.9686
443.98	95.2778
444.90	79.0796
445.03	79.0863
445.03	79.0863
445.03	79.0863
445.03	79.0863
453.90	102.3564
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468.07	96.5897
473.00	96.8542
475.06	91.4550
475.35	111.3071
476.78	113.5992
477.59	99.3054
477.96	97.1188
482.03	95.1228
484.57	93.0388
487.03	84.2905
490.36	0.0000
492.35	70.0723
497.08	64.6739
507.63	0.0000
510.53	0.0000
510.84	79.7450
511.00	79.7515
511.85	79.7867
511.85	79.7867
513.99	79.5000
513.99	79.5000
520.41	77.2548
520.65	77.2653
527.90	79.7672
528.96	0.0000
529.64	76.2091
529.87	0.0000
531.02	71.7230
537.32	73.7721
543.00	90.4197
546.56	0.0000
549.76	87.0586
552.65	63.3213
555.20	65.2382
563.23	70.1052
563.90	72.8956
568.70	79.5374
569.32	73.0866
569.50	73.0924
569.67	73.0981
573.80	70.4614
574.00	73.2486
574.64	69.5618
578.91	58.8601
579.30	0.0000
583.14	67.9795
585.48	73.0263
591.81	81.3458
592.07	83.2246
593.00	81.3904
595.88	70.2576
600.56	80.7363
602.52	0.0000
602.71	65.7805
602.71	65.7805
603.60	87.7438
604.41	72.1015
604.70	72.1108
609.31	78.2320

609.31	78.2320
609.31	78.2320
609.31	78.2320
610.33	78.2684
612.46	66.0728
614.37	70.8545
618.01	68.1311
621.84	69.1967
621.84	69.1967
631.29	63.7760
633.02	56.2041
633.10	56.2056
634.78	55.2940
635.90	54.3671
636.97	57.2563
645.85	56.5210
646.12	59.4010
656.30	57.7383
657.75	57.7734
657.90	0.0000
661.65	74.2666
661.65	74.2666
664.57	0.0000
666.33	70.8716
666.33	70.8716
675.00	82.4475
677.61	63.1163
685.20	52.6012
692.80	72.3090
695.00	74.3319
696.49	82.2056
696.49	82.2056
697.00	76.3490
697.49	72.4481
698.33	76.3909
698.50	71.4994
699.00	67.5951
702.63	72.6017
706.10	71.7204
706.58	0.0000
706.67	68.7883
709.31	60.9919
711.68	70.8979
713.82	57.1617
717.42	48.3612
720.50	60.9380
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722.20	59.3306
722.78	62.6406
722.78	62.6406
722.89	62.6437
722.95	62.6453
723.30	70.8986
724.18	65.9749
727.18	60.4385
733.00	52.9635
735.90	44.7396
739.58	56.7509
742.81	58.8171
744.21	57.8513
747.13	65.9049
751.79	74.0271
752.31	77.0432
753.82	61.0700
755.35	59.1023
756.15	66.1354
756.87	67.1554
763.93	75.3772
765.79	60.3442
766.42	52.3110
766.84	48.2941
776.49	60.5889
778.00	62.6433
778.57	69.7311
778.89	69.7395
783.80	59.7418
785.46	53.7000
792.07	64.3276

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798.80	49.2136
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805.60	42.8716
810.29	52.1468
810.76	46.0195
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817.79	55.3645
818.51	53.3279
819.60	45.1419
826.30	49.3641
828.27	0.0000
831.60	65.9422
831.96	60.7991
834.83	57.7664
836.80	0.0000
846.75	45.5791
848.13	45.6006
856.28	0.0000
856.80	34.6509
860.37	48.5716
867.32	38.2547
867.82	34.7827
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875.33	0.0000
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880.27	54.4934
880.51	52.4011
881.50	59.7582
883.24	48.2540
884.67	49.3270
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911.07	53.9995
911.07	53.9995
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920.93	43.5525
925.00	41.4832
925.24	39.3595
926.50	35.1189
935.52	38.4240
937.48	55.5356
944.10	40.6709
946.00	43.9088
949.00	54.6706
962.29	68.1792
964.01	61.0356
966.15	52.8138
968.20	52.8473
969.11	52.8628
969.11	52.8628
969.11	52.8628
977.42	42.1840
980.50	31.3980
983.50	45.5150
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996.32	29.0137
1001.03	47.9413
1001.68	44.6816
1004.76	45.4508
1021.30	0.0000
1024.50	0.0000
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1036.00	46.7998
1037.82	45.9066
1038.57	41.3251
1038.76	0.0000
1045.16	50.6069
1046.59	56.1525
1048.07	46.9679

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1050.47	35.0204
1062.04	42.5373
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1076.63	45.5028
1077.35	45.5128
1078.86	57.6129
1085.78	46.5556
1099.22	44.8652
1112.02	47.5289
1112.84	53.0795
1115.52	46.6820
1120.29	40.2972
1120.29	40.2972
1120.29	40.2972
1120.29	40.2972
1120.51	40.2989
1121.28	41.9199
1124.00	0.0000
1129.67	49.0208
1131.51	0.0000
1147.95	0.0000
1167.94	45.7285
1173.22	55.3332
1175.09	49.6344
1177.93	41.0754
1189.05	44.0721
1204.90	57.7271
1205.75	0.0000
1213.00	47.2435
1221.42	54.1133
1230.97	63.9348
1235.34	71.7658
1236.41	0.0000
1238.25	42.7020
1246.25	54.4619
1260.41	0.0000
1271.85	36.2186
1274.45	32.3246
1274.54	33.3041
1291.56	43.2839
1298.22	0.0000
1312.09	23.7295
1325.50	27.7756
1325.50	27.7756
1332.49	28.8171
1333.61	27.8302
1360.21	31.0101
1362.66	0.0000
1365.15	25.0376
1368.21	27.6618
1368.53	0.0000
1376.25	18.9354
1384.27	13.7974
1394.10	15.1257
1395.20	20.1725
1407.95	18.2095
1434.06	21.3726
1436.60	23.4211
1457.56	0.0000
1460.81	14.3350
1489.15	14.4261
1509.49	21.7366
1596.49	12.6538
1620.62	12.7178
1678.03	0.0000
1691.02	10.7503
1691.02	10.7503
1706.46	0.0000
1750.46	0.0000
1764.49	11.2178
1764.49	11.2178
1764.49	11.2178
1764.49	11.2178
1770.23	14.7393
1771.40	51.4839
1791.20	0.0000
1808.65	12.2551

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960010

Total Uranium Activity	2.7931E+01	ug/g
Total Uranium Counting Unc.	7.7090E+00	ug/g
Total Uranium Tpu	3.9331E-06	ug/g
Total Uranium Mda	2.7989E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID  : G245960010       *
*   ANALYST       : MXR1                      DETECTOR   : GAM07            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 16:24:06.84    SAMPLE ALQT:  105.200 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.053E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.579E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 5.075E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 2.465E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:31:30.38

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:31:04
Sample ID         : G245960011           Sample quantity  : 1.32020E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.23  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	74.79	335	358	1.11	149.62	144	15	4.65E-02	10.9	2.01E+00
2	2	77.10	550	300	1.01	154.24	144	15	7.63E-02	6.7	
3	2	87.17	174	338	1.02	174.39	168	15	2.41E-02	18.1	1.50E+00
4	2	89.92	115	243	0.85	179.89	168	15	1.60E-02	23.0	
5	0	92.90*	213	333	1.51	185.84	183	8	2.96E-02	16.9	
6	0	128.81	95	395	2.23	257.67	253	10	1.33E-02	40.2	
7	0	185.93*	225	367	1.46	371.91	367	11	3.13E-02	18.1	
8	0	209.16	119	205	1.10	418.39	415	7	1.65E-02	22.1	
9	5	238.57*	1246	174	1.12	477.22	470	20	1.73E-01	3.4	1.41E+00
10	5	241.58*	308	199	1.86	483.23	470	20	4.28E-02	13.7	
11	0	269.56	153	225	1.21	539.19	533	13	2.12E-02	21.8	
12	0	295.23	428	122	1.24	590.54	587	9	5.95E-02	6.7	
13	0	299.91	91	107	1.21	599.91	597	7	1.26E-02	21.6	
14	0	338.49*	264	210	1.27	677.07	672	12	3.67E-02	12.7	
15	0	351.76*	684	171	1.24	703.60	698	13	9.49E-02	5.5	
16	0	462.37	51	135	1.48	924.84	921	11	7.13E-03	45.7	
17	0	510.85*	120	104	1.73	1021.79	1016	14	1.67E-02	23.4	
18	0	583.09*	366	128	1.46	1166.27	1160	14	5.09E-02	8.5	
19	0	609.15*	463	61	1.36	1218.40	1212	11	6.43E-02	5.8	
20	0	727.39	85	45	1.81	1454.86	1449	10	1.18E-02	18.4	
21	0	767.71	55	73	1.44	1535.51	1530	12	7.65E-03	33.7	
22	0	795.20	48	47	0.84	1590.48	1586	9	6.66E-03	29.6	
23	0	860.17*	39	44	1.60	1720.40	1715	11	5.37E-03	38.2	
24	0	911.11*	270	42	1.58	1822.28	1813	16	3.76E-02	8.2	
25	0	934.09	31	24	1.48	1868.24	1862	9	4.25E-03	34.4	
26	1	964.30	66	25	1.87	1928.66	1923	23	9.12E-03	21.1	1.44E+00
27	1	968.64*	151	29	1.72	1937.34	1923	23	2.09E-02	11.1	
28	0	1120.25*	98	78	1.88	2240.51	2232	20	1.36E-02	24.2	
29	0	1238.07	43	43	1.36	2476.12	2473	9	5.93E-03	30.7	
30	0	1460.59*	798	41	1.92	2921.06	2914	15	1.11E-01	4.0	
31	0	1730.21	18	16	1.57	3460.17	3453	13	2.45E-03	52.8	
32	0	1764.30*	74	13	2.28	3528.32	3522	13	1.03E-02	15.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:31:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:31:04
Sample ID : G245960011 Sample quantity : 132.02 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.23 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.978E+01	2.111E+00	6.024E-01	4.281E-02	32.838
CD-109	+	88.03	*	2.710E+00	1.033E+00	1.297E+00	1.559E-01	2.089
SN-126		64.28		2.033E-01	6.148E-01	1.045E+00	1.800E-01	0.195
	+	86.94		1.107E+00	6.155E-01	5.400E-01	2.277E-01	2.051
	+	87.57	*	2.664E-01	1.015E-01	1.285E-01	1.541E-02	2.073
CS-135	+	268.24	*	6.146E-01	2.725E-01	2.224E-01	1.854E-02	2.763
TL-208		277.35		3.135E-01	3.522E-01	6.172E-01	6.820E-02	0.508
	+	510.84		5.797E-01	2.778E-01	1.965E-01	1.973E-02	2.950
	+	583.14	*	5.040E-01	9.156E-02	5.475E-02	3.445E-03	9.205
	+	860.37		5.053E-01	3.883E-01	4.194E-01	3.499E-02	1.205
BI-211		72.87		2.062E+00	3.621E+00	5.610E+00	6.432E-01	0.368
	+	351.07	*	4.141E+00	5.353E-01	2.956E-01	1.997E-02	14.010
PB-212	+	74.81		2.446E+00	6.453E-01	5.672E-01	8.384E-02	4.313
	+	77.11		2.210E+00	3.882E-01	3.131E-01	3.592E-02	7.060
	+	87.30		1.232E+00	4.855E-01	5.970E-01	9.312E-02	2.064
	+	238.63	*	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
	+	300.09		1.850E+00	8.143E-01	1.096E+00	9.652E-02	1.687
PO-212	+	74.81		2.446E+00	6.453E-01	5.672E-01	8.384E-02	4.313
	+	77.11		2.210E+00	3.882E-01	3.131E-01	3.592E-02	7.060
	+	87.30		1.232E+00	4.855E-01	5.970E-01	9.312E-02	2.064
		115.19		3.037E+00	3.259E+00	5.579E+00	4.198E-01	0.544
	+	238.63	*	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
	+	300.09		1.850E+00	8.143E-01	1.096E+00	9.652E-02	1.687
BI-214	+	609.31	*	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
	+	1120.29		1.355E+00	6.685E-01	4.272E-01	3.980E-02	3.173
	+	1764.49		1.402E+00	4.521E-01	3.352E-01	2.043E-02	4.183
PB-214	+	74.81		4.215E+00	1.086E+00	9.773E-01	1.333E-01	4.313
	+	77.11		3.789E+00	7.255E-01	5.367E-01	7.391E-02	7.060
	+	87.30		2.110E+00	8.208E-01	1.023E+00	1.456E-01	2.064
	+	241.98		2.447E+00	7.031E-01	5.046E-01	4.396E-02	4.850
	+	295.21		1.536E+00	2.491E-01	1.930E-01	1.753E-02	7.957
	+	351.92	*	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
PO-214	+	74.81		4.215E+00	1.086E+00	9.773E-01	1.333E-01	4.313
	+	77.11		3.789E+00	7.255E-01	5.367E-01	7.391E-02	7.060

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		2.110E+00	8.208E-01	1.023E+00	1.456E-01	2.064
	+	241.98		2.447E+00	7.031E-01	5.046E-01	4.396E-02	4.850
	+	295.21		1.536E+00	2.491E-01	1.930E-01	1.753E-02	7.957
	+	351.92	*	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
PO-216	+	74.81		2.446E+00	6.453E-01	5.672E-01	8.384E-02	4.313
	+	77.11		2.210E+00	3.882E-01	3.131E-01	3.592E-02	7.060
	+	87.30		1.232E+00	4.855E-01	5.970E-01	9.312E-02	2.064
	+	238.63	*	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
	+	300.09		1.850E+00	8.143E-01	1.096E+00	9.652E-02	1.687
PO-218	+	74.81		4.215E+00	1.086E+00	9.773E-01	1.333E-01	4.313
	+	77.11		3.789E+00	7.255E-01	5.367E-01	7.391E-02	7.060
	+	87.30		2.110E+00	8.208E-01	1.023E+00	1.456E-01	2.064
	+	241.98		2.447E+00	7.031E-01	5.046E-01	4.396E-02	4.850
	+	295.21		1.536E+00	2.491E-01	1.930E-01	1.753E-02	7.957
	+	351.92	*	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
RA-224	+	240.98	*	4.640E+00	1.308E+00	9.534E-01	6.356E-02	4.867
RA-226	+	609.31	*	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
	+	1120.29		1.355E+00	6.685E-01	4.272E-01	3.980E-02	3.173
	+	1764.49		1.402E+00	4.521E-01	3.352E-01	2.043E-02	4.183
AC-228	+	338.32		1.766E+00	8.495E-01	3.556E-01	1.452E-01	4.966
	+	911.07	*	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
	+	969.11		1.656E+00	5.293E-01	3.225E-01	7.437E-02	5.136
RA-228	+	338.32		1.766E+00	8.495E-01	3.556E-01	1.452E-01	4.966
	+	911.07	*	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
	+	969.11		1.656E+00	5.293E-01	3.225E-01	7.437E-02	5.136
TH-228	+	74.81		2.484E+00	6.133E-01	5.758E-01	6.626E-02	4.313
	+	77.11		2.244E+00	3.942E-01	3.178E-01	3.646E-02	7.060
	+	87.30		1.251E+00	4.768E-01	6.061E-01	7.256E-02	2.064
	+	238.63	*	1.671E+00	1.759E-01	8.503E-02	6.829E-03	19.652
	+	300.09		1.878E+00	1.373E+00	1.113E+00	6.569E-01	1.687
TH-230	+	609.31	*	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
	+	1120.29		1.355E+00	6.685E-01	4.272E-01	3.980E-02	3.173
	+	1764.49		1.402E+00	4.521E-01	3.352E-01	2.043E-02	4.183
TH-232	+	338.32		1.766E+00	4.627E-01	3.556E-01	2.235E-02	4.966
	+	911.07	*	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
	+	969.11		1.656E+00	5.293E-01	3.225E-01	7.437E-02	5.136
U-234	+	609.31	*	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
	+	1120.29		1.355E+00	6.685E-01	4.272E-01	3.980E-02	3.173
	+	1764.49		1.402E+00	4.521E-01	3.352E-01	2.043E-02	4.183
NP-237	+	86.50	*	7.822E-01	3.390E-01	3.844E-01	9.158E-02	2.035
		95.87		-7.422E-01	9.630E-01	1.341E+00	3.379E-01	-0.553
AM-243	+	74.67	*	3.966E-01	9.783E-02	9.239E-02	1.058E-02	4.293
	+	86.72		2.933E+01	1.118E+01	1.436E+01	1.712E+00	2.043
		117.66		-2.407E+00	3.433E+00	5.459E+00	3.985E-01	-0.441
		142.18		-7.395E+00	1.588E+01	2.532E+01	1.656E+00	-0.292
ANH-511	+	511.00	*	1.252E-01	5.909E-02	4.247E-02	2.375E-03	2.949

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-9.219E-03	2.815E-01	4.576E-01	3.031E-02	-0.020

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	2.021E-03	4.121E-02	6.932E-02	4.532E-03	0.029
NA-24		1368.53	*	6.671E-01	4.121E-02	Half-Life too short		
AL-26		1129.67		-1.657E-02	1.727E+00	2.520E+00	1.625E-01	-0.007
		1808.65	*	1.012E-02	2.272E-02	4.122E-02	2.444E-03	0.246
TI-44		67.85		8.704E-03	5.281E-02	8.957E-02	1.042E-02	0.097
	+	78.38	*	4.079E-01	7.165E-02	8.090E-02	9.303E-03	5.042
SC-46		889.25	*	1.139E-02	3.312E-02	5.662E-02	4.579E-03	0.201
	+	1120.51		2.321E-01	1.135E-01	1.266E-01	8.295E-03	1.833
V-48		944.10		1.131E-01	8.624E-01	1.432E+00	1.145E-01	0.079
		983.50	*	-1.522E-02	6.449E-02	1.025E-01	7.938E-03	-0.149
		1312.09		4.793E-02	7.405E-02	1.329E-01	8.956E-03	0.361
CR-51		320.08	*	-9.286E-02	3.465E-01	5.707E-01	4.019E-02	-0.163
MN-52		744.21		-1.137E-02	2.164E-01	3.594E-01	2.133E-02	-0.032
		848.13		-1.655E+00	6.067E+00	9.739E+00	7.245E-01	-0.170
	+	935.52		3.772E-01	2.609E-01	4.789E-01	3.852E-02	0.788
		1246.25		-9.685E-01	7.201E+00	1.165E+01	7.418E-01	-0.083
		1333.61		3.905E+00	4.650E+00	8.545E+00	5.855E-01	0.457
		1434.06	*	-1.338E-01	2.375E-01	3.667E-01	2.502E-02	-0.365
MN-54		834.83	*	2.098E-02	3.487E-02	6.075E-02	4.396E-03	0.345
CO-56		846.75	*	-3.697E-02	3.538E-02	5.171E-02	3.836E-03	-0.715
		977.42		1.183E+00	2.706E+00	4.529E+00	3.527E-01	0.261
		1037.82		6.281E-02	2.964E-01	4.932E-01	3.882E-02	0.127
		1175.09		1.692E-02	2.294E+00	3.695E+00	2.201E-01	0.005
	+	1238.25		1.673E-01	1.035E-01	1.774E-01	1.181E-02	0.943
		1360.21		1.334E-01	7.494E-01	1.284E+00	8.802E-02	0.104
		1771.40		-4.602E-01	3.108E-01	3.766E-01	2.286E-02	-1.222
CO-57		122.06	*	-2.169E-02	2.360E-02	3.706E-02	2.572E-03	-0.585
		136.48		-3.837E-02	1.937E-01	3.137E-01	2.333E-02	-0.122
CO-58		810.76	*	1.051E-03	3.486E-02	5.798E-02	4.003E-03	0.018
FE-59		142.65		-1.164E+00	2.448E+00	3.902E+00	2.551E-01	-0.298
		192.34		-3.228E-01	9.473E-01	1.494E+00	1.816E-01	-0.216
		1099.22	*	-5.828E-02	8.824E-02	1.322E-01	1.010E-02	-0.441
		1291.56		-1.909E-03	1.127E-01	1.881E-01	1.520E-02	-0.010
CO-60		1173.22		-1.790E-03	4.473E-02	7.170E-02	4.264E-03	-0.025
		1332.49	*	3.031E-03	3.763E-02	6.336E-02	4.341E-03	0.048
ZN-65		1115.52	*	2.872E-02	9.619E-02	1.403E-01	9.281E-03	0.205
GE-68		1077.35	*	6.918E-01	1.127E+00	1.954E+00	1.365E-01	0.354
AS-73		53.44	*	-2.584E-01	1.447E+00	2.416E+00	3.160E-01	-0.107
AS-74		595.88	*	9.417E-02	8.981E-02	1.565E-01	8.264E-03	0.602
		634.78		2.860E-01	3.323E-01	5.734E-01	2.900E-02	0.499
SE-75		66.05		-4.273E+00	5.729E+00	9.333E+00	1.225E+00	-0.458
		96.73		-6.395E-01	8.070E-01	1.138E+00	1.651E-01	-0.562
		121.11		-6.707E-02	1.222E-01	1.954E-01	1.961E-02	-0.343
		136.00		4.945E-03	3.625E-02	5.963E-02	3.997E-03	0.083
		198.60		-1.058E+00	1.781E+00	2.741E+00	2.116E-01	-0.386
		264.65	*	-2.928E-03	4.348E-02	6.465E-02	4.349E-03	-0.045
		279.53		-2.310E-02	9.998E-02	1.666E-01	1.176E-02	-0.139
		303.91		2.949E+00	1.941E+00	3.204E+00	3.208E-01	0.920
		400.65		-1.166E-01	2.418E-01	3.765E-01	3.390E-02	-0.310

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		5.978E+02	2.279E+02	3.406E+02	4.093E+01	1.755
		200.40		-1.129E+02	1.640E+02	2.531E+02	1.651E+01	-0.446
	+	239.00		2.699E+02	2.569E+01	3.883E+01	2.587E+00	6.951
		249.79		3.316E+01	5.880E+01	1.026E+02	6.852E+00	0.323
		281.68		-6.948E+00	7.858E+01	1.319E+02	8.756E+00	-0.053
		297.23		2.665E+02	6.308E+01	1.032E+02	6.792E+00	2.582
		303.76		1.961E+02	1.735E+02	2.798E+02	1.832E+01	0.701
		439.47		-1.404E+01	1.369E+02	2.228E+02	1.264E+01	-0.063
		484.57		1.009E+02	2.104E+02	3.560E+02	2.009E+01	0.283
		520.65	*	-3.383E-01	1.029E+01	1.663E+01	9.260E-01	-0.020
		574.64		5.801E+01	2.078E+02	3.421E+02	1.840E+01	0.170
		578.91		1.719E+01	9.605E+01	1.376E+02	7.378E+00	0.125
		585.48		9.025E+02	2.371E+02	4.290E+02	2.287E+01	2.104
		755.35		1.068E+02	1.704E+02	2.981E+02	1.814E+01	0.358
		817.79		1.508E+02	1.298E+02	2.370E+02	1.654E+01	0.636
SR-82		698.33		-1.148E+01	3.172E+01	5.162E+01	2.752E+00	-0.222
		776.49	*	-1.625E-01	3.566E-01	5.683E-01	3.627E-02	-0.286
		1395.20		-3.909E+00	9.422E+00	1.460E+01	9.995E-01	-0.268
RB-83		520.41	*	-2.517E-02	6.796E-02	1.067E-01	5.945E-03	-0.236
		529.64		-5.019E-02	1.028E-01	1.595E-01	8.841E-03	-0.315
		552.65		1.128E-01	1.809E-01	3.078E-01	1.683E-02	0.366
RB-84		881.50	*	5.046E-02	5.857E-02	1.054E-01	8.396E-03	0.479
KR-85		513.99	*	2.406E+00	7.512E+00	1.102E+01	6.153E-01	0.218
SR-85		513.99	*	1.234E-02	3.855E-02	5.652E-02	3.157E-03	0.218
RB-86		1076.63	*	6.008E-01	6.844E-01	1.223E+00	8.554E-02	0.491
Y-88		898.02		2.422E-02	3.888E-02	6.787E-02	5.616E-03	0.357
		1836.01	*	1.619E-02	3.015E-02	5.472E-02	3.193E-03	0.296
ZR-88		392.90	*	-2.234E-02	2.762E-02	4.290E-02	2.414E-03	-0.521
Y-91		1204.90	*	2.821E+00	1.906E+01	3.108E+01	1.905E+00	0.091
NB-94		702.63	*	1.075E-02	3.306E-02	5.675E-02	3.057E-03	0.189
		871.10		3.383E-03	2.735E-02	4.577E-02	3.569E-03	0.074
NB-95		765.79	*	5.883E-02	4.564E-02	7.538E-02	4.698E-03	0.780
NB-95M		235.69	*	5.837E-02	1.367E-01	1.980E-01	1.625E-02	0.295
ZR-95		724.18		4.576E-03	9.630E-02	1.409E-01	9.507E-03	0.032
		756.15	*	8.186E-02	6.952E-02	1.264E-01	9.207E-03	0.647
NB-97		657.90	*	-7.388E-03	6.952E-02	Half-Life too short		
		1024.50		3.152E+00	6.952E-02	Half-Life too short		
ZR-97		254.15		-4.165E+00	6.952E-02	Half-Life too short		
		355.39		9.039E-01	6.952E-02	Half-Life too short		
		507.63	*	1.399E+00	6.952E-02	Half-Life too short		
		602.52		1.452E+00	6.952E-02	Half-Life too short		
		1021.30		4.963E+00	6.952E-02	Half-Life too short		
		1147.95		2.486E+00	6.952E-02	Half-Life too short		
		1362.66		-1.547E+00	6.952E-02	Half-Life too short		
		1750.46		-1.346E+00	6.952E-02	Half-Life too short		
MO-99		140.51		-1.490E+00	2.474E+01	3.981E+01	1.080E+01	-0.037
		181.06		1.117E+01	1.818E+01	2.697E+01	4.682E+00	0.414
		366.43		3.323E+00	7.987E+01	1.329E+02	7.946E+00	0.025
		739.58	*	8.961E-01	1.048E+01	1.764E+01	2.436E+00	0.051

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		-1.530E+00	3.279E+01	5.432E+01	3.479E+00	-0.028
TC-99M		140.51	*	-2.590E+09	3.279E+01	Half-Life too short		
RH-101		127.23		-5.769E-03	3.353E-02	4.867E-02	3.305E-03	-0.119
		198.01	*	-4.510E-03	3.256E-02	5.136E-02	3.345E-03	-0.088
		325.23		-3.200E-01	2.230E-01	3.417E-01	2.187E-02	-0.936
RH-102		418.52		1.183E-01	2.471E-01	4.211E-01	2.385E-02	0.281
		475.06	*	3.026E-03	2.578E-02	4.245E-02	2.400E-03	0.071
		631.29		2.308E-02	4.579E-02	7.703E-02	3.913E-03	0.300
		697.49		-4.604E-02	7.263E-02	1.155E-01	6.146E-03	-0.399
	+	766.84		2.403E-01	1.625E-01	2.081E-01	1.300E-02	1.155
		1046.59		-9.838E-02	1.097E-01	1.591E-01	1.155E-02	-0.618
		1112.84		1.831E-01	2.111E-01	3.383E-01	2.243E-02	0.541
RU-103		497.08	*	3.623E-02	3.827E-02	6.646E-02	8.350E-03	0.545
	+	610.33		1.298E+01	2.479E+00	2.944E+00	4.476E-01	4.409
RH-106	+	511.85		6.256E-01	2.952E-01	4.168E-01	2.330E-02	1.501
		621.84	*	-2.964E-03	2.918E-01	4.661E-01	5.325E-02	-0.006
		1050.47		1.660E+00	2.136E+00	3.763E+00	2.720E-01	0.441
RU-106	+	511.85		6.256E-01	2.952E-01	4.168E-01	2.330E-02	1.501
		621.84	*	-2.964E-03	2.918E-01	4.661E-01	2.395E-02	-0.006
		1050.47		1.660E+00	2.136E+00	3.763E+00	2.720E-01	0.441
AG-108M		433.93	*	-1.052E-02	2.975E-02	4.749E-02	2.934E-03	-0.222
		614.37		-4.132E-03	4.009E-02	5.518E-02	3.160E-03	-0.075
		722.95		-7.274E-04	4.157E-02	6.035E-02	3.714E-03	-0.012
AG-110M		657.75	*	-3.453E-04	3.284E-02	5.525E-02	2.952E-03	-0.006
		677.61		1.195E-01	2.704E-01	4.714E-01	2.580E-02	0.254
		706.67		-1.447E-02	2.075E-01	3.458E-01	2.009E-02	-0.042
		763.93		1.366E-01	1.635E-01	2.611E-01	1.708E-02	0.523
		884.67		2.678E-03	4.198E-02	6.965E-02	5.789E-03	0.038
		937.48		7.793E-02	1.082E-01	1.709E-01	1.429E-02	0.456
		1384.27		1.226E-02	1.509E-01	2.535E-01	1.814E-02	0.048
IN-111		171.28		-1.926E-01	9.362E-01	1.496E+00	9.537E-02	-0.129
		245.39	*	-4.445E-01	1.047E+00	1.412E+00	9.423E-02	-0.315
IN-113M		391.69	*	-2.913E-02	4.030E-02	6.308E-02	3.801E-03	-0.462
SN-113		391.69	*	-2.913E-02	4.030E-02	6.308E-02	3.801E-03	-0.462
IN-114M		190.27	*	8.535E-02	2.000E-01	2.936E-01	1.900E-02	0.291
CD-115		260.90		-6.143E+01	1.210E+02	1.995E+02	1.332E+01	-0.308
		492.35		-1.378E+01	3.445E+01	5.416E+01	3.049E+00	-0.254
		527.90	*	1.142E+01	1.067E+01	1.873E+01	1.039E+00	0.610
SN-117M		156.02		1.251E-01	2.128E+00	3.464E+00	2.222E-01	0.036
		158.56	*	-3.861E-05	4.899E-02	7.945E-02	5.082E-03	0.000
SB-122		563.90	*	1.941E+00	2.044E+00	3.543E+00	1.922E-01	0.548
		692.80		2.917E+01	4.111E+01	7.279E+01	3.830E+00	0.401
I-123		159.00	*	-3.170E+00	4.111E+01	Half-Life too short		
		528.96		3.286E+01	4.111E+01	Half-Life too short		
TE-123M		159.00	*	-1.431E-02	2.565E-02	4.042E-02	2.612E-03	-0.354
I-124		602.71	*	4.576E-02	6.905E-01	9.734E-01	5.105E-02	0.047
		722.78		-4.251E-02	4.397E+00	6.389E+00	3.609E-01	-0.007
		1325.50		-6.696E+00	3.196E+01	5.184E+01	3.532E+00	-0.129
		1376.25		4.533E+01	3.226E+01	6.150E+01	4.213E+00	0.737

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1509.49		1.984E+01	1.559E+01	3.007E+01	2.028E+00	0.660
		1691.02		3.420E+00	3.840E+00	7.264E+00	4.604E-01	0.471
SB-124		602.71		2.631E-03	3.969E-02	5.595E-02	2.936E-03	0.047
		645.85		-7.603E-02	4.433E-01	7.365E-01	4.298E-02	-0.103
		709.31		-1.589E+00	2.814E+00	4.407E+00	2.412E-01	-0.361
		713.82		1.347E-01	1.487E+00	2.509E+00	2.525E-01	0.054
		722.78		-3.542E-03	3.664E-01	5.324E-01	3.157E-02	-0.007
	+	968.20		1.706E+01	4.006E+00	7.428E+00	5.830E-01	2.297
		1045.16		-1.723E+00	2.257E+00	3.320E+00	2.415E-01	-0.519
		1325.50		-5.959E-01	2.844E+00	4.614E+00	3.144E-01	-0.129
		1368.21		1.194E+00	1.612E+00	2.938E+00	3.649E-01	0.406
		1436.60		-5.280E+00	3.698E+00	4.788E+00	3.267E-01	-1.103
		1691.02	*	6.722E-02	7.549E-02	1.428E-01	9.701E-03	0.471
SB-125		427.89	*	-1.036E-01	8.461E-02	1.253E-01	7.419E-03	-0.826
	+	463.38		4.828E-01	4.420E-01	5.493E-01	3.651E-02	0.879
		600.56		1.565E-03	1.706E-01	2.737E-01	1.709E-02	0.006
		635.90		-4.009E-02	2.599E-01	4.087E-01	2.520E-02	-0.098
TE-125M		109.28	*	3.134E-01	8.743E+00	1.447E+01	1.436E+00	0.022
I-126		388.63		1.479E-01	1.843E-01	3.209E-01	1.820E-02	0.461
		666.33	*	-8.576E-02	1.623E-01	2.609E-01	1.287E-02	-0.329
		753.82		1.419E-01	1.454E+00	2.445E+00	1.483E-01	0.058
SB-126		223.80		1.481E+00	3.832E+00	6.223E+00	4.122E-01	0.238
		278.60		1.989E+00	2.285E+00	4.016E+00	2.670E-01	0.495
	+	296.50		1.535E+01	2.297E+00	3.531E+00	2.324E-01	4.348
		414.70		-4.231E-02	6.832E-02	1.072E-01	6.068E-03	-0.395
		415.30		-1.438E+00	5.545E+00	8.949E+00	5.065E-01	-0.161
		555.20		6.956E-01	3.724E+00	6.105E+00	3.333E-01	0.114
		573.80		5.846E-01	9.975E-01	1.684E+00	9.066E-02	0.347
		593.00		-1.415E+00	9.567E-01	1.325E+00	7.013E-02	-1.068
		656.30		1.542E+00	3.145E+00	5.497E+00	2.702E-01	0.281
		666.33		-3.584E-02	6.782E-02	1.090E-01	5.378E-03	-0.329
		675.00		-3.801E-01	1.704E+00	2.807E+00	1.414E-01	-0.135
		695.00		-1.510E-02	7.249E-02	1.195E-01	6.323E-03	-0.126
		697.00		-1.055E-01	2.485E-01	4.021E-01	2.137E-02	-0.262
		720.50	*	1.172E-02	1.437E-01	2.208E-01	1.241E-02	0.053
		856.80		-2.597E-02	4.729E-01	6.715E-01	5.086E-02	-0.039
		989.30		-6.845E-01	1.227E+00	1.878E+00	1.447E-01	-0.365
		1034.80		-5.363E+00	8.353E+00	1.254E+01	9.232E-01	-0.428
		1213.00		-1.033E+00	4.503E+00	7.045E+00	4.350E-01	-0.147
SB-127		61.10		-7.971E+01	7.474E+01	1.192E+02	1.672E+01	-0.669
		252.40		-1.560E-02	3.785E+00	6.422E+00	2.677E+00	-0.002
		290.80		-9.660E+00	2.196E+01	3.145E+01	3.056E+00	-0.307
		411.60		-2.550E+00	1.138E+01	1.844E+01	2.643E+00	-0.138
		444.90		-3.704E+00	9.289E+00	1.474E+01	1.584E+00	-0.251
		473.00		5.360E-01	1.529E+00	2.563E+00	2.850E-01	0.209
		543.00		-7.650E-01	1.596E+01	2.567E+01	3.283E+00	-0.030
		603.60		-5.273E+00	1.226E+01	1.617E+01	1.696E+00	-0.326
		685.20	*	4.407E-01	1.209E+00	2.092E+00	1.900E-01	0.211
		698.50		-6.917E+00	1.444E+01	2.323E+01	3.324E+00	-0.298

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.20		-2.678E-02	3.065E+01	4.459E+01	4.052E+00	-0.001
		783.80		1.910E+00	3.798E+00	6.556E+00	7.253E-01	0.291
XE-127		57.60		6.764E+00	8.976E+00	1.564E+01	1.958E+00	0.433
		145.22		3.488E-01	6.161E-01	1.030E+00	6.701E-02	0.339
		172.10		4.093E-02	1.108E-01	1.821E-01	1.162E-02	0.225
		202.84	*	2.235E-02	4.500E-02	7.375E-02	4.821E-03	0.303
		374.96		-1.527E-01	1.825E-01	2.846E-01	1.669E-02	-0.536
I-131		80.18		-2.026E+00	4.911E+00	7.210E+00	8.362E-01	-0.281
		284.30		-9.235E-01	1.291E+00	2.081E+00	1.500E-01	-0.444
		364.48	*	9.613E-02	1.086E-01	1.902E-01	1.266E-02	0.506
		636.97		-2.831E-01	1.489E+00	2.333E+00	1.360E-01	-0.121
		722.89		-1.232E-01	7.045E+00	1.023E+01	5.865E-01	-0.012
TE-132		49.72		-1.252E+01	4.026E+01	6.758E+01	9.458E+00	-0.185
		111.76		-1.531E+01	2.849E+01	4.586E+01	4.717E+00	-0.334
		116.30		4.500E+00	2.593E+01	4.305E+01	4.284E+00	0.105
		228.16	*	2.052E-01	7.056E-01	1.137E+00	1.676E-01	0.180
BA-133		53.15		1.336E+00	6.352E+00	1.079E+01	1.413E+00	0.124
		79.62		-8.593E-01	1.392E+00	2.013E+00	3.431E-01	-0.427
		81.00		-1.041E-01	1.189E-01	1.523E-01	2.691E-02	-0.683
		276.40		2.310E-01	3.599E-01	6.061E-01	8.103E-02	0.381
		302.84		3.064E-02	1.451E-01	2.184E-01	2.631E-02	0.140
		356.01	*	9.969E-04	4.625E-02	6.775E-02	7.937E-03	0.015
		383.85		-2.228E-01	2.854E-01	4.455E-01	4.829E-02	-0.500
I-133	+	510.53		1.349E+00	2.854E-01	Half-Life too short		
		529.87	*	-4.885E-03	2.854E-01	Half-Life too short		
		706.58		-1.385E-03	2.854E-01	Half-Life too short		
		856.28		1.161E-01	2.854E-01	Half-Life too short		
		875.33		1.023E-02	2.854E-01	Half-Life too short		
		1236.41		8.975E-01	2.854E-01	Half-Life too short		
		1298.22		4.652E-02	2.854E-01	Half-Life too short		
CS-134		475.35		-9.314E-01	1.733E+00	2.699E+00	1.526E-01	-0.345
		563.23		2.891E-01	3.413E-01	5.881E-01	3.268E-02	0.492
		569.32		-2.209E-01	1.925E-01	2.737E-01	1.529E-02	-0.807
		604.70		-2.961E-02	3.565E-02	4.438E-02	2.339E-03	-0.667
	+	795.84	*	9.597E-02	5.712E-02	9.481E-02	6.390E-03	1.012
		801.93		-2.668E-01	4.099E-01	6.207E-01	4.227E-02	-0.430
		1038.57		-4.961E-01	3.779E+00	6.056E+00	4.439E-01	-0.082
		1167.94		3.705E-01	2.255E+00	3.701E+00	2.224E-01	0.100
		1365.15		-8.980E-01	1.100E+00	1.596E+00	1.171E-01	-0.563
I-135		288.45		-3.602E+08	1.100E+00	Half-Life too short		
		417.63		1.848E+10	1.100E+00	Half-Life too short		
		546.56		2.873E+09	1.100E+00	Half-Life too short		
		836.80		-4.710E+08	1.100E+00	Half-Life too short		
		1038.76		2.302E+09	1.100E+00	Half-Life too short		
		1124.00		2.279E+10	1.100E+00	Half-Life too short		
		1131.51		-1.154E+09	1.100E+00	Half-Life too short		
		1260.41	*	-2.723E+09	1.100E+00	Half-Life too short		
		1457.56		5.222E+11	1.100E+00	Half-Life too short		
		1678.03		-6.557E+09	1.100E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1706.46		-3.069E+10	1.100E+00	Half-Life too short		
		1791.20		2.170E+09	1.100E+00	Half-Life too short		
CS-136		66.91		-5.097E-01	9.058E-01	1.486E+00	2.575E-01	-0.343
	+	86.29		3.489E+00	1.371E+00	2.030E+00	3.094E-01	1.719
		153.22		8.350E-01	6.309E-01	1.079E+00	8.357E-02	0.774
		163.89		1.060E-01	9.914E-01	1.613E+00	1.244E-01	0.066
		176.55		-1.014E-01	3.537E-01	5.622E-01	3.967E-02	-0.180
		273.65		-5.769E-01	4.830E-01	6.561E-01	4.843E-02	-0.879
		340.57		3.240E-01	1.313E-01	2.257E-01	1.491E-02	1.435
		818.51		9.028E-02	7.067E-02	1.302E-01	9.115E-03	0.693
		1048.07	*	6.362E-02	1.000E-01	1.739E-01	1.336E-02	0.366
		1235.34		3.997E-01	6.946E-01	1.070E+00	1.101E-01	0.373
BA-137M		661.65	*	-2.854E-02	3.532E-02	5.628E-02	2.745E-03	-0.507
CS-137		661.65	*	-3.017E-02	3.734E-02	5.949E-02	2.919E-03	-0.507
CE-139		165.85	*	2.323E-03	2.727E-02	4.430E-02	2.815E-03	0.052
BA-140		162.64		4.582E-01	6.798E-01	1.136E+00	7.992E-02	0.403
		304.84		-5.984E-02	1.212E+00	1.882E+00	5.167E-01	-0.032
		423.70		1.860E+00	1.837E+00	3.078E+00	9.775E-01	0.604
		537.32	*	-6.501E-02	2.436E-01	3.831E-01	1.244E-01	-0.170
LA-140		328.77		5.214E-01	3.018E-01	5.438E-01	3.813E-02	0.959
		432.53		1.095E+00	1.792E+00	3.080E+00	1.937E-01	0.355
		487.03		-6.489E-02	1.277E-01	1.990E-01	1.278E-02	-0.326
		751.79		-7.822E-01	1.673E+00	2.677E+00	1.953E-01	-0.292
		815.85		2.666E-01	3.044E-01	5.441E-01	4.435E-02	0.490
		867.82		-3.918E-01	1.135E+00	1.795E+00	1.481E-01	-0.218
		919.63		7.030E-01	2.361E+00	4.008E+00	4.109E-01	0.175
		925.24		8.248E-04	9.583E-01	1.573E+00	1.364E-01	0.001
		1596.49	*	-1.058E-01	9.442E-02	1.272E-01	8.378E-03	-0.832
CE-141		145.44	*	3.870E-02	5.590E-02	9.391E-02	6.304E-03	0.412
CE-143		57.37		1.934E-03	5.590E-02	Half-Life too short		
		231.56		-3.370E-03	5.590E-02	Half-Life too short		
		293.26	*	7.008E-04	5.590E-02	Half-Life too short		
	+	350.59		3.403E-02	5.590E-02	Half-Life too short		
		490.36		1.344E-03	5.590E-02	Half-Life too short		
		664.57		-1.072E-03	5.590E-02	Half-Life too short		
		721.93		5.839E-04	5.590E-02	Half-Life too short		
CE-144		80.11		-1.018E+00	2.246E+00	3.289E+00	3.801E-01	-0.310
		133.54	*	-9.746E-03	2.110E-01	3.076E-01	4.483E-02	-0.032
PM-144		476.78		-3.522E-02	6.158E-02	9.557E-02	6.518E-03	-0.369
		618.01		-4.755E-03	3.039E-02	4.781E-02	2.653E-03	-0.099
		696.49	*	-7.987E-03	3.185E-02	5.232E-02	2.780E-03	-0.153
		778.57		8.469E-01	2.205E+00	3.789E+00	2.431E-01	0.224
PR-144		696.49	*	-5.413E-01	2.159E+00	3.546E+00	1.882E-01	-0.153
		1489.15		-1.734E+00	1.100E+01	1.769E+01	1.198E+00	-0.098
PM-146		453.90	*	1.086E-02	4.064E-02	6.782E-02	5.789E-03	0.160
		633.02		3.654E-01	1.287E+00	2.101E+00	7.713E-01	0.174
		735.90		-5.786E-02	1.402E-01	2.241E-01	6.250E-02	-0.258
		747.13		3.954E-02	8.260E-02	1.435E-01	1.806E-02	0.276
ND-147	+	91.11		5.814E-01	2.764E-01	4.650E-01	5.453E-02	1.250

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		319.41		1.491E+00	3.037E+00	5.227E+00	3.370E-01	0.285
		439.89		2.284E+00	5.424E+00	9.170E+00	5.204E-01	0.249
		531.02	*	9.806E-03	5.250E-01	8.509E-01	1.141E-01	0.012
PM-149		285.90	*	4.103E+01	8.133E+01	1.406E+02	2.043E+01	0.292
EU-152		121.78		-7.765E-02	6.799E-02	1.052E-01	8.968E-03	-0.738
		244.69		-3.076E-02	3.161E-01	4.400E-01	2.936E-02	-0.070
		344.27	*	8.660E-02	9.466E-02	1.499E-01	1.037E-02	0.578
		443.98		-9.002E-02	8.908E-01	1.449E+00	8.217E-02	-0.062
		778.89		1.035E-01	2.531E-01	4.358E-01	2.796E-02	0.238
		867.32		-4.430E-01	6.909E-01	1.015E+00	7.854E-02	-0.436
	+	964.01		8.300E-01	3.564E-01	6.087E-01	4.793E-02	1.364
		1085.78		9.682E-02	3.767E-01	6.280E-01	4.336E-02	0.154
		1112.02		2.804E-02	3.103E-01	4.603E-01	3.057E-02	0.061
		1407.95		4.958E-02	2.035E-01	3.467E-01	2.372E-02	0.143
GD-153		69.67		1.926E-01	2.091E+00	3.169E+00	3.659E-01	0.061
		83.37		6.152E+00	1.660E+01	2.533E+01	2.965E+00	0.243
		97.43	*	-5.740E-02	8.402E-02	1.199E-01	1.177E-02	-0.479
		103.18		-1.094E-01	9.890E-02	1.549E-01	1.379E-02	-0.706
EU-154		123.07		6.419E-03	4.782E-02	7.904E-02	8.001E-03	0.081
		247.94		-1.004E-01	3.549E-01	5.216E-01	5.267E-02	-0.192
		591.81		-6.004E-01	6.137E-01	8.924E-01	8.466E-02	-0.673
		723.30		6.760E-04	1.741E-01	2.535E-01	1.765E-02	0.003
		756.87		8.768E-01	7.353E-01	1.338E+00	1.380E-01	0.656
		873.19		-1.298E-01	2.376E-01	3.644E-01	4.264E-02	-0.356
		996.32		-1.896E-01	3.672E-01	5.641E-01	9.769E-02	-0.336
		1004.76		-2.076E-01	2.107E-01	3.043E-01	3.318E-02	-0.682
		1274.45	*	-6.762E-03	1.164E-01	1.936E-01	1.899E-02	-0.035
EU-155		48.70		-2.904E+00	5.304E+00	8.806E+00	1.015E+00	-0.330
		60.01		-7.598E+00	6.556E+00	1.042E+01	1.266E+00	-0.729
	+	86.54		3.208E-01	1.224E-01	1.879E-01	2.250E-02	1.708
		105.31	*	4.408E-02	1.012E-01	1.705E-01	1.486E-02	0.259
TB-160	+	86.79		8.575E-01	3.269E-01	5.046E-01	6.021E-02	1.699
		197.04		1.502E-01	5.493E-01	8.843E-01	5.754E-02	0.170
		215.65		-5.278E-01	7.458E-01	1.143E+00	7.536E-02	-0.462
	+	298.57		2.694E-01	1.175E-01	1.826E-01	1.200E-02	1.475
		879.36	*	-5.007E-02	1.158E-01	1.810E-01	1.435E-02	-0.277
		962.29		9.545E-01	6.426E-01	1.058E+00	8.340E-02	0.902
		966.15		1.115E+00	2.661E-01	5.243E-01	4.121E-02	2.127
		1177.93		-7.514E-03	4.101E-01	6.141E-01	3.669E-02	-0.012
		1271.85		-6.493E-02	6.765E-01	1.120E+00	7.295E-02	-0.058
HO-166M		80.57		-3.074E-01	3.010E-01	4.249E-01	4.917E-02	-0.724
		184.41		6.585E-02	3.908E-02	6.122E-02	3.943E-03	1.076
		280.46		-2.981E-02	7.839E-02	1.295E-01	8.607E-03	-0.230
		410.95		1.289E-01	2.323E-01	3.965E-01	2.242E-02	0.325
		711.68	*	1.642E-02	5.701E-02	9.770E-02	5.377E-03	0.168
		752.31		-7.415E-02	2.653E-01	4.318E-01	2.611E-02	-0.172
		810.29		-5.386E-03	5.223E-02	8.573E-02	5.890E-03	-0.063
TM-171		51.35		-1.797E+01	5.803E+01	9.733E+01	1.260E+01	-0.185
		52.39		9.302E+00	2.903E+01	4.954E+01	6.479E+00	0.188

---- Non-Identified Nuclides ----

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		59.40		-8.750E+00	3.503E+01	5.864E+01	7.151E+00	-0.149
		66.72	*	-1.608E+01	3.285E+01	5.422E+01	6.339E+00	-0.296
LU-176	+	88.36		6.318E-01	2.408E-01	3.512E-01	4.186E-02	1.799
		201.83		6.461E-03	2.796E-02	4.524E-02	2.955E-03	0.143
		306.84	*	-1.122E-02	2.172E-02	3.528E-02	2.303E-03	-0.318
		401.10		-3.989E+00	6.422E+00	9.915E+00	5.593E-01	-0.402
LU-177		112.95		-1.075E+00	1.561E+00	2.495E+00	1.932E-01	-0.431
	+	208.36	*	2.799E+00	1.248E+00	1.954E+00	1.282E-01	1.432
LU-177M		52.97		9.995E-01	2.909E+00	4.968E+00	6.505E-01	0.201
		54.07		-8.414E-01	1.482E+00	2.425E+00	3.162E-01	-0.347
		61.30		-2.003E+00	1.890E+00	3.025E+00	3.650E-01	-0.662
		121.62		-3.636E-01	3.453E-01	5.379E-01	3.746E-02	-0.676
		147.16		2.586E-01	5.709E-01	9.493E-01	6.159E-02	0.272
		171.86		1.698E-01	4.462E-01	7.340E-01	4.681E-02	0.231
		218.09		6.757E-01	8.267E-01	1.372E+00	9.058E-02	0.493
	+	268.79		3.089E+00	1.361E+00	1.474E+00	9.829E-02	2.096
		319.02		1.238E-01	2.389E-01	4.116E-01	2.654E-02	0.301
		367.43		-4.983E-01	8.504E-01	1.355E+00	8.082E-02	-0.368
		413.65	*	-1.450E-01	1.628E-01	2.503E-01	1.416E-02	-0.579
HF-181		56.28		4.008E-01	1.466E+00	2.516E+00	3.207E-01	0.159
		57.53		7.953E-01	7.534E-01	1.323E+00	1.659E-01	0.601
		65.20		-1.154E+00	1.134E+00	1.822E+00	2.148E-01	-0.633
		133.02		-1.796E-02	6.791E-02	9.771E-02	6.521E-03	-0.184
		136.25		-1.954E-02	4.267E-01	6.961E-01	4.609E-02	-0.028
		345.85		9.659E-02	1.907E-01	2.921E-01	1.814E-02	0.331
		482.03	*	-2.075E-02	4.086E-02	6.265E-02	3.537E-03	-0.331
W-181		56.28		1.566E-01	5.734E-01	9.839E-01	1.254E-01	0.159
		57.53		3.116E-01	2.949E-01	5.182E-01	6.494E-02	0.601
		65.20	*	-4.482E-01	4.405E-01	7.076E-01	8.340E-02	-0.633
TA-182		67.75		8.101E-03	1.258E-01	2.126E-01	2.473E-02	0.038
		100.10		1.123E-01	1.668E-01	2.840E-01	2.659E-02	0.395
		152.43		2.377E-01	3.194E-01	5.357E-01	3.451E-02	0.444
		222.10		-8.543E-02	3.365E-01	5.278E-01	3.493E-02	-0.162
		1001.68		-1.510E+00	1.880E+00	2.761E+00	2.104E-01	-0.547
	+	1121.28		6.410E-01	3.133E-01	3.497E-01	2.288E-02	1.833
		1189.05		-5.491E-02	3.349E-01	5.298E-01	3.199E-02	-0.104
		1221.42	*	5.688E-02	1.799E-01	3.108E-01	1.934E-02	0.183
		1230.97		6.563E-02	4.349E-01	7.251E-01	4.552E-02	0.091
RE-183		57.98		7.970E-02	2.871E-01	4.922E-01	6.129E-02	0.162
		59.32		-2.806E-02	1.449E-01	2.433E-01	2.970E-02	-0.115
		67.20		-3.292E-02	2.262E-01	3.791E-01	4.422E-02	-0.087
		162.32	*	6.406E-02	1.005E-01	1.677E-01	1.068E-02	0.382
	+	208.81		2.499E+00	1.115E+00	1.745E+00	1.146E-01	1.432
		291.72		1.514E-01	9.100E-01	1.368E+00	9.038E-02	0.111
RE-184		57.98		2.936E-01	1.058E+00	1.813E+00	2.257E-01	0.162
		59.32		-1.033E-01	5.334E-01	8.954E-01	1.093E-01	-0.115
		67.20		-1.212E-01	8.329E-01	1.396E+00	1.628E-01	-0.087
		161.27		6.008E-02	3.224E-01	5.272E-01	3.363E-02	0.114
		216.55		-3.196E-02	2.594E-01	4.106E-01	2.709E-02	-0.078

---- Non-Identified Nuclides ----

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		252.85	*	-1.389E-01	2.074E-01	3.394E-01	2.266E-02	-0.409
		318.01		2.290E-01	4.048E-01	6.999E-01	4.518E-02	0.327
		792.07		1.707E-01	1.027E+00	1.514E+00	1.000E-01	0.113
		903.28		-1.416E-01	1.139E+00	1.594E+00	1.308E-01	-0.089
		920.93		2.796E-01	3.708E-01	6.610E-01	5.367E-02	0.423
OS-185		59.72		-2.375E-01	3.837E-01	6.299E-01	7.662E-02	-0.377
		61.14		-2.233E-01	2.091E-01	3.346E-01	4.041E-02	-0.667
		69.30		-3.042E-02	3.518E-01	5.610E-01	6.487E-02	-0.054
		592.07		-2.778E+00	2.511E+00	3.613E+00	1.914E-01	-0.769
		646.12	*	-1.636E-02	3.820E-02	6.206E-02	3.094E-03	-0.264
		717.42		1.658E-02	8.142E-01	1.365E+00	7.615E-02	0.012
		874.81		-1.437E-03	4.832E-01	7.965E-01	6.258E-02	-0.002
		880.27		-1.740E-02	6.753E-01	1.110E+00	8.815E-02	-0.016
RE-188		155.03	*	1.198E-01	1.648E-01	2.759E-01	1.772E-02	0.434
		477.96		-3.789E-01	2.749E+00	4.430E+00	2.503E-01	-0.086
		633.10		8.306E-01	2.597E+00	4.276E+00	2.167E-01	0.194
W-188		63.58		8.367E+01	6.481E+01	1.131E+02	1.346E+01	0.740
		227.08		3.146E+00	1.247E+01	2.008E+01	1.332E+00	0.157
		290.67	*	-3.669E+00	7.491E+00	1.069E+01	7.063E-01	-0.343
IR-192	+	295.96		1.172E+00	1.758E-01	2.890E-01	1.926E-02	4.056
		308.46		-2.480E-02	8.539E-02	1.407E-01	9.256E-03	-0.176
		316.51	*	-2.682E-02	3.276E-02	5.215E-02	3.386E-03	-0.514
		468.07		-3.935E-02	7.094E-02	9.508E-02	6.243E-03	-0.414
		604.41		-3.664E-01	4.744E-01	5.928E-01	6.563E-02	-0.618
		612.46		5.357E-01	7.339E-01	1.113E+00	7.924E-02	0.481
AU-195		65.12		-1.858E-01	2.051E-01	3.317E-01	3.911E-02	-0.560
		66.83		-5.623E-02	1.082E-01	1.784E-01	2.084E-02	-0.315
	+	75.70		1.284E+00	3.167E-01	4.979E-01	5.703E-02	2.579
		98.88	*	2.970E-01	2.105E-01	3.670E-01	3.509E-02	0.809
	+	129.76		5.459E+00	4.402E+00	4.793E+00	3.228E-01	1.139
TL-200		367.94	*	-2.242E-04	4.402E+00	Half-Life too short		
		579.30		1.404E-03	4.402E+00	Half-Life too short		
		828.27		7.974E-04	4.402E+00	Half-Life too short		
		1205.75		-8.490E-04	4.402E+00	Half-Life too short		
TL-201		68.90		-7.851E-01	5.681E+00	9.086E+00	1.052E+00	-0.086
		70.82		1.754E+00	3.289E+00	5.085E+00	5.852E-01	0.345
		80.30		-1.804E+00	5.412E+00	7.984E+00	9.230E-01	-0.226
		135.34		5.679E+00	2.376E+01	3.927E+01	2.605E+00	0.145
		167.43	*	2.846E+00	6.344E+00	1.049E+01	6.666E-01	0.271
TL-202		68.90		-6.976E-02	5.047E-01	8.073E-01	9.347E-02	-0.086
		70.82		1.554E-01	2.914E-01	4.505E-01	5.185E-02	0.345
		80.30		-1.599E-01	4.797E-01	7.076E-01	8.181E-02	-0.226
		439.56	*	-3.226E-03	6.542E-02	1.069E-01	6.063E-03	-0.030
HG-203		70.83		6.684E-01	1.261E+00	1.946E+00	3.035E-01	0.344
		72.87		4.106E-01	7.221E-01	1.117E+00	1.699E-01	0.368
		82.60		6.729E-01	1.205E+00	1.853E+00	2.934E-01	0.363
		279.20	*	4.054E-03	3.780E-02	6.412E-02	4.464E-03	0.063
BI-207		72.80		1.044E-01	2.110E-01	3.259E-01	3.737E-02	0.320
	+	74.97		7.119E-01	1.756E-01	2.474E-01	2.833E-02	2.878

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		84.90		3.470E-02	2.057E-01	3.109E-01	3.668E-02	0.112
		569.67		-2.799E-02	2.967E-02	4.309E-02	2.327E-03	-0.650
		1063.62	*	-2.445E-02	5.412E-02	8.359E-02	5.945E-03	-0.293
		1770.23		-2.969E-01	6.057E-01	7.290E-01	4.429E-02	-0.407
TL-207		81.07		-2.282E-01	2.604E-01	3.360E-01	3.895E-02	-0.679
		83.78		5.817E-02	1.409E-01	2.153E-01	2.525E-02	0.270
		94.90		1.279E-01	2.276E-01	3.494E-01	3.600E-02	0.366
		122.32		-8.585E-01	1.625E+00	2.603E+00	2.002E-01	-0.330
		144.24		-3.246E-02	5.933E-01	9.645E-01	7.543E-02	-0.034
		154.21		1.402E-01	3.846E-01	6.344E-01	4.784E-02	0.221
	+	269.46		7.230E-01	3.188E-01	3.567E-01	2.460E-02	2.027
		323.87	*	-5.757E-01	6.487E-01	1.018E+00	1.705E-01	-0.565
	+	338.28		7.373E+00	2.038E+00	2.527E+00	2.731E-01	2.918
		445.03		-8.312E-01	2.138E+00	3.396E+00	3.463E-01	-0.245
PO-209		260.50		-3.619E+00	8.757E+00	1.451E+01	9.692E-01	-0.249
		262.80		1.383E+01	2.438E+01	4.122E+01	2.752E+00	0.336
		896.60	*	-1.059E+00	7.159E+00	1.160E+01	9.522E-01	-0.091
BI-210		46.50	*	5.681E+00	9.156E+00	1.567E+01	1.365E+00	0.363
PB-210		46.50	*	5.681E+00	9.156E+00	1.567E+01	1.365E+00	0.363
PO-210		46.50	*	5.681E+00	9.153E+00	1.567E+01	1.217E+00	0.363
PB-211		404.84	*	-5.860E-02	8.837E-01	1.449E+00	9.034E-01	-0.040
		427.08		-3.304E-01	1.883E+00	3.034E+00	1.875E+00	-0.109
		831.96		-6.472E-01	1.254E+00	1.867E+00	1.167E+00	-0.347
BI-212	+	727.18	*	1.005E+00	3.771E-01	6.120E-01	4.678E-02	1.643
		785.46		9.754E-01	1.777E+00	3.083E+00	2.007E-01	0.316
		1620.62		1.026E+00	1.101E+00	2.099E+00	1.370E-01	0.489
PO-215		81.07		-2.282E-01	2.604E-01	3.360E-01	3.895E-02	-0.679
		83.78		5.817E-02	1.409E-01	2.153E-01	2.525E-02	0.270
		94.90		1.279E-01	2.276E-01	3.494E-01	3.600E-02	0.366
		122.32		-8.585E-01	1.625E+00	2.603E+00	2.002E-01	-0.330
		144.24		-3.246E-02	5.933E-01	9.645E-01	7.543E-02	-0.034
		154.21		1.402E-01	3.846E-01	6.344E-01	4.784E-02	0.221
	+	269.46		7.230E-01	3.188E-01	3.567E-01	2.460E-02	2.027
		323.87	*	-5.757E-01	6.487E-01	1.018E+00	1.705E-01	-0.565
	+	338.28		7.373E+00	2.038E+00	2.527E+00	2.731E-01	2.918
		445.03		-8.312E-01	2.138E+00	3.396E+00	3.463E-01	-0.245
RN-219		271.23		5.367E-01	2.646E-01	4.388E-01	3.837E-02	1.223
		401.81	*	-2.302E-01	3.997E-01	6.179E-01	8.365E-02	-0.373
RN-220		549.76	*	-1.694E+01	2.390E+01	3.599E+01	1.972E+00	-0.471
RA-223		81.07		-2.282E-01	2.604E-01	3.360E-01	3.895E-02	-0.679
		83.78		5.817E-02	1.409E-01	2.153E-01	2.525E-02	0.270
		94.90		1.279E-01	2.276E-01	3.494E-01	3.600E-02	0.366
		122.32		-8.585E-01	1.625E+00	2.603E+00	2.002E-01	-0.330
		144.24		-3.246E-02	5.933E-01	9.645E-01	7.543E-02	-0.034
		154.21		1.402E-01	3.846E-01	6.344E-01	4.784E-02	0.221
	+	269.46		7.230E-01	3.188E-01	3.567E-01	2.460E-02	2.027
		323.87	*	-5.757E-01	6.487E-01	1.018E+00	1.705E-01	-0.565
	+	338.28		7.373E+00	2.038E+00	2.527E+00	2.731E-01	2.918
		445.03		-8.312E-01	2.138E+00	3.396E+00	3.463E-01	-0.245

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.80		-1.125E+00	1.770E+00	2.542E+00	5.803E-01	-0.443
		236.00		2.713E-01	2.584E-01	3.867E-01	4.234E-02	0.702
		256.20	*	5.181E-02	3.335E-01	5.698E-01	8.175E-02	0.091
		286.10		6.151E-01	1.337E+00	2.308E+00	2.768E-01	0.267
	+	299.80		3.429E+00	1.584E+00	2.484E+00	4.117E-01	1.380
		304.40		1.026E+00	1.845E+00	2.840E+00	4.987E-01	0.361
		334.20		3.914E-01	2.513E+00	3.729E+00	6.901E-01	0.105
TH-227		79.80		-1.125E+00	1.770E+00	2.542E+00	5.869E-01	-0.443
	+	94.00		7.896E+00	3.222E+00	3.446E+00	7.783E-01	2.292
		236.00		2.713E-01	2.580E-01	3.867E-01	3.723E-02	0.702
		256.20	*	5.181E-02	3.335E-01	5.698E-01	9.812E-02	0.091
		286.10		6.151E-01	1.470E+00	2.308E+00	2.313E+00	0.267
	+	299.80		3.429E+00	1.584E+00	2.484E+00	4.117E-01	1.380
		304.40		1.026E+00	1.845E+00	2.840E+00	4.987E-01	0.361
		334.20		3.914E-01	2.513E+00	3.729E+00	6.901E-01	0.105
TH-229		85.43		1.454E-01	2.056E-01	3.175E-01	3.758E-02	0.458
	+	88.47		3.637E-01	1.386E-01	2.006E-01	2.385E-02	1.813
		100.00		1.286E-01	1.737E-01	2.965E-01	2.781E-02	0.434
		193.63	*	-1.550E-01	5.007E-01	7.907E-01	5.132E-02	-0.196
		210.97		3.213E-01	8.136E-01	1.185E+00	7.792E-02	0.271
PA-231		283.67	*	-1.959E+00	1.354E+00	2.038E+00	2.884E-01	-0.962
	+	301.29		1.371E+00	6.101E-01	1.024E+00	1.115E-01	1.339
TH-231		81.07		-2.282E-01	2.604E-01	3.360E-01	3.895E-02	-0.679
		83.78		5.817E-02	1.409E-01	2.153E-01	2.525E-02	0.270
		94.90		1.279E-01	2.276E-01	3.494E-01	3.600E-02	0.366
		122.32		-8.585E-01	1.625E+00	2.603E+00	2.002E-01	-0.330
		144.24		-3.246E-02	5.933E-01	9.645E-01	7.543E-02	-0.034
		154.21		1.402E-01	3.846E-01	6.344E-01	4.784E-02	0.221
	+	269.46		7.230E-01	3.188E-01	3.567E-01	2.460E-02	2.027
		323.87	*	-5.757E-01	6.487E-01	1.018E+00	1.705E-01	-0.565
	+	338.28		7.373E+00	2.038E+00	2.527E+00	2.731E-01	2.918
		445.03		-8.312E-01	2.138E+00	3.396E+00	3.463E-01	-0.245
U-231		84.21		1.680E+00	6.077E+00	9.232E+00	1.085E+00	0.182
	+	92.29		7.890E+00	2.806E+00	3.795E+00	4.129E-01	2.079
		95.87	*	-8.510E-01	1.087E+00	1.538E+00	1.555E-01	-0.553
		108.00		-2.029E+00	1.999E+00	3.148E+00	2.606E-01	-0.645
PA-233	+	75.28		2.077E+01	5.764E+00	7.330E+00	1.254E+00	2.834
	+	86.59		5.215E+00	2.388E+00	3.056E+00	8.572E-01	1.707
	+	300.12		9.558E-01	4.328E-01	7.036E-01	9.699E-02	1.359
		311.98	*	1.638E-02	5.839E-02	9.945E-02	6.782E-03	0.165
		340.50		1.753E+00	7.538E-01	1.122E+00	2.590E-01	1.563
		398.62		1.233E+00	1.961E+00	3.331E+00	8.600E-01	0.370
		415.76		4.072E-01	1.450E+00	2.433E+00	5.000E-01	0.167
PA-234		63.00		1.362E+00	1.942E+00	3.330E+00	5.851E-01	0.409
		94.67		1.786E-01	1.686E-01	2.630E-01	3.594E-02	0.679
		98.44		1.000E-01	1.023E-01	1.491E-01	8.345E-02	0.670
		99.86		3.672E-01	4.422E-01	7.571E-01	7.116E-02	0.485
		111.00		1.327E-01	1.749E-01	2.969E-01	3.449E-02	0.447
		131.20		1.523E-02	1.079E-01	1.594E-01	1.069E-02	0.096

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		152.70		3.595E-01	3.101E-01	5.212E-01	8.368E-02	0.690
	+	186.00		5.618E+00	2.665E+00	2.494E+00	7.653E-01	2.253
		226.40		-2.663E-01	4.061E-01	6.204E-01	7.445E-02	-0.429
		227.20		1.326E-01	4.221E-01	6.820E-01	4.525E-02	0.194
		248.90		5.983E-01	7.795E-01	1.273E+00	2.767E-01	0.470
		293.70		5.167E+00	1.199E+00	1.649E+00	2.702E-01	3.133
		369.80		9.268E-02	7.351E-01	1.230E+00	2.565E-01	0.075
		568.70		-1.241E+00	9.857E-01	1.387E+00	7.497E-02	-0.895
		569.50		-2.660E-01	2.638E-01	3.804E-01	2.055E-02	-0.699
		574.00		7.996E-01	1.424E+00	2.399E+00	1.292E-01	0.333
		699.00		-2.328E-01	6.617E-01	1.076E+00	1.919E-01	-0.216
		706.10		5.494E-02	1.041E+00	1.750E+00	7.715E-01	0.031
		733.00		1.562E-02	3.809E-01	5.820E-01	1.237E-01	0.027
		742.81		-4.194E-01	1.285E+00	2.030E+00	1.358E+00	-0.207
	+	796.30		1.865E+00	1.208E+00	1.854E+00	4.913E-01	1.006
		805.60		-1.940E-02	9.833E-01	1.629E+00	4.917E-01	-0.012
		819.60		8.320E-01	1.239E+00	2.111E+00	7.958E-01	0.394
		826.30		2.587E-01	7.620E-01	1.289E+00	5.733E-01	0.201
		831.60		-1.572E-01	6.077E-01	9.791E-01	2.885E-01	-0.161
		876.40		-7.983E-03	6.410E-01	1.055E+00	1.084E+00	-0.008
		880.51		1.982E-02	2.470E-01	4.105E-01	3.263E-02	0.048
		883.24		1.678E-01	2.805E-01	4.520E-01	3.035E-01	0.371
		899.00		5.992E-01	8.364E-01	1.404E+00	6.125E-01	0.427
		925.00		-2.397E-01	1.019E+00	1.626E+00	1.317E-01	-0.147
		926.50		-9.110E-02	1.622E-01	2.285E-01	5.736E-02	-0.399
		946.00	*	1.486E-02	3.016E-01	4.966E-01	9.176E-02	0.030
		949.00		6.167E-02	4.604E-01	7.639E-01	6.085E-02	0.081
		980.50		-1.302E-01	6.749E-01	1.078E+00	8.377E-02	-0.121
		1394.10		-2.412E-01	9.804E-01	1.541E+00	9.998E-01	-0.157
PA-234M	+	766.42		2.528E+01	2.126E+01	2.127E+01	1.072E+01	1.188
		1001.03	*	-1.455E+00	4.166E+00	6.483E+00	5.911E-01	-0.224
TH-234		63.29	*	1.383E+00	1.656E+00	2.836E+00	5.611E-01	0.488
	+	92.38		2.043E+00	7.959E-01	9.863E-01	1.899E-01	2.072
U-235	+	89.95		2.305E+00	1.289E+00	1.826E+00	5.802E-01	1.262
	+	93.35		2.457E+00	1.092E+00	1.174E+00	3.370E-01	2.093
		105.00		7.174E-01	9.980E-01	1.665E+00	4.970E-01	0.431
		143.76	*	-4.978E-02	1.877E-01	3.019E-01	5.004E-02	-0.165
		163.35		1.730E-01	4.351E-01	7.161E-01	1.301E-01	0.242
	+	185.71		2.081E-01	7.647E-02	9.205E-02	5.935E-03	2.261
		205.31		4.670E-02	5.595E-01	8.000E-01	1.459E-01	0.058
NP-236		94.67		1.372E-01	1.274E-01	1.997E-01	2.068E-02	0.687
		98.44		7.558E-02	6.515E-02	1.127E-01	1.087E-02	0.670
		111.00		1.004E-01	1.320E-01	2.246E-01	1.784E-02	0.447
		160.31	*	-7.055E-02	7.296E-02	1.124E-01	7.174E-03	-0.628
U-238		63.29	*	1.383E+00	1.656E+00	2.836E+00	5.611E-01	0.488
	+	92.38		2.043E+00	7.266E-01	9.863E-01	1.071E-01	2.072
NP-239		99.55		1.592E-01	1.475E-01	2.545E-01	2.405E-02	0.625
		117.00	*	-1.018E-01	1.744E-01	2.792E-01	2.055E-02	-0.365
	+	209.75		1.970E+00	8.787E-01	1.368E+00	8.988E-02	1.440

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		228.18		6.483E-02	2.271E-01	3.661E-01	2.430E-02	0.177
		277.60		1.431E-01	1.707E-01	2.993E-01	1.991E-02	0.478
		334.30		1.920E-01	1.422E+00	2.108E+00	1.333E-01	0.091
AM-241		59.54	*	-9.710E-02	2.029E-01	3.357E-01	4.238E-02	-0.289
CM-243		99.55		1.638E-01	1.517E-01	2.619E-01	2.475E-02	0.625
		103.76	*	-5.143E-02	9.027E-02	1.455E-01	1.283E-02	-0.353
		117.00		-1.048E-01	1.794E-01	2.873E-01	2.114E-02	-0.365
	+	209.75		1.942E+00	8.662E-01	1.349E+00	8.860E-02	1.440
		228.18		6.551E-02	2.295E-01	3.700E-01	2.456E-02	0.177
		277.60		1.442E-01	1.721E-01	3.018E-01	2.007E-02	0.478
AM-246		798.80		4.201E-02	1.538E-01	2.292E-01	1.536E-02	0.183
		1036.00		-2.901E-02	2.795E-01	4.493E-01	3.303E-02	-0.065
		1062.04		6.706E-02	2.312E-01	3.865E-01	2.754E-02	0.173
		1078.86	*	9.806E-02	1.292E-01	2.272E-01	1.584E-02	0.432
CM-247		278.00		8.342E-01	7.032E-01	1.251E+00	8.320E-02	0.667
		287.40		1.387E+00	1.081E+00	1.943E+00	1.286E-01	0.714
		402.60	*	-1.045E-02	3.453E-02	5.576E-02	3.147E-03	-0.187
CF-249		252.85		-5.210E-01	7.780E-01	1.273E+00	8.502E-02	-0.409
		333.44		3.996E-02	1.837E-01	2.741E-01	1.735E-02	0.146
		387.95	*	4.443E-02	3.734E-02	6.635E-02	3.770E-03	0.670
CF-251		176.60	*	-3.621E-02	1.215E-01	1.929E-01	1.235E-02	-0.188
		227.00		-2.494E-02	3.786E-01	5.993E-01	3.976E-02	-0.042
		285.00		-6.141E-01	1.516E+00	2.494E+00	1.654E-01	-0.246

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011      *
* Acquisition date : 12-FEB-2010 16:31:04 Detector SN#     :               *
* Detector ID        : GAM04               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.23     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245960011           Analyst initials: MXR1          *
* Batch Number       : 948717               Sample Quantity : 1.3202E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME :   5-MAY-2009 14:25:41 MS Isotope      :                *
* MSD DPM          :     0.000             MSD Isotope     :                *
* LCS DPM          :     0.000             LCS Isotope     :                *
* LCSD DPM         :     0.000             LCSD Isotope    :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.978E+01	2.069E+00	6.031E-01	0.000E+00
CD-109	2.710E+00	1.012E+00	1.362E+00	0.000E+00
SN-126	2.664E-01	9.950E-02	1.349E-01	0.000E+00
CS-135	6.146E-01	2.671E-01	2.293E-01	0.000E+00
TL-208	5.040E-01	8.973E-02	5.570E-02	0.000E+00
BI-211	4.141E+00	5.246E-01	3.033E-01	0.000E+00
PB-212	1.646E+00	1.698E-01	8.651E-02	0.000E+00
PO-212	1.646E+00	1.698E-01	8.651E-02	0.000E+00
BI-214	1.201E+00	1.612E-01	1.032E-01	0.000E+00
PB-214	1.440E+00	1.968E-01	1.057E-01	0.000E+00
PO-214	1.440E+00	1.968E-01	1.057E-01	0.000E+00
PO-216	1.646E+00	1.698E-01	8.651E-02	0.000E+00
PO-218	1.440E+00	1.968E-01	1.057E-01	0.000E+00
RA-224	4.640E+00	1.281E+00	9.846E-01	0.000E+00
RA-226	1.201E+00	1.612E-01	1.032E-01	0.000E+00
AC-228	1.679E+00	3.248E-01	1.935E-01	0.000E+00
RA-228	1.679E+00	3.248E-01	1.935E-01	0.000E+00
TH-228	1.671E+00	1.723E-01	8.783E-02	0.000E+00
TH-230	1.201E+00	1.612E-01	1.032E-01	0.000E+00
TH-232	1.679E+00	3.248E-01	1.935E-01	0.000E+00
U-234	1.201E+00	1.612E-01	1.032E-01	0.000E+00
NP-237	7.822E-01	3.323E-01	4.036E-01	0.000E+00
AM-243	3.966E-01	9.587E-02	9.725E-02	0.000E+00
ANH-511	1.252E-01	5.791E-02	4.330E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-9.219E-03	2.758E-01	4.672E-01	0.000E+00	NOT IDENT.
NA-22	2.021E-03	4.038E-02	6.957E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.242E+05	0.000E+00	0.000E+00	SHORT HLIF

AL-26	1.012E-02	2.226E-02	4.111E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.021E-02	8.508E-02	0.000E+00	FAIL ABUN
SC-46	1.139E-02	3.246E-02	5.719E-02	0.000E+00	FAIL ABUN
V-48	-1.522E-02	6.320E-02	1.033E-01	0.000E+00	NOT IDENT.
CR-51	-9.286E-02	3.396E-01	5.866E-01	0.000E+00	NOT IDENT.
MN-52	-1.338E-01	2.328E-01	3.673E-01	0.000E+00	FAIL ABUN
MN-54	2.098E-02	3.417E-02	6.143E-02	0.000E+00	NOT IDENT.
CO-56	-3.697E-02	3.468E-02	5.227E-02	0.000E+00	FAIL ABUN
CO-57	-2.169E-02	2.313E-02	3.870E-02	0.000E+00	NOT IDENT.
CO-58	1.051E-03	3.416E-02	5.866E-02	0.000E+00	NOT IDENT.
FE-59	-5.828E-02	8.648E-02	1.331E-01	0.000E+00	NOT IDENT.
CO-60	3.031E-03	3.687E-02	6.354E-02	0.000E+00	NOT IDENT.
ZN-65	2.872E-02	9.427E-02	1.412E-01	0.000E+00	NOT IDENT.
GE-68	6.918E-01	1.104E+00	1.967E+00	0.000E+00	NOT IDENT.
AS-73	-2.584E-01	1.418E+00	2.556E+00	0.000E+00	NOT IDENT.
AS-74	9.417E-02	8.802E-02	1.592E-01	0.000E+00	NOT IDENT.
SE-75	-2.928E-03	4.261E-02	6.666E-02	0.000E+00	NOT IDENT.
BR-77	-3.383E-01	1.008E+01	1.695E+01	0.000E+00	FAIL ABUN
SR-82	-1.625E-01	3.495E-01	5.754E-01	0.000E+00	NOT IDENT.
RB-83	-2.517E-02	6.660E-02	1.088E-01	0.000E+00	NOT IDENT.
RB-84	5.046E-02	5.740E-02	1.065E-01	0.000E+00	NOT IDENT.
KR-85	2.406E+00	7.362E+00	1.123E+01	0.000E+00	NOT IDENT.
SR-85	1.234E-02	3.777E-02	5.763E-02	0.000E+00	NOT IDENT.
RB-86	6.008E-01	6.707E-01	1.232E+00	0.000E+00	NOT IDENT.
Y-88	1.619E-02	2.955E-02	5.457E-02	0.000E+00	NOT IDENT.
ZR-88	-2.234E-02	2.707E-02	4.394E-02	0.000E+00	NOT IDENT.
Y-91	2.821E+00	1.868E+01	3.122E+01	0.000E+00	NOT IDENT.
NB-94	1.075E-02	3.240E-02	5.756E-02	0.000E+00	NOT IDENT.
NB-95	5.883E-02	4.473E-02	7.634E-02	0.000E+00	NOT IDENT.
NB-95M	5.837E-02	1.339E-01	2.045E-01	0.000E+00	NOT IDENT.
ZR-95	8.186E-02	6.813E-02	1.281E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.570E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.883E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	8.961E-01	1.027E+01	1.787E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.215E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.510E-03	3.191E-02	5.321E-02	0.000E+00	NOT IDENT.
RH-102	3.026E-03	2.526E-02	4.334E-02	0.000E+00	FAIL ABUN
RU-103	3.623E-02	3.751E-02	6.780E-02	0.000E+00	FAIL ABUN
RH-106	-2.964E-03	2.859E-01	4.737E-01	0.000E+00	FAIL ABUN
RU-106	-2.964E-03	2.859E-01	4.737E-01	0.000E+00	FAIL ABUN
AG-108M	-1.052E-02	2.916E-02	4.856E-02	0.000E+00	NOT IDENT.
AG-110M	-3.453E-04	3.218E-02	5.610E-02	0.000E+00	NOT IDENT.
IN-111	-4.445E-01	1.026E+00	1.458E+00	0.000E+00	NOT IDENT.
IN-113M	-2.913E-02	3.949E-02	6.461E-02	0.000E+00	NOT IDENT.
SN-113	-2.913E-02	3.949E-02	6.461E-02	0.000E+00	NOT IDENT.
IN-114M	8.535E-02	1.960E-01	3.044E-01	0.000E+00	NOT IDENT.
CD-115	1.142E+01	1.046E+01	1.909E+01	0.000E+00	NOT IDENT.
SN-117M	-3.861E-05	4.801E-02	8.262E-02	0.000E+00	NOT IDENT.
SB-122	1.941E+00	2.003E+00	3.606E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.568E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.431E-02	2.514E-02	4.202E-02	0.000E+00	NOT IDENT.
I-124	4.576E-02	6.766E-01	9.897E-01	0.000E+00	NOT IDENT.
SB-124	6.722E-02	7.398E-02	1.426E-01	0.000E+00	FAIL ABUN
SB-125	-1.036E-01	8.291E-02	1.282E-01	0.000E+00	FAIL ABUN
TE-125M	3.134E-01	8.568E+00	1.513E+01	0.000E+00	NOT IDENT.
I-126	-8.576E-02	1.590E-01	2.648E-01	0.000E+00	NOT IDENT.
SB-126	1.172E-02	1.408E-01	2.238E-01	0.000E+00	FAIL ABUN
SB-127	4.407E-01	1.185E+00	2.123E+00	0.000E+00	NOT IDENT.
XE-127	2.235E-02	4.410E-02	7.638E-02	0.000E+00	NOT IDENT.
I-131	9.613E-02	1.065E-01	1.950E-01	0.000E+00	NOT IDENT.
TE-132	2.052E-01	6.915E-01	1.175E+00	0.000E+00	NOT IDENT.
BA-133	9.969E-04	4.533E-02	6.951E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.155E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.598E-02	9.594E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	5.976E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.362E-02	9.805E-02	1.752E-01	0.000E+00	FAIL ABUN
BA-137M	-2.854E-02	3.462E-02	5.714E-02	0.000E+00	NOT IDENT.
CS-137	-3.017E-02	3.659E-02	6.040E-02	0.000E+00	NOT IDENT.
CE-139	2.323E-03	2.672E-02	4.603E-02	0.000E+00	NOT IDENT.
BA-140	-6.501E-02	2.387E-01	3.903E-01	0.000E+00	NOT IDENT.
LA-140	-1.058E-01	9.254E-02	1.272E-01	0.000E+00	NOT IDENT.
CE-141	3.870E-02	5.478E-02	9.779E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.165E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.746E-03	2.067E-01	3.207E-01	0.000E+00	NOT IDENT.
PM-144	-7.987E-03	3.122E-02	5.307E-02	0.000E+00	NOT IDENT.
PR-144	-5.413E-01	2.115E+00	3.597E+00	0.000E+00	NOT IDENT.
PM-146	1.086E-02	3.983E-02	6.930E-02	0.000E+00	NOT IDENT.
ND-147	9.806E-03	5.145E-01	8.671E-01	0.000E+00	FAIL ABUN

PM-149	4.103E+01	7.971E+01	1.447E+02	0.000E+00	NOT IDENT.
EU-152	8.660E-02	9.277E-02	1.539E-01	0.000E+00	FAIL ABUN
GD-153	-5.740E-02	8.234E-02	1.256E-01	0.000E+00	NOT IDENT.
EU-154	-6.762E-03	1.141E-01	1.943E-01	0.000E+00	NOT IDENT.
EU-155	4.408E-02	9.916E-02	1.784E-01	0.000E+00	FAIL ABUN
TB-160	-5.007E-02	1.135E-01	1.828E-01	0.000E+00	FAIL ABUN
HO-166M	1.642E-02	5.587E-02	9.906E-02	0.000E+00	NOT IDENT.
TM-171	-1.608E+01	3.219E+01	5.718E+01	0.000E+00	NOT IDENT.
LU-176	-1.122E-02	2.129E-02	3.629E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.223E+00	2.023E+00	0.000E+00	FAIL ABUN
LU-177M	-1.450E-01	1.595E-01	2.561E-01	0.000E+00	FAIL ABUN
HF-181	-2.075E-02	4.005E-02	6.395E-02	0.000E+00	NOT IDENT.
W-181	-4.482E-01	4.317E-01	7.464E-01	0.000E+00	NOT IDENT.
TA-182	5.688E-02	1.763E-01	3.122E-01	0.000E+00	FAIL ABUN
RE-183	6.406E-02	9.849E-02	1.743E-01	0.000E+00	FAIL ABUN
RE-184	-1.389E-01	2.033E-01	3.502E-01	0.000E+00	NOT IDENT.
OS-185	-1.636E-02	3.744E-02	6.303E-02	0.000E+00	NOT IDENT.
RE-188	1.198E-01	1.615E-01	2.870E-01	0.000E+00	NOT IDENT.
W-188	-3.669E+00	7.341E+00	1.100E+01	0.000E+00	NOT IDENT.
IR-192	-2.682E-02	3.210E-02	5.361E-02	0.000E+00	FAIL ABUN
AU-195	2.970E-01	2.063E-01	3.845E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.282E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.846E+00	6.217E+00	1.089E+01	0.000E+00	NOT IDENT.
TL-202	-3.226E-03	6.411E-02	1.093E-01	0.000E+00	NOT IDENT.
HG-203	4.054E-03	3.704E-02	6.605E-02	0.000E+00	NOT IDENT.
BI-207	-2.445E-02	5.304E-02	8.416E-02	0.000E+00	FAIL ABUN
TL-207	-5.757E-01	6.358E-01	1.046E+00	0.000E+00	FAIL ABUN
PO-209	-1.059E+00	7.015E+00	1.172E+01	0.000E+00	NOT IDENT.
BI-210	5.681E+00	8.973E+00	1.662E+01	0.000E+00	NOT IDENT.
PB-210	5.681E+00	8.973E+00	1.662E+01	0.000E+00	NOT IDENT.
PO-210	5.681E+00	8.970E+00	1.662E+01	0.000E+00	NOT IDENT.
PB-211	-5.860E-02	8.660E-01	1.484E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.696E-01	6.203E-01	0.000E+00	FAIL ABUN
PO-215	-5.757E-01	6.358E-01	1.046E+00	0.000E+00	FAIL ABUN
RN-219	-2.302E-01	3.917E-01	6.326E-01	0.000E+00	NOT IDENT.
RN-220	-1.694E+01	2.342E+01	3.665E+01	0.000E+00	NOT IDENT.
RA-223	-5.757E-01	6.358E-01	1.046E+00	0.000E+00	FAIL ABUN
AC-227	5.181E-02	3.268E-01	5.878E-01	0.000E+00	FAIL ABUN
TH-227	5.181E-02	3.268E-01	5.878E-01	0.000E+00	FAIL ABUN
TH-229	-1.550E-01	4.907E-01	8.195E-01	0.000E+00	FAIL ABUN
PA-231	-1.959E+00	1.327E+00	2.098E+00	0.000E+00	FAIL ABUN
TH-231	-5.757E-01	6.358E-01	1.046E+00	0.000E+00	FAIL ABUN
U-231	-8.510E-01	1.065E+00	1.612E+00	0.000E+00	FAIL ABUN
PA-233	1.638E-02	5.722E-02	1.023E-01	0.000E+00	FAIL ABUN
PA-234	1.486E-02	2.955E-01	5.010E-01	0.000E+00	FAIL ABUN
PA-234M	-1.455E+00	4.083E+00	6.535E+00	0.000E+00	FAIL ABUN
TH-234	1.383E+00	1.623E+00	2.993E+00	0.000E+00	FAIL ABUN
U-235	-4.978E-02	1.839E-01	3.144E-01	0.000E+00	FAIL ABUN
NP-236	-7.055E-02	7.150E-02	1.168E-01	0.000E+00	NOT IDENT.
U-238	1.383E+00	1.623E+00	2.993E+00	0.000E+00	FAIL ABUN
NP-239	-1.018E-01	1.709E-01	2.918E-01	0.000E+00	FAIL ABUN
AM-241	-9.710E-02	1.989E-01	3.546E-01	0.000E+00	NOT IDENT.
CM-243	-5.143E-02	8.847E-02	1.524E-01	0.000E+00	FAIL ABUN
AM-246	9.806E-02	1.266E-01	2.288E-01	0.000E+00	NOT IDENT.
CM-247	-1.045E-02	3.384E-02	5.709E-02	0.000E+00	NOT IDENT.
CF-249	4.443E-02	3.660E-02	6.797E-02	0.000E+00	NOT IDENT.
CF-251	-3.621E-02	1.190E-01	2.003E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:31:31.31

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:31:04
Sample ID         : G245960011           Sample quantity  : 1.32020E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.23  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	798	10.67*	1.075E+00	1.978E+01	1.978E+01	10.67
CD-109	88.03	174	3.72*	5.010E+00	2.649E+00	2.710E+00	38.12
SN-126	64.28	------	9.60	2.203E+00	------ Line Not Found		------
	86.94	174	8.90	5.010E+00	1.107E+00	1.107E+00	55.58
	87.57	174	37.00*	5.010E+00	2.664E-01	2.664E-01	38.12
CS-135	268.24	153	16.00*	4.418E+00	6.146E-01	6.146E-01	44.34
TL-208	277.35	------	6.80	4.326E+00	------ Line Not Found		------
	510.84	120	21.60	2.730E+00	5.797E-01	5.797E-01	47.92
	583.14	366	84.20*	2.455E+00	5.040E-01	5.040E-01	18.17
	860.37	39	12.46	1.744E+00	5.053E-01	5.053E-01	76.84
BI-211	72.87	------	1.27	3.384E+00	------ Line Not Found		------
	351.07	684	12.94*	3.627E+00	4.141E+00	4.141E+00	12.93
PB-212	74.81	335	10.70	3.635E+00	2.446E+00	2.446E+00	26.38
	77.11	550	18.00	3.927E+00	2.210E+00	2.210E+00	17.56
	87.30	174	8.00	5.010E+00	1.232E+00	1.232E+00	39.41
	238.63	1246	44.60*	4.826E+00	1.646E+00	1.646E+00	10.52
	300.09	91	3.41	4.084E+00	1.850E+00	1.850E+00	44.02
PO-212	74.81	335	10.70	3.635E+00	2.446E+00	2.446E+00	26.38
	77.11	550	18.00	3.927E+00	2.210E+00	2.210E+00	17.56
	87.30	174	8.00	5.010E+00	1.232E+00	1.232E+00	39.41
	115.19	------	0.60	6.408E+00	------ Line Not Found		------
	238.63	1246	44.60*	4.826E+00	1.646E+00	1.646E+00	10.52
	300.09	91	3.41	4.084E+00	1.850E+00	1.850E+00	44.02
BI-214	609.31	463	46.30*	2.368E+00	1.201E+00	1.201E+00	13.70
	1120.29	98	15.10	1.358E+00	1.355E+00	1.355E+00	49.33
	1764.49	74	15.80	9.530E-01	1.402E+00	1.402E+00	32.25
PB-214	74.81	335	6.21	3.635E+00	4.215E+00	4.215E+00	25.76
	77.11	550	10.50	3.927E+00	3.789E+00	3.789E+00	19.15
	87.30	174	4.67	5.010E+00	2.110E+00	2.110E+00	38.89
	241.98	308	7.49	4.783E+00	2.447E+00	2.447E+00	28.73
	295.21	428	19.20	4.132E+00	1.536E+00	1.536E+00	16.22
	351.92	684	37.20*	3.627E+00	1.440E+00	1.440E+00	13.94

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	74.81	335	6.21	3.635E+00	4.215E+00	4.215E+00	25.76
	77.11	550	10.50	3.927E+00	3.789E+00	3.789E+00	19.15
	87.30	174	4.67	5.010E+00	2.110E+00	2.110E+00	38.89
	241.98	308	7.49	4.783E+00	2.447E+00	2.447E+00	28.73
	295.21	428	19.20	4.132E+00	1.536E+00	1.536E+00	16.22
	351.92	684	37.20*	3.627E+00	1.440E+00	1.440E+00	13.94
PO-216	74.81	335	10.70	3.635E+00	2.446E+00	2.446E+00	26.38
	77.11	550	18.00	3.927E+00	2.210E+00	2.210E+00	17.56
	87.30	174	8.00	5.010E+00	1.232E+00	1.232E+00	39.41
	238.63	1246	44.60*	4.826E+00	1.646E+00	1.646E+00	10.52
	300.09	91	3.41	4.084E+00	1.850E+00	1.850E+00	44.02
PO-218	74.81	335	6.21	3.635E+00	4.215E+00	4.215E+00	25.76
	77.11	550	10.50	3.927E+00	3.789E+00	3.789E+00	19.15
	87.30	174	4.67	5.010E+00	2.110E+00	2.110E+00	38.89
	241.98	308	7.49	4.783E+00	2.447E+00	2.447E+00	28.73
	295.21	428	19.20	4.132E+00	1.536E+00	1.536E+00	16.22
	351.92	684	37.20*	3.627E+00	1.440E+00	1.440E+00	13.94
RA-224	240.98	308	3.95*	4.783E+00	4.640E+00	4.640E+00	28.18
RA-226	609.31	463	46.30*	2.368E+00	1.201E+00	1.201E+00	13.70
	1120.29	98	15.10	1.358E+00	1.355E+00	1.355E+00	49.33
	1764.49	74	15.80	9.530E-01	1.402E+00	1.402E+00	32.25
AC-228	338.32	264	11.40	3.733E+00	1.766E+00	1.766E+00	48.11
	911.07	270	27.70*	1.653E+00	1.679E+00	1.679E+00	19.74
	969.11	151	16.60	1.559E+00	1.656E+00	1.656E+00	31.96
RA-228	338.32	264	11.40	3.733E+00	1.766E+00	1.766E+00	48.11
	911.07	270	27.70*	1.653E+00	1.679E+00	1.679E+00	19.74
	969.11	151	16.60	1.559E+00	1.656E+00	1.656E+00	31.96
TH-228	74.81	335	10.70	3.635E+00	2.446E+00	2.484E+00	24.69
	77.11	550	18.00	3.927E+00	2.210E+00	2.244E+00	17.56
	87.30	174	8.00	5.010E+00	1.232E+00	1.251E+00	38.12
	238.63	1246	44.60*	4.826E+00	1.646E+00	1.671E+00	10.52
	300.09	91	3.41	4.084E+00	1.850E+00	1.878E+00	73.10
TH-230	609.31	463	46.30*	2.368E+00	1.201E+00	1.201E+00	13.70
	1120.29	98	15.10	1.358E+00	1.355E+00	1.355E+00	49.33
	1764.49	74	15.80	9.530E-01	1.402E+00	1.402E+00	32.25
TH-232	338.32	264	11.40	3.733E+00	1.766E+00	1.766E+00	26.21
	911.07	270	27.70*	1.653E+00	1.679E+00	1.679E+00	19.74
	969.11	151	16.60	1.559E+00	1.656E+00	1.656E+00	31.96
U-234	609.31	463	46.30*	2.368E+00	1.201E+00	1.201E+00	13.70
	1120.29	98	15.10	1.358E+00	1.355E+00	1.355E+00	49.33
	1764.49	74	15.80	9.530E-01	1.402E+00	1.402E+00	32.25
NP-237	86.50	174	12.60*	5.010E+00	7.822E-01	7.822E-01	43.35
	95.87	------	2.60	5.678E+00	------ Line Not Found		------
AM-243	74.67	335	66.00*	3.635E+00	3.966E-01	3.966E-01	24.67
	86.72	174	0.34	5.010E+00	2.933E+01	2.933E+01	38.12
	117.66	------	0.55	6.445E+00	------ Line Not Found		------
	142.18	------	0.13	6.417E+00	------ Line Not Found		------
ANH-511	511.00	120	100.00*	2.730E+00	1.252E-01	1.252E-01	47.19

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

Flag: "*" = Keyline

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

Total number of lines in spectrum 32
Number of unidentified lines 1
Number of lines tentatively identified by NID 31 96.88%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.978E+01	1.978E+01	0.211E+01	10.67	
CD-109	464.00D	1.02	2.649E+00	2.710E+00	1.033E+00	38.12	
SN-126	1.00E+05Y	1.00	2.664E-01	2.664E-01	1.015E-01	38.12	
CS-135	2.30E+06Y	1.00	6.146E-01	6.146E-01	2.725E-01	44.34	
TL-208	1.41E+10Y	1.00	5.040E-01	5.040E-01	0.916E-01	18.17	
BI-211	7.04E+08Y	1.00	4.141E+00	4.141E+00	0.535E+00	12.93	
PB-212	1.41E+10Y	1.00	1.646E+00	1.646E+00	0.173E+00	10.52	
PO-212	1.41E+10Y	1.00	1.646E+00	1.646E+00	0.173E+00	10.52	
BI-214	1600.00Y	1.00	1.201E+00	1.201E+00	0.164E+00	13.70	
PB-214	1600.00Y	1.00	1.440E+00	1.440E+00	0.201E+00	13.94	
PO-214	1600.00Y	1.00	1.440E+00	1.440E+00	0.201E+00	13.94	
PO-216	1.41E+10Y	1.00	1.646E+00	1.646E+00	0.173E+00	10.52	
PO-218	1600.00Y	1.00	1.440E+00	1.440E+00	0.201E+00	13.94	
RA-224	1.41E+10Y	1.00	4.640E+00	4.640E+00	1.308E+00	28.18	
RA-226	1600.00Y	1.00	1.201E+00	1.201E+00	0.164E+00	13.70	
AC-228	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.331E+00	19.74	
RA-228	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.331E+00	19.74	
TH-228	1.91Y	1.02	1.646E+00	1.671E+00	0.176E+00	10.52	
TH-230	4.47E+09Y	1.00	1.201E+00	1.201E+00	0.164E+00	13.70	
TH-232	1.41E+10Y	1.00	1.679E+00	1.679E+00	0.331E+00	19.74	
U-234	4.47E+09Y	1.00	1.201E+00	1.201E+00	0.164E+00	13.70	
NP-237	2.14E+06Y	1.00	7.822E-01	7.822E-01	3.390E-01	43.35	
AM-243	7380.00Y	1.00	3.966E-01	3.966E-01	0.978E-01	24.67	
ANH-511	1.00E+09Y	1.00	1.252E-01	1.252E-01	0.591E-01	47.19	
	Total Activity :		5.465E+01	5.473E+01			

Grand Total Activity : 5.465E+01 5.473E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	89.92	115	243	0.85	179.89	168	15	1.60E-02	46.0	5.25E+00	T
0	92.90	213	333	1.51	185.84	183	8	2.96E-02	33.9	5.48E+00	T
0	128.81	95	395	2.23	257.67	253	10	1.33E-02	80.3	6.50E+00	T
0	185.93	225	367	1.46	371.91	367	11	3.13E-02	36.2	5.70E+00	T
0	209.16	119	205	1.10	418.39	415	7	1.65E-02	44.1	5.29E+00	T
0	462.37	51	135	1.48	924.84	921	11	7.13E-03	91.3	2.95E+00	T
0	727.39	85	45	1.81	1454.86	1449	10	1.18E-02	36.7	2.03E+00	T
0	767.71	55	73	1.44	1535.51	1530	12	7.65E-03	67.3	1.94E+00	T
0	795.20	48	47	0.84	1590.48	1586	9	6.66E-03	59.1	1.88E+00	T
0	934.09	31	24	1.48	1868.24	1862	9	4.25E-03	68.7	1.61E+00	T
1	964.30	66	25	1.87	1928.66	1923	23	9.12E-03	42.2	1.57E+00	T
0	1238.07	43	43	1.36	2476.12	2473	9	5.93E-03	61.5	1.24E+00	T
0	1730.21	18	16	1.57	3460.17	3453	13	2.45E-03	****	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:31:35.94

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245960011.CNF;1 *
* Acquisition date  : 12-FEB-2010 16:31:04  Detector SN#     :             *
* Detector ID       : GAM04                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.23          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245960011            Analyst initials: MXR1         *
* Batch Number      : 948717                Sample Quantity : 1.32020E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.978E+01	2.111E+00	6.024E-01	4.281E-02	32.838
CD-109	2.710E+00	1.033E+00	1.297E+00	1.559E-01	2.089
SN-126	2.664E-01	1.015E-01	1.285E-01	1.541E-02	2.073
CS-135	6.146E-01	2.725E-01	2.224E-01	1.854E-02	2.763
TL-208	5.040E-01	9.156E-02	5.475E-02	3.445E-03	9.205
BI-211	4.141E+00	5.353E-01	2.956E-01	1.997E-02	14.010
PB-212	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
PO-212	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
BI-214	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
PB-214	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
PO-214	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
PO-216	1.646E+00	1.732E-01	8.376E-02	6.727E-03	19.652
PO-218	1.440E+00	2.008E-01	1.030E-01	8.789E-03	13.981
RA-224	4.640E+00	1.308E+00	9.534E-01	6.356E-02	4.867
RA-226	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
AC-228	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
RA-228	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
TH-228	1.671E+00	1.759E-01	8.503E-02	6.829E-03	19.652

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
TH-232	1.679E+00	3.314E-01	1.917E-01	2.090E-02	8.761
U-234	1.201E+00	1.644E-01	1.016E-01	7.463E-03	11.822
NP-237	7.822E-01	3.390E-01	3.844E-01	9.158E-02	2.035
AM-243	3.966E-01	9.783E-02	9.239E-02	1.058E-02	4.293
ANH-511	1.252E-01	5.909E-02	4.247E-02	2.375E-03	2.949

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-9.219E-03		2.815E-01	4.576E-01	3.031E-02	-0.020
NA-22	2.021E-03		4.121E-02	6.932E-02	4.532E-03	0.029
NA-24	6.671E-01		3.695E-01	Half-Life too short		
AL-26	1.012E-02		2.272E-02	4.122E-02	2.444E-03	0.246
TI-44	4.079E-01	+	7.165E-02	8.090E-02	9.303E-03	5.042
SC-46	1.139E-02		3.312E-02	5.662E-02	4.579E-03	0.201
V-48	-1.522E-02		6.449E-02	1.025E-01	7.938E-03	-0.149
CR-51	-9.286E-02		3.465E-01	5.707E-01	4.019E-02	-0.163
MN-52	-1.338E-01		2.375E-01	3.667E-01	2.502E-02	-0.365
MN-54	2.098E-02		3.487E-02	6.075E-02	4.396E-03	0.345
CO-56	-3.697E-02		3.538E-02	5.171E-02	3.836E-03	-0.715
CO-57	-2.169E-02		2.360E-02	3.706E-02	2.572E-03	-0.585
CO-58	1.051E-03		3.486E-02	5.798E-02	4.003E-03	0.018
FE-59	-5.828E-02		8.824E-02	1.322E-01	1.010E-02	-0.441
CO-60	3.031E-03		3.763E-02	6.336E-02	4.341E-03	0.048
ZN-65	2.872E-02		9.619E-02	1.403E-01	9.281E-03	0.205
GE-68	6.918E-01		1.127E+00	1.954E+00	1.365E-01	0.354
AS-73	-2.584E-01		1.447E+00	2.416E+00	3.160E-01	-0.107
AS-74	9.417E-02		8.981E-02	1.565E-01	8.264E-03	0.602
SE-75	-2.928E-03		4.348E-02	6.465E-02	4.349E-03	-0.045
BR-77	-3.383E-01		1.029E+01	1.663E+01	9.260E-01	-0.020
SR-82	-1.625E-01		3.566E-01	5.683E-01	3.627E-02	-0.286
RB-83	-2.517E-02		6.796E-02	1.067E-01	5.945E-03	-0.236
RB-84	5.046E-02		5.857E-02	1.054E-01	8.396E-03	0.479
KR-85	2.406E+00		7.512E+00	1.102E+01	6.153E-01	0.218
SR-85	1.234E-02		3.855E-02	5.652E-02	3.157E-03	0.218
RB-86	6.008E-01		6.844E-01	1.223E+00	8.554E-02	0.491
Y-88	1.619E-02		3.015E-02	5.472E-02	3.193E-03	0.296
ZR-88	-2.234E-02		2.762E-02	4.290E-02	2.414E-03	-0.521
Y-91	2.821E+00		1.906E+01	3.108E+01	1.905E+00	0.091
NB-94	1.075E-02		3.306E-02	5.675E-02	3.057E-03	0.189
NB-95	5.883E-02		4.564E-02	7.538E-02	4.698E-03	0.780
NB-95M	5.837E-02		1.367E-01	1.980E-01	1.625E-02	0.295
ZR-95	8.186E-02		6.952E-02	1.264E-01	9.207E-03	0.647
NB-97	-7.388E-03		4.883E-02	Half-Life too short		
ZR-97	1.399E+00		9.608E-01	Half-Life too short		
MO-99	8.961E-01		1.048E+01	1.764E+01	2.436E+00	0.051

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TC-99M	-2.590E+09		2.151E+10	Half-Life too short		
RH-101	-4.510E-03		3.256E-02	5.136E-02	3.345E-03	-0.088
RH-102	3.026E-03		2.578E-02	4.245E-02	2.400E-03	0.071
RU-103	3.623E-02		3.827E-02	6.646E-02	8.350E-03	0.545
RH-106	-2.964E-03		2.918E-01	4.661E-01	5.325E-02	-0.006
RU-106	-2.964E-03		2.918E-01	4.661E-01	2.395E-02	-0.006
AG-108M	-1.052E-02		2.975E-02	4.749E-02	2.934E-03	-0.222
AG-110M	-3.453E-04		3.284E-02	5.525E-02	2.952E-03	-0.006
IN-111	-4.445E-01		1.047E+00	1.412E+00	9.423E-02	-0.315
IN-113M	-2.913E-02		4.030E-02	6.308E-02	3.801E-03	-0.462
SN-113	-2.913E-02		4.030E-02	6.308E-02	3.801E-03	-0.462
IN-114M	8.535E-02		2.000E-01	2.936E-01	1.900E-02	0.291
CD-115	1.142E+01		1.067E+01	1.873E+01	1.039E+00	0.610
SN-117M	-3.861E-05		4.899E-02	7.945E-02	5.082E-03	0.000
SB-122	1.941E+00		2.044E+00	3.543E+00	1.922E-01	0.548
I-123	-3.170E+00		2.841E+00	Half-Life too short		
TE-123M	-1.431E-02		2.565E-02	4.042E-02	2.612E-03	-0.354
I-124	4.576E-02		6.905E-01	9.734E-01	5.105E-02	0.047
SB-124	6.722E-02		7.549E-02	1.428E-01	9.701E-03	0.471
SB-125	-1.036E-01		8.461E-02	1.253E-01	7.419E-03	-0.826
TE-125M	3.134E-01		8.743E+00	1.447E+01	1.436E+00	0.022
I-126	-8.576E-02		1.623E-01	2.609E-01	1.287E-02	-0.329
SB-126	1.172E-02		1.437E-01	2.208E-01	1.241E-02	0.053
SB-127	4.407E-01		1.209E+00	2.092E+00	1.900E-01	0.211
XE-127	2.235E-02		4.500E-02	7.375E-02	4.821E-03	0.303
I-131	9.613E-02		1.086E-01	1.902E-01	1.266E-02	0.506
TE-132	2.052E-01		7.056E-01	1.137E+00	1.676E-01	0.180
BA-133	9.969E-04		4.625E-02	6.775E-02	7.937E-03	0.015
I-133	-4.885E-03		3.140E-03	Half-Life too short		
CS-134	9.597E-02	+	5.712E-02	9.481E-02	6.390E-03	1.012
I-135	-2.723E+09		3.049E+09	Half-Life too short		
CS-136	6.362E-02		1.000E-01	1.739E-01	1.336E-02	0.366
BA-137M	-2.854E-02		3.532E-02	5.628E-02	2.745E-03	-0.507
CS-137	-3.017E-02		3.734E-02	5.949E-02	2.919E-03	-0.507
CE-139	2.323E-03		2.727E-02	4.430E-02	2.815E-03	0.052
BA-140	-6.501E-02		2.436E-01	3.831E-01	1.244E-01	-0.170
LA-140	-1.058E-01		9.442E-02	1.272E-01	8.378E-03	-0.832
CE-141	3.870E-02		5.590E-02	9.391E-02	6.304E-03	0.412
CE-143	7.008E-04		1.104E-04	Half-Life too short		
CE-144	-9.746E-03		2.110E-01	3.076E-01	4.483E-02	-0.032
PM-144	-7.987E-03		3.185E-02	5.232E-02	2.780E-03	-0.153
PR-144	-5.413E-01		2.159E+00	3.546E+00	1.882E-01	-0.153
PM-146	1.086E-02		4.064E-02	6.782E-02	5.789E-03	0.160
ND-147	9.806E-03		5.250E-01	8.509E-01	1.141E-01	0.012
PM-149	4.103E+01		8.133E+01	1.406E+02	2.043E+01	0.292
EU-152	8.660E-02		9.466E-02	1.499E-01	1.037E-02	0.578
GD-153	-5.740E-02		8.402E-02	1.199E-01	1.177E-02	-0.479
EU-154	-6.762E-03		1.164E-01	1.936E-01	1.899E-02	-0.035

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	4.408E-02		1.012E-01	1.705E-01	1.486E-02	0.259
TB-160	-5.007E-02		1.158E-01	1.810E-01	1.435E-02	-0.277
HO-166M	1.642E-02		5.701E-02	9.770E-02	5.377E-03	0.168
TM-171	-1.608E+01		3.285E+01	5.422E+01	6.339E+00	-0.296
LU-176	-1.122E-02		2.172E-02	3.528E-02	2.303E-03	-0.318
LU-177	2.799E+00	+	1.248E+00	1.954E+00	1.282E-01	1.432
LU-177M	-1.450E-01		1.628E-01	2.503E-01	1.416E-02	-0.579
HF-181	-2.075E-02		4.086E-02	6.265E-02	3.537E-03	-0.331
W-181	-4.482E-01		4.405E-01	7.076E-01	8.340E-02	-0.633
TA-182	5.688E-02		1.799E-01	3.108E-01	1.934E-02	0.183
RE-183	6.406E-02		1.005E-01	1.677E-01	1.068E-02	0.382
RE-184	-1.389E-01		2.074E-01	3.394E-01	2.266E-02	-0.409
OS-185	-1.636E-02		3.820E-02	6.206E-02	3.094E-03	-0.264
RE-188	1.198E-01		1.648E-01	2.759E-01	1.772E-02	0.434
W-188	-3.669E+00		7.491E+00	1.069E+01	7.063E-01	-0.343
IR-192	-2.682E-02		3.276E-02	5.215E-02	3.386E-03	-0.514
AU-195	2.970E-01		2.105E-01	3.670E-01	3.509E-02	0.809
TL-200	-2.242E-04		2.185E-04	Half-Life too short		
TL-201	2.846E+00		6.344E+00	1.049E+01	6.666E-01	0.271
TL-202	-3.226E-03		6.542E-02	1.069E-01	6.063E-03	-0.030
HG-203	4.054E-03		3.780E-02	6.412E-02	4.464E-03	0.063
BI-207	-2.445E-02		5.412E-02	8.359E-02	5.945E-03	-0.293
TL-207	-5.757E-01		6.487E-01	1.018E+00	1.705E-01	-0.565
PO-209	-1.059E+00		7.159E+00	1.160E+01	9.522E-01	-0.091
BI-210	5.681E+00		9.156E+00	1.567E+01	1.365E+00	0.363
PB-210	5.681E+00		9.156E+00	1.567E+01	1.365E+00	0.363
PO-210	5.681E+00		9.153E+00	1.567E+01	1.217E+00	0.363
PB-211	-5.860E-02		8.837E-01	1.449E+00	9.034E-01	-0.040
BI-212	1.005E+00	+	3.771E-01	6.120E-01	4.678E-02	1.643
PO-215	-5.757E-01		6.487E-01	1.018E+00	1.705E-01	-0.565
RN-219	-2.302E-01		3.997E-01	6.179E-01	8.365E-02	-0.373
RN-220	-1.694E+01		2.390E+01	3.599E+01	1.972E+00	-0.471
RA-223	-5.757E-01		6.487E-01	1.018E+00	1.705E-01	-0.565
AC-227	5.181E-02		3.335E-01	5.698E-01	8.175E-02	0.091
TH-227	5.181E-02		3.335E-01	5.698E-01	9.812E-02	0.091
TH-229	-1.550E-01		5.007E-01	7.907E-01	5.132E-02	-0.196
PA-231	-1.959E+00		1.354E+00	2.038E+00	2.884E-01	-0.962
TH-231	-5.757E-01		6.487E-01	1.018E+00	1.705E-01	-0.565
U-231	-8.510E-01		1.087E+00	1.538E+00	1.555E-01	-0.553
PA-233	1.638E-02		5.839E-02	9.945E-02	6.782E-03	0.165
PA-234	1.486E-02		3.016E-01	4.966E-01	9.176E-02	0.030
PA-234M	-1.455E+00		4.166E+00	6.483E+00	5.911E-01	-0.224
TH-234	1.383E+00		1.656E+00	2.836E+00	5.611E-01	0.488
U-235	-4.978E-02		1.877E-01	3.019E-01	5.004E-02	-0.165
NP-236	-7.055E-02		7.296E-02	1.124E-01	7.174E-03	-0.628
U-238	1.383E+00		1.656E+00	2.836E+00	5.611E-01	0.488
NP-239	-1.018E-01		1.744E-01	2.792E-01	2.055E-02	-0.365
AM-241	-9.710E-02		2.029E-01	3.357E-01	4.238E-02	-0.289

Sample ID : G245960011 Acquisition date : 12-FEB-2010 16:31:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-5.143E-02		9.027E-02	1.455E-01	1.283E-02	-0.353
AM-246	9.806E-02		1.292E-01	2.272E-01	1.584E-02	0.432
CM-247	-1.045E-02		3.453E-02	5.576E-02	3.147E-03	-0.187
CF-249	4.443E-02		3.734E-02	6.635E-02	3.770E-03	0.670
CF-251	-3.621E-02		1.215E-01	1.929E-01	1.235E-02	-0.188

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245960011            *
* Acquisition date : 12-FEB-2010 16:31:04 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.23     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245960011           Analyst initials: MXR1            *
* Batch Number     : 948717               Sample Quantity : 1.3202E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.978E+01	2.069E+00	3.017E-01	1.056E+00
CD-109	2.710E+00	1.012E+00	6.815E-01	5.166E-01
SN-126	2.664E-01	9.950E-02	6.749E-02	5.077E-02
CS-135	6.146E-01	2.671E-01	1.147E-01	1.363E-01
TL-208	5.040E-01	8.973E-02	2.787E-02	4.578E-02
BI-211	4.141E+00	5.246E-01	1.517E-01	2.677E-01
PB-212	1.646E+00	1.698E-01	4.328E-02	8.661E-02
PO-212	1.646E+00	1.698E-01	4.328E-02	8.661E-02
BI-214	1.201E+00	1.612E-01	5.165E-02	8.222E-02
PB-214	1.440E+00	1.968E-01	5.289E-02	1.004E-01
PO-214	1.440E+00	1.968E-01	5.289E-02	1.004E-01
PO-216	1.646E+00	1.698E-01	4.328E-02	8.661E-02
PO-218	1.440E+00	1.968E-01	5.289E-02	1.004E-01
RA-224	4.640E+00	1.281E+00	4.926E-01	6.538E-01
RA-226	1.201E+00	1.612E-01	5.165E-02	8.222E-02
AC-228	1.679E+00	3.248E-01	9.682E-02	1.657E-01
RA-228	1.679E+00	3.248E-01	9.682E-02	1.657E-01
TH-228	1.671E+00	1.723E-01	4.394E-02	8.793E-02
TH-230	1.201E+00	1.612E-01	5.165E-02	8.222E-02
TH-232	1.679E+00	3.248E-01	9.682E-02	1.657E-01
U-234	1.201E+00	1.612E-01	5.165E-02	8.222E-02
NP-237	7.822E-01	3.323E-01	2.019E-01	1.695E-01
AM-243	3.966E-01	9.587E-02	4.865E-02	4.892E-02
ANH-511	1.252E-01	5.791E-02	2.166E-02	2.955E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-9.219E-03	2.758E-01	2.337E-01	1.407E-01	NOT IDENT.
NA-22	2.021E-03	4.038E-02	3.481E-02	2.060E-02	NOT IDENT.
NA-24	6.671E+05	7.242E+05	0.000E+00	3.695E+05	SHORT HLIF

AL-26	1.012E-02	2.226E-02	2.057E-02	1.136E-02	NOT IDENT.
TI-44	4.079E-01	7.021E-02	4.257E-02	3.582E-02	FAIL ABUN
SC-46	1.139E-02	3.246E-02	2.861E-02	1.656E-02	FAIL ABUN
V-48	-1.522E-02	6.320E-02	5.168E-02	3.225E-02	NOT IDENT.
CR-51	-9.286E-02	3.396E-01	2.935E-01	1.733E-01	NOT IDENT.
MN-52	-1.338E-01	2.328E-01	1.838E-01	1.188E-01	FAIL ABUN
MN-54	2.098E-02	3.417E-02	3.073E-02	1.744E-02	NOT IDENT.
CO-56	-3.697E-02	3.468E-02	2.615E-02	1.769E-02	FAIL ABUN
CO-57	-2.169E-02	2.313E-02	1.936E-02	1.180E-02	NOT IDENT.
CO-58	1.051E-03	3.416E-02	2.935E-02	1.743E-02	NOT IDENT.
FE-59	-5.828E-02	8.648E-02	6.657E-02	4.412E-02	NOT IDENT.
CO-60	3.031E-03	3.687E-02	3.179E-02	1.881E-02	NOT IDENT.
ZN-65	2.872E-02	9.427E-02	7.062E-02	4.810E-02	NOT IDENT.
GE-68	6.918E-01	1.104E+00	9.842E-01	5.633E-01	NOT IDENT.
AS-73	-2.584E-01	1.418E+00	1.279E+00	7.236E-01	NOT IDENT.
AS-74	9.417E-02	8.802E-02	7.964E-02	4.491E-02	NOT IDENT.
SE-75	-2.928E-03	4.261E-02	3.335E-02	2.174E-02	NOT IDENT.
BR-77	-3.383E-01	1.008E+01	8.480E+00	5.145E+00	FAIL ABUN
SR-82	-1.625E-01	3.495E-01	2.879E-01	1.783E-01	NOT IDENT.
RB-83	-2.517E-02	6.660E-02	5.444E-02	3.398E-02	NOT IDENT.
RB-84	5.046E-02	5.740E-02	5.328E-02	2.929E-02	NOT IDENT.
KR-85	2.406E+00	7.362E+00	5.619E+00	3.756E+00	NOT IDENT.
SR-85	1.234E-02	3.777E-02	2.883E-02	1.927E-02	NOT IDENT.
RB-86	6.008E-01	6.707E-01	6.162E-01	3.422E-01	NOT IDENT.
Y-88	1.619E-02	2.955E-02	2.730E-02	1.507E-02	NOT IDENT.
ZR-88	-2.234E-02	2.707E-02	2.198E-02	1.381E-02	NOT IDENT.
Y-91	2.821E+00	1.868E+01	1.562E+01	9.532E+00	NOT IDENT.
NB-94	1.075E-02	3.240E-02	2.880E-02	1.653E-02	NOT IDENT.
NB-95	5.883E-02	4.473E-02	3.819E-02	2.282E-02	NOT IDENT.
NB-95M	5.837E-02	1.339E-01	1.023E-01	6.833E-02	NOT IDENT.
ZR-95	8.186E-02	6.813E-02	6.407E-02	3.476E-02	NOT IDENT.
NB-97	-7.388E+03	9.570E+04	0.000E+00	4.883E+04	SHORT HLIF
ZR-97	1.399E+06	1.883E+06	0.000E+00	9.608E+05	SHORT HLIF
MO-99	8.961E-01	1.027E+01	8.942E+00	5.241E+00	NOT IDENT.
TC-99M	-2.590E+15	4.215E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.510E-03	3.191E-02	2.662E-02	1.628E-02	NOT IDENT.
RH-102	3.026E-03	2.526E-02	2.168E-02	1.289E-02	FAIL ABUN
RU-103	3.623E-02	3.751E-02	3.392E-02	1.914E-02	FAIL ABUN
RH-106	-2.964E-03	2.859E-01	2.370E-01	1.459E-01	FAIL ABUN
RU-106	-2.964E-03	2.859E-01	2.370E-01	1.459E-01	FAIL ABUN
AG-108M	-1.052E-02	2.916E-02	2.429E-02	1.488E-02	NOT IDENT.
AG-110M	-3.453E-04	3.218E-02	2.807E-02	1.642E-02	NOT IDENT.
IN-111	-4.445E-01	1.026E+00	7.293E-01	5.233E-01	NOT IDENT.
IN-113M	-2.913E-02	3.949E-02	3.232E-02	2.015E-02	NOT IDENT.
SN-113	-2.913E-02	3.949E-02	3.232E-02	2.015E-02	NOT IDENT.
IN-114M	8.535E-02	1.960E-01	1.523E-01	1.000E-01	NOT IDENT.
CD-115	1.142E+01	1.046E+01	9.551E+00	5.337E+00	NOT IDENT.
SN-117M	-3.861E-05	4.801E-02	4.133E-02	2.449E-02	NOT IDENT.
SB-122	1.941E+00	2.003E+00	1.804E+00	1.022E+00	NOT IDENT.
I-123	-3.170E+06	5.568E+06	0.000E+00	2.841E+06	SHORT HLIF
TE-123M	-1.431E-02	2.514E-02	2.102E-02	1.283E-02	NOT IDENT.
I-124	4.576E-02	6.766E-01	4.952E-01	3.452E-01	NOT IDENT.
SB-124	6.722E-02	7.398E-02	7.133E-02	3.775E-02	FAIL ABUN
SB-125	-1.036E-01	8.291E-02	6.413E-02	4.230E-02	FAIL ABUN
TE-125M	3.134E-01	8.568E+00	7.572E+00	4.371E+00	NOT IDENT.
I-126	-8.576E-02	1.590E-01	1.325E-01	8.114E-02	NOT IDENT.
SB-126	1.172E-02	1.408E-01	1.120E-01	7.183E-02	FAIL ABUN
SB-127	4.407E-01	1.185E+00	1.062E+00	6.044E-01	NOT IDENT.
XE-127	2.235E-02	4.410E-02	3.821E-02	2.250E-02	NOT IDENT.
I-131	9.613E-02	1.065E-01	9.757E-02	5.431E-02	NOT IDENT.
TE-132	2.052E-01	6.915E-01	5.880E-01	3.528E-01	NOT IDENT.
BA-133	9.969E-04	4.533E-02	3.478E-02	2.313E-02	NOT IDENT.
I-133	-4.885E+03	6.155E+03	0.000E+00	3.140E+03	SHORT HLIF
CS-134	9.597E-02	5.598E-02	4.800E-02	2.856E-02	FAIL ABUN
I-135	-2.723E+15	5.976E+15	0.000E+00	3.049E+15	SHORT HLIF
CS-136	6.362E-02	9.805E-02	8.763E-02	5.002E-02	FAIL ABUN
BA-137M	-2.854E-02	3.462E-02	2.859E-02	1.766E-02	NOT IDENT.
CS-137	-3.017E-02	3.659E-02	3.022E-02	1.867E-02	NOT IDENT.
CE-139	2.323E-03	2.672E-02	2.303E-02	1.363E-02	NOT IDENT.
BA-140	-6.501E-02	2.387E-01	1.952E-01	1.218E-01	NOT IDENT.
LA-140	-1.058E-01	9.254E-02	6.362E-02	4.721E-02	NOT IDENT.
CE-141	3.870E-02	5.478E-02	4.892E-02	2.795E-02	NOT IDENT.
CE-143	7.008E+02	2.165E+02	0.000E+00	1.104E+02	SHORT HLIF
CE-144	-9.746E-03	2.067E-01	1.605E-01	1.055E-01	NOT IDENT.
PM-144	-7.987E-03	3.122E-02	2.655E-02	1.593E-02	NOT IDENT.
PR-144	-5.413E-01	2.115E+00	1.799E+00	1.079E+00	NOT IDENT.
PM-146	1.086E-02	3.983E-02	3.467E-02	2.032E-02	NOT IDENT.
ND-147	9.806E-03	5.145E-01	4.338E-01	2.625E-01	FAIL ABUN

PM-149	4.103E+01	7.971E+01	7.242E+01	4.067E+01	NOT IDENT.
EU-152	8.660E-02	9.277E-02	7.699E-02	4.733E-02	FAIL ABUN
GD-153	-5.740E-02	8.234E-02	6.285E-02	4.201E-02	NOT IDENT.
EU-154	-6.762E-03	1.141E-01	9.722E-02	5.821E-02	NOT IDENT.
EU-155	4.408E-02	9.916E-02	8.927E-02	5.059E-02	FAIL ABUN
TB-160	-5.007E-02	1.135E-01	9.147E-02	5.791E-02	FAIL ABUN
HO-166M	1.642E-02	5.587E-02	4.956E-02	2.851E-02	NOT IDENT.
TM-171	-1.608E+01	3.219E+01	2.860E+01	1.642E+01	NOT IDENT.
LU-176	-1.122E-02	2.129E-02	1.815E-02	1.086E-02	FAIL ABUN
LU-177	2.799E+00	1.223E+00	1.012E+00	6.240E-01	FAIL ABUN
LU-177M	-1.450E-01	1.595E-01	1.281E-01	8.138E-02	FAIL ABUN
HF-181	-2.075E-02	4.005E-02	3.199E-02	2.043E-02	NOT IDENT.
W-181	-4.482E-01	4.317E-01	3.734E-01	2.202E-01	NOT IDENT.
TA-182	5.688E-02	1.763E-01	1.562E-01	8.996E-02	FAIL ABUN
RE-183	6.406E-02	9.849E-02	8.718E-02	5.025E-02	FAIL ABUN
RE-184	-1.389E-01	2.033E-01	1.752E-01	1.037E-01	NOT IDENT.
OS-185	-1.636E-02	3.744E-02	3.153E-02	1.910E-02	NOT IDENT.
RE-188	1.198E-01	1.615E-01	1.436E-01	8.240E-02	NOT IDENT.
W-188	-3.669E+00	7.341E+00	5.504E+00	3.745E+00	NOT IDENT.
IR-192	-2.682E-02	3.210E-02	2.682E-02	1.638E-02	FAIL ABUN
AU-195	2.970E-01	2.063E-01	1.924E-01	1.052E-01	FAIL ABUN
TL-200	-2.242E+02	4.282E+02	0.000E+00	2.185E+02	SHORT HLIF
TL-201	2.846E+00	6.217E+00	5.450E+00	3.172E+00	NOT IDENT.
TL-202	-3.226E-03	6.411E-02	5.466E-02	3.271E-02	NOT IDENT.
HG-203	4.054E-03	3.704E-02	3.305E-02	1.890E-02	NOT IDENT.
BI-207	-2.445E-02	5.304E-02	4.211E-02	2.706E-02	FAIL ABUN
TL-207	-5.757E-01	6.358E-01	5.235E-01	3.244E-01	FAIL ABUN
PO-209	-1.059E+00	7.015E+00	5.862E+00	3.579E+00	NOT IDENT.
BI-210	5.681E+00	8.973E+00	8.312E+00	4.578E+00	NOT IDENT.
PB-210	5.681E+00	8.973E+00	8.312E+00	4.578E+00	NOT IDENT.
PO-210	5.681E+00	8.970E+00	8.312E+00	4.576E+00	NOT IDENT.
PB-211	-5.860E-02	8.660E-01	7.424E-01	4.419E-01	NOT IDENT.
BI-212	1.005E+00	3.696E-01	3.104E-01	1.886E-01	FAIL ABUN
PO-215	-5.757E-01	6.358E-01	5.235E-01	3.244E-01	FAIL ABUN
RN-219	-2.302E-01	3.917E-01	3.165E-01	1.998E-01	NOT IDENT.
RN-220	-1.694E+01	2.342E+01	1.834E+01	1.195E+01	NOT IDENT.
RA-223	-5.757E-01	6.358E-01	5.235E-01	3.244E-01	FAIL ABUN
AC-227	5.181E-02	3.268E-01	2.941E-01	1.667E-01	FAIL ABUN
TH-227	5.181E-02	3.268E-01	2.941E-01	1.668E-01	FAIL ABUN
TH-229	-1.550E-01	4.907E-01	4.100E-01	2.504E-01	FAIL ABUN
PA-231	-1.959E+00	1.327E+00	1.050E+00	6.770E-01	FAIL ABUN
TH-231	-5.757E-01	6.358E-01	5.235E-01	3.244E-01	FAIL ABUN
U-231	-8.510E-01	1.065E+00	8.064E-01	5.433E-01	FAIL ABUN
PA-233	1.638E-02	5.722E-02	5.116E-02	2.919E-02	FAIL ABUN
PA-234	1.486E-02	2.955E-01	2.507E-01	1.508E-01	FAIL ABUN
PA-234M	-1.455E+00	4.083E+00	3.269E+00	2.083E+00	FAIL ABUN
TH-234	1.383E+00	1.623E+00	1.497E+00	8.278E-01	FAIL ABUN
U-235	-4.978E-02	1.839E-01	1.573E-01	9.385E-02	FAIL ABUN
NP-236	-7.055E-02	7.150E-02	5.844E-02	3.648E-02	NOT IDENT.
U-238	1.383E+00	1.623E+00	1.497E+00	8.278E-01	FAIL ABUN
NP-239	-1.018E-01	1.709E-01	1.460E-01	8.720E-02	FAIL ABUN
AM-241	-9.710E-02	1.989E-01	1.774E-01	1.015E-01	NOT IDENT.
CM-243	-5.143E-02	8.847E-02	7.623E-02	4.514E-02	FAIL ABUN
AM-246	9.806E-02	1.266E-01	1.144E-01	6.458E-02	NOT IDENT.
CM-247	-1.045E-02	3.384E-02	2.856E-02	1.727E-02	NOT IDENT.
CF-249	4.443E-02	3.660E-02	3.401E-02	1.867E-02	NOT IDENT.
CF-251	-3.621E-02	1.190E-01	1.002E-01	6.073E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	198.8585
46.50	198.8585
46.50	198.8585
48.70	215.6169
49.72	207.6383
51.35	209.4680
52.39	197.0559
52.97	197.3723
53.15	199.2103
53.44	206.3335
54.07	225.0033
56.28	212.3039
56.28	212.3057
57.37	0.0000
57.53	195.4012
57.53	195.4023
57.60	206.0015
57.98	215.0175
57.98	215.0175
59.32	218.4153
59.32	218.4153
59.40	218.4599
59.54	223.8464
59.72	227.4900
60.01	248.9178
61.10	259.3756
61.14	259.4016
61.30	259.5063
63.00	228.4749
63.29	228.6380
63.29	228.6380
63.58	214.5007
64.28	247.0970
65.12	295.1462
65.20	295.2032
65.20	295.2032
66.05	294.9061
66.72	285.4690
66.83	285.5447
66.91	287.4015
67.20	271.3697
67.20	271.3697
67.75	274.4300
67.85	274.4950
68.90	285.6674
68.90	285.6674
69.30	289.1938
69.67	292.4362
70.82	267.2943
70.82	267.2943
70.83	267.3003
72.80	301.3704
72.87	301.4174
72.87	301.4174
74.67	278.7795
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.81	278.8661
74.97	278.9636
75.28	279.1537
75.70	279.4104
77.11	280.2655
77.11	280.2655

77.11	280.2655
77.11	280.2655
77.11	280.2655
77.11	280.2655
77.11	280.2655
78.38	295.3581
79.62	300.3074
79.80	300.4211
79.80	300.4211
80.11	293.6585
80.18	293.7012
80.30	293.7744
80.30	293.7744
80.57	334.3414
81.00	329.0644
81.07	329.1112
81.07	329.1112
81.07	329.1112
81.07	329.1112
82.60	296.5820
83.37	329.2747
83.78	330.9549
83.78	330.9549
83.78	330.9549
83.78	330.9549
84.21	334.0520
84.90	327.4927
85.43	327.8411
86.29	328.4082
86.50	328.5451
86.54	328.5717
86.59	328.6037
86.72	328.6891
86.79	328.7335
86.94	328.8331
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.30	329.0695
87.57	329.2455
87.88	329.4464
88.03	329.5441
88.36	329.7592
88.47	329.8303
89.95	255.5420
91.11	256.1160
92.29	256.6969
92.38	256.7409
92.38	256.7409
93.35	235.7801
94.00	230.3480
94.67	250.6907
94.67	250.6933
94.90	247.9352
94.90	247.9352
94.90	247.9352
94.90	247.9352
95.87	262.7428
95.87	262.7428
96.73	277.5435
97.43	280.7811
98.44	226.9649
98.44	226.9649
98.88	216.5600
99.55	229.3520
99.55	229.3520
99.86	237.1939
100.00	237.2540
100.10	237.2990
103.18	277.4058
103.76	262.1558
105.00	230.6160
105.31	246.3188
108.00	295.3965
109.28	260.7533

111.00	245.7848
111.00	245.7848
111.76	278.5825
112.95	286.0425
115.19	223.7424
116.30	244.9774
117.00	253.1998
117.00	253.1998
117.66	247.5068
121.11	237.8838
121.62	258.0827
121.78	264.1504
122.06	264.2672
122.32	254.3617
122.32	254.3617
122.32	254.3617
122.32	254.3617
123.07	239.6224
127.23	269.4275
129.76	235.5202
131.20	248.2134
133.02	256.5220
133.54	249.0814
135.34	242.0822
136.00	244.3609
136.25	252.6333
136.48	253.7406
140.51	240.8150
140.51	0.0000
142.18	256.8623
142.65	258.0643
143.76	247.0960
144.24	230.7106
144.24	230.7106
144.24	230.7106
144.24	230.7106
145.22	223.7761
145.44	220.7353
147.16	217.1088
152.43	242.7428
152.70	229.2255
153.22	231.4808
154.21	263.2507
154.21	263.2507
154.21	263.2507
154.21	263.2507
155.03	247.7923
156.02	248.1188
158.56	218.3603
159.00	0.0000
159.00	235.3745
160.31	250.5805
161.27	222.3111
162.32	216.2520
162.64	208.9177
163.35	223.9707
163.89	231.5607
165.85	224.6876
167.43	203.7982
171.28	221.9379
171.86	213.5145
172.10	213.5772
176.55	242.8047
176.60	242.8207
181.06	218.0894
184.41	241.8347
185.71	252.0241
186.00	252.1087
190.27	235.2662
192.34	255.0669
193.63	246.6338
197.04	218.8486
198.01	232.3663
198.60	242.4831
200.40	250.7372
201.83	227.7993
202.84	213.5918
205.31	227.5555

208.36	226.6322
208.81	208.2661
209.75	225.2908
209.75	225.2908
210.97	217.1678
215.65	236.8588
216.55	214.5038
218.09	189.9741
222.10	207.7980
223.80	183.1362
226.40	226.9641
227.00	206.5599
227.08	195.1634
227.20	195.1878
228.16	205.6604
228.18	205.6641
228.18	205.6641
231.56	0.0000
235.69	217.5738
236.00	214.1846
236.00	214.1846
238.63	185.8762
238.63	185.8762
238.63	185.8762
238.63	185.8762
239.00	185.9433
240.98	186.3020
241.98	186.4838
241.98	186.4838
241.98	186.4838
244.69	142.8419
245.39	146.4232
247.94	159.3620
248.90	142.2502
249.79	142.6623
252.40	148.2773
252.85	171.1621
252.85	171.1621
254.15	0.0000
256.20	149.6845
256.20	149.6845
260.50	168.8445
260.90	168.9057
262.80	139.7134
264.65	146.2344
268.24	142.4365
268.79	142.5073
269.46	142.5928
269.46	142.5928
269.46	142.5928
269.46	142.5928
271.23	151.3864
273.65	201.8063
276.40	162.9428
277.35	156.1555
277.60	159.7806
277.60	159.7806
278.00	149.9575
278.60	149.1381
279.20	161.8011
279.53	164.5453
280.46	165.5792
281.68	135.1250
283.67	157.0131
284.30	140.8489
285.00	138.2220
285.90	122.9595
286.10	124.7888
286.10	124.7888
287.40	112.2539
288.45	0.0000
290.67	152.5089
290.80	152.5243
291.72	132.2899
293.26	0.0000
293.70	126.6874
295.21	134.1367
295.21	134.1367

295.21	134.1367
295.96	87.5361
296.50	58.3828
297.23	58.4189
298.57	58.4834
299.80	152.2117
299.80	152.2117
300.09	133.2186
300.09	133.2186
300.09	133.2186
300.09	133.2186
300.12	133.2208
301.29	137.7458
302.84	133.5185
303.76	102.7852
303.91	89.5803
304.40	117.5293
304.40	117.5293
304.84	129.8194
306.84	130.6441
308.46	128.9728
311.98	123.7950
316.51	150.2065
318.01	114.1808
319.02	120.7741
319.41	118.0238
320.08	135.7522
323.87	163.2000
323.87	163.2000
323.87	163.2000
323.87	163.2000
325.23	185.7791
328.77	135.7384
333.44	135.2856
334.20	139.8769
334.20	139.8769
334.30	139.8860
338.28	131.0676
338.28	131.0676
338.28	131.0676
338.28	131.0676
338.32	131.0718
338.32	131.0718
338.32	131.0718
340.50	98.2300
340.57	98.2347
344.27	92.4442
345.85	101.6565
350.59	0.0000
351.07	110.4262
351.92	110.4952
351.92	110.4952
351.92	110.4952
355.39	0.0000
356.01	120.7605
364.48	97.0840
366.43	107.8062
367.43	119.4420
367.94	0.0000
369.80	91.6616
374.96	118.1391
383.85	121.7918
387.95	89.8901
388.63	87.9758
391.69	109.7083
391.69	109.7083
392.90	108.8168
398.62	93.4895
400.65	107.4116
401.10	113.3575
401.81	114.3981
402.60	109.5231
404.84	109.6857
410.95	101.1953
411.60	105.2091
413.65	112.3051
414.70	102.4373
415.30	92.5275

415.76	83.5975
417.63	0.0000
418.52	76.7674
423.70	77.0223
427.08	92.2232
427.89	107.3151
432.53	71.4171
433.93	91.6137
439.47	92.9391
439.56	92.9448
439.89	83.8701
443.98	90.1584
444.90	95.2780
445.03	95.2852
445.03	95.2852
445.03	95.2852
445.03	95.2852
453.90	84.5894
463.38	91.2190
468.07	93.7341
473.00	73.1841
475.06	73.2718
475.35	85.6697
476.78	86.7737
477.59	73.3791
477.96	77.5303
482.03	86.0016
484.57	69.5242
487.03	85.2094
490.36	0.0000
492.35	83.3826
497.08	66.8838
507.63	0.0000
510.53	0.0000
510.84	76.8747
511.00	76.8819
511.85	76.9176
511.85	76.9176
513.99	86.0799
513.99	86.0799
520.41	87.8633
520.65	80.4647
527.90	64.8348
528.96	0.0000
529.64	86.1737
529.87	0.0000
531.02	72.3953
537.32	75.8427
543.00	74.9988
546.56	0.0000
549.76	76.3389
552.65	60.3015
555.20	67.9276
563.23	64.9603
563.90	67.1484
568.70	89.0244
569.32	85.7963
569.50	82.5452
569.67	81.4659
573.80	67.4852
574.00	67.4927
574.64	74.0471
578.91	75.0778
579.30	0.0000
583.14	73.2669
585.48	71.8201
591.81	86.7607
592.07	88.9670
593.00	98.8989
595.88	62.7230
600.56	76.1005
602.52	0.0000
602.71	67.1271
602.71	67.1271
603.60	75.9933
604.41	79.5586
604.70	83.1060
609.31	70.8848

609.31	70.8848
609.31	70.8848
609.31	70.8848
610.33	63.8279
612.46	63.8930
614.37	67.5038
618.01	65.6188
621.84	61.2791
621.84	61.2791
631.29	44.7644
633.02	57.1213
633.10	57.1229
634.78	51.5633
635.90	66.1697
636.97	66.2021
645.85	62.1910
646.12	66.7066
656.30	63.3931
657.75	70.6837
657.90	0.0000
661.65	70.8075
661.65	70.8075
664.57	0.0000
666.33	70.9560
666.33	70.9560
675.00	57.5321
677.61	53.0270
685.20	53.2025
692.80	58.9000
695.00	70.9317
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698.33	73.8008
698.50	76.5744
699.00	72.8995
702.63	73.0133
706.10	76.8236
706.58	0.0000
706.67	77.7677
709.31	74.1484
711.68	62.1615
713.82	59.4313
717.42	59.5219
720.50	59.8645
721.93	0.0000
722.20	60.5725
722.78	59.0348
722.78	59.0348
722.89	59.0364
722.95	59.0379
723.30	59.0472
724.18	63.7322
727.18	62.2559
733.00	60.1768
735.90	64.6673
739.58	52.5629
742.81	61.0914
744.21	55.4839
747.13	49.9010
751.79	69.8050
752.31	66.9889
753.82	65.1406
755.35	61.4025
756.15	51.0284
756.87	47.2620
763.93	47.3962
765.79	53.7559
766.42	60.0940
766.84	69.5951
776.49	62.8756
778.00	59.0998
778.57	56.2531
778.89	55.3067
783.80	64.0115
785.46	63.0964
792.07	54.3134

795.84	62.3927
796.30	62.4038
798.80	57.6592
801.93	71.6255
805.60	60.6998
810.29	48.2605
810.76	47.3037
815.85	42.5595
817.79	40.6547
818.51	38.7295
819.60	47.4628
826.30	45.6403
828.27	0.0000
831.60	61.2989
831.96	66.1722
834.83	50.6568
836.80	0.0000
846.75	56.7511
848.13	47.9700
856.28	0.0000
856.80	45.8304
860.37	47.5286
867.32	41.6244
867.82	39.4404
871.10	33.5642
873.19	38.5287
874.81	36.5736
875.33	0.0000
876.40	31.6492
879.36	40.5936
880.27	40.6066
880.51	40.6106
881.50	29.7253
883.24	36.6838
884.67	37.6948
889.25	34.7753
896.60	50.8033
898.02	40.8629
899.00	40.8769
903.28	54.9167
911.07	44.0526
911.07	44.0526
911.07	44.0526
919.63	34.1411
920.93	28.1285
925.00	40.2402
925.24	36.2188
926.50	42.7770
935.52	40.3848
937.48	31.9921
944.10	45.5647
946.00	50.6592
949.00	50.7104
962.29	54.3307
964.01	39.7522
966.15	39.7798
968.20	39.8074
969.11	39.8188
969.11	39.8188
969.11	39.8188
977.42	35.2635
980.50	43.0428
983.50	42.0590
989.30	50.3602
996.32	54.5941
1001.03	42.2973
1001.68	48.4974
1004.76	57.8416
1021.30	0.0000
1024.50	0.0000
1034.80	46.9226
1036.00	41.7246
1037.82	40.7043
1038.57	45.9336
1038.76	0.0000
1045.16	46.0281
1046.59	51.2801
1048.07	34.5517

1050.47	33.5297
1050.47	33.5297
1062.04	45.2151
1063.62	54.7066
1076.63	27.4612
1077.35	32.7498
1078.86	31.7080
1085.78	39.1878
1099.22	48.9154
1112.02	38.1208
1112.84	26.6919
1115.52	42.7402
1120.29	43.8688
1120.29	43.8688
1120.29	43.8688
1120.29	43.8688
1120.51	43.8728
1121.28	43.8828
1124.00	0.0000
1129.67	41.3833
1131.51	0.0000
1147.95	0.0000
1167.94	39.0498
1173.22	49.9711
1175.09	52.1719
1177.93	51.1263
1189.05	62.1962
1204.90	52.6055
1205.75	0.0000
1213.00	51.6243
1221.42	46.7894
1230.97	48.1662
1235.34	63.1473
1236.41	0.0000
1238.25	53.4546
1246.25	50.3795
1260.41	0.0000
1271.85	39.9853
1274.45	40.0133
1274.54	38.1522
1291.56	33.6489
1298.22	0.0000
1312.09	25.3707
1325.50	29.2290
1325.50	29.2290
1332.49	29.2814
1333.61	20.7861
1360.21	15.2181
1362.66	0.0000
1365.15	27.6170
1368.21	18.1078
1368.53	0.0000
1376.25	22.9180
1384.27	23.9207
1394.10	19.1821
1395.20	22.0660
1407.95	29.8332
1434.06	23.2412
1436.60	28.0997
1457.56	0.0000
1460.81	27.2868
1489.15	18.6382
1509.49	13.7972
1596.49	32.1536
1620.62	9.0905
1678.03	0.0000
1691.02	9.2263
1691.02	9.2263
1706.46	0.0000
1750.46	0.0000
1764.49	14.5680
1764.49	14.5680
1764.49	14.5680
1764.49	14.5680
1770.23	19.6444
1771.40	34.3857
1791.20	0.0000
1808.65	5.2482

1836.01 7.3868

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245960011

Total Uranium Activity	4.0906E+00	ug/g
Total Uranium Counting Unc.	4.8277E+00	ug/g
Total Uranium Tpu	2.4631E-06	ug/g
Total Uranium Mda	4.4554E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G245960011      *
*   ANALYST       : MXR1                      DETECTOR    : GAM04           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 16:31:04.86    SAMPLE ALQT:  132.020 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.350E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.153E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.826E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.360E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:33:15.37

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 16:32:21
Sample ID         : G1202032510          Sample quantity  : 1.36210E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.52  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948717                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	93.22*	16	122	0.77	185.94	181	12	2.20E-03	160.0	
2	0	185.71*	11	70	1.18	370.74	366	10	1.53E-03	173.8	
3	0	238.42*	33	104	1.46	476.06	469	15	4.58E-03	74.7	
4	0	511.12*	45	22	3.00	1021.11	1014	17	6.26E-03	43.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:33:18

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 12-FEB-2010 16:32:21
Sample ID : G1202032510 Sample quantity : 136.21 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA14 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.52 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	4.025E-02	3.494E-02	2.180E-02	1.281E-03	1.847

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.023E-02	1.320E-01	2.022E-01	1.363E-02	-0.298
NA-22		1274.54	*	1.844E-02	1.960E-02	3.799E-02	2.482E-03	0.485
NA-24		1368.53	*	3.827E-05	1.960E-02	Half-Life too short		
AL-26		1129.67		-3.164E-01	6.622E-01	9.769E-01	6.169E-02	-0.324
		1808.65	*	-7.550E-03	2.191E-02	3.208E-02	1.860E-03	-0.235
K-40		1460.81	*	3.054E-02	2.667E-01	4.891E-01	3.551E-02	0.062
TI-44		67.85		-1.238E-02	1.666E-02	2.561E-02	1.803E-03	-0.483
		78.38	*	-1.736E-02	1.276E-02	1.844E-02	1.440E-03	-0.941
SC-46		889.25	*	5.975E-03	1.626E-02	2.892E-02	2.673E-03	0.207
		1120.51		6.106E-03	2.426E-02	4.170E-02	2.700E-03	0.146
V-48		944.10		1.118E-01	3.030E-01	5.367E-01	4.797E-02	0.208
		983.50	*	-7.357E-03	2.381E-02	3.739E-02	3.175E-03	-0.197
		1312.09		2.951E-03	2.315E-02	3.927E-02	2.714E-03	0.075
CR-51		320.08	*	-6.171E-02	1.577E-01	2.522E-01	1.630E-02	-0.245
MN-52		744.21		3.268E-02	4.840E-02	8.594E-02	6.065E-03	0.380
		848.13		8.645E-01	1.419E+00	2.575E+00	2.213E-01	0.336
		935.52		-4.076E-02	4.949E-02	7.059E-02	6.371E-03	-0.577
		1246.25		2.413E-01	9.795E-01	1.710E+00	1.065E-01	0.141
		1333.61		2.298E-01	1.070E+00	1.832E+00	1.305E-01	0.125
		1434.06	*	-1.881E-02	5.157E-02	7.689E-02	5.389E-03	-0.245
MN-54		834.83	*	1.225E-02	1.866E-02	3.398E-02	2.851E-03	0.360
CO-56		846.75	*	1.214E-02	2.133E-02	3.826E-02	3.279E-03	0.317
		977.42		2.372E-01	1.135E+00	1.968E+00	1.685E-01	0.121
		1037.82		7.171E-02	1.535E-01	2.734E-01	2.265E-02	0.262
		1175.09		2.935E-01	1.010E+00	1.750E+00	9.670E-02	0.168
		1238.25		1.630E-02	3.027E-02	5.514E-02	3.582E-03	0.296
		1360.21		2.385E-01	5.328E-01	9.496E-01	6.746E-02	0.251
		1771.40		-6.358E-02	1.353E-01	1.872E-01	1.117E-02	-0.340

Sample ID : G1202032510 Acquisition date : 12-FEB-2010 16:32:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	-8.012E-03	1.133E-02	1.712E-02	1.218E-03	-0.468
		136.48		-5.940E-02	9.161E-02	1.386E-01	1.017E-02	-0.429
CO-58		810.76	*	-8.907E-03	1.997E-02	2.964E-02	2.385E-03	-0.300
FE-59		142.65		-1.021E-01	1.124E+00	1.789E+00	1.122E-01	-0.057
		192.34		-4.606E-01	4.118E-01	5.830E-01	6.806E-02	-0.790
		1099.22	*	6.925E-03	3.796E-02	6.495E-02	5.000E-03	0.107
		1291.56		-6.000E-02	5.441E-02	6.858E-02	5.583E-03	-0.875
CO-60		1173.22		3.235E-02	2.036E-02	4.216E-02	2.322E-03	0.767
		1332.49	*	2.908E-03	2.052E-02	3.467E-02	2.471E-03	0.084
ZN-65		1115.52	*	9.461E-03	4.529E-02	7.741E-02	5.088E-03	0.122
GE-68		1077.35	*	3.763E-01	5.705E-01	1.053E+00	7.572E-02	0.357
AS-73		53.44	*	-2.427E-01	2.369E-01	3.521E-01	2.295E-02	-0.689
AS-74		595.88	*	2.507E-02	4.097E-02	7.117E-02	4.257E-03	0.352
		634.78		-7.063E-03	1.410E-01	2.270E-01	1.356E-02	-0.031
SE-75		66.05		-1.132E+00	1.783E+00	2.660E+00	2.419E-01	-0.425
		96.73		1.467E-01	3.267E-01	4.850E-01	6.443E-02	0.302
		121.11		-2.797E-02	5.733E-02	8.826E-02	8.931E-03	-0.317
		136.00		-9.895E-03	1.675E-02	2.549E-02	1.684E-03	-0.388
		198.60		8.540E-02	7.981E-01	1.353E+00	9.370E-02	0.063
		264.65	*	2.941E-03	2.082E-02	3.518E-02	2.065E-03	0.084
		279.53		-3.372E-02	5.436E-02	8.596E-02	5.414E-03	-0.392
		303.91		6.488E-01	1.041E+00	1.819E+00	1.739E-01	0.357
		400.65		8.387E-02	1.239E-01	2.183E-01	1.945E-02	0.384
BR-77		87.88		-4.359E+00	9.430E+00	1.275E+01	1.113E+00	-0.342
		200.40		-8.850E+00	8.919E+00	1.388E+01	7.721E-01	-0.637
	+	239.00		6.732E-01	1.007E+00	1.023E+00	5.875E-02	0.658
		249.79		1.041E+00	3.524E+00	6.043E+00	3.491E-01	0.172
		281.68		3.444E+00	5.380E+00	9.419E+00	5.494E-01	0.366
		297.23		1.989E+00	2.761E+00	4.885E+00	2.850E-01	0.407
		303.76		7.712E+00	1.046E+01	1.847E+01	1.076E+00	0.418
		439.47		5.112E+00	8.094E+00	1.426E+01	8.064E-01	0.358
		484.57		6.645E+00	1.396E+01	2.411E+01	1.400E+00	0.276
		520.65	*	3.102E-01	5.434E-01	9.583E-01	5.650E-02	0.324
		574.64		5.402E+00	1.366E+01	2.327E+01	1.389E+00	0.232
		578.91		-4.439E+00	5.235E+00	7.533E+00	4.500E-01	-0.589
		585.48		-2.083E+00	9.301E+00	1.466E+01	8.761E-01	-0.142
		755.35		-8.965E-01	7.927E+00	1.247E+01	8.998E-01	-0.072
		817.79		-4.907E+00	7.455E+00	1.117E+01	9.080E-01	-0.439
SR-82		698.33		6.650E+00	1.530E+01	2.611E+01	1.678E+00	0.255
		776.49	*	-1.948E-02	1.487E-01	2.335E-01	1.756E-02	-0.083
		1395.20		-1.673E+00	4.430E+00	6.552E+00	4.629E-01	-0.255
RB-83		520.41	*	1.484E-02	2.924E-02	5.119E-02	3.018E-03	0.290
		529.64		1.108E-02	5.328E-02	8.923E-02	5.276E-03	0.124
		552.65		-1.149E-02	1.001E-01	1.608E-01	9.566E-03	-0.071
RB-84		881.50	*	3.819E-03	3.007E-02	5.131E-02	4.678E-03	0.074
KR-85		513.99	*	1.154E+01	4.675E+00	8.677E+00	5.103E-01	1.329
SR-85		513.99	*	5.470E-02	2.217E-02	4.115E-02	2.420E-03	1.329
RB-86		1076.63	*	5.205E-02	2.918E-01	4.989E-01	3.592E-02	0.104
Y-88		898.02		1.461E-02	1.667E-02	3.201E-02	3.015E-03	0.456

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1836.01	*	1.912E-02	2.670E-02	4.958E-02	2.816E-03	0.386
ZR-88		392.90	*	-1.058E-03	1.417E-02	2.320E-02	1.263E-03	-0.046
Y-91		1204.90	*	-2.182E+00	6.955E+00	1.073E+01	6.243E-01	-0.203
NB-94		702.63	*	-7.495E-03	1.763E-02	2.666E-02	1.729E-03	-0.281
		871.10		2.779E-03	1.585E-02	2.731E-02	2.445E-03	0.102
NB-95		765.79	*	6.448E-03	1.728E-02	2.955E-02	2.176E-03	0.218
NB-95M		235.69	*	4.584E-02	5.713E-02	9.054E-02	6.767E-03	0.506
ZR-95		724.18		9.241E-03	4.170E-02	6.952E-02	5.356E-03	0.133
		756.15	*	-1.161E-02	2.882E-02	4.273E-02	3.525E-03	-0.272
NB-97		657.90	*	1.307E-05	2.882E-02	Half-Life too short		
		1024.50		-1.073E-03	2.882E-02	Half-Life too short		
ZR-97		254.15		-1.185E-03	2.882E-02	Half-Life too short		
		355.39		-4.812E-04	2.882E-02	Half-Life too short		
		507.63	*	1.338E-03	2.882E-02	Half-Life too short		
		602.52		1.681E-03	2.882E-02	Half-Life too short		
		1021.30		-3.702E-04	2.882E-02	Half-Life too short		
		1147.95		-1.153E-04	2.882E-02	Half-Life too short		
		1362.66		5.235E-04	2.882E-02	Half-Life too short		
		1750.46		-1.020E-03	2.882E-02	Half-Life too short		
MO-99		140.51		2.214E-01	1.843E+00	2.985E+00	8.082E-01	0.074
		181.06		-1.621E-01	1.224E+00	1.772E+00	3.017E-01	-0.091
		366.43		2.772E+00	6.287E+00	1.088E+01	6.106E-01	0.255
		739.58	*	3.388E-01	8.915E-01	1.521E+00	2.179E-01	0.223
		778.00		3.041E+00	2.338E+00	4.572E+00	3.447E-01	0.665
TC-99M		140.51	*	2.548E+00	2.338E+00	Half-Life too short		
RH-101		127.23		-5.158E-03	1.386E-02	2.158E-02	1.484E-03	-0.239
		198.01	*	7.413E-03	1.508E-02	2.626E-02	1.457E-03	0.282
		325.23		-5.241E-02	1.074E-01	1.698E-01	9.828E-03	-0.309
RH-102		418.52		7.251E-02	1.433E-01	2.489E-01	1.385E-02	0.291
		475.06	*	-5.850E-03	1.674E-02	2.138E-02	1.236E-03	-0.274
		631.29		9.692E-04	2.608E-02	4.254E-02	2.542E-03	0.023
		697.49		6.182E-03	4.294E-02	7.068E-02	4.535E-03	0.087
		766.84		2.037E-02	4.604E-02	7.965E-02	5.877E-03	0.256
		1046.59		-3.787E-03	5.776E-02	9.490E-02	7.263E-03	-0.040
		1112.84		-5.450E-02	1.116E-01	1.692E-01	1.118E-02	-0.322
RU-103		497.08	*	-6.357E-03	1.681E-02	2.604E-02	3.297E-03	-0.244
		610.33		-1.878E-01	4.207E-01	6.547E-01	1.014E-01	-0.287
RH-106	+	511.85		1.983E-01	1.721E-01	2.736E-01	1.608E-02	0.725
		621.84	*	-4.423E-02	1.479E-01	2.285E-01	2.702E-02	-0.194
		1050.47		5.854E-02	1.174E+00	1.965E+00	1.493E-01	0.030
RU-106	+	511.85		1.983E-01	1.721E-01	2.736E-01	1.608E-02	0.725
		621.84	*	-4.423E-02	1.479E-01	2.285E-01	1.366E-02	-0.194
		1050.47		5.854E-02	1.174E+00	1.965E+00	1.493E-01	0.030
AG-108M		433.93	*	-3.722E-03	1.622E-02	2.594E-02	1.593E-03	-0.143
		614.37		8.506E-03	2.219E-02	3.764E-02	2.432E-03	0.226
		722.95		-7.624E-03	2.101E-02	3.196E-02	2.297E-03	-0.239
CD-109		88.03	*	-3.321E-02	3.647E-01	5.120E-01	4.478E-02	-0.065
AG-110M		657.75	*	6.513E-03	1.831E-02	3.107E-02	1.963E-03	0.210
		677.61		8.184E-03	1.349E-01	2.205E-01	1.430E-02	0.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.67		1.515E-02	9.670E-02	1.600E-01	1.096E-02	0.095
		763.93		-1.629E-02	7.407E-02	1.146E-01	8.734E-03	-0.142
		884.67		-3.044E-03	2.338E-02	3.829E-02	3.610E-03	-0.080
		937.48		-2.099E-02	5.031E-02	7.768E-02	7.227E-03	-0.270
		1384.27		2.979E-02	6.197E-02	1.152E-01	8.494E-03	0.259
IN-111		171.28		2.593E-02	7.646E-02	1.256E-01	6.775E-03	0.206
		245.39	*	2.944E-02	8.520E-02	1.295E-01	7.461E-03	0.227
IN-113M		391.69	*	3.866E-03	2.238E-02	3.757E-02	2.199E-03	0.103
SN-113		391.69	*	3.866E-03	2.238E-02	3.757E-02	2.199E-03	0.103
IN-114M		190.27	*	2.621E-02	8.025E-02	1.220E-01	6.716E-03	0.215
CD-115		260.90		2.029E+00	6.298E+00	1.080E+01	6.270E-01	0.188
		492.35		1.223E+00	1.920E+00	3.373E+00	1.966E-01	0.363
		527.90	*	-2.377E-01	5.591E-01	8.615E-01	5.091E-02	-0.276
SN-117M		156.02		2.454E-01	7.186E-01	1.182E+00	6.806E-02	0.208
		158.56	*	-4.045E-03	1.941E-02	2.935E-02	1.660E-03	-0.138
SB-122		563.90	*	-1.427E-01	1.936E-01	2.891E-01	1.723E-02	-0.494
		692.80		3.200E+00	3.434E+00	6.233E+00	3.960E-01	0.513
I-123		159.00	*	-1.263E-04	3.434E+00	Half-Life too short		
		528.96		8.654E-03	3.434E+00	Half-Life too short		
TE-123M		159.00	*	-7.306E-03	1.425E-02	2.101E-02	1.202E-03	-0.348
I-124		602.71	*	8.030E-02	1.089E-01	1.919E-01	1.148E-02	0.419
		722.78		-2.324E-01	6.405E-01	9.743E-01	6.586E-02	-0.239
		1325.50		-2.347E+00	4.295E+00	5.997E+00	4.229E-01	-0.391
		1376.25		-1.426E+00	4.674E+00	7.156E+00	5.072E-01	-0.199
		1509.49		1.222E+00	2.370E+00	4.338E+00	2.976E-01	0.282
		1691.02		6.695E-02	7.216E-01	1.198E+00	7.551E-02	0.056
SB-124		602.71		1.468E-02	1.991E-02	3.508E-02	2.100E-03	0.419
		645.85		8.700E-02	2.196E-01	3.775E-01	2.525E-02	0.230
		709.31		-8.162E-01	1.253E+00	1.802E+00	1.185E-01	-0.453
		713.82		-3.441E-02	7.468E-01	1.196E+00	1.281E-01	-0.029
		722.78		-6.160E-02	1.698E-01	2.583E-01	1.807E-02	-0.239
		968.20		6.936E-01	1.043E+00	1.915E+00	1.661E-01	0.362
		1045.16		5.873E-02	1.104E+00	1.851E+00	1.420E-01	0.032
		1325.50		-6.645E-01	1.216E+00	1.698E+00	1.197E-01	-0.391
		1368.21		-1.332E-02	9.991E-01	1.634E+00	2.052E-01	-0.008
		1436.60		-1.133E+00	1.999E+00	2.831E+00	1.983E-01	-0.400
		1691.02	*	4.186E-03	4.512E-02	7.493E-02	5.065E-03	0.056
SB-125		427.89	*	9.778E-03	4.585E-02	7.727E-02	4.528E-03	0.127
		463.38		-1.063E-01	1.355E-01	2.001E-01	1.343E-02	-0.531
		600.56		-3.008E-02	1.066E-01	1.676E-01	1.151E-02	-0.179
		635.90		1.264E-02	1.509E-01	2.474E-01	1.717E-02	0.051
TE-125M		109.28	*	-1.379E+00	3.548E+00	5.530E+00	5.182E-01	-0.249
I-126		388.63		5.998E-02	7.284E-02	1.297E-01	7.083E-03	0.463
		666.33	*	-9.546E-03	6.009E-02	9.490E-02	5.699E-03	-0.101
		753.82		-1.362E-01	4.255E-01	6.416E-01	4.615E-02	-0.212
SB-126		223.80		-4.877E-01	1.216E+00	1.973E+00	1.121E-01	-0.247
		278.60		-9.088E-01	8.230E-01	1.240E+00	7.229E-02	-0.733
		296.50		4.955E-01	3.994E-01	7.371E-01	4.299E-02	0.672
		414.70		3.859E-03	2.662E-02	4.450E-02	2.469E-03	0.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.30		6.963E-01	2.163E+00	3.683E+00	2.045E-01	0.189
		555.20		-3.492E-01	1.367E+00	2.151E+00	1.280E-01	-0.162
		573.80		1.236E-01	4.098E-01	6.898E-01	4.118E-02	0.179
		593.00		-1.117E-01	3.678E-01	5.760E-01	3.445E-02	-0.194
		656.30		6.756E-01	1.220E+00	2.118E+00	1.261E-01	0.319
		666.33		-3.922E-03	2.469E-02	3.899E-02	2.341E-03	-0.101
		675.00		-4.353E-01	6.101E-01	8.614E-01	5.271E-02	-0.505
		695.00		-7.730E-04	2.935E-02	4.725E-02	3.016E-03	-0.016
		697.00		-4.453E-03	1.042E-01	1.674E-01	1.073E-02	-0.027
		720.50	*	-2.331E-02	4.844E-02	7.209E-02	4.850E-03	-0.323
		856.80		6.701E-02	1.550E-01	2.756E-01	2.405E-02	0.243
		989.30		2.777E-01	4.236E-01	7.766E-01	6.539E-02	0.358
		1034.80		-5.810E-01	2.907E+00	4.663E+00	3.647E-01	-0.125
		1213.00		3.144E-01	1.229E+00	2.129E+00	1.255E-01	0.148
SN-126		64.28		8.484E-03	1.898E-01	3.176E-01	4.526E-02	0.027
		86.94		-3.506E-02	1.560E-01	2.140E-01	8.852E-02	-0.164
		87.57	*	-1.989E-02	3.845E-02	5.173E-02	4.501E-03	-0.385
SB-127		61.10		-4.629E+00	5.492E+00	8.311E+00	6.323E-01	-0.557
		252.40		3.203E-01	5.391E-01	9.202E-01	3.781E-01	0.348
		290.80		-2.418E+00	2.539E+00	3.821E+00	2.623E-01	-0.633
		411.60		-1.037E+00	1.728E+00	2.660E+00	3.432E-01	-0.390
		444.90		-9.146E-01	1.239E+00	1.838E+00	1.621E-01	-0.498
		473.00		-1.515E-02	2.152E-01	3.497E-01	3.268E-02	-0.043
		543.00		-5.165E-01	2.355E+00	3.733E+00	4.272E-01	-0.138
		603.60		4.405E-01	1.739E+00	2.908E+00	2.613E-01	0.151
		685.20	*	9.534E-02	1.462E-01	2.637E-01	1.994E-02	0.361
		698.50		1.003E+00	2.207E+00	3.771E+00	5.060E-01	0.266
		722.20		4.896E-01	3.789E+00	6.233E+00	4.774E-01	0.079
		783.80		1.841E-01	4.346E-01	7.489E-01	7.520E-02	0.246
XE-127		57.60		4.758E-01	1.655E+00	2.764E+00	1.820E-01	0.172
		145.22		-7.972E-02	3.081E-01	4.587E-01	2.831E-02	-0.174
		172.10		-2.893E-02	5.020E-02	7.611E-02	4.108E-03	-0.380
		202.84	*	2.116E-03	1.932E-02	3.274E-02	1.825E-03	0.065
		374.96		2.062E-02	8.933E-02	1.510E-01	8.396E-03	0.136
I-131		80.18		-5.566E-01	8.781E-01	1.354E+00	1.081E-01	-0.411
		284.30		2.395E-01	4.224E-01	7.352E-01	4.723E-02	0.326
		364.48	*	3.972E-03	2.970E-02	4.982E-02	3.119E-03	0.080
		636.97		2.968E-01	4.498E-01	7.914E-01	5.219E-02	0.375
		722.89		-6.769E-01	1.865E+00	2.838E+00	1.924E-01	-0.239
TE-132		49.72		-5.961E-01	1.258E+00	1.983E+00	1.442E-01	-0.301
		111.76		1.297E+00	2.686E+00	4.495E+00	3.646E-01	0.289
		116.30		-1.576E+00	2.502E+00	3.810E+00	3.044E-01	-0.414
		228.16	*	5.384E-02	6.882E-02	1.215E-01	1.597E-02	0.443
BA-133		53.15		-9.343E-01	1.070E+00	1.614E+00	1.051E-01	-0.579
		79.62		-1.758E-01	4.629E-01	7.286E-01	1.081E-01	-0.241
		81.00		-1.567E-02	3.585E-02	5.613E-02	8.740E-03	-0.279
		276.40		-9.728E-03	1.772E-01	2.941E-01	3.817E-02	-0.033
		302.84		1.929E-02	7.509E-02	1.275E-01	1.489E-02	0.151
		356.01	*	-3.177E-03	2.166E-02	3.532E-02	4.060E-03	-0.090

---- Non-Identified Nuclides ----

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		383.85		-5.353E-02	1.550E-01	2.465E-01	2.641E-02	-0.217
I-133	+	510.53		1.077E-03	1.550E-01	Half-Life too short		
		529.87	*	1.352E-06	1.550E-01	Half-Life too short		
		706.58		1.843E-05	1.550E-01	Half-Life too short		
		856.28		2.146E-04	1.550E-01	Half-Life too short		
		875.33		5.016E-05	1.550E-01	Half-Life too short		
		1236.41		1.912E-04	1.550E-01	Half-Life too short		
		1298.22		3.638E-04	1.550E-01	Half-Life too short		
CS-134		475.35		-4.742E-01	1.107E+00	1.406E+00	8.127E-02	-0.337
		563.23		-3.603E-02	2.102E-01	3.357E-01	2.040E-02	-0.107
		569.32		1.268E-01	1.241E-01	2.227E-01	1.366E-02	0.569
		604.70		-1.945E-02	2.036E-02	2.935E-02	1.765E-03	-0.663
		795.84	*	1.120E-02	2.214E-02	3.848E-02	3.029E-03	0.291
		801.93		-1.689E-01	2.393E-01	3.303E-01	2.624E-02	-0.511
		1038.57		1.211E+00	2.020E+00	3.663E+00	2.846E-01	0.331
		1167.94		-1.060E+00	1.127E+00	1.506E+00	8.448E-02	-0.704
		1365.15		-3.166E-01	7.824E-01	1.183E+00	8.957E-02	-0.268
CS-135		268.24	*	3.101E-02	7.378E-02	1.275E-01	9.778E-03	0.243
I-135		288.45		6.684E+01	7.378E-02	Half-Life too short		
		417.63		1.059E+02	7.378E-02	Half-Life too short		
		546.56		-5.285E+00	7.378E-02	Half-Life too short		
		836.80		6.405E+01	7.378E-02	Half-Life too short		
		1038.76		4.280E+01	7.378E-02	Half-Life too short		
		1124.00		5.382E+00	7.378E-02	Half-Life too short		
		1131.51		4.898E+00	7.378E-02	Half-Life too short		
		1260.41	*	1.393E+01	7.378E-02	Half-Life too short		
		1457.56		-2.770E+01	7.378E-02	Half-Life too short		
		1678.03		-2.220E+01	7.378E-02	Half-Life too short		
		1706.46		-8.098E+00	7.378E-02	Half-Life too short		
		1791.20		1.479E+01	7.378E-02	Half-Life too short		
CS-136		66.91		-2.899E-01	2.144E-01	2.972E-01	4.334E-02	-0.976
		86.29		5.277E-02	3.058E-01	4.651E-01	5.957E-02	0.113
		153.22		-8.126E-02	2.023E-01	3.126E-01	2.272E-02	-0.260
		163.89		3.347E-01	3.521E-01	6.039E-01	4.205E-02	0.554
		176.55		5.222E-02	1.130E-01	1.877E-01	1.159E-02	0.278
		273.65		8.007E-02	1.388E-01	2.429E-01	1.611E-02	0.330
		340.57		9.916E-03	4.279E-02	7.240E-02	4.416E-03	0.137
		818.51		-1.800E-02	2.484E-02	3.679E-02	2.995E-03	-0.489
		1048.07	*	-8.547E-04	3.721E-02	6.158E-02	4.949E-03	-0.014
		1235.34		-3.181E-02	1.460E-01	2.297E-01	2.336E-02	-0.138
BA-137M		661.65	*	-1.063E-02	1.879E-02	2.788E-02	1.658E-03	-0.381
CS-137		661.65	*	-1.123E-02	1.986E-02	2.947E-02	1.759E-03	-0.381
CE-139		165.85	*	5.521E-03	1.391E-02	2.295E-02	1.232E-03	0.241
BA-140		162.64		4.250E-02	2.451E-01	3.974E-01	2.485E-02	0.107
		304.84		3.199E-01	4.367E-01	7.576E-01	2.068E-01	0.422
		423.70		-1.088E-02	6.214E-01	1.021E+00	3.240E-01	-0.011
		537.32	*	5.565E-02	9.251E-02	1.593E-01	5.184E-02	0.349
LA-140		328.77		1.034E-01	9.120E-02	1.670E-01	1.081E-02	0.619
		432.53		-4.102E-02	6.858E-01	1.120E+00	7.001E-02	-0.037

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		487.03		-3.254E-02	5.278E-02	8.029E-02	5.282E-03	-0.405
		751.79		5.566E-02	4.616E-01	7.612E-01	6.280E-02	0.073
		815.85		-2.764E-02	1.041E-01	1.675E-01	1.532E-02	-0.165
		867.82		1.548E-01	4.527E-01	7.977E-01	7.453E-02	0.194
		919.63		2.740E-01	9.804E-01	1.705E+00	1.894E-01	0.161
		925.24		-1.625E-01	4.043E-01	6.325E-01	6.098E-02	-0.257
		1596.49	*	1.229E-02	3.486E-02	6.116E-02	4.054E-03	0.201
CE-141		145.44	*	-3.239E-03	2.704E-02	4.064E-02	2.593E-03	-0.080
CE-143		57.37		3.601E-01	7.946E+00	1.302E+01	1.055E+00	0.028
		231.56		-2.298E+01	3.482E+01	4.598E+01	1.421E+01	-0.500
		293.26	*	-1.018E+00	1.335E+00	2.026E+00	4.147E-01	-0.502
		350.59		-4.222E+01	2.507E+01	2.772E+01	8.406E+00	-1.523
		490.36		1.988E+00	3.720E+01	6.128E+01	1.895E+01	0.032
		664.57		-2.982E+00	1.535E+01	2.408E+01	7.632E+00	-0.124
		721.93		-3.749E+00	1.624E+01	2.519E+01	7.218E+00	-0.149
CE-144		80.11		-4.810E-01	7.527E-01	1.160E+00	9.239E-02	-0.415
		133.54	*	2.419E-02	8.626E-02	1.418E-01	2.065E-02	0.171
PM-144		476.78		-3.100E-02	3.917E-02	4.658E-02	3.227E-03	-0.665
		618.01		-1.228E-02	1.797E-02	2.589E-02	1.635E-03	-0.474
		696.49	*	7.838E-04	1.956E-02	3.176E-02	2.034E-03	0.025
		778.57		7.035E-01	1.070E+00	1.908E+00	1.440E-01	0.369
PR-144		696.49	*	5.291E-02	1.320E+00	2.143E+00	1.372E-01	0.025
		1489.15		-5.035E+00	7.830E+00	1.095E+01	7.559E-01	-0.460
PM-146		453.90	*	-5.132E-03	2.351E-02	3.767E-02	3.224E-03	-0.136
		633.02		4.299E-01	7.099E-01	1.222E+00	4.502E-01	0.352
		735.90		2.516E-02	7.161E-02	1.215E-01	3.420E-02	0.207
		747.13		2.596E-02	4.341E-02	7.660E-02	1.008E-02	0.339
ND-147		91.11		7.798E-02	8.541E-02	1.299E-01	1.193E-02	0.601
		319.41		-5.666E-01	1.064E+00	1.678E+00	9.734E-02	-0.338
		439.89		7.861E-01	1.809E+00	3.121E+00	1.766E-01	0.252
		531.02	*	5.459E-02	1.911E-01	3.226E-01	4.378E-02	0.169
PM-149		285.90	*	-9.282E-01	4.741E+00	7.770E+00	1.101E+00	-0.119
EU-152		121.78		-2.852E-02	3.315E-02	4.924E-02	4.259E-03	-0.579
		244.69		9.729E-02	1.576E-01	2.475E-01	1.425E-02	0.393
		344.27	*	3.300E-04	5.286E-02	8.766E-02	5.671E-03	0.004
		443.98		-1.814E-01	4.727E-01	7.401E-01	4.198E-02	-0.245
		778.89		6.740E-02	1.264E-01	2.213E-01	1.671E-02	0.305
		867.32		2.402E-01	4.000E-01	7.304E-01	6.494E-02	0.329
		964.01		-1.462E-02	1.432E-01	2.351E-01	2.050E-02	-0.062
		1085.78		-1.640E-01	1.758E-01	2.323E-01	1.639E-02	-0.706
		1112.02		7.679E-03	1.599E-01	2.670E-01	1.768E-02	0.029
		1407.95		-5.512E-02	8.371E-02	1.111E-01	7.828E-03	-0.496
GD-153		69.67		-2.655E-03	5.542E-01	9.015E-01	6.446E-02	-0.003
		83.37		1.768E+00	5.575E+00	9.243E+00	7.643E-01	0.191
		97.43	*	1.457E-02	3.422E-02	5.075E-02	4.070E-03	0.287
		103.18		2.494E-03	4.093E-02	6.647E-02	5.128E-03	0.038
EU-154		123.07		1.303E-02	2.318E-02	3.896E-02	3.986E-03	0.334
		247.94		-1.217E-01	1.688E-01	2.638E-01	2.512E-02	-0.461
		591.81		-2.058E-02	3.553E-01	5.735E-01	5.667E-02	-0.036

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		723.30		-3.729E-02	8.891E-02	1.340E-01	1.058E-02	-0.278
		756.87		6.952E-02	3.172E-01	5.323E-01	5.867E-02	0.131
		873.19		-1.498E-01	1.445E-01	1.951E-01	2.439E-02	-0.768
		996.32		-2.064E-01	1.807E-01	2.291E-01	4.039E-02	-0.901
		1004.76		-6.887E-02	1.029E-01	1.477E-01	1.677E-02	-0.466
		1274.45	*	5.170E-02	5.509E-02	1.065E-01	1.044E-02	0.485
EU-155		48.70		3.579E-01	7.506E-01	1.271E+00	8.142E-02	0.282
		60.01		-2.188E+00	1.808E+00	2.650E+00	1.761E-01	-0.826
		86.54		-1.950E-03	4.288E-02	6.230E-02	5.407E-03	-0.031
		105.31	*	-9.137E-04	4.296E-02	6.924E-02	5.360E-03	-0.013
TB-160		86.79		-3.649E-02	1.085E-01	1.541E-01	1.328E-02	-0.237
		197.04		2.778E-01	2.386E-01	4.336E-01	2.403E-02	0.641
		215.65		-1.038E-02	3.135E-01	5.250E-01	2.962E-02	-0.020
		298.57		-6.235E-03	4.984E-02	8.203E-02	4.784E-03	-0.076
		879.36	*	5.264E-03	6.632E-02	1.123E-01	1.020E-02	0.047
		962.29		1.018E-01	2.279E-01	4.053E-01	3.542E-02	0.251
		966.15		3.138E-03	8.980E-02	1.505E-01	1.308E-02	0.021
		1177.93		-1.245E-01	1.603E-01	2.261E-01	1.256E-02	-0.551
		1271.85		1.838E-01	3.042E-01	5.586E-01	3.627E-02	0.329
HO-166M		80.57		-5.958E-02	9.843E-02	1.522E-01	1.218E-02	-0.391
	+	184.41		6.433E-03	2.236E-02	3.025E-02	1.655E-03	0.213
		280.46		7.450E-04	4.447E-02	7.425E-02	4.330E-03	0.010
		410.95		4.514E-02	1.261E-01	2.154E-01	1.192E-02	0.209
		711.68	*	-5.518E-03	2.935E-02	4.590E-02	3.033E-03	-0.120
		752.31		-5.770E-02	1.104E-01	1.576E-01	1.130E-02	-0.366
		810.29		-1.744E-02	3.269E-02	4.776E-02	3.828E-03	-0.365
TM-171		51.35		6.236E-01	9.048E+00	1.488E+01	9.647E-01	0.042
		52.39		-2.972E-01	4.519E+00	7.345E+00	4.776E-01	-0.040
		59.40		-4.491E+00	9.282E+00	1.443E+01	9.557E-01	-0.311
		66.72	*	-1.256E+01	1.106E+01	1.586E+01	1.106E+00	-0.792
LU-176		88.36		2.800E-02	8.258E-02	1.209E-01	1.053E-02	0.232
		201.83		-1.396E-02	1.377E-02	2.141E-02	1.192E-03	-0.652
		306.84	*	-2.952E-04	1.233E-02	2.046E-02	1.191E-03	-0.014
		401.10		2.527E+00	3.326E+00	5.916E+00	3.245E-01	0.427
LU-177		112.95		4.003E-01	3.293E-01	5.793E-01	4.254E-02	0.691
		208.36	*	-1.832E-01	2.314E-01	3.657E-01	2.049E-02	-0.501
LU-177M		52.97		-2.844E-01	4.590E-01	7.089E-01	4.616E-02	-0.401
		54.07		-1.823E-01	2.489E-01	3.806E-01	2.484E-02	-0.479
		61.30		-3.720E-01	5.280E-01	8.090E-01	5.423E-02	-0.460
		121.62		-1.015E-01	1.610E-01	2.446E-01	1.739E-02	-0.415
		147.16		-4.445E-02	2.863E-01	4.529E-01	2.761E-02	-0.098
		171.86		-1.423E-01	2.248E-01	3.388E-01	1.828E-02	-0.420
		218.09		8.791E-02	3.718E-01	6.357E-01	3.594E-02	0.138
		268.79		1.614E-01	3.523E-01	6.110E-01	3.555E-02	0.264
		319.02		-7.486E-02	1.244E-01	1.943E-01	1.128E-02	-0.385
		367.43		-1.340E-01	4.238E-01	6.763E-01	3.791E-02	-0.198
		413.65	*	-8.603E-02	9.104E-02	1.344E-01	7.449E-03	-0.640
HF-181		56.28		-1.374E-01	2.611E-01	4.073E-01	2.672E-02	-0.337
		57.53		3.777E-02	1.417E-01	2.363E-01	1.556E-02	0.160

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		65.20		2.989E-01	3.148E-01	5.241E-01	3.611E-02	0.570
		133.02		2.295E-02	2.376E-02	4.134E-02	2.747E-03	0.555
		136.25		-1.472E-01	1.826E-01	2.722E-01	1.774E-02	-0.541
		345.85		7.256E-02	8.953E-02	1.590E-01	9.087E-03	0.456
		482.03	*	8.000E-03	1.922E-02	3.306E-02	1.918E-03	0.242
W-181		56.28		-5.809E-02	1.106E-01	1.725E-01	1.132E-02	-0.337
		57.53		1.597E-02	6.008E-02	1.002E-01	6.595E-03	0.159
		65.20	*	1.257E-01	1.324E-01	2.204E-01	1.518E-02	0.570
TA-182		67.75		-2.850E-02	3.800E-02	5.838E-02	4.105E-03	-0.488
		100.10		2.245E-02	7.171E-02	1.106E-01	8.701E-03	0.203
		152.43		-1.292E-02	1.428E-01	2.269E-01	1.338E-02	-0.057
		222.10		-6.964E-02	1.506E-01	2.432E-01	1.379E-02	-0.286
		1001.68		2.194E-01	9.676E-01	1.614E+00	1.334E-01	0.136
		1121.28		9.380E-03	6.347E-02	1.076E-01	6.955E-03	0.087
		1189.05		2.953E-02	1.380E-01	2.362E-01	1.338E-02	0.125
		1221.42	*	1.381E-02	7.004E-02	1.202E-01	7.192E-03	0.115
		1230.97		-2.441E-03	1.664E-01	2.734E-01	1.661E-02	-0.009
RE-183		57.98		3.518E-02	5.770E-02	9.869E-02	6.507E-03	0.356
		59.32		-1.728E-02	3.571E-02	5.551E-02	3.676E-03	-0.311
		67.20		-1.107E-01	7.396E-02	1.027E-01	7.189E-03	-1.078
		162.32	*	-1.756E-02	5.037E-02	7.824E-02	4.309E-03	-0.224
		208.81		-4.799E-01	4.101E-01	6.257E-01	3.508E-02	-0.767
		291.72		-3.878E-01	3.871E-01	5.785E-01	3.375E-02	-0.670
RE-184		57.98		1.353E-01	2.220E-01	3.797E-01	2.503E-02	0.356
		59.32		-6.642E-02	1.373E-01	2.134E-01	1.413E-02	-0.311
		67.20		-4.258E-01	2.844E-01	3.950E-01	2.765E-02	-1.078
		161.27		-1.672E-01	1.750E-01	2.577E-01	1.430E-02	-0.649
		216.55		-1.033E-02	1.174E-01	1.958E-01	1.105E-02	-0.053
		252.85	*	1.628E-02	1.056E-01	1.789E-01	1.035E-02	0.091
		318.01		-1.033E-01	2.108E-01	3.329E-01	1.933E-02	-0.310
		792.07		3.091E-01	4.329E-01	7.796E-01	6.039E-02	0.396
		903.28		-1.513E-01	4.558E-01	7.190E-01	6.711E-02	-0.210
		920.93		4.604E-02	2.282E-01	3.928E-01	3.602E-02	0.117
OS-185		59.72		-9.208E-02	1.007E-01	1.512E-01	1.003E-02	-0.609
		61.14		-4.598E-02	5.639E-02	8.559E-02	5.731E-03	-0.537
		69.30		-1.824E-03	9.585E-02	1.558E-01	1.110E-02	-0.012
		592.07		1.381E-02	1.406E+00	2.289E+00	1.369E-01	0.006
		646.12	*	9.635E-03	1.862E-02	3.262E-02	1.945E-03	0.295
		717.42		2.130E-01	4.176E-01	7.264E-01	4.857E-02	0.293
		874.81		2.906E-02	2.548E-01	4.348E-01	3.918E-02	0.067
		880.27		4.057E-02	3.684E-01	6.271E-01	5.705E-02	0.065
RE-188		155.03	*	4.474E-03	7.231E-02	1.164E-01	6.743E-03	0.038
		477.96		-6.482E-01	1.333E+00	2.038E+00	1.179E-01	-0.318
		633.10		8.677E-01	1.311E+00	2.324E+00	1.388E-01	0.373
W-188		63.58		-9.452E+00	1.842E+01	2.971E+01	2.023E+00	-0.318
		227.08		2.026E+00	5.627E+00	9.693E+00	5.519E-01	0.209
		290.67	*	-2.839E+00	3.119E+00	4.723E+00	2.755E-01	-0.601
IR-192		295.96		2.550E-02	4.304E-02	7.553E-02	4.475E-03	0.338
		308.46		-1.606E-02	4.340E-02	6.956E-02	4.095E-03	-0.231

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		316.51	*	4.739E-03	1.577E-02	2.694E-02	1.572E-03	0.176
		468.07		-7.631E-03	2.938E-02	4.657E-02	3.096E-03	-0.164
		604.41		-1.429E-01	2.543E-01	3.855E-01	4.412E-02	-0.371
		612.46		-5.684E-02	3.785E-01	6.037E-01	4.656E-02	-0.094
AU-195		65.12		6.225E-02	6.242E-02	1.042E-01	7.176E-03	0.597
		66.83		-4.067E-02	3.584E-02	5.137E-02	3.585E-03	-0.792
		75.70		5.943E-02	6.711E-02	1.042E-01	7.904E-03	0.570
		98.88	*	9.878E-03	9.849E-02	1.408E-01	1.117E-02	0.070
		129.76		-9.333E-01	1.162E+00	1.730E+00	1.172E-01	-0.539
TL-200		367.94	*	-1.493E+00	1.966E+00	2.971E+00	1.665E-01	-0.502
		579.30		-1.179E+01	1.547E+01	2.243E+01	1.340E+00	-0.525
		828.27		-5.343E+00	2.290E+01	3.713E+01	3.077E+00	-0.144
		1205.75		-1.624E+00	8.290E+00	1.310E+01	7.632E-01	-0.124
TL-201		68.90		-1.080E-01	3.030E-01	4.798E-01	3.408E-02	-0.225
		70.82		3.126E-02	1.695E-01	2.796E-01	2.020E-02	0.112
		80.30		-2.092E-01	3.348E-01	5.167E-01	4.123E-02	-0.405
		135.34		-4.549E-01	2.064E+00	3.251E+00	2.130E-01	-0.140
		167.43	*	-4.044E-01	6.451E-01	9.768E-01	5.247E-02	-0.414
TL-202		68.90		-3.460E-02	9.708E-02	1.537E-01	1.092E-02	-0.225
		70.82		9.987E-03	5.416E-02	8.931E-02	6.454E-03	0.112
		80.30		-6.687E-02	1.070E-01	1.651E-01	1.317E-02	-0.405
		439.56	*	1.394E-02	2.241E-02	3.946E-02	2.231E-03	0.353
HG-203		70.83		5.789E-02	3.201E-01	5.277E-01	6.738E-02	0.110
		72.87		-4.387E-02	1.912E-01	3.057E-01	3.797E-02	-0.144
		82.60		3.610E-01	3.689E-01	6.353E-01	8.564E-02	0.568
		279.20	*	-1.051E-02	1.859E-02	2.952E-02	1.827E-03	-0.356
BI-207		72.80		-1.648E-02	6.250E-02	9.966E-02	7.340E-03	-0.165
		74.97		1.588E-02	3.914E-02	5.888E-02	4.432E-03	0.270
		84.90		1.552E-02	7.937E-02	1.209E-01	1.018E-02	0.128
		569.67		1.981E-02	1.968E-02	3.524E-02	2.102E-03	0.562
		1063.62	*	1.985E-03	2.322E-02	3.916E-02	2.898E-03	0.051
		1770.23		-1.321E-01	2.639E-01	3.547E-01	2.119E-02	-0.372
TL-207		81.07		-3.151E-02	7.930E-02	1.248E-01	1.004E-02	-0.253
		83.78		-2.670E-03	4.906E-02	7.926E-02	6.586E-03	-0.034
		94.90		1.724E-01	1.118E-01	1.800E-01	1.473E-02	0.958
		122.32		-3.409E-01	7.993E-01	1.240E+00	9.731E-02	-0.275
		144.24		4.382E-02	3.398E-01	5.213E-01	3.944E-02	0.084
		154.21		-8.245E-02	1.835E-01	2.824E-01	1.987E-02	-0.292
		269.46		5.475E-03	8.753E-02	1.469E-01	8.933E-03	0.037
		323.87	*	-5.362E-02	3.165E-01	5.166E-01	8.530E-02	-0.104
		338.28		1.022E-01	4.848E-01	8.194E-01	8.606E-02	0.125
		445.03		-8.116E-01	1.100E+00	1.630E+00	1.663E-01	-0.498
TL-208		277.35		-8.779E-02	1.865E-01	2.984E-01	3.156E-02	-0.294
	+	510.84		1.864E-01	1.625E-01	2.654E-01	2.706E-02	0.702
		583.14	*	-9.368E-03	2.003E-02	3.003E-02	2.054E-03	-0.312
		860.37		-3.412E-02	1.435E-01	2.319E-01	2.181E-02	-0.147
PO-209		260.50		6.813E-01	4.738E+00	8.011E+00	4.649E-01	0.085
		262.80		-3.201E-01	1.371E+01	2.287E+01	1.328E+00	-0.014
		896.60	*	1.881E+00	3.189E+00	5.875E+00	5.498E-01	0.320

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BI-210		46.50	*	-1.130E+00	1.181E+00	1.852E+00	1.373E-01	-0.610
PB-210		46.50	*	-1.130E+00	1.181E+00	1.852E+00	1.373E-01	-0.610
PO-210		46.50	*	-1.130E+00	1.180E+00	1.852E+00	1.162E-01	-0.610
BI-211		72.87		-2.463E-01	1.073E+00	1.716E+00	1.265E-01	-0.144
		351.07	*	-2.036E-01	1.134E-01	1.470E-01	9.312E-03	-1.385
PB-211		404.84	*	-1.014E-01	5.028E-01	8.054E-01	5.019E-01	-0.126
		427.08		7.147E-02	1.025E+00	1.698E+00	1.049E+00	0.042
		831.96		-8.134E-01	8.129E-01	8.545E-01	5.352E-01	-0.952
BI-212		727.18	*	1.451E-02	1.468E-01	2.402E-01	2.043E-02	0.060
		785.46		2.874E-01	7.730E-01	1.325E+00	1.014E-01	0.217
		1620.62		-1.143E-01	6.087E-01	9.303E-01	6.095E-02	-0.123
PB-212		74.81		3.337E-02	1.364E-01	2.031E-01	2.436E-02	0.164
		77.11		-1.304E-02	6.920E-02	1.108E-01	8.534E-03	-0.118
		87.30		-4.769E-03	1.618E-01	2.417E-01	3.199E-02	-0.020
	+	238.63	*	3.658E-02	5.473E-02	5.572E-02	4.058E-03	0.657
		300.09		4.525E-04	3.823E-01	6.362E-01	5.262E-02	0.001
PO-212		74.81		3.337E-02	1.364E-01	2.031E-01	2.436E-02	0.164
		77.11		-1.304E-02	6.920E-02	1.108E-01	8.534E-03	-0.118
		87.30		-4.769E-03	1.618E-01	2.417E-01	3.199E-02	-0.020
		115.19		2.002E-01	1.612E+00	2.624E+00	1.909E-01	0.076
	+	238.63	*	3.658E-02	5.473E-02	5.572E-02	4.058E-03	0.657
		300.09		4.525E-04	3.823E-01	6.362E-01	5.262E-02	0.001
BI-214		609.31	*	-3.882E-02	4.484E-02	6.639E-02	5.255E-03	-0.585
		1120.29		3.834E-02	1.508E-01	2.592E-01	2.401E-02	0.148
		1764.49		-2.016E-02	1.478E-01	2.422E-01	1.453E-02	-0.083
PB-214		74.81		5.750E-02	2.350E-01	3.500E-01	3.693E-02	0.164
		77.11		-2.236E-02	1.186E-01	1.900E-01	2.058E-02	-0.118
		87.30		-8.170E-03	2.772E-01	4.140E-01	4.804E-02	-0.020
		241.98		8.500E-02	1.682E-01	2.596E-01	2.085E-02	0.327
		295.21		8.550E-03	6.042E-02	1.019E-01	8.714E-03	0.084
		351.92	*	-4.589E-02	3.834E-02	5.347E-02	4.388E-03	-0.858
PO-214		74.81		5.750E-02	2.350E-01	3.500E-01	3.693E-02	0.164
		77.11		-2.236E-02	1.186E-01	1.900E-01	2.058E-02	-0.118
		87.30		-8.170E-03	2.772E-01	4.140E-01	4.804E-02	-0.020
		241.98		8.500E-02	1.682E-01	2.596E-01	2.085E-02	0.327
		295.21		8.550E-03	6.042E-02	1.019E-01	8.714E-03	0.084
		351.92	*	-4.589E-02	3.834E-02	5.347E-02	4.388E-03	-0.858
PO-215		81.07		-3.151E-02	7.930E-02	1.248E-01	1.004E-02	-0.253
		83.78		-2.670E-03	4.906E-02	7.926E-02	6.586E-03	-0.034
		94.90		1.724E-01	1.118E-01	1.800E-01	1.473E-02	0.958
		122.32		-3.409E-01	7.993E-01	1.240E+00	9.731E-02	-0.275
		144.24		4.382E-02	3.398E-01	5.213E-01	3.944E-02	0.084
		154.21		-8.245E-02	1.835E-01	2.824E-01	1.987E-02	-0.292
		269.46		5.475E-03	8.753E-02	1.469E-01	8.933E-03	0.037
		323.87	*	-5.362E-02	3.165E-01	5.166E-01	8.530E-02	-0.104
		338.28		1.022E-01	4.848E-01	8.194E-01	8.606E-02	0.125
		445.03		-8.116E-01	1.100E+00	1.630E+00	1.663E-01	-0.498
PO-216		74.81		3.337E-02	1.364E-01	2.031E-01	2.436E-02	0.164
		77.11		-1.304E-02	6.920E-02	1.108E-01	8.534E-03	-0.118

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		87.30		-4.769E-03	1.618E-01	2.417E-01	3.199E-02	-0.020
	+	238.63	*	3.658E-02	5.473E-02	5.572E-02	4.058E-03	0.657
		300.09		4.525E-04	3.823E-01	6.362E-01	5.262E-02	0.001
PO-218		74.81		5.750E-02	2.350E-01	3.500E-01	3.693E-02	0.164
		77.11		-2.236E-02	1.186E-01	1.900E-01	2.058E-02	-0.118
		87.30		-8.170E-03	2.772E-01	4.140E-01	4.804E-02	-0.020
		241.98		8.500E-02	1.682E-01	2.596E-01	2.085E-02	0.327
		295.21		8.550E-03	6.042E-02	1.019E-01	8.714E-03	0.084
		351.92	*	-4.589E-02	3.834E-02	5.347E-02	4.388E-03	-0.858
RN-219		271.23		-1.097E-01	1.153E-01	1.759E-01	1.429E-02	-0.623
		401.81	*	1.564E-01	2.084E-01	3.685E-01	4.966E-02	0.424
RN-220		549.76	*	4.114E+00	1.377E+01	2.330E+01	1.385E+00	0.177
RA-223		81.07		-3.151E-02	7.930E-02	1.248E-01	1.004E-02	-0.253
		83.78		-2.670E-03	4.906E-02	7.926E-02	6.586E-03	-0.034
		94.90		1.724E-01	1.118E-01	1.800E-01	1.473E-02	0.958
		122.32		-3.409E-01	7.993E-01	1.240E+00	9.731E-02	-0.275
		144.24		4.382E-02	3.398E-01	5.213E-01	3.944E-02	0.084
		154.21		-8.245E-02	1.835E-01	2.824E-01	1.987E-02	-0.292
		269.46		5.475E-03	8.753E-02	1.469E-01	8.933E-03	0.037
		323.87	*	-5.362E-02	3.165E-01	5.166E-01	8.530E-02	-0.104
		338.28		1.022E-01	4.848E-01	8.194E-01	8.606E-02	0.125
		445.03		-8.116E-01	1.100E+00	1.630E+00	1.663E-01	-0.498
RA-224		240.98	*	2.135E-01	3.447E-01	5.359E-01	3.080E-02	0.398
RA-226		609.31	*	-3.882E-02	4.484E-02	6.639E-02	5.255E-03	-0.585
		1120.29		3.834E-02	1.508E-01	2.592E-01	2.401E-02	0.148
		1764.49		-2.016E-02	1.478E-01	2.422E-01	1.453E-02	-0.083
AC-227		79.80		-2.308E-01	5.887E-01	9.237E-01	1.962E-01	-0.250
		236.00		1.373E-01	1.159E-01	1.893E-01	1.971E-02	0.725
		256.20	*	-1.155E-01	1.842E-01	2.900E-01	4.048E-02	-0.398
		286.10		-2.744E-01	8.165E-01	1.322E+00	1.530E-01	-0.208
		299.80		-5.608E-01	7.317E-01	1.128E+00	1.838E-01	-0.497
		304.40		9.205E-01	9.556E-01	1.698E+00	2.938E-01	0.542
		334.20		-5.653E-01	1.105E+00	1.733E+00	3.174E-01	-0.326
TH-227		79.80		-2.308E-01	5.888E-01	9.237E-01	1.987E-01	-0.250
	+	94.00		4.254E-01	1.365E+00	1.646E+00	3.561E-01	0.258
		236.00		1.373E-01	1.157E-01	1.893E-01	1.706E-02	0.725
		256.20	*	-1.155E-01	1.845E-01	2.900E-01	4.900E-02	-0.398
		286.10		-2.744E-01	8.610E-01	1.322E+00	1.324E+00	-0.208
		299.80		-5.608E-01	7.317E-01	1.128E+00	1.838E-01	-0.497
		304.40		9.205E-01	9.556E-01	1.698E+00	2.938E-01	0.542
		334.20		-5.653E-01	1.105E+00	1.733E+00	3.174E-01	-0.326
AC-228		338.32		4.278E-02	1.161E-01	1.969E-01	8.024E-02	0.217
		911.07	*	4.236E-02	8.028E-02	1.351E-01	1.587E-02	0.313
		969.11		3.795E-02	1.165E-01	2.031E-01	4.744E-02	0.187
RA-228		338.32		4.278E-02	1.161E-01	1.969E-01	8.024E-02	0.217
		911.07	*	4.236E-02	8.028E-02	1.351E-01	1.587E-02	0.313
		969.11		3.795E-02	1.165E-01	2.031E-01	4.744E-02	0.187
TH-228		74.81		3.363E-02	1.374E-01	2.047E-01	1.555E-02	0.164
		77.11		-1.314E-02	6.973E-02	1.117E-01	8.600E-03	-0.118

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		87.30		-4.806E-03	1.631E-01	2.436E-01	2.112E-02	-0.020
	+	238.63	*	3.686E-02	5.516E-02	5.615E-02	4.090E-03	0.657
		300.09		4.560E-04	3.852E-01	6.412E-01	3.779E-01	0.001
TH-229		85.43		5.365E-02	7.825E-02	1.233E-01	1.045E-02	0.435
		88.47		-2.617E-03	4.907E-02	6.915E-02	6.017E-03	-0.038
		100.00		2.620E-02	7.798E-02	1.205E-01	9.490E-03	0.217
		193.63	*	-2.303E-01	2.351E-01	3.660E-01	2.021E-02	-0.629
		210.97		1.037E-01	3.292E-01	5.664E-01	3.182E-02	0.183
TH-230		609.31	*	-3.882E-02	4.484E-02	6.639E-02	5.255E-03	-0.585
		1120.29		3.834E-02	1.508E-01	2.592E-01	2.401E-02	0.148
		1764.49		-2.016E-02	1.478E-01	2.422E-01	1.453E-02	-0.083
PA-231		283.67	*	3.050E-01	8.166E-01	1.400E+00	1.931E-01	0.218
		301.29		-5.661E-02	2.835E-01	4.636E-01	4.853E-02	-0.122
TH-231		81.07		-3.151E-02	7.930E-02	1.248E-01	1.004E-02	-0.253
		83.78		-2.670E-03	4.906E-02	7.926E-02	6.586E-03	-0.034
		94.90		1.724E-01	1.118E-01	1.800E-01	1.473E-02	0.958
		122.32		-3.409E-01	7.993E-01	1.240E+00	9.731E-02	-0.275
		144.24		4.382E-02	3.398E-01	5.213E-01	3.944E-02	0.084
		154.21		-8.245E-02	1.835E-01	2.824E-01	1.987E-02	-0.292
		269.46		5.475E-03	8.753E-02	1.469E-01	8.933E-03	0.037
		323.87	*	-5.362E-02	3.165E-01	5.166E-01	8.530E-02	-0.104
		338.28		1.022E-01	4.848E-01	8.194E-01	8.606E-02	0.125
		445.03		-8.116E-01	1.100E+00	1.630E+00	1.663E-01	-0.498
U-231		84.21		-9.502E-02	6.764E-01	1.008E+00	8.416E-02	-0.094
	+	92.29		1.233E-01	3.948E-01	4.853E-01	4.064E-02	0.254
		95.87	*	5.684E-02	1.437E-01	2.119E-01	1.720E-02	0.268
		108.00		-1.132E-01	2.439E-01	3.773E-01	2.835E-02	-0.300
TH-232		338.32		4.278E-02	1.148E-01	1.969E-01	1.131E-02	0.217
		911.07	*	4.236E-02	8.028E-02	1.351E-01	1.587E-02	0.313
		969.11		3.795E-02	1.165E-01	2.031E-01	4.744E-02	0.187
PA-233		75.28		4.902E-01	1.145E+00	1.725E+00	2.549E-01	0.284
		86.59		-4.839E-02	6.979E-01	1.011E+00	2.712E-01	-0.048
		300.12		1.299E-03	1.976E-01	3.291E-01	4.426E-02	0.004
		311.98	*	-1.834E-02	3.038E-02	4.737E-02	2.925E-03	-0.387
		340.50		7.712E-02	3.079E-01	5.210E-01	1.196E-01	0.148
		398.62		-5.675E-02	1.009E+00	1.653E+00	4.263E-01	-0.034
		415.76		3.750E-01	8.614E-01	1.478E+00	3.033E-01	0.254
PA-234		63.00		-5.631E-01	5.968E-01	9.261E-01	1.348E-01	-0.608
	+	94.67		3.794E-02	1.215E-01	1.380E-01	1.671E-02	0.275
		98.44		6.007E-03	4.136E-02	5.926E-02	3.300E-02	0.101
		99.86		1.033E-01	1.944E-01	3.065E-01	2.415E-02	0.337
		111.00		-1.740E-02	8.010E-02	1.268E-01	1.428E-02	-0.137
		131.20		-8.853E-03	4.447E-02	7.020E-02	4.715E-03	-0.126
		152.70		-1.298E-02	1.439E-01	2.285E-01	3.620E-02	-0.057
	+	186.00		2.316E-01	8.080E-01	1.114E+00	3.399E-01	0.208
		226.40		-1.247E-02	1.861E-01	3.104E-01	3.571E-02	-0.040
		227.20		8.377E-02	2.056E-01	3.553E-01	2.023E-02	0.236
		248.90		-3.276E-01	3.913E-01	5.955E-01	1.279E-01	-0.550
		293.70		-2.388E-01	2.899E-01	4.392E-01	7.069E-02	-0.544

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		369.80		-1.322E-01	4.273E-01	6.817E-01	1.416E-01	-0.194
		568.70		5.541E-01	6.442E-01	1.139E+00	6.792E-02	0.487
		569.50		1.728E-01	1.743E-01	3.119E-01	1.861E-02	0.554
		574.00		5.154E-01	8.609E-01	1.497E+00	8.938E-02	0.344
		699.00		2.639E-01	3.878E-01	6.781E-01	1.234E-01	0.389
		706.10		-1.877E-01	5.211E-01	7.824E-01	3.461E-01	-0.240
		733.00		-8.011E-02	1.847E-01	2.745E-01	5.926E-02	-0.292
		742.81		-3.757E-03	6.754E-01	1.087E+00	7.286E-01	-0.003
		796.30		1.641E-01	4.388E-01	7.445E-01	1.996E-01	0.220
		805.60		7.204E-01	5.506E-01	9.883E-01	3.011E-01	0.729
		819.60		-5.398E-01	6.423E-01	8.742E-01	3.316E-01	-0.617
		826.30		2.879E-01	4.598E-01	8.051E-01	3.597E-01	0.358
		831.60		-4.014E-01	3.456E-01	4.406E-01	1.311E-01	-0.911
		876.40		1.313E-01	4.118E-01	6.872E-01	7.067E-01	0.191
		880.51		-1.521E-03	1.378E-01	2.303E-01	2.096E-02	-0.007
		883.24		1.467E-02	1.405E-01	2.384E-01	1.604E-01	0.062
		899.00		-5.055E-02	3.687E-01	6.002E-01	2.633E-01	-0.084
		925.00		-2.872E-01	6.518E-01	1.016E+00	9.274E-02	-0.283
		926.50		1.487E-02	9.312E-02	1.591E-01	4.050E-02	0.093
		946.00	*	-1.370E-02	1.369E-01	2.244E-01	4.241E-02	-0.061
		949.00		-1.728E-01	1.933E-01	2.625E-01	2.332E-02	-0.658
		980.50		-7.773E-03	3.118E-01	5.170E-01	4.408E-02	-0.015
		1394.10		-1.394E-01	6.138E-01	9.391E-01	6.095E-01	-0.148
PA-234M		766.42		2.646E+00	5.120E+00	8.664E+00	4.379E+00	0.305
		1001.03	*	1.100E-01	2.287E+00	3.704E+00	3.581E-01	0.030
TH-234		63.29	*	-4.597E-01	5.118E-01	7.946E-01	1.366E-01	-0.579
	+	92.38		1.101E-01	3.529E-01	4.318E-01	7.756E-02	0.255
U-234		609.31	*	-3.882E-02	4.484E-02	6.639E-02	5.255E-03	-0.585
		1120.29		3.834E-02	1.508E-01	2.592E-01	2.401E-02	0.148
		1764.49		-2.016E-02	1.478E-01	2.422E-01	1.453E-02	-0.083
U-235		89.95		-3.456E-01	5.143E-01	6.639E-01	2.048E-01	-0.521
	+	93.35		1.324E-01	4.252E-01	5.226E-01	1.459E-01	0.253
		105.00		-4.048E-02	4.200E-01	6.722E-01	1.988E-01	-0.060
		143.76	*	9.054E-03	1.055E-01	1.615E-01	2.658E-02	0.056
		163.35		1.834E-01	2.288E-01	3.854E-01	6.890E-02	0.476
	+	185.71		8.578E-03	2.981E-02	4.121E-02	2.257E-03	0.208
		205.31		1.602E-01	2.574E-01	4.280E-01	7.668E-02	0.374
NP-236	+	94.67		2.877E-02	9.212E-02	1.048E-01	8.593E-03	0.275
		98.44		4.545E-03	3.117E-02	4.480E-02	3.566E-03	0.101
		111.00		-1.316E-02	6.057E-02	9.594E-02	7.106E-03	-0.137
		160.31	*	-3.394E-02	3.907E-02	5.787E-02	3.234E-03	-0.586
NP-237		86.50	*	-2.775E-03	1.050E-01	1.528E-01	3.416E-02	-0.018
		95.87		1.709E-01	4.337E-01	6.370E-01	1.558E-01	0.268
U-238		63.29	*	-4.597E-01	5.118E-01	7.946E-01	1.366E-01	-0.579
	+	92.38		1.101E-01	3.525E-01	4.318E-01	3.612E-02	0.255
NP-239		99.55		3.524E-02	6.705E-02	1.008E-01	7.958E-03	0.350
		117.00	*	-5.916E-02	8.402E-02	1.270E-01	9.179E-03	-0.466
		209.75		-2.814E-01	3.414E-01	5.364E-01	3.010E-02	-0.525
		228.18		8.586E-02	1.089E-01	1.930E-01	1.100E-02	0.445

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		-3.844E-02	8.901E-02	1.430E-01	8.335E-03	-0.269
		334.30		-3.016E-01	6.257E-01	9.882E-01	5.692E-02	-0.305
AM-241		59.54	*	-4.986E-02	5.611E-02	8.445E-02	6.270E-03	-0.590
AM-243		74.67	*	6.196E-03	2.221E-02	3.318E-02	2.490E-03	0.187
		86.72		-1.326E+00	3.989E+00	5.669E+00	4.882E-01	-0.234
		117.66		-1.679E+00	1.727E+00	2.545E+00	1.835E-01	-0.660
		142.18		-2.076E+00	8.304E+00	1.305E+01	8.208E-01	-0.159
CM-243		99.55		3.625E-02	6.896E-02	1.036E-01	8.185E-03	0.350
		103.76	*	1.124E-02	3.792E-02	6.284E-02	4.832E-03	0.179
		117.00		-6.083E-02	8.640E-02	1.306E-01	9.439E-03	-0.466
		209.75		-2.772E-01	3.364E-01	5.285E-01	2.966E-02	-0.525
		228.18		8.671E-02	1.099E-01	1.949E-01	1.111E-02	0.445
		277.60		-3.874E-02	8.969E-02	1.441E-01	8.399E-03	-0.269
AM-246		798.80		-9.520E-02	7.497E-02	9.275E-02	7.276E-03	-1.026
		1036.00		6.154E-02	1.474E-01	2.618E-01	2.043E-02	0.235
		1062.04		4.983E-02	1.022E-01	1.845E-01	1.370E-02	0.270
		1078.86	*	4.581E-02	6.675E-02	1.236E-01	8.859E-03	0.370
CM-247		278.00		-1.455E-01	3.602E-01	5.796E-01	3.379E-02	-0.251
		287.40		-3.684E-02	6.013E-01	9.964E-01	5.814E-02	-0.037
		402.60	*	1.161E-02	1.877E-02	3.291E-02	1.808E-03	0.353
CF-249		252.85		6.297E-02	4.084E-01	6.920E-01	4.003E-02	0.091
		333.44		-3.501E-02	8.143E-02	1.293E-01	7.451E-03	-0.271
		387.95	*	1.768E-02	2.142E-02	3.812E-02	2.084E-03	0.464
CF-251		176.60	*	2.663E-02	5.764E-02	9.570E-02	5.191E-03	0.278
		227.00		5.924E-02	1.813E-01	3.116E-01	1.774E-02	0.190
		285.00		8.174E-02	9.188E-01	1.543E+00	8.999E-02	0.053

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510      *
* Acquisition date : 12-FEB-2010 16:32:21 Detector SN#    :                 *
* Detector ID       : GAM14               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.52     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032510          Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.3621E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
ANH-511	4.025E-02	3.424E-02	2.230E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.023E-02	1.293E-01	2.072E-01	0.000E+00	NOT IDENT.
NA-22	1.844E-02	1.921E-02	3.819E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.178E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-7.550E-03	2.148E-02	3.203E-02	0.000E+00	NOT IDENT.
K-40	3.054E-02	2.614E-01	4.904E-01	0.000E+00	NOT IDENT.
TI-44	-1.736E-02	1.251E-02	1.952E-02	0.000E+00	NOT IDENT.
SC-46	5.975E-03	1.594E-02	2.928E-02	0.000E+00	NOT IDENT.
V-48	-7.357E-03	2.333E-02	3.777E-02	0.000E+00	NOT IDENT.
CR-51	-6.171E-02	1.545E-01	2.603E-01	0.000E+00	NOT IDENT.
MN-52	-1.881E-02	5.054E-02	7.711E-02	0.000E+00	NOT IDENT.
MN-54	1.225E-02	1.829E-02	3.444E-02	0.000E+00	NOT IDENT.
CO-56	1.214E-02	2.090E-02	3.877E-02	0.000E+00	NOT IDENT.
CO-57	-8.012E-03	1.110E-02	1.798E-02	0.000E+00	NOT IDENT.
CO-58	-8.907E-03	1.957E-02	3.006E-02	0.000E+00	NOT IDENT.
FE-59	6.925E-03	3.720E-02	6.548E-02	0.000E+00	NOT IDENT.
CO-60	2.908E-03	2.011E-02	3.482E-02	0.000E+00	NOT IDENT.
ZN-65	9.461E-03	4.439E-02	7.802E-02	0.000E+00	NOT IDENT.
GE-68	3.763E-01	5.590E-01	1.062E+00	0.000E+00	NOT IDENT.
AS-73	-2.427E-01	2.321E-01	3.752E-01	0.000E+00	NOT IDENT.
AS-74	2.507E-02	4.015E-02	7.260E-02	0.000E+00	NOT IDENT.
SE-75	2.941E-03	2.040E-02	3.643E-02	0.000E+00	NOT IDENT.
BR-77	3.102E-01	5.325E-01	9.800E-01	0.000E+00	FAIL ABUN
SR-82	-1.948E-02	1.457E-01	2.370E-01	0.000E+00	NOT IDENT.
RB-83	1.484E-02	2.865E-02	5.235E-02	0.000E+00	NOT IDENT.
RB-84	3.819E-03	2.947E-02	5.195E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	4.581E+00	8.876E+00	0.000E+00	NOT IDENT.

SR-85	0.000E+00	2.172E-02	4.209E-02	0.000E+00	NOT IDENT.
RB-86	5.205E-02	2.859E-01	5.032E-01	0.000E+00	NOT IDENT.
Y-88	1.912E-02	2.617E-02	4.948E-02	0.000E+00	NOT IDENT.
ZR-88	-1.058E-03	1.389E-02	2.385E-02	0.000E+00	NOT IDENT.
Y-91	-2.182E+00	6.816E+00	1.080E+01	0.000E+00	NOT IDENT.
NB-94	-7.495E-03	1.728E-02	2.711E-02	0.000E+00	NOT IDENT.
NB-95	6.448E-03	1.694E-02	3.000E-02	0.000E+00	NOT IDENT.
NB-95M	4.584E-02	5.599E-02	9.396E-02	0.000E+00	NOT IDENT.
ZR-95	-1.161E-02	2.824E-02	4.339E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.419E+01	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	8.387E+02	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.388E-01	8.737E-01	1.545E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.078E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.413E-03	1.478E-02	2.734E-02	0.000E+00	NOT IDENT.
RH-102	-5.850E-03	1.640E-02	2.191E-02	0.000E+00	NOT IDENT.
RU-103	-6.357E-03	1.648E-02	2.665E-02	0.000E+00	NOT IDENT.
RH-106	-4.423E-02	1.450E-01	2.329E-01	0.000E+00	FAIL ABUN
RU-106	-4.423E-02	1.449E-01	2.329E-01	0.000E+00	FAIL ABUN
AG-108M	-3.722E-03	1.589E-02	2.662E-02	0.000E+00	NOT IDENT.
CD-109	-3.321E-02	3.574E-01	5.409E-01	0.000E+00	NOT IDENT.
AG-110M	6.513E-03	1.794E-02	3.163E-02	0.000E+00	NOT IDENT.
IN-111	2.944E-02	8.350E-02	1.343E-01	0.000E+00	NOT IDENT.
IN-113M	3.866E-03	2.193E-02	3.863E-02	0.000E+00	NOT IDENT.
SN-113	3.866E-03	2.193E-02	3.863E-02	0.000E+00	NOT IDENT.
IN-114M	2.621E-02	7.864E-02	1.271E-01	0.000E+00	NOT IDENT.
CD-115	-2.377E-01	5.479E-01	8.808E-01	0.000E+00	NOT IDENT.
SN-117M	-4.045E-03	1.902E-02	3.068E-02	0.000E+00	NOT IDENT.
SB-122	-1.427E-01	1.897E-01	2.952E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.416E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-7.306E-03	1.397E-02	2.196E-02	0.000E+00	NOT IDENT.
I-124	8.030E-02	1.067E-01	1.957E-01	0.000E+00	NOT IDENT.
SB-124	4.186E-03	4.421E-02	7.491E-02	0.000E+00	NOT IDENT.
SB-125	9.778E-03	4.494E-02	7.931E-02	0.000E+00	NOT IDENT.
TE-125M	-1.379E+00	3.477E+00	5.819E+00	0.000E+00	NOT IDENT.
I-126	-9.546E-03	5.889E-02	9.660E-02	0.000E+00	NOT IDENT.
SB-126	-2.331E-02	4.747E-02	7.327E-02	0.000E+00	NOT IDENT.
SN-126	-1.989E-02	3.768E-02	5.465E-02	0.000E+00	NOT IDENT.
SB-127	9.534E-02	1.433E-01	2.683E-01	0.000E+00	NOT IDENT.
XE-127	2.116E-03	1.893E-02	3.407E-02	0.000E+00	NOT IDENT.
I-131	3.972E-03	2.910E-02	5.129E-02	0.000E+00	NOT IDENT.
TE-132	5.384E-02	6.744E-02	1.261E-01	0.000E+00	NOT IDENT.
BA-133	-3.177E-03	2.122E-02	3.638E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.426E+00	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.120E-02	2.169E-02	3.904E-02	0.000E+00	NOT IDENT.
CS-135	3.101E-02	7.231E-02	1.320E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.858E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.547E-04	3.647E-02	6.214E-02	0.000E+00	NOT IDENT.
BA-137M	-1.063E-02	1.841E-02	2.838E-02	0.000E+00	NOT IDENT.
CS-137	-1.123E-02	1.947E-02	3.000E-02	0.000E+00	NOT IDENT.
CE-139	5.521E-03	1.363E-02	2.397E-02	0.000E+00	NOT IDENT.
BA-140	5.565E-02	9.066E-02	1.628E-01	0.000E+00	NOT IDENT.
LA-140	1.229E-02	3.417E-02	6.121E-02	0.000E+00	NOT IDENT.
CE-141	-3.239E-03	2.649E-02	4.255E-02	0.000E+00	NOT IDENT.
CE-143	-1.018E+00	1.309E+00	2.094E+00	0.000E+00	NOT IDENT.
CE-144	2.419E-02	8.454E-02	1.487E-01	0.000E+00	NOT IDENT.
PM-144	7.838E-04	1.917E-02	3.230E-02	0.000E+00	NOT IDENT.
PR-144	5.291E-02	1.294E+00	2.180E+00	0.000E+00	NOT IDENT.
PM-146	-5.132E-03	2.304E-02	3.862E-02	0.000E+00	NOT IDENT.
ND-147	5.459E-02	1.873E-01	3.298E-01	0.000E+00	NOT IDENT.
PM-149	-9.282E-01	4.646E+00	8.035E+00	0.000E+00	NOT IDENT.
EU-152	3.300E-04	5.181E-02	9.034E-02	0.000E+00	NOT IDENT.
GD-153	1.457E-02	3.354E-02	5.351E-02	0.000E+00	NOT IDENT.
EU-154	5.170E-02	5.399E-02	1.071E-01	0.000E+00	NOT IDENT.
EU-155	-9.137E-04	4.210E-02	7.291E-02	0.000E+00	NOT IDENT.
TB-160	5.264E-03	6.499E-02	1.138E-01	0.000E+00	NOT IDENT.
HO-166M	-5.518E-03	2.876E-02	4.666E-02	0.000E+00	FAIL ABUN
TM-171	-1.256E+01	1.084E+01	1.683E+01	0.000E+00	NOT IDENT.
LU-176	-2.952E-04	1.208E-02	2.113E-02	0.000E+00	NOT IDENT.
LU-177	-1.832E-01	2.268E-01	3.803E-01	0.000E+00	NOT IDENT.
LU-177M	-8.603E-02	8.922E-02	1.380E-01	0.000E+00	NOT IDENT.
HF-181	8.000E-03	1.884E-02	3.386E-02	0.000E+00	NOT IDENT.
W-181	1.257E-01	1.297E-01	2.340E-01	0.000E+00	NOT IDENT.
TA-182	1.381E-02	6.863E-02	1.210E-01	0.000E+00	NOT IDENT.
RE-183	-1.756E-02	4.936E-02	8.175E-02	0.000E+00	NOT IDENT.
RE-184	1.628E-02	1.035E-01	1.854E-01	0.000E+00	NOT IDENT.
OS-185	9.635E-03	1.825E-02	3.322E-02	0.000E+00	NOT IDENT.
RE-188	4.474E-03	7.087E-02	1.217E-01	0.000E+00	NOT IDENT.
W-188	-2.839E+00	3.057E+00	4.882E+00	0.000E+00	NOT IDENT.

IR-192	4.739E-03	1.545E-02	2.781E-02	0.000E+00	NOT IDENT.
AU-195	9.878E-03	9.652E-02	1.484E-01	0.000E+00	NOT IDENT.
TL-200	-1.493E+00	1.926E+00	3.058E+00	0.000E+00	NOT IDENT.
TL-201	-4.044E-01	6.321E-01	1.020E+00	0.000E+00	NOT IDENT.
TL-202	1.394E-02	2.196E-02	4.048E-02	0.000E+00	NOT IDENT.
HG-203	-1.051E-02	1.822E-02	3.054E-02	0.000E+00	NOT IDENT.
BI-207	1.985E-03	2.275E-02	3.951E-02	0.000E+00	NOT IDENT.
TL-207	-5.362E-02	3.102E-01	5.330E-01	0.000E+00	NOT IDENT.
TL-208	-9.368E-03	1.963E-02	3.065E-02	0.000E+00	FAIL ABUN
PO-209	1.881E+00	3.126E+00	5.946E+00	0.000E+00	NOT IDENT.
BI-210	-1.130E+00	1.157E+00	1.979E+00	0.000E+00	NOT IDENT.
PB-210	-1.130E+00	1.157E+00	1.979E+00	0.000E+00	NOT IDENT.
PO-210	-1.130E+00	1.157E+00	1.979E+00	0.000E+00	NOT IDENT.
BI-211	-2.036E-01	1.112E-01	1.514E-01	0.000E+00	NOT IDENT.
PB-211	-1.014E-01	4.928E-01	8.275E-01	0.000E+00	NOT IDENT.
BI-212	1.451E-02	1.438E-01	2.440E-01	0.000E+00	NOT IDENT.
PB-212	3.658E-02	5.364E-02	5.781E-02	0.000E+00	FAIL ABUN
PO-212	3.658E-02	5.364E-02	5.781E-02	0.000E+00	FAIL ABUN
BI-214	-3.882E-02	4.395E-02	6.770E-02	0.000E+00	NOT IDENT.
PB-214	-4.589E-02	3.758E-02	5.509E-02	0.000E+00	NOT IDENT.
PO-214	-4.589E-02	3.758E-02	5.509E-02	0.000E+00	NOT IDENT.
PO-215	-5.362E-02	3.102E-01	5.330E-01	0.000E+00	NOT IDENT.
PO-216	3.658E-02	5.364E-02	5.781E-02	0.000E+00	FAIL ABUN
PO-218	-4.589E-02	3.758E-02	5.509E-02	0.000E+00	NOT IDENT.
RN-219	1.564E-01	2.042E-01	3.787E-01	0.000E+00	NOT IDENT.
RN-220	4.114E+00	1.349E+01	2.380E+01	0.000E+00	NOT IDENT.
RA-223	-5.362E-02	3.102E-01	5.330E-01	0.000E+00	NOT IDENT.
RA-224	2.135E-01	3.378E-01	5.559E-01	0.000E+00	NOT IDENT.
RA-226	-3.882E-02	4.395E-02	6.770E-02	0.000E+00	NOT IDENT.
AC-227	-1.155E-01	1.805E-01	3.005E-01	0.000E+00	NOT IDENT.
TH-227	-1.155E-01	1.808E-01	3.005E-01	0.000E+00	FAIL ABUN
AC-228	4.236E-02	7.868E-02	1.367E-01	0.000E+00	NOT IDENT.
RA-228	4.236E-02	7.868E-02	1.367E-01	0.000E+00	NOT IDENT.
TH-228	3.686E-02	5.405E-02	5.825E-02	0.000E+00	FAIL ABUN
TH-229	-2.303E-01	2.304E-01	3.812E-01	0.000E+00	NOT IDENT.
TH-230	-3.882E-02	4.395E-02	6.769E-02	0.000E+00	NOT IDENT.
PA-231	3.050E-01	8.003E-01	1.448E+00	0.000E+00	NOT IDENT.
TH-231	-5.362E-02	3.102E-01	5.330E-01	0.000E+00	NOT IDENT.
U-231	5.684E-02	1.408E-01	2.234E-01	0.000E+00	FAIL ABUN
TH-232	4.236E-02	7.868E-02	1.367E-01	0.000E+00	NOT IDENT.
PA-233	-1.834E-02	2.977E-02	4.891E-02	0.000E+00	NOT IDENT.
PA-234	-1.370E-02	1.342E-01	2.269E-01	0.000E+00	FAIL ABUN
PA-234M	1.100E-01	2.241E+00	3.741E+00	0.000E+00	NOT IDENT.
TH-234	-4.597E-01	5.015E-01	8.442E-01	0.000E+00	FAIL ABUN
U-234	-3.882E-02	4.395E-02	6.769E-02	0.000E+00	NOT IDENT.
U-235	9.054E-03	1.034E-01	1.691E-01	0.000E+00	FAIL ABUN
NP-236	-3.394E-02	3.829E-02	6.048E-02	0.000E+00	FAIL ABUN
NP-237	-2.775E-03	1.029E-01	1.615E-01	0.000E+00	NOT IDENT.
U-238	-4.597E-01	5.015E-01	8.442E-01	0.000E+00	FAIL ABUN
NP-239	-5.916E-02	8.234E-02	1.335E-01	0.000E+00	NOT IDENT.
AM-241	-4.986E-02	5.499E-02	8.982E-02	0.000E+00	NOT IDENT.
AM-243	6.196E-03	2.177E-02	3.515E-02	0.000E+00	NOT IDENT.
CM-243	1.124E-02	3.717E-02	6.619E-02	0.000E+00	NOT IDENT.
AM-246	4.581E-02	6.542E-02	1.247E-01	0.000E+00	NOT IDENT.
CM-247	1.161E-02	1.840E-02	3.382E-02	0.000E+00	NOT IDENT.
CF-249	1.768E-02	2.100E-02	3.920E-02	0.000E+00	NOT IDENT.
CF-251	2.663E-02	5.648E-02	9.984E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:33:16.28

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 16:32:21
Sample ID         : G1202032510          Sample quantity  : 1.36210E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.52  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948717                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
ANH-511	511.00	45	100.00*	3.087E+00	4.025E-02	4.025E-02	86.80

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G1202032510 Acquisition date : 12-FEB-2010 16:32:21

Total number of lines in spectrum 4
Number of unidentified lines 0
Number of lines tentatively identified by NID 4 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
ANH-511	1.00E+09Y	1.00	4.025E-02	4.025E-02	3.494E-02	86.80	
		Total Activity :	4.025E-02	4.025E-02			
		Grand Total Activity :	4.025E-02	4.025E-02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202032510 Acquisition date : 12-FEB-2010 16:32:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	93.22	16	122	0.77	185.94	181	12	2.20E-03	****	7.33E+00	T
0	185.71	11	70	1.18	370.74	366	10	1.53E-03	****	6.53E+00	T
0	238.42	33	104	1.46	476.06	469	15	4.58E-03	****	5.57E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:33:20.88

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032510.CNF;1  *
* Acquisition date  : 12-FEB-2010 16:32:21  Detector SN#     :              *
* Detector ID       : GAM14                 Sensitivity      : 5.00000      *
* Geometry          : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:00.52          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 5-FEB-2010 00:00:00.  Nuclide Library : SOLID         *
* Sample ID         : G1202032510           Analyst initials: MXR1          *
* Batch Number      : 948717                Sample Quantity : 1.36210E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 6-MAR-2009 11:43:06.61MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	4.025E-02	3.494E-02	2.180E-02	1.281E-03	1.847

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.023E-02		1.320E-01	2.022E-01	1.363E-02	-0.298
NA-22	1.844E-02		1.960E-02	3.799E-02	2.482E-03	0.485
NA-24	3.827E-05		6.009E-05	Half-Life too short		
AL-26	-7.550E-03		2.191E-02	3.208E-02	1.860E-03	-0.235
K-40	3.054E-02		2.667E-01	4.891E-01	3.551E-02	0.062
TI-44	-1.736E-02		1.276E-02	1.844E-02	1.440E-03	-0.941
SC-46	5.975E-03		1.626E-02	2.892E-02	2.673E-03	0.207
V-48	-7.357E-03		2.381E-02	3.739E-02	3.175E-03	-0.197
CR-51	-6.171E-02		1.577E-01	2.522E-01	1.630E-02	-0.245
MN-52	-1.881E-02		5.157E-02	7.689E-02	5.389E-03	-0.245
MN-54	1.225E-02		1.866E-02	3.398E-02	2.851E-03	0.360

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-56	1.214E-02		2.133E-02	3.826E-02	3.279E-03	0.317
CO-57	-8.012E-03		1.133E-02	1.712E-02	1.218E-03	-0.468
CO-58	-8.907E-03		1.997E-02	2.964E-02	2.385E-03	-0.300
FE-59	6.925E-03		3.796E-02	6.495E-02	5.000E-03	0.107
CO-60	2.908E-03		2.052E-02	3.467E-02	2.471E-03	0.084
ZN-65	9.461E-03		4.529E-02	7.741E-02	5.088E-03	0.122
GE-68	3.763E-01		5.705E-01	1.053E+00	7.572E-02	0.357
AS-73	-2.427E-01		2.369E-01	3.521E-01	2.295E-02	-0.689
AS-74	2.507E-02		4.097E-02	7.117E-02	4.257E-03	0.352
SE-75	2.941E-03		2.082E-02	3.518E-02	2.065E-03	0.084
BR-77	3.102E-01		5.434E-01	9.583E-01	5.650E-02	0.324
SR-82	-1.948E-02		1.487E-01	2.335E-01	1.756E-02	-0.083
RB-83	1.484E-02		2.924E-02	5.119E-02	3.018E-03	0.290
RB-84	3.819E-03		3.007E-02	5.131E-02	4.678E-03	0.074
KR-85	1.154E+01		4.675E+00	8.677E+00	5.103E-01	1.329
SR-85	5.470E-02		2.217E-02	4.115E-02	2.420E-03	1.329
RB-86	5.205E-02		2.918E-01	4.989E-01	3.592E-02	0.104
Y-88	1.912E-02		2.670E-02	4.958E-02	2.816E-03	0.386
ZR-88	-1.058E-03		1.417E-02	2.320E-02	1.263E-03	-0.046
Y-91	-2.182E+00		6.955E+00	1.073E+01	6.243E-01	-0.203
NB-94	-7.495E-03		1.763E-02	2.666E-02	1.729E-03	-0.281
NB-95	6.448E-03		1.728E-02	2.955E-02	2.176E-03	0.218
NB-95M	4.584E-02		5.713E-02	9.054E-02	6.767E-03	0.506
ZR-95	-1.161E-02		2.882E-02	4.273E-02	3.525E-03	-0.272
NB-97	1.307E-05		1.744E-05	Half-Life too short		
ZR-97	1.338E-03		4.279E-04	Half-Life too short		
MO-99	3.388E-01		8.915E-01	1.521E+00	2.179E-01	0.223
TC-99M	2.548E+00		1.060E+01	Half-Life too short		
RH-101	7.413E-03		1.508E-02	2.626E-02	1.457E-03	0.282
RH-102	-5.850E-03		1.674E-02	2.138E-02	1.236E-03	-0.274
RU-103	-6.357E-03		1.681E-02	2.604E-02	3.297E-03	-0.244
RH-106	-4.423E-02		1.479E-01	2.285E-01	2.702E-02	-0.194
RU-106	-4.423E-02		1.479E-01	2.285E-01	1.366E-02	-0.194
AG-108M	-3.722E-03		1.622E-02	2.594E-02	1.593E-03	-0.143
CD-109	-3.321E-02		3.647E-01	5.120E-01	4.478E-02	-0.065
AG-110M	6.513E-03		1.831E-02	3.107E-02	1.963E-03	0.210
IN-111	2.944E-02		8.520E-02	1.295E-01	7.461E-03	0.227
IN-113M	3.866E-03		2.238E-02	3.757E-02	2.199E-03	0.103
SN-113	3.866E-03		2.238E-02	3.757E-02	2.199E-03	0.103
IN-114M	2.621E-02		8.025E-02	1.220E-01	6.716E-03	0.215
CD-115	-2.377E-01		5.591E-01	8.615E-01	5.091E-02	-0.276
SN-117M	-4.045E-03		1.941E-02	2.935E-02	1.660E-03	-0.138
SB-122	-1.427E-01		1.936E-01	2.891E-01	1.723E-02	-0.494
I-123	-1.263E-04		1.232E-04	Half-Life too short		
TE-123M	-7.306E-03		1.425E-02	2.101E-02	1.202E-03	-0.348
I-124	8.030E-02		1.089E-01	1.919E-01	1.148E-02	0.419
SB-124	4.186E-03		4.512E-02	7.493E-02	5.065E-03	0.056
SB-125	9.778E-03		4.585E-02	7.727E-02	4.528E-03	0.127

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M	-1.379E+00		3.548E+00	5.530E+00	5.182E-01	-0.249
I-126	-9.546E-03		6.009E-02	9.490E-02	5.699E-03	-0.101
SB-126	-2.331E-02		4.844E-02	7.209E-02	4.850E-03	-0.323
SN-126	-1.989E-02		3.845E-02	5.173E-02	4.501E-03	-0.385
SB-127	9.534E-02		1.462E-01	2.637E-01	1.994E-02	0.361
XE-127	2.116E-03		1.932E-02	3.274E-02	1.825E-03	0.065
I-131	3.972E-03		2.970E-02	4.982E-02	3.119E-03	0.080
TE-132	5.384E-02		6.882E-02	1.215E-01	1.597E-02	0.443
BA-133	-3.177E-03		2.166E-02	3.532E-02	4.060E-03	-0.090
I-133	1.352E-06		4.299E-06	Half-Life too short		
CS-134	1.120E-02		2.214E-02	3.848E-02	3.029E-03	0.291
CS-135	3.101E-02		7.378E-02	1.275E-01	9.778E-03	0.243
I-135	1.393E+01		9.478E+00	Half-Life too short		
CS-136	-8.547E-04		3.721E-02	6.158E-02	4.949E-03	-0.014
BA-137M	-1.063E-02		1.879E-02	2.788E-02	1.658E-03	-0.381
CS-137	-1.123E-02		1.986E-02	2.947E-02	1.759E-03	-0.381
CE-139	5.521E-03		1.391E-02	2.295E-02	1.232E-03	0.241
BA-140	5.565E-02		9.251E-02	1.593E-01	5.184E-02	0.349
LA-140	1.229E-02		3.486E-02	6.116E-02	4.054E-03	0.201
CE-141	-3.239E-03		2.704E-02	4.064E-02	2.593E-03	-0.080
CE-143	-1.018E+00		1.335E+00	2.026E+00	4.147E-01	-0.502
CE-144	2.419E-02		8.626E-02	1.418E-01	2.065E-02	0.171
PM-144	7.838E-04		1.956E-02	3.176E-02	2.034E-03	0.025
PR-144	5.291E-02		1.320E+00	2.143E+00	1.372E-01	0.025
PM-146	-5.132E-03		2.351E-02	3.767E-02	3.224E-03	-0.136
ND-147	5.459E-02		1.911E-01	3.226E-01	4.378E-02	0.169
PM-149	-9.282E-01		4.741E+00	7.770E+00	1.101E+00	-0.119
EU-152	3.300E-04		5.286E-02	8.766E-02	5.671E-03	0.004
GD-153	1.457E-02		3.422E-02	5.075E-02	4.070E-03	0.287
EU-154	5.170E-02		5.509E-02	1.065E-01	1.044E-02	0.485
EU-155	-9.137E-04		4.296E-02	6.924E-02	5.360E-03	-0.013
TB-160	5.264E-03		6.632E-02	1.123E-01	1.020E-02	0.047
HO-166M	-5.518E-03		2.935E-02	4.590E-02	3.033E-03	-0.120
TM-171	-1.256E+01		1.106E+01	1.586E+01	1.106E+00	-0.792
LU-176	-2.952E-04		1.233E-02	2.046E-02	1.191E-03	-0.014
LU-177	-1.832E-01		2.314E-01	3.657E-01	2.049E-02	-0.501
LU-177M	-8.603E-02		9.104E-02	1.344E-01	7.449E-03	-0.640
HF-181	8.000E-03		1.922E-02	3.306E-02	1.918E-03	0.242
W-181	1.257E-01		1.324E-01	2.204E-01	1.518E-02	0.570
TA-182	1.381E-02		7.004E-02	1.202E-01	7.192E-03	0.115
RE-183	-1.756E-02		5.037E-02	7.824E-02	4.309E-03	-0.224
RE-184	1.628E-02		1.056E-01	1.789E-01	1.035E-02	0.091
OS-185	9.635E-03		1.862E-02	3.262E-02	1.945E-03	0.295
RE-188	4.474E-03		7.231E-02	1.164E-01	6.743E-03	0.038
W-188	-2.839E+00		3.119E+00	4.723E+00	2.755E-01	-0.601
IR-192	4.739E-03		1.577E-02	2.694E-02	1.572E-03	0.176
AU-195	9.878E-03		9.849E-02	1.408E-01	1.117E-02	0.070
TL-200	-1.493E+00		1.966E+00	2.971E+00	1.665E-01	-0.502

Sample ID : G1202032510 Acquisition date : 12-FEB-2010 16:32:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-201	-4.044E-01		6.451E-01	9.768E-01	5.247E-02	-0.414
TL-202	1.394E-02		2.241E-02	3.946E-02	2.231E-03	0.353
HG-203	-1.051E-02		1.859E-02	2.952E-02	1.827E-03	-0.356
BI-207	1.985E-03		2.322E-02	3.916E-02	2.898E-03	0.051
TL-207	-5.362E-02		3.165E-01	5.166E-01	8.530E-02	-0.104
TL-208	-9.368E-03		2.003E-02	3.003E-02	2.054E-03	-0.312
PO-209	1.881E+00		3.189E+00	5.875E+00	5.498E-01	0.320
BI-210	-1.130E+00		1.181E+00	1.852E+00	1.373E-01	-0.610
PB-210	-1.130E+00		1.181E+00	1.852E+00	1.373E-01	-0.610
PO-210	-1.130E+00		1.180E+00	1.852E+00	1.162E-01	-0.610
BI-211	-2.036E-01		1.134E-01	1.470E-01	9.312E-03	-1.385
PB-211	-1.014E-01		5.028E-01	8.054E-01	5.019E-01	-0.126
BI-212	1.451E-02		1.468E-01	2.402E-01	2.043E-02	0.060
PB-212	3.658E-02	+	5.473E-02	5.572E-02	4.058E-03	0.657
PO-212	3.658E-02	+	5.473E-02	5.572E-02	4.058E-03	0.657
BI-214	-3.882E-02		4.484E-02	6.639E-02	5.255E-03	-0.585
PB-214	-4.589E-02		3.834E-02	5.347E-02	4.388E-03	-0.858
PO-214	-4.589E-02		3.834E-02	5.347E-02	4.388E-03	-0.858
PO-215	-5.362E-02		3.165E-01	5.166E-01	8.530E-02	-0.104
PO-216	3.658E-02	+	5.473E-02	5.572E-02	4.058E-03	0.657
PO-218	-4.589E-02		3.834E-02	5.347E-02	4.388E-03	-0.858
RN-219	1.564E-01		2.084E-01	3.685E-01	4.966E-02	0.424
RN-220	4.114E+00		1.377E+01	2.330E+01	1.385E+00	0.177
RA-223	-5.362E-02		3.165E-01	5.166E-01	8.530E-02	-0.104
RA-224	2.135E-01		3.447E-01	5.359E-01	3.080E-02	0.398
RA-226	-3.882E-02		4.484E-02	6.639E-02	5.255E-03	-0.585
AC-227	-1.155E-01		1.842E-01	2.900E-01	4.048E-02	-0.398
TH-227	-1.155E-01		1.845E-01	2.900E-01	4.900E-02	-0.398
AC-228	4.236E-02		8.028E-02	1.351E-01	1.587E-02	0.313
RA-228	4.236E-02		8.028E-02	1.351E-01	1.587E-02	0.313
TH-228	3.686E-02	+	5.516E-02	5.615E-02	4.090E-03	0.657
TH-229	-2.303E-01		2.351E-01	3.660E-01	2.021E-02	-0.629
TH-230	-3.882E-02		4.484E-02	6.639E-02	5.255E-03	-0.585
PA-231	3.050E-01		8.166E-01	1.400E+00	1.931E-01	0.218
TH-231	-5.362E-02		3.165E-01	5.166E-01	8.530E-02	-0.104
U-231	5.684E-02		1.437E-01	2.119E-01	1.720E-02	0.268
TH-232	4.236E-02		8.028E-02	1.351E-01	1.587E-02	0.313
PA-233	-1.834E-02		3.038E-02	4.737E-02	2.925E-03	-0.387
PA-234	-1.370E-02		1.369E-01	2.244E-01	4.241E-02	-0.061
PA-234M	1.100E-01		2.287E+00	3.704E+00	3.581E-01	0.030
TH-234	-4.597E-01		5.118E-01	7.946E-01	1.366E-01	-0.579
U-234	-3.882E-02		4.484E-02	6.639E-02	5.255E-03	-0.585
U-235	9.054E-03		1.055E-01	1.615E-01	2.658E-02	0.056
NP-236	-3.394E-02		3.907E-02	5.787E-02	3.234E-03	-0.586
NP-237	-2.775E-03		1.050E-01	1.528E-01	3.416E-02	-0.018
U-238	-4.597E-01		5.118E-01	7.946E-01	1.366E-01	-0.579
NP-239	-5.916E-02		8.402E-02	1.270E-01	9.179E-03	-0.466
AM-241	-4.986E-02		5.611E-02	8.445E-02	6.270E-03	-0.590

Sample ID : G1202032510 Acquisition date : 12-FEB-2010 16:32:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	6.196E-03		2.221E-02	3.318E-02	2.490E-03	0.187
CM-243	1.124E-02		3.792E-02	6.284E-02	4.832E-03	0.179
AM-246	4.581E-02		6.675E-02	1.236E-01	8.859E-03	0.370
CM-247	1.161E-02		1.877E-02	3.291E-02	1.808E-03	0.353
CF-249	1.768E-02		2.142E-02	3.812E-02	2.084E-03	0.464
CF-251	2.663E-02		5.764E-02	9.570E-02	5.191E-03	0.278

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032510          *
* Acquisition date  : 12-FEB-2010 16:32:21 Detector SN#     :               *
* Detector ID       : GAM14                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.52      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032510          Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.3621E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
ANH-511	4.025E-02	3.424E-02	1.116E-02	1.747E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-6.023E-02	1.293E-01	1.036E-01	6.599E-02	NOT IDENT.
NA-22	1.844E-02	1.921E-02	1.911E-02	9.802E-03	NOT IDENT.
NA-24	3.827E+01	1.178E+02	0.000E+00	6.009E+01	SHORT HLIF
AL-26	-7.550E-03	2.148E-02	1.602E-02	1.096E-02	NOT IDENT.
K-40	3.054E-02	2.614E-01	2.453E-01	1.334E-01	NOT IDENT.
TI-44	-1.736E-02	1.251E-02	9.767E-03	6.381E-03	NOT IDENT.
SC-46	5.975E-03	1.594E-02	1.465E-02	8.131E-03	NOT IDENT.
V-48	-7.357E-03	2.333E-02	1.890E-02	1.190E-02	NOT IDENT.
CR-51	-6.171E-02	1.545E-01	1.302E-01	7.885E-02	NOT IDENT.
MN-52	-1.881E-02	5.054E-02	3.858E-02	2.578E-02	NOT IDENT.
MN-54	1.225E-02	1.829E-02	1.723E-02	9.330E-03	NOT IDENT.
CO-56	1.214E-02	2.090E-02	1.939E-02	1.066E-02	NOT IDENT.
CO-57	-8.012E-03	1.110E-02	8.995E-03	5.665E-03	NOT IDENT.
CO-58	-8.907E-03	1.957E-02	1.504E-02	9.985E-03	NOT IDENT.
FE-59	6.925E-03	3.720E-02	3.276E-02	1.898E-02	NOT IDENT.
CO-60	2.908E-03	2.011E-02	1.742E-02	1.026E-02	NOT IDENT.
ZN-65	9.461E-03	4.439E-02	3.903E-02	2.265E-02	NOT IDENT.
GE-68	3.763E-01	5.590E-01	5.315E-01	2.852E-01	NOT IDENT.
AS-73	-2.427E-01	2.321E-01	1.877E-01	1.184E-01	NOT IDENT.
AS-74	2.507E-02	4.015E-02	3.632E-02	2.048E-02	NOT IDENT.
SE-75	2.941E-03	2.040E-02	1.823E-02	1.041E-02	NOT IDENT.
BR-77	3.102E-01	5.325E-01	4.903E-01	2.717E-01	FAIL ABUN
SR-82	-1.948E-02	1.457E-01	1.186E-01	7.434E-02	NOT IDENT.
RB-83	1.484E-02	2.865E-02	2.619E-02	1.462E-02	NOT IDENT.
RB-84	3.819E-03	2.947E-02	2.599E-02	1.503E-02	NOT IDENT.
KR-85	1.154E+01	4.581E+00	4.440E+00	2.337E+00	NOT IDENT.

SR-85	5.470E-02	2.172E-02	2.106E-02	1.108E-02	NOT IDENT.
RB-86	5.205E-02	2.859E-01	2.517E-01	1.459E-01	NOT IDENT.
Y-88	1.912E-02	2.617E-02	2.476E-02	1.335E-02	NOT IDENT.
ZR-88	-1.058E-03	1.389E-02	1.193E-02	7.086E-03	NOT IDENT.
Y-91	-2.182E+00	6.816E+00	5.403E+00	3.477E+00	NOT IDENT.
NB-94	-7.495E-03	1.728E-02	1.356E-02	8.815E-03	NOT IDENT.
NB-95	6.448E-03	1.694E-02	1.501E-02	8.641E-03	NOT IDENT.
NB-95M	4.584E-02	5.599E-02	4.701E-02	2.856E-02	NOT IDENT.
ZR-95	-1.161E-02	2.824E-02	2.171E-02	1.441E-02	NOT IDENT.
NB-97	1.307E+01	3.419E+01	0.000E+00	1.744E+01	SHORT HLIF
ZR-97	1.338E+03	8.387E+02	0.000E+00	4.279E+02	SHORT HLIF
MO-99	3.388E-01	8.737E-01	7.732E-01	4.457E-01	NOT IDENT.
TC-99M	2.548E+06	2.078E+07	0.000E+00	1.060E+07	SHORT HLIF
RH-101	7.413E-03	1.478E-02	1.368E-02	7.540E-03	NOT IDENT.
RH-102	-5.850E-03	1.640E-02	1.096E-02	8.370E-03	NOT IDENT.
RU-103	-6.357E-03	1.648E-02	1.333E-02	8.407E-03	NOT IDENT.
RH-106	-4.423E-02	1.450E-01	1.165E-01	7.397E-02	FAIL ABUN
RU-106	-4.423E-02	1.449E-01	1.165E-01	7.394E-02	FAIL ABUN
AG-108M	-3.722E-03	1.589E-02	1.332E-02	8.109E-03	NOT IDENT.
CD-109	-3.321E-02	3.574E-01	2.706E-01	1.824E-01	NOT IDENT.
AG-110M	6.513E-03	1.794E-02	1.583E-02	9.153E-03	NOT IDENT.
IN-111	2.944E-02	8.350E-02	6.718E-02	4.260E-02	NOT IDENT.
IN-113M	3.866E-03	2.193E-02	1.933E-02	1.119E-02	NOT IDENT.
SN-113	3.866E-03	2.193E-02	1.933E-02	1.119E-02	NOT IDENT.
IN-114M	2.621E-02	7.864E-02	6.361E-02	4.012E-02	NOT IDENT.
CD-115	-2.377E-01	5.479E-01	4.407E-01	2.795E-01	NOT IDENT.
SN-117M	-4.045E-03	1.902E-02	1.535E-02	9.705E-03	NOT IDENT.
SB-122	-1.427E-01	1.897E-01	1.477E-01	9.680E-02	NOT IDENT.
I-123	-1.263E+02	2.416E+02	0.000E+00	1.232E+02	SHORT HLIF
TE-123M	-7.306E-03	1.397E-02	1.099E-02	7.127E-03	NOT IDENT.
I-124	8.030E-02	1.067E-01	9.789E-02	5.444E-02	NOT IDENT.
SB-124	4.186E-03	4.421E-02	3.748E-02	2.256E-02	NOT IDENT.
SB-125	9.778E-03	4.494E-02	3.968E-02	2.293E-02	NOT IDENT.
TE-125M	-1.379E+00	3.477E+00	2.911E+00	1.774E+00	NOT IDENT.
I-126	-9.546E-03	5.889E-02	4.833E-02	3.005E-02	NOT IDENT.
SB-126	-2.331E-02	4.747E-02	3.666E-02	2.422E-02	NOT IDENT.
SN-126	-1.989E-02	3.768E-02	2.734E-02	1.922E-02	NOT IDENT.
SB-127	9.534E-02	1.433E-01	1.342E-01	7.312E-02	NOT IDENT.
XE-127	2.116E-03	1.893E-02	1.705E-02	9.659E-03	NOT IDENT.
I-131	3.972E-03	2.910E-02	2.566E-02	1.485E-02	NOT IDENT.
TE-132	5.384E-02	6.744E-02	6.310E-02	3.441E-02	NOT IDENT.
BA-133	-3.177E-03	2.122E-02	1.820E-02	1.083E-02	NOT IDENT.
I-133	1.352E+00	8.426E+00	0.000E+00	4.299E+00	SHORT HLIF
CS-134	1.120E-02	2.169E-02	1.953E-02	1.107E-02	NOT IDENT.
CS-135	3.101E-02	7.231E-02	6.603E-02	3.689E-02	NOT IDENT.
I-135	1.393E+07	1.858E+07	0.000E+00	9.478E+06	SHORT HLIF
CS-136	-8.547E-04	3.647E-02	3.109E-02	1.861E-02	NOT IDENT.
BA-137M	-1.063E-02	1.841E-02	1.420E-02	9.395E-03	NOT IDENT.
CS-137	-1.123E-02	1.947E-02	1.501E-02	9.932E-03	NOT IDENT.
CE-139	5.521E-03	1.363E-02	1.199E-02	6.956E-03	NOT IDENT.
BA-140	5.565E-02	9.066E-02	8.146E-02	4.625E-02	NOT IDENT.
LA-140	1.229E-02	3.417E-02	3.062E-02	1.743E-02	NOT IDENT.
CE-141	-3.239E-03	2.649E-02	2.129E-02	1.352E-02	NOT IDENT.
CE-143	-1.018E+00	1.309E+00	1.047E+00	6.677E-01	NOT IDENT.
CE-144	2.419E-02	8.454E-02	7.440E-02	4.313E-02	NOT IDENT.
PM-144	7.838E-04	1.917E-02	1.616E-02	9.779E-03	NOT IDENT.
PR-144	5.291E-02	1.294E+00	1.091E+00	6.601E-01	NOT IDENT.
PM-146	-5.132E-03	2.304E-02	1.932E-02	1.176E-02	NOT IDENT.
ND-147	5.459E-02	1.873E-01	1.650E-01	9.556E-02	NOT IDENT.
PM-149	-9.282E-01	4.646E+00	4.020E+00	2.370E+00	NOT IDENT.
EU-152	3.300E-04	5.181E-02	4.520E-02	2.643E-02	NOT IDENT.
GD-153	1.457E-02	3.354E-02	2.677E-02	1.711E-02	NOT IDENT.
EU-154	5.170E-02	5.399E-02	5.357E-02	2.755E-02	NOT IDENT.
EU-155	-9.137E-04	4.210E-02	3.648E-02	2.148E-02	NOT IDENT.
TB-160	5.264E-03	6.499E-02	5.691E-02	3.316E-02	NOT IDENT.
HO-166M	-5.518E-03	2.876E-02	2.335E-02	1.468E-02	FAIL ABUN
TM-171	-1.256E+01	1.084E+01	8.422E+00	5.532E+00	NOT IDENT.
LU-176	-2.952E-04	1.208E-02	1.057E-02	6.164E-03	NOT IDENT.
LU-177	-1.832E-01	2.268E-01	1.903E-01	1.157E-01	NOT IDENT.
LU-177M	-8.603E-02	8.922E-02	6.904E-02	4.552E-02	NOT IDENT.
HF-181	8.000E-03	1.884E-02	1.694E-02	9.612E-03	NOT IDENT.
W-181	1.257E-01	1.297E-01	1.171E-01	6.619E-02	NOT IDENT.
TA-182	1.381E-02	6.863E-02	6.053E-02	3.502E-02	NOT IDENT.
RE-183	-1.756E-02	4.936E-02	4.090E-02	2.518E-02	NOT IDENT.
RE-184	1.628E-02	1.035E-01	9.277E-02	5.279E-02	NOT IDENT.
OS-185	9.635E-03	1.825E-02	1.662E-02	9.309E-03	NOT IDENT.
RE-188	4.474E-03	7.087E-02	6.088E-02	3.616E-02	NOT IDENT.
W-188	-2.839E+00	3.057E+00	2.443E+00	1.560E+00	NOT IDENT.

IR-192	4.739E-03	1.545E-02	1.391E-02	7.884E-03	NOT IDENT.
AU-195	9.878E-03	9.652E-02	7.426E-02	4.924E-02	NOT IDENT.
TL-200	-1.493E+00	1.926E+00	1.530E+00	9.829E-01	NOT IDENT.
TL-201	-4.044E-01	6.321E-01	5.103E-01	3.225E-01	NOT IDENT.
TL-202	1.394E-02	2.196E-02	2.025E-02	1.121E-02	NOT IDENT.
HG-203	-1.051E-02	1.822E-02	1.528E-02	9.296E-03	NOT IDENT.
BI-207	1.985E-03	2.275E-02	1.977E-02	1.161E-02	NOT IDENT.
TL-207	-5.362E-02	3.102E-01	2.667E-01	1.582E-01	NOT IDENT.
TL-208	-9.368E-03	1.963E-02	1.533E-02	1.002E-02	FAIL ABUN
PO-209	1.881E+00	3.126E+00	2.975E+00	1.595E+00	NOT IDENT.
BI-210	-1.130E+00	1.157E+00	9.898E-01	5.905E-01	NOT IDENT.
PB-210	-1.130E+00	1.157E+00	9.898E-01	5.905E-01	NOT IDENT.
PO-210	-1.130E+00	1.157E+00	9.898E-01	5.901E-01	NOT IDENT.
BI-211	-2.036E-01	1.112E-01	7.575E-02	5.671E-02	NOT IDENT.
PB-211	-1.014E-01	4.928E-01	4.140E-01	2.514E-01	NOT IDENT.
BI-212	1.451E-02	1.438E-01	1.221E-01	7.339E-02	NOT IDENT.
PB-212	3.658E-02	5.364E-02	2.892E-02	2.737E-02	FAIL ABUN
PO-212	3.658E-02	5.364E-02	2.892E-02	2.737E-02	FAIL ABUN
BI-214	-3.882E-02	4.395E-02	3.387E-02	2.242E-02	NOT IDENT.
PB-214	-4.589E-02	3.758E-02	2.756E-02	1.917E-02	NOT IDENT.
PO-214	-4.589E-02	3.758E-02	2.756E-02	1.917E-02	NOT IDENT.
PO-215	-5.362E-02	3.102E-01	2.667E-01	1.582E-01	NOT IDENT.
PO-216	3.658E-02	5.364E-02	2.892E-02	2.737E-02	FAIL ABUN
PO-218	-4.589E-02	3.758E-02	2.756E-02	1.917E-02	NOT IDENT.
RN-219	1.564E-01	2.042E-01	1.895E-01	1.042E-01	NOT IDENT.
RN-220	4.114E+00	1.349E+01	1.191E+01	6.884E+00	NOT IDENT.
RA-223	-5.362E-02	3.102E-01	2.667E-01	1.582E-01	NOT IDENT.
RA-224	2.135E-01	3.378E-01	2.781E-01	1.723E-01	NOT IDENT.
RA-226	-3.882E-02	4.395E-02	3.387E-02	2.242E-02	NOT IDENT.
AC-227	-1.155E-01	1.805E-01	1.503E-01	9.209E-02	NOT IDENT.
TH-227	-1.155E-01	1.808E-01	1.503E-01	9.226E-02	FAIL ABUN
AC-228	4.236E-02	7.868E-02	6.840E-02	4.014E-02	NOT IDENT.
RA-228	4.236E-02	7.868E-02	6.840E-02	4.014E-02	NOT IDENT.
TH-228	3.686E-02	5.405E-02	2.914E-02	2.758E-02	FAIL ABUN
TH-229	-2.303E-01	2.304E-01	1.907E-01	1.176E-01	NOT IDENT.
TH-230	-3.882E-02	4.395E-02	3.387E-02	2.242E-02	NOT IDENT.
PA-231	3.050E-01	8.003E-01	7.244E-01	4.083E-01	NOT IDENT.
TH-231	-5.362E-02	3.102E-01	2.667E-01	1.582E-01	NOT IDENT.
U-231	5.684E-02	1.408E-01	1.118E-01	7.183E-02	FAIL ABUN
TH-232	4.236E-02	7.868E-02	6.840E-02	4.014E-02	NOT IDENT.
PA-233	-1.834E-02	2.977E-02	2.447E-02	1.519E-02	NOT IDENT.
PA-234	-1.370E-02	1.342E-01	1.135E-01	6.847E-02	FAIL ABUN
PA-234M	1.100E-01	2.241E+00	1.872E+00	1.144E+00	NOT IDENT.
TH-234	-4.597E-01	5.015E-01	4.224E-01	2.559E-01	FAIL ABUN
U-234	-3.882E-02	4.395E-02	3.387E-02	2.242E-02	NOT IDENT.
U-235	9.054E-03	1.034E-01	8.459E-02	5.277E-02	FAIL ABUN
NP-236	-3.394E-02	3.829E-02	3.026E-02	1.953E-02	FAIL ABUN
NP-237	-2.775E-03	1.029E-01	8.079E-02	5.250E-02	NOT IDENT.
U-238	-4.597E-01	5.015E-01	4.224E-01	2.559E-01	FAIL ABUN
NP-239	-5.916E-02	8.234E-02	6.678E-02	4.201E-02	NOT IDENT.
AM-241	-4.986E-02	5.499E-02	4.494E-02	2.806E-02	NOT IDENT.
AM-243	6.196E-03	2.177E-02	1.758E-02	1.110E-02	NOT IDENT.
CM-243	1.124E-02	3.717E-02	3.311E-02	1.896E-02	NOT IDENT.
AM-246	4.581E-02	6.542E-02	6.239E-02	3.338E-02	NOT IDENT.
CM-247	1.161E-02	1.840E-02	1.692E-02	9.386E-03	NOT IDENT.
CF-249	1.768E-02	2.100E-02	1.961E-02	1.071E-02	NOT IDENT.
CF-251	2.663E-02	5.648E-02	4.995E-02	2.882E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	98.5591
46.50	98.5591
46.50	98.5591
48.70	86.5904
49.72	98.9317
51.35	76.6358
52.39	71.6103
52.97	78.8223
53.15	84.9812
53.44	89.1053
54.07	83.0177
56.28	84.2442
56.28	84.2445
57.37	79.1998
57.53	75.0982
57.53	75.0983
57.60	75.1037
57.98	69.9878
57.98	69.9878
59.32	89.6691
59.32	89.6691
59.40	89.6766
59.54	102.0607
59.72	102.0798
60.01	109.3303
61.10	106.3555
61.14	106.3598
61.30	106.3773
63.00	101.3880
63.29	102.4525
63.29	102.4525
63.58	92.1305
64.28	81.8361
65.12	80.8675
65.20	80.8740
65.20	80.8740
66.05	109.9976
66.72	121.4918
66.83	121.5051
66.91	129.8232
67.20	129.8599
67.20	129.8599
67.75	115.3770
67.85	115.3880
68.90	100.9367
68.90	100.9367
69.30	94.7293
69.67	94.7630
70.82	91.7386
70.82	91.7386
70.83	91.7393
72.80	106.5305
72.87	106.5373
72.87	106.5373
74.67	92.0673
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.81	92.0790
74.97	86.8599
75.28	87.9313
75.70	76.4455
77.11	101.7078
77.11	101.7078

77.11	101.7078
77.11	101.7078
77.11	101.7078
77.11	101.7078
77.11	101.7078
78.38	120.7183
79.62	99.8336
79.80	99.8496
79.80	99.8496
80.11	105.1334
80.18	105.1399
80.30	105.1510
80.30	105.1510
80.57	105.1758
81.00	104.1633
81.07	104.1697
81.07	104.1697
81.07	104.1697
81.07	104.1697
82.60	84.2896
83.37	102.2684
83.78	110.7422
83.78	110.7422
83.78	110.7422
83.78	110.7422
84.21	112.8932
84.90	103.4584
85.43	96.1116
86.29	104.6369
86.50	108.7329
86.54	108.7368
86.59	108.7411
86.72	117.2119
86.79	117.2182
86.94	114.2119
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.30	114.2461
87.57	130.3548
87.88	123.6152
88.03	111.7754
88.36	98.2541
88.47	110.1223
89.95	125.5236
91.11	123.9449
92.29	100.2708
92.38	100.2784
92.38	100.2784
93.35	89.3006
94.00	89.3474
94.67	78.3269
94.67	78.3272
94.90	83.4507
94.90	83.4507
94.90	83.4507
94.90	83.4507
95.87	80.1065
95.87	80.1065
96.73	71.6335
97.43	69.9663
98.44	73.4373
98.44	73.4373
98.88	73.4624
99.55	61.5355
99.55	61.5355
99.86	64.1148
100.00	68.3967
100.10	68.4021
103.18	71.7776
103.76	66.4504
105.00	72.9493
105.31	72.9662
108.00	79.5639
109.28	82.8679

111.00	86.2048
111.00	86.2048
111.76	79.7835
112.95	67.9823
115.19	86.4655
116.30	89.7788
117.00	89.8235
117.00	89.8235
117.66	97.4443
121.11	83.5699
121.62	85.7710
121.78	92.2953
122.06	92.3131
122.32	89.0710
122.32	89.0710
122.32	89.0710
122.32	89.0710
123.07	73.9019
127.23	85.0096
129.76	85.1536
131.20	76.4931
133.02	56.8917
133.54	71.1384
135.34	81.0837
136.00	86.5991
136.25	90.9985
136.48	87.7228
140.51	84.6511
140.51	0.0000
142.18	95.7457
142.65	91.3708
143.76	73.8088
144.24	71.6269
144.24	71.6269
144.24	71.6269
144.24	71.6269
145.22	81.5941
145.44	76.0915
147.16	85.0042
152.43	78.6335
152.70	78.6465
153.22	86.4271
154.21	89.8050
154.21	89.8050
154.21	89.8050
154.21	89.8050
155.03	79.8662
156.02	78.8035
158.56	81.1453
159.00	0.0000
159.00	87.8377
160.31	101.2579
161.27	109.1090
162.32	95.8071
162.64	86.9109
163.35	75.8001
163.89	75.8235
165.85	81.4912
167.43	99.4426
171.28	73.9051
171.86	89.6112
172.10	89.6234
176.55	67.3851
176.60	67.3869
181.06	69.0533
184.41	63.1636
185.71	74.9467
186.00	85.7957
190.27	67.8877
192.34	94.0139
193.63	94.3046
197.04	65.4042
198.01	75.4343
198.60	81.8212
200.40	99.1864
201.83	101.0802
202.84	83.8214
205.31	73.8922

208.36	94.1063
208.81	95.9554
209.75	87.7717
209.75	87.7717
210.97	68.6133
215.65	71.5235
216.55	73.3896
218.09	67.0184
222.10	75.4281
223.80	74.5690
226.40	71.8967
227.00	70.0732
227.08	70.0760
227.20	70.0797
228.16	66.4216
228.18	66.4225
228.18	66.4225
231.56	87.7805
235.69	61.7196
236.00	58.6421
236.00	58.6421
238.63	59.3316
238.63	59.3316
238.63	59.3316
238.63	59.3316
239.00	59.3418
240.98	66.5112
241.98	57.2570
241.98	57.2570
241.98	57.2570
244.69	48.0313
245.39	52.6965
247.94	69.8259
248.90	71.7189
249.79	56.8390
252.40	51.3080
252.85	58.7830
252.85	58.7830
254.15	0.0000
256.20	71.0183
256.20	71.0183
260.50	63.6628
260.90	59.9289
262.80	70.2869
264.65	62.8403
268.24	57.3014
268.79	54.4968
269.46	62.0313
269.46	62.0313
269.46	62.0313
269.46	62.0313
271.23	76.1867
273.65	52.7270
276.40	64.1003
277.35	73.5554
277.60	71.6777
277.60	71.6777
278.00	67.9166
278.60	82.0861
279.20	75.5010
279.53	79.2863
280.46	70.8188
281.68	61.4080
283.67	65.2409
284.30	63.3662
285.00	66.2231
285.90	70.9799
286.10	72.8784
286.10	72.8784
287.40	58.7131
288.45	0.0000
290.67	61.6365
290.80	61.6397
291.72	60.7141
293.26	56.9553
293.70	59.8139
295.21	50.3506
295.21	50.3506

295.21	50.3506
295.96	45.6141
296.50	38.9705
297.23	47.5391
298.57	60.8836
299.80	76.1416
299.80	76.1416
300.09	63.7760
300.09	63.7760
300.09	63.7760
300.09	63.7760
300.12	63.7768
301.29	65.7117
302.84	62.8934
303.76	53.3839
303.91	56.2466
304.40	48.6299
304.40	48.6299
304.84	50.5454
306.84	55.3577
308.46	55.3931
311.98	54.5139
316.51	47.9034
318.01	54.6419
319.02	58.4988
319.41	61.3852
320.08	59.4820
323.87	51.8827
323.87	51.8827
323.87	51.8827
323.87	51.8827
325.23	57.6775
328.77	37.5408
333.44	54.9641
334.20	55.9447
334.20	55.9447
334.30	55.9468
338.28	52.1655
338.28	52.1655
338.28	52.1655
338.28	52.1655
338.32	49.2687
338.32	49.2687
338.32	49.2687
340.50	56.0763
340.57	56.0778
344.27	59.0588
345.85	46.4994
350.59	62.1070
351.07	57.2650
351.92	46.6031
351.92	46.6031
351.92	46.6031
355.39	0.0000
356.01	49.5887
364.48	40.9618
366.43	37.0866
367.43	43.9338
367.94	48.8239
369.80	46.9020
374.96	45.0291
383.85	49.0955
387.95	41.2981
388.63	40.3243
391.69	45.2891
391.69	45.2891
392.90	41.3678
398.62	39.4741
400.65	36.5384
401.10	34.5685
401.81	35.5645
402.60	37.5505
404.84	50.4341
410.95	41.6180
411.60	54.5119
413.65	55.5399
414.70	44.6457
415.30	40.6852

415.76	38.7067
417.63	0.0000
418.52	34.7680
423.70	36.8166
427.08	36.8564
427.89	35.8699
432.53	36.9210
433.93	37.9355
439.47	30.0018
439.56	30.0029
439.89	32.0063
443.98	38.0566
444.90	39.0690
445.03	39.0709
445.03	39.0709
445.03	39.0709
445.03	39.0709
453.90	43.1968
463.38	42.3153
468.07	33.2953
473.00	32.3344
475.06	28.3104
475.35	30.3351
476.78	34.3943
477.59	30.3552
477.96	32.3828
482.03	30.3955
484.57	32.4465
487.03	47.6902
490.36	37.5804
492.35	30.4885
497.08	30.5306
507.63	0.0000
510.53	0.0000
510.84	27.5872
511.00	27.5885
511.85	27.5951
511.85	27.5951
513.99	25.5666
513.99	25.5666
520.41	20.4907
520.65	20.4922
527.90	34.9081
528.96	0.0000
529.64	31.8431
529.87	0.0000
531.02	31.8552
537.32	26.7643
543.00	35.0542
546.56	0.0000
549.76	28.9222
552.65	33.0797
555.20	32.0687
563.23	41.4688
563.90	52.8814
568.70	39.4528
569.32	36.3441
569.50	37.3843
569.67	37.3860
573.80	37.4273
574.00	32.2306
574.64	33.2758
578.91	39.5604
579.30	35.3995
583.14	25.0131
585.48	30.2426
591.81	35.5157
592.07	36.5629
593.00	40.7510
595.88	33.4617
600.56	43.9718
602.52	0.0000
602.71	30.3785
602.71	30.3785
603.60	36.6722
604.41	48.2079
604.70	53.4516
609.31	44.0713

609.31	44.0713
609.31	44.0713
609.31	44.0713
610.33	38.8346
612.46	40.9557
614.37	33.6211
618.01	32.6007
621.84	24.2112
621.84	24.2112
631.29	22.1582
633.02	20.0562
633.10	20.0567
634.78	27.4574
635.90	29.5777
636.97	24.3027
645.85	19.0613
646.12	16.9445
656.30	25.4801
657.75	25.4889
657.90	0.0000
661.65	31.8918
661.65	31.8918
664.57	26.5948
666.33	25.5422
666.33	25.5422
675.00	24.5285
677.61	18.1414
685.20	11.7597
692.80	20.3485
695.00	32.1460
696.49	32.1570
696.49	32.1570
697.00	34.3047
697.49	30.0200
698.33	26.8091
698.50	26.8103
699.00	23.5958
702.63	30.0562
706.10	25.7830
706.58	0.0000
706.67	20.4143
709.31	26.8774
711.68	22.5894
713.82	22.6006
717.42	18.3107
720.50	26.9464
721.93	24.7991
722.20	21.5659
722.78	26.9604
722.78	26.9604
722.89	26.9617
722.95	26.9617
723.30	28.0427
724.18	21.5757
727.18	23.7494
733.00	23.7805
735.90	17.3062
739.58	18.4032
742.81	20.5832
744.21	17.3387
747.13	15.1812
751.79	13.0260
752.31	16.2843
753.82	17.3758
755.35	15.2089
756.15	18.4713
756.87	13.0406
763.93	20.6801
765.79	16.3330
766.42	15.2462
766.84	15.2476
776.49	19.6453
778.00	8.7342
778.57	14.1946
778.89	15.2879
783.80	15.3040
785.46	14.2159
792.07	13.1411

795.84	16.4396
796.30	17.5375
798.80	31.8037
801.93	24.1431
805.60	10.9827
810.29	26.3848
810.76	25.2876
815.85	20.1783
817.79	22.9396
818.51	23.8608
819.60	24.7841
826.30	18.3842
828.27	23.9095
831.60	31.2877
831.96	32.2108
834.83	18.4167
836.80	0.0000
846.75	22.1548
848.13	17.5442
856.28	0.0000
856.80	17.5752
860.37	22.2163
867.32	13.9047
867.82	15.7604
871.10	14.8431
873.19	23.2020
874.81	14.8542
875.33	0.0000
876.40	13.9304
879.36	18.5848
880.27	17.6587
880.51	17.6594
881.50	17.6629
883.24	16.7391
884.67	17.6741
889.25	12.1039
896.60	10.2568
898.02	8.3941
899.00	14.9258
903.28	18.6731
911.07	15.8963
911.07	15.8963
911.07	15.8963
919.63	17.7963
920.93	17.8005
925.00	24.3782
925.24	22.5039
926.50	18.7577
935.52	22.5483
937.48	17.8577
944.10	13.1748
946.00	15.0625
949.00	17.8968
962.29	16.0534
964.01	22.6709
966.15	20.7897
968.20	13.2349
969.11	17.0193
969.11	17.0193
969.11	17.0193
977.42	10.4168
980.50	12.3179
983.50	16.1170
989.30	13.2871
996.32	22.8076
1001.03	9.5113
1001.68	8.5612
1004.76	16.1803
1021.30	0.0000
1024.50	0.0000
1034.80	17.2251
1036.00	13.4001
1037.82	15.3197
1038.57	14.3640
1038.76	0.0000
1045.16	15.3398
1046.59	17.2617
1048.07	17.2661

1050.47	17.2734
1050.47	17.2734
1062.04	10.5775
1063.62	12.5044
1076.63	14.4611
1077.35	10.6061
1078.86	10.6088
1085.78	17.3811
1099.22	13.5500
1112.02	17.4595
1112.84	20.3719
1115.52	18.4403
1120.29	18.4550
1120.29	18.4550
1120.29	18.4550
1120.29	18.4550
1120.51	18.4557
1121.28	16.5151
1124.00	0.0000
1129.67	12.6472
1131.51	0.0000
1147.95	0.0000
1167.94	19.5817
1173.22	5.8796
1175.09	14.7040
1177.93	20.5950
1189.05	14.7375
1204.90	13.7904
1205.75	11.8218
1213.00	10.8492
1221.42	9.8763
1230.97	10.8805
1235.34	12.8678
1236.41	0.0000
1238.25	8.9125
1246.25	6.9408
1260.41	0.0000
1271.85	8.9597
1274.45	6.9715
1274.54	6.9715
1291.56	15.9766
1298.22	0.0000
1312.09	7.0117
1325.50	10.0370
1325.50	10.0370
1332.49	11.0524
1333.61	11.0546
1360.21	10.0895
1362.66	0.0000
1365.15	17.1646
1368.21	14.1418
1368.53	0.0000
1376.25	13.1476
1384.27	4.0501
1394.10	10.1400
1395.20	10.1416
1407.95	10.1603
1434.06	11.2184
1436.60	13.2629
1457.56	0.0000
1460.81	10.2372
1489.15	15.4169
1509.49	6.1841
1596.49	8.3428
1620.62	6.2771
1678.03	0.0000
1691.02	7.3899
1691.02	7.3899
1706.46	0.0000
1750.46	0.0000
1764.49	5.3274
1764.49	5.3274
1764.49	5.3274
1764.49	5.3274
1770.23	7.4634
1771.40	8.5309
1791.20	0.0000
1808.65	9.6412

1836.01 7.5232

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032510

Total Uranium Activity	-1.3635E+00	ug/g
Total Uranium Counting Unc.	1.4929E+00	ug/g
Total Uranium Tpu	7.6167E-07	ug/g
Total Uranium Mda	1.2572E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G1202032510     *
*   ANALYST       : MXR1                      DETECTOR    : GAM14           *
*   SAMPLE DATE   :  5-FEB-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 16:32:21.56    SAMPLE ALQT:  136.210 GRAM    *
*                                                                           *
*****************************************************************************
```

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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 6.716E-02
GROSS GAMMA ERROR   (pCi/GRAM  )  : 6.577E-02
GROSS GAMMA MDA     (pCi/GRAM  )  : 1.042E-01
GROSS GAMMA DLC     (pCi/GRAM  )  : 4.917E-02
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:39:20.72

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:38:58
Sample ID         : G1202032511          Sample quantity  : 1.21500E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.92  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.28*	210	524	0.89	126.76	123	8	2.91E-02	20.6	
2	3	74.88	412	434	0.95	149.94	145	13	5.72E-02	9.4	1.51E+00
3	3	77.16*	689	335	0.86	154.50	145	13	9.57E-02	5.6	
4	0	87.00	167	515	1.13	174.18	172	7	2.31E-02	23.8	
5	3	89.95	141	326	0.83	180.08	178	15	1.96E-02	20.4	3.18E+00
6	3	92.70*	742	401	1.17	185.58	178	15	1.03E-01	6.1	
7	0	128.81	146	383	0.85	257.81	253	10	2.02E-02	26.5	
8	0	143.78*	81	332	1.05	287.76	284	8	1.12E-02	41.4	
9	0	185.83*	388	389	1.07	371.85	367	11	5.39E-02	11.5	
10	0	209.23	191	253	0.91	418.65	415	10	2.65E-02	17.3	
11	0	238.51*	1221	375	1.04	477.22	471	10	1.70E-01	4.2	
12	0	241.84	186	248	0.97	483.87	482	7	2.59E-02	16.8	
13	0	269.96*	108	238	1.07	540.12	535	11	1.50E-02	29.5	
14	0	295.18*	415	195	1.10	590.55	586	10	5.76E-02	8.1	
15	0	299.91	76	147	1.62	600.01	596	8	1.06E-02	29.9	
16	0	327.23	83	161	1.03	654.65	651	9	1.16E-02	29.3	
17	0	338.29	282	156	0.98	676.76	672	10	3.92E-02	10.2	
18	0	351.83*	683	134	1.12	703.85	699	9	9.49E-02	4.9	
19	0	409.40	32	146	0.60	818.98	814	11	4.45E-03	75.1	
20	0	462.57	81	147	1.07	925.31	920	13	1.13E-02	32.6	
21	0	510.96*	117	129	1.85	1022.07	1015	15	1.63E-02	26.6	
22	0	583.19*	372	106	1.27	1166.51	1162	12	5.16E-02	7.7	
23	0	609.27*	486	100	1.24	1218.67	1213	13	6.74E-02	6.3	
24	0	661.40	164	107	1.20	1322.92	1319	11	2.28E-02	14.3	
25	0	727.42	91	55	1.23	1454.93	1450	9	1.26E-02	18.2	
26	0	770.39	59	119	0.71	1540.86	1533	16	8.25E-03	44.2	
27	0	795.00	82	67	1.47	1590.06	1582	16	1.14E-02	25.1	
28	0	860.80	58	42	1.33	1721.63	1716	10	8.07E-03	24.7	
29	0	911.00*	266	60	1.33	1822.01	1816	14	3.69E-02	9.2	
30	0	964.98*	36	47	1.02	1929.94	1924	9	5.03E-03	39.5	
31	0	968.85*	137	60	1.52	1937.68	1933	10	1.90E-02	13.9	
32	0	1001.40*	35	38	1.06	2002.76	1998	11	4.88E-03	39.2	
33	0	1120.08*	137	45	1.39	2240.04	2233	15	1.91E-02	13.9	
34	0	1377.53	30	27	1.76	2754.73	2750	10	4.12E-03	37.8	
35	0	1460.66*	1056	24	2.02	2920.93	2912	19	1.47E-01	3.3	
36	0	1764.55*	127	5	1.81	3528.39	3519	18	1.76E-02	10.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 18:39:23

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:38:58
Sample ID : G1202032511 Sample quantity : 121.50 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.92 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.530E+01	2.782E+00	4.667E-01	4.102E-02	54.215
CD-109	+	88.03	*	2.267E+00	1.100E+00	1.135E+00	1.094E-01	1.997
SN-126	+	64.28		1.913E+00	8.341E-01	7.344E-01	1.070E-01	2.605
	+	86.94		9.262E-01	5.852E-01	5.604E-01	2.329E-01	1.653
	+	87.57	*	2.228E-01	1.081E-01	1.330E-01	1.275E-02	1.675
BA-137M	+	661.65	*	2.346E-01	7.021E-02	5.783E-02	5.132E-03	4.057
CS-137	+	661.65	*	2.480E-01	7.423E-02	6.113E-02	5.435E-03	4.057
TL-208		277.35		2.355E-01	3.627E-01	5.991E-01	8.906E-02	0.393
	+	510.84		5.647E-01	3.092E-01	2.104E-01	2.660E-02	2.684
	+	583.14	*	5.114E-01	9.387E-02	5.869E-02	5.818E-03	8.713
	+	860.37		7.512E-01	3.787E-01	4.130E-01	4.134E-02	1.819
BI-211		72.87		2.942E+00	2.989E+00	4.794E+00	3.897E-01	0.614
	+	351.07	*	4.140E+00	6.093E-01	3.002E-01	3.283E-02	13.789
PB-212	+	74.81		2.326E+00	5.254E-01	5.130E-01	6.409E-02	4.534
	+	77.11		2.203E+00	3.105E-01	2.911E-01	2.472E-02	7.567
	+	87.30		1.030E+00	5.106E-01	6.169E-01	8.532E-02	1.670
	+	238.63	*	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
	+	300.09		1.557E+00	9.530E-01	1.191E+00	1.561E-01	1.307
PO-212	+	74.81		2.326E+00	5.254E-01	5.130E-01	6.409E-02	4.534
	+	77.11		2.203E+00	3.105E-01	2.911E-01	2.472E-02	7.567
	+	87.30		1.030E+00	5.106E-01	6.169E-01	8.532E-02	1.670
		115.19		-1.404E+00	3.310E+00	5.461E+00	4.557E-01	-0.257
	+	238.63	*	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
	+	300.09		1.557E+00	9.530E-01	1.191E+00	1.561E-01	1.307
BI-214	+	609.31	*	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
	+	1120.29		1.855E+00	5.544E-01	4.137E-01	4.441E-02	4.484
	+	1764.49		2.349E+00	5.176E-01	2.566E-01	2.124E-02	9.155
PB-214	+	74.81		4.008E+00	8.759E-01	8.840E-01	9.828E-02	4.534
	+	77.11		3.776E+00	6.051E-01	4.990E-01	5.694E-02	7.567
	+	87.30		1.765E+00	8.675E-01	1.057E+00	1.297E-01	1.670
	+	241.98		1.486E+00	5.331E-01	6.257E-01	7.751E-02	2.375
	+	295.21		1.488E+00	3.121E-01	2.017E-01	2.693E-02	7.377
	+	351.92	*	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
PO-214	+	74.81		4.008E+00	8.759E-01	8.840E-01	9.828E-02	4.534

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.776E+00	6.051E-01	4.990E-01	5.694E-02	7.567
	+	87.30		1.765E+00	8.675E-01	1.057E+00	1.297E-01	1.670
	+	241.98		1.486E+00	5.331E-01	6.257E-01	7.751E-02	2.375
	+	295.21		1.488E+00	3.121E-01	2.017E-01	2.693E-02	7.377
	+	351.92	*	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
PO-216	+	74.81		2.326E+00	5.254E-01	5.130E-01	6.409E-02	4.534
	+	77.11		2.203E+00	3.105E-01	2.911E-01	2.472E-02	7.567
	+	87.30		1.030E+00	5.106E-01	6.169E-01	8.532E-02	1.670
	+	238.63	*	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
	+	300.09		1.557E+00	9.530E-01	1.191E+00	1.561E-01	1.307
PO-218	+	74.81		4.008E+00	8.759E-01	8.840E-01	9.828E-02	4.534
	+	77.11		3.776E+00	6.051E-01	4.990E-01	5.694E-02	7.567
	+	87.30		1.765E+00	8.675E-01	1.057E+00	1.297E-01	1.670
	+	241.98		1.486E+00	5.331E-01	6.257E-01	7.751E-02	2.375
	+	295.21		1.488E+00	3.121E-01	2.017E-01	2.693E-02	7.377
	+	351.92	*	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
RA-224	+	240.98	*	2.818E+00	9.984E-01	1.334E+00	1.470E-01	2.112
RA-226	+	609.31	*	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
	+	1120.29		1.855E+00	5.544E-01	4.137E-01	4.441E-02	4.484
	+	1764.49		2.349E+00	5.176E-01	2.566E-01	2.124E-02	9.155
AC-228	+	338.32		1.883E+00	8.765E-01	3.260E-01	1.363E-01	5.777
	+	911.07	*	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
	+	969.11		1.478E+00	5.383E-01	3.361E-01	7.925E-02	4.398
RA-228	+	338.32		1.883E+00	8.765E-01	3.260E-01	1.363E-01	5.777
	+	911.07	*	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
	+	969.11		1.478E+00	5.383E-01	3.361E-01	7.925E-02	4.398
TH-228	+	74.81		2.362E+00	4.863E-01	5.209E-01	4.358E-02	4.534
	+	77.11		2.236E+00	3.152E-01	2.955E-01	2.510E-02	7.567
	+	87.30		1.046E+00	5.077E-01	6.263E-01	5.985E-02	1.670
	+	238.63	*	1.643E+00	2.384E-01	1.321E-01	1.564E-02	12.437
	+	300.09		1.581E+00	1.337E+00	1.210E+00	7.235E-01	1.307
TH-230	+	609.31	*	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
	+	1120.29		1.855E+00	5.544E-01	4.137E-01	4.441E-02	4.484
	+	1764.49		2.349E+00	5.176E-01	2.566E-01	2.123E-02	9.155
TH-232	+	338.32		1.883E+00	4.367E-01	3.260E-01	3.558E-02	5.777
	+	911.07	*	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
	+	969.11		1.478E+00	5.383E-01	3.361E-01	7.925E-02	4.398
TH-234	+	63.29	*	4.833E+00	2.158E+00	1.997E+00	3.483E-01	2.420
	+	92.38		6.428E+00	1.417E+00	6.845E-01	1.258E-01	9.391
U-234	+	609.31	*	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
	+	1120.29		1.855E+00	5.544E-01	4.137E-01	4.441E-02	4.484
	+	1764.49		2.349E+00	5.176E-01	2.566E-01	2.123E-02	9.155
U-235	+	89.95		2.504E+00	1.286E+00	1.761E+00	5.475E-01	1.422
	+	93.35		7.728E+00	2.375E+00	8.174E-01	2.305E-01	9.454
		105.00		1.052E+00	9.710E-01	1.621E+00	4.835E-01	0.649
	+	143.76	*	3.428E-01	2.904E-01	3.051E-01	5.331E-02	1.124
		163.35		2.082E-02	4.649E-01	7.563E-01	1.456E-01	0.028
	+	185.71		3.610E-01	8.983E-02	6.299E-02	6.017E-03	5.731
		205.31		4.773E-01	5.423E-01	8.213E-01	1.624E-01	0.581

Sample ID : G1202032511 Acquisition date : 12-FEB-2010 16:38:58

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	+	86.50	*	6.542E-01	3.450E-01	3.977E-01	9.028E-02	1.645
		95.87		-6.664E-01	9.548E-01	1.382E+00	3.423E-01	-0.482
U-238	+	63.29	*	4.833E+00	2.158E+00	1.997E+00	3.483E-01	2.420
	+	92.38		6.428E+00	9.814E-01	6.845E-01	6.316E-02	9.391
AM-243	+	74.67	*	3.771E-01	7.754E-02	8.343E-02	6.907E-03	4.520
	+	86.72		2.453E+01	1.191E+01	1.488E+01	1.412E+00	1.649
		117.66		1.334E-01	3.475E+00	5.840E+00	4.860E-01	0.023
		142.18		3.405E+00	1.823E+01	2.740E+01	2.336E+00	0.124
ANH-511	+	511.00	*	1.220E-01	6.602E-02	4.546E-02	4.323E-03	2.683

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	8.449E-02	3.161E-01	5.334E-01	5.395E-02	0.158
NA-22		1274.54	*	3.415E-02	3.909E-02	6.980E-02	5.808E-03	0.489
NA-24		1368.53	*	-3.341E-01	3.909E-02	Half-Life too short		
AL-26		1129.67		-1.542E-02	1.580E+00	2.583E+00	2.165E-01	-0.006
		1808.65	*	1.442E-02	3.317E-02	5.862E-02	4.793E-03	0.246
TI-44		67.85		-6.985E-03	4.522E-02	6.906E-02	5.348E-03	-0.101
	+	78.38	*	4.065E-01	5.730E-02	7.227E-02	6.223E-03	5.624
SC-46		889.25	*	-2.081E-02	3.399E-02	5.296E-02	5.007E-03	-0.393
	+	1120.51		3.177E-01	9.261E-02	1.403E-01	1.185E-02	2.264
V-48		944.10		-6.002E-01	8.821E-01	1.317E+00	1.230E-01	-0.456
		983.50	*	2.583E-02	6.498E-02	1.120E-01	1.031E-02	0.231
		1312.09		-2.411E-02	7.892E-02	1.226E-01	1.029E-02	-0.197
CR-51		320.08	*	1.787E-01	3.475E-01	5.691E-01	6.654E-02	0.314
MN-52		744.21		1.033E-01	2.324E-01	3.881E-01	3.563E-02	0.266
		848.13		-1.940E+00	6.286E+00	1.023E+01	9.627E-01	-0.190
		935.52		1.799E-01	2.391E-01	4.248E-01	3.980E-02	0.423
		1246.25		4.579E+00	6.926E+00	1.200E+01	9.893E-01	0.381
		1333.61		2.609E-01	4.366E+00	7.114E+00	6.002E-01	0.037
		1434.06	*	-3.845E-02	2.089E-01	3.240E-01	2.765E-02	-0.119
MN-54		834.83	*	6.391E-03	3.855E-02	6.554E-02	6.156E-03	0.098
CO-56		846.75	*	-1.212E-02	3.495E-02	5.661E-02	5.327E-03	-0.214
		977.42		1.292E+00	2.492E+00	4.362E+00	4.026E-01	0.296
		1037.82		-1.156E-01	2.853E-01	4.495E-01	4.225E-02	-0.257
		1175.09		4.926E-01	2.092E+00	3.500E+00	2.816E-01	0.141
		1238.25		2.143E-01	9.499E-02	1.788E-01	1.517E-02	1.199
		1360.21		-1.973E-01	8.544E-01	1.324E+00	1.122E-01	-0.149
		1771.40		7.058E-04	2.067E-01	2.931E-01	2.422E-02	0.002
CO-57		122.06	*	1.423E-02	2.333E-02	4.002E-02	3.325E-03	0.356
		136.48		5.335E-02	1.930E-01	3.252E-01	2.956E-02	0.164
CO-58		810.76	*	-2.451E-02	3.858E-02	6.123E-02	5.737E-03	-0.400
FE-59	+	142.65		4.427E+00	3.689E+00	4.518E+00	3.857E-01	0.980
		192.34		-1.974E-02	8.865E-01	1.448E+00	2.050E-01	-0.014
		1099.22	*	-1.995E-02	8.144E-02	1.300E-01	1.209E-02	-0.153
		1291.56		-8.999E-02	1.135E-01	1.637E-01	1.563E-02	-0.550
CO-60		1173.22		-1.011E-02	4.255E-02	6.776E-02	5.448E-03	-0.149

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-9.538E-03	3.274E-02	5.040E-02	4.251E-03	-0.189
ZN-65		1115.52	*	-6.271E-02	9.679E-02	1.236E-01	1.050E-02	-0.507
GE-68		1077.35	*	4.180E-01	1.154E+00	1.970E+00	1.721E-01	0.212
AS-73		53.44	*	-2.406E-01	8.111E-01	1.252E+00	9.548E-02	-0.192
AS-74		595.88	*	4.774E-02	8.683E-02	1.478E-01	1.372E-02	0.323
		634.78		-8.726E-02	3.444E-01	5.458E-01	4.947E-02	-0.160
SE-75		66.05		-3.650E+00	5.194E+00	7.073E+00	6.805E-01	-0.516
		96.73		-6.594E-01	7.813E-01	1.131E+00	1.564E-01	-0.583
		121.11		-1.727E-02	1.243E-01	2.071E-01	2.274E-02	-0.083
		136.00		1.349E-02	3.595E-02	6.081E-02	5.161E-03	0.222
		198.60		-1.693E+00	1.766E+00	2.692E+00	2.886E-01	-0.629
		264.65	*	-5.191E-02	4.976E-02	6.446E-02	7.522E-03	-0.805
		279.53		-1.029E-01	1.074E-01	1.602E-01	1.960E-02	-0.642
		303.91		1.188E+00	2.186E+00	3.226E+00	4.484E-01	0.368
		400.65		-3.135E-02	2.270E-01	3.770E-01	4.389E-02	-0.083
BR-77	+	87.88		5.008E+02	2.431E+02	3.251E+02	3.129E+01	1.541
		200.40		-5.715E+01	1.530E+02	2.447E+02	2.431E+01	-0.234
	+	239.00		2.657E+02	3.668E+01	3.937E+01	4.318E+00	6.749
		249.79		-2.548E+01	6.429E+01	1.009E+02	1.135E+01	-0.253
		281.68		4.877E+01	8.517E+01	1.406E+02	1.685E+01	0.347
		297.23		1.306E+02	7.759E+01	1.005E+02	1.182E+01	1.300
		303.76		8.360E+01	1.915E+02	2.805E+02	3.268E+01	0.298
		439.47		-6.674E+01	1.407E+02	2.265E+02	2.138E+01	-0.295
		484.57		-2.798E+02	2.359E+02	3.537E+02	3.365E+01	-0.791
		520.65	*	-8.906E-01	9.652E+00	1.577E+01	1.499E+00	-0.056
		574.64		1.649E+02	2.171E+02	3.743E+02	3.508E+01	0.440
		578.91		-2.277E+01	1.025E+02	1.431E+02	1.339E+01	-0.159
		585.48		7.198E+02	2.346E+02	4.052E+02	3.780E+01	1.776
		755.35		1.810E+02	1.679E+02	2.942E+02	2.711E+01	0.615
		817.79		3.902E-01	1.188E+02	1.997E+02	1.870E+01	0.002
SR-82		698.33		-1.097E+01	3.378E+01	5.279E+01	4.764E+00	-0.208
		776.49	*	1.630E-01	3.869E-01	5.717E-01	5.300E-02	0.285
		1395.20		-1.134E+01	1.117E+01	1.530E+01	1.301E+00	-0.741
RB-83		520.41	*	-7.019E-03	6.233E-02	1.017E-01	9.661E-03	-0.069
		529.64		8.057E-05	9.319E-02	1.533E-01	1.455E-02	0.001
		552.65		2.568E-01	1.794E-01	3.261E-01	3.078E-02	0.787
RB-84		881.50	*	4.583E-02	7.019E-02	1.238E-01	1.169E-02	0.370
KR-85		513.99	*	4.535E+00	7.310E+00	1.122E+01	1.067E+00	0.404
SR-85		513.99	*	2.327E-02	3.751E-02	5.759E-02	5.476E-03	0.404
RB-86		1076.63	*	3.543E-01	7.180E-01	1.242E+00	1.086E-01	0.285
Y-88		898.02		1.119E-02	3.546E-02	6.109E-02	5.802E-03	0.183
		1836.01	*	8.120E-03	3.291E-02	5.673E-02	4.605E-03	0.143
ZR-88		392.90	*	-2.542E-02	2.804E-02	4.405E-02	4.074E-03	-0.577
Y-91		1204.90	*	-1.227E+01	1.773E+01	2.673E+01	2.174E+00	-0.459
NB-94		702.63	*	1.155E-02	3.148E-02	5.234E-02	4.731E-03	0.221
		871.10		1.931E-02	2.886E-02	5.148E-02	4.859E-03	0.375
NB-95		765.79	*	-1.523E-02	5.328E-02	7.370E-02	6.812E-03	-0.207
NB-95M		235.69	*	1.257E-01	1.270E-01	1.938E-01	2.305E-02	0.649
ZR-95		724.18		-1.699E-02	1.080E-01	1.483E-01	1.457E-02	-0.115

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		756.15	*	9.440E-02	7.289E-02	1.291E-01	1.296E-02	0.731
NB-97		657.90	*	-1.675E-02	7.289E-02	Half-Life too short		
		1024.50		9.629E-01	7.289E-02	Half-Life too short		
ZR-97		254.15		2.242E+00	7.289E-02	Half-Life too short		
		355.39		5.598E-01	7.289E-02	Half-Life too short		
		507.63	*	2.276E+00	7.289E-02	Half-Life too short		
		602.52		1.167E+00	7.289E-02	Half-Life too short		
		1021.30		9.380E+00	7.289E-02	Half-Life too short		
		1147.95		-2.302E+00	7.289E-02	Half-Life too short		
		1362.66		-4.267E+00	7.289E-02	Half-Life too short		
		1750.46		1.921E+00	7.289E-02	Half-Life too short		
MO-99		140.51		-9.040E+00	2.741E+01	3.919E+01	1.084E+01	-0.231
		181.06		-8.244E+00	1.826E+01	2.594E+01	4.846E+00	-0.318
		366.43		5.479E+01	7.964E+01	1.396E+02	1.412E+01	0.392
		739.58	*	2.689E-01	1.171E+01	1.882E+01	2.917E+00	0.014
		778.00		-3.417E+01	3.597E+01	4.908E+01	4.553E+00	-0.696
TC-99M		140.51	*	-1.593E+10	3.597E+01	Half-Life too short		
RH-101		127.23		2.529E-02	3.055E-02	4.792E-02	3.990E-03	0.528
		198.01	*	-1.275E-02	3.219E-02	5.074E-02	5.009E-03	-0.251
		325.23		1.300E-01	2.340E-01	3.447E-01	3.870E-02	0.377
RH-102		418.52		1.316E-01	2.565E-01	4.434E-01	4.154E-02	0.297
		475.06	*	-6.871E-03	2.898E-02	4.722E-02	4.488E-03	-0.146
		631.29		-6.124E-03	5.268E-02	8.461E-02	7.689E-03	-0.072
		697.49		-1.335E-02	7.419E-02	1.175E-01	1.060E-02	-0.114
		766.84		2.971E-02	1.463E-01	2.124E-01	1.964E-02	0.140
		1046.59		-9.696E-03	1.084E-01	1.771E-01	1.578E-02	-0.055
		1112.84		2.420E-01	2.339E-01	3.806E-01	3.236E-02	0.636
RU-103		497.08	*	-1.958E-02	3.635E-02	5.719E-02	8.421E-03	-0.342
	+	610.33		1.361E+01	2.886E+00	3.011E+00	5.117E-01	4.520
RH-106	+	511.85		6.093E-01	3.298E-01	4.332E-01	4.119E-02	1.407
		621.84	*	-3.597E-02	2.800E-01	4.494E-01	6.157E-02	-0.080
		1050.47		1.902E+00	2.241E+00	3.988E+00	3.546E-01	0.477
RU-106	+	511.85		6.093E-01	3.298E-01	4.332E-01	4.119E-02	1.407
		621.84	*	-3.597E-02	2.800E-01	4.494E-01	4.109E-02	-0.080
		1050.47		1.902E+00	2.241E+00	3.988E+00	3.546E-01	0.477
AG-108M		433.93	*	2.701E-03	3.015E-02	5.002E-02	4.869E-03	0.054
		614.37		-1.592E-02	3.766E-02	5.051E-02	4.801E-03	-0.315
		722.95		-1.953E-02	4.786E-02	6.353E-02	5.992E-03	-0.307
AG-110M		657.75	*	4.904E-03	3.575E-02	5.147E-02	4.711E-03	0.095
		677.61		-1.701E-01	3.180E-01	4.883E-01	4.481E-02	-0.348
		706.67		-4.431E-02	2.012E-01	3.170E-01	2.942E-02	-0.140
		763.93		1.414E-01	1.827E-01	2.789E-01	2.640E-02	0.507
		884.67		5.227E-03	4.609E-02	7.786E-02	7.555E-03	0.067
		937.48		-1.019E-01	1.044E-01	1.555E-01	1.501E-02	-0.655
		1384.27		6.755E-02	1.847E-01	2.949E-01	2.578E-02	0.229
IN-111		171.28		-4.169E-01	9.585E-01	1.544E+00	1.420E-01	-0.270
		245.39	*	-2.487E-01	1.077E+00	1.516E+00	1.689E-01	-0.164
IN-113M		391.69	*	-1.843E-02	3.952E-02	6.421E-02	6.095E-03	-0.287
SN-113		391.69	*	-1.843E-02	3.952E-02	6.421E-02	6.095E-03	-0.287

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-114M		190.27	*	1.319E-01	1.881E-01	2.866E-01	2.772E-02	0.460
CD-115		260.90		6.339E+01	1.380E+02	2.268E+02	2.617E+01	0.280
		492.35		2.218E+01	3.471E+01	6.004E+01	5.714E+00	0.369
		527.90	*	3.057E-01	9.534E+00	1.573E+01	1.493E+00	0.019
SN-117M		156.02		-8.547E-01	2.162E+00	3.513E+00	3.099E-01	-0.243
		158.56	*	5.197E-02	5.304E-02	9.095E-02	8.078E-03	0.571
SB-122		563.90	*	6.662E-01	2.033E+00	3.412E+00	3.210E-01	0.195
		692.80		1.322E+01	4.406E+01	7.284E+01	6.557E+00	0.182
I-123		159.00	*	4.783E+00	4.406E+01	Half-Life too short		
		528.96		8.224E+01	4.406E+01	Half-Life too short		
TE-123M		159.00	*	2.145E-02	2.720E-02	4.635E-02	4.145E-03	0.463
I-124		602.71	*	1.105E-01	7.113E-01	1.087E+00	1.006E-01	0.102
		722.78		6.088E-01	4.753E+00	6.769E+00	6.168E-01	0.090
		1325.50		-1.030E-02	3.076E+01	4.971E+01	4.186E+00	0.000
	+	1376.25		5.579E+01	4.249E+01	6.466E+01	5.488E+00	0.863
		1509.49		1.452E+01	1.494E+01	2.812E+01	2.404E+00	0.516
		1691.02		5.881E-01	2.739E+00	4.772E+00	4.013E-01	0.123
SB-124		602.71		6.349E-03	4.085E-02	6.245E-02	5.777E-03	0.102
		645.85		-3.397E-01	5.134E-01	7.817E-01	7.417E-02	-0.435
		709.31		-3.502E-01	2.597E+00	4.122E+00	3.736E-01	-0.085
		713.82		2.349E-01	1.639E+00	2.668E+00	3.301E-01	0.088
		722.78		5.069E-02	3.957E-01	5.636E-01	5.235E-02	0.090
	+	968.20		1.523E+01	4.456E+00	7.333E+00	6.792E-01	2.077
		1045.16		-8.431E-01	2.216E+00	3.497E+00	3.119E-01	-0.241
		1325.50		-9.162E-04	2.736E+00	4.420E+00	3.722E-01	0.000
		1368.21		-6.547E-01	1.677E+00	2.536E+00	3.395E-01	-0.258
		1436.60		-1.367E-01	3.260E+00	5.440E+00	4.642E-01	-0.025
		1691.02	*	1.155E-02	5.380E-02	9.372E-02	8.208E-03	0.123
SB-125		427.89	*	1.545E-02	8.312E-02	1.406E-01	1.343E-02	0.110
	+	463.38		7.667E-01	5.056E-01	5.501E-01	5.560E-02	1.394
		600.56		-5.188E-02	1.743E-01	2.770E-01	2.730E-02	-0.187
		635.90		4.290E-02	2.461E-01	4.057E-01	3.945E-02	0.106
TE-125M		109.28	*	-3.366E+00	8.436E+00	1.374E+01	1.398E+00	-0.245
I-126		388.63		9.006E-02	1.929E-01	3.331E-01	3.117E-02	0.270
		666.33	*	1.229E-02	1.990E-01	2.832E-01	2.519E-02	0.043
		753.82		6.356E-01	1.527E+00	2.534E+00	2.334E-01	0.251
SB-126		223.80		-1.049E+00	3.823E+00	6.101E+00	6.444E-01	-0.172
		278.60		2.044E+00	2.338E+00	3.912E+00	4.692E-01	0.522
	+	296.50		1.488E+01	2.979E+00	3.617E+00	4.258E-01	4.114
		414.70		-5.433E-02	8.239E-02	1.137E-01	1.063E-02	-0.478
		415.30		5.820E-01	6.176E+00	9.665E+00	9.040E-01	0.060
		555.20		-1.487E+00	3.851E+00	6.106E+00	5.760E-01	-0.244
		573.80		4.644E-01	1.113E+00	1.874E+00	1.756E-01	0.248
		593.00		-8.259E-01	8.876E-01	1.322E+00	1.229E-01	-0.625
		656.30		-2.265E-01	3.688E+00	5.175E+00	4.614E-01	-0.044
		666.33		5.136E-03	8.319E-02	1.184E-01	1.053E-02	0.043
		675.00		7.421E-01	1.930E+00	3.222E+00	2.878E-01	0.230
		695.00		4.533E-02	7.720E-02	1.305E-01	1.176E-02	0.347
		697.00		-2.535E-02	2.668E-01	4.260E-01	3.842E-02	-0.060

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		720.50	*	8.040E-04	1.423E-01	2.287E-01	2.082E-02	0.004
		856.80		-2.534E-01	5.083E-01	6.584E-01	6.204E-02	-0.385
		989.30		-3.444E-01	1.141E+00	1.827E+00	1.678E-01	-0.188
		1034.80		1.606E+00	8.419E+00	1.417E+01	1.271E+00	0.113
		1213.00		1.482E+00	4.924E+00	8.231E+00	6.712E-01	0.180
SB-127		61.10		3.032E+01	6.267E+01	9.202E+01	9.346E+00	0.329
		252.40		-4.560E-01	4.233E+00	6.756E+00	2.883E+00	-0.067
		290.80		1.240E+01	2.224E+01	3.293E+01	4.556E+00	0.377
		411.60		1.093E+01	1.301E+01	2.044E+01	3.300E+00	0.535
		444.90		2.175E+00	9.517E+00	1.609E+01	2.113E+00	0.135
		473.00		2.386E-01	1.657E+00	2.774E+00	3.743E-01	0.086
		543.00		-9.284E+00	1.523E+01	2.356E+01	3.518E+00	-0.394
		603.60		-9.516E-01	1.326E+01	1.875E+01	2.431E+00	-0.051
		685.20	*	2.655E-03	1.421E+00	2.292E+00	2.676E-01	0.001
		698.50		-1.719E+00	1.491E+01	2.376E+01	3.815E+00	-0.072
		722.20		1.144E+01	3.281E+01	4.799E+01	5.550E+00	0.238
		783.80		2.923E+00	3.640E+00	6.212E+00	8.020E-01	0.471
XE-127		57.60		-6.006E+00	6.005E+00	8.892E+00	6.428E-01	-0.675
	+	145.22		1.135E+00	9.453E-01	1.126E+00	9.662E-02	1.008
		172.10		-7.431E-02	1.116E-01	1.775E-01	1.636E-02	-0.419
		202.84	*	-3.529E-02	4.370E-02	6.809E-02	6.810E-03	-0.518
		374.96		3.040E-02	1.906E-01	3.240E-01	3.186E-02	0.094
I-131		80.18		2.541E+00	4.316E+00	6.808E+00	6.019E-01	0.373
		284.30		-3.801E-01	1.377E+00	2.156E+00	2.646E-01	-0.176
		364.48	*	3.808E-02	1.080E-01	1.835E-01	1.941E-02	0.207
		636.97		-8.577E-01	1.502E+00	2.304E+00	2.191E-01	-0.372
		722.89		6.615E-01	7.593E+00	1.076E+01	9.860E-01	0.061
TE-132		49.72		-2.482E+00	1.882E+01	2.937E+01	3.072E+00	-0.085
		111.76		4.147E+00	2.745E+01	4.645E+01	4.968E+00	0.089
		116.30		-3.435E+00	2.585E+01	4.317E+01	4.597E+00	-0.080
		228.16	*	7.525E-02	6.474E-01	1.054E+00	1.786E-01	0.071
BA-133		53.15		-4.728E-01	3.498E+00	5.446E+00	4.172E-01	-0.087
		79.62		-1.435E-01	1.226E+00	1.876E+00	2.868E-01	-0.077
		81.00		-1.151E-01	9.295E-02	1.416E-01	2.268E-02	-0.813
		276.40		2.523E-01	3.640E-01	6.012E-01	1.001E-01	0.420
		302.84		4.746E-02	1.502E-01	2.178E-01	3.363E-02	0.218
		356.01	*	5.675E-03	4.188E-02	6.322E-02	9.135E-03	0.090
		383.85		2.573E-01	2.927E-01	5.144E-01	6.812E-02	0.500
I-133	+	510.53		1.319E+00	2.927E-01	Half-Life too short		
		529.87	*	-1.417E-03	2.927E-01	Half-Life too short		
		706.58		-6.742E-02	2.927E-01	Half-Life too short		
		856.28		-1.736E-01	2.927E-01	Half-Life too short		
		875.33		-8.658E-02	2.927E-01	Half-Life too short		
		1236.41		1.443E+00	2.927E-01	Half-Life too short		
		1298.22		1.193E-01	2.927E-01	Half-Life too short		
CS-134		475.35		-8.473E-02	1.873E+00	3.095E+00	2.942E-01	-0.027
		563.23		1.417E-01	3.495E-01	5.899E-01	5.595E-02	0.240
		569.32		2.231E-02	2.042E-01	3.354E-01	3.185E-02	0.067
		604.70		-5.700E-03	3.829E-02	5.368E-02	4.970E-03	-0.106

---- Non-Identified Nuclides ----

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	+	795.84	*	1.623E-01	8.273E-02	9.576E-02	8.978E-03	1.695
		801.93		-4.831E-01	4.499E-01	5.665E-01	5.312E-02	-0.853
		1038.57		-2.236E-01	3.348E+00	5.482E+00	4.908E-01	-0.041
		1167.94		8.787E-01	2.393E+00	4.052E+00	3.276E-01	0.217
		1365.15		6.702E-01	1.076E+00	1.900E+00	1.686E-01	0.353
CS-135		268.24	*	1.218E-01	1.655E-01	2.447E-01	3.121E-02	0.498
I-135		288.45		-2.656E+10	1.655E-01	Half-Life too short		
		417.63		1.308E+10	1.655E-01	Half-Life too short		
		546.56		1.725E+10	1.655E-01	Half-Life too short		
		836.80		1.532E+10	1.655E-01	Half-Life too short		
		1038.76		-1.008E+09	1.655E-01	Half-Life too short		
		1124.00		5.851E+09	1.655E-01	Half-Life too short		
		1131.51		-1.471E+09	1.655E-01	Half-Life too short		
		1260.41	*	-4.171E+09	1.655E-01	Half-Life too short		
		1457.56		4.974E+11	1.655E-01	Half-Life too short		
		1678.03		-1.259E+09	1.655E-01	Half-Life too short		
		1706.46		7.229E+09	1.655E-01	Half-Life too short		
		1791.20		1.335E+10	1.655E-01	Half-Life too short		
CS-136		66.91		-3.503E-01	8.306E-01	1.149E+00	1.715E-01	-0.305
	+	86.29		2.919E+00	1.444E+00	1.889E+00	2.533E-01	1.546
		153.22		4.831E-01	6.302E-01	1.074E+00	1.048E-01	0.450
		163.89		1.157E-02	1.054E+00	1.712E+00	1.714E-01	0.007
		176.55		-1.119E-02	3.454E-01	5.667E-01	5.545E-02	-0.020
		273.65		-2.653E-02	4.883E-01	6.920E-01	8.503E-02	-0.038
		340.57		1.519E-01	1.215E-01	1.980E-01	2.189E-02	0.767
		818.51		-1.492E-02	6.662E-02	1.096E-01	1.027E-02	-0.136
		1048.07	*	2.130E-02	1.035E-01	1.741E-01	1.612E-02	0.122
		1235.34		5.664E-01	6.080E-01	1.060E+00	1.225E-01	0.534
CE-139		165.85	*	-1.334E-02	2.869E-02	4.630E-02	4.199E-03	-0.288
BA-140		162.64		-1.074E-01	7.380E-01	1.190E+00	1.127E-01	-0.090
		304.84		-1.722E-01	1.276E+00	1.904E+00	5.540E-01	-0.090
		423.70		2.077E-01	1.793E+00	3.016E+00	9.842E-01	0.069
		537.32	*	-2.139E-01	2.459E-01	3.557E-01	1.187E-01	-0.601
LA-140		328.77		1.689E-01	3.897E-01	5.632E-01	6.491E-02	0.300
		432.53		-1.080E-01	1.892E+00	3.106E+00	3.044E-01	-0.035
		487.03		1.079E-01	1.360E-01	2.370E-01	2.370E-02	0.455
		751.79		-1.285E+00	1.685E+00	2.479E+00	2.497E-01	-0.518
		815.85		-1.407E-01	2.914E-01	4.669E-01	4.800E-02	-0.301
		867.82		-1.059E+00	1.212E+00	1.834E+00	1.807E-01	-0.578
		919.63		6.759E-01	2.459E+00	4.212E+00	4.758E-01	0.160
		925.24		-2.831E-03	1.052E+00	1.752E+00	1.734E-01	-0.002
		1596.49	*	-5.581E-02	8.073E-02	1.189E-01	1.013E-02	-0.469
CE-141		145.44	*	2.595E-02	6.556E-02	9.877E-02	8.640E-03	0.263
CE-143		57.37		-6.894E-04	6.556E-02	Half-Life too short		
		231.56		-4.908E-04	6.556E-02	Half-Life too short		
		293.26	*	4.687E-04	6.556E-02	Half-Life too short		
	+	350.59		3.411E-02	6.556E-02	Half-Life too short		
		490.36		-1.602E-03	6.556E-02	Half-Life too short		
		664.57		2.004E-03	6.556E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		721.93		3.853E-04	6.556E-02	Half-Life too short		
CE-144		80.11		1.212E+00	1.976E+00	3.121E+00	2.739E-01	0.388
		133.54	*	-9.388E-03	2.040E-01	3.044E-01	4.701E-02	-0.031
PM-144		476.78		3.272E-02	6.595E-02	1.129E-01	1.157E-02	0.290
		618.01		2.695E-03	2.847E-02	4.669E-02	4.385E-03	0.058
		696.49	*	9.031E-03	3.386E-02	5.580E-02	5.033E-03	0.162
		778.57		-2.506E+00	2.345E+00	3.315E+00	3.077E-01	-0.756
PR-144		696.49	*	6.120E-01	2.295E+00	3.782E+00	3.410E-01	0.162
		1489.15		2.395E-01	9.360E+00	1.574E+01	1.346E+00	0.015
PM-146		453.90	*	5.404E-02	4.021E-02	7.236E-02	8.264E-03	0.747
		633.02		5.371E-02	1.315E+00	2.141E+00	8.024E-01	0.025
		735.90		-9.392E-03	1.507E-01	2.401E-01	6.908E-02	-0.039
		747.13		-3.792E-02	8.402E-02	1.277E-01	1.839E-02	-0.297
ND-147	+	91.11		6.316E-01	2.659E-01	5.367E-01	5.364E-02	1.177
		319.41		-2.196E-01	3.111E+00	4.898E+00	5.562E-01	-0.045
		439.89		8.240E-01	5.473E+00	9.215E+00	8.698E-01	0.089
		531.02	*	-3.147E-01	5.368E-01	8.365E-01	1.294E-01	-0.376
PM-149		285.90	*	-4.496E+01	8.588E+01	1.315E+02	2.313E+01	-0.342
EU-152		121.78		1.350E-02	6.819E-02	1.151E-01	1.112E-02	0.117
		244.69		-1.896E-01	3.304E-01	4.512E-01	5.017E-02	-0.420
		344.27	*	-5.208E-02	8.437E-02	1.318E-01	1.473E-02	-0.395
		443.98		8.246E-01	9.028E-01	1.592E+00	1.504E-01	0.518
		778.89		-3.115E-01	2.690E-01	3.753E-01	3.482E-02	-0.830
		867.32		-3.264E-01	7.340E-01	1.136E+00	1.072E-01	-0.287
	+	964.01		4.492E-01	3.574E-01	5.548E-01	5.147E-02	0.810
		1085.78		-1.919E-02	3.953E-01	6.466E-01	5.614E-02	-0.030
		1112.02		1.477E-01	3.193E-01	5.202E-01	4.426E-02	0.284
		1407.95		1.372E-01	1.821E-01	3.224E-01	2.745E-02	0.426
GD-153		69.67		-8.484E-01	1.506E+00	2.419E+00	1.906E-01	-0.351
		83.37		1.479E+01	1.500E+01	2.366E+01	2.157E+00	0.625
		97.43	*	-1.132E-02	7.977E-02	1.206E-01	1.072E-02	-0.094
		103.18		-1.296E-01	9.084E-02	1.429E-01	1.231E-02	-0.907
EU-154		123.07		2.564E-02	4.636E-02	7.929E-02	8.823E-03	0.323
		247.94		8.054E-02	3.369E-01	5.497E-01	7.435E-02	0.147
		591.81		-5.166E-01	5.884E-01	8.789E-01	1.071E-01	-0.588
		723.30		-7.179E-02	2.008E-01	2.684E-01	2.678E-02	-0.267
		756.87		8.169E-01	7.881E-01	1.369E+00	1.699E-01	0.597
		873.19		-8.610E-02	2.663E-01	4.306E-01	5.527E-02	-0.200
		996.32		-2.496E-02	3.873E-01	5.509E-01	9.933E-02	-0.045
		1004.76		-5.432E-02	2.237E-01	3.099E-01	3.722E-02	-0.175
		1274.45	*	6.663E-02	1.123E-01	1.944E-01	2.154E-02	0.343
EU-155		48.70		-1.153E+00	2.388E+00	3.659E+00	3.006E-01	-0.315
		60.01		3.637E+00	5.371E+00	7.980E+00	5.700E-01	0.456
	+	86.54		2.683E-01	1.303E-01	1.753E-01	1.674E-02	1.531
		105.31	*	1.416E-01	9.524E-02	1.687E-01	1.460E-02	0.839
TB-160	+	86.79		7.172E-01	3.481E-01	4.737E-01	4.499E-02	1.514
		197.04		3.616E-01	5.425E-01	8.980E-01	8.843E-02	0.403
		215.65		1.858E-01	7.128E-01	1.172E+00	1.213E-01	0.159
	+	298.57		2.267E-01	1.381E-01	1.880E-01	2.207E-02	1.206

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	3.376E-02	1.373E-01	2.346E-01	2.216E-02	0.144
		962.29		6.876E-01	5.254E-01	8.800E-01	8.169E-02	0.781
	+	966.15		3.086E-01	2.456E-01	4.728E-01	4.382E-02	0.653
		1177.93		-2.815E-02	3.325E-01	5.379E-01	4.333E-02	-0.052
		1271.85		-1.803E-01	7.088E-01	1.116E+00	9.269E-02	-0.162
HO-166M		80.57		-1.050E-01	2.616E-01	3.949E-01	3.485E-02	-0.266
	+	184.41		2.708E-01	6.737E-02	7.277E-02	6.927E-03	3.721
		280.46		-8.657E-02	8.413E-02	1.247E-01	1.495E-02	-0.694
		410.95		2.986E-01	2.691E-01	4.314E-01	4.027E-02	0.692
		711.68	*	-9.188E-03	5.879E-02	9.311E-02	8.448E-03	-0.099
		752.31		-1.703E-01	2.688E-01	4.019E-01	3.699E-02	-0.424
		810.29		-3.037E-02	5.773E-02	9.260E-02	8.656E-03	-0.328
TM-171		51.35		-8.990E+00	2.978E+01	4.600E+01	3.625E+00	-0.195
		52.39		8.858E+00	1.501E+01	2.424E+01	1.879E+00	0.365
		59.40		7.972E+00	2.878E+01	4.192E+01	2.977E+00	0.190
		66.72	*	-6.239E+00	2.968E+01	4.163E+01	3.189E+00	-0.150
LU-176	+	88.36		5.284E-01	2.565E-01	3.284E-01	3.153E-02	1.609
		201.83		-1.918E-03	2.613E-02	4.244E-02	4.233E-03	-0.045
		306.84	*	-5.361E-03	2.433E-02	3.804E-02	4.412E-03	-0.141
		401.10		-5.893E-02	5.928E+00	9.933E+00	9.228E-01	-0.006
LU-177		112.95		6.138E-01	1.518E+00	2.591E+00	2.169E-01	0.237
	+	208.36	*	4.529E+00	1.632E+00	1.960E+00	1.989E-01	2.310
LU-177M		52.97		-1.655E-01	1.587E+00	2.475E+00	1.902E-01	-0.067
		54.07		-4.810E-01	8.405E-01	1.277E+00	9.653E-02	-0.377
		61.30		5.558E-01	1.587E+00	2.315E+00	1.680E-01	0.240
		121.62		5.955E-02	3.474E-01	5.862E-01	4.865E-02	0.102
		147.16		6.161E-02	6.570E-01	9.727E-01	8.389E-02	0.063
		171.86		-2.336E-01	4.520E-01	7.249E-01	6.675E-02	-0.322
		218.09		-4.967E-01	8.377E-01	1.316E+00	1.370E-01	-0.377
	+	268.79		2.188E+00	1.318E+00	1.385E+00	1.626E-01	1.580
		319.02		1.851E-02	2.353E-01	3.746E-01	4.256E-02	0.049
		367.43		2.849E-01	8.265E-01	1.423E+00	1.434E-01	0.200
		413.65	*	-9.542E-02	1.932E-01	2.716E-01	2.539E-02	-0.351
HF-181		56.28		9.083E-04	9.021E-01	1.411E+00	1.036E-01	0.001
		57.53		-4.946E-01	5.058E-01	7.499E-01	5.425E-02	-0.660
		65.20		-5.416E-02	9.880E-01	1.406E+00	1.062E-01	-0.039
		133.02		1.040E-03	6.445E-02	9.652E-02	8.094E-03	0.011
		136.25		1.084E-01	4.229E-01	7.119E-01	6.001E-02	0.152
		345.85		-3.655E-02	1.673E-01	2.699E-01	2.893E-02	-0.135
		482.03	*	-1.397E-02	4.105E-02	6.623E-02	6.299E-03	-0.211
W-181		56.28		2.657E-04	3.528E-01	5.518E-01	4.050E-02	0.000
		57.53		-1.935E-01	1.980E-01	2.936E-01	2.124E-02	-0.659
		65.20	*	-2.103E-02	3.837E-01	5.461E-01	4.124E-02	-0.039
TA-182		67.75		-1.552E-02	1.081E-01	1.651E-01	1.278E-02	-0.094
		100.10		1.578E-01	1.637E-01	2.858E-01	2.500E-02	0.552
		152.43		1.486E-01	3.164E-01	5.340E-01	4.666E-02	0.278
		222.10		1.529E-01	3.354E-01	5.556E-01	5.843E-02	0.275
	+	1001.68		3.395E+00	2.679E+00	3.763E+00	3.436E-01	0.902
	+	1121.28		8.774E-01	2.557E-01	3.848E-01	3.249E-02	2.280

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		-2.259E-01	2.950E-01	4.414E-01	3.570E-02	-0.512
		1221.42	*	-6.526E-02	1.934E-01	3.043E-01	2.489E-02	-0.214
		1230.97		-3.181E-01	4.661E-01	7.062E-01	5.793E-02	-0.450
RE-183		57.98		-2.695E-01	2.004E-01	2.909E-01	2.094E-02	-0.927
		59.32		1.389E-01	1.122E-01	1.719E-01	1.222E-02	0.808
		67.20		-2.692E-02	2.105E-01	2.965E-01	2.282E-02	-0.091
		162.32	*	-4.125E-02	1.078E-01	1.720E-01	1.544E-02	-0.240
	+	208.81		4.043E+00	1.457E+00	1.777E+00	1.806E-01	2.275
		291.72		4.052E-01	9.741E-01	1.427E+00	1.690E-01	0.284
RE-184		57.98		-9.926E-01	7.381E-01	1.071E+00	7.713E-02	-0.927
		59.32		5.110E-01	4.129E-01	6.328E-01	4.497E-02	0.808
		67.20		-9.913E-02	7.750E-01	1.092E+00	8.403E-02	-0.091
		161.27		-2.167E-01	3.429E-01	5.497E-01	4.919E-02	-0.394
		216.55		1.371E-01	2.542E-01	4.232E-01	4.387E-02	0.324
		252.85	*	4.008E-02	2.232E-01	3.626E-01	4.109E-02	0.111
		318.01		-5.249E-01	4.287E-01	6.099E-01	6.942E-02	-0.861
		792.07		5.081E-01	1.002E+00	1.562E+00	1.454E-01	0.325
		903.28		-2.510E-02	8.746E-01	1.417E+00	1.339E-01	-0.018
		920.93		7.564E-02	3.946E-01	6.704E-01	6.307E-02	0.113
OS-185		59.72		2.555E-01	3.147E-01	4.711E-01	3.352E-02	0.542
		61.14		8.031E-02	1.756E-01	2.576E-01	1.866E-02	0.312
		69.30		-1.092E-01	2.582E-01	4.367E-01	3.429E-02	-0.250
		592.07		-2.110E+00	2.397E+00	3.590E+00	3.338E-01	-0.588
		646.12	*	-1.529E-02	4.316E-02	6.772E-02	6.087E-03	-0.226
		717.42		-3.251E-01	9.013E-01	1.399E+00	1.272E-01	-0.232
		874.81		-5.959E-02	5.400E-01	8.937E-01	8.438E-02	-0.067
		880.27		3.366E-01	7.739E-01	1.342E+00	1.268E-01	0.251
RE-188		155.03	*	-7.955E-02	1.667E-01	2.701E-01	2.376E-02	-0.295
		477.96		-1.011E+00	3.081E+00	4.984E+00	4.738E-01	-0.203
		633.10		4.580E-01	2.625E+00	4.327E+00	3.927E-01	0.106
W-188	+	63.58		1.944E+02	8.121E+01	1.016E+02	7.553E+00	1.913
		227.08		-1.047E+00	1.166E+01	1.878E+01	2.000E+00	-0.056
		290.67	*	4.343E+00	7.602E+00	1.128E+01	1.337E+00	0.385
IR-192	+	295.96		1.135E+00	2.277E-01	2.972E-01	3.515E-02	3.821
		308.46		5.861E-02	9.310E-02	1.536E-01	1.782E-02	0.382
		316.51	*	-7.368E-04	3.130E-02	4.949E-02	5.656E-03	-0.015
		468.07		-6.207E-02	6.833E-02	8.914E-02	8.970E-03	-0.696
		604.41		-9.927E-02	5.167E-01	7.207E-01	9.685E-02	-0.138
		612.46		2.178E-01	6.762E-01	1.001E+00	1.042E-01	0.218
AU-195		65.12		8.235E-03	1.784E-01	2.553E-01	1.927E-02	0.032
		66.83		-2.061E-02	9.810E-02	1.376E-01	1.055E-02	-0.150
	+	75.70		1.221E+00	2.510E-01	4.142E-01	3.466E-02	2.947
		98.88	*	3.853E-01	2.194E-01	3.764E-01	3.314E-02	1.024
	+	129.76		8.246E+00	4.420E+00	4.783E+00	3.993E-01	1.724
TL-200		367.94	*	1.864E-04	4.420E+00	Half-Life too short		
		579.30		-1.684E-03	4.420E+00	Half-Life too short		
		828.27		-7.010E-04	4.420E+00	Half-Life too short		
		1205.75		-2.787E-03	4.420E+00	Half-Life too short		
TL-201		68.90		3.998E-01	4.197E+00	7.229E+00	5.654E-01	0.055

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		1.011E+00	2.626E+00	4.131E+00	3.291E-01	0.245
		80.30		2.595E+00	4.745E+00	7.472E+00	6.574E-01	0.347
		135.34		-6.663E+00	2.334E+01	3.841E+01	3.232E+00	-0.173
		167.43	*	3.261E+00	6.664E+00	1.121E+01	1.021E+00	0.291
TL-202		68.90		3.549E-02	3.726E-01	6.417E-01	5.019E-02	0.055
		70.82		8.951E-02	2.324E-01	3.657E-01	2.913E-02	0.245
		80.30		2.298E-01	4.201E-01	6.617E-01	5.821E-02	0.347
		439.56	*	-1.274E-02	6.564E-02	1.079E-01	1.018E-02	-0.118
HG-203		70.83		3.916E-01	1.005E+00	1.580E+00	2.086E-01	0.248
		72.87		5.858E-01	5.981E-01	9.547E-01	1.230E-01	0.614
		82.60		-4.191E-01	1.017E+00	1.683E+00	2.357E-01	-0.249
		279.20	*	-3.123E-03	3.890E-02	6.184E-02	7.537E-03	-0.050
BI-207		72.80		1.665E-01	1.744E-01	2.794E-01	2.270E-02	0.596
	+	74.97		6.769E-01	1.392E-01	2.138E-01	1.776E-02	3.166
		84.90		2.426E-01	1.910E-01	3.036E-01	2.818E-02	0.799
		569.67		-1.077E-02	3.256E-02	5.172E-02	4.856E-03	-0.208
		1063.62	*	3.704E-03	5.053E-02	8.384E-02	7.391E-03	0.044
		1770.23		1.680E-01	4.800E-01	7.483E-01	6.184E-02	0.224
TL-207		81.07		-2.505E-01	2.024E-01	3.129E-01	2.777E-02	-0.801
		83.78		1.525E-01	1.298E-01	2.058E-01	1.885E-02	0.741
		94.90		3.479E-01	2.229E-01	3.619E-01	3.272E-02	0.961
		122.32		1.352E+00	1.589E+00	2.747E+00	2.460E-01	0.492
	+	144.24		1.111E+00	9.269E-01	1.175E+00	1.127E-01	0.946
		154.21		-4.253E-02	3.806E-01	6.270E-01	6.033E-02	-0.068
	+	269.46		5.121E-01	3.086E-01	3.482E-01	4.141E-02	1.471
		323.87	*	-3.898E-01	7.218E-01	9.562E-01	1.829E-01	-0.408
	+	338.28		7.865E+00	1.950E+00	2.572E+00	3.605E-01	3.057
		445.03		3.127E-01	2.172E+00	3.653E+00	4.637E-01	0.086
PO-209		260.50		4.811E+00	9.903E+00	1.629E+01	1.879E+00	0.295
		262.80		1.019E+01	2.644E+01	4.331E+01	5.020E+00	0.235
		896.60	*	2.147E+00	6.387E+00	1.103E+01	1.043E+00	0.195
BI-210		46.50	*	8.764E-01	3.521E+00	5.601E+00	5.223E-01	0.156
PB-210		46.50	*	8.764E-01	3.521E+00	5.601E+00	5.223E-01	0.156
PO-210		46.50	*	8.764E-01	3.521E+00	5.601E+00	4.731E-01	0.156
PB-211		404.84	*	3.710E-01	9.799E-01	1.456E+00	9.136E-01	0.255
		427.08		1.914E-01	1.901E+00	3.191E+00	1.986E+00	0.060
		831.96		-6.848E-01	1.284E+00	1.936E+00	1.216E+00	-0.354
BI-212	+	727.18	*	1.069E+00	4.050E-01	6.589E-01	6.884E-02	1.623
		785.46		2.930E-01	1.655E+00	2.831E+00	2.631E-01	0.104
		1620.62		1.663E+00	1.351E+00	2.599E+00	2.208E-01	0.640
PO-215		81.07		-2.505E-01	2.024E-01	3.129E-01	2.777E-02	-0.801
		83.78		1.525E-01	1.298E-01	2.058E-01	1.885E-02	0.741
		94.90		3.479E-01	2.229E-01	3.619E-01	3.272E-02	0.961
		122.32		1.352E+00	1.589E+00	2.747E+00	2.460E-01	0.492
	+	144.24		1.111E+00	9.269E-01	1.175E+00	1.127E-01	0.946
		154.21		-4.253E-02	3.806E-01	6.270E-01	6.033E-02	-0.068
	+	269.46		5.121E-01	3.086E-01	3.482E-01	4.141E-02	1.471
		323.87	*	-3.898E-01	7.218E-01	9.562E-01	1.829E-01	-0.408
	+	338.28		7.865E+00	1.950E+00	2.572E+00	3.605E-01	3.057

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		445.03		3.127E-01	2.172E+00	3.653E+00	4.637E-01	0.086
RN-219	+	271.23		6.570E-01	3.975E-01	4.451E-01	5.829E-02	1.476
		401.81	*	8.444E-03	3.731E-01	6.265E-01	9.662E-02	0.013
RN-220		549.76	*	-7.947E+00	2.396E+01	3.816E+01	3.605E+00	-0.208
RA-223		81.07		-2.505E-01	2.024E-01	3.129E-01	2.777E-02	-0.801
		83.78		1.525E-01	1.298E-01	2.058E-01	1.885E-02	0.741
		94.90		3.479E-01	2.229E-01	3.619E-01	3.272E-02	0.961
		122.32		1.352E+00	1.589E+00	2.747E+00	2.460E-01	0.492
	+	144.24		1.111E+00	9.269E-01	1.175E+00	1.127E-01	0.946
		154.21		-4.253E-02	3.806E-01	6.270E-01	6.033E-02	-0.068
	+	269.46		5.121E-01	3.086E-01	3.482E-01	4.141E-02	1.471
		323.87	*	-3.898E-01	7.218E-01	9.562E-01	1.829E-01	-0.408
	+	338.28		7.865E+00	1.950E+00	2.572E+00	3.605E-01	3.057
		445.03		3.127E-01	2.172E+00	3.653E+00	4.637E-01	0.086
AC-227		79.80		7.427E-02	1.563E+00	2.411E+00	5.196E-01	0.031
		236.00		1.758E-01	2.434E-01	3.654E-01	5.092E-02	0.481
		256.20	*	-2.633E-01	3.739E-01	5.712E-01	9.755E-02	-0.461
		286.10		-9.780E-01	1.423E+00	2.150E+00	3.345E-01	-0.455
	+	299.80		2.886E+00	1.812E+00	2.485E+00	4.773E-01	1.161
		304.40		8.545E-01	1.862E+00	2.897E+00	5.801E-01	0.295
		334.20		-3.238E+00	2.543E+00	3.293E+00	6.780E-01	-0.983
TH-227		79.80		7.427E-02	1.563E+00	2.411E+00	5.262E-01	0.031
	+	94.00		2.484E+01	6.250E+00	4.189E+00	9.204E-01	5.930
		236.00		1.758E-01	2.433E-01	3.654E-01	4.721E-02	0.481
		256.20	*	-2.633E-01	3.747E-01	5.712E-01	1.117E-01	-0.461
		286.10		-9.780E-01	1.724E+00	2.150E+00	2.165E+00	-0.455
	+	299.80		2.886E+00	1.812E+00	2.485E+00	4.773E-01	1.161
		304.40		8.545E-01	1.862E+00	2.897E+00	5.801E-01	0.295
		334.20		-3.238E+00	2.543E+00	3.293E+00	6.780E-01	-0.983
TH-229		85.43		1.944E-01	1.866E-01	2.973E-01	2.777E-02	0.654
	+	88.47		3.042E-01	1.476E-01	1.884E-01	1.807E-02	1.614
		100.00		1.810E-01	1.708E-01	2.988E-01	2.615E-02	0.606
		193.63	*	-7.438E-01	4.911E-01	7.341E-01	7.164E-02	-1.013
		210.97		3.155E-01	7.677E-01	1.144E+00	1.169E-01	0.276
PA-231		283.67	*	-3.863E-01	1.439E+00	2.254E+00	3.899E-01	-0.171
	+	301.29		1.154E+00	7.103E-01	9.519E-01	1.387E-01	1.213
TH-231		81.07		-2.505E-01	2.024E-01	3.129E-01	2.777E-02	-0.801
		83.78		1.525E-01	1.298E-01	2.058E-01	1.885E-02	0.741
		94.90		3.479E-01	2.229E-01	3.619E-01	3.272E-02	0.961
		122.32		1.352E+00	1.589E+00	2.747E+00	2.460E-01	0.492
	+	144.24		1.111E+00	9.269E-01	1.175E+00	1.127E-01	0.946
		154.21		-4.253E-02	3.806E-01	6.270E-01	6.033E-02	-0.068
	+	269.46		5.121E-01	3.086E-01	3.482E-01	4.141E-02	1.471
		323.87	*	-3.898E-01	7.218E-01	9.562E-01	1.829E-01	-0.408
	+	338.28		7.865E+00	1.950E+00	2.572E+00	3.605E-01	3.057
		445.03		3.127E-01	2.172E+00	3.653E+00	4.637E-01	0.086
U-231		84.21		9.797E+00	5.590E+00	9.004E+00	8.288E-01	1.088
	+	92.29		2.484E+01	3.793E+00	5.213E+00	4.814E-01	4.766
		95.87	*	-7.647E-01	1.081E+00	1.586E+00	1.424E-01	-0.482

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.193E+00	1.886E+00	3.040E+00	2.575E-01	-0.392
PA-233	+	75.28		1.975E+01	4.774E+00	6.258E+00	9.504E-01	3.156
	+	86.59		4.361E+00	2.389E+00	2.856E+00	7.741E-01	1.527
	+	300.12		8.045E-01	4.997E-01	6.889E-01	1.161E-01	1.168
		311.98	*	-9.192E-03	6.213E-02	9.749E-02	1.139E-02	-0.094
		340.50		8.100E-01	6.188E-01	9.707E-01	2.401E-01	0.834
		398.62		-7.134E-01	1.815E+00	2.943E+00	7.902E-01	-0.242
		415.76		-2.305E-01	1.571E+00	2.513E+00	5.493E-01	-0.092
PA-234	+	63.00		5.634E+00	2.463E+00	3.042E+00	4.518E-01	1.852
		94.67		3.915E-01	1.740E-01	2.809E-01	3.570E-02	1.394
		98.44		1.232E-01	1.155E-01	1.505E-01	8.403E-02	0.818
		99.86		6.915E-01	4.302E-01	7.636E-01	6.687E-02	0.906
		111.00		-8.935E-02	1.701E-01	2.797E-01	3.338E-02	-0.319
		131.20		1.547E-02	1.034E-01	1.561E-01	1.306E-02	0.099
		152.70		1.762E-01	3.089E-01	5.214E-01	8.920E-02	0.338
	+	186.00		9.747E+00	3.799E+00	3.038E+00	9.567E-01	3.208
		226.40		-1.263E-01	3.704E-01	5.877E-01	8.577E-02	-0.215
		227.20		-4.975E-02	3.928E-01	6.313E-01	6.725E-02	-0.079
		248.90		2.064E-01	7.640E-01	1.247E+00	2.935E-01	0.166
	+	293.70		7.143E+00	1.787E+00	1.621E+00	3.095E-01	4.407
		369.80		-1.271E-01	8.025E-01	1.339E+00	2.994E-01	-0.095
		568.70		1.212E-01	1.000E+00	1.645E+00	1.545E-01	0.074
		569.50		1.969E-02	2.817E-01	4.613E-01	4.332E-02	0.043
		574.00		7.554E-01	1.599E+00	2.700E+00	2.531E-01	0.280
		699.00		-6.753E-03	6.773E-01	1.090E+00	2.099E-01	-0.006
		706.10		3.571E-01	1.009E+00	1.655E+00	7.393E-01	0.216
		733.00		3.697E-01	3.853E-01	6.401E-01	1.434E-01	0.578
		742.81		-2.968E-01	1.361E+00	2.110E+00	1.420E+00	-0.141
	+	796.30		3.154E+00	1.799E+00	1.799E+00	4.909E-01	1.753
		805.60		7.806E-01	1.013E+00	1.762E+00	5.438E-01	0.443
		819.60		2.275E-01	1.115E+00	1.905E+00	7.277E-01	0.119
		826.30		8.206E-02	7.857E-01	1.331E+00	5.974E-01	0.062
		831.60		-4.069E-01	6.423E-01	1.002E+00	3.013E-01	-0.406
		876.40		-3.375E-01	8.557E-01	1.253E+00	1.289E+00	-0.269
		880.51		1.644E-01	2.793E-01	4.904E-01	4.633E-02	0.335
		883.24		1.560E-01	2.962E-01	4.866E-01	3.276E-01	0.321
		899.00		7.634E-03	7.146E-01	1.194E+00	5.241E-01	0.006
		925.00		-1.396E-01	1.097E+00	1.803E+00	1.694E-01	-0.077
		926.50		3.861E-02	1.614E-01	2.747E-01	7.019E-02	0.141
		946.00	*	-2.955E-01	3.091E-01	4.415E-01	8.435E-02	-0.669
		949.00		3.735E-01	4.231E-01	7.591E-01	7.080E-02	0.492
		980.50		-1.958E-01	6.244E-01	9.977E-01	9.195E-02	-0.196
		1394.10		-7.361E-01	1.215E+00	1.631E+00	1.061E+00	-0.451
PA-234M		766.42		3.770E+00	1.486E+01	2.157E+01	1.097E+01	0.175
	+	1001.03	*	7.704E+00	6.093E+00	8.494E+00	8.844E-01	0.907
NP-236		94.67		3.001E-01	1.295E-01	2.134E-01	1.933E-02	1.406
		98.44		9.304E-02	7.063E-02	1.138E-01	1.005E-02	0.818
		111.00		-6.759E-02	1.285E-01	2.116E-01	1.778E-02	-0.319
		160.31	*	-4.726E-02	7.807E-02	1.254E-01	1.119E-02	-0.377

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.253E-01	1.461E-01	2.587E-01	2.269E-02	0.871
		117.00	*	-3.313E-02	1.768E-01	2.944E-01	2.451E-02	-0.113
	+	209.75		3.187E+00	1.148E+00	1.395E+00	1.421E-01	2.285
		228.18		2.464E-02	2.083E-01	3.393E-01	3.624E-02	0.073
		277.60		1.511E-01	1.731E-01	2.893E-01	3.463E-02	0.522
		334.30		-1.924E+00	1.402E+00	1.847E+00	2.034E-01	-1.042
AM-241		59.54	*	1.127E-01	1.652E-01	2.457E-01	1.928E-02	0.459
CM-243		99.55		2.318E-01	1.503E-01	2.662E-01	2.335E-02	0.871
		103.76	*	-7.729E-02	8.473E-02	1.371E-01	1.179E-02	-0.564
		117.00		-3.409E-02	1.818E-01	3.029E-01	2.522E-02	-0.113
	+	209.75		3.142E+00	1.132E+00	1.375E+00	1.400E-01	2.285
		228.18		2.490E-02	2.105E-01	3.429E-01	3.662E-02	0.073
		277.60		1.523E-01	1.745E-01	2.917E-01	3.491E-02	0.522
AM-246		798.80		-8.193E-02	1.370E-01	1.840E-01	1.716E-02	-0.445
		1036.00		-1.968E-01	2.757E-01	4.178E-01	3.746E-02	-0.471
		1062.04		-1.142E-01	2.144E-01	3.324E-01	2.933E-02	-0.344
		1078.86	*	-2.280E-02	1.363E-01	2.203E-01	1.922E-02	-0.103
CM-247		278.00		5.790E-01	7.302E-01	1.215E+00	1.456E-01	0.476
		287.40		1.274E-01	1.124E+00	1.805E+00	2.149E-01	0.071
		402.60	*	1.098E-02	3.345E-02	5.726E-02	5.324E-03	0.192
CF-249		252.85		1.503E-01	8.373E-01	1.360E+00	1.541E-01	0.111
		333.44		-1.482E-01	1.846E-01	2.587E-01	2.855E-02	-0.573
		387.95	*	8.692E-03	3.796E-02	6.467E-02	6.067E-03	0.134
CF-251		176.60	*	-5.261E-04	1.188E-01	1.951E-01	1.819E-02	-0.003
		227.00		-3.535E-02	3.503E-01	5.640E-01	6.005E-02	-0.063
		285.00		-9.290E-01	1.619E+00	2.476E+00	2.956E-01	-0.375

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511      *
* Acquisition date : 12-FEB-2010 16:38:58 Detector SN#    :                 *
* Detector ID       : GAM16               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.92     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032511          Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.2150E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.530E+01	2.726E+00	4.658E-01	0.000E+00
CD-109	2.267E+00	1.078E+00	1.173E+00	0.000E+00
SN-126	2.228E-01	1.060E-01	1.374E-01	0.000E+00
BA-137M	2.346E-01	6.881E-02	5.830E-02	0.000E+00
CS-137	2.480E-01	7.275E-02	6.163E-02	0.000E+00
TL-208	5.114E-01	9.199E-02	5.926E-02	0.000E+00
BI-211	4.140E+00	5.971E-01	3.050E-01	0.000E+00
PB-212	1.618E+00	2.301E-01	1.328E-01	0.000E+00
PO-212	1.618E+00	2.301E-01	1.328E-01	0.000E+00
BI-214	1.259E+00	2.036E-01	1.046E-01	0.000E+00
PB-214	1.440E+00	2.204E-01	1.002E-01	0.000E+00
PO-214	1.440E+00	2.204E-01	1.002E-01	0.000E+00
PO-216	1.618E+00	2.301E-01	1.328E-01	0.000E+00
PO-218	1.440E+00	2.204E-01	1.002E-01	0.000E+00
RA-224	2.818E+00	9.784E-01	1.362E+00	0.000E+00
RA-226	1.259E+00	2.036E-01	1.046E-01	0.000E+00
AC-228	1.625E+00	3.493E-01	2.038E-01	0.000E+00
RA-228	1.625E+00	3.493E-01	2.038E-01	0.000E+00
TH-228	1.643E+00	2.336E-01	1.348E-01	0.000E+00
TH-230	1.259E+00	2.036E-01	1.045E-01	0.000E+00
TH-232	1.625E+00	3.493E-01	2.038E-01	0.000E+00
TH-234	4.833E+00	2.115E+00	2.071E+00	0.000E+00
U-234	1.259E+00	2.036E-01	1.045E-01	0.000E+00
U-235	3.428E-01	2.845E-01	3.133E-01	0.000E+00
NP-237	6.542E-01	3.381E-01	4.110E-01	0.000E+00
U-238	4.833E+00	2.115E+00	2.071E+00	0.000E+00
AM-243	3.771E-01	7.599E-02	8.637E-02	0.000E+00
ANH-511	1.220E-01	6.470E-02	4.597E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	8.449E-02	3.097E-01	5.399E-01	0.000E+00	NOT IDENT.
NA-22	3.415E-02	3.831E-02	6.979E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.493E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.442E-02	3.251E-02	5.834E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.616E-02	7.478E-02	0.000E+00	FAIL ABUN
SC-46	-2.081E-02	3.331E-02	5.319E-02	0.000E+00	FAIL ABUN
V-48	2.583E-02	6.368E-02	1.124E-01	0.000E+00	NOT IDENT.
CR-51	1.787E-01	3.405E-01	5.789E-01	0.000E+00	NOT IDENT.
MN-52	-3.845E-02	2.047E-01	3.235E-01	0.000E+00	NOT IDENT.
MN-54	6.391E-03	3.778E-02	6.588E-02	0.000E+00	NOT IDENT.
CO-56	-1.212E-02	3.425E-02	5.689E-02	0.000E+00	NOT IDENT.
CO-57	1.423E-02	2.287E-02	4.118E-02	0.000E+00	NOT IDENT.
CO-58	-2.451E-02	3.781E-02	6.157E-02	0.000E+00	NOT IDENT.
FE-59	-1.995E-02	7.981E-02	1.302E-01	0.000E+00	FAIL ABUN
CO-60	-9.538E-03	3.209E-02	5.036E-02	0.000E+00	NOT IDENT.
ZN-65	-6.271E-02	9.486E-02	1.238E-01	0.000E+00	NOT IDENT.
GE-68	4.180E-01	1.131E+00	1.974E+00	0.000E+00	NOT IDENT.
AS-73	-2.406E-01	7.949E-01	1.301E+00	0.000E+00	NOT IDENT.
AS-74	4.774E-02	8.509E-02	1.492E-01	0.000E+00	NOT IDENT.
SE-75	-5.191E-02	4.877E-02	6.572E-02	0.000E+00	NOT IDENT.
BR-77	-8.906E-01	9.459E+00	1.595E+01	0.000E+00	FAIL ABUN
SR-82	1.630E-01	3.792E-01	5.751E-01	0.000E+00	NOT IDENT.
RB-83	-7.019E-03	6.108E-02	1.028E-01	0.000E+00	NOT IDENT.
RB-84	4.583E-02	6.878E-02	1.243E-01	0.000E+00	NOT IDENT.
KR-85	4.535E+00	7.163E+00	1.135E+01	0.000E+00	NOT IDENT.
SR-85	2.327E-02	3.676E-02	5.824E-02	0.000E+00	NOT IDENT.
RB-86	3.543E-01	7.037E-01	1.245E+00	0.000E+00	NOT IDENT.
Y-88	8.120E-03	3.226E-02	5.645E-02	0.000E+00	NOT IDENT.
ZR-88	-2.542E-02	2.748E-02	4.469E-02	0.000E+00	NOT IDENT.
Y-91	-1.227E+01	1.737E+01	2.674E+01	0.000E+00	NOT IDENT.
NB-94	1.155E-02	3.085E-02	5.272E-02	0.000E+00	NOT IDENT.
NB-95	-1.523E-02	5.221E-02	7.416E-02	0.000E+00	NOT IDENT.
NB-95M	1.257E-01	1.244E-01	1.979E-01	0.000E+00	NOT IDENT.
ZR-95	9.440E-02	7.143E-02	1.299E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.089E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.755E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.689E-01	1.148E+01	1.894E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.737E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.275E-02	3.155E-02	5.192E-02	0.000E+00	NOT IDENT.
RH-102	-6.871E-03	2.840E-02	4.780E-02	0.000E+00	NOT IDENT.
RU-103	-1.958E-02	3.563E-02	5.786E-02	0.000E+00	FAIL ABUN
RH-106	-3.597E-02	2.744E-01	4.533E-01	0.000E+00	FAIL ABUN
RU-106	-3.597E-02	2.744E-01	4.533E-01	0.000E+00	FAIL ABUN
AG-108M	2.701E-03	2.955E-02	5.069E-02	0.000E+00	NOT IDENT.
AG-110M	4.904E-03	3.504E-02	5.189E-02	0.000E+00	NOT IDENT.
IN-111	-2.487E-01	1.055E+00	1.547E+00	0.000E+00	NOT IDENT.
IN-113M	-1.843E-02	3.873E-02	6.515E-02	0.000E+00	NOT IDENT.
SN-113	-1.843E-02	3.873E-02	6.515E-02	0.000E+00	NOT IDENT.
IN-114M	1.319E-01	1.844E-01	2.934E-01	0.000E+00	NOT IDENT.
CD-115	3.057E-01	9.343E+00	1.590E+01	0.000E+00	NOT IDENT.
SN-117M	5.197E-02	5.197E-02	9.331E-02	0.000E+00	NOT IDENT.
SB-122	6.662E-01	1.992E+00	3.447E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.944E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.145E-02	2.665E-02	4.755E-02	0.000E+00	NOT IDENT.
I-124	1.105E-01	6.970E-01	1.097E+00	0.000E+00	FAIL ABUN
SB-124	1.155E-02	5.272E-02	9.336E-02	0.000E+00	FAIL ABUN
SB-125	1.545E-02	8.146E-02	1.425E-01	0.000E+00	FAIL ABUN
TE-125M	-3.366E+00	8.267E+00	1.416E+01	0.000E+00	NOT IDENT.
I-126	1.229E-02	1.951E-01	2.855E-01	0.000E+00	NOT IDENT.
SB-126	8.040E-04	1.395E-01	2.303E-01	0.000E+00	FAIL ABUN
SB-127	2.655E-03	1.393E+00	2.310E+00	0.000E+00	NOT IDENT.
XE-127	-3.529E-02	4.282E-02	6.965E-02	0.000E+00	FAIL ABUN
I-131	3.808E-02	1.058E-01	1.864E-01	0.000E+00	NOT IDENT.
TE-132	7.525E-02	6.345E-01	1.077E+00	0.000E+00	NOT IDENT.
BA-133	5.675E-03	4.104E-02	6.422E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.645E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.107E-02	9.631E-02	0.000E+00	FAIL ABUN
CS-135	1.218E-01	1.622E-01	2.494E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.851E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.130E-02	1.014E-01	1.745E-01	0.000E+00	FAIL ABUN
CE-139	-1.334E-02	2.812E-02	4.747E-02	0.000E+00	NOT IDENT.
BA-140	-2.139E-01	2.410E-01	3.595E-01	0.000E+00	NOT IDENT.
LA-140	-5.581E-02	7.912E-02	1.185E-01	0.000E+00	NOT IDENT.
CE-141	2.595E-02	6.425E-02	1.014E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.919E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.388E-03	2.000E-01	3.130E-01	0.000E+00	NOT IDENT.
PM-144	9.031E-03	3.319E-02	5.622E-02	0.000E+00	NOT IDENT.

PR-144	6.120E-01	2.249E+00	3.810E+00	0.000E+00	NOT IDENT.
PM-146	5.404E-02	3.941E-02	7.329E-02	0.000E+00	NOT IDENT.
ND-147	-3.147E-01	5.260E-01	8.456E-01	0.000E+00	FAIL ABUN
PM-149	-4.496E+01	8.416E+01	1.339E+02	0.000E+00	NOT IDENT.
EU-152	-5.208E-02	8.268E-02	1.340E-01	0.000E+00	FAIL ABUN
GD-153	-1.132E-02	7.818E-02	1.245E-01	0.000E+00	NOT IDENT.
EU-154	6.663E-02	1.101E-01	1.944E-01	0.000E+00	NOT IDENT.
EU-155	1.416E-01	9.333E-02	1.740E-01	0.000E+00	FAIL ABUN
TB-160	3.376E-02	1.346E-01	2.357E-01	0.000E+00	FAIL ABUN
HO-166M	-9.188E-03	5.761E-02	9.378E-02	0.000E+00	FAIL ABUN
TM-171	-6.239E+00	2.909E+01	4.315E+01	0.000E+00	NOT IDENT.
LU-176	-5.361E-03	2.384E-02	3.871E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.599E+00	2.005E+00	0.000E+00	FAIL ABUN
LU-177M	-9.542E-02	1.894E-01	2.755E-01	0.000E+00	FAIL ABUN
HF-181	-1.397E-02	4.023E-02	6.703E-02	0.000E+00	NOT IDENT.
W-181	-2.103E-02	3.760E-01	5.663E-01	0.000E+00	NOT IDENT.
TA-182	-6.526E-02	1.895E-01	3.044E-01	0.000E+00	FAIL ABUN
RE-183	-4.125E-02	1.056E-01	1.764E-01	0.000E+00	FAIL ABUN
RE-184	4.008E-02	2.187E-01	3.699E-01	0.000E+00	NOT IDENT.
OS-185	-1.529E-02	4.230E-02	6.828E-02	0.000E+00	NOT IDENT.
RE-188	-7.955E-02	1.634E-01	2.771E-01	0.000E+00	NOT IDENT.
W-188	4.343E+00	7.450E+00	1.148E+01	0.000E+00	FAIL ABUN
IR-192	-7.368E-04	3.067E-02	5.035E-02	0.000E+00	FAIL ABUN
AU-195	3.853E-01	2.150E-01	3.884E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.292E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.261E+00	6.530E+00	1.149E+01	0.000E+00	NOT IDENT.
TL-202	-1.274E-02	6.432E-02	1.093E-01	0.000E+00	NOT IDENT.
HG-203	-3.123E-03	3.813E-02	6.301E-02	0.000E+00	NOT IDENT.
BI-207	3.704E-03	4.952E-02	8.401E-02	0.000E+00	FAIL ABUN
TL-207	-3.898E-01	7.074E-01	9.726E-01	0.000E+00	FAIL ABUN
PO-209	2.147E+00	6.259E+00	1.107E+01	0.000E+00	NOT IDENT.
BI-210	8.764E-01	3.451E+00	5.831E+00	0.000E+00	NOT IDENT.
PB-210	8.764E-01	3.451E+00	5.831E+00	0.000E+00	NOT IDENT.
PO-210	8.764E-01	3.450E+00	5.831E+00	0.000E+00	NOT IDENT.
PB-211	3.710E-01	9.603E-01	1.476E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.969E-01	6.634E-01	0.000E+00	FAIL ABUN
PO-215	-3.898E-01	7.074E-01	9.726E-01	0.000E+00	FAIL ABUN
RN-219	8.444E-03	3.656E-01	6.355E-01	0.000E+00	FAIL ABUN
RN-220	-7.947E+00	2.348E+01	3.855E+01	0.000E+00	NOT IDENT.
RA-223	-3.898E-01	7.074E-01	9.726E-01	0.000E+00	FAIL ABUN
AC-227	-2.633E-01	3.664E-01	5.826E-01	0.000E+00	FAIL ABUN
TH-227	-2.633E-01	3.672E-01	5.826E-01	0.000E+00	FAIL ABUN
TH-229	-7.438E-01	4.813E-01	7.514E-01	0.000E+00	FAIL ABUN
PA-231	-3.863E-01	1.411E+00	2.296E+00	0.000E+00	FAIL ABUN
TH-231	-3.898E-01	7.074E-01	9.726E-01	0.000E+00	FAIL ABUN
U-231	-7.647E-01	1.060E+00	1.637E+00	0.000E+00	FAIL ABUN
PA-233	-9.192E-03	6.089E-02	9.920E-02	0.000E+00	FAIL ABUN
PA-234	-2.955E-01	3.029E-01	4.431E-01	0.000E+00	FAIL ABUN
PA-234M	7.704E+00	5.971E+00	8.518E+00	0.000E+00	FAIL ABUN
NP-236	-4.726E-02	7.651E-02	1.287E-01	0.000E+00	NOT IDENT.
NP-239	-3.313E-02	1.732E-01	3.031E-01	0.000E+00	FAIL ABUN
AM-241	1.127E-01	1.619E-01	2.550E-01	0.000E+00	NOT IDENT.
CM-243	-7.729E-02	8.304E-02	1.414E-01	0.000E+00	FAIL ABUN
AM-246	-2.280E-02	1.336E-01	2.207E-01	0.000E+00	NOT IDENT.
CM-247	1.098E-02	3.279E-02	5.808E-02	0.000E+00	NOT IDENT.
CF-249	8.692E-03	3.720E-02	6.562E-02	0.000E+00	NOT IDENT.
CF-251	-5.261E-04	1.164E-01	1.999E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:39:21.70

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 16:38:58
Sample ID         : G1202032511          Sample quantity  : 1.21500E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.92  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1056	10.67*	1.208E+00	2.530E+01	2.530E+01	11.00
CD-109	88.03	167	3.72*	6.241E+00	2.216E+00	2.267E+00	48.54
SN-126	64.28	210	9.60	3.529E+00	1.913E+00	1.913E+00	43.60
	86.94	167	8.90	6.241E+00	9.262E-01	9.262E-01	63.18
	87.57	167	37.00*	6.241E+00	2.228E-01	2.228E-01	48.54
BA-137M	661.65	164	89.98*	2.406E+00	2.344E-01	2.346E-01	29.92
CS-137	661.65	164	85.12*	2.406E+00	2.478E-01	2.480E-01	29.93
TL-208	277.35	------	6.80	4.695E+00	------ Line Not Found		------
	510.84	117	21.60	2.964E+00	5.647E-01	5.647E-01	54.76
	583.14	372	84.20*	2.668E+00	5.114E-01	5.114E-01	18.36
	860.37	58	12.46	1.919E+00	7.512E-01	7.512E-01	50.42
BI-211	72.87	------	1.27	4.872E+00	------ Line Not Found		------
	351.07	683	12.94*	3.940E+00	4.140E+00	4.140E+00	14.72
PB-212	74.81	412	10.70	5.113E+00	2.326E+00	2.326E+00	22.59
	77.11	689	18.00	5.368E+00	2.203E+00	2.203E+00	14.10
	87.30	167	8.00	6.241E+00	1.030E+00	1.030E+00	49.56
	238.63	1221	44.60*	5.226E+00	1.618E+00	1.618E+00	14.51
	300.09	76	3.41	4.434E+00	1.557E+00	1.557E+00	61.21
PO-212	74.81	412	10.70	5.113E+00	2.326E+00	2.326E+00	22.59
	77.11	689	18.00	5.368E+00	2.203E+00	2.203E+00	14.10
	87.30	167	8.00	6.241E+00	1.030E+00	1.030E+00	49.56
	115.19	------	0.60	7.166E+00	------ Line Not Found		------
	238.63	1221	44.60*	5.226E+00	1.618E+00	1.618E+00	14.51
	300.09	76	3.41	4.434E+00	1.557E+00	1.557E+00	61.21
BI-214	609.31	486	46.30*	2.574E+00	1.259E+00	1.259E+00	16.51
	1120.29	137	15.10	1.516E+00	1.855E+00	1.855E+00	29.89
	1764.49	127	15.80	1.056E+00	2.349E+00	2.349E+00	22.04
PB-214	74.81	412	6.21	5.113E+00	4.008E+00	4.008E+00	21.86
	77.11	689	10.50	5.368E+00	3.776E+00	3.776E+00	16.02
	87.30	167	4.67	6.241E+00	1.765E+00	1.765E+00	49.14
	241.98	186	7.49	5.176E+00	1.486E+00	1.486E+00	35.87
	295.21	415	19.20	4.486E+00	1.488E+00	1.488E+00	20.98

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	683	37.20*	3.940E+00	1.440E+00	1.440E+00	15.62
PO-214	74.81	412	6.21	5.113E+00	4.008E+00	4.008E+00	21.86
	77.11	689	10.50	5.368E+00	3.776E+00	3.776E+00	16.02
	87.30	167	4.67	6.241E+00	1.765E+00	1.765E+00	49.14
	241.98	186	7.49	5.176E+00	1.486E+00	1.486E+00	35.87
	295.21	415	19.20	4.486E+00	1.488E+00	1.488E+00	20.98
	351.92	683	37.20*	3.940E+00	1.440E+00	1.440E+00	15.62
PO-216	74.81	412	10.70	5.113E+00	2.326E+00	2.326E+00	22.59
	77.11	689	18.00	5.368E+00	2.203E+00	2.203E+00	14.10
	87.30	167	8.00	6.241E+00	1.030E+00	1.030E+00	49.56
	238.63	1221	44.60*	5.226E+00	1.618E+00	1.618E+00	14.51
	300.09	76	3.41	4.434E+00	1.557E+00	1.557E+00	61.21
PO-218	74.81	412	6.21	5.113E+00	4.008E+00	4.008E+00	21.86
	77.11	689	10.50	5.368E+00	3.776E+00	3.776E+00	16.02
	87.30	167	4.67	6.241E+00	1.765E+00	1.765E+00	49.14
	241.98	186	7.49	5.176E+00	1.486E+00	1.486E+00	35.87
	295.21	415	19.20	4.486E+00	1.488E+00	1.488E+00	20.98
	351.92	683	37.20*	3.940E+00	1.440E+00	1.440E+00	15.62
RA-224	240.98	186	3.95*	5.176E+00	2.818E+00	2.818E+00	35.43
RA-226	609.31	486	46.30*	2.574E+00	1.259E+00	1.259E+00	16.51
	1120.29	137	15.10	1.516E+00	1.855E+00	1.855E+00	29.89
	1764.49	127	15.80	1.056E+00	2.349E+00	2.349E+00	22.04
AC-228	338.32	282	11.40	4.057E+00	1.883E+00	1.883E+00	46.54
	911.07	266	27.70*	1.825E+00	1.625E+00	1.625E+00	21.93
	969.11	137	16.60	1.727E+00	1.478E+00	1.478E+00	36.42
RA-228	338.32	282	11.40	4.057E+00	1.883E+00	1.883E+00	46.54
	911.07	266	27.70*	1.825E+00	1.625E+00	1.625E+00	21.93
	969.11	137	16.60	1.727E+00	1.478E+00	1.478E+00	36.42
TH-228	74.81	412	10.70	5.113E+00	2.326E+00	2.362E+00	20.59
	77.11	689	18.00	5.368E+00	2.203E+00	2.236E+00	14.10
	87.30	167	8.00	6.241E+00	1.030E+00	1.046E+00	48.54
	238.63	1221	44.60*	5.226E+00	1.618E+00	1.643E+00	14.51
	300.09	76	3.41	4.434E+00	1.557E+00	1.581E+00	84.57
TH-230	609.31	486	46.30*	2.574E+00	1.259E+00	1.259E+00	16.51
	1120.29	137	15.10	1.516E+00	1.855E+00	1.855E+00	29.89
	1764.49	127	15.80	1.056E+00	2.349E+00	2.349E+00	22.04
TH-232	338.32	282	11.40	4.057E+00	1.883E+00	1.883E+00	23.19
	911.07	266	27.70*	1.825E+00	1.625E+00	1.625E+00	21.93
	969.11	137	16.60	1.727E+00	1.478E+00	1.478E+00	36.42
TH-234	63.29	210	3.80*	3.529E+00	4.833E+00	4.833E+00	44.66
	92.38	742	5.41	6.591E+00	6.428E+00	6.428E+00	22.04
U-234	609.31	486	46.30*	2.574E+00	1.259E+00	1.259E+00	16.51
	1120.29	137	15.10	1.516E+00	1.855E+00	1.855E+00	29.89
	1764.49	127	15.80	1.056E+00	2.349E+00	2.349E+00	22.04
U-235	89.95	141	2.70	6.435E+00	2.504E+00	2.504E+00	51.36
	93.35	742	4.50	6.591E+00	7.728E+00	7.728E+00	30.73
	105.00	------	2.10	7.034E+00	------ Line Not Found		------
	143.76	81	10.50*	6.942E+00	3.428E-01	3.428E-01	84.70
	163.35	------	4.70	6.588E+00	------ Line Not Found		------

Sample ID : G1202032511 Acquisition date : 12-FEB-2010 16:38:58

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	185.71	388	54.00	6.146E+00	3.610E-01	3.610E-01	24.88
	205.31	------	4.70	5.780E+00	------ Line Not Found		------
NP-237	86.50	167	12.60*	6.241E+00	6.542E-01	6.542E-01	52.74
	95.87	------	2.60	6.742E+00	------ Line Not Found		------
U-238	63.29	210	3.80*	3.529E+00	4.833E+00	4.833E+00	44.66
	92.38	742	5.41	6.591E+00	6.428E+00	6.428E+00	15.27
AM-243	74.67	412	66.00*	5.113E+00	3.771E-01	3.771E-01	20.56
	86.72	167	0.34	6.241E+00	2.453E+01	2.453E+01	48.54
	117.66	------	0.55	7.175E+00	------ Line Not Found		------
	142.18	------	0.13	6.968E+00	------ Line Not Found		------
ANH-511	511.00	117	100.00*	2.964E+00	1.220E-01	1.220E-01	54.12

Flag: "*" = Keyline

Sample ID : G1202032511 Acquisition date : 12-FEB-2010 16:38:58

Total number of lines in spectrum 36
Number of unidentified lines 3
Number of lines tentatively identified by NID 33 91.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.530E+01	2.530E+01	0.278E+01	11.00	
CD-109	464.00D	1.02	2.216E+00	2.267E+00	1.100E+00	48.54	
SN-126	1.00E+05Y	1.00	2.228E-01	2.228E-01	1.081E-01	48.54	
BA-137M	30.17Y	1.00	2.344E-01	2.346E-01	0.702E-01	29.92	
CS-137	30.17Y	1.00	2.478E-01	2.480E-01	0.742E-01	29.93	
TL-208	1.41E+10Y	1.00	5.114E-01	5.114E-01	0.939E-01	18.36	
BI-211	7.04E+08Y	1.00	4.140E+00	4.140E+00	0.609E+00	14.72	
PB-212	1.41E+10Y	1.00	1.618E+00	1.618E+00	0.235E+00	14.51	
PO-212	1.41E+10Y	1.00	1.618E+00	1.618E+00	0.235E+00	14.51	
BI-214	1600.00Y	1.00	1.259E+00	1.259E+00	0.208E+00	16.51	
PB-214	1600.00Y	1.00	1.440E+00	1.440E+00	0.225E+00	15.62	
PO-214	1600.00Y	1.00	1.440E+00	1.440E+00	0.225E+00	15.62	
PO-216	1.41E+10Y	1.00	1.618E+00	1.618E+00	0.235E+00	14.51	
PO-218	1600.00Y	1.00	1.440E+00	1.440E+00	0.225E+00	15.62	
RA-224	1.41E+10Y	1.00	2.818E+00	2.818E+00	0.998E+00	35.43	
RA-226	1600.00Y	1.00	1.259E+00	1.259E+00	0.208E+00	16.51	
AC-228	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.356E+00	21.93	
RA-228	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.356E+00	21.93	
TH-228	1.91Y	1.02	1.618E+00	1.643E+00	0.238E+00	14.51	
TH-230	4.47E+09Y	1.00	1.259E+00	1.259E+00	0.208E+00	16.51	
TH-232	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.356E+00	21.93	
TH-234	4.47E+09Y	1.00	4.833E+00	4.833E+00	2.158E+00	44.66	
U-234	4.47E+09Y	1.00	1.259E+00	1.259E+00	0.208E+00	16.51	
U-235	7.04E+08Y	1.00	3.428E-01	3.428E-01	2.904E-01	84.70	
NP-237	2.14E+06Y	1.00	6.542E-01	6.542E-01	3.450E-01	52.74	
U-238	4.47E+09Y	1.00	4.833E+00	4.833E+00	2.158E+00	44.66	
AM-243	7380.00Y	1.00	3.771E-01	3.771E-01	0.775E-01	20.56	
ANH-511	1.00E+09Y	1.00	1.220E-01	1.220E-01	0.660E-01	54.12	
		Total Activity :	6.756E+01	6.763E+01			

Grand Total Activity : 6.756E+01 6.763E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032511 Acquisition date : 12-FEB-2010 16:38:58

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.81	146	383	0.85	257.81	253	10	2.02E-02	52.9	7.13E+00	T
0	209.23	191	253	0.91	418.65	415	10	2.65E-02	34.6	5.71E+00	T
0	269.96	108	238	1.07	540.12	535	11	1.50E-02	59.1	4.79E+00	T
0	327.23	83	161	1.03	654.65	651	9	1.16E-02	58.6	4.16E+00	
0	409.40	32	146	0.60	818.98	814	11	4.45E-03	****	3.52E+00	
0	462.57	81	147	1.07	925.31	920	13	1.13E-02	65.2	3.20E+00	T
0	727.42	91	55	1.23	1454.93	1450	9	1.26E-02	36.4	2.22E+00	T
0	770.39	59	119	0.71	1540.86	1533	16	8.25E-03	88.5	2.11E+00	
0	795.00	82	67	1.47	1590.06	1582	16	1.14E-02	50.1	2.06E+00	T
0	964.98	36	47	1.02	1929.94	1924	9	5.03E-03	79.0	1.73E+00	T
0	1001.40	35	38	1.06	2002.76	1998	11	4.88E-03	78.4	1.68E+00	T
0	1377.53	30	27	1.76	2754.73	2750	10	4.12E-03	75.7	1.27E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 18:39:26.53

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032511.CNF;1 *
* Acquisition date : 12-FEB-2010 16:38:58  Detector SN#     :              *
* Detector ID      : GAM16                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.92         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202032511           Analyst initials: MXR1           *
* Batch Number     : 948717                Sample Quantity : 1.21500E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.530E+01	2.782E+00	4.667E-01	4.102E-02	54.215
CD-109	2.267E+00	1.100E+00	1.135E+00	1.094E-01	1.997
SN-126	2.228E-01	1.081E-01	1.330E-01	1.275E-02	1.675
BA-137M	2.346E-01	7.021E-02	5.783E-02	5.132E-03	4.057
CS-137	2.480E-01	7.423E-02	6.113E-02	5.435E-03	4.057
TL-208	5.114E-01	9.387E-02	5.869E-02	5.818E-03	8.713
BI-211	4.140E+00	6.093E-01	3.002E-01	3.283E-02	13.789
PB-212	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
PO-212	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
BI-214	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
PB-214	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
PO-214	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
PO-216	1.618E+00	2.348E-01	1.301E-01	1.540E-02	12.437
PO-218	1.440E+00	2.249E-01	9.859E-02	1.192E-02	14.606
RA-224	2.818E+00	9.984E-01	1.334E+00	1.470E-01	2.112
RA-226	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
AC-228	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
RA-228	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009

Sample ID : G1202032511 Acquisition date : 12-FEB-2010 16:38:58

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.643E+00	2.384E-01	1.321E-01	1.564E-02	12.437
TH-230	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
TH-232	1.625E+00	3.564E-01	2.030E-01	2.411E-02	8.009
TH-234	4.833E+00	2.158E+00	1.997E+00	3.483E-01	2.420
U-234	1.259E+00	2.078E-01	1.036E-01	1.095E-02	12.147
U-235	3.428E-01	2.904E-01	3.051E-01	5.331E-02	1.124
NP-237	6.542E-01	3.450E-01	3.977E-01	9.028E-02	1.645
U-238	4.833E+00	2.158E+00	1.997E+00	3.483E-01	2.420
AM-243	3.771E-01	7.754E-02	8.343E-02	6.907E-03	4.520
ANH-511	1.220E-01	6.602E-02	4.546E-02	4.323E-03	2.683

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.449E-02		3.161E-01	5.334E-01	5.395E-02	0.158
NA-22	3.415E-02		3.909E-02	6.980E-02	5.808E-03	0.489
NA-24	-3.341E-01		3.823E-01	Half-Life too short		
AL-26	1.442E-02		3.317E-02	5.862E-02	4.793E-03	0.246
TI-44	4.065E-01	+	5.730E-02	7.227E-02	6.223E-03	5.624
SC-46	-2.081E-02		3.399E-02	5.296E-02	5.007E-03	-0.393
V-48	2.583E-02		6.498E-02	1.120E-01	1.031E-02	0.231
CR-51	1.787E-01		3.475E-01	5.691E-01	6.654E-02	0.314
MN-52	-3.845E-02		2.089E-01	3.240E-01	2.765E-02	-0.119
MN-54	6.391E-03		3.855E-02	6.554E-02	6.156E-03	0.098
CO-56	-1.212E-02		3.495E-02	5.661E-02	5.327E-03	-0.214
CO-57	1.423E-02		2.333E-02	4.002E-02	3.325E-03	0.356
CO-58	-2.451E-02		3.858E-02	6.123E-02	5.737E-03	-0.400
FE-59	-1.995E-02		8.144E-02	1.300E-01	1.209E-02	-0.153
CO-60	-9.538E-03		3.274E-02	5.040E-02	4.251E-03	-0.189
ZN-65	-6.271E-02		9.679E-02	1.236E-01	1.050E-02	-0.507
GE-68	4.180E-01		1.154E+00	1.970E+00	1.721E-01	0.212
AS-73	-2.406E-01		8.111E-01	1.252E+00	9.548E-02	-0.192
AS-74	4.774E-02		8.683E-02	1.478E-01	1.372E-02	0.323
SE-75	-5.191E-02		4.976E-02	6.446E-02	7.522E-03	-0.805
BR-77	-8.906E-01		9.652E+00	1.577E+01	1.499E+00	-0.056
SR-82	1.630E-01		3.869E-01	5.717E-01	5.300E-02	0.285
RB-83	-7.019E-03		6.233E-02	1.017E-01	9.661E-03	-0.069
RB-84	4.583E-02		7.019E-02	1.238E-01	1.169E-02	0.370
KR-85	4.535E+00		7.310E+00	1.122E+01	1.067E+00	0.404
SR-85	2.327E-02		3.751E-02	5.759E-02	5.476E-03	0.404
RB-86	3.543E-01		7.180E-01	1.242E+00	1.086E-01	0.285
Y-88	8.120E-03		3.291E-02	5.673E-02	4.605E-03	0.143
ZR-88	-2.542E-02		2.804E-02	4.405E-02	4.074E-03	-0.577
Y-91	-1.227E+01		1.773E+01	2.673E+01	2.174E+00	-0.459
NB-94	1.155E-02		3.148E-02	5.234E-02	4.731E-03	0.221
NB-95	-1.523E-02		5.328E-02	7.370E-02	6.812E-03	-0.207
NB-95M	1.257E-01		1.270E-01	1.938E-01	2.305E-02	0.649

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	9.440E-02		7.289E-02	1.291E-01	1.296E-02	0.731
NB-97	-1.675E-02		5.557E-02	Half-Life too short		
ZR-97	2.276E+00		8.953E-01	Half-Life too short		
MO-99	2.689E-01		1.171E+01	1.882E+01	2.917E+00	0.014
TC-99M	-1.593E+10		2.417E+10	Half-Life too short		
RH-101	-1.275E-02		3.219E-02	5.074E-02	5.009E-03	-0.251
RH-102	-6.871E-03		2.898E-02	4.722E-02	4.488E-03	-0.146
RU-103	-1.958E-02		3.635E-02	5.719E-02	8.421E-03	-0.342
RH-106	-3.597E-02		2.800E-01	4.494E-01	6.157E-02	-0.080
RU-106	-3.597E-02		2.800E-01	4.494E-01	4.109E-02	-0.080
AG-108M	2.701E-03		3.015E-02	5.002E-02	4.869E-03	0.054
AG-110M	4.904E-03		3.575E-02	5.147E-02	4.711E-03	0.095
IN-111	-2.487E-01		1.077E+00	1.516E+00	1.689E-01	-0.164
IN-113M	-1.843E-02		3.952E-02	6.421E-02	6.095E-03	-0.287
SN-113	-1.843E-02		3.952E-02	6.421E-02	6.095E-03	-0.287
IN-114M	1.319E-01		1.881E-01	2.866E-01	2.772E-02	0.460
CD-115	3.057E-01		9.534E+00	1.573E+01	1.493E+00	0.019
SN-117M	5.197E-02		5.304E-02	9.095E-02	8.078E-03	0.571
SB-122	6.662E-01		2.033E+00	3.412E+00	3.210E-01	0.195
I-123	4.783E+00		3.033E+00	Half-Life too short		
TE-123M	2.145E-02		2.720E-02	4.635E-02	4.145E-03	0.463
I-124	1.105E-01		7.113E-01	1.087E+00	1.006E-01	0.102
SB-124	1.155E-02		5.380E-02	9.372E-02	8.208E-03	0.123
SB-125	1.545E-02		8.312E-02	1.406E-01	1.343E-02	0.110
TE-125M	-3.366E+00		8.436E+00	1.374E+01	1.398E+00	-0.245
I-126	1.229E-02		1.990E-01	2.832E-01	2.519E-02	0.043
SB-126	8.040E-04		1.423E-01	2.287E-01	2.082E-02	0.004
SB-127	2.655E-03		1.421E+00	2.292E+00	2.676E-01	0.001
XE-127	-3.529E-02		4.370E-02	6.809E-02	6.810E-03	-0.518
I-131	3.808E-02		1.080E-01	1.835E-01	1.941E-02	0.207
TE-132	7.525E-02		6.474E-01	1.054E+00	1.786E-01	0.071
BA-133	5.675E-03		4.188E-02	6.322E-02	9.135E-03	0.090
I-133	-1.417E-03		2.880E-03	Half-Life too short		
CS-134	1.623E-01	+	8.273E-02	9.576E-02	8.978E-03	1.695
CS-135	1.218E-01		1.655E-01	2.447E-01	3.121E-02	0.498
I-135	-4.171E+09		2.985E+09	Half-Life too short		
CS-136	2.130E-02		1.035E-01	1.741E-01	1.612E-02	0.122
CE-139	-1.334E-02		2.869E-02	4.630E-02	4.199E-03	-0.288
BA-140	-2.139E-01		2.459E-01	3.557E-01	1.187E-01	-0.601
LA-140	-5.581E-02		8.073E-02	1.189E-01	1.013E-02	-0.469
CE-141	2.595E-02		6.556E-02	9.877E-02	8.640E-03	0.263
CE-143	4.687E-04		9.789E-05	Half-Life too short		
CE-144	-9.388E-03		2.040E-01	3.044E-01	4.701E-02	-0.031
PM-144	9.031E-03		3.386E-02	5.580E-02	5.033E-03	0.162
PR-144	6.120E-01		2.295E+00	3.782E+00	3.410E-01	0.162
PM-146	5.404E-02		4.021E-02	7.236E-02	8.264E-03	0.747
ND-147	-3.147E-01		5.368E-01	8.365E-01	1.294E-01	-0.376
PM-149	-4.496E+01		8.588E+01	1.315E+02	2.313E+01	-0.342

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-5.208E-02		8.437E-02	1.318E-01	1.473E-02	-0.395
GD-153	-1.132E-02		7.977E-02	1.206E-01	1.072E-02	-0.094
EU-154	6.663E-02		1.123E-01	1.944E-01	2.154E-02	0.343
EU-155	1.416E-01		9.524E-02	1.687E-01	1.460E-02	0.839
TB-160	3.376E-02		1.373E-01	2.346E-01	2.216E-02	0.144
HO-166M	-9.188E-03		5.879E-02	9.311E-02	8.448E-03	-0.099
TM-171	-6.239E+00		2.968E+01	4.163E+01	3.189E+00	-0.150
LU-176	-5.361E-03		2.433E-02	3.804E-02	4.412E-03	-0.141
LU-177	4.529E+00	+	1.632E+00	1.960E+00	1.989E-01	2.310
LU-177M	-9.542E-02		1.932E-01	2.716E-01	2.539E-02	-0.351
HF-181	-1.397E-02		4.105E-02	6.623E-02	6.299E-03	-0.211
W-181	-2.103E-02		3.837E-01	5.461E-01	4.124E-02	-0.039
TA-182	-6.526E-02		1.934E-01	3.043E-01	2.489E-02	-0.214
RE-183	-4.125E-02		1.078E-01	1.720E-01	1.544E-02	-0.240
RE-184	4.008E-02		2.232E-01	3.626E-01	4.109E-02	0.111
OS-185	-1.529E-02		4.316E-02	6.772E-02	6.087E-03	-0.226
RE-188	-7.955E-02		1.667E-01	2.701E-01	2.376E-02	-0.295
W-188	4.343E+00		7.602E+00	1.128E+01	1.337E+00	0.385
IR-192	-7.368E-04		3.130E-02	4.949E-02	5.656E-03	-0.015
AU-195	3.853E-01		2.194E-01	3.764E-01	3.314E-02	1.024
TL-200	1.864E-04		2.190E-04	Half-Life too short		
TL-201	3.261E+00		6.664E+00	1.121E+01	1.021E+00	0.291
TL-202	-1.274E-02		6.564E-02	1.079E-01	1.018E-02	-0.118
HG-203	-3.123E-03		3.890E-02	6.184E-02	7.537E-03	-0.050
BI-207	3.704E-03		5.053E-02	8.384E-02	7.391E-03	0.044
TL-207	-3.898E-01		7.218E-01	9.562E-01	1.829E-01	-0.408
PO-209	2.147E+00		6.387E+00	1.103E+01	1.043E+00	0.195
BI-210	8.764E-01		3.521E+00	5.601E+00	5.223E-01	0.156
PB-210	8.764E-01		3.521E+00	5.601E+00	5.223E-01	0.156
PO-210	8.764E-01		3.521E+00	5.601E+00	4.731E-01	0.156
PB-211	3.710E-01		9.799E-01	1.456E+00	9.136E-01	0.255
BI-212	1.069E+00	+	4.050E-01	6.589E-01	6.884E-02	1.623
PO-215	-3.898E-01		7.218E-01	9.562E-01	1.829E-01	-0.408
RN-219	8.444E-03		3.731E-01	6.265E-01	9.662E-02	0.013
RN-220	-7.947E+00		2.396E+01	3.816E+01	3.605E+00	-0.208
RA-223	-3.898E-01		7.218E-01	9.562E-01	1.829E-01	-0.408
AC-227	-2.633E-01		3.739E-01	5.712E-01	9.755E-02	-0.461
TH-227	-2.633E-01		3.747E-01	5.712E-01	1.117E-01	-0.461
TH-229	-7.438E-01		4.911E-01	7.341E-01	7.164E-02	-1.013
PA-231	-3.863E-01		1.439E+00	2.254E+00	3.899E-01	-0.171
TH-231	-3.898E-01		7.218E-01	9.562E-01	1.829E-01	-0.408
U-231	-7.647E-01		1.081E+00	1.586E+00	1.424E-01	-0.482
PA-233	-9.192E-03		6.213E-02	9.749E-02	1.139E-02	-0.094
PA-234	-2.955E-01		3.091E-01	4.415E-01	8.435E-02	-0.669
PA-234M	7.704E+00	+	6.093E+00	8.494E+00	8.844E-01	0.907
NP-236	-4.726E-02		7.807E-02	1.254E-01	1.119E-02	-0.377
NP-239	-3.313E-02		1.768E-01	2.944E-01	2.451E-02	-0.113
AM-241	1.127E-01		1.652E-01	2.457E-01	1.928E-02	0.459

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-7.729E-02		8.473E-02	1.371E-01	1.179E-02	-0.564
AM-246	-2.280E-02		1.363E-01	2.203E-01	1.922E-02	-0.103
CM-247	1.098E-02		3.345E-02	5.726E-02	5.324E-03	0.192
CF-249	8.692E-03		3.796E-02	6.467E-02	6.067E-03	0.134
CF-251	-5.261E-04		1.188E-01	1.951E-01	1.819E-02	-0.003

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032511           *
* Acquisition date : 12-FEB-2010 16:38:58 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.92     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202032511          Analyst initials: MXR1            *
* Batch Number     : 948717               Sample Quantity : 1.2150E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.530E+01	2.726E+00	2.330E-01	1.391E+00
CD-109	2.267E+00	1.078E+00	5.868E-01	5.501E-01
SN-126	2.228E-01	1.060E-01	6.876E-02	5.407E-02
BA-137M	2.346E-01	6.881E-02	2.917E-02	3.511E-02
CS-137	2.480E-01	7.275E-02	3.083E-02	3.712E-02
TL-208	5.114E-01	9.199E-02	2.965E-02	4.693E-02
BI-211	4.140E+00	5.971E-01	1.526E-01	3.047E-01
PB-212	1.618E+00	2.301E-01	6.644E-02	1.174E-01
PO-212	1.618E+00	2.301E-01	6.644E-02	1.174E-01
BI-214	1.259E+00	2.036E-01	5.231E-02	1.039E-01
PB-214	1.440E+00	2.204E-01	5.012E-02	1.124E-01
PO-214	1.440E+00	2.204E-01	5.012E-02	1.124E-01
PO-216	1.618E+00	2.301E-01	6.644E-02	1.174E-01
PO-218	1.440E+00	2.204E-01	5.012E-02	1.124E-01
RA-224	2.818E+00	9.784E-01	6.812E-01	4.992E-01
RA-226	1.259E+00	2.036E-01	5.231E-02	1.039E-01
AC-228	1.625E+00	3.493E-01	1.020E-01	1.782E-01
RA-228	1.625E+00	3.493E-01	1.020E-01	1.782E-01
TH-228	1.643E+00	2.336E-01	6.746E-02	1.192E-01
TH-230	1.259E+00	2.036E-01	5.231E-02	1.039E-01
TH-232	1.625E+00	3.493E-01	1.020E-01	1.782E-01
TH-234	4.833E+00	2.115E+00	1.036E+00	1.079E+00
U-234	1.259E+00	2.036E-01	5.231E-02	1.039E-01
U-235	3.428E-01	2.845E-01	1.568E-01	1.452E-01
NP-237	6.542E-01	3.381E-01	2.056E-01	1.725E-01
U-238	4.833E+00	2.115E+00	1.036E+00	1.079E+00
AM-243	3.771E-01	7.599E-02	4.321E-02	3.877E-02
ANH-511	1.220E-01	6.470E-02	2.300E-02	3.301E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	8.449E-02	3.097E-01	2.701E-01	1.580E-01	NOT IDENT.
NA-22	3.415E-02	3.831E-02	3.491E-02	1.955E-02	NOT IDENT.
NA-24	-3.341E+05	7.493E+05	0.000E+00	3.823E+05	SHORT HLIF
AL-26	1.442E-02	3.251E-02	2.919E-02	1.659E-02	NOT IDENT.
TI-44	4.065E-01	5.616E-02	3.741E-02	2.865E-02	FAIL ABUN
SC-46	-2.081E-02	3.331E-02	2.661E-02	1.700E-02	FAIL ABUN
V-48	2.583E-02	6.368E-02	5.622E-02	3.249E-02	NOT IDENT.
CR-51	1.787E-01	3.405E-01	2.896E-01	1.737E-01	NOT IDENT.
MN-52	-3.845E-02	2.047E-01	1.618E-01	1.044E-01	NOT IDENT.
MN-54	6.391E-03	3.778E-02	3.296E-02	1.928E-02	NOT IDENT.
CO-56	-1.212E-02	3.425E-02	2.846E-02	1.748E-02	NOT IDENT.
CO-57	1.423E-02	2.287E-02	2.060E-02	1.167E-02	NOT IDENT.
CO-58	-2.451E-02	3.781E-02	3.080E-02	1.929E-02	NOT IDENT.
FE-59	-1.995E-02	7.981E-02	6.516E-02	4.072E-02	FAIL ABUN
CO-60	-9.538E-03	3.209E-02	2.519E-02	1.637E-02	NOT IDENT.
ZN-65	-6.271E-02	9.486E-02	6.192E-02	4.840E-02	NOT IDENT.
GE-68	4.180E-01	1.131E+00	9.876E-01	5.771E-01	NOT IDENT.
AS-73	-2.406E-01	7.949E-01	6.508E-01	4.056E-01	NOT IDENT.
AS-74	4.774E-02	8.509E-02	7.466E-02	4.341E-02	NOT IDENT.
SE-75	-5.191E-02	4.877E-02	3.288E-02	2.488E-02	NOT IDENT.
BR-77	-8.906E-01	9.459E+00	7.979E+00	4.826E+00	FAIL ABUN
SR-82	1.630E-01	3.792E-01	2.877E-01	1.935E-01	NOT IDENT.
RB-83	-7.019E-03	6.108E-02	5.143E-02	3.116E-02	NOT IDENT.
RB-84	4.583E-02	6.878E-02	6.220E-02	3.509E-02	NOT IDENT.
KR-85	4.535E+00	7.163E+00	5.678E+00	3.655E+00	NOT IDENT.
SR-85	2.327E-02	3.676E-02	2.914E-02	1.875E-02	NOT IDENT.
RB-86	3.543E-01	7.037E-01	6.228E-01	3.590E-01	NOT IDENT.
Y-88	8.120E-03	3.226E-02	2.824E-02	1.646E-02	NOT IDENT.
ZR-88	-2.542E-02	2.748E-02	2.236E-02	1.402E-02	NOT IDENT.
Y-91	-1.227E+01	1.737E+01	1.338E+01	8.863E+00	NOT IDENT.
NB-94	1.155E-02	3.085E-02	2.638E-02	1.574E-02	NOT IDENT.
NB-95	-1.523E-02	5.221E-02	3.710E-02	2.664E-02	NOT IDENT.
NB-95M	1.257E-01	1.244E-01	9.902E-02	6.348E-02	NOT IDENT.
ZR-95	9.440E-02	7.143E-02	6.500E-02	3.644E-02	NOT IDENT.
NB-97	-1.675E+04	1.089E+05	0.000E+00	5.557E+04	SHORT HLIF
ZR-97	2.276E+06	1.755E+06	0.000E+00	8.953E+05	SHORT HLIF
MO-99	2.689E-01	1.148E+01	9.476E+00	5.857E+00	NOT IDENT.
TC-99M	-1.593E+16	4.737E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.275E-02	3.155E-02	2.597E-02	1.610E-02	NOT IDENT.
RH-102	-6.871E-03	2.840E-02	2.391E-02	1.449E-02	NOT IDENT.
RU-103	-1.958E-02	3.563E-02	2.895E-02	1.818E-02	FAIL ABUN
RH-106	-3.597E-02	2.744E-01	2.268E-01	1.400E-01	FAIL ABUN
RU-106	-3.597E-02	2.744E-01	2.268E-01	1.400E-01	FAIL ABUN
AG-108M	2.701E-03	2.955E-02	2.536E-02	1.508E-02	NOT IDENT.
AG-110M	4.904E-03	3.504E-02	2.596E-02	1.788E-02	NOT IDENT.
IN-111	-2.487E-01	1.055E+00	7.741E-01	5.385E-01	NOT IDENT.
IN-113M	-1.843E-02	3.873E-02	3.260E-02	1.976E-02	NOT IDENT.
SN-113	-1.843E-02	3.873E-02	3.260E-02	1.976E-02	NOT IDENT.
IN-114M	1.319E-01	1.844E-01	1.468E-01	9.406E-02	NOT IDENT.
CD-115	3.057E-01	9.343E+00	7.955E+00	4.767E+00	NOT IDENT.
SN-117M	5.197E-02	5.197E-02	4.668E-02	2.652E-02	NOT IDENT.
SB-122	6.662E-01	1.992E+00	1.724E+00	1.016E+00	NOT IDENT.
I-123	4.783E+06	5.944E+06	0.000E+00	3.033E+06	SHORT HLIF
TE-123M	2.145E-02	2.665E-02	2.379E-02	1.360E-02	NOT IDENT.
I-124	1.105E-01	6.970E-01	5.490E-01	3.556E-01	FAIL ABUN
SB-124	1.155E-02	5.272E-02	4.671E-02	2.690E-02	FAIL ABUN
SB-125	1.545E-02	8.146E-02	7.128E-02	4.156E-02	FAIL ABUN
TE-125M	-3.366E+00	8.267E+00	7.082E+00	4.218E+00	NOT IDENT.
I-126	1.229E-02	1.951E-01	1.428E-01	9.952E-02	NOT IDENT.
SB-126	8.040E-04	1.395E-01	1.152E-01	7.116E-02	FAIL ABUN
SB-127	2.655E-03	1.393E+00	1.156E+00	7.106E-01	NOT IDENT.
XE-127	-3.529E-02	4.282E-02	3.484E-02	2.185E-02	FAIL ABUN
I-131	3.808E-02	1.058E-01	9.325E-02	5.400E-02	NOT IDENT.
TE-132	7.525E-02	6.345E-01	5.388E-01	3.237E-01	NOT IDENT.
BA-133	5.675E-03	4.104E-02	3.213E-02	2.094E-02	NOT IDENT.
I-133	-1.417E+03	5.645E+03	0.000E+00	2.880E+03	SHORT HLIF
CS-134	1.623E-01	8.107E-02	4.818E-02	4.136E-02	FAIL ABUN
CS-135	1.218E-01	1.622E-01	1.248E-01	8.275E-02	NOT IDENT.
I-135	-4.171E+15	5.851E+15	0.000E+00	2.985E+15	SHORT HLIF
CS-136	2.130E-02	1.014E-01	8.731E-02	5.173E-02	FAIL ABUN
CE-139	-1.334E-02	2.812E-02	2.375E-02	1.435E-02	NOT IDENT.
BA-140	-2.139E-01	2.410E-01	1.798E-01	1.229E-01	NOT IDENT.
LA-140	-5.581E-02	7.912E-02	5.930E-02	4.037E-02	NOT IDENT.
CE-141	2.595E-02	6.425E-02	5.075E-02	3.278E-02	NOT IDENT.
CE-143	4.687E+02	1.919E+02	0.000E+00	9.789E+01	SHORT HLIF
CE-144	-9.388E-03	2.000E-01	1.566E-01	1.020E-01	NOT IDENT.
PM-144	9.031E-03	3.319E-02	2.813E-02	1.693E-02	NOT IDENT.

PR-144	6.120E-01	2.249E+00	1.906E+00	1.147E+00	NOT IDENT.
PM-146	5.404E-02	3.941E-02	3.667E-02	2.011E-02	NOT IDENT.
ND-147	-3.147E-01	5.260E-01	4.230E-01	2.684E-01	FAIL ABUN
PM-149	-4.496E+01	8.416E+01	6.699E+01	4.294E+01	NOT IDENT.
EU-152	-5.208E-02	8.268E-02	6.704E-02	4.218E-02	FAIL ABUN
GD-153	-1.132E-02	7.818E-02	6.228E-02	3.989E-02	NOT IDENT.
EU-154	6.663E-02	1.101E-01	9.725E-02	5.616E-02	NOT IDENT.
EU-155	1.416E-01	9.333E-02	8.703E-02	4.762E-02	FAIL ABUN
TB-160	3.376E-02	1.346E-01	1.179E-01	6.866E-02	FAIL ABUN
HO-166M	-9.188E-03	5.761E-02	4.692E-02	2.939E-02	FAIL ABUN
TM-171	-6.239E+00	2.909E+01	2.159E+01	1.484E+01	NOT IDENT.
LU-176	-5.361E-03	2.384E-02	1.937E-02	1.216E-02	FAIL ABUN
LU-177	4.529E+00	1.599E+00	1.003E+00	8.160E-01	FAIL ABUN
LU-177M	-9.542E-02	1.894E-01	1.378E-01	9.661E-02	FAIL ABUN
HF-181	-1.397E-02	4.023E-02	3.354E-02	2.053E-02	NOT IDENT.
W-181	-2.103E-02	3.760E-01	2.833E-01	1.918E-01	NOT IDENT.
TA-182	-6.526E-02	1.895E-01	1.523E-01	9.671E-02	FAIL ABUN
RE-183	-4.125E-02	1.056E-01	8.825E-02	5.390E-02	FAIL ABUN
RE-184	4.008E-02	2.187E-01	1.851E-01	1.116E-01	NOT IDENT.
OS-185	-1.529E-02	4.230E-02	3.416E-02	2.158E-02	NOT IDENT.
RE-188	-7.955E-02	1.634E-01	1.387E-01	8.334E-02	NOT IDENT.
W-188	4.343E+00	7.450E+00	5.745E+00	3.801E+00	FAIL ABUN
IR-192	-7.368E-04	3.067E-02	2.519E-02	1.565E-02	FAIL ABUN
AU-195	3.853E-01	2.150E-01	1.943E-01	1.097E-01	FAIL ABUN
TL-200	1.864E+02	4.292E+02	0.000E+00	2.190E+02	SHORT HLIF
TL-201	3.261E+00	6.530E+00	5.751E+00	3.332E+00	NOT IDENT.
TL-202	-1.274E-02	6.432E-02	5.469E-02	3.282E-02	NOT IDENT.
HG-203	-3.123E-03	3.813E-02	3.152E-02	1.945E-02	NOT IDENT.
BI-207	3.704E-03	4.952E-02	4.203E-02	2.527E-02	FAIL ABUN
TL-207	-3.898E-01	7.074E-01	4.866E-01	3.609E-01	FAIL ABUN
PO-209	2.147E+00	6.259E+00	5.540E+00	3.194E+00	NOT IDENT.
BI-210	8.764E-01	3.451E+00	2.917E+00	1.760E+00	NOT IDENT.
PB-210	8.764E-01	3.451E+00	2.917E+00	1.760E+00	NOT IDENT.
PO-210	8.764E-01	3.450E+00	2.917E+00	1.760E+00	NOT IDENT.
PB-211	3.710E-01	9.603E-01	7.386E-01	4.899E-01	NOT IDENT.
BI-212	1.069E+00	3.969E-01	3.319E-01	2.025E-01	FAIL ABUN
PO-215	-3.898E-01	7.074E-01	4.866E-01	3.609E-01	FAIL ABUN
RN-219	8.444E-03	3.656E-01	3.179E-01	1.866E-01	FAIL ABUN
RN-220	-7.947E+00	2.348E+01	1.929E+01	1.198E+01	NOT IDENT.
RA-223	-3.898E-01	7.074E-01	4.866E-01	3.609E-01	FAIL ABUN
AC-227	-2.633E-01	3.664E-01	2.915E-01	1.869E-01	FAIL ABUN
TH-227	-2.633E-01	3.672E-01	2.915E-01	1.874E-01	FAIL ABUN
TH-229	-7.438E-01	4.813E-01	3.759E-01	2.456E-01	FAIL ABUN
PA-231	-3.863E-01	1.411E+00	1.149E+00	7.197E-01	FAIL ABUN
TH-231	-3.898E-01	7.074E-01	4.866E-01	3.609E-01	FAIL ABUN
U-231	-7.647E-01	1.060E+00	8.191E-01	5.407E-01	FAIL ABUN
PA-233	-9.192E-03	6.089E-02	4.963E-02	3.107E-02	FAIL ABUN
PA-234	-2.955E-01	3.029E-01	2.217E-01	1.545E-01	FAIL ABUN
PA-234M	7.704E+00	5.971E+00	4.262E+00	3.046E+00	FAIL ABUN
NP-236	-4.726E-02	7.651E-02	6.437E-02	3.904E-02	NOT IDENT.
NP-239	-3.313E-02	1.732E-01	1.517E-01	8.838E-02	FAIL ABUN
AM-241	1.127E-01	1.619E-01	1.276E-01	8.258E-02	NOT IDENT.
CM-243	-7.729E-02	8.304E-02	7.076E-02	4.237E-02	FAIL ABUN
AM-246	-2.280E-02	1.336E-01	1.104E-01	6.817E-02	NOT IDENT.
CM-247	1.098E-02	3.279E-02	2.906E-02	1.673E-02	NOT IDENT.
CF-249	8.692E-03	3.720E-02	3.283E-02	1.898E-02	NOT IDENT.
CF-251	-5.261E-04	1.164E-01	1.000E-01	5.939E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	216.2876
46.50	216.2876
46.50	216.2876
48.70	252.0982
49.72	233.8879
51.35	248.1569
52.39	222.5900
52.97	252.9357
53.15	253.0682
53.44	258.0822
54.07	270.5761
56.28	255.3299
56.28	255.3315
57.37	0.0000
57.53	306.0046
57.53	306.0060
57.60	306.0637
57.98	327.0516
57.98	327.0516
59.32	250.5563
59.32	250.5563
59.40	304.3125
59.54	288.1481
59.72	288.2871
60.01	303.1819
61.10	320.4101
61.14	320.4435
61.30	320.5786
63.00	347.4725
63.29	347.7339
63.29	347.7339
63.58	347.9942
64.28	326.3670
65.12	340.2817
65.20	340.3493
65.20	340.3493
66.05	360.9494
66.72	333.3602
66.83	333.4522
66.91	346.7941
67.20	337.0799
67.20	337.0799
67.75	341.6952
67.85	341.7809
68.90	344.3305
68.90	344.3305
69.30	365.5302
69.67	370.8717
70.82	346.7709
70.82	346.7709
70.83	346.7793
72.80	367.3422
72.87	367.4022
72.87	367.4022
74.67	380.3604
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.81	380.4817
74.97	380.6236
75.28	380.8960
75.70	381.2622
77.11	382.4890
77.11	382.4890

77.11	382.4890
77.11	382.4890
77.11	382.4890
77.11	382.4890
77.11	382.4890
78.38	361.8488
79.62	355.1577
79.80	355.2993
79.80	355.2993
80.11	326.0208
80.18	326.0712
80.30	326.1565
80.30	326.1565
80.57	376.4591
81.00	418.7400
81.07	418.8046
81.07	418.8046
81.07	418.8046
81.07	418.8046
82.60	396.6268
83.37	359.3647
83.78	368.7396
83.78	368.7396
83.78	368.7396
83.78	368.7396
84.21	341.8835
84.90	352.7604
85.43	373.9307
86.29	461.7584
86.50	468.4680
86.54	468.5065
86.59	468.5559
86.72	468.6823
86.79	468.7482
86.94	468.8992
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.30	462.7334
87.57	462.9934
87.88	328.8716
88.03	328.9735
88.36	329.1985
88.47	329.2734
89.95	453.4703
91.11	286.3861
92.29	287.0681
92.38	287.1196
92.38	287.1196
93.35	287.6751
94.00	288.0477
94.67	288.4252
94.67	288.4286
94.90	272.6743
94.90	272.6743
94.90	272.6743
94.90	272.6743
95.87	322.2616
95.87	322.2616
96.73	322.8048
97.43	300.6270
98.44	262.5590
98.44	262.5605
98.88	253.9775
99.55	258.2200
99.55	258.2200
99.86	246.7905
100.00	266.4611
100.10	266.5143
103.18	280.6060
103.76	276.4211
105.00	227.5788
105.31	223.2086
108.00	276.7569
109.28	270.1413

111.00	292.7886
111.00	292.7886
111.76	272.2386
112.95	273.7183
115.19	288.5209
116.30	273.4698
117.00	274.7160
117.00	274.7160
117.66	259.3864
121.11	256.2653
121.62	253.7045
121.78	256.5499
122.06	242.7706
122.32	228.9695
122.32	228.9695
122.32	228.9695
122.32	228.9695
123.07	231.1084
127.23	218.6573
129.76	236.4269
131.20	241.1967
133.02	239.0539
133.54	246.3230
135.34	255.5255
136.00	245.3655
136.25	252.0917
136.48	252.1810
140.51	251.8130
140.51	0.0000
142.18	248.1358
142.65	229.6509
143.76	239.6113
144.24	250.3294
144.24	250.3294
144.24	250.3294
144.24	250.3294
145.22	246.3683
145.44	246.4465
147.16	232.6142
152.43	251.3568
152.70	254.3642
153.22	251.6361
154.21	276.3066
154.21	276.3066
154.21	276.3066
154.21	276.3066
155.03	289.2868
156.02	273.1042
158.56	237.8485
159.00	0.0000
159.00	238.9688
160.31	284.5306
161.27	276.0605
162.32	256.7758
162.64	249.9951
163.35	249.2502
163.89	247.4586
165.85	266.8881
167.43	228.8146
171.28	241.9148
171.86	243.0940
172.10	243.1685
176.55	231.5287
176.60	231.5452
181.06	247.9669
184.41	212.5592
185.71	211.8829
186.00	211.9595
190.27	207.9615
192.34	222.7856
193.63	264.0679
197.04	192.1684
198.01	221.1938
198.60	233.6989
200.40	217.6818
201.83	209.7753
202.84	231.7451
205.31	199.1992

208.36	234.2422
208.81	206.2379
209.75	206.4554
209.75	206.4554
210.97	198.9065
215.65	203.6108
216.55	197.5086
218.09	229.4118
222.10	197.6432
223.80	200.1204
226.40	190.0564
227.00	182.7395
227.08	181.6927
227.20	181.7153
228.16	180.8360
228.18	180.8394
228.18	180.8394
231.56	0.0000
235.69	181.7197
236.00	202.6909
236.00	202.6909
238.63	445.1856
238.63	445.1856
238.63	445.1856
238.63	445.1856
239.00	445.3499
240.98	362.1714
241.98	284.8506
241.98	284.8506
241.98	284.8506
244.69	168.7778
245.39	157.5288
247.94	155.2134
248.90	153.1875
249.79	169.6332
252.40	166.7975
252.85	161.4173
252.85	161.4173
254.15	0.0000
256.20	181.6376
256.20	181.6376
260.50	174.6988
260.90	175.8626
262.80	160.7657
264.65	186.9666
268.24	139.4531
268.79	119.5928
269.46	144.0442
269.46	144.0442
269.46	144.0442
269.46	144.0442
271.23	169.8060
273.65	170.1857
276.40	157.2337
277.35	152.9042
277.60	145.1259
277.60	145.1259
278.00	151.8794
278.60	138.5540
279.20	156.5145
279.53	180.0473
280.46	179.0788
281.68	129.9737
283.67	143.6771
284.30	135.8961
285.00	142.7225
285.90	138.3400
286.10	143.9870
286.10	143.9870
287.40	128.3868
288.45	0.0000
290.67	127.0638
290.80	127.0775
291.72	133.9634
293.26	0.0000
293.70	157.9763
295.21	146.2772
295.21	146.2772

295.21	146.2772
295.96	136.1621
296.50	136.2256
297.23	136.3110
298.57	136.4673
299.80	141.7343
299.80	141.7343
300.09	157.1423
300.09	157.1423
300.09	157.1423
300.09	157.1423
300.12	157.1479
301.29	129.9478
302.84	128.4073
303.76	125.0811
303.91	121.6694
304.40	126.1766
304.40	126.1766
304.84	135.8277
306.84	140.8674
308.46	121.5640
311.98	132.2739
316.51	111.9885
318.01	139.8693
319.02	111.0625
319.41	119.1985
320.08	110.0003
323.87	137.6352
323.87	137.6352
323.87	137.6352
323.87	137.6352
325.23	116.8574
328.77	192.3993
333.44	161.5166
334.20	165.8280
334.20	165.8280
334.30	165.8424
338.28	110.1437
338.28	110.1437
338.28	110.1437
338.28	110.1437
338.32	110.1475
338.32	110.1475
338.32	110.1475
340.50	103.0965
340.57	103.1018
344.27	112.3008
345.85	107.3734
350.59	0.0000
351.07	113.9043
351.92	101.1559
351.92	101.1559
351.92	101.1559
355.39	0.0000
356.01	101.4688
364.48	96.1785
366.43	99.9180
367.43	102.6932
367.94	0.0000
369.80	117.3106
374.96	116.8452
383.85	104.8294
387.95	111.5342
388.63	105.1839
391.69	105.4102
391.69	105.4102
392.90	116.5084
398.62	97.6298
400.65	99.6103
401.10	97.7964
401.81	101.5355
402.60	96.9731
404.84	96.1956
410.95	101.0537
411.60	93.6633
413.65	119.1016
414.70	117.6957
415.30	96.8763

415.76	101.1661
417.63	0.0000
418.52	84.9487
423.70	98.3542
427.08	93.8782
427.89	88.2928
432.53	84.7911
433.93	83.9237
439.47	105.9895
439.56	98.4236
439.89	91.8182
443.98	80.6693
444.90	94.0104
445.03	94.0195
445.03	94.0195
445.03	94.0195
445.03	94.0195
453.90	68.7590
463.38	84.5330
468.07	94.0228
473.00	91.7921
475.06	100.6135
475.35	95.7930
476.78	87.1587
477.59	91.0768
477.96	102.7263
482.03	94.2322
484.57	112.8600
487.03	80.8710
490.36	0.0000
492.35	73.3051
497.08	80.3684
507.63	0.0000
510.53	0.0000
510.84	87.9204
511.00	87.9285
511.85	87.9699
511.85	87.9699
513.99	80.7533
513.99	80.7533
520.41	73.4964
520.65	73.5077
527.90	63.8301
528.96	0.0000
529.64	67.8859
529.87	0.0000
531.02	84.9222
537.32	81.2052
543.00	76.4268
546.56	0.0000
549.76	74.6888
552.65	50.5432
555.20	81.9912
563.23	76.2405
563.90	76.2657
568.70	78.4969
569.32	84.6414
569.50	84.6490
569.67	94.8561
573.80	89.9497
574.00	89.9578
574.64	76.6937
578.91	93.4655
579.30	0.0000
583.14	84.2197
585.48	77.3274
591.81	81.4977
592.07	81.5073
593.00	82.5781
595.88	66.1582
600.56	86.0016
602.52	0.0000
602.71	81.5979
602.71	81.5979
603.60	87.9986
604.41	91.3569
604.70	91.3704
609.31	73.8861

609.31	73.8861
609.31	73.8861
609.31	73.8861
610.33	73.9229
612.46	60.0346
614.37	65.0984
618.01	60.6161
621.84	59.6823
621.84	59.6823
631.29	69.4221
633.02	65.2695
633.10	62.1131
634.78	70.5925
635.90	57.9793
636.97	73.8303
645.85	82.6132
646.12	77.3286
656.30	68.1172
657.75	57.9395
657.90	0.0000
661.65	75.7560
661.65	75.7560
664.57	0.0000
666.33	68.4336
666.33	68.4336
675.00	61.1905
677.61	80.6099
685.20	73.3374
692.80	68.1757
695.00	64.9933
696.49	68.2872
696.49	68.2872
697.00	73.7234
697.49	71.5712
698.33	77.0214
698.50	71.6034
699.00	67.2789
702.63	60.8655
706.10	62.0463
706.58	0.0000
706.67	69.6836
709.31	63.2233
711.68	66.5624
713.82	66.6238
717.42	72.1976
720.50	66.8174
721.93	0.0000
722.20	61.3850
722.78	63.1547
722.78	63.1547
722.89	63.1582
722.95	77.1955
723.30	77.2063
724.18	77.2363
727.18	59.3196
733.00	51.6018
735.90	66.1560
739.58	61.8413
742.81	64.1384
744.21	54.2173
747.13	57.6066
751.79	68.8191
752.31	67.7240
753.82	63.3231
755.35	50.0235
756.15	51.1520
756.87	53.3921
763.93	57.1172
765.79	82.1688
766.42	83.9781
766.84	92.9271
776.49	44.8523
778.00	70.5263
778.57	75.1910
778.89	75.2012
783.80	53.9824
785.46	61.2216
792.07	51.1522

795.84	40.6824
796.30	40.6901
798.80	55.8147
801.93	75.5188
805.60	54.4526
810.29	66.3737
810.76	68.2050
815.85	54.6724
817.79	46.5064
818.51	51.0795
819.60	47.4513
826.30	54.8936
828.27	0.0000
831.60	74.2586
831.96	72.4347
834.83	71.5958
836.80	0.0000
846.75	51.6359
848.13	54.4310
856.28	0.0000
856.80	53.9911
860.37	47.2671
867.32	47.4924
867.82	52.0447
871.10	34.4282
873.19	48.4225
874.81	49.3834
875.33	0.0000
876.40	54.0734
879.36	52.2662
880.27	51.3503
880.51	49.4869
881.50	49.5051
883.24	46.7322
884.67	47.6917
889.25	47.7714
896.60	38.5066
898.02	38.5266
899.00	41.3606
903.28	42.8885
911.07	50.9796
911.07	50.9796
911.07	50.9796
919.63	39.7718
920.93	39.7903
925.00	48.3853
925.24	46.4914
926.50	43.6652
935.52	41.8978
937.48	59.0786
944.10	45.8438
946.00	52.5629
949.00	40.1810
962.29	38.4414
964.01	46.4772
966.15	52.9268
968.20	52.9630
969.11	44.9531
969.11	44.9531
969.11	44.9531
977.42	32.8429
980.50	40.6126
983.50	39.6857
989.30	44.6119
996.32	45.3633
1001.03	40.5660
1001.68	37.0045
1004.76	42.2405
1021.30	0.0000
1024.50	0.0000
1034.80	43.3104
1036.00	49.2358
1037.82	46.3069
1038.57	38.4344
1038.76	0.0000
1045.16	44.4419
1046.59	46.4377
1048.07	44.4814

1050.47	39.5703
1050.47	39.5703
1062.04	49.6436
1063.62	46.6879
1076.63	36.9024
1077.35	39.9043
1078.86	47.9063
1085.78	50.0098
1099.22	43.1848
1112.02	44.1089
1112.84	35.2974
1115.52	55.5103
1120.29	43.4619
1120.29	43.4619
1120.29	43.4619
1120.29	43.4619
1120.51	43.4640
1121.28	43.4745
1124.00	0.0000
1129.67	41.5565
1131.51	0.0000
1147.95	0.0000
1167.94	46.1250
1173.22	51.3281
1175.09	45.1945
1177.93	47.2870
1189.05	58.7812
1204.90	58.0098
1205.75	0.0000
1213.00	61.2586
1221.42	61.4026
1230.97	66.7813
1235.34	59.5494
1236.41	0.0000
1238.25	46.0045
1246.25	40.8681
1260.41	0.0000
1271.85	45.3726
1274.45	31.6787
1274.54	27.4549
1291.56	40.3101
1298.22	0.0000
1312.09	37.3293
1325.50	25.6875
1325.50	25.6875
1332.49	24.6610
1333.61	23.5963
1360.21	22.6775
1362.66	0.0000
1365.15	17.3000
1368.21	28.1341
1368.53	0.0000
1376.25	28.9141
1384.27	29.8781
1394.10	26.1398
1395.20	32.6836
1407.95	21.8584
1434.06	19.7991
1436.60	20.1783
1457.56	0.0000
1460.81	17.5288
1489.15	13.9319
1509.49	15.8649
1596.49	23.7976
1620.62	14.3549
1678.03	0.0000
1691.02	6.8012
1691.02	6.8012
1706.46	0.0000
1750.46	0.0000
1764.49	8.8788
1764.49	8.8788
1764.49	8.8788
1764.49	8.8788
1770.23	10.1589
1771.40	8.4678
1791.20	0.0000
1808.65	11.9443

1836.01 11.0085

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032511

Total Uranium Activity	1.4537E+01	ug/g
Total Uranium Counting Unc.	6.2938E+00	ug/g
Total Uranium Tpu	3.2111E-06	ug/g
Total Uranium Mda	3.0840E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G1202032511     *
*   ANALYST       : MXR1                      DETECTOR    : GAM16           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 16:38:58.97    SAMPLE ALQT:  121.500 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.908E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.420E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.350E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.621E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:33:44.20

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 16:33:11
Sample ID         : G1202032512          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948717                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.73	1427	498	1.27	118.40	113	11	3.96E-01	4.0	
2	0	77.59*	127	356	0.84	154.10	151	7	3.53E-02	26.8	
3	3	88.25*	1097	353	1.47	175.43	171	22	3.05E-01	4.3	2.43E+00
4	3	92.56*	85	287	1.72	184.05	171	22	2.35E-02	44.4	
5	0	122.25	240	252	1.30	243.41	239	9	6.68E-02	13.6	
6	0	185.99*	87	333	1.70	370.89	365	13	2.42E-02	45.1	
7	0	238.82*	412	407	1.21	476.54	471	13	1.15E-01	11.3	
8	0	295.14*	99	194	1.62	589.18	585	9	2.75E-02	27.5	
9	0	338.55	95	175	1.27	676.01	672	9	2.64E-02	27.1	
10	0	351.94*	166	154	1.09	702.78	698	10	4.61E-02	16.3	
11	0	510.92*	83	190	2.19	1020.74	1013	19	2.31E-02	43.1	
12	0	583.25*	141	94	1.69	1165.41	1159	13	3.91E-02	16.9	
13	0	609.18*	138	112	1.89	1217.28	1210	13	3.83E-02	18.3	
14	0	661.58*	1989	190	1.71	1322.08	1312	20	5.53E-01	2.8	
15	0	911.02*	114	110	1.32	1821.02	1815	13	3.17E-02	21.3	
16	0	969.73	46	127	1.70	1938.47	1931	12	1.29E-02	51.0	
17	0	1172.89	1581	48	1.84	2344.88	2338	15	4.39E-01	2.7	
18	0	1332.07	1385	31	2.11	2663.33	2656	19	3.85E-01	2.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 17:33:47

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 12-FEB-2010 16:33:11
Sample ID : G1202032512 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.29 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	+	122.06	*	2.458E-01	7.114E-02	7.722E-02	7.779E-03	3.182
		136.48		-6.977E-02	3.903E-01	6.268E-01	6.665E-02	-0.111
CO-60	+	1173.22		6.524E+00	6.368E-01	1.584E-01	1.289E-02	41.183
	+	1332.49	*	6.423E+00	7.200E-01	8.693E-02	8.357E-03	73.883
CD-109	+	88.03	*	3.188E+01	4.788E+00	2.499E+00	3.102E-01	12.758
SN-126		64.28		-2.356E-01	1.387E+00	2.013E+00	3.407E-01	-0.117
	+	86.94		1.317E+01	5.684E+00	1.161E+00	4.909E-01	11.345
	+	87.57	*	3.169E+00	4.758E-01	2.874E-01	3.557E-02	11.024
BA-137M	+	661.65	*	5.390E+00	5.370E-01	1.256E-01	1.032E-02	42.919
CS-137	+	661.65	*	5.697E+00	5.684E-01	1.327E-01	1.094E-02	42.919
TL-208		277.35		1.794E-01	7.988E-01	1.346E+00	1.881E-01	0.133
	+	510.84		7.683E-01	6.692E-01	4.937E-01	5.926E-02	1.556
	+	583.14	*	3.682E-01	1.286E-01	1.330E-01	1.218E-02	2.768
		860.37		1.201E+00	7.458E-01	1.339E+00	1.309E-01	0.897
BI-211		72.87		-7.407E+00	7.752E+00	1.057E+01	1.211E+00	-0.701
	+	351.07	*	1.974E+00	6.734E-01	6.715E-01	6.686E-02	2.939
PB-212		74.81		1.163E+00	8.916E-01	1.350E+00	2.001E-01	0.861
	+	77.11		9.635E-01	5.287E-01	6.712E-01	7.781E-02	1.435
	+	87.30		1.465E+01	2.644E+00	1.284E+00	2.040E-01	11.415
	+	238.63	*	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
		300.09		1.600E+00	1.935E+00	2.934E+00	3.544E-01	0.545
PO-212		74.81		1.163E+00	8.916E-01	1.350E+00	2.001E-01	0.861
	+	77.11		9.635E-01	5.287E-01	6.712E-01	7.781E-02	1.435
	+	87.30		1.465E+01	2.644E+00	1.284E+00	2.040E-01	11.415
		115.19		4.330E+00	6.776E+00	1.131E+01	1.145E+00	0.383
	+	238.63	*	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
		300.09		1.600E+00	1.935E+00	2.934E+00	3.544E-01	0.545
PB-214		74.81		2.003E+00	1.532E+00	2.326E+00	3.183E-01	0.861
	+	77.11		1.652E+00	9.150E-01	1.151E+00	1.596E-01	1.435
	+	87.30		2.510E+01	4.238E+00	2.199E+00	3.201E-01	11.415
		241.98		1.850E+00	8.605E-01	1.361E+00	1.684E-01	1.360
	+	295.21		7.018E-01	3.956E-01	4.924E-01	6.070E-02	1.425
	+	351.92	*	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
PO-214		74.81		2.003E+00	1.532E+00	2.326E+00	3.183E-01	0.861

Sample ID : G1202032512 Acquisition date : 12-FEB-2010 16:33:11

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		1.652E+00	9.150E-01	1.151E+00	1.596E-01	1.435
	+	87.30		2.510E+01	4.238E+00	2.199E+00	3.201E-01	11.415
		241.98		1.850E+00	8.605E-01	1.361E+00	1.684E-01	1.360
	+	295.21		7.018E-01	3.956E-01	4.924E-01	6.070E-02	1.425
	+	351.92	*	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
PO-216		74.81		1.163E+00	8.916E-01	1.350E+00	2.001E-01	0.861
	+	77.11		9.635E-01	5.287E-01	6.712E-01	7.781E-02	1.435
	+	87.30		1.465E+01	2.644E+00	1.284E+00	2.040E-01	11.415
	+	238.63	*	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
		300.09		1.600E+00	1.935E+00	2.934E+00	3.544E-01	0.545
PO-218		74.81		2.003E+00	1.532E+00	2.326E+00	3.183E-01	0.861
	+	77.11		1.652E+00	9.150E-01	1.151E+00	1.596E-01	1.435
	+	87.30		2.510E+01	4.238E+00	2.199E+00	3.201E-01	11.415
		241.98		1.850E+00	8.605E-01	1.361E+00	1.684E-01	1.360
	+	295.21		7.018E-01	3.956E-01	4.924E-01	6.070E-02	1.425
	+	351.92	*	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
AC-228	+	338.32		1.248E+00	8.529E-01	8.462E-01	3.515E-01	1.475
	+	911.07	*	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
	+	969.11		9.582E-01	1.003E+00	1.095E+00	2.579E-01	0.875
RA-228	+	338.32		1.248E+00	8.529E-01	8.462E-01	3.515E-01	1.475
	+	911.07	*	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
	+	969.11		9.582E-01	1.003E+00	1.095E+00	2.579E-01	0.875
TH-228		74.81		1.172E+00	8.919E-01	1.361E+00	1.573E-01	0.861
	+	77.11		9.709E-01	5.328E-01	6.764E-01	7.841E-02	1.435
	+	87.30		1.477E+01	2.218E+00	1.294E+00	1.597E-01	11.415
	+	238.63	*	1.094E+00	2.794E-01	1.922E-01	2.289E-02	5.690
		300.09		1.612E+00	2.165E+00	2.957E+00	1.762E+00	0.545
TH-232	+	338.32		1.248E+00	6.883E-01	8.462E-01	8.342E-02	1.475
	+	911.07	*	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
	+	969.11		9.582E-01	1.003E+00	1.095E+00	2.579E-01	0.875
AM-241	+	59.54	*	1.378E+01	1.965E+00	9.029E-01	1.060E-01	15.257
ANH-511	+	511.00	*	1.659E-01	1.439E-01	1.067E-01	9.216E-03	1.556

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	5.603E-02	7.474E-01	1.224E+00	1.138E-01	0.046
NA-22		1274.54	*	2.278E-02	5.543E-02	9.566E-02	8.690E-03	0.238
NA-24		1368.53	*	-8.776E-05	5.543E-02	Half-Life too short		
AL-26		1129.67		3.690E+00	3.651E+00	6.446E+00	5.444E-01	0.572
		1808.65	*	1.742E-02	4.455E-02	8.015E-02	6.857E-03	0.217
K-40		1460.81	*	3.613E-01	5.770E-01	1.096E+00	1.077E-01	0.330
TI-44		67.85		2.695E-02	1.073E-01	1.786E-01	2.038E-02	0.151
	+	78.38	*	1.778E-01	9.753E-02	1.464E-01	1.707E-02	1.214
SC-46		889.25	*	2.219E-03	1.009E-01	1.669E-01	1.551E-02	0.013
		1120.51		1.223E-01	1.128E-01	1.982E-01	1.685E-02	0.617
V-48		944.10		-7.775E-01	1.832E+00	2.924E+00	2.704E-01	-0.266
		983.50	*	8.091E-02	1.403E-01	2.391E-01	2.186E-02	0.338

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1312.09		-5.805E-02	8.783E-02	1.254E-01	1.182E-02	-0.463
CR-51		320.08	*	6.659E-01	6.884E-01	1.191E+00	1.264E-01	0.559
MN-52		744.21		7.778E-02	2.101E-01	3.592E-01	3.109E-02	0.217
		848.13		-3.399E-01	6.628E+00	1.094E+01	9.987E-01	-0.031
		935.52		-2.152E-01	2.688E-01	4.168E-01	3.861E-02	-0.516
		1246.25		5.458E-01	3.281E+00	5.462E+00	4.813E-01	0.100
		1333.61		3.209E+02	3.555E+01	4.084E+01	3.926E+00	7.856
		1434.06	*	-4.815E-02	1.202E-01	1.834E-01	1.765E-02	-0.263
MN-54		834.83	*	-2.114E-03	8.354E-02	1.382E-01	1.254E-02	-0.015
CO-56		846.75	*	-4.532E-02	9.070E-02	1.448E-01	1.321E-02	-0.313
		977.42		-6.286E+00	7.805E+00	1.174E+01	1.076E+00	-0.535
		1037.82		2.597E-01	8.064E-01	1.349E+00	1.266E-01	0.193
		1175.09		2.669E+02	2.650E+01	3.404E+01	2.777E+00	7.841
		1238.25		1.997E-01	1.227E-01	2.324E-01	2.088E-02	0.859
		1360.21		9.852E-01	1.252E+00	2.360E+00	2.272E-01	0.418
		1771.40		-3.286E-01	3.802E-01	4.997E-01	4.366E-02	-0.658
CO-58		810.76	*	1.008E-02	8.460E-02	1.416E-01	1.273E-02	0.071
FE-59		142.65		7.573E-01	4.558E+00	7.424E+00	7.540E-01	0.102
		192.34		1.482E+00	1.962E+00	2.856E+00	4.274E-01	0.519
		1099.22	*	4.968E-02	1.987E-01	3.305E-01	3.084E-02	0.150
		1291.56		-3.808E-02	1.426E-01	2.190E-01	2.262E-02	-0.174
ZN-65		1115.52	*	-1.479E-01	2.120E-01	3.257E-01	2.783E-02	-0.454
GE-68		1077.35	*	-2.809E+00	3.180E+00	4.815E+00	4.215E-01	-0.583
AS-73		53.44	*	-2.212E+00	3.957E+00	5.921E+00	7.688E-01	-0.373
AS-74		595.88	*	-5.902E-02	1.484E-01	2.320E-01	1.971E-02	-0.254
		634.78		-2.321E-01	5.673E-01	8.807E-01	7.354E-02	-0.264
SE-75		66.05		-1.225E+01	1.168E+01	1.756E+01	2.255E+00	-0.698
		96.73		-6.104E-01	1.507E+00	2.100E+00	3.218E-01	-0.291
	+	121.11		1.290E+00	3.847E-01	5.492E-01	6.792E-02	2.349
		136.00		5.636E-03	7.121E-02	1.157E-01	1.172E-02	0.049
		198.60		-4.685E-01	3.524E+00	5.596E+00	6.532E-01	-0.084
		264.65	*	-7.049E-03	8.605E-02	1.434E-01	1.572E-02	-0.049
		279.53		1.657E-01	2.272E-01	3.904E-01	4.321E-02	0.424
		303.91		-1.615E+00	4.501E+00	7.354E+00	9.522E-01	-0.220
		400.65		9.766E-02	5.347E-01	8.881E-01	9.755E-02	0.110
BR-77	+	87.88		7.935E+02	1.192E+02	1.261E+02	1.564E+01	6.293
		200.40		2.403E+01	3.871E+01	6.349E+01	6.937E+00	0.378
	+	239.00		1.986E+01	4.995E+00	6.041E+00	6.664E-01	3.288
		249.79		5.251E-02	1.608E+01	2.696E+01	2.968E+00	0.002
		281.68		-1.120E+01	2.277E+01	3.708E+01	4.000E+00	-0.302
		297.23		1.501E+01	1.650E+01	2.503E+01	2.652E+00	0.600
		303.76		-1.235E+01	4.578E+01	7.517E+01	7.896E+00	-0.164
		439.47		2.521E+01	4.054E+01	6.849E+01	5.870E+00	0.368
		484.57		3.030E+01	6.218E+01	1.042E+02	8.997E+00	0.291
		520.65	*	5.063E-01	2.895E+00	4.484E+00	3.872E-01	0.113
		574.64		-1.644E+00	5.484E+01	8.595E+01	7.352E+00	-0.019
		578.91		-2.325E-01	2.546E+01	3.541E+01	3.025E+00	-0.007
		585.48		1.219E+02	5.418E+01	8.793E+01	7.497E+00	1.386
		755.35		9.346E+00	4.012E+01	6.797E+01	5.921E+00	0.137

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		817.79		-3.756E+01	4.030E+01	6.253E+01	5.629E+00	-0.601
SR-82		698.33		2.102E+01	5.741E+01	9.840E+01	8.285E+00	0.214
		776.49	*	-1.861E-01	6.174E-01	1.002E+00	8.833E-02	-0.186
		1395.20		-3.140E+00	1.117E+01	1.758E+01	1.694E+00	-0.179
RB-83		520.41	*	-8.020E-03	1.648E-01	2.413E-01	2.084E-02	-0.033
		529.64		-2.447E-02	2.306E-01	3.715E-01	3.205E-02	-0.066
		552.65		-1.242E-01	4.046E-01	6.400E-01	5.503E-02	-0.194
RB-84		881.50	*	3.717E-02	1.483E-01	2.493E-01	2.310E-02	0.149
KR-85		513.99	*	2.876E+01	1.738E+01	2.766E+01	2.390E+00	1.040
SR-85		513.99	*	1.364E-01	8.238E-02	1.311E-01	1.133E-02	1.040
RB-86		1076.63	*	-2.088E+00	1.606E+00	2.340E+00	2.049E-01	-0.892
Y-88		898.02		-4.072E-02	1.053E-01	1.692E-01	1.585E-02	-0.241
		1836.01	*	5.441E-02	5.039E-02	1.018E-01	8.573E-03	0.534
ZR-88		392.90	*	-1.815E-02	6.527E-02	1.057E-01	8.898E-03	-0.172
Y-91		1204.90	*	-1.607E+01	2.498E+01	3.690E+01	3.111E+00	-0.435
NB-94		702.63	*	-1.736E-02	6.566E-02	1.077E-01	9.091E-03	-0.161
		871.10		-4.275E-02	8.914E-02	1.424E-01	1.313E-02	-0.300
NB-95		765.79	*	6.298E-02	7.658E-02	1.348E-01	1.181E-02	0.467
NB-95M		235.69	*	1.039E-01	2.573E-01	3.849E-01	4.632E-02	0.270
ZR-95		724.18		3.193E-02	1.846E-01	3.118E-01	2.902E-02	0.102
		756.15	*	4.003E-02	1.382E-01	2.351E-01	2.252E-02	0.170
NB-97		657.90	*	1.080E-03	1.382E-01	Half-Life too short		
		1024.50		7.878E-03	1.382E-01	Half-Life too short		
ZR-97		254.15		3.982E-04	1.382E-01	Half-Life too short		
		355.39		2.318E-03	1.382E-01	Half-Life too short		
		507.63	*	4.612E-03	1.382E-01	Half-Life too short		
		602.52		2.804E-03	1.382E-01	Half-Life too short		
		1021.30		-4.301E-03	1.382E-01	Half-Life too short		
		1147.95		-1.276E-03	1.382E-01	Half-Life too short		
		1362.66		4.323E-03	1.382E-01	Half-Life too short		
		1750.46		-5.593E-03	1.382E-01	Half-Life too short		
MO-99		140.51		-1.676E-01	7.684E+00	1.240E+01	3.496E+00	-0.014
		181.06		-1.947E+00	5.688E+00	7.751E+00	1.504E+00	-0.251
		366.43		8.689E-01	2.983E+01	4.931E+01	4.517E+00	0.018
		739.58	*	-6.467E-01	3.737E+00	6.153E+00	9.347E-01	-0.105
		778.00		-4.208E-01	1.088E+01	1.804E+01	1.591E+00	-0.023
TC-99M		140.51	*	-1.836E+00	1.088E+01	Half-Life too short		
RH-101		127.23		-2.777E-02	6.858E-02	9.477E-02	9.509E-03	-0.293
		198.01	*	-3.822E-02	6.866E-02	1.067E-01	1.164E-02	-0.358
		325.23		-4.637E-01	4.850E-01	7.618E-01	7.719E-02	-0.609
RH-102		418.52		-8.566E-01	6.897E-01	1.046E+00	8.904E-02	-0.819
		475.06	*	4.247E-02	7.780E-02	1.304E-01	1.125E-02	0.326
		631.29		6.385E-03	1.151E-01	1.858E-01	1.554E-02	0.034
		697.49		4.478E-02	1.615E-01	2.751E-01	2.315E-02	0.163
		766.84		2.351E-01	2.089E-01	3.742E-01	3.281E-02	0.628
		1046.59		-3.171E-01	2.948E-01	4.389E-01	3.908E-02	-0.722
		1112.84		-7.021E-01	5.503E-01	7.968E-01	6.815E-02	-0.881
RU-103		497.08	*	-1.876E-02	7.865E-02	1.259E-01	1.784E-02	-0.149
	+	610.33		6.429E+00	2.582E+00	3.249E+00	5.391E-01	1.979

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-106	+	511.85		8.173E-01	7.087E-01	7.134E-01	6.164E-02	1.146
		621.84	*	2.062E-01	7.018E-01	1.152E+00	1.523E-01	0.179
		1050.47		-4.959E-01	5.813E+00	9.446E+00	8.393E-01	-0.052
RU-106	+	511.85		8.173E-01	7.087E-01	7.134E-01	6.164E-02	1.146
		621.84	*	2.062E-01	7.015E-01	1.152E+00	9.685E-02	0.179
		1050.47		-4.959E-01	5.813E+00	9.446E+00	8.393E-01	-0.052
AG-108M		433.93	*	-9.874E-02	8.244E-02	1.252E-01	1.115E-02	-0.789
		614.37		1.092E-02	9.522E-02	1.337E-01	1.173E-02	0.082
		722.95		-1.226E-01	9.221E-02	1.389E-01	1.235E-02	-0.882
AG-110M		657.75	*	4.194E-01	1.181E-01	2.029E-01	1.726E-02	2.067
		677.61		-5.560E-01	6.030E-01	9.368E-01	8.019E-02	-0.594
		706.67		-2.462E-01	4.007E-01	6.382E-01	5.556E-02	-0.386
		763.93		-1.736E-01	3.199E-01	5.080E-01	4.568E-02	-0.342
		884.67		1.310E-02	1.249E-01	2.078E-01	1.981E-02	0.063
		937.48		-5.726E-02	2.821E-01	4.579E-01	4.373E-02	-0.125
		1384.27		8.775E-03	2.187E-01	3.678E-01	3.624E-02	0.024
IN-111		171.28		2.257E-02	3.106E-01	5.008E-01	5.365E-02	0.045
		245.39	*	8.078E-02	3.950E-01	5.843E-01	6.439E-02	0.138
IN-113M		391.69	*	7.766E-02	9.514E-02	1.632E-01	1.417E-02	0.476
SN-113		391.69	*	7.766E-02	9.514E-02	1.632E-01	1.417E-02	0.476
IN-114M		190.27	*	8.213E-02	3.909E-01	5.528E-01	6.002E-02	0.149
CD-115		260.90		1.696E+01	2.715E+01	4.662E+01	5.108E+00	0.364
		492.35		2.520E+00	8.261E+00	1.370E+01	1.184E+00	0.184
		527.90	*	-9.385E-01	2.521E+00	3.989E+00	3.443E-01	-0.235
SN-117M		156.02		1.448E+00	3.021E+00	4.969E+00	5.180E-01	0.291
		158.56	*	-6.345E-02	7.506E-02	1.157E-01	1.214E-02	-0.548
SB-122		563.90	*	-9.711E-02	6.382E-01	1.020E+00	8.751E-02	-0.095
		692.80		-6.029E+00	1.361E+01	2.207E+01	1.852E+00	-0.273
I-123		159.00	*	-6.186E-04	1.361E+01	Half-Life too short		
		528.96		-1.930E-02	1.361E+01	Half-Life too short		
TE-123M		159.00	*	-3.669E-02	5.419E-02	8.436E-02	8.889E-03	-0.435
I-124		602.71	*	1.586E-01	4.810E-01	6.900E-01	5.847E-02	0.230
		722.78		-3.691E+00	2.802E+00	4.229E+00	3.614E-01	-0.873
		1325.50		6.206E+00	1.883E+01	2.782E+01	2.656E+00	0.223
		1376.25		-2.327E+00	1.231E+01	1.993E+01	1.920E+00	-0.117
		1509.49		2.270E+00	7.542E+00	1.312E+01	1.253E+00	0.173
		1691.02		-5.679E-01	1.870E+00	2.882E+00	2.615E-01	-0.197
SB-124		602.71		2.910E-02	8.823E-02	1.266E-01	1.073E-02	0.230
		645.85		-7.308E-01	1.084E+00	1.649E+00	1.457E-01	-0.443
		709.31		3.294E+00	4.965E+00	8.691E+00	7.368E-01	0.379
		713.82		-1.686E+00	3.034E+00	4.849E+00	5.796E-01	-0.348
		722.78		-9.813E-01	7.453E-01	1.124E+00	9.821E-02	-0.873
		968.20		3.058E+00	8.434E+00	1.223E+01	1.123E+00	0.250
		1045.16		-5.477E+00	5.968E+00	9.043E+00	8.056E-01	-0.606
		1325.50		1.762E+00	5.346E+00	7.900E+00	7.543E-01	0.223
		1368.21		-7.329E-01	2.078E+00	3.235E+00	4.576E-01	-0.227
		1436.60		5.776E-01	4.190E+00	7.186E+00	6.916E-01	0.080
		1691.02	*	-3.561E-02	1.173E-01	1.808E-01	1.699E-02	-0.197
SB-125		427.89	*	-6.879E-02	2.345E-01	3.784E-01	3.295E-02	-0.182

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		463.38		5.224E-01	6.899E-01	1.169E+00	1.086E-01	0.447
		600.56		-2.043E-01	3.978E-01	5.974E-01	5.452E-02	-0.342
		635.90		-4.602E-01	5.982E-01	9.000E-01	8.157E-02	-0.511
TE-125M		109.28	*	-7.371E+00	1.577E+01	2.513E+01	2.948E+00	-0.293
I-126		388.63		-1.955E-01	3.206E-01	5.096E-01	4.337E-02	-0.384
		666.33	*	1.914E-01	2.840E-01	4.381E-01	3.613E-02	0.437
		753.82		1.611E+00	2.158E+00	3.775E+00	3.286E-01	0.427
SB-126		223.80		7.838E-01	5.600E+00	9.476E+00	1.045E+00	0.083
		278.60		3.298E+00	3.456E+00	5.986E+00	6.476E-01	0.551
	+	296.50		4.607E+00	2.582E+00	3.876E+00	4.112E-01	1.189
		414.70		-7.463E-03	1.164E-01	1.904E-01	1.619E-02	-0.039
		415.30		-1.556E+00	9.601E+00	1.561E+01	1.328E+00	-0.100
		555.20		-1.807E+00	5.641E+00	8.908E+00	7.656E-01	-0.203
		573.80		-1.382E+00	1.592E+00	2.410E+00	2.062E-01	-0.573
		593.00		-7.212E-02	1.361E+00	2.186E+00	1.859E-01	-0.033
		656.30		1.565E+00	5.863E+00	8.699E+00	7.176E-01	0.180
		666.33		7.862E-02	1.167E-01	1.800E-01	1.484E-02	0.437
		675.00		9.982E-01	2.599E+00	4.476E+00	3.712E-01	0.223
		695.00		8.211E-02	1.087E-01	1.906E-01	1.601E-02	0.431
		697.00		2.184E-01	3.764E-01	6.532E-01	5.495E-02	0.334
		720.50	*	-3.339E-03	1.952E-01	3.258E-01	2.780E-02	-0.010
		856.80		-4.769E-01	8.138E-01	1.294E+00	1.186E-01	-0.369
		989.30		-3.960E-01	2.126E+00	3.441E+00	3.140E-01	-0.115
		1034.80		-4.906E+00	1.639E+01	2.625E+01	2.351E+00	-0.187
		1213.00		1.141E+00	4.485E+00	7.504E+00	6.382E-01	0.152
SB-127	+	61.10		1.396E+03	2.000E+02	1.584E+02	1.887E+01	8.812
		252.40		1.550E+00	2.540E+00	4.226E+00	1.781E+00	0.367
		290.80		8.207E+00	1.302E+01	1.964E+01	2.215E+00	0.418
		411.60		4.216E+00	7.401E+00	1.248E+01	1.800E+00	0.338
		444.90		7.912E-01	6.391E+00	1.053E+01	1.149E+00	0.075
		473.00		7.470E-01	1.204E+00	2.022E+00	2.291E-01	0.369
		543.00		-3.205E-03	9.914E+00	1.606E+01	2.093E+00	0.000
		603.60		5.671E+00	7.604E+00	1.130E+01	1.220E+00	0.502
		685.20	*	-1.187E-01	7.045E-01	1.165E+00	1.091E-01	-0.102
		698.50		3.960E+00	8.229E+00	1.418E+01	2.053E+00	0.279
		722.20		-2.587E+01	1.739E+01	2.579E+01	2.392E+00	-1.003
		783.80		-1.614E-01	2.074E+00	3.431E+00	3.772E-01	-0.047
XE-127		57.60		2.059E+02	3.817E+01	5.337E+01	6.274E+00	3.858
		145.22		1.254E-02	1.141E+00	1.855E+00	1.891E-01	0.007
		172.10		-1.868E-02	1.983E-01	3.171E-01	3.399E-02	-0.059
		202.84	*	4.317E-02	8.419E-02	1.375E-01	1.504E-02	0.314
		374.96		1.175E-01	3.951E-01	6.615E-01	5.901E-02	0.178
I-131		80.18		-2.875E+00	5.928E+00	8.321E+00	9.792E-01	-0.345
		284.30		5.687E-01	1.686E+00	2.855E+00	3.166E-01	0.199
		364.48	*	-2.467E-02	1.416E-01	2.316E-01	2.227E-02	-0.107
		636.97		-5.536E-01	1.800E+00	2.822E+00	2.483E-01	-0.196
		722.89		-1.083E+01	8.171E+00	1.232E+01	1.055E+00	-0.879
TE-132		49.72		1.849E+01	2.124E+01	3.620E+01	5.071E+00	0.511
		111.76		-5.796E+00	1.136E+01	1.805E+01	1.938E+00	-0.321

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		116.30		-1.311E+00	1.182E+01	1.767E+01	1.882E+00	-0.074
		228.16	*	2.781E-02	2.951E-01	4.983E-01	8.066E-02	0.056
BA-133		53.15		-1.449E+01	1.767E+01	2.725E+01	3.560E+00	-0.532
		79.62		2.084E+00	3.180E+00	4.709E+00	8.086E-01	0.443
		81.00		-4.232E-01	2.542E-01	3.182E-01	5.668E-02	-1.330
		276.40		-3.277E-01	8.026E-01	1.313E+00	2.084E-01	-0.250
		302.84		1.551E-02	3.296E-01	5.495E-01	8.017E-02	0.028
		356.01	*	4.644E-03	1.111E-01	1.598E-01	2.197E-02	0.029
		383.85		3.817E-01	6.973E-01	1.179E+00	1.489E-01	0.324
I-133	+	510.53		4.370E-03	6.973E-01	Half-Life too short		
		529.87	*	-3.980E-06	6.973E-01	Half-Life too short		
		706.58		-1.450E-03	6.973E-01	Half-Life too short		
		856.28		-4.652E-03	6.973E-01	Half-Life too short		
		875.33		6.807E-04	6.973E-01	Half-Life too short		
		1236.41		3.648E-03	6.973E-01	Half-Life too short		
		1298.22		6.717E-04	6.973E-01	Half-Life too short		
CS-134		475.35		3.323E+00	5.007E+00	8.440E+00	7.282E-01	0.394
		563.23		4.363E-02	7.383E-01	1.199E+00	1.039E-01	0.036
		569.32		-9.598E-02	4.195E-01	6.715E-01	5.831E-02	-0.143
		604.70		2.215E-02	8.613E-02	1.225E-01	1.040E-02	0.181
		795.84	*	8.958E-02	1.056E-01	1.849E-01	1.657E-02	0.485
		801.93		6.514E-01	8.945E-01	1.558E+00	1.399E-01	0.418
		1038.57		5.378E+00	1.069E+01	1.809E+01	1.617E+00	0.297
		1167.94		8.095E+00	6.613E+00	1.046E+01	8.559E-01	0.774
		1365.15		-7.293E-01	1.653E+00	2.537E+00	2.533E-01	-0.287
CS-135		268.24	*	1.088E-01	3.251E-01	5.514E-01	6.616E-02	0.197
I-135		288.45		-2.358E+02	3.251E-01	Half-Life too short		
		417.63		-1.901E+02	3.251E-01	Half-Life too short		
		546.56		1.393E+01	3.251E-01	Half-Life too short		
		836.80		1.215E+02	3.251E-01	Half-Life too short		
		1038.76		2.341E+02	3.251E-01	Half-Life too short		
		1124.00		-7.561E+02	3.251E-01	Half-Life too short		
		1131.51		-5.170E+01	3.251E-01	Half-Life too short		
		1260.41	*	-2.933E+00	3.251E-01	Half-Life too short		
		1457.56		6.944E+01	3.251E-01	Half-Life too short		
		1678.03		-1.001E+00	3.251E-01	Half-Life too short		
		1706.46		4.226E+01	3.251E-01	Half-Life too short		
		1791.20		-4.755E+01	3.251E-01	Half-Life too short		
CS-136		66.91		-3.598E-01	1.259E+00	2.049E+00	3.513E-01	-0.176
		86.29		1.578E+01	3.216E+00	3.819E+00	5.925E-01	4.131
		153.22		7.867E-01	8.700E-01	1.452E+00	1.628E-01	0.542
		163.89		7.158E-01	1.431E+00	2.352E+00	2.698E-01	0.304
		176.55		5.041E-02	4.880E-01	7.873E-01	8.779E-02	0.064
		273.65		-1.117E-01	6.432E-01	1.066E+00	1.206E-01	-0.105
		340.57		3.981E-01	2.190E-01	3.470E-01	3.478E-02	1.147
		818.51		1.952E-02	1.291E-01	2.163E-01	1.948E-02	0.090
		1048.07	*	-3.339E-02	1.818E-01	2.931E-01	2.710E-02	-0.114
		1235.34		5.711E-01	6.037E-01	1.074E+00	1.279E-01	0.532
CE-139		165.85	*	1.185E-02	5.718E-02	9.284E-02	9.910E-03	0.128

---- Non-Identified Nuclides ----

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BA-140		162.64		4.852E-01	9.970E-01	1.638E+00	1.802E-01	0.296
		304.84		-4.891E-01	1.931E+00	3.166E+00	9.071E-01	-0.154
		423.70		3.048E+00	3.340E+00	5.489E+00	1.778E+00	0.555
		537.32	*	-2.738E-01	4.068E-01	6.122E-01	2.029E-01	-0.447
LA-140		328.77		3.797E-01	4.196E-01	7.235E-01	7.581E-02	0.525
		432.53		-2.251E-01	3.422E+00	5.587E+00	5.014E-01	-0.040
		487.03		-8.830E-02	2.220E-01	3.526E-01	3.233E-02	-0.250
		751.79		1.229E-01	2.575E+00	4.307E+00	4.138E-01	0.029
		815.85		-2.362E-01	5.575E-01	8.985E-01	8.939E-02	-0.263
		867.82		-4.260E-01	2.307E+00	3.765E+00	3.629E-01	-0.113
		919.63		-4.816E-01	5.675E+00	8.868E+00	9.932E-01	-0.054
		925.24		-1.523E+00	2.202E+00	3.457E+00	3.384E-01	-0.441
		1596.49	*	3.022E-02	9.064E-02	1.588E-01	1.489E-02	0.190
CE-141		145.44	*	-5.962E-03	1.023E-01	1.658E-01	1.713E-02	-0.036
CE-143		57.37		5.799E+02	1.499E+02	2.226E+02	2.833E+01	2.605
		231.56		1.767E+01	1.294E+02	2.067E+02	6.679E+01	0.085
		293.26	*	1.570E+01	8.256E+00	1.224E+01	2.733E+00	1.283
	+	350.59		3.662E+02	1.656E+02	1.838E+02	5.750E+01	1.993
		490.36		5.832E+01	1.572E+02	2.601E+02	8.211E+01	0.224
		664.57		1.708E+03	5.681E+02	3.070E+02	9.884E+01	5.565
		721.93		-9.408E+01	7.513E+01	1.058E+02	3.082E+01	-0.889
CE-144		80.11		-2.291E+00	5.102E+00	7.177E+00	8.435E-01	-0.319
		133.54	*	-1.082E-03	3.817E-01	6.184E-01	1.014E-01	-0.002
PM-144		476.78		5.401E-02	1.733E-01	2.873E-01	2.710E-02	0.188
		618.01		2.217E-02	7.019E-02	1.155E-01	1.000E-02	0.192
		696.49	*	8.697E-02	7.113E-02	1.280E-01	1.076E-02	0.680
		778.57		-6.115E-01	4.598E+00	7.570E+00	6.679E-01	-0.081
PR-144		696.49	*	5.870E+00	4.801E+00	8.637E+00	7.264E-01	0.680
		1489.15		-4.677E+00	1.734E+01	2.731E+01	2.616E+00	-0.171
PM-146		453.90	*	-4.264E-02	1.109E-01	1.768E-01	1.894E-02	-0.241
		633.02		1.355E+00	2.935E+00	4.820E+00	1.798E+00	0.281
		735.90		7.104E-02	3.001E-01	5.087E-01	1.455E-01	0.140
		747.13		4.943E-02	2.089E-01	3.537E-01	4.976E-02	0.140
ND-147	+	91.11		4.931E-01	4.416E-01	6.101E-01	7.552E-02	0.808
		319.41		6.304E+00	4.553E+00	7.998E+00	8.191E-01	0.788
		439.89		4.717E-01	9.088E+00	1.492E+01	1.279E+00	0.032
		531.02	*	8.291E-03	8.201E-01	1.331E+00	1.990E-01	0.006
PM-149		285.90	*	-3.020E+00	1.875E+01	3.101E+01	5.208E+00	-0.097
EU-152	+	121.78		7.263E-01	2.132E-01	3.088E-01	3.461E-02	2.352
		244.69		-2.083E-01	7.883E-01	1.132E+00	1.247E-01	-0.184
		344.27	*	1.301E-01	2.240E-01	3.499E-01	3.562E-02	0.372
		443.98		-6.809E-01	2.385E+00	3.840E+00	3.295E-01	-0.177
		778.89		-1.113E-01	5.511E-01	9.027E-01	7.965E-02	-0.123
		867.32		-4.489E-01	2.041E+00	3.323E+00	3.060E-01	-0.135
		964.01		6.321E-02	9.349E-01	1.327E+00	1.220E-01	0.048
		1085.78		-5.038E-01	1.054E+00	1.656E+00	1.442E-01	-0.304
		1112.02		-6.287E-01	7.886E-01	1.200E+00	1.027E-01	-0.524
		1407.95		6.132E-02	2.237E-01	3.928E-01	3.785E-02	0.156
GD-153		69.67		4.055E+00	3.613E+00	6.176E+00	7.050E-01	0.657

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.37		1.550E+01	3.402E+01	5.025E+01	6.023E+00	0.308
		97.43	*	-4.677E-02	1.590E-01	2.234E-01	2.465E-02	-0.209
		103.18		-5.064E-02	1.916E-01	3.091E-01	3.268E-02	-0.164
EU-154	+	123.07		5.096E-01	1.522E-01	2.122E-01	2.650E-02	2.402
		247.94		-6.454E-01	7.770E-01	1.246E+00	1.666E-01	-0.518
		591.81		1.458E-01	1.394E+00	2.265E+00	2.625E-01	0.064
		723.30		-5.421E-01	3.886E-01	5.817E-01	5.506E-02	-0.932
		756.87		2.686E-01	1.594E+00	2.689E+00	3.239E-01	0.100
		873.19		8.322E-01	7.668E-01	1.348E+00	1.710E-01	0.617
		996.32		-4.261E-01	9.156E-01	1.443E+00	2.598E-01	-0.295
		1004.76		1.143E-01	5.302E-01	8.834E-01	1.058E-01	0.129
		1274.45	*	6.205E-02	1.552E-01	2.673E-01	3.117E-02	0.232
EU-155		48.70		3.206E+00	1.352E+01	2.267E+01	3.042E+00	0.141
	+	60.01		4.468E+02	6.197E+01	5.968E+01	6.739E+00	7.487
		86.54		2.583E+00	4.383E-01	5.580E-01	6.882E-02	4.628
		105.31	*	9.626E-02	1.998E-01	3.326E-01	3.505E-02	0.289
TB-160	+	86.79		9.491E+00	1.425E+00	1.474E+00	1.813E-01	6.437
		197.04		-1.542E+00	1.093E+00	1.608E+00	1.753E-01	-0.959
		215.65		-9.029E-01	1.396E+00	2.284E+00	2.512E-01	-0.395
		298.57		1.098E-02	2.707E-01	3.925E-01	4.152E-02	0.028
		879.36	*	-3.015E-01	3.264E-01	5.009E-01	4.636E-02	-0.602
		962.29		7.652E-01	1.583E+00	2.325E+00	2.139E-01	0.329
		966.15		5.667E-01	6.281E-01	9.474E-01	8.709E-02	0.598
		1177.93		1.138E+00	7.172E-01	1.210E+00	9.904E-02	0.940
		1271.85		-1.175E-01	8.905E-01	1.408E+00	1.274E-01	-0.083
HO-166M		80.57		-7.140E-01	6.666E-01	8.996E-01	1.060E-01	-0.794
		184.41		7.136E-02	7.308E-02	1.113E-01	1.204E-02	0.641
		280.46		9.200E-02	1.854E-01	3.158E-01	3.411E-02	0.291
		410.95		1.779E-01	5.719E-01	9.544E-01	8.101E-02	0.186
		711.68	*	5.092E-02	1.221E-01	2.101E-01	1.784E-02	0.242
		752.31		2.233E-01	6.043E-01	1.033E+00	8.980E-02	0.216
		810.29		-6.813E-04	1.342E-01	2.228E-01	1.998E-02	-0.003
TM-171		51.35		-3.912E+00	1.523E+02	2.528E+02	3.407E+01	-0.015
		52.39		-9.536E+01	7.877E+01	1.233E+02	1.636E+01	-0.773
	+	59.40		2.339E+03	3.244E+02	3.320E+02	3.743E+01	7.047
		66.72	*	-4.214E+01	6.802E+01	1.090E+02	1.245E+01	-0.386
LU-176	+	88.36		7.515E+00	1.129E+00	1.187E+00	1.466E-01	6.330
		201.83		5.848E-02	6.051E-02	1.004E-01	1.098E-02	0.583
		306.84	*	-2.205E-02	5.484E-02	8.931E-02	9.338E-03	-0.247
		401.10		-6.140E+00	1.472E+01	2.359E+01	1.994E+00	-0.260
LU-177		112.95		1.289E-01	1.410E+00	2.306E+00	2.344E-01	0.056
		208.36	*	1.821E-01	1.001E+00	1.610E+00	1.766E-01	0.113
LU-177M		52.97		-7.530E+00	7.801E+00	1.193E+01	1.564E+00	-0.631
		54.07		-1.096E+00	4.307E+00	6.198E+00	7.934E-01	-0.177
		61.30		9.101E+01	1.254E+01	1.436E+01	1.632E+00	6.336
	+	121.62		3.611E+00	1.045E+00	1.540E+00	1.550E-01	2.345
		147.16		-4.815E-01	1.220E+00	1.933E+00	1.979E-01	-0.249
		171.86		-6.662E-02	8.945E-01	1.432E+00	1.535E-01	-0.047
		218.09		-3.614E-01	1.675E+00	2.796E+00	3.078E-01	-0.129

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		268.79		1.127E+00	1.590E+00	2.735E+00	2.982E-01	0.412
		319.02		6.089E-01	5.571E-01	9.684E-01	9.925E-02	0.629
		367.43		-4.877E-01	2.022E+00	3.294E+00	3.008E-01	-0.148
		413.65	*	1.802E-01	4.020E-01	6.754E-01	5.739E-02	0.267
HF-181		56.28		5.001E+00	4.051E+00	6.179E+00	7.501E-01	0.809
		57.53		1.557E+01	3.090E+00	4.430E+00	5.216E-01	3.515
		65.20		-2.588E+00	2.399E+00	3.240E+00	3.700E-01	-0.799
		133.02		-9.383E-03	1.104E-01	1.783E-01	1.791E-02	-0.053
		136.25		-5.607E-02	7.705E-01	1.244E+00	1.253E-01	-0.045
		345.85		-1.130E-01	3.984E-01	5.867E-01	5.683E-02	-0.193
		482.03	*	-1.081E-02	9.171E-02	1.484E-01	1.281E-02	-0.073
W-181		56.28		2.121E+00	1.716E+00	2.618E+00	3.177E-01	0.810
		57.53		6.577E+00	1.308E+00	1.876E+00	2.210E-01	3.505
		65.20	*	-1.089E+00	1.009E+00	1.363E+00	1.556E-01	-0.799
TA-182		67.75		-2.097E-02	2.481E-01	4.075E-01	4.651E-02	-0.051
		100.10		1.550E-01	3.346E-01	5.184E-01	5.595E-02	0.299
		152.43		4.212E-01	6.295E-01	1.043E+00	1.079E-01	0.404
		222.10		1.326E-01	6.876E-01	1.166E+00	1.285E-01	0.114
		1001.68		-2.458E+00	4.801E+00	7.618E+00	6.919E-01	-0.323
		1121.28		2.794E-01	3.118E-01	5.419E-01	4.606E-02	0.516
		1189.05		2.318E-01	5.166E-01	8.780E-01	7.274E-02	0.264
		1221.42	*	1.273E-01	2.563E-01	4.422E-01	3.795E-02	0.288
		1230.97		1.004E-01	6.266E-01	1.036E+00	8.984E-02	0.097
RE-183		57.98		1.155E+01	1.759E+00	2.157E+00	2.512E-01	5.358
	+	59.32		8.971E+00	1.244E+00	1.283E+00	1.449E-01	6.993
		67.20		-1.052E-01	4.408E-01	7.193E-01	8.209E-02	-0.146
		162.32	*	4.352E-02	2.033E-01	3.305E-01	3.496E-02	0.132
		208.81		2.207E-01	1.834E+00	2.942E+00	3.228E-01	0.075
		291.72		2.304E+00	1.998E+00	3.106E+00	3.315E-01	0.742
RE-184		57.98		4.445E+01	6.766E+00	8.297E+00	9.666E-01	5.358
	+	59.32		3.449E+01	4.783E+00	4.932E+00	5.570E-01	6.993
		67.20		-4.047E-01	1.695E+00	2.767E+00	3.158E-01	-0.146
		161.27		2.373E-02	6.828E-01	1.101E+00	1.162E-01	0.022
		216.55		-1.643E-01	5.110E-01	8.488E-01	9.340E-02	-0.194
		252.85	*	4.094E-01	4.855E-01	8.397E-01	9.234E-02	0.488
		318.01		3.280E-01	9.568E-01	1.615E+00	1.658E-01	0.203
		792.07		-7.178E-01	2.172E+00	3.527E+00	3.134E-01	-0.203
		903.28		-6.375E-01	2.711E+00	4.061E+00	3.784E-01	-0.157
		920.93		-6.316E-01	1.270E+00	2.025E+00	1.881E-01	-0.312
OS-185	+	59.72		2.493E+01	3.458E+00	3.426E+00	3.861E-01	7.277
	+	61.14		1.438E+01	1.995E+00	1.617E+00	1.836E-01	8.897
		69.30		8.071E-01	6.357E-01	1.090E+00	1.244E-01	0.740
		592.07		-3.650E-01	5.439E+00	8.730E+00	7.427E-01	-0.042
		646.12	*	-4.707E-02	9.371E-02	1.446E-01	1.200E-02	-0.326
		717.42		9.171E-02	1.716E+00	2.878E+00	2.452E-01	0.032
		874.81		1.686E+00	1.405E+00	2.497E+00	2.307E-01	0.675
		880.27		-1.709E+00	1.841E+00	2.822E+00	2.613E-01	-0.606
RE-188		155.03	*	8.221E-02	3.167E-01	5.163E-01	5.370E-02	0.159
		477.96		-1.053E+00	7.304E+00	1.181E+01	1.019E+00	-0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		633.10		2.047E+00	5.473E+00	9.051E+00	7.565E-01	0.226
W-188		63.58		-8.143E+01	1.386E+02	1.959E+02	2.236E+01	-0.416
		227.08		6.867E+00	2.476E+01	4.210E+01	4.644E+00	0.163
		290.67	*	9.130E+00	1.594E+01	2.398E+01	2.562E+00	0.381
IR-192	+	295.96		4.991E-01	2.797E-01	4.160E-01	4.437E-02	1.200
		308.46		6.686E-02	1.952E-01	3.299E-01	3.453E-02	0.203
		316.51	*	-1.616E-02	7.000E-02	1.149E-01	1.184E-02	-0.141
		468.07		-2.847E-02	1.646E-01	2.662E-01	2.460E-02	-0.107
		604.41		6.131E-01	1.056E+00	1.547E+00	1.998E-01	0.396
		612.46		6.645E-01	1.636E+00	2.360E+00	2.300E-01	0.282
AU-195		65.12		-5.141E-01	4.753E-01	6.418E-01	7.328E-02	-0.801
		66.83		-6.516E-02	2.179E-01	3.546E-01	4.047E-02	-0.184
		75.70		1.493E+00	4.893E-01	7.596E-01	8.761E-02	1.965
		98.88	*	3.556E-01	4.373E-01	6.569E-01	7.159E-02	0.541
		129.76		2.175E+00	5.116E+00	8.448E+00	8.477E-01	0.258
TL-200		367.94	*	-1.814E+00	9.005E+00	1.469E+01	1.340E+00	-0.123
		579.30		1.411E+01	7.885E+01	1.117E+02	9.540E+00	0.126
		828.27		1.429E+01	1.019E+02	1.706E+02	1.543E+01	0.084
		1205.75		-7.692E+00	3.109E+01	4.876E+01	4.115E+00	-0.158
TL-201		68.90		2.608E+00	1.998E+00	3.430E+00	3.914E-01	0.760
		70.82		-1.396E+00	1.141E+00	1.774E+00	2.026E-01	-0.787
		80.30		-1.813E+00	2.279E+00	3.138E+00	3.691E-01	-0.578
		135.34		-2.827E+00	8.962E+00	1.430E+01	1.440E+00	-0.198
		167.43	*	4.522E-01	2.527E+00	4.098E+00	4.378E-01	0.110
TL-202		68.90		8.384E-01	6.422E-01	1.103E+00	1.258E-01	0.760
		70.82		-4.475E-01	3.658E-01	5.686E-01	6.495E-02	-0.787
		80.30		-5.815E-01	7.308E-01	1.006E+00	1.184E-01	-0.578
		439.56	*	6.369E-02	1.126E-01	1.897E-01	1.626E-02	0.336
HG-203		70.83		-2.648E+00	2.182E+00	3.363E+00	5.224E-01	-0.788
		72.87		-1.319E+00	1.386E+00	1.882E+00	2.862E-01	-0.701
		82.60		-2.056E+00	2.636E+00	3.344E+00	5.358E-01	-0.615
		279.20	*	7.260E-02	7.957E-02	1.375E-01	1.514E-02	0.528
BI-207		72.80		-5.728E-01	4.347E-01	6.149E-01	7.041E-02	-0.932
		74.97		4.167E-01	2.601E-01	3.995E-01	4.597E-02	1.043
		84.90		6.062E-01	4.438E-01	6.756E-01	8.186E-02	0.897
		569.67		-9.153E-03	6.590E-02	1.062E-01	9.095E-03	-0.086
		1063.62	*	3.312E-02	1.258E-01	2.099E-01	1.852E-02	0.158
		1770.23		-1.902E+00	9.646E-01	8.600E-01	7.518E-02	-2.212
TL-207		81.07		-9.252E-01	5.474E-01	7.038E-01	8.316E-02	-1.315
		83.78		1.728E-01	2.954E-01	4.385E-01	5.271E-02	0.394
		94.90		3.600E-01	4.513E-01	6.764E-01	7.655E-02	0.532
	+	122.32		1.731E+01	5.045E+00	7.313E+00	7.758E-01	2.368
		144.24		-2.926E-01	1.296E+00	2.084E+00	2.305E-01	-0.140
		154.21		9.189E-02	7.871E-01	1.276E+00	1.417E-01	0.072
		269.46		3.670E-01	3.866E-01	6.701E-01	7.398E-02	0.548
		323.87	*	-1.677E+00	1.514E+00	2.320E+00	4.292E-01	-0.723
	+	338.28		5.211E+00	2.911E+00	4.291E+00	5.668E-01	1.215
		445.03		9.858E-01	5.707E+00	9.422E+00	1.136E+00	0.105
PO-209		260.50		1.764E+01	2.040E+01	3.531E+01	3.870E+00	0.499

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		262.80		-1.396E+01	5.644E+01	9.331E+01	1.021E+01	-0.150
		896.60	*	-8.634E+00	2.008E+01	3.217E+01	2.998E+00	-0.268
BI-210		46.50	*	-3.465E+01	2.246E+01	3.428E+01	4.221E+00	-1.011
PB-210		46.50	*	-3.465E+01	2.246E+01	3.428E+01	4.221E+00	-1.011
PO-210		46.50	*	-3.465E+01	2.242E+01	3.428E+01	3.998E+00	-1.011
PB-211		404.84	*	-1.226E+00	2.202E+00	3.274E+00	2.051E+00	-0.375
		427.08		-1.073E+00	5.292E+00	8.513E+00	5.289E+00	-0.126
		831.96		1.212E+00	2.929E+00	4.828E+00	3.029E+00	0.251
BI-212		727.18	*	1.098E+00	6.420E-01	1.174E+00	1.170E-01	0.935
		785.46		-1.543E-01	3.901E+00	6.469E+00	5.728E-01	-0.024
		1620.62		8.237E-01	1.977E+00	3.522E+00	3.278E-01	0.234
BI-214	+	609.31	*	6.789E-01	2.572E-01	3.476E-01	3.447E-02	1.953
		1120.29		8.677E-01	6.997E-01	1.237E+00	1.334E-01	0.701
		1764.49		4.149E-01	4.525E-01	8.798E-01	7.714E-02	0.472
PO-215		81.07		-9.252E-01	5.474E-01	7.038E-01	8.316E-02	-1.315
		83.78		1.728E-01	2.954E-01	4.385E-01	5.271E-02	0.394
		94.90		3.600E-01	4.513E-01	6.764E-01	7.655E-02	0.532
	+	122.32		1.731E+01	5.045E+00	7.313E+00	7.758E-01	2.368
		144.24		-2.926E-01	1.296E+00	2.084E+00	2.305E-01	-0.140
		154.21		9.189E-02	7.871E-01	1.276E+00	1.417E-01	0.072
		269.46		3.670E-01	3.866E-01	6.701E-01	7.398E-02	0.548
		323.87	*	-1.677E+00	1.514E+00	2.320E+00	4.292E-01	-0.723
	+	338.28		5.211E+00	2.911E+00	4.291E+00	5.668E-01	1.215
		445.03		9.858E-01	5.707E+00	9.422E+00	1.136E+00	0.105
RN-219		271.23		1.523E-01	5.149E-01	8.697E-01	1.067E-01	0.175
		401.81	*	-4.450E-01	9.139E-01	1.456E+00	2.174E-01	-0.306
RN-220		549.76	*	-3.601E+00	5.789E+01	9.332E+01	8.029E+00	-0.039
RA-223		81.07		-9.252E-01	5.474E-01	7.038E-01	8.316E-02	-1.315
		83.78		1.728E-01	2.954E-01	4.385E-01	5.271E-02	0.394
		94.90		3.600E-01	4.513E-01	6.764E-01	7.655E-02	0.532
	+	122.32		1.731E+01	5.045E+00	7.313E+00	7.758E-01	2.368
		144.24		-2.926E-01	1.296E+00	2.084E+00	2.305E-01	-0.140
		154.21		9.189E-02	7.871E-01	1.276E+00	1.417E-01	0.072
		269.46		3.670E-01	3.866E-01	6.701E-01	7.398E-02	0.548
		323.87	*	-1.677E+00	1.514E+00	2.320E+00	4.292E-01	-0.723
	+	338.28		5.211E+00	2.911E+00	4.291E+00	5.668E-01	1.215
		445.03		9.858E-01	5.707E+00	9.422E+00	1.136E+00	0.105
RA-224		240.98	*	1.089E+01	2.168E+00	3.349E+00	3.694E-01	3.250
RA-226	+	609.31	*	6.789E-01	2.572E-01	3.476E-01	3.447E-02	1.953
		1120.29		8.677E-01	6.997E-01	1.237E+00	1.334E-01	0.701
		1764.49		4.149E-01	4.525E-01	8.798E-01	7.714E-02	0.472
AC-227		79.80		-1.177E+00	4.061E+00	5.757E+00	1.320E+00	-0.204
		236.00		5.915E-01	5.358E-01	8.232E-01	1.157E-01	0.719
		256.20	*	-3.024E-01	8.346E-01	1.373E+00	2.305E-01	-0.220
		286.10		-1.659E+00	3.286E+00	5.331E+00	7.823E-01	-0.311
		299.80		1.928E+00	3.655E+00	5.439E+00	1.007E+00	0.355
		304.40		-2.918E-01	4.176E+00	6.924E+00	1.342E+00	-0.042
		334.20		1.528E+00	5.738E+00	8.397E+00	1.682E+00	0.182
TH-227		79.80		-1.177E+00	4.061E+00	5.757E+00	1.335E+00	-0.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	94.00		6.061E+00	5.557E+00	6.094E+00	1.404E+00	0.995
		236.00		5.915E-01	5.349E-01	8.232E-01	1.074E-01	0.719
		256.20	*	-3.024E-01	8.351E-01	1.373E+00	2.650E-01	-0.220
		286.10		-1.659E+00	3.678E+00	5.331E+00	5.362E+00	-0.311
		299.80		1.928E+00	3.655E+00	5.439E+00	1.007E+00	0.355
		304.40		-2.918E-01	4.176E+00	6.924E+00	1.342E+00	-0.042
		334.20		1.528E+00	5.738E+00	8.397E+00	1.682E+00	0.182
TH-229		85.43		1.112E+00	4.651E-01	7.171E-01	8.724E-02	1.551
	+	88.47		4.326E+00	6.497E-01	6.824E-01	8.411E-02	6.339
		100.00		1.730E-01	3.637E-01	5.637E-01	6.090E-02	0.307
		193.63	*	-1.975E-01	1.055E+00	1.673E+00	1.821E-01	-0.118
		210.97		2.072E+00	1.486E+00	2.615E+00	2.872E-01	0.793
TH-230	+	609.31	*	6.789E-01	2.572E-01	3.476E-01	3.447E-02	1.953
		1120.29		8.677E-01	6.997E-01	1.237E+00	1.333E-01	0.701
		1764.49		4.149E-01	4.525E-01	8.798E-01	7.714E-02	0.472
PA-231		283.67	*	-8.472E-01	3.298E+00	5.429E+00	8.956E-01	-0.156
		301.29		8.540E-01	1.327E+00	2.148E+00	2.935E-01	0.398
TH-231		81.07		-9.252E-01	5.474E-01	7.038E-01	8.316E-02	-1.315
		83.78		1.728E-01	2.954E-01	4.385E-01	5.271E-02	0.394
		94.90		3.600E-01	4.513E-01	6.764E-01	7.655E-02	0.532
	+	122.32		1.731E+01	5.045E+00	7.313E+00	7.758E-01	2.368
		144.24		-2.926E-01	1.296E+00	2.084E+00	2.305E-01	-0.140
		154.21		9.189E-02	7.871E-01	1.276E+00	1.417E-01	0.072
		269.46		3.670E-01	3.866E-01	6.701E-01	7.398E-02	0.548
		323.87	*	-1.677E+00	1.514E+00	2.320E+00	4.292E-01	-0.723
	+	338.28		5.211E+00	2.911E+00	4.291E+00	5.668E-01	1.215
		445.03		9.858E-01	5.707E+00	9.422E+00	1.136E+00	0.105
U-231		84.21		3.271E+00	3.681E+00	5.527E+00	6.663E-01	0.592
	+	92.29		1.751E+00	1.567E+00	1.917E+00	2.237E-01	0.913
		95.87	*	-2.051E-01	6.246E-01	8.758E-01	9.812E-02	-0.234
		108.00		-2.123E-01	1.104E+00	1.784E+00	1.842E-01	-0.119
PA-233		75.28		1.727E+01	8.053E+00	1.202E+01	2.061E+00	1.437
		86.59		4.388E+01	1.333E+01	9.214E+00	2.599E+00	4.763
		300.12		8.243E-01	1.004E+00	1.516E+00	2.437E-01	0.544
		311.98	*	3.199E-03	1.363E-01	2.268E-01	2.399E-02	0.014
		340.50		3.041E+00	1.720E+00	2.517E+00	6.115E-01	1.208
		398.62		5.222E+00	4.698E+00	7.868E+00	2.091E+00	0.664
		415.76		-1.467E+00	3.892E+00	6.232E+00	1.340E+00	-0.235
PA-234		63.00		-2.522E-02	4.478E+00	6.564E+00	1.130E+00	-0.004
		94.67		-2.673E-01	3.191E-01	5.007E-01	7.225E-02	-0.534
		98.44		5.985E-02	1.868E-01	2.688E-01	1.511E-01	0.223
		99.86		4.543E-01	9.220E-01	1.430E+00	1.547E-01	0.318
		111.00		-1.656E-01	3.439E-01	5.471E-01	7.262E-02	-0.303
		131.20		4.011E-02	1.981E-01	3.240E-01	3.252E-02	0.124
		152.70		4.481E-01	6.411E-01	1.058E+00	1.902E-01	0.424
	+	186.00		4.333E+00	4.145E+00	4.264E+00	1.360E+00	1.016
		226.40		-1.001E-01	8.425E-01	1.410E+00	2.100E-01	-0.071
		227.20		2.738E-01	9.022E-01	1.535E+00	1.694E-01	0.178
		248.90		-5.734E-03	1.724E+00	2.890E+00	6.772E-01	-0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	293.70		3.368E+00	1.954E+00	2.712E+00	4.988E-01	1.242
		369.80		-7.213E-01	1.948E+00	3.138E+00	6.891E-01	-0.230
		568.70		3.729E-01	2.116E+00	3.464E+00	2.968E-01	0.108
		569.50		2.145E-03	5.788E-01	9.425E-01	8.073E-02	0.002
		574.00		-2.254E+00	3.419E+00	5.260E+00	4.500E-01	-0.429
		699.00		2.279E-01	1.458E+00	2.465E+00	4.681E-01	0.092
		706.10		-1.857E+00	2.200E+00	3.172E+00	1.414E+00	-0.586
		733.00		-9.712E-01	8.165E-01	1.192E+00	2.645E-01	-0.815
		742.81		7.710E-01	3.010E+00	5.036E+00	3.386E+00	0.153
		796.30		2.540E+00	2.190E+00	3.729E+00	1.012E+00	0.681
		805.60		-1.326E+00	2.218E+00	3.453E+00	1.061E+00	-0.384
		819.60		3.150E+00	3.332E+00	5.498E+00	2.096E+00	0.573
		826.30		-2.804E+00	2.394E+00	3.046E+00	1.365E+00	-0.921
		831.60		2.999E-01	1.472E+00	2.471E+00	7.407E-01	0.121
		876.40		-4.781E-01	2.200E+00	3.489E+00	3.589E+00	-0.137
		880.51		-4.055E-01	7.017E-01	1.109E+00	1.027E-01	-0.366
		883.24		1.036E-01	7.177E-01	1.193E+00	8.027E-01	0.087
		899.00		-4.001E-01	2.197E+00	3.569E+00	1.565E+00	-0.112
		925.00		-7.317E-01	3.357E+00	5.453E+00	5.062E-01	-0.134
		926.50		1.114E-02	5.071E-01	8.368E-01	2.135E-01	0.013
		946.00	*	4.369E-02	8.647E-01	1.428E+00	2.721E-01	0.031
		949.00		9.082E-01	1.291E+00	2.213E+00	2.044E-01	0.410
		980.50		1.228E+00	1.987E+00	3.397E+00	3.108E-01	0.361
		1394.10		-4.068E-02	1.442E+00	2.394E+00	1.561E+00	-0.017
PA-234M		766.42		2.829E+01	2.615E+01	3.978E+01	2.019E+01	0.711
		1001.03	*	-7.107E+00	1.118E+01	1.754E+01	1.818E+00	-0.405
TH-234		63.29	*	-1.288E+00	3.729E+00	5.346E+00	1.042E+00	-0.241
	+	92.38		1.569E+00	1.425E+00	1.706E+00	3.362E-01	0.920
U-234	+	609.31	*	6.789E-01	2.572E-01	3.476E-01	3.447E-02	1.953
		1120.29		8.677E-01	6.997E-01	1.237E+00	1.333E-01	0.701
		1764.49		4.149E-01	4.525E-01	8.798E-01	7.714E-02	0.472
U-235		89.95		2.843E+01	9.546E+00	5.883E+00	1.882E+00	4.832
	+	93.35		1.886E+00	1.761E+00	1.958E+00	5.687E-01	0.963
		105.00		1.073E+00	1.985E+00	3.273E+00	9.960E-01	0.328
		143.76	*	1.192E-02	4.043E-01	6.576E-01	1.205E-01	0.018
		163.35		6.697E-01	9.461E-01	1.556E+00	3.120E-01	0.430
	+	185.71		1.605E-01	1.458E-01	1.571E-01	1.700E-02	1.022
		205.31		-1.092E+00	1.094E+00	1.626E+00	3.292E-01	-0.671
NP-236		94.67		-2.005E-01	2.414E-01	3.801E-01	4.312E-02	-0.528
		98.44		4.517E-02	1.390E-01	2.032E-01	2.223E-02	0.222
		111.00		-1.253E-01	2.599E-01	4.138E-01	4.228E-02	-0.303
		160.31	*	-2.456E-02	1.573E-01	2.516E-01	2.649E-02	-0.098
NP-237		86.50	*	6.101E+00	1.637E+00	1.350E+00	3.241E-01	4.518
		95.87		-6.187E-01	1.890E+00	2.642E+00	6.778E-01	-0.234
U-238		63.29	*	-1.288E+00	3.729E+00	5.346E+00	1.042E+00	-0.241
	+	92.38		1.569E+00	1.404E+00	1.706E+00	1.988E-01	0.920
NP-239		99.55		1.615E-01	3.241E-01	4.781E-01	5.182E-02	0.338
		117.00	*	-1.753E-01	4.258E-01	5.904E-01	5.960E-02	-0.297
		209.75		1.051E+00	1.560E+00	2.561E+00	2.810E-01	0.410

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		228.18		4.139E-02	4.706E-01	7.943E-01	8.762E-02	0.052
		277.60		2.193E-01	3.803E-01	6.502E-01	7.040E-02	0.337
		334.30		2.085E+00	3.168E+00	4.765E+00	4.739E-01	0.438
AM-243		74.67	*	1.076E-01	1.455E-01	2.177E-01	2.503E-02	0.494
		86.72		2.728E+02	4.393E+01	5.349E+01	6.573E+00	5.100
		117.66		-3.712E+00	8.546E+00	1.183E+01	1.193E+00	-0.314
		142.18		4.477E+00	3.368E+01	5.478E+01	5.560E+00	0.082
CM-243		99.55		1.661E-01	3.334E-01	4.917E-01	5.330E-02	0.338
		103.76	*	-1.238E-02	1.816E-01	2.956E-01	3.114E-02	-0.042
		117.00		-1.802E-01	4.379E-01	6.071E-01	6.129E-02	-0.297
		209.75		1.035E+00	1.537E+00	2.523E+00	2.769E-01	0.410
		228.18		4.180E-02	4.753E-01	8.022E-01	8.849E-02	0.052
		277.60		2.210E-01	3.832E-01	6.552E-01	7.094E-02	0.337
AM-246		798.80		-1.586E-01	3.346E-01	5.377E-01	4.794E-02	-0.295
		1036.00		4.545E-02	8.313E-01	1.366E+00	1.223E-01	0.033
		1062.04		-2.238E-01	5.637E-01	8.913E-01	7.870E-02	-0.251
		1078.86	*	1.592E-01	3.629E-01	6.120E-01	5.352E-02	0.260
CM-247		278.00		1.302E+00	1.601E+00	2.759E+00	2.986E-01	0.472
		287.40		-2.503E+00	2.617E+00	4.133E+00	4.432E-01	-0.606
		402.60	*	-5.068E-02	8.124E-02	1.285E-01	1.087E-02	-0.394
CF-249		252.85		1.584E+00	1.878E+00	3.249E+00	3.572E-01	0.488
		333.44		-8.766E-02	4.281E-01	6.063E-01	6.042E-02	-0.145
		387.95	*	-3.752E-02	9.220E-02	1.483E-01	1.266E-02	-0.253
CF-251		176.60	*	5.182E-02	2.481E-01	4.022E-01	4.325E-02	0.129
		227.00		-1.432E-01	8.132E-01	1.358E+00	1.498E-01	-0.105
		285.00		3.628E-01	3.751E+00	6.285E+00	6.757E-01	0.058

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512      *
* Acquisition date : 12-FEB-2010 16:33:11 Detector SN#    :                 *
* Detector ID       : GAM15               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:01.29     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032512          Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
CO-57	2.458E-01	6.972E-02	8.317E-02	0.000E+00
CO-60	6.423E+00	7.056E-01	8.790E-02	0.000E+00
CD-109	3.188E+01	4.692E+00	2.713E+00	0.000E+00
SN-126	3.169E+00	4.663E-01	3.121E-01	0.000E+00
BA-137M	5.390E+00	5.262E-01	1.295E-01	0.000E+00
CS-137	5.697E+00	5.571E-01	1.368E-01	0.000E+00
TL-208	3.682E-01	1.260E-01	1.376E-01	0.000E+00
BI-211	1.974E+00	6.600E-01	7.040E-01	0.000E+00
PB-212	1.086E+00	2.718E-01	2.020E-01	0.000E+00
PO-212	1.086E+00	2.718E-01	2.020E-01	0.000E+00
PB-214	6.865E-01	2.322E-01	2.643E-01	0.000E+00
PO-214	6.865E-01	2.322E-01	2.643E-01	0.000E+00
PO-216	1.086E+00	2.718E-01	2.020E-01	0.000E+00
PO-218	6.865E-01	2.322E-01	2.643E-01	0.000E+00
AC-228	1.333E+00	5.763E-01	6.256E-01	0.000E+00
RA-228	1.333E+00	5.763E-01	6.256E-01	0.000E+00
TH-228	1.094E+00	2.738E-01	2.036E-01	0.000E+00
TH-232	1.333E+00	5.763E-01	6.256E-01	0.000E+00
AM-241	1.378E+01	1.926E+00	9.896E-01	0.000E+00
ANH-511	1.659E-01	1.410E-01	1.107E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	5.603E-02		7.324E-01	1.273E+00	0.000E+00	NOT IDENT.
NA-22	2.278E-02		5.432E-02	9.684E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00		2.503E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.742E-02		4.366E-02	8.034E-02	0.000E+00	NOT IDENT.
K-40	3.613E-01		5.655E-01	1.105E+00	0.000E+00	NOT IDENT.
TI-44	0.000E+00		9.558E-02	1.595E-01	0.000E+00	FAIL ABUN
SC-46	2.219E-03		9.887E-02	1.706E-01	0.000E+00	NOT IDENT.

V-48	8.091E-02	1.375E-01	2.438E-01	0.000E+00	NOT IDENT.
CR-51	6.659E-01	6.747E-01	1.251E+00	0.000E+00	NOT IDENT.
MN-52	-4.815E-02	1.178E-01	1.851E-01	0.000E+00	NOT IDENT.
MN-54	-2.114E-03	8.187E-02	1.416E-01	0.000E+00	NOT IDENT.
CO-56	-4.532E-02	8.889E-02	1.482E-01	0.000E+00	NOT IDENT.
CO-58	1.008E-02	8.291E-02	1.452E-01	0.000E+00	NOT IDENT.
FE-59	4.968E-02	1.947E-01	3.360E-01	0.000E+00	NOT IDENT.
ZN-65	-1.479E-01	2.077E-01	3.310E-01	0.000E+00	NOT IDENT.
GE-68	-2.809E+00	3.116E+00	4.898E+00	0.000E+00	NOT IDENT.
AS-73	-2.212E+00	3.878E+00	6.507E+00	0.000E+00	NOT IDENT.
AS-74	-5.902E-02	1.454E-01	2.398E-01	0.000E+00	NOT IDENT.
SE-75	-7.049E-03	8.433E-02	1.514E-01	0.000E+00	FAIL ABUN
BR-77	5.063E-01	2.837E+00	4.652E+00	0.000E+00	FAIL ABUN
SR-82	-1.861E-01	6.051E-01	1.029E+00	0.000E+00	NOT IDENT.
RB-83	-8.020E-03	1.615E-01	2.504E-01	0.000E+00	NOT IDENT.
RB-84	3.717E-02	1.453E-01	2.550E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.703E+01	2.871E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	8.073E-02	1.361E-01	0.000E+00	NOT IDENT.
RB-86	-2.088E+00	1.574E+00	2.380E+00	0.000E+00	NOT IDENT.
Y-88	5.441E-02	4.938E-02	1.020E-01	0.000E+00	NOT IDENT.
ZR-88	-1.815E-02	6.397E-02	1.105E-01	0.000E+00	NOT IDENT.
Y-91	-1.607E+01	2.448E+01	3.742E+01	0.000E+00	NOT IDENT.
NB-94	-1.736E-02	6.435E-02	1.108E-01	0.000E+00	NOT IDENT.
NB-95	6.298E-02	7.505E-02	1.384E-01	0.000E+00	NOT IDENT.
NB-95M	1.039E-01	2.521E-01	4.078E-01	0.000E+00	NOT IDENT.
ZR-95	4.003E-02	1.355E-01	2.415E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.355E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.870E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-6.467E-01	3.662E+00	6.324E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.250E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.822E-02	6.728E-02	1.135E-01	0.000E+00	NOT IDENT.
RH-102	4.247E-02	7.624E-02	1.356E-01	0.000E+00	NOT IDENT.
RU-103	-1.876E-02	7.708E-02	1.307E-01	0.000E+00	FAIL ABUN
RH-106	2.062E-01	6.877E-01	1.190E+00	0.000E+00	FAIL ABUN
RU-106	2.062E-01	6.874E-01	1.190E+00	0.000E+00	FAIL ABUN
AG-108M	-9.874E-02	8.079E-02	1.306E-01	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	1.157E-01	2.092E-01	0.000E+00	NOT IDENT.
IN-111	8.078E-02	3.871E-01	6.183E-01	0.000E+00	NOT IDENT.
IN-113M	7.766E-02	9.323E-02	1.706E-01	0.000E+00	NOT IDENT.
SN-113	7.766E-02	9.323E-02	1.706E-01	0.000E+00	NOT IDENT.
IN-114M	8.213E-02	3.831E-01	5.888E-01	0.000E+00	NOT IDENT.
CD-115	-9.385E-01	2.471E+00	4.137E+00	0.000E+00	NOT IDENT.
SN-117M	-6.345E-02	7.356E-02	1.239E-01	0.000E+00	NOT IDENT.
SB-122	-9.711E-02	6.254E-01	1.056E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.954E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.669E-02	5.310E-02	9.026E-02	0.000E+00	NOT IDENT.
I-124	1.586E-01	4.714E-01	7.131E-01	0.000E+00	NOT IDENT.
SB-124	-3.561E-02	1.149E-01	1.815E-01	0.000E+00	NOT IDENT.
SB-125	-6.879E-02	2.298E-01	3.946E-01	0.000E+00	NOT IDENT.
TE-125M	-7.371E+00	1.545E+01	2.714E+01	0.000E+00	NOT IDENT.
I-126	1.914E-01	2.783E-01	4.515E-01	0.000E+00	NOT IDENT.
SB-126	-3.339E-03	1.913E-01	3.350E-01	0.000E+00	FAIL ABUN
SB-127	-1.187E-01	6.904E-01	1.200E+00	0.000E+00	FAIL ABUN
XE-127	4.317E-02	8.250E-02	1.462E-01	0.000E+00	NOT IDENT.
I-131	-2.467E-02	1.388E-01	2.426E-01	0.000E+00	NOT IDENT.
TE-132	2.781E-02	2.892E-01	5.282E-01	0.000E+00	NOT IDENT.
BA-133	4.644E-03	1.089E-01	1.675E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.541E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.958E-02	1.035E-01	1.896E-01	0.000E+00	NOT IDENT.
CS-135	1.088E-01	3.186E-01	5.822E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.450E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.339E-02	1.782E-01	2.984E-01	0.000E+00	NOT IDENT.
CE-139	1.185E-02	5.604E-02	9.923E-02	0.000E+00	NOT IDENT.
BA-140	-2.738E-01	3.986E-01	6.346E-01	0.000E+00	NOT IDENT.
LA-140	3.022E-02	8.882E-02	1.598E-01	0.000E+00	NOT IDENT.
CE-141	-5.962E-03	1.003E-01	1.777E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.091E+00	1.289E+01	0.000E+00	FAIL ABUN
CE-144	-1.082E-03	3.740E-01	6.645E-01	0.000E+00	NOT IDENT.
PM-144	8.697E-02	6.971E-02	1.317E-01	0.000E+00	NOT IDENT.
PR-144	5.870E+00	4.705E+00	8.892E+00	0.000E+00	NOT IDENT.
PM-146	-4.264E-02	1.087E-01	1.841E-01	0.000E+00	NOT IDENT.
ND-147	8.291E-03	8.037E-01	1.380E+00	0.000E+00	FAIL ABUN
PM-149	-3.020E+00	1.837E+01	3.268E+01	0.000E+00	NOT IDENT.
EU-152	1.301E-01	2.195E-01	3.670E-01	0.000E+00	FAIL ABUN
GD-153	-4.677E-02	1.558E-01	2.419E-01	0.000E+00	NOT IDENT.
EU-154	6.205E-02	1.521E-01	2.706E-01	0.000E+00	FAIL ABUN
EU-155	9.626E-02	1.958E-01	3.596E-01	0.000E+00	FAIL ABUN
TB-160	-3.015E-01	3.199E-01	5.124E-01	0.000E+00	FAIL ABUN

HO-166M	5.092E-02	1.196E-01	2.162E-01	0.000E+00	NOT IDENT.
TM-171	-4.214E+01	6.666E+01	1.192E+02	0.000E+00	FAIL ABUN
LU-176	-2.205E-02	5.374E-02	9.396E-02	0.000E+00	FAIL ABUN
LU-177	1.821E-01	9.808E-01	1.711E+00	0.000E+00	NOT IDENT.
LU-177M	1.802E-01	3.940E-01	7.050E-01	0.000E+00	FAIL ABUN
HF-181	-1.081E-02	8.987E-02	1.543E-01	0.000E+00	NOT IDENT.
W-181	-1.089E+00	9.889E-01	1.490E+00	0.000E+00	NOT IDENT.
TA-182	1.273E-01	2.512E-01	4.482E-01	0.000E+00	NOT IDENT.
RE-183	4.352E-02	1.993E-01	3.534E-01	0.000E+00	FAIL ABUN
RE-184	4.094E-01	4.758E-01	8.879E-01	0.000E+00	FAIL ABUN
OS-185	-4.707E-02	9.183E-02	1.491E-01	0.000E+00	FAIL ABUN
RE-188	8.221E-02	3.103E-01	5.528E-01	0.000E+00	NOT IDENT.
W-188	9.130E+00	1.562E+01	2.527E+01	0.000E+00	NOT IDENT.
IR-192	-1.616E-02	6.860E-02	1.207E-01	0.000E+00	FAIL ABUN
AU-195	3.556E-01	4.286E-01	7.112E-01	0.000E+00	NOT IDENT.
TL-200	-1.814E+00	8.824E+00	1.539E+01	0.000E+00	NOT IDENT.
TL-201	4.522E-01	2.477E+00	4.379E+00	0.000E+00	NOT IDENT.
TL-202	6.369E-02	1.103E-01	1.977E-01	0.000E+00	NOT IDENT.
HG-203	7.260E-02	7.798E-02	1.450E-01	0.000E+00	NOT IDENT.
BI-207	3.312E-02	1.233E-01	2.136E-01	0.000E+00	NOT IDENT.
TL-207	-1.677E+00	1.484E+00	2.437E+00	0.000E+00	FAIL ABUN
PO-209	-8.634E+00	1.968E+01	3.289E+01	0.000E+00	NOT IDENT.
BI-210	-3.465E+01	2.201E+01	3.780E+01	0.000E+00	NOT IDENT.
PB-210	-3.465E+01	2.201E+01	3.780E+01	0.000E+00	NOT IDENT.
PO-210	-3.465E+01	2.197E+01	3.780E+01	0.000E+00	NOT IDENT.
PB-211	-1.226E+00	2.157E+00	3.420E+00	0.000E+00	NOT IDENT.
BI-212	1.098E+00	6.292E-01	1.207E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	2.521E-01	3.592E-01	0.000E+00	FAIL ABUN
PO-215	-1.677E+00	1.484E+00	2.437E+00	0.000E+00	FAIL ABUN
RN-219	-4.450E-01	8.956E-01	1.521E+00	0.000E+00	NOT IDENT.
RN-220	-3.601E+00	5.673E+01	9.668E+01	0.000E+00	NOT IDENT.
RA-223	-1.677E+00	1.484E+00	2.437E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	2.124E+00	3.546E+00	0.000E+00	NOT IDENT.
RA-226	0.000E+00	2.521E-01	3.592E-01	0.000E+00	FAIL ABUN
AC-227	-3.024E-01	8.180E-01	1.451E+00	0.000E+00	NOT IDENT.
TH-227	-3.024E-01	8.184E-01	1.451E+00	0.000E+00	FAIL ABUN
TH-229	-1.975E-01	1.034E+00	1.782E+00	0.000E+00	FAIL ABUN
TH-230	0.000E+00	2.521E-01	3.592E-01	0.000E+00	FAIL ABUN
PA-231	-8.472E-01	3.232E+00	5.724E+00	0.000E+00	NOT IDENT.
TH-231	-1.677E+00	1.484E+00	2.437E+00	0.000E+00	FAIL ABUN
U-231	-2.051E-01	6.121E-01	9.489E-01	0.000E+00	FAIL ABUN
PA-233	3.199E-03	1.336E-01	2.385E-01	0.000E+00	NOT IDENT.
PA-234	4.369E-02	8.474E-01	1.458E+00	0.000E+00	FAIL ABUN
PA-234M	-7.107E+00	1.096E+01	1.787E+01	0.000E+00	NOT IDENT.
TH-234	-1.288E+00	3.654E+00	5.851E+00	0.000E+00	FAIL ABUN
U-234	0.000E+00	2.521E-01	3.592E-01	0.000E+00	FAIL ABUN
U-235	1.192E-02	3.962E-01	7.054E-01	0.000E+00	FAIL ABUN
NP-236	-2.456E-02	1.542E-01	2.691E-01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	1.604E+00	1.467E+00	0.000E+00	NOT IDENT.
U-238	-1.288E+00	3.654E+00	5.851E+00	0.000E+00	FAIL ABUN
NP-239	-1.753E-01	4.173E-01	6.365E-01	0.000E+00	NOT IDENT.
AM-243	1.076E-01	1.426E-01	2.373E-01	0.000E+00	NOT IDENT.
CM-243	-1.238E-02	1.779E-01	3.196E-01	0.000E+00	NOT IDENT.
AM-246	1.592E-01	3.557E-01	6.225E-01	0.000E+00	NOT IDENT.
CM-247	-5.068E-02	7.962E-02	1.342E-01	0.000E+00	NOT IDENT.
CF-249	-3.752E-02	9.036E-02	1.551E-01	0.000E+00	NOT IDENT.
CF-251	5.182E-02	2.432E-01	4.292E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:33:45.25

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 16:33:11
Sample ID         : G1202032512          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948717               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
CO-57	122.06	240	85.51*	5.635E+00	2.410E-01	2.458E-01	28.95
	136.48	------	10.60	5.583E+00	------	Line Not Found	------
CO-60	1173.22	1581	100.00	1.174E+00	6.506E+00	6.524E+00	9.76
	1332.49	1385	100.00*	1.044E+00	6.405E+00	6.423E+00	11.21
CD-109	88.03	1097	3.72*	4.518E+00	3.152E+01	3.188E+01	15.02
SN-126	64.28	------	9.60	1.941E+00	------	Line Not Found	------
	86.94	1097	8.90	4.518E+00	1.317E+01	1.317E+01	43.15
	87.57	1097	37.00*	4.518E+00	3.169E+00	3.169E+00	15.02
BA-137M	661.65	1989	89.98*	1.982E+00	5.387E+00	5.390E+00	9.96
CS-137	661.65	1989	85.12*	1.982E+00	5.695E+00	5.697E+00	9.98
TL-208	277.35	------	6.80	3.705E+00	------	Line Not Found	------
	510.84	83	21.60	2.419E+00	7.683E-01	7.683E-01	87.11
	583.14	141	84.20*	2.190E+00	3.682E-01	3.682E-01	34.93
	860.37	------	12.46	1.576E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	3.001E+00	------	Line Not Found	------
	351.07	166	12.94*	3.141E+00	1.974E+00	1.974E+00	34.12
PB-212	74.81	------	10.70	3.227E+00	------	Line Not Found	------
	77.11	127	18.00	3.536E+00	9.635E-01	9.635E-01	54.87
	87.30	1097	8.00	4.518E+00	1.465E+01	1.465E+01	18.04
	238.63	412	44.60*	4.113E+00	1.086E+00	1.086E+00	25.55
	300.09	------	3.41	3.507E+00	------	Line Not Found	------
PO-212	74.81	------	10.70	3.227E+00	------	Line Not Found	------
	77.11	127	18.00	3.536E+00	9.635E-01	9.635E-01	54.87
	87.30	1097	8.00	4.518E+00	1.465E+01	1.465E+01	18.04
	115.19	------	0.60	5.586E+00	------	Line Not Found	------
	238.63	412	44.60*	4.113E+00	1.086E+00	1.086E+00	25.55
	300.09	------	3.41	3.507E+00	------	Line Not Found	------
PB-214	74.81	------	6.21	3.227E+00	------	Line Not Found	------
	77.11	127	10.50	3.536E+00	1.652E+00	1.652E+00	55.40
	87.30	1097	4.67	4.518E+00	2.510E+01	2.510E+01	16.88
	241.98	------	7.49	4.076E+00	------	Line Not Found	------
	295.21	99	19.20	3.548E+00	7.018E-01	7.018E-01	56.38

Sample ID : G1202032512 Acquisition date : 12-FEB-2010 16:33:11

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	166	37.20*	3.141E+00	6.865E-01	6.865E-01	34.52
PO-214	74.81	------	6.21	3.227E+00	------ Line Not Found		------
	77.11	127	10.50	3.536E+00	1.652E+00	1.652E+00	55.40
	87.30	1097	4.67	4.518E+00	2.510E+01	2.510E+01	16.88
	241.98	------	7.49	4.076E+00	------ Line Not Found		------
	295.21	99	19.20	3.548E+00	7.018E-01	7.018E-01	56.38
	351.92	166	37.20*	3.141E+00	6.865E-01	6.865E-01	34.52
PO-216	74.81	------	10.70	3.227E+00	------ Line Not Found		------
	77.11	127	18.00	3.536E+00	9.635E-01	9.635E-01	54.87
	87.30	1097	8.00	4.518E+00	1.465E+01	1.465E+01	18.04
	238.63	412	44.60*	4.113E+00	1.086E+00	1.086E+00	25.55
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
PO-218	74.81	------	6.21	3.227E+00	------ Line Not Found		------
	77.11	127	10.50	3.536E+00	1.652E+00	1.652E+00	55.40
	87.30	1097	4.67	4.518E+00	2.510E+01	2.510E+01	16.88
	241.98	------	7.49	4.076E+00	------ Line Not Found		------
	295.21	99	19.20	3.548E+00	7.018E-01	7.018E-01	56.38
	351.92	166	37.20*	3.141E+00	6.865E-01	6.865E-01	34.52
AC-228	338.32	95	11.40	3.226E+00	1.248E+00	1.248E+00	68.34
	911.07	114	27.70*	1.494E+00	1.333E+00	1.333E+00	44.13
	969.11	46	16.60	1.409E+00	9.582E-01	9.582E-01	104.71
RA-228	338.32	95	11.40	3.226E+00	1.248E+00	1.248E+00	68.34
	911.07	114	27.70*	1.494E+00	1.333E+00	1.333E+00	44.13
	969.11	46	16.60	1.409E+00	9.582E-01	9.582E-01	104.71
TH-228	74.81	------	10.70	3.227E+00	------ Line Not Found		------
	77.11	127	18.00	3.536E+00	9.635E-01	9.709E-01	54.87
	87.30	1097	8.00	4.518E+00	1.465E+01	1.477E+01	15.02
	238.63	412	44.60*	4.113E+00	1.086E+00	1.094E+00	25.55
	300.09	------	3.41	3.507E+00	------ Line Not Found		------
TH-232	338.32	95	11.40	3.226E+00	1.248E+00	1.248E+00	55.16
	911.07	114	27.70*	1.494E+00	1.333E+00	1.333E+00	44.13
	969.11	46	16.60	1.409E+00	9.582E-01	9.582E-01	104.71
AM-241	59.54	1427	35.90*	1.393E+00	1.377E+01	1.378E+01	14.27
ANH-511	511.00	83	100.00*	2.419E+00	1.659E-01	1.659E-01	86.71

Flag: "*" = Keyline

Sample ID : G1202032512 Acquisition date : 12-FEB-2010 16:33:11

Total number of lines in spectrum 18
Number of unidentified lines 0
Number of lines tentatively identified by NID 18 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	2.410E-01	2.458E-01	0.711E-01	28.95	
CO-60	5.27Y	1.00	6.405E+00	6.423E+00	0.720E+00	11.21	
CD-109	464.00D	1.01	3.152E+01	3.188E+01	0.479E+01	15.02	
SN-126	1.00E+05Y	1.00	3.169E+00	3.169E+00	0.476E+00	15.02	
BA-137M	30.17Y	1.00	5.387E+00	5.390E+00	0.537E+00	9.96	
CS-137	30.17Y	1.00	5.695E+00	5.697E+00	0.568E+00	9.98	
TL-208	1.41E+10Y	1.00	3.682E-01	3.682E-01	1.286E-01	34.93	
BI-211	7.04E+08Y	1.00	1.974E+00	1.974E+00	0.673E+00	34.12	
PB-212	1.41E+10Y	1.00	1.086E+00	1.086E+00	0.277E+00	25.55	
PO-212	1.41E+10Y	1.00	1.086E+00	1.086E+00	0.277E+00	25.55	
PB-214	1600.00Y	1.00	6.865E-01	6.865E-01	2.370E-01	34.52	
PO-214	1600.00Y	1.00	6.865E-01	6.865E-01	2.370E-01	34.52	
PO-216	1.41E+10Y	1.00	1.086E+00	1.086E+00	0.277E+00	25.55	
PO-218	1600.00Y	1.00	6.865E-01	6.865E-01	2.370E-01	34.52	
AC-228	1.41E+10Y	1.00	1.333E+00	1.333E+00	0.588E+00	44.13	
RA-228	1.41E+10Y	1.00	1.333E+00	1.333E+00	0.588E+00	44.13	
TH-228	1.91Y	1.01	1.086E+00	1.094E+00	0.279E+00	25.55	
TH-232	1.41E+10Y	1.00	1.333E+00	1.333E+00	0.588E+00	44.13	
AM-241	432.20Y	1.00	1.377E+01	1.378E+01	0.197E+01	14.27	
ANH-511	1.00E+09Y	1.00	1.659E-01	1.659E-01	1.439E-01	86.71	
			---	---			
	Total Activity :		7.909E+01	7.950E+01			

Grand Total Activity : 7.909E+01 7.950E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202032512 Acquisition date : 12-FEB-2010 16:33:11

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	92.56	85	287	1.72	184.05	171	22	2.35E-02	88.7	4.81E+00	T
0	185.99	87	333	1.70	370.89	365	13	2.42E-02	90.2	4.86E+00	T
0	609.18	138	112	1.89	1217.28	1210	13	3.83E-02	36.6	2.12E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 17:33:50.23

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032512.CNF;1  *
* Acquisition date  : 12-FEB-2010 16:33:11  Detector SN#     :             *
* Detector ID       : GAM15                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 01:00:01.29          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 5-FEB-2010 00:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G1202032512           Analyst initials: MXR1         *
* Batch Number      : 948717                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57	2.458E-01	7.114E-02	7.722E-02	7.779E-03	3.182
CO-60	6.423E+00	7.200E-01	8.693E-02	8.357E-03	73.883
CD-109	3.188E+01	4.788E+00	2.499E+00	3.102E-01	12.758
SN-126	3.169E+00	4.758E-01	2.874E-01	3.557E-02	11.024
BA-137M	5.390E+00	5.370E-01	1.256E-01	1.032E-02	42.919
CS-137	5.697E+00	5.684E-01	1.327E-01	1.094E-02	42.919
TL-208	3.682E-01	1.286E-01	1.330E-01	1.218E-02	2.768
BI-211	1.974E+00	6.734E-01	6.715E-01	6.686E-02	2.939
PB-212	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
PO-212	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
PB-214	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
PO-214	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
PO-216	1.086E+00	2.773E-01	1.908E-01	2.272E-02	5.690
PO-218	6.865E-01	2.370E-01	2.521E-01	2.830E-02	2.723
AC-228	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
RA-228	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177
TH-228	1.094E+00	2.794E-01	1.922E-01	2.289E-02	5.690
TH-232	1.333E+00	5.881E-01	6.122E-01	7.212E-02	2.177

Sample ID : G1202032512 Acquisition date : 12-FEB-2010 16:33:11

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-241	1.378E+01	1.965E+00	9.029E-01	1.060E-01	15.257
ANH-511	1.659E-01	1.439E-01	1.067E-01	9.216E-03	1.556

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.603E-02		7.474E-01	1.224E+00	1.138E-01	0.046
NA-22	2.278E-02		5.543E-02	9.566E-02	8.690E-03	0.238
NA-24	-8.776E-05		1.277E-04	Half-Life too short		
AL-26	1.742E-02		4.455E-02	8.015E-02	6.857E-03	0.217
K-40	3.613E-01		5.770E-01	1.096E+00	1.077E-01	0.330
TI-44	1.778E-01	+	9.753E-02	1.464E-01	1.707E-02	1.214
SC-46	2.219E-03		1.009E-01	1.669E-01	1.551E-02	0.013
V-48	8.091E-02		1.403E-01	2.391E-01	2.186E-02	0.338
CR-51	6.659E-01		6.884E-01	1.191E+00	1.264E-01	0.559
MN-52	-4.815E-02		1.202E-01	1.834E-01	1.765E-02	-0.263
MN-54	-2.114E-03		8.354E-02	1.382E-01	1.254E-02	-0.015
CO-56	-4.532E-02		9.070E-02	1.448E-01	1.321E-02	-0.313
CO-58	1.008E-02		8.460E-02	1.416E-01	1.273E-02	0.071
FE-59	4.968E-02		1.987E-01	3.305E-01	3.084E-02	0.150
ZN-65	-1.479E-01		2.120E-01	3.257E-01	2.783E-02	-0.454
GE-68	-2.809E+00		3.180E+00	4.815E+00	4.215E-01	-0.583
AS-73	-2.212E+00		3.957E+00	5.921E+00	7.688E-01	-0.373
AS-74	-5.902E-02		1.484E-01	2.320E-01	1.971E-02	-0.254
SE-75	-7.049E-03		8.605E-02	1.434E-01	1.572E-02	-0.049
BR-77	5.063E-01		2.895E+00	4.484E+00	3.872E-01	0.113
SR-82	-1.861E-01		6.174E-01	1.002E+00	8.833E-02	-0.186
RB-83	-8.020E-03		1.648E-01	2.413E-01	2.084E-02	-0.033
RB-84	3.717E-02		1.483E-01	2.493E-01	2.310E-02	0.149
KR-85	2.876E+01		1.738E+01	2.766E+01	2.390E+00	1.040
SR-85	1.364E-01		8.238E-02	1.311E-01	1.133E-02	1.040
RB-86	-2.088E+00		1.606E+00	2.340E+00	2.049E-01	-0.892
Y-88	5.441E-02		5.039E-02	1.018E-01	8.573E-03	0.534
ZR-88	-1.815E-02		6.527E-02	1.057E-01	8.898E-03	-0.172
Y-91	-1.607E+01		2.498E+01	3.690E+01	3.111E+00	-0.435
NB-94	-1.736E-02		6.566E-02	1.077E-01	9.091E-03	-0.161
NB-95	6.298E-02		7.658E-02	1.348E-01	1.181E-02	0.467
NB-95M	1.039E-01		2.573E-01	3.849E-01	4.632E-02	0.270
ZR-95	4.003E-02		1.382E-01	2.351E-01	2.252E-02	0.170
NB-97	1.080E-03		1.202E-04	Half-Life too short		
ZR-97	4.612E-03		1.464E-03	Half-Life too short		
MO-99	-6.467E-01		3.737E+00	6.153E+00	9.347E-01	-0.105
TC-99M	-1.836E+00		4.209E+01	Half-Life too short		
RH-101	-3.822E-02		6.866E-02	1.067E-01	1.164E-02	-0.358
RH-102	4.247E-02		7.780E-02	1.304E-01	1.125E-02	0.326
RU-103	-1.876E-02		7.865E-02	1.259E-01	1.784E-02	-0.149
RH-106	2.062E-01		7.018E-01	1.152E+00	1.523E-01	0.179

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-106	2.062E-01		7.015E-01	1.152E+00	9.685E-02	0.179
AG-108M	-9.874E-02		8.244E-02	1.252E-01	1.115E-02	-0.789
AG-110M	4.194E-01		1.181E-01	2.029E-01	1.726E-02	2.067
IN-111	8.078E-02		3.950E-01	5.843E-01	6.439E-02	0.138
IN-113M	7.766E-02		9.514E-02	1.632E-01	1.417E-02	0.476
SN-113	7.766E-02		9.514E-02	1.632E-01	1.417E-02	0.476
IN-114M	8.213E-02		3.909E-01	5.528E-01	6.002E-02	0.149
CD-115	-9.385E-01		2.521E+00	3.989E+00	3.443E-01	-0.235
SN-117M	-6.345E-02		7.506E-02	1.157E-01	1.214E-02	-0.548
SB-122	-9.711E-02		6.382E-01	1.020E+00	8.751E-02	-0.095
I-123	-6.186E-04		4.568E-04	Half-Life too short		
TE-123M	-3.669E-02		5.419E-02	8.436E-02	8.889E-03	-0.435
I-124	1.586E-01		4.810E-01	6.900E-01	5.847E-02	0.230
SB-124	-3.561E-02		1.173E-01	1.808E-01	1.699E-02	-0.197
SB-125	-6.879E-02		2.345E-01	3.784E-01	3.295E-02	-0.182
TE-125M	-7.371E+00		1.577E+01	2.513E+01	2.948E+00	-0.293
I-126	1.914E-01		2.840E-01	4.381E-01	3.613E-02	0.437
SB-126	-3.339E-03		1.952E-01	3.258E-01	2.780E-02	-0.010
SB-127	-1.187E-01		7.045E-01	1.165E+00	1.091E-01	-0.102
XE-127	4.317E-02		8.419E-02	1.375E-01	1.504E-02	0.314
I-131	-2.467E-02		1.416E-01	2.316E-01	2.227E-02	-0.107
TE-132	2.781E-02		2.951E-01	4.983E-01	8.066E-02	0.056
BA-133	4.644E-03		1.111E-01	1.598E-01	2.197E-02	0.029
I-133	-3.980E-06		1.806E-05	Half-Life too short		
CS-134	8.958E-02		1.056E-01	1.849E-01	1.657E-02	0.485
CS-135	1.088E-01		3.251E-01	5.514E-01	6.616E-02	0.197
I-135	-2.933E+00		2.781E+01	Half-Life too short		
CS-136	-3.339E-02		1.818E-01	2.931E-01	2.710E-02	-0.114
CE-139	1.185E-02		5.718E-02	9.284E-02	9.910E-03	0.128
BA-140	-2.738E-01		4.068E-01	6.122E-01	2.029E-01	-0.447
LA-140	3.022E-02		9.064E-02	1.588E-01	1.489E-02	0.190
CE-141	-5.962E-03		1.023E-01	1.658E-01	1.713E-02	-0.036
CE-143	1.570E+01		8.256E+00	1.224E+01	2.733E+00	1.283
CE-144	-1.082E-03		3.817E-01	6.184E-01	1.014E-01	-0.002
PM-144	8.697E-02		7.113E-02	1.280E-01	1.076E-02	0.680
PR-144	5.870E+00		4.801E+00	8.637E+00	7.264E-01	0.680
PM-146	-4.264E-02		1.109E-01	1.768E-01	1.894E-02	-0.241
ND-147	8.291E-03		8.201E-01	1.331E+00	1.990E-01	0.006
PM-149	-3.020E+00		1.875E+01	3.101E+01	5.208E+00	-0.097
EU-152	1.301E-01		2.240E-01	3.499E-01	3.562E-02	0.372
GD-153	-4.677E-02		1.590E-01	2.234E-01	2.465E-02	-0.209
EU-154	6.205E-02		1.552E-01	2.673E-01	3.117E-02	0.232
EU-155	9.626E-02		1.998E-01	3.326E-01	3.505E-02	0.289
TB-160	-3.015E-01		3.264E-01	5.009E-01	4.636E-02	-0.602
HO-166M	5.092E-02		1.221E-01	2.101E-01	1.784E-02	0.242
TM-171	-4.214E+01		6.802E+01	1.090E+02	1.245E+01	-0.386
LU-176	-2.205E-02		5.484E-02	8.931E-02	9.338E-03	-0.247
LU-177	1.821E-01		1.001E+00	1.610E+00	1.766E-01	0.113

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-177M	1.802E-01		4.020E-01	6.754E-01	5.739E-02	0.267
HF-181	-1.081E-02		9.171E-02	1.484E-01	1.281E-02	-0.073
W-181	-1.089E+00		1.009E+00	1.363E+00	1.556E-01	-0.799
TA-182	1.273E-01		2.563E-01	4.422E-01	3.795E-02	0.288
RE-183	4.352E-02		2.033E-01	3.305E-01	3.496E-02	0.132
RE-184	4.094E-01		4.855E-01	8.397E-01	9.234E-02	0.488
OS-185	-4.707E-02		9.371E-02	1.446E-01	1.200E-02	-0.326
RE-188	8.221E-02		3.167E-01	5.163E-01	5.370E-02	0.159
W-188	9.130E+00		1.594E+01	2.398E+01	2.562E+00	0.381
IR-192	-1.616E-02		7.000E-02	1.149E-01	1.184E-02	-0.141
AU-195	3.556E-01		4.373E-01	6.569E-01	7.159E-02	0.541
TL-200	-1.814E+00		9.005E+00	1.469E+01	1.340E+00	-0.123
TL-201	4.522E-01		2.527E+00	4.098E+00	4.378E-01	0.110
TL-202	6.369E-02		1.126E-01	1.897E-01	1.626E-02	0.336
HG-203	7.260E-02		7.957E-02	1.375E-01	1.514E-02	0.528
BI-207	3.312E-02		1.258E-01	2.099E-01	1.852E-02	0.158
TL-207	-1.677E+00		1.514E+00	2.320E+00	4.292E-01	-0.723
PO-209	-8.634E+00		2.008E+01	3.217E+01	2.998E+00	-0.268
BI-210	-3.465E+01		2.246E+01	3.428E+01	4.221E+00	-1.011
PB-210	-3.465E+01		2.246E+01	3.428E+01	4.221E+00	-1.011
PO-210	-3.465E+01		2.242E+01	3.428E+01	3.998E+00	-1.011
PB-211	-1.226E+00		2.202E+00	3.274E+00	2.051E+00	-0.375
BI-212	1.098E+00		6.420E-01	1.174E+00	1.170E-01	0.935
BI-214	6.789E-01	+	2.572E-01	3.476E-01	3.447E-02	1.953
PO-215	-1.677E+00		1.514E+00	2.320E+00	4.292E-01	-0.723
RN-219	-4.450E-01		9.139E-01	1.456E+00	2.174E-01	-0.306
RN-220	-3.601E+00		5.789E+01	9.332E+01	8.029E+00	-0.039
RA-223	-1.677E+00		1.514E+00	2.320E+00	4.292E-01	-0.723
RA-224	1.089E+01		2.168E+00	3.349E+00	3.694E-01	3.250
RA-226	6.789E-01	+	2.572E-01	3.476E-01	3.447E-02	1.953
AC-227	-3.024E-01		8.346E-01	1.373E+00	2.305E-01	-0.220
TH-227	-3.024E-01		8.351E-01	1.373E+00	2.650E-01	-0.220
TH-229	-1.975E-01		1.055E+00	1.673E+00	1.821E-01	-0.118
TH-230	6.789E-01	+	2.572E-01	3.476E-01	3.447E-02	1.953
PA-231	-8.472E-01		3.298E+00	5.429E+00	8.956E-01	-0.156
TH-231	-1.677E+00		1.514E+00	2.320E+00	4.292E-01	-0.723
U-231	-2.051E-01		6.246E-01	8.758E-01	9.812E-02	-0.234
PA-233	3.199E-03		1.363E-01	2.268E-01	2.399E-02	0.014
PA-234	4.369E-02		8.647E-01	1.428E+00	2.721E-01	0.031
PA-234M	-7.107E+00		1.118E+01	1.754E+01	1.818E+00	-0.405
TH-234	-1.288E+00		3.729E+00	5.346E+00	1.042E+00	-0.241
U-234	6.789E-01	+	2.572E-01	3.476E-01	3.447E-02	1.953
U-235	1.192E-02		4.043E-01	6.576E-01	1.205E-01	0.018
NP-236	-2.456E-02		1.573E-01	2.516E-01	2.649E-02	-0.098
NP-237	6.101E+00		1.637E+00	1.350E+00	3.241E-01	4.518
U-238	-1.288E+00		3.729E+00	5.346E+00	1.042E+00	-0.241
NP-239	-1.753E-01		4.258E-01	5.904E-01	5.960E-02	-0.297
AM-243	1.076E-01		1.455E-01	2.177E-01	2.503E-02	0.494

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.238E-02		1.816E-01	2.956E-01	3.114E-02	-0.042
AM-246	1.592E-01		3.629E-01	6.120E-01	5.352E-02	0.260
CM-247	-5.068E-02		8.124E-02	1.285E-01	1.087E-02	-0.394
CF-249	-3.752E-02		9.220E-02	1.483E-01	1.266E-02	-0.253
CF-251	5.182E-02		2.481E-01	4.022E-01	4.325E-02	0.129

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032512          *
* Acquisition date  : 12-FEB-2010 16:33:11 Detector SN#     :               *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.29      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032512          Analyst initials: MXR1           *
* Batch Number      : 948717               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
CO-57	2.458E-01	6.972E-02	4.161E-02	3.557E-02
CO-60	6.423E+00	7.056E-01	4.398E-02	3.600E-01
CD-109	3.188E+01	4.692E+00	1.357E+00	2.394E+00
SN-126	3.169E+00	4.663E-01	1.561E-01	2.379E-01
BA-137M	5.390E+00	5.262E-01	6.477E-02	2.685E-01
CS-137	5.697E+00	5.571E-01	6.846E-02	2.842E-01
TL-208	3.682E-01	1.260E-01	6.883E-02	6.431E-02
BI-211	1.974E+00	6.600E-01	3.522E-01	3.367E-01
PB-212	1.086E+00	2.718E-01	1.011E-01	1.387E-01
PO-212	1.086E+00	2.718E-01	1.011E-01	1.387E-01
PB-214	6.865E-01	2.322E-01	1.322E-01	1.185E-01
PO-214	6.865E-01	2.322E-01	1.322E-01	1.185E-01
PO-216	1.086E+00	2.718E-01	1.011E-01	1.387E-01
PO-218	6.865E-01	2.322E-01	1.322E-01	1.185E-01
AC-228	1.333E+00	5.763E-01	3.130E-01	2.940E-01
RA-228	1.333E+00	5.763E-01	3.130E-01	2.940E-01
TH-228	1.094E+00	2.738E-01	1.018E-01	1.397E-01
TH-232	1.333E+00	5.763E-01	3.130E-01	2.940E-01
AM-241	1.378E+01	1.926E+00	4.951E-01	9.826E-01
ANH-511	1.659E-01	1.410E-01	5.539E-02	7.194E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.603E-02	7.324E-01	6.366E-01	3.737E-01	NOT IDENT.
NA-22	2.278E-02	5.432E-02	4.845E-02	2.771E-02	NOT IDENT.
NA-24	-8.776E+01	2.503E+02	0.000E+00	1.277E+02	SHORT HLIF
AL-26	1.742E-02	4.366E-02	4.020E-02	2.228E-02	NOT IDENT.
K-40	3.613E-01	5.655E-01	5.529E-01	2.885E-01	NOT IDENT.
TI-44	1.778E-01	9.558E-02	7.977E-02	4.877E-02	FAIL ABUN
SC-46	2.219E-03	9.887E-02	8.537E-02	5.044E-02	NOT IDENT.

V-48	8.091E-02	1.375E-01	1.220E-01	7.014E-02	NOT IDENT.
CR-51	6.659E-01	6.747E-01	6.261E-01	3.442E-01	NOT IDENT.
MN-52	-4.815E-02	1.178E-01	9.258E-02	6.012E-02	NOT IDENT.
MN-54	-2.114E-03	8.187E-02	7.084E-02	4.177E-02	NOT IDENT.
CO-56	-4.532E-02	8.889E-02	7.417E-02	4.535E-02	NOT IDENT.
CO-58	1.008E-02	8.291E-02	7.265E-02	4.230E-02	NOT IDENT.
FE-59	4.968E-02	1.947E-01	1.681E-01	9.936E-02	NOT IDENT.
ZN-65	-1.479E-01	2.077E-01	1.656E-01	1.060E-01	NOT IDENT.
GE-68	-2.809E+00	3.116E+00	2.451E+00	1.590E+00	NOT IDENT.
AS-73	-2.212E+00	3.878E+00	3.255E+00	1.979E+00	NOT IDENT.
AS-74	-5.902E-02	1.454E-01	1.200E-01	7.420E-02	NOT IDENT.
SE-75	-7.049E-03	8.433E-02	7.575E-02	4.302E-02	FAIL ABUN
BR-77	5.063E-01	2.837E+00	2.327E+00	1.447E+00	FAIL ABUN
SR-82	-1.861E-01	6.051E-01	5.147E-01	3.087E-01	NOT IDENT.
RB-83	-8.020E-03	1.615E-01	1.253E-01	8.241E-02	NOT IDENT.
RB-84	3.717E-02	1.453E-01	1.276E-01	7.413E-02	NOT IDENT.
KR-85	2.876E+01	1.703E+01	1.436E+01	8.688E+00	NOT IDENT.
SR-85	1.364E-01	8.073E-02	6.809E-02	4.119E-02	NOT IDENT.
RB-86	-2.088E+00	1.574E+00	1.191E+00	8.030E-01	NOT IDENT.
Y-88	5.441E-02	4.938E-02	5.103E-02	2.520E-02	NOT IDENT.
ZR-88	-1.815E-02	6.397E-02	5.528E-02	3.264E-02	NOT IDENT.
Y-91	-1.607E+01	2.448E+01	1.872E+01	1.249E+01	NOT IDENT.
NB-94	-1.736E-02	6.435E-02	5.545E-02	3.283E-02	NOT IDENT.
NB-95	6.298E-02	7.505E-02	6.925E-02	3.829E-02	NOT IDENT.
NB-95M	1.039E-01	2.521E-01	2.040E-01	1.286E-01	NOT IDENT.
ZR-95	4.003E-02	1.355E-01	1.208E-01	6.911E-02	NOT IDENT.
NB-97	1.080E+03	2.355E+02	0.000E+00	1.202E+02	SHORT HLIF
ZR-97	4.612E+03	2.870E+03	0.000E+00	1.464E+03	SHORT HLIF
MO-99	-6.467E-01	3.662E+00	3.164E+00	1.868E+00	NOT IDENT.
TC-99M	-1.836E+06	8.250E+07	0.000E+00	4.209E+07	SHORT HLIF
RH-101	-3.822E-02	6.728E-02	5.679E-02	3.433E-02	NOT IDENT.
RH-102	4.247E-02	7.624E-02	6.784E-02	3.890E-02	NOT IDENT.
RU-103	-1.876E-02	7.708E-02	6.541E-02	3.933E-02	FAIL ABUN
RH-106	2.062E-01	6.877E-01	5.954E-01	3.509E-01	FAIL ABUN
RU-106	2.062E-01	6.874E-01	5.954E-01	3.507E-01	FAIL ABUN
AG-108M	-9.874E-02	8.079E-02	6.532E-02	4.122E-02	NOT IDENT.
AG-110M	4.194E-01	1.157E-01	1.046E-01	5.904E-02	NOT IDENT.
IN-111	8.078E-02	3.871E-01	3.093E-01	1.975E-01	NOT IDENT.
IN-113M	7.766E-02	9.323E-02	8.535E-02	4.757E-02	NOT IDENT.
SN-113	7.766E-02	9.323E-02	8.535E-02	4.757E-02	NOT IDENT.
IN-114M	8.213E-02	3.831E-01	2.946E-01	1.955E-01	NOT IDENT.
CD-115	-9.385E-01	2.471E+00	2.070E+00	1.261E+00	NOT IDENT.
SN-117M	-6.345E-02	7.356E-02	6.196E-02	3.753E-02	NOT IDENT.
SB-122	-9.711E-02	6.254E-01	5.284E-01	3.191E-01	NOT IDENT.
I-123	-6.186E+02	8.954E+02	0.000E+00	4.568E+02	SHORT HLIF
TE-123M	-3.669E-02	5.310E-02	4.515E-02	2.709E-02	NOT IDENT.
I-124	1.586E-01	4.714E-01	3.568E-01	2.405E-01	NOT IDENT.
SB-124	-3.561E-02	1.149E-01	9.083E-02	5.865E-02	NOT IDENT.
SB-125	-6.879E-02	2.298E-01	1.974E-01	1.173E-01	NOT IDENT.
TE-125M	-7.371E+00	1.545E+01	1.358E+01	7.885E+00	NOT IDENT.
I-126	1.914E-01	2.783E-01	2.259E-01	1.420E-01	NOT IDENT.
SB-126	-3.339E-03	1.913E-01	1.676E-01	9.761E-02	FAIL ABUN
SB-127	-1.187E-01	6.904E-01	6.003E-01	3.522E-01	FAIL ABUN
XE-127	4.317E-02	8.250E-02	7.314E-02	4.209E-02	NOT IDENT.
I-131	-2.467E-02	1.388E-01	1.214E-01	7.080E-02	NOT IDENT.
TE-132	2.781E-02	2.892E-01	2.643E-01	1.476E-01	NOT IDENT.
BA-133	4.644E-03	1.089E-01	8.378E-02	5.557E-02	NOT IDENT.
I-133	-3.980E+00	3.541E+01	0.000E+00	1.806E+01	SHORT HLIF
CS-134	8.958E-02	1.035E-01	9.487E-02	5.281E-02	NOT IDENT.
CS-135	1.088E-01	3.186E-01	2.913E-01	1.626E-01	NOT IDENT.
I-135	-2.933E+06	5.450E+07	0.000E+00	2.781E+07	SHORT HLIF
CS-136	-3.339E-02	1.782E-01	1.493E-01	9.092E-02	NOT IDENT.
CE-139	1.185E-02	5.604E-02	4.965E-02	2.859E-02	NOT IDENT.
BA-140	-2.738E-01	3.986E-01	3.175E-01	2.034E-01	NOT IDENT.
LA-140	3.022E-02	8.882E-02	7.994E-02	4.532E-02	NOT IDENT.
CE-141	-5.962E-03	1.003E-01	8.892E-02	5.116E-02	NOT IDENT.
CE-143	1.570E+01	8.091E+00	6.450E+00	4.128E+00	FAIL ABUN
CE-144	-1.082E-03	3.740E-01	3.325E-01	1.908E-01	NOT IDENT.
PM-144	8.697E-02	6.971E-02	6.591E-02	3.557E-02	NOT IDENT.
PR-144	5.870E+00	4.705E+00	4.449E+00	2.401E+00	NOT IDENT.
PM-146	-4.264E-02	1.087E-01	9.213E-02	5.543E-02	NOT IDENT.
ND-147	8.291E-03	8.037E-01	6.905E-01	4.100E-01	FAIL ABUN
PM-149	-3.020E+00	1.837E+01	1.635E+01	9.373E+00	NOT IDENT.
EU-152	1.301E-01	2.195E-01	1.836E-01	1.120E-01	FAIL ABUN
GD-153	-4.677E-02	1.558E-01	1.210E-01	7.949E-02	NOT IDENT.
EU-154	6.205E-02	1.521E-01	1.354E-01	7.759E-02	FAIL ABUN
EU-155	9.626E-02	1.958E-01	1.799E-01	9.989E-02	FAIL ABUN
TB-160	-3.015E-01	3.199E-01	2.563E-01	1.632E-01	FAIL ABUN

HO-166M	5.092E-02	1.196E-01	1.081E-01	6.104E-02	NOT IDENT.
TM-171	-4.214E+01	6.666E+01	5.963E+01	3.401E+01	FAIL ABUN
LU-176	-2.205E-02	5.374E-02	4.701E-02	2.742E-02	FAIL ABUN
LU-177	1.821E-01	9.808E-01	8.561E-01	5.004E-01	NOT IDENT.
LU-177M	1.802E-01	3.940E-01	3.527E-01	2.010E-01	FAIL ABUN
HF-181	-1.081E-02	8.987E-02	7.719E-02	4.585E-02	NOT IDENT.
W-181	-1.089E+00	9.889E-01	7.457E-01	5.046E-01	NOT IDENT.
TA-182	1.273E-01	2.512E-01	2.242E-01	1.281E-01	NOT IDENT.
RE-183	4.352E-02	1.993E-01	1.768E-01	1.017E-01	FAIL ABUN
RE-184	4.094E-01	4.758E-01	4.442E-01	2.427E-01	FAIL ABUN
OS-185	-4.707E-02	9.183E-02	7.462E-02	4.685E-02	FAIL ABUN
RE-188	8.221E-02	3.103E-01	2.766E-01	1.583E-01	NOT IDENT.
W-188	9.130E+00	1.562E+01	1.264E+01	7.971E+00	NOT IDENT.
IR-192	-1.616E-02	6.860E-02	6.041E-02	3.500E-02	FAIL ABUN
AU-195	3.556E-01	4.286E-01	3.558E-01	2.187E-01	NOT IDENT.
TL-200	-1.814E+00	8.824E+00	7.698E+00	4.502E+00	NOT IDENT.
TL-201	4.522E-01	2.477E+00	2.191E+00	1.264E+00	NOT IDENT.
TL-202	6.369E-02	1.103E-01	9.890E-02	5.628E-02	NOT IDENT.
HG-203	7.260E-02	7.798E-02	7.256E-02	3.979E-02	NOT IDENT.
BI-207	3.312E-02	1.233E-01	1.068E-01	6.289E-02	NOT IDENT.
TL-207	-1.677E+00	1.484E+00	1.219E+00	7.572E-01	FAIL ABUN
PO-209	-8.634E+00	1.968E+01	1.646E+01	1.004E+01	NOT IDENT.
BI-210	-3.465E+01	2.201E+01	1.891E+01	1.123E+01	NOT IDENT.
PB-210	-3.465E+01	2.201E+01	1.891E+01	1.123E+01	NOT IDENT.
PO-210	-3.465E+01	2.197E+01	1.891E+01	1.121E+01	NOT IDENT.
PB-211	-1.226E+00	2.157E+00	1.711E+00	1.101E+00	NOT IDENT.
BI-212	1.098E+00	6.292E-01	6.040E-01	3.210E-01	NOT IDENT.
BI-214	6.789E-01	2.521E-01	1.797E-01	1.286E-01	FAIL ABUN
PO-215	-1.677E+00	1.484E+00	1.219E+00	7.572E-01	FAIL ABUN
RN-219	-4.450E-01	8.956E-01	7.610E-01	4.570E-01	NOT IDENT.
RN-220	-3.601E+00	5.673E+01	4.837E+01	2.895E+01	NOT IDENT.
RA-223	-1.677E+00	1.484E+00	1.219E+00	7.572E-01	FAIL ABUN
RA-224	1.089E+01	2.124E+00	1.774E+00	1.084E+00	NOT IDENT.
RA-226	6.789E-01	2.521E-01	1.797E-01	1.286E-01	FAIL ABUN
AC-227	-3.024E-01	8.180E-01	7.261E-01	4.173E-01	NOT IDENT.
TH-227	-3.024E-01	8.184E-01	7.261E-01	4.176E-01	FAIL ABUN
TH-229	-1.975E-01	1.034E+00	8.913E-01	5.277E-01	FAIL ABUN
TH-230	6.789E-01	2.521E-01	1.797E-01	1.286E-01	FAIL ABUN
PA-231	-8.472E-01	3.232E+00	2.864E+00	1.649E+00	NOT IDENT.
TH-231	-1.677E+00	1.484E+00	1.219E+00	7.572E-01	FAIL ABUN
U-231	-2.051E-01	6.121E-01	4.747E-01	3.123E-01	FAIL ABUN
PA-233	3.199E-03	1.336E-01	1.193E-01	6.815E-02	NOT IDENT.
PA-234	4.369E-02	8.474E-01	7.292E-01	4.324E-01	FAIL ABUN
PA-234M	-7.107E+00	1.096E+01	8.942E+00	5.591E+00	NOT IDENT.
TH-234	-1.288E+00	3.654E+00	2.927E+00	1.864E+00	FAIL ABUN
U-234	6.789E-01	2.521E-01	1.797E-01	1.286E-01	FAIL ABUN
U-235	1.192E-02	3.962E-01	3.529E-01	2.021E-01	FAIL ABUN
NP-236	-2.456E-02	1.542E-01	1.346E-01	7.867E-02	NOT IDENT.
NP-237	6.101E+00	1.604E+00	7.338E-01	8.185E-01	NOT IDENT.
U-238	-1.288E+00	3.654E+00	2.927E+00	1.864E+00	FAIL ABUN
NP-239	-1.753E-01	4.173E-01	3.184E-01	2.129E-01	NOT IDENT.
AM-243	1.076E-01	1.426E-01	1.187E-01	7.275E-02	NOT IDENT.
CM-243	-1.238E-02	1.779E-01	1.599E-01	9.078E-02	NOT IDENT.
AM-246	1.592E-01	3.557E-01	3.114E-01	1.815E-01	NOT IDENT.
CM-247	-5.068E-02	7.962E-02	6.715E-02	4.062E-02	NOT IDENT.
CF-249	-3.752E-02	9.036E-02	7.761E-02	4.610E-02	NOT IDENT.
CF-251	5.182E-02	2.432E-01	2.147E-01	1.241E-01	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	330.0566
46.50	330.0566
46.50	330.0566
48.70	301.7119
49.72	293.6241
51.35	338.5363
52.39	406.3604
52.97	390.1215
53.15	390.2352
53.44	387.4851
54.07	383.7668
56.28	368.0945
56.28	368.0967
57.37	405.9017
57.53	406.0021
57.53	406.0033
57.60	406.0457
57.98	417.1380
57.98	417.1380
59.32	391.3809
59.32	391.3809
59.40	391.4286
59.54	391.5108
59.72	391.6177
60.01	391.7883
61.10	282.0027
61.14	282.0193
61.30	282.0867
63.00	274.9820
63.29	275.0980
63.29	275.0980
63.58	289.2878
64.28	273.9280
65.12	327.5438
65.20	327.5817
65.20	327.5817
66.05	320.5807
66.72	318.0797
66.83	306.3472
66.91	306.3823
67.20	306.5073
67.20	306.5073
67.75	301.8272
67.85	287.1212
68.90	266.8618
68.90	266.8618
69.30	269.9644
69.67	271.0892
70.82	369.2605
70.82	369.2605
70.83	369.2662
72.80	395.9900
72.87	380.1863
72.87	380.1863
74.67	368.3949
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.81	341.4634
74.97	341.5356
75.28	335.3180
75.70	335.5021
77.11	351.4514
77.11	351.4514

77.11	351.4514
77.11	351.4514
77.11	351.4514
77.11	351.4514
77.11	351.4514
78.38	331.8834
79.62	359.5770
79.80	391.6292
79.80	391.6292
80.11	391.7832
80.18	391.8176
80.30	407.8724
80.30	407.8724
80.57	408.0109
81.00	441.8510
81.07	441.8897
81.07	441.8897
81.07	441.8897
81.07	441.8897
82.60	417.0696
83.37	353.2407
83.78	353.4207
83.78	353.4207
83.78	353.4207
83.78	353.4207
84.21	342.3575
84.90	336.2120
85.43	338.0392
86.29	364.1753
86.50	396.5038
86.54	396.5219
86.59	396.5459
86.72	396.6089
86.79	396.6405
86.94	412.8406
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.30	413.0188
87.57	447.0446
87.88	339.0403
88.03	339.1018
88.36	339.2351
88.47	339.2800
89.95	339.8760
91.11	340.3400
92.29	340.8091
92.38	340.8450
92.38	340.8450
93.35	341.2269
94.00	341.4833
94.67	341.7435
94.67	341.7460
94.90	237.6572
94.90	237.6572
94.90	237.6572
94.90	237.6572
95.87	250.9568
95.87	250.9568
96.73	257.7269
97.43	254.6645
98.44	227.1688
98.44	227.1696
98.88	214.1999
99.55	237.2685
99.55	237.2685
99.86	238.7140
100.00	238.7513
100.10	238.7780
103.18	264.9120
103.76	264.0518
105.00	245.8862
105.31	249.0557
108.00	262.1545
109.28	272.8432

111.00	274.3680
111.00	274.3680
111.76	278.7290
112.95	266.6214
115.19	256.8340
116.30	280.3710
117.00	290.0131
117.00	290.0131
117.66	291.8732
121.11	259.4036
121.62	272.9285
121.78	257.4806
122.06	263.8336
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122.32	262.8528
122.32	262.8528
122.32	262.8528
123.07	256.5477
127.23	281.1484
129.76	257.3535
131.20	264.0400
133.02	271.8939
133.54	267.7914
135.34	280.9580
136.00	262.0323
136.25	267.3982
136.48	270.6379
140.51	272.6914
140.51	0.0000
142.18	277.3668
142.65	270.0112
143.76	272.4141
144.24	271.4602
144.24	271.4602
144.24	271.4602
144.24	271.4602
145.22	262.0677
145.44	266.3976
147.16	287.1586
152.43	261.5561
152.70	263.7686
153.22	255.2697
154.21	283.5108
154.21	283.5108
154.21	283.5108
154.21	283.5108
155.03	279.3925
156.02	260.1922
158.56	294.2855
159.00	0.0000
159.00	287.8974
160.31	273.0410
161.27	270.0052
162.32	269.1517
162.64	260.5371
163.35	255.2581
163.89	257.5444
165.85	264.4835
167.43	256.1025
171.28	237.2130
171.86	239.5095
172.10	238.4608
176.55	246.9761
176.60	242.5955
181.06	246.7346
184.41	217.3265
185.71	250.9224
186.00	250.9760
190.27	271.5190
192.34	238.1641
193.63	271.3018
197.04	300.9567
198.01	286.6682
198.60	265.5874
200.40	250.2876
201.83	248.3069
202.84	249.6041
205.31	289.2855

208.36	249.4536
208.81	258.5237
209.75	244.0704
209.75	244.0704
210.97	226.9415
215.65	267.4262
216.55	253.1262
218.09	259.7259
222.10	256.7986
223.80	262.5413
226.40	263.9046
227.00	271.2920
227.08	252.1894
227.20	252.2080
228.16	254.1907
228.18	254.1941
228.18	254.1941
231.56	245.3968
235.69	247.2006
236.00	247.2501
236.00	247.2501
238.63	243.0806
238.63	243.0806
238.63	243.0806
238.63	243.0806
239.00	243.1372
240.98	215.8847
241.98	225.2149
241.98	225.2149
241.98	225.2149
244.69	245.5518
245.39	213.4164
247.94	250.0498
248.90	222.5014
249.79	226.3199
252.40	216.5086
252.85	208.2390
252.85	208.2390
254.15	0.0000
256.20	242.9801
256.20	242.9801
260.50	196.1950
260.90	199.9615
262.80	216.9500
264.65	198.5486
268.24	208.3139
268.79	200.9064
269.46	196.3110
269.46	196.3110
269.46	196.3110
269.46	196.3110
271.23	220.8467
273.65	231.4690
276.40	241.2261
277.35	218.8186
277.60	204.7635
277.60	204.7635
278.00	204.8088
278.60	196.4222
279.20	204.0123
279.53	207.8107
280.46	209.8056
281.68	234.4314
283.67	209.2469
284.30	194.2365
285.00	199.0308
285.90	198.1901
286.10	209.5369
286.10	209.5369
287.40	214.4141
288.45	0.0000
290.67	175.0657
290.80	175.0793
291.72	160.9667
293.26	180.0593
293.70	199.0616
295.21	222.9459
295.21	222.9459

295.21	222.9459
295.96	235.6924
296.50	237.3474
297.23	250.1056
298.57	237.6190
299.80	218.7555
299.80	218.7555
300.09	204.5229
300.09	204.5229
300.09	204.5229
300.09	204.5229
300.12	204.5256
301.29	208.2264
302.84	227.6948
303.76	221.1392
303.91	221.1562
304.40	211.6805
304.40	211.6805
304.84	220.3157
306.84	204.3214
308.46	181.5669
311.98	176.1656
316.51	186.1898
318.01	178.6526
319.02	166.2549
319.41	154.7561
320.08	170.1940
323.87	222.5603
323.87	222.5603
323.87	222.5603
323.87	222.5603
325.23	212.1125
328.77	170.0037
333.44	195.2636
334.20	184.0393
334.20	184.0393
334.30	167.9040
338.28	192.1871
338.28	192.1871
338.28	192.1871
338.28	192.1871
338.32	192.1920
338.32	192.1920
338.32	192.1920
340.50	171.6720
340.57	171.6785
344.27	150.2101
345.85	169.8158
350.59	143.2417
351.07	148.1601
351.92	172.0039
351.92	172.0039
351.92	172.0039
355.39	0.0000
356.01	174.6348
364.48	180.9296
366.43	172.2400
367.43	177.2468
367.94	170.3961
369.80	175.4773
374.96	166.0251
383.85	161.7584
387.95	178.9695
388.63	186.9810
391.69	143.4217
391.69	143.4217
392.90	166.4231
398.62	124.8932
400.65	147.0090
401.10	160.0430
401.81	163.0955
402.60	163.1552
404.84	166.3262
410.95	168.7895
411.60	158.7888
413.65	162.9571
414.70	168.0641
415.30	166.0957

415.76	172.1710
417.63	0.0000
418.52	193.5492
423.70	165.6976
427.08	191.2379
427.89	193.3292
432.53	174.4461
433.93	197.8922
439.47	159.7061
439.56	159.7119
439.89	171.9418
443.98	175.2985
444.90	168.2287
445.03	168.2388
445.03	168.2388
445.03	168.2388
445.03	168.2388
453.90	180.1207
463.38	164.3887
468.07	193.5262
473.00	181.5365
475.06	174.4607
475.35	167.2543
476.78	169.4173
477.59	167.4046
477.96	170.5309
482.03	152.1751
484.57	134.7115
487.03	152.4766
490.36	127.7506
492.35	126.8118
497.08	122.8802
507.63	0.0000
510.53	0.0000
510.84	131.9116
511.00	131.9193
511.85	131.9616
511.85	131.9616
513.99	103.0705
513.99	103.0705
520.41	124.5868
520.65	120.8455
527.90	134.8719
528.96	0.0000
529.64	126.5273
529.87	0.0000
531.02	125.5369
537.32	131.1173
543.00	118.6773
546.56	0.0000
549.76	111.5343
552.65	109.5255
555.20	107.4974
563.23	98.2015
563.90	103.5622
568.70	101.6008
569.32	105.9029
569.50	100.5612
569.67	104.8452
573.80	134.9978
574.00	128.5781
574.64	114.3177
578.91	118.0674
579.30	116.2943
583.14	119.3169
585.48	109.3736
591.81	107.8174
592.07	112.1402
593.00	106.7827
595.88	109.0484
600.56	117.7547
602.52	0.0000
602.71	104.6152
602.71	104.6152
603.60	102.8417
604.41	104.6742
604.70	117.3206
609.31	94.0024

609.31	94.0024
609.31	94.0024
609.31	94.0024
610.33	104.8866
612.46	106.7719
614.37	101.4066
618.01	100.0814
621.84	98.0310
621.84	98.0310
631.29	88.5048
633.02	80.9014
633.10	83.0897
634.78	95.1690
635.90	107.2425
636.97	100.7104
645.85	117.4727
646.12	111.9908
656.30	111.7324
657.75	116.5077
657.90	0.0000
661.65	99.3120
661.65	99.3120
664.57	83.6258
666.33	83.6721
666.33	83.6721
675.00	77.5691
677.61	95.1941
685.20	83.3771
692.80	104.0020
695.00	88.2759
696.49	79.0200
696.49	79.0200
697.00	92.0491
697.49	95.7830
698.33	91.1572
698.50	89.3008
699.00	91.1752
702.63	88.4827
706.10	95.1041
706.58	0.0000
706.67	91.3905
709.31	71.8632
711.68	78.4526
713.82	90.6533
717.42	82.3317
720.50	88.0275
721.93	119.9193
722.20	128.3595
722.78	125.5705
722.78	125.5705
722.89	125.5759
722.95	125.5787
723.30	128.4013
724.18	100.3125
727.18	72.2517
733.00	104.3358
735.90	75.2620
739.58	86.6449
742.81	86.7273
744.21	88.6490
747.13	96.2766
751.79	96.4073
752.31	87.9141
753.82	81.3319
755.35	83.2609
756.15	81.3879
756.87	79.5105
763.93	88.2092
765.79	72.1236
766.42	65.4933
766.84	68.3481
776.49	78.0562
778.00	80.9465
778.57	78.1029
778.89	82.8723
783.80	94.4339
785.46	95.4325
792.07	104.2166

795.84	89.0115
796.30	85.1957
798.80	113.9908
801.93	82.4517
805.60	92.1328
810.29	88.4100
810.76	90.3434
815.85	117.4181
817.79	129.9985
818.51	106.9102
819.60	89.5999
826.30	121.6139
828.27	92.7090
831.60	94.7262
831.96	90.8674
834.83	96.7428
836.80	0.0000
846.75	106.7594
848.13	100.0013
856.28	0.0000
856.80	126.5088
860.37	84.7432
867.32	98.5609
867.82	99.5492
871.10	111.3560
873.19	84.0509
874.81	80.1766
875.33	0.0000
876.40	103.6860
879.36	108.6604
880.27	107.7061
880.51	102.8168
881.50	90.1095
883.24	92.1105
884.67	99.0068
889.25	112.8639
896.60	117.0099
898.02	114.1025
899.00	107.2437
903.28	109.0028
911.07	127.3124
911.07	127.3124
911.07	127.3124
919.63	125.8077
920.93	130.5981
925.00	121.8188
925.24	133.7119
926.50	121.8639
935.52	120.1532
937.48	104.3143
944.10	121.4031
946.00	119.4678
949.00	111.5876
962.29	131.9409
964.01	142.2828
966.15	142.3552
968.20	166.4515
969.11	130.1587
969.11	130.1587
969.11	130.1587
977.42	118.1969
980.50	93.3690
983.50	95.4445
989.30	92.5596
996.32	94.7306
1001.03	91.8091
1001.68	93.8420
1004.76	85.8318
1021.30	0.0000
1024.50	0.0000
1034.80	109.8237
1036.00	102.7343
1037.82	98.7051
1038.57	96.6892
1038.76	0.0000
1045.16	106.0101
1046.59	104.0046
1048.07	86.6982

1050.47	89.8083
1050.47	89.8083
1062.04	86.9749
1063.62	74.7228
1076.63	112.9273
1077.35	101.6506
1078.86	81.1409
1085.78	99.7826
1099.22	78.4152
1112.02	98.2935
1112.84	102.4523
1115.52	97.3353
1120.29	66.3385
1120.29	66.3385
1120.29	66.3385
1120.29	66.3385
1120.51	69.4509
1121.28	69.4645
1124.00	0.0000
1129.67	52.9714
1131.51	0.0000
1147.95	0.0000
1167.94	61.0368
1173.22	68.1421
1175.09	52.1377
1177.93	34.1804
1189.05	41.0217
1204.90	36.9354
1205.75	33.7747
1213.00	30.6544
1221.42	25.4131
1230.97	29.7056
1235.34	31.8555
1236.41	0.0000
1238.25	23.3750
1246.25	17.0273
1260.41	0.0000
1271.85	21.3932
1274.45	16.0529
1274.54	16.0535
1291.56	19.3286
1298.22	0.0000
1312.09	25.8740
1325.50	20.3825
1325.50	20.3825
1332.49	16.2354
1333.61	16.2384
1360.21	10.2588
1362.66	0.0000
1365.15	16.8028
1368.21	14.9442
1368.53	0.0000
1376.25	18.7081
1384.27	14.9888
1394.10	11.2621
1395.20	13.1421
1407.95	10.3501
1434.06	13.2354
1436.60	9.4584
1457.56	0.0000
1460.81	10.4495
1489.15	14.3209
1509.49	16.2879
1596.49	12.6414
1620.62	10.7395
1678.03	0.0000
1691.02	12.8377
1691.02	12.8377
1706.46	0.0000
1750.46	0.0000
1764.49	9.9895
1764.49	9.9895
1764.49	9.9895
1764.49	9.9895
1770.23	27.9951
1771.40	16.0000
1791.20	0.0000
1808.65	6.0341

1836.01 4.0393

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032512

Total Uranium Activity	-3.8251E+00	ug/g
Total Uranium Counting Unc.	1.0872E+01	ug/g
Total Uranium Tpu	5.5470E-06	ug/g
Total Uranium Mda	8.7106E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948717                    SAMPLE ID   : G1202032512     *
*   ANALYST       : MXR1                      DETECTOR    : GAM15           *
*   SAMPLE DATE   :  5-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 16:33:11.71    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.676E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 3.058E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.610E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.754E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

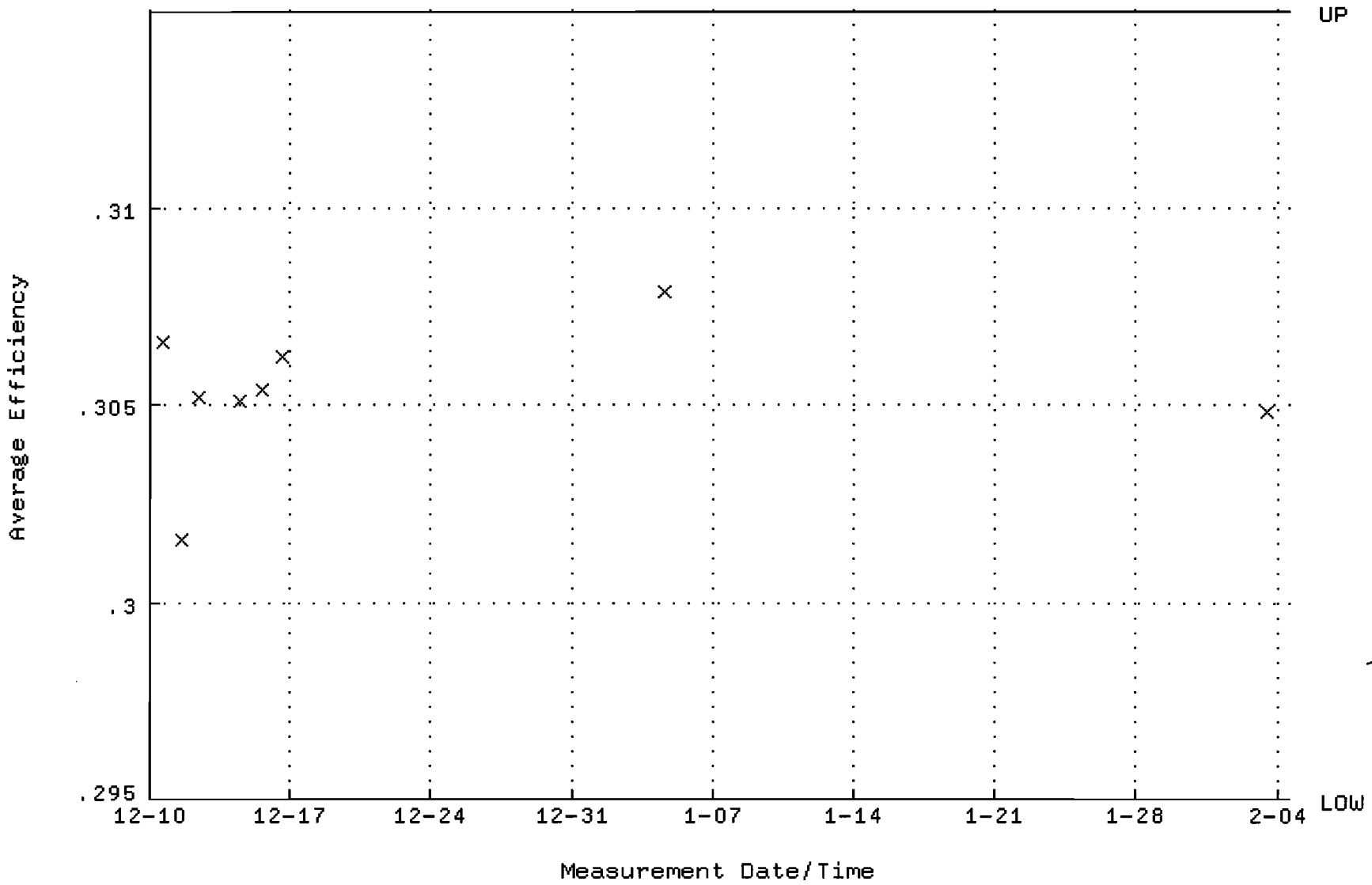

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

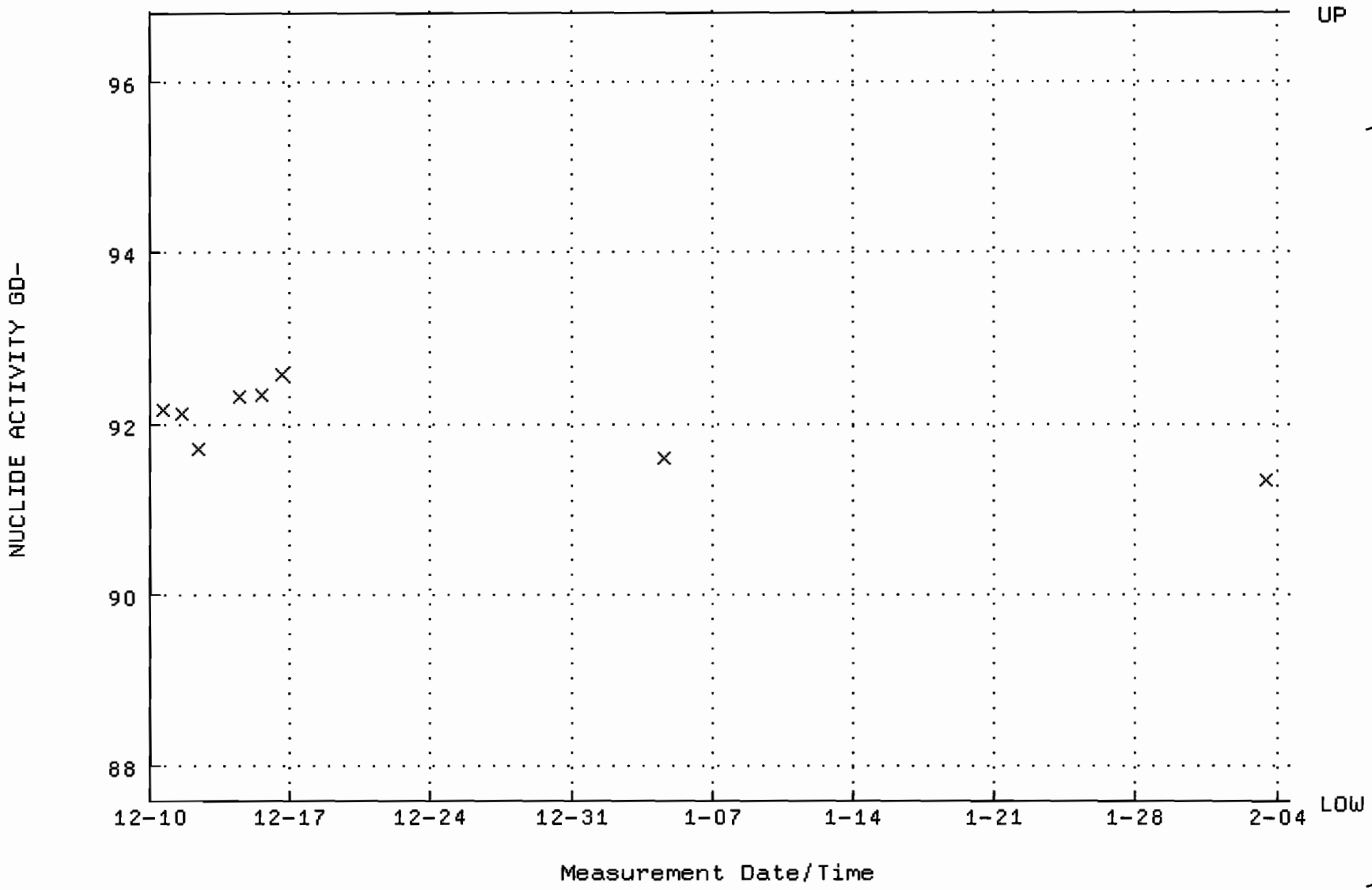

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

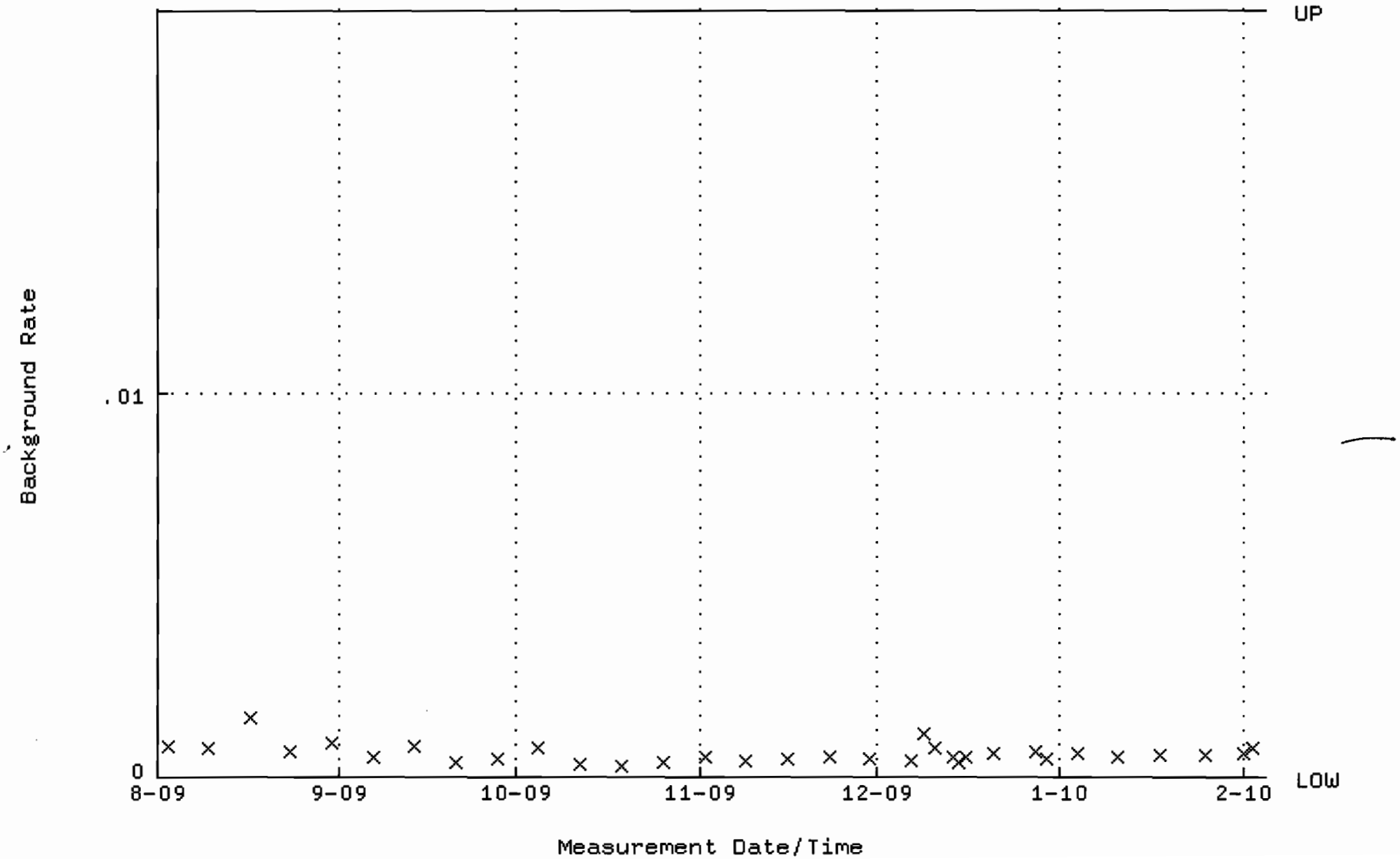

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

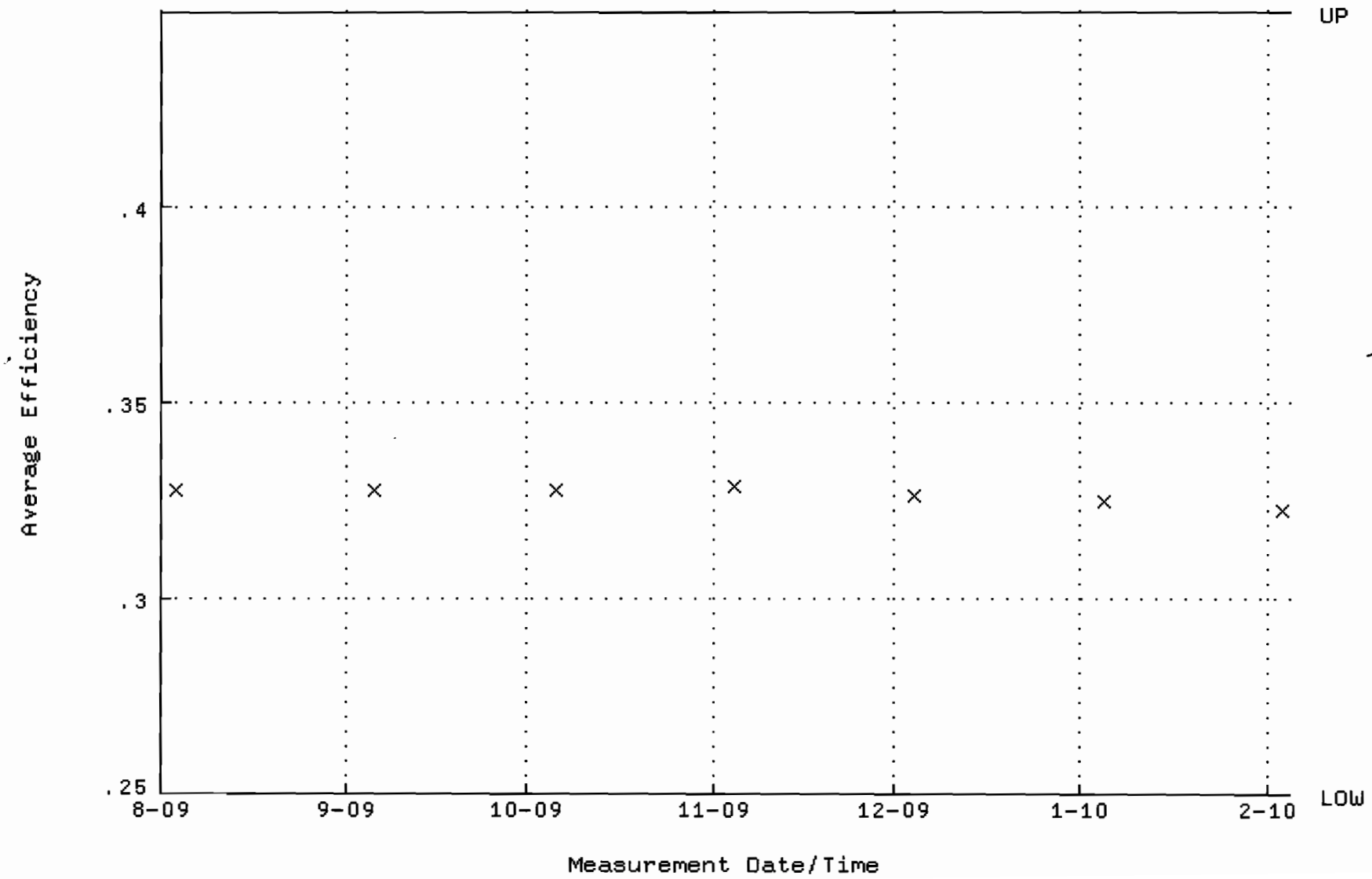

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

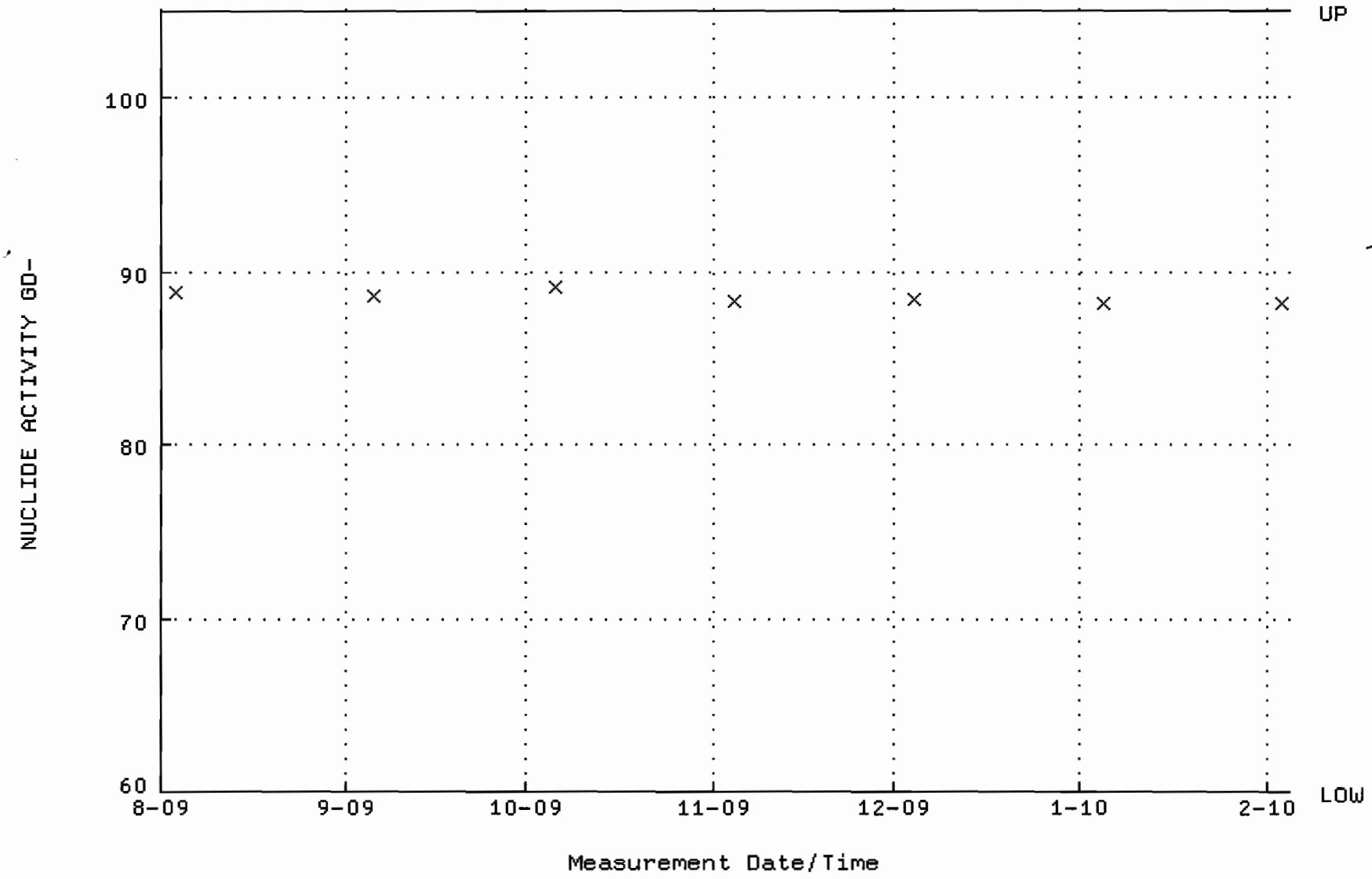

QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

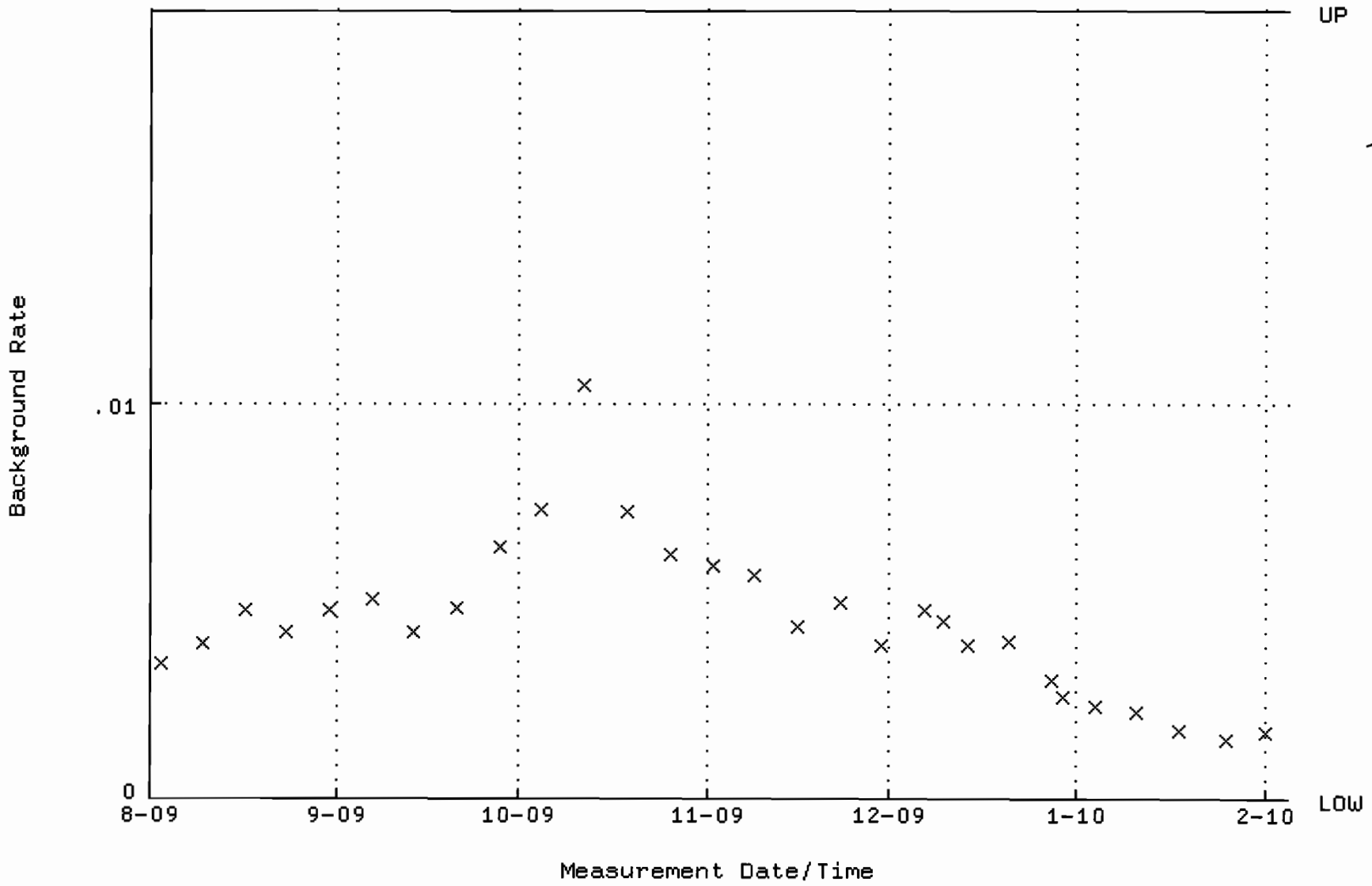

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.307728 through 0.327728

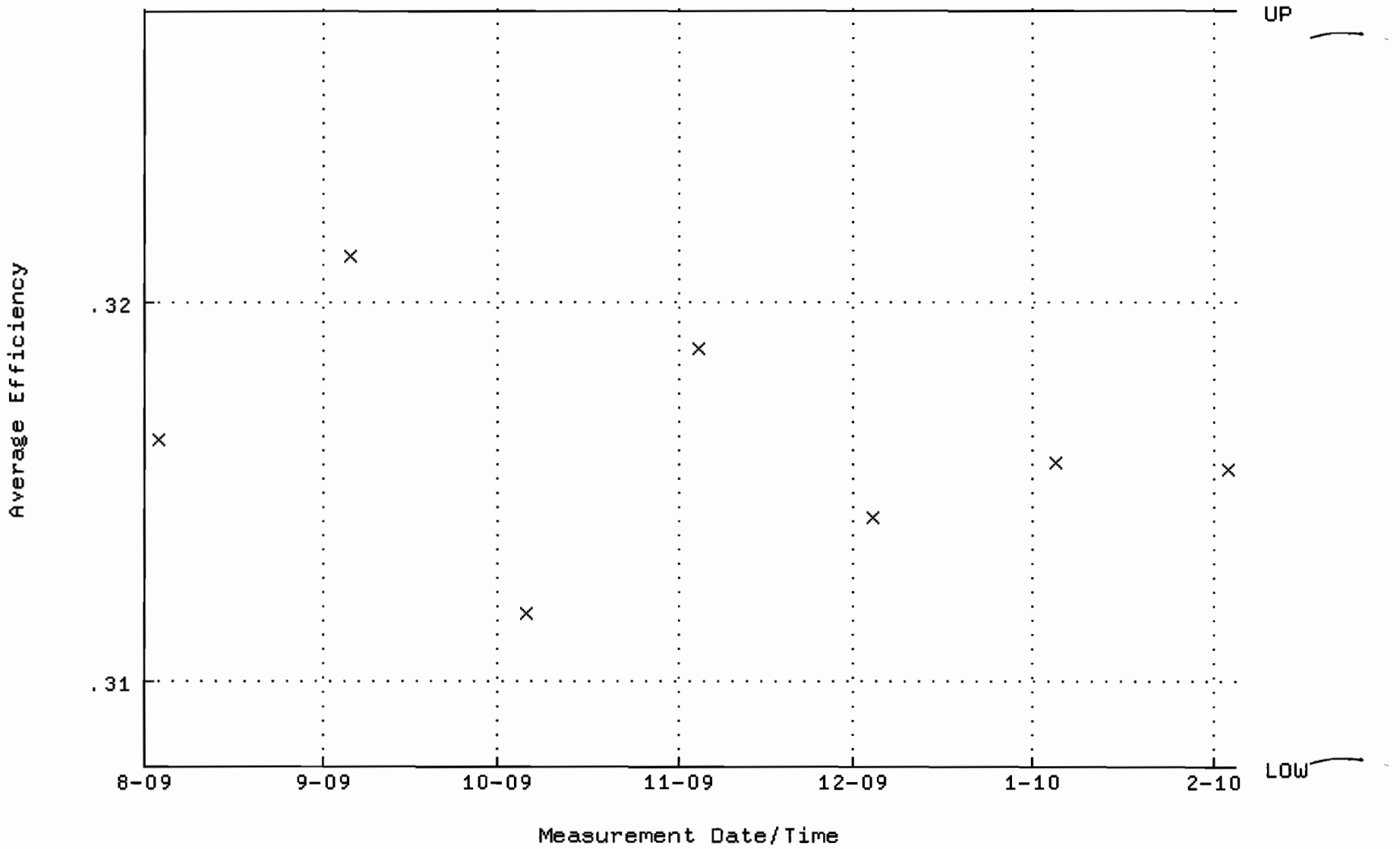

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8763 through 94.9159

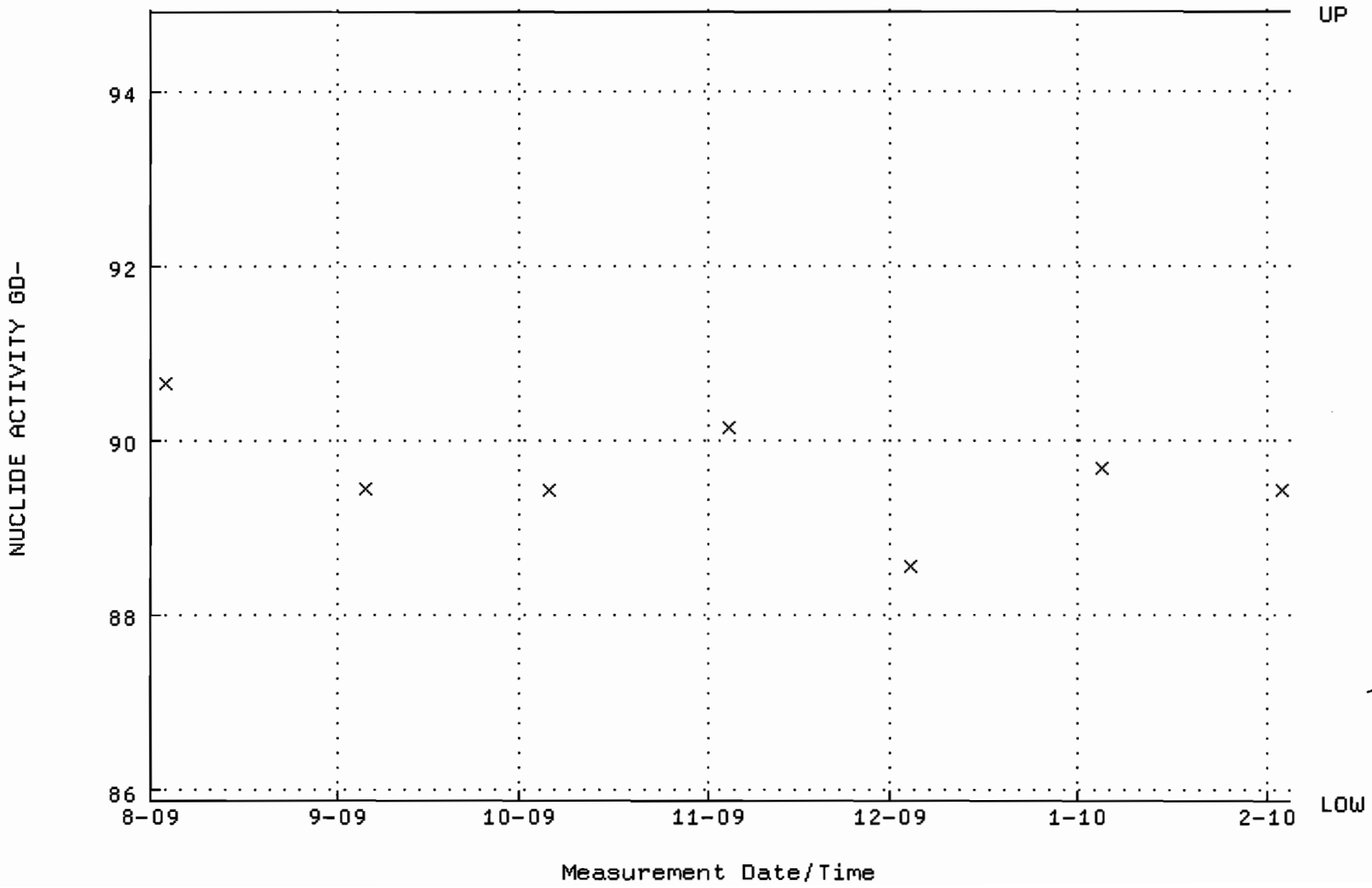

QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

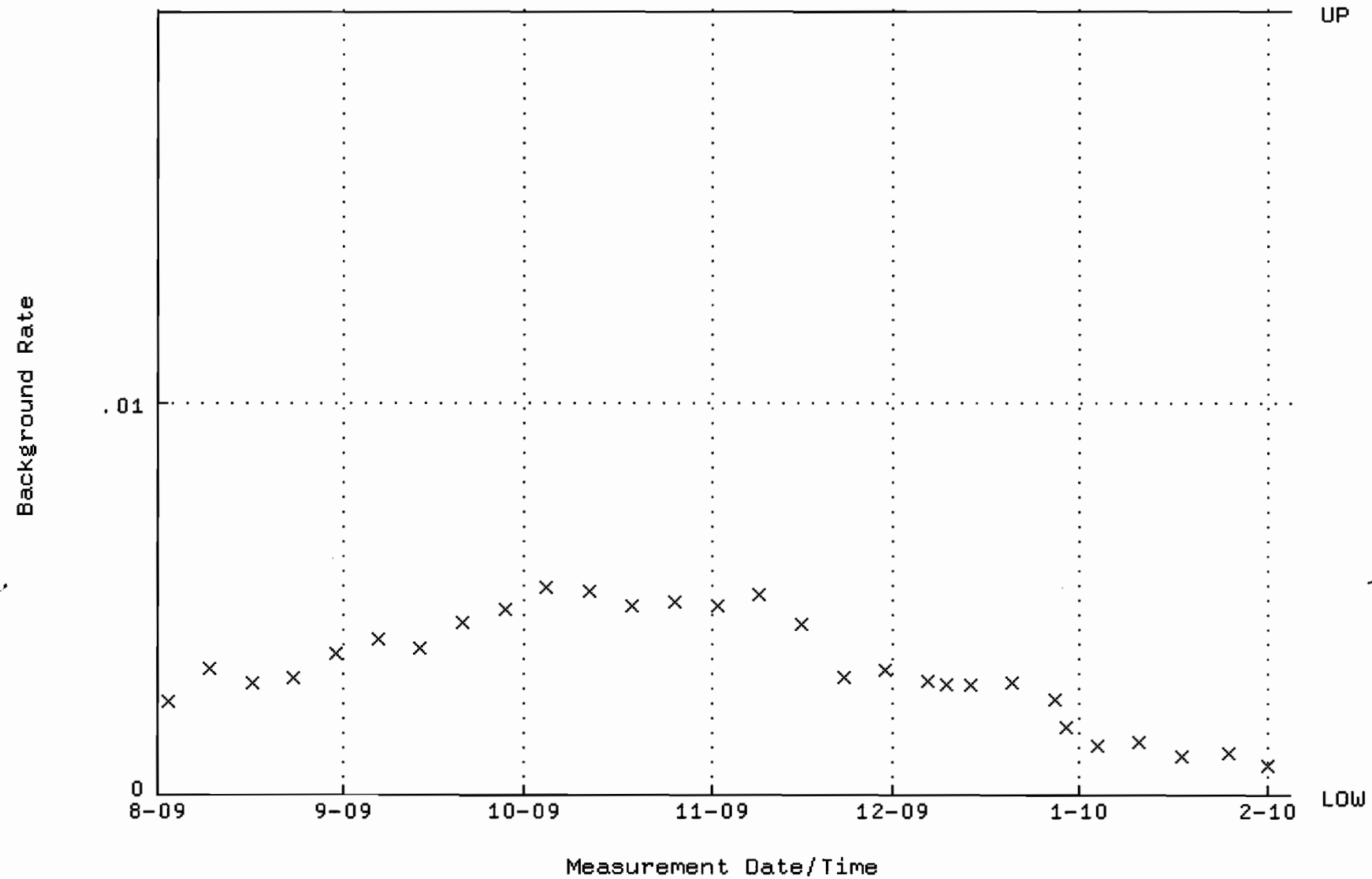

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980

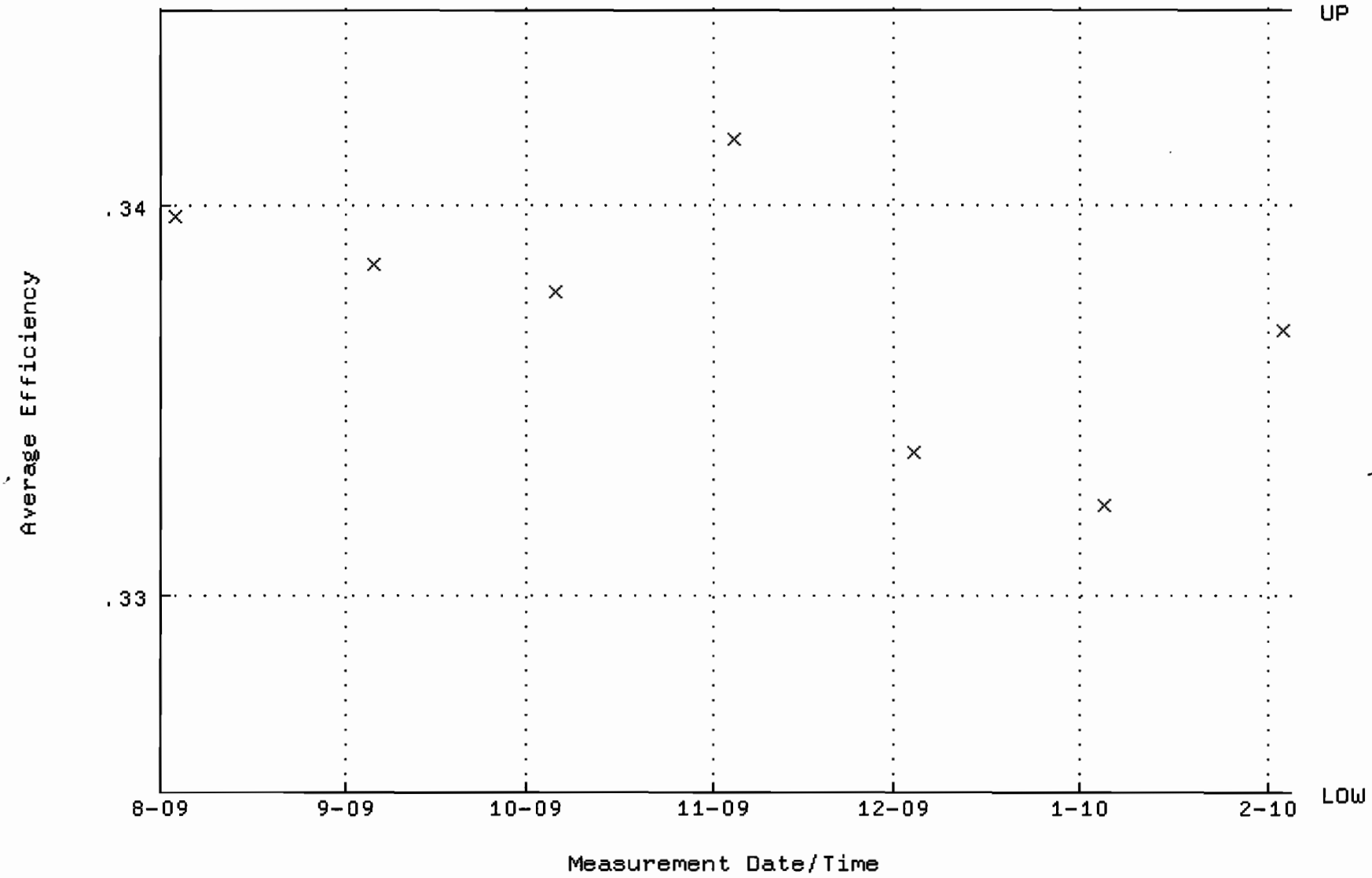

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506

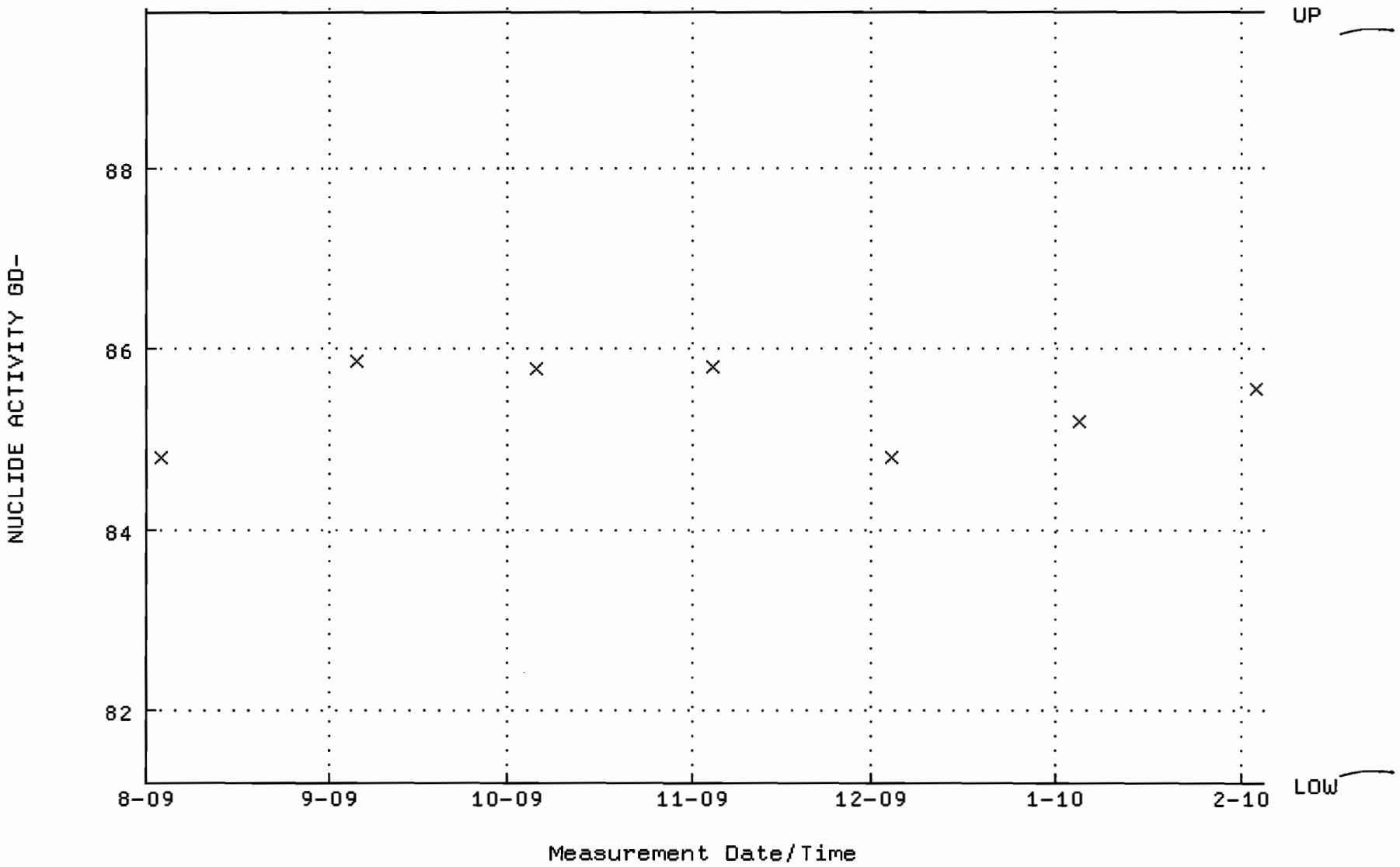

QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

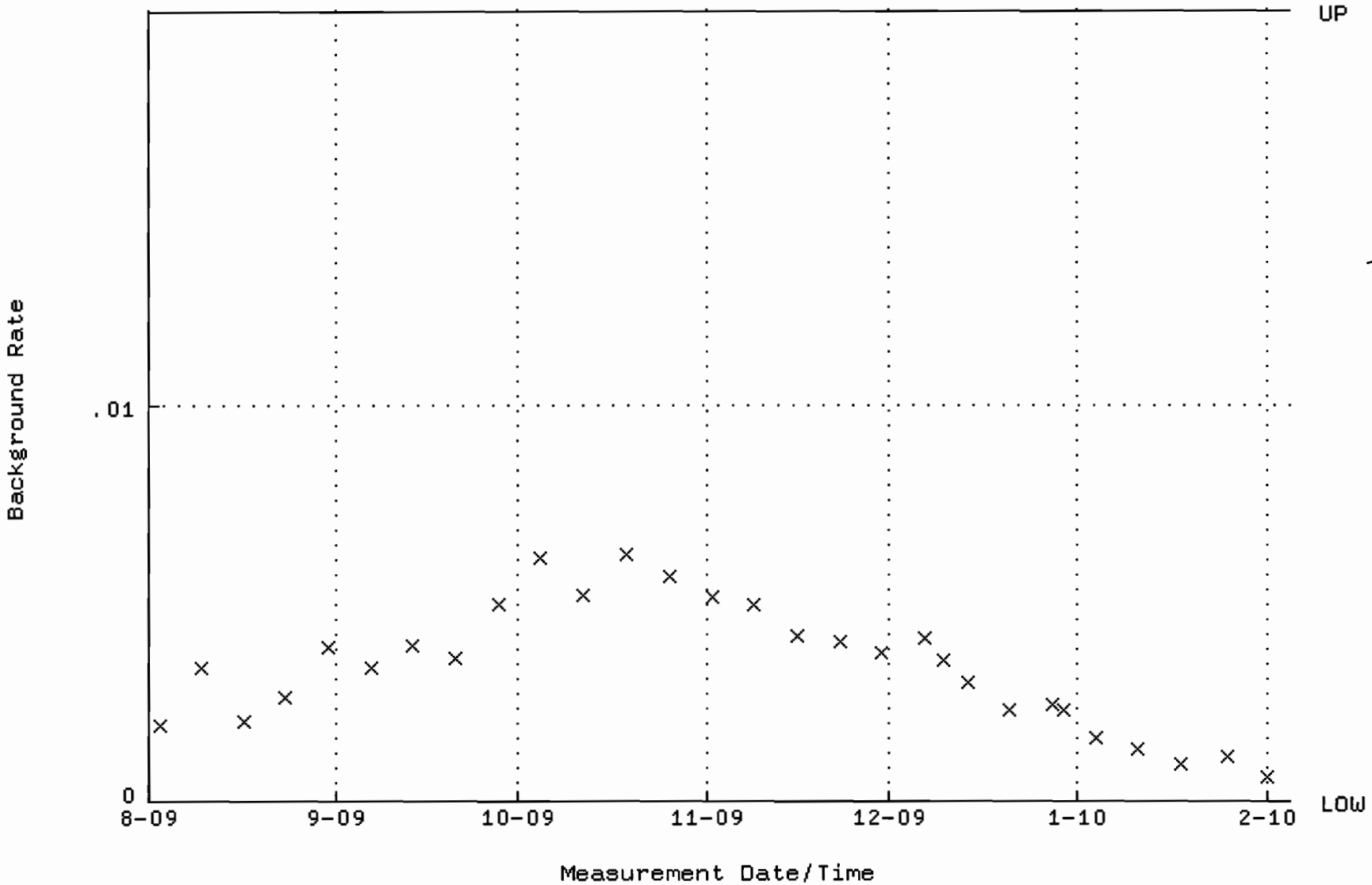

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295040 through 0.315040

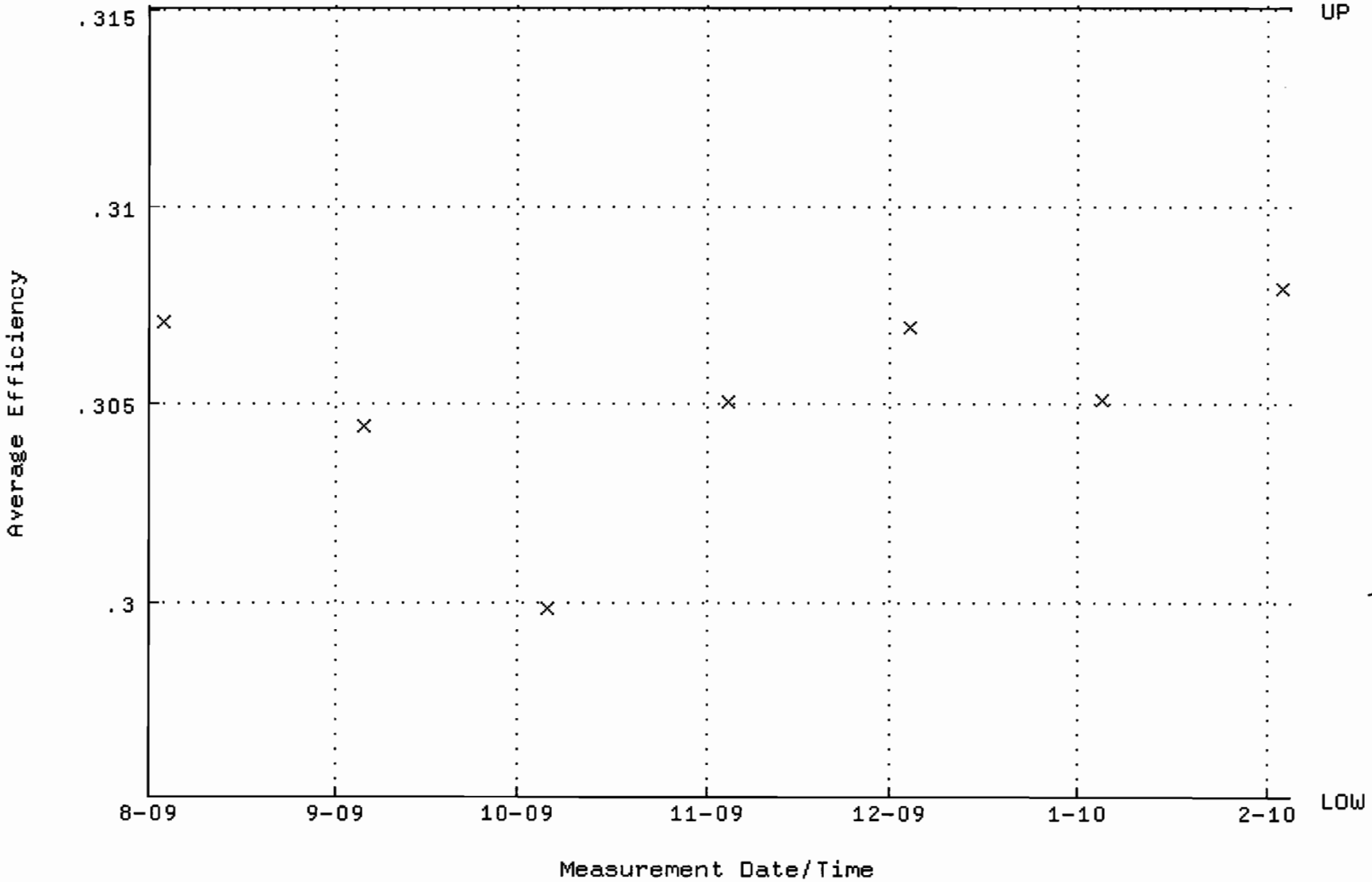

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.1965 through 94.1645

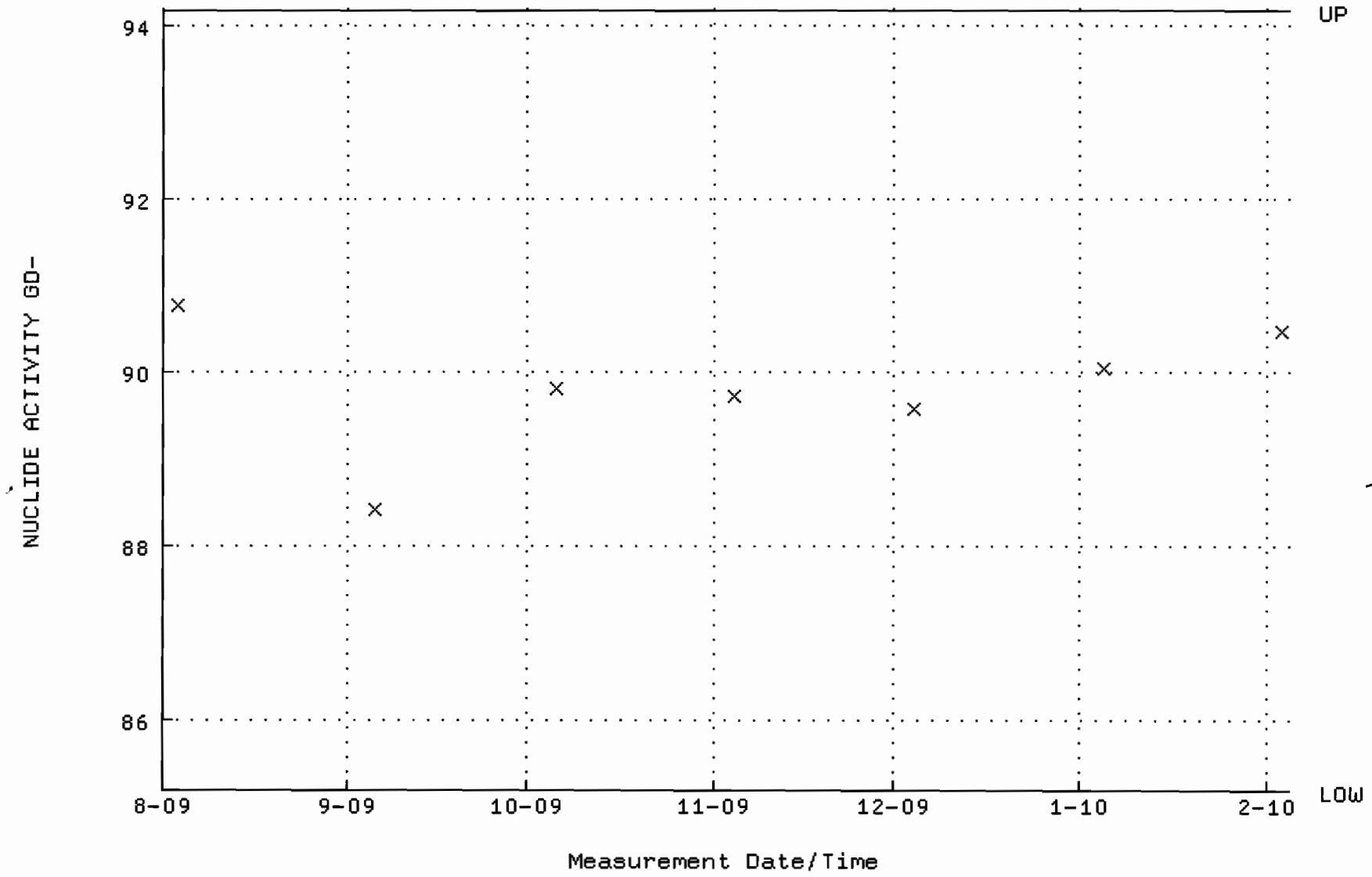

QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

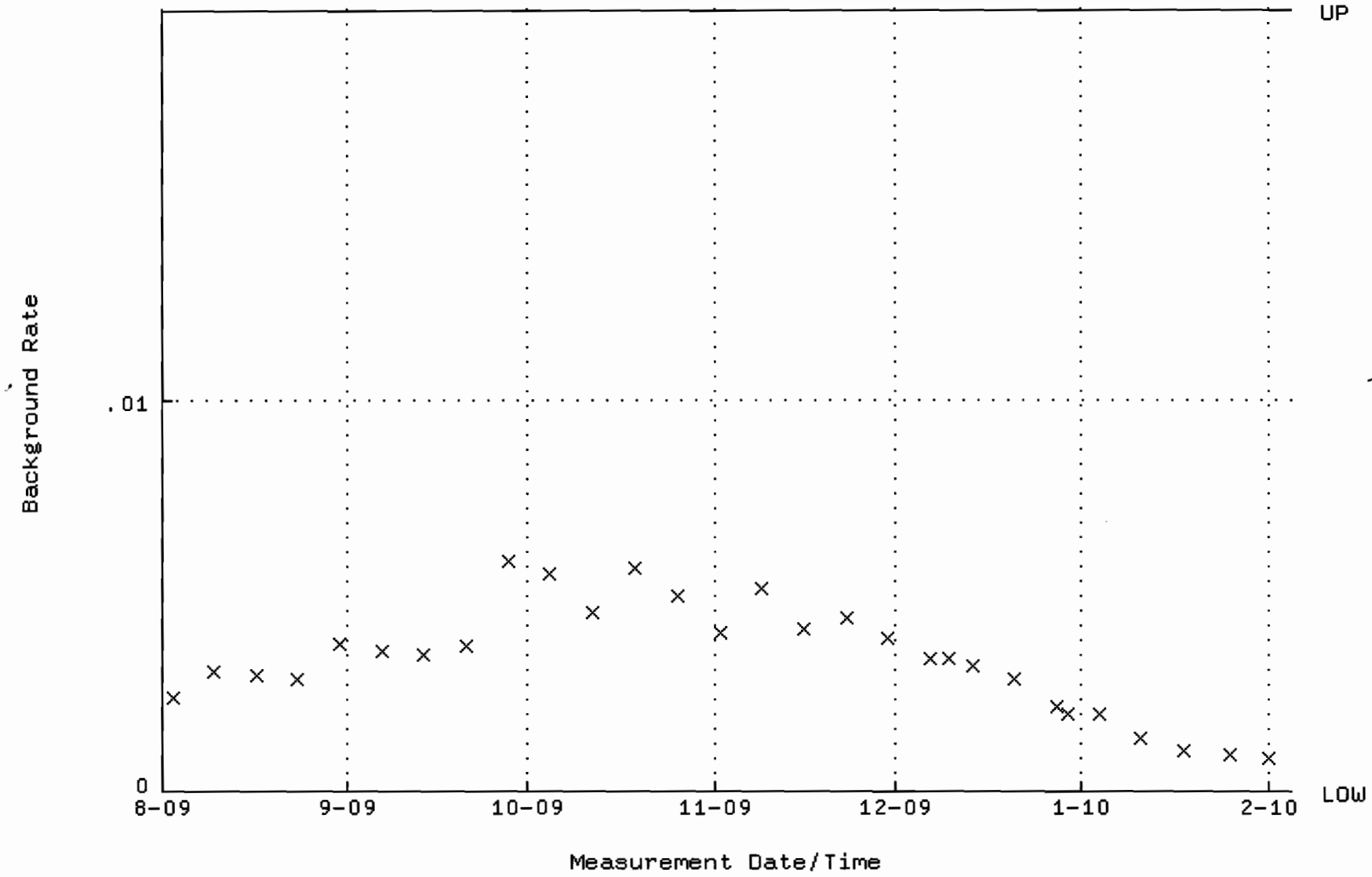

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.311357 through 0.331357

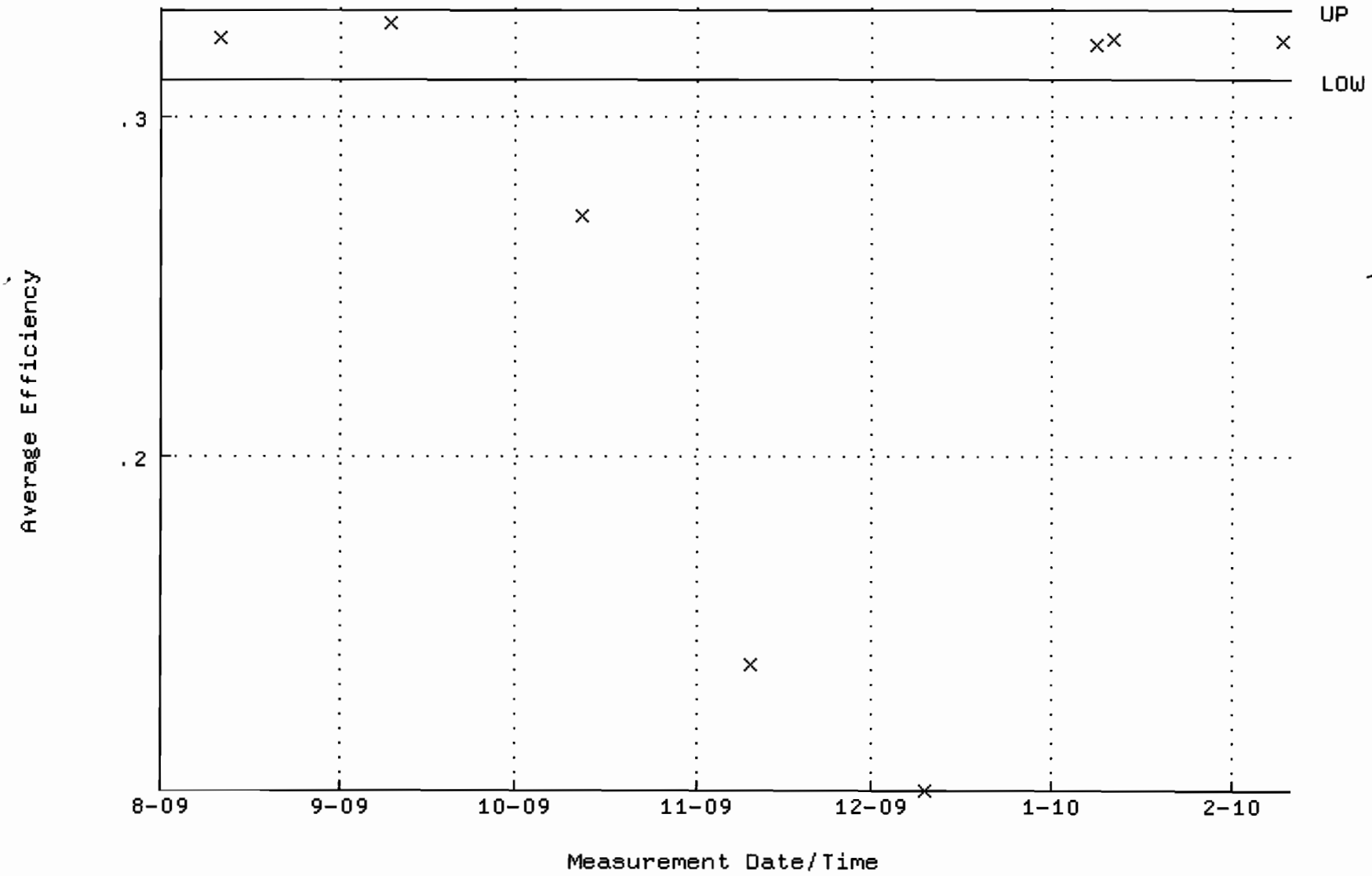

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.9094 through 96.0578

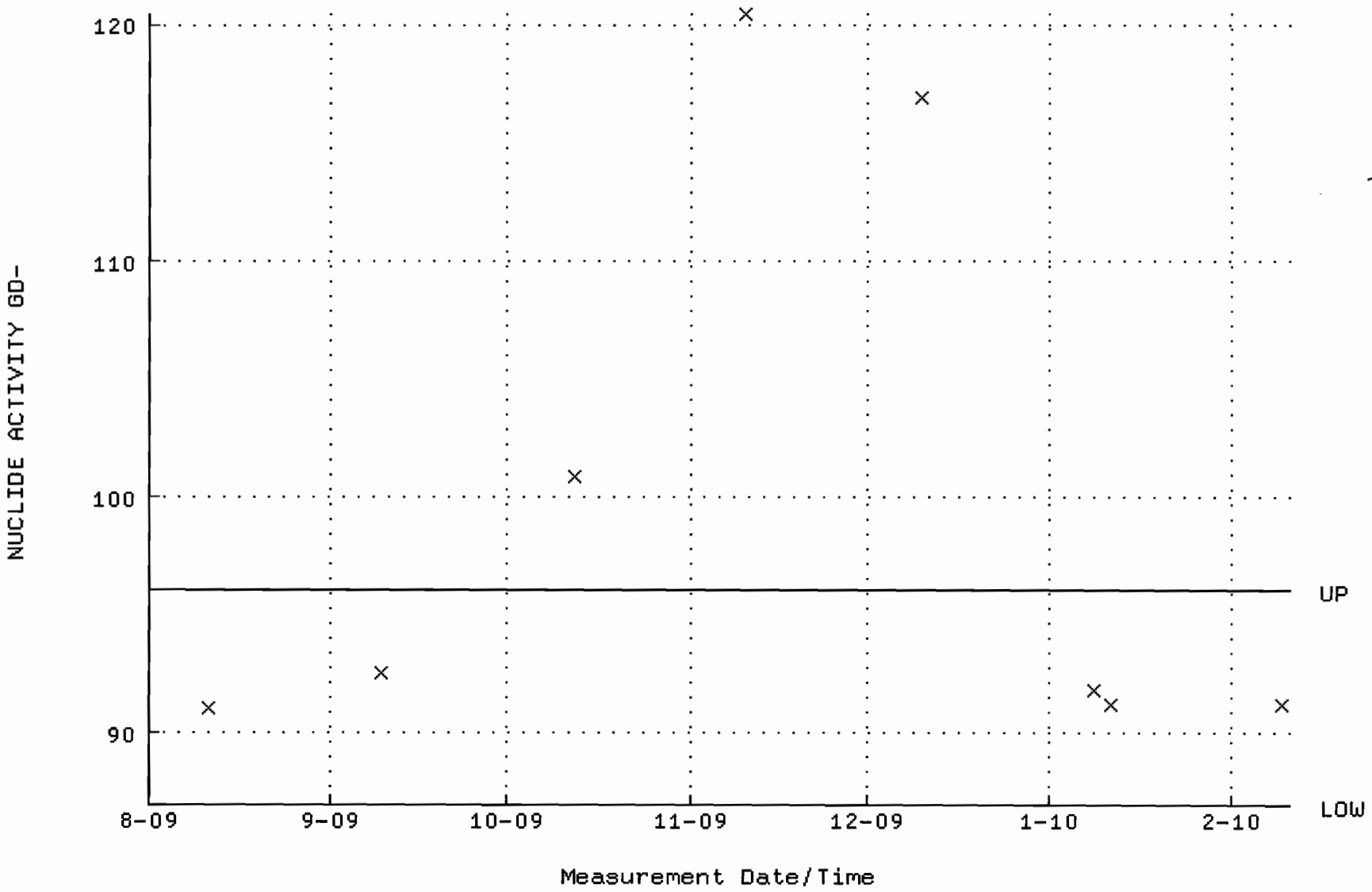

QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

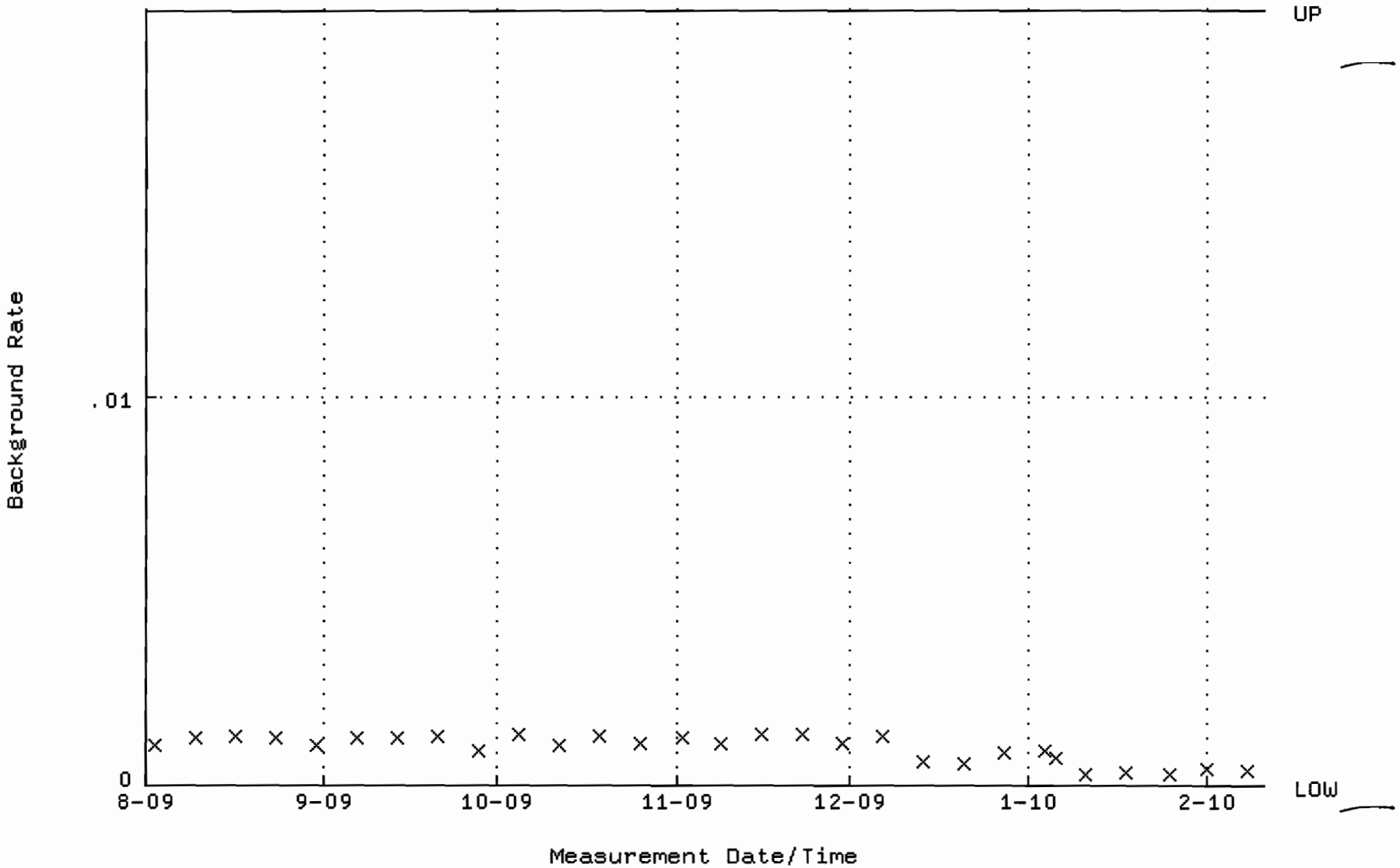

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686

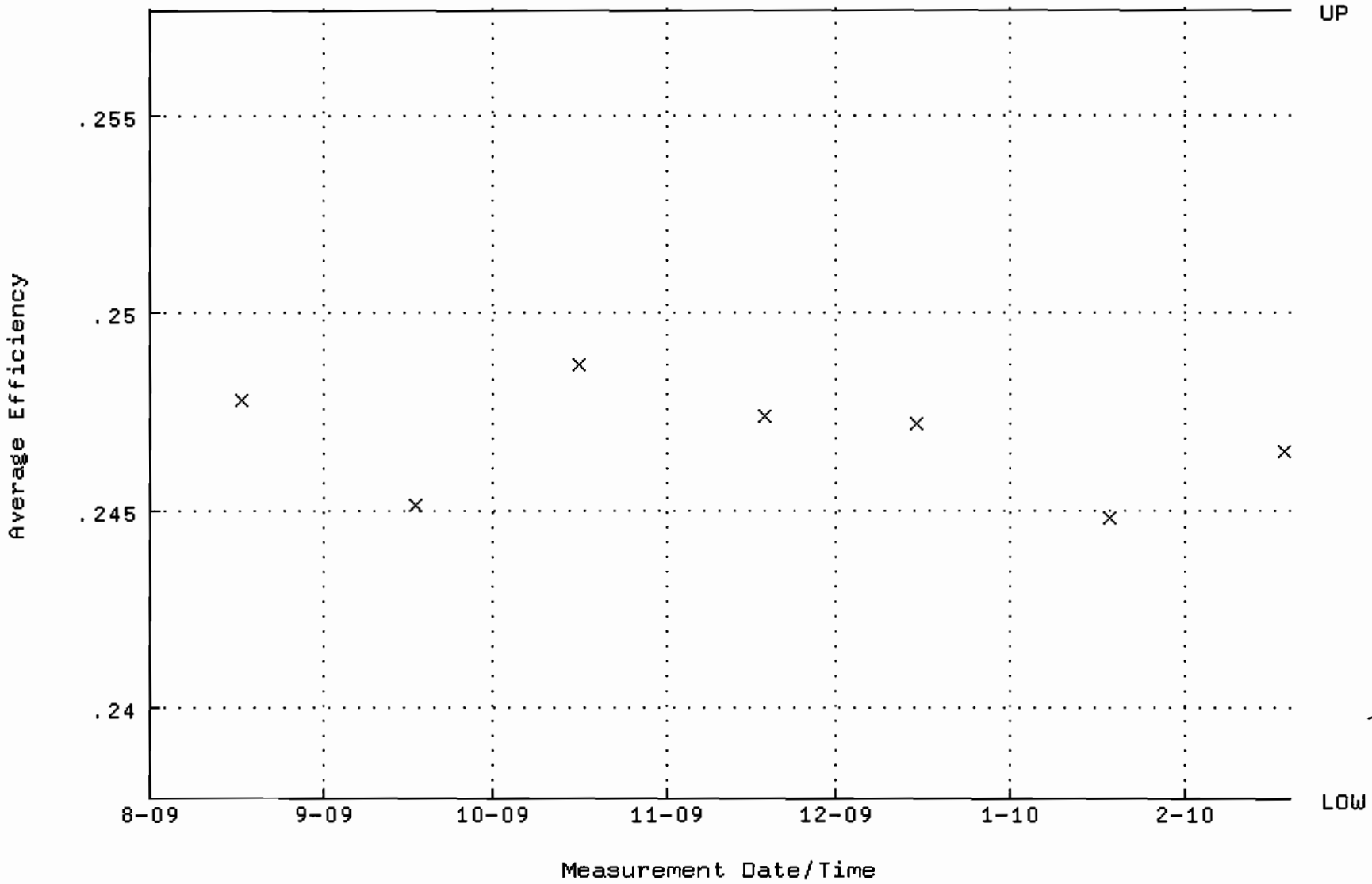

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395

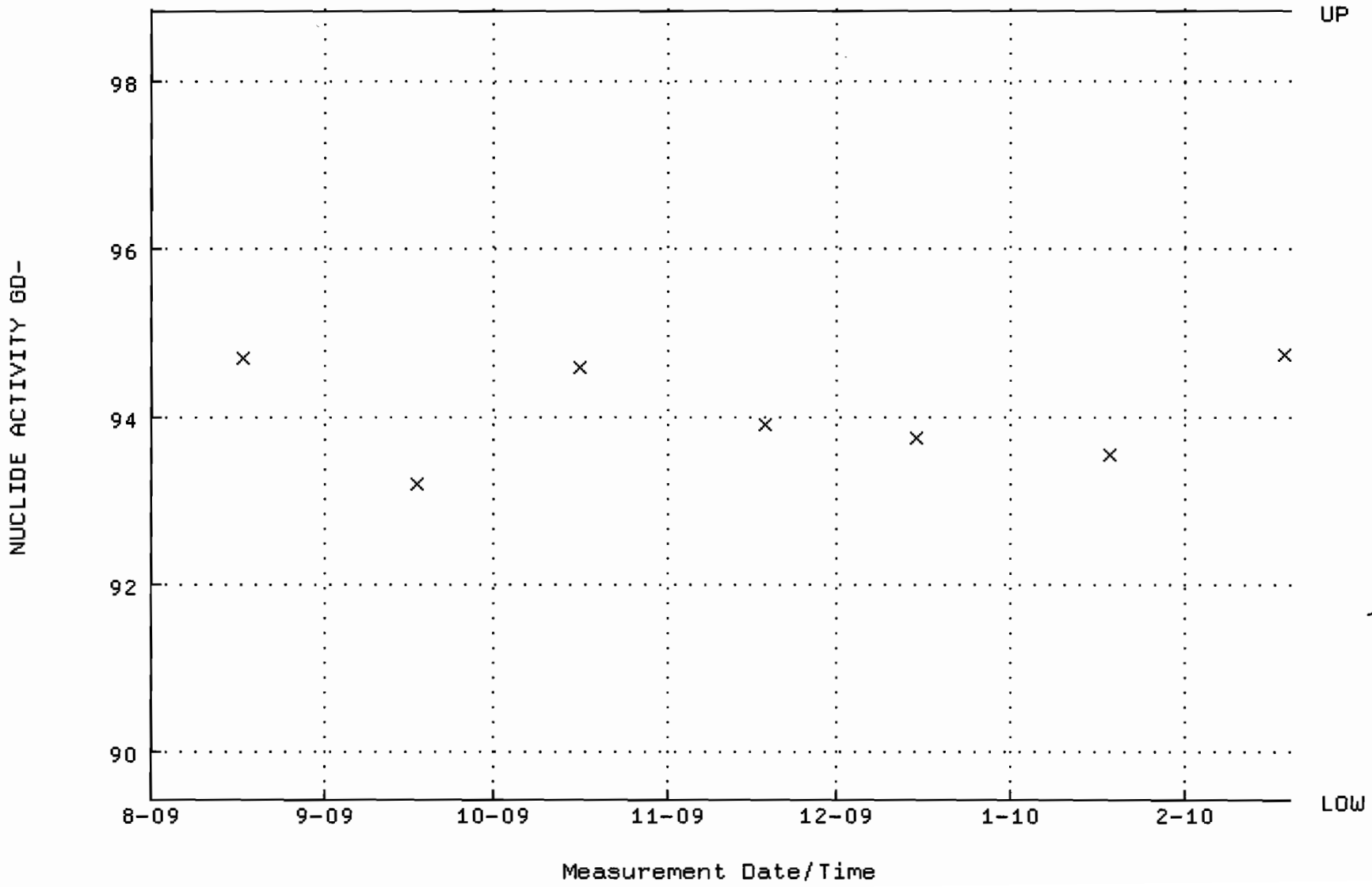

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:33 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

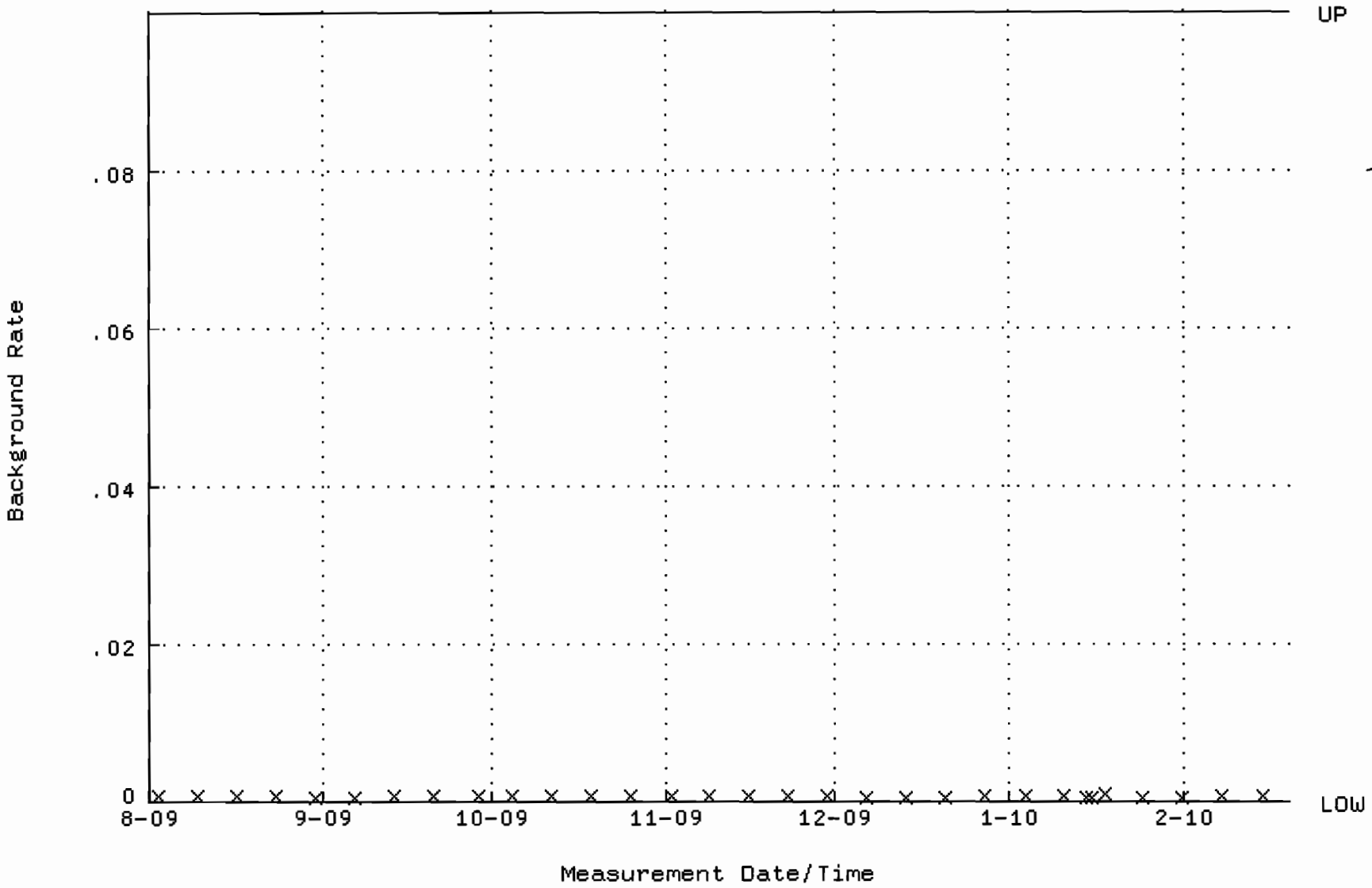

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242659 through 0.262659

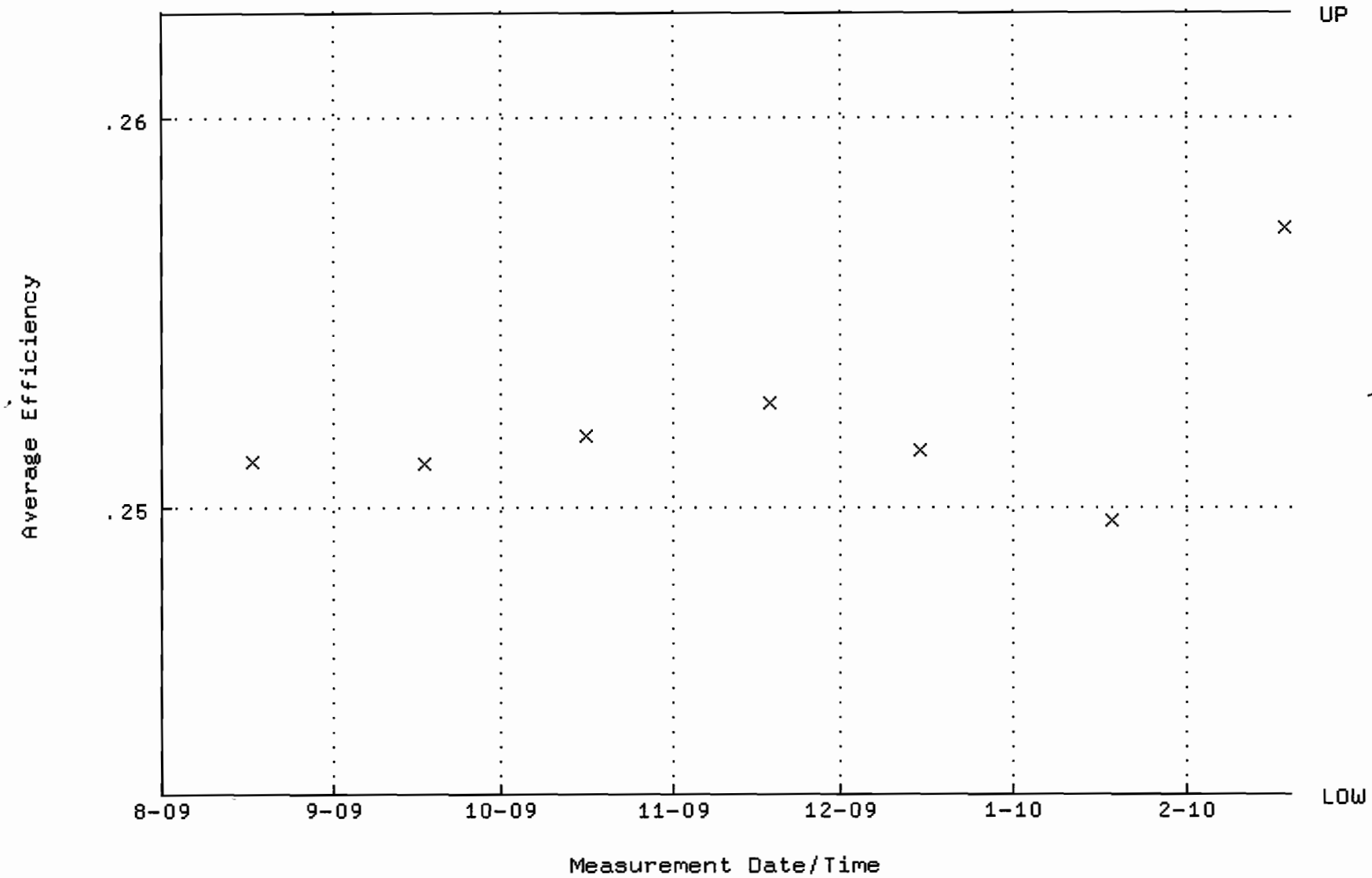

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.5949 through 100.131

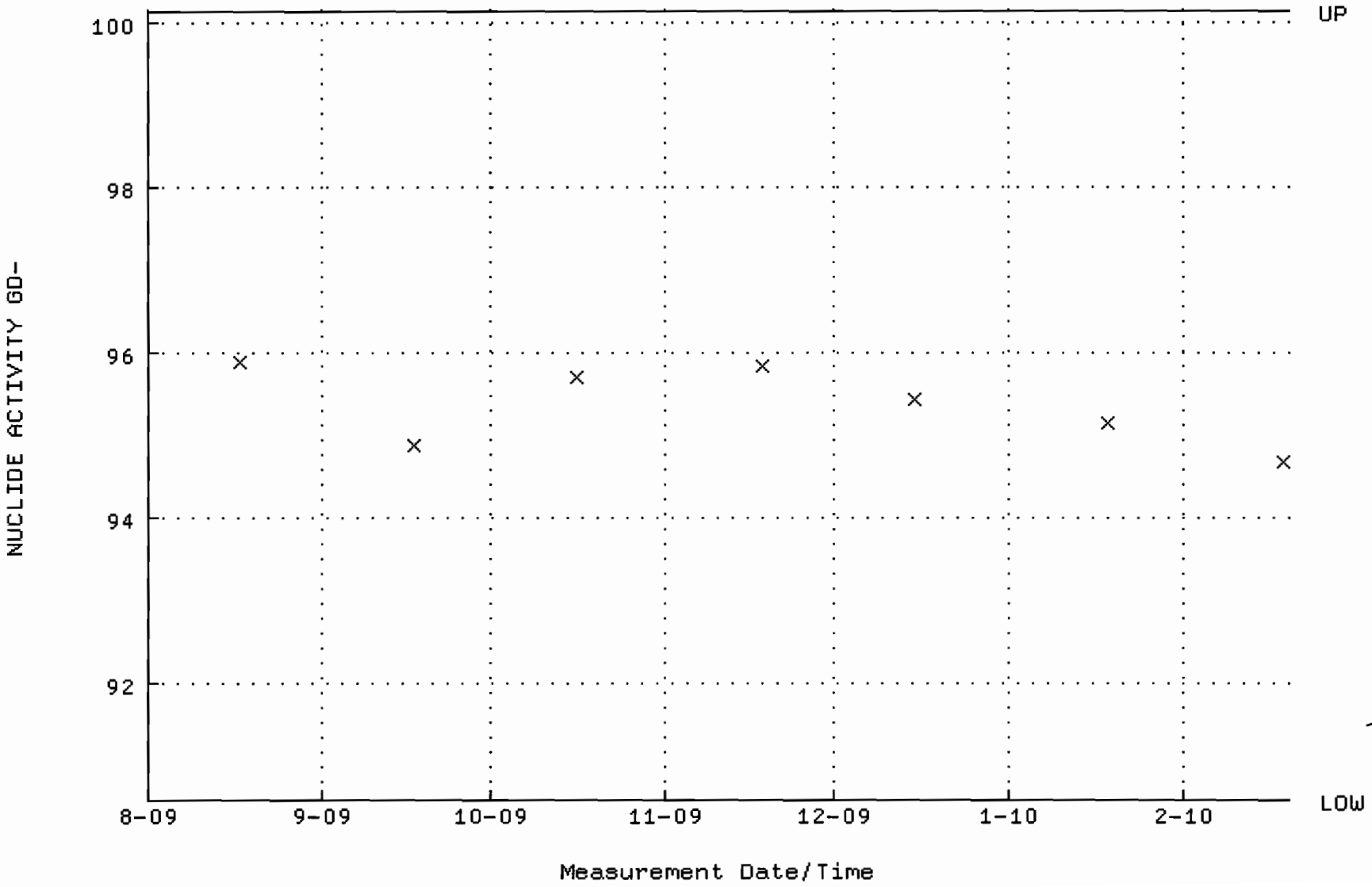

QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:37 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

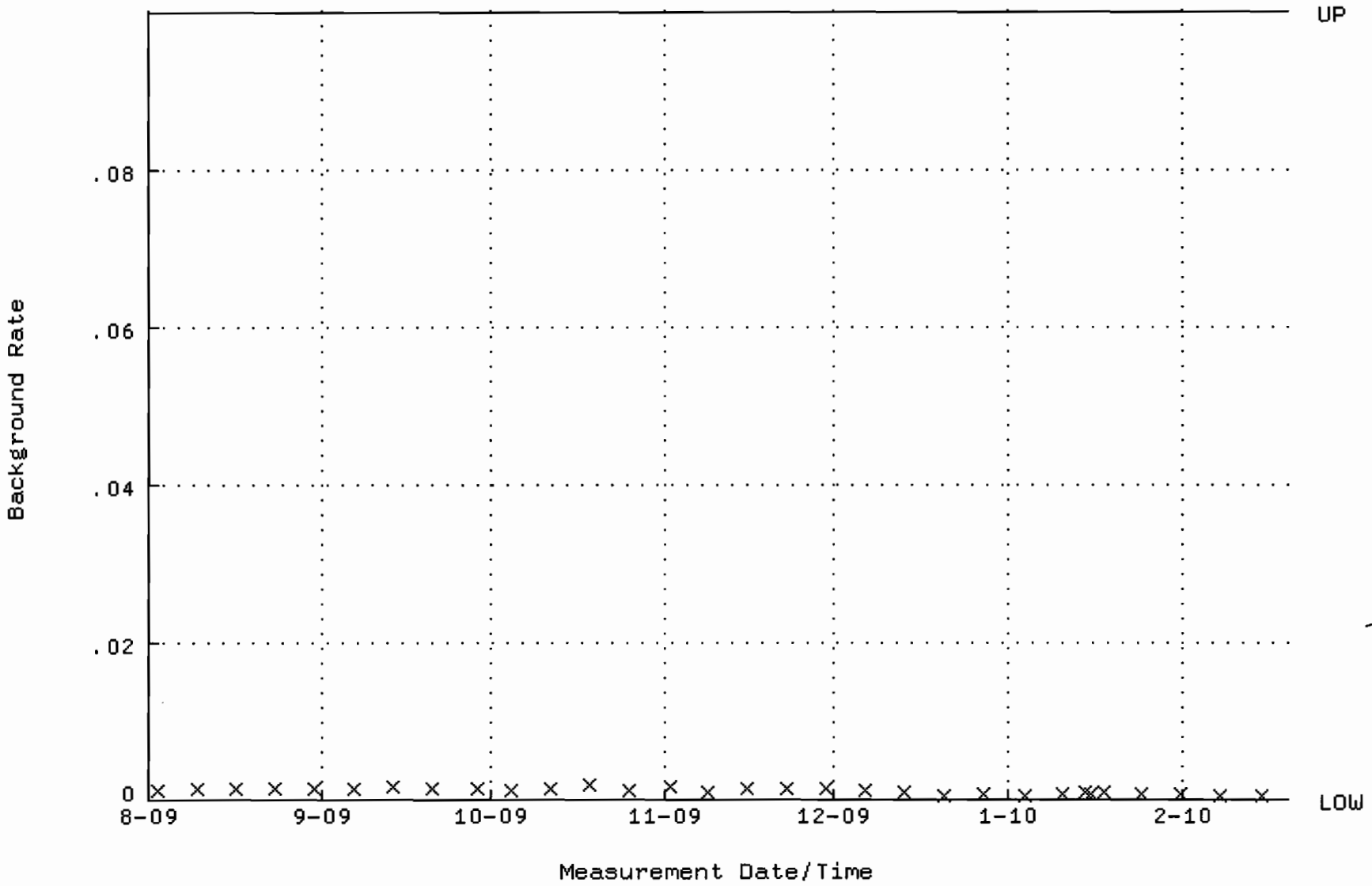

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.249752 through 0.269752

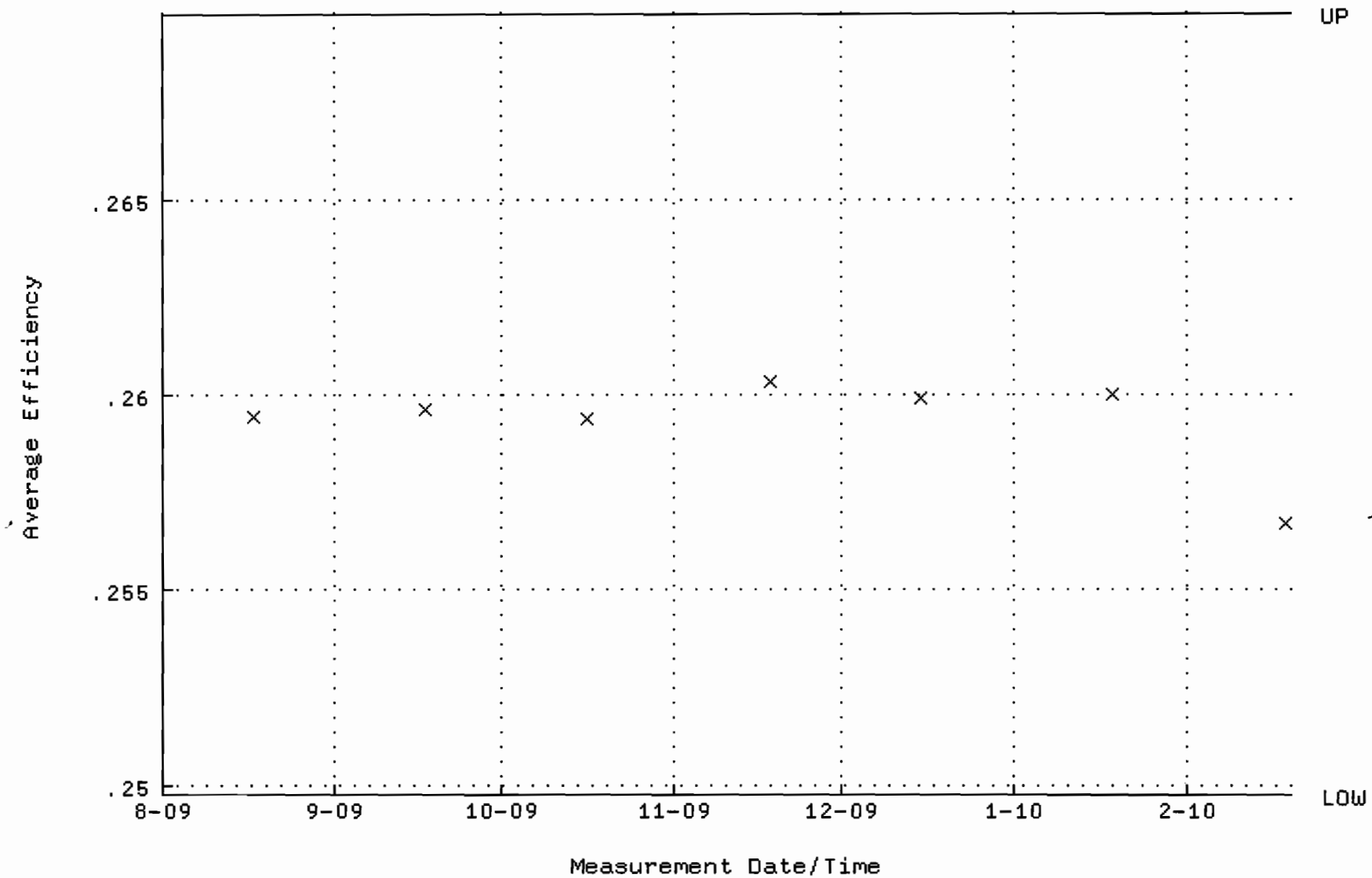

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0496 through 95.1074

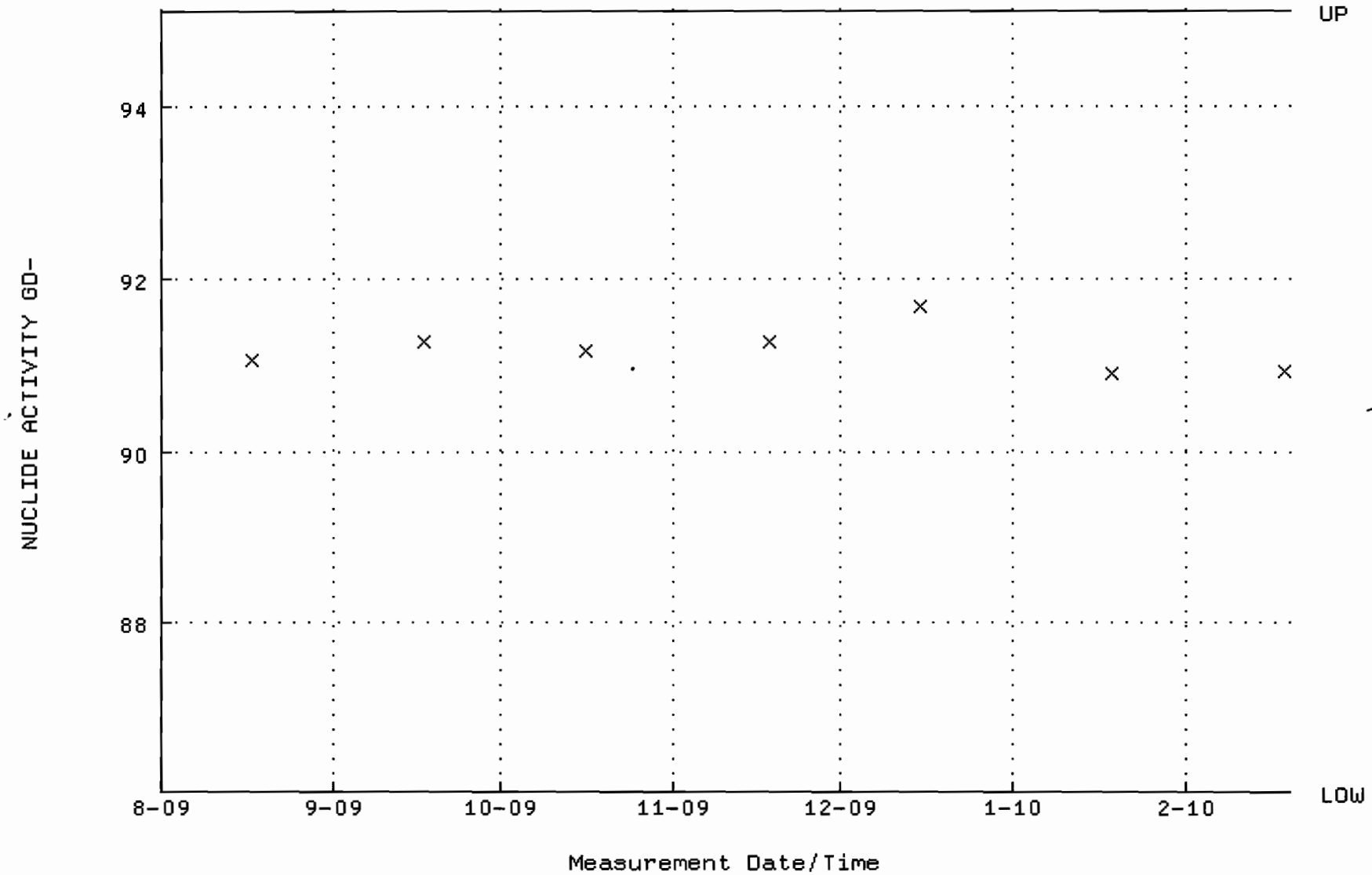

QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:42 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

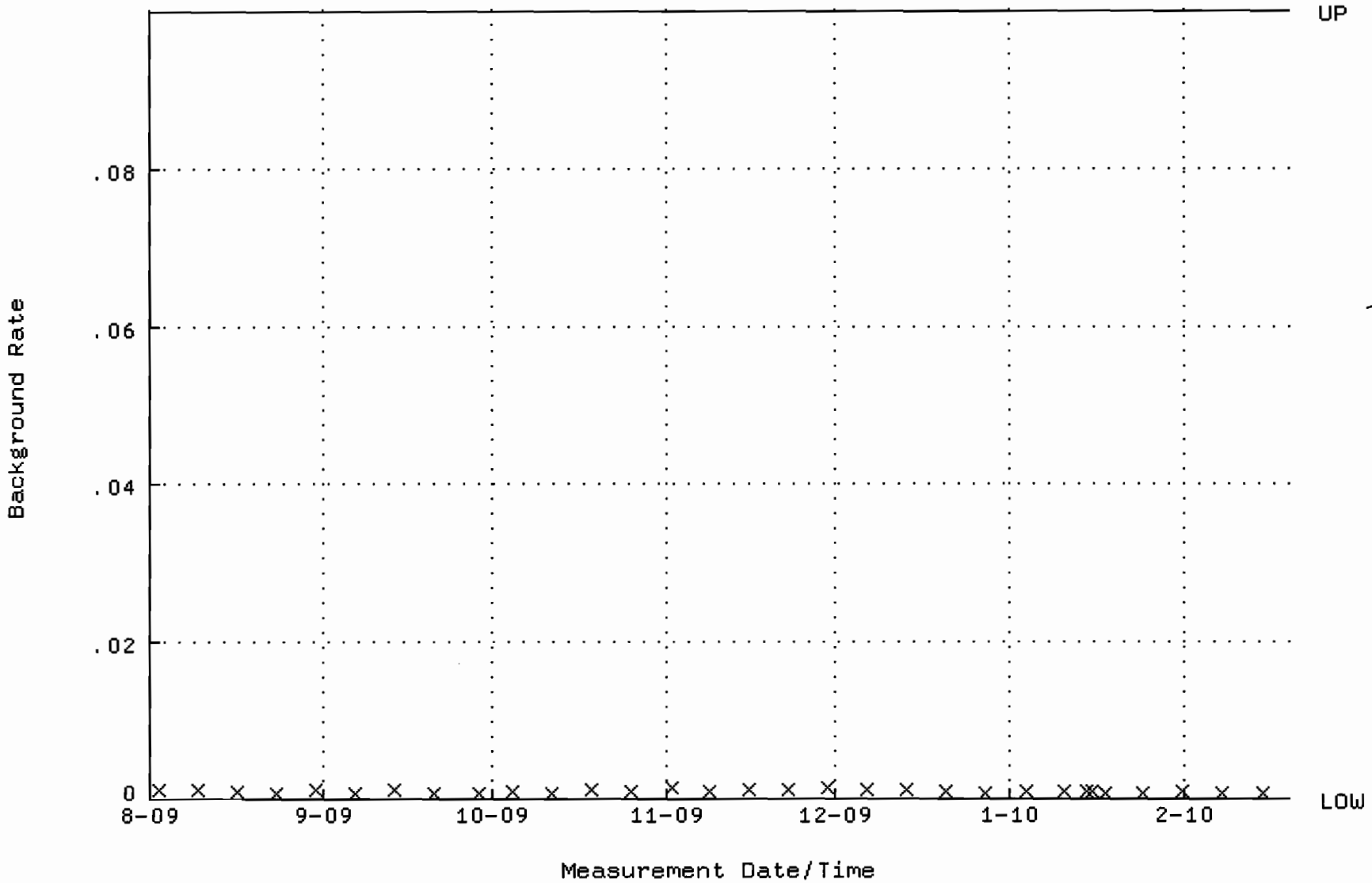

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.251398 through 0.271398

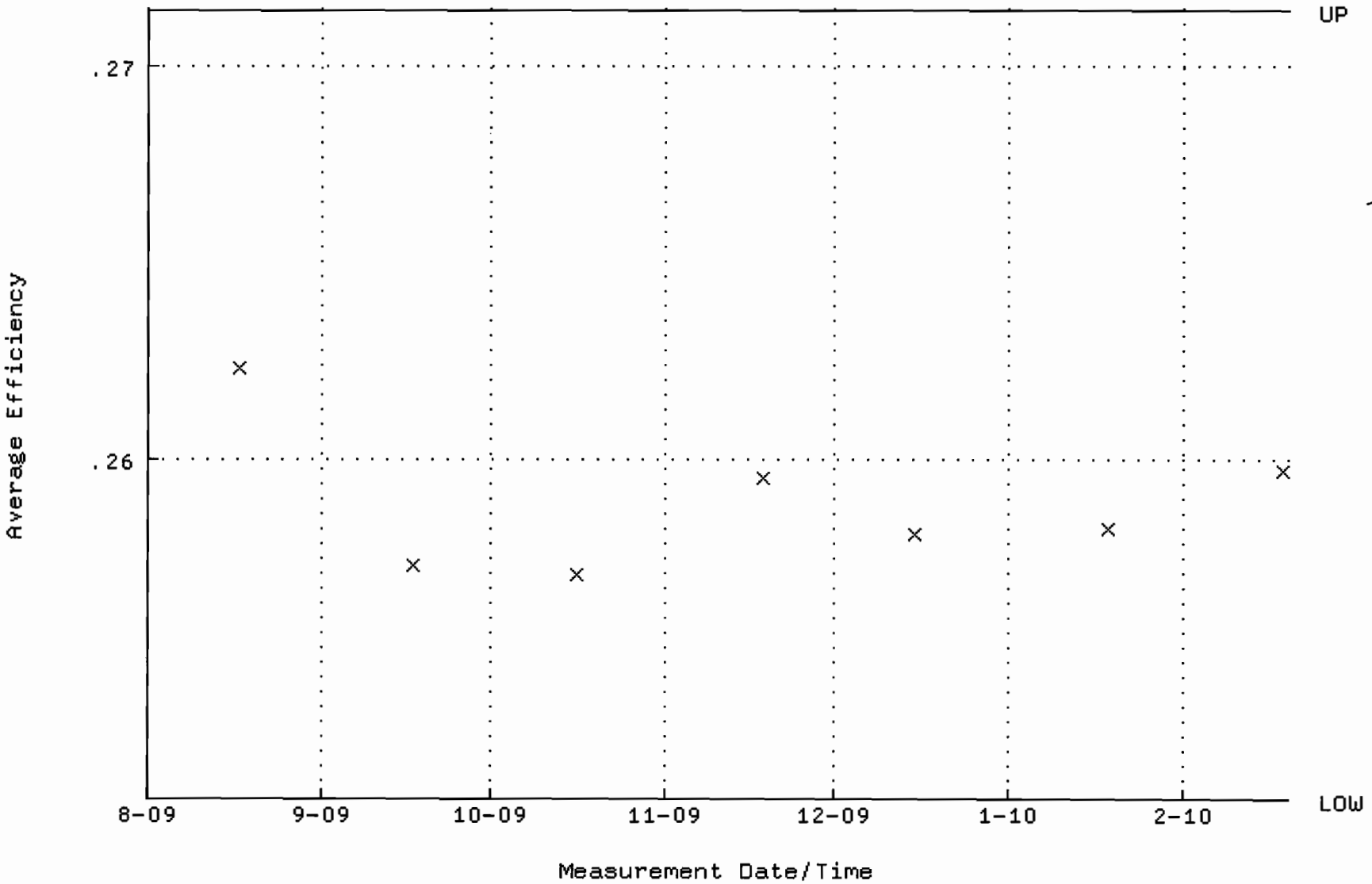

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8862 through 96.0322

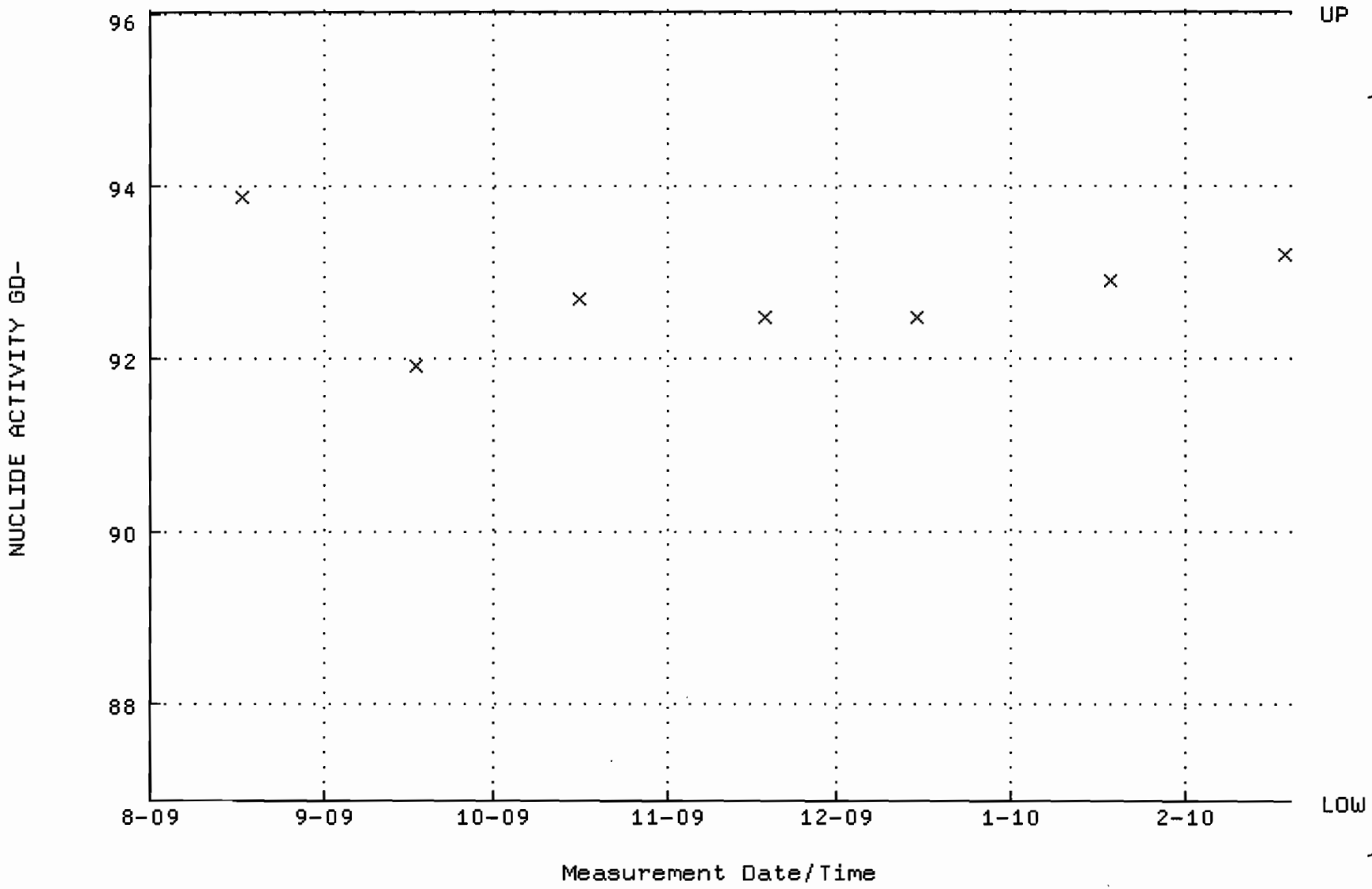

QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:47 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

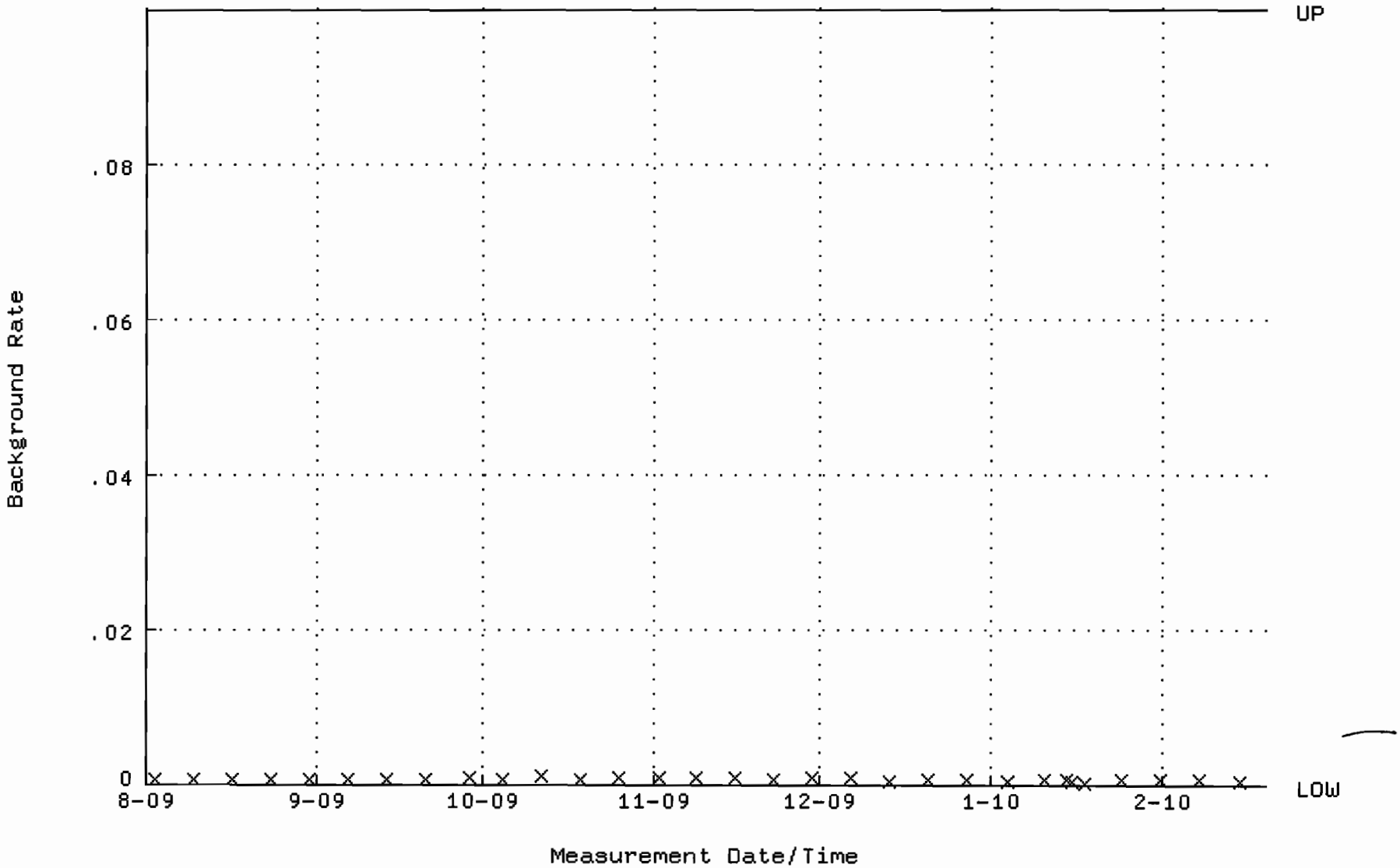

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247512 through 0.267512

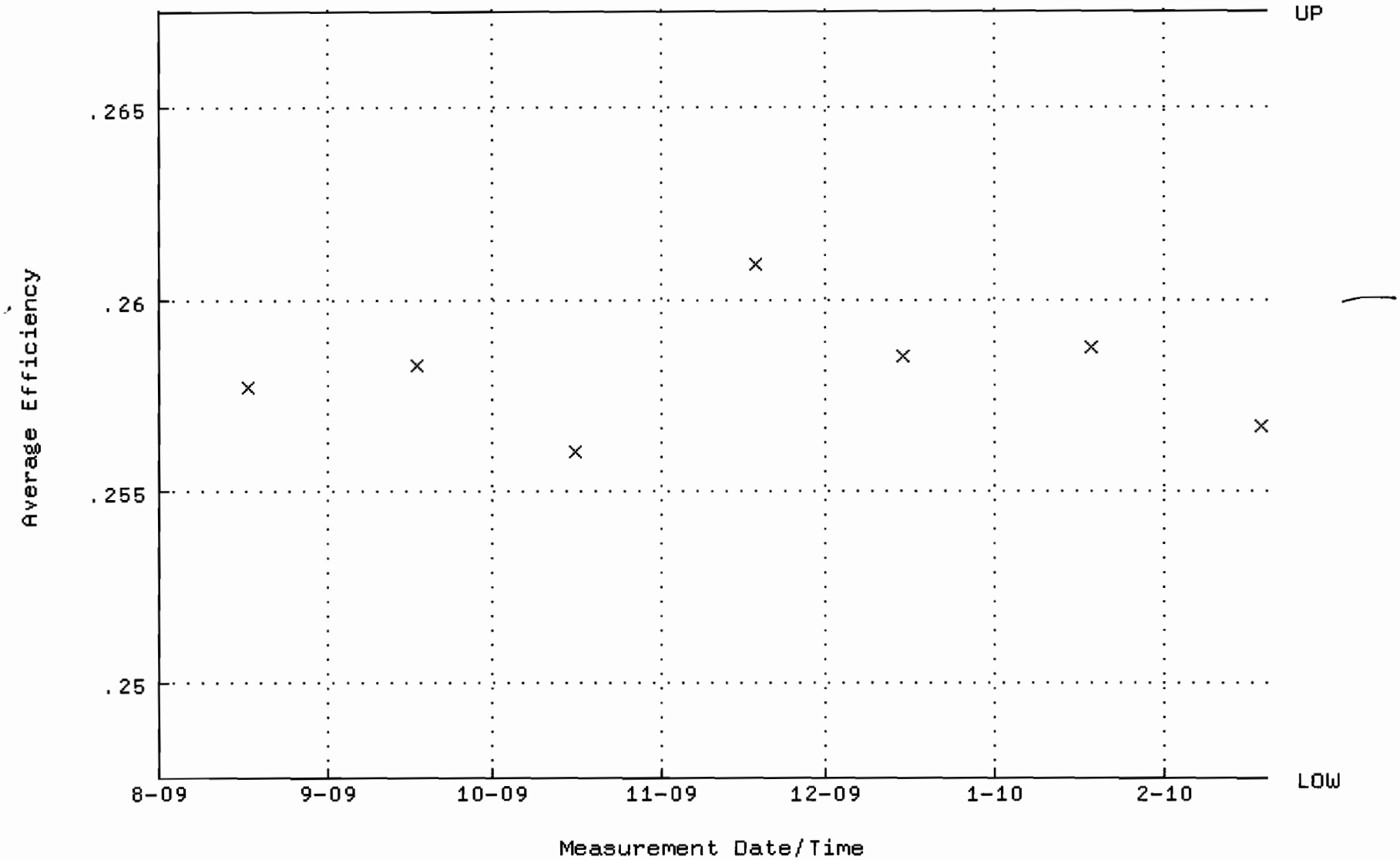

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.6956 through 96.9268

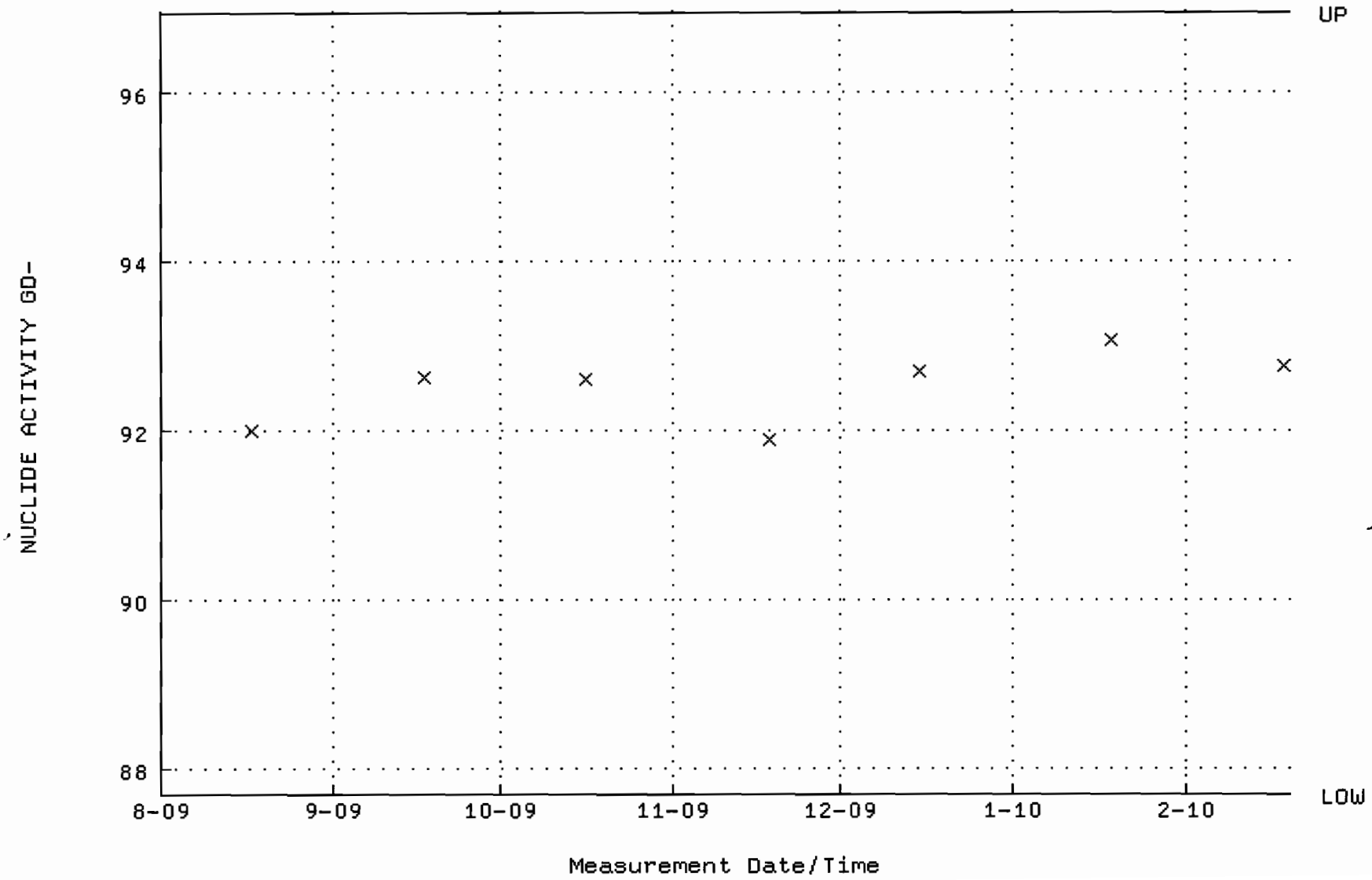

QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:51 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

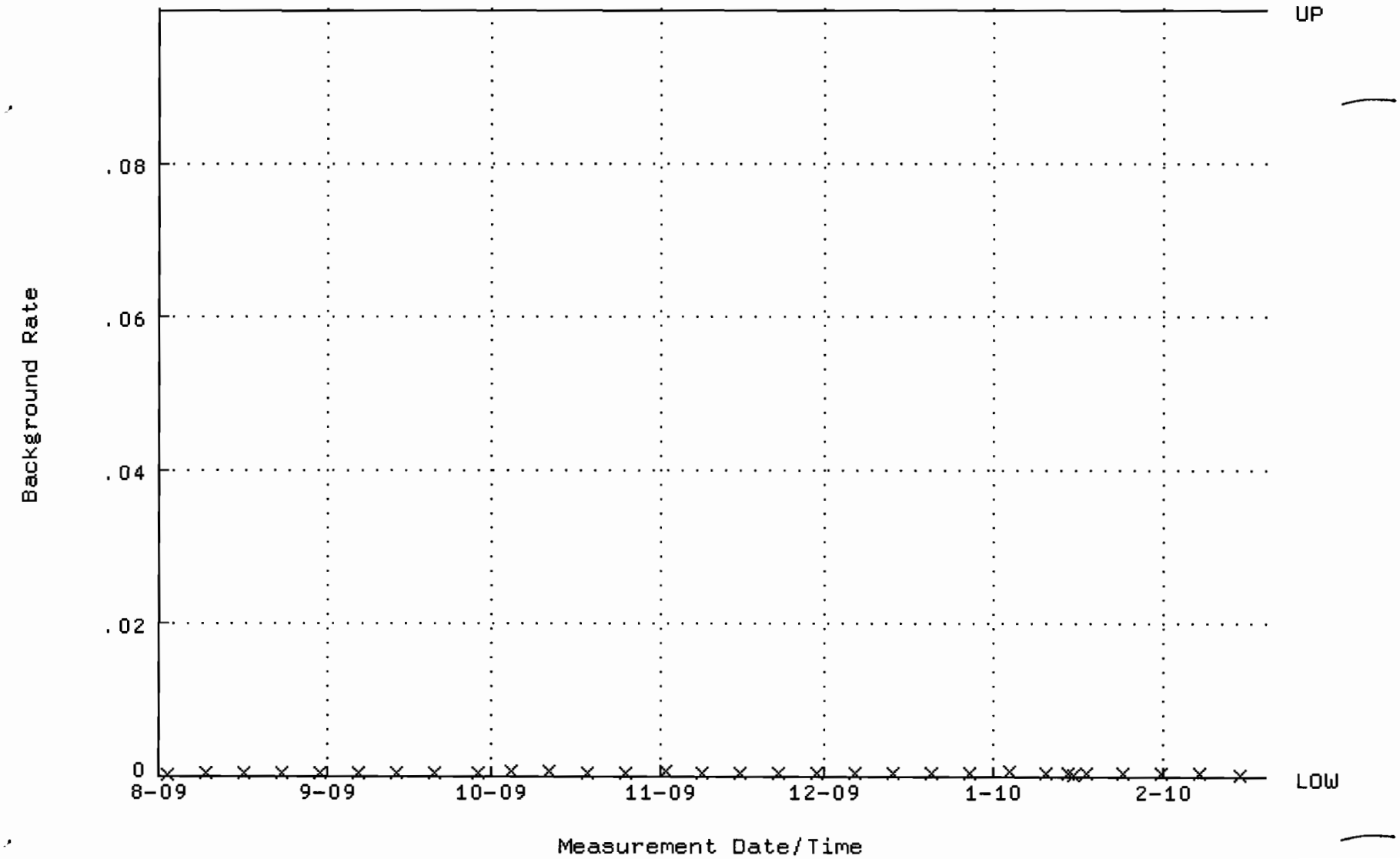

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.243156 through 0.263156

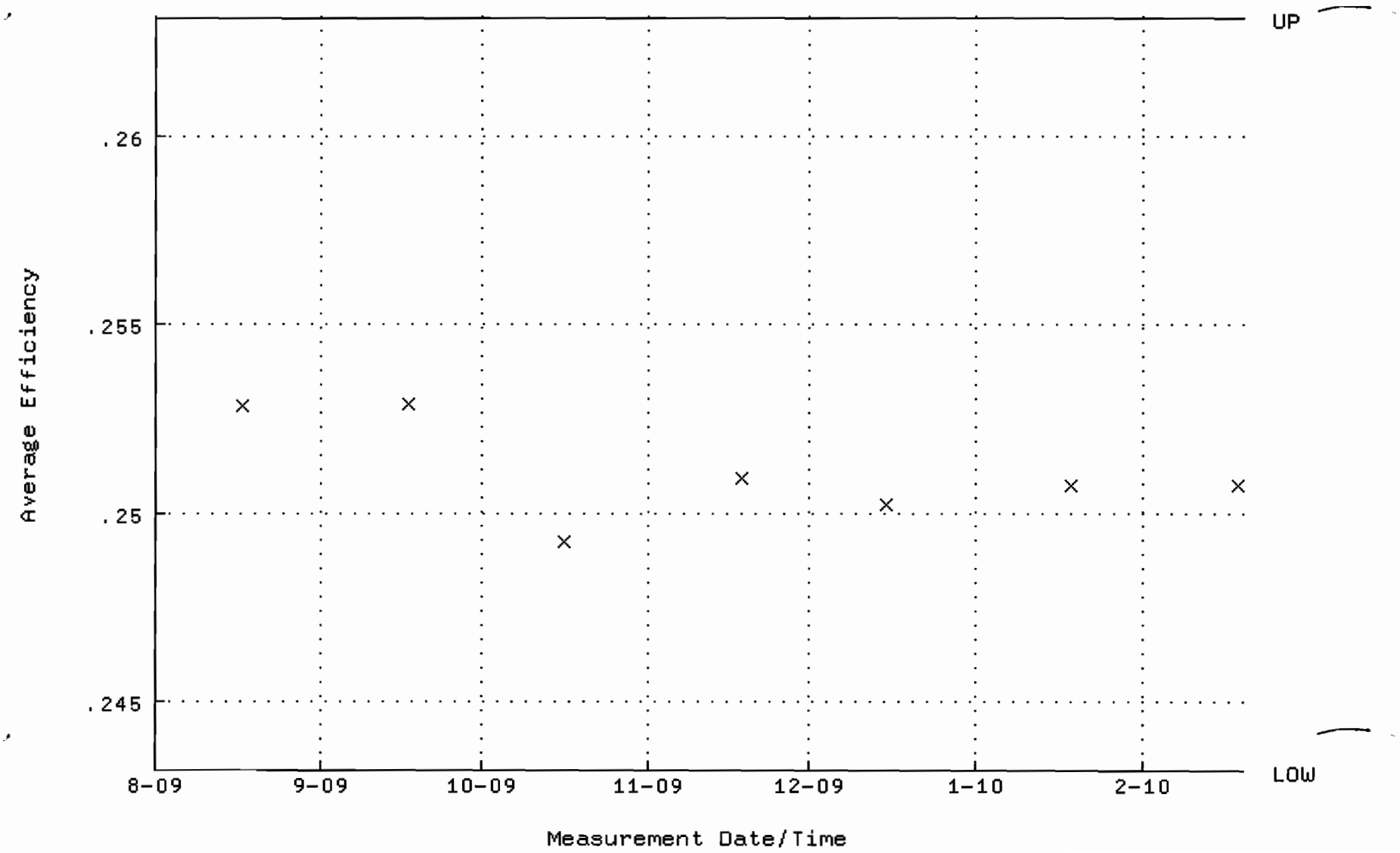

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.7449 through 94.7707

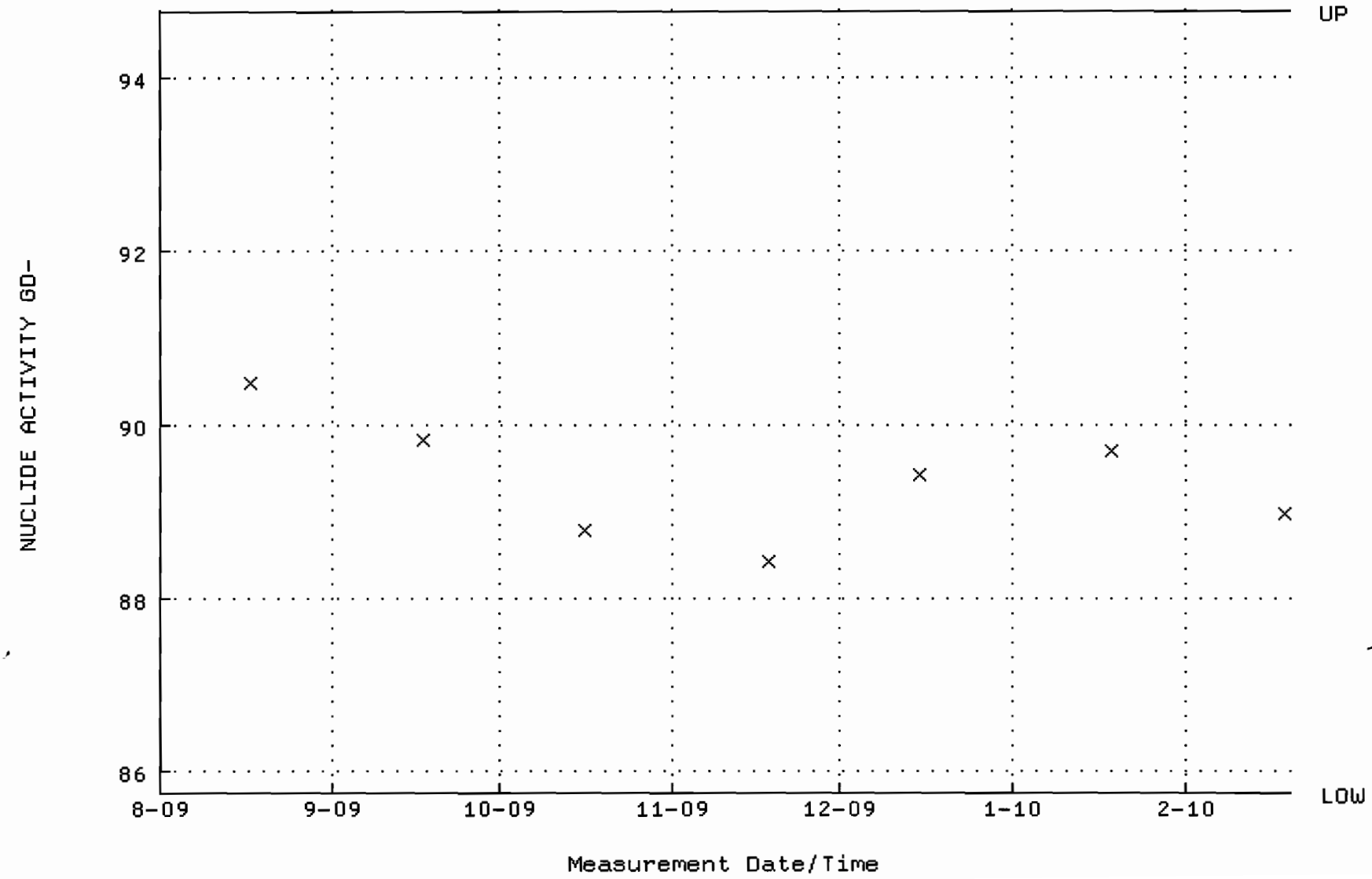

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:55 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

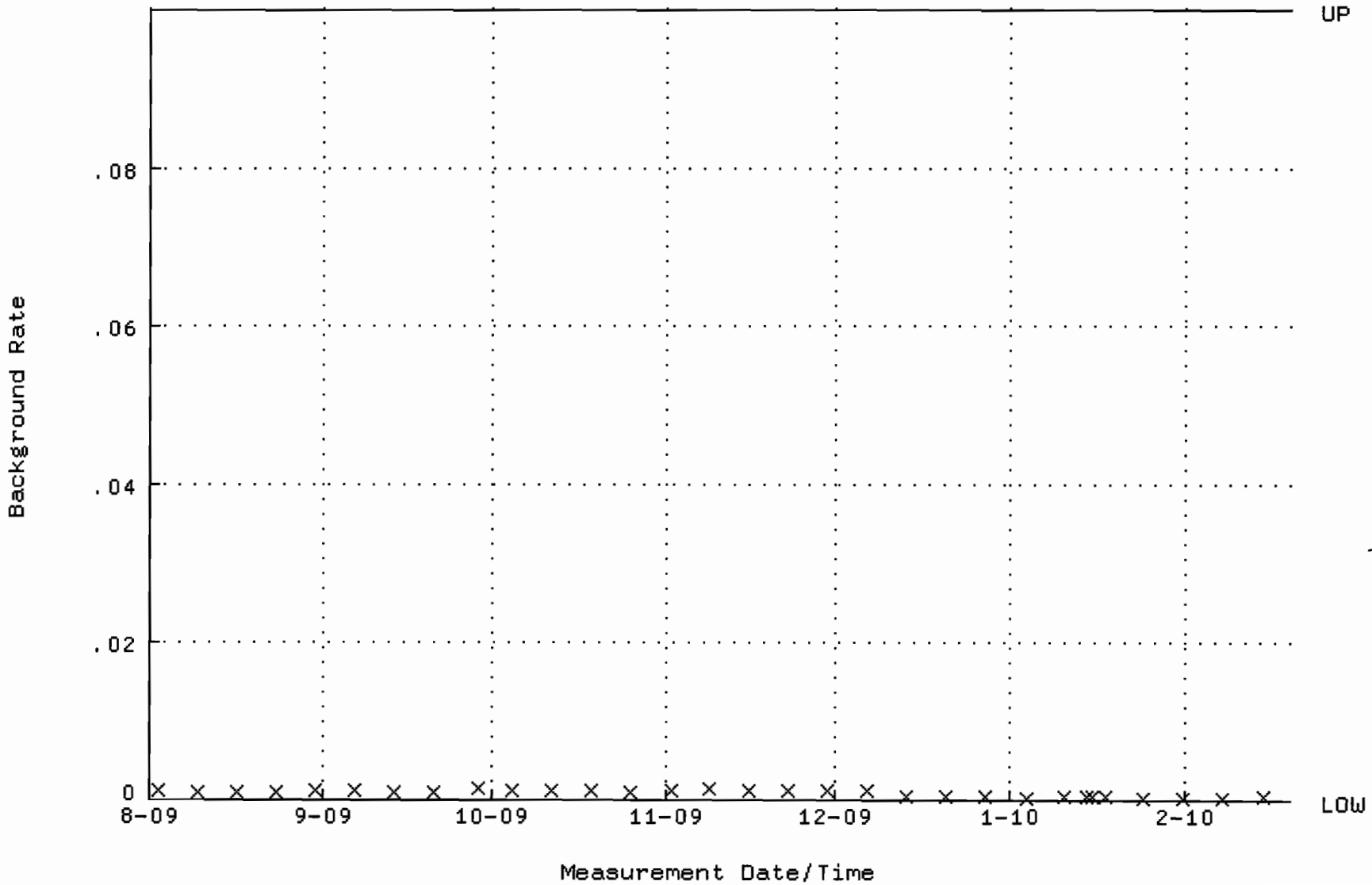

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773

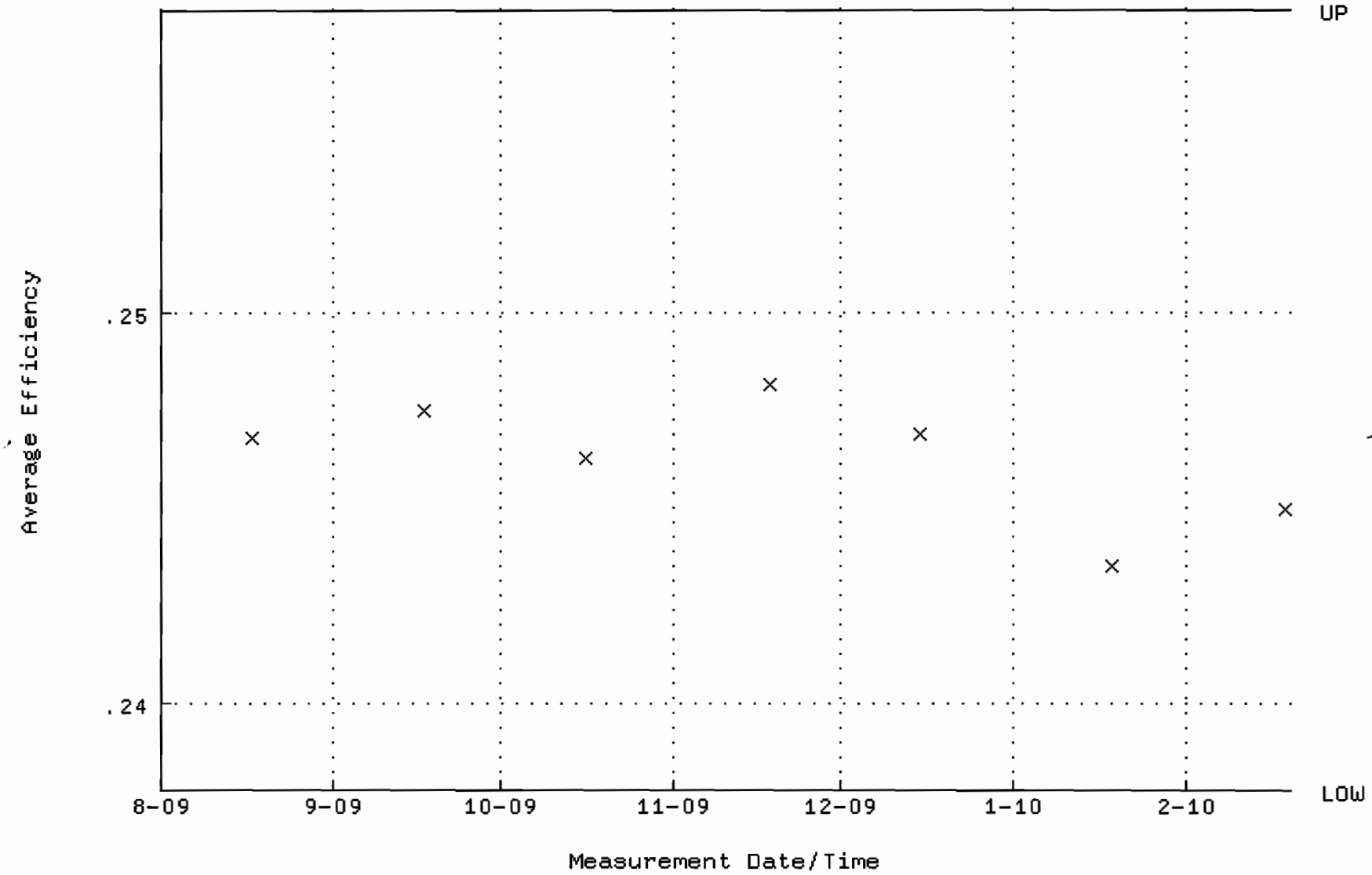

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713

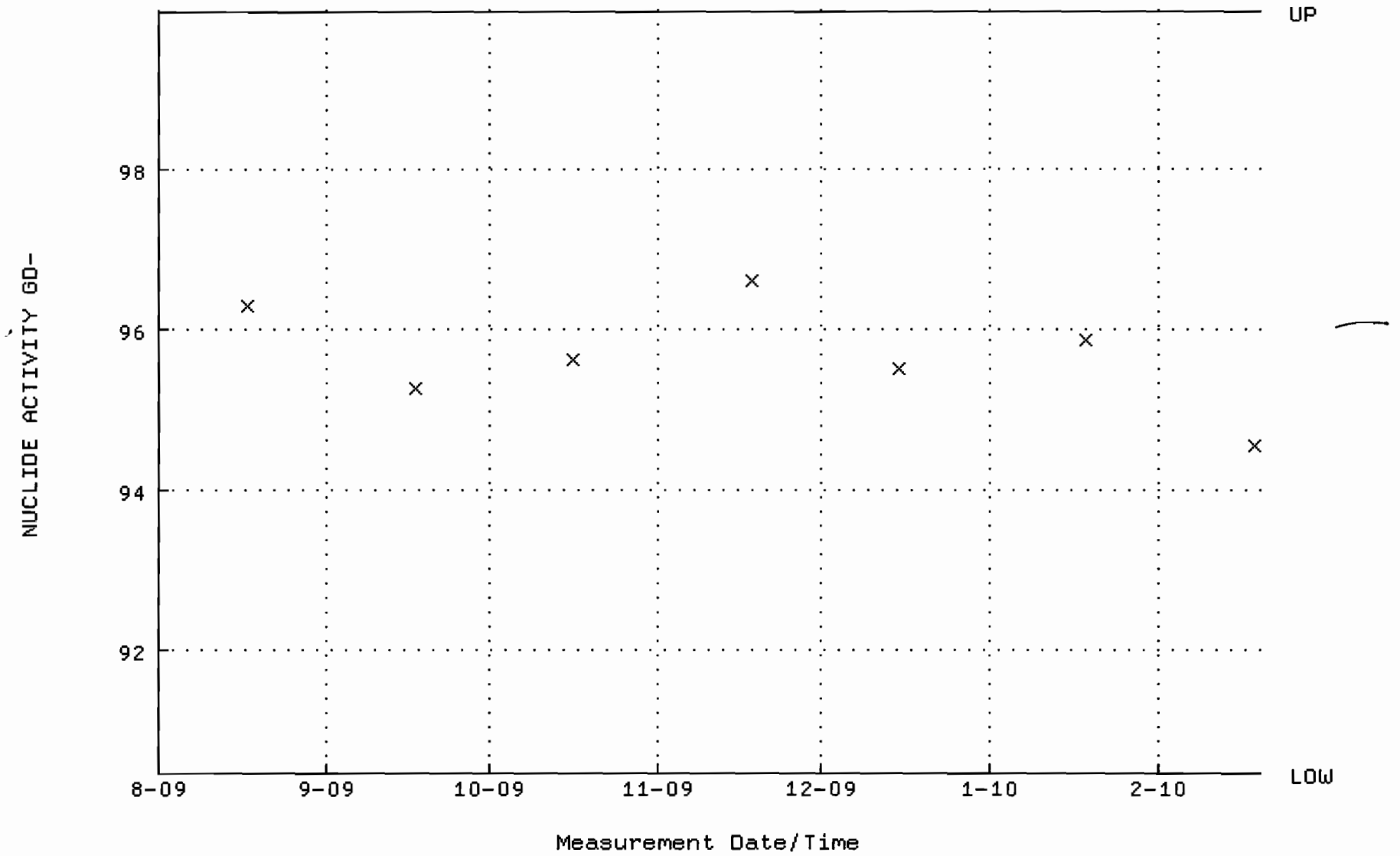

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:00 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

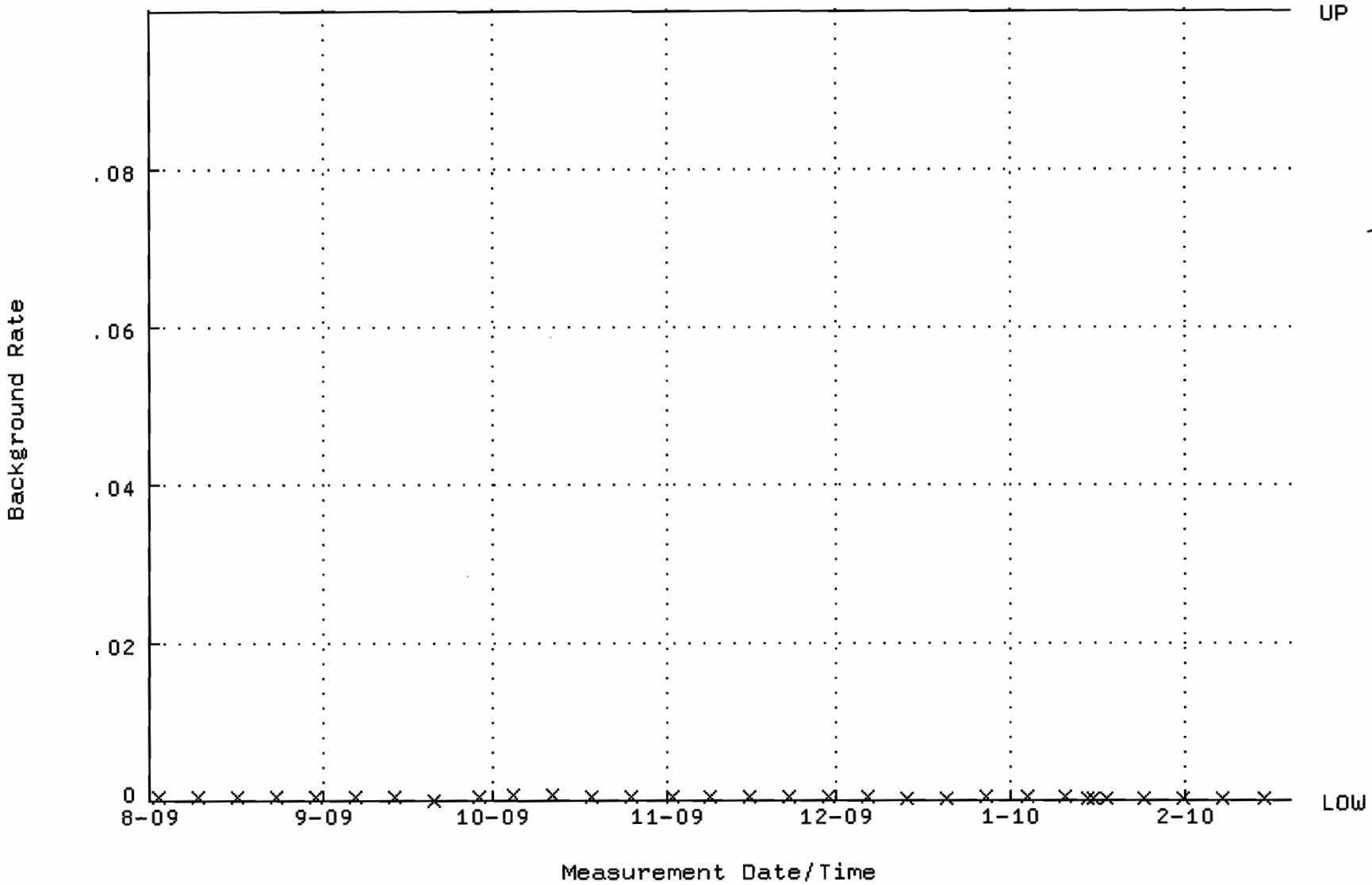

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:03 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.256741 through 0.276741

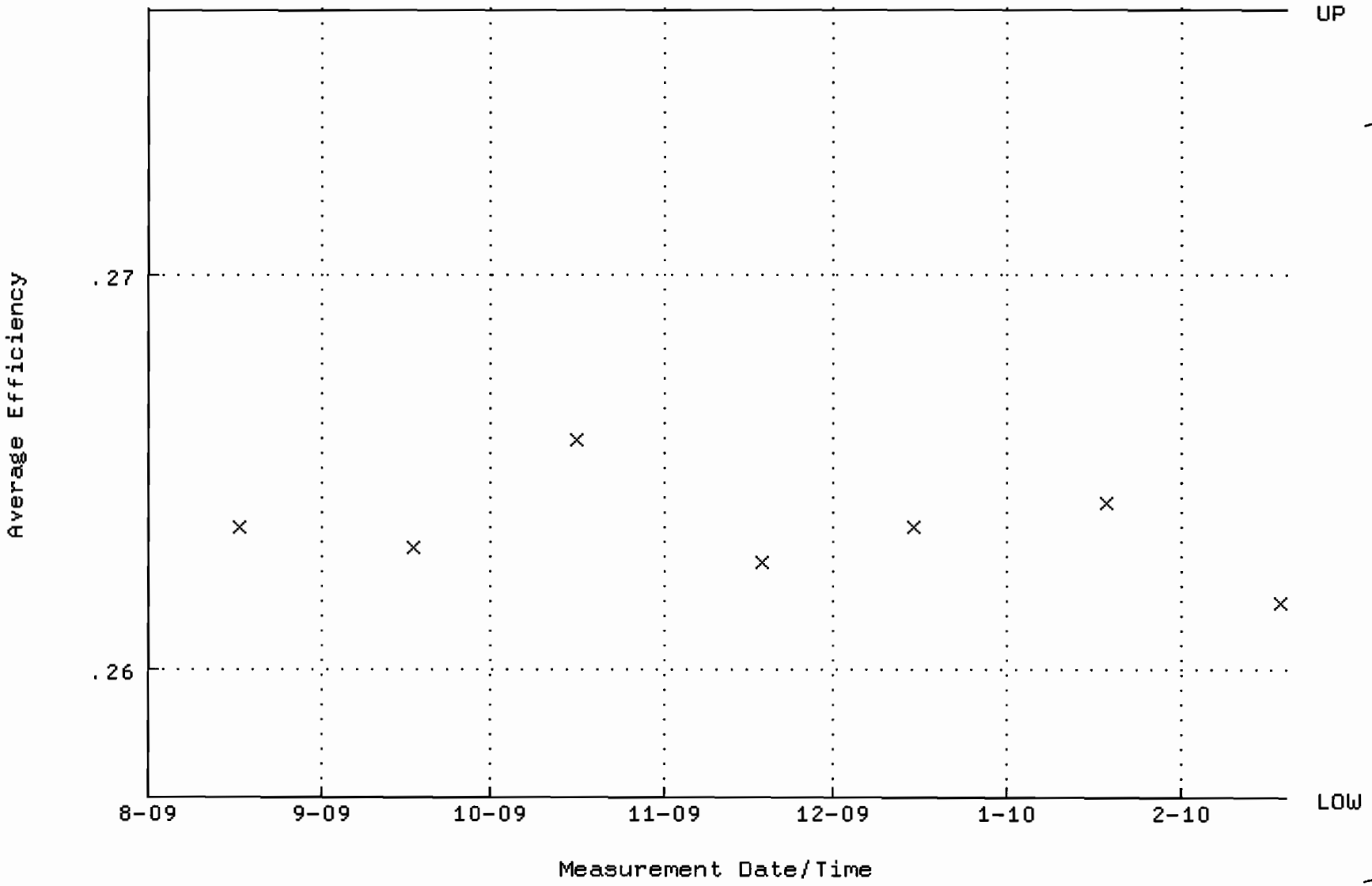

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:03 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.3646 through 95.4556

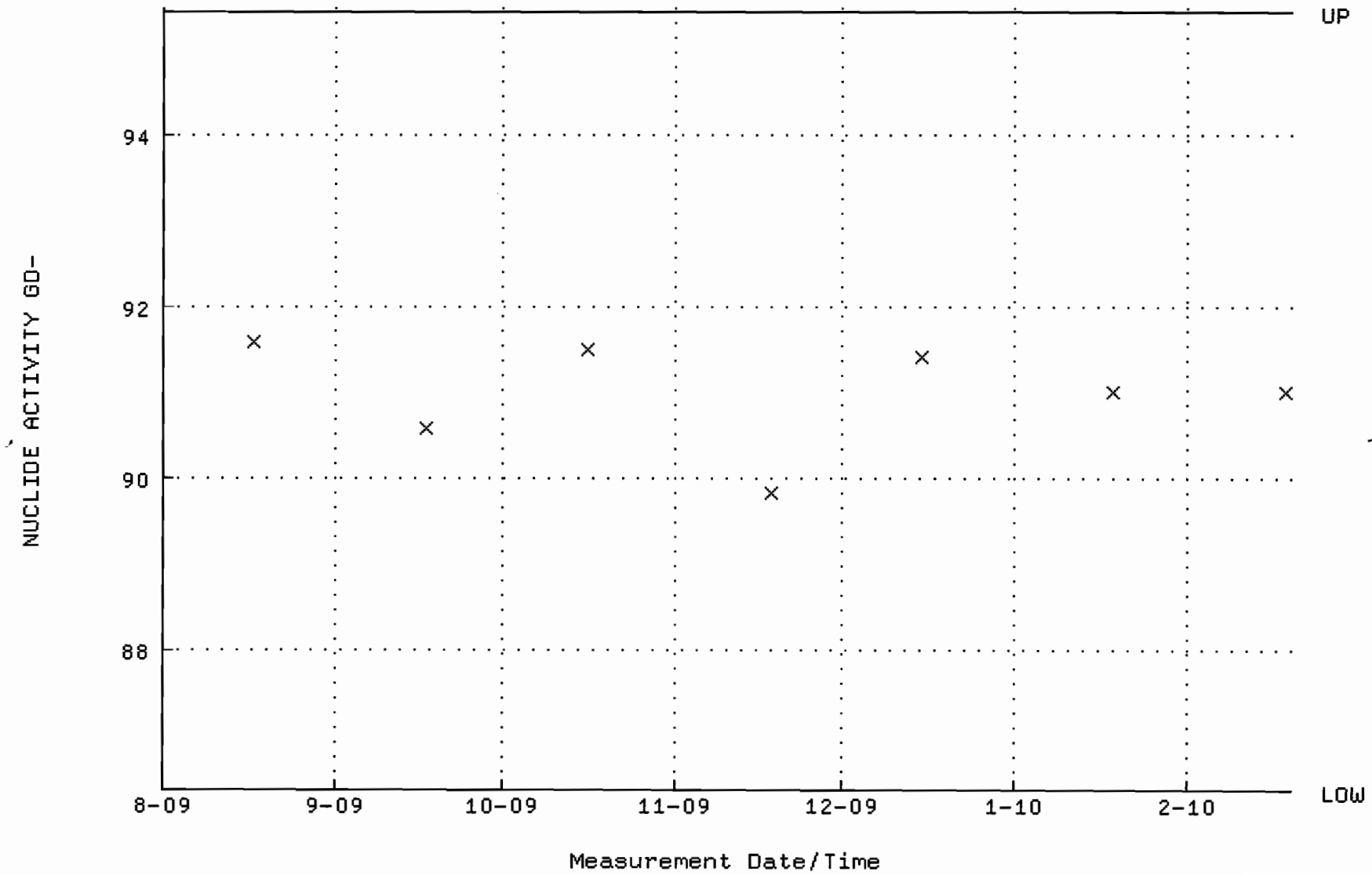

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

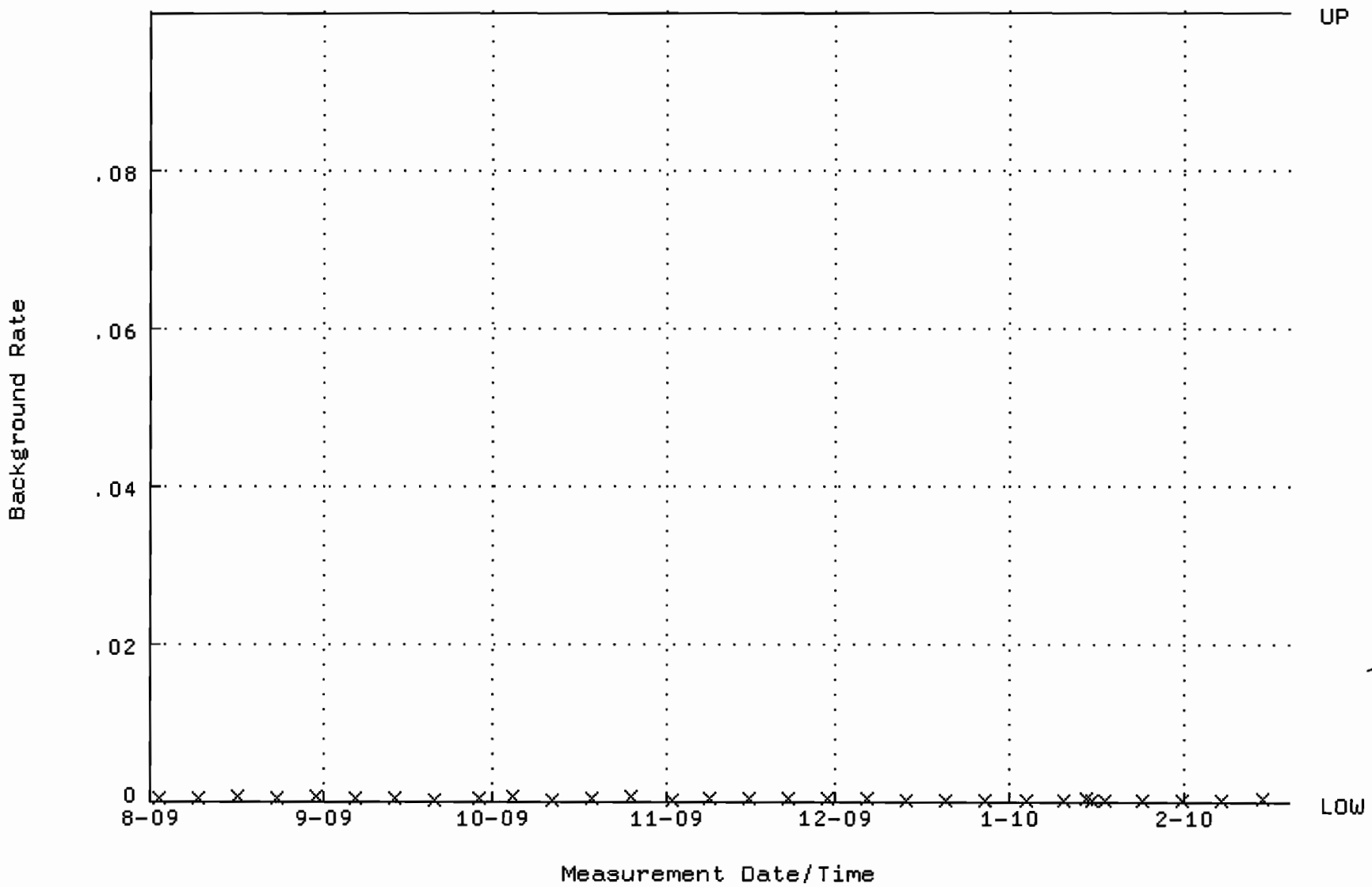

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131

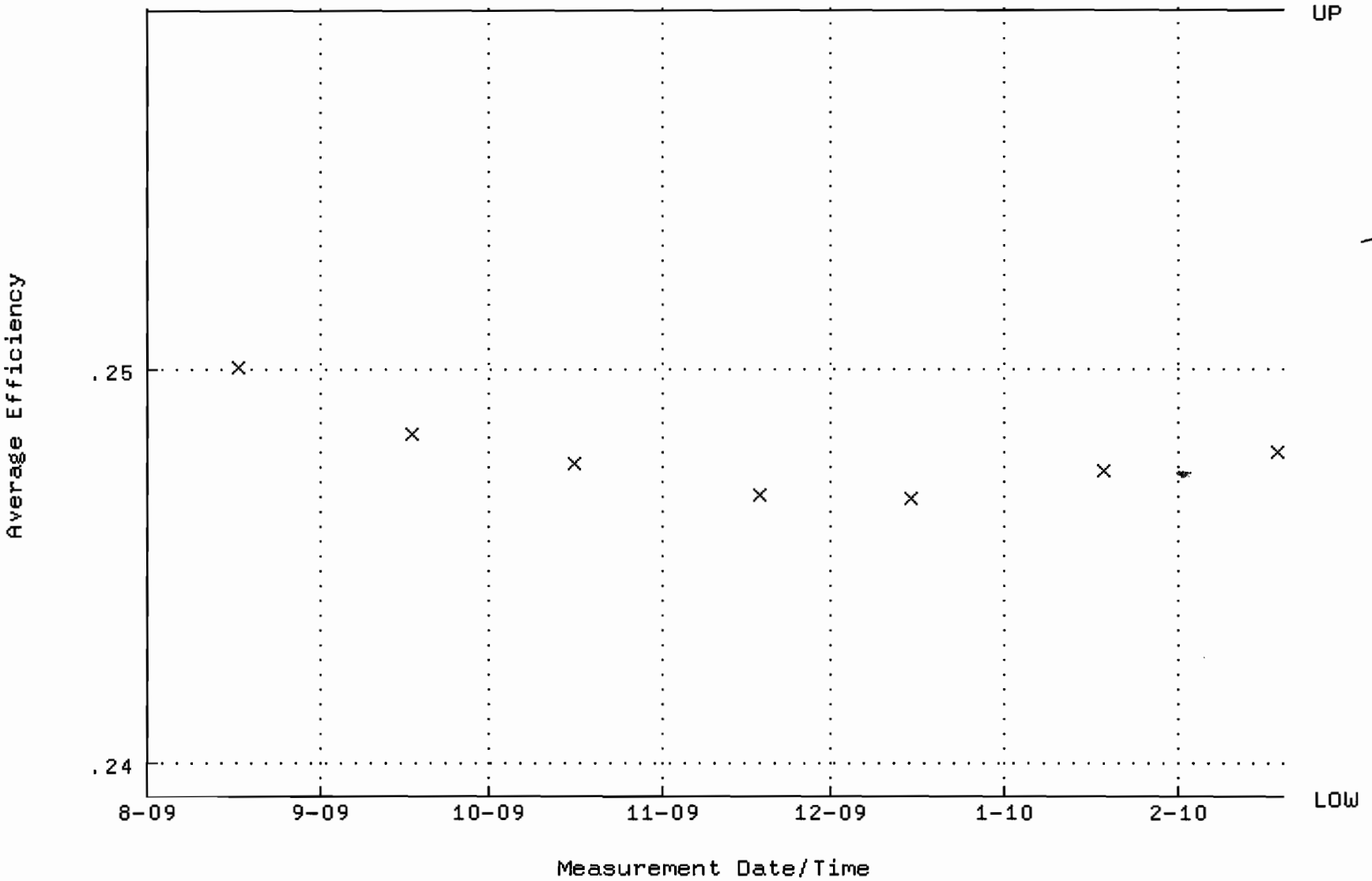

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 88.1614 through 97.4416

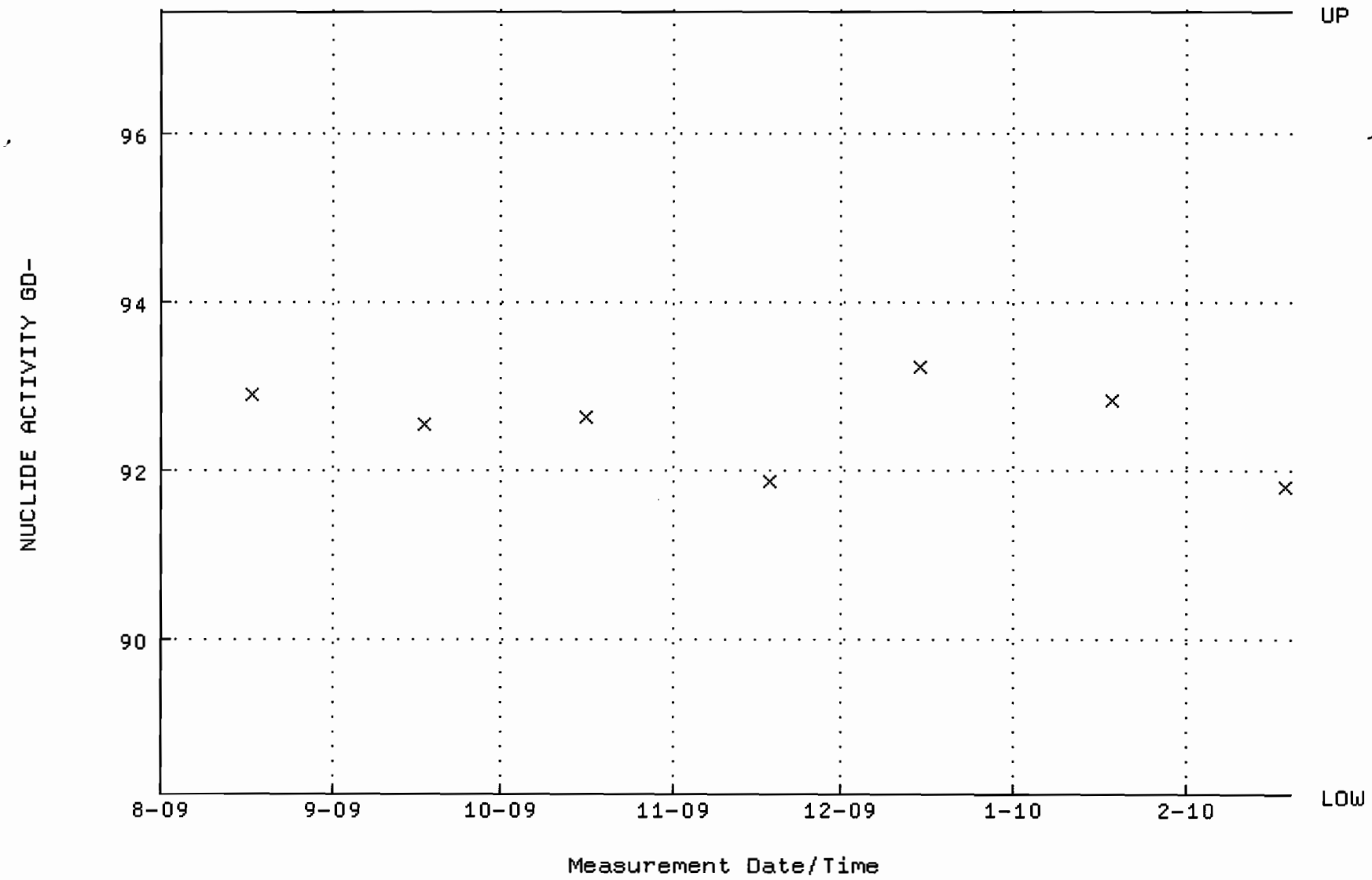

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

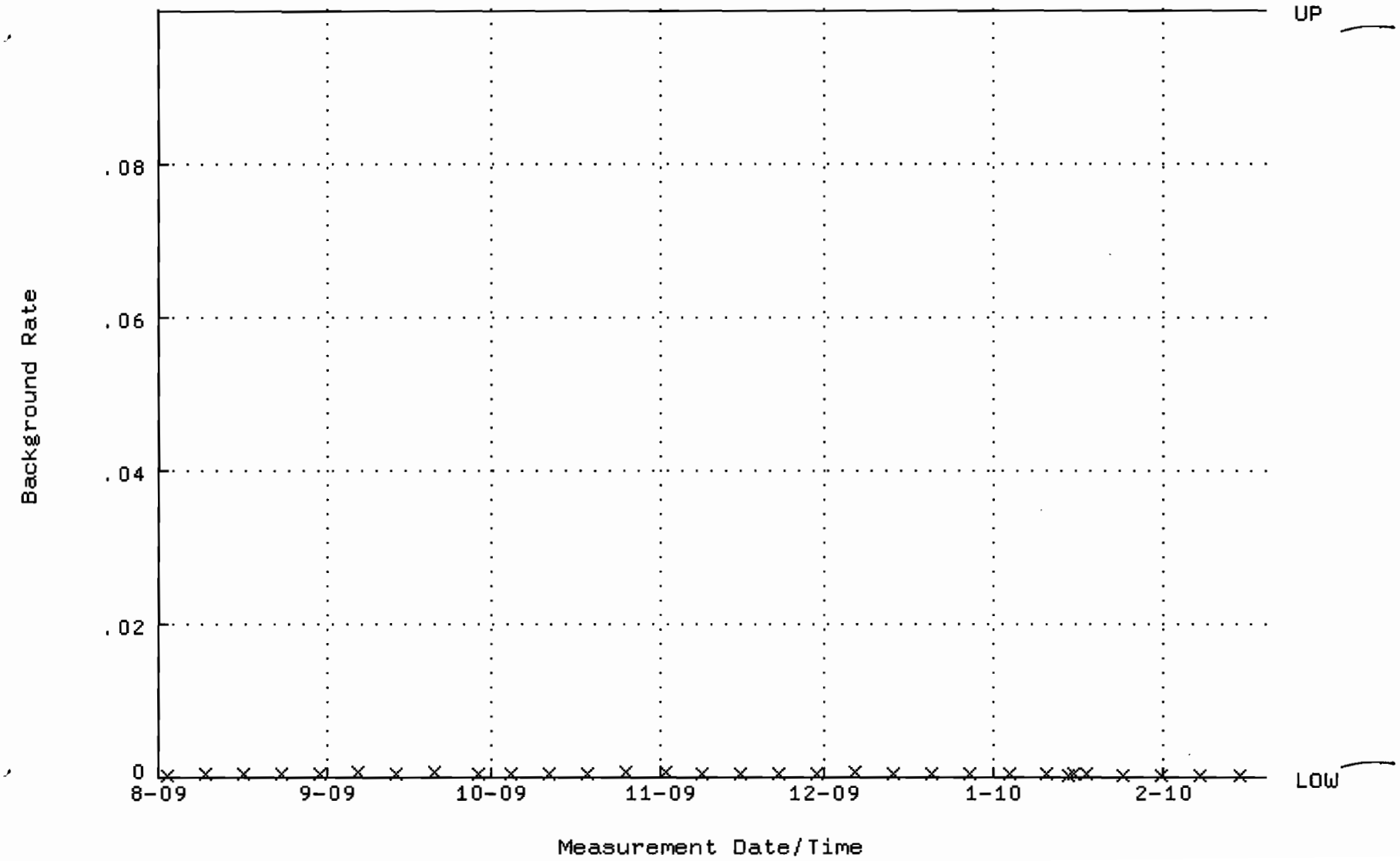

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.246955 through 0.266955

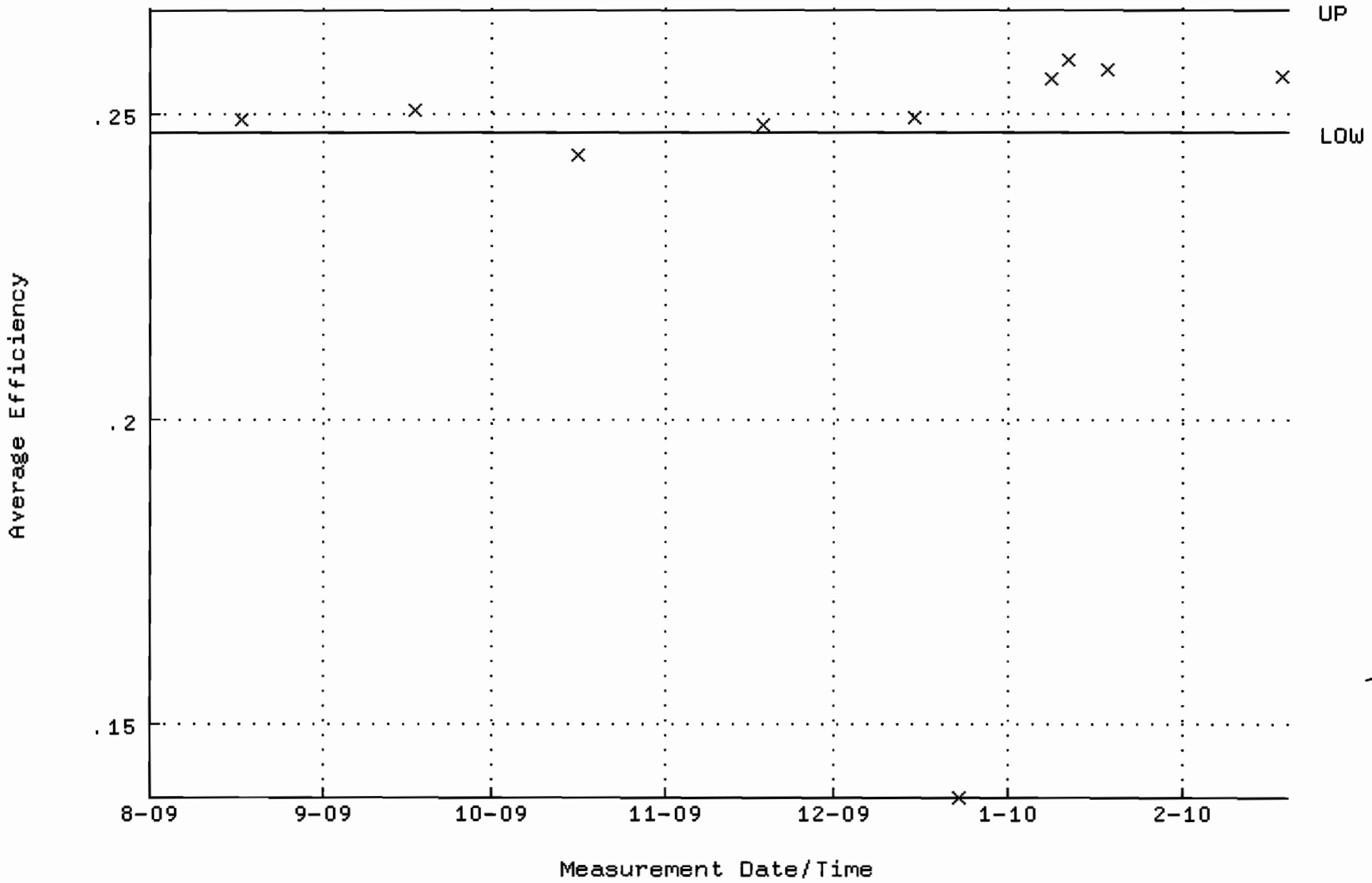

QA filename : DKA100:[ENV_ALPHA.QA.W]W131.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7058 through 95.8328

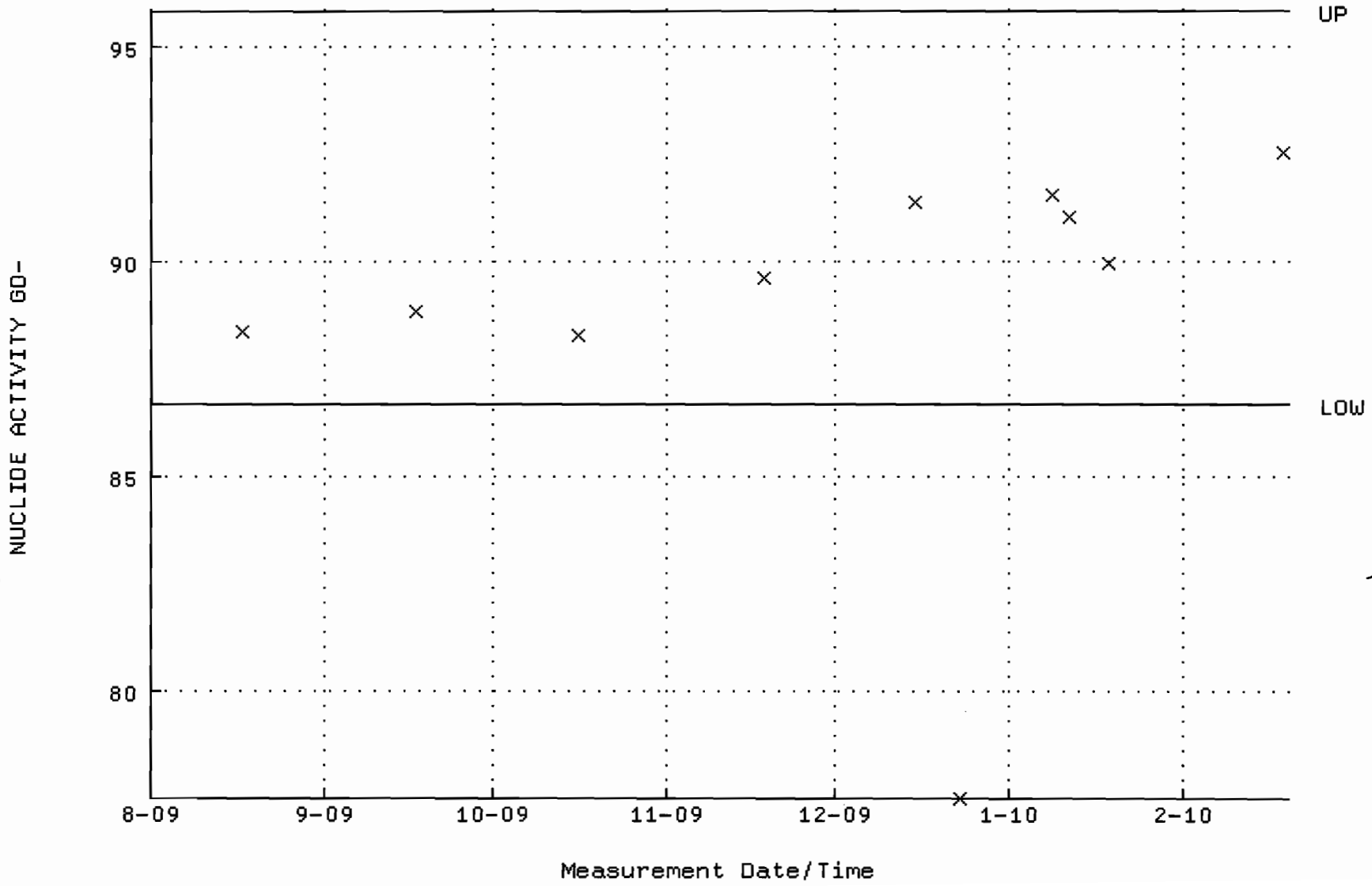

QA filename : DKA100:[ENV_ALPHA.QA.B]B131.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:18 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

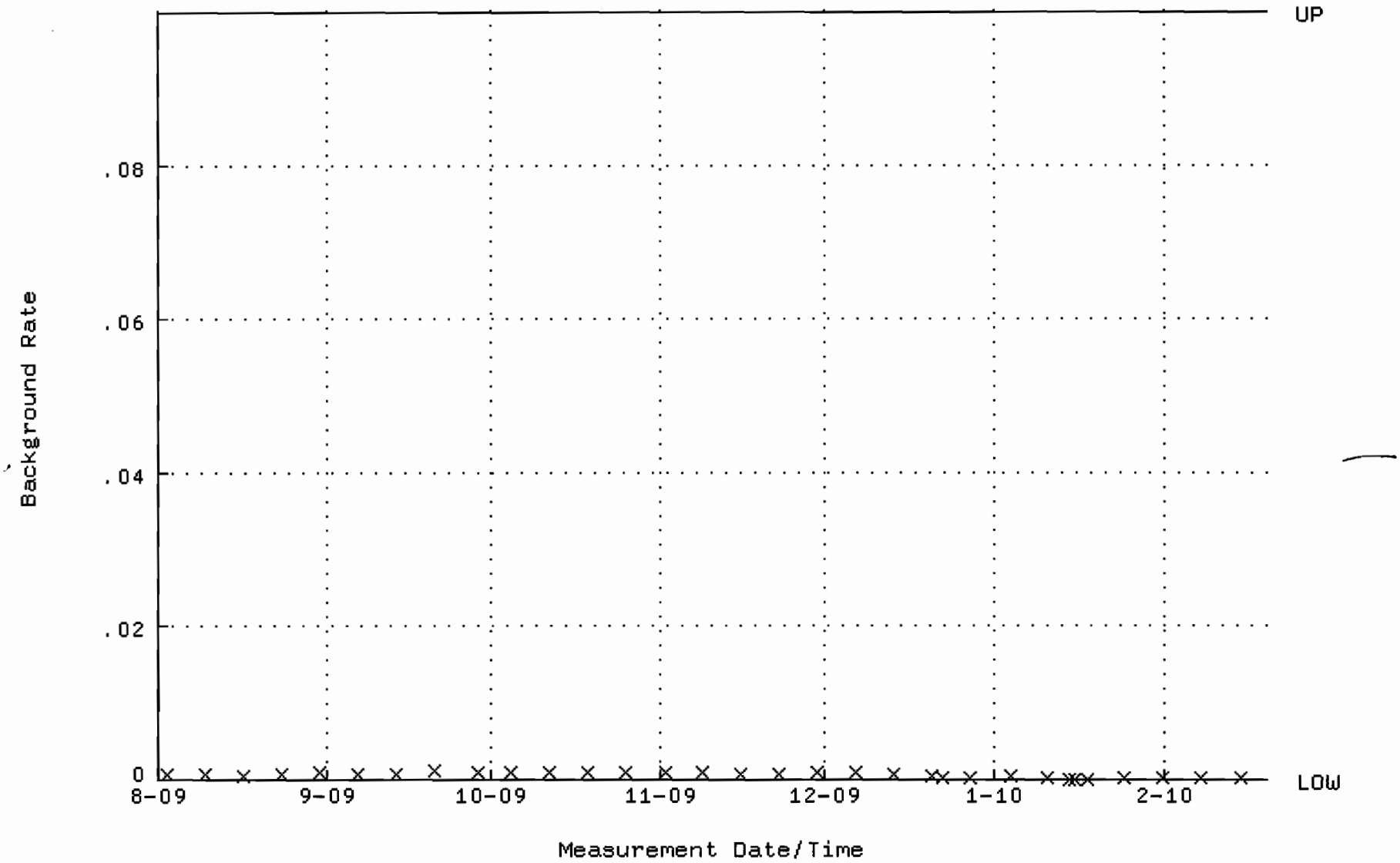

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573

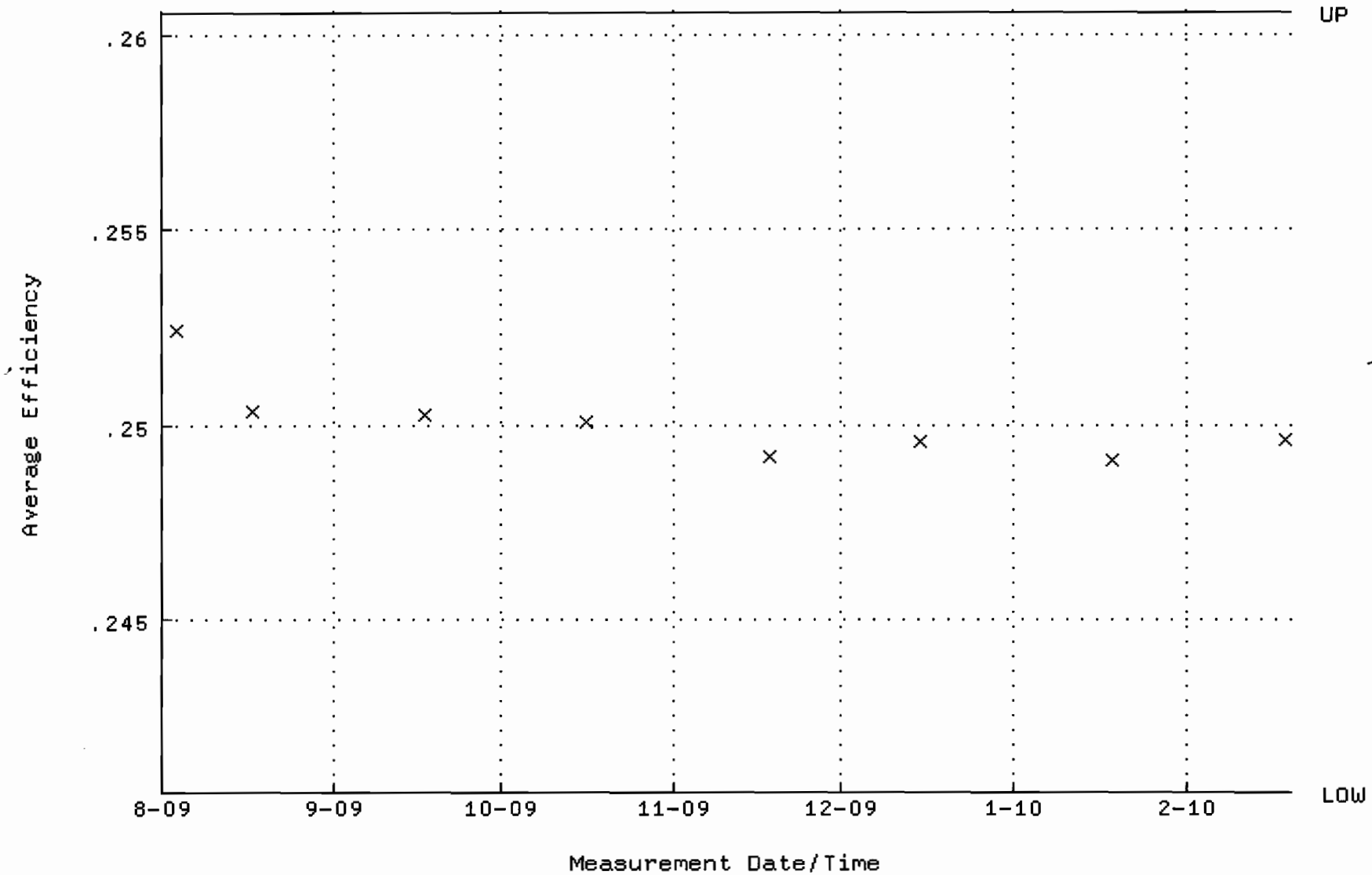

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272

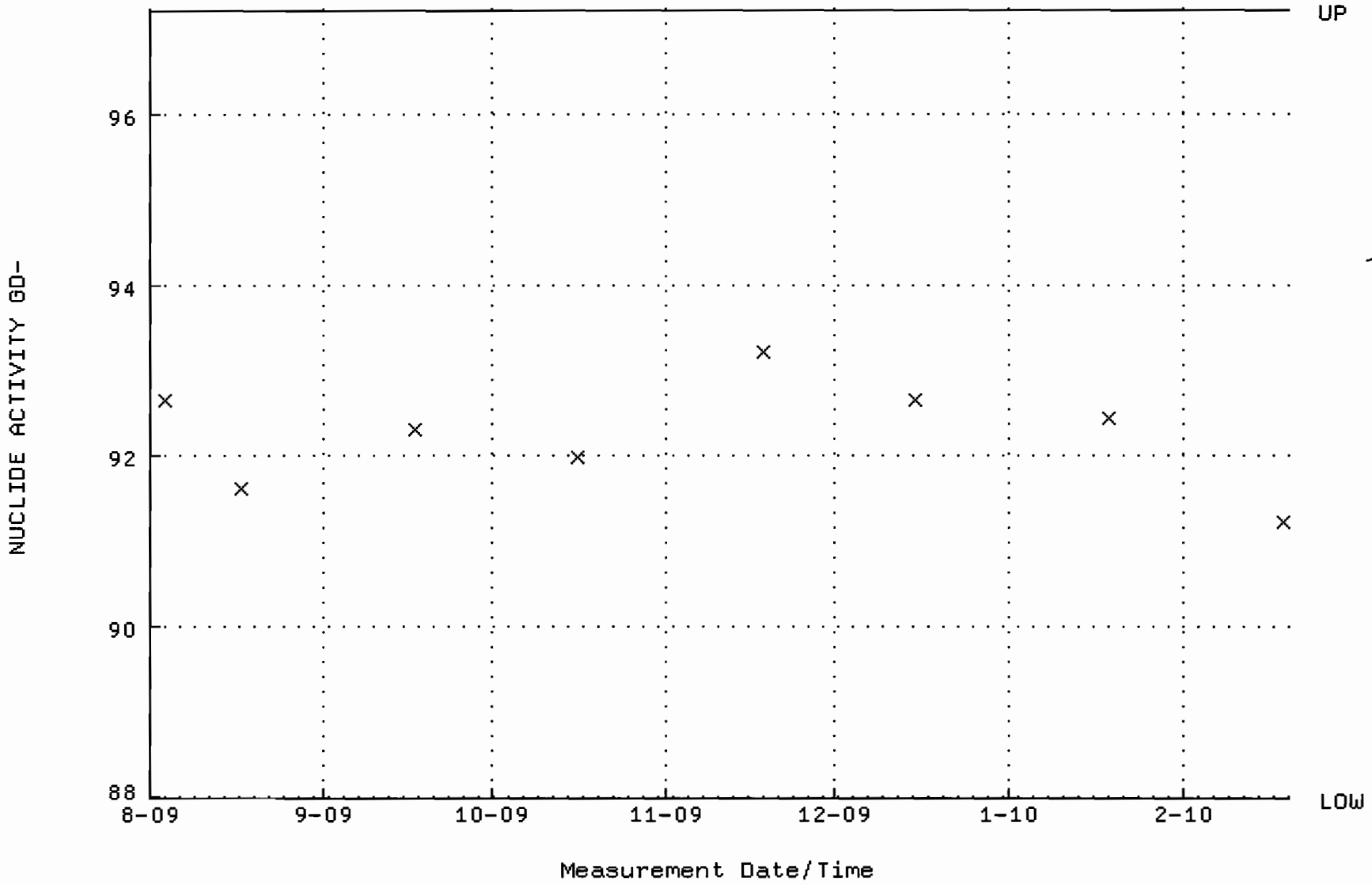

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:22 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

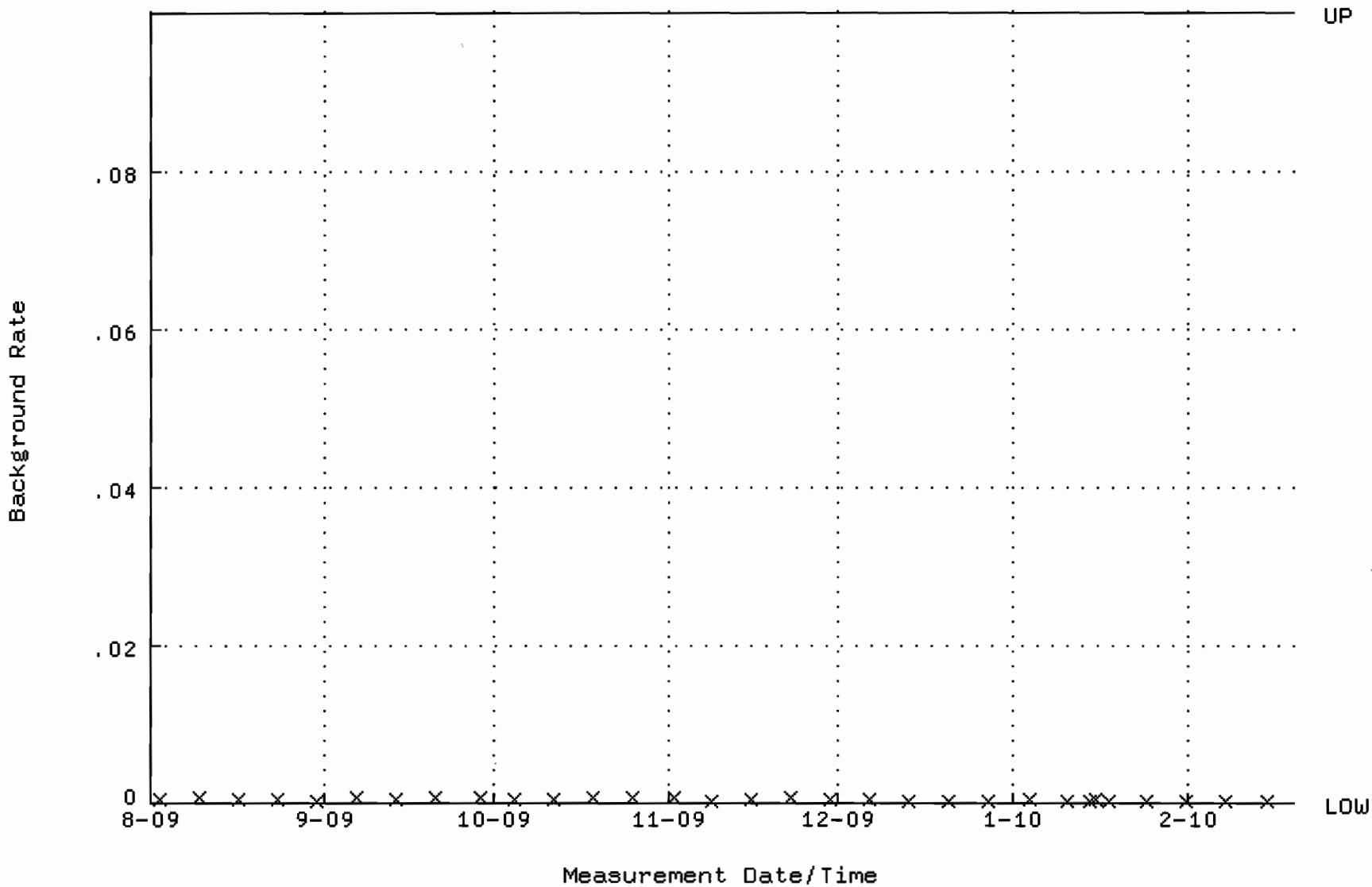

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237963 through 0.257963

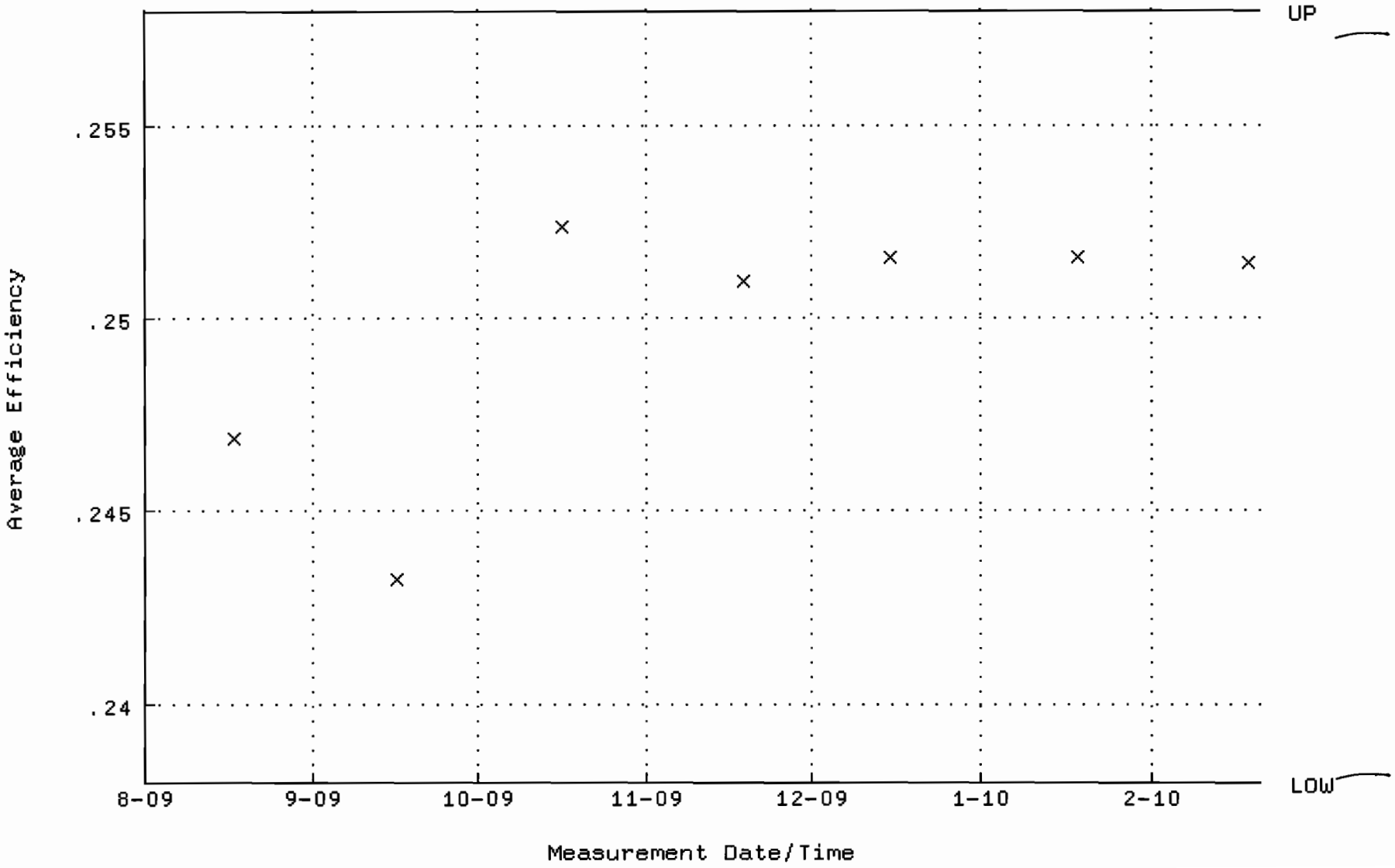

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.6507 through 93.5613

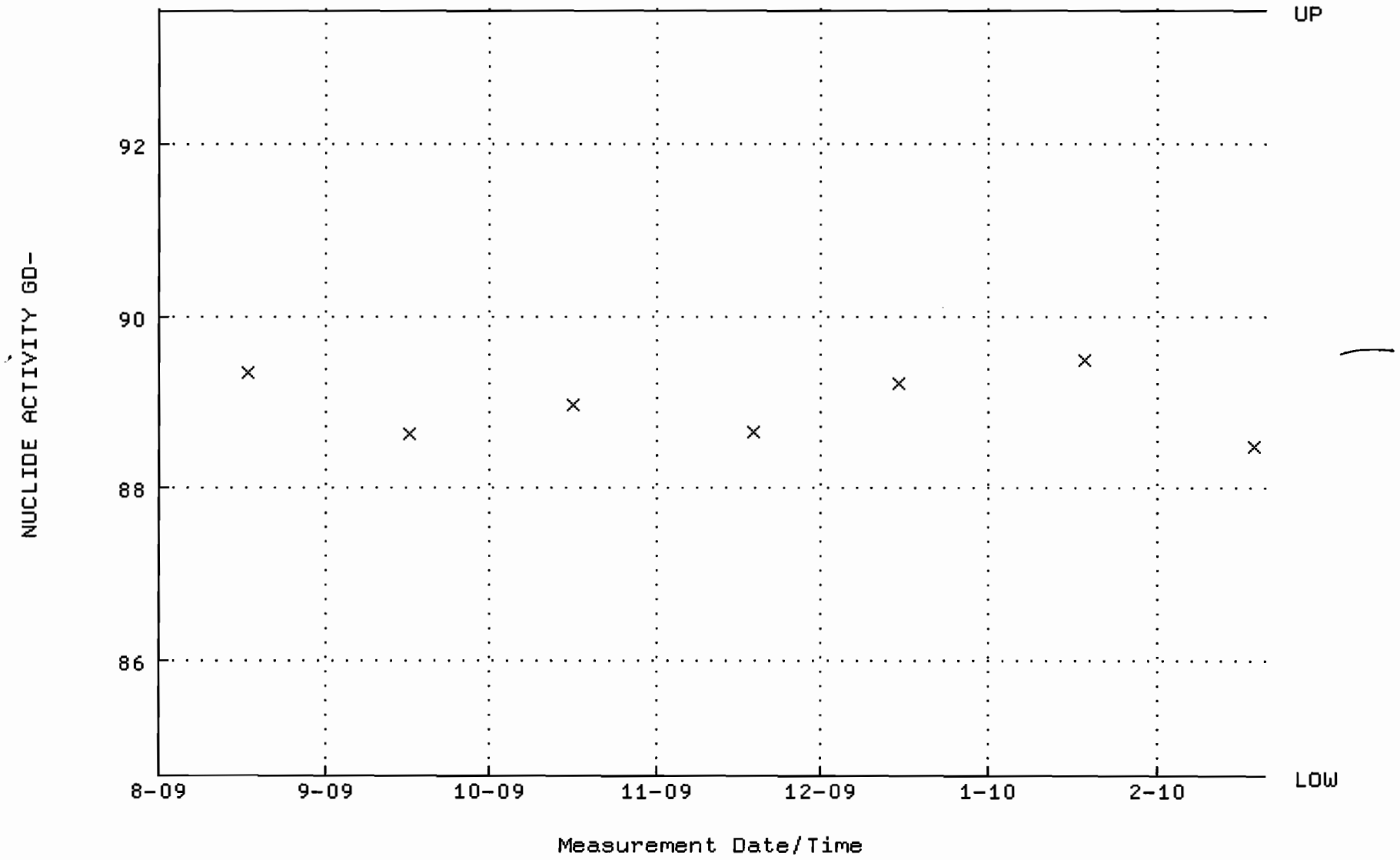

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:12 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

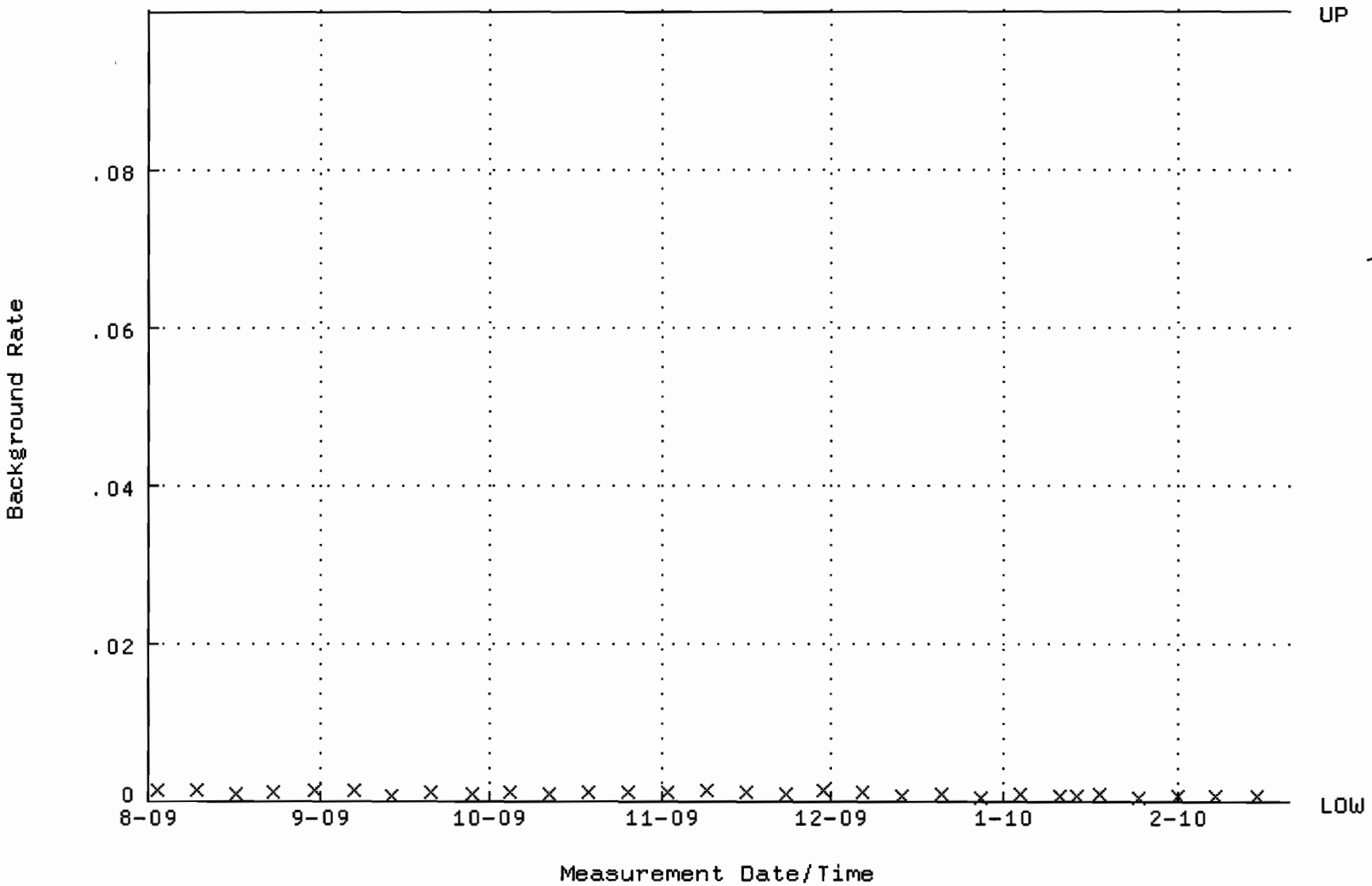

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239850 through 0.259850

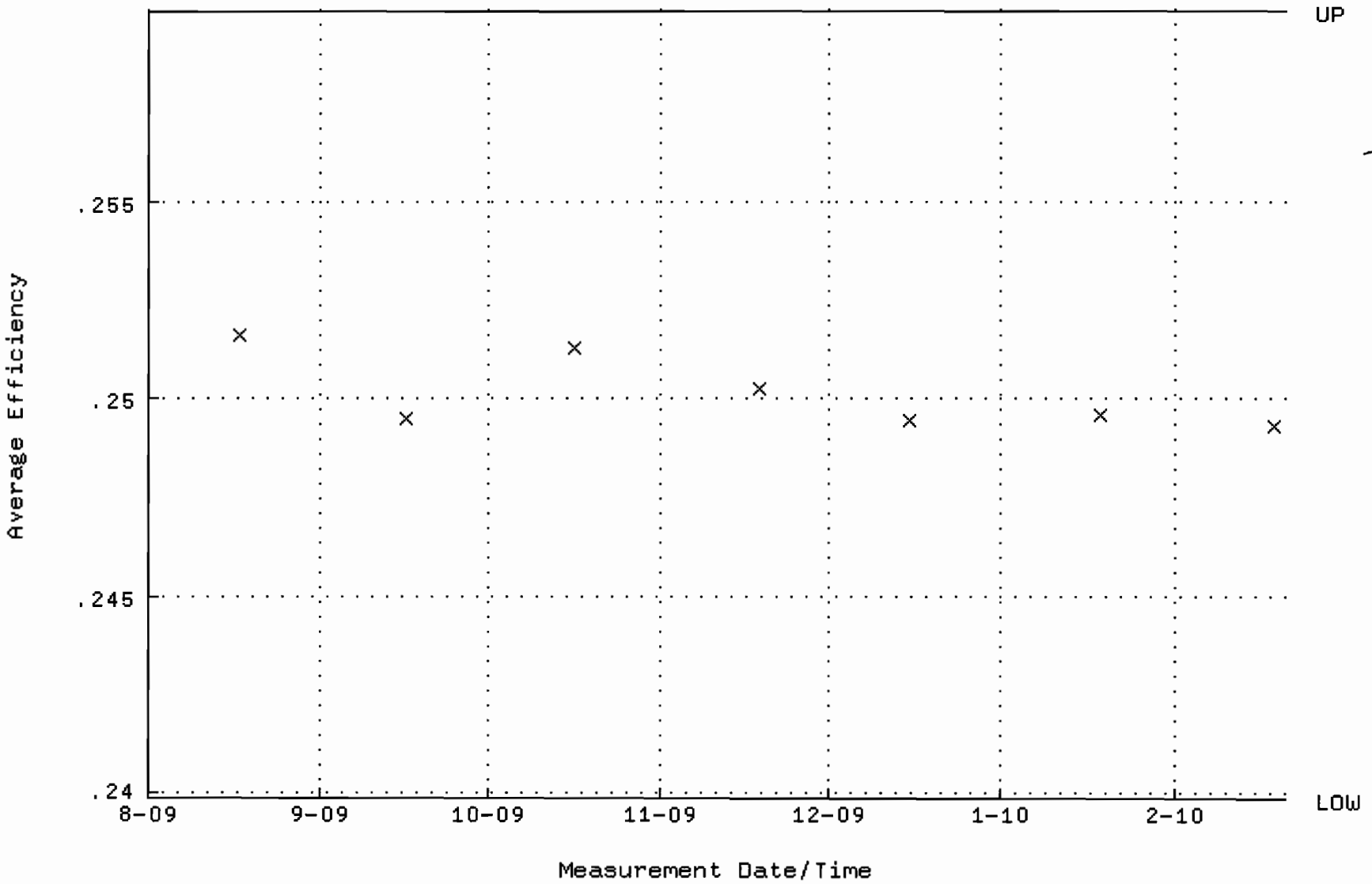

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9354 through 93.8760

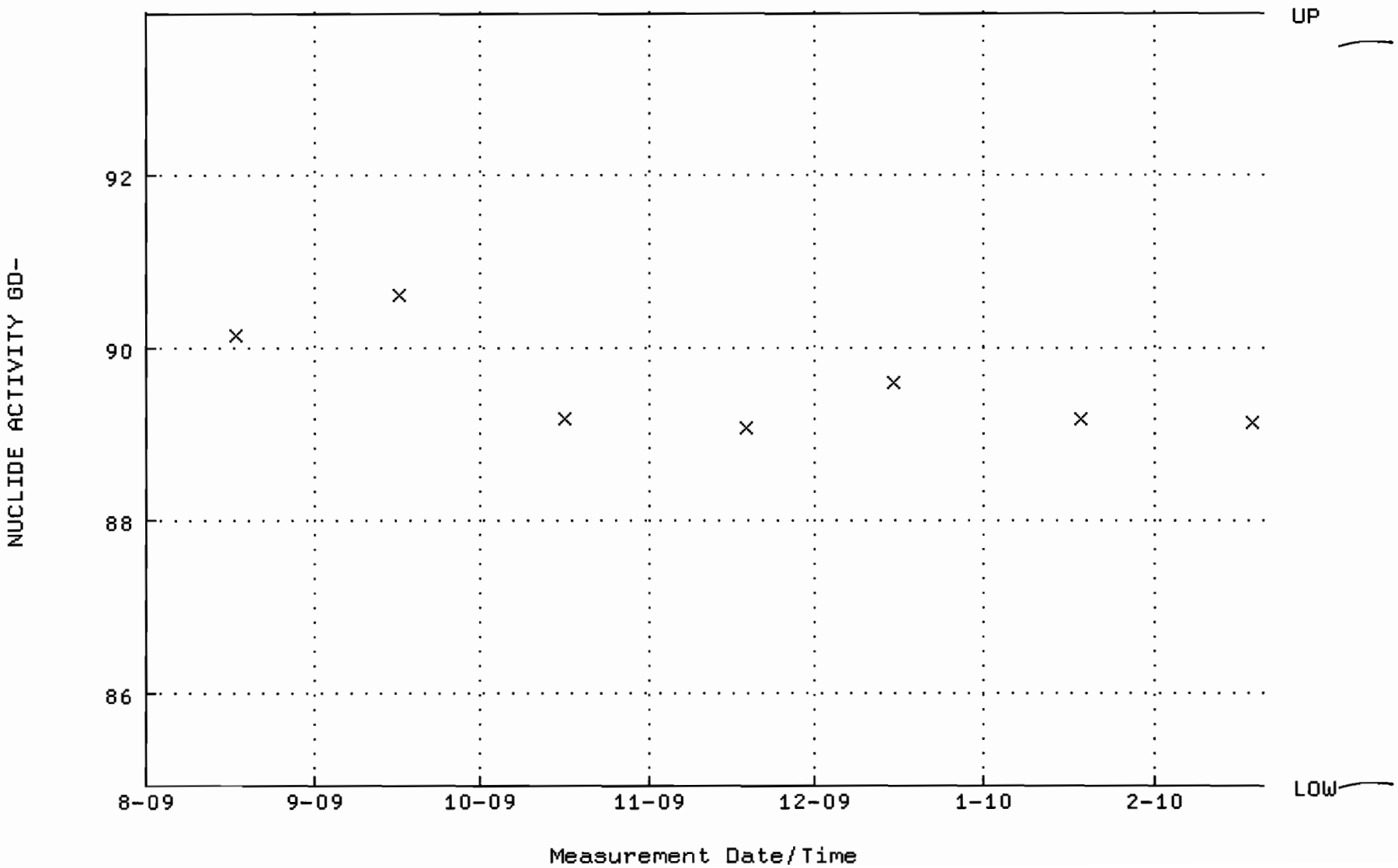

QA filename : DKA100:[ENV_ALPHA.QA.B]B145.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:16 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

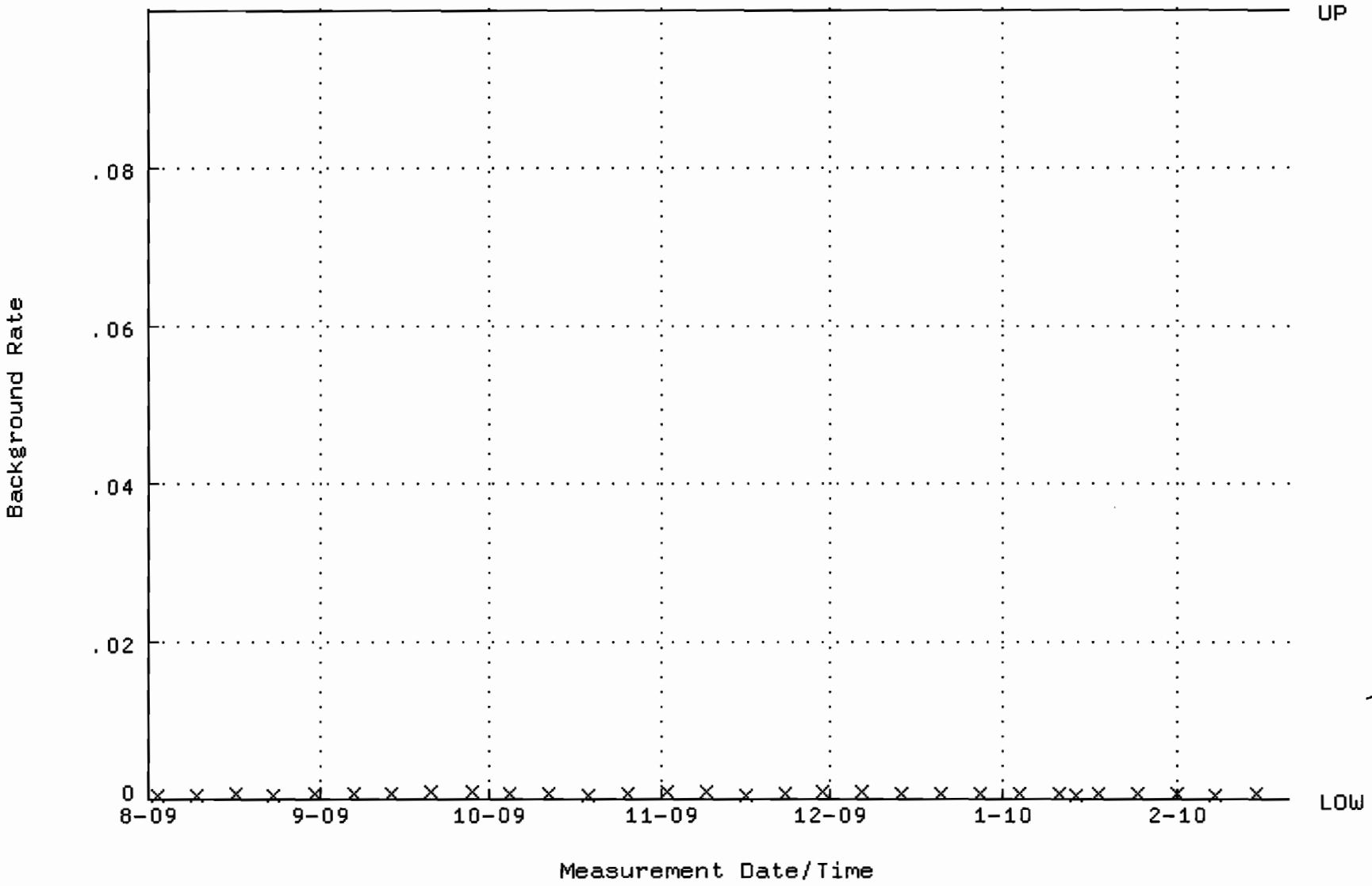

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.241831 through 0.261831

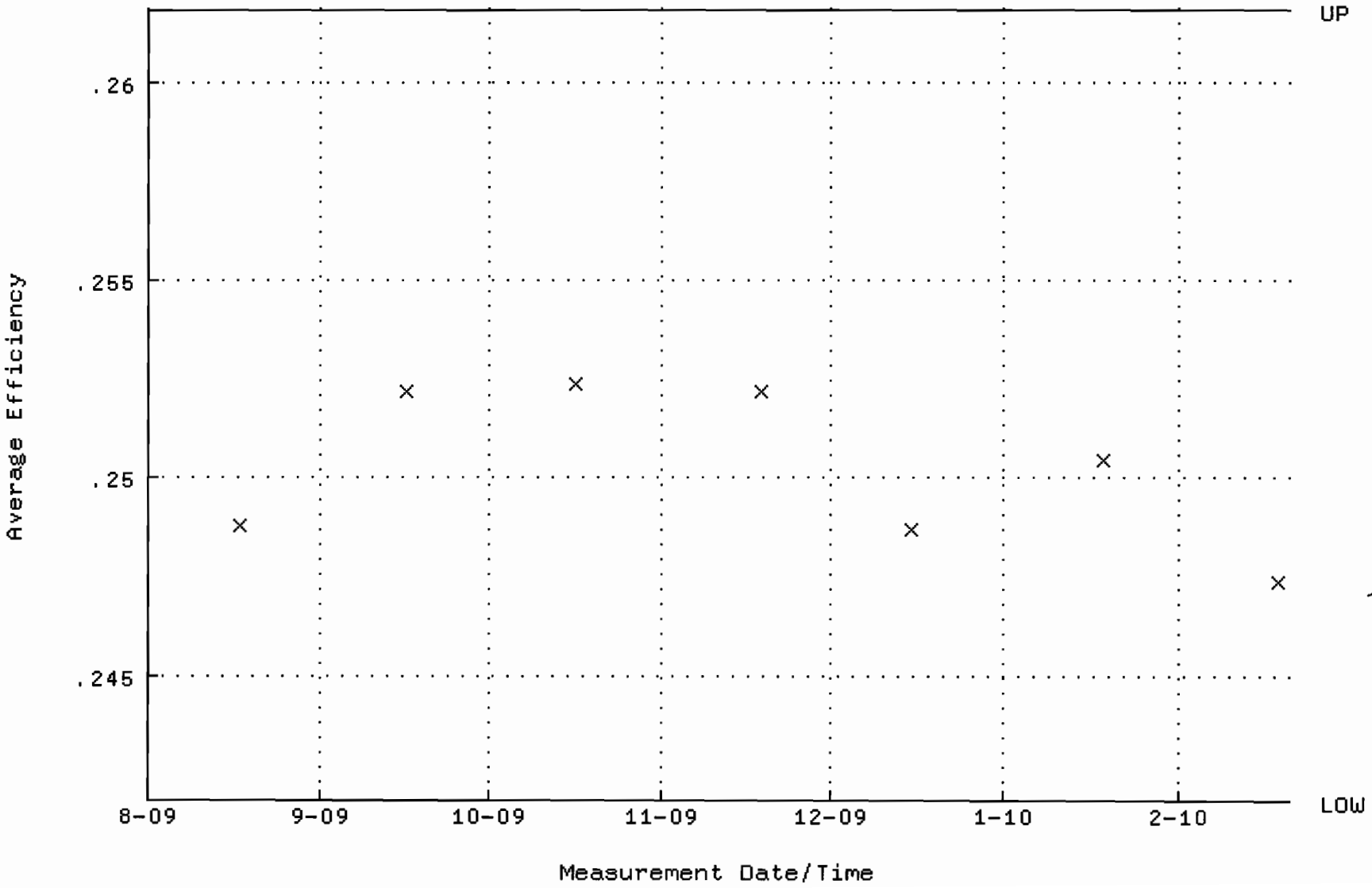

QA filename : DKA100:[ENV_ALPHA.QA.W]W146.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8578 through 93.7902

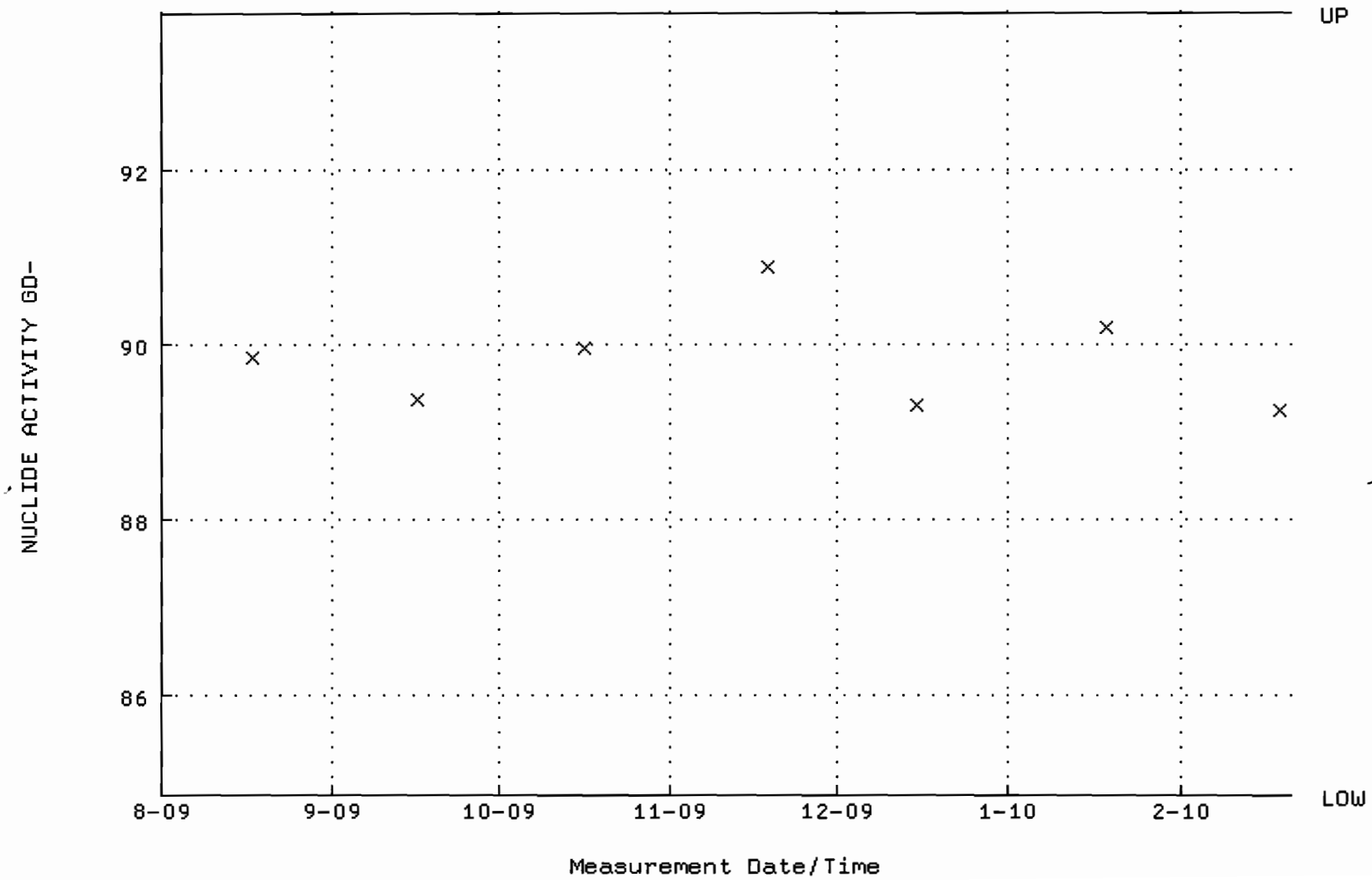

QA filename : DKA100:[ENV_ALPHA.QA.B]B146.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:20 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

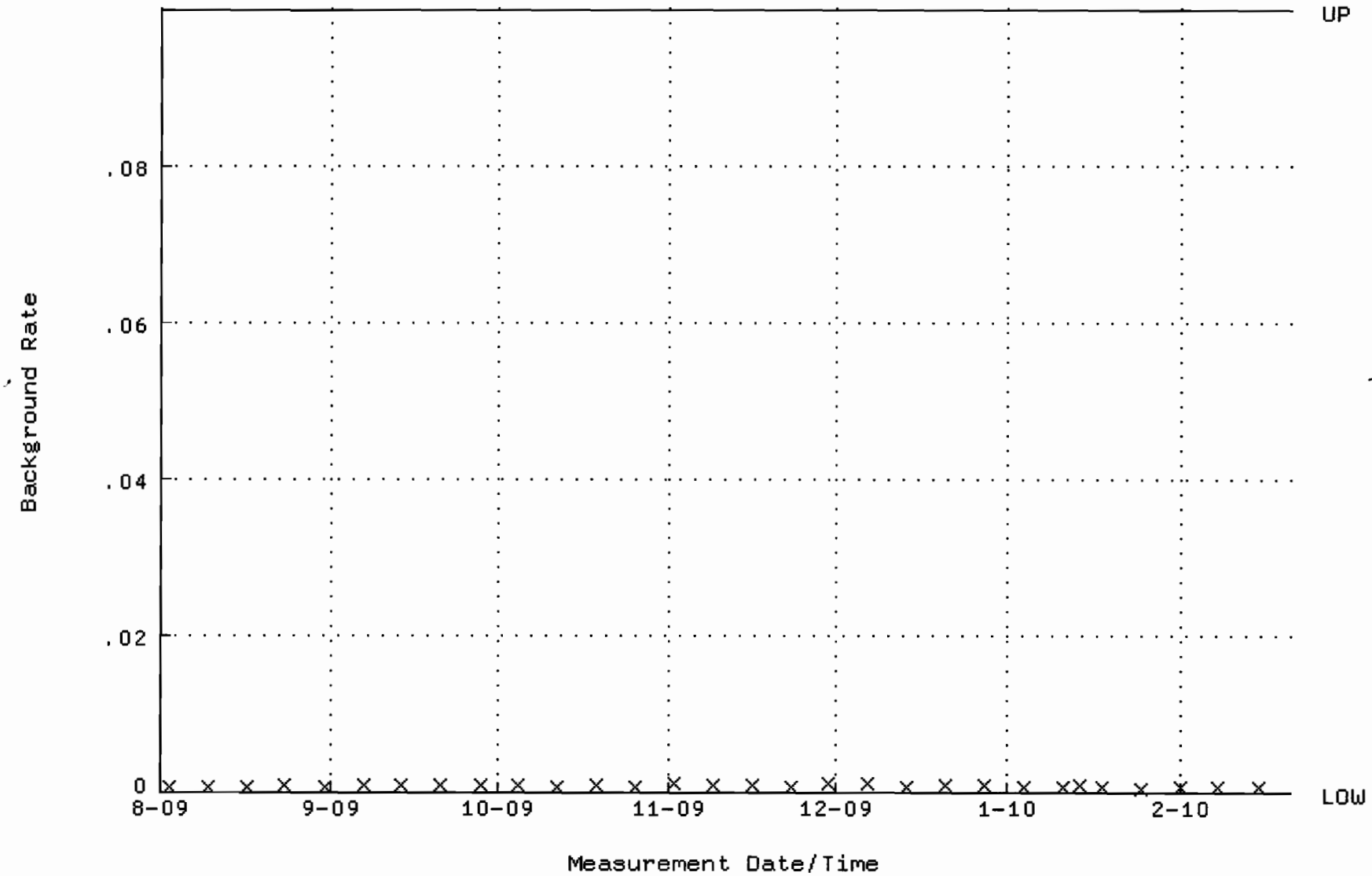

QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:07:03 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237046 through 0.257046

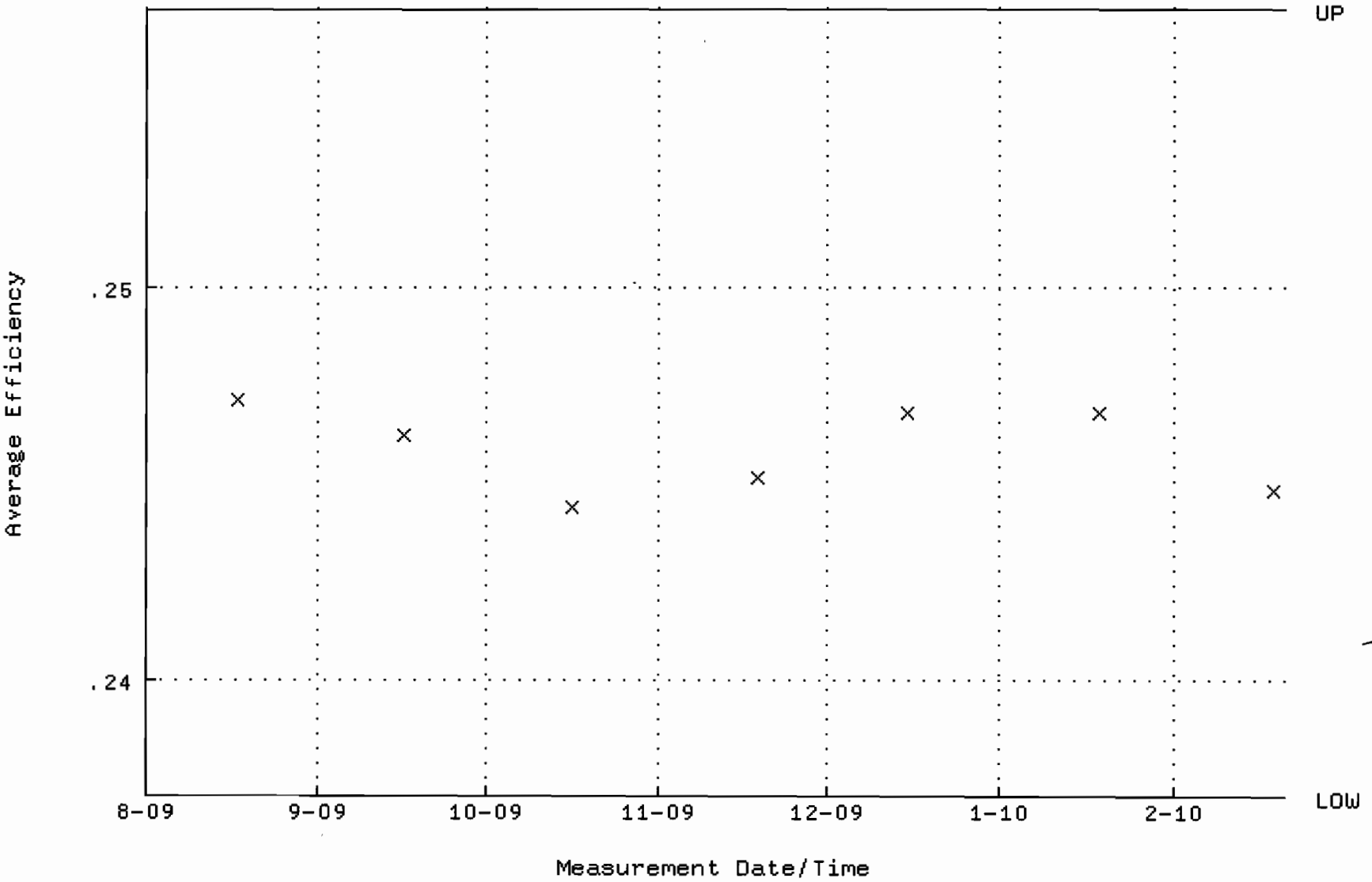

QA filename : DKA100:[ENV_ALPHA.QA.W]W147.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:07:03 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9777 through 93.9227

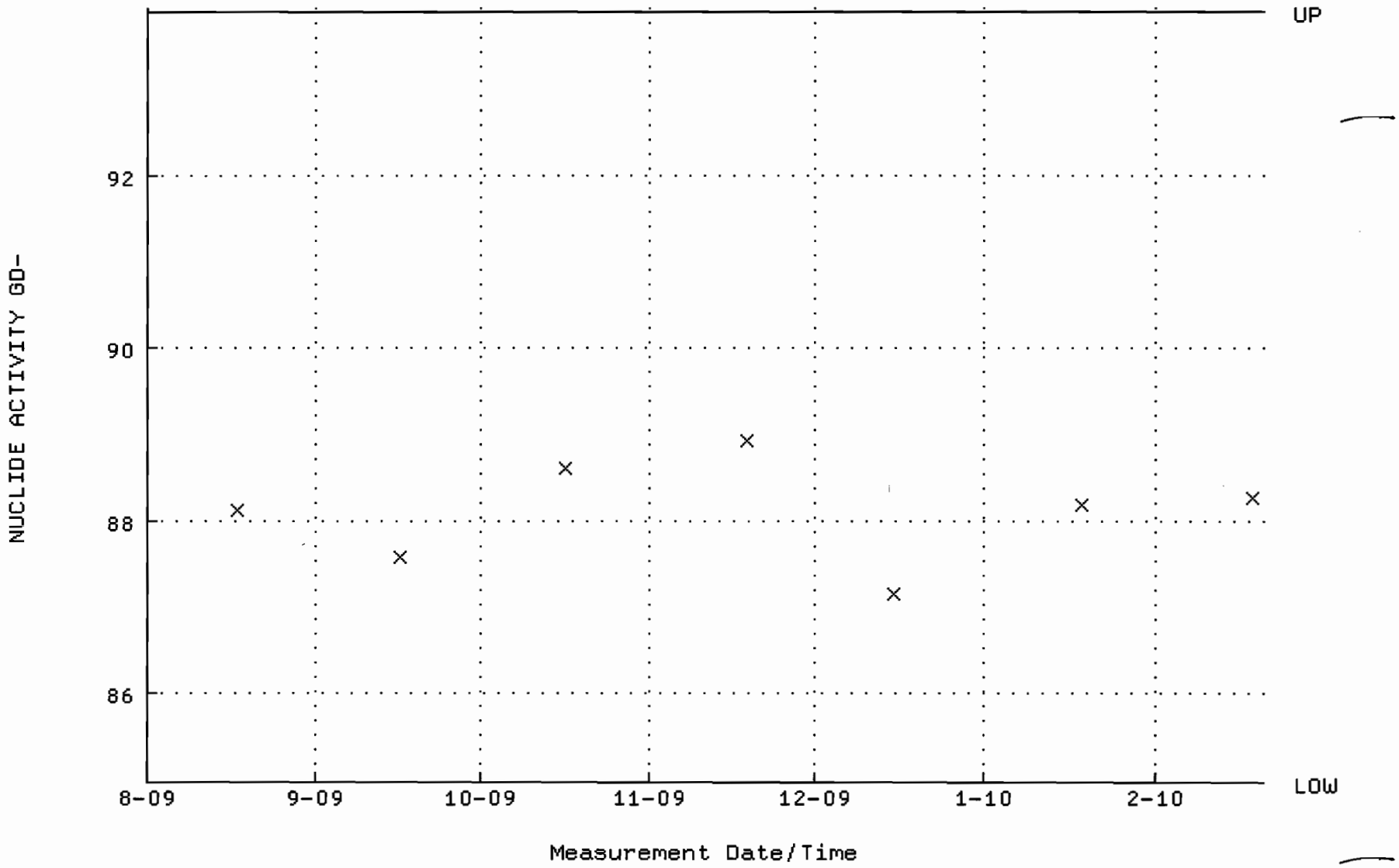

QA filename : DKA100:[ENV_ALPHA.QA.B]B147.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:24 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

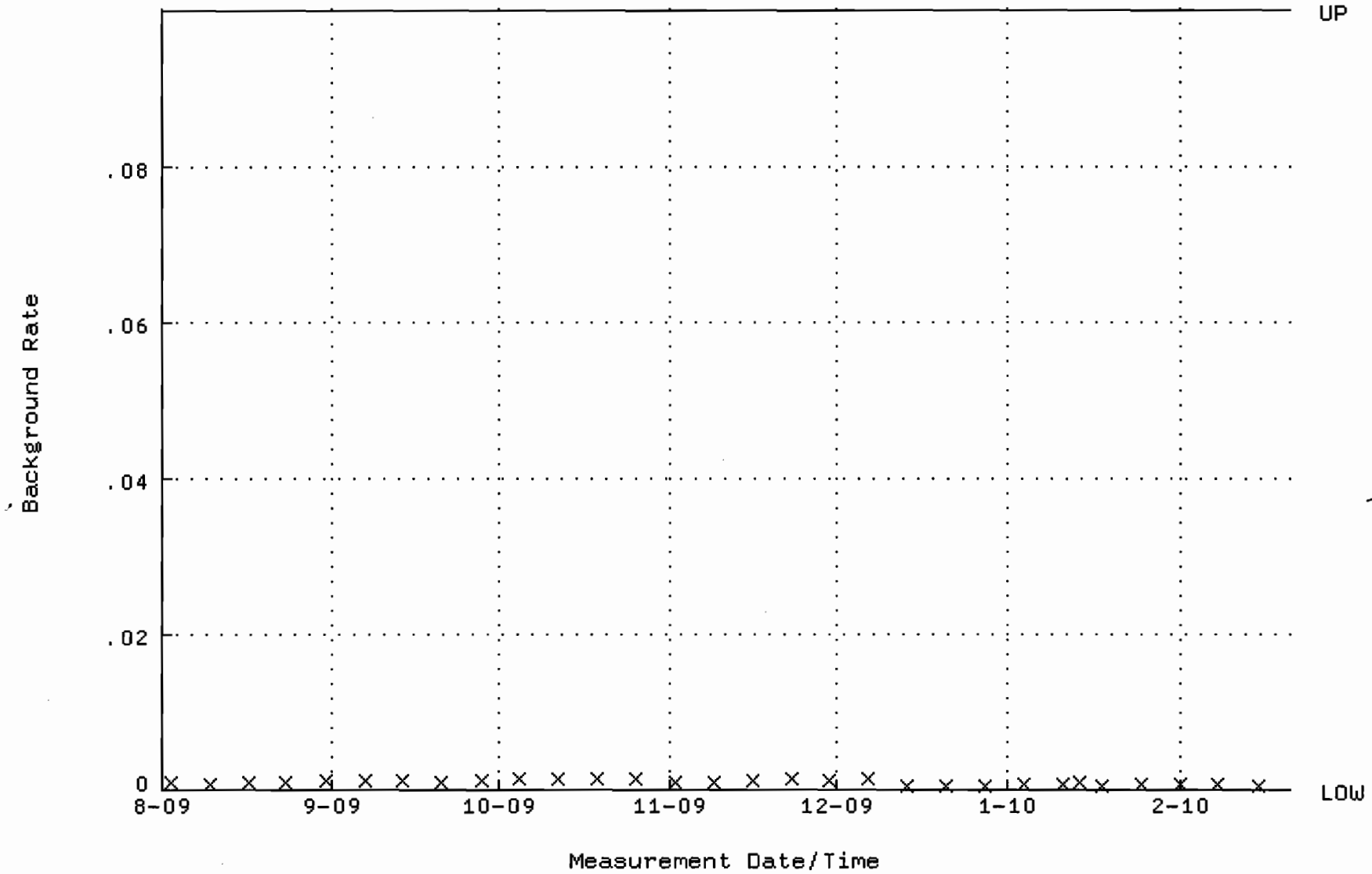

QA filename : DKA100:[ENV_ALPHA.QA.W]W164.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:07 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.369199 through 0.396555

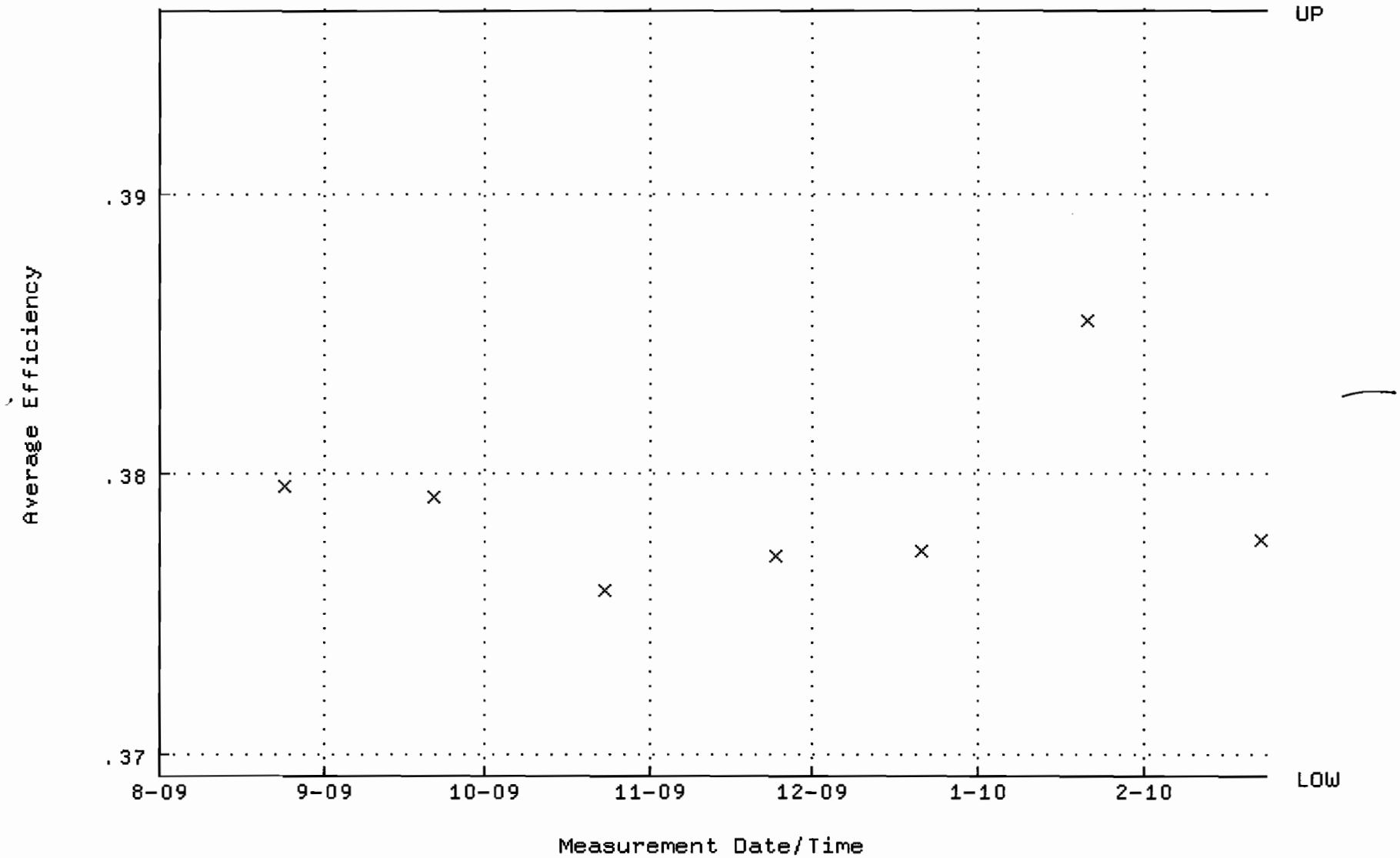

QA filename : DKA100:[ENV_ALPHA.QA.W]W164.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:07 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 89.2764 through 92.8786

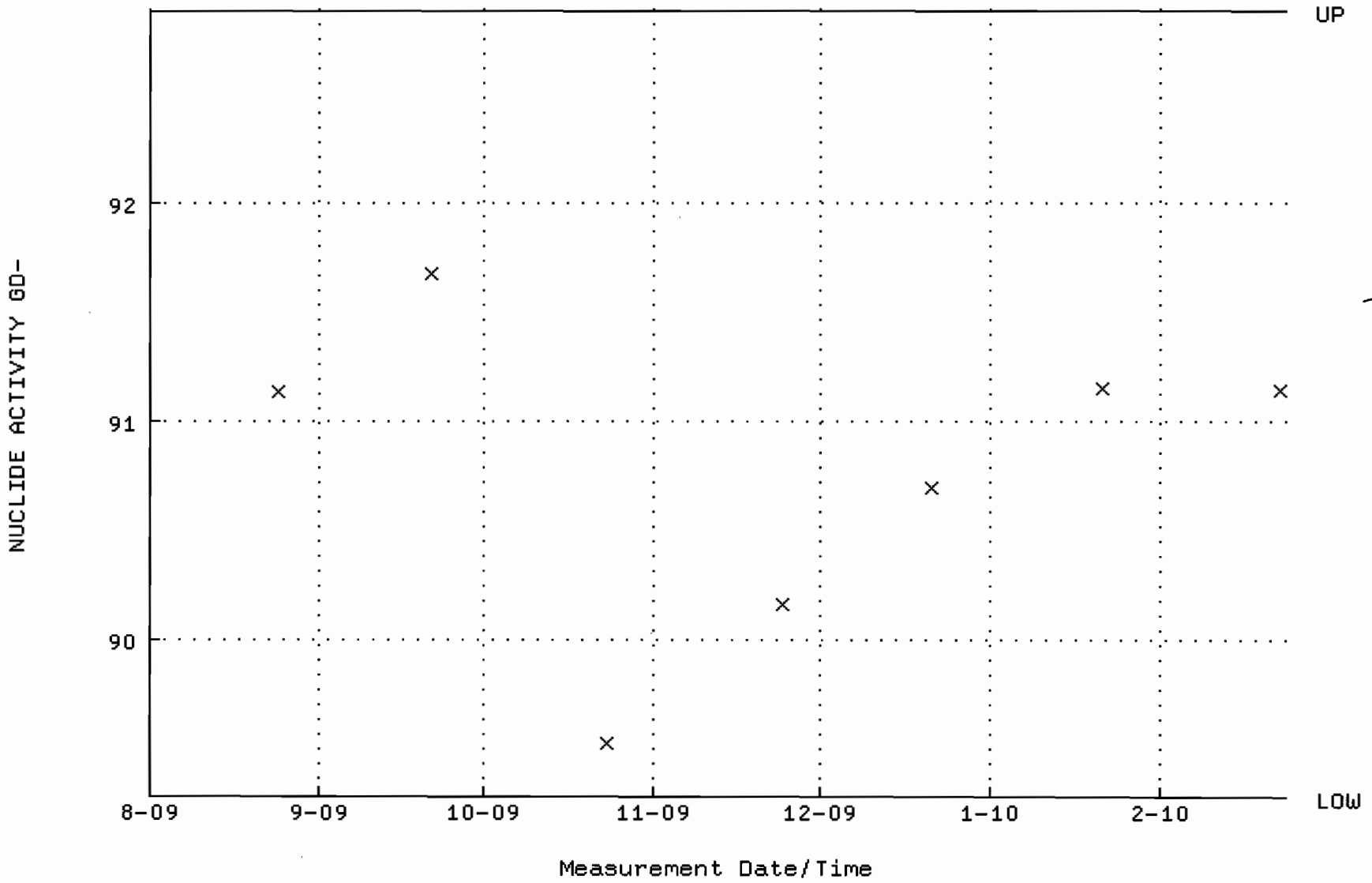

QA filename : DKA100:[ENV_ALPHA.QA.B]B164.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:21:49 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

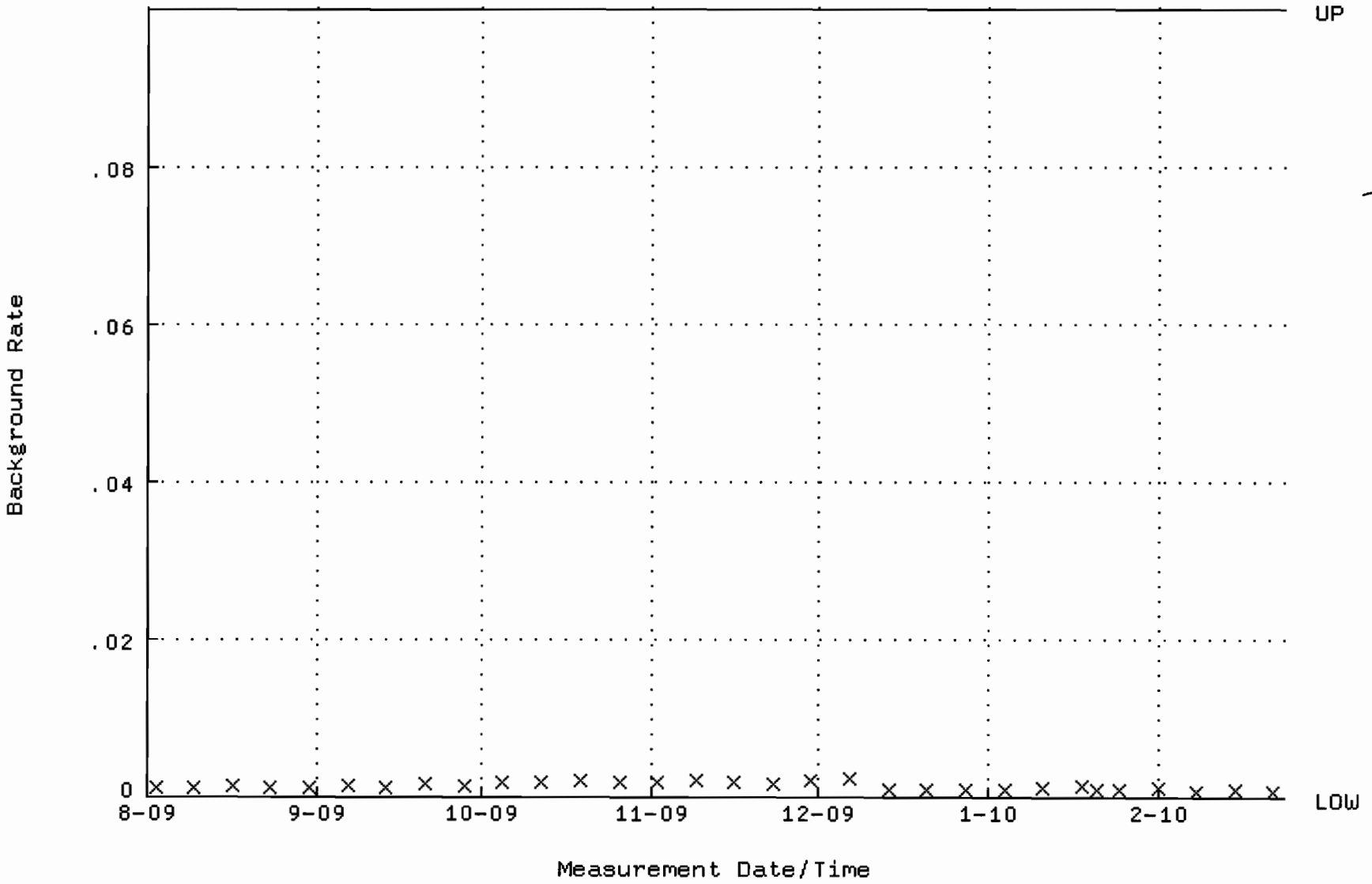

QA filename : DKA100:[ENV_ALPHA.QA.W]W197.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:43:12 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.248572 through 0.268572

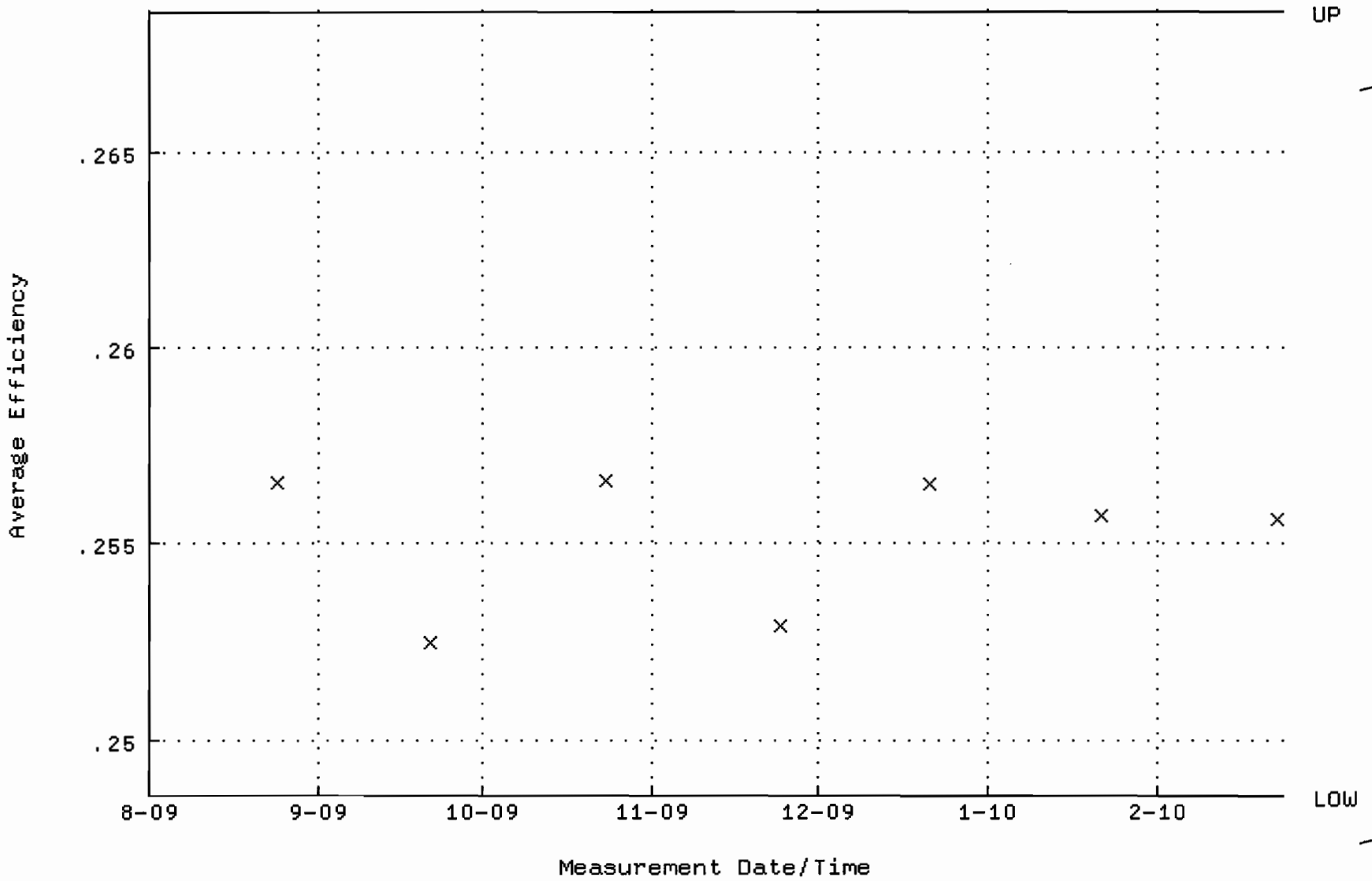

QA filename : DKA100:[ENV_ALPHA.QA.W]W197.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:43:12 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 84.1772 through 93.0380

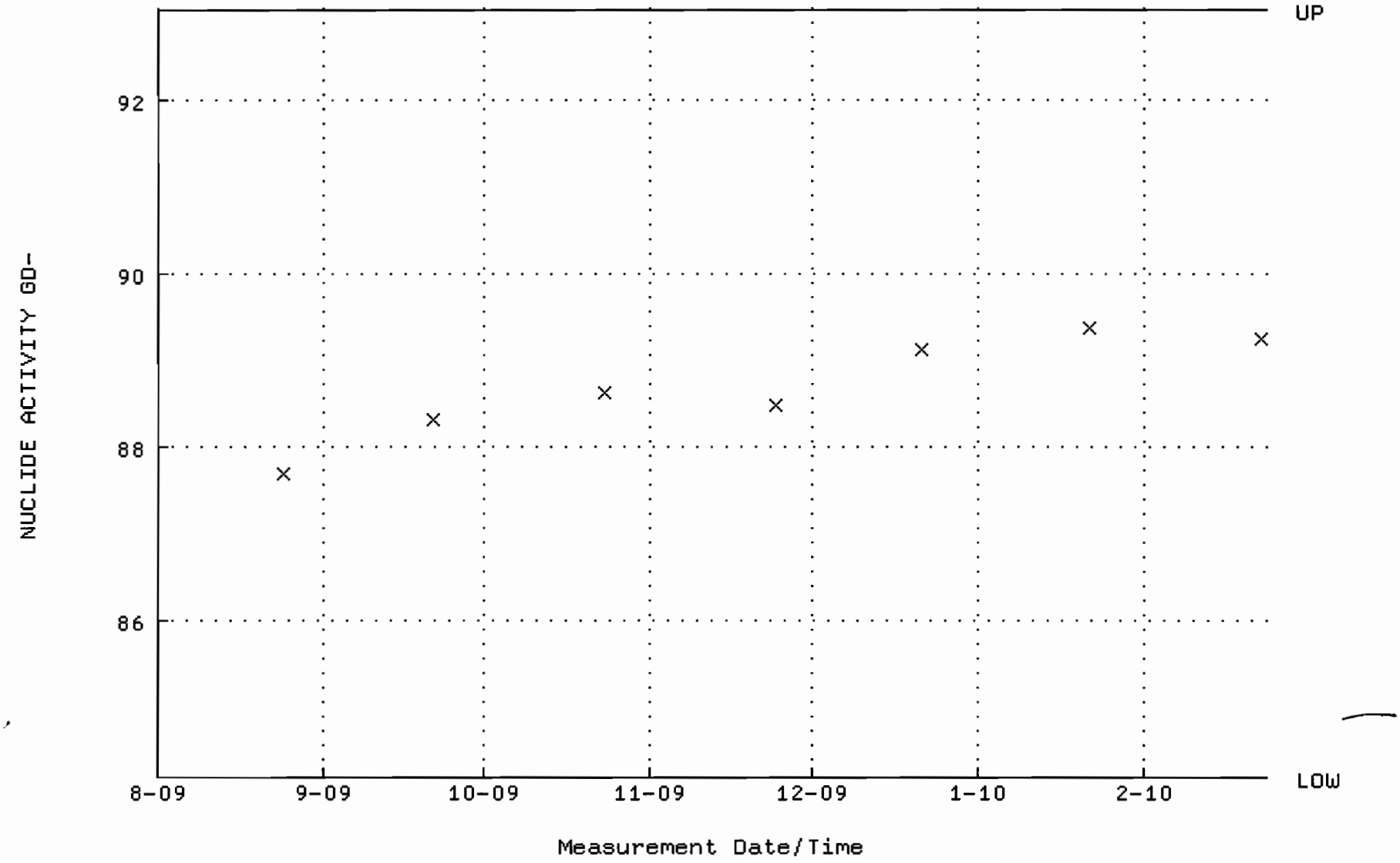

QA filename : DKA100:[ENV_ALPHA.QA.B]B197.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:24:16 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

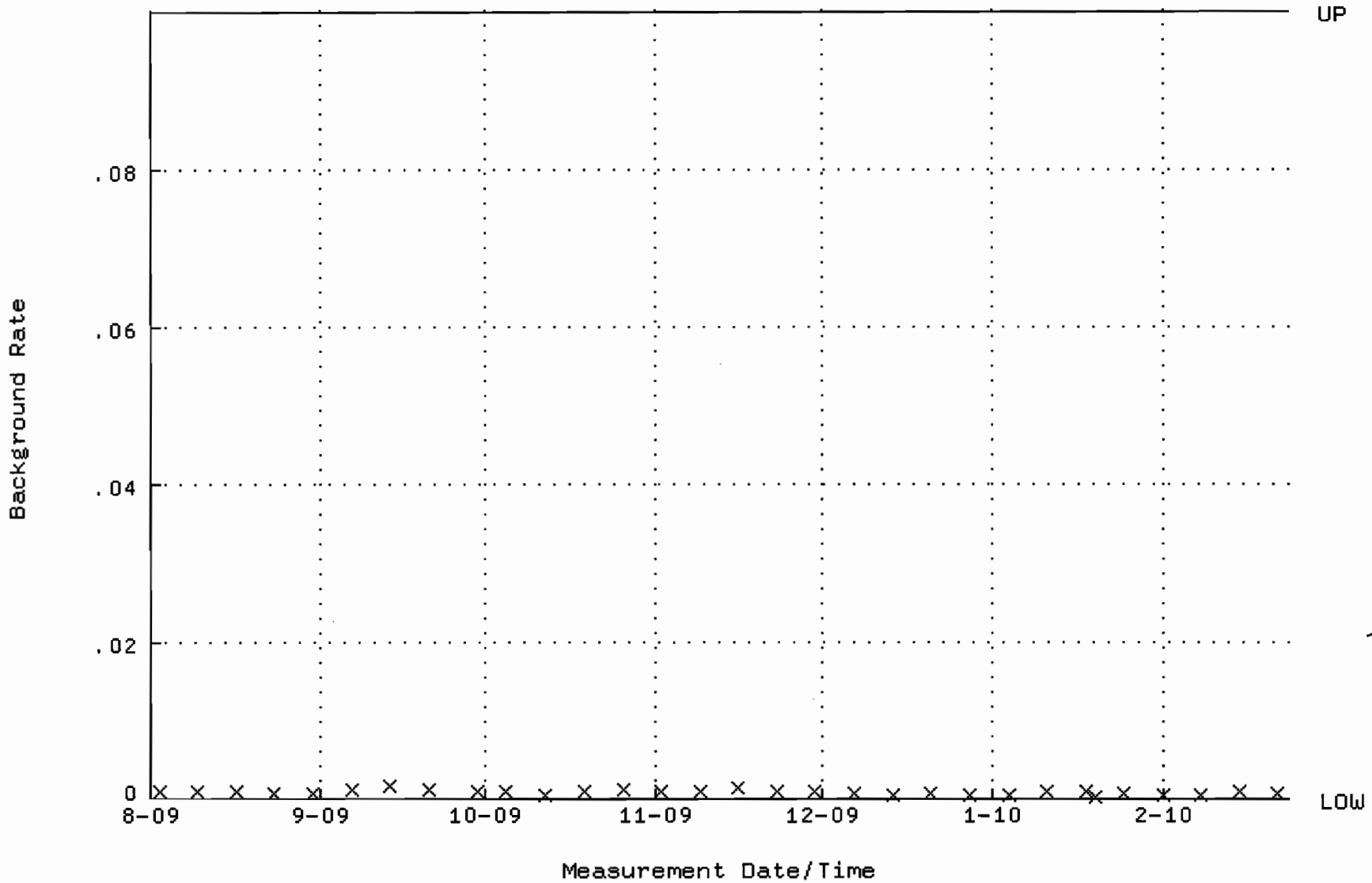

QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:39 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.363706 through 0.383706

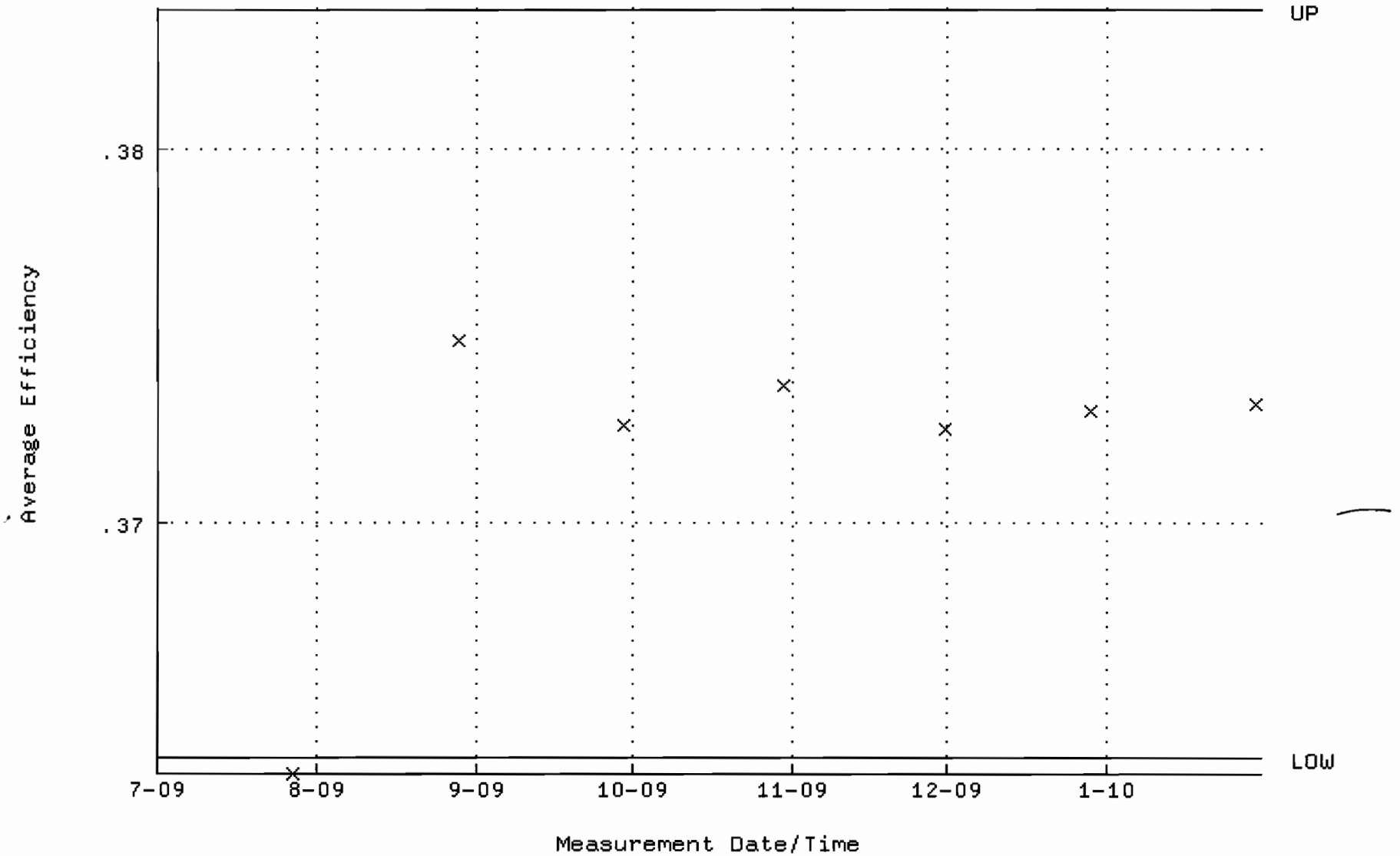

QA filename : DKA100:[ENV_ALPHA.QA.B]B213.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:38 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

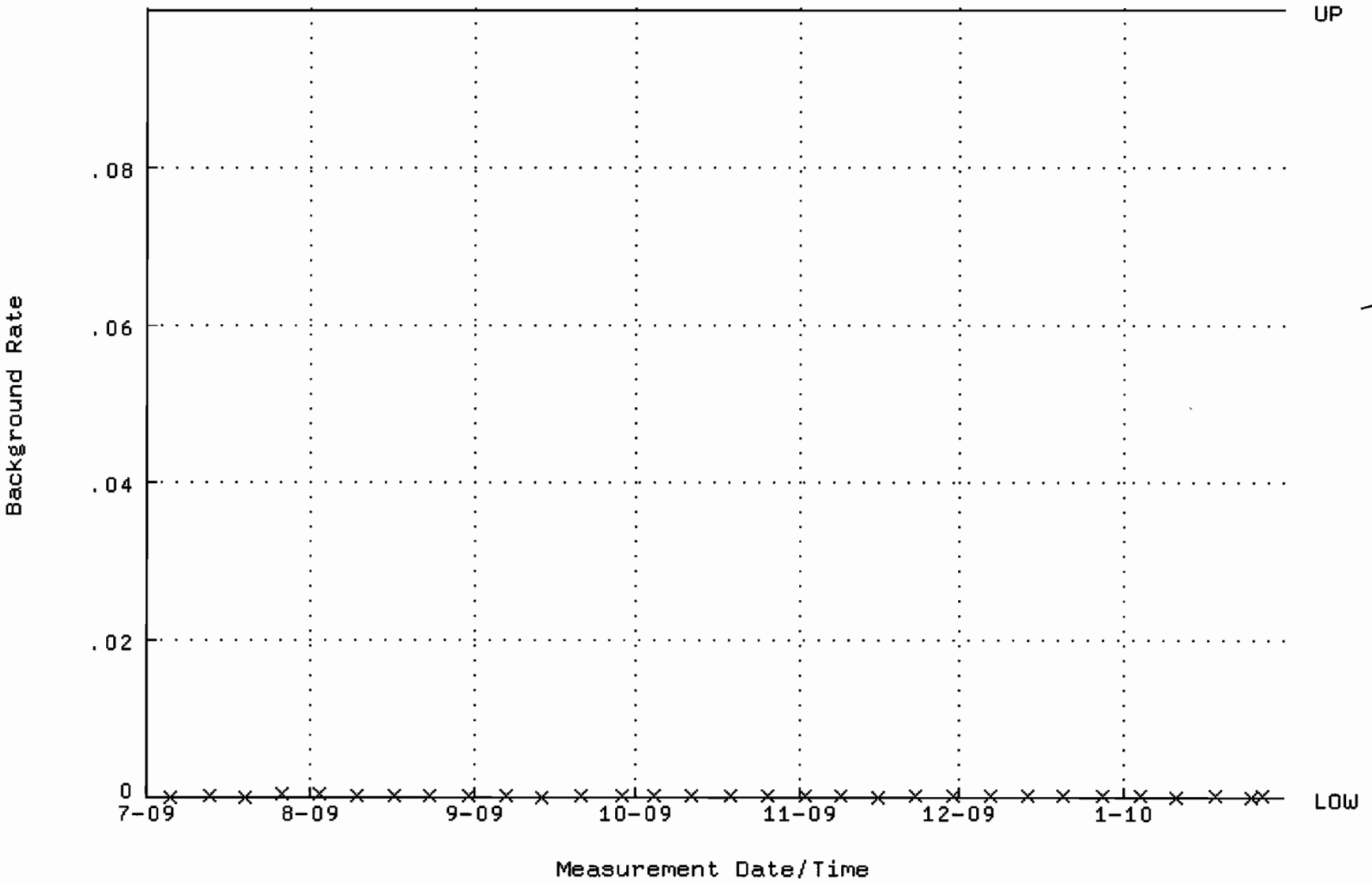

QA filename : DKA100:[ENV_ALPHA.QA.W]W215.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.366025 through 0.386025

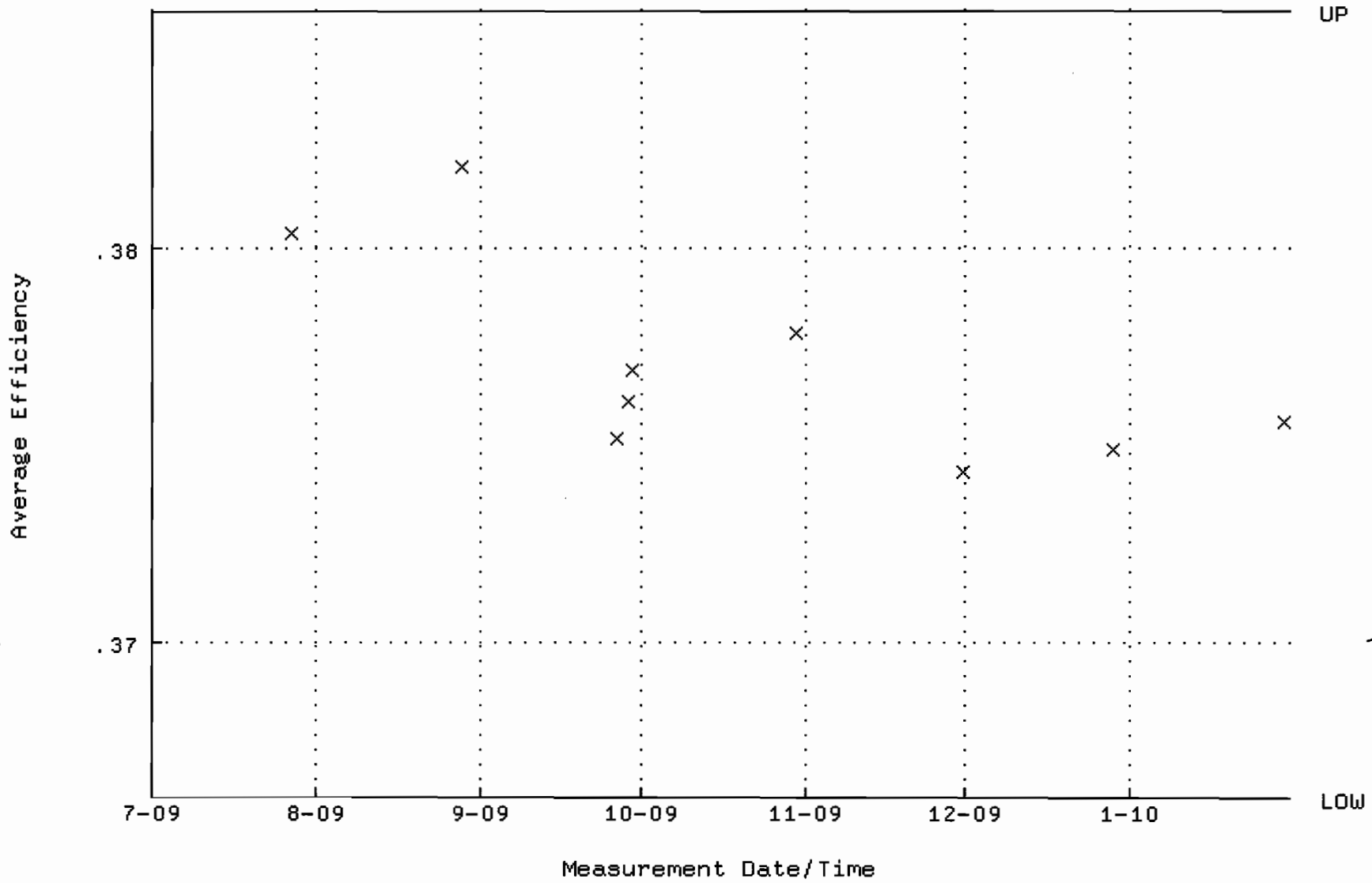

QA filename : DKA100:[ENV_ALPHA.QA.W]W215.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 86.2153 through 95.2905

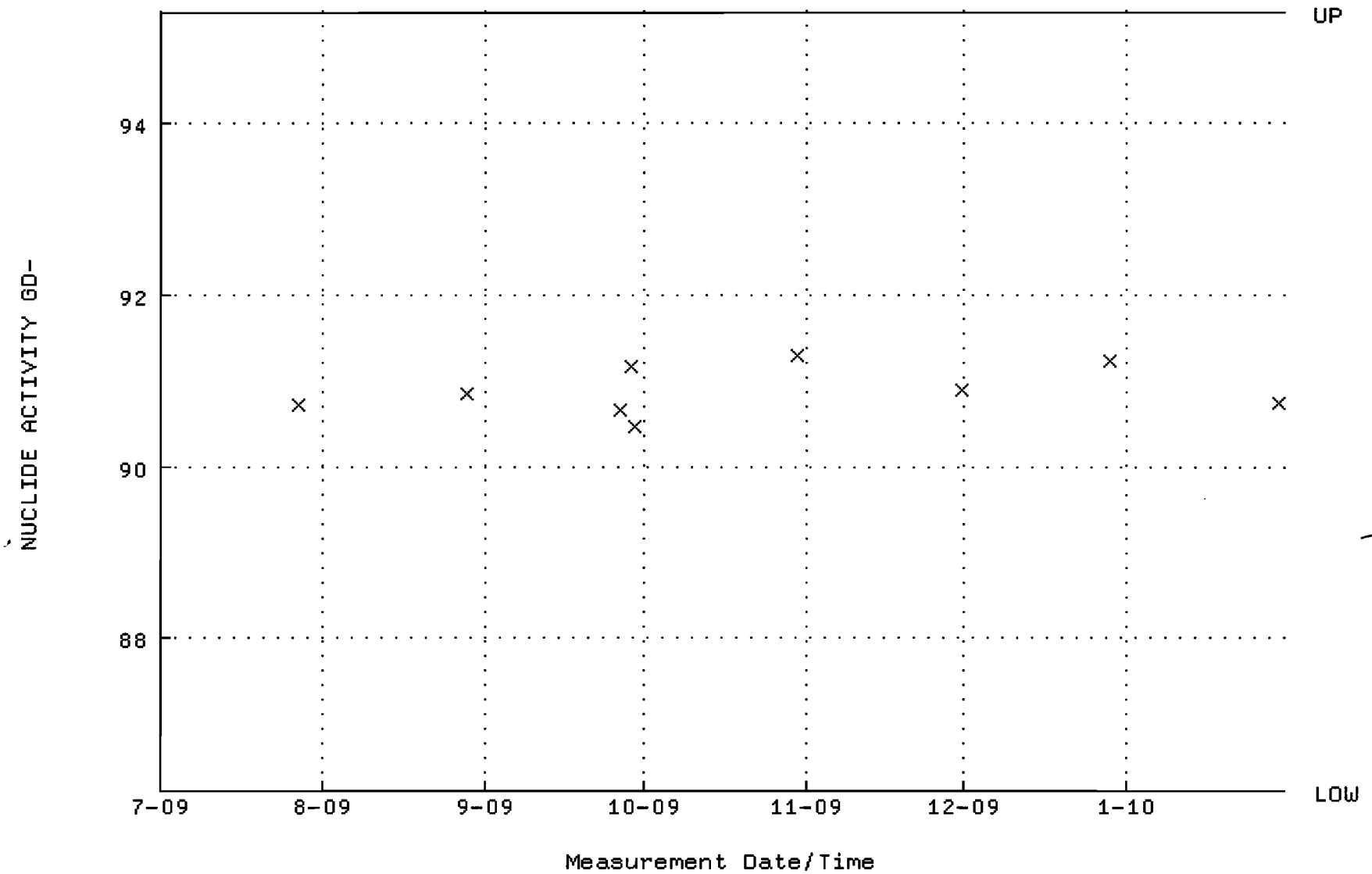

QA filename : DKA100:[ENV_ALPHA.QA.B]B215.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:47 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

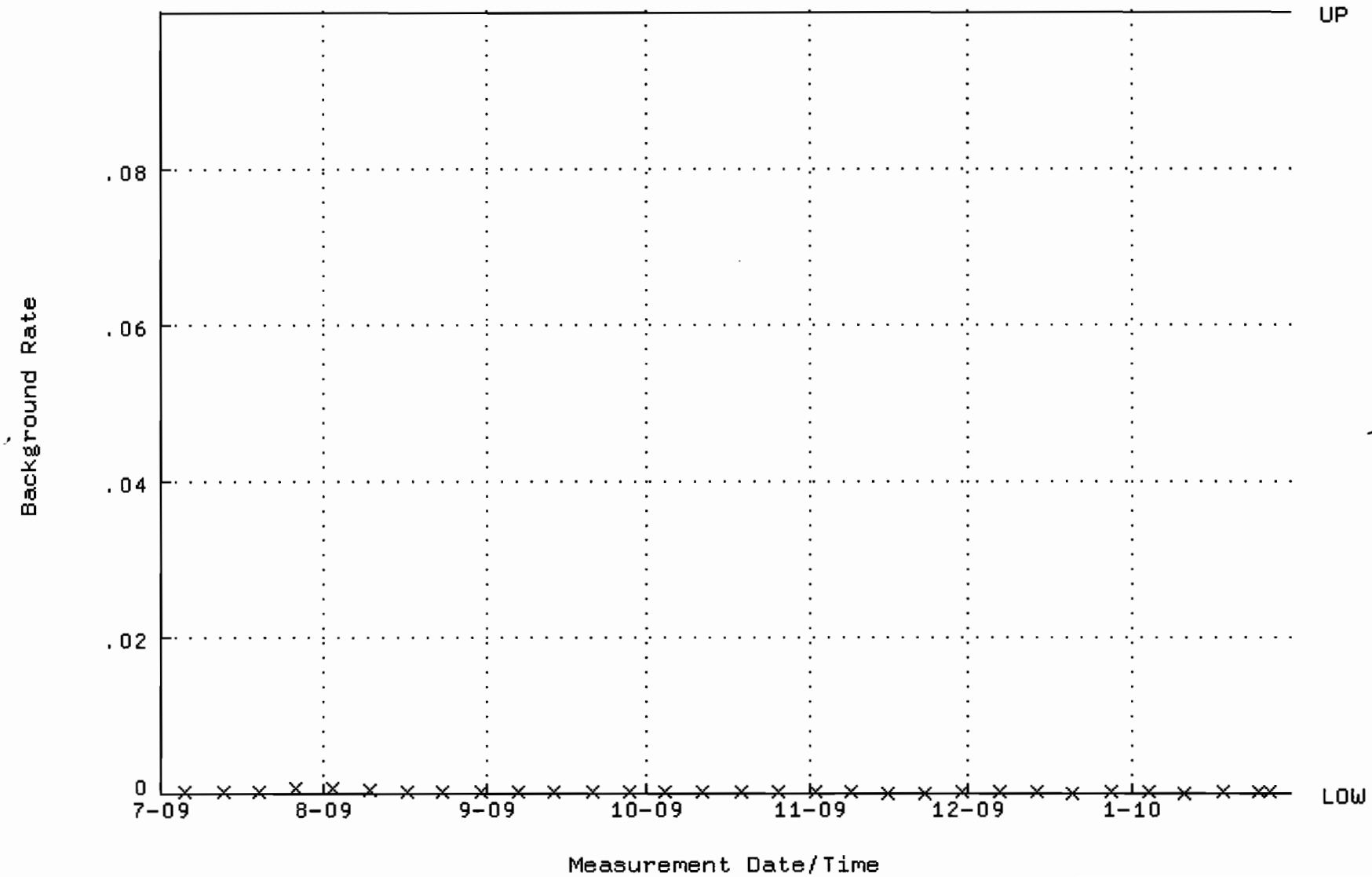

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.354934 through 0.374934

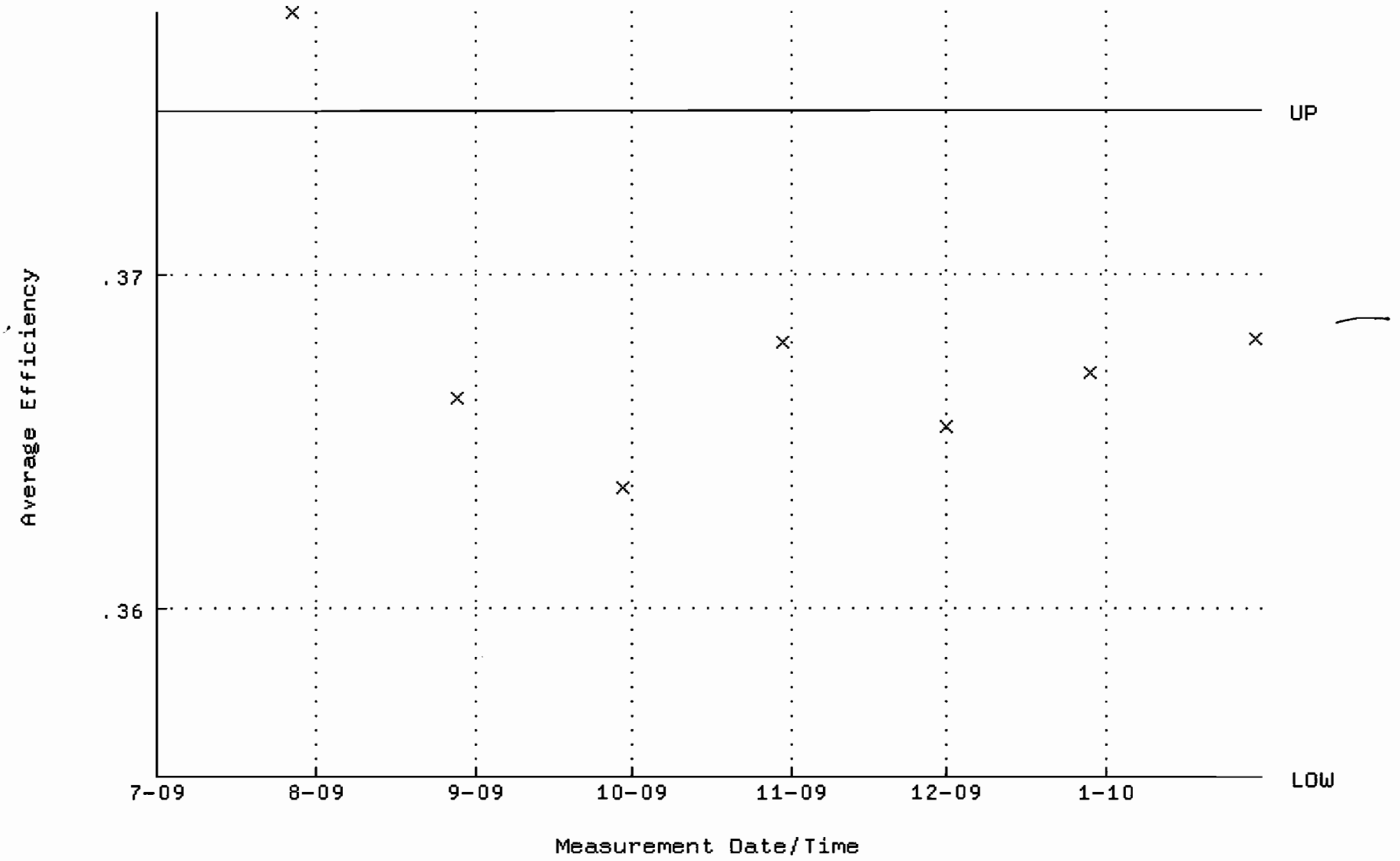

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.3174 through 97.6140

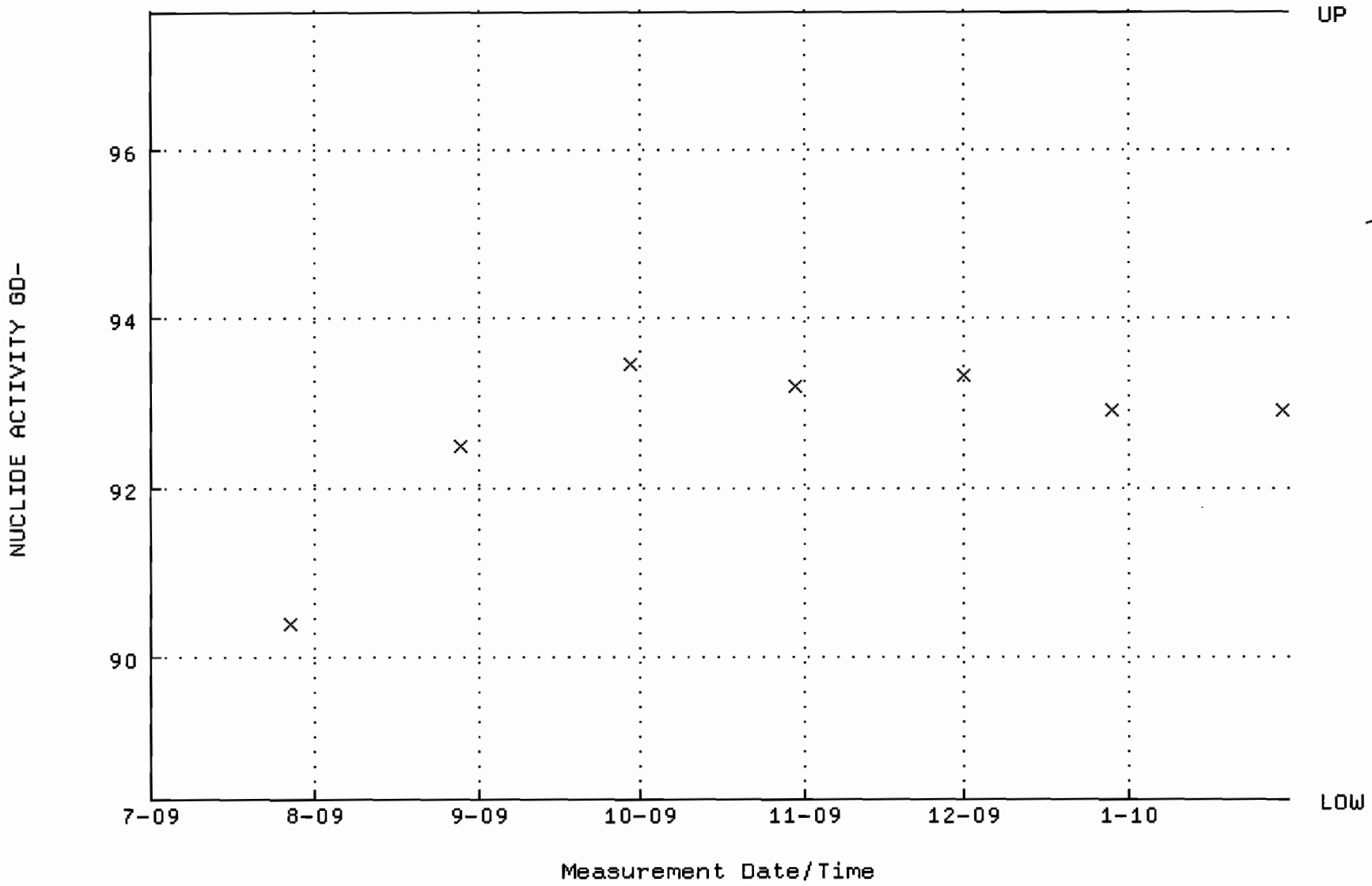

QA filename : DKA100:[ENV_ALPHA.QA.B]B217.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:56 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

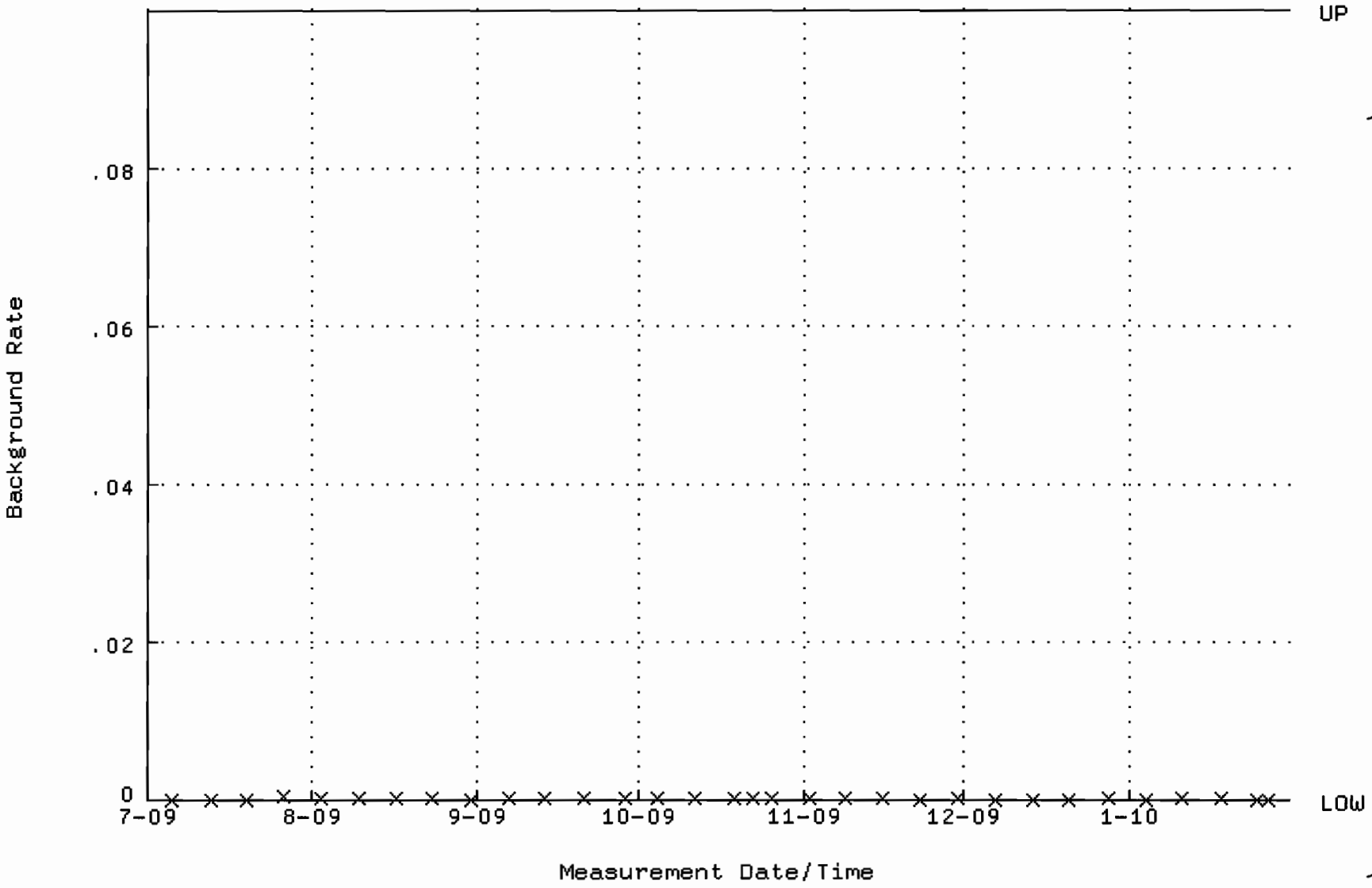

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362380 through 0.382380

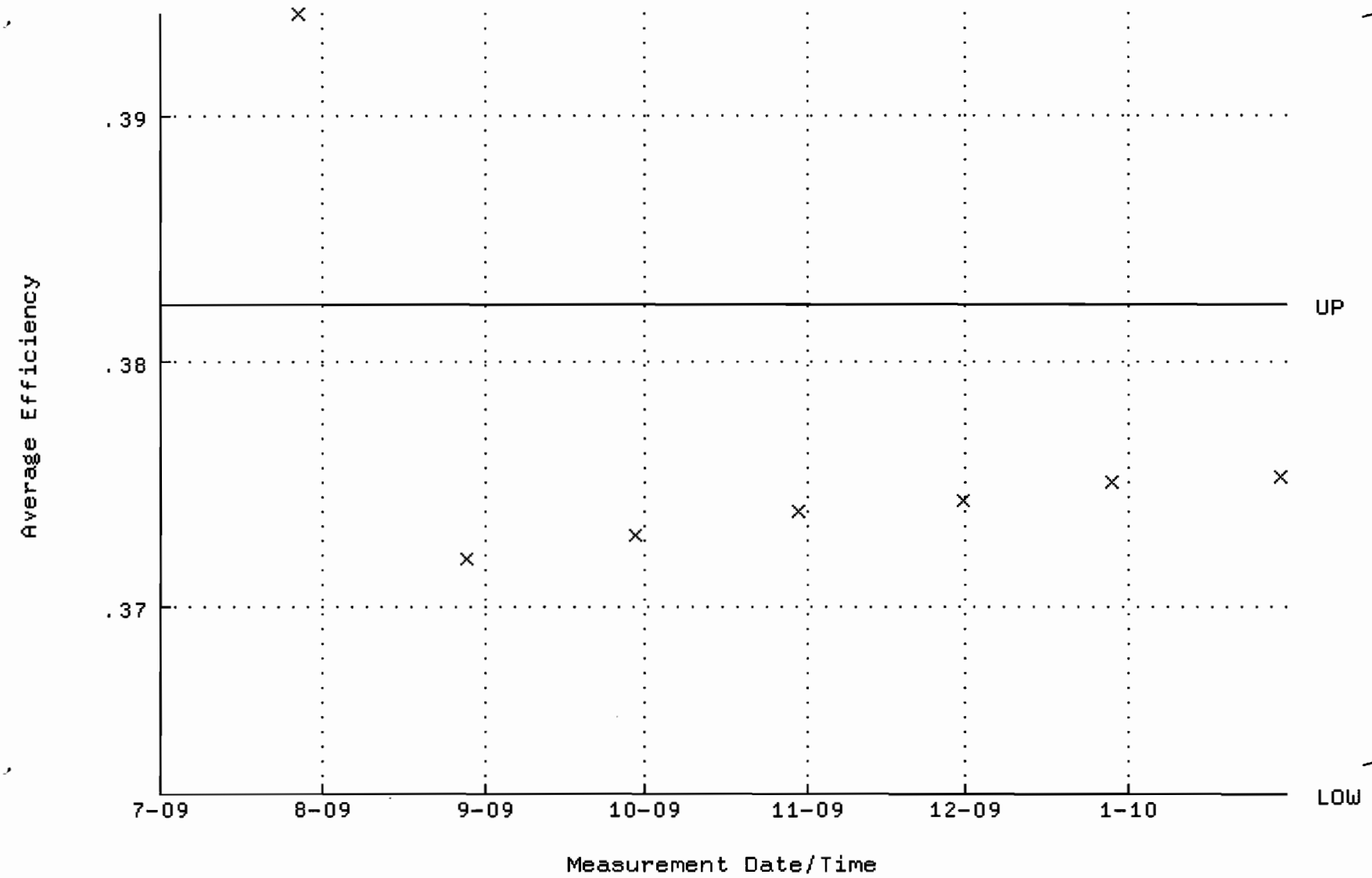

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.3892 through 98.7986

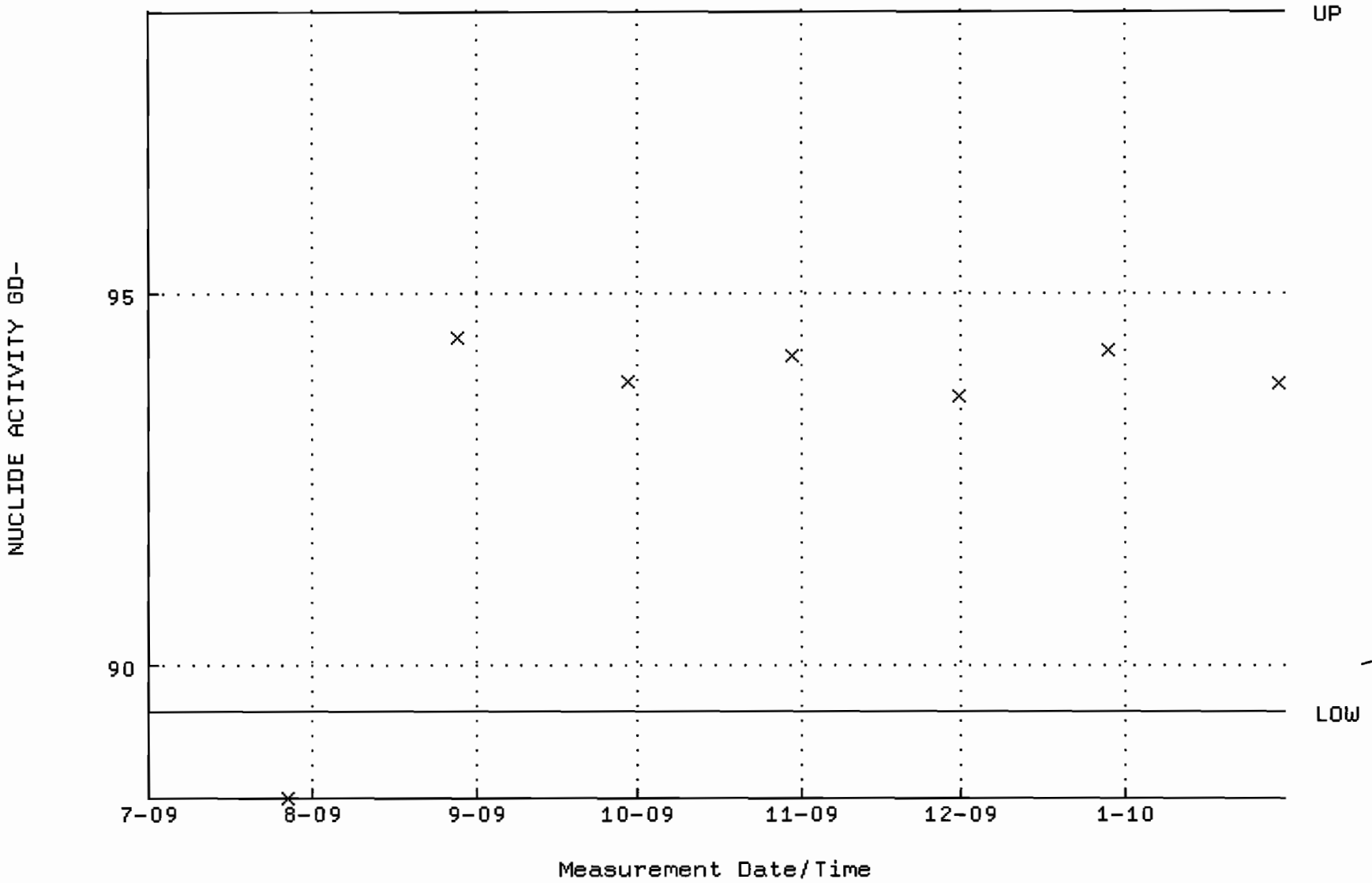

QA filename : DKA100:[ENV_ALPHA.QA.B]B218.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

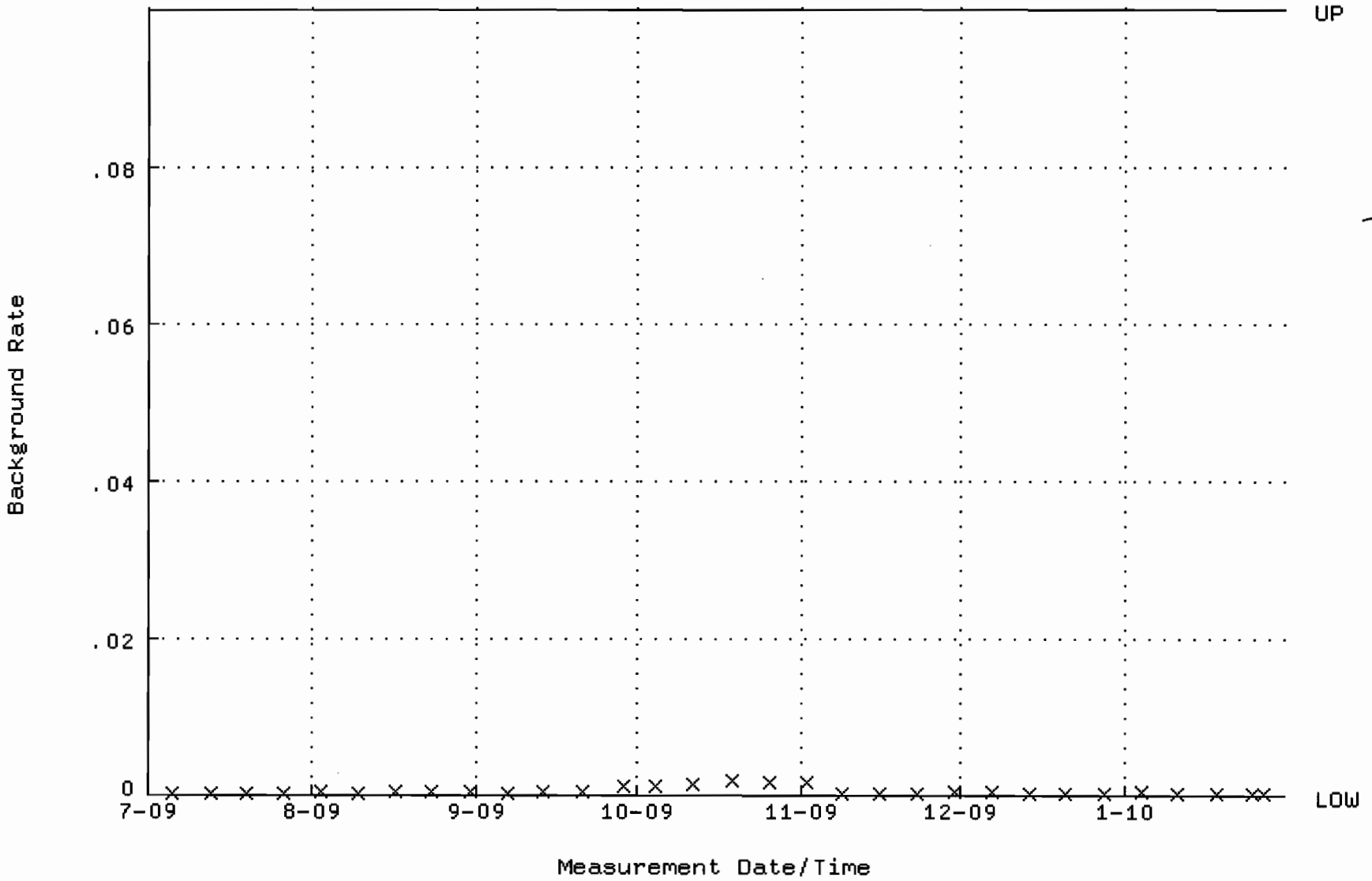

QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.375667 through 0.395667

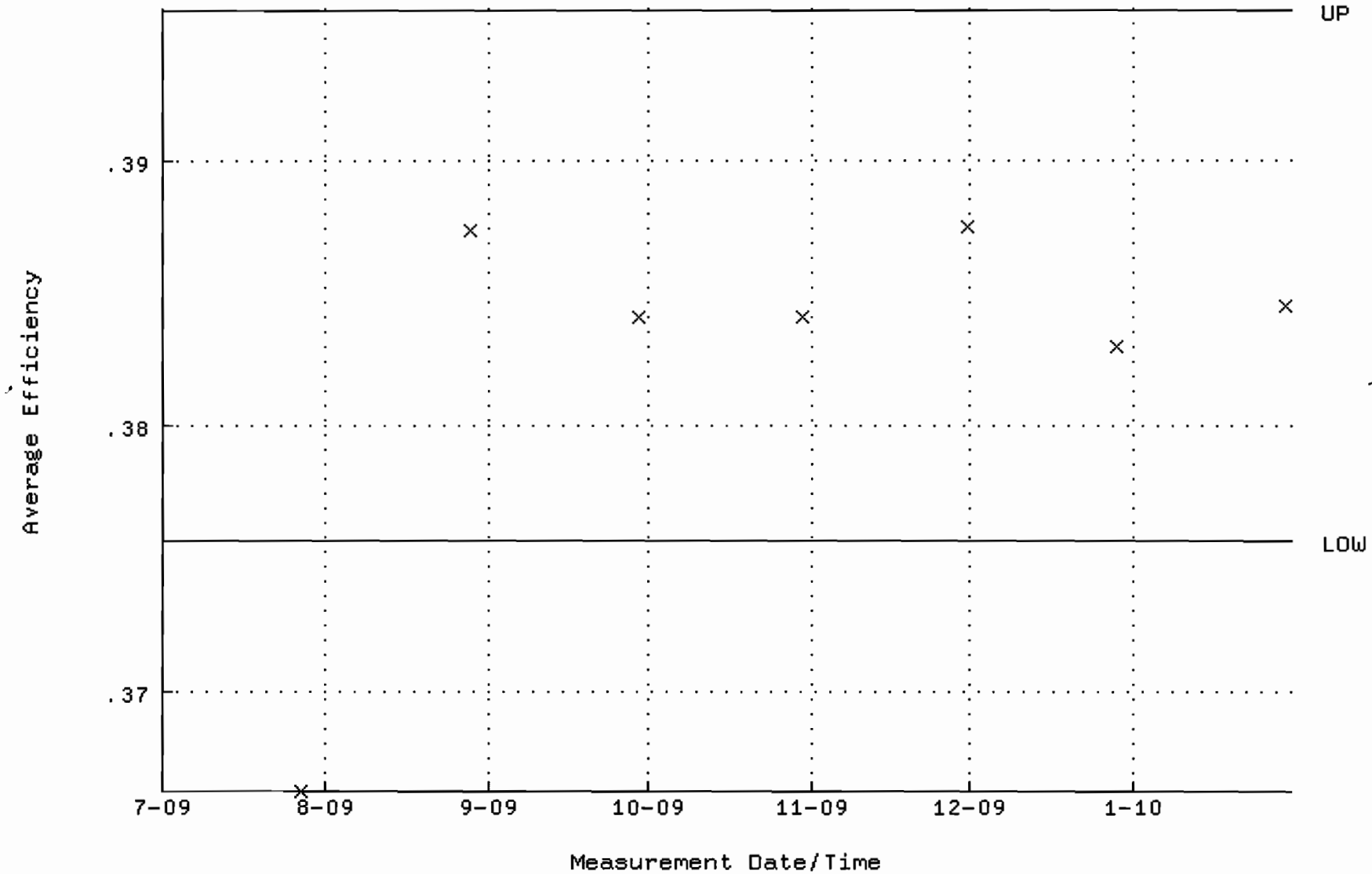

QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:16 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.5518 through 93.4520

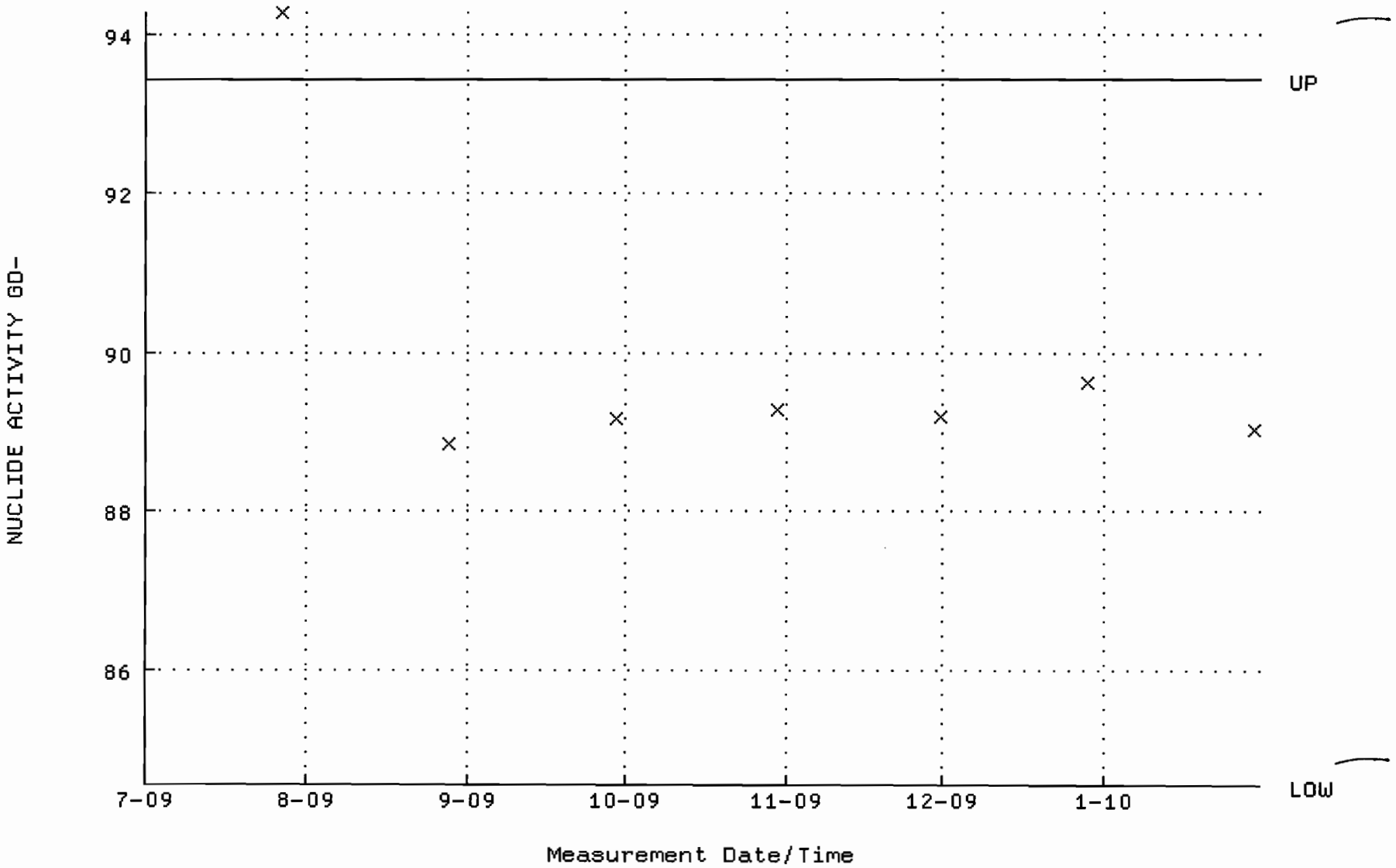

QA filename : DKA100:[ENV_ALPHA.QA.B]B219.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

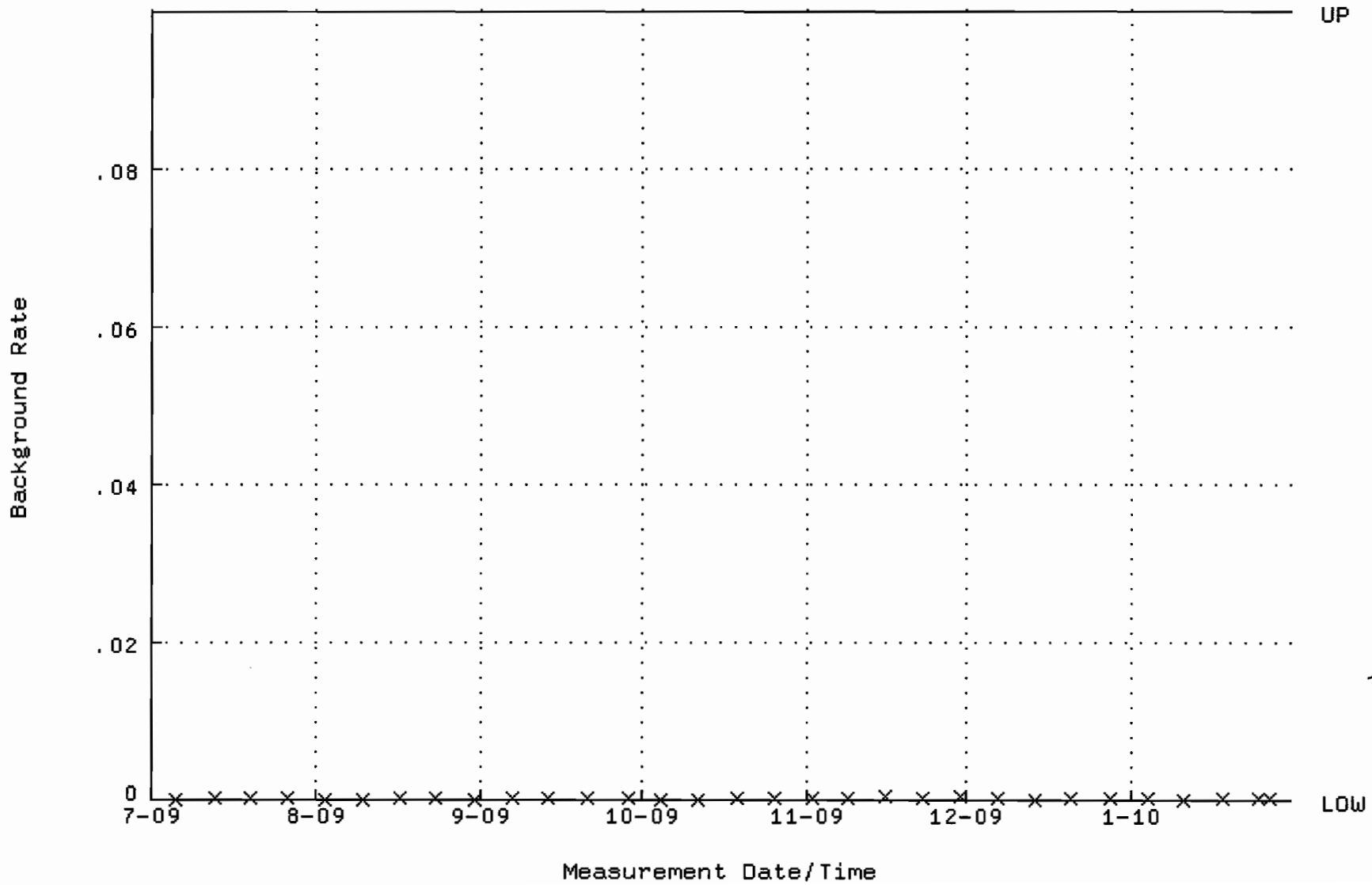

QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.367948 through 0.387948

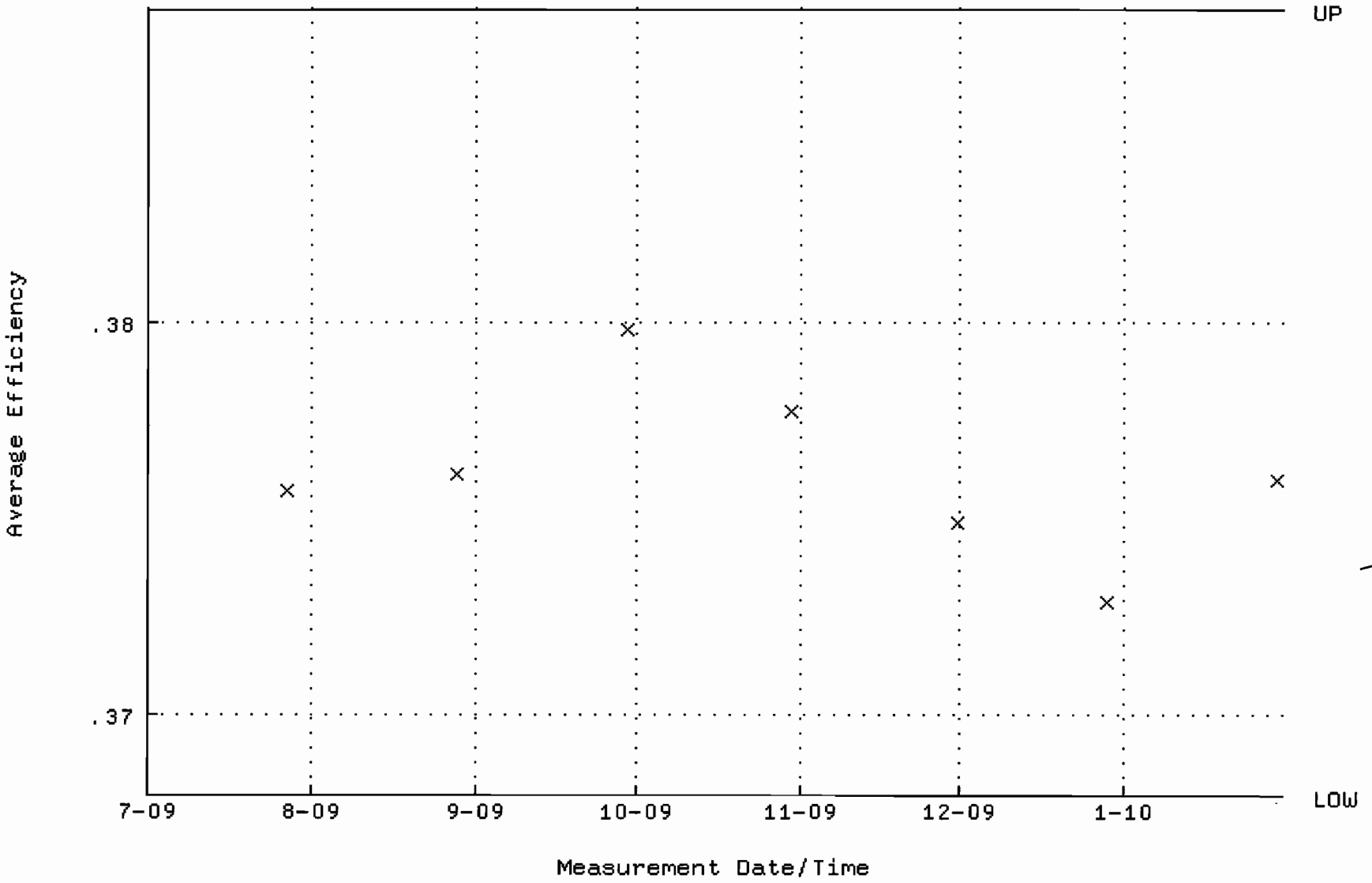

QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 86.8591 through 96.0021

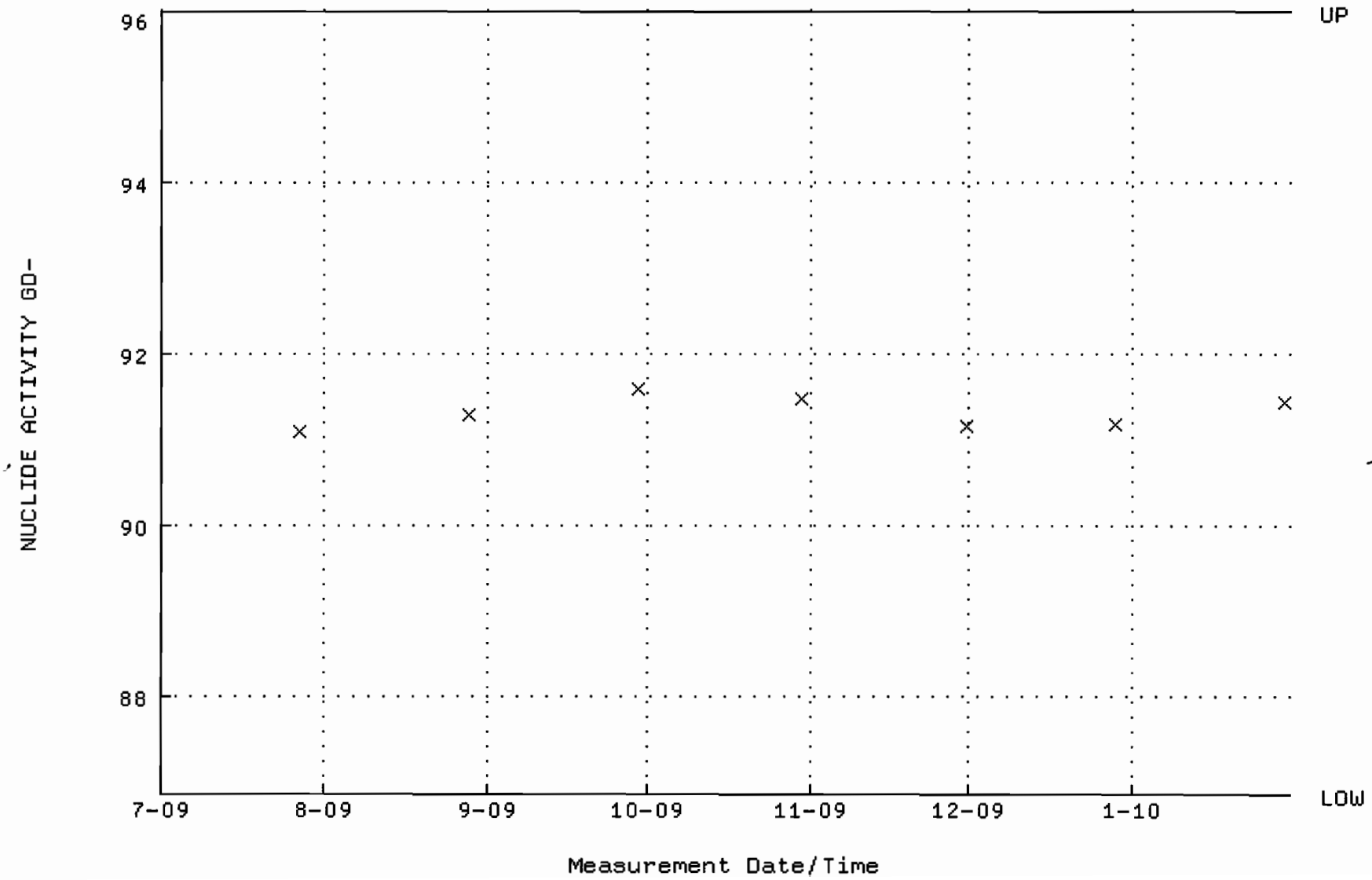

QA filename : DKA100:[ENV_ALPHA.QA.B]B221.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:15 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

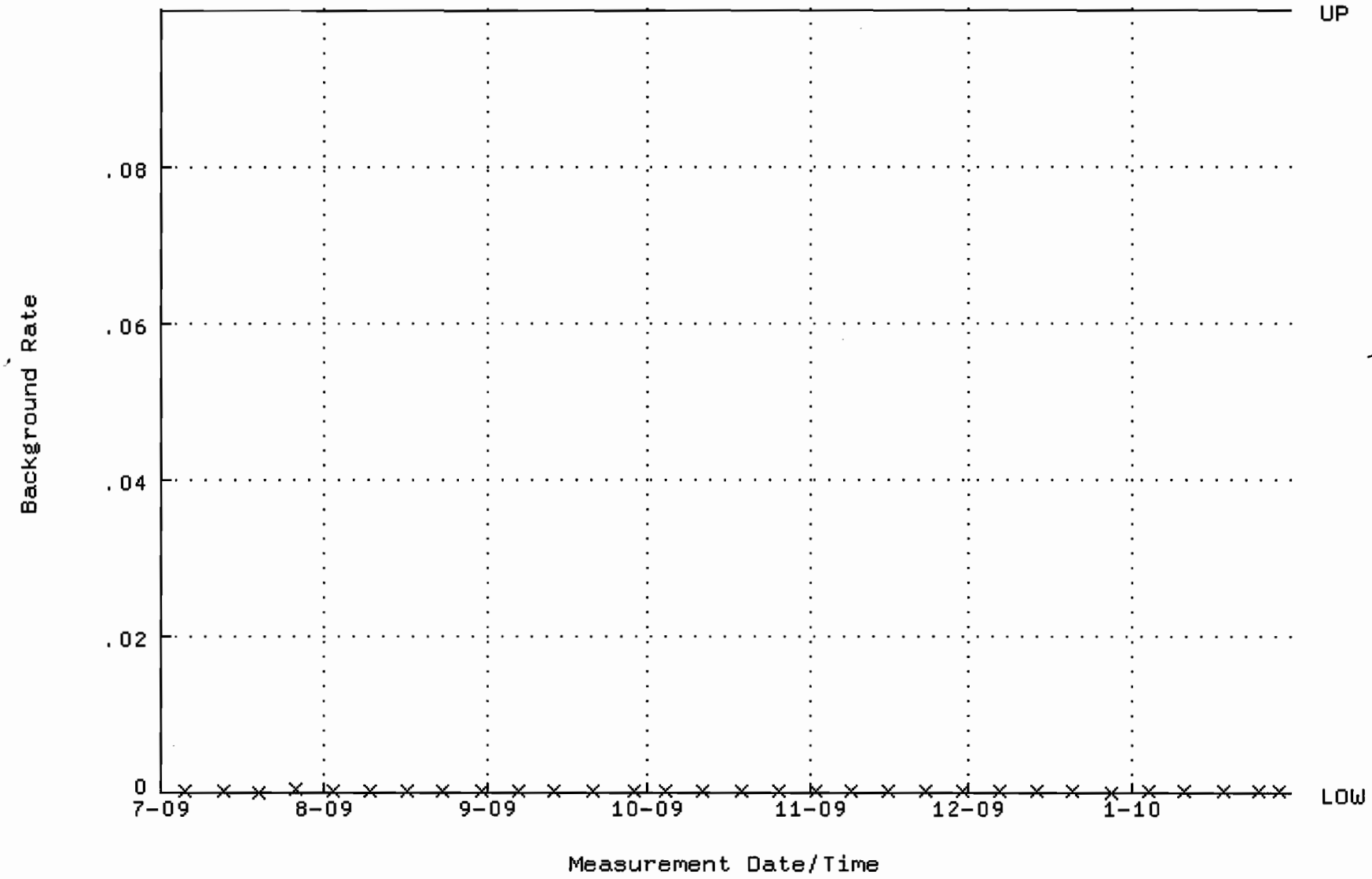

QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:37 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.350566 through 0.370566

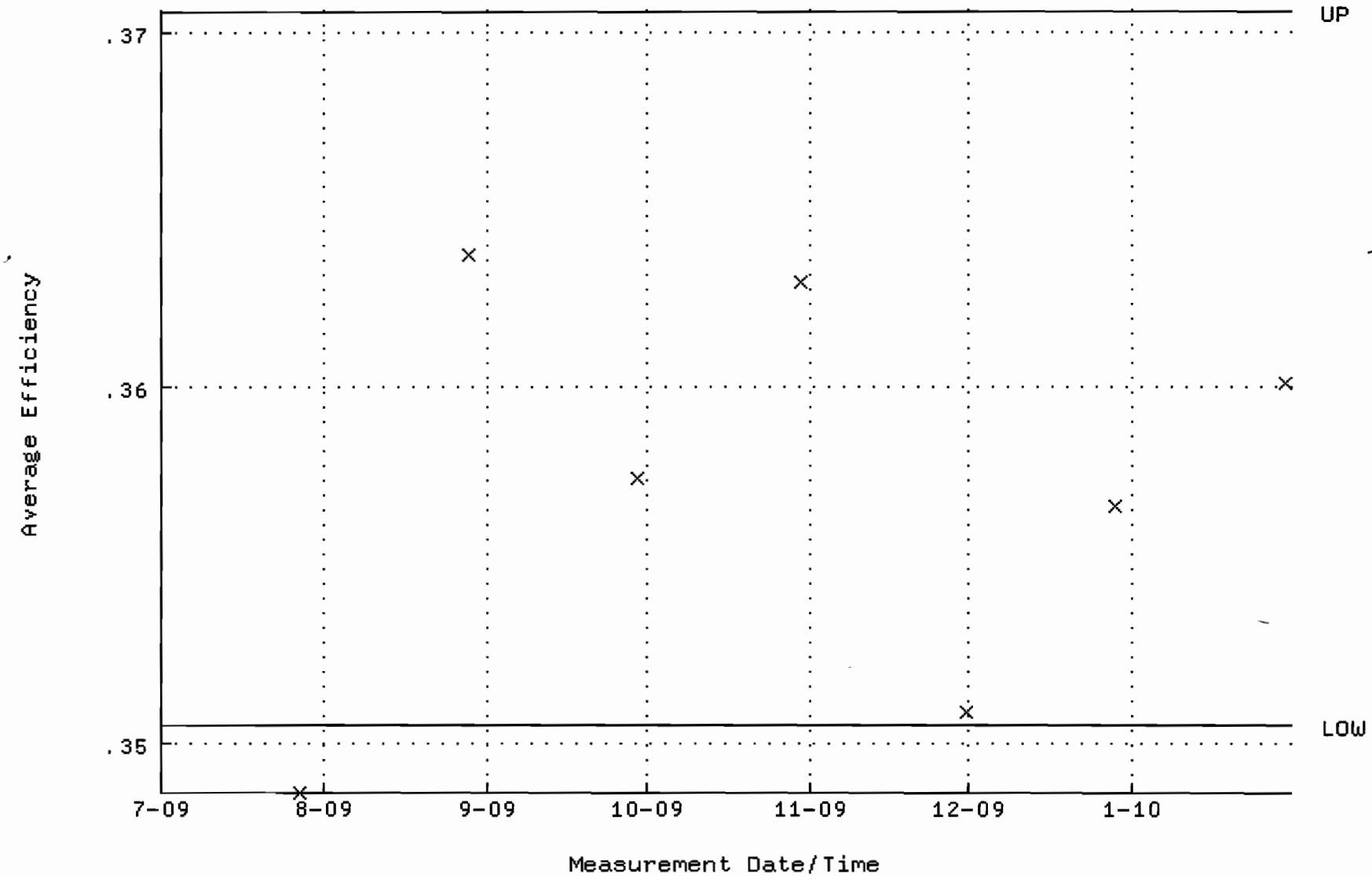

QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:37 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.9445 through 92.7807

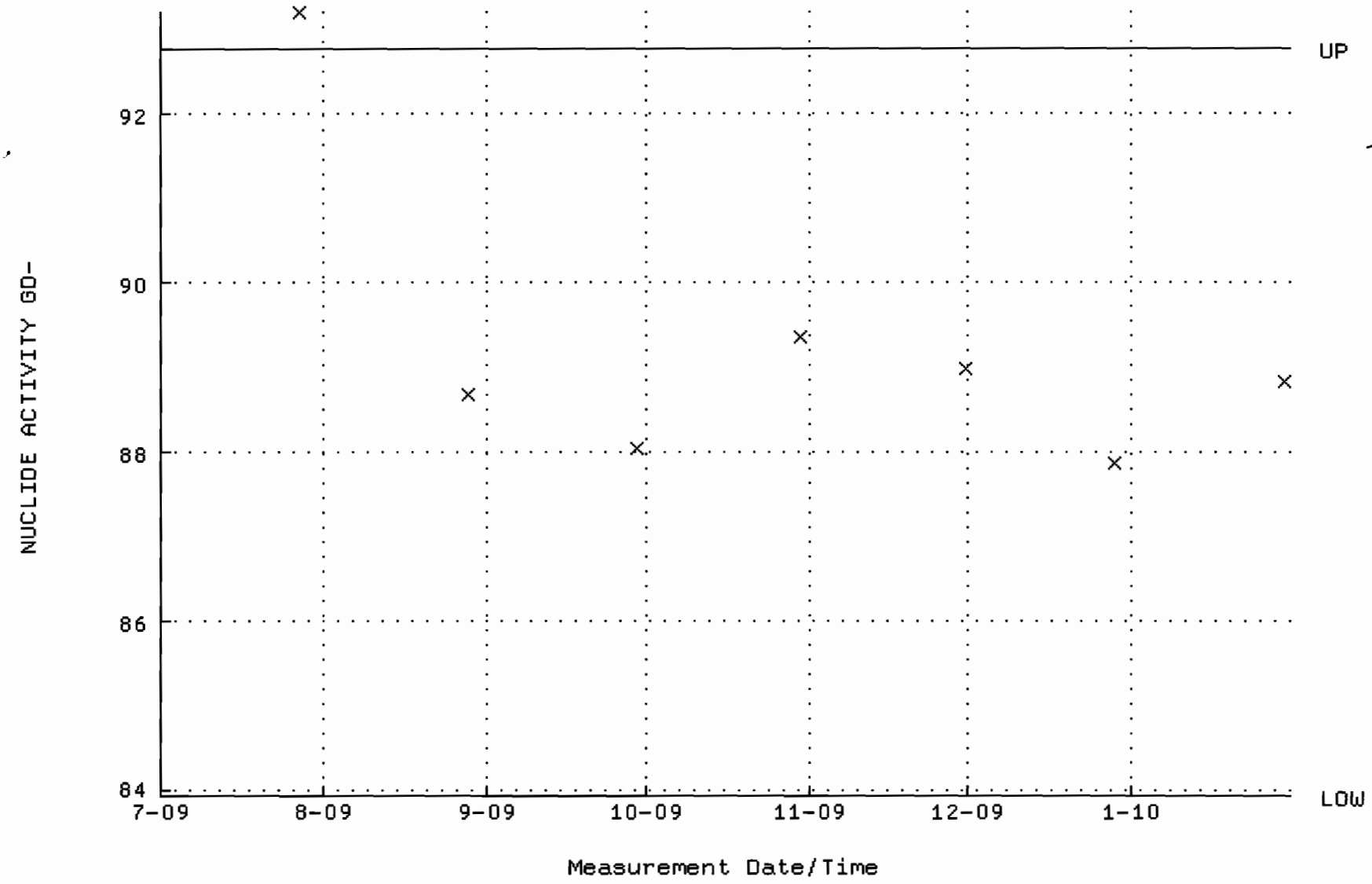

QA filename : DKA100:[ENV_ALPHA.QA.B]B222.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:20 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

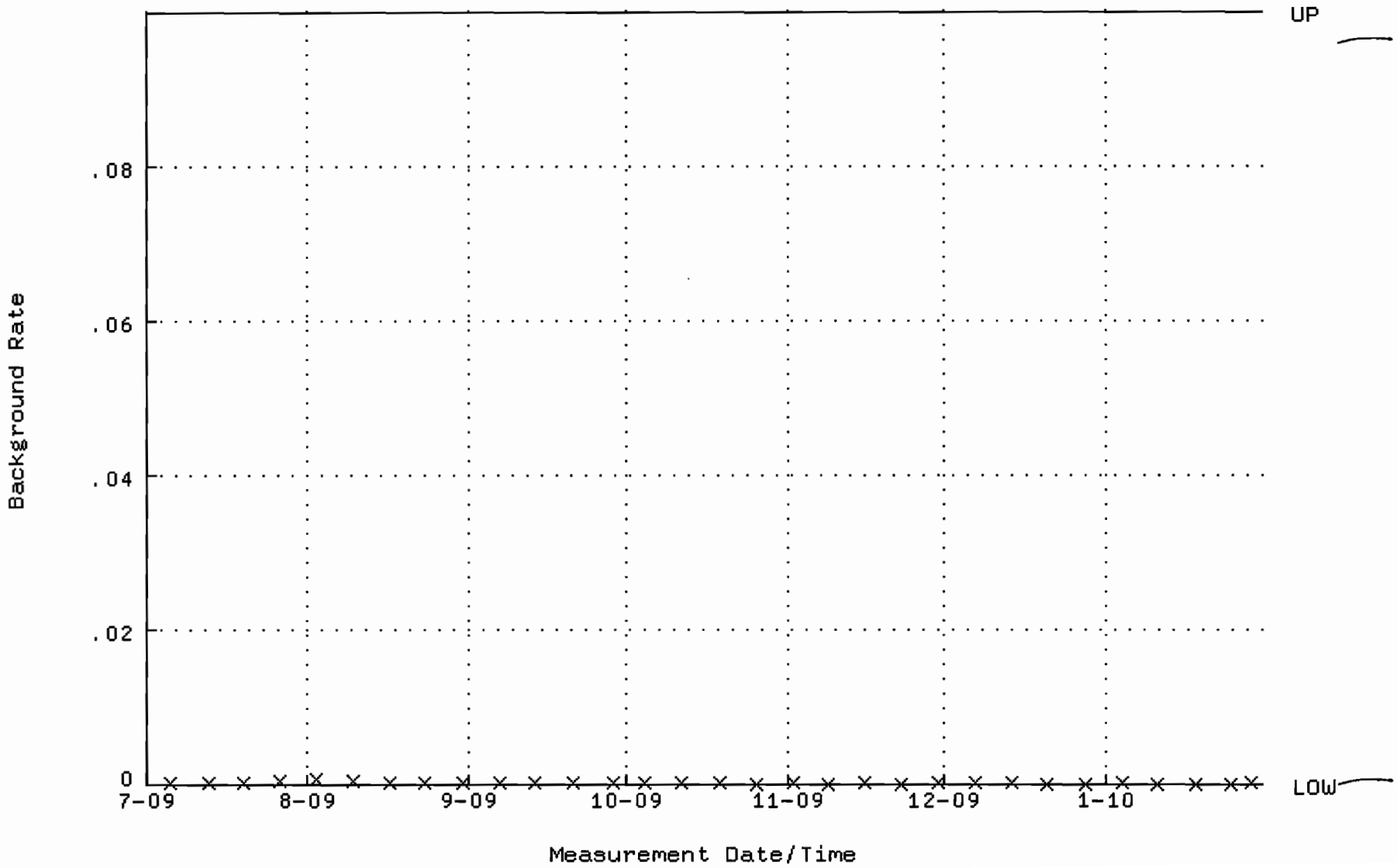

QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.359804 through 0.379804

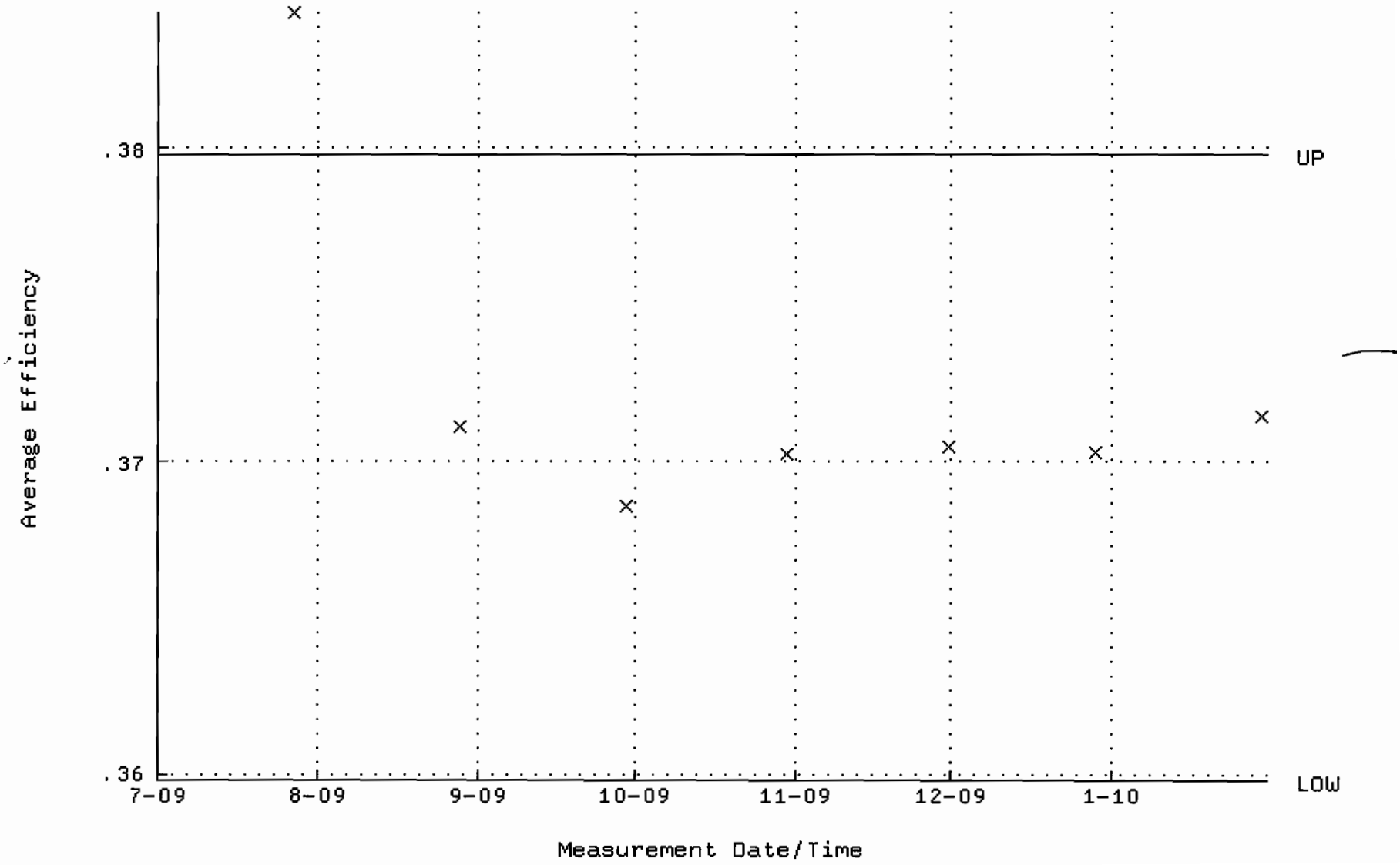

QA filename : DKA100:[ENV_ALPHA.QA.W]W223.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.5441 through 98.9697

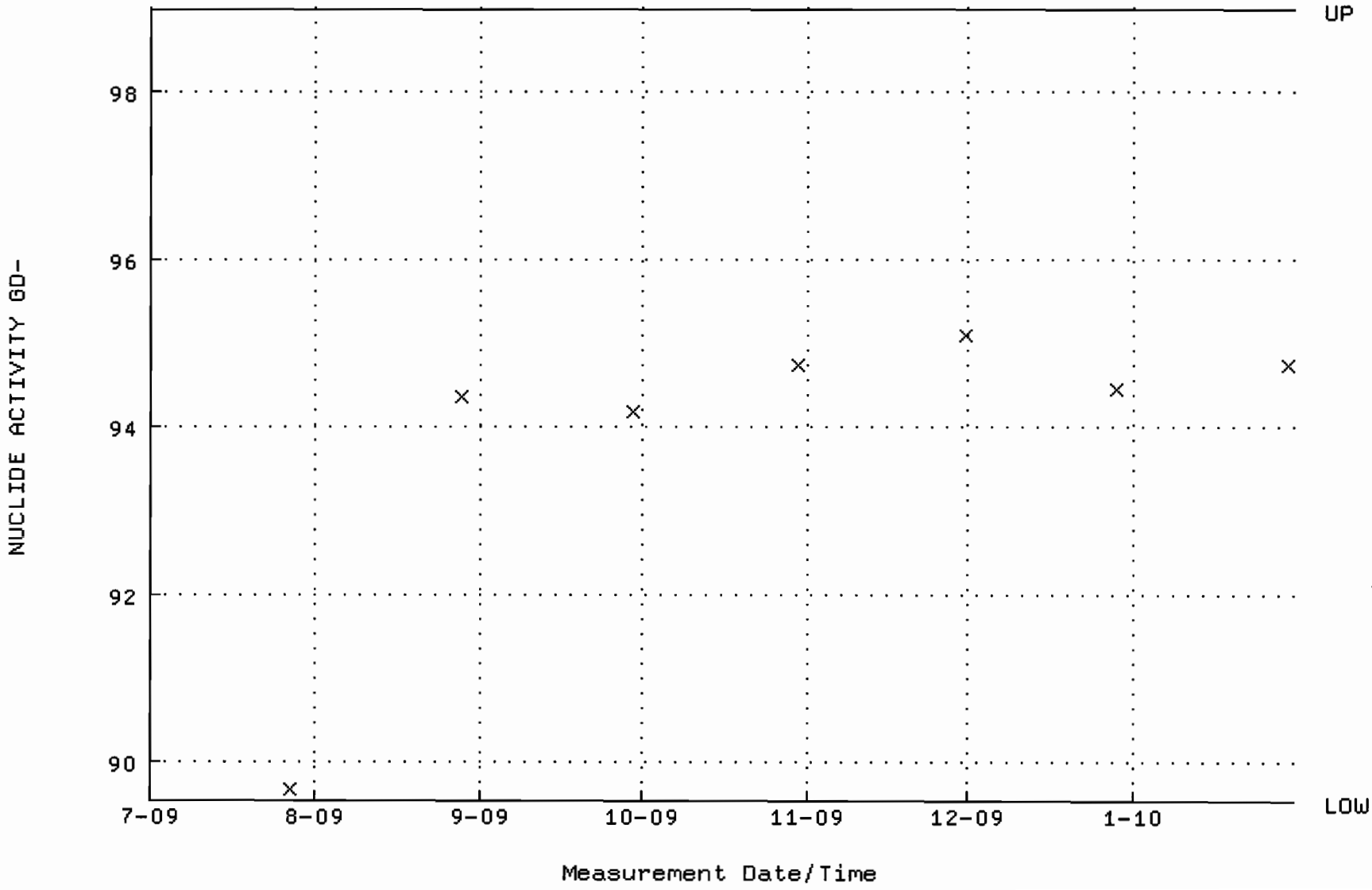

QA filename : DKA100:[ENV_ALPHA.QA.B]B223.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

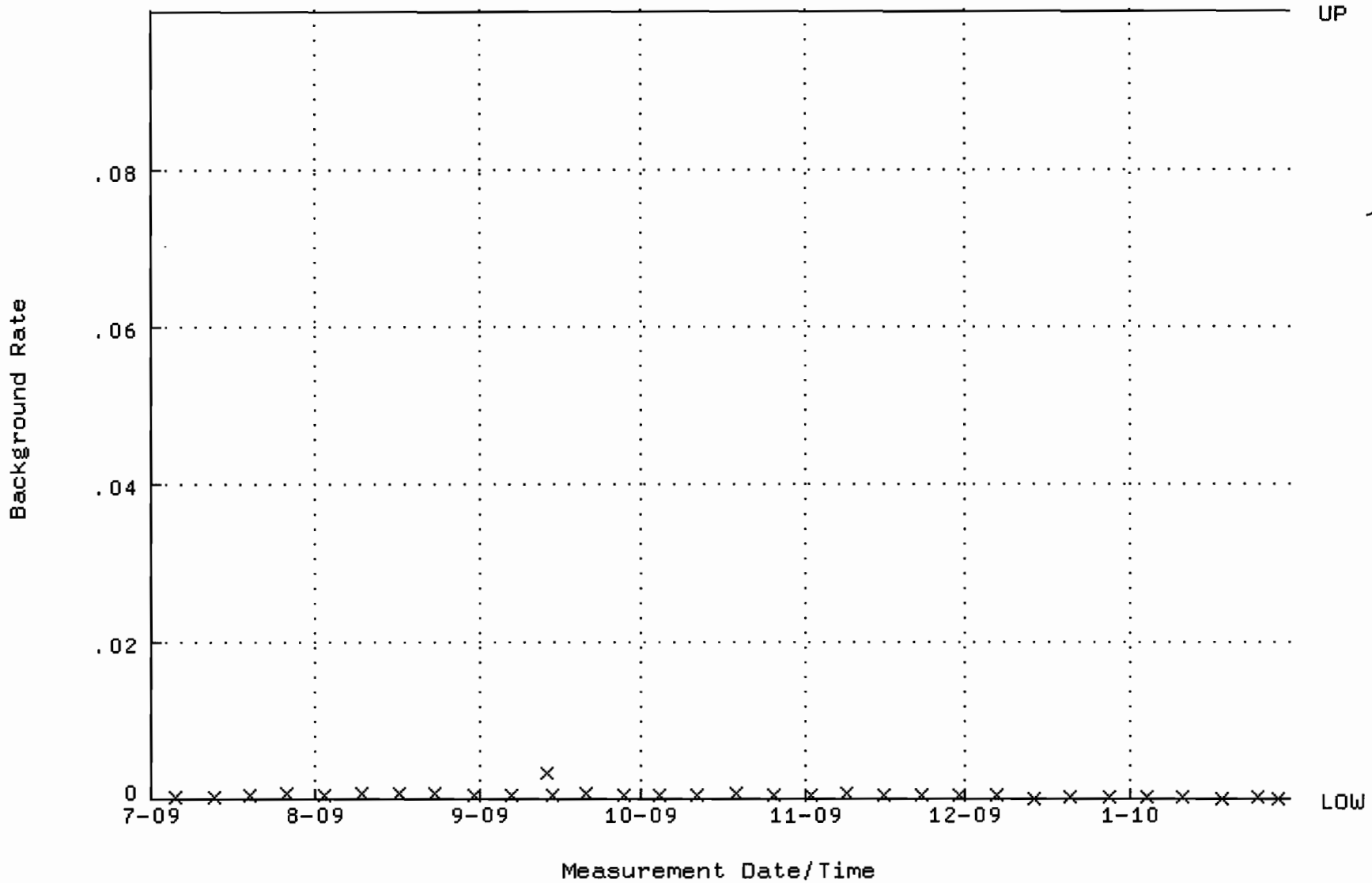

QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.368812 through 0.388812

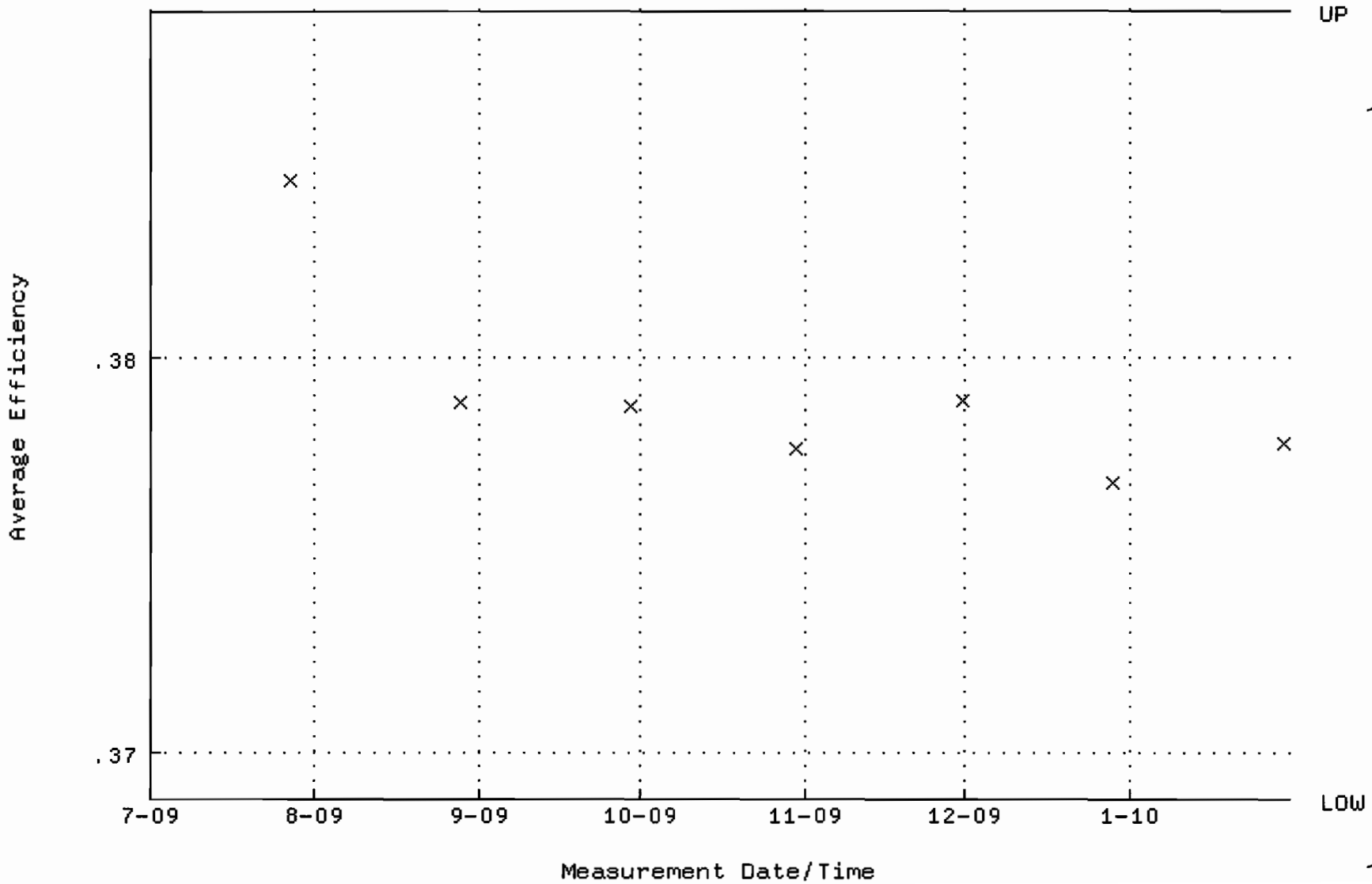

QA filename : DKA100:[ENV_ALPHA.QA.W]W224.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 85.3066 through 94.2862

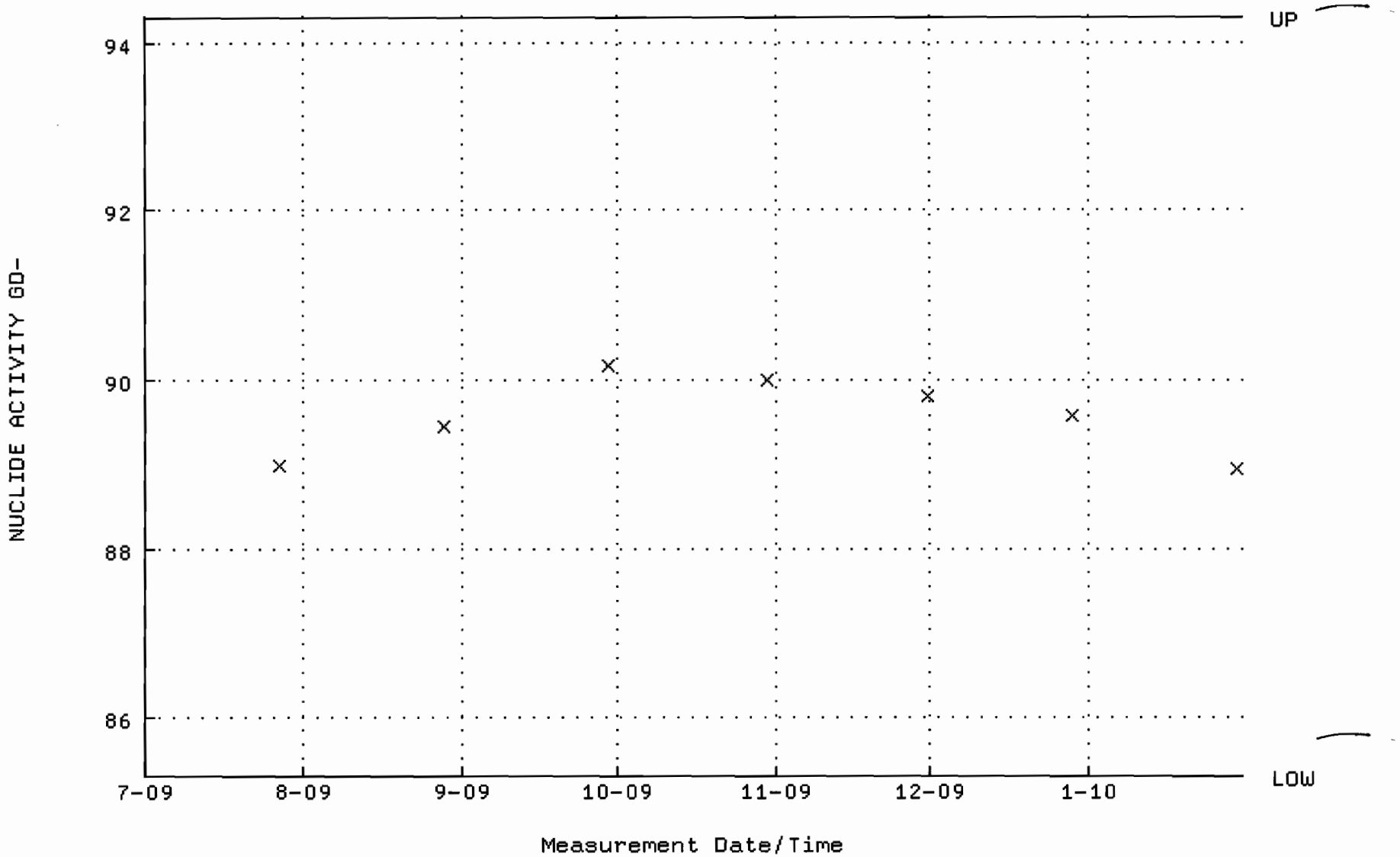

QA filename : DKA100:[ENV_ALPHA.QA.B]B224.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

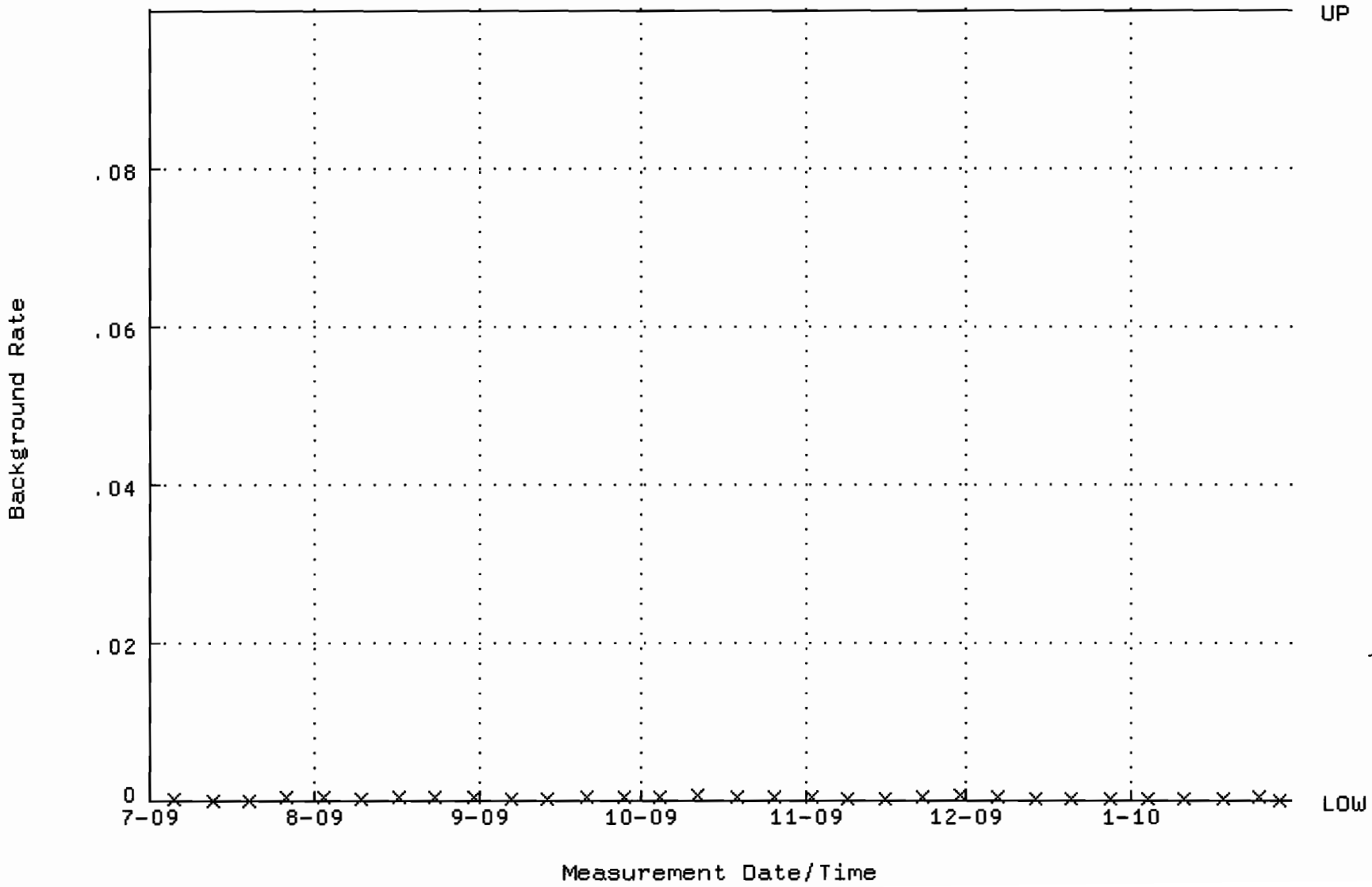

QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.381631 through 0.401631

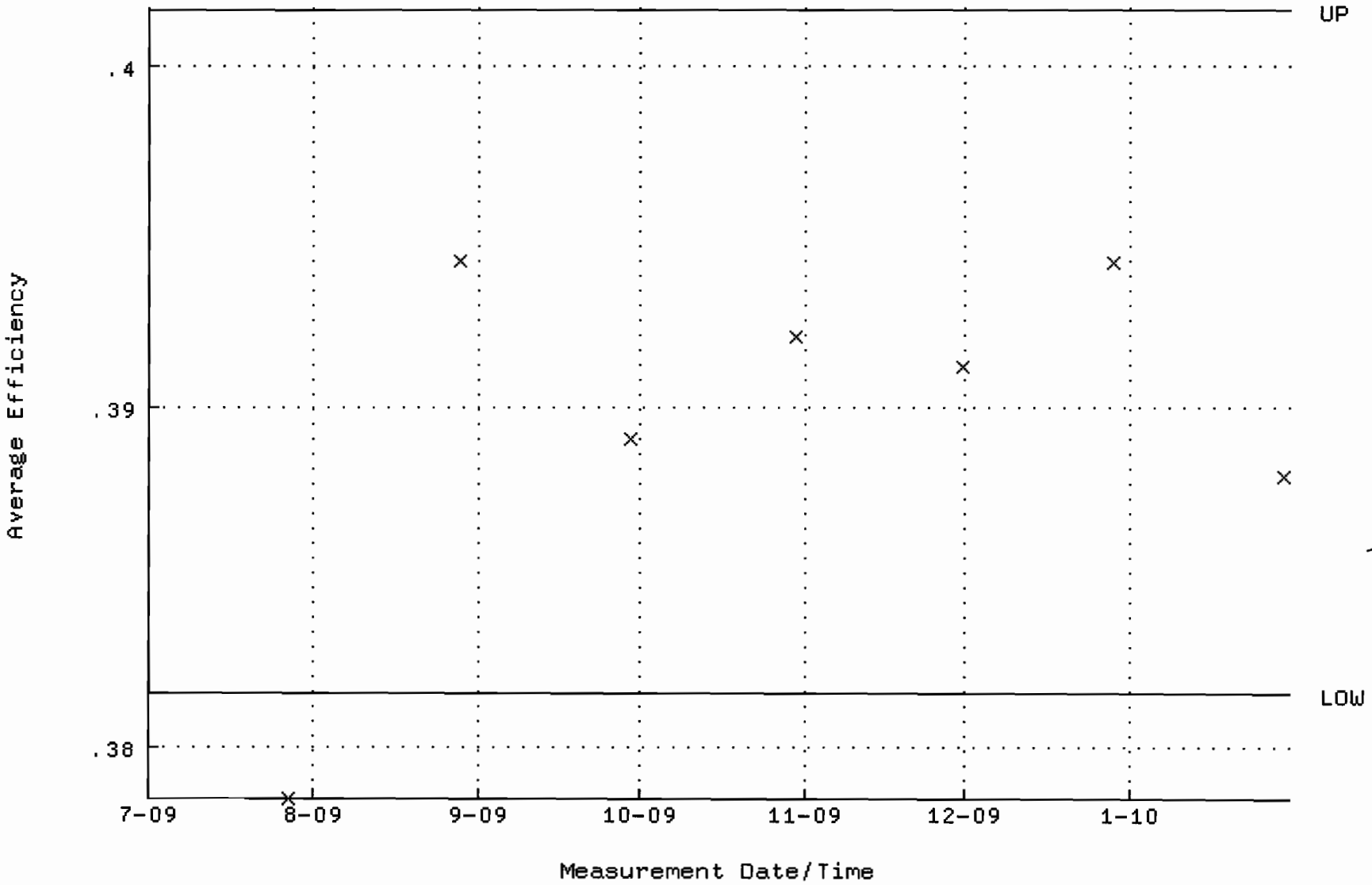

QA filename : DKA100:[ENV_ALPHA.QA.W]W225.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:57 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.7082 through 93.6248

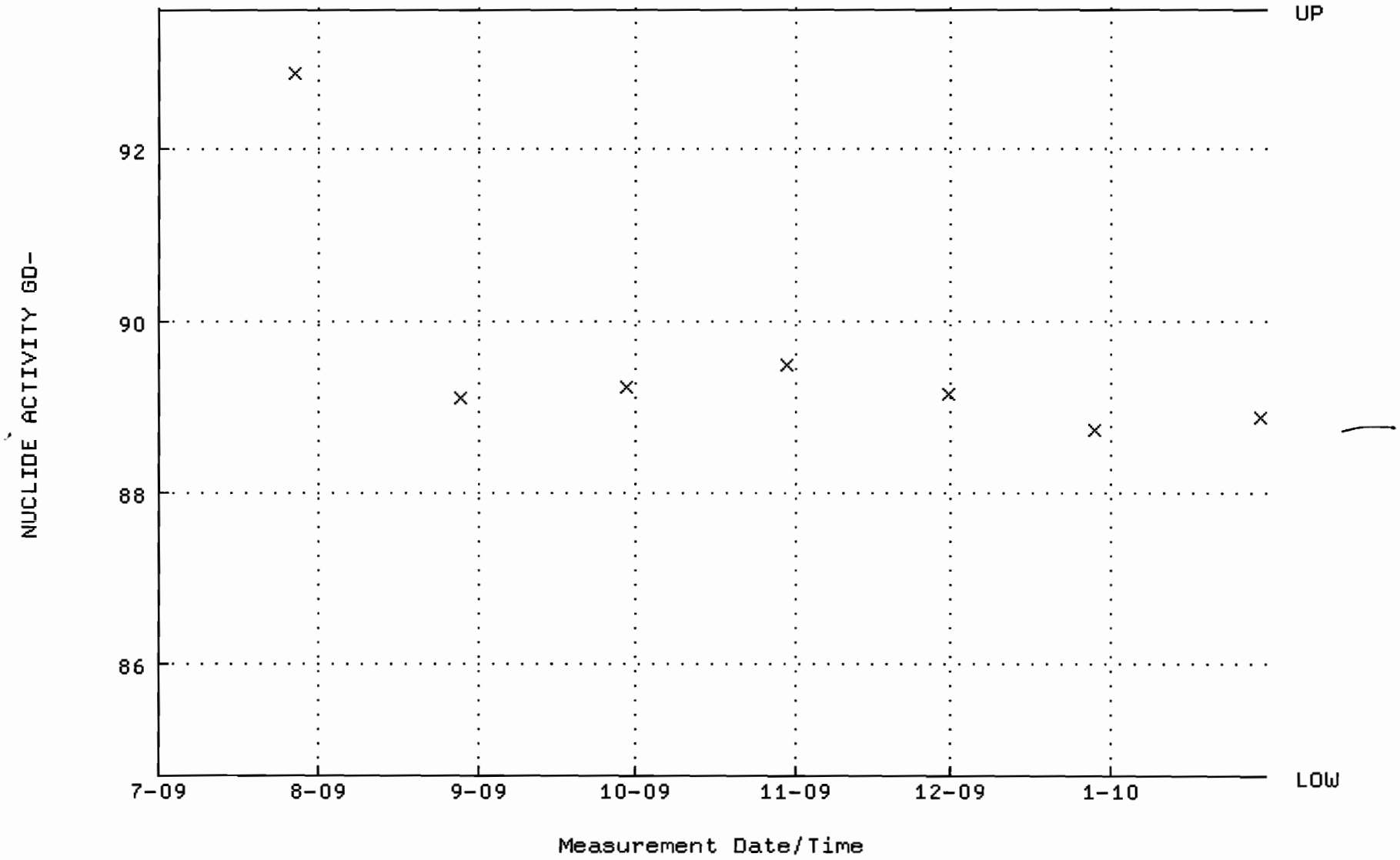

QA filename : DKA100:[ENV_ALPHA.QA.B]B225.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:34 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

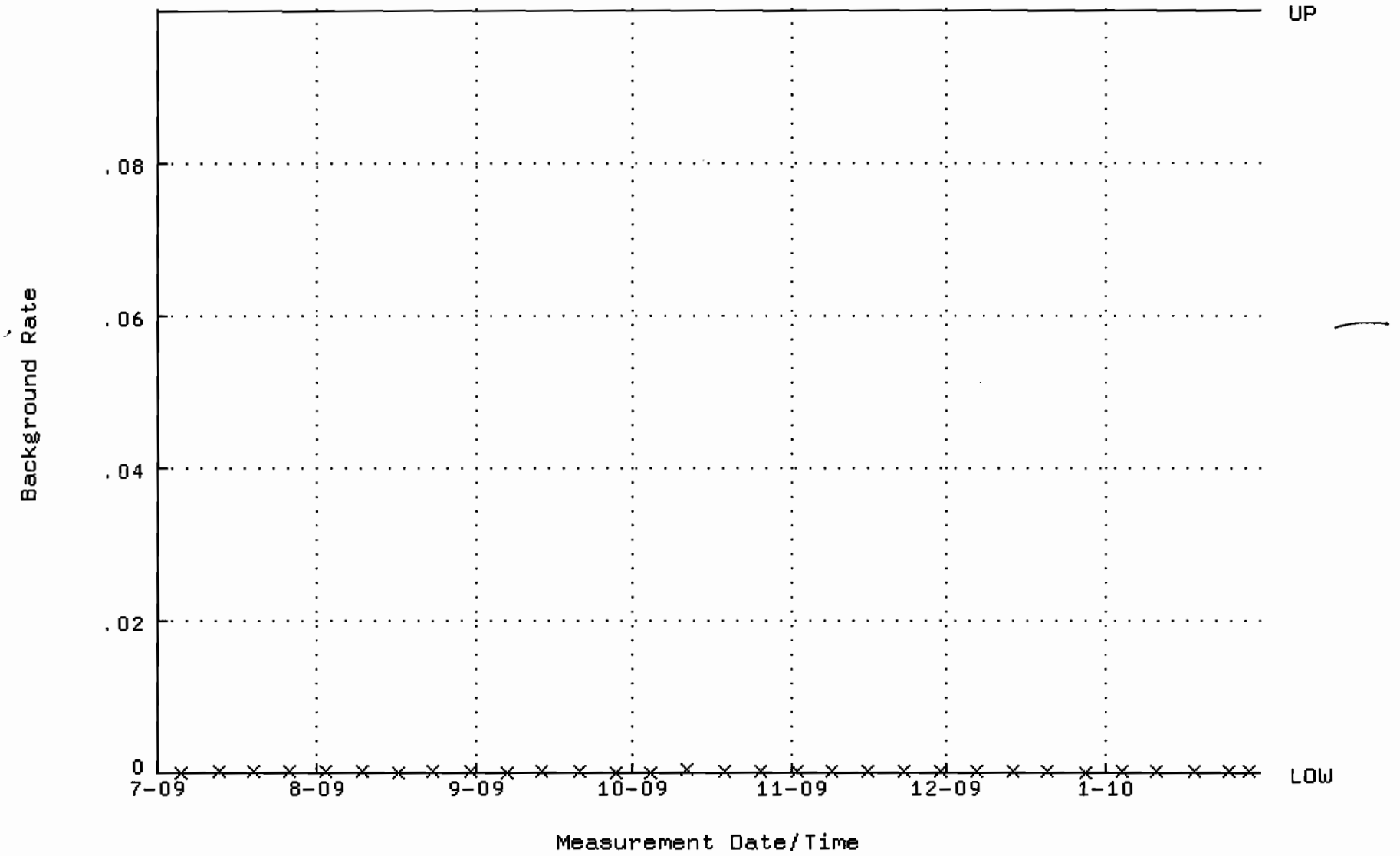

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.363285 through 0.383285

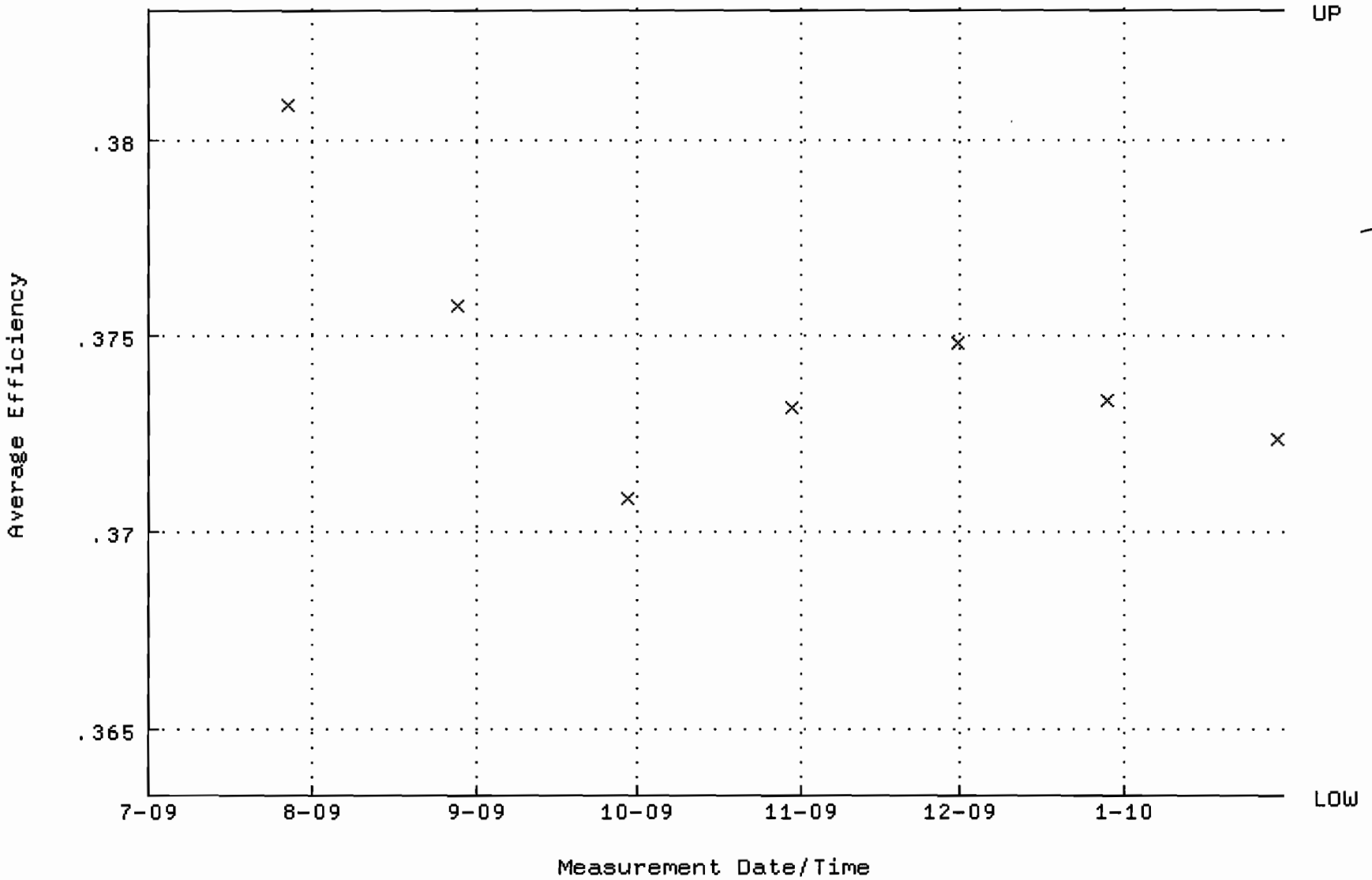

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 86.4888 through 95.5928

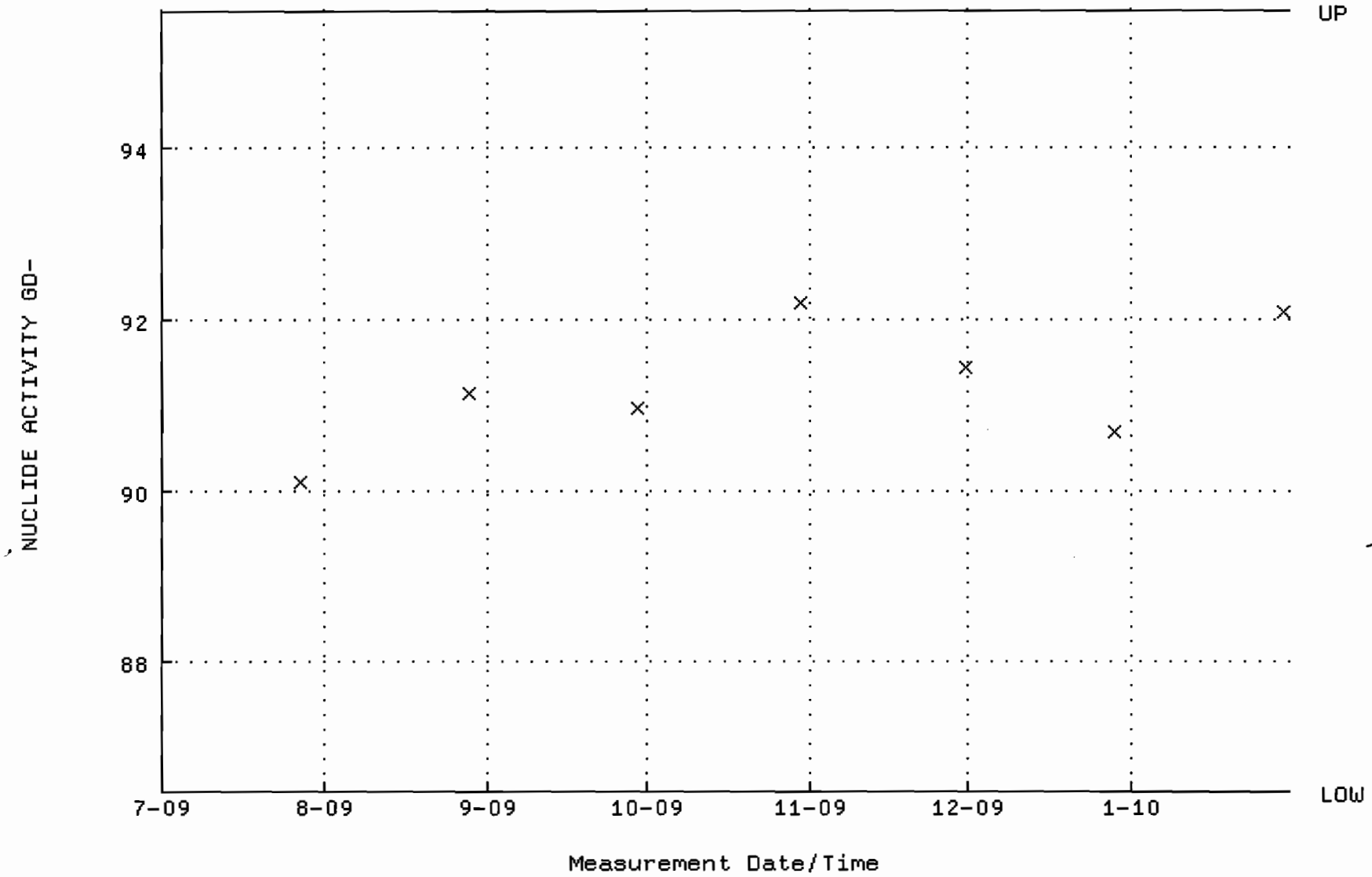

QA filename : DKA100:[ENV_ALPHA.QA.B]B226.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:39 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

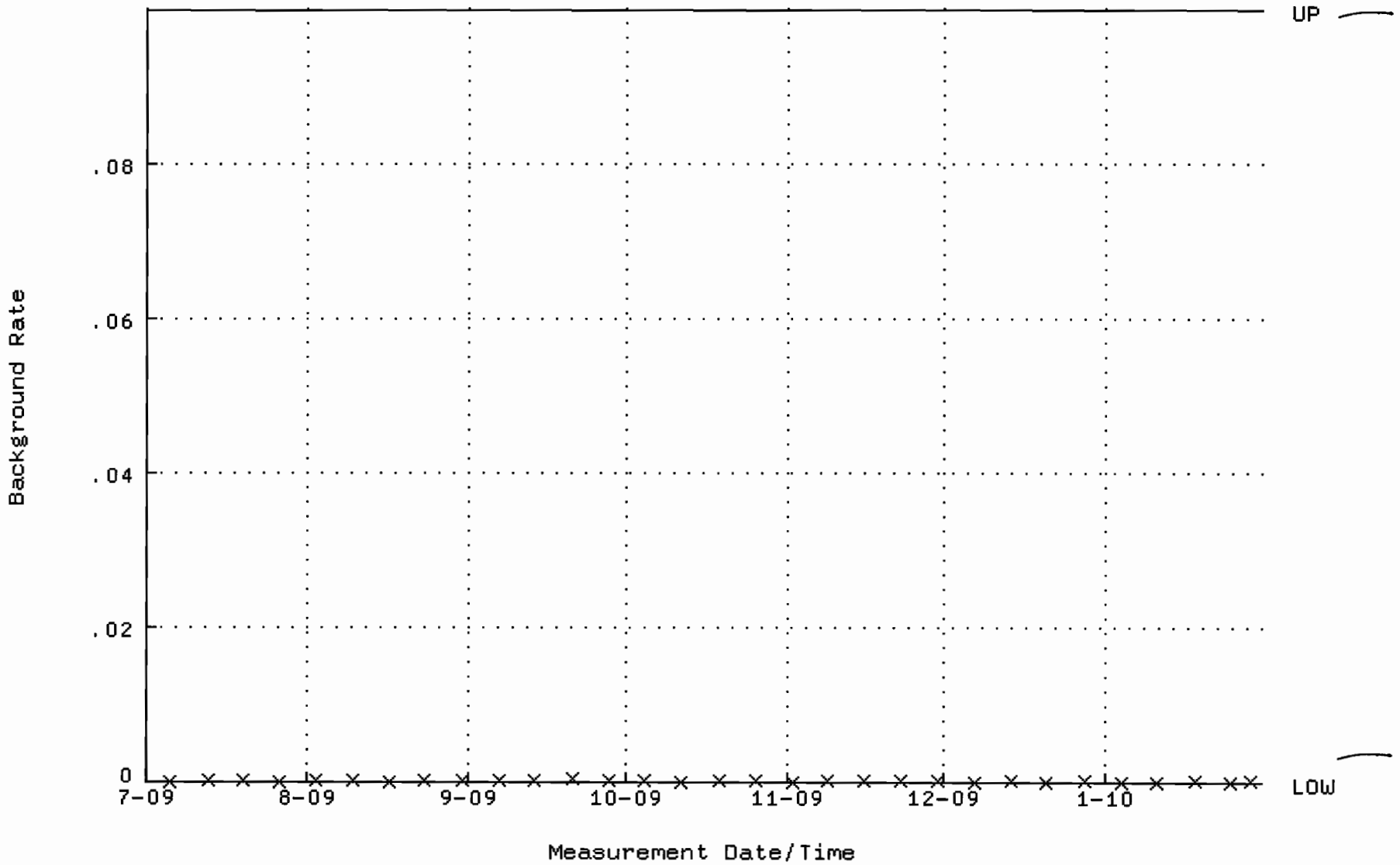

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.375328 through 0.395328

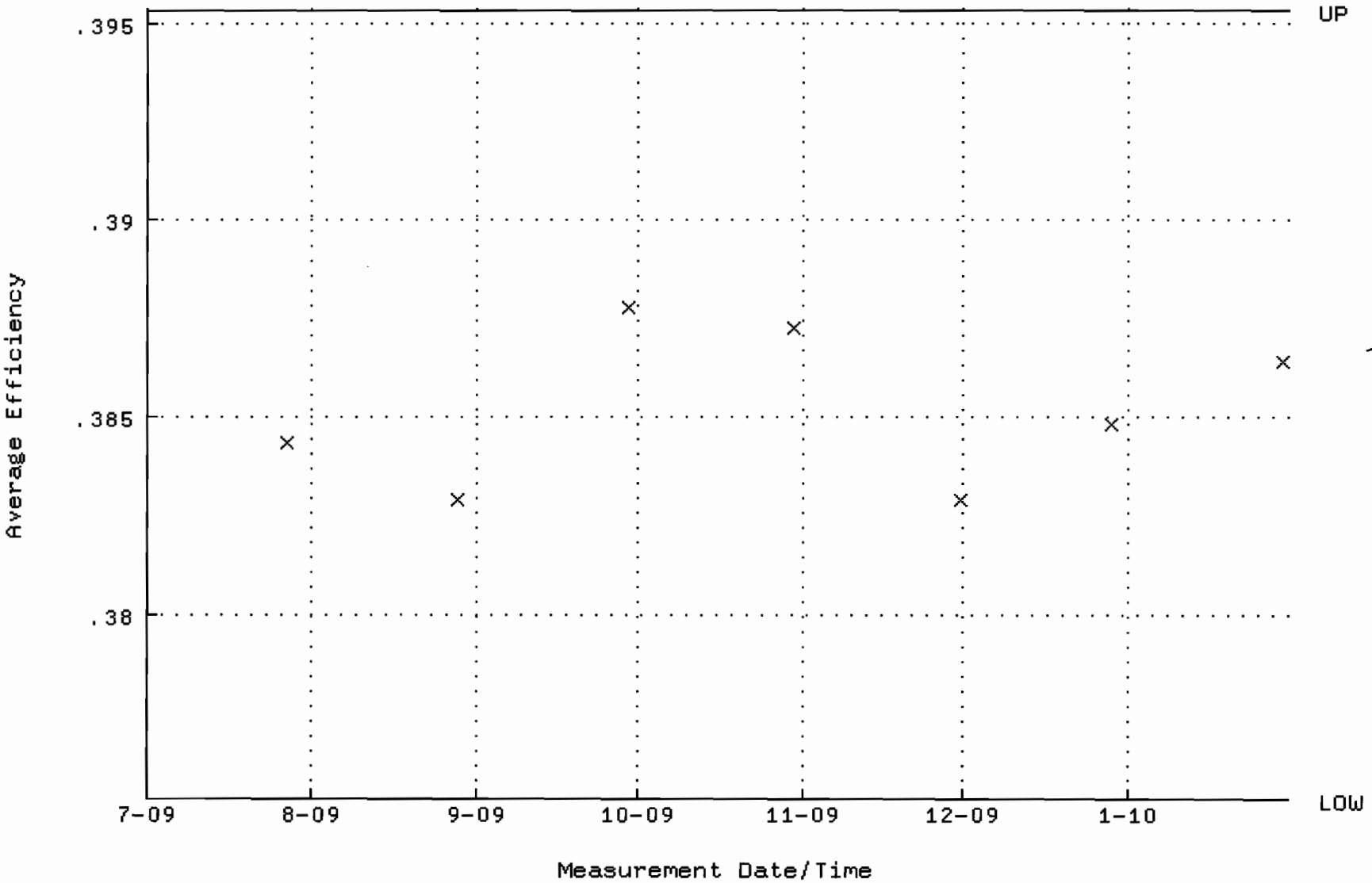

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.8011 through 93.7275

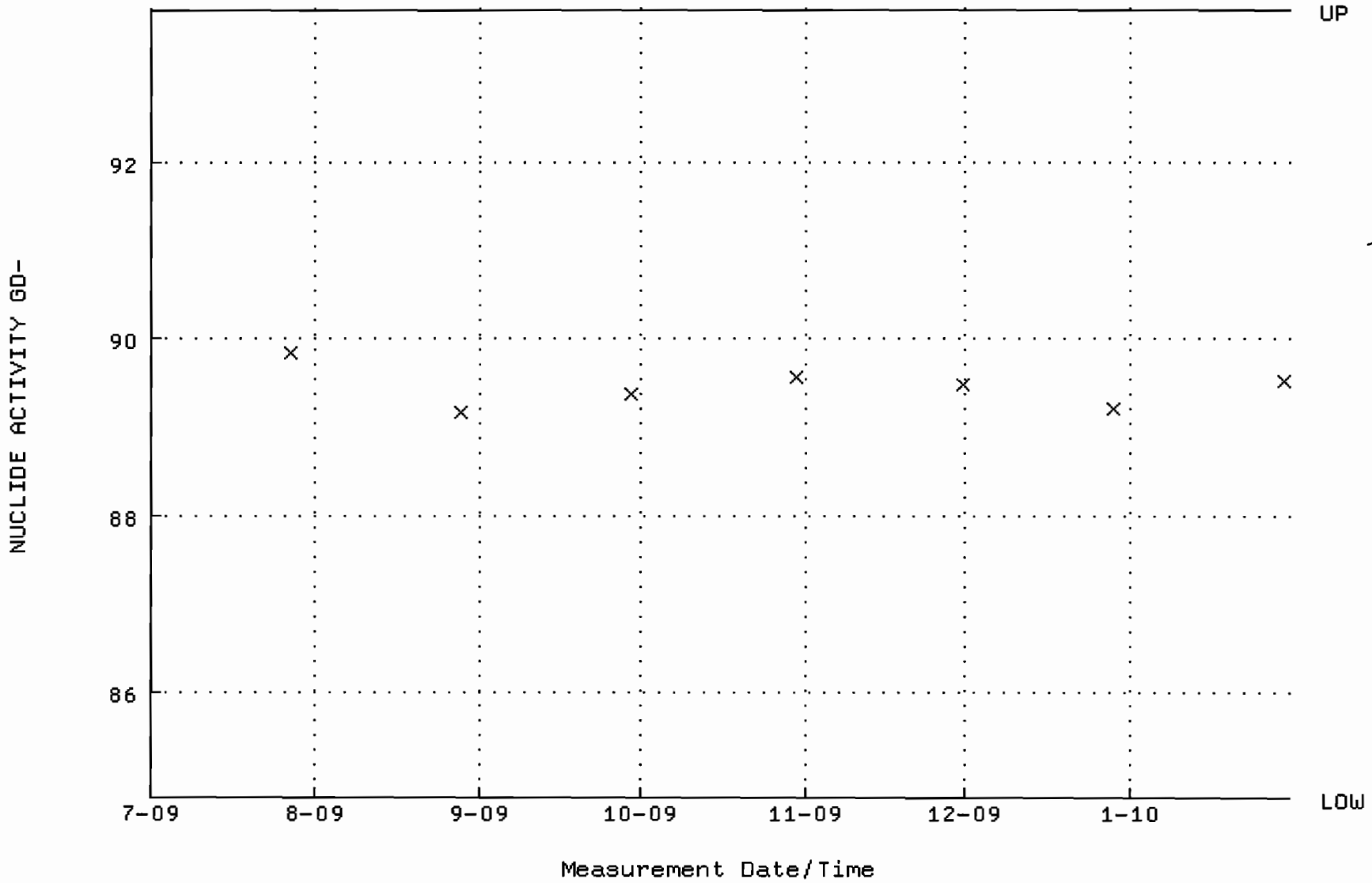

QA filename : DKA100:[ENV_ALPHA.QA.B]B227.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

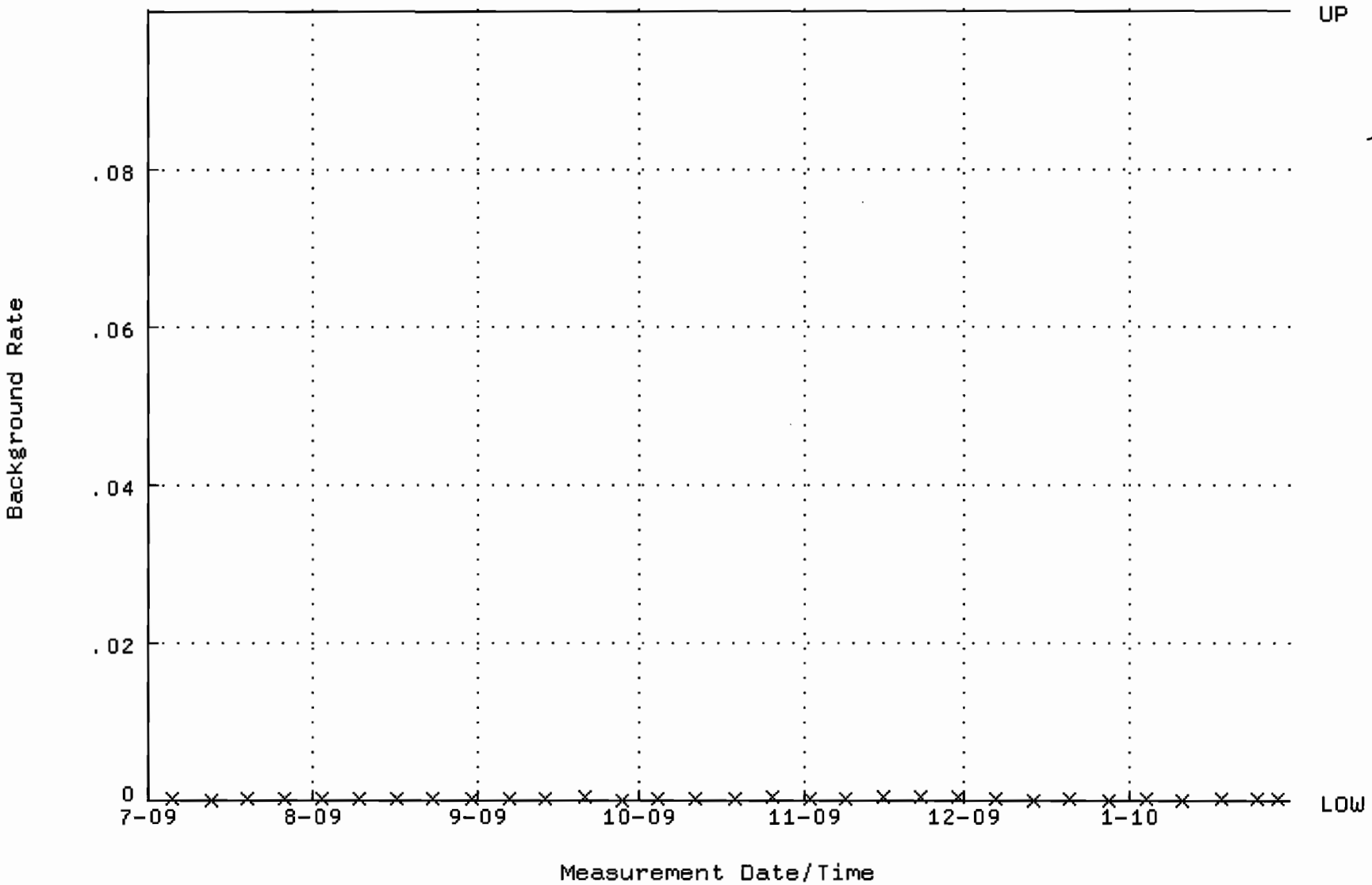

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.378766 through 0.398766

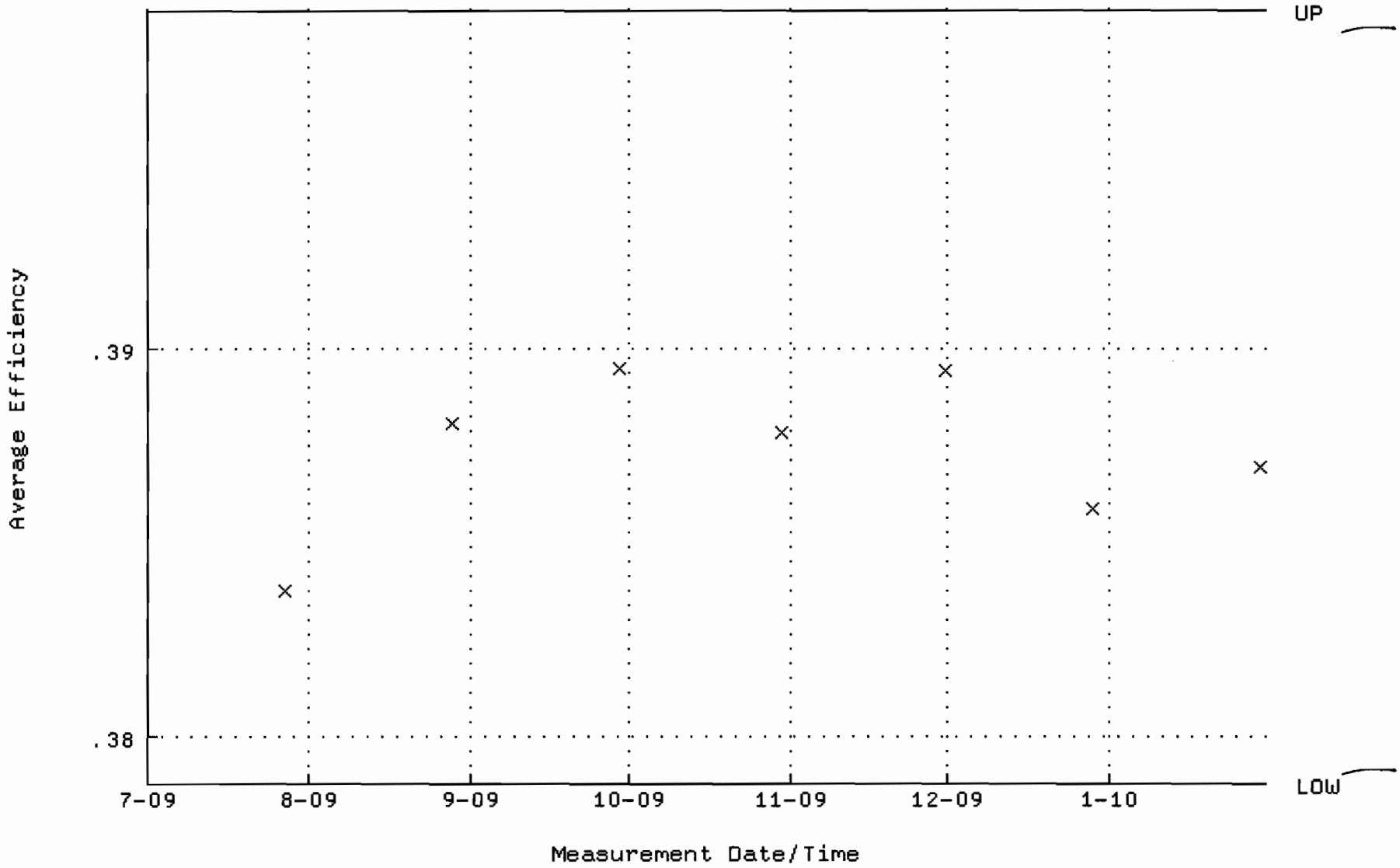

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:07 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 81.8490 through 90.4646

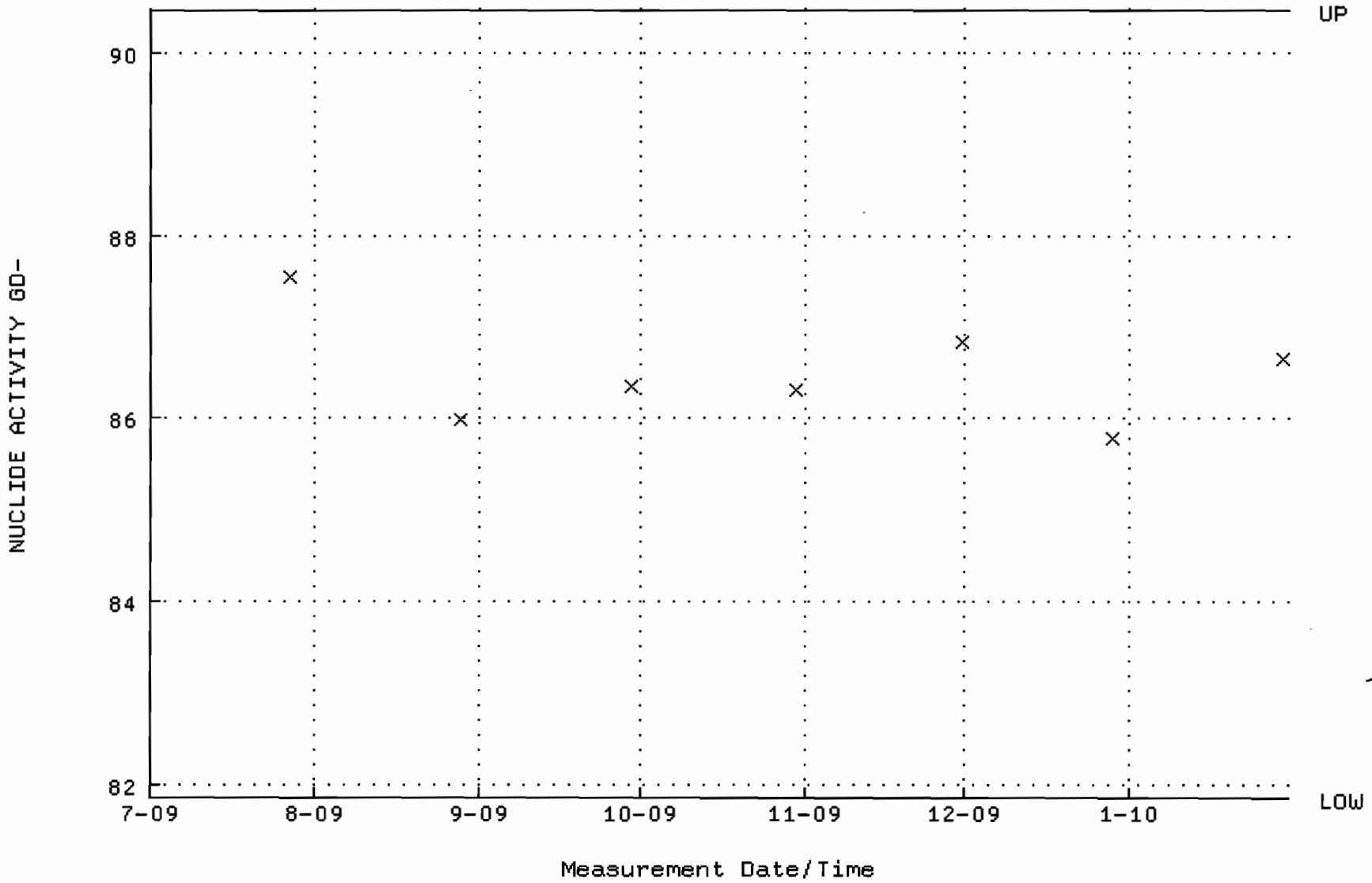

QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

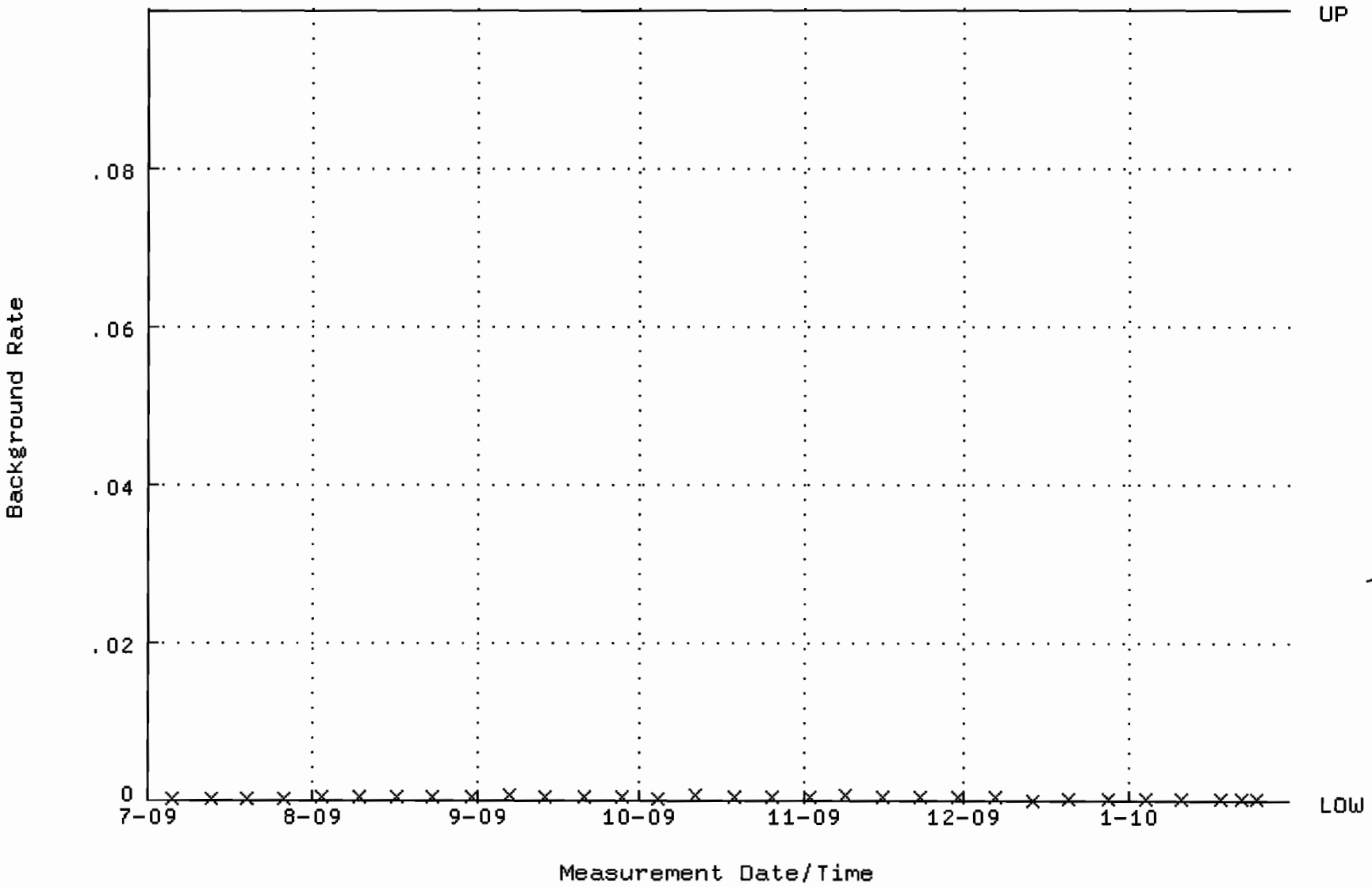

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:50:14 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.390000 through 0.410000

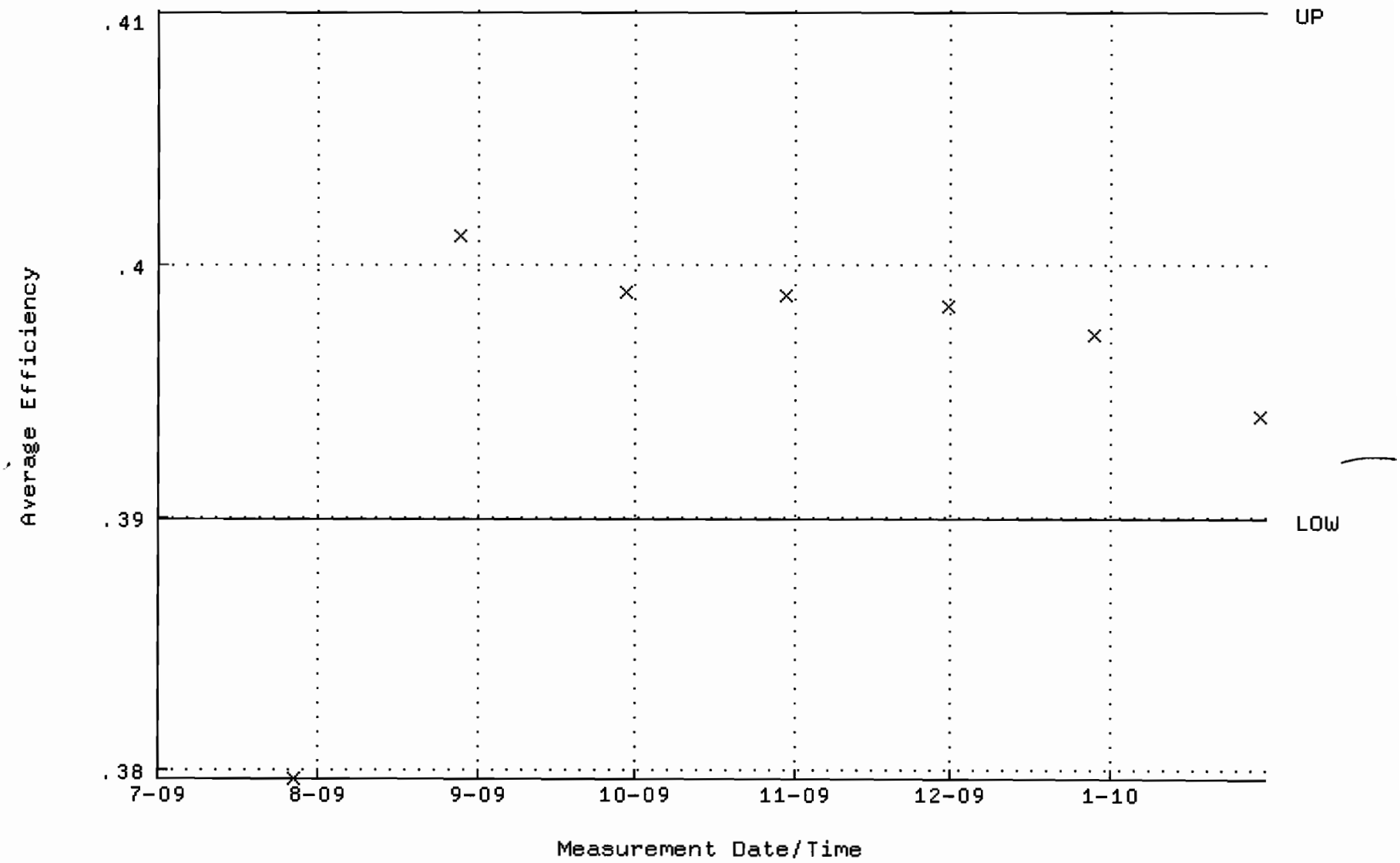

QA filename : DKA100:[ENV_ALPHA.QA.W]W237.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:50:14 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.5642 through 87.9394

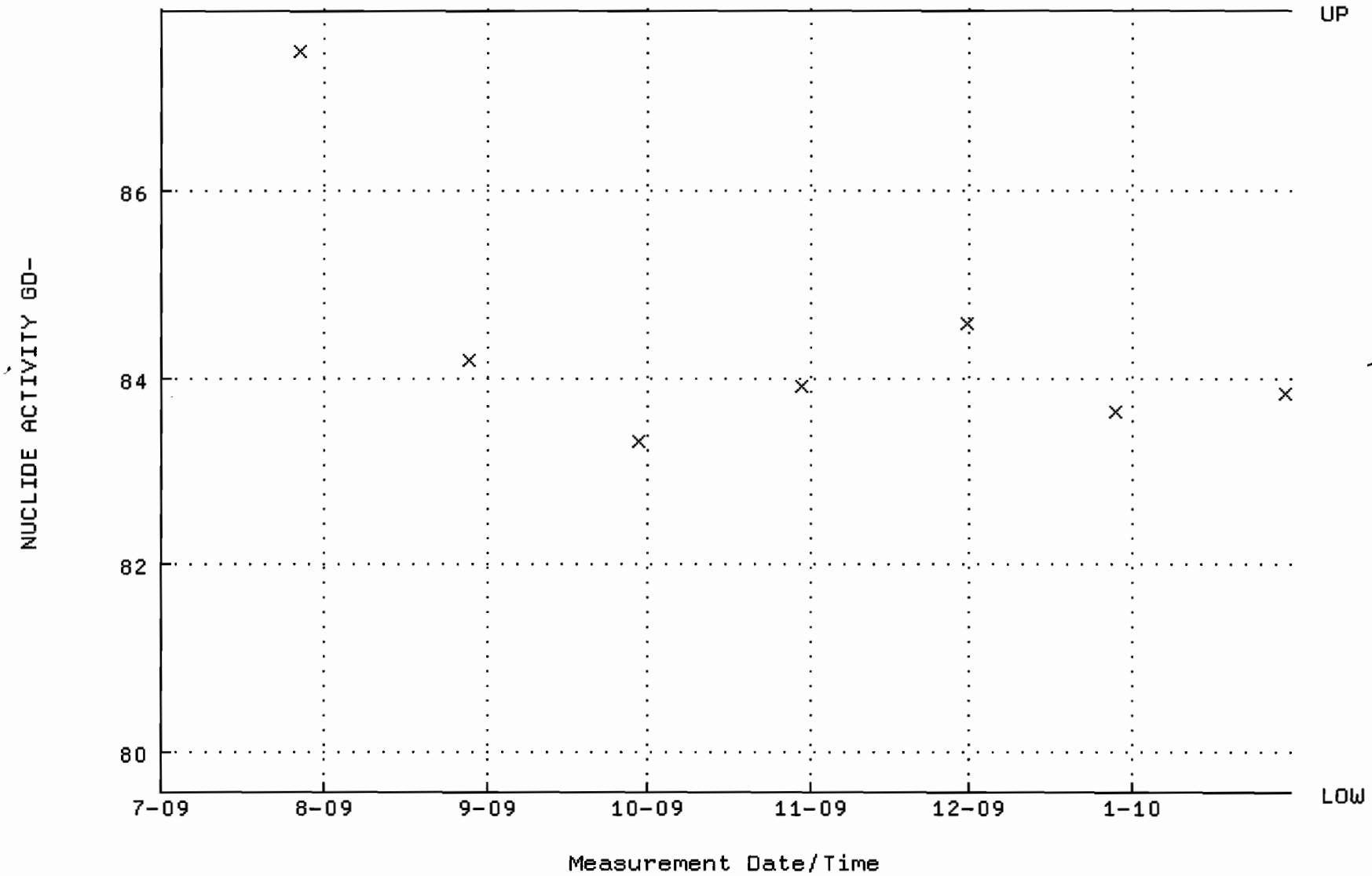

QA filename : DKA100:[ENV_ALPHA.QA.B]B237.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:29 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

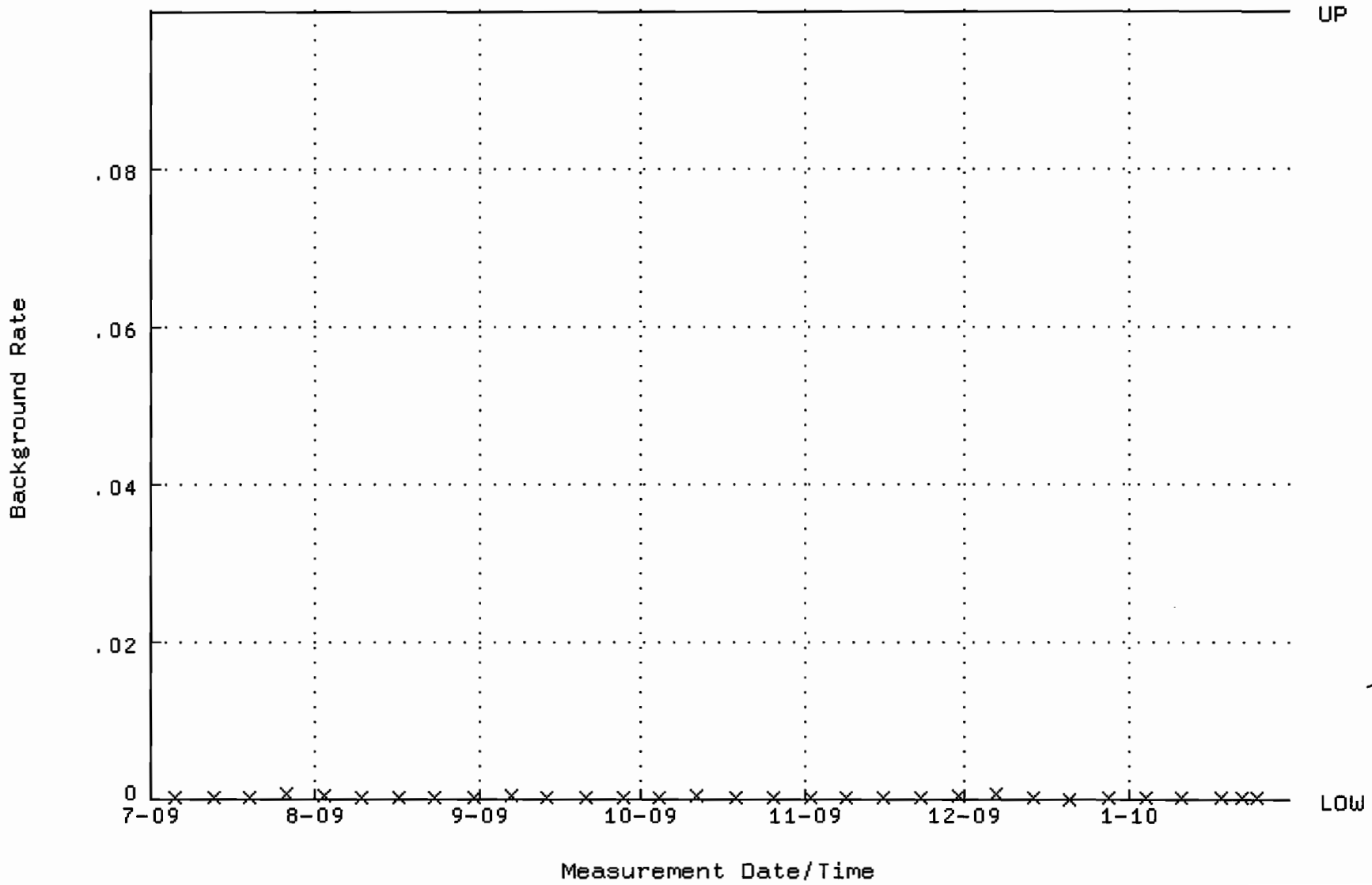

QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.382546 through 0.402546

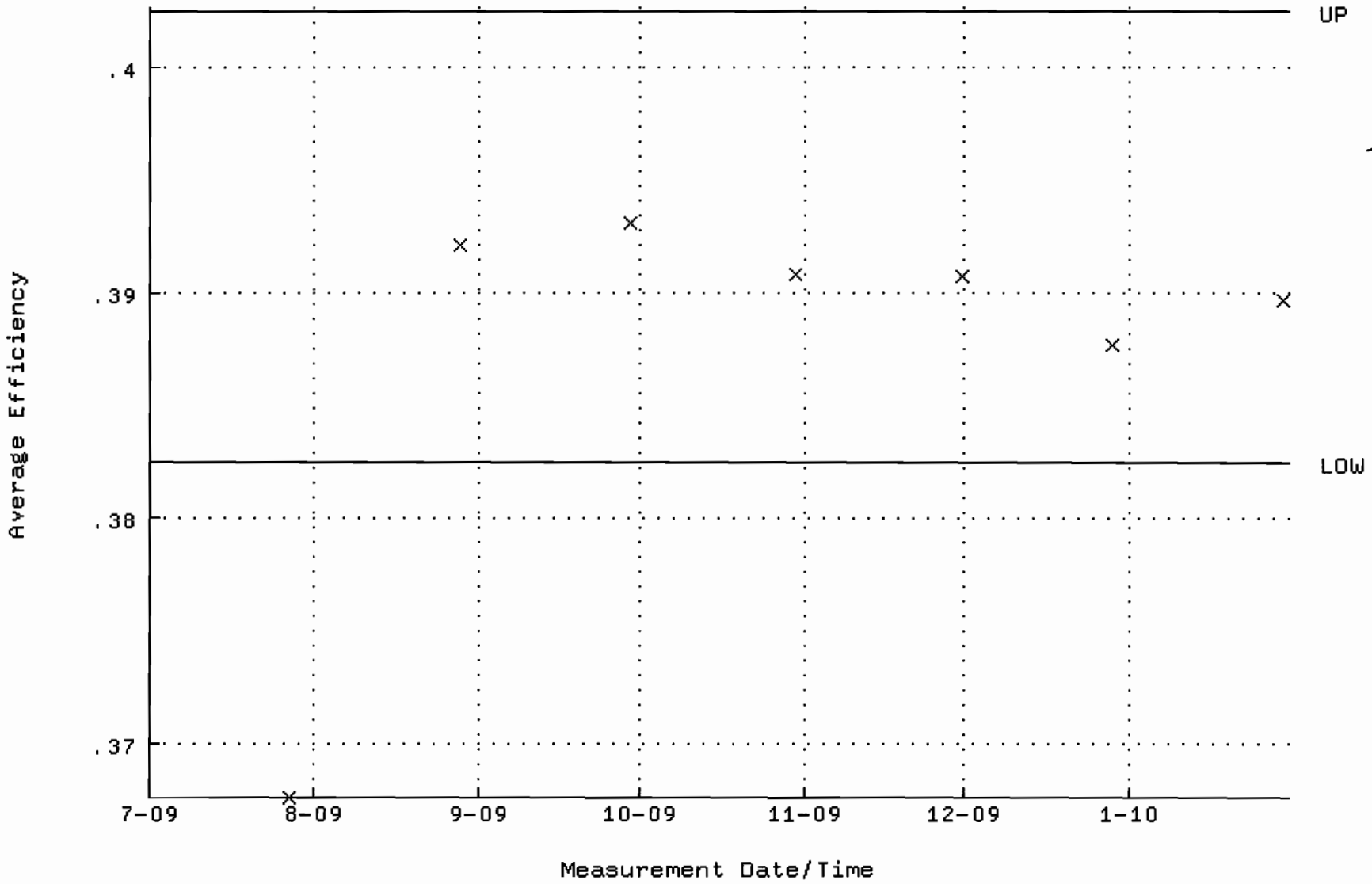

QA filename : DKA100:[ENV_ALPHA.QA.W]W249.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:24 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 80.0964 through 88.5276

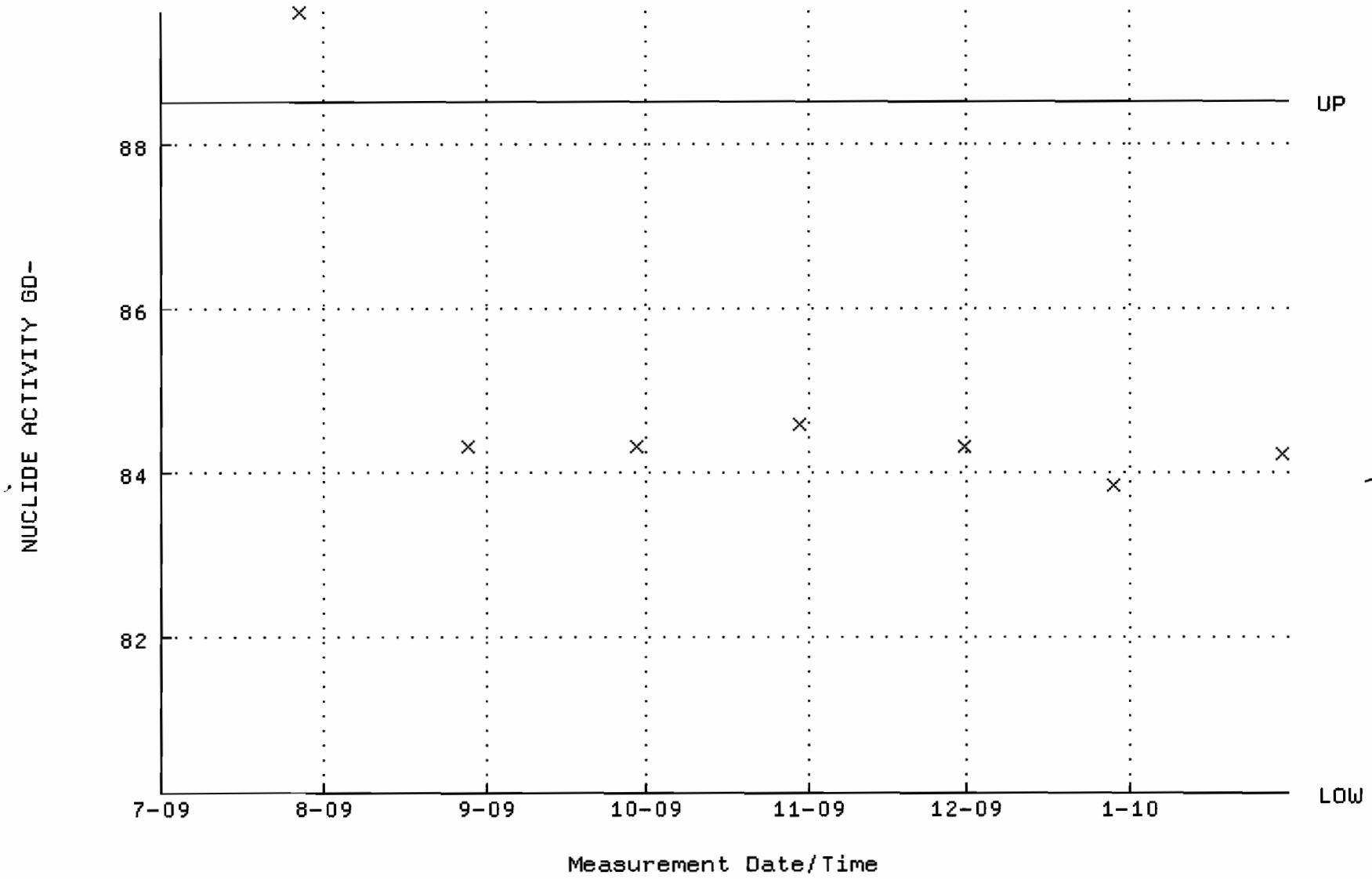

QA filename : DKA100:[ENV_ALPHA.QA.B]B249.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:26 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

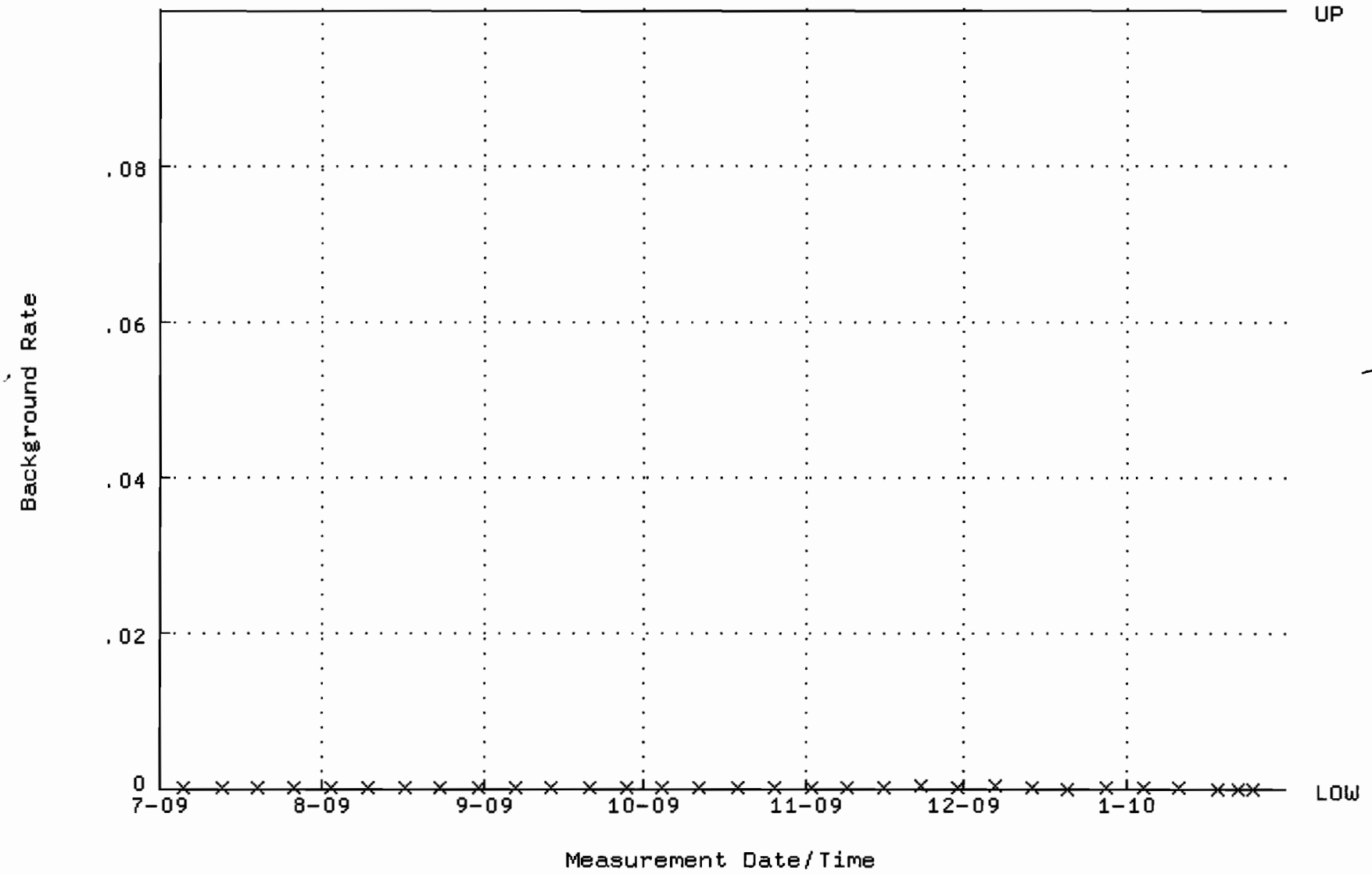

QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:30 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.382119 through 0.416507

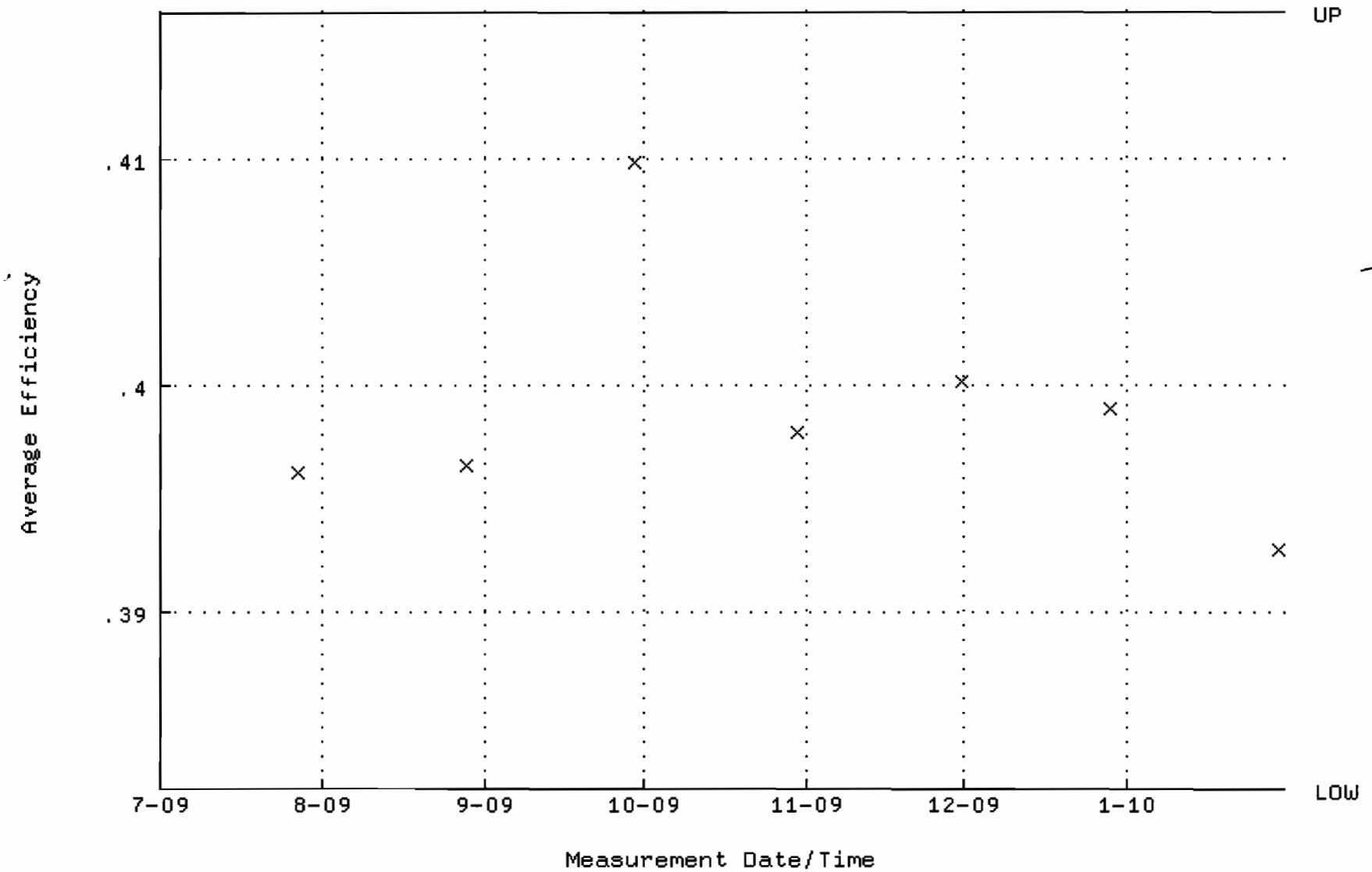

QA filename : DKA100:[ENV_ALPHA.QA.W]W250.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:30 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.9626 through 85.7308

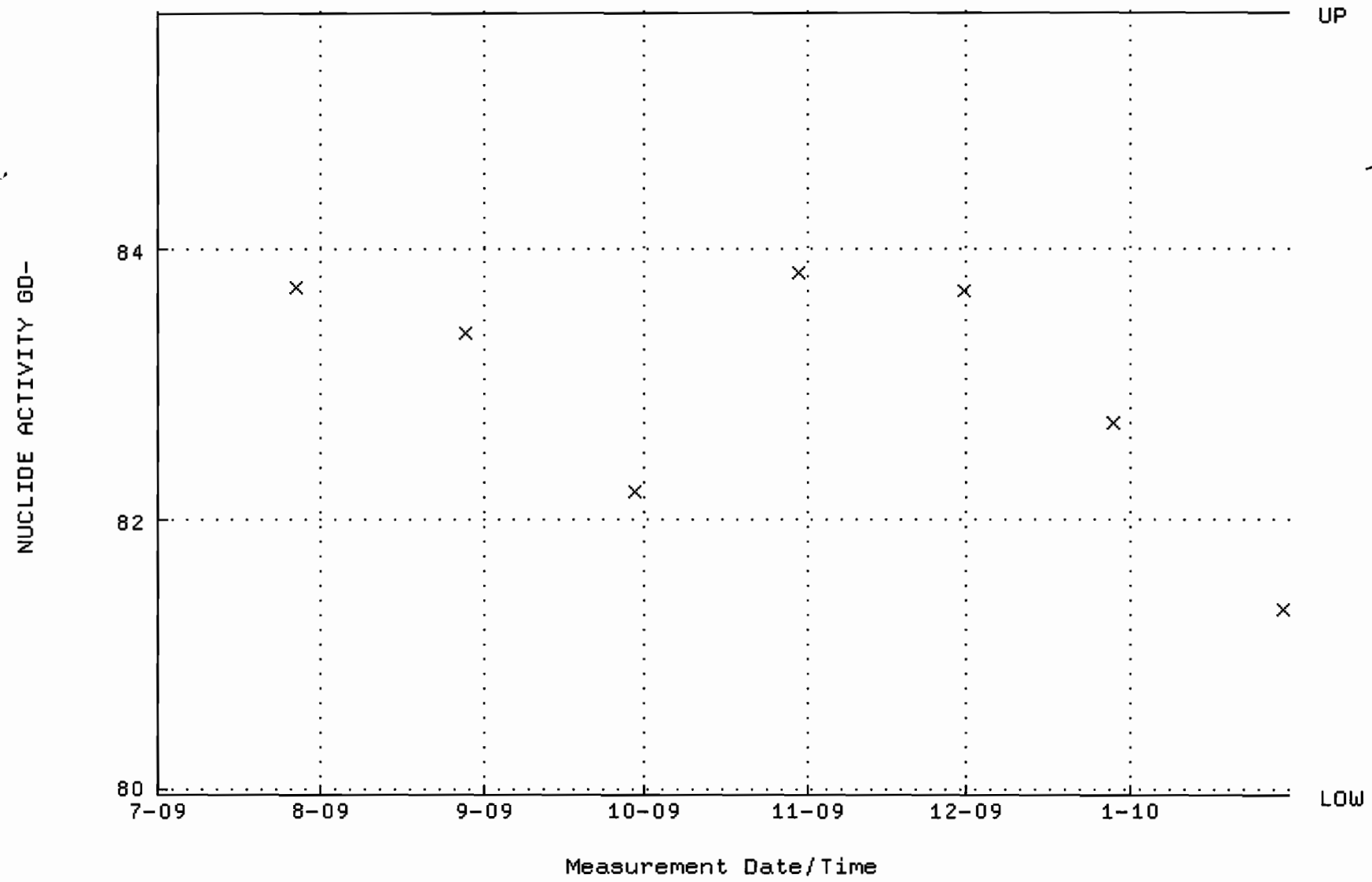

QA filename : DKA100:[ENV_ALPHA.QA.B]B250.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:31 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

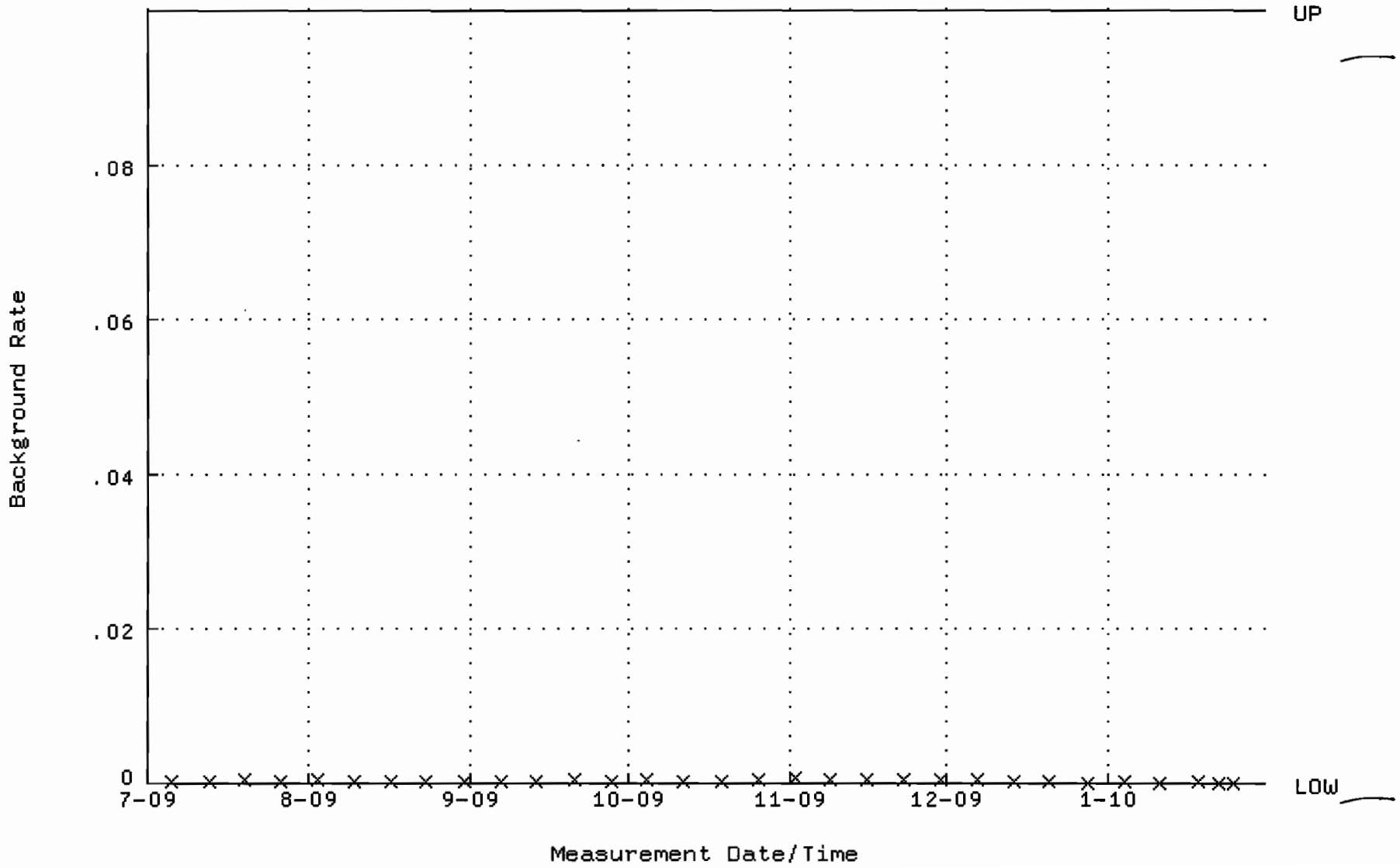

QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.379733 through 0.399733

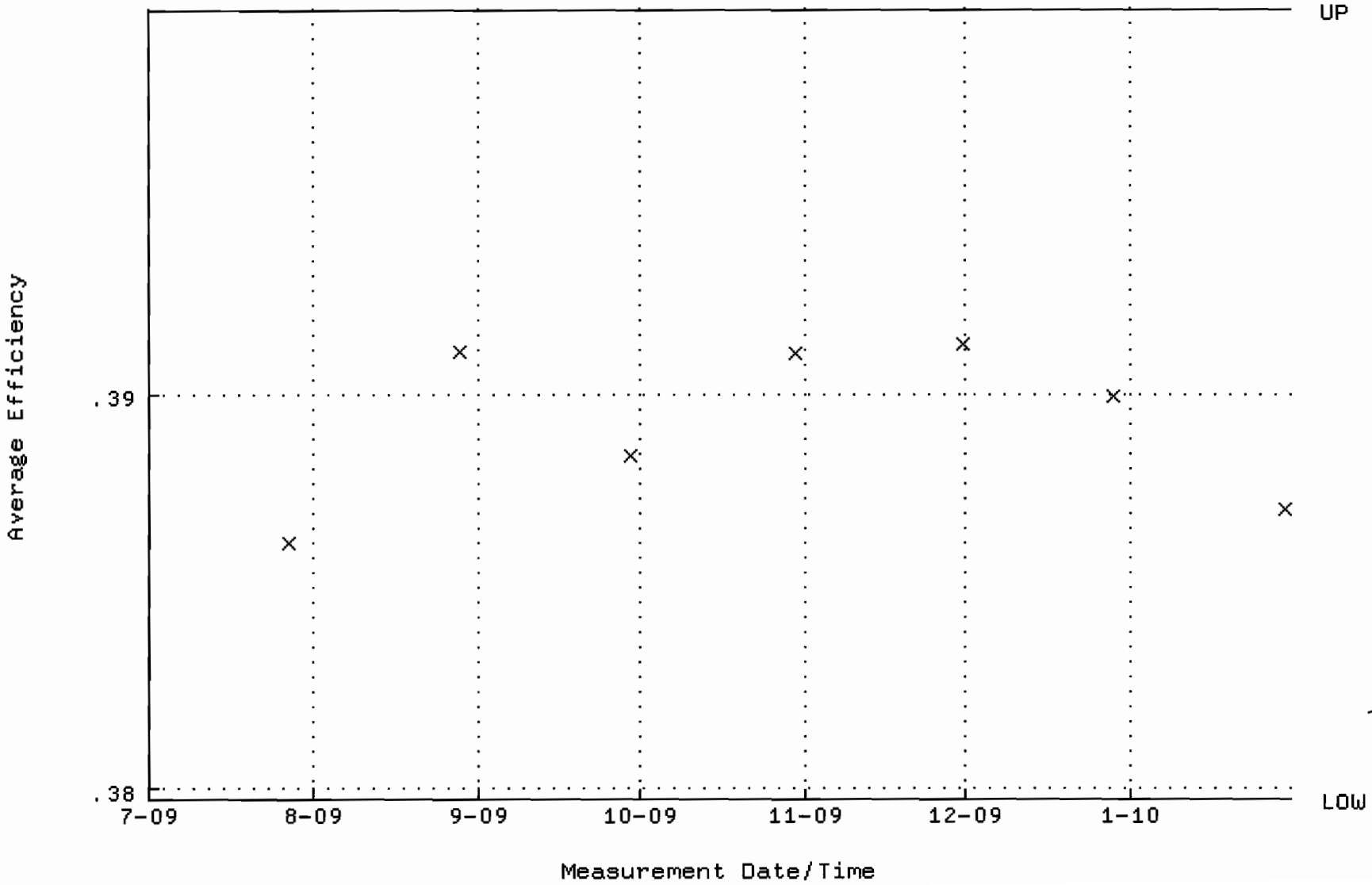

QA filename : DKA100:[ENV_ALPHA.QA.W]W251.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.1799 through 90.8305

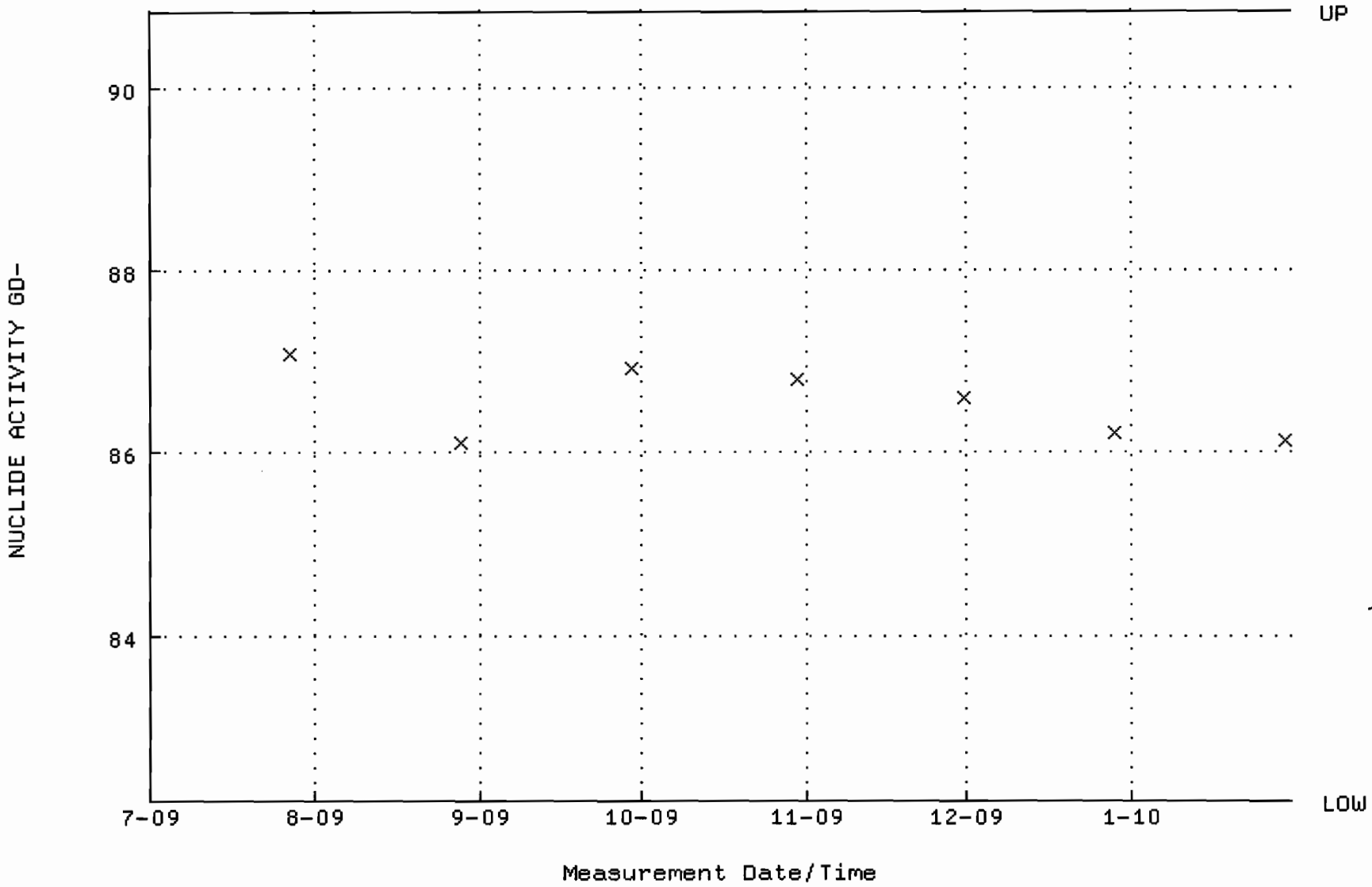

QA filename : DKA100:[ENV_ALPHA.QA.B]B251.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:36 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

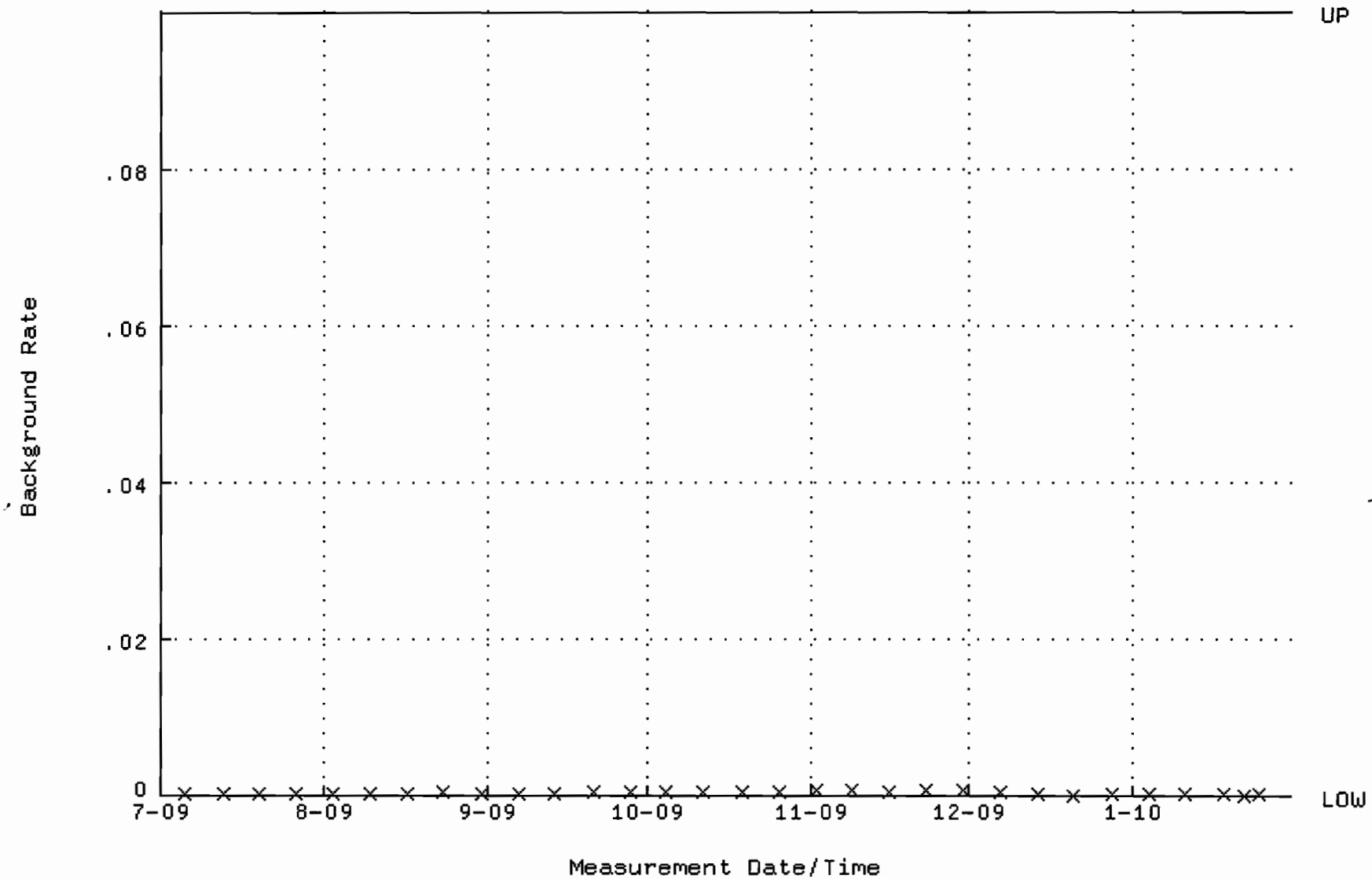

QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.367415 through 0.387415

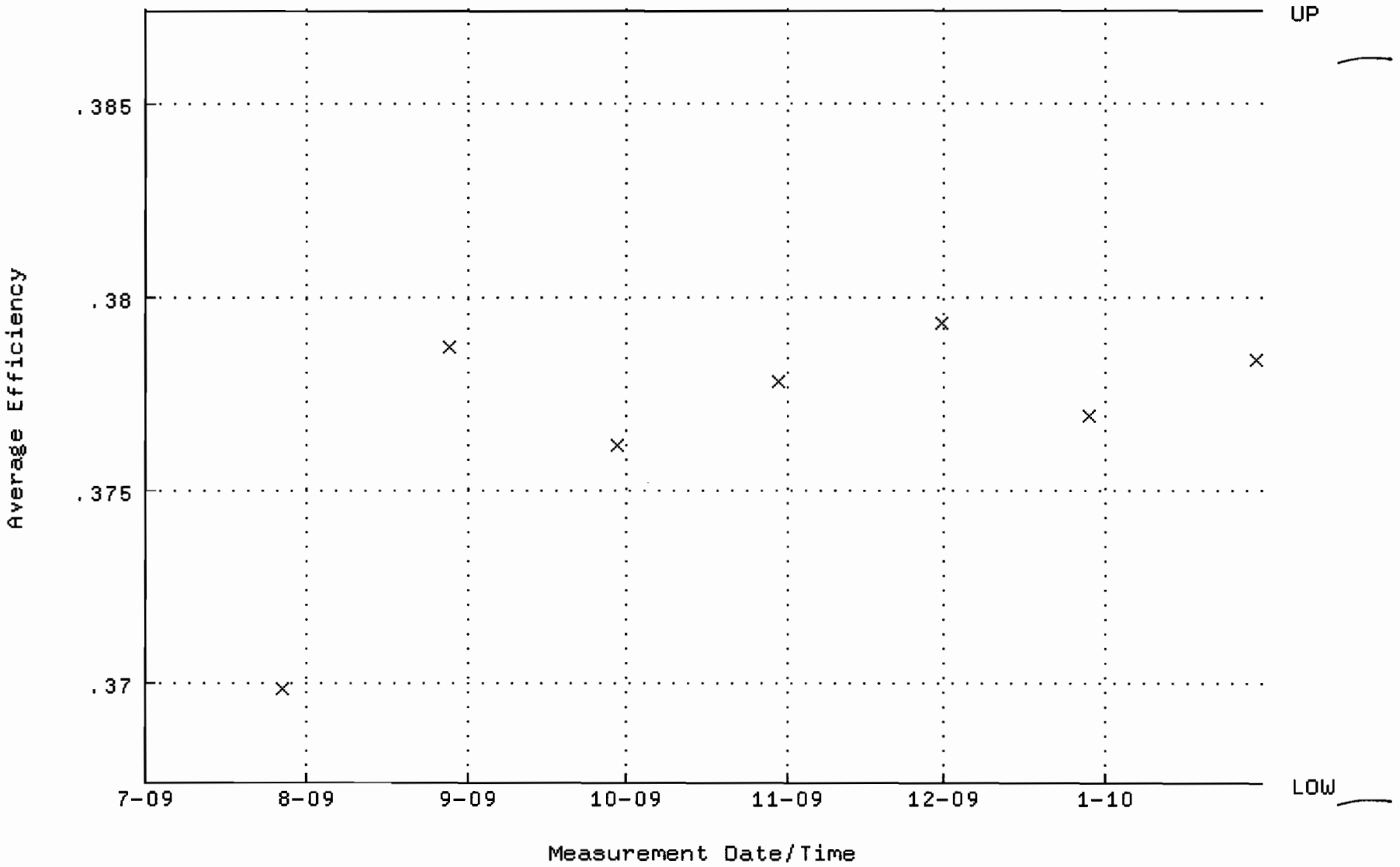

QA filename : DKA100:[ENV_ALPHA.QA.W]W252.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:43 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 81.4437 through 90.0167

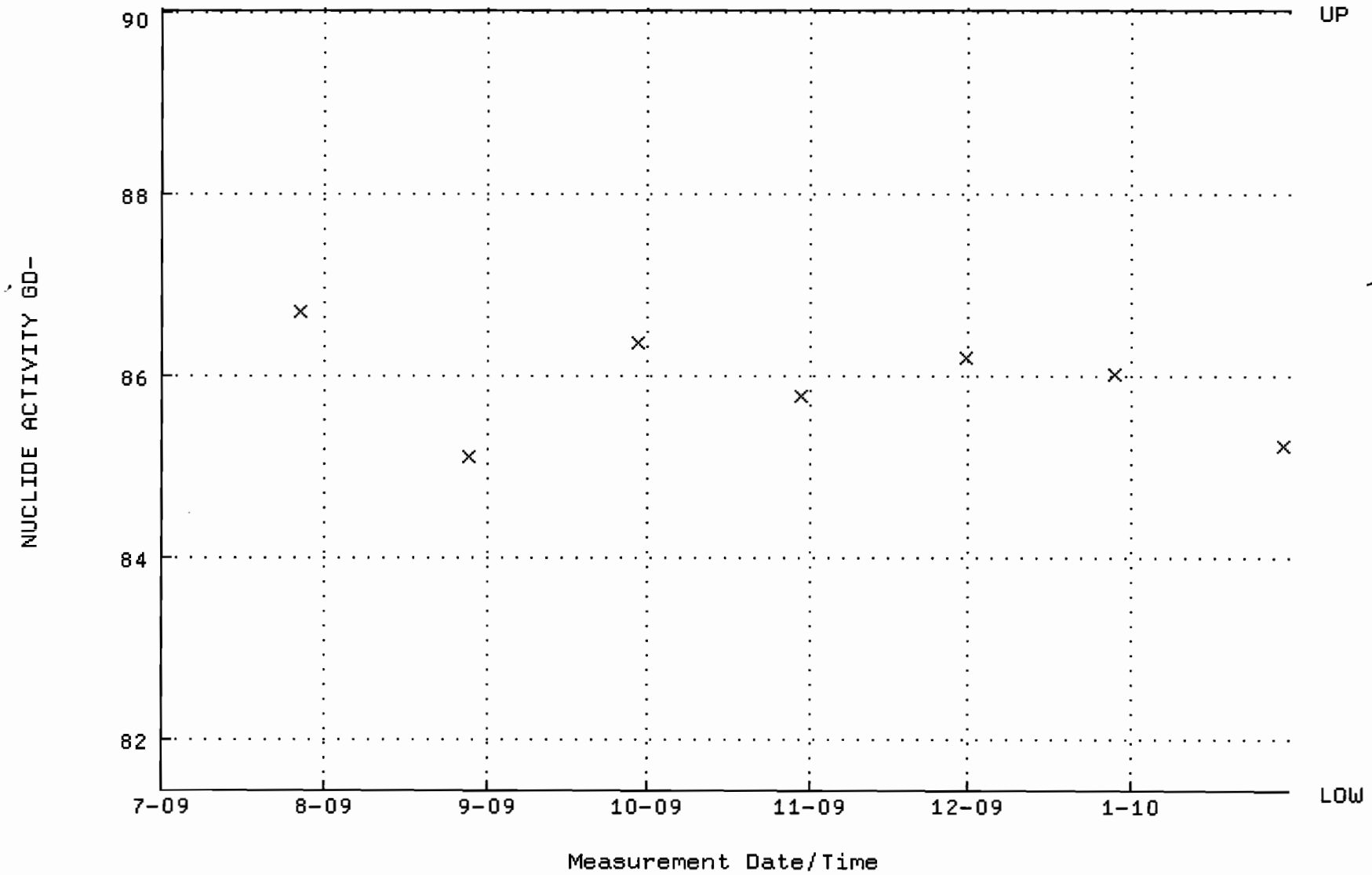

QA filename : DKA100:[ENV_ALPHA.QA.B]B252.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:41 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

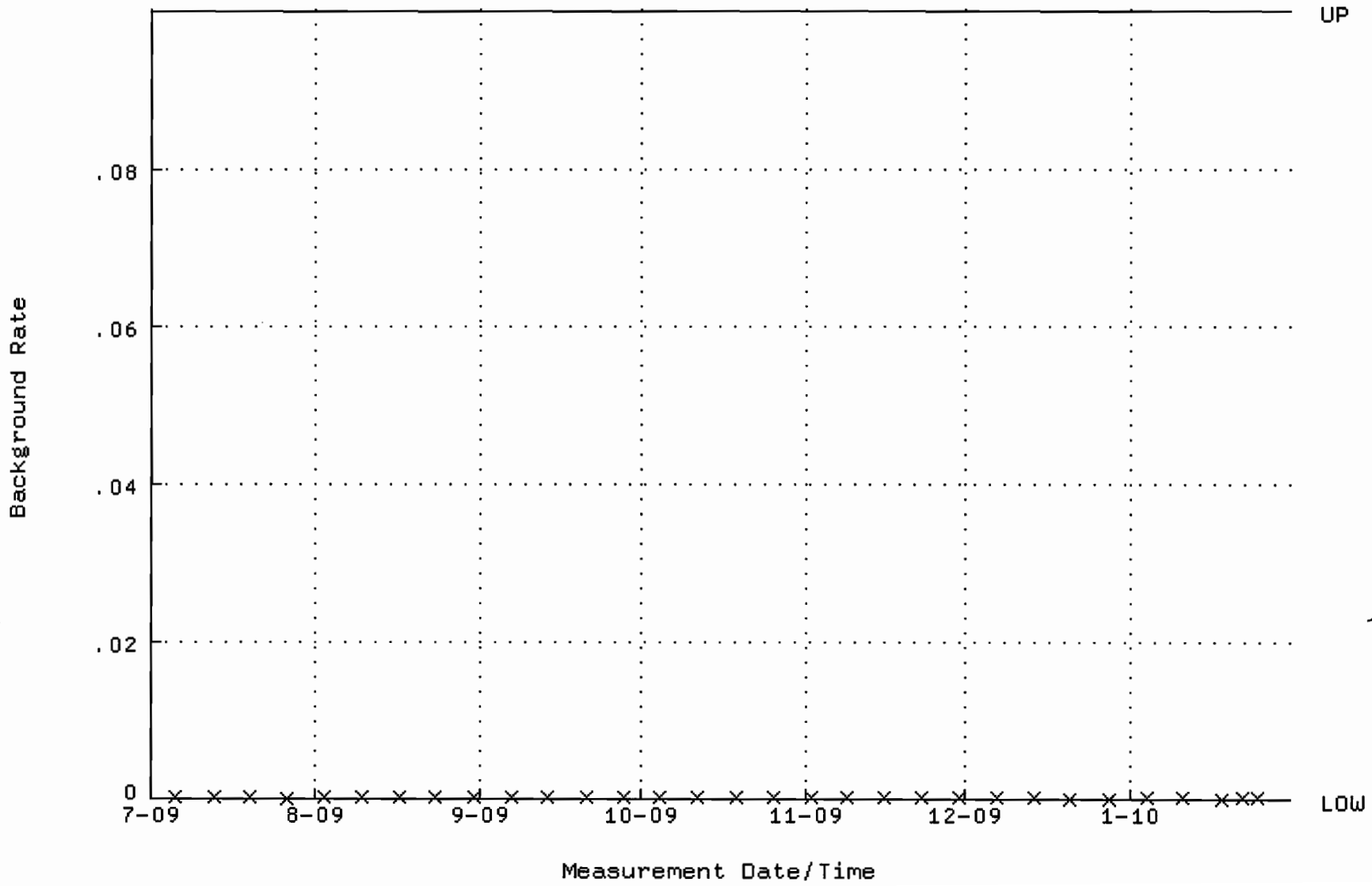

QA filename : DKA100:[ENV_ALPHA.QA.W]W253.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:49 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.373633 through 0.393633

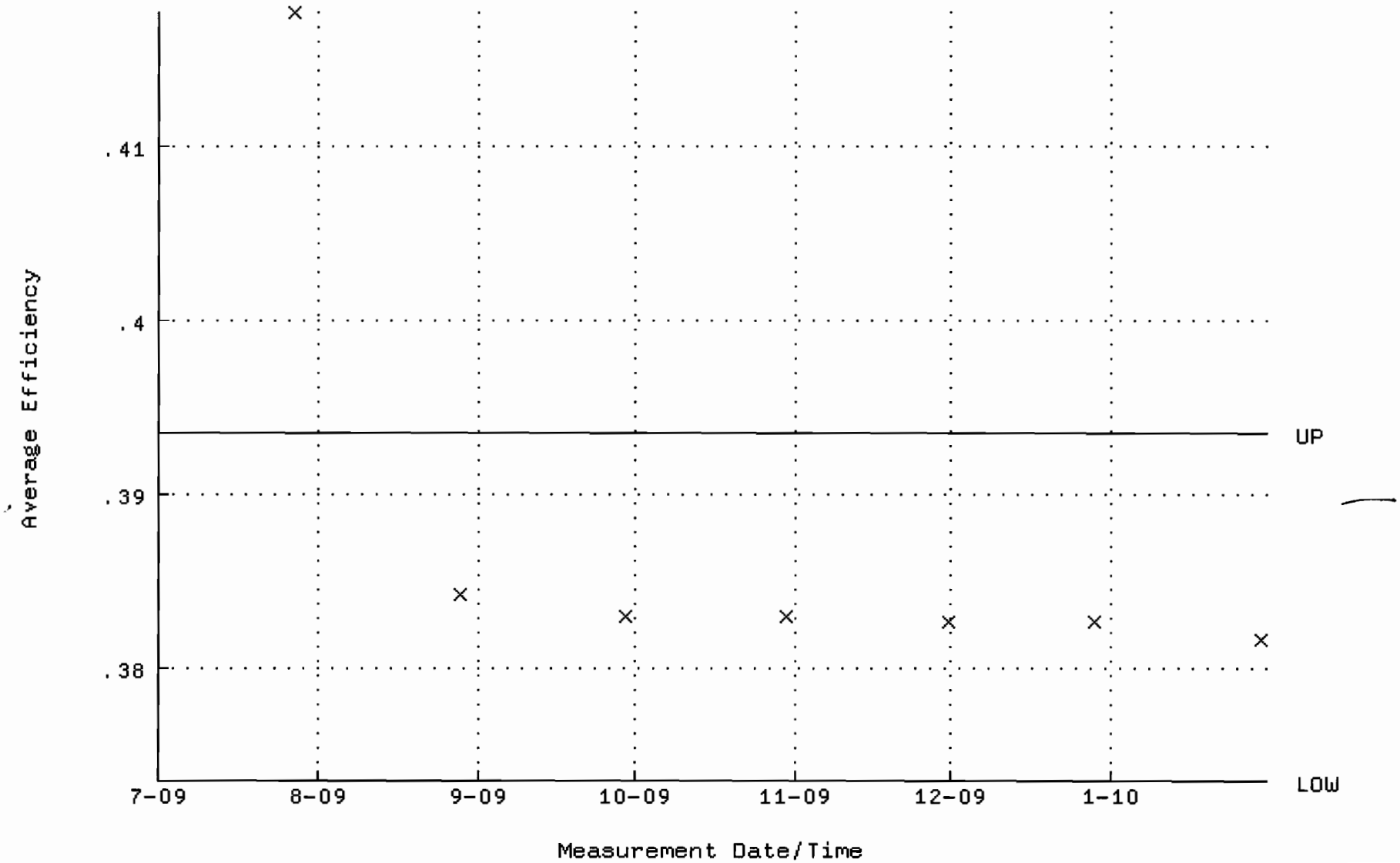

QA filename : DKA100:[ENV_ALPHA.QA.W]W253.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:49 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.7115 through 93.6285

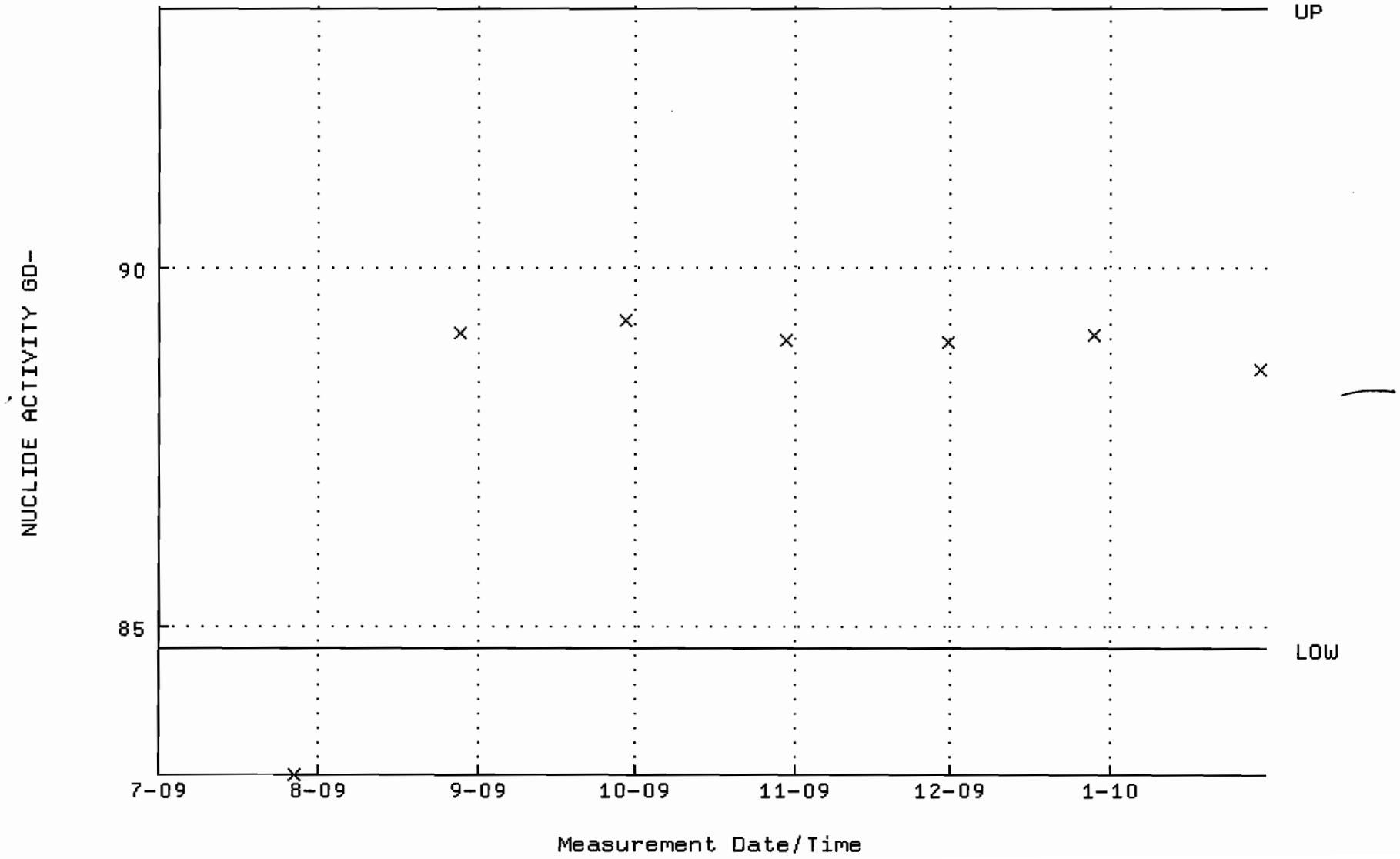

QA filename : DKA100:[ENV_ALPHA.QA.B]B253.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:46 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

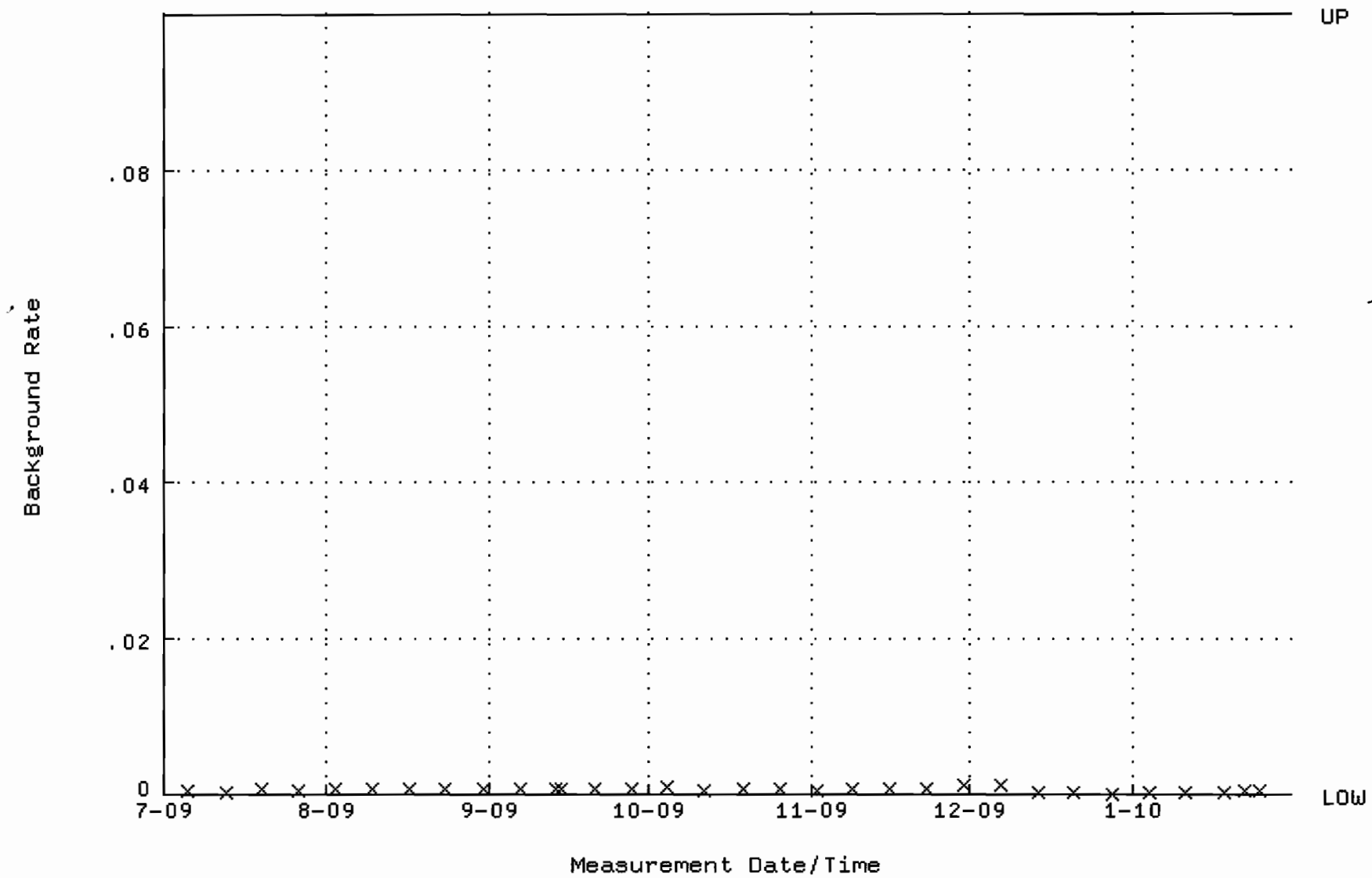

QA filename : DKA100:[ENV_ALPHA.QA.W]W254.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:51:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.382510 through 0.402510

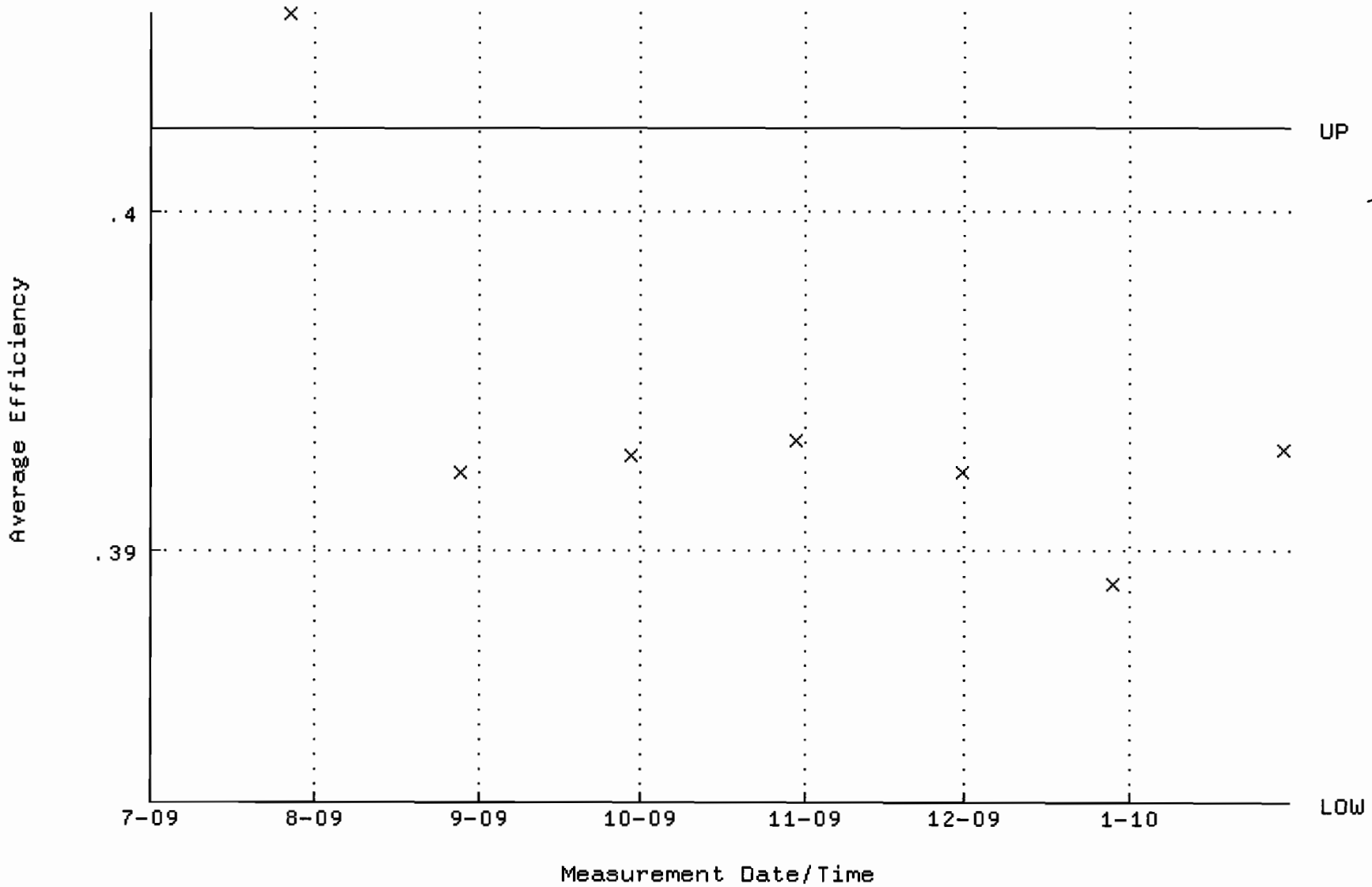

QA filename : DKA100:[ENV_ALPHA.QA.W]W254.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:51:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.4795 through 91.1615

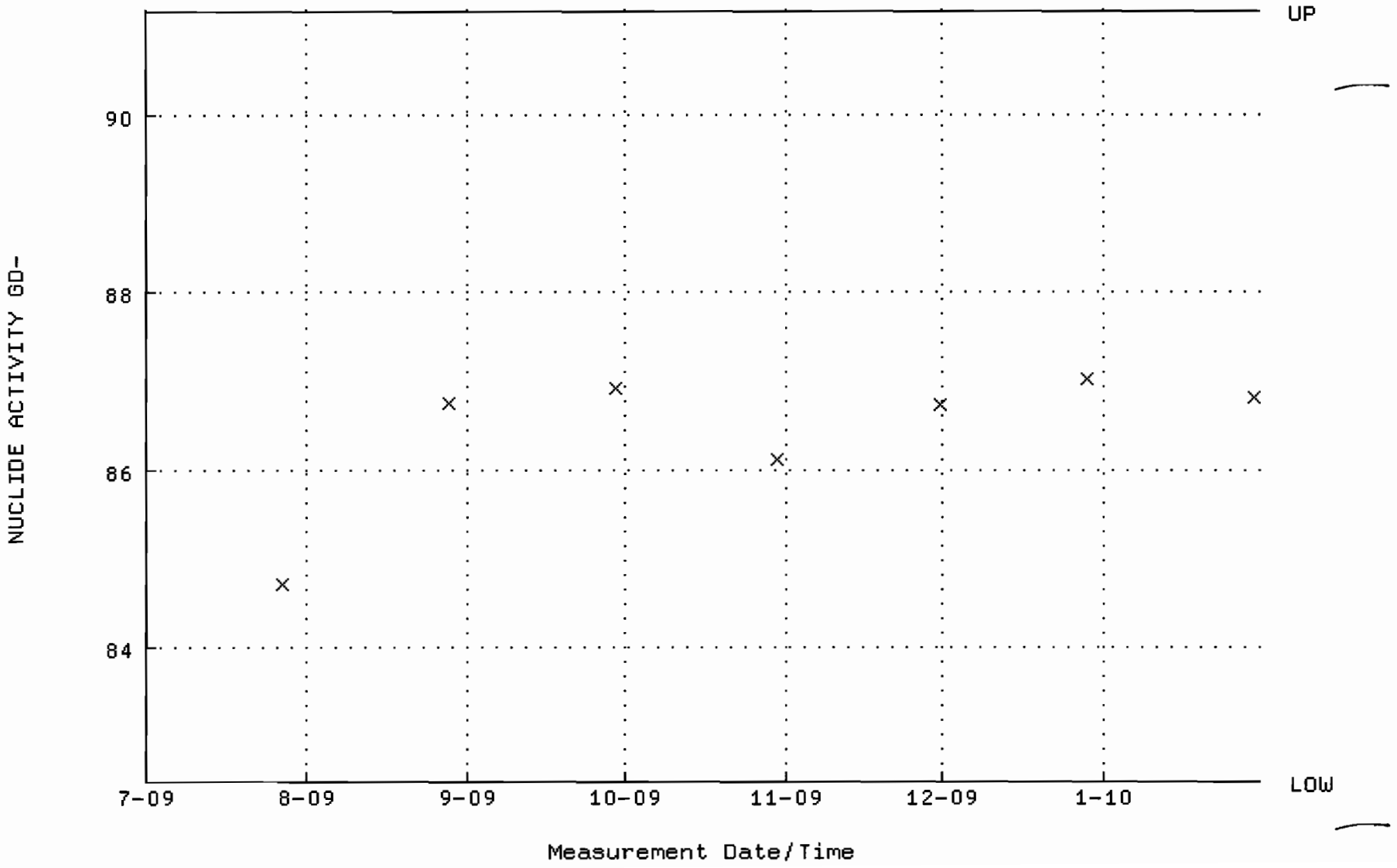

QA filename : DKA100:[ENV_ALPHA.QA.B]B254.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:51 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

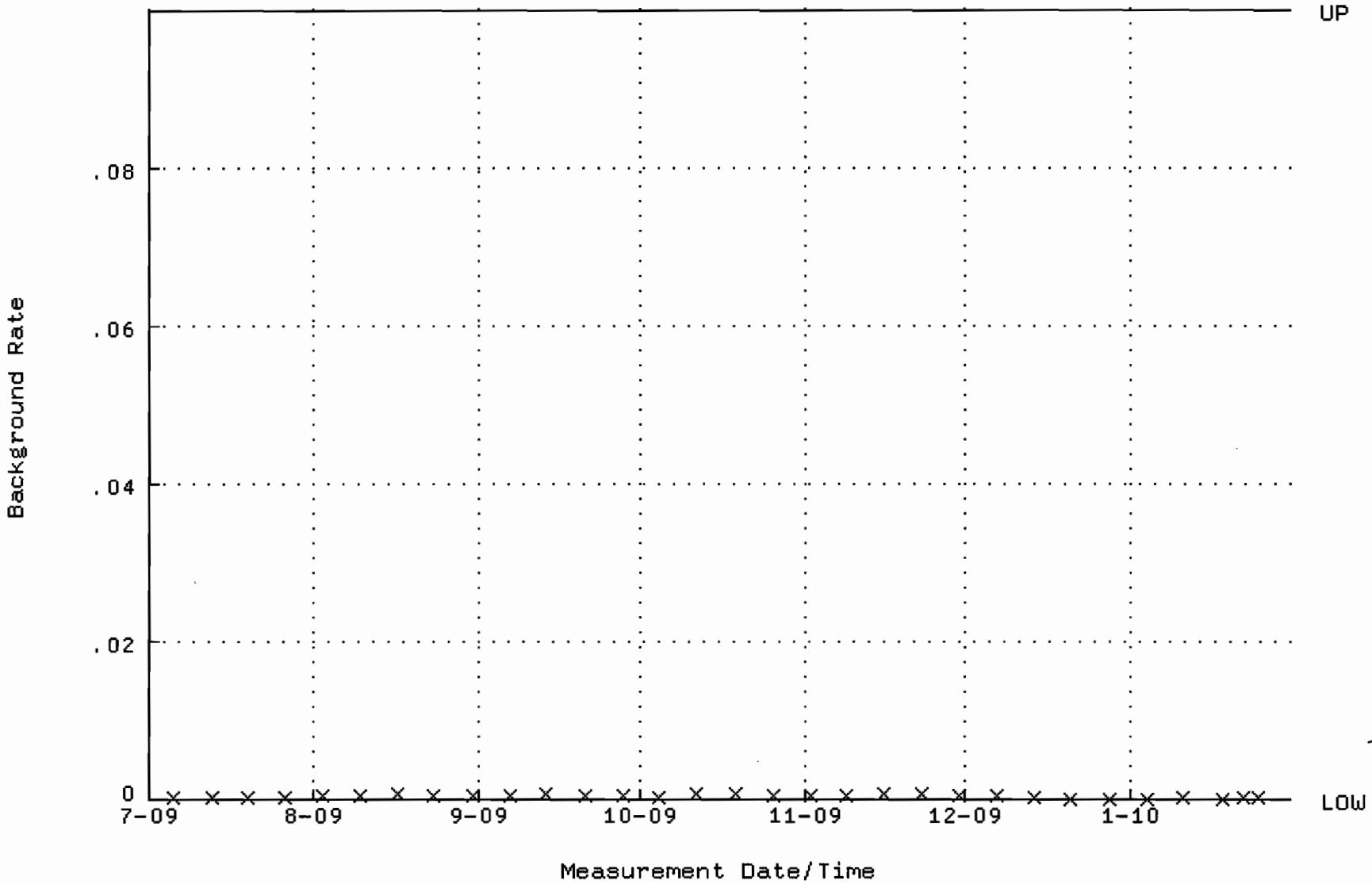

QA filename : DKA100:[ENV_ALPHA.QA.W]W255.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:52:00 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.371403 through 0.391403

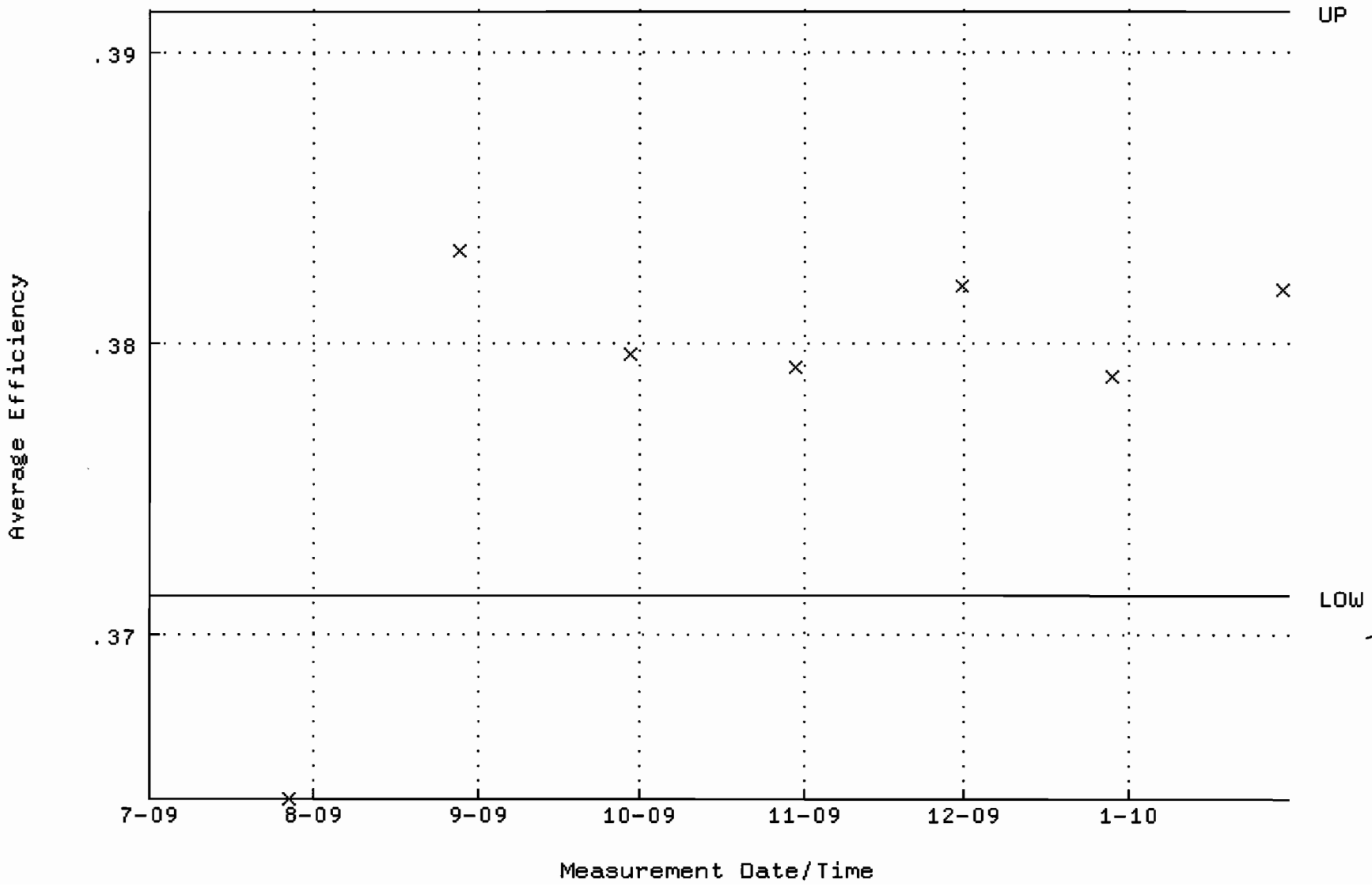

QA filename : DKA100:[ENV_ALPHA.QA.W]W255.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:52:00 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 79.3783 through 87.7339

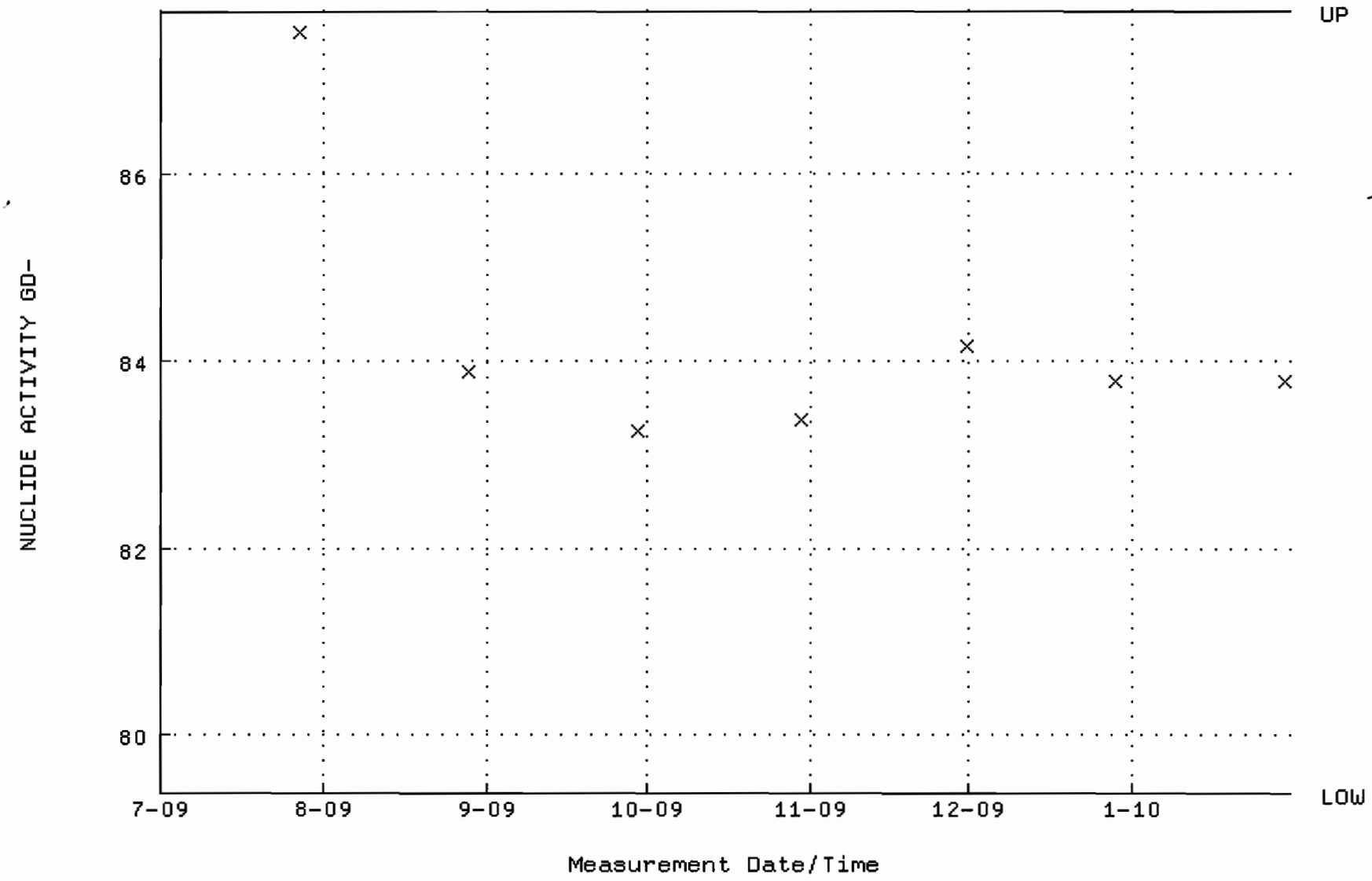

QA filename : DKA100:[ENV_ALPHA.QA.B]B255.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:55 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

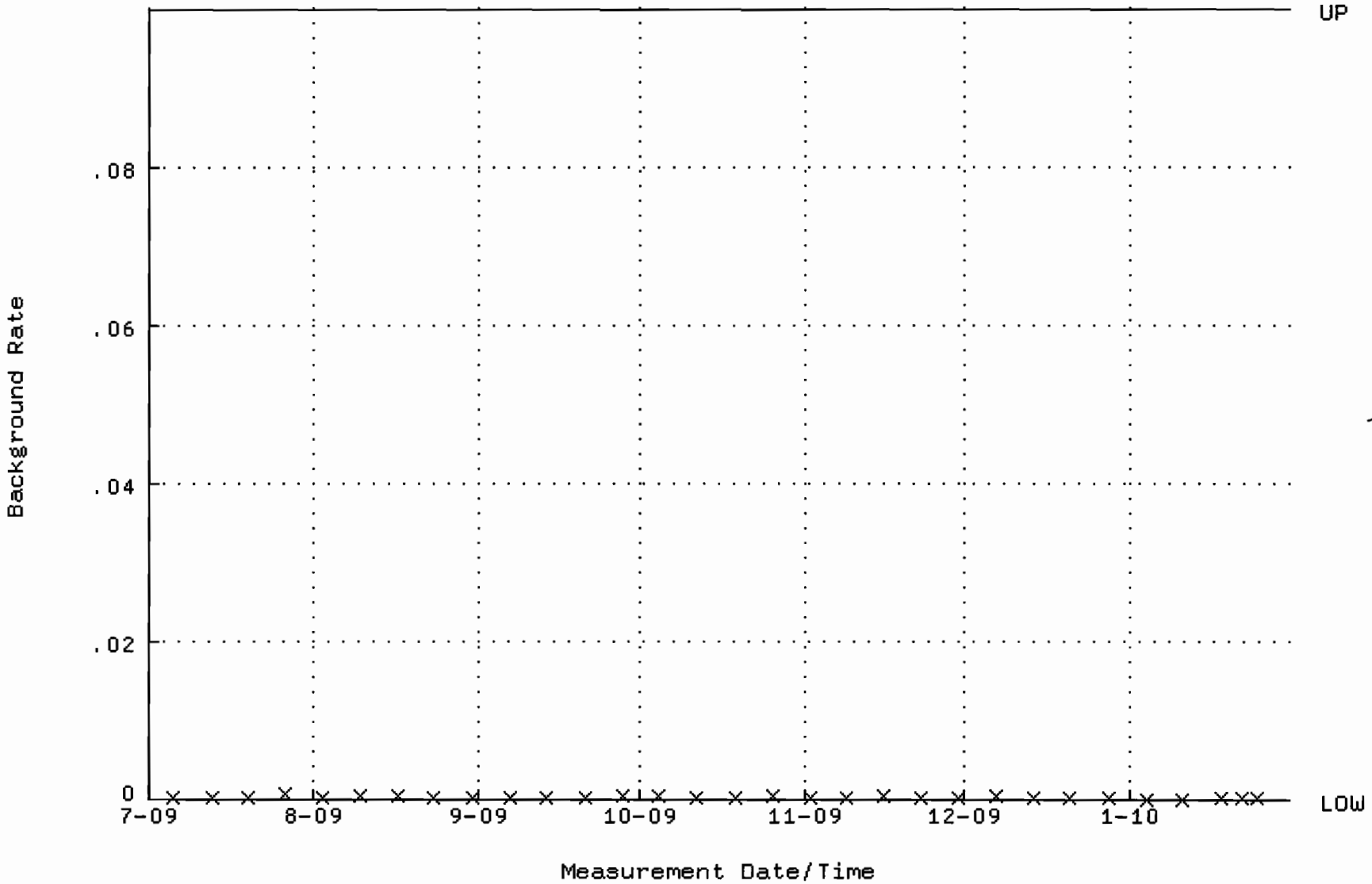

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:52:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.374371 through 0.388647

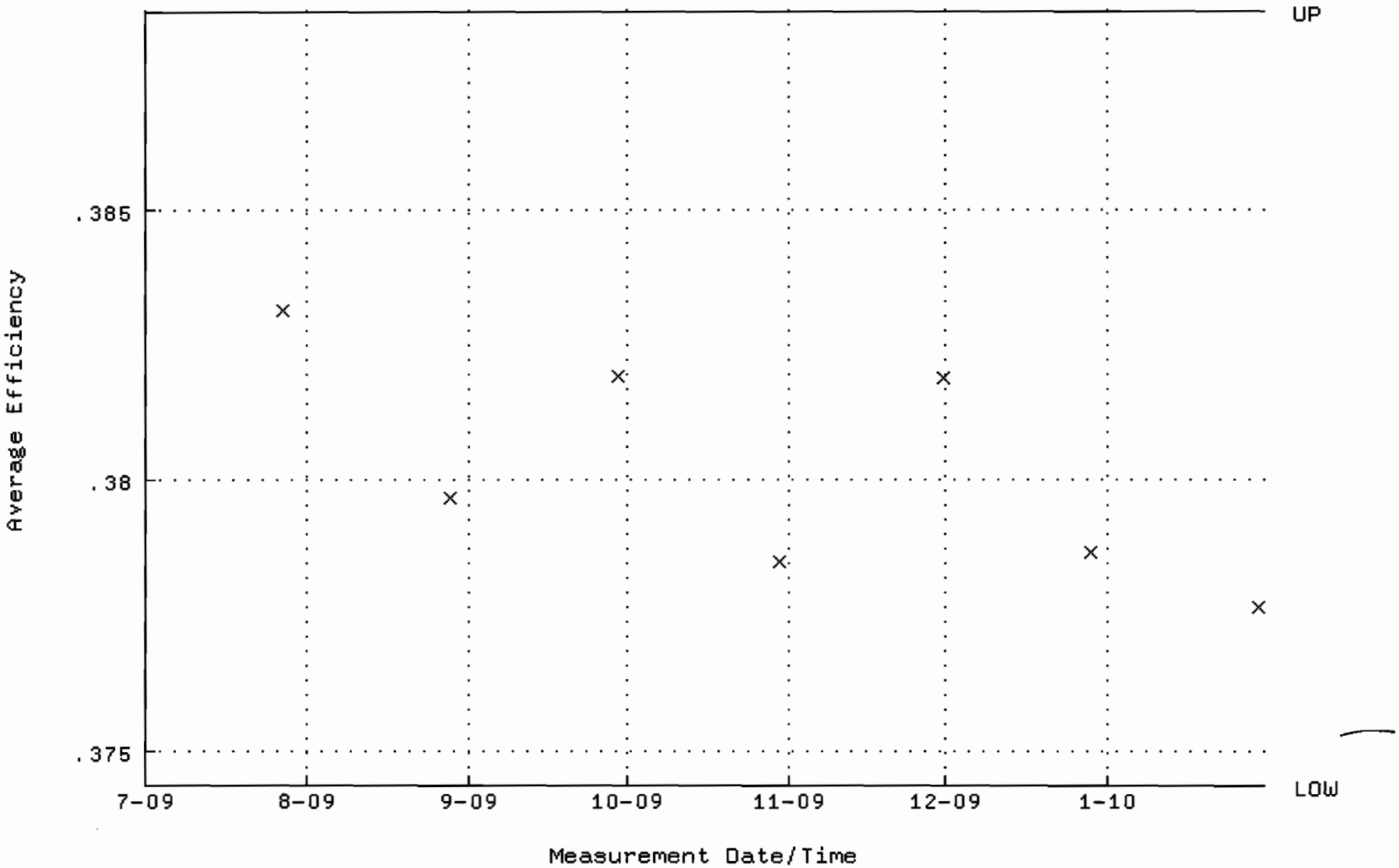

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:52:06 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 83.7553 through 85.8901

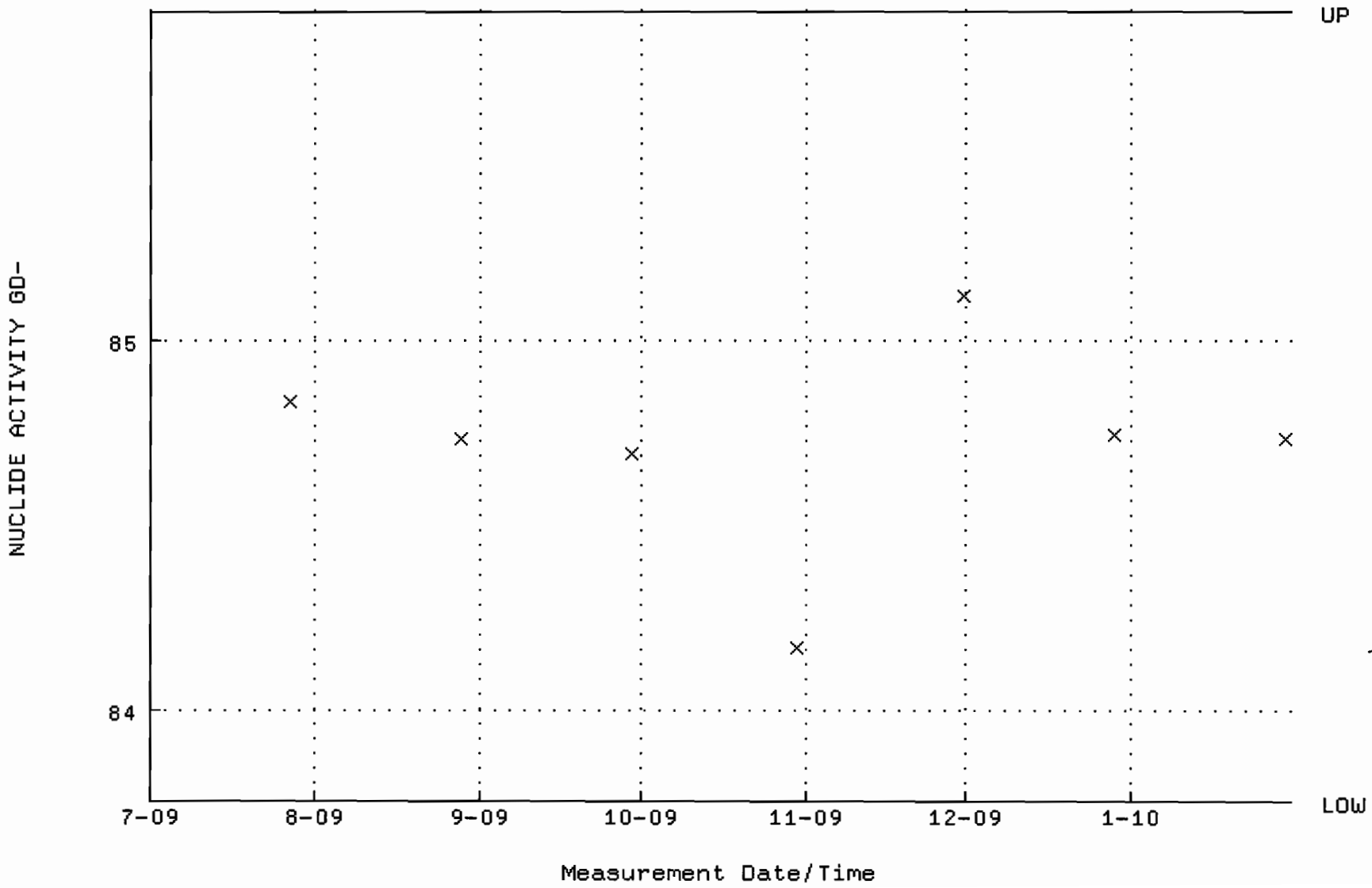

QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:06:59 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

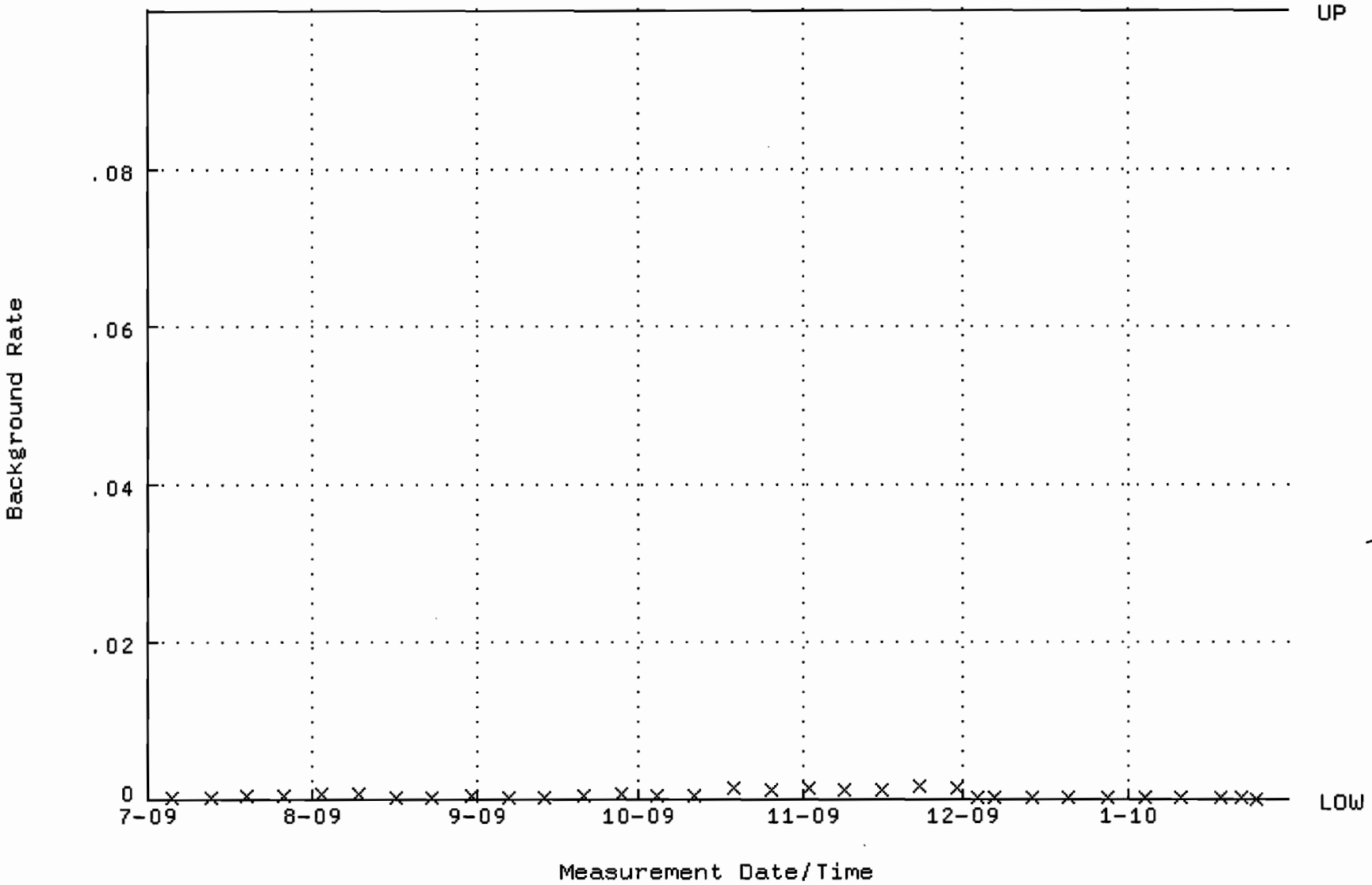

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:08:48 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

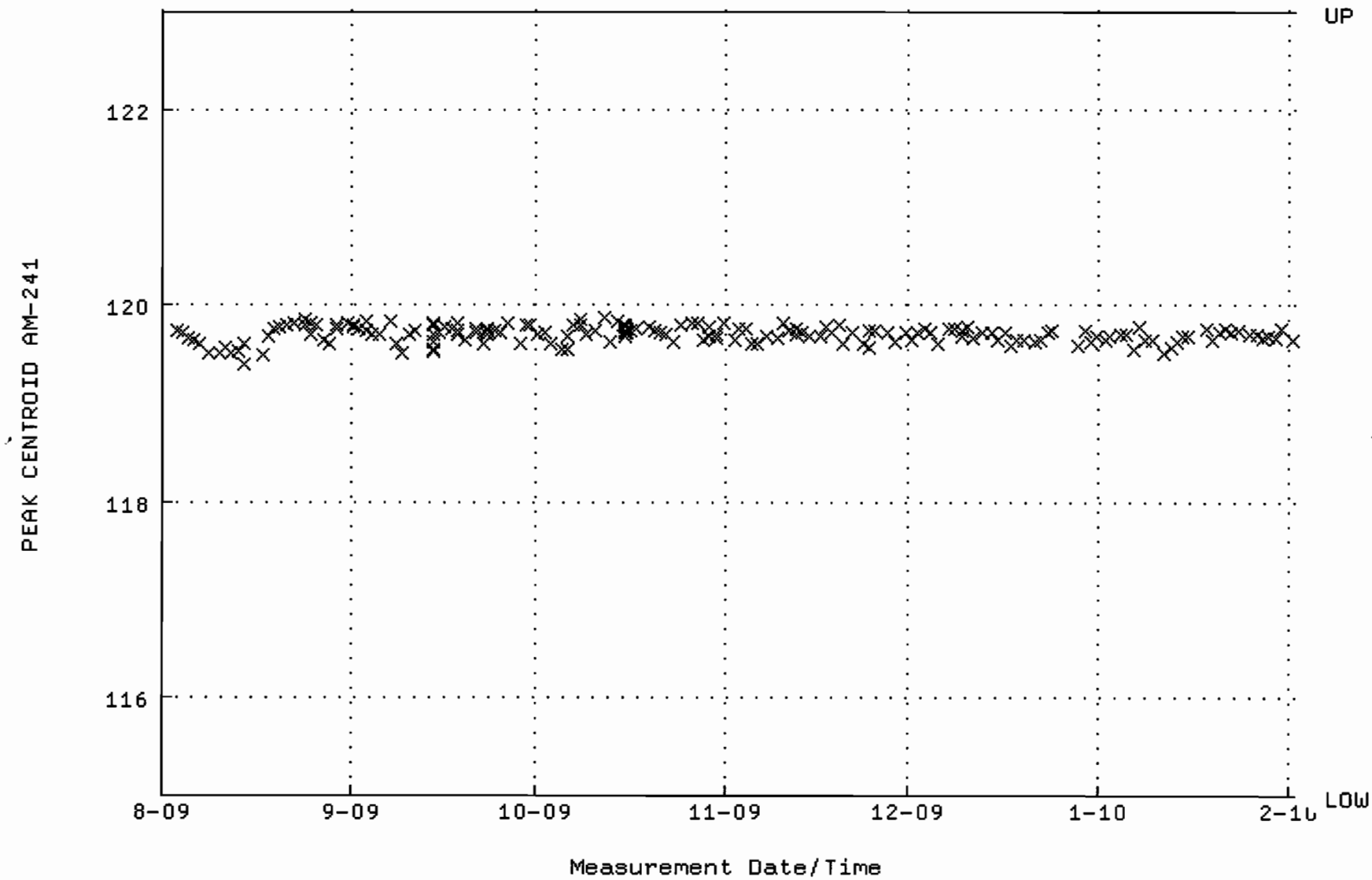

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:21:01 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

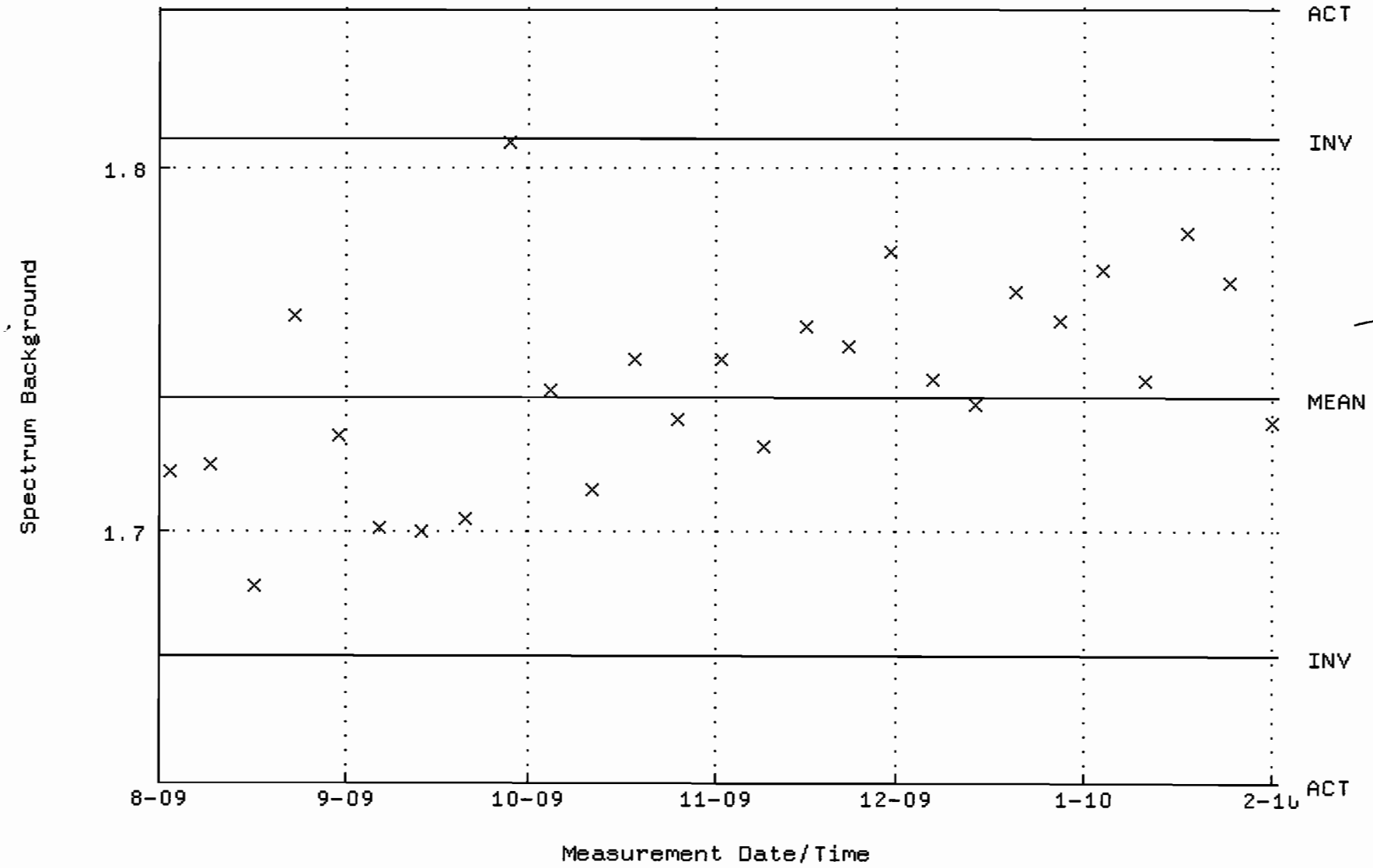

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:11:46 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

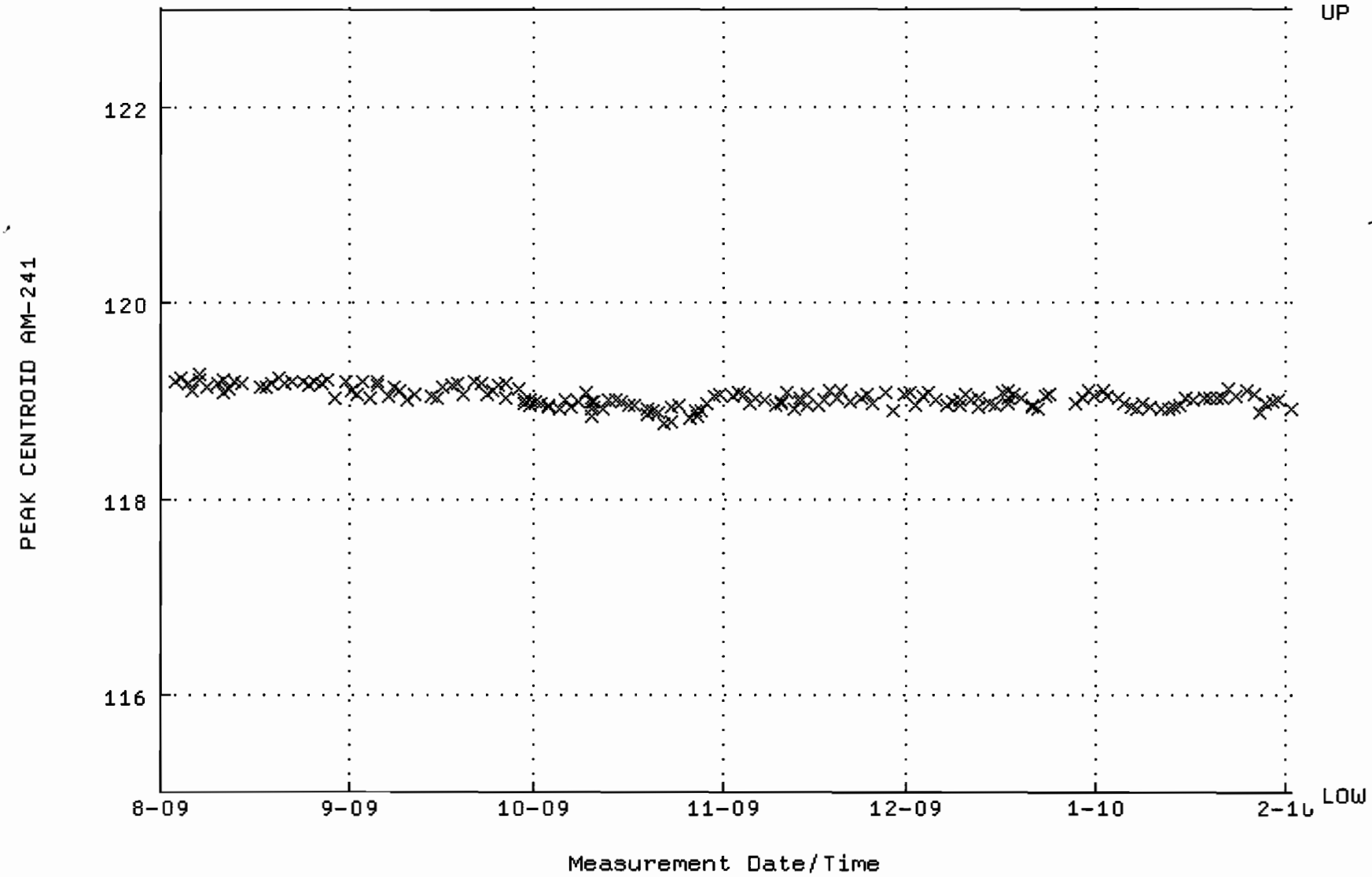

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:48 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

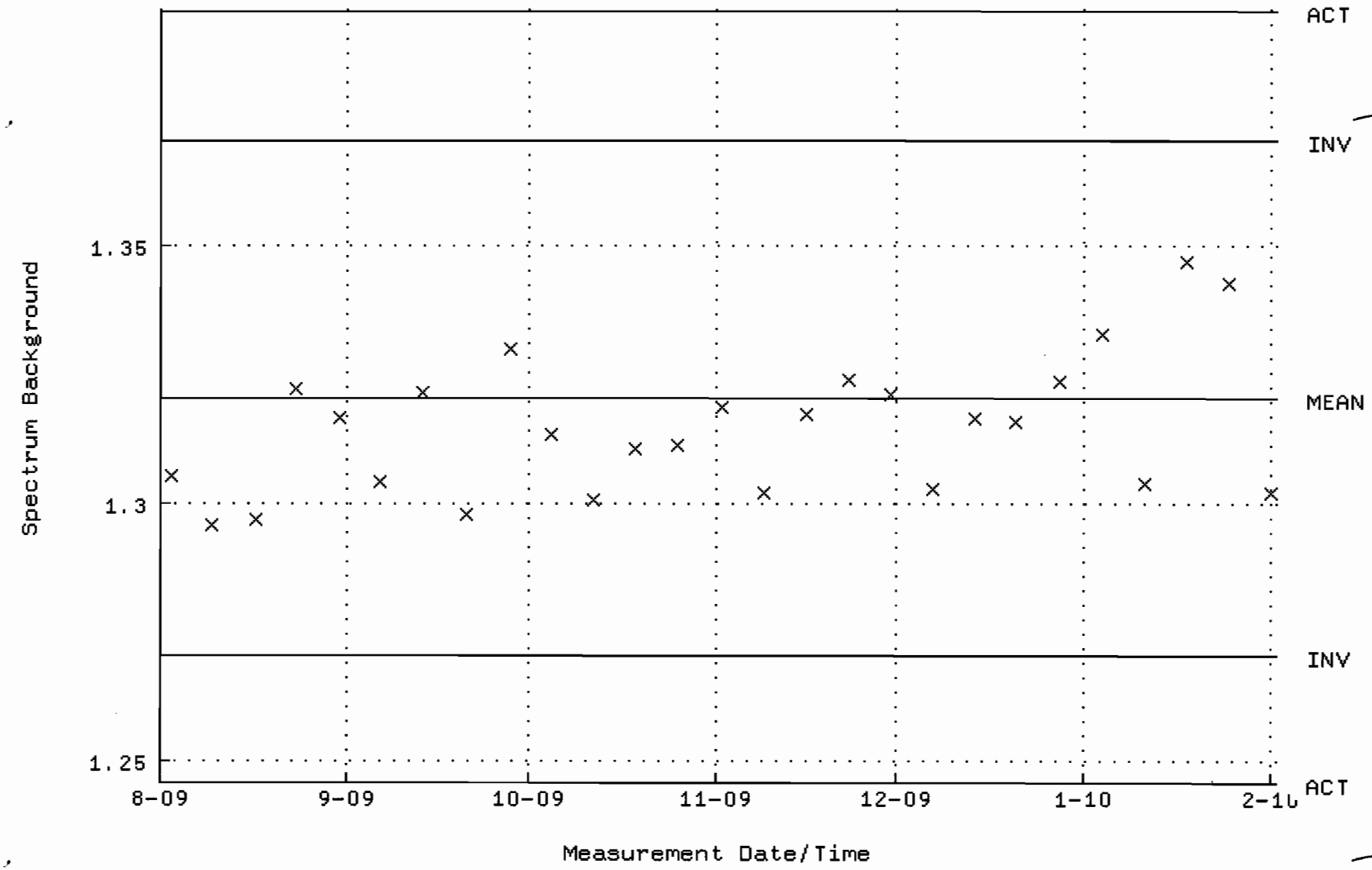

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

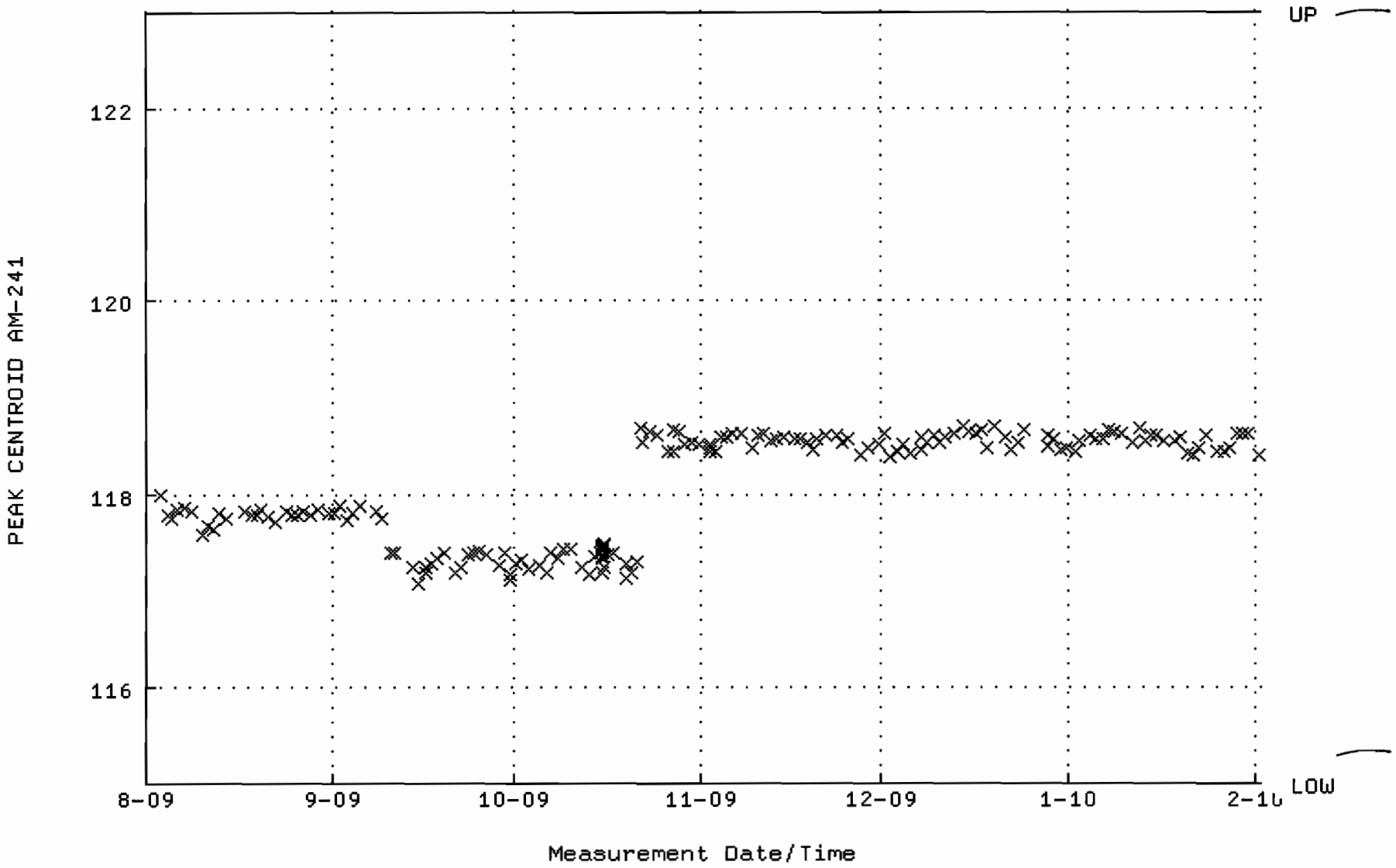

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:13 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

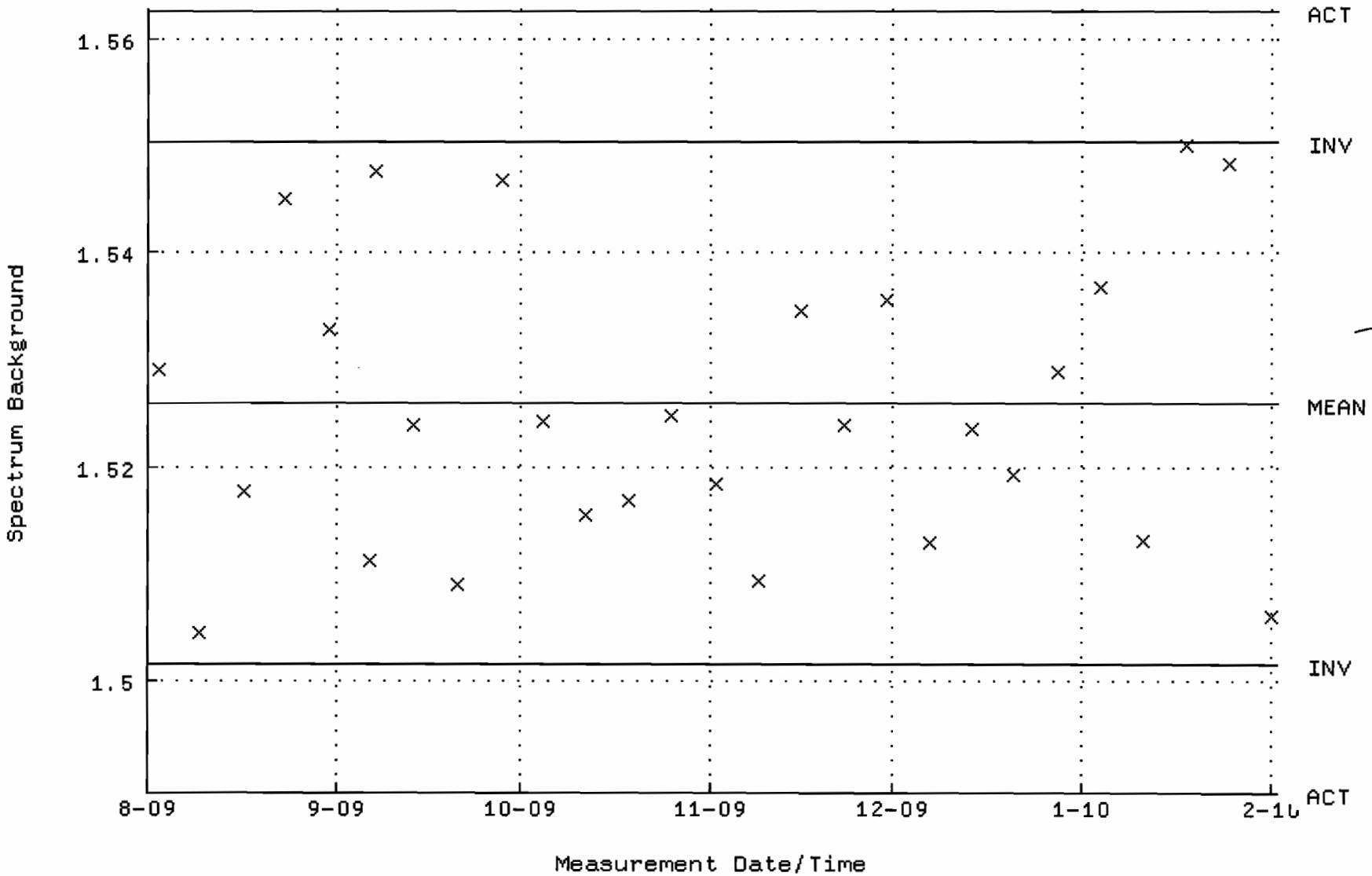

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:52 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

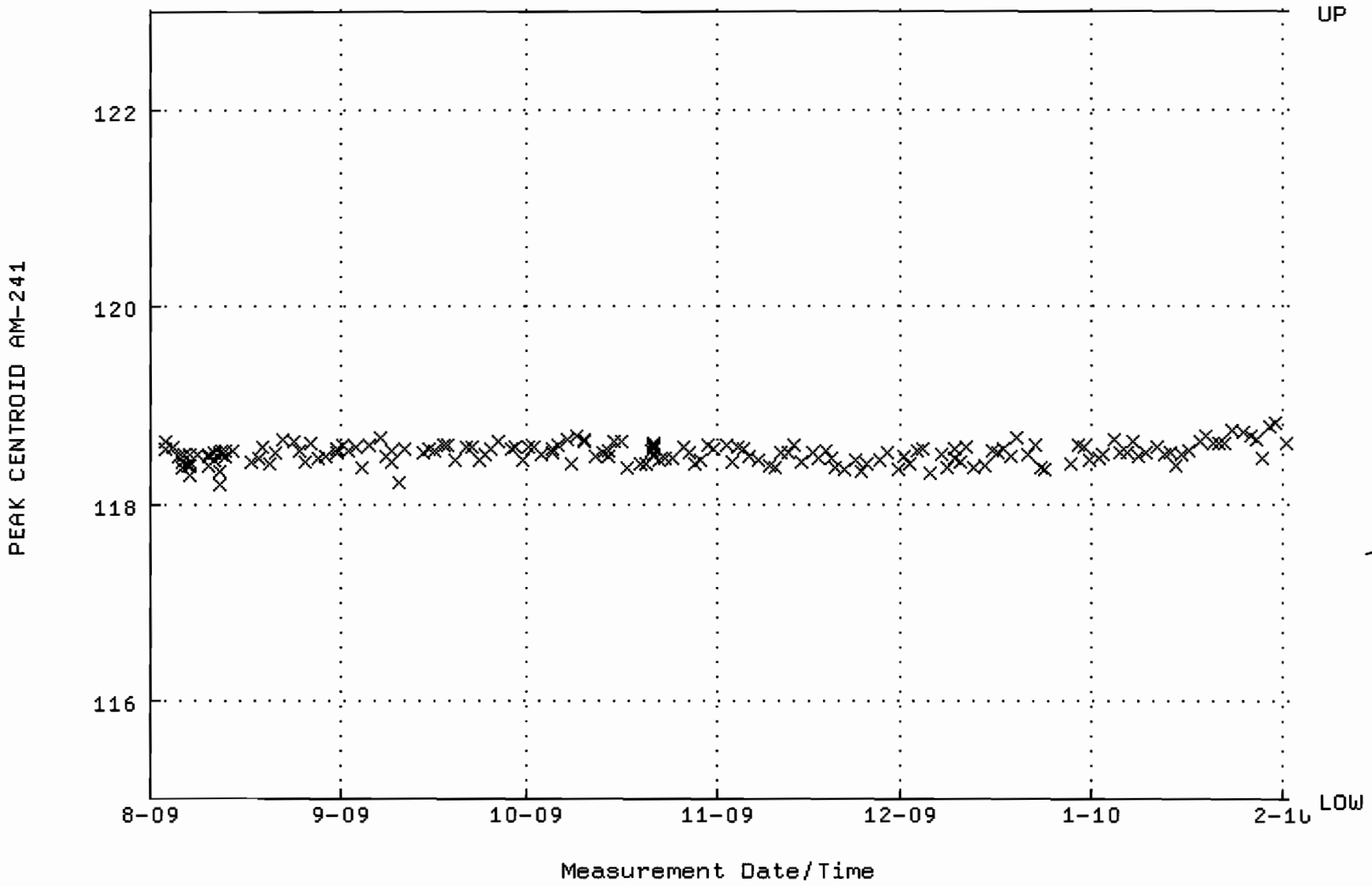

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:26 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

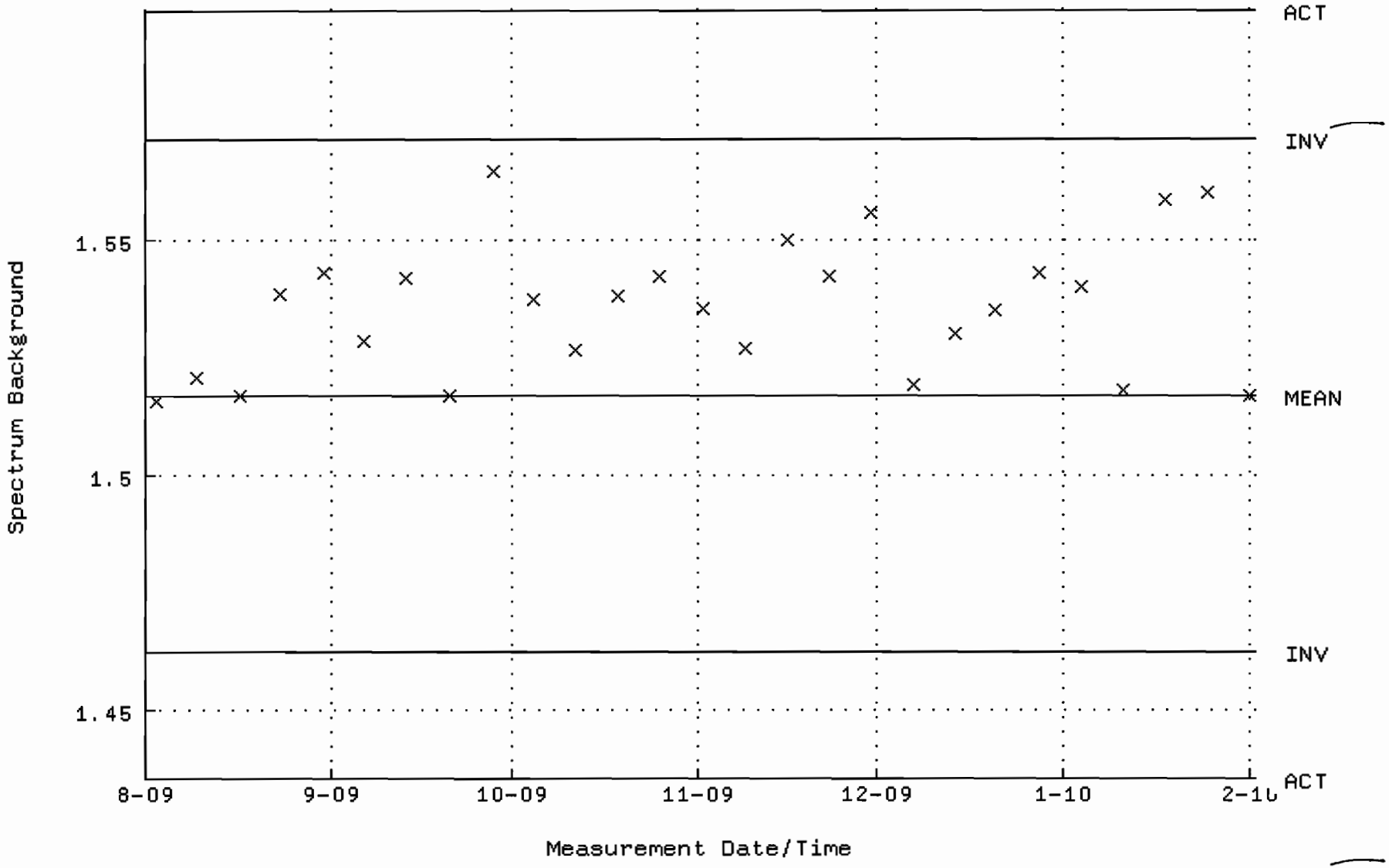

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

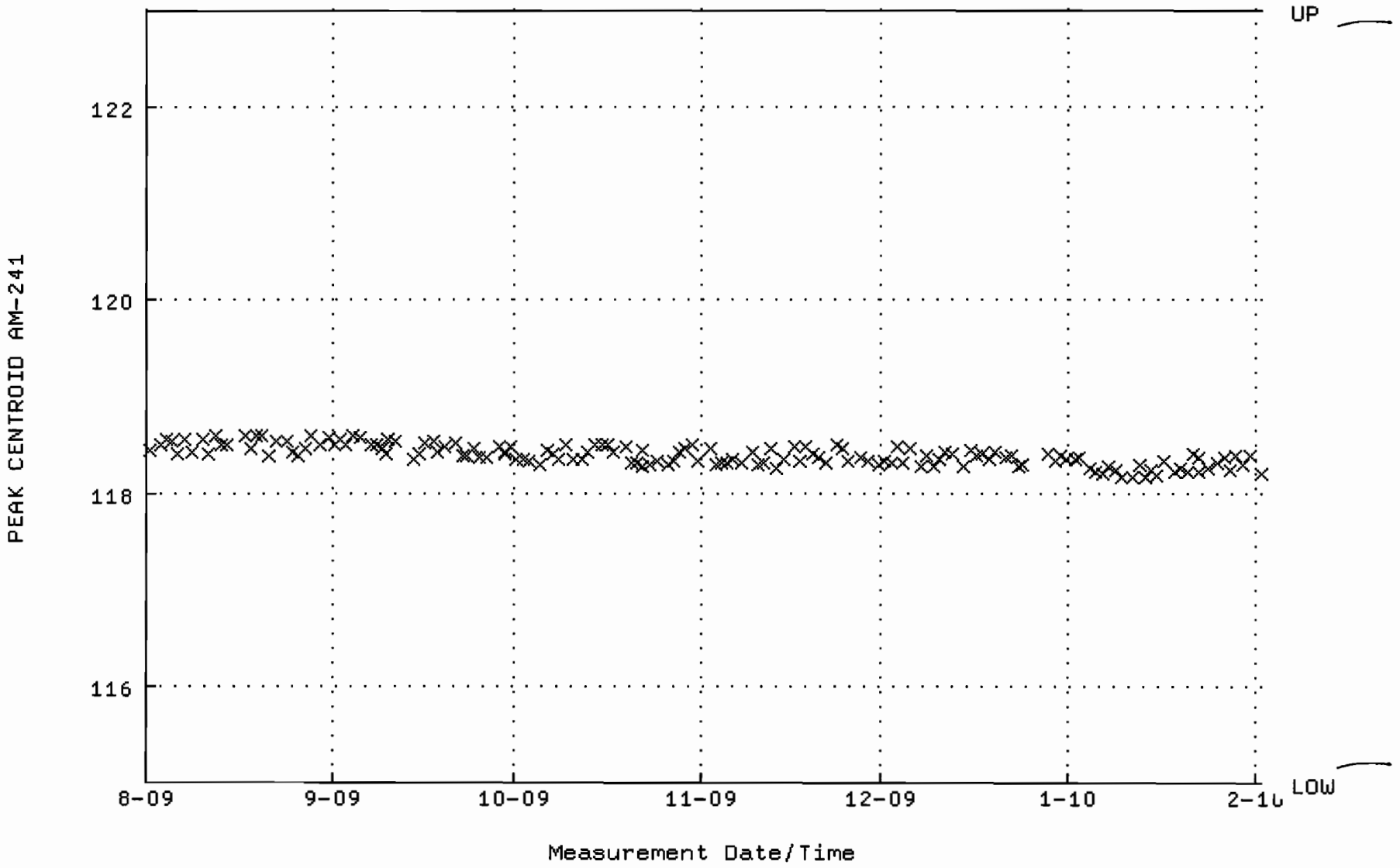

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

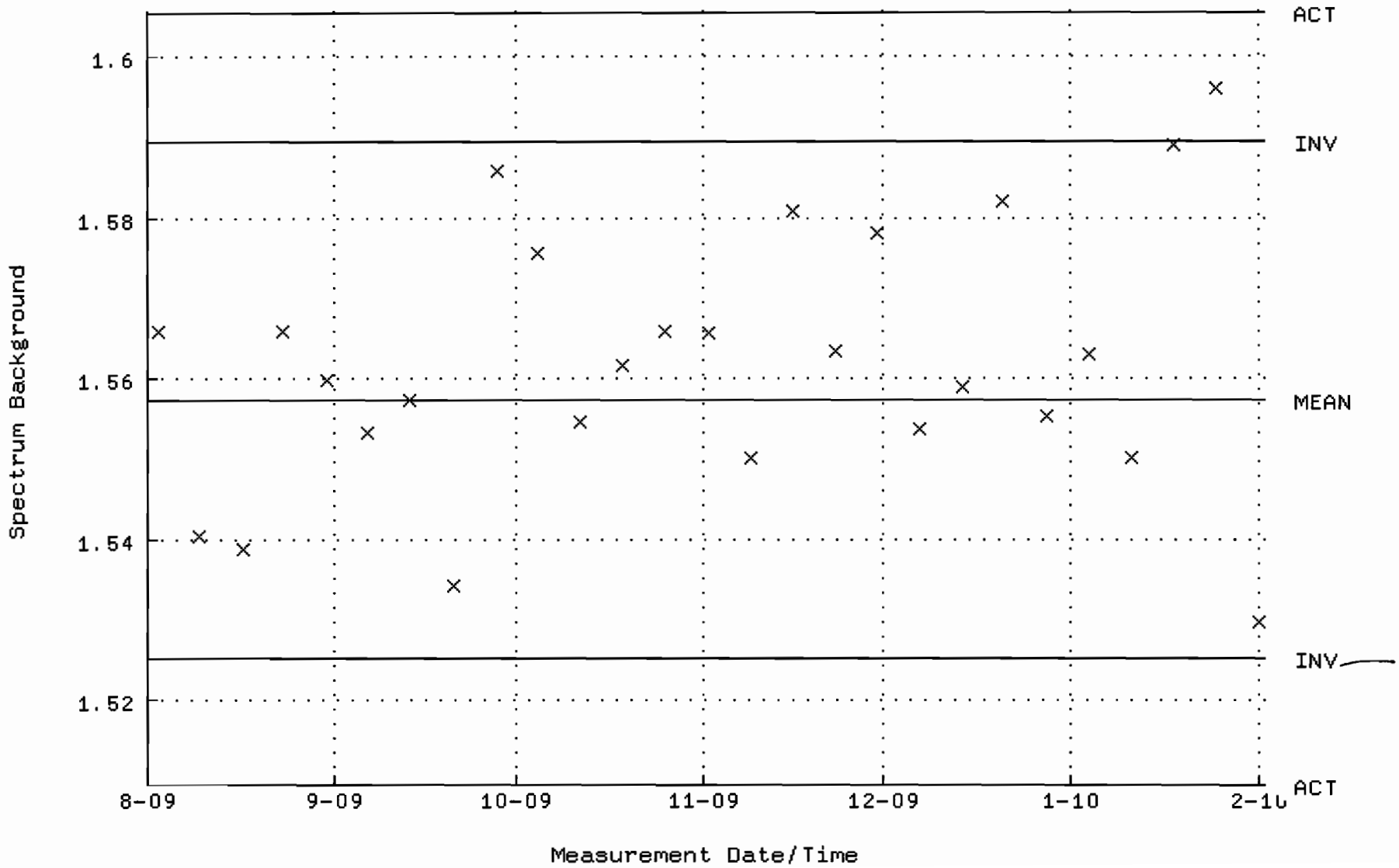

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:15:54 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

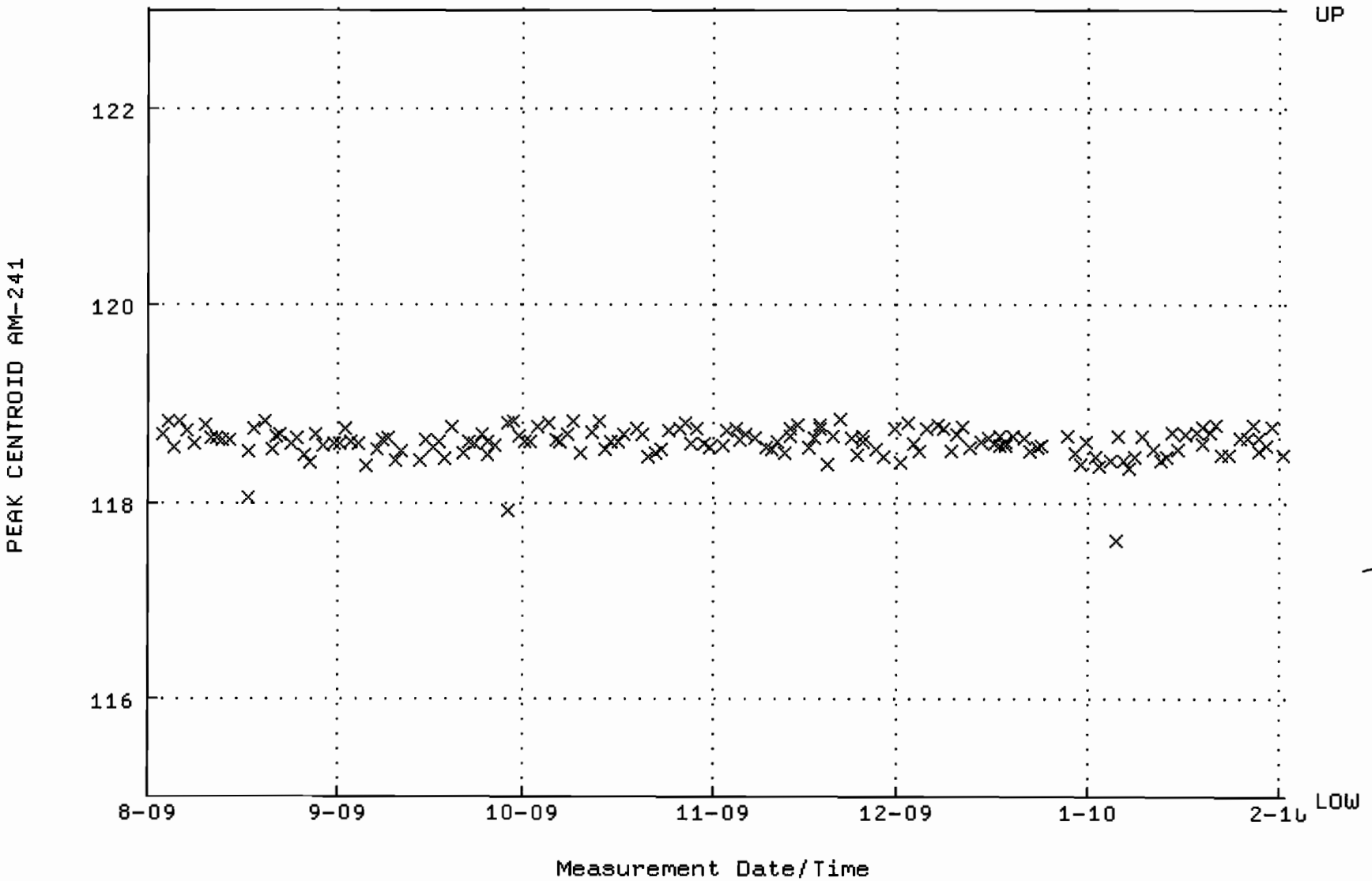

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:33 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

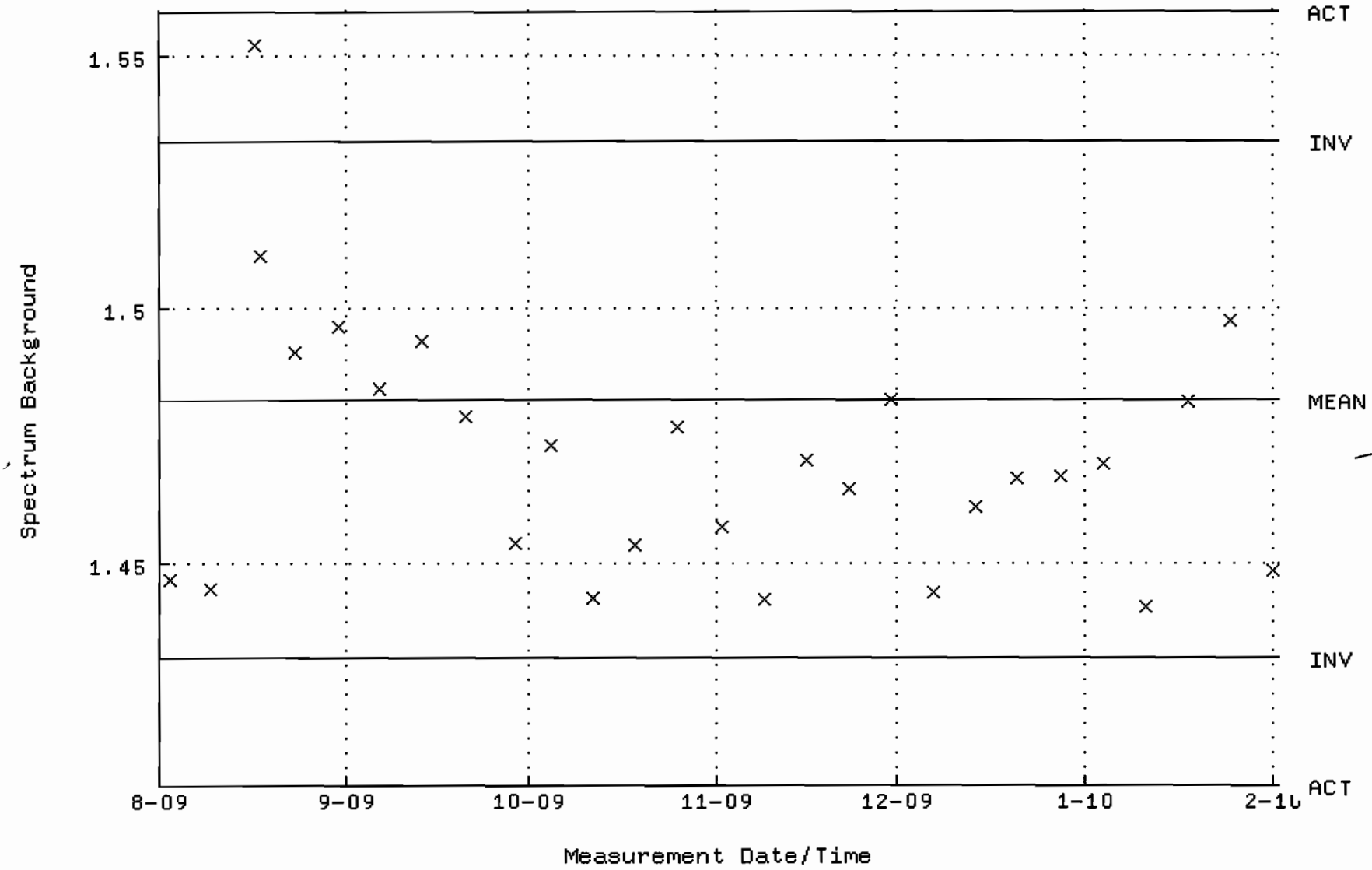

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:53:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

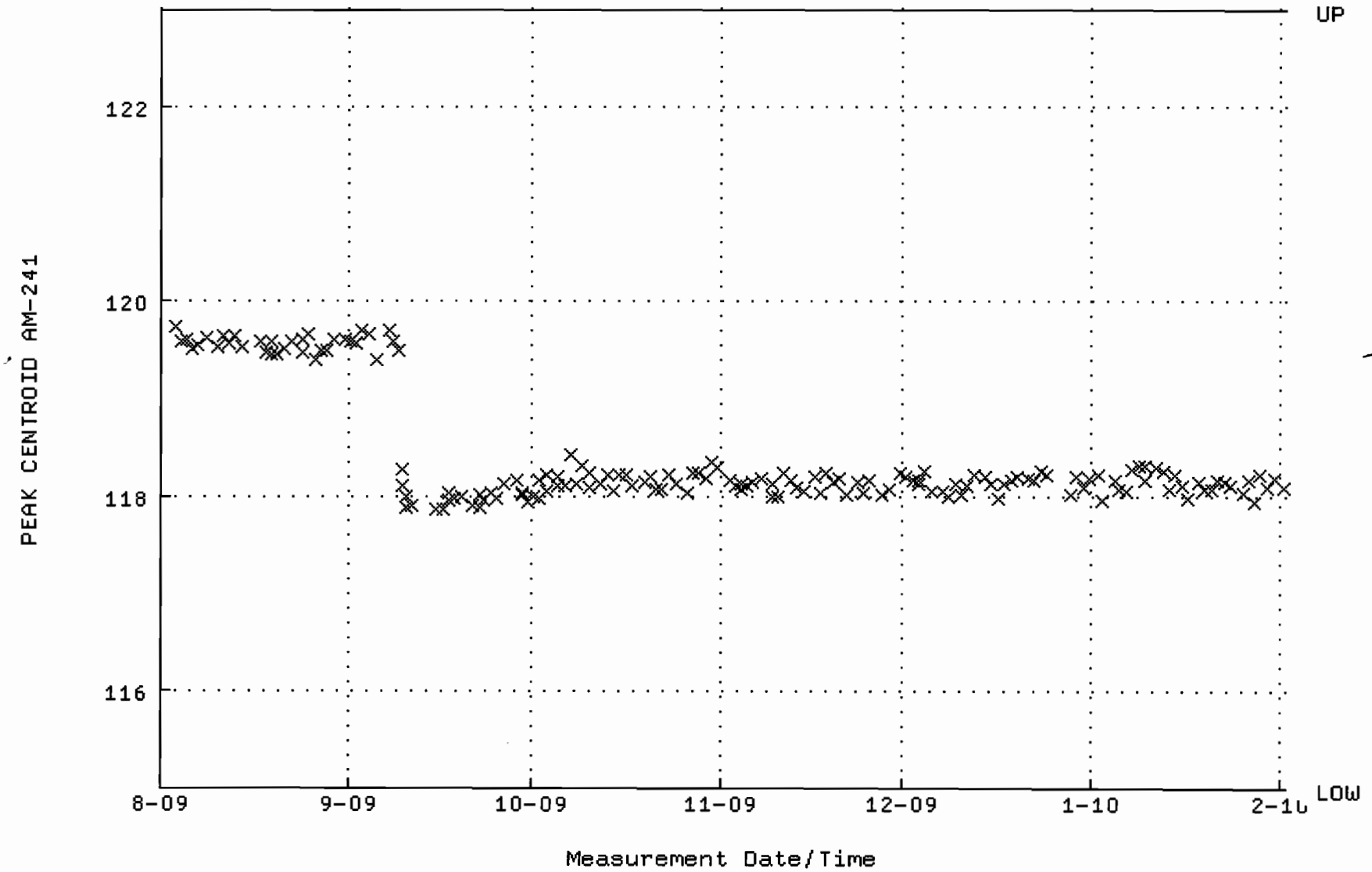

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:46 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

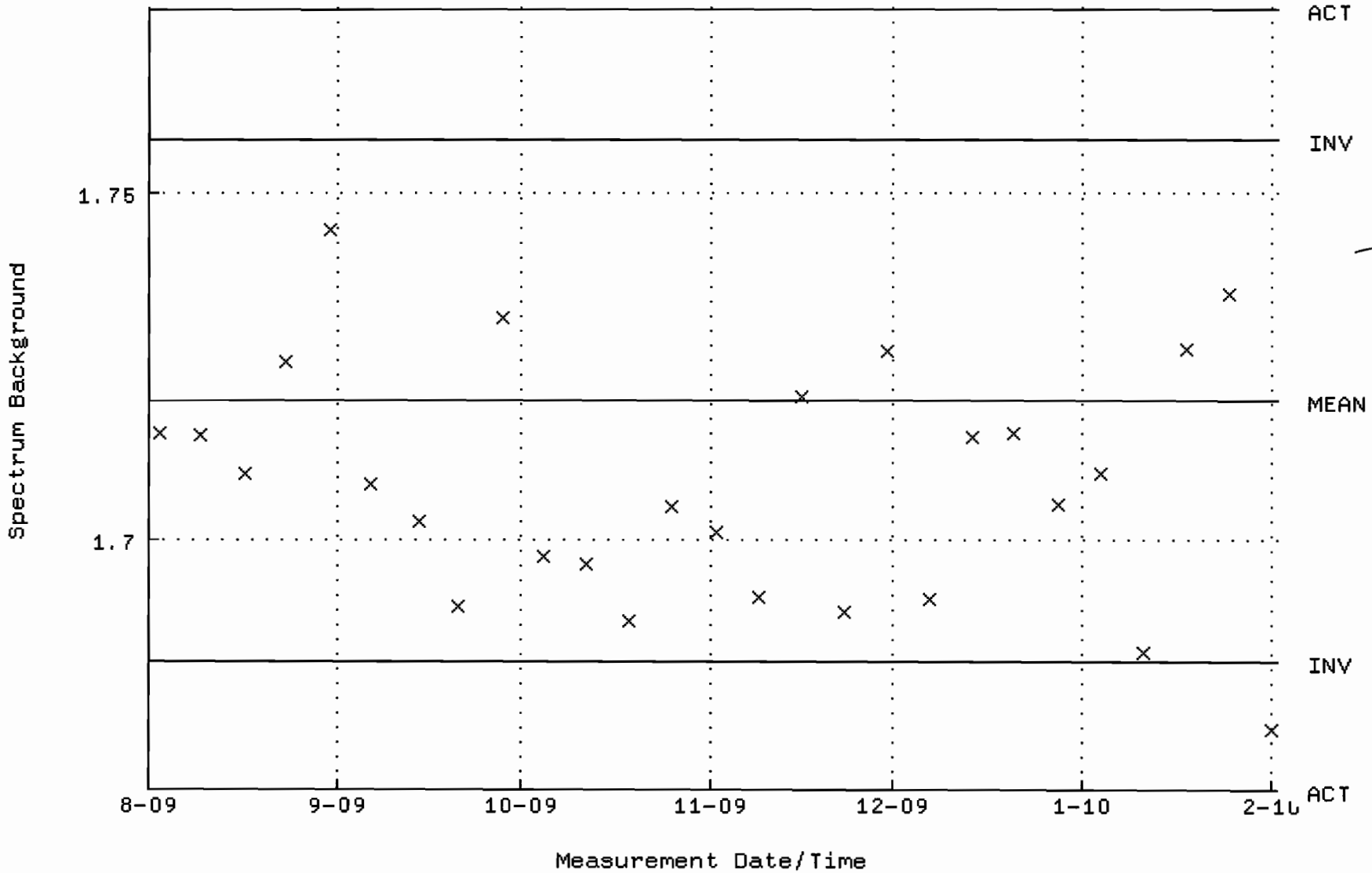

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:30 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

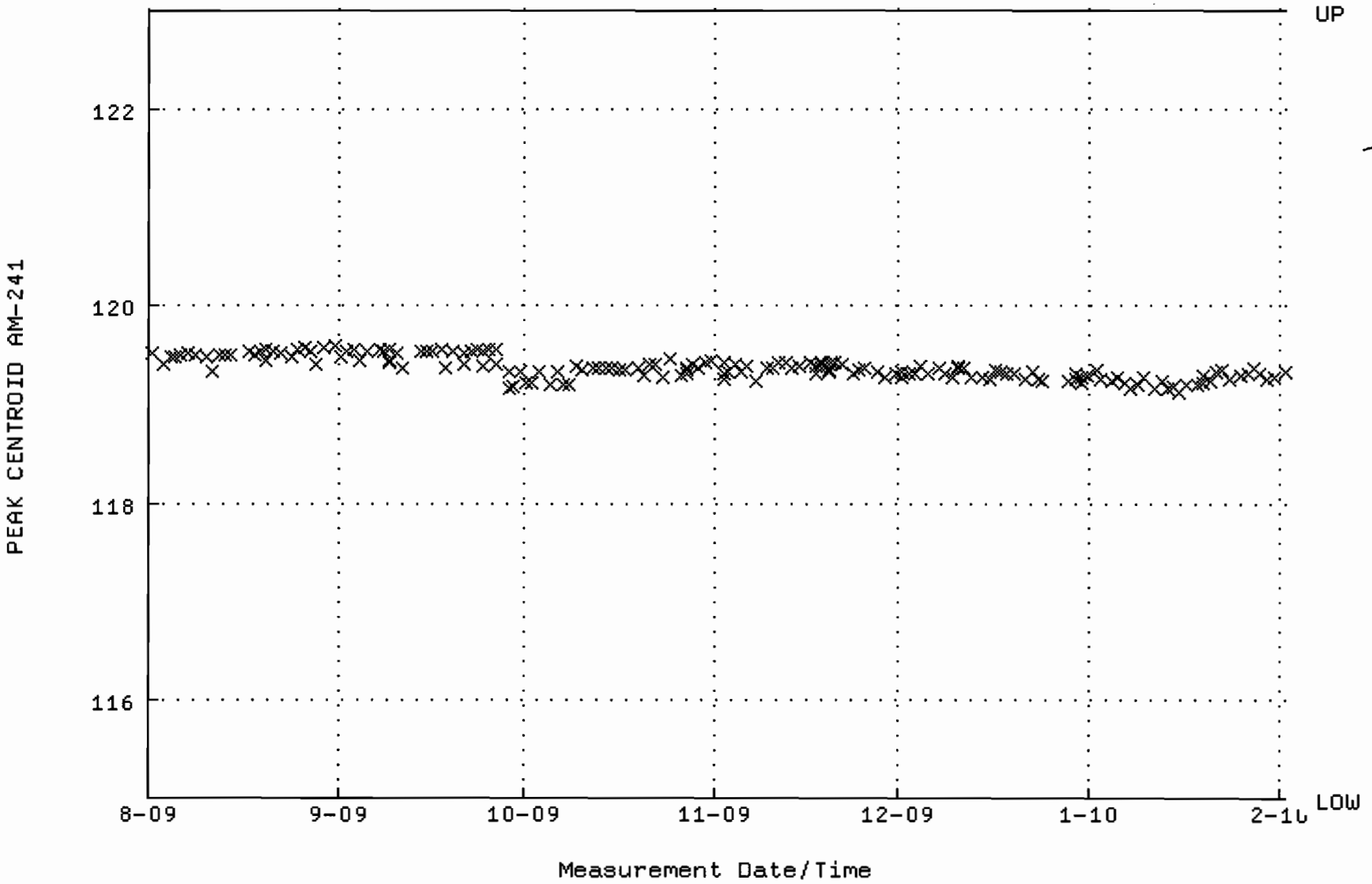

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:58 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

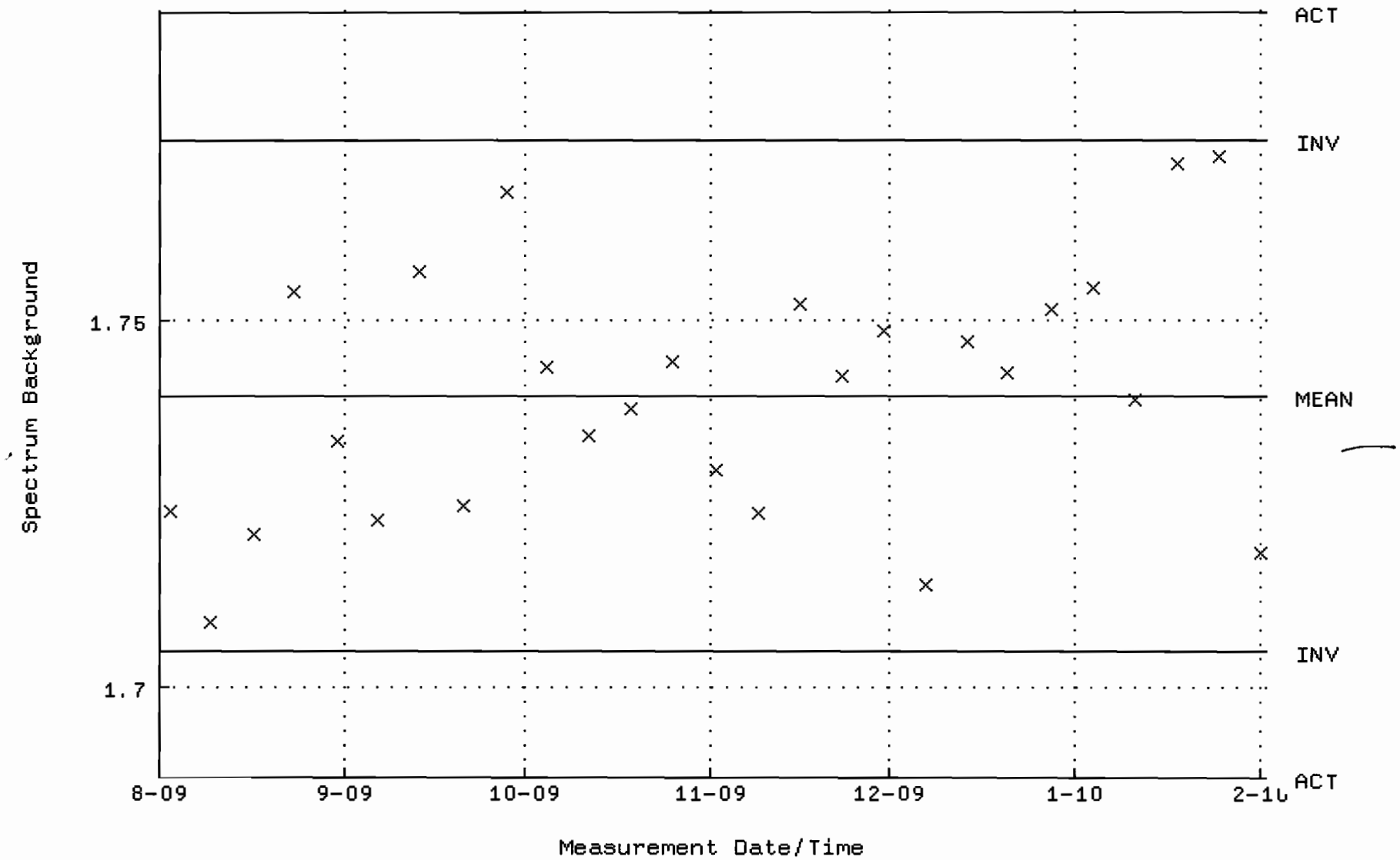

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:55:06 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

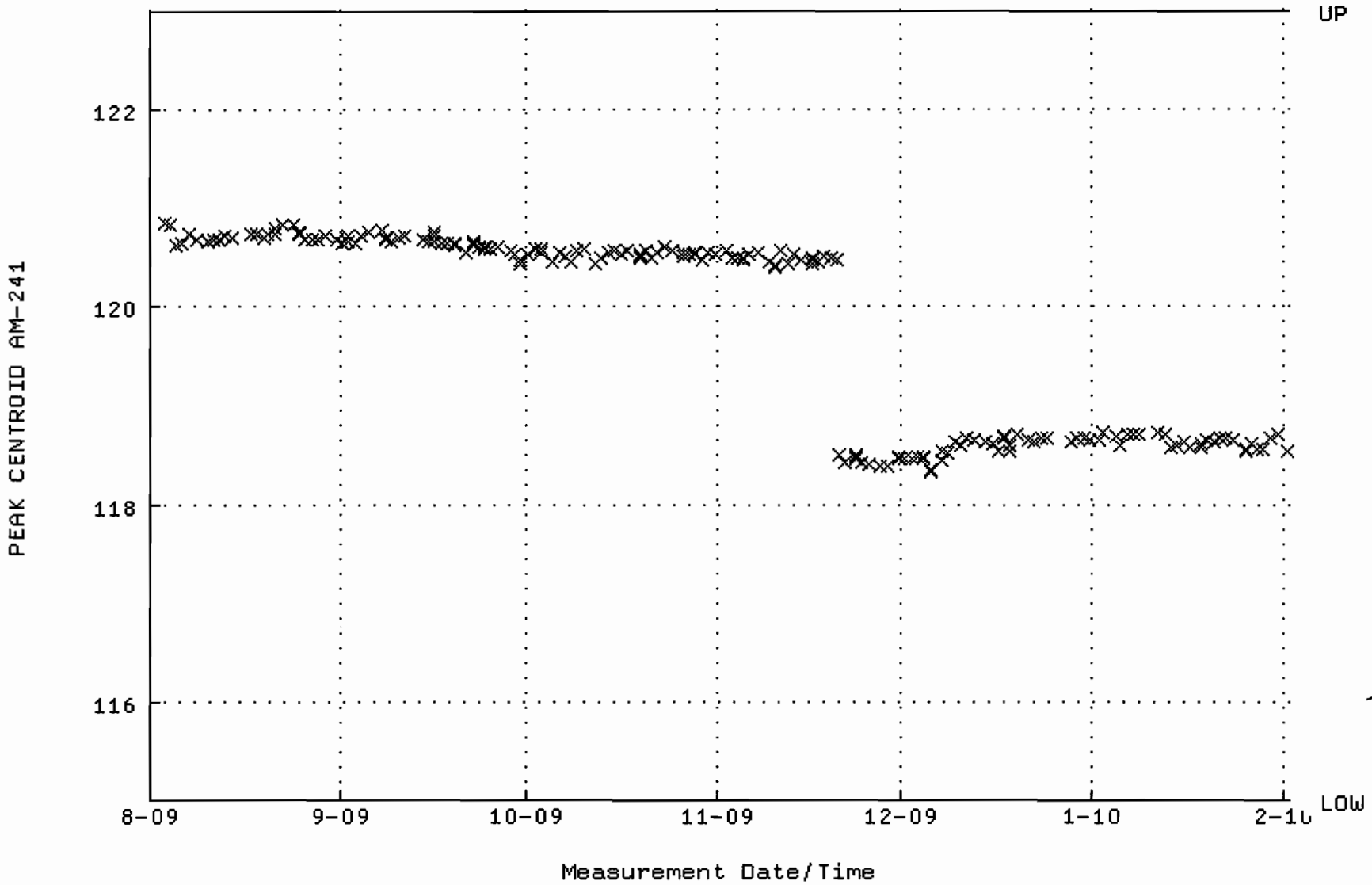

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:10 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

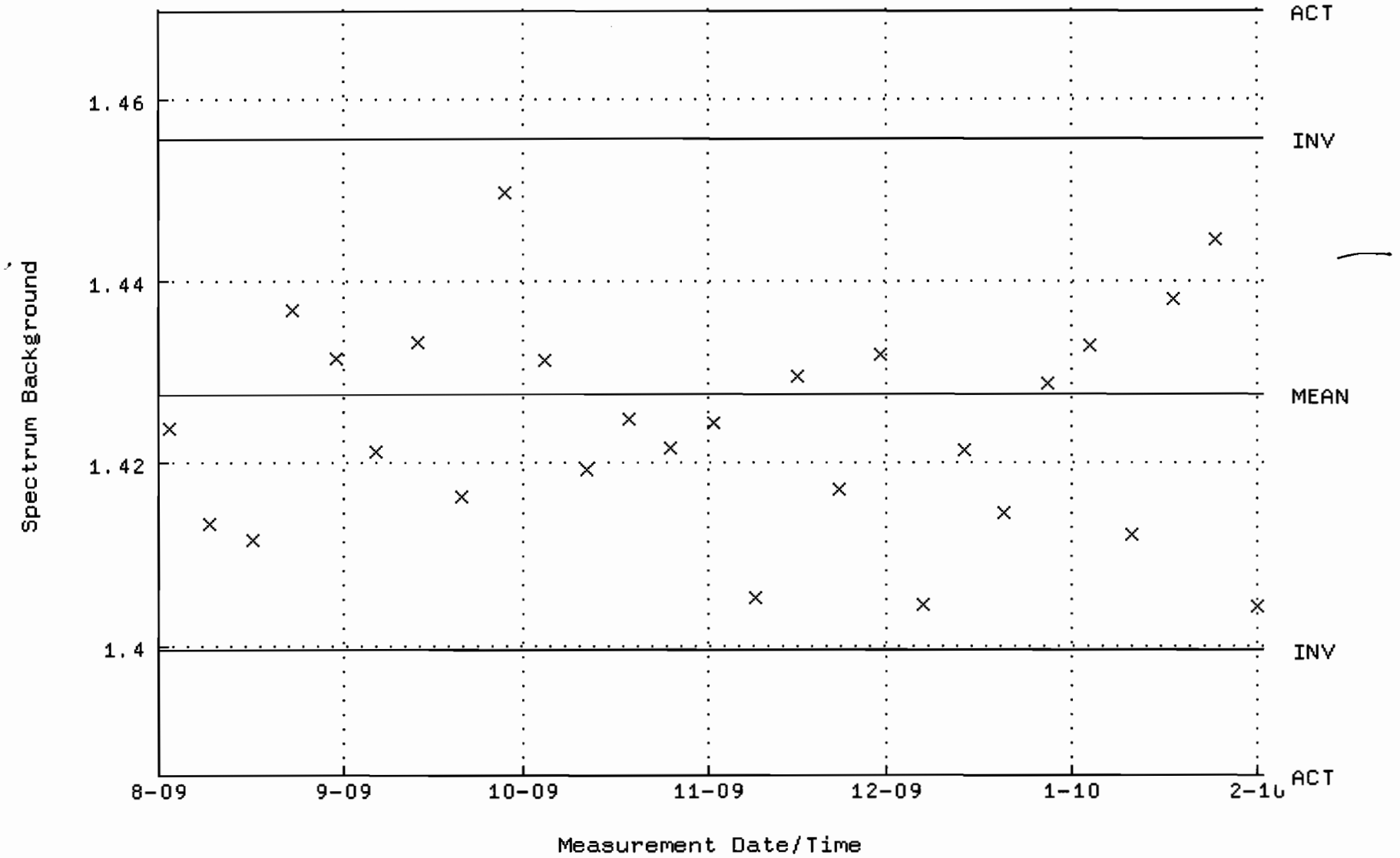

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

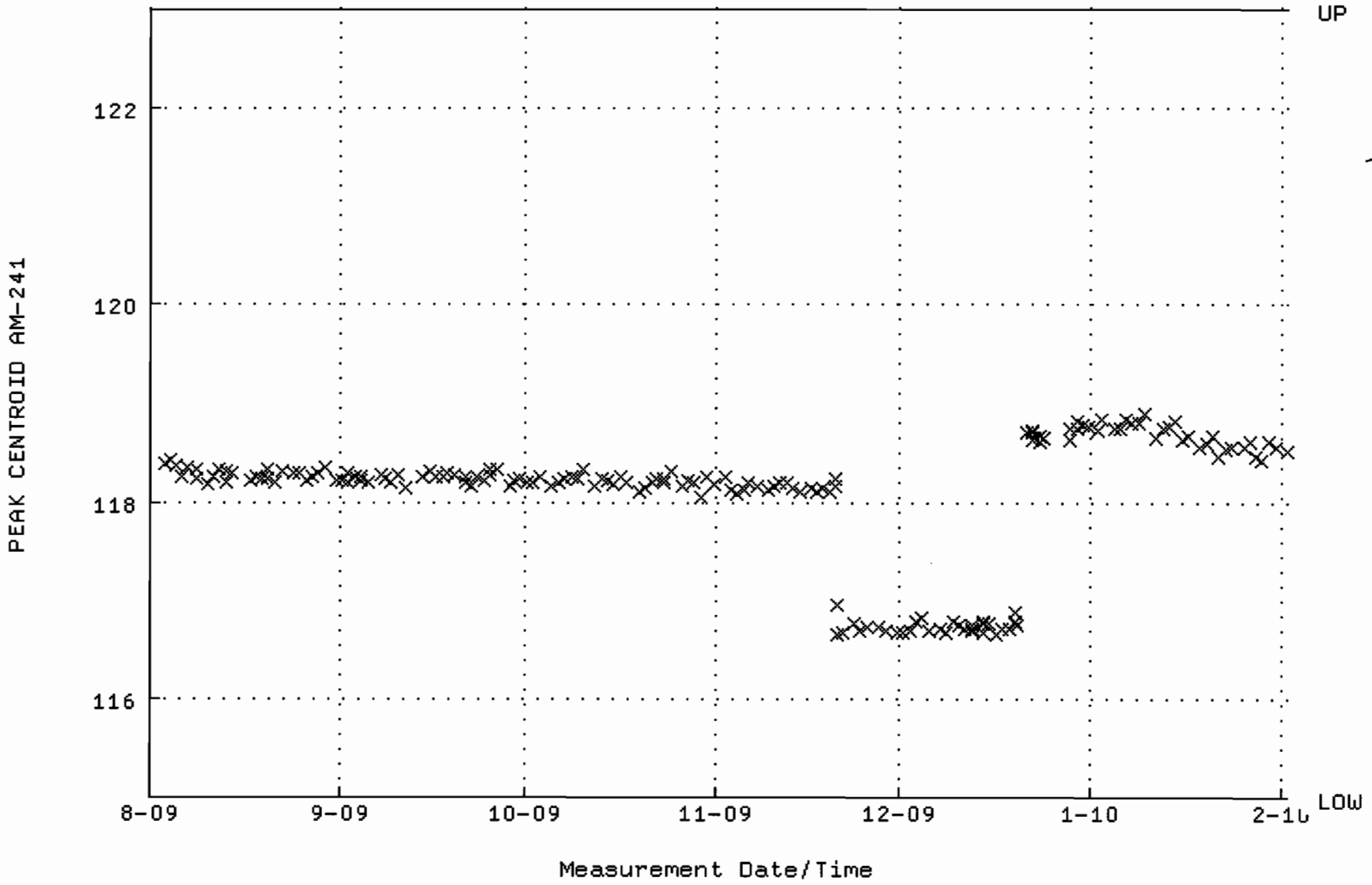

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

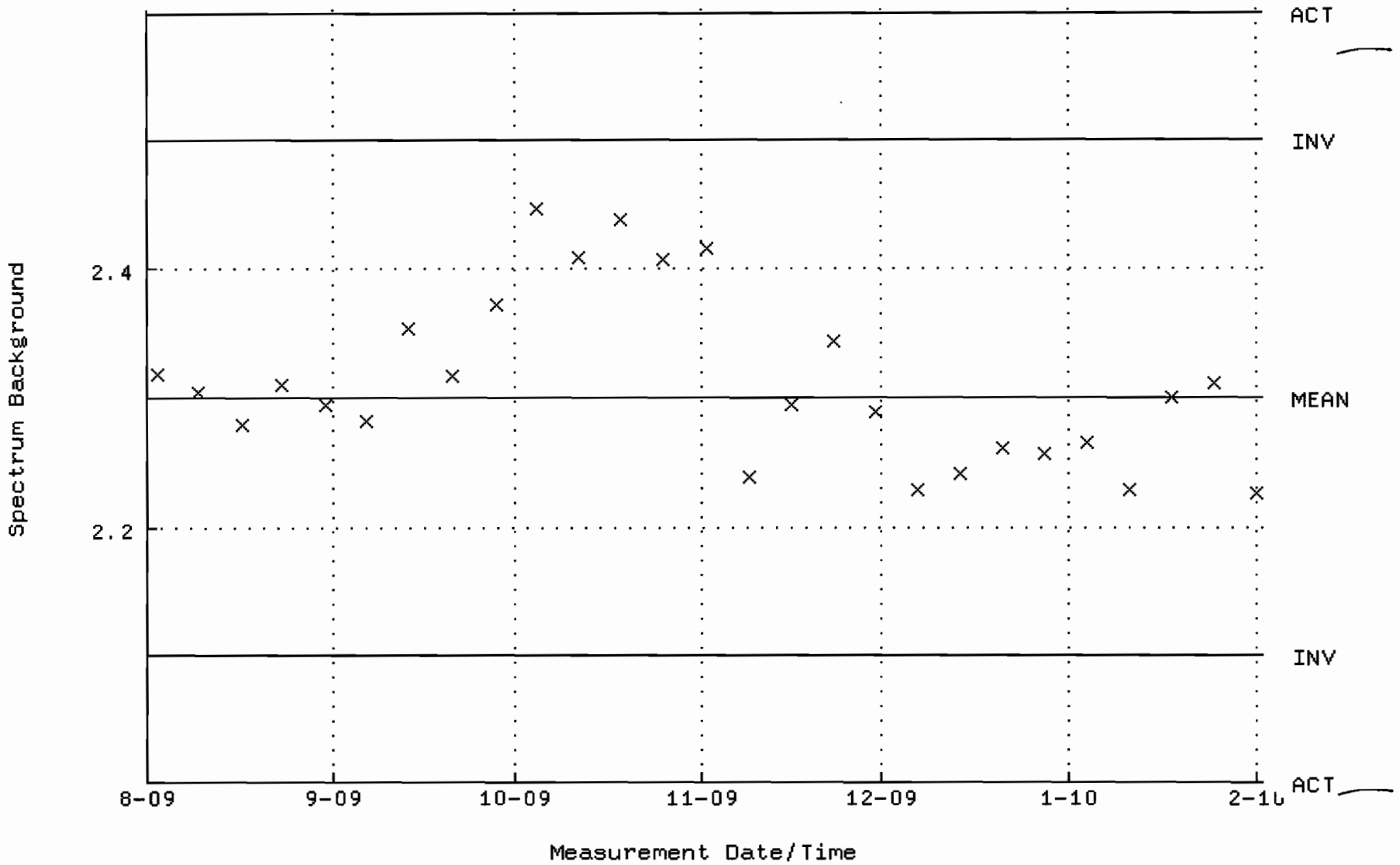

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM21_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 17-NOV-2009 15:50:12 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

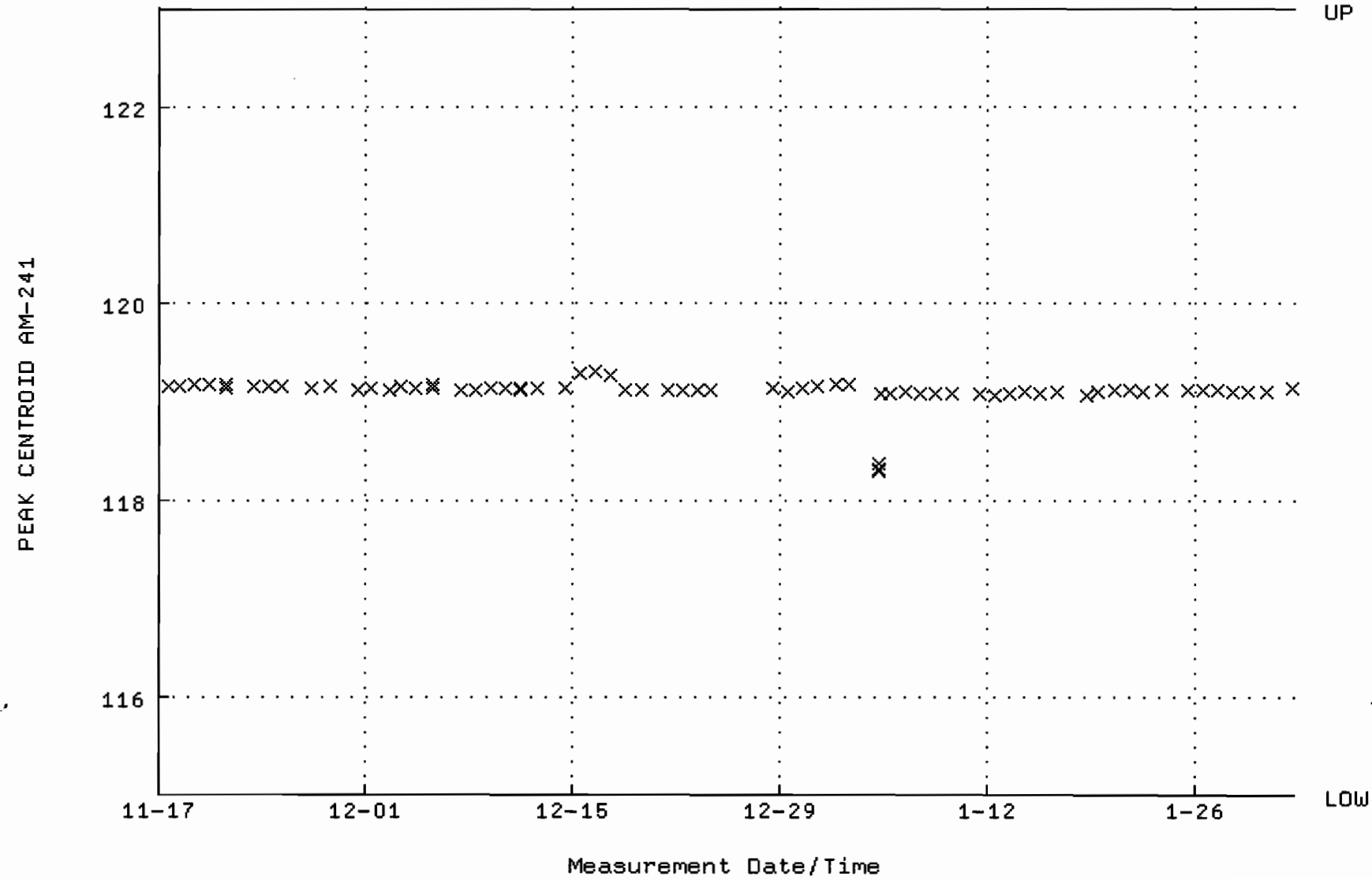

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM21.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 22-NOV-2009 17:05:16 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.03312 +- 8.784250E-03 (0.85 %)

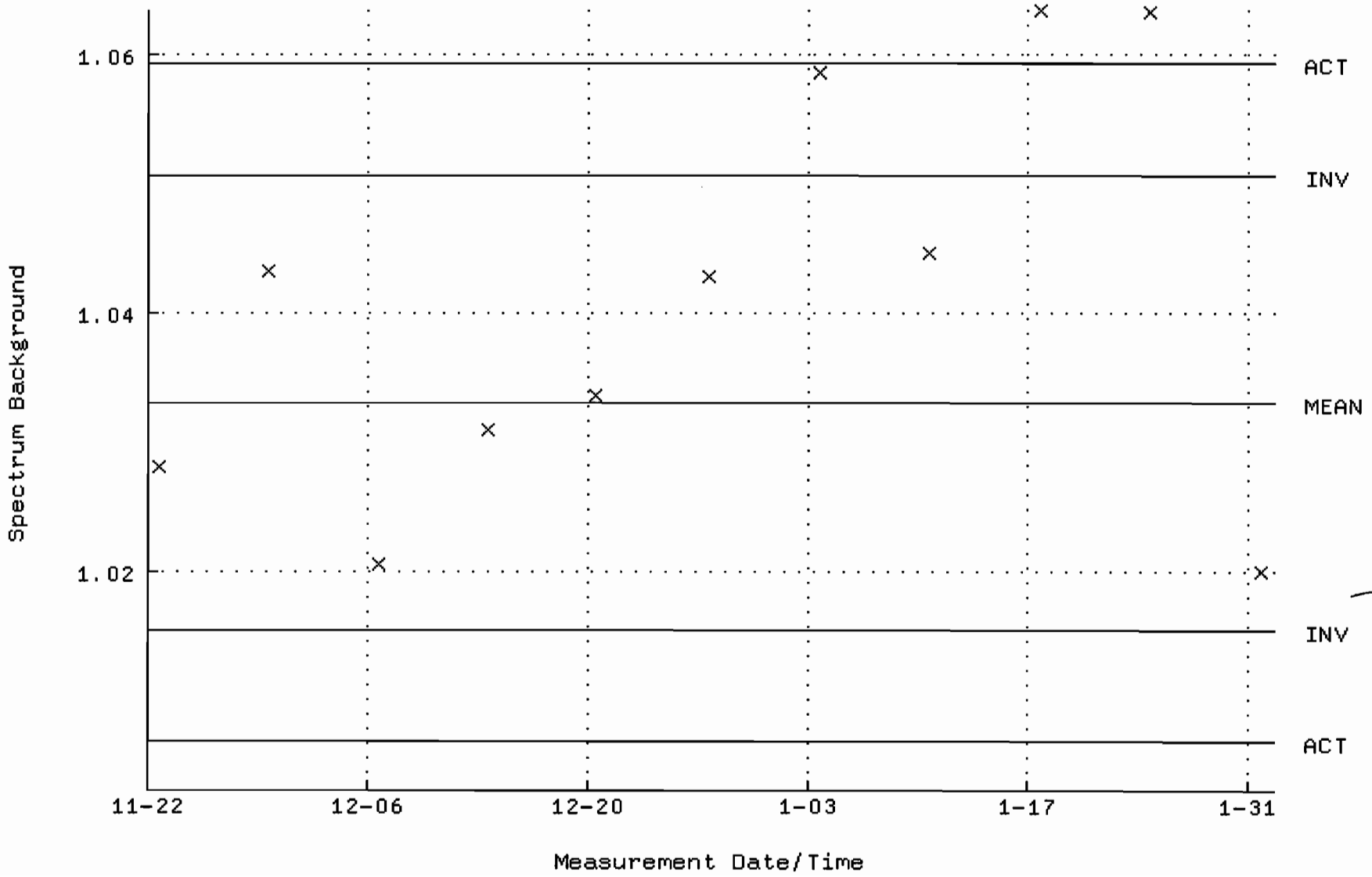

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

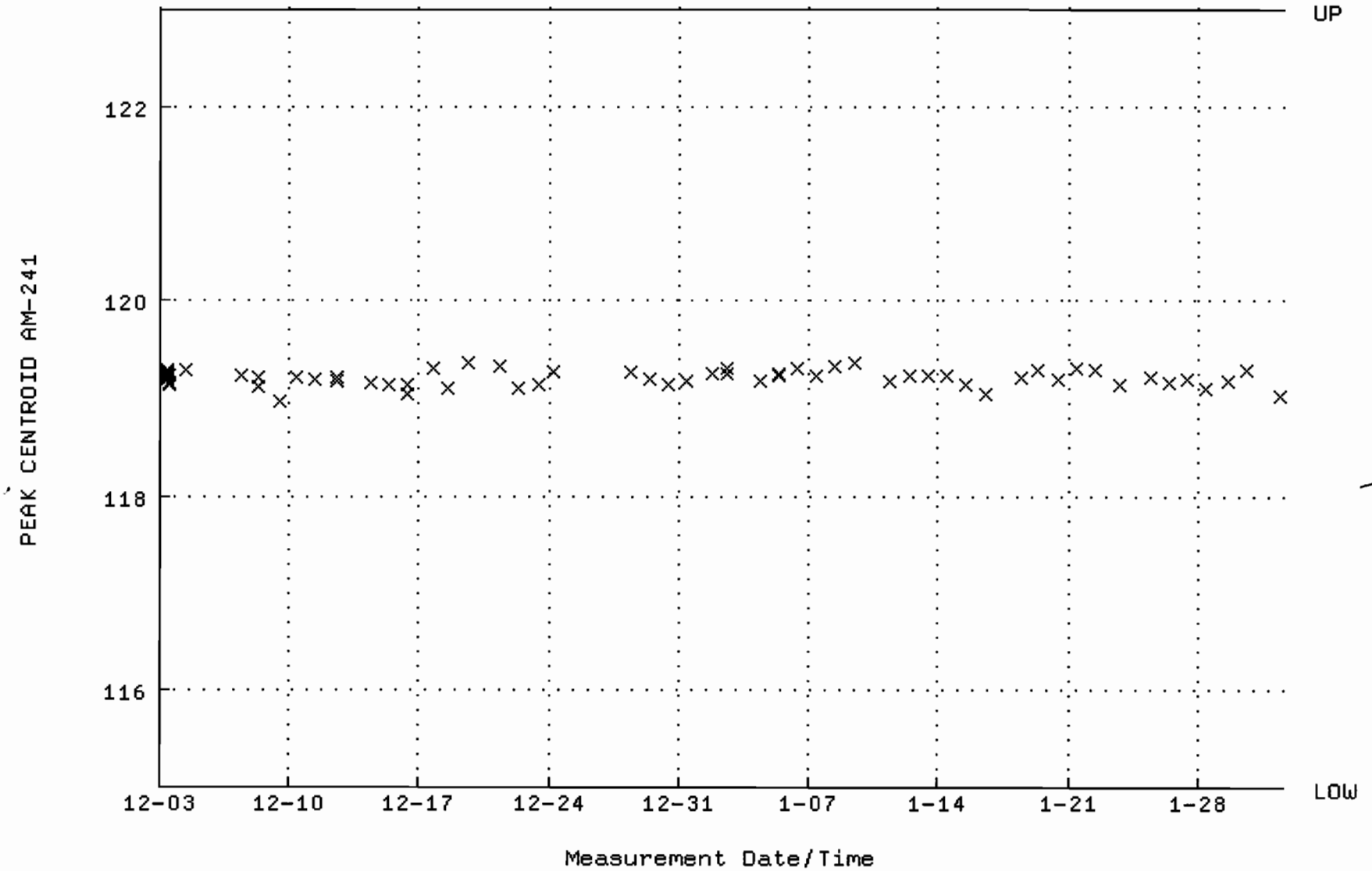

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

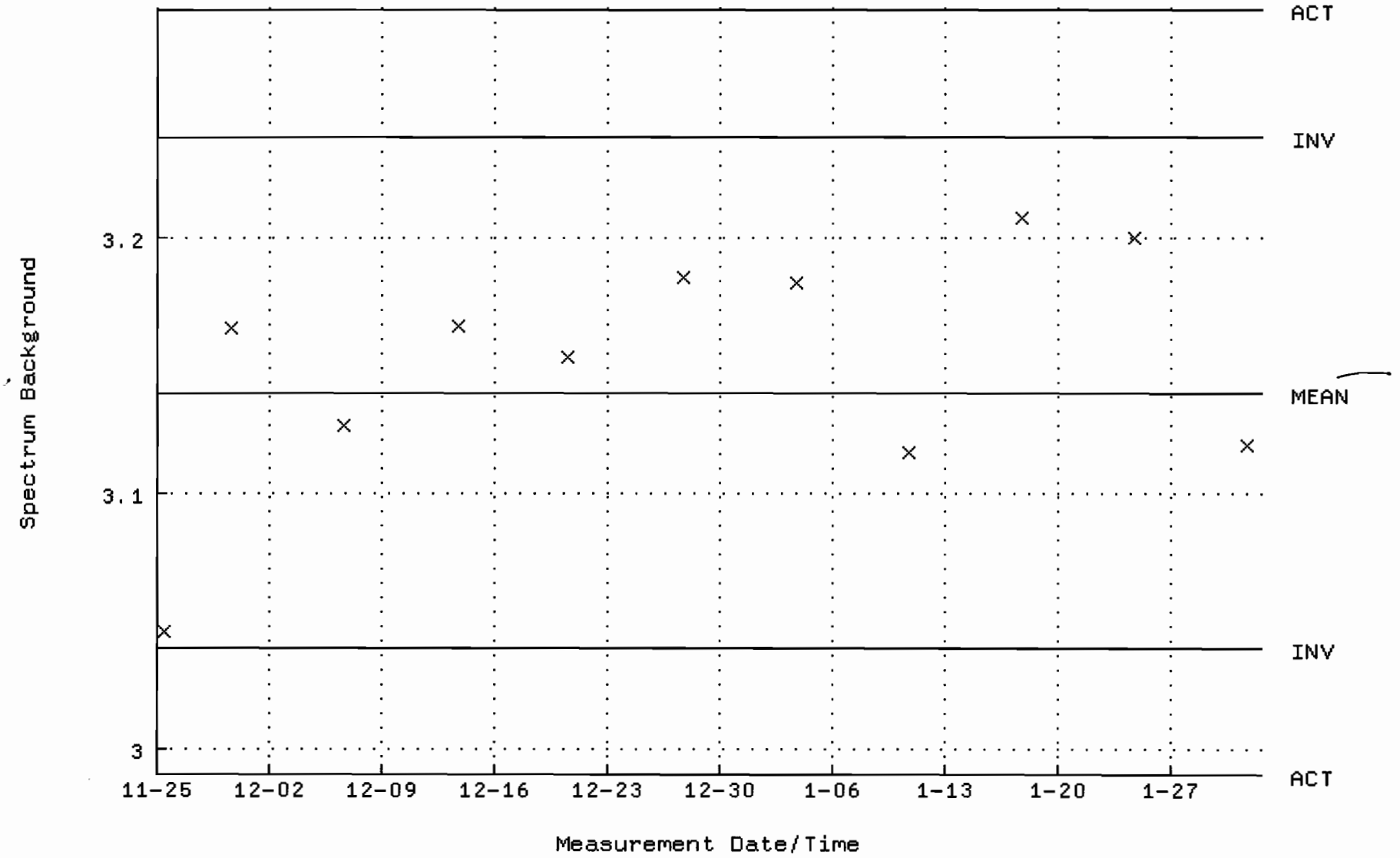

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

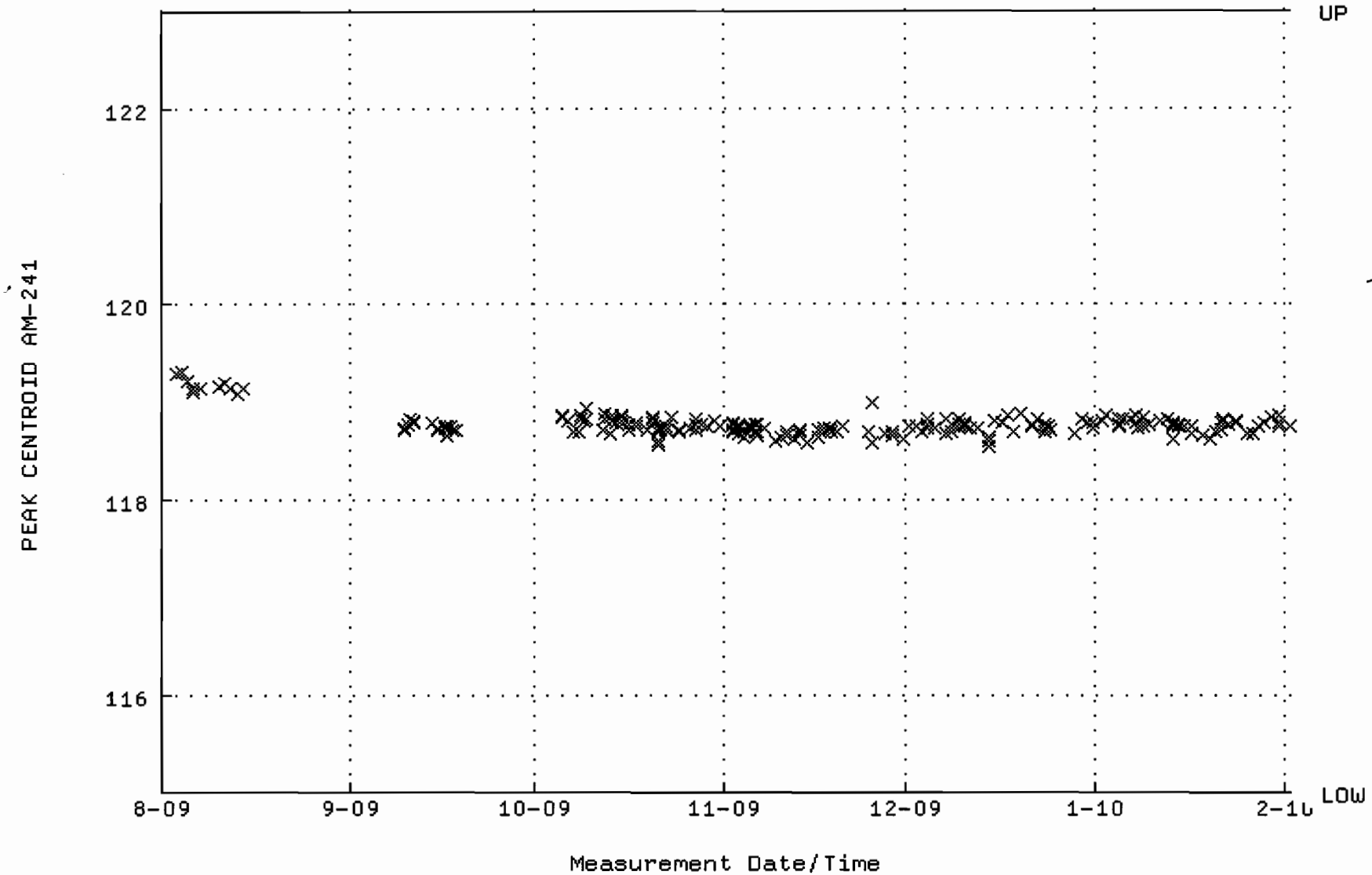

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

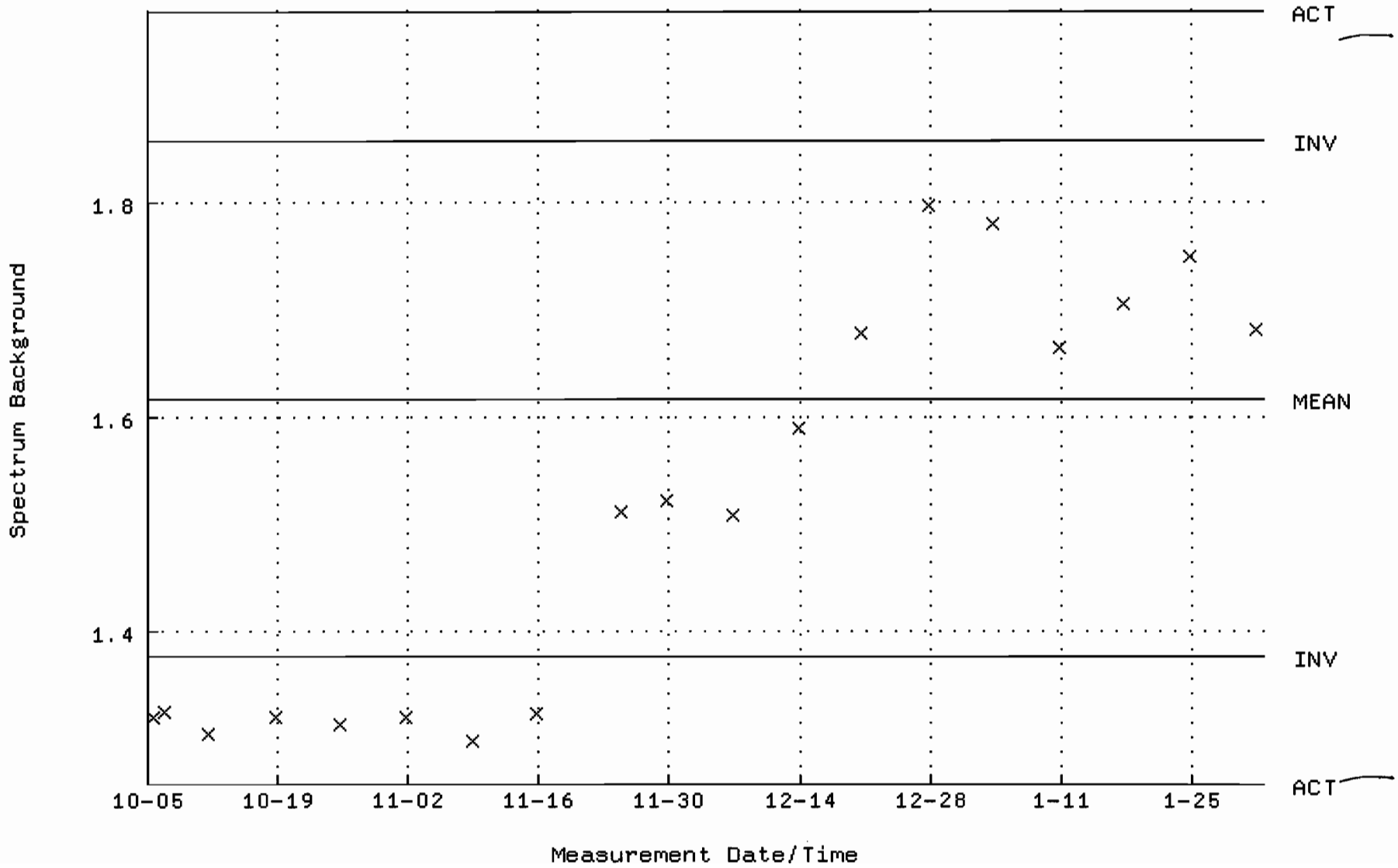

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:11:17 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

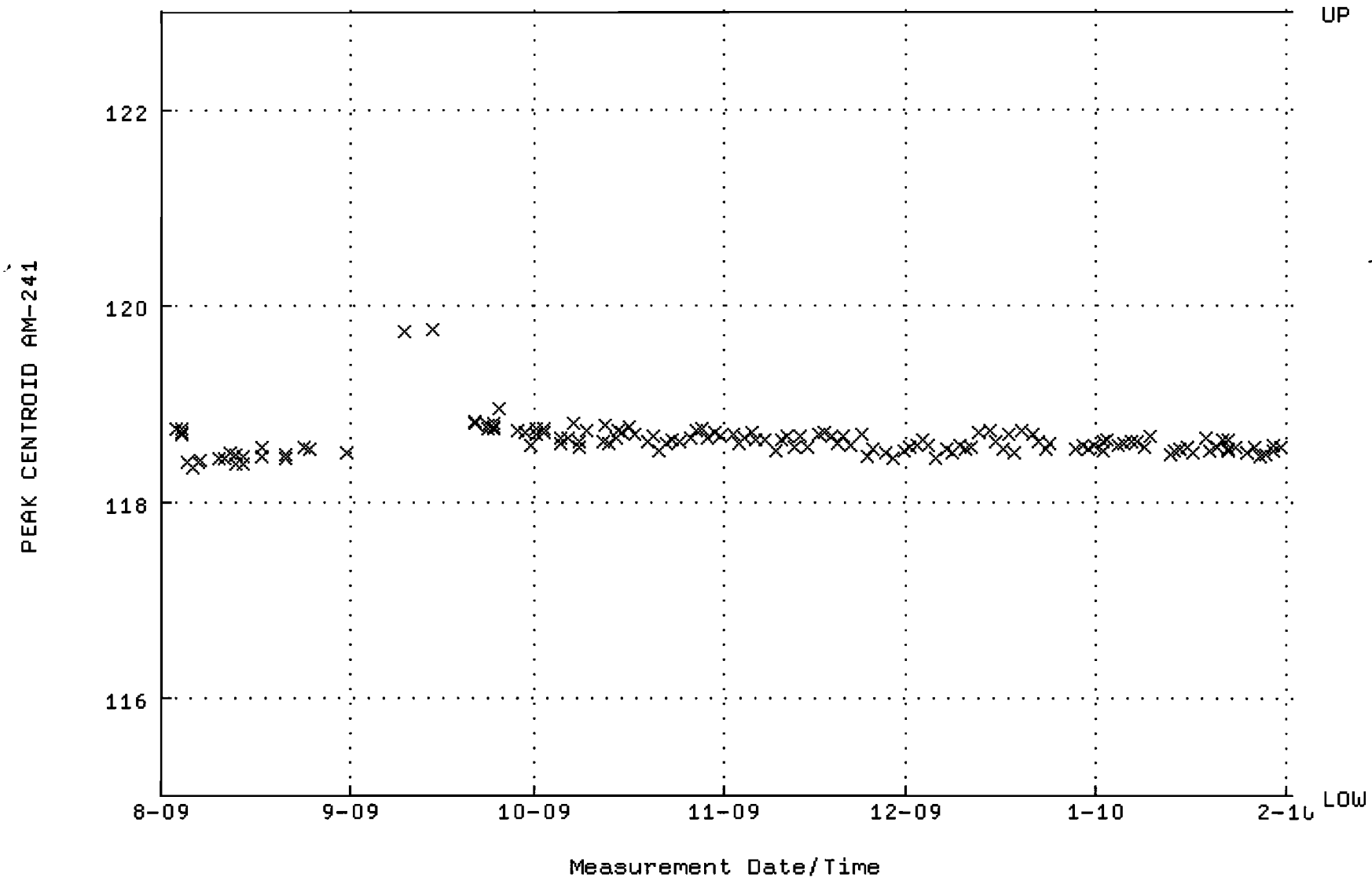

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:26:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)

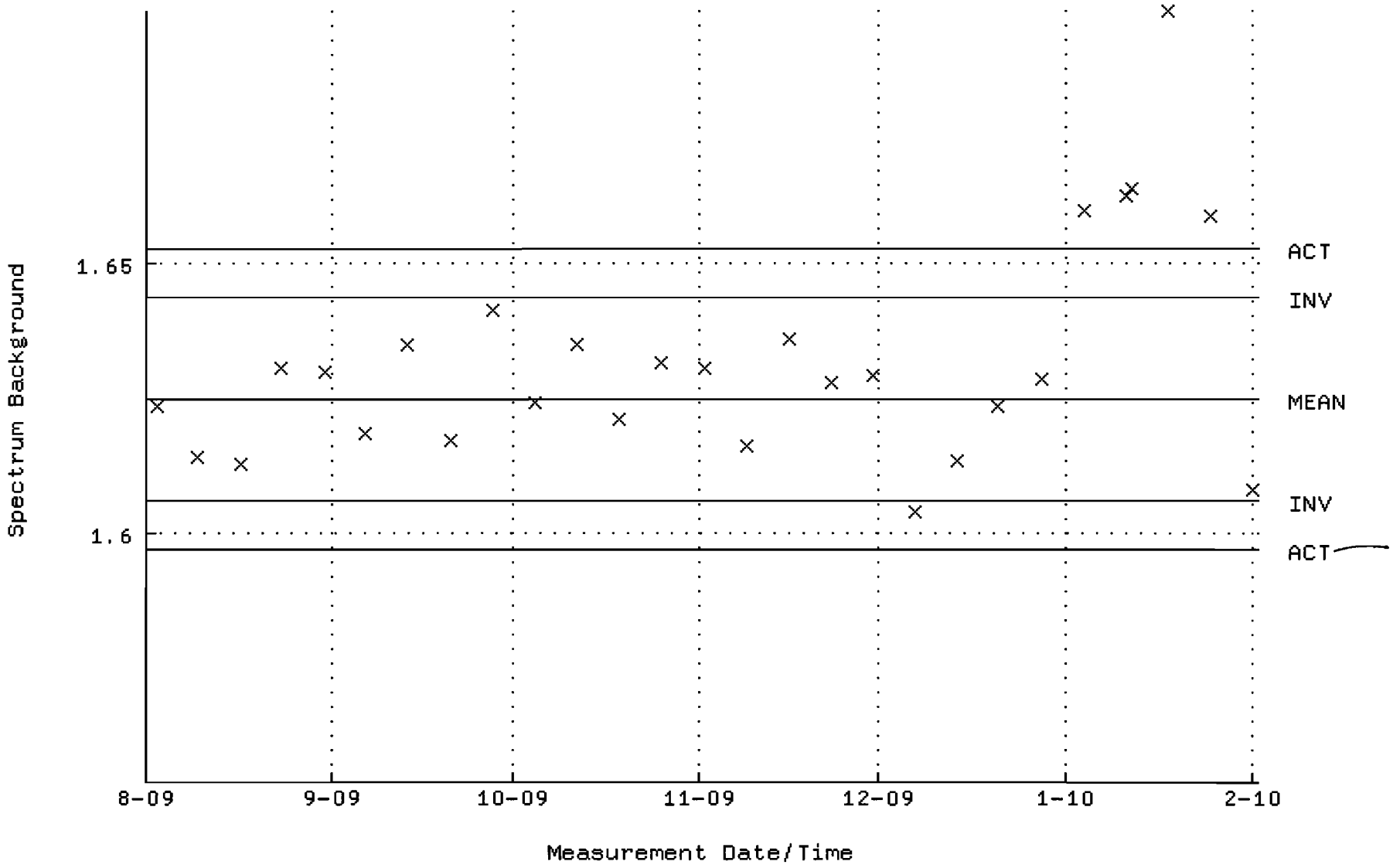

STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

Rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- Ver. JAR-1
	Mixed Gamma N2	2510	pCi/L	- Ver. JAR-3
	Mixed Gamma N3	2413	pCi/L	- Ver. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Jeff C Reid 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by
QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized mud materials being sent to GEL on behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7 2 6 7 9 4
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Data Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DP	Weston / 7577 / 845-0867

1. Relinquished by	Org.	Date	Time	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

1. Relinquished by: Org. 577 Date 11-16-99 Time 0900

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST – BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590
Mean Value (Counting) =	1.340	101.99	Pass
Stdev =	0.043588989		Rule 3 (Pass/Fail)

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	Pass
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	Pass

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Lindeman 5/15/09
Rob Robin 05/15/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A. Drochter AD 12/14/09

1375

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/7/07

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) = |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
$5 \times 10\text{-}5$ $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
$7 \times 10\text{-}5$ $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
$2 \times 10\text{-}5$ $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
$1 \times 10\text{-}5$ $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
$5 \times 10\text{-}6$ $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 948717**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	MXR1	GAM10	12-FEB-10 14:44	DONE	CAN	16-MAR-09 00:00
245955002	SAMPLE	MXR1	GAM11	12-FEB-10 14:44	DONE	CAN	18-NOV-09 00:00
245960001	SAMPLE	MXR1	GAM21	12-FEB-10 14:44	DONE	CAN	28-JUL-09 00:00
245960002	SAMPLE	MXR1	GAM23	12-FEB-10 14:45	DONE	CAN	02-JUN-09 00:00
245960003	SAMPLE	MXR1	GAM22	12-FEB-10 15:47	DONE	CAN	02-DEC-09 00:00
245960004	SAMPLE	MXR1	GAM25	12-FEB-10 15:47	DONE	CAN	07-OCT-09 00:00
245960005	SAMPLE	MXR1	GAM12	12-FEB-10 15:48	DONE	CAN	10-FEB-09 00:00
245960006	SAMPLE	MXR1	GAM17	12-FEB-10 15:48	DONE	CAN	06-JAN-10 00:00
245960007	SAMPLE	MXR1	GAM18	12-FEB-10 15:49	DONE	CAN	23-APR-09 00:00
245960008	SAMPLE	MXR1	GAM01	12-FEB-10 15:53	DONE	CAN	12-JAN-10 00:00
245960009	SAMPLE	MXR1	GAM06	12-FEB-10 15:54	DONE	CAN	04-FEB-09 00:00
245960010	SAMPLE	MXR1	GAM07	12-FEB-10 16:24	DONE	CAN	20-JUL-09 00:00
245960011	SAMPLE	MXR1	GAM04	12-FEB-10 16:31	DONE	CAN	05-MAY-09 00:00
1202032510	MB	MXR1	GAM14	12-FEB-10 16:32	DONE	CAN	06-MAR-09 00:00
1202032512	LCS	MXR1	GAM15	12-FEB-10 16:33	DONE	CAN	03-FEB-10 00:00
1202032511	DUP	MXR1	GAM16	12-FEB-10 16:38	DONE	CAN	16-NOV-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949823**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1246	15-FEB-10 07:39	DONE		
245955002	SAMPLE	HAKB	1248	15-FEB-10 07:39	DONE		
245960001	SAMPLE	HAKB	1250	15-FEB-10 07:39	DONE		
245960002	SAMPLE	HAKB	1252	15-FEB-10 07:39	DONE		
245960003	SAMPLE	HAKB	1254	15-FEB-10 07:39	DONE		
245960004	SAMPLE	HAKB	1256	15-FEB-10 07:39	DONE		
245960005	SAMPLE	HAKB	1213	15-FEB-10 07:41	DONE		
245960006	SAMPLE	HAKB	1214	15-FEB-10 07:41	DUSE		
245960007	SAMPLE	HAKB	1215	15-FEB-10 07:41	DONE		
245960008	SAMPLE	HAKB	1216	15-FEB-10 07:41	DUSE		
245960009	SAMPLE	HAKB	1217	15-FEB-10 07:41	DONE		
1202034998	MB	HAKB	1218	15-FEB-10 07:41	DONE		
1202034999	DUP	HAKB	1219	15-FEB-10 07:41	DONE		
245960010	SAMPLE	HAKB	1224	15-FEB-10 07:41	DONE		
245960011	SAMPLE	HAKB	1225	15-FEB-10 07:41	DONE		
245978001	SAMPLE	HAKB	1226	15-FEB-10 07:41	DONE		
245978002	SAMPLE	HAKB	1227	15-FEB-10 07:41	DONE		
245978003	SAMPLE	HAKB	1228	15-FEB-10 07:41	DONE		
245978004	SAMPLE	HAKB	1229	15-FEB-10 07:41	DUSE		
245978005	SAMPLE	HAKB	1230	15-FEB-10 07:41	DONE		
245978006	SAMPLE	HAKB	1231	15-FEB-10 07:42	DONE		
245978007	SAMPLE	HAKB	1232	15-FEB-10 07:42	DUSE		
245960006	SAMPLE	HAKB	1233	18-FEB-10 18:42	DUSE		
245960008	SAMPLE	HAKB	1234	18-FEB-10 18:42	DUSE		
245978004	SAMPLE	HAKB	1235	18-FEB-10 18:42	DONE		
1202035000	LCS	HAKB	1236	18-FEB-10 18:42	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949824**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1247	13-FEB-10 21:34	DONE		
245955002	SAMPLE	HAKB	1248	13-FEB-10 21:34	DONE		
245960001	SAMPLE	HAKB	1249	13-FEB-10 21:34	DONE		
245960002	SAMPLE	HAKB	1250	13-FEB-10 21:35	DONE		
245960003	SAMPLE	HAKB	1251	13-FEB-10 21:35	DONE		
245960004	SAMPLE	HAKB	1252	13-FEB-10 21:35	DUSE		
245960005	SAMPLE	HAKB	1253	13-FEB-10 21:35	DONE		
245960006	SAMPLE	HAKB	1254	13-FEB-10 21:35	DONE		
245960007	SAMPLE	HAKB	1255	13-FEB-10 21:35	DONE		
245960008	SAMPLE	HAKB	1256	13-FEB-10 21:35	DONE		
245960009	SAMPLE	HAKB	1025	13-FEB-10 21:40	DONE		
245960010	SAMPLE	HAKB	1026	13-FEB-10 21:40	DONE		
245960011	SAMPLE	HAKB	1027	13-FEB-10 21:40	DONE		
245978001	SAMPLE	HAKB	1028	13-FEB-10 21:40	DONE		
245978002	SAMPLE	HAKB	1029	13-FEB-10 21:40	DUSE		
245978003	SAMPLE	HAKB	1030	13-FEB-10 21:40	DONE		
245978004	SAMPLE	HAKB	1077	13-FEB-10 21:40	DUSE		
245978005	SAMPLE	HAKB	1079	13-FEB-10 21:40	DONE		
245978006	SAMPLE	HAKB	1080	13-FEB-10 21:40	DONE		
245978007	SAMPLE	HAKB	1081	13-FEB-10 21:40	DONE		
1202035001	MB	HAKB	1082	13-FEB-10 21:40	DONE		
245960004	SAMPLE	HAKB	1223	18-FEB-10 18:42	DONE		
245978002	SAMPLE	HAKB	1213	18-FEB-10 18:42	DONE		
245978004	SAMPLE	HAKB	1214	18-FEB-10 18:43	DONE		
1202035002	DUP	HAKB	1221	18-FEB-10 18:43	DONE		
1202035003	LCS	HAKB	1222	18-FEB-10 18:43	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949825**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1119	13-FEB-10 21:24	DONE		
245955002	SAMPLE	HAKB	1120	13-FEB-10 21:24	DONE		
245960001	SAMPLE	HAKB	1121	13-FEB-10 21:24	DONE		
245960002	SAMPLE	HAKB	1122	13-FEB-10 21:24	DONE		
245960003	SAMPLE	HAKB	1123	13-FEB-10 21:24	DONE		
245960004	SAMPLE	HAKB	1124	13-FEB-10 21:24	DONE		
245960005	SAMPLE	HAKB	1125	13-FEB-10 21:24	DONE		
245960006	SAMPLE	HAKB	1126	13-FEB-10 21:24	DONE		
245960007	SAMPLE	HAKB	1127	13-FEB-10 21:24	DONE		
245960008	SAMPLE	HAKB	1128	13-FEB-10 21:24	DUSE		
245960009	SAMPLE	HAKB	1129	13-FEB-10 21:24	DONE		
245960010	SAMPLE	HAKB	1130	13-FEB-10 21:24	DONE		
245960011	SAMPLE	HAKB	1131	13-FEB-10 21:24	DONE		
245978001	SAMPLE	HAKB	1132	13-FEB-10 21:24	DONE		
245978002	SAMPLE	HAKB	1133	13-FEB-10 21:24	DUSE		
245978003	SAMPLE	HAKB	1138	13-FEB-10 21:25	DONE		
245978004	SAMPLE	HAKB	1139	13-FEB-10 21:25	DUSE		
245978005	SAMPLE	HAKB	1140	13-FEB-10 21:25	DONE		
245978006	SAMPLE	HAKB	1141	13-FEB-10 21:25	DONE		
245978007	SAMPLE	HAKB	1142	13-FEB-10 21:25	DONE		
1202035005	MB	HAKB	1143	13-FEB-10 21:25	DUSE		
1202035006	DUP	HAKB	1144	13-FEB-10 21:25	DONE		
1202035007	LCS	HAKB	1145	13-FEB-10 21:25	DONE		
245960008	SAMPLE	HAKB	1003	15-FEB-10 21:17	DUSE		
1202035005	MB	HAKB	1004	15-FEB-10 21:17	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 954007**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202045181	MB	HAKB	1164	23-FEB-10 10:41	DONE		
245960008	SAMPLE	HAKB	1145	23-FEB-10 21:17	DONE		
1202045182	DUP	HAKB	1146	23-FEB-10 21:17	DONE		
1202045183	LCS	HAKB	1147	23-FEB-10 21:17	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 955380**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245617007	SAMPLE	CXM2	1223	20-FEB-10 13:36	DONE		
245785015	SAMPLE	CXM2	1224	20-FEB-10 13:37	DONE		
245960006	SAMPLE	CXM2	1225	20-FEB-10 13:37	DONE		
245960008	SAMPLE	CXM2	1226	20-FEB-10 13:37	DONE		
1202048271	DUP	CXM2	1227	20-FEB-10 13:37	DONE		
1202048270	MB	CXM2	1237	20-FEB-10 13:37	DONE		
1202048272	LCS	CXM2	1197	20-FEB-10 13:39	DONE		

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1516

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	HASL-300:ISOPU	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	SW-846:8082	1	RE15-10-8112	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	SW-846:8321A_MOD	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	

Final Page of REQUEST NUMBER 10-1516

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1516C

REQUEST NUMBER: 10-1516

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8122	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8122	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8112	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8112	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8113	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8113	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8116	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8116	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8119	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8119	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8114	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8114	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8115	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8115	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8117	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8117	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8118	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8118	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	1/2/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8119 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01-28-2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1220	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610791	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RE	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt' some white tuff fragments

SAMPLE COMMENTS:
NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS:
α ≤ 33 dpm
Bγ ≤ 2140 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R. Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8124 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1201	SUB-MEDIA:	OTHER	
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610790	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-8117

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8114 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1045	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610789	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+C N	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Frozen brown sandy silt, some clay, roots, leaves

SAMPLE COMMENTS: NA

LOCATION DESC: RS 01.28.10 ~~4b~~ 4d-4 in bushes

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 33 dpm

βγ ≤ 1624 dpm

PID ambient reading 0.0 / 0.0 ppm

HE NEG

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8115 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	ALLA
TIME COLLECTED (HH:MM)		1113	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610789	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: light brown silty sand some rock

FD: RE15-10-8122

SAMPLE COMMENTS:
NA

LOCATION DESC: 4d-4 in bushes

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 16 dpm PID ambient reading 0.6 0.7 ppm ~~HF~~ 7.2m 1/28/10

BY ≤ 1658 dpm

COLLECTED BY (PRINT) R Saunders REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8113 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Air h
TIME COLLECTED (HH:MM)		1120	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610788	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 xc	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, white tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC:

4d-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ± 60 dpm
Bβ ± 1962 dpm

PID ambient 0.0 / reading 0.0 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** Nicholas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8116 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1137	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610790	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand some roots + rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-1

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

α ≤ 33 dpm

BY ≤ 1872 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8112 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	AIH
TIME COLLECTED (HH:MM)		1115	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610788	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1Liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown frozen sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC: 4d-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 44 dpm
βγ ≤ 1990 dpm

PID ambient reading 0.0 / 0.0 ppm

HE neg

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8117 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1147	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610790	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1/11/10 RC 1 liter ~~[illegible]~~ RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, roots and rocks

FR:RE15-10-8124

SAMPLE COMMENTS:
NA

LOCATION DESC: 4d-1

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 71 dpm

BY ≤ 1976 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8118 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1212	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610791	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 JC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown frozen silty sand, some rocks + roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 38 dpm
Bβ ≤ 2140 dpm

PID ambient / reading 0.0 / 0.0 ppm

HE negative

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R. Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8122 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1113	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610789	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter LC 12/16/09	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-8115
Light brown silty sand some rock

SAMPLE COMMENTS:
NA

LOCATION DESC: 4d-4 in bushes

FIELD SCREENING/MEASUREMENT RESULTS:
α ≤ 16 dpm PID ambient 0.6 / reading 0.7 ppm
BY ≤ 1658 dpm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7308
7309
7312
7313
7314
7315
7316
7317
7318
7319
7324

RE15-10-8112
8113
8114
8115
8116
8117
8118
8119
8122

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-7329 FTB

RE15-10-8124
RE15-10-7326] Rinsate

Reason:

Print Last Name McFarland Signature [signature] Date 1/28/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1516 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The %D was >20% but ≤40% with negative bias for 2,4-diamino-6-nitrotoluene in a CCV bracketing all samples except RE15-10-8118. The associated sample results were NDs and, thus, were qualified UJ,HE7c. The CCV %D was >20% with a positive bias for PETN. The associated sample results were NDs and, thus, were not qualified.
2. The MS/MSD RPD was > the laboratory acceptance limit for Tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12g. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Monica L Dymerski DATE: 03/10/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☒	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only _____

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8122

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994001

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216131a

Date Analyzed: 19-FEB-10 09:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/10/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8122

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994001

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140145.wiff

Date Analyzed: 16-FEB-10 03:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/10/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8112

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994002

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216132a

Date Analyzed: 19-FEB-10 09:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/10/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8112

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994002

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140146.wiff

Date Analyzed: 16-FEB-10 04:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/10/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8113

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994003

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216133a

Date Analyzed: 19-FEB-10 10:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/10/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8113

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994003

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140147.wiff

Date Analyzed: 16-FEB-10 04:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/10/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8116

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994004

Sample Amount 2

Moisture: 28.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216134a

Date Analyzed: 19-FEB-10 10:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8116

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994004

Sample Amount 2

Moisture: 28.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140148.wiff

Date Analyzed: 16-FEB-10 04:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8119

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994005

Sample Amount 2

Moisture: 11.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216135a

Date Analyzed: 19-FEB-10 11:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8119

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994005

Sample Amount 2

Moisture: 11.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140149.wiff

Date Analyzed: 16-FEB-10 05:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8114

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994006

Sample Amount 2

Moisture: 43.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216136a

Date Analyzed: 19-FEB-10 11:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8114

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994006

Sample Amount 2

Moisture: 43.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140150.wiff

Date Analyzed: 16-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8115

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994007

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216137a

Date Analyzed: 19-FEB-10 12:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8115

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994007

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140151.wiff

Date Analyzed: 16-FEB-10 05:33

Units: ug/kg

Cas No.	Compound		Concentration*	Q
3058-38-6	TATB		1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene		2000	U
618-87-1	3,5-Dinitroaniline		1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate		1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8117

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994008

Sample Amount 2

Moisture: 7.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216138a

Date Analyzed: 19-FEB-10 12:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8117

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994008

Sample Amount 2

Moisture: 7.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140152.wiff

Date Analyzed: 16-FEB-10 05:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8118

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994009

Sample Amount 2

Moisture: 27.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216142a

Date Analyzed: 19-FEB-10 15:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12g	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8118

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994009

Sample Amount 2

Moisture: 27.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02160014.wiff

Date Analyzed: 16-FEB-10 15:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLD
03/10/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1516 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/10/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1516	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245994002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	33
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8112	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 18:03	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	061f6101.d	**Column:**	1 CLP1	**Level:**	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.94	ug/kg	1.65	4.94	1
11104-28-2	Aroclor-1221	U	4.94	ug/kg	1.65	4.94	1
11141-16-5	Aroclor-1232	U	4.94	ug/kg	1.65	4.94	1
53469-21-9	Aroclor-1242	U	4.94	ug/kg	1.65	4.94	1
12672-29-6	Aroclor-1248	U	4.94	ug/kg	1.65	4.94	1
11097-69-1	Aroclor-1254	U	4.94	ug/kg	1.65	4.94	1
11096-82-5	Aroclor-1260	U	4.94	ug/kg	1.65	4.94	1

MLD
03/10/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1516	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245994003	**Date Received:**	02/02/2010 09:10	**%Moisture:**	10.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8113	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 18:16	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	062f6201.d	**Column:**	1 CLP1	**Level:**	LOW
	062b6201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.73	ug/kg	1.24	3.73	1
11104-28-2	Aroclor-1221	U	3.73	ug/kg	1.24	3.73	1
11141-16-5	Aroclor-1232	U	3.73	ug/kg	1.24	3.73	1
53469-21-9	Aroclor-1242	U	3.73	ug/kg	1.24	3.73	1
12672-29-6	Aroclor-1248	U	3.73	ug/kg	1.24	3.73	1
11097-69-1	Aroclor-1254	U	3.73	ug/kg	1.24	3.73	1
11096-82-5	Aroclor-1260	U	3.73	ug/kg	1.24	3.73	1

MLD
03/10/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1516	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245994001	**Date Received:**	02/02/2010 09:10	**%Moisture:**	14.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8122	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 17:25	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	058f5801.d	**Column:**	1 CLP1	**Level:**	LOW
	058b5801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.91	ug/kg	1.30	3.91	1
11104–28–2	Aroclor–1221	U	3.91	ug/kg	1.30	3.91	1
11141–16–5	Aroclor–1232	U	3.91	ug/kg	1.30	3.91	1
53469–21–9	Aroclor–1242	U	3.91	ug/kg	1.30	3.91	1
12672–29–6	Aroclor–1248	U	3.91	ug/kg	1.30	3.91	1
11097–69–1	Aroclor–1254	U	3.91	ug/kg	1.30	3.91	1
11096–82–5	Aroclor–1260	U	3.91	ug/kg	1.30	3.91	1

MLD
03/10/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

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Section I.

REQUEST NUMBER: 10-1516 VALIDATION DATE: 03/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Monica Dymerski ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec sample results that were rejected by the laboratory due to interference or low abundance were qualified R,R5a. Some gamma spec results from QC samples were also rejected. No sample data were qualified as a result.
2. The alpha spec Pu-242 tracer %Rs were > the laboratory UAL but ≤125% for sample RE15-10-8113 and the sample duplicate. The associated isotopic -Pu results for sample -8113 were NDs and, thus, were qualified UJ,R3a. No sample data were qualified due to the tracer outlier in the sample duplicate.
3. It should be noted that the sample duplicate analyses were performed on LANL samples from other RNs for alpha spec isotopic -Am, -Pu, and -U. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Monica Dymerski DATE: 03/10/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☒	☐	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8122
Sample ID: 245994001
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00928		0.0199	+/-0.00593	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00126		0.0364	+/-0.00281	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	0.00248		0.0276	+/-0.00396	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.983		0.0943	+/-0.0924	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236	U	0.0601		0.0601	+/-0.0184	0.100	pCi/g						
Uranium-238		1.17		0.0644	+/-0.106	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.131		0.222	+/-0.0701	0.200	pCi/g		MXR1	02/12/10	1231	948812	6
Bismuth-211	UI	4.32	R,R5a	0.270	+/-0.327		pCi/g						
Bismuth-214		1.18		0.0949	+/-0.096	0.200	pCi/g						
Cadmium-109	UI	4.12	R,R5a	0.902	+/-0.517		pCi/g						
Cerium-139	U	-0.0129		0.0442	+/-0.0133	0.050	pCi/g						
Cesium-134	U	0.0839		0.088	+/-0.0297	0.100	pCi/g						
Cesium-137	U	-0.00548		0.0575	+/-0.0178	0.100	pCi/g						
Cobalt-60	U	-0.000619		0.0531	+/-0.0165	0.100	pCi/g						
Europium-152	U	0.027		0.134	+/-0.0427	0.200	pCi/g						
Lanthanum-140	U	-0.058		0.115	+/-0.0393		pCi/g						
Lead-212		1.54		0.082	+/-0.105	0.100	pCi/g						
Lead-214		1.50		0.094	+/-0.120	0.100	pCi/g						
Mercury-203	U	-0.00179		0.0605	+/-0.0186	0.100	pCi/g						
Potassium-40		19.7		0.440	+/-1.15	1.00	pCi/g						
Radium-223	U	0.268		0.911	+/-0.305		pCi/g						
Radium-224	UI	3.85	R,R5a	0.934	+/-0.536		pCi/g						
Radium-226		1.18		0.0949	+/-0.096		pCi/g						
Radium-228		1.55		0.172	+/-0.191	0.500	pCi/g						
Ruthenium-106	U	-0.289		0.429	+/-0.145	0.800	pCi/g						

MLD
03/10/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8122
Sample ID: 245994001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Sodium-22	U	0.0126		0.0549	+/-0.016	0.080	pCi/g						
Strontium-85	UI	0.0587	R,R5a	0.0574	+/-0.0167		pCi/g						
Thallium-208		0.512		0.0492	+/-0.0461	0.080	pCi/g						
Thorium-227	U	0.205		0.560	+/-0.165		pCi/g						
Thorium-231	U	0.268		0.911	+/-0.305		pCi/g						
Thorium-234	U	1.47		1.72	+/-0.813	2.00	pCi/g						
Tin-113	U	-0.0122		0.0595	+/-0.0179	0.100	pCi/g						
Uranium-235	U	0.174		0.328	+/-0.0942	0.500	pCi/g						
Yttrium-88	U	-0.00139		0.0485	+/-0.015	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	89.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range

MLD
03/10/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8112
Sample ID: 245994002
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 33%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00101		0.0224	+/-0.00641	0.050	pCi/g		JXD2	02/13/10 1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000114		0.0331	+/-0.00627	0.050	pCi/g		JXD2	02/11/10 0903	949828	3
Plutonium-239/240	U	0.0102		0.0251	+/-0.00526	0.050	pCi/g					
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.44		0.0901	+/-0.196	0.100	pCi/g		JXD2	02/18/10 1840	953461	4
Uranium-235/236		0.102		0.0575	+/-0.024	0.100	pCi/g					
Uranium-238		3.73		0.0615	+/-0.288	0.100	pCi/g					
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.052		0.277	+/-0.0897	0.200	pCi/g		MXR1	02/12/10 1231	948812	6
Bismuth-211	UI	4.81	R,R5a	0.341	+/-0.294		pCi/g					
Bismuth-214		1.36		0.110	+/-0.104	0.200	pCi/g					
Cadmium-109	UI	2.54	R,R5a	1.42	+/-0.492		pCi/g					
Cerium-139	U	-0.00427		0.0532	+/-0.016	0.050	pCi/g					
Cesium-134	UI	0.111	R,R5a	0.0891	+/-0.0386	0.100	pCi/g					
Cesium-137		0.151		0.0615	+/-0.0339	0.100	pCi/g					
Cobalt-60	U	-0.0279		0.0564	+/-0.0187	0.100	pCi/g					
Europium-152	U	-0.0488		0.178	+/-0.0784	0.200	pCi/g					
Lanthanum-140	U	0.0248		0.139	+/-0.0405		pCi/g					
Lead-212		1.74		0.0939	+/-0.0847	0.100	pCi/g					
Lead-214		1.67		0.119	+/-0.111	0.100	pCi/g					
Mercury-203	U	-0.0276		0.0672	+/-0.0213	0.100	pCi/g					
Potassium-40		20.0		0.584	+/-1.04	1.00	pCi/g					
Radium-223	U	0.599		1.24	+/-0.395		pCi/g					
Radium-224	UI	5.43	R,R5a	1.07	+/-0.697		pCi/g					
Radium-226		1.36		0.110	+/-0.104		pCi/g					
Radium-228		1.67		0.221	+/-0.167	0.500	pCi/g					
Ruthenium-106	U	0.0355		0.515	+/-0.153	0.800	pCi/g					
Sodium-22	U	-0.046		0.0616	+/-0.0211	0.080	pCi/g					

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8112
Sample ID: 245994002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0636	0.0723	+/-0.0222		pCi/g						
Thallium-208		0.477	0.0589	+/-0.0424	0.080	pCi/g						
Thorium-227	U	0.0599	0.676	+/-0.204		pCi/g						
Thorium-231	U	0.599	1.24	+/-0.395		pCi/g						
Thorium-234		5.43	2.31	+/-1.09	2.00	pCi/g						
Tin-113	U	-0.0214	0.0732	+/-0.0221	0.100	pCi/g						
Uranium-235	U	0.134	0.388	+/-0.116	0.500	pCi/g						
Yttrium-88	U	0.00973	0.0538	+/-0.0156	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8113
Sample ID: 245994003
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00674		0.0197	+/-0.00473	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00418	UJ,R3a	0.0299	+/-0.00328	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	0.00308	UJ,R3a	0.0227	+/-0.0031	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.13		0.087	+/-0.101	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.0724		0.0555	+/-0.0193	0.100	pCi/g						
Uranium-238		1.29		0.0594	+/-0.113	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0647		0.196	+/-0.0628	0.200	pCi/g		MXR1	02/12/10	1232	948812	6
Bismuth-211	UI	4.15	R,R5a	0.337	+/-0.300		pCi/g						
Bismuth-214		1.15		0.115	+/-0.100	0.200	pCi/g						
Cadmium-109	UI	2.58	R,R5a	1.20	+/-0.503		pCi/g						
Cerium-139	U	-0.0175		0.0456	+/-0.0146	0.050	pCi/g						
Cesium-134	UI	0.0966	R,R5a	0.0925	+/-0.0295	0.100	pCi/g						
Cesium-137	U	-0.000896		0.0636	+/-0.0188	0.100	pCi/g						
Cobalt-60	U	-0.0203		0.0604	+/-0.0202	0.100	pCi/g						
Europium-152	U	-0.000663		0.151	+/-0.0514	0.200	pCi/g						
Lanthanum-140	U	-0.0478		0.123	+/-0.0432		pCi/g						
Lead-212		1.90		0.0839	+/-0.117	0.100	pCi/g						
Lead-214		1.44		0.112	+/-0.111	0.100	pCi/g						
Mercury-203	UI	0.108	R,R5a	0.0661	+/-0.0355	0.100	pCi/g						
Potassium-40		20.5		0.468	+/-1.17	1.00	pCi/g						
Radium-223	U	-0.241		1.11	+/-0.338		pCi/g						
Radium-224	UI	4.91	R,R5a	0.955	+/-0.731		pCi/g						
Radium-226		1.15		0.115	+/-0.100		pCi/g						
Radium-228		1.86		0.211	+/-0.178	0.500	pCi/g						
Ruthenium-106	U	-0.0691		0.478	+/-0.152	0.800	pCi/g						
Sodium-22	U	-0.019		0.0595	+/-0.0198	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8113
Sample ID: 245994003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0607	0.0665	+/-0.0206		pCi/g						
Thallium-208		0.625	0.0583	+/-0.0535	0.080	pCi/g						
Thorium-227	U	0.021	0.628	+/-0.184		pCi/g						
Thorium-231	U	-0.241	1.11	+/-0.338		pCi/g						
Thorium-234		2.85	1.69	+/-0.879	2.00	pCi/g						
Tin-113	U	-0.019	0.0695	+/-0.0216	0.100	pCi/g						
Uranium-235	U	0.0548	0.336	+/-0.102	0.500	pCi/g						
Yttrium-88	U	-0.00555	0.0414	+/-0.0134	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	108 *	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8116
Sample ID: 245994004
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 28.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00199		0.0202	+/-0.00589	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00117		0.0336	+/-0.00259	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	0.0104		0.0255	+/-0.00534	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		7.53		0.093	+/-0.557	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.456		0.0593	+/-0.0558	0.100	pCi/g						
Uranium-238		8.42		0.0635	+/-0.621	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0101		0.0969	+/-0.0312	0.200	pCi/g		MXR1	02/12/10	1232	948812	6
Bismuth-211	UI	4.06	R,R5a	0.337	+/-0.301		pCi/g						
Bismuth-214		1.19		0.116	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	3.24	R,R5a	1.26	+/-0.381		pCi/g						
Cerium-139	U	0.0155		0.0445	+/-0.0141	0.050	pCi/g						
Cesium-134	UI	0.144	R,R5a	0.108	+/-0.0382	0.100	pCi/g						
Cesium-137	U	0.0616		0.0778	+/-0.0349	0.100	pCi/g						
Cobalt-60	U	0.00457		0.0693	+/-0.0212	0.100	pCi/g						
Europium-152	U	-0.0818		0.148	+/-0.0497	0.200	pCi/g						
Lanthanum-140	U	-0.0216		0.145	+/-0.0452		pCi/g						
Lead-212		1.60		0.121	+/-0.109	0.100	pCi/g						
Lead-214		1.41		0.109	+/-0.111	0.100	pCi/g						
Mercury-203	U	0.0285		0.0663	+/-0.0219	0.100	pCi/g						
Potassium-40		23.0		0.618	+/-1.28	1.00	pCi/g						
Radium-223	U	-0.0128		0.970	+/-0.320		pCi/g						
Radium-224	UI	2.68	R,R5a	1.17	+/-0.618		pCi/g						
Radium-226		1.19		0.116	+/-0.105		pCi/g						
Radium-228		1.67		0.229	+/-0.174	0.500	pCi/g						
Ruthenium-106	U	-0.0126		0.565	+/-0.166	0.800	pCi/g						
Sodium-22	U	-0.0032		0.0759	+/-0.0232	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8116
Sample ID: 245994004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.0727	R,R5a	0.0682	+/-0.0186		pCi/g						
Thallium-208		0.524		0.0611	+/-0.0496	0.080	pCi/g						
Thorium-227	U	-0.166		0.563	+/-0.177		pCi/g						
Thorium-231	U	-0.0128		0.970	+/-0.320		pCi/g						
Thorium-234		11.2		0.879	+/-1.19	2.00	pCi/g						
Tin-113	U	-0.0361		0.0732	+/-0.0228	0.100	pCi/g						
Uranium-235		0.616		0.306	+/-0.136	0.500	pCi/g						
Yttrium-88	U	-0.0102		0.0528	+/-0.0172	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8119
Sample ID: 245994005
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 11.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00232		0.0218	+/-0.00327	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00123		0.0347	+/-0.00317	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	-0.0012		0.0263	+/-0.00268	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.917		0.0901	+/-0.0866	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236	U	0.053		0.0575	+/-0.0157	0.100	pCi/g						
Uranium-238		0.950		0.0615	+/-0.0887	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0331		0.183	+/-0.061	0.200	pCi/g		MXR1	02/12/10	1235	948812	6
Bismuth-211	UI	4.53	R,R5a	0.292	+/-0.378		pCi/g						
Bismuth-214		1.35		0.104	+/-0.114	0.200	pCi/g						
Cadmium-109	UI	2.79	R,R5a	1.20	+/-0.466		pCi/g						
Cerium-139	U	-0.0122		0.0411	+/-0.0123	0.050	pCi/g						
Cesium-134	UI	0.148	R,R5a	0.0982	+/-0.0325	0.100	pCi/g						
Cesium-137	U	-0.00663		0.061	+/-0.0189	0.100	pCi/g						
Cobalt-60	U	0.0198		0.0695	+/-0.0203	0.100	pCi/g						
Europium-152	U	-0.122		0.128	+/-0.048	0.200	pCi/g						
Lanthanum-140	U	-0.0997		0.0891	+/-0.0366		pCi/g						
Lead-212		1.87		0.0846	+/-0.143	0.100	pCi/g						
Lead-214		1.58		0.106	+/-0.138	0.100	pCi/g						
Mercury-203	U	-0.00426		0.0609	+/-0.021	0.100	pCi/g						
Potassium-40		18.9		0.431	+/-1.09	1.00	pCi/g						
Radium-223	U	-0.201		0.985	+/-0.351		pCi/g						
Radium-224	UI	5.50	R,R5a	0.963	+/-0.780		pCi/g						
Radium-226		1.35		0.104	+/-0.114		pCi/g						
Radium-228		1.80		0.180	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.143		0.534	+/-0.156	0.800	pCi/g						
Sodium-22	U	-0.00655		0.0654	+/-0.0205	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8119
Sample ID: 245994005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.0925	R,R5a	0.0697	+/-0.0186		pCi/g						
Thallium-208		0.551		0.0562	+/-0.0531	0.080	pCi/g						
Thorium-227	U	-0.0785		0.554	+/-0.170		pCi/g						
Thorium-231	U	-0.201		0.985	+/-0.351		pCi/g						
Thorium-234	U	0.865		1.52	+/-0.766	2.00	pCi/g						
Tin-113	U	-0.0432		0.0605	+/-0.0193	0.100	pCi/g						
Uranium-235	U	-0.079		0.300	+/-0.0904	0.500	pCi/g						
Yttrium-88	U	0.0102		0.0628	+/-0.0183	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8114
Sample ID: 245994006
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 43.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0175		0.0237	+/-0.00563	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00551		0.0401	+/-0.00391	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240		0.0358		0.0304	+/-0.0102	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		6.91		0.0986	+/-0.517	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.444		0.0629	+/-0.056	0.100	pCi/g						
Uranium-238		13.2		0.0673	+/-0.962	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.283		0.404	+/-0.129	0.200	pCi/g		MXR1	02/12/10	1235	948812	6
Bismuth-211	UI	3.72	R,R5a	0.382	+/-0.270		pCi/g						
Bismuth-214		1.18		0.112	+/-0.0986	0.200	pCi/g						
Cadmium-109	U	1.57		1.76	+/-0.691		pCi/g						
Cerium-139	U	-0.0451		0.0591	+/-0.0191	0.050	pCi/g						
Cesium-134	U	0.0581		0.0911	+/-0.0246	0.100	pCi/g						
Cesium-137		0.593		0.0681	+/-0.0531	0.100	pCi/g						
Cobalt-60	U	-0.00487		0.0697	+/-0.0219	0.100	pCi/g						
Europium-152	U	-0.0393		0.183	+/-0.0641	0.200	pCi/g						
Lanthanum-140	U	-0.0203		0.144	+/-0.0452		pCi/g						
Lead-212		1.29		0.109	+/-0.0741	0.100	pCi/g						
Lead-214		1.29		0.124	+/-0.0998	0.100	pCi/g						
Mercury-203	U	0.0534		0.0855	+/-0.0239	0.100	pCi/g						
Potassium-40		18.3		0.685	+/-1.13	1.00	pCi/g						
Radium-223	U	-0.0866		1.27	+/-0.435		pCi/g						
Radium-224	UI	3.27	R,R5a	1.24	+/-0.615		pCi/g						
Radium-226		1.18		0.112	+/-0.0986		pCi/g						
Radium-228		0.856		0.260	+/-0.203	0.500	pCi/g						
Ruthenium-106	U	-0.0992		0.623	+/-0.196	0.800	pCi/g						
Sodium-22	U	0.0153		0.0824	+/-0.0244	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8114
Sample ID: 245994006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0459	0.0706	+/-0.0223		pCi/g						
Thallium-208		0.459	0.0702	+/-0.0526	0.080	pCi/g						
Thorium-227	U	-0.142	0.746	+/-0.235		pCi/g						
Thorium-231	U	-0.0866	1.27	+/-0.435		pCi/g						
Thorium-234		10.4	3.32	+/-1.63	2.00	pCi/g						
Tin-113	U	-0.00554	0.0873	+/-0.0262	0.100	pCi/g						
Uranium-235		0.766	0.403	+/-0.199	0.500	pCi/g						
Yttrium-88	U	-0.00877	0.0679	+/-0.0216	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	80.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	88.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8115
Sample ID: 245994007
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.000319		0.0239	+/-0.00596	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00226		0.0329	+/-0.00226	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	-0.00116		0.0249	+/-0.00301	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.997		0.0915	+/-0.093	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.103		0.0584	+/-0.0227	0.100	pCi/g						
Uranium-238		1.12		0.0625	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0248		0.399	+/-0.116	0.200	pCi/g		MXR1	02/12/10	1238	948812	6
Bismuth-211	UI	3.91	R,R5a	0.316	+/-0.264		pCi/g						
Bismuth-214		0.991		0.102	+/-0.0823	0.200	pCi/g						
Cadmium-109	UI	2.54	R,R5a	1.21	+/-0.450		pCi/g						
Cerium-139	U	0.0254		0.0492	+/-0.0144	0.050	pCi/g						
Cesium-134	U	0.0556		0.0792	+/-0.0215	0.100	pCi/g						
Cesium-137	U	0.00198		0.0662	+/-0.0196	0.100	pCi/g						
Cobalt-60	U	-0.0174		0.0577	+/-0.0186	0.100	pCi/g						
Europium-152	U	-0.0834		0.143	+/-0.0496	0.200	pCi/g						
Lanthanum-140	U	-0.0509		0.123	+/-0.0425		pCi/g						
Lead-212		1.60		0.0875	+/-0.082	0.100	pCi/g						
Lead-214		1.36		0.110	+/-0.0986	0.100	pCi/g						
Mercury-203	U	-0.01		0.067	+/-0.020	0.100	pCi/g						
Potassium-40		18.8		0.552	+/-1.14	1.00	pCi/g						
Radium-223	U	0.465		1.09	+/-0.351		pCi/g						
Radium-224	UI	5.29	R,R5a	0.995	+/-0.537		pCi/g						
Radium-226		0.991		0.102	+/-0.0823		pCi/g						
Radium-228		1.33		0.211	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.0589		0.464	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0255		0.069	+/-0.0222	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8115
Sample ID: 245994007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0168	0.0595	+/-0.0201		pCi/g						
Thallium-208		0.458	0.053	+/-0.0469	0.080	pCi/g						
Thorium-227	U	0.104	0.612	+/-0.176		pCi/g						
Thorium-231	U	0.465	1.09	+/-0.351		pCi/g						
Thorium-234	U	1.90	3.19	+/-0.916	2.00	pCi/g						
Tin-113	U	-0.0394	0.0627	+/-0.0204	0.100	pCi/g						
Uranium-235	U	0.274	0.364	+/-0.108	0.500	pCi/g						
Yttrium-88	U	0.00182	0.0552	+/-0.017	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	67.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8117
Sample ID: 245994008
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 7.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00451		0.0201	+/-0.0064	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00118		0.0328	+/-0.00408	0.050	pCi/g		JXD2	02/11/10	0905	949828	3
Plutonium-239/240	U	0.00107		0.0249	+/-0.00466	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		3.23		0.0981	+/-0.256	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.173		0.0626	+/-0.0314	0.100	pCi/g						
Uranium-238		4.09		0.067	+/-0.317	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0227		0.210	+/-0.0668	0.200	pCi/g		MXR1	02/12/10	1326	948812	6
Bismuth-211	UI	3.75	R,R5a	0.279	+/-0.305		pCi/g						
Bismuth-214		1.14		0.0937	+/-0.0921	0.200	pCi/g						
Cadmium-109	UI	2.94	R,R5a	1.39	+/-0.422		pCi/g						
Cerium-139	U	-0.0164		0.0458	+/-0.0135	0.050	pCi/g						
Cesium-134	U	0.0533		0.0685	+/-0.0195	0.100	pCi/g						
Cesium-137		0.181		0.0496	+/-0.034	0.100	pCi/g						
Cobalt-60	U	-0.0299		0.0478	+/-0.0159	0.100	pCi/g						
Europium-152	U	0.0306		0.146	+/-0.061	0.200	pCi/g						
Lanthanum-140	U	-0.0538		0.111	+/-0.0361		pCi/g						
Lead-212		1.68		0.0834	+/-0.121	0.100	pCi/g						
Lead-214		1.31		0.0971	+/-0.111	0.100	pCi/g						
Mercury-203	U	0.0353		0.0654	+/-0.0218	0.100	pCi/g						
Potassium-40		20.3		0.422	+/-1.12	1.00	pCi/g						
Radium-223	U	0.183		1.00	+/-0.329		pCi/g						
Radium-224	UI	4.74	R,R5a	0.948	+/-0.628		pCi/g						
Radium-226		1.14		0.0937	+/-0.0921		pCi/g						
Radium-228		1.56		0.191	+/-0.156	0.500	pCi/g						
Ruthenium-106	U	-0.155		0.406	+/-0.126	0.800	pCi/g						
Sodium-22	U	-0.0117		0.0583	+/-0.018	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8117
Sample ID: 245994008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Strontium-85	UI	0.125	R,R5a	0.0658	+/-0.0202		pCi/g						
Thallium-208		0.512		0.0479	+/-0.0422	0.080	pCi/g						
Thorium-227	U	-0.0494		0.568	+/-0.171		pCi/g						
Thorium-231	U	0.183		1.00	+/-0.329		pCi/g						
Thorium-234		4.89		1.71	+/-0.883	2.00	pCi/g						
Tin-113	U	0.0175		0.0669	+/-0.0194	0.100	pCi/g						
Uranium-235	U	0.261		0.336	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0114		0.0484	+/-0.0155	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	82.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
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- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8118
Sample ID: 245994009
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 27.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids													
"As Received"													
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0077		0.0216	+/-0.00742	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00131		0.0385	+/-0.00297	0.050	pCi/g		JXD2	02/11/10	1020	949828	3
Plutonium-239/240	U	0.0066		0.0292	+/-0.00479	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		3.99		0.0908	+/-0.306	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.280		0.0579	+/-0.041	0.100	pCi/g						
Uranium-238		5.53		0.062	+/-0.415	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0275		0.258	+/-0.0795	0.200	pCi/g		MXR1	02/12/10	1342	948812	6
Bismuth-211	UI	3.82	R,R5a	0.297	+/-0.238		pCi/g						
Bismuth-214		1.10		0.102	+/-0.0856	0.200	pCi/g						
Cadmium-109	UI	2.36	R,R5a	1.65	+/-0.551		pCi/g						
Cerium-139	U	-0.00787		0.0453	+/-0.0136	0.050	pCi/g						
Cesium-134	U	0.0839		0.0875	+/-0.026	0.100	pCi/g						
Cesium-137		0.231		0.0602	+/-0.0332	0.100	pCi/g						
Cobalt-60	U	-0.0117		0.0554	+/-0.0176	0.100	pCi/g						
Europium-152	U	-0.000541		0.147	+/-0.0446	0.200	pCi/g						
Lanthanum-140	U	-0.0951		0.101	+/-0.0389		pCi/g						
Lead-212		1.51		0.0882	+/-0.0728	0.100	pCi/g						
Lead-214		1.33		0.103	+/-0.0897	0.100	pCi/g						
Mercury-203	U	-0.0208		0.0591	+/-0.0176	0.100	pCi/g						
Potassium-40		19.7		0.421	+/-0.980	1.00	pCi/g						
Radium-223	U	0.0041		0.956	+/-0.317		pCi/g						
Radium-224	UI	4.71	R,R5a	1.00	+/-0.713		pCi/g						
Radium-226		1.10		0.102	+/-0.0856		pCi/g						
Radium-228		1.45		0.207	+/-0.147	0.500	pCi/g						
Ruthenium-106	U	0.263		0.519	+/-0.142	0.800	pCi/g						
Sodium-22	U	-0.00504		0.0678	+/-0.0208	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8118
Sample ID: 245994009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0456	0.0572	+/-0.0176		pCi/g						
Thallium-208		0.487	0.0585	+/-0.0414	0.080	pCi/g						
Thorium-227	U	-0.162	0.564	+/-0.166		pCi/g						
Thorium-231	U	0.0041	0.956	+/-0.317		pCi/g						
Thorium-234		7.71	2.15	+/-1.27	2.00	pCi/g						
Tin-113	U	-0.0267	0.0657	+/-0.0204	0.100	pCi/g						
Uranium-235	U	0.281	0.327	+/-0.151	0.500	pCi/g						
Yttrium-88	U	0.0205	0.0612	+/-0.0168	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

MLD
03/10/10

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1516C

REQUEST NUMBER: 10-1516

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245994

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8122	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8122	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8112	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8112	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8113	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8113	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8116	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8116	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8119	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8119	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8114	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8114	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8115	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8115	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8117	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8117	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8118	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8118	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	1/2/10	3:00	Dionne Francis [signature]	2/2/10	0910
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1516
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	HASL-300:ISOPU	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	SW-846:8082	1	RE15-10-8112	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	SW-846:8321A_MOD	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	

Final Page of REQUEST NUMBER 10-1516

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 09, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245994
SDG: 10-1516

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1516
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245994
SDG: 10-1516

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 4

Data Review Qualifier Flag Definition Sheet..... 17

LC/MS/MS Explosives Analysis.....19
- Sample Data Summary.....25
- Quality Control Summary.....44
- Sample Data..... 210
- Standards Data.....273
- Quality Control Data.....542
- Miscellaneous Data.....558

GC Semivolatile PCB Analysis.....586
- Sample Data Summary.....592
- Quality Control Summary.....596
- Sample Data..... 602
- Standards Data.....618
- Quality Control Data.....693
- Miscellaneous Data.....726

Radiological Analysis..... 734
- Sample Data Summary.....745
- Quality Control Data.....774
- Raw Data..... 781
- Background and Efficiency Data.....1387
- Standards Data..... 1517
- Runlogs.....1549

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245994
SDG # : 10-1516

February 09, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13-15,19C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245994001	RE15-10-8122
245994002	RE15-10-8112
245994003	RE15-10-8113
245994004	RE15-10-8116
245994005	RE15-10-8119
245994006	RE15-10-8114
245994007	RE15-10-8115
245994008	RE15-10-8117
245994009	RE15-10-8118

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis
Project Manager

List of current GEL Certifications as of 09 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1516C

REQUEST NUMBER: 10-1516

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245994

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8122	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8122	1	POLY	AM241+GS+ISOPU+ISOU	None	R
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RE15-10-8116	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8116	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8119	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8119	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8114	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8114	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8115	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8115	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8117	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8117	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8118	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8118	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	1/2/10	3:00	Dionne Francis [signature]	2/2/10	0910
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1516

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
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		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	HASL-300:ISOU	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	SW-846:8082	1	RE15-10-8112	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1516

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
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		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	

Final Page of REQUEST NUMBER 10-1516

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1516**
Received By: Dionne Francis	**Date Received: February 2, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C 7209 7849 7886 2C 7209 7849 7967 3C 7209 7849 7739 19C
7209 7849 7772 1C 7209 7849 7901 2C 7209 7849 7945 4C
7209 7849 7934 1C 7209 7849 7853 2C 7209 7849 7810 5C
7209 7849 7831 1C 7209 7849 7875 2C 7209 7849 7897 5C
7209 7849 7783 1C 7209 7849 7956 2C 7209 7849 7728 13C
7209 7849 7864 1C 7209 7849 7794 2C 7209 7849 7706 13C
7209 7849 7923 1C 7209 7849 7820 2C 7209 7849 7717 14C
7209 7849 7761 1C 7209 7849 7809 2C 7209 7849 7750 15C
7209 7849 7842 1C 7209 7849 7912 3C 7209 7849 7740 15C

PM (or TSS) review: Initials GRT Date 2-3-10

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

0c

FedEx Express

TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1c

FedEx Express

2 of 2
MPS# 0263 7209 7849 7772
Mstr# 7209 7849 7761 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

1c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7934
** MASTER **

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7831
** MASTER **

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1C

FedEx Express

1 of 2
TRK# 0201 7209 7849 7783
TUE - 02FEB A1
PRIORITY OVERNIGHT
NN MASTER NN

29407
SC-US
CHS

XX CHSA

Part # 1581-48-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

1C

FedEx Express

2 of 2
MPS# 0263 7209 784[illegible] 7864
Mstr# 7209 7[illegible] 7853 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 1581-48-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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MPS# 0263 7209 7849 7923
Mstr# 7209 7849 7912 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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REF: 6B010AMR3A052VA00

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TRK# 0201 7209 7849 7761
TUE - 02FEB A1
PRIORITY OVERNIGHT
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29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VR00

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2 of 2
MPS# 0263 7209 7849 7842
Matr# 7209 7849 7831 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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2 of 2
MPS# 0263 7209 7849 7886
Matr# 7209 7849 7875 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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FedEx Express

2 of 2
MPS# 0263 7209 7849 7901
Matr# 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7853
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7875
TUE - 02FEB A1
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407
SC-US
CHS

Part # 158148-434 NRT V3 0904-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7956
TUE - 02FEB A1
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407
SC-US
CHS

Part # 158148-434 NRT V3 0904-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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FedEx Express

2 of 2
MPS# 0263 7209 7849 7794
Mstr# 7209 7849 7783 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

3 of 3
MPS# 0263 7209 7849 7820
Mstr# 7209 7849 7809 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
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LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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FedEx Express

1 of 3
TRK# [illegible]

TUE - 02FEB A1

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TRK# 0201 7209 7849 7809

TUE - 02 FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Emp# 133998 01FEB10 SAFA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7912
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

2 of 2
MPS# 0263 7209 7849 7961
Matr# 7209 7849 7956 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

2 of 2
MPS# 0263 7209 7849 7945
Matr# 7209 7849 7934 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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FedEx Express

2 of 3
MPS# 0263 7209 7849 7810
Matr# 7209 7849 7808 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156143-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

5°

FedEx Express

1 of 2
TRK# 0201 7209 7849 7897
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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156143-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7728
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7706
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

14c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7717
Mstr# 7209 7849 7891 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156143-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

15c

FedEx Express

2 of 2
MPS# 0263 7209 7849 7750
Mstr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156143-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

15c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7740
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

19°

FedEx Express

2 of 2
MPS# 0263 7209 7849 7739
Mstr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
SC-US

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1516

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	948579
Prep Batch Number:	948578

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
245994001	RE15-10-8122
245994002	RE15-10-8112
245994003	RE15-10-8113
245994004	RE15-10-8116
245994005	RE15-10-8119
245994006	RE15-10-8114
245994007	RE15-10-8115
245994008	RE15-10-8117
245994009	RE15-10-8118
1202032113	Method Blank (MB)
1202032114	Laboratory Control Sample (LCS)
1202032115	246006001(RE16-10-2893) Matrix Spike (MS)
1202032116	246006001(RE16-10-2893) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration

All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements

All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

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Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 246006001 (RE16-10-2893) from SDG 10-1520 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for Tetryl was 30.9%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported. Please see data exception report 793675.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

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Sample Re-extraction/Re-analysis
The SDG was re-analyzed due to failing acceptance criteria. The re-analysis passed acceptance criteria and is reported.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 246006001 (RE16-10-2893) from SDG 10-1520 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Sample 245994009 (RE15-10-8118) was re-analyzed due to the closing CCV not meeting acceptance criteria. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 793675.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

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Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M. Mauer **Date:** 02/24/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8122

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994001

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216131a

Date Analyzed: 19-FEB-10 09:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8122

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994001

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140145.wiff

Date Analyzed: 16-FEB-10 03:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8112

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994002

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216132a

Date Analyzed: 19-FEB-10 09:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8112

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994002

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140146.wiff

Date Analyzed: 16-FEB-10 04:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8113

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994003

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216133a

Date Analyzed: 19-FEB-10 10:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8113

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994003

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140147.wiff

Date Analyzed: 16-FEB-10 04:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8116

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994004

Sample Amount 2

Moisture: 28.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216134a

Date Analyzed: 19-FEB-10 10:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8116

Lab Code: GEI

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994004

Sample Amount 2

Moisture: 28.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140148.wiff

Date Analyzed: 16-FEB-10 04:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8119

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994005

Sample Amount 2

Moisture: 11.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216135a

Date Analyzed: 19-FEB-10 11:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8119

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994005

Sample Amount 2

Moisture: 11.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140149.wiff

Date Analyzed: 16-FEB-10 05:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8114

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994006

Sample Amount 2

Moisture: 43.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216136a

Date Analyzed: 19-FEB-10 11:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8114

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994006

Sample Amount 2

Moisture: 43.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140150.wiff

Date Analyzed: 16-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8115

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994007

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216137a

Date Analyzed: 19-FEB-10 12:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8115

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994007

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140151.wiff

Date Analyzed: 16-FEB-10 05:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8117

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994008

Sample Amount 2

Moisture: 7.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216138a

Date Analyzed: 19-FEB-10 12:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8117

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994008

Sample Amount 2

Moisture: 7.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140152.wiff

Date Analyzed: 16-FEB-10 05:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8118

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994009

Sample Amount 2

Moisture: 27.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216142a

Date Analyzed: 19-FEB-10 15:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4--Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8118

Lab Code: GEI

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994009

Sample Amount 2

Moisture: 27.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02160014.wiff

Date Analyzed: 16-FEB-10 15:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245994001	RE15-10-8122	113	70 - 144	
245994001	RE15-10-8122	113	70 - 144	
245994002	RE15-10-8112	99.8	70 - 144	
245994002	RE15-10-8112	122	70 - 144	
245994003	RE15-10-8113	101	70 - 144	
245994003	RE15-10-8113	116	70 - 144	
245994004	RE15-10-8116	110	70 - 144	
245994004	RE15-10-8116	116	70 - 144	
245994005	RE15-10-8119	106	70 - 144	
245994005	RE15-10-8119	108	70 - 144	
245994006	RE15-10-8114	113	70 - 144	
245994006	RE15-10-8114	120	70 - 144	
245994007	RE15-10-8115	110	70 - 144	
245994007	RE15-10-8115	116	70 - 144	
245994008	RE15-10-8117	109	70 - 144	
245994008	RE15-10-8117	120	70 - 144	
245994009	RE15-10-8118	111	70 - 144	
245994009	RE15-10-8118	122	70 - 144	
1202032113	MB for batch 948578	98.1	70 - 144	
1202032113	MB for batch 948578	116	70 - 144	
1202032114	LCS for batch 948578	99.5	70 - 144	
1202032114	LCS for batch 948578	116	70 - 144	

DNT = 3,4-Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1516

Extract Batch Code: 948578

Date Extracted: 09–FEB–10

GEL LCS ID: 1202032114

GEL LCSDUP ID:

Analysis Date/Time: 19–FEB–10 08:51

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
Tetryl	5000	3160	63.2					51 – 112
2,4,6–Trinitrotoluene	5000	5050	101					73 – 149
2,6–Dinitrotoluene	5000	5080	102					89 – 120
4–Amino–2,6–dinitrotoluene	5000	4600	92					84 – 130
RDX	5000	4740	94.8					81 – 137
PETN	5000	4980	99.5					64 – 137
Nitrobenzene	5000	4630	92.6					71 – 122
HMX	5000	4930	98.5					58 – 138
2–Amino–4,6–dinitrotoluene	5000	5200	104					90 – 130
2,4–Dinitrotoluene	5000	5470	109					87 – 137
1,3,5–Trinitrobenzene	5000	4730	94.5					69 – 126
m–Dinitrobenzene	5000	5330	107					83 – 122
m–Nitrotoluene	5000	4100	82					73 – 118
o–Nitrotoluene	5000	4520	90.3					72 – 119
p–Nitrotoluene	5000	4150	83.1					67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1516

Extract Batch Code: 948578

Date Extracted: 09-FEB-10

GEL LCS ID: 1202032114

GEL LCSDUP ID:

Analysis Date/Time: 16-FEB-10 03:43

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	3890	77.8					52 – 114
2,6-Diamino-4-nitrotoluene	5000	3820	76.4					64 – 122
3,5-Dinitroaniline	5000	5200	104					70 – 127
tris(o-cresyl) phosphate	5000	4910	98.2					84 – 119
TATB	7500	6560	87.5					28 – 162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE16-10-2893

Lab Code: GEL

GEL Job No (SDG) 10-1516

Extract Batch Code: 948578

Date Extracted: 09-FEB-10

GEL Spike ID: 1202032115

GEL SpikeDup ID: 1202032116

Analysis Date/Time: 19-FEB-10 16:37

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
p-Nitrotoluene	5000	0	5080	102	4550	91.1	11	30	65 - 133
1,3,5-Trinitrobenzene	5000	0	4950	99	4390	87.9	11.9	30	50 - 140
2,4,6-Trinitrotoluene	5000	0	5420	108	5120	102	5.59	30	76 - 144
2,4-Dinitrotoluene	5000	0	5120	102	5190	104	1.24	30	86 - 135
2,6-Dinitrotoluene	5000	0	5180	104	4990	99.8	3.66	30	90 - 118
2-Amino-4,6-dinitrotoluene	5000	0	5380	108	5090	102	5.61	30	85 - 137
4-Amino-2,6-dinitrotoluene	5000	0	5040	101	4770	95.5	5.49	30	72 - 143
HMX	5000	0	5120	102	4130	82.6	21.5	30	51 - 144
Nitrobenzene	5000	0	5060	101	3990	79.8	23.7	30	70 - 122
PETN	5000	0	5100	102	5540	111	8.31	30	60 - 140
RDX	5000	0	5590	112	4620	92.3	19.1	30	59 - 152
Tetryl	5000	0	4210	84.2	3080	61.7	30.9 *	30	36 - 124
m-Dinitrobenzene	5000	0	5400	108	4800	96	11.9	30	85 - 118
m-Nitrotoluene	5000	0	5020	100	4380	87.6	13.6	30	70 - 120
o-Nitrotoluene	5000	0	5030	101	4560	91.2	9.84	30	69 - 123

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE16-10-2893

Lab Code: GEL

GEL Job No (SDG) 10-1516

Extract Batch Code: 948578

Date Extracted: 09-FEB-10

GEL Spike ID: 1202032115

GEL SpikeDup ID: 1202032116

Analysis Date/Time: 16-FEB-10 16:08

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	2890	57.8	2890	57.8	0	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	3700	74	4190	83.8	12.4	30	55 - 130
3,5-Dinitroaniline	5000	0	5190	104	4900	98	5.75	30	73 - 129
tris(o-cresyl) phosphate	5000	6.67	5270	105	5230	104	.762	30	72 - 127
TATB	7500	0	5880	78.4	5840	77.9	.683	30	29 - 155

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:07

GEL Data File: EXP0216001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	509.816
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	531.163
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: Untitled, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216001a
Date: 16-Feb-2010
Time: 17:07:38
ID: XIBLK01
Vial: 1:1,A

MAP 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.62
5.988e+003

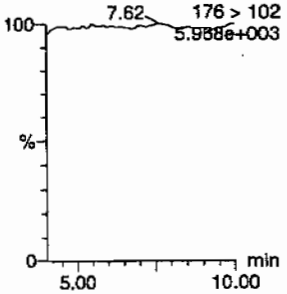

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.62
5.988e+003

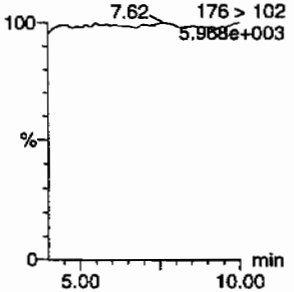

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.610e+003

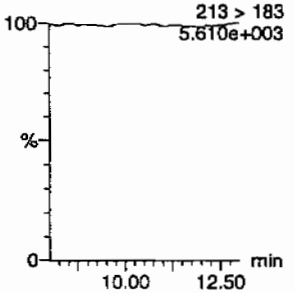

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.311e+004

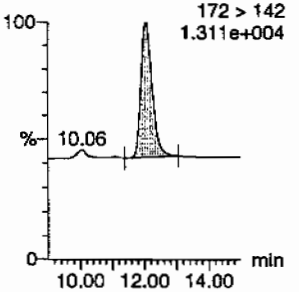

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.598e+003

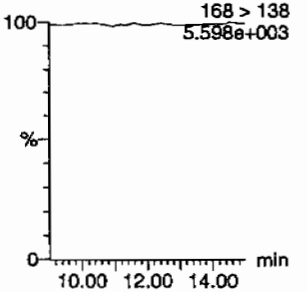

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.812e+003

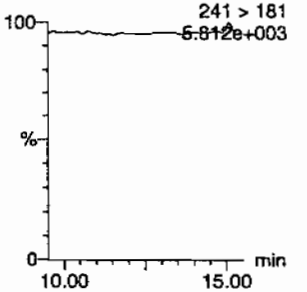

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.650e+003

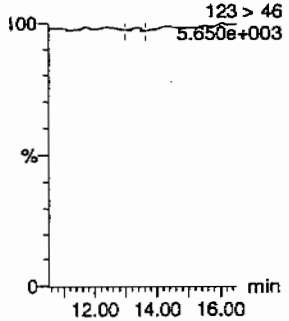

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.747e+003

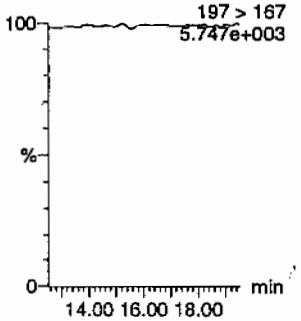

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.769e+003

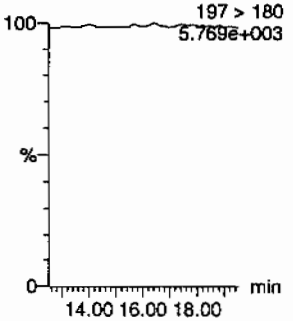

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.631e+003

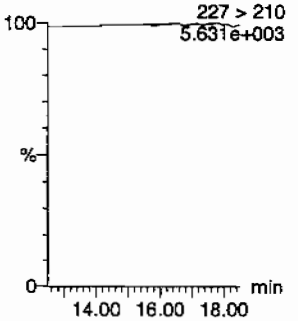

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.641e+003

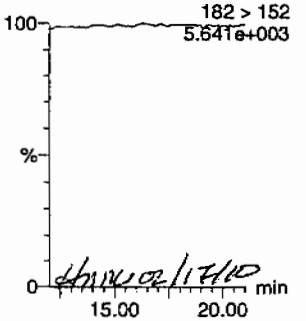

MMM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.641e+003

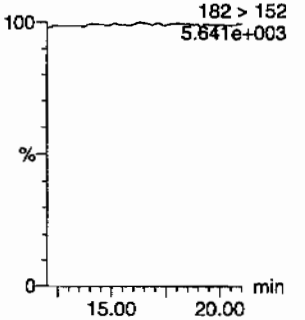

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

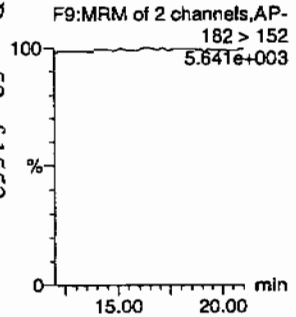

26-dinitrotoluene-d3

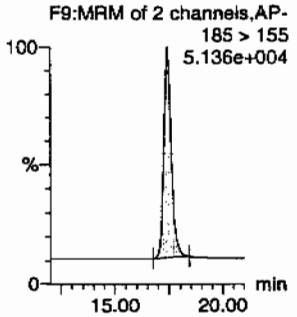

2-Nitrotoluene

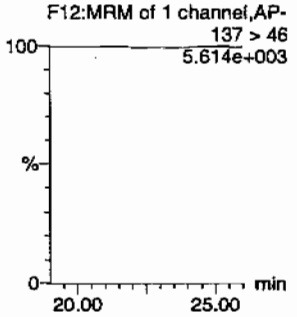

4-Nitrotoluene

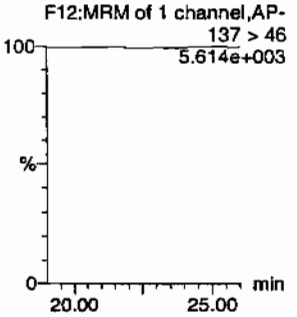

3-Nitrotoluene

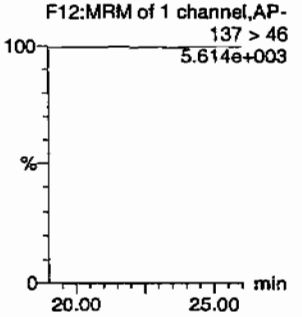

PETN

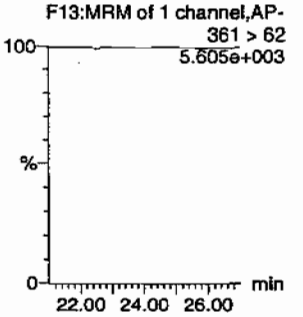

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
KIBLK01	HMX	176 > 102			3071.556									
KIBLK01	RDX	176 > 102			3071.556									
KIBLK01	135-Trinitrobenzene	213 > 183			3071.556									
KIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	3071.556		3071.556	3071.556	bb			509.8160	102.0	2.0	413.3
KIBLK01	13-Dinitrobenzene	168 > 138			3071.556									
KIBLK01	Tetryl	241 > 181			3071.556									
KIBLK01	Nitrobenzene	123 > 46			3071.556			MM-	17-Feb-10	09:21:37				
KIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18493.566									
KIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18493.566									
KIBLK01	246-Trinitrotoluene	227 > 210			18493.566									
KIBLK01	34-dinitrotoluene	182 > 152			18493.566									
KIBLK01	26-dinitrotoluene	182 > 152			18493.566									
KIBLK01	24-dinitrotoluene	182 > 152			18493.566									
KIBLK01	26-dinitrotoluene-d3	185 > 155	17.42	18493.566		18493.566	18493.566	bb			531.1631	106.2	6.2	1741.8
KIBLK01	2-Nitrotoluene	137 > 46			18493.566									
KIBLK01	4-Nitrotoluene	137 > 46			18493.566									
KIBLK01	3-Nitrotoluene	137 > 46			18493.566									
KIBLK01	PETN	361 > 62			18493.566									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 17:37

GEL Data File: EXP0216002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
Nitrobenzene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	540.968
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.887
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216002a
Date: 16-Feb-2010
Time: 17:37:26
ID: XIBLK01
Vial: 1:1,A

MDT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

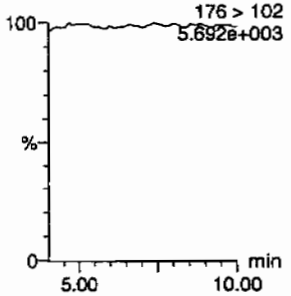

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

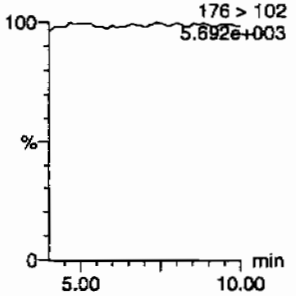

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.395e+003

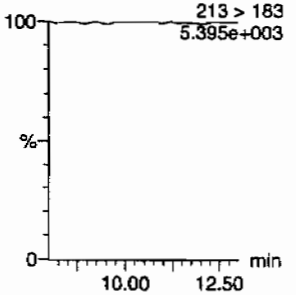

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.342e+004

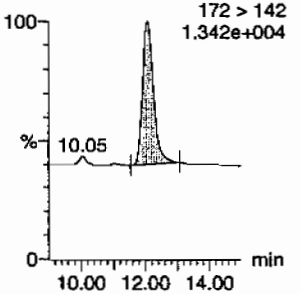

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.400e+003

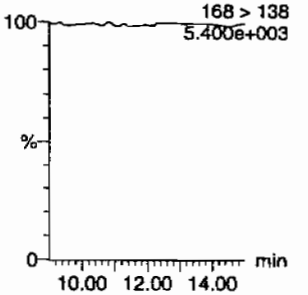

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.394e+003

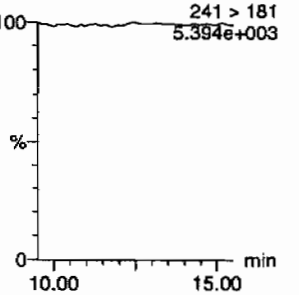

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.387e+003

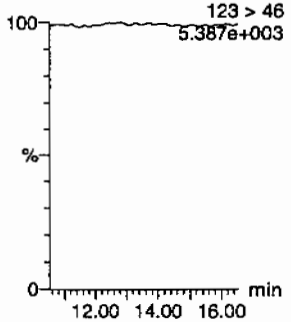

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.503e+003

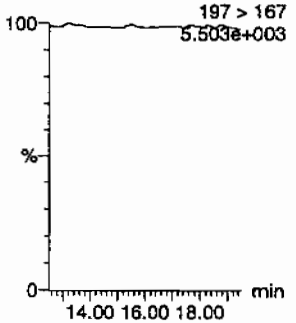

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.496e+003

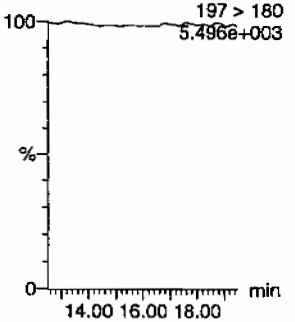

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.402e+003

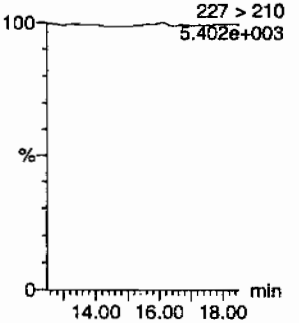

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.473e+003

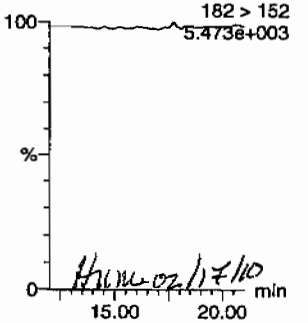

HMW 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.473e+003

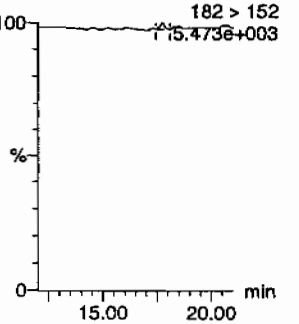

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qid, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.473e+003

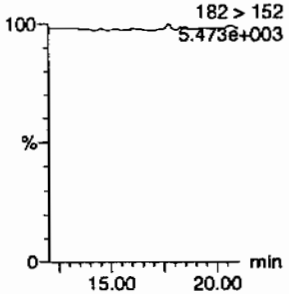

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.080e+004

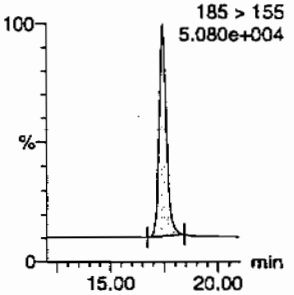

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.408e+003

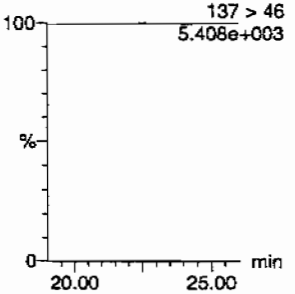

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.408e+003

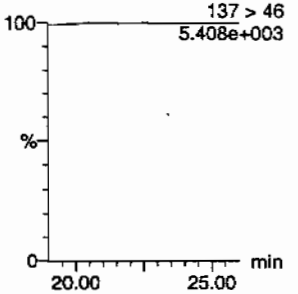

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.408e+003

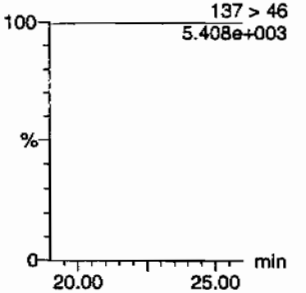

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.391e+003

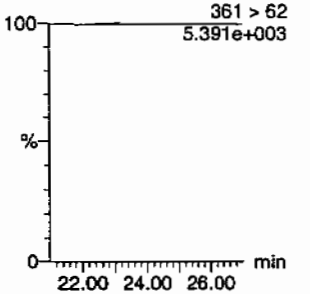

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3259.244									
XIBLK01	RDX	176 > 102			3259.244									
XIBLK01	135-Trinitrobenzene	213 > 183			3259.244									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.07	3259.244		3259.244	3259.244	bb			540.9684	108.2	8.2	243.5
XIBLK01	13-Dinitrobenzene	168 > 138			3259.244									
XIBLK01	Tetryl	241 > 181			3259.244									
XIBLK01	Nitrobenzene	123 > 46			3259.244									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18483.965									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18483.965									
XIBLK01	246-Trinitrotoluene	227 > 210			18483.965									
XIBLK01	34-dinitrotoluene	182 > 152			18483.965									
XIBLK01	26-dinitrotoluene	182 > 152			18483.965			MM-	17-Feb-10	09:24:48				
XIBLK01	24-dinitrotoluene	182 > 152			18483.965									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.44	18483.965		18483.965	18483.965	bb			530.8874	106.2	6.2	1863.8
XIBLK01	2-Nitrotoluene	137 > 46			18483.965									
XIBLK01	4-Nitrotoluene	137 > 46			18483.965									
XIBLK01	3-Nitrotoluene	137 > 46			18483.965									
XIBLK01	PETN	361 > 62			18483.965									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 14–FEB–10 14:17

GEL Data File: EXS02140001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.28
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ran 2/16/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140001.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:17:17 PM

Modified: No

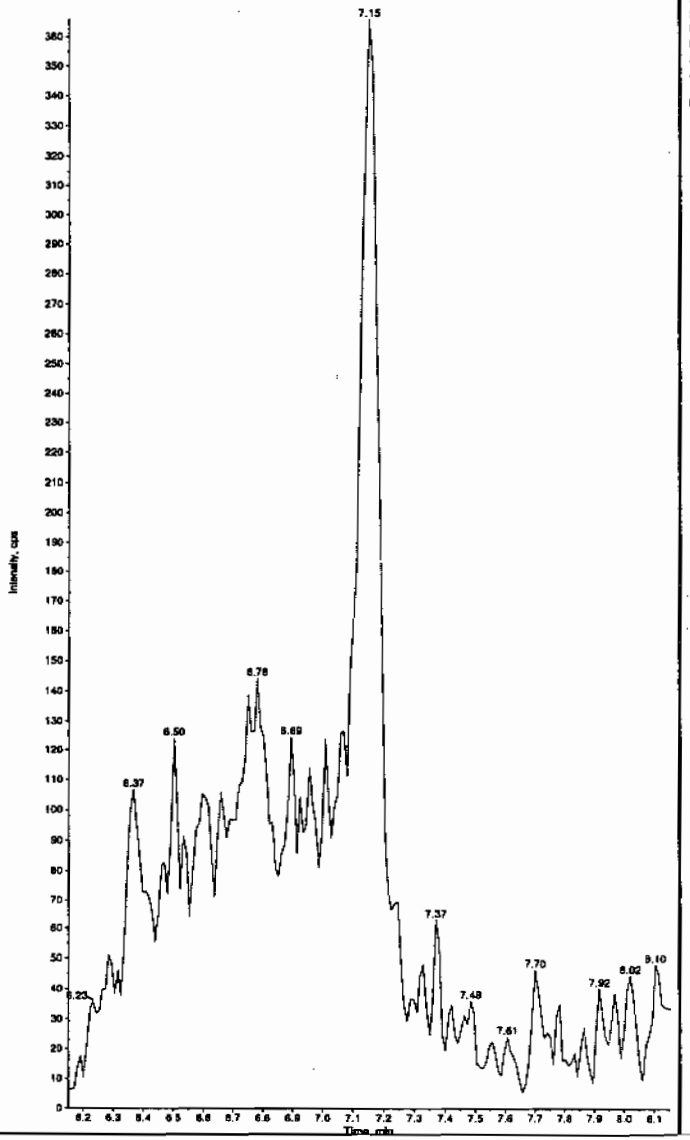

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140001.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:17:17 PM

Modified: No

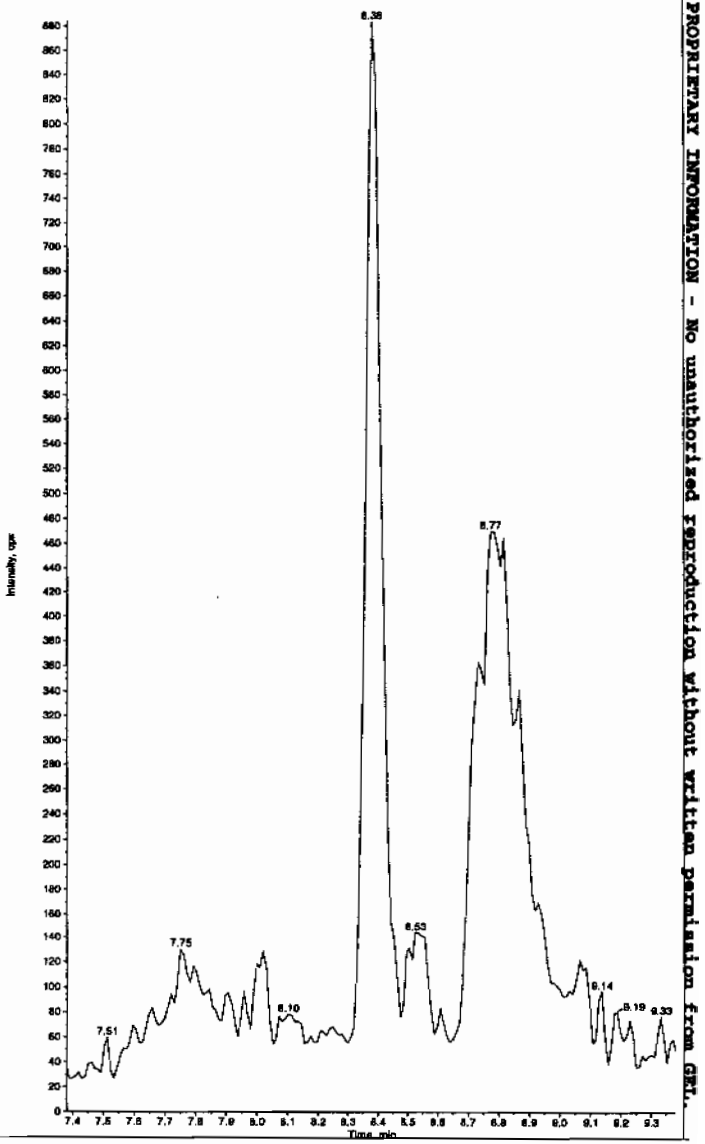

Hnk 02/17/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XiBLK01" Sample ID: "[1]LER" File: "EXS02140001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:17:17 PM

Modified: No

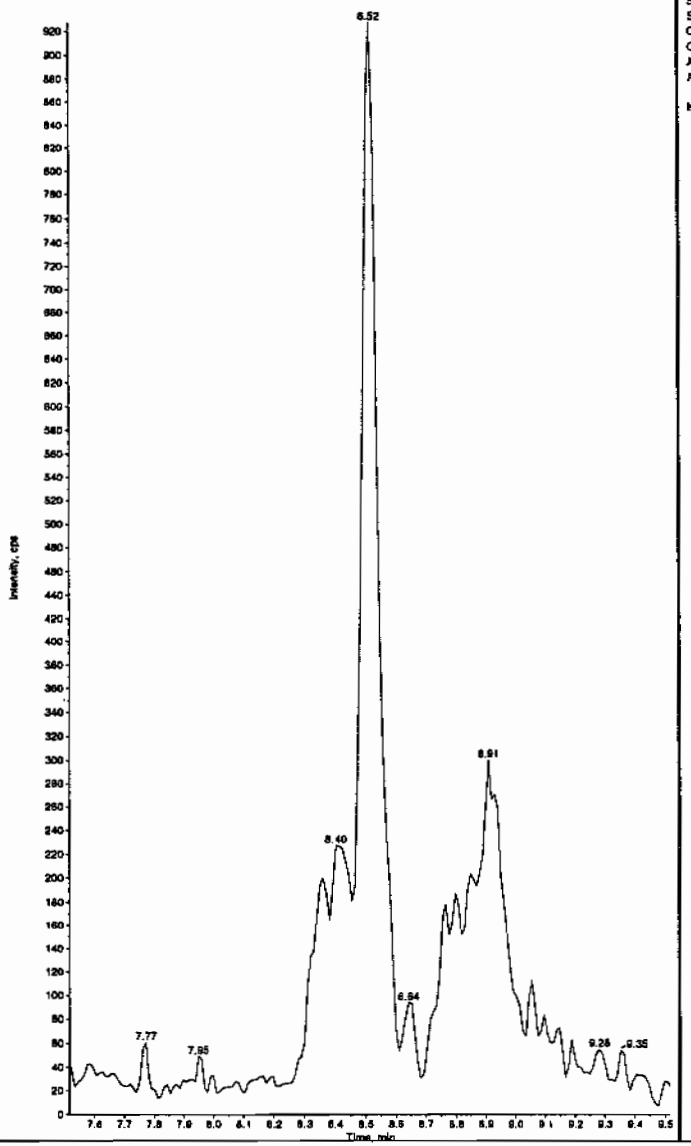

Sample Name: "XiBLK01" Sample ID: "[1]LER" File: "EXS02140001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:17:17 PM

Modified: No

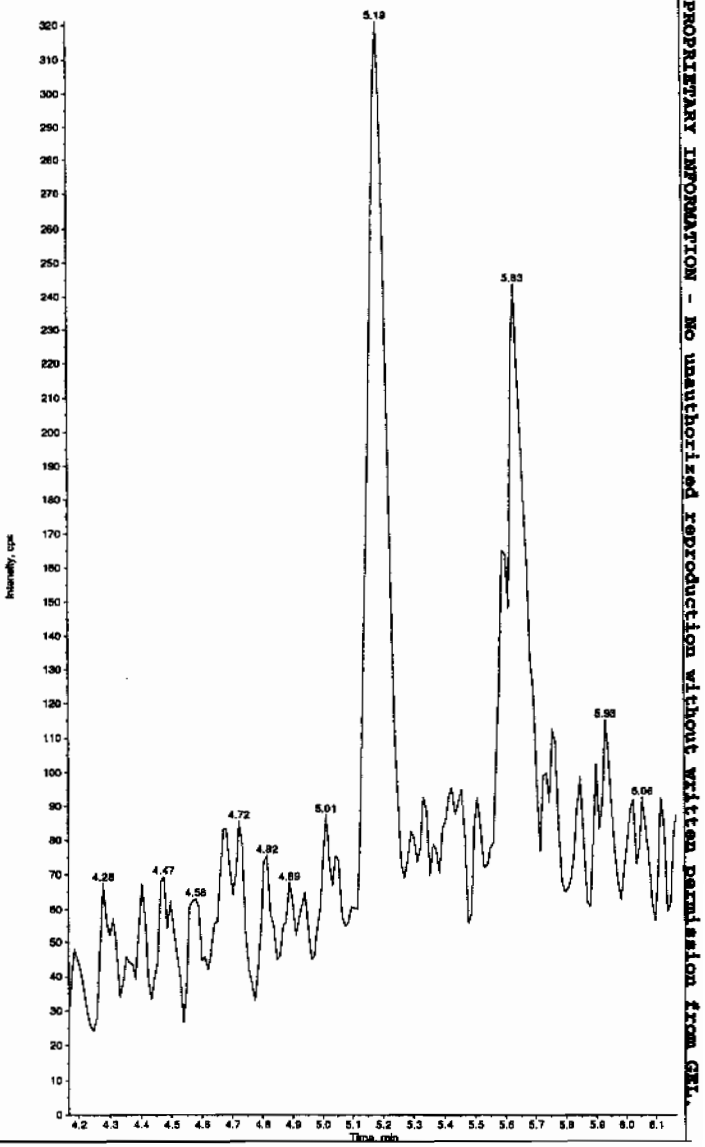

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140001.wiff"
eak Name: "24-Diamino-5-nitrotoluene" Mass(as): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/14/2010
. Time: 2:17:17 PM

ified: No

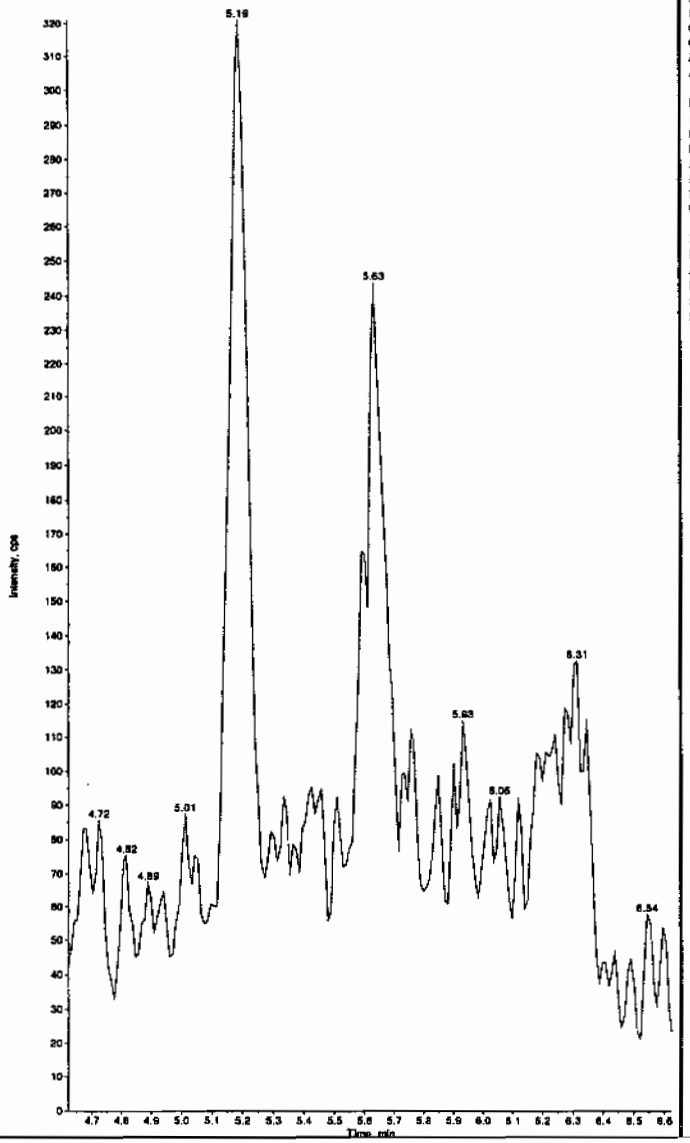

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	0.280	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	2:17:17 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	6.82e+004	counts
Height:	16205.034	cps
Start Time:	10.9	min
End Time:	11.2	min

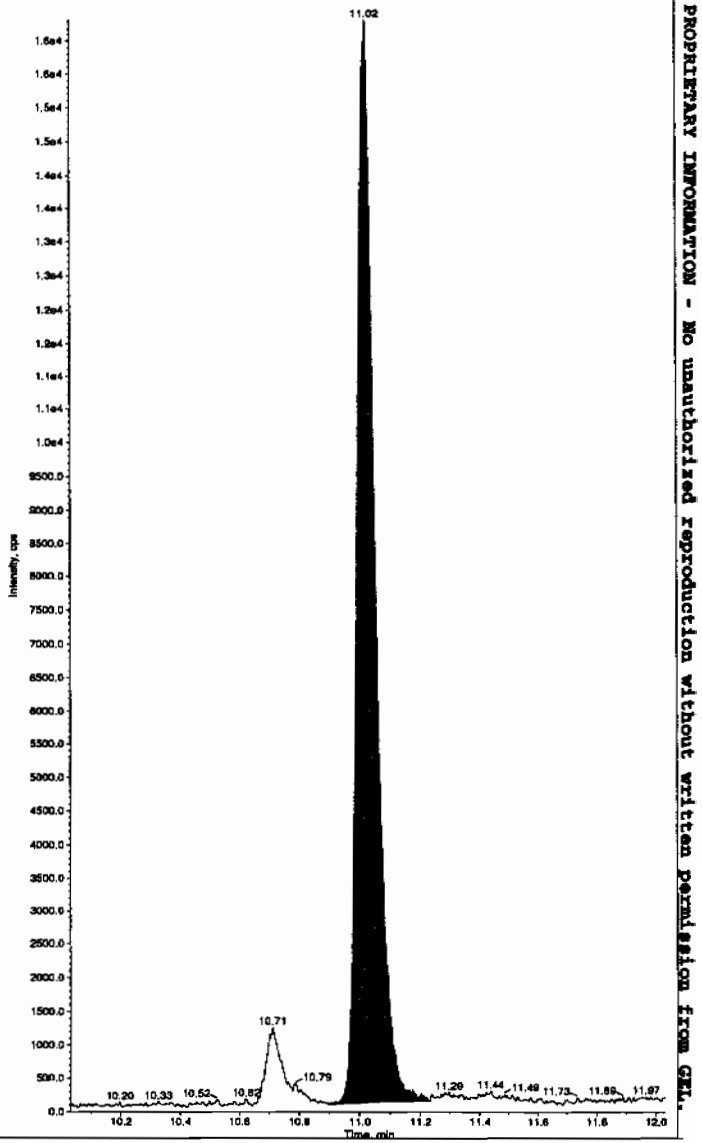

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 14–FEB–10 14:33

GEL Data File: EXS02140002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcm 2/16/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:33:05 PM
Modified: No

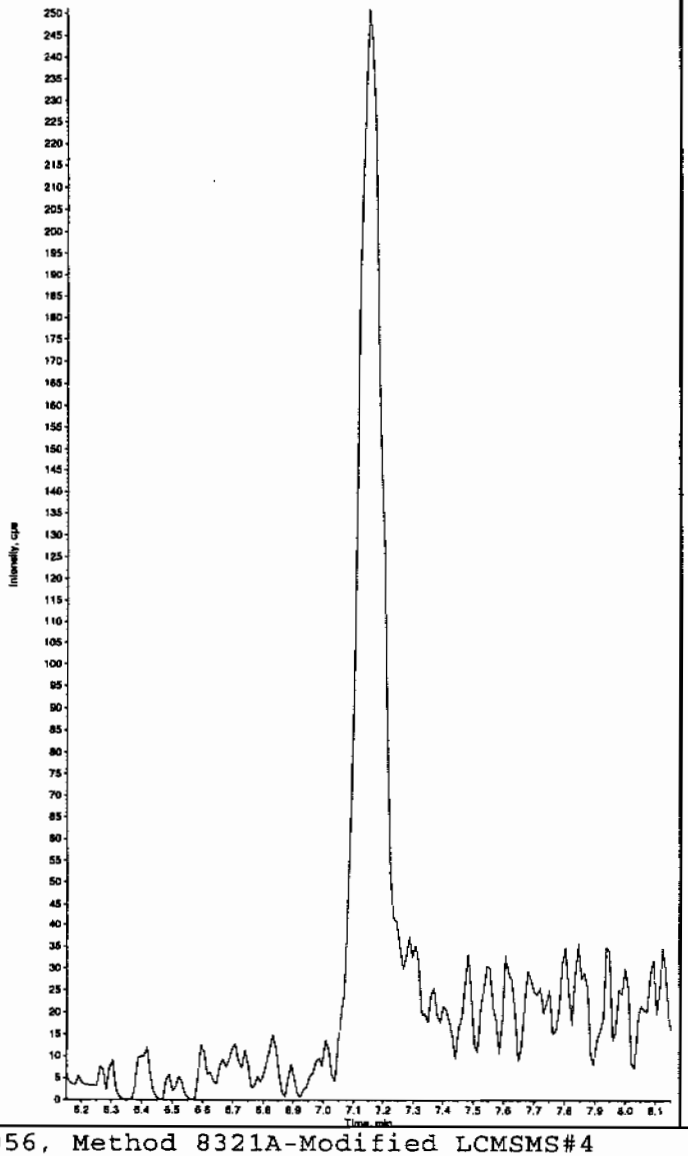

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140002.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:33:05 PM
Modified: No

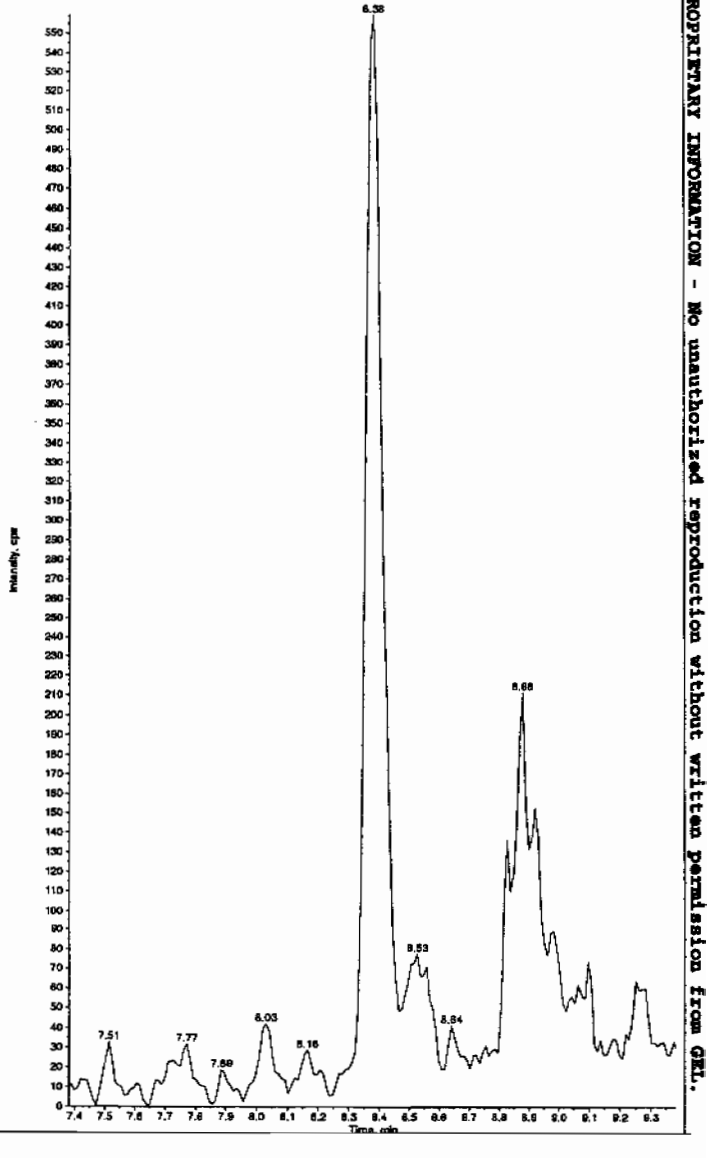

Hm 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/14/2010
q. Time: 2:33:05 PM

dified: No

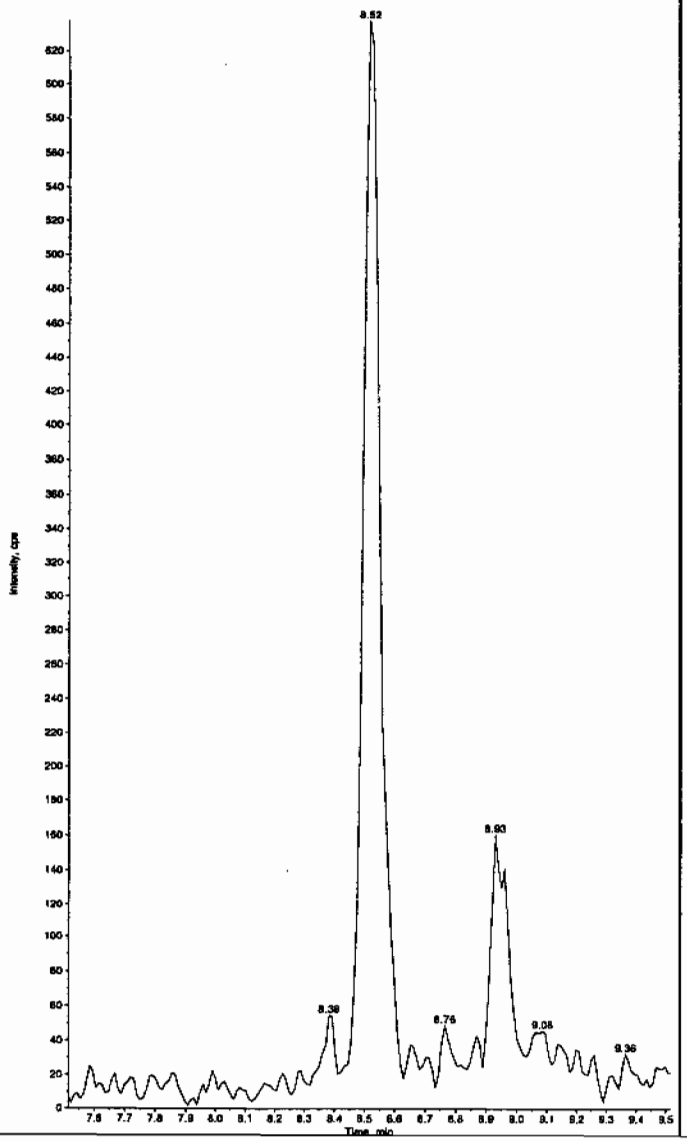

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 2:33:05 PM

Modified: No

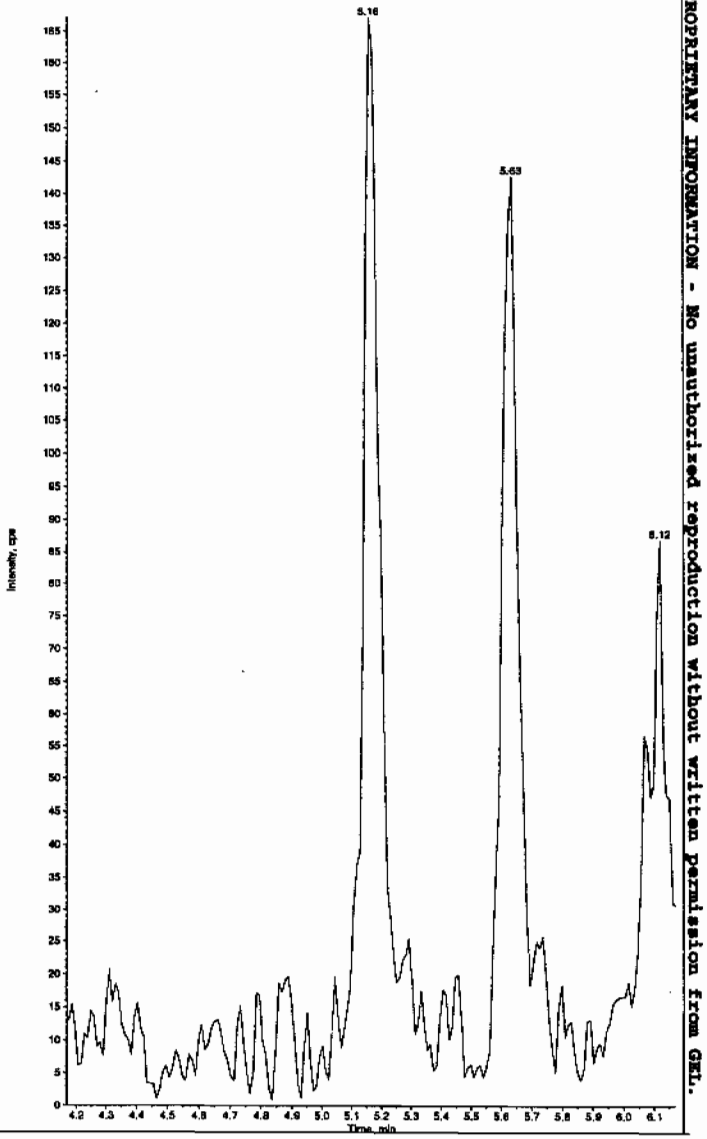

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/14/2010
cq. Time: 2:33:05 PM

odified: No

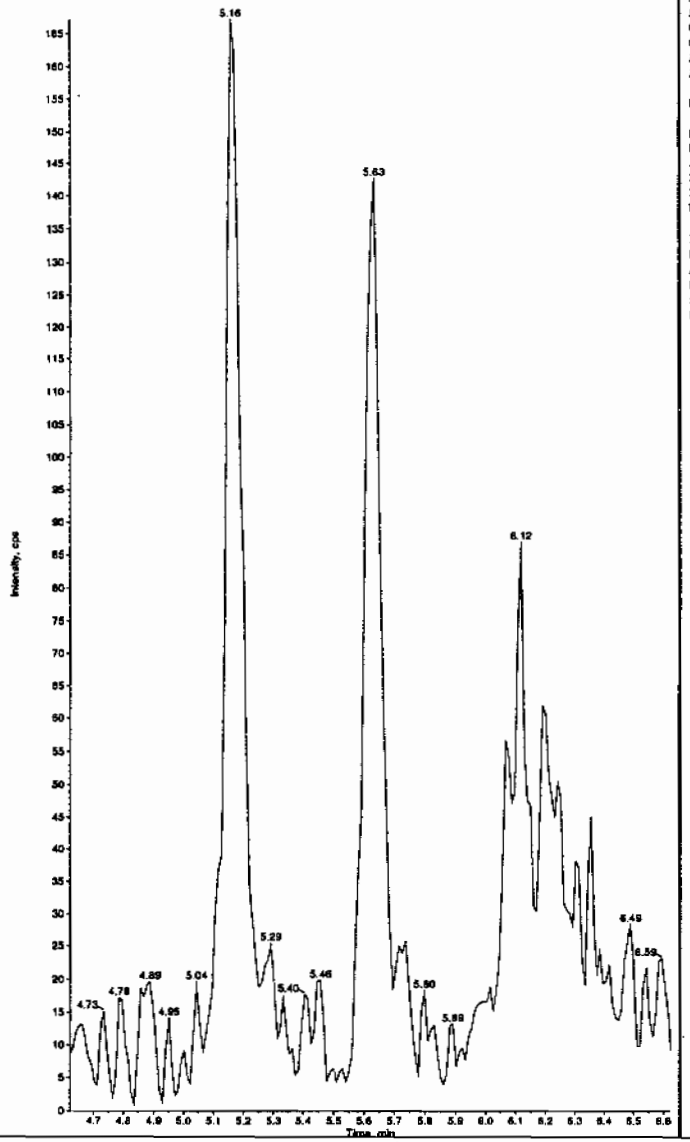

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02140002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 2/14/2010
Acq. Time: 2:33:05 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 6.15e+004 counts
Height: 14287.674 cps
Start Time: 10.9 min
End Time: 11.3 min

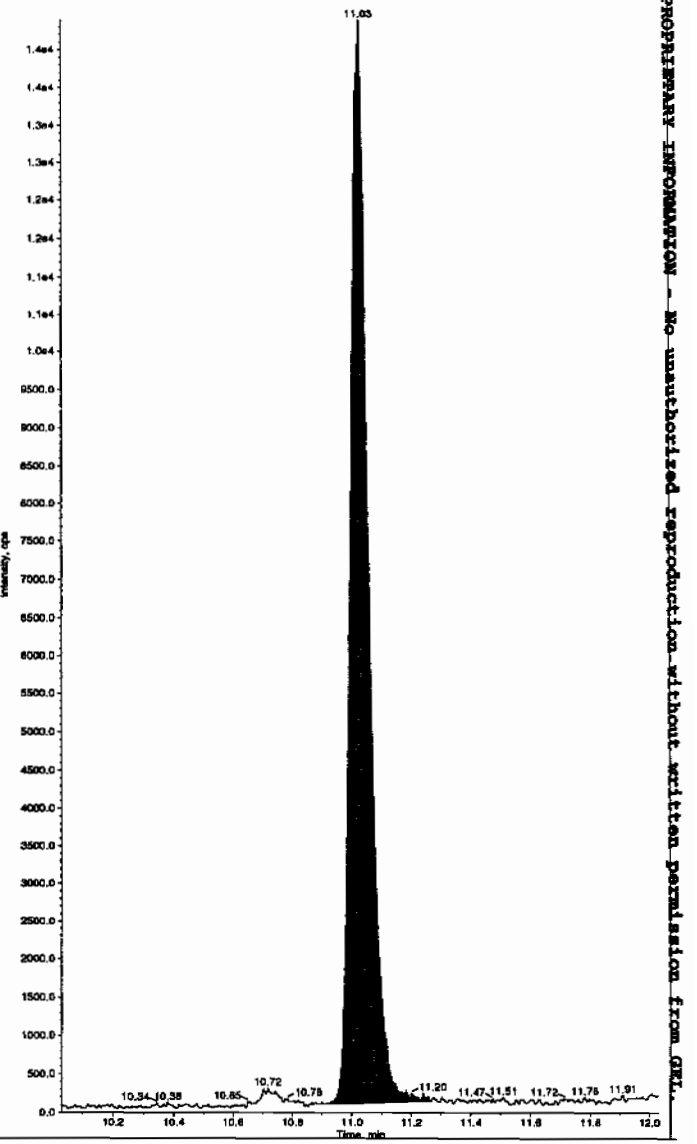

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 12:13

GEL Data File: EXS02160001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02160001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:11:08 PM

Modified: No

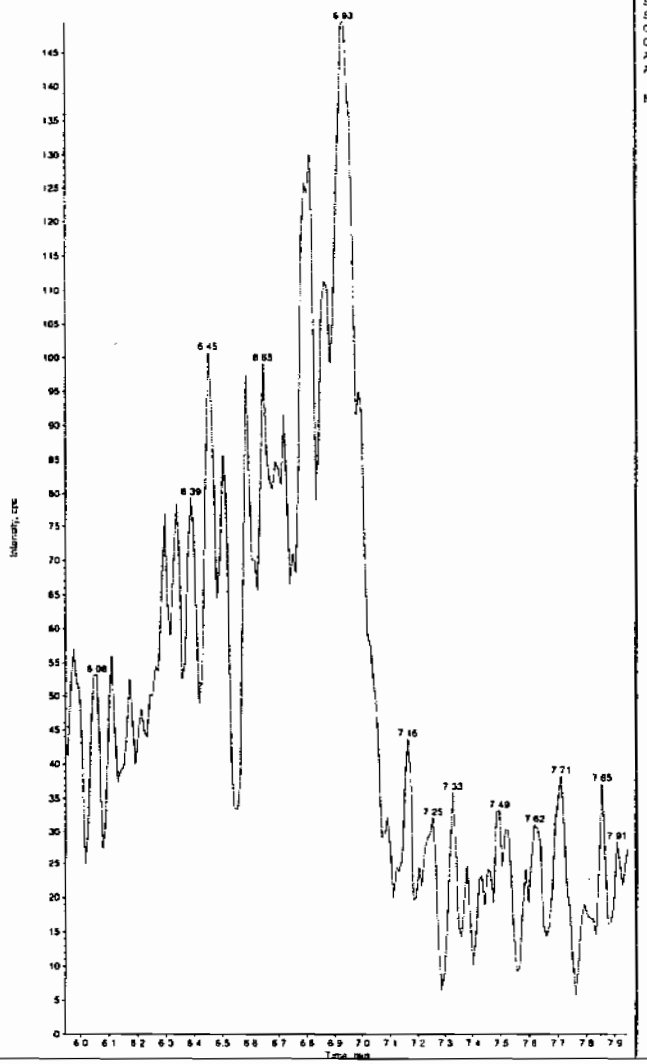

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02160001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:13:08 PM

Modified: No

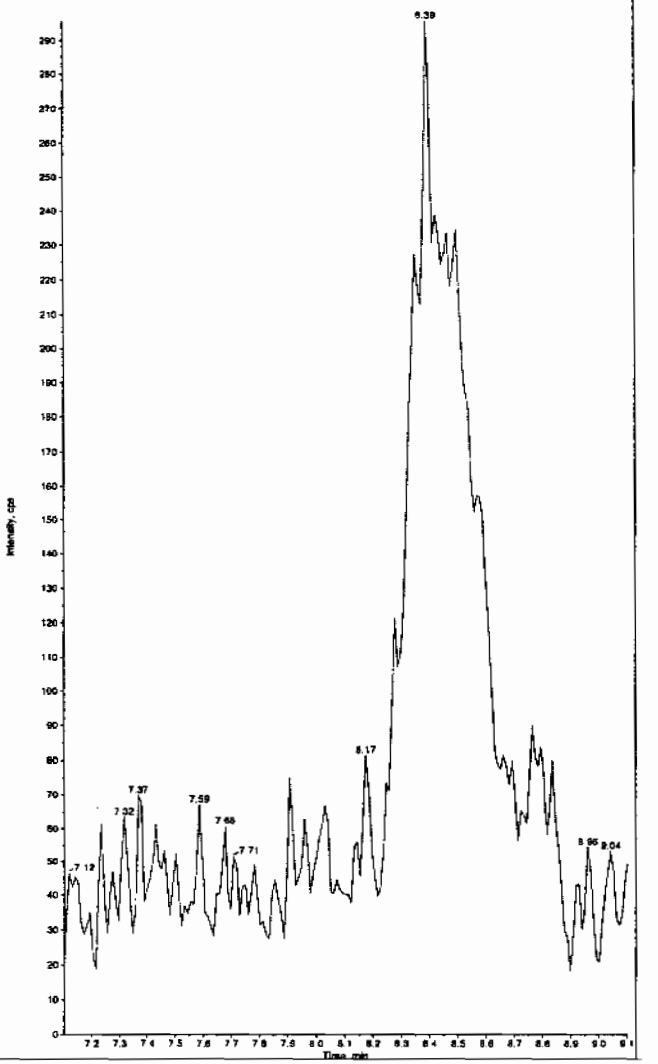

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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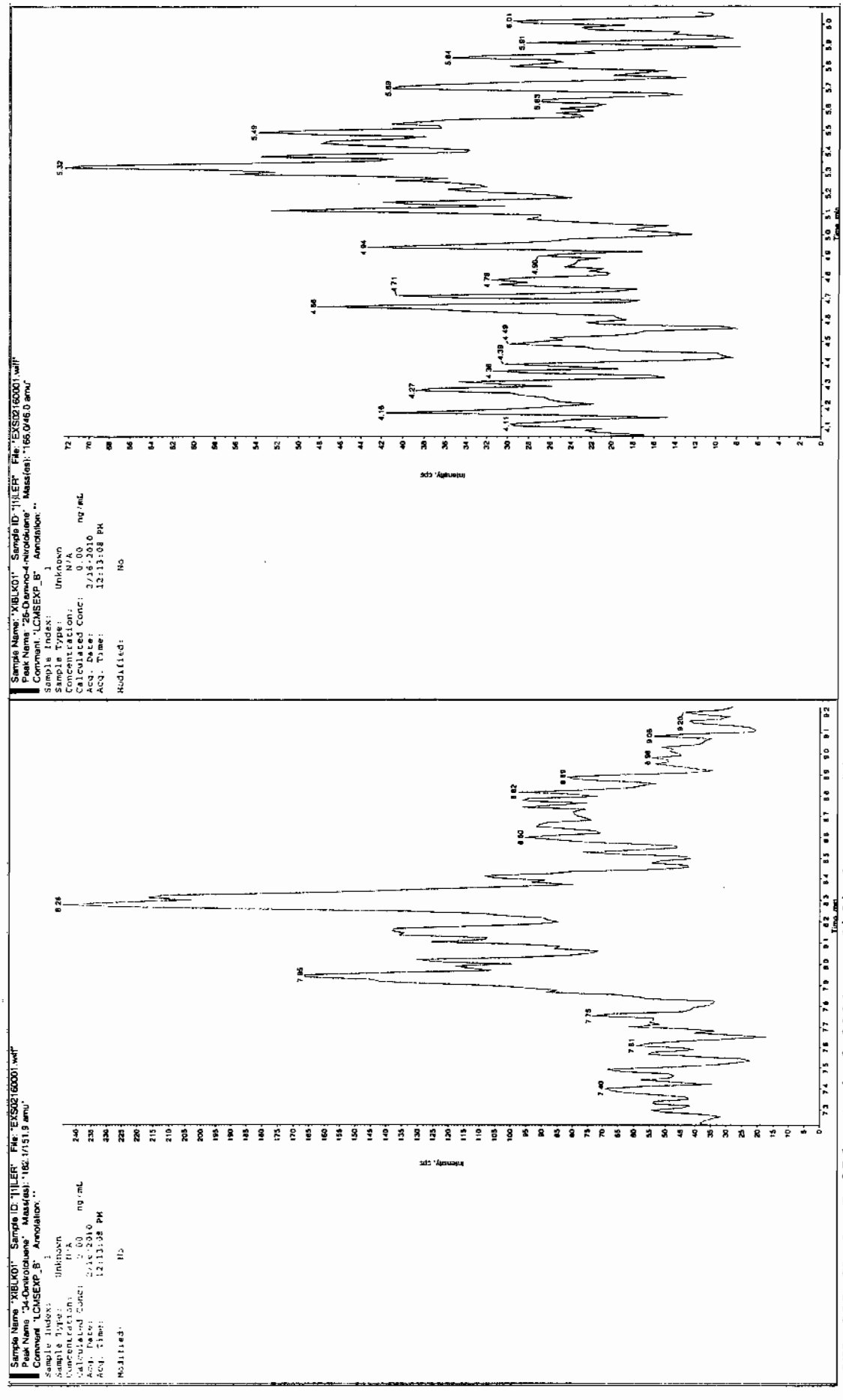

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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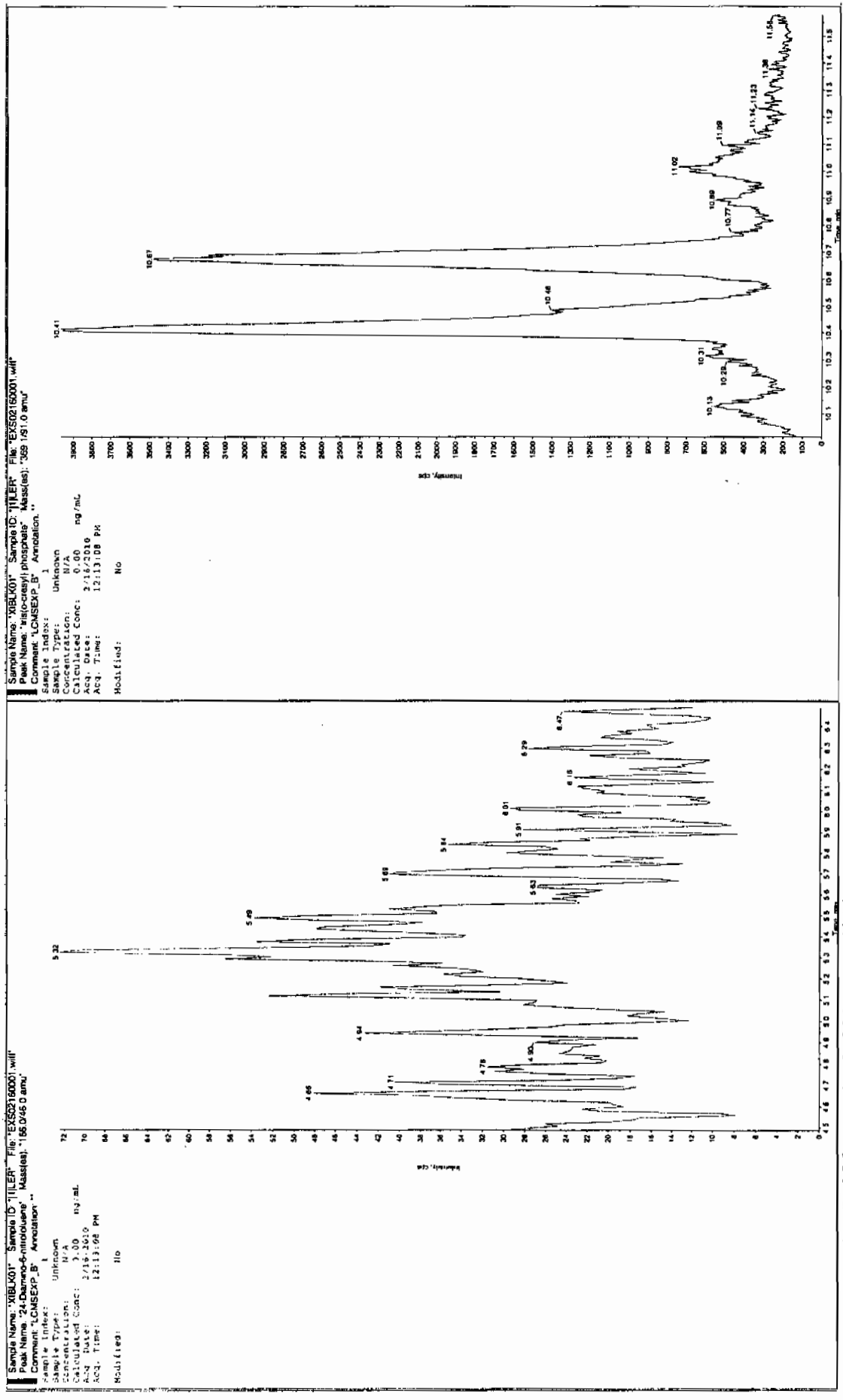

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16-FEB-10 12:29

GEL Data File: EXS02160002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Lan 2/17/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02160002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:29:00 PM

Modified: No

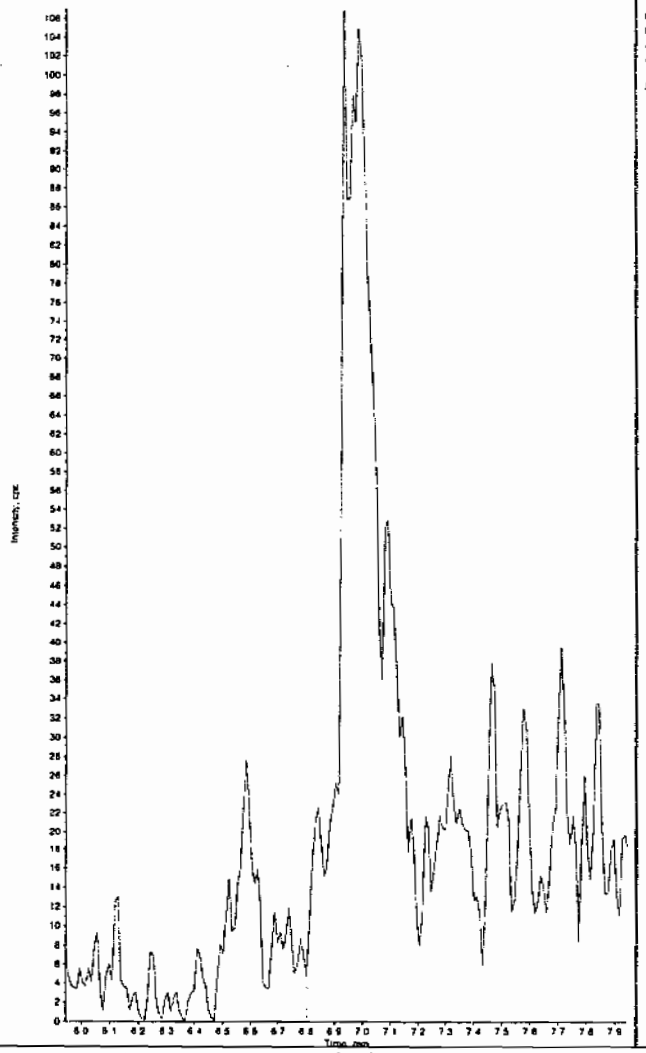

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02160002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:29:00 PM

Modified: No

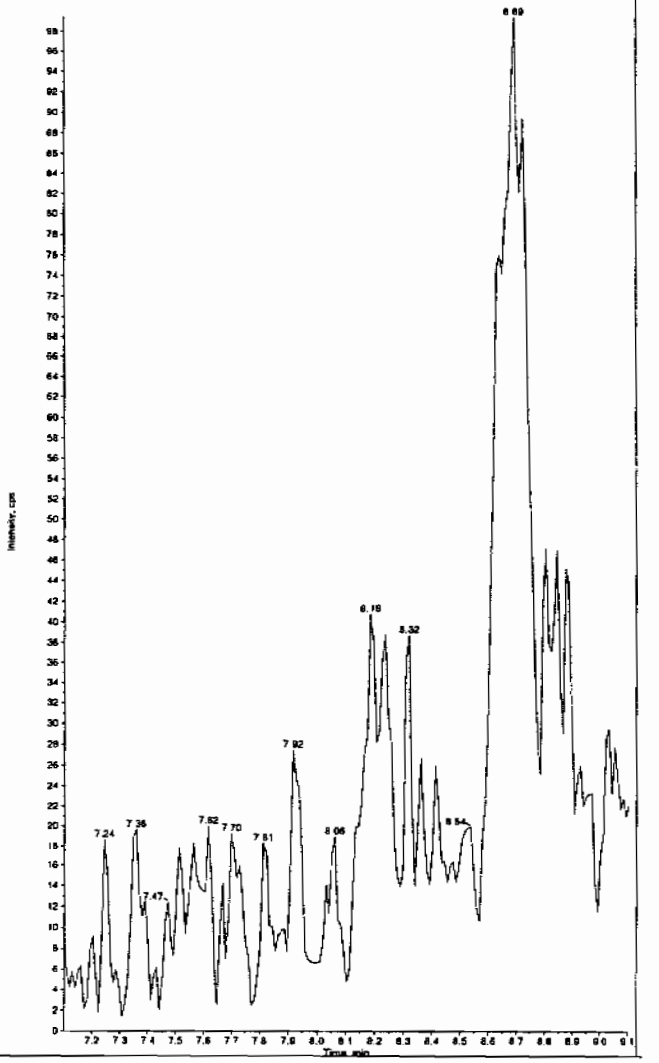

HMM 02/17/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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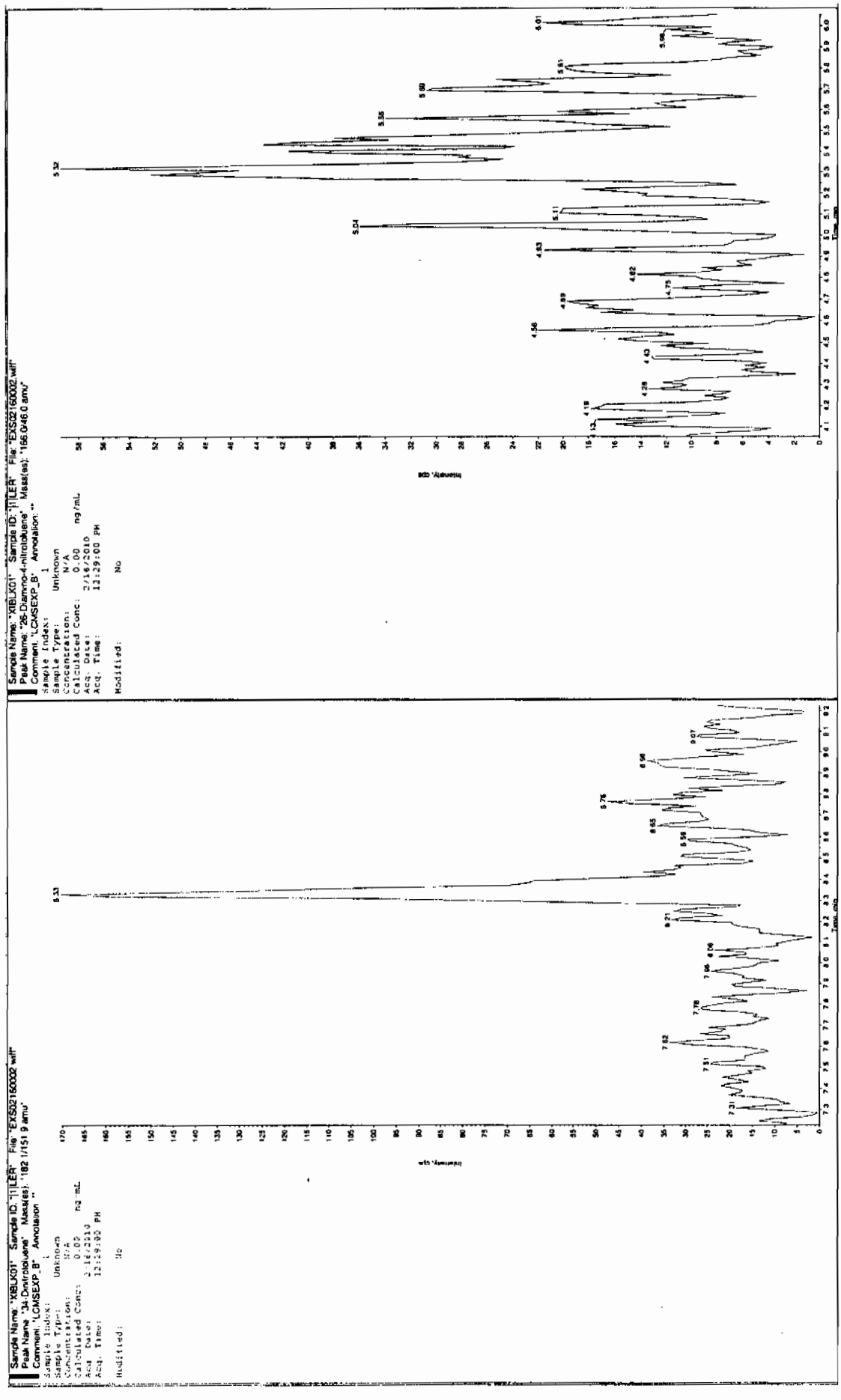

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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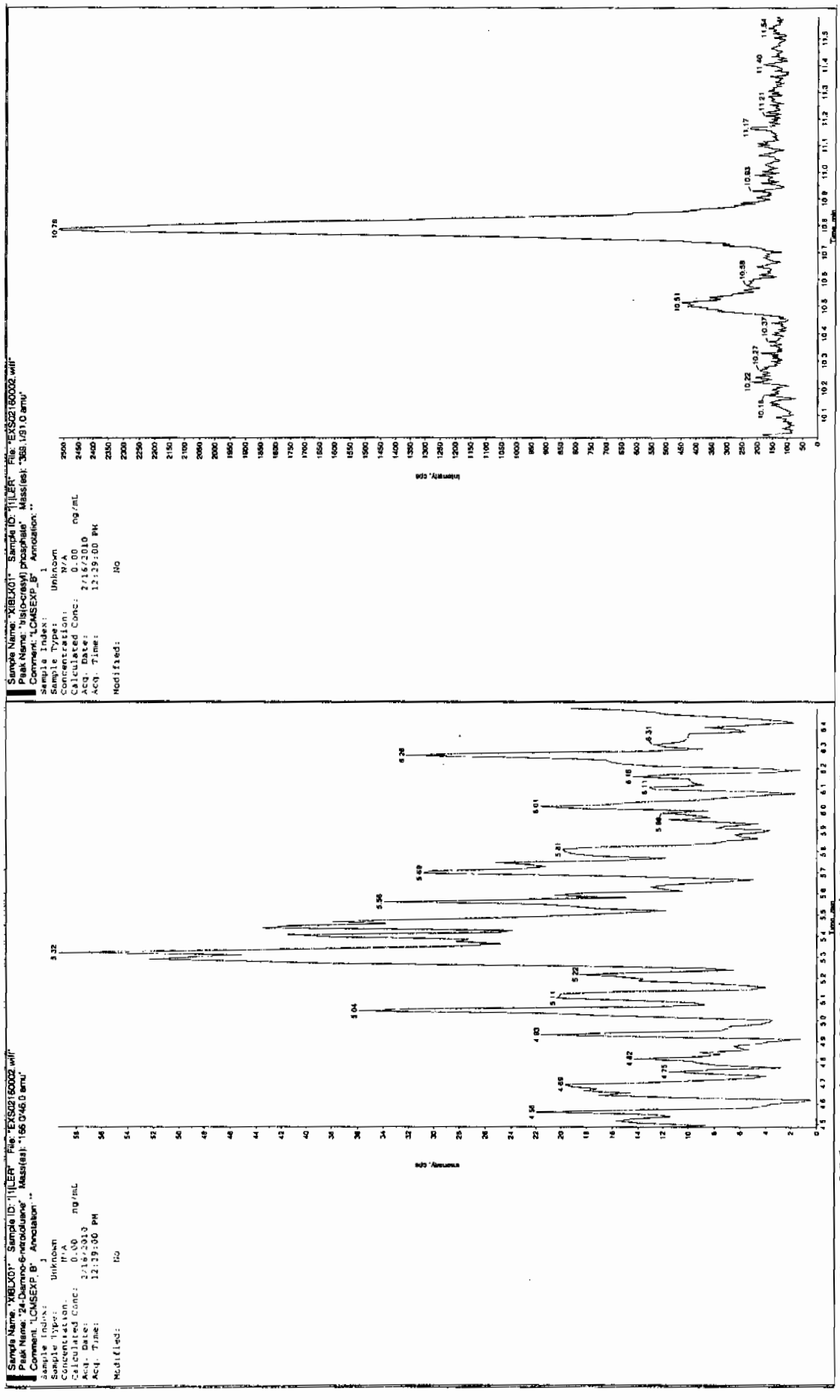

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 16-FEB-10 21:04

GEL Data File: EXP0216009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	570.463
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	494.232
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216009a
Date: 16-Feb-2010
Time: 21:04:59
ID: XIBLK02
Vial: 1:1,A

LMP 2/17/10

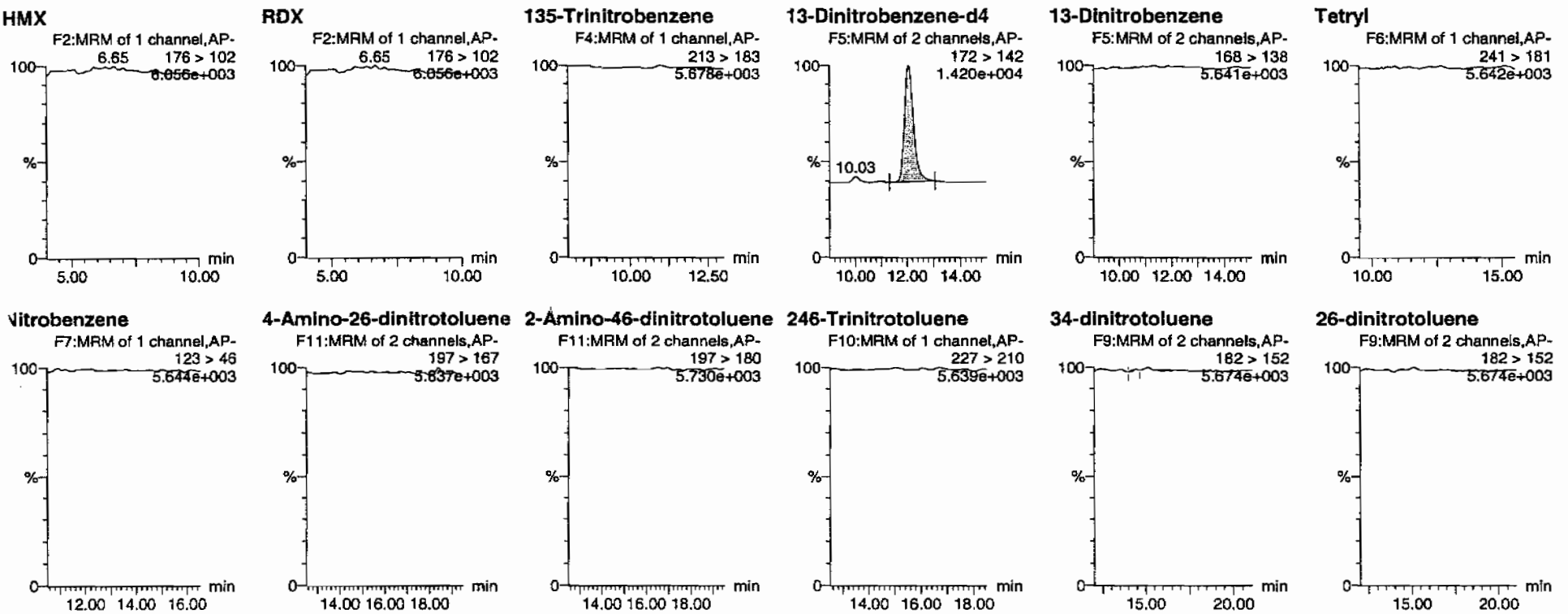

MM 02/17/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

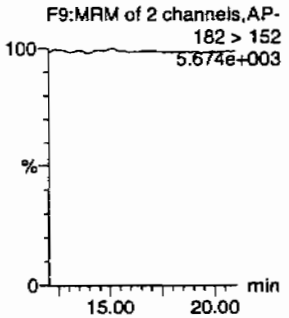

26-dinitrotoluene-d3

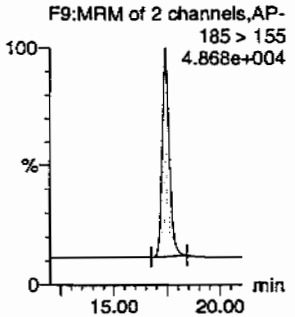

2-Nitrotoluene

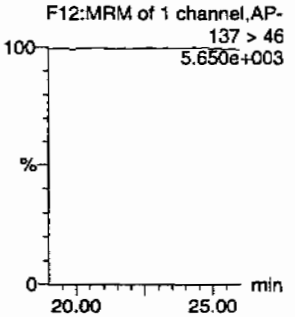

4-Nitrotoluene

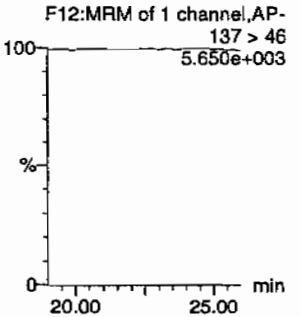

3-Nitrotoluene

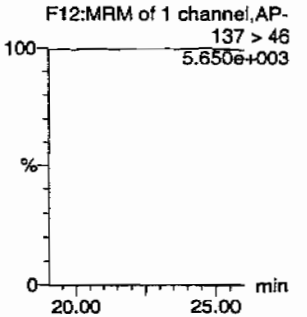

PETN

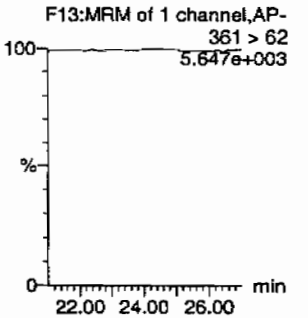

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3436.941									
XIBLK02	RDX	176 > 102			3436.941									
XIBLK02	135-Trinitrobenzene	213 > 183			3436.941									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.03	3436.941		3436.941	3436.941	bb			570.4625	114.1	14.1	178.7
XIBLK02	13-Dinitrobenzene	168 > 138			3436.941									
XIBLK02	Tetryl	241 > 181			3436.941									
XIBLK02	Nitrobenzene	123 > 46			3436.941									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			17207.732									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			17207.732									
XIBLK02	246-Trinitrotoluene	227 > 210			17207.732									
XIBLK02	34-dinitrotoluene	182 > 152			17207.732			MM-	17-Feb-10	09:24:35				
XIBLK02	26-dinitrotoluene	182 > 152			17207.732									
XIBLK02	24-dinitrotoluene	182 > 152			17207.732									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.42	17207.732		17207.732	17207.732	bb			494.2320	98.8	-1.2	2636.1
XIBLK02	2-Nitrotoluene	137 > 46			17207.732									
XIBLK02	4-Nitrotoluene	137 > 46			17207.732									
XIBLK02	3-Nitrotoluene	137 > 46			17207.732									
XIBLK02	PETN	361 > 62			17207.732									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 16-FEB-10 22:04

GEL Data File: EXP0216011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	445.165
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	575.243
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216011a
Date: 16-Feb-2010
Time: 22:04:12
ID: XIBLK03
Vial: 1:1,A

MMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.929e+003

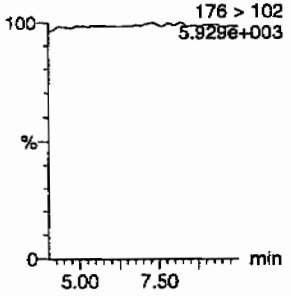

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.929e+003

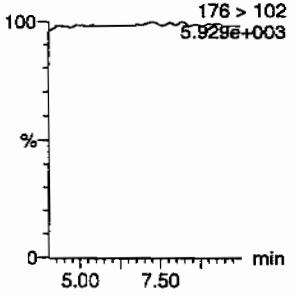

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.731e+003

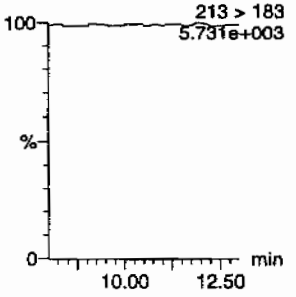

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.226e+004

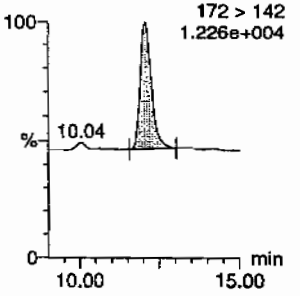

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.708e+003

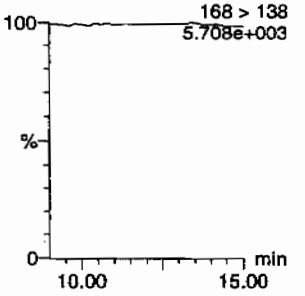

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.756e+003

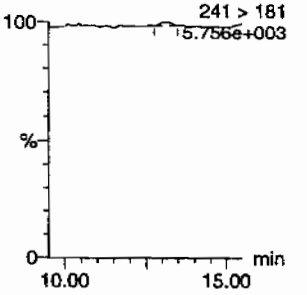

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.719e+003

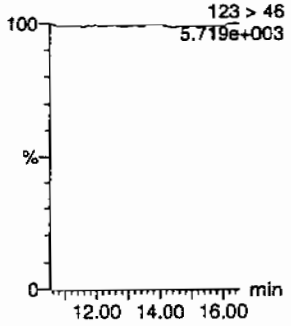

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.833e+003

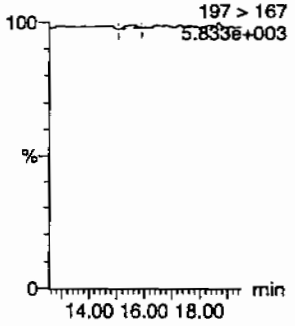

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.836e+003

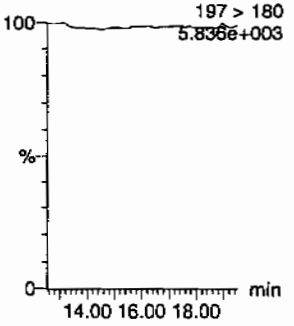

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.700e+003

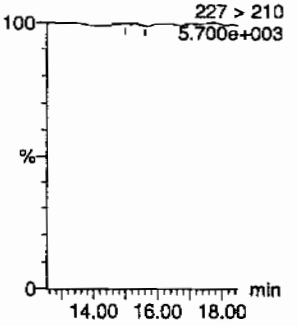

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.716e+003

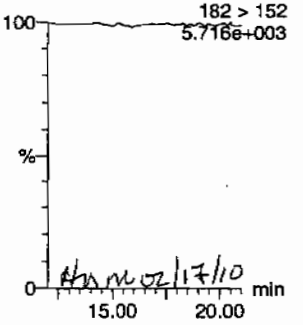

MMT 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.716e+003

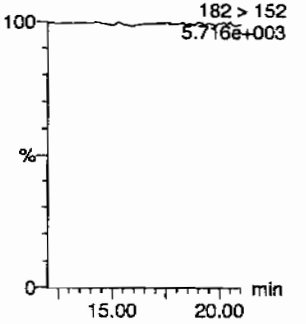

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.716e+003

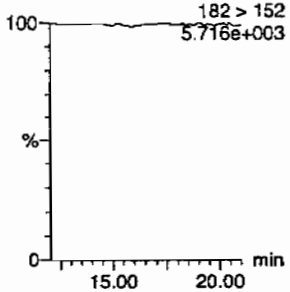

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.747e+004

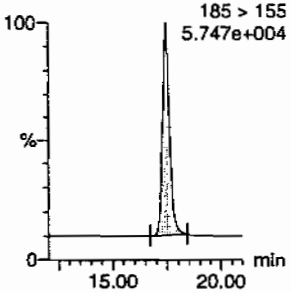

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.747e+003

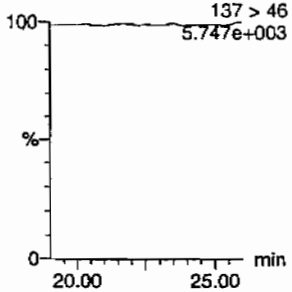

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.747e+003

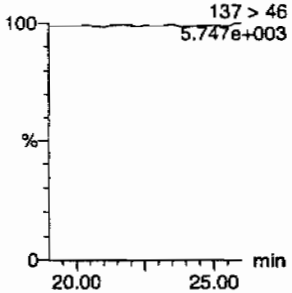

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.747e+003

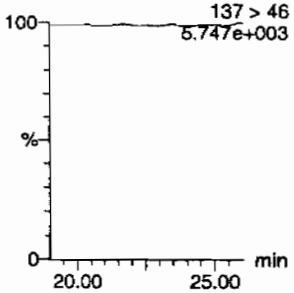

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.719e+003

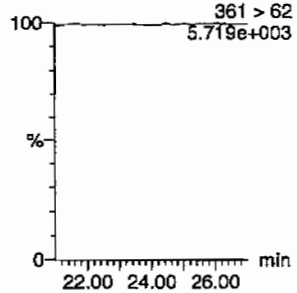

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			2682.047									
XIBLK03	RDX	176 > 102			2682.047									
XIBLK03	135-Trinitrobenzene	213 > 183			2682.047									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.06	2682.047		2682.047	2682.047	bb			445.1654	89.0	-11.0	160.3
XIBLK03	13-Dinitrobenzene	168 > 138			2682.047									
XIBLK03	Tetryl	241 > 181			2682.047			MM-	17-Feb-10	09:21:24				
XIBLK03	Nitrobenzene	123 > 46			2682.047									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			20028.289			MM-	17-Feb-10	09:22:49				
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			20028.289									
XIBLK03	246-Trinitrotoluene	227 > 210			20028.289			MM-	17-Feb-10	09:24:30				
XIBLK03	34-dinitrotoluene	182 > 152			20028.289									
XIBLK03	26-dinitrotoluene	182 > 152			20028.289									
XIBLK03	24-dinitrotoluene	182 > 152			20028.289									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.43	20028.289		20028.289	20028.289	bb			575.2427	115.0	15.0	1997.4
XIBLK03	2-Nitrotoluene	137 > 46			20028.289									
XIBLK03	4-Nitrotoluene	137 > 46			20028.289									
XIBLK03	3-Nitrotoluene	137 > 46			20028.289									
XIBLK03	PETN	361 > 62			20028.289									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 17-FEB-10 03:30

GEL Data File: EXP0216022a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	470.843
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.456

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216022a
Date: 17-Feb-2010
Time: 03:30:28
ID: XIBLK04
Vial: 1:1,A

MMP 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.695e+003

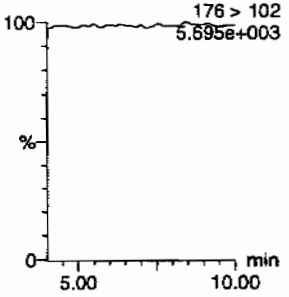

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.695e+003

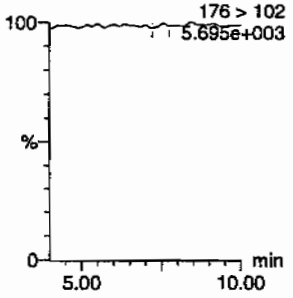

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.555e+003

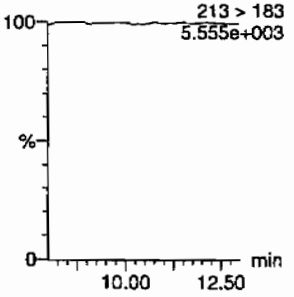

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.247e+004

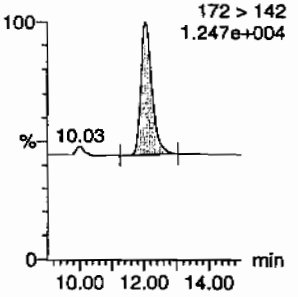

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.594e+003

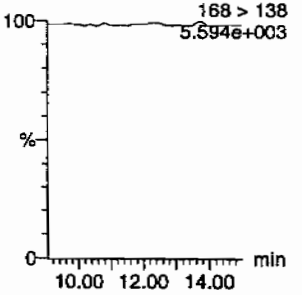

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.571e+003

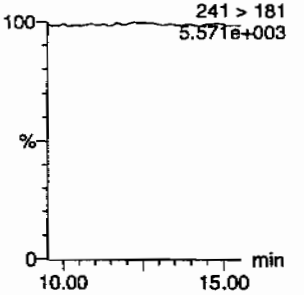

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.538e+003

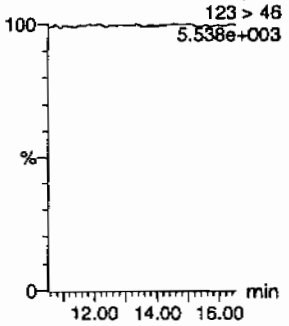

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.644e+003

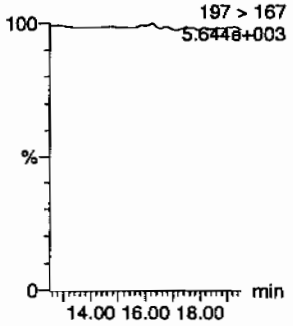

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.633e+003

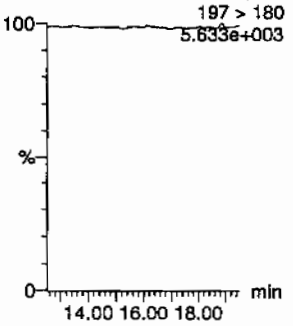

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.551e+003

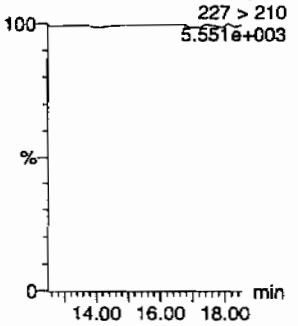

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.566e+003

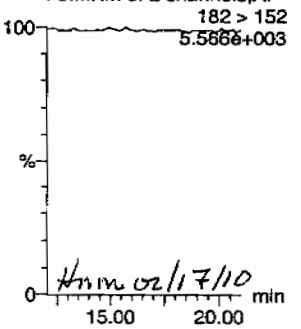

HMM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.566e+003

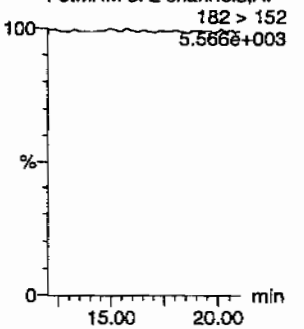

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

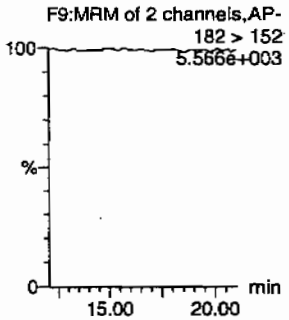

26-dinitrotoluene-d3

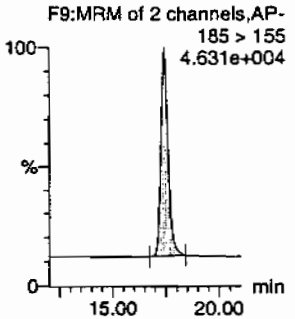

2-Nitrotoluene

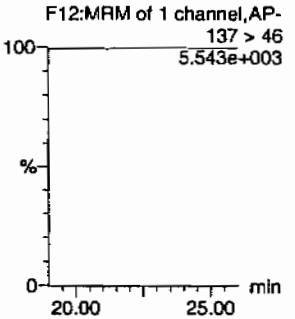

4-Nitrotoluene

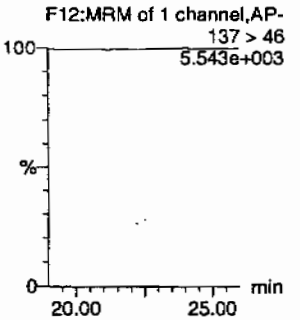

3-Nitrotoluene

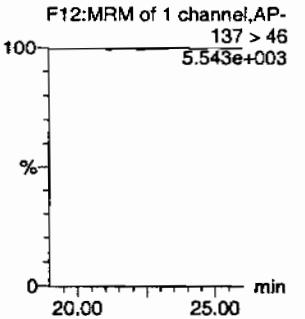

PETN

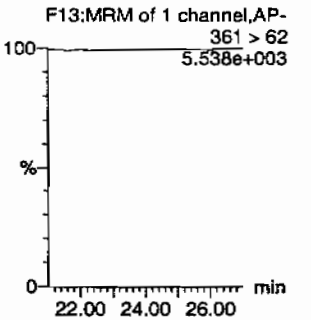

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			2836.752									
XIBLK04	RDX	176 > 102			2836.752			MM-	17-Feb-10	09:20:42				
XIBLK04	135-Trinitrobenzene	213 > 183			2836.752									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.07	2836.752		2836.752	2836.752	bb			470.8433	94.2	-5.8	187.3
XIBLK04	13-Dinitrobenzene	168 > 138			2836.752									
XIBLK04	Tetryl	241 > 181			2836.752									
XIBLK04	Nitrobenzene	123 > 46			2836.752									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			16310.284									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			16310.284									
XIBLK04	246-Trinitrotoluene	227 > 210			16310.284									
XIBLK04	34-dinitrotoluene	182 > 152			16310.284									
XIBLK04	26-dinitrotoluene	182 > 152			16310.284									
XIBLK04	24-dinitrotoluene	182 > 152			16310.284									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.44	16310.284		16310.284	16310.284	bb			468.4560	93.7	-6.3	1281.5
XIBLK04	2-Nitrotoluene	137 > 46			16310.284									
XIBLK04	4-Nitrotoluene	137 > 46			16310.284									
XIBLK04	3-Nitrotoluene	137 > 46			16310.284									
XIBLK04	PETN	361 > 62			16310.284									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 17-FEB-10 06:28

GEL Data File: EXP0216028a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	443.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	440.83
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216028a
Date: 17-Feb-2010
Time: 06:28:06
ID: XIBLK05
Vial: 1:1,A

MATT 2/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.774e+003

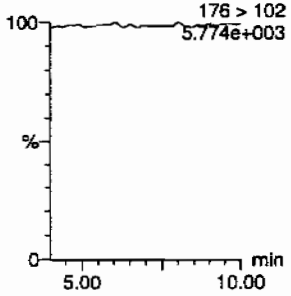

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.774e+003

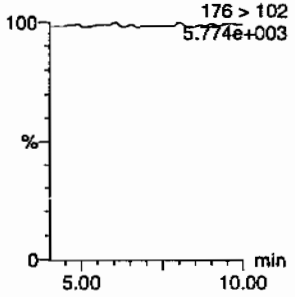

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.638e+003

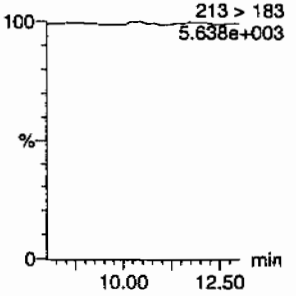

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.231e+004

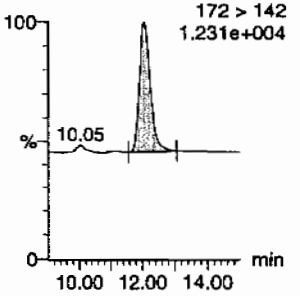

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.607e+003

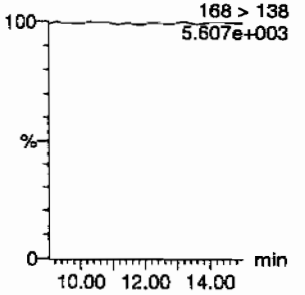

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.623e+003

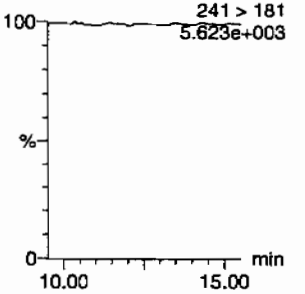

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.619e+003

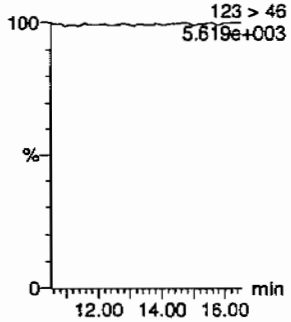

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.715e+003

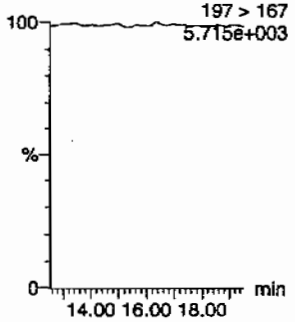

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.688e+003

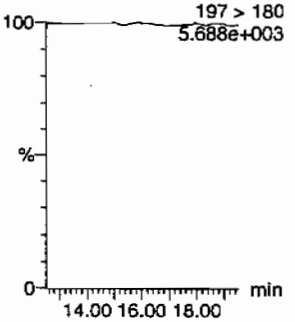

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.630e+003

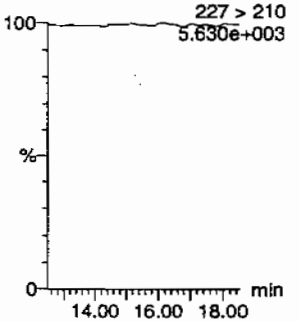

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.642e+003

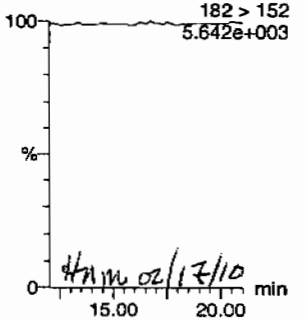

HMM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.642e+003

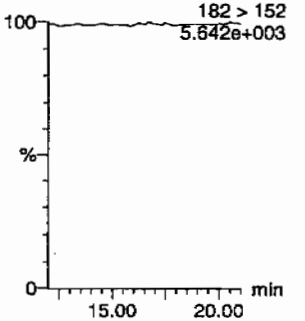

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

24-dinitrotoluene

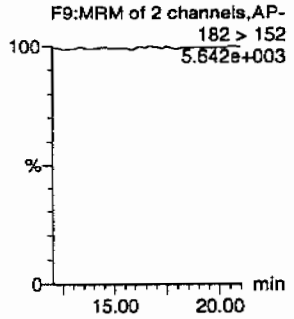

26-dinitrotoluene-d3

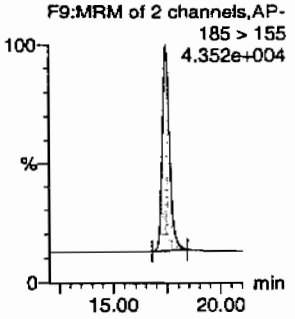

2-Nitrotoluene

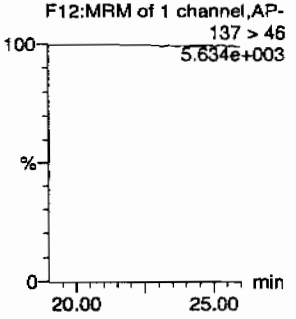

4-Nitrotoluene

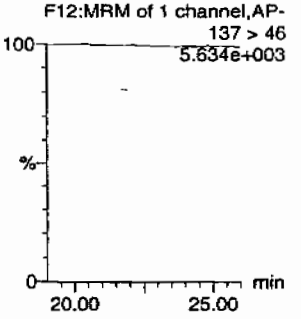

3-Nitrotoluene

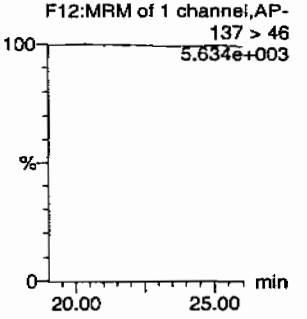

PETN

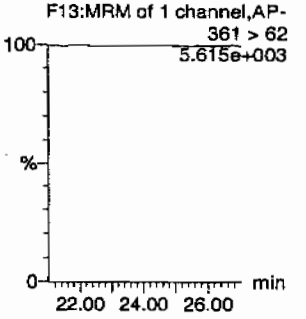

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			2670.289									
XIBLK05	RDX	176 > 102			2670.289									
XIBLK05	135-Trinitrobenzene	213 > 183			2670.289									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.07	2670.289		2670.289	2670.289	bb			443.2139	88.6	-11.4	203.6
XIBLK05	13-Dinitrobenzene	168 > 138			2670.289									
XIBLK05	Tetryl	241 > 181			2670.289									
XIBLK05	Nitrobenzene	123 > 46			2670.289									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			15348.437									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			15348.437									
XIBLK05	246-Trinitrotoluene	227 > 210			15348.437									
XIBLK05	34-dinitrotoluene	182 > 152			15348.437									
XIBLK05	26-dinitrotoluene	182 > 152			15348.437									
XIBLK05	24-dinitrotoluene	182 > 152			15348.437									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.44	15348.437		15348.437	15348.437	bb			440.8303	88.2	-11.8	1328.0
XIBLK05	2-Nitrotoluene	137 > 46			15348.437									
XIBLK05	4-Nitrotoluene	137 > 46			15348.437									
XIBLK05	3-Nitrotoluene	137 > 46			15348.437									
XIBLK05	PETN	361 > 62			15348.437									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 17-FEB-10 12:24

GEL Data File: EXP0216040a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	431.007
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	413.713
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216040a
Date: 17-Feb-2010
Time: 12:24:42
ID: XIBLK06
Vial: 1:1,A

MMP 2/18/10

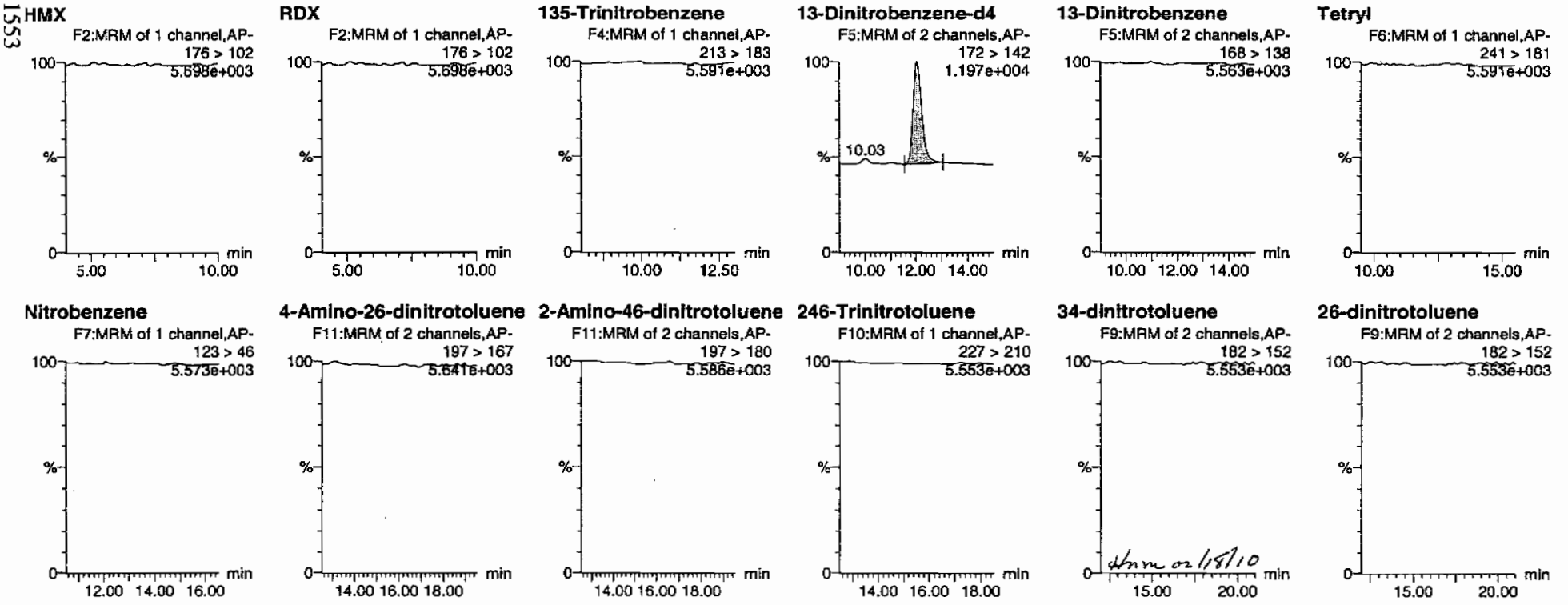

HMM 02/18/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

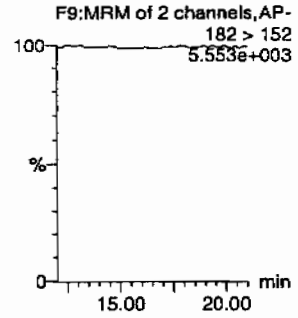

26-dinitrotoluene-d3

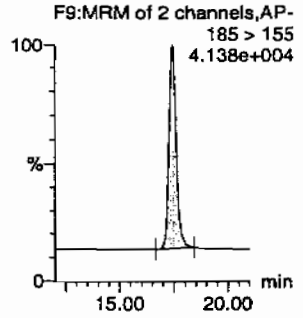

2-Nitrotoluene

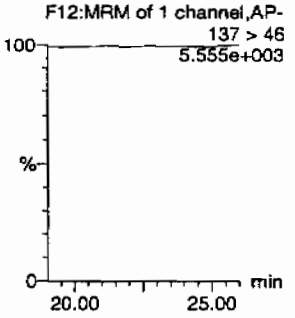

4-Nitrotoluene

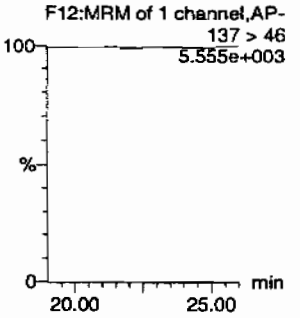

3-Nitrotoluene

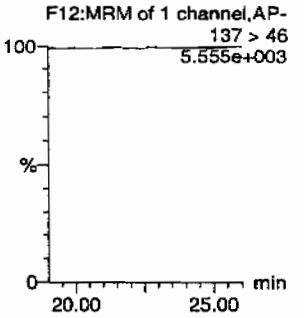

PETN

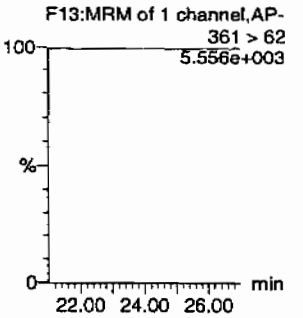

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			2596.742									
XIBLK06	RDX	176 > 102			2596.742									
XIBLK06	135-Trinitrobenzene	213 > 183			2596.742									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.03	2596.742		2596.742	2596.742	bb			431.0065	86.2	-13.8	277.6
XIBLK06	13-Dinitrobenzene	168 > 138			2596.742									
XIBLK06	Tetryl	241 > 181			2596.742									
XIBLK06	Nitrobenzene	123 > 46			2596.742									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			14404.283									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			14404.283									
XIBLK06	246-Trinitrotoluene	227 > 210			14404.283									
XIBLK06	34-dinitrotoluene	182 > 152			14404.283									
XIBLK06	26-dinitrotoluene	182 > 152			14404.283									
XIBLK06	24-dinitrotoluene	182 > 152			14404.283									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.44	14404.283		14404.283	14404.283	bb			413.7128	82.7	-17.3	1514.9
XIBLK06	2-Nitrotoluene	137 > 46			14404.283									
XIBLK06	4-Nitrotoluene	137 > 46			14404.283									
XIBLK06	3-Nitrotoluene	137 > 46			14404.283									
XIBLK06	PETN	361 > 62			14404.283									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 17–FEB–10 18:50

GEL Data File: EXP0216053a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	517.203
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	500.527
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216053a
Date: 17-Feb-2010
Time: 18:50:03
ID: XIBLK07
Vial: 1:1,A

MM 2/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.667e+003

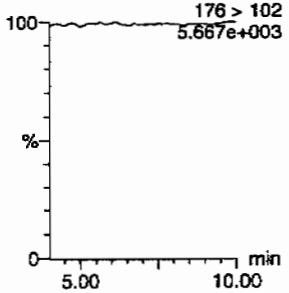

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.667e+003

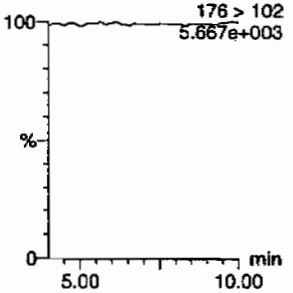

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.582e+003

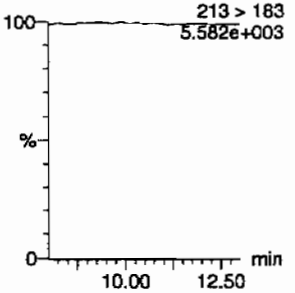

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.296e+004

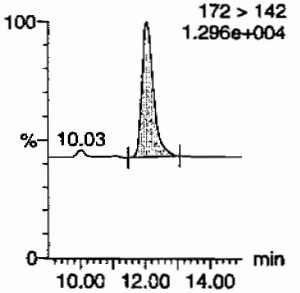

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.566e+003

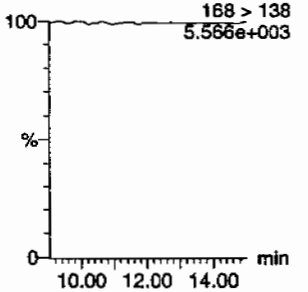

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.574e+003

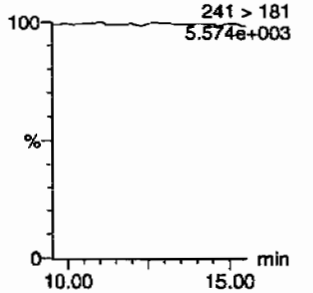

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.569e+003

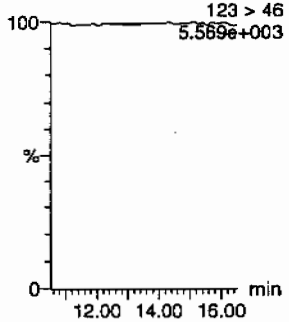

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.629e+003

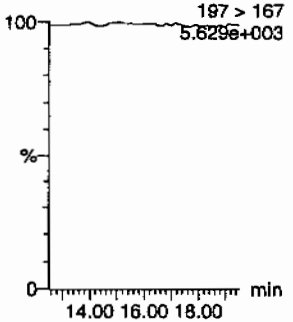

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.615e+003

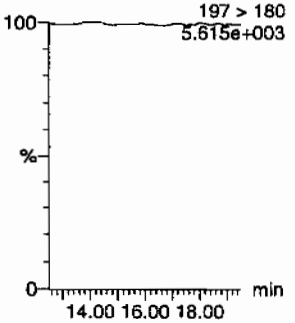

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.567e+003

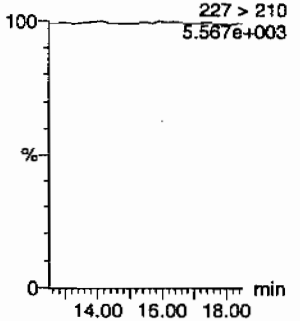

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

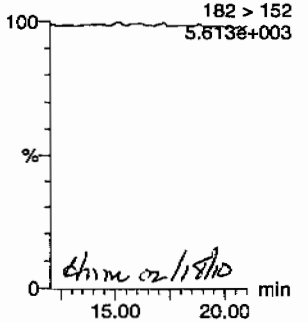

dhm 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

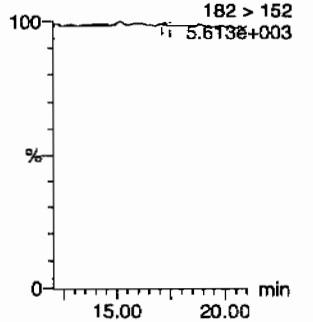

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

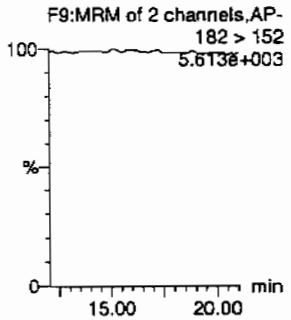

26-dinitrotoluene-d3

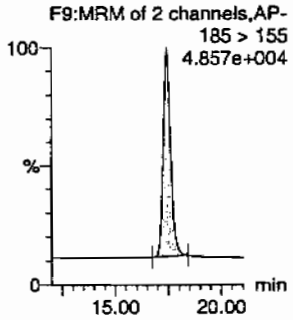

2-Nitrotoluene

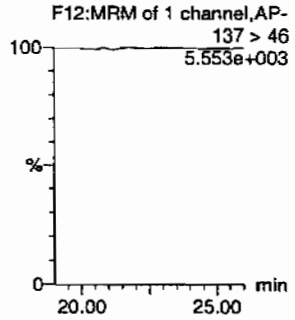

4-Nitrotoluene

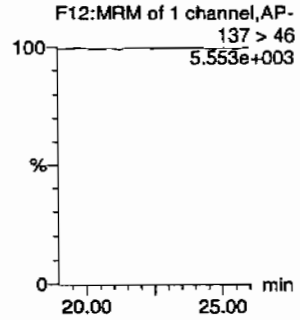

3-Nitrotoluene

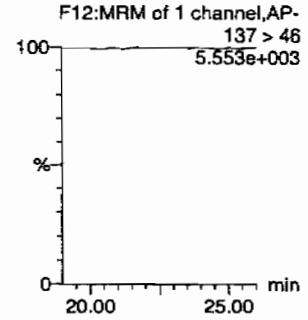

PETN

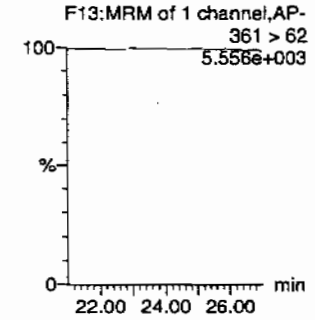

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3116.063									
XIBLK07	RDX	176 > 102			3116.063									
XIBLK07	135-Trinitrobenzene	213 > 183			3116.063									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.03	3116.063		3116.063	3116.063	bb			517.2033	103.4	3.4	364.9
XIBLK07	13-Dinitrobenzene	168 > 138			3116.063									
XIBLK07	Tetryl	241 > 181			3116.063									
XIBLK07	Nitrobenzene	123 > 46			3116.063									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			17426.895									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			17426.895									
XIBLK07	246-Trinitrotoluene	227 > 210			17426.895									
XIBLK07	34-dinitrotoluene	182 > 152			17426.895									
XIBLK07	26-dinitrotoluene	182 > 152			17426.895			MM-	18-Feb-10	08:48:46				
XIBLK07	24-dinitrotoluene	182 > 152			17426.895									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.42	17426.895		17426.895	17426.895	bb			500.5267	100.1	0.1	1075.7
XIBLK07	2-Nitrotoluene	137 > 46			17426.895									
XIBLK07	4-Nitrotoluene	137 > 46			17426.895									
XIBLK07	3-Nitrotoluene	137 > 46			17426.895									
XIBLK07	PETN	361 > 62			17426.895									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 18-FEB-10 01:14

GEL Data File: EXP0216066a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.508
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	477.827
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216066a
Date: 18-Feb-2010
Time: 01:14:55
ID: XIBLK08
Vial: 1:1,A

MM 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

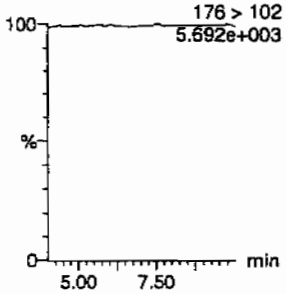

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.692e+003

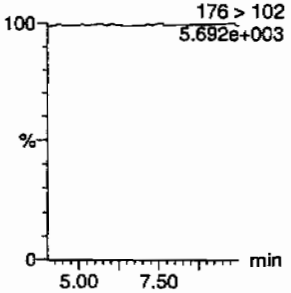

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.674e+003

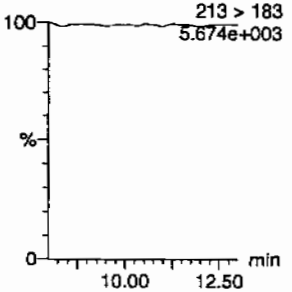

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.398e+004

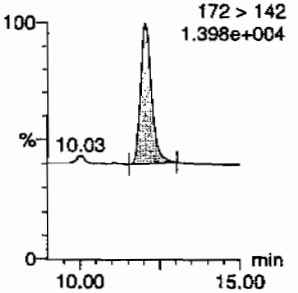

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.652e+003

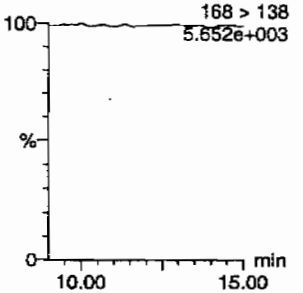

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.636e+003

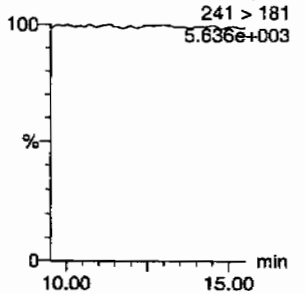

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.659e+003

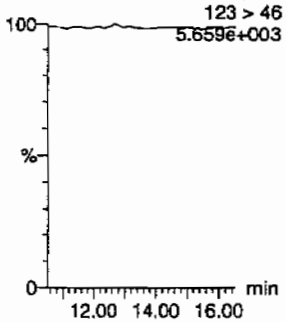

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
16.70 197 > 167
5.759e+003

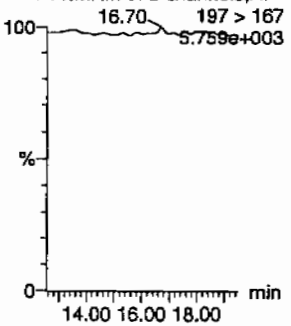

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.677e+003

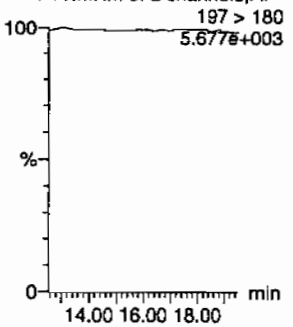

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.610e+003

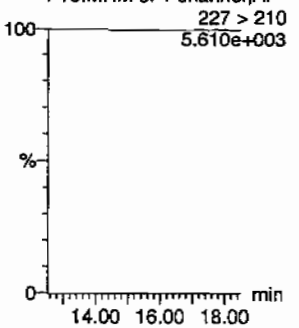

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.646e+003

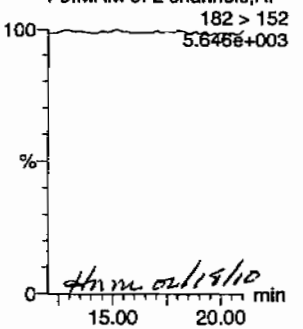

HM 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.646e+003

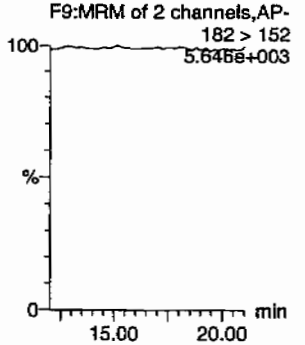

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

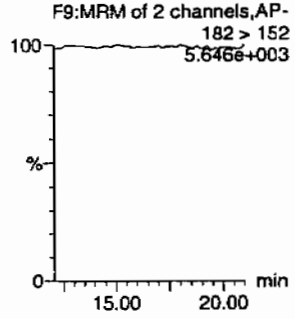

26-dinitrotoluene-d3

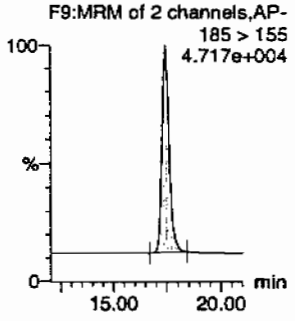

2-Nitrotoluene

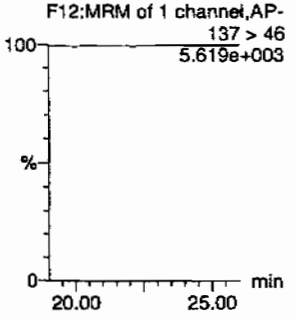

4-Nitrotoluene

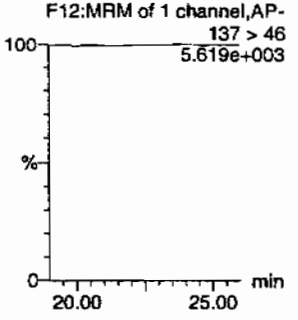

3-Nitrotoluene

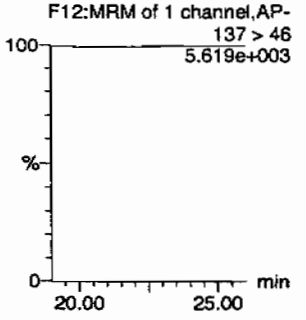

PETN

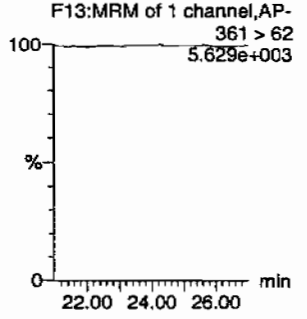

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3346.844									
XIBLK08	RDX	176 > 102			3346.844									
XIBLK08	135-Trinitrobenzene	213 > 183			3346.844									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.03	3346.844		3346.844	3346.844	bb			555.5083	111.1	11.1	89.0
XIBLK08	13-Dinitrobenzene	168 > 138			3346.844									
XIBLK08	Tetryl	241 > 181			3346.844									
XIBLK08	Nitrobenzene	123 > 46			3346.844									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			16636.555									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			16636.555									
XIBLK08	246-Trinitrotoluene	227 > 210			16636.555									
XIBLK08	34-dinitrotoluene	182 > 152			16636.555									
XIBLK08	26-dinitrotoluene	182 > 152			16636.555									
XIBLK08	24-dinitrotoluene	182 > 152			16636.555									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.43	16636.555		16636.555	16636.555	bb			477.8270	95.6	-4.4	925.6
XIBLK08	2-Nitrotoluene	137 > 46			16636.555									
XIBLK08	4-Nitrotoluene	137 > 46			16636.555									
XIBLK08	3-Nitrotoluene	137 > 46			16636.555									
XIBLK08	PETN	361 > 62			16636.555									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 18-FEB-10 02:43

GEL Data File: EXP0216069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	533.187
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	509.45
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216069a
Date: 18-Feb-2010
Time: 02:43:41
ID: XIBLK09
Vial: 1:1,F

MMT 4/18/10

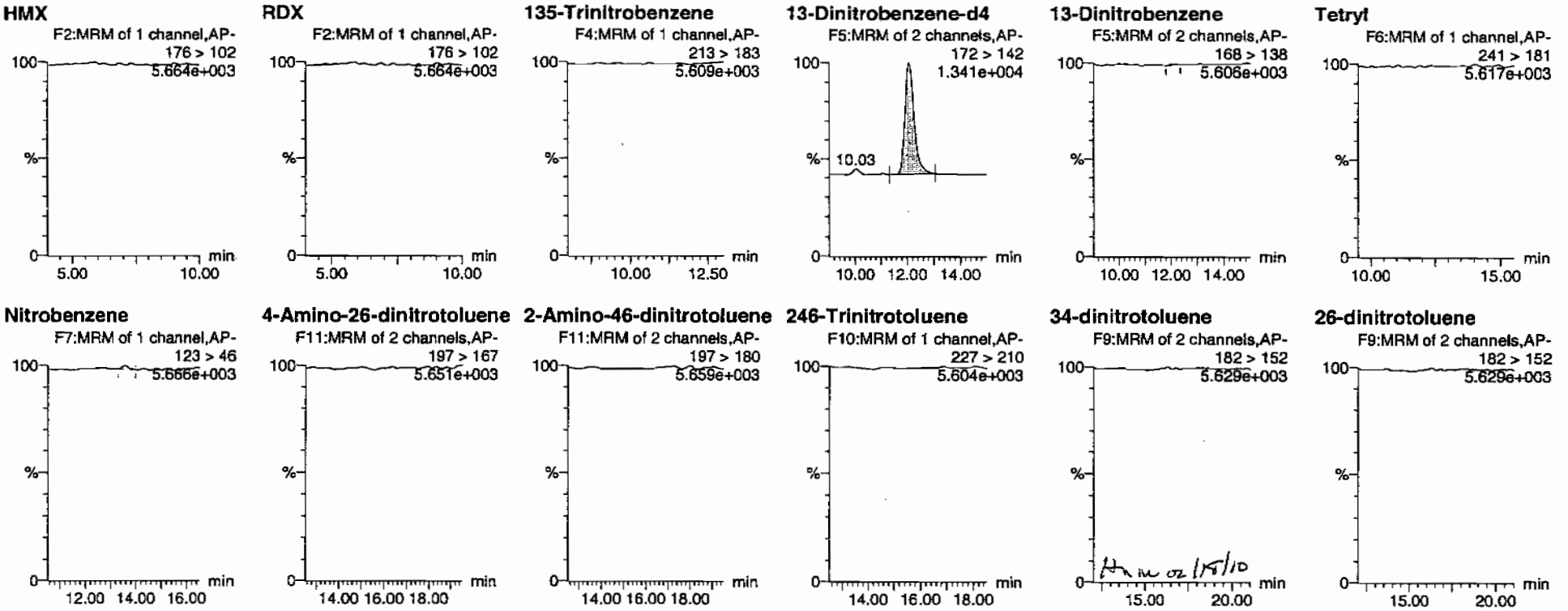

HM 02/18/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

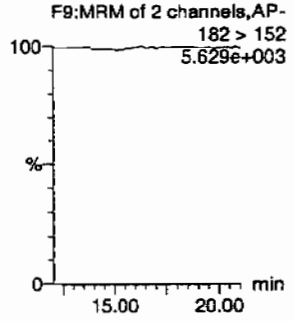

26-dinitrotoluene-d3

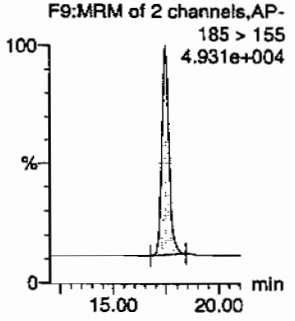

2-Nitrotoluene

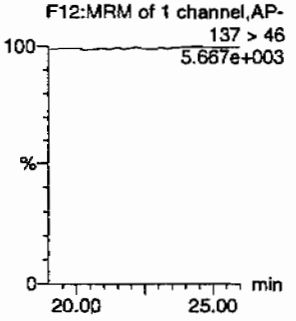

4-Nitrotoluene

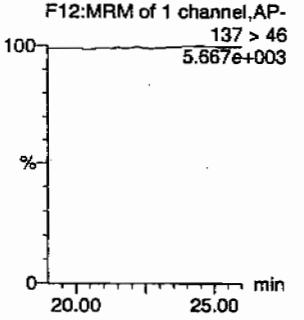

3-Nitrotoluene

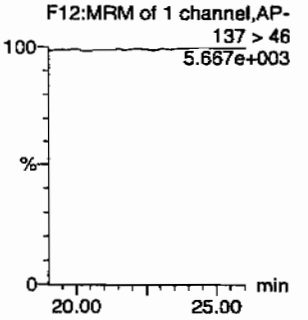

PETN

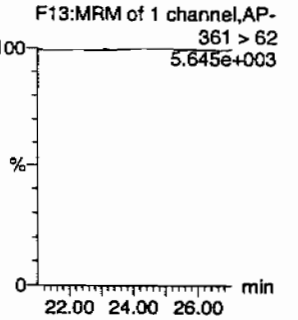

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3212.361									
XIBLK09	RDX	176 > 102			3212.361									
XIBLK09	135-Trinitrobenzene	213 > 183			3212.361									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.07	3212.361		3212.361	3212.361	bb			533.1868	106.6	6.6	611.4
XIBLK09	13-Dinitrobenzene	168 > 138			3212.361			MM-	18-Feb-10	08:42:49				
XIBLK09	Tetryl	241 > 181			3212.361									
XIBLK09	Nitrobenzene	123 > 46			3212.361			MM-	18-Feb-10	08:43:35				
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			17737.570									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			17737.570									
XIBLK09	246-Trinitrotoluene	227 > 210			17737.570									
XIBLK09	34-dinitrotoluene	182 > 152			17737.570									
XIBLK09	26-dinitrotoluene	182 > 152			17737.570									
XIBLK09	24-dinitrotoluene	182 > 152			17737.570									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.44	17737.570		17737.570	17737.570	bb			509.4498	101.9	1.9	1474.7
XIBLK09	2-Nitrotoluene	137 > 46			17737.570									
XIBLK09	4-Nitrotoluene	137 > 46			17737.570									
XIBLK09	3-Nitrotoluene	137 > 46			17737.570									
XIBLK09	PETN	361 > 62			17737.570									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 18-FEB-10 07:40

GEL Data File: EXP0216079a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	480.33
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	458.446
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216079a
Date: 18-Feb-2010
Time: 07:40:00
ID: XIBLK10
Vial: 1:1,A

MP 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.828e+003

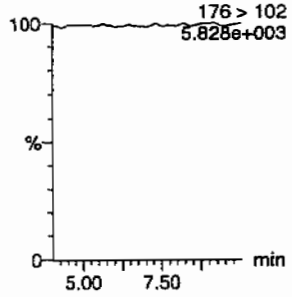

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.828e+003

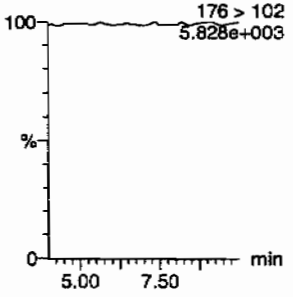

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.789e+003

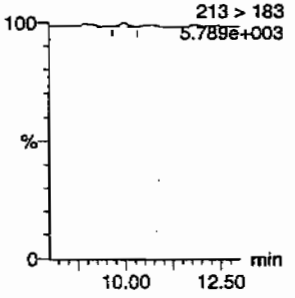

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.289e+004

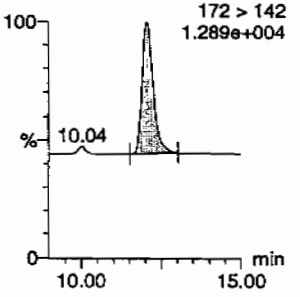

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.737e+003

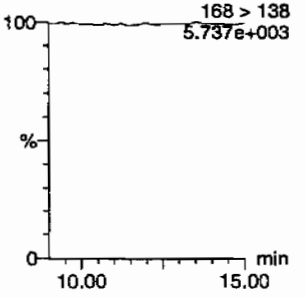

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.744e+003

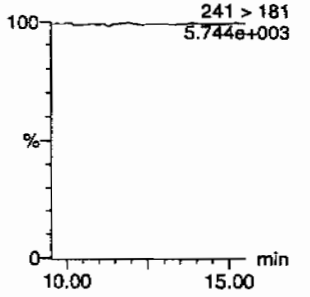

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.761e+003

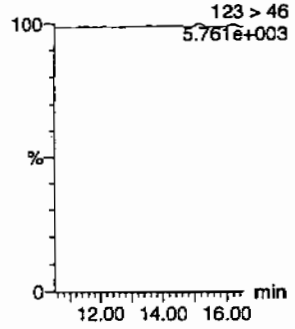

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.802e+003

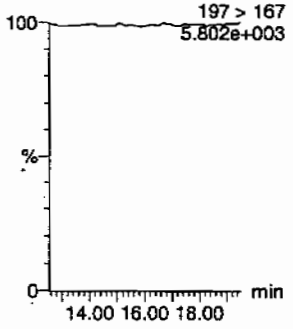

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.805e+003

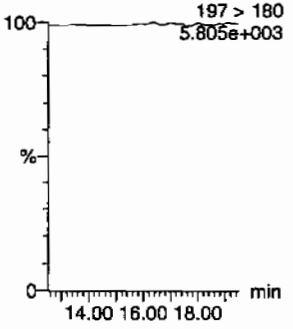

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.736e+003

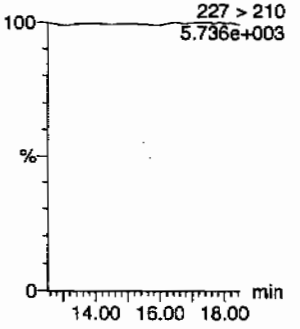

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

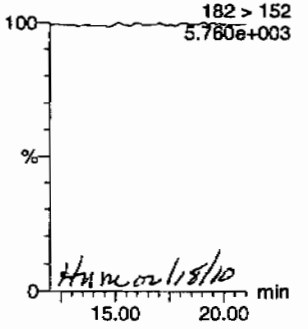

HM on 1/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.760e+003

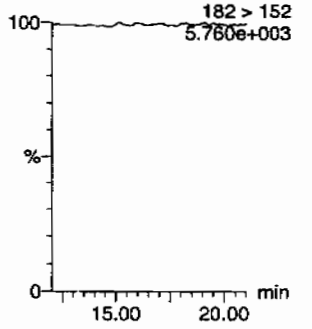

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

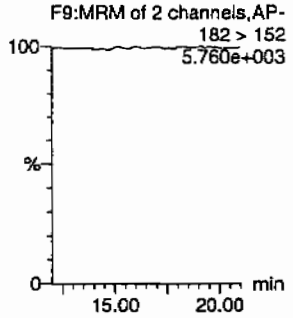

26-dinitrotoluene-d3

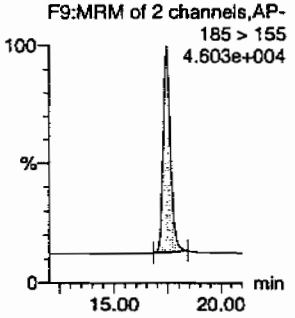

2-Nitrotoluene

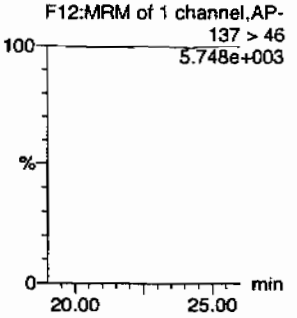

4-Nitrotoluene

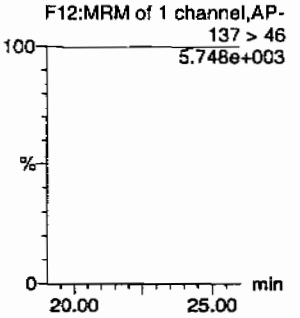

3-Nitrotoluene

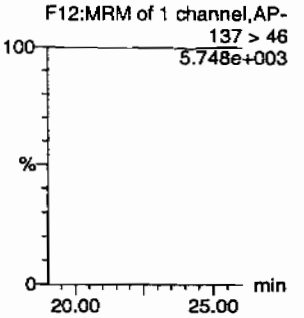

PETN

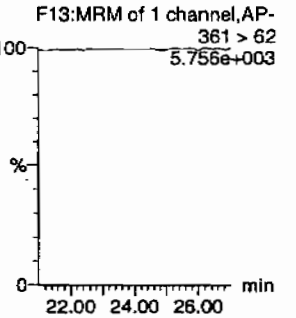

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			2893.907									
XIBLK10	RDX	176 > 102			2893.907									
XIBLK10	135-Trinitrobenzene	213 > 183			2893.907			MM-	18-Feb-10	08:42:38				
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.06	2893.907		2893.907	2893.907	bb			480.3299	96.1	-3.9	382.0
XIBLK10	13-Dinitrobenzene	168 > 138			2893.907									
XIBLK10	Tetryl	241 > 181			2893.907									
XIBLK10	Nitrobenzene	123 > 46			2893.907									
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			15961.760									
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			15961.760									
XIBLK10	246-Trinitrotoluene	227 > 210			15961.760									
XIBLK10	34-dinitrotoluene	182 > 152			15961.760									
XIBLK10	26-dinitrotoluene	182 > 152			15961.760									
XIBLK10	24-dinitrotoluene	182 > 152			15961.760									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.43	15961.760		15961.760	15961.760	bb			458.4458	91.7	-8.3	1442.8
XIBLK10	2-Nitrotoluene	137 > 46			15961.760									
XIBLK10	4-Nitrotoluene	137 > 46			15961.760									
XIBLK10	3-Nitrotoluene	137 > 46			15961.760									
XIBLK10	PETN	361 > 62			15961.760									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 18-FEB-10 13:05

GEL Data File: EXP0216090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	455.405
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	434.95
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216090a
Date: 18-Feb-2010
Time: 13:05:54
ID: XIBLK11
Vial: 1:1,A

MM 2/19/10

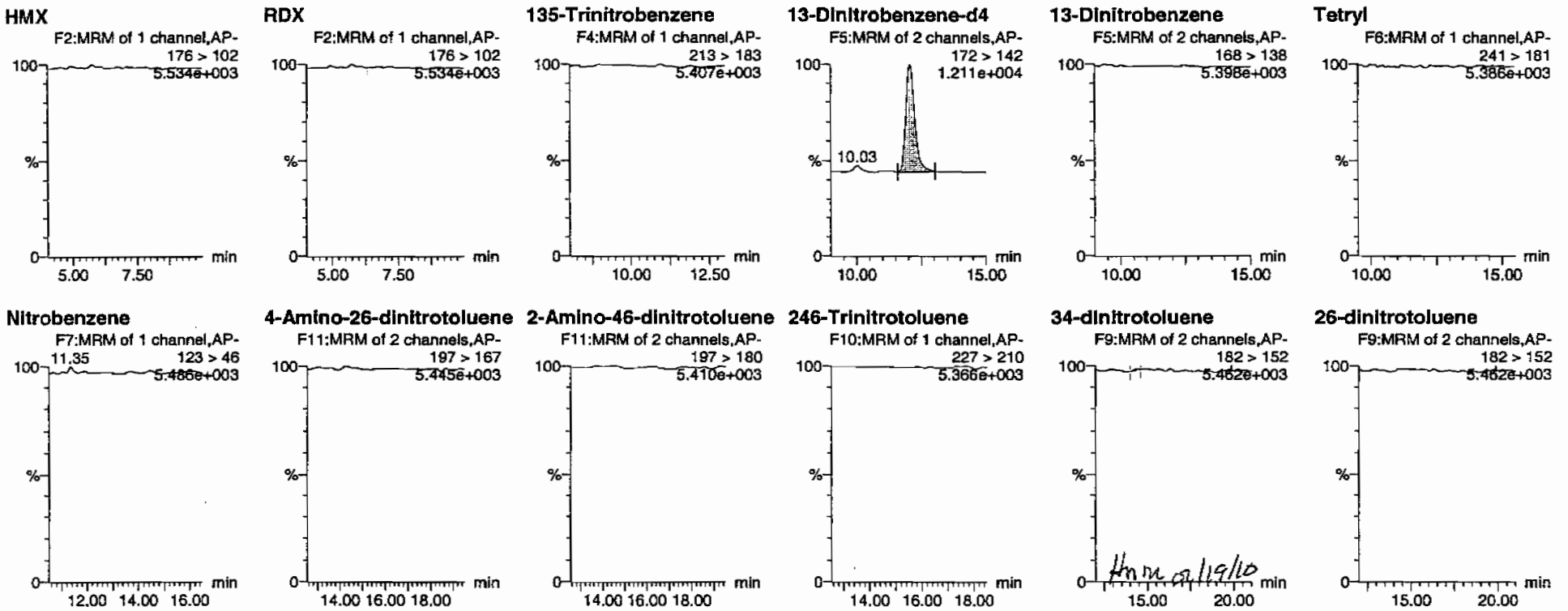

Hm m 02/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

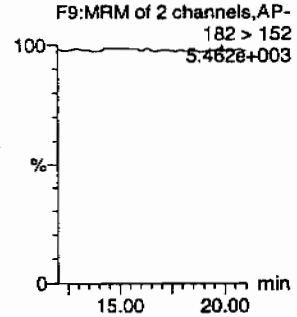

26-dinitrotoluene-d3

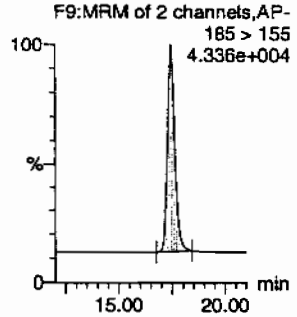

2-Nitrotoluene

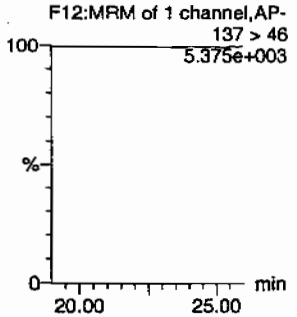

4-Nitrotoluene

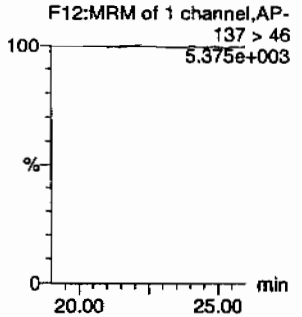

3-Nitrotoluene

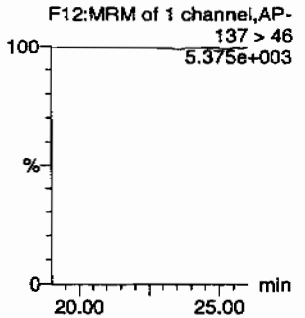

PETN

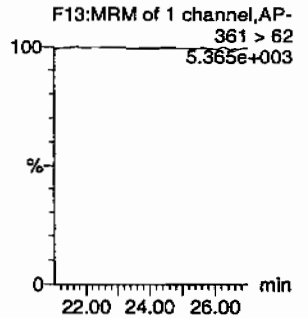

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			2743.740									
XIBLK11	RDX	176 > 102			2743.740									
XIBLK11	135-Trinitrobenzene	213 > 183			2743.740									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.06	2743.740		2743.740	2743.740	bb			455.4052	91.1	-8.9	327.5
XIBLK11	13-Dinitrobenzene	168 > 138			2743.740									
XIBLK11	Tetryl	241 > 181			2743.740									
XIBLK11	Nitrobenzene	123 > 46			2743.740									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			15143.687									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			15143.687									
XIBLK11	246-Trinitrotoluene	227 > 210			15143.687									
XIBLK11	34-dinitrotoluene	182 > 152			15143.687			MM-	19-Feb-10	08:42:41				
XIBLK11	26-dinitrotoluene	182 > 152			15143.687									
XIBLK11	24-dinitrotoluene	182 > 152			15143.687									
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.43	15143.687		15143.687	15143.687	bb			434.9496	87.0	-13.0	1161.5
XIBLK11	2-Nitrotoluene	137 > 46			15143.687									
XIBLK11	4-Nitrotoluene	137 > 46			15143.687									
XIBLK11	3-Nitrotoluene	137 > 46			15143.687									
XIBLK11	PETN	361 > 62			15143.687									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 18–FEB–10 19:00

GEL Data File: EXP0216102a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	463.109
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	440.854
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216102a
Date: 18-Feb-2010
Time: 19:00:50
ID: XIBLK12
Vial: 1:1,A

MM 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.623e+003

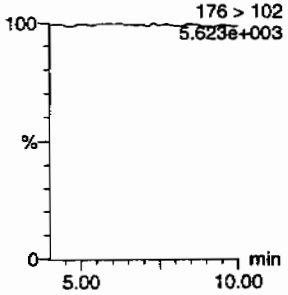

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.623e+003

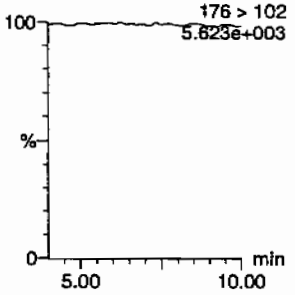

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.551e+003

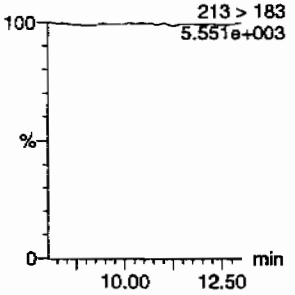

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.224e+004

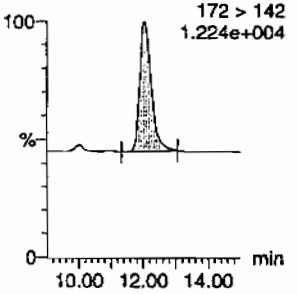

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.533e+003

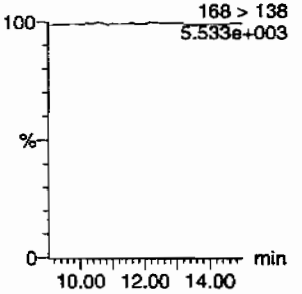

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.536e+003

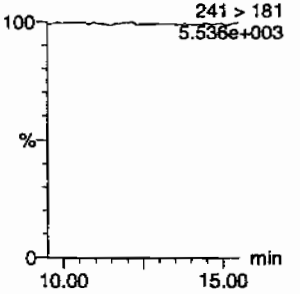

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.558e+003

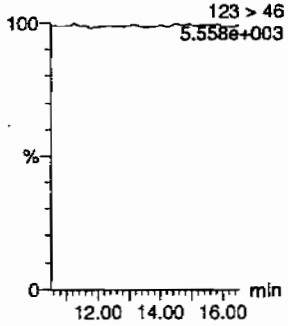

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.572e+003

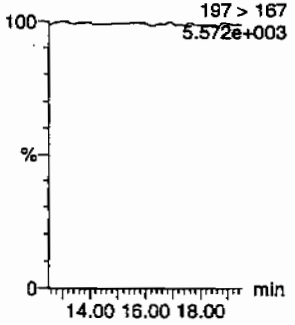

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.589e+003

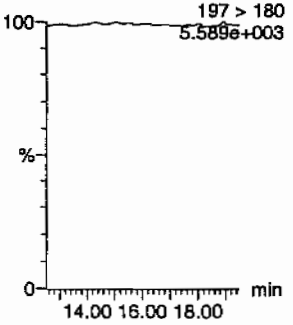

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.529e+003

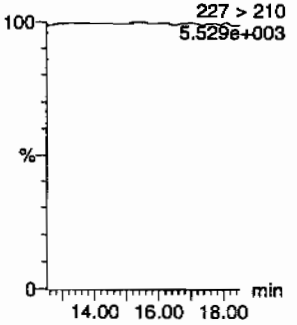

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.573e+003

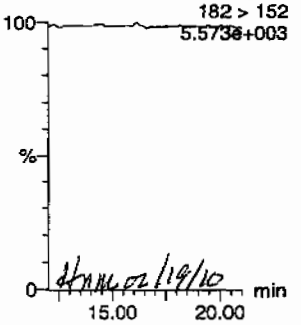

MM 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.573e+003

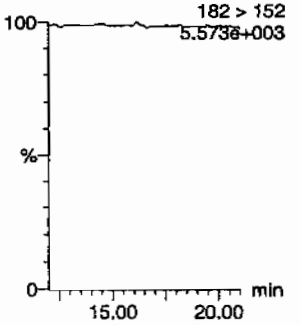

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

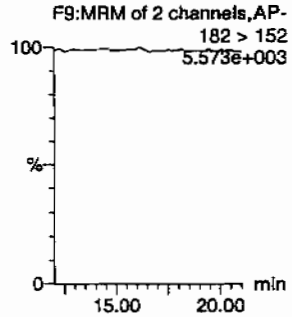

26-dinitrotoluene-d3

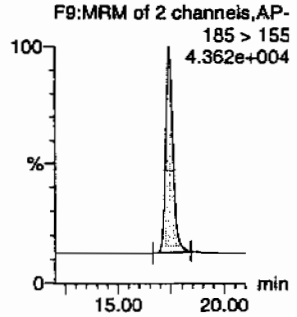

2-Nitrotoluene

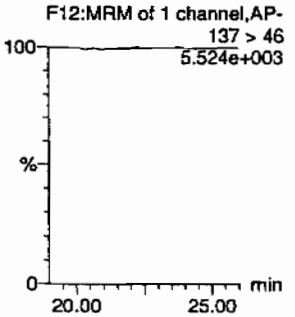

4-Nitrotoluene

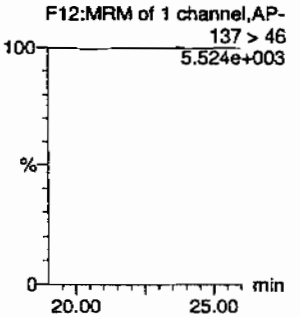

3-Nitrotoluene

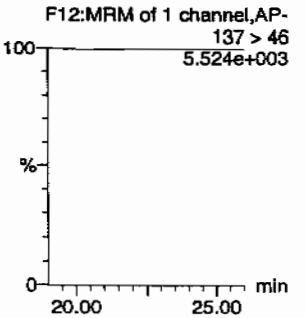

PETN

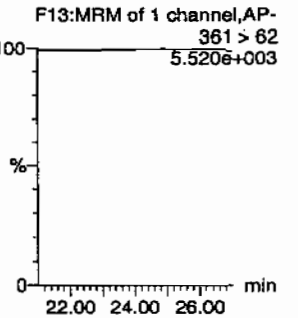

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			2790.156									
XIBLK12	RDX	176 > 102			2790.156									
XIBLK12	135-Trinitrobenzene	213 > 183			2790.156									
XIBLK12	13-Dinitrobenzene-d4	172 > 142	12.03	2790.156		2790.156	2790.156	bb			463.1093	92.6	-7.4	580.1
XIBLK12	13-Dinitrobenzene	168 > 138			2790.156									
XIBLK12	Tetryl	241 > 181			2790.156									
XIBLK12	Nitrobenzene	123 > 46			2790.156									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			15349.260									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			15349.260									
XIBLK12	246-Trinitrotoluene	227 > 210			15349.260									
XIBLK12	34-dinitrotoluene	182 > 152			15349.260									
XIBLK12	26-dinitrotoluene	182 > 152			15349.260									
XIBLK12	24-dinitrotoluene	182 > 152			15349.260									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.42	15349.260		15349.260	15349.260	bb			440.8539	88.2	-11.8	1191.0
XIBLK12	2-Nitrotoluene	137 > 46			15349.260									
XIBLK12	4-Nitrotoluene	137 > 46			15349.260									
XIBLK12	3-Nitrotoluene	137 > 46			15349.260									
XIBLK12	PETN	361 > 62			15349.260									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 19-FEB-10 01:24

GEL Data File: EXP0216115a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	480.924
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	485.557
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216115a
Date: 19-Feb-2010
Time: 01:24:51
ID: XIBLK13
Vial: 1:1,A

MMP 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.626e+003

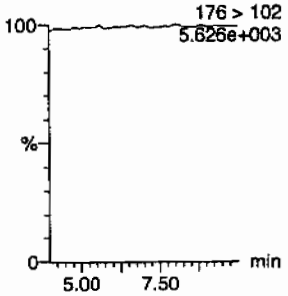

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.626e+003

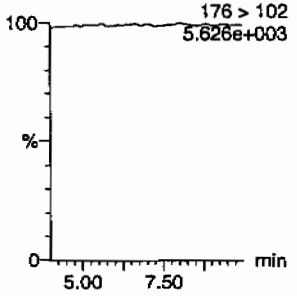

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.562e+003

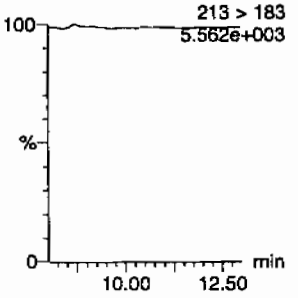

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.247e+004

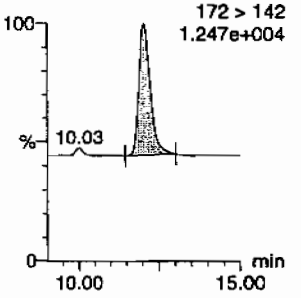

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.520e+003

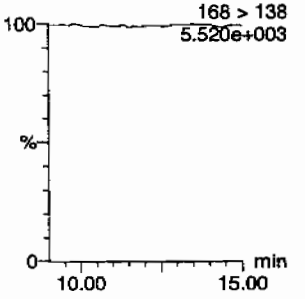

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.521e+003

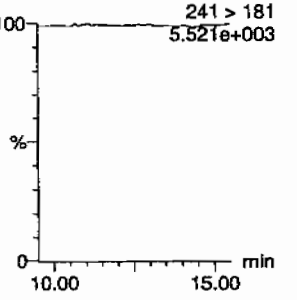

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.515e+003

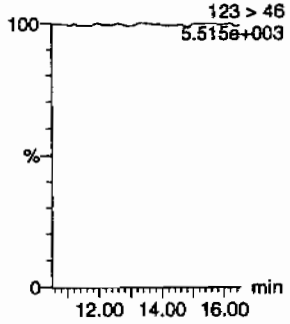

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.593e+003

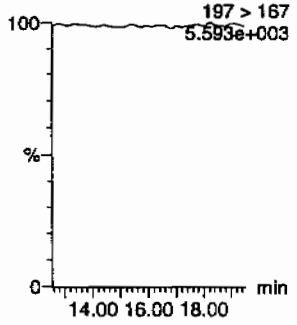

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.580e+003

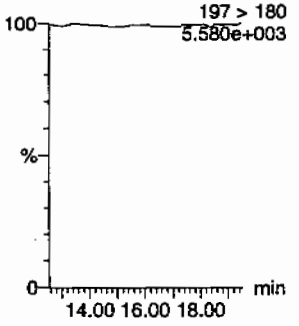

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.523e+003

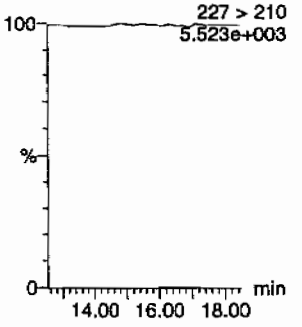

34-dinitrotoluene
F9:MRM of 2 channels,AP-
12.82
182 > 152
5.659e+003

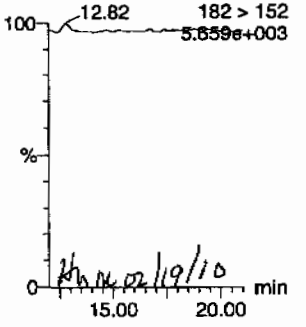

MMP 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
12.82
182 > 152
5.659e+003

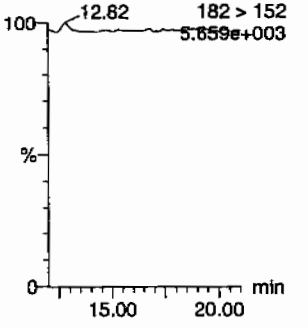

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

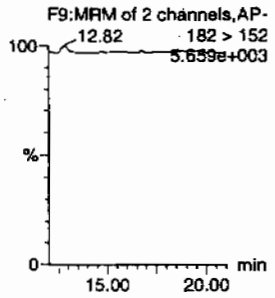

26-dinitrotoluene-d3

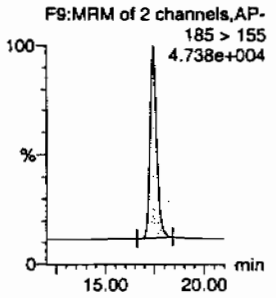

2-Nitrotoluene

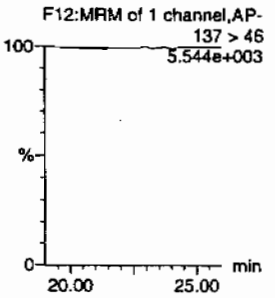

4-Nitrotoluene

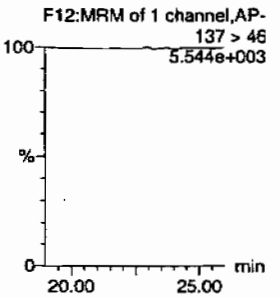

3-Nitrotoluene

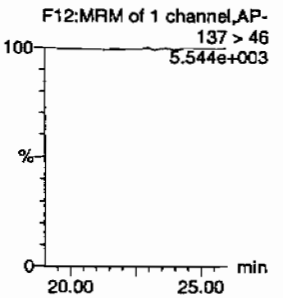

PETN

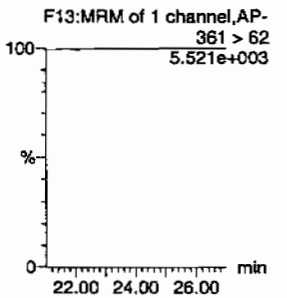

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			2897.485									
XIBLK13	RDX	176 > 102			2897.485									
XIBLK13	135-Trinitrobenzene	213 > 183			2897.485									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	12.06	2897.485		2897.485	2897.485	bb			480.9238	96.2	-3.8	308.6
XIBLK13	13-Dinitrobenzene	168 > 138			2897.485									
XIBLK13	Tetryl	241 > 181			2897.485									
XIBLK13	Nitrobenzene	123 > 46			2897.485									
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			16905.705									
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			16905.705									
XIBLK13	246-Trinitrotoluene	227 > 210			16905.705									
XIBLK13	34-dinitrotoluene	182 > 152			16905.705									
XIBLK13	26-dinitrotoluene	182 > 152			16905.705									
XIBLK13	24-dinitrotoluene	182 > 152			16905.705									
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.43	16905.705		16905.705	16905.705	bb			485.5574	97.1	-2.9	1789.3
XIBLK13	2-Nitrotoluene	137 > 46			16905.705									
XIBLK13	4-Nitrotoluene	137 > 46			16905.705									
XIBLK13	3-Nitrotoluene	137 > 46			16905.705									
XIBLK13	PETN	361 > 62			16905.705									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 19–FEB–10 07:21

GEL Data File: EXP0216127a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	437.668
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	437.697
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216127a
Date: 19-Feb-2010
Time: 07:21:28
ID: XIBLK14
Vial: 1:1,A

MT 2/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.654e+003

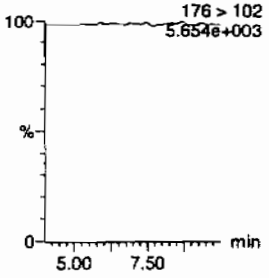

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.654e+003

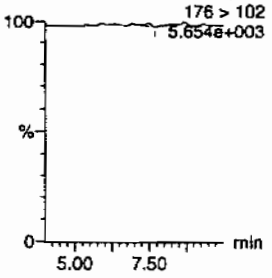

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.556e+003

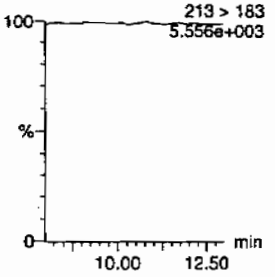

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.197e+004

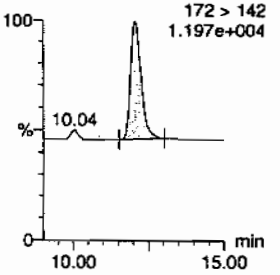

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.535e+003

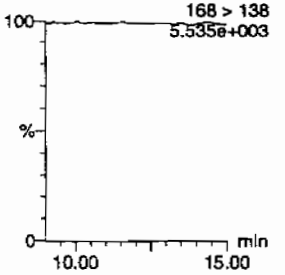

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.533e+003

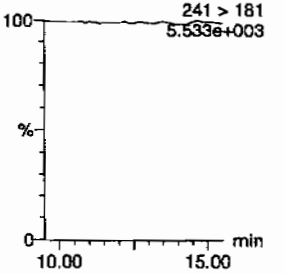

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.551e+003

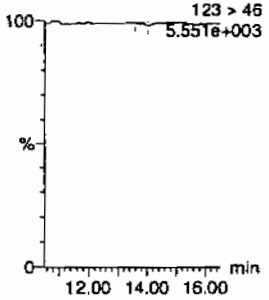

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.574e+003

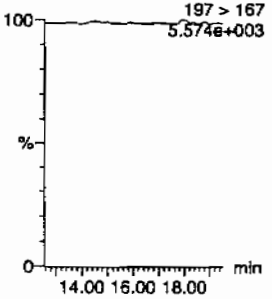

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.598e+003

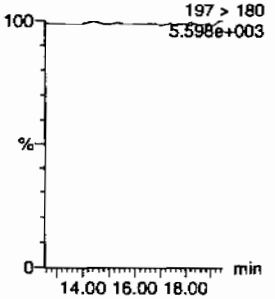

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.505e+003

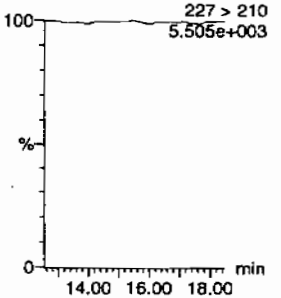

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.569e+003

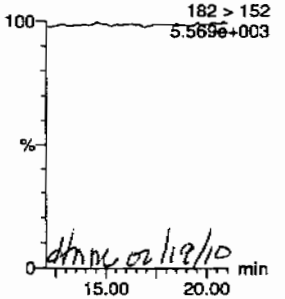

dtmc 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.569e+003

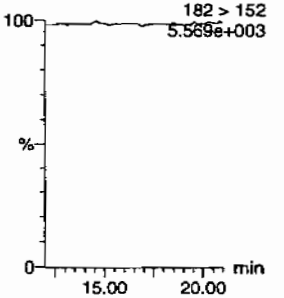

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

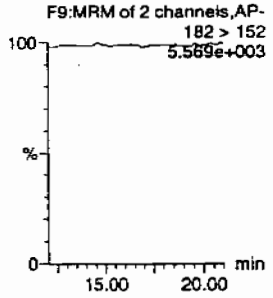

26-dinitrotoluene-d3

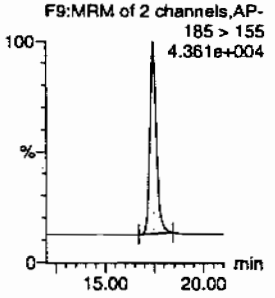

2-Nitrotoluene

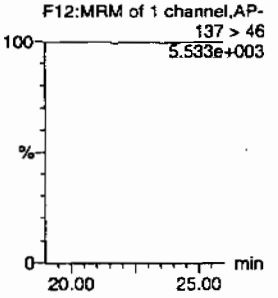

4-Nitrotoluene

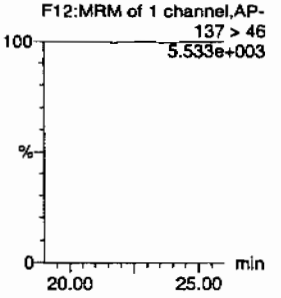

3-Nitrotoluene

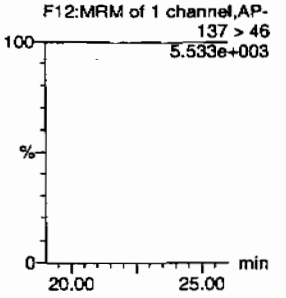

PETN

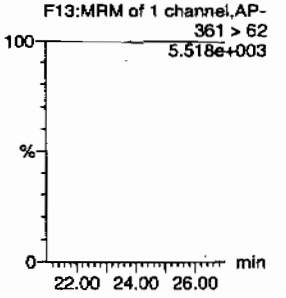

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK14	HMX	176 > 102			2636.874									
XIBLK14	RDX	176 > 102			2636.874			MM-	19-Feb-10	08:36:15				
XIBLK14	135-Trinitrobenzene	213 > 183			2636.874									
XIBLK14	13-Dinitrobenzene-d4	172 > 142	12.06	2636.874		2636.874	2636.874	bb			437.6676	87.5	-12.5	334.8
XIBLK14	13-Dinitrobenzene	168 > 138			2636.874									
XIBLK14	Tetryl	241 > 181			2636.874									
XIBLK14	Nitrobenzene	123 > 46			2636.874			MM-	19-Feb-10	08:37:38				
XIBLK14	4-Amino-26-dinitrotoluene	197 > 167			15239.334									
XIBLK14	2-Amino-46-dinitrotoluene	197 > 180			15239.334									
XIBLK14	246-Trinitrotoluene	227 > 210			15239.334									
XIBLK14	34-dinitrotoluene	182 > 152			15239.334									
XIBLK14	26-dinitrotoluene	182 > 152			15239.334									
XIBLK14	24-dinitrotoluene	182 > 152			15239.334									
XIBLK14	26-dinitrotoluene-d3	185 > 155	17.43	15239.334		15239.334	15239.334	bb			437.6967	87.5	-12.5	1090.2
XIBLK14	2-Nitrotoluene	137 > 46			15239.334									
XIBLK14	4-Nitrotoluene	137 > 46			15239.334									
XIBLK14	3-Nitrotoluene	137 > 46			15239.334									
XIBLK14	PETN	361 > 62			15239.334									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 19-FEB-10 13:46

GEL Data File: EXP0216140a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	506.457
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	507.824
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216140a
Date: 19-Feb-2010
Time: 13:46:31
ID: XIBLK15
Vial: 1:1,A

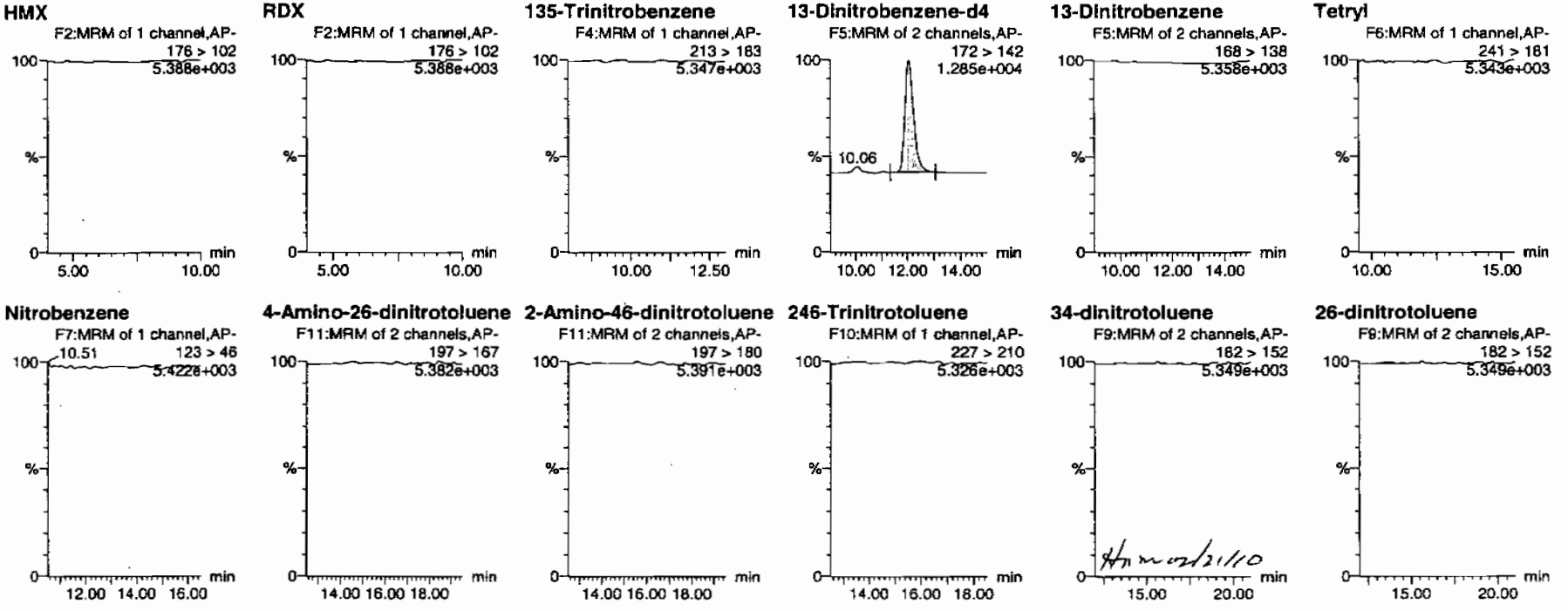

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

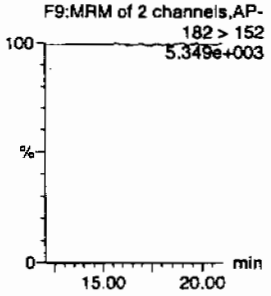

26-dinitrotoluene-d3

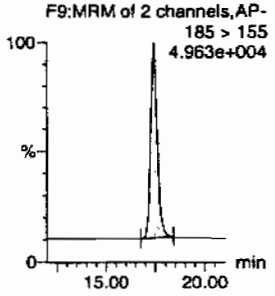

2-Nitrotoluene

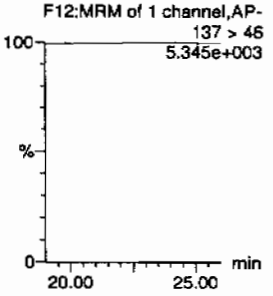

4-Nitrotoluene

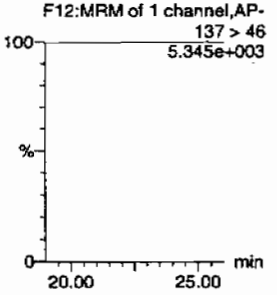

3-Nitrotoluene

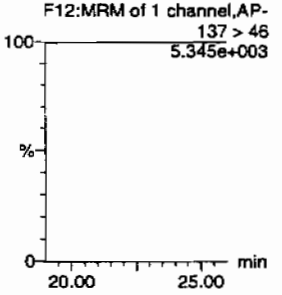

PETN

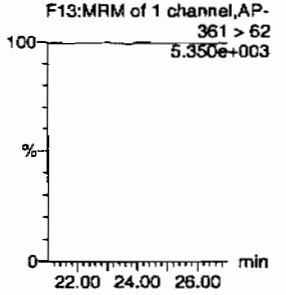

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	(ng/mL	%Rec	%Dev	S/N
XIBLK15	HMX	176 > 102			3051.319									
XIBLK15	RDX	176 > 102			3051.319									
XIBLK15	135-Trinitrobenzene	213 > 183			3051.319									
XIBLK15	13-Dinitrobenzene-d4	172 > 142	12.07	3051.319		3051.319	3051.319	bb			506.4571	101.3	1.3	229.7
XIBLK15	13-Dinitrobenzene	168 > 138			3051.319									
XIBLK15	Tetryl	241 > 181			3051.319									
XIBLK15	Nitrobenzene	123 > 46			3051.319									
XIBLK15	4-Amino-26-dinitrotoluene	197 > 167			17680.967									
XIBLK15	2-Amino-46-dinitrotoluene	197 > 180			17680.967									
XIBLK15	246-Trinitrotoluene	227 > 210			17680.967									
XIBLK15	34-dinitrotoluene	182 > 152			17680.967									
XIBLK15	26-dinitrotoluene	182 > 152			17680.967									
XIBLK15	24-dinitrotoluene	182 > 152			17680.967									
XIBLK15	26-dinitrotoluene-d3	185 > 155	17.42	17680.967		17680.967	17680.967	bb			507.8241	101.6	1.6	381.0
XIBLK15	2-Nitrotoluene	137 > 46			17680.967									
XIBLK15	4-Nitrotoluene	137 > 46			17680.967									
XIBLK15	3-Nitrotoluene	137 > 46			17680.967									
XIBLK15	PETN	361 > 62			17680.967									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 19-FEB-10 20:34

GEL Data File: EXP0216153a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	483.443
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	427.583
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216153a
Date: 19-Feb-2010
Time: 20:34:41
ID: XIBLK16
Vial: 1:1,A

HMT 2/20/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.906e+003

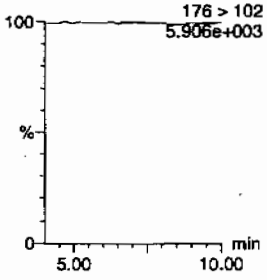

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.908e+003

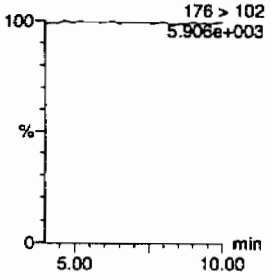

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.837e+003

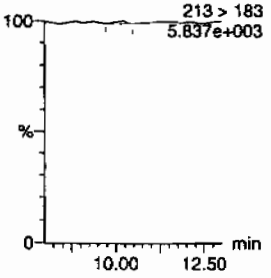

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.292e+004

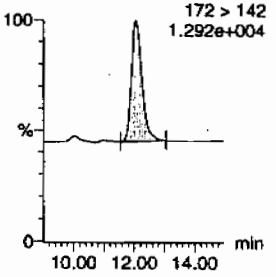

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.841e+003

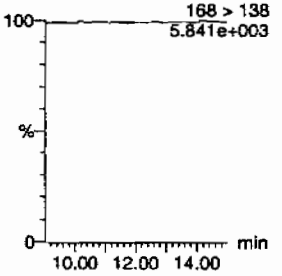

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.901e+003

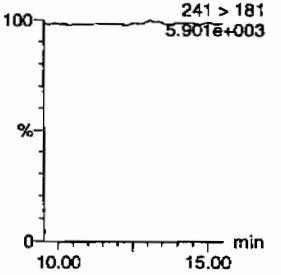

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.865e+003

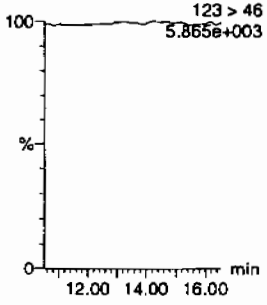

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.884e+003

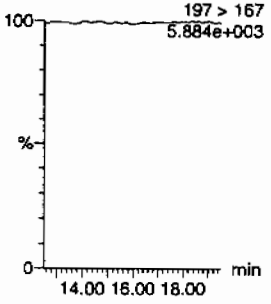

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.915e+003

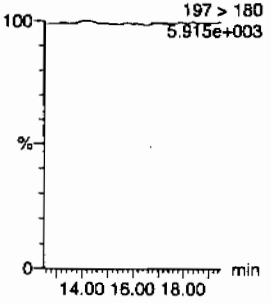

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.852e+003

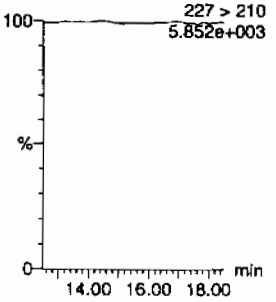

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.880e+003

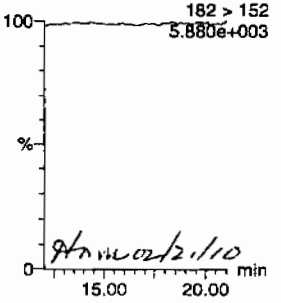

HMM 02/21/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.880e+003

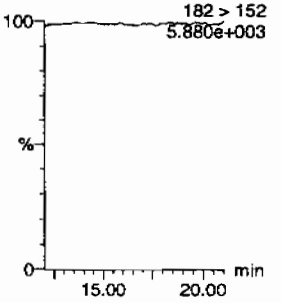

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

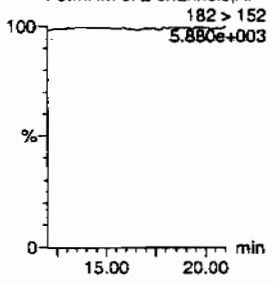

26-dinitrotoluene-d3

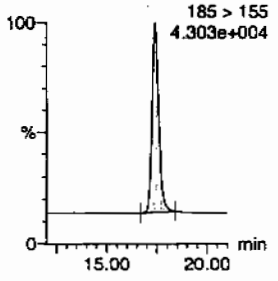

2-Nitrotoluene

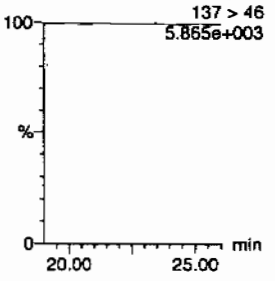

4-Nitrotoluene

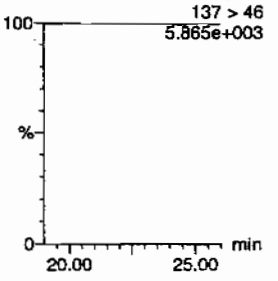

3-Nitrotoluene

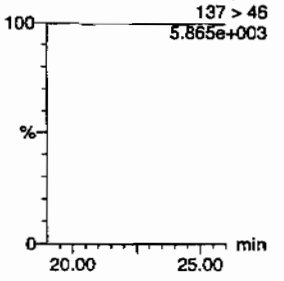

PETN

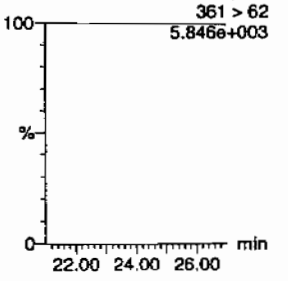

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK16	HMX	176 > 102			2912.660									
XIBLK16	RDX	176 > 102			2912.660									
XIBLK16	135-Trinitrobenzene	213 > 183			2912.660			MM-	20-Feb-10	10:02:08				
XIBLK16	13-Dinitrobenzene-d4	172 > 142	12.07	2912.660		2912.660	2912.660	bb			483.4425	96.7	-3.3	409.1
XIBLK16	13-Dinitrobenzene	168 > 138			2912.660									
XIBLK16	Tetryl	241 > 181			2912.660									
XIBLK16	Nitrobenzene	123 > 46			2912.660									
XIBLK16	4-Amino-26-dinitrotoluene	197 > 167			14887.194									
XIBLK16	2-Amino-46-dinitrotoluene	197 > 180			14887.194									
XIBLK16	246-Trinitrotoluene	227 > 210			14887.194									
XIBLK16	34-dinitrotoluene	182 > 152			14887.194									
XIBLK16	26-dinitrotoluene	182 > 152			14887.194									
XIBLK16	24-dinitrotoluene	182 > 152			14887.194									
XIBLK16	26-dinitrotoluene-d3	185 > 155	17.42	14887.194		14887.194	14887.194	bb			427.5827	85.5	-14.5	1392.1
XIBLK16	2-Nitrotoluene	137 > 46			14887.194									
XIBLK16	4-Nitrotoluene	137 > 46			14887.194									
XIBLK16	3-Nitrotoluene	137 > 46			14887.194									
XIBLK16	PETN	361 > 62			14887.194									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 14–FEB–10 16:38

GEL Data File: EXS02140010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	4.37
tris(o–cresyl) phosphate	0	8.68
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ran 2/16/10

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02140010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:38:38 PM

Modified: No

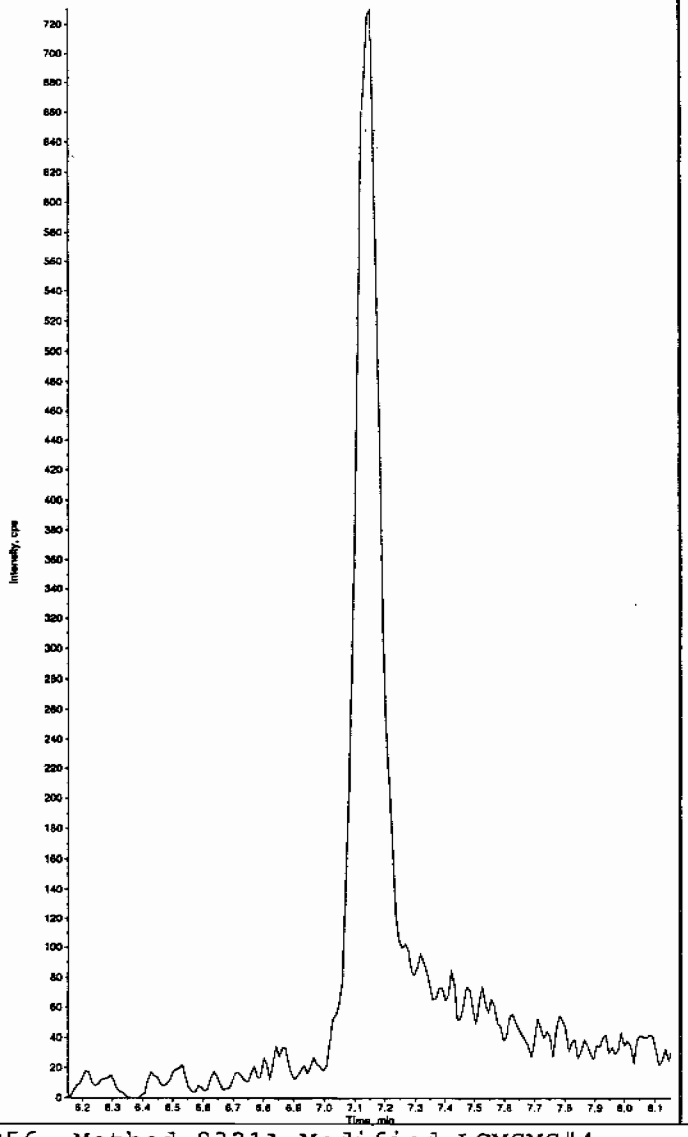

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02140010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:38:38 PM

Modified: No

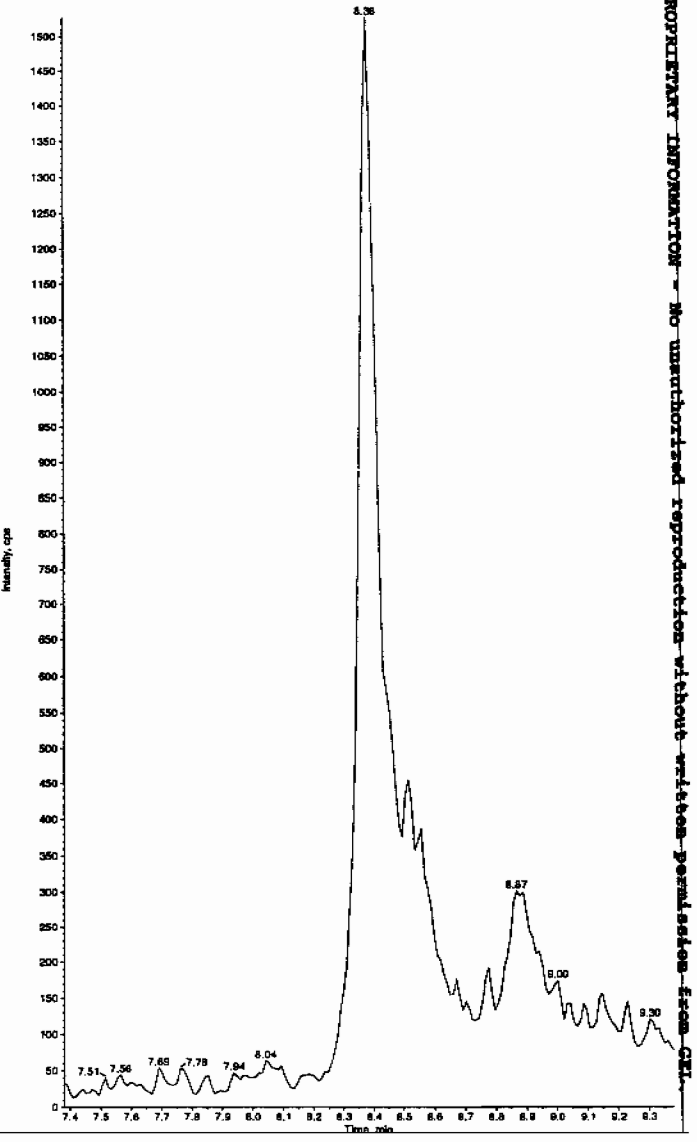

Hmm 02/17/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02140010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 4.37 ng/mL
cq. Date: 2/14/2010
cq. Time: 4:38:38 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.52 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.52 min
rea: 7.18e+003 counts
eight: 1462.833 cps
tart Time: 8.44 min
nd Time: 8.75 min

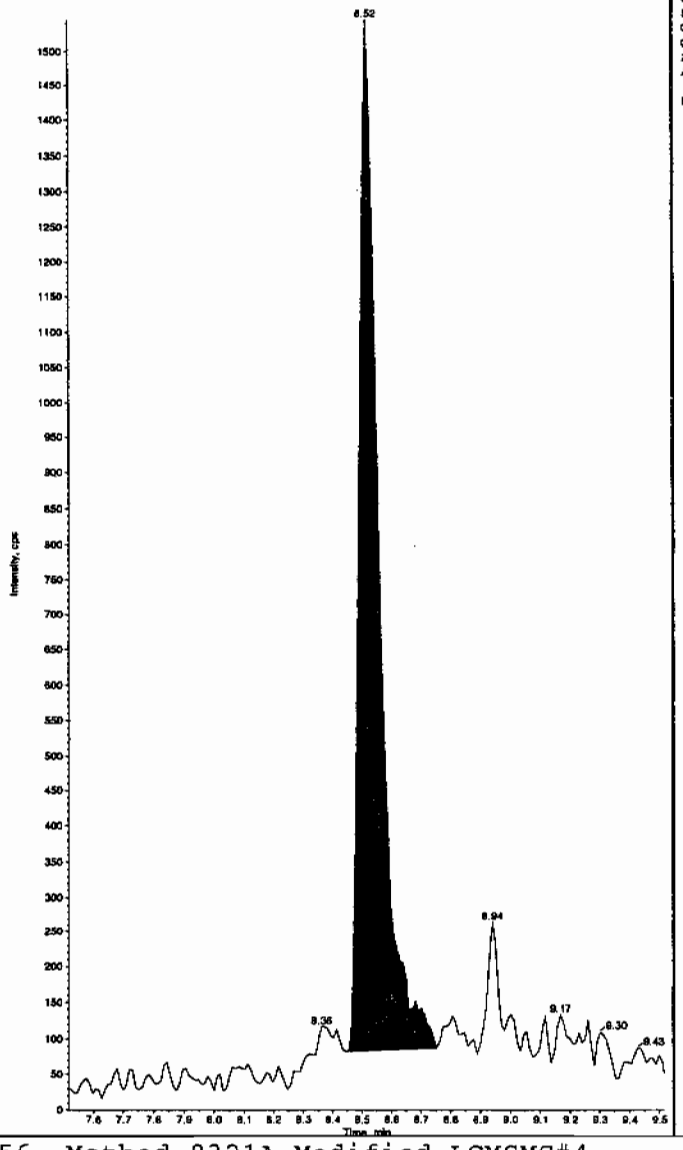

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02140010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:38:38 PM

Modified: No

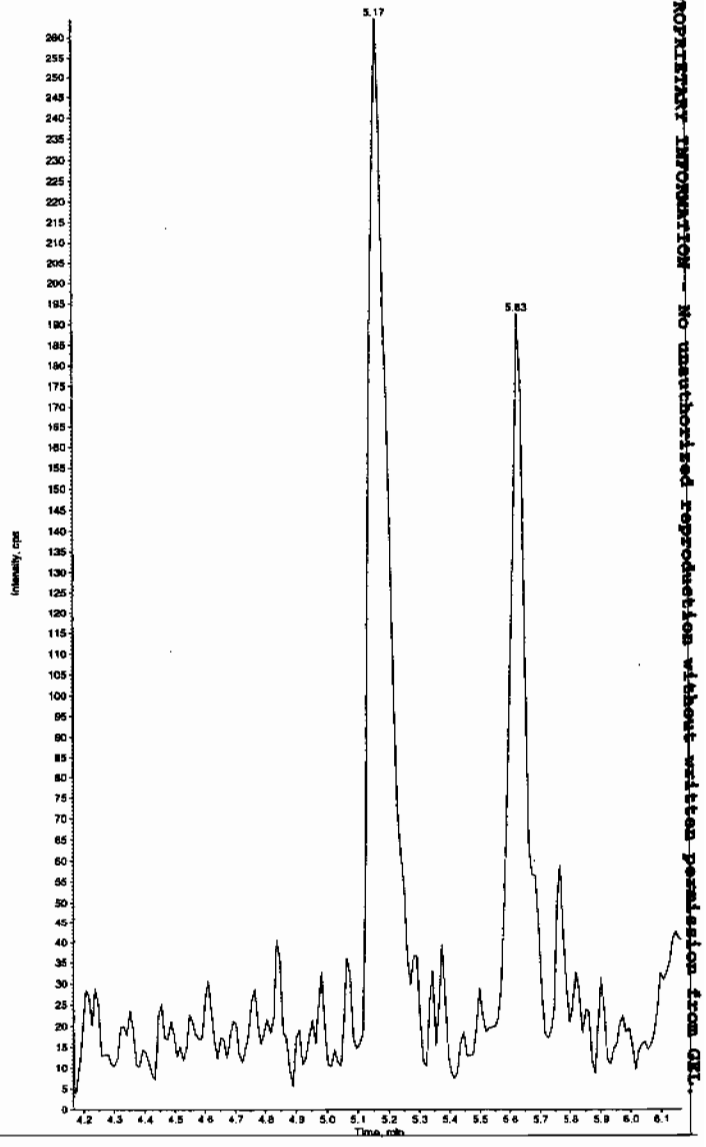

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02140010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/14/2010
cq. Time: 4:38:38 PM

odified: No

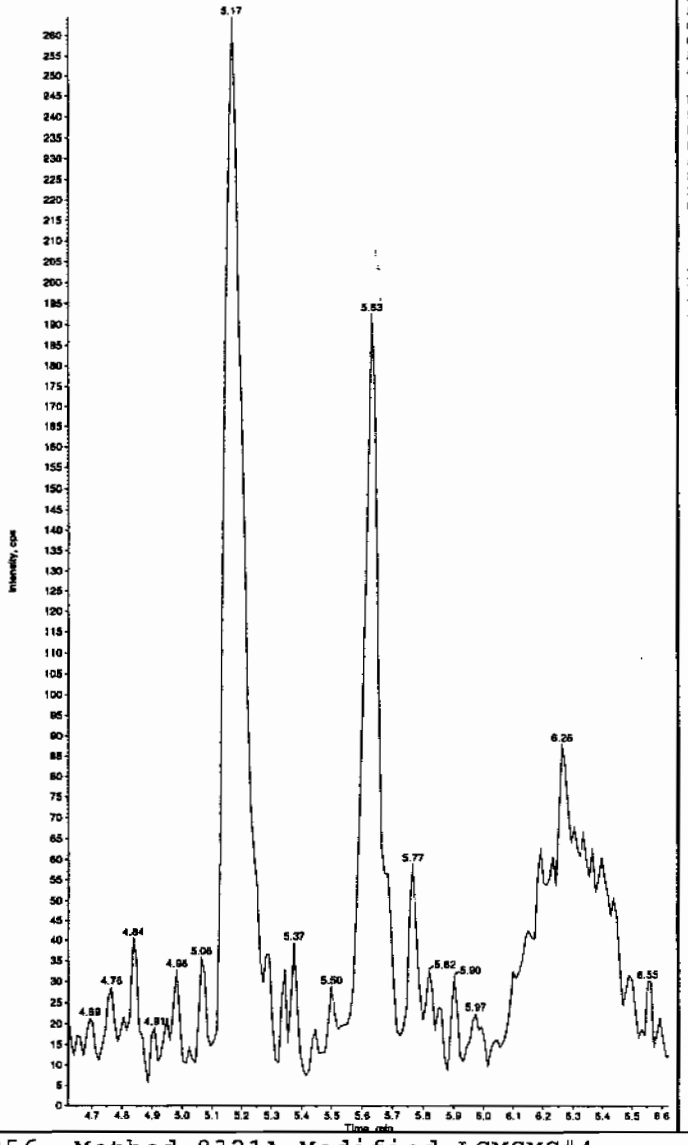

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02140010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 8.68 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:38:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.67e+005 counts
Height: 58148.289 cps
Start Time: 11.0 min
End Time: 11.4 min

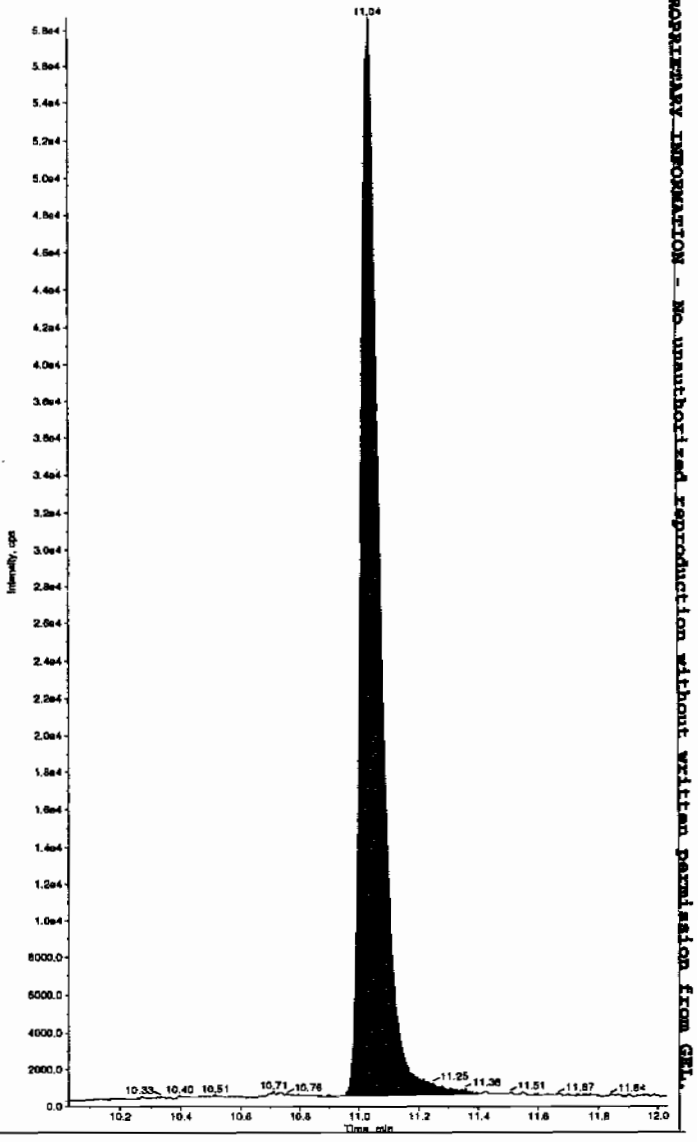

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 14-FEB-10 17:10

GEL Data File: EXS02140012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.62
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

LCM 2/16/10

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02140012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:10:02 PM

Modified: No

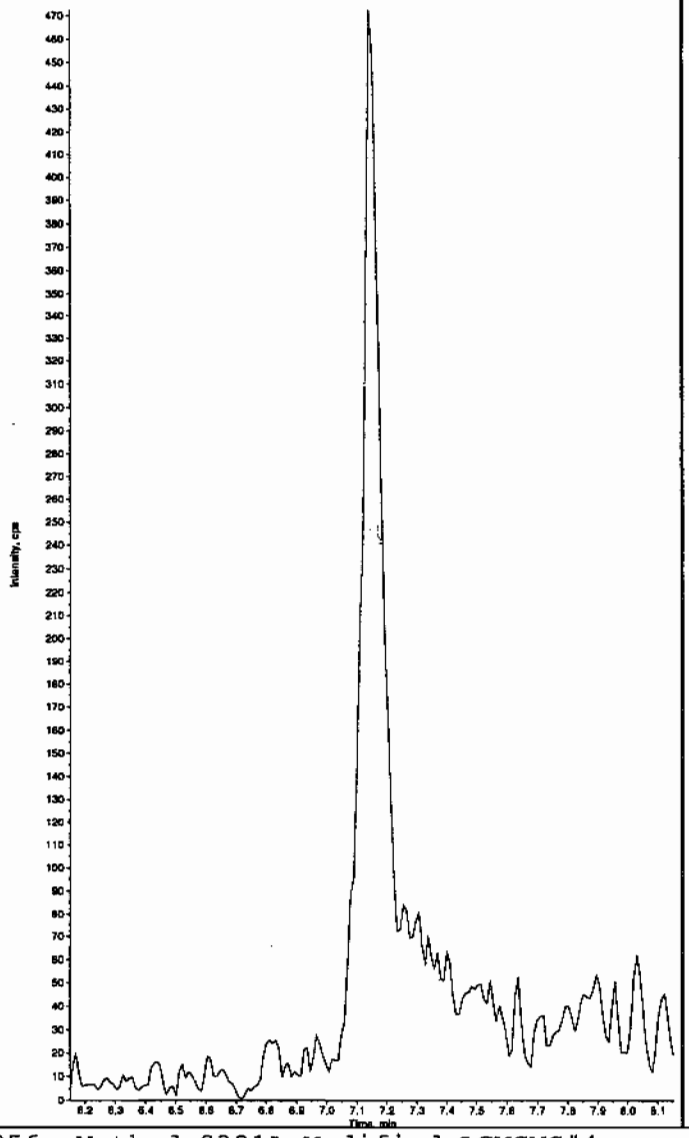

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02140012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:10:02 PM

Modified: No

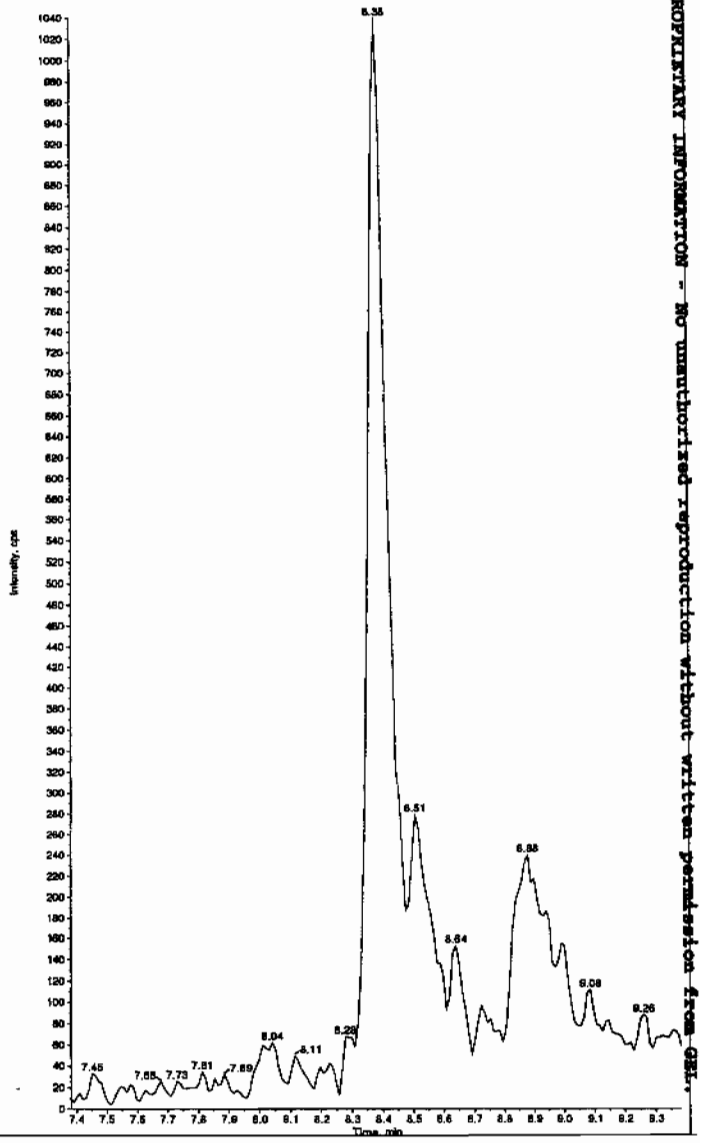

Hm nc 02/17/10

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02140012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/14/2010
cq. Time: 5:10:02 PM

odified: No

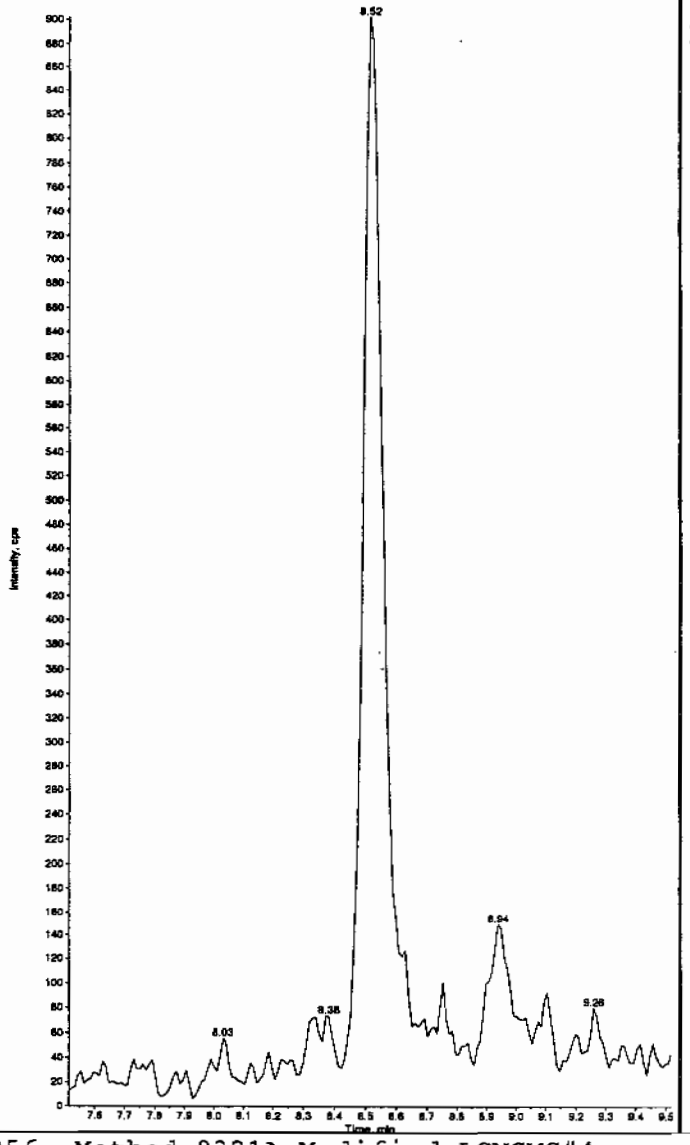

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02140012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:10:02 PM

Modified: No

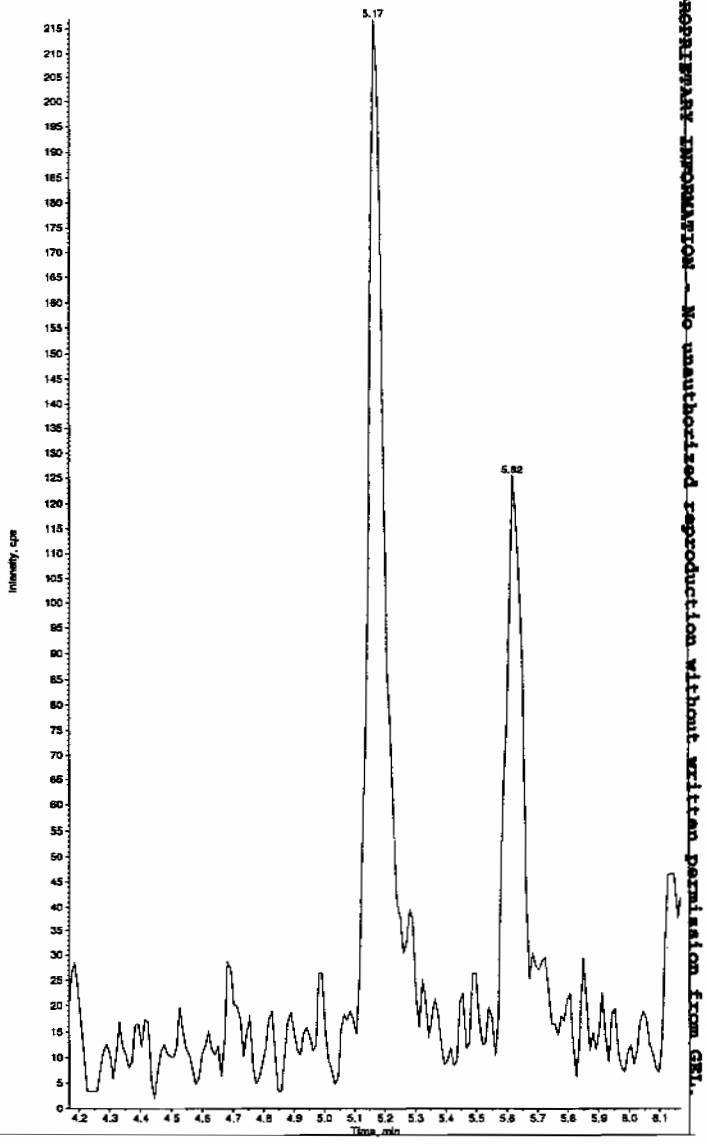

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Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02140012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 6.00 ng/mL
cq. Date: 2/14/2010
cq. Time: 5:10:02 PM

odified: No

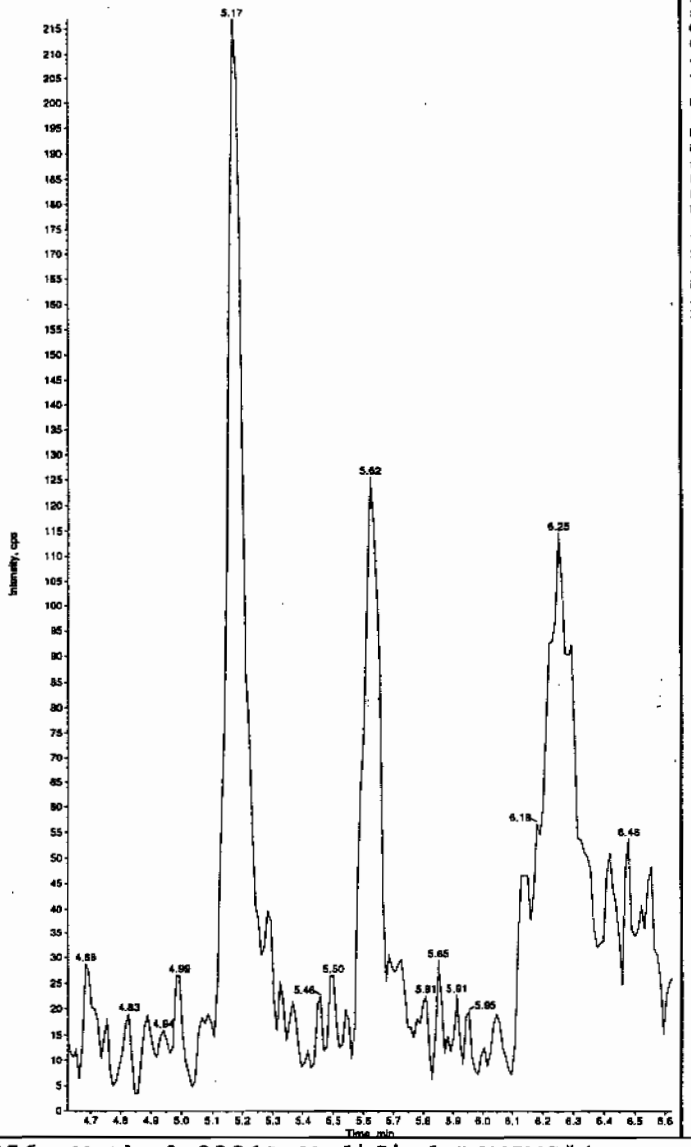

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02140012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.62 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:10:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.1 min
Area: 1.47e+005 counts
Height: 33661.640 cps
Start Time: 10.9 min
End Time: 11.3 min

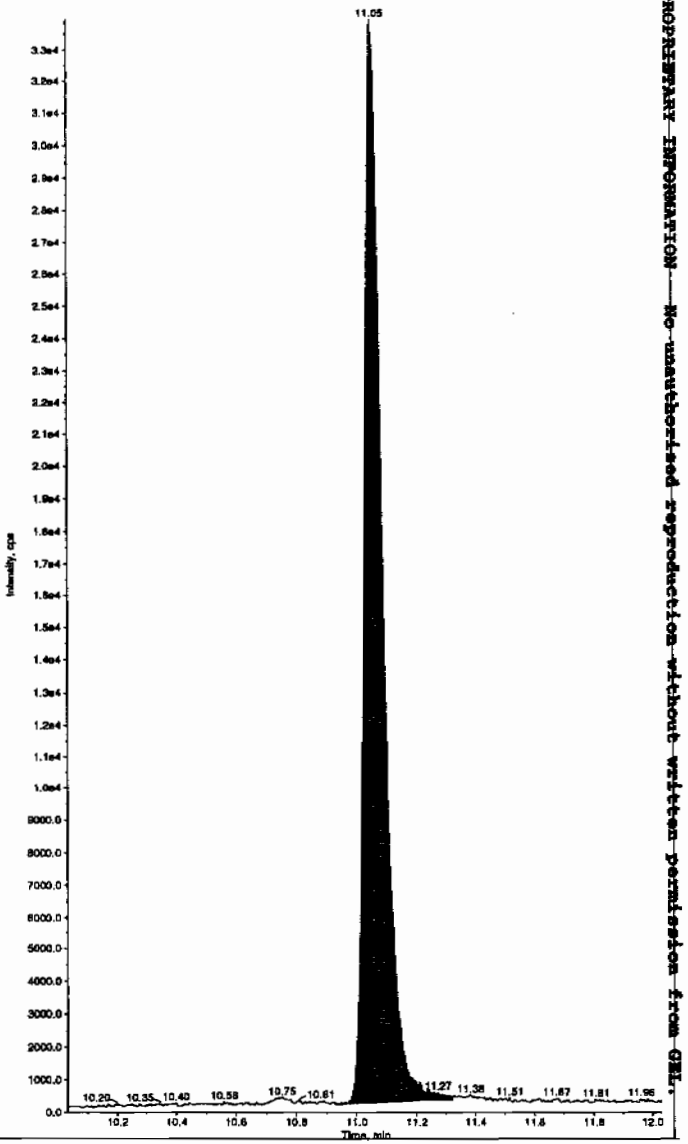

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 14-FEB-10 18:44

GEL Data File: EXS02140018.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.11
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

LCM 2/17/10

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02140018.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No

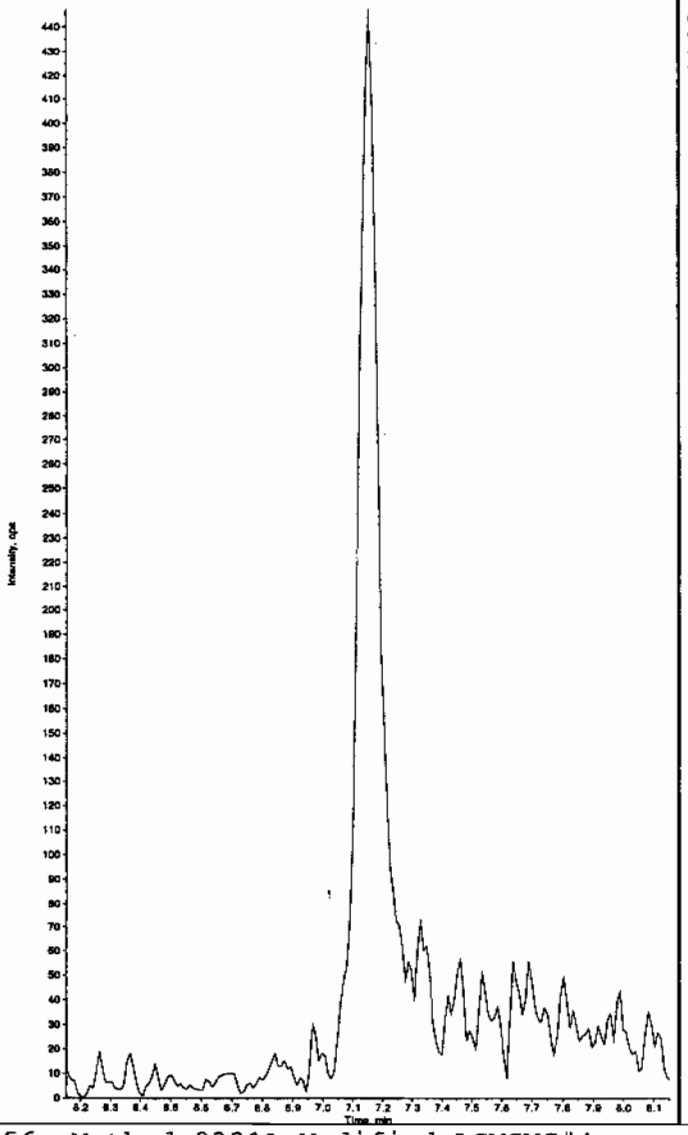

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02140018.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No

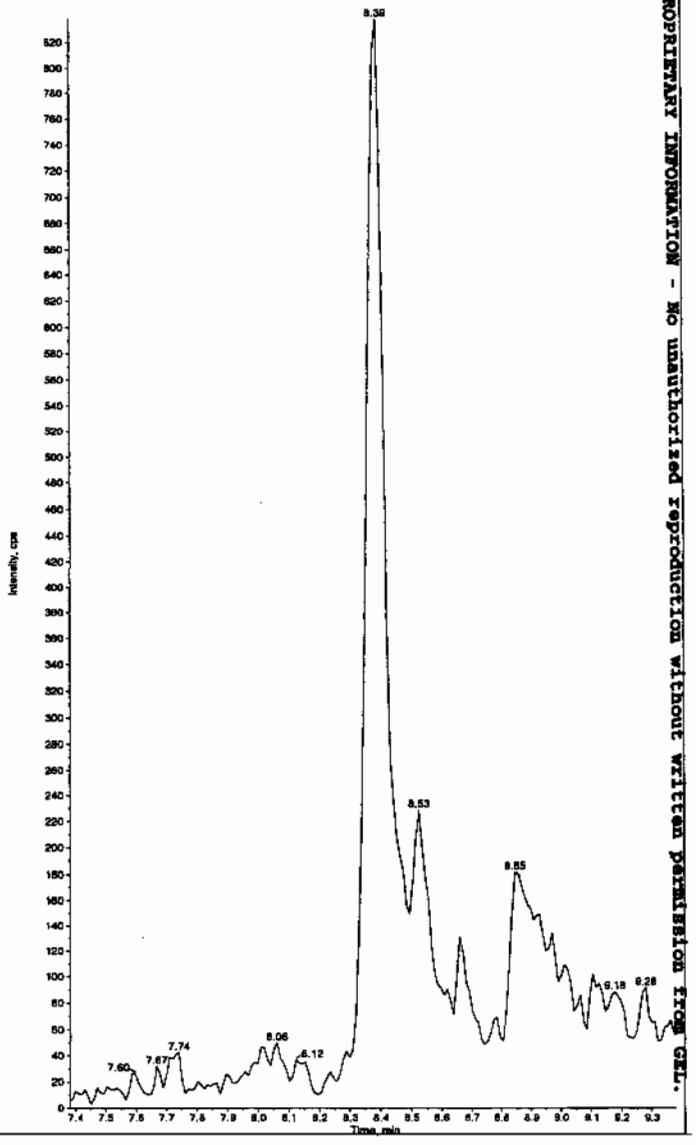

Hm m 02/17/10

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02140018.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No

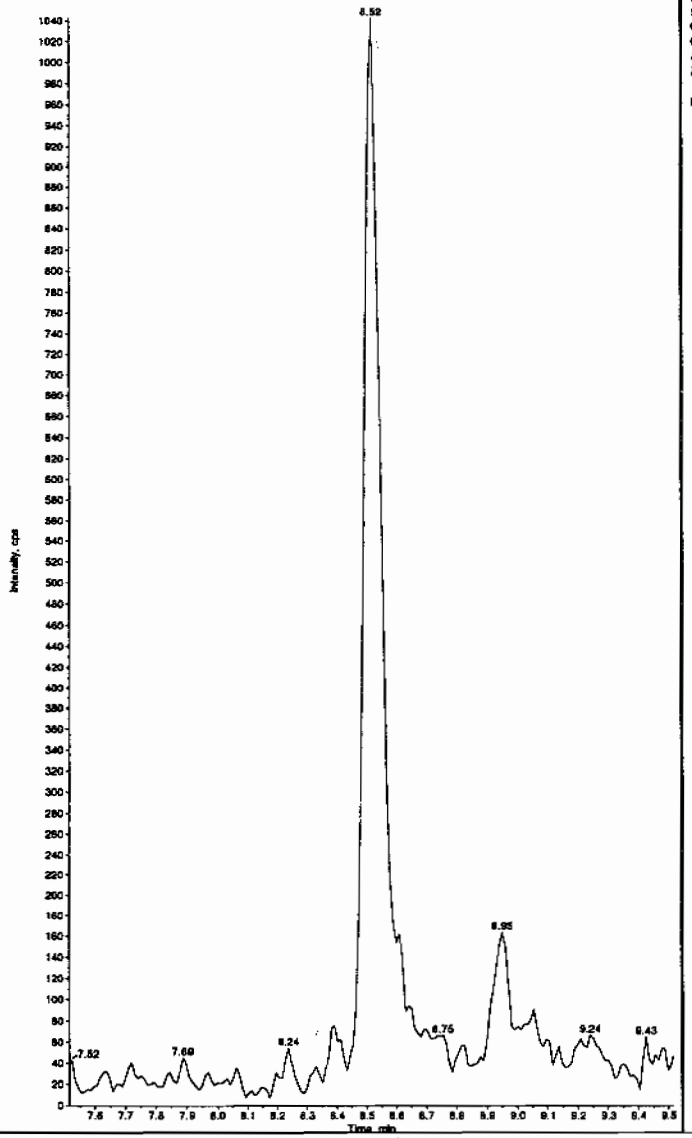

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02140018.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No

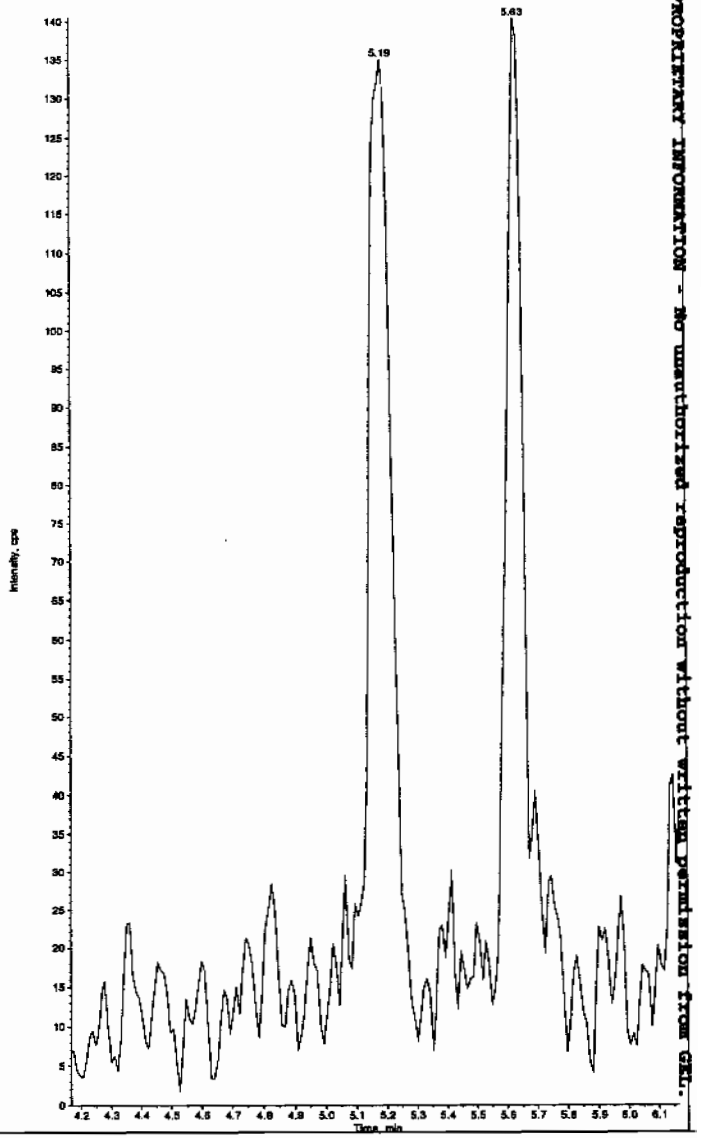

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02140018.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No

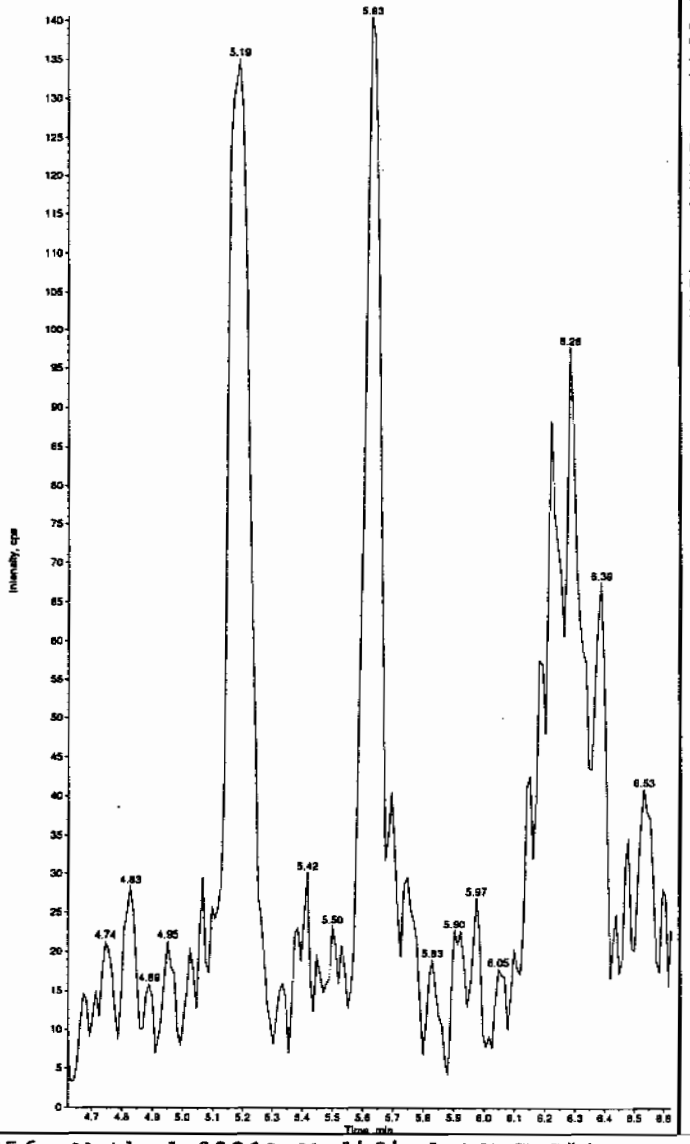

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02140018.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.11 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:44:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.35e+005 counts
Height: 30021.994 cps
Start Time: 10.9 min
End Time: 11.3 min

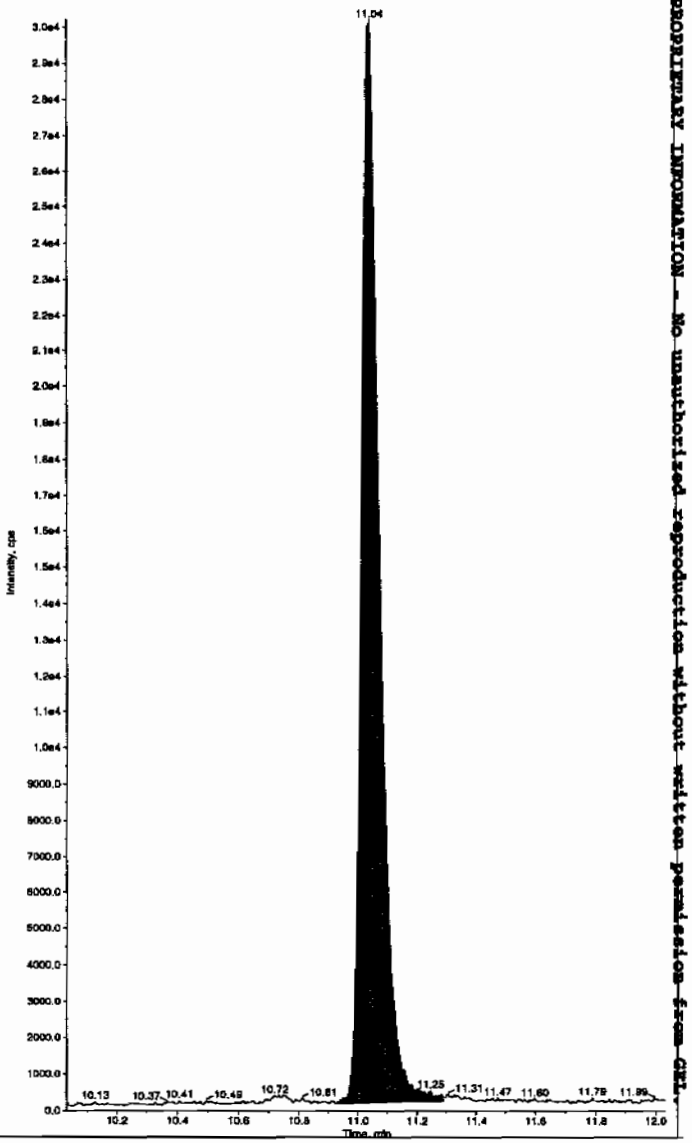

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 14–FEB–10 22:08

GEL Data File: EXS02140031.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.87
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCM 2/17/10

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02140031.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/14/2010
cq. Time: 10:08:32 PM

odified: No

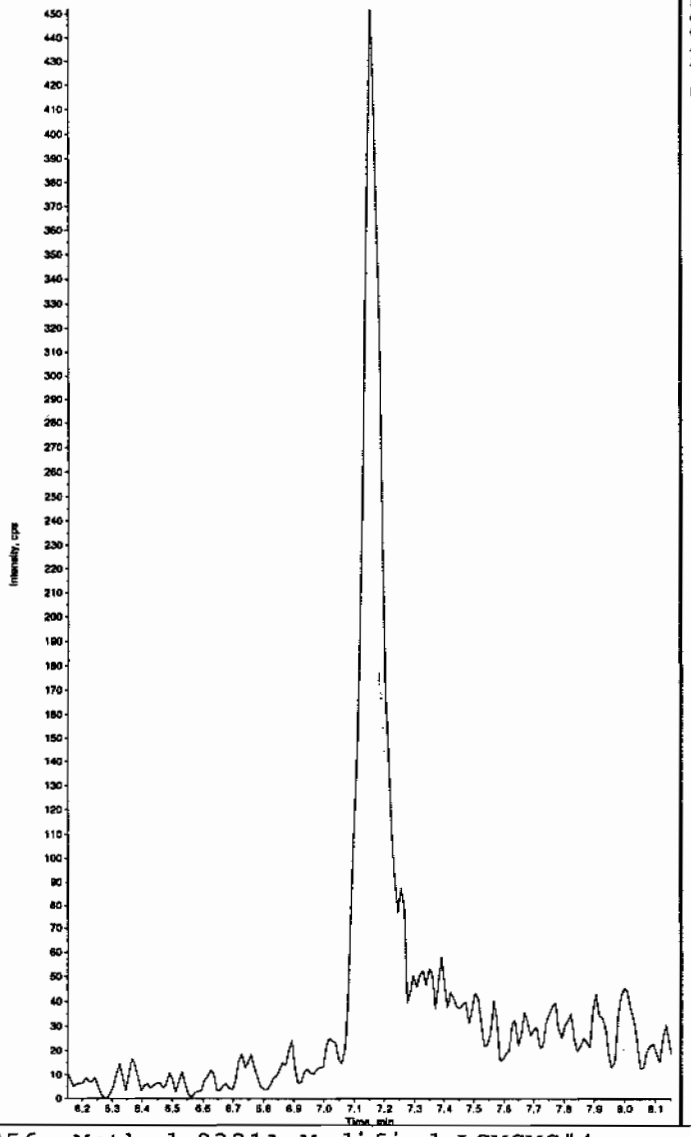

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02140031.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 10:08:32 PM

Modified: No

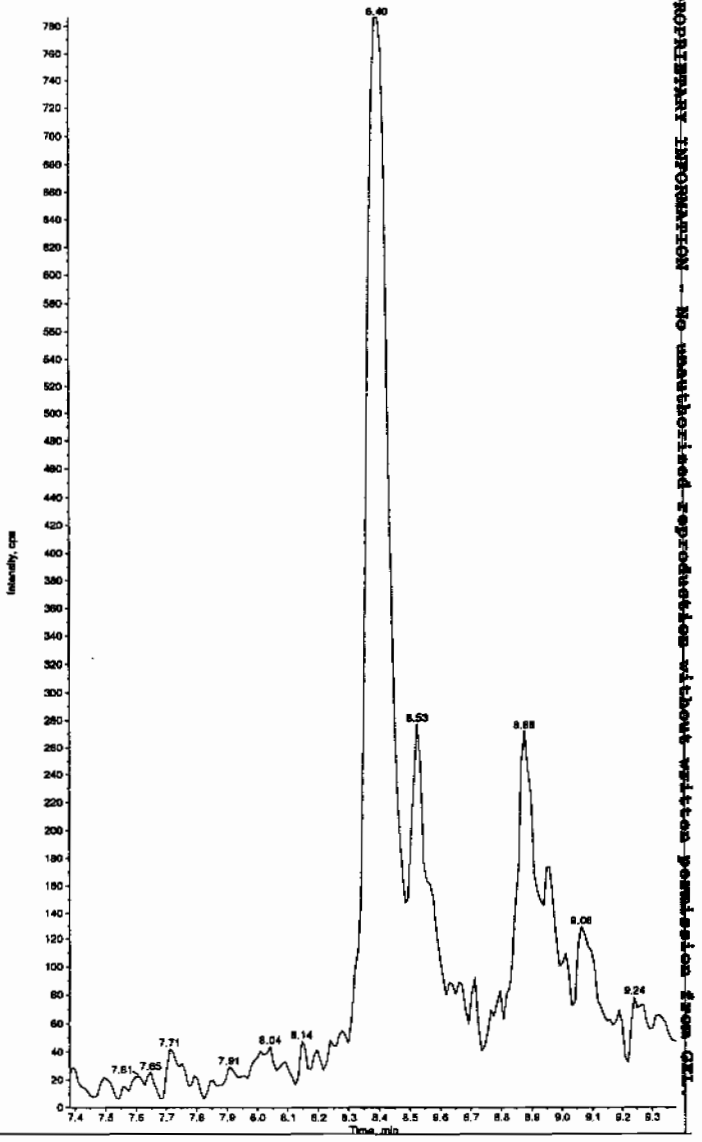

Hume 02/17/10

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Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02140031.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/14/2010
cq. Time: 10:08:32 PM

odified: No

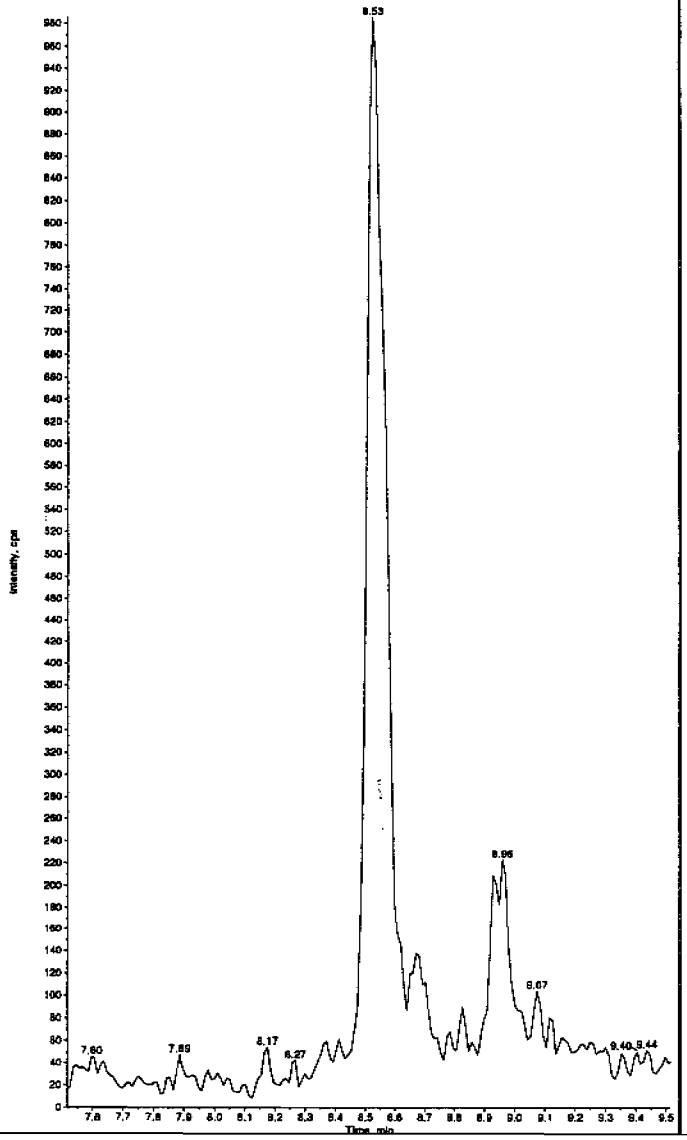

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02140031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 10:08:32 PM

Modified: No

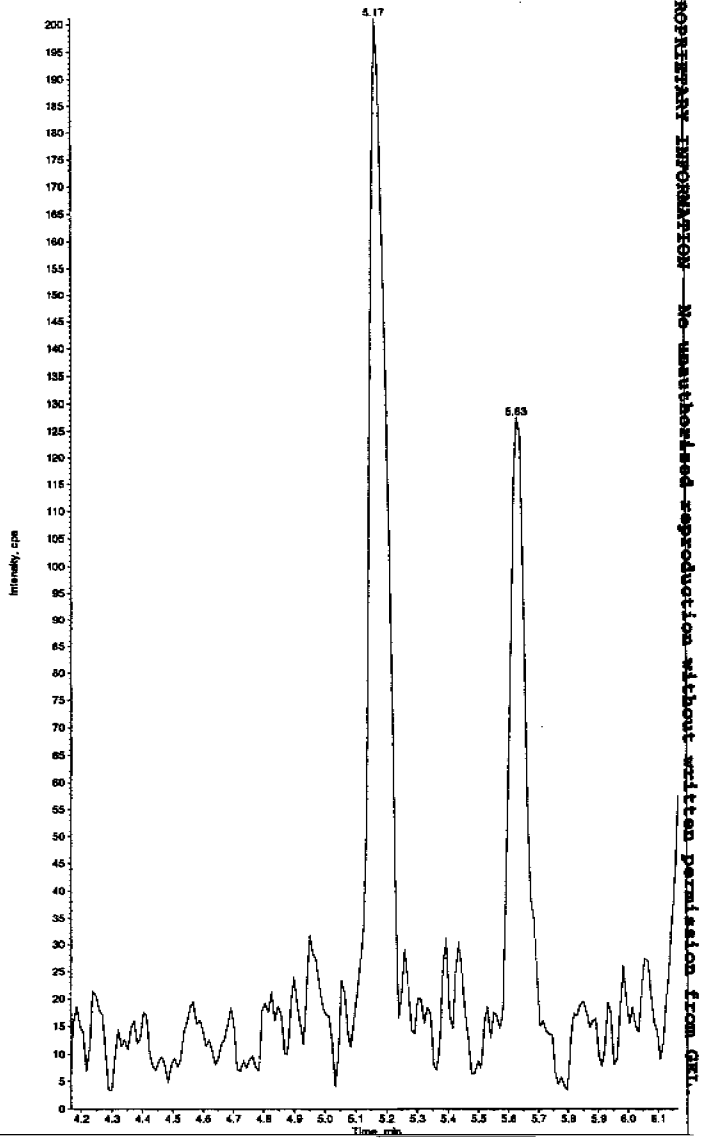

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XiBLK05" Sample ID: "[1]LER" File: "EXS02140031.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

mple Index: 1
mple Type: Unknown
oncentration: N/A
lculated Conc: 0.00 ng/mL
cq. Date: 2/14/2010
cq. Time: 10:08:32 PM

odified: No

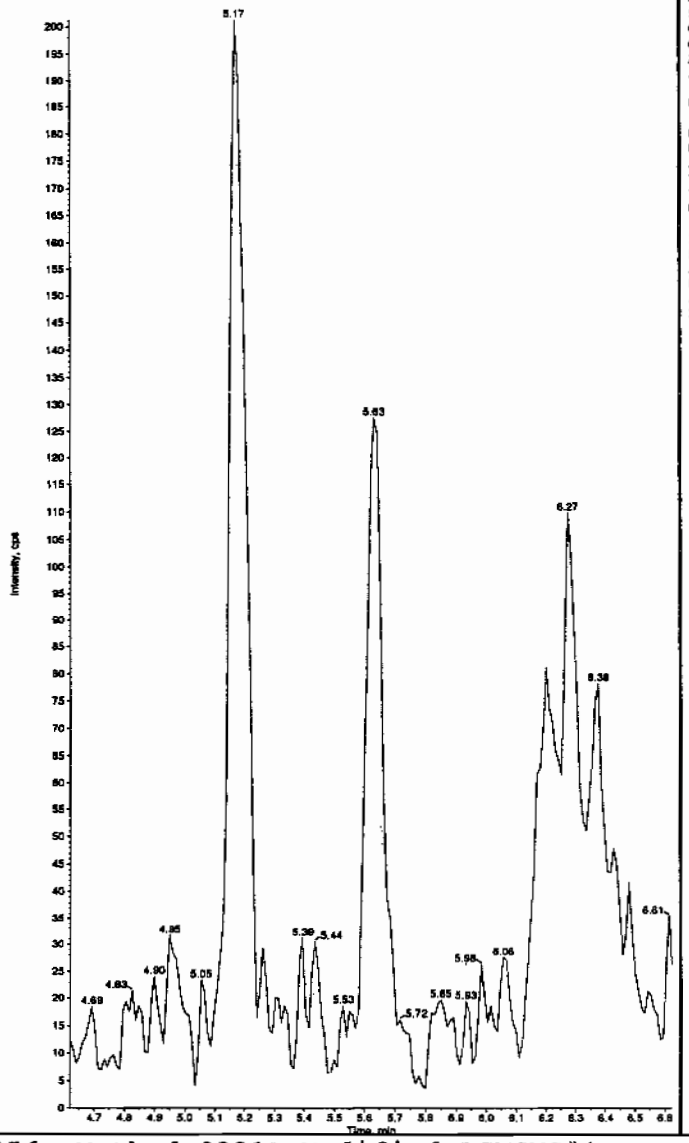

Sample Name: "XiBLK05" Sample ID: "[1]LER" File: "EXS02140031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.87 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 10:08:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.30e+005 counts
Height: 30448.900 cps
Start Time: 10.9 min
End Time: 11.3 min

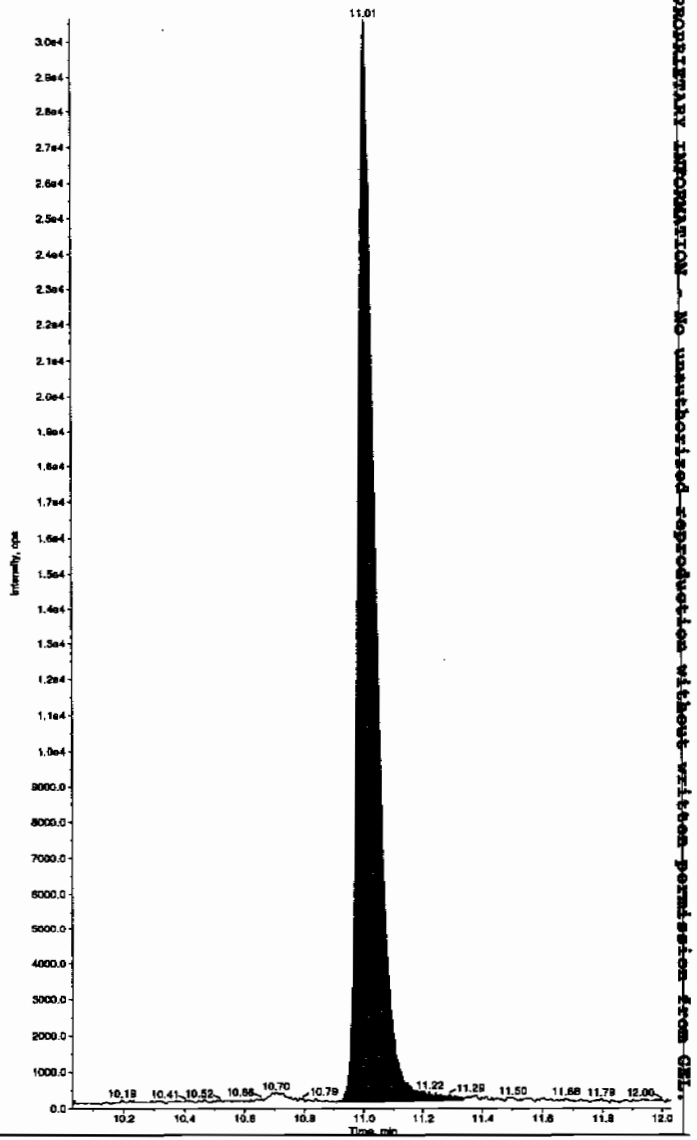

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 15-FEB-10 01:32

GEL Data File: EXS02140044.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.4
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Scn 2/17/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140044.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index:	1
ample Type:	Unknown
oncentration:	N/A
alculated Conc:	0.00 ng/mL
cq. Date:	2/15/2010
cq. Time:	1:32:40 AM
odified:	No

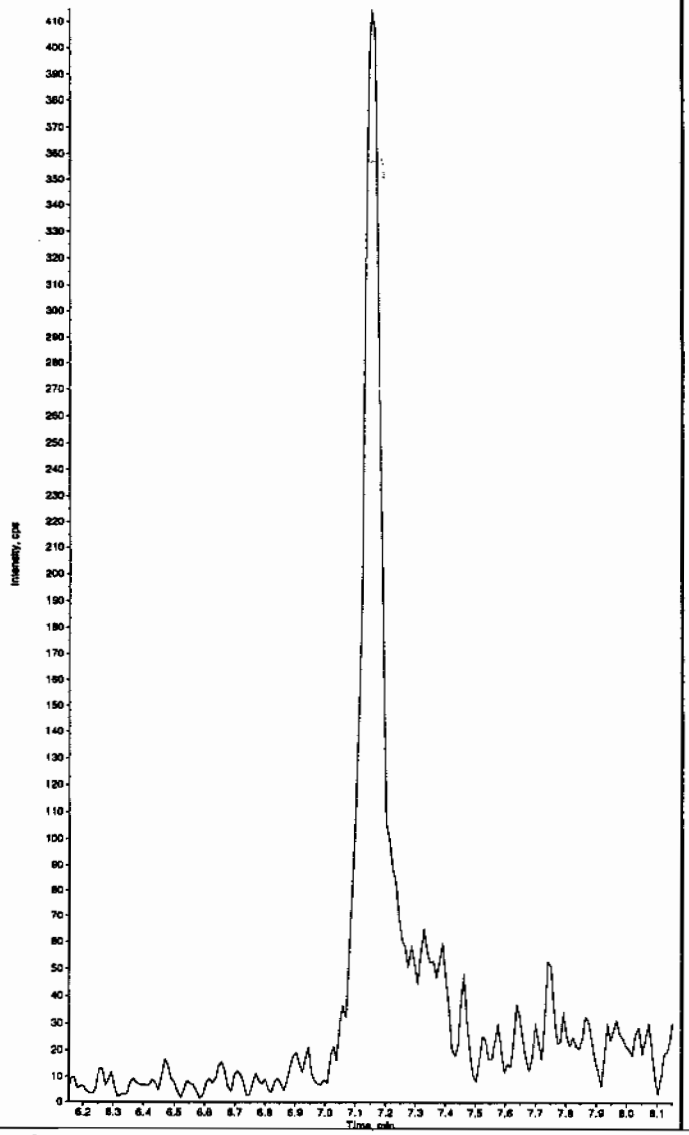

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	1:32:40 AM
Modified:	No

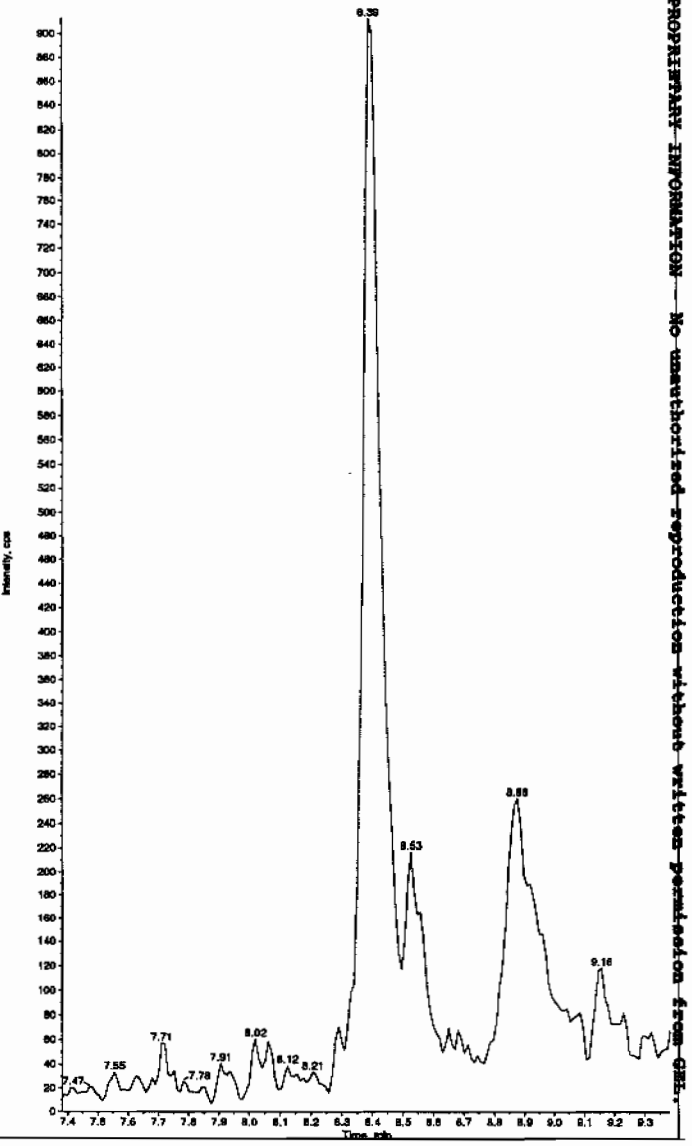

Hmm 02/17/10

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Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02140044.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:32:40 AM

Modified: No

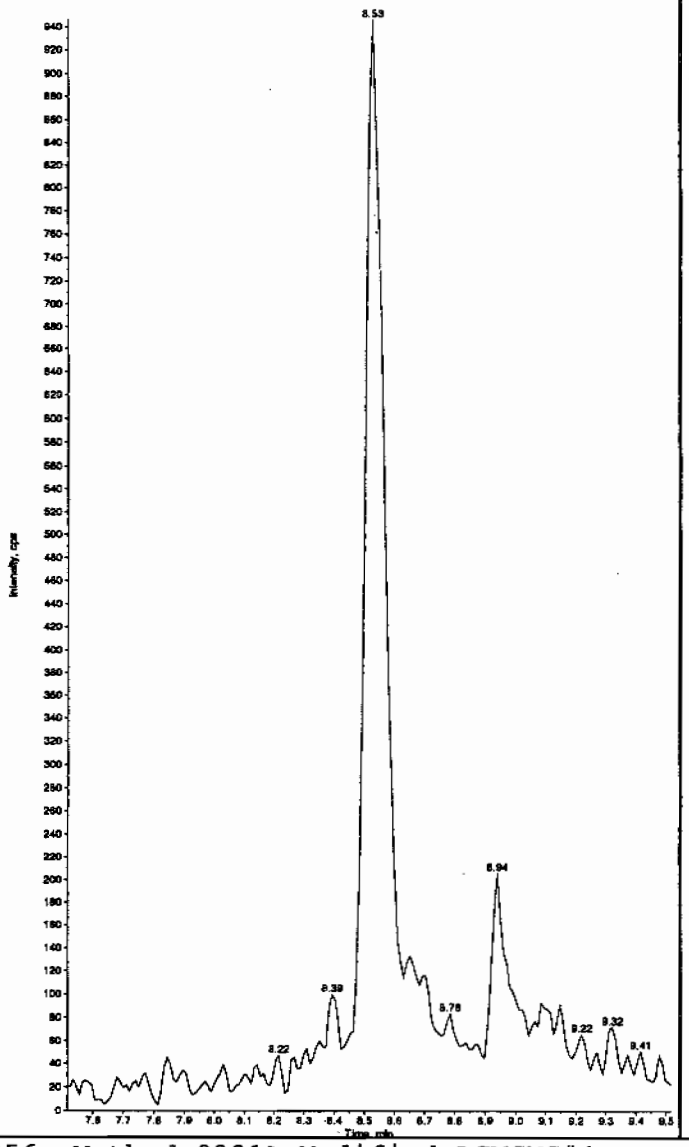

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02140044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:32:40 AM

Modified: No

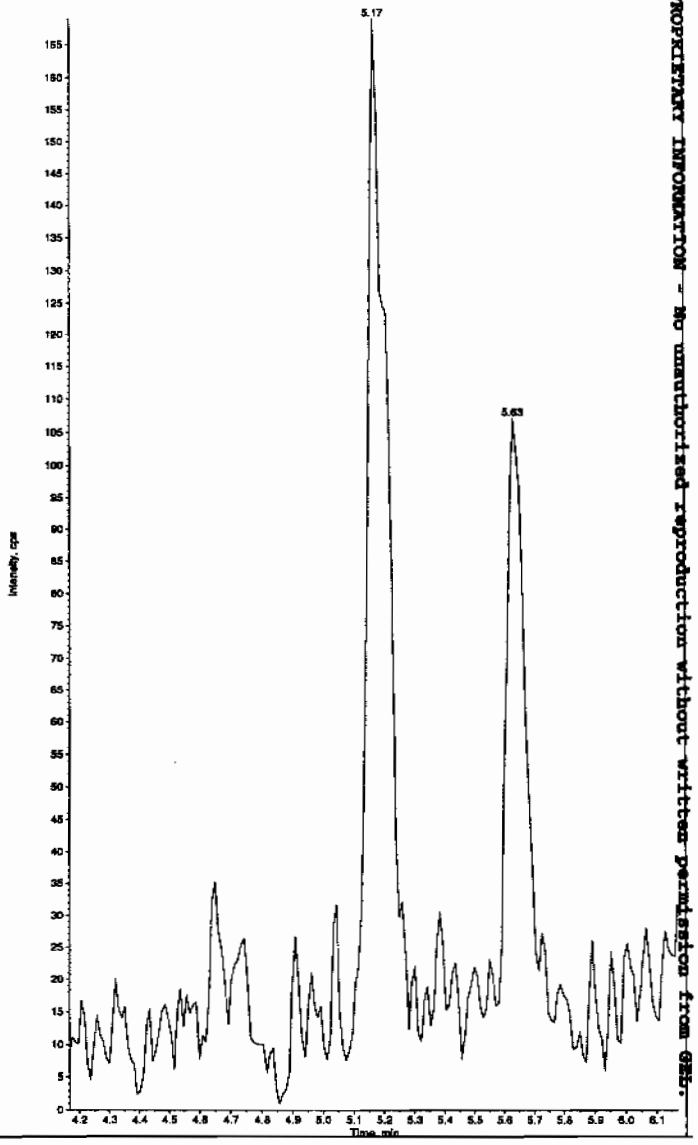

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Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140044.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/15/2010
cq. Time: 1:32:40 AM

odified: No

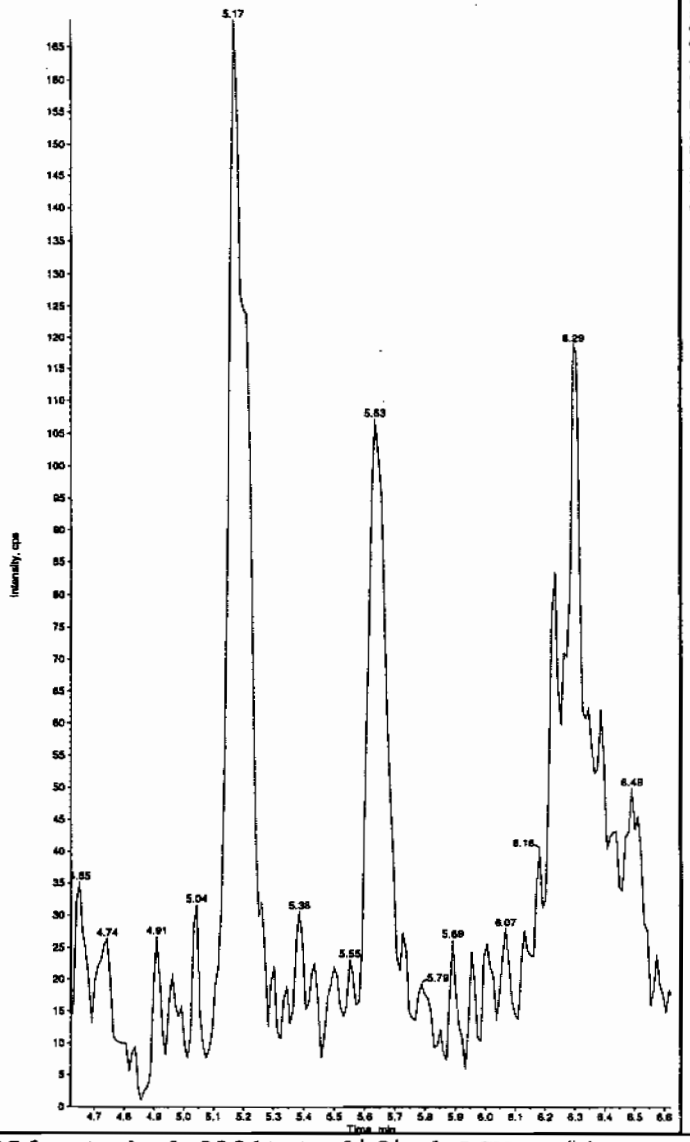

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.40 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:32:40 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.18e+005 counts
Height: 27573.803 cps
Start Time: 10.9 min
End Time: 11.2 min

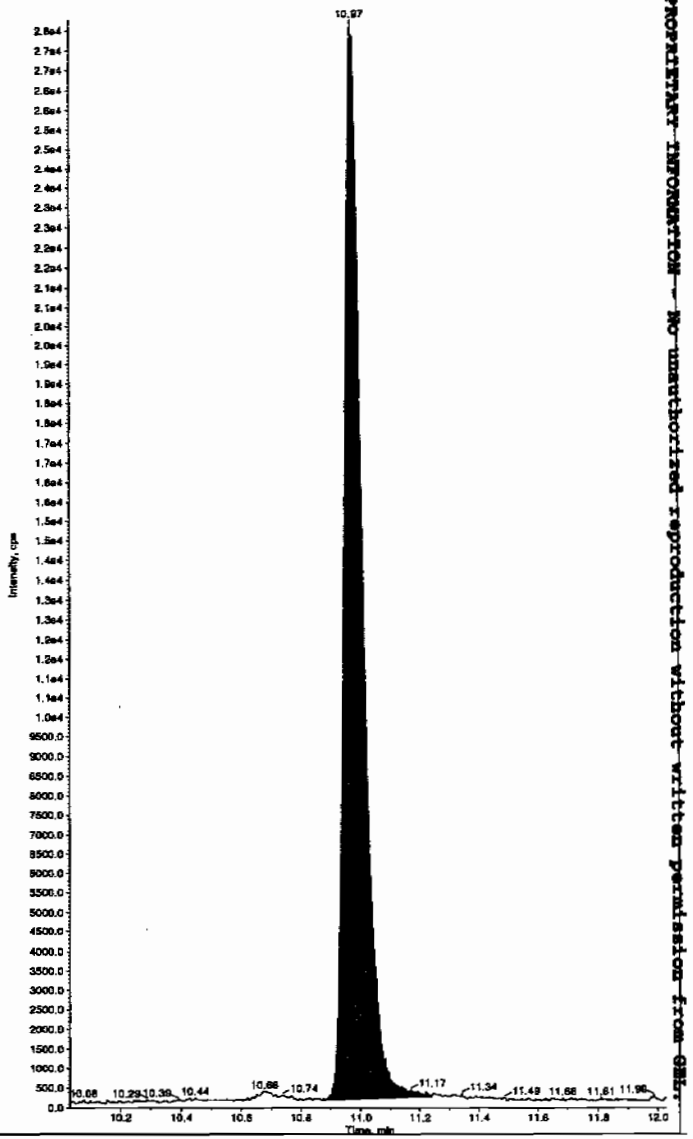

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 15-FEB-10 02:35

GEL Data File: EXS02140048.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.58
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ler 2/17/10

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:35:28 AM

Modified: No

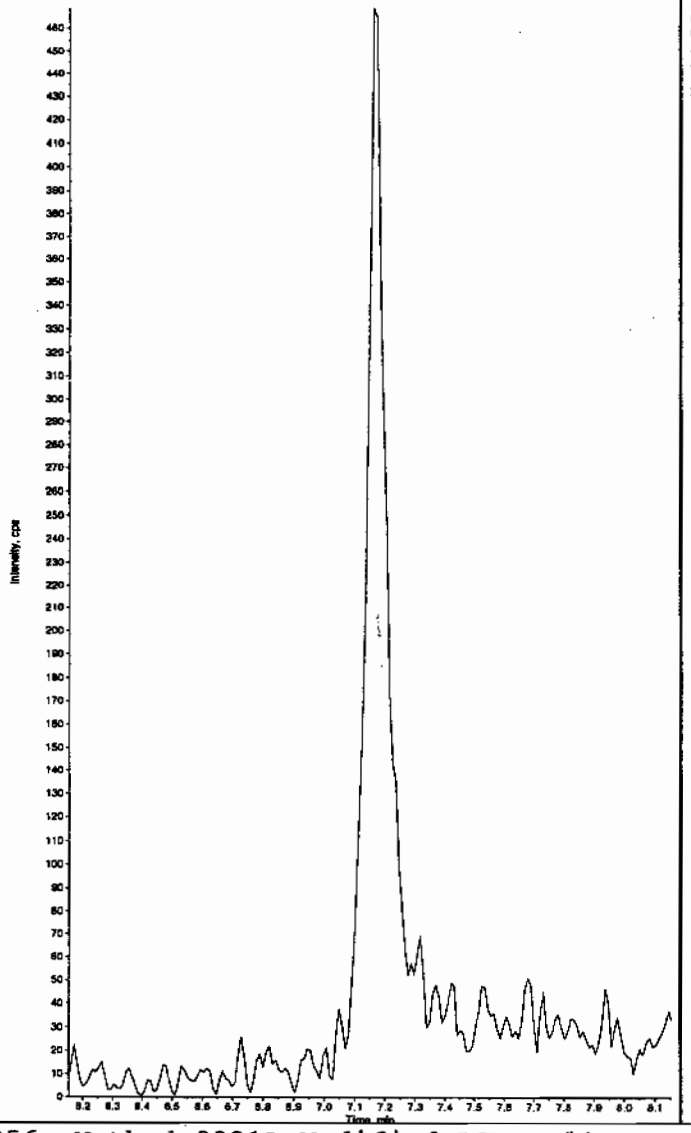

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:35:28 AM

Modified: No

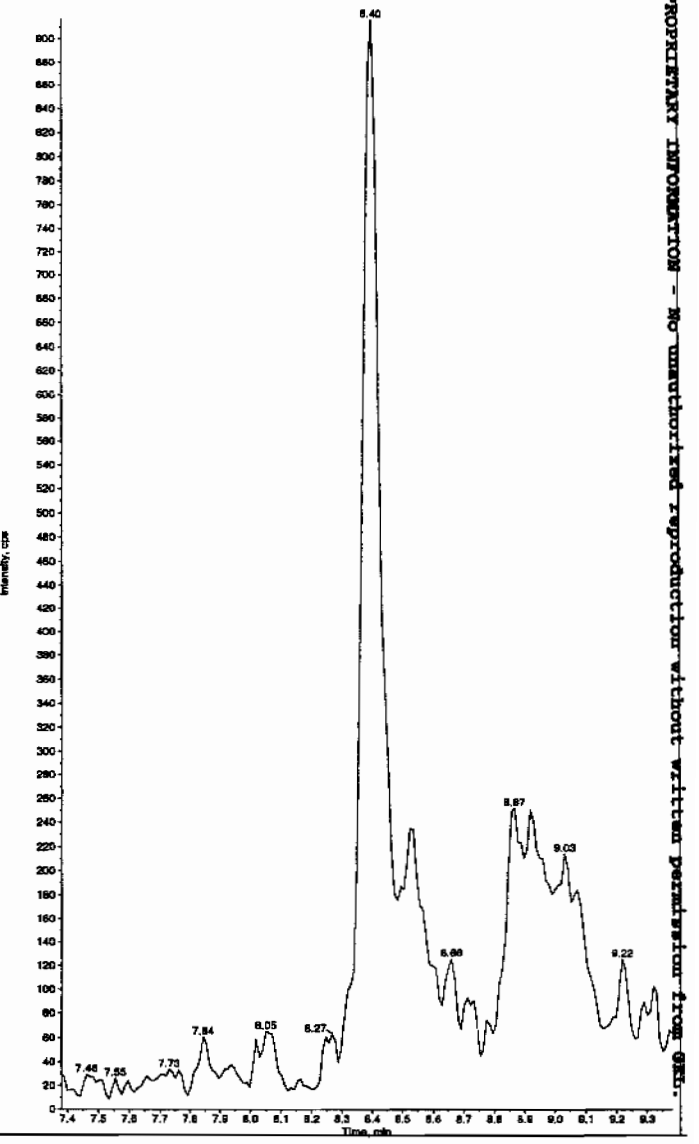

Hume 02/17/10

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Sample Name: "XI6LK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:35:28 AM

Modified: No

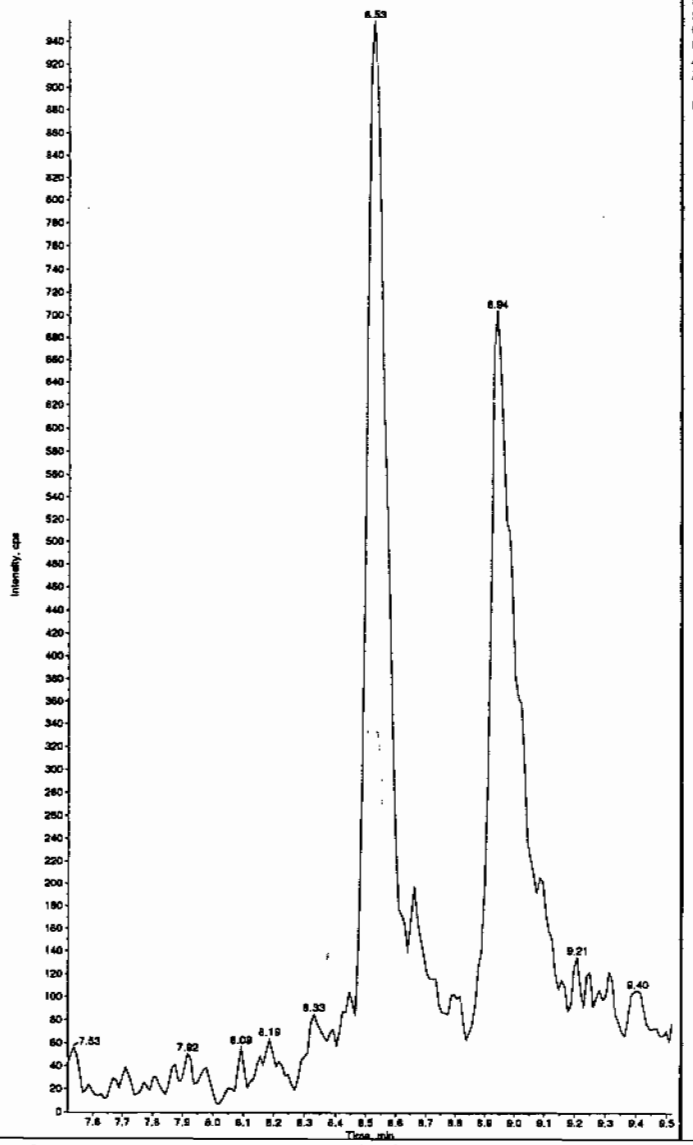

Sample Name: "XI6LK07" Sample ID: "[1]LER" File: "EXS02140046.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:35:18 AM

Modified: No

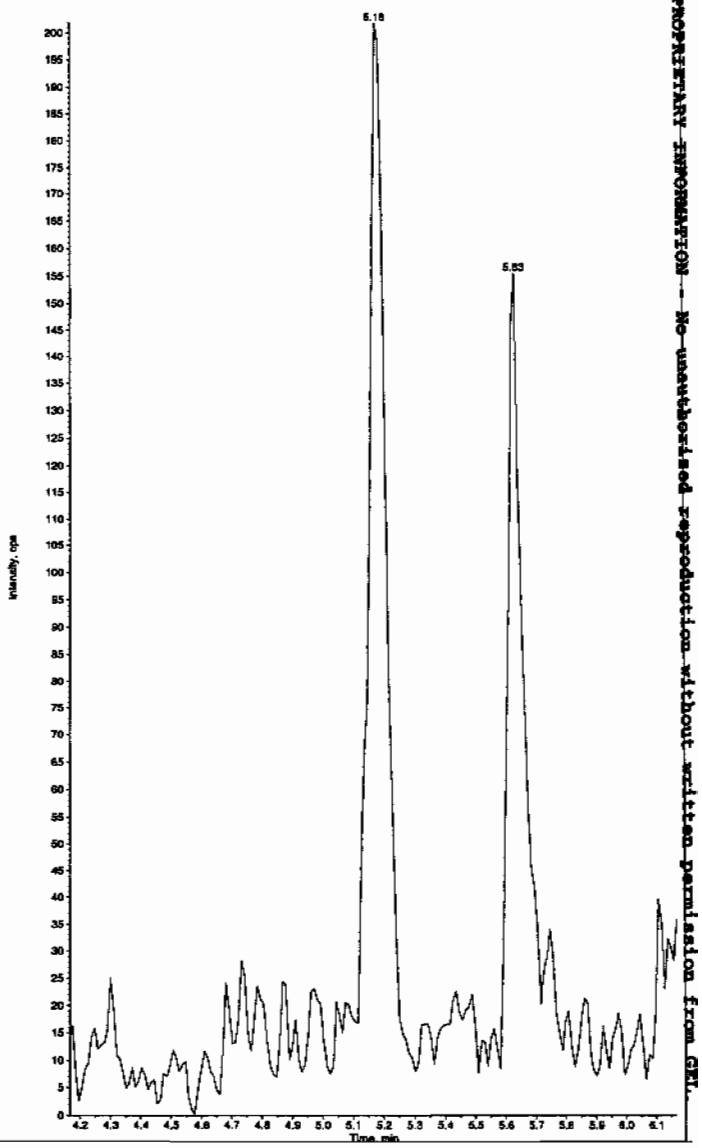

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/15/2010
cq. Time: 2:35:28 AM

odified: No

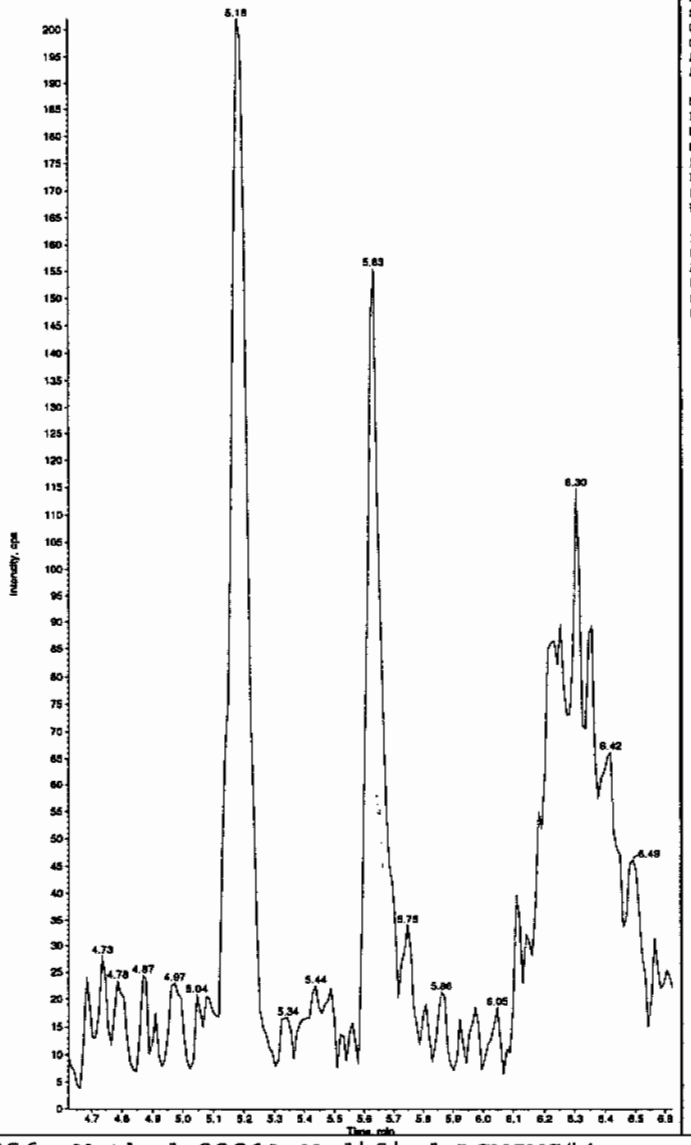

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02140048.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.58 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:35:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 9.90e+004 counts
Height: 22617.477 cps
Start Time: 10.9 min
End Time: 11.3 min

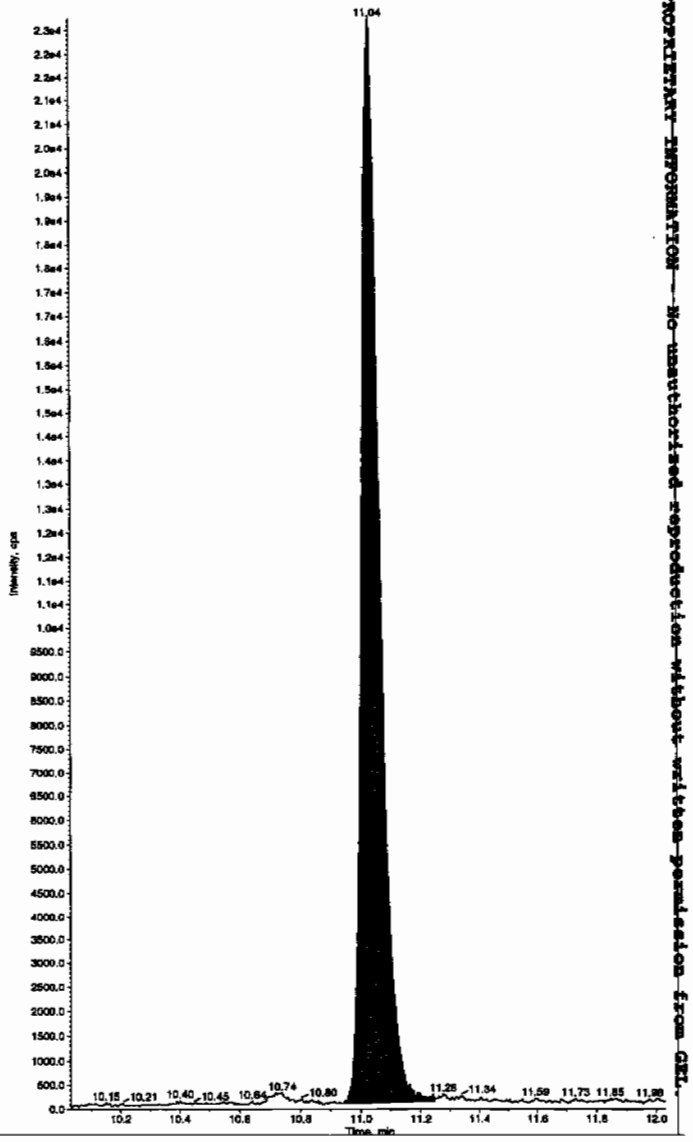

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 15–FEB–10 04:56

GEL Data File: EXS02140057.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.01
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0

Lan 2/17/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/15/2010
cq. Time: 4:56:50 AM

odified: No

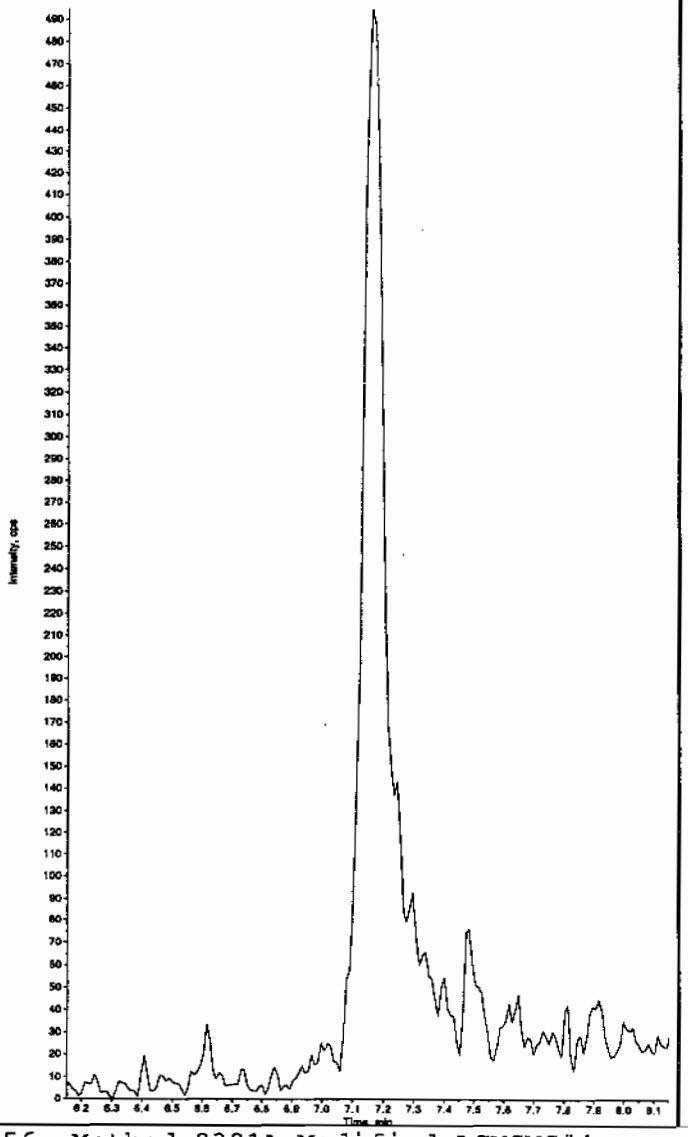

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:56:50 AM

Modified: No

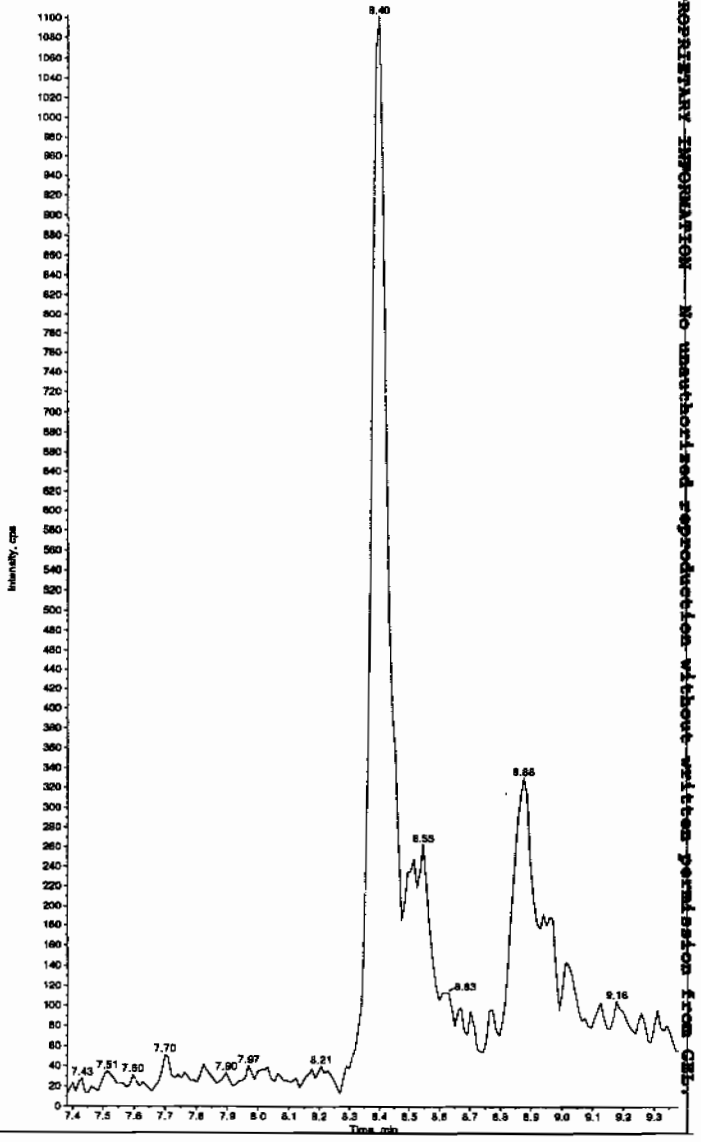

Hum 02/17/10

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Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/15/2010
cq. Time: 4:56:50 AM

odified: No

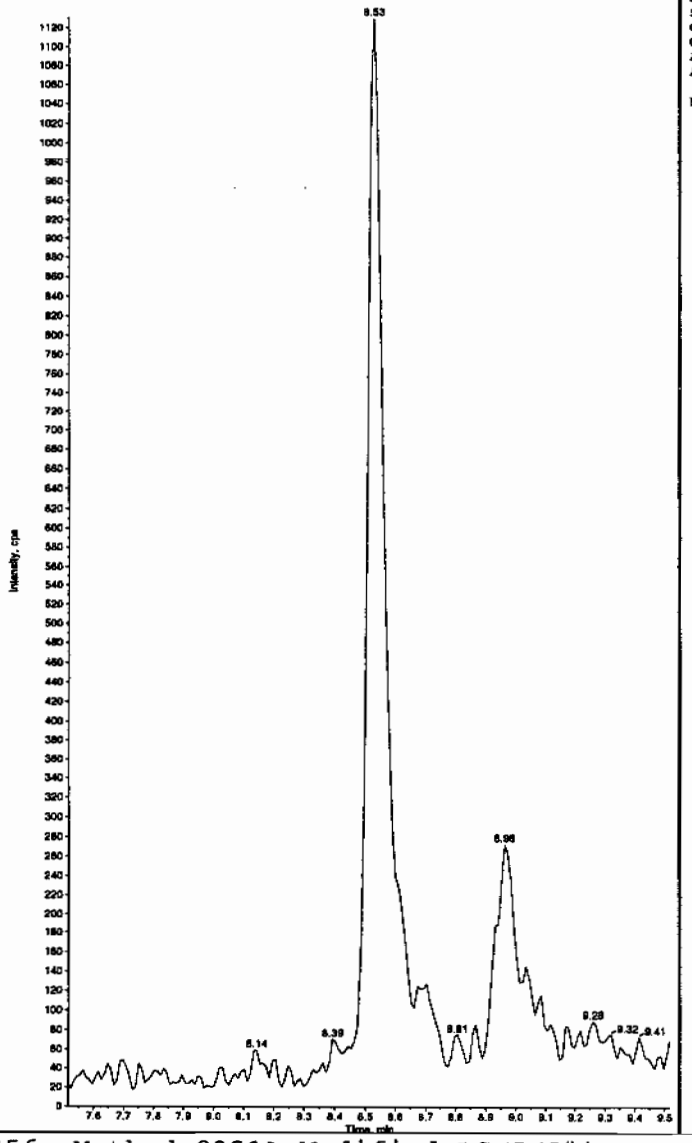

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:56:50 AM

Modified: No

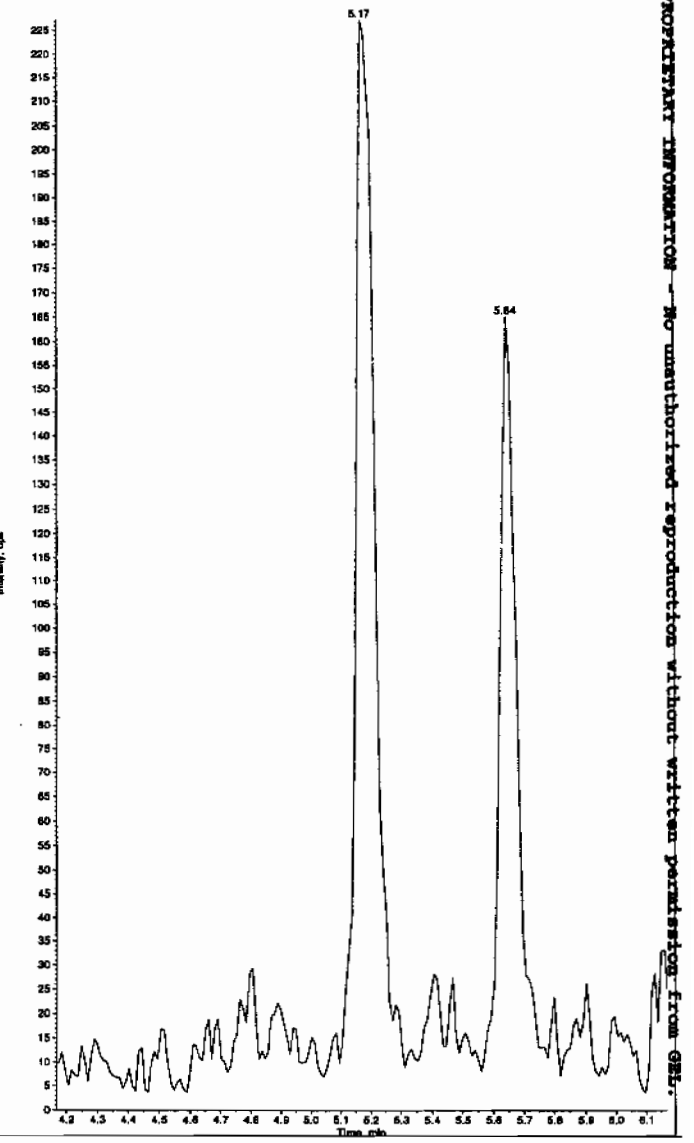

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Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:56:50 AM

Modified: No

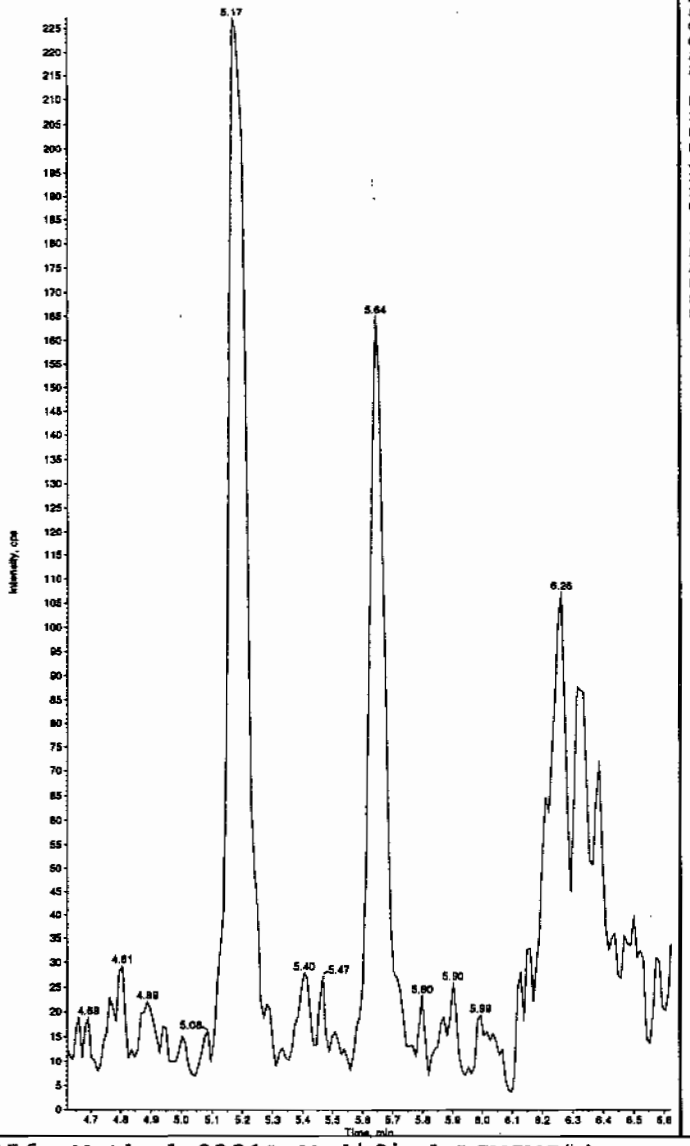

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02140057.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.01 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:56:50 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.33e+005 counts
Height: 29666.075 cps
Start Time: 10.9 min
End Time: 11.4 min

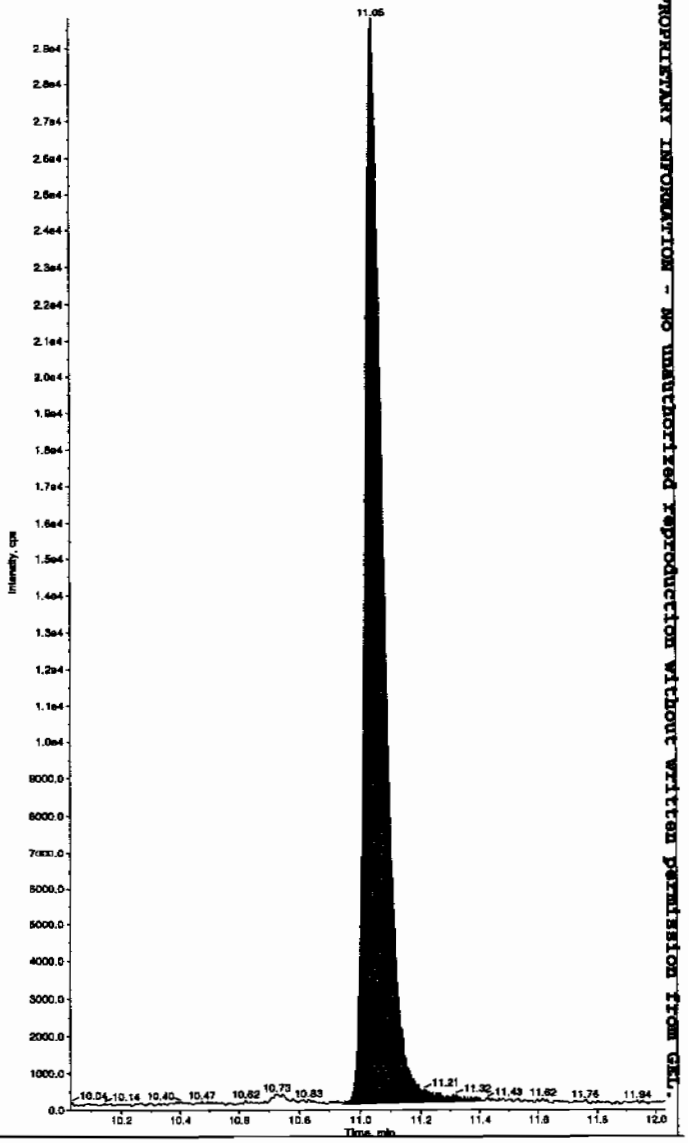

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 15-FEB-10 06:31

GEL Data File: EXS02140063.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.25
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lem 2/17/10

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02140063.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No

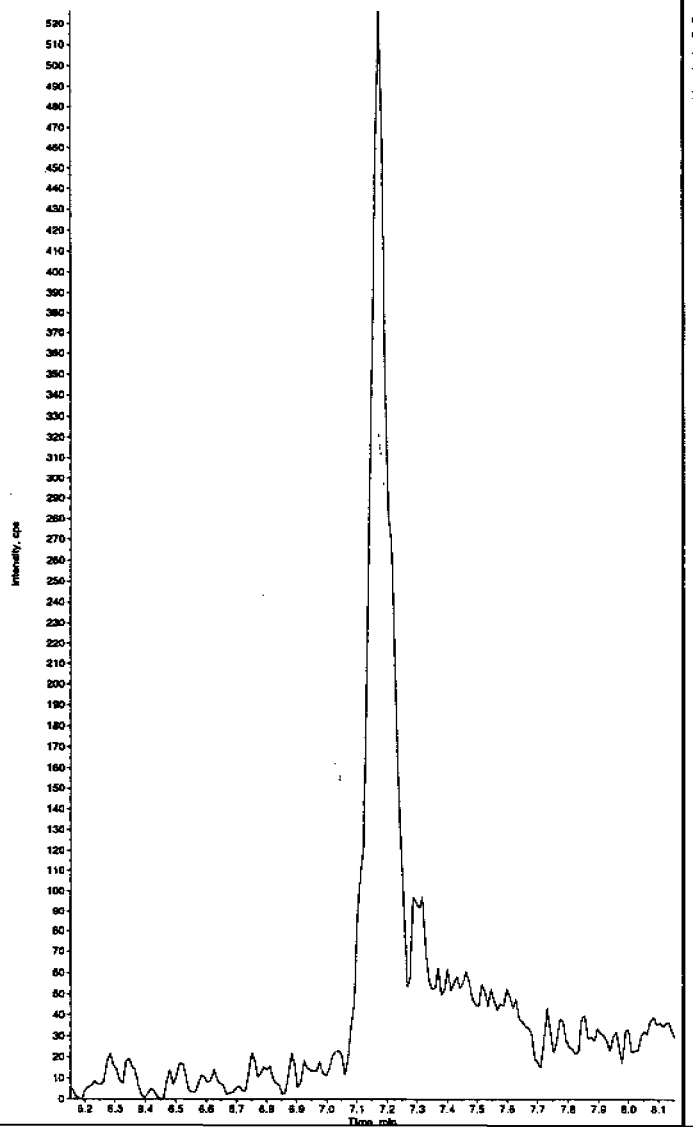

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02140063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No

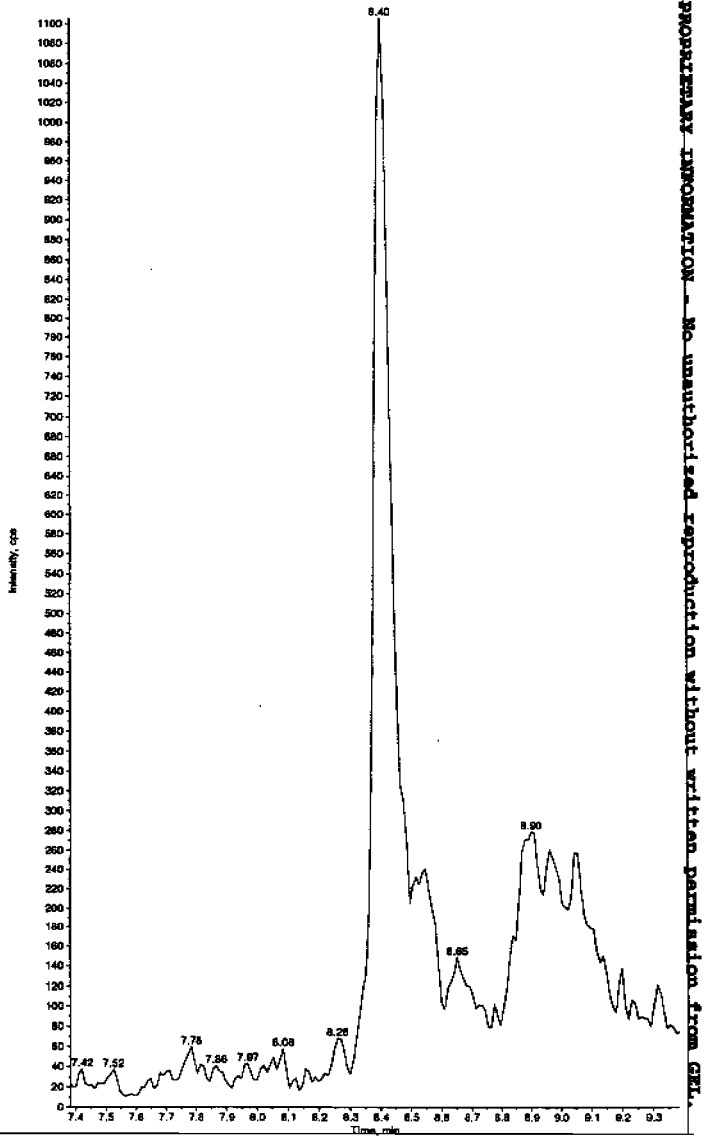

Hm 02/17/10

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Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02140063.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No

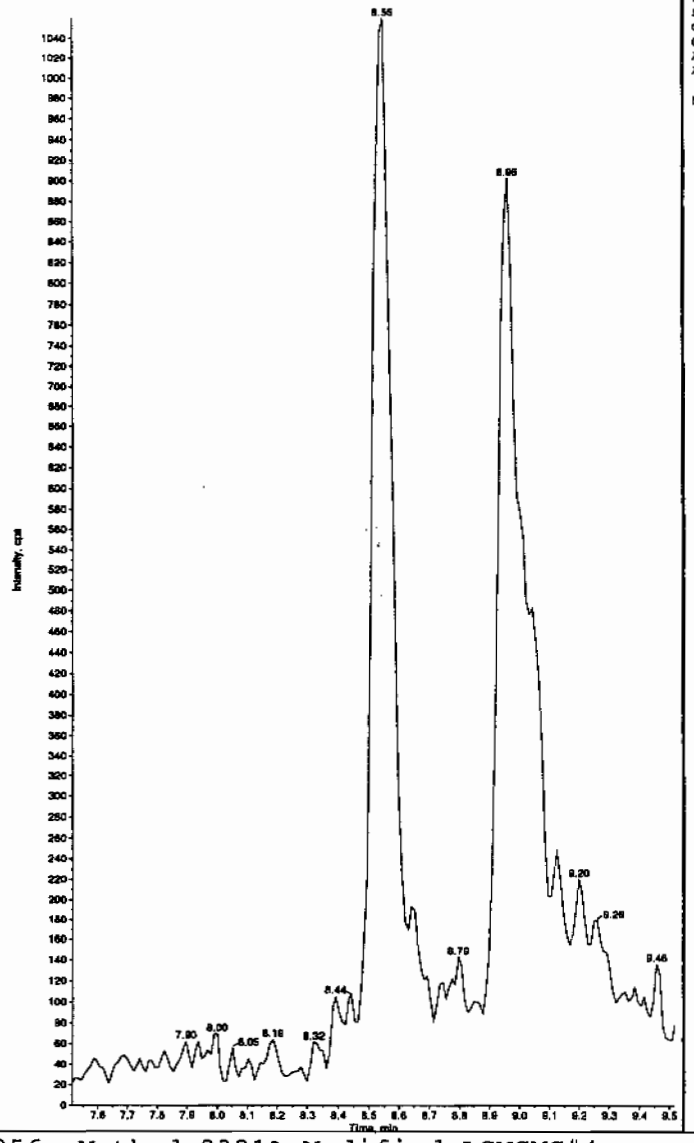

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02140063.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/48.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No

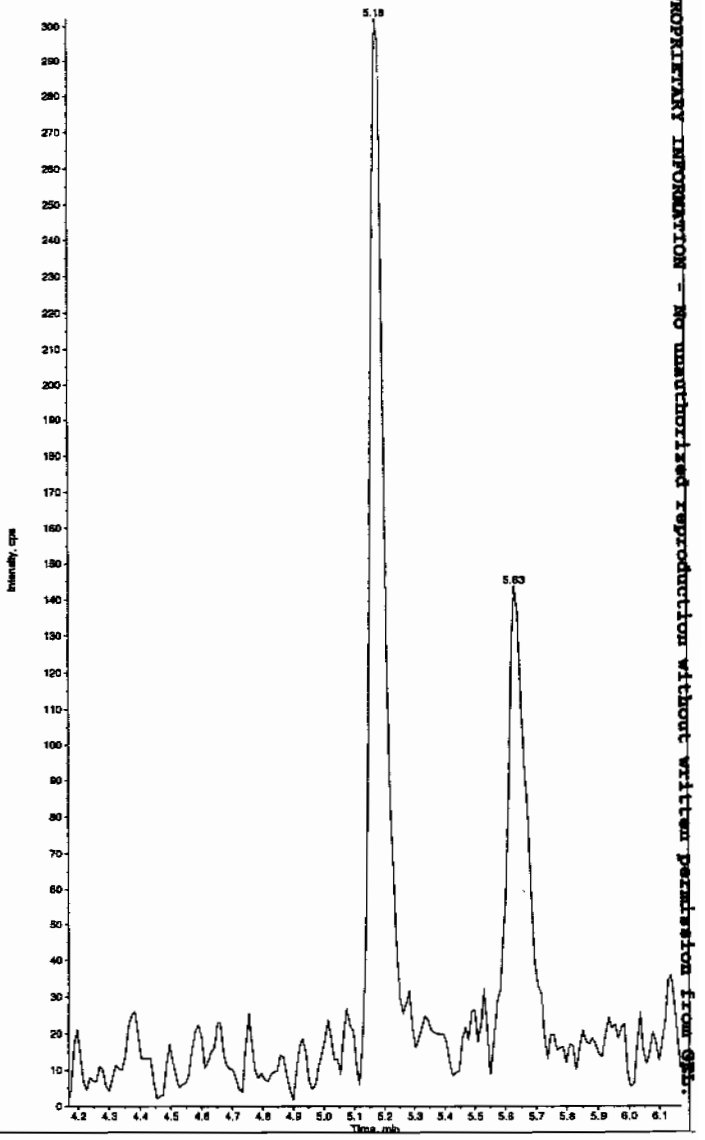

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Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02140063.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No

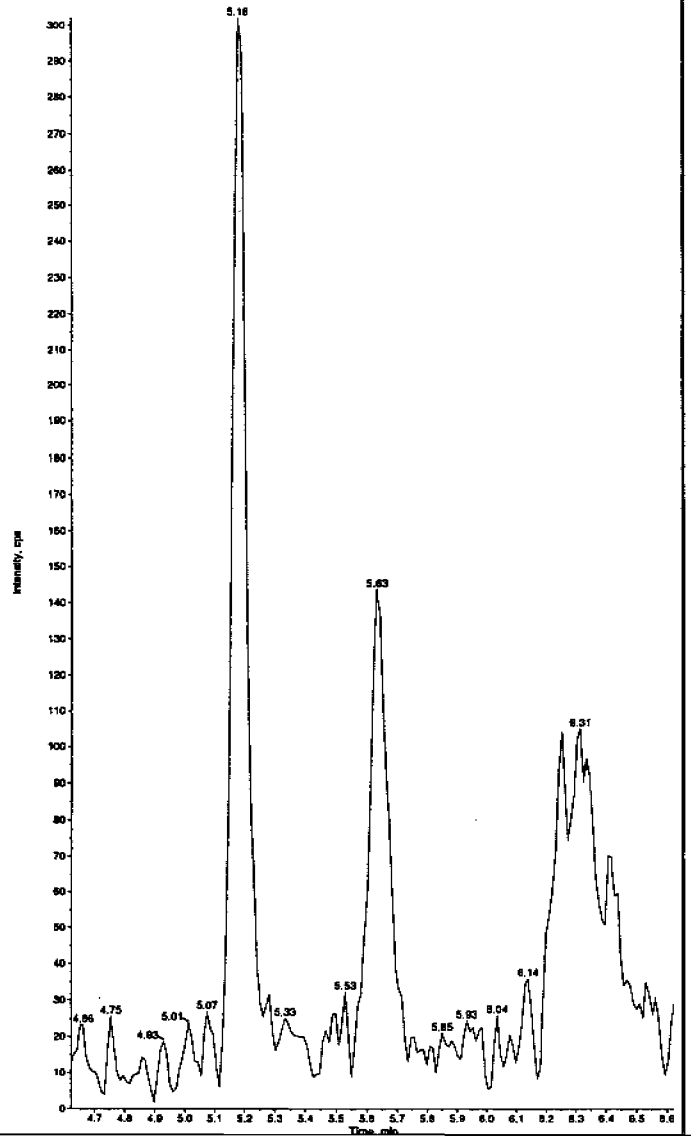

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02140063.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.25 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:31:02 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.15e+005 counts
Height: 25551.302 cps
Start Time: 10.9 min
End Time: 11.4 min

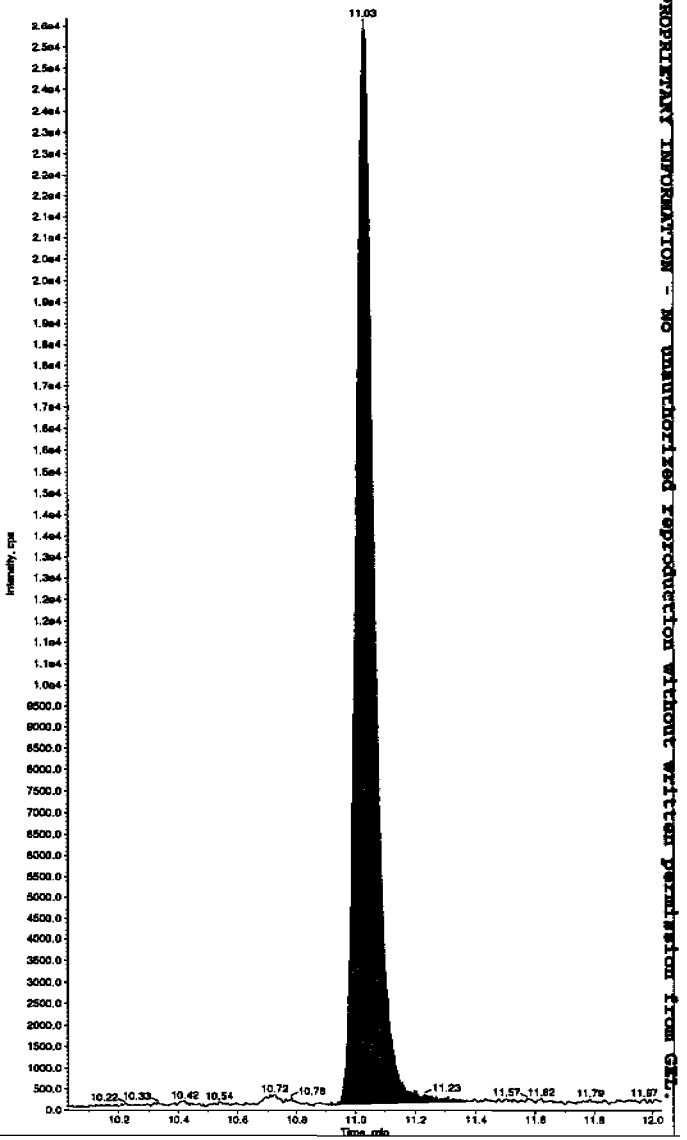

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 15–FEB–10 08:21

GEL Data File: EXS02140070.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.13
TATB	0	0
3,5–Dinitroaniline	0	0

Lcm 2/17/10

Sample Name: "XIBLK10" Sample ID: "j1|LER" File: "EXS02140070.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:21:01 AM
Modified: No

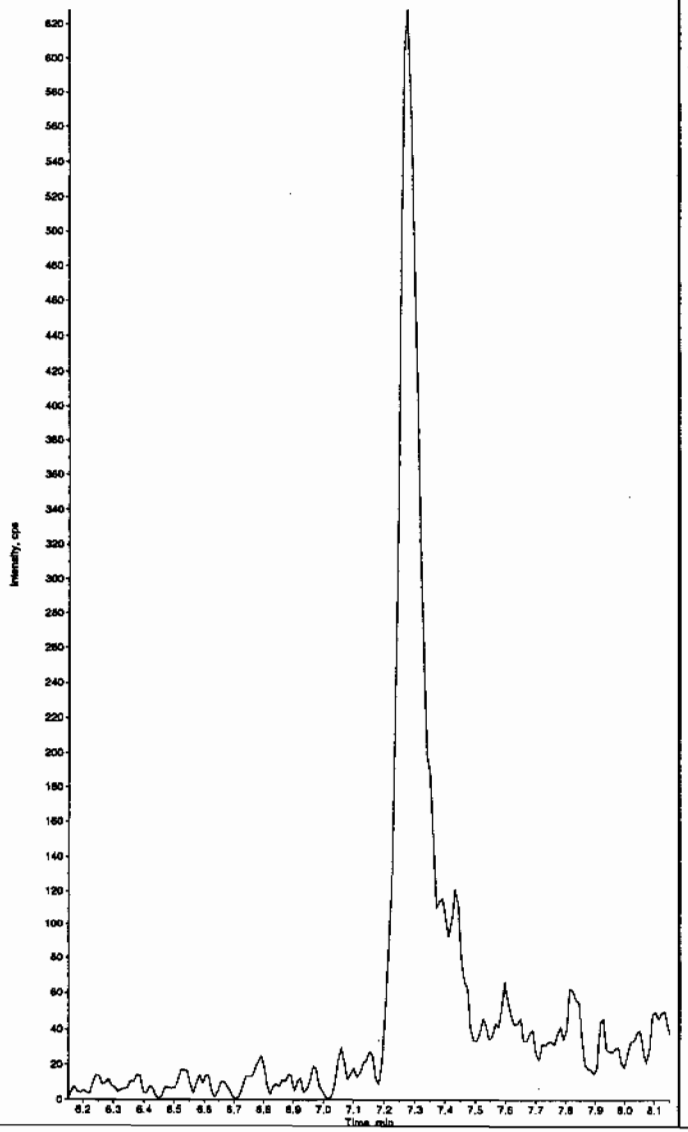

Sample Name: "XIBLK10" Sample ID: "j1|LER" File: "EXS02140070.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:21:01 AM
Modified: No

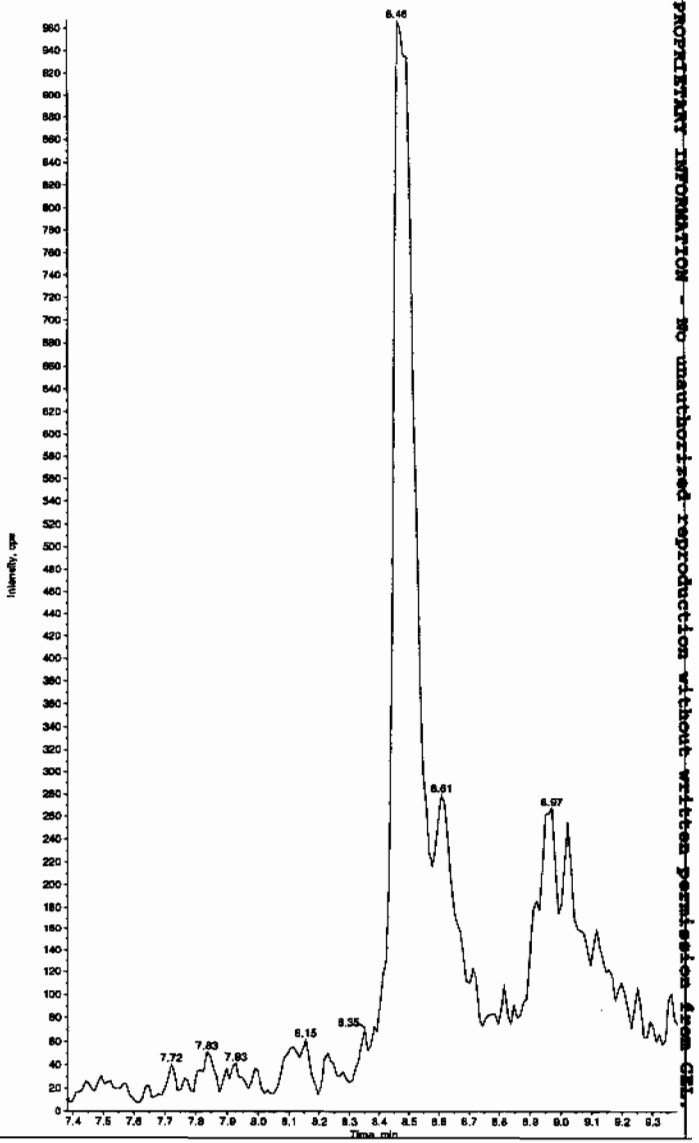

Hum 02/17/10

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Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02140070.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/15/2010
cq. Time: 8:21:01 AM

odified: No

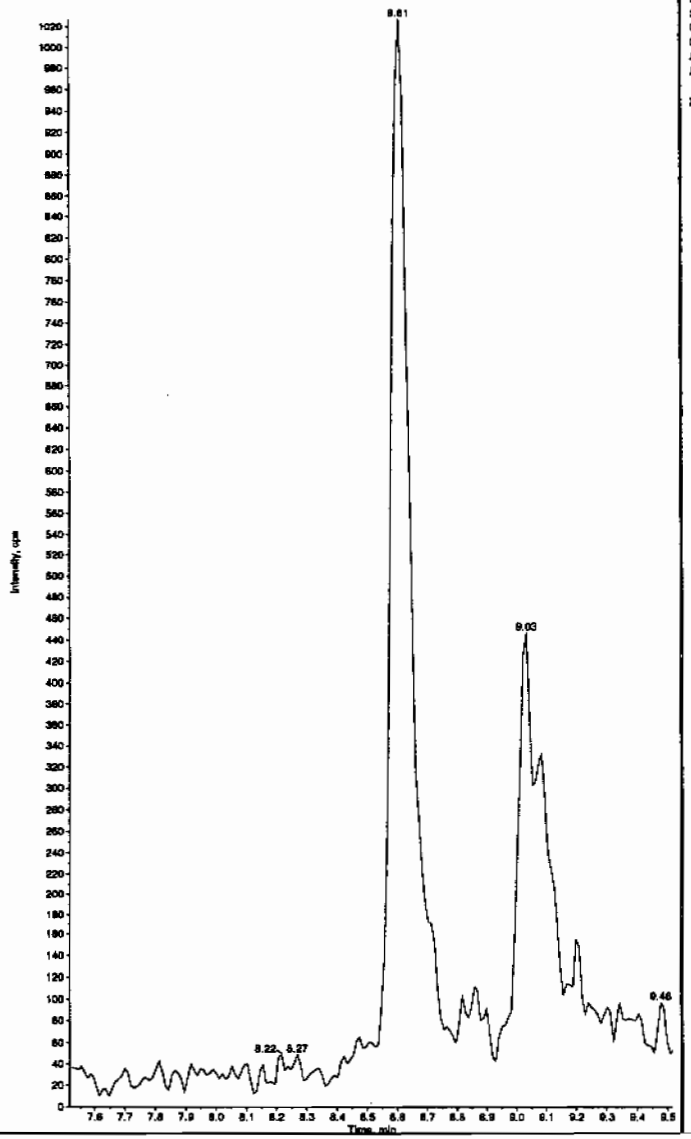

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02140070.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:21:01 AM

Modified: No

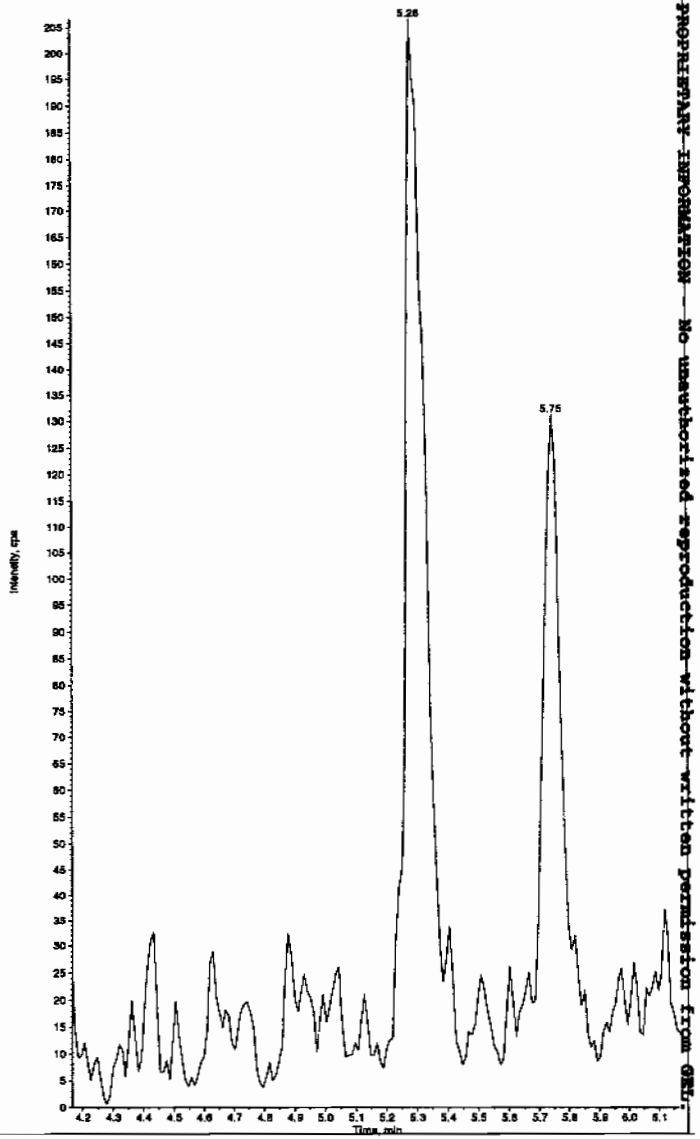

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Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02140070.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:21:01 AM

Modified: No

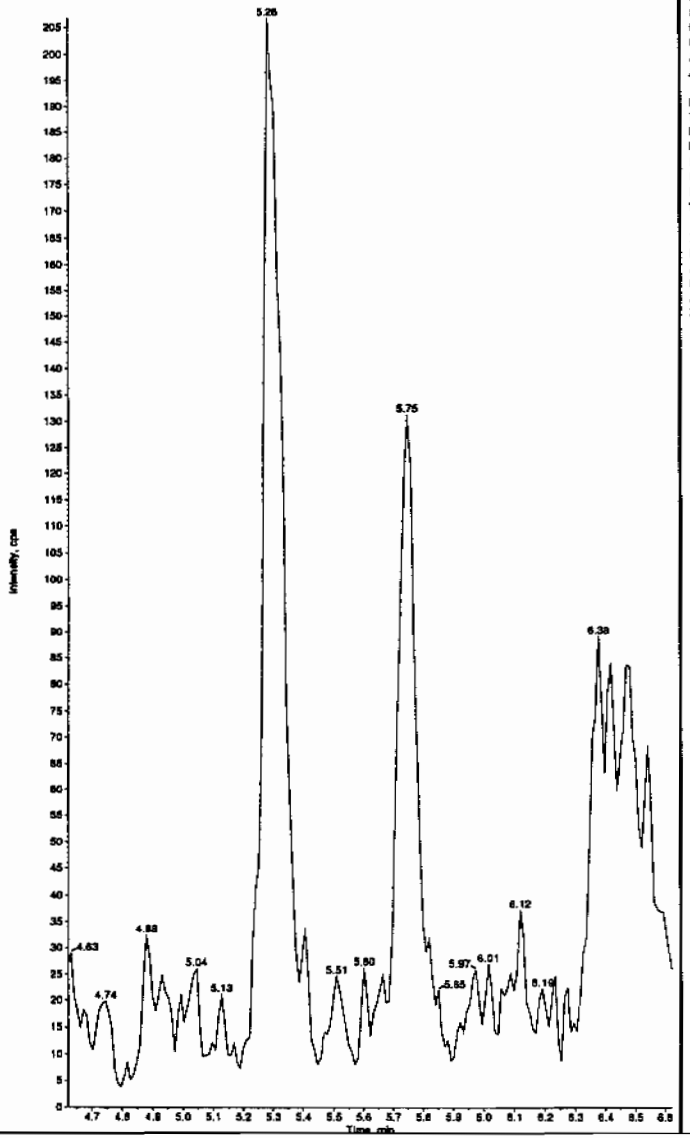

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02140070.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.13 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:21:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.1 min
Area: 1.59e+005 counts
Height: 37511.536 cps
Start Time: 11.0 min
End Time: 11.3 min

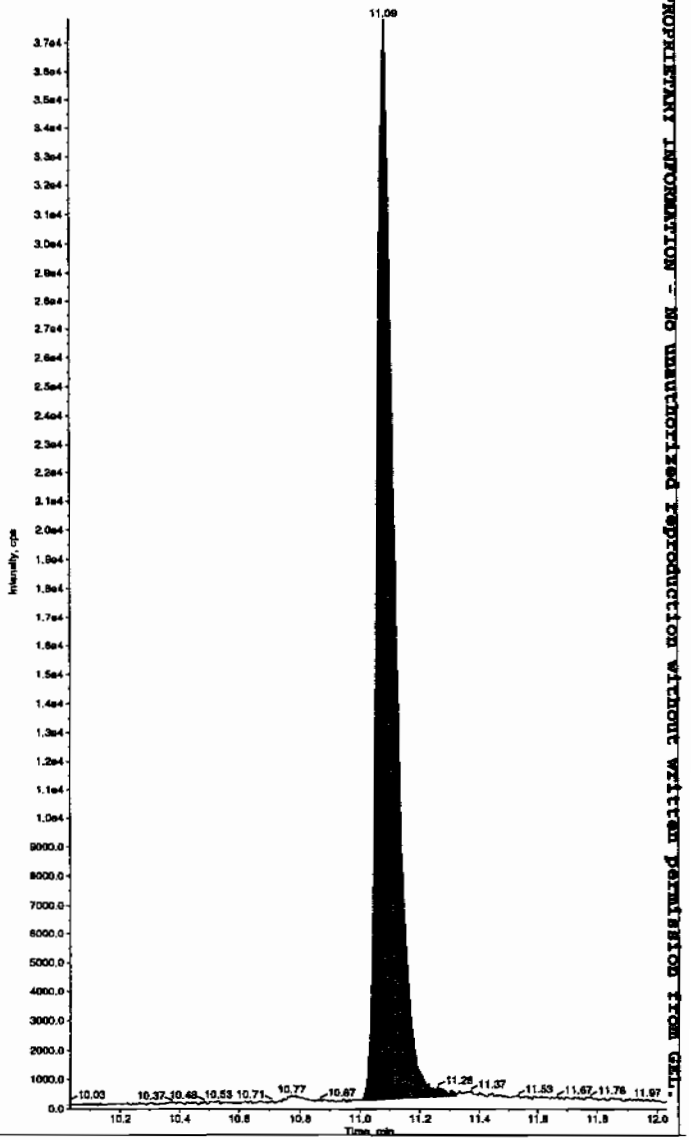

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 15-FEB-10 11:46

GEL Data File: EXS02140083.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.17
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Dan 2/17/10

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02140083.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:46:26 AM

Modified: No

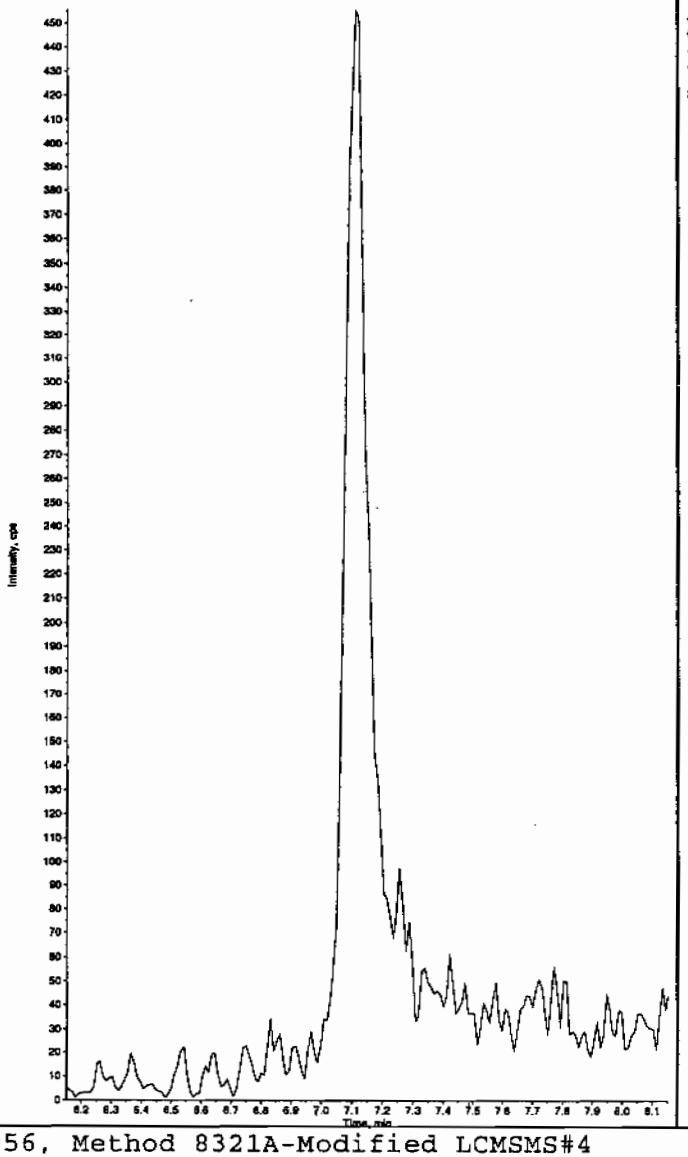

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02140083.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:46:26 AM

Modified: No

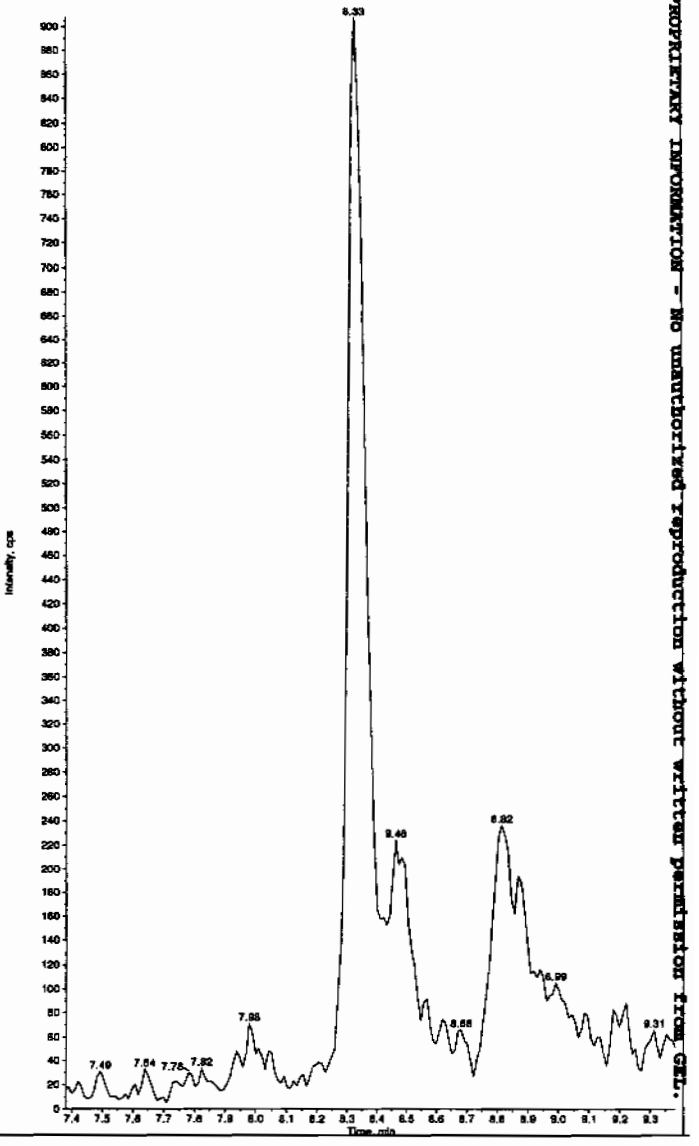

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Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02140083.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:46:26 AM

Modified: No

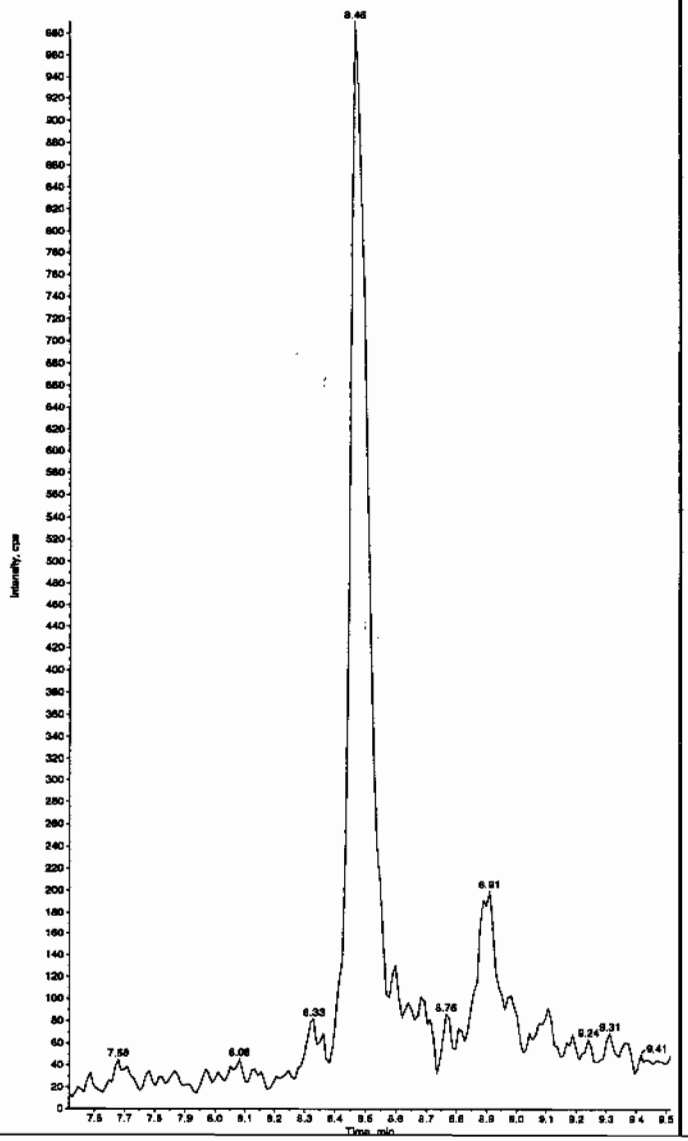

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02140083.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:46:26 AM

Modified: No

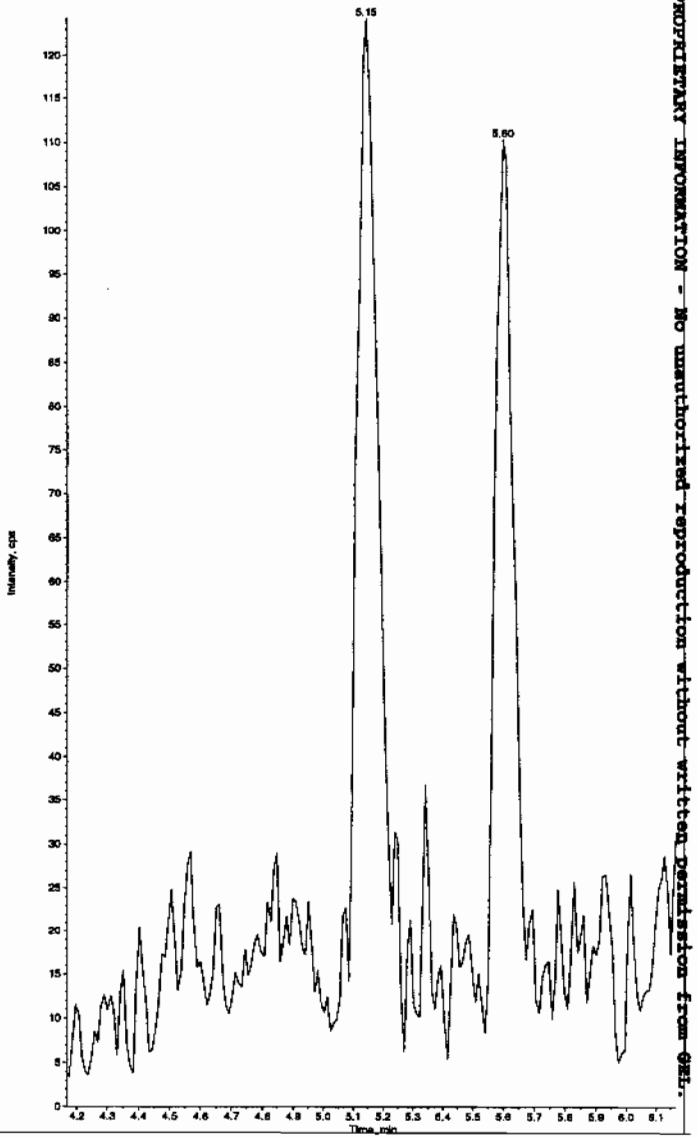

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Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02140083.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCMSEXP_6" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/15/2010
cq. Time: 11:46:26 AM

odified: No

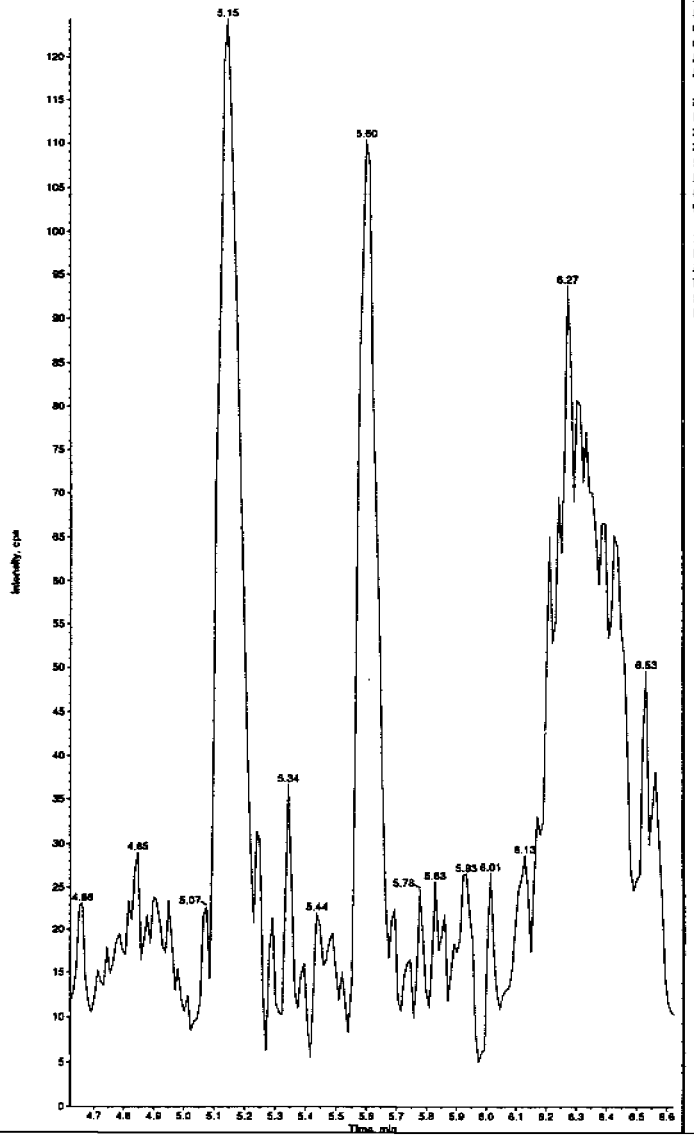

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02140083.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.17 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:46:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.37e+005 counts
Height: 32225.262 cps
Start Time: 10.8 min
End Time: 11.2 min

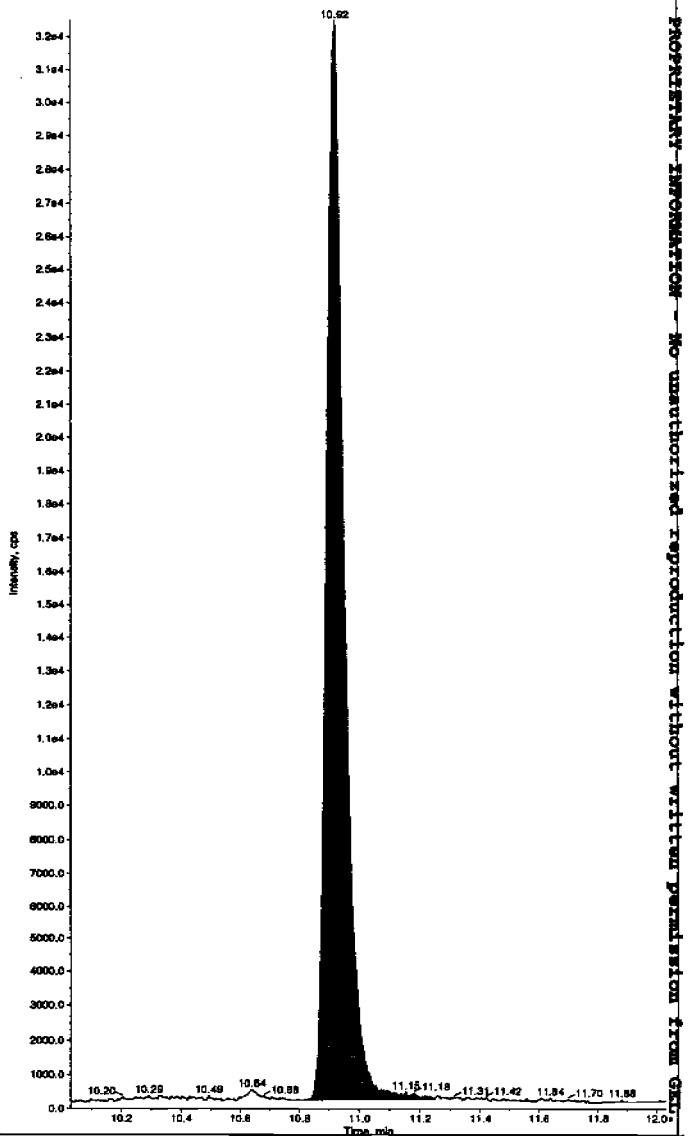

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 15-FEB-10 13:20

GEL Data File: EXS02140089.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.15
TATB	0	0

Sler 2/17/10

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02140089.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/15/2010
cq. Time: 1:20:39 PM

odified: No

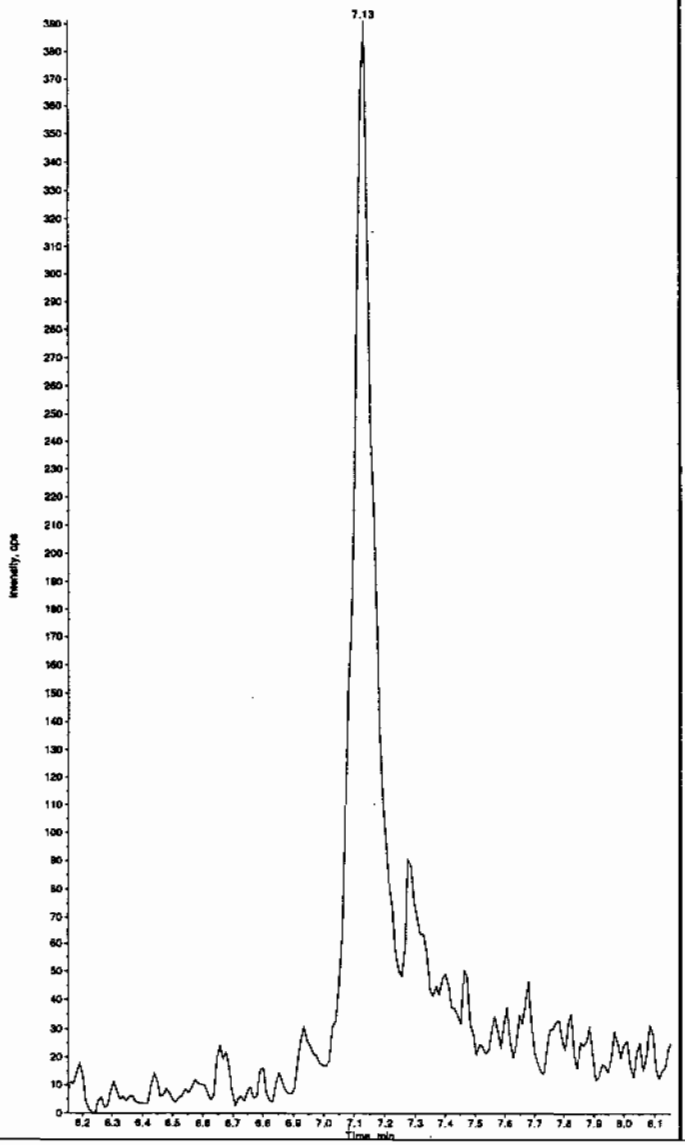

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02140089.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:20:39 PM

Modified: No

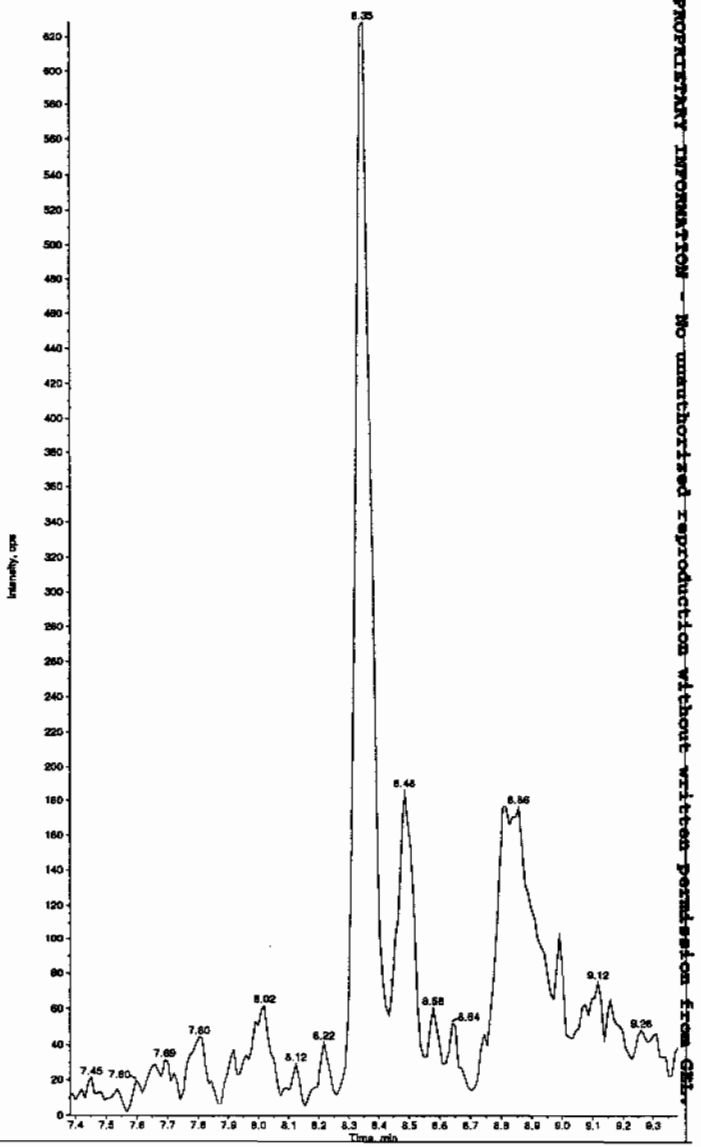

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Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02140089.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:20:39 PM

Modified: No

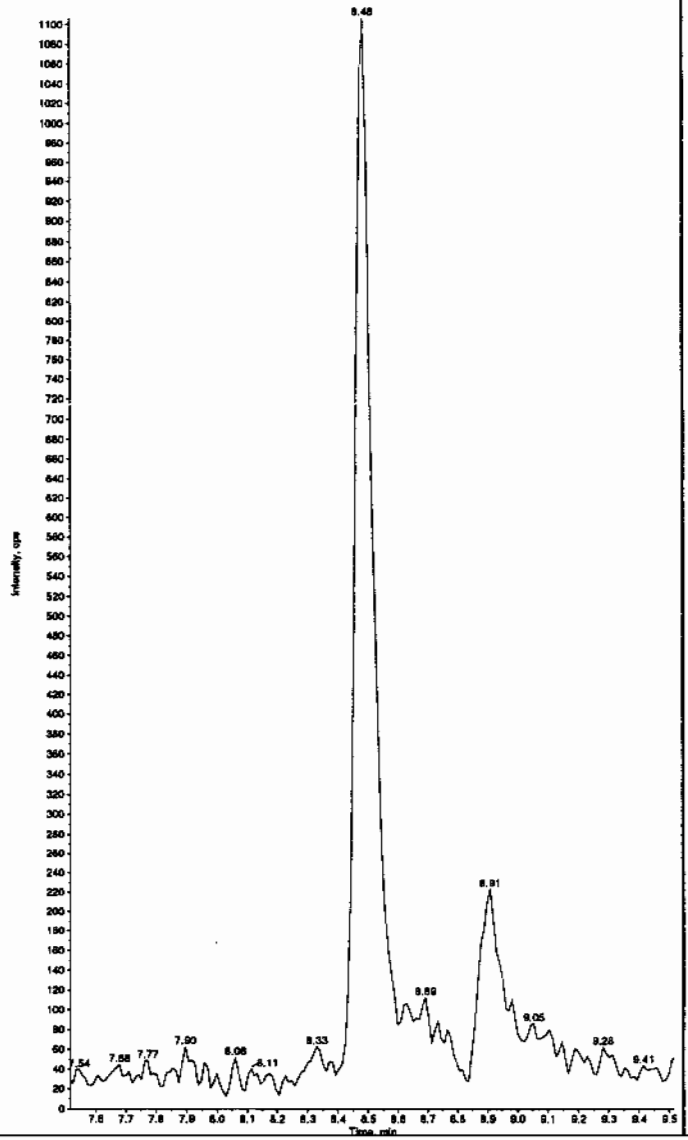

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02140089.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:20:39 PM

Modified: No

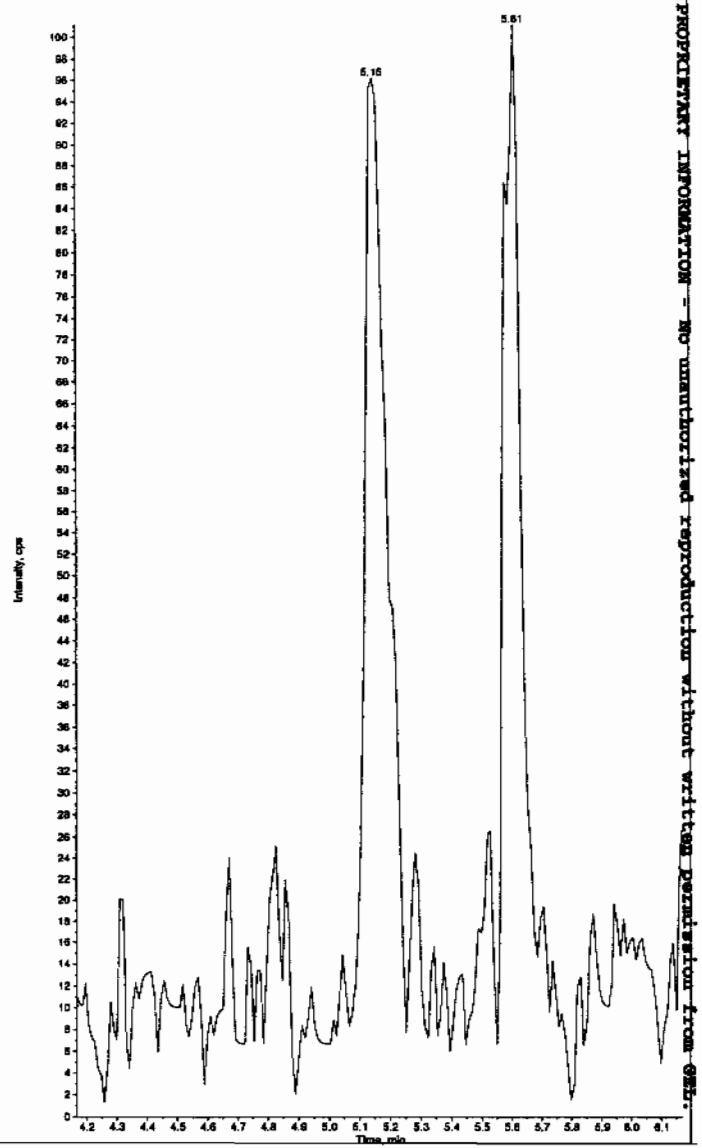

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Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02140089.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	1:20:39 PM
Modified:	No

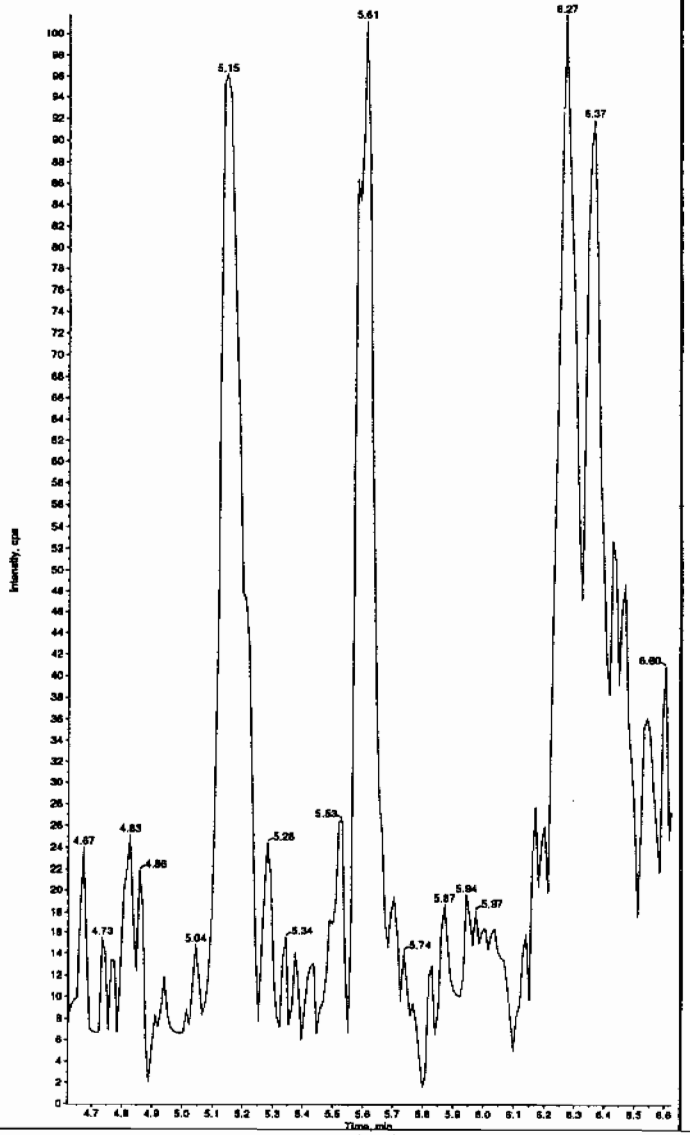

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02140089.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	1.15 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	1:20:39 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	11.0 min
Area:	8.89e+004 counts
Height:	21230.875 cps
Start Time:	10.8 min
End Time:	11.2 min

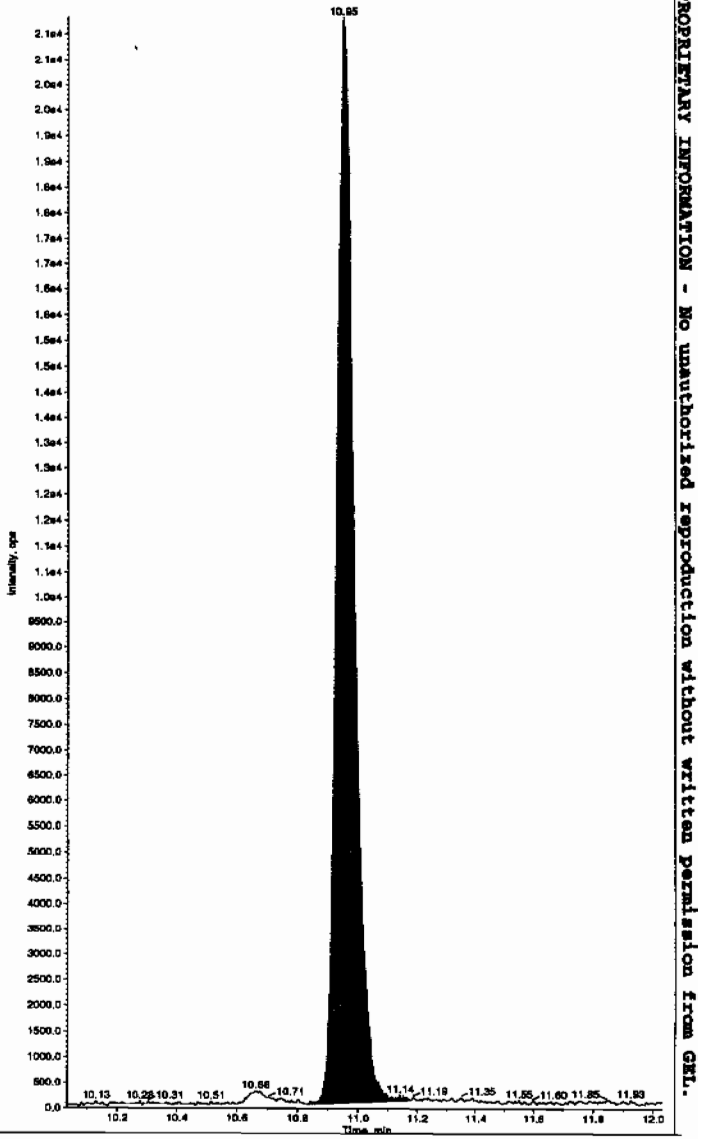

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 15-FEB-10 15:10

GEL Data File: EXS02140096.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.82
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jen 2/17/10

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02140096.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:10:32 PM

Modified: No

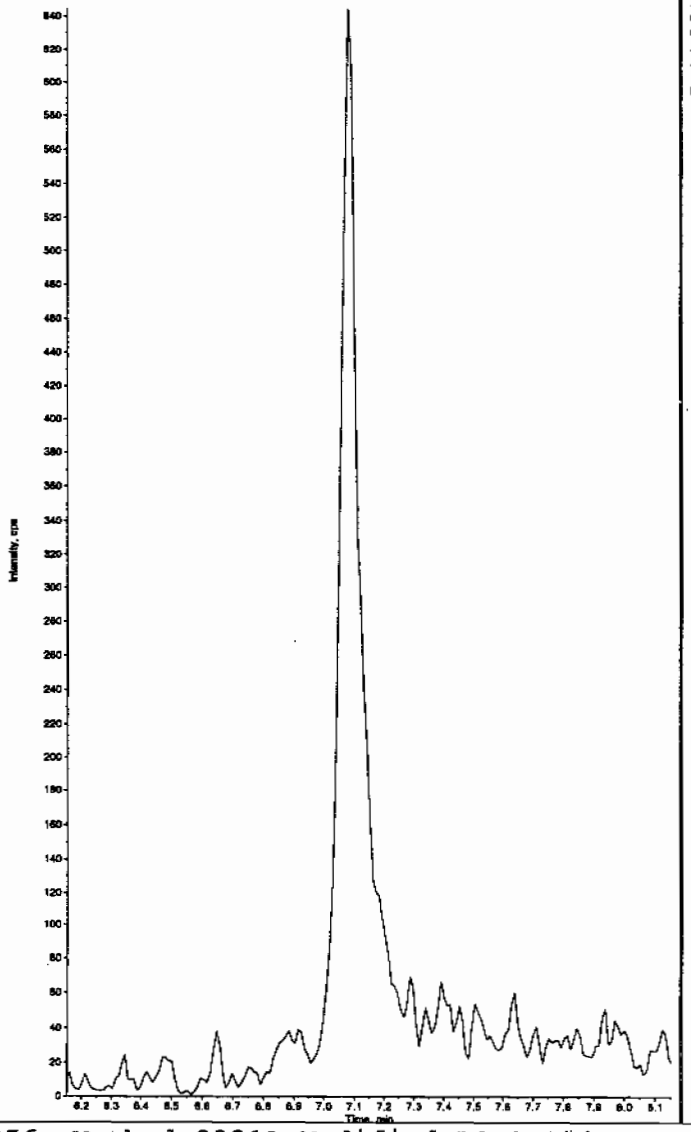

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02140096.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:10:32 PM

Modified: No

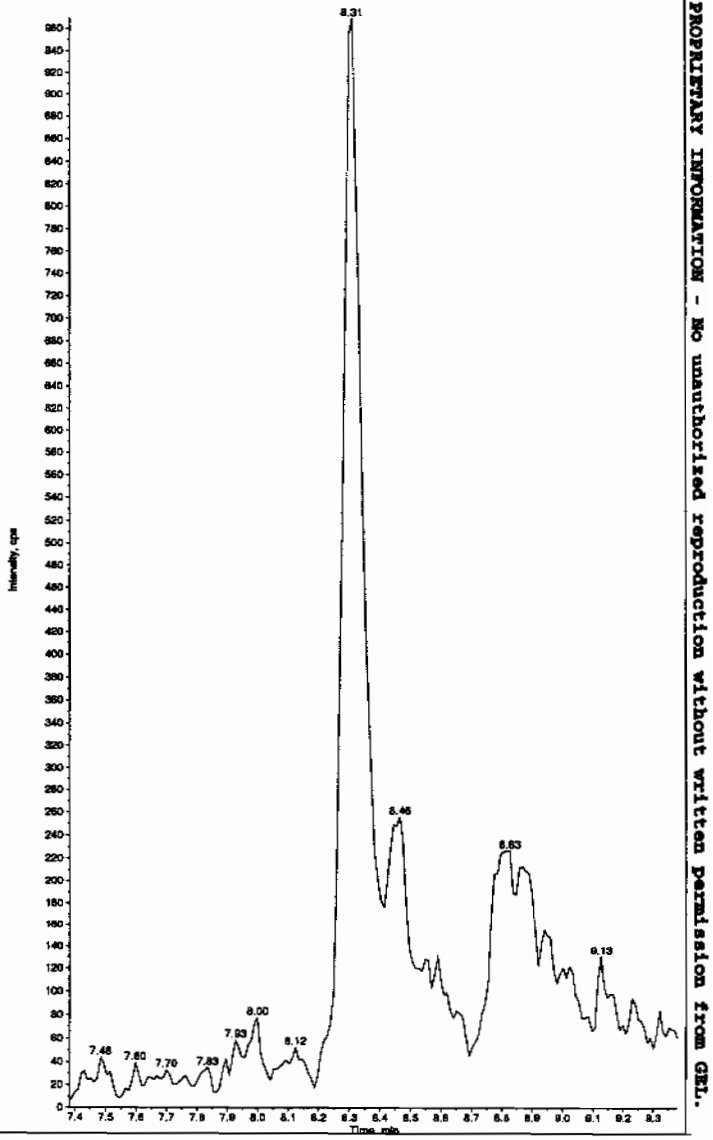

Hrm 02/17/10

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ample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02140096.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 3:10:32 PM

ified: No

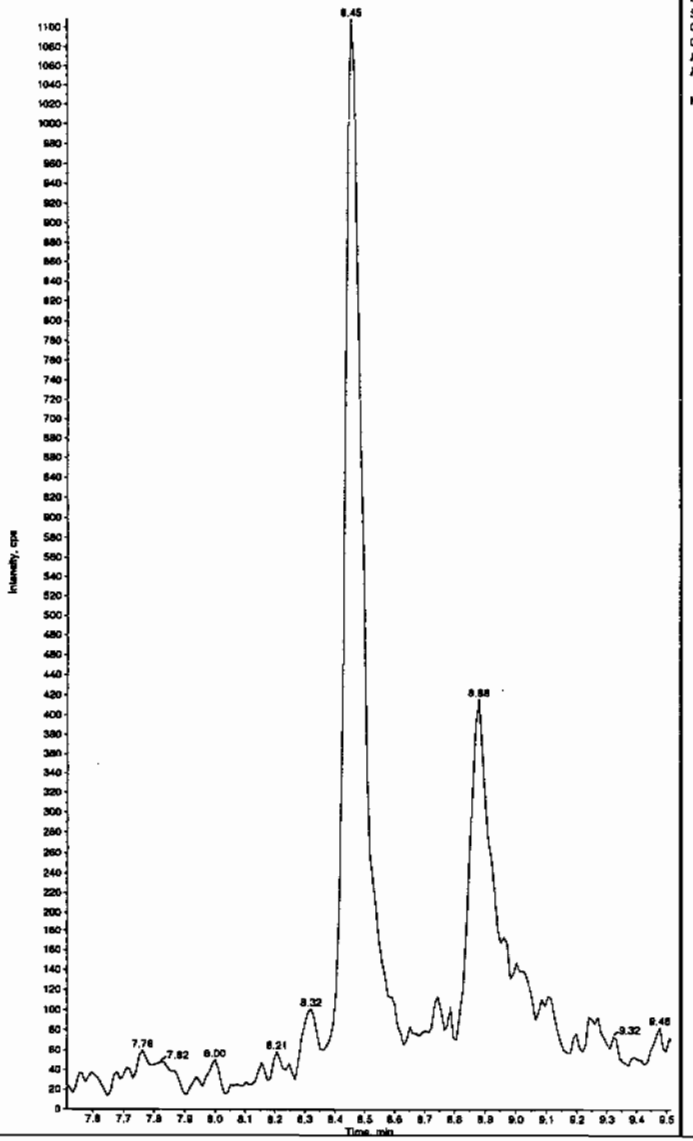

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02140096.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:10:32 PM

Modified: No

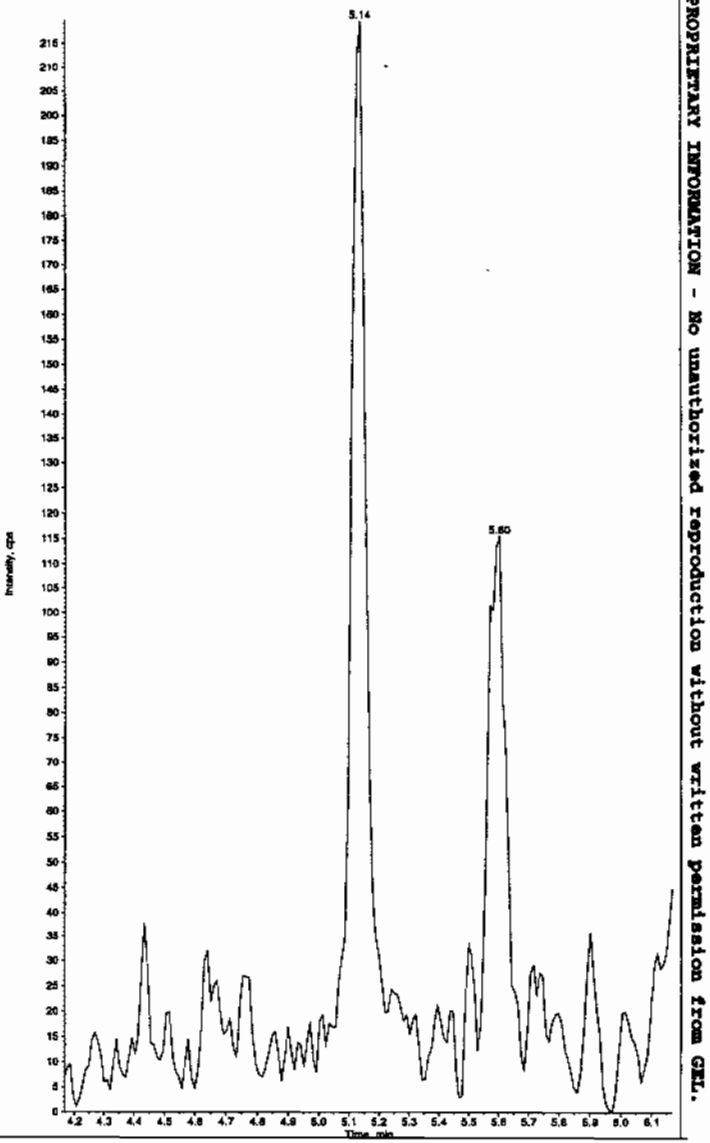

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02140096.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
'omment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
. Date: 2/15/2010
. Time: 3:10:32 PM

dified: No

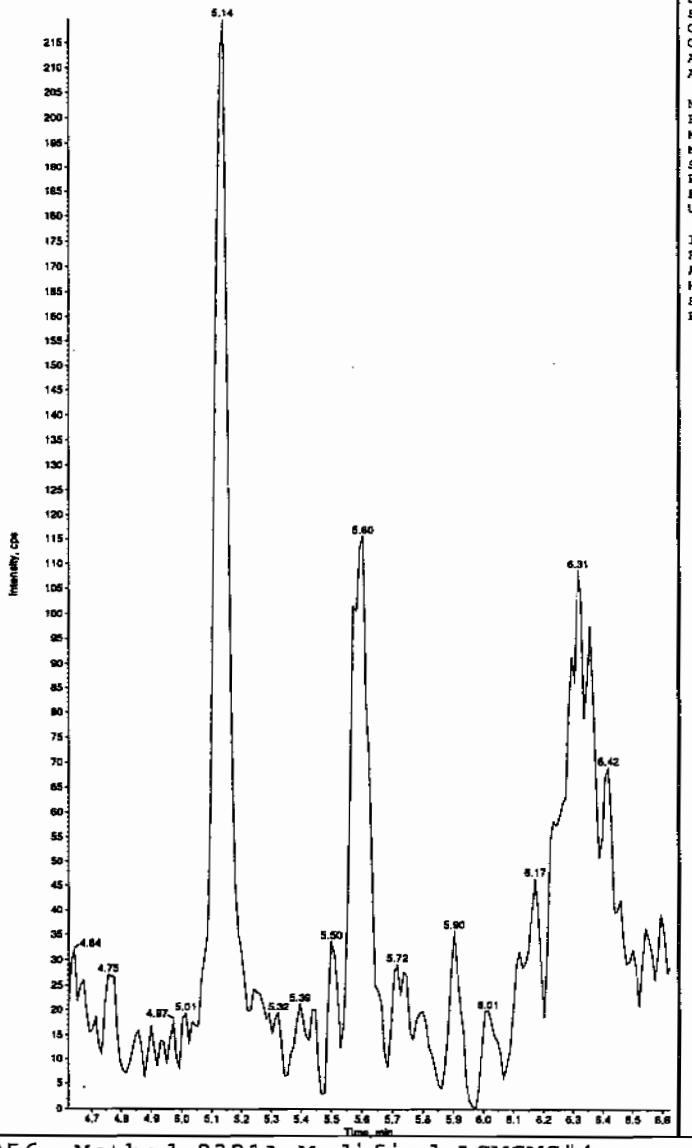

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02140096.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	3.82	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	3:10:32 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.52e+005	counts
Height:	36481.182	cps
Start Time:	10.8	min
End Time:	11.2	min

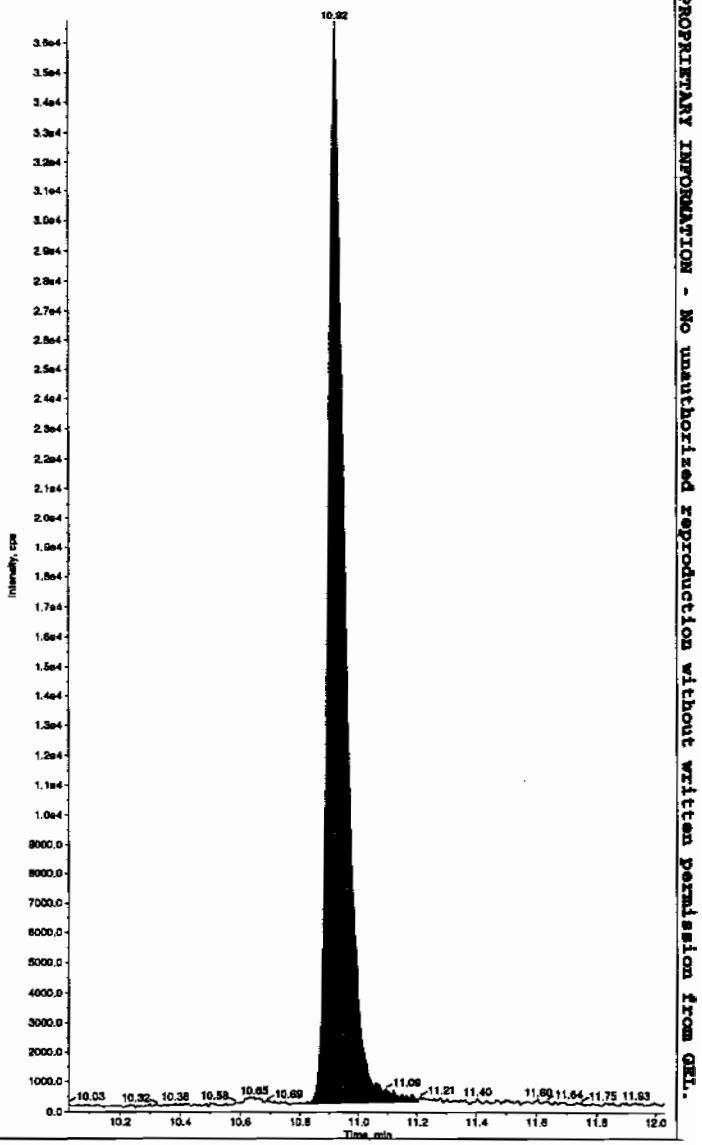

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 15-FEB-10 18:34

GEL Data File: EXS02140109.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.48

Ler 2/17/10

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02140109.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 6:34:38 PM

dified: No

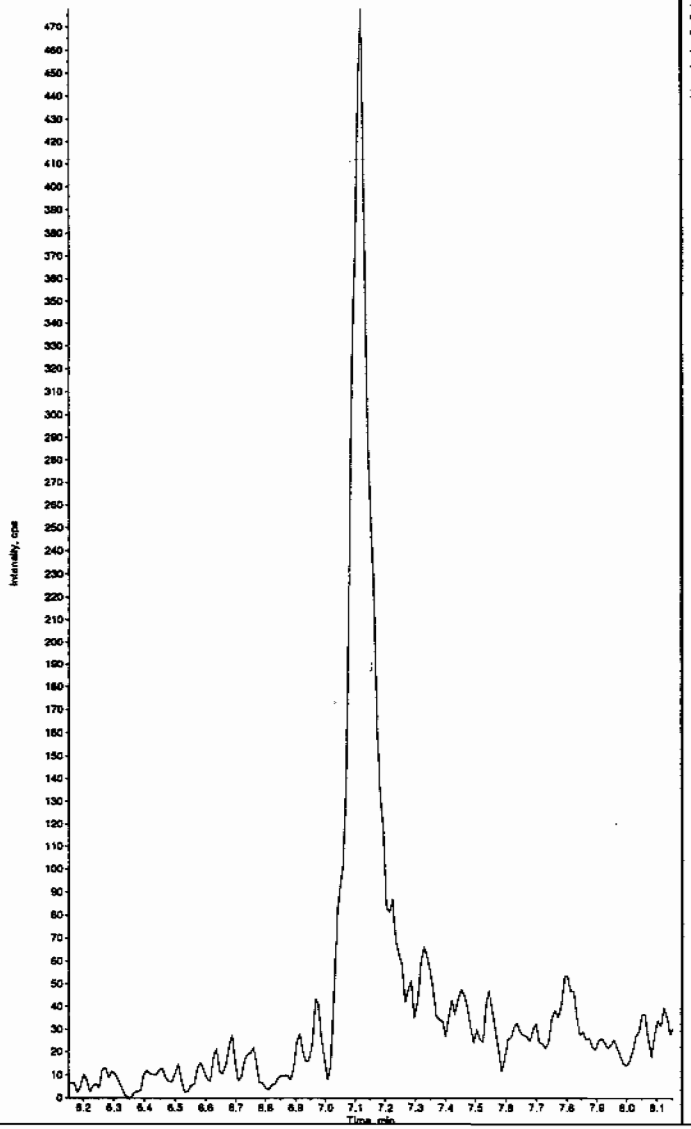

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02140109.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:34:38 PM

Modified: No

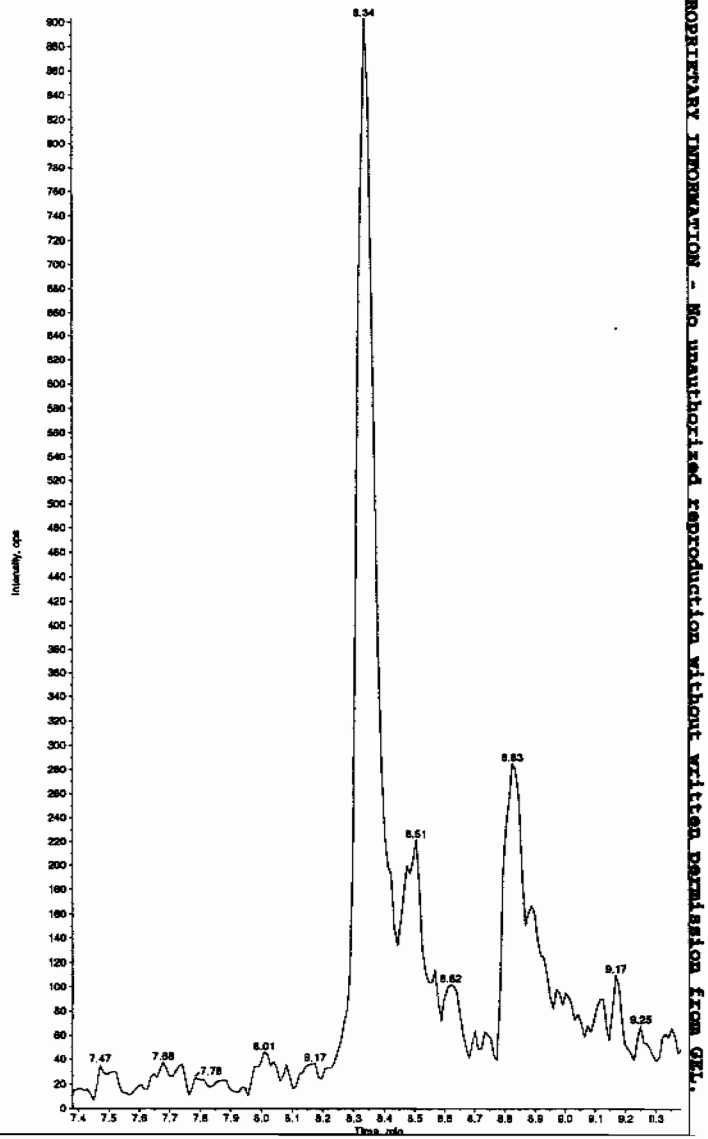

Hm 02/17/10

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Sample Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS02140109.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 6:34:38 PM

dified: No

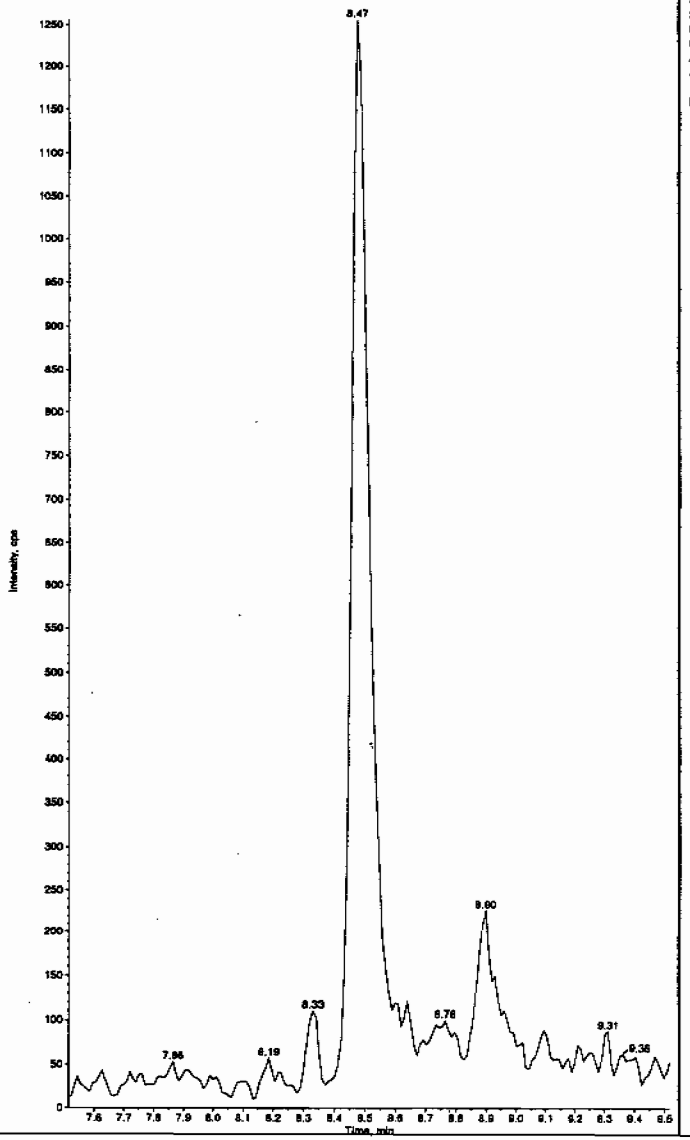

Sample Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS02140109.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:34:38 PM

Modified: No

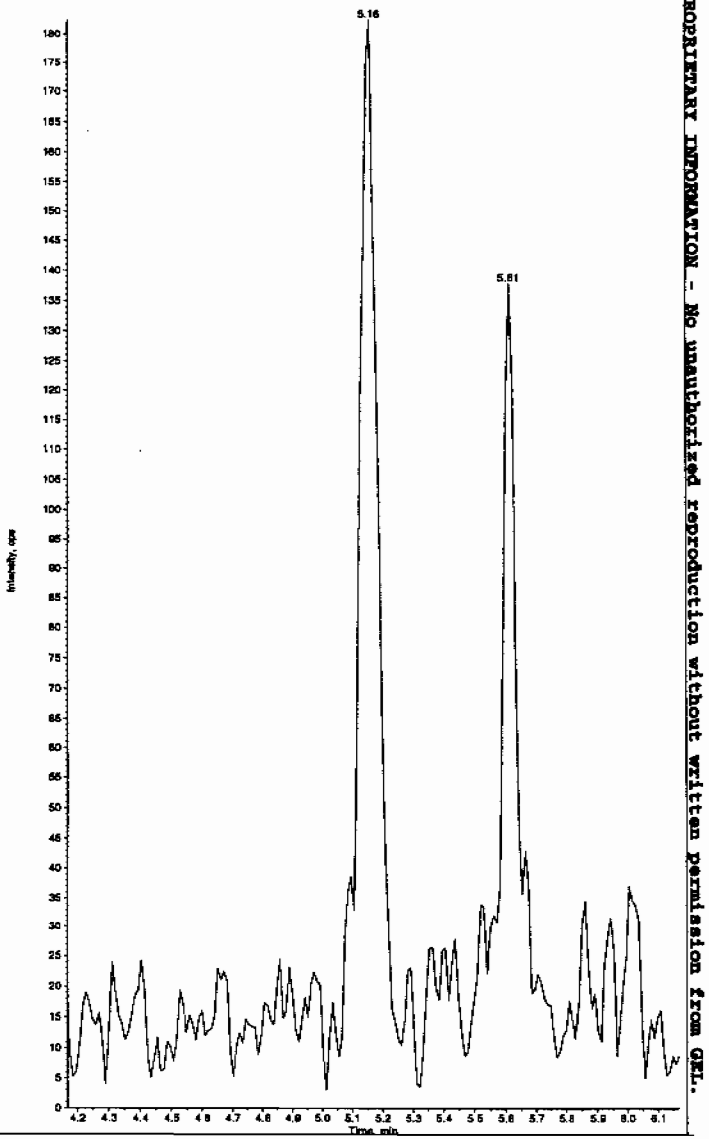

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02140109.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	0.00	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	6:34:38 PM	
Modified:	No	

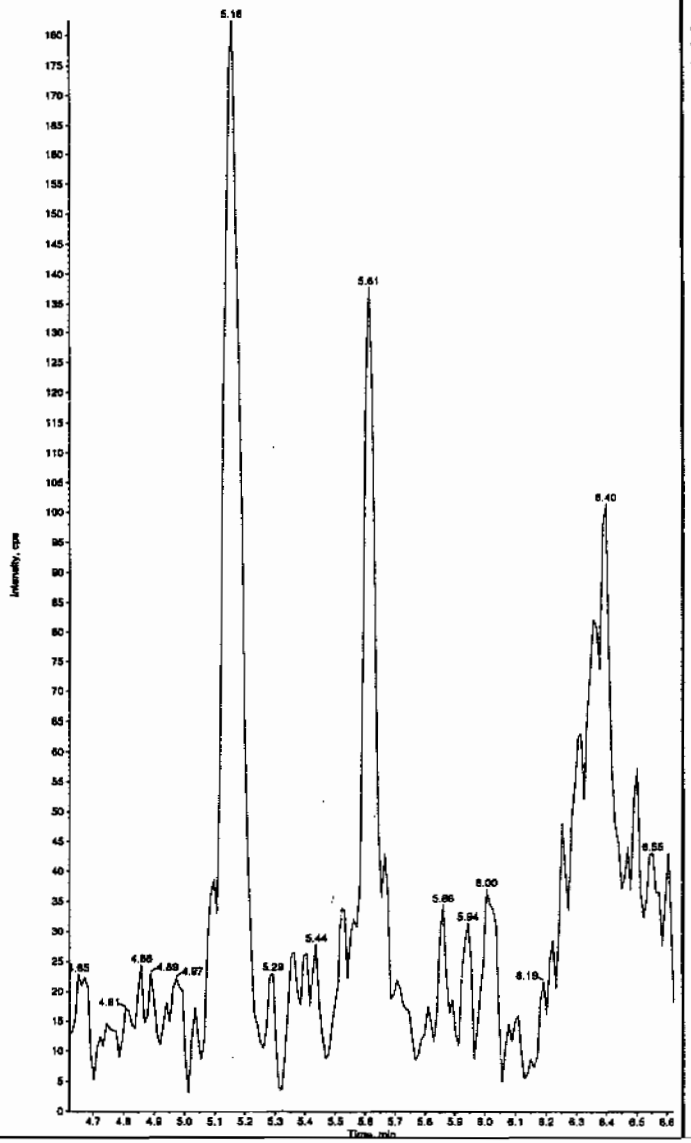

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02140109.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	3.48	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	6:34:38 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.44e+005	counts
Height:	34091.606	cps
Start Time:	10.8	min
End Time:	11.3	min

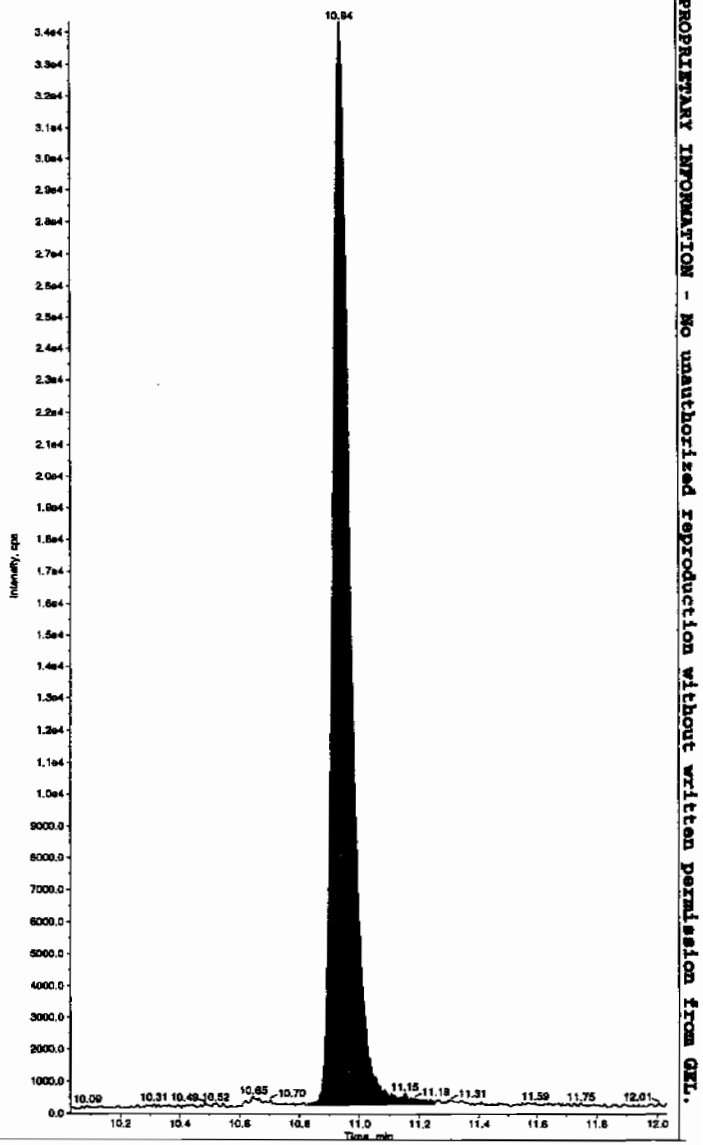

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 15-FEB-10 19:53

GEL Data File: EXS02140114.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.72
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ser 2/17/10

Sample Name: "XIBLK15" Sample ID: "1|LER" File: "EXS02140114.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
ample Index: 1
ample Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 7:53:07 PM

dified: No

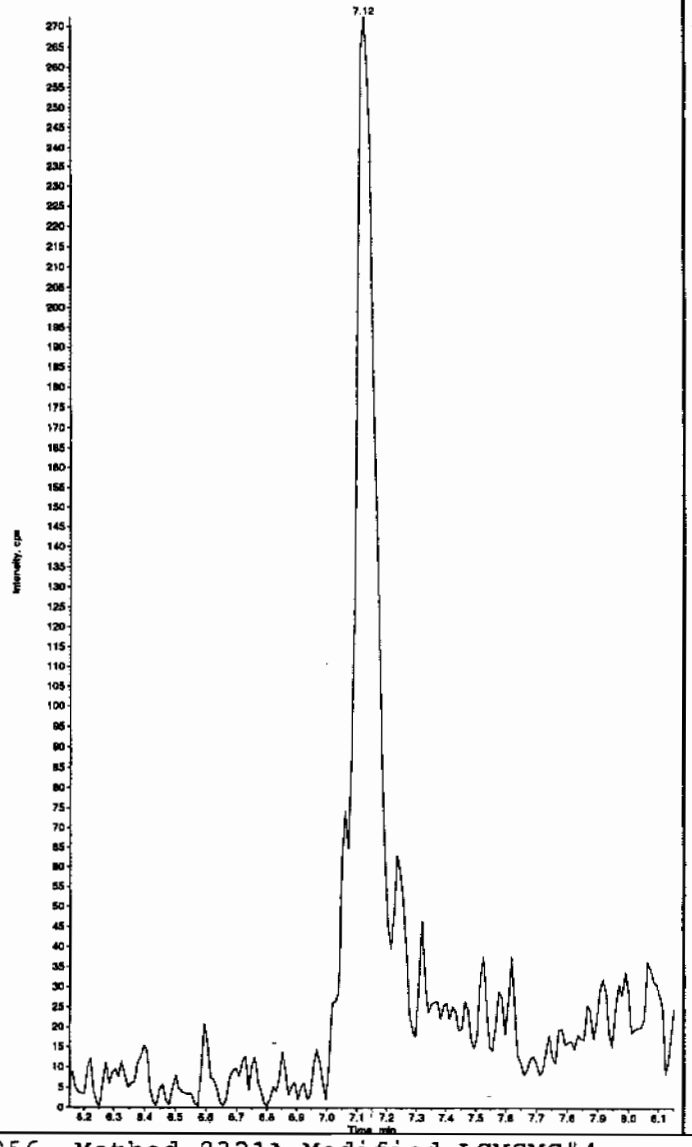

Sample Name: "XIBLK15" Sample ID: "1|LER" File: "EXS02140114.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 7:53:07 PM

Modified: No

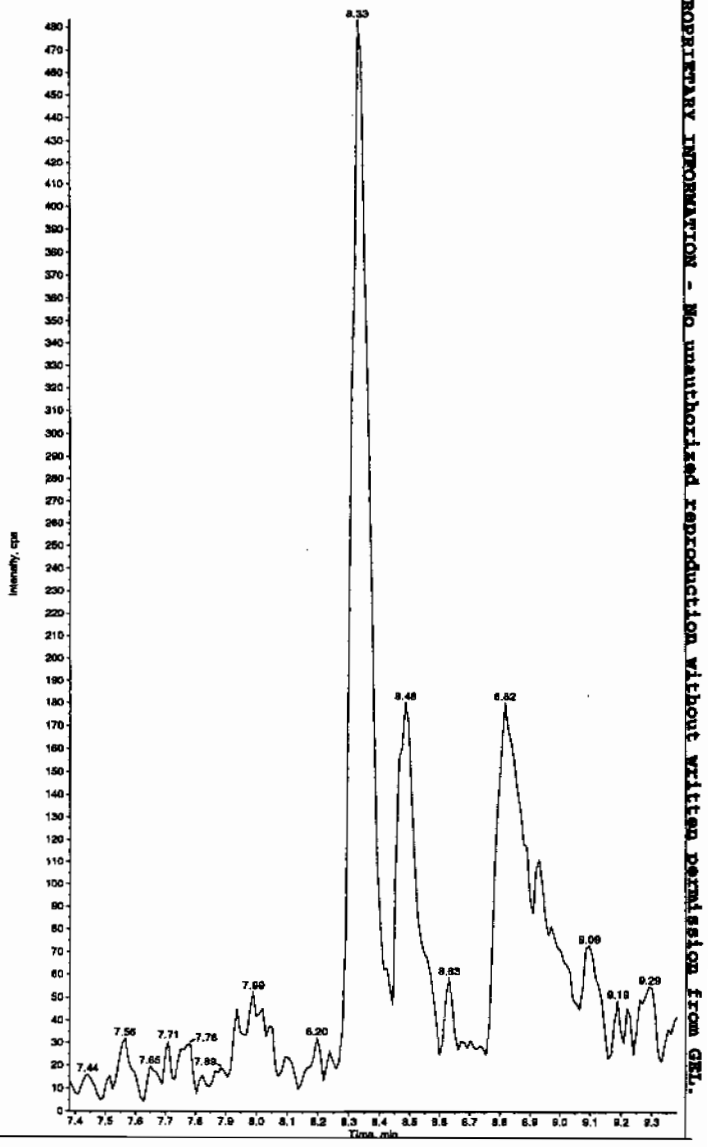

Hm 02/17/10

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Sample Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS02140114.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 7:53:07 PM

Modified: No

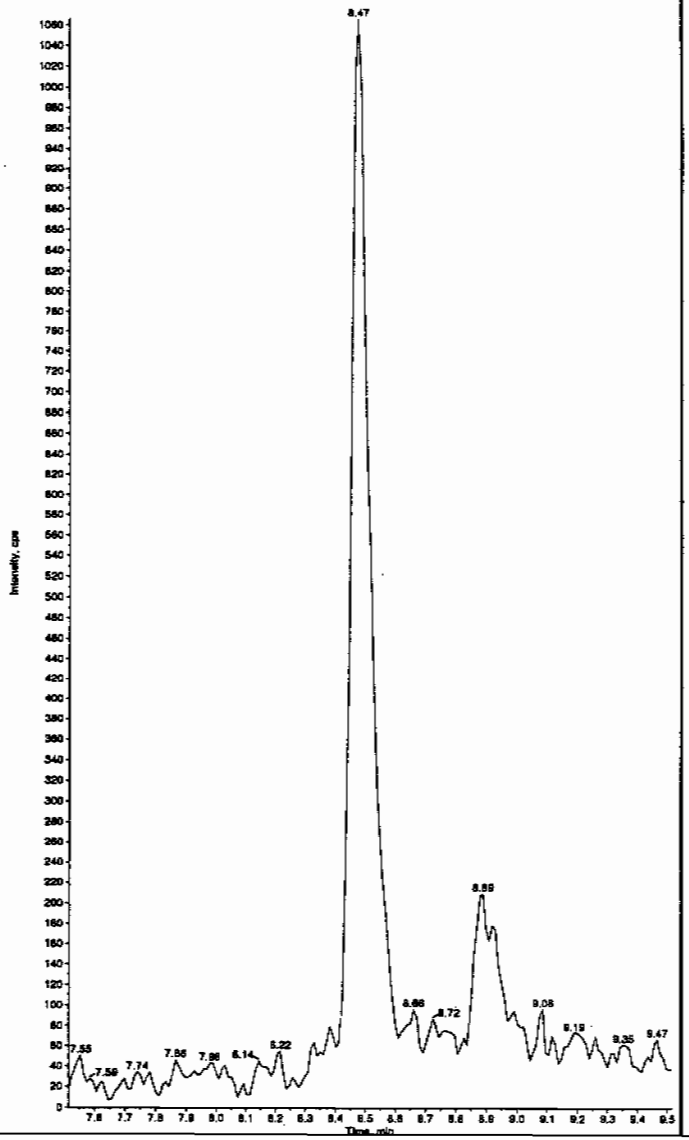

Sample Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS02140114.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 7:53:07 PM

Modified: No

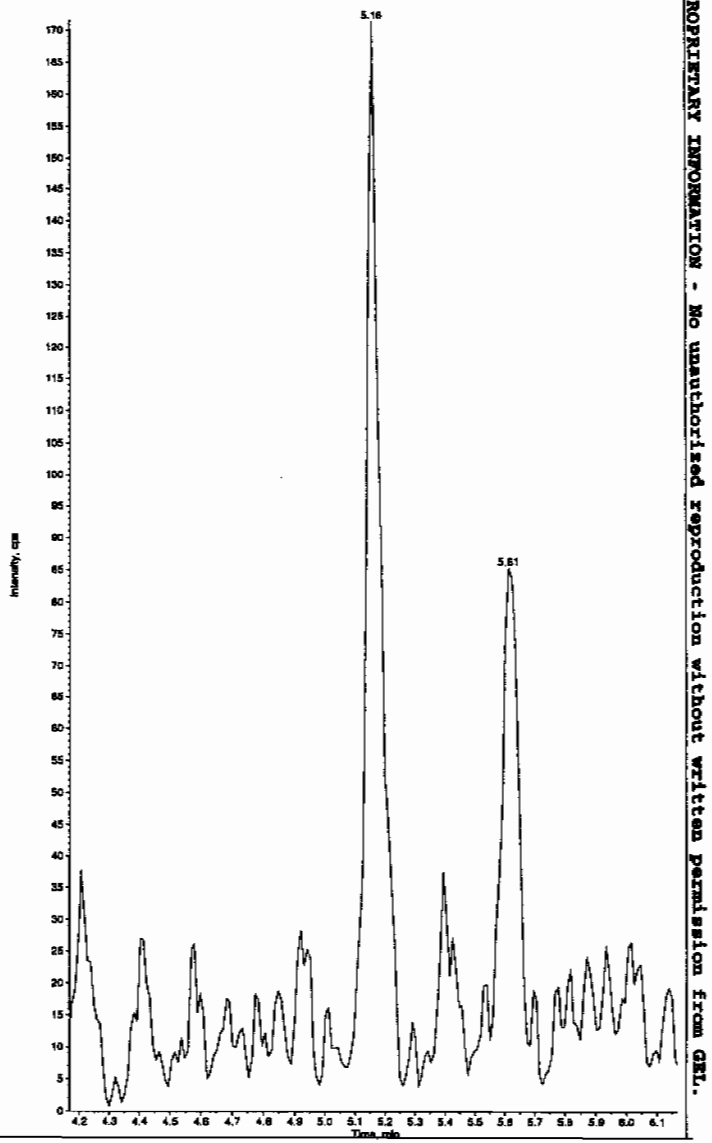

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Sample Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS02140114.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	7:53:07 PM
Modified:	No

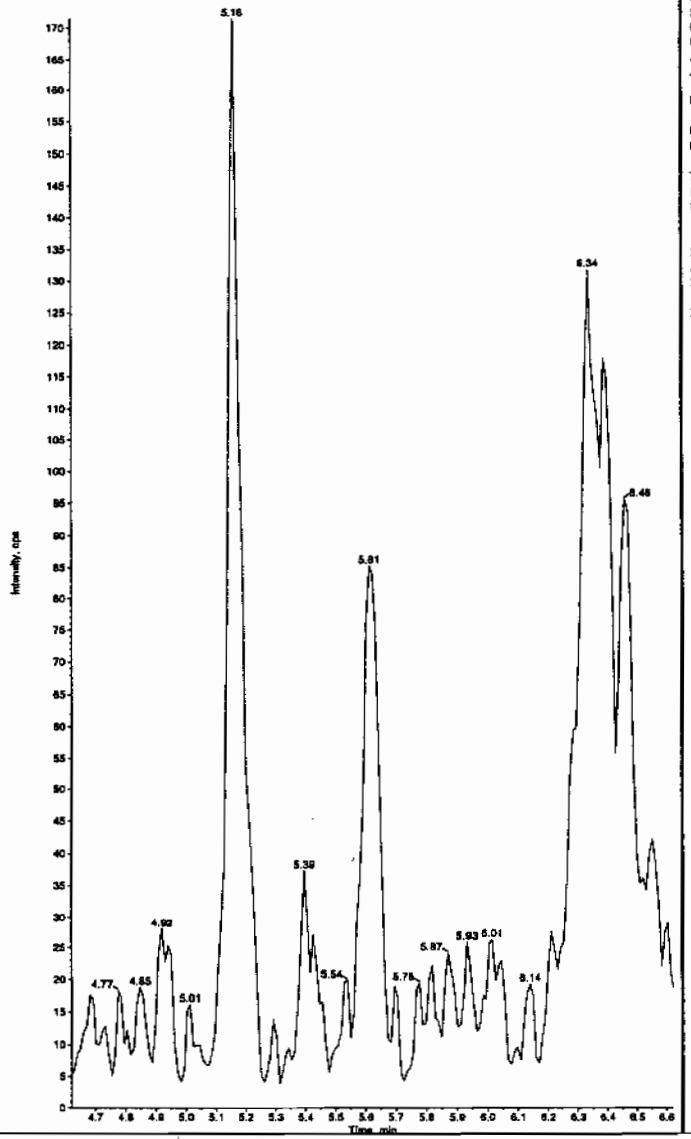

Sample Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS02140114.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	1.72 ng/mL
Acq. Date:	2/15/2010
Acq. Time:	7:53:07 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	11.0 min
Area:	1.02e+005 counts
Height:	24807.673 cps
Start Time:	10.8 min
End Time:	11.2 min

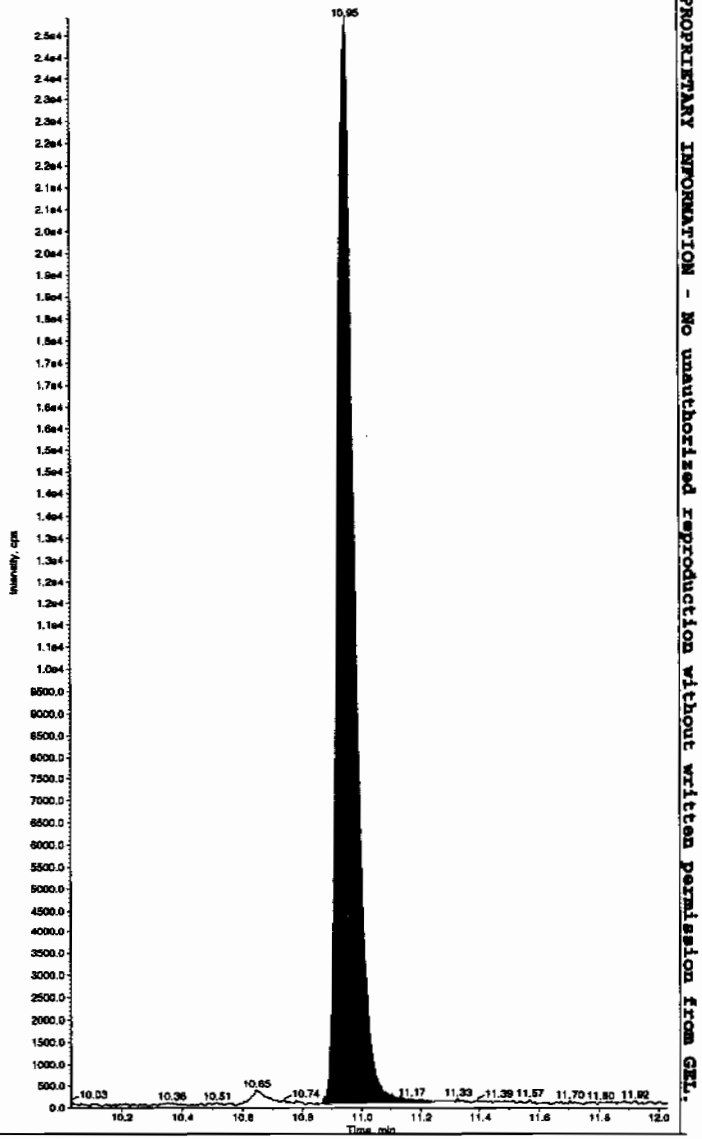

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 15-FEB-10 20:55

GEL Data File: EXS02140118.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
tris(o-cresyl) phosphate	0	3.66
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

Sam 2/17/10

Sample Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS02140118.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 8:55:57 PM

dified: No

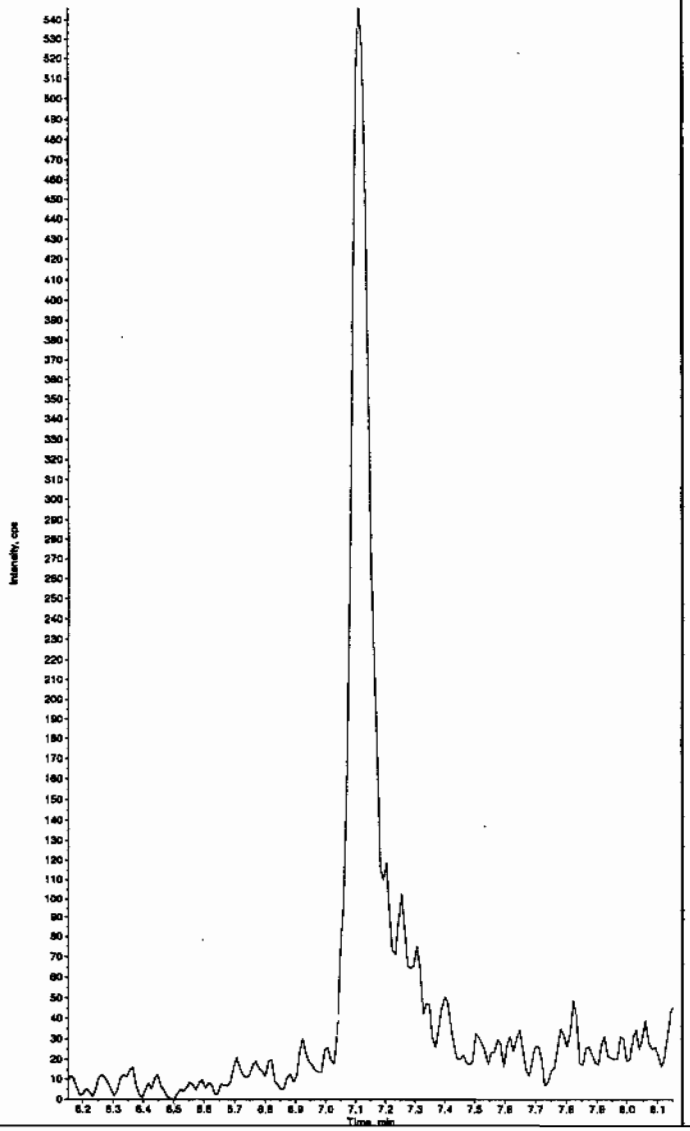

Sample Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS02140118.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:55:57 PM

Modified: No

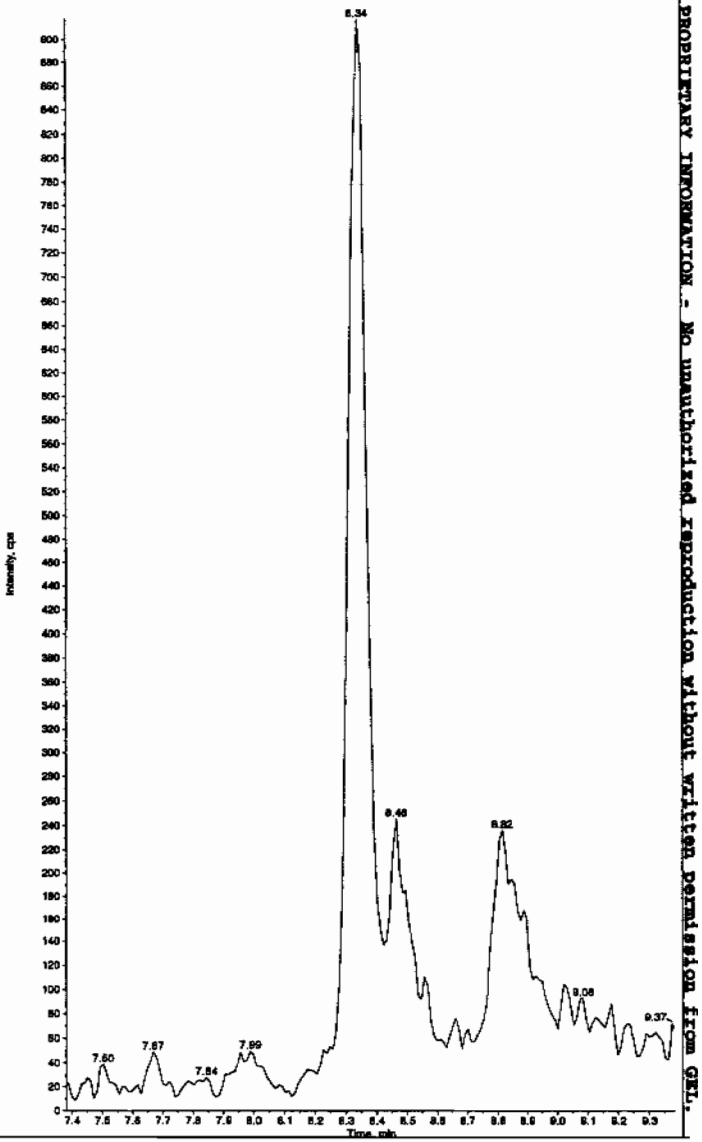

dhmc 02/17/10

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Sample Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS02140118.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:55:57 PM

Modified: No

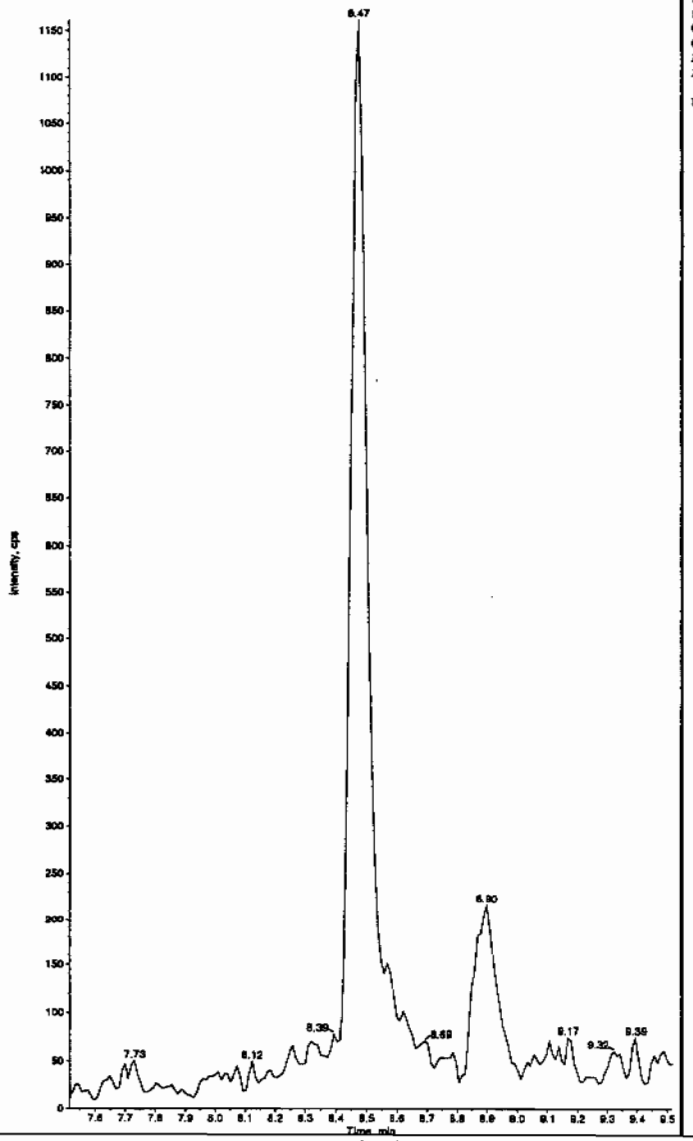

Sample Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS02140118.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:55:57 PM

Modified: No

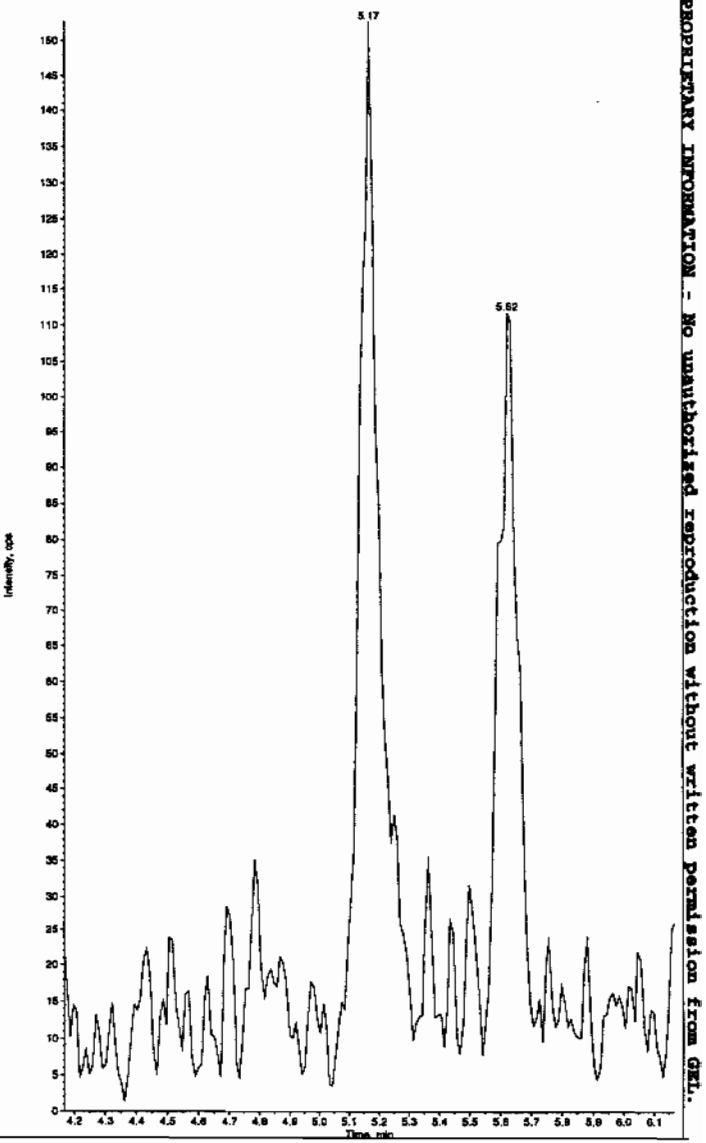

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Sample Name: "XIBLK16" Sample ID: "1|LER" File: "EXS02140118.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
q. Date: 2/15/2010
q. Time: 8:55:57 PM

odified: No

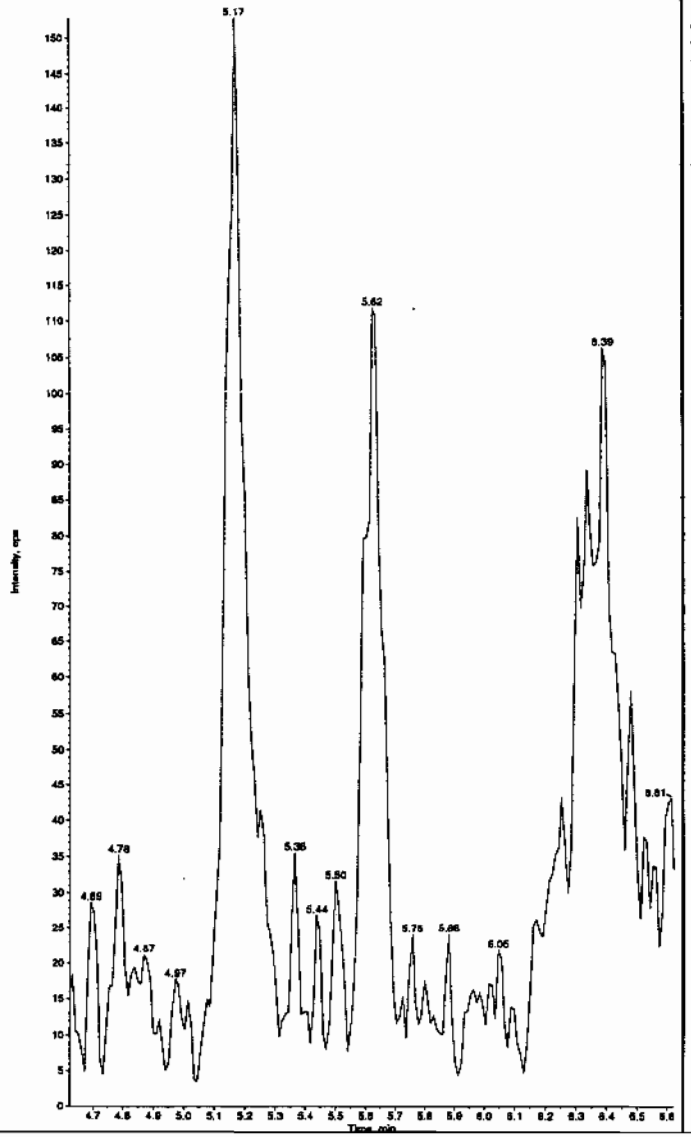

Sample Name: "XIBLK16" Sample ID: "1|LER" File: "EXS02140118.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.66 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:55:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.48e+005 counts
Height: 36222.885 cps
Start Time: 10.9 min
End Time: 11.2 min

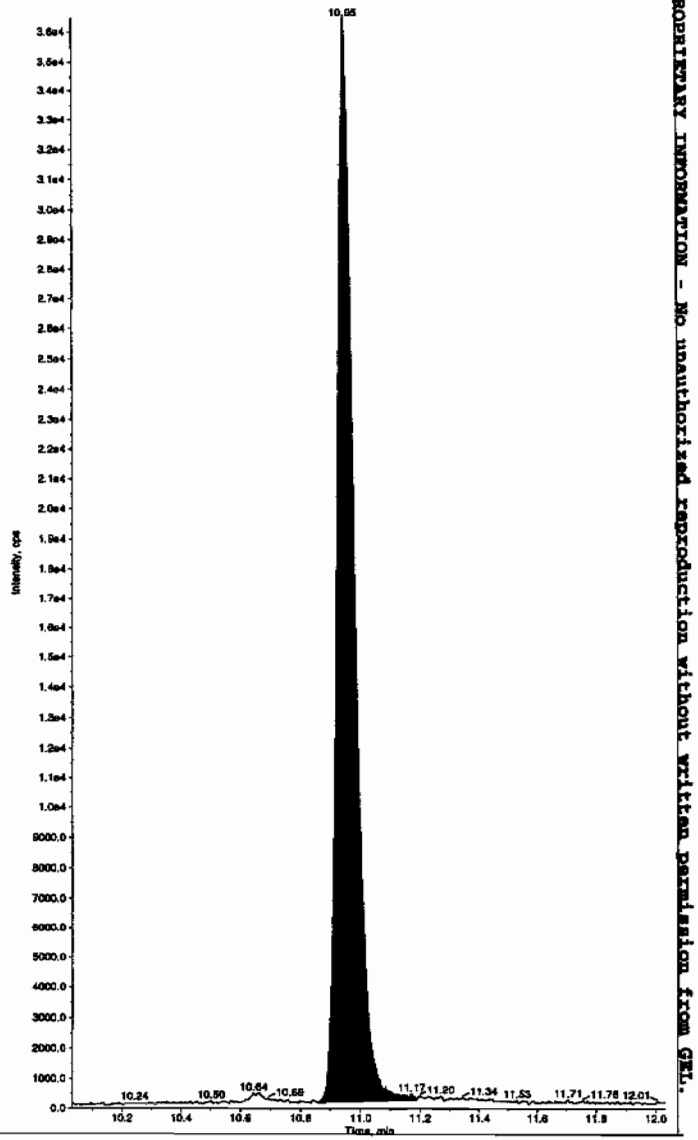

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 16–FEB–10 00:19

GEL Data File: EXS02140131.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.11
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/17/10

Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/16/2010
q. Time: 12:19:56 AM

dified: No

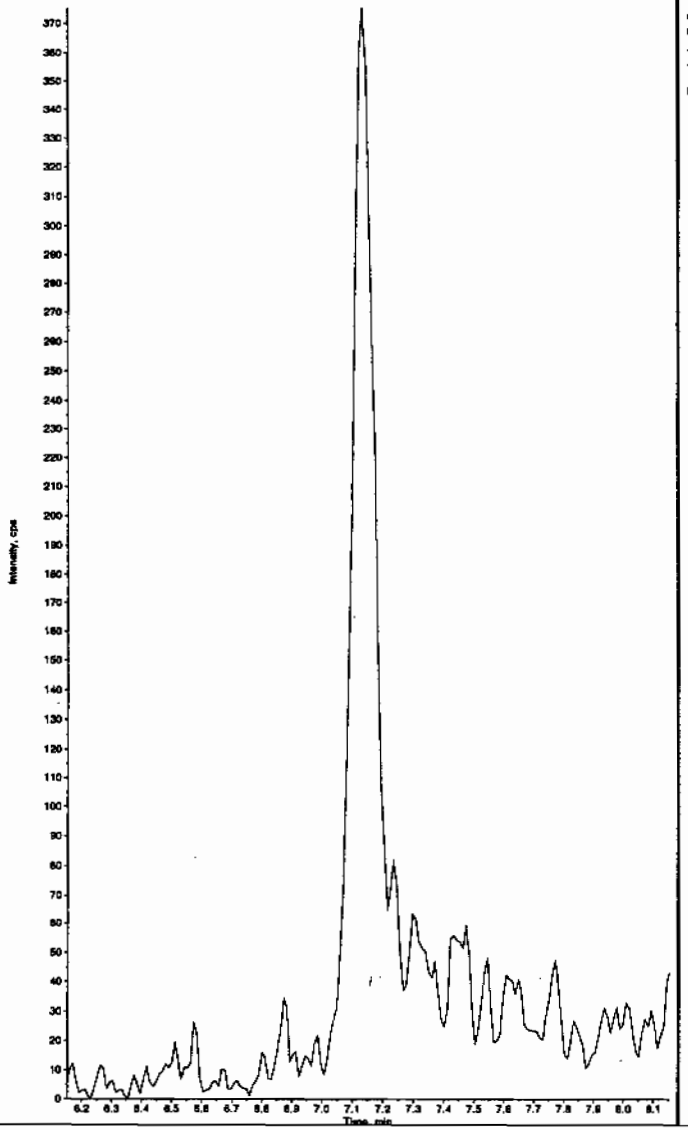

Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:19:56 AM

Modified: No

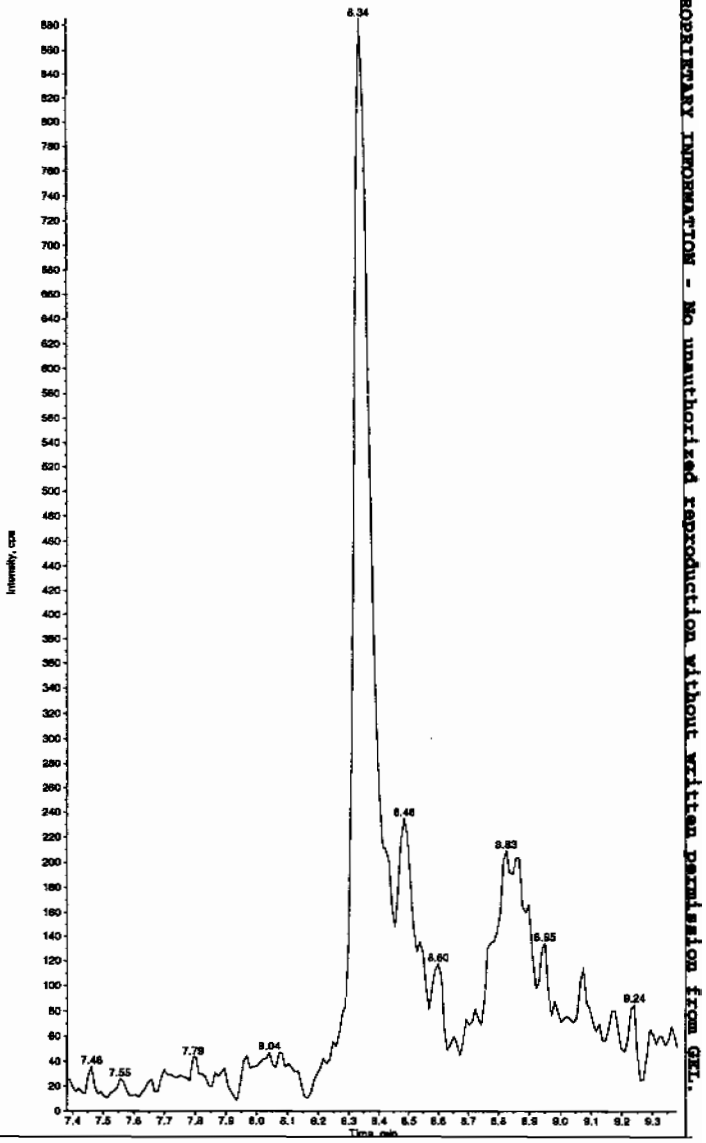

Hum 02/17/10

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Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 12:19:56 AM

odified: No

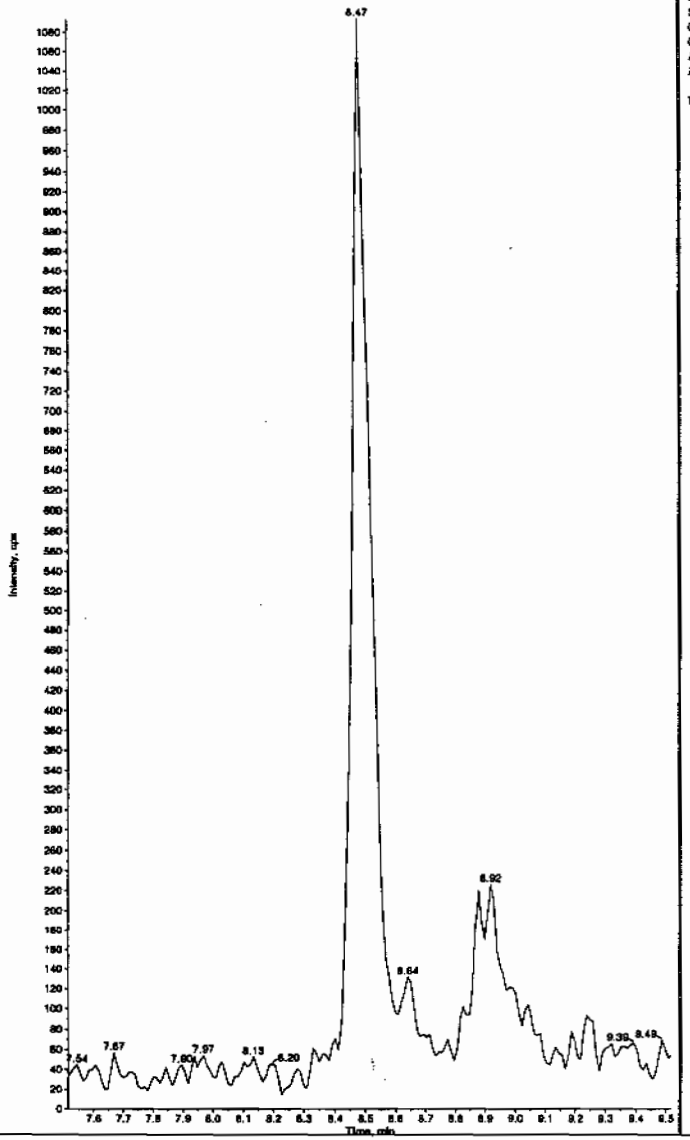

Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:19:56 AM

Modified: No

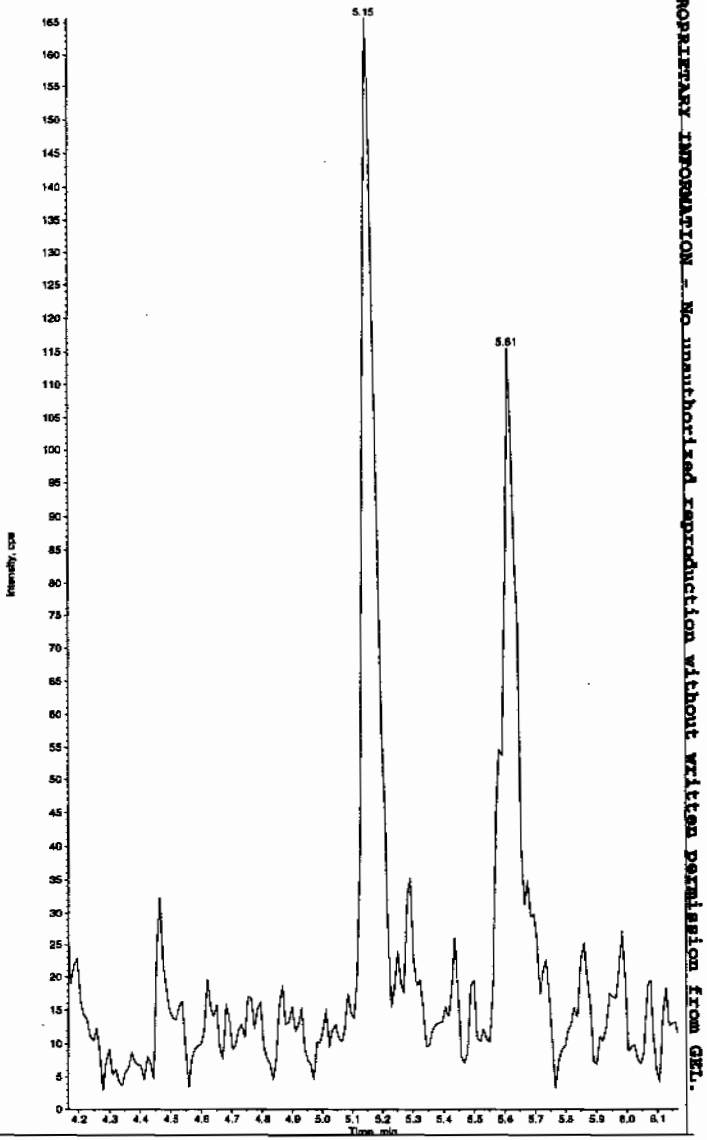

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 12:19:56 AM

odified: No

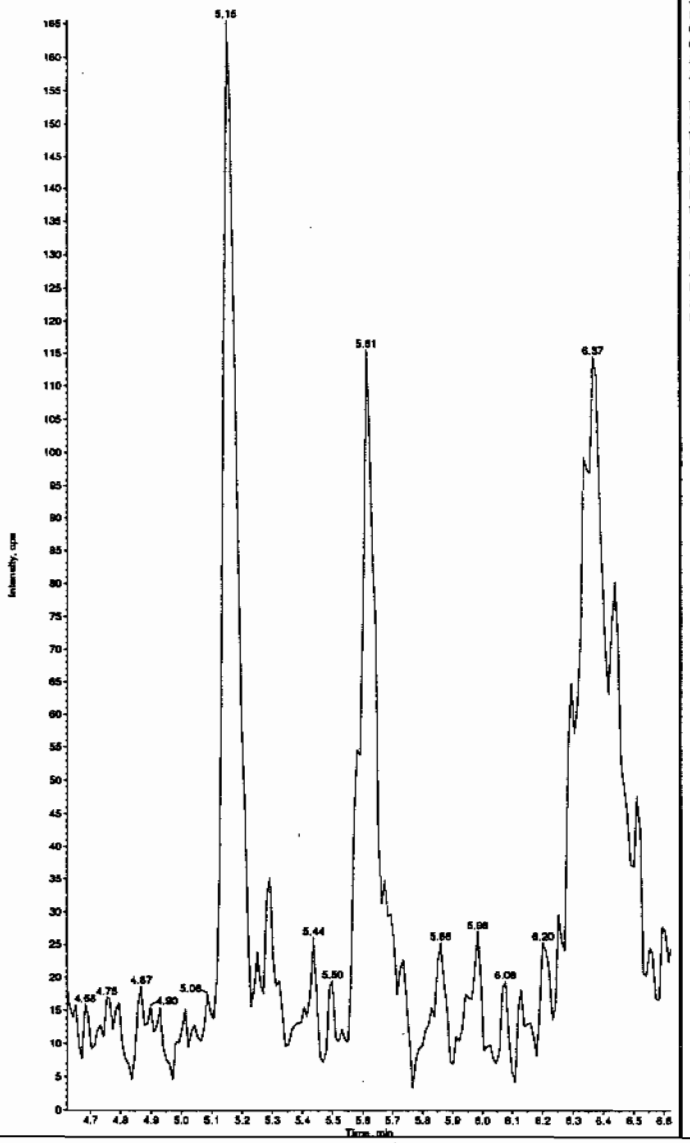

Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02140131.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.11 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:19:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.59e+005 counts
Height: 38067.039 cps
Start Time: 10.8 min
End Time: 11.3 min

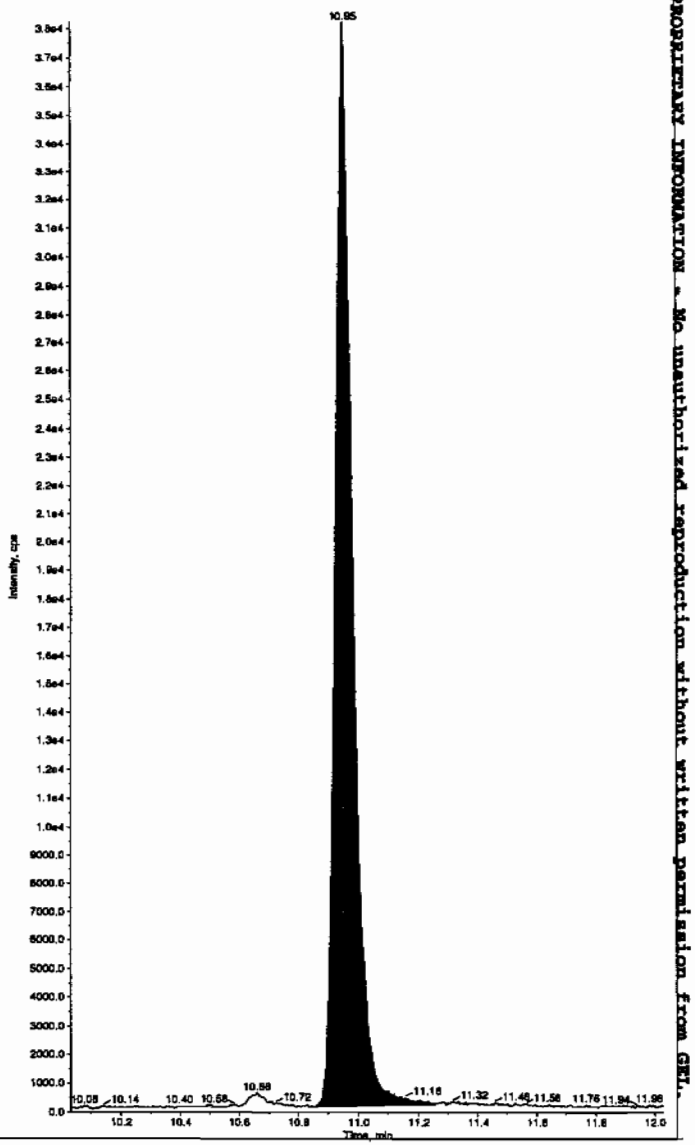

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 16–FEB–10 02:56

GEL Data File: EXS02140141.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.79
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 2/17/10

Sample Name: "XIBLK18" Sample ID: "[1]LER" File: "EXS02140141.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/16/2010
cq. Time: 2:56:55 AM

odified: No

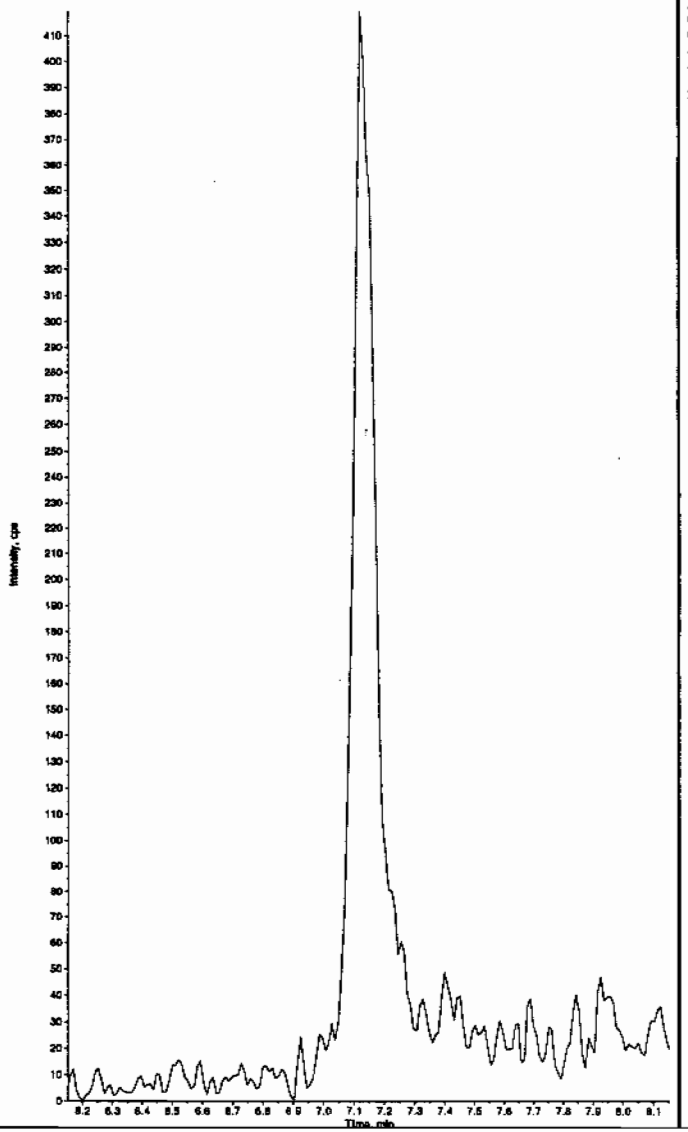

Sample Name: "XIBLK18" Sample ID: "[1]LER" File: "EXS02140141.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:56:55 AM

Modified: No

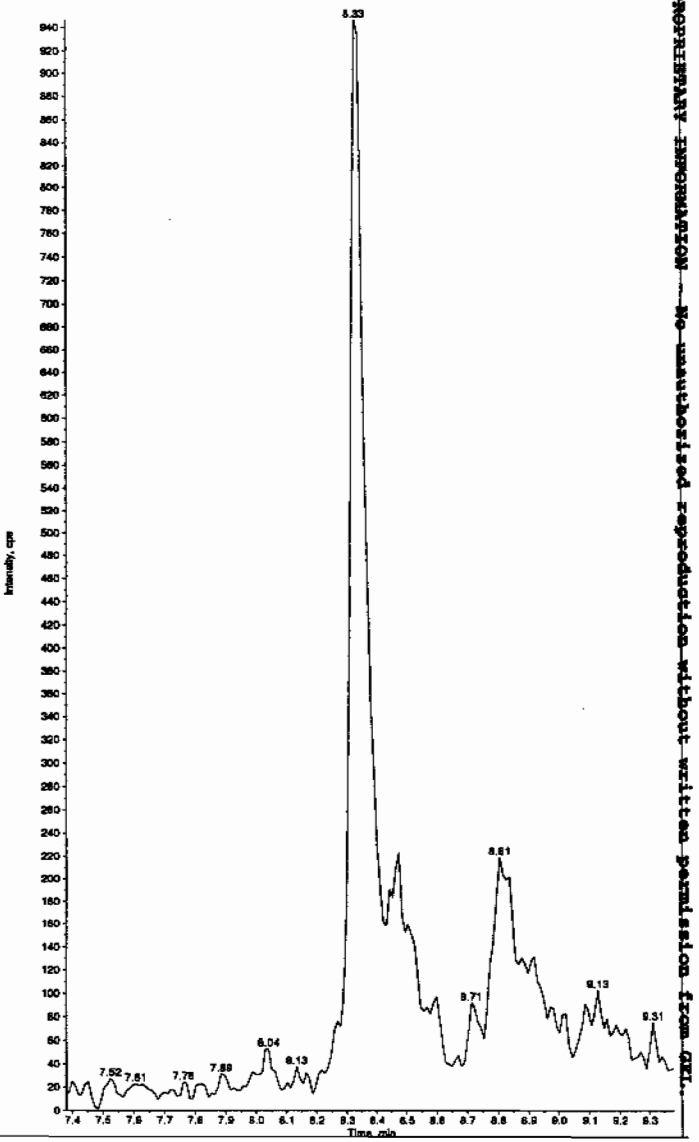

Hum 02/17/10

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Sample Name: "XIBLK18" Sample ID: "[1]LER" File: "EXS02140141.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

mple Index:	1
mple Type:	Unknown
oncentration:	N/A
alculated Conc:	0.00 ng/mL
cq. Date:	2/16/2010
cq. Time:	2:56:55 AM
odified:	No

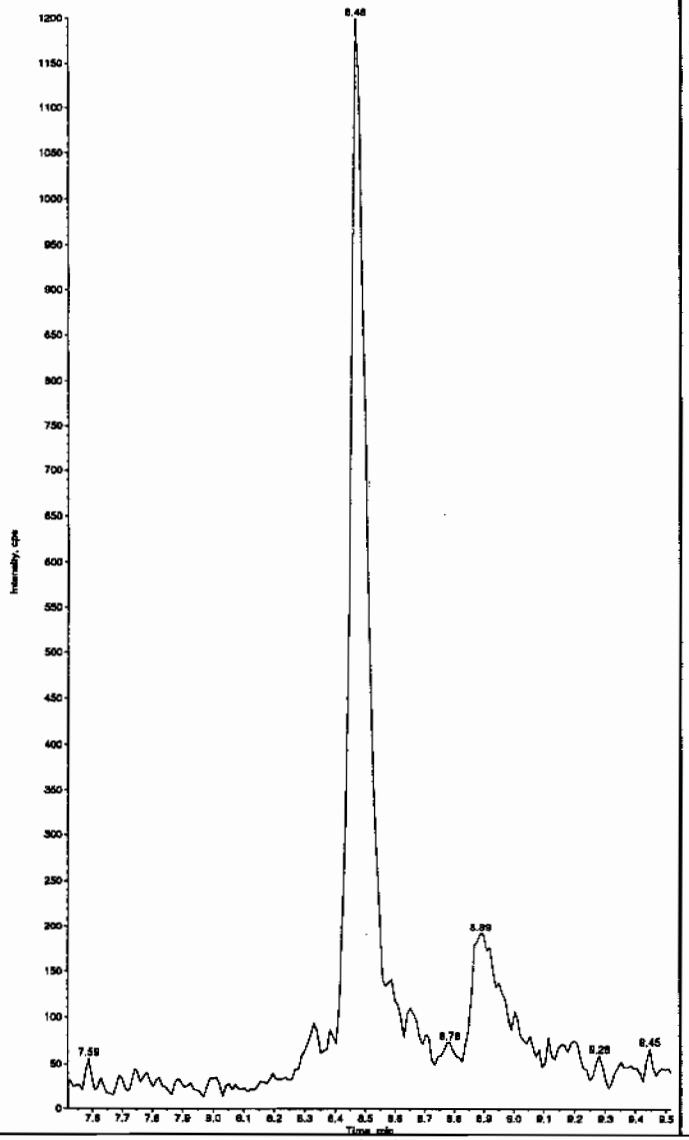

Sample Name: "XIBLK18" Sample ID: "[1]LER" File: "EXS02140141.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/16/2010
Acq. Time:	2:56:55 AM
Modified:	No

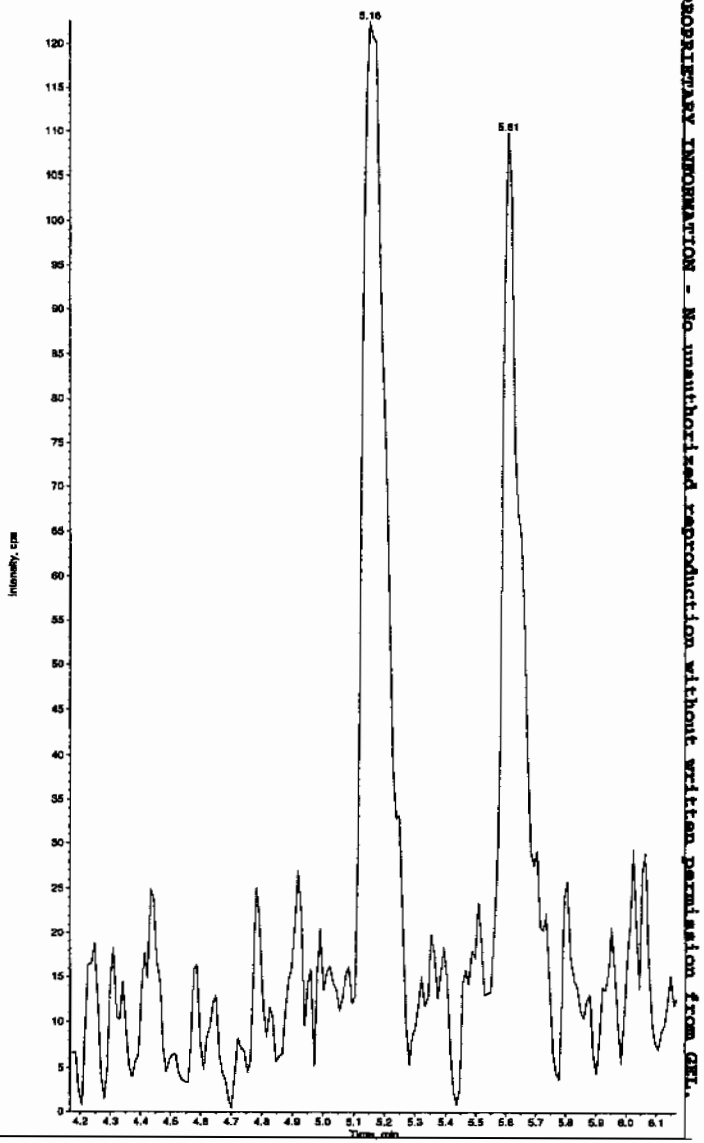

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK18" Sample ID: "|1|LER" File: "EXS02140141.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
q. Date: 2/16/2010
q. Time: 2:56:55 AM

odified: No

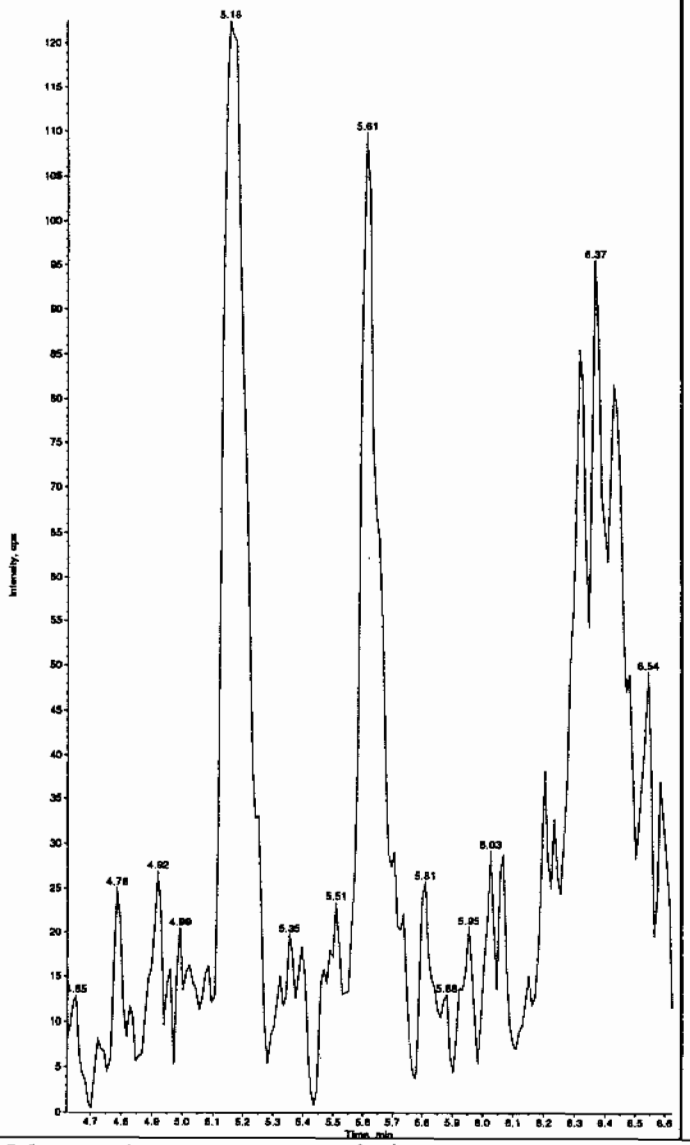

Sample Name: "XIBLK18" Sample ID: "|1|LER" File: "EXS02140141.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.79 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:56:55 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.51e+005 counts
Height: 35854.317 cps
Start Time: 10.8 min
End Time: 11.2 min

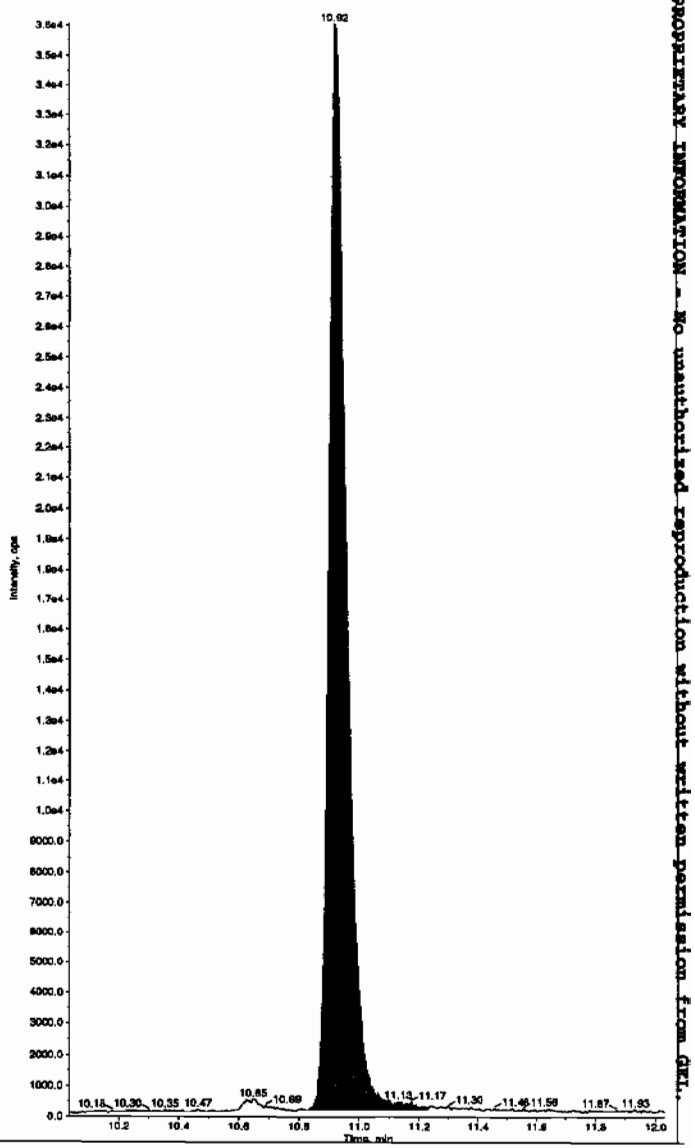

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 16–FEB–10 06:21

GEL Data File: EXS02140154.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.01
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Dan 2/17/10

Sample Name: "XIBLK19" Sample ID: "|1|LER" File: "EXS02140154.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:21:16 AM

Modified: No

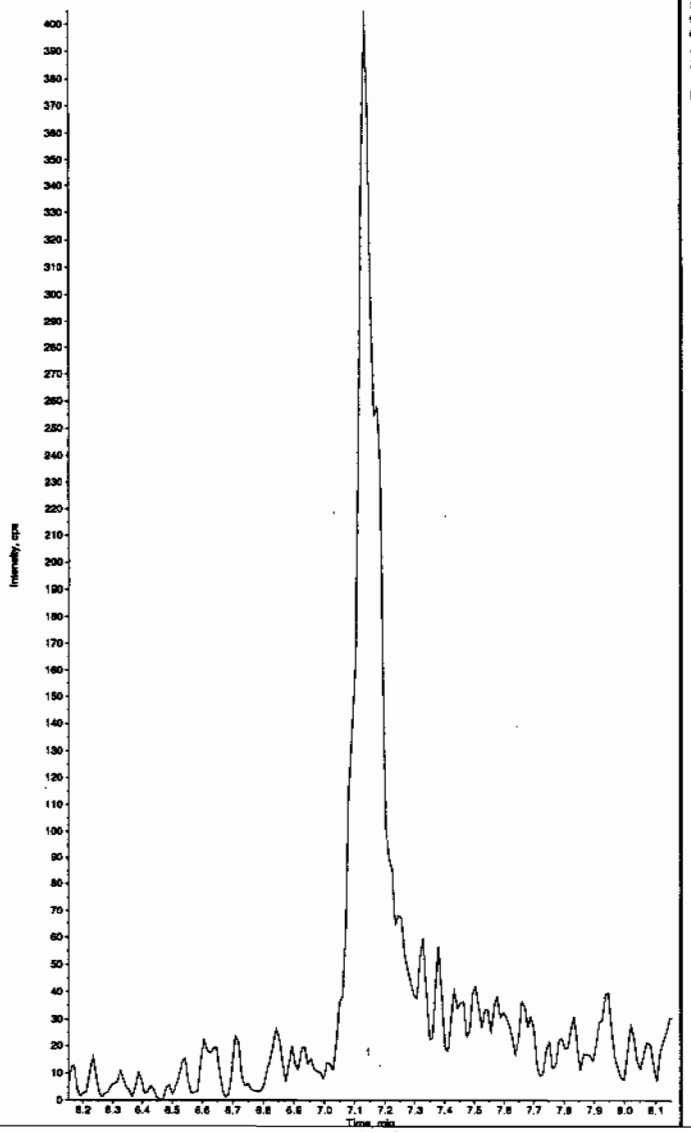

Sample Name: "XIBLK19" Sample ID: "|1|LER" File: "EXS02140154.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:21:16 AM

Modified: No

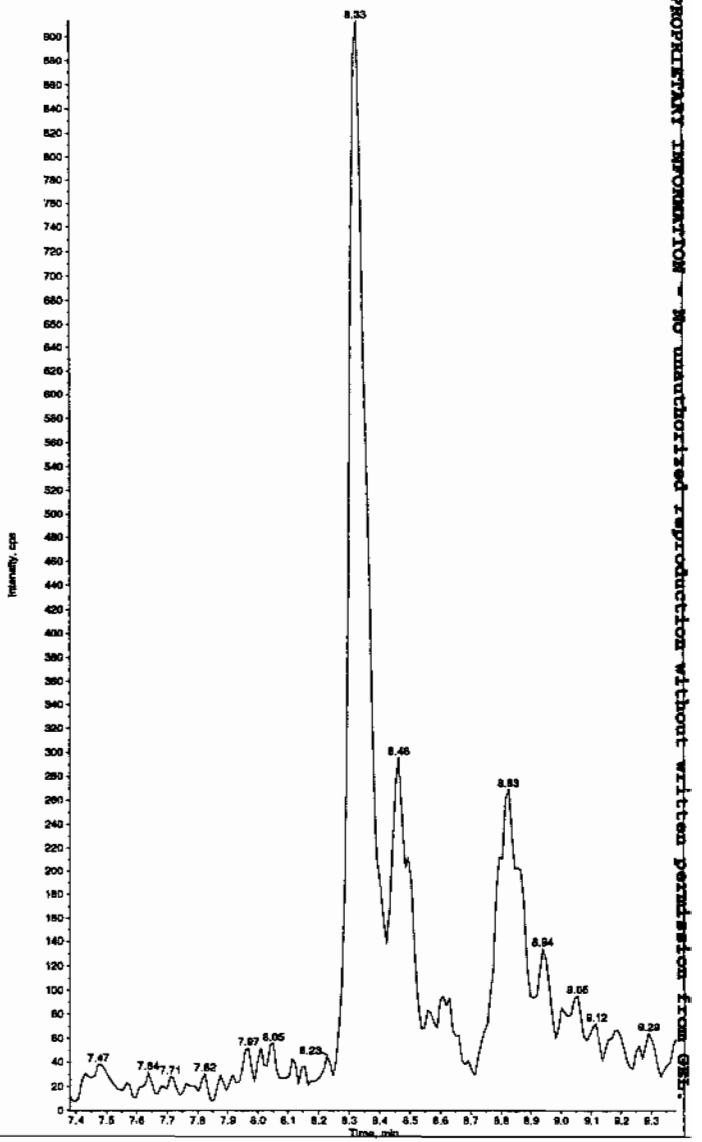

thm 02/17/10

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PROPRIETARY INFORMATION - Do unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK19" Sample ID: "[1]LER" File: "EXS02140154.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:21:16 AM

Modified: No

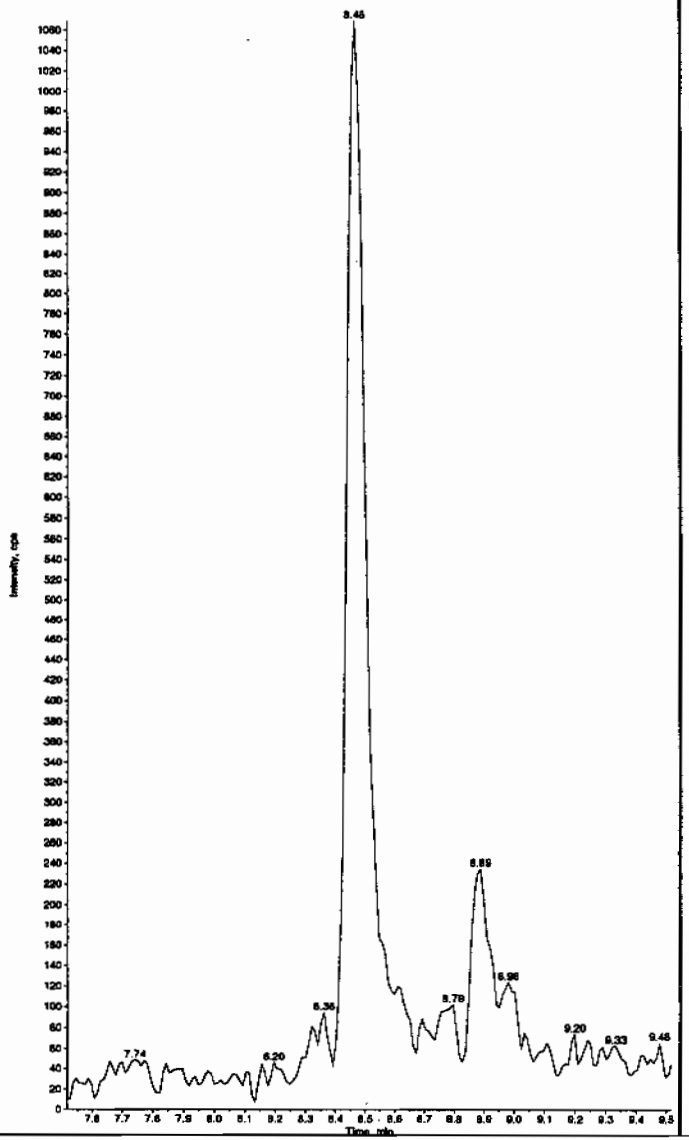

Sample Name: "XIBLK19" Sample ID: "[1]LER" File: "EXS02140154.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:21:16 AM

Modified: No

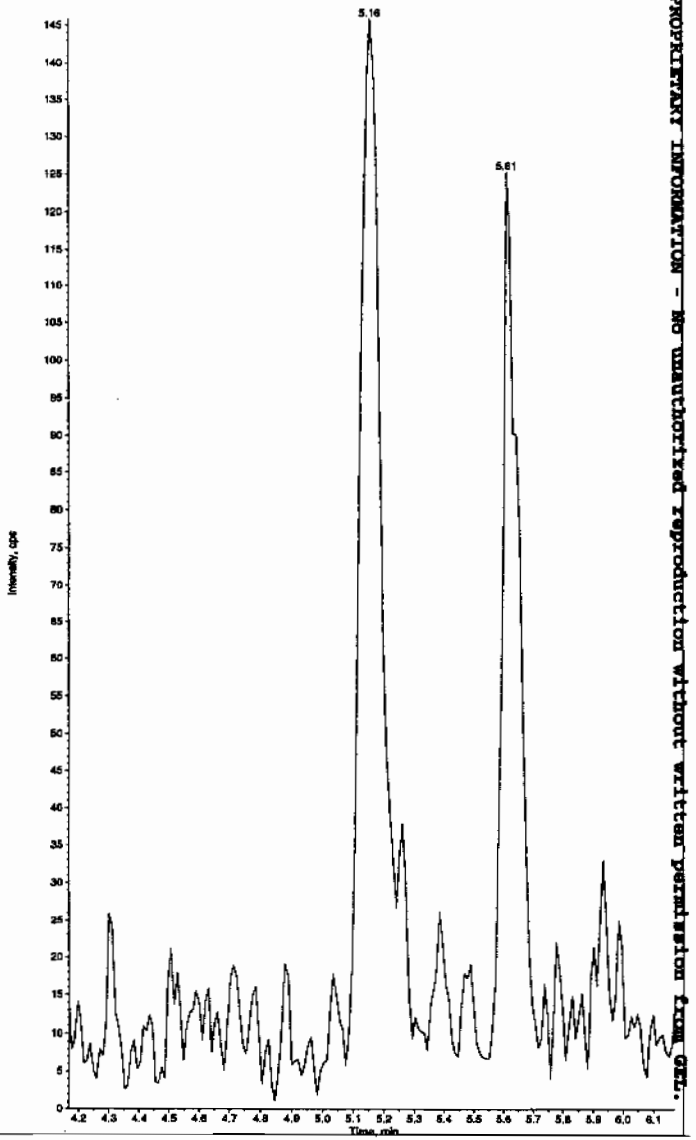

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK19" Sample ID: "|1|LER" File: "EXS02140154.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:21:16 AM

Modified: No

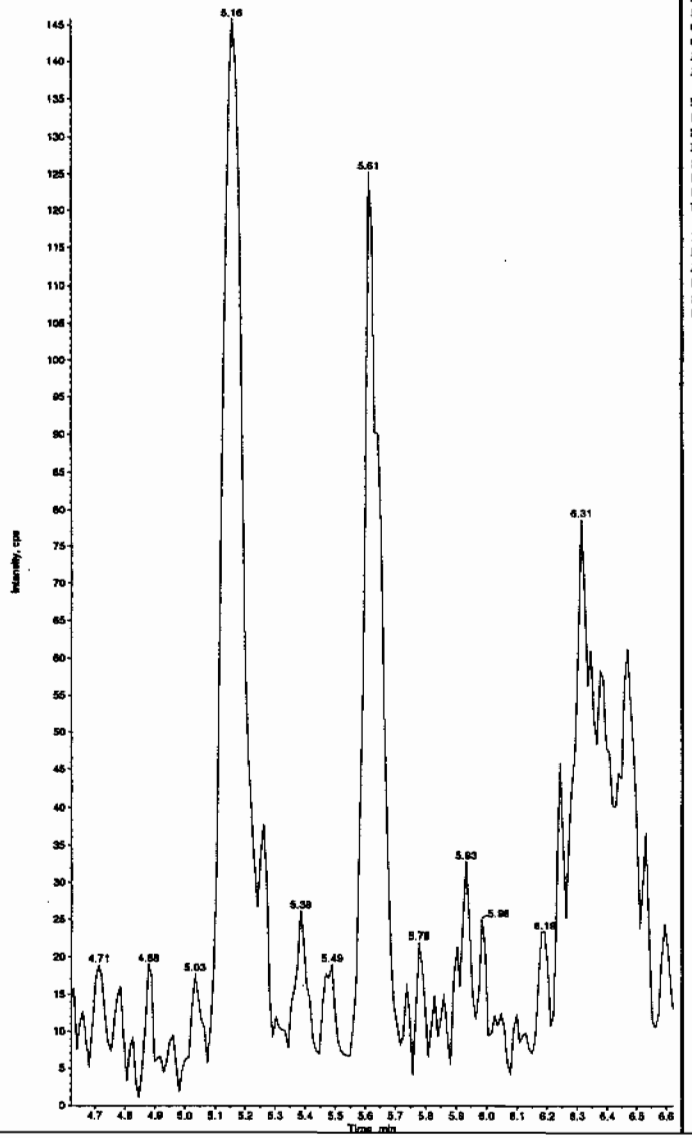

Sample Name: "XIBLK19" Sample ID: "|1|LER" File: "EXS02140154.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.01 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:21:16 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.56e+005 counts
Height: 38141.005 cps
Start Time: 10.8 min
End Time: 11.2 min

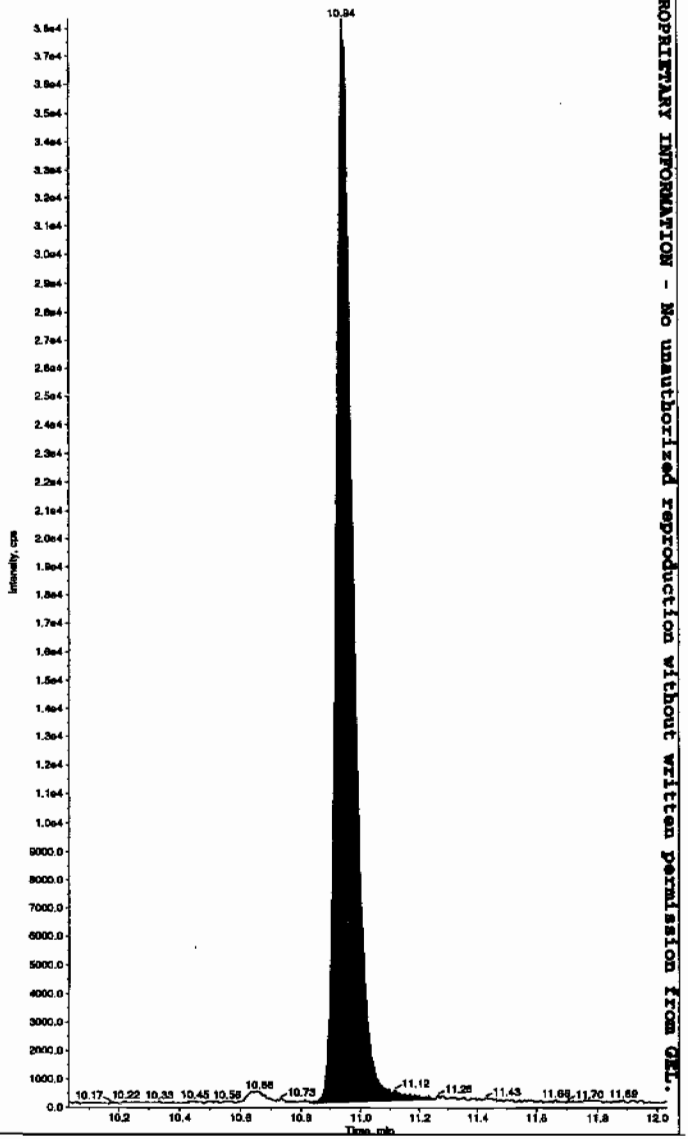

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 16–FEB–10 14:34

GEL Data File: EXS02160010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.67
TATB	0	0

Lan 2/17/10

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02160010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:34:34 PM

Modified: No

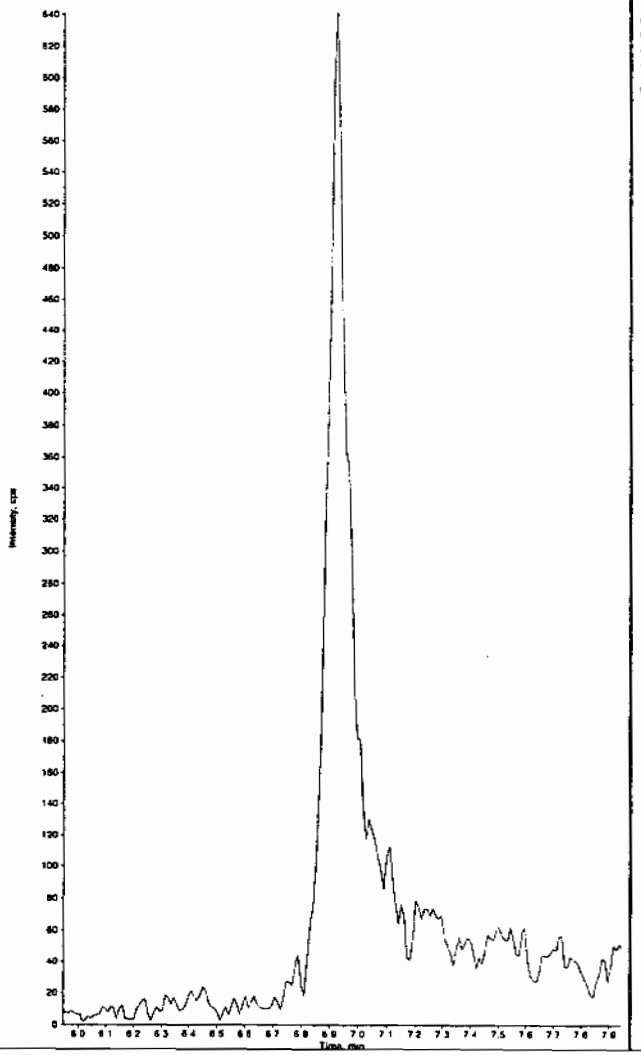

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02160010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:34:34 PM

Modified: No

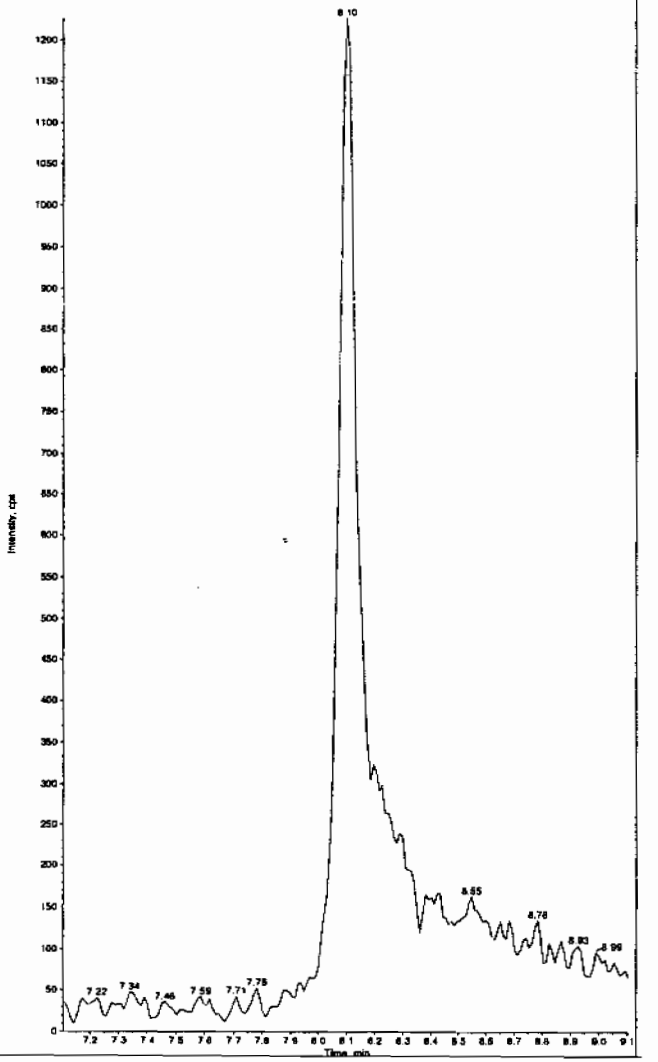

Hime 02/17/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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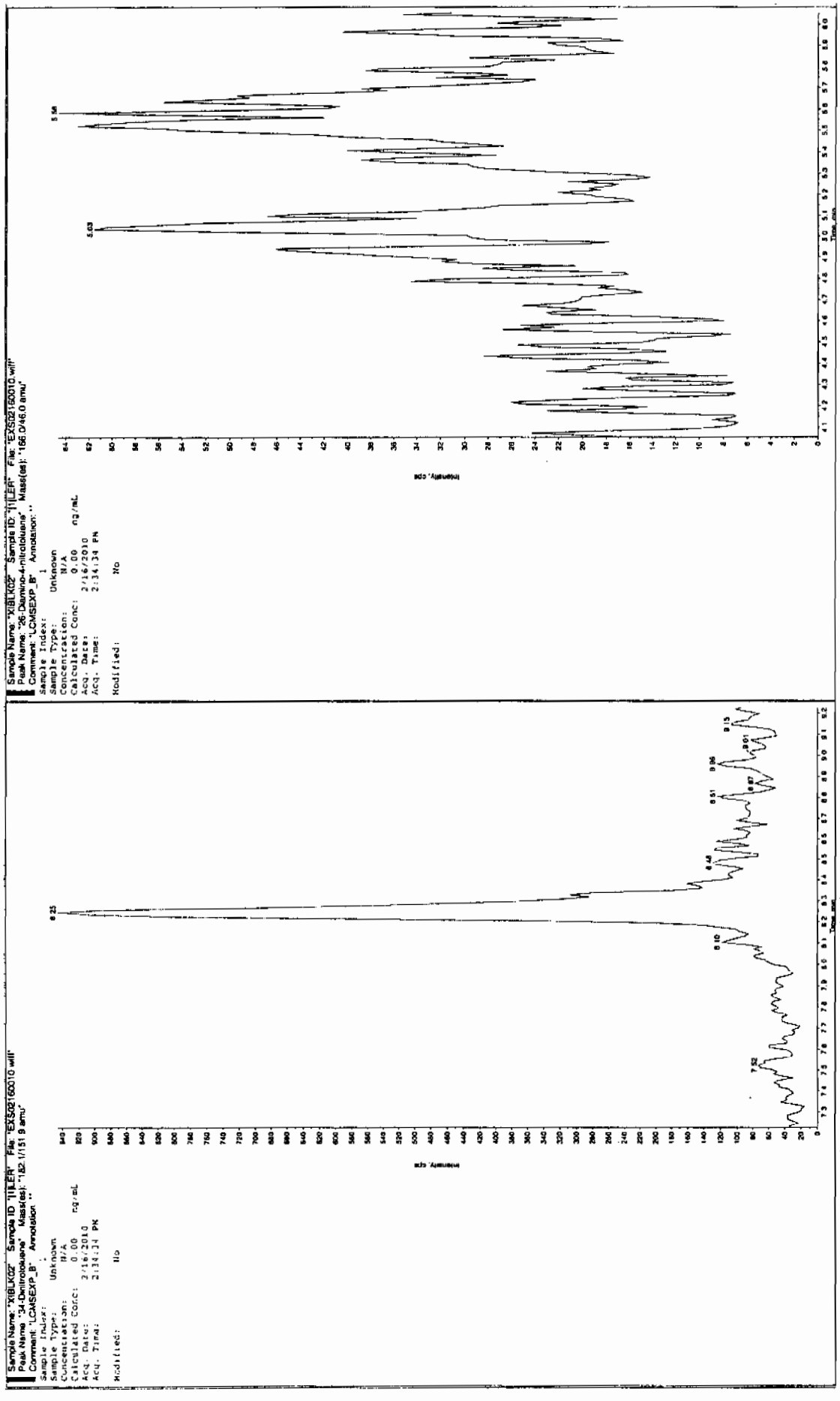

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02160010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:34:34 PM

Modified: No

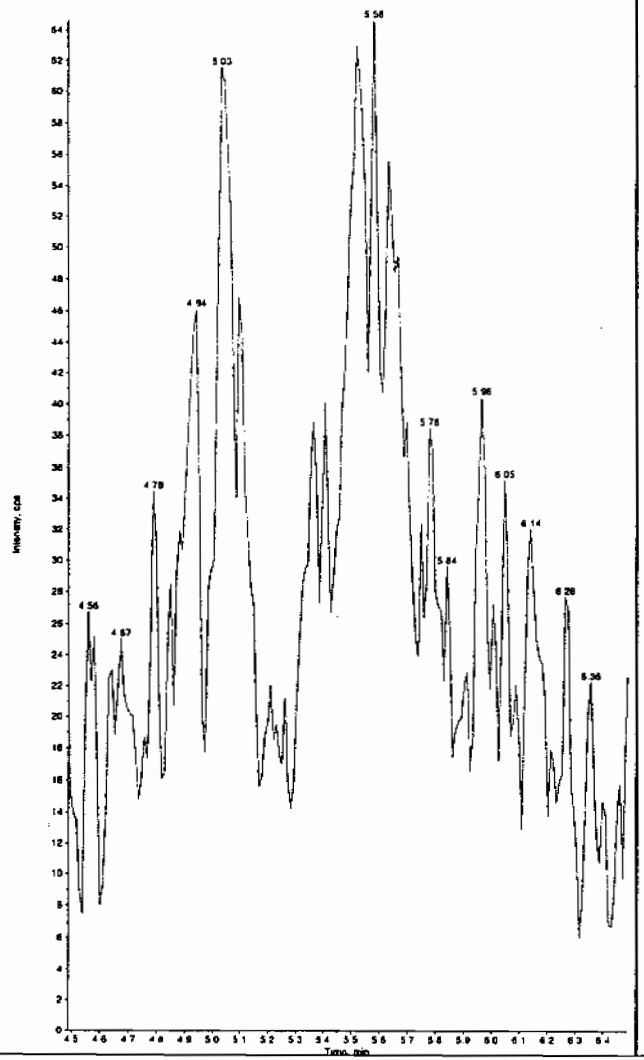

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02160010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.67 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:34:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 10.6 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 1.47e+005 counts
Height: 38321.228 cps
Start Time: 10.5 min
End Time: 10.8 min

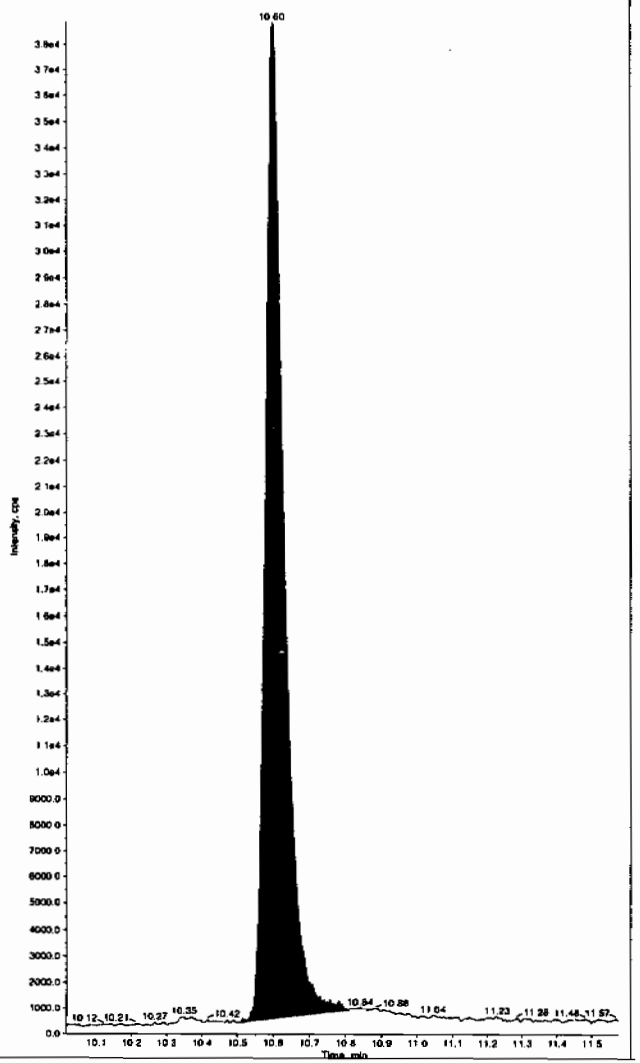

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1516

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 16–FEB–10 15:05

GEL Data File: EXS02160012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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JKW 2/17/10

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02160012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:05:58 PM

Modified: No

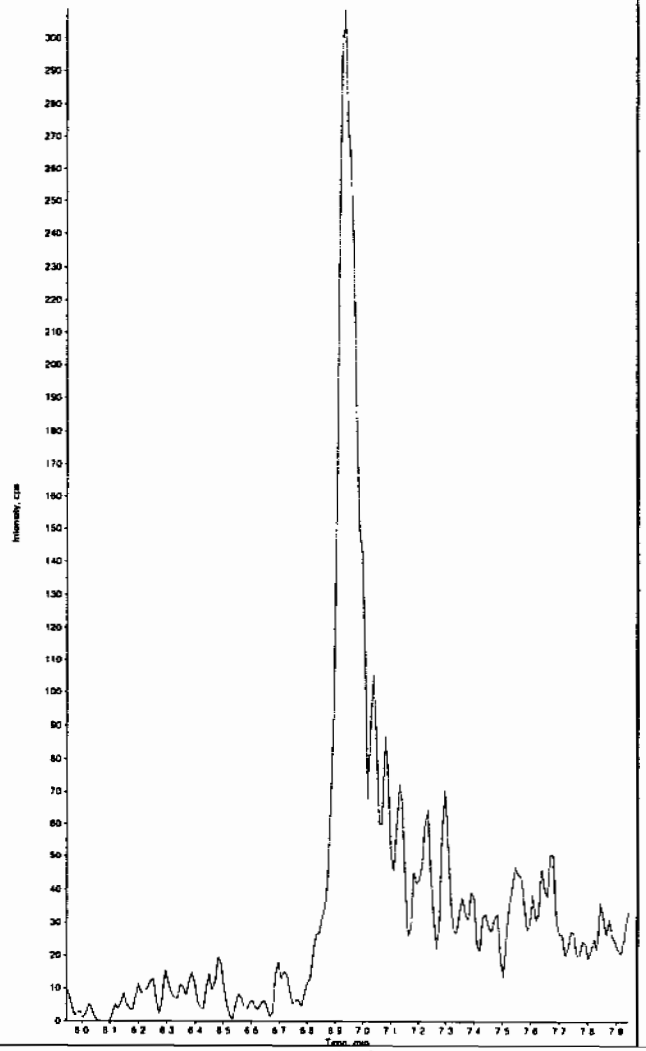

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02160012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:05:58 PM

Modified: No

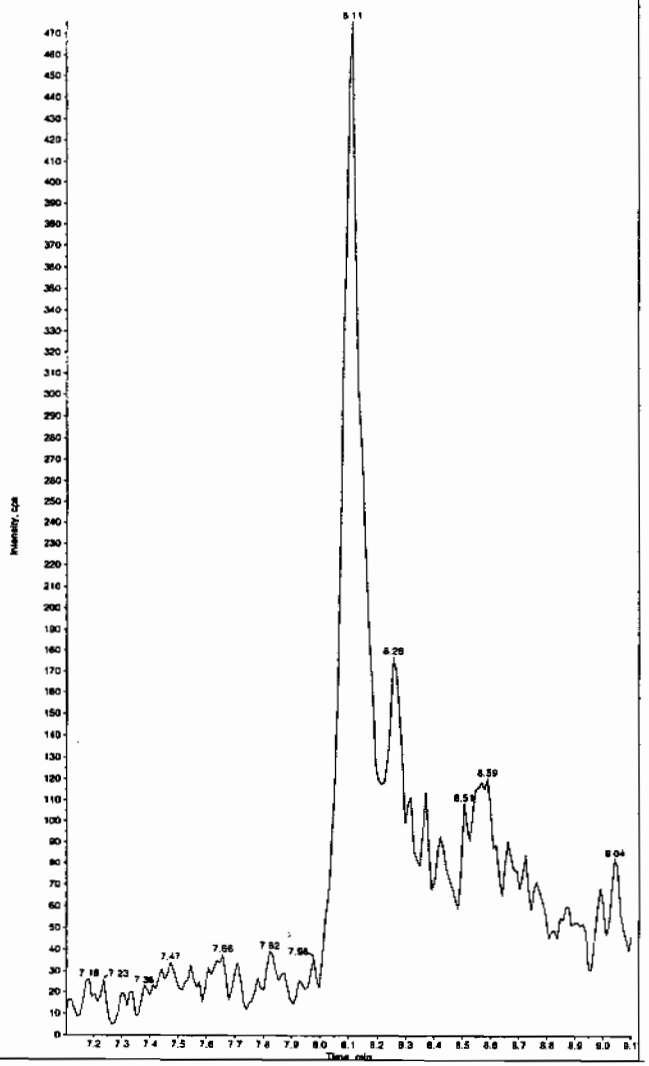

HWK 02/17/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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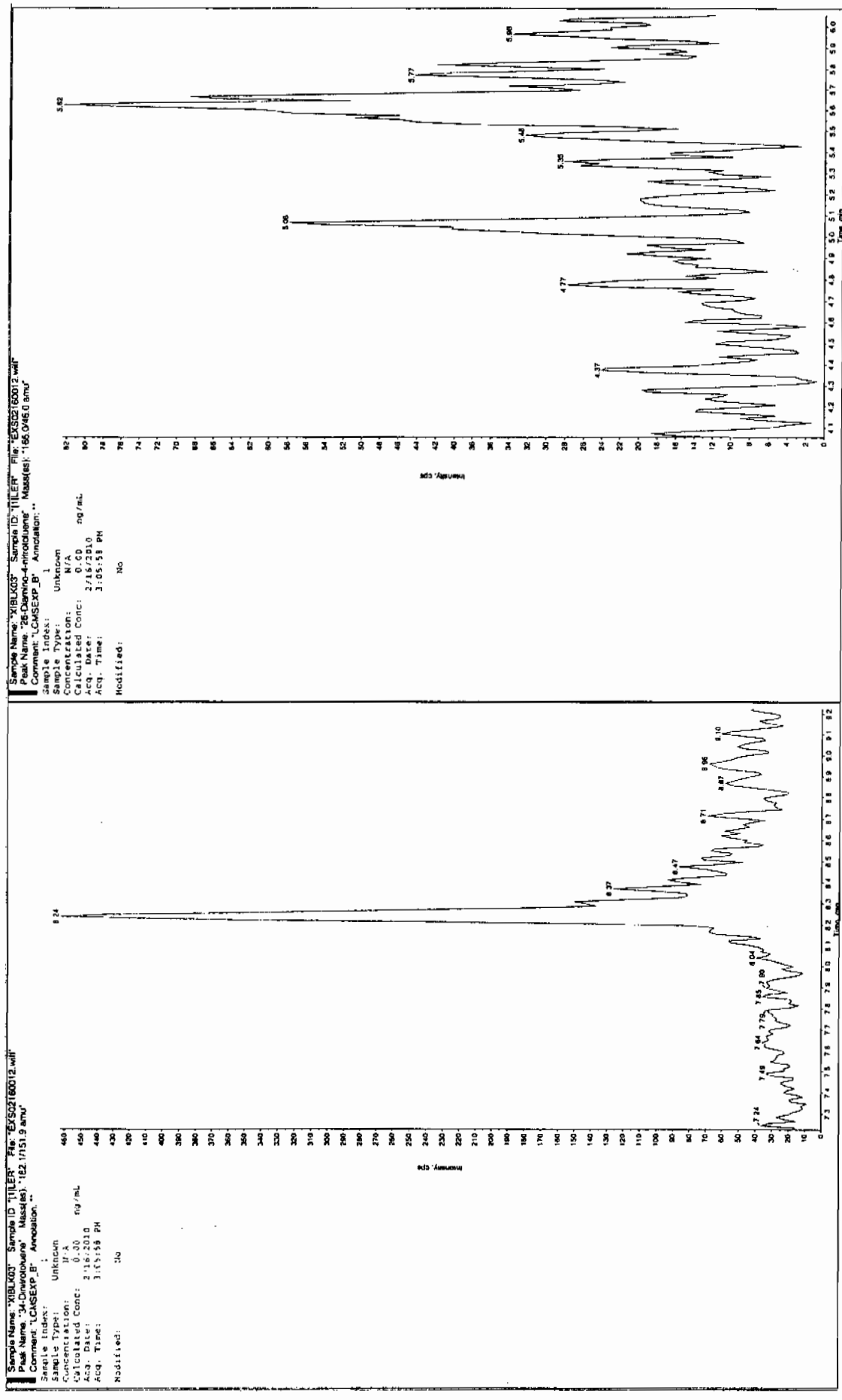

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02160012.wff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:05:58 PM

Modified: No

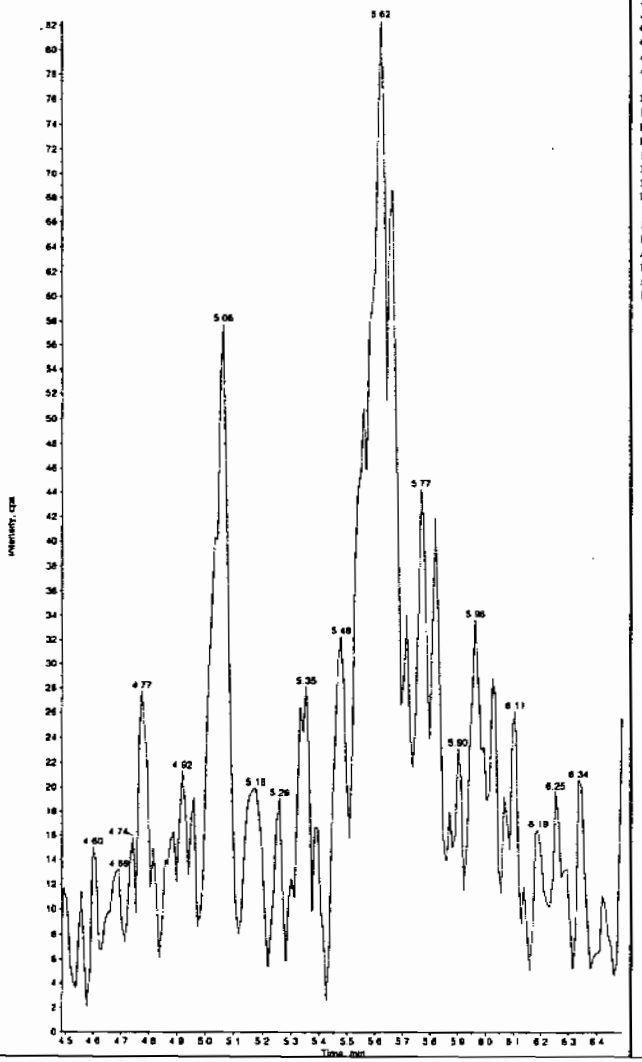

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02160012.wff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/16/2010
Acq. Time: 3:05:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 10.6 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 5.33e+004 counts
Height: 12685.137 cps
Start Time: 10.5 min
End Time: 10.9 min

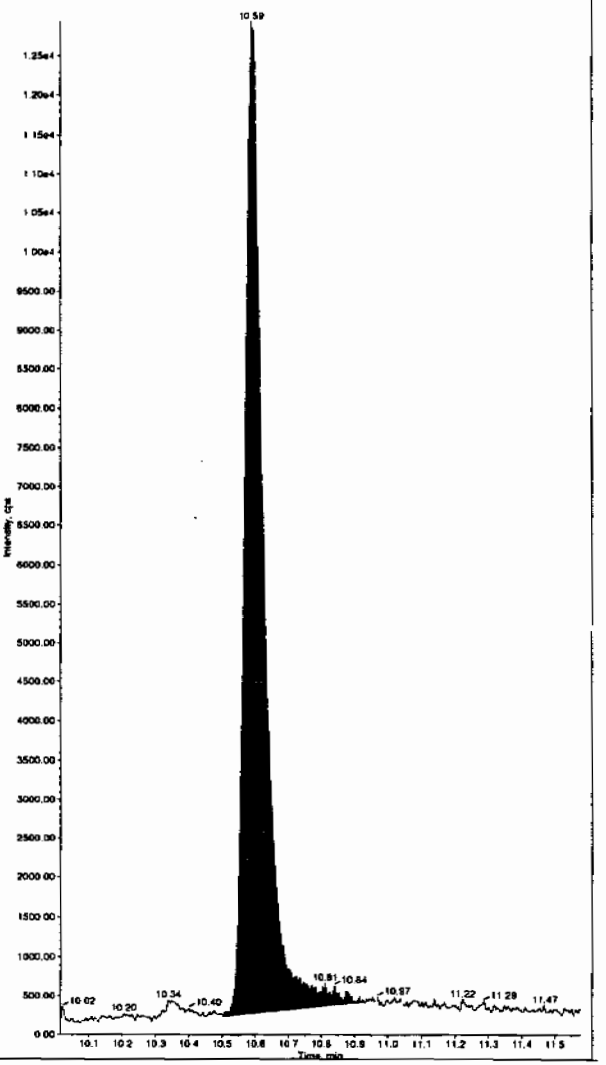

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1516

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 16-FEB-10 18:30

GEL Data File: EXS02160025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Lcm 2/17/10

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02150025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N.A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:30:22 PM

Modified: No

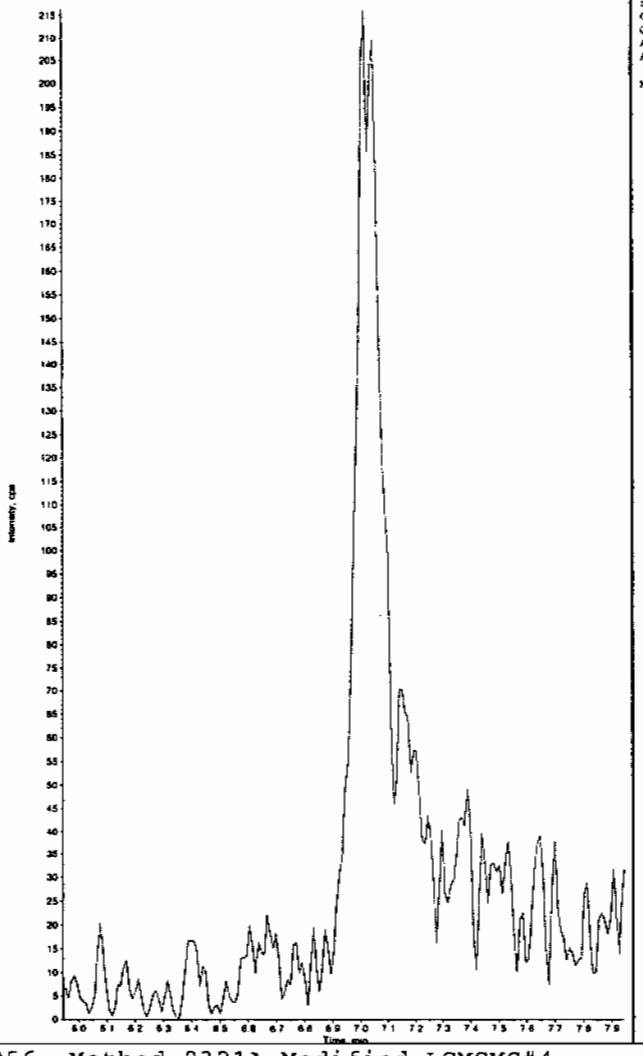

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02160025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "152.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:30:22 PM

Modified: No

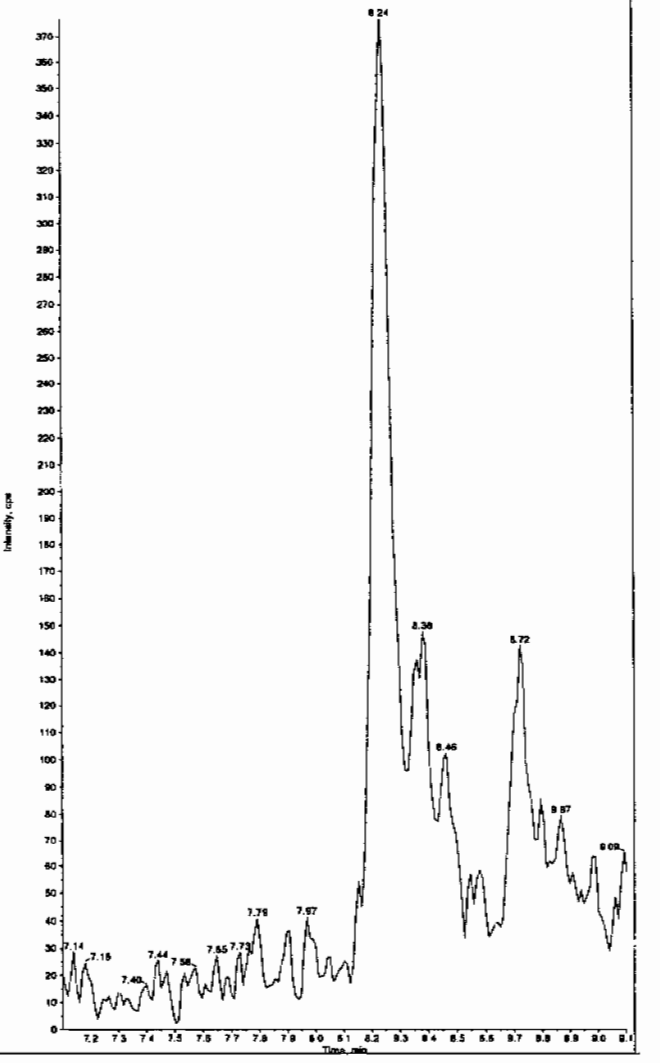

HMM 02/17/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02160025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:30:22 PM

Modified: No

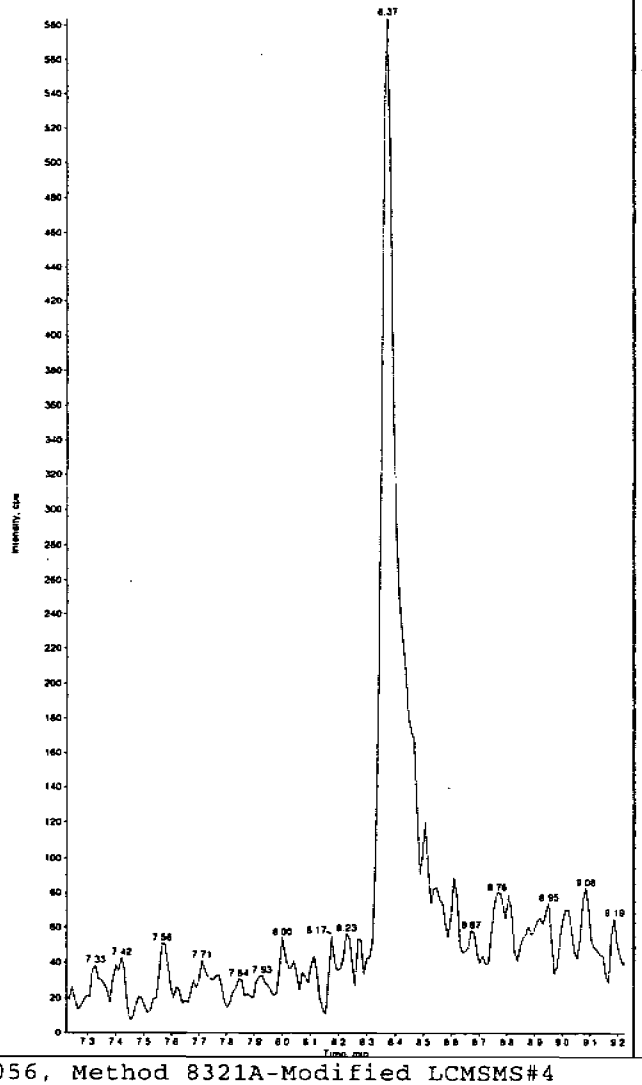

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02160025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:30:22 PM

Modified: No

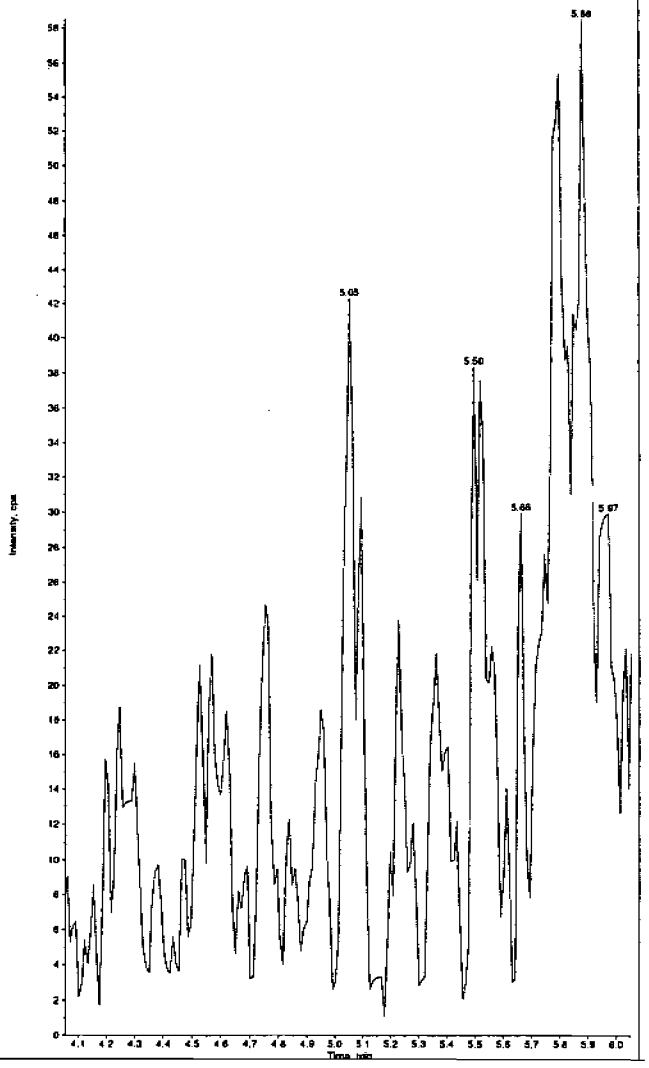

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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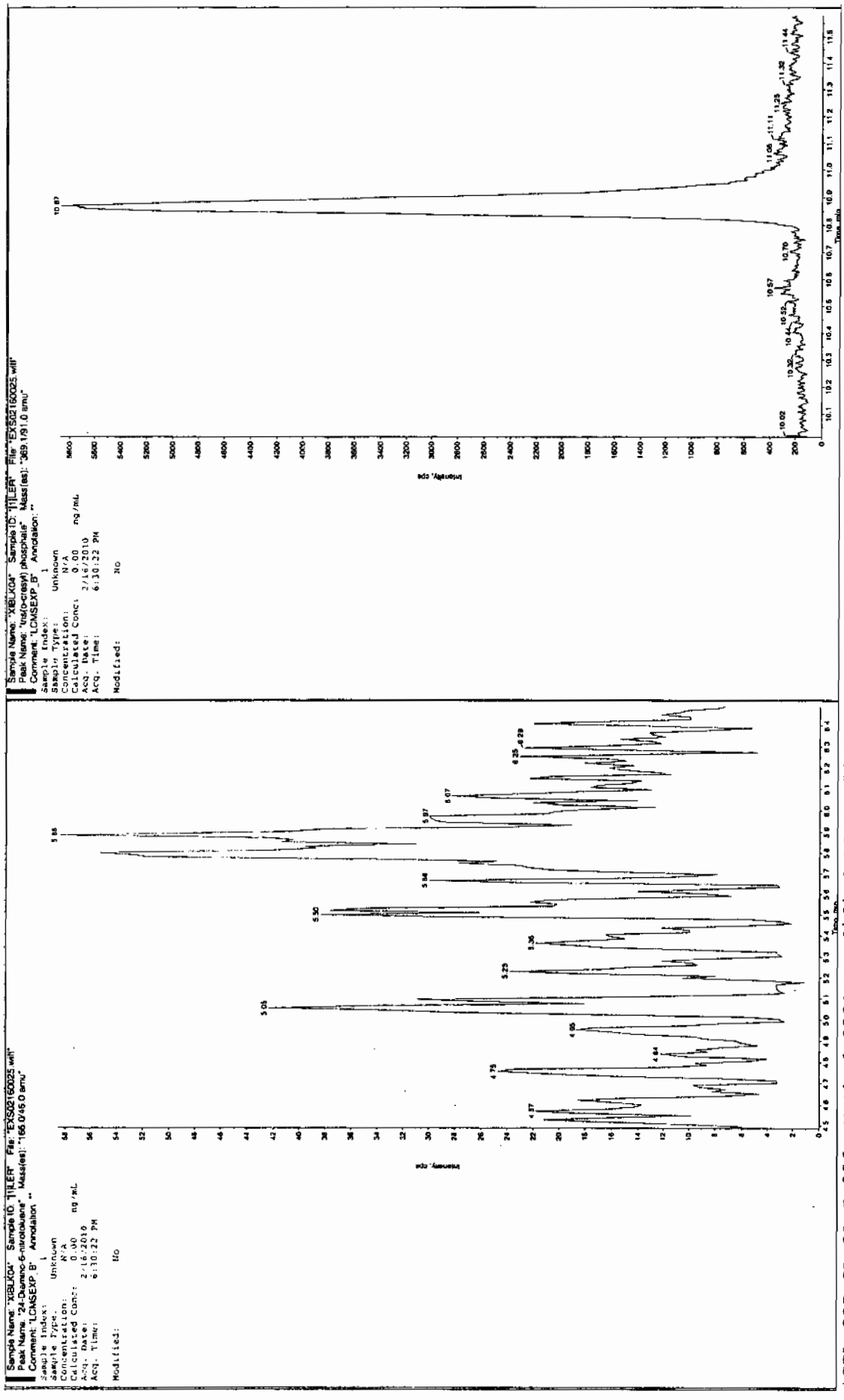

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

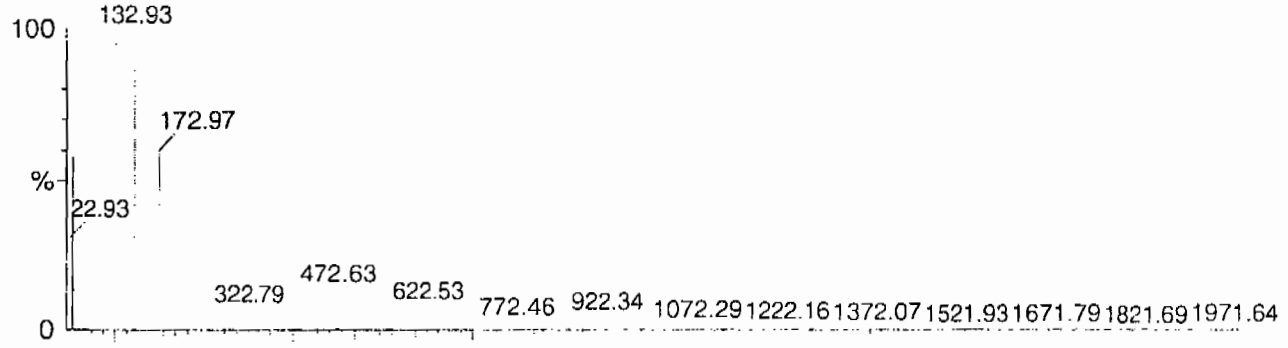

Reference file: Naics2

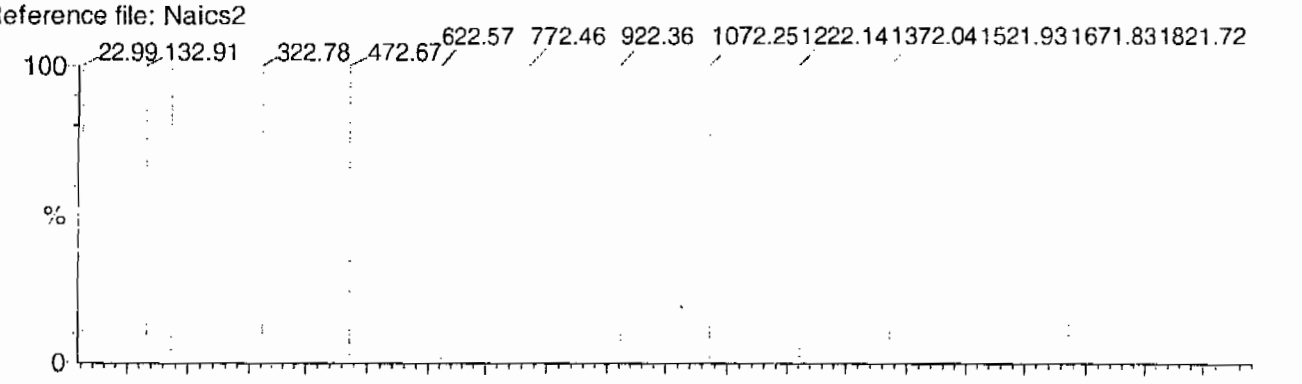

Mass difference (Raw - Ref mass)

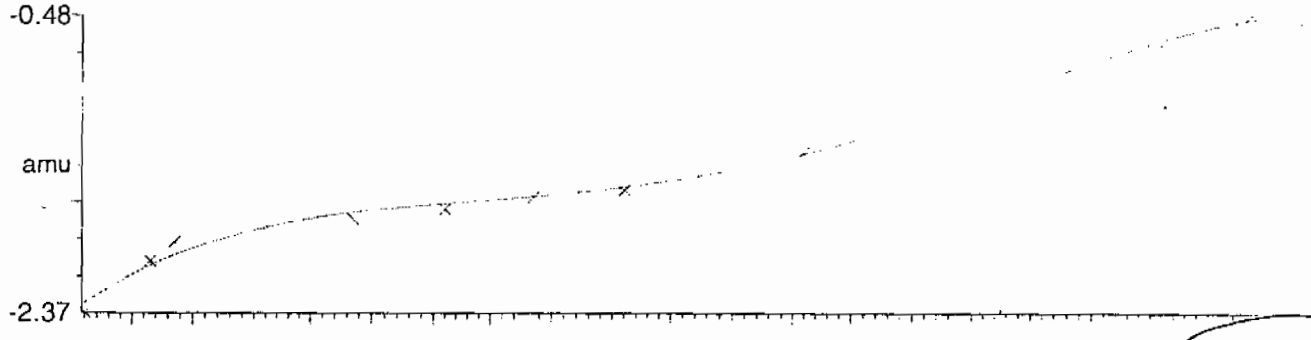

Residuals

Mean residual ± -1.673470e-9 ± 0.036953

ok
lm

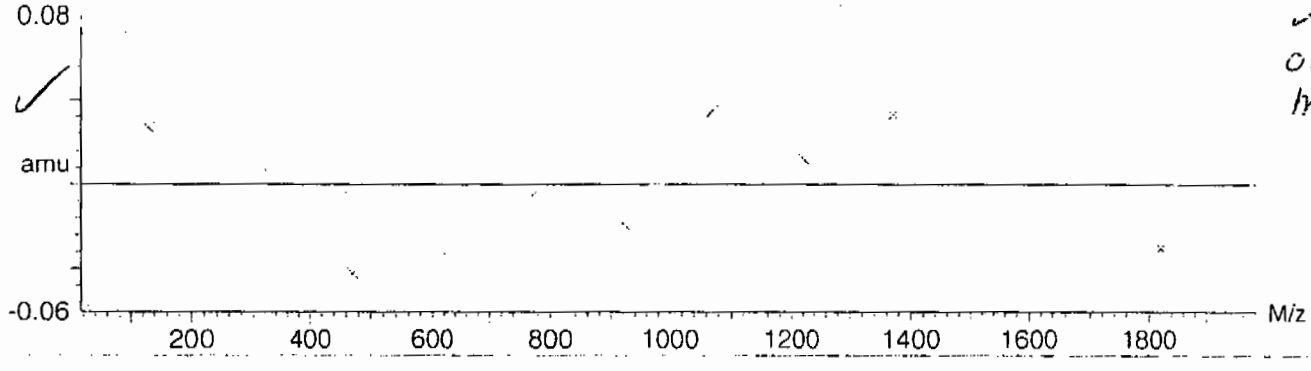

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

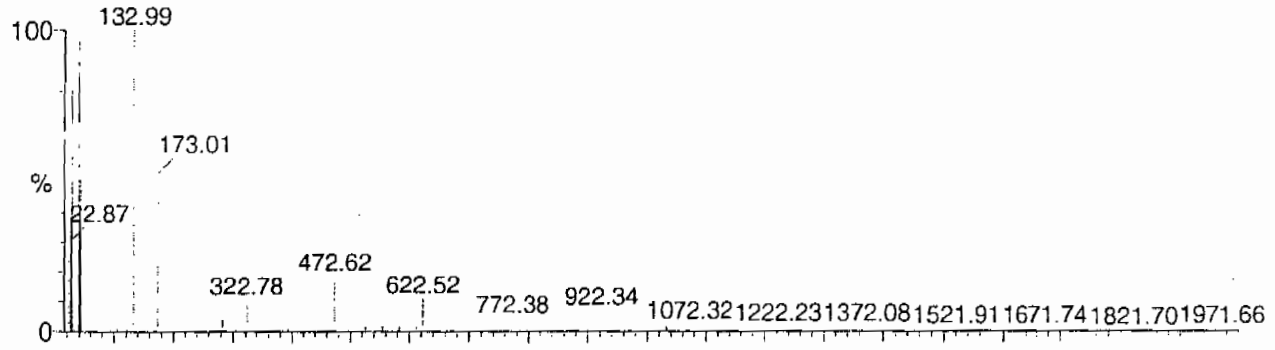

Reference file: Naics2

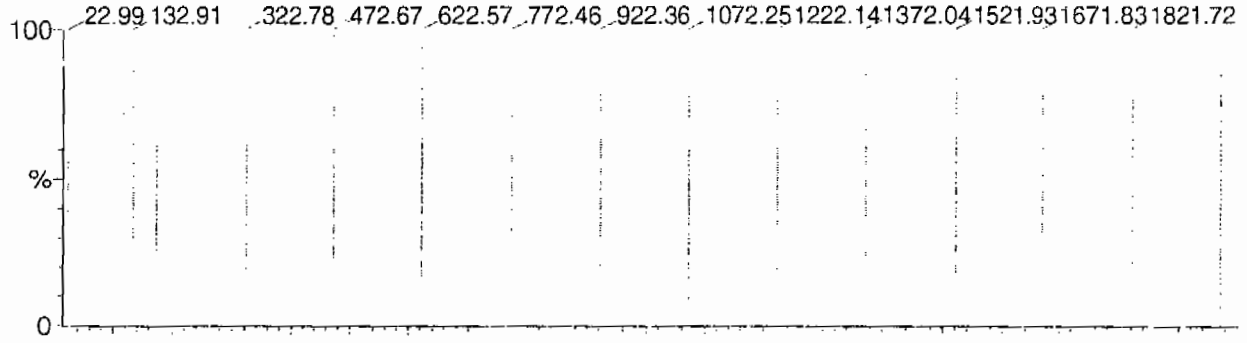

Mass difference (Raw - Ref mass)

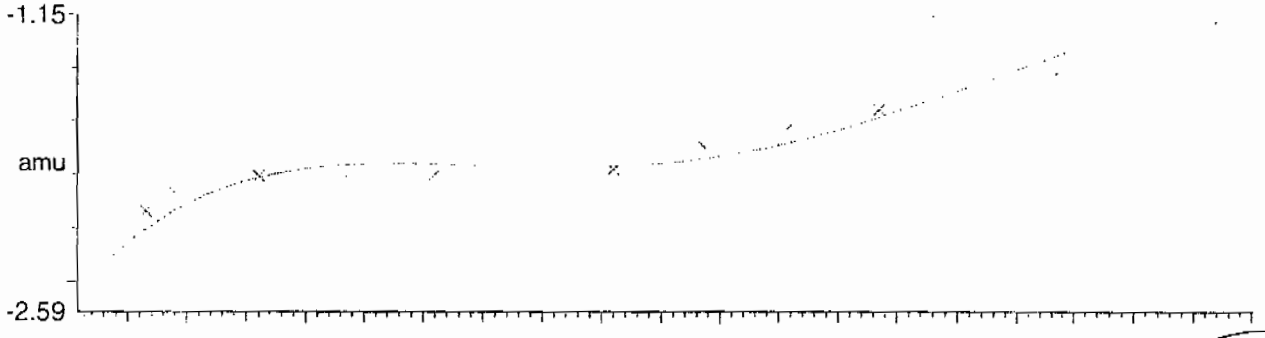

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

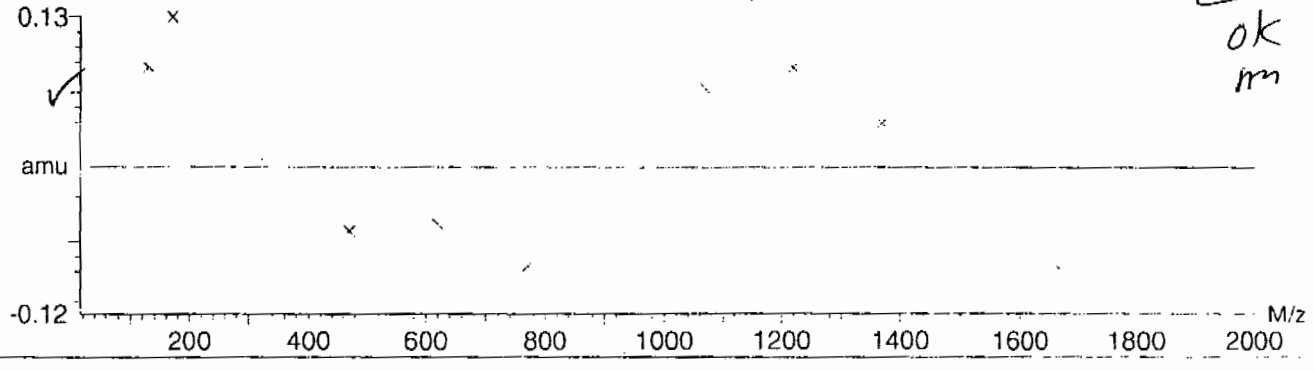

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

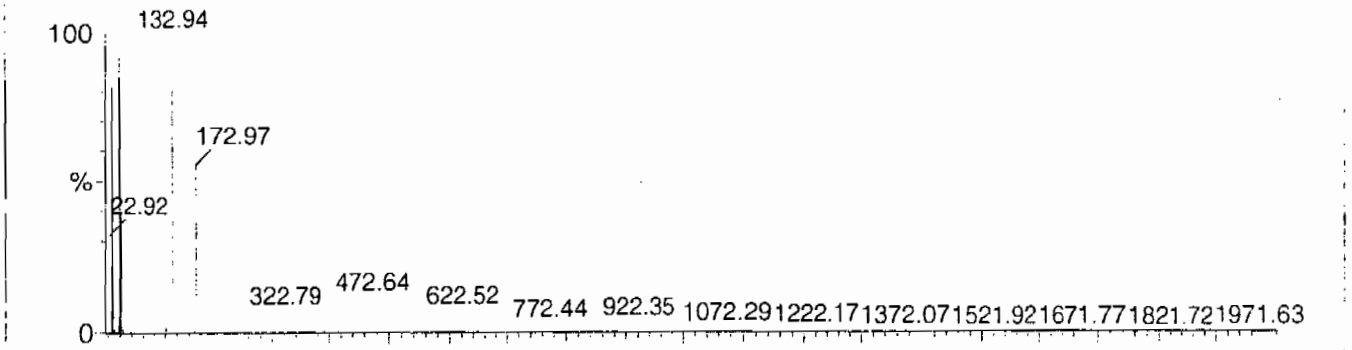

Reference file: Naics2

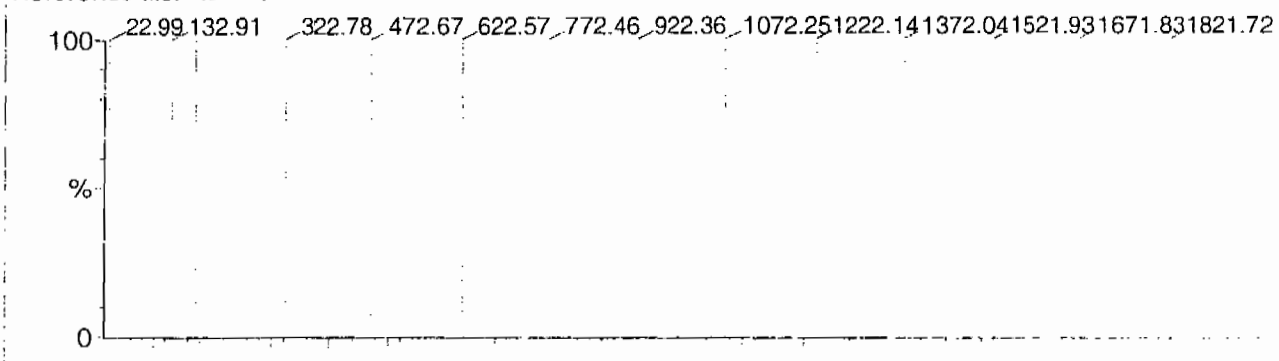

Mass difference (Raw - Ref mass)

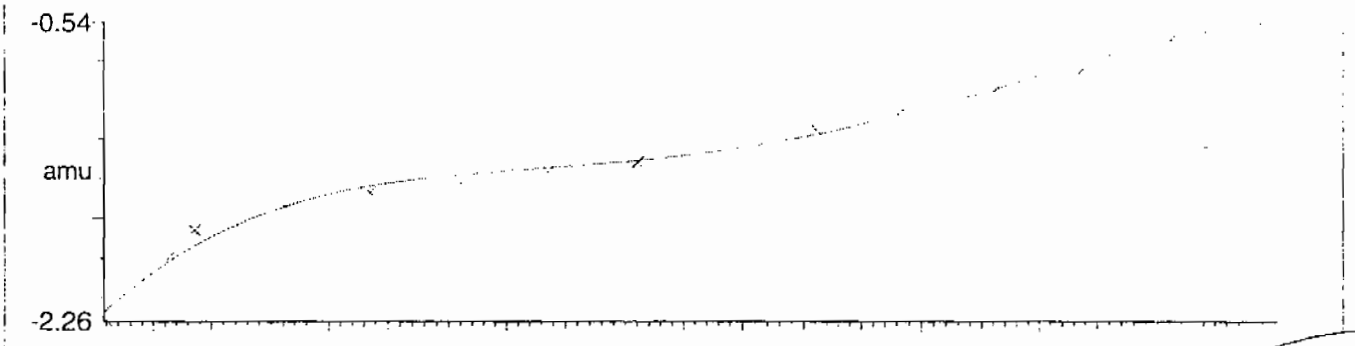

Residuals

Mean residual = 3.486639e-9 ± 0.040487

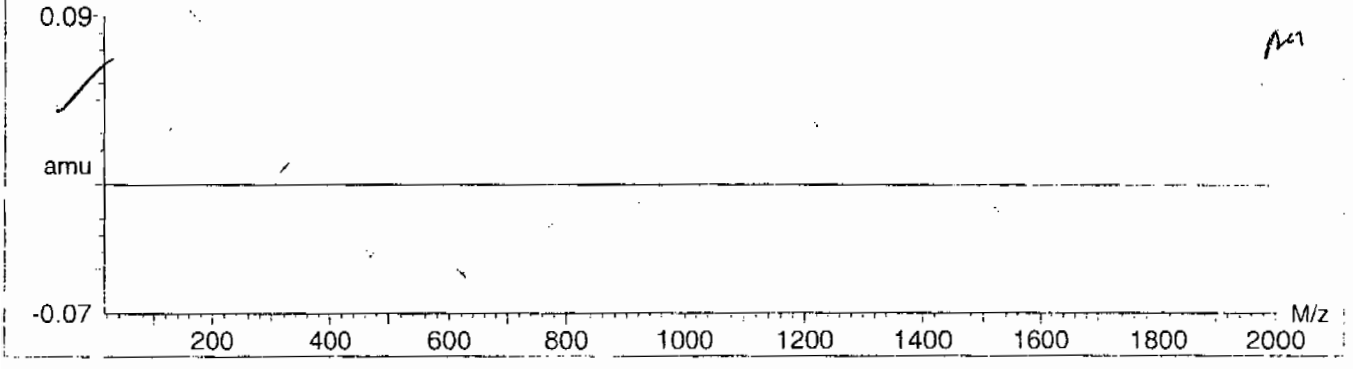

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

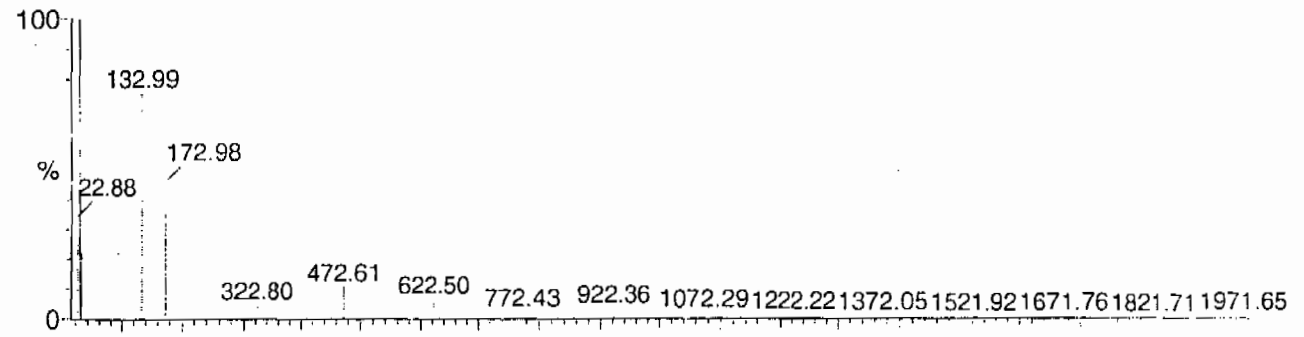

Reference file: Naics2

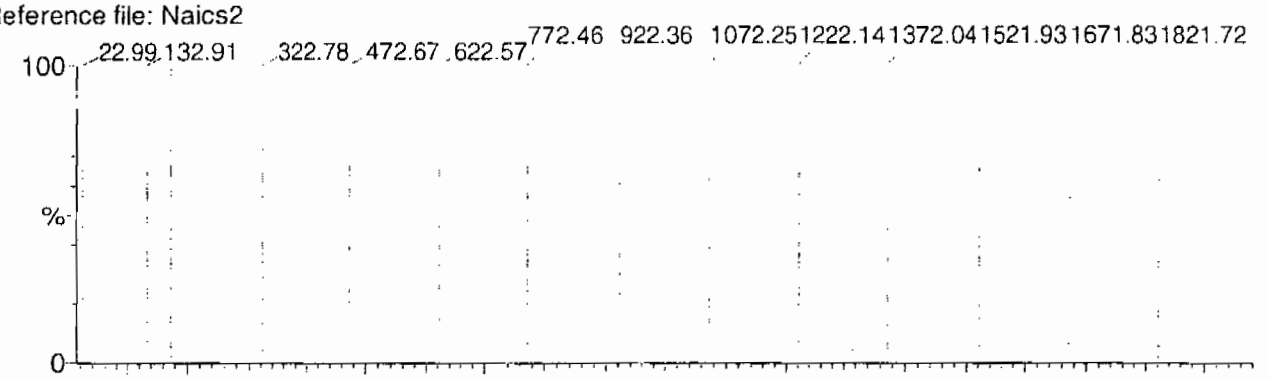

Mass difference (Raw - Ref mass)

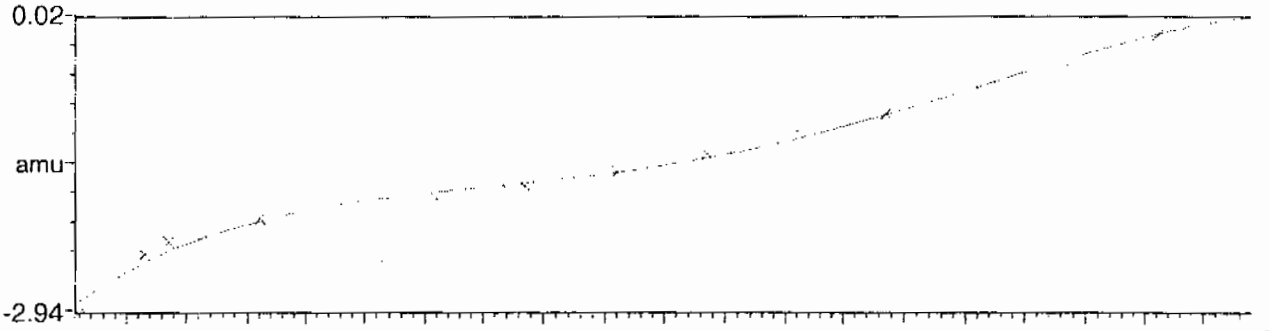

Residuals

Mean residual = 2.048910e-9 ± 0.057803

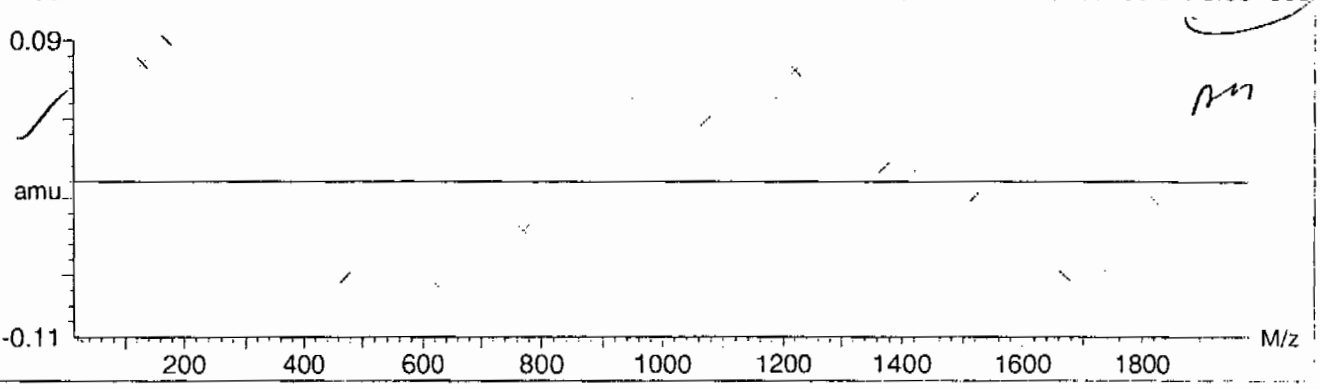

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

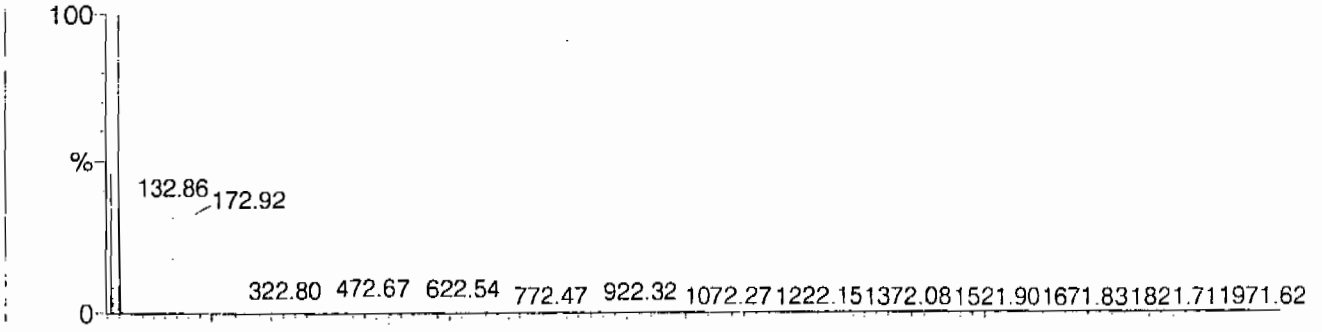

Reference file: Naics2

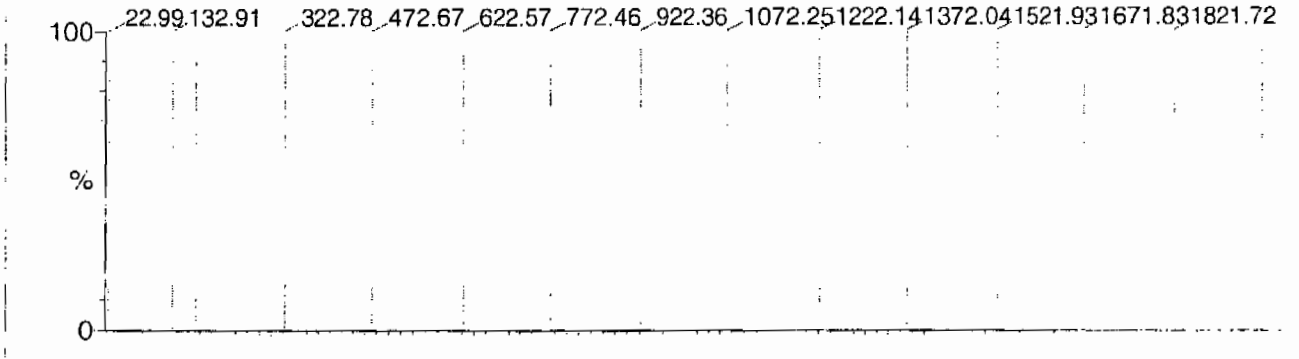

Mass difference (Raw - Ref mass)

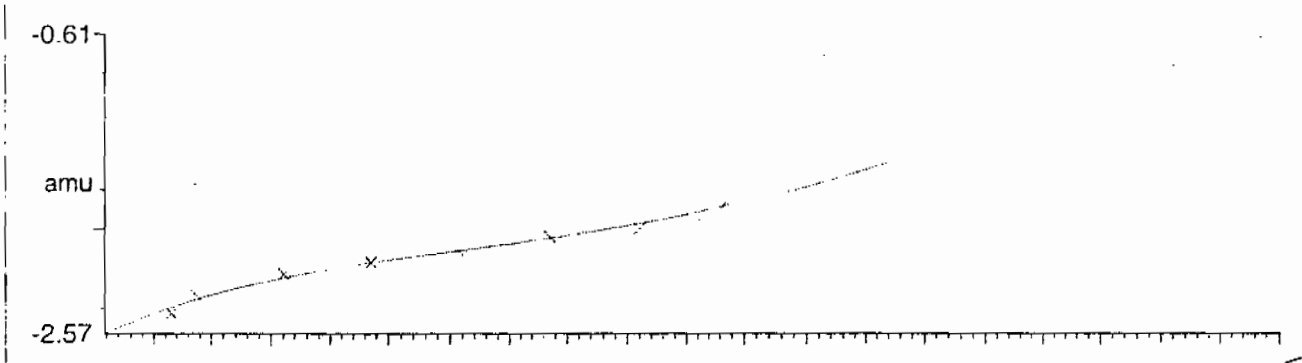

Residuals

Mean residual = -2.623502e-9 ± 0.025622

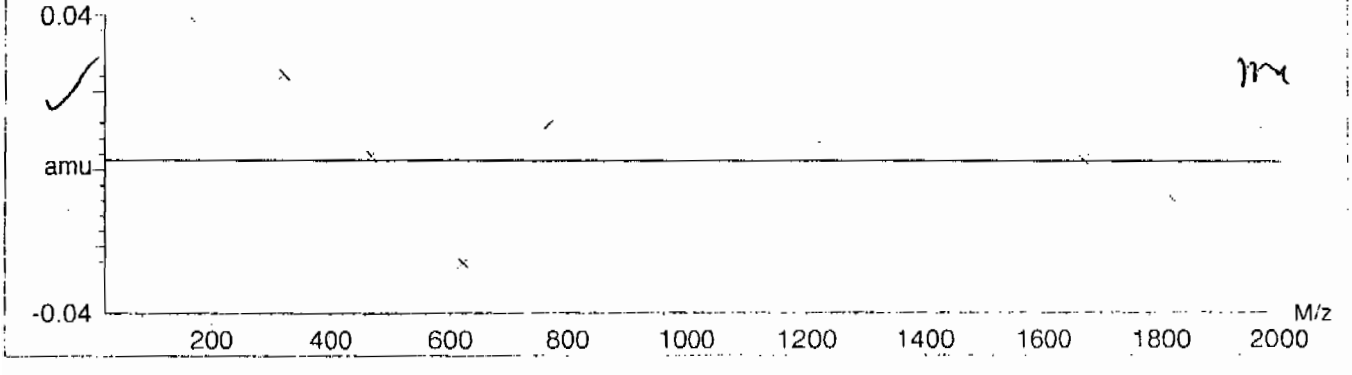

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

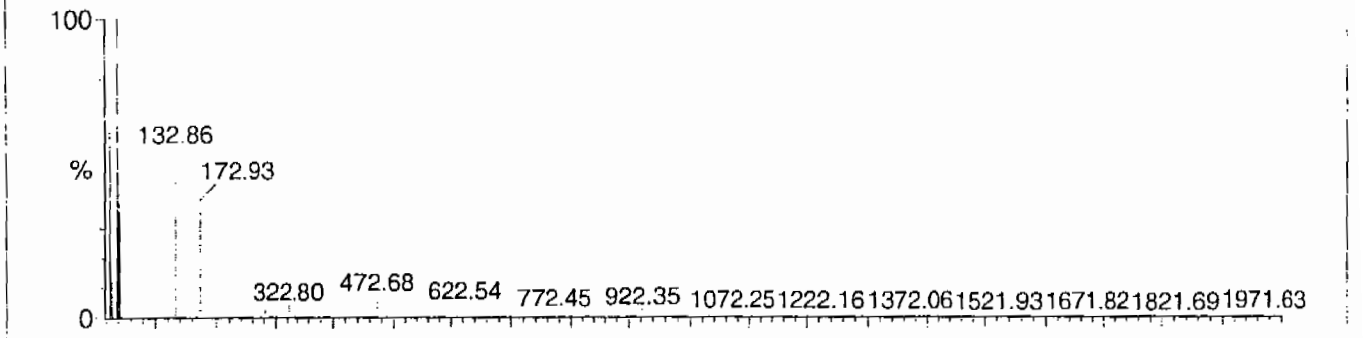

Reference file: Naics2

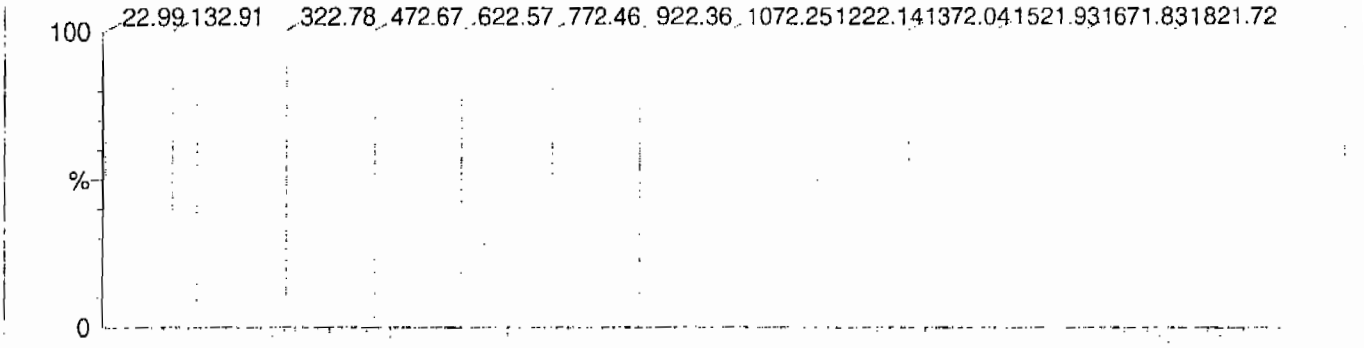

Mass difference (Raw - Ref mass)

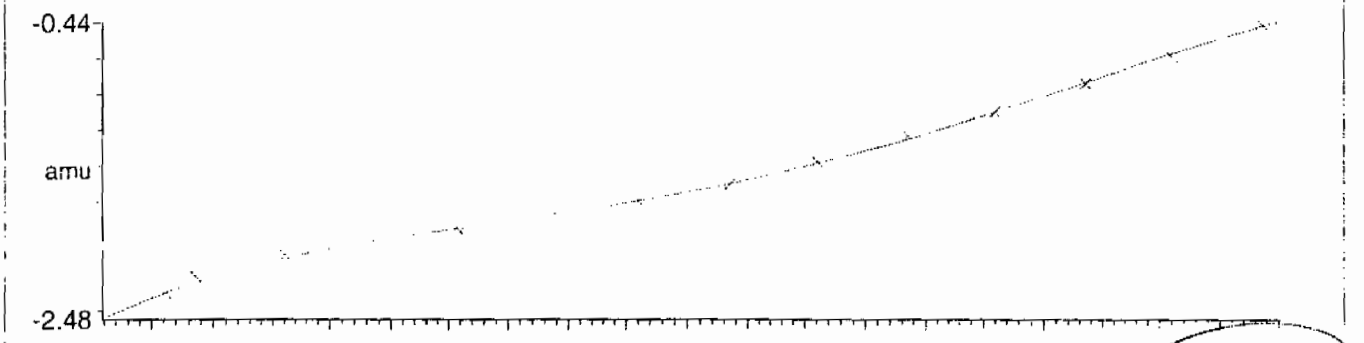

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

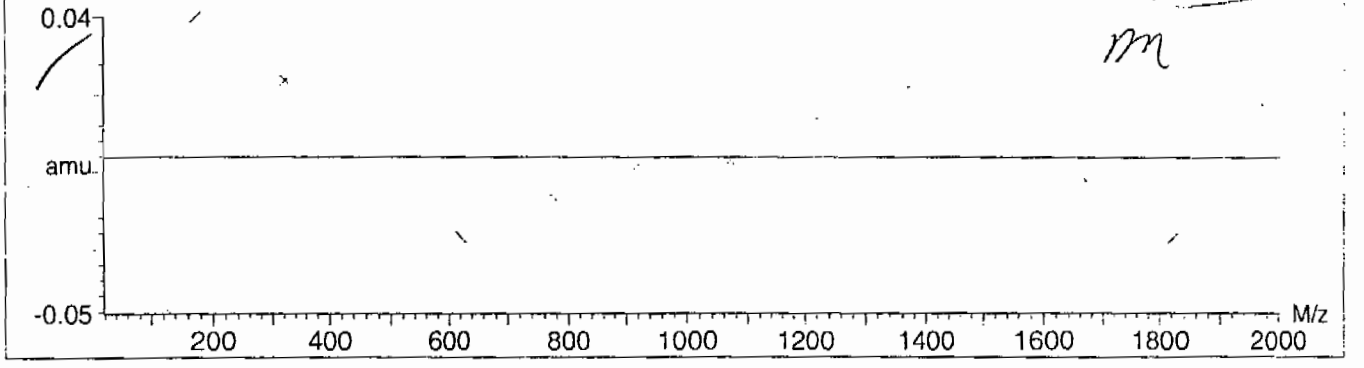

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Tue Feb 16 13:37:41 2010

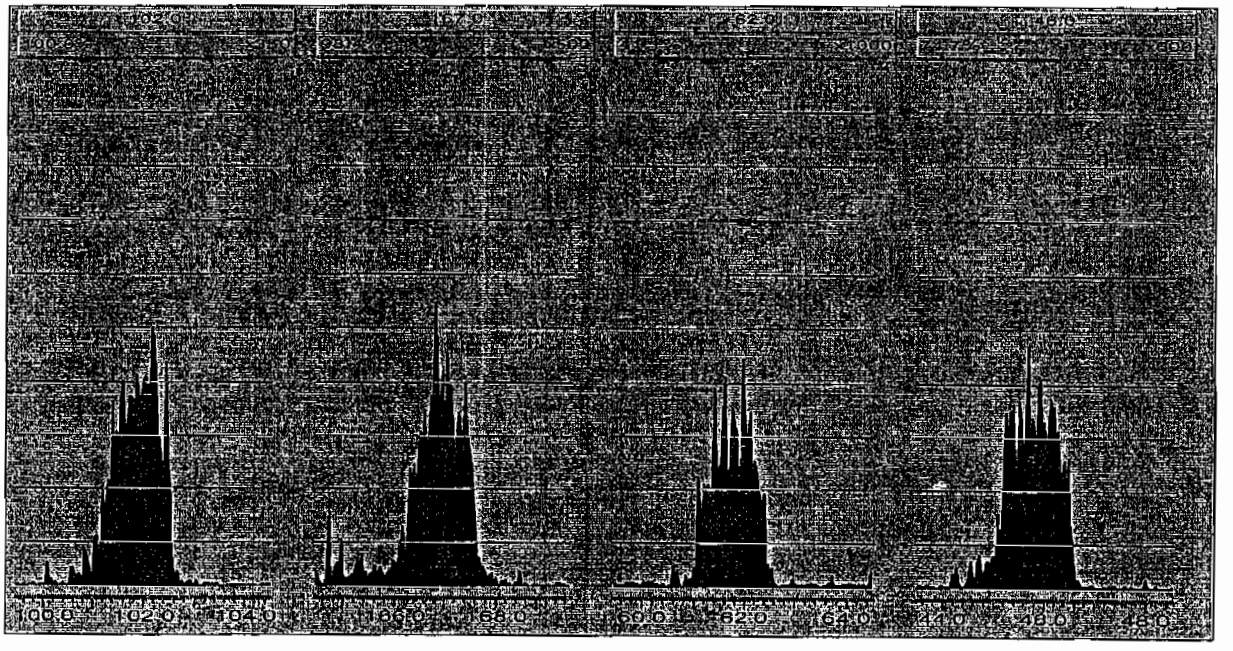

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High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3012.417	12.049	17408.567	17.428
Upper Limit			3916.1421	12.549	22631.1371	17.928
Lower Limit			2108.6919	11.549	12185.9969	16.928
MB for batch 948578	19–feb–10 08:20	EXP0216129a	2833.93	12.067	18393.6	17.423
LCS for batch 948578	19–feb–10 08:51	EXP0216130a	2901.99	12.034	19022.3	17.42
RE15–10–8122	19–feb–10 09:20	EXP0216131a	2393.38	12.032	13307.5	17.422
RE15–10–8112	19–feb–10 09:50	EXP0216132a	2748.81	12.032	16873.9	17.422
RE15–10–8113	19–feb–10 10:19	EXP0216133a	3259.35	12.032	17410.4	17.422
RE15–10–8116	19–feb–10 10:49	EXP0216134a	3039.65	12.064	18156.9	17.433
RE15–10–8119	19–feb–10 11:18	EXP0216135a	2961.03	12.033	17867	17.422
RE15–10–8114	19–feb–10 11:48	EXP0216136a	2970.31	12.03	16421.6	17.433
RE15–10–8115	19–feb–10 12:18	EXP0216137a	2915.3	12.067	17048.3	17.422
RE15–10–8117	19–feb–10 12:47	EXP0216138a	2919.69	12.067	17086.8	17.422
RE15–10–8118	19–feb–10 15:08	EXP0216142a	3293.89	12.032	18050.9	17.422

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8122

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994001

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216131a

Date Analyzed: 19-FEB-10 09:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216131a
Date: 19-Feb-2010
Time: 09:20:42
ID: 245994001 | LANU | 948579 | Soil | 2 |
Vial: 3:1,C

MPT 2/24/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.571e+003

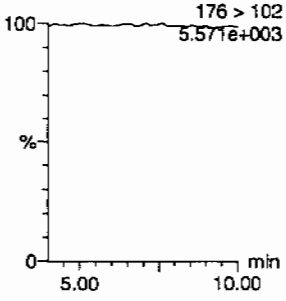

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.571e+003

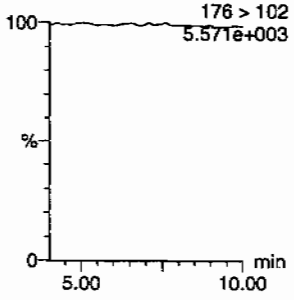

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.465e+003

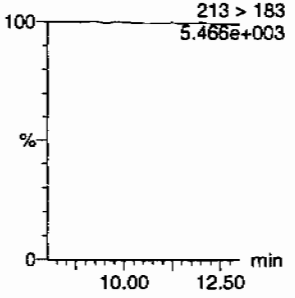

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.134e+004

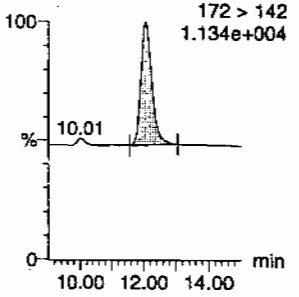

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.456e+003

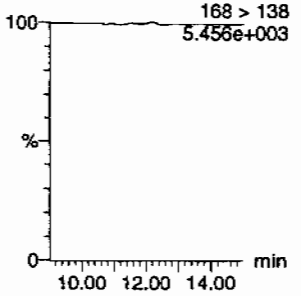

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.468e+003

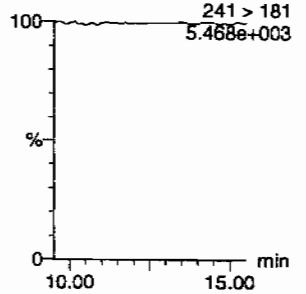

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.476e+003

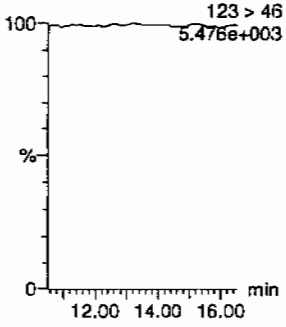

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.488e+003

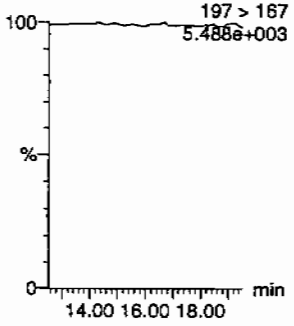

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.510e+003

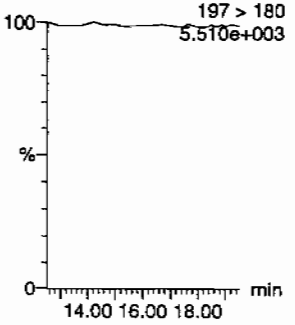

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.457e+003

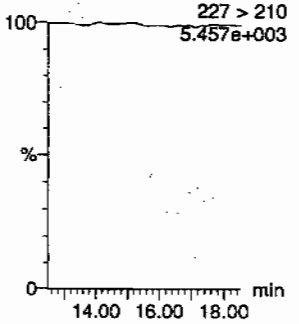

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.999e+004

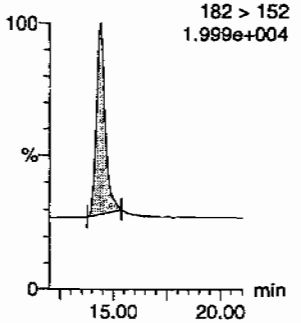

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
1.999e+004

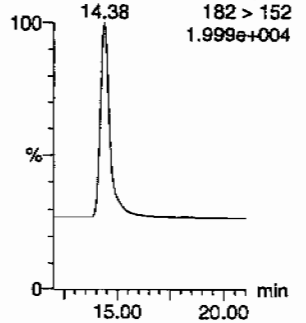

AMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

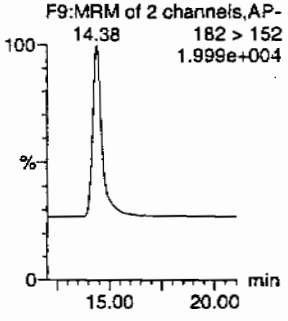

26-dinitrotoluene-d3

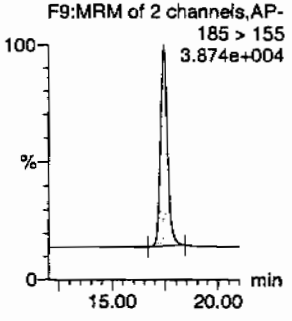

2-Nitrotoluene

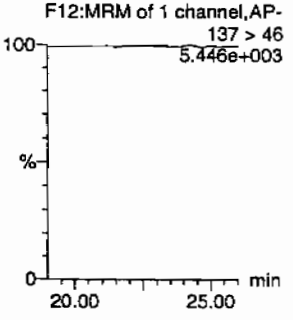

4-Nitrotoluene

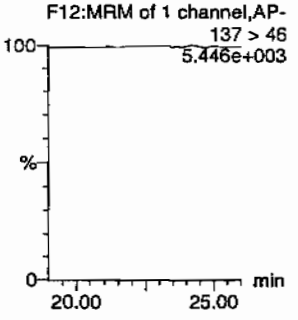

3-Nitrotoluene

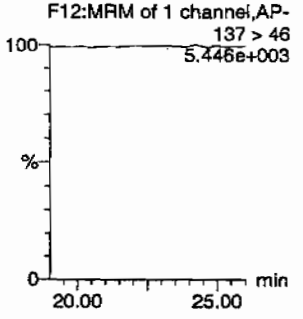

PETN

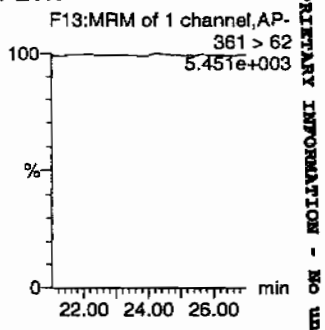

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245994001	HMX	176 > 102			2393.384									
245994001	RDX	176 > 102			2393.384									
245994001	135-Trinitrobenzene	213 > 183			2393.384									
245994001	13-Dinitrobenzene-d4	172 > 142	12.03	2393.384		2393.384	2393.384	bb			397.2532	79.5	-20.5	262.5
245994001	13-Dinitrobenzene	168 > 138			2393.384									
245994001	Tetryl	241 > 181			2393.384									
245994001	Nitrobenzene	123 > 46			2393.384									
245994001	4-Amino-26-dinitrotoluene	197 > 167			13307.520									
245994001	2-Amino-46-dinitrotoluene	197 > 180			13307.520									
245994001	246-Trinitrotoluene	227 > 210			13307.520									
245994001	34-dinitrotoluene	182 > 152	14.38	6838.870	13307.520	6838.870	256.955	bb			283.6146	113.4	13.4	506.8
245994001	26-dinitrotoluene	182 > 152			13307.520									
245994001	24-dinitrotoluene	182 > 152			13307.520									
245994001	26-dinitrotoluene-d3	185 > 155	17.42	13307.520		13307.520	13307.520	bb			382.2121	76.4	-23.6	1790.7
245994001	2-Nitrotoluene	137 > 46			13307.520									
245994001	4-Nitrotoluene	137 > 46			13307.520									
245994001	3-Nitrotoluene	137 > 46			13307.520									
245994001	PETN	361 > 62			13307.520									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8122

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994001

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140145.wiff

Date Analyzed: 16-FEB-10 03:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "245994001" Sample ID: "948579|2|LER" File: "EXS02140145.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:59:42 AM

Modified: No

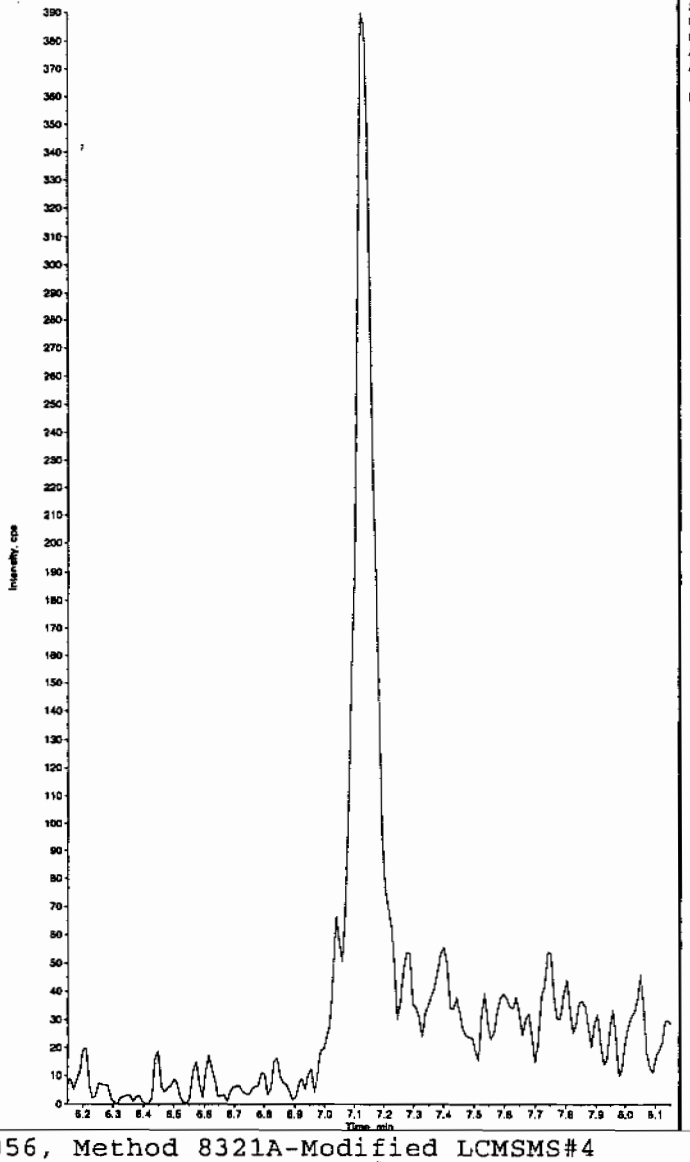

Sample Name: "245994001" Sample ID: "948579|2|LER" File: "EXS02140145.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:59:42 AM

Modified: Yes

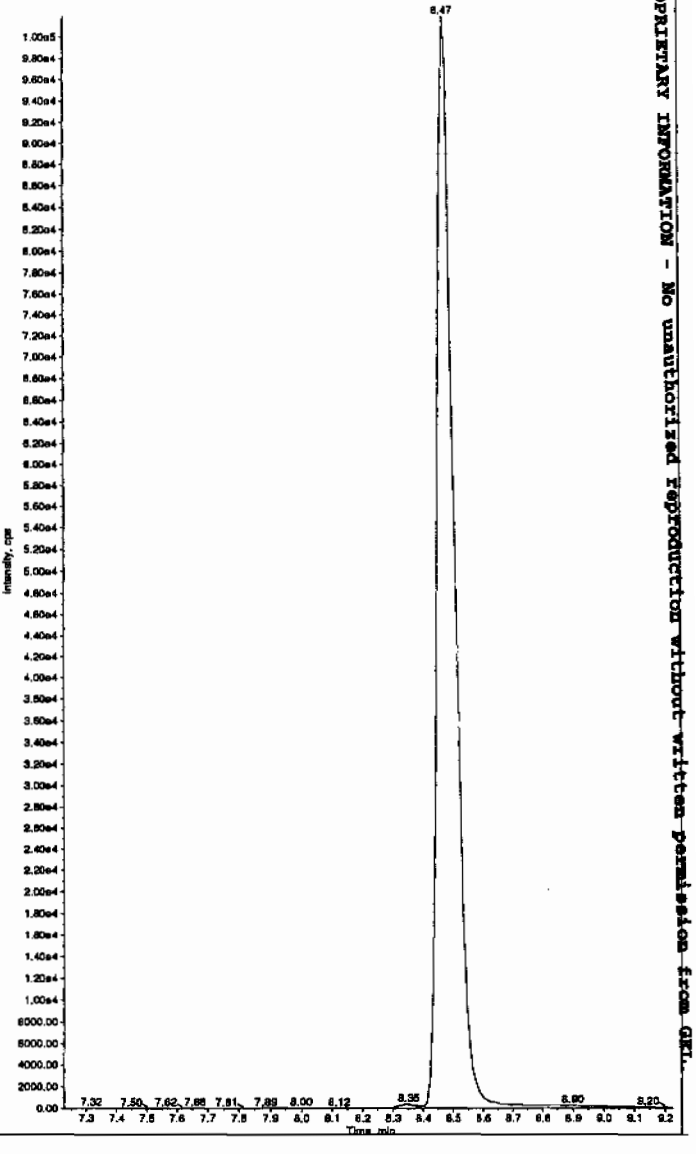

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "245994001" Sample ID: "948579|2|LER" File: "EXS02140145.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 283. ng/mL
. Date: 2/16/2010
. Time: 3:59:42 AM

lfied: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ntion Time: 8.47 min
: 3.68e+006 counts
ght: 959040.100 cps
t Time: 8.34 min
Time: 8.83 min

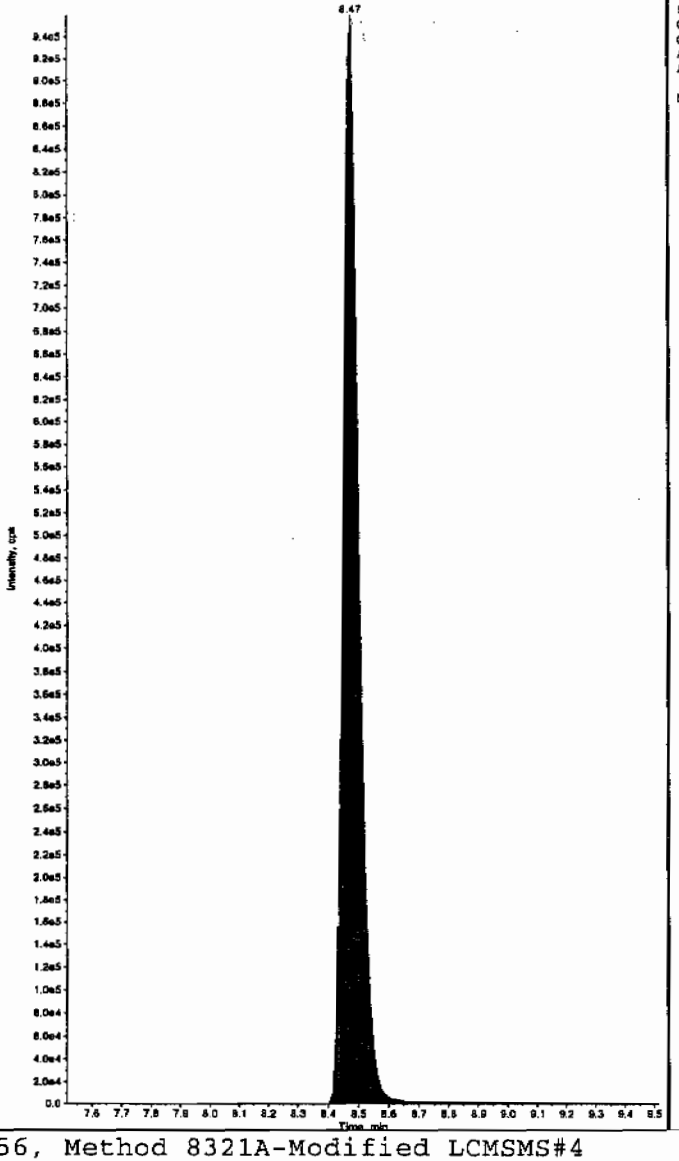

Sample Name: "245994001" Sample ID: "948579|2|LER" File: "EXS02140145.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:59:42 AM

Modified: No

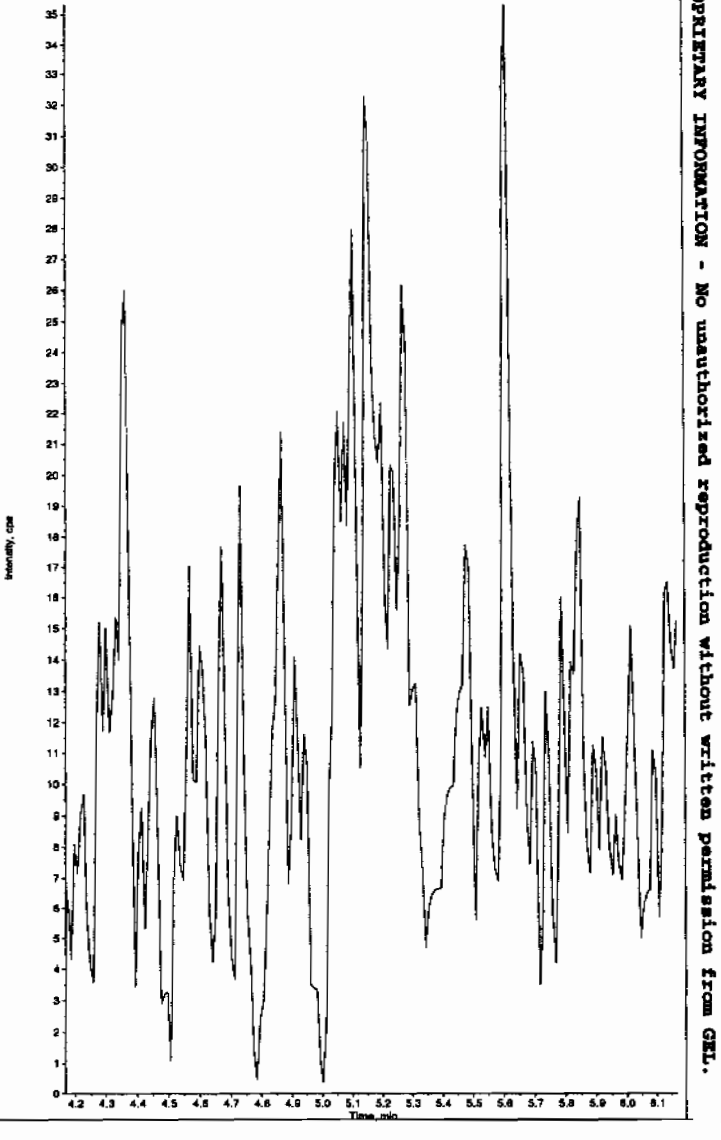

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mple Name: "245994001" Sample ID: "948579|2|LER" File: "EXS02140145.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""

le Index:	1	
le Type:	Unknown	
entration:	N/A	
ulated Conc:	0.00	ng/mL
Date:	2/16/2010	
Time:	3:59:42 AM	
fied:	No	

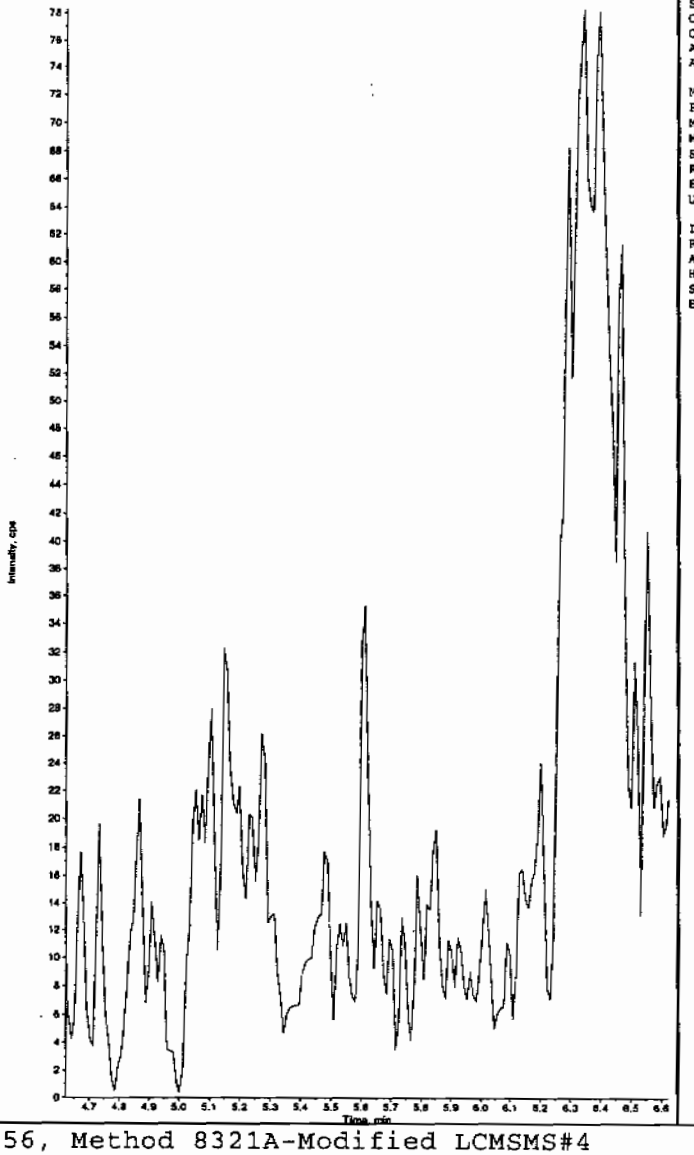

Sample Name: "245994001" Sample ID: "948579|2|LER" File: "EXS02140145.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	0.0468	ng/mL
Acq. Date:	2/16/2010	
Acq. Time:	3:59:42 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	6.27e+004	counts
Height:	14496.655	cps
Start Time:	10.8	min
End Time:	11.2	min

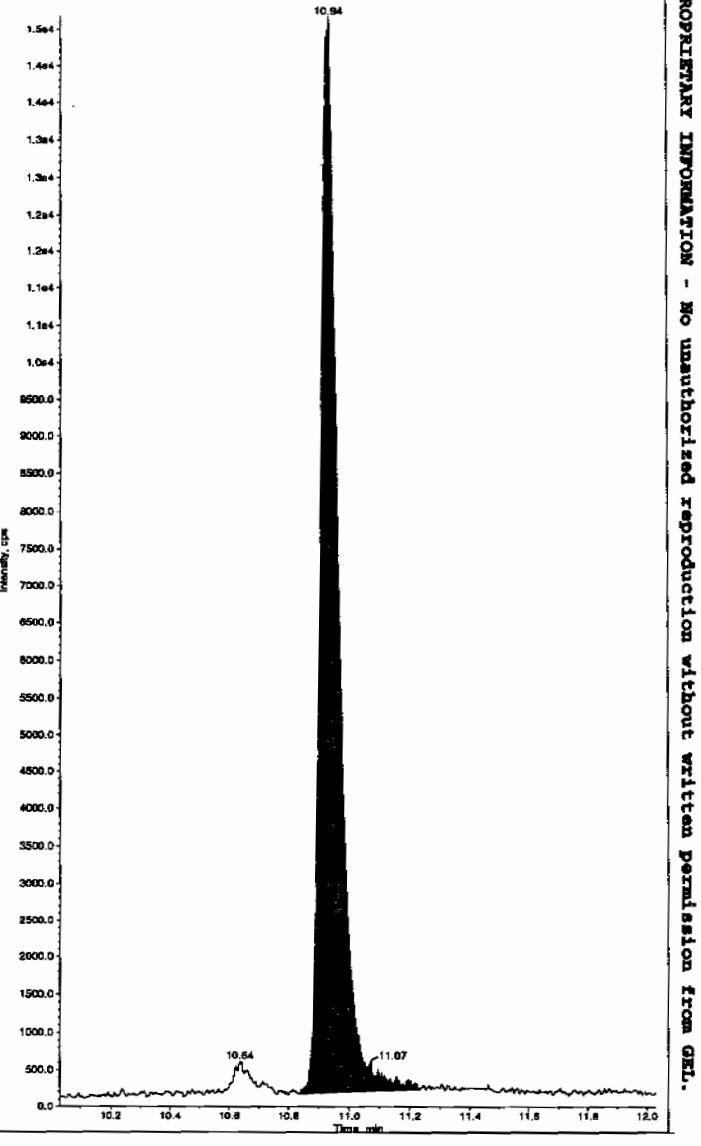

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8112

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994002

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216132a

Date Analyzed: 19-FEB-10 09:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216132a
Date: 19-Feb-2010
Time: 09:50:10
ID: 245994002
Vial: 3:1,D

| LANL | 948579 | Soil | 2 |

MATT 2/20/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.544e+003

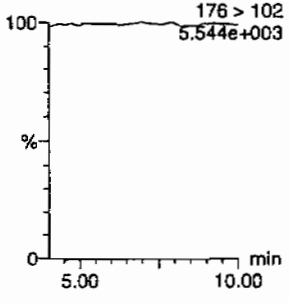

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.544e+003

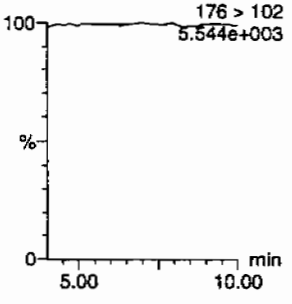

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.496e+003

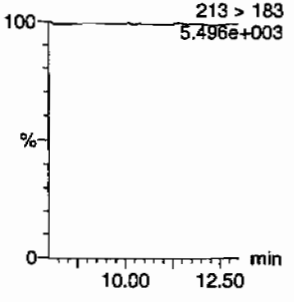

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.231e+004

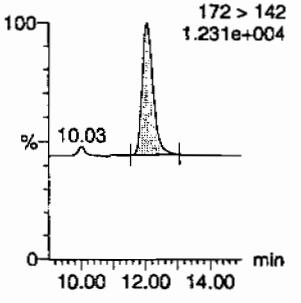

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.471e+003

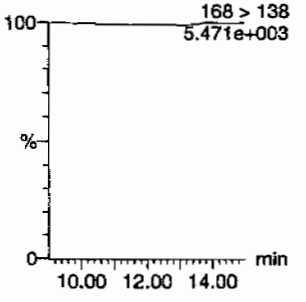

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.499e+003

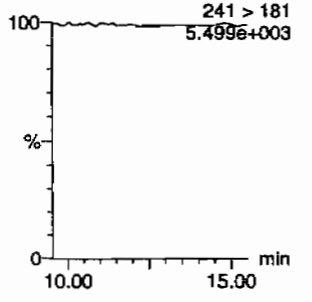

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.496e+003

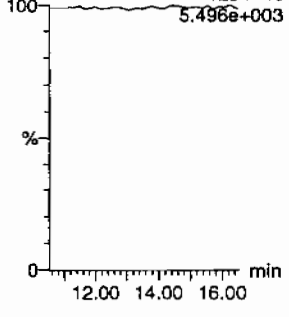

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.550e+003

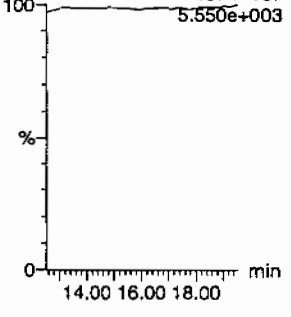

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.553e+003

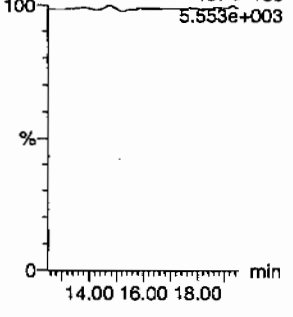

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.507e+003

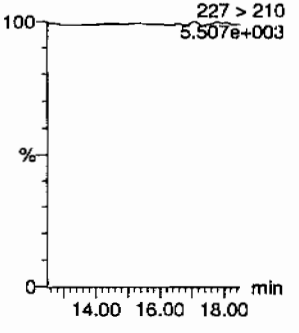

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.168e+004

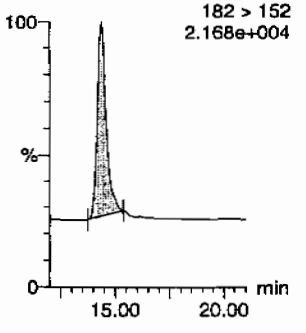

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.168e+004

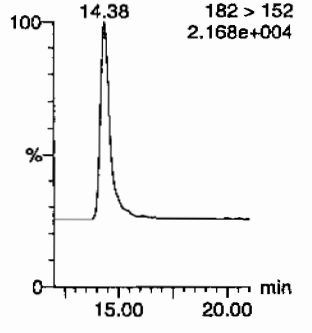

HMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

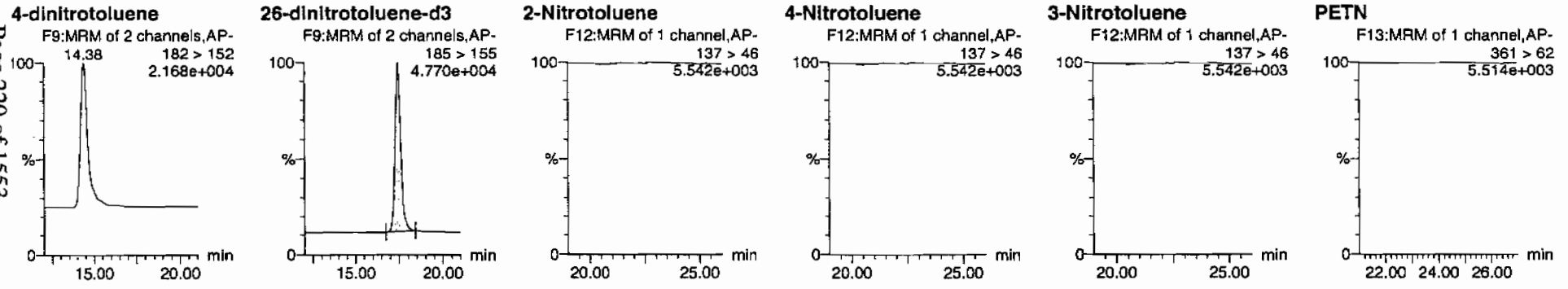

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
45994002	HMX	176 > 102			2748.808									
45994002	RDX	176 > 102			2748.808									
45994002	135-Trinitrobenzene	213 > 183			2748.808									
45994002	13-Dinitrobenzene-d4	172 > 142	12.03	2748.808		2748.808	2748.808	bb			456.2464	91.2	-8.8	520.9
45994002	13-Dinitrobenzene	168 > 138			2748.808									
45994002	Tetryl	241 > 181			2748.808									
45994002	Nitrobenzene	123 > 46			2748.808									
45994002	4-Amino-26-dinitrotoluene	197 > 167			16873.861									
45994002	2-Amino-46-dinitrotoluene	197 > 180			16873.861									
45994002	246-Trinitrotoluene	227 > 210			16873.861									
45994002	34-dinitrotoluene	182 > 152	14.38	7625.502	16873.861	7625.502	225.956	bb			249.3993	99.8	-0.2	562.9
45994002	26-dinitrotoluene	182 > 152			16873.861									
45994002	24-dinitrotoluene	182 > 152			16873.861									
45994002	26-dinitrotoluene-d3	185 > 155	17.42	16873.861		16873.861	16873.861	bb			484.6428	96.9	-3.1	1240.4
45994002	2-Nitrotoluene	137 > 46			16873.861									
45994002	4-Nitrotoluene	137 > 46			16873.861									
45994002	3-Nitrotoluene	137 > 46			16873.861									
45994002	PETN	361 > 62			16873.861									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8112

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994002

Sample Amount 2

Moisture: 33.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140146.wiff

Date Analyzed: 16-FEB-10 04:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ian 2/17/10

ample Name: "245994002" Sample ID: "948579|2|LER" File: "EXS02140146.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 4:15:23 AM
fied: No

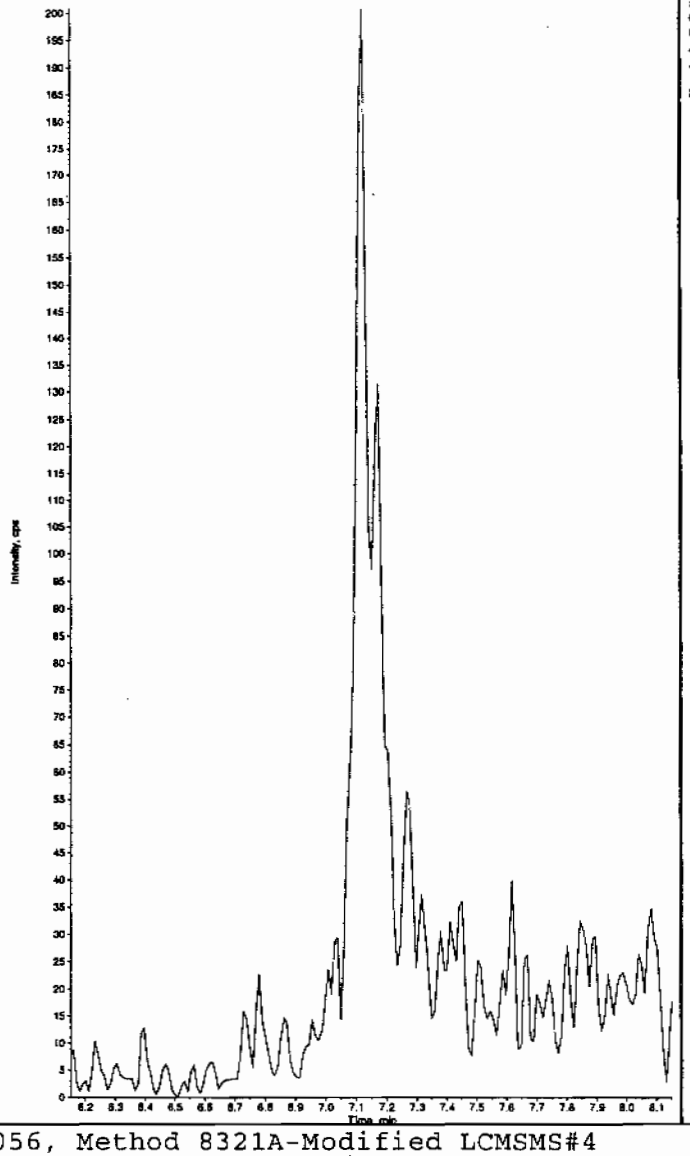

Sample Name: "245994002" Sample ID: "948579|2|LER" File: "EXS02140146.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:15:23 AM

Modified: Yes

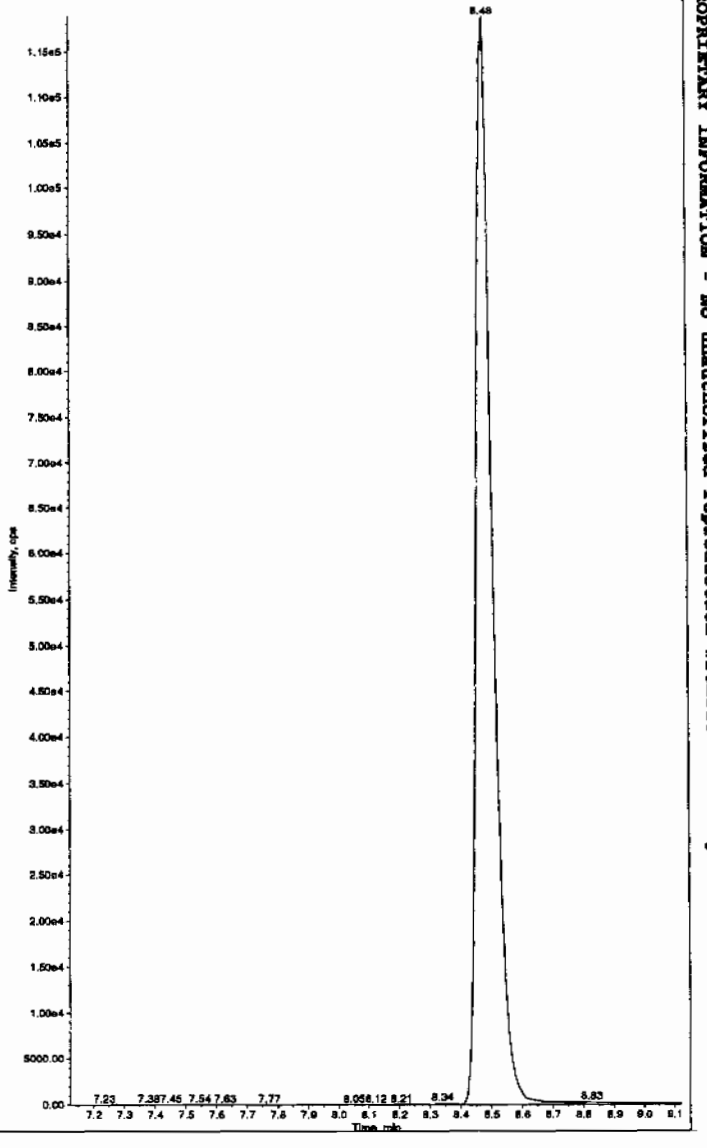

HMM 02/17/10

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nple Name: "245994002" Sample ID: "948579|2|LER" File: "EXS02140146.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 304. ng/mL
Date: 2/16/2010
Time: 4:15:23 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.47 min
: 3.95e+006 counts
ht: 1084959.473 cps
t Time: 8.38 min
Time: 8.85 min

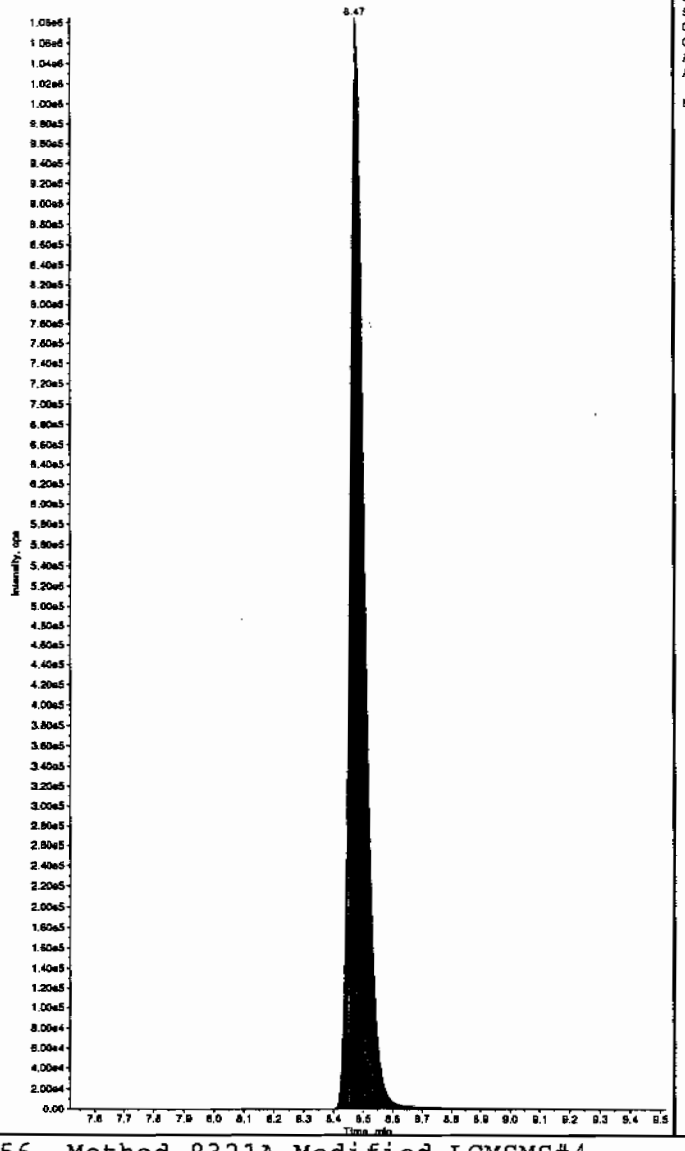

Sample Name: "245994002" Sample ID: "948579|2|LER" File: "EXS02140146.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:15:23 AM

Modified: No

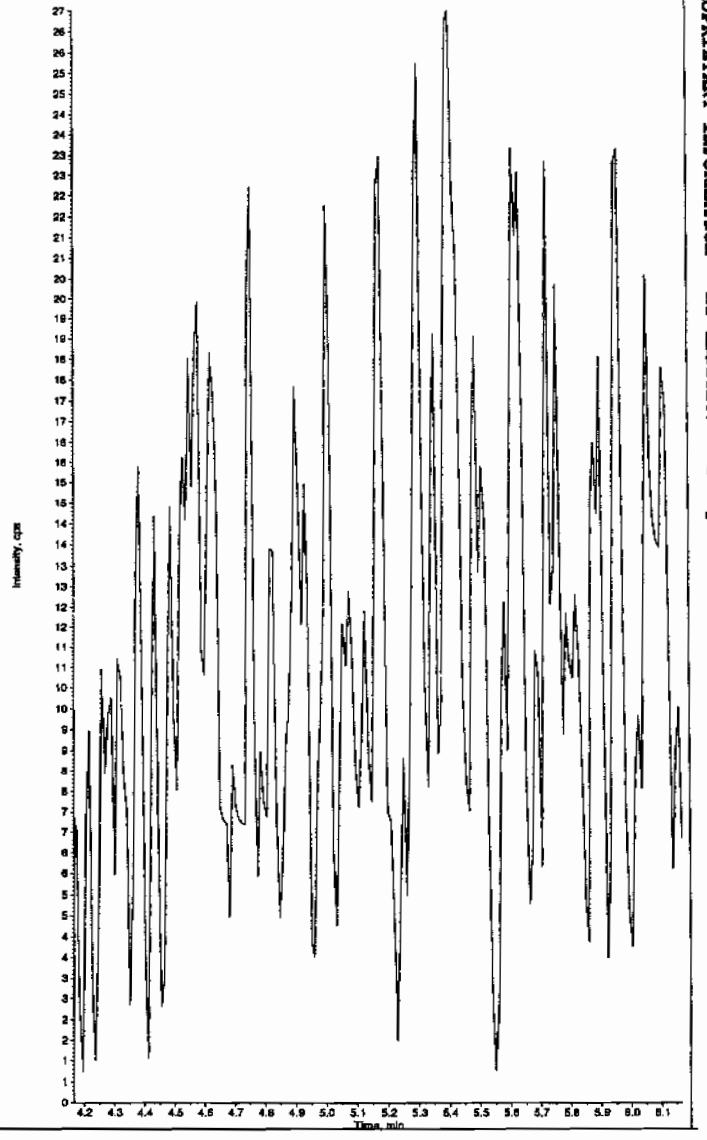

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mple Name: "245994002" Sample ID: "948579|2|LER" File: "EXS02140146.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 4:15:23 AM

ified: No

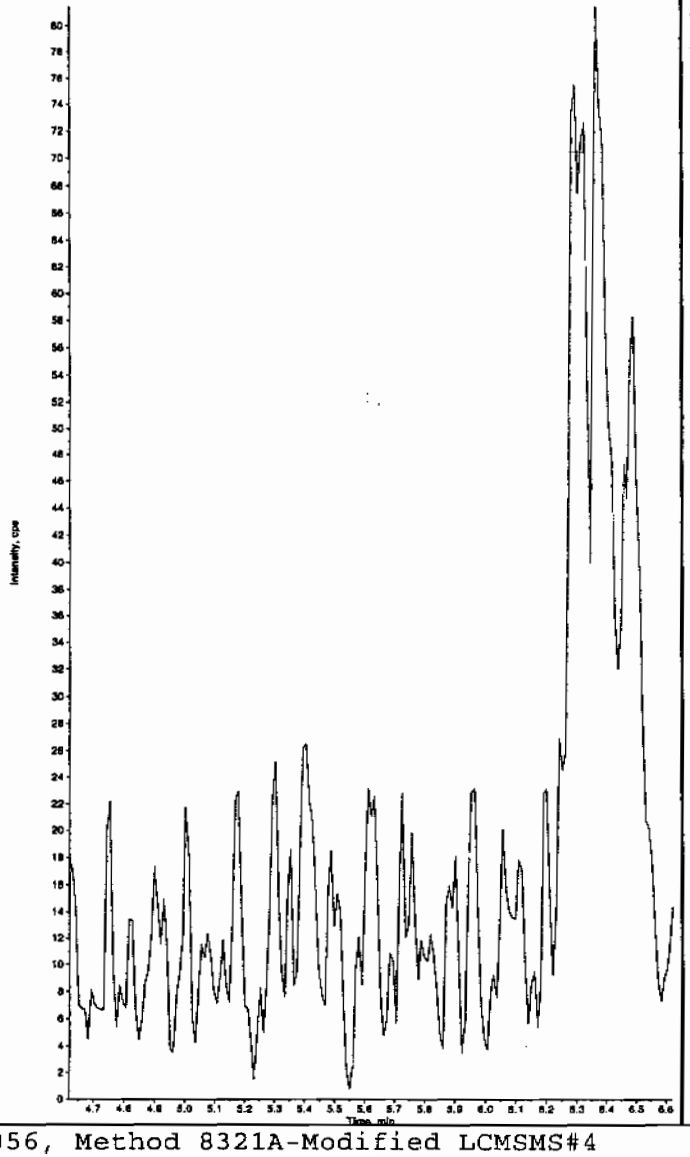

Sample Name: "245994002" Sample ID: "948579|2|LER" File: "EXS02140146.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:15:23 AM

Modified: No

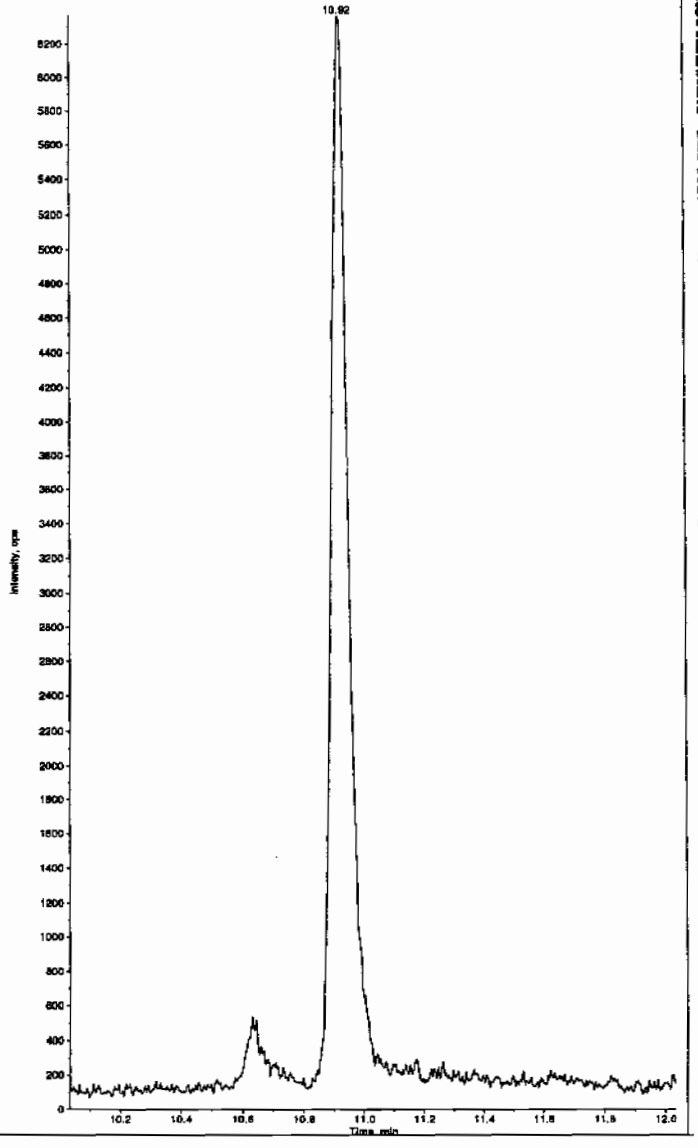

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8113

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994003

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216133a

Date Analyzed: 19-FEB-10 10:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216133a
ate: 19-Feb-2010
ime: 10:19:52
): 245994003
ial: 3:1,E

| LANL | 948579 | Soils | 2 |

MAH 2/20/10

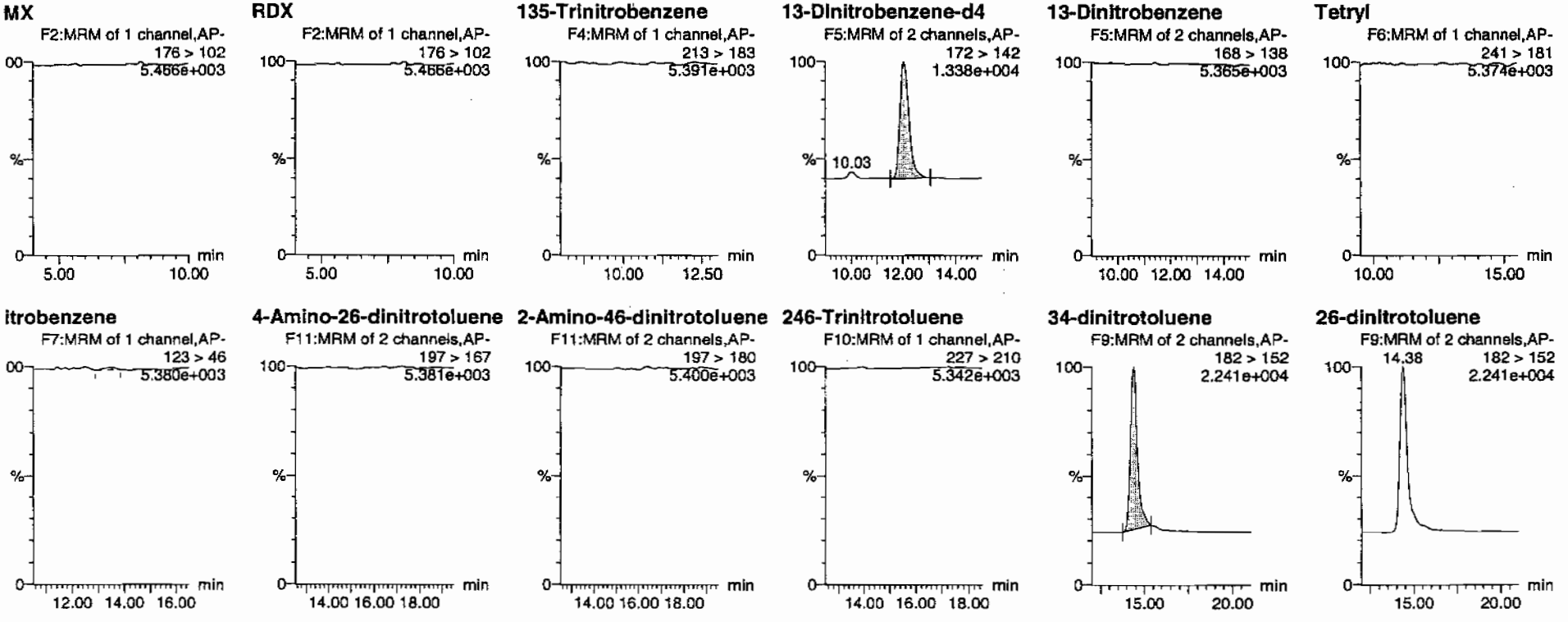

MMC 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

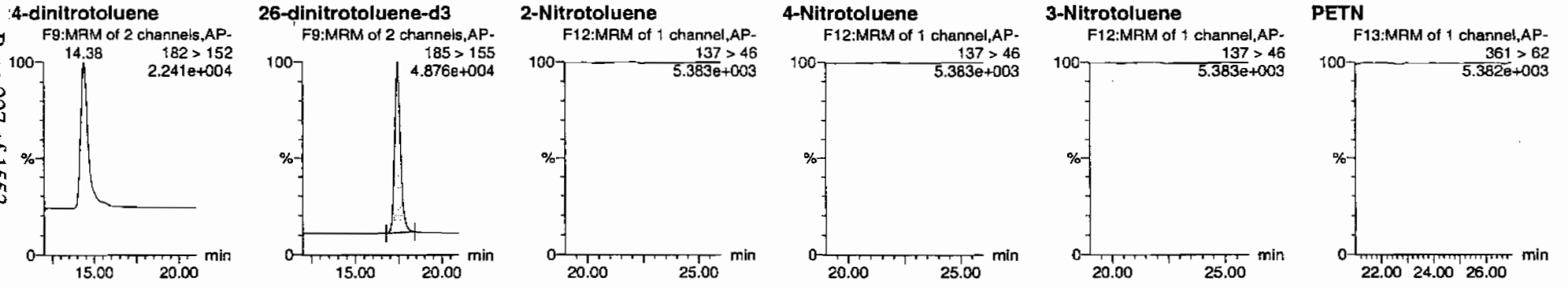

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
45994003	HMX	176 > 102			3259.346									
45994003	RDX	176 > 102			3259.346									
45994003	135-Trinitrobenzene	213 > 183			3259.346									
45994003	13-Dinitrobenzene-d4	172 > 142	12.03	3259.346		3259.346	3259.346	bb			540.9854	108.2	8.2	228.0
45994003	13-Dinitrobenzene	168 > 138			3259.346									
45994003	Tetryl	241 > 181			3259.346									
45994003	Nitrobenzene	123 > 46			3259.346			MM-	20-Feb-10	10:03:44				
45994003	4-Amino-26-dinitrotoluene	197 > 167			17410.389									
45994003	2-Amino-46-dinitrotoluene	197 > 180			17410.389									
45994003	246-Trinitrotoluene	227 > 210			17410.389									
45994003	34-dinitrotoluene	182 > 152	14.38	7993.909	17410.389	7993.909	229.573	bb			253.3915	101.4	1.4	507.3
45994003	26-dinitrotoluene	182 > 152			17410.389									
45994003	24-dinitrotoluene	182 > 152			17410.389									
45994003	26-dinitrotoluene-d3	185 > 155	17.42	17410.389		17410.389	17410.389	bb			500.0527	100.0	0.0	1477.2
45994003	2-Nitrotoluene	137 > 46			17410.389									
45994003	4-Nitrotoluene	137 > 46			17410.389									
45994003	3-Nitrotoluene	137 > 46			17410.389									
45994003	PETN	361 > 62			17410.389									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8113

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994003

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140147.wiff

Date Analyzed: 16-FEB-10 04:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 2/17/10

umple Name: "245994003" Sample ID: "948579|2|LER" File: "EXS02140147.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 4:31:05 AM
ified: No

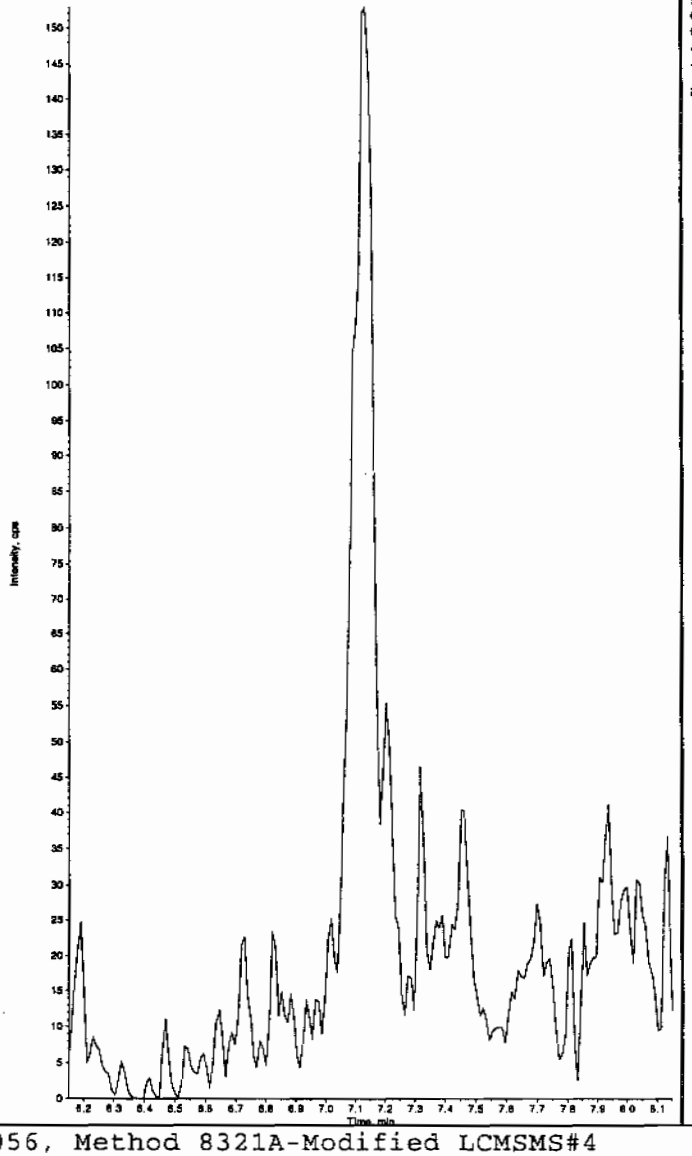

Sample Name: "245994003" Sample ID: "948579|2|LER" File: "EXS02140147.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:31:05 AM

Modified: Yes

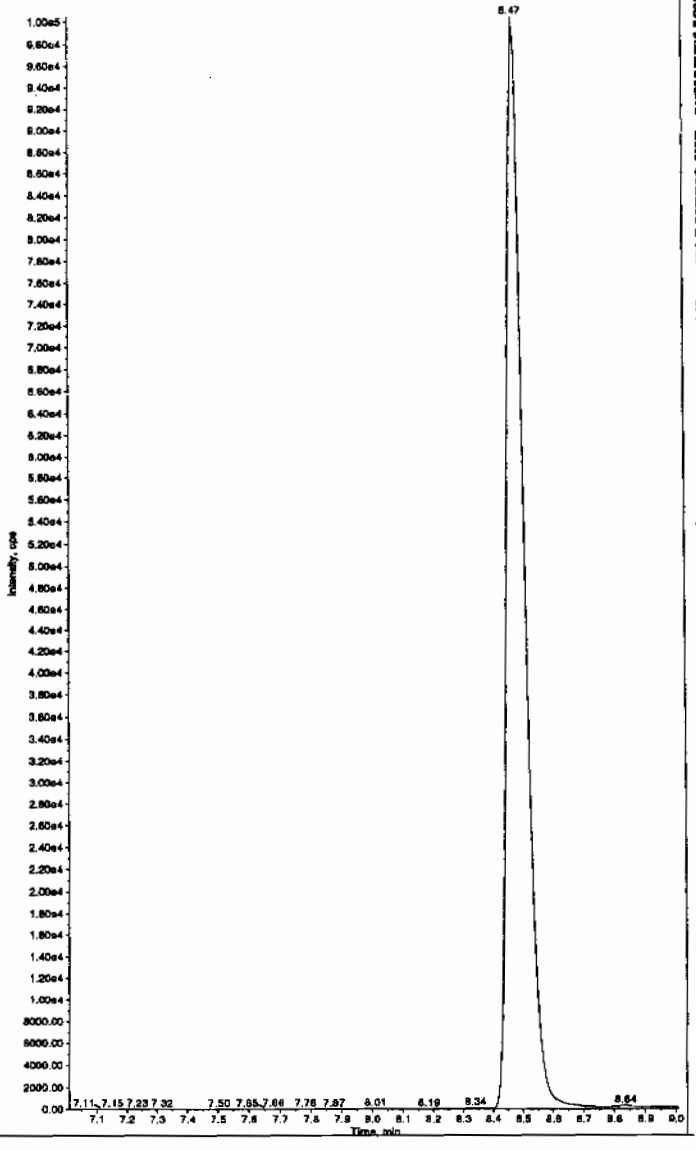

Hmm 02/17/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "245994003" Sample ID: "948579|2|LER" File: "EXS02140147.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	290. ng/mL
. Date:	2/16/2010
. Time:	4:31:05 AM
ified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	1460.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	15.0 sec
ected RT:	8.52 min
Relative RT:	No
. Type:	Valley
ention Time:	8.47 min
s:	3.77e+006 counts
ght:	1000060.242 cps
rt Time:	8.38 min
Time:	8.86 min

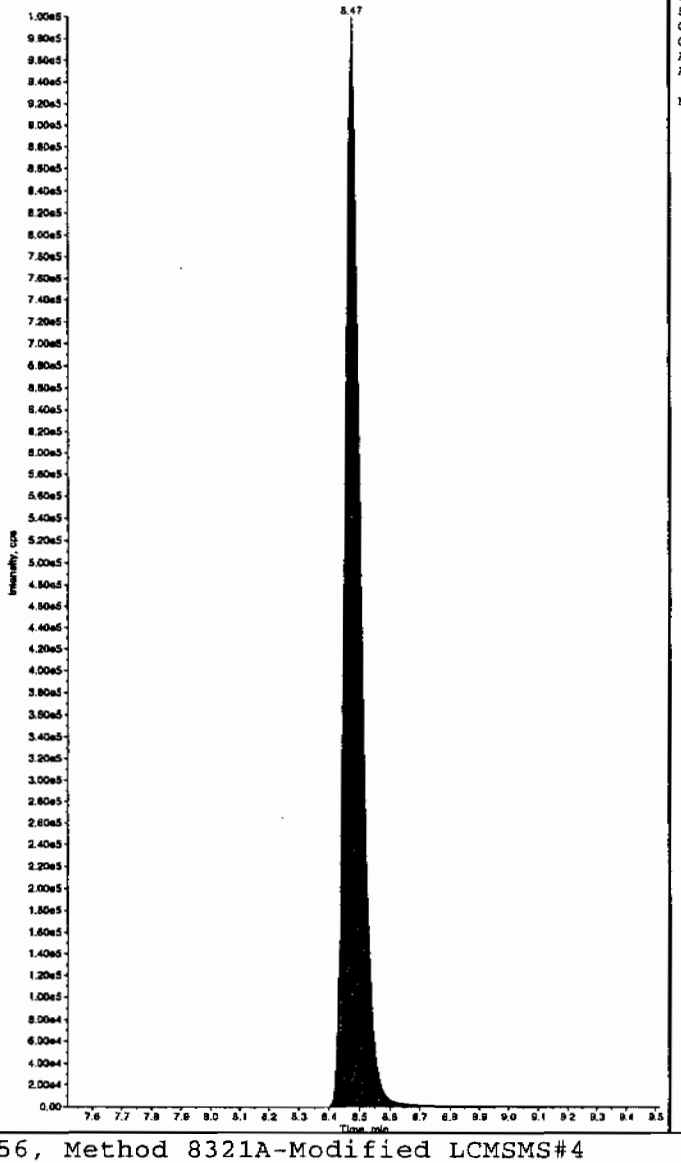

Sample Name: "245994003" Sample ID: "948579|2|LER" File: "EXS02140147.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/16/2010
Acq. Time:	4:31:05 AM
Modified:	No

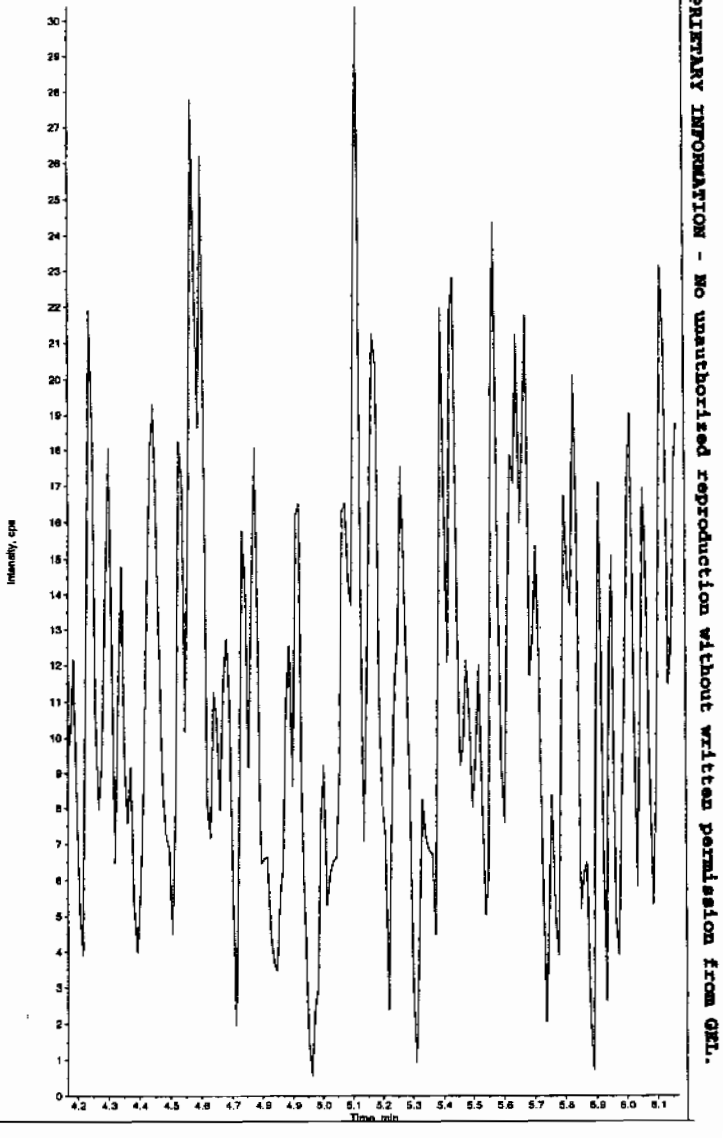

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npla Name: "245994003" Sample ID: "948579|2|LER" File: "EXS02140147.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 4:31:05 AM

fied: No

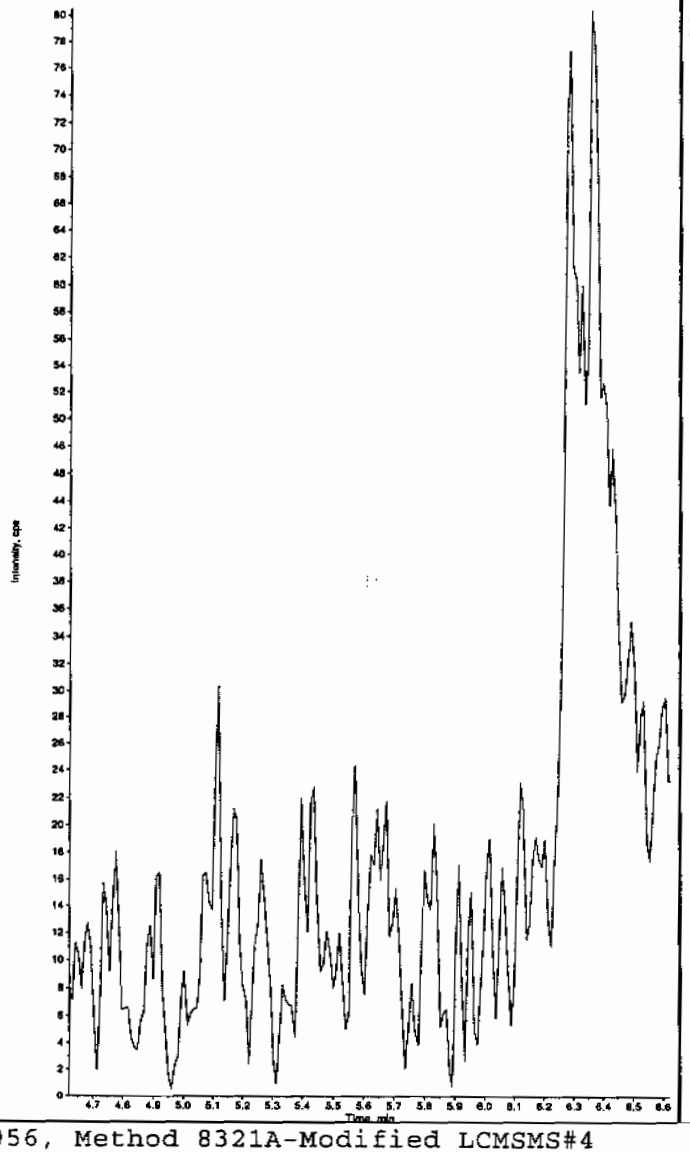

Sample Name: "245894003" Sample ID: "948579|2|LER" File: "EXS02140147.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:31:05 AM

Modified: No

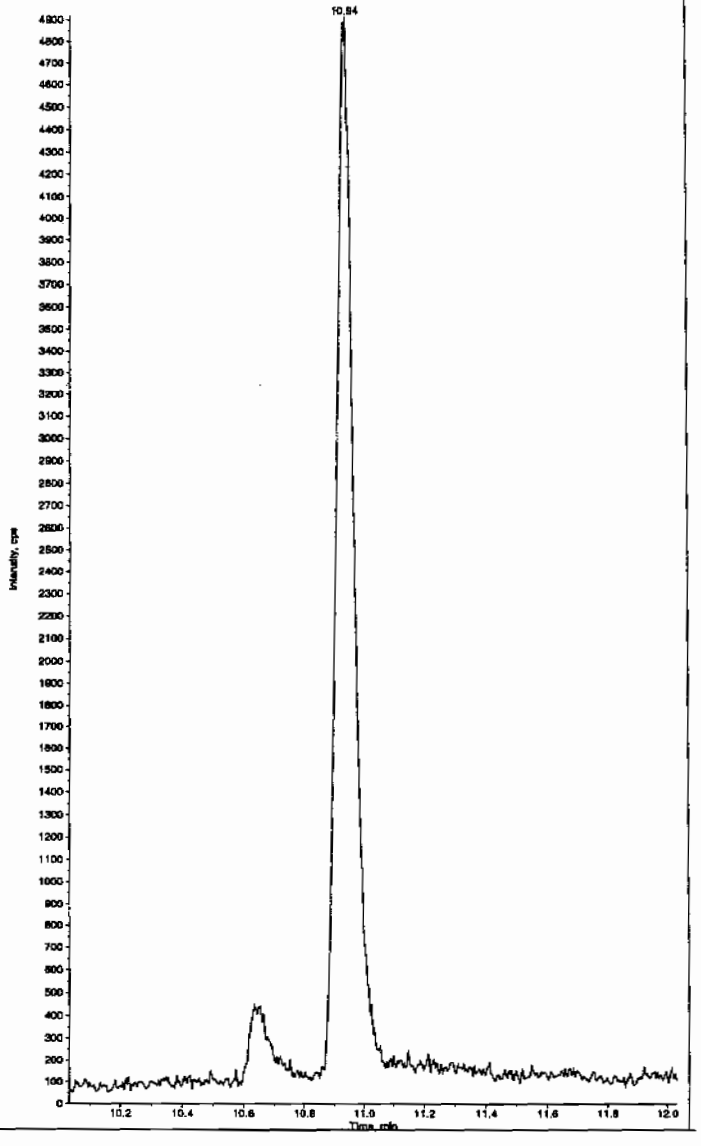

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8116

Lab Code: GEI

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994004

Sample Amount 2

Moisture: 28.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216134a

Date Analyzed: 19-FEB-10 10:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216134a
Date: 19-Feb-2010
Time: 10:49:20
ID: 245994004
Vial: 3:1,F

LMW | 948579 | Solids | 2 |

LMW 2/26/10

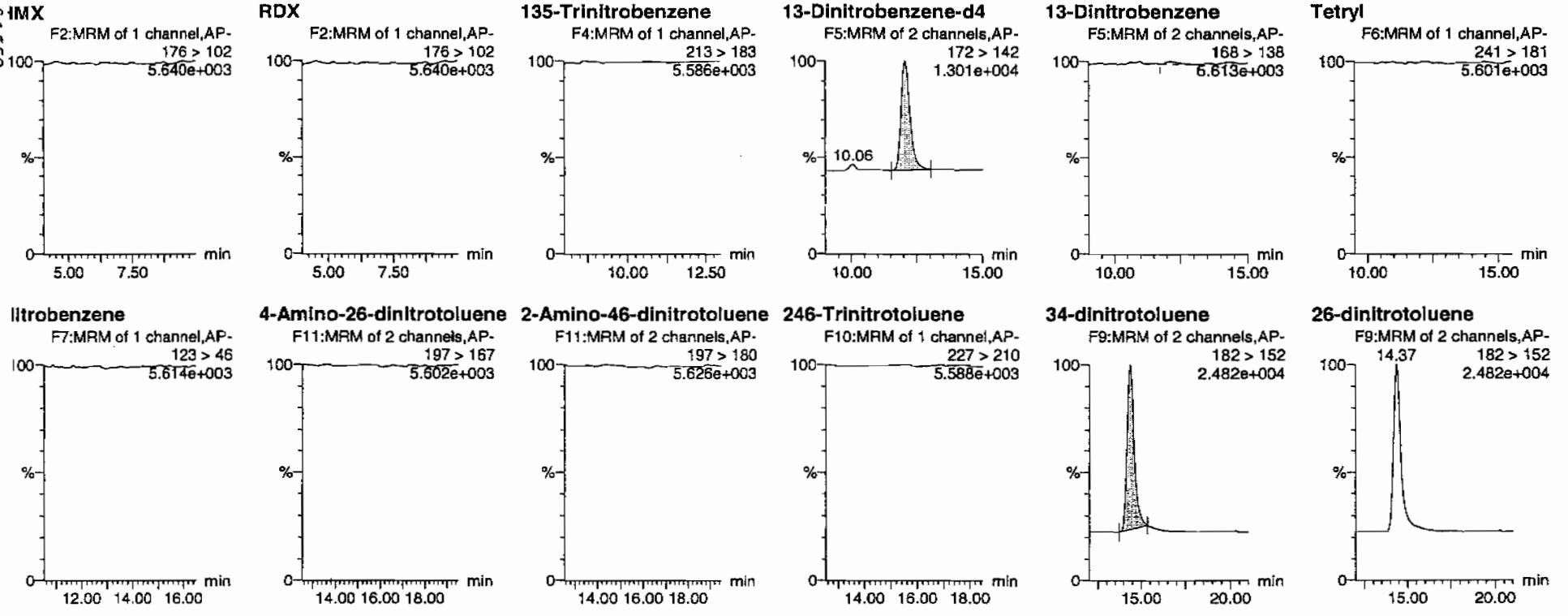

HMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.37 182 > 152
2.482e+004

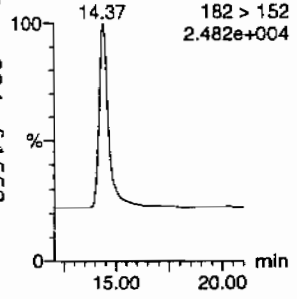

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.095e+004

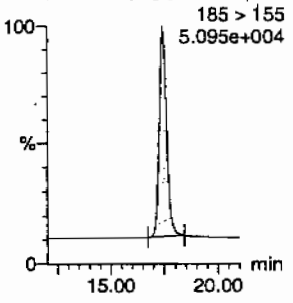

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.632e+003

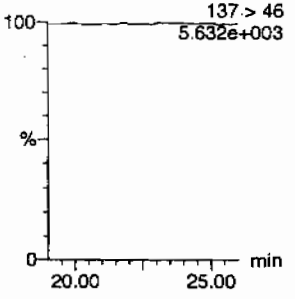

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.632e+003

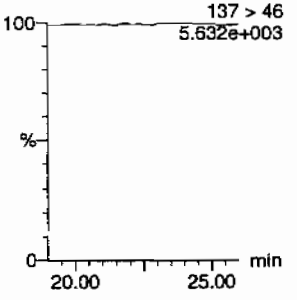

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.632e+003

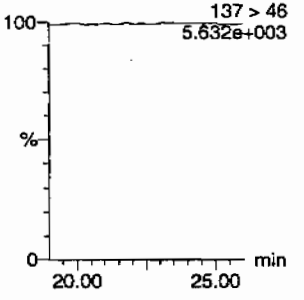

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.626e+003

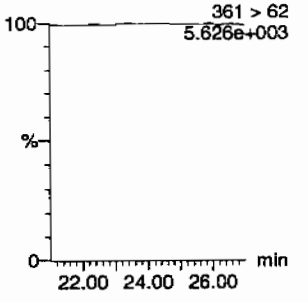

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245994004	HMX	176 > 102			3039.648									
245994004	RDX	176 > 102			3039.648									
245994004	135-Trinitrobenzene	213 > 183			3039.648									
245994004	13-Dinitrobenzene-d4	172 > 142	12.06	3039.648		3039.648	3039.648	bb			504.5200	100.9	0.9	663.9
245994004	13-Dinitrobenzene	168 > 138			3039.648			MM-	20-Feb-10	10:02:32				
245994004	Tetryl	241 > 181			3039.648									
245994004	Nitrobenzene	123 > 46			3039.648									
245994004	4-Amino-26-dinitrotoluene	197 > 167			18156.912									
245994004	2-Amino-46-dinitrotoluene	197 > 180			18156.912									
245994004	246-Trinitrotoluene	227 > 210			18156.912									
245994004	34-dinitrotoluene	182 > 152	14.37	9029.656	18156.912	9029.656	248.656	bb			274.4546	109.8	9.8	892.5
245994004	26-dinitrotoluene	182 > 152			18156.912									
245994004	24-dinitrotoluene	182 > 152			18156.912									
245994004	26-dinitrotoluene-d3	185 > 155	17.43	18156.912		18156.912	18156.912	bb			521.4939	104.3	4.3	1505.3
245994004	2-Nitrotoluene	137 > 46			18156.912									
245994004	4-Nitrotoluene	137 > 46			18156.912									
245994004	3-Nitrotoluene	137 > 46			18156.912									
245994004	PETN	361 > 62			18156.912									

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8116

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994004

Sample Amount 2

Moisture: 28.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140148.wiff

Date Analyzed: 16-FEB-10 04:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5--Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

nple Name: "245994004" Sample ID: "948579|2|LER" File: "EXS02140148.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 4:46:45 AM

fied: No

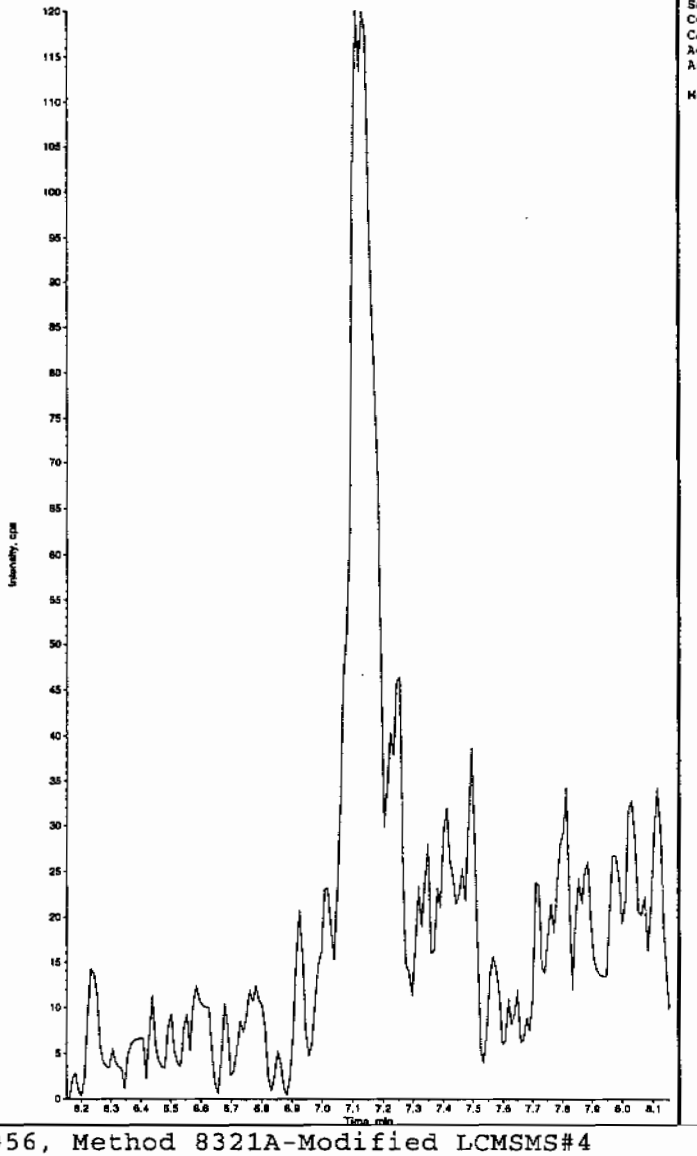

Sample Name: "245994004" Sample ID: "948579|2|LER" File: "EXS02140148.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:46:45 AM

Modified: Yes

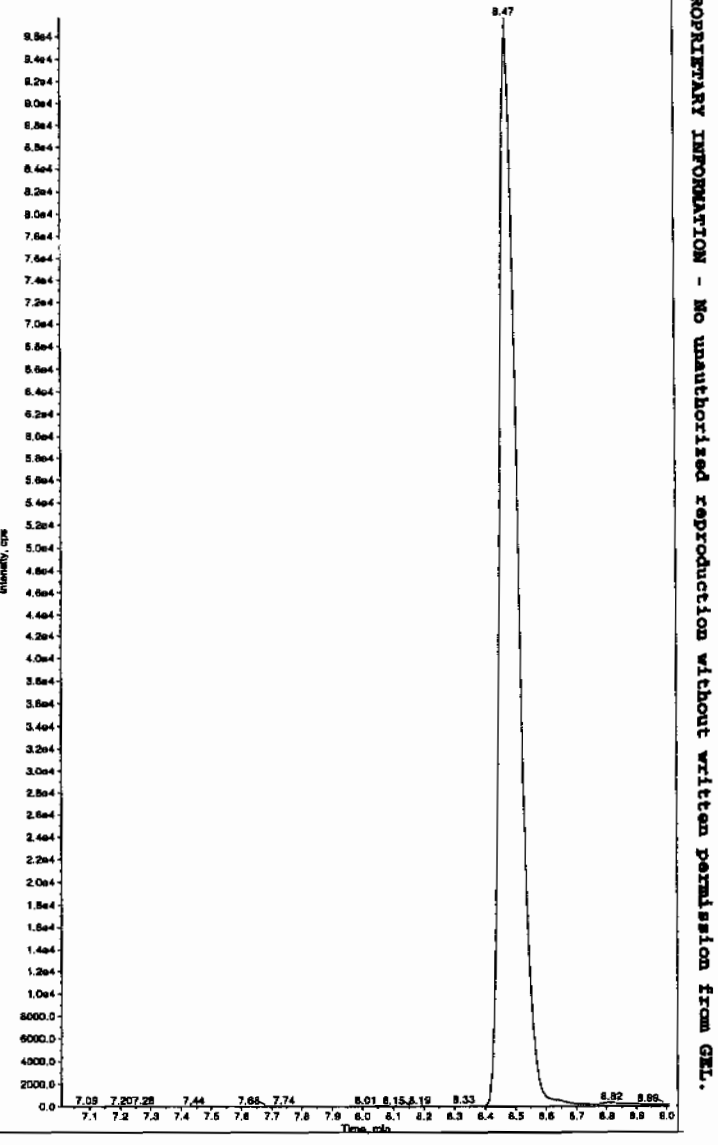

Hmm 02/17/10

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ple Name: "245994004" Sample ID: "948579|2|LER" File: "EXS02140148.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 291. ng/mL
Date: 2/16/2010
Time: 4:46:45 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
ching Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.47 min
: 3.78e+006 counts
ht: 948777.100 cps
c Time: 8.37 min
Time: 8.84 min

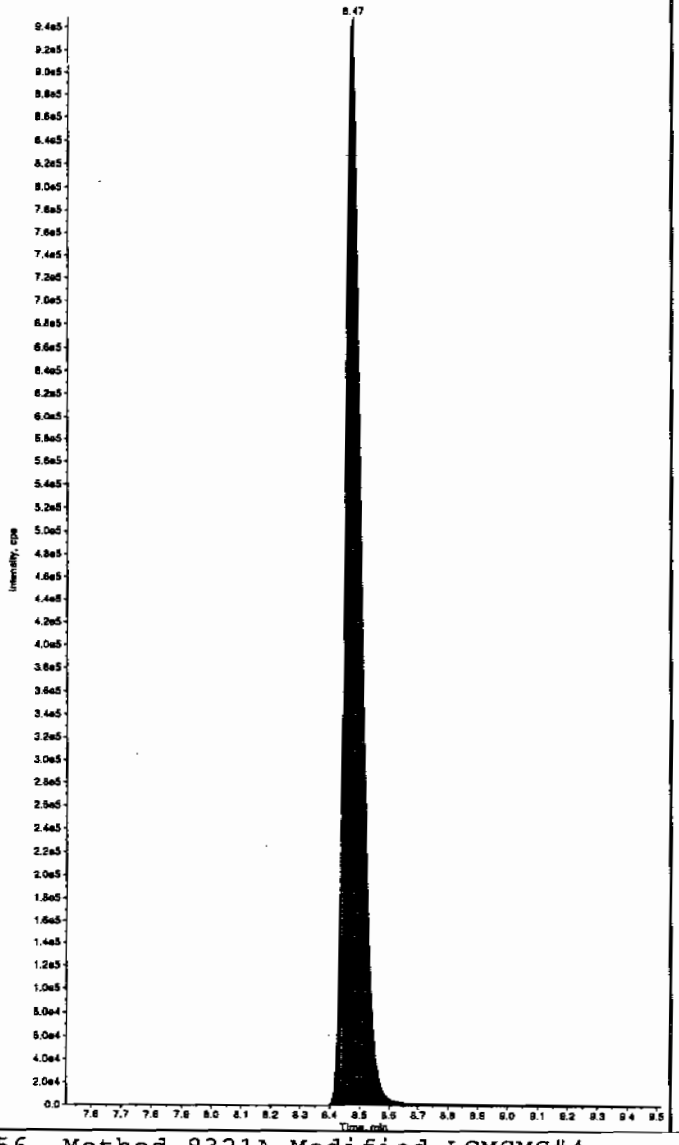

Sample Name: "245994004" Sample ID: "948579|2|LER" File: "EXS02140148.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:46:45 AM

Modified: No

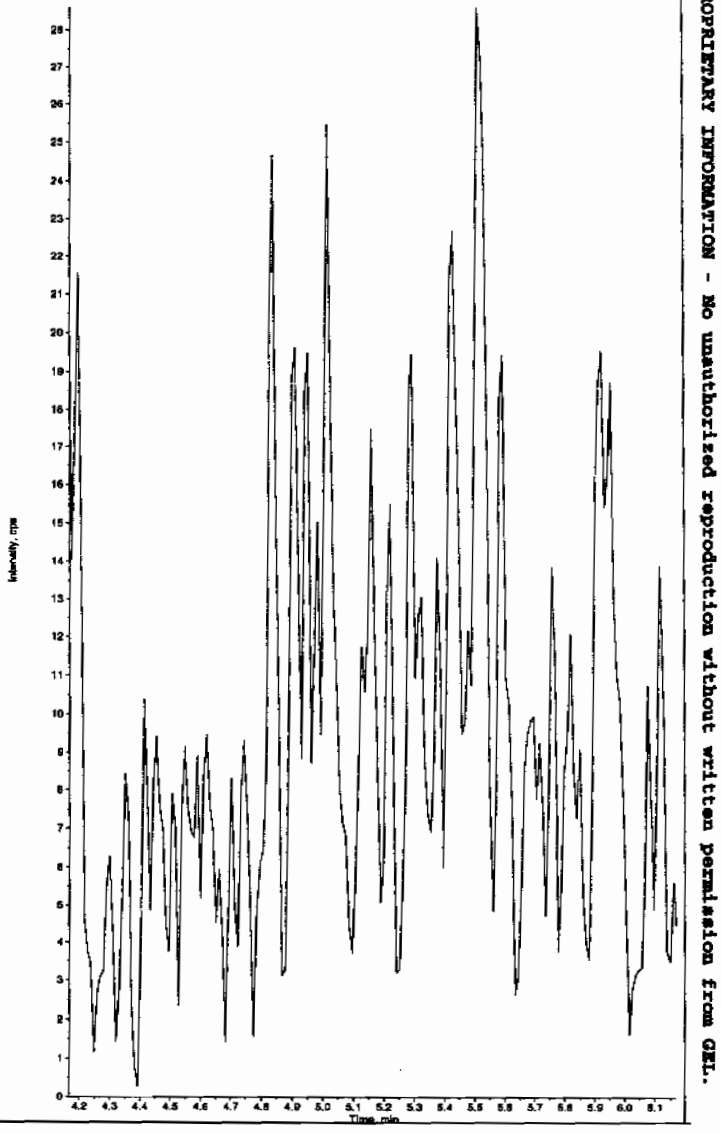

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mple Name: "245994004" Sample ID: "948579|2|LER" File: "EXS02140148.wiff"
sk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 4:46:45 AM

ified: No

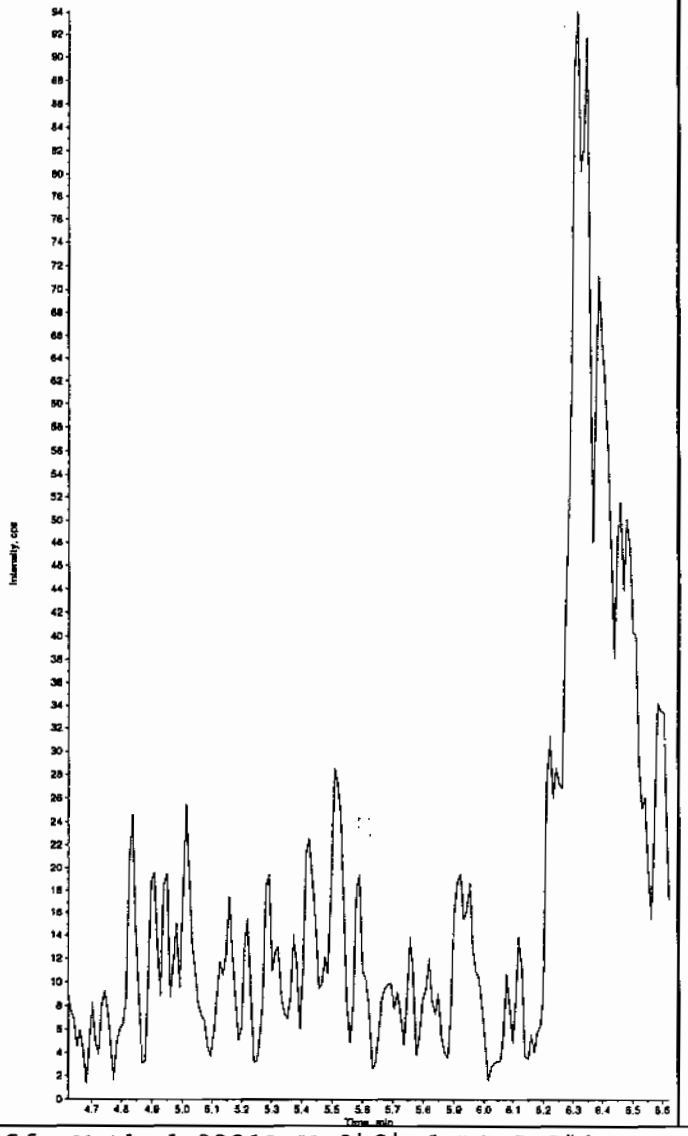

Sample Name: "245994004" Sample ID: "948579|2|LER" File: "EXS02140148.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:46:45 AM

Modified: No

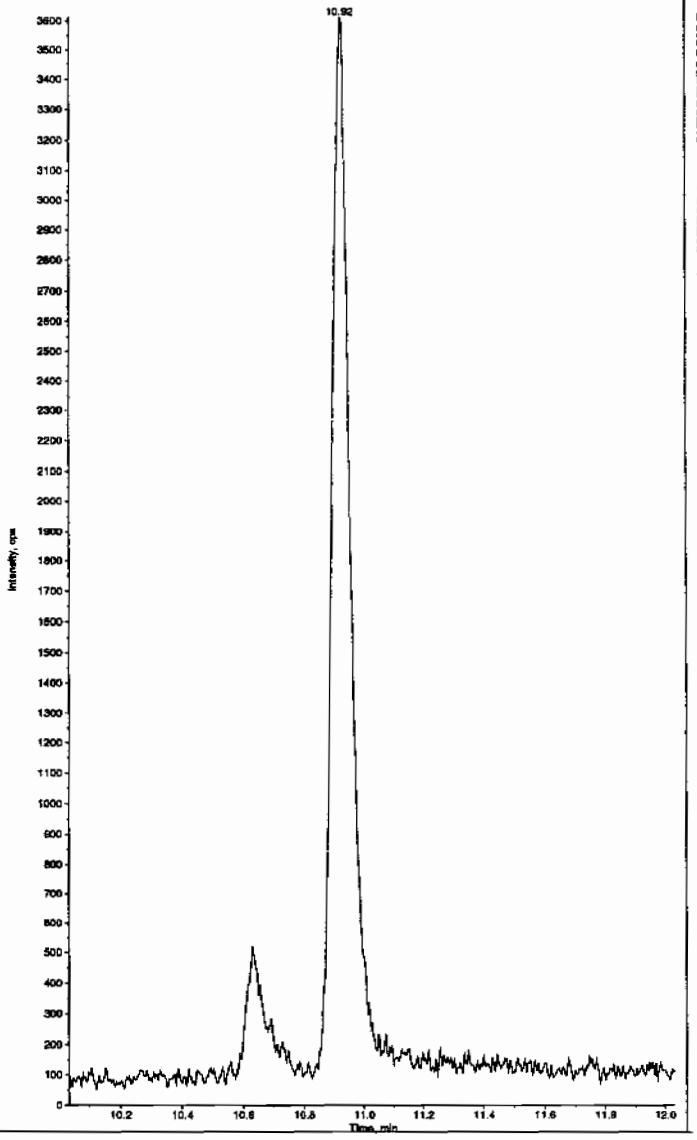

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8119

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994005

Sample Amount 2

Moisture: 11.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216135a

Date Analyzed: 19-FEB-10 11:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216135a
ate: 19-Feb-2010
ime: 11:18:47
): 245994005 | LANCL | 948579 | Solids | 2
ial: 3:2,A

MTP 4/20/10

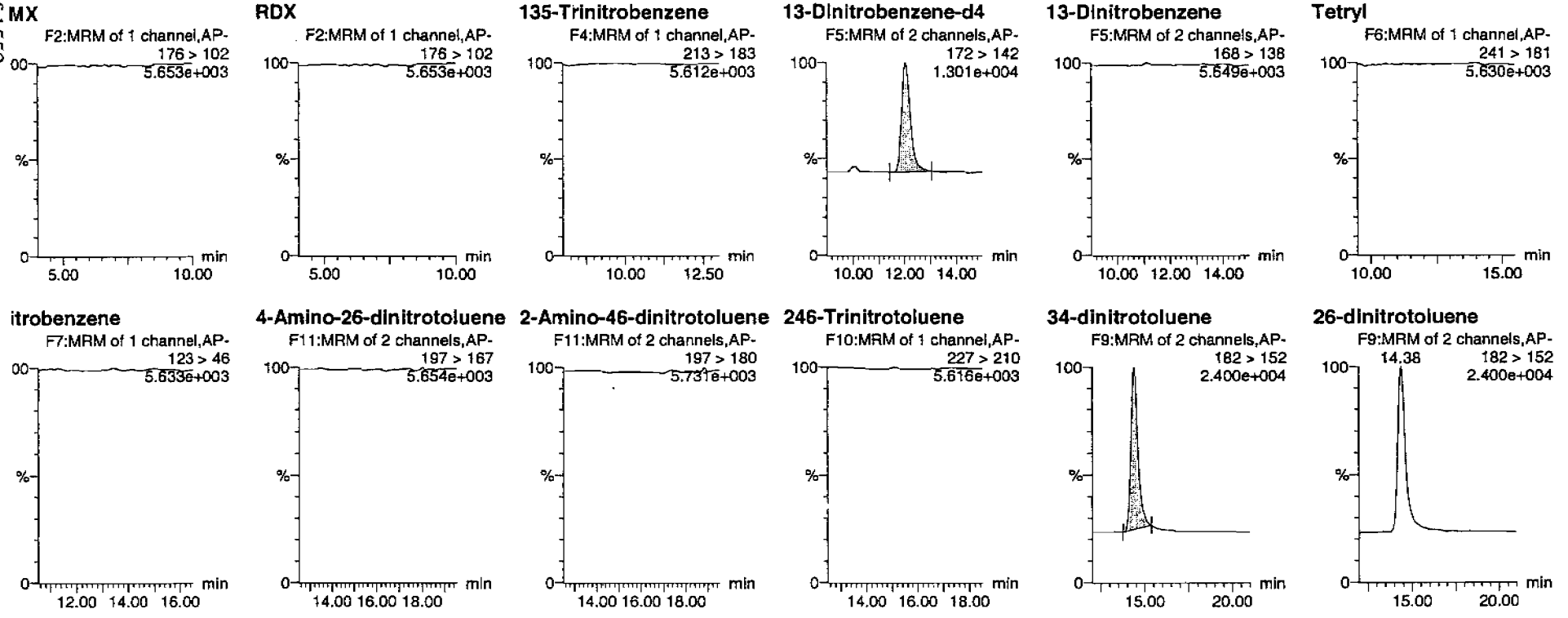

HMM 02/21/10

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

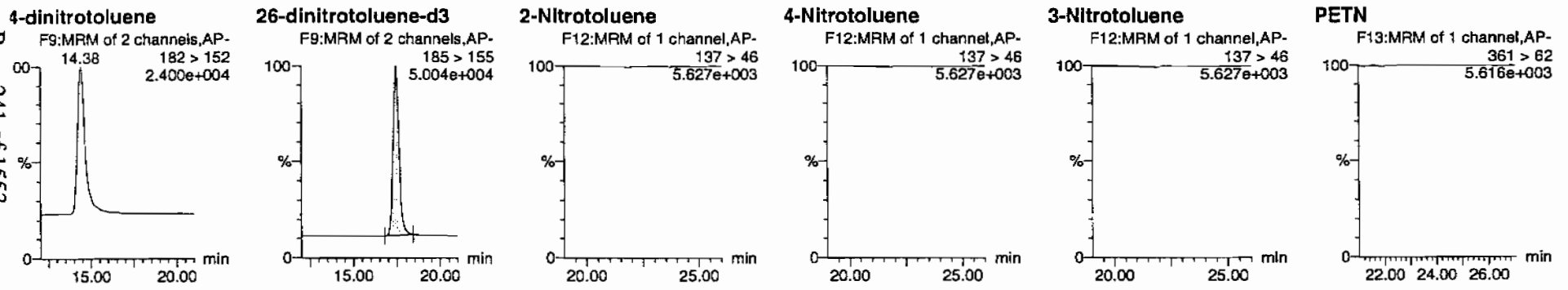

)	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
45994005	HMX	176 > 102			2961.031									
45994005	RDX	176 > 102			2961.031									
45994005	135-Trinitrobenzene	213 > 183			2961.031									
45994005	13-Dinitrobenzene-d4	172 > 142	12.03	2961.031		2961.031	2961.031	bb			491.4711	98.3	-1.7	221.5
45994005	13-Dinitrobenzene	168 > 138			2961.031									
45994005	Tetryl	241 > 181			2961.031									
45994005	Nitrobenzene	123 > 46			2961.031									
45994005	4-Amino-26-dinitrotoluene	197 > 167			17866.967									
45994005	2-Amino-46-dinitrotoluene	197 > 180			17866.967									
45994005	246-Trinitrotoluene	227 > 210			17866.967									
45994005	34-dinitrotoluene	182 > 152	14.38	8611.380	17866.967	8611.380	240.986	bb			265.9887	106.4	6.4	720.3
45994005	26-dinitrotoluene	182 > 152			17866.967									
45994005	24-dinitrotoluene	182 > 152			17866.967									
45994005	26-dinitrotoluene-d3	185 > 155	17.42	17866.967		17866.967	17866.967	bb			513.1663	102.6	2.6	2134.2
45994005	2-Nitrotoluene	137 > 46			17866.967									
45994005	4-Nitrotoluene	137 > 46			17866.967									
45994005	3-Nitrotoluene	137 > 46			17866.967									
45994005	PETN	361 > 62			17866.967									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8119

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994005

Sample Amount 2

Moisture: 11.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140149.wiff

Date Analyzed: 16-FEB-10 05:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcw 2/17/10

ample Name: "245994005" Sample ID: "948579|2|LER" File: "EXS02140149.wiff"
esk Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX832125" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 5:02:27 AM

ified: No

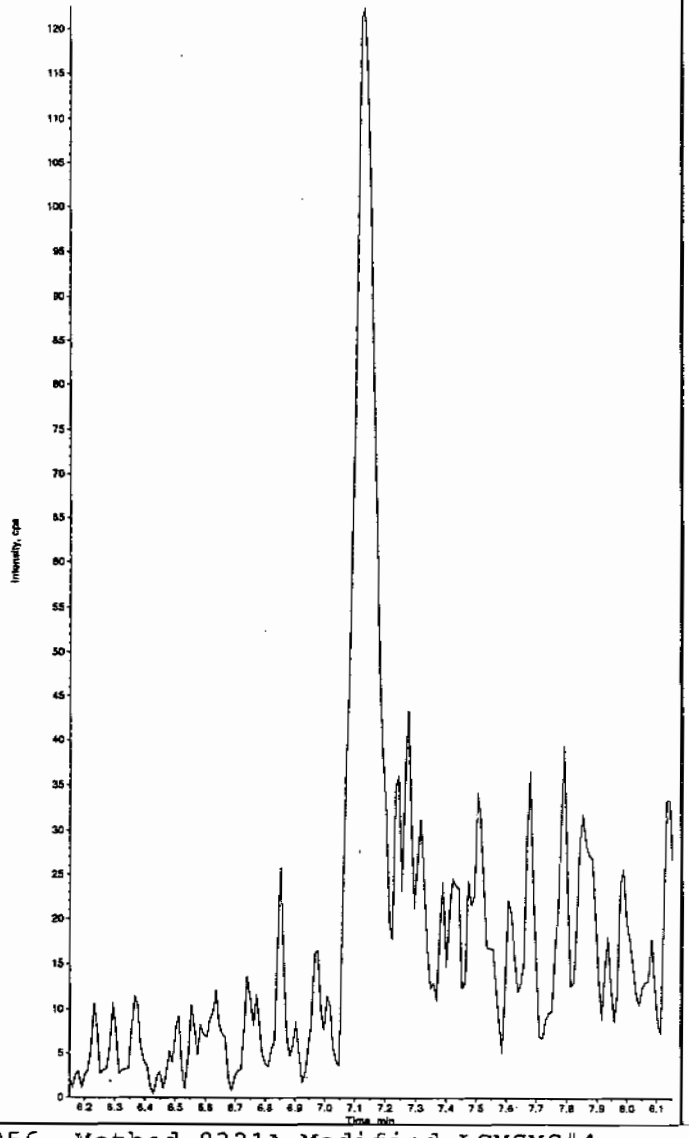

Sample Name: "245994005" Sample ID: "948579|2|LER" File: "EXS02140149.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX832125" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:02:27 AM

Modified: Yes

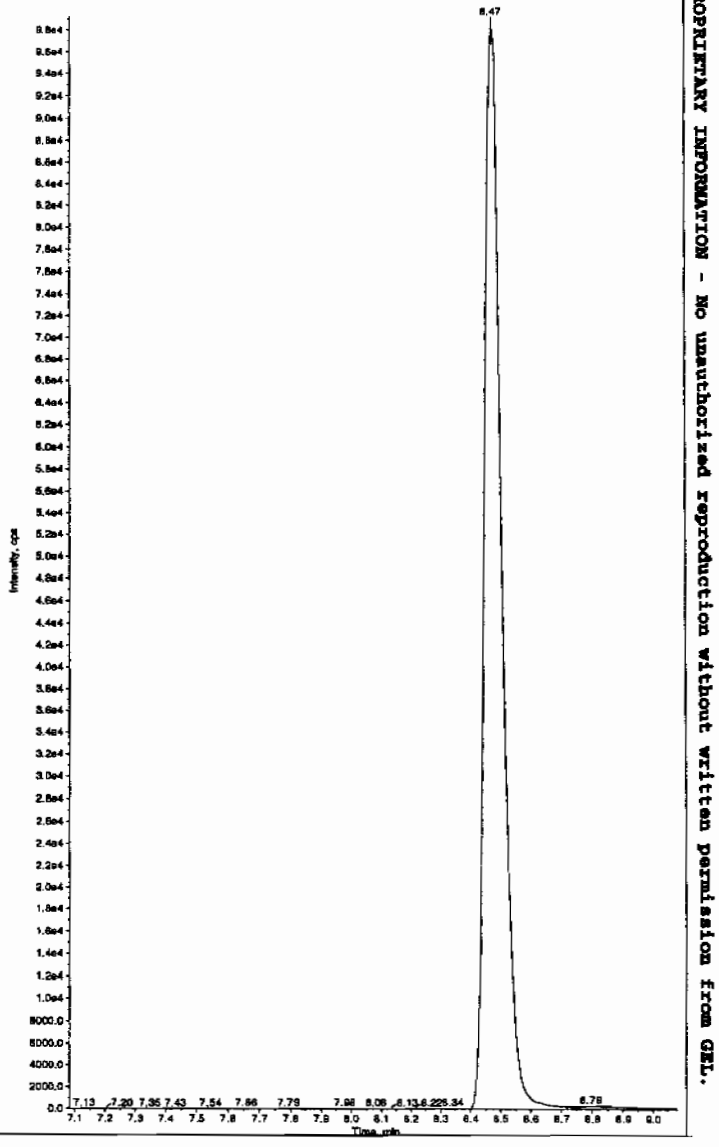

Hhm 02/17/10

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ample Name: "245994005" Sample ID: "948579|2|LER" File: "EXS02140149.wiff"
eak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 270. ng/mL
. Date: 2/16/2010
. Time: 5:02:27 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Ralative RT: No

. Type: Valley
ention Time: 8.47 min
a: 3.52e+006 counts
ght: 903069.946 cps
rt Time: 8.36 min
Time: 9.01 min

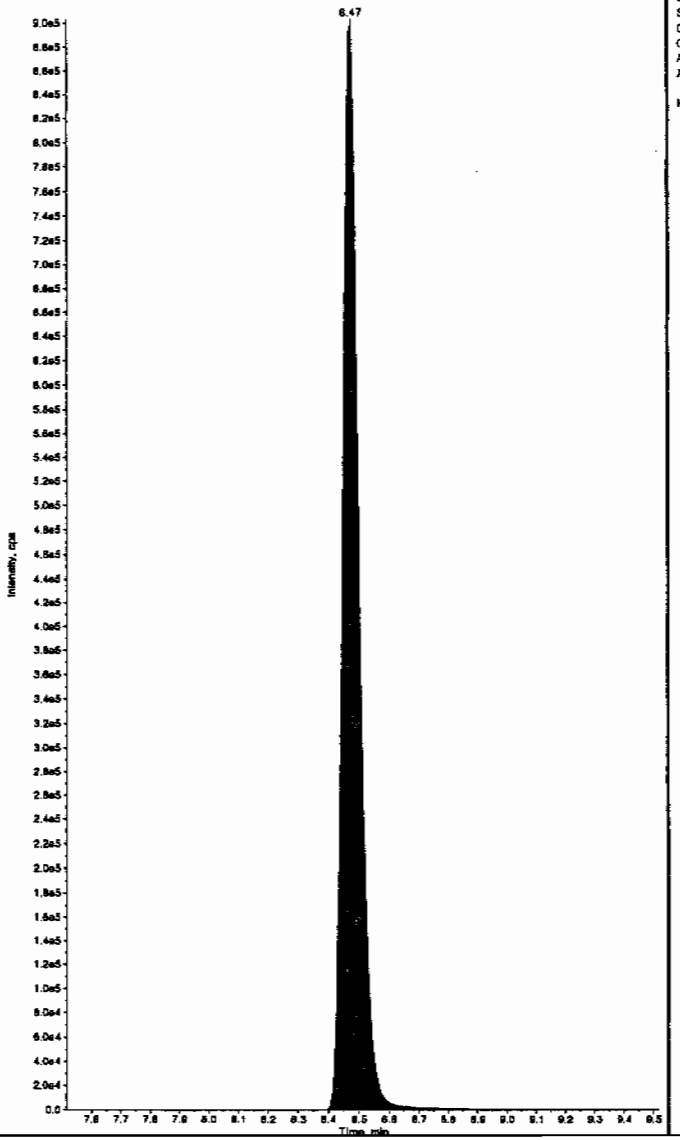

Sample Name: "245994005" Sample ID: "948579|2|LER" File: "EXS02140149.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:02:27 AM

Modified: No

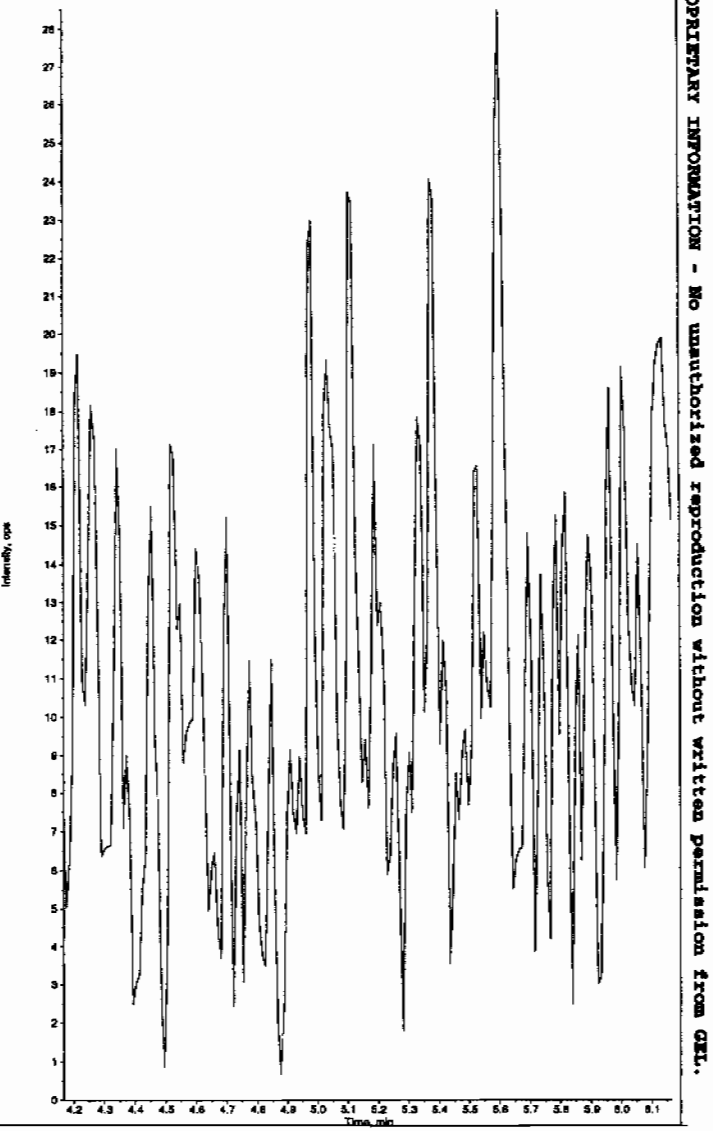

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mple Name: "245994005" Sample ID: "948579|2|LER" File: "EXS02140149.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 5:02:27 AM
ified: No

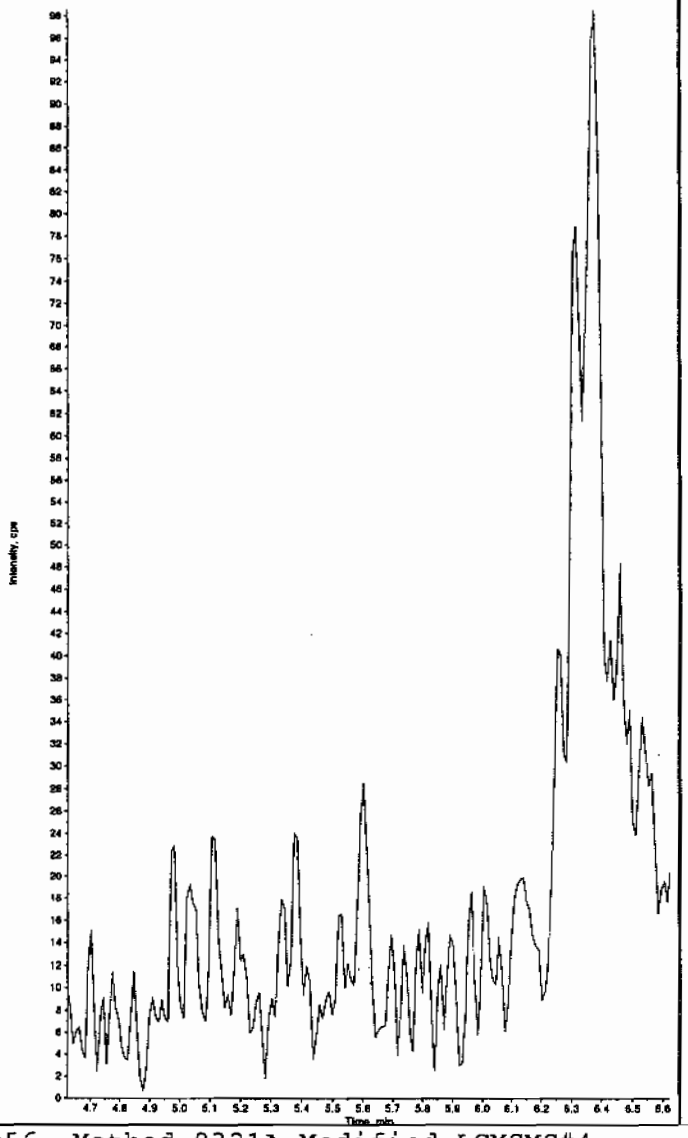

Sample Name: "245994005" Sample ID: "948579|2|LER" File: "EXS02140149.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:02:27 AM

Modified: No

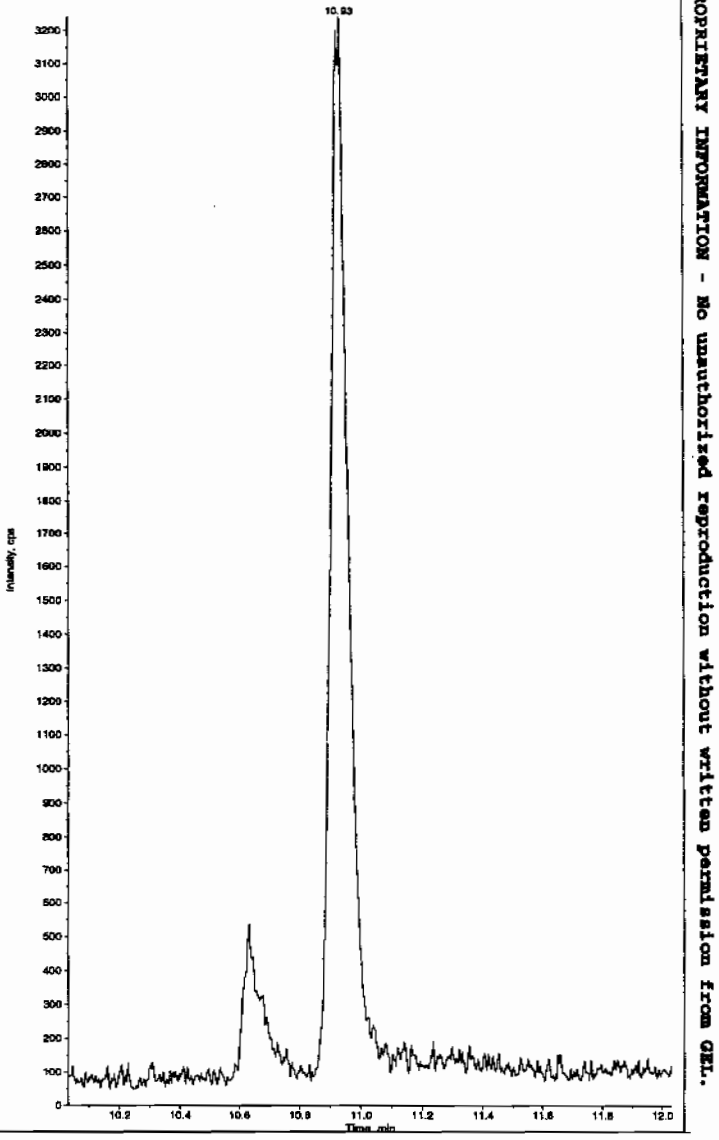

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8114

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994006

Sample Amount 2

Moisture: 43.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216136a

Date Analyzed: 19-FEB-10 11:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216136a
Date: 19-Feb-2010
Time: 11:48:32
ID: 245994006 | LANL | 948579 | Solid | 2 |
Vial: 3:2,B

LATT 2/26/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.800e+003

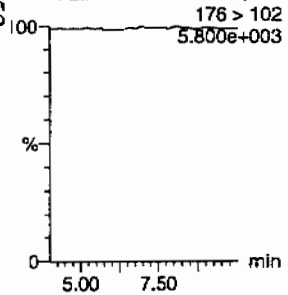

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.800e+003

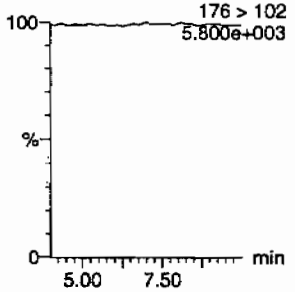

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.751e+003

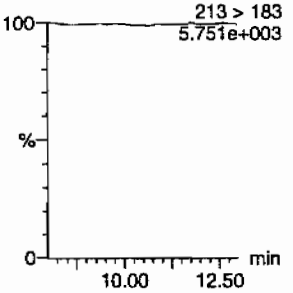

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.301e+004

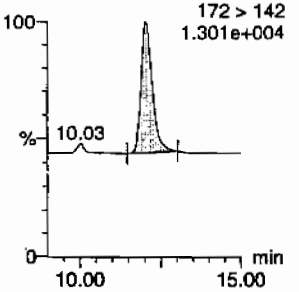

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.749e+003

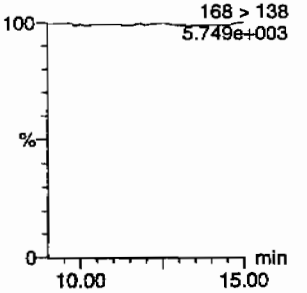

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.745e+003

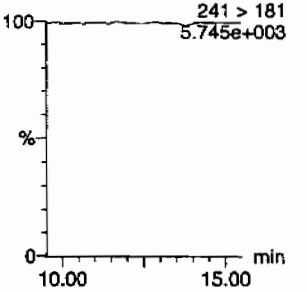

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.754e+003

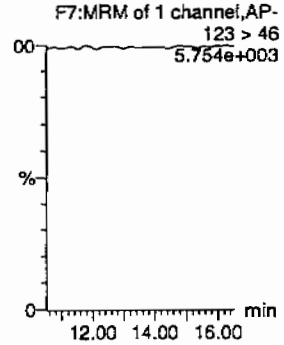

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.797e+003

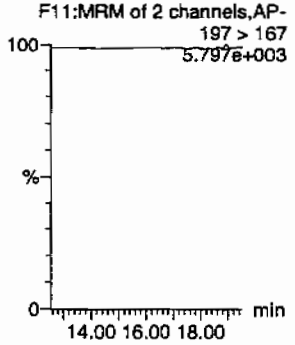

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.799e+003

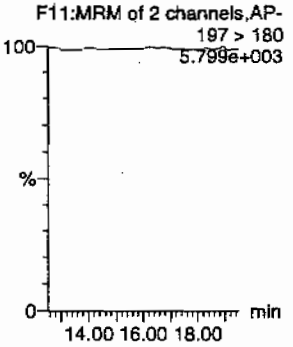

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.753e+003

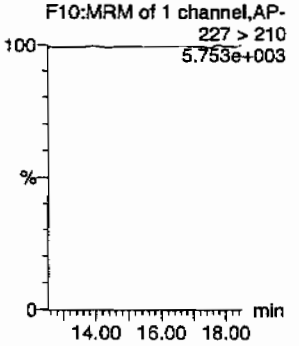

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.364e+004

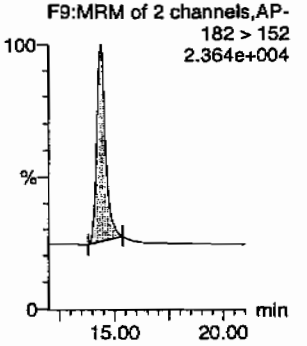

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.37
182 > 152
2.364e+004

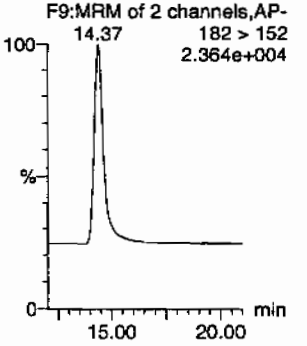

AMM 02/21/10

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34-dinitrotoluene

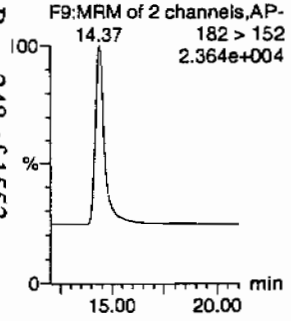

26-dinitrotoluene-d3

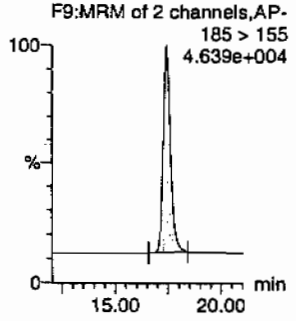

2-Nitrotoluene

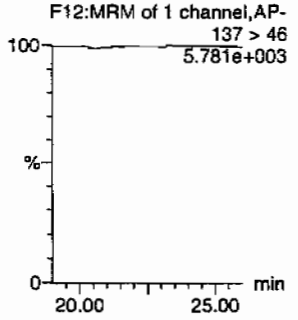

4-Nitrotoluene

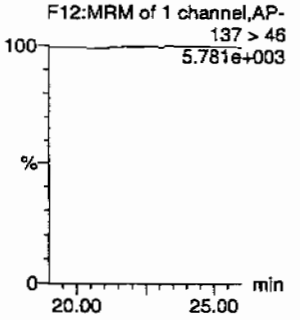

3-Nitrotoluene

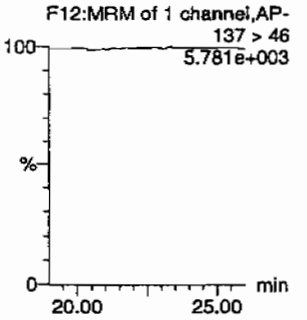

PETN

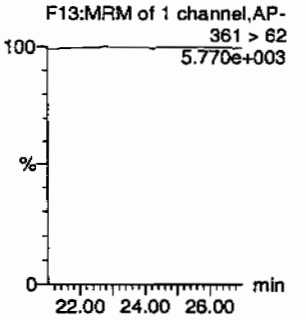

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
45994006	HMX	176 > 102			2970.312									
45994006	RDX	176 > 102			2970.312									
45994006	135-Trinitrobenzene	213 > 183			2970.312									
45994006	13-Dinitrobenzene-d4	172 > 142	12.03	2970.312		2970.312	2970.312	bb			493.0116	98.6	-1.4	238.4
45994006	13-Dinitrobenzene	168 > 138			2970.312									
45994006	Tetryl	241 > 181			2970.312									
45994006	Nitrobenzene	123 > 46			2970.312									
45994006	4-Amino-26-dinitrotoluene	197 > 167			16421.637									
45994006	2-Amino-46-dinitrotoluene	197 > 180			16421.637									
45994006	246-Trinitrotoluene	227 > 210			16421.637									
45994006	34-dinitrotoluene	182 > 152	14.37	8415.350	16421.637	8415.350	256.228	bb			282.8115	113.1	13.1	575.3
45994006	26-dinitrotoluene	182 > 152			16421.637									
45994006	24-dinitrotoluene	182 > 152			16421.637									
45994006	26-dinitrotoluene-d3	185 > 155	17.43	16421.637		16421.637	16421.637	bb			471.6542	94.3	-5.7	1237.0
45994006	2-Nitrotoluene	137 > 46			16421.637									
45994006	4-Nitrotoluene	137 > 46			16421.637									
45994006	3-Nitrotoluene	137 > 46			16421.637									
45994006	PETN	361 > 62			16421.637									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8114

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994006

Sample Amount 2

Moisture: 43.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140150.wiff

Date Analyzed: 16-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

nple Name: "245994006" Sample ID: "948579|2|LER" File: "EXS02140150.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 5:18:10 AM

fied: No

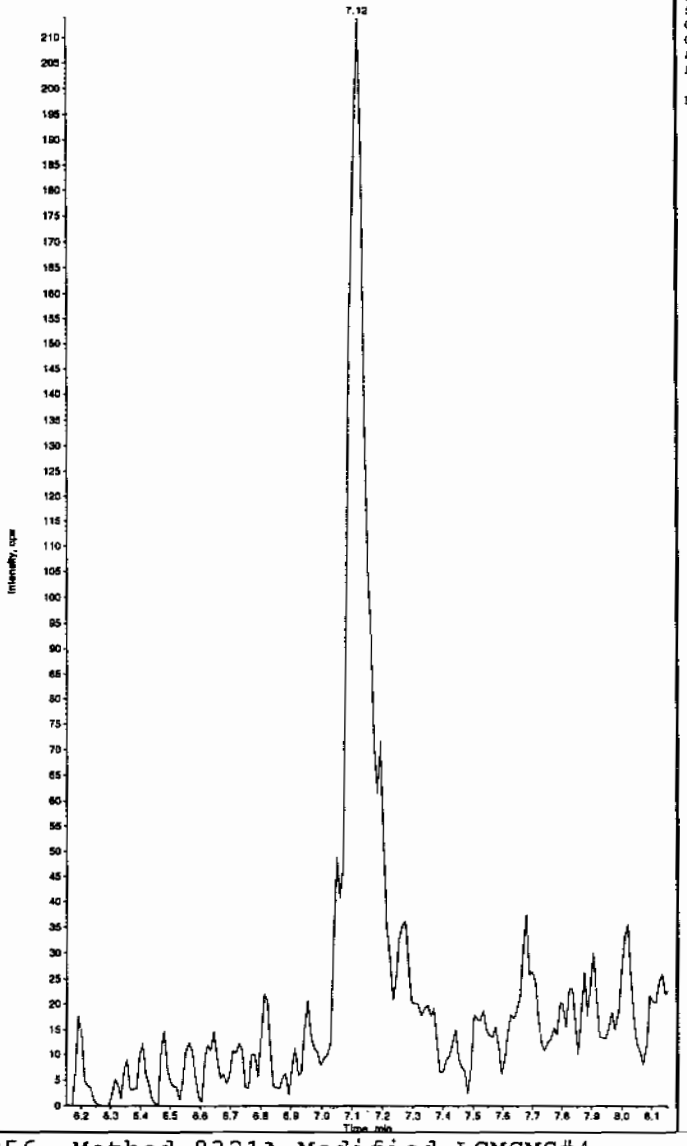

Sample Name: "245994006" Sample ID: "948579|2|LER" File: "EXS02140150.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:18:10 AM

Modified: Yes

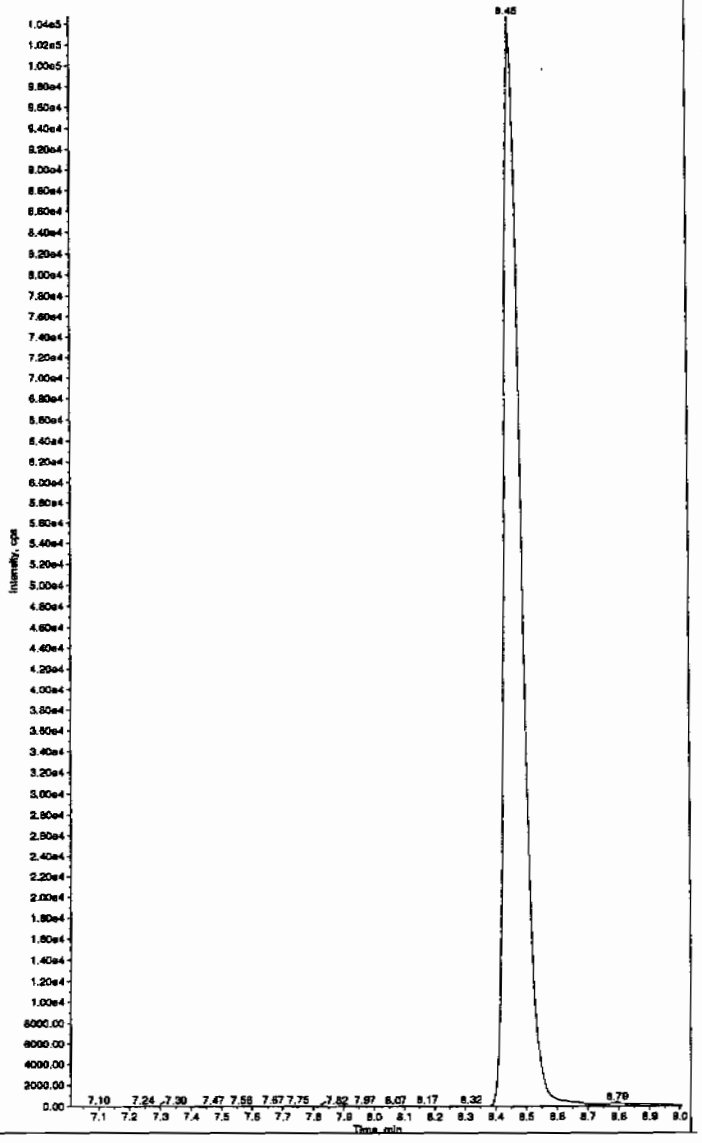

Hmm 02/17/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "245994006" Sample ID: "948579|2|LER" File: "EXS02140150.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 301. ng/mL
Date: 2/16/2010
Time: 5:18:10 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.45 min
: 3.91e+006 counts
ht: 1120287.476 cps
t Time: 8.36 min
Time: 8.76 min

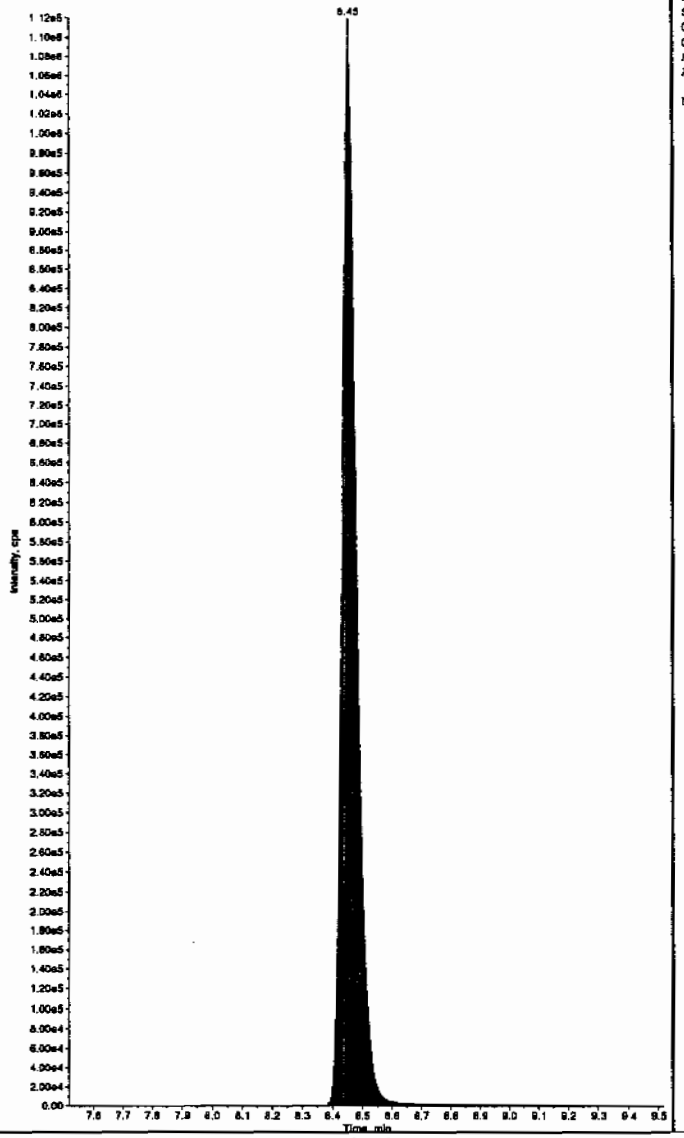

Sample Name: "245994006" Sample ID: "948579|2|LER" File: "EXS02140150.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:18:10 AM

Modified: No

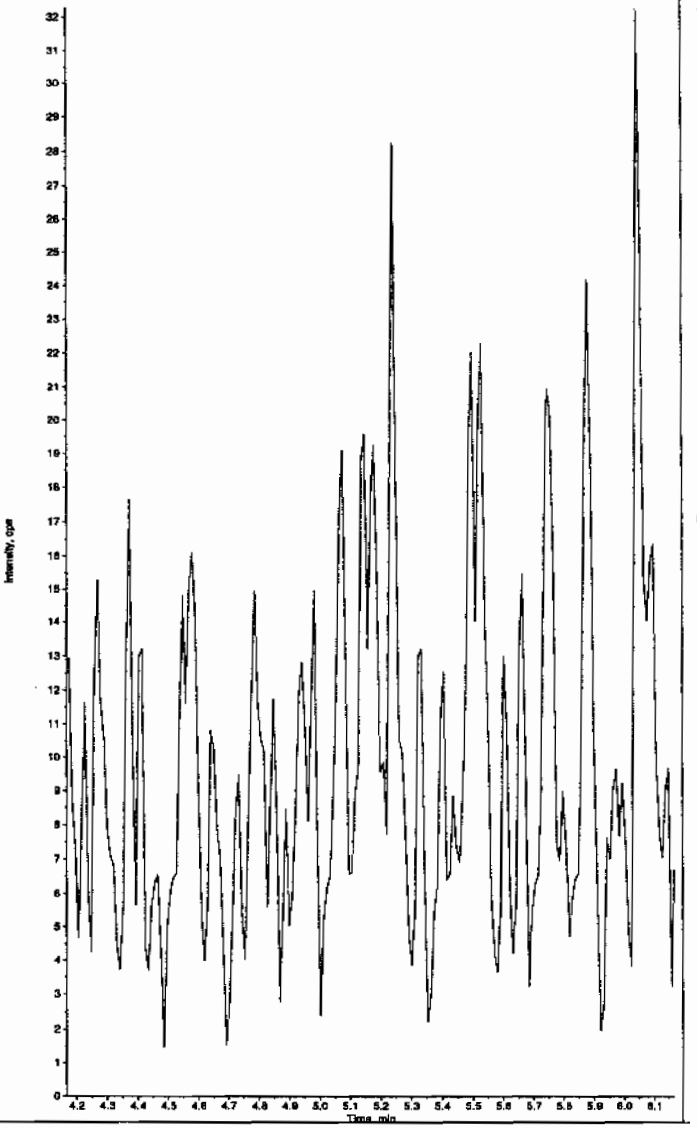

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mple Name: "245994006" Sample ID: "948579|2|LER" File: "EXS02140150.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 5:18:10 AM
fied: No

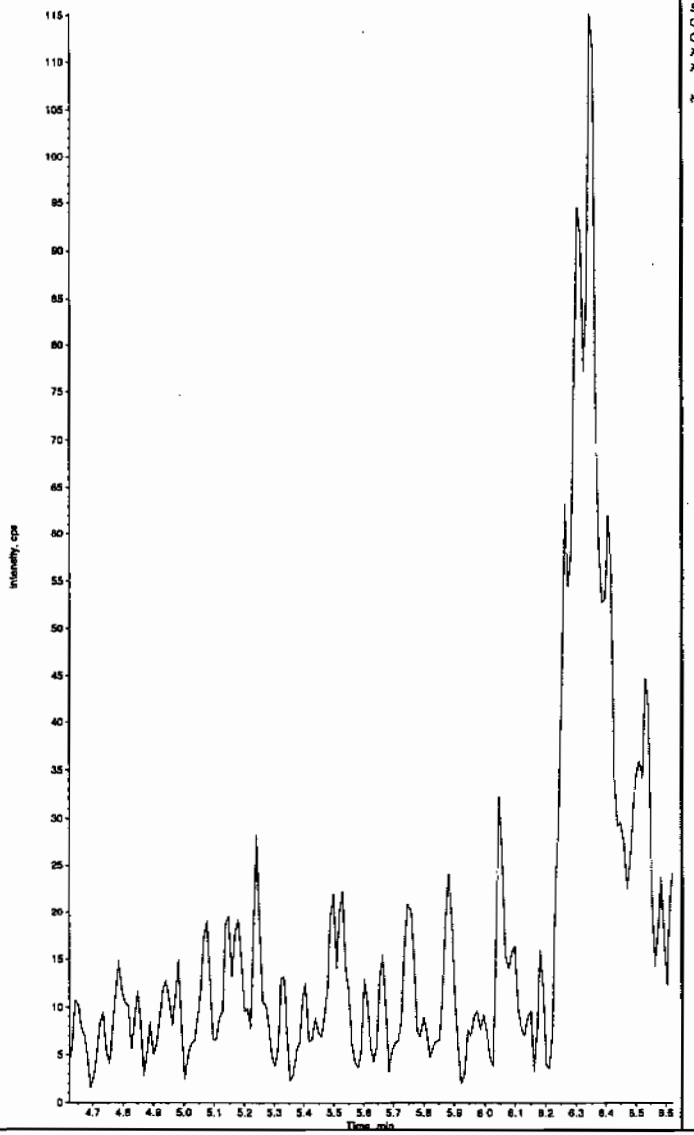

Sample Name: "245994006" Sample ID: "948579|2|LER" File: "EXS02140150.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:18:10 AM

Modified: No

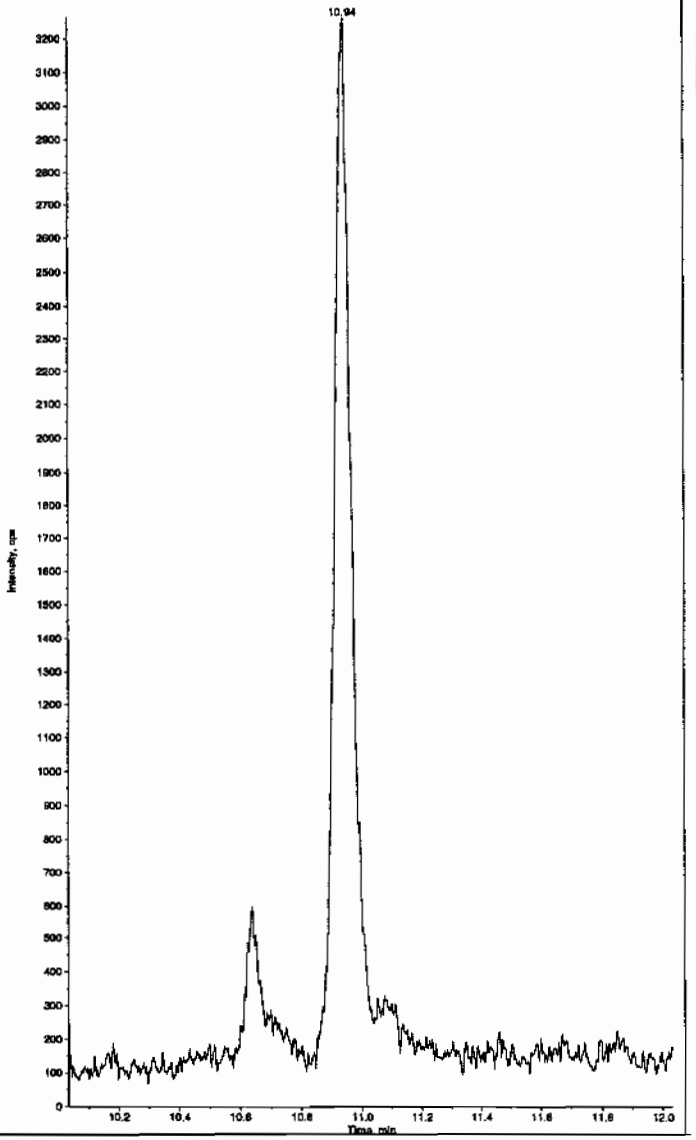

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8115

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994007

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216137a

Date Analyzed: 19-FEB-10 12:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216137a
Date: 19-Feb-2010
Time: 12:18:00
ID: 245994007 | WAUL | 948579 | Solid | 2 |
Vial: 3:2,C

dth 4/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.338e+003

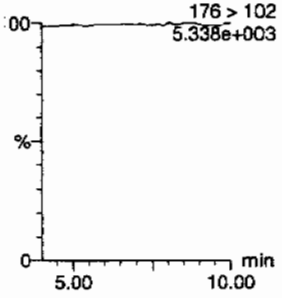

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.338e+003

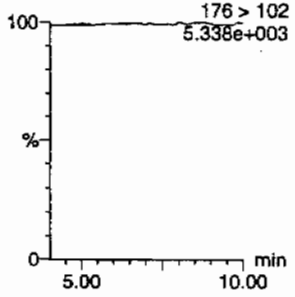

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.339e+003

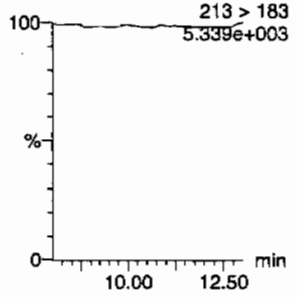

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.237e+004

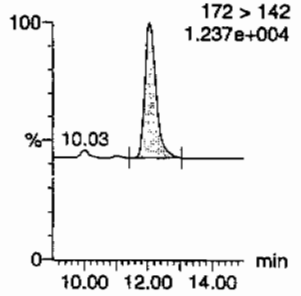

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.308e+003

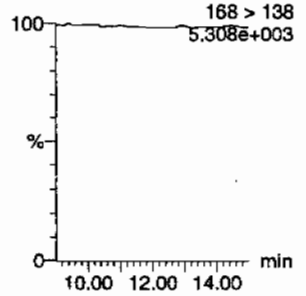

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.322e+003

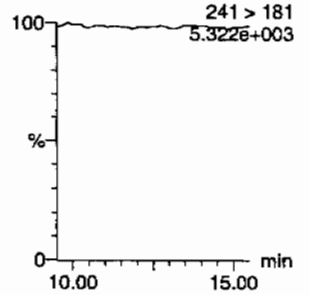

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.282e+003

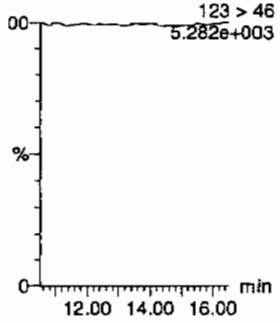

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.283e+003

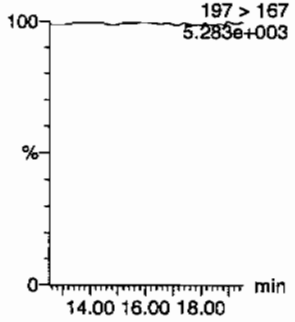

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.316e+003

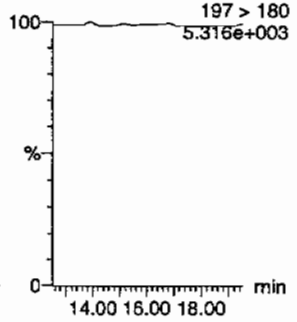

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.278e+003

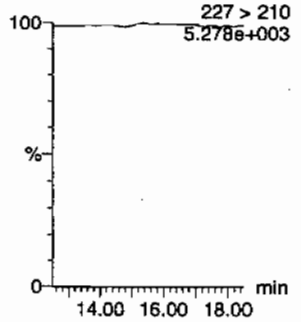

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.297e+004

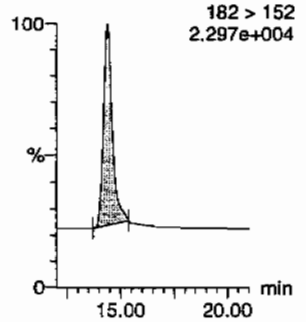

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.38
182 > 152
2.297e+004

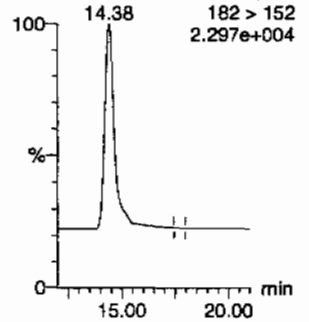

HMM 02/21/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

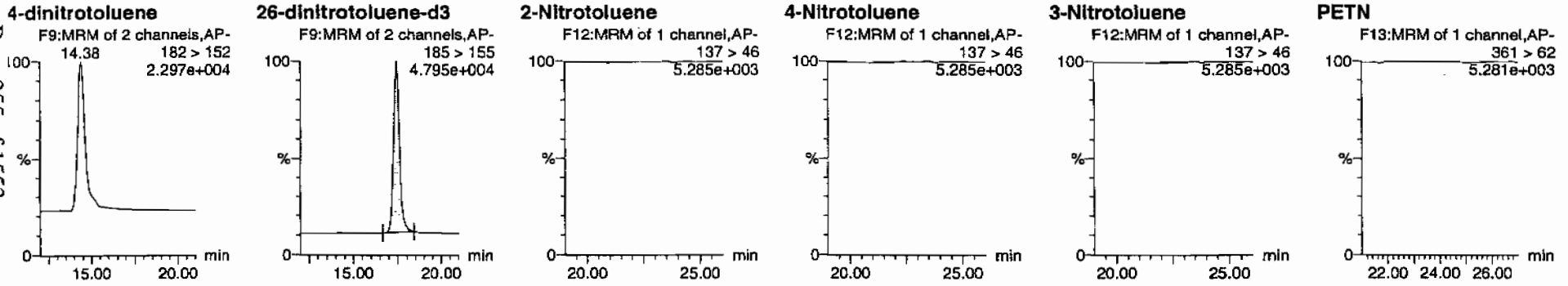

D	Name	Trace	RT	Area	IS Area	Abs Resp	IS Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
45994007	HMX	176 > 102			2915.296									
45994007	RDX	176 > 102			2915.296									
45994007	135-Trinitrobenzene	213 > 183			2915.296									
45994007	13-Dinitrobenzene-d4	172 > 142	12.07	2915.296		2915.296	2915.296	bb			483.8800	96.8	-3.2	247.6
45994007	13-Dinitrobenzene	168 > 138			2915.296									
45994007	Tetryl	241 > 181			2915.296									
45994007	Nitrobenzene	123 > 46			2915.296									
45994007	4-Amino-26-dinitrotoluene	197 > 167			17048.254									
45994007	2-Amino-46-dinitrotoluene	197 > 180			17048.254									
45994007	246-Trinitrotoluene	227 > 210			17048.254									
45994007	34-dinitrotoluene	182 > 152	14.38	8507.299	17048.254	8507.299	249.506	bb			275.3931	110.2	10.2	467.8
45994007	26-dinitrotoluene	182 > 152			17048.254			MM-	20-Feb-10	10:10:26				
45994007	24-dinitrotoluene	182 > 152			17048.254									
45994007	26-dinitrotoluene-d3	185 > 155	17.42	17048.254		17048.254	17048.254	bb			489.6516	97.9	-2.1	1090.8
45994007	2-Nitrotoluene	137 > 46			17048.254									
45994007	4-Nitrotoluene	137 > 46			17048.254									
45994007	3-Nitrotoluene	137 > 46			17048.254									
45994007	PETN	361 > 62			17048.254									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8115

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994007

Sample Amount 2

Moisture: 14.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140151.wiff

Date Analyzed: 16-FEB-10 05:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

mple Name: "245994007" Sample ID: "948579|2|LER" File: "EXS02140151.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 5:33:52 AM

fied: No

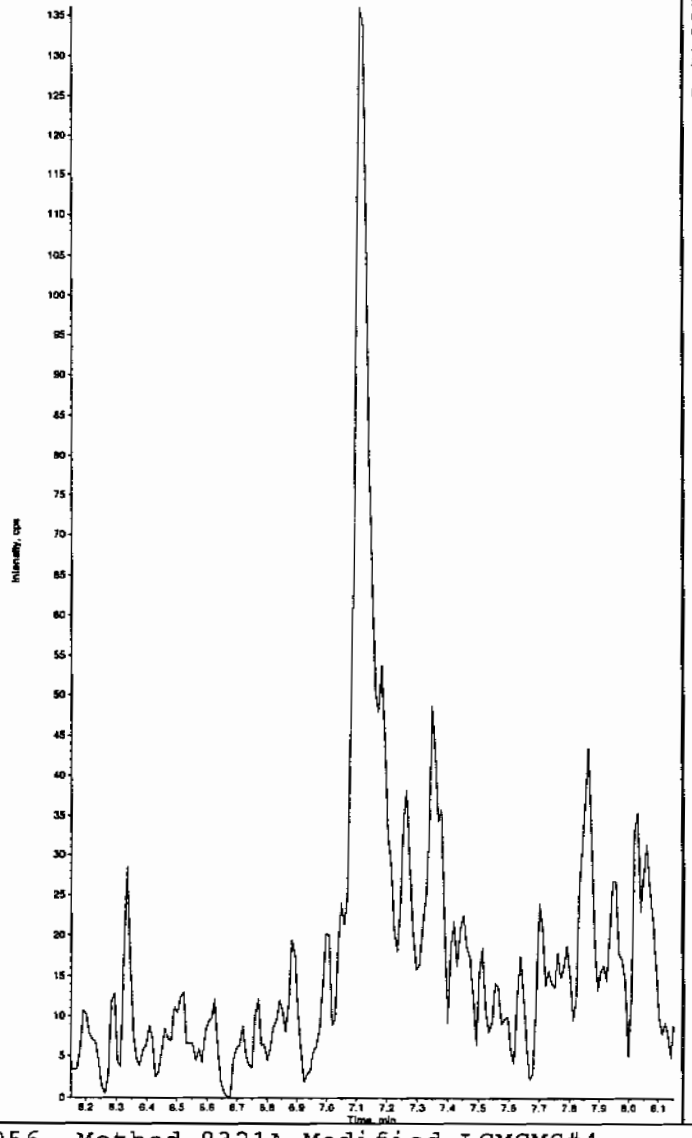

Sample Name: "245994007" Sample ID: "948579|2|LER" File: "EXS02140151.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:33:52 AM

Modified: Yes

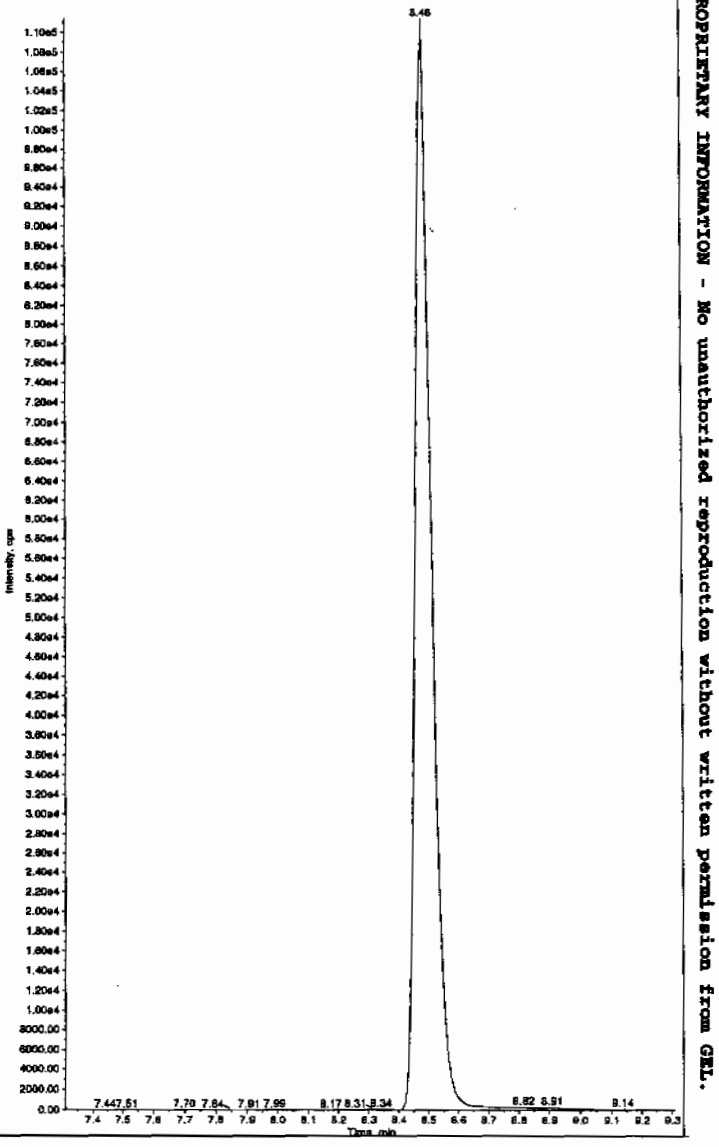

thm 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "245994007" Sample ID: "948579|2|LER" File: "EXS02140151.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 289. ng/mL
. Date: 2/16/2010
. Time: 5:33:52 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.47 min
a: 3.76e+006 counts
ght: 952178.711 cps
rt Time: 8.39 min
Time: 8.84 min

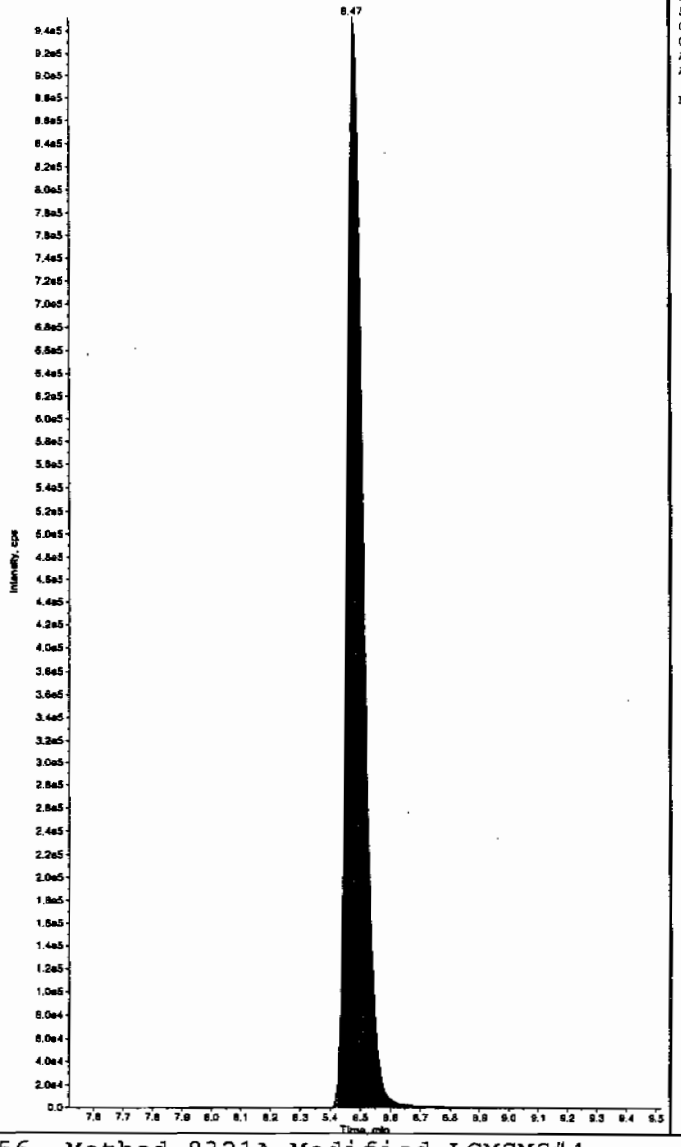

Sample Name: "245994007" Sample ID: "948579|2|LER" File: "EXS02140151.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:33:52 AM

Modified: No

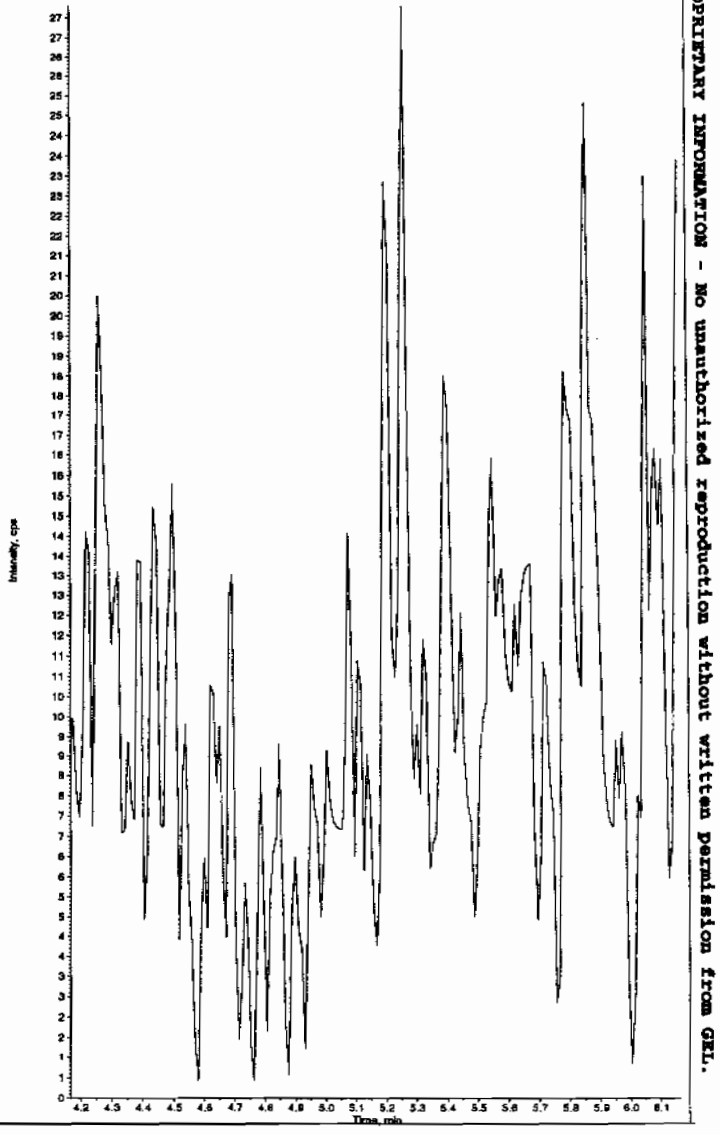

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nple Name: "245994007" Sample ID: "948579[2]LER" File: "EXS02140151.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 5:33:52 AM

fied: No

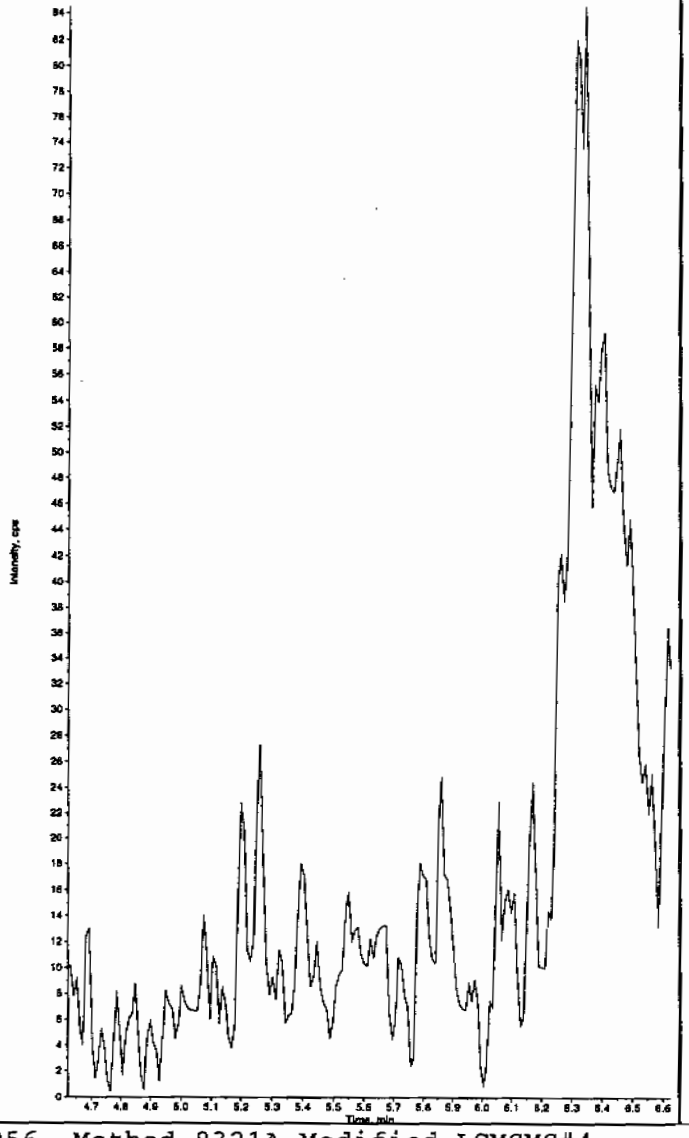

Sample Name: "245994007" Sample ID: "948579[2]LER" File: "EXS02140151.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:33:52 AM

Modified: No

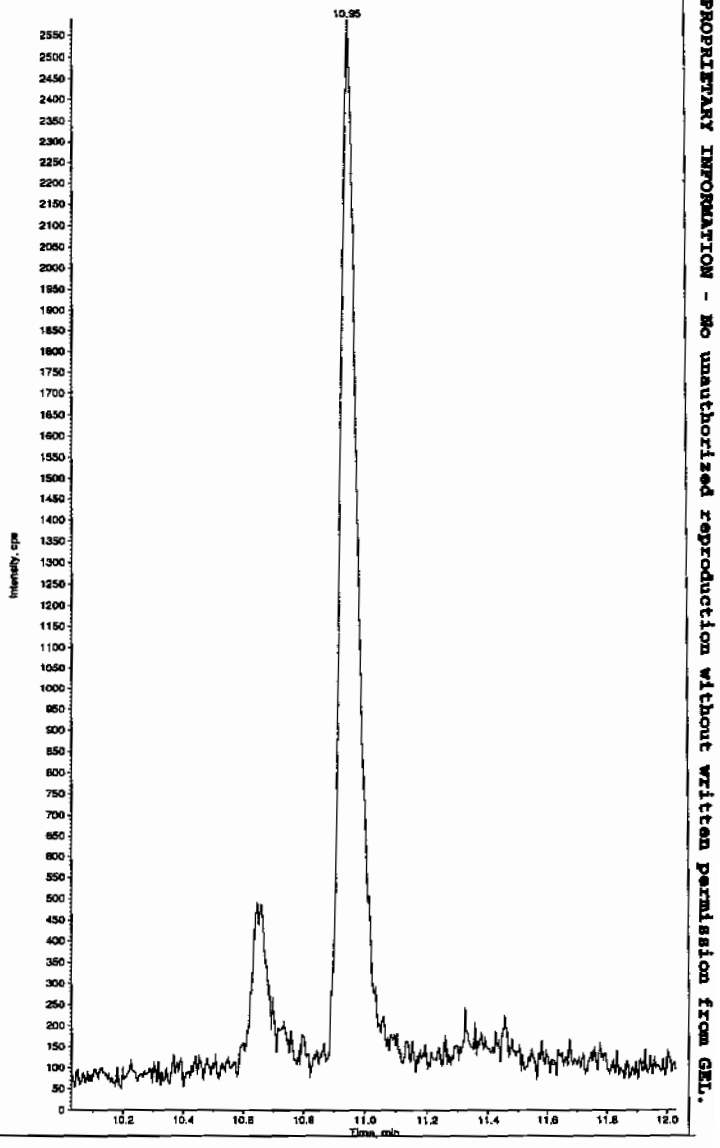

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8117

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994008

Sample Amount 2

Moisture: 7.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216138a

Date Analyzed: 19-FEB-10 12:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216138a
ate: 19-Feb-2010
ime: 12:47:29
): 245994008 | LANL | 948579 | Soil | 2
ial: 3:2,D

MM 2/20/10

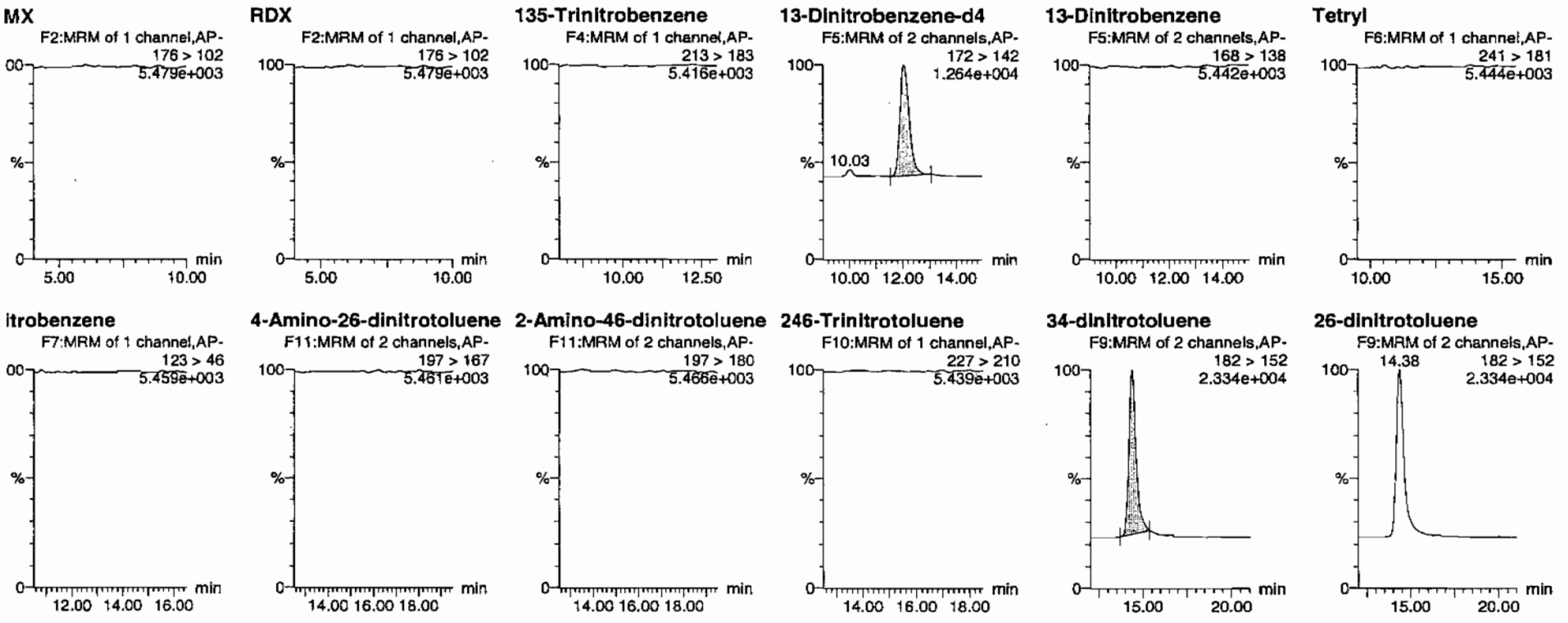

AMM 02/21/10

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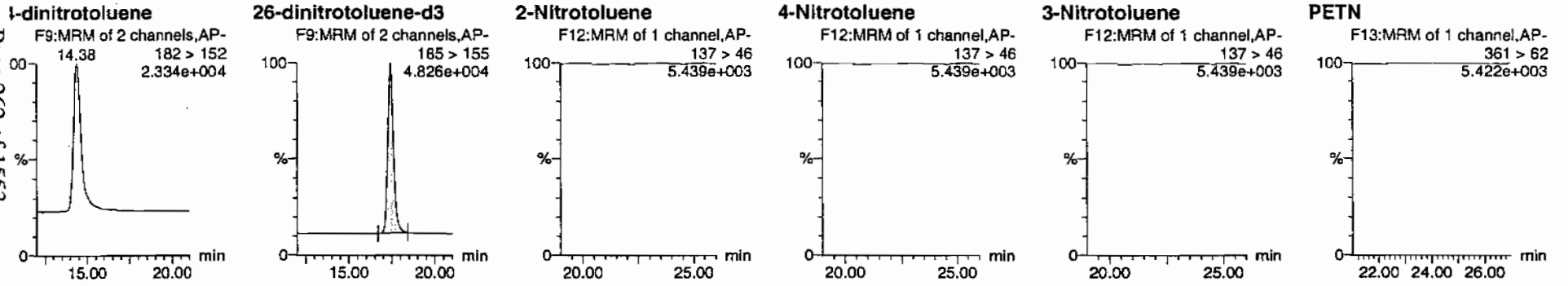

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
15994008	HMX	176 > 102			2919.690									
15994008	RDX	176 > 102			2919.690									
15994008	135-Trinitrobenzene	213 > 183			2919.690									
15994008	13-Dinitrobenzene-d4	172 > 142	12.07	2919.690		2919.690	2919.690	bb			484.6094	96.9	-3.1	377.6
15994008	13-Dinitrobenzene	168 > 138			2919.690									
15994008	Tetryl	241 > 181			2919.690									
15994008	Nitrobenzene	123 > 46			2919.690									
15994008	4-Amino-26-dinitrotoluene	197 > 167			17086.820									
15994008	2-Amino-46-dinitrotoluene	197 > 180			17086.820									
15994008	246-Trinitrotoluene	227 > 210			17086.820									
15994008	34-dinitrotoluene	182 > 152	14.38	8456.013	17086.820	8456.013	247.443	bb			273.1151	109.2	9.2	430.9
15994008	26-dinitrotoluene	182 > 152			17086.820									
15994008	24-dinitrotoluene	182 > 152			17086.820									
15994008	26-dinitrotoluene-d3	185 > 155	17.42	17086.820		17086.820	17086.820	bb			490.7593	98.2	-1.8	2298.8
15994008	2-Nitrotoluene	137 > 46			17086.820									
15994008	4-Nitrotoluene	137 > 46			17086.820									
15994008	3-Nitrotoluene	137 > 46			17086.820									
15994008	PETN	361 > 62			17086.820									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8117

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994008

Sample Amount 2

Moisture: 7.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140152.wiff

Date Analyzed: 16-FEB-10 05:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Run 2/17/10

nple Name: "245994008" Sample ID: "948579|2|LER" File: "EXS02140152.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/16/2010
Time: 5:49:33 AM
fied: No

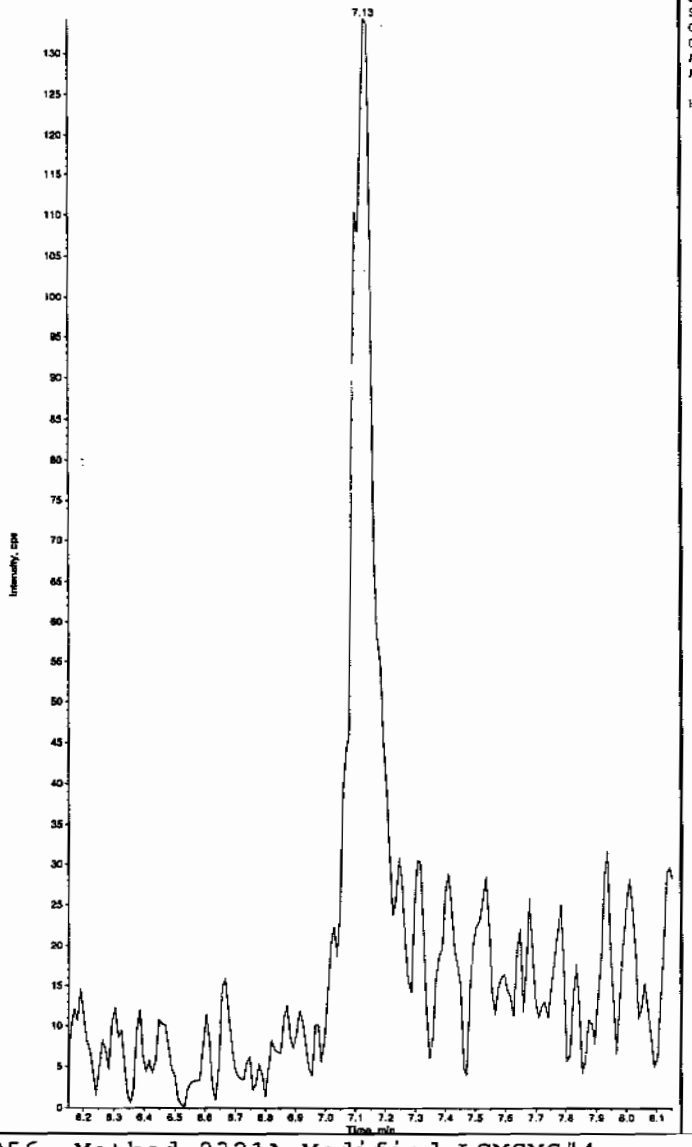

Sample Name: "245994008" Sample ID: "948579|2|LER" File: "EXS02140152.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:49:33 AM

Modified: Yes

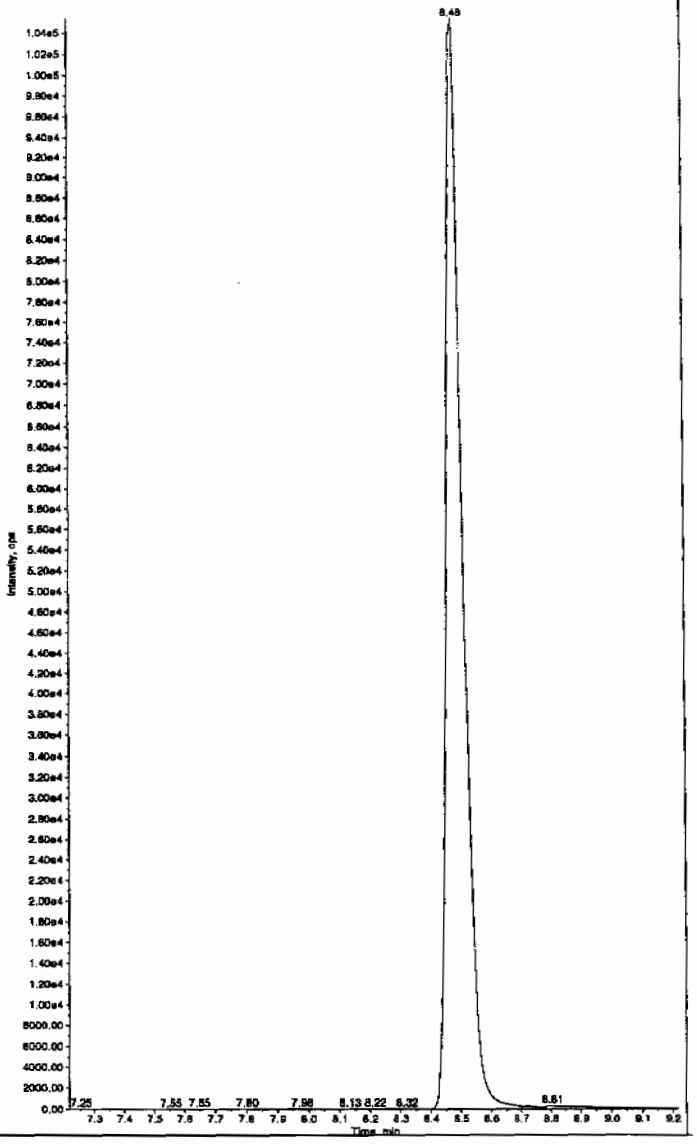

Hmm 02/17/10

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nple Name: "245994008" Sample ID: "948579[2]LER" File: "EXS02140152.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212S" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 299. ng/mL
Date: 2/16/2010
Time: 5:49:33 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.47 min
: 3.89e+006 counts
ht: 1032904.663 cps
t Time: 8.37 min
Time: 8.85 min

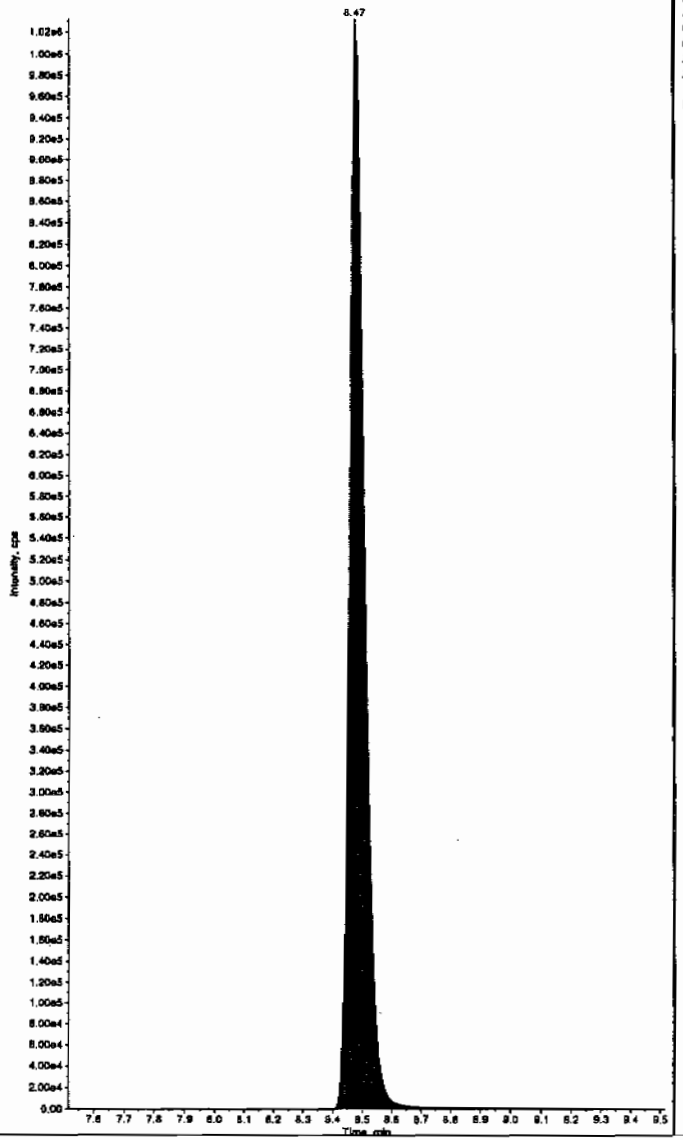

Sample Name: "245994008" Sample ID: "948579[2]LER" File: "EXS02140152.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:49:33 AM

Modified: No

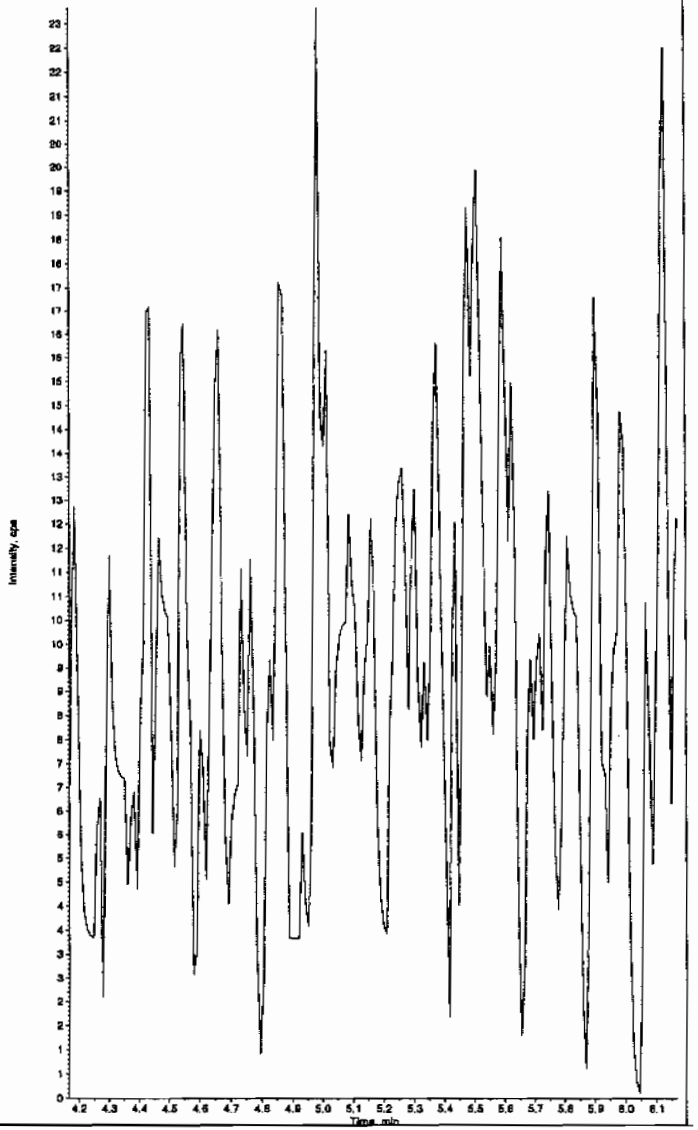

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mple Name: "245994006" Sample ID: "948579|2|LER" File: "EXS02140152.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 5:49:33 AM

ified: No

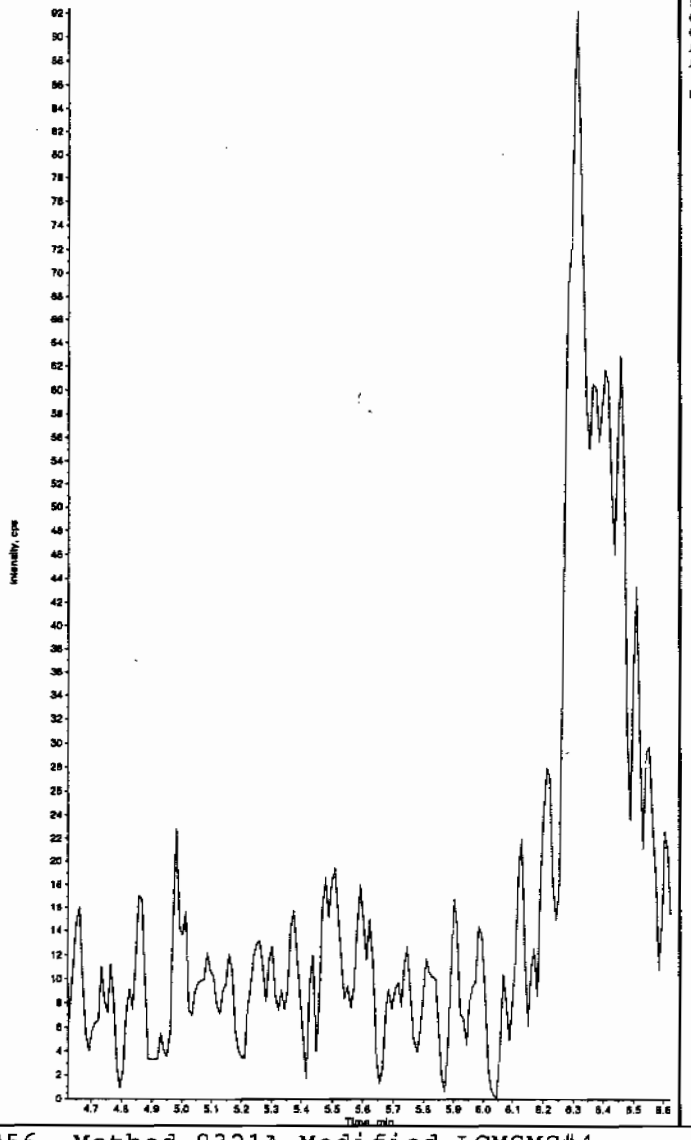

Sample Name: "245994006" Sample ID: "948579|2|LER" File: "EXS02140152.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 5:49:33 AM

Modified: No

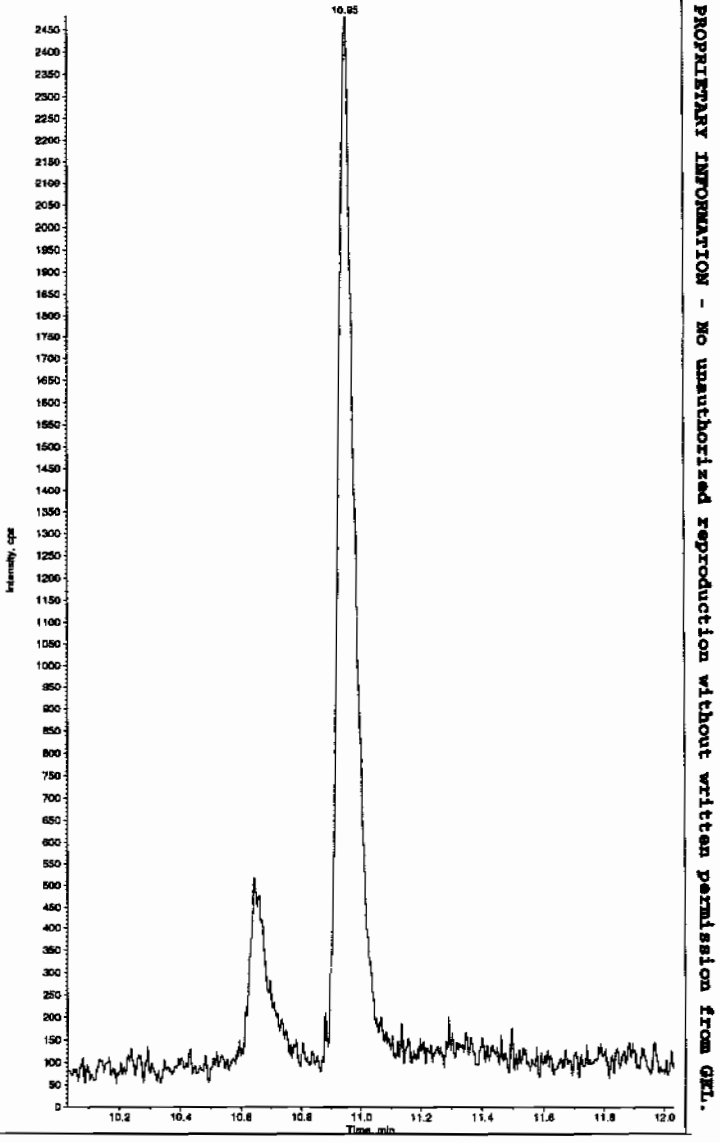

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8118

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994009

Sample Amount 2

Moisture: 27.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216142a

Date Analyzed: 19-FEB-10 15:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216142a
ate: 19-Feb-2010
me: 15:08:21
: 245994009
al: 3:2,E

LAUL | 948579 | Soil | 2-1

MAP 2/20/10

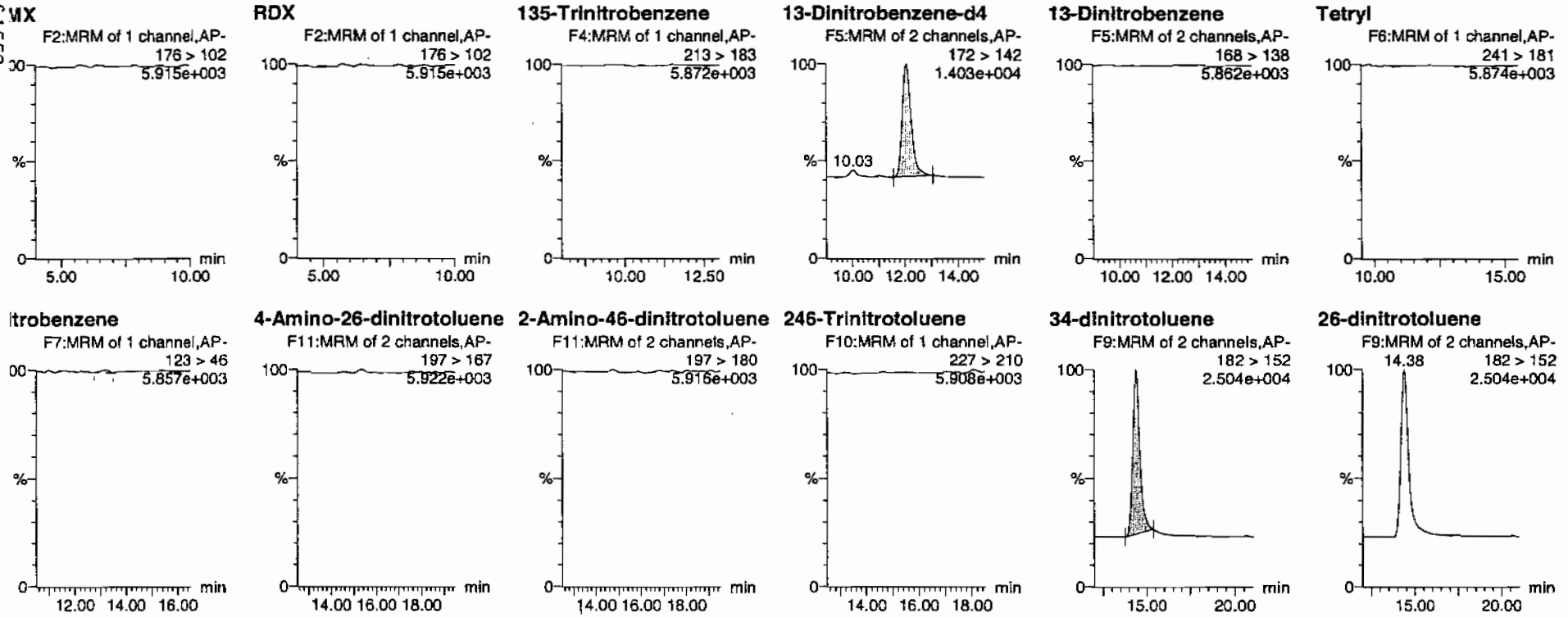

HMM 02/21/10

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

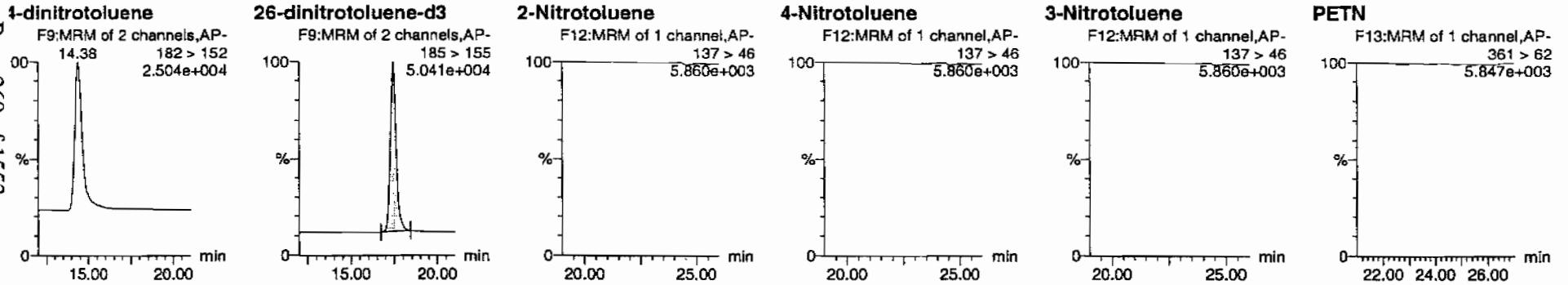

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	mg/mL	%Rec	%Dev	S/N
45994009	HMX	176 > 102			3293.888									
45994009	RDX	176 > 102			3293.888									
45994009	135-Trinitrobenzene	213 > 183			3293.888									
45994009	13-Dinitrobenzene-d4	172 > 142	12.03	3293.888		3293.888	3293.888	bb			546.7186	109.3	9.3	418.3
45994009	13-Dinitrobenzene	168 > 138			3293.888									
45994009	Tetryl	241 > 181			3293.888									
45994009	Nitrobenzene	123 > 46			3293.888			MM-	20-Feb-10	10:03:39				
45994009	4-Amino-26-dinitrotoluene	197 > 167			18050.922									
45994009	2-Amino-46-dinitrotoluene	197 > 180			18050.922									
45994009	246-Trinitrotoluene	227 > 210			18050.922									
45994009	34-dinitrotoluene	182 > 152	14.38	9047.827	18050.922	9047.827	250.620	bb			276.6217	110.6	10.6	707.7
45994009	26-dinitrotoluene	182 > 152			18050.922									
45994009	24-dinitrotoluene	182 > 152			18050.922									
45994009	26-dinitrotoluene-d3	185 > 155	17.42	18050.922		18050.922	18050.922	bb			518.4497	103.7	3.7	1891.9
45994009	2-Nitrotoluene	137 > 46			18050.922									
45994009	4-Nitrotoluene	137 > 46			18050.922									
45994009	3-Nitrotoluene	137 > 46			18050.922									
45994009	PETN	361 > 62			18050.922									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8118

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 245994009

Sample Amount 2

Moisture: 27.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02160014.wiff

Date Analyzed: 16-FEB-10 15:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

mple Name: "245994009" Sample ID: "948579|2|LER" File: "EXS02160014.wiff"
eak Name: "TATB" Mass(as): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/16/2010
. Time: 3:37:24 PM
fied: No

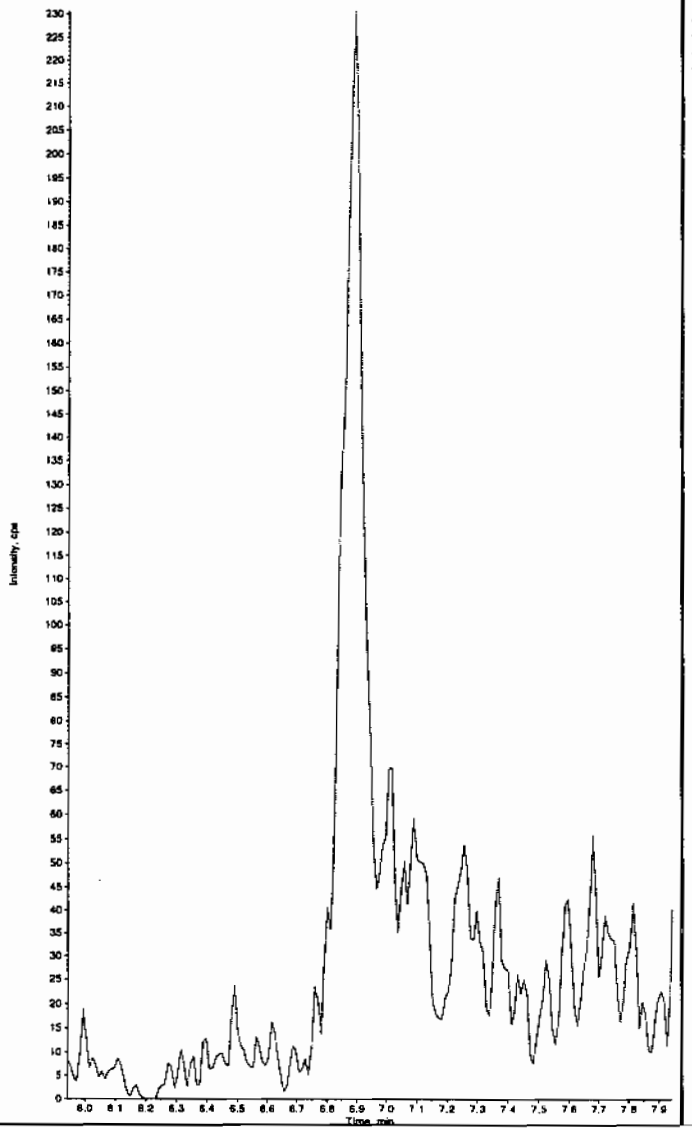

Sample Name: "245994009" Sample ID: "948579|2|LER" File: "EXS02160014.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:37:24 PM

Modified: Yes

HMC 02/17/10

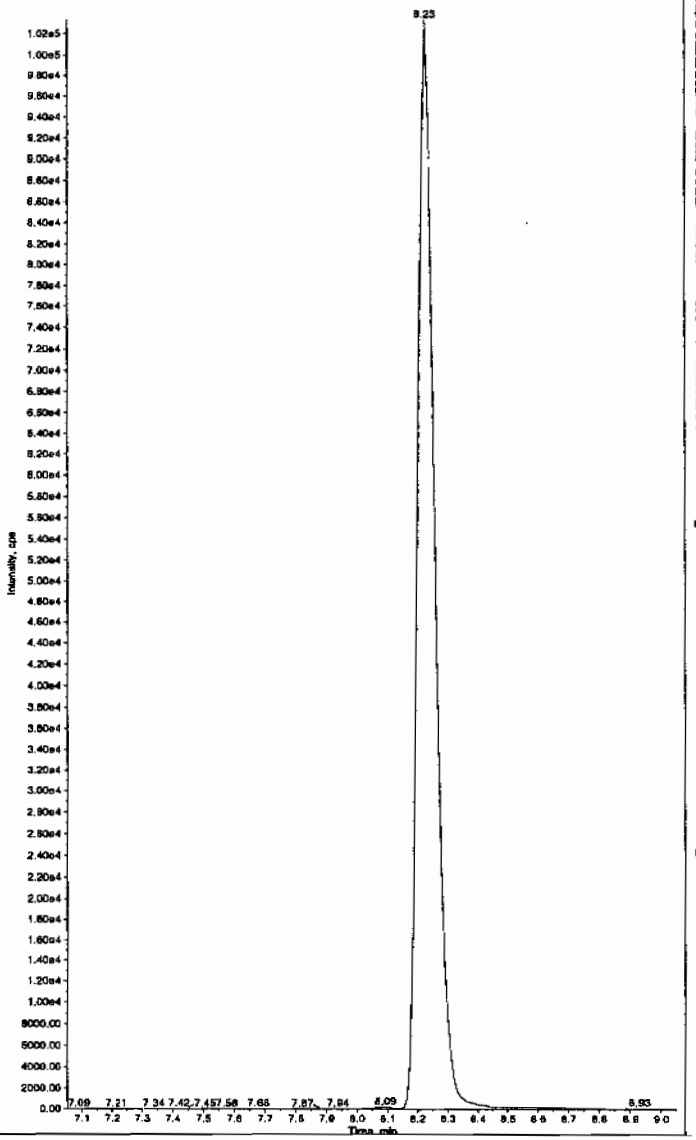

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nple Name: "245994009" Sample ID: "948579[2]LER" File: "EXS02160014.wiff"
ak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 306. ng/mL
Date: 2/16/2010
Time: 3:37:24 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.23 min
Relative RT: No

Type: Valley
ntion Time: 8.22 min
: 3.68e+006 counts
ht: 967306.274 cps
t Time: 8.09 min
Time: 8.62 min

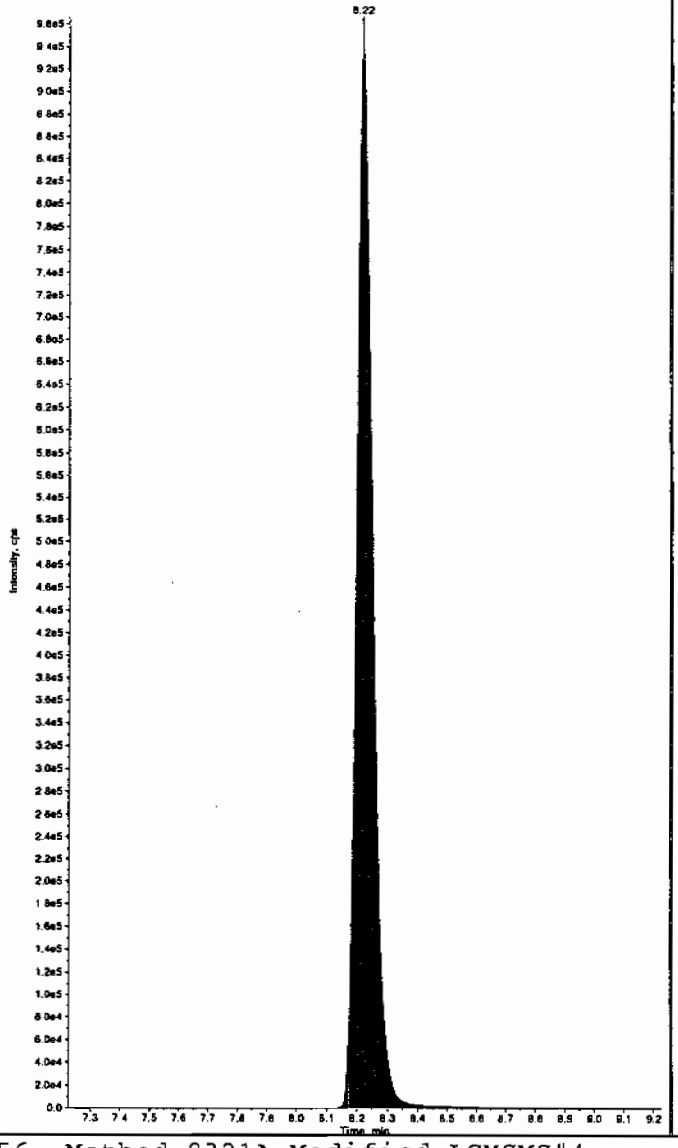

Sample Name: "245994009" Sample ID: "948579[2]LER" File: "EXS02160014.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:37:24 PM

Modified: No

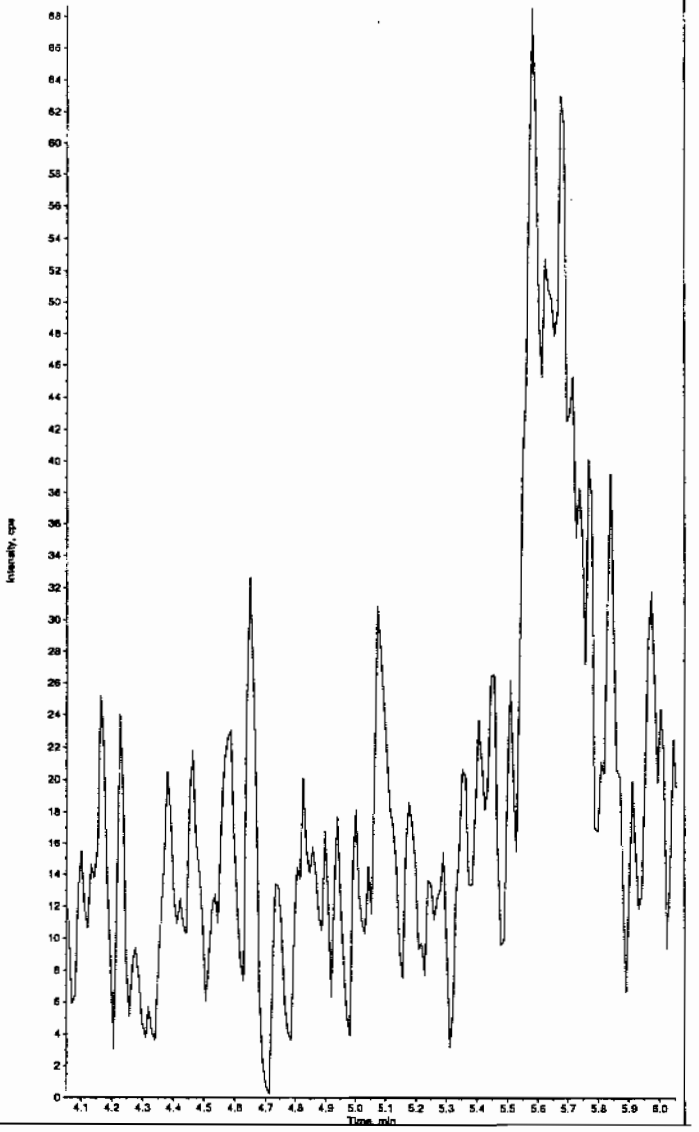

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1516

Lab Code: GEL

Run Date: 14-FEB-10,16-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a			
Parmname									
1,3,5-Trinitrobenzene	3.974	4.275	3.998	3.443	3.801	3.743	3.872	7.253	
1,3-Dinitrobenzene-d4	6.479	6.269	6.407	6.397	5.489	5.109	6.025	9.613	
2,4,6-Trinitrotoluene	.311	.331	.325	.38	.335	.329	0.335	7.003	
2,4-Dinitrotoluene	.22	.247	.233	.258	.258	.262	0.246	6.788	
2,6-Dinitrotoluene	.926	1.085	1.036	1.071	1.113	1.126	1.060	6.868	
2,6-Dinitrotoluene-d3	37.517	35.811	37.549	35.639	32.457	29.93	34.817	8.699	
2-Amino-4,6-dinitrotoluene	.4	.452	.421	.427	.458	.435	0.432	4.923	
3,4-Dinitrotoluene	.812	.944	.904	1.008	.893	.876	0.906	7.276	
4-Amino-2,6-dinitrotoluene	.35	.323	.285	.352	.298	.312	0.320	8.491	
HMX	3.59	3.564	3.729	3.903	4.47	3.894	3.858	8.619	
Nitrobenzene	.831	.943	.785	.911	.849	.831	0.858	6.765	
RDX	2.28	2.16	2.79	2.593	3.02	2.717	2.593	12.46	
Tetryl	1.117	1.386	1.084	1.014	.989	.952	1.090	14.415	
m-Dinitrobenzene	.991	1.315	1.169	1.17	1.25	1.236	1.189	9.364	
m-Nitrotoluene	.078	.09	.083	.1	.095	.091	0.090	8.99	
o-Nitrotoluene	.139	.156	.146	.153	.159	.159	0.152	5.121	
p-Nitrotoluene	.072	.072	.076	.082	.083	.076	0.077	6.293	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1516

Lab Code: GEL

Run Date: 14-FEB-10,16-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0216003a	EXP0216004a	EXP0216005a	EXP0216006a	EXP0216007a	EXP0216008a					
Parmname:											
PETN	2110.32	4458.8	14532.6	25000.7	38622.3	42985.8	1.84	-.0004443	26.645	.9992	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

lethod: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
alibration: Untitled, Time: Wed Feb 17 10:00:06 2010

ompound name: HMX
esponse Factor: 3.85837
RF SD: 0.33256, % Relative SD: 8.61918
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

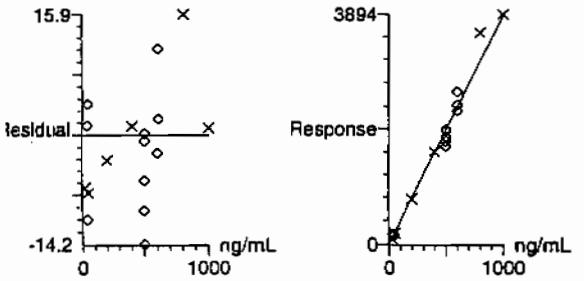

MAP
2/17/10

ompound name: RDX
esponse Factor: 2.59344
RF SD: 0.323138, % Relative SD: 12.4598
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

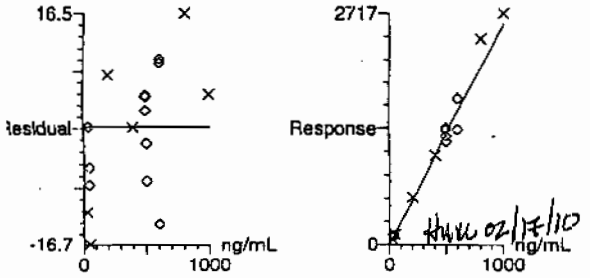

HMW 02/17/10

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 135-Trinitrobenzene
esponse Factor: 3.87255
RF SD: 0.280856, % Relative SD: 7.2525
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

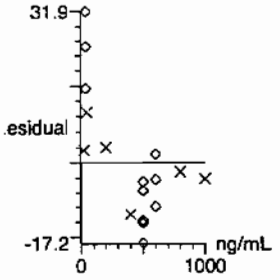

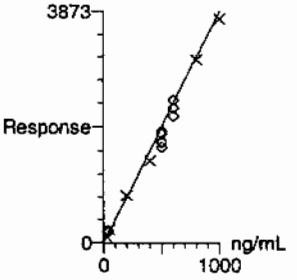

ompound name: 13-Dinitrobenzene-d4
esponse Factor: 6.02483
RF SD: 0.579171, % Relative SD: 9.61306
esponse type: External Std, Area
urve type: RF

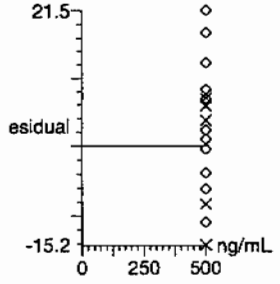

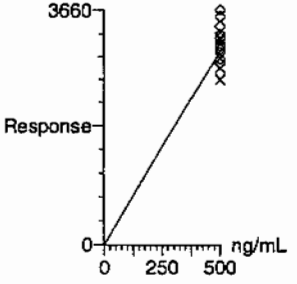

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luantify Calibration Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 13-Dinitrobenzene
esponse Factor: 1.18852
RF SD: 0.111292, % Relative SD: 9.36391
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

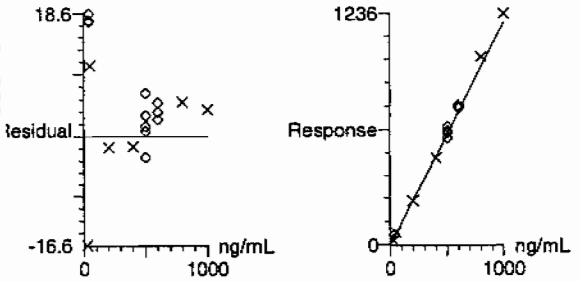

ompound name: Tetryl
esponse Factor: 1.09023
RF SD: 0.157158, % Relative SD: 14.4151
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

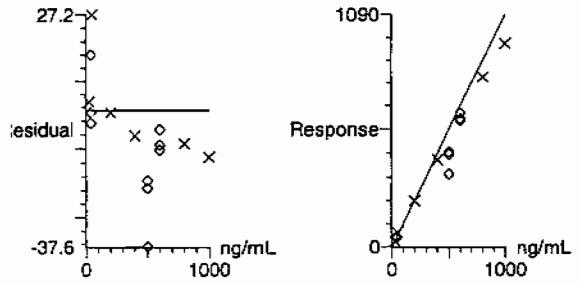

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: Nitrobenzene
esponse Factor: 0.858509
RF SD: 0.0580797, % Relative SD: 6.76517
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

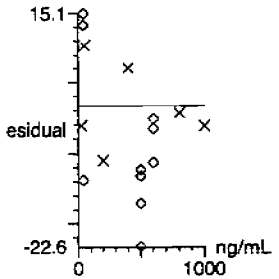

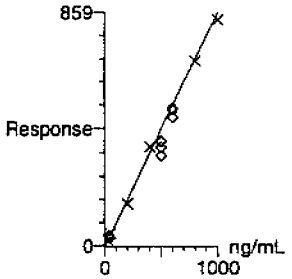

ompound name: 4-Amino-26-dinitrotoluene
esponse Factor: 0.320217
RF SD: 0.0271885, % Relative SD: 8.49063
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

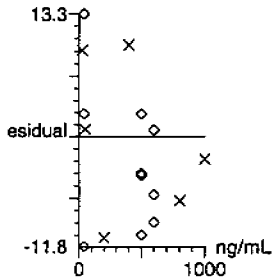

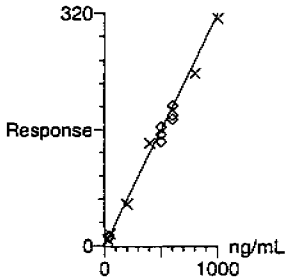

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Page 281 of 1553

ompound name: 2-Amino-46-dinitrotoluene
esponse Factor: 0.432055
RF SD: 0.0212718, % Relative SD: 4.9234
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

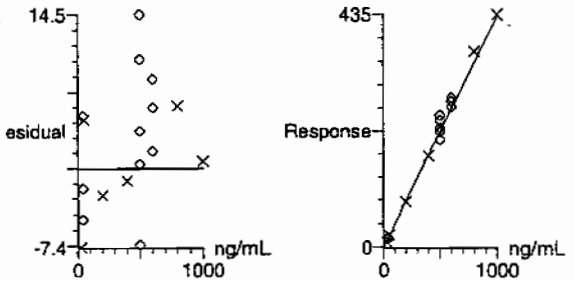

ompound name: 246-Trinitrotoluene
esponse Factor: 0.335255
RF SD: 0.0234791, % Relative SD: 7.00337
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

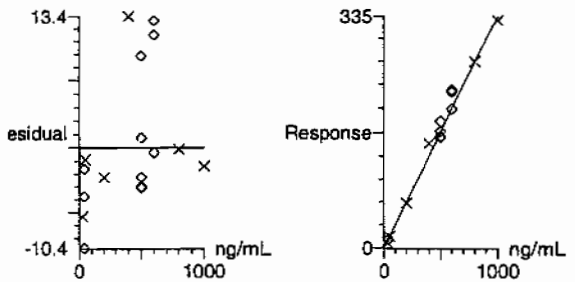

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 34-dinitrotoluene
esponse Factor: 0.906001
RF SD: 0.0659248, % Relative SD: 7.27646
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

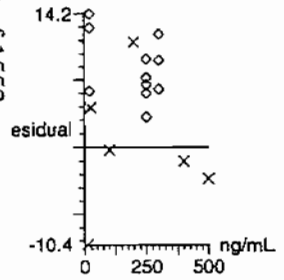

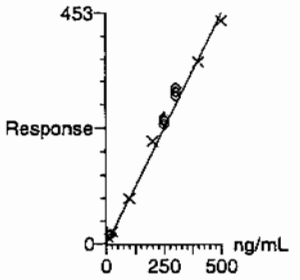

ompound name: 26-dinitrotoluene
esponse Factor: 1.05944
RF SD: 0.0727574, % Relative SD: 6.86754
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

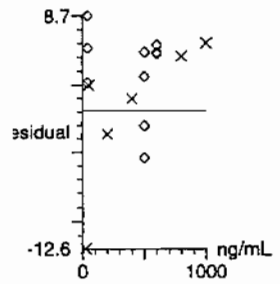

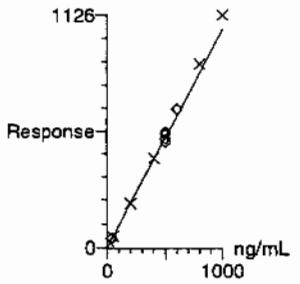

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 24-dinitrotoluene
esponse Factor: 0.24651
RF SD: 0.0167341, % Relative SD: 6.78841
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

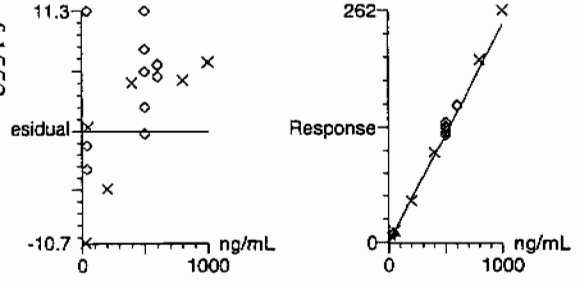

ompound name: 26-dinitrotoluene-d3
esponse Factor: 34.8171
RF SD: 3.02888, % Relative SD: 8.6994
esponse type: External Std, Area
urve type: RF

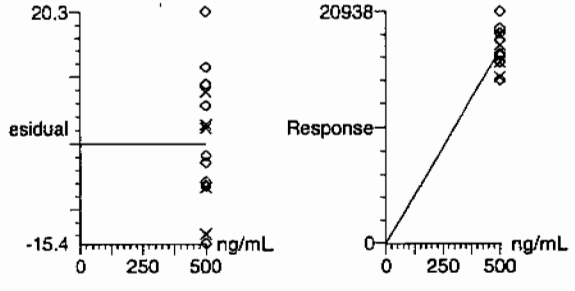

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 2-Nitrotoluene
esponse Factor: 0.152194
RF SD: 0.0077939, % Relative SD: 5.12103
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

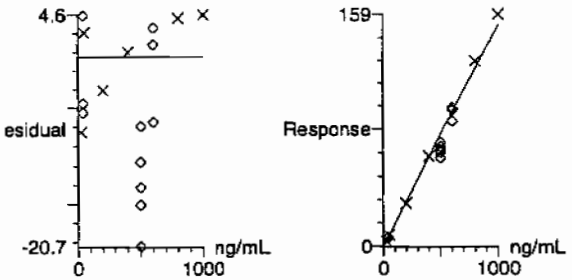

ompound name: 4-Nitrotoluene
esponse Factor: 0.0766512
RF SD: 0.00482394, % Relative SD: 6.29336
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

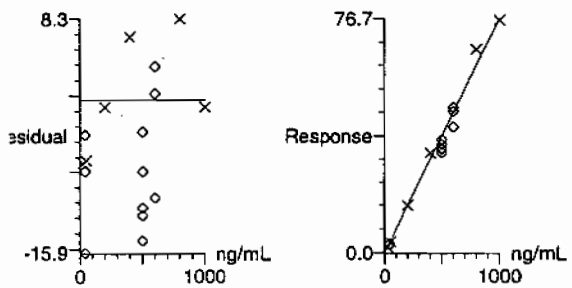

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ompound name: 3-Nitrotoluene
esponse Factor: 0.0894891
RF SD: 0.0080453, % Relative SD: 8.99027
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

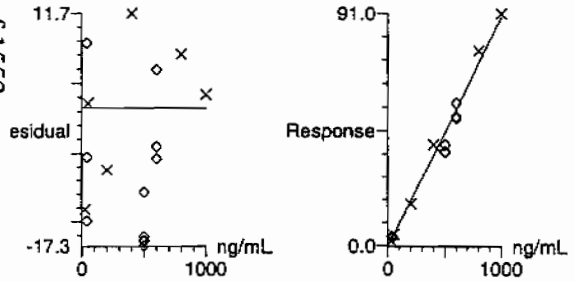

ompound name: PETN
oefficient of Determination: 0.999195
alibration curve: -0.000444334 * x^2 + 1.84022 * x + 26.6447
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

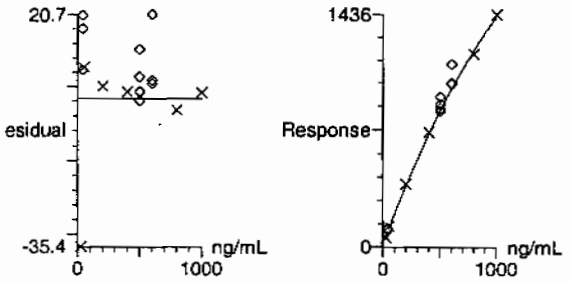

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEI

GEL Sample ID: WXXICV

GEL Data File EXP0216010a

Analysis Date: 16-FEB-10 21:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	600	619.132	103	
p-Nitrotoluene	600	620.215	103	
1,3,5-Trinitrobenzene	600	544.138	91	
1,3-Dinitrobenzene-d4	500	505.15	101	
2,4,6-Trinitrotoluene	600	596.996	99	
2,4-Dinitrotoluene	600	637.037	106	
2,6-Dinitrotoluene	600	631.497	105	
2,6-Dinitrotoluene-d3	500	470.813	94	
2-Amino-4,6-dinitrotoluene	600	609.733	102	
3,4-Dinitrotoluene	300	318.405	106	
4-Amino-2,6-dinitrotoluene	600	544.592	91	
HMX	600	667.211	111	
Nitrobenzene	600	546.753	91	
PETN	600	622.003	104	
RDX	600	517.279	86	
Tetryl	600	535.085	89	
m-Dinitrobenzene	600	615.667	103	
m-Nitrotoluene	600	571.306	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216010a
ate: 16-Feb-2010
ime: 21:34:44
): WXX100216-07ICV
ial: 1:1,B

MATT 2/17/10

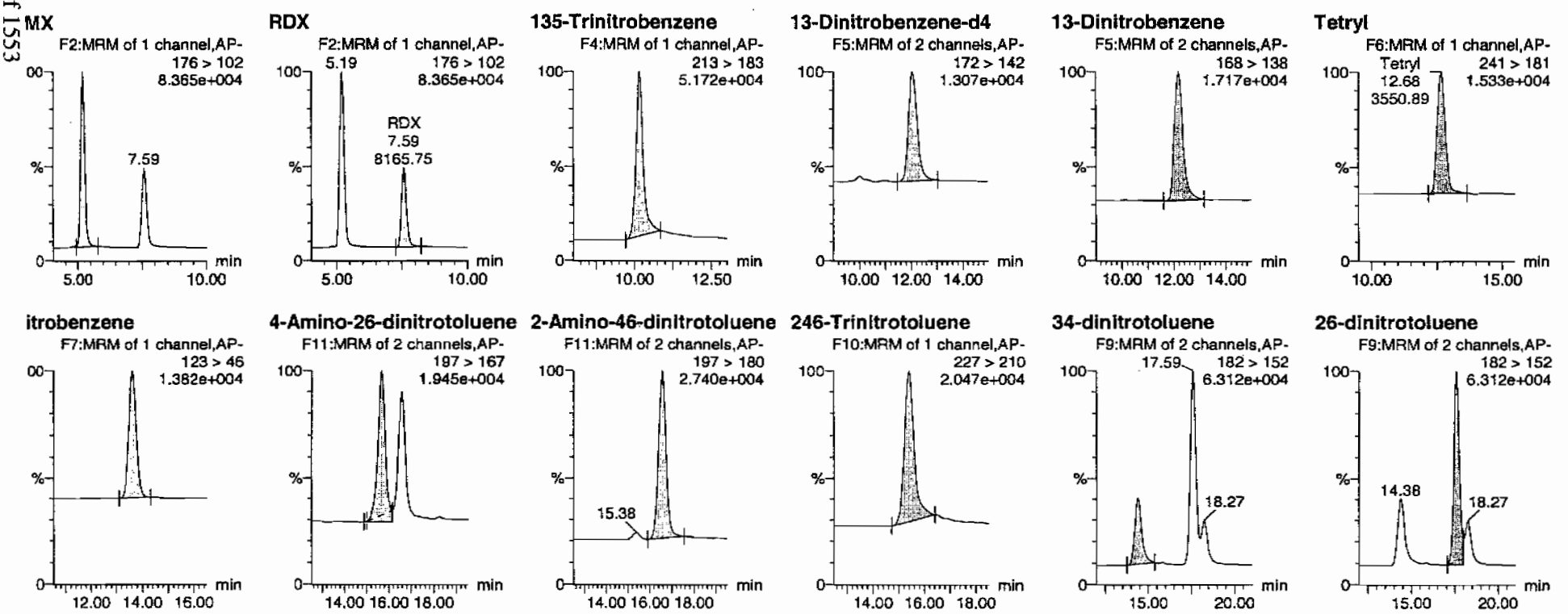

HMW 02/17/10

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Iuantify Sample Report
;EL Laboratories, LLC / Analyst : Michael A. Penny

ıataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

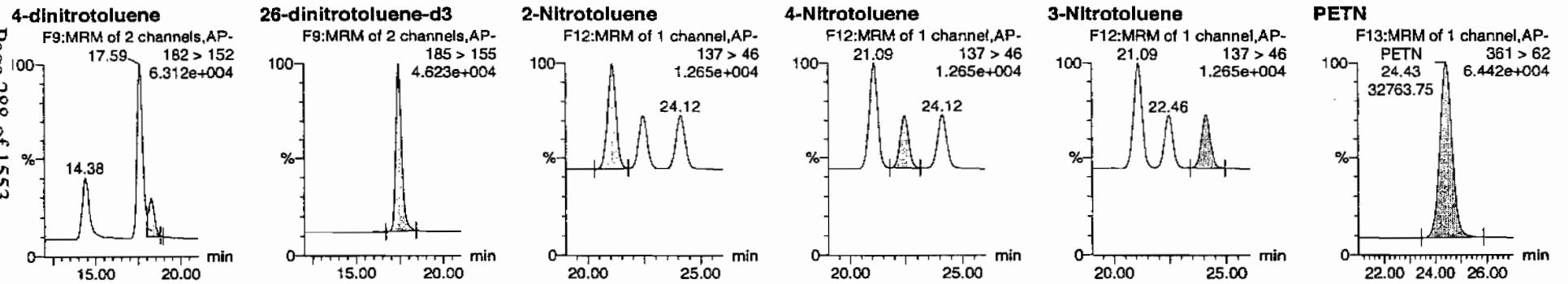

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100216-07ICV	HMX	176 > 102	5.19	15669.772	3043.441	15669.772	2574.351	db			667.2113	111.2	11.2	1616.5
/XX100216-07ICV	RDX	176 > 102	7.59	8165.754	3043.441	8165.754	1341.533	bb			517.2788	86.2	-13.8	736.8
/XX100216-07ICV	135-Trinitrobenzene	213 > 183	10.16	12826.263	3043.441	12826.263	2107.198	bb			544.1376	90.7	-9.3	1038.4
/XX100216-07ICV	13-Dinitrobenzene-d4	172 > 142	12.07	3043.441		3043.441	3043.441	bb			505.1495	101.0	1.0	83.9
/XX100216-07ICV	13-Dinitrobenzene	168 > 138	12.17	4453.971	3043.441	4453.971	731.733	bb			615.6672	102.6	2.6	397.6
/XX100216-07ICV	Tetryl	241 > 181	12.68	3550.885	3043.441	3550.885	583.367	bb			535.0850	89.2	-10.8	465.9
/XX100216-07ICV	Nitrobenzene	123 > 46	13.62	2857.135	3043.441	2857.135	469.392	bb			546.7525	91.1	-8.9	251.4
/XX100216-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.67	5717.246	16392.348	5717.246	174.388	MM	17-Feb-10	09:22:45	544.5918	90.8	-9.2	292.7
/XX100216-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.57	8636.743	16392.348	8636.743	263.438	bb			609.7334	101.6	1.6	597.0
/XX100216-07ICV	246-Trinitrotoluene	227 > 210	15.41	6561.721	16392.348	6561.721	200.146	bb			596.9963	99.5	-0.5	153.4
/XX100216-07ICV	34-dinitrotoluene	182 > 152	14.38	9457.581	16392.348	9457.581	288.475	bb			318.4052	106.1	6.1	368.9
/XX100216-07ICV	26-dinitrotoluene	182 > 152	17.59	21934.039	16392.348	21934.039	669.033	MM	17-Feb-10	09:25:41	631.4965	105.2	5.2	1072.7
/XX100216-07ICV	24-dinitrotoluene	182 > 152	18.27	5148.389	16392.348	5148.389	157.036	MM	17-Feb-10	09:54:19	637.0375	106.2	6.2	230.6
/XX100216-07ICV	26-dinitrotoluene-d3	185 > 155	17.42	16392.348		16392.348	16392.348	bb			470.8130	94.2	-5.8	1428.4
/XX100216-07ICV	2-Nitrotoluene	137 > 46	21.09	3089.247	16392.348	3089.247	94.228	bb			619.1324	103.2	3.2	357.3
/XX100216-07ICV	4-Nitrotoluene	137 > 46	22.46	1558.593	16392.348	1558.593	47.540	bb			620.2153	103.4	3.4	179.8
/XX100216-07ICV	3-Nitrotoluene	137 > 46	24.12	1676.139	16392.348	1676.139	51.126	bb			571.3062	95.2	-4.8	182.7
/XX100216-07ICV	PETN	361 > 62	24.43	32763.752	16392.348	32763.752	999.361	bb			622.0025	103.7	3.7	5170.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/16/10
Time of Injection: 2134
Standard Number: WXX100216-07ICV
Data File: EXP0216010a

HMX	111.2
RDX	86.2
135-TNB	90.7
13-DNB	102.6
Tetryl	89.2
Nitrobenzene	91.1
4A-26-DNT	90.8
2A-46-DNT	101.6
246-TNT	99.5
34-DNT(surr)	106.1
26-DNT	105.2
24-DNT	106.2
2-NT	103.2
4-NT	103.4
3-NT	95.2
PETN	103.7
Total	1585.9
Average	99.1

MMT 2/17/10

HMM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1516

Lab Code: GEL

Run Date: 14-FEB-10,16-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02140003.wifl	EXS02140004.wifl	EXS02140005.wifl	EXS02140006.wifl	EXS02140007.wifl	EXS02140008.wifl	EXS02140009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	96700	195000	467000	994000	1380000	1900000	3740000	4600	1900	-.018	.9998	
2,6-Diamino-4-nitrotoluene	158000	309000	718000	1470000	2150000	2900000	6070000	29800	2750	.136	1	
3,4-Dinitrotoluene	338000	640000	1510000	3190000	4510000	6140000	11400000	-53500	13900	-2.42	.9993	
3,5-Dinitroaniline	340000	650000	1620000	3310000	4740000	6350000	11500000	-28100	6880	-.557	.9999	
TATB	71000	140000	338000	700000	1050000	1390000	2740000	-3590	1410	-.022	1	
tris(o-cresyl) phosphate	1250000	2440000	5720000	10800000	15500000	19900000	31700000	61600	23700	-3.92	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-3.59e+003			
a1	1.41e+003			
a2	-0.022			

Correlation coefficient 1.0000
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.81e+004			
a1	6.88e+003			
a2	-0.557			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.35e+004			
a1	1.39e+004			
a2	-2.42			

Correlation coefficient 0.9993
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.98e+004			
a1	2.75e+003			
a2	0.136			

Correlation coefficient 1.0000
Use Area

Lan 2/16/10

thmy 02/17/10

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Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	4.6e+003			
a1	1.9e+003			
a2	-0.0179			

Correlation coefficient 0.9998
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	6.16e+004			
a1	2.37e+004			
a2	-3.92			

Correlation coefficient 1.0000
Use Area

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021410.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): y = -0.557 x^2 + 6.88e+003 x + -2.81e+004 (r = 0.9999)

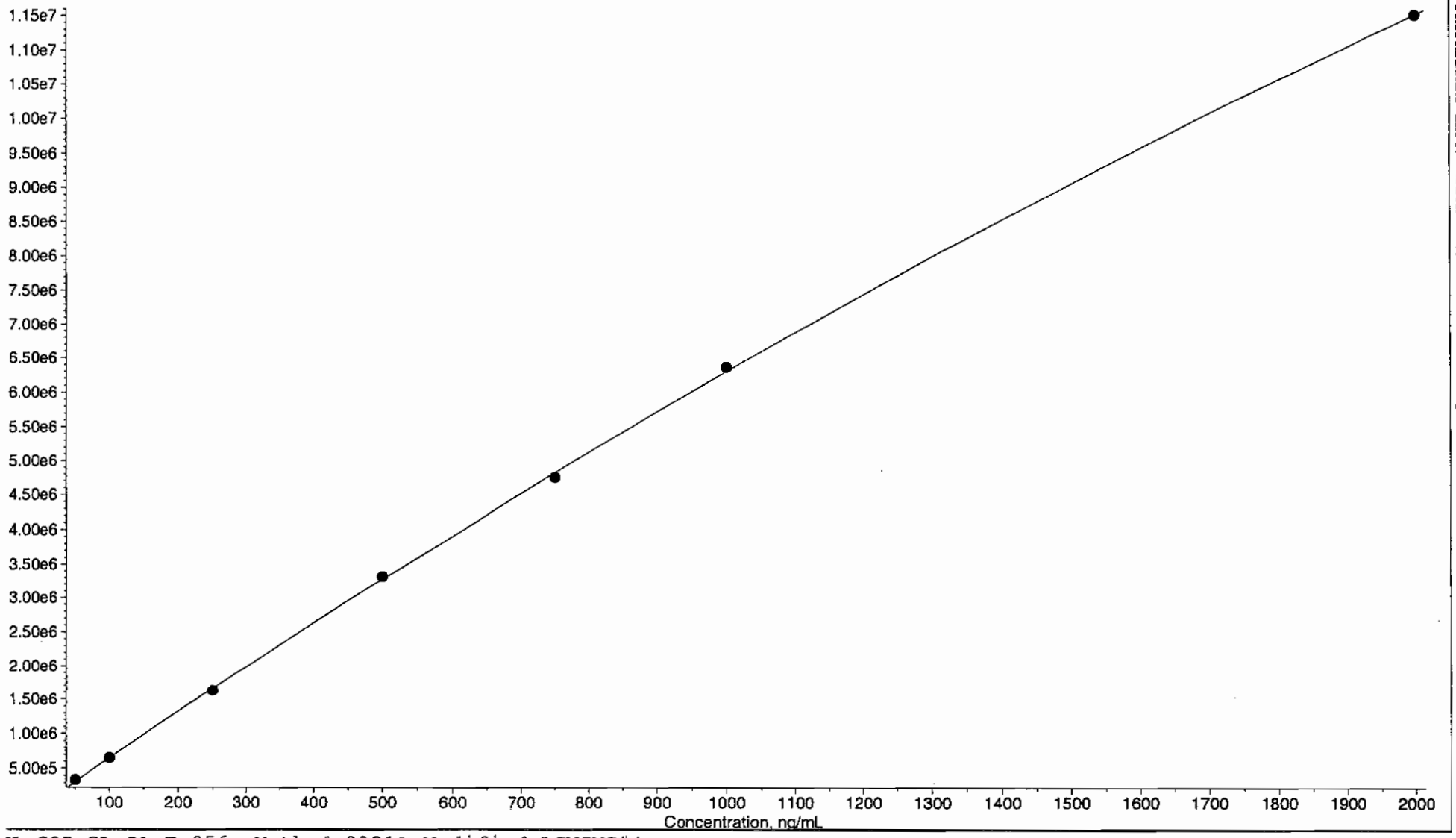

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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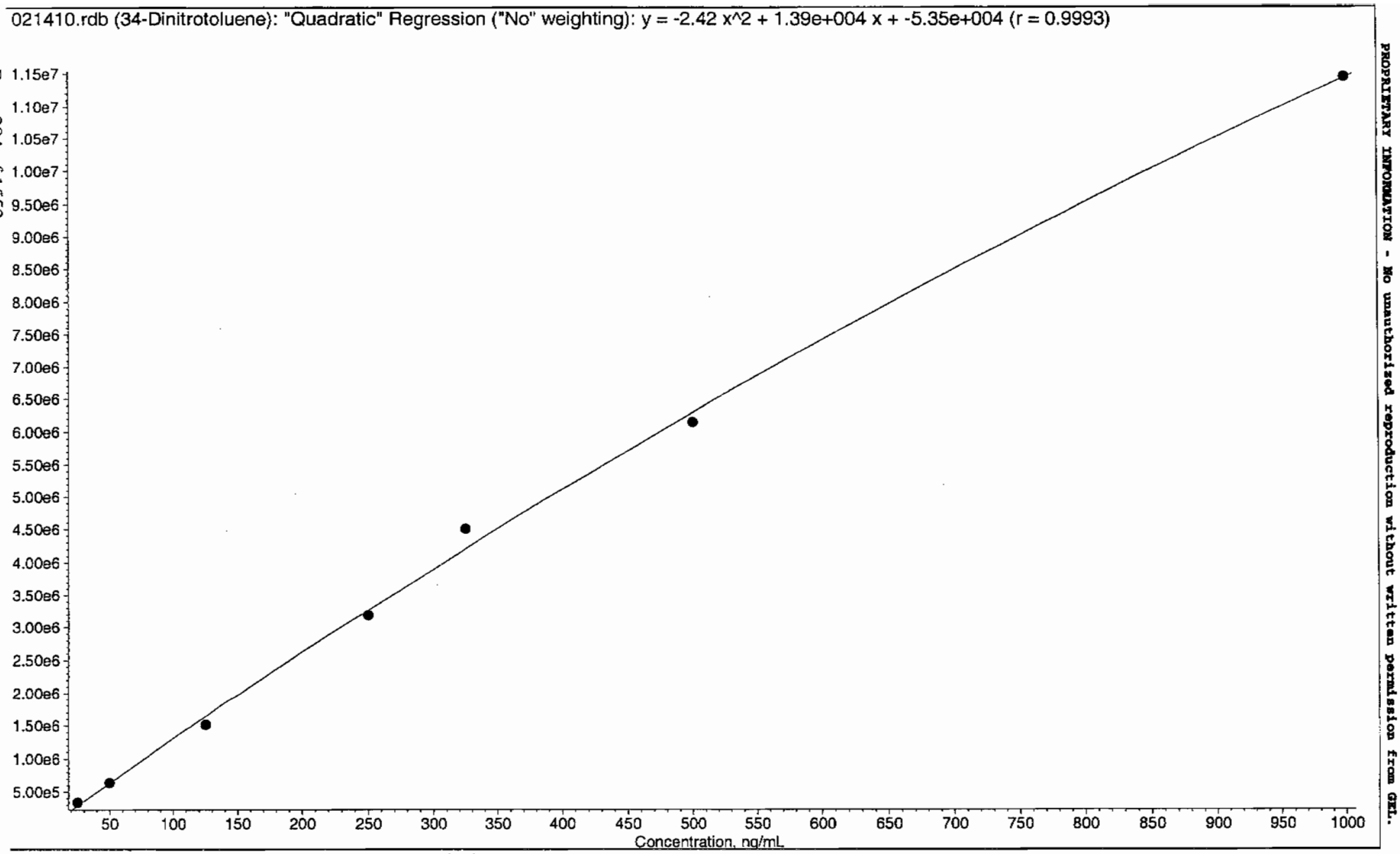

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021410.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting): y = 0.136 x^2 + 2.75e+003 x + 2.98e+004 (r = 1.0000)

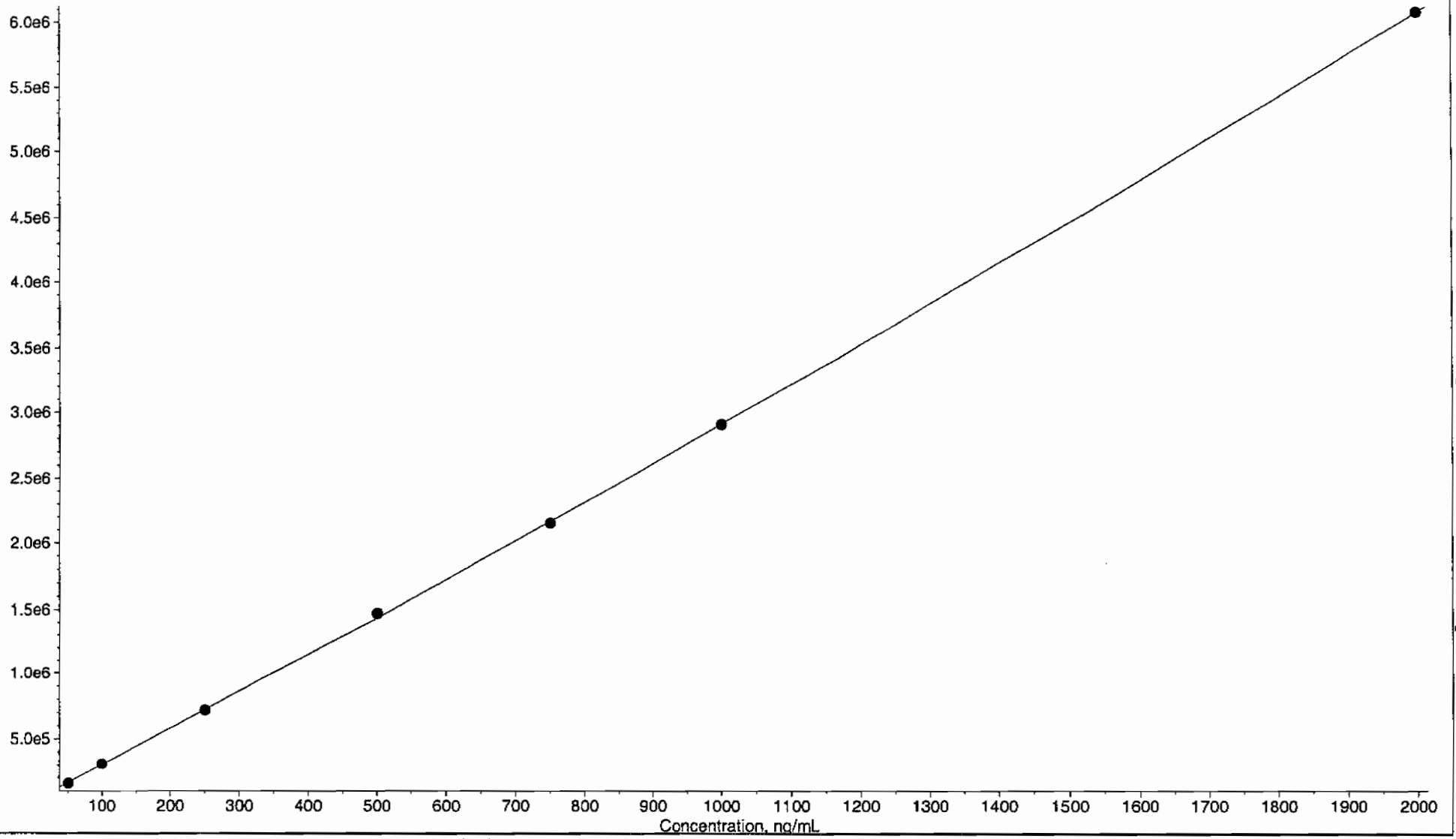

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

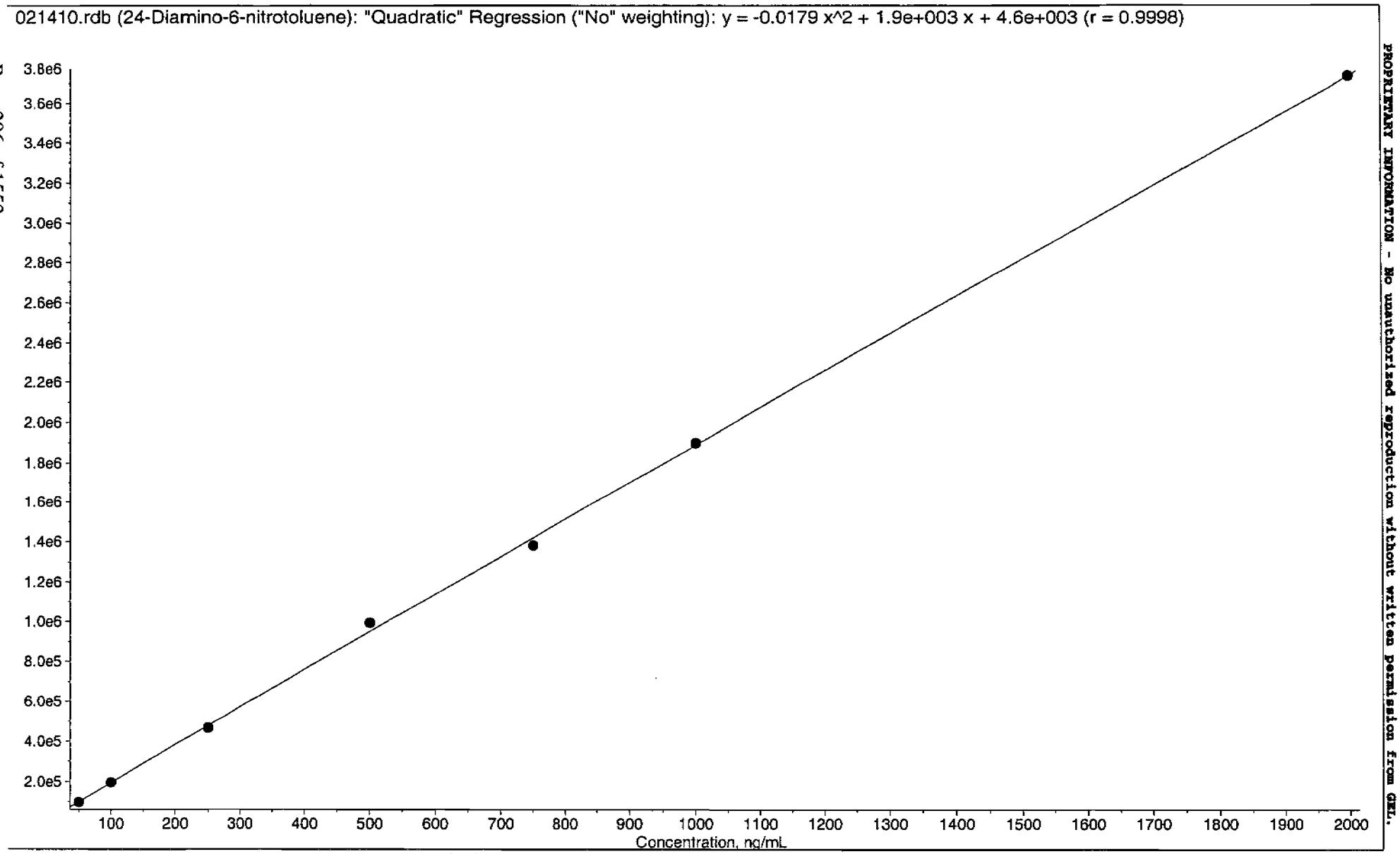

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021410.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): y = -3.92 x^2 + 2.37e+004 x + 6.16e+004 (r = 1.0000)

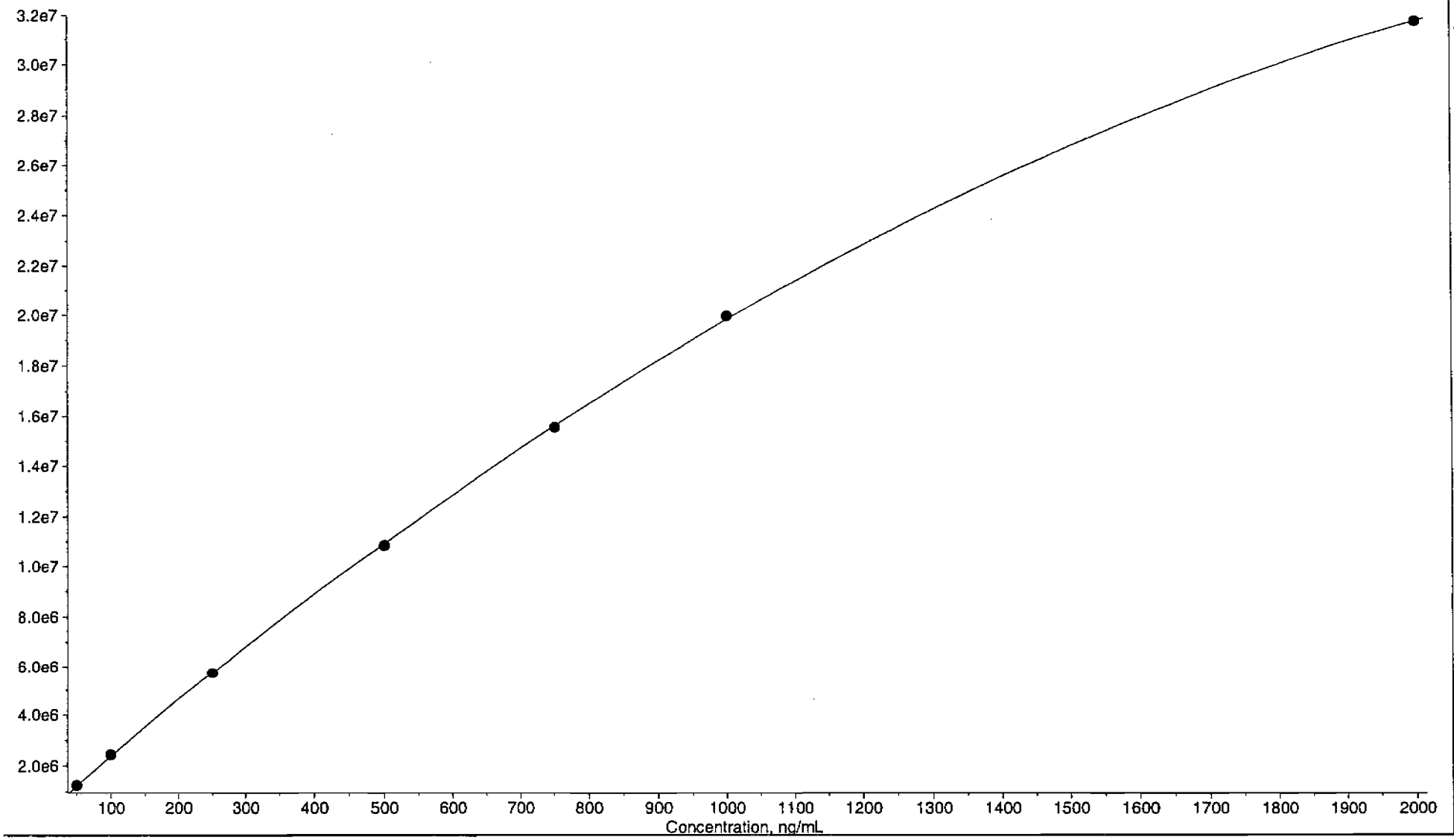

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

021410.rdb (TATB): "Quadratic" Regression ("No" weighting): y = -0.022 x^2 + 1.41e+003 x + -3.59e+003 (r = 1.0000)

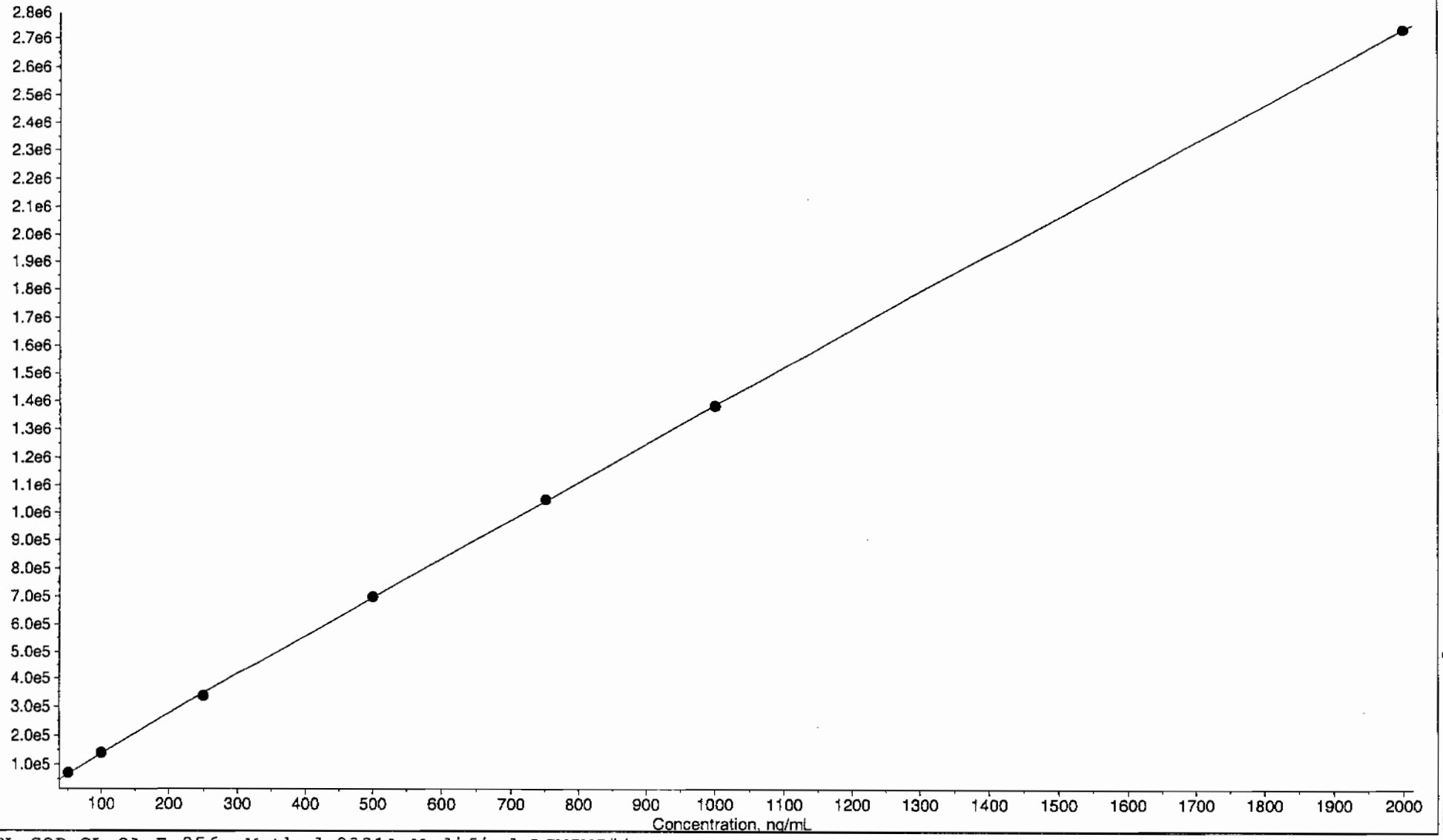

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02140011.wiff

Analysis Date: 14-FEB-10 16:54

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	528	106	
2,6-Diamino-4-nitrotoluene	500	535	107	
3,4-Dinitrotoluene	250	215	86	
3,5-Dinitroaniline	500	495	99	
TATB	500	501	100	
tris(o-cresyl) phosphate	500	493	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

DCW 2/16/10

ple Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
k Name: "TATB" Mass(as): "257.2/204.9 amu"
vment: "LCMSEXP_C" Annotation: ""

le Index:	1	
le Type:	QC	
ntration:	500.	ng/mL
lated Conc:	501.	ng/mL
Date:	2/14/2010	
Time:	4:54:20 PM	
fied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
indow:	30.0	sec
ted RT:	7.15	min
Relative RT:	No	
Type:	Valley	
ntion Time:	7.15	min
:	7.00e+005	counts
at:	157149.979	cps
t Time:	7.02	min
Time:	7.97	min

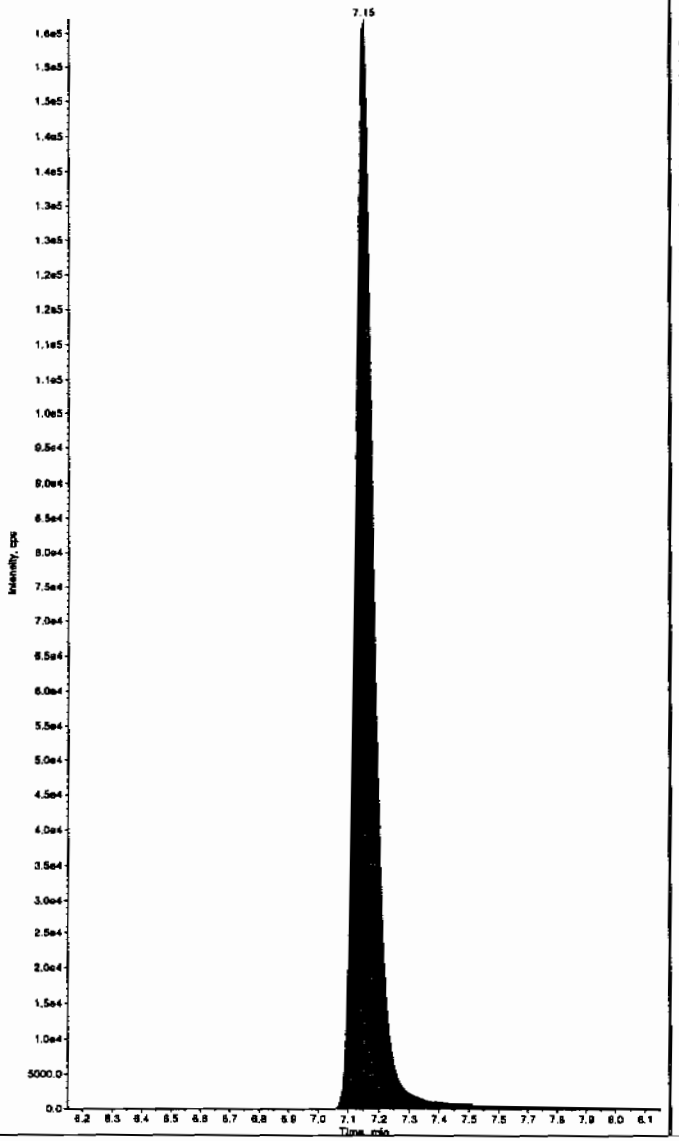

Sample Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	495.	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	4:54:20 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.33	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.38	min
Area:	3.24e+006	counts
Height:	801950.012	cps
Start Time:	8.27	min
End Time:	8.47	min

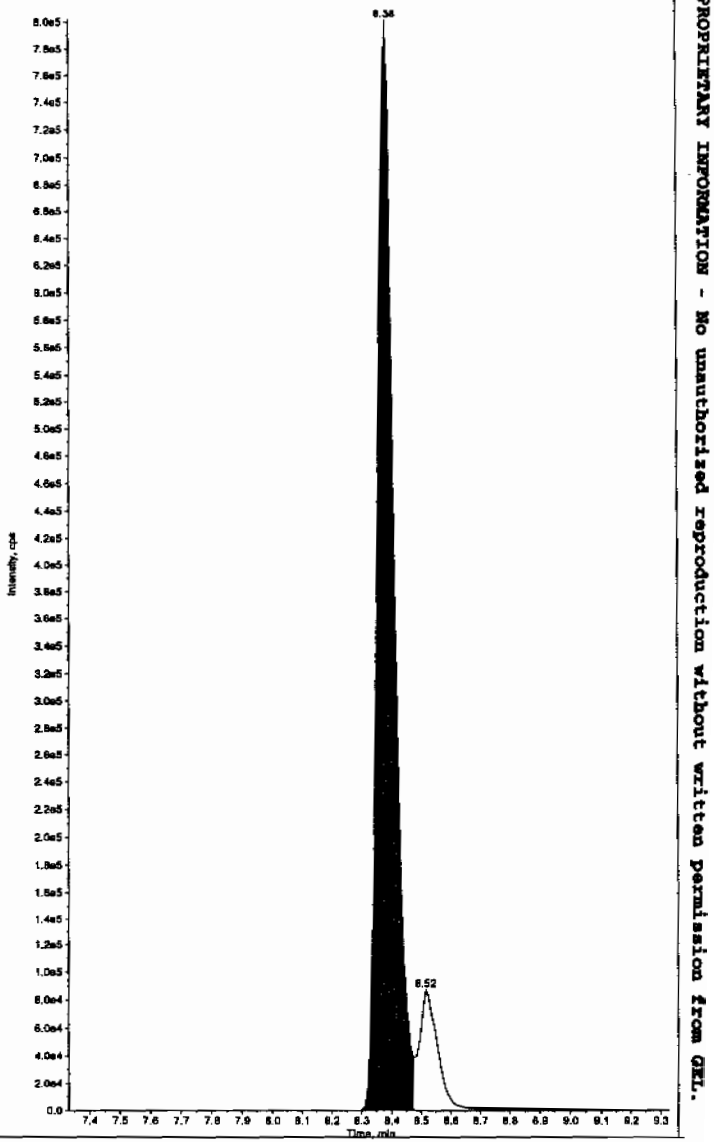

Hmm 02/17/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: "

ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 215. ng/mL
. Date: 2/14/2010
. Time: 4:54:20 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.52 min
a: 2.82e+006 counts
ght: 710131.226 cps
rt Time: 8.44 min
Time: 8.69 min

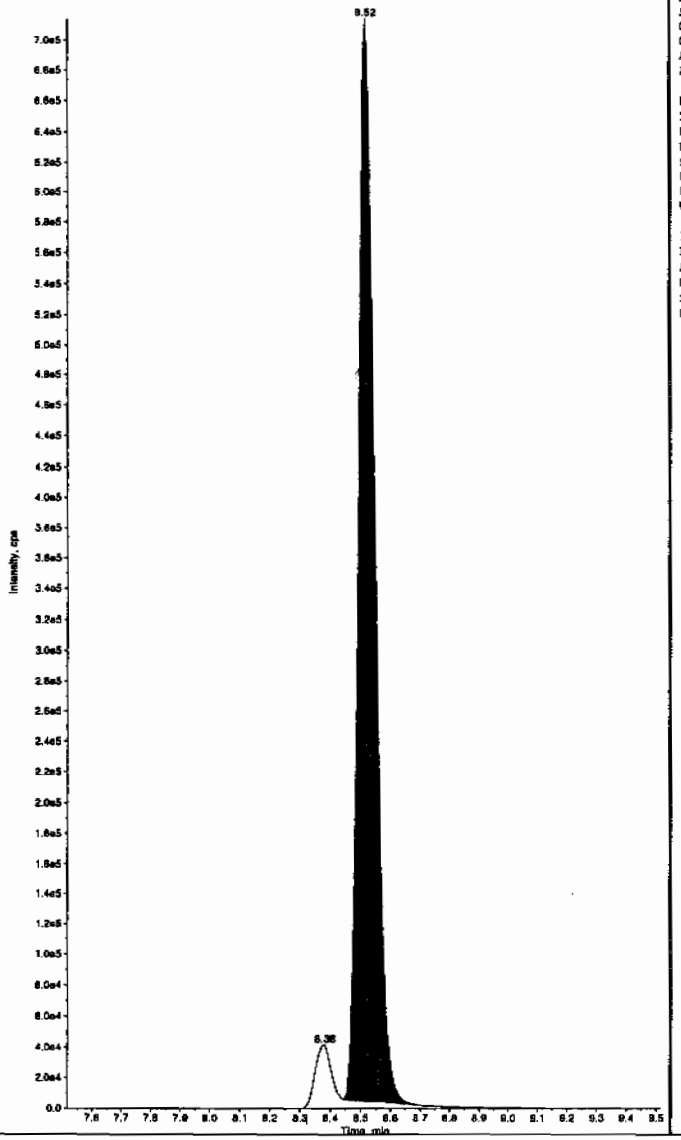

Sample Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 535. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:54:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 1.54e+006 counts
Height: 349934.875 cps
Start Time: 5.05 min
End Time: 5.47 min

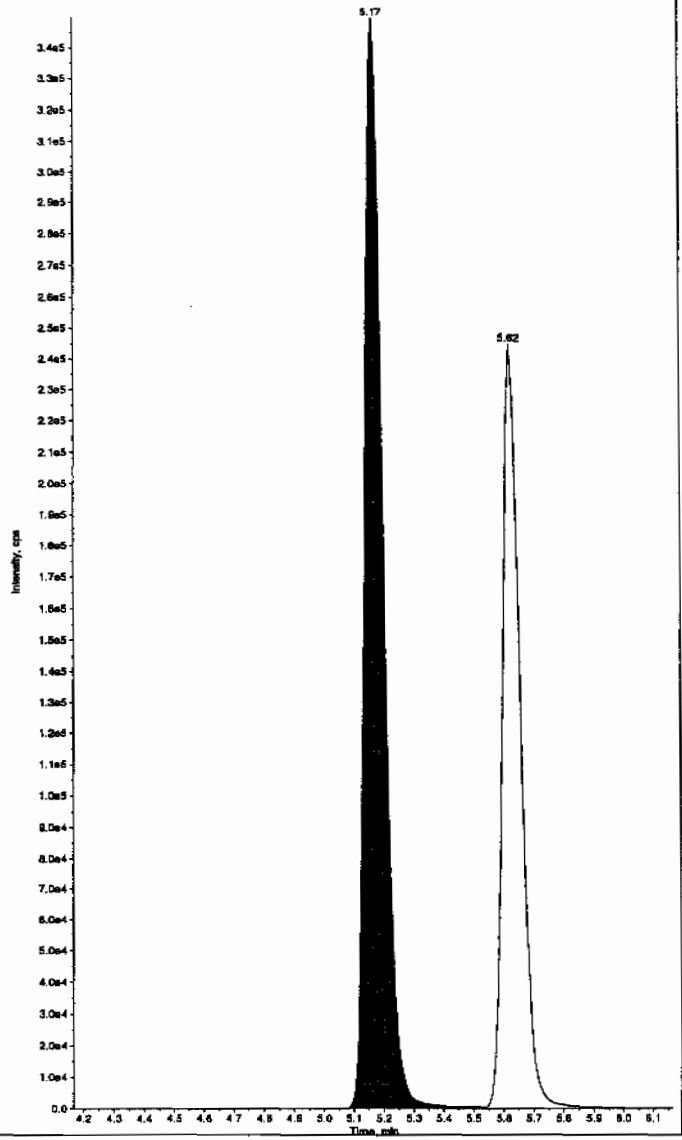

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mple Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
ask Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 528. ng/mL
. Date: 2/14/2010
. Time: 4:54:20 PM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
cted RT: 5.62 min
Relative RT: No

. Type: Valley
ention Time: 5.62 min
: 1.00e+006 counts
ght: 244639.862 cps
t Time: 5.53 min
Time: 6.00 min

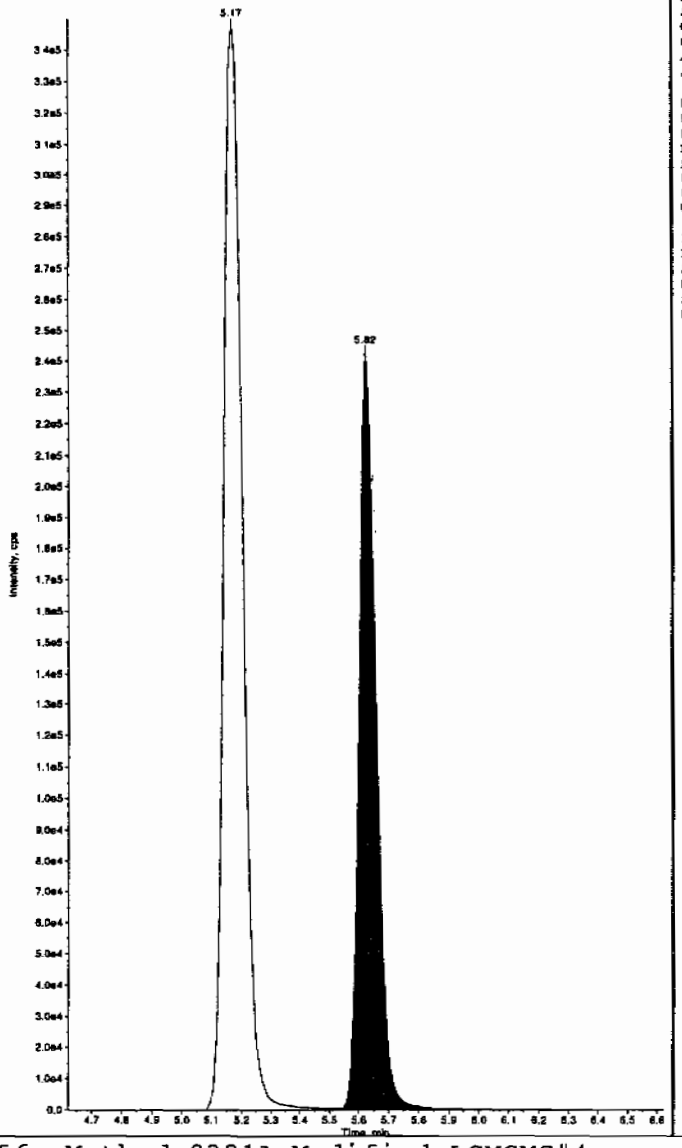

Sample Name: "WXX100214-26ICV" Sample ID: "[1]LER" File: "EXS02140011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 4:54:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.08e+007 counts
Height: 2432389.160 cps
Start Time: 10.9 min
End Time: 11.4 min

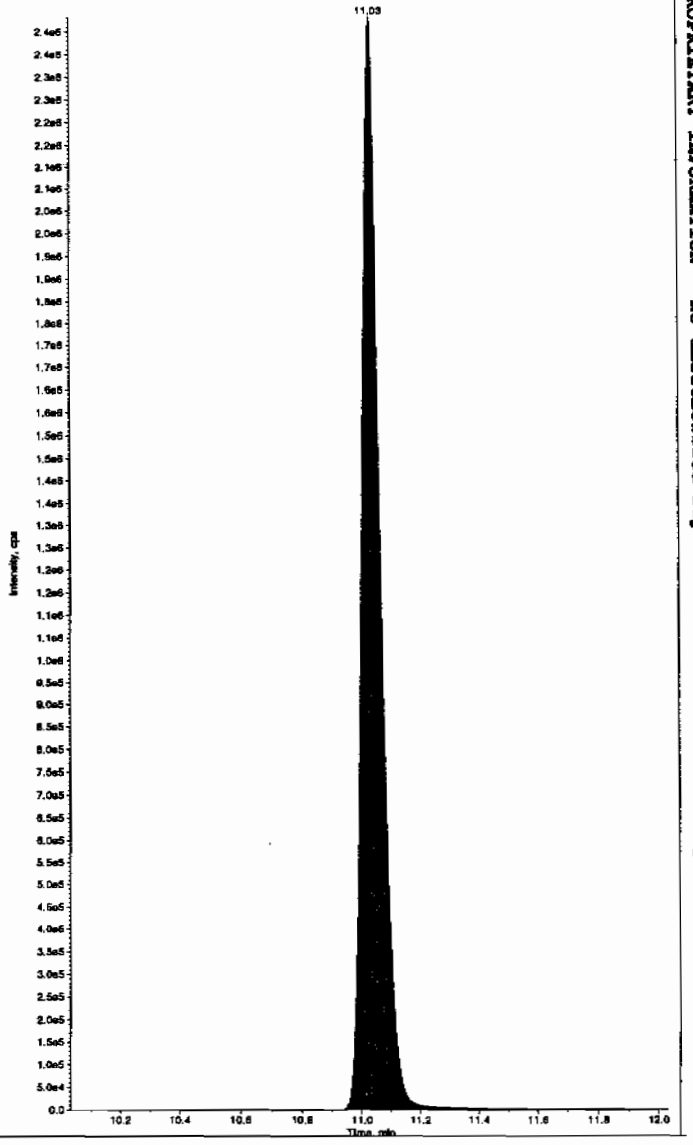

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1516

Lab Code: GEL

Run Date: 14-FEB-10,16-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02160003.wifl	EXS02160004.wifl	EXS02160005.wifl	EXS02160006.wifl	EXS02160007.wifl	EXS02160008.wifl	EXS02160009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	74100	160000	360000	688000	856000	1300000	2470000	34100	1220	-.001	.9984	
2,6-Diamino-4-nitrotoluene	91400	237000	581000	1070000	1520000	1900000	3610000	33500	2060	-.14	.9995	
3,4-Dinitrotoluene	301000	564000	1450000	2960000	4270000	5500000	9890000	-56500	13200	-3.28	.9984	
3,5-Dinitroaniline	358000	647000	1660000	2900000	5020000	5920000	10300000	-42300	6960	-.898	.9985	
TATB	66400	127000	332000	659000	1000000	1340000	2350000	-22600	1490	-.149	.9998	
tris(o-cresyl) phosphate	1150000	2250000	5360000	9900000	14100000	18200000	28900000	111000	21500	-3.56	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.26e+004			
a1	1.49e+003			
a2	-0.149			

Correlation coefficient 0.9998
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-4.23e+004			
a1	6.96e+003			
a2	-0.898			

Correlation coefficient 0.9985
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.65e+004			
a1	1.32e+004			
a2	-3.28			

Correlation coefficient 0.9984
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	3.35e+004			
a1	2.06e+003			
a2	-0.14			

Correlation coefficient 0.9995
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

2/17/10

HMM 02/17/10

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Fit	Quadratic	Weighting	None	Iterate No
a0	3.41e+004			
a1	1.22e+003			
a2	-0.000561			

Correlation coefficient 0.9984
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.11e+005			
a1	2.15e+004			
a2	-3.56			

Correlation coefficient 1.0000
Use Area

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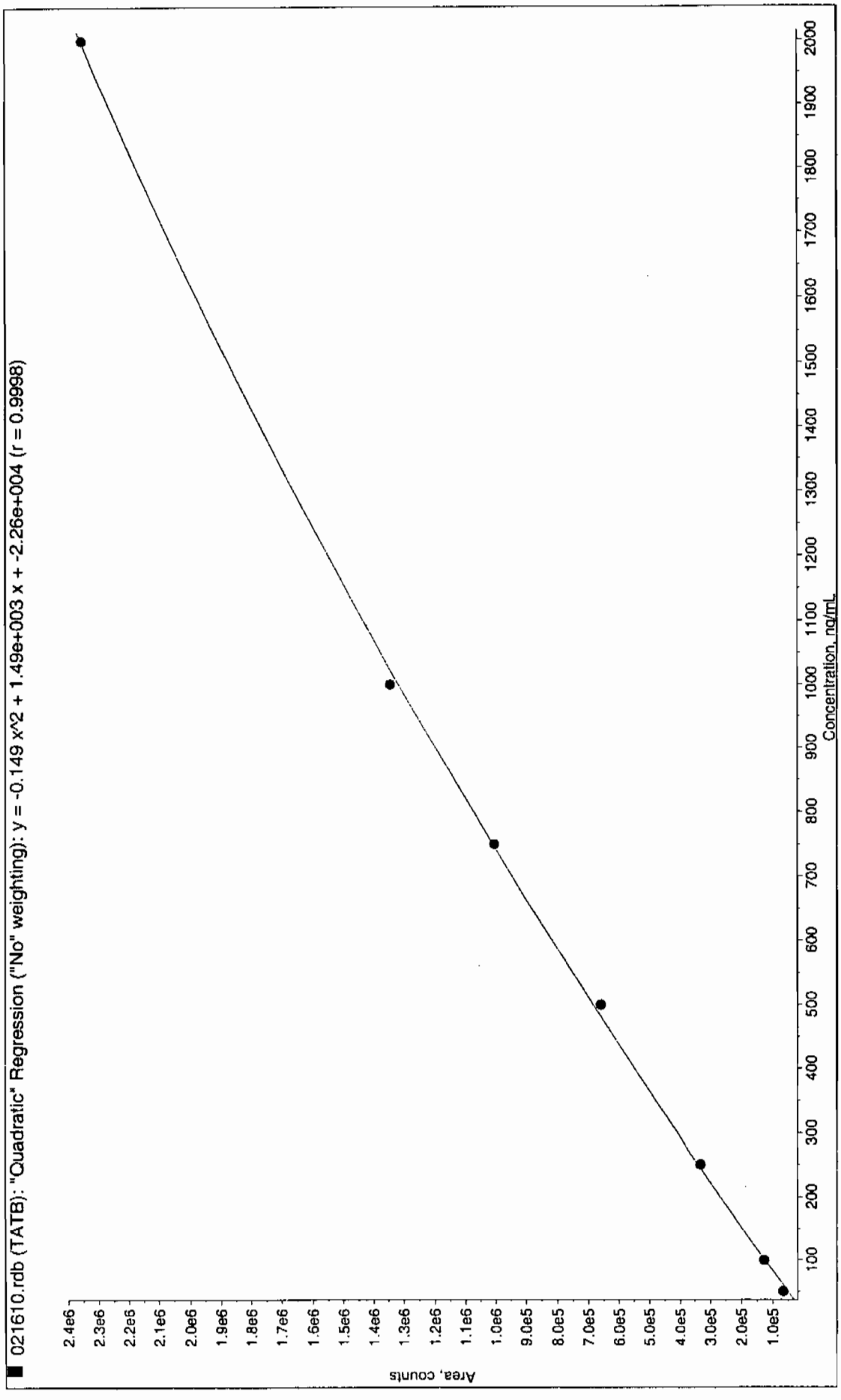

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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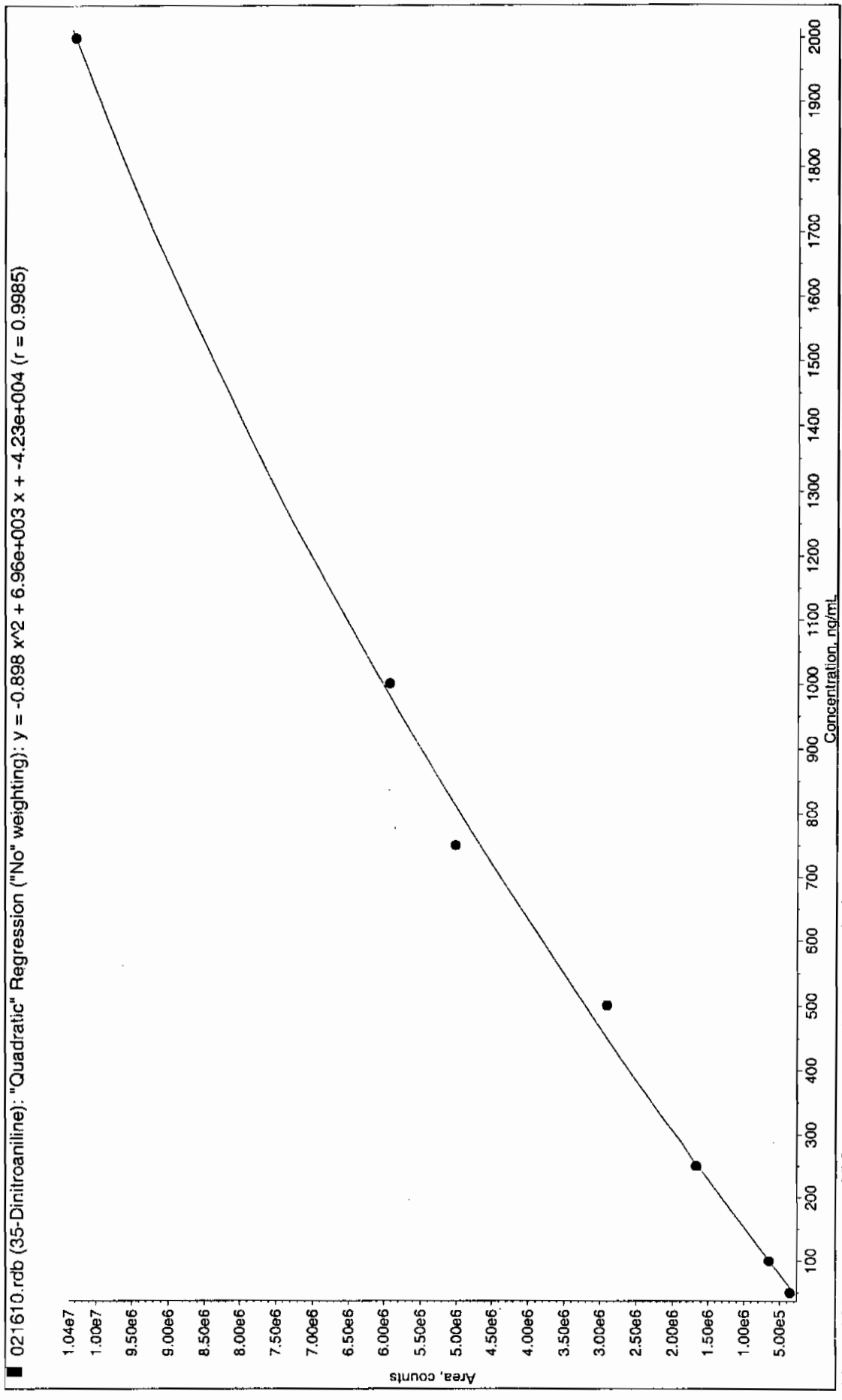

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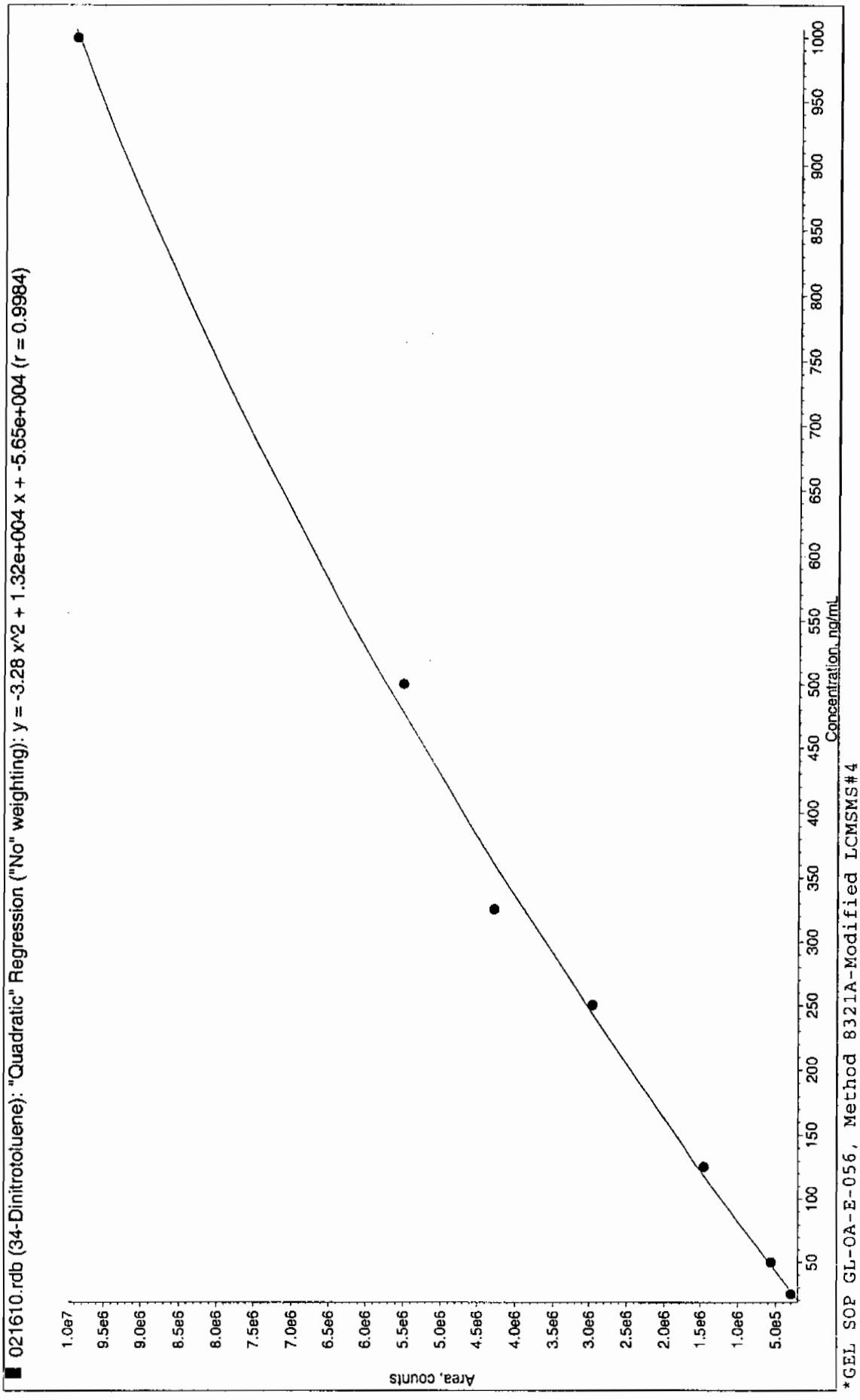

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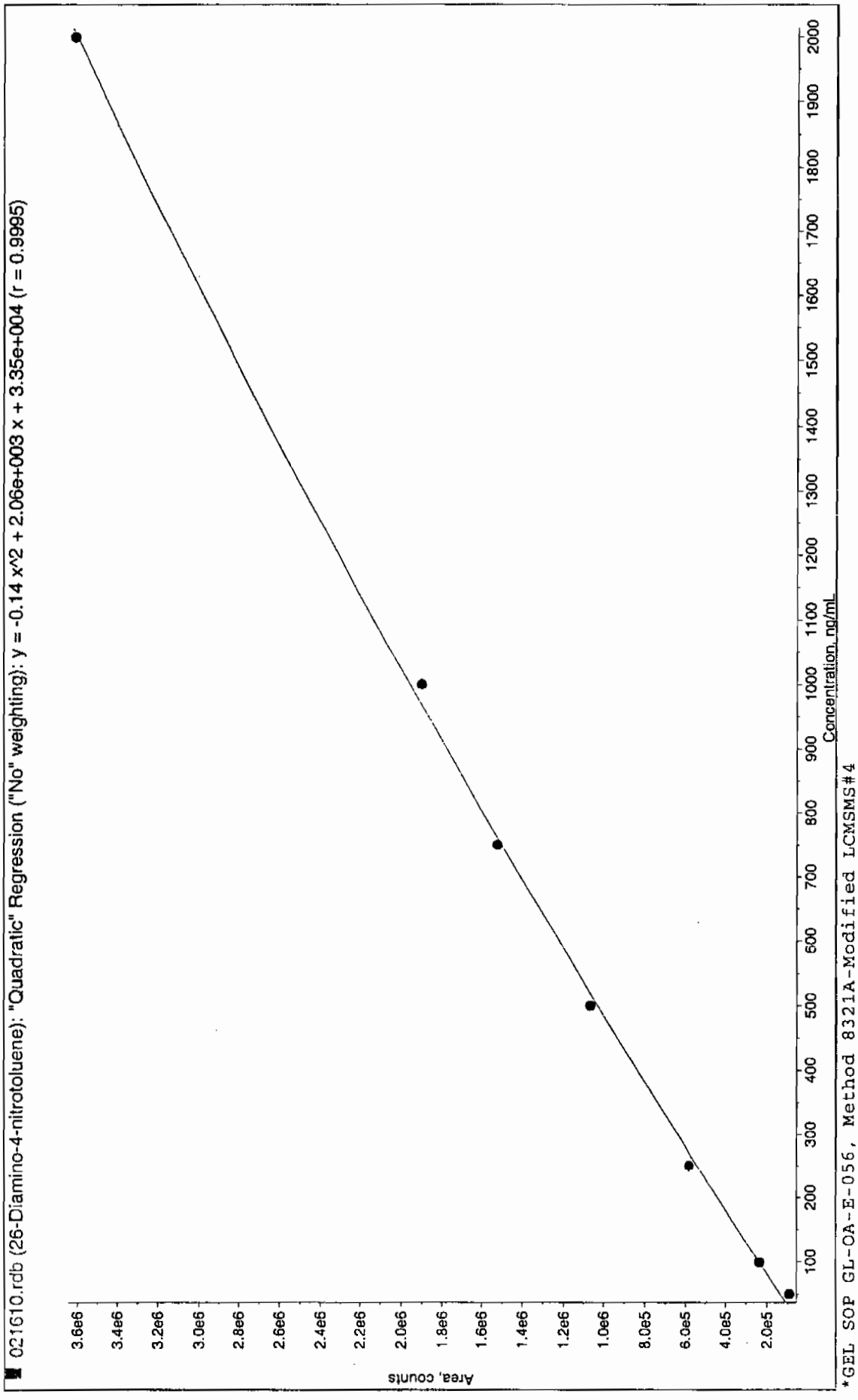

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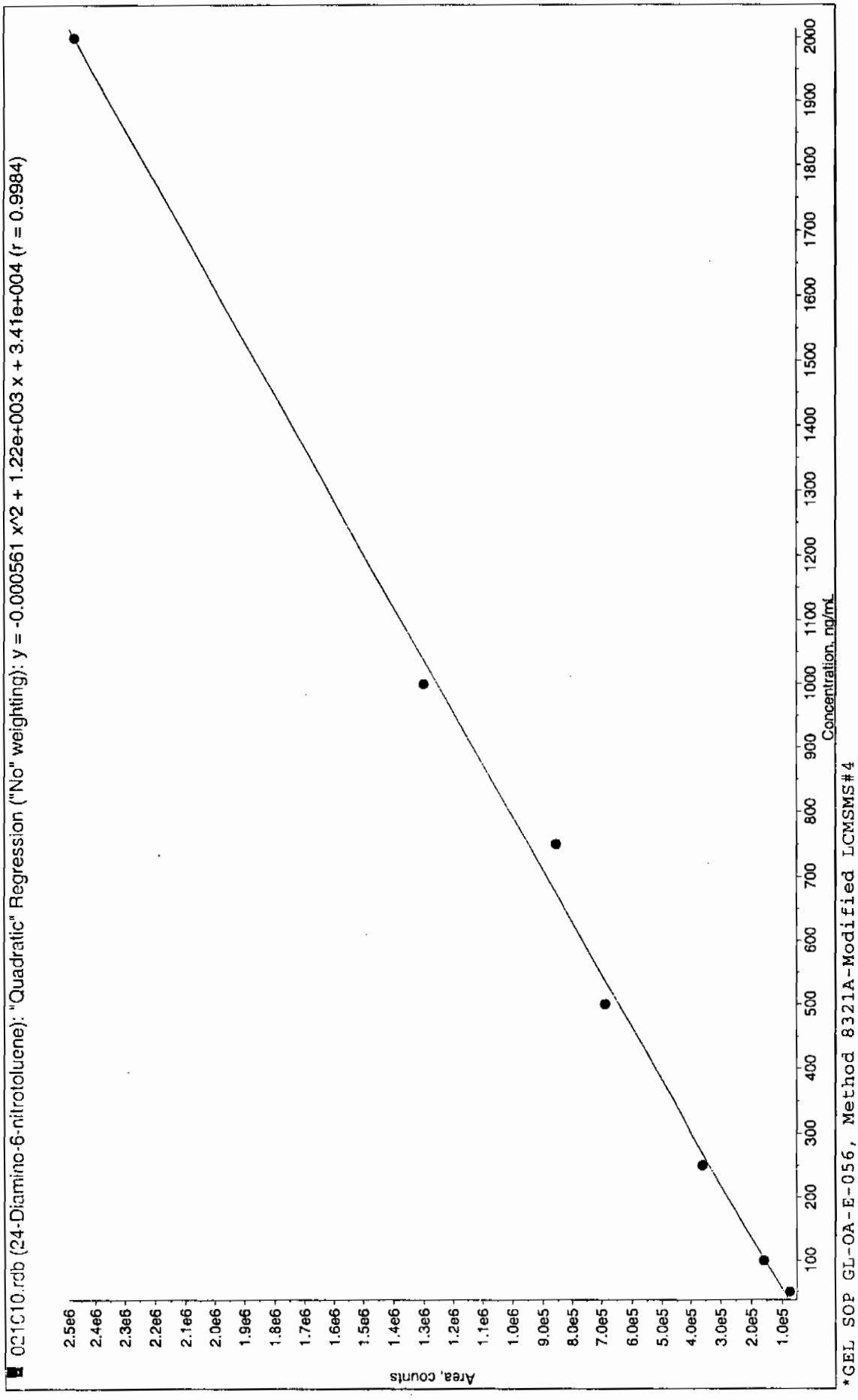

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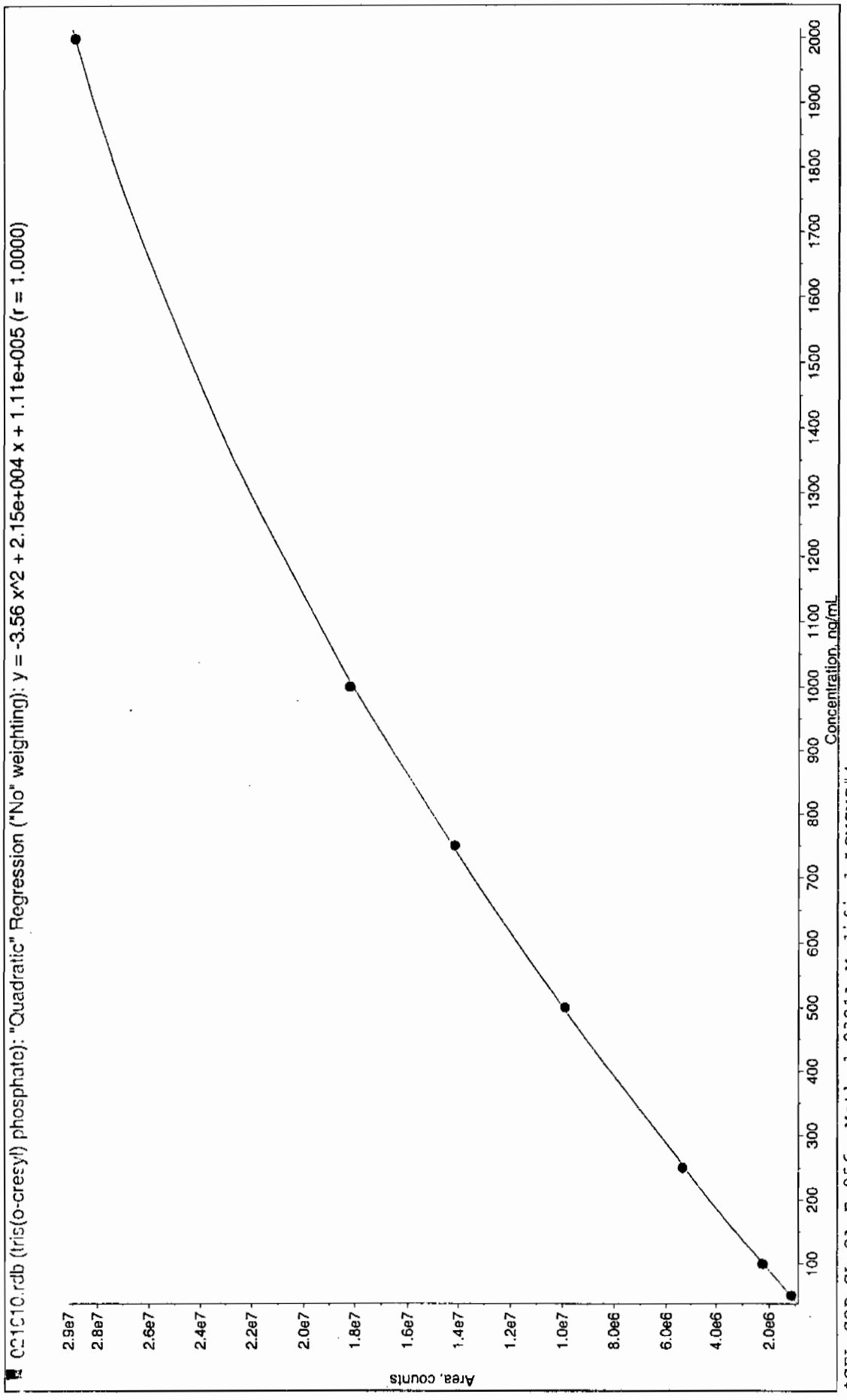

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEI

GEL Sample ID: WXXICV

GEL Data File EXS02160011.wiff

Analysis Date: 16–FEB–10 14:50

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	495	99	
2,6–Diamino–4–nitrotoluene	500	472	94	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	452	90	
TATB	500	448	90	
tris(o–cresyl) phosphate	500	494	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Kan 2/17/10

Sample Name: "WXX100216-26ICV" Sample ID: "[1]LER" File: "EXS02160011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:50:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.94 min
Area: 6.14e+005 counts
Height: 140290.192 cps
Start Time: 6.81 min
End Time: 7.59 min

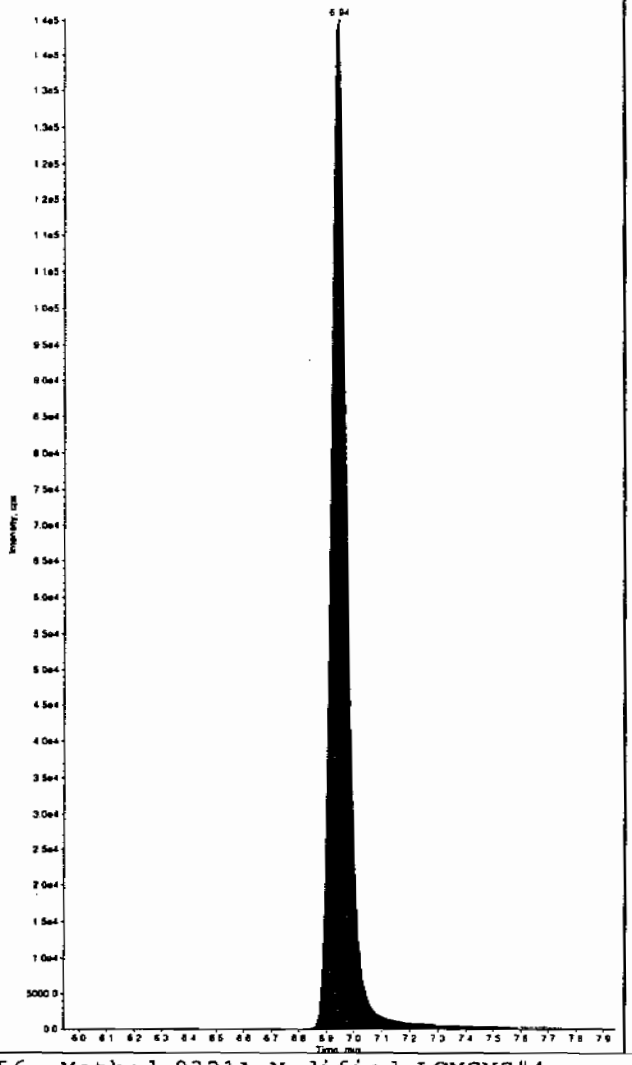

Sample Name: "WXX100216-26ICV" Sample ID: "[1]LER" File: "EXS02160011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 451. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:50:16 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.06 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 2.92e+006 counts
Height: 741000.000 cps
Start Time: 8.01 min
End Time: 8.20 min

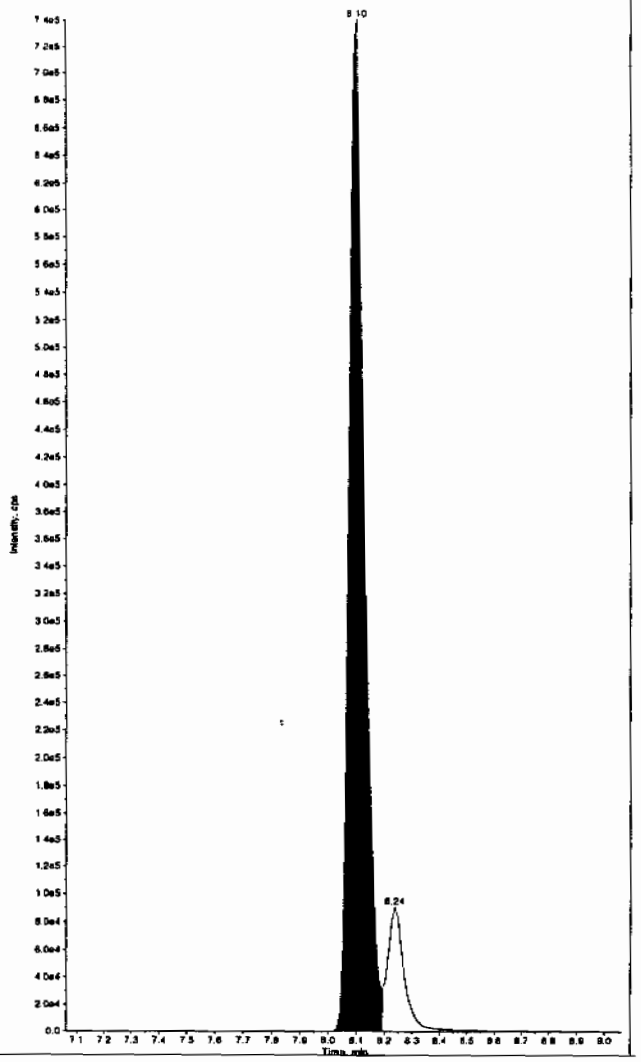

HJM 02/17/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100216-26ICV" Sample ID: "[1]LER" File: "EXS02160011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 232. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:50:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1463.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 2.83e+006 counts
Height: 753908.203 cps
Start Time: 8.16 min
End Time: 8.43 min

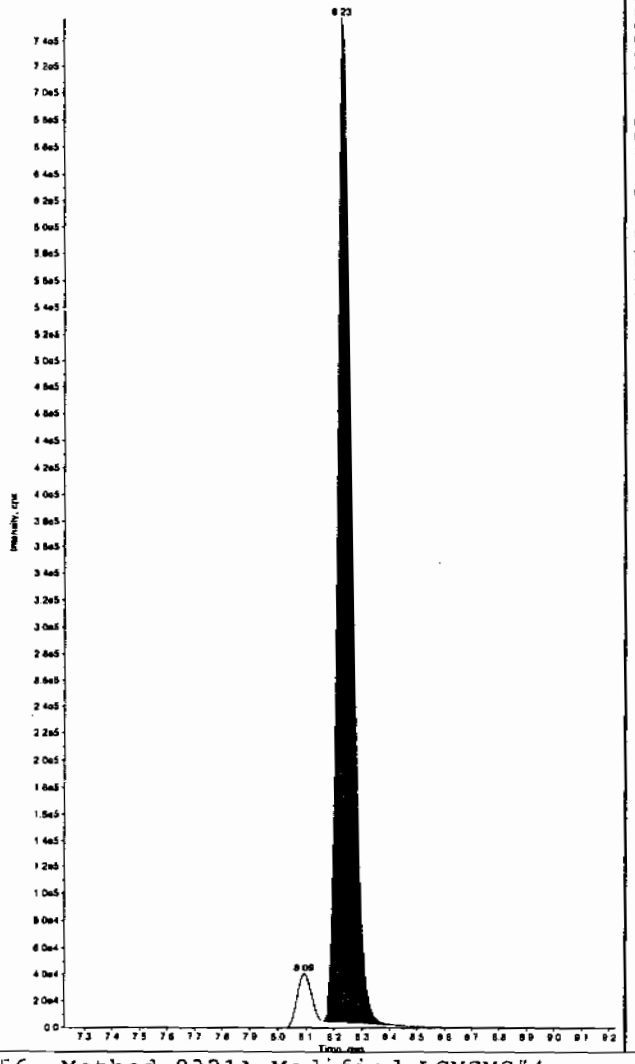

Sample Name: "WXX100216-26ICV" Sample ID: "[1]LER" File: "EXS02160011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 472. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:50:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 9.76e+005 counts
Height: 233514.343 cps
Start Time: 4.93 min
End Time: 5.33 min

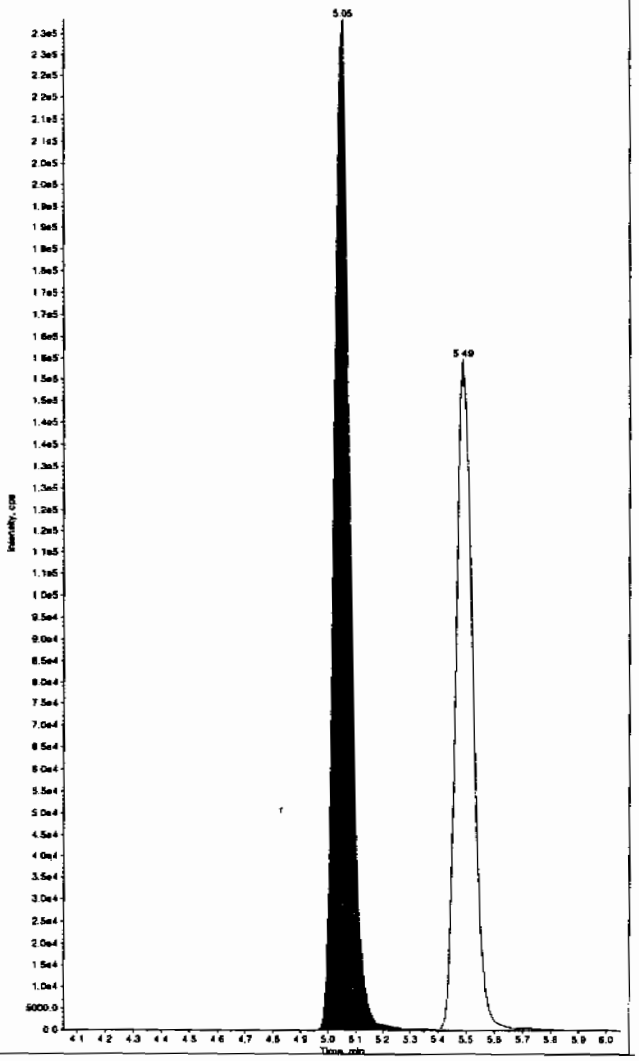

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100216-25ICV" Sample ID: "[1]LER" File: "EXS02160011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 495. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:50:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 6.37e+005 counts
Height: 154152.671 cps
Start Time: 5.40 min
End Time: 5.67 min

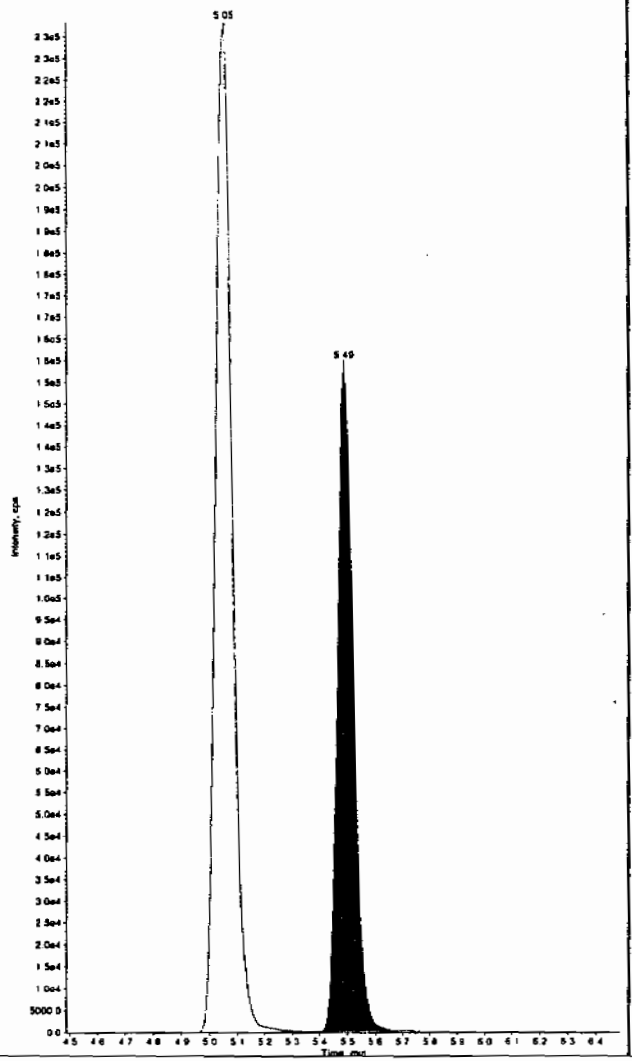

Sample Name: "WXX100216-26ICV" Sample ID: "[1]LER" File: "EXS02160011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 494. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:50:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 10.6 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 9.88e+006 counts
Height: 2649684.082 cps
Start Time: 10.5 min
End Time: 11.1 min

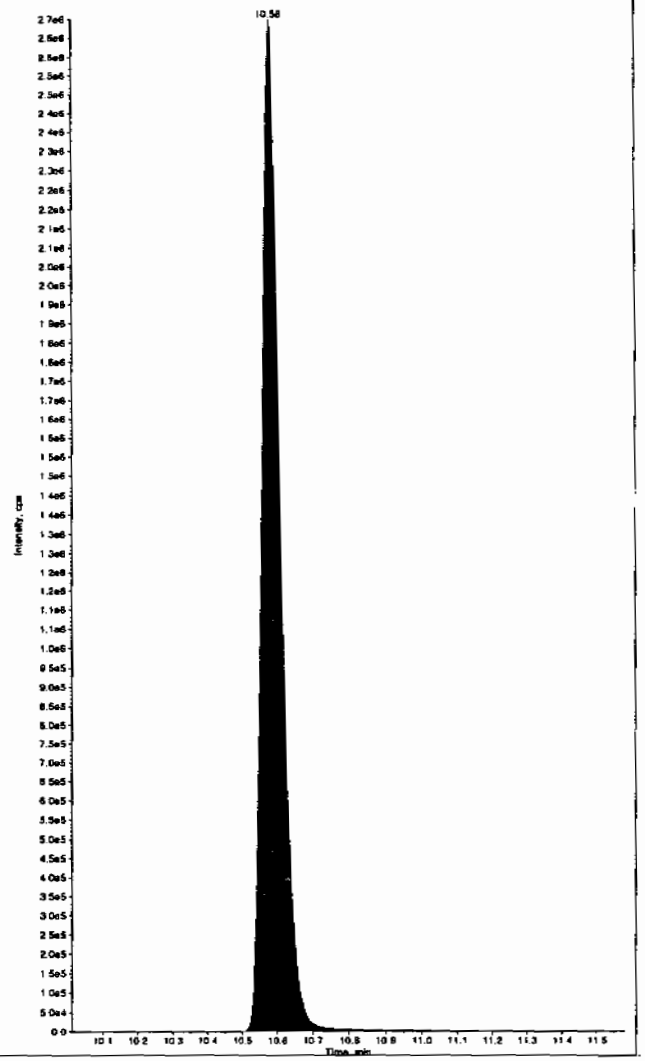

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0216012a

Analysis Date: 16-FEB-10 22:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	41.651	104	
Nitrobenzene	40	45.259	113	
PETN	40	42.843	107	
RDX	40	36.749	92	
Tetryl	40	39.776	99	
m-Dinitrobenzene	40	46.913	117	
m-Nitrotoluene	40	43.185	108	
o-Nitrotoluene	40	41.818	105	
p-Nitrotoluene	40	36.985	92	
1,3,5-Trinitrobenzene	40	52.773	132	*
1,3-Dinitrobenzene-d4	500	467.275	93	
2,4,6-Trinitrotoluene	40	39.143	98	
2,4-Dinitrotoluene	40	38.529	96	
2,6-Dinitrotoluene	40	43.494	109	
2,6-Dinitrotoluene-d3	500	466.982	93	
2-Amino-4,6-dinitrotoluene	40	39.227	98	
3,4-Dinitrotoluene	20	22.552	113	
4-Amino-2,6-dinitrotoluene	40	41.012	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216012a
Date: 16-Feb-2010
Time: 22:33:56
ID: WXX100216-08CRI
Vial: 1:1,C

MMT 2/17/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.022e+004
904.84 7.60

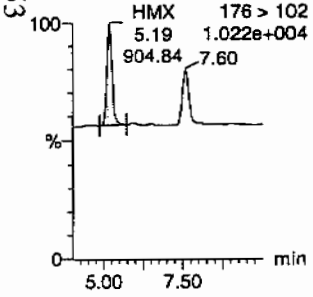

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.022e+004
RDX
7.60
536.62

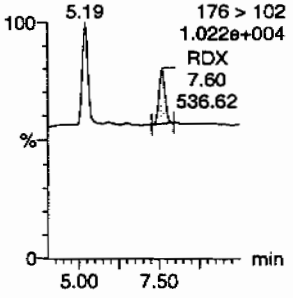

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.551e+003

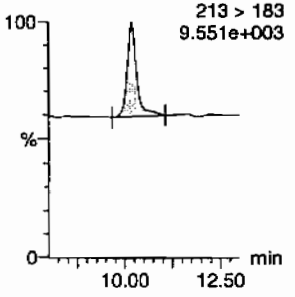

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.259e+004

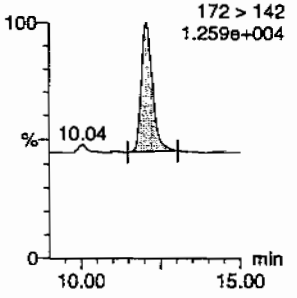

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.392e+003

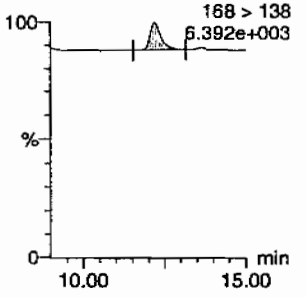

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.402e+003

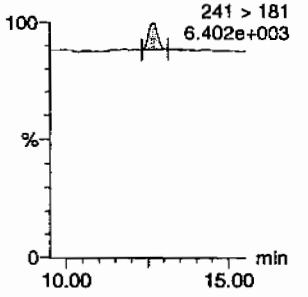

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.283e+003

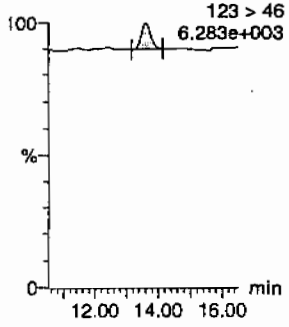

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.643e+003

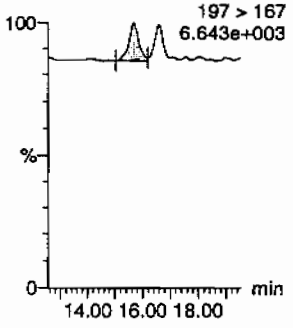

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.057e+003

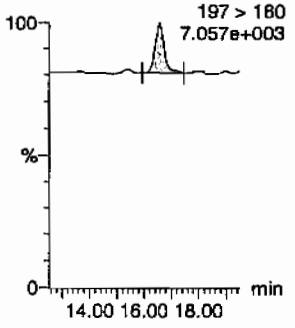

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.619e+003

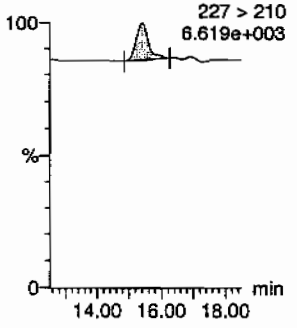

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.61 182 > 152
9.664e+003
18.26

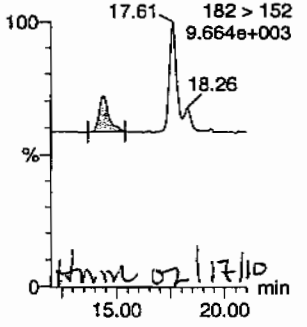

HMM 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.664e+003
14.37
18.26

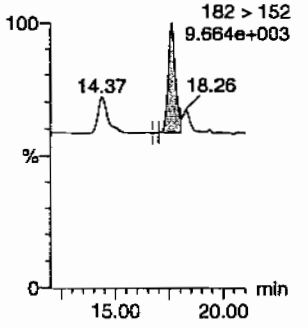

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

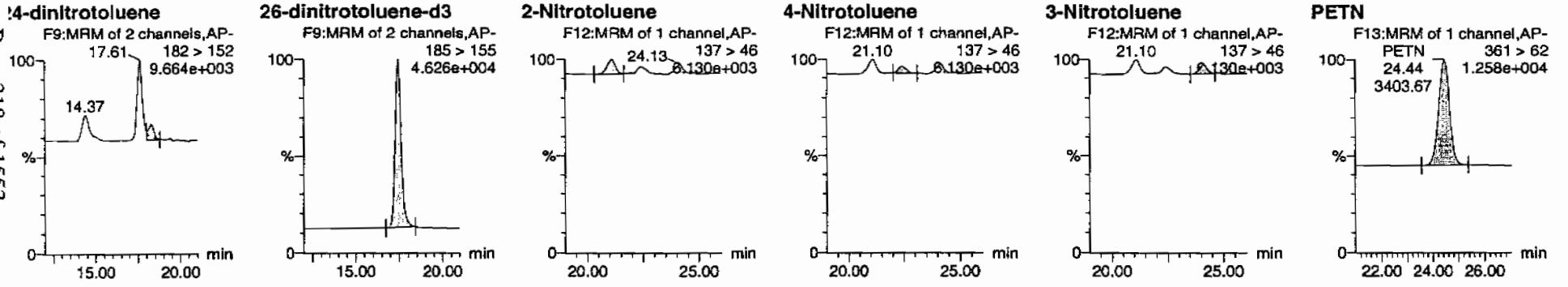

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100216-08CRI	HMX	176 > 102	5.19	904.843	2815.255	904.843	160.704	bb			41.6506	104.1	4.1	146.1
VXX100216-08CRI	RDX	176 > 102	7.60	536.624	2815.255	536.624	95.306	bb			36.7490	91.9	-8.1	78.6
VXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1150.692	2815.255	1150.692	204.367	bb			52.7734	131.9	31.9	153.3
VXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2815.255		2815.255	2815.255	bb			467.2753	93.5	-6.5	116.9
VXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	313.940	2815.255	313.940	55.757	bb			46.9129	117.3	17.3	56.5
VXX100216-08CRI	Tetryl	241 > 181	12.66	244.166	2815.255	244.166	43.365	bb			39.7758	99.4	-0.6	26.2
VXX100216-08CRI	Nitrobenzene	123 > 46	13.61	218.774	2815.255	218.774	38.855	bb			45.2588	113.1	13.1	13.8
VXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.67	427.054	16258.972	427.054	13.133	MM	17-Feb-10	09:22:56	41.0124	102.5	2.5	29.2
VXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	551.120	16258.972	551.120	16.948	bb			39.2269	98.1	-1.9	56.9
VXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.40	426.730	16258.972	426.730	13.123	bb			39.1431	97.9	-2.1	30.4
VXX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	664.397	16258.972	664.397	20.432	bb			22.5515	112.8	12.8	21.1
VXX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1498.403	16258.972	1498.403	46.079	MM	17-Feb-10	09:25:53	43.4940	108.7	8.7	65.6
VXX100216-08CRI	24-dinitrotoluene	182 > 152	18.26	308.850	16258.972	308.850	9.498	MM	17-Feb-10	09:54:26	38.5291	96.3	-3.7	13.0
VXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16258.972		16258.972	16258.972	bb			466.9822	93.4	-6.6	1321.7
VXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	206.957	16258.972	206.957	6.364	bb			41.8176	104.5	4.5	61.3
VXX100216-08CRI	4-Nitrotoluene	137 > 46	22.41	92.186	16258.972	92.186	2.835	bb			36.9848	92.5	-7.5	27.2
VXX100216-08CRI	3-Nitrotoluene	137 > 46	24.13	125.667	16258.972	125.667	3.865	bb			43.1845	108.0	8.0	39.5
VXX100216-08CRI	PETN	361 > 62	24.44	3403.665	16258.972	3403.665	104.670	bb			42.8433	107.1	7.1	656.3

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/16/10
Time of Injection	2233
Standard Number	WXX100216-08CRI
Data File	EXP0216012a

HMX	104.1
RDX	91.9
135-TNB	131.9
13-DNB	117.3
Tetryl	99.4
Nitrobenzene	113.1
4A-26-DNT	102.5
2A-46-DNT	98.1
246-TNT	97.9
34-DNT(surr)	112.8
26-DNT	108.7
24-DNT	96.3
2-NT	104.5
4-NT	92.5
3-NT	108.0
PETN	107.1
Total	1686.1
Average	105.4

MOT 2/17/10

Hum 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEI **GEL Sample ID:** WXXCCV

GEL Data File EXP0216021a **Analysis Date:** 17-FEB-10 03:00

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	600	634.785	106	
3,4-Dinitrotoluene	300	327.796	109	
4-Amino-2,6-dinitrotoluene	600	562.441	94	
HMX	600	585.906	98	
Nitrobenzene	600	587.781	98	
PETN	600	627.186	105	
RDX	600	656.37	109	
Tetryl	600	543.324	91	
m-Dinitrobenzene	600	630.615	105	
m-Nitrotoluene	600	562.285	94	
o-Nitrotoluene	600	556.59	93	
p-Nitrotoluene	600	538.033	90	
1,3,5-Trinitrobenzene	600	579.243	97	
1,3-Dinitrobenzene-d4	500	497.509	100	
2,4,6-Trinitrotoluene	600	668.453	111	
2,4-Dinitrotoluene	600	630.739	105	
2,6-Dinitrotoluene	600	632.433	105	
2,6-Dinitrotoluene-d3	500	485.976	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

luantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216021a
Date: 17-Feb-2010
Time: 03:00:59
D: WXX100216-07CCV
Vial: 1:1,B

MMT 2/17/10

IMX
F2:MRM of 1 channel,AP-
176 > 102
7.504e+004
7.58

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.504e+004
5.19
RDX
7.58
10204.73

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.347e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.312e+004
10.04

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.704e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.544e+004
Tetryl
12.66
3551.03

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.448e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.092e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.917e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.263e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.531e+004
17.59
18.24

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.531e+004
14.37
18.24

MMT 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

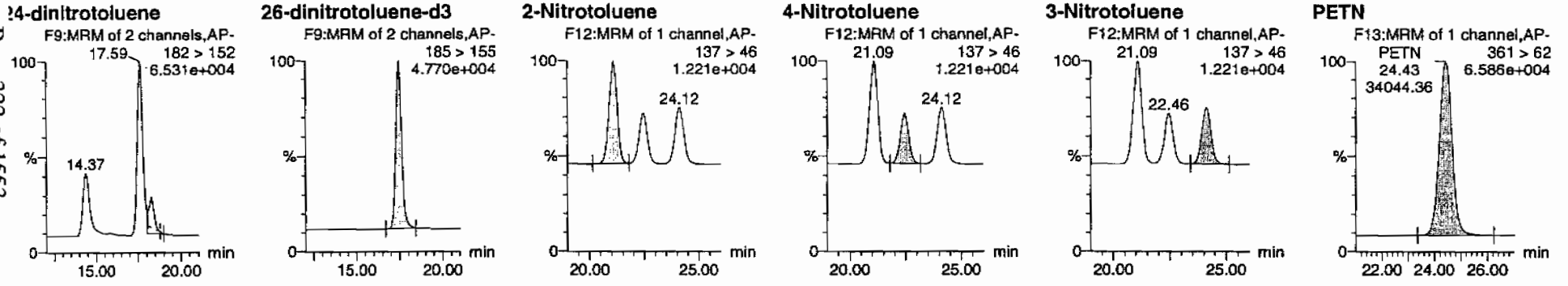

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100216-07CCV	HMX	176 > 102	5.19	13552.134	2997.406	13552.134	2260.644	bb			585.9057	97.7	-2.3	2331.3
VXX100216-07CCV	RDX	176 > 102	7.58	10204.725	2997.406	10204.725	1702.259	bb			656.3705	109.4	9.4	1478.9
VXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13447.239	2997.406	13447.239	2243.146	bb			579.2434	96.5	-3.5	1192.4
VXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	2997.406		2997.406	2997.406	bb			497.5086	99.5	-0.5	158.4
VXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4493.104	2997.406	4493.104	749.499	bb			630.6152	105.1	5.1	503.7
VXX100216-07CCV	Tetryl	241 > 181	12.66	3551.025	2997.406	3551.025	592.350	bb			543.3244	90.6	-9.4	473.6
VXX100216-07CCV	Nitrobenzene	123 > 46	13.61	3025.073	2997.406	3025.073	504.615	bb			587.7805	98.0	-2.0	278.1
VXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.67	6094.788	16920.273	6094.788	180.103	MM	17-Feb-10	09:23:30	562.4405	93.7	-6.3	422.1
VXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9281.178	16920.273	9281.178	274.262	bb			634.7853	105.8	5.8	337.8
VXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7583.733	16920.273	7583.733	224.102	bb			668.4527	111.4	11.4	213.3
VXX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10050.091	16920.273	10050.091	296.984	bb			327.7962	109.3	9.3	453.5
VXX100216-07CCV	26-dinitrotoluene	182 > 152	17.59	22674.004	16920.273	22674.004	670.025	MM	17-Feb-10	09:26:18	632.4328	105.4	5.4	1271.5
VXX100216-07CCV	24-dinitrotoluene	182 > 152	18.24	5261.653	16920.273	5261.653	155.484	MM	17-Feb-10	09:58:25	630.7389	105.1	5.1	273.4
VXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16920.273		16920.273	16920.273	bb			485.9758	97.2	-2.8	2036.1
VXX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	2866.625	16920.273	2866.625	84.710	bb			556.5902	92.8	-7.2	705.7
VXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1395.615	16920.273	1395.615	41.241	bb			538.0334	89.7	-10.3	337.1
VXX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1702.802	16920.273	1702.802	50.318	bb			562.2854	93.7	-6.3	379.3
VXX100216-07CCV	PETN	361 > 62	24.43	34044.359	16920.273	34044.359	1006.023	bb			627.1860	104.5	4.5	7276.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 0300
Standard Number: WXX100216-07CCV
Data File: EXP0216021a

HMX	97.7
RDX	109.4
135-TNB	96.5
13-DNB	105.1
Tetryl	90.6
Nitrobenzene	98.0
4A-26-DNT	93.7
2A-46-DNT	105.8
246-TNT	111.4
34-DNT(surr)	109.3
26-DNT	105.4
24-DNT	105.1
2-NT	92.8
4-NT	89.7
3-NT	93.7
PETN	104.5
Total	1608.7
Average	100.5

LMP 2/17/10

HMX 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216023a

Analysis Date: 17-FEB-10 03:59

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	49.744	124	
1,3-Dinitrobenzene-d4	500	479.66	96	
2,4,6-Trinitrotoluene	40	35.851	90	
2,4-Dinitrotoluene	40	39.455	99	
2,6-Dinitrotoluene	40	41.064	103	
2,6-Dinitrotoluene-d3	500	491.1	98	
2-Amino-4,6-dinitrotoluene	40	38.066	95	
3,4-Dinitrotoluene	20	21.18	106	
4-Amino-2,6-dinitrotoluene	40	45.31	113	
HMX	40	40.495	101	
Nitrobenzene	40	46.027	115	
PETN	40	46.88	117	
RDX	40	40.003	100	
Tetryl	40	46.382	116	
m-Dinitrobenzene	40	47.022	118	
m-Nitrotoluene	40	34.333	86	
o-Nitrotoluene	40	37.918	95	
p-Nitrotoluene	40	33.624	84	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216023a
Date: 17-Feb-2010
Time: 03:59:56
ID: WXX100216-08CRI
Vial: 1:1,C

MATT 2/17/10

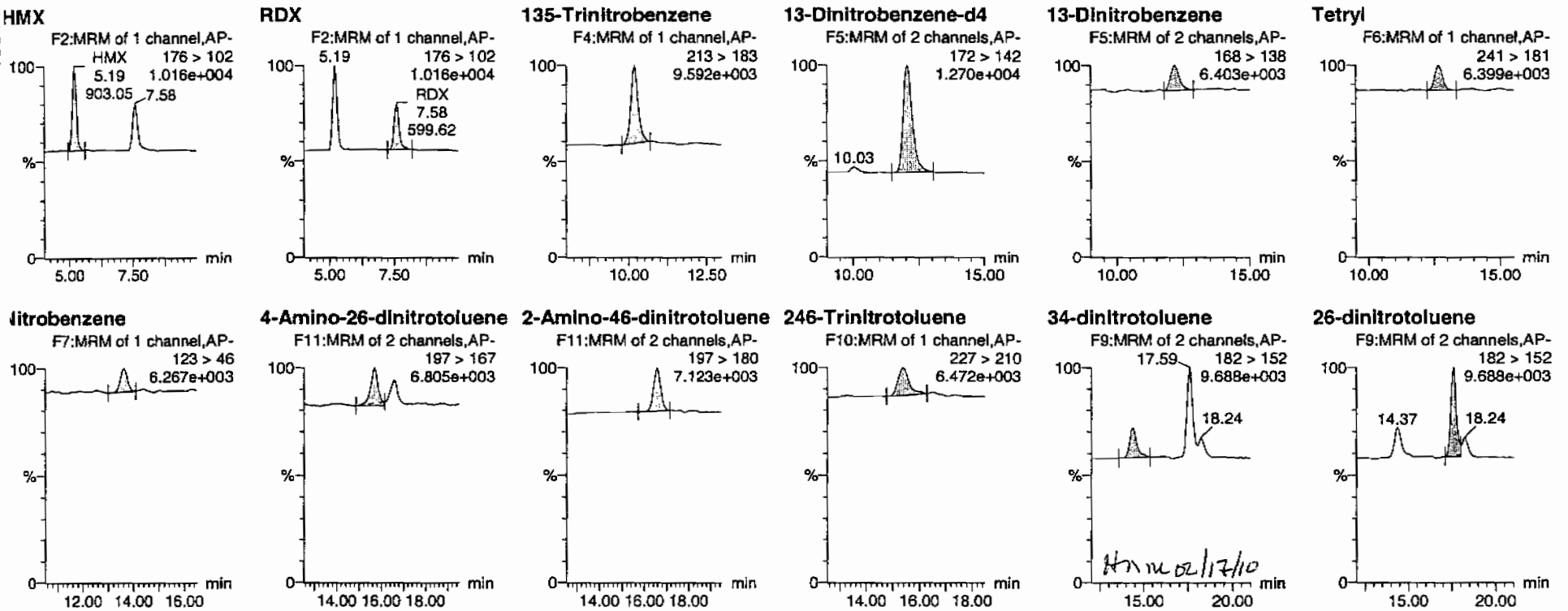

HM 02/17/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

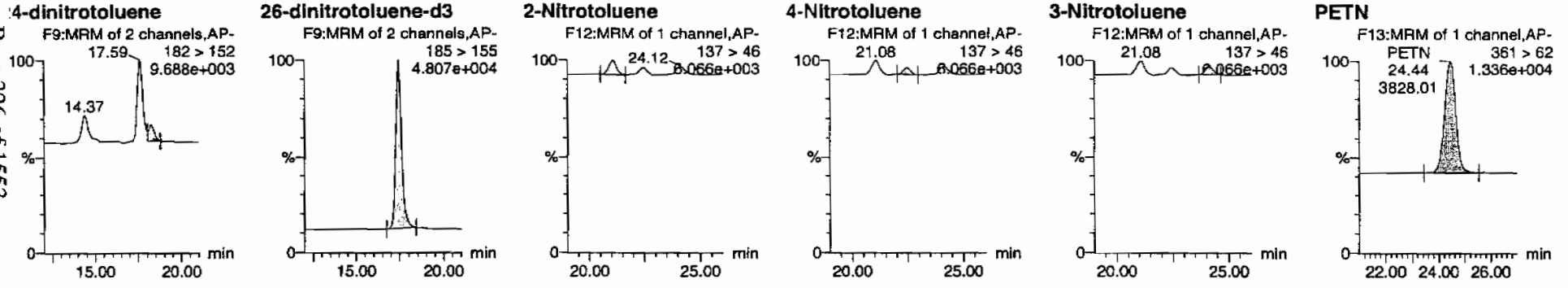

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
VXX100216-08CRI	HMX	176 > 102	5.19	903.051	2889.872	903.051	156.244	bb			40.4948	101.2	1.2	129.0
VXX100216-08CRI	RDX	176 > 102	7.58	599.618	2889.872	599.618	103.745	bb			40.0027	100.0	0.0	71.5
VXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1113.391	2889.872	1113.391	192.637	bb			49.7442	124.4	24.4	149.0
VXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2889.872		2889.872	2889.872	bb			479.6602	95.9	-4.1	417.1
VXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	323.009	2889.872	323.009	55.886	bb			47.0218	117.6	17.6	49.9
VXX100216-08CRI	Tetryl	241 > 181	12.66	292.267	2889.872	292.267	50.567	bb			46.3823	116.0	16.0	23.4
VXX100216-08CRI	Nitrobenzene	123 > 46	13.61	228.386	2889.872	228.386	39.515	bb			46.0273	115.1	15.1	23.5
VXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.70	496.172	17098.684	496.172	14.509	MM	17-Feb-10	09:23:37	45.3101	113.3	13.3	43.7
VXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.57	562.424	17098.684	562.424	16.446	bb			38.0656	95.2	-4.8	54.4
VXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.37	411.028	17098.684	411.028	12.019	bb			35.8512	89.6	-10.4	34.7
VXX100216-08CRI	34-dinitrotoluene	182 > 152	14.37	656.211	17098.684	656.211	19.189	bb			21.1798	105.9	5.9	25.2
VXX100216-08CRI	26-dinitrotoluene	182 > 152	17.59	1487.743	17098.684	1487.743	43.505	MM	17-Feb-10	09:26:28	41.0638	102.7	2.7	76.0
VXX100216-08CRI	24-dinitrotoluene	182 > 152	18.24	332.609	17098.684	332.609	9.726	MM	17-Feb-10	09:58:34	39.4554	98.6	-1.4	15.9
VXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	17098.684		17098.684	17098.684	bb			491.1000	98.2	-1.8	1844.2
VXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	197.351	17098.684	197.351	5.771	bb			37.9183	94.8	-5.2	50.3
VXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	88.137	17098.684	88.137	2.577	bb			33.6238	84.1	-15.9	24.1
VXX100216-08CRI	3-Nitrotoluene	137 > 46	24.12	105.069	17098.684	105.069	3.072	bb			34.3330	85.8	-14.2	27.3
VXX100216-08CRI	PETN	361 > 62	24.44	3828.005	17098.684	3828.005	111.939	bb			46.8804	117.2	17.2	698.1

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	0359
Standard Number	WXX100216-08CRI
Data File	EXP0216023a

HMX	101.2
RDX	100.0
135-TNB	124.4
13-DNB	117.6
Tetryl	116.0
Nitrobenzene	115.1
4A-26-DNT	113.3
2A-46-DNT	95.2
246-TNT	89.6
34-DNT(surr)	105.9
26-DNT	102.7
24-DNT	98.6
2-NT	94.8
4-NT	84.1
3-NT	85.8
PETN	117.2
Total	1661.5
Average	103.8

MTP 2/17/10

HMM 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216027a **Analysis Date:** 17-FEB-10 05:58

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	600	608.219	101	
p-Nitrotoluene	600	603.723	101	
1,3,5-Trinitrobenzene	600	611.171	102	
1,3-Dinitrobenzene-d4	500	441.467	88	
2,4,6-Trinitrotoluene	600	677.667	113	
2,4-Dinitrotoluene	600	637.719	106	
2,6-Dinitrotoluene	600	636.41	106	
2,6-Dinitrotoluene-d3	500	422.753	85	
2-Amino-4,6-dinitrotoluene	600	651.036	109	
3,4-Dinitrotoluene	300	336.279	112	
4-Amino-2,6-dinitrotoluene	600	604.644	101	
HMX	600	612.626	102	
Nitrobenzene	600	578.267	96	
PETN	600	723.944	121	*
RDX	600	659.537	110	
Tetryl	600	567.895	95	
m-Dinitrobenzene	600	622.089	104	
m-Nitrotoluene	600	628.032	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216027a
Date: 17-Feb-2010
Time: 05:58:23
ID: WXX100216-07CCV
Vial: 1:1,B

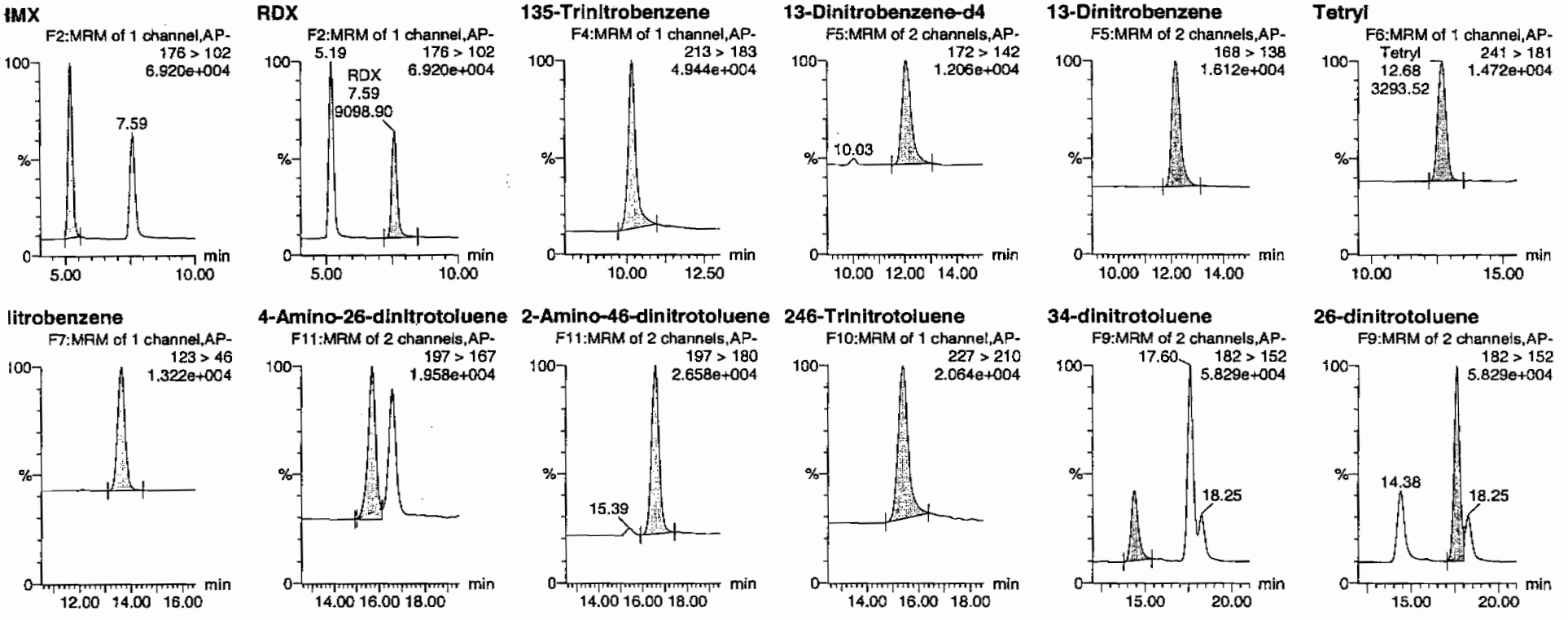

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

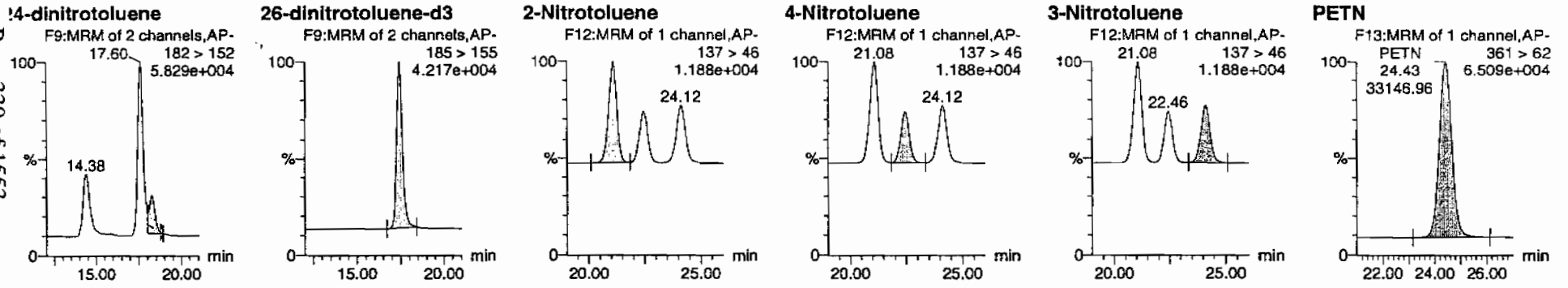

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100216-07CCV	HMX	176 > 102	5.19	12573.983	2659.764	12573.983	2363.740	bb			612.6259	102.1	2.1	1867.4
VXX100216-07CCV	RDX	176 > 102	7.59	9098.897	2659.764	9098.897	1710.471	bb			659.5367	109.9	9.9	1136.2
VXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12590.188	2659.764	12590.188	2366.787	bb			611.1709	101.9	1.9	720.5
VXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2659.764		2659.764	2659.764	bb			441.4669	88.3	-11.7	384.7
VXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3933.075	2659.764	3933.075	739.365	bb			622.0892	103.7	3.7	572.6
VXX100216-07CCV	Tetryl	241 > 181	12.68	3293.519	2659.764	3293.519	619.137	bb			567.8951	94.6	-5.4	186.1
VXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2640.866	2659.764	2640.866	496.447	bb			578.2667	96.4	-3.6	244.7
VXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5699.717	14719.028	5699.717	193.617	MM	17-Feb-10	09:24:07	604.6437	100.8	0.8	191.5
VXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8280.438	14719.028	8280.438	281.283	bb			651.0364	108.5	8.5	208.4
VXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	6688.060	14719.028	6688.060	227.191	bb			677.6666	112.9	12.9	176.3
VXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8968.860	14719.028	8968.860	304.669	bb			336.2788	112.1	12.1	355.9
VXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	19848.275	14719.028	19848.275	674.239	MM	17-Feb-10	09:27:00	636.4103	106.1	6.1	997.2
VXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4627.791	14719.028	4627.791	157.204	MM	17-Feb-10	09:59:44	637.7191	106.3	6.3	221.0
VXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14719.028		14719.028	14719.028	bb			422.7527	84.6	-15.4	873.5
VXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2725.003	14719.028	2725.003	92.567	bb			608.2189	101.4	1.4	310.4
VXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1362.278	14719.028	1362.278	46.276	bb			603.7228	100.6	0.6	155.4
VXX100216-07CCV	3-Nitrotoluene	137 > 46	24.12	1654.478	14719.028	1654.478	56.202	bb			628.0322	104.7	4.7	174.3
VXX100216-07CCV	PETN	361 > 62	24.43	33146.961	14719.028	33146.961	1125.990	bb			723.9440	120.7	20.7	4875.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 0558
Standard Number: WXX100216-07CCV
Data File: EXP0216027a

HMX	102.1
RDX	109.9
135-TNB	101.9
13-DNB	103.7
Tetryl	94.6
Nitrobenzene	96.4
4A-26-DNT	100.8
2A-46-DNT	108.5
246-TNT	112.9
34-DNT(surr)	112.1
26-DNT	106.1
24-DNT	106.3
2-NT	101.4
4-NT	100.6
3-NT	104.7
PETN	120.7
Total	1682.7
Average	105.2

HMP 2/17/10

HMM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216029a

Analysis Date: 17-FEB-10 06:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	40	37.982	95	
2,4-Dinitrotoluene	40	44.51	111	
2,6-Dinitrotoluene	40	42.325	106	
2,6-Dinitrotoluene-d3	500	468.417	94	
2-Amino-4,6-dinitrotoluene	40	42.003	105	
3,4-Dinitrotoluene	20	22.85	114	
4-Amino-2,6-dinitrotoluene	40	35.28	88	
HMX	40	35.563	89	
Nitrobenzene	40	35.31	88	
PETN	40	48.188	120	
RDX	40	37.715	94	
Tetryl	40	38.583	96	
m-Dinitrobenzene	40	47.424	119	
m-Nitrotoluene	40	37.561	94	
o-Nitrotoluene	40	37.519	94	
p-Nitrotoluene	40	38.529	96	
1,3,5-Trinitrobenzene	40	46.171	115	
1,3-Dinitrobenzene-d4	500	512.607	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216029a
Date: 17-Feb-2010
Time: 06:57:50
ID: WXX100216-08CRI
Vial: 1:1,C

MM 2/17/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.009e+004
847.55

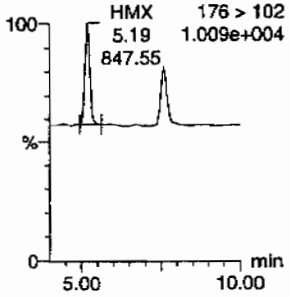

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.009e+004

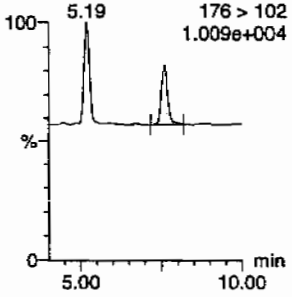

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.609e+003

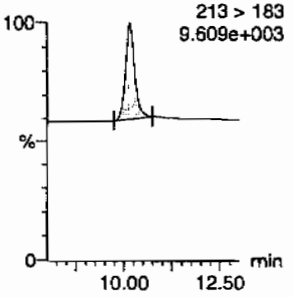

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.317e+004

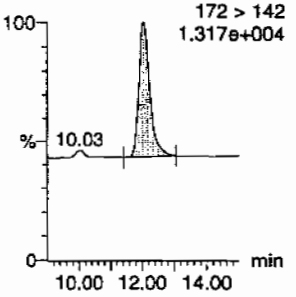

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.483e+003

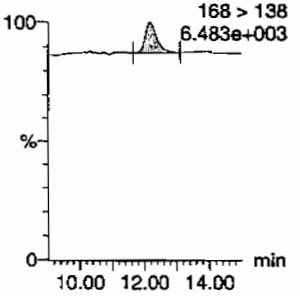

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.465e+003

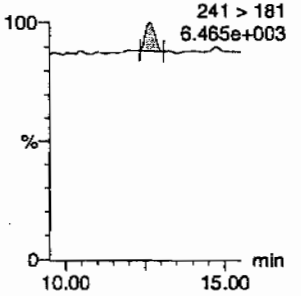

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.184e+003

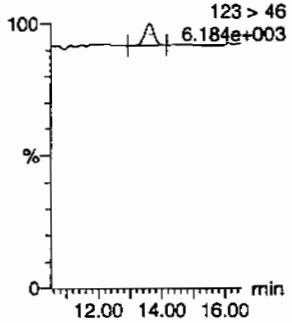

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.673e+003

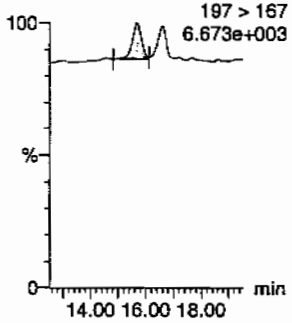

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.151e+003

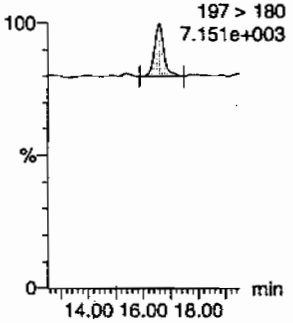

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.660e+003

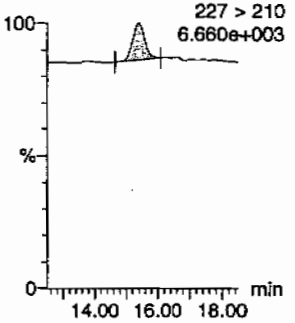

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.60 182 > 152
9.572e+003
18.27

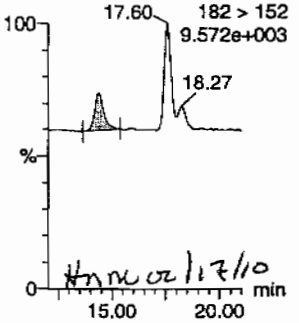

HMW 02/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.572e+003
14.38
18.27

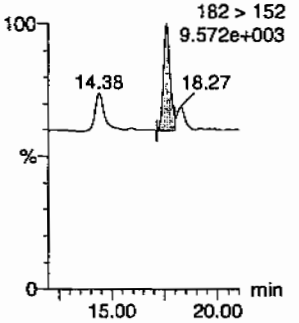

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA.qld, Time: Wed Feb 17 10:00:06 2010

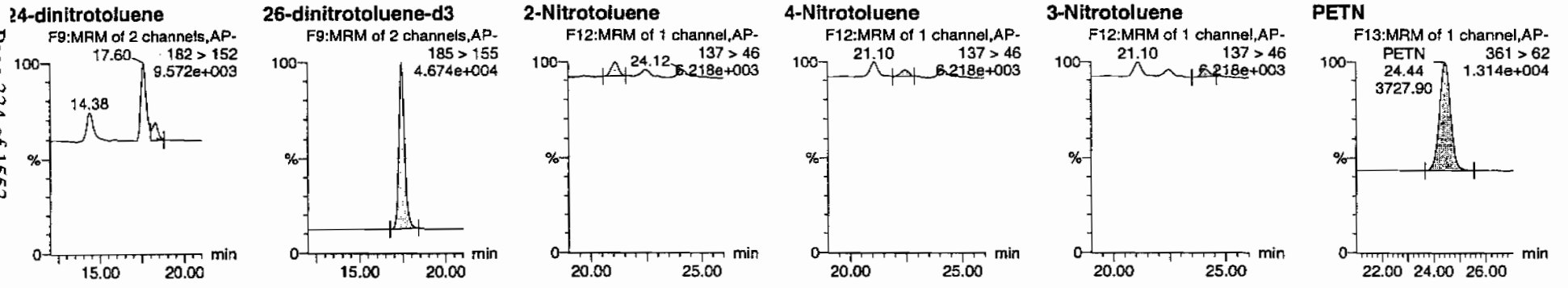

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	847.548	3088.373	847.548	137.216	bb			35.5631	88.9	-11.1	67.2
WXX100216-08CRI	RDX	176 > 102	7.59	604.150	3088.373	604.150	97.810	bb			37.7145	94.3	-5.7	40.2
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1104.404	3088.373	1104.404	178.800	bb			46.1713	115.4	15.4	242.0
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3088.373		3088.373	3088.373	bb			512.6073	102.5	2.5	183.7
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	348.146	3088.373	348.146	56.364	bb			47.4237	118.6	18.6	32.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	259.818	3088.373	259.818	42.064	bb			38.5825	96.5	-3.5	17.3
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	187.241	3088.373	187.241	30.314	bb			35.3099	88.3	-11.7	24.4
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	368.489	16308.923	368.489	11.297	MM	17-Feb-10	09:24:15	35.2797	88.2	-11.8	20.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	591.929	16308.923	591.929	18.147	bb			42.0025	105.0	5.0	42.9
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	415.344	16308.923	415.344	12.734	bb			37.9820	95.0	-5.0	34.9
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	675.250	16308.923	675.250	20.702	bb			22.8497	114.2	14.2	40.8
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1462.626	16308.923	1462.626	44.841	MM	17-Feb-10	09:27:06	42.3254	105.8	5.8	114.5
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.27	357.891	16308.923	357.891	10.972	MM	17-Feb-10	09:59:53	44.5103	111.3	11.3	25.2
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16308.923		16308.923	16308.923	bb			468.4169	93.7	-6.3	1631.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	186.251	16308.923	186.251	5.710	bb			37.5185	93.8	-6.2	60.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	96.329	16308.923	96.329	2.953	bb			38.5286	96.3	-3.7	29.1
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.12	109.637	16308.923	109.637	3.361	bb			37.5605	93.9	-6.1	32.5
WXX100216-08CRI	PETN	361 > 62	24.44	3727.896	16308.923	3727.896	114.290	bb			48.1882	120.5	20.5	1683.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	0657
Standard Number	WXX100216-08CRI
Data File	EXP0216029a

HMX	88.9
RDX	94.3
135-TNB	115.4
13-DNB	118.6
Tetryl	96.5
Nitrobenzene	88.3
4A-26-DNT	88.2
2A-46-DNT	105.0
246-TNT	95.0
34-DNT(surr)	114.2
26-DNT	105.8
24-DNT	111.3
2-NT	93.8
4-NT	96.3
3-NT	93.9
PETN	120.5
Total	1626.0
Average	101.6

MMT 2/17/10

HMM 02/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216039a **Analysis Date:** 17-FEB-10 11:55

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	585.479	98	
1,3-Dinitrobenzene-d4	500	387.961	78	*
2,4,6-Trinitrotoluene	600	707.346	118	
2,4-Dinitrotoluene	600	645.209	108	
2,6-Dinitrotoluene	600	613.479	102	
2,6-Dinitrotoluene-d3	500	403.474	81	
2-Amino-4,6-dinitrotoluene	600	628.06	105	
3,4-Dinitrotoluene	300	337.542	113	
4-Amino-2,6-dinitrotoluene	600	652.842	109	
HMX	600	593.956	99	
Nitrobenzene	600	632.339	105	
PETN	600	805.557	134	*
RDX	600	659.382	110	
Tetryl	600	551.825	92	
m-Dinitrobenzene	600	625.313	104	
m-Nitrotoluene	600	627.48	105	
o-Nitrotoluene	600	662.654	110	
p-Nitrotoluene	600	651.214	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216039a
Date: 17-Feb-2010
Time: 11:55:13
ID: WXX100216-07CCV
Vial: 1:1,B

MM 4/18/10

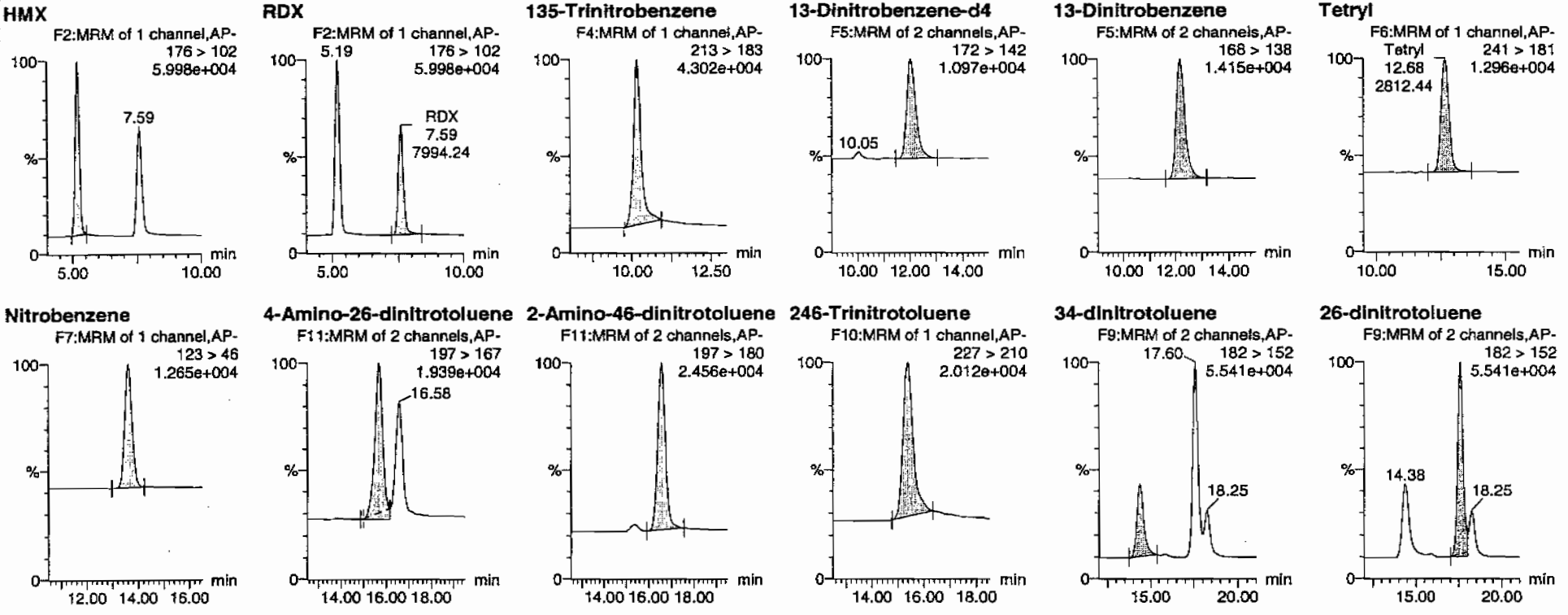

HMM 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

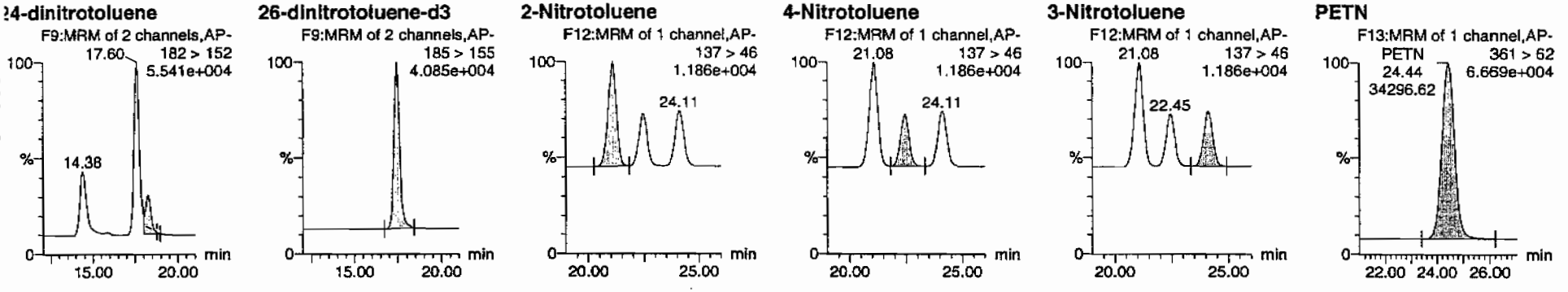

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	10713.271	2337.401	10713.271	2291.706	bb			593.9562	99.0	-1.0	1627.0
WXX100216-07CCV	RDX	176 > 102	7.59	7994.240	2337.401	7994.240	1710.070	bb			659.3823	109.9	9.9	1027.0
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	10599.146	2337.401	10599.146	2267.293	bb			585.4788	97.6	-2.4	1024.7
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2337.401		2337.401	2337.401	bb			387.9612	77.6	-22.4	133.1
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3474.301	2337.401	3474.301	743.197	bb			625.3134	104.2	4.2	284.5
WXX100216-07CCV	Tetryl	241 > 181	12.68	2812.442	2337.401	2812.442	601.617	bb			551.8250	92.0	-8.0	285.9
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2537.805	2337.401	2537.805	542.869	bb			632.3390	105.4	5.4	222.2
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5873.420	14047.796	5873.420	209.051	MM	18-Feb-10	08:44:27	652.8422	108.8	8.8	505.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7623.921	14047.796	7623.921	271.356	bb			628.0603	104.7	4.7	448.6
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.38	6662.623	14047.796	6662.623	237.141	bb			707.3463	117.9	17.9	323.1
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8592.021	14047.796	8592.021	305.814	bb			337.5425	112.5	12.5	393.2
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18260.570	14047.796	18260.570	649.944	MM	18-Feb-10	08:47:58	613.4790	102.2	2.2	1068.9
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4468.623	14047.796	4468.623	159.051	MM	18-Feb-10	08:52:01	645.2089	107.5	7.5	245.7
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14047.796		14047.796	14047.796	bb			403.4739	80.7	-19.3	1385.8
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2833.500	14047.796	2833.500	100.852	bb			662.6544	110.4	10.4	243.8
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1402.429	14047.796	1402.429	49.916	bb			651.2139	108.5	8.5	120.3
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1577.640	14047.796	1577.640	56.153	bb			627.4798	104.6	4.6	127.1
WXX100216-07CCV	PETN	361 > 62	24.44	34296.621	14047.796	34296.621	1220.712	bb			805.5575	134.3	34.3	5120.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 1155
Standard Number: WXX100216-07CCV
Data File: EXP0216039a

HMX	99.0
RDX	109.9
135-TNB	97.6
13-DNB	104.2
Tetryl	92.0
Nitrobenzene	105.4
4A-26-DNT	108.8
2A-46-DNT	104.7
246-TNT	117.9
34-DNT(surr)	112.5
26-DNT	102.2
24-DNT	107.5
2-NT	110.4
4-NT	108.5
3-NT	104.6
PETN	134.3
Total	1719.5
Average	107.5

MMT 2/18/10

02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1516

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216041a **Analysis Date:** 17–FEB–10 12:54

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6–Trinitrotoluene	40	33.868	85	
2,4–Dinitrotoluene	40	48.789	122	
2,6–Dinitrotoluene	40	42.876	107	
2,6–Dinitrotoluene–d3	500	442.639	89	
2–Amino–4,6–dinitrotoluene	40	38.248	96	
3,4–Dinitrotoluene	20	20.64	103	
4–Amino–2,6–dinitrotoluene	40	36.085	90	
HMX	40	43.087	108	
Nitrobenzene	40	41.223	103	
PETN	40	49.973	125	
RDX	40	39.872	100	
Tetryl	40	51.62	129	
m–Dinitrobenzene	40	47.407	119	
m–Nitrotoluene	40	45.574	114	
o–Nitrotoluene	40	37.868	95	
p–Nitrotoluene	40	46.625	117	
1,3,5–Trinitrobenzene	40	49.958	125	
1,3–Dinitrobenzene–d4	500	436.567	87	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216041a
Date: 17-Feb-2010
Time: 12:54:26
ID: WXX100216-08CRI
Vial: 1:1,C

MAP 2/18/10

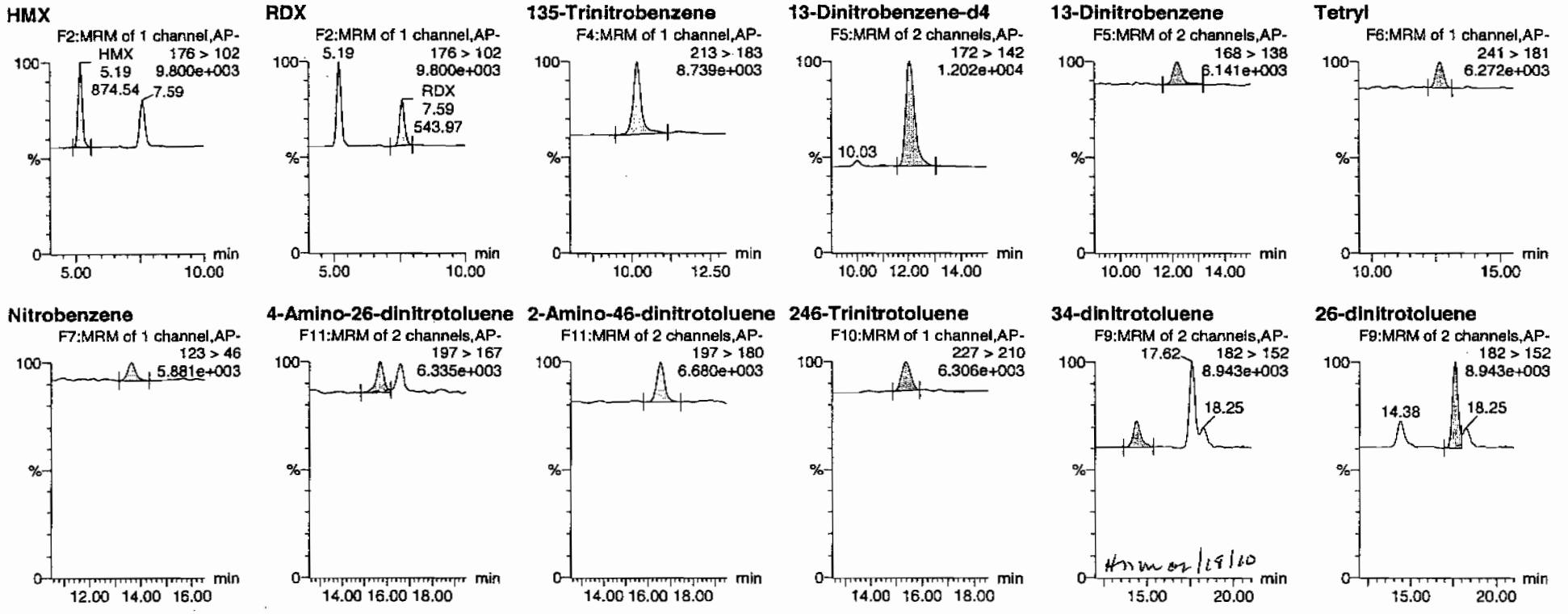

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

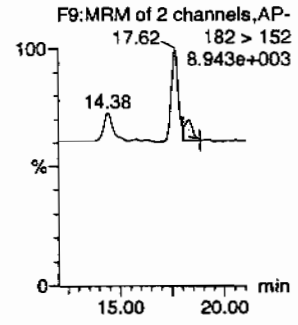

26-dinitrotoluene-d3

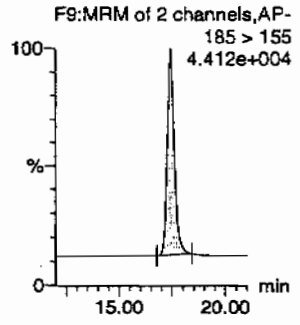

2-Nitrotoluene

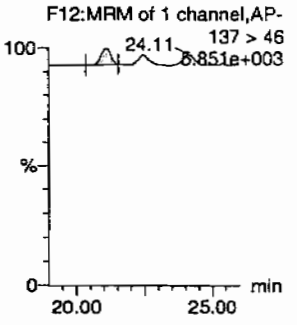

4-Nitrotoluene

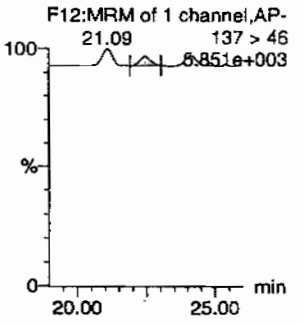

3-Nitrotoluene

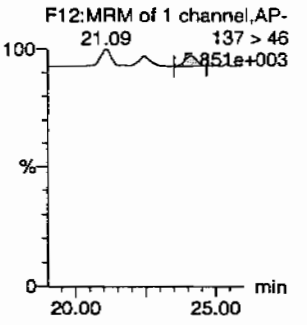

PETN

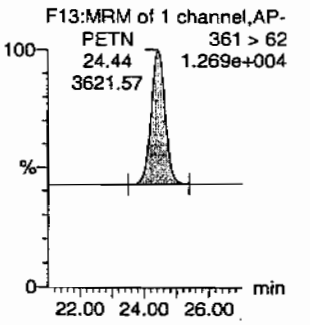

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	874.541	2630.245	874.541	166.247	bb			43.0873	107.7	7.7	143.8
WXX100216-08CRI	RDX	176 > 102	7.59	543.971	2630.245	543.971	103.407	bb			39.8724	99.7	-0.3	77.7
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1017.727	2630.245	1017.727	193.466	bb			49.9584	124.9	24.9	42.9
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2630.245		2630.245	2630.245	bb			436.5674	87.3	-12.7	269.0
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	296.395	2630.245	296.395	56.344	bb			47.4065	118.5	18.5	27.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	296.048	2630.245	296.048	56.278	bb			51.6199	129.0	29.0	24.9
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	186.169	2630.245	186.169	35.390	bb			41.2227	103.1	3.1	18.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	356.159	15411.399	356.159	11.555	MM	18-Feb-10	08:44:35	36.0850	90.2	-9.8	23.5
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	509.352	15411.399	509.352	16.525	bb			38.2479	95.6	-4.4	62.5
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	349.977	15411.399	349.977	11.354	bb			33.8682	84.7	-15.3	59.5
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	576.394	15411.399	576.394	18.700	bb			20.6404	103.2	3.2	14.6
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1400.108	15411.399	1400.108	45.424	MM	18-Feb-10	08:48:09	42.8759	107.2	7.2	47.1
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.25	370.708	15411.399	370.708	12.027	MM	18-Feb-10	08:51:46	48.7893	122.0	22.0	10.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15411.399		15411.399	15411.399	bb			442.6386	88.5	-11.5	1346.2
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	177.640	15411.399	177.640	5.763	bb			37.8679	94.7	-5.3	32.4
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	110.157	15411.399	110.157	3.574	bb			46.6252	116.6	16.6	18.9
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	125.706	15411.399	125.706	4.078	bb			45.5737	113.9	13.9	20.0
WXX100216-08CRI	PETN	361 > 62	24.44	3621.569	15411.399	3621.569	117.496	bb			49.9729	124.9	24.9	470.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	1254
Standard Number	WXX100216-08CRI
Data File	EXP0216041a

HMX	107.7
RDX	99.7
135-TNB	124.9
13-DNB	118.5
Tetryl	129.0
Nitrobenzene	103.1
4A-26-DNT	90.2
2A-46-DNT	95.6
246-TNT	84.7
34-DNT(surr)	103.2
26-DNT	107.2
24-DNT	122.0
2-NT	94.7
4-NT	116.6
3-NT	113.9
PETN	124.9
Total	1735.9
Average	108.5

MTP 2/18/10

Hm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0216052a

Analysis Date: 17-FEB-10 18:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	586.393	98	
1,3-Dinitrobenzene-d4	500	469.603	94	
2,4,6-Trinitrotoluene	600	667.732	111	
2,4-Dinitrotoluene	600	640.278	107	
2,6-Dinitrotoluene	600	617.89	103	
2,6-Dinitrotoluene-d3	500	472.936	95	
2-Amino-4,6-dinitrotoluene	600	700.294	117	
3,4-Dinitrotoluene	300	322.55	108	
4-Amino-2,6-dinitrotoluene	600	558.036	93	
HMX	600	526.292	88	
Nitrobenzene	600	561.562	94	
PETN	600	685.593	114	
RDX	600	615.154	103	
Tetryl	600	581.072	97	
m-Dinitrobenzene	600	614.714	102	
m-Nitrotoluene	600	522.1	87	
o-Nitrotoluene	600	521.805	87	
p-Nitrotoluene	600	528.568	88	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216052a
Date: 17-Feb-2010
Time: 18:20:28
ID: WXX100216-07CCV
Vial: 1:1,B

MM 2/18/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.346e+004
7.59

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.346e+004
5.19
RDX
7.59
9027.48

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.120e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.253e+004
10.05

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.651e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.562e+004
Tetryl
12.68
3584.72

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.357e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.035e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.118e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.184e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.173e+004
17.60
18.27

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.173e+004
14.38
18.27

Hmm 02/18/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

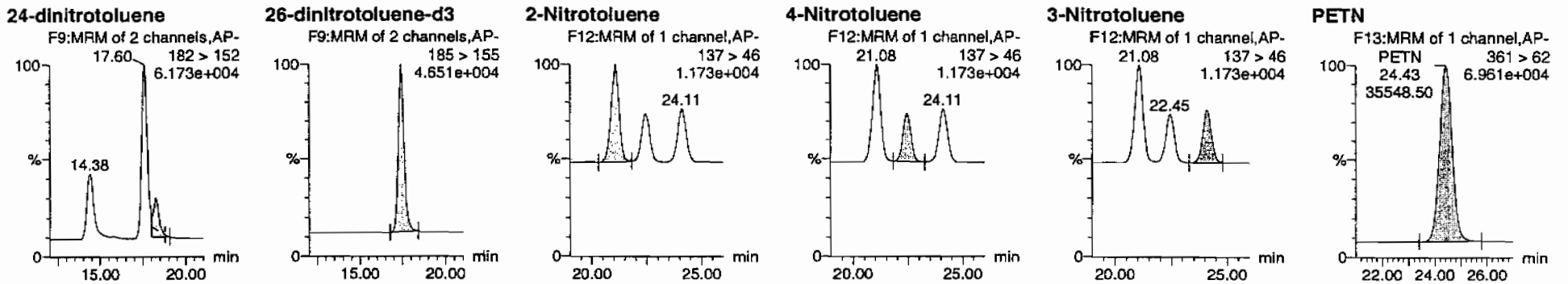

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	11490.467	2829.281	11490.467	2030.634	bb			526.2925	87.7	-12.3	815.5
WXX100216-07CCV	RDX	176 > 102	7.59	9027.476	2829.281	9027.476	1595.366	bb			615.1536	102.5	2.5	550.4
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12849.643	2829.281	12849.643	2270.832	bb			586.3926	97.7	-2.3	1070.5
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2829.281		2829.281	2829.281	bb			469.6033	93.9	-6.1	279.7
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.21	4134.145	2829.281	4134.145	730.600	bb			614.7141	102.5	2.5	343.4
WXX100216-07CCV	Tetryl	241 > 181	12.68	3584.717	2829.281	3584.717	633.503	bb			581.0719	96.8	-3.2	310.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2728.030	2829.281	2728.030	482.107	bb			561.5623	93.6	-6.4	278.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5884.796	16466.256	5884.796	178.693	MM	18-Feb-10	08:45:27	558.0356	93.0	-7.0	329.4
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	9964.233	16466.256	9964.233	302.565	bb			700.2936	116.7	16.7	436.1
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7372.284	16466.256	7372.284	223.860	bb			667.7320	111.3	11.3	133.4
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	9623.878	16466.256	9623.878	292.230	bb			322.5496	107.5	7.5	471.5
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	21558.193	16466.256	21558.193	654.617	MM	18-Feb-10	08:48:43	617.8898	103.0	3.0	1307.8
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.27	5197.906	16466.256	5197.906	157.835	MM	18-Feb-10	08:50:57	640.2777	106.7	6.7	288.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	16466.256		16466.256	16466.256	bb			472.9357	94.6	-5.4	1834.5
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2615.357	16466.256	2615.357	79.416	bb			521.8049	87.0	-13.0	493.9
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1334.272	16466.256	1334.272	40.515	bb			528.5675	88.1	-11.9	245.7
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1538.681	16466.256	1538.681	46.722	bb			522.1001	87.0	-13.0	271.2
WXX100216-07CCV	PETN	361 > 62	24.43	35548.496	16466.256	35548.496	1079.435	bb			685.5926	114.3	14.3	8100.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/17/10
Time of Injection: 1820
Standard Number: WXX100216-07CCV
Data File: EXP0216052a

HMX	87.7
RDX	102.5
135-TNB	97.7
13-DNB	102.5
Tetryl	96.8
Nitrobenzene	93.6
4A-26-DNT	93.0
2A-46-DNT	116.7
246-TNT	111.3
34-DNT(surr)	107.5
26-DNT	103.0
24-DNT	106.7
2-NT	87.0
4-NT	88.1
3-NT	87.0
PETN	114.3
Total	1595.4
Average	99.7

MJP 2/18/10

Hmc 2/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216054a

Analysis Date: 17-FEB-10 19:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	45.793	114	
Tetryl	40	38.525	96	
m-Dinitrobenzene	40	46.393	116	
m-Nitrotoluene	40	35.588	89	
o-Nitrotoluene	40	43.751	109	
p-Nitrotoluene	40	34.462	86	
1,3,5-Trinitrobenzene	40	49.067	123	
1,3-Dinitrobenzene-d4	500	526.622	105	
2,4,6-Trinitrotoluene	40	45.215	113	
2,4-Dinitrotoluene	40	38.588	96	
2,6-Dinitrotoluene	40	43.371	108	
2,6-Dinitrotoluene-d3	500	482.623	97	
2-Amino-4,6-dinitrotoluene	40	45.806	115	
3,4-Dinitrotoluene	20	22.123	111	
4-Amino-2,6-dinitrotoluene	40	49.639	124	
HMX	40	43.201	108	
Nitrobenzene	40	41.456	104	
PETN	40	47.927	120	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216054a
Date: 17-Feb-2010
Time: 19:19:47
ID: WXX100216-08CRI
Vial: 1:1,C

MAP 2/18/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.074e+004
1057.72 7.57

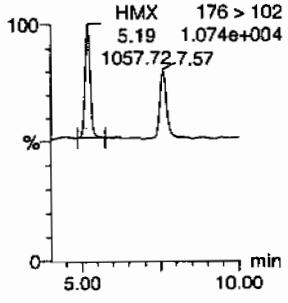

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.074e+004
RDX
7.57
753.61

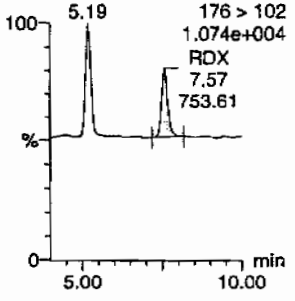

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.901e+003

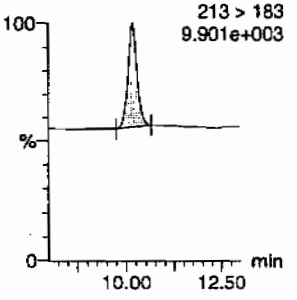

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.344e+004

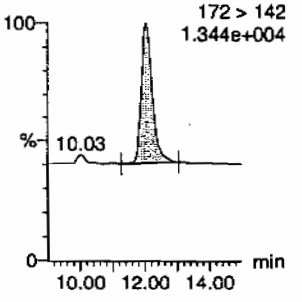

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.323e+003

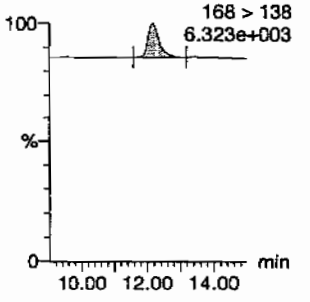

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.126e+003

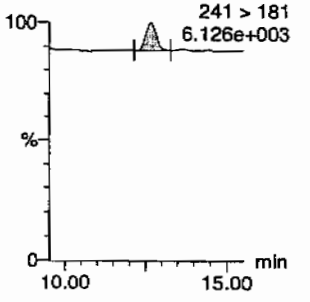

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.984e+003

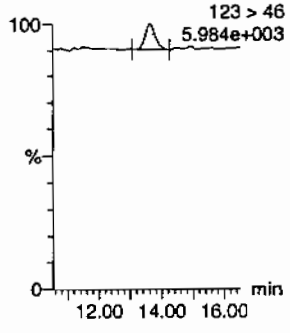

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.611e+003

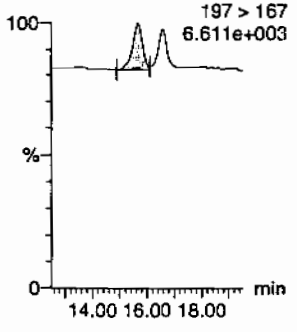

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.104e+003

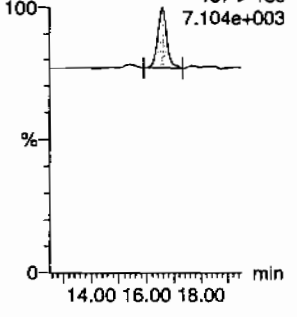

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.586e+003

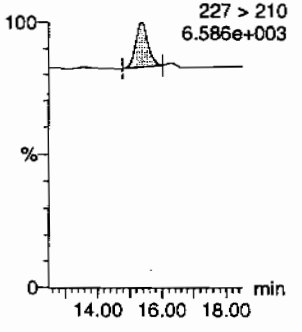

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.60 182 > 152
9.408e+003
18.23

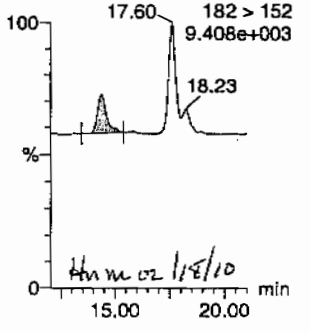

Hm m 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.408e+003
14.38
18.23

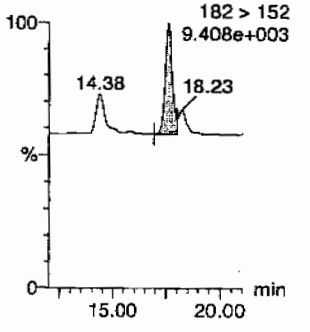

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

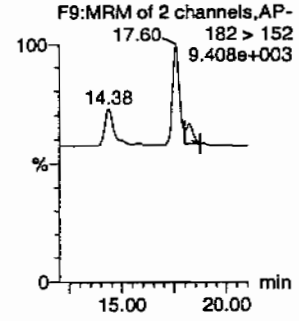

26-dinitrotoluene-d3

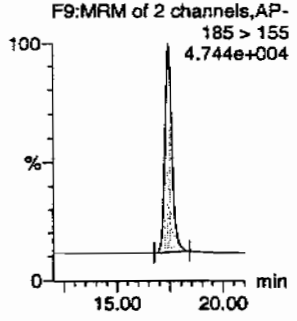

2-Nitrotoluene

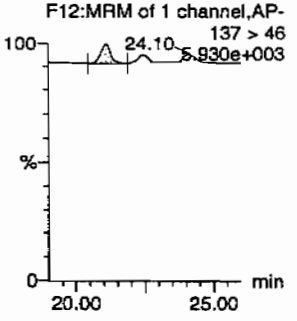

4-Nitrotoluene

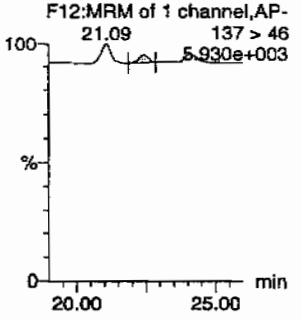

3-Nitrotoluene

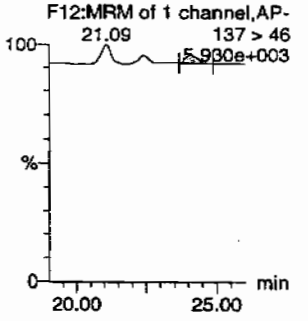

PETN

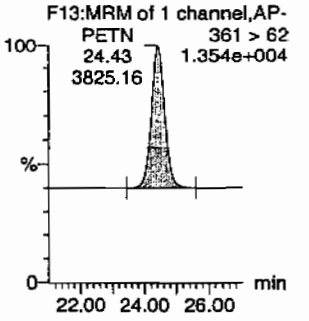

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1057.724	3172.809	1057.724	166.686	bb			43.2010	108.0	8.0	337.5
WXX100216-08CRI	RDX	176 > 102	7.57	753.607	3172.809	753.607	118.760	bb			45.7925	114.5	14.5	206.1
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1205.768	3172.809	1205.768	190.016	bb			49.0674	122.7	22.7	83.7
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	3172.809		3172.809	3172.809	bb			526.6220	105.3	5.3	217.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	349.888	3172.809	349.888	55.139	bb			46.3926	116.0	16.0	58.6
WXX100216-08CRI	Tetryl	241 > 181	12.68	266.522	3172.809	266.522	42.001	bb			38.5248	96.3	-3.7	16.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	225.843	3172.809	225.843	35.590	bb			41.4560	103.6	3.6	30.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	534.191	16803.529	534.191	15.895	MM	18-Feb-10	08:45:35	49.6388	124.1	24.1	30.5
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	665.112	16803.529	665.112	19.791	bb			45.8063	114.5	14.5	84.8
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	509.430	16803.529	509.430	15.158	bb			45.2146	113.0	13.0	71.3
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	673.596	16803.529	673.596	20.043	bb			22.1228	110.6	10.6	46.6
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1544.212	16803.529	1544.212	45.949	MM	18-Feb-10	08:48:53	43.3711	108.4	8.4	133.2
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	319.681	16803.529	319.681	9.512	MM	18-Feb-10	08:50:42	38.5879	96.5	-3.5	27.1
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	16803.529		16803.529	16803.529	bb			482.6227	96.5	-3.5	1788.6
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	223.779	16803.529	223.779	6.659	bb			43.7513	109.4	9.4	29.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.42	88.774	16803.529	88.774	2.642	bb			34.4617	86.2	-13.8	12.3
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	107.030	16803.529	107.030	3.185	bb			35.5881	89.0	-11.0	12.7
WXX100216-08CRI	PETN	361 > 62	24.43	3825.164	16803.529	3825.164	113.820	bb			47.9269	119.8	19.8	958.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/17/10
Time of Injection	1919
Standard Number	WXX100216-08CRI
Data File	EXP0216054a

HMX	108.0
RDX	114.5
135-TNB	122.7
13-DNB	116.0
Tetryl	96.3
Nitrobenzene	103.6
4A-26-DNT	124.1
2A-46-DNT	114.5
246-TNT	113.0
34-DNT(surr)	110.6
26-DNT	108.4
24-DNT	96.5
2-NT	109.4
4-NT	86.2
3-NT	89.0
PETN	119.8
Total	1732.6
Average	108.3

MTP 4/13/10

HMC 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216065a **Analysis Date:** 18-FEB-10 00:45

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	600	595.679	99	
HMX	600	685.513	114	
Nitrobenzene	600	619.311	103	
PETN	600	592.614	99	
RDX	600	694.615	116	
Tetryl	600	564.648	94	
m-Dinitrobenzene	600	607.21	101	
m-Nitrotoluene	600	591.803	99	
o-Nitrotoluene	600	604.859	101	
p-Nitrotoluene	600	605.824	101	
1,3,5-Trinitrobenzene	600	589.98	98	
1,3-Dinitrobenzene-d4	500	503.448	101	
2,4,6-Trinitrotoluene	600	674.628	112	
2,4-Dinitrotoluene	600	646.389	108	
2,6-Dinitrotoluene	600	642.938	107	
2,6-Dinitrotoluene-d3	500	484.848	97	
2-Amino-4,6-dinitrotoluene	600	685.308	114	
3,4-Dinitrotoluene	300	332.023	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216065a
Date: 18-Feb-2010
Time: 00:45:20
ID: WXX100216-07CCV
Vial: 1:1,B

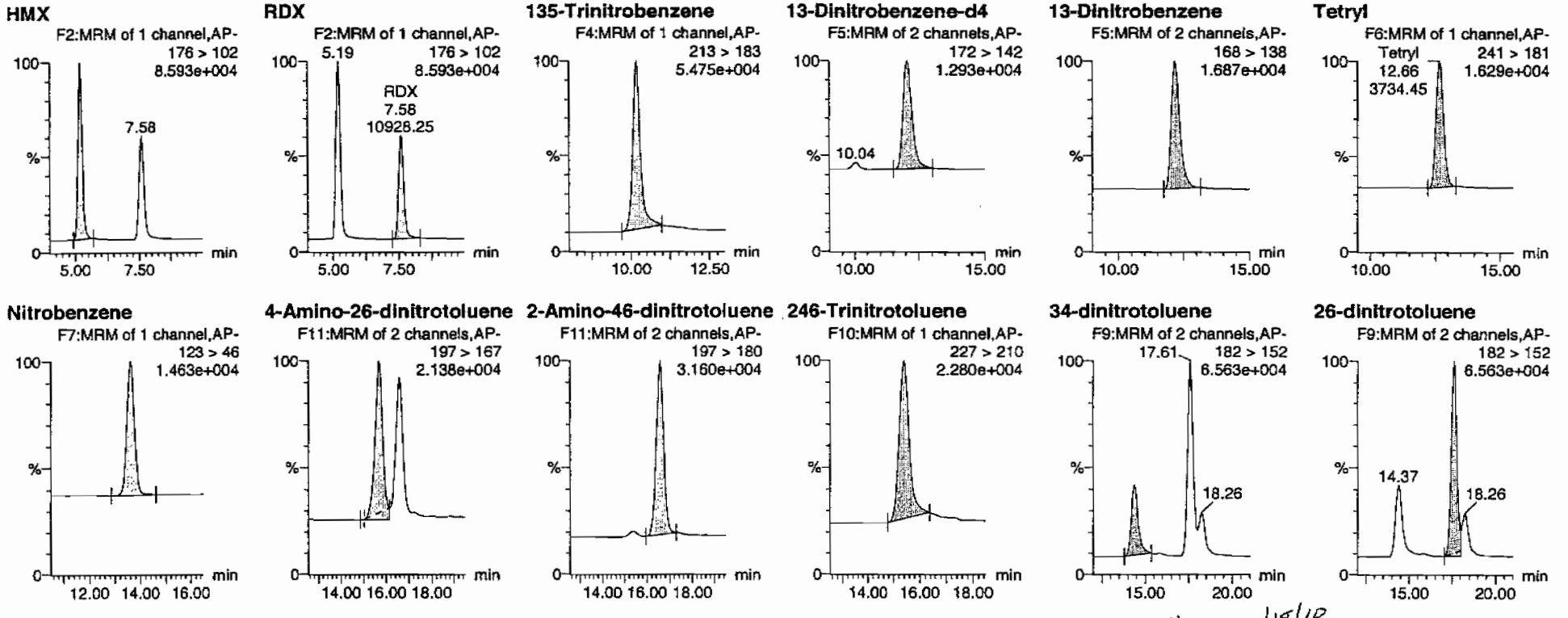

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

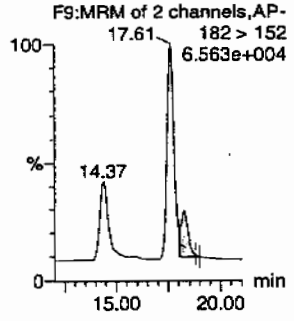

26-dinitrotoluene-d3

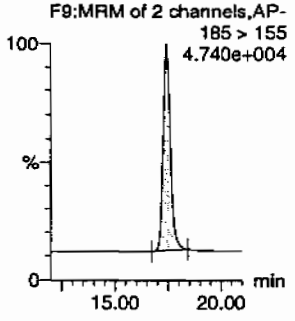

2-Nitrotoluene

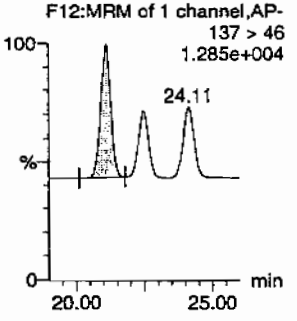

4-Nitrotoluene

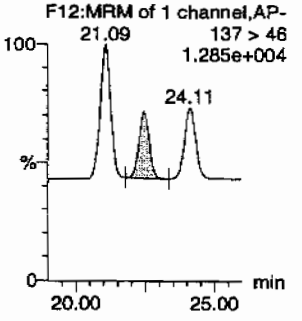

3-Nitrotoluene

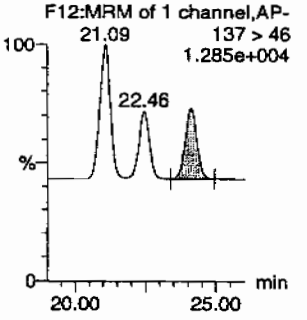

PETN

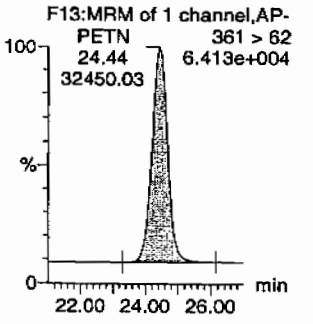

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	16045.377	3033.191	16045.377	2644.966	bb			685.5131	114.3	14.3	4796.8
WXX100216-07CCV	RDX	176 > 102	7.58	10928.254	3033.191	10928.254	1801.445	bb			694.6153	115.8	15.8	2791.9
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13860.002	3033.191	13860.002	2284.723	bb			589.9797	98.3	-1.7	651.9
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3033.191		3033.191	3033.191	bb			503.4482	100.7	0.7	211.0
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4377.993	3033.191	4377.993	721.681	bb			607.2099	101.2	1.2	1168.9
WXX100216-07CCV	Tetryl	241 > 181	12.66	3734.446	3033.191	3734.446	615.597	bb			564.6476	94.1	-5.9	245.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.61	3225.402	3033.191	3225.402	531.685	bb			619.3113	103.2	3.2	203.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	6439.984	16881.000	6439.984	190.747	MM	18-Feb-10	08:45:48	595.6786	99.3	-0.7	289.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.57	9996.612	16881.000	9996.612	296.091	bb			685.3080	114.2	14.2	311.7
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.40	7636.027	16881.000	7636.027	226.172	bb			674.6279	112.4	12.4	330.2
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.37	10156.054	16881.000	10156.054	300.813	bb			332.0230	110.7	10.7	270.1
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.61	22997.145	16881.000	22997.145	681.155	MM	18-Feb-10	08:49:12	642.9383	107.2	7.2	748.4
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.26	5379.695	16881.000	5379.695	159.342	MM	18-Feb-10	08:50:31	646.3895	107.7	7.7	160.4
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.43	16881.000		16881.000	16881.000	bb			484.8478	97.0	-3.0	2282.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.09	3107.994	16881.000	3107.994	92.056	bb			604.8589	100.8	0.8	698.8
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1567.810	16881.000	1567.810	46.437	bb			605.8236	101.0	1.0	345.9
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1788.032	16881.000	1788.032	52.960	bb			591.8030	98.6	-1.4	366.6
WXX100216-07CCV	PETN	361 > 62	24.44	32450.031	16881.000	32450.031	961.141	bb			592.6141	98.8	-1.2	10378.5

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 0045
Standard Number: WXX100216-07CCV
Data File: EXP0216065a

HMX	114.3
RDX	115.8
135-TNB	98.3
13-DNB	101.2
Tetryl	94.1
Nitrobenzene	103.2
4A-26-DNT	99.3
2A-46-DNT	114.2
246-TNT	112.4
34-DNT(surr)	110.7
26-DNT	107.2
24-DNT	107.7
2-NT	100.8
4-NT	101.0
3-NT	98.6
PETN	98.8
Total	1677.6
Average	104.9

MOT 2/18/10

HMM 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216067a

Analysis Date: 18-FEB-10 01:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	50.874	127	
1,3-Dinitrobenzene-d4	500	574.253	115	
2,4,6-Trinitrotoluene	40	44.52	111	
2,4-Dinitrotoluene	40	35.748	89	
2,6-Dinitrotoluene	40	41.094	103	
2,6-Dinitrotoluene-d3	500	534.755	107	
2-Amino-4,6-dinitrotoluene	40	37.567	94	
3,4-Dinitrotoluene	20	20.903	105	
4-Amino-2,6-dinitrotoluene	40	37.482	94	
HMX	40	31.977	80	
Nitrobenzene	40	28.466	71	
PETN	40	44.163	110	
RDX	40	37.7	94	
Tetryl	40	40.159	100	
m-Dinitrobenzene	40	38.48	96	
m-Nitrotoluene	40	33.219	83	
o-Nitrotoluene	40	44.575	111	
p-Nitrotoluene	40	37.562	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216067a
Date: 18-Feb-2010
Time: 01:44:38
ID: WXX100216-08CRI
Vial: 1:1,C

MMP 2/18/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 9.740e+003
853.72

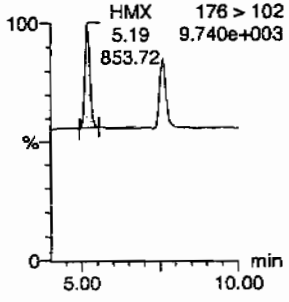

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
9.740e+003

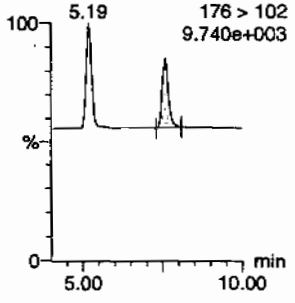

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.033e+004

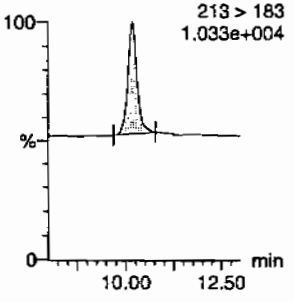

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.395e+004

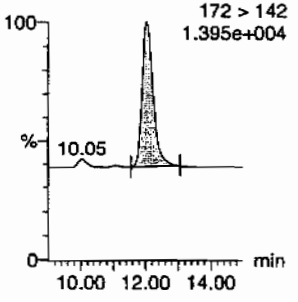

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.294e+003

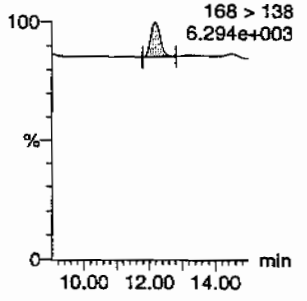

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.212e+003

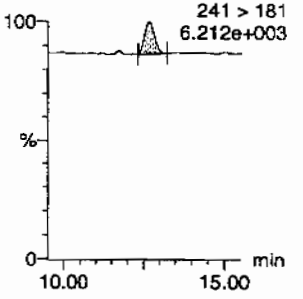

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.962e+003

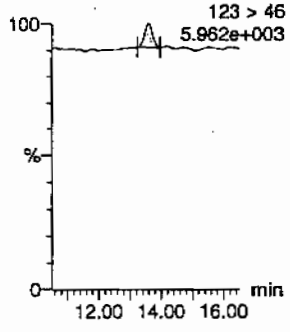

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.466e+003

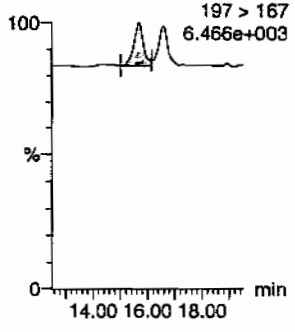

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.996e+003

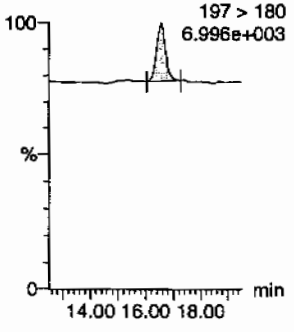

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.576e+003

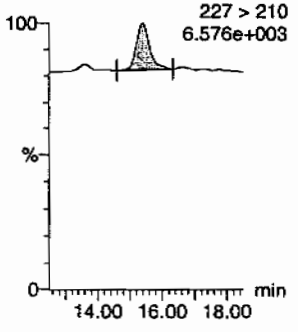

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.62 182 > 152
9.774e+003
18.25

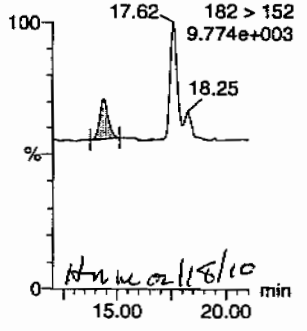

HMW 02/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.774e+003
14.38
18.25

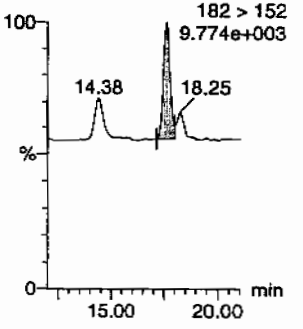

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

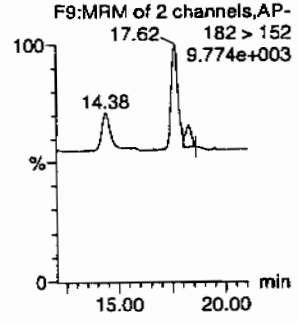

26-dinitrotoluene-d3

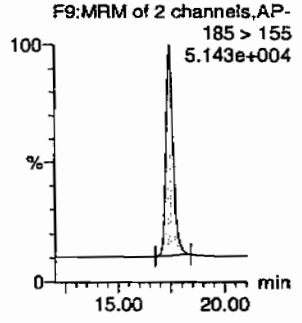

2-Nitrotoluene

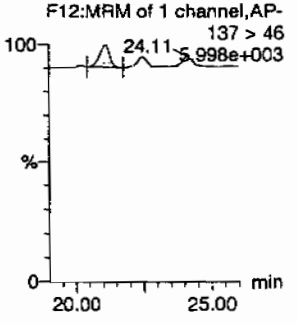

4-Nitrotoluene

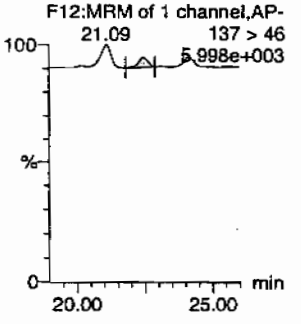

3-Nitrotoluene

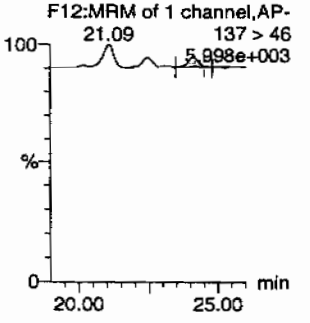

PETN

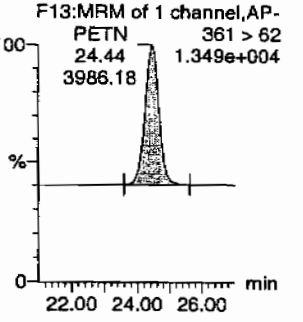

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	853.724	3459.779	853.724	123.378	bb			31.9768	79.9	-20.1	197.3
WXX100216-08CRI	RDX	176 > 102	7.59	676.552	3459.779	676.552	97.774	bb			37.7004	94.3	-5.7	132.5
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1363.239	3459.779	1363.239	197.012	bb			50.8741	127.2	27.2	225.1
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3459.779		3459.779	3459.779	bb			574.2532	114.9	14.9	215.0
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	316.458	3459.779	316.458	45.734	bb			38.4797	96.2	-3.8	49.6
WXX100216-08CRI	Tetryl	241 > 181	12.68	302.953	3459.779	302.953	43.782	bb			40.1585	100.4	0.4	45.9
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	169.101	3459.779	169.101	24.438	bb			28.4658	71.2	-28.8	16.7
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	446.929	18618.615	446.929	12.002	MM	18-Feb-10	08:46:00	37.4815	93.7	-6.3	9.9
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	604.400	18618.615	604.400	16.231	bb			37.5671	93.9	-6.1	115.4
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	555.791	18618.615	555.791	14.926	bb			44.5204	111.3	11.3	29.1
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	705.192	18618.615	705.192	18.938	bb			20.9026	104.5	4.5	30.4
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1621.167	18618.615	1621.167	43.536	MM	18-Feb-10	08:49:18	41.0936	102.7	2.7	86.4
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.25	328.140	18618.615	328.140	8.812	MM	18-Feb-10	08:50:18	35.7476	89.4	-10.6	18.8
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	18618.615		18618.615	18618.615	bb			534.7547	107.0	7.0	729.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	252.621	18618.615	252.621	6.784	bb			44.5753	111.4	11.4	39.4
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	107.213	18618.615	107.213	2.879	bb			37.5622	93.9	-6.1	17.2
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	110.695	18618.615	110.695	2.973	MM	18-Feb-10	08:53:07	33.2186	83.0	-17.0	17.0
WXX100216-08CRI	PETN	361 > 62	24.44	3986.175	18618.615	3986.175	107.048	bb			44.1631	110.4	10.4	1704.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	0144
Standard Number	WXX100216-08CRI
Data File	EXP0216067a

HMX	79.9
RDX	94.3
135-TNB	127.2
13-DNB	96.2
Tetryl	100.4
Nitrobenzene	71.2
4A-26-DNT	93.7
2A-46-DNT	93.9
246-TNT	111.3
34-DNT(surr)	104.5
26-DNT	102.7
24-DNT	89.4
2-NT	111.4
4-NT	93.9
3-NT	83.0
PETN	110.4
Total	1563.4
Average	97.7

MJP 2/18/10

Hme 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216078a

Analysis Date: 18-FEB-10 07:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	520.611	87	
1,3-Dinitrobenzene-d4	500	542.41	108	
2,4,6-Trinitrotoluene	600	648.856	108	
2,4-Dinitrotoluene	600	647.037	108	
2,6-Dinitrotoluene	600	629.886	105	
2,6-Dinitrotoluene-d3	500	468.716	94	
2-Amino-4,6-dinitrotoluene	600	615.257	103	
3,4-Dinitrotoluene	300	357.759	119	
4-Amino-2,6-dinitrotoluene	600	549.787	92	
HMX	600	519.274	87	
Nitrobenzene	600	504.757	84	
PETN	600	715.342	119	
RDX	600	628.868	105	
Tetryl	600	541.018	90	
m-Dinitrobenzene	600	590.189	98	
m-Nitrotoluene	600	537.034	90	
o-Nitrotoluene	600	576.847	96	
p-Nitrotoluene	600	589.034	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216078a
Date: 18-Feb-2010
Time: 07:10:32
ID: WXX100216-07CCV
Vial: 1:1,B

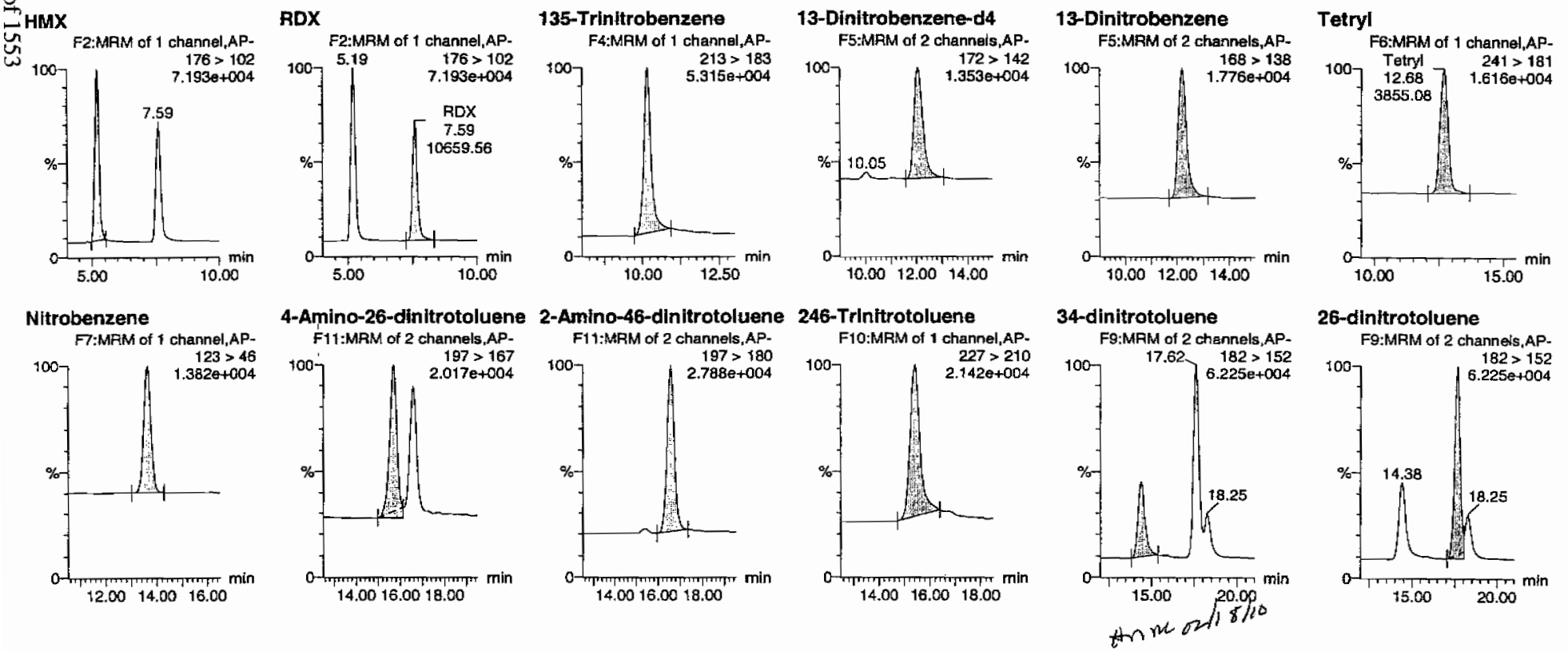

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

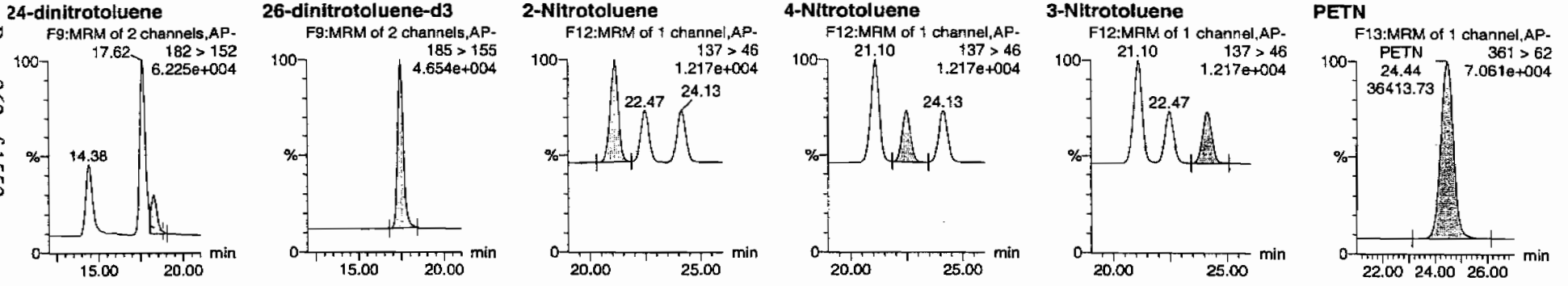

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	13094.961	3267.932	13094.961	2003.555	bb			519.2742	86.5	-13.5	2314.4
WXX100216-07CCV	RDX	176 > 102	7.59	10659.564	3267.932	10659.564	1630.934	bb			628.8683	104.8	4.8	1607.8
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13176.895	3267.932	13176.895	2016.091	bb			520.6113	86.8	-13.2	844.8
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3267.932		3267.932	3267.932	bb			542.4105	108.5	8.5	247.9
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.21	4584.592	3267.932	4584.592	701.452	bb			590.1891	98.4	-1.6	710.8
WXX100216-07CCV	Tetryl	241 > 181	12.68	3855.081	3267.932	3855.081	589.835	bb			541.0178	90.2	-9.8	423.8
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2832.244	3267.932	2832.244	433.339	bb			504.7572	84.1	-15.9	236.8
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5746.081	16319.334	5746.081	176.051	MM	18-Feb-10	08:46:17	549.7873	91.6	-8.4	542.5
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8676.166	16319.334	8676.166	265.825	bb			615.2570	102.5	2.5	836.2
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7099.956	16319.334	7099.956	217.532	bb			648.8559	108.1	8.1	417.5
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	10579.176	16319.334	10579.176	324.130	bb			357.7591	119.3	19.3	478.8
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.62	21780.637	16319.334	21780.637	667.326	MM	18-Feb-10	08:49:35	629.8856	105.0	5.0	1206.0
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	5205.910	16319.334	5205.910	159.501	MM	18-Feb-10	08:50:07	647.0369	107.8	7.8	267.1
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	16319.334		16319.334	16319.334	bb			468.7159	93.7	-6.3	1228.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.10	2865.436	16319.334	2865.436	87.793	bb			576.8466	96.1	-3.9	675.9
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.47	1473.642	16319.334	1473.642	45.150	bb			589.0342	98.2	-1.8	344.1
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.13	1568.570	16319.334	1568.570	48.059	bb			537.0337	89.5	-10.5	344.9
WXX100216-07CCV	PETN	361 > 62	24.44	36413.730	16319.334	36413.730	1115.662	bb			715.3425	119.2	19.2	7773.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Reste
Date of Analysis: 02/18/1
Time of Injection: 0710
Standard Number: WXX100216-07CCV
Data File: EXP0216078a

HMX		86.5
RDX		104.8
135-TNB		86.8
13-DNB		98.4
Tetryl		90.2
Nitrobenzene		84.1
4A-26-DNT		91.6
2A-46-DNT		102.5
246-TNT		108.1
34-DNT(surr)		119.3
26-DNT		105.0
24-DNT		107.8
2-NT		96.1
4-NT		98.2
3-NT		89.5
PETN		119.2
	Total	1588.1
	Average	99.3

MT 2/18/10

Hmm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216080a

Analysis Date: 18-FEB-10 08:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	481.497	96	
2-Amino-4,6-dinitrotoluene	40	41.233	103	
3,4-Dinitrotoluene	20	22.678	113	
4-Amino-2,6-dinitrotoluene	40	37.418	94	
HMX	40	43.826	110	
Nitrobenzene	40	37.223	93	
PETN	40	54.239	136	*
RDX	40	42.015	105	
Tetryl	40	39.964	100	
m-Dinitrobenzene	40	45.818	115	
m-Nitrotoluene	40	40.759	102	
o-Nitrotoluene	40	45.987	115	
p-Nitrotoluene	40	51.62	129	
1,3,5-Trinitrobenzene	40	48.403	121	
1,3-Dinitrobenzene-d4	500	494.727	99	
2,4,6-Trinitrotoluene	40	41.136	103	
2,4-Dinitrotoluene	40	38.771	97	
2,6-Dinitrotoluene	40	44.76	112	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216080a
Date: 18-Feb-2010
Time: 08:10:12
ID: WXX100216-08CRI
Vial: 1:1,C

MMT 2/18/10

HMX

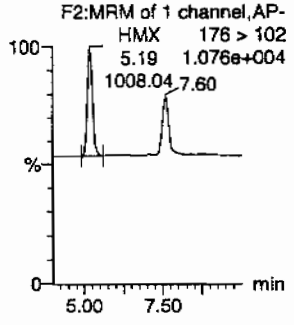

RDX

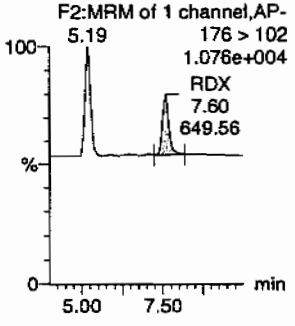

135-Trinitrobenzene

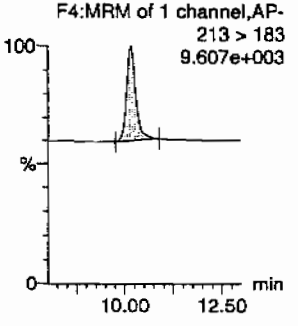

13-Dinitrobenzene-d4

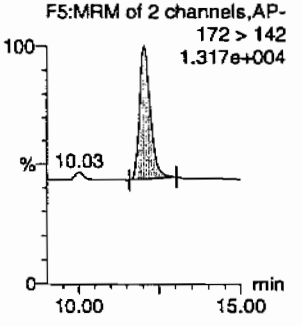

13-Dinitrobenzene

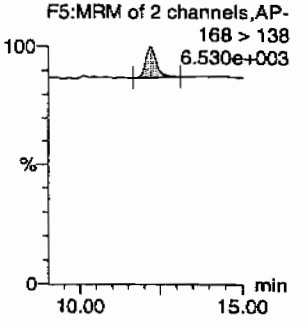

Tetryl

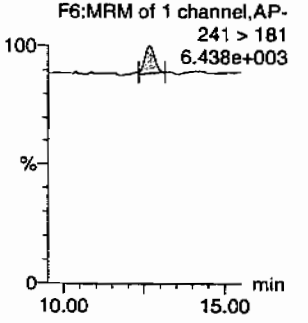

Nitrobenzene

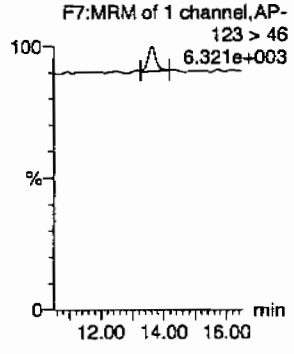

4-Amino-26-dinitrotoluene

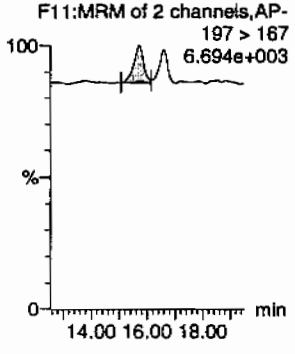

2-Amino-46-dinitrotoluene

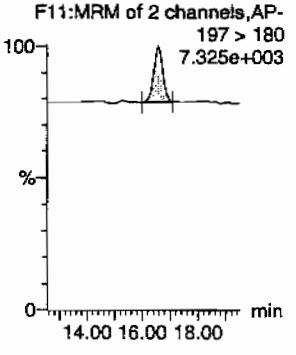

246-Trinitrotoluene

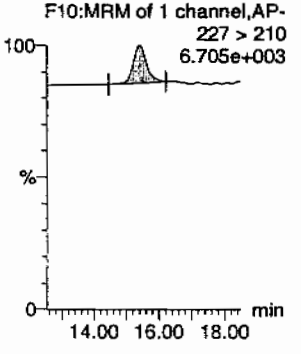

34-dinitrotoluene

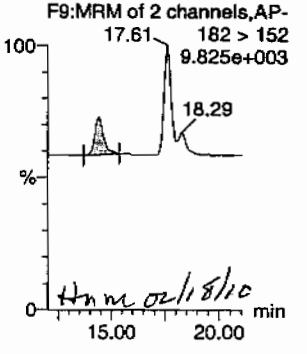

Hnm 02/18/10

26-dinitrotoluene

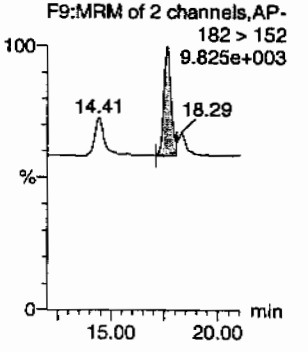

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA1.qld, Time: Thu Feb 18 08:53:07 2010

24-dinitrotoluene

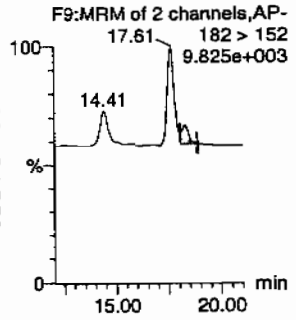

26-dinitrotoluene-d3

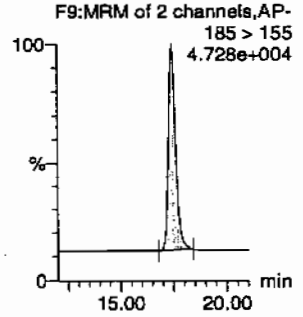

2-Nitrotoluene

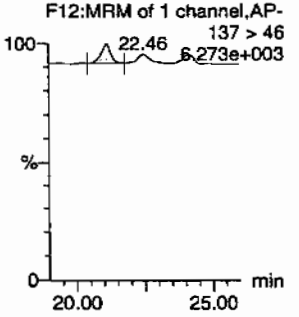

4-Nitrotoluene

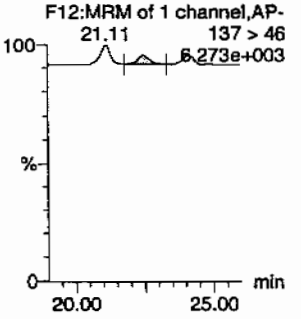

3-Nitrotoluene

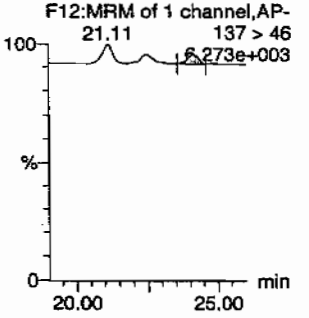

PETN

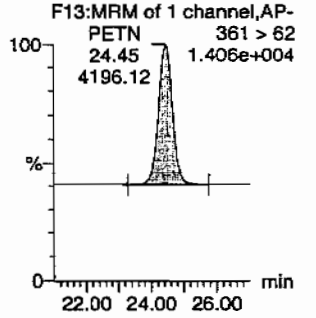

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ug/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1008.036	2980.646	1008.036	169.097	bb			43.8259	109.6	9.6	201.4
WXX100216-08CRI	RDX	176 > 102	7.60	649.563	2980.646	649.563	108.963	bb			42.0150	105.0	5.0	111.9
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1117.398	2980.646	1117.398	187.442	bb			48.4029	121.0	21.0	143.8
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	2980.646		2980.646	2980.646	bb			494.7268	98.9	-1.1	450.8
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	324.627	2980.646	324.627	54.456	bb			45.8182	114.5	14.5	34.8
WXX100216-08CRI	Tetryl	241 > 181	12.66	259.731	2980.646	259.731	43.570	db			39.9636	99.9	-0.1	29.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.61	190.499	2980.646	190.499	31.956	db			37.2226	93.1	-6.9	28.0
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	401.731	16764.338	401.731	11.982	MM	18-Feb-10	08:46:24	37.4175	93.5	-6.5	26.2
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.59	597.310	16764.338	597.310	17.815	bb			41.2330	103.1	3.1	68.2
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.44	462.397	16764.338	462.397	13.791	bb			41.1361	102.8	2.8	49.8
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.41	688.876	16764.338	688.876	20.546	bb			22.6775	113.4	13.4	28.8
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.61	1589.948	16764.338	1589.948	47.421	MM	18-Feb-10	08:49:42	44.7600	111.9	11.9	83.5
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.29	320.451	16764.338	320.451	9.558	MM	18-Feb-10	08:50:00	38.7713	96.9	-3.1	15.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.43	16764.338		16764.338	16764.338	bb			481.4971	96.3	-3.7	1198.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.11	234.663	16764.338	234.663	6.999	bb			45.9865	115.0	15.0	54.3
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.46	132.665	16764.338	132.665	3.957	bb			51.6203	129.1	29.1	25.9
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	122.295	16764.338	122.295	3.647	bb			40.7589	101.9	1.9	25.8
WXX100216-08CRI	PETN	361 > 62	24.45	4196.118	16764.338	4196.118	125.150	bb			54.2394	135.6	35.6	1668.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	0810
Standard Number	WXX100216-08CRI
Data File	EXP0216080a

HMX	109.6
RDX	105.0
135-TNB	121.0
13-DNB	114.5
Tetryl	99.9
Nitrobenzene	93.1
4A-26-DNT	93.5
2A-46-DNT	103.1
246-TNT	102.8
34-DNT(surr)	113.4
26-DNT	111.9
24-DNT	96.9
2-NT	115.0
4-NT	129.1
3-NT	101.9
PETN	135.6
Total	1746.3
Average	109.1

MTP 2/18/10

Hmc 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216089a

Analysis Date: 18-FEB-10 12:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	691.665	115	
2,4-Dinitrotoluene	600	659.229	110	
2,6-Dinitrotoluene	600	644.249	107	
2,6-Dinitrotoluene-d3	500	461.757	92	
2-Amino-4,6-dinitrotoluene	600	655.311	109	
3,4-Dinitrotoluene	300	351.733	117	
4-Amino-2,6-dinitrotoluene	600	586.497	98	
HMX	600	695.878	116	
Nitrobenzene	600	570.735	95	
PETN	600	765.325	128	*
RDX	600	762.426	127	*
Tetryl	600	584.833	97	
m-Dinitrobenzene	600	636.337	106	
m-Nitrotoluene	600	573.92	96	
o-Nitrotoluene	600	648.456	108	
p-Nitrotoluene	600	589.135	98	
1,3,5-Trinitrobenzene	600	575.828	96	
1,3-Dinitrobenzene-d4	500	495.598	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216089a
Date: 18-Feb-2010
Time: 12:36:18
ID: WXX100216-07CCV
Vial: 1:1,B

MM 2/19/10

HMX

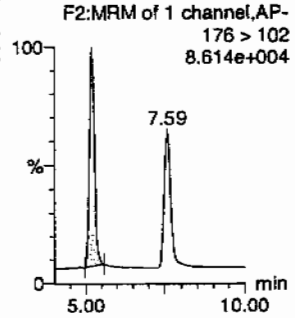

RDX

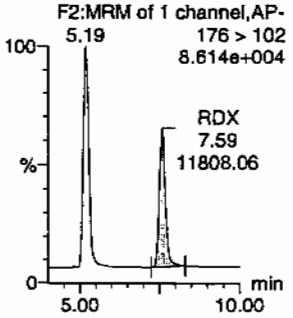

135-Trinitrobenzene

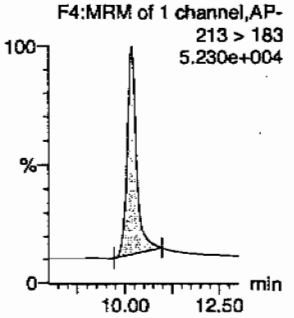

13-Dinitrobenzene-d4

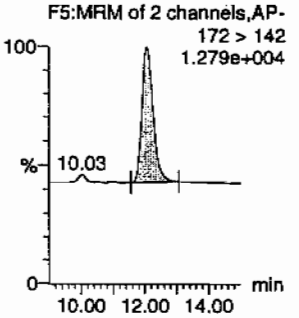

13-Dinitrobenzene

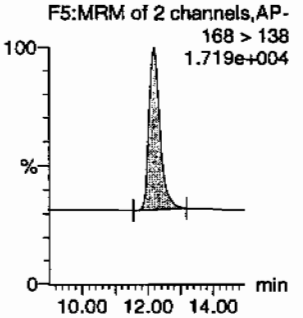

Tetryl

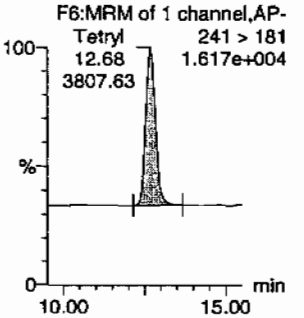

Nitrobenzene

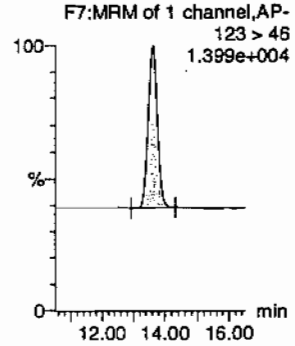

4-Amino-26-dinitrotoluene

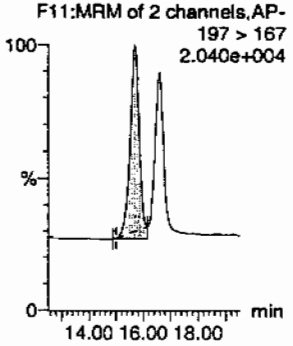

2-Amino-46-dinitrotoluene

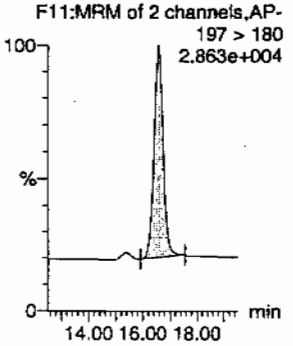

246-Trinitrotoluene

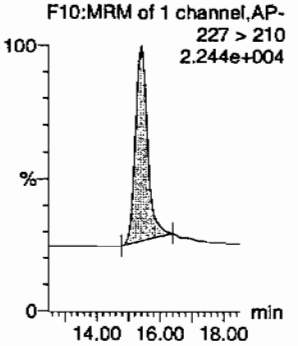

34-dinitrotoluene

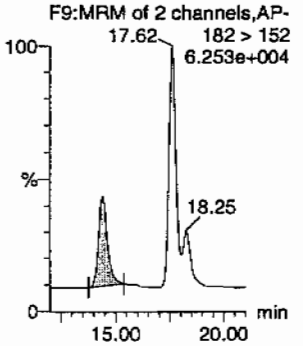

Hmw 02/19/10

26-dinitrotoluene

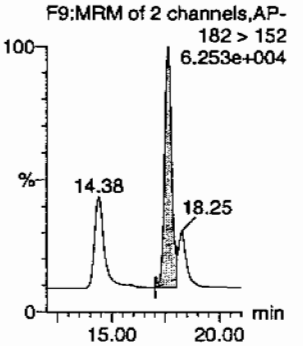

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

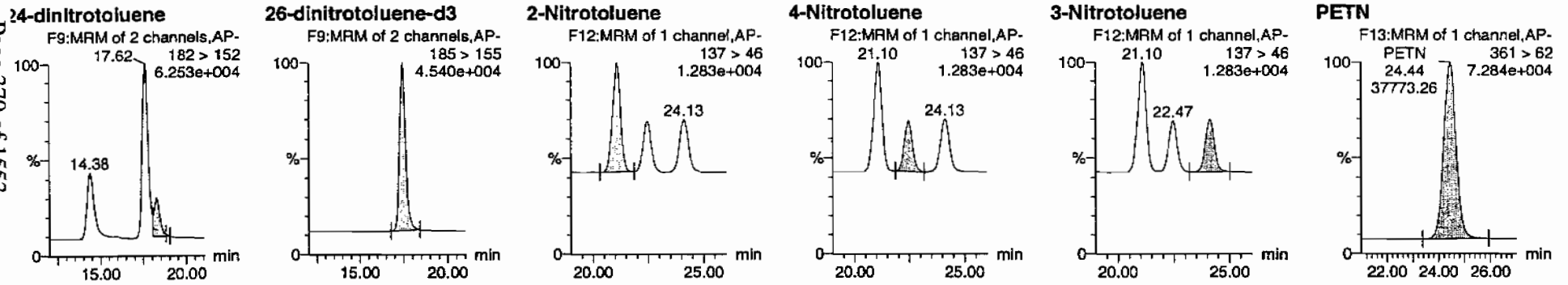

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	16034.003	2985.895	16034.003	2684.958	bb			695.8778	116.0	16.0	2037.0
WXX100216-07CCV	RDX	176 > 102	7.59	11808.064	2985.895	11808.064	1977.307	bb			762.4256	127.1	27.1	1280.5
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	13316.616	2985.895	13316.616	2229.920	bb			575.8281	96.0	-4.0	890.3
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2985.895		2985.895	2985.895	bb			495.5981	99.1	-0.9	653.7
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	4516.458	2985.895	4516.458	756.299	bb			636.3367	106.1	6.1	360.2
WXX100216-07CCV	Tetryl	241 > 181	12.68	3807.633	2985.895	3807.633	637.603	bb			584.8326	97.5	-2.5	267.7
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2926.067	2985.895	2926.067	489.982	bb			570.7352	95.1	-4.9	316.4
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	6038.745	16077.056	6038.745	187.806	MM	19-Feb-10	08:38:58	586.4966	97.7	-2.3	179.9
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	9103.798	16077.056	9103.798	283.130	bb			655.3106	109.2	9.2	218.0
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7456.020	16077.056	7456.020	231.884	bb			691.6646	115.3	15.3	356.6
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	10246.576	16077.056	10246.576	318.671	bb			351.7334	117.2	17.2	267.6
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.62	21946.574	16077.056	21946.574	682.543	MM	19-Feb-10	08:43:11	644.2490	107.4	7.4	711.3
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	5225.263	16077.056	5225.263	162.507	MM	19-Feb-10	08:46:54	659.2292	109.9	9.9	160.9
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.44	16077.056		16077.056	16077.056	bb			461.7573	92.4	-7.6	850.8
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.10	3173.327	16077.056	3173.327	98.691	bb			648.4558	108.1	8.1	417.7
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.47	1452.012	16077.056	1452.012	45.158	bb			589.1347	98.2	-1.8	190.0
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.13	1651.421	16077.056	1651.421	51.360	bb			573.9200	95.7	-4.3	197.5
WXX100216-07CCV	PETN	361 > 62	24.44	37773.258	16077.056	37773.258	1174.757	bb			765.3245	127.6	27.6	10691.0

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 1236
Standard Number: WXX100216-07CCV
Data File: EXP0216089a

HMX		116.0
RDX		127.1
135-TNB		96.0
13-DNB		106.1
Tetryl		97.5
Nitrobenzene		95.1
4A-26-DNT		97.7
2A-46-DNT		109.2
246-TNT		115.3
34-DNT(surr)		117.2
26-DNT		107.4
24-DNT		109.9
2-NT		108.1
4-NT		98.2
3-NT		95.7
PETN		127.6
Total		1724.1
Average		107.8

MDT 2/19/10

tm 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0216091a

Analysis Date: 18-FEB-10 13:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	40	34.55	86	
p-Nitrotoluene	40	31.551	79	
1,3,5-Trinitrobenzene	40	49.419	124	
1,3-Dinitrobenzene-d4	500	495.095	99	
2,4,6-Trinitrotoluene	40	63.823	160	*
2,4-Dinitrotoluene	40	44.759	112	
2,6-Dinitrotoluene	40	43.488	109	
2,6-Dinitrotoluene-d3	500	500.11	100	
2-Amino-4,6-dinitrotoluene	40	42.691	107	
3,4-Dinitrotoluene	20	22.924	115	
4-Amino-2,6-dinitrotoluene	40	39.308	98	
HMX	40	45.096	113	
Nitrobenzene	40	40.389	101	
PETN	40	50.626	127	
RDX	40	44.527	111	
Tetryl	40	44.164	110	
m-Dinitrobenzene	40	38.138	95	
m-Nitrotoluene	40	37.355	93	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216091a
Date: 18-Feb-2010
Time: 13:35:23
ID: WXX100216-08CRI
Vial: 1:1,C

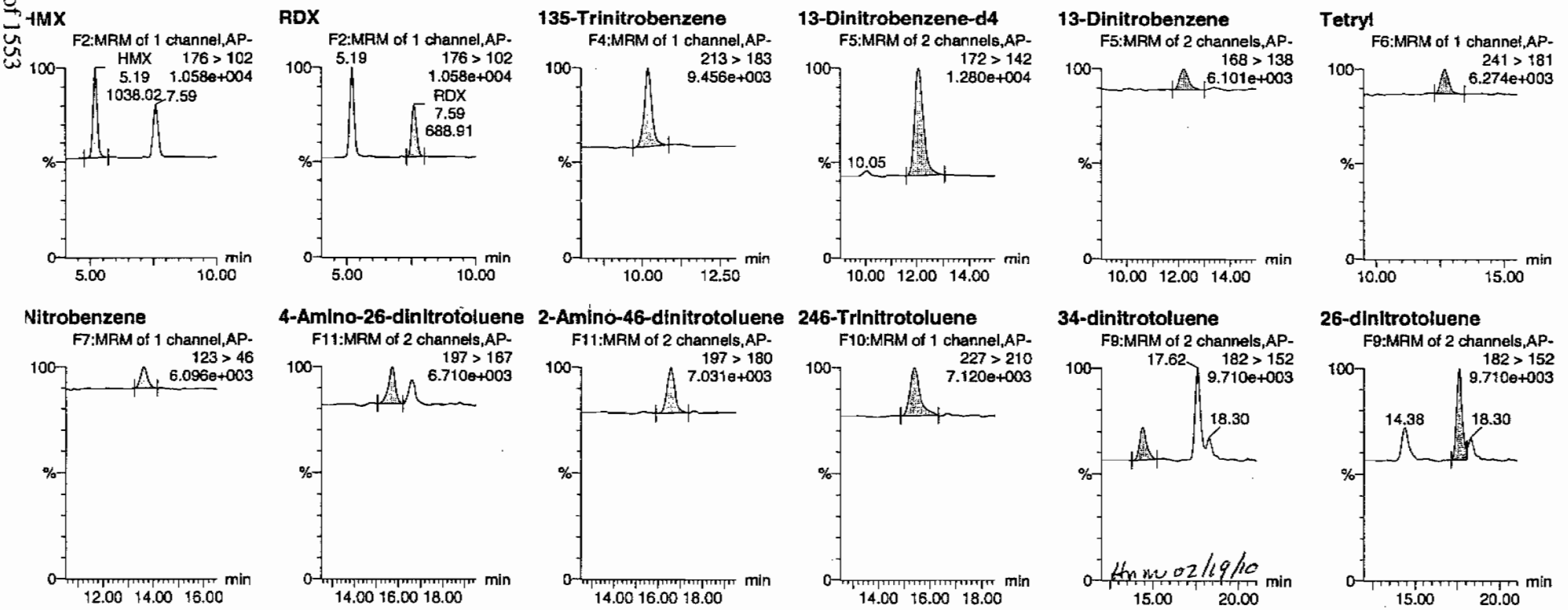

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

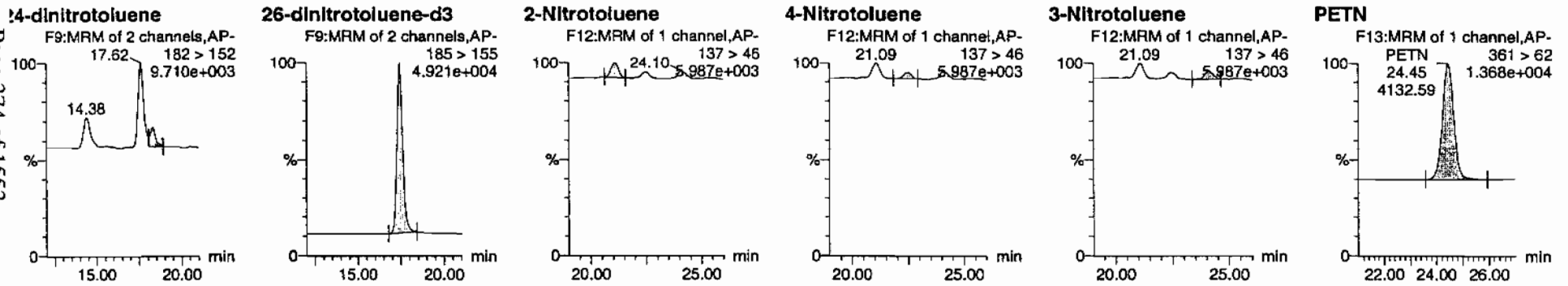

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1038.023	2982.866	1038.023	173.998	bb			45.0961	112.7	12.7	166.4
WXX100216-08CRI	RDX	176 > 102	7.59	688.912	2982.866	688.912	115.478	bb			44.5270	111.3	11.3	97.9
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1141.707	2982.866	1141.707	191.378	bb			49.4191	123.5	23.5	56.1
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2982.866		2982.866	2982.866	bb			495.0953	99.0	-1.0	121.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	270.413	2982.866	270.413	45.328	bb			38.1380	95.3	-4.7	27.2
WXX100216-08CRI	Tetryl	241 > 181	12.68	287.244	2982.866	287.244	48.149	bb			44.1640	110.4	10.4	28.0
WXX100216-08CRI	Nitrobenzene	123 > 46	13.58	206.859	2982.866	206.859	34.675	bb			40.3892	101.0	1.0	31.0
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	438.338	17412.377	438.338	12.587	bb			39.3076	98.3	-1.7	36.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	642.342	17412.377	642.342	18.445	bb			42.6913	106.7	6.7	109.0
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	745.148	17412.377	745.148	21.397	bb			63.8233	159.6	59.6	80.8
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	723.283	17412.377	723.283	20.769	bb			22.9241	114.6	14.6	41.3
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.62	1604.459	17412.377	1604.459	46.072	MM	19-Feb-10	08:43:19	43.4875	108.7	8.7	115.7
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.30	384.242	17412.377	384.242	11.034	MM	19-Feb-10	08:46:31	44.7591	111.9	11.9	26.9
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	17412.377		17412.377	17412.377	bb			500.1098	100.0	0.0	2498.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.09	183.120	17412.377	183.120	5.258	bb			34.5501	86.4	-13.6	48.1
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.47	84.222	17412.377	84.222	2.418	bb			31.5514	78.9	-21.1	19.4
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.10	116.415	17412.377	116.415	3.343	bb			37.3552	93.4	-6.6	24.4
WXX100216-08CRI	PETN	361 > 62	24.45	4132.593	17412.377	4132.593	118.668	bb			50.6256	126.6	26.6	818.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	1335
Standard Number	WXX100216-08CRI
Data File	EXP0216091a

HMX	112.7
RDX	111.3
135-TNB	123.5
13-DNB	95.3
Tetryl	110.4
Nitrobenzene	101.0
4A-26-DNT	98.3
2A-46-DNT	106.7
246-TNT	159.6
34-DNT(surr)	114.6
26-DNT	108.7
24-DNT	111.9
2-NT	86.4
4-NT	78.9
3-NT	93.4
PETN	126.6
Total	1739.3
Average	108.7

MAP 2/21/10

HM M. 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216101a

Analysis Date: 18-FEB-10 18:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	788.92	131	*
Tetryl	600	597.56	100	
m-Dinitrobenzene	600	622.496	104	
m-Nitrotoluene	600	569.513	95	
o-Nitrotoluene	600	604.641	101	
p-Nitrotoluene	600	614.496	102	
1,3,5-Trinitrobenzene	600	636.536	106	
1,3-Dinitrobenzene-d4	500	417.68	84	
2,4,6-Trinitrotoluene	600	691.126	115	
2,4-Dinitrotoluene	600	637.013	106	
2,6-Dinitrotoluene	600	619.323	103	
2,6-Dinitrotoluene-d3	500	397.466	79	*
2-Amino-4,6-dinitrotoluene	600	648.012	108	
3,4-Dinitrotoluene	300	329.226	110	
4-Amino-2,6-dinitrotoluene	600	589.342	98	
HMX	600	661.47	110	
Nitrobenzene	600	556.503	93	
PETN	600	838.314	140	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216101a
Date: 18-Feb-2010
Time: 18:31:14
ID: WXX100216-07CCV
Vial: 1:1,B

MMT 2/19/10

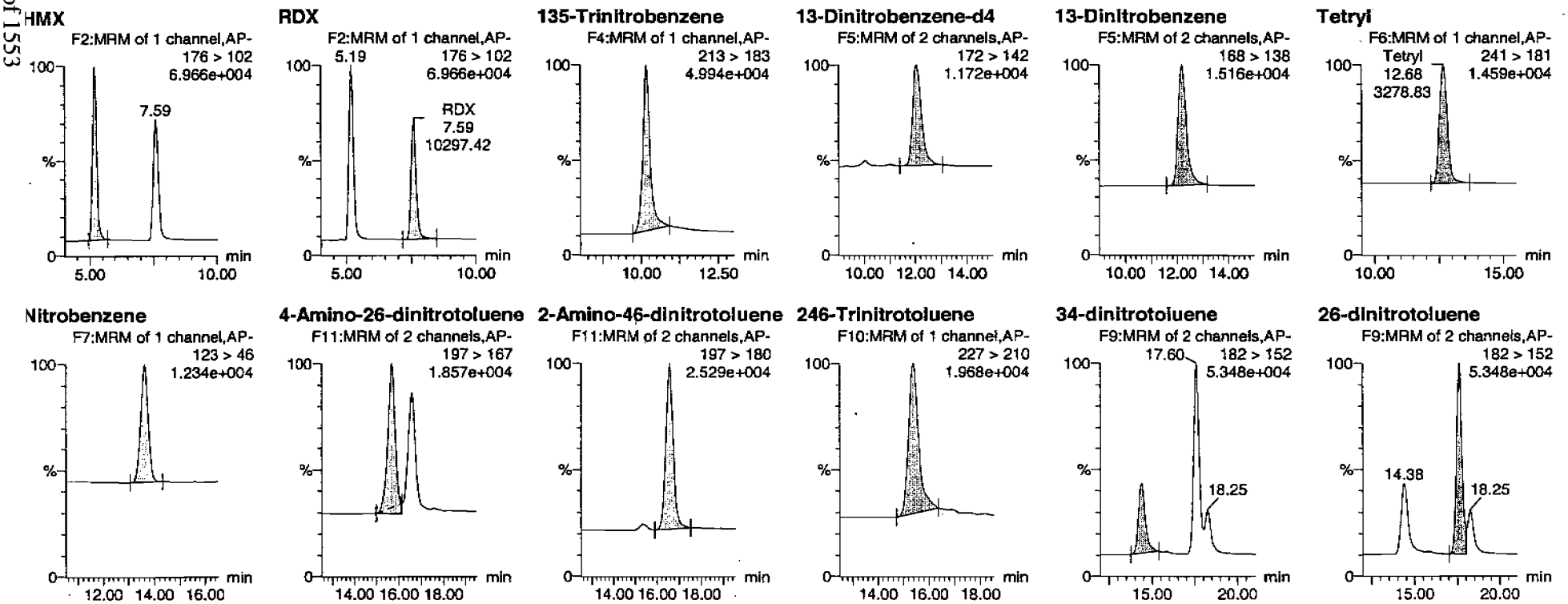

tmc 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

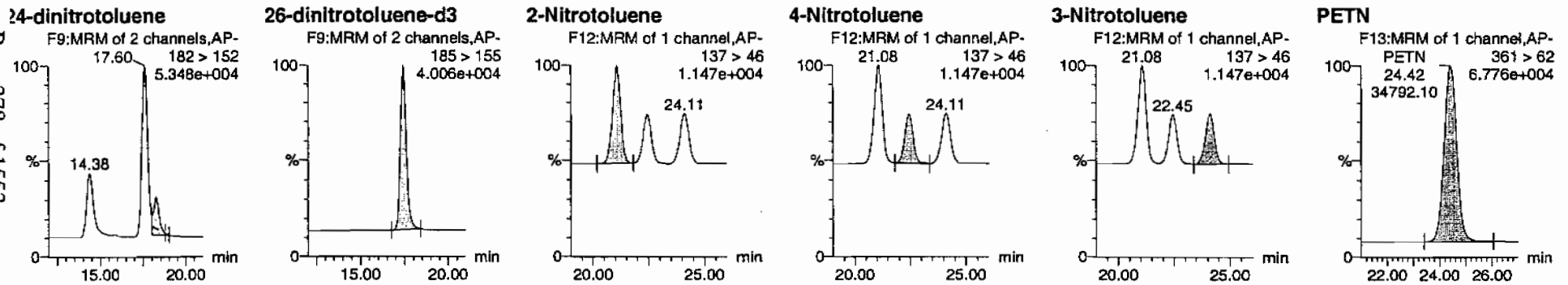

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	12844.975	2516.453	12844.975	2552.198	bb			661.4698	110.2	10.2	805.0
WXX100216-07CCV	RDX	176 > 102	7.59	10297.420	2516.453	10297.420	2046.019	bb			788.9199	131.5	31.5	562.4
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12406.179	2516.453	12406.179	2465.013	bb			636.5357	106.1	6.1	424.6
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2516.453		2516.453	2516.453	bb			417.6802	83.5	-16.5	330.0
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3723.589	2516.453	3723.589	739.849	bb			622.4958	103.7	3.7	190.3
WXX100216-07CCV	Tetryl	241 > 181	12.68	3278.833	2516.453	3278.833	651.479	bb			597.5600	99.6	-0.4	372.1
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2404.535	2516.453	2404.535	477.763	bb			556.5026	92.8	-7.2	198.0
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5223.180	13838.627	5223.180	188.717	MM	19-Feb-10	08:39:12	589.3419	98.2	-1.8	189.6
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7748.987	13838.627	7748.987	279.977	bb			648.0120	108.0	8.0	493.7
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.38	6412.913	13838.627	6412.913	231.703	bb			691.1262	115.2	15.2	120.2
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8255.552	13838.627	8255.552	298.279	bb			329.2262	109.7	9.7	337.2
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18160.029	13838.627	18160.029	656.136	MM	19-Feb-10	08:43:33	619.3228	103.2	3.2	922.8
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4346.167	13838.627	4346.167	157.030	MM	19-Feb-10	08:46:08	637.0129	106.2	6.2	207.3
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	13838.627		13838.627	13838.627	bb			397.4663	79.5	-20.5	1774.9
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2546.937	13838.627	2546.937	92.023	bb			604.6405	100.8	0.8	226.0
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1303.650	13838.627	1303.650	47.102	bb			614.4959	102.4	2.4	112.4
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1410.576	13838.627	1410.576	50.965	bb			569.5129	94.9	-5.1	114.8
WXX100216-07CCV	PETN	361 > 62	24.42	34792.098	13838.627	34792.098	1257.065	bb			838.3138	139.7	39.7	7852.2

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/18/10
Time of Injection: 1831
Standard Number: WXX100216-07CCV
Data File: EXP0216101a

HMX	110.2
RDX	131.5
135-TNB	106.1
13-DNB	109.7
Tetryl	99.6
Nitrobenzene	92.8
4A-26-DNT	98.2
2A-46-DNT	108.0
246-TNT	115.2
34-DNT(surr)	109.7
26-DNT	103.2
24-DNT	106.2
2-NT	100.8
4-NT	102.4
3-NT	94.9
PETN	139.7
Total	1728.2
Average	108.0

MAR 2/19/10

dhm 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216103a

Analysis Date: 18-FEB-10 19:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	58.779	147	*
1,3-Dinitrobenzene-d4	500	457.386	91	
2,4,6-Trinitrotoluene	40	46.527	116	
2,4-Dinitrotoluene	40	46.8	117	
2,6-Dinitrotoluene	40	41.187	103	
2,6-Dinitrotoluene-d3	500	451.82	90	
2-Amino-4,6-dinitrotoluene	40	40.759	102	
3,4-Dinitrotoluene	20	21.612	108	
4-Amino-2,6-dinitrotoluene	40	34.649	87	
HMX	40	46.441	116	
Nitrobenzene	40	31.128	78	
PETN	40	54.273	136	*
RDX	40	41.533	104	
Tetryl	40	53.24	133	*
m-Dinitrobenzene	40	46.745	117	
m-Nitrotoluene	40	40.745	102	
o-Nitrotoluene	40	34.511	86	
p-Nitrotoluene	40	26.865	67	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216103a
Date: 18-Feb-2010
Time: 19:30:18
ID: WXX100216-08CRI
Vial: 1:1,C

MMP 4/19/10

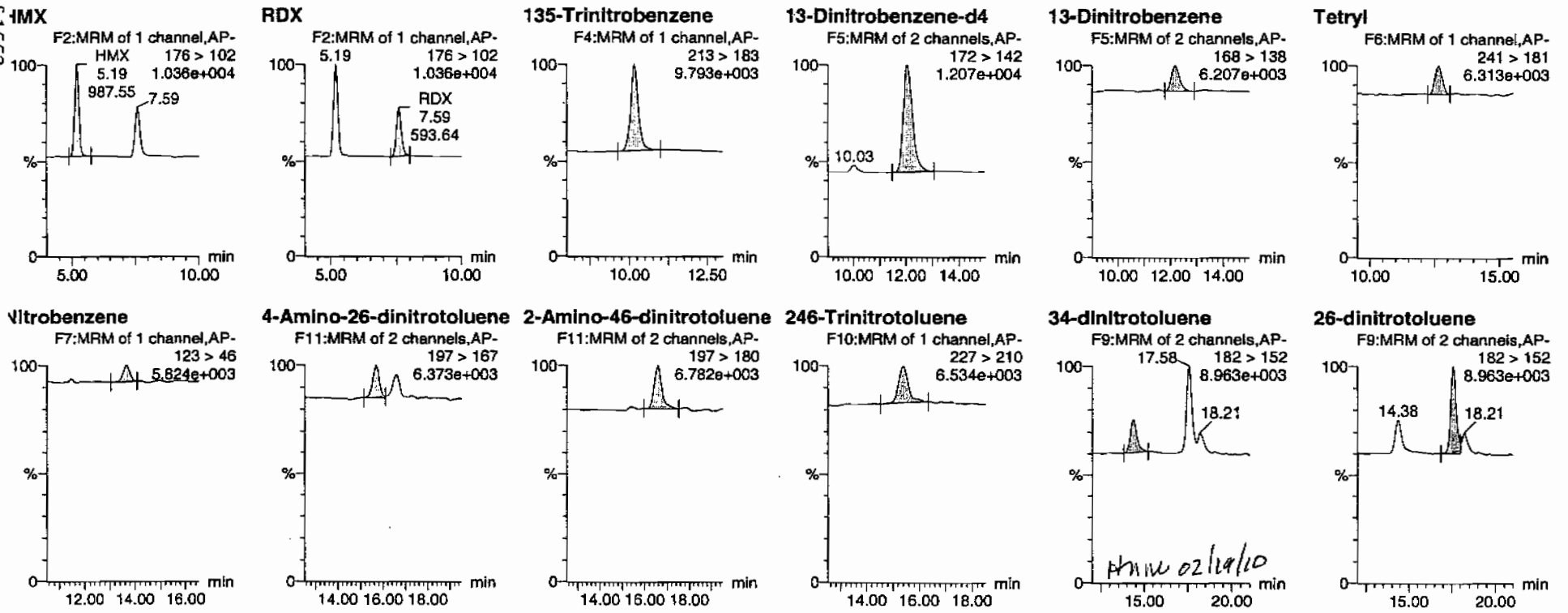

AMW 02/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

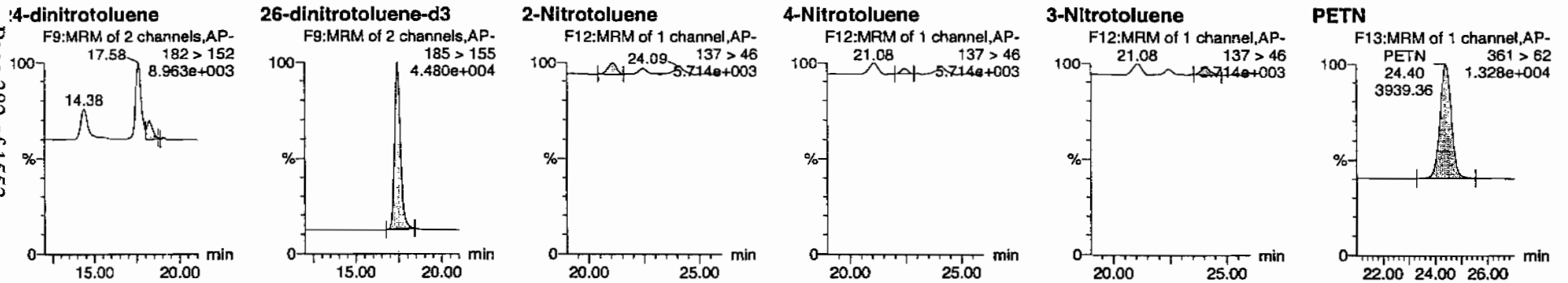

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	987.551	2755.674	987.551	179.165	bb			46.4405	116.1	16.1	119.3
WXX100216-08CRI	RDX	176 > 102	7.59	593.639	2755.674	593.639	107.712	bb			41.5325	103.8	3.8	63.3
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.16	1254.523	2755.674	1254.523	227.625	bb			58.7793	146.9	46.9	350.7
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2755.674		2755.674	2755.674	bb			457.3860	91.5	-8.5	182.7
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.21	306.197	2755.674	306.197	55.558	bb			46.7452	116.9	16.9	25.3
WXX100216-08CRI	Tetryl	241 > 181	12.68	319.900	2755.674	319.900	58.044	bd			53.2399	133.1	33.1	42.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	147.282	2755.674	147.282	26.723	bb			31.1277	77.8	-22.2	24.2
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	349.075	15731.055	349.075	11.095	MM	19-Feb-10	08:39:18	34.6486	86.6	-13.4	44.9
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	554.050	15731.055	554.050	17.610	bb			40.7589	101.9	1.9	110.5
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	490.756	15731.055	490.756	15.598	bb			46.5268	116.3	16.3	47.2
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	616.030	15731.055	616.030	19.580	bb			21.6115	108.1	8.1	45.2
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.58	1372.843	15731.055	1372.843	43.635	MM	19-Feb-10	08:43:46	41.1867	103.0	3.0	119.6
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.21	362.966	15731.055	362.966	11.537	MM	19-Feb-10	08:46:00	46.7997	117.0	17.0	29.0
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15731.055		15731.055	15731.055	bb			451.8197	90.4	-9.6	848.8
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	165.251	15731.055	165.251	5.252	bb			34.5111	86.3	-13.7	27.1
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.43	64.787	15731.055	64.787	2.059	bb			26.8646	67.2	-32.8	12.7
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.09	114.719	15731.055	114.719	3.646	bb			40.7453	101.9	1.9	17.0
WXX100216-08CRI	PETN	361 > 62	24.40	3939.359	15731.055	3939.359	125.210	bb			54.2726	135.7	35.7	757.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/18/10
Time of Injection	1930
Standard Number	WXX100216-08CRI
Data File	EXP0216103a

HMX	116.1
RDX	103.8
135-TNB	146.9
13-DNB	116.9
Tetryl	133.1
Nitrobenzene	77.8
4A-26-DNT	86.6
2A-46-DNT	101.9
246-TNT	116.3
34-DNT(surr)	108.1
26-DNT	103.0
24-DNT	117.0
2-NT	86.3
4-NT	67.2
3-NT	101.9
PETN	135.7
Total	1718.6
Average	107.4

HMT 2/19/10

Hmc 02/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216114a **Analysis Date:** 19-FEB-10 00:55

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	571.409	95	
1,3-Dinitrobenzene-d4	500	465.878	93	
2,4,6-Trinitrotoluene	600	690.895	115	
2,4-Dinitrotoluene	600	648.45	108	
2,6-Dinitrotoluene	600	627.387	105	
2,6-Dinitrotoluene-d3	500	447.599	90	
2-Amino-4,6-dinitrotoluene	600	606.475	101	
3,4-Dinitrotoluene	300	332.84	111	
4-Amino-2,6-dinitrotoluene	600	583.14	97	
HMX	600	691.106	115	
Nitrobenzene	600	588.13	98	
PETN	600	649.5	108	
RDX	600	760.723	127	*
Tetryl	600	549.314	92	
m-Dinitrobenzene	600	621.892	104	
m-Nitrotoluene	600	658.774	110	
o-Nitrotoluene	600	731.578	122	*
p-Nitrotoluene	600	638.105	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216114a
Date: 19-Feb-2010
Time: 00:55:04
ID: WXX100216-07CCV
Vial: 1:1,B

MAT 2/19/10

HMX

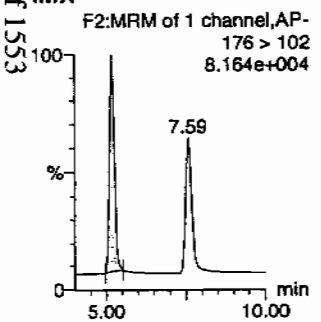

RDX

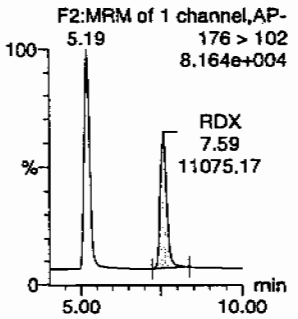

135-Trinitrobenzene

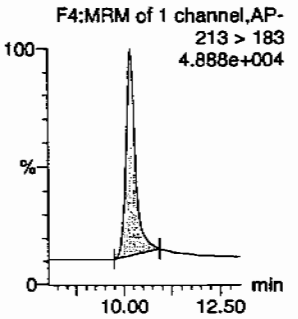

13-Dinitrobenzene-d4

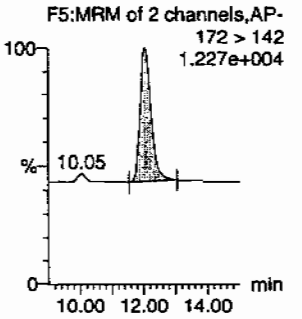

13-Dinitrobenzene

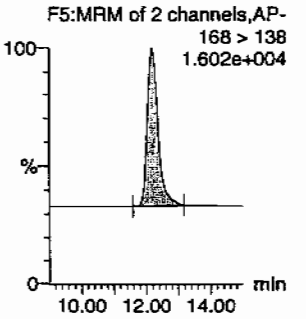

Tetryl

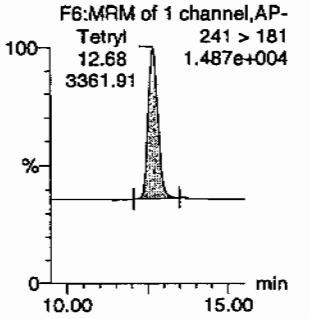

Nitrobenzene

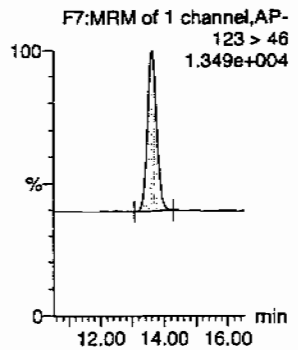

4-Amino-26-dinitrotoluene

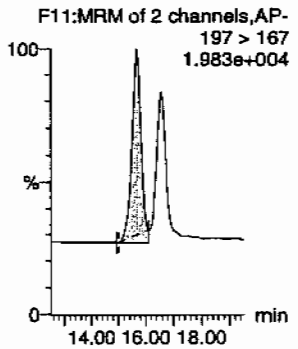

2-Amino-46-dinitrotoluene

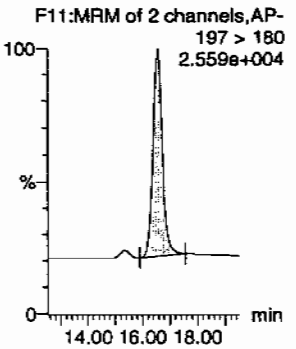

246-Trinitrotoluene

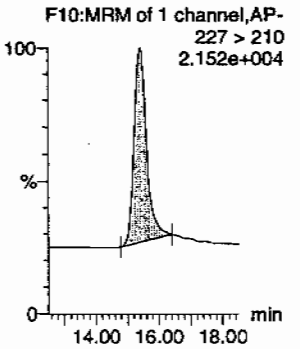

34-dinitrotoluene

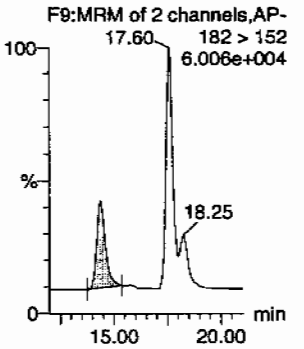

Kmm 02/19/10

26-dinitrotoluene

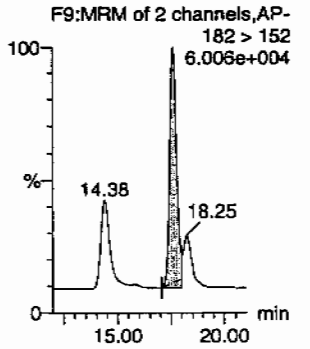

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ataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

4-dinitrotoluene

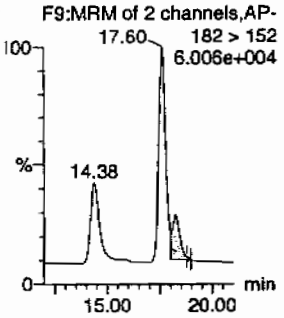

26-dinitrotoluene-d3

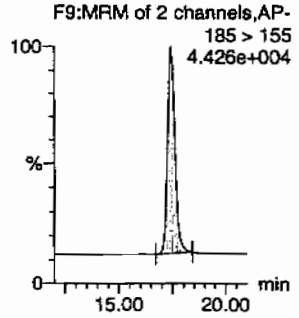

2-Nitrotoluene

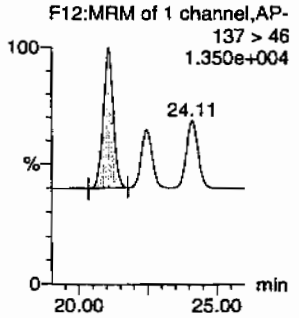

4-Nitrotoluene

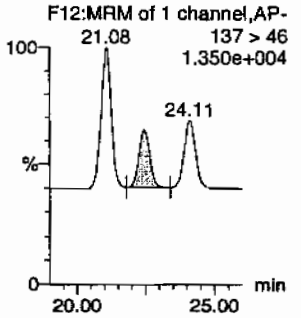

3-Nitrotoluene

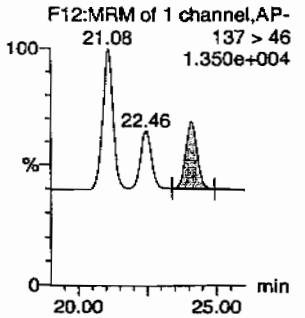

PETN

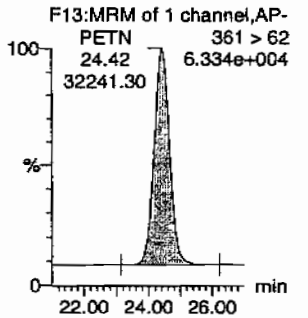

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100216-07CCV	HMX	176 > 102	5.19	14969.111	2806.837	14969.111	2666.544	bb			691.1056	115.2	15.2	1193.4
VXX100216-07CCV	RDX	176 > 102	7.59	11075.168	2806.837	11075.168	1972.891	bb			760.7228	126.8	26.8	742.0
VXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	12421.971	2806.837	12421.971	2212.806	bb			571.4087	95.2	-4.8	748.6
VXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	2806.837		2806.837	2806.837	bb			465.8781	93.2	-6.8	619.5
VXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.20	4149.243	2806.837	4149.243	739.131	bb			621.8923	103.6	3.6	930.8
VXX100216-07CCV	Tetryl	241 > 181	12.68	3361.914	2806.837	3361.914	598.879	bb			549.3137	91.6	-8.4	206.8
VXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2834.431	2806.837	2834.431	504.915	bb			588.1304	98.0	-2.0	310.1
VXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5820.088	15584.121	5820.088	186.731	MM	19-Feb-10	08:39:50	583.1397	97.2	-2.8	247.4
VXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8167.027	15584.121	8167.027	262.030	bb			606.4749	101.1	1.1	560.1
VXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	7219.366	15584.121	7219.366	231.626	bb			690.8946	115.1	15.1	540.5
VXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	9398.891	15584.121	9398.891	301.553	bb			332.8401	110.9	10.9	291.8
VXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	20716.889	15584.121	20716.889	664.679	MM	19-Feb-10	08:44:03	627.3874	104.6	4.6	804.4
VXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4982.229	15584.121	4982.229	159.850	MM	19-Feb-10	08:45:40	648.4495	108.1	8.1	168.8
VXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	15584.121		15584.121	15584.121	bb			447.5995	89.5	-10.5	1930.1
VXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	3470.329	15584.121	3470.329	111.342	bb			731.5776	121.9	21.9	122.3
VXX100216-07CCV	4-Nitrotoluene	137 > 46	22.46	1524.486	15584.121	1524.486	48.912	bb			638.1049	106.4	6.4	49.8
VXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1837.464	15584.121	1837.464	58.953	bb			658.7742	109.8	9.8	58.5
VXX100216-07CCV	PETN	361 > 62	24.42	32241.301	15584.121	32241.301	1034.428	bb			649.5005	108.3	8.3	10805.1

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 0055
Standard Number: WXX100216-07CCV
Data File: EXP0216114a

HMX		115.2
RDX		126.8
135-TNB		95.2
13-DNB		103.6
Tetryl		91.6
Nitrobenzene		98.0
4A-26-DNT		97.2
2A-46-DNT		101.1
246-TNT		115.1
34-DNT(surr)		110.9
26-DNT		104.6
24-DNT		108.1
2-NT		121.9
4-NT		106.4
3-NT		109.8
PETN		108.3
Total		1713.8
Average		107.1

MJP 2/19/10

tm 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216116a **Analysis Date:** 19-FEB-10 01:54

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	40	36.956	92	
HMX	40	44.381	111	
Nitrobenzene	40	40.08	100	
PETN	40	50.067	125	
RDX	40	41.692	104	
Tetryl	40	48.261	121	
m-Dinitrobenzene	40	44.048	110	
m-Nitrotoluene	40	38.744	97	
o-Nitrotoluene	40	45.248	113	
p-Nitrotoluene	40	44.246	111	
1,3,5-Trinitrobenzene	40	54.134	135	*
1,3-Dinitrobenzene-d4	500	470.242	94	
2,4,6-Trinitrotoluene	40	41.446	104	
2,4-Dinitrotoluene	40	40.654	102	
2,6-Dinitrotoluene	40	43.246	108	
2,6-Dinitrotoluene-d3	500	447.67	90	
2-Amino-4,6-dinitrotoluene	40	36.207	91	
3,4-Dinitrotoluene	20	19.336	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216116a
Date: 19-Feb-2010
Time: 01:54:19
ID: WXX100216-08CRI
Vial: 1:1,C

MM 4/9/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.038e+004
970.29 7.59

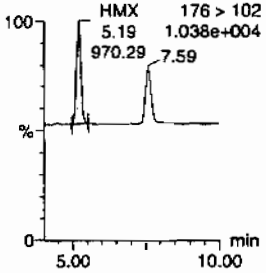

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.038e+004
RDX
7.59
612.66

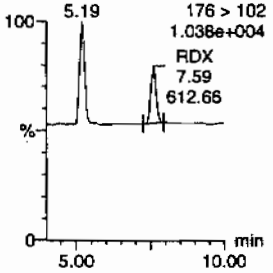

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.564e+003

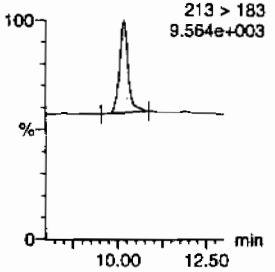

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.261e+004

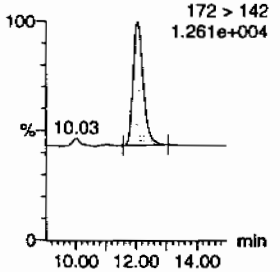

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.154e+003

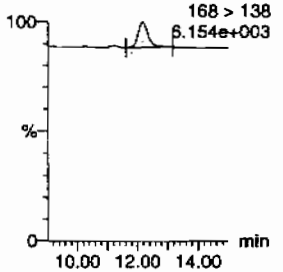

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.328e+003

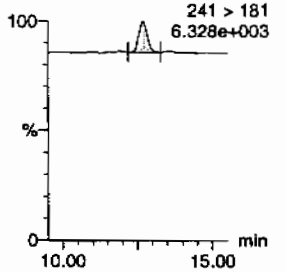

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.041e+003

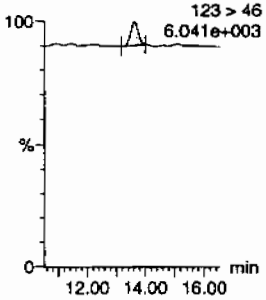

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.339e+003

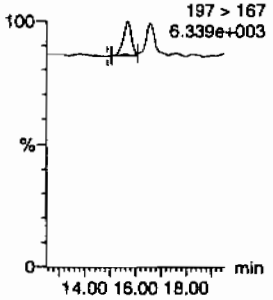

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.780e+003

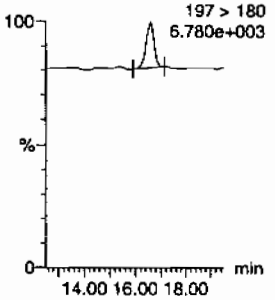

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.427e+003

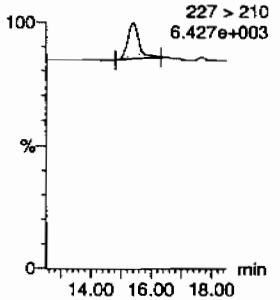

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.60 182 > 152
9.013e+003
18.23

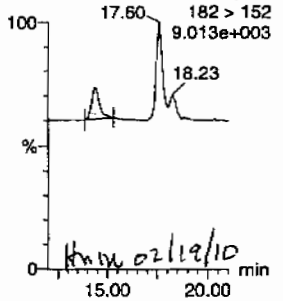

Kmm 02/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.013e+003
14.38
18.23

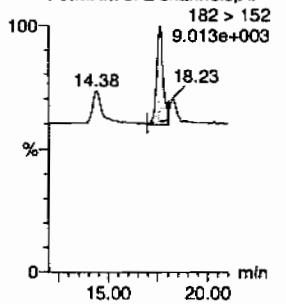

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

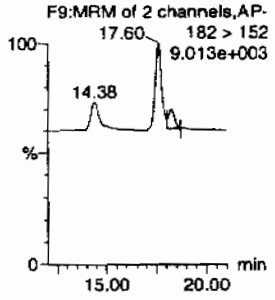

26-dinitrotoluene-d3

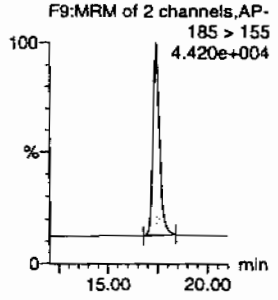

2-Nitrotoluene

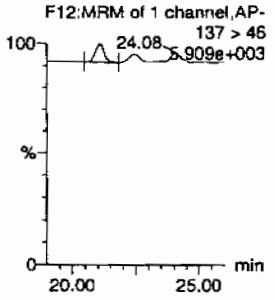

4-Nitrotoluene

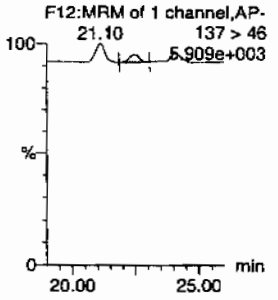

3-Nitrotoluene

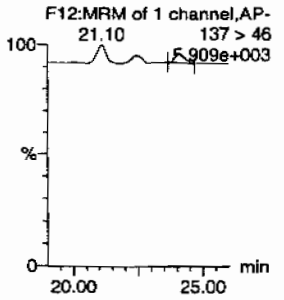

PETN

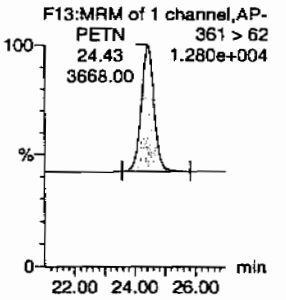

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	970.289	2833.130	970.289	171.240	bb			44.3813	111.0	11.0	149.0
WXX100216-08CRI	RDX	176 > 102	7.59	612.665	2833.130	612.665	108.125	bb			41.6917	104.2	4.2	82.7
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1187.855	2833.130	1187.855	209.637	bb			54.1340	135.3	35.3	146.8
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2833.130		2833.130	2833.130	bb			470.2422	94.0	-6.0	767.4
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.17	296.639	2833.130	296.639	52.352	bb			44.0479	110.1	10.1	43.0
WXX100216-08CRI	Tetryl	241 > 181	12.68	298.134	2833.130	298.134	52.616	bb			48.2610	120.7	20.7	37.3
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	194.969	2833.130	194.969	34.409	bb			40.0797	100.2	0.2	15.5
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	368.902	15586.563	368.902	11.834	MM	19-Feb-10	08:40:08	36.9561	92.4	-7.6	33.0
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	487.656	15586.563	487.656	15.643	bb			36.2071	90.5	-9.5	37.9
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.41	433.146	15586.563	433.146	13.895	bb			41.4457	103.6	3.6	86.2
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	546.092	15586.563	546.092	17.518	bb			19.3356	96.7	-3.3	50.2
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.60	1428.232	15586.563	1428.232	45.816	MM	19-Feb-10	08:44:14	43.2456	108.1	8.1	158.9
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	312.408	15586.563	312.408	10.022	MM	19-Feb-10	08:45:32	40.6543	101.6	1.6	37.0
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	15586.563		15586.563	15586.563	bb			447.6696	89.5	-10.5	3275.7
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.10	214.671	15586.563	214.671	6.886	bb			45.2476	113.1	13.1	114.9
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.44	105.725	15586.563	105.725	3.392	bb			44.2464	110.6	10.6	49.1
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.08	108.083	15586.563	108.083	3.467	bb			38.7442	96.9	-3.1	54.6
WXX100216-08CRI	PETN	361 > 62	24.43	3668.000	15586.563	3668.000	117.665	bb			50.0670	125.2	25.2	1125.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	0154
Standard Number	WXX100216-08CRI
Data File	EXP0216116a

HMX	111.0
RDX	104.2
135-TNB	135.3
13-DNB	110.1
Tetryl	120.7
Nitrobenzene	100.2
4A-26-DNT	92.4
2A-46-DNT	90.5
246-TNT	103.6
34-DNT(surr)	96.7
26-DNT	108.1
24-DNT	101.6
2-NT	113.1
4-NT	110.6
3-NT	96.9
PETN	125.2
Total	1720.2
Average	107.5

MJP 2/19/10

Hmc 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216126a **Analysis Date:** 19-FEB-10 06:51

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	600	639.245	107	
2,6-Dinitrotoluene-d3	500	397.902	80	*
2-Amino-4,6-dinitrotoluene	600	620.207	103	
3,4-Dinitrotoluene	300	328.459	109	
4-Amino-2,6-dinitrotoluene	600	549.091	92	
HMX	600	579.088	97	
Nitrobenzene	600	570.011	95	
PETN	600	752.558	125	*
RDX	600	664.439	111	
Tetryl	600	546.113	91	
m-Dinitrobenzene	600	654.383	109	
m-Nitrotoluene	600	546.709	91	
o-Nitrotoluene	600	565.725	94	
p-Nitrotoluene	600	596.095	99	
1,3,5-Trinitrobenzene	600	602.103	100	
1,3-Dinitrobenzene-d4	500	399.789	80	*
2,4,6-Trinitrotoluene	600	636.088	106	
2,4-Dinitrotoluene	600	631.293	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216126a
Date: 19-Feb-2010
Time: 06:51:55
ID: WXX100216-07CCV
Vial: 1:1,B

MT 2/19/10

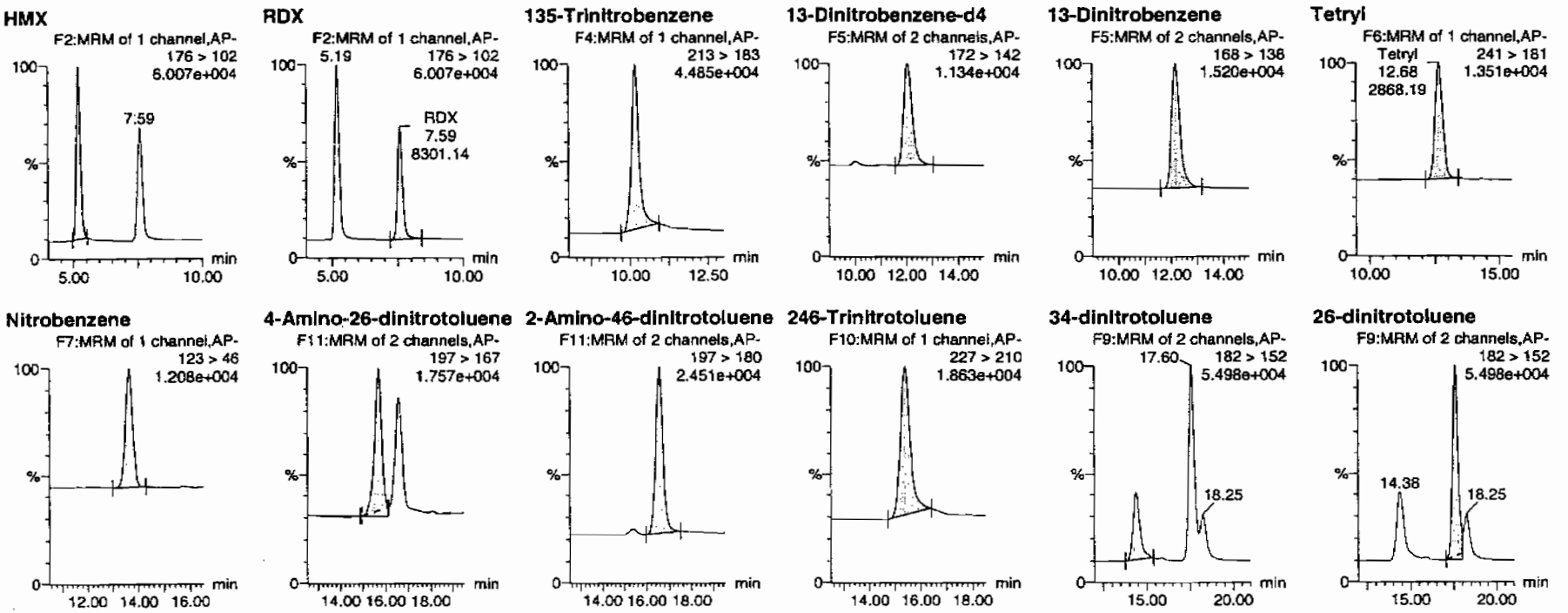

Hmc 02/19/10

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

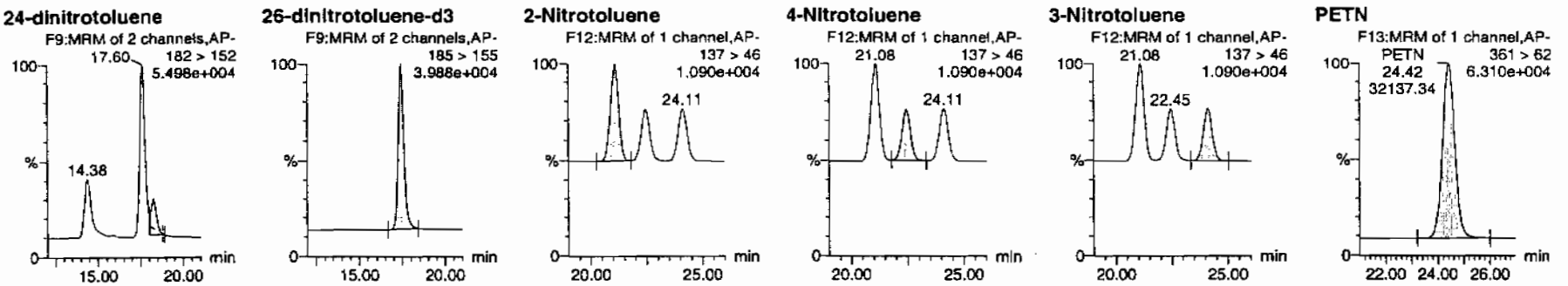

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-07CCV	HMX	176 > 102	5.19	10763.521	2408.661	10763.521	2234.337	bb			579.0876	96.5	-3.5	1447.4
WXX100216-07CCV	RDX	176 > 102	7.59	8301.136	2408.661	8301.136	1723.185	bb			664.4390	110.7	10.7	948.0
WXX100216-07CCV	135-Trinitrobenzene	213 > 183	10.18	11232.409	2408.661	11232.409	2331.671	bb			602.1029	100.4	0.4	594.9
WXX100216-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2408.661		2408.661	2408.661	bb			399.7889	80.0	-20.0	410.6
WXX100216-07CCV	13-Dinitrobenzene	168 > 138	12.17	3746.660	2408.661	3746.660	777.747	bb			654.3832	109.1	9.1	625.2
WXX100216-07CCV	Tetryl	241 > 181	12.68	2868.187	2408.661	2868.187	595.390	bb			546.1134	91.0	-9.0	233.9
WXX100216-07CCV	Nitrobenzene	123 > 46	13.63	2357.406	2408.661	2357.406	489.360	bb			570.0115	95.0	-5.0	201.3
WXX100216-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	4871.783	13853.808	4871.783	175.828	MM	19-Feb-10	08:40:41	549.0908	91.5	-8.5	722.8
WXX100216-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7424.633	13853.808	7424.633	267.964	bb			620.2074	103.4	3.4	998.6
WXX100216-07CCV	246-Trinitrotoluene	227 > 210	15.41	5908.694	13853.808	5908.694	213.252	bb			636.0882	106.0	6.0	440.8
WXX100216-07CCV	34-dinitrotoluene	182 > 152	14.38	8245.339	13853.808	8245.339	297.584	bb			328.4586	109.5	9.5	217.5
WXX100216-07CCV	26-dinitrotoluene	182 > 152	17.60	18764.768	13853.808	18764.768	677.242	MM	19-Feb-10	08:44:36	639.2453	106.5	6.5	633.1
WXX100216-07CCV	24-dinitrotoluene	182 > 152	18.25	4311.870	13853.808	4311.870	155.620	MM	19-Feb-10	08:45:00	631.2935	105.2	5.2	137.2
WXX100216-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	13853.808		13853.808	13853.808	bb			397.9023	79.6	-20.4	1755.6
WXX100216-07CCV	2-Nitrotoluene	137 > 46	21.08	2385.626	13853.808	2385.626	86.100	bb			565.7249	94.3	-5.7	842.5
WXX100216-07CCV	4-Nitrotoluene	137 > 46	22.45	1266.000	13853.808	1266.000	45.691	bb			596.0950	99.3	-0.7	436.0
WXX100216-07CCV	3-Nitrotoluene	137 > 46	24.11	1355.580	13853.808	1355.580	48.924	bb			546.7088	91.1	-8.9	445.0
WXX100216-07CCV	PETN	361 > 62	24.42	32137.336	13853.808	32137.336	1159.874	bb			752.5580	125.4	25.4	6987.9

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 0651
Standard Number: WXX100216-07CCV
Data File: EXP0216126a

HMX	96.5
RDX	110.7
135-TNB	100.4
13-DNB	109.1
Tetryl	91.0
Nitrobenzene	95.0
4A-26-DNT	91.5
2A-46-DNT	103.4
246-TNT	106.0
34-DNT(surr)	109.5
26-DNT	106.5
24-DNT	105.2
2-NT	94.3
4-NT	99.3
3-NT	91.1
PETN	125.4
Total	1634.9
Average	102.2

MT 2/19/10

Hmc 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0216128a

Analysis Date: 19–FEB–10 07:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	55.601	139	*
1,3–Dinitrobenzene–d4	500	449.803	90	
2,4,6–Trinitrotoluene	40	55.731	139	*
2,4–Dinitrotoluene	40	40.622	102	
2,6–Dinitrotoluene	40	39.408	99	
2,6–Dinitrotoluene–d3	500	428.152	86	
2–Amino–4,6–dinitrotoluene	40	37.221	93	
3,4–Dinitrotoluene	20	25.924	130	
4–Amino–2,6–dinitrotoluene	40	38.795	97	
HMX	40	51.235	128	
Nitrobenzene	40	44.876	112	
PETN	40	54.004	135	*
RDX	40	44.767	112	
Tetryl	40	41.893	105	
m–Dinitrobenzene	40	46.8	117	
m–Nitrotoluene	40	44.528	111	
o–Nitrotoluene	40	39.368	98	
p–Nitrotoluene	40	54.772	137	*

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216128a
Date: 19-Feb-2010
Time: 07:51:13
ID: WXX100216-08CRI
Vial: 1:1,C

MM 2/19/10

HMX

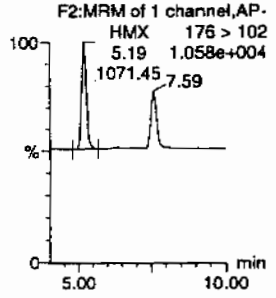

RDX

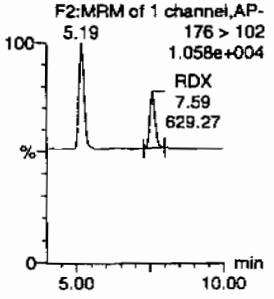

135-Trinitrobenzene

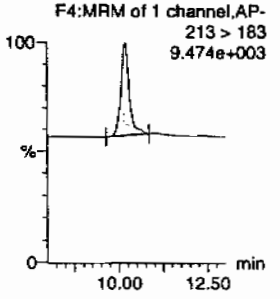

13-Dinitrobenzene-d4

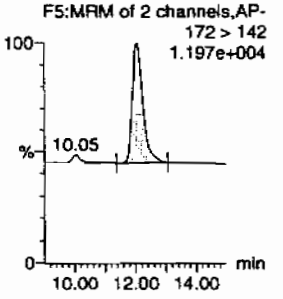

13-Dinitrobenzene

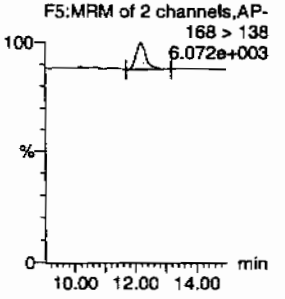

Tetryl

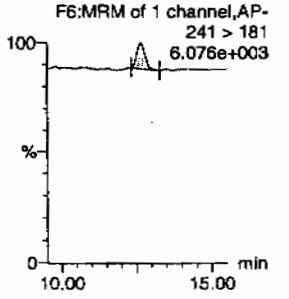

Nitrobenzene

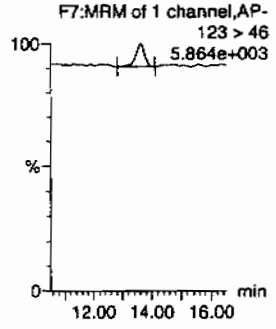

4-Amino-26-dinitrotoluene

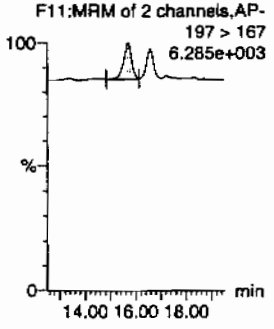

2-Amino-46-dinitrotoluene

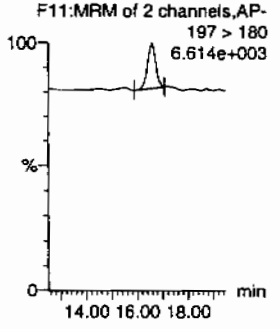

246-Trinitrotoluene

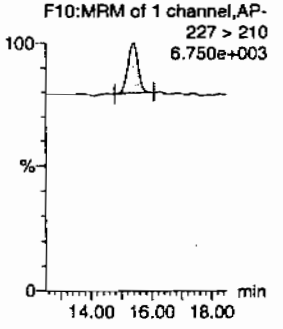

34-dinitrotoluene

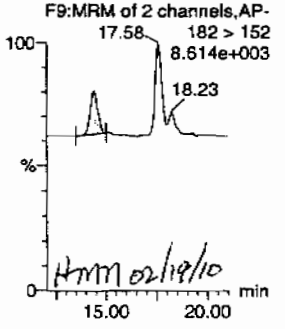

26-dinitrotoluene

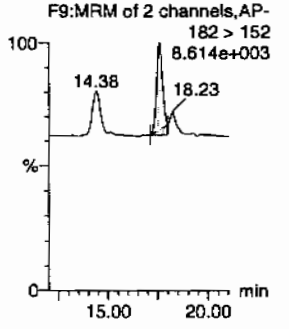

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA2.qld, Time: Fri Feb 19 08:48:26 2010

24-dinitrotoluene

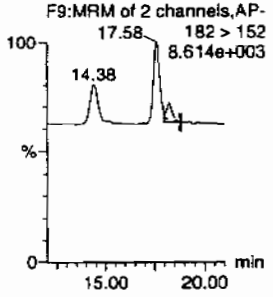

26-dinitrotoluene-d3

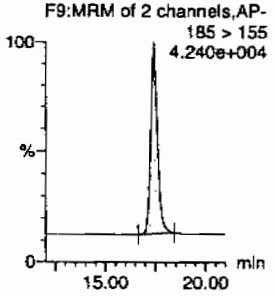

2-Nitrotoluene

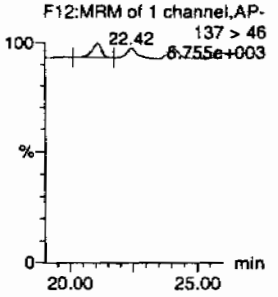

4-Nitrotoluene

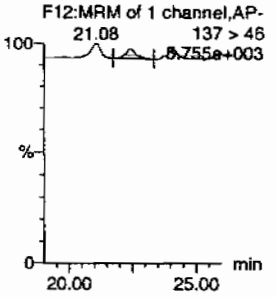

3-Nitrotoluene

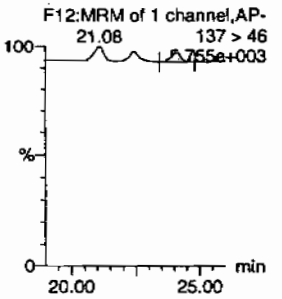

PETN

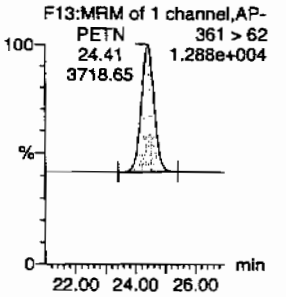

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100216-08CRI	HMX	176 > 102	5.19	1071.448	2709.986	1071.448	197.685	bb			51.2353	128.1	28.1	254.9
WXX100216-08CRI	RDX	176 > 102	7.59	629.268	2709.986	629.268	116.102	bb			44.7674	111.9	11.9	136.1
WXX100216-08CRI	135-Trinitrobenzene	213 > 183	10.18	1167.005	2709.986	1167.005	215.316	bb			55.6006	139.0	39.0	134.4
WXX100216-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2709.986		2709.986	2709.986	bb			449.8027	90.0	-10.0	92.3
WXX100216-08CRI	13-Dinitrobenzene	168 > 138	12.20	301.476	2709.986	301.476	55.623	bb			46.8004	117.0	17.0	31.1
WXX100216-08CRI	Tetryl	241 > 181	12.68	247.547	2709.986	247.547	45.673	bb			41.8930	104.7	4.7	23.4
WXX100216-08CRI	Nitrobenzene	123 > 46	13.63	208.814	2709.986	208.814	38.527	bb			44.8763	112.2	12.2	15.4
WXX100216-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	370.375	14907.007	370.375	12.423	MM	19-Feb-10	08:40:47	38.7951	97.0	-3.0	37.6
WXX100216-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	479.459	14907.007	479.459	16.082	bb			37.2214	93.1	-6.9	51.1
WXX100216-08CRI	246-Trinitrotoluene	227 > 210	15.38	557.049	14907.007	557.049	18.684	bb			55.7311	139.3	39.3	59.0
WXX100216-08CRI	34-dinitrotoluene	182 > 152	14.38	700.235	14907.007	700.235	23.487	bb			25.9236	129.6	29.6	54.4
WXX100216-08CRI	26-dinitrotoluene	182 > 152	17.58	1244.735	14907.007	1244.735	41.750	MM	19-Feb-10	08:44:46	39.4076	98.5	-1.5	115.4
WXX100216-08CRI	24-dinitrotoluene	182 > 152	18.23	298.548	14907.007	298.548	10.014	MM	19-Feb-10	08:44:53	40.6217	101.6	1.6	28.4
WXX100216-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	14907.007		14907.007	14907.007	bb			428.1517	85.6	-14.4	1997.5
WXX100216-08CRI	2-Nitrotoluene	137 > 46	21.08	178.632	14907.007	178.632	5.992	bb			39.3678	98.4	-1.6	20.2
WXX100216-08CRI	4-Nitrotoluene	137 > 46	22.42	125.170	14907.007	125.170	4.198	bb			54.7723	136.9	36.9	13.4
WXX100216-08CRI	3-Nitrotoluene	137 > 46	24.11	118.801	14907.007	118.801	3.985	bb			44.5276	111.3	11.3	12.6
WXX100216-08CRI	PETN	361 > 62	24.41	3718.648	14907.007	3718.648	124.728	bb			54.0040	135.0	35.0	1127.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	0751
Standard Number	WXX100216-08CRI
Data File	EXP0216128a

HMX	128.1
RDX	111.9
135-TNB	139.0
13-DNB	117.0
Tetryl	104.7
Nitrobenzene	112.2
4A-26-DNT	97.0
2A-46-DNT	93.1
246-TNT	139.3
34-DNT(surr)	129.6
26-DNT	98.5
24-DNT	101.6
2-NT	98.4
4-NT	136.9
3-NT	111.3
PETN	135.0
Total	1853.6
Average	115.9

MAP 4/9/10

HM 02/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0216139a **Analysis Date:** 19-FEB-10 13:16

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	615.3	103	
m-Nitrotoluene	600	562.081	94	
o-Nitrotoluene	600	617.05	103	
p-Nitrotoluene	600	581.656	97	
1,3,5-Trinitrobenzene	600	581.663	97	
1,3-Dinitrobenzene-d4	500	443.331	89	
2,4,6-Trinitrotoluene	600	659.577	110	
2,4-Dinitrotoluene	600	628.747	105	
2,6-Dinitrotoluene	600	636.836	106	
2,6-Dinitrotoluene-d3	500	420.393	84	
2-Amino-4,6-dinitrotoluene	600	637.114	106	
3,4-Dinitrotoluene	300	320.79	107	
4-Amino-2,6-dinitrotoluene	600	595.642	99	
HMX	600	592.154	99	
Nitrobenzene	600	551.705	92	
PETN	600	668.485	111	
RDX	600	661.851	110	
Tetryl	600	569.897	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216139a
Date: 19-Feb-2010
Time: 13:16:57
ID: WXX100219-07CCV
Vial: 1:1,B

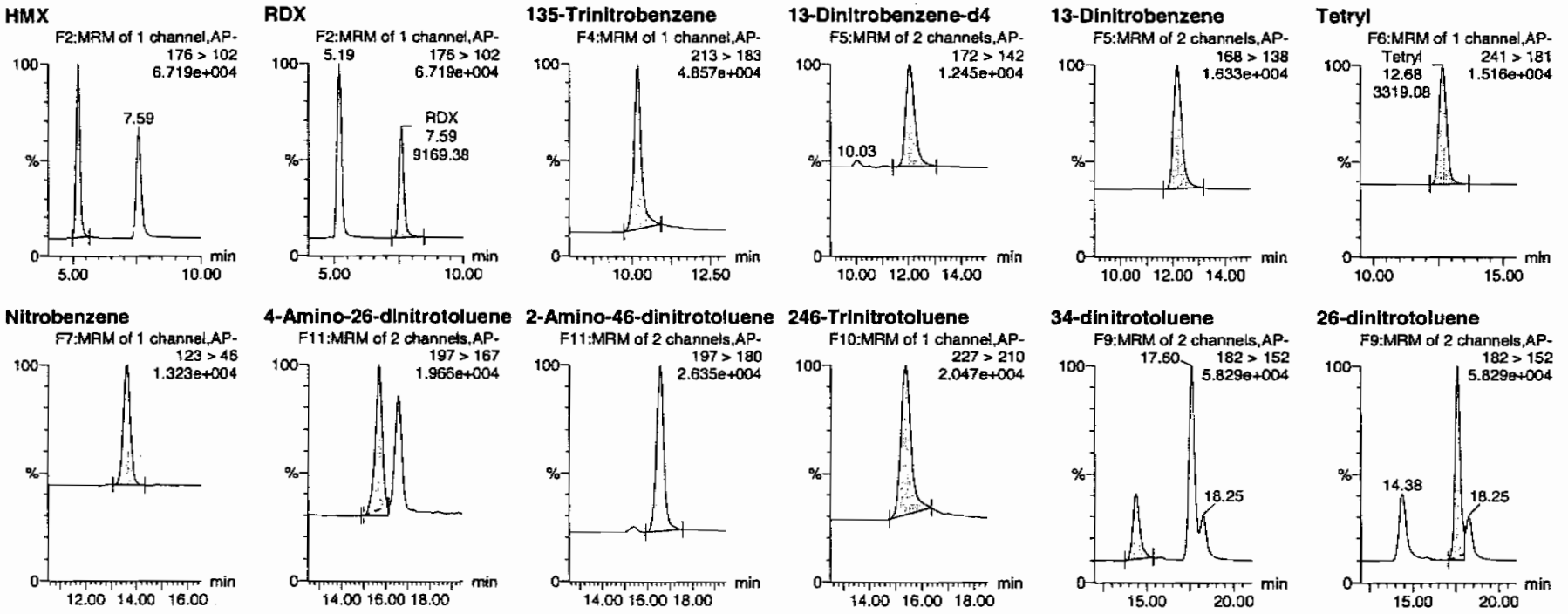

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

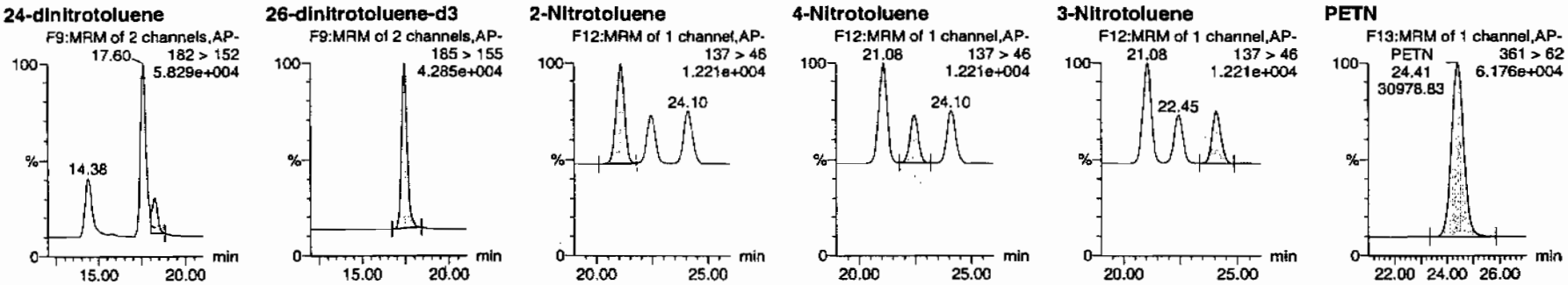

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	12205.122	2670.995	12205.122	2284.752	bb			592.1540	98.7	-1.3	1579.1
WXX100219-07CCV	RDX	176 > 102	7.59	9169.379	2670.995	9169.379	1716.473	bb			661.8509	110.3	10.3	1007.2
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	12032.914	2670.995	12032.914	2252.515	bb			581.6628	96.9	-3.1	315.0
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2670.995		2670.995	2670.995	bb			443.3310	88.7	-11.3	218.1
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	3906.578	2670.995	3906.578	731.296	bb			615.3000	102.6	2.6	376.1
WXX100219-07CCV	Tetryl	241 > 181	12.68	3319.083	2670.995	3319.083	621.320	bb			569.8966	95.0	-5.0	282.6
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2530.200	2670.995	2530.200	473.644	bb			551.7047	92.0	-8.0	232.8
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	5583.528	14636.881	5583.528	190.735	MM	20-Feb-10	10:04:05	595.6423	99.3	-0.7	161.9
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	8058.131	14636.881	8058.131	275.268	bb			637.1136	106.2	6.2	451.8
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.38	6473.199	14636.881	6473.199	221.126	bb			659.5769	109.9	9.9	711.6
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	8508.010	14636.881	8508.010	290.636	bb			320.7900	106.9	6.9	353.2
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	19750.691	14636.881	19750.691	674.689	MM	20-Feb-10	10:10:22	636.8355	106.1	6.1	1036.7
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.25	4537.216	14636.881	4537.216	154.993	MM	20-Feb-10	10:10:57	628.7467	104.8	4.8	222.0
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14636.881		14636.881	14636.881	bb			420.3933	84.1	-15.9	1348.8
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.08	2749.140	14636.881	2749.140	93.911	bb			617.0500	102.8	2.8	710.2
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.45	1305.160	14636.881	1305.160	44.585	bb			581.6559	96.9	-3.1	328.4
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.10	1472.474	14636.881	1472.474	50.300	bb			562.0813	93.7	-6.3	362.2
WXX100219-07CCV	PETN	361 > 62	24.41	30978.832	14636.881	30978.832	1058.246	bb			668.4848	111.4	11.4	8528.1

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 1316
Standard Number: WXX100219-07CCV
Data File: EXP0216139a

HMX	98.7
RDX	110.3
135-TNB	96.9
13-DNB	102.6
Tetryl	95.0
Nitrobenzene	92.0
4A-26-DNT	99.3
2A-46-DNT	106.2
246-TNT	109.9
34-DNT(surr)	106.9
26-DNT	106.1
24-DNT	104.8
2-NT	102.8
4-NT	96.9
3-NT	93.7
PETN	111.4
Total	1633.5
Average	102.1

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216141a **Analysis Date:** 19-FEB-10 14:38

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	432.424	86	
2,4,6-Trinitrotoluene	40	45.9	115	
2,4-Dinitrotoluene	40	37.747	94	
2,6-Dinitrotoluene	40	40.216	101	
2,6-Dinitrotoluene-d3	500	427.034	85	
2-Amino-4,6-dinitrotoluene	40	39.792	99	
3,4-Dinitrotoluene	20	19.371	97	
4-Amino-2,6-dinitrotoluene	40	39.356	98	
HMX	40	40.293	101	
Nitrobenzene	40	37.237	93	
PETN	40	46.953	117	
RDX	40	40.492	101	
Tetryl	40	47.198	118	
m-Dinitrobenzene	40	42.001	105	
m-Nitrotoluene	40	28.745	72	
o-Nitrotoluene	40	40.324	101	
p-Nitrotoluene	40	44.263	111	
1,3,5-Trinitrobenzene	40	51.493	129	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216141a
Date: 19-Feb-2010
Time: 14:38:39
ID: WXX100219-08CRI
Vial: 1:1,C

MATT 2/20/10

HMX

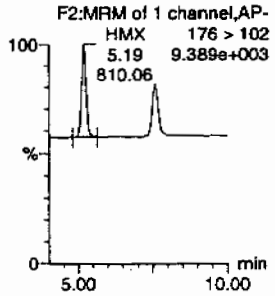

RDX

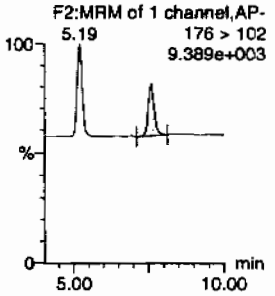

135-Trinitrobenzene

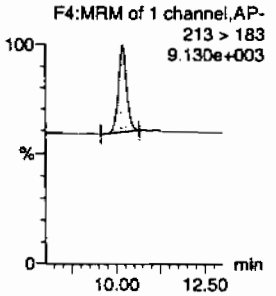

13-Dinitrobenzene-d4

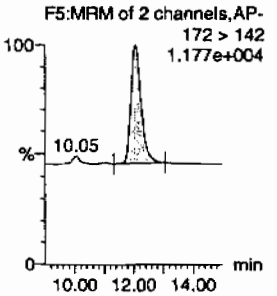

13-Dinitrobenzene

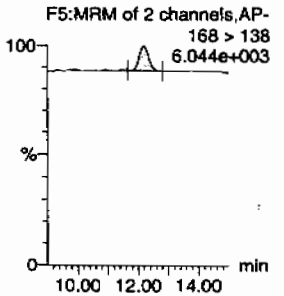

Tetryl

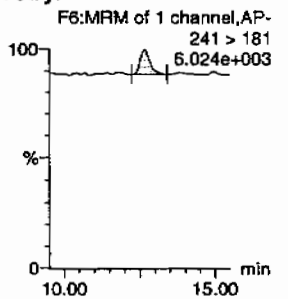

Nitrobenzene

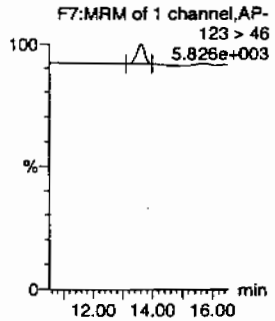

4-Amino-26-dinitrotoluene

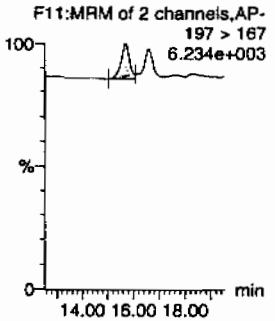

2-Amino-46-dinitrotoluene

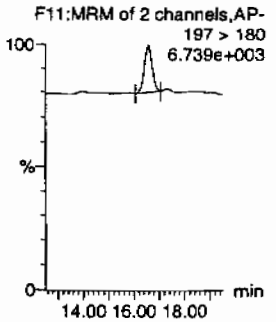

246-Trinitrotoluene

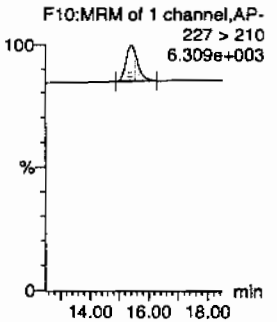

34-dinitrotoluene

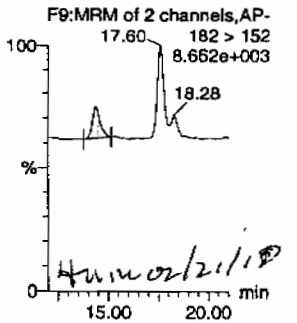

HWM 02/21/10

26-dinitrotoluene

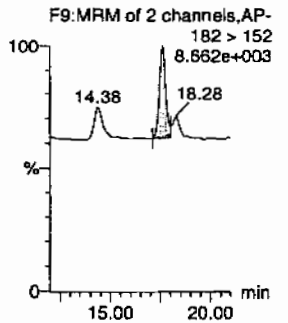

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

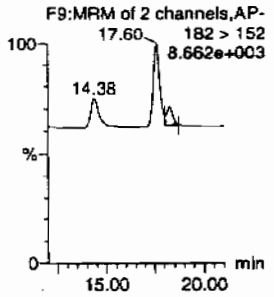

26-dinitrotoluene-d3

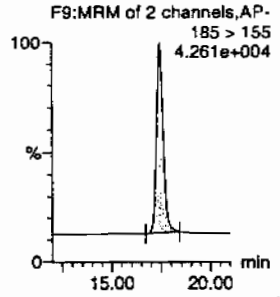

2-Nitrotoluene

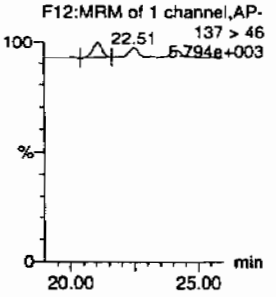

4-Nitrotoluene

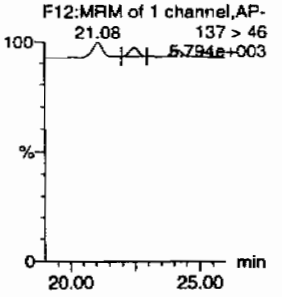

3-Nitrotoluene

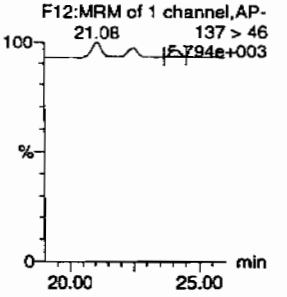

PETN

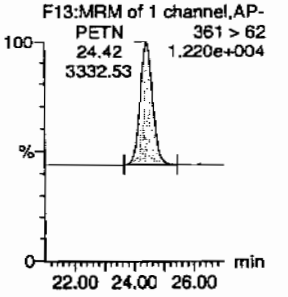

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	810.057	2605.284	810.057	155.464	bb			40.2927	100.7	0.7	350.8
WXX100219-08CRI	RDX	176 > 102	7.59	547.179	2605.284	547.179	105.013	bb			40.4919	101.2	1.2	199.0
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1039.041	2605.284	1039.041	199.410	bb			51.4933	128.7	28.7	140.6
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	2605.284		2605.284	2605.284	bb			432.4243	86.5	-13.5	129.6
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.17	260.106	2605.284	260.106	49.919	bb			42.0009	105.0	5.0	32.9
WXX100219-08CRI	Tetryl	241 > 181	12.68	268.118	2605.284	268.118	51.457	bb			47.1978	118.0	18.0	13.3
WXX100219-08CRI	Nitrobenzene	123 > 46	13.58	166.572	2605.284	166.572	31.968	bb			37.2368	93.1	-6.9	18.3
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	374.749	14868.098	374.749	12.602	MM	20-Feb-10	10:04:14	39.3560	98.4	-1.6	29.7
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.58	511.231	14868.098	511.231	17.192	bb			39.7917	99.5	-0.5	84.6
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.41	457.584	14868.098	457.584	15.388	bb			45.8998	114.7	14.7	55.8
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	521.863	14868.098	521.863	17.550	bb			19.3706	96.9	-3.1	39.5
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.60	1266.948	14868.098	1266.948	42.606	MM	20-Feb-10	10:10:11	40.2158	100.5	0.5	116.9
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.28	276.695	14868.098	276.695	9.305	MM	20-Feb-10	10:11:06	37.7468	94.4	-5.6	26.6
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.44	14868.098		14868.098	14868.098	bb			427.0342	85.4	-14.6	1374.8
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.08	182.492	14868.098	182.492	6.137	bb			40.3237	100.8	0.8	62.0
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.51	100.890	14868.098	100.890	3.393	bb			44.2633	110.7	10.7	37.2
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.15	76.491	14868.098	76.491	2.572	bb			28.7445	71.9	-28.1	27.0
WXX100219-08CRI	PETN	361 > 62	24.42	3332.531	14868.098	3332.531	112.070	bb			46.9534	117.4	17.4	1998.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	1438
Standard Number	WXX100219-08CRI
Data File	EXP0216141a

HMX	100.7
RDX	101.2
135-TNB	128.7
13-DNB	105.0
Tetryl	118.0
Nitrobenzene	93.1
4A-26-DNT	98.4
2A-46-DNT	99.5
246-TNT	114.7
34-DNT(surr)	96.9
26-DNT	100.5
24-DNT	94.4
2-NT	100.8
4-NT	110.7
3-NT	71.9
PETN	117.4
Total	1651.9
Average	103.2

MJT 2/20/10

Hmcar/2/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0216152a

Analysis Date: 19-FEB-10 20:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	585.615	98	
1,3-Dinitrobenzene-d4	500	433.279	87	
2,4,6-Trinitrotoluene	600	622.918	104	
2,4-Dinitrotoluene	600	632.455	105	
2,6-Dinitrotoluene	600	610.704	102	
2,6-Dinitrotoluene-d3	500	405.063	81	
2-Amino-4,6-dinitrotoluene	600	607.913	101	
3,4-Dinitrotoluene	300	354.753	118	
4-Amino-2,6-dinitrotoluene	600	546.925	91	
HMX	600	513.424	86	
Nitrobenzene	600	539.863	90	
PETN	600	705.299	118	
RDX	600	587.648	98	
Tetryl	600	522.811	87	
m-Dinitrobenzene	600	623.69	104	
m-Nitrotoluene	600	566.188	94	
o-Nitrotoluene	600	572.566	95	
p-Nitrotoluene	600	581.489	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216152a
Date: 19-Feb-2010
Time: 20:04:52
ID: WXX100219-07CCV
Vial: 1:1,B

MAP 2/20/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.843e+004

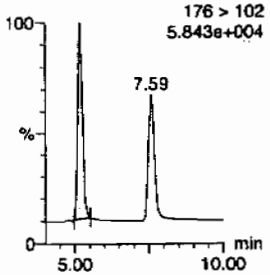

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
5.843e+004

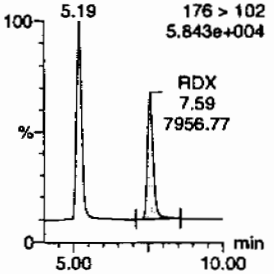

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.649e+004

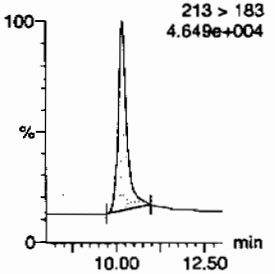

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.222e+004

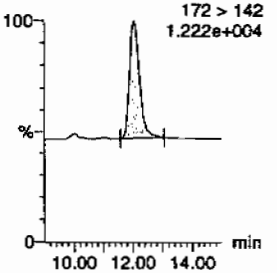

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.594e+004

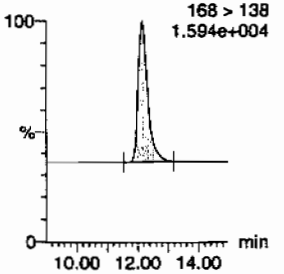

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.68
2975.82
241 > 181
1.403e+004

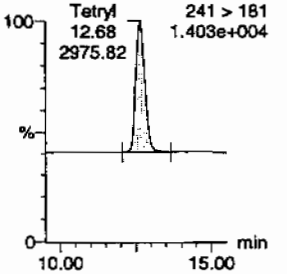

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.267e+004

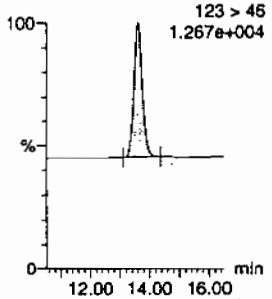

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.819e+004

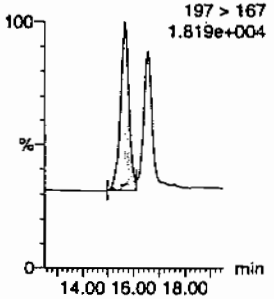

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.492e+004

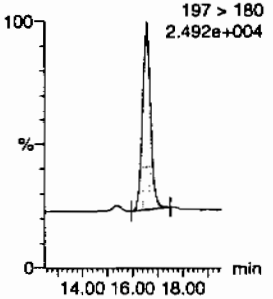

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
1.887e+004

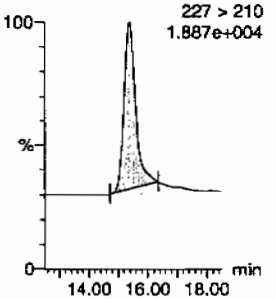

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.60
182 > 152
5.347e+004

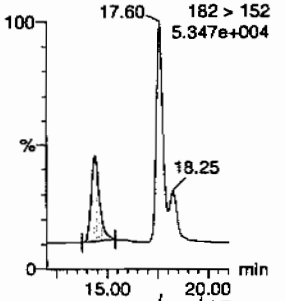

HMC 2/21/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.347e+004

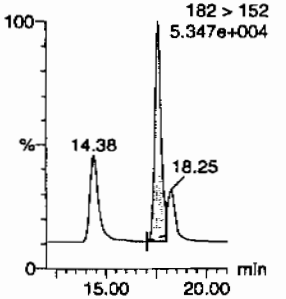

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

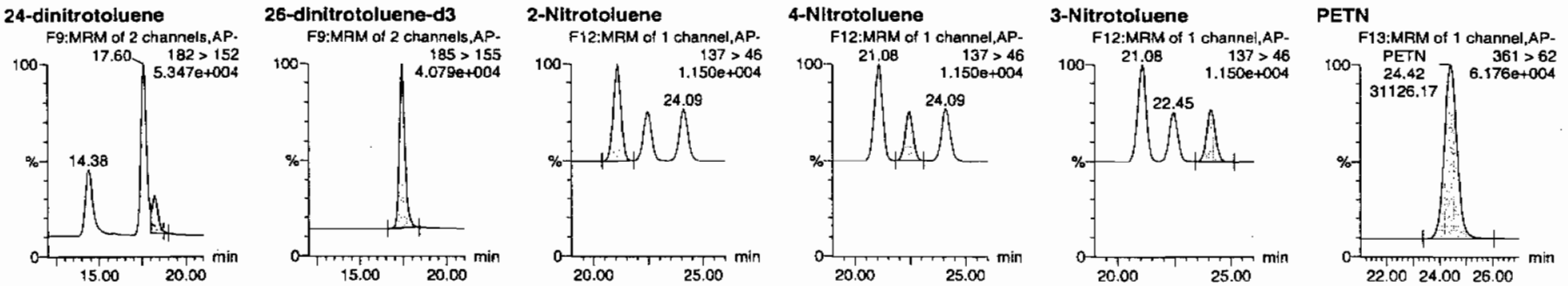

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-07CCV	HMX	176 > 102	5.19	10342.441	2610.435	10342.441	1980.980	bb			513.4235	85.6	-14.4	941.3
WXX100219-07CCV	RDX	176 > 102	7.59	7956.770	2610.435	7956.770	1524.031	bb			587.6479	97.9	-2.1	611.6
WXX100219-07CCV	135-Trinitrobenzene	213 > 183	10.18	11839.990	2610.435	11839.990	2267.819	bb			585.6147	97.6	-2.4	1833.3
WXX100219-07CCV	13-Dinitrobenzene-d4	172 > 142	12.03	2610.435		2610.435	2610.435	bb			433.2793	86.7	-13.3	205.4
WXX100219-07CCV	13-Dinitrobenzene	168 > 138	12.17	3870.066	2610.435	3870.066	741.268	bb			623.6903	103.9	3.9	583.8
WXX100219-07CCV	Tetryl	241 > 181	12.68	2975.819	2610.435	2975.819	569.985	bb			522.8110	87.1	-12.9	232.9
WXX100219-07CCV	Nitrobenzene	123 > 46	13.63	2419.756	2610.435	2419.756	463.478	bb			539.8630	90.0	-10.0	166.1
WXX100219-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.68	4939.896	14103.129	4939.896	175.135	MM	20-Feb-10	10:04:48	546.9249	91.2	-8.8	352.5
WXX100219-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.58	7408.422	14103.129	7408.422	262.652	bb			607.9129	101.3	1.3	1245.8
WXX100219-07CCV	246-Trinitrotoluene	227 > 210	15.38	5890.485	14103.129	5890.485	208.836	bb			622.9176	103.8	3.8	239.3
WXX100219-07CCV	34-dinitrotoluene	182 > 152	14.38	9065.670	14103.129	9065.670	321.406	bb			354.7527	118.3	18.3	386.4
WXX100219-07CCV	26-dinitrotoluene	182 > 152	17.60	18249.580	14103.129	18249.580	647.005	MM	20-Feb-10	10:09:35	610.7042	101.8	1.8	995.0
WXX100219-07CCV	24-dinitrotoluene	182 > 152	18.25	4397.545	14103.129	4397.545	155.907	MM	20-Feb-10	10:11:37	632.4550	105.4	5.4	222.0
WXX100219-07CCV	26-dinitrotoluene-d3	185 > 155	17.42	14103.129		14103.129	14103.129	bb			405.0632	81.0	-19.0	1460.9
WXX100219-07CCV	2-Nitrotoluene	137 > 46	21.08	2457.925	14103.129	2457.925	87.141	bb			572.5656	95.4	-4.6	516.3
WXX100219-07CCV	4-Nitrotoluene	137 > 46	22.45	1257.205	14103.129	1257.205	44.572	bb			581.4891	96.9	-3.1	259.3
WXX100219-07CCV	3-Nitrotoluene	137 > 46	24.09	1429.144	14103.129	1429.144	50.668	bb			566.1879	94.4	-5.6	275.7
WXX100219-07CCV	PETN	361 > 62	24.42	31126.166	14103.129	31126.166	1103.520	bb			705.2990	117.5	17.5	9173.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 02/19/10
Time of Injection: 2004
Standard Number: WXX100219-07CCV
Data File: EXP0216152a

HMX	85.6
RDX	97.9
135-TNB	97.6
13-DNB	103.9
Tetryl	87.1
Nitrobenzene	90.0
4A-26-DNT	91.2
2A-46-DNT	101.3
246-TNT	103.8
34-DNT(surr)	118.3
26-DNT	101.8
24-DNT	105.4
2-NT	95.4
4-NT	96.9
3-NT	94.4
PETN	117.5
Total	1588.1
Average	99.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0216154a **Analysis Date:** 19-FEB-10 21:04

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	40	50.568	126	
RDX	40	44.347	111	
Tetryl	40	41.943	105	
m-Dinitrobenzene	40	42.885	107	
m-Nitrotoluene	40	30.88	77	
o-Nitrotoluene	40	43.984	110	
p-Nitrotoluene	40	47.734	119	
1,3,5-Trinitrobenzene	40	50.147	125	
1,3-Dinitrobenzene-d4	500	450.637	90	
2,4,6-Trinitrotoluene	40	41.511	104	
2,4-Dinitrotoluene	40	34.056	85	
2,6-Dinitrotoluene	40	43.032	108	
2,6-Dinitrotoluene-d3	500	422.29	84	
2-Amino-4,6-dinitrotoluene	40	33.702	84	
3,4-Dinitrotoluene	20	18.829	94	
4-Amino-2,6-dinitrotoluene	40	39.443	99	
HMX	40	39.672	99	
Nitrobenzene	40	34.869	87	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216154a
Date: 19-Feb-2010
Time: 21:04:26
ID: WXX100219-08CRI
Vial: 1:1,C

MM 2/22/10

HMX
F2:MRM of 1 channel,AP-
HMX 5.19 831.18
176 > 102 1.010e+004

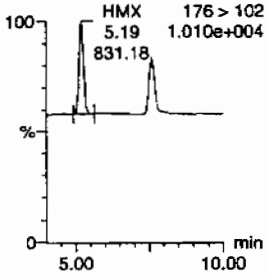

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102 1.010e+004

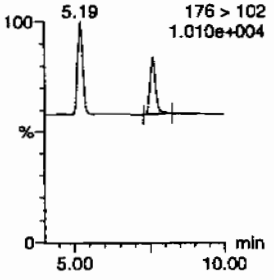

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183 9.591e+003

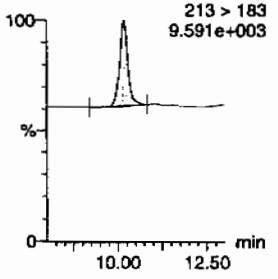

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142 1.261e+004

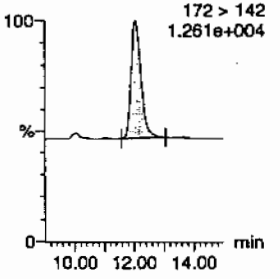

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138 6.510e+003

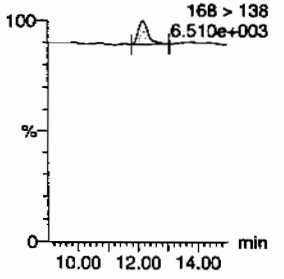

Tetryl
F6:MRM of 1 channel,AP-
241 > 181 6.532e+003

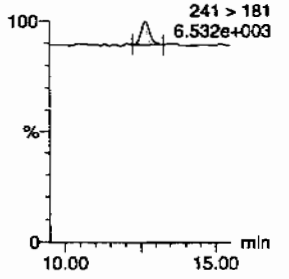

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46 6.272e+003

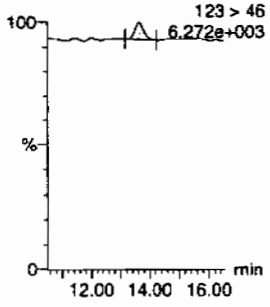

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167 6.859e+003

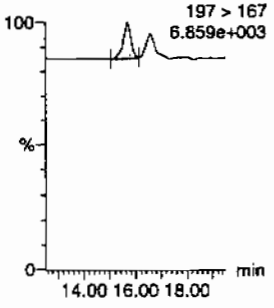

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180 6.964e+003

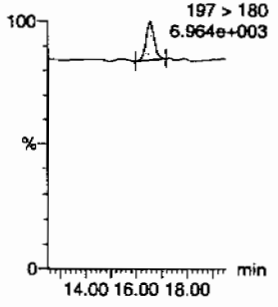

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210 6.719e+003

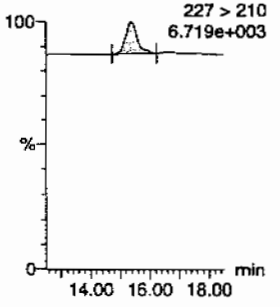

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.62
182 > 152 9.306e+003
18.25

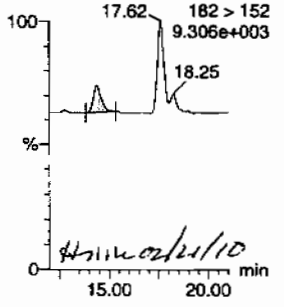

HMM 02/21/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152 9.306e+003
14.38
18.25

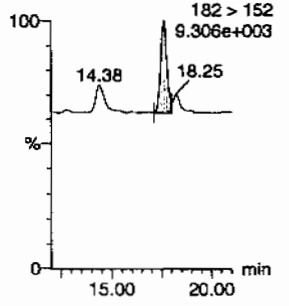

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

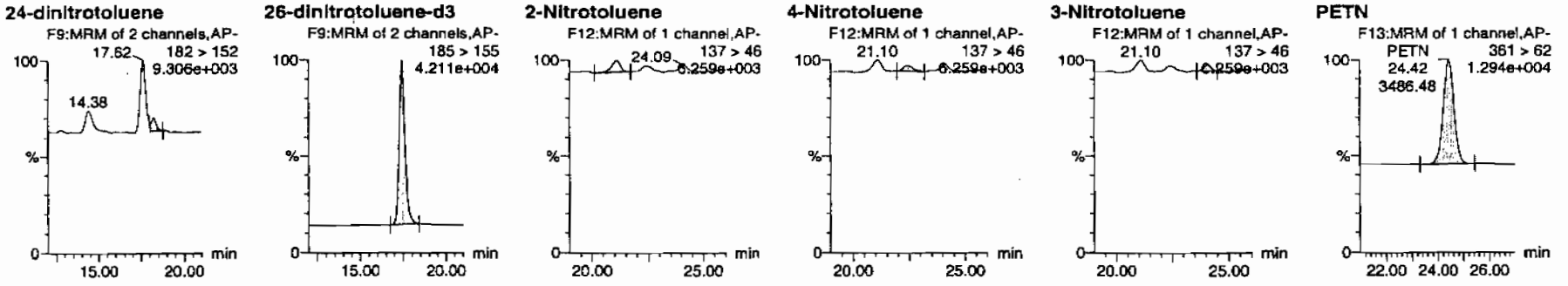

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100219-08CRI	HMX	176 > 102	5.19	831.178	2715.011	831.178	153.071	bb			39.6724	99.2	-0.8	241.8
WXX100219-08CRI	RDX	176 > 102	7.59	624.515	2715.011	624.515	115.012	bb			44.3470	110.9	10.9	151.2
WXX100219-08CRI	135-Trinitrobenzene	213 > 183	10.18	1054.494	2715.011	1054.494	194.197	bb			50.1471	125.4	25.4	172.5
WXX100219-08CRI	13-Dinitrobenzene-d4	172 > 142	12.03	2715.011		2715.011	2715.011	bb			450.6368	90.1	-9.9	317.8
WXX100219-08CRI	13-Dinitrobenzene	168 > 138	12.17	276.765	2715.011	276.765	50.969	bb			42.8848	107.2	7.2	22.2
WXX100219-08CRI	Tetryl	241 > 181	12.68	248.303	2715.011	248.303	45.728	bb			41.9432	104.9	4.9	23.3
WXX100219-08CRI	Nitrobenzene	123 > 46	13.63	162.550	2715.011	162.550	29.935	bb			34.8691	87.2	-12.8	10.9
WXX100219-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.68	371.408	14702.928	371.408	12.630	MM	20-Feb-10	10:04:53	39.4433	98.6	-1.4	38.6
WXX100219-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.55	428.183	14702.928	428.183	14.561	bb			33.7021	84.3	-15.7	41.3
WXX100219-08CRI	246-Trinitrotoluene	227 > 210	15.38	409.232	14702.928	409.232	13.917	bb			41.5108	103.8	3.8	42.4
WXX100219-08CRI	34-dinitrotoluene	182 > 152	14.38	501.647	14702.928	501.647	17.059	bb			18.8294	94.1	-5.9	29.0
WXX100219-08CRI	26-dinitrotoluene	182 > 152	17.62	1340.603	14702.928	1340.603	45.590	MM	20-Feb-10	10:09:21	43.0318	107.6	7.6	99.5
WXX100219-08CRI	24-dinitrotoluene	182 > 152	18.25	246.870	14702.928	246.870	8.395	MM	20-Feb-10	10:11:45	34.0564	85.1	-14.9	19.2
WXX100219-08CRI	26-dinitrotoluene-d3	185 > 155	17.42	14702.928		14702.928	14702.928	bb			422.2903	84.5	-15.5	874.5
WXX100219-08CRI	2-Nitrotoluene	137 > 46	21.10	196.847	14702.928	196.847	6.694	bb			43.9842	110.0	10.0	17.5
WXX100219-08CRI	4-Nitrotoluene	137 > 46	22.42	107.593	14702.928	107.593	3.659	bb			47.7344	119.3	19.3	8.2
WXX100219-08CRI	3-Nitrotoluene	137 > 46	24.09	81.260	14702.928	81.260	2.763	bb			30.8797	77.2	-22.8	8.8
WXX100219-08CRI	PETN	361 > 62	24.42	3486.482	14702.928	3486.482	118.564	bb			50.5676	126.4	26.4	762.6

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	02/19/10
Time of Injection	2104
Standard Number	WXX100219-08CRI
Data File	EXP0216154a

HMX	99.2
RDX	110.9
135-TNB	125.4
13-DNB	107.2
Tetryl	104.9
Nitrobenzene	87.2
4A-26-DNT	98.6
2A-46-DNT	84.3
246-TNT	103.8
34-DNT(surr)	94.1
26-DNT	107.6
24-DNT	85.1
2-NT	110.0
4-NT	119.3
3-NT	77.2
PETN	126.4
Total	1641.2
Average	102.6

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1516

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXS02140013.wiff **Analysis Date:** 14–FEB–10 17:25

LCMSMS ID: 1358 **Column ID:** JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	109	109	
2,6–Diamino–4–nitrotoluene	100	106	106	
3,4–Dinitrotoluene	50	49.4	99	
3,5–Dinitroaniline	100	110	110	
TATB	100	107	107	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/16/10

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	107.	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	5:25:46 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2500.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	7.15	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	7.14	min
Area:	1.48e+005	counts
Height:	31993.717	cps
Start Time:	7.04	min
End Time:	7.66	min

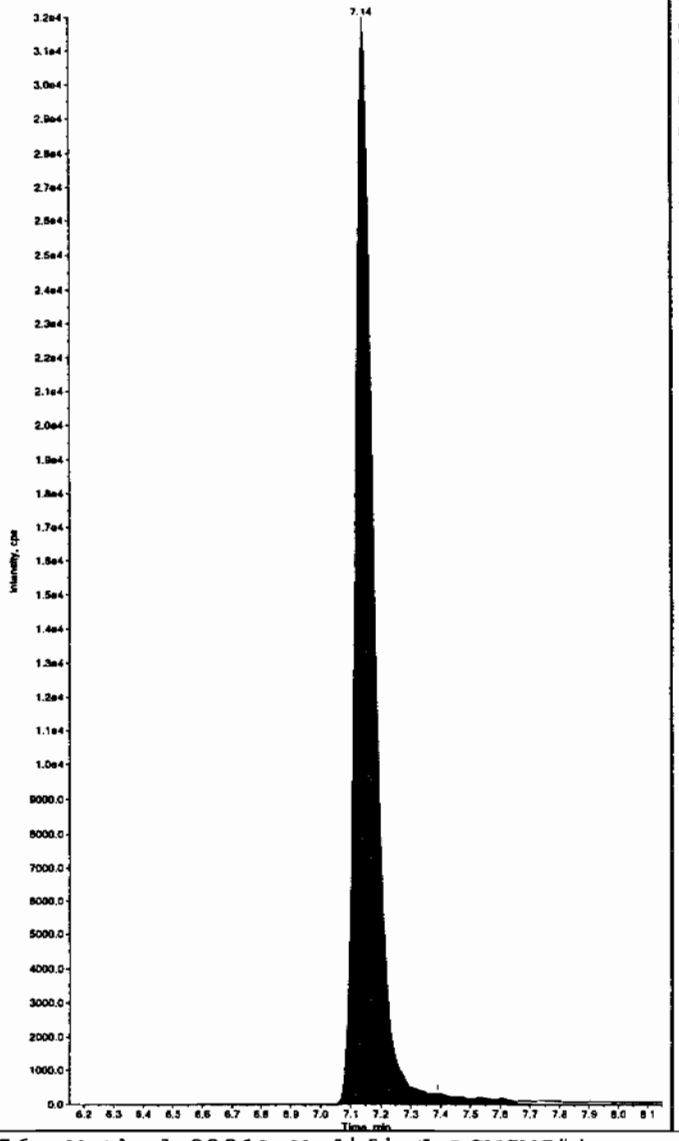

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	110.	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	5:25:46 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.31	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.37	min
Area:	7.19e+005	counts
Height:	178883.347	cps
Start Time:	8.27	min
End Time:	8.47	min

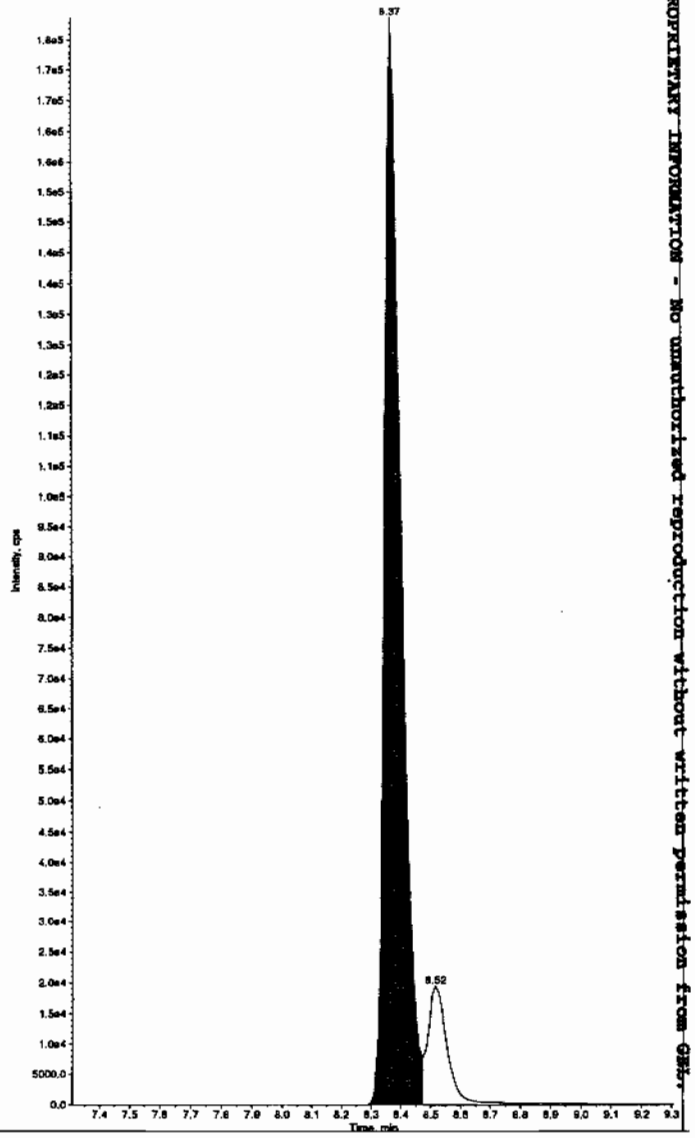

Hnm 02/17/10

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Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 50.0 ng/mL
alculated Conc: 49.4 ng/mL
cq. Date: 2/14/2010
cq. Time: 5:25:46 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.52 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.52 min
rea: 6.28e+005 counts
eight: 158973.038 cps
tart Time: 8.44 min
nd Time: 8.72 min

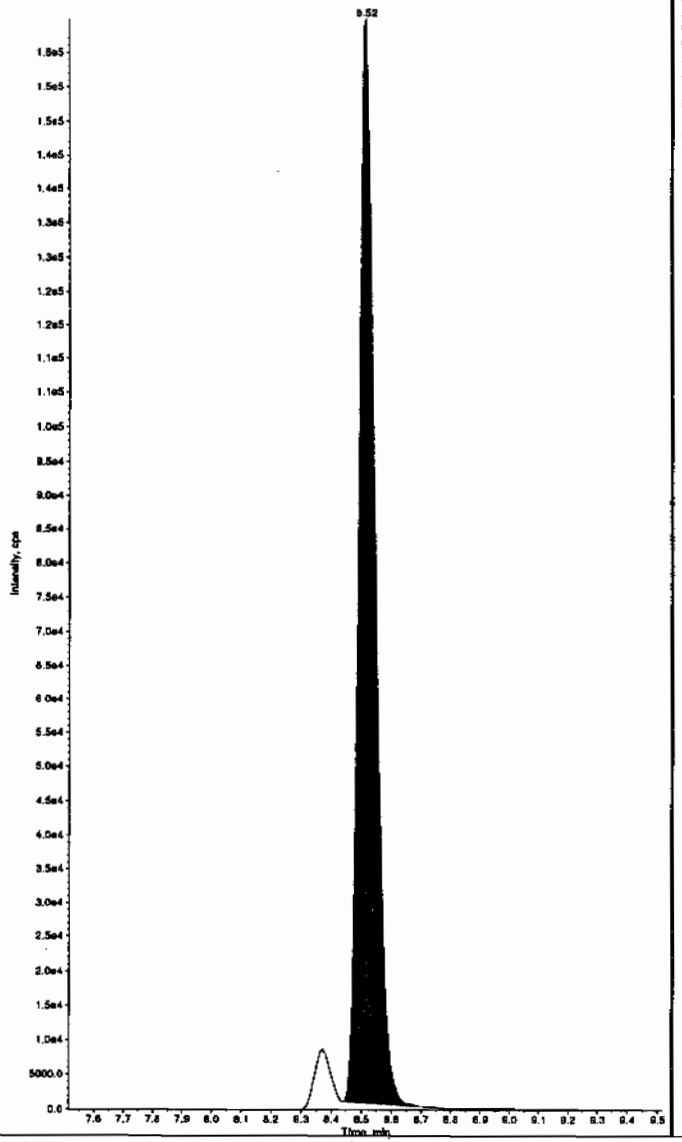

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:25:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 3.21e+005 counts
Height: 77740.822 cps
Start Time: 5.05 min
End Time: 5.47 min

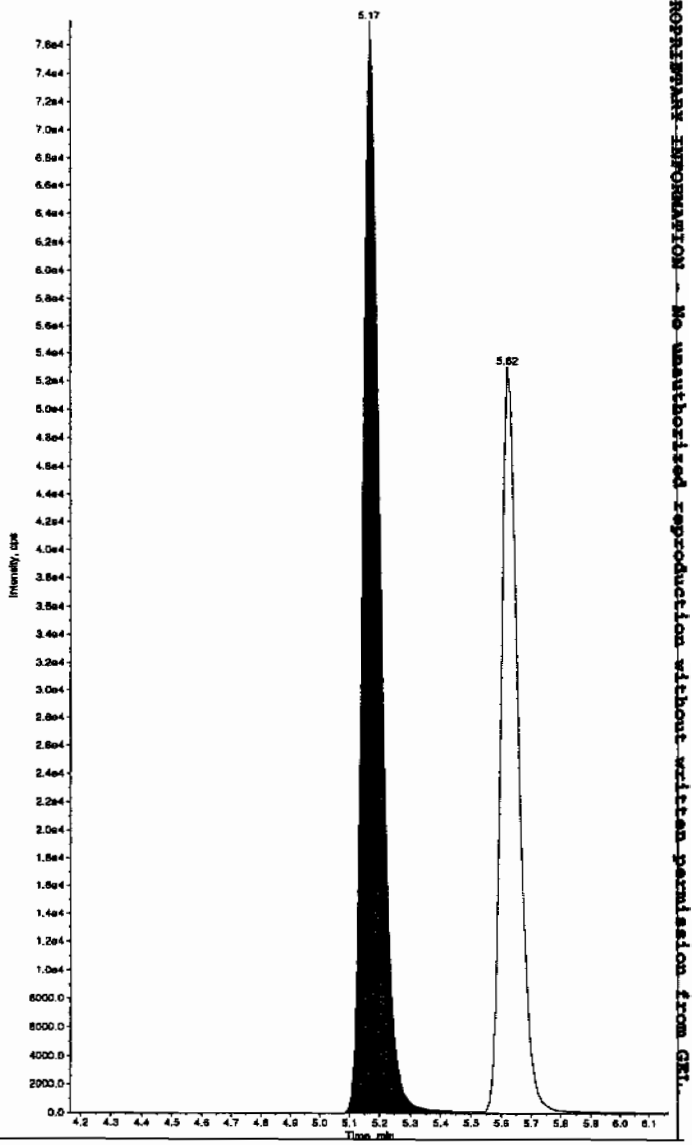

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Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 100. ng/mL
lculated Conc: 109. ng/mL
q. Date: 2/14/2010
q. Time: 5:25:46 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.62 min
e Relative RT: No

t. Type: Valley
tention Time: 5.62 min
ea: 2.11e+005 counts
ight: 52875.557 cps
art Time: 5.55 min
d Time: 5.92 min

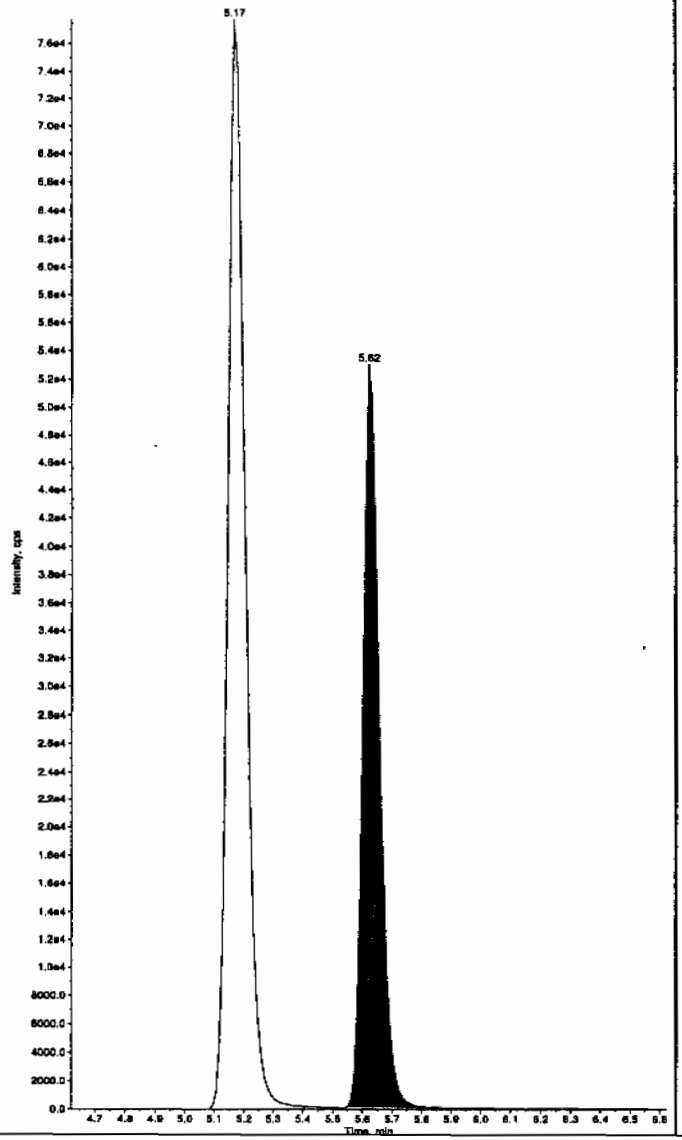

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 5:25:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.45e+006 counts
Height: 578146.423 cps
Start Time: 10.9 min
End Time: 11.3 min

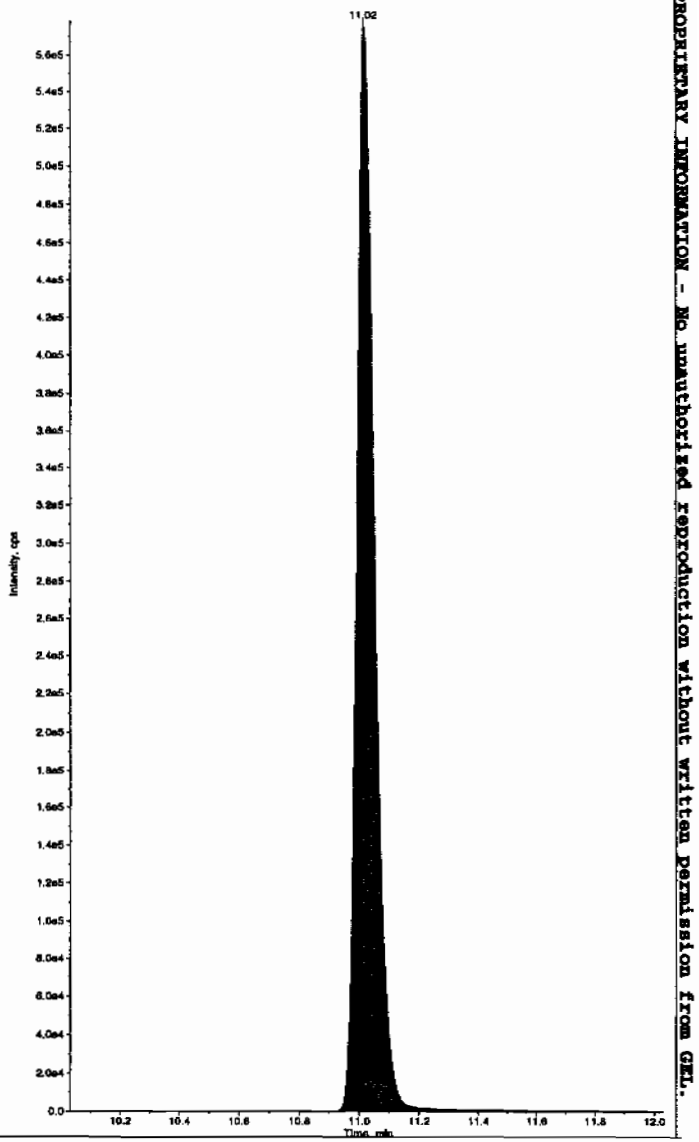

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140017.wiff

Analysis Date: 14-FEB-10 18:28

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	529	106	
2,6-Diamino-4-nitrotoluene	500	502	100	
3,4-Dinitrotoluene	250	236	95	
3,5-Dinitroaniline	500	494	99	
TATB	500	494	99	
tris(o-cresyl) phosphate	500	492	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 2/17/10

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index:	1
ample Type:	QC
oncentration:	500. ng/mL
alculated Conc:	494. ng/mL
cq. Date:	2/14/2010
cq. Time:	6:28:34 PM
odified:	No
roc. Algorithm:	IntelliQuan - IQA
in. Peak Height:	2500.00 cps
in. Peak Width:	0.00 sec
moothing Width:	3 points
T Window:	30.0 sec
xpected RT:	7.15 min
se Relative RT:	No
nt. Type:	Valley
etention Time:	7.15 min
rea:	6.90e+005 counts
eight:	155690.552 cps
tart Time:	7.02 min
nd Time:	7.73 min

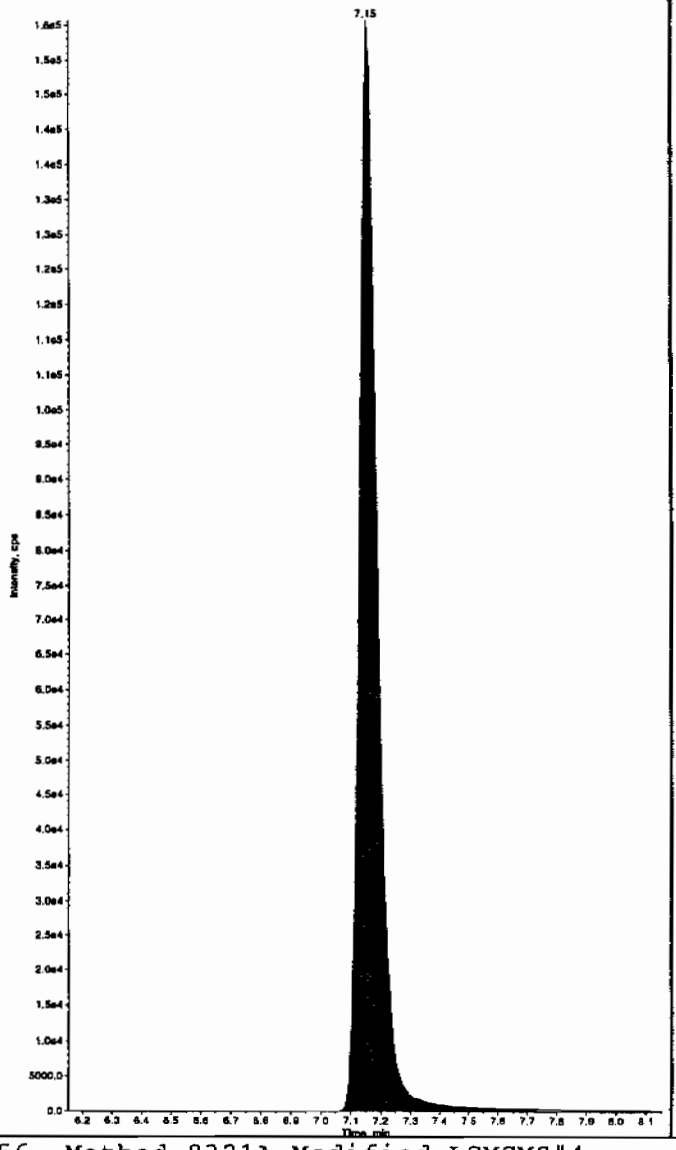

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	494. ng/mL
Acq. Date:	2/14/2010
Acq. Time:	6:28:34 PM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.35 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.38 min
Area:	3.23e+006 counts
Height:	729419.128 cps
Start Time:	8.28 min
End Time:	8.48 min

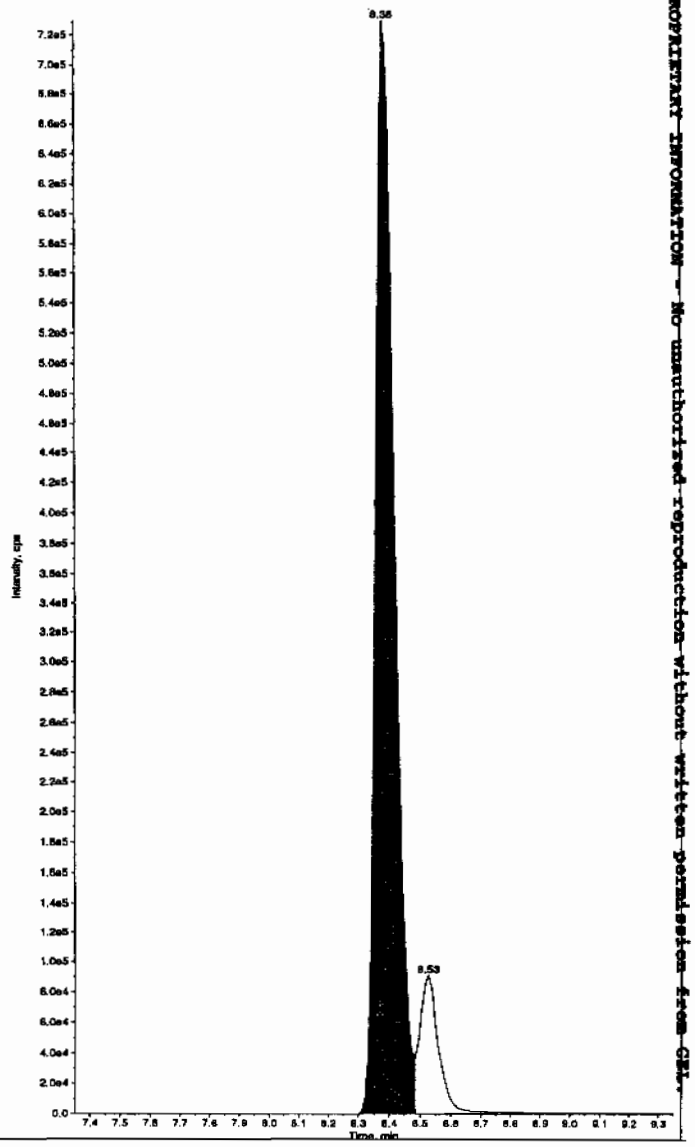

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Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140017.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ample Index:        1
ample Type:         QC
oncentration:       250.    ng/mL
alculated Conc:     236.    ng/mL
cq. Date:        2/14/2010
cq. Time:        6:28:34 PM

odified:            No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height:1460.00   cps
in. Peak Width:     0.00   sec
moothing Width:  3        points
T Window:          15.0    sec
xpected RT:         8.52   min
se Relative RT:     No

nt. Type:         Valley
etention Time:      8.52   min
rea:          3.09e+006   counts
eight:          800964.783  cps
tart Time:          8.44   min
nd Time:            8.69   min
```

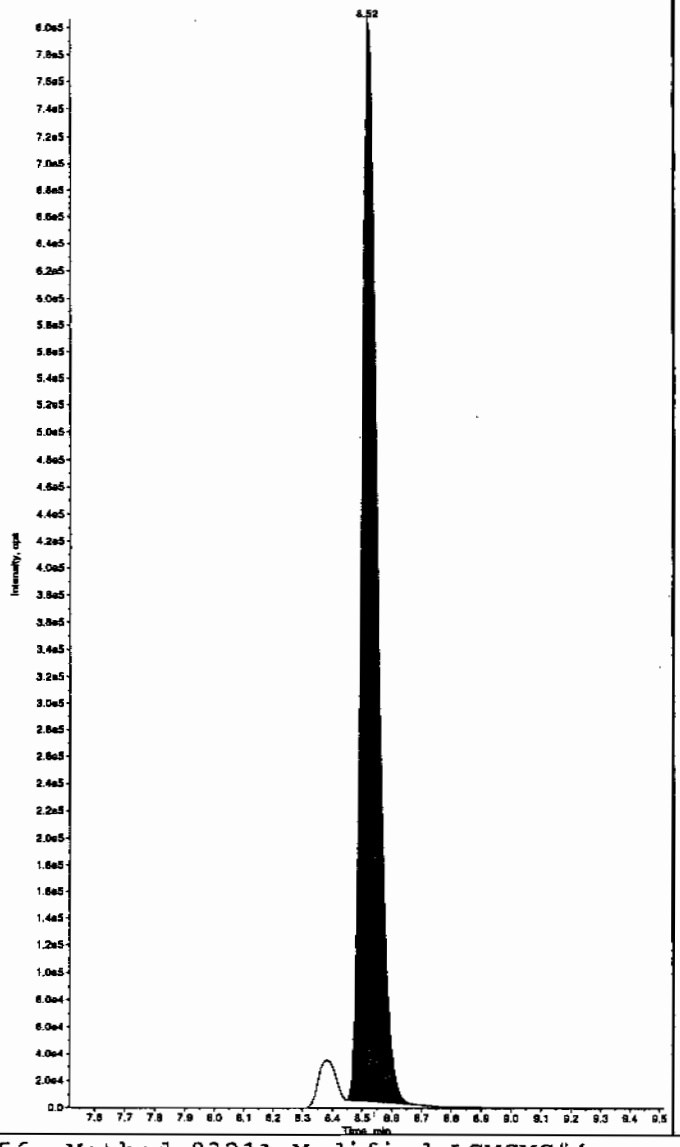

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.    ng/mL
Calculated Conc:     502.    ng/mL
Acq. Date:        2/14/2010
Acq. Time:        6:28:34 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:         5.17  min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      5.17  min
Area:         1.44e+006   counts
Height:       366188.293  cps
Start Time:          5.06  min
End Time:            5.47  min
```

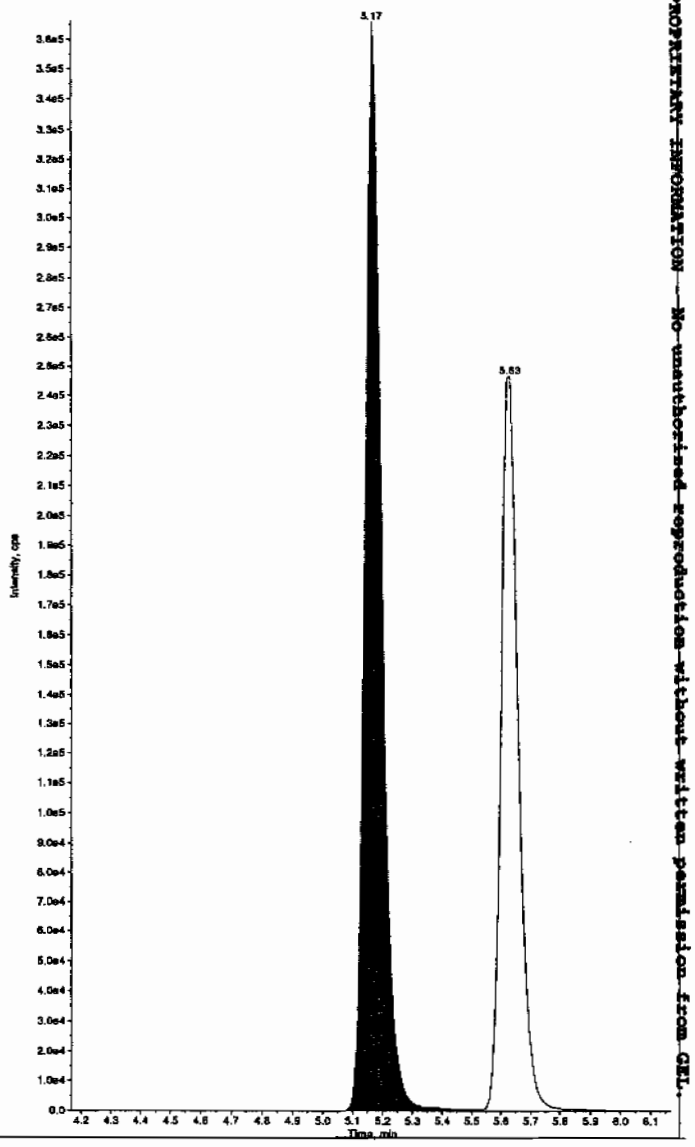

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Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140017.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index:	1	
ample Type:	QC	
oncentration:	500.	ng/mL
alculated Conc:	529.	ng/mL
cq. Date:	2/14/2010	
cq. Time:	6:28:34 PM	
odified:	No	
roc. Algorithm:	IntelliQuan - IQA	
in. Peak Height:	350.00	cps
in. Peak Width:	0.00	sec
moothing Width:	3	points
T Window:	30.0	sec
xpected RT:	5.62	min
se Relative RT:	No	
nt. Type:	Valley	
etention Time:	5.63	min
rea:	1.01e+006	counts
eight:	246633.606	cps
tart Time:	5.53	min
nd Time:	6.08	min

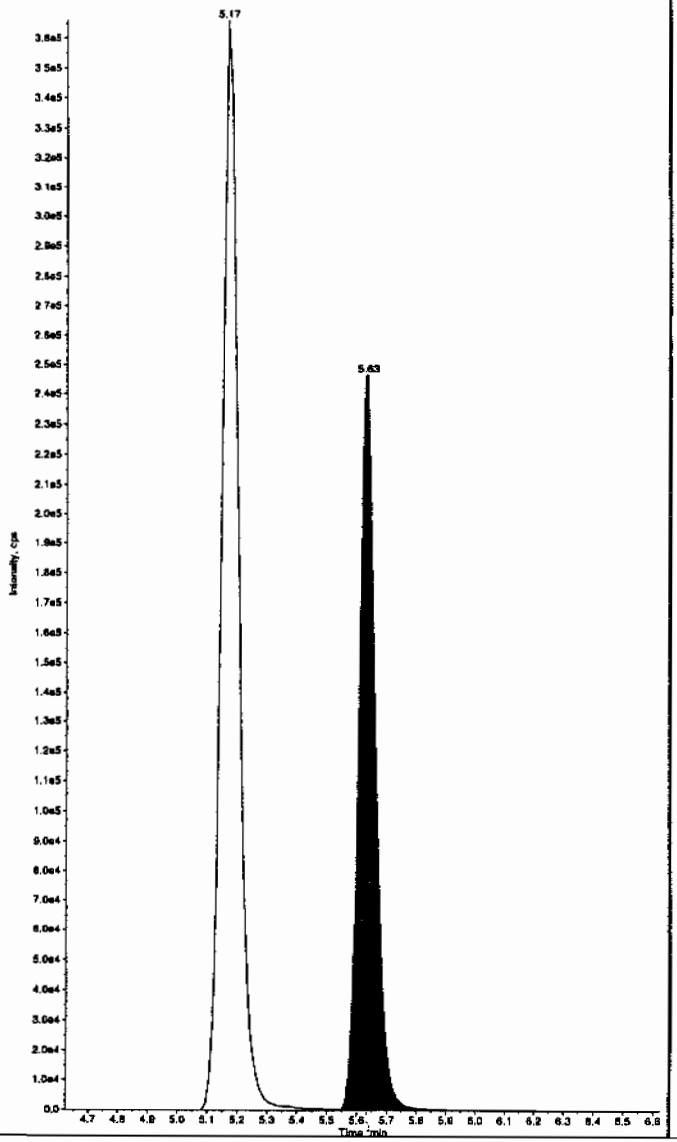

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140017.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	492.	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	6:28:34 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	1.08e+007	counts
Height:	2512965.088	cps
Start Time:	10.9	min
End Time:	11.4	min

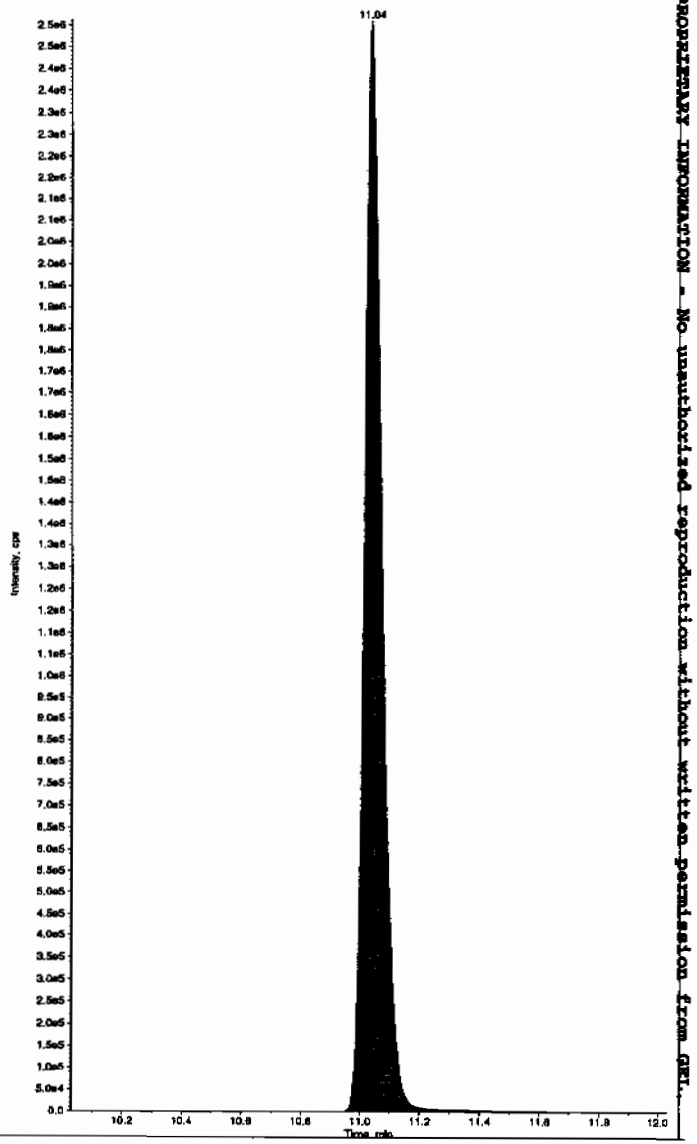

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140019.wiff

Analysis Date: 14-FEB-10 18:59

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	96.3	96	
2,6-Diamino-4-nitrotoluene	100	97.2	97	
3,4-Dinitrotoluene	50	48.7	97	
3,5-Dinitroaniline	100	100	100	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scu 2/17/10

ample Name: "WXX100214-27CRI" Sample ID: "1|1|LER" File: "EXS02140019.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 102. ng/mL
. Date: 2/14/2010
. Time: 6:59:59 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.15 min
Relative RT: No

. Type: Valley
ention Time: 7.15 min
a: 1.40e+005 counts
ght: 31053.225 cps
rt Time: 7.00 min
Time: 7.71 min

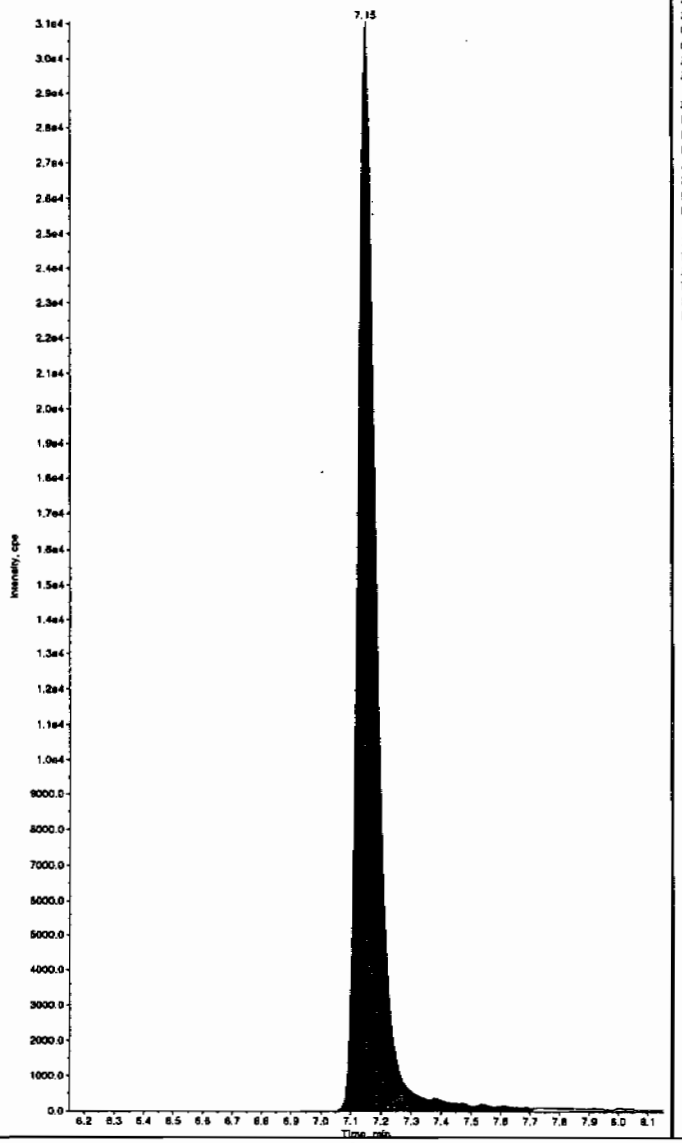

Sample Name: "WXX100214-27CRI" Sample ID: "1|1|LER" File: "EXS02140019.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:59:59 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.33 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 6.57e+005 counts
Height: 170540.771 cps
Start Time: 8.27 min
End Time: 8.48 min

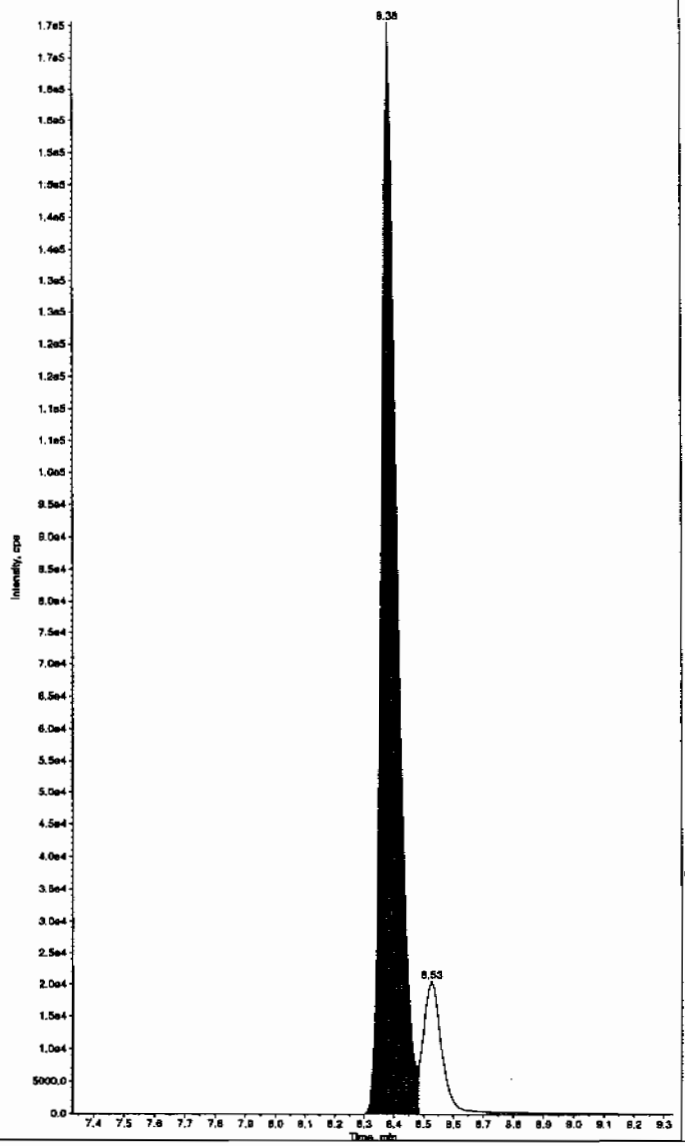

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ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
icentration: 50.0 ng/mL
culated Conc: 48.7 ng/mL
. Date: 2/14/2010
. Time: 6:59:59 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

.. Type: Valley
ention Time: 8.52 min
a: 6.18e+005 counts
ght: 170261.276 cps
rt Time: 8.45 min
Time: 8.71 min

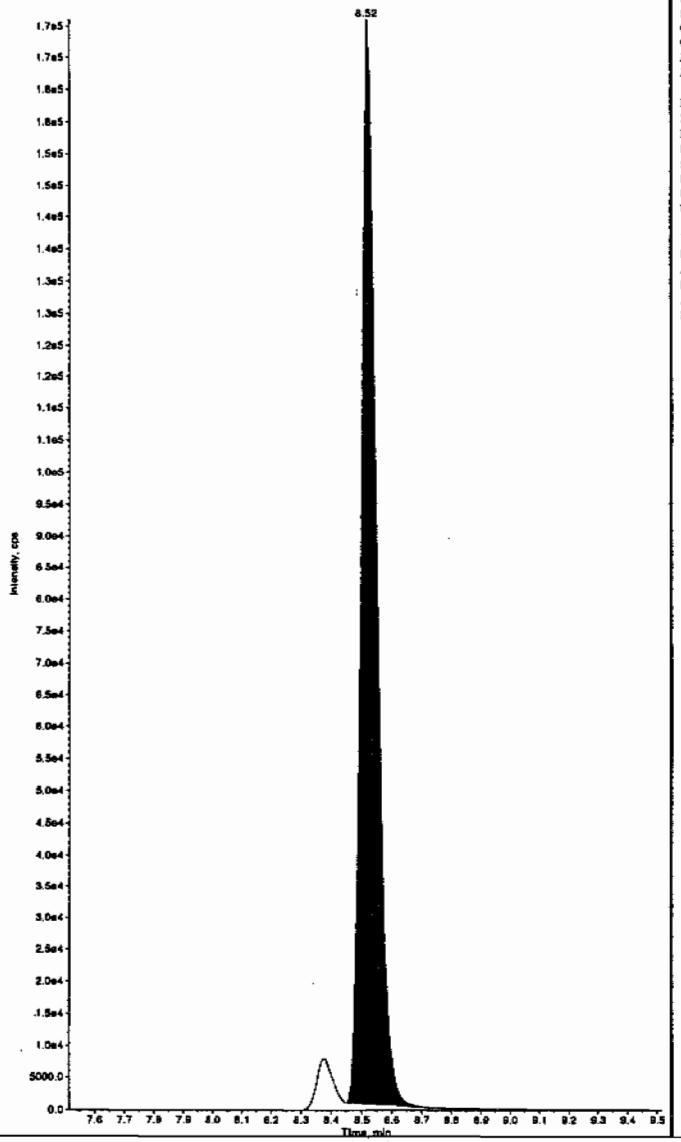

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.2 ng/mL
Acq. Date: 2/14/2010
Acq. Time: 6:59:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 2.98e+005 counts
Height: 76182.060 cps
Start Time: 5.07 min
End Time: 5.47 min

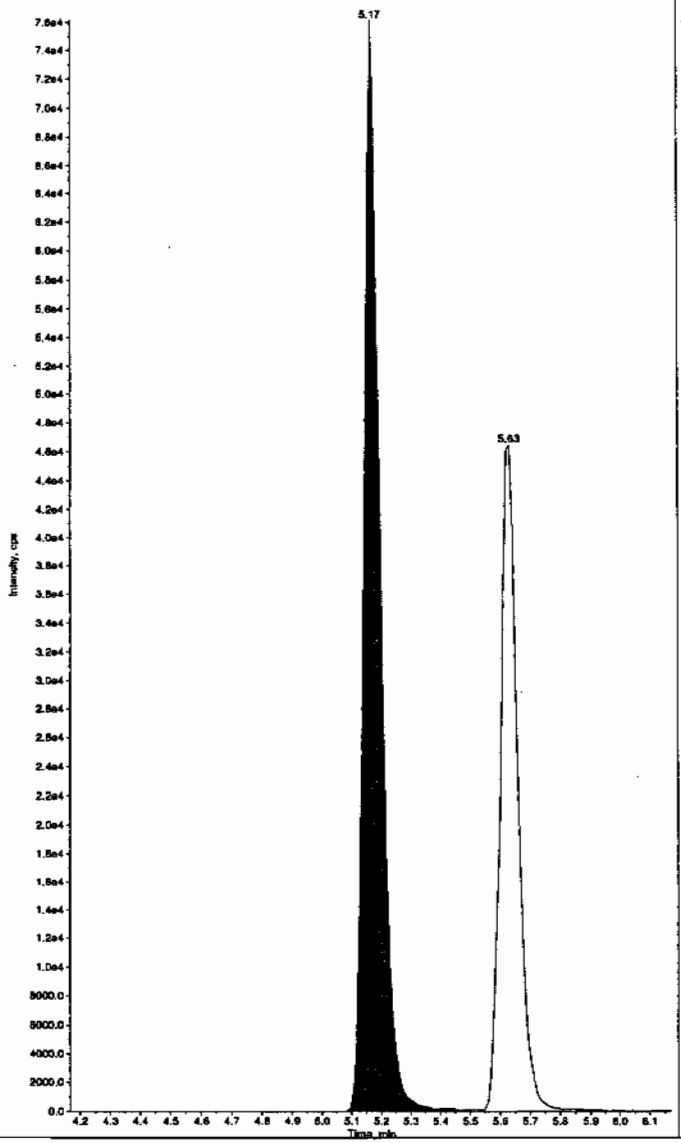

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ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
mple Index:        1
mple Type:         QC
ncentration:       100.     ng/mL
lculated Conc:     96.3     ng/mL
q. Date:        2/14/2010
q. Time:        6:59:59 PM

ified:             No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3        points
 Window:         30.0    sec
pected RT:        5.62   min
 Relative RT:     No

t. Type:        Valley
etention Time:    5.63   min
ea:          1.88e+005   counts
ight:          46467.525  cps
art Time:         5.54   min
d Time:           5.96   min
```

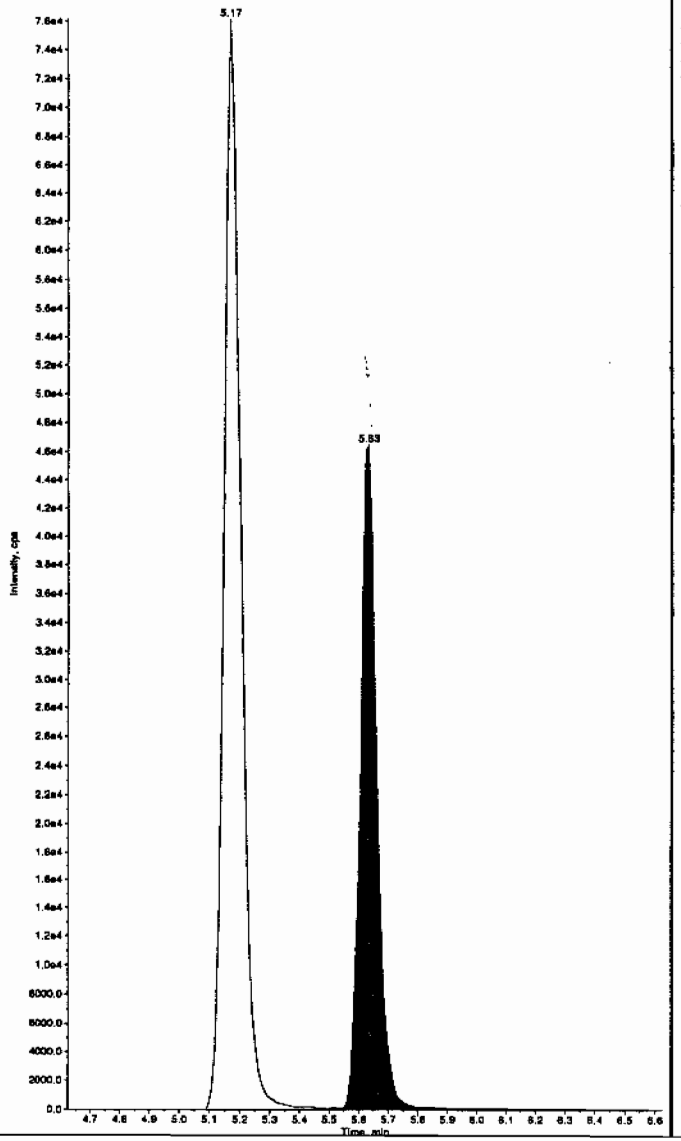

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140019.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     103.     ng/mL
Acq. Date:        2/14/2010
Acq. Time:        6:59:59 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       11.0    min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    11.0    min
Area:         2.45e+006   counts
Height:       596099.792  cps
Start Time:        10.9    min
End Time:          11.4    min
```

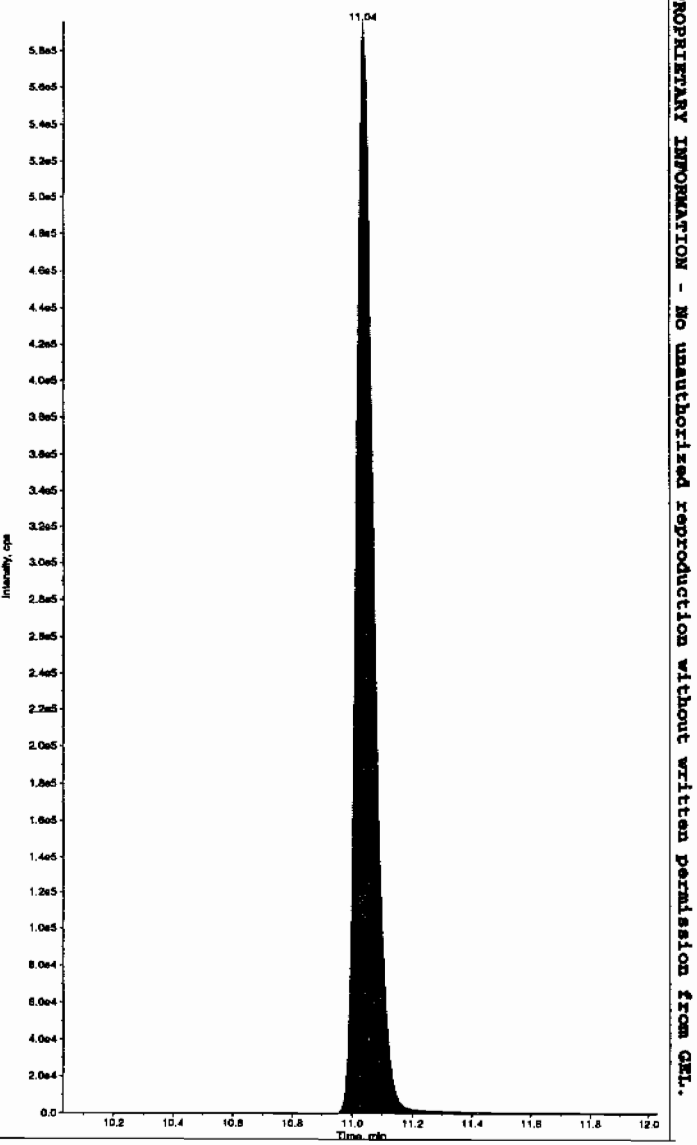

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1516

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXS02140030.wiff **Analysis Date:** 14–FEB–10 21:52

LCMSMS ID: 1358 **Column ID:** JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	542	108	
2,6–Diamino–4–nitrotoluene	500	542	108	
3,4–Dinitrotoluene	250	258	103	
3,5–Dinitroaniline	500	507	101	
TATB	500	535	107	
tris(o–cresyl) phosphate	500	509	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ler 2/17/10

ample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
ncentration: 500. ng/mL
culated Conc: 535. ng/mL
. Date: 2/14/2010
. Time: 9:52:48 PM

ified: No
c. Algorithm: IntelliQuan - IQA
.. Peak Height: 2500.00 cps
.. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.15 min
Relative RT: No

. Type: Valley
ention Time: 7.16 min
a: 7.46e+005 counts
ght: 169305.939 cps
rt Time: 7.06 min
Time: 7.80 min

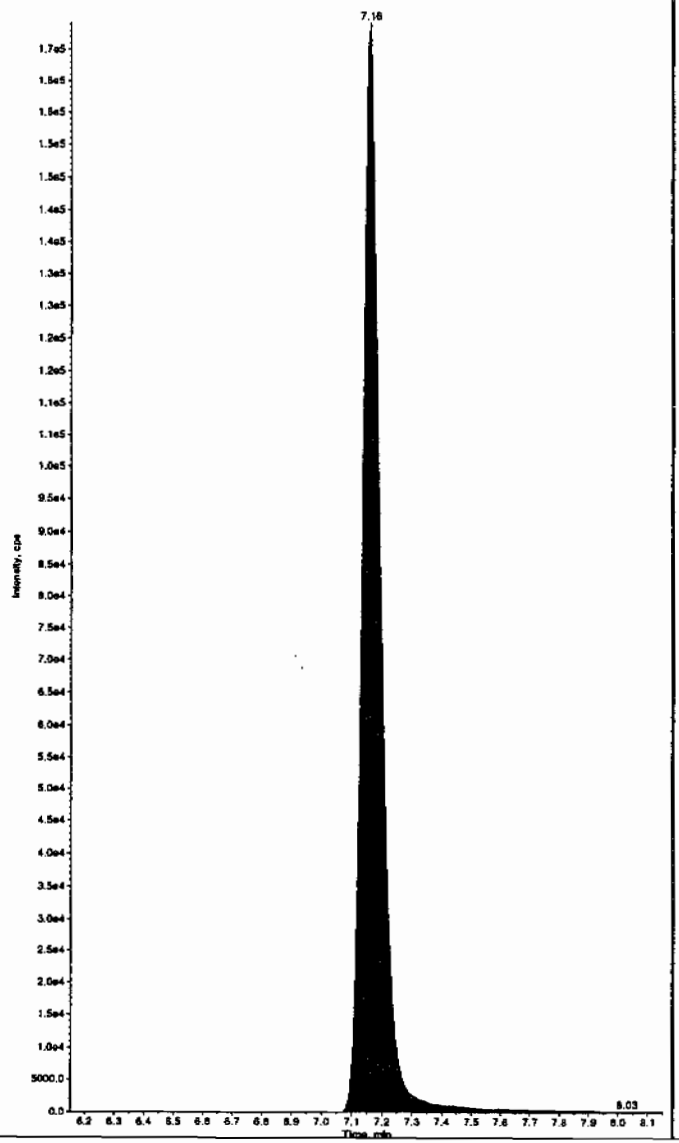

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 507. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 9:52:48 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 3.32e+006 counts
Height: 853150.391 cps
Start Time: 8.29 min
End Time: 8.48 min

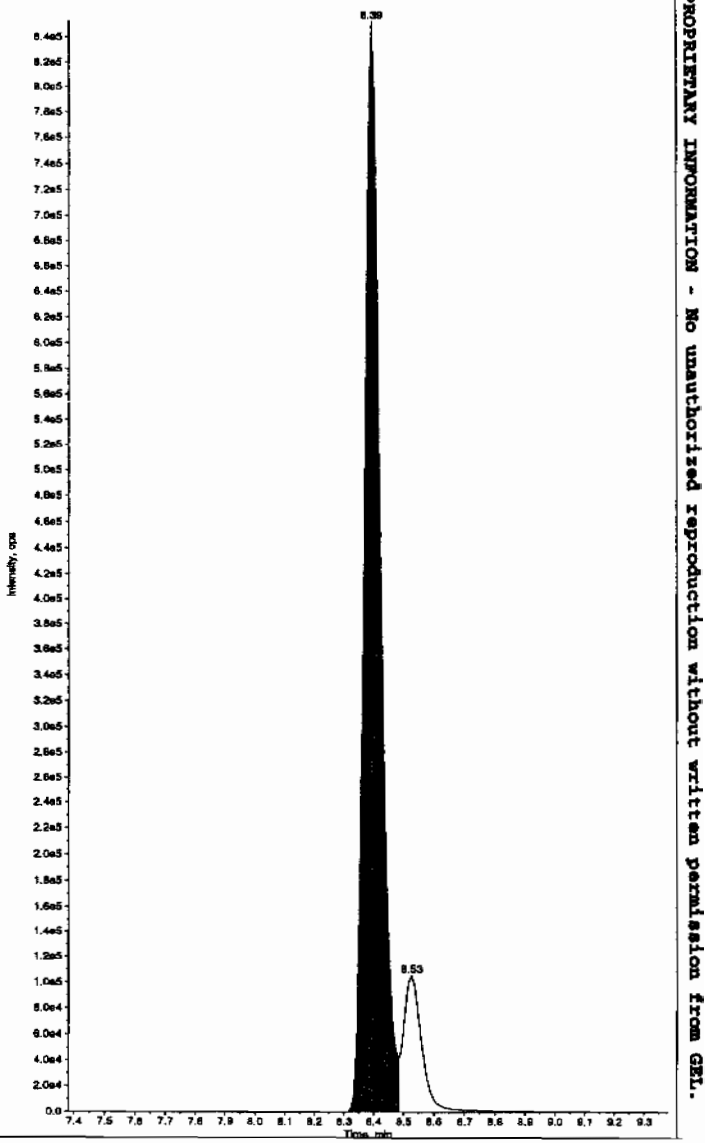

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mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 258. ng/mL
. Date: 2/14/2010
. Time: 9:52:48 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.52 min
a: 3.37e+006 counts
ght: 933019.775 cps
rt Time: 8.45 min
Time: 8.71 min

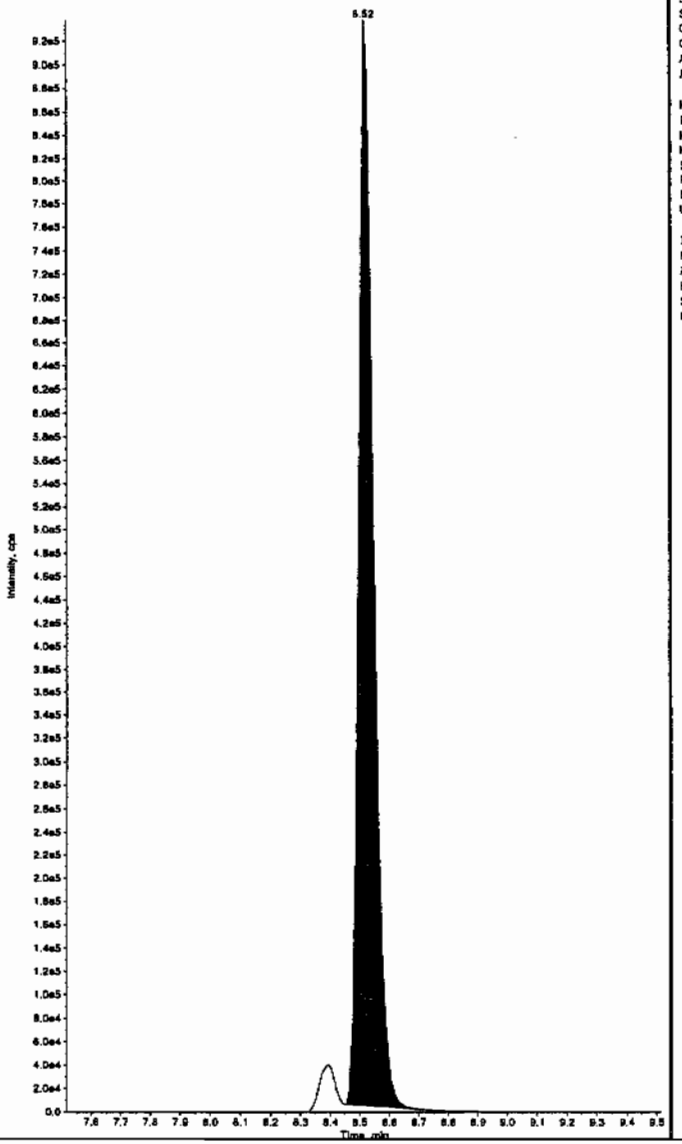

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 542. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 9:52:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 1.56e+006 counts
Height: 366078.552 cps
Start Time: 5.06 min
End Time: 5.47 min

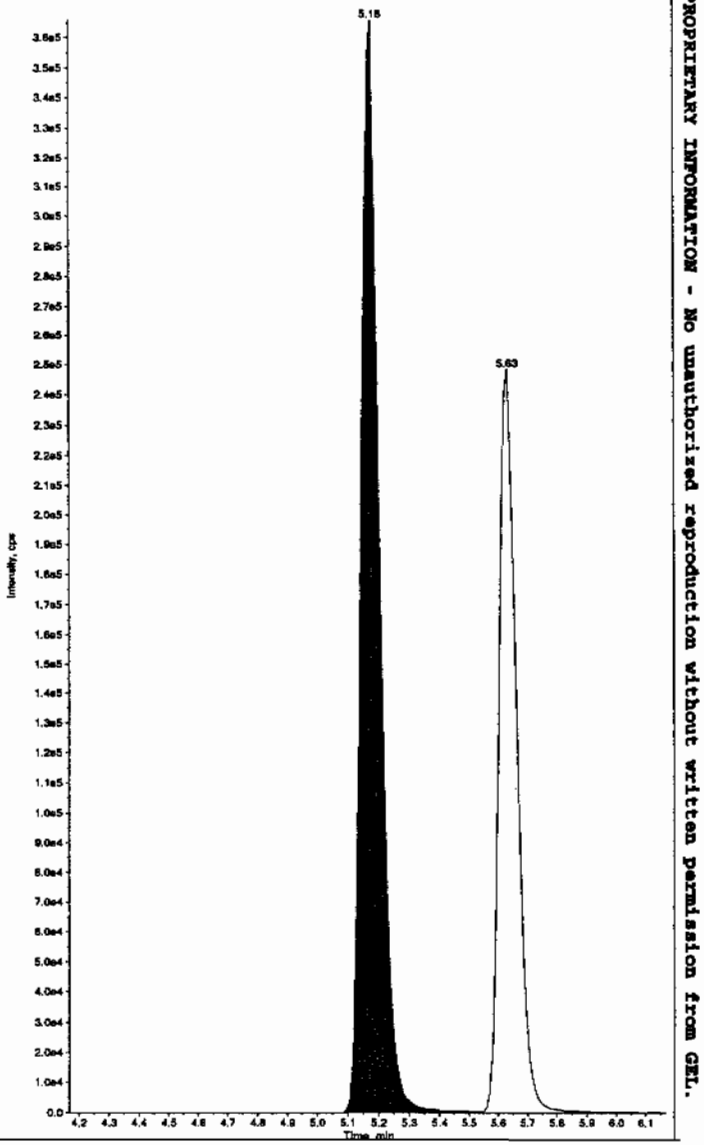

umple Name: "WXX100214-25CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 542. ng/mL
. Date: 2/14/2010
. Time: 9:52:48 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.62 min
Relative RT: No

. Type: Valley
ention Time: 5.63 min
a: 1.03e+006 counts
ght: 248229.034 cps
rt Time: 5.51 min
Time: 5.96 min

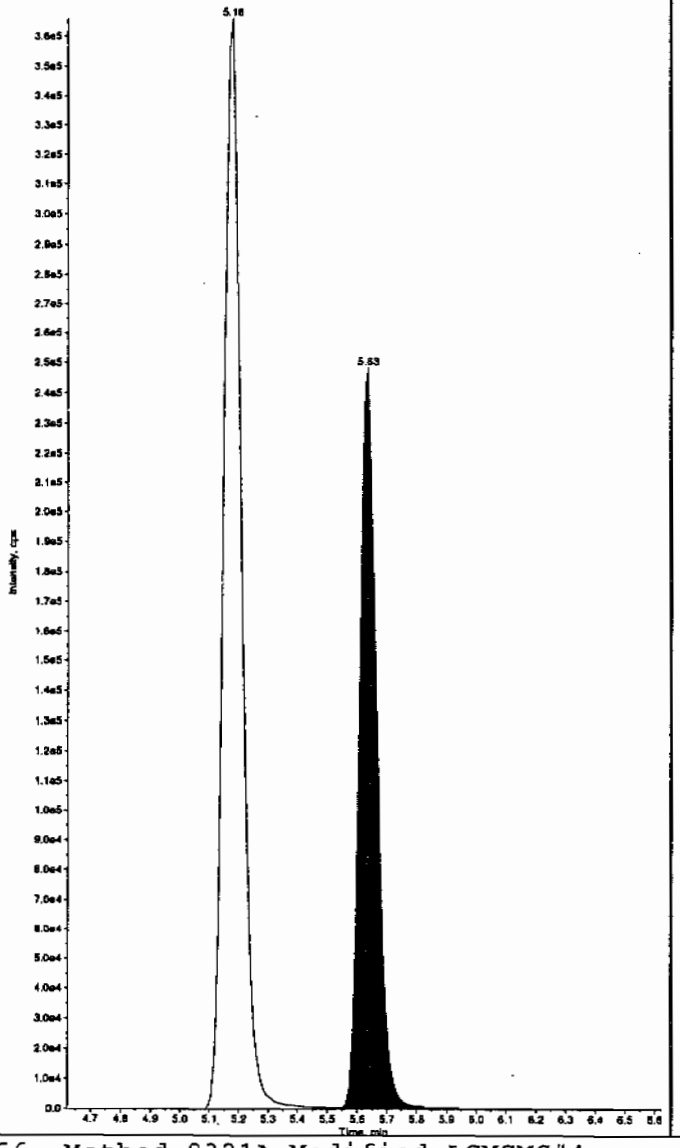

Sample Name: "WXX100214-25CCV" Sample ID: "[1]LER" File: "EXS02140030.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "389.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/14/2010
Acq. Time: 9:52:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.11e+007 counts
Height: 2459256.592 cps
Start Time: 10.9 min
End Time: 11.4 min

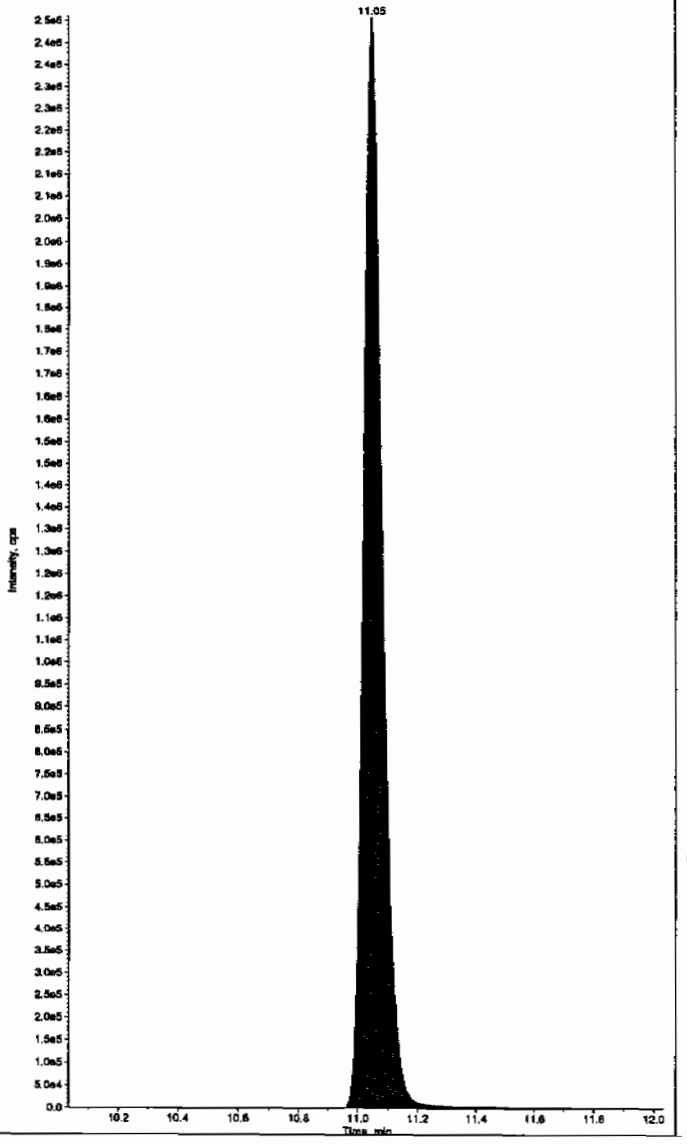

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02140032.wiff

Analysis Date: 14–FEB–10 22:24

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	103	103	
2,6–Diamino–4–nitrotoluene	100	110	110	
3,4–Dinitrotoluene	50	52.2	104	
3,5–Dinitroaniline	100	113	113	
TATB	100	117	117	
tris(o–cresyl) phosphate	100	106	106	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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mple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140032.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	117.	ng/mL
. Date:	2/14/2010	
. Time:	10:24:15 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	7.15	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.16	min
a:	1.61e+005	counts
ght:	36881.176	cps
rt Time:	7.05	min
Time:	7.60	min

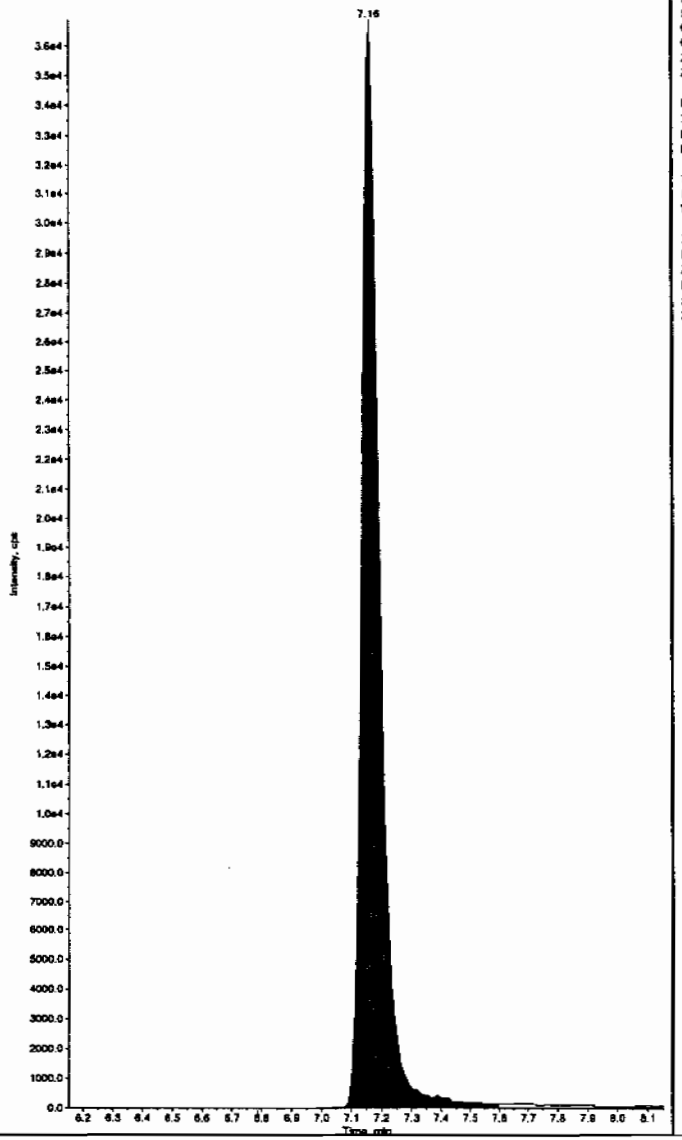

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140032.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	113.	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	10:24:15 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.35	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.39	min
Area:	7.41e+005	counts
Height:	188161.407	cps
Start Time:	8.29	min
End Time:	8.48	min

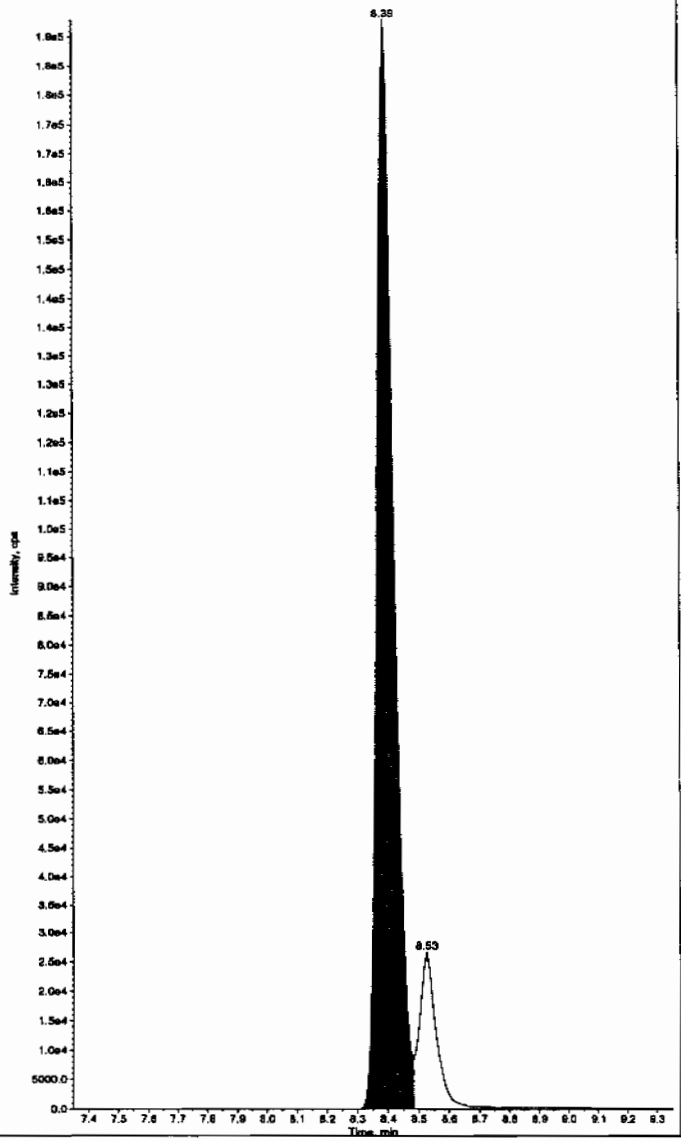

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Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	50.0 ng/mL
Calculated Conc:	52.2 ng/mL
Acq. Date:	2/14/2010
Acq. Time:	10:24:15 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1460.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.52 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.52 min
Area:	6.66e+005 counts
Height:	175696.732 cps
Start Time:	8.45 min
End Time:	8.69 min

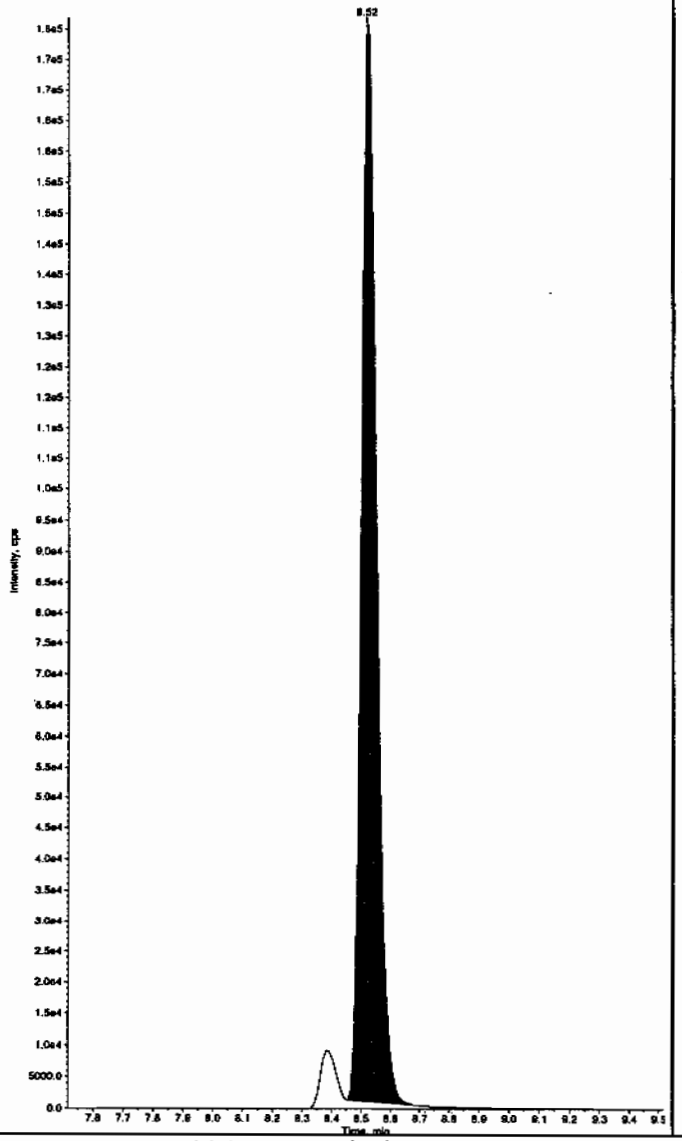

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	110. ng/mL
Acq. Date:	2/14/2010
Acq. Time:	10:24:15 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.17 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.18 min
Area:	3.35e+005 counts
Height:	80867.615 cps
Start Time:	5.03 min
End Time:	5.44 min

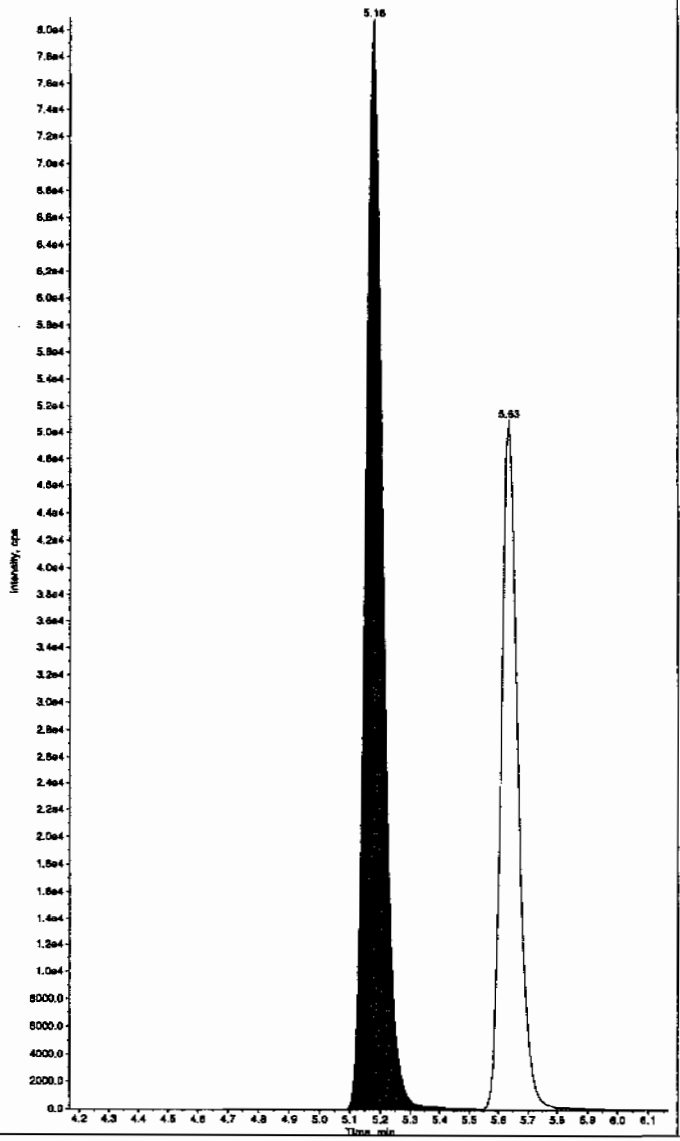

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mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
entration:	100.	ng/mL
culated Conc:	103.	ng/mL
Date:	2/14/2010	
Time:	10:24:15 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	350.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
Window:	30.0	sec
cted RT:	5.62	min
Relative RT:	No	
Type:	Valley	
ntion Time:	5.63	min
:	2.00e+005	counts
ht:	50953.758	cps
t Time:	5.55	min
Time:	5.81	min

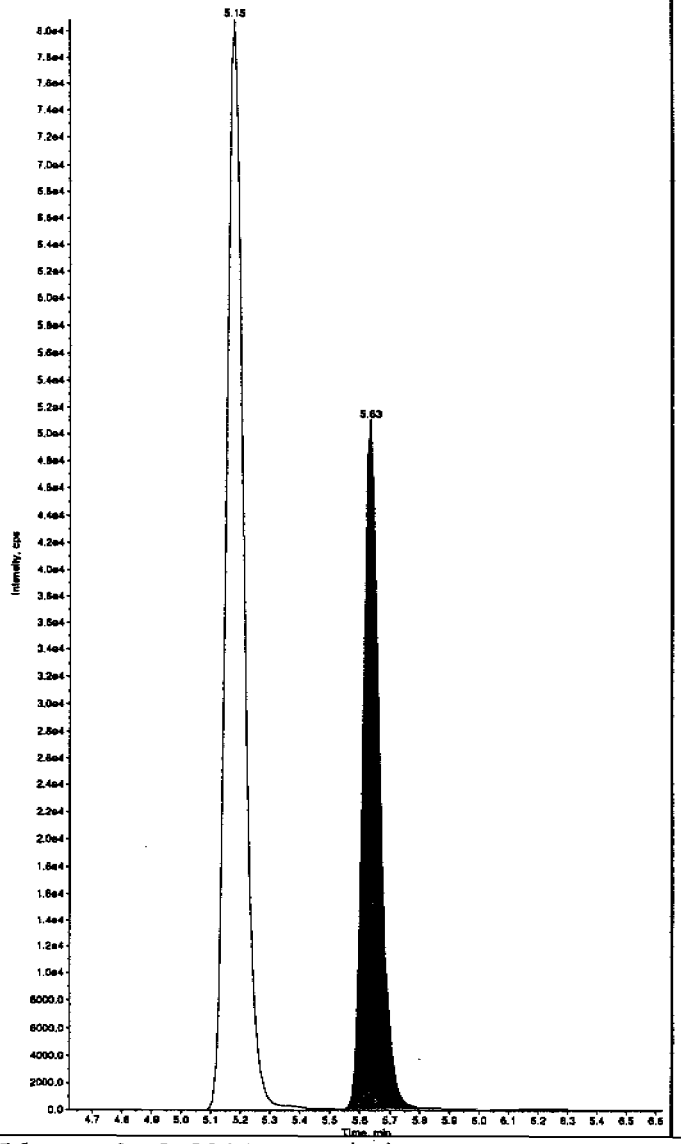

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140032.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	106.	ng/mL
Acq. Date:	2/14/2010	
Acq. Time:	10:24:15 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	2.52e+006	counts
Height:	579455.627	cps
Start Time:	10.9	min
End Time:	11.4	min

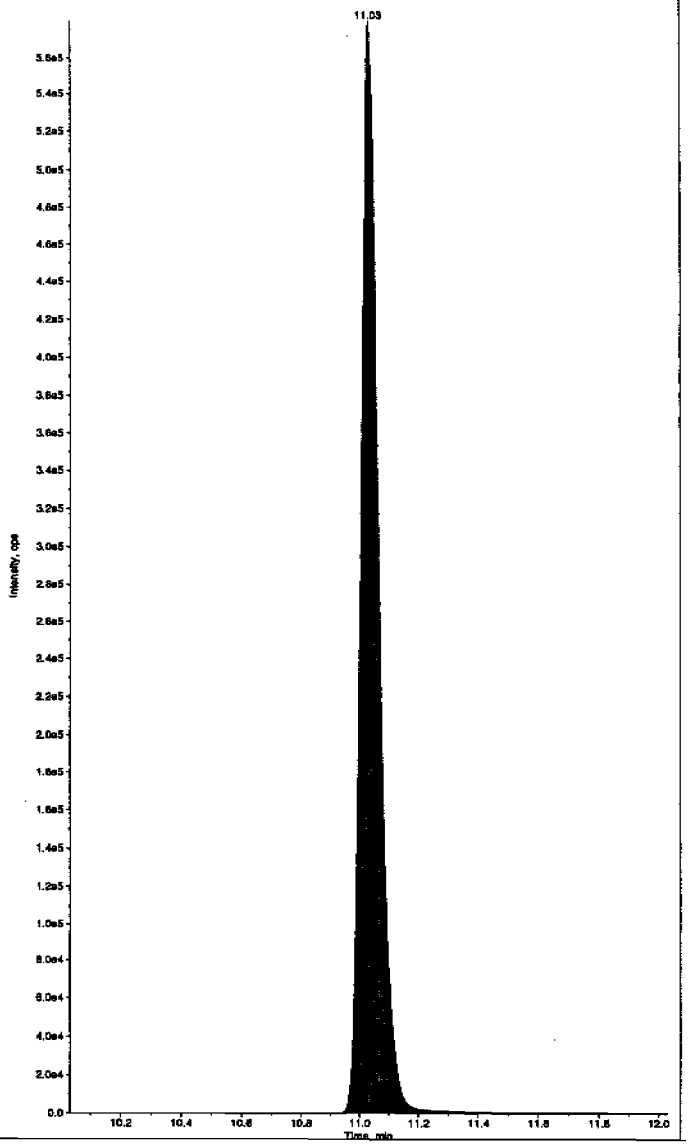

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140043.wiff

Analysis Date: 15–FEB–10 01:16

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	545	109	
2,6–Diamino–4–nitrotoluene	500	596	119	
3,4–Dinitrotoluene	250	240	96	
3,5–Dinitroaniline	500	533	107	
TATB	500	568	114	
tris(o–cresyl) phosphate	500	512	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lar 2/17/10

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 568. ng/mL
. Date: 2/15/2010
. Time: 1:16:59 AM

ified: No
:. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.15 min
Relative RT: No

. Type: Valley
ention Time: 7.16 min
: 7.92e+005 counts
ght: 174783.081 cps
t Time: 7.00 min
Time: 7.68 min

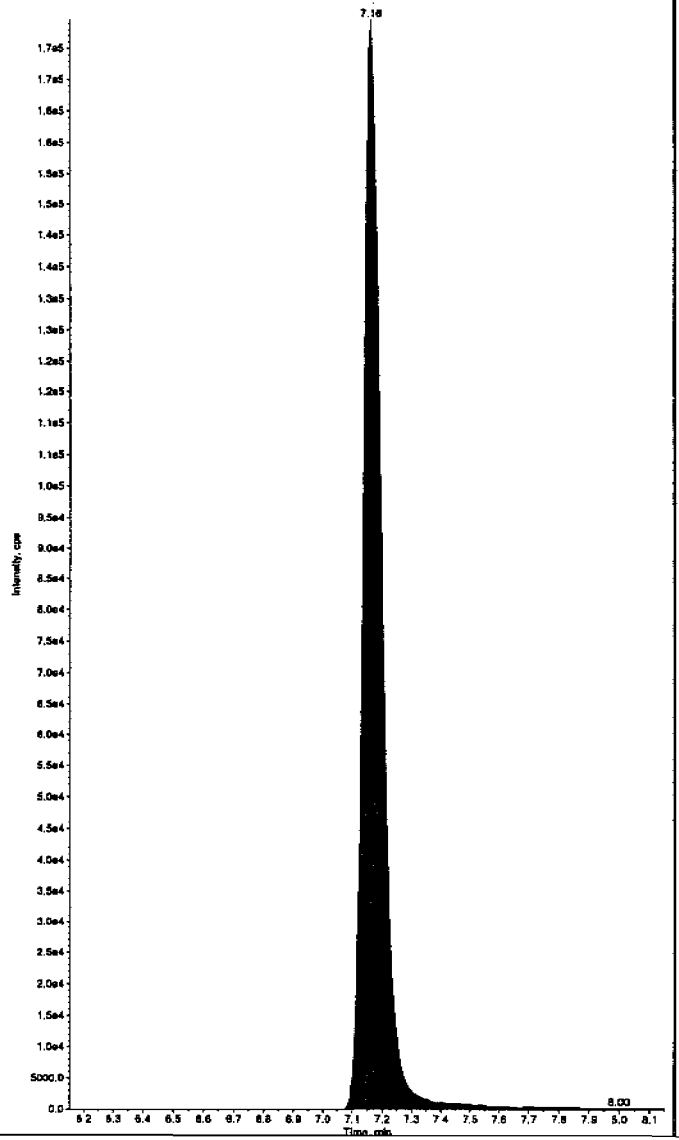

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 533. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:16:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 3.48e+006 counts
Height: 816873.230 cps
Start Time: 8.29 min
End Time: 8.48 min

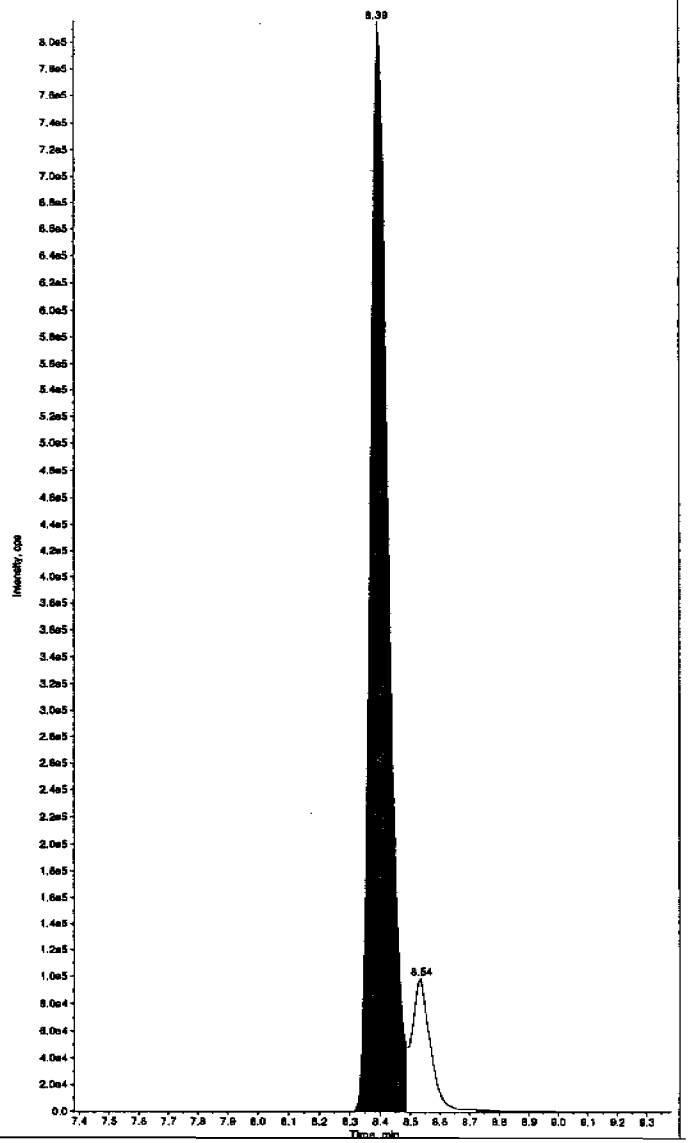

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 240. ng/mL
. Date: 2/15/2010
. Time: 1:16:59 AM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1450.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.53 min
a: 3.14e+006 counts
ght: 851432.373 cps
rt Time: 8.45 min
Time: 8.70 min

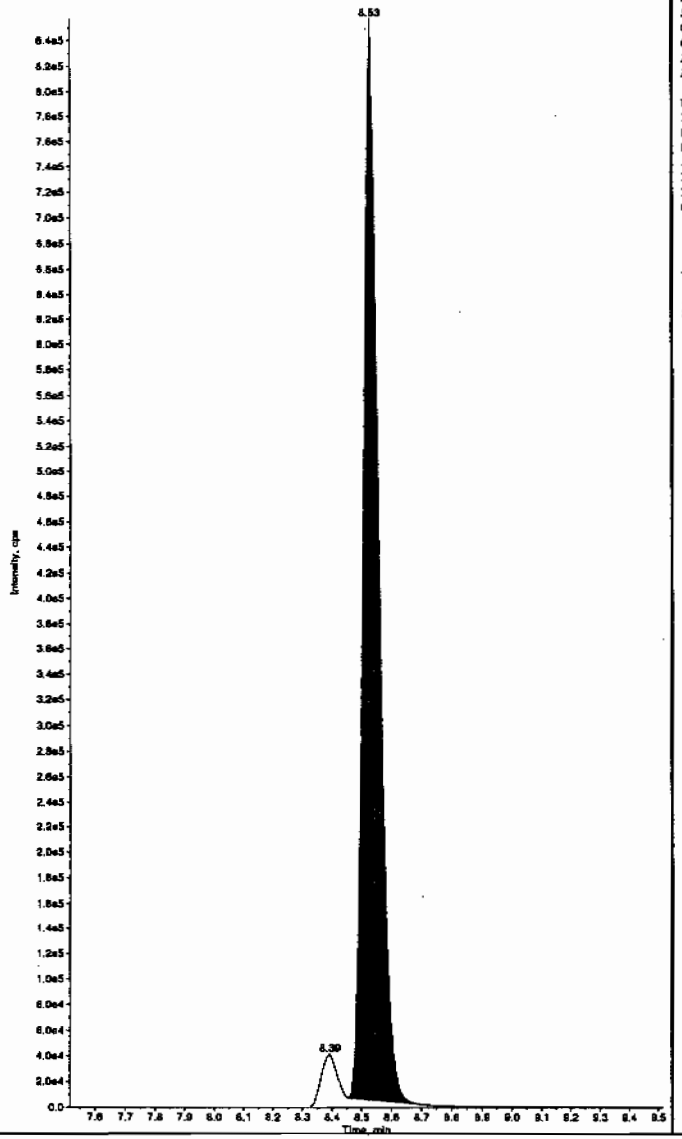

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 596. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:16:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.19 min
Area: 1.71e+006 counts
Height: 412978.729 cps
Start Time: 5.07 min
End Time: 5.46 min

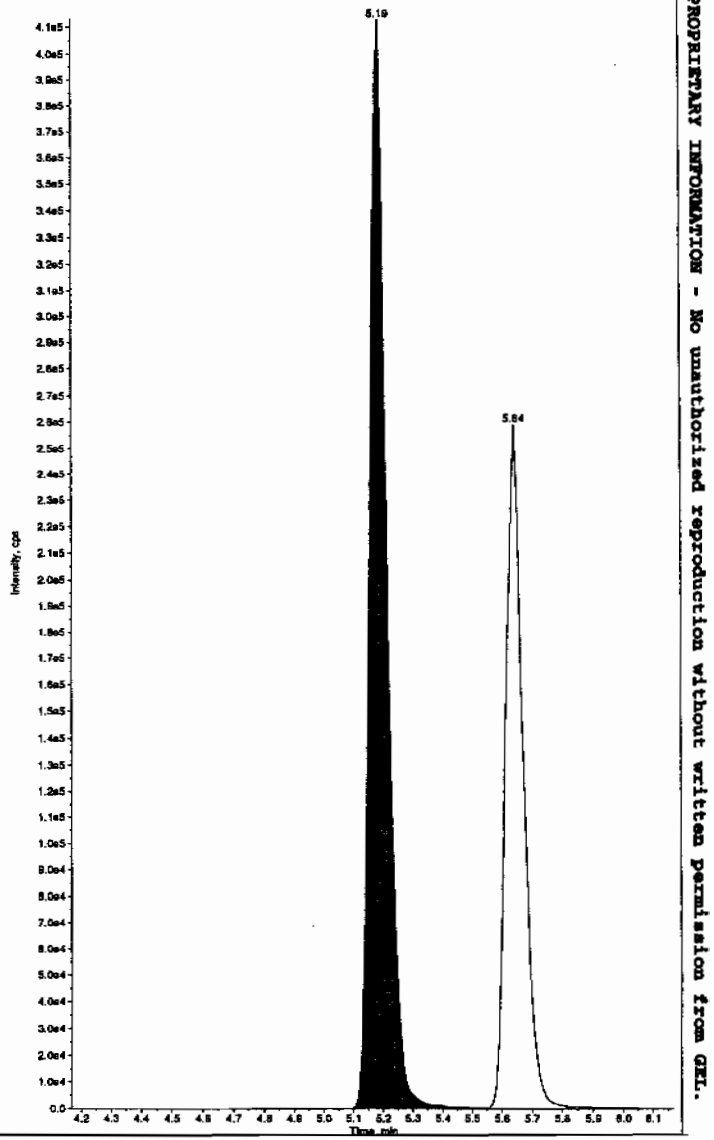

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mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140043.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:       500.     ng/mL
ulated Conc:     545.     ng/mL
  Date:        2/15/2010
  Time:        1:16:59 AM

fied:            No
:. Algorithm: IntelliQuan - IQA
  Peak Height: 350.00   cps
  Peak Width:    0.00   sec
thing Width:  3        points
Window:         30.0    sec
cted RT:         5.62   min
Relative RT:     No

  Type:        Valley
ntion Time:      5.64   min
:          1.04e+006   counts
ht:        258986.603   cps
t Time:          5.53   min
Time:            6.07   min
```

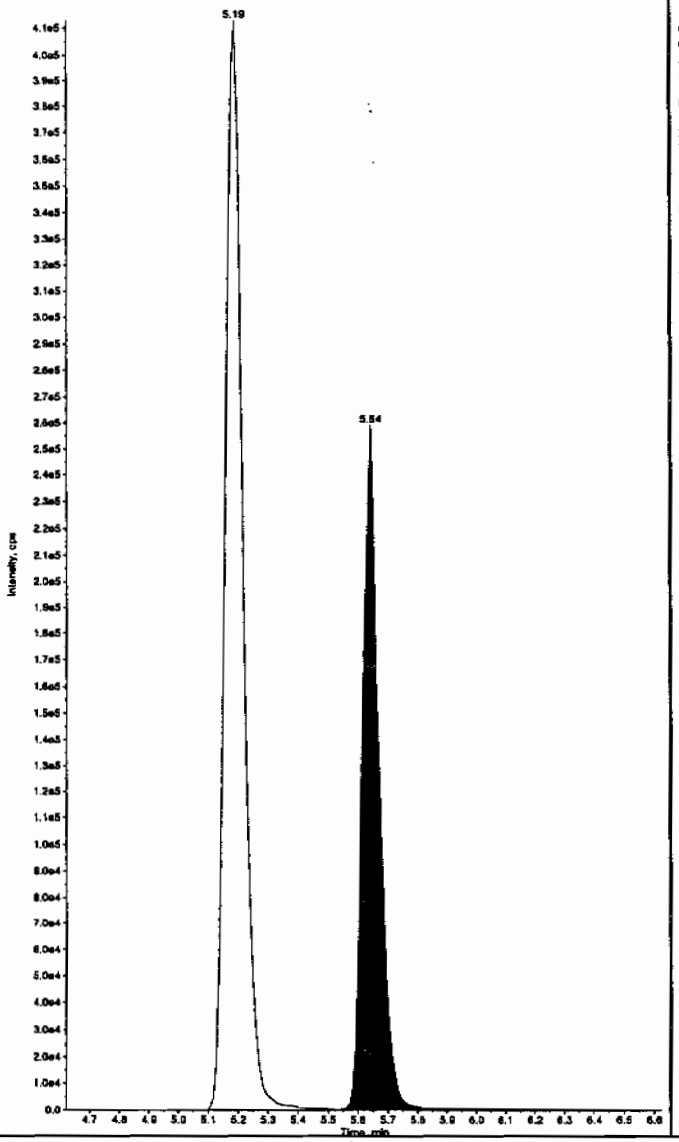

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     500.     ng/mL
Calculated Conc:   512.     ng/mL
Acq. Date:       2/15/2010
Acq. Time:       1:16:59 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       11.0    min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    11.0    min
Area:        1.12e+007   counts
Height:      2579408.447   cps
Start Time:        10.9    min
End Time:          11.4    min
```

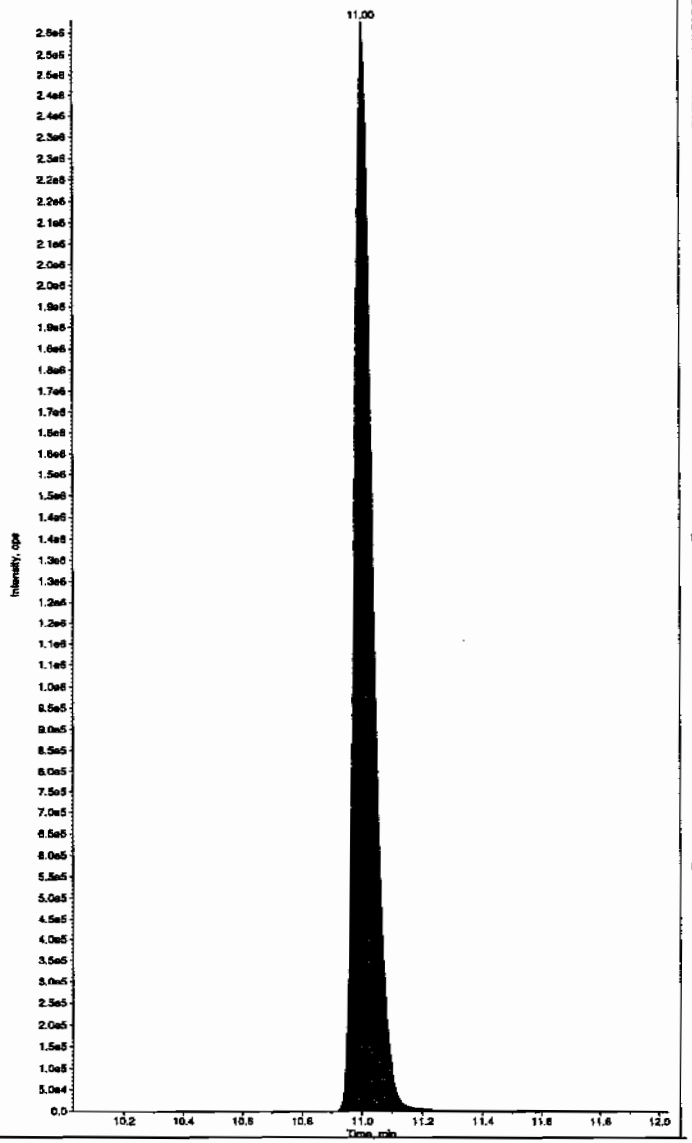

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140045.wiff

Analysis Date: 15–FEB–10 01:48

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	116	116	
2,6–Diamino–4–nitrotoluene	100	112	112	
3,4–Dinitrotoluene	50	52.3	105	
3,5–Dinitroaniline	100	120	120	
TATB	100	119	119	
tris(o–cresyl) phosphate	100	105	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Chan 2/16/10

ample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140045.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	119.	ng/mL
. Date:	2/15/2010	
. Time:	1:48:23 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	7.15	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.16	min
a:	1.64e+005	counts
ght:	37362.991	cps
rt Time:	7.02	min
Time:	7.72	min

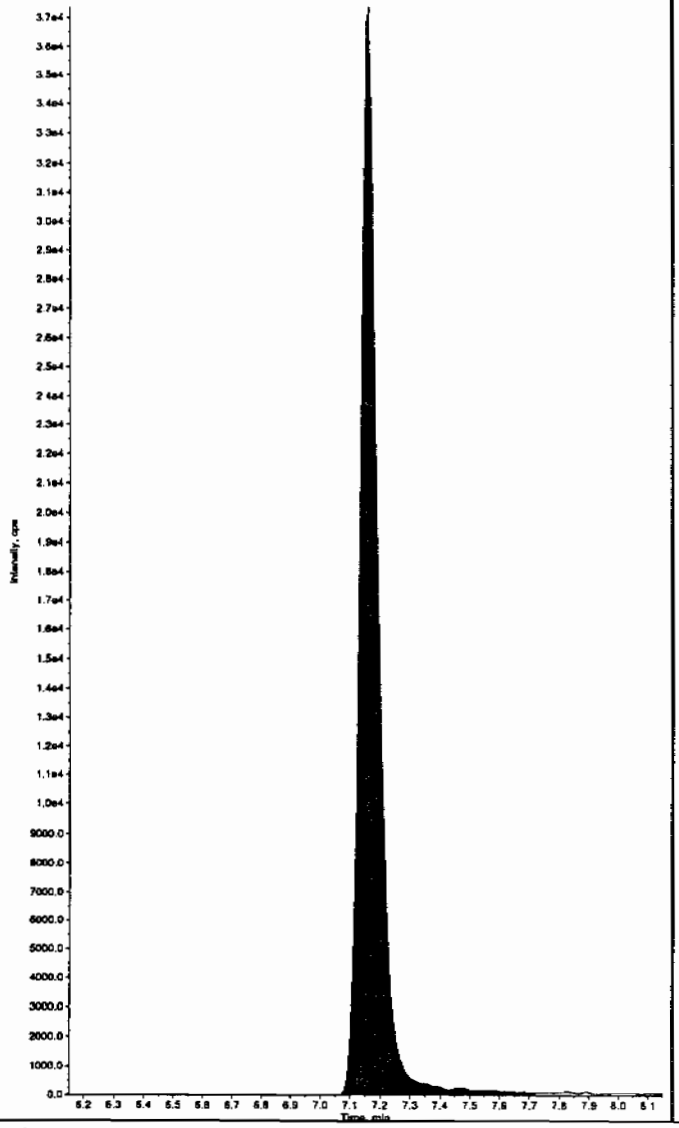

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	134.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	1:48:23 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.39	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.39	min
Area:	8.85e+005	counts
Height:	199205.399	cps
Start Time:	8.29	min
End Time:	8.79	min

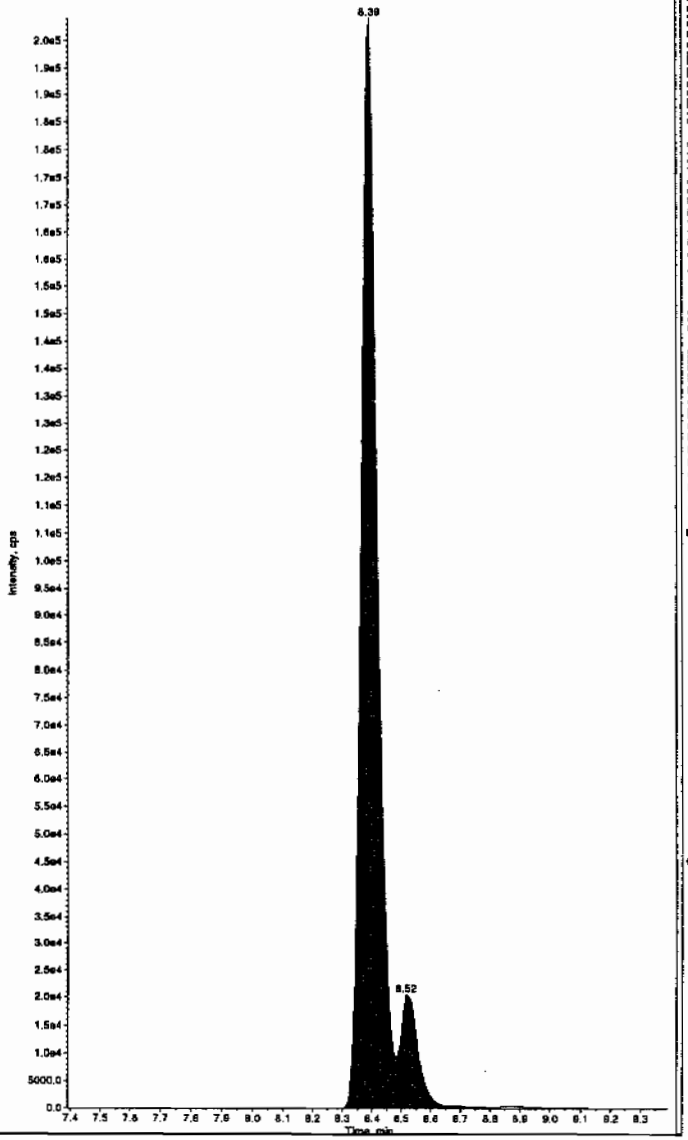

Hum 02/17/10

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after Clar 2/17/10

mple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140045.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
culated Conc: 119. ng/mL
Date: 2/15/2010
Time: 1:48:23 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.16 min
: 1.64e+005 counts
ht: 37362.991 cps
t Time: 7.02 min
Time: 7.72 min

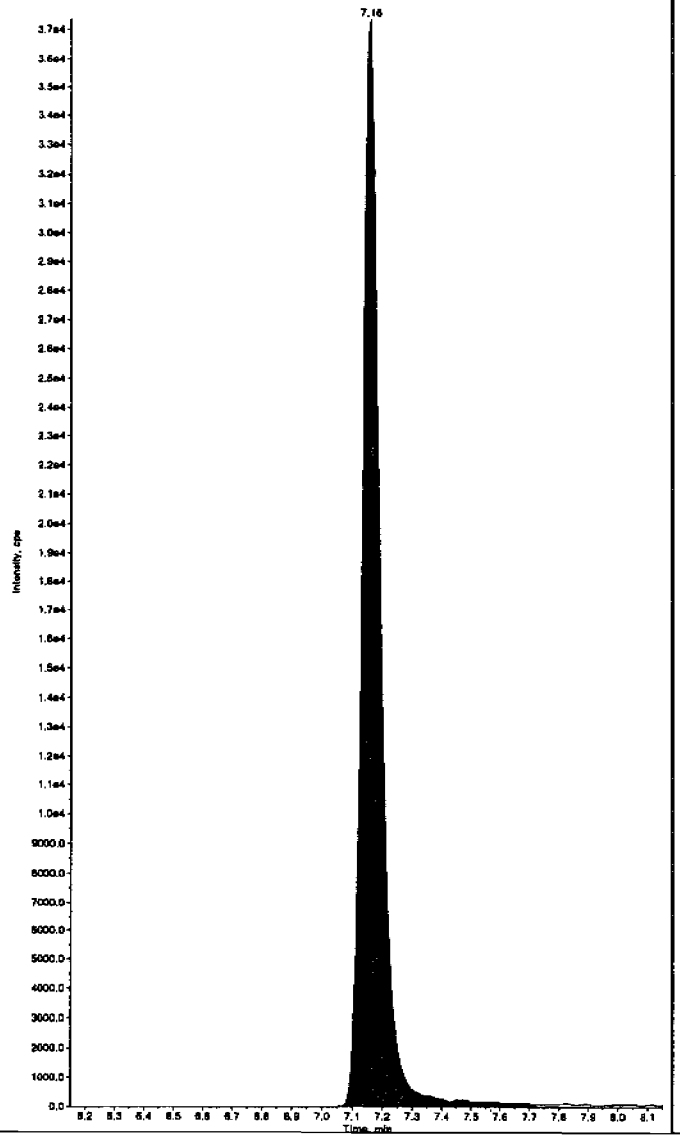

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 120. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:48:23 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.39 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.39 min
Area: 7.89e+005 counts
Height: 200516.350 cps
Start Time: 8.31 min
End Time: 8.48 min

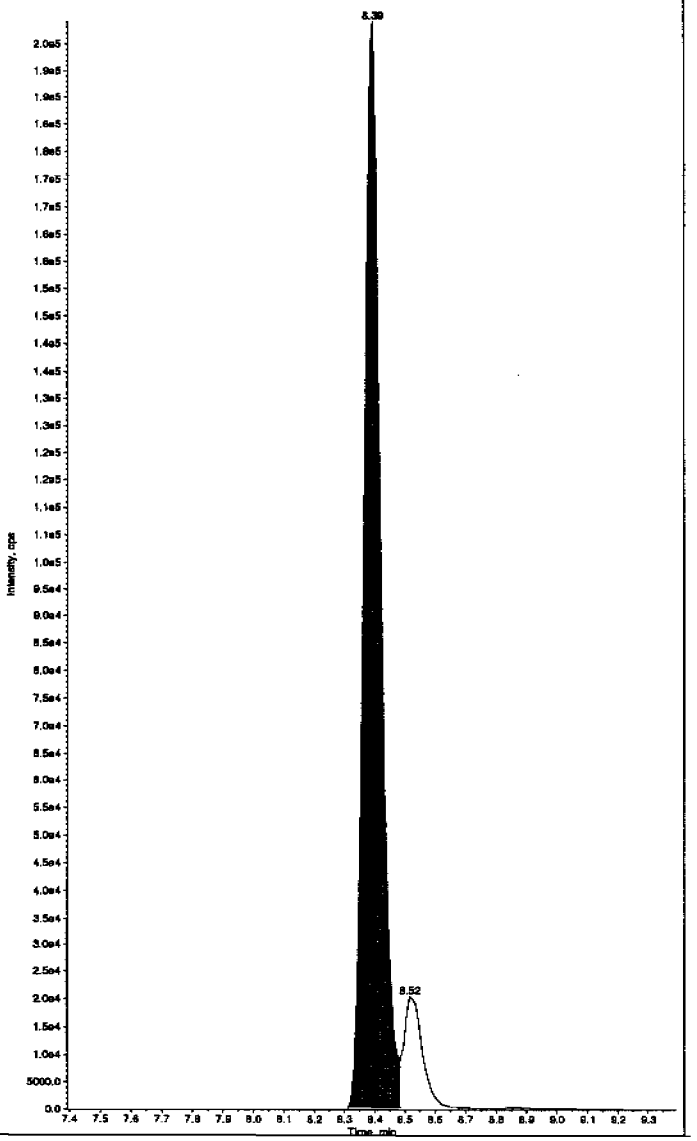

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         50.0     ng/mL
culated Conc:       52.3     ng/mL
  Date:          2/15/2010
  Time:          1:48:23 AM

dified:             No
. Algorithm: IntelliQuan - IQA
  Peak Height:1460.00    cps
  Peak Width:    0.00    sec
thing Width:  3        points
Window:         15.0     sec
cted RT:         8.52    min
Relative RT:    No

  Type:         Valley
ntion Time:      8.52    min
:          6.67e+005    counts
ght:         176555.374  cps
t Time:          8.44    min
Time:            8.69    min
```

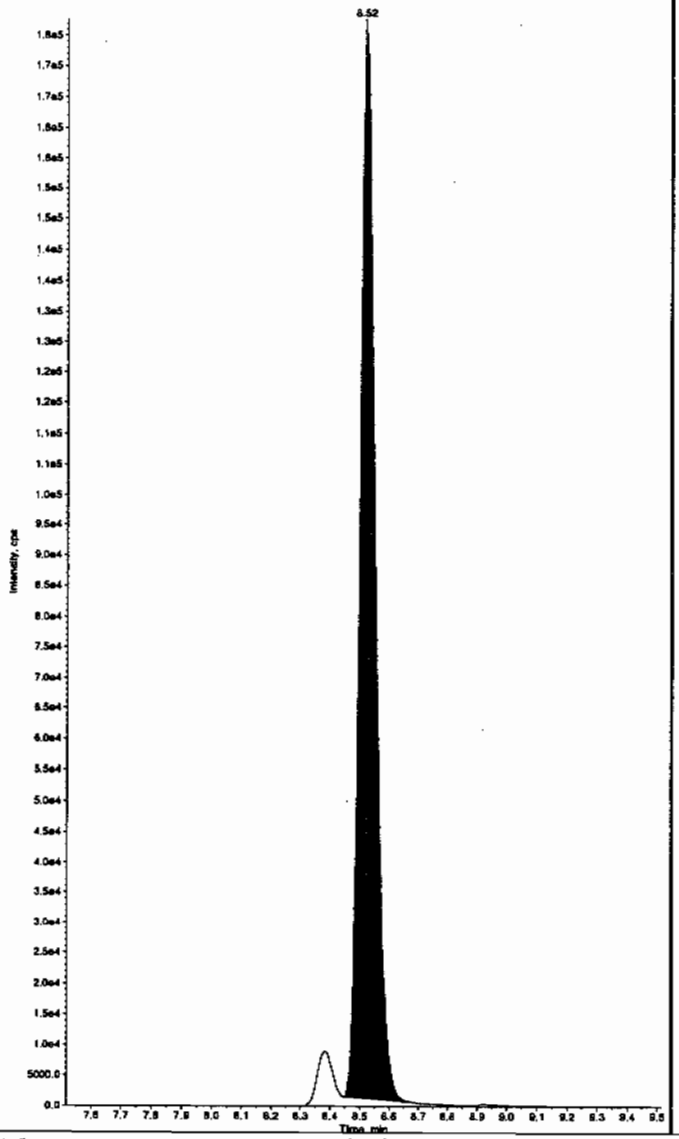

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       112.     ng/mL
Acq. Date:          2/15/2010
Acq. Time:          1:48:23 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        5.17    min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:     5.18    min
Area:          3.39e+005   counts
Height:        81798.973   cps
Start Time:         5.05    min
End Time:           5.43    min
```

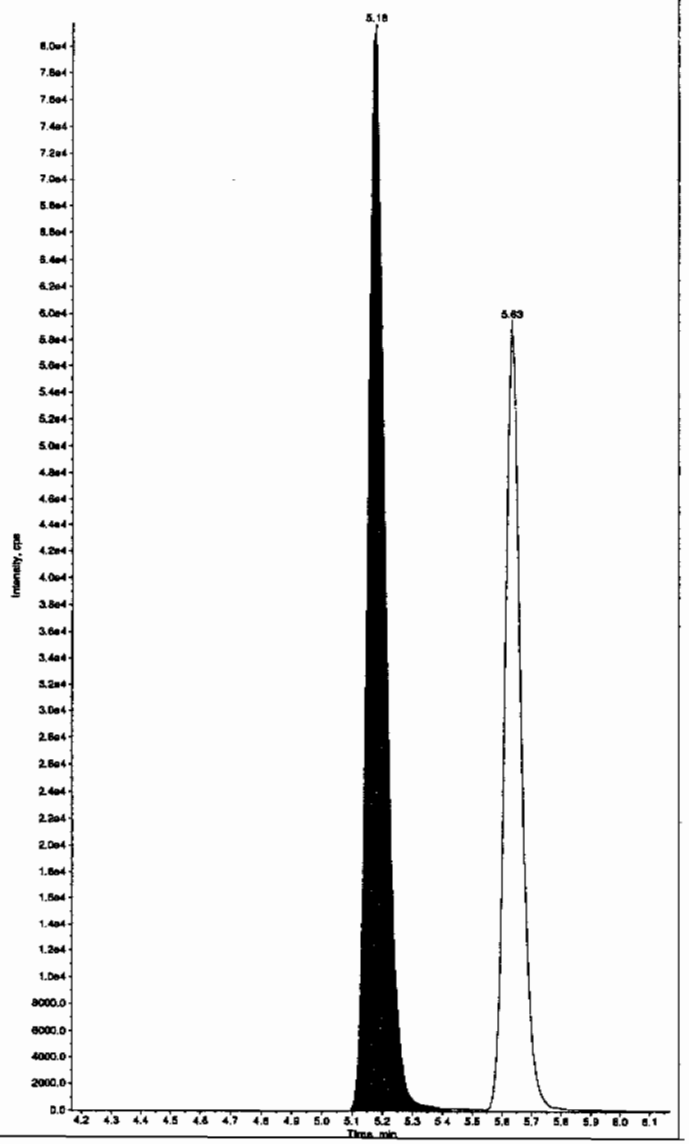

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ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 116. ng/mL
. Date: 2/15/2010
. Time: 1:48:23 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 5.62 min
Relative RT: No

. Type: Valley
ention Time: 5.63 min
a: 2.25e+005 counts
ght: 59590.805 cps
rt Time: 5.54 min
Time: 6.03 min

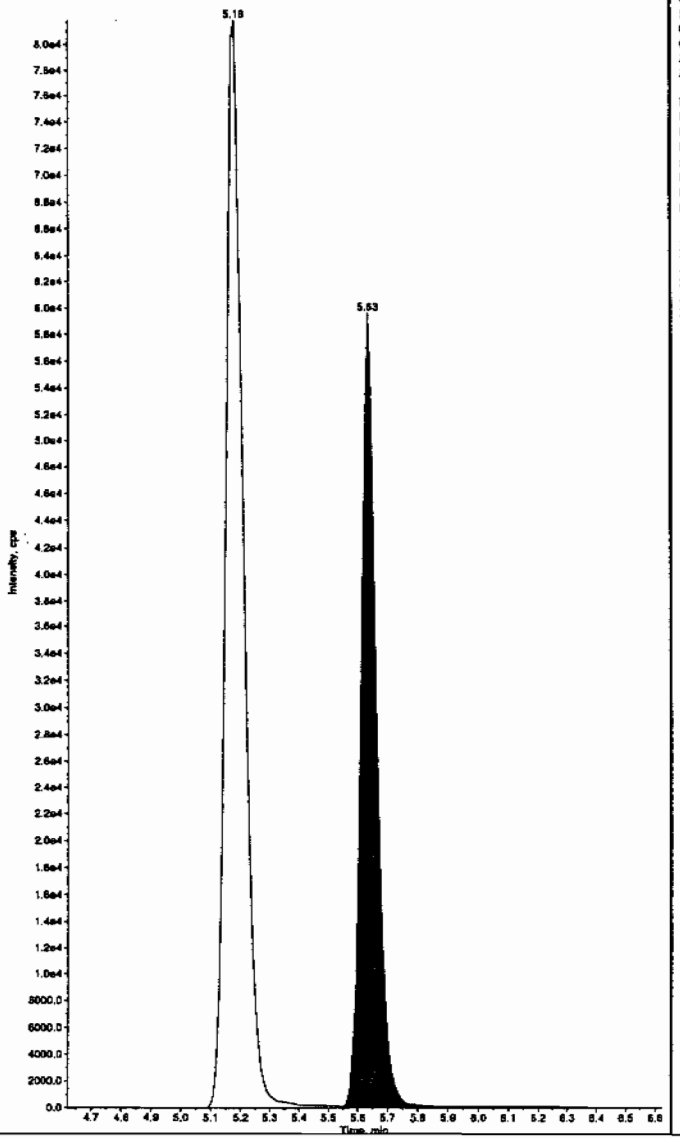

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 1:48:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.49e+006 counts
Height: 600676.575 cps
Start Time: 10.9 min
End Time: 11.3 min

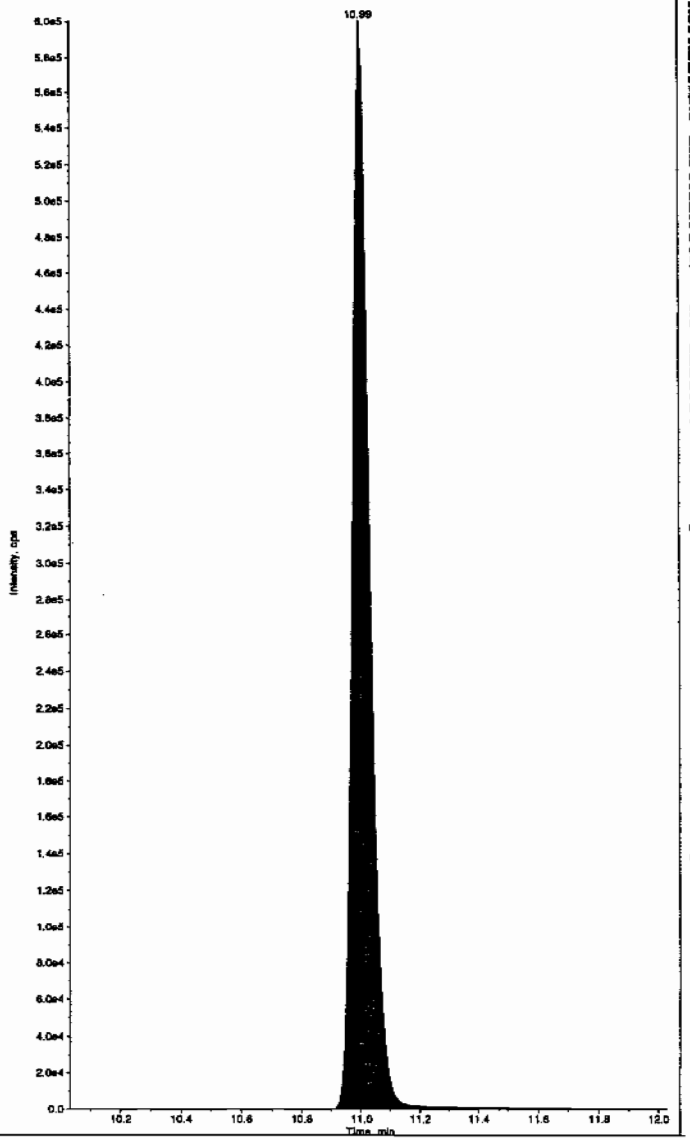

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140056.wiff

Analysis Date: 15-FEB-10 04:41

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	610	122	
2,6-Diamino-4-nitrotoluene	500	600	120	
3,4-Dinitrotoluene	250	253	101	
3,5-Dinitroaniline	500	551	110	
TATB	500	567	113	
tris(o-cresyl) phosphate	500	504	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/16/10

mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140056.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
entration: 500. ng/mL
ulated Conc: 567. ng/mL
Date: 2/15/2010
Time: 4:41:08 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.17 min
: 7.91e+005 counts
ht: 176303.864 cps
t Time: 7.07 min
Time: 7.83 min

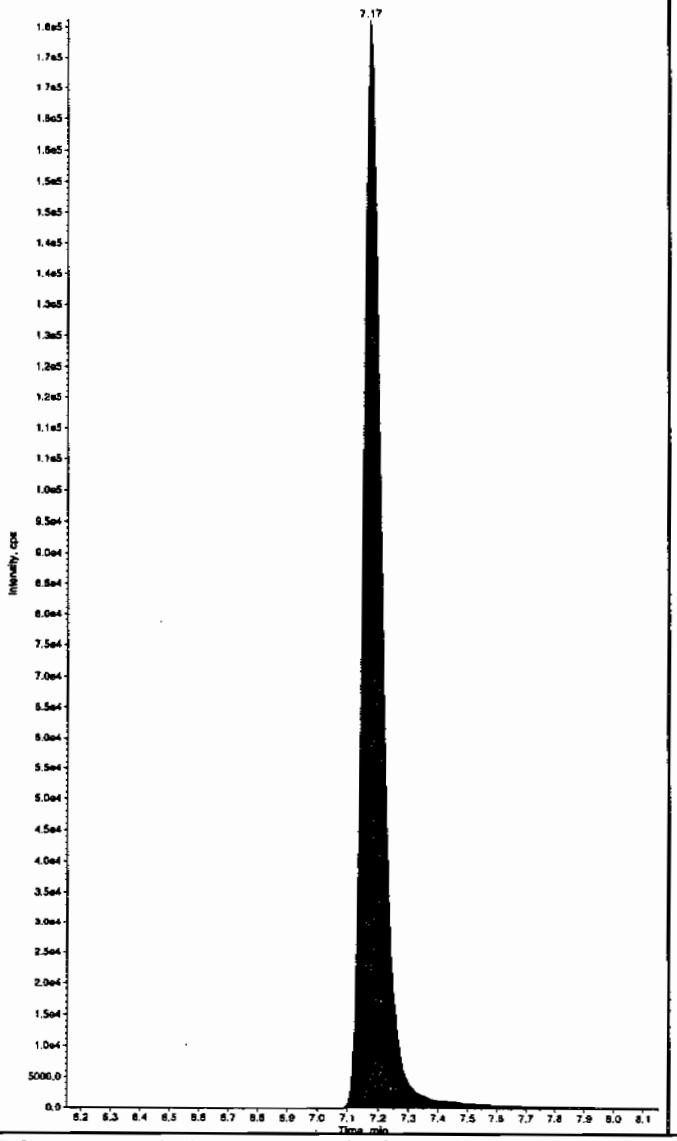

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140056.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:41:08 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.40 min
Area: 3.33e+006 counts
Height: 889455.078 cps
Start Time: 8.33 min
End Time: 8.48 min

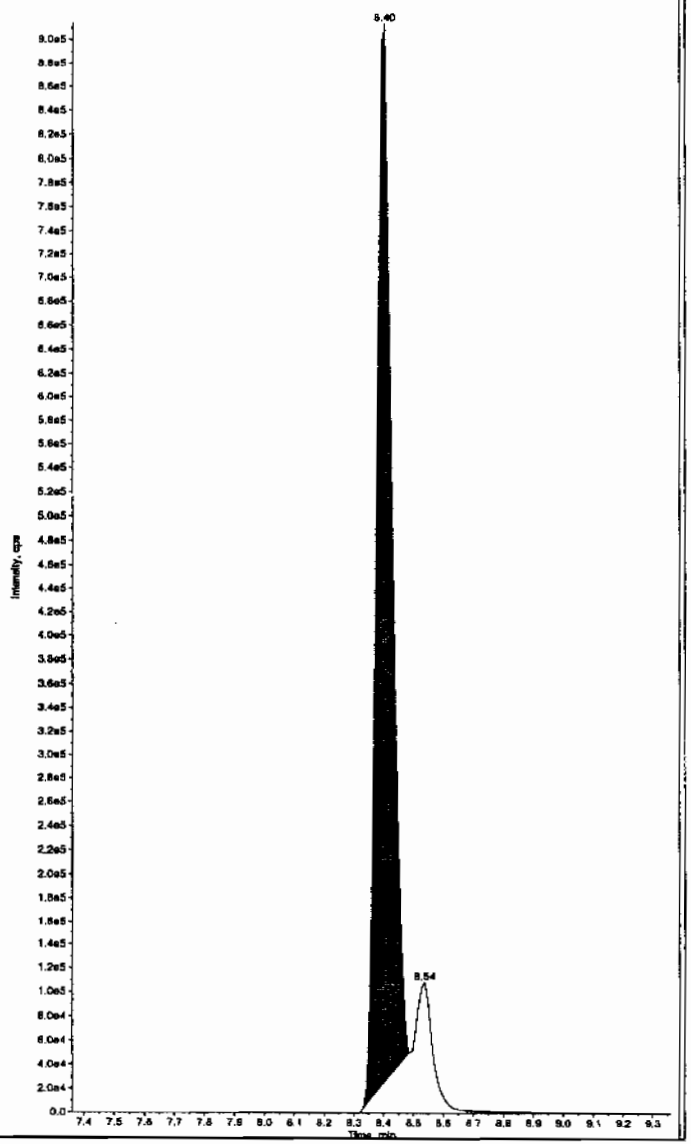

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after Dan 2/17/10

ample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
ask Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 567. ng/mL
. Date: 2/15/2010
. Time: 4:41:08 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Weight: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.15 min
Relative RT: No

. Type: Valley
ention Time: 7.17 min
a: 7.91e+005 counts
ght: 176103.864 cps
rt Time: 7.07 min
Time: 7.83 min

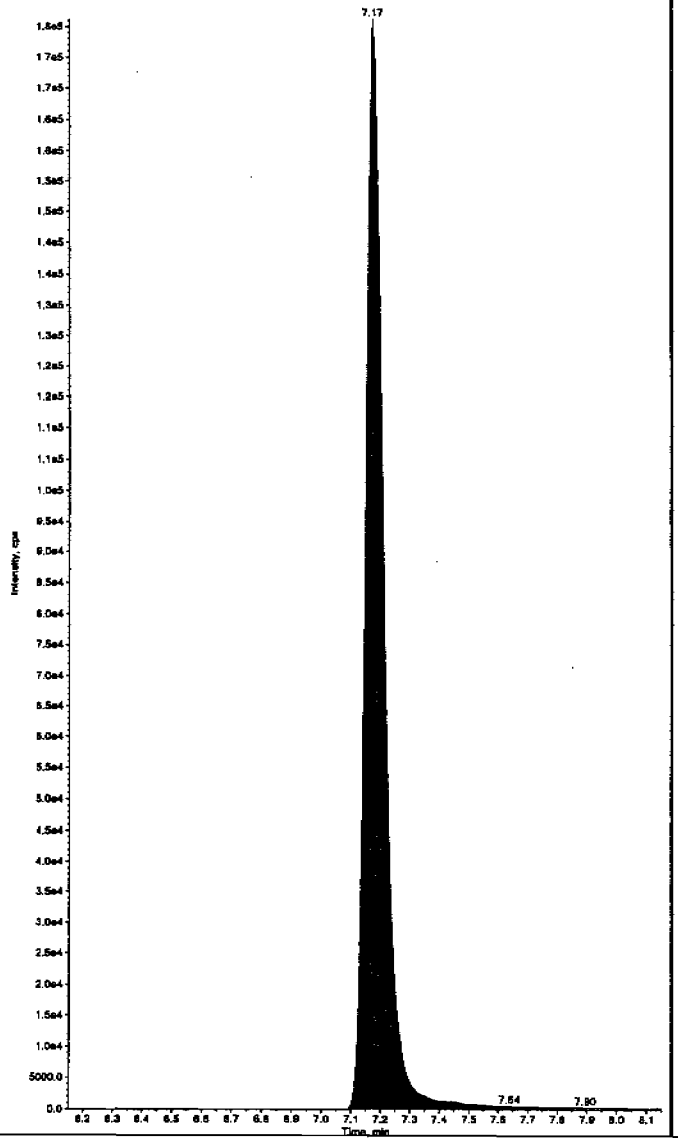

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 551. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:41:08 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.40 min
Area: 3.59e+006 counts
Height: 928191.725 cps
Start Time: 8.33 min
End Time: 8.50 min

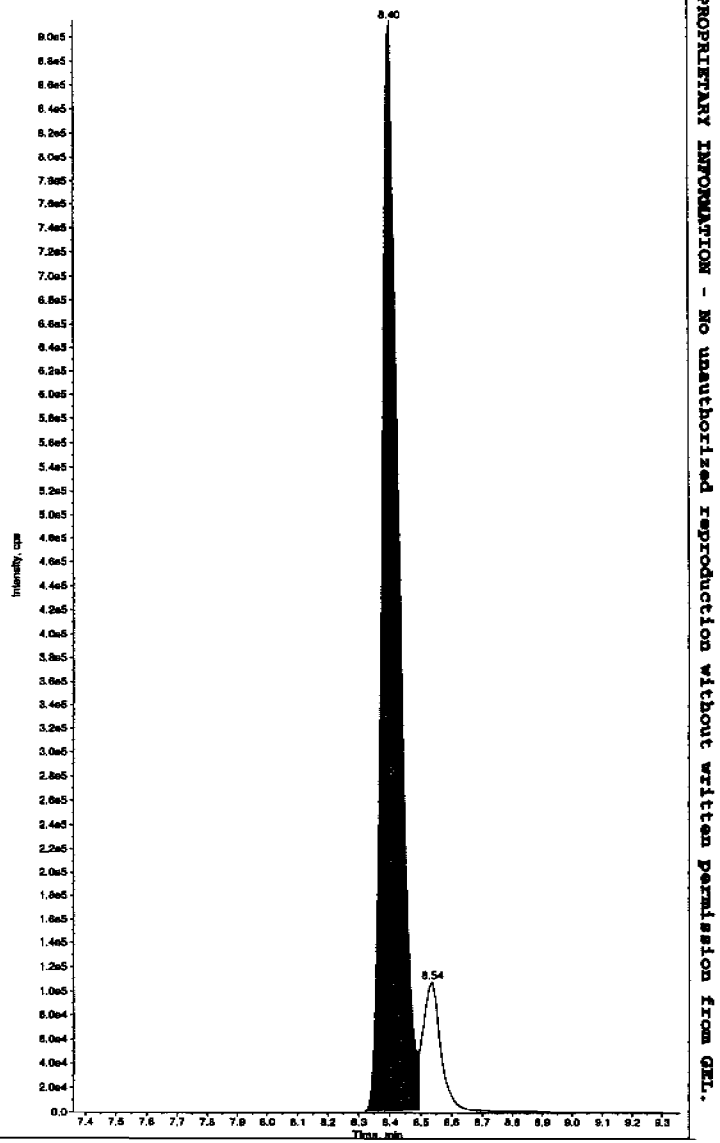

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 253. ng/mL
. Date: 2/15/2010
. Time: 4:41:08 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.53 min
a: 3.31e+006 counts
ght: 904657.532 cps
rt Time: 8.45 min
Time: 8.69 min

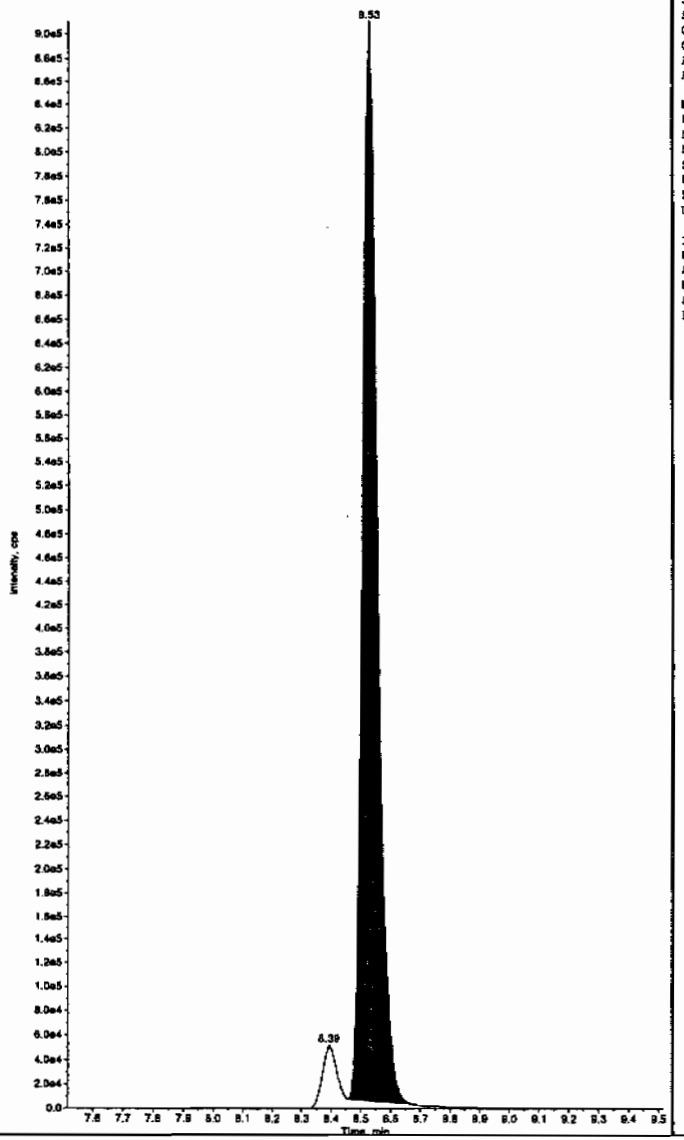

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140056.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 600. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:41:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.18 min
Area: 1.73e+006 counts
Height: 402197.998 cps
Start Time: 5.07 min
End Time: 5.49 min

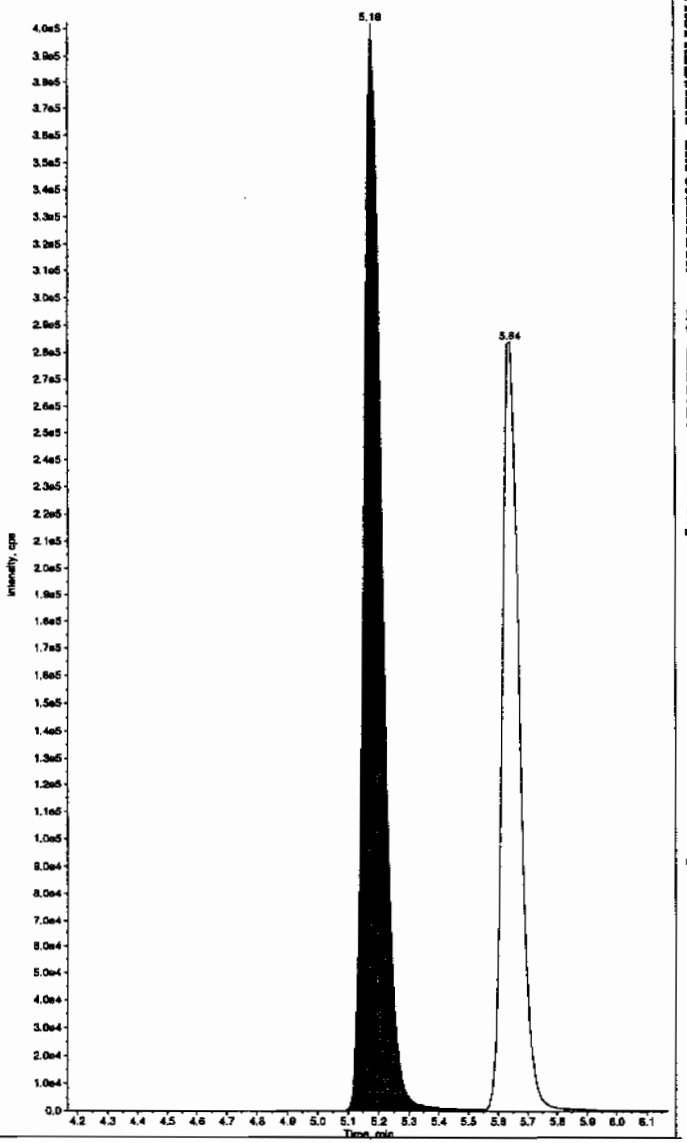

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100214-26CCV" Sample ID: "]1]LER" File: "EXS02140056.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: "

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 610. ng/mL
. Date: 2/15/2010
. Time: 4:41:08 AM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
window: 30.0 sec
ected RT: 5.62 min
Relative RT: No

. Type: Valley
ention Time: 5.64 min
: 1.16e+006 counts
ght: 283947.052 cps
t Time: 5.54 min
Time: 6.13 min

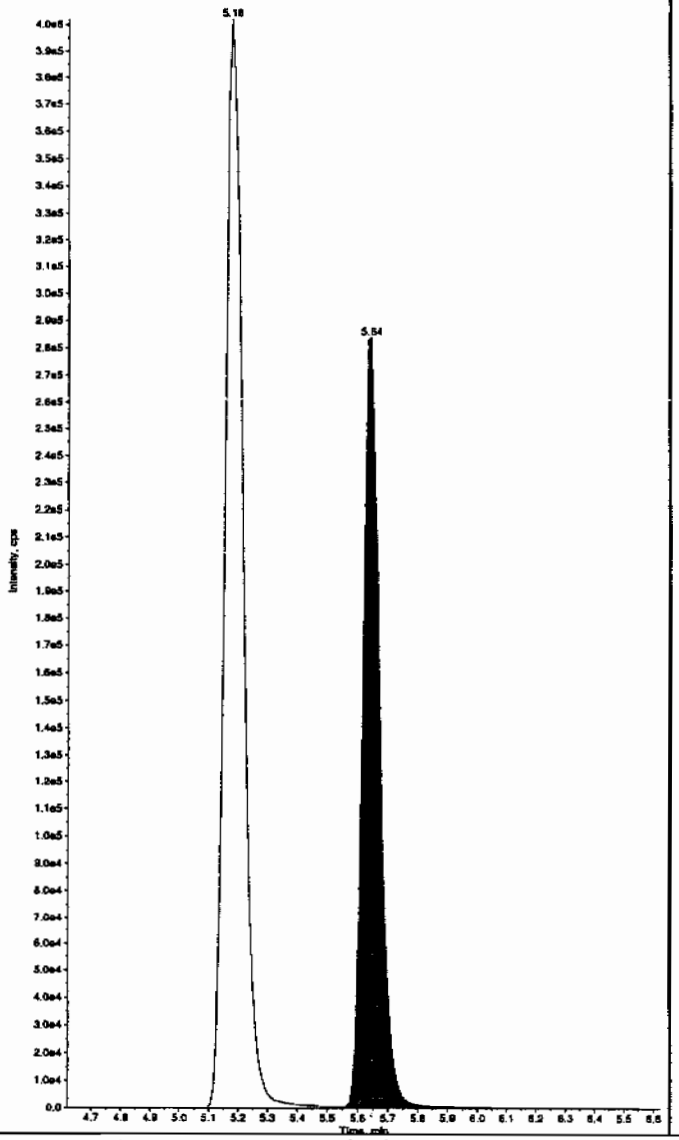

Sample Name: "WXX100214-26CCV" Sample ID: "]1]LER" File: "EXS02140056.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 504. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 4:41:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.10e+007 counts
Height: 2513603.516 cps
Start Time: 10.9 min
End Time: 11.4 min

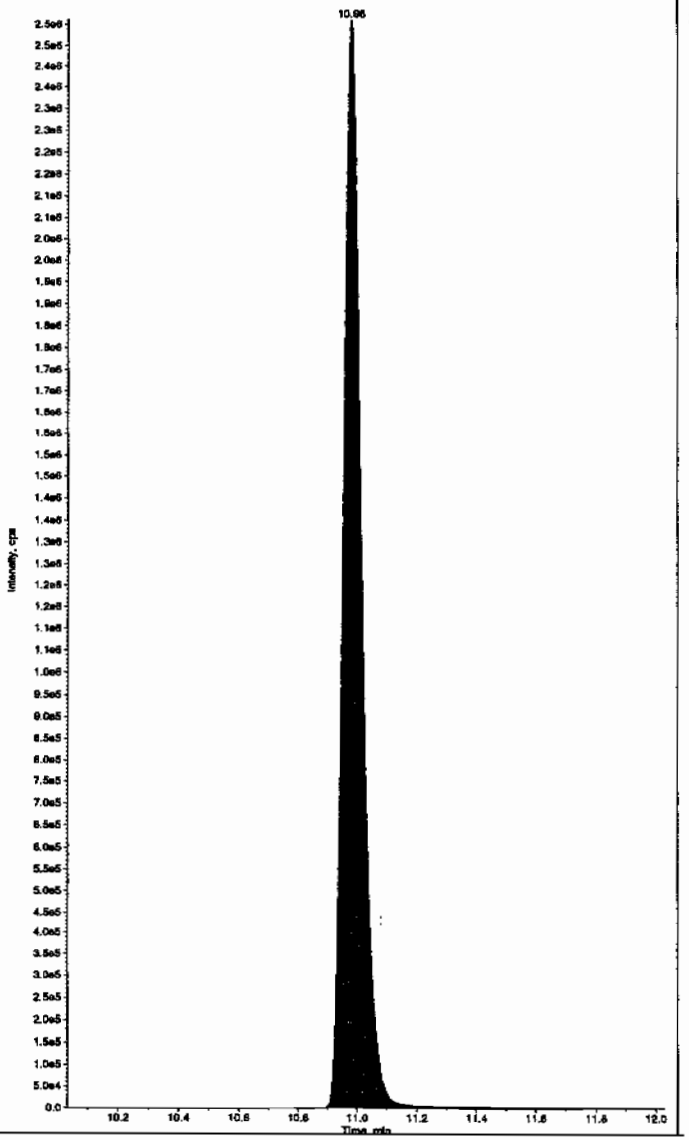

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140058.wiff

Analysis Date: 15-FEB-10 05:12

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	54.2	108	
3,5-Dinitroaniline	100	116	116	
TATB	100	114	114	
tris(o-cresyl) phosphate	100	104	104	
2,4-Diamino-6-nitrotoluene	100	120	120	
2,6-Diamino-4-nitrotoluene	100	119	119	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sen 2/17/10

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
mple Type: QC
ncentration: 100. ng/mL
lculated Conc: 114. ng/mL
q. Date: 2/15/2010
q. Time: 5:12:32 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.15 min
e Relative RT: No

t. Type: Valley
tention Time: 7.17 min
ea: 1.57e+005 counts
ight: 35565.002 cps
art Time: 7.06 min
d Time: 7.63 min

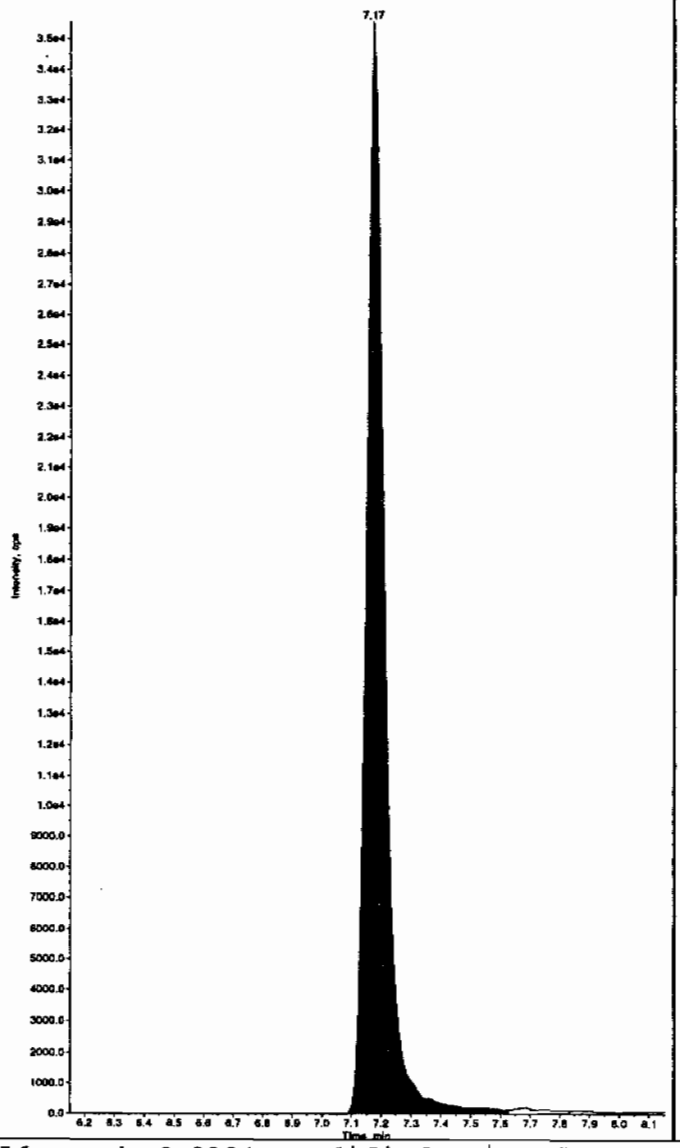

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 116. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 5:12:32 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.35 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.39 min
Area: 7.62e+005 counts
Height: 175270.462 cps
Start Time: 8.28 min
End Time: 8.48 min

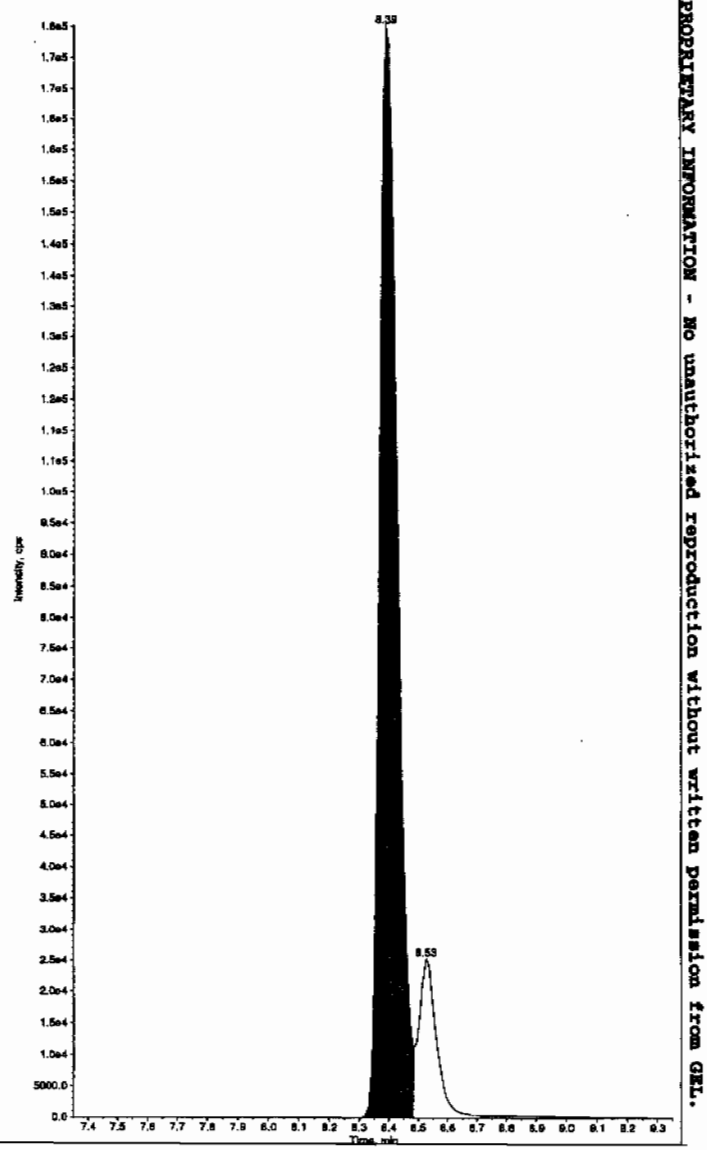

Hmm 02/17/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 50.0 ng/mL
culated Conc: 54.2 ng/mL
. Date: 2/15/2010
. Time: 5:12:32 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.53 min
a: 6.92e+005 counts
ght: 180945.206 cps
rt Time: 8.45 min
Time: 8.70 min

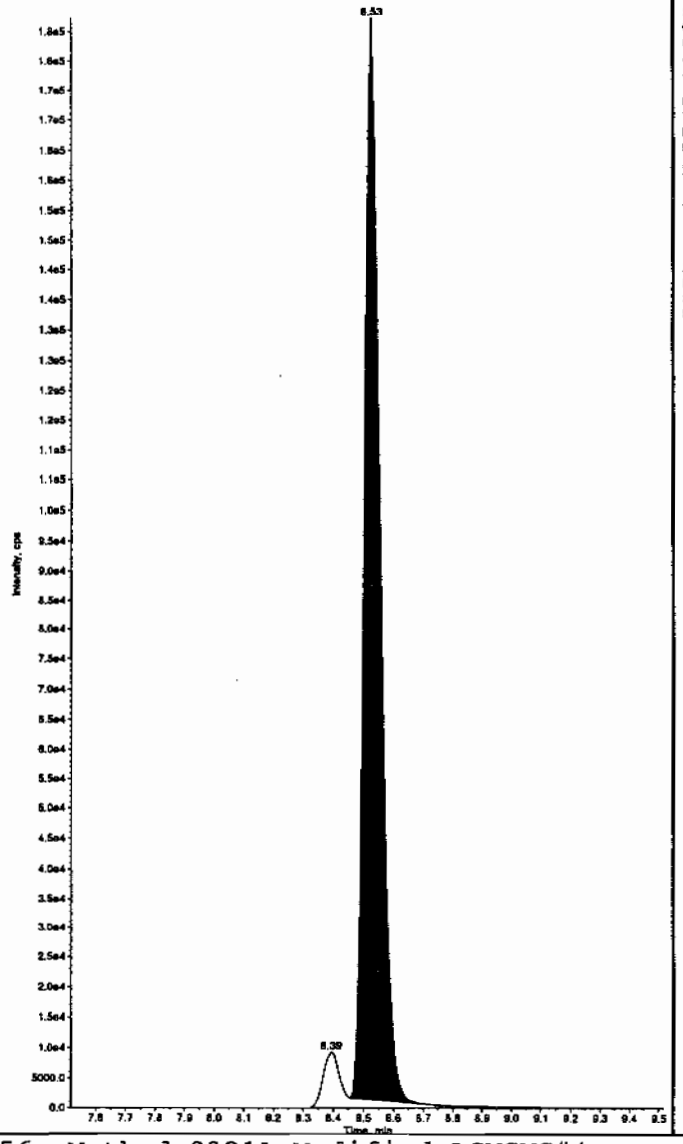

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 119. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 5:12:32 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 3.58e+005 counts
Height: 89463.539 cps
Start Time: 5.03 min
End Time: 5.47 min

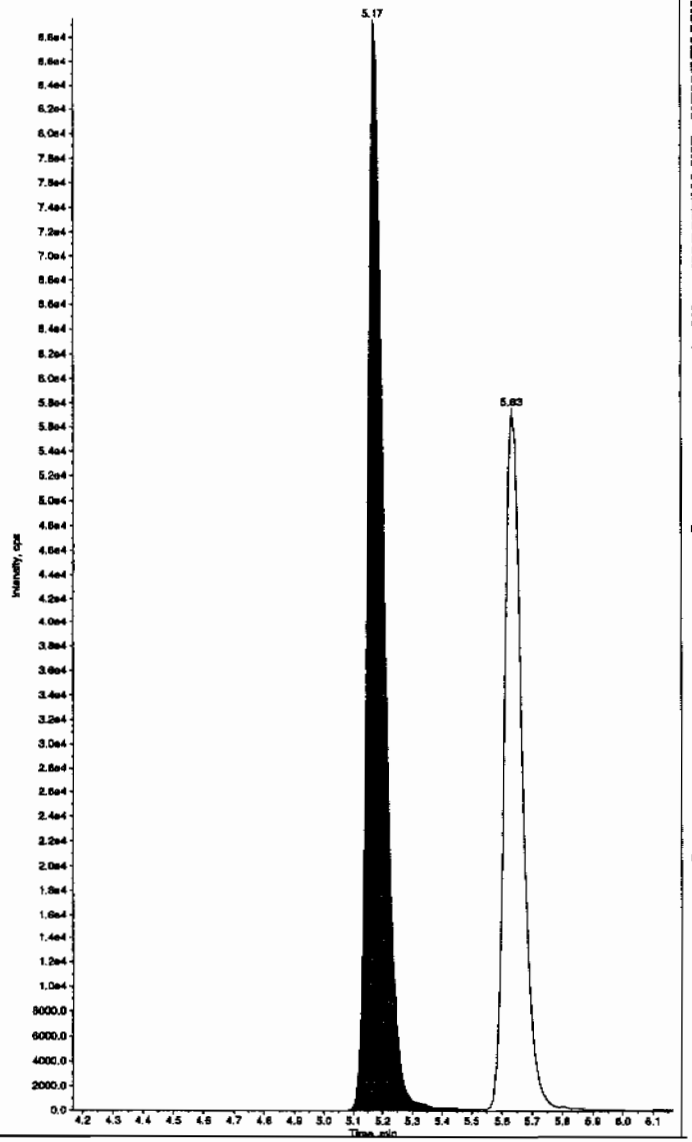

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mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:        QC
centration:      100.    ng/mL
culated Conc:    120.    ng/mL
. Date:       2/15/2010
. Time:       5:12:32 AM

lified:          No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00   cps
. Peak Width:    0.00   sec
othing Width:  3       points
Window:         30.0    sec
ected RT:        5.62   min
 Relative RT:    No

. Type:        Valley
ntion Time:      5.63   min
:          2.32e+005   counts
ght:         57557.320  cps
rt Time:         5.52   min
 Time:           5.94   min
```

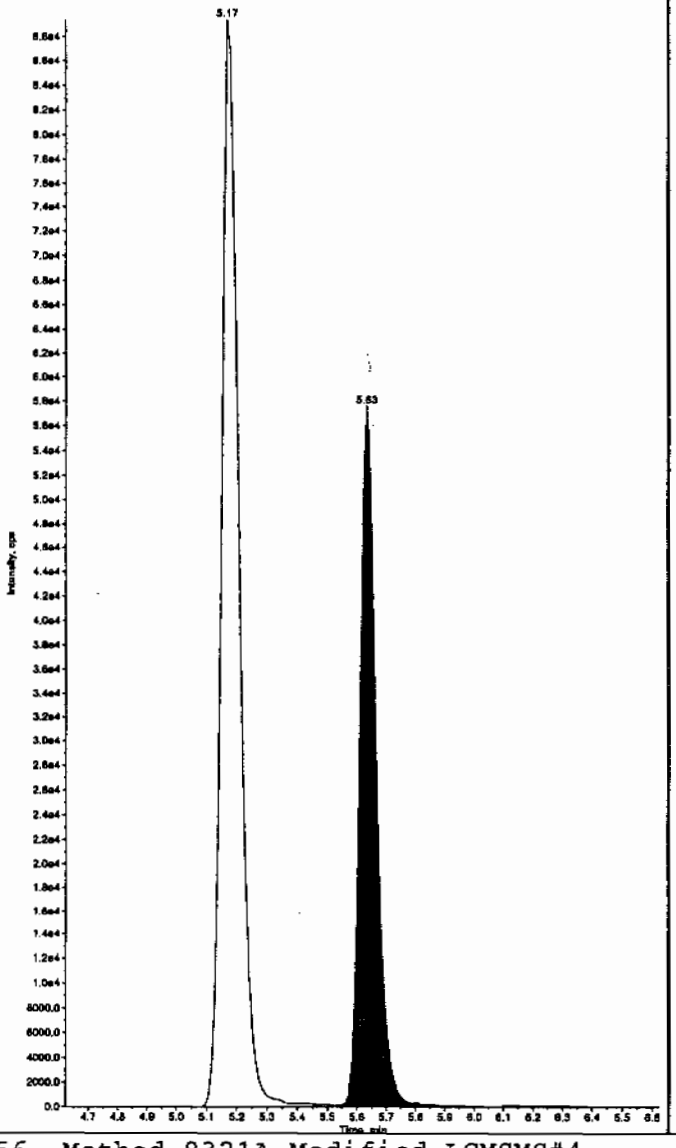

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140058.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.    ng/mL
Calculated Conc:    104.    ng/mL
Acq. Date:       2/15/2010
Acq. Time:       5:12:32 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:       11.0    min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    11.0    min
Area:         2.49e+006   counts
Height:        596468.140  cps
Start Time:        10.9    min
End Time:          11.3    min
```

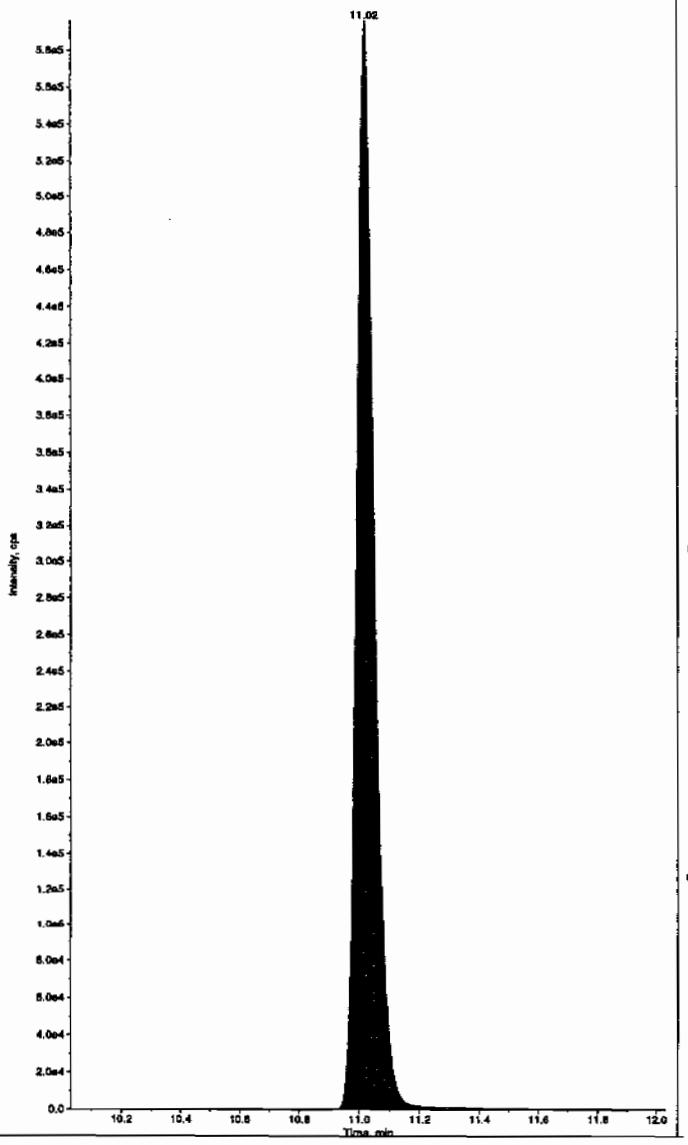

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140069.wiff

Analysis Date: 15-FEB-10 08:05

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	528	106	
2,6-Diamino-4-nitrotoluene	500	562	112	
3,4-Dinitrotoluene	250	235	94	
3,5-Dinitroaniline	500	535	107	
TATB	500	530	106	
tris(o-cresyl) phosphate	500	505	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Ok 2/16/10

ample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140069.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	530.	ng/mL
. Date:	2/15/2010	
. Time:	8:05:19 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
ected RT:	7.15	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.24	min
a:	7.39e+005	counts
ght:	157983.017	cps
rt Time:	7.11	min
Time:	7.74	min

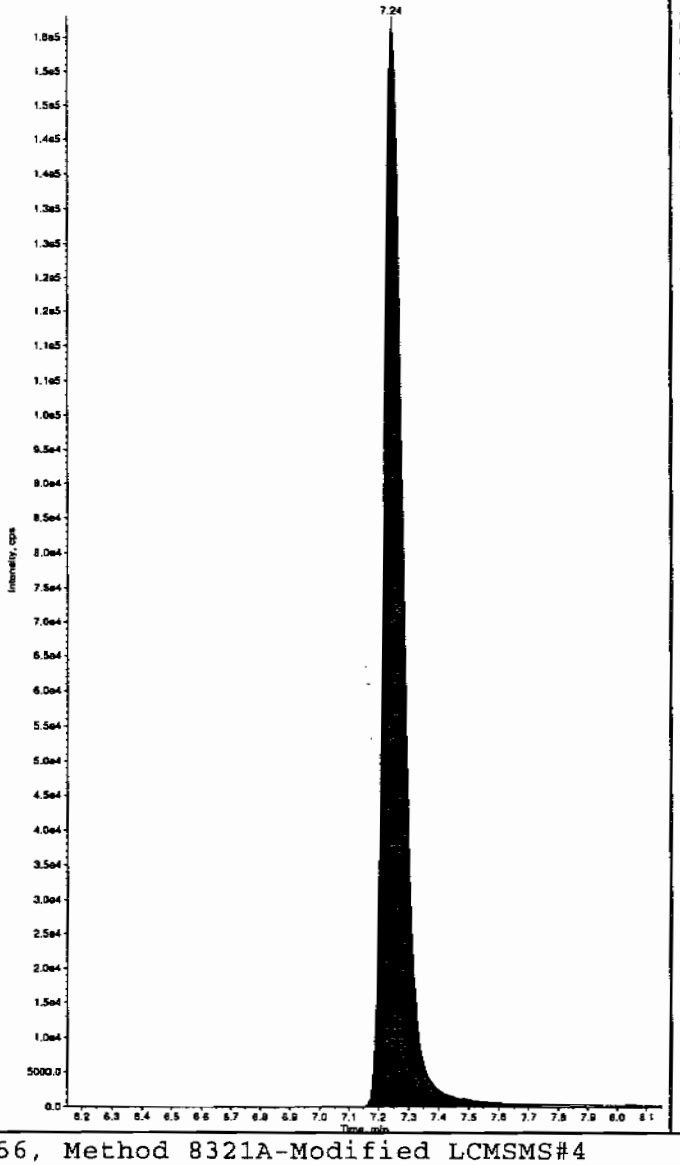

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140069.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	606.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	8:05:19 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.38	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.47	min
Area:	3.94e+006	counts
Height:	852661.560	cps
Start Time:	8.37	min
End Time:	8.98	min

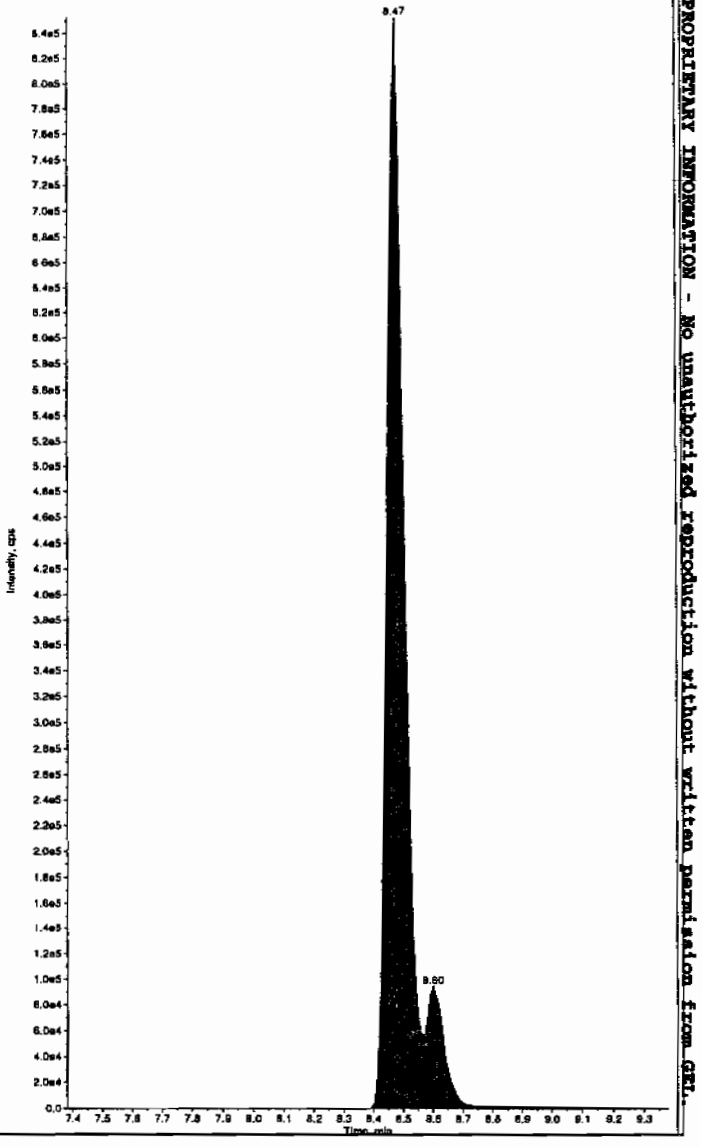

Hum 02/17/10

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after Ran 2/17/10

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:          QC
entration:       500.     ng/mL
ulated Conc:     530.     ng/mL
  Date:        2/15/2010
  Time:        8:05:19 AM

fied:             No
. Algorithm: IntelliQuan - IQA
  Peak Height:2500.00    cps
  Peak Width:    0.00    sec
thing Width:  3        points
Window:         30.0     sec
cted RT:         7.15    min
Relative RT:     No

  Type:         Valley
ntion Time:      7.24    min
:          7.39e+005   counts
ht:          157983.017  cps
t Time:          7.11    min
Time:            7.74    min
```

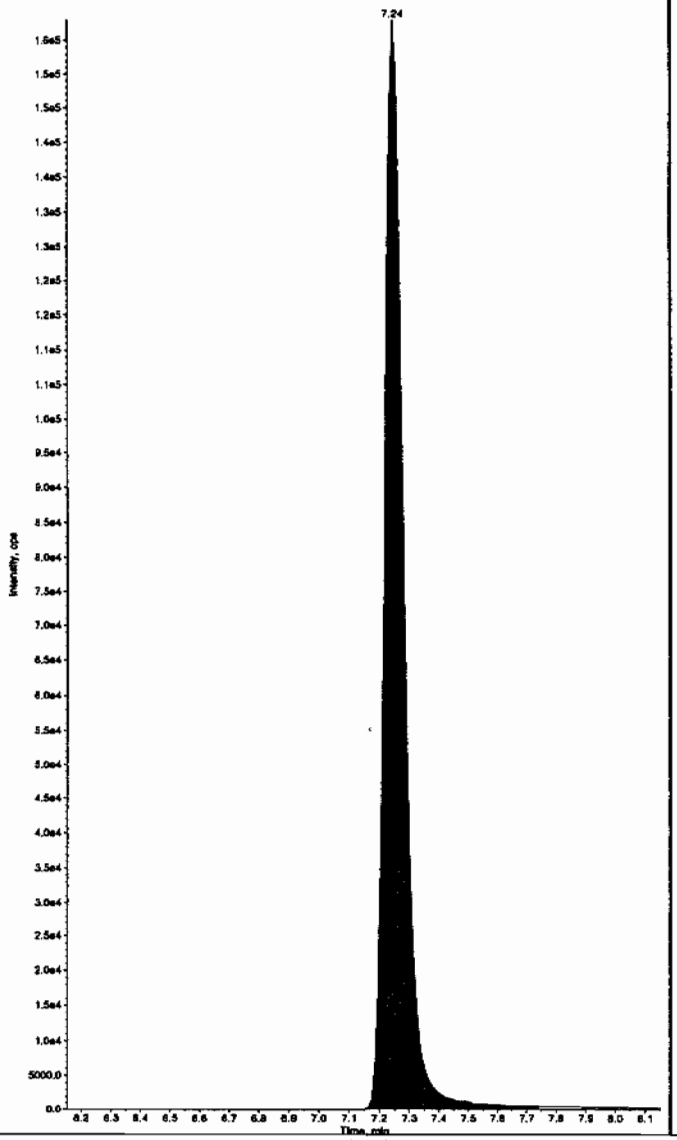

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     535.     ng/mL
Acq. Date:        2/15/2010
Acq. Time:        8:05:19 AM

Modified:             Yes
RT Window:           15.0     sec
Expected RT:          8.38    min
Use Relative RT:      No

Int. Type:         Manual
Retention Time:       8.47    min
Area:          3.49e+006   counts
Height:        851320.508   cps
Start Time:           8.39    min
End Time:             8.57    min
```

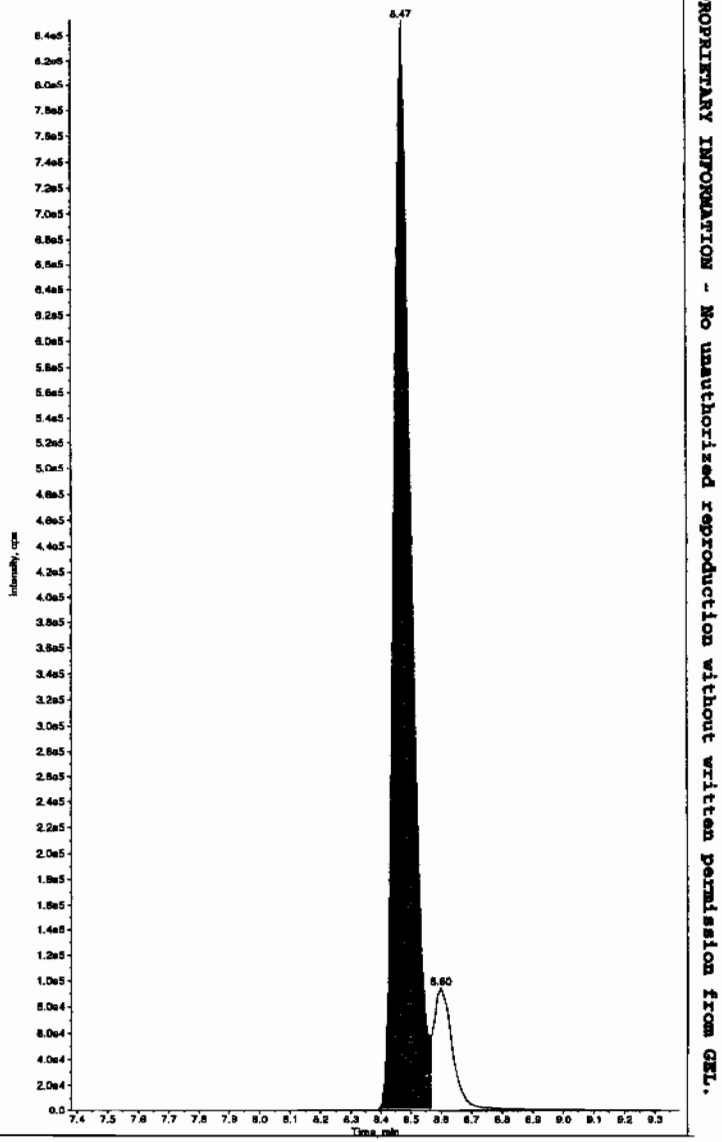

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ample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
centration:       250.     ng/mL
culated Conc:     235.     ng/mL
. Date:        2/15/2010
. Time:        8:05:19 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00   sec
oothing Width:  3        points
Window:          15.0    sec
ected RT:         8.52   min
 Relative RT:     No

. Type:         Valley
ention Time:      8.60   min
s:          3.08e+006   counts
ght:          817362.305  cps
rt Time:          8.53   min
 Time:            8.76   min
```

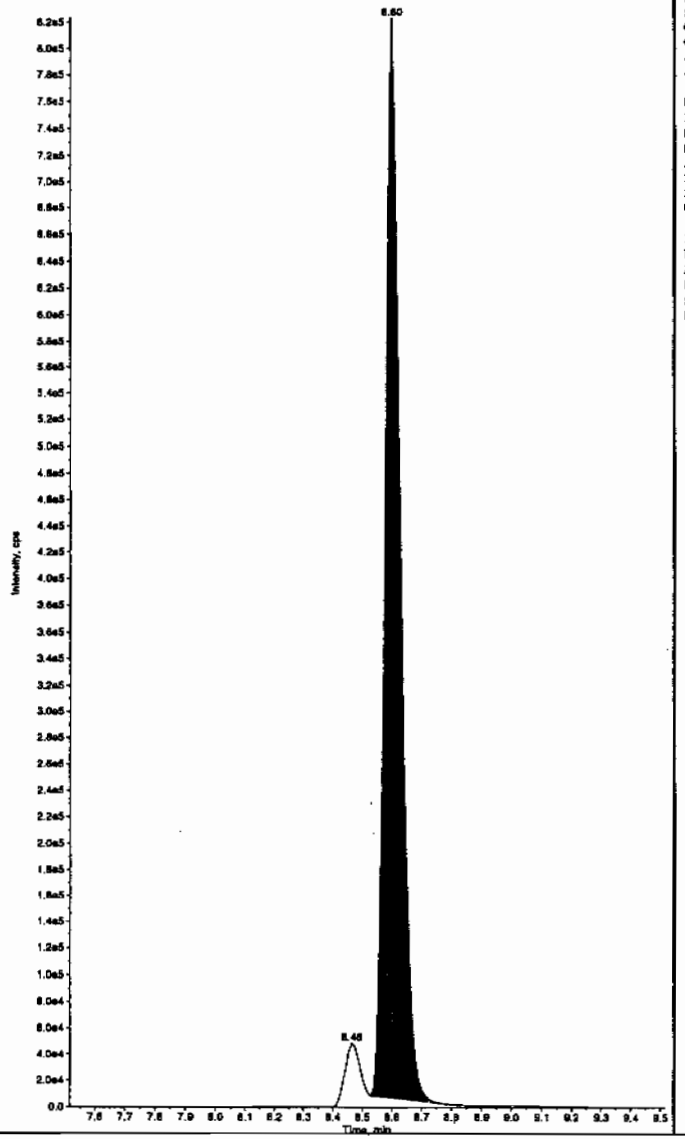

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     562.     ng/mL
Acq. Date:        2/15/2010
Acq. Time:        8:05:19 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:         5.17   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      5.27   min
Area:          1.62e+006   counts
Height:        398750.732  cps
Start Time:          5.18   min
End Time:            5.56   min
```

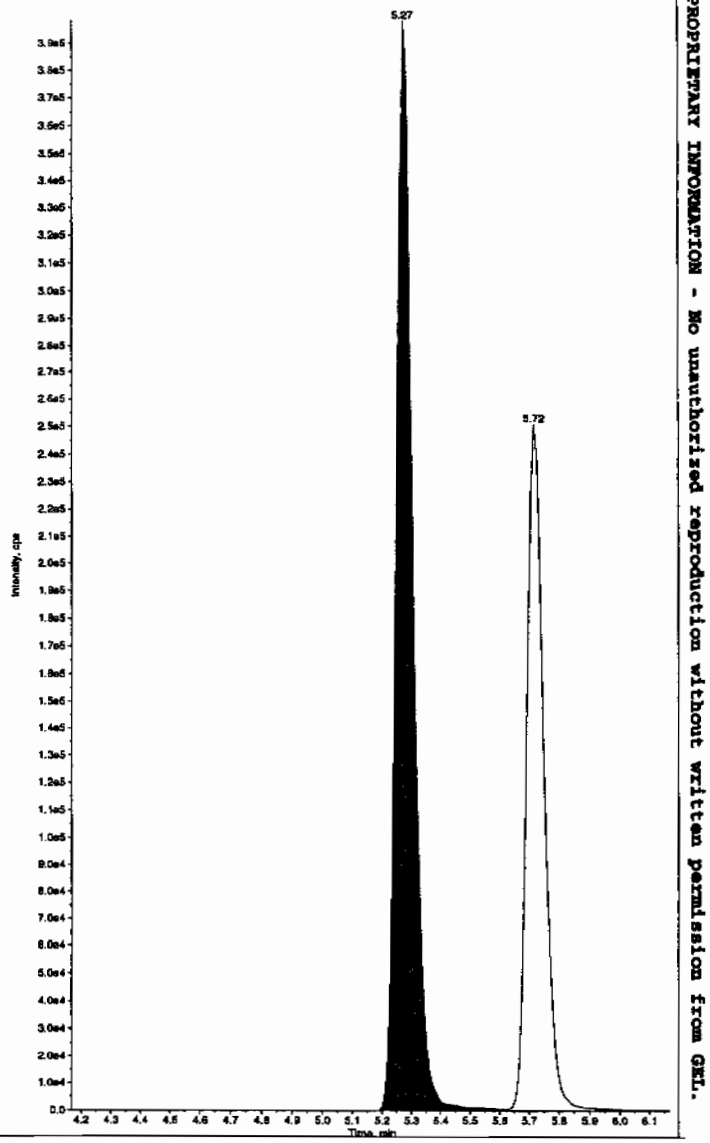

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ample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: "

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 528. ng/mL
. Date: 2/15/2010
. Time: 8:05:19 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.62 min
Relative RT: No

. Type: Valley
ention Time: 5.72 min
a: 1.00e+006 counts
ght: 250381.897 cps
rt Time: 5.63 min
Time: 6.12 min

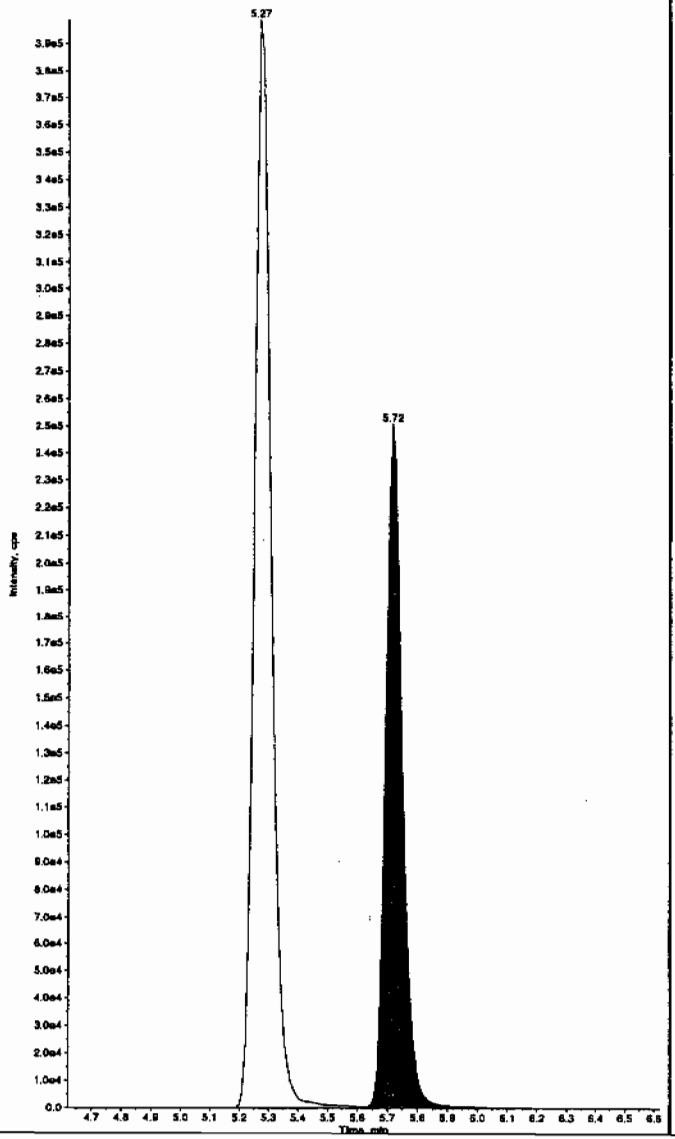

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140069.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:05:19 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.10e+007 counts
Height: 2532040.039 cps
Start Time: 10.9 min
End Time: 11.4 min

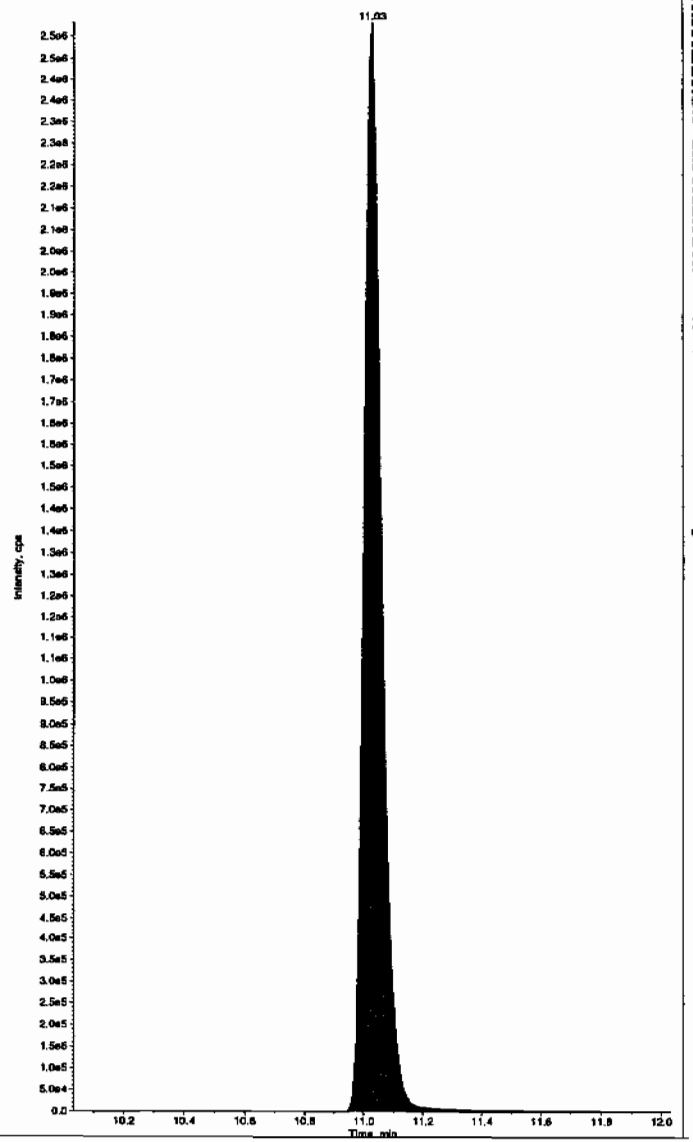

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140071.wiff

Analysis Date: 15-FEB-10 08:37

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	105	105	
2,6-Diamino-4-nitrotoluene	100	108	108	
3,4-Dinitrotoluene	50	51.3	103	
3,5-Dinitroaniline	100	115	115	
TATB	100	115	115	
tris(o-cresyl) phosphate	100	105	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCM 2/17/10

ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140071.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	115.	ng/mL
. Date:	2/15/2010	
. Time:	8:37:22 AM	
lfied:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
window:	30.0	sec
ected RT:	7.15	min
Relative RT:	No	
. Type:	Valley	
ntion Time:	7.17	min
a:	1.58e+005	counts
ght:	35565.708	cps
rt Time:	7.00	min
Time:	7.70	min

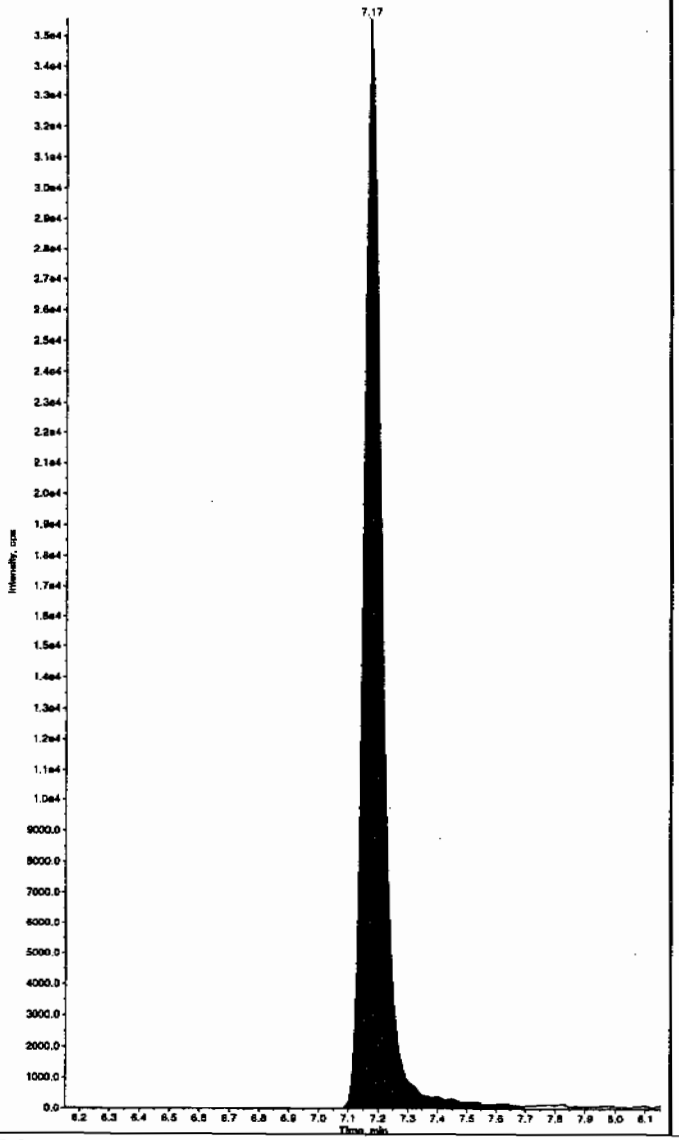

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140071.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	115.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	8:37:22 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.38	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.42	min
Area:	7.58e+005	counts
Height:	192459.656	cps
Start Time:	8.33	min
End Time:	8.53	min

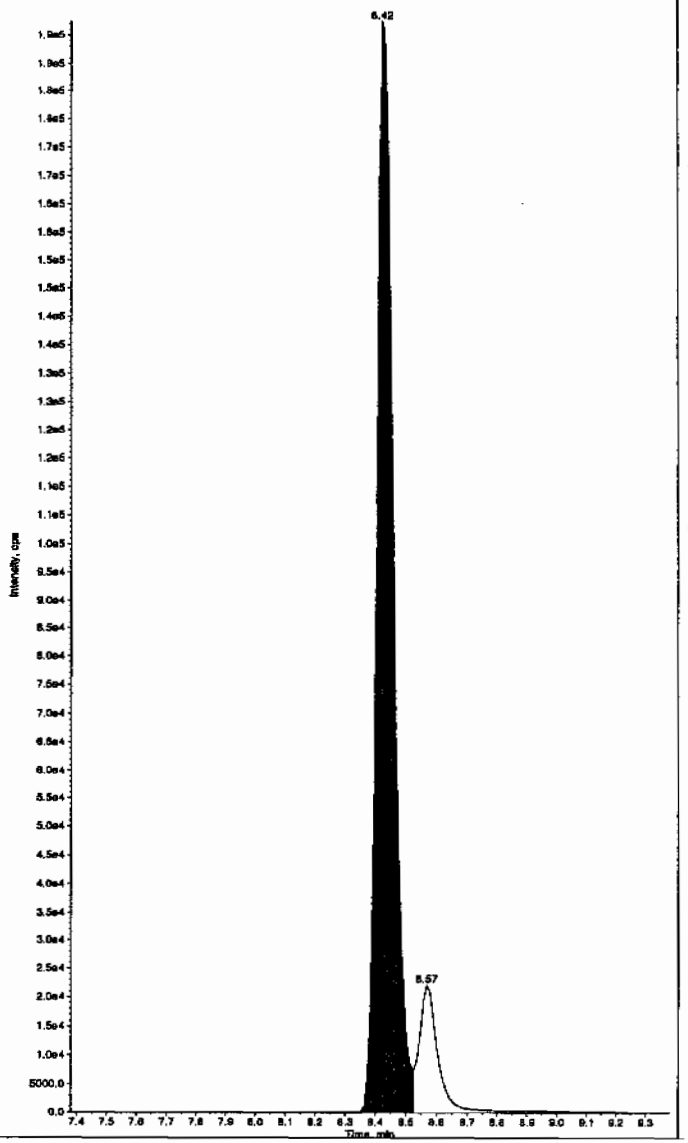

thm 02/17/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140071.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         50.0     ng/mL
culated Conc:       51.3     ng/mL
. Date:          2/15/2010
. Time:          8:37:22 AM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00   sec
oothing Width:  3        points
Window:           15.0   sec
ected RT:         8.52   min
Relative RT:      No

. Type:          Valley
ention Time:      8.57   min
a:            6.53e+005  counts
ght:          170073.959 cps
rt Time:          8.50   min
Time:             8.77   min
```

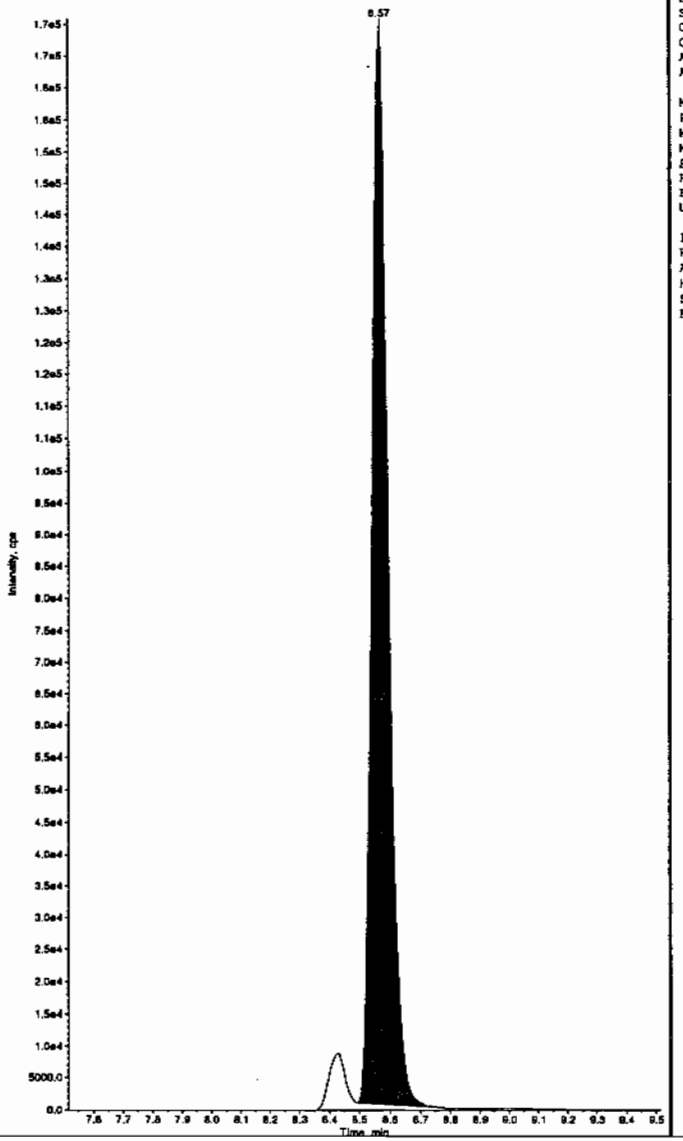

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140071.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     108.     ng/mL
Acq. Date:        2/15/2010
Acq. Time:        8:37:22 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:        5.17   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.19   min
Area:          3.27e+005   counts
Height:        81858.810   cps
Start Time:         5.09   min
End Time:           5.44   min
```

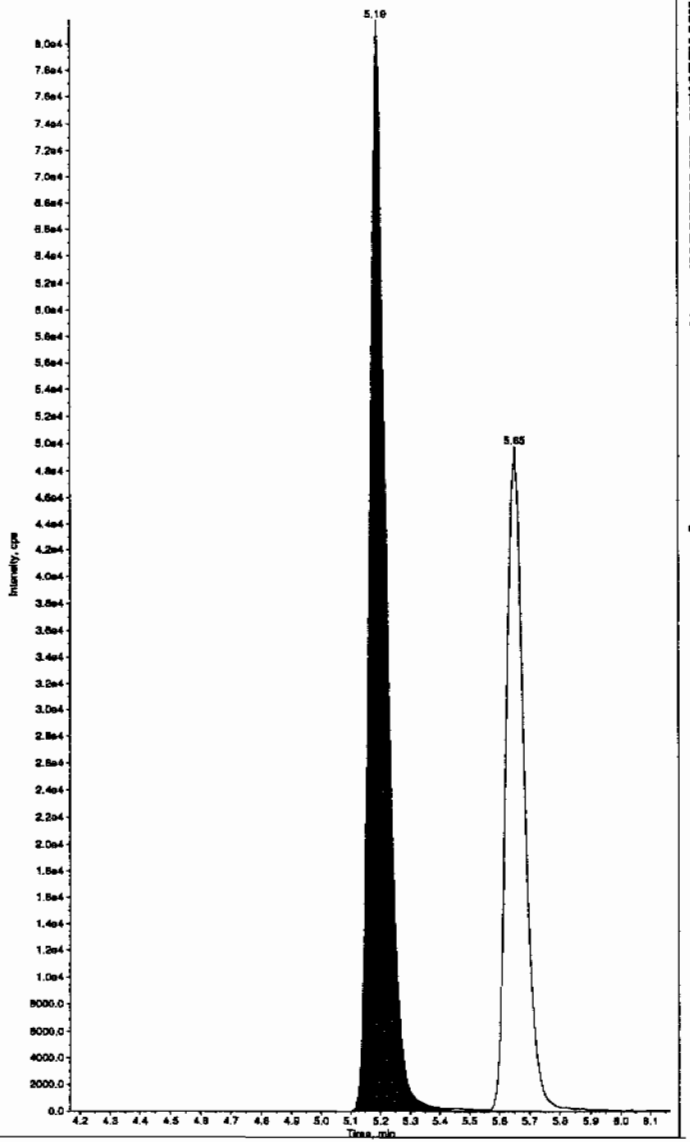

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140071.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
centration:       100.     ng/mL
culated Conc:     105.     ng/mL
. Date:        2/15/2010
. Time:        8:37:22 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
oothing Width:  3       points
Window:         30.0     sec
ected RT:        5.62    min
 Relative RT:    No

. Type:        Valley
ention Time:     5.65    min
a:        2.03e+005    counts
ght:        49762.772   cps
rt Time:         5.56    min
 Time:           5.94    min
```

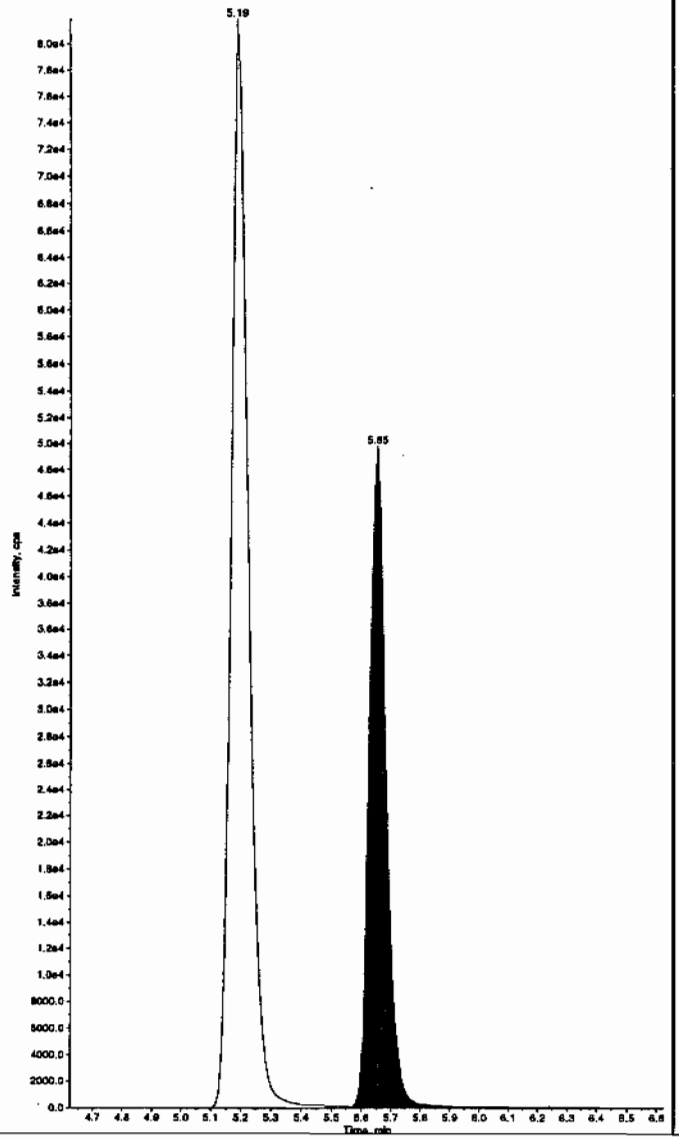

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140071.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     105.     ng/mL
Acq. Date:        2/15/2010
Acq. Time:        8:37:22 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3       points
RT Window:         30.0     sec
Expected RT:       11.0     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    11.1     min
Area:        2.50e+006    counts
Height:       586815.979   cps
Start Time:        11.0     min
End Time:          11.4     min
```

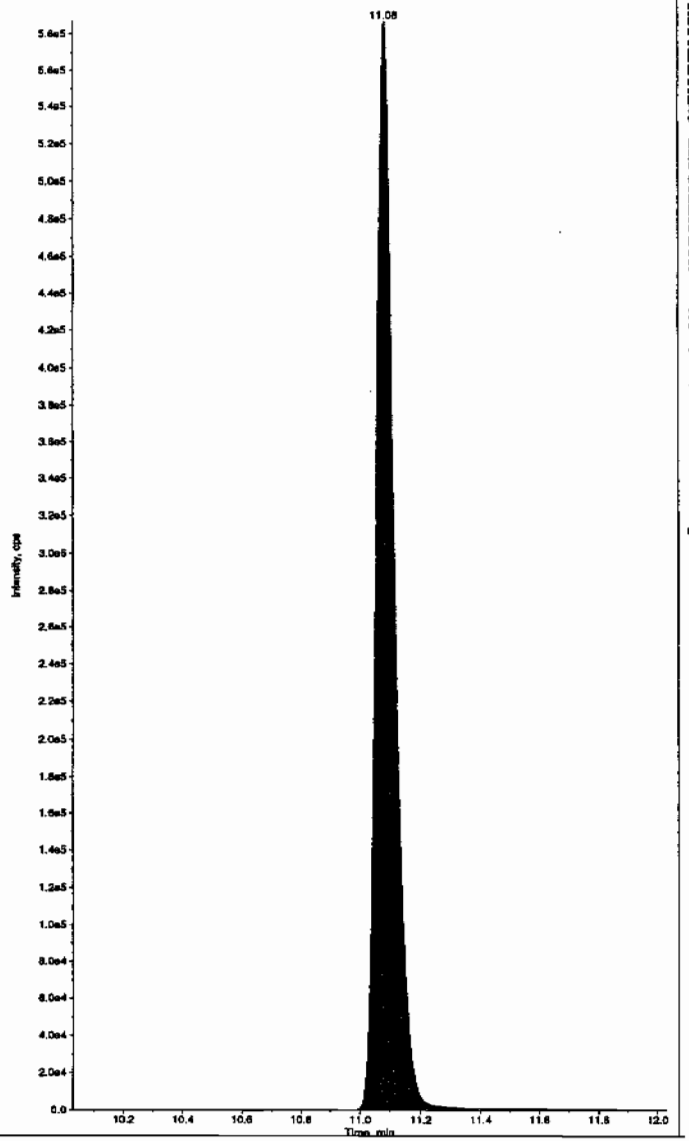

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS02140082.wiff

Analysis Date: 15-FEB-10 11:30

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	500	484	97	
2,4-Diamino-6-nitrotoluene	500	382	76	
2,6-Diamino-4-nitrotoluene	500	446	89	
3,4-Dinitrotoluene	250	230	92	
3,5-Dinitroaniline	500	505	101	
TATB	500	544	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/16/10

mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140082.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 544. ng/mL
. Date: 2/15/2010
. Time: 11:30:42 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.15 min
Relative RT: No

. Type: Valley
ention Time: 7.11 min
a: 7.59e+005 counts
ght: 170763.657 cps
rt Time: 6.96 min
Time: 7.70 min

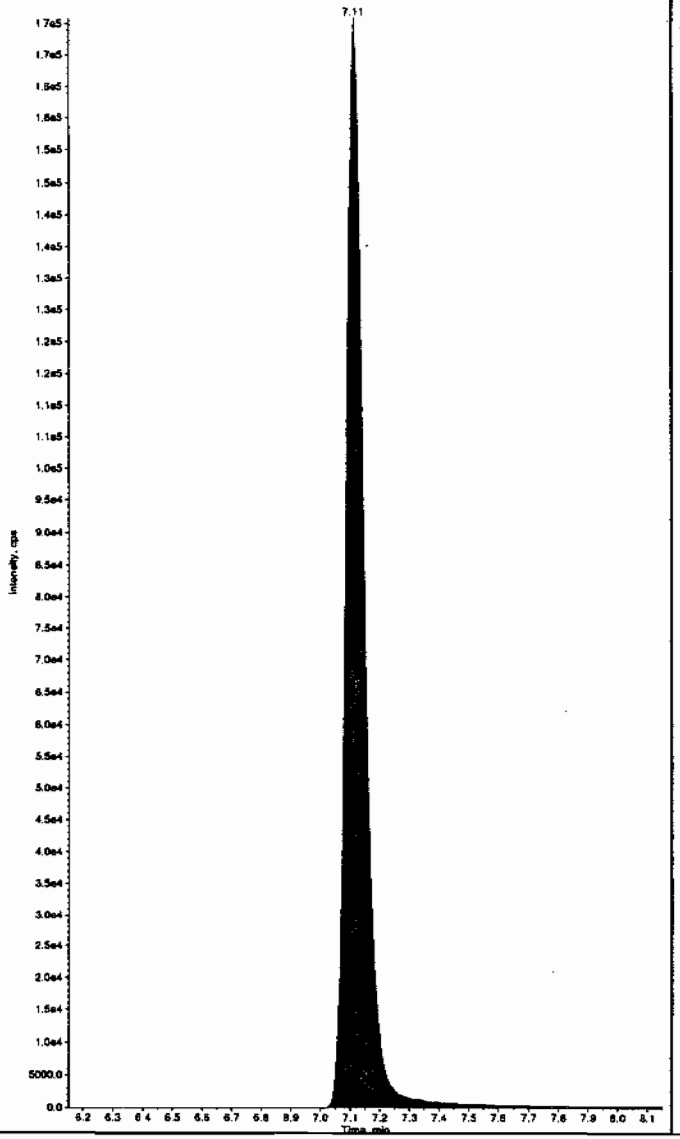

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140082.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 568. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:30:42 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.32 min
Area: 3.70e+006 counts
Height: 854710.266 cps
Start Time: 8.22 min
End Time: 8.76 min

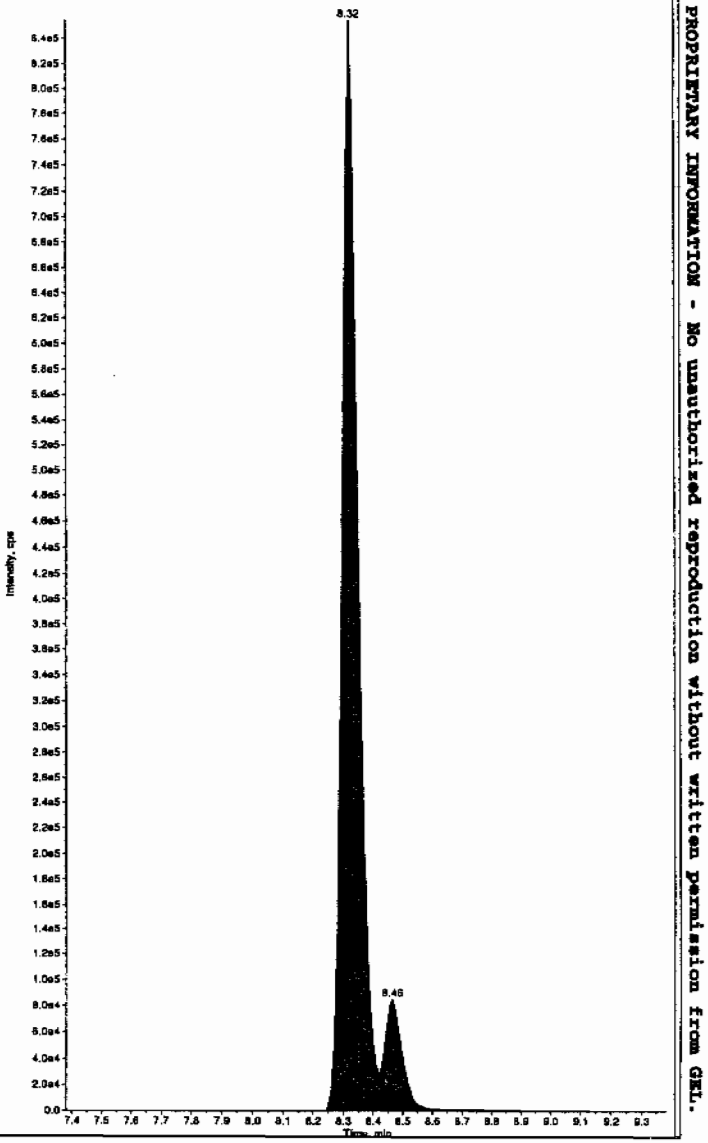

Hmm 02/17/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Scan 2/17/10

ample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140062.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 544. ng/mL
. Date: 2/15/2010
. Time: 11:30:42 AM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.15 min
Relative RT: No

. Type: Valley
ention Time: 7.11 min
s: 7.59e+005 counts
ght: 170763.657 cps
rt Time: 6.96 min
Time: 7.70 min

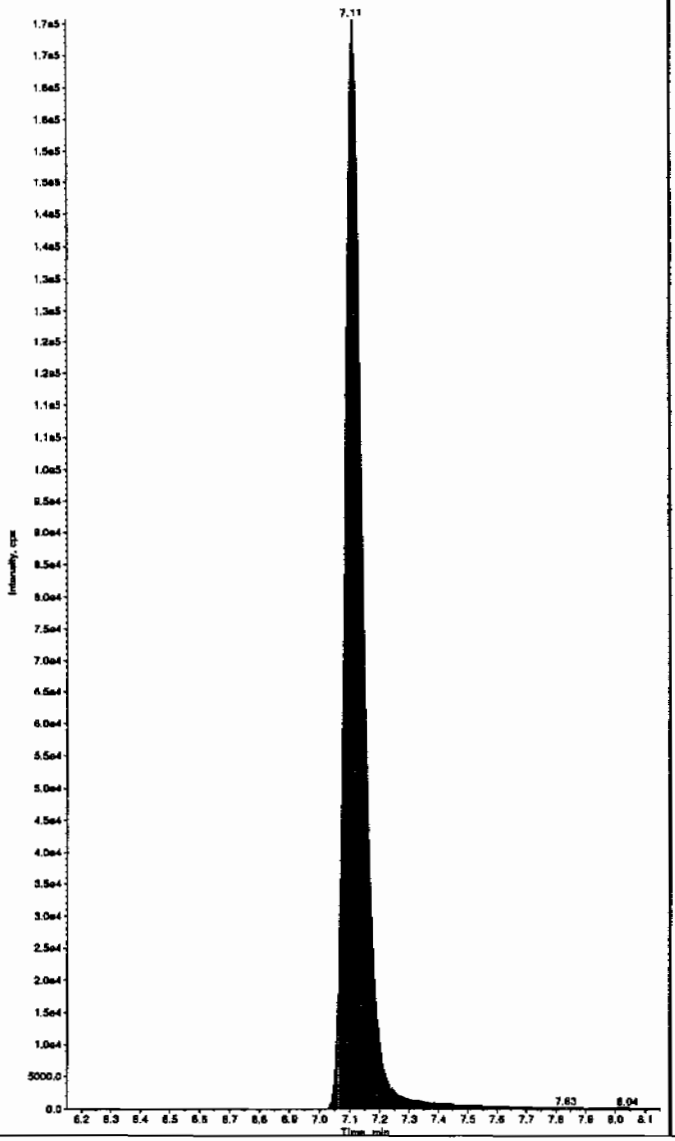

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140062.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 11:30:42 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.32 min
Area: 3.30e+006 counts
Height: 854396.496 cps
Start Time: 8.24 min
End Time: 8.42 min

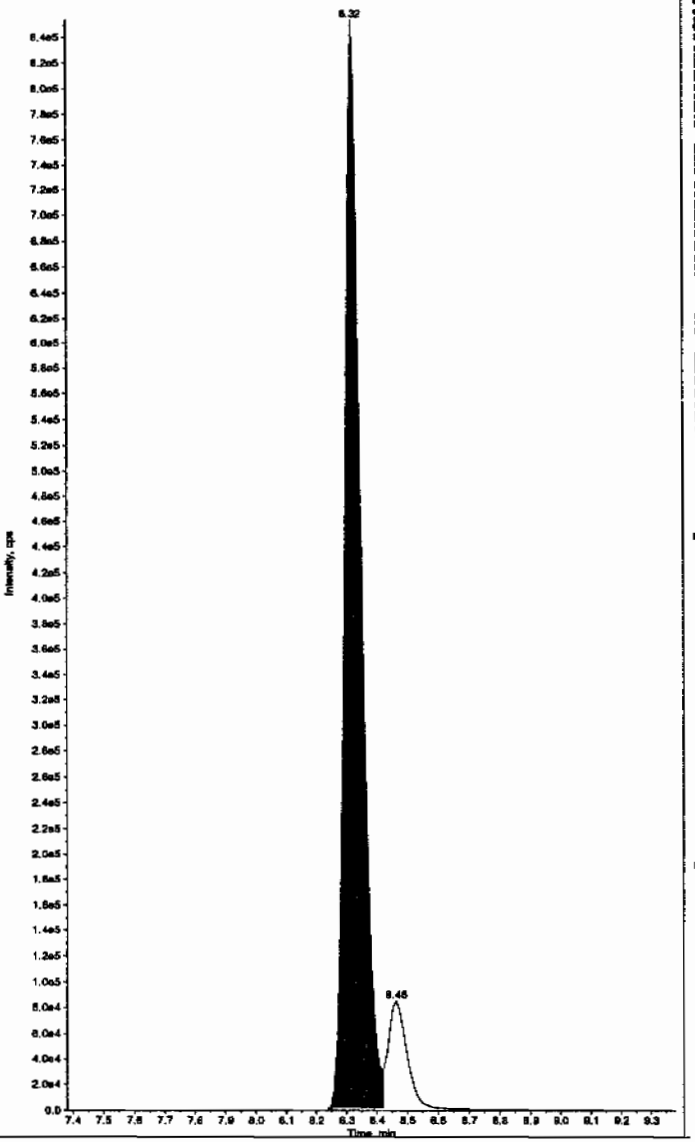

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

umple Name: "WXX100214-25CCV" Sample ID: "[1]LER" File: "EXS02140082.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         250.     ng/mL
culated Conc:       230.     ng/mL
. Date:         2/15/2010
. Time:         11:30:42 AM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00   sec
oothing Width:  3        points
Window:          15.0    sec
ected RT:         8.52   min
 Relative RT:     No

. Type:          Valley
ention Time:      8.46   min
a:          3.02e+006    counts
ght:          800685.425  cps
rt Time:          8.39   min
 Time:            8.67   min
```

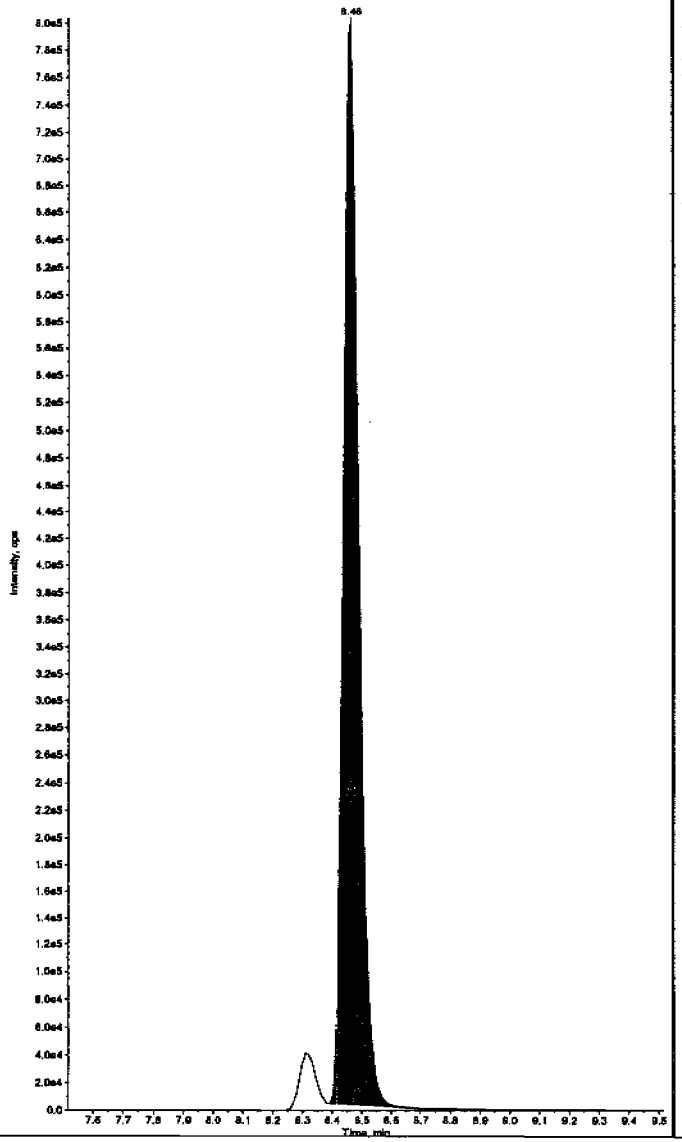

Sample Name: "WXX100214-25CCV" Sample ID: "[1]LER" File: "EXS02140082.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       446.     ng/mL
Acq. Date:         2/15/2010
Acq. Time:         11:30:42 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        5.17    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.15    min
Area:          1.28e+006    counts
Height:        310982.178   cps
Start Time:         5.03    min
End Time:           5.38    min
```

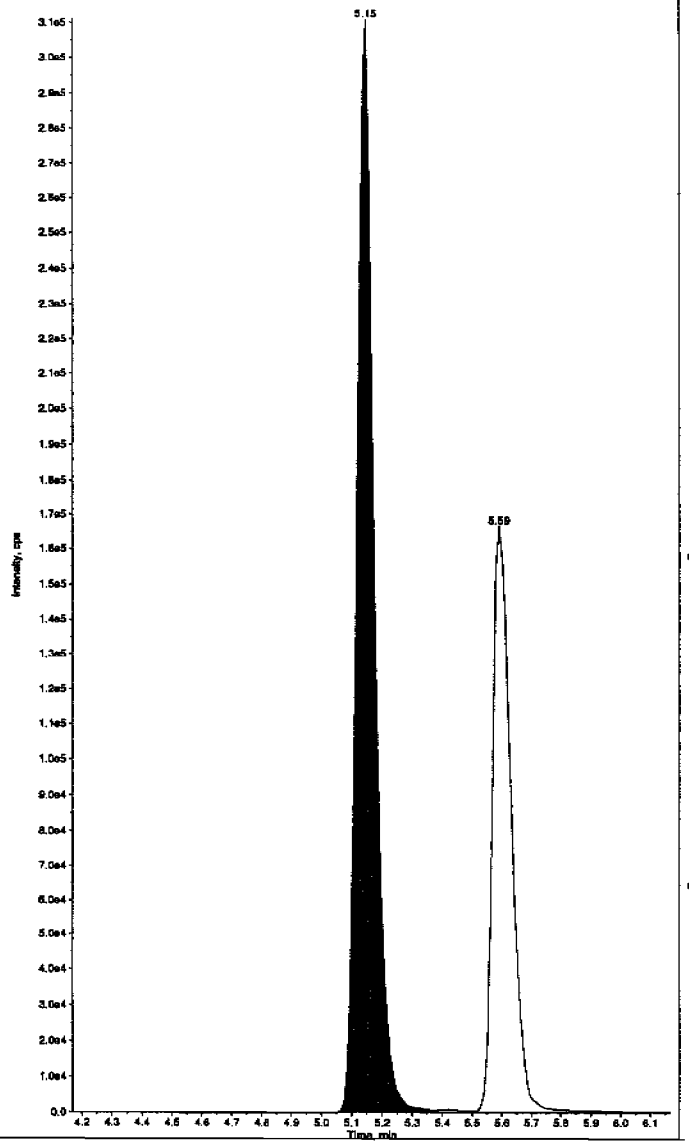

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mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140082.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
entration:       500.     ng/mL
culated Conc:    382.     ng/mL
. Date:        2/15/2010
. Time:        11:30:42 AM

ified:             No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:         30.0     sec
cted RT:         5.62    min
 Relative RT:    No

. Type:        Valley
ntion Time:      5.59    min
:          7.28e+005    counts
ght:         166507.797  cps
t Time:          5.50    min
 Time:           5.99    min
```

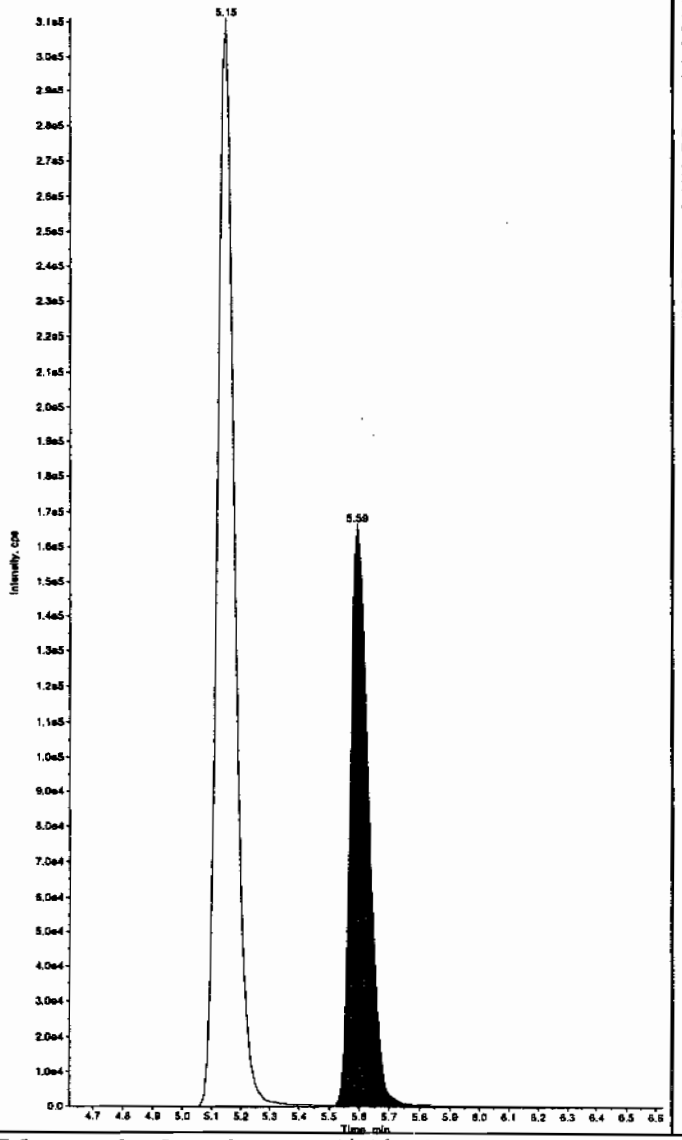

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140082.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.     ng/mL
Calculated Conc:   484.     ng/mL
Acq. Date:       2/15/2010
Acq. Time:       11:30:42 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       11.0     min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    10.9     min
Area:        1.06e+007    counts
Height:      2501463.623  cps
Start Time:        10.8     min
End Time:          11.3     min
```

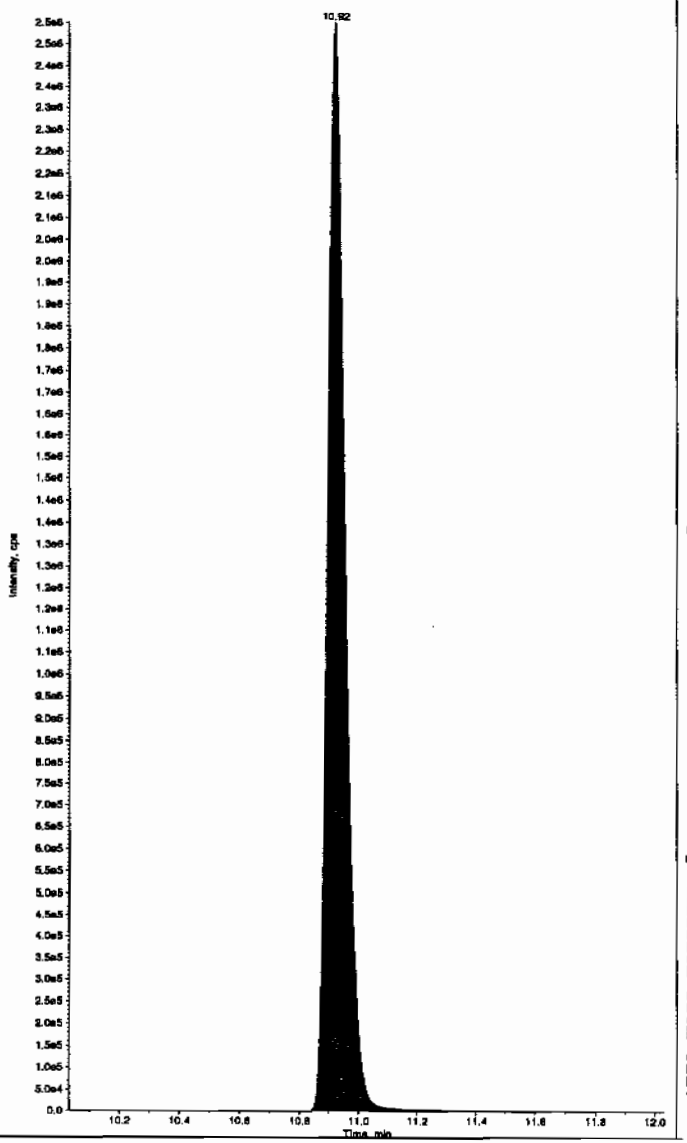

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140084.wiff

Analysis Date: 15-FEB-10 12:02

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	86.5	87	
2,6-Diamino-4-nitrotoluene	100	85.4	85	
3,4-Dinitrotoluene	50	51.9	104	
3,5-Dinitroaniline	100	108	108	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	99.7	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Sum 2/16/10

mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
entration:	100.	ng/mL
ulated Conc:	105.	ng/mL
Date:	2/15/2010	
Time:	12:02:09 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
Window:	30.0	sec
cted RT:	7.15	min
Relative RT:	No	
Type:	Valley	
ntion Time:	7.10	min
:	1.45e+005	counts
hc:	32201.778	cps
t Time:	6.96	min
Time:	7.67	min

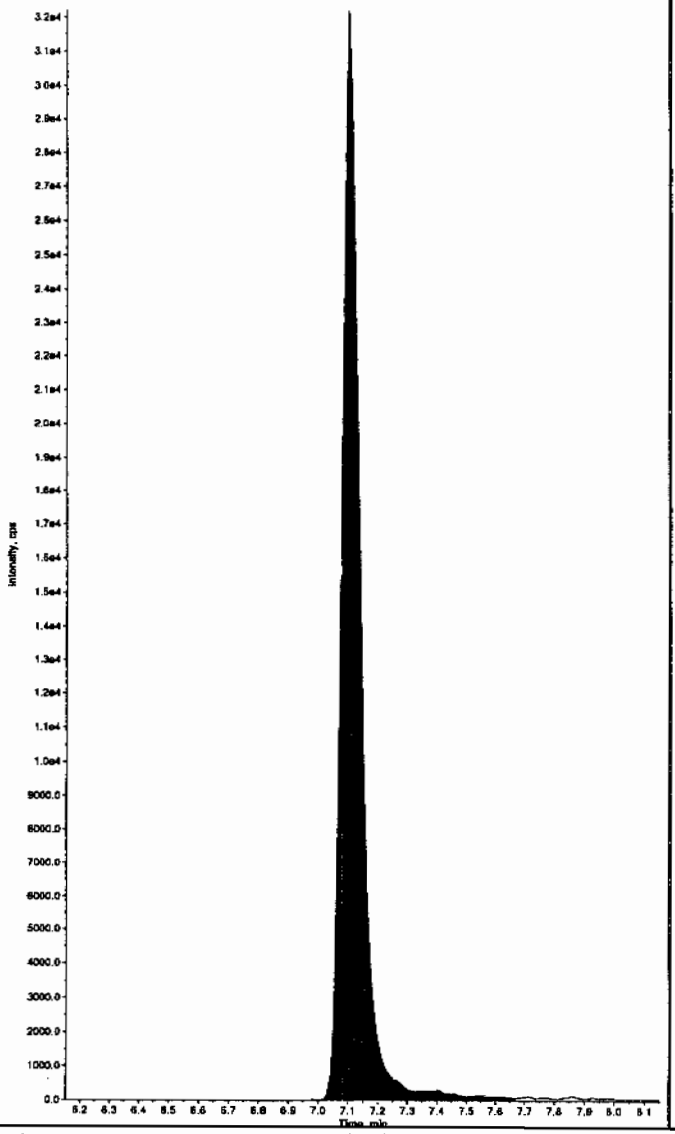

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	122.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	12:02:09 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.38	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.33	min
Area:	8.01e+005	counts
Height:	181292.480	cps
Start Time:	8.21	min
End Time:	8.67	min

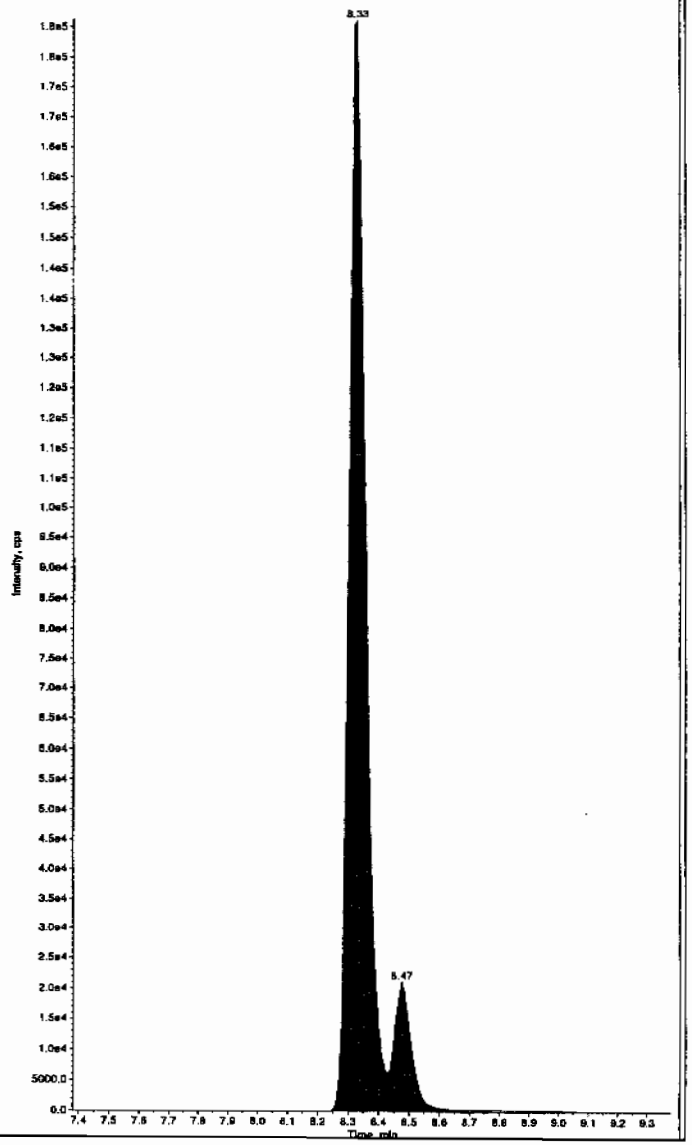

Hmm 02/17/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Pkr 2/17/10

umple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	105.	ng/mL
. Date:	2/15/2010	
. Time:	12:02:09 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
window:	30.0	sec
ected RT:	7.15	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.10	min
:	1.45e+005	counts
ght:	32201.778	cps
rt Time:	6.96	min
Time:	7.67	min

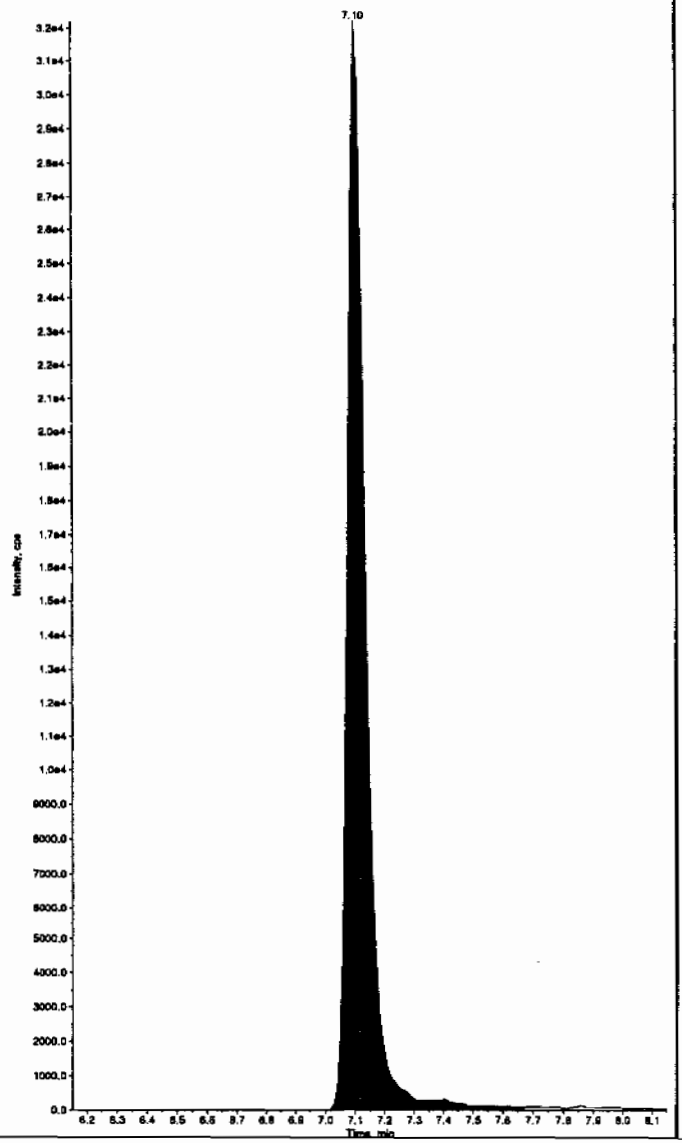

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	108.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	12:02:09 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.38	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.32	min
Area:	7.11e+005	counts
Height:	184152.898	cps
Start Time:	8.25	min
End Time:	8.43	min

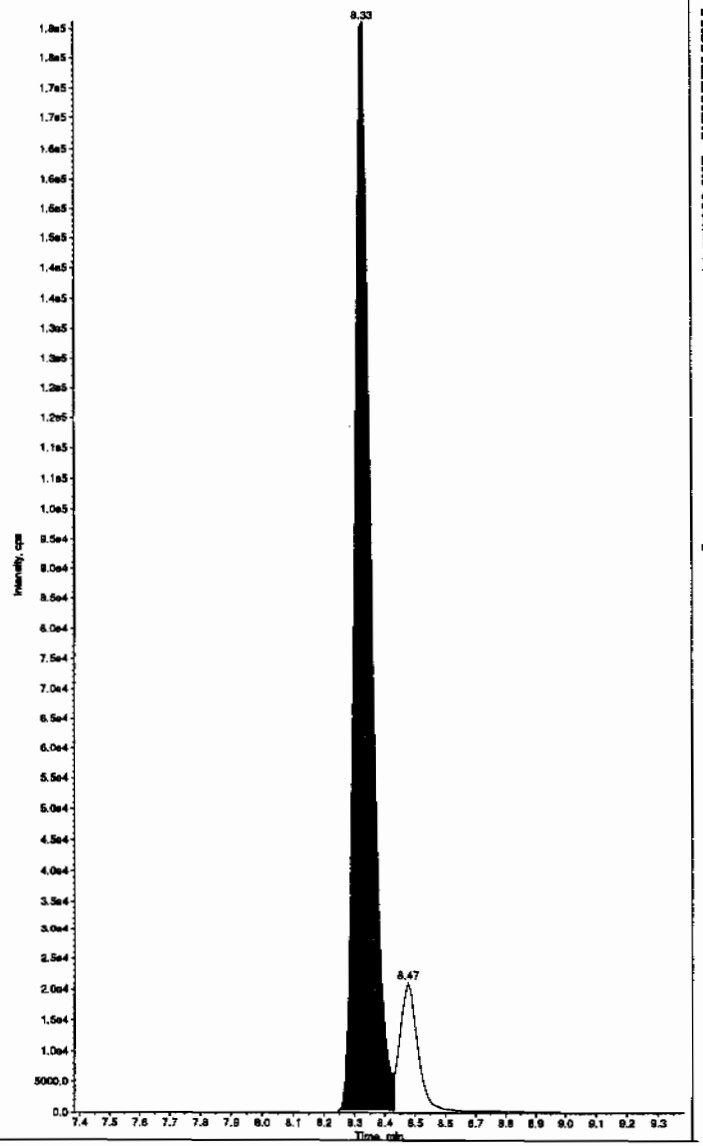

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140084.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         50.0     ng/mL
culated Conc:       51.9     ng/mL
. Date:          2/15/2010
. Time:          12:02:09 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:    0.00    sec
othing Width:  3         points
Window:          15.0    sec
ected RT:        8.52    min
 Relative RT:    No

. Type:          Valley
ention Time:     8.46    min
a:          6.62e+005    counts
ght:          175993.423  cps
rt Time:         8.39    min
 Time:           8.71    min
```

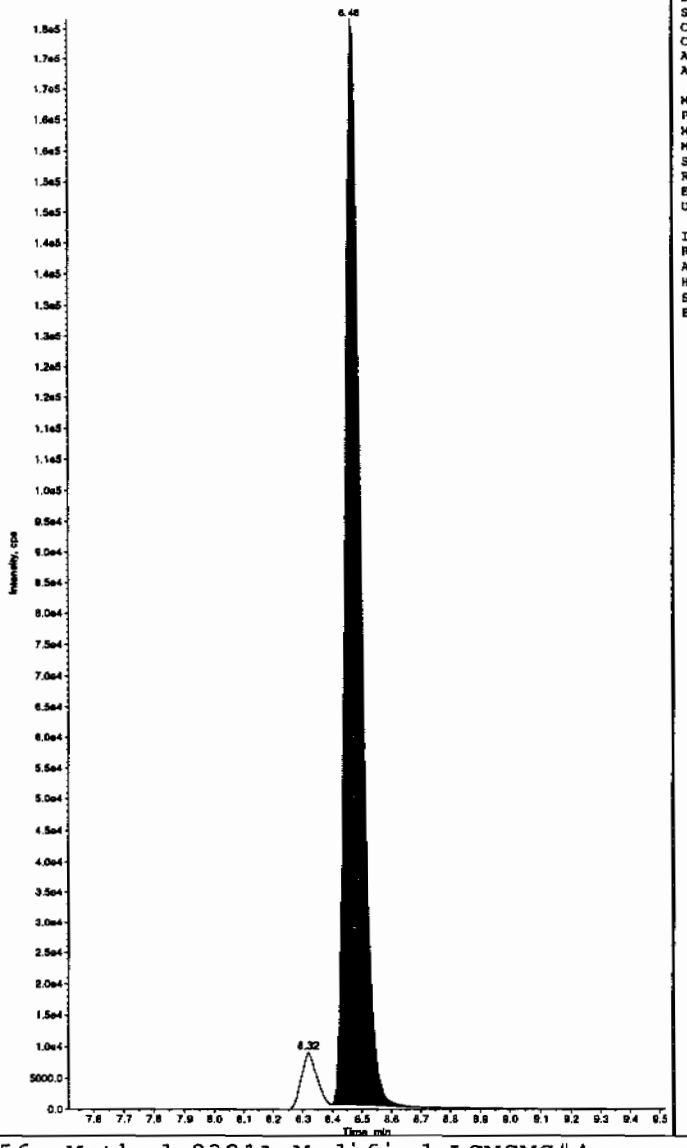

Sample Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140084.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       85.4     ng/mL
Acq. Date:          2/15/2010
Acq. Time:          12:02:09 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:        5.17    min
Use Relative RT:    No

Int. Type:          Valley
Retention Time:     5.15    min
Area:          2.65e+005    counts
Height:        64570.175    cps
Start Time:         5.04    min
End Time:           5.43    min
```

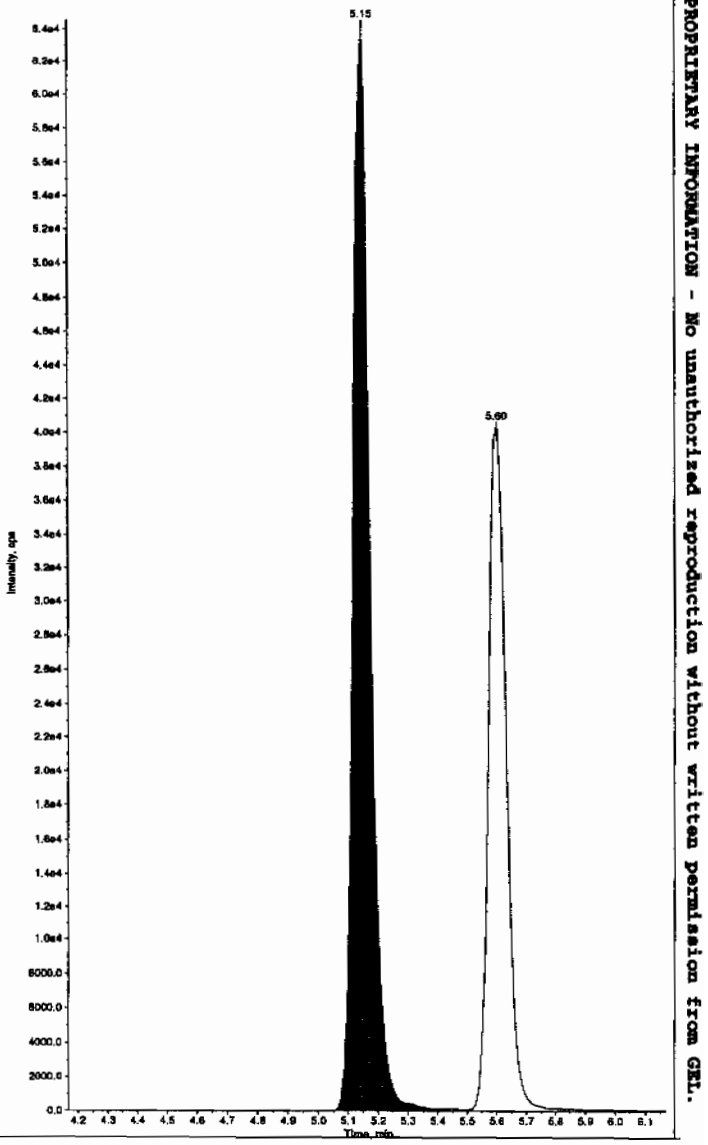

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ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

uple Index:	1	
uple Type:	QC	
icentration:	100.	ng/mL
culated Conc:	86.5	ng/mL
. Date:	2/15/2010	
. Time:	12:02:09 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.62	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.60	min
a:	1.69e+005	counts
ght:	40582.321	cps
rt Time:	5.48	min
. Time:	5.91	min

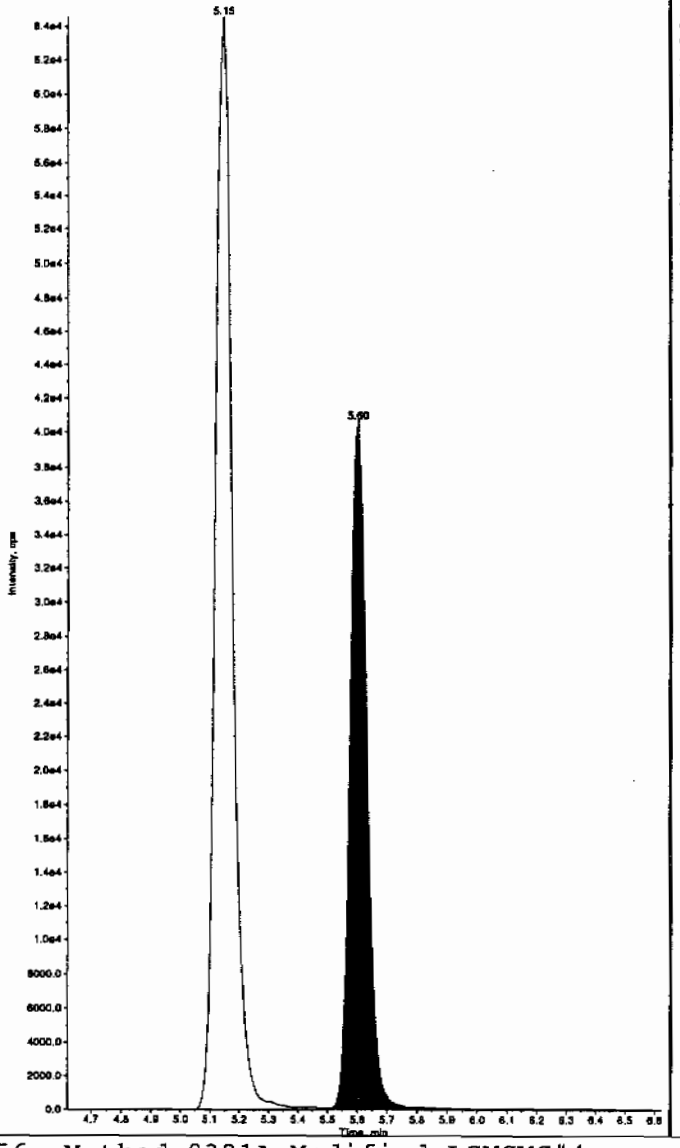

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140084.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	99.7	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	12:02:09 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	2.38e+006	counts
Height:	570133.118	cps
Start Time:	10.8	min
End Time:	11.3	min

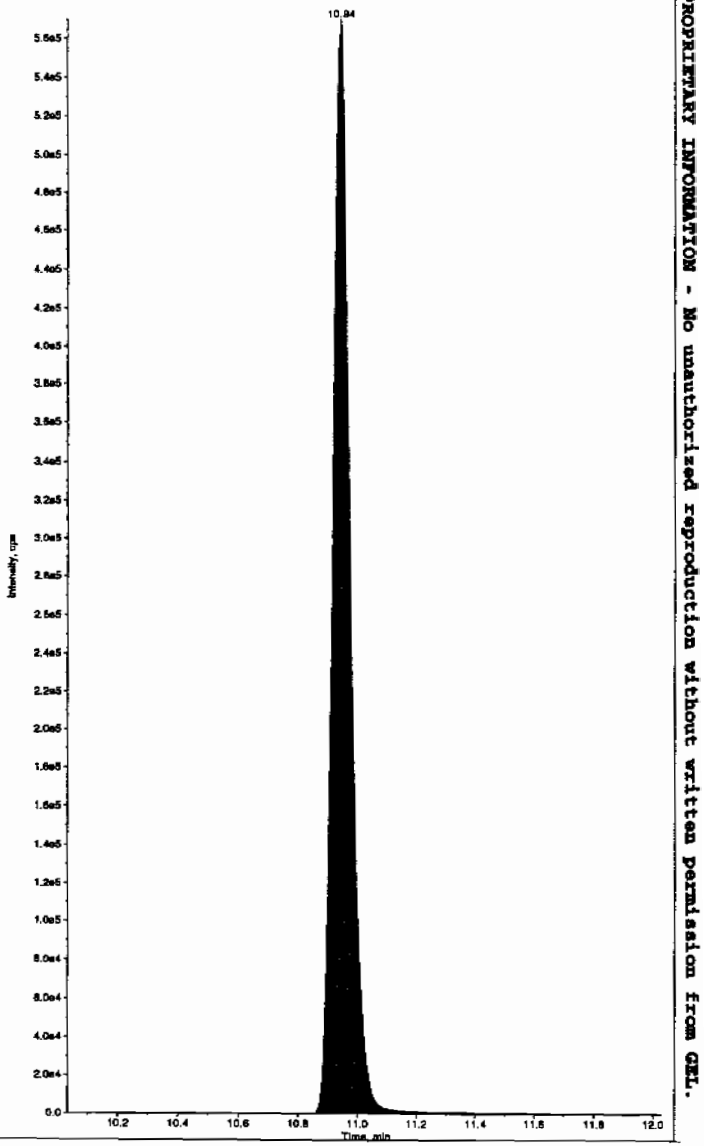

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXS02140095.wiff **Analysis Date:** 15-FEB-10 14:54

LCMSMS ID: 1358 **Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	406	81	
2,6-Diamino-4-nitrotoluene	500	351	70	
3,4-Dinitrotoluene	250	229	92	
3,5-Dinitroaniline	500	474	95	
TATB	500	538	108	
tris(o-cresyl) phosphate	500	486	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcr 2/16/10

mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140095.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: "

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 538. ng/mL
Date: 2/15/2010
Time: 2:54:50 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ction Time: 7.09 min
: 7.51e+005 counts
ht: 166678.818 cps
Time: 6.93 min
Time: 7.93 min

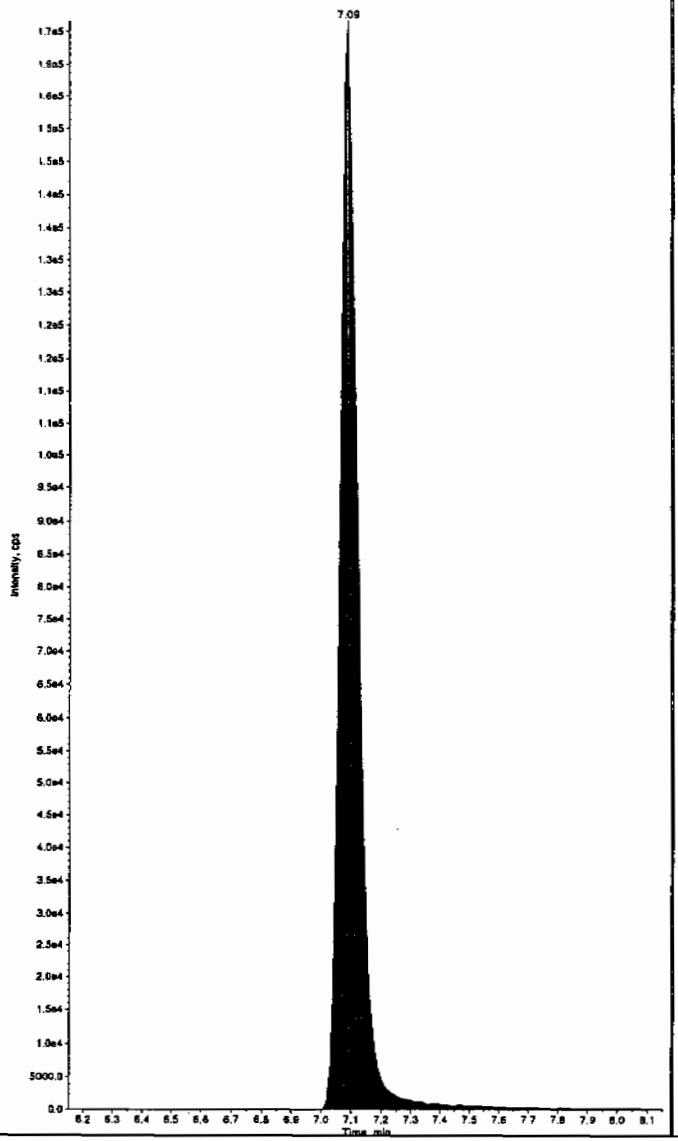

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140095.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 539. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:54:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 3.52e+006 counts
Height: 770573.181 cps
Start Time: 8.20 min
End Time: 8.73 min

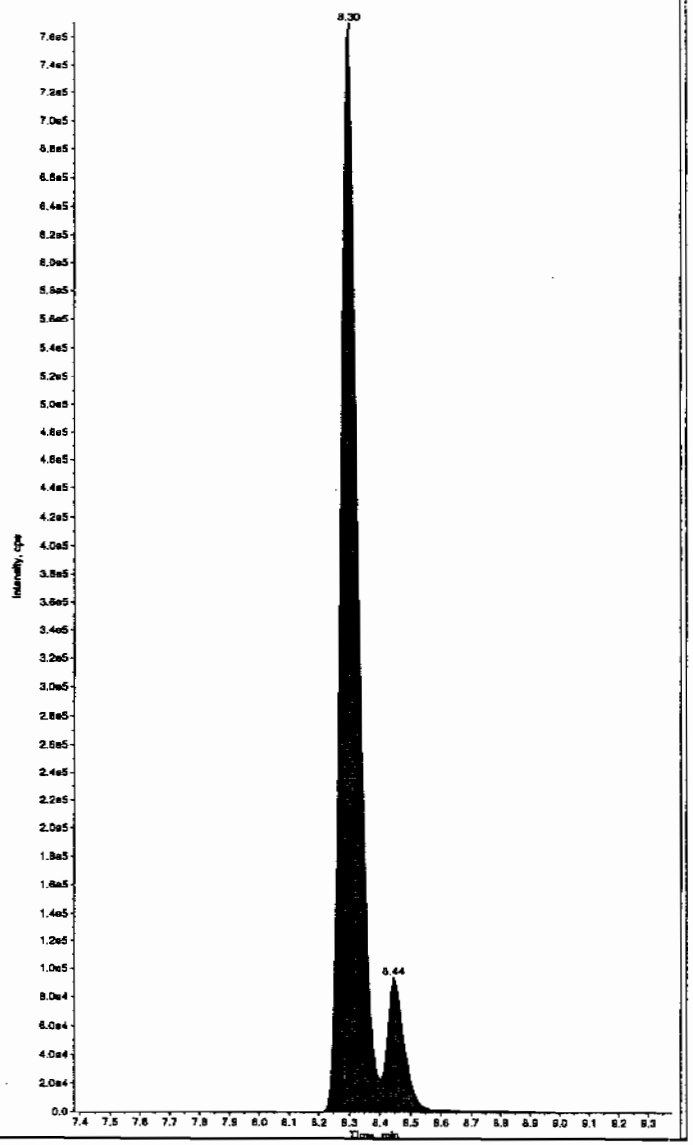

HMM 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Scan 2/17/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
lated Conc: 538. ng/mL
Date: 2/15/2010
Time: 2:54:50 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ation Time: 7.09 min
7.51e+005 counts
t: 166678.818 cps
Time: 6.93 min
Time: 7.93 min

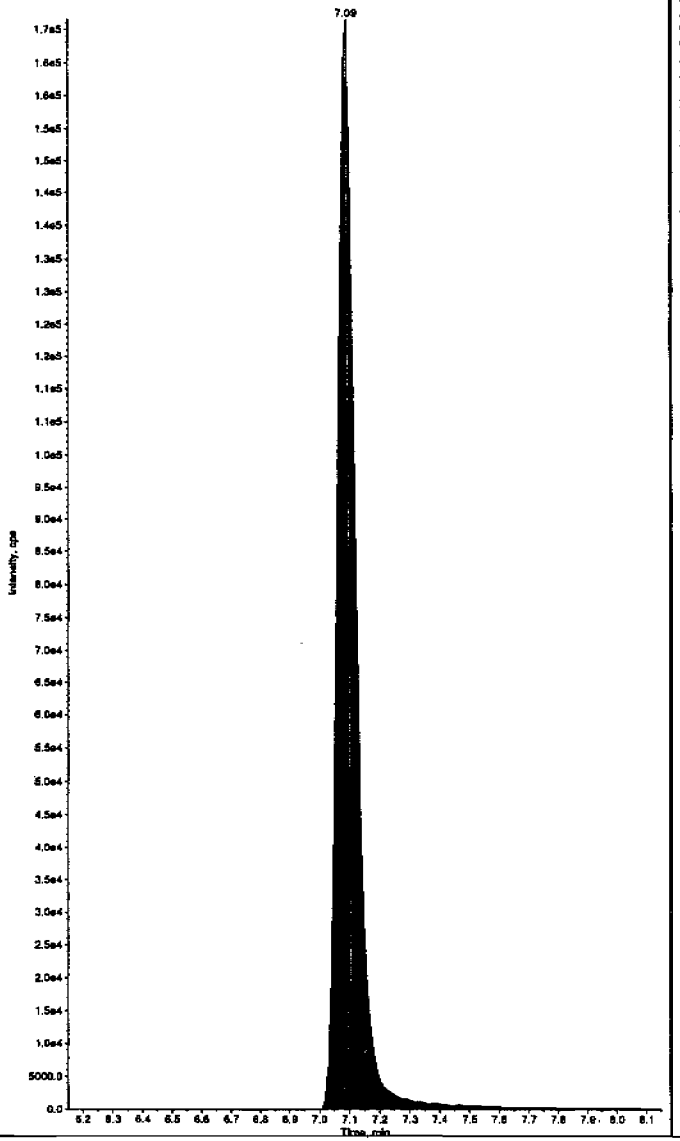

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 474. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:54:50 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.29 min
Area: 3.10e+006 counts
Height: 777397.363 cps
Start Time: 8.23 min
End Time: 8.40 min

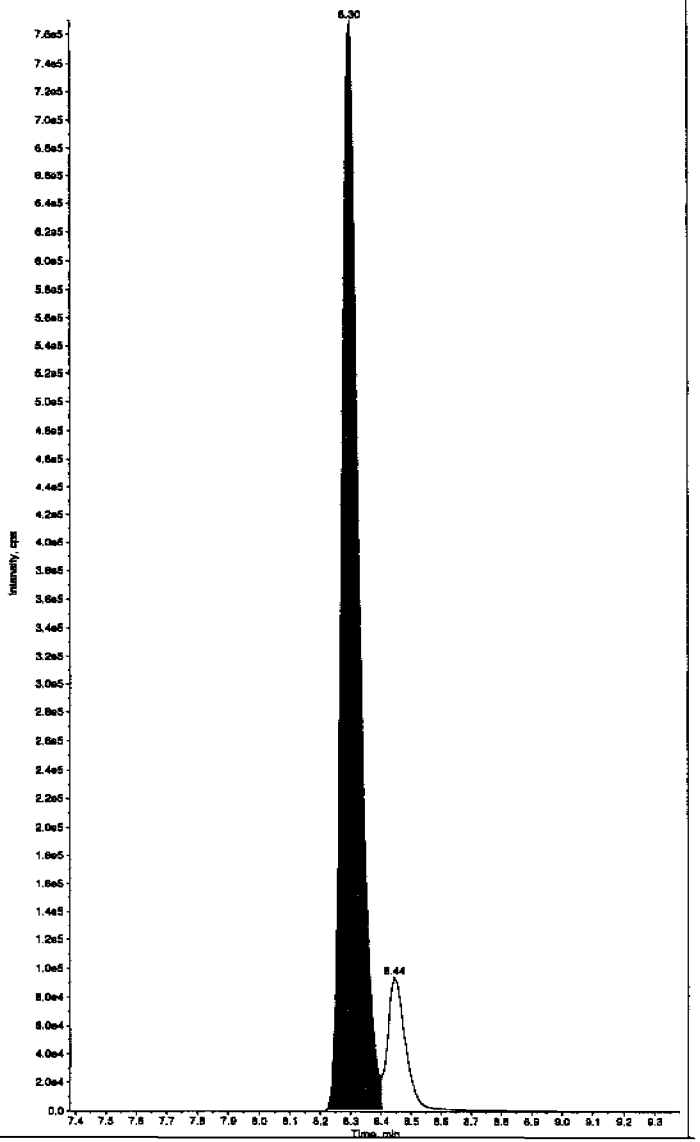

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140095.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
entration: 250. ng/mL
culated Conc: 229. ng/mL
Date: 2/15/2010
Time: 2:54:50 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.44 min
: 3.01e+006 counts
ht: 775746.094 cps
t Time: 8.37 min
Time: 8.69 min

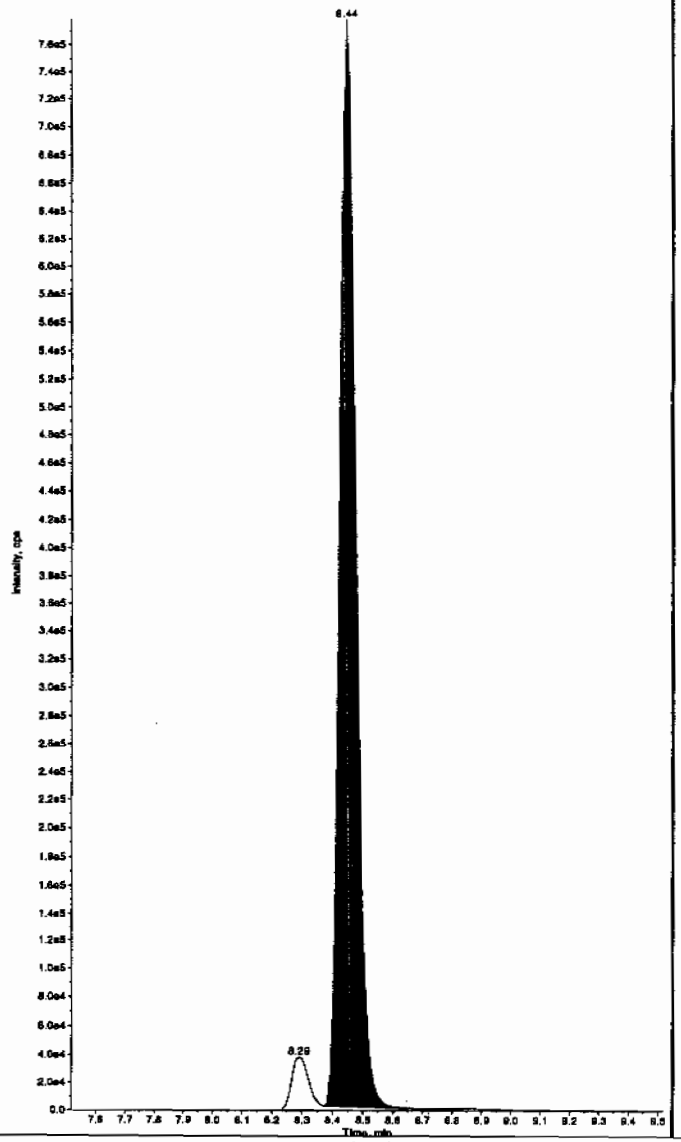

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140095.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 351. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:54:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.13 min
Area: 1.01e+006 counts
Height: 259674.561 cps
Start Time: 5.02 min
End Time: 5.42 min

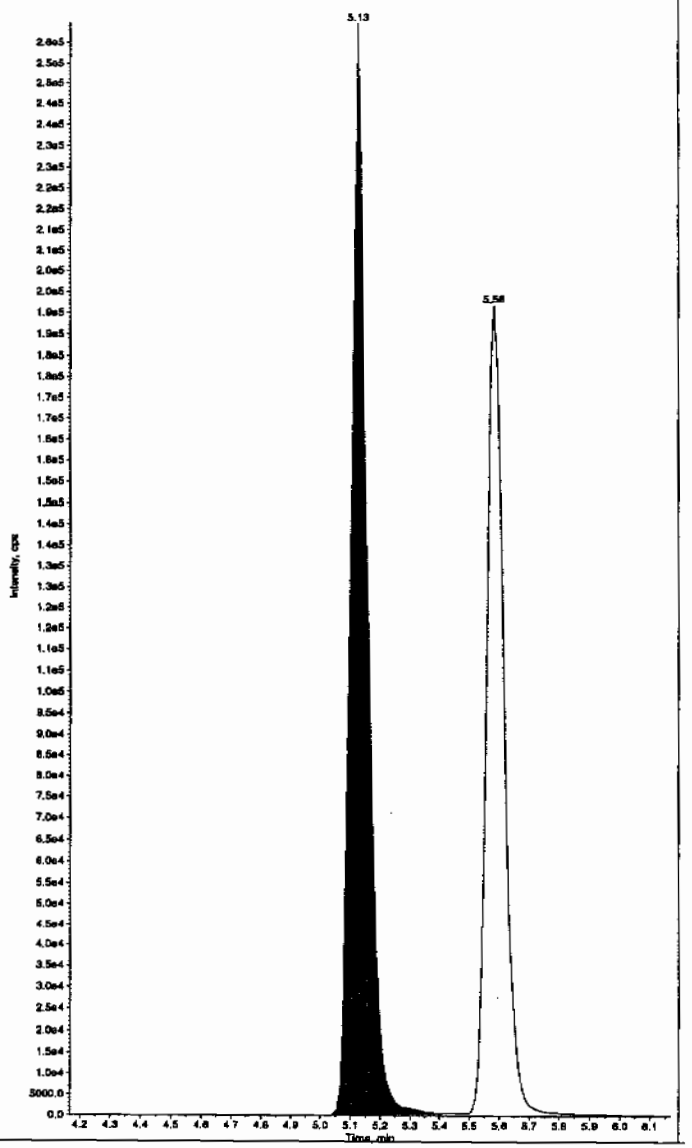

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nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 406. ng/mL
Date: 2/15/2010
Time: 2:54:50 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
Relative RT: No

Type: Valley
ntion Time: 5.58 min
: 7.73e+005 counts
ht: 191881.760 cps
t Time: 5.49 min
Time: 6.07 min

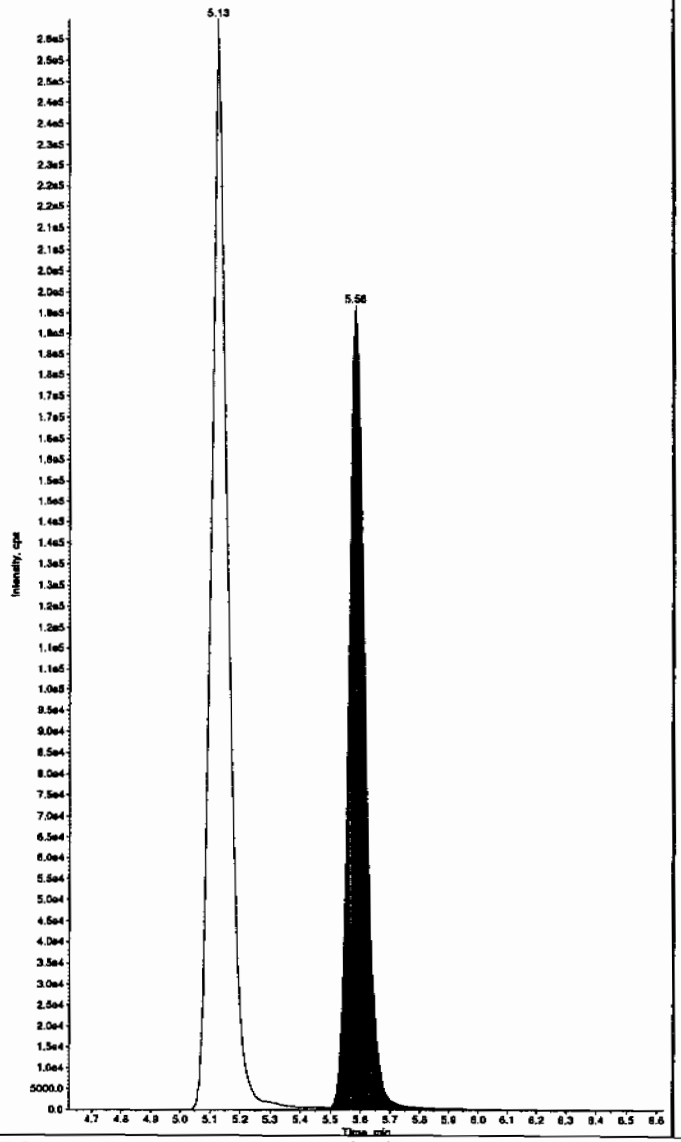

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140095.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 486. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 2:54:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.06e+007 counts
Height: 2562879.883 cps
Start Time: 10.8 min
End Time: 11.3 min

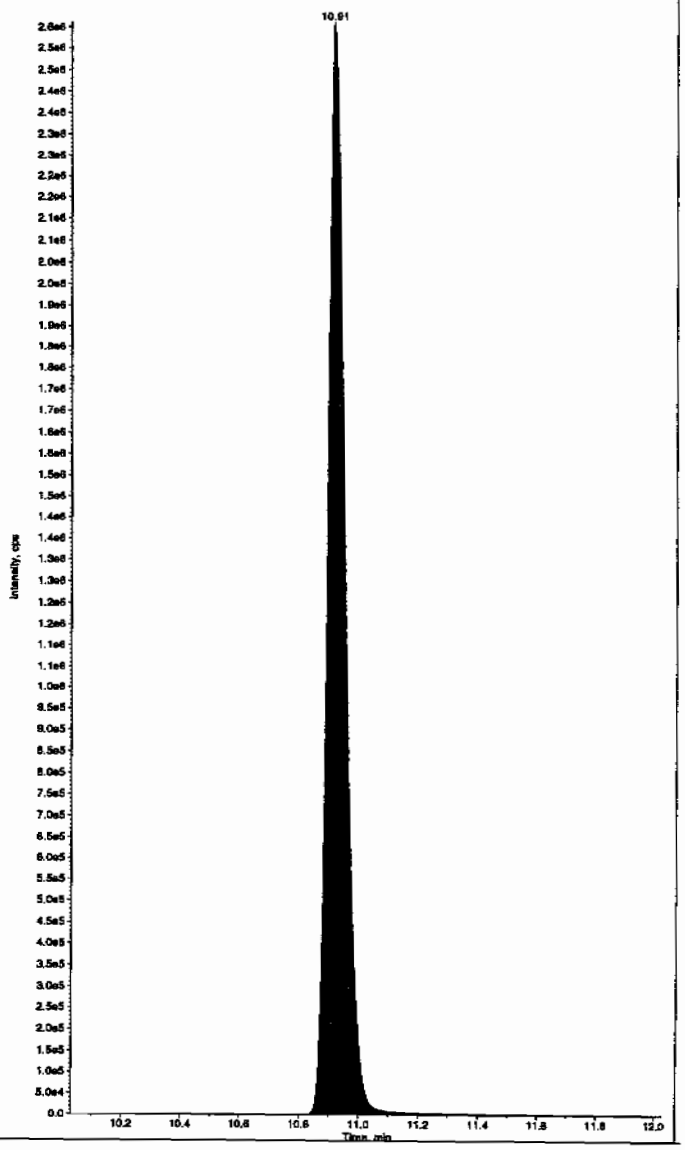

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02140097.wiff

Analysis Date: 15-FEB-10 15:26

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	87.3	87	
2,6-Diamino-4-nitrotoluene	100	89.4	89	
3,4-Dinitrotoluene	50	51.7	103	
3,5-Dinitroaniline	100	105	105	
TATB	100	111	111	
tris(o-cresyl) phosphate	100	100	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/16/10

mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 111. ng/mL
Date: 2/15/2010
Time: 3:26:15 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.09 min
: 1.54e+005 counts
ht: 34696.198 cps
t Time: 6.91 min
Time: 7.68 min

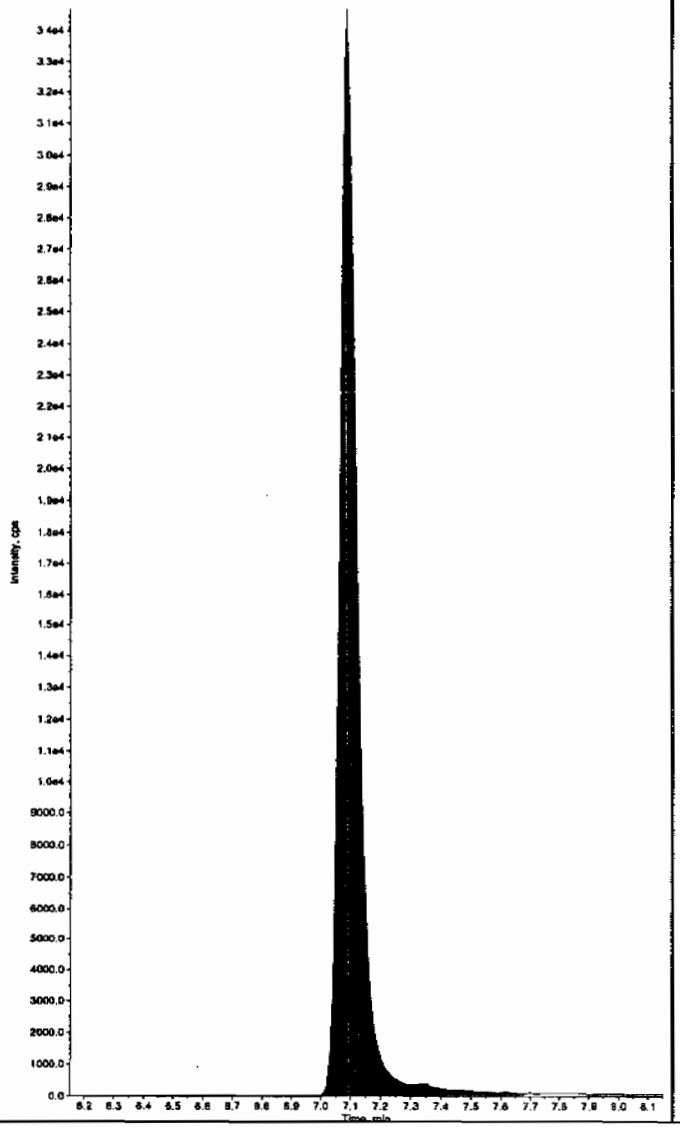

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 119. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:26:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.31 min
Area: 7.80e+005 counts
Height: 168751.770 cps
Start Time: 8.20 min
End Time: 8.70 min

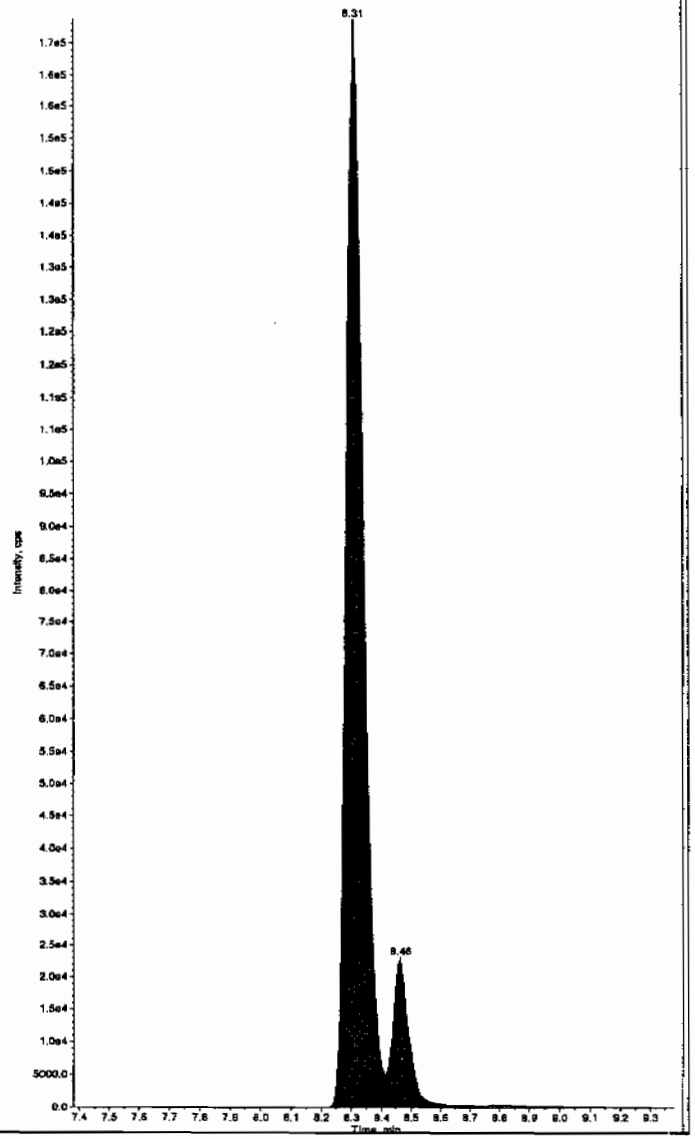

Hmm 02/17/10

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after Lar 2/17/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 100. ng/mL
lated Conc: 111. ng/mL
Date: 2/15/2010
Time: 3:26:15 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
tion Time: 7.09 min
1.54e+005 counts
t: 34696.198 cps
Time: 6.91 min
ime: 7.68 min

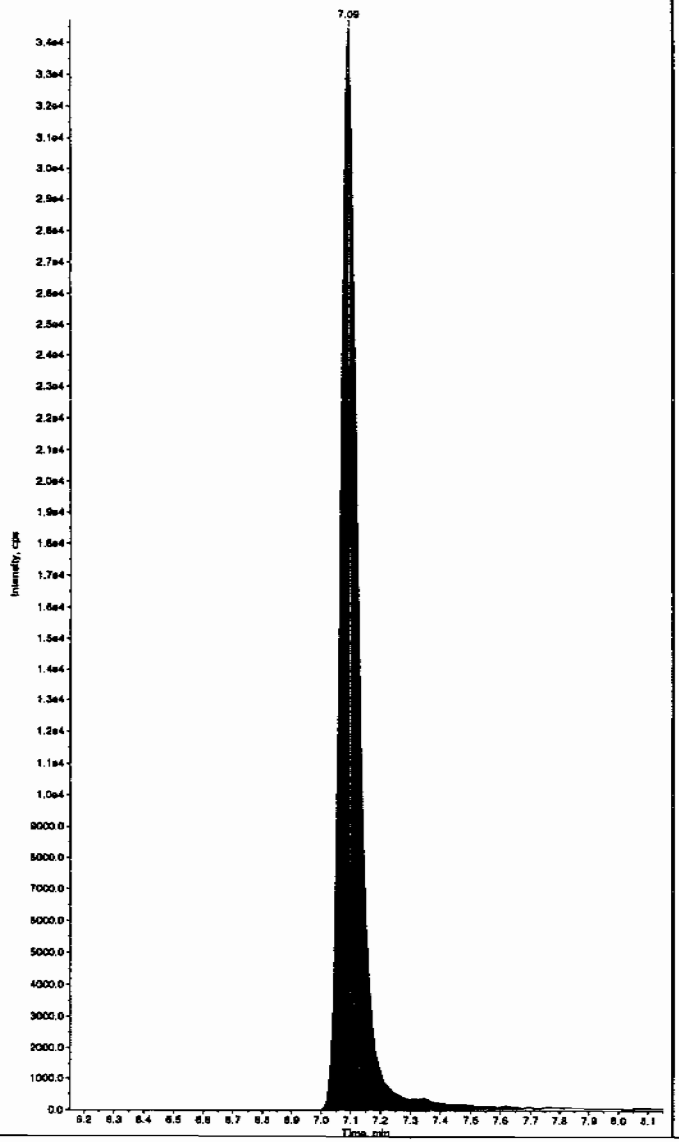

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:26:15 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.31 min
Area: 6.86e+005 counts
Height: 168745.419 cps
Start Time: 8.24 min
End Time: 8.41 min

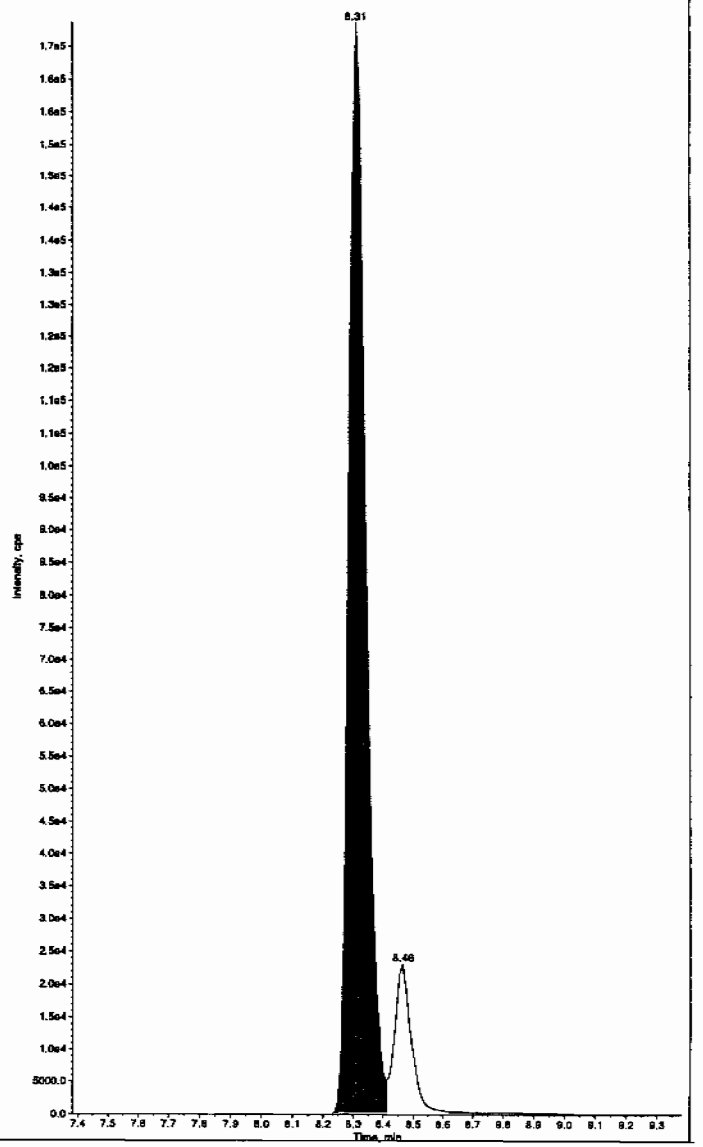

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nple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140097.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 51.7 ng/mL
Date: 2/15/2010
Time: 3:26:15 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.45 min
: 6.58e+005 counts
ht: 174157.303 cps
t Time: 8.38 min
Time: 8.78 min

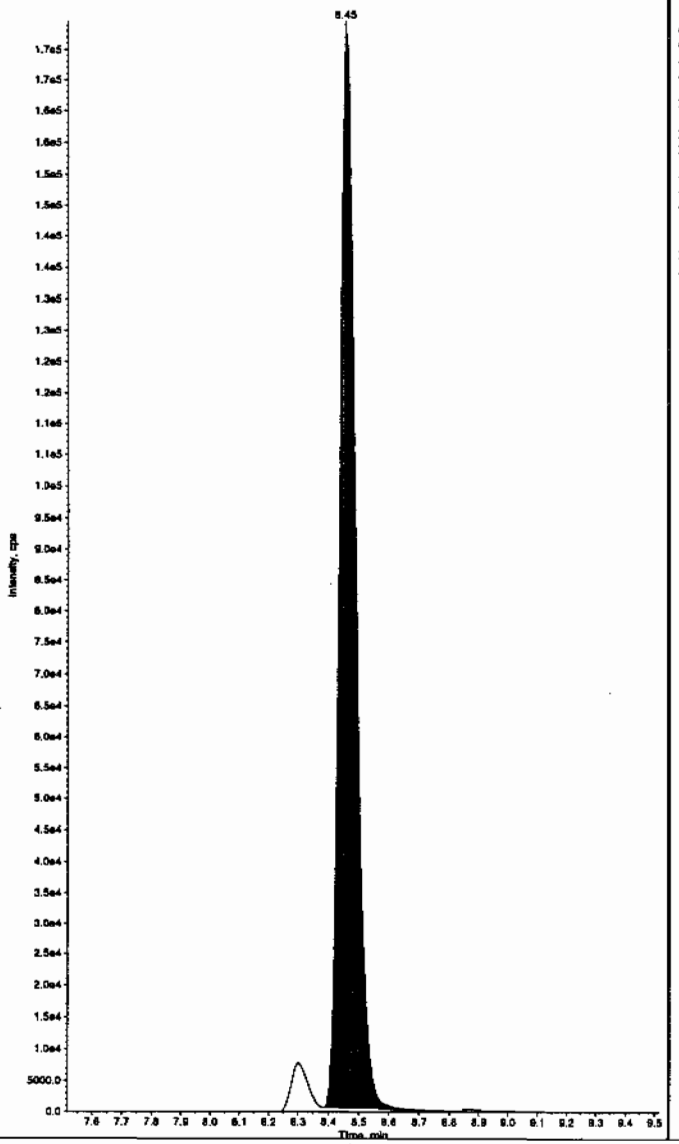

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140097.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 89.4 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:26:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.14 min
Area: 2.76e+005 counts
Height: 67901.466 cps
Start Time: 4.99 min
End Time: 5.44 min

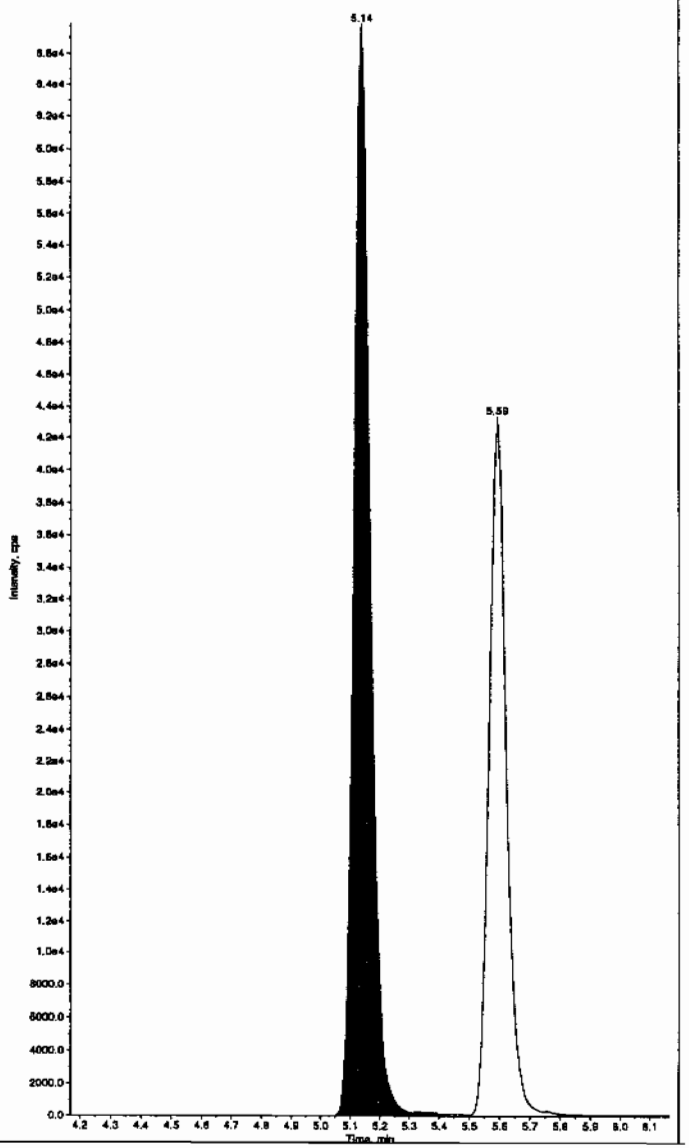

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mpls Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
sk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 87.3 ng/mL
Date: 2/15/2010
Time: 3:26:15 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
Relative RT: No

Type: Valley
ntion Time: 5.59 min
: 1.70e+005 counts
ht: 43341.713 cps
t Time: 5.49 min
Time: 5.90 min

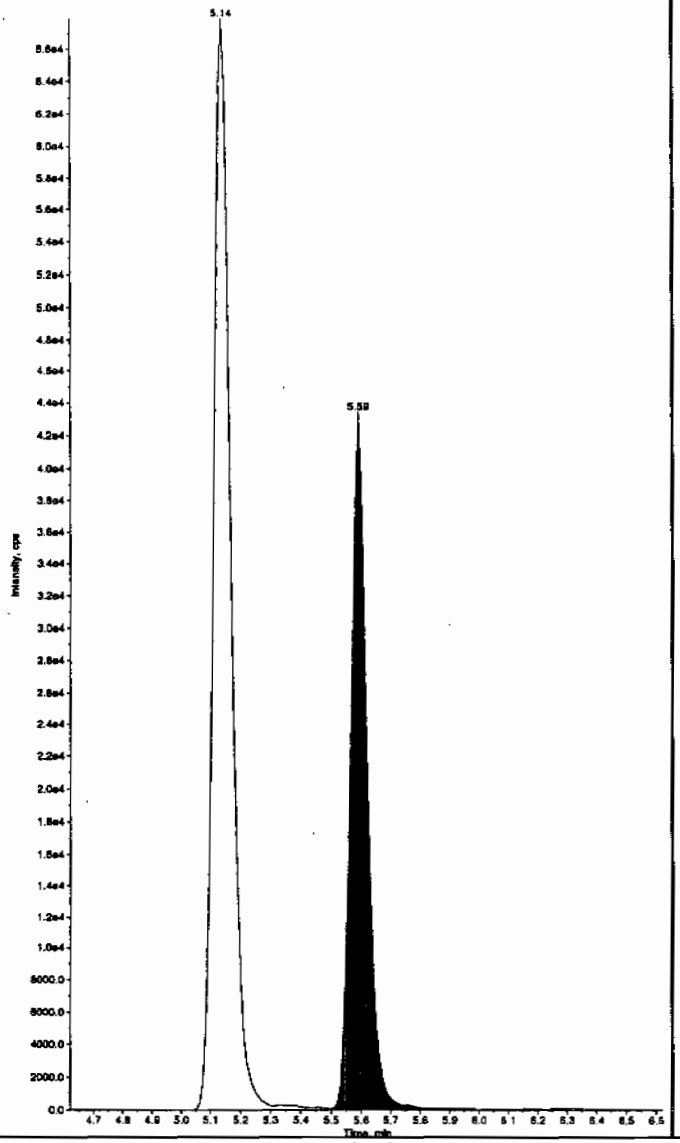

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140097.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 3:26:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.40e+006 counts
Height: 584071.228 cps
Start Time: 10.8 min
End Time: 11.3 min

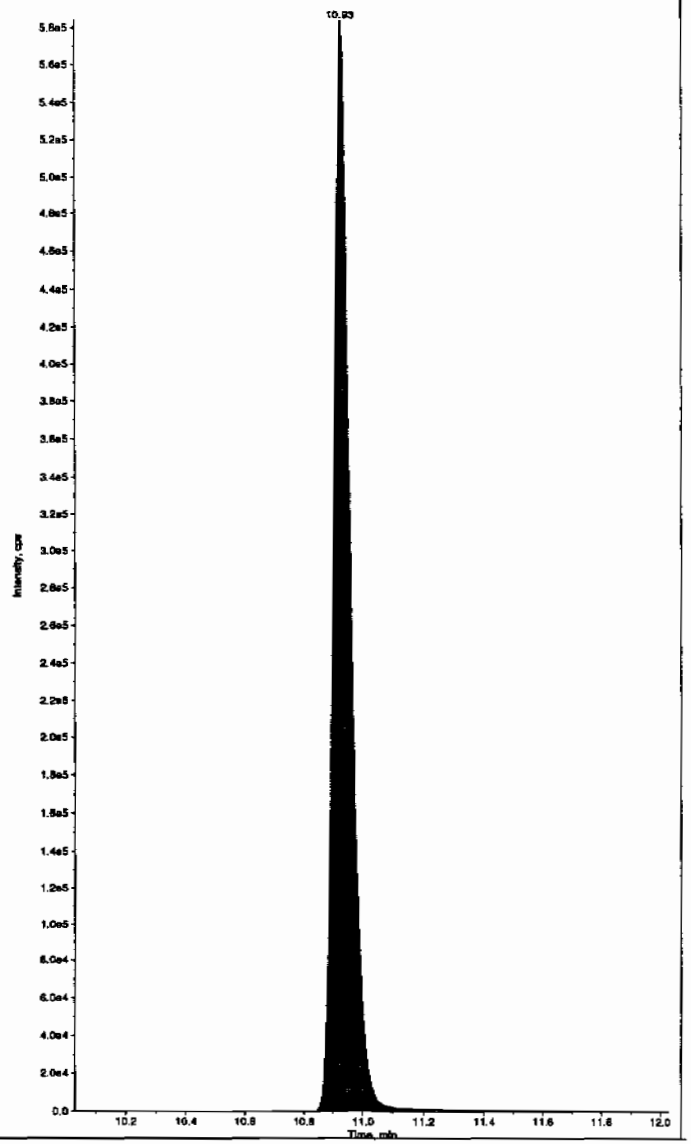

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140108.wiff

Analysis Date: 15–FEB–10 18:18

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	432	86	
2,6–Diamino–4–nitrotoluene	500	357	71	
3,4–Dinitrotoluene	250	240	96	
3,5–Dinitroaniline	500	517	103	
TATB	500	532	106	
tris(o–cresyl) phosphate	500	501	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcv 2/16/10

ple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140108.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
.e Index: 1
.e Type: QC
ntration: 500. ng/mL
lated Conc: 532. ng/mL
Date: 2/15/2010
Time: 6:18:57 PM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
tion Time: 7.12 min
7.43e+005 counts
t: 166107.986 cps
Time: 6.97 min
Time: 7.80 min

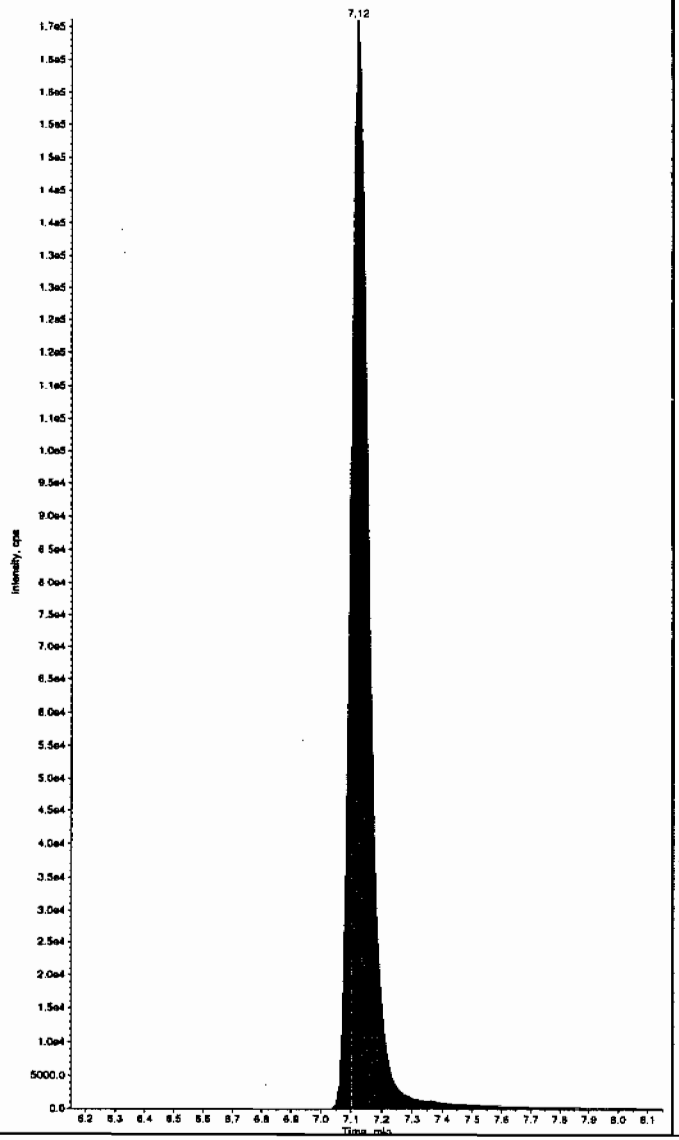

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140108.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 587. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:18:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 3.82e+006 counts
Height: 866099.243 cps
Start Time: 8.24 min
End Time: 8.84 min

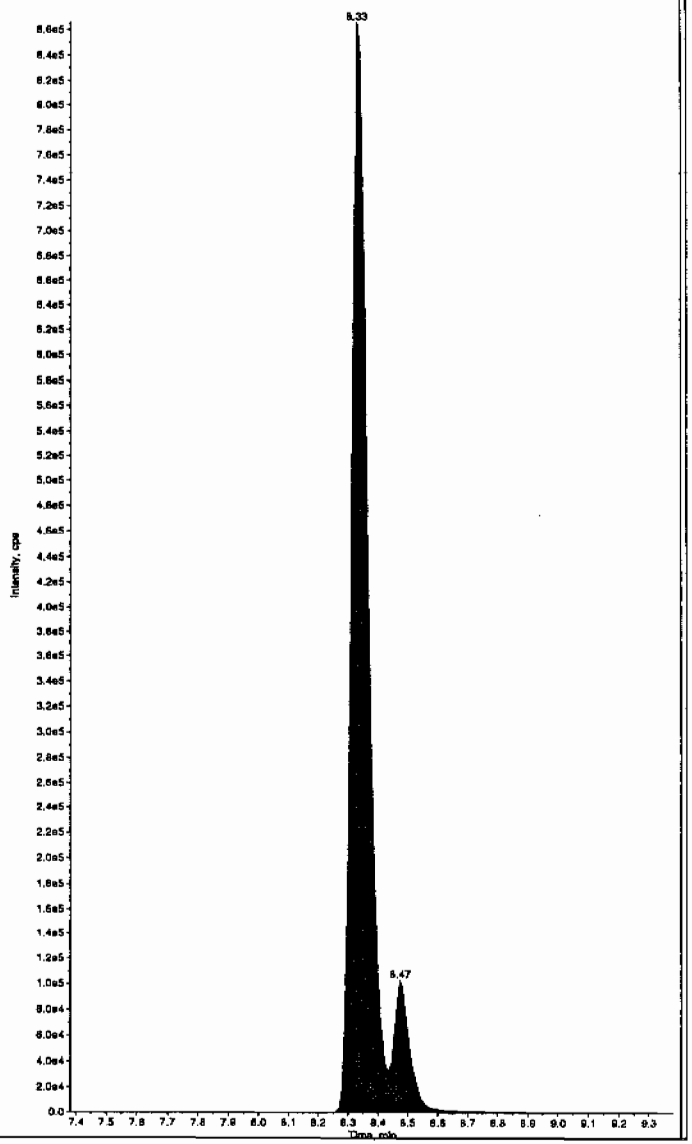

thm 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Lan 2/17/10

nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 532. ng/mL
Date: 2/15/2010
Time: 6:18:57 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ation Time: 7.12 min
: 7.43e+005 counts
at: 166107.986 cps
t Time: 6.97 min
Time: 7.80 min

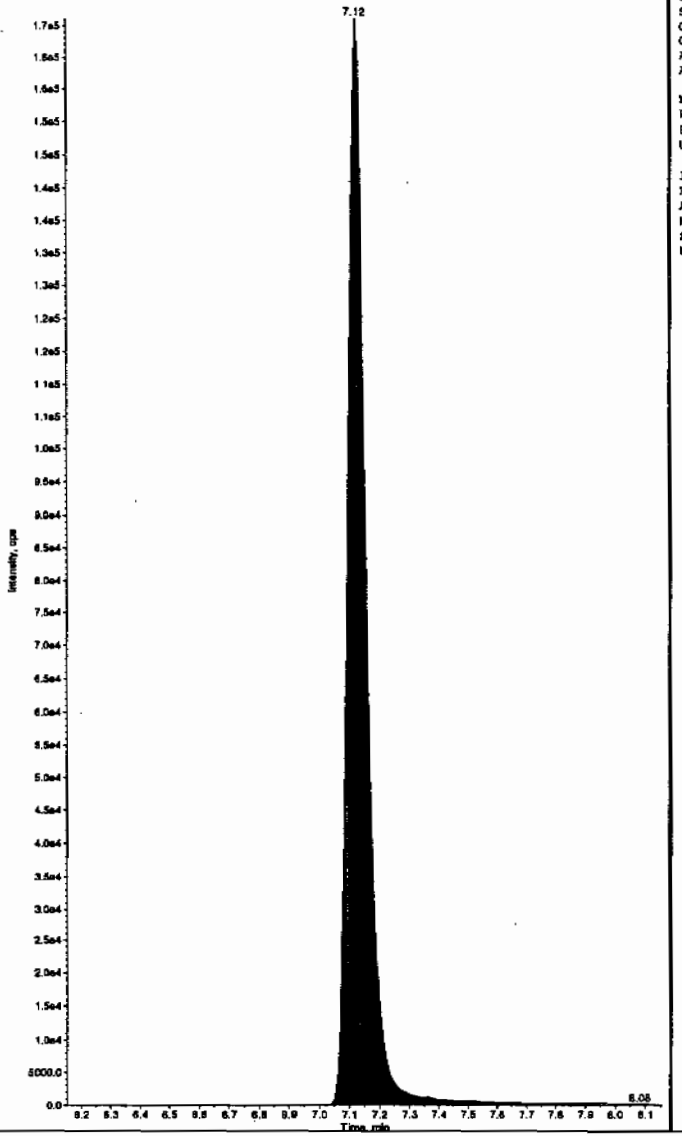

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 517. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:18:57 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.33 min
Area: 3.38e+006 counts
Height: 861961.174 cps
Start Time: 8.26 min
End Time: 8.43 min

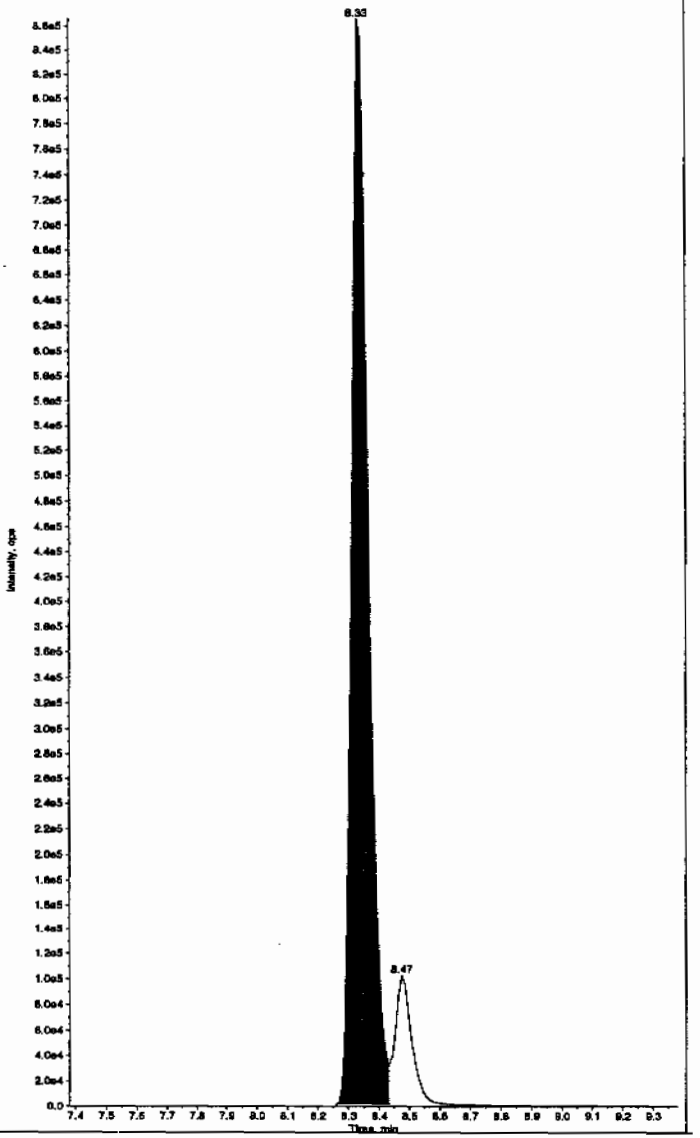

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140108.wiff"
: Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 240. ng/mL
Date: 2/15/2010
Time: 6:18:57 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.52 min
elative RT: No

Type: Valley
tion Time: 8.47 min
3.14e+006 counts
t: 834511.780 cps
Time: 8.40 min
ime: 8.68 min

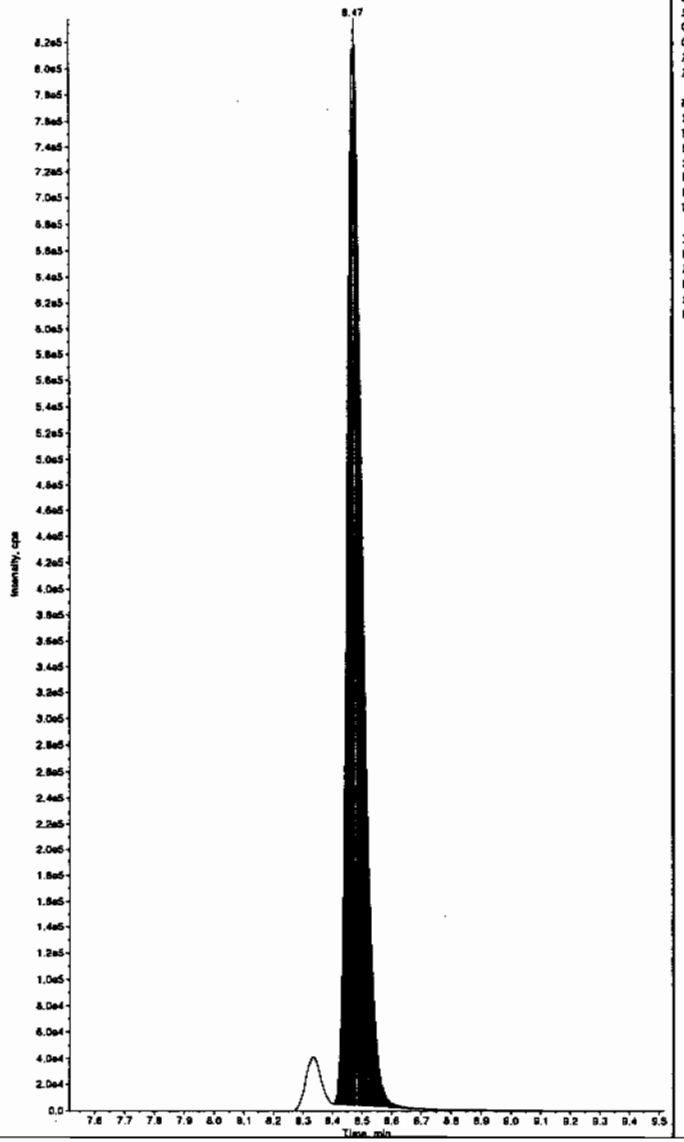

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140108.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 357. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:18:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.15 min
Area: 1.03e+006 counts
Height: 282050.995 cps
Start Time: 5.05 min
End Time: 5.45 min

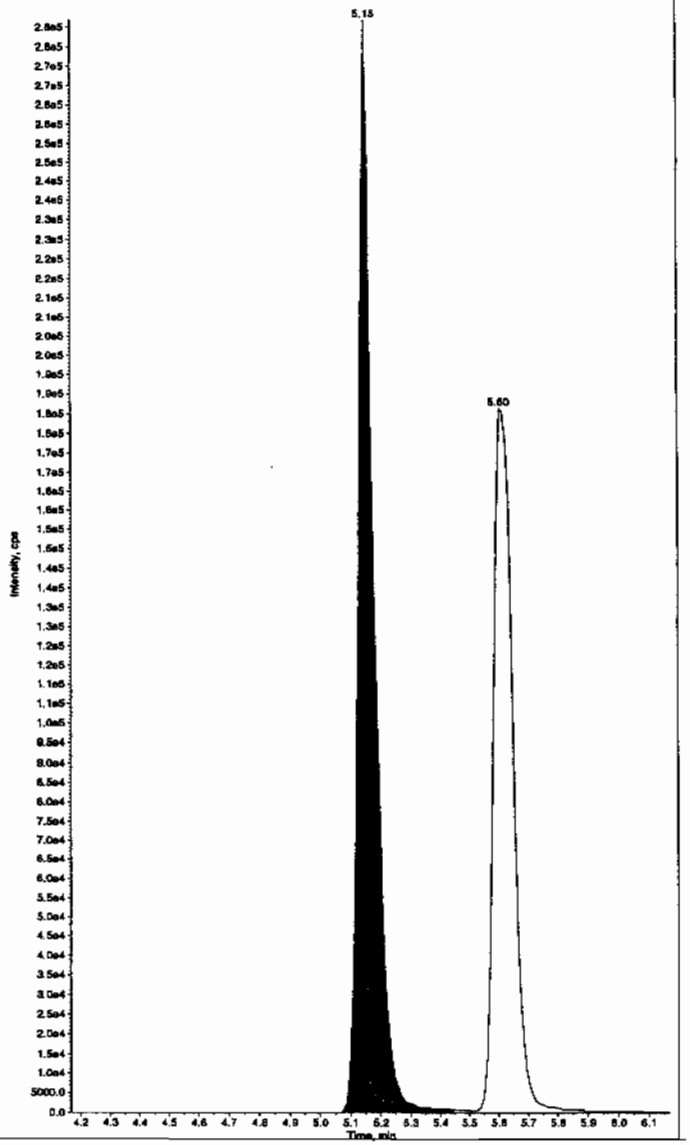

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nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 432. ng/mL
Date: 2/15/2010
Time: 6:18:57 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
Relative RT: No

Type: Valley
ntion Time: 5.60 min
: 8.22e+005 counts
ht: 181345.459 cps
t Time: 5.51 min
Time: 6.08 min

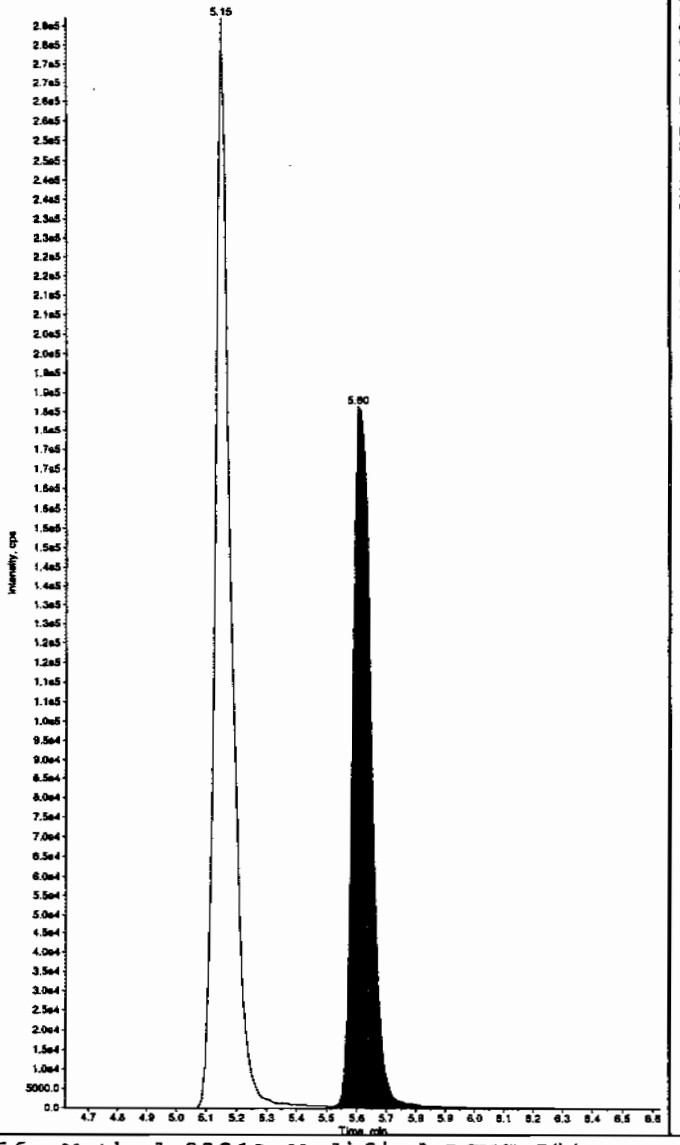

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140108.wiff"
Peak Name: "bis(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:18:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.09e+007 counts
Height: 2534437.988 cps
Start Time: 10.8 min
End Time: 11.3 min

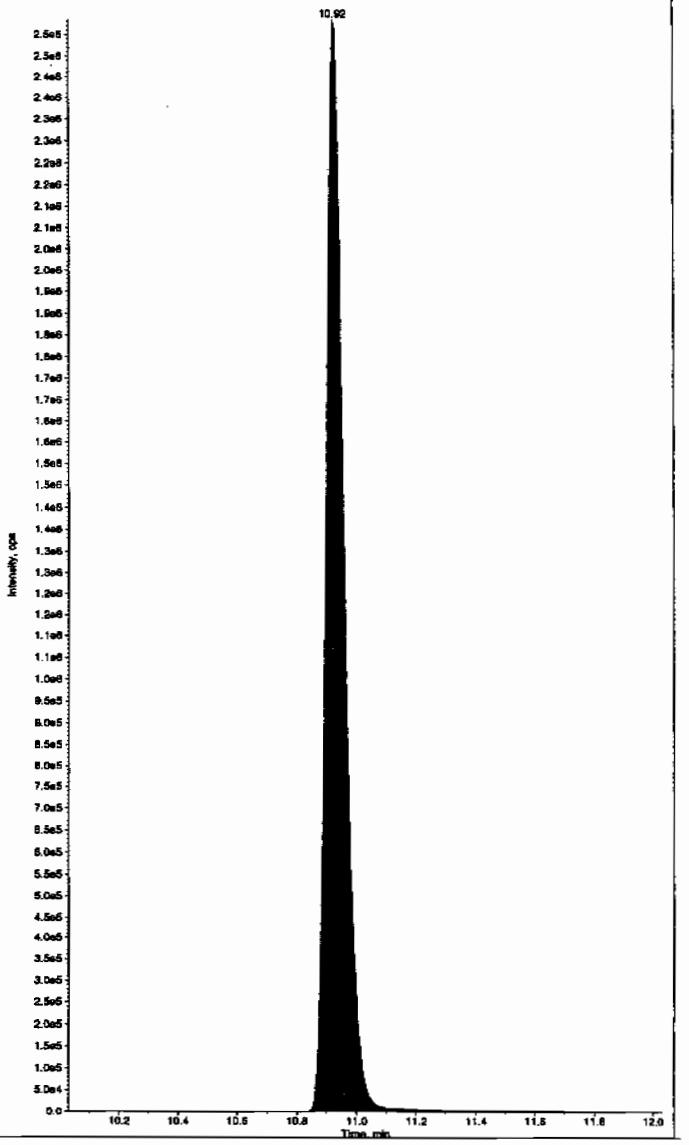

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140110.wiff

Analysis Date: 15-FEB-10 18:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	86.8	87	
2,6-Diamino-4-nitrotoluene	100	80.4	80	
3,4-Dinitrotoluene	50	51.8	104	
3,5-Dinitroaniline	100	105	105	
TATB	100	103	103	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Sun 2/16/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ilated Conc: 103. ng/mL
Date: 2/15/2010
Time: 6:50:19 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ction Time: 7.12 min
: 1.42e+005 counts
t: 32363.491 cps
: Time: 6.97 min
Time: 7.52 min

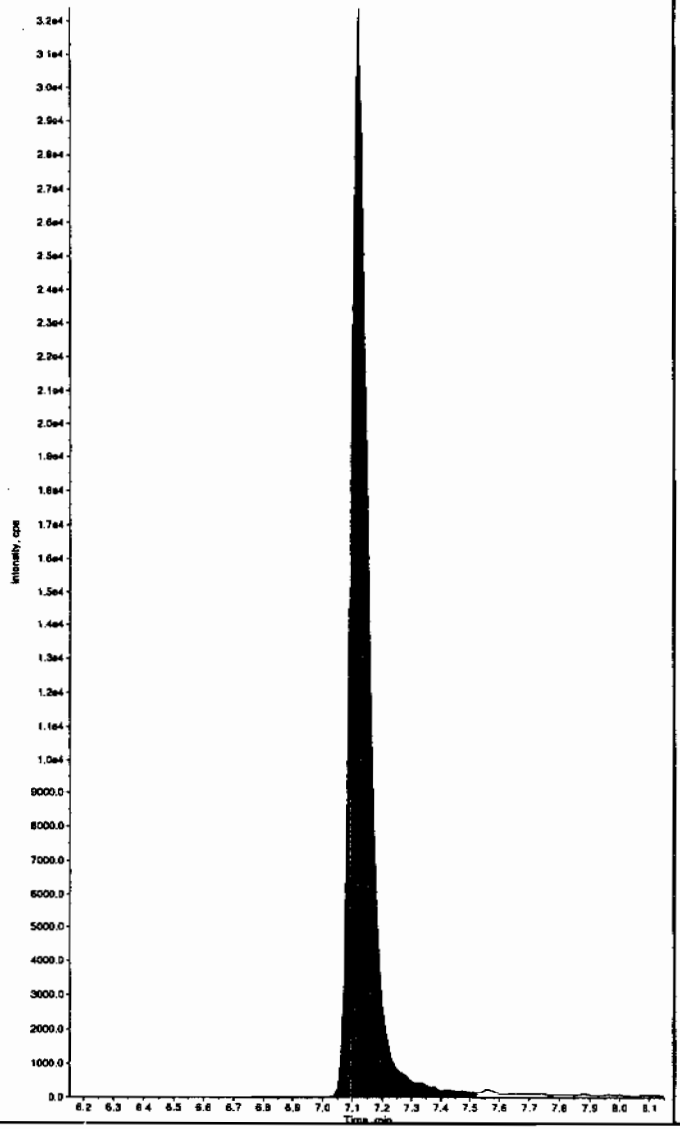

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 120. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:50:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 7.90e+005 counts
Height: 181960.892 cps
Start Time: 8.23 min
End Time: 8.71 min

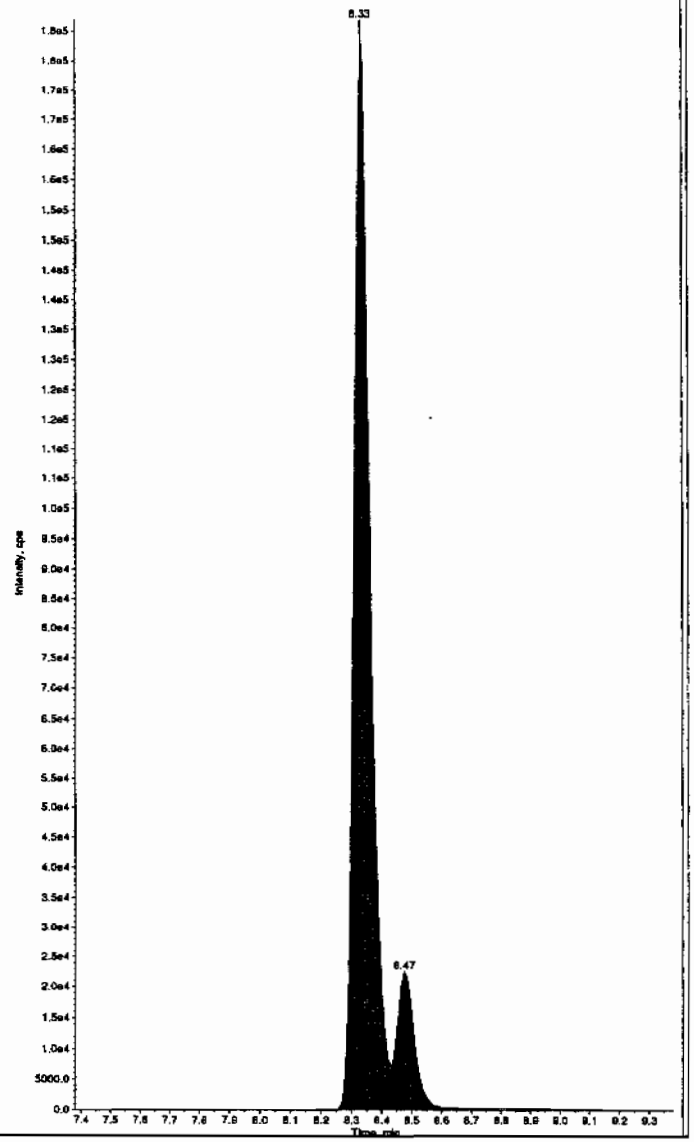

HMC 02/17/10

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after Scan 2/17/10

nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index:	1	
le Type:	QC	
entration:	100.	ng/mL
ilated Conc:	103.	ng/mL
Date:	2/15/2010	
Time:	6:50:19 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	7.15	min
Relative RT:	No	
Type:	Valley	
ation Time:	7.12	min
:	1.42e+005	counts
t:	32363.491	cps
: Time:	6.97	min
Time:	7.52	min

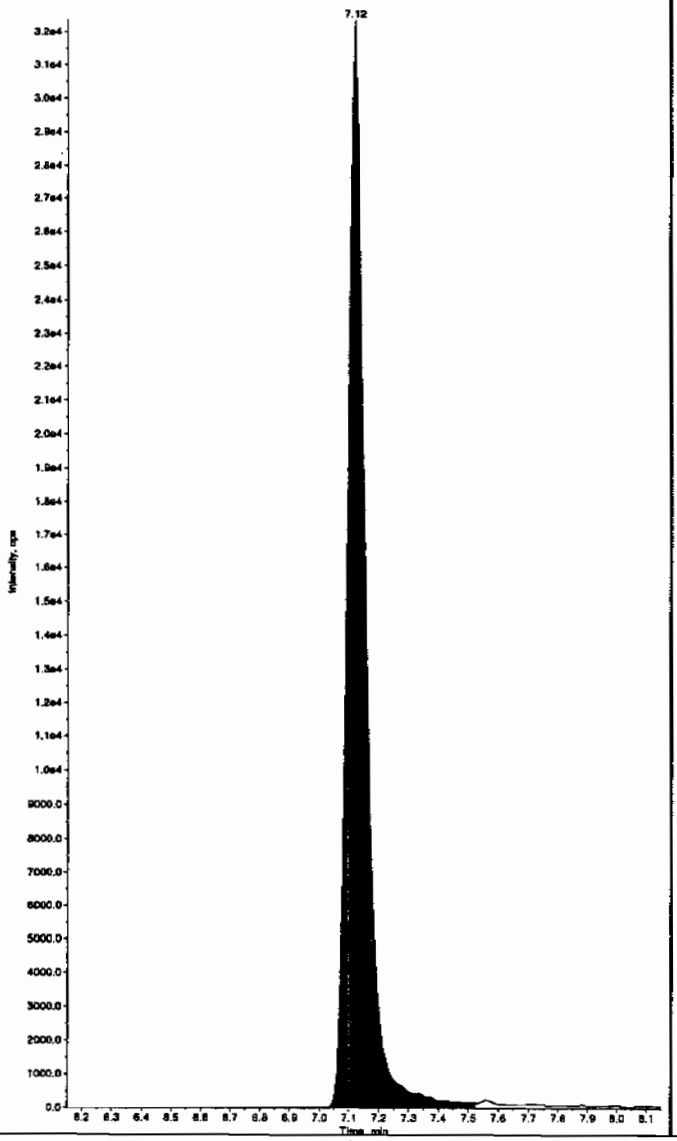

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	105.	ng/mL
Acq. Date:	2/15/2010	
Acq. Time:	6:50:19 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.38	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.33	min
Area:	6.90e+005	counts
Height:	183805.920	cps
Start Time:	8.26	min
End Time:	8.43	min

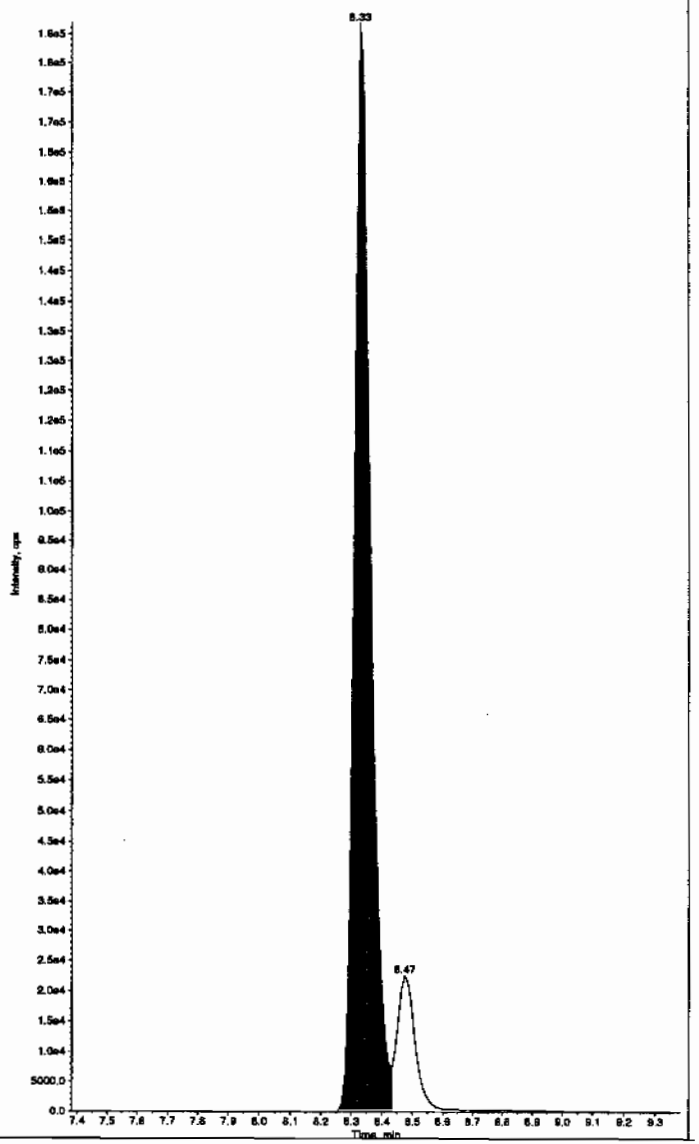

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140110.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 50.0 ng/mL
ilated Conc: 51.8 ng/mL
Date: 2/15/2010
Time: 6:50:19 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ation Time: 8.47 min
: 6.59e+005 counts
ht: 179250.198 cps
: Time: 8.40 min
Time: 8.76 min

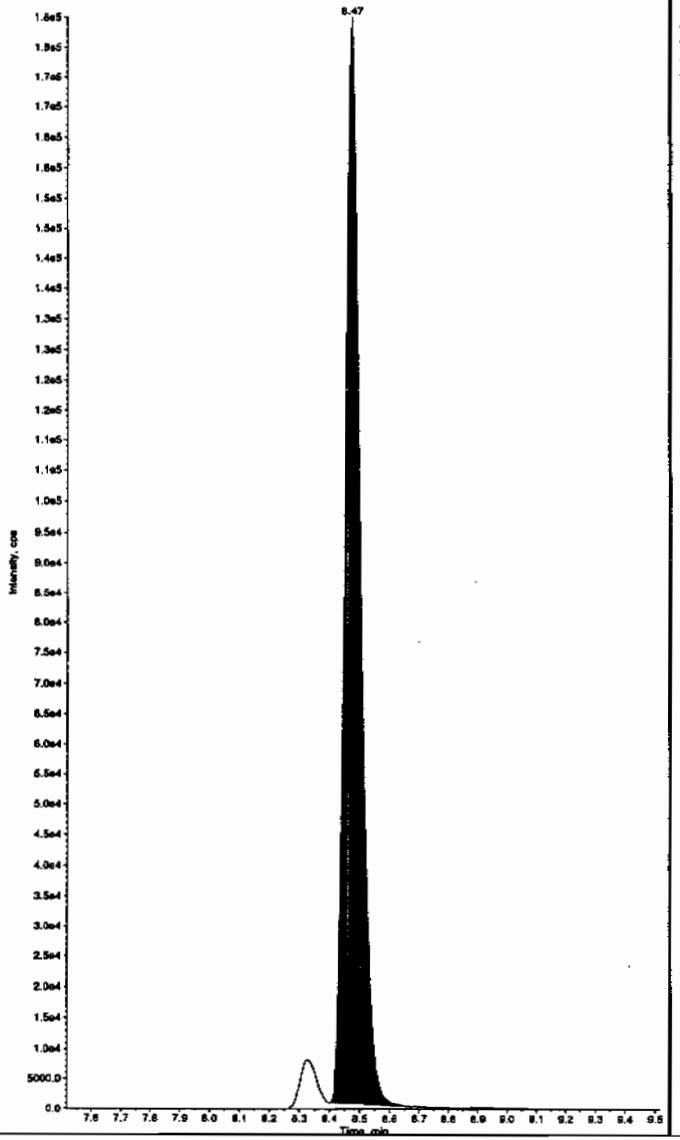

Sample Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140110.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 80.4 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:50:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 2.51e+005 counts
Height: 62693.035 cps
Start Time: 5.04 min
End Time: 5.43 min

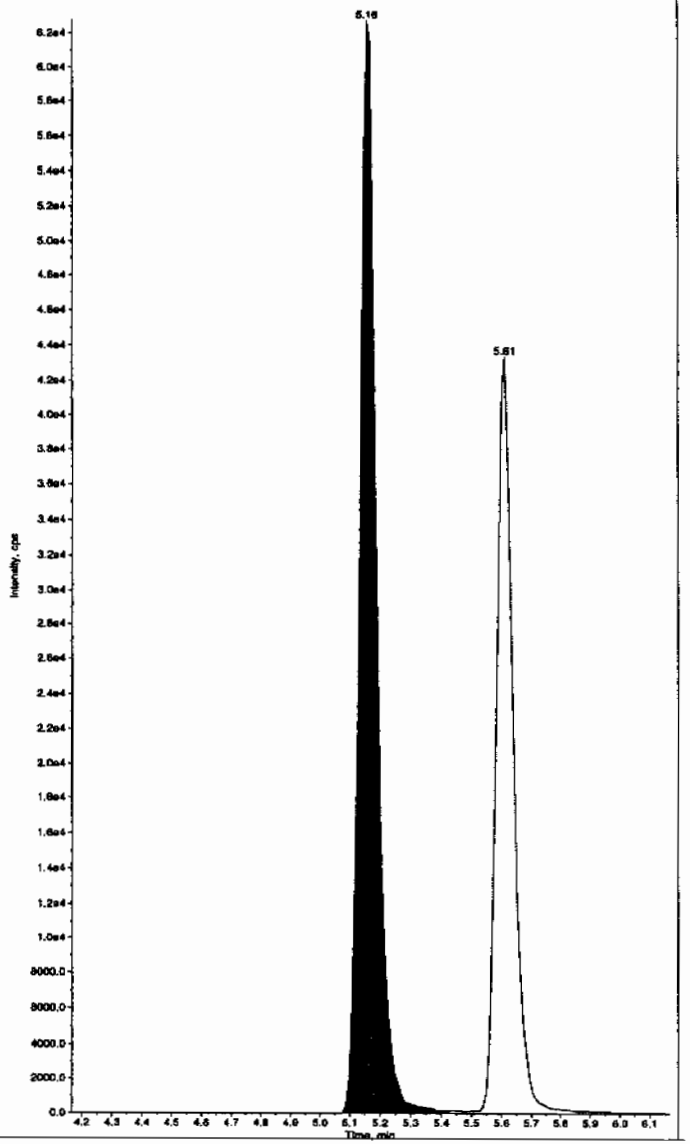

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nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
ntration: 100. ng/mL
lated Conc: 86.8 ng/mL
Date: 2/15/2010
Time: 6:50:19 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
telative RT: No

Type: Valley
ntion Time: 5.61 min
: 1.70e+005 counts
ht: 43332.111 cps
: Time: 5.49 min
Time: 6.05 min

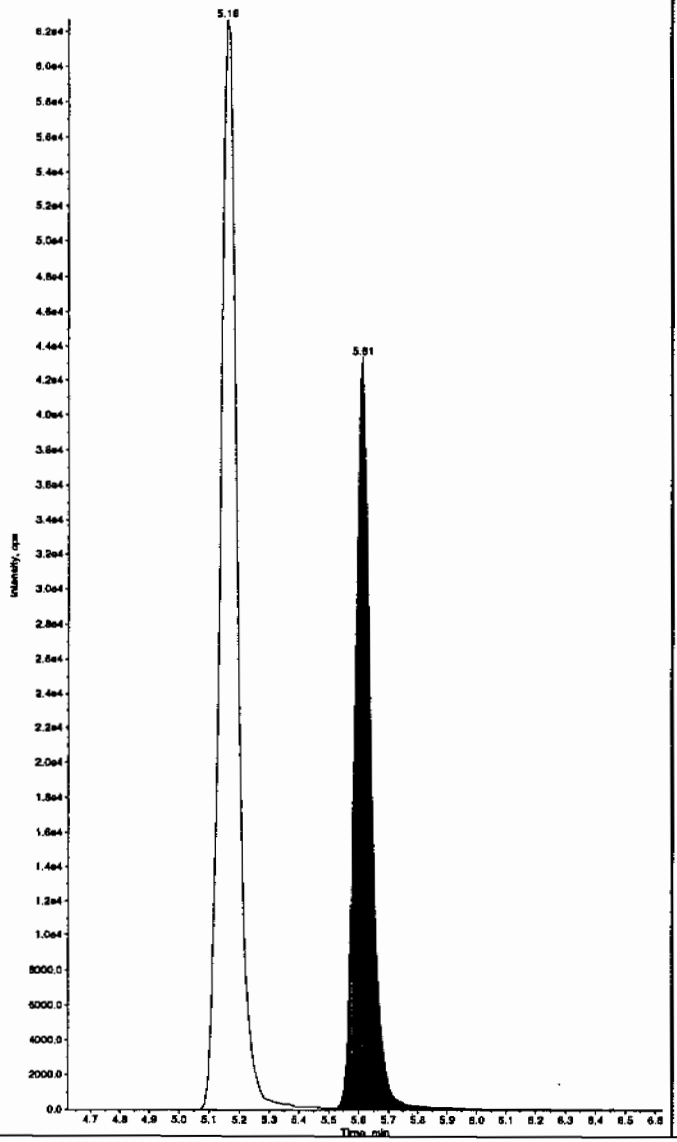

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140110.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 6:50:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.46e+006 counts
Height: 617461.487 cps
Start Time: 10.8 min
End Time: 11.3 min

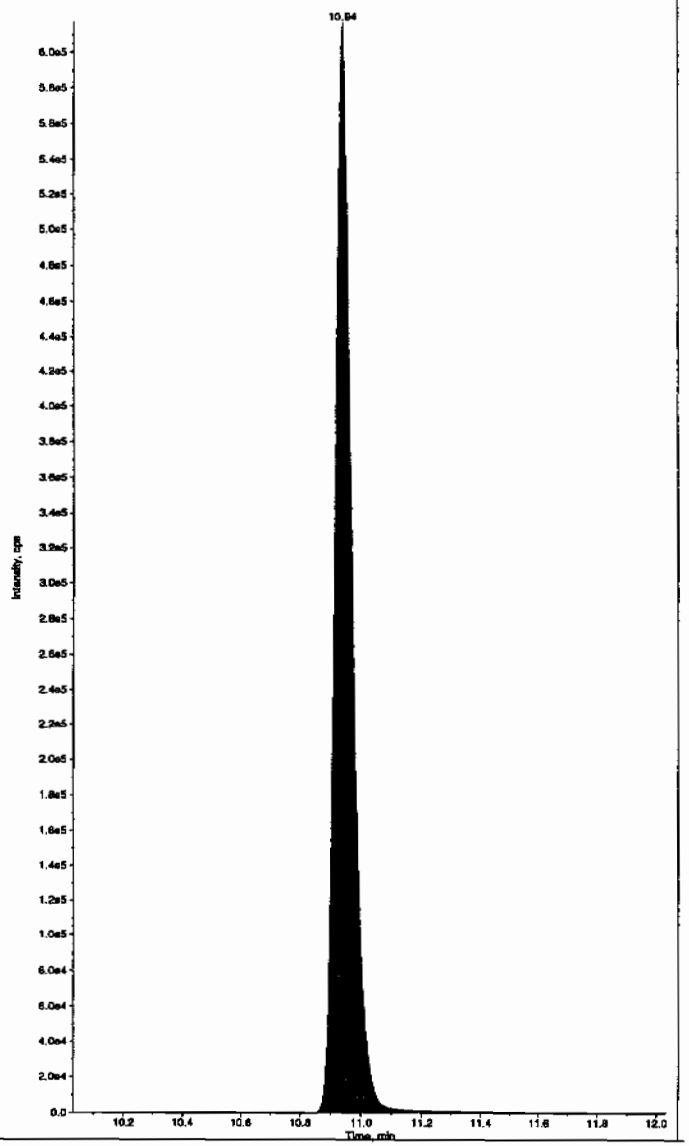

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02160013.wiff

Analysis Date: 16-FEB-10 15:21

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	69.9	70	
2,6-Diamino-4-nitrotoluene	100	67.7	68	
3,4-Dinitrotoluene	50	47.1	94	
3,5-Dinitroaniline	100	92.2	92	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Ran 2/17/10

Sample Name: "WXX100216-27CRI" Sample ID: "[1]LER" File: "EXS02160013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:21:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 10.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.93 min
Area: 1.28e+005 counts
Height: 29276.001 cps
Start Time: 6.80 min
End Time: 7.38 min

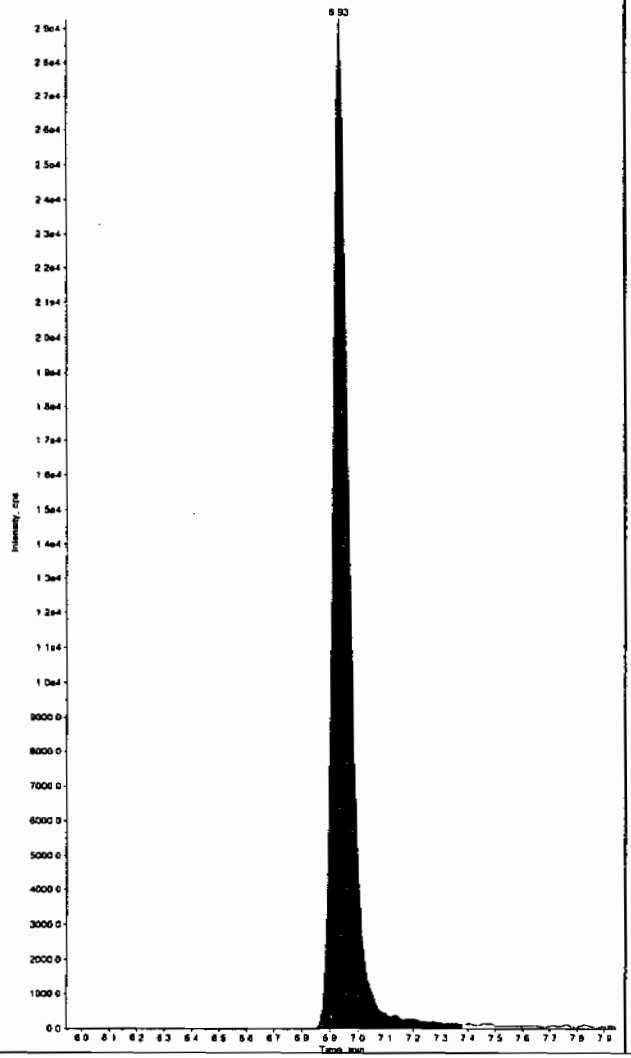

Sample Name: "WXX100216-27CRI" Sample ID: "[1]LER" File: "EXS02160013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.2 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:21:41 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.07 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 5.92e+005 counts
Height: 146657.471 cps
Start Time: 8.01 min
End Time: 8.20 min

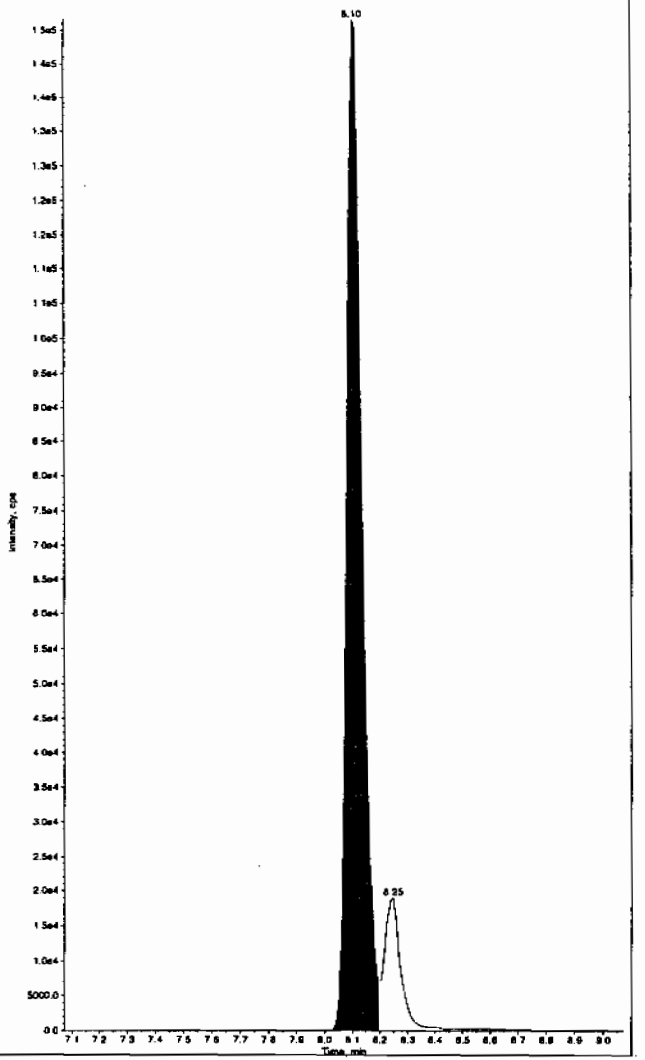

HMM 02/17/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100216-27CRI" Sample ID: "|1|LER" File: "EXS02160013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 47.1 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:21:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 14e0.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 5.58e+005 counts
Height: 155518.661 cps
Start Time: 8.16 min
End Time: 8.44 min

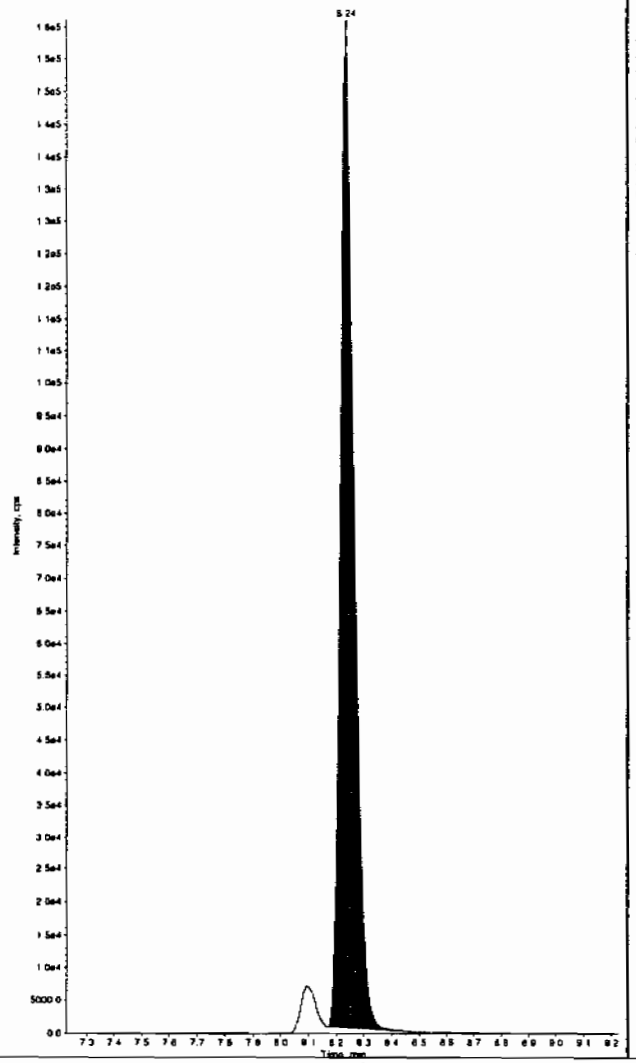

Sample Name: "WXX100216-27CRI" Sample ID: "|1|LER" File: "EXS02160013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 67.7 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:21:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 1.73e+005 counts
Height: 45502.506 cps
Start Time: 4.89 min
End Time: 5.31 min

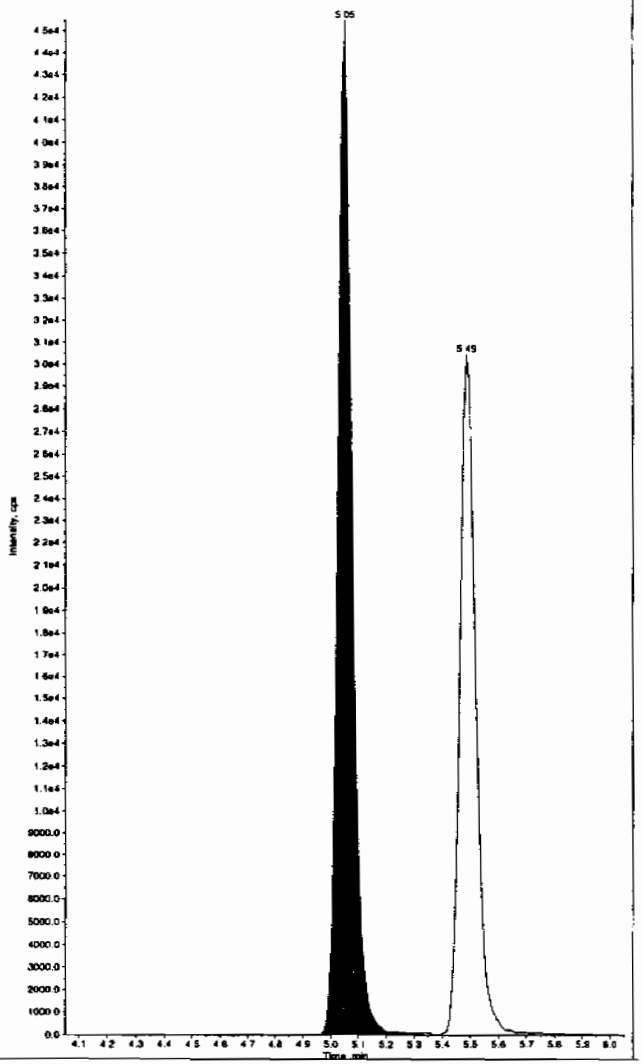

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100216-27CRI" Sample ID: "[1]LER" File: "EXS02160013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 69.9 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 1:21:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 10.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 1.19e+005 counts
Height: 30150.291 cps
Start Time: 5.41 min
End Time: 5.66 min

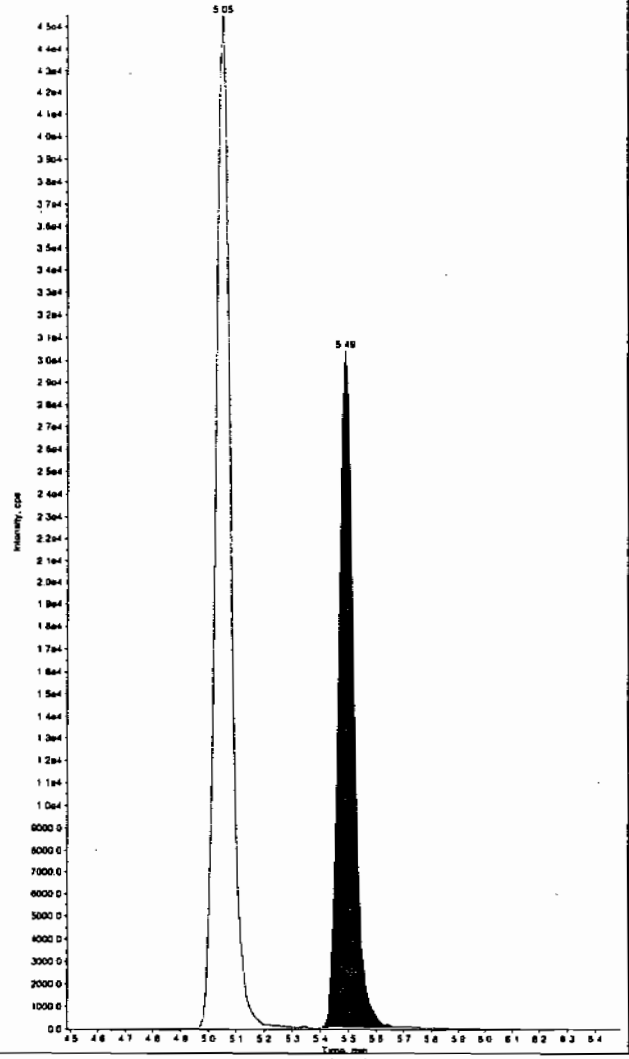

Sample Name: "WXX100216-27CRI" Sample ID: "[1]LER" File: "EXS02160013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:21:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 10.6 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 2.24e+006 counts
Height: 612628.967 cps
Start Time: 10.5 min
End Time: 10.9 min

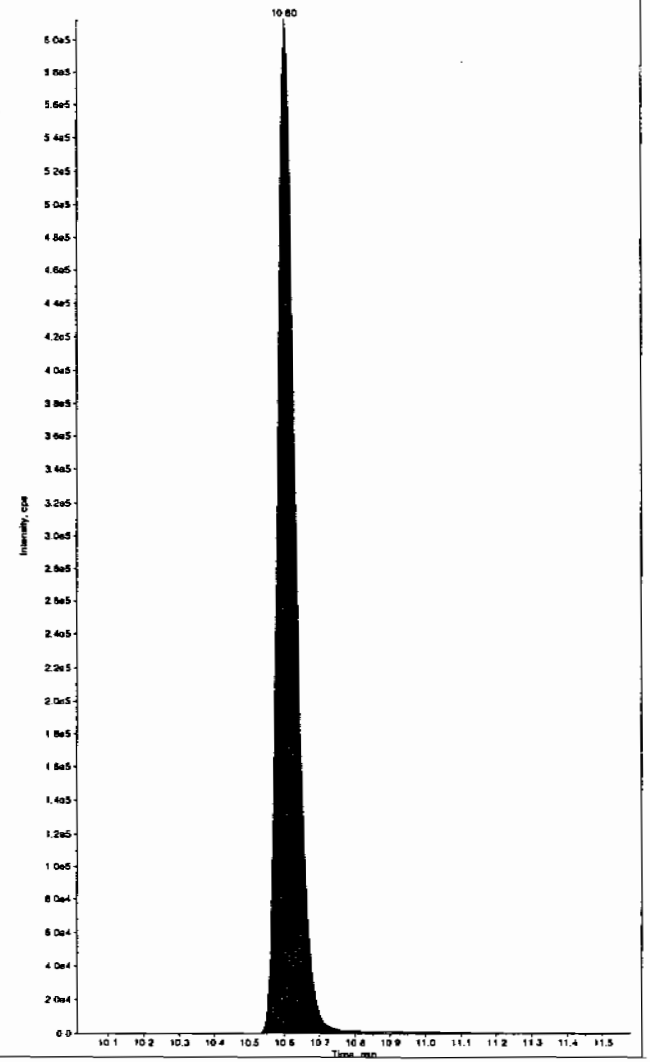

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02160024.wiff

Analysis Date: 16-FEB-10 18:14

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	500	578	116	
3,4-Dinitrotoluene	250	249	99	
3,5-Dinitroaniline	500	525	105	
TATB	500	502	100	
tris(o-cresyl) phosphate	500	507	101	
2,4-Diamino-6-nitrotoluene	500	479	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lan 2/17/10

Sample Name: "WXX100216-26CCV" Sample ID: "[1]LER" File: "EXS02160024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:14:33 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 6.88e+005 counts
Height: 161398.453 cps
Start Time: 6.90 min
End Time: 7.49 min

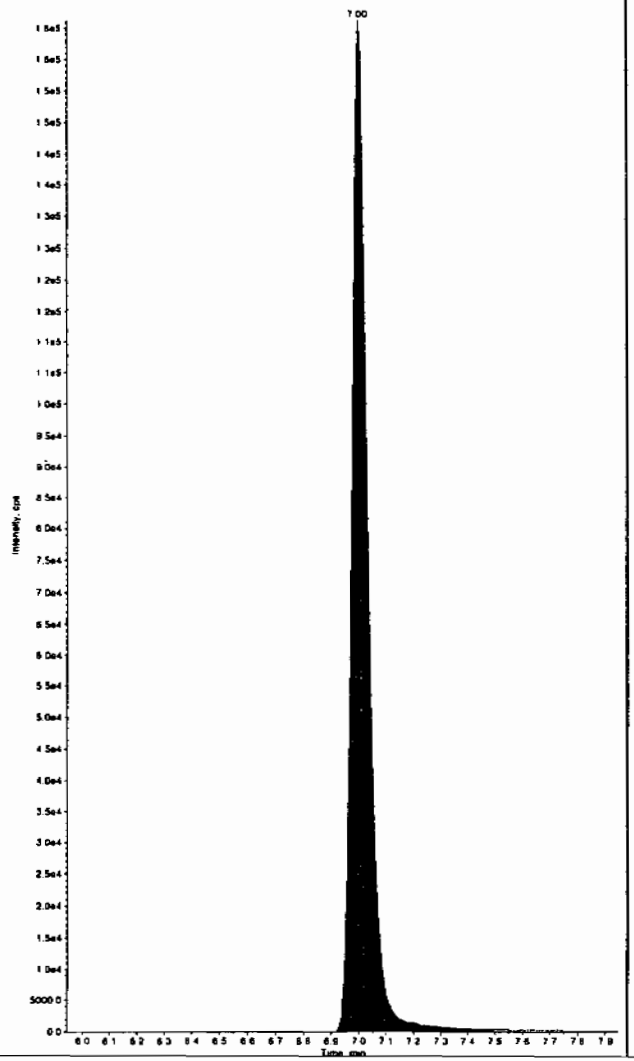

Sample Name: "WXX100216-26CCV" Sample ID: "[1]LER" File: "EXS02160024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 525. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:14:33 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 3.37e+006 counts
Height: 819698.059 cps
Start Time: 8.10 min
End Time: 8.31 min

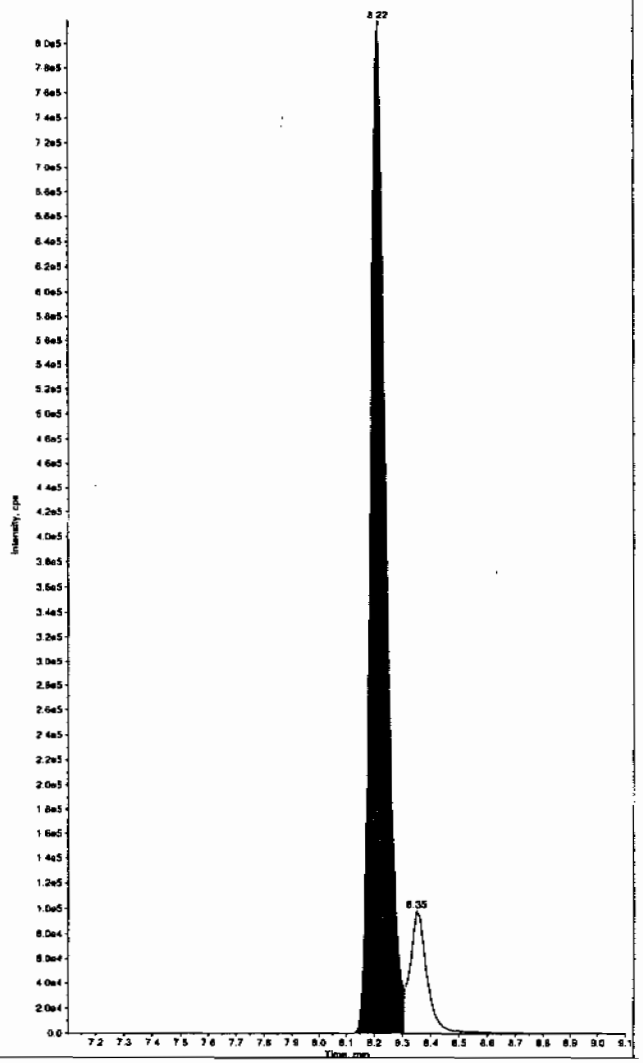

Hm 02/17/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100216-26CCV" Sample ID: "[1]LER" File: "EXS02160024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 249. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:14:33 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.35 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 3.02e+006 counts
Height: 794659.973 cps
Start Time: 8.28 min
End Time: 8.56 min

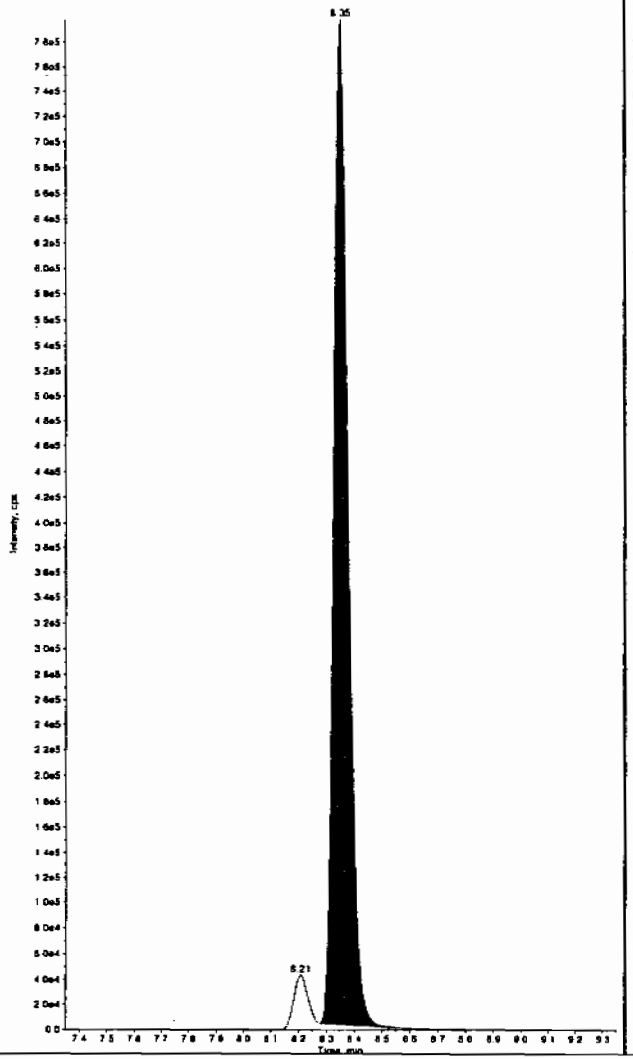

Sample Name: "WXX100216-26CCV" Sample ID: "[1]LER" File: "EXS02160024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 578. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:14:33 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.06 min
Area: 1.18e+006 counts
Height: 292749.634 cps
Start Time: 4.95 min
End Time: 5.31 min

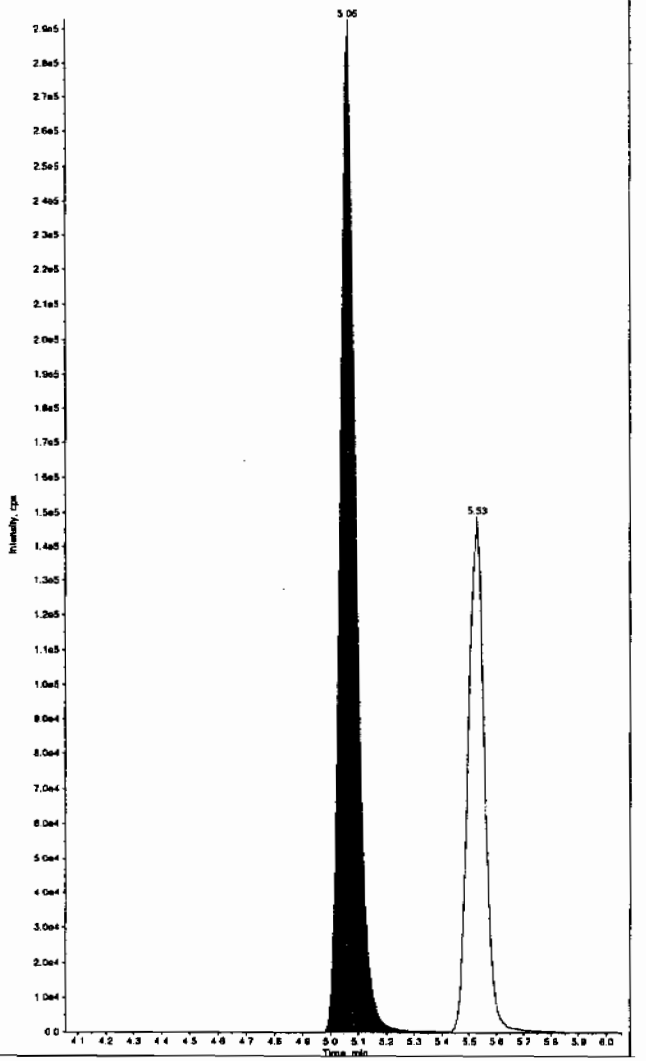

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100216-26CCV" Sample ID: "[1]LEFT" File: "EXS02160024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 479. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:14:33 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 150.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.53 min
Area: 6.18e+005 counts
Height: 148724.930 cps
Start Time: 5.43 min
End Time: 5.84 min

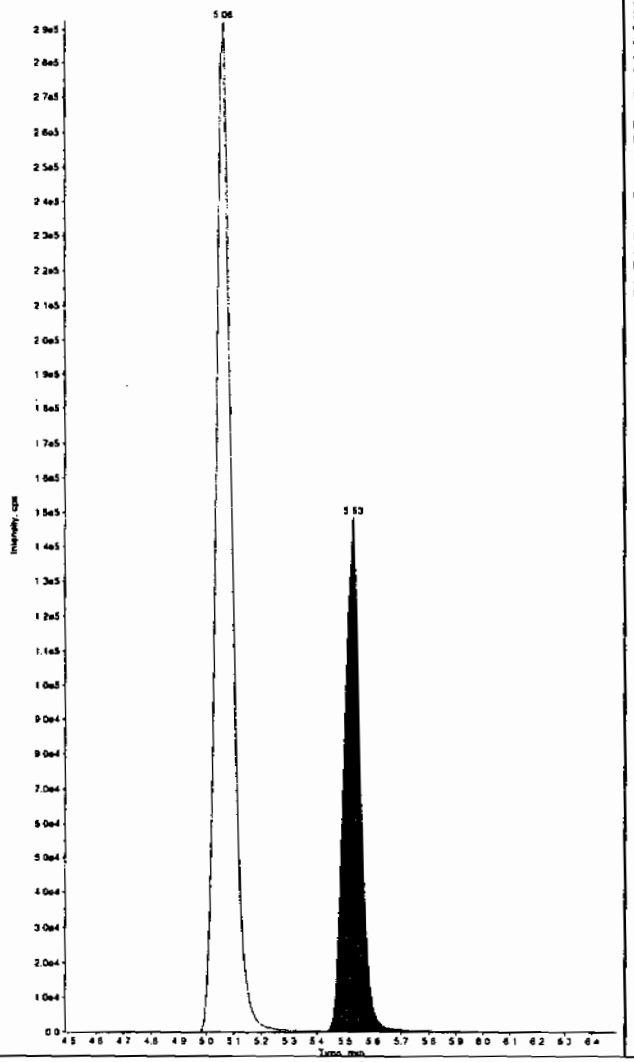

Sample Name: "WXX100216-26CCV" Sample ID: "[1]LEFT" File: "EXS02160024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 507. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:14:33 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.01e+007 counts
Height: 2426467.529 cps
Start Time: 10.7 min
End Time: 11.2 min

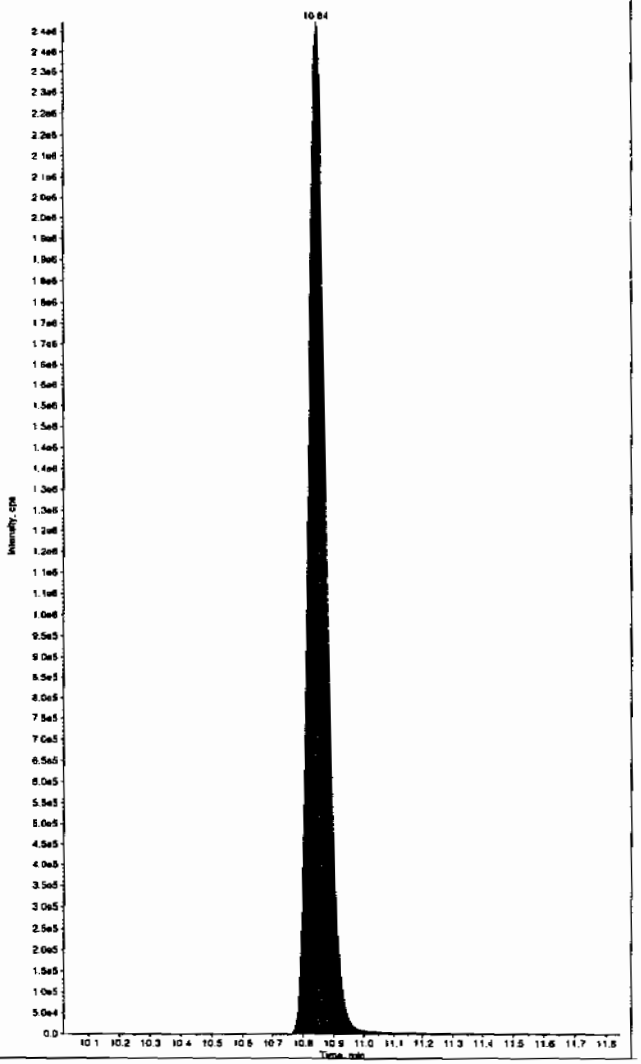

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02160026.wiff

Analysis Date: 16–FEB–10 18:46

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	76	76	
2,6–Diamino–4–nitrotoluene	100	92.6	93	
3,4–Dinitrotoluene	50	53.1	106	
3,5–Dinitroaniline	100	100	100	
TATB	100	109	109	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Rar 2/17/10

Sample Name: "WXX100216-27CRI" Sample ID: "|1|LER" File: "EXS02160026.wiff"
Peak Name "TATB" Mass(es): "257.2/204.9 amu"
Comment "LCMSEXP_C" Annotation. ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:46:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.03 min
Area: 1.38e+005 counts
Height: 31629.005 cps
Start Time: 6.88 min
End Time: 7.36 min

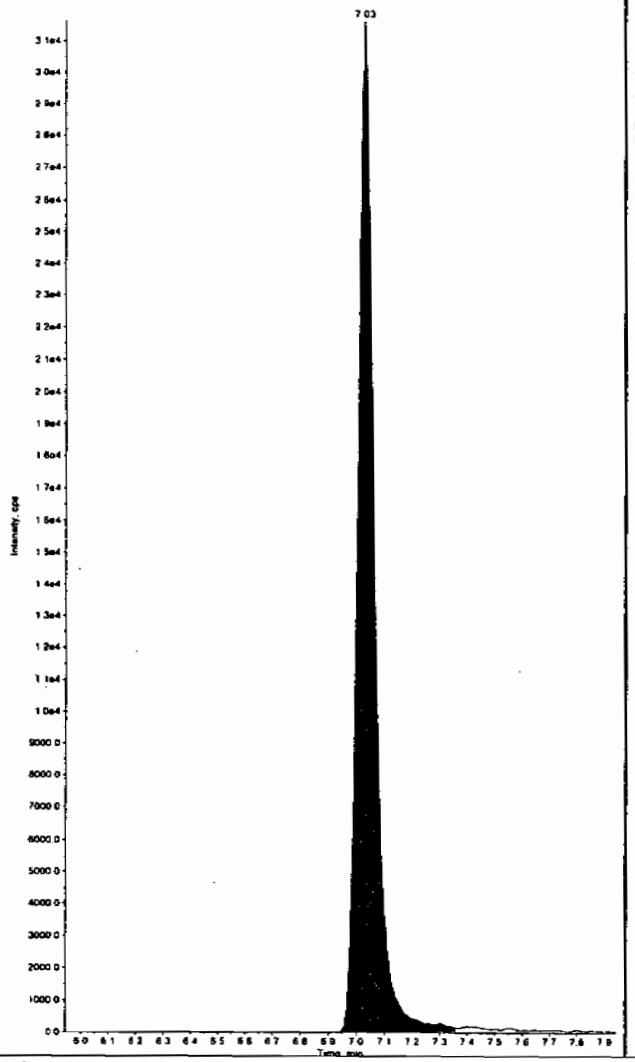

Sample Name: "WXX100216-27CRI" Sample ID: "|1|LER" File: "EXS02160026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:46:04 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.25 min
Area: 6.47e+005 counts
Height: 153683.422 cps
Start Time: 8.14 min
End Time: 8.34 min

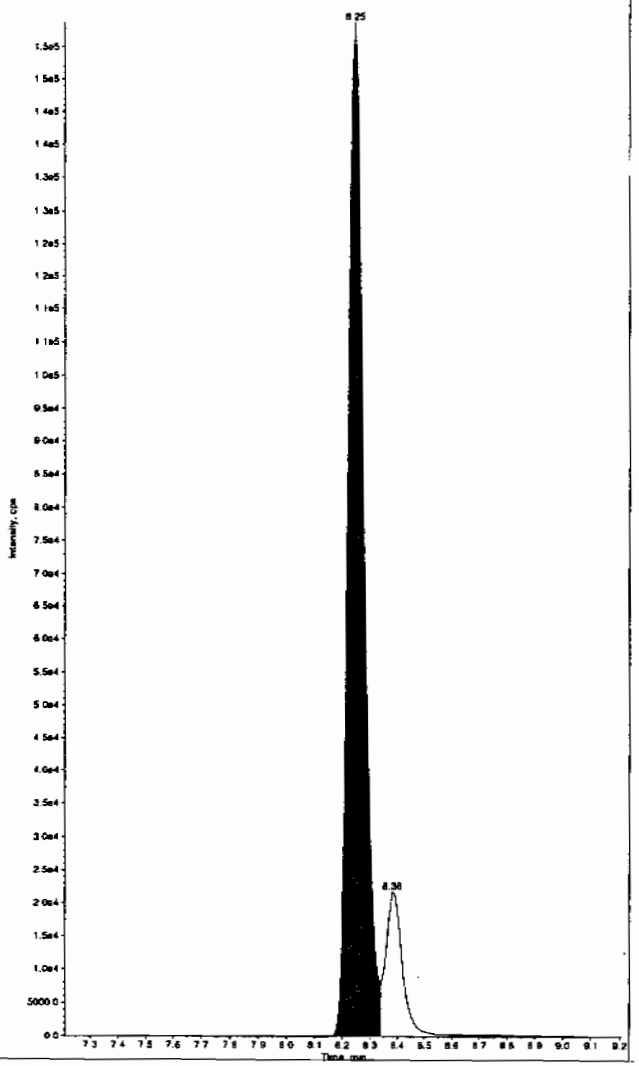

HMM 02/17/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100216-27CRI" Sample ID: "[1][LER" File: "EXS02160026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 53.1 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:46:04 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 6.35e+005 counts
Height: 175931.652 cps
Start Time: 8.31 min
End Time: 8.58 min

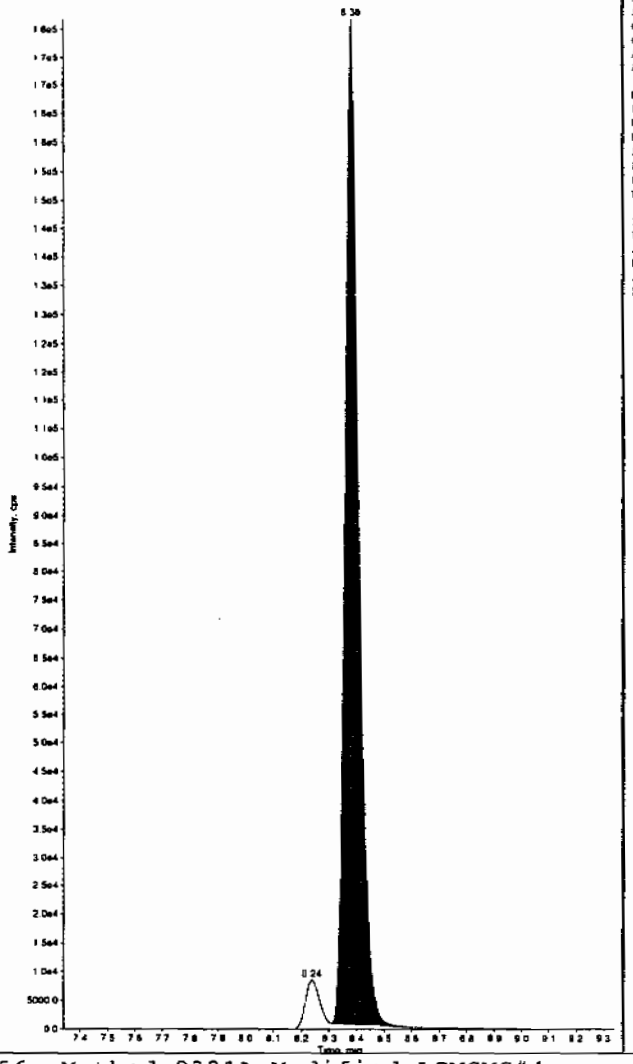

Sample Name: "WXX100216-27CRI" Sample ID: "[1][LER" File: "EXS02160026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.6 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:46:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 2.23e+005 counts
Height: 55479.572 cps
Start Time: 4.93 min
End Time: 5.32 min

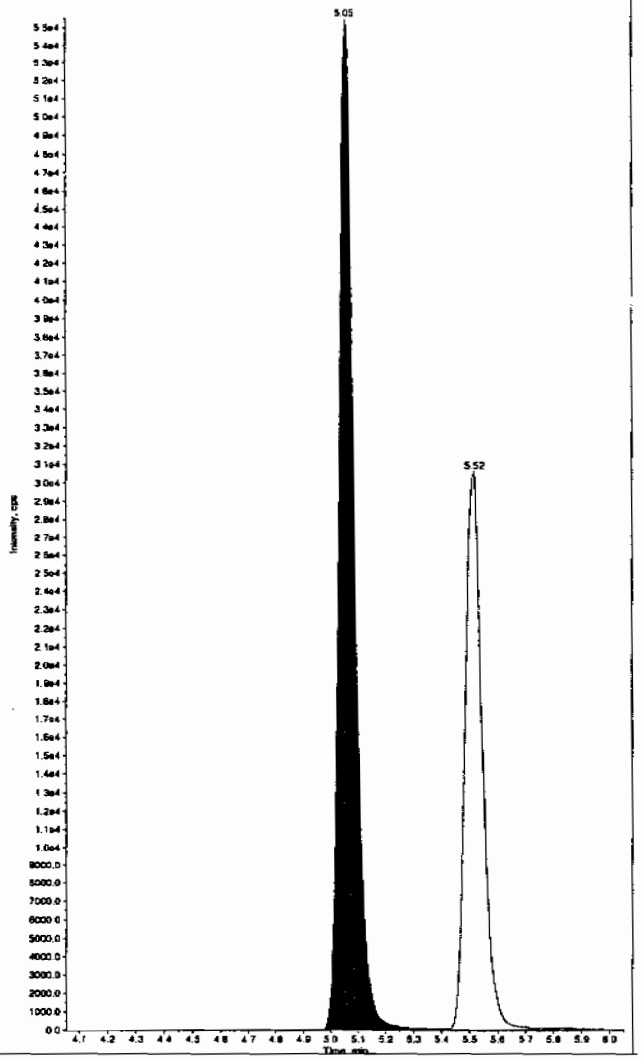

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100216-27CRI" Sample ID: "[1]LER" File: "EXS02160026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(ss): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 76.0 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:46:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.52 min
Area: 1.27e+005 counts
Height: 30474.636 cps
Start Time: 5.44 min
End Time: 5.66 min

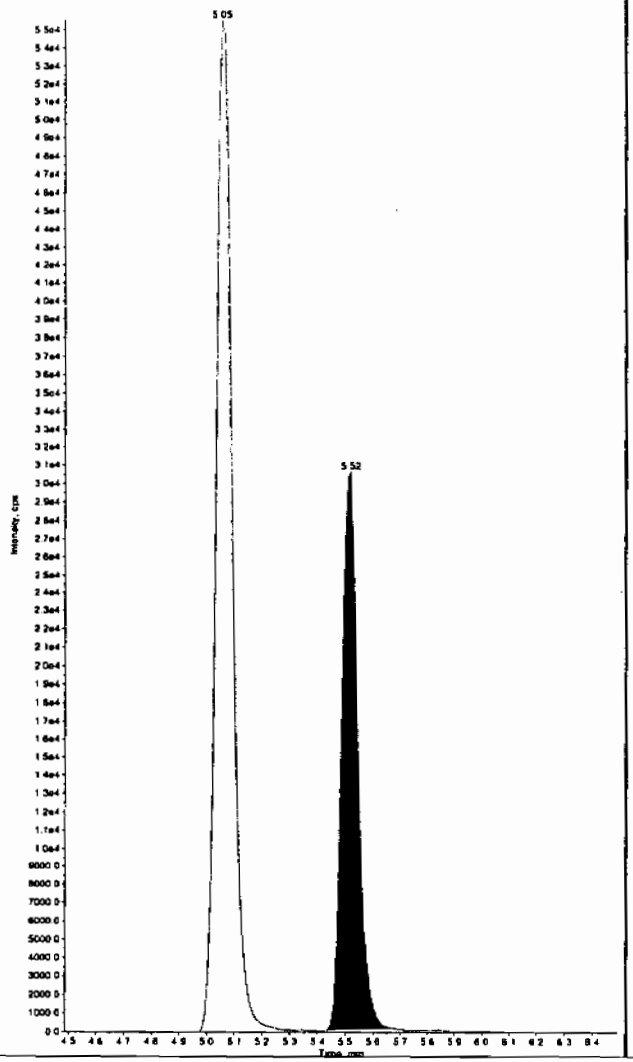

Sample Name: "WXX100216-27CRI" Sample ID: "[1]LER" File: "EXS02160026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(ss): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:46:04 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 5000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.29e+006 counts
Height: 564574.890 cps
Start Time: 10.8 min
End Time: 11.2 min

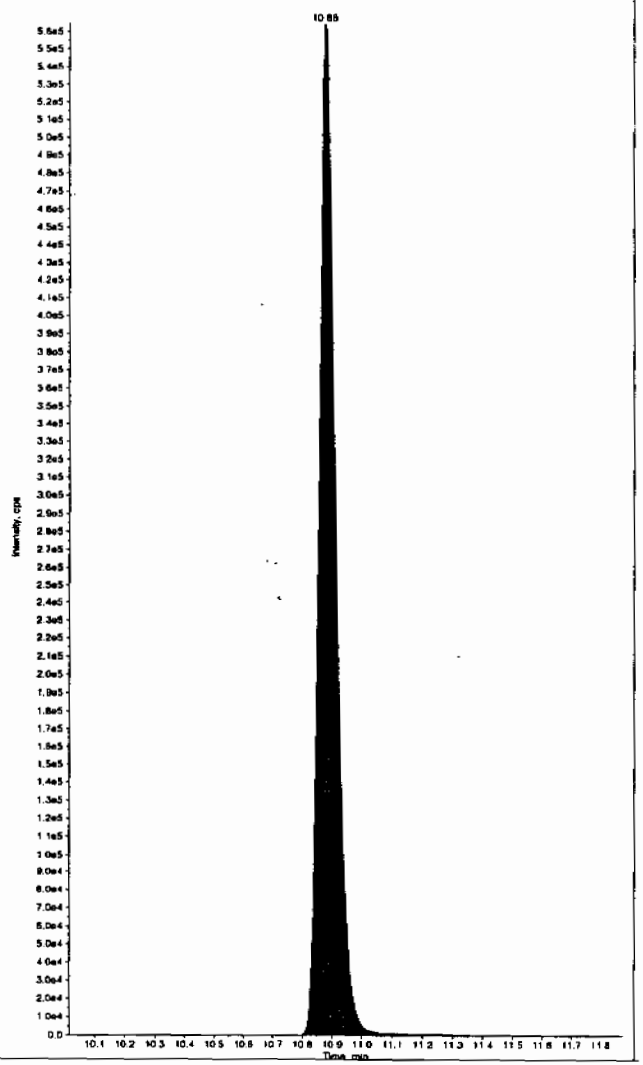

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140117.wiff

Analysis Date: 15–FEB–10 20:40

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	421	84	
2,6–Diamino–4–nitrotoluene	500	441	88	
3,4–Dinitrotoluene	250	243	97	
3,5–Dinitroaniline	500	488	98	
TATB	500	513	103	
tris(o–cresyl) phosphate	500	501	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lab 2/16/10

nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 513. ng/mL
Date: 2/15/2010
Time: 8:40:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.12 min
: 7.16e+005 counts
ht: 160870.361 cps
t Time: 6.99 min
Time: 7.76 min

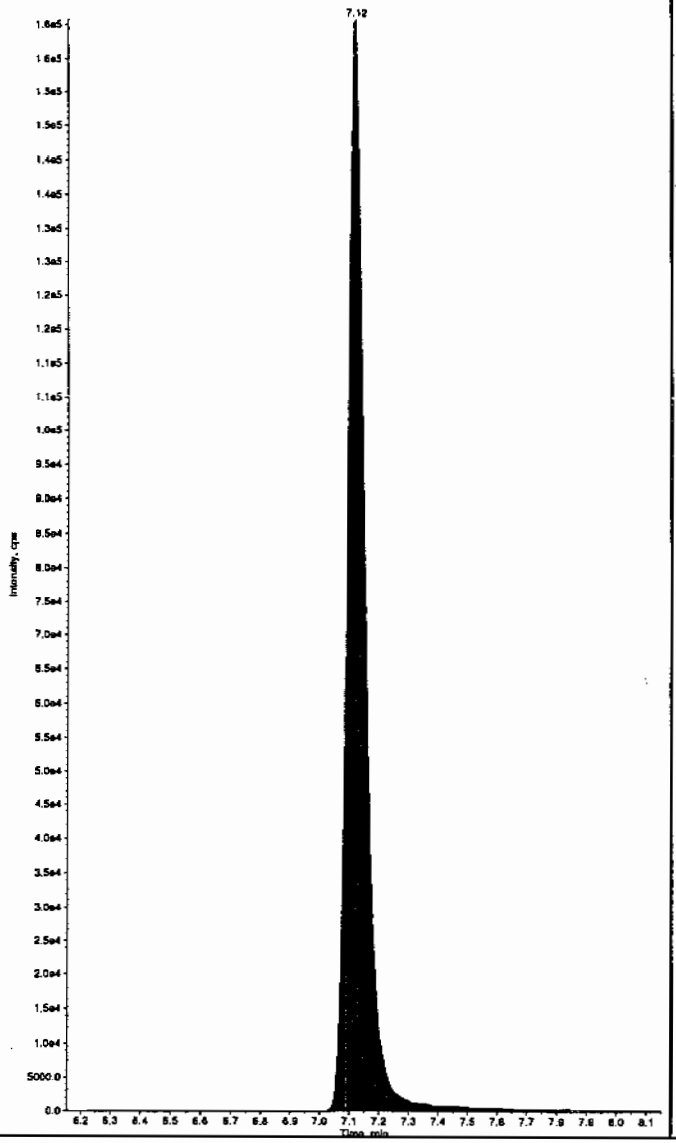

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 555. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:40:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 3.62e+006 counts
Height: 821561.584 cps
Start Time: 8.24 min
End Time: 8.78 min

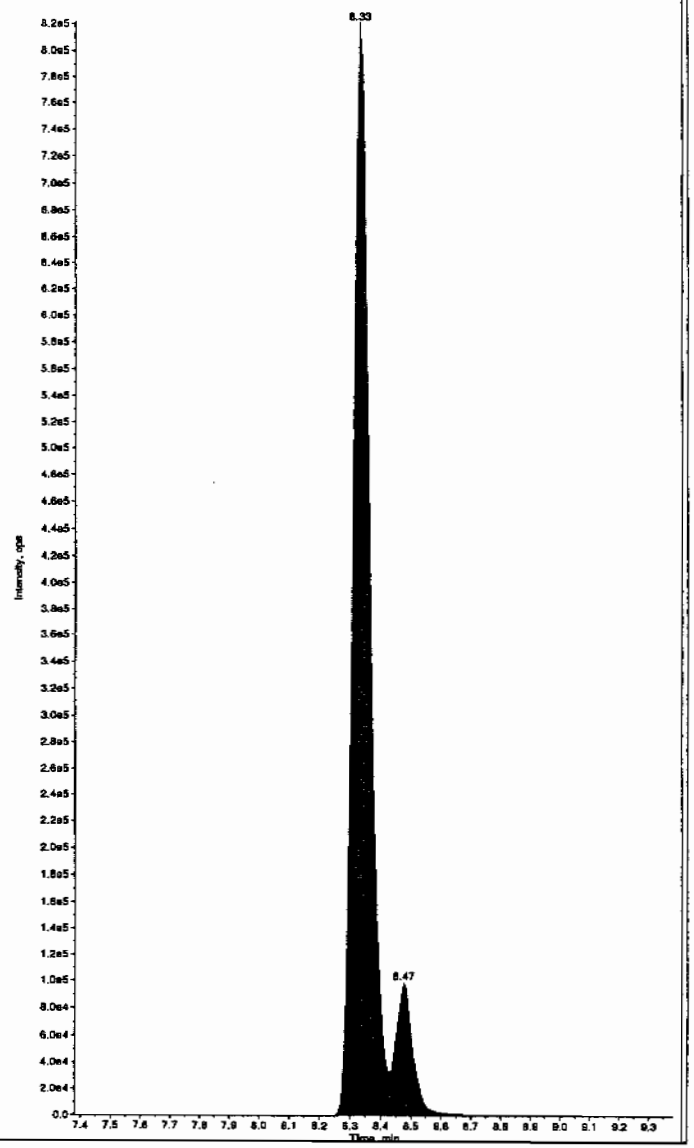

Hmm 02/17/10

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after Ban 2/17/10

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 513. ng/mL
Date: 2/15/2010
Time: 8:40:16 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.12 min
7.16e+005 counts
t: 160870.361 cps
. Time: 6.99 min
ime: 7.76 min

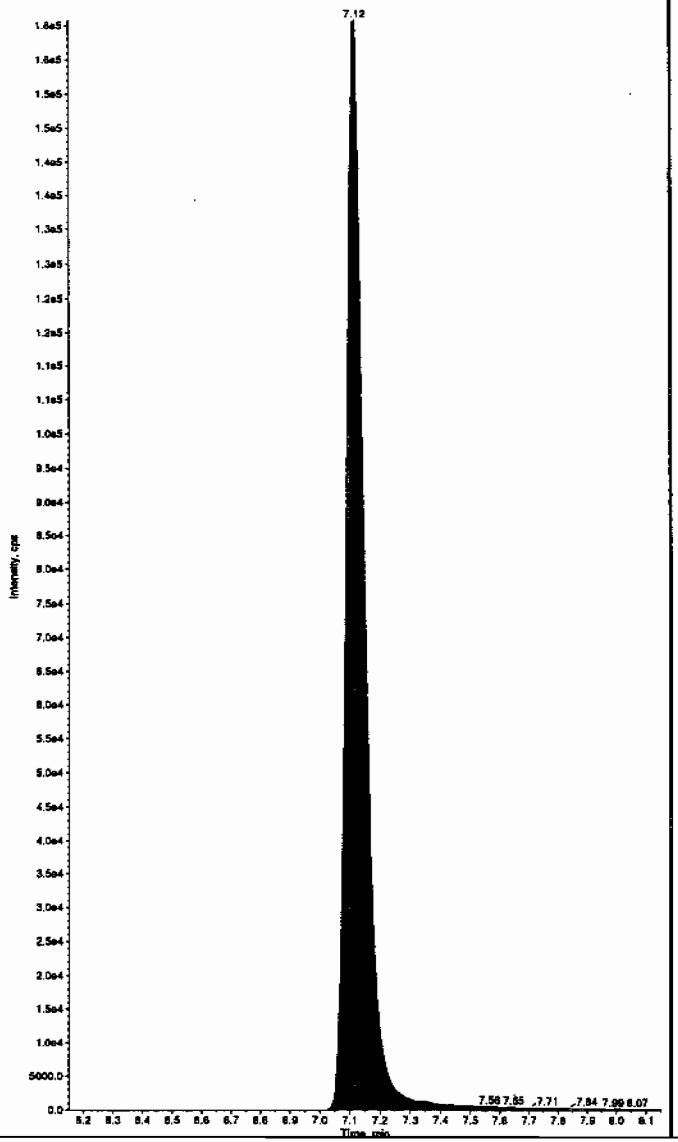

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:40:16 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.33 min
Area: 3.19e+006 counts
Height: 824138.098 cps
Start Time: 8.26 min
End Time: 8.43 min

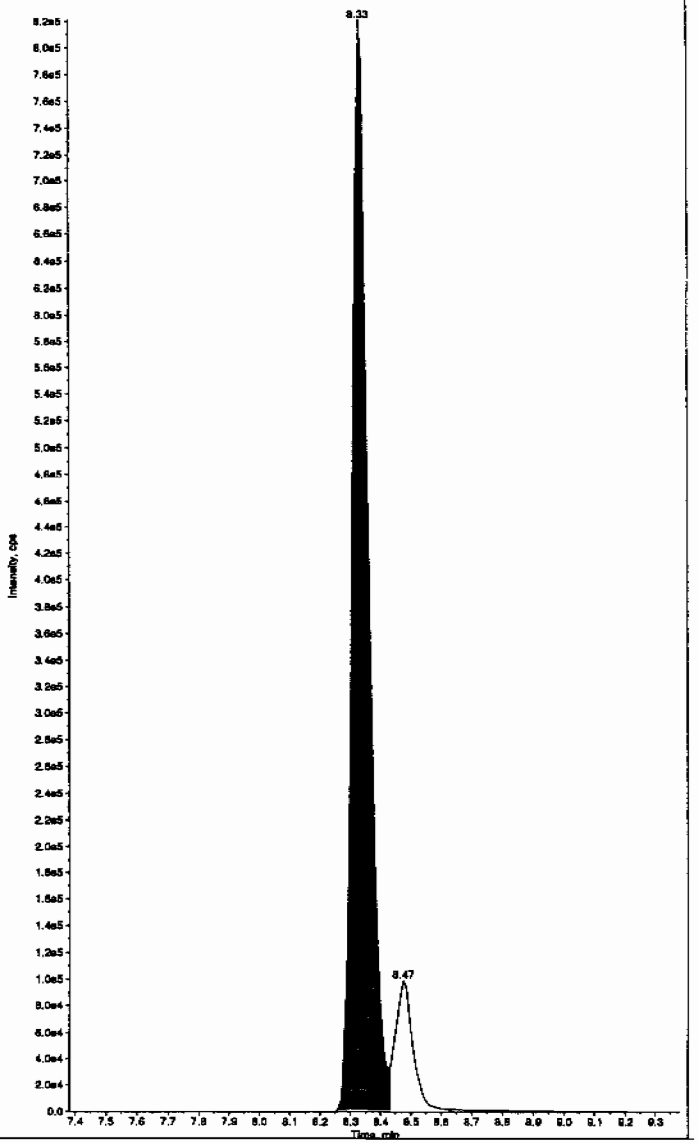

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 250. ng/mL
lated Conc: 243. ng/mL
Date: 2/15/2010
Time: 8:40:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
tion Time: 8.46 min
: 3.18e+006 counts
ht: 852304.749 cps
: Time: 8.39 min
Time: 8.68 min

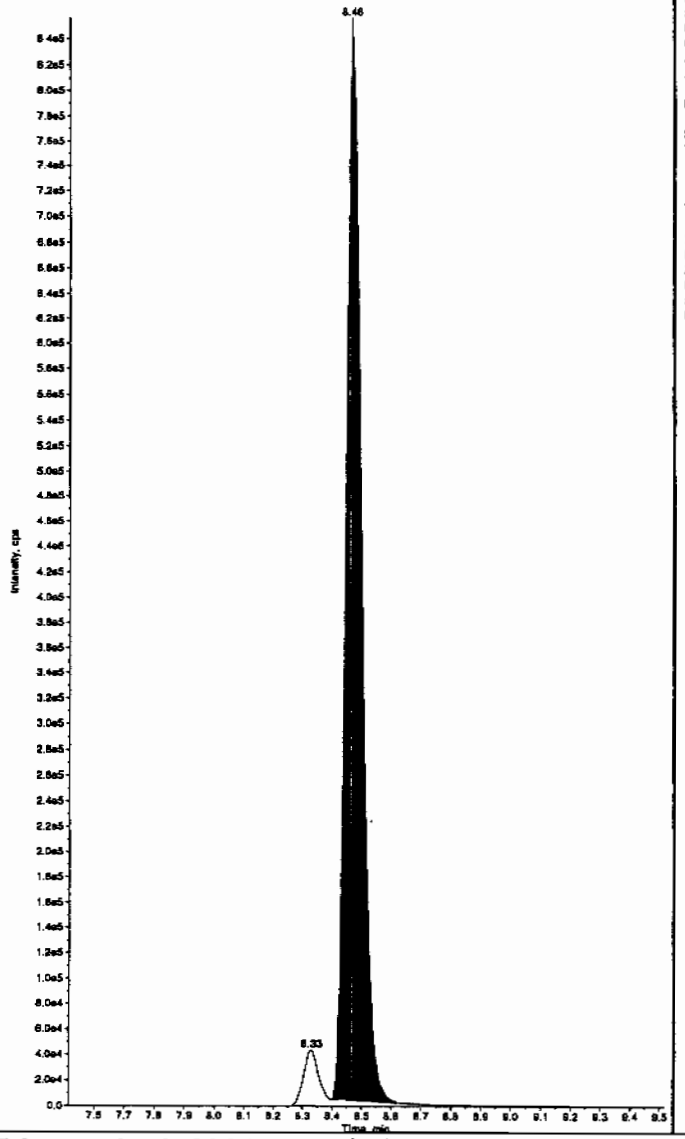

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140117.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 441. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:40:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 1.27e+006 counts
Height: 304163.300 cps
Start Time: 5.05 min
End Time: 5.43 min

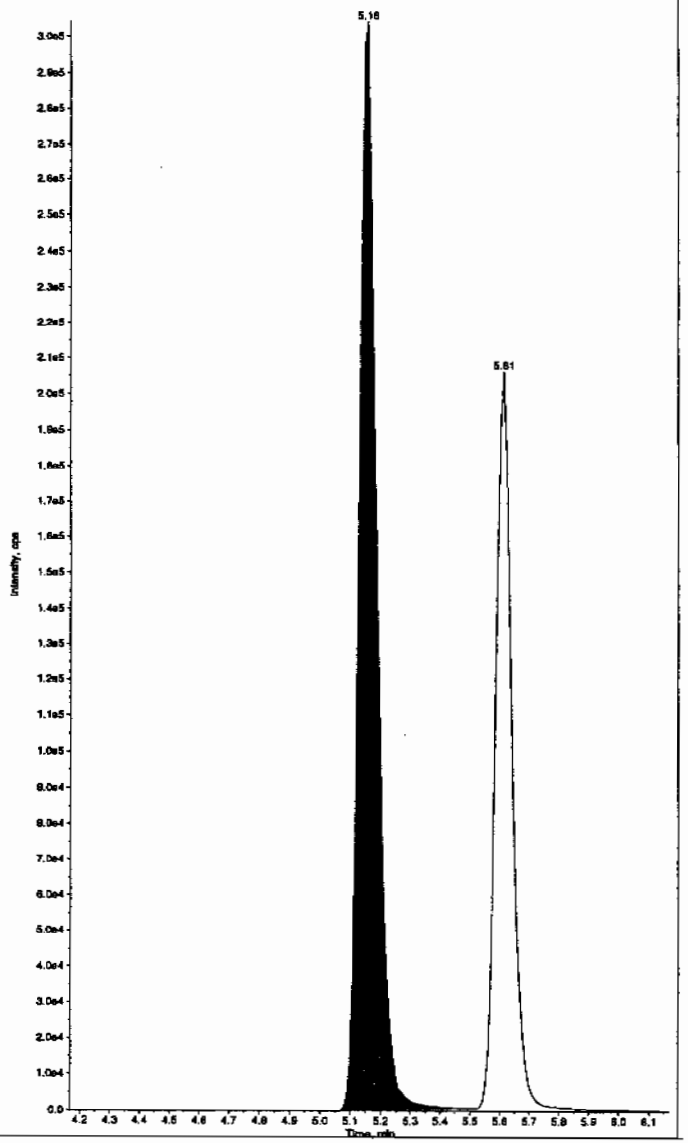

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "WXX100214-26CCV" Sample ID: "]1]LER" File: "EXS02140117.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
ntration: 500. ng/mL
lated Conc: 421. ng/mL
Date: 2/15/2010
Time: 8:40:16 PM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
indow: 30.0 sec
ted RT: 5.62 min
elative RT: No

Type: Valley
tion Time: 5.61 min
8.03e+005 counts
t: 206161.880 cps
Time: 5.48 min
ime: 6.01 min

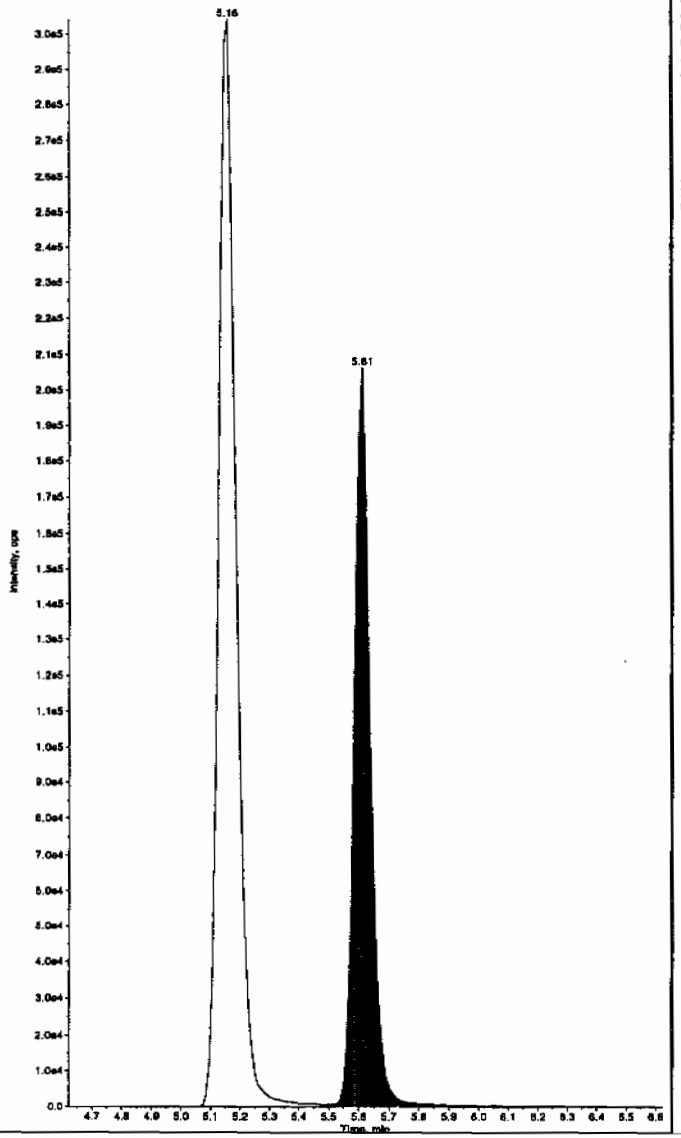

Sample Name: "WXX100214-26CCV" Sample ID: "]1]LER" File: "EXS02140117.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 8:40:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.09e+007 counts
Height: 2489432.617 cps
Start Time: 10.8 min
End Time: 11.3 min

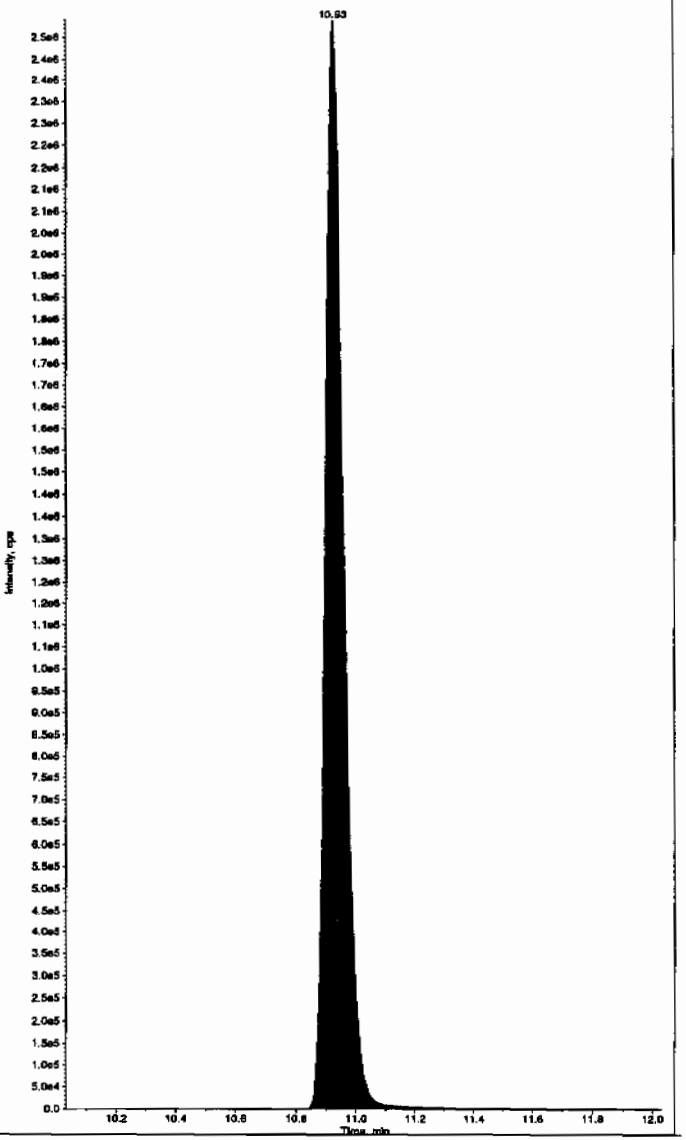

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140119.wiff

Analysis Date: 15–FEB–10 21:11

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,5–Dinitroaniline	100	95.2	95	
TATB	100	107	107	
tris(o–cresyl) phosphate	100	103	103	
2,4–Diamino–6–nitrotoluene	100	90.9	91	
2,6–Diamino–4–nitrotoluene	100	91.1	91	
3,4–Dinitrotoluene	50	51	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before LCR 2/16/10

ple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140119.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index:: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 107. ng/mL
Date: 2/15/2010
Time: 9:11:40 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 1.48e+005 counts
ht: 32873.001 cps
t Time: 7.03 min
Time: 7.59 min

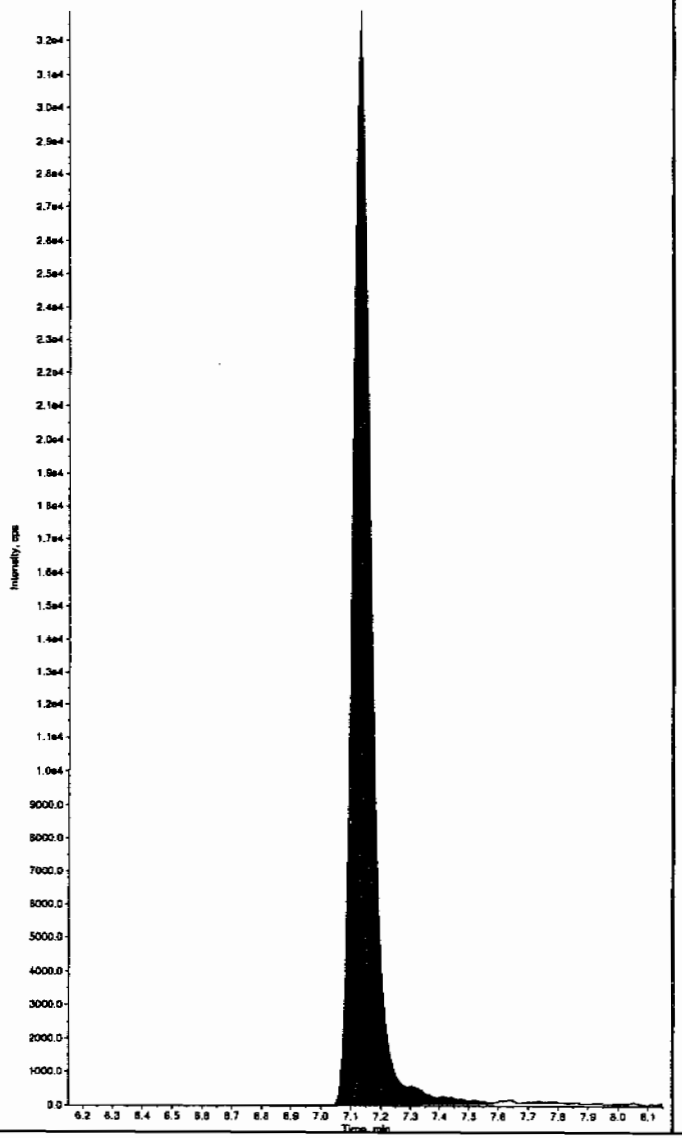

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140119.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:11:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 7.14e+005 counts
Height: 150470.718 cps
Start Time: 8.24 min
End Time: 8.72 min

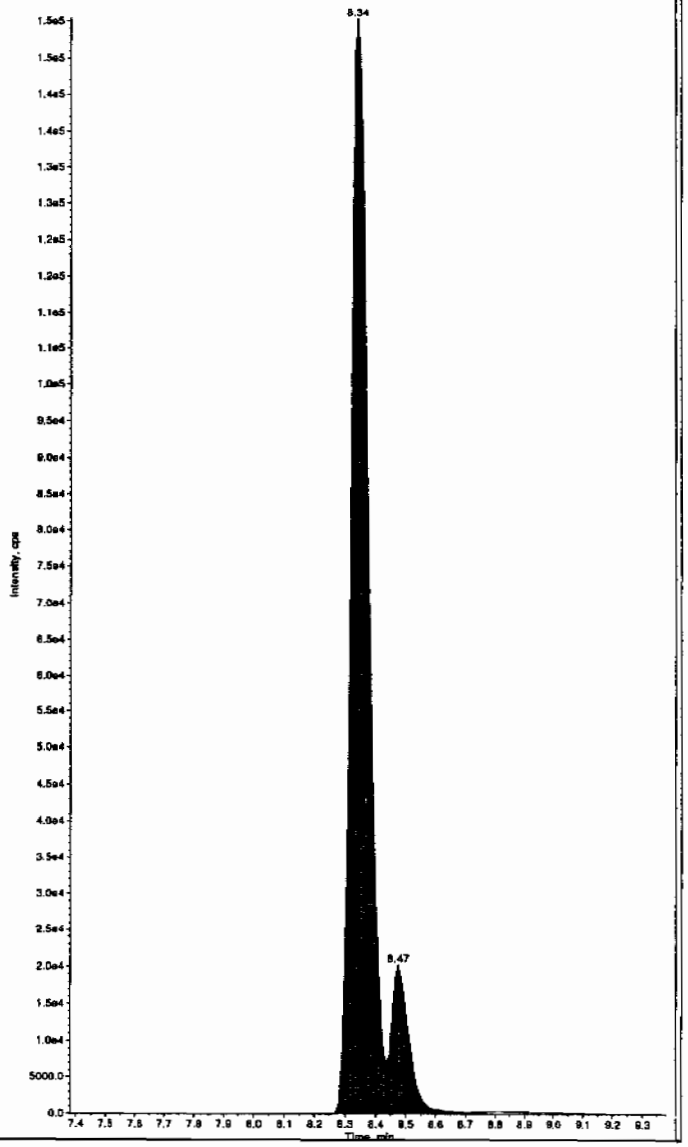

tmm 02/17/10

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after Scan 2/17/10

ple Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140119.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 100. ng/mL
ilated Conc: 107. ng/mL
Date: 2/15/2010
Time: 9:11:40 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
elative RT: No

Type: Valley
tion Time: 7.13 min
1.48e+005 counts
t: 32873.001 cps
. Time: 7.03 min
ime: 7.59 min

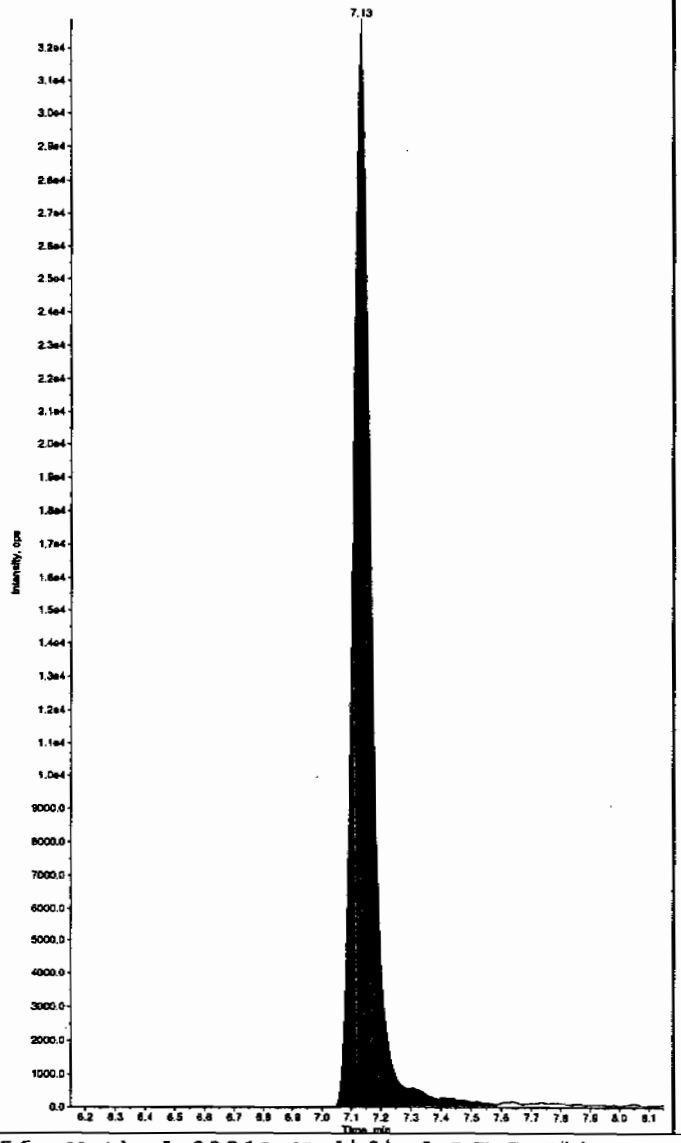

Sample Name: "WXX100214-27CRI" Sample ID: "1|LER" File: "EXS02140119.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.2 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:11:40 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 6.22e+005 counts
Height: 150177.739 cps
Start Time: 8.27 min
End Time: 8.43 min

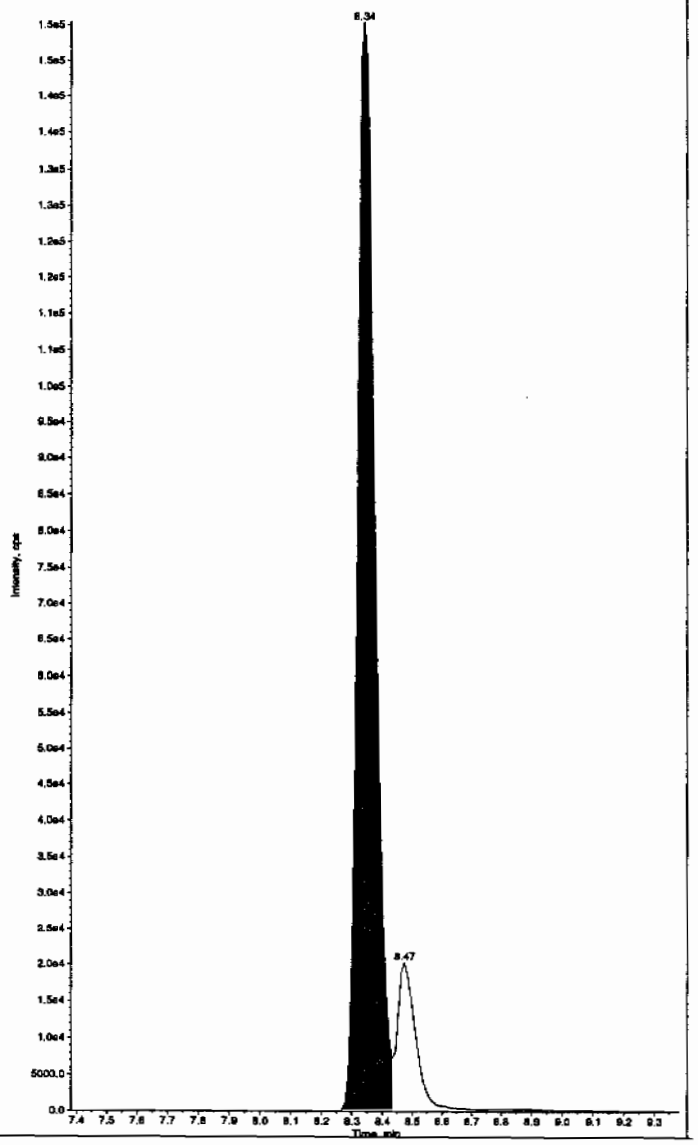

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140119.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 51.0 ng/mL
Date: 2/15/2010
Time: 9:11:40 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ation Time: 8.47 min
: 6.50e+005 counts
ht: 182208.466 cps
: Time: 8.40 min
Time: 8.67 min

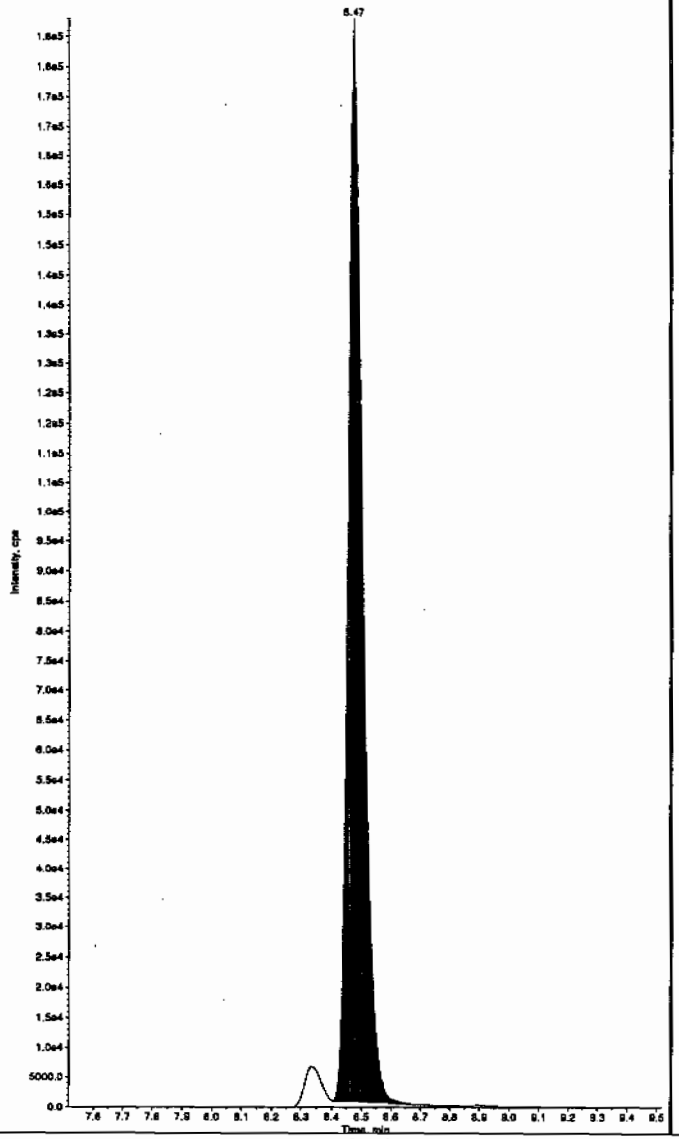

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140119.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.1 ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:11:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 2.81e+005 counts
Height: 70540.222 cps
Start Time: 5.04 min
End Time: 5.43 min

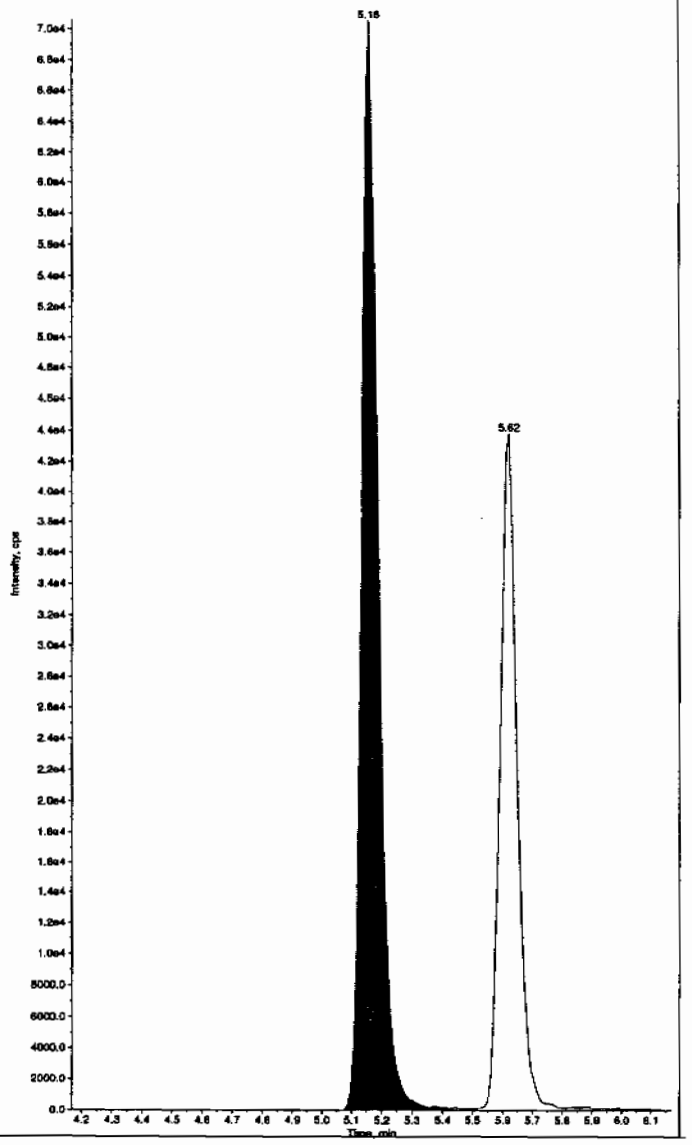

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140119.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "155.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 90.9 ng/mL
Date: 2/15/2010
Time: 9:11:40 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
elative RT: No

Type: Valley
ction Time: 5.62 min
: 1.77e+005 counts
t: 43756.508 cps
: Time: 5.49 min
Time: 6.03 min

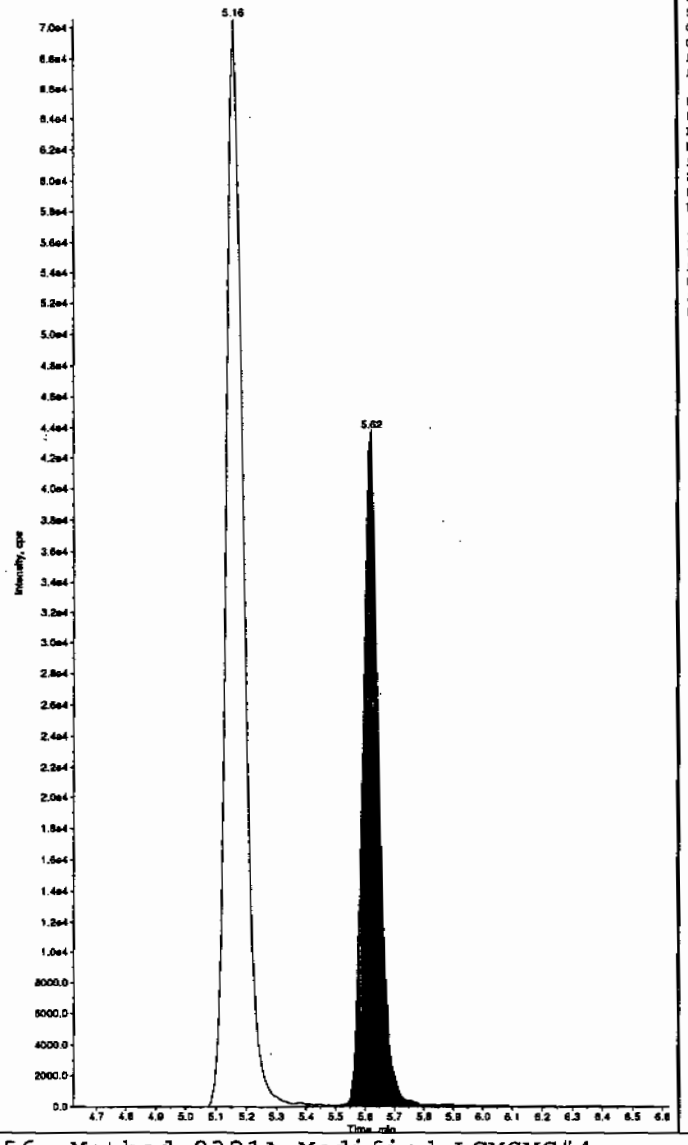

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140119.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/15/2010
Acq. Time: 9:11:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.46e+006 counts
Height: 602911.377 cps
Start Time: 10.8 min
End Time: 11.3 min

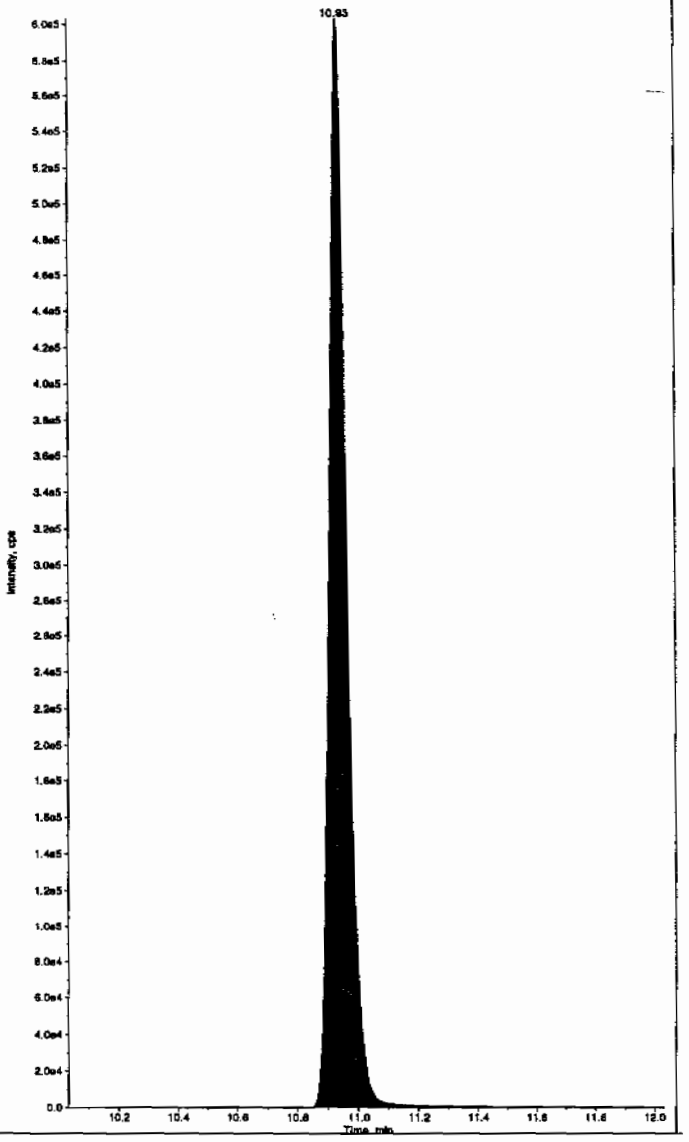

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140130.wiff

Analysis Date: 16-FEB-10 00:04

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	372	74	
2,6-Diamino-4-nitrotoluene	500	423	85	
3,4-Dinitrotoluene	250	233	93	
3,5-Dinitroaniline	500	479	96	
TATB	500	493	99	
tris(o-cresyl) phosphate	500	494	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scr 2/16/10

nple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140130.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 493. ng/mL
Date: 2/16/2010
Time: 12:04:15 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.12 min
: 6.89e+005 counts
ht: 160143.463 cps
t Time: 7.00 min
Time: 7.72 min

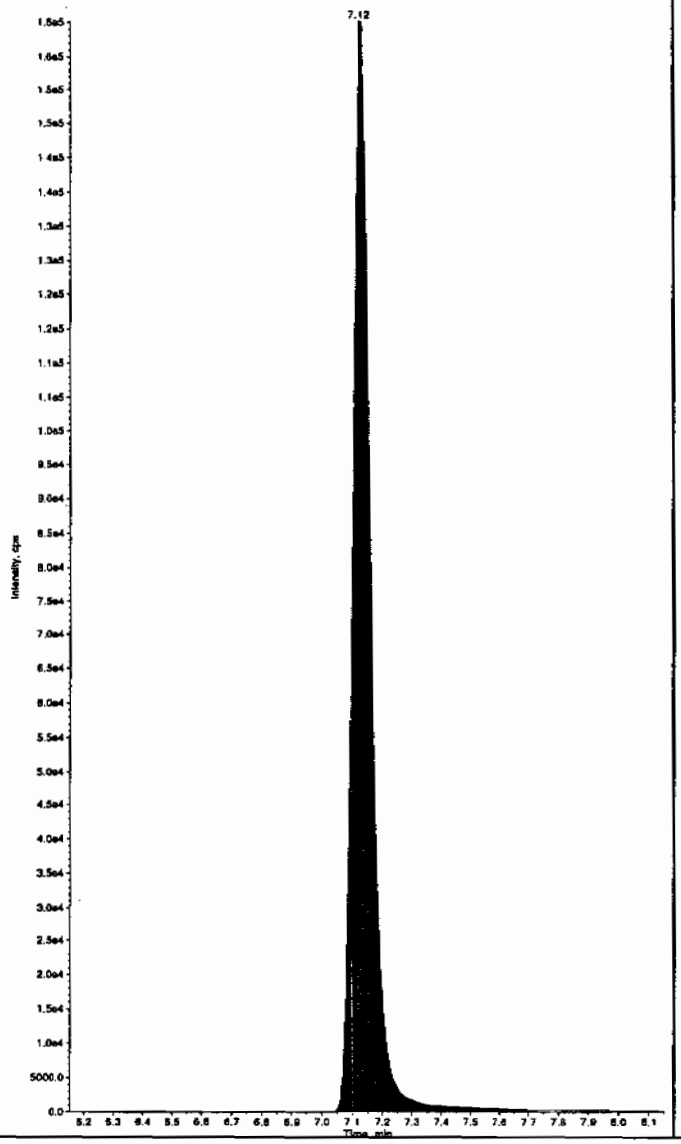

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140130.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 549. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:04:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 3.58e+006 counts
Height: 809851.135 cps
Start Time: 8.24 min
End Time: 8.76 min

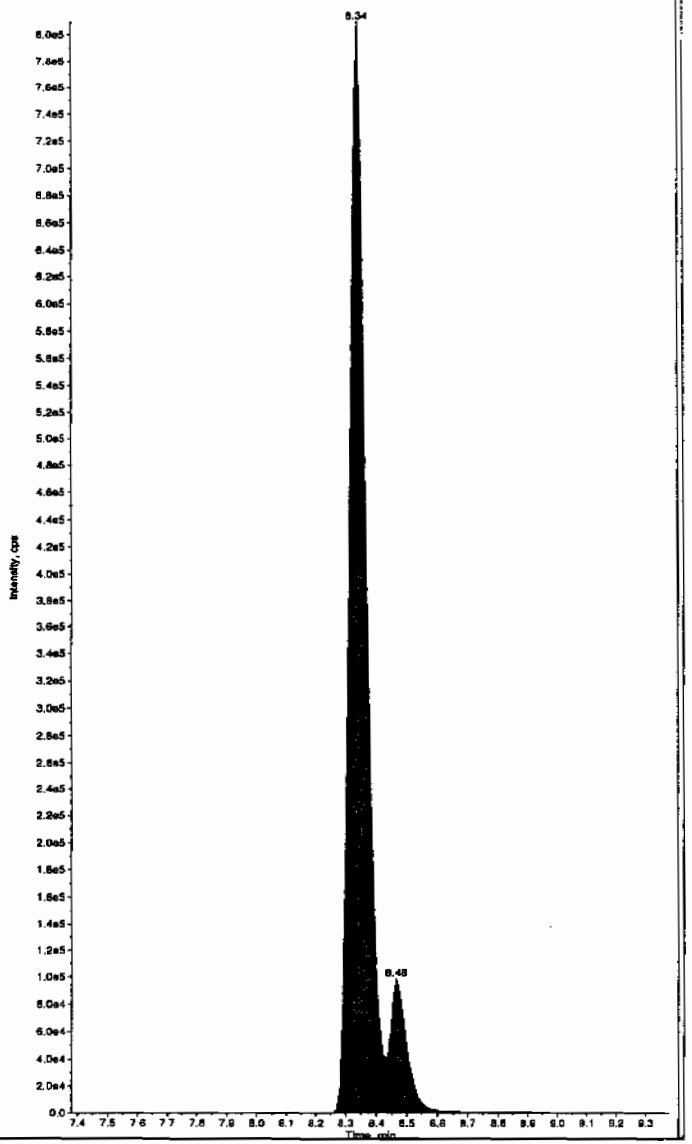

HJM 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Scan 2/17/10

mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140130.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 493. ng/mL
Date: 2/16/2010
Time: 12:04:15 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.12 min
: 6.89e+005 counts
ht: 160143.463 cps
t Time: 7.00 min
Time: 7.72 min

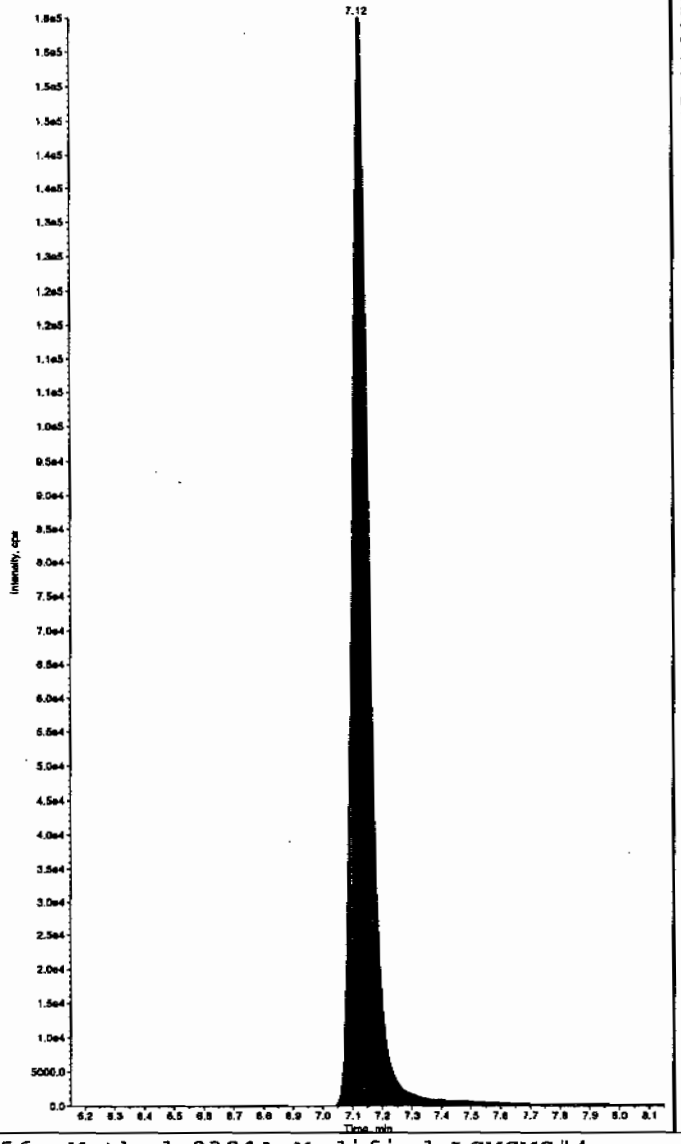

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140130.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 479. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:04:15 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 3.14e+006 counts
Height: 808302.805 cps
Start Time: 8.26 min
End Time: 8.42 min

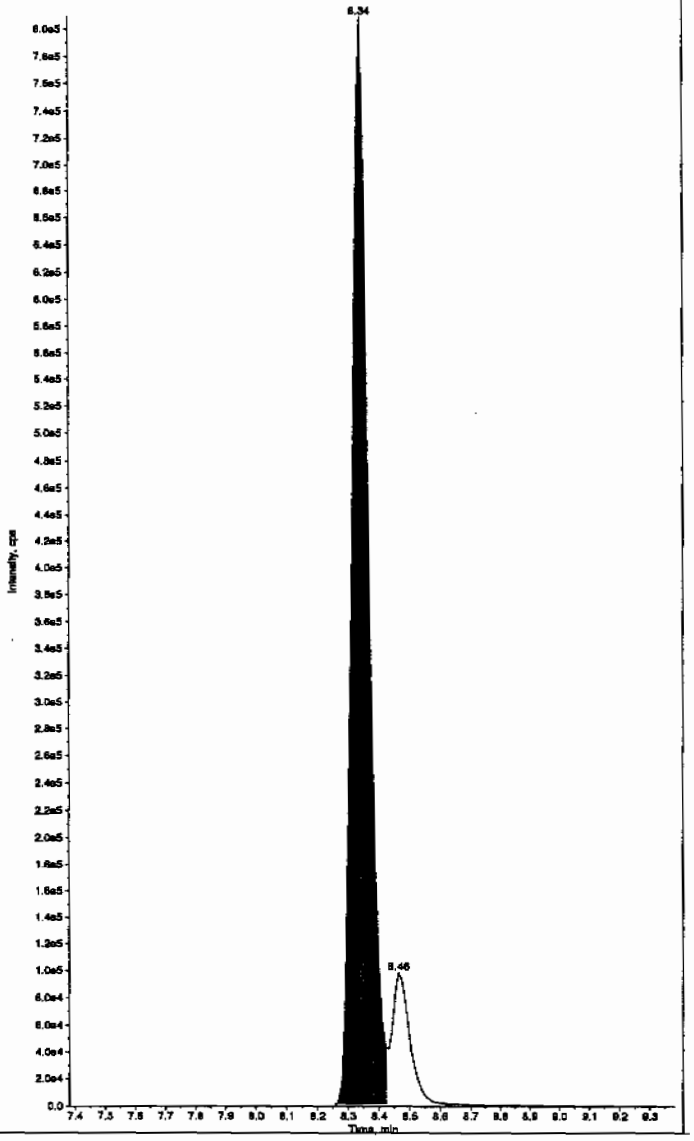

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
k Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 233. ng/mL
Date: 2/16/2010
Time: 12:04:15 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
rted RT: 8.52 min
Relative RT: No

Type: Valley
ction Time: 8.46 min
: 3.05e+006 counts
ht: 864027.710 cps
: Time: 8.39 min
Time: 8.67 min

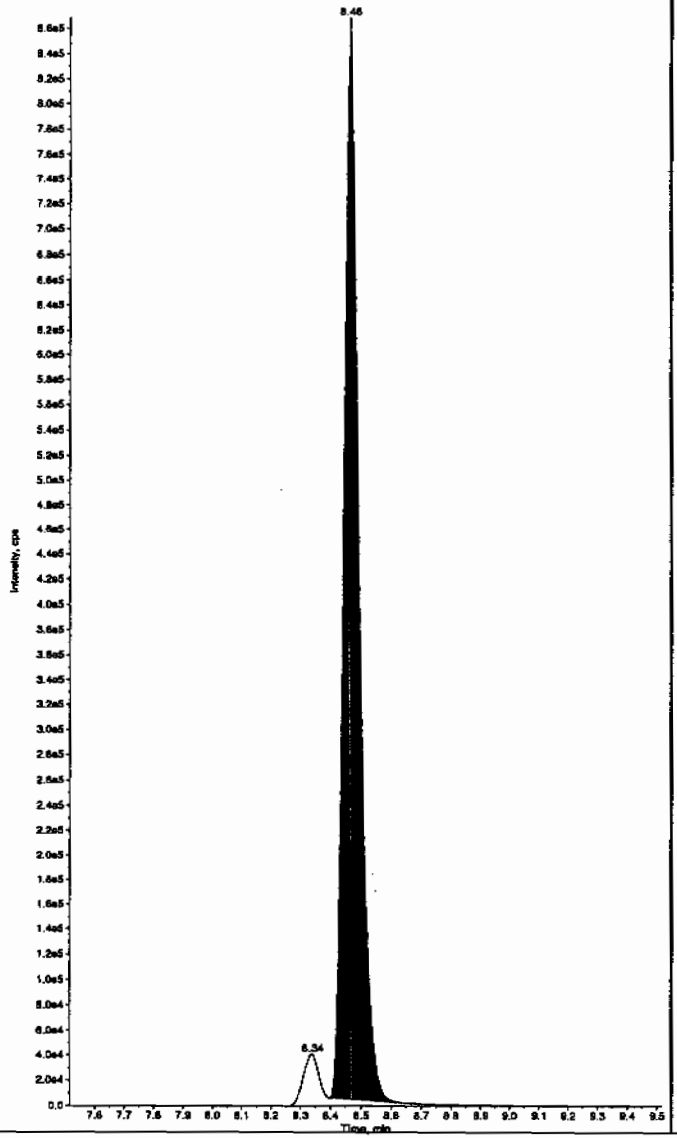

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 423. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:04:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.17 min
Area: 1.22e+006 counts
Height: 305994.171 cps
Start Time: 5.05 min
End Time: 5.43 min

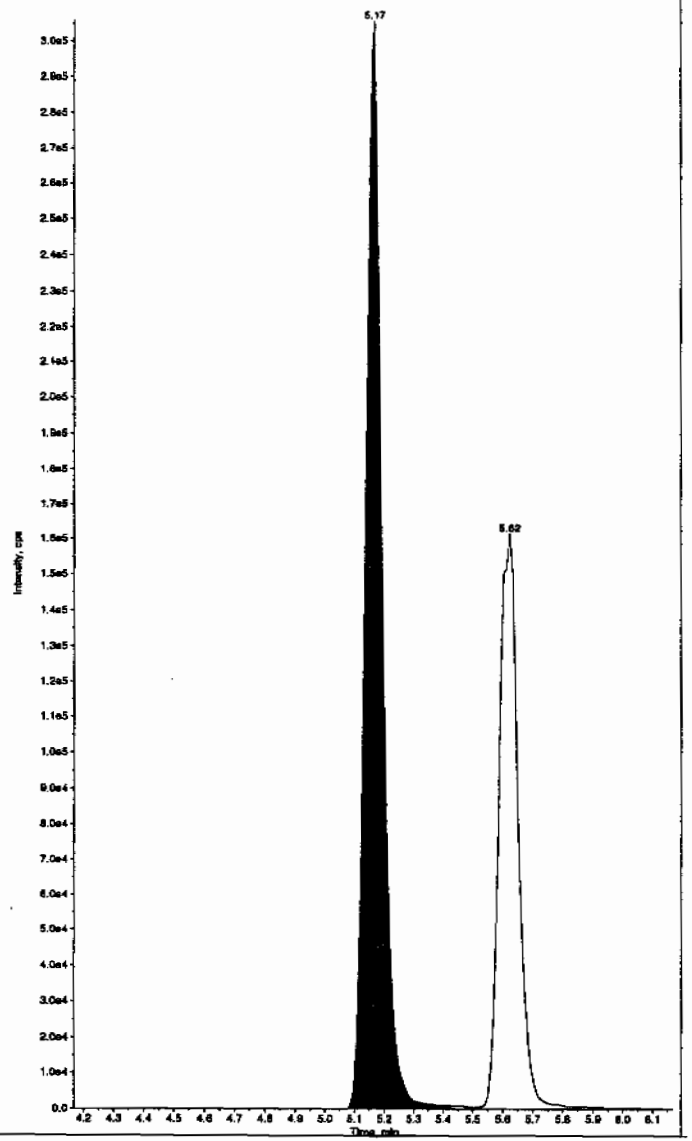

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mple Name: "WXX100214-25CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
ak Name: "24-Diamino-5-nitrotoluene" Mass(as): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 372. ng/mL
Date: 2/16/2010
Time: 12:04:15 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.62 min
Relative RT: No

Type: Valley
ation Time: 5.62 min
: 7.10e+005 counts
ht: 160909.149 cps
t Time: 5.53 min
Time: 5.95 min

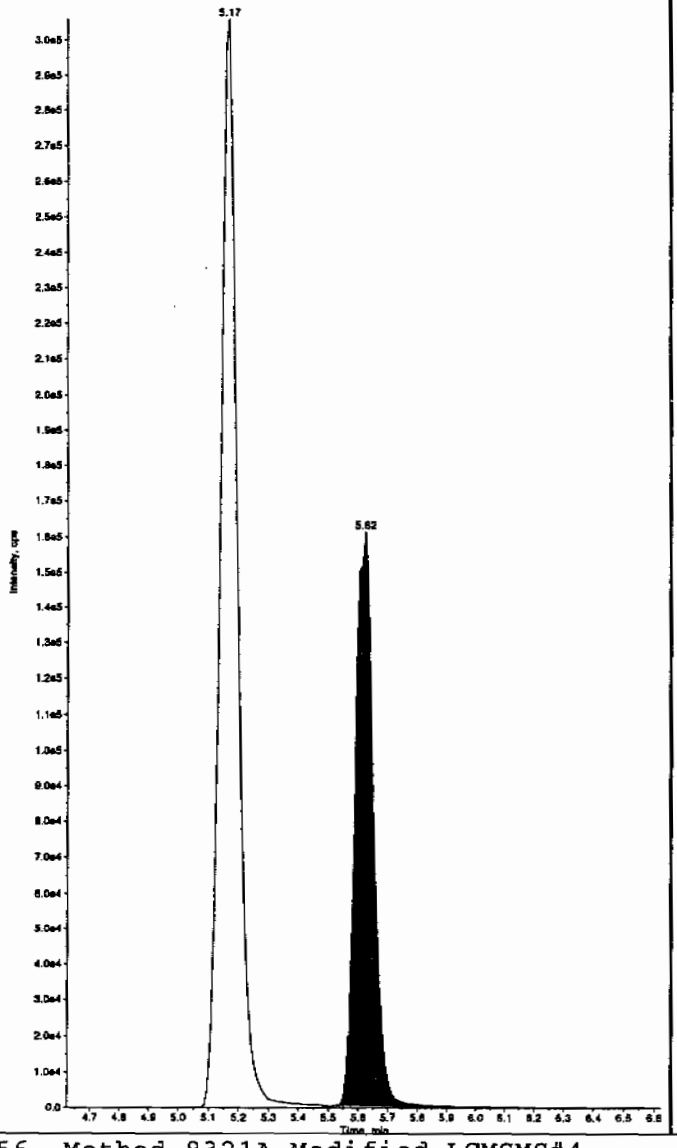

Sample Name: "WXX100214-25CCV" Sample ID: "[1]LER" File: "EXS02140130.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 494. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:04:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.08e+007 counts
Height: 2531528.809 cps
Start Time: 10.8 min
End Time: 11.3 min

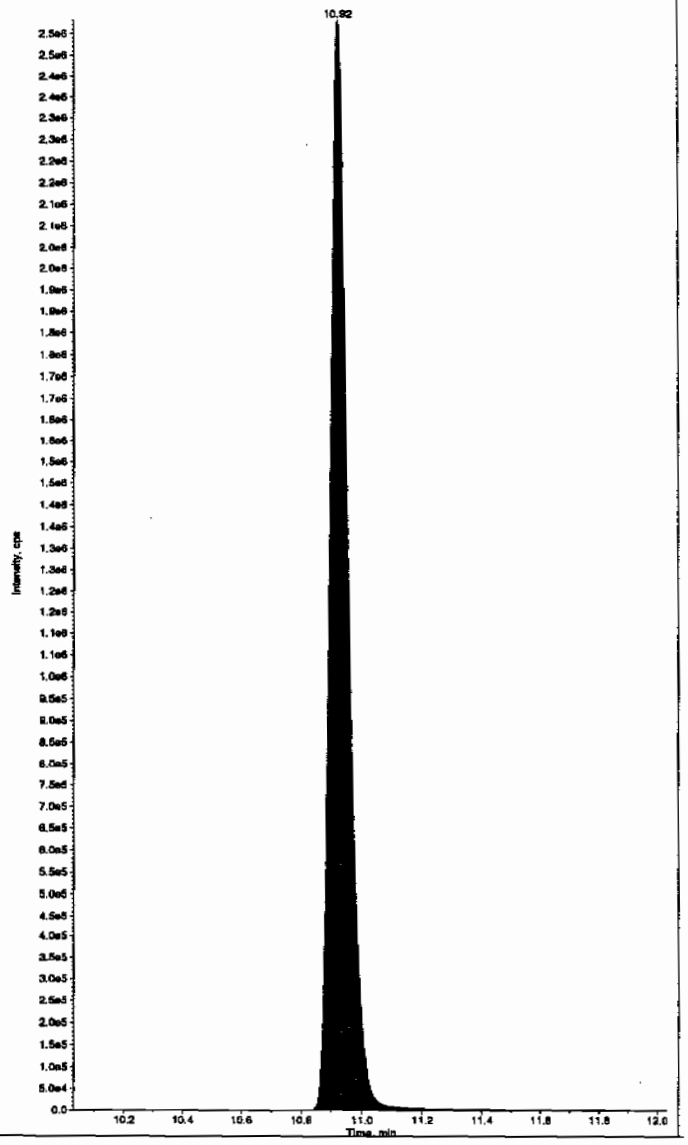

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140132.wiff

Analysis Date: 16–FEB–10 00:35

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	82	82	
2,6–Diamino–4–nitrotoluene	100	81.2	81	
3,4–Dinitrotoluene	50	47.5	95	
3,5–Dinitroaniline	100	98.2	98	
TATB	100	109	109	
tris(o–cresyl) phosphate	100	102	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcw 2/16/10

ple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 100. ng/mL
lated Conc: 109. ng/mL
Date: 2/16/2010
Time: 12:35:39 AM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.15 min
lelative RT: No

Type: Valley
tion Time: 7.13 min
1.50e+005 counts
t: 35240.875 cps
Time: 7.01 min
ime: 7.60 min

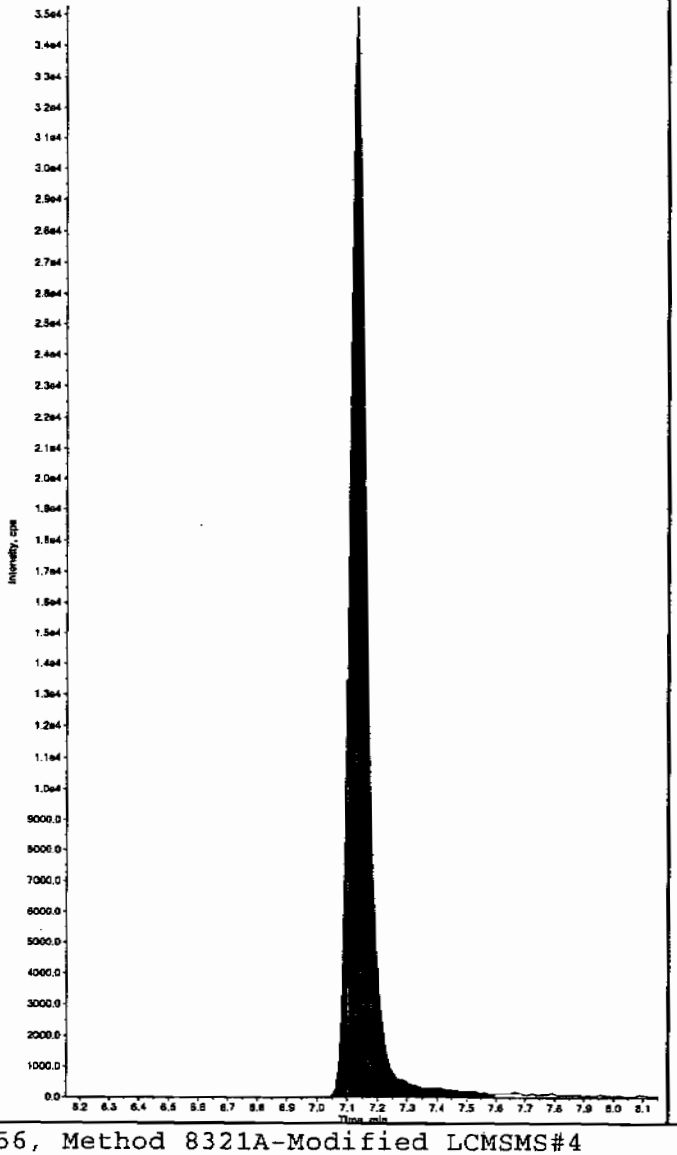

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:35:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 7.38e+005 counts
Height: 167485.062 cps
Start Time: 8.24 min
End Time: 8.71 min

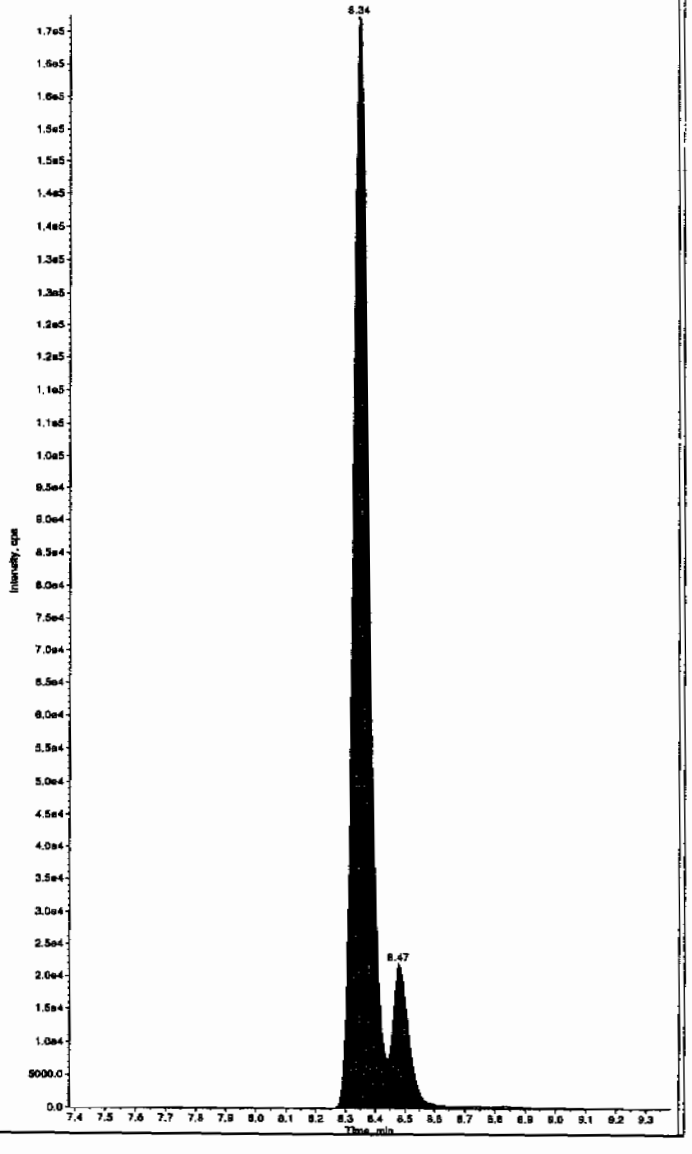

Hum 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Rcn 2/17/10

mple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140132.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 109. ng/mL
Date: 2/16/2010
Time: 12:35:39 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 1.50e+005 counts
ht: 35240.875 cps
t Time: 7.01 min
Time: 7.60 min

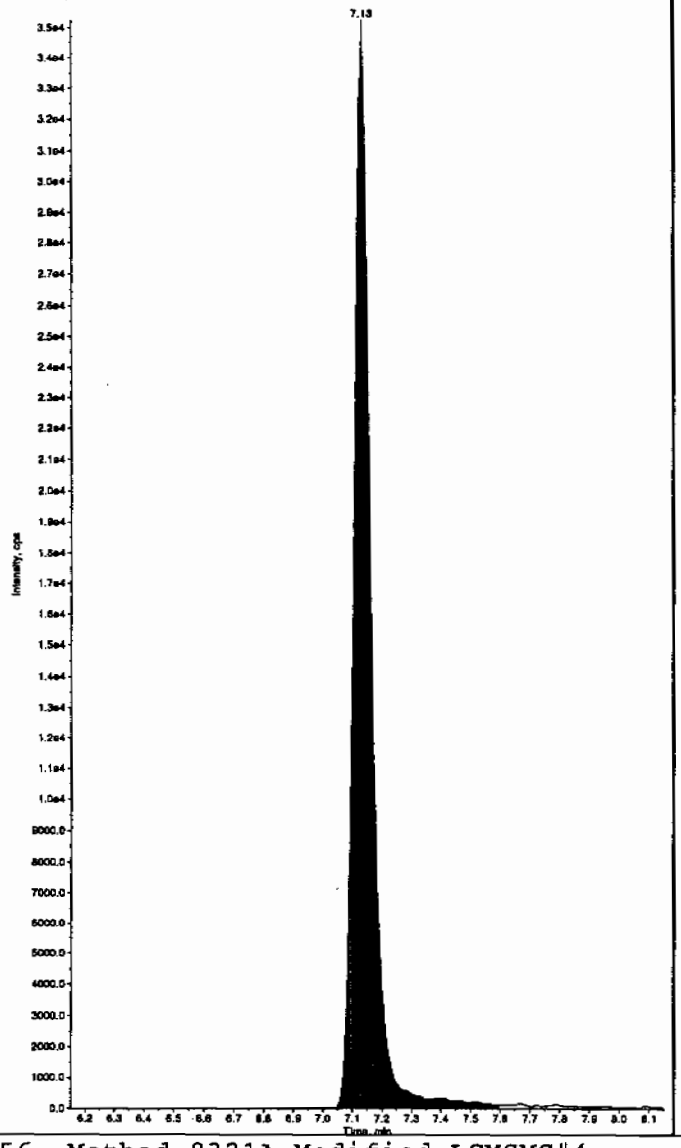

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140132.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.2 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:35:39 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 6.42e+005 counts
Height: 170297.548 cps
Start Time: 8.27 min
End Time: 8.43 min

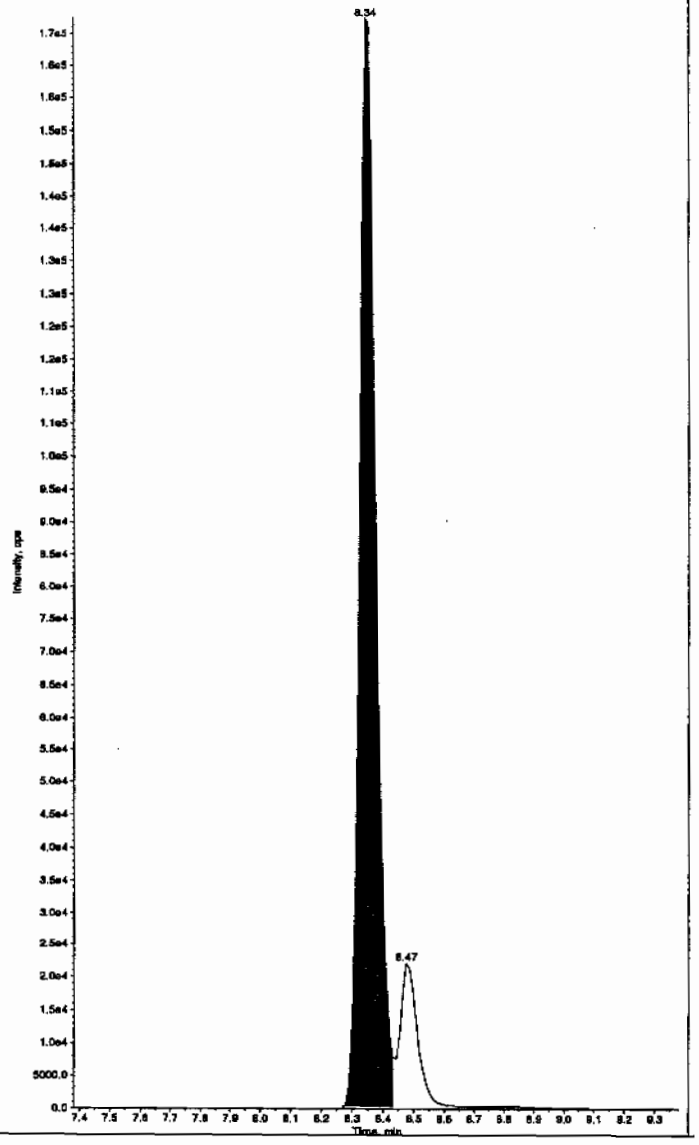

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nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 47.5 ng/mL
Date: 2/16/2010
Time: 12:35:39 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.47 min
: 6.01e+005 counts
ht: 158457.733 cps
t Time: 8.40 min
Time: 8.71 min

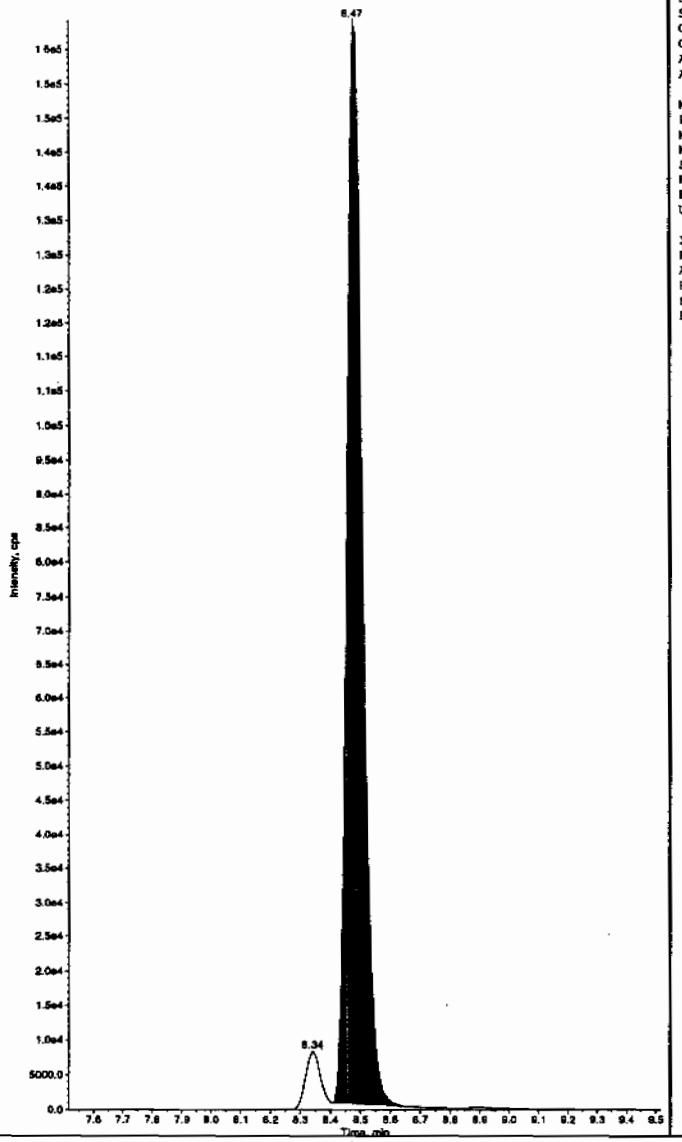

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 81.2 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:35:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 2.54e+005 counts
Height: 66551.041 cps
Start Time: 5.05 min
End Time: 5.45 min

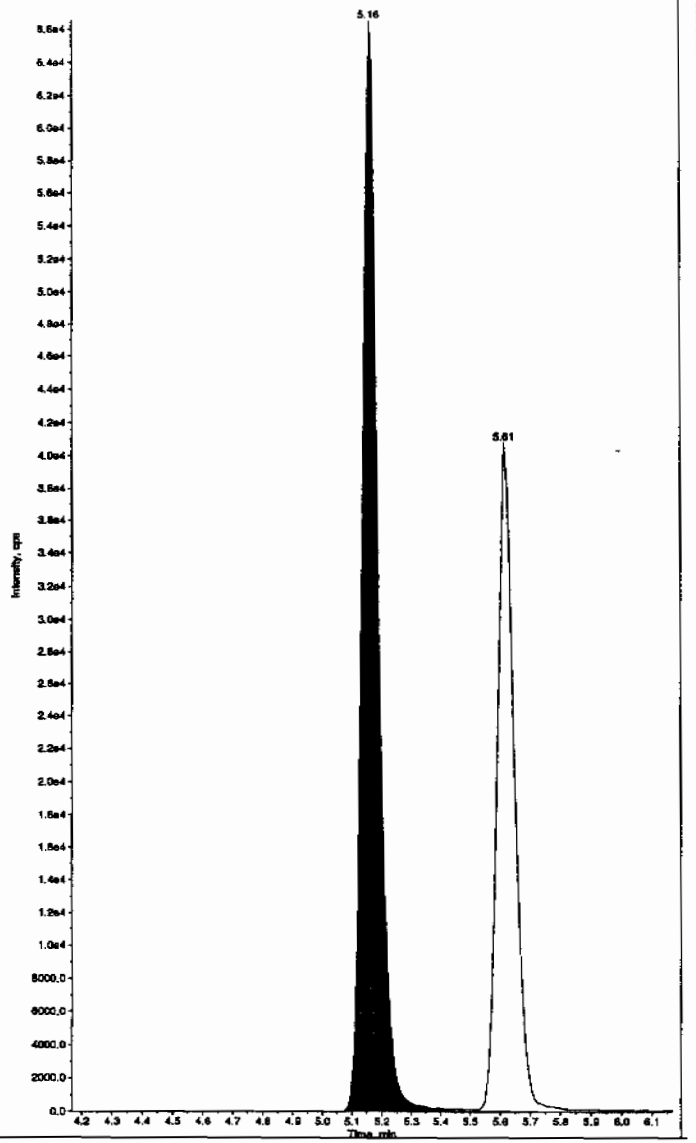

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umple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 82.0 ng/mL
Date: 2/16/2010
Time: 12:35:39 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
cted RT: 5.62 min
Relative RT: No

Type: Valley
ntion Time: 5.61 min
: 1.60e+005 counts
ht: 40674.870 cps
t Time: 5.52 min
Time: 5.84 min

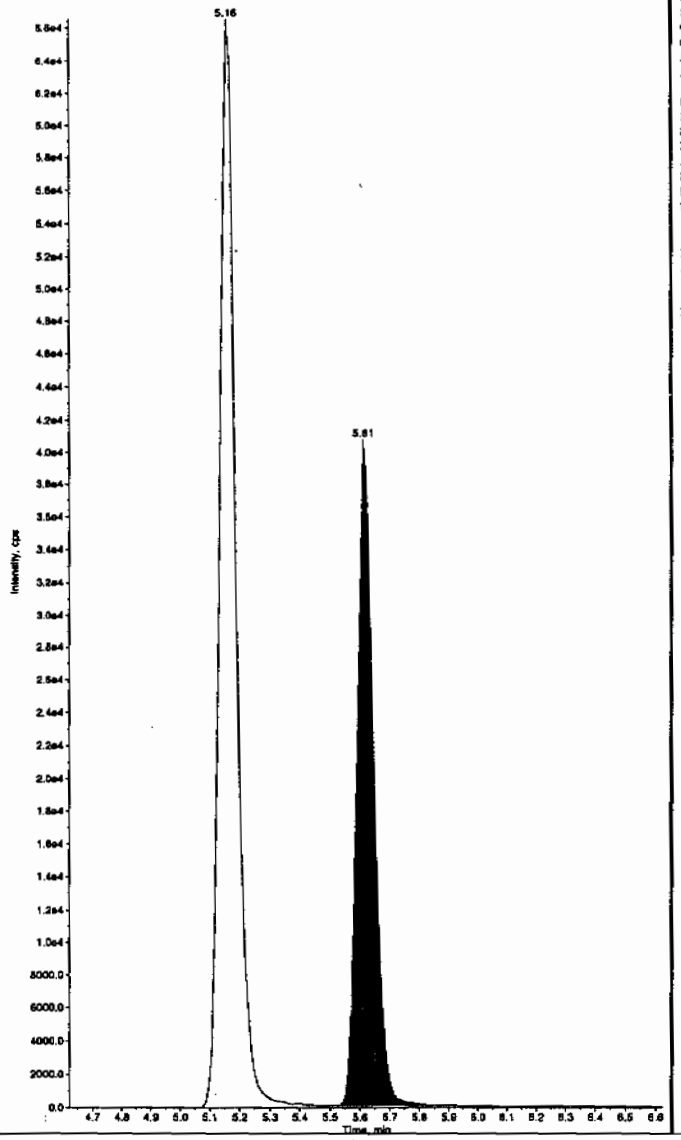

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140132.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 12:35:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 11.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.44e+006 counts
Height: 600497.253 cps
Start Time: 10.8 min
End Time: 11.3 min

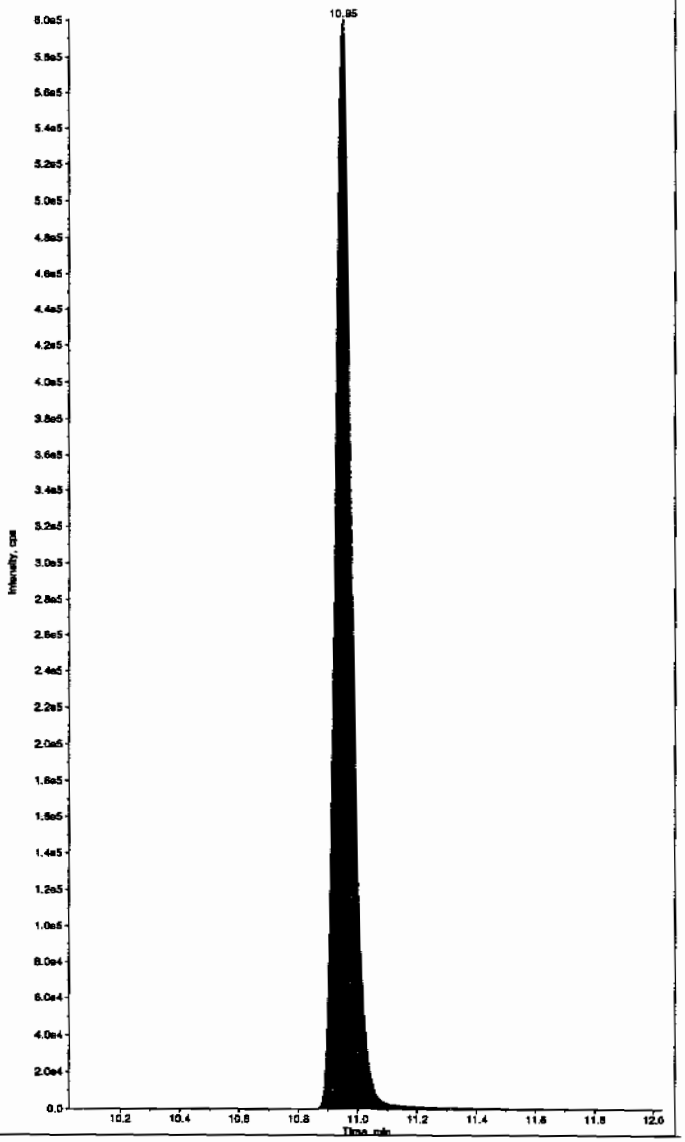

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140140.wiff

Analysis Date: 16-FEB-10 02:41

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	353	71	
2,6-Diamino-4-nitrotoluene	500	427	86	
3,4-Dinitrotoluene	250	244	98	
3,5-Dinitroaniline	500	466	93	
TATB	500	488	98	
tris(o-cresyl) phosphate	500	495	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 2/17/10

mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140140.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 488. ng/mL
Date: 2/16/2010
Time: 2:41:13 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 6.81e+005 counts
ht: 158684.143 cps
t Time: 7.00 min
Time: 7.87 min

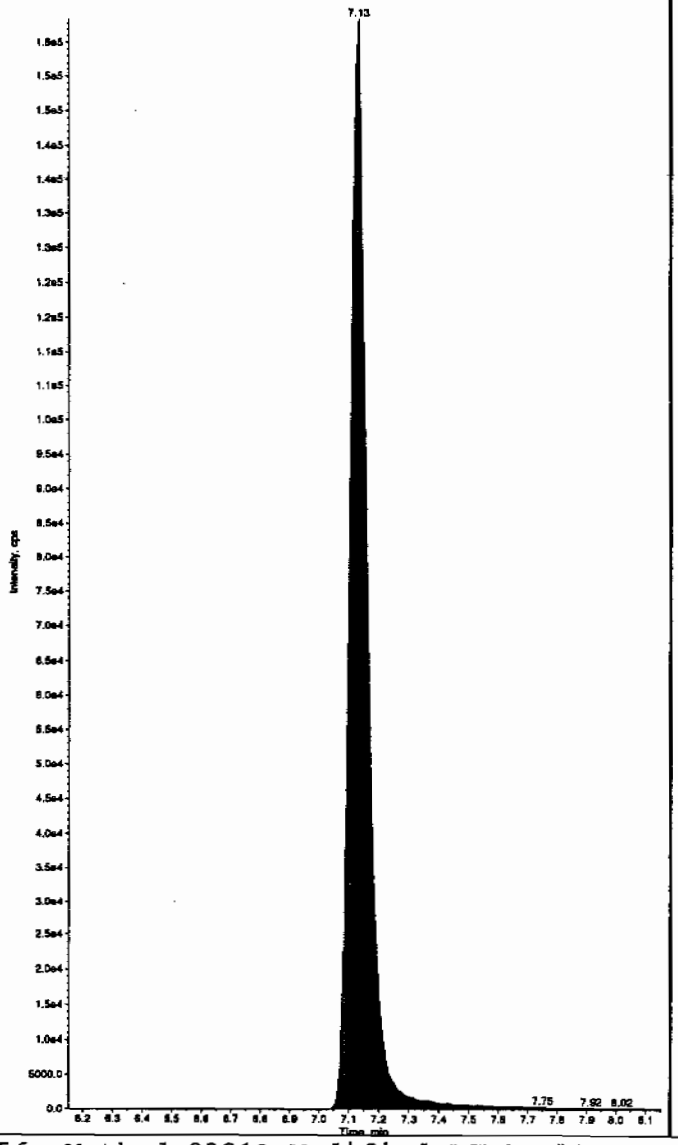

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140140.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 466. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:41:13 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.31 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 3.05e+006 counts
Height: 763088.074 cps
Start Time: 8.25 min
End Time: 8.43 min

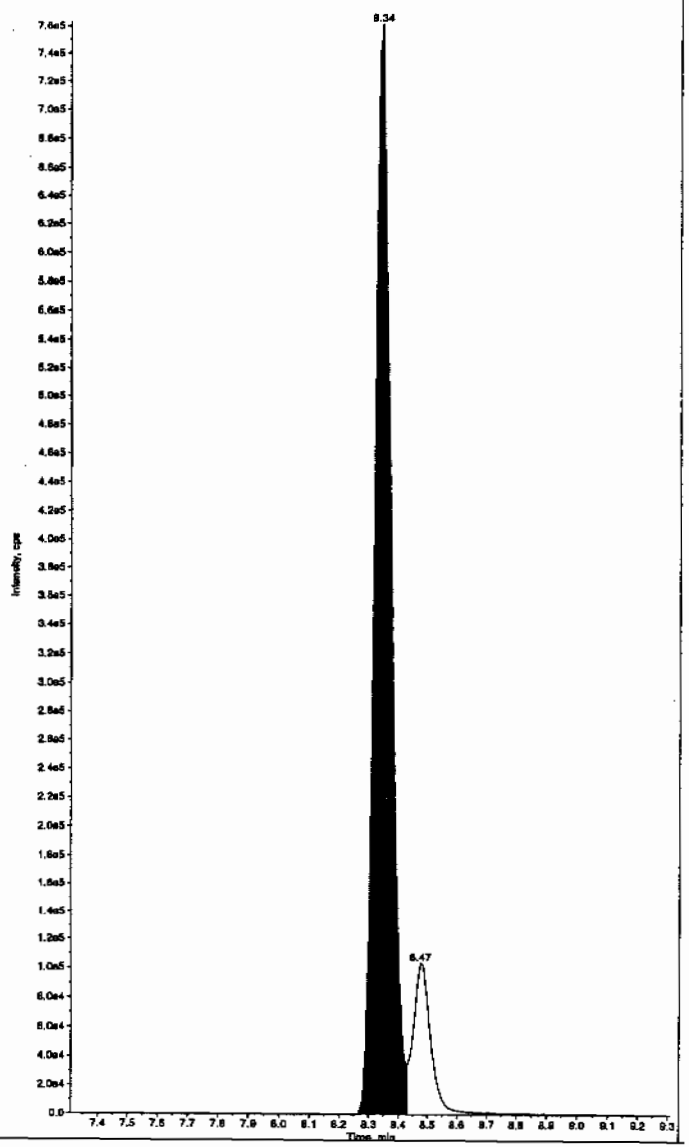

thm 02/17/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140140.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

.e Index: 1
.e Type: QC
ntration: 250. ng/mL
lated Conc: 244. ng/mL
Date: 2/16/2010
Time: 2:41:13 AM

lied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.52 min
telative RT: No

Type: Valley
tion Time: 8.47 min
3.19e+006 counts
t: 878645.752 cps
Time: 8.40 min
ime: 8.69 min

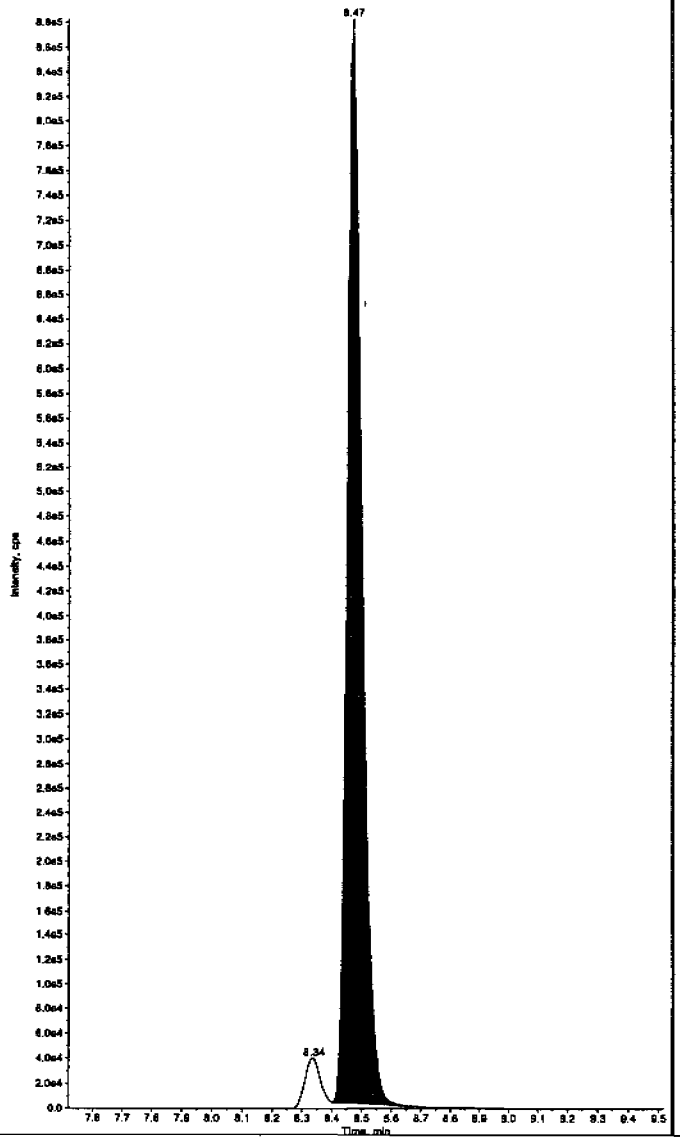

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140140.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 427. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 2:41:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 1.23e+006 counts
Height: 312667.969 cps
Start Time: 5.05 min
End Time: 5.46 min

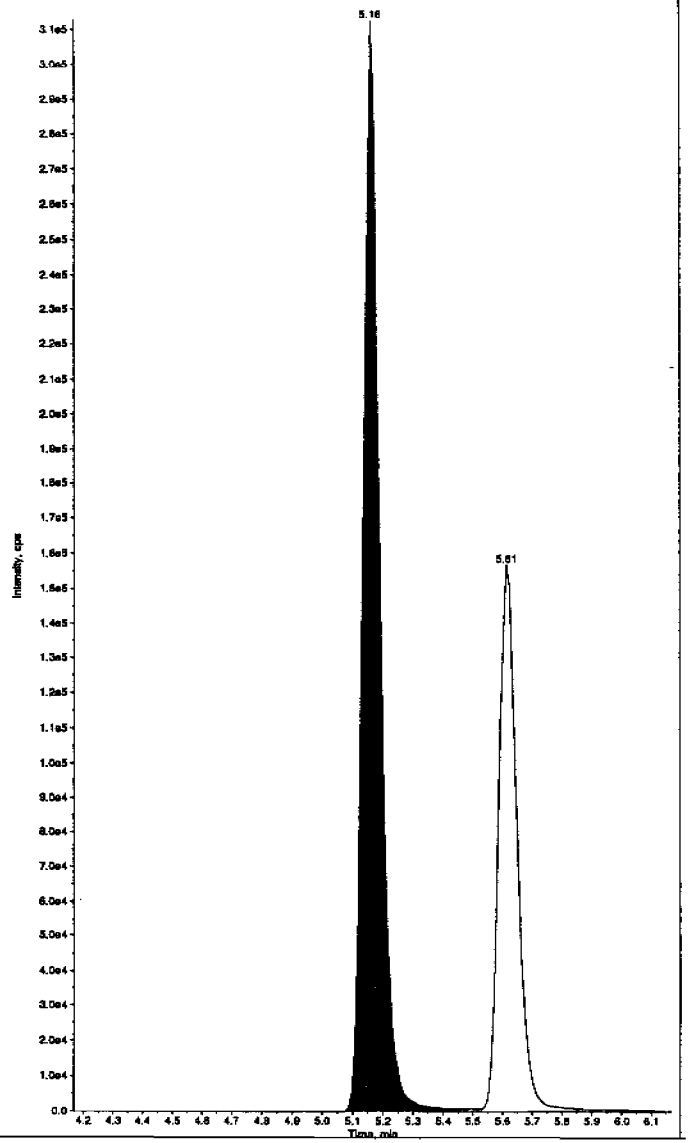

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mple Name: "WXX100214-26CCV" Sample ID: "]1|LER" File: "EXS02140140.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
ls Type:           QC
entration:       500.     ng/mL
ulated Conc:     353.     ng/mL
 Date:        2/16/2010
 Time:        2:41:13 AM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
Window:         30.0    sec
cted RT:         5.62   min
Relative RT:     No

 Type:         Valley
ntion Time:      5.61   min
:          6.74e+005   counts
ht:          156523.148  cps
t Time:          5.53   min
Time:            5.91   min
```

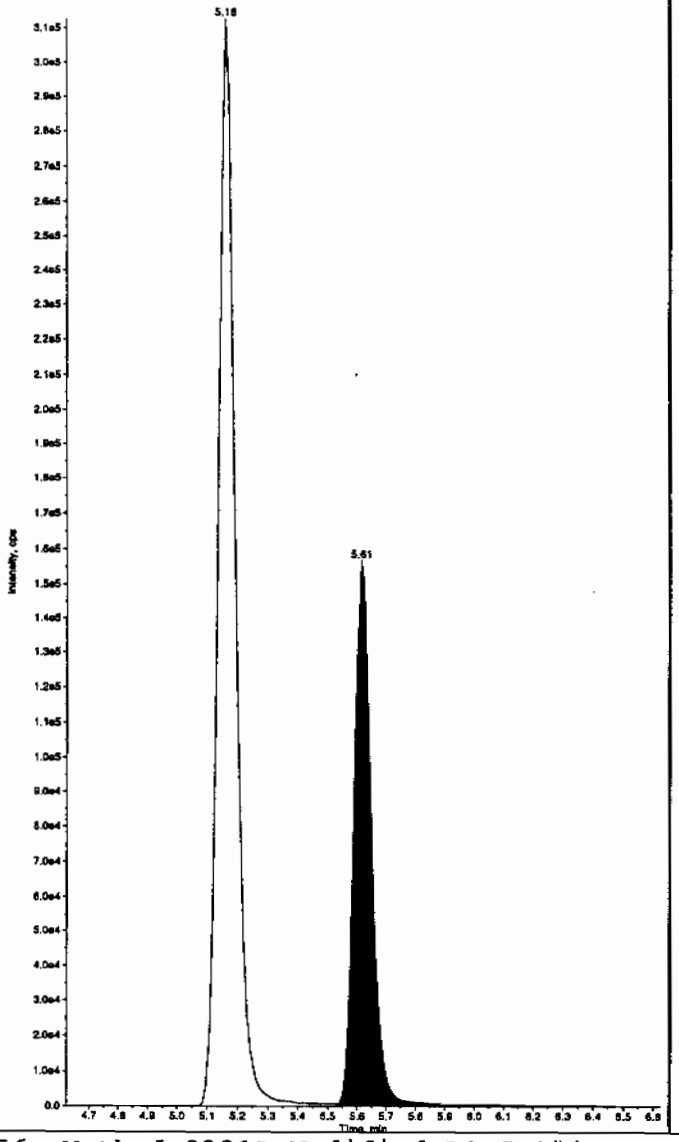

Sample Name: "WXX100214-26CCV" Sample ID: "]1|LER" File: "EXS02140140.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     500.     ng/mL
Calculated Conc:   495.     ng/mL
Acq. Date:       2/16/2010
Acq. Time:       2:41:13 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       11.0     min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.9     min
Area:        1.08e+007    counts
Height:        2518158.203  cps
Start Time:        10.8     min
End Time:          11.3     min
```

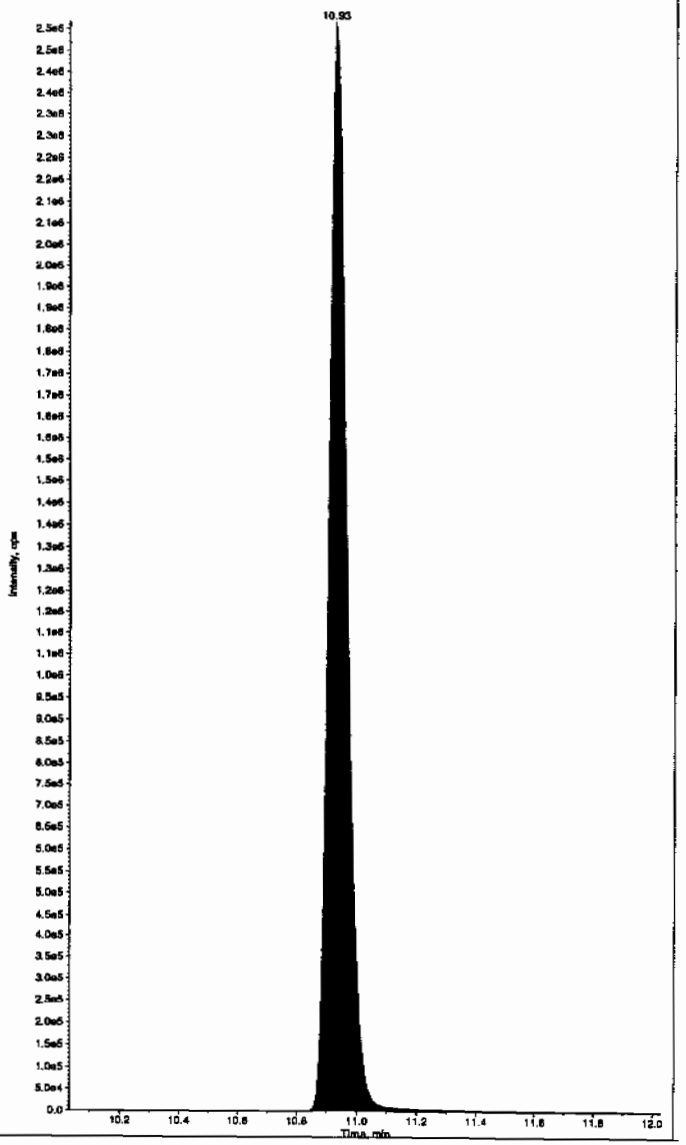

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1516

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02140142.wiff

Analysis Date: 16-FEB-10 03:12

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	81.9	82	
2,6-Diamino-4-nitrotoluene	100	85.2	85	
3,4-Dinitrotoluene	50	49.5	99	
3,5-Dinitroaniline	100	105	105	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/17/10

mple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140142.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 107. ng/mL
Date: 2/16/2010
Time: 3:12:37 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 1.47e+005 counts
ht: 34825.272 cps
t Time: 6.96 min
Time: 7.72 min

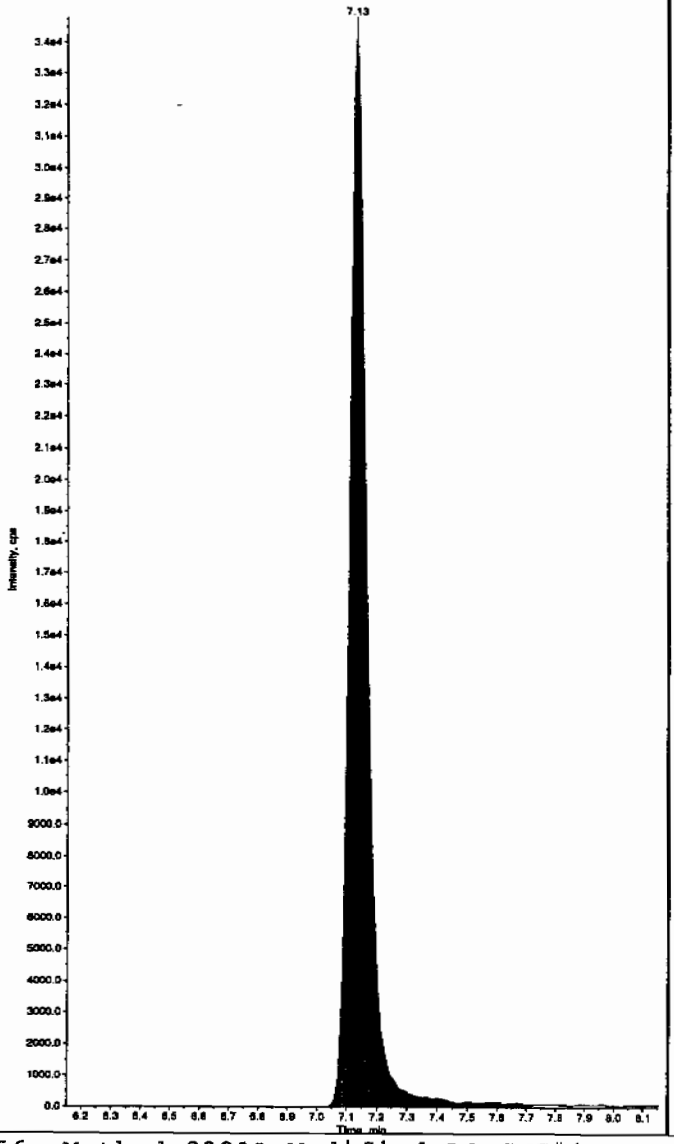

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140142.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:12:37 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 5.90e+005 counts
Height: 182665.146 cps
Start Time: 8.25 min
End Time: 8.43 min

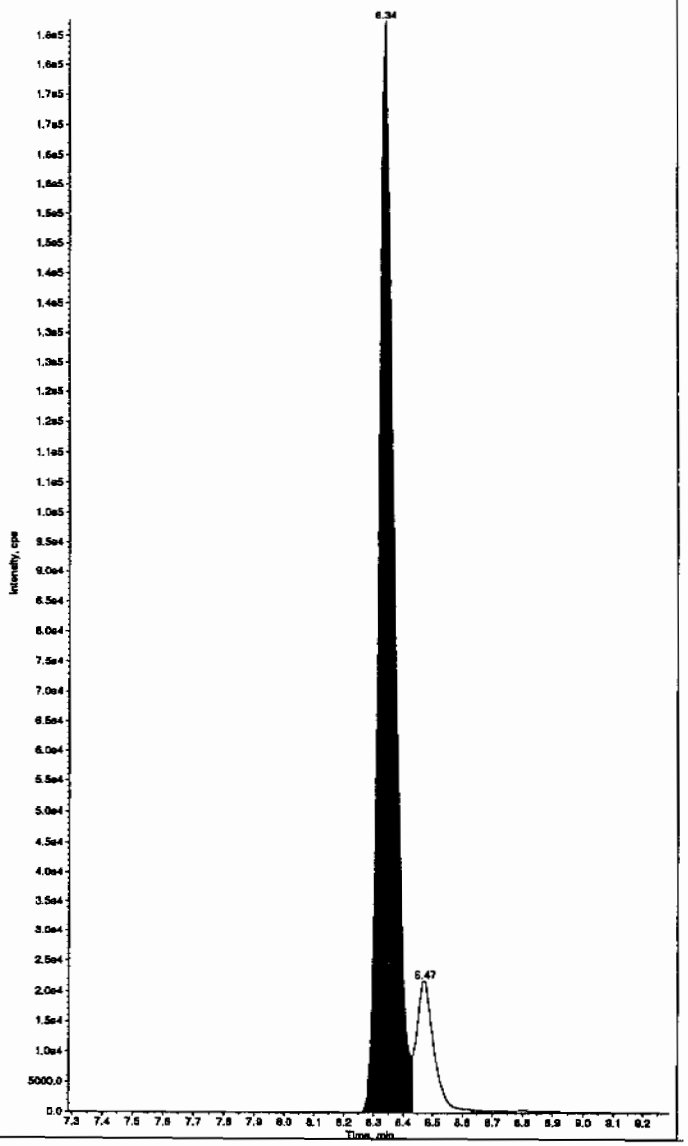

Hirm 02/17/10

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nple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140142.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 49.5 ng/mL
Date: 2/16/2010
Time: 3:12:37 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.46 min
: 6.29e+005 counts
ht: 169343.842 cps
t Time: 8.40 min
Time: 8.66 min

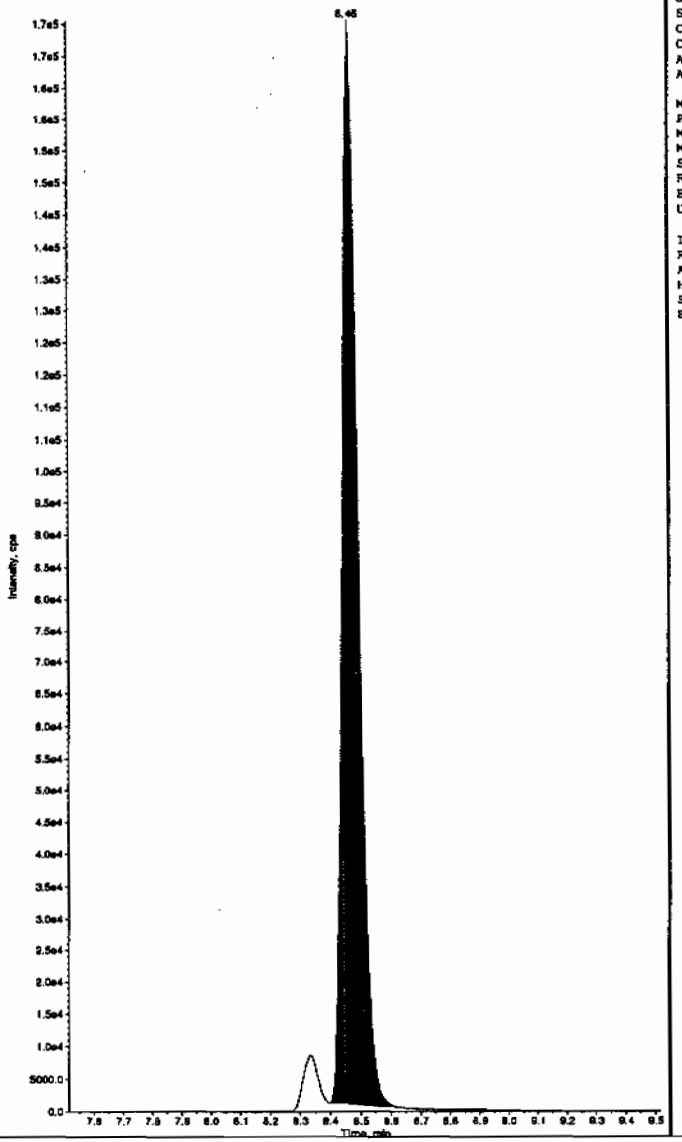

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140142.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 85.2 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:12:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 2.65e+005 counts
Height: 68685.478 cps
Start Time: 5.00 min
End Time: 5.45 min

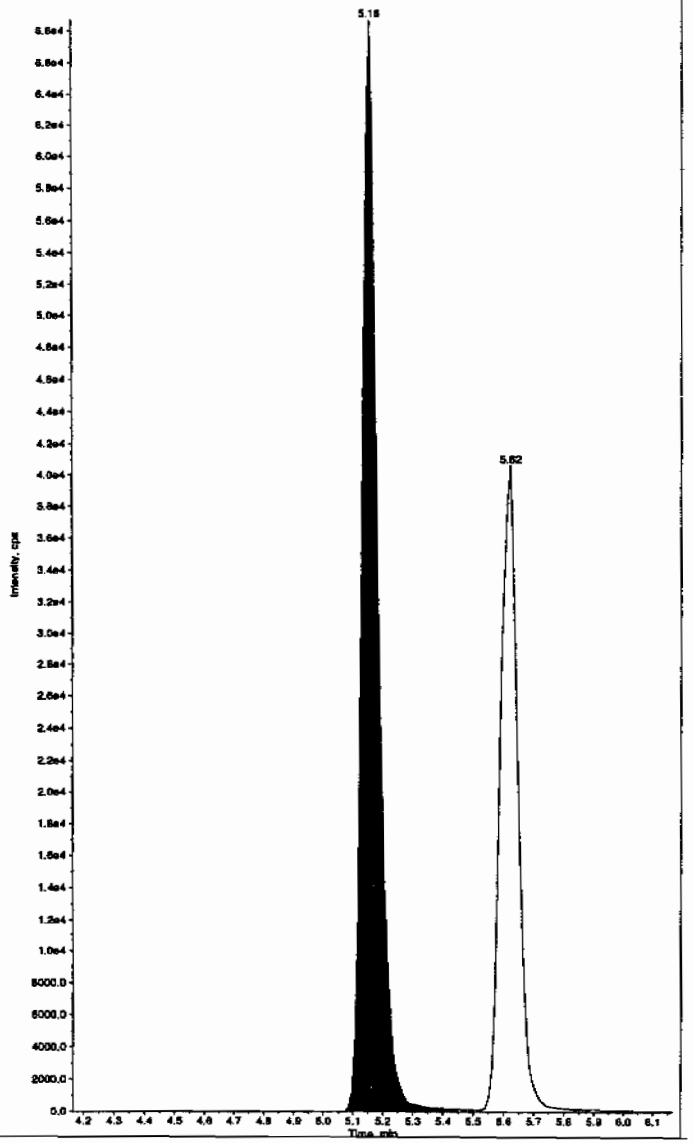

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mple Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140142.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: "

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	81.9	ng/mL
Date:	2/16/2010	
Time:	3:12:37 AM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	350.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
Window:	30.0	sec
cted RT:	5.62	min
Relative RT:	No	
Type:	Valley	
ntion Time:	5.62	min
:	1.60e+005	counts
ht:	40422.001	cps
t Time:	5.54	min
Time:	5.76	min

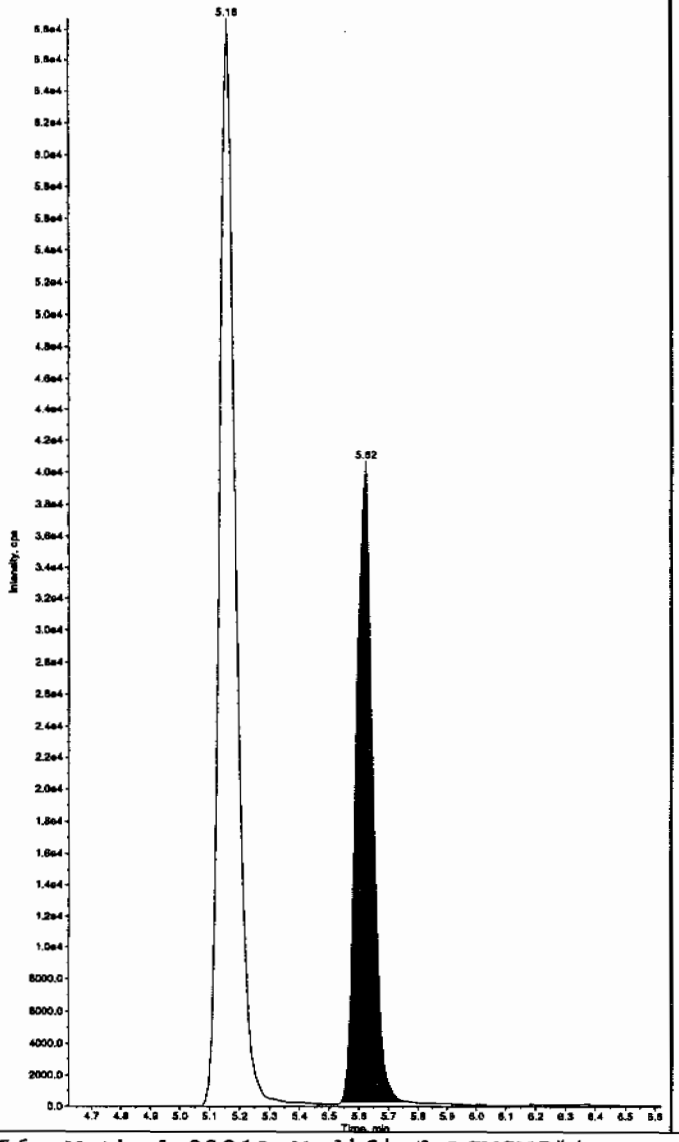

Sample Name: "WXX100214-27CRI" Sample ID: "|1|LER" File: "EXS02140142.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	102.	ng/mL
Acq. Date:	2/16/2010	
Acq. Time:	3:12:37 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	2.44e+006	counts
Height:	597793.701	cps
Start Time:	10.8	min
End Time:	11.3	min

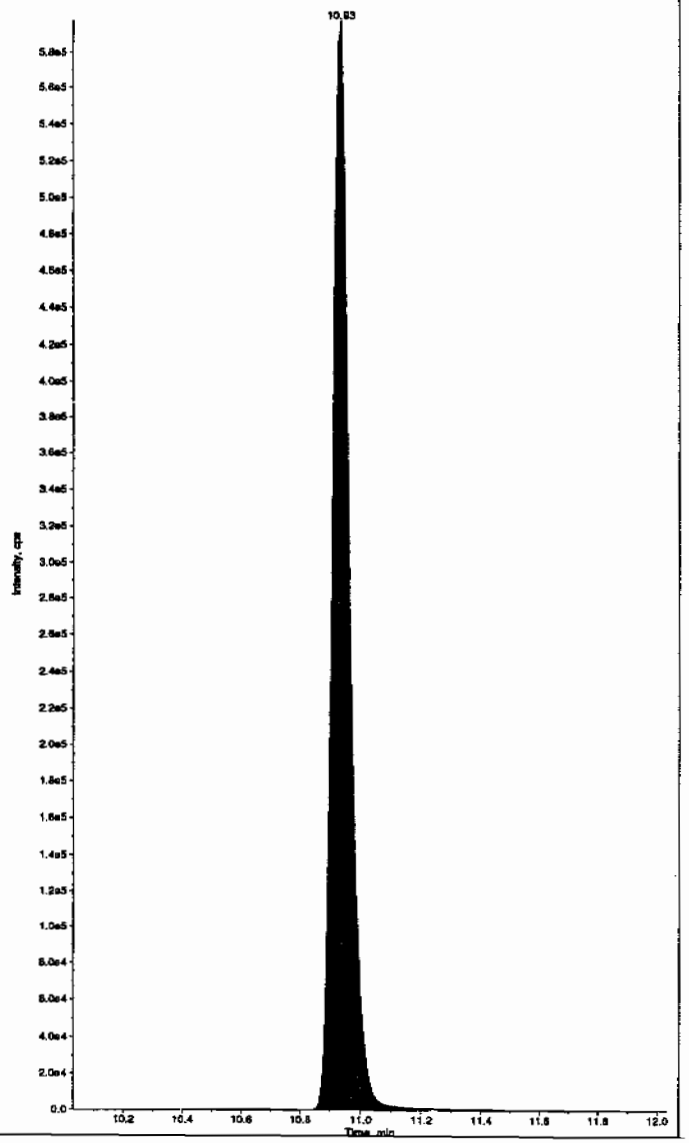

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1516

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02140153.wiff

Analysis Date: 16–FEB–10 06:05

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	428	86	
2,6–Diamino–4–nitrotoluene	500	465	93	
3,4–Dinitrotoluene	250	234	94	
3,5–Dinitroaniline	500	481	96	
TATB	500	489	98	
tris(o–cresyl) phosphate	500	490	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Chan 2/16/10

mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140153.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 489. ng/mL
Date: 2/16/2010
Time: 6:05:25 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 6.82e+005 counts
ht: 157808.456 cps
t Time: 7.03 min
Time: 7.69 min

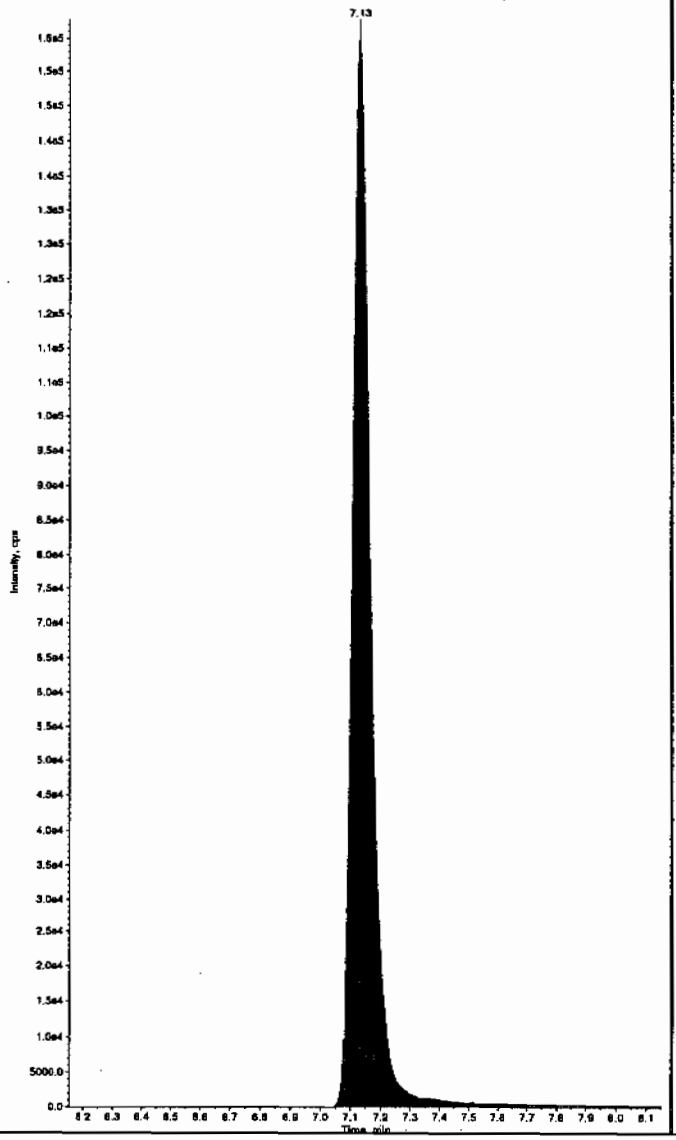

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140153.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 452. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:05:25 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 2.96e+006 counts
Height: 759071.655 cps
Start Time: 8.26 min
End Time: 8.42 min

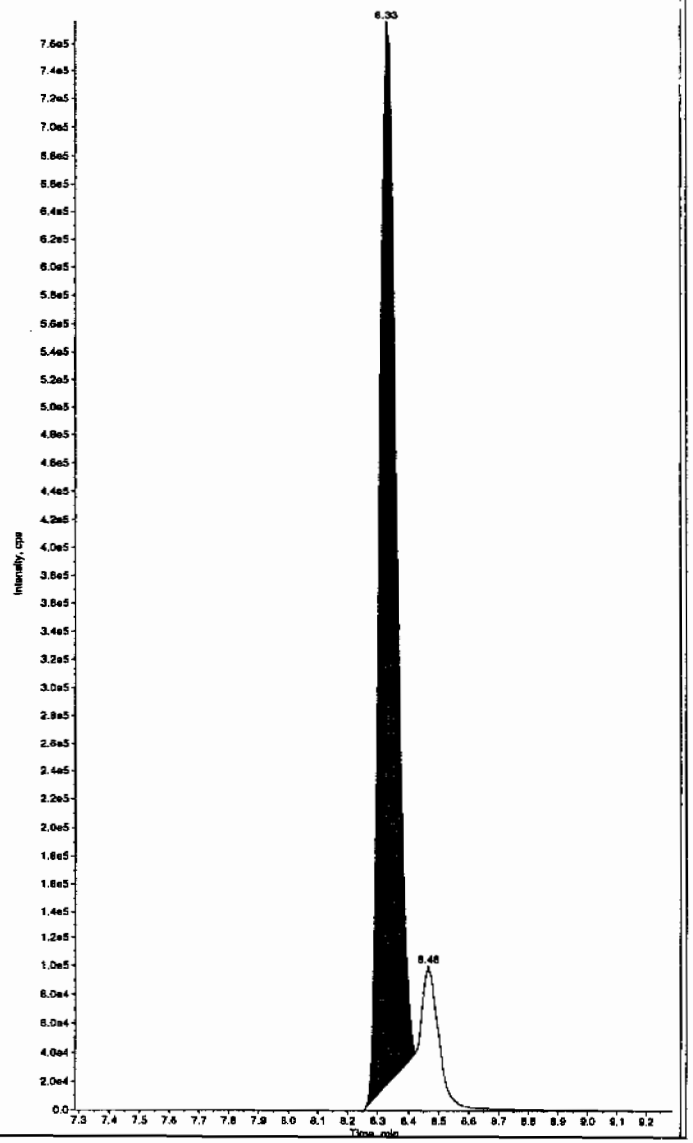

Thm 02/17/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Dan 2/17/10

mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140153.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 489. ng/mL
Date: 2/16/2010
Time: 6:05:25 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 7.15 min
Relative RT: No

Type: Valley
ntion Time: 7.13 min
: 6.82e+005 counts
ht: 157808.456 cps
t Time: 7.03 min
Time: 7.59 min

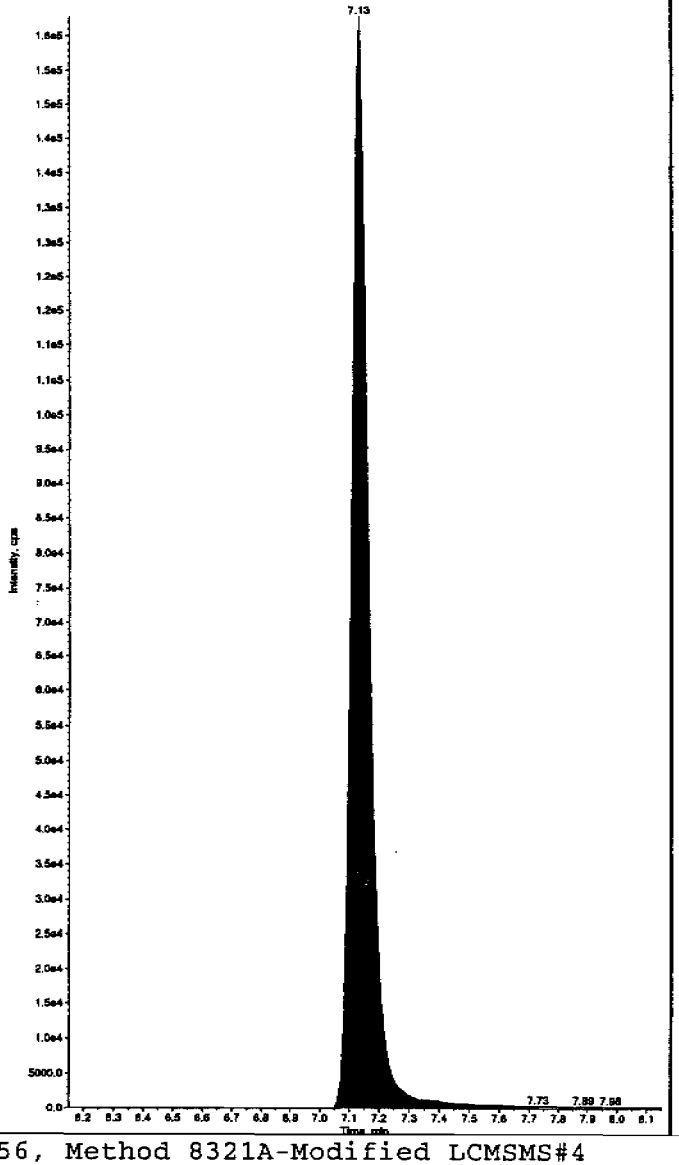

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140153.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 481. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:05:25 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.33 min
Area: 3.15e+006 counts
Height: 781058.717 cps
Start Time: 8.26 min
End Time: 8.42 min

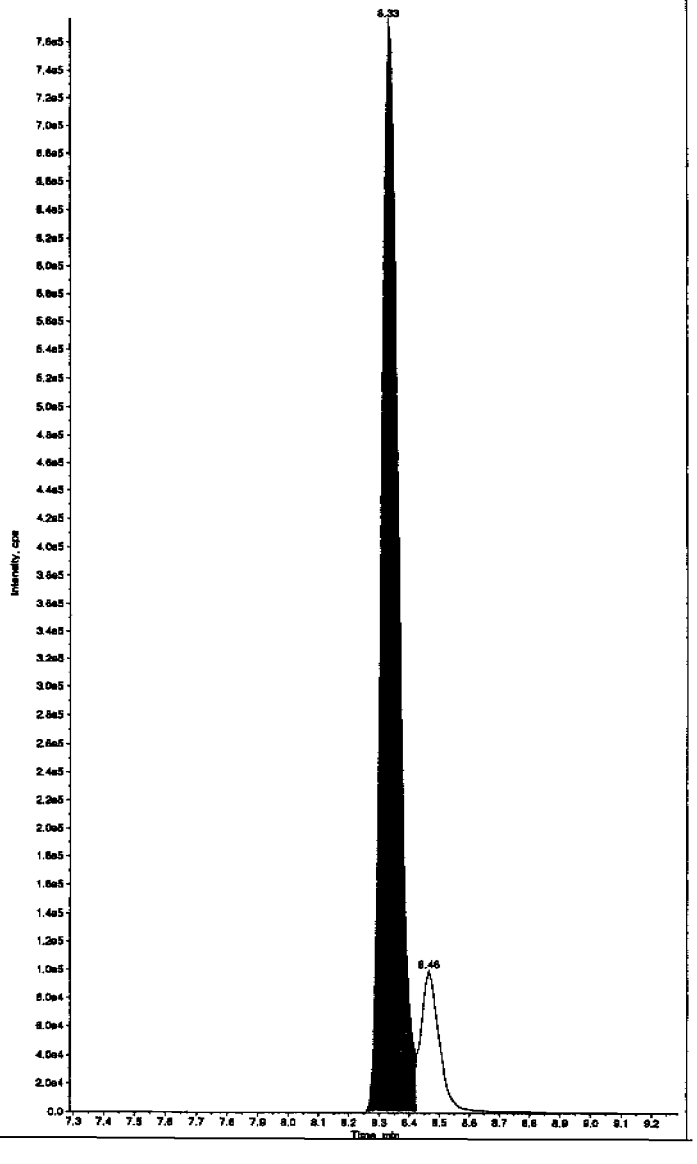

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140153.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
entration: 250. ng/mL
culated Conc: 234. ng/mL
Date: 2/16/2010
Time: 6:05:25 AM

dified: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.52 min
Relative RT: No

Type: Valley
ntion Time: 8.46 min
: 3.06e+006 counts
ht: 812110.535 cps
t Time: 8.39 min
Time: 8.67 min

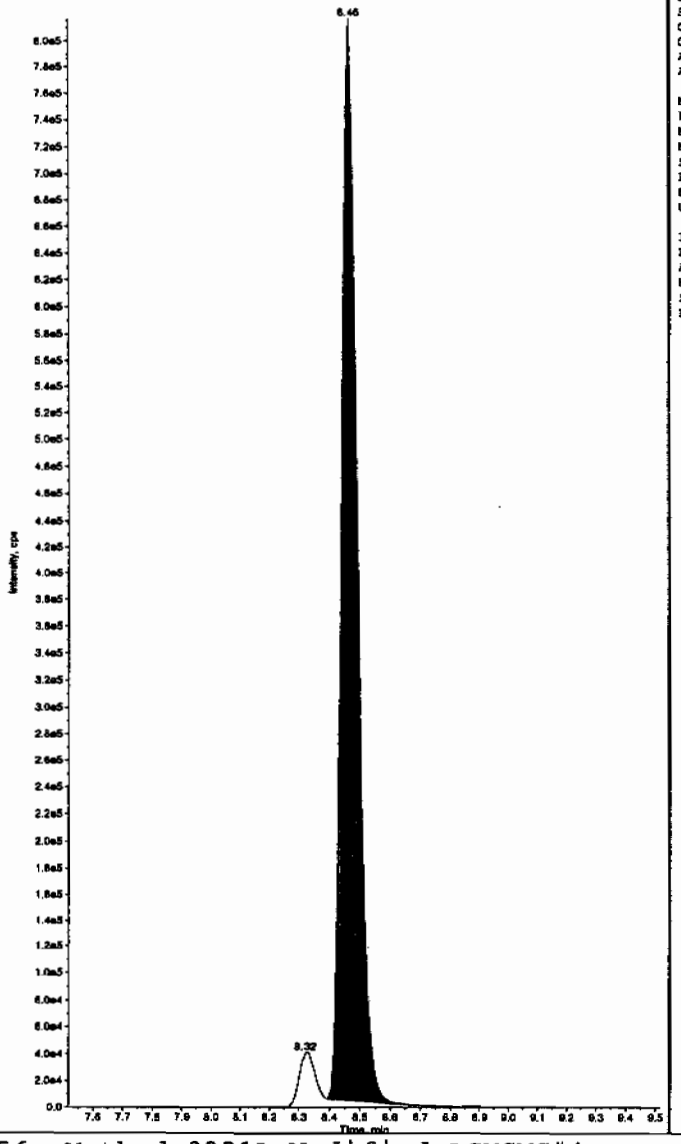

Sample Name: "WXX100214-26CCV" Sample ID: "[1]LER" File: "EXS02140153.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 465. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:05:25 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 1.34e+006 counts
Height: 342261.230 cps
Start Time: 5.05 min
End Time: 5.43 min

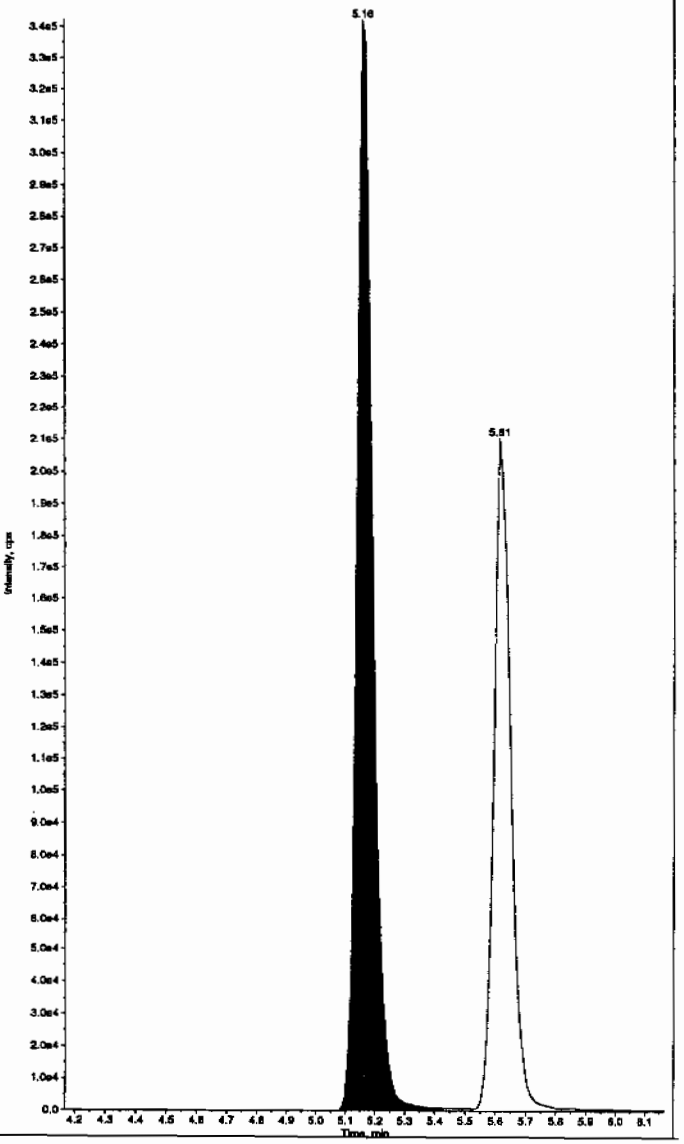

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mple Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140153.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:.	428.	ng/mL
. Date:	2/16/2010	
. Time:	6:05:25 AM	
ified:	No	
. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.62	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.61	min
a:	8.15e+005	counts
ght:	209923.630	cps
rt Time:	5.53	min
Time:	5.81	min

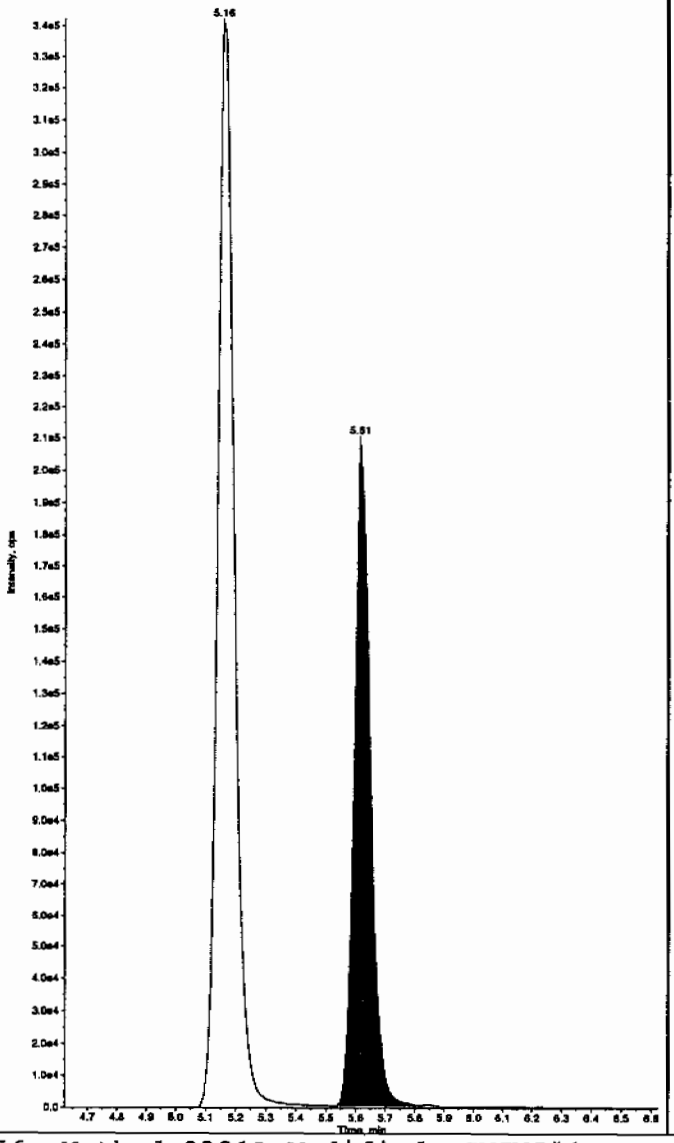

Sample Name: "WXX100214-26CCV" Sample ID: "|1|LER" File: "EXS02140153.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	490.	ng/mL
Acq. Date:	2/16/2010	
Acq. Time:	6:05:25 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	11.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.07e+007	counts
Height:	2467240.723	cps
Start Time:	10.8	min
End Time:	11.3	min

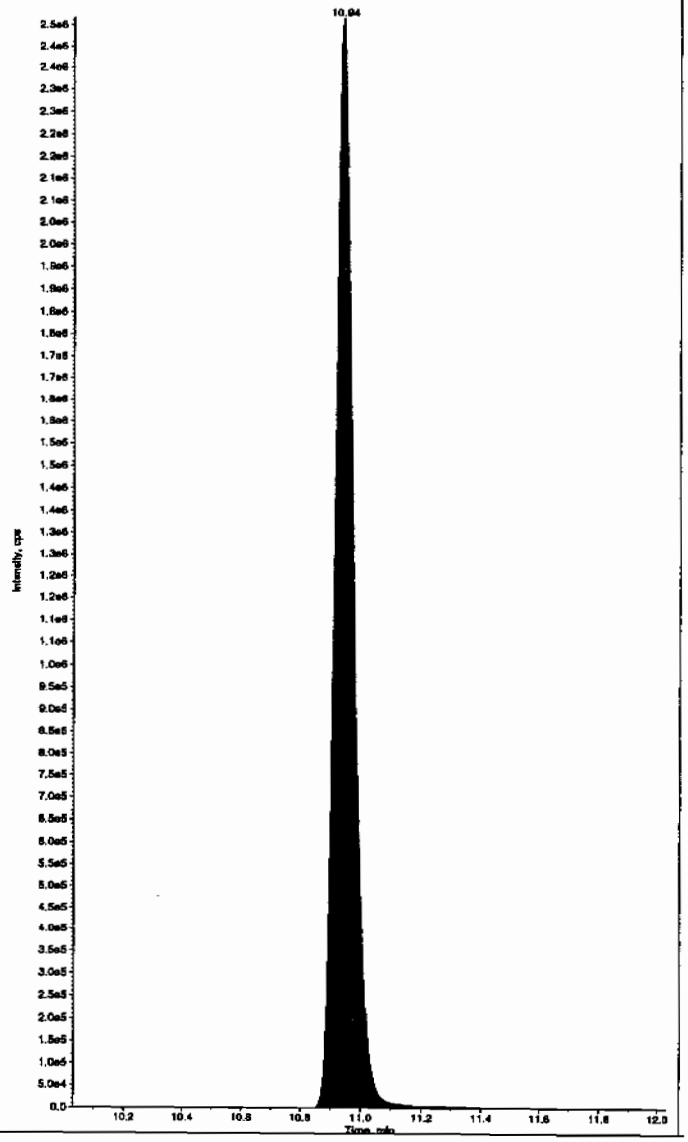

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1516

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXS02140155.wiff **Analysis Date:** 16-FEB-10 06:36

LCMSMS ID: 1358 **Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	68.2	68	
2,6-Diamino-4-nitrotoluene	100	92	92	
3,4-Dinitrotoluene	50	51.1	102	
3,5-Dinitroaniline	100	106	106	
TATB	100	113	113	
tris(o-cresyl) phosphate	100	105	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcw 2/17/10

umple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140155.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 113. ng/mL
. Date: 2/16/2010
. Time: 6:36:58 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.15 min
Relative RT: No

. Type: Valley
ention Time: 7.13 min
a: 1.56e+005 counts
ght: 35962.223 cps
rt Time: 6.98 min
Time: 7.64 min

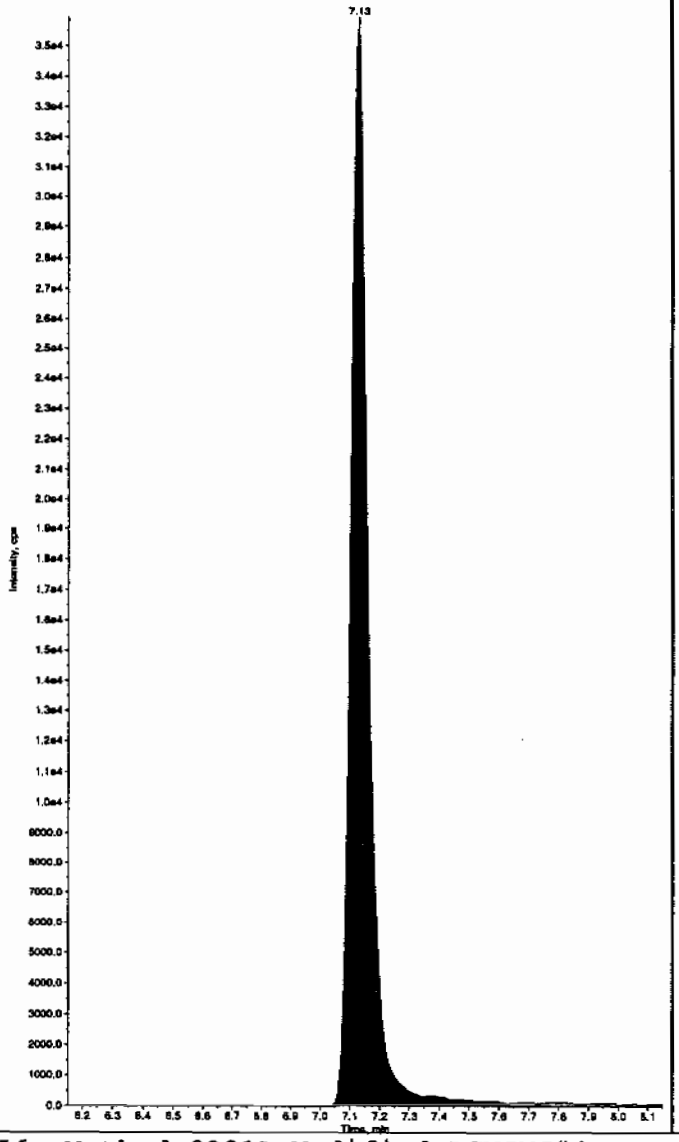

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140155.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:36:58 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 6.96e+005 counts
Height: 184499.969 cps
Start Time: 8.24 min
End Time: 8.43 min

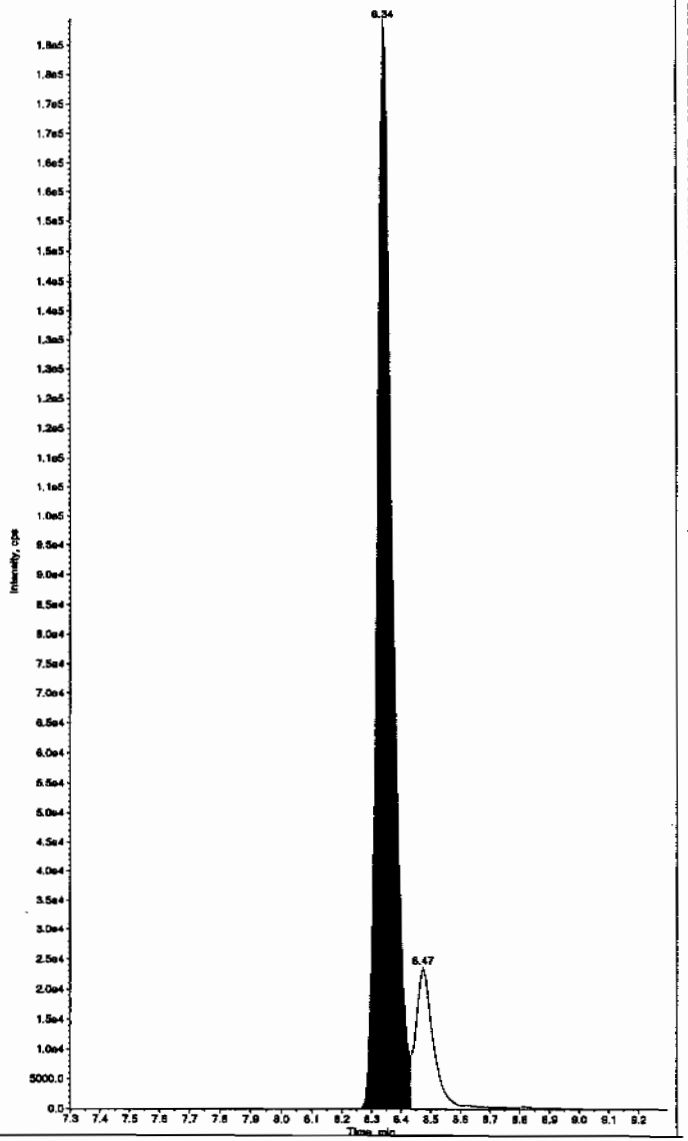

Hmm 02/17/10

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ample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140155.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 50.0 ng/mL
culated Conc: 51.1 ng/mL
. Date: 2/16/2010
. Time: 6:36:58 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.52 min
Relative RT: No

. Type: Valley
ention Time: 8.47 min
a: 6.50e+005 counts
ght: 169297.043 cps
rt Time: 8.40 min
Time: 8.66 min

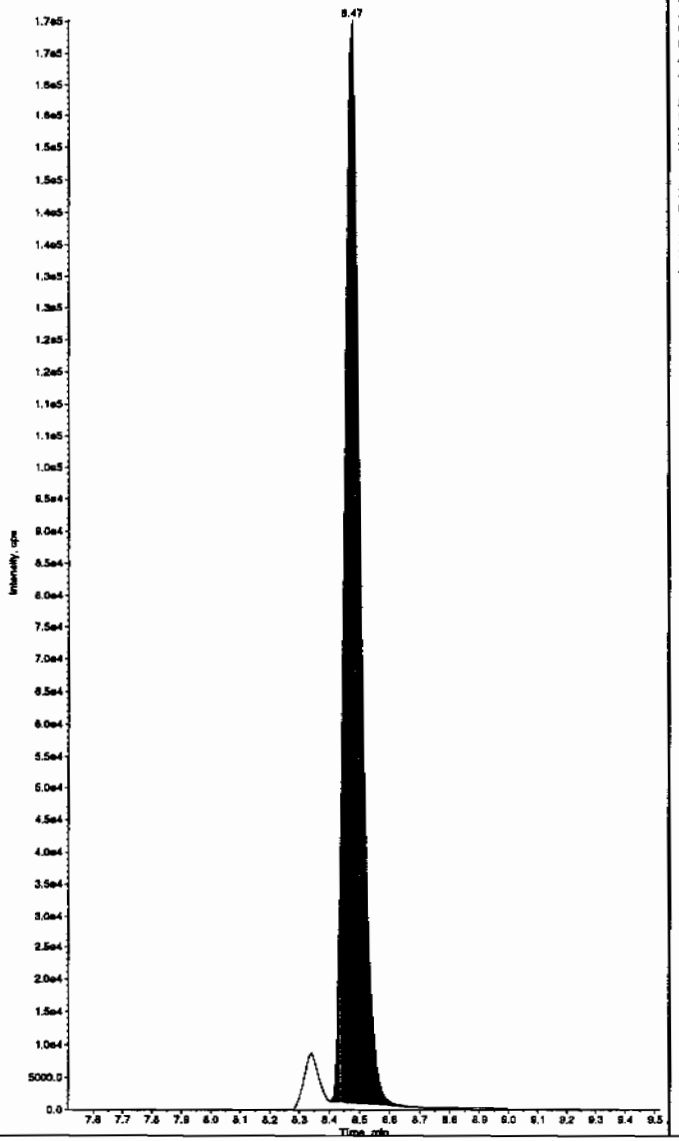

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140155.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.0 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 6:36:58 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 2.84e+005 counts
Height: 72122.917 cps
Start Time: 5.05 min
End Time: 5.44 min

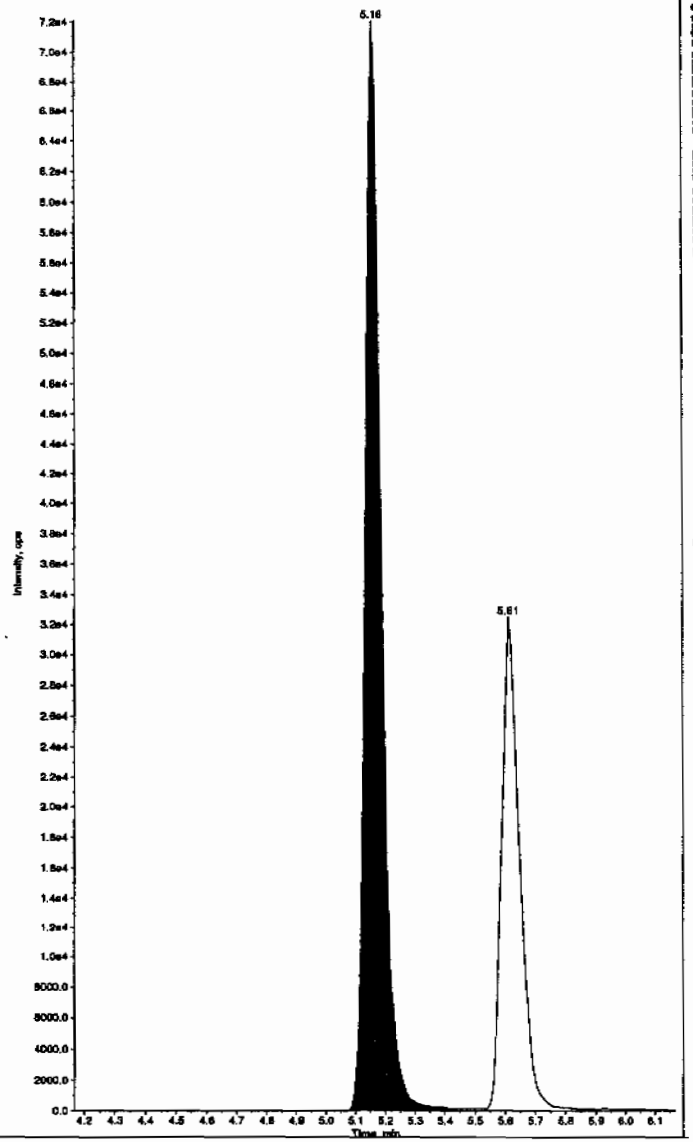

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140155.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:          QC
entration:       100.     ng/mL
ulated Conc:      68.2     ng/mL
 Date:        2/16/2010
 Time:        6:36:58 AM

fied:             No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:          30.0    sec
cted RT:         5.62   min
 Relative RT:    No

 Type:         Valley
ntion Time:      5.61   min
:          1.34e+005   counts
ht:         32470.901  cps
t Time:          5.54   min
 Time:           5.89   min
```

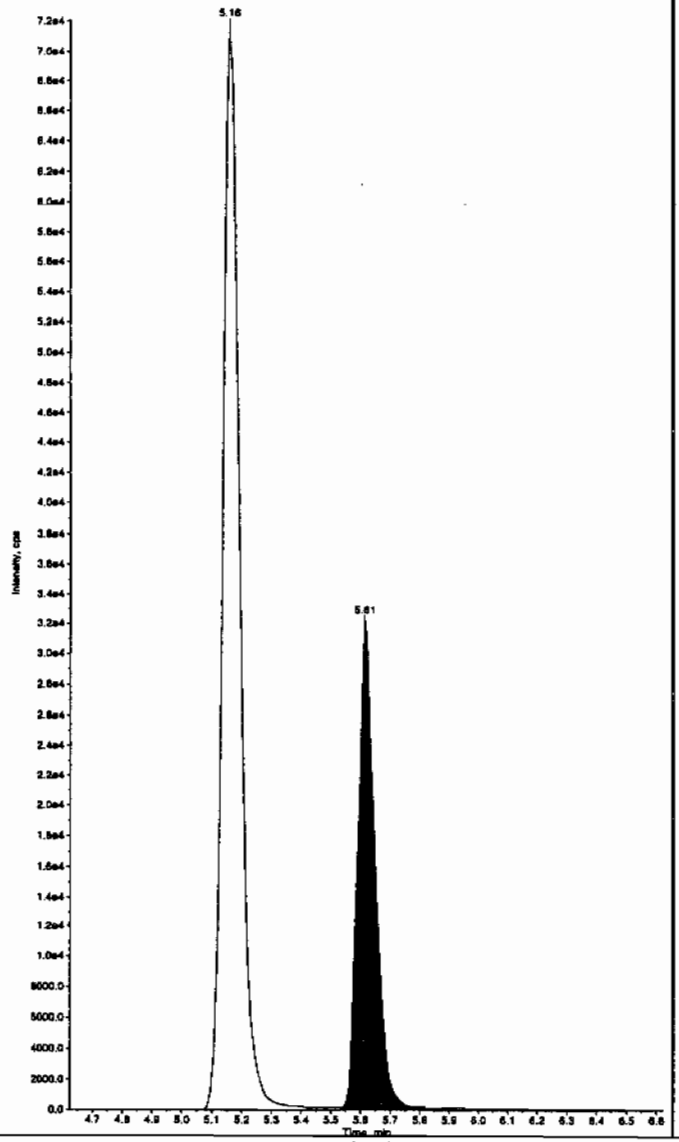

Sample Name: "WXX100214-27CRI" Sample ID: "[1]LER" File: "EXS02140155.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     105.     ng/mL
Acq. Date:        2/16/2010
Acq. Time:        6:36:58 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        11.0    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9    min
Area:          2.50e+006   counts
Height:         601281.616  cps
Start Time:         10.8    min
End Time:           11.4    min
```

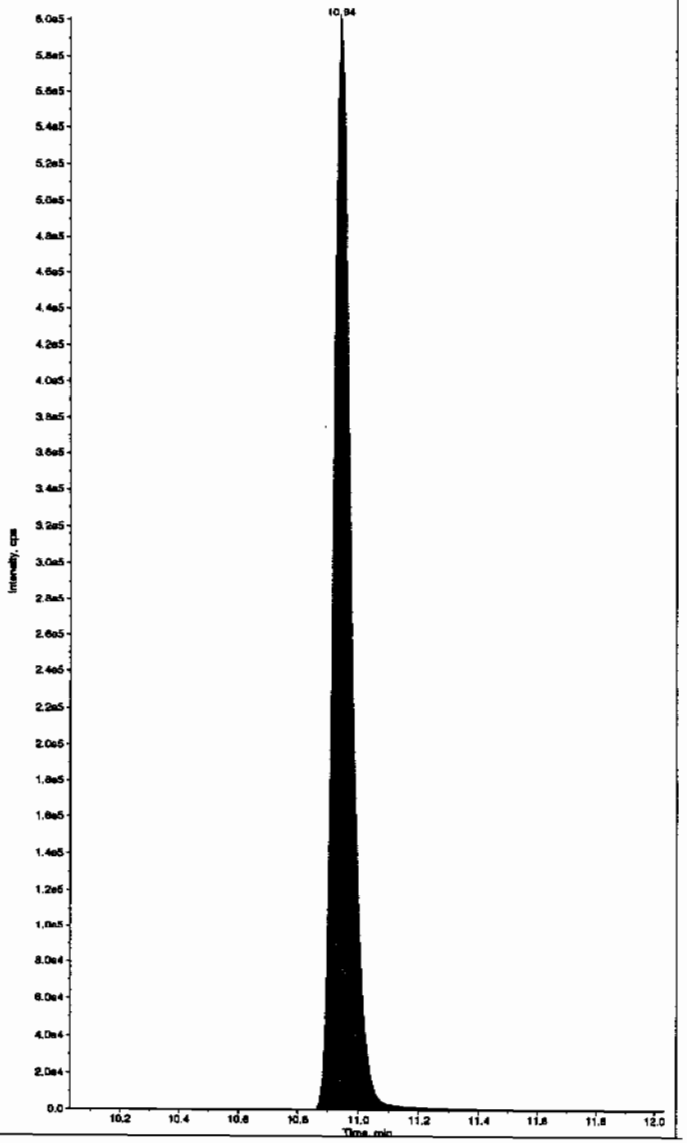

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948578

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 1202032113

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216129a

Date Analyzed: 19-FEB-10 08:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\021610expa.mdb, Time: Wed Feb 17 09:19:04 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\021610expa.cdb, Time: Wed Feb 17 10:00:06 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216129a
Date: 19-Feb-2010
Time: 08:20:57
ID: 1202032113 | LANL | 948579 | Solids | MB | 2 |
Vial: 3:1,A

MATT 2/20/10

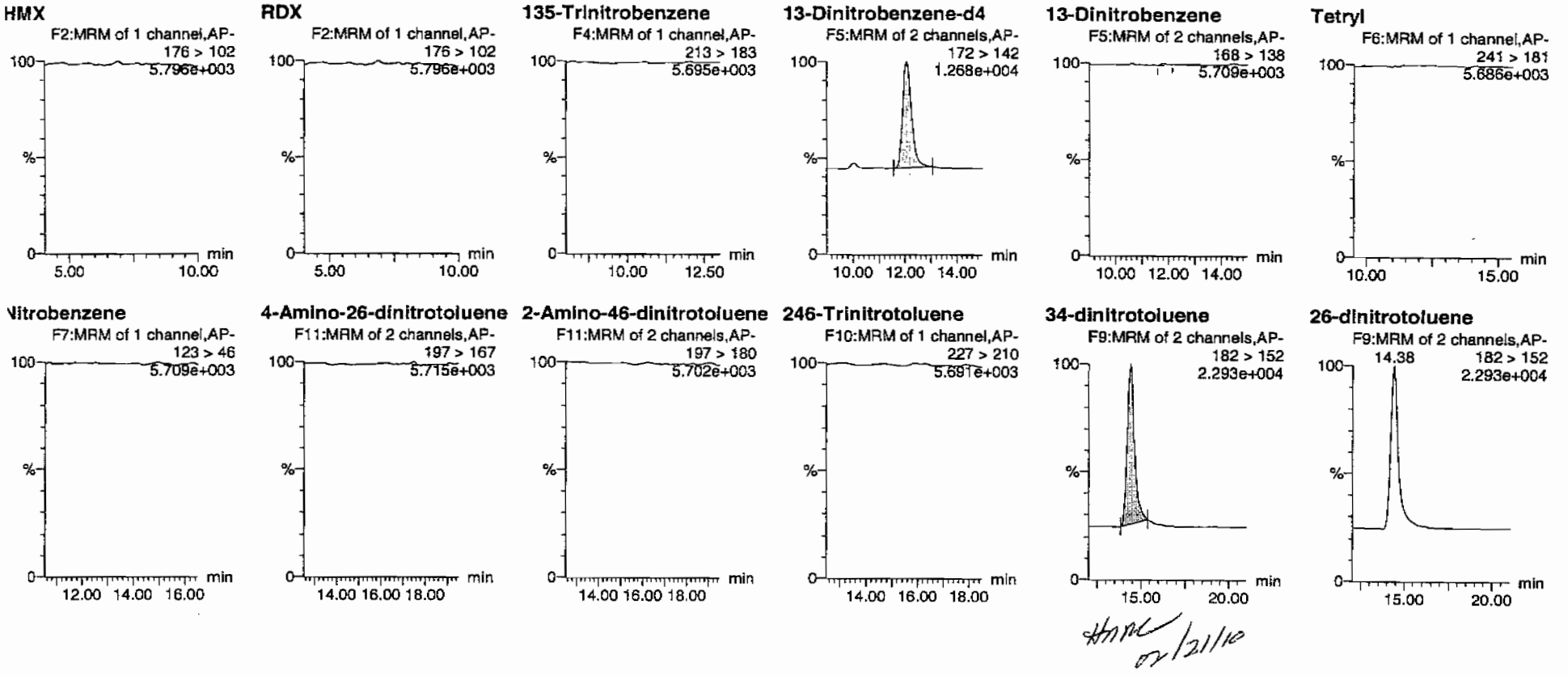

HMM 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

24-dinitrotoluene

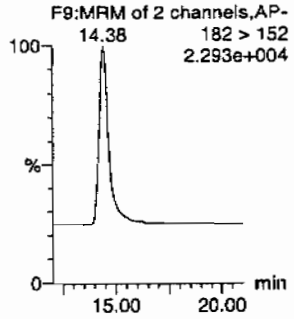

26-dinitrotoluene-d3

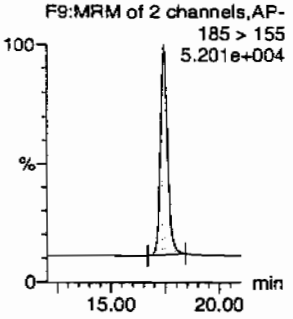

2-Nitrotoluene

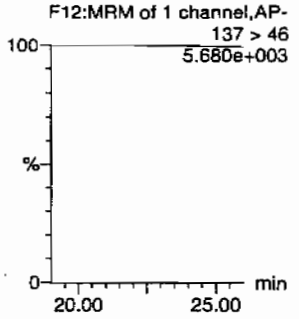

4-Nitrotoluene

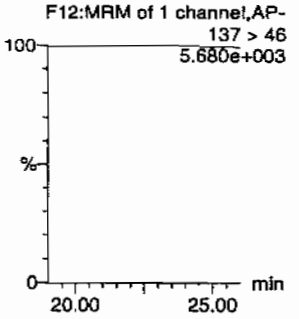

3-Nitrotoluene

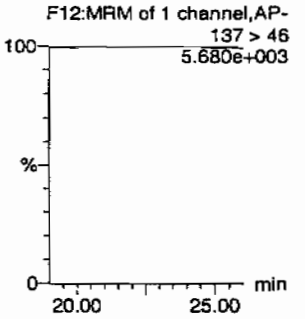

PETN

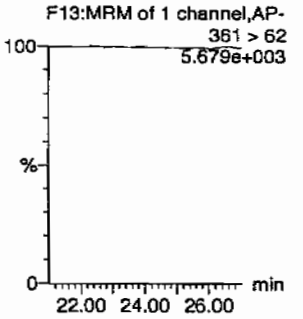

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032113	HMX	176 > 102			2833.926									
1202032113	RDX	176 > 102			2833.926									
1202032113	135-Trinitrobenzene	213 > 183			2833.926									
1202032113	13-Dinitrobenzene-d4	172 > 142	12.07	2833.926		2833.926	2833.926	bb			470.3743	94.1	-5.9	294.7
1202032113	13-Dinitrobenzene	168 > 138			2833.926			MM-	20-Feb-10	10:02:29				
1202032113	Tetryl	241 > 181			2833.926									
1202032113	Nitrobenzene	123 > 46			2833.926									
1202032113	4-Amino-26-dinitrotoluene	197 > 167			18393.563									
1202032113	2-Amino-46-dinitrotoluene	197 > 180			18393.563									
1202032113	246-Trinitrotoluene	227 > 210			18393.563									
1202032113	34-dinitrotoluene	182 > 152	14.38	8169.885	18393.563	8169.885	222.085	bb			245.1271	98.1	-1.9	531.6
1202032113	26-dinitrotoluene	182 > 152			18393.563									
1202032113	24-dinitrotoluene	182 > 152			18393.563									
1202032113	26-dinitrotoluene-d3	185 > 155	17.42	18393.563		18393.563	18393.563	bb			528.2909	105.7	5.7	2106.8
1202032113	2-Nitrotoluene	137 > 46			18393.563									
1202032113	4-Nitrotoluene	137 > 46			18393.563									
1202032113	3-Nitrotoluene	137 > 46			18393.563									
1202032113	PETN	361 > 62			18393.563									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948578

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 1202032113

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140143.wiff

Date Analyzed: 16-FEB-10 03:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/17/10

Sample Name: "1202032113" Sample ID: "948579|2|LER" File: "EXS02140143.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "
ample Index: 1
ample Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/16/2010
q. Time: 3:28:17 AM

ified: No

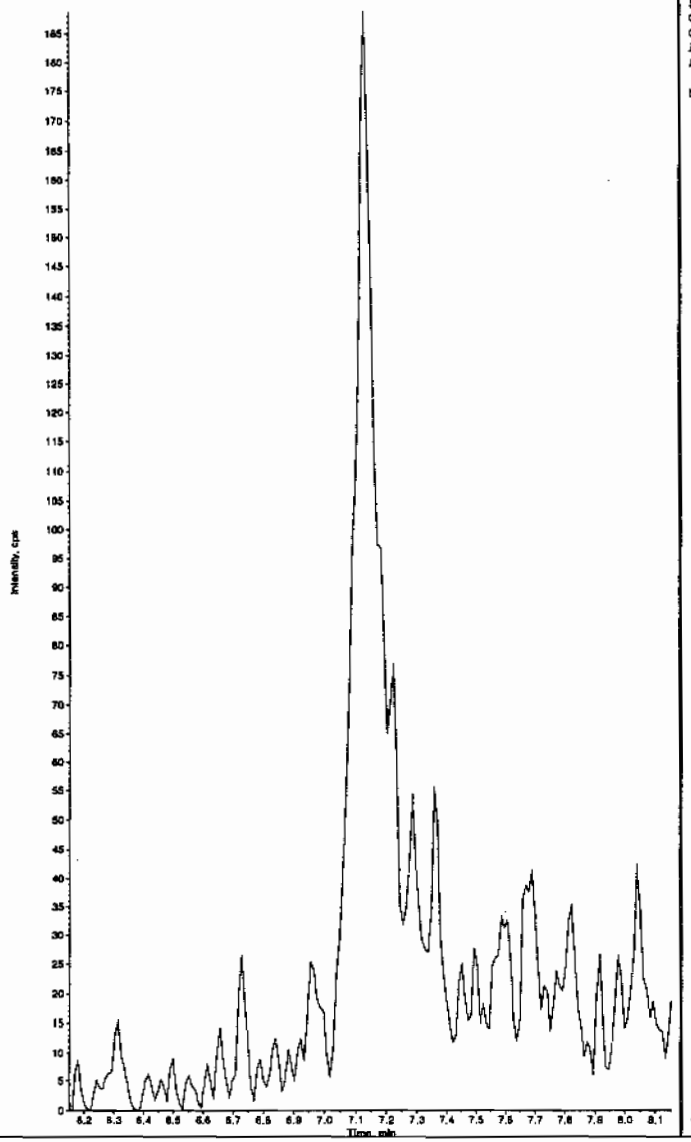

Sample Name: "1202032113" Sample ID: "948579|2|LER" File: "EXS02140143.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:28:17 AM

Modified: Yes

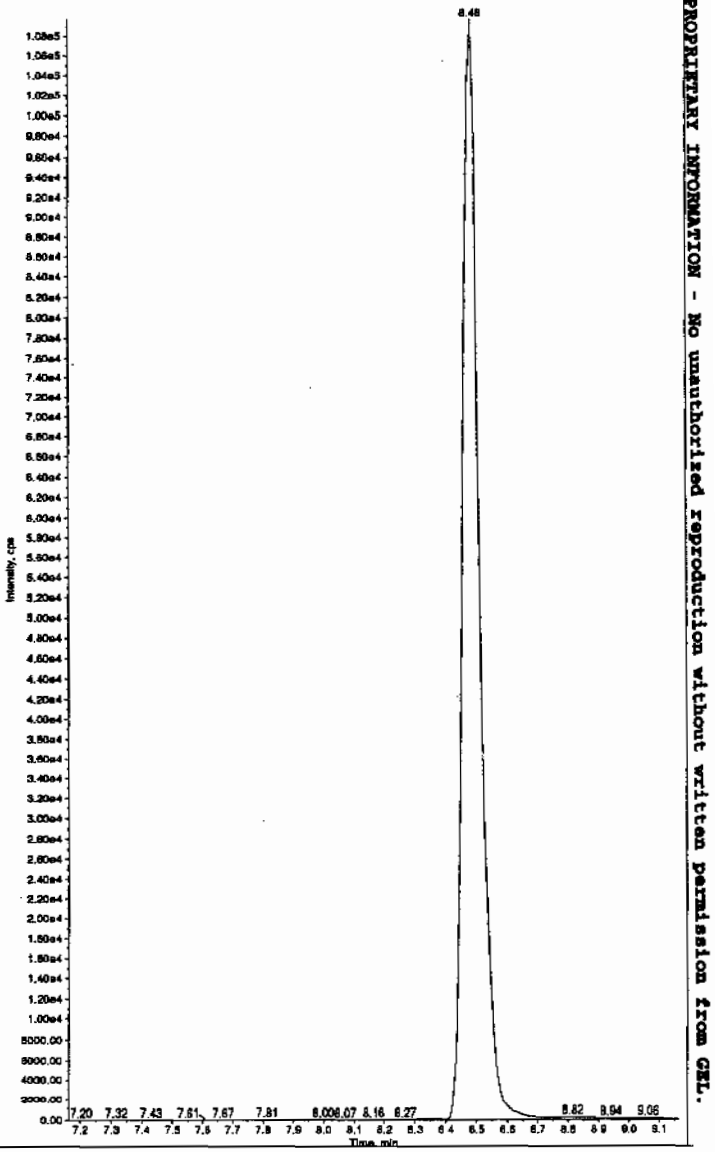

Hmm 02/17/10

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032113" Sample ID: "948579|2|LER" File: "EXS02140143.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	289. ng/mL
cq. Date:	2/16/2010
cq. Time:	3:28:17 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.52 min
e Relative RT:	No
t. Type:	Valley
tention Time:	8.47 min
ea:	3.76e+006 counts
ight:	1008376.221 cps
art Time:	8.38 min
d Time:	8.86 min

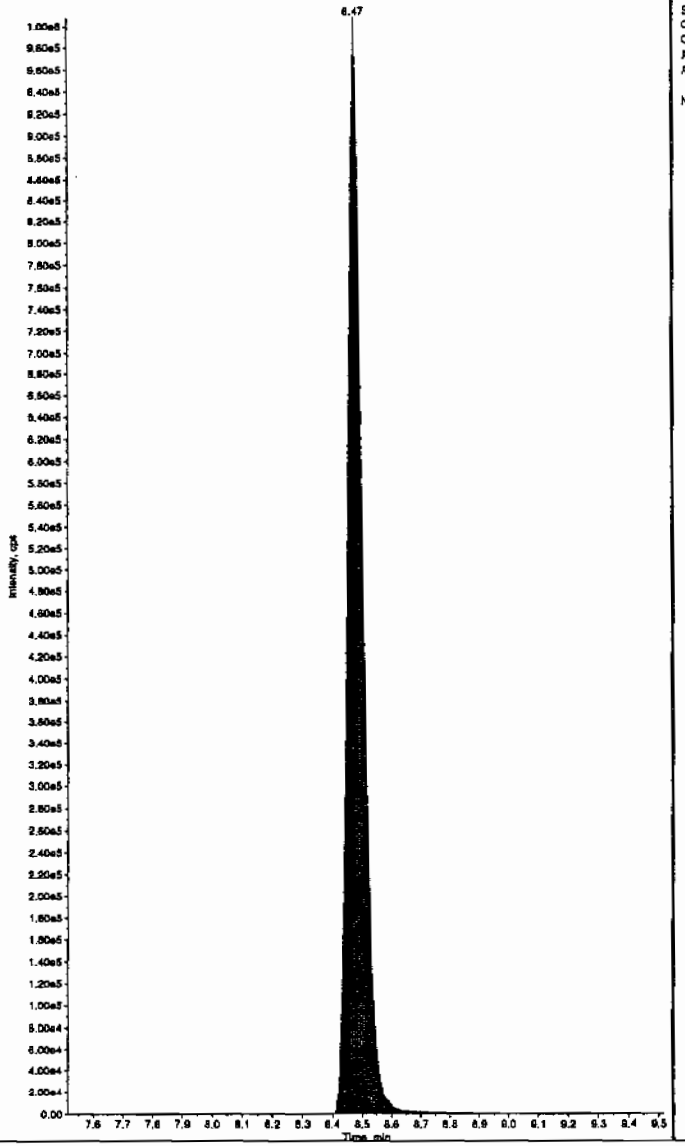

Sample Name: "1202032113" Sample ID: "948579|2|LER" File: "EXS02140143.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/16/2010
Acq. Time:	3:28:17 AM
Modified:	No

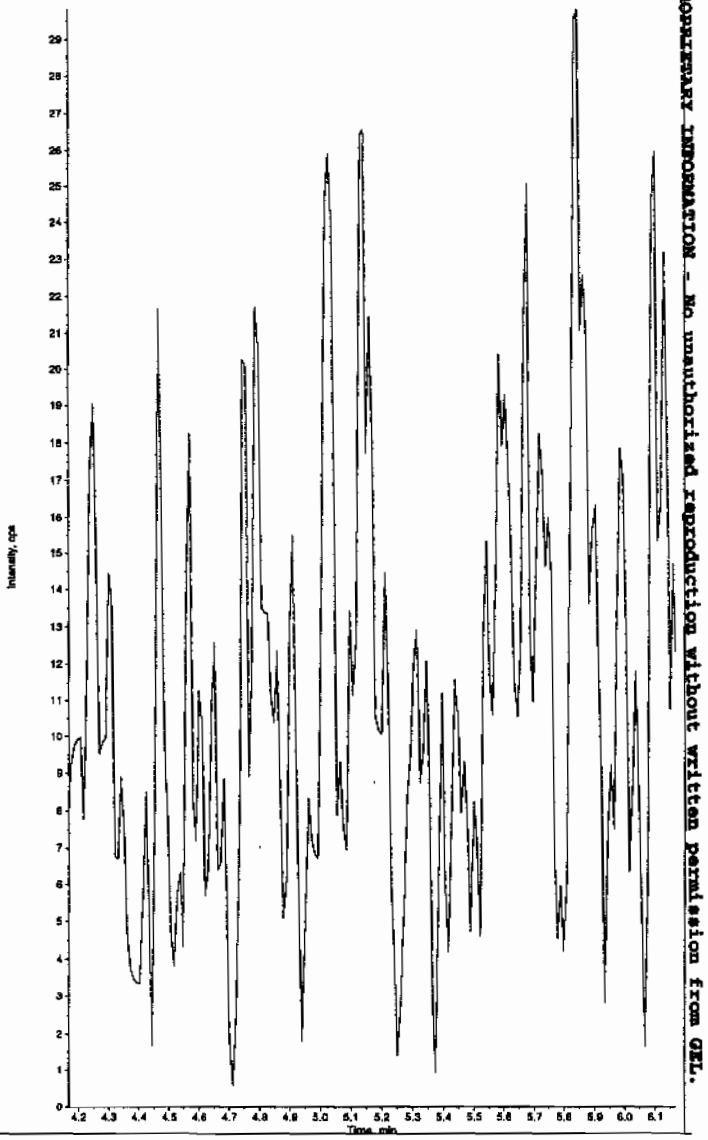

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Sample Name: "1202032113" Sample ID: "948579|2|LER" File: "EXS02140143.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/16/2010
q. Time: 3:28:17 AM

dified: No

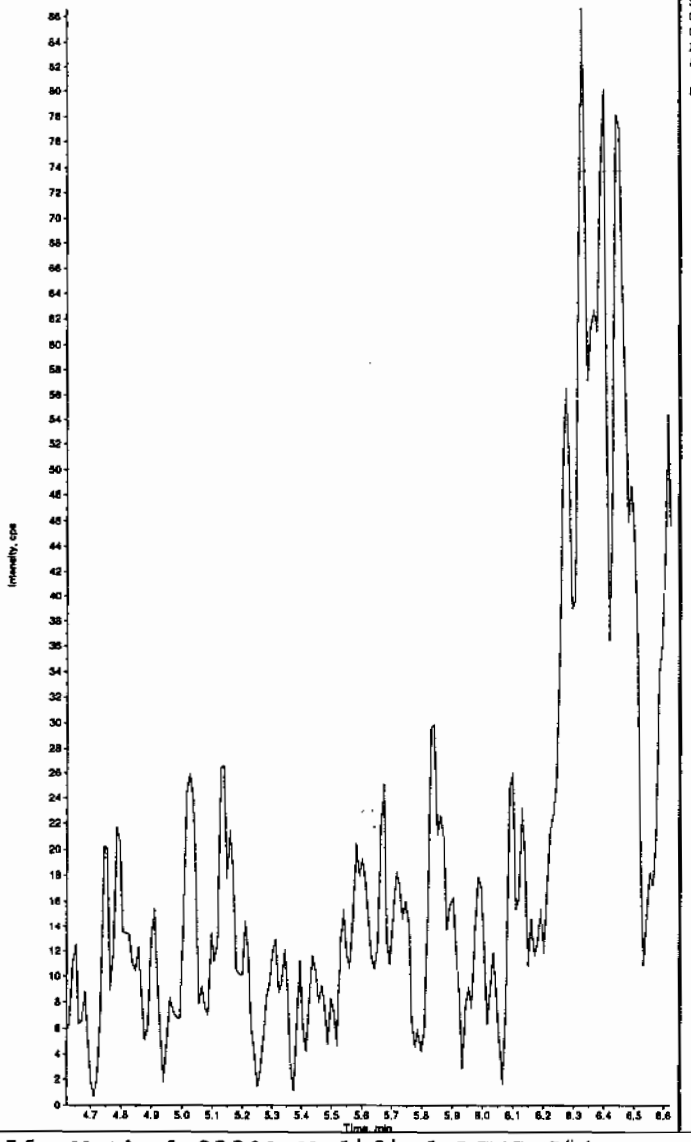

Sample Name: "1202032113" Sample ID: "948579|2|LER" File: "EXS02140143.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:28:17 AM

Modified: No

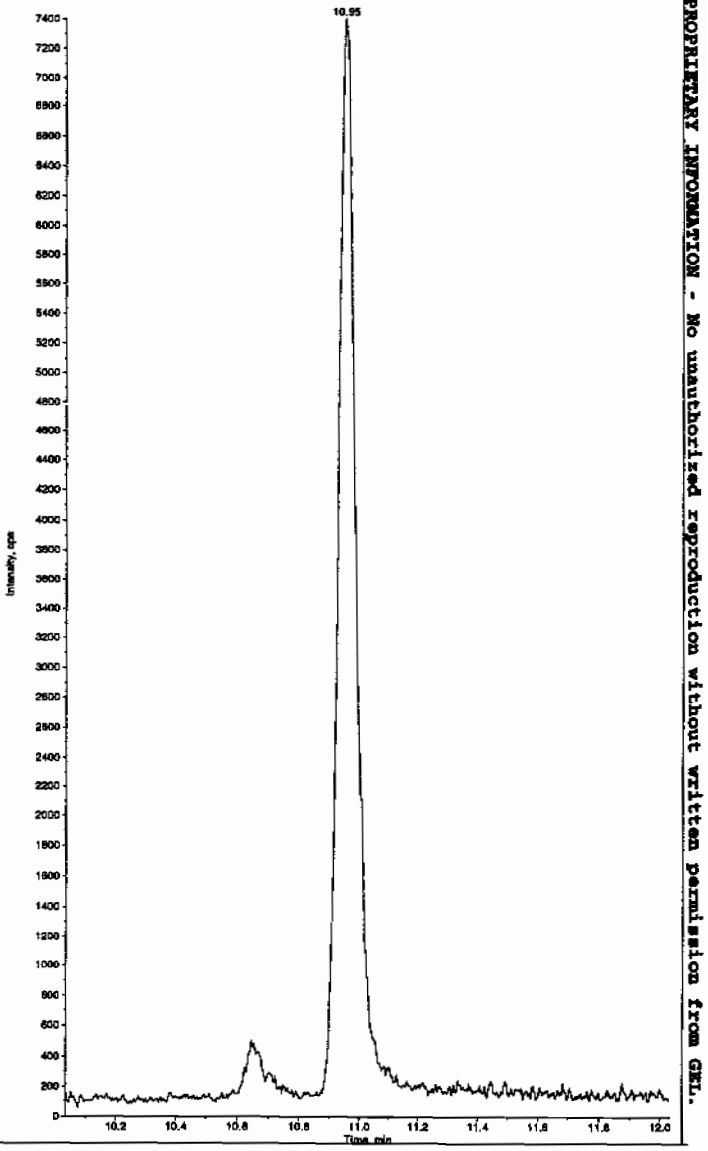

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948578

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 1202032114

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0216130a

Date Analyzed: 19-FEB-10 08:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5050	
121-14-2	2,4-Dinitrotoluene	5470	
121-82-4	RDX	4740	
19406-51-0	4-Amino-2,6-dinitrotoluene	4600	
2691-41-0	HMX	4930	
35572-78-2	2-Amino-4,6-dinitrotoluene	5200	
479-45-8	Tetryl	3160	
606-20-2	2,6-Dinitrotoluene	5080	
78-11-5	PETN	4980	
88-72-2	o-Nitrotoluene	4520	
98-95-3	Nitrobenzene	4630	
99-08-1	m-Nitrotoluene	4100	
99-35-4	1,3,5-Trinitrobenzene	4730	
99-65-0	m-Dinitrobenzene	5330	
99-99-0	p-Nitrotoluene	4150	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216130a
Date: 19-Feb-2010
Time: 08:51:06
ID: 1202032114 | LANIL | 948579 | Soil | LCS | 2 |
Vial: 3:1,B

MM 2/20/10

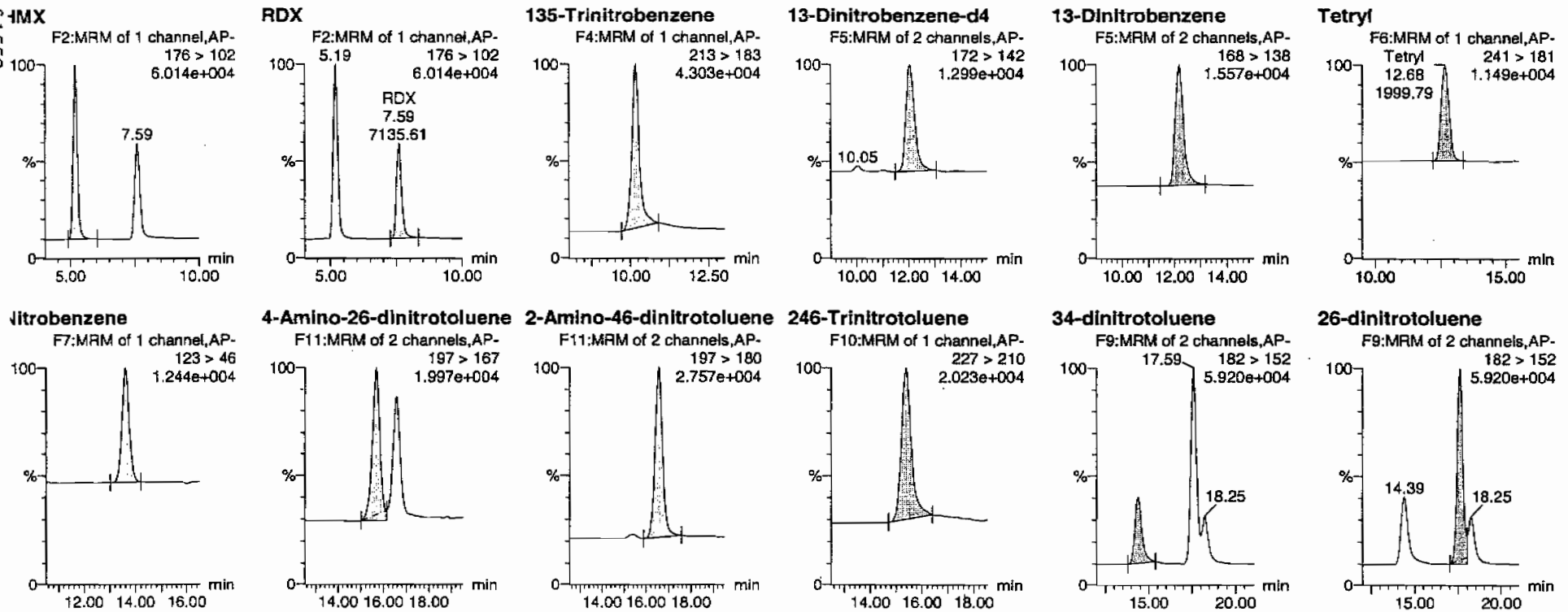

dmm 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

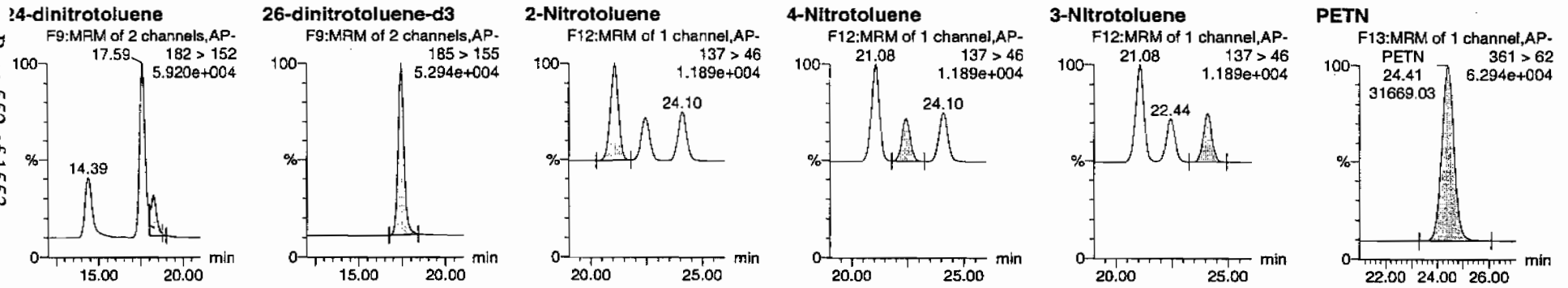

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202032114	HMX	176 > 102	5.19	11033.669	2901.986	11033.669	1901.055	db			492.7087	98.5	-1.5	1440.4
1202032114	RDX	176 > 102	7.59	7135.615	2901.986	7135.615	1229.436	bb			474.0557	94.8	-5.2	791.0
1202032114	135-Trinitrobenzene	213 > 183	10.16	10624.569	2901.986	10624.569	1830.569	bb			472.7043	94.5	-5.5	541.5
1202032114	13-Dinitrobenzene-d4	172 > 142	12.03	2901.986		2901.986	2901.986	bb			481.6709	96.3	-3.7	188.5
1202032114	13-Dinitrobenzene	168 > 138	12.17	3677.224	2901.986	3677.224	633.570	bb			533.0750	106.6	6.6	444.4
1202032114	Tetryl	241 > 181	12.68	1999.786	2901.986	1999.786	344.555	bb			316.0380	63.2	-36.8	136.6
1202032114	Nitrobenzene	123 > 46	13.59	2307.654	2901.986	2307.654	397.599	bb			463.1272	92.6	-7.4	232.9
1202032114	4-Amino-26-dinitrotoluene	197 > 167	15.68	5603.285	19022.271	5603.285	147.282	MM	20-Feb-10	10:03:55	459.9448	92.0	-8.0	352.7
1202032114	2-Amino-46-dinitrotoluene	197 > 180	16.58	8546.813	19022.271	8546.813	224.653	bb			519.9636	104.0	4.0	475.8
1202032114	246-Trinitrotoluene	227 > 210	15.38	6434.932	19022.271	6434.932	169.142	bb			504.5179	100.9	0.9	758.8
1202032114	34-dinitrotoluene	182 > 152	14.39	8571.437	19022.271	8571.437	225.300	bb			248.6753	99.5	-0.5	411.7
1202032114	26-dinitrotoluene	182 > 152	17.59	20460.510	19022.271	20460.510	537.804	MM	20-Feb-10	10:10:36	507.6304	101.5	1.5	1219.4
1202032114	24-dinitrotoluene	182 > 152	18.25	5133.921	19022.271	5133.921	134.945	MM	20-Feb-10	10:10:47	547.4212	109.5	9.5	283.5
1202032114	26-dinitrotoluene-d3	185 > 155	17.42	19022.271		19022.271	19022.271	bb			546.3483	109.3	9.3	1490.0
1202032114	2-Nitrotoluene	137 > 46	21.08	2615.329	19022.271	2615.329	68.744	bb			451.6854	90.3	-9.7	272.0
1202032114	4-Nitrotoluene	137 > 46	22.44	1211.411	19022.271	1211.411	31.842	bb			415.4130	83.1	-16.9	121.9
1202032114	3-Nitrotoluene	137 > 46	24.10	1396.023	19022.271	1396.023	36.694	bb			410.0438	82.0	-18.0	139.2
1202032114	PETN	361 > 62	24.41	31669.029	19022.271	31669.029	832.420	bb			497.6712	99.5	-0.5	5737.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948578

Lab Code: GEL

GEL Job No (SDG) 10-1516

Matrix: SOIL

GEL Sample ID: 1202032114

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948578

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02140144.wiff

Date Analyzed: 16-FEB-10 03:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6560	
59229-75-3	2,6-Diamino-4-nitrotoluene	3820	
618-87-1	3,5-Dinitroaniline	5200	
6629-29-4	2,4-Diamino-6-nitrotoluene	3890	
78-30-8	tris(o-cresyl) phosphate	4910	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Sev 2/16/10

Sample Name: "1202032114" Sample ID: "946579|2|LER" File: "EXS02140144.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	656. ng/mL
q. Date:	2/16/2010
q. Time:	3:43:59 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.15 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.13 min
ea:	9.15e+005 counts
ight:	212736.588 cps
rt Time:	7.02 min
d Time:	7.63 min

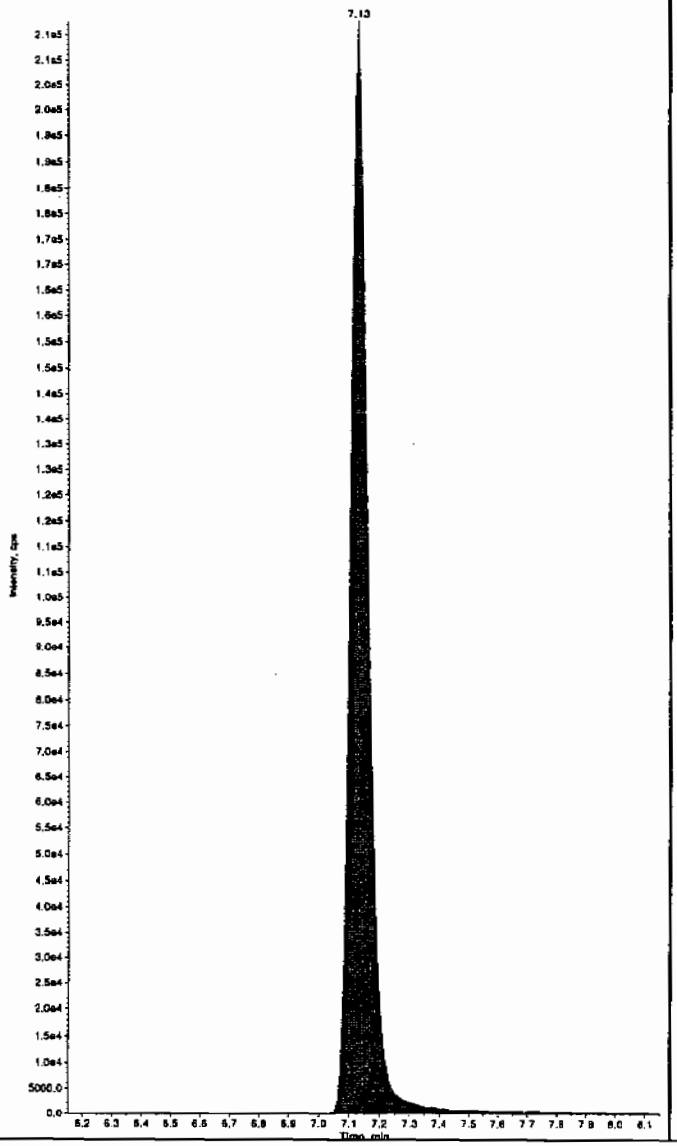

Sample Name: "1202032114" Sample ID: "946579|2|LER" File: "EXS02140144.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	583. ng/mL
Acq. Date:	2/16/2010
Acq. Time:	3:43:59 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.38 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.34 min
Area:	3.79e+006 counts
Height:	858990.234 cps
Start Time:	8.27 min
End Time:	8.66 min

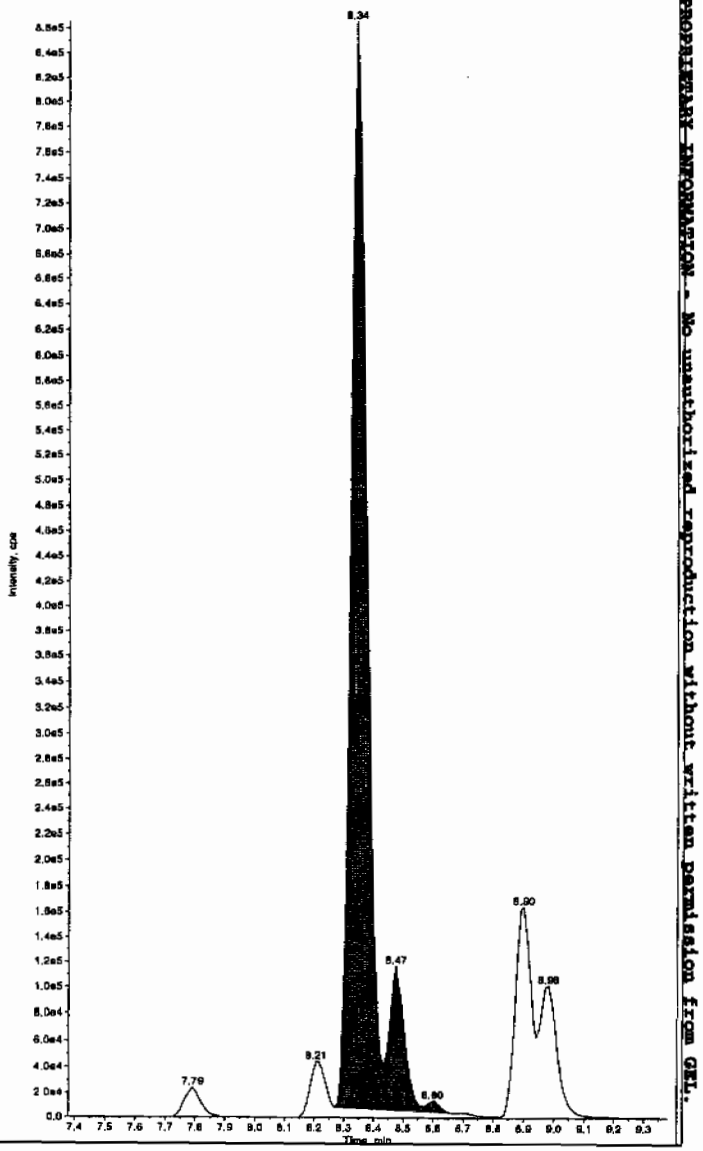

HMM 02/17/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Chen 2/17/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "1202032114" Sample ID: "948579|2|LER" File: "EXS02140144.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1	
ple Type:	Unknown	
centration:	N/A	
culated Conc:	656.	ng/mL
. Date:	2/16/2010	
. Time:	3:43:59 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
ected RT:	7.15	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.13	min
a:	9.15e+005	counts
ght:	212736.588	cps
rt Time:	7.02	min
Time:	7.63	min

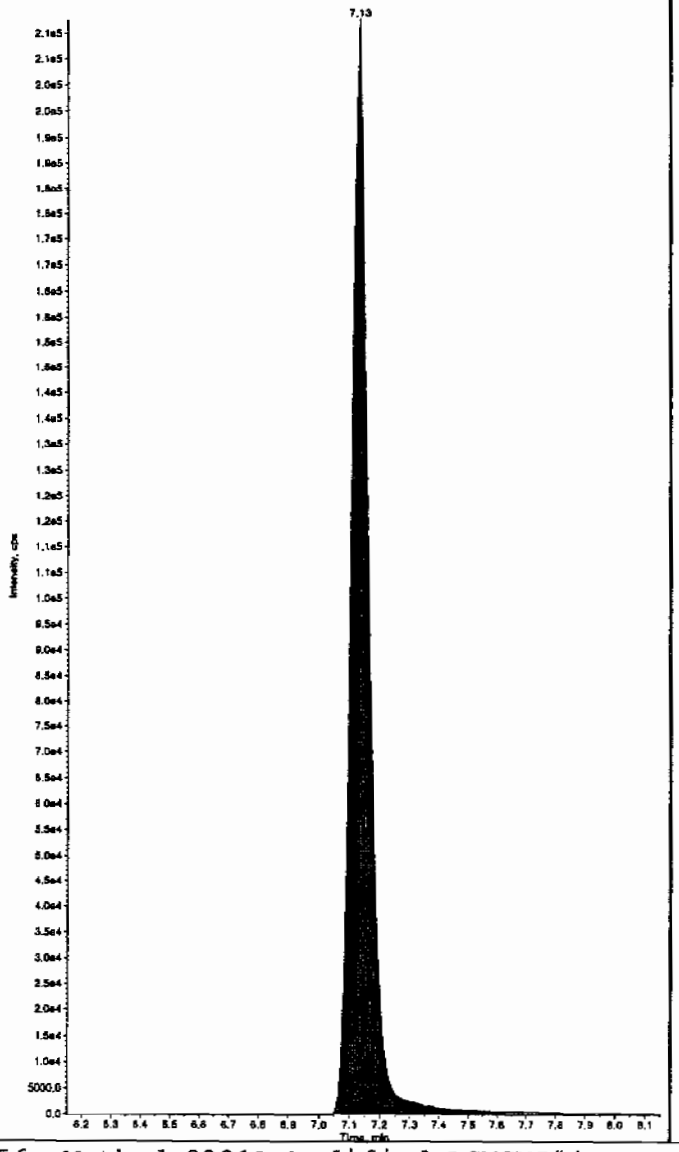

Sample Name: "1202032114" Sample ID: "948579|2|LER" File: "EXS02140144.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	520.	ng/mL
Acq. Date:	2/16/2010	
Acq. Time:	3:43:59 AM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.38	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.34	min
Area:	3.40e+006	counts
Height:	867103.444	cps
Start Time:	8.27	min
End Time:	8.43	min

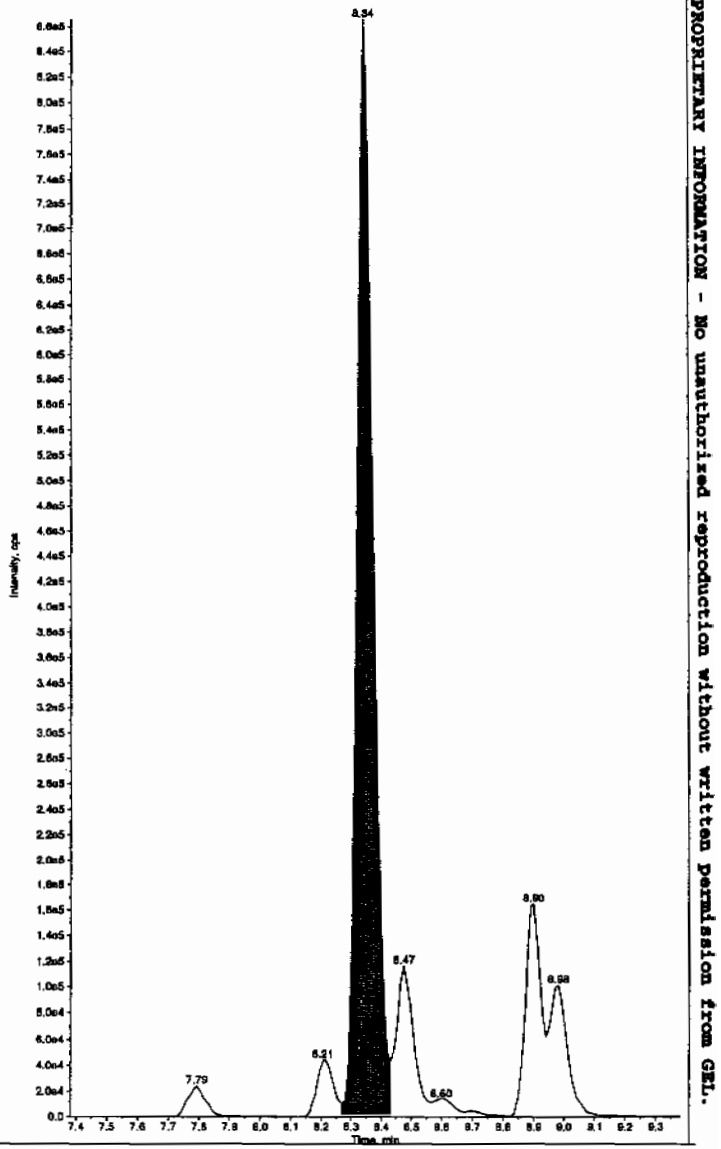

Sample Name: "1202032114" Sample ID: "948579|2|LER" File: "EXS02140144.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 289. ng/mL
q. Date: 2/16/2010
q. Time: 3:43:59 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.52 min
e Relative RT: No

t. Type: Valley
tention Time: 8.46 min
ea: 3.76e+006 counts
ight: 970652.161 cps
art Time: 8.40 min
d Time: 8.69 min

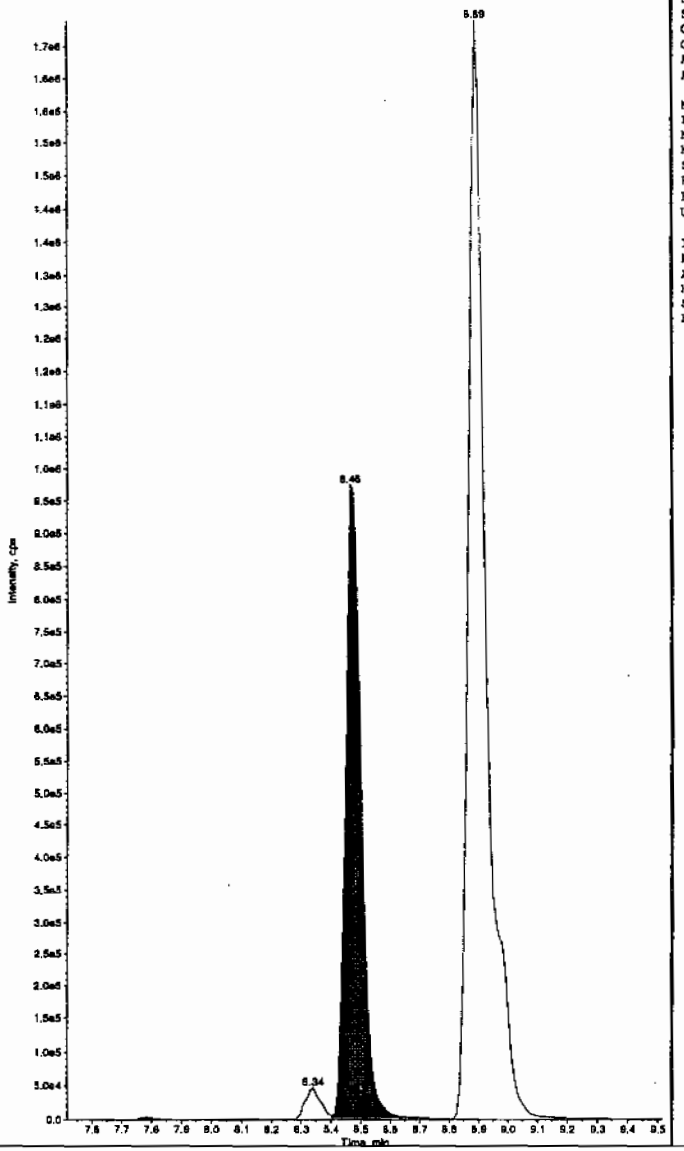

Sample Name: "1202032114" Sample ID: "948579|2|LER" File: "EXS02140144.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 382. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 3:43:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.16 min
Area: 1.10e+006 counts
Height: 296138.511 cps
Start Time: 5.05 min
End Time: 5.44 min

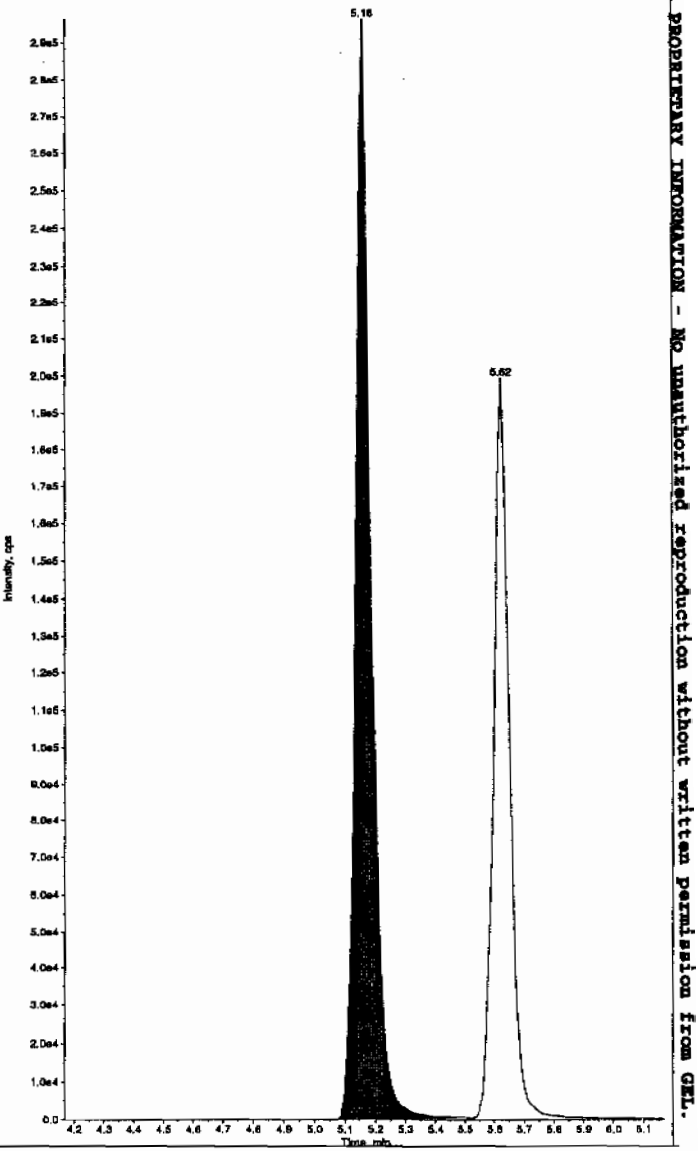

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Sample Name: "1202032114" Sample ID: "948579|2|LER" File: "EXS02140144.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index:	1
ample Type:	Unknown
oncentration:	N/A
alculated Conc:	389. ng/mL
cq. Date:	2/16/2010
cq. Time:	3:43:59 AM
odified:	No
roc. Algorithm:	IntelliQuan - IQA
in. Peak Height:	350.00 cps
in. Peak Width:	0.00 sec
moothing Width:	3 points
T Window:	30.0 sec
xpected RT:	5.62 min
se Relative RT:	No
nt. Type:	Valley
etention Time:	5.62 min
rea:	7.41e+005 counts
eight:	199041.092 cps
art Time:	5.51 min
nd Time:	5.92 min

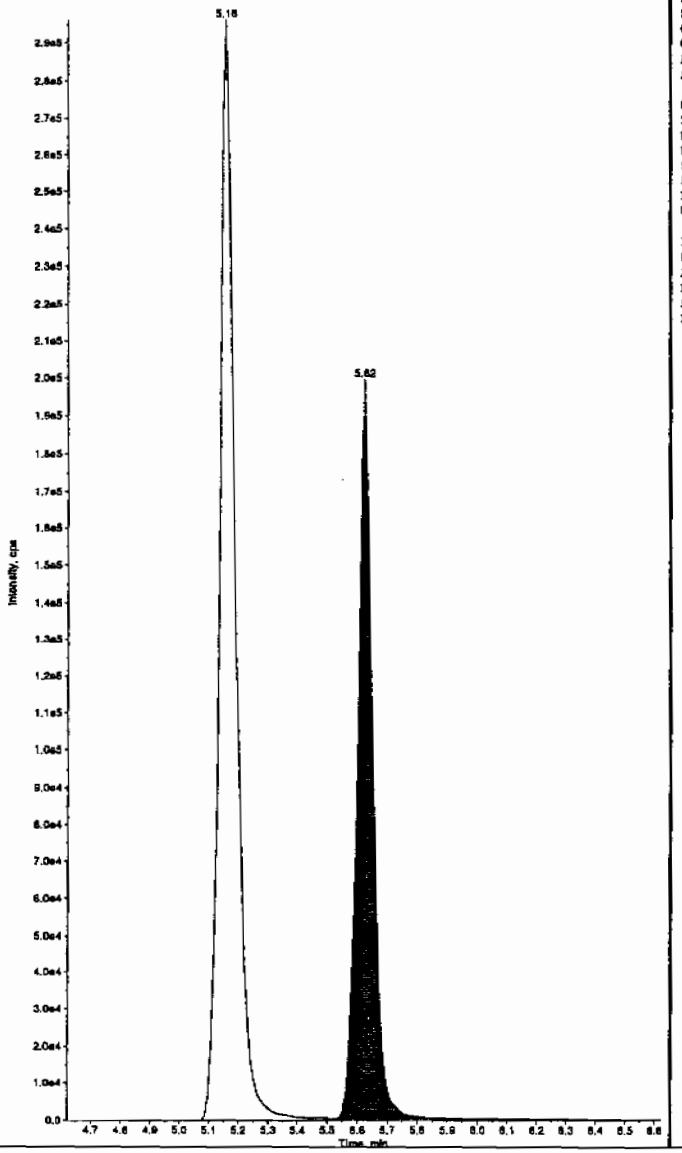

Sample Name: "1202032114" Sample ID: "948579|2|LER" File: "EXS02140144.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	491. ng/mL
Acq. Date:	2/16/2010
Acq. Time:	3:43:59 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	11.0 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	1.07e+007 counts
Height:	2481133.545 cps
Start Time:	10.8 min
End Time:	11.3 min

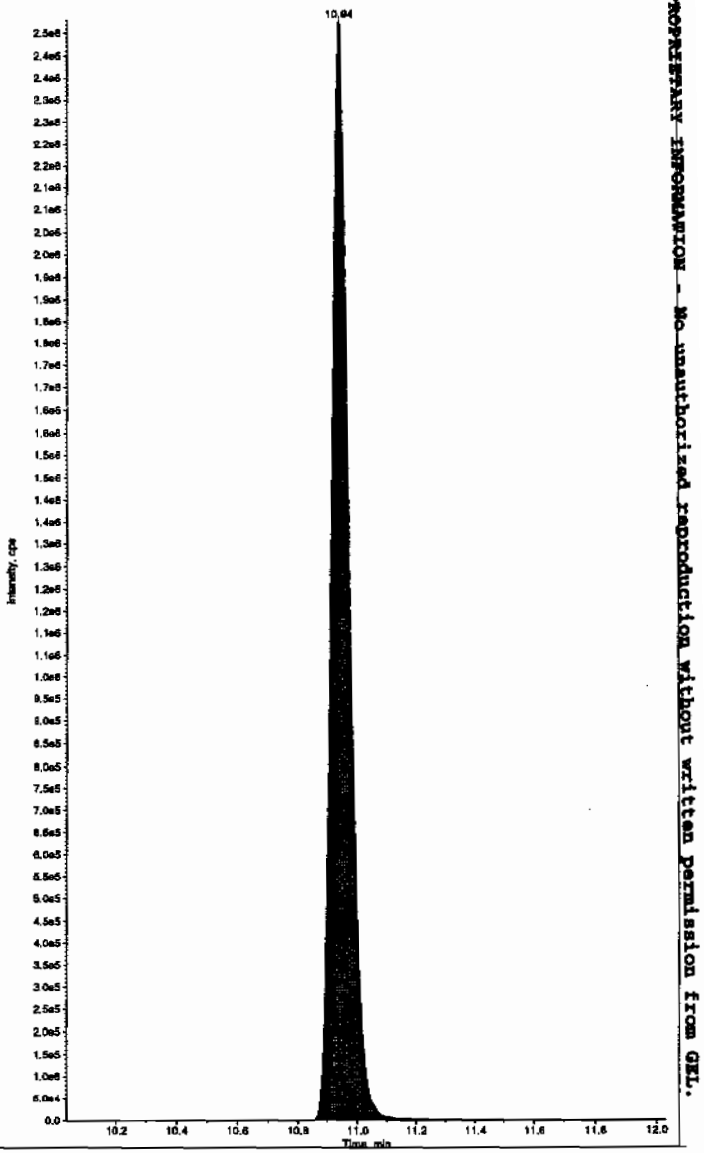

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 948578 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202032113 MB	09-FEB-2010 18:38:00	2	10	5
1202032114 LCS	09-FEB-2010 18:38:00	2	10	5
245994001	09-FEB-2010 18:38:00	2	10	5
245994002	09-FEB-2010 18:38:00	2	10	5
245994003	09-FEB-2010 18:38:00	2	10	5
245994004	09-FEB-2010 18:38:00	2	10	5
245994005	09-FEB-2010 18:38:00	2	10	5
245994006	09-FEB-2010 18:38:00	2	10	5
245994007	09-FEB-2010 18:38:00	2	10	5
245994008	09-FEB-2010 18:38:00	2	10	5
245994009	09-FEB-2010 18:38:00	2	10	5
246006001	09-FEB-2010 18:38:00	2	10	5
1202032115 MS (246006001)	09-FEB-2010 18:38:00	2	10	5
1202032116 MSD (246006001)	09-FEB-2010 18:38:00	2	10	5
246006002	09-FEB-2010 18:38:00	2	10	5
246006003	09-FEB-2010 18:38:00	2	10	5
246006004	09-FEB-2010 18:38:00	2	10	5
246006005	09-FEB-2010 18:38:00	2	10	5
246006006	09-FEB-2010 18:38:00	2	10	5
246006007	09-FEB-2010 18:38:00	2	10	5
246006008	09-FEB-2010 18:38:00	2	10	5
246006009	09-FEB-2010 18:38:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202032114	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202032114	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MS	1202032115	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202032115	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MSD	1202032116	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202032116	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100204-02	.05	mL

Comments:

Final Solvent: ACN

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 02/16/10
Extr. Injection Volume: 50uL
Sequence Number: 021610expA
Initial Calibration Date: 02/16/10

Method: SW846 8321A-Modified
Int. Std.: UXX100128-01.3
Mobile Phase Lot#: 1269631, 1263794
Standard-Samp Reagent Lot#: 1260901, 1261217

Reviewed BY: [illegible]
Date: 02/21/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100216-07, WXX100219-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0216001a	XIBLK01	MAP	2/16/10 17:07			1		USE	B
EXP0216002a	XIBLK01	MAP	2/16/10 17:37			1		USE	B
EXP0216003a	WXXICAL-01	MAP	2/16/10 18:07			1		USE	I
EXP0216004a	WXXICAL-02	MAP	2/16/10 18:36			1		USE	I
EXP0216005a	WXXICAL-03	MAP	2/16/10 19:06			1		USE	I
EXP0216006a	WXXICAL-04	MAP	2/16/10 19:35			1		USE	I
EXP0216007a	WXXICAL-05	MAP	2/16/10 20:05			1		USE	I
EXP0216008a	WXXICAL-06	MAP	2/16/10 20:35			1		USE	I
EXP0216009a	XIBLK02	MAP	2/16/10 21:04			1		USE	B
EXP0216010a	WXXICV	MAP	2/16/10 21:34			1		USE	C
EXP0216011a	XIBLK03	MAP	2/16/10 22:04			1		USE	B
EXP0216012a	WXXCRI	MAP	2/16/10 22:33			1		USE	C
EXP0216013a	1202038759	MAP	2/16/10 23:03	951342	Various	2	LANL	USE	S
EXP0216014a	1202038760	MAP	2/16/10 23:33	951342	Various	2	LANL	USE	S
EXP0216015a	246569007	MAP	2/17/10 0:02	951342	10-1669	2	LANL	USE	S
EXP0216016a	1202038761	MAP	2/17/10 0:32	951342	10-1669	2	LANL	USE	S
EXP0216017a	1202038762	MAP	2/17/10 1:02	951342	10-1669	2	LANL	USE	S
EXP0216018a	246572005	MAP	2/17/10 1:32	951342	10-1678	2	LANL	USE	S
EXP0216019a	246580002	MAP	2/17/10 2:01	951342	10-1683	2	LANL	USE	S
EXP0216020a	246580003	MAP	2/17/10 2:31	951342	10-1683	2	LANL	USE	S
EXP0216021a	WXXCCV	MAP	2/17/10 3:00			1		USE	C
EXP0216022a	XIBLK04	MAP	2/17/10 3:30			1		USE	B
EXP0216023a	WXXCRI	MAP	2/17/10 3:59			1		USE	C
EXP0216024a	246595004	MAP	2/17/10 4:29	951342	10-1694	2	LANL	USE	S
EXP0216025a	1202038763	MAP	2/17/10 4:58	951342	10-1694	2	LANL	USE	S
EXP0216026a	1202038764	MAP	2/17/10 5:28	951342	10-1694	2	LANL	USE	S
EXP0216027a	WXXCCV	MAP	2/17/10 5:58			1		USE	C
EXP0216028a	XIBLK05	MAP	2/17/10 6:28			1		USE	B
EXP0216029a	WXXCRI	MAP	2/17/10 6:57			1		USE	C
EXP0216030a	1202030577	MAP	2/17/10 7:27	947919	Various	2	LANL	USE	S
EXP0216031a	1202030578	MAP	2/17/10 7:57	947919	Various	2	LANL	USE	S

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

EXP0216032a	245908001	MAP	2/17/10 8:27	947919	10-1486	2	LANL	USE	S
EXP0216033a	1202030579	MAP	2/17/10 8:56	947919	10-1486	2	LANL	USE	S
EXP0216034a	1202030580	MAP	2/17/10 9:26	947919	10-1486	2	LANL	USE	S
EXP0216035a	245908002	MAP	2/17/10 9:56	947919	10-1486	2	LANL	USE	S
EXP0216036a	245908005	MAP	2/17/10 10:25	947919	10-1486	2	LANL	USE	S
EXP0216037a	245908006	MAP	2/17/10 10:55	947919	10-1486	2	LANL	USE	S
EXP0216038a	245912003	MAP	2/17/10 11:25	947919	10-1488	2	LANL	USE	S
EXP0216039a	WXXCCV	MAP	2/17/10 11:55			1		USE	C
EXP0216040a	XIBLK06	MAP	2/17/10 12:24			1		USE	B
EXP0216041a	WXXCRI	MAP	2/17/10 12:54			1		USE	C
EXP0216042a	1202038769	MAP	2/17/10 13:23	951349	Various	2	LANL	USE	S
EXP0216043a	1202038770	MAP	2/17/10 13:53	951349	Various	2	LANL	USE	S
EXP0216044a	246554001	MAP	2/17/10 14:23	951349	10-1665	2	LANL	USE	S
EXP0216045a	1202038771	MAP	2/17/10 14:52	951349	10-1665	2	LANL	USE	S
EXP0216046a	1202038772	MAP	2/17/10 15:22	951349	10-1665	2	LANL	USE	S
EXP0216047a	246554002	MAP	2/17/10 15:52	951349	10-1665	2	LANL	USE	S
EXP0216048a	246554003	MAP	2/17/10 16:21	951349	10-1665	2	LANL	USE	S
EXP0216049a	246554004	MAP	2/17/10 16:51	951349	10-1665	2	LANL	USE	S
EXP0216050a	246554005	MAP	2/17/10 17:20	951349	10-1665	2	LANL	USE	S
EXP0216051a	246554006	MAP	2/17/10 17:50	951349	10-1665	2	LANL	USE	S
EXP0216052a	WXXCCV	MAP	2/17/10 18:20			1		USE	C
EXP0216053a	XIBLK07	MAP	2/17/10 18:50			1		USE	B
EXP0216054a	WXXCRI	MAP	2/17/10 19:19			1		USE	C
EXP0216055a	246557001	MAP	2/17/10 19:49	951349	10-1666	2	LANL	USE	S
EXP0216056a	246562001	MAP	2/17/10 20:19	951349	10-1668	2	LANL	USE	S
EXP0216057a	246575003	MAP	2/17/10 20:49	951349	10-1675	2	LANL	USE	S
EXP0216058a	246575004	MAP	2/17/10 21:18	951349	10-1675	2	LANL	USE	S
EXP0216059a	246582002	MAP	2/17/10 21:48	951349	10-1685	2	LANL	USE	S
EXP0216060a	246582003	MAP	2/17/10 22:17	951349	10-1685	2	LANL	USE	S
EXP0216061a	246582004	MAP	2/17/10 22:47	951349	10-1685	2	LANL	USE	S
EXP0216062a	246582005	MAP	2/17/10 23:16	951349	10-1685	2	LANL	USE	S
EXP0216063a	246582006	MAP	2/17/10 23:46	951349	10-1685	2	LANL	USE	S
EXP0216064a	246582007	MAP	2/18/10 0:15	951349	10-1685	2	LANL	USE	S
EXP0216065a	WXXCCV	MAP	2/18/10 0:45			1		USE	C
EXP0216066a	XIBLK08	MAP	2/18/10 1:14			1		USE	B
EXP0216067a	WXXCRI	MAP	2/18/10 1:44			1		USE	C
EXP0216068a	246582008	MAP	2/18/10 2:14	951349	10-1685	2	LANL	USE	S
EXP0216069a	XIBLK09	MAP	2/18/10 2:43			1		USE	B
EXP0216070a	1202032097	MAP	2/18/10 3:13	948572	Various	2	LANL	DUSE	S

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EXP0216071a	1202032098	MAP	2/18/10 3:43	948572	Various	2	LANL	DUSE	S
EXP0216072a	245955001	MAP	2/18/10 4:12	948572	10-1509	2	LANL	DUSE	S
EXP0216073a	245955002	MAP	2/18/10 4:42	948572	10-1509	2	LANL	DUSE	S
EXP0216074a	245959001	MAP	2/18/10 5:12	948572	10-1510	2	LANL	DUSE	S
EXP0216075a	1202032099	MAP	2/18/10 5:42	948572	10-1510	2	LANL	DUSE	S
EXP0216076a	1202032100	MAP	2/18/10 6:11	948572	10-1510	2	LANL	DUSE	S
EXP0216077a	245959002	MAP	2/18/10 6:41	948572	10-1510	2	LANL	DUSE	S
EXP0216078a	WXXCCV	MAP	2/18/10 7:10			1		USE	C
EXP0216079a	XIBLK10	MAP	2/18/10 7:40			1		USE	B
EXP0216080a	WXXCRI	MAP	2/18/10 8:10			1		USE	C
EXP0216081a	1202032097	MAP	2/18/10 8:39	948572	Various	2	LANL	USE	S
EXP0216082a	1202032098	MAP	2/18/10 9:09	948572	Various	2	LANL	USE	S
EXP0216083a	245955001	MAP	2/18/10 9:38	948572	10-1509	2	LANL	USE	S
EXP0216084a	245955002	MAP	2/18/10 10:08	948572	10-1509	2	LANL	USE	S
EXP0216085a	245959001	MAP	2/18/10 10:37	948572	10-1510	2	LANL	USE	S
EXP0216086a	1202032099	MAP	2/18/10 11:07	948572	10-1510	2	LANL	USE	S
EXP0216087a	1202032100	MAP	2/18/10 11:36	948572	10-1510	2	LANL	USE	S
EXP0216088a	245959002	MAP	2/18/10 12:06	948572	10-1510	2	LANL	USE	S
EXP0216089a	WXXCCV	MAP	2/18/10 12:36			1		USE	C
EXP0216090a	XIBLK11	MAP	2/18/10 13:05			1		USE	B
EXP0216091a	WXXCRI	MAP	2/18/10 13:35			1		USE	C
EXP0216092a	245959003	MAP	2/18/10 14:04	948572	10-1510	2	LANL	USE	S
EXP0216093a	245959004	MAP	2/18/10 14:34	948572	10-1510	2	LANL	USE	S
EXP0216094a	245959005	MAP	2/18/10 15:03	948572	10-1510	2	LANL	USE	S
EXP0216095a	245959006	MAP	2/18/10 15:33	948572	10-1510	2	LANL	USE	S
EXP0216096a	245959007	MAP	2/18/10 16:03	948572	10-1510	2	LANL	USE	S
EXP0216097a	245959008	MAP	2/18/10 16:32	948572	10-1510	2	LANL	USE	S
EXP0216098a	245959009	MAP	2/18/10 17:02	948572	10-1510	2	LANL	USE	S
EXP0216099a	245959010	MAP	2/18/10 17:32	948572	10-1510	2	LANL	USE	S
EXP0216100a	245959012	MAP	2/18/10 18:01	948572	10-1510	2	LANL	USE	S
EXP0216101a	WXXCCV	MAP	2/18/10 18:31			1		USE	C
EXP0216102a	XIBLK12	MAP	2/18/10 19:00			1		USE	B
EXP0216103a	WXXCRI	MAP	2/18/10 19:30			1		USE	C
EXP0216104a	1202023589	MAP	2/18/10 19:59	944915	Various	2	LANL	USE	S
EXP0216105a	1202023590	MAP	2/18/10 20:29	944915	Various	2	LANL	USE	S
EXP0216106a	245377001	MAP	2/18/10 20:58	944915	10-1378	2	LANL	USE	S
EXP0216107a	245377002	MAP	2/18/10 21:28	944915	10-1378	2	LANL	USE	S
EXP0216108a	245377003	MAP	2/18/10 21:57	944915	10-1378	2	LANL	USE	S
EXP0216109a	245377004	MAP	2/18/10 22:27	944915	10-1378	2	LANL	USE	S

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EXP0216110a	245377005	MAP	2/18/10 22:56	944915	10-1378	2	LANL	USE	S
EXP0216111a	245377006	MAP	2/18/10 23:26	944915	10-1378	2	LANL	USE	S
EXP0216112a	245377007	MAP	2/18/10 23:56	944915	10-1378	2	LANL	USE	S
EXP0216113a	245377008	MAP	2/19/10 0:25	944915	10-1378	2	LANL	USE	S
EXP0216114a	WXXCCV	MAP	2/19/10 0:55			1		USE	C
EXP0216115a	XIBLK13	MAP	2/19/10 1:24			1		USE	B
EXP0216116a	WXXCRI	MAP	2/19/10 1:54			1		USE	C
EXP0216117a	245377009	MAP	2/19/10 2:23	944915	10-1378	2	LANL	USE	S
EXP0216118a	245377010	MAP	2/19/10 2:53	944915	10-1378	2	LANL	USE	S
EXP0216119a	245396001	MAP	2/19/10 3:23	944915	10-1394	2	LANL	USE	S
EXP0216120a	1202023591	MAP	2/19/10 3:52	944915	10-1394	2	LANL	USE	S
EXP0216121a	1202023592	MAP	2/19/10 4:22	944915	10-1394	2	LANL	USE	S
EXP0216122a	245396002	MAP	2/19/10 4:52	944915	10-1394	2	LANL	USE	S
EXP0216123a	245396003	MAP	2/19/10 5:22	944915	10-1394	2	LANL	USE	S
EXP0216124a	245396004	MAP	2/19/10 5:51	944915	10-1394	2	LANL	USE	S
EXP0216125a	247033002	MAP	2/19/10 6:21	944915	10-1821	2	LANL	USE	S
EXP0216126a	WXXCCV	MAP	2/19/10 6:51			1		USE	C
EXP0216127a	XIBLK14	MAP	2/19/10 7:21			1		USE	B
EXP0216128a	WXXCRI	MAP	2/19/10 7:51			1		USE	C
EXP0216129a	1202032113	MAP	2/19/10 8:20	948579	Various	2	LANL	USE	S
EXP0216130a	1202032114	MAP	2/19/10 8:51	948579	Various	2	LANL	USE	S
EXP0216131a	245994001	MAP	2/19/10 9:20	948579	10-1516	2	LANL	USE	S
EXP0216132a	245994002	MAP	2/19/10 9:50	948579	10-1516	2	LANL	USE	S
EXP0216133a	245994003	MAP	2/19/10 10:19	948579	10-1516	2	LANL	USE	S
EXP0216134a	245994004	MAP	2/19/10 10:49	948579	10-1516	2	LANL	USE	S
EXP0216135a	245994005	MAP	2/19/10 11:18	948579	10-1516	2	LANL	USE	S
EXP0216136a	245994006	MAP	2/19/10 11:48	948579	10-1516	2	LANL	USE	S
EXP0216137a	245994007	MAP	2/19/10 12:18	948579	10-1516	2	LANL	USE	S
EXP0216138a	245994008	MAP	2/19/10 12:47	948579	10-1516	2	LANL	USE	S
EXP0216139a	WXXCCV	MAP	2/19/10 13:16			1		USE	C
EXP0216140a	XIBLK15	MAP	2/19/10 13:46			1		USE	B
EXP0216141a	WXXCRI	MAP	2/19/10 14:38			1		USE	C
EXP0216142a	245994009	MAP	2/19/10 15:08	948579	10-1516	2	LANL	USE	S
EXP0216143a	246006001	MAP	2/19/10 15:37	948579	10-1520	500	LANL	DUSE	S
EXP0216144a	246006001	MAP	2/19/10 16:07	948579	10-1520	2	LANL	USE	S
EXP0216145a	1202032115	MAP	2/19/10 16:37	948579	10-1520	2	LANL	USE	S
EXP0216146a	1202032116	MAP	2/19/10 17:07	948579	10-1520	2	LANL	USE	S
EXP0216147a	246006002	MAP	2/19/10 17:36	948579	10-1520	2	LANL	USE	S
EXP0216148a	246006003	MAP	2/19/10 18:06	948579	10-1520	2	LANL	USE	S

EXP0216149a	246006004	MAP	2/19/10 18:35	948579	10-1520	2	LANL	USE	S
EXP0216150a	246006005	MAP	2/19/10 19:05	948579	10-1520	2	LANL	USE	S
EXP0216151a	246006006	MAP	2/19/10 19:35	948579	10-1520	2	LANL	USE	S
EXP0216152a	WXXCCV	MAP	2/19/10 20:04			1		USE	C
EXP0216153a	XIBLK16	MAP	2/19/10 20:34			1		USE	B
EXP0216154a	WXXCRI	MAP	2/19/10 21:04			1		USE	C
EXP0216155a	246006007	MAP	2/19/10 21:34	948579	10-1520	2	LANL	USE	S
EXP0216156a	246006008	MAP	2/19/10 22:04	948579	10-1520	2	LANL	USE	S
EXP0216157a	246006009	MAP	2/19/10 22:34	948579	10-1520	2	LANL	USE	S
EXP0216158a	XIBLK17	MAP	2/19/10 23:03			1		USE	B
EXP0216159a	1202040417	MAP	2/19/10 23:33	952030	Various	2	LANL	USE	S
EXP0216160a	1202040418	MAP	2/20/10 0:03	952030	Various	2	LANL	USE	S
EXP0216161a	246707005	MAP	2/20/10 0:32	952030	10-1726	2	LANL	USE	S
EXP0216162a	1202040419	MAP	2/20/10 1:02	952030	10-1726	2	LANL	USE	S
EXP0216163a	1202040420	MAP	2/20/10 1:31	952030	10-1726	2	LANL	USE	S
EXP0216164a	246764004	MAP	2/20/10 2:01	952030	10-1721	2	LANL	USE	S
EXP0216165a	WXXCCV	MAP	2/20/10 2:30			1		USE	C
EXP0216166a	XIBLK18	MAP	2/20/10 3:00			1		USE	B
EXP0216167a	WXXCRI	MAP	2/20/10 3:30			1		USE	C
EXP0216168a	1202028657	MAP	2/20/10 3:59	947074	Various	2	LANL	USE	S
EXP0216169a	1202028658	MAP	2/20/10 4:29	947074	Various	2	LANL	USE	S
EXP0216170a	245789005	MAP	2/20/10 4:59	947074	10-1466	2	LANL	USE	S
EXP0216171a	245789009	MAP	2/20/10 5:28	947074	10-1466	2	LANL	USE	S
EXP0216172a	245789013	MAP	2/20/10 5:58	947074	10-1466	2	LANL	USE	S
EXP0216173a	245789017	MAP	2/20/10 6:28	947074	10-1466	2	LANL	USE	S
EXP0216174a	245809001	MAP	2/20/10 6:57	947074	10-1480	2	LANL	USE	S
EXP0216175a	1202028659	MAP	2/20/10 7:27	947074	10-1480	2	LANL	USE	S
EXP0216176a	1202028660	MAP	2/20/10 7:57	947074	10-1480	2	LANL	USE	S
EXP0216177a	WXXCCV	MAP	2/20/10 8:26			1		USE	C
EXP0216178a	XIBLK19	MAP	2/20/10 8:56			1		USE	B
EXP0216179a	WXXCRI	MAP	2/20/10 9:25			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 02/14/10
Extr. Injection Volume: 10uL
Sequence Number: 021410exs
Initial Calibration Date: 021410

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1263794, 1258141
Standard-Samp Reagent Lot# :1246195, 1253092

Reviewed By: HMC
Date: 02/17/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100214-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02140001.wiff	XIBLK01	LER	2/14/2010 14:17			1		USE	B
EXS02140002.wiff	XIBLK01	LER	2/14/2010 14:33			1		USE	B
EXS02140003.wiff	WXXICAL-19	LER	2/14/2010 14:48			1		USE	I
EXS02140004.wiff	WXXICAL-20	LER	2/14/2010 15:04			1		USE	I
EXS02140005.wiff	WXXICAL-21	LER	2/14/2010 15:20			1		USE	I
EXS02140006.wiff	WXXICAL-22	LER	2/14/2010 15:35			1		USE	I
EXS02140007.wiff	WXXICAL-23	LER	2/14/2010 15:51			1		USE	I
EXS02140008.wiff	WXXICAL-24	LER	2/14/2010 16:07			1		USE	I
EXS02140009.wiff	WXXICAL-25	LER	2/14/2010 16:22			1		USE	I
EXS02140010.wiff	XIBLK02	LER	2/14/2010 16:38			1		USE	B
EXS02140011.wiff	WXXICV	LER	2/14/2010 16:54			1		USE	C
EXS02140012.wiff	XIBLK03	LER	2/14/2010 17:10			1		USE	B
EXS02140013.wiff	WXXCRI	LER	2/14/2010 17:25			1		USE	C
EXS02140014.wiff	245387008	LER	2/14/2010 17:41	944907	10-1384	2	LANL	USE	S
EXS02140015.wiff	245387009	LER	2/14/2010 17:57	944907	10-1384	2	LANL	USE	S
EXS02140016.wiff	245387010	LER	2/14/2010 18:12	944907	10-1384	2	LANL	USE	S
EXS02140017.wiff	WXXCCV	LER	2/14/2010 18:28			1		USE	C
EXS02140018.wiff	XIBLK04	LER	2/14/2010 18:44			1		USE	B
EXS02140019.wiff	WXXCRI	LER	2/14/2010 18:59			1		USE	C
EXS02140020.wiff	1202030577	LER	2/14/2010 19:15	947919	VARIOUS	2	LANL	USE	S
EXS02140021.wiff	1202030578	LER	2/14/2010 19:31	947919	VARIOUS	2	LANL	USE	S
EXS02140022.wiff	245908001	LER	2/14/2010 19:47	947919	10-1486	2	LANL	USE	S
EXS02140023.wiff	1202030579	LER	2/14/2010 20:02	947919	10-1486	2	LANL	USE	S
EXS02140024.wiff	1202030580	LER	2/14/2010 20:18	947919	10-1486	2	LANL	USE	S
EXS02140025.wiff	245908002	LER	2/14/2010 20:34	947919	10-1486	2	LANL	USE	S
EXS02140026.wiff	245908003	LER	2/14/2010 20:49	947919	10-1486	2	LANL	USE	S
EXS02140027.wiff	245908004	LER	2/14/2010 21:05	947919	10-1486	2	LANL	USE	S
EXS02140028.wiff	245908005	LER	2/14/2010 21:21	947919	10-1486	2	LANL	USE	S
EXS02140029.wiff	245908006	LER	2/14/2010 21:37	947919	10-1486	2	LANL	USE	S
EXS02140030.wiff	WXXCCV	LER	2/14/2010 21:52			1		USE	C

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EXS02140031.wiff	XIBLK05	LER	2/14/2010 22:08			1		USE	B
EXS02140032.wiff	WXXCRI	LER	2/14/2010 22:24			1		USE	C
EXS02140033.wiff	245912001	LER	2/14/2010 22:39	947919	10-1488	2	LANL	USE	S
EXS02140034.wiff	245912002	LER	2/14/2010 22:55	947919	10-1488	2	LANL	USE	S
EXS02140035.wiff	245912003	LER	2/14/2010 23:11	947919	10-1488	2	LANL	USE	S
EXS02140036.wiff	245912004	LER	2/14/2010 23:27	947919	10-1488	2	LANL	USE	S
EXS02140037.wiff	245912005	LER	2/14/2010 23:42	947919	10-1488	2	LANL	USE	S
EXS02140038.wiff	245914001	LER	2/14/2010 23:58	947919	10-1490	2	LANL	USE	S
EXS02140039.wiff	245914002	LER	2/15/2010 0:14	947919	10-1490	2	LANL	USE	S
EXS02140040.wiff	245914003	LER	2/15/2010 0:29	947919	10-1490	2	LANL	USE	S
EXS02140041.wiff	245914004	LER	2/15/2010 0:45	947919	10-1490	2	LANL	USE	S
EXS02140042.wiff	245914005	LER	2/15/2010 1:01	947919	10-1490	2	LANL	USE	S
EXS02140043.wiff	WXXCCV	LER	2/15/2010 1:16			1		USE	C
EXS02140044.wiff	XIBLK06	LER	2/15/2010 1:32			1		USE	B
EXS02140045.wiff	WXXCRI	LER	2/15/2010 1:48			1		USE	C
EXS02140046.wiff	245914006	LER	2/15/2010 2:04	947919	10-1490	2	LANL	USE	S
EXS02140047.wiff	UXX100122-01.4	LER	2/15/2010 2:19	SCREEN	LIQUID	2	O2SI	USE	S
EXS02140048.wiff	XIBLK07	LER	2/15/2010 2:35			1		USE	B
EXS02140049.wiff	1202038759	LER	2/15/2010 2:51	951342	VARIOUS	2	LANL	USE	S
EXS02140050.wiff	1202038760	LER	2/15/2010 3:06	951342	VARIOUS	2	LANL	USE	S
EXS02140051.wiff	246569007	LER	2/15/2010 3:22	951342	10-1669	2	LANL	USE	S
EXS02140052.wiff	1202038761	LER	2/15/2010 3:38	951342	10-1669	2	LANL	USE	S
EXS02140053.wiff	1202038762	LER	2/15/2010 3:54	951342	10-1669	2	LANL	USE	S
EXS02140054.wiff	246572005	LER	2/15/2010 4:09	951342	10-1678	2	LANL	USE	S
EXS02140055.wiff	246580002	LER	2/15/2010 4:25	951342	10-1683	2	LANL	USE	S
EXS02140056.wiff	WXXCCV	LER	2/15/2010 4:41			1		USE	C
EXS02140057.wiff	XIBLK08	LER	2/15/2010 4:56			1		USE	B
EXS02140058.wiff	WXXCRI	LER	2/15/2010 5:12			1		USE	C
EXS02140059.wiff	246580003	LER	2/15/2010 5:28	951342	10-1683	2	LANL	USE	S
EXS02140060.wiff	246595004	LER	2/15/2010 5:43	951342	10-1694	2	LANL	USE	S
EXS02140061.wiff	1202038763	LER	2/15/2010 5:59	951342	10-1694	2	LANL	USE	S
EXS02140062.wiff	1202038764	LER	2/15/2010 6:15	951342	10-1694	2	LANL	USE	S
EXS02140063.wiff	XIBLK09	LER	2/15/2010 6:31			1		USE	B
EXS02140064.wiff	1202023631	LER	2/15/2010 6:46	944935	10-1392	2	LANL	USE	S
EXS02140065.wiff	1202023632	LER	2/15/2010 7:02	944935	10-1392	2	LANL	USE	S
EXS02140066.wiff	245394001	LER	2/15/2010 7:18	944935	10-1392	2	LANL	USE	S
EXS02140067.wiff	1202023633	LER	2/15/2010 7:33	944935	10-1392	2	LANL	USE	S

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EXS02140068.wiff	1202023634	LER	2/15/2010 7:49	944935	10-1392	2	LANL	USE	S
EXS02140069.wiff	WXXCCV	LER	2/15/2010 8:05			1		USE	C
EXS02140070.wiff	XIBLK10	LER	2/15/2010 8:21			1		USE	B
EXS02140071.wiff	WXXCRI	LER	2/15/2010 8:37			1		USE	C
EXS02140072.wiff	245394002	LER	2/15/2010 8:53	944935	10-1392	2	LANL	USE	S
EXS02140073.wiff	245394003	LER	2/15/2010 9:09	944935	10-1392	2	LANL	USE	S
EXS02140074.wiff	245394004	LER	2/15/2010 9:25	944935	10-1392	2	LANL	DUSE-RA	S
EXS02140075.wiff	245394005	LER	2/15/2010 9:40	944935	10-1392	2	LANL	USE	S
EXS02140076.wiff	245394006	LER	2/15/2010 9:56	944935	10-1392	2	LANL	USE	S
EXS02140077.wiff	245394007	LER	2/15/2010 10:12	944935	10-1392	2	LANL	USE	S
EXS02140078.wiff	245394008	LER	2/15/2010 10:27	944935	10-1392	2	LANL	USE	S
EXS02140079.wiff	245394009	LER	2/15/2010 10:43	944935	10-1392	2	LANL	USE	S
EXS02140080.wiff	245394010	LER	2/15/2010 10:59	944935	10-1392	2	LANL	USE	S
EXS02140081.wiff	245394011	LER	2/15/2010 11:15	944935	10-1392	2	LANL	USE	S
EXS02140082.wiff	WXXCCV	LER	2/15/2010 11:30			1		USE	C
EXS02140083.wiff	XIBLK11	LER	2/15/2010 11:46			1		USE	B
EXS02140084.wiff	WXXCRI	LER	2/15/2010 12:02			1		USE	C
EXS02140085.wiff	245394012	LER	2/15/2010 12:17	944935	10-1392	2	LANL	USE	S
EXS02140086.wiff	245394013	LER	2/15/2010 12:33	944935	10-1392	2	LANL	USE	S
EXS02140087.wiff	245394014	LER	2/15/2010 12:49	944935	10-1392	2	LANL	USE	S
EXS02140088.wiff	245394015	LER	2/15/2010 13:04	944935	10-1392	2	LANL	USE	S
EXS02140089.wiff	XIBLK12	LER	2/15/2010 13:20			1		USE	B
EXS02140090.wiff	1202032042	LER	2/15/2010 13:36	948561	VARIOUS	2	LANL	USE	S
EXS02140091.wiff	1202032043	LER	2/15/2010 13:52	948561	VARIOUS	2	LANL	USE	S
EXS02140092.wiff	245916001	LER	2/15/2010 14:07	948561	10-1492	2	LANL	USE	S
EXS02140093.wiff	1202032044	LER	2/15/2010 14:23	948561	10-1492	2	LANL	USE	S
EXS02140094.wiff	1202032045	LER	2/15/2010 14:39	948561	10-1492	2	LANL	USE	S
EXS02140095.wiff	WXXCCV	LER	2/15/2010 14:54			1		USE	C
EXS02140096.wiff	XIBLK13	LER	2/15/2010 15:10			1		USE	B
EXS02140097.wiff	WXXCRI	LER	2/15/2010 15:26			1		USE	C
EXS02140098.wiff	245916002	LER	2/15/2010 15:41	948561	10-1492	2	LANL	USE	S
EXS02140099.wiff	245916003	LER	2/15/2010 15:57	948561	10-1492	2	LANL	USE	S
EXS02140100.wiff	245916004	LER	2/15/2010 16:13	948561	10-1492	2	LANL	USE	S
EXS02140101.wiff	245916005	LER	2/15/2010 16:29	948561	10-1492	2	LANL	USE	S
EXS02140102.wiff	245947002	LER	2/15/2010 16:44	948561	10-1507	2	LANL	USE	S
EXS02140103.wiff	245947003	LER	2/15/2010 17:00	948561	10-1507	2	LANL	USE	S
EXS02140104.wiff	245947004	LER	2/15/2010 17:16	948561	10-1507	2	LANL	USE	S

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EXS02140105.wiff	245947005	LER	2/15/2010 17:31	948561	10-1507	2	LANL	USE	S
EXS02140106.wiff	245947006	LER	2/15/2010 17:47	948561	10-1507	2	LANL	USE	S
EXS02140107.wiff	245947007	LER	2/15/2010 18:03	948561	10-1507	2	LANL	USE	S
EXS02140108.wiff	WXXCCV	LER	2/15/2010 18:18			1		USE	C
EXS02140109.wiff	XIBLK14	LER	2/15/2010 18:34			1		USE	B
EXS02140110.wiff	WXXCRI	LER	2/15/2010 18:50			1		USE	C
EXS02140111.wiff	245947008	LER	2/15/2010 19:06	948561	10-1507	2	LANL	USE	S
EXS02140112.wiff	245947009	LER	2/15/2010 19:21	948561	10-1507	2	LANL	USE	S
EXS02140113.wiff	245947010	LER	2/15/2010 19:37	948561	10-1507	2	LANL	USE	S
EXS02140114.wiff	XIBLK15	LER	2/15/2010 19:53			1		USE	B
EXS02140115.wiff	245394004	LER	2/15/2010 20:08	944935	10-1392	2	LANL	USE	S
EXS02140116.wiff	245394003	LER	2/15/2010 20:24	944935	10-1392	10	LANL	USE	S
EXS02140117.wiff	WXXCCV	LER	2/15/2010 20:40			1		USE	C
EXS02140118.wiff	XIBLK16	LER	2/15/2010 20:55			1		USE	B
EXS02140119.wiff	WXXCRI	LER	2/15/2010 21:11			1		USE	C
EXS02140120.wiff	1202032097	LER	2/15/2010 21:27	948572	VARIOUS	2	LANL	USE	S
EXS02140121.wiff	1202032098	LER	2/15/2010 21:43	948572	VARIOUS	2	LANL	USE	S
EXS02140122.wiff	245955001	LER	2/15/2010 21:58	948572	10-1509	2	LANL	USE	S
EXS02140123.wiff	245955002	LER	2/15/2010 22:14	948572	10-1509	2	LANL	USE	S
EXS02140124.wiff	245959001	LER	2/15/2010 22:30	948572	10-1510	2	LANL	USE	S
EXS02140125.wiff	1202032099	LER	2/15/2010 22:45	948572	10-1510	2	LANL	USE	S
EXS02140126.wiff	1202032100	LER	2/15/2010 23:01	948572	10-1510	2	LANL	USE	S
EXS02140127.wiff	245959002	LER	2/15/2010 23:17	948572	10-1510	2	LANL	USE	S
EXS02140128.wiff	245959003	LER	2/15/2010 23:32	948572	10-1510	2	LANL	USE	S
EXS02140129.wiff	245959004	LER	2/15/2010 23:48	948572	10-1510	2	LANL	USE	S
EXS02140130.wiff	WXXCCV	LER	2/16/2010 0:04			1		USE	C
EXS02140131.wiff	XIBLK17	LER	2/16/2010 0:19			1		USE	B
EXS02140132.wiff	WXXCRI	LER	2/16/2010 0:35			1		USE	C
EXS02140133.wiff	245959005	LER	2/16/2010 0:51	948572	10-1510	2	LANL	USE	S
EXS02140134.wiff	245959006	LER	2/16/2010 1:07	948572	10-1510	2	LANL	USE	S
EXS02140135.wiff	245959007	LER	2/16/2010 1:22	948572	10-1510	2	LANL	USE	S
EXS02140136.wiff	245959008	LER	2/16/2010 1:38	948572	10-1510	2	LANL	USE	S
EXS02140137.wiff	245959009	LER	2/16/2010 1:54	948572	10-1510	2	LANL	USE	S
EXS02140138.wiff	245959010	LER	2/16/2010 2:09	948572	10-1510	2	LANL	USE	S
EXS02140139.wiff	245959012	LER	2/16/2010 2:25	948572	10-1510	2	LANL	USE	S
EXS02140140.wiff	WXXCCV	LER	2/16/2010 2:41			1		USE	C
EXS02140141.wiff	XIBLK18	LER	2/16/2010 2:56			1		USE	B

EXS02140142.wiff	WXXCRI	LER	2/16/2010 3:12			1		USE	C
EXS02140143.wiff	1202032113	LER	2/16/2010 3:28	948579	VARIOUS	2	LANL	USE	S
EXS02140144.wiff	1202032114	LER	2/16/2010 3:43	948579	VARIOUS	2	LANL	USE	S
EXS02140145.wiff	245994001	LER	2/16/2010 3:59	948579	10-1516	2	LANL	USE	S
EXS02140146.wiff	245994002	LER	2/16/2010 4:15	948579	10-1516	2	LANL	USE	S
EXS02140147.wiff	245994003	LER	2/16/2010 4:31	948579	10-1516	2	LANL	USE	S
EXS02140148.wiff	245994004	LER	2/16/2010 4:46	948579	10-1516	2	LANL	USE	S
EXS02140149.wiff	245994005	LER	2/16/2010 5:02	948579	10-1516	2	LANL	USE	S
EXS02140150.wiff	245994006	LER	2/16/2010 5:18	948579	10-1516	2	LANL	USE	S
EXS02140151.wiff	245994007	LER	2/16/2010 5:33	948579	10-1516	2	LANL	USE	S
EXS02140152.wiff	245994008	LER	2/16/2010 5:49	948579	10-1516	2	LANL	USE	S
EXS02140153.wiff	WXXCCV	LER	2/16/2010 6:05			1		USE	C
EXS02140154.wiff	XIBLK19	LER	2/16/2010 6:21			1		USE	B
EXS02140155.wiff	WXXCRI	LER	2/16/2010 6:36			1		USE	C
EXS02140156.wiff	245994009	LER	2/16/2010 6:52	948579	10-1516	2	LANL	DUSE-RA	S
EXS02140157.wiff	246006001	LER	2/16/2010 7:08	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140158.wiff	1202032115	LER	2/16/2010 7:24	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140159.wiff	1202032116	LER	2/16/2010 7:39	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140160.wiff	246006002	LER	2/16/2010 7:55	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140161.wiff	246006003	LER	2/16/2010 8:11	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140162.wiff	246006004	LER	2/16/2010 8:27	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140163.wiff	246006005	LER	2/16/2010 8:42	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140164.wiff	246006006	LER	2/16/2010 8:58	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140165.wiff	246006007	LER	2/16/2010 9:14	948579	10-1520	2	LANL	DUSE-RA	S
EXS02140166.wiff	WXXCCV	LER	2/16/2010 9:29			1		DUSE-RA	C
EXS02140167.wiff	XIBLK20	LER	2/16/2010 9:45			1		DUSE-RA	B
EXS02140168.wiff	WXXCRI	LER	2/16/2010 10:01			1		DUSE-RA	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/16/10 Method: 8321A-Modified Reviewed By: HMM
Extr. Injection Volume: 10uL Int. Std.: N/A Date: 02/17/10
Sequence Number: 021610exs Mobile Phase Lot#:1263794, 1258141 SOP: GL-OA-E-056 Rev.12
Initial Calibration Date: 021610 Standard-Samp Reagent Lot# :1260901, 1261217 Alt Check Std. ID: WXX100216-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02160001.wiff	XIBLK01	LER	2/16/2010 12:13			1		USE	B
EXS02160002.wiff	XIBLK01	LER	2/16/2010 12:29			1		USE	B
EXS02160003.wiff	WXXICAL-19	LER	2/16/2010 12:44			1		USE	I
EXS02160004.wiff	WXXICAL-20	LER	2/16/2010 13:00			1		USE	I
EXS02160005.wiff	WXXICAL-21	LER	2/16/2010 13:16			1		USE	I
EXS02160006.wiff	WXXICAL-22	LER	2/16/2010 13:31			1		USE	I
EXS02160007.wiff	WXXICAL-23	LER	2/16/2010 13:47			1		USE	I
EXS02160008.wiff	WXXICAL-24	LER	2/16/2010 14:03			1		USE	I
EXS02160009.wiff	WXXICAL-25	LER	2/16/2010 14:18			1		USE	I
EXS02160010.wiff	XIBLK02	LER	2/16/2010 14:34			1		USE	B
EXS02160011.wiff	WXXICV	LER	2/16/2010 14:50			1		USE	C
EXS02160012.wiff	XIBLK03	LER	2/16/2010 15:05			1		USE	B
EXS02160013.wiff	WXXCRI	LER	2/16/2010 15:21			1		USE	C
EXS02160014.wiff	245994009	LER	2/16/2010 15:37	948579	10-1516	2	LANL	USE	S
EXS02160015.wiff	246006001	LER	2/16/2010 15:53	948579	10-1520	2	LANL	USE	S
EXS02160016.wiff	1202032115	LER	2/16/2010 16:08	948579	10-1520	2	LANL	USE	S
EXS02160017.wiff	1202032116	LER	2/16/2010 16:24	948579	10-1520	2	LANL	USE	S
EXS02160018.wiff	246006002	LER	2/16/2010 16:40	948579	10-1520	2	LANL	USE	S
EXS02160019.wiff	246006003	LER	2/16/2010 16:56	948579	10-1520	2	LANL	USE	S
EXS02160020.wiff	246006004	LER	2/16/2010 17:11	948579	10-1520	2	LANL	USE	S
EXS02160021.wiff	246006005	LER	2/16/2010 17:27	948579	10-1520	2	LANL	USE	S
EXS02160022.wiff	246006006	LER	2/16/2010 17:43	948579	10-1520	2	LANL	USE	S
EXS02160023.wiff	246006007	LER	2/16/2010 17:58	948579	10-1520	2	LANL	USE	S
EXS02160024.wiff	WXXCCV	LER	2/16/2010 18:14			1		USE	C
EXS02160025.wiff	XIBLK04	LER	2/16/2010 18:30			1		USE	B
EXS02160026.wiff	WXXCRI	LER	2/16/2010 18:46			1		USE	C
EXS02160027.wiff	246006008	LER	2/16/2010 19:01	948579	10-1520	2	LANL	USE	S
EXS02160028.wiff	246006009	LER	2/16/2010 19:17	948579	10-1520	2	LANL	USE	S
EXS02160029.wiff	XIBLK05	LER	2/16/2010 19:33			1		USE	S
EXS02160030.wiff	1202040417	LER	2/16/2010 19:49	952030	VARIOUS	2	LANL	USE	S

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EXS02160031.wiff	1202040418	LER	2/16/2010 20:05	952030	VARIOUS	2	LANL	USE	S
EXS02160032.wiff	246707005	LER	2/16/2010 20:20	952030	10-1726	2	LANL	USE	S
EXS02160033.wiff	1202040419	LER	2/16/2010 20:36	952030	10-1726	2	LANL	USE	S
EXS02160034.wiff	1202040420	LER	2/16/2010 20:52	952030	10-1726	2	LANL	USE	S
EXS02160035.wiff	246764004	LER	2/16/2010 21:07	952030	10-1721	2	LANL	USE	S
EXS02160036.wiff	WXXCCV	LER	2/16/2010 21:23			1		USE	C
EXS02160037.wiff	XIBLK06	LER	2/16/2010 21:39			1		USE	B
EXS02160038.wiff	WXXCRI	LER	2/16/2010 21:55			1		USE	C
EXS02160039.wiff	1202038769	LER	2/16/2010 22:10	951349	VARIOUS	2	LANL	USE	S
EXS02160040.wiff	1202038770	LER	2/16/2010 22:26	951349	VARIOUS	2	LANL	USE	S
EXS02160041.wiff	246554001	LER	2/16/2010 22:42	951349	10-1665	2	LANL	USE	S
EXS02160042.wiff	1202038771	LER	2/16/2010 22:58	951349	10-1665	2	LANL	USE	S
EXS02160043.wiff	1202038772	LER	2/16/2010 23:13	951349	10-1665	2	LANL	USE	S
EXS02160044.wiff	246554002	LER	2/16/2010 23:29	951349	10-1665	2	LANL	USE	S
EXS02160045.wiff	246554003	LER	2/16/2010 23:45	951349	10-1665	2	LANL	USE	S
EXS02160046.wiff	246554004	LER	2/17/2010 0:00	951349	10-1665	2	LANL	USE	S
EXS02160047.wiff	246554005	LER	2/17/2010 0:16	951349	10-1665	2	LANL	USE	S
EXS02160048.wiff	246554006	LER	2/17/2010 0:32	951349	10-1665	2	LANL	USE	S
EXS02160049.wiff	WXXCCV	LER	2/17/2010 0:47			1		USE	C
EXS02160050.wiff	XIBLK07	LER	2/17/2010 1:03			1		USE	B
EXS02160051.wiff	WXXCRI	LER	2/17/2010 1:19			1		USE	C
EXS02160052.wiff	246557001	LER	2/17/2010 1:35	951349	10-1666	2	LANL	USE	S
EXS02160053.wiff	246562001	LER	2/17/2010 1:50	951349	10-1668	2	LANL	USE	S
EXS02160054.wiff	246575003	LER	2/17/2010 2:06	951349	10-1675	2	LANL	USE	S
EXS02160055.wiff	246575004	LER	2/17/2010 2:22	951349	10-1675	2	LANL	USE	S
EXS02160056.wiff	246582002	LER	2/17/2010 2:37	951349	10-1685	2	LANL	USE	S
EXS02160057.wiff	246582003	LER	2/17/2010 2:53	951349	10-1685	2	LANL	USE	S
EXS02160058.wiff	246582004	LER	2/17/2010 3:09	951349	10-1685	2	LANL	USE	S
EXS02160059.wiff	246582005	LER	2/17/2010 3:24	951349	10-1685	2	LANL	USE	S
EXS02160060.wiff	246582006	LER	2/17/2010 3:40	951349	10-1685	2	LANL	USE	S
EXS02160061.wiff	246582007	LER	2/17/2010 3:56	951349	10-1685	2	LANL	USE	S
EXS02160062.wiff	WXXCCV	LER	2/17/2010 4:12			1		USE	C
EXS02160063.wiff	XIBLK08	LER	2/17/2010 4:27			1		USE	B
EXS02160064.wiff	WXXCRI	LER	2/17/2010 4:43			1		USE	C
EXS02160065.wiff	246582008	LER	2/17/2010 4:59	951349	10-1685	2	LANL	USE	S
EXS02160066.wiff	XIBLK09	LER	2/17/2010 5:14			1		USE	B
EXS02160067.wiff	1202028657	LER	2/17/2010 5:30	947074	VARIOUS	2	LANL	USE	S

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EXS02160068.wiff	1202028658	LER	2/17/2010 5:46	947074	VARIOUS	2	LANL	USE	S
EXS02160069.wiff	245789005	LER	2/17/2010 6:02	947074	10-1466	2	LANL	USE	S
EXS02160070.wiff	245789009	LER	2/17/2010 6:17	947074	10-1466	2	LANL	USE	S
EXS02160071.wiff	245789013	LER	2/17/2010 6:33	947074	10-1466	2	LANL	USE	S
EXS02160072.wiff	245789017	LER	2/17/2010 6:49	947074	10-1466	2	LANL	USE	S
EXS02160073.wiff	WXXCCV	LER	2/17/2010 7:04			1		USE	C
EXS02160074.wiff	XIBLK10	LER	2/17/2010 7:20			1		USE	B
EXS02160075.wiff	WXXCRI	LER	2/17/2010 7:36			1		USE	C
EXS02160076.wiff	245809001	LER	2/17/2010 7:52	947074	10-1480	2	LANL	USE	S
EXS02160077.wiff	1202028659	LER	2/17/2010 8:07	947074	10-1480	2	LANL	USE	S
EXS02160078.wiff	1202028660	LER	2/17/2010 8:23	947074	10-1480	2	LANL	USE	S
EXS02160079.wiff	WXXCCV	LER	2/17/2010 8:39			1		USE	C
EXS02160080.wiff	XIBLK11	LER	2/17/2010 8:54			1		USE	B
EXS02160081.wiff	WXXCRI	LER	2/17/2010 9:10			1		USE	C

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216145a
Date: 19-Feb-2010
Time: 16:37:31
ID: 1202032099 | 1202032115 | LANC | 948579 | Soil | 246006001MS | 2 |
Vial: 3:3,B

MM 2/20/10

MM 2/20/10

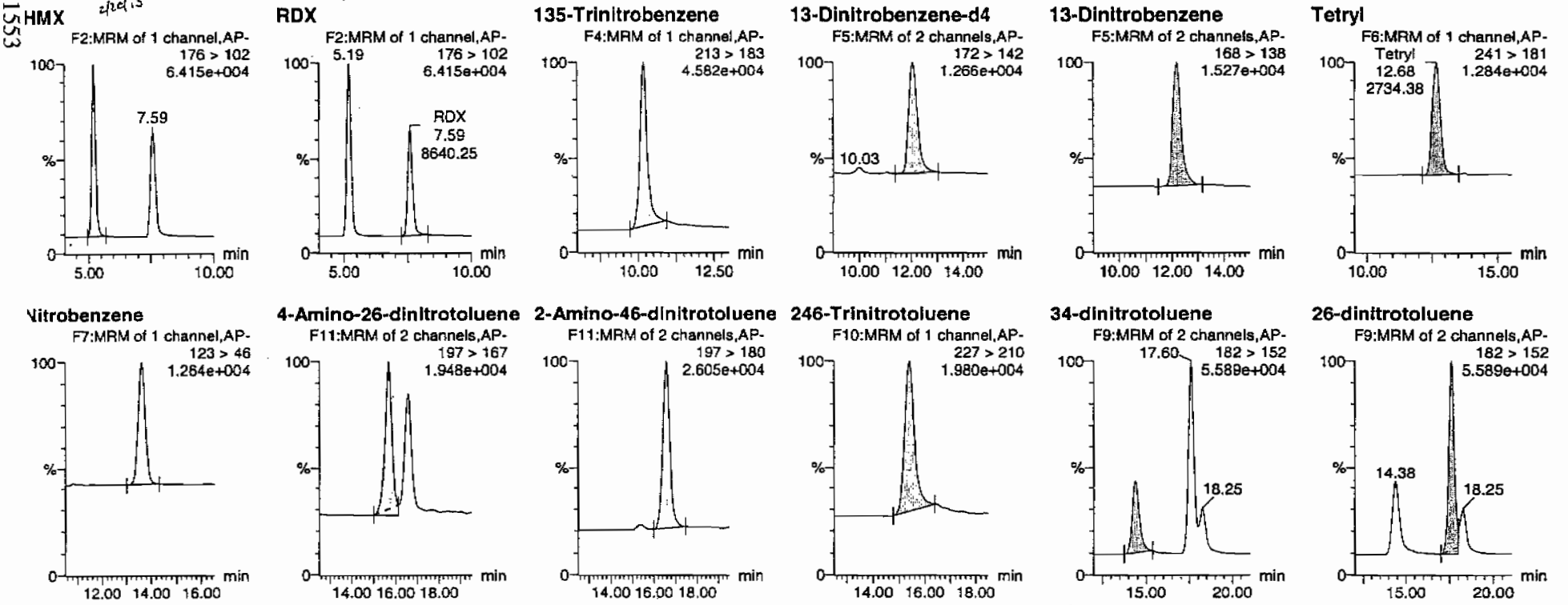

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

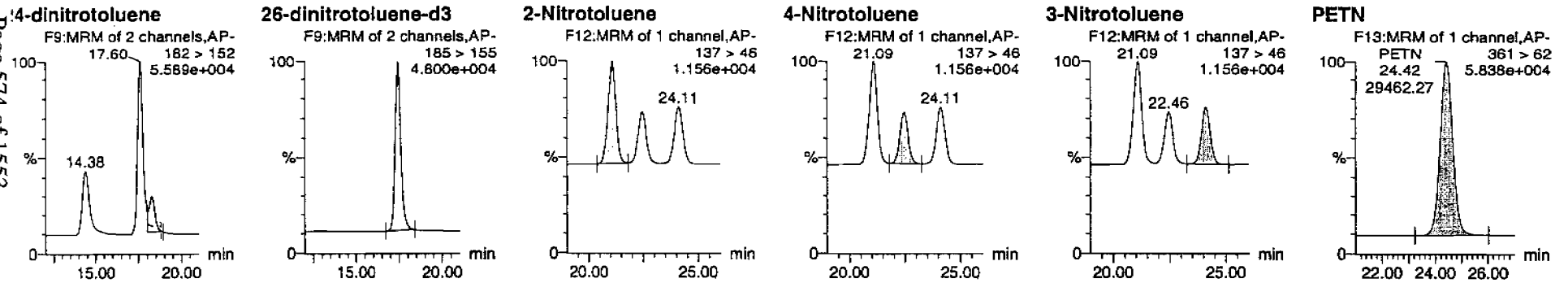

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032099	HMX	176 > 102	5.19	11779.053	2980.129	11779.053	1976.266	bb			512.2016	102.4	2.4	1221.7
1202032099	RDX	176 > 102	7.59	8640.245	2980.129	8640.245	1449.643	bb			558.9646	111.8	11.8	780.4
1202032099	135-Trinitrobenzene	213 > 183	10.18	11429.091	2980.129	11429.091	1917.550	bb			495.1652	99.0	-1.0	1265.5
1202032099	13-Dinitrobenzene-d4	172 > 142	12.07	2980.129		2980.129	2980.129	bb			494.6410	98.9	-1.1	342.4
1202032099	13-Dinitrobenzene	168 > 138	12.20	3828.010	2980.129	3828.010	642.256	bb			540.3828	108.1	8.1	369.1
1202032099	Tetryl	241 > 181	12.68	2734.376	2980.129	2734.376	458.768	bb			420.7985	84.2	-15.8	288.6
1202032099	Nitrobenzene	123 > 46	13.63	2589.843	2980.129	2589.843	434.519	bb			506.1314	101.2	1.2	229.5
1202032099	4-Amino-26-dinitrotoluene	197 > 167	15.68	5606.171	17352.350	5606.171	161.539	MM	20-Feb-10	10:04:25	504.4677	100.9	0.9	352.8
1202032099	2-Amino-46-dinitrotoluene	197 > 180	16.58	8067.124	17352.350	8067.124	232.450	bb			538.0115	107.6	7.6	243.0
1202032099	246-Trinitrotoluene	227 > 210	15.41	6303.487	17352.350	6303.487	181.632	bb			541.7733	108.4	8.4	437.2
1202032099	34-dinitrotoluene	182 > 152	14.38	8861.283	17352.350	8861.283	255.334	bb			281.8251	112.7	12.7	727.1
1202032099	26-dinitrotoluene	182 > 152	17.60	19031.246	17352.350	19031.246	548.377	MM	20-Feb-10	10:09:51	517.6098	103.5	3.5	1976.9
1202032099	24-dinitrotoluene	182 > 152	18.25	4383.668	17352.350	4383.668	126.313	MM	20-Feb-10	10:11:17	512.4059	102.5	2.5	417.2
1202032099	26-dinitrotoluene-d3	185 > 155	17.42	17352.350		17352.350	17352.350	bb			498.3857	99.7	-0.3	1433.9
1202032099	2-Nitrotoluene	137 > 46	21.09	2657.891	17352.350	2657.891	76.586	bb			503.2119	100.6	0.6	827.2
1202032099	4-Nitrotoluene	137 > 46	22.46	1352.332	17352.350	1352.332	38.967	bb			508.3654	101.7	1.7	409.8
1202032099	3-Nitrotoluene	137 > 46	24.11	1558.269	17352.350	1558.269	44.901	bb			501.7463	100.3	0.3	451.7
1202032099	PETN	361 > 62	24.42	29462.270	17352.350	29462.270	848.942	bb			509.5346	101.9	1.9	10818.6

202032115

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Before Tan 2/17/10

Sample Name: "1202032115" Sample ID: "948579|2|LER" File: "EXS02160016.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 588. ng/mL
. Date: 2/16/2010
. Time: 4:08:57 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 6.94 min
Relative RT: No

. Type: Valley
ention Time: 6.94 min
a: 8.01e+005 counts
ght: 190703.110 cps
rt Time: 6.24 min
Time: 7.22 min

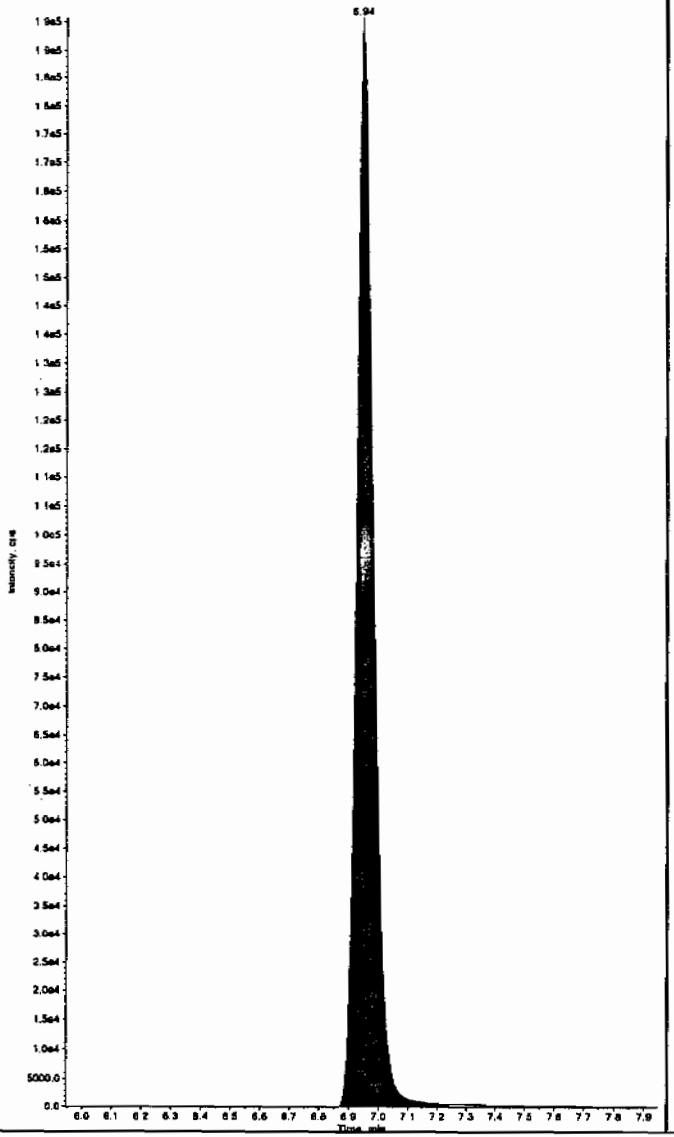

Sample Name: "1202032115" Sample ID: "948579|2|LER" File: "EXS02160016.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 556. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:08:57 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 3.55e+006 counts
Height: 834593.201 cps
Start Time: 8.03 min
End Time: 8.31 min

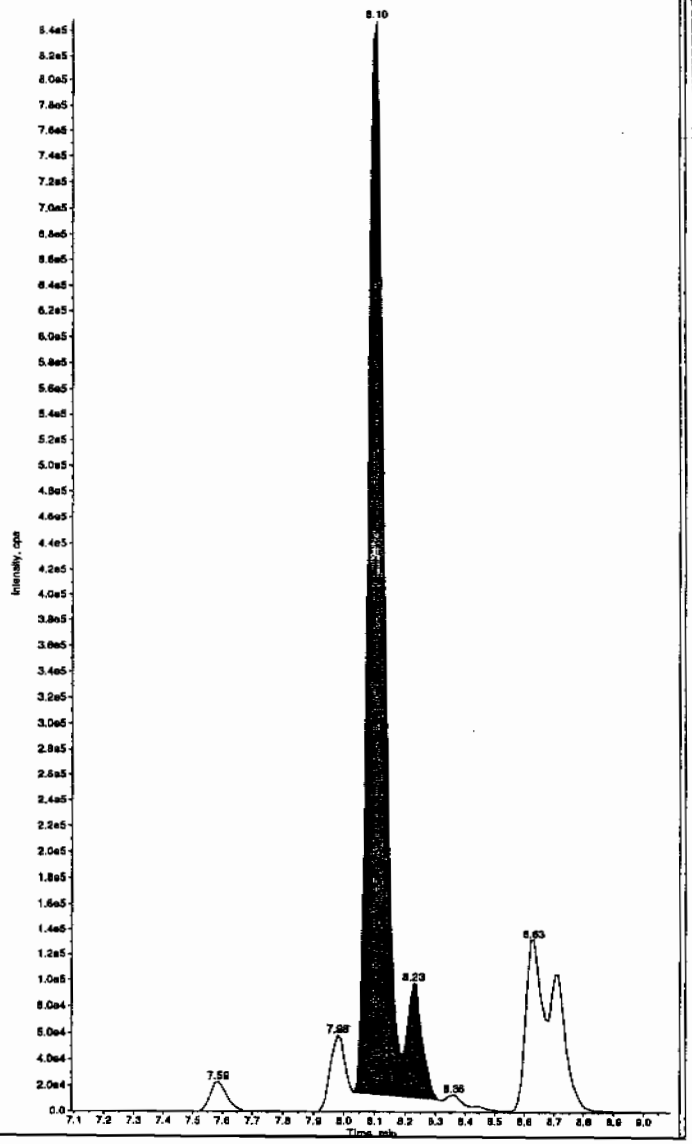

Hm 02/17/10

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ample Name: "1202032115" Sample ID: "948579|2|LER" File: "EXS02160016.wiff"
eak Name: "TATB" Mass(as): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 583. ng/mL
. Date: 2/16/2010
. Time: 4:08:57 PM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.94 min
Relative RT: No

. Type: Valley
ention Time: 6.94 min
a: 8.01e+005 counts
ght: 190703.110 cps
t Time: 6.84 min
Time: 7.22 min

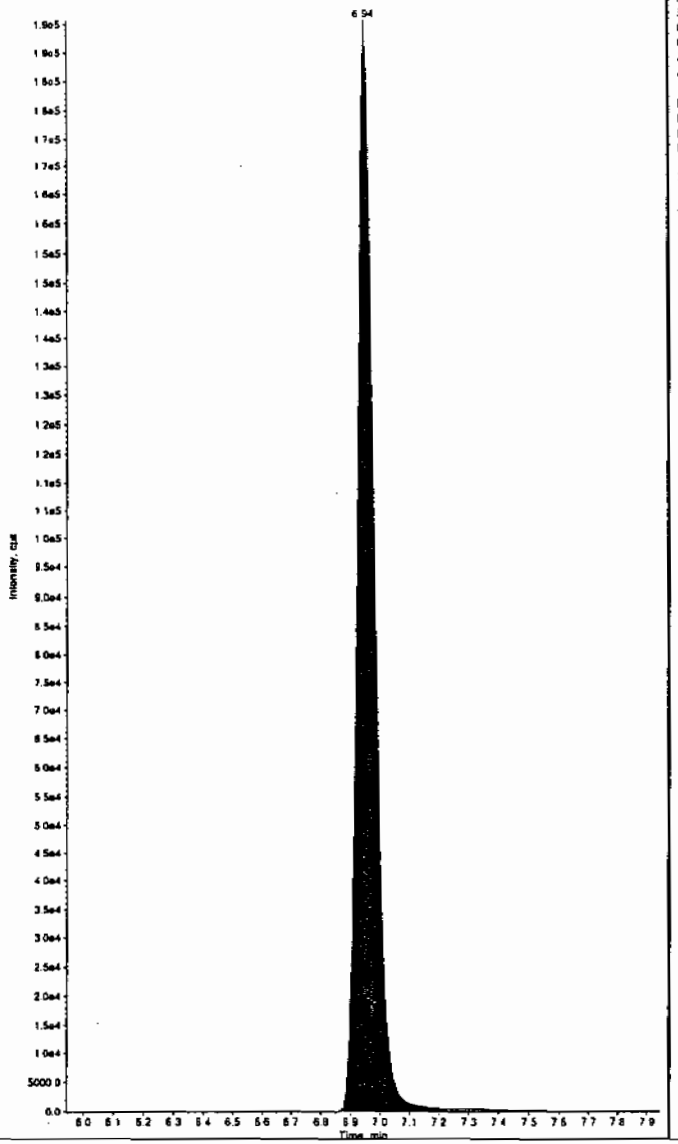

Sample Name: "1202032115" Sample ID: "948579|2|LER" File: "EXS02160016.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 519. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:08:57 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.10 min
Area: 1.33e+006 counts
Height: 852833.378 cps
Start Time: 8.03 min
End Time: 8.19 min

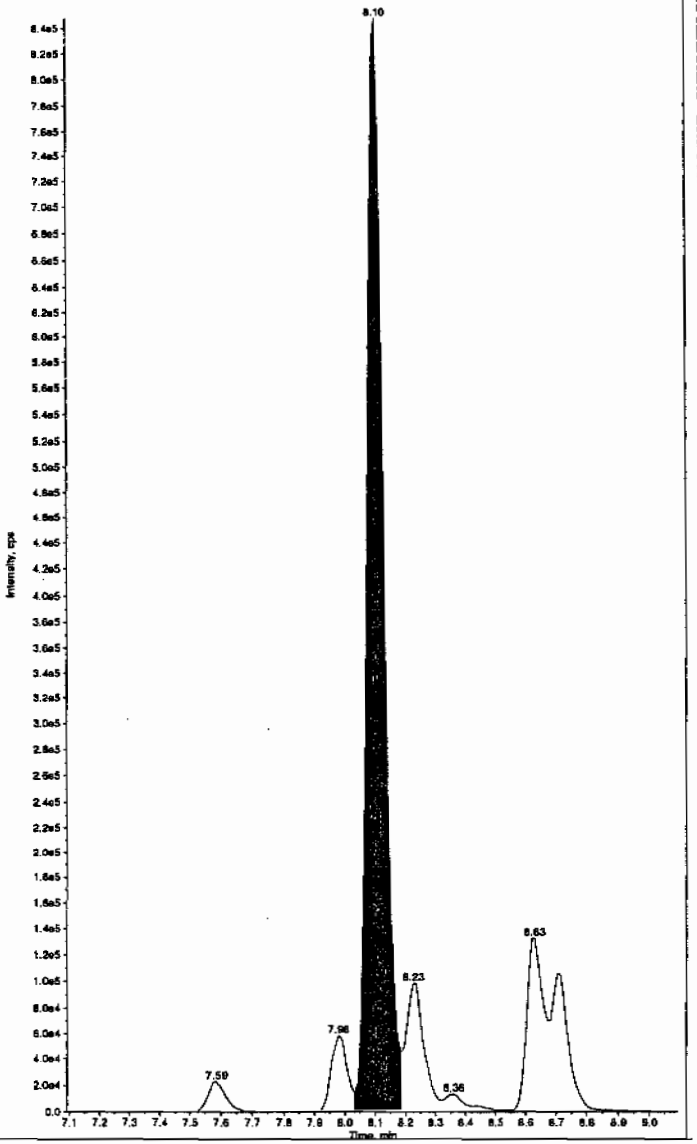

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202032115" Sample ID: "948579|2|LER" File: "EXS02160016.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212S" Annotation: ""

le Index:	1	
le Type:	Unknown	
entration:	N/A	
ulated Conc:	279.	ng/mL
Date:	2/16/2010	
Time:	4:08:57 PM	
tied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
oothing Width:	3	points
indow:	15.0	sec
cted RT:	8.23	min
Relative RT:	No	
Type:	Valley	
ention Time:	8.23	min
:	3.17e+006	counts
ght:	246490.479	cps
t Time:	8.15	min
Time:	8.45	min

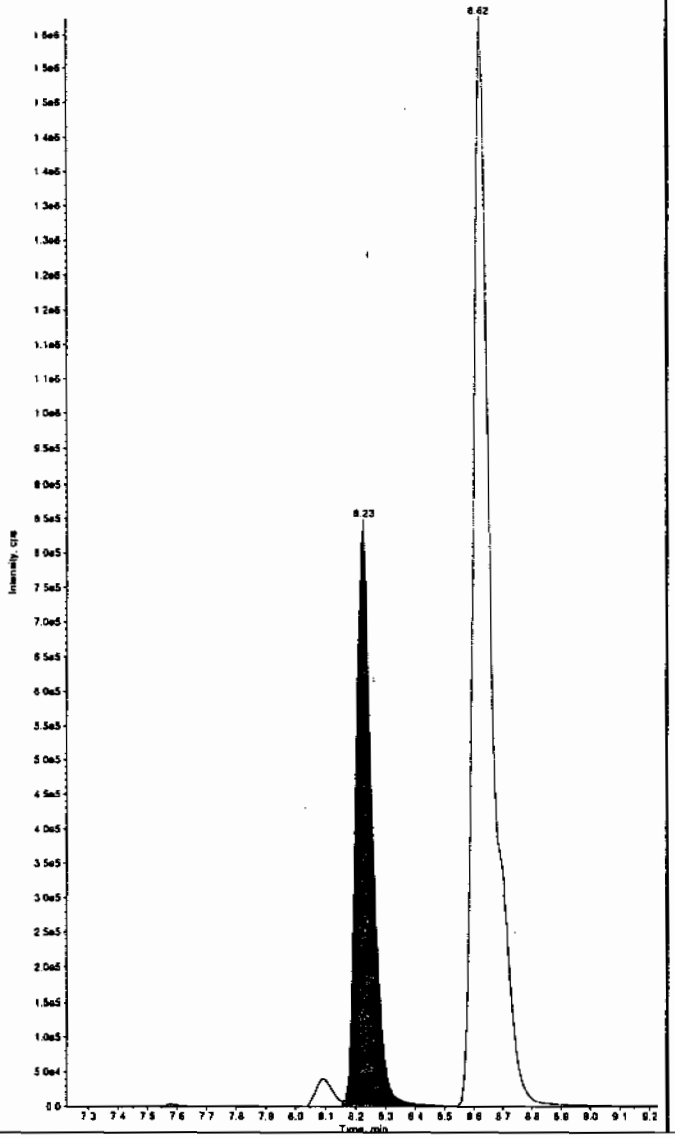

Sample Name: "1202032115" Sample ID: "948579|2|LER" File: "EXS02160016.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	370.	ng/mL
Acq. Date:	2/16/2010	
Acq. Time:	4:08:57 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.05	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.06	min
Area:	7.78e+005	counts
Height:	210634.399	cps
Start Time:	4.96	min
End Time:	5.35	min

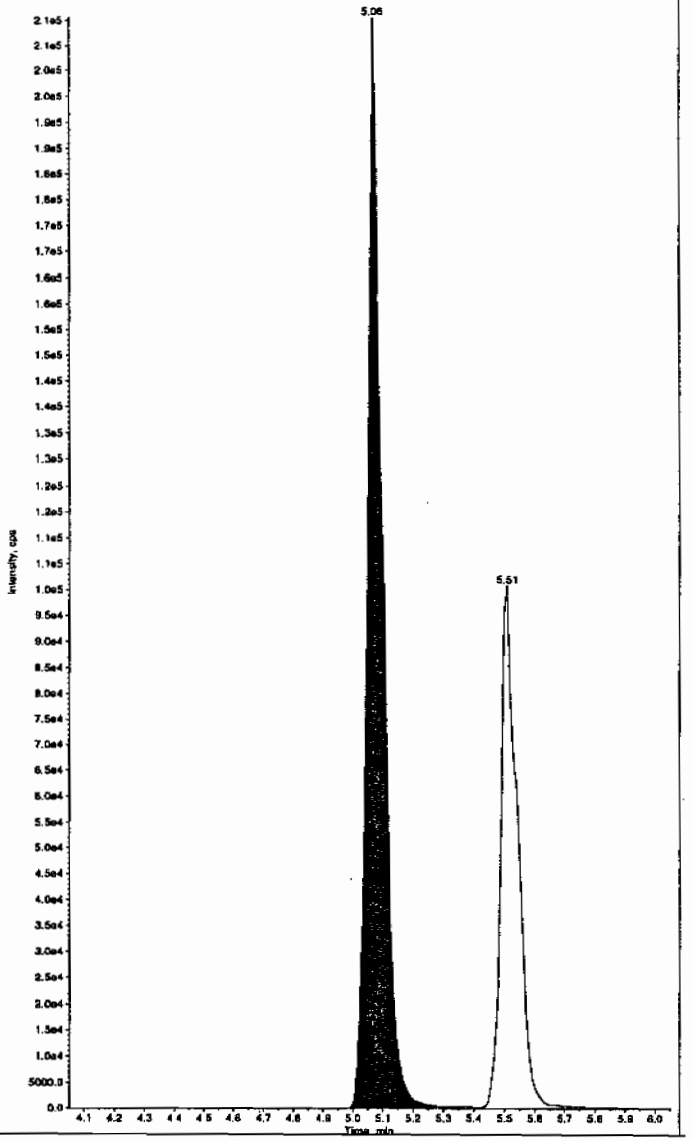

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ample Name: "1202032115" Sample ID: "948579|2|LER" File: "EXS02160016.wiff"
ask Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 289. ng/mL
. Date: 2/16/2010
. Time: 4:08:57 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.49 min
Relative RT: No

. Type: Valley
ention Time: 5.51 min
a: 3.86e+005 counts
ght: 100843.124 cps
rt Time: 5.42 min
Time: 5.79 min

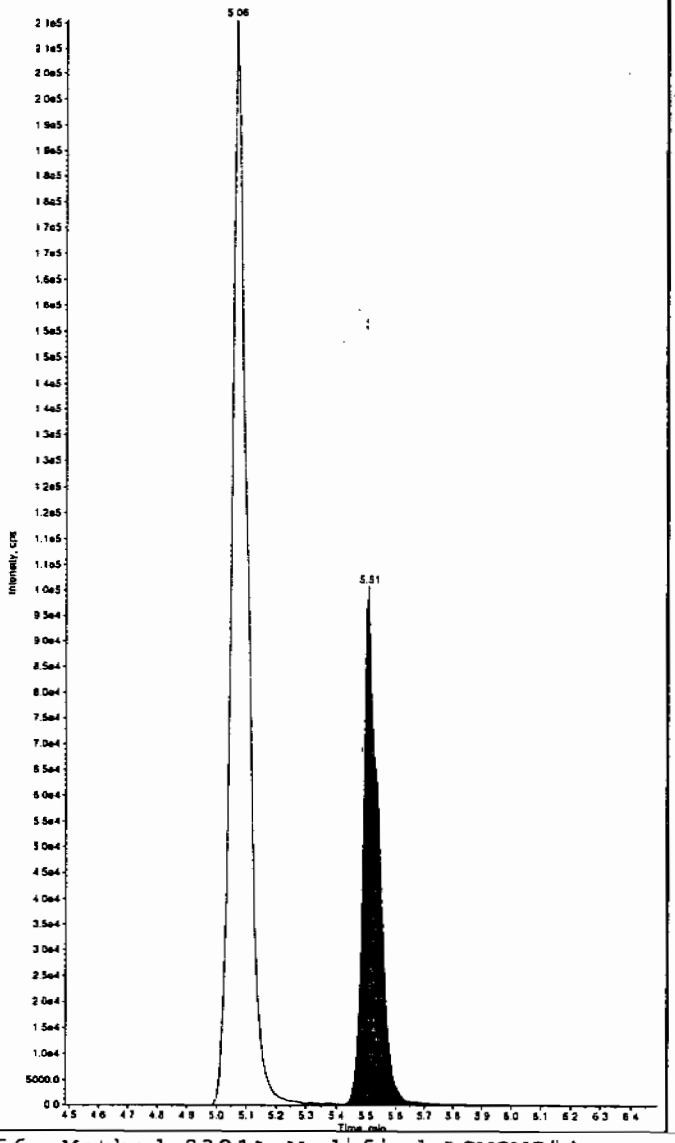

Sample Name: "1202032115" Sample ID: "948579|2|LER" File: "EXS02160016.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 527. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:08:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 10.6 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 1.05e+007 counts
Height: 2795057.861 cps
Start Time: 10.4 min
End Time: 10.8 min

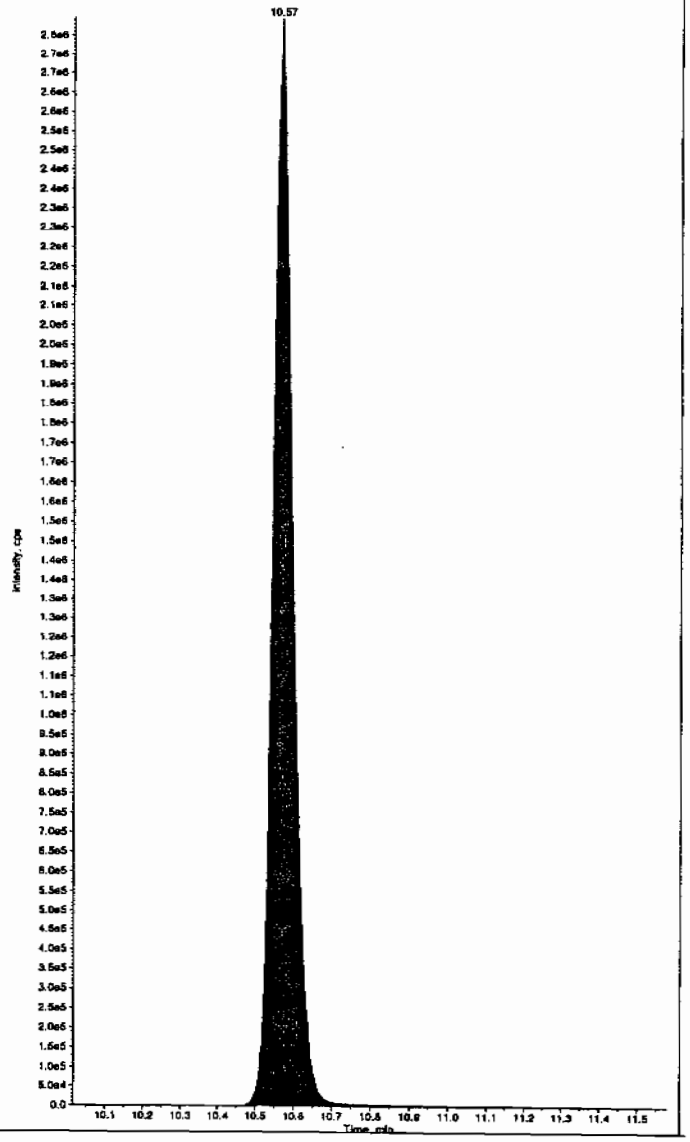

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0216146a
Date: 19-Feb-2010
Time: 17:07:01
ID: ~~1202032100~~ | 1202032116 | LANL | 948579 | Soils | 246006001 MSD | 2 |
Vial: 3:3,C

MMP 2/20/10

MMP 2/20/10

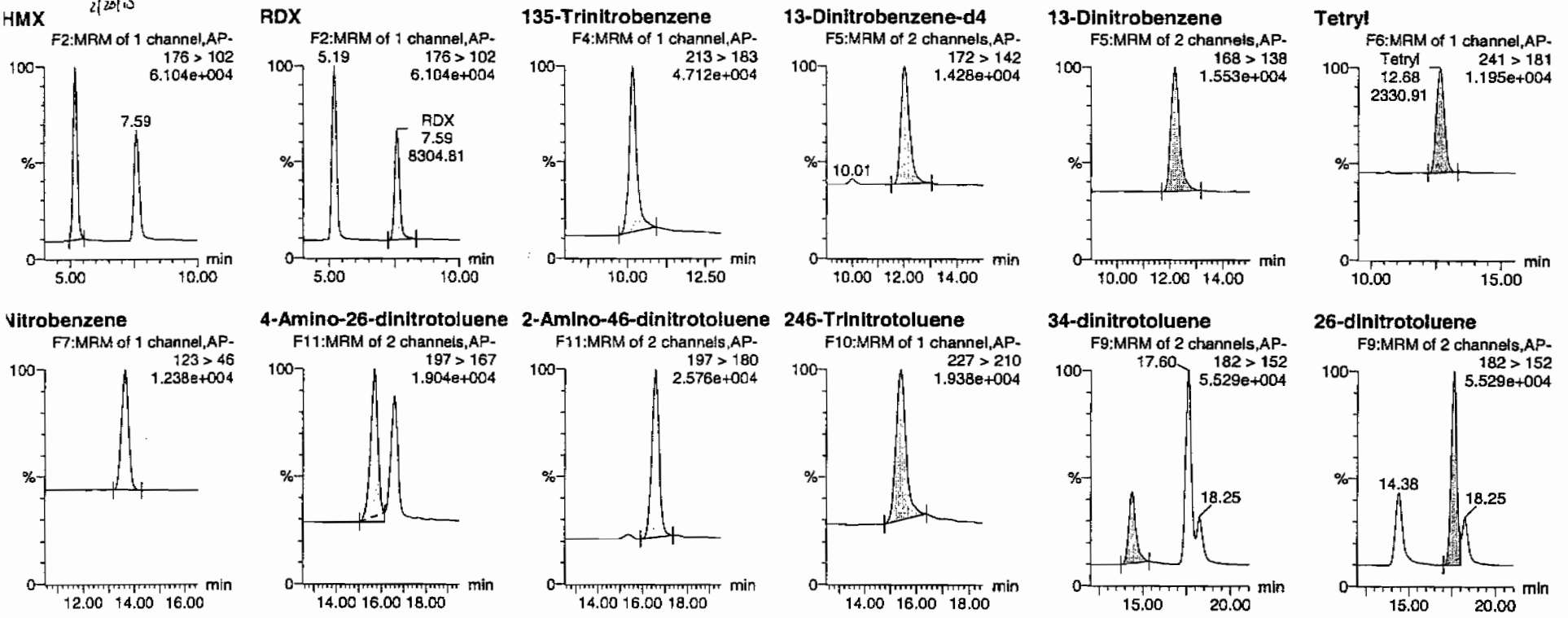

MMP 02/21/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\021610expA3.qld, Time: Sat Feb 20 10:13:38 2010

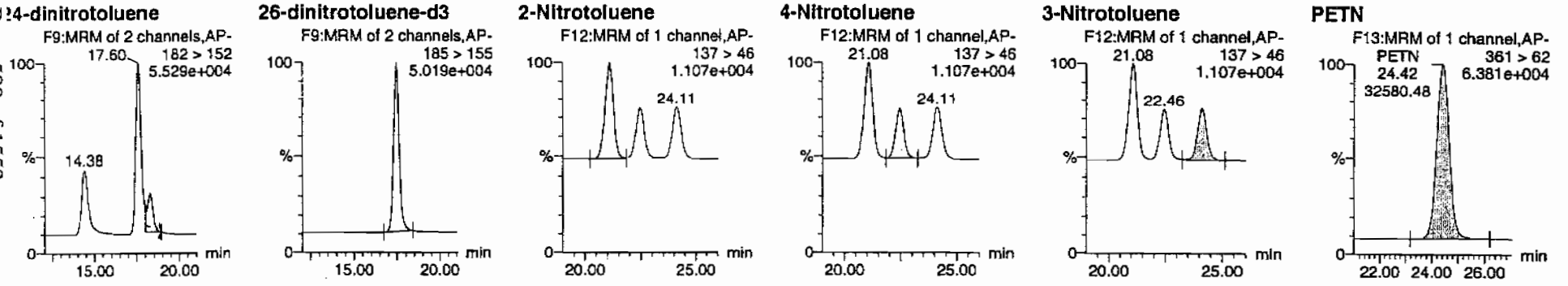

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032100	HMX	176 > 102	5.19	11045.712	3467.657	11045.712	1592.677	bb			412.7843	82.6	-17.4	2270.2
1202032100	RDX	176 > 102	7.59	8304.806	3467.657	8304.806	1197.466	bb			461.7285	92.3	-7.7	1454.0
1202032100	135-Trinitrobenzene	213 > 183	10.18	11803.351	3467.657	11803.351	1701.920	bb			439.4836	87.9	-12.1	1595.8
1202032100	13-Dinitrobenzene-d4	172 > 142	12.03	3467.657		3467.657	3467.657	bb			575.5608	115.1	15.1	617.6
1202032100	13-Dinitrobenzene	168 > 138	12.20	3954.950	3467.657	3954.950	570.263	bb			479.8090	96.0	-4.0	361.2
1202032100	Tetryl	241 > 181	12.68	2330.911	3467.657	2330.911	336.093	bb			308.2766	61.7	-38.3	238.8
1202032100	Nitrobenzene	123 > 46	13.63	2374.965	3467.657	2374.965	342.445	bb			398.8834	79.8	-20.2	266.8
1202032100	4-Amino-26-dinitrotoluene	197 > 167	15.68	5478.311	17914.285	5478.311	152.903	MM	20-Feb-10	10:04:33	477.4991	95.5	-4.5	263.4
1202032100	2-Amino-46-dinitrotoluene	197 > 180	16.58	7874.270	17914.285	7874.270	219.776	bb			508.6768	101.7	1.7	655.8
1202032100	246-Trinitrotoluene	227 > 210	15.41	6153.978	17914.285	6153.978	171.762	bb			512.3320	102.5	2.5	484.6
1202032100	34-dinitrotoluene	182 > 152	14.38	8837.551	17914.285	8837.551	246.662	bb			272.2537	108.9	8.9	261.7
1202032100	26-dinitrotoluene	182 > 152	17.60	18941.086	17914.285	18941.086	528.659	MM	20-Feb-10	10:10:04	498.9981	99.8	-0.2	709.2
1202032100	24-dinitrotoluene	182 > 152	18.25	4582.268	17914.285	4582.268	127.894	MM	20-Feb-10	10:11:29	518.8189	103.8	3.8	164.3
1202032100	26-dinitrotoluene-d3	185 > 155	17.42	17914.285		17914.285	17914.285	bb			514.5253	102.9	2.9	1937.4
1202032100	2-Nitrotoluene	137 > 46	21.08	2486.742	17914.285	2486.742	69.407	bb			456.0404	91.2	-8.8	101.0
1202032100	4-Nitrotoluene	137 > 46	22.46	1250.318	17914.285	1250.318	34.897	bb			455.2731	91.1	-8.9	51.7
1202032100	3-Nitrotoluene	137 > 46	24.11	1404.025	17914.285	1404.025	39.187	bb			437.9005	87.6	-12.4	53.1
1202032100	PETN	361 > 62	24.42	32580.479	17914.285	32580.479	909.344	bb			553.6946	110.7	10.7	8527.4

-02032116

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Before Lam 2/17/10

sample Name: "1202032116" Sample ID: "948579|2|LER" File: "EXS02160017.wiff"
ask Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCXB3212S" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 584. ng/mL
. Date: 2/16/2010
. Time: 4:24:40 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.94 min
Relative RT: No

. Type: Valley
ention Time: 6.93 min
a: 7.96e+005 counts
ght: 189088.898 cps
rt Time: 6.79 min
Time: 7.36 min

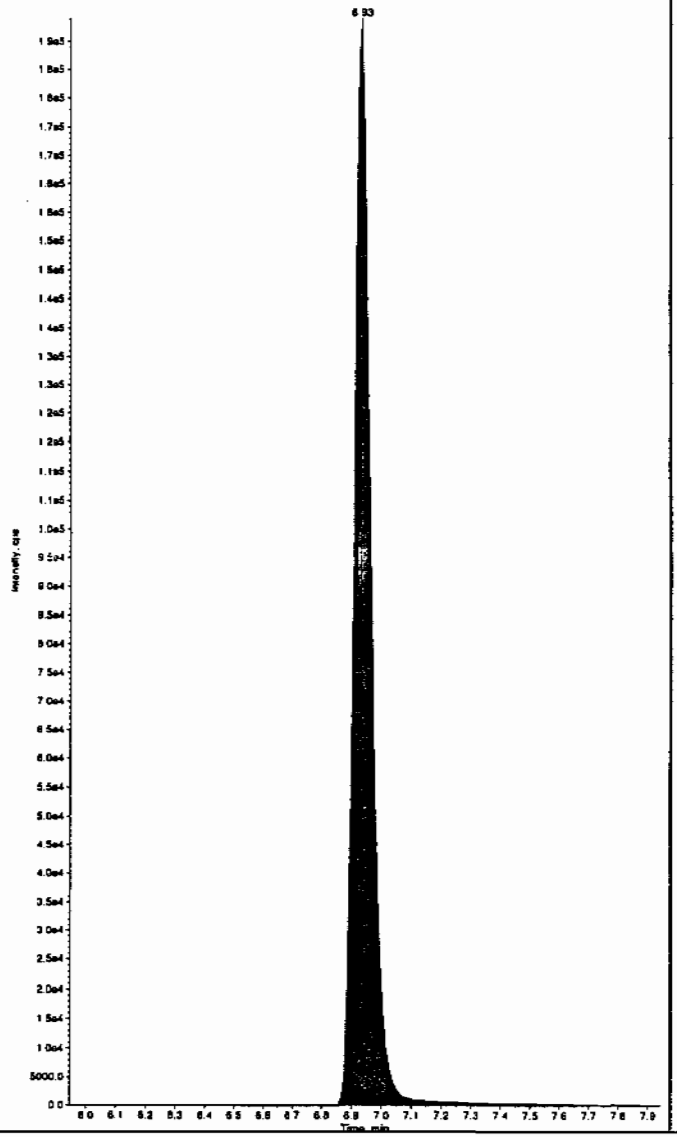

Sample Name: "1202032116" Sample ID: "948579|2|LER" File: "EXS02160017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 521. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:24:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 3.34e+006 counts
Height: 833097.290 cps
Start Time: 8.03 min
End Time: 8.31 min

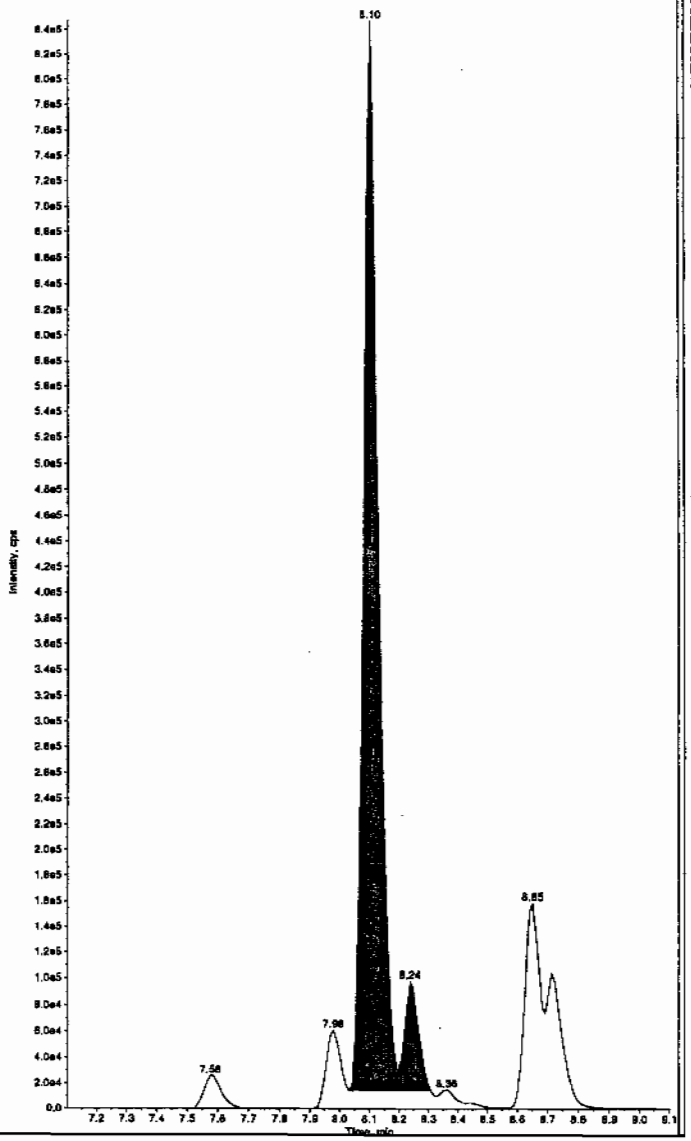

HMM 02/17/10

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after Scan 2/17/10

ample Name: "1202032116" Sample ID: "948579|2|LER" File: "EXS02160017.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1	
ple Type:	Unknown	
centration:	N/A	
culated Conc:	554.	ng/mL
. Date:	2/16/2010	
. Time:	4:24:40 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
ected RT:	6.94	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.93	min
a:	7.96e+005	counts
ght:	139083.898	cps
rt Time:	6.79	min
Time:	7.36	min

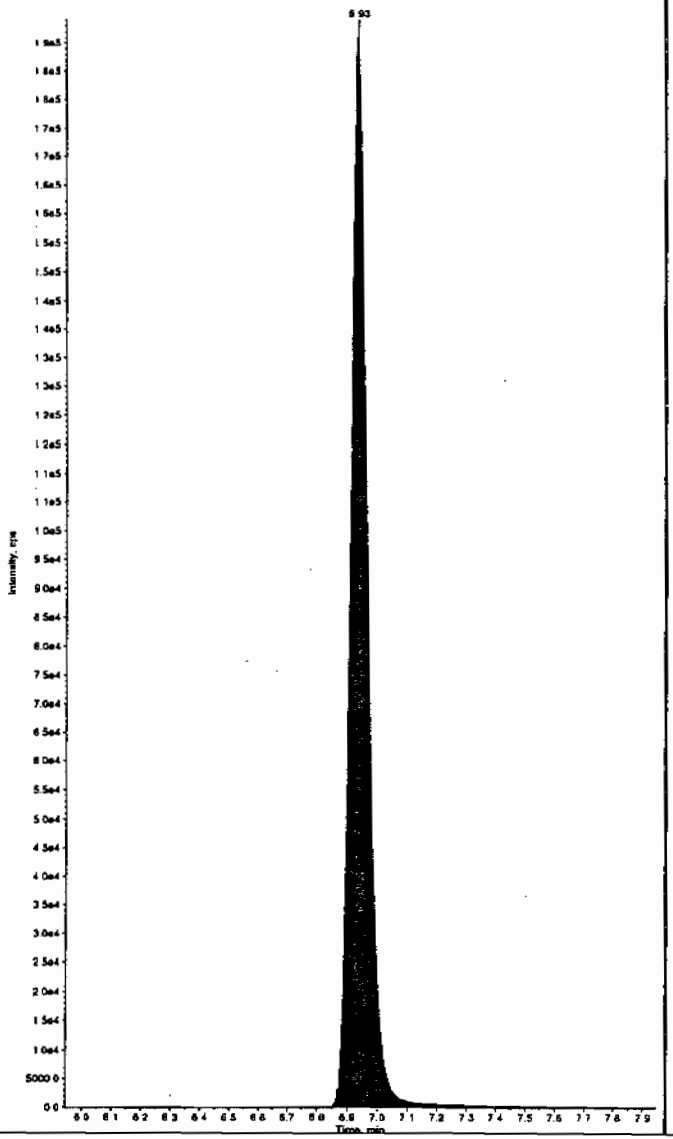

Sample Name: "1202032116" Sample ID: "948579|2|LER" File: "EXS02160017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	490.	ng/mL
Acq. Date:	2/16/2010	
Acq. Time:	4:24:40 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.10	min
Area:	3.15e+006	counts
Height:	844414.670	cps
Start Time:	8.03	min
End Time:	8.20	min

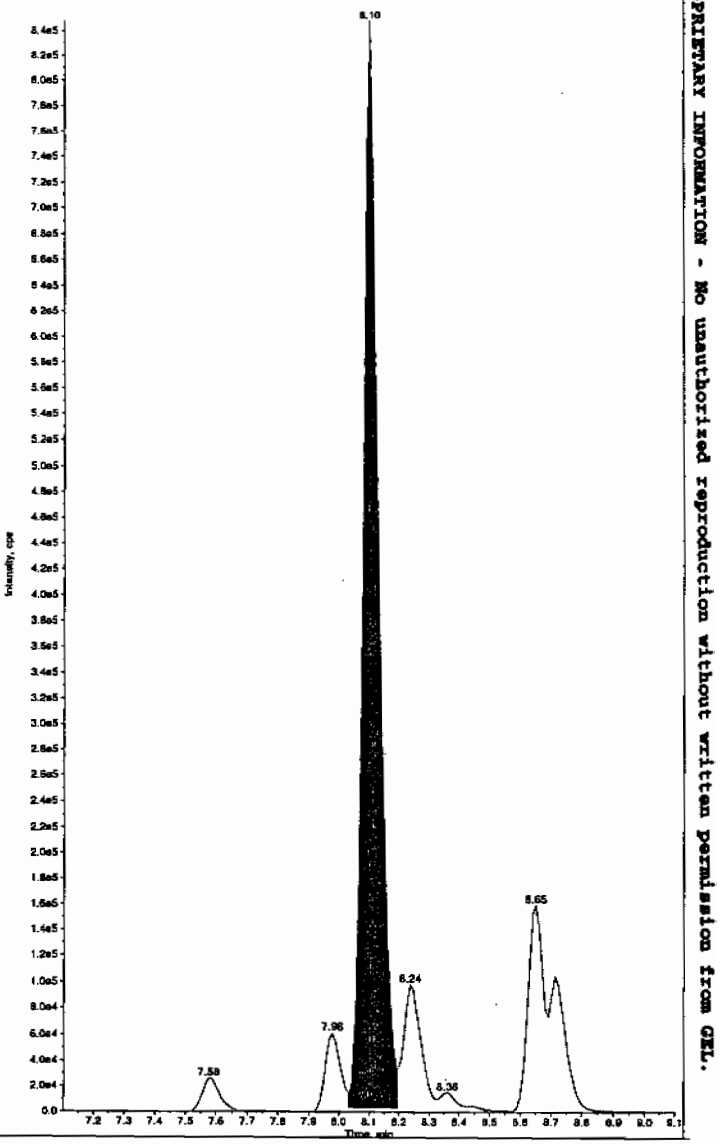

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Sample Name: "1202032116" Sample ID: "948579|2|LER" File: "EXS02160017.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCXB3212S" Annotation: ""

ple Index: 1
ple Type: Unknown
ncentration: N/A
lculated Conc: 265. ng/mL
. Date: 2/16/2010
. Time: 4:24:40 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.23 min
Relative RT: No

. Type: Valley
tention Time: 8.24 min
a: 3.21e+006 counts
ight: 849708.679 cps
rt Time: 8.18 min
Time: 8.45 min

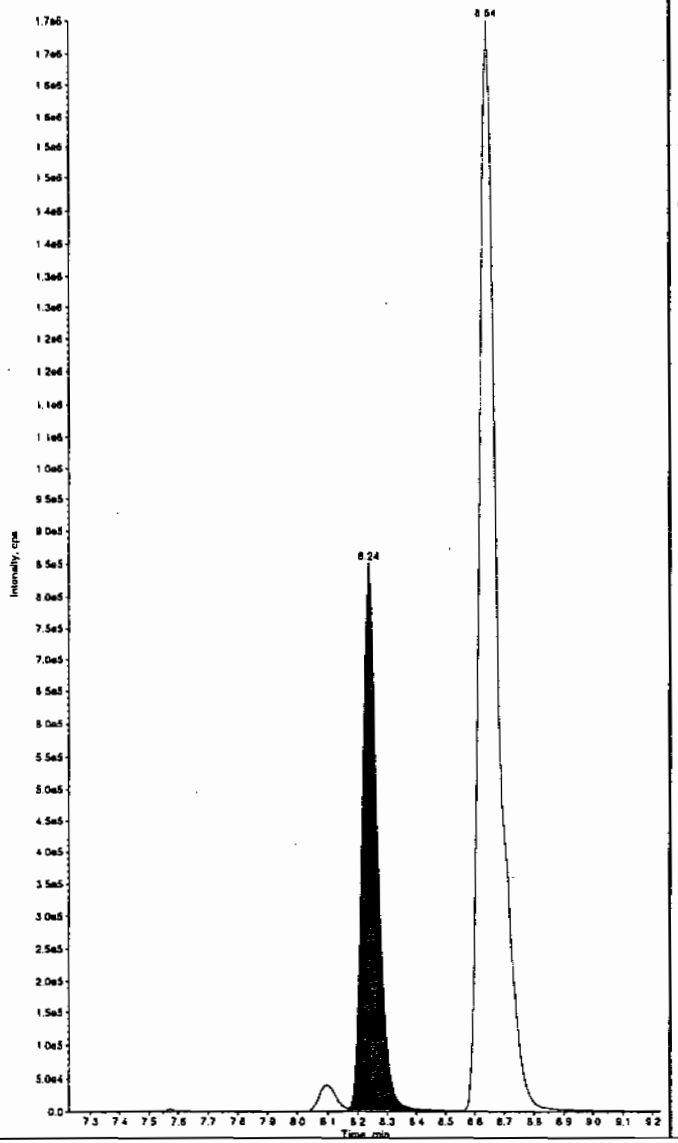

Sample Name: "1202032116" Sample ID: "948579|2|LER" File: "EXS02160017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 419. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:24:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 8.73e+005 counts
Height: 220191.116 cps
Start Time: 4.95 min
End Time: 5.30 min

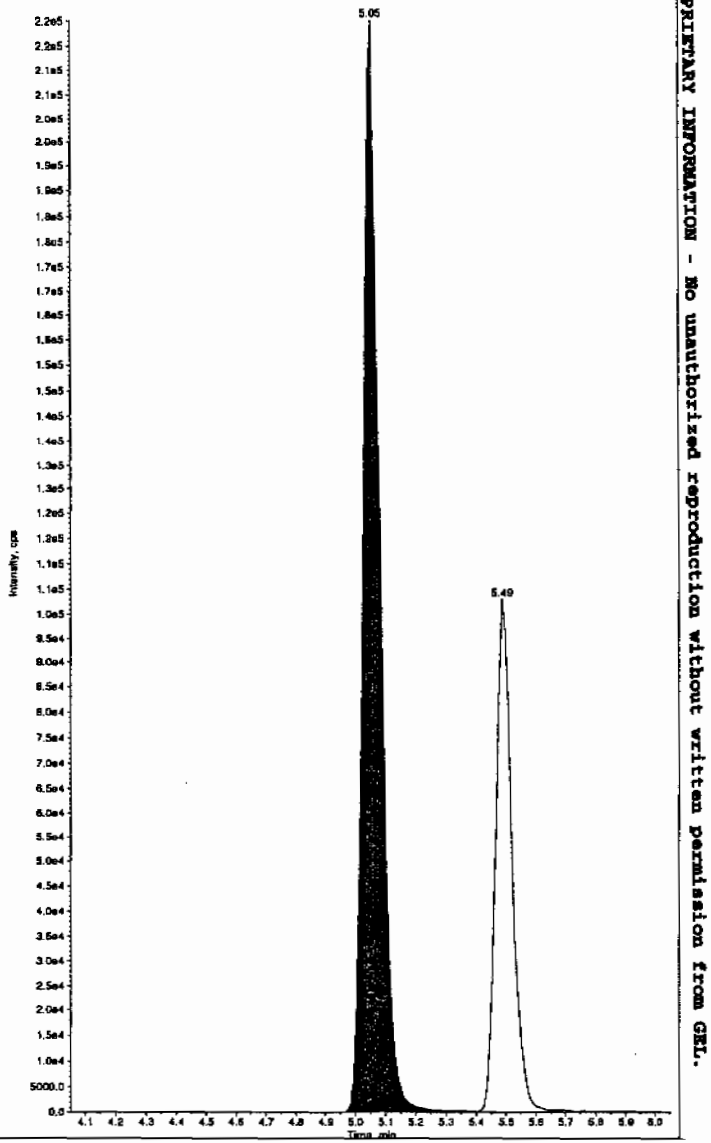

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ample Name: "1202032116" Sample ID: "948579|2|LER" File: "EXS02160017.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
omment: "LCX83212S" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 289. ng/mL
. Date: 2/16/2010
. Time: 4:24:40 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.49 min
Relative RT: No

. Type: Valley
ention Time: 5.49 min
a: 3.86e+005 counts
ght: 102757.614 cps
rt Time: 5.42 min
Time: 5.74 min

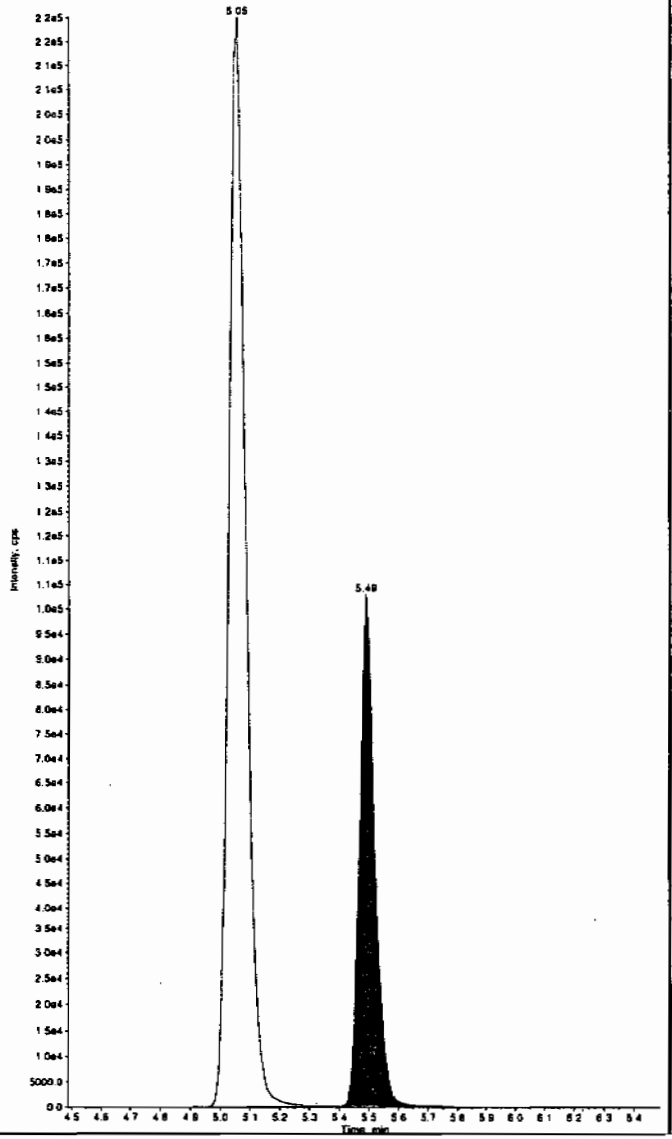

Sample Name: "1202032116" Sample ID: "948579|2|LER" File: "EXS02160017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 523. ng/mL
Acq. Date: 2/16/2010
Acq. Time: 4:24:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 10.6 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 1.04e+007 counts
Height: 2558487.305 cps
Start Time: 10.5 min
End Time: 10.9 min

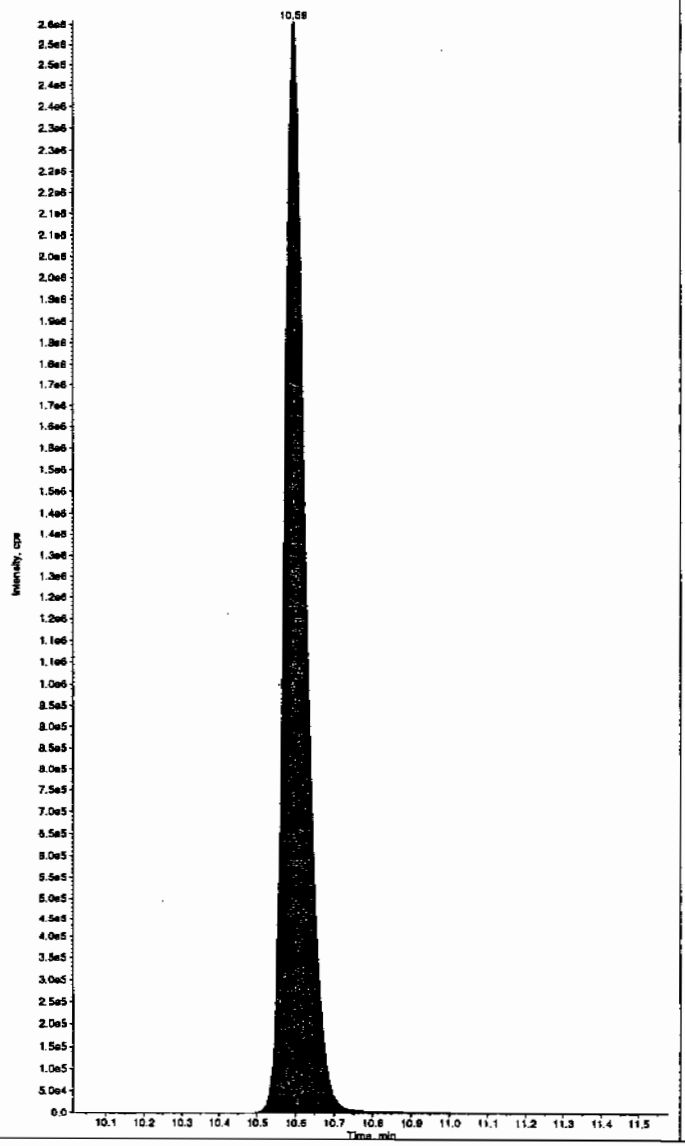

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 793675
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
20-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
948579	See Below		

Potentially affected work order(s)(SDG): 245994(10-1516),246006(10-1520)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS/MSD pair (1202032115/6) did not meet RPD acceptance limits for Tetryl at 30.9%. The acceptance limits are 0-30%.	1. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.

Originator's Name:

Michael Penny 20-FEB-10

Data Validator/Group Leader:

Herbert Maier 21-FEB-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1516

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	951299
Prep Batch Number:	951296

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
245994001	RE15-10-8122
245994002	RE15-10-8112
245994003	RE15-10-8113
1202038652	Method Blank (MB)
1202038653	Laboratory Control Sample (LCS)
1202038654	245994001(RE15-10-8122) Matrix Spike (MS)
1202038655	245994001(RE15-10-8122) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 245994001 (RE15-10-8122) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/1/10

Roadmap for LANL 10-1516 PCB

This roadmap was analyzed by yip00818 on 02-12-2010, 11:04.
This roadmap was reviewed by rob01090 on 02-16-2010, 16:24.
This roadmap was packaged by yml on 02-26-2010, 17:01.
This roadmap was validated by jim01140 on 03-01-2010, 09:29.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/021110.b/058f5801.d	245994001	sample	11-FEB-2010	17:25	10-1516.sub	RE15-10-8122	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/061f6101.d	245994002	sample	11-FEB-2010	18:03	10-1516.sub	RE15-10-8112	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/062f6201.d	245994003	sample	11-FEB-2010	18:16	10-1516.sub	RE15-10-8113	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/021110.b/058b5801.d	245994001	sample	11-FEB-2010	17:25	10-1516.sub	RE15-10-8122	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/061b6101.d	245994002	sample	11-FEB-2010	18:03	10-1516.sub	RE15-10-8112	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/062b6201.d	245994003	sample	11-FEB-2010	18:16	10-1516.sub	RE15-10-8113	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/021110.b/043f4301-2.d	1202038652	mb	11-FEB-2010	14:20	10-1516.sub	PBLK01	1.00000	951299	
☐	N	/chem/ecd1a.i/021110.b/044f4401-2.d	1202038653	lcs	11-FEB-2010	14:33	10-1516.sub	PBLK01LCS	1.00000	951299	
☐	N	/chem/ecd1a.i/021110.b/059f5901.d	1202038654	ms	11-FEB-2010	17:38	10-1516.sub	RE15-10-8122MS	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/060f6001.d	1202038655	msd	11-FEB-2010	17:51	10-1516.sub	RE15-10-8122MSD	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/021110.b/043b4301-2.d	1202038652	mb	11-FEB-2010	14:20	10-1516.sub	PBLK01	1.00000	951299	
☐	N	/chem/ecd1a.i/021110.b/044b4401-2.d	1202038653	lcs	11-FEB-2010	14:33	10-1516.sub	PBLK01LCS	1.00000	951299	
☐	N	/chem/ecd1a.i/021110.b/059b5901.d	1202038654	ms	11-FEB-2010	17:38	10-1516.sub	RE15-10-8122MS	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/060b6001.d	1202038655	msd	11-FEB-2010	17:51	10-1516.sub	RE15-10-8122MSD	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1516**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245994002**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**33**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8112**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 18:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**061f6101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	061b6101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.94	ug/kg	1.65	4.94	1
11104-28-2	Aroclor-1221	U	4.94	ug/kg	1.65	4.94	1
11141-16-5	Aroclor-1232	U	4.94	ug/kg	1.65	4.94	1
53469-21-9	Aroclor-1242	U	4.94	ug/kg	1.65	4.94	1
12672-29-6	Aroclor-1248	U	4.94	ug/kg	1.65	4.94	1
11097-69-1	Aroclor-1254	U	4.94	ug/kg	1.65	4.94	1
11096-82-5	Aroclor-1260	U	4.94	ug/kg	1.65	4.94	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1516**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245994003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8113**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 18:16**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	062b6201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.73	ug/kg	1.24	3.73	1
11104-28-2	Aroclor-1221	U	3.73	ug/kg	1.24	3.73	1
11141-16-5	Aroclor-1232	U	3.73	ug/kg	1.24	3.73	1
53469-21-9	Aroclor-1242	U	3.73	ug/kg	1.24	3.73	1
12672-29-6	Aroclor-1248	U	3.73	ug/kg	1.24	3.73	1
11097-69-1	Aroclor-1254	U	3.73	ug/kg	1.24	3.73	1
11096-82-5	Aroclor-1260	U	3.73	ug/kg	1.24	3.73	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1516**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245994001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8122**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 17:25**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**058f5801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	058b5801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.91	ug/kg	1.30	3.91	1
11104-28-2	Aroclor-1221	U	3.91	ug/kg	1.30	3.91	1
11141-16-5	Aroclor-1232	U	3.91	ug/kg	1.30	3.91	1
53469-21-9	Aroclor-1242	U	3.91	ug/kg	1.30	3.91	1
12672-29-6	Aroclor-1248	U	3.91	ug/kg	1.30	3.91	1
11097-69-1	Aroclor-1254	U	3.91	ug/kg	1.30	3.91	1
11096-82-5	Aroclor-1260	U	3.91	ug/kg	1.30	3.91	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1516

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202038652	MB for batch 951296	66	65	74	72
1202038653	LCS for batch 951296	64	62	70	69
245994001	RE15-10-8122	59	58	66	64
1202038654	RE15-10-8122MS	60	58	68	66
1202038655	RE15-10-8122MSD	55	53	60	58
245994002	RE15-10-8112	64	62	70	65
245994003	RE15-10-8113	61	60	63	62

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1516
Client ID: LCS for batch 951296
Lab Sample ID: 1202038653
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/11/2010 14:33
Prep Batch ID: 951296
Batch ID: 951299
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	21.9	66	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	25.8	77	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1516
Client ID: RE15-10-8122MS
Lab Sample ID: 1202038654
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 14.9
Analysis Date: 02/11/2010 17:38
Prep Batch ID: 951296
Batch ID: 951299
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	39.1	0.00	U	24.3	62	23-119
11096-82-5	MS	Aroclor-1260	39.1	0.00	U	29.9	77	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–1516**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE15–10–8122MSD**	**Matrix:**	**R**
Lab Sample ID:	**1202038655**	**%Moisture:**	**14.9**
Instrument:	**ECD1A.I**	**Analysis Date:**	**02/11/2010 17:51**
Analyst:	**YS1**	**Prep Batch ID**	**951296**
Inj. Vol:	**1 uL**	**Batch ID:**	**951299**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	39.1	0.00	U	22.5	57	23–119	8	0–28
11096–82–5	MSD Aroclor–1260	39.1	0.00	U	26.9	69	28–124	11	0–30

Method Blank Summary

SDG Number:	10-1516	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 951296	Instrument ID:	ECD1A.J_2 ECD1A.I_1	Data File:	043b4301-1.d 043f4301-1.d
Lab Sample ID:	1202038652				
Column:	CLP2 CLP1	Prep Date:	02/10/2010 21:22	Analyzed:	02/11/10 14:20
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 951296	1202038653	044f4401-1.d 044b4401-1.d	02/11/10	1433
02 RE15-10-8122	245994001	058f5801.d 058b5801.d	02/11/10	1725
03 RE15-10-8122MS	1202038654	059f5901.d 059b5901.d	02/11/10	1738
04 RE15-10-8122MSD	1202038655	060f6001.d 060b6001.d	02/11/10	1751
05 RE15-10-8112	245994002	061f6101.d 061b6101.d	02/11/10	1803
06 RE15-10-8113	245994003	062f6201.d 062b6201.d	02/11/10	1816

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1516	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	245994002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	33
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8112	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 18:03	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	061f6101.d	**Column:**	1 CLP1	**Level:**	LOW
	061b6101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.94	ug/kg	1.65	4.94	1
11104-28-2	Aroclor-1221	U	4.94	ug/kg	1.65	4.94	1
11141-16-5	Aroclor-1232	U	4.94	ug/kg	1.65	4.94	1
53469-21-9	Aroclor-1242	U	4.94	ug/kg	1.65	4.94	1
12672-29-6	Aroclor-1248	U	4.94	ug/kg	1.65	4.94	1
11097-69-1	Aroclor-1254	U	4.94	ug/kg	1.65	4.94	1
11096-82-5	Aroclor-1260	U	4.94	ug/kg	1.65	4.94	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/061f6101.d
Lab Smp Id: 245994002 Client Smp ID: RE15-10-8112
Inj Date : 11-FEB-2010 18:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245994002|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8112|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 61
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	32.95460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	55918369	127.910	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	46755588	140.176	6.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/061f6101.d

Date : 11-FEB-2010 18:03

Client ID: RE15-10-8112

Sample Info: |24599400211|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

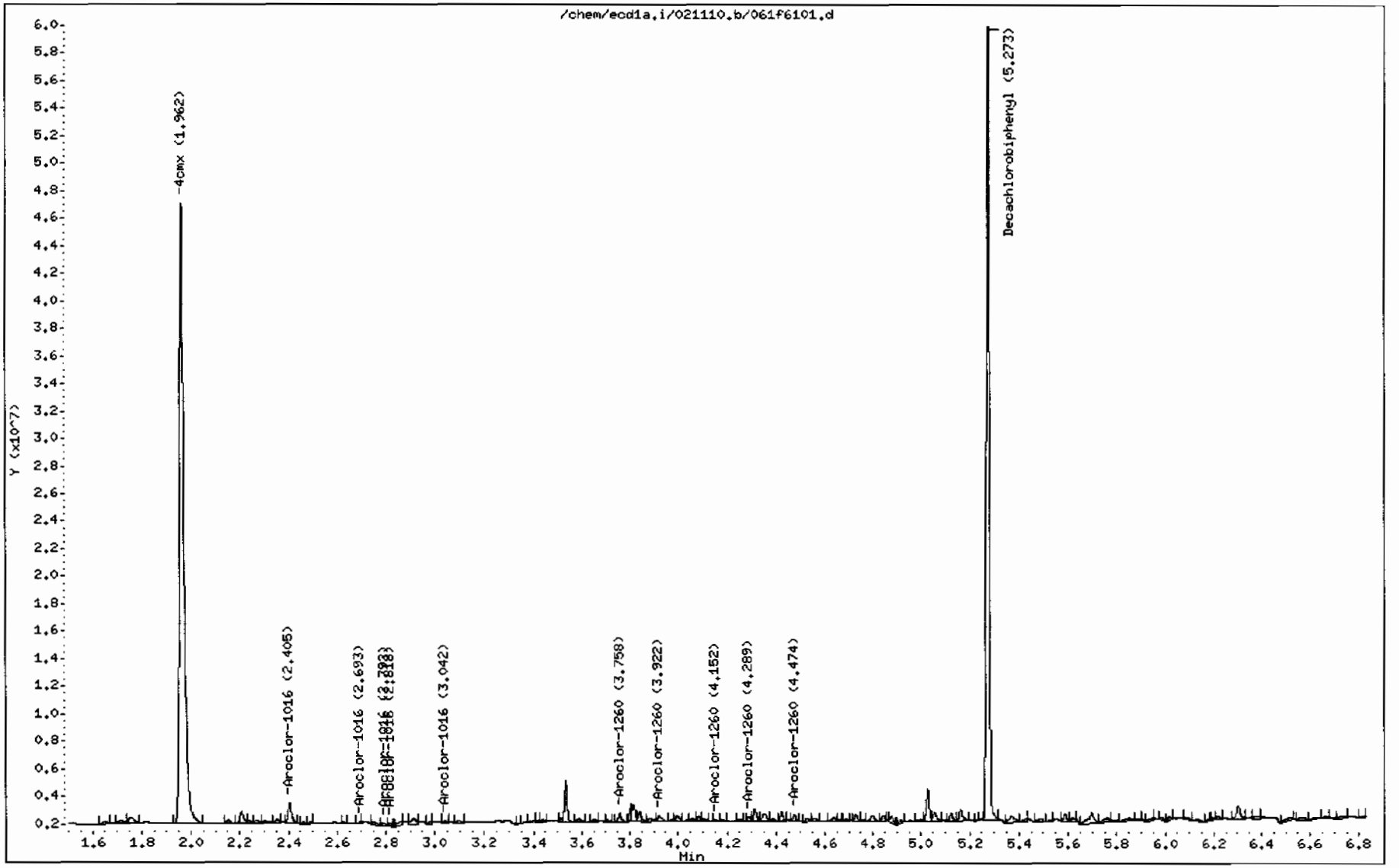

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/061b6101.d
Lab Smp Id: 245994002 Client Smp ID: RE15-10-8112
Inj Date : 11-FEB-2010 18:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245994002|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8112|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 61
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	32.95460	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.293	2.294	-0.001	35662093	124.296	6.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	27999555	130.173	6.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/061b6101.d

Date : 11-FEB-2010 18:03

Client ID: RE15-10-8112

Sample Info: |245994002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

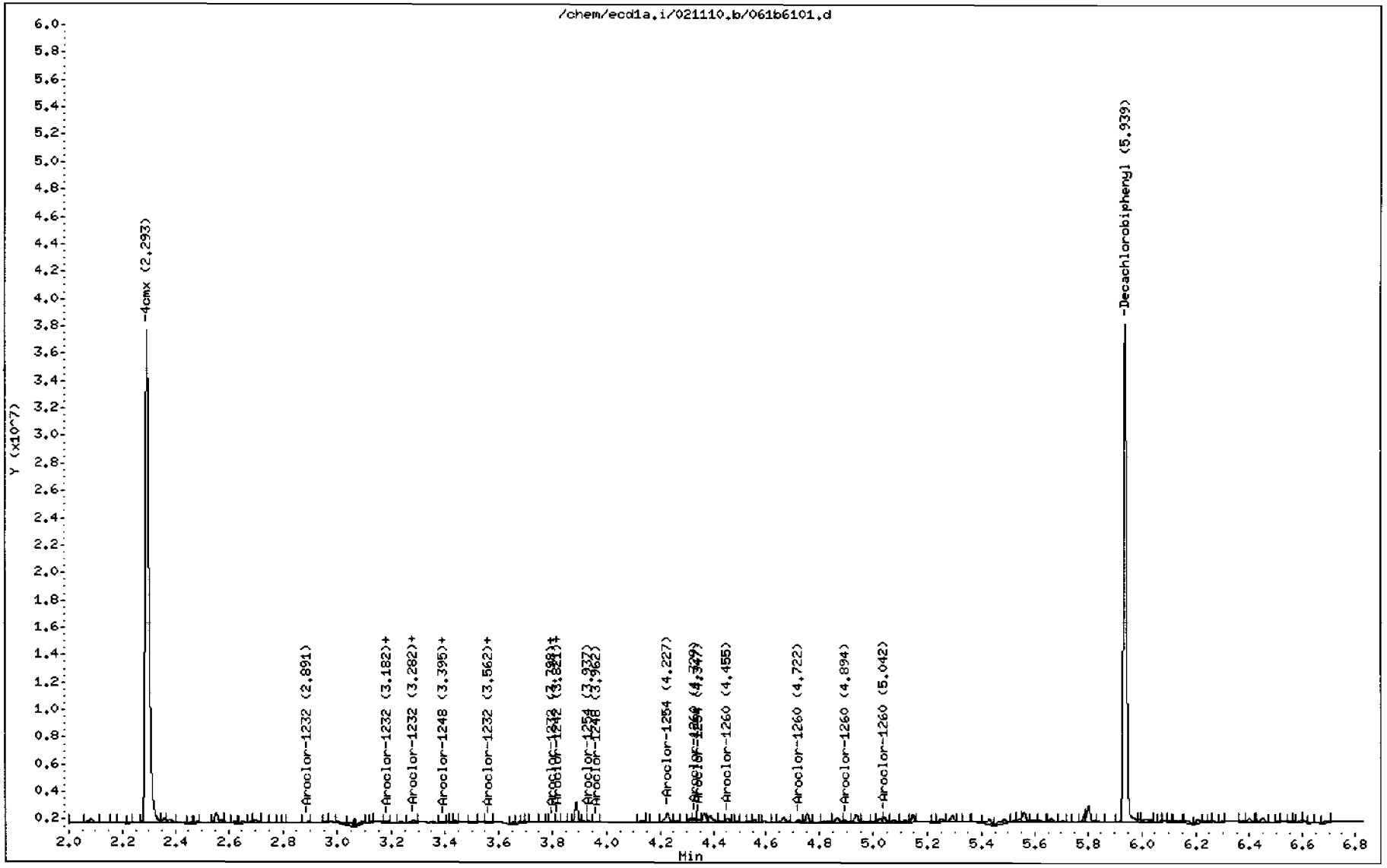

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1516**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245994003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**10.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8113**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 18:16**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	062b6201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.73	ug/kg	1.24	3.73	1
11104–28–2	Aroclor–1221	U	3.73	ug/kg	1.24	3.73	1
11141–16–5	Aroclor–1232	U	3.73	ug/kg	1.24	3.73	1
53469–21–9	Aroclor–1242	U	3.73	ug/kg	1.24	3.73	1
12672–29–6	Aroclor–1248	U	3.73	ug/kg	1.24	3.73	1
11097–69–1	Aroclor–1254	U	3.73	ug/kg	1.24	3.73	1
11096–82–5	Aroclor–1260	U	3.73	ug/kg	1.24	3.73	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/062f6201.d
Lab Smp Id: 245994003 Client Smp ID: RE15-10-8113
Inj Date : 11-FEB-2010 18:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245994003|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8113|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	10.80680	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.963	1.962	0.001	53601265	122.610	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.272	5.275	-0.003	42136012	126.326	4.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/062f6201.d

Date : 11-FEB-2010 18:16

Client ID: RE15-10-8113

Sample Info: |245994003|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

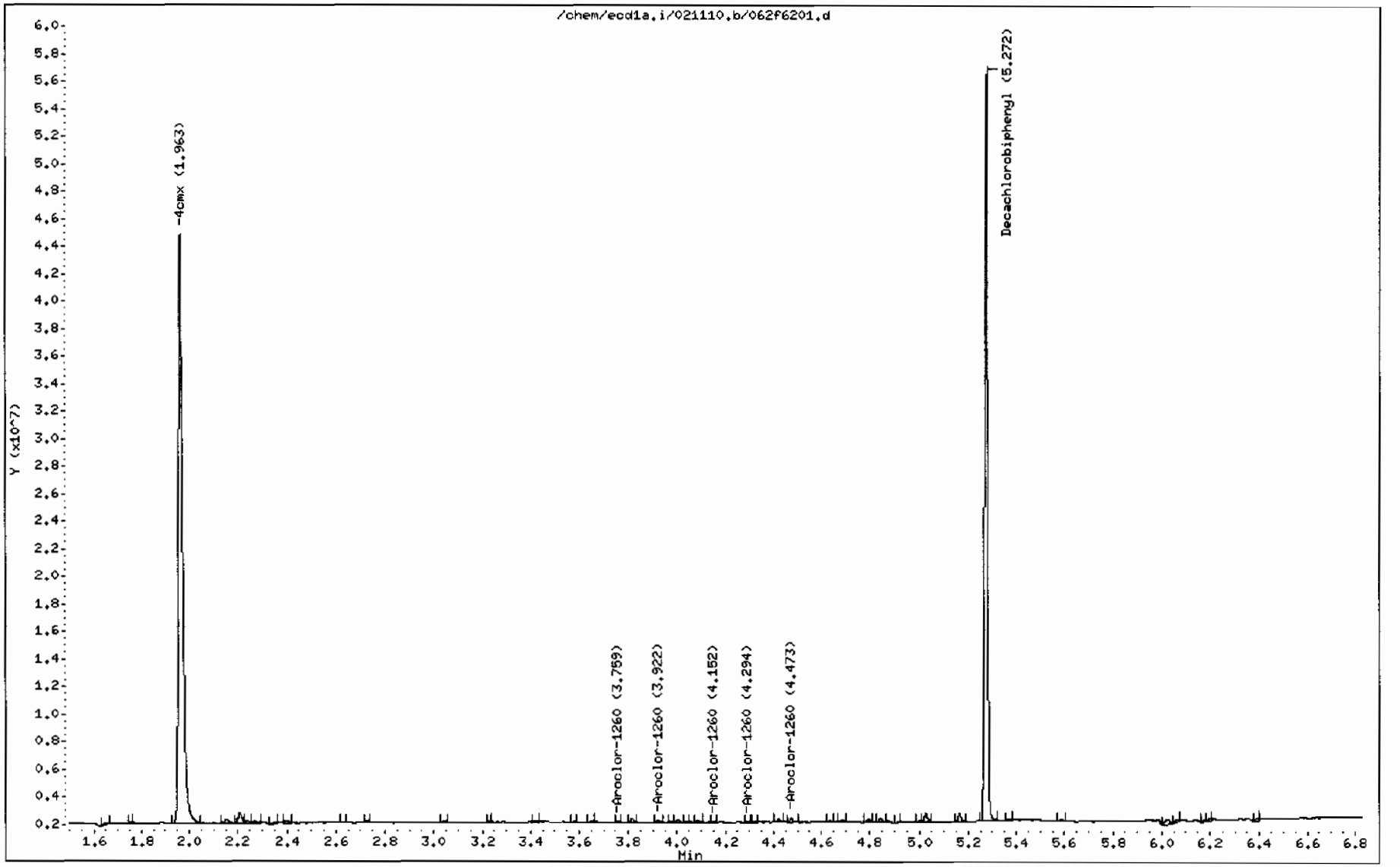

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/062b6201.d
Lab Smp Id: 245994003 Client Smp ID: RE15-10-8113
Inj Date : 11-FEB-2010 18:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245994003|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8113|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 62
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	10.80680	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	34540870	120.389	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.938	5.941	-0.003	26682375	124.050	4.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/062b6201.d

Date : 11-FEB-2010 18:16

Client ID: RE15-10-8113

Sample Info: 1245994003111

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

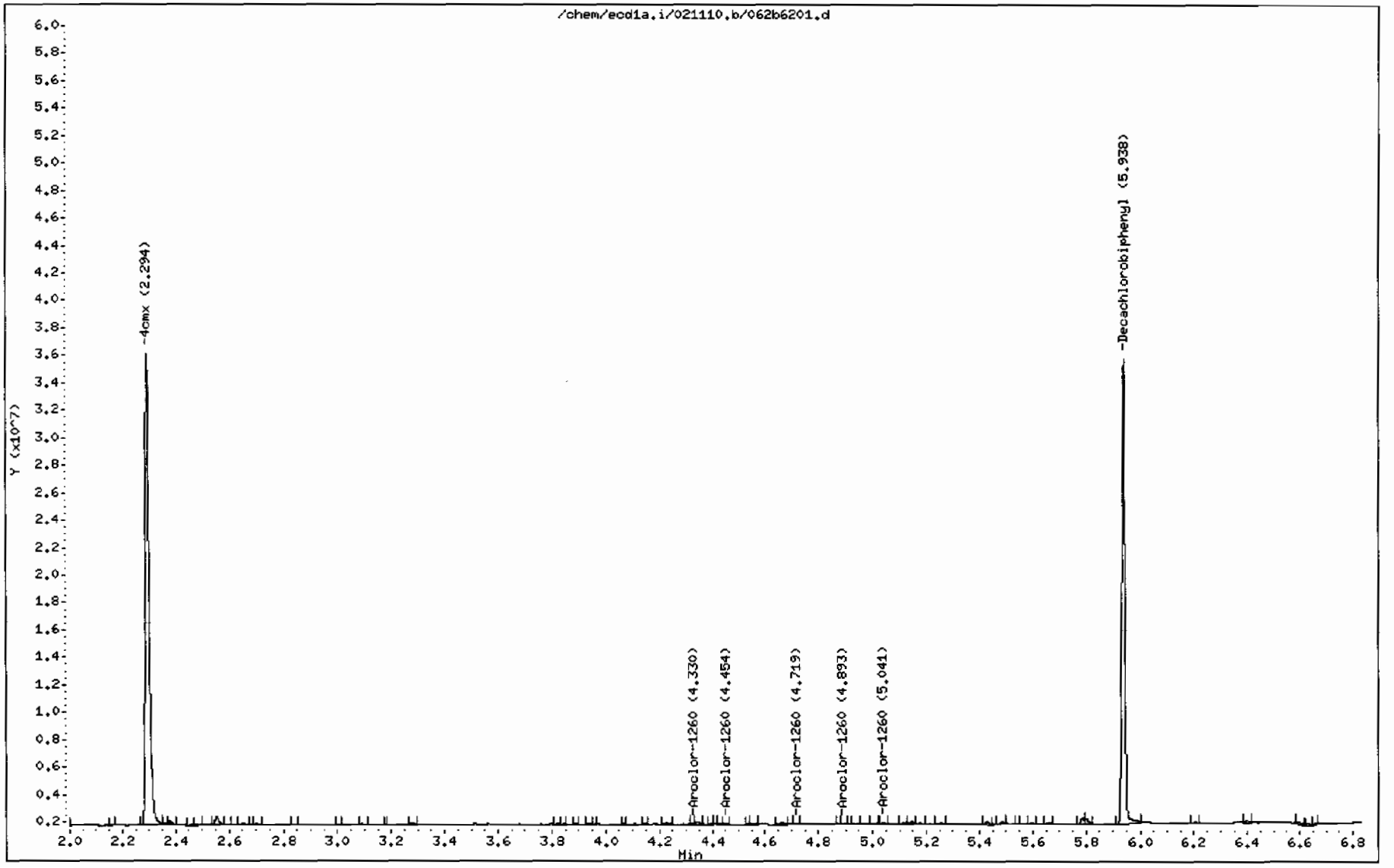

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1516**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245994001**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8122**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 17:25**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**058f5801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	058b5801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.91	ug/kg	1.30	3.91	1
11104–28–2	Aroclor–1221	U	3.91	ug/kg	1.30	3.91	1
11141–16–5	Aroclor–1232	U	3.91	ug/kg	1.30	3.91	1
53469–21–9	Aroclor–1242	U	3.91	ug/kg	1.30	3.91	1
12672–29–6	Aroclor–1248	U	3.91	ug/kg	1.30	3.91	1
11097–69–1	Aroclor–1254	U	3.91	ug/kg	1.30	3.91	1
11096–82–5	Aroclor–1260	U	3.91	ug/kg	1.30	3.91	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/058f5801.d
Lab Smp Id: 245994001 Client Smp ID: RE15-10-8122
Inj Date : 11-FEB-2010 17:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245994001|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8122|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 58
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	51433401	117.651	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	44071407	132.128	5.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/058f5801.d

Date : 11-FEB-2010 17:25

Client ID: RE15-10-8122

Sample Info: 1245994001|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

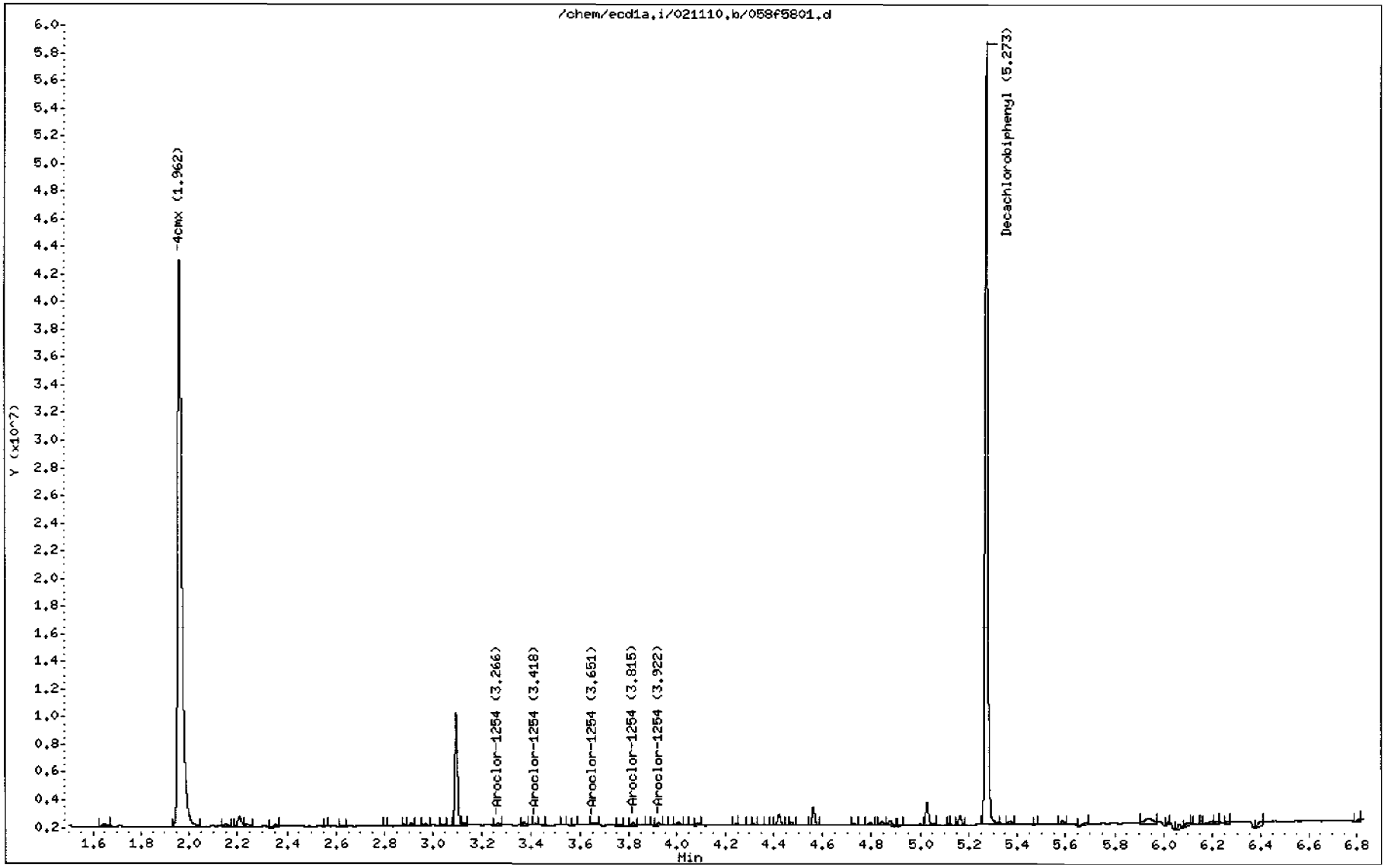

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/058b5801.d
Lab Smp Id: 245994001 Client Smp ID: RE15-10-8122
Inj Date : 11-FEB-2010 17:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245994001|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8122|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 58
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	33088420	115.326	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	27620596	128.411	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/058b5801.d

Date : 11-FEB-2010 17:25

Client ID: RE15-10-8122

Sample Info: 1245994001|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

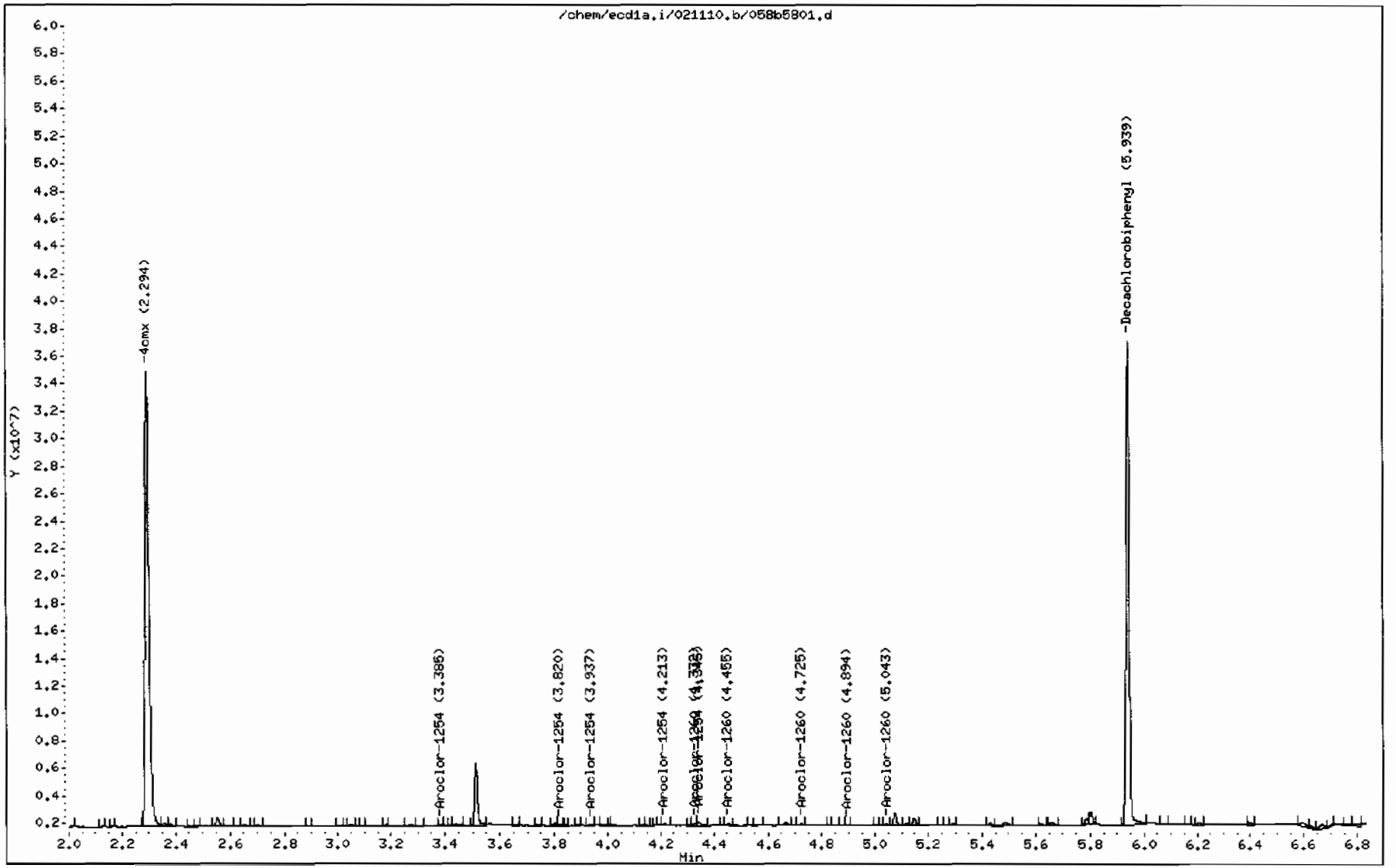

STANDARDS DATA

Report Date: 12-Feb-2010 09:03

Calibration History

Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 11-FEB-2010 08:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006f0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018f1801.d
11-FEB-2010 08:12	AR1248	/chem/ecd1a.i/021110.b/011f1101.d
10-FEB-2010 22:01	AR1242	/chem/ecd1a.i/021010c.b/008f0801.d
09-FEB-2010 08:36	AR1254	/chem/ecd1a.i/020910.b/011f1101.d
10-FEB-2010 20:58	AR1660	/chem/ecd1a.i/021010c.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007f0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019f1901.d
11-FEB-2010 08:22	AR1248	/chem/ecd1a.i/021110.b/012f1201.d
10-FEB-2010 22:12	AR1242	/chem/ecd1a.i/021010c.b/009f0901.d
09-FEB-2010 08:47	AR1254	/chem/ecd1a.i/020910.b/012f1201.d
10-FEB-2010 21:09	AR1660	/chem/ecd1a.i/021010c.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008f0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020f2001.d
11-FEB-2010 08:33	AR1248	/chem/ecd1a.i/021110.b/013f1301.d
10-FEB-2010 22:22	AR1242	/chem/ecd1a.i/021010c.b/010f1001.d
09-FEB-2010 08:57	AR1254	/chem/ecd1a.i/020910.b/013f1301.d
10-FEB-2010 21:19	AR1660	/chem/ecd1a.i/021010c.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
11-FEB-2010 08:44	AR1248	/chem/ecd1a.i/021110.b/014f1401.d
10-FEB-2010 22:33	AR1242	/chem/ecd1a.i/021010c.b/011f1101.d
09-FEB-2010 09:08	AR1254	/chem/ecd1a.i/020910.b/014f1401.d
10-FEB-2010 21:30	AR1660	/chem/ecd1a.i/021010c.b/005f0501.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021f2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009f0901.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010f1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022f2201.d
11-FEB-2010 08:54	AR1248	/chem/ecd1a.i/021110.b/015f1501.d
10-FEB-2010 22:43	AR1242	/chem/ecd1a.i/021010c.b/012f1201.d
09-FEB-2010 09:18	AR1254	/chem/ecd1a.i/020910.b/015f1501.d
10-FEB-2010 21:40	AR1660	/chem/ecd1a.i/021010c.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 18:28	AR1660	/chem/ecd1a.i/021110.b/063f6301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 20:56	AR1660	/chem/ecd1a.i/021110.b/075f7501.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 16:26	AR1660	/chem/ecd1a.i/021110.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 13:59	AR1660	/chem/ecd1a.i/021110.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 13:12	AR1660	/chem/ecd1a.i/021110.b/037f3701.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 10:35	AR1660	/chem/ecd1a.i/021110.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 09:04	AR1248	/chem/ecd1a.i/021110.b/016f1601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 08:44	AR1248	/chem/ecd1a.i/021110.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 08:01	AR1268	/chem/ecd1a.i/021110.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:51	AR1262	/chem/ecd1a.i/021110.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:40	AR1221	/chem/ecd1a.i/021110.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:19	AR1232	/chem/ecd1a.i/021110.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:46	AR1242	/chem/ecd1a.i/021110.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:35	AR1254	/chem/ecd1a.i/021110.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:25	AR1660	/chem/ecd1a.i/021110.b/002f0201.d

Report Date: 12-Feb-2010 09:02

Calibration History

Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 11-FEB-2010 08:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006b0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018b1801.d
11-FEB-2010 08:12	AR1248	/chem/ecd1a.i/021110.b/011b1101.d
10-FEB-2010 22:01	AR1242	/chem/ecd1a.i/021010c.b/008b0801.d
09-FEB-2010 08:36	AR1254	/chem/ecd1a.i/020910.b/011b1101.d
10-FEB-2010 20:58	AR1660	/chem/ecd1a.i/021010c.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007b0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019b1901.d
11-FEB-2010 08:22	AR1248	/chem/ecd1a.i/021110.b/012b1201.d
10-FEB-2010 22:12	AR1242	/chem/ecd1a.i/021010c.b/009b0901.d
09-FEB-2010 08:47	AR1254	/chem/ecd1a.i/020910.b/012b1201.d
10-FEB-2010 21:09	AR1660	/chem/ecd1a.i/021010c.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008b0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020b2001.d
11-FEB-2010 08:33	AR1248	/chem/ecd1a.i/021110.b/013b1301.d
10-FEB-2010 22:22	AR1242	/chem/ecd1a.i/021010c.b/010b1001.d
09-FEB-2010 08:57	AR1254	/chem/ecd1a.i/020910.b/013b1301.d
10-FEB-2010 21:19	AR1660	/chem/ecd1a.i/021010c.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021b2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009b0901.d
11-FEB-2010 08:44	AR1248	/chem/ecd1a.i/021110.b/014b1401.d
10-FEB-2010 22:33	AR1242	/chem/ecd1a.i/021010c.b/011b1101.d
09-FEB-2010 09:08	AR1254	/chem/ecd1a.i/020910.b/014b1401.d
10-FEB-2010 21:30	AR1660	/chem/ecd1a.i/021010c.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010b1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022b2201.d
11-FEB-2010 08:54	AR1248	/chem/ecd1a.i/021110.b/015b1501.d
10-FEB-2010 22:43	AR1242	/chem/ecd1a.i/021010c.b/012b1201.d
09-FEB-2010 09:18	AR1254	/chem/ecd1a.i/020910.b/015b1501.d
10-FEB-2010 21:40	AR1660	/chem/ecd1a.i/021010c.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 20:56	AR1660	/chem/ecd1a.i/021110.b/075b7501.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 18:28	AR1660	/chem/ecd1a.i/021110.b/063b6301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 16:26	AR1660	/chem/ecd1a.i/021110.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 13:59	AR1660	/chem/ecd1a.i/021110.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 13:12	AR1660	/chem/ecd1a.i/021110.b/037b3701.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 10:35	AR1660	/chem/ecd1a.i/021110.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 09:04	AR1248	/chem/ecd1a.i/021110.b/016b1601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 08:44	AR1248	/chem/ecd1a.i/021110.b/014b1401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 08:01	AR1268	/chem/ecd1a.i/021110.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:51	AR1262	/chem/ecd1a.i/021110.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:40	AR1221	/chem/ecd1a.i/021110.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:19	AR1232	/chem/ecd1a.i/021110.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:46	AR1242	/chem/ecd1a.i/021110.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:35	AR1254	/chem/ecd1a.i/021110.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:25	AR1660	/chem/ecd1a.i/021110.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Quant Method : ESTD Target Version : 3.50
Last Update : 12-Feb-2010 07:41 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.418	2.388-2.448	1.611e+04
	2.705	2.675-2.735	1.978e+04
	2.786	2.756-2.816	1.303e+04
	2.824	2.794-2.854	7.781e+03
	3.035	3.005-3.065	1.002e+04
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.075	2.045-2.105	4.301e+03
	2.168	2.138-2.198	2.440e+03
	2.194	2.164-2.224	1.027e+04
3 Aroclor-1232	2.422	2.392-2.452	6.849e+03
	2.711	2.681-2.741	8.426e+03
	2.792	2.762-2.822	5.627e+03
	3.041	3.011-3.071	3.983e+03
	3.296	3.266-3.326	3.858e+03
4 Aroclor-1242	2.418	2.388-2.448	1.423e+04
	2.706	2.676-2.736	1.725e+04
	2.825	2.795-2.855	6.715e+03
	3.035	3.005-3.065	8.866e+03
	3.290	3.260-3.320	8.594e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.087	3.057-3.117	9.450e+03
	3.238	3.208-3.268	8.270e+03
	3.290	3.260-3.320	1.593e+04
	3.421	3.391-3.451	1.308e+04
	3.654	3.624-3.684	8.823e+03
6 Aroclor-1254	3.264	3.234-3.294	1.578e+04
	3.420	3.390-3.450	2.135e+04
	3.654	3.624-3.684	2.726e+04
	3.817	3.787-3.847	2.062e+04
	3.926	3.896-3.956	1.959e+04
7 Aroclor-1260	3.760	3.730-3.790	1.903e+04
	3.924	3.894-3.954	2.835e+04
	4.154	4.124-4.184	1.704e+04
	4.296	4.266-4.326	1.789e+04
	4.475	4.445-4.505	3.885e+04
8 Aroclor-1262	3.762	3.732-3.792	1.500e+04
	3.925	3.895-3.955	2.038e+04
	4.155	4.125-4.185	2.520e+04
	4.297	4.267-4.327	2.299e+04
	4.477	4.447-4.507	4.717e+04
9 Aroclor-1268	4.662	4.632-4.691	5.248e+04
	4.685	4.655-4.715	4.812e+04
	4.797	4.767-4.827	3.703e+04
	5.001	4.971-5.031	1.629e+04
	5.166	5.136-5.196	1.083e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.962	1.932-1.992	4.372e+05
$ 12 Decachlorobiphenyl	5.275	5.245-5.305	3.336e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Quant Method : ESTD Target Version : 3.50
Last Update : 11-Feb-2010 10:57 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.190	3.160-3.220	1.243e+04
	3.274	3.244-3.304	8.521e+03
	3.337	3.307-3.367	5.254e+03
	3.564	3.534-3.594	6.732e+03
	3.640	3.610-3.670	6.324e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.491	2.461-2.521	3.640e+03
	2.585	2.555-2.615	2.329e+03
	2.626	2.596-2.656	8.119e+03
3 Aroclor-1232	2.895	2.865-2.925	5.892e+03
	3.194	3.164-3.224	6.222e+03
	3.278	3.248-3.308	4.345e+03
	3.569	3.539-3.599	3.111e+03
	3.803	3.773-3.833	3.193e+03
4 Aroclor-1242	3.191	3.161-3.221	1.075e+04
	3.274	3.244-3.304	7.486e+03
	3.565	3.535-3.595	5.934e+03
	3.799	3.769-3.829	5.957e+03
	3.825	3.795-3.855	6.667e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.400	3.370-3.430	7.671e+03
	3.565	3.535-3.595	9.454e+03
	3.799	3.769-3.829	1.075e+04
	3.826	3.796-3.856	1.201e+04
	3.963	3.933-3.993	1.157e+04
6 Aroclor-1254	3.400	3.370-3.430	6.631e+03
	3.822	3.792-3.852	1.170e+04
	3.939	3.909-3.969	1.289e+04
	4.215	4.185-4.245	1.768e+04
	4.351	4.321-4.381	1.318e+04
7 Aroclor-1260	4.330	4.300-4.360	1.259e+04
	4.455	4.425-4.485	1.507e+04
	4.721	4.691-4.751	1.162e+04
	4.895	4.865-4.925	1.203e+04
	5.042	5.012-5.072	2.582e+04
8 Aroclor-1262	4.456	4.426-4.486	1.356e+04
	4.722	4.692-4.752	1.889e+04
	4.896	4.866-4.926	1.747e+04
	5.043	5.013-5.073	3.453e+04
	5.256	5.226-5.286	2.487e+04
9 Aroclor-1268	5.255	5.225-5.285	3.626e+04
	5.282	5.252-5.312	3.358e+04
	5.432	5.402-5.462	2.598e+04
	5.597	5.567-5.627	1.135e+04
	5.790	5.760-5.820	6.708e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.294	2.264-2.324	2.869e+05
$ 12 Decachlorobiphenyl	5.941	5.911-5.971	2.151e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 11-FEB-2010 08:54
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Cal Date : 11-Feb-2010 10:57 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	19326	17292	16249	14619	13058	16109	14.981
(2)	22153	20229	20057	18657	17817	19783	8.392
(3)	15191	13813	12984	11880	11259	13025	11.981
(4)	8766	8210	7786	7162	6984	7781	9.470
(5)	11843	10436	9856	9117	8861	10022	11.892
63 4,4-DDD	#####	#####	#####	393799	#####	393799	0.000
64 4,4-DDE	#####	#####	#####	479509	#####	479509	0.000
62 4,4-DDT	#####	#####	#####	323817	#####	323817	0.000
2 Aroclor-1221(1)	#####	#####	#####	4301	#####	4301	0.000
(2)	#####	#####	#####	2440	#####	2440	0.000
(3)	#####	#####	#####	10272	#####	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	17196	15480	14031	13205	11219	14226	15.919
(2)	19366	18107	17235	16522	15038	17254	9.451
(3)	7556	7133	6646	6336	5902	6715	9.682
(4)	10515	9349	8647	8192	7629	8866	12.591
(5)	9978	8943	8379	8018	7652	8594	10.575
5 Aroclor-1248(1)	10726	9846	9290	8975	8413	9450	9.334
(2)	9327	8548	8186	7843	7446	8270	8.680
(3)	17521	16821	15652	15280	14383	15931	7.826
(4)	14862	13498	12885	12502	11648	13079	9.187
(5)	10025	9201	8833	8291	7765	8823	9.799

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 11-FEB-2010 08:54
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Cal Date : 11-Feb-2010 10:57 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	18218	16468	15766	15064	13404	15784	11.233
(2)	24302	22248	21155	20648	18377	21346	10.182
(3)	29883	28006	27625	26757	24011	27256	7.865
(4)	22385	20901	20953	20353	18513	20621	6.778
(5)	21764	19914	20167	19029	17098	19594	8.725
7 Aroclor-1260(1)	21642	19935	19107	17723	16744	19030	10.032
(2)	32138	29342	28391	26620	25276	28353	9.293
(3)	19407	17671	16915	15834	15397	17045	9.355
(4)	20180	18339	17702	16653	16586	17892	8.248
(5)	42057	39974	39147	37071	36004	38851	6.158
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25041	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor-1268(1)	55111	53385	52967	52495	48466	52485	4.676
(2)	51014	48609	47960	48222	44786	48118	4.620
(3)	39244	37391	36973	36968	34562	37028	4.505
(4)	17802	16531	16072	16029	15038	16294	6.158
(5)	113064	109648	108755	109096	100824	108277	4.162
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	463524	446573	443497	419634	412623	437170	4.761
$ 12 Decachlorobiphenyl	376792	343805	329903	311587	305664	333550	8.544

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 11-FEB-2010 08:54
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Cal Date : 11-Feb-2010 10:57 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14591	12913	12188	11398	11060	12430	11.307
(2)	10470	9150	8372	7586	7028	8521	15.876
(3)	6450	5571	5116	4655	4476	5254	15.089
(4)	8237	7137	6558	5942	5787	6732	14.811
(5)	7728	6741	6161	5527	5464	6324	14.885
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12868	11152	10610	10007	9095	10746	13.125
(2)	9289	8079	7275	6770	6015	7486	16.798
(3)	7189	6322	5719	5508	4930	5934	14.498
(4)	7095	6343	5815	5502	5032	5957	13.341
(5)	7801	7111	6544	6217	5664	6667	12.341
5 Aroclor-1248(1)	9444	8118	7508	7032	6252	7671	15.686
(2)	11407	9946	9274	8769	7875	9454	14.042
(3)	12626	11184	10575	10134	9235	10751	11.776
(4)	13986	12612	11847	11369	10240	12011	11.653
(5)	13621	12052	11294	10873	9986	11565	11.846

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 11-FEB-2010 08:54
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Cal Date : 11-Feb-2010 10:57 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	8119	7134	6511	6102	5288	6631	16.115
(2)	13835	12411	11575	10994	9701	11703	13.219
(3)	15198	13631	12780	12111	10729	12890	12.960
(4)	20285	18437	17626	16945	15125	17683	10.740
(5)	15441	13882	13241	12228	11123	13183	12.432
7 Aroclor-1260(1)	15081	13204	12414	11388	10875	12592	13.167
(2)	17861	15711	14887	13769	13107	15067	12.319
(3)	13915	12197	11404	10497	10076	11618	13.121
(4)	14295	12571	11824	10912	10548	12030	12.409
(5)	29523	26703	25717	24048	23128	25824	9.659
8 Aroclor-1262(1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268(1)	40076	37508	36193	35765	31736	36256	8.369
(2)	36699	34342	33454	33223	30195	33583	6.968
(3)	29294	26633	25688	25340	22957	25982	8.826
(4)	12990	11609	11161	10996	9978	11347	9.656
(5)	67306	67058	67598	69416	64002	67076	2.911
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	319320	296105	286786	270335	262011	286912	7.851
$ 12 Decachlorobiphenyl	252618	222970	211940	195273	192671	215094	11.330

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 0625

Lab File ID: 002F0201 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	16108.588	14817.126	0.01	-8.0	15.0
(2)	19782.624	18740.852	0.01	-5.3	15.0
(3)	13025.402	12028.069	0.01	-7.6	15.0
(4)	7781.493	7264.684	0.01	-6.6	15.0
(5)	10022.454	9348.232	0.01	-6.7	15.0
Aroclor-1260	19030.240	18024.742	0.01	-5.3	15.0
(2)	28353.443	26976.990	0.01	-4.8	15.0
(3)	17044.603	16166.057	0.01	-5.2	15.0
(4)	17892.160	16921.624	0.01	-5.4	15.0
(5)	38850.548	37874.774	0.01	-2.5	15.0
4cmx	437170.47	424281.80	0.01	-2.9	15.0
Decachlorobiphenyl	333550.18	317081.31	0.01	-4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 0625

Lab File ID: 002B0201 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12430.231	11562.048	0.01	-7.0	15.0
(2)	8521.037	7683.410	0.01	-9.8	15.0
(3)	5253.747	4741.718	0.01	-9.7	15.0
(4)	6732.031	6035.202	0.01	-10.4	15.0
(5)	6324.172	5692.505	0.01	-10.0	15.0
Aroclor-1260	12592.453	11645.040	0.01	-7.5	15.0
(2)	15067.065	14168.599	0.01	-6.0	15.0
(3)	11617.964	10727.829	0.01	-7.7	15.0
(4)	12030.051	11090.617	0.01	-7.8	15.0
(5)	25823.849	24504.654	0.01	-5.1	15.0
4cmx	286911.58	274787.62	0.01	-4.2	15.0
Decachlorobiphenyl	215094.49	199976.09	0.01	-7.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1359

Lab File ID: 041F4101 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	16108.588	15417.702	0.01	-4.3	15.0
(2)	19782.624	20182.782	0.01	2.0	15.0
(3)	13025.402	12638.306	0.01	-3.0	15.0
(4)	7781.493	7558.454	0.01	-2.9	15.0
(5)	10022.454	9745.749	0.01	-2.8	15.0
Aroclor-1260	19030.240	20119.986	0.01	5.7	15.0
(2)	28353.443	30406.525	0.01	7.2	15.0
(3)	17044.603	18123.617	0.01	6.3	15.0
(4)	17892.160	19480.990	0.01	8.9	15.0
(5)	38850.548	42671.482	0.01	9.8	15.0
4cmx	437170.47	445336.32	0.01	1.9	15.0
Decachlorobiphenyl	333550.18	333901.88	0.01	0.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1359

Lab File ID: 041B4101 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12430.231	12136.535	0.01	-2.4	15.0
(2)	8521.037	7885.509	0.01	-7.4	15.0
(3)	5253.747	4854.387	0.01	-7.6	15.0
(4)	6732.031	6230.767	0.01	-7.4	15.0
(5)	6324.172	5804.457	0.01	-8.2	15.0
Aroclor-1260	12592.453	12875.144	0.01	2.2	15.0
(2)	15067.065	15626.067	0.01	3.7	15.0
(3)	11617.964	11908.223	0.01	2.5	15.0
(4)	12030.051	12306.280	0.01	2.3	15.0
(5)	25823.849	27241.559	0.01	5.5	15.0
4cmx	286911.58	282518.17	0.01	-1.5	15.0
Decachlorobiphenyl	215094.49	208423.32	0.01	-3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1626

Lab File ID: 053F5301 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	16108.588	15384.834	0.01	-4.5	15.0
(2)	19782.624	19723.224	0.01	-0.3	15.0
(3)	13025.402	12610.788	0.01	-3.2	15.0
(4)	7781.493	7597.045	0.01	-2.4	15.0
(5)	10022.454	9627.379	0.01	-3.9	15.0
Aroclor-1260	19030.240	20163.698	0.01	6.0	15.0
(2)	28353.443	30122.749	0.01	6.2	15.0
(3)	17044.603	17936.662	0.01	5.2	15.0
(4)	17892.160	18821.491	0.01	5.2	15.0
(5)	38850.548	41846.605	0.01	7.7	15.0
4cmx	437170.47	444487.38	0.01	1.7	15.0
Decachlorobiphenyl	333550.18	323722.27	0.01	-2.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1626

Lab File ID: 053B5301 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12430.231	11752.589	0.01	-5.4	15.0
(2)	8521.037	7925.933	0.01	-7.0	15.0
(3)	5253.747	4861.568	0.01	-7.5	15.0
(4)	6732.031	6425.703	0.01	-4.6	15.0
(5)	6324.172	5899.022	0.01	-6.7	15.0
Aroclor-1260	12592.453	12748.818	0.01	1.2	15.0
(2)	15067.065	15400.913	0.01	2.2	15.0
(3)	11617.964	11718.691	0.01	0.9	15.0
(4)	12030.051	12136.482	0.01	0.9	15.0
(5)	25823.849	26752.597	0.01	3.6	15.0
4cmx	286911.58	282963.31	0.01	-1.4	15.0
Decachlorobiphenyl	215094.49	202100.79	0.01	-6.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1828

Lab File ID: 063F6301 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	16108.588	14670.768	0.01	-8.9	15.0
(2)	19782.624	19413.394	0.01	-1.9	15.0
(3)	13025.402	12409.380	0.01	-4.7	15.0
(4)	7781.493	7474.666	0.01	-3.9	15.0
(5)	10022.454	9497.975	0.01	-5.2	15.0
Aroclor-1260	19030.240	19886.462	0.01	4.5	15.0
(2)	28353.443	29823.794	0.01	5.2	15.0
(3)	17044.603	17865.326	0.01	4.8	15.0
(4)	17892.160	18725.540	0.01	4.6	15.0
(5)	38850.548	41814.099	0.01	7.6	15.0
4cmx	437170.47	434734.20	0.01	-0.6	15.0
Decachlorobiphenyl	333550.18	325516.50	0.01	-2.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1828

Lab File ID: 063B6301 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12430.231	11730.474	0.01	-5.6	15.0
(2)	8521.037	7797.700	0.01	-8.5	15.0
(3)	5253.747	4820.709	0.01	-8.2	15.0
(4)	6732.031	6116.647	0.01	-9.1	15.0
(5)	6324.172	5692.008	0.01	-10.0	15.0
Aroclor-1260	12592.453	12653.249	0.01	0.5	15.0
(2)	15067.065	15351.314	0.01	1.9	15.0
(3)	11617.964	11677.224	0.01	0.5	15.0
(4)	12030.051	12150.048	0.01	1.0	15.0
(5)	25823.849	26887.303	0.01	4.1	15.0
4cmx	286911.58	277205.39	0.01	-3.4	15.0
Decachlorobiphenyl	215094.49	205818.45	0.01	-4.3	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/021110.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 11-FEB-2010 06:25
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecdla.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	42428180	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	31708131	100.000	95.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.418	0.000	14817126	1000.00	920	80.00- 120.00	100.00
2.705	2.705	0.000	18740852	1000.00	947	106.48- 146.48	126.48
2.786	2.786	0.000	12028069	1000.00	923	61.18- 101.18	81.18
2.824	2.824	0.000	7264684	1000.00	934	29.03- 69.03	49.03
3.035	3.035	0.000	9348232	1000.00	933	43.09- 83.09	63.09
Average of Peak Amounts =					931		
7 Aroclor-1260					CAS #: 11096-82-5		
3.760	3.760	0.000	18024742	1000.00	947	80.00- 120.00	100.00
3.924	3.924	0.000	26976990	1000.00	951	129.67- 169.67	149.67
4.154	4.154	0.000	16166057	1000.00	948	69.69- 109.69	89.69
4.296	4.296	0.000	16921624	1000.00	946	73.88- 113.88	93.88
4.475	4.475	0.000	37874774	1000.00	975	190.13- 230.13	210.13
Average of Peak Amounts =					954		

Data File: /chem/ecdia.i/021110.b/002f0201.d
Date : 11-FEB-2010 06:25
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

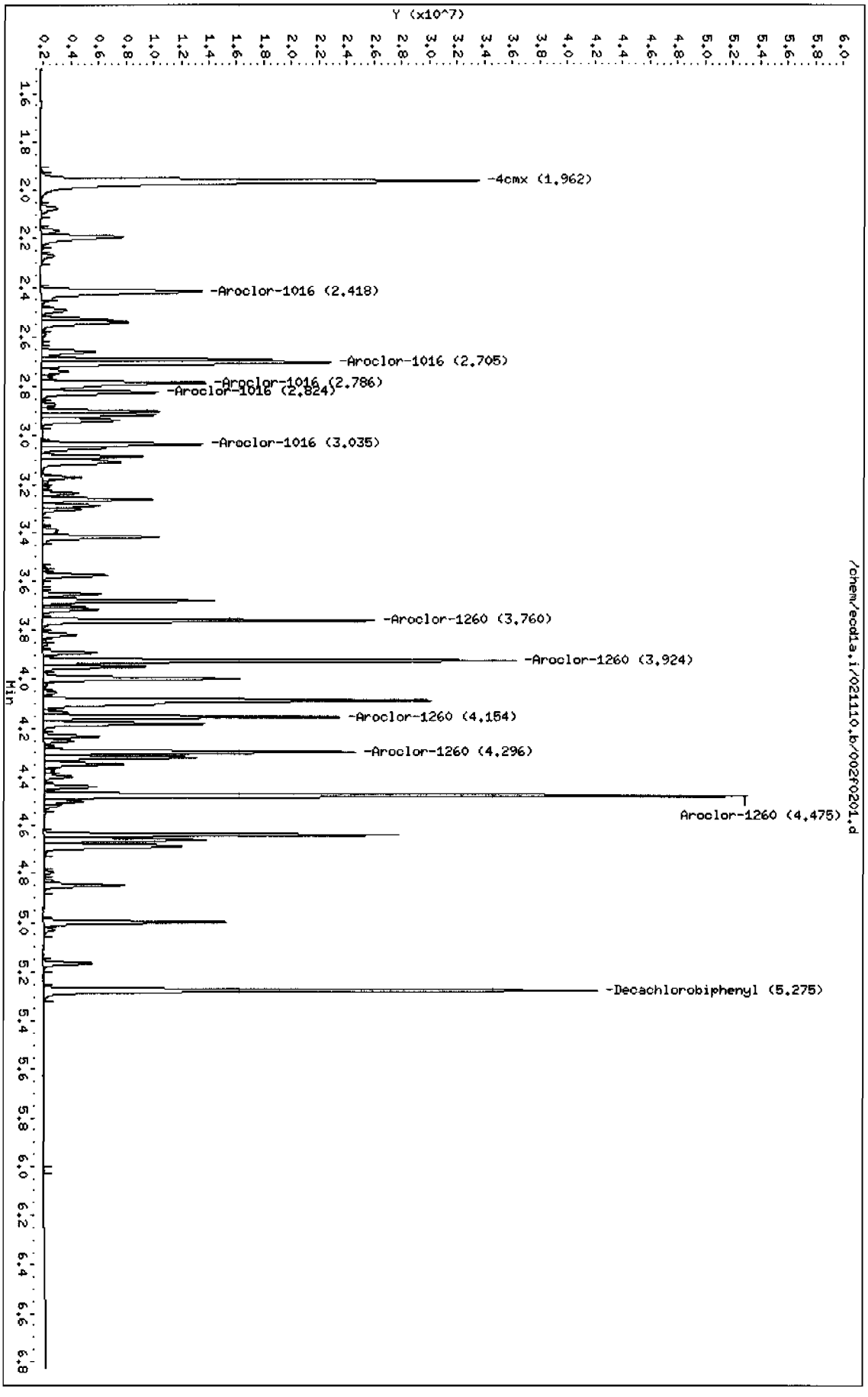

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 11-FEB-2010 06:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	27478762	100.000	95.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.941	0.000	19997609	100.000	93.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.190	0.000	11562048	1000.00	930	80.00- 120.00	100.00(M)
3.274	3.274	0.000	7683410	1000.00	902	46.45- 86.45	66.45
3.337	3.337	0.000	4741718	1000.00	902	21.01- 61.01	41.01
3.564	3.564	0.000	6035202	1000.00	896	32.20- 72.20	52.20
3.640	3.640	0.000	5692505	1000.00	900	29.23- 69.23	49.23
Average of Peak Amounts =					906		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.330	0.000	11645040	1000.00	925	80.00- 120.00	100.00
4.455	4.455	0.000	14168599	1000.00	940	101.67- 141.67	121.67
4.721	4.721	0.000	10727829	1000.00	923	92.12- 112.12	92.12
4.895	4.895	0.000	11090617	1000.00	922	75.24- 115.24	95.24
5.042	5.042	0.000	24504654	1000.00	949	190.43- 230.43	210.43
Average of Peak Amounts =					932		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/002b0201.d

Date : 11-FEB-2010 06:25

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

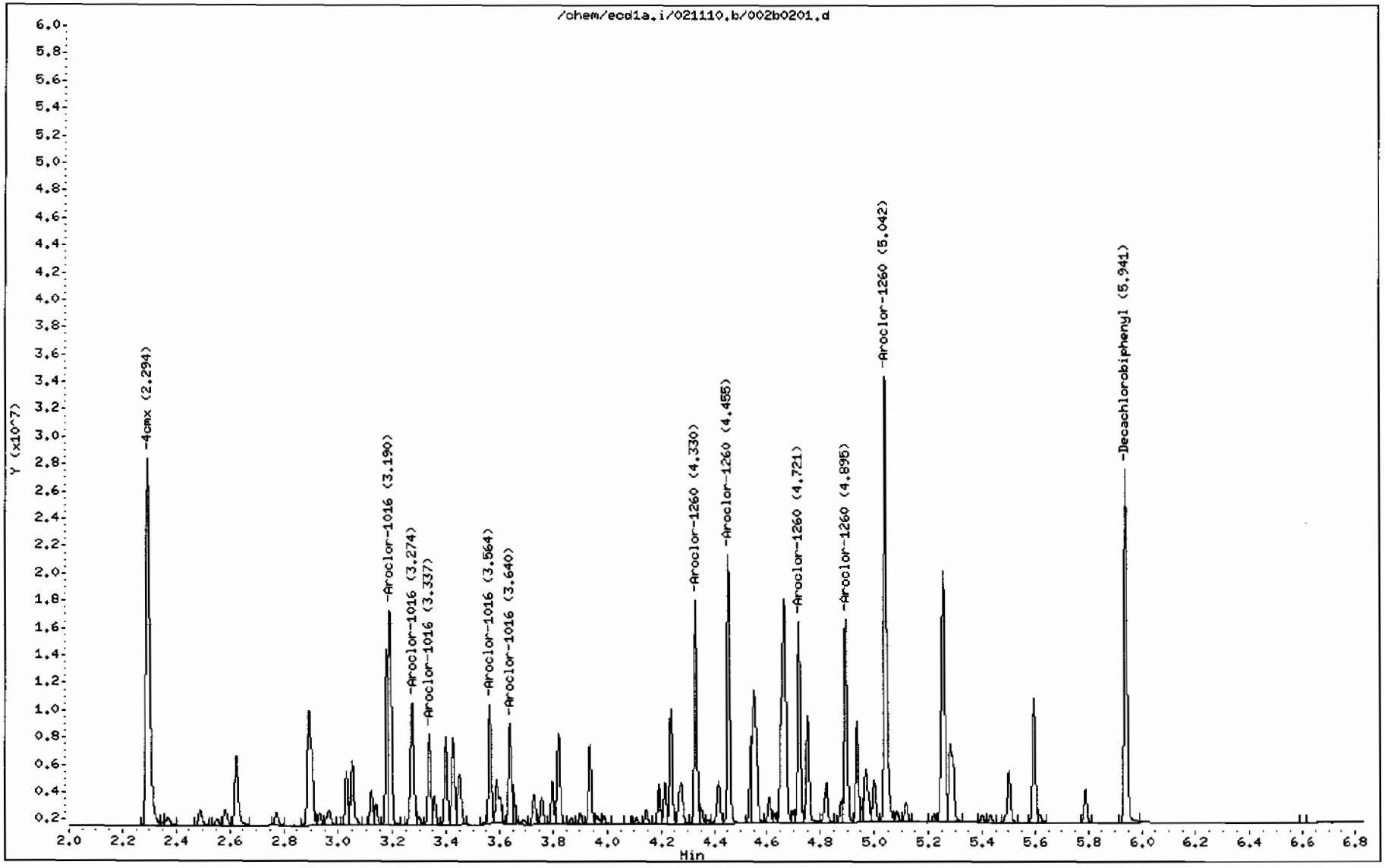

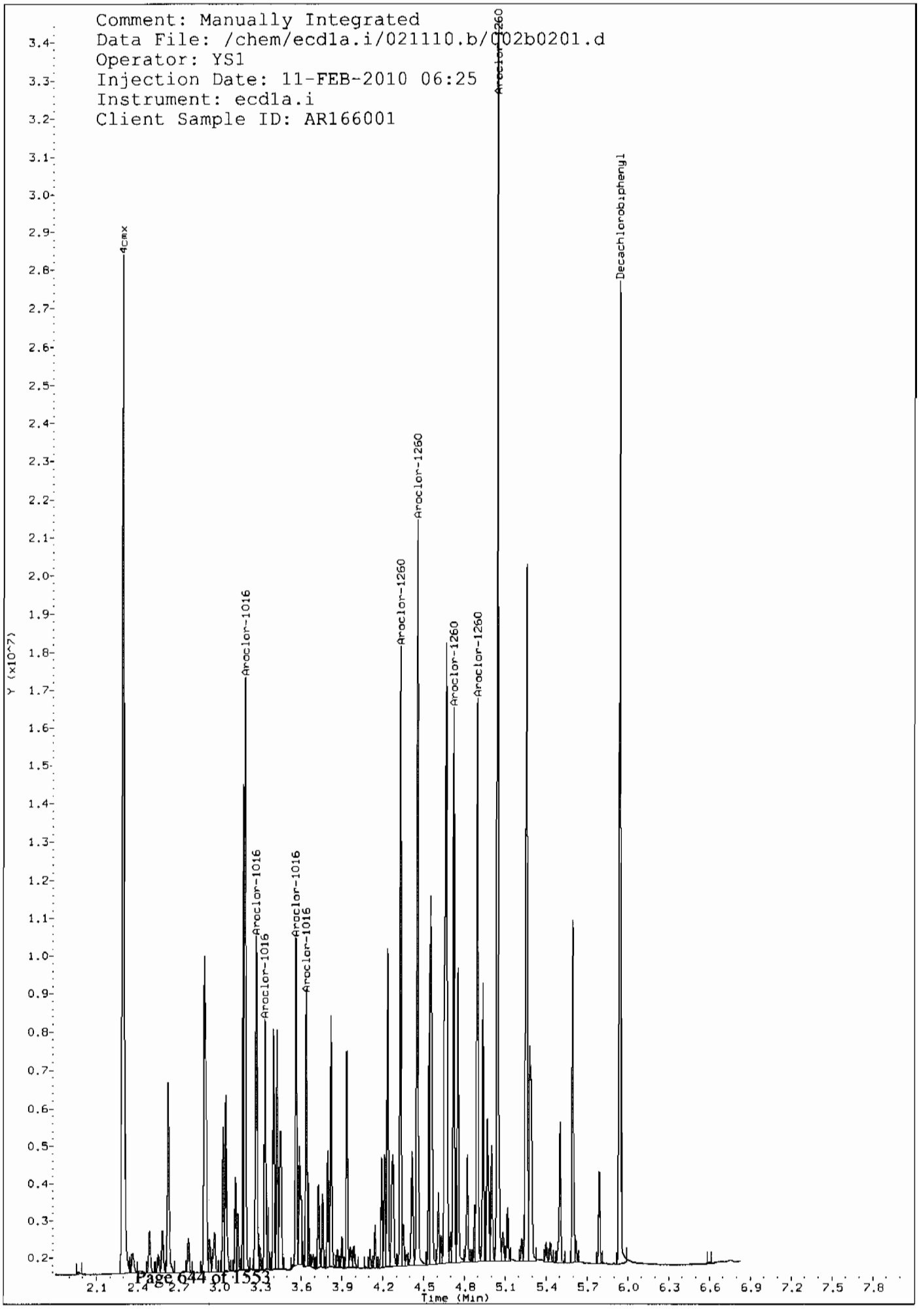
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/002b0201.d
Operator: YS1
Injection Date: 11-FEB-2010 06:25
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

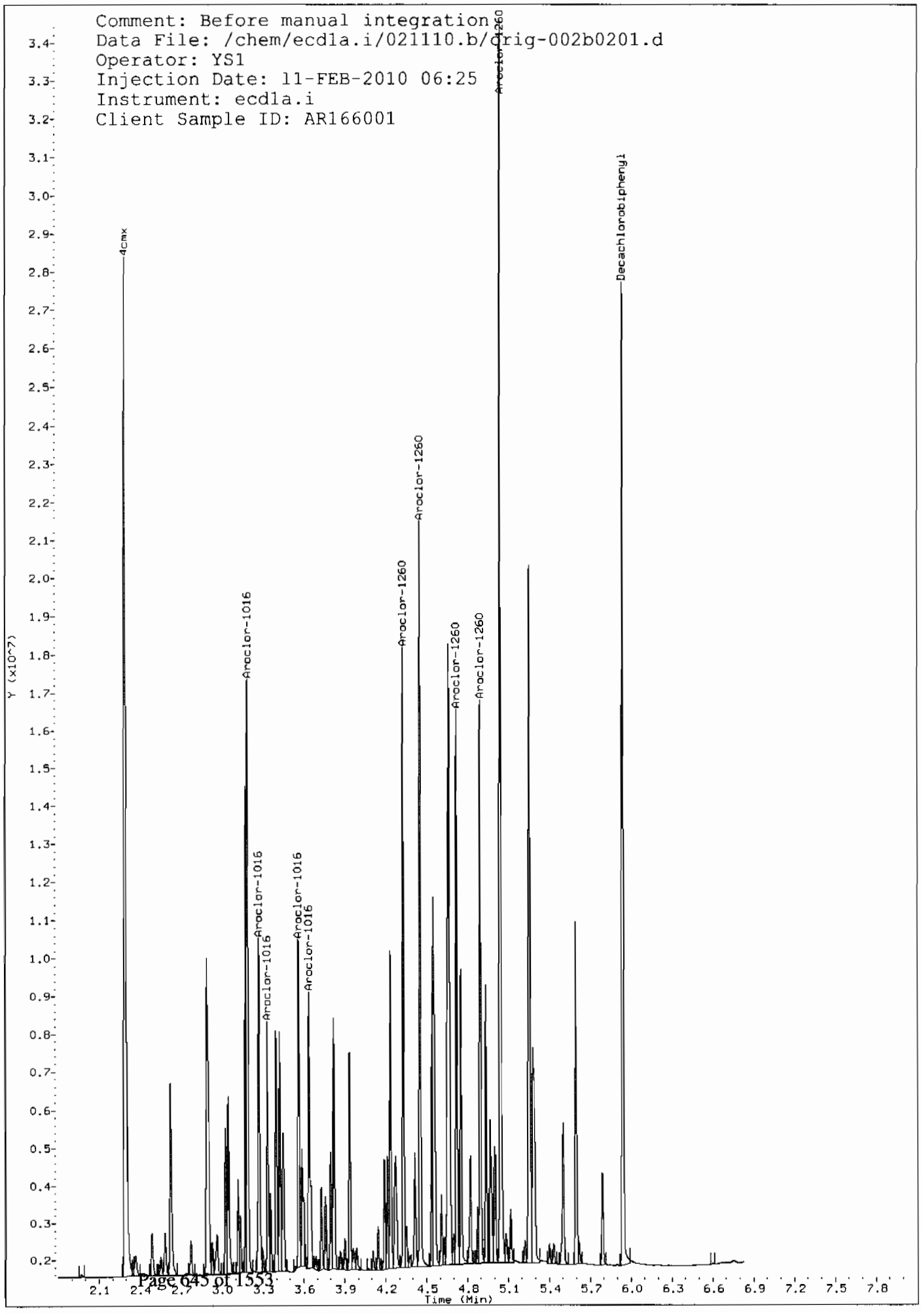
Comment: Before manual integration
Data File: /chem/ecd1a.i/021110.b/orig-002b0201.d
Operator: YS1
Injection Date: 11-FEB-2010 06:25
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 11-FEB-2010 06:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.264	0.000	14558540	1000.00	922	80.00- 120.00	100.00
3.420	3.420	0.000	19465262	1000.00	912	113.70- 153.70	133.70
3.654	3.654	0.000	25592166	1000.00	939	155.79- 195.79	175.79
3.817	3.817	0.000	19314338	1000.00	937	112.67- 152.67	132.67
3.926	3.926	0.000	18698582	1000.00	954	108.44- 148.44	128.44
Average of Peak Amounts =					933		

Data File: /chem/ecd1a.i/021110.b/003f0301.d

Date : 11-FEB-2010 06:35

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

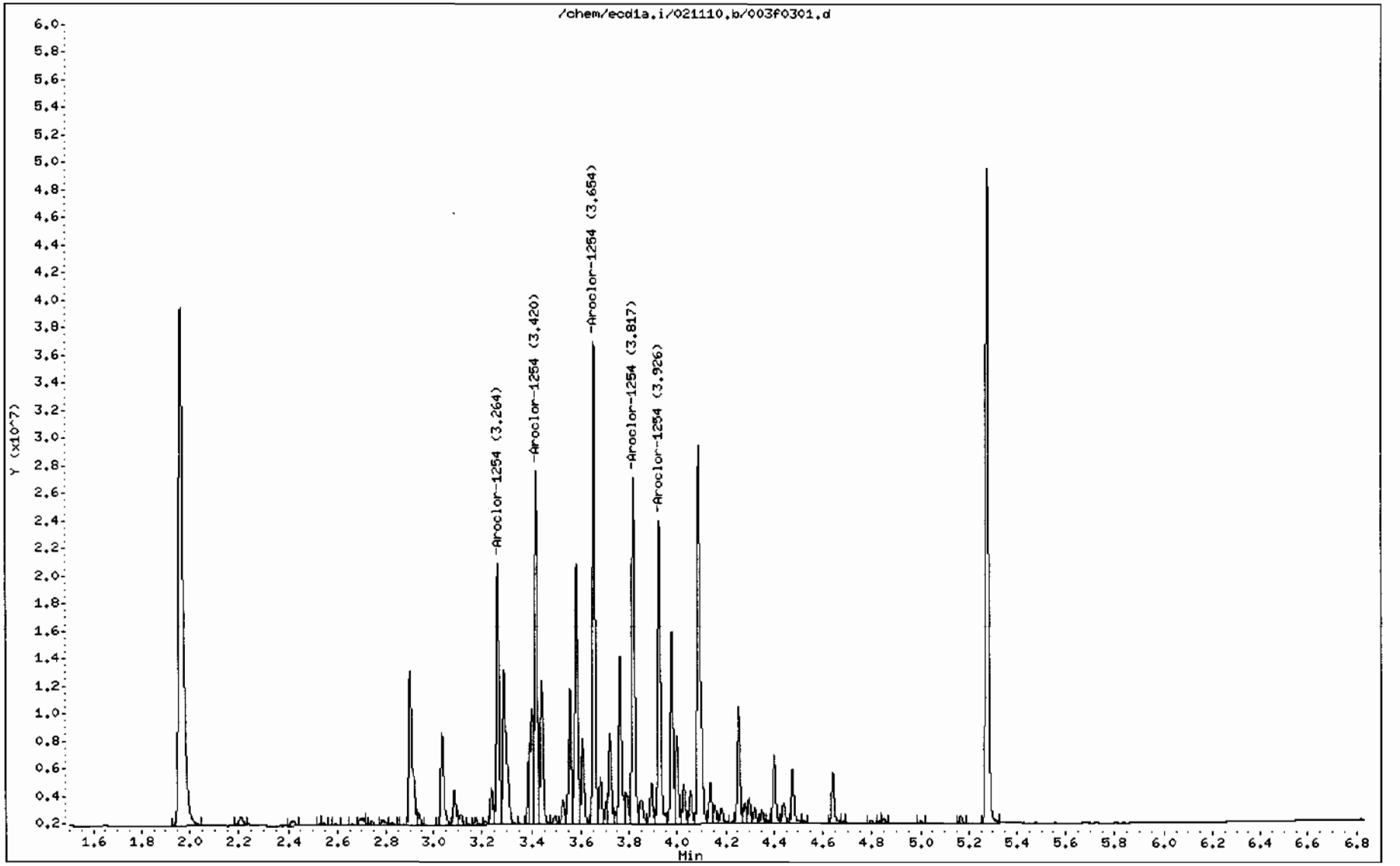

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 11-FEB-2010 06:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.400	3.400	0.000	5993845	1000.00	904	80.00- 120.00	100.00
3.822	3.822	0.000	10766620	1000.00	920	159.63- 199.63	179.63
3.939	3.939	0.000	11844136	1000.00	919	177.60- 217.60	197.60
4.215	4.215	0.000	16541698	1000.00	935	255.98- 295.98	275.98
4.351	4.351	0.000	11928232	1000.00	905	179.01- 219.01	199.01
		Average of Peak Amounts =			917		

Data File: /chem/ecd1a.i/021110.b/003b0301.d

Date : 11-FEB-2010 06:35

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

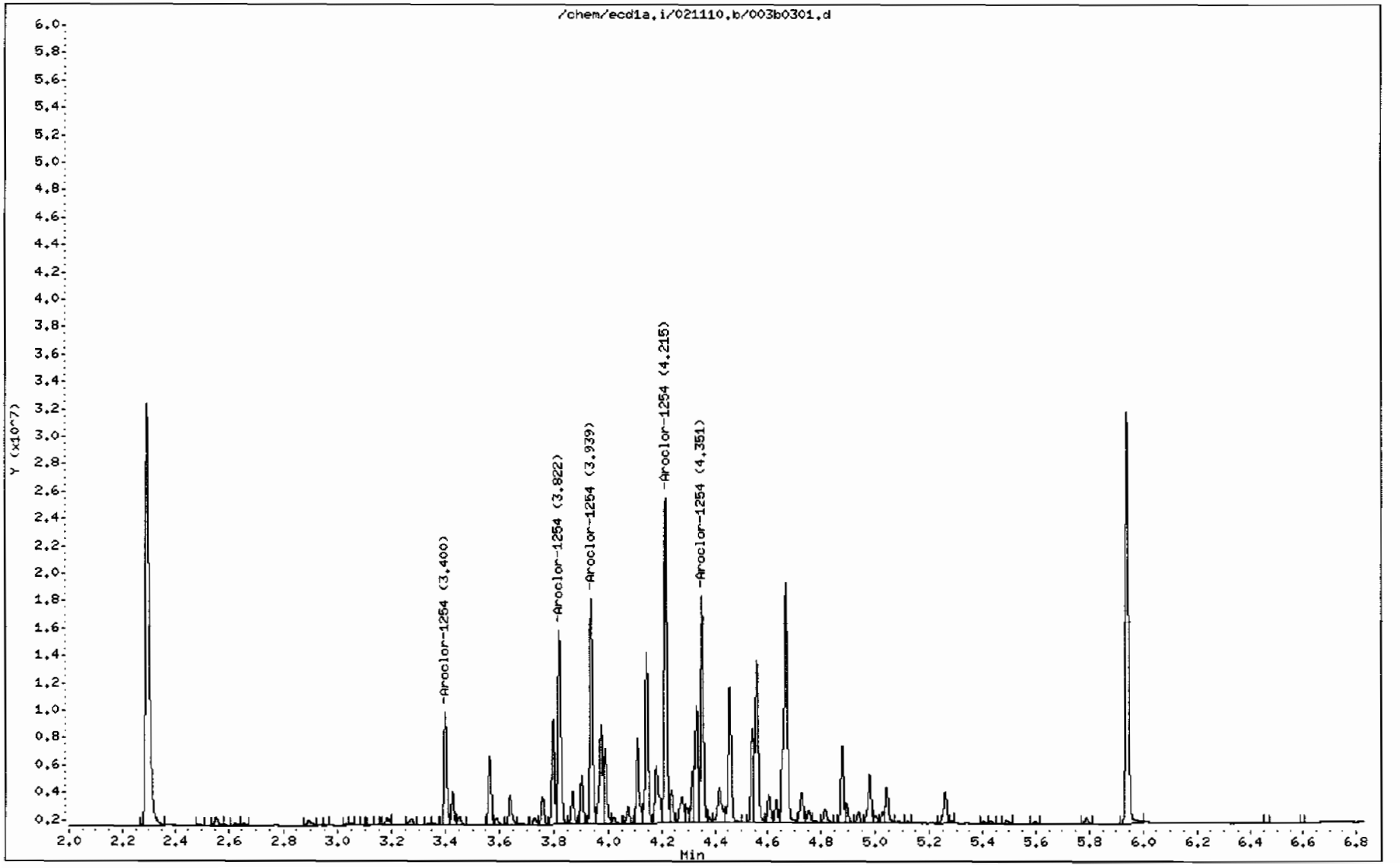

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 11-FEB-2010 06:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.418	2.418	0.000	12811931	1000.00	901	80.00- 120.00	100.00
2.706	2.706	0.000	16871961	1000.00	978	111.69- 151.69	131.69
2.825	2.825	0.000	6444039	1000.00	960	30.30- 70.30	50.30
3.035	3.035	0.000	8260646	1000.00	932	44.48- 84.48	64.48
3.290	3.290	0.000	8186664	1000.00	953	43.90- 83.90	63.90
Average of Peak Amounts					944		

Data File: /chem/ecd1a.i/021110.b/004f0401.d

Page 1

Date : 11-FEB-2010 06:46

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR091217-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

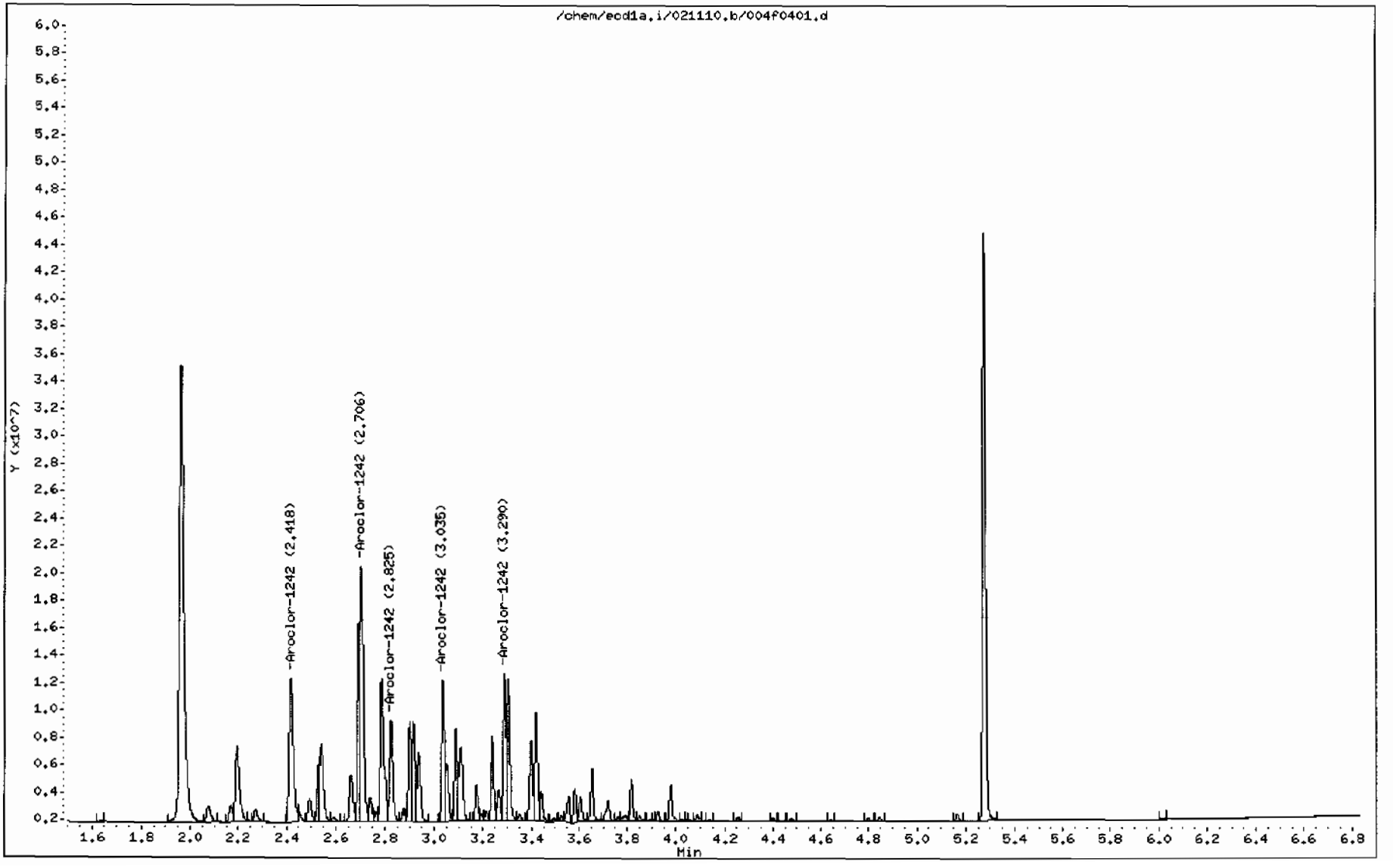

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 11-FEB-2010 06:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.191	3.191	0.000	10156154	1000.00	945	80.00- 120.00	100.00
3.274	3.274	0.000	6809009	1000.00	910	47.04- 87.04	67.04
3.565	3.565	0.000	5378381	1000.00	906	32.96- 72.96	52.96
3.799	3.799	0.000	5515991	1000.00	926	34.31- 74.31	54.31
3.825	3.825	0.000	5402650	1000.00	810	33.20- 73.20	53.20
Average of Peak Amounts =					899		

Data File: /chem/ecd1a.i/021110.b/004b0401.d

Date : 11-FEB-2010 06:46

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

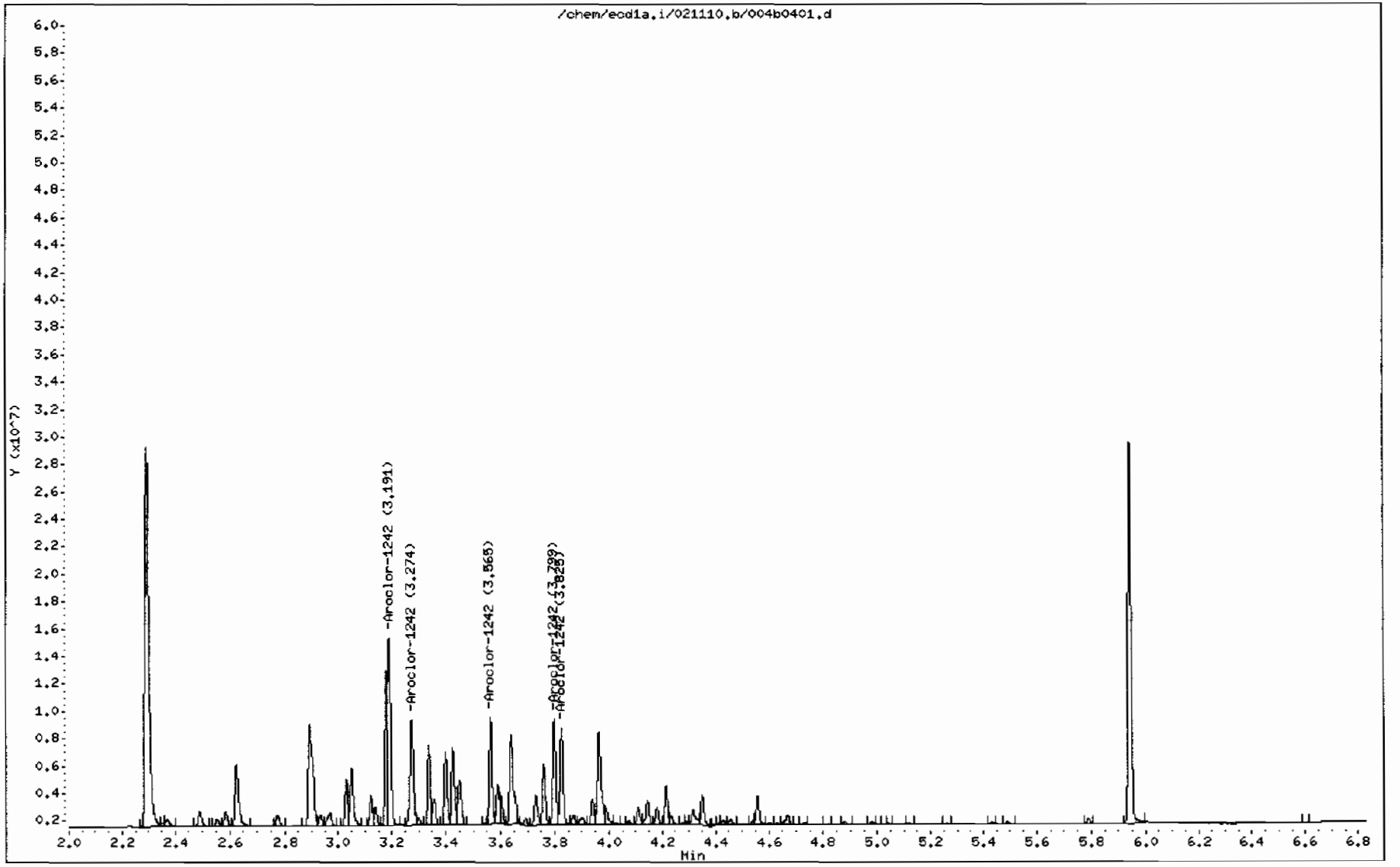

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 11-FEB-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:43 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 76 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.422	2.422	0.000	8154572	1000.00	1190	80.00- 120.00	100.00
2.711	2.711	0.000	11028342	1000.00	1310	115.24- 155.24	135.24
2.792	2.792	0.000	6790675	1000.00	1210	63.27- 103.27	83.27
3.041	3.041	0.000	4995623	1000.00	1250	41.26- 81.26	61.26
3.296	3.296	0.000	4819542	1000.00	1250	39.10- 79.10	59.10

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd1a.i/021110.b/006f0601.d

Date : 11-FEB-2010 07:19

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

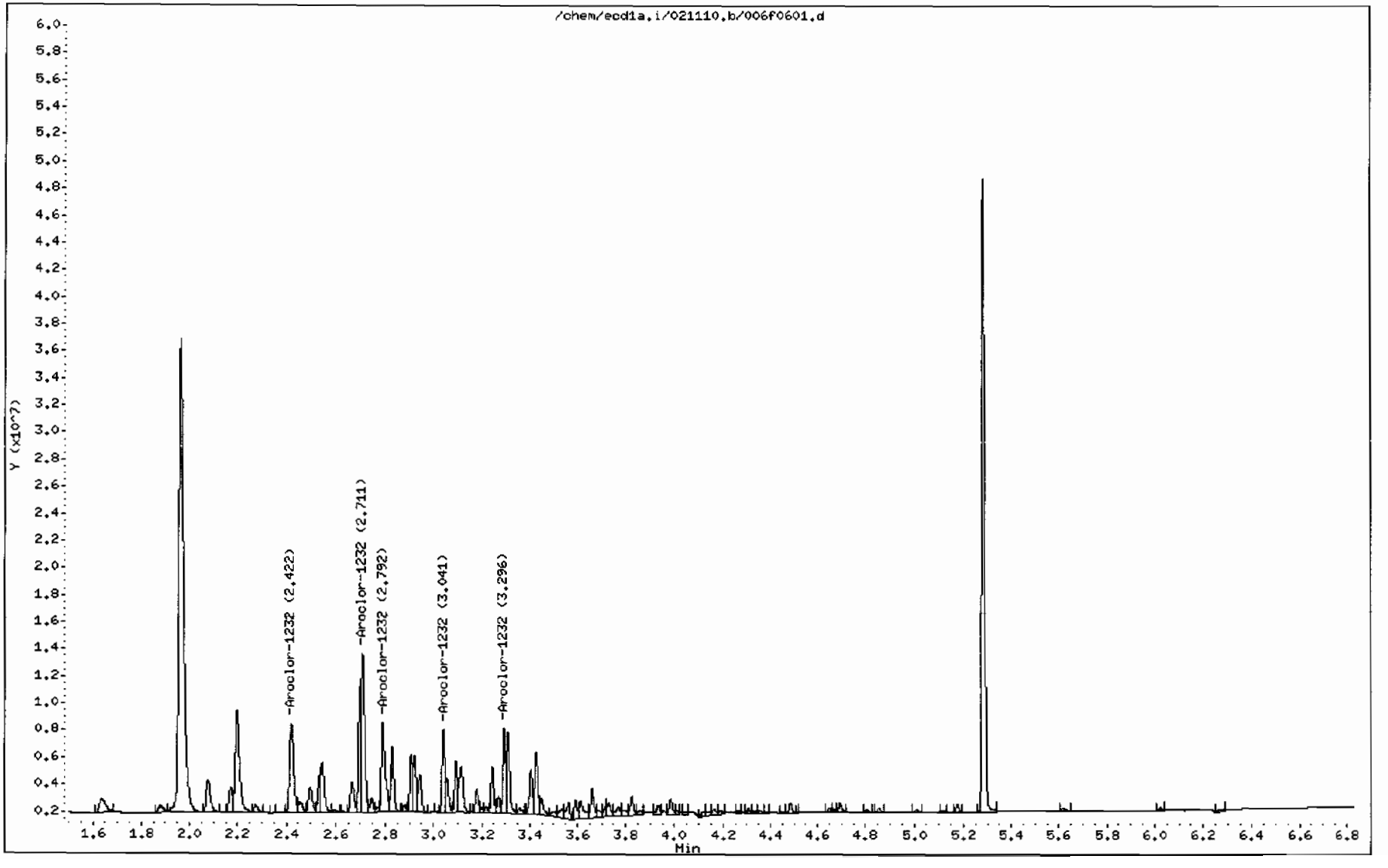

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 11-FEB-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:43 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 76 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.895	2.895	0.000	5903575	1000.00	1000	80.00- 120.00	100.00
3.194	3.194	0.000	6634910	1000.00	1070	92.39- 132.39	112.39
3.278	3.278	0.000	4456496	1000.00	1020	55.49- 95.49	75.49
3.569	3.569	0.000	3304789	1000.00	1060	35.98- 75.98	55.98
3.803	3.803	0.000	3250245	1000.00	1020	35.06- 75.06	55.06

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/021110.b/006b0601.d

Date : 11-FEB-2010 07:19

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

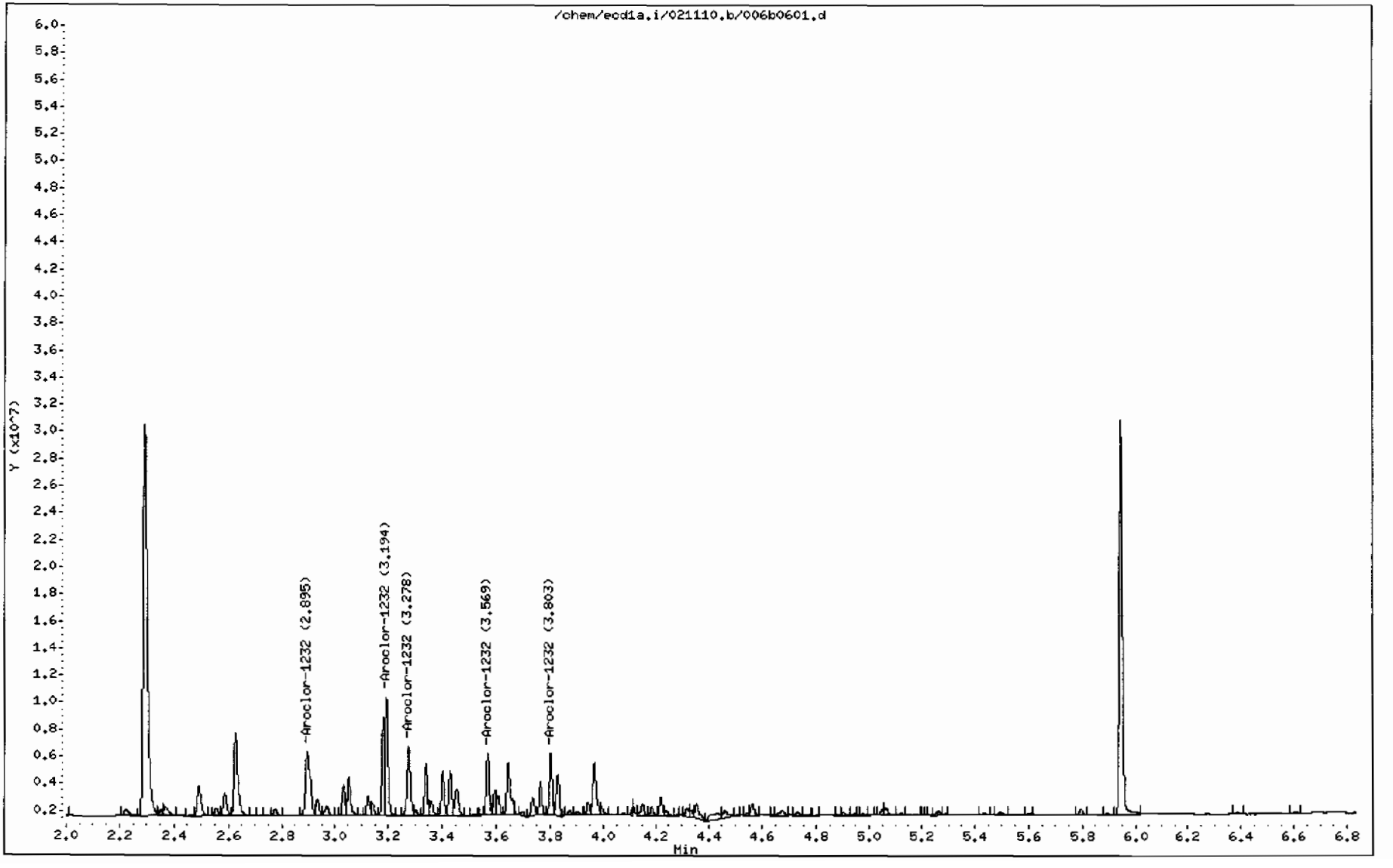

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 11-FEB-2010 07:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:43 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.075	2.075	0.000	5016640	1000.00	1170	80.00- 120.00	100.00
2.168	2.168	0.000	2677031	1000.00	1100	33.36- 73.36	53.36
2.194	2.194	0.000	12074242	1000.00	1180	220.68- 260.68	240.68

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd1a.i/021110.b/008f0801.d

Page 1

Date : 11-FEB-2010 07:40

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

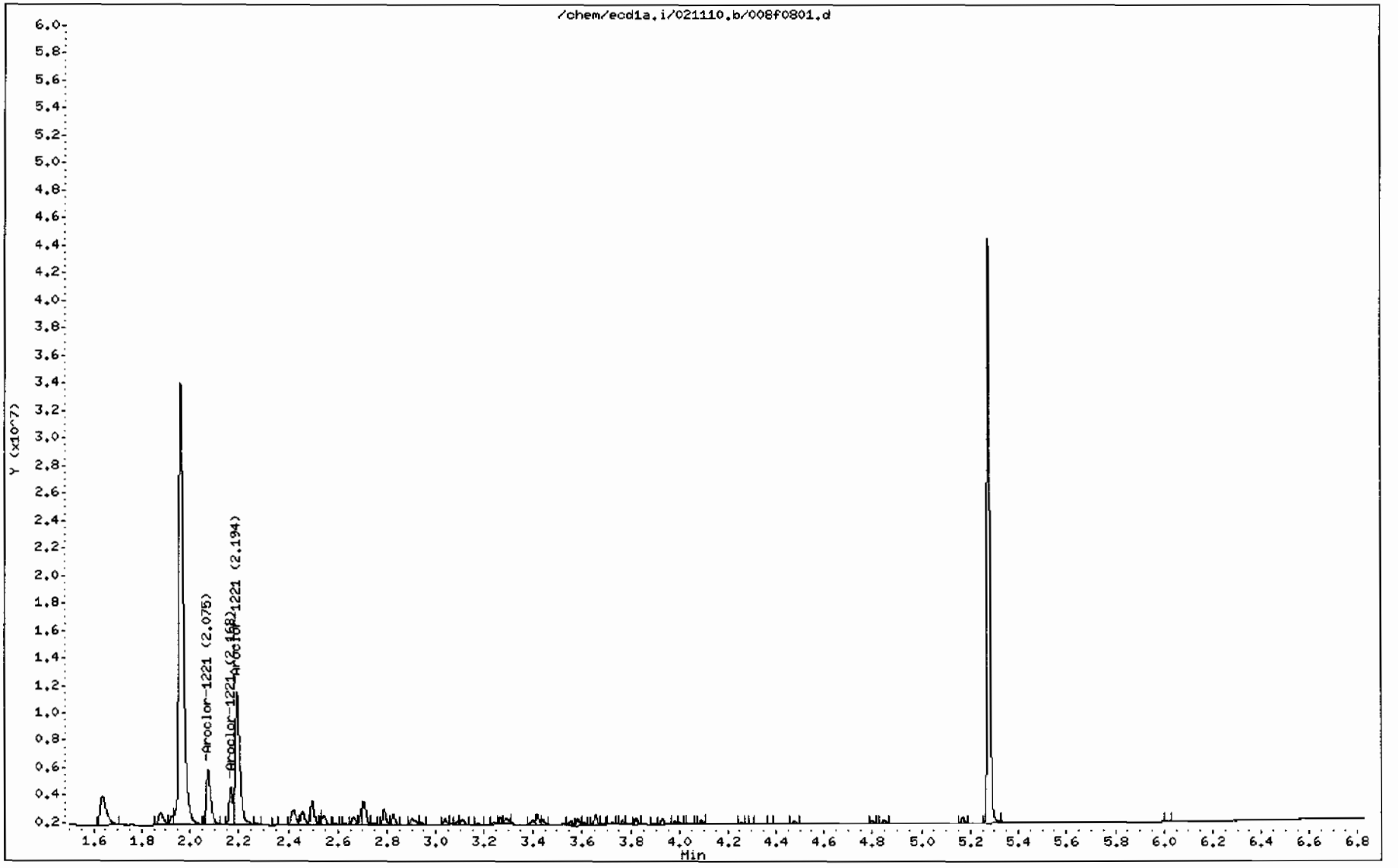

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 11-FEB-2010 07:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:43 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.491	2.491	0.000	3583178	1000.00	984	80.00- 120.00	100.00
2.585	2.585	0.000	2262373	1000.00	971	43.14- 83.14	63.14
2.626	2.626	0.000	7643207	1000.00	941	193.31- 233.31	213.31
Average of Peak Amounts =					966		

Data File: /chem/ecd1a.i/021110.b/008b0801.d

Page 1

Date : 11-FEB-2010 07:40

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

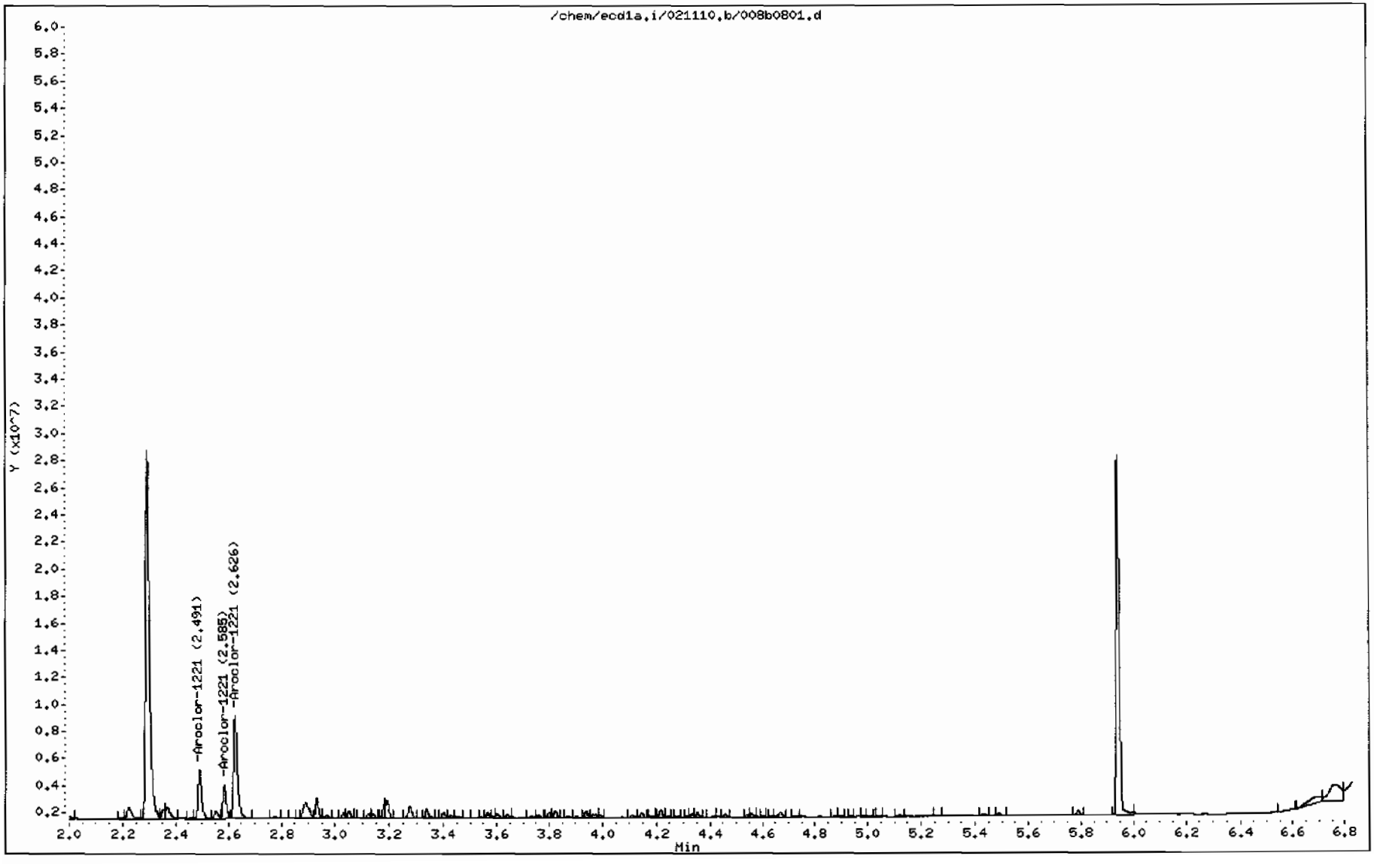

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/016f1601.d
Lab Smp Id: WAR091217-48 48 Client Smp ID: AR124801
Inj Date : 11-FEB-2010 09:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48 48
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.087	3.087	0.000	8873993	1000.00	939	80.00- 120.00	100.00
3.238	3.238	0.000	7689955	1000.00	930	66.66- 106.66	86.66
3.290	3.290	0.000	14863457	1000.00	933	147.49- 187.49	167.49
3.421	3.421	0.000	12125245	1000.00	927	116.64- 156.64	136.64
3.654	3.654	0.000	7845412	1000.00	889	68.41- 108.41	88.41
Average of Peak Amounts =					924		

Data File: /chem/ecd1a.i/021110.b/016f1601.d

Date : 11-FEB-2010 09:04

Client ID: AR124801

Sample Info: IWAR091217-48 48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

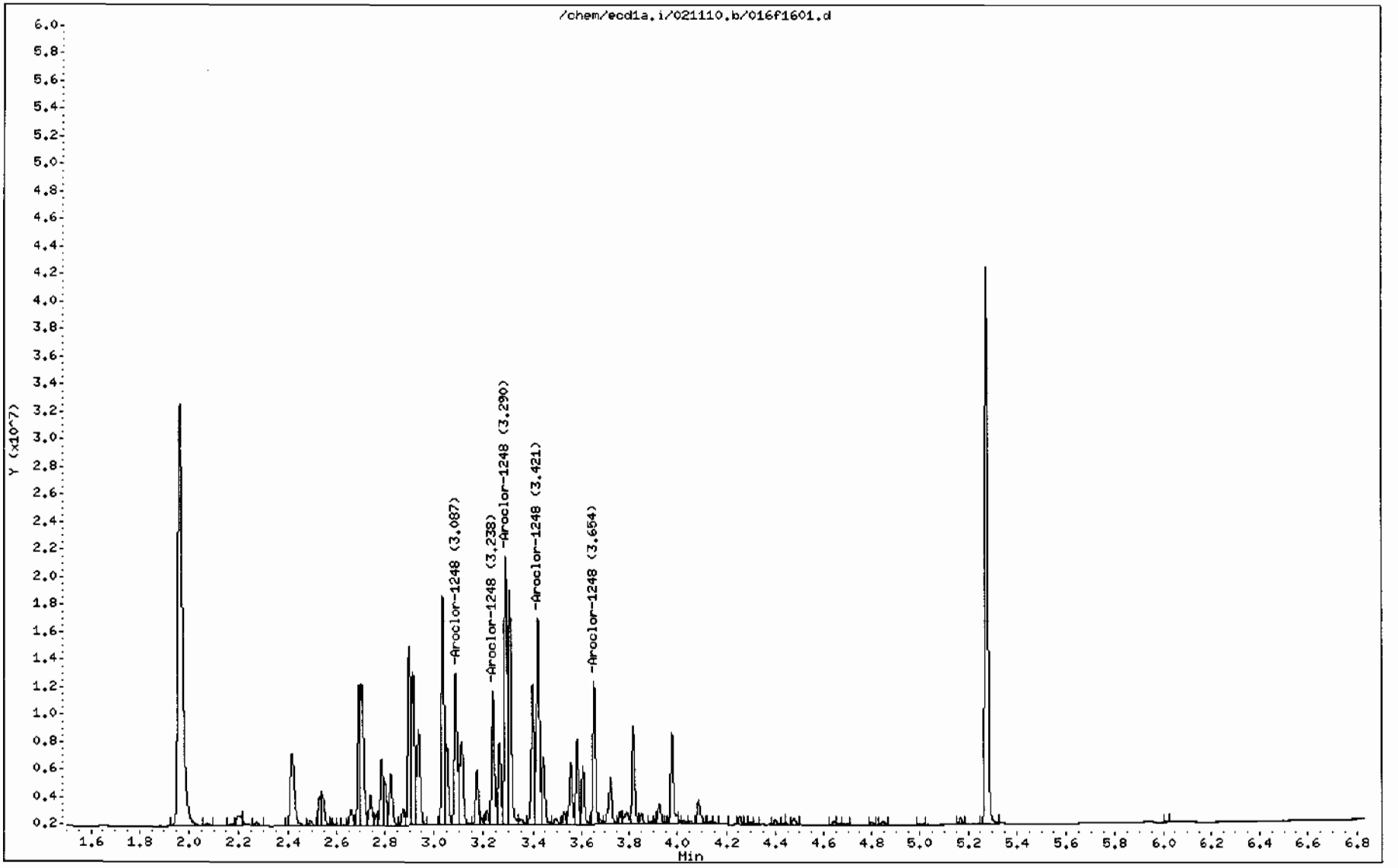

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/016b1601.d
Lab Smp Id: WAR091217-48 48 Client Smp ID: AR124801
Inj Date : 11-FEB-2010 09:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48 48
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.400	3.400	0.000	6936077	1000.00	904	80.00- 120.00	100.00
3.565	3.565	0.000	8699287	1000.00	920	105.42- 145.42	125.42
3.799	3.799	0.000	9837681	1000.00	915	121.83- 161.83	141.83
3.826	3.826	0.000	10986647	1000.00	915	138.40- 178.40	158.40
3.963	3.963	0.000	10490931	1000.00	907	131.25- 171.25	151.25
Average of Peak Amounts =					912		

Data File: /chem/ecd1a.i/021110.b/016b1601.d

Date : 11-FEB-2010 09:04

Client ID: AR124801

Sample Info: IWAR091217-48 48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

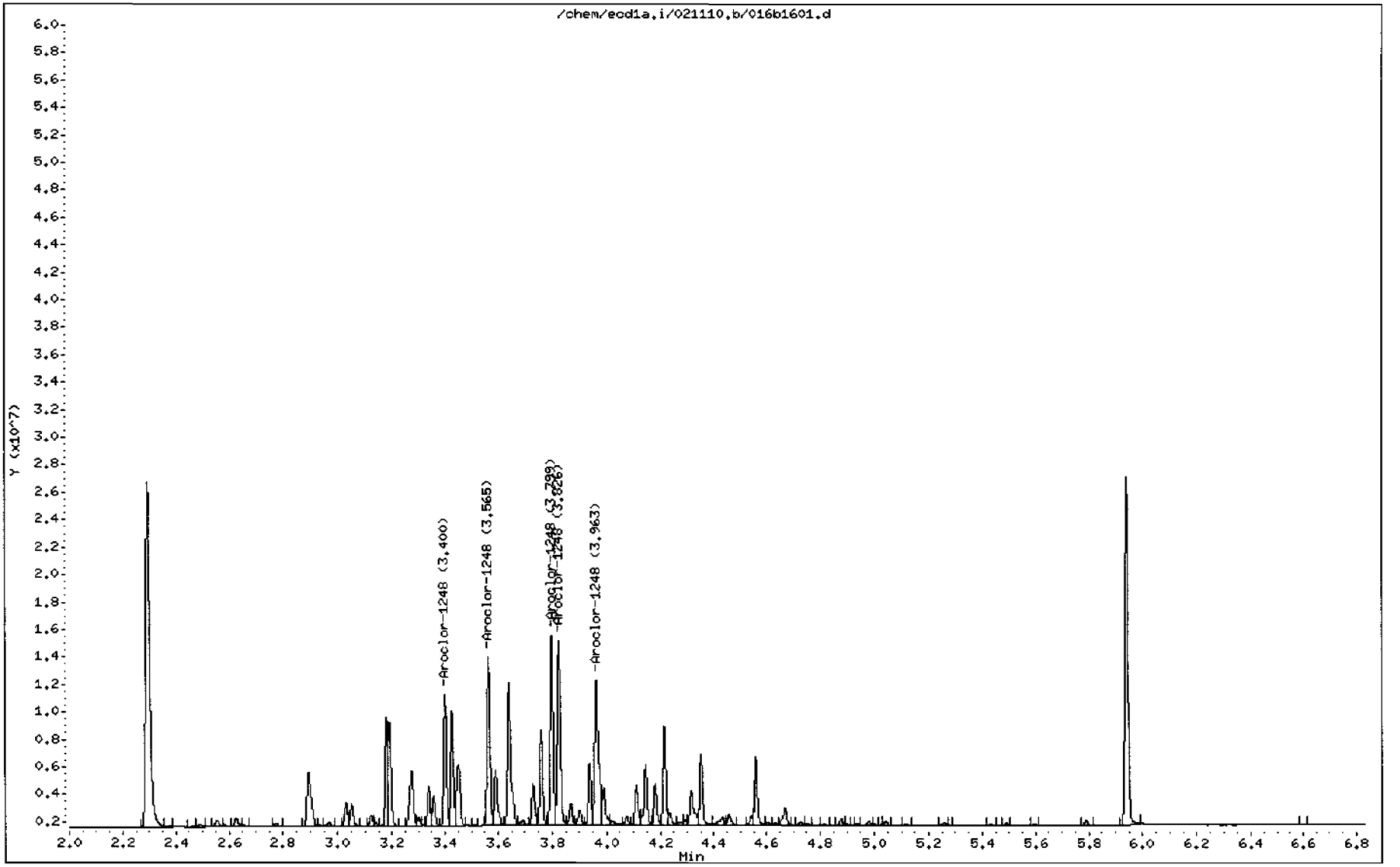

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/041f4101.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 11-FEB-2010 13:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 41 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	44533632	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	33390188	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	15417701	1000.00	957	80.00- 120.00	100.00
2.705	2.705	0.000	20182782	1000.00	1020	110.91- 150.91	130.91
2.785	2.786	-0.001	12638305	1000.00	970	61.97- 101.97	81.97
2.824	2.824	0.000	7558453	1000.00	971	29.02- 69.02	49.02
3.034	3.035	-0.001	9745748	1000.00	972	43.21- 83.21	63.21
Average of Peak Amounts =					978		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	20119986	1000.00	1060	80.00- 120.00	100.00
3.922	3.924	-0.002	30406524	1000.00	1070	131.13- 171.13	151.13
4.152	4.154	-0.002	18123617	1000.00	1060	70.08- 110.08	90.08
4.295	4.296	-0.001	19480990	1000.00	1090	76.82- 116.82	96.82
4.474	4.475	-0.001	42671481	1000.00	1100	192.09- 232.09	212.09
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/021110.b/041f4101.d

Page 1

Date : 11-FEB-2010 13:59

Client ID: AR166004

Instrument: ecd1a.i

Sample Info: IWAR100203-60 04

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

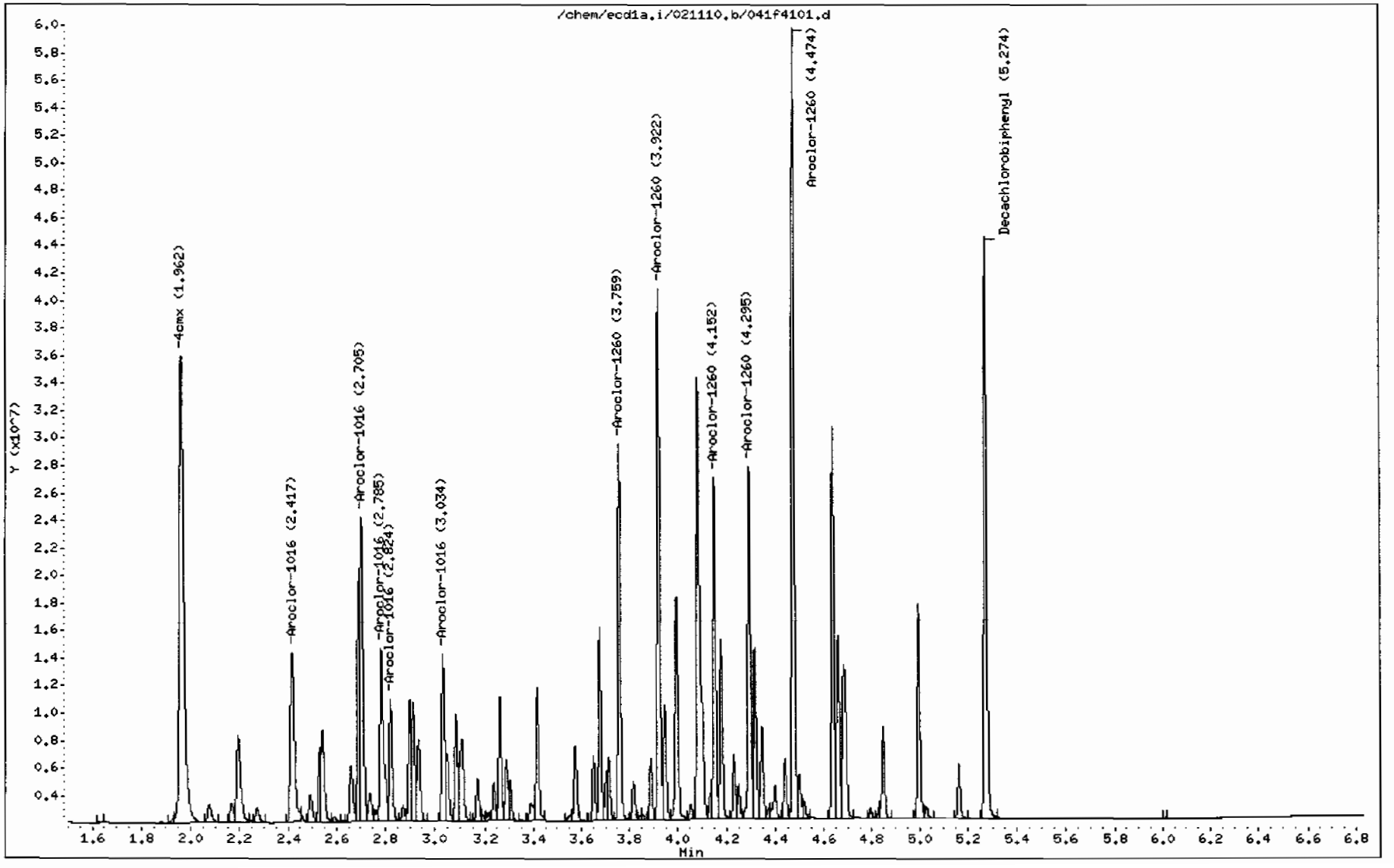

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/041b4101.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 11-FEB-2010 13:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 14:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 41 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	28251817	100.000	98.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	20842332	100.000	96.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.189	3.190	-0.001	12136535	1000.00	976	80.00- 120.00	100.00(M)
3.273	3.274	-0.001	7885509	1000.00	925	44.97- 84.97	64.97
3.336	3.337	-0.001	4854387	1000.00	924	20.00- 60.00	40.00
3.563	3.564	-0.001	6230767	1000.00	926	31.34- 71.34	51.34
3.639	3.640	-0.001	5804457	1000.00	918	27.83- 67.83	47.83
Average of Peak Amounts =					934		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	12875144	1000.00	1020	80.00- 120.00	100.00
4.454	4.455	-0.001	15626067	1000.00	1040	101.37- 141.37	121.37
4.720	4.721	-0.001	11908223	1000.00	1020	72.49- 112.49	92.49
4.894	4.895	-0.001	12306280	1000.00	1020	75.58- 115.58	95.58
5.041	5.042	-0.001	27241559	1000.00	1050	191.58- 231.58	211.58
Average of Peak Amounts =					1.03e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/041b4101.d
Date : 11-FEB-2010 13:59
Client ID: AR166004
Sample Info: IWAR100203-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

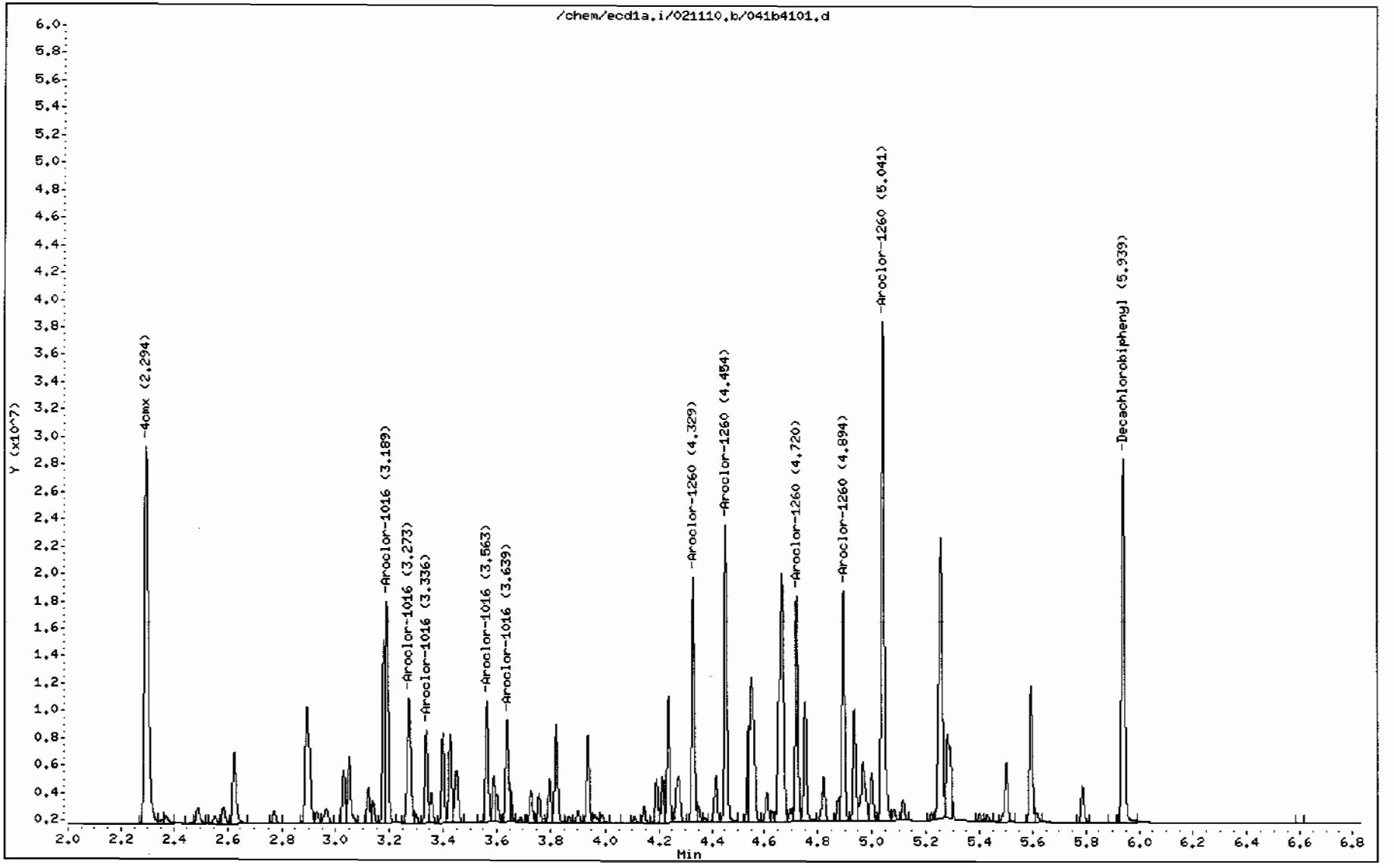

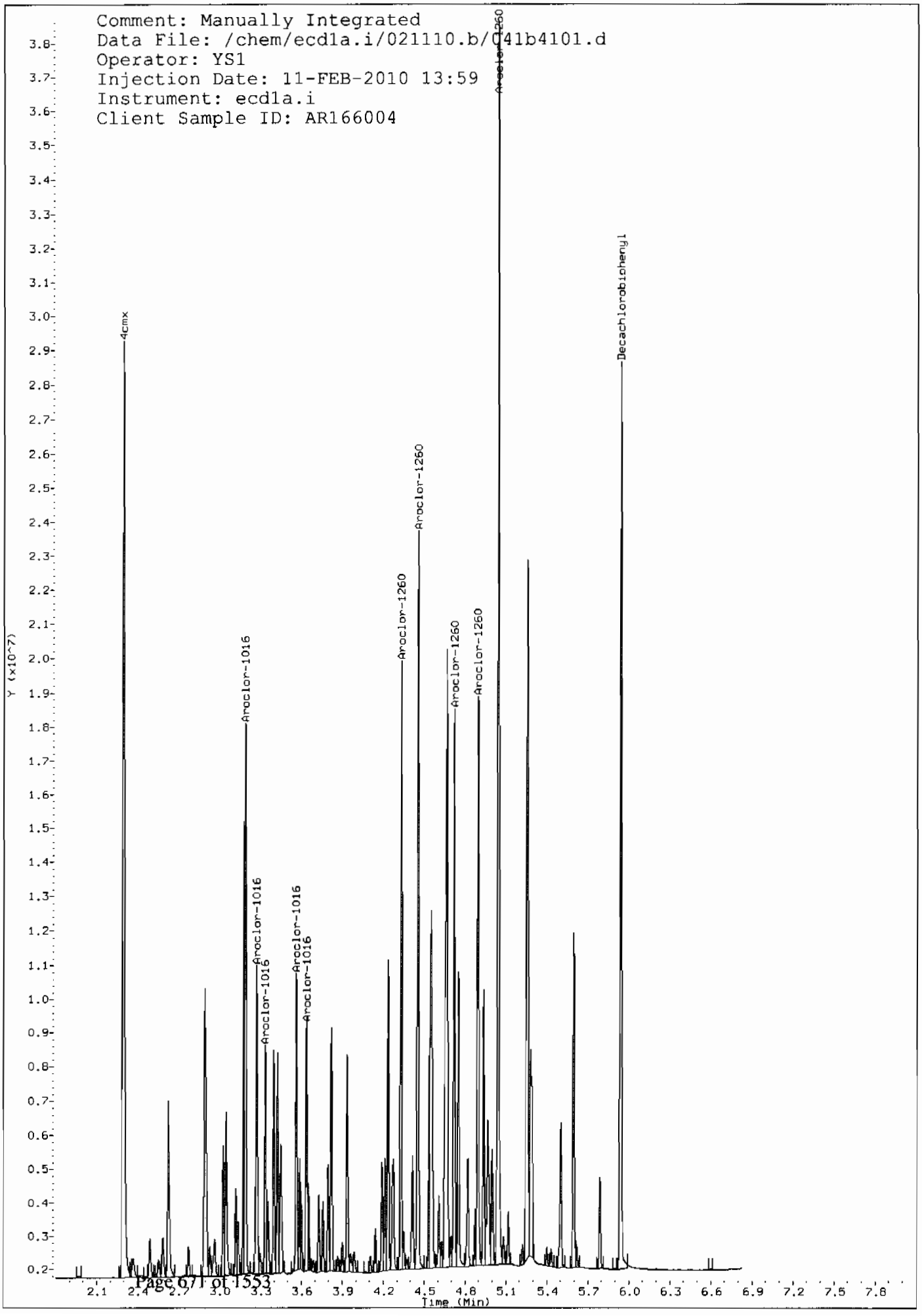
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/C41b4101.d
Operator: YS1
Injection Date: 11-FEB-2010 13:59
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

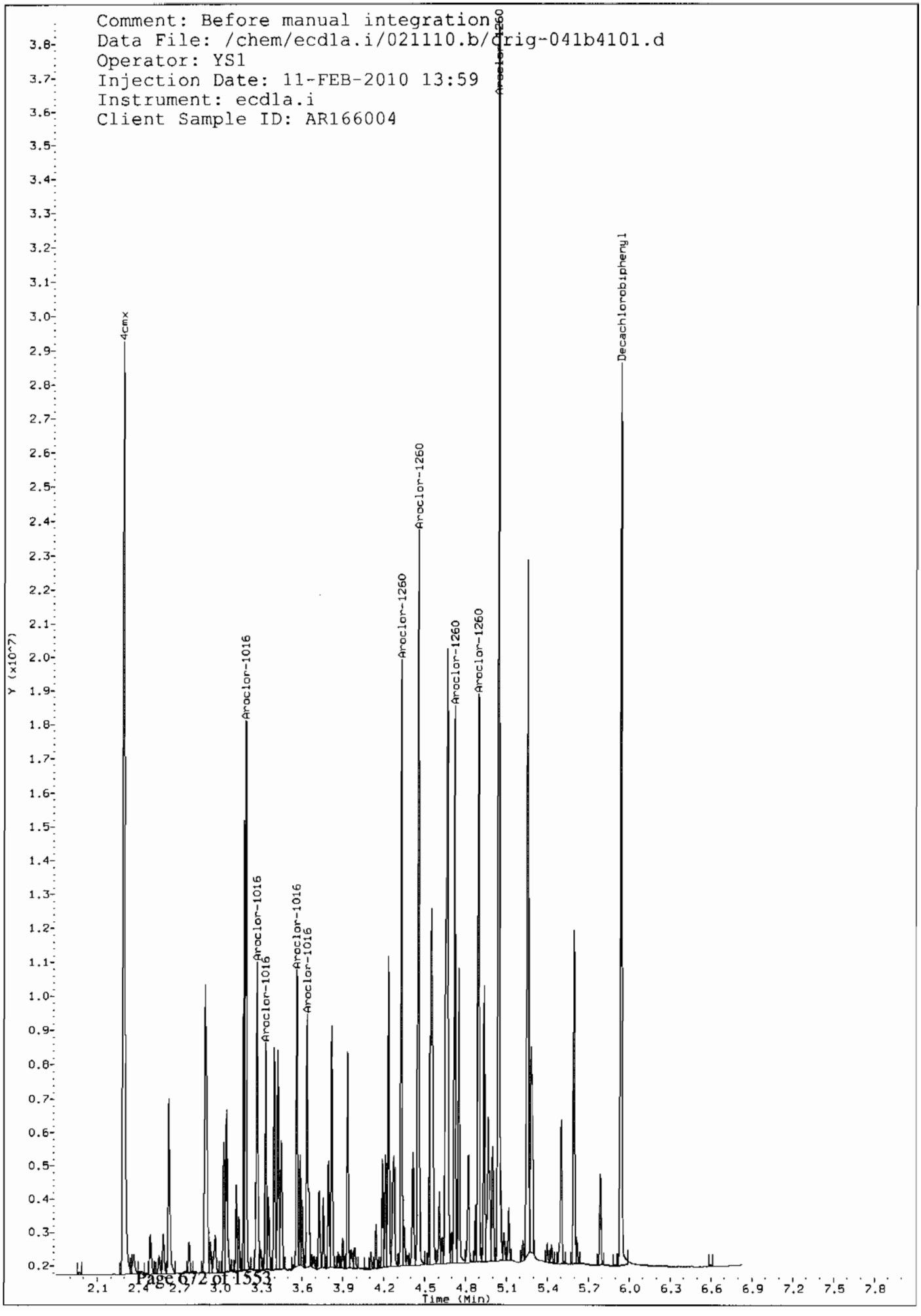
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Operator: YS1
Injection Date: 11-FEB-2010 13:59
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/053f5301.d
Lab Smp Id: WAR100203-60 05 Client Smp ID: AR166005
Inj Date : 11-FEB-2010 16:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	44448738	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	32372227	100.000	97.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	15384834	1000.00	955	80.00- 120.00	100.00
2.705	2.705	0.000	19723223	1000.00	997	108.20- 148.20	128.20
2.786	2.786	0.000	12610788	1000.00	968	61.97- 101.97	81.97
2.823	2.824	-0.001	7597044	1000.00	976	29.38- 69.38	49.38
3.034	3.035	-0.001	9627379	1000.00	960	42.58- 82.58	62.58
Average of Peak Amounts =					971		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	20163698	1000.00	1060	80.00- 120.00	100.00
3.922	3.924	-0.002	30122749	1000.00	1060	129.39- 169.39	149.39
4.152	4.154	-0.002	17936661	1000.00	1050	68.96- 108.96	88.96
4.295	4.296	-0.001	18821490	1000.00	1050	73.34- 113.34	93.34
4.474	4.475	-0.001	41846605	1000.00	1080	187.53- 227.53	207.53
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecdia.i/021110.b/053f5301.d
Date : 11-FEB-2010 16:26
Client ID: AR166005
Sample Info: IWAR100203-60 05

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP1

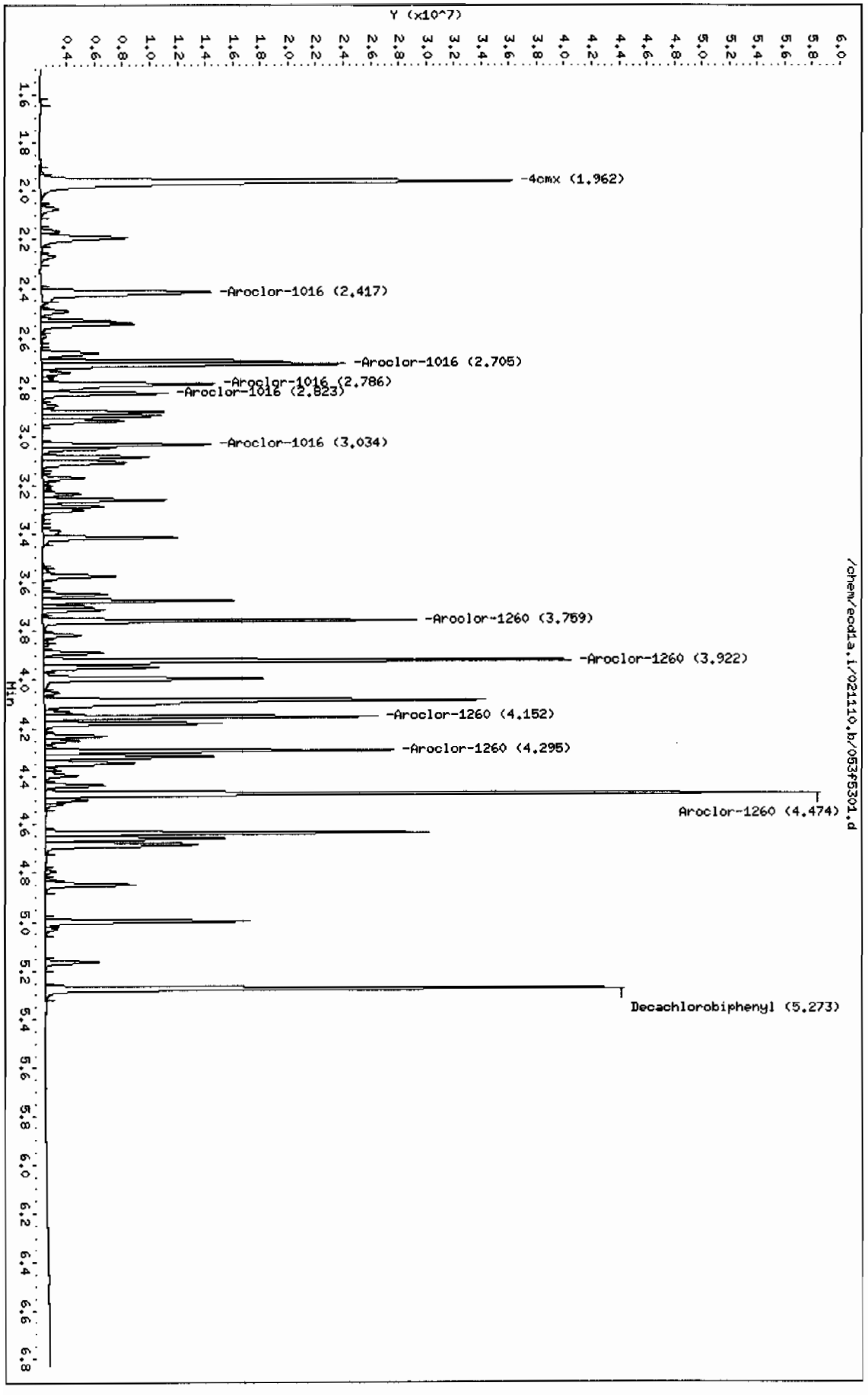

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/053b5301.d
Lab Smp Id: WAR100203-60 05 Client Smp ID: AR166005
Inj Date : 11-FEB-2010 16:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.293	2.294	-0.001	28296331	100.000	98.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	20210079	100.000	94.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.190	0.000	11752588	1000.00	945	80.00- 120.00	100.00
3.272	3.274	-0.002	7925933	1000.00	930	47.44- 87.44	67.44
3.336	3.337	-0.001	4861568	1000.00	925	21.37- 61.37	41.37
3.563	3.564	-0.001	6425703	1000.00	954	34.67- 74.67	54.67
3.638	3.640	-0.002	5899021	1000.00	933	30.19- 70.19	50.19
Average of Peak Amounts =					938		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	12748817	1000.00	1010	80.00- 120.00	100.00
4.454	4.455	-0.001	15400912	1000.00	1020	100.80- 140.80	120.80
4.719	4.721	-0.002	11718690	1000.00	1010	71.92- 111.92	91.92
4.893	4.895	-0.002	12136482	1000.00	1010	75.20- 115.20	95.20
5.040	5.042	-0.002	26752597	1000.00	1040	189.84- 229.84	209.84
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/021110.b/053b5301.d

Date : 11-FEB-2010 16:26

Client ID: AR166005

Sample Info: |WAR100203-60 05

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

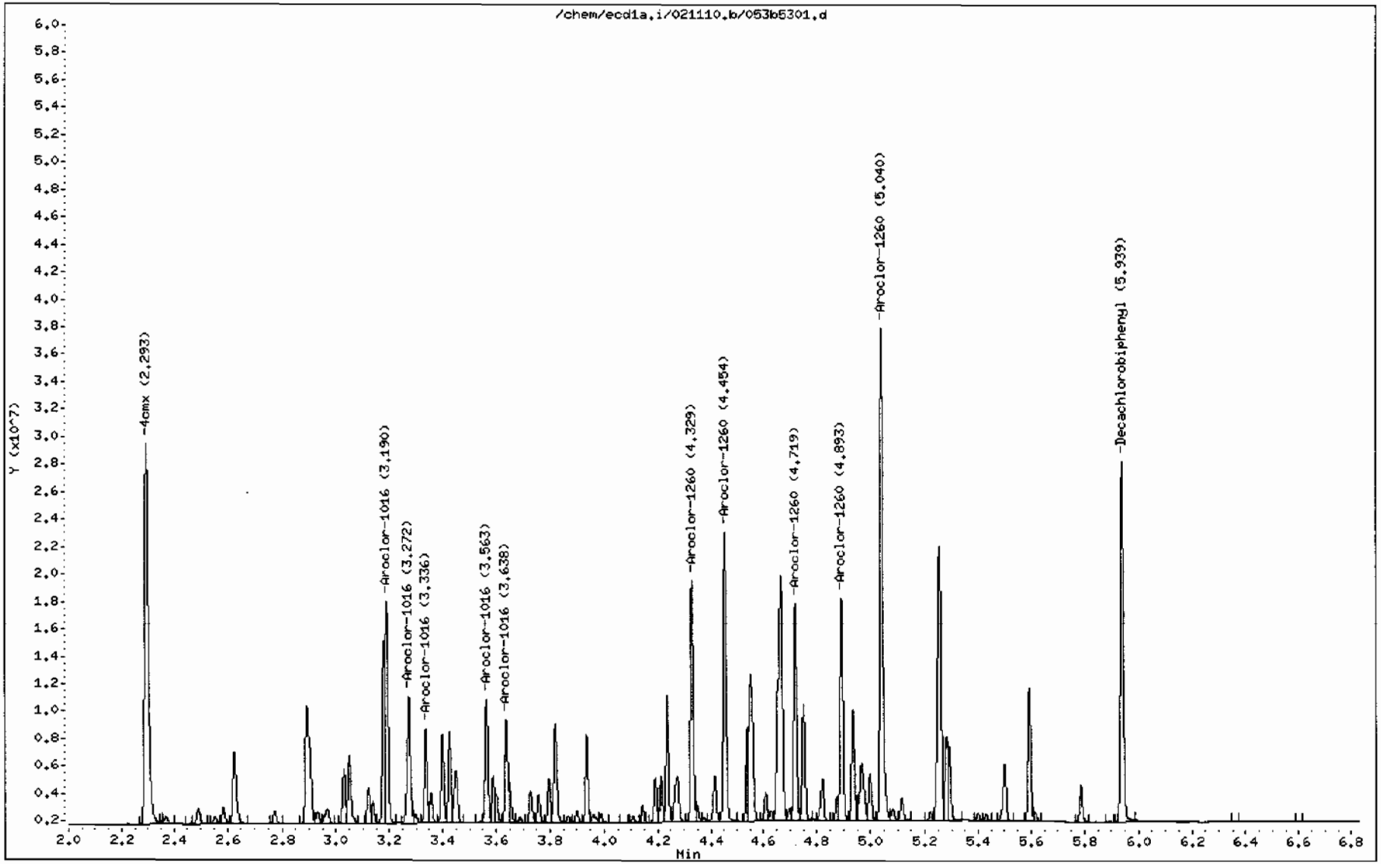

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/063f6301.d
Lab Smp Id: WAR100203-60 06 Client Smp ID: AR166006
Inj Date : 11-FEB-2010 18:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 63 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	43473420	100.000	99.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32551650	100.000	97.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	14670768	1000.00	911	80.00- 120.00	100.00
2.705	2.705	0.000	19413394	1000.00	981	112.33- 152.33	132.33
2.785	2.786	-0.001	12409380	1000.00	953	64.59- 104.59	84.59
2.823	2.824	-0.001	7474666	1000.00	960	30.95- 70.95	50.95
3.033	3.035	-0.002	9497975	1000.00	948	44.74- 84.74	64.74
Average of Peak Amounts =					951		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	19886462	1000.00	1040	80.00- 120.00	100.00
3.922	3.924	-0.002	29823794	1000.00	1050	129.97- 169.97	149.97
4.152	4.154	-0.002	17865326	1000.00	1050	69.84- 109.84	89.84
4.295	4.296	-0.001	18725540	1000.00	1050	74.16- 114.16	94.16
4.474	4.475	-0.001	41814099	1000.00	1080	190.26- 230.26	210.26
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd1a.i/021110.b/063f6301.d
Date : 11-FEB-2010 18:28
Client ID: AR166006
Sample Info: |WAR100203-60 06

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

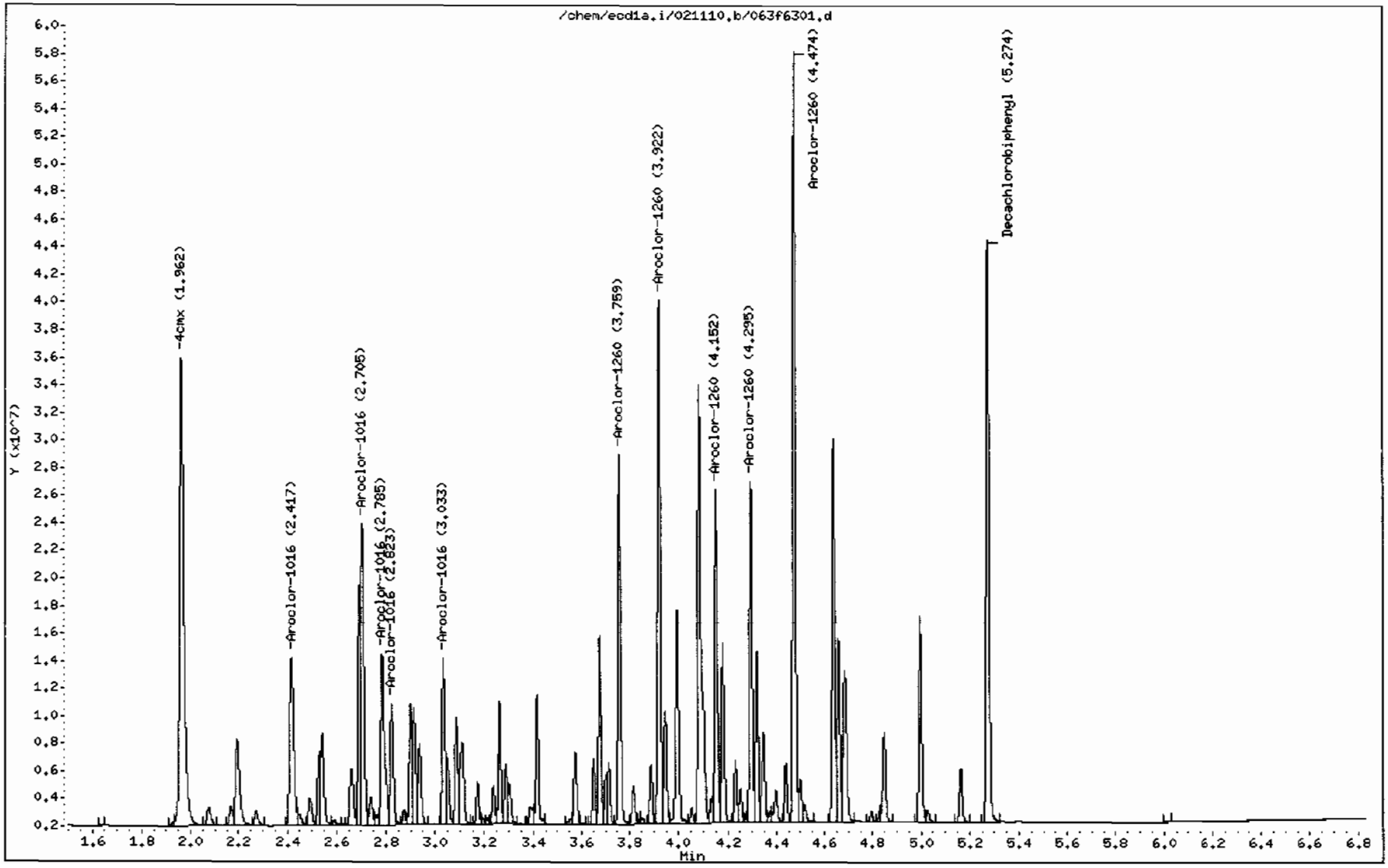

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/063b6301.d
Lab Smp Id: WAR100203-60 06 Client Smp ID: AR166006
Inj Date : 11-FEB-2010 18:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 63 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	27720539	100.000	96.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	20581845	100.000	95.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.190	0.000	11730474	1000.00	944	80.00- 120.00	100.00(M)
3.272	3.274	-0.002	7797700	1000.00	915	46.47- 86.47	66.47
3.336	3.337	-0.001	4820709	1000.00	918	21.10- 61.10	41.10
3.563	3.564	-0.001	6116647	1000.00	908	32.14- 72.14	52.14
3.638	3.640	-0.002	5692008	1000.00	900	28.52- 68.52	48.52
Average of Peak Amounts =					917		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	12653249	1000.00	1000	80.00- 120.00	100.00
4.454	4.455	-0.001	15351314	1000.00	1020	101.32- 141.32	121.32
4.720	4.721	-0.001	11677224	1000.00	1000	72.29- 112.29	92.29
4.894	4.895	-0.001	12150048	1000.00	1010	76.02- 116.02	96.02
5.041	5.042	-0.001	26887303	1000.00	1040	192.49- 232.49	212.49
Average of Peak Amounts =					1.02e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/063b6301.d

Date : 11-FEB-2010 18:28

Client ID: AR166006

Sample Info: IWAR100203-60 06

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

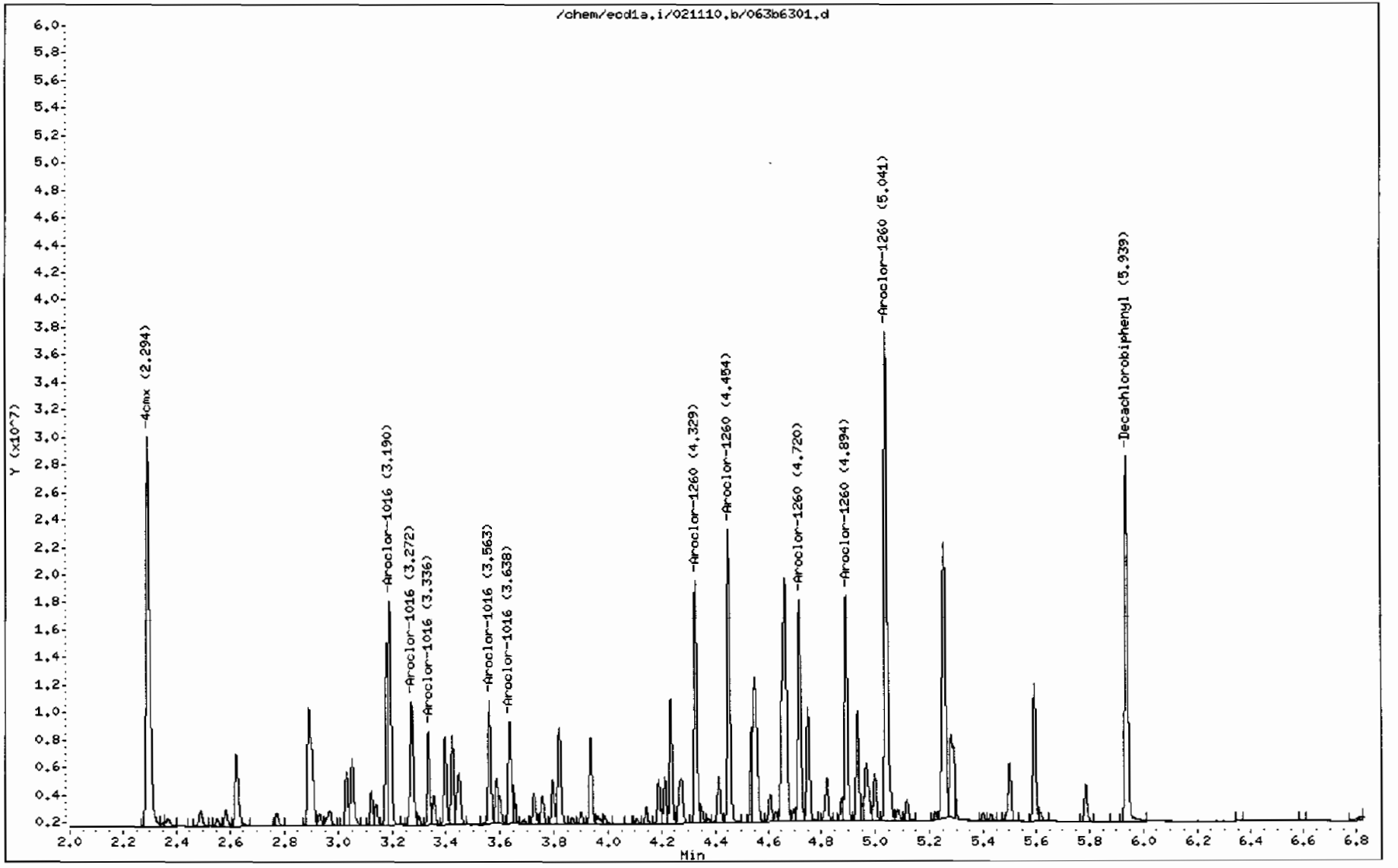

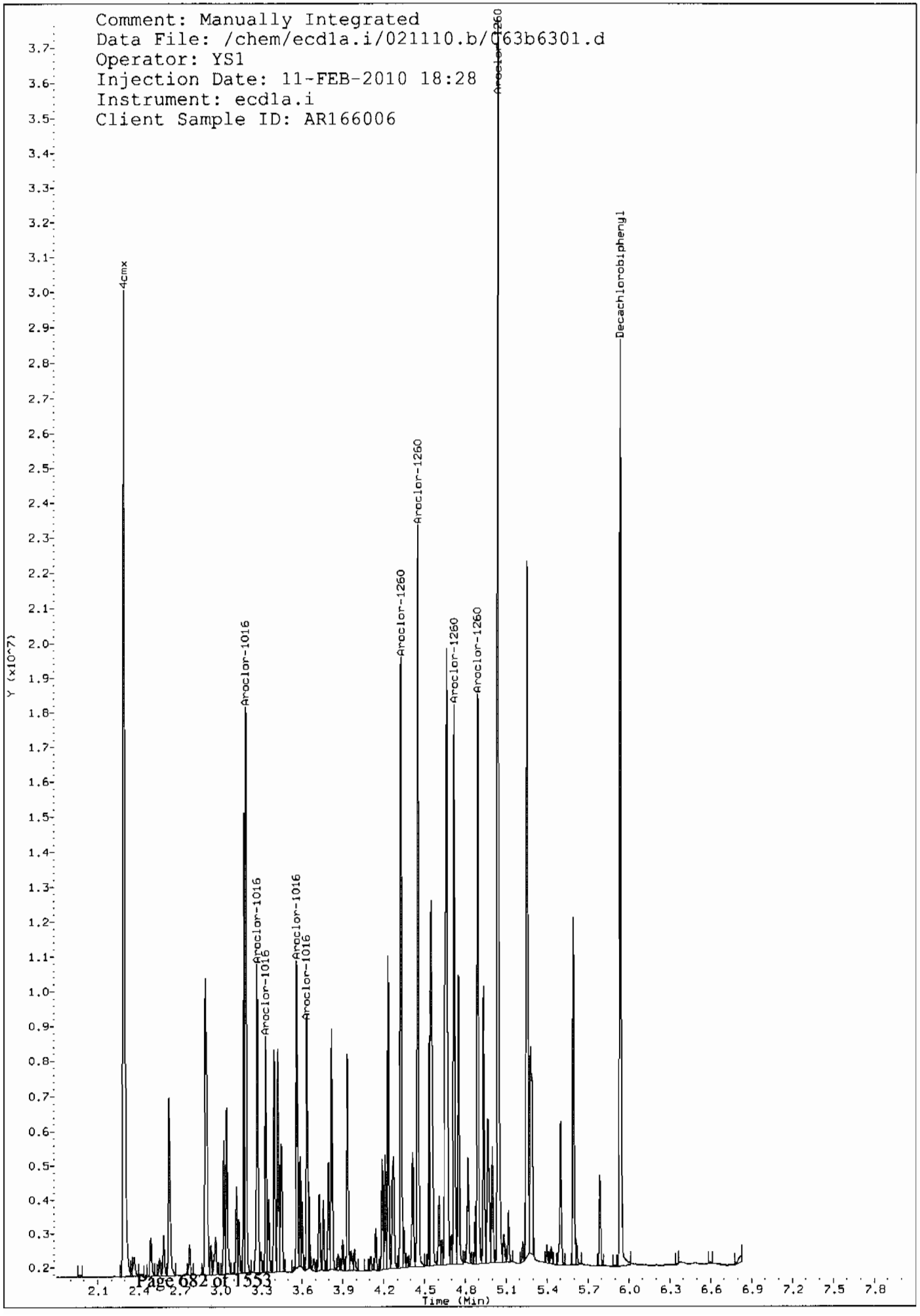
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/C63b6301.d
Operator: YS1
Injection Date: 11-FEB-2010 18:28
Instrument: ecd1a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

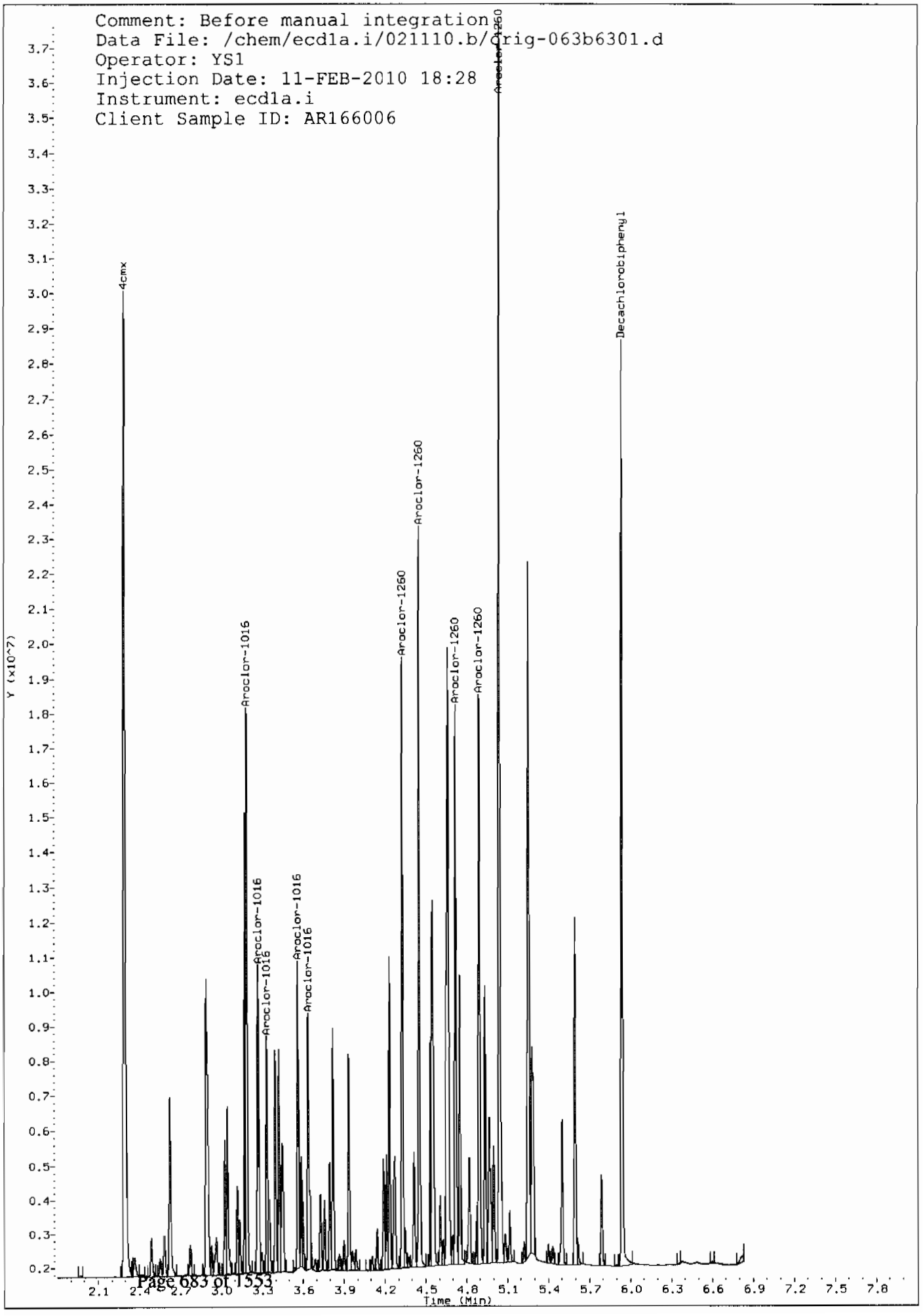
Comment: Before manual integration
Data File: /chem/ecd1a.i/021110.b/Orig-063b6301.d
Operator: YS1
Injection Date: 11-FEB-2010 18:28
Instrument: ecd1a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/10/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/10/10	2048	1.96	5.28
02	AR166001	WAR100210-01	02/10/10	2058	1.96	5.28
03	AR166002	WAR100210-02	02/10/10	2109	1.96	5.28
04	AR166003	WAR100210-03	02/10/10	2119	1.96	5.28
05	AR166004	WAR100210-04	02/10/10	2130	1.96	5.28
06	AR166005	IAR100104-01	02/10/10	2140	1.96	5.28
07	AR166001	WAR100203-60	02/10/10	2151	1.96	5.28
08	AR124201	WAR100210-05	02/10/10	2201		
09	AR124202	WAR100210-06	02/10/10	2212		
10	AR124203	WAR100210-07	02/10/10	2222		
11	AR124204	WAR100210-08	02/10/10	2233		
12	AR124205	IAR091111-01	02/10/10	2243		
13	AR124201	WAR091217-42	02/10/10	2254		
14	AR124801	WAR100210-09	02/10/10	2304		
15	AR124802	WAR100210-10	02/10/10	2315		
16	AR124803	WAR100210-11	02/10/10	2325		
17	AR124804	WAR100210-12	02/10/10	2336		
18	AR124805	IAR091027-02	02/10/10	2346		
19	AR124801	WAR091217-48	02/10/10	2357		
20	PIBLK02	WAR100105-99	02/11/10	0007	1.96	5.28
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/10/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/10/10	2048	2.29	5.95
02	AR166001	WAR100210-01	02/10/10	2058	2.29	5.94
03	AR166002	WAR100210-02	02/10/10	2109	2.29	5.94
04	AR166003	WAR100210-03	02/10/10	2119	2.29	5.94
05	AR166004	WAR100210-04	02/10/10	2130	2.29	5.94
06	AR166005	IAR100104-01	02/10/10	2140	2.29	5.94
07	AR166001	WAR100203-60	02/10/10	2151	2.29	5.94
08	AR124201	WAR100210-05	02/10/10	2201		
09	AR124202	WAR100210-06	02/10/10	2212		
10	AR124203	WAR100210-07	02/10/10	2222		
11	AR124204	WAR100210-08	02/10/10	2233		
12	AR124205	IAR091111-01	02/10/10	2243		
13	AR124201	WAR091217-42	02/10/10	2254		
14	AR124801	WAR100210-09	02/10/10	2304		
15	AR124802	WAR100210-10	02/10/10	2315		
16	AR124803	WAR100210-11	02/10/10	2325		
17	AR124804	WAR100210-12	02/10/10	2336		
18	AR124805	IAR091027-02	02/10/10	2346		
19	AR124801	WAR091217-48	02/10/10	2357		
20	PIBLK02	WAR100105-99	02/11/10	0007	2.29	5.94
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/10/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/11/10	0614	1.96	5.27
02	AR166001	WAR100203-60	02/11/10	0625	1.96	5.27
03	AR125401	WAR091216-54	02/11/10	0635		
04	AR124201	WAR091217-42	02/11/10	0646		
05	ZZZZZ	ZZZZZ	02/11/10	0656		
06	AR123201	WAR100104-32	02/11/10	0719		
07	ZZZZZ	ZZZZZ	02/11/10	0730		
08	AR122101	WAR100104-21	02/11/10	0740		
09	AR126201	WAR100104-62	02/11/10	0751		
10	AR126801	WAR100107-68	02/11/10	0801		
11	AR124801	WAR100211-01	02/11/10	0812		
12	AR124802	WAR100211-02	02/11/10	0822		
13	AR124803	WAR100211-03	02/11/10	0833		
14	AR124804	WAR100211-04	02/11/10	0844		
15	AR124805	IAR100211-01	02/11/10	0854		
16	AR124801	WAR091217-48	02/11/10	0904		
17	DDTANALOGSTD	WAR091219-DD	02/11/10	0915		
18	PIBLK02	WAR100105-99	02/11/10	0926	1.96	5.28
19	ZZZZZ	ZZZZZ	02/11/10	0936	1.96	5.28
20	ZZZZZ	ZZZZZ	02/11/10	0947	1.96	5.28
21	ZZZZZ	ZZZZZ	02/11/10	0957	1.96	5.28
22	ZZZZZ	ZZZZZ	02/11/10	1010	1.96	5.28
23	ZZZZZ	ZZZZZ	02/11/10	1022	1.96	5.27
24	AR166002	WAR100203-60	02/11/10	1035	1.96	5.27
25	PIBLK03	WAR100105-99	02/11/10	1045	1.96	5.28
26	ZZZZZ	ZZZZZ	02/11/10	1056	1.96	5.28
27	ZZZZZ	ZZZZZ	02/11/10	1109	1.96	5.27
28	ZZZZZ	ZZZZZ	02/11/10	1121	1.96	5.27
29	ZZZZZ	ZZZZZ	02/11/10	1134	1.96	5.27
30	ZZZZZ	ZZZZZ	02/11/10	1146	1.96	5.27
31	ZZZZZ	ZZZZZ	02/11/10	1159	1.96	5.27
32	PIBLK04	WAR100105-99	02/11/10	1212	1.96	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/10/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/11/10	1222		
02	ZZZZZ	ZZZZZ	02/11/10	1235	1.96	5.27
03	ZZZZZ	ZZZZZ	02/11/10	1247	1.96	5.27
04	ZZZZZ	ZZZZZ	02/11/10	1300		
05	AR166003	WAR100203-60	02/11/10	1312	1.96	5.27
06	PIBLK05	WAR100105-99	02/11/10	1323	1.96	5.27
07	ZZZZZ	ZZZZZ	02/11/10	1333		
08	ZZZZZ	ZZZZZ	02/11/10	1346		
09	AR166004	WAR100203-60	02/11/10	1359	1.96	5.27
10	PIBLK06	WAR100105-99	02/11/10	1409	1.96	5.27
11	PBLK01	1202038652	02/11/10	1420	1.96	5.27
12	PBLK01LCS	1202038653	02/11/10	1433	1.96	5.27
13	ZZZZZ	ZZZZZ	02/11/10	1445	1.96	5.27
14	ZZZZZ	ZZZZZ	02/11/10	1458	1.96	5.27
15	ZZZZZ	ZZZZZ	02/11/10	1510	1.96	5.27
16	ZZZZZ	ZZZZZ	02/11/10	1523	1.96	5.27
17	ZZZZZ	ZZZZZ	02/11/10	1536	1.96	5.27
18	ZZZZZ	ZZZZZ	02/11/10	1548	1.96	5.27
19	ZZZZZ	ZZZZZ	02/11/10	1601	1.96	5.27
20	ZZZZZ	ZZZZZ	02/11/10	1614	1.96	5.27
21	AR166005	WAR100203-60	02/11/10	1626	1.96	5.27
22	PIBLK07	WAR100105-99	02/11/10	1637	1.96	5.27
23	ZZZZZ	ZZZZZ	02/11/10	1647	1.96	5.28
24	ZZZZZ	ZZZZZ	02/11/10	1700	1.96	5.27
25	ZZZZZ	ZZZZZ	02/11/10	1713	1.96	5.27
26	RE15-10-8122	245994001	02/11/10	1725	1.96	5.27
27	RE15-10-8122MS	1202038654	02/11/10	1738	1.96	5.27
28	RE15-10-8122MSD	1202038655	02/11/10	1751	1.96	5.27
29	RE15-10-8112	245994002	02/11/10	1803	1.96	5.27
30	RE15-10-8113	245994003	02/11/10	1816	1.96	5.27
31	AR166006	WAR100203-60	02/11/10	1828	1.96	5.27
32	PIBLK08	WAR100105-99	02/11/10	1839	1.96	5.27

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/10/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/11/10	0614	2.29	5.94
02	AR166001	WAR100203-60	02/11/10	0625	2.29	5.94
03	AR125401	WAR091216-54	02/11/10	0635		
04	AR124201	WAR091217-42	02/11/10	0646		
05	ZZZZZ	ZZZZZ	02/11/10	0656		
06	AR123201	WAR100104-32	02/11/10	0719		
07	ZZZZZ	ZZZZZ	02/11/10	0730		
08	AR122101	WAR100104-21	02/11/10	0740		
09	AR126201	WAR100104-62	02/11/10	0751		
10	AR126801	WAR100107-68	02/11/10	0801		
11	AR124801	WAR100211-01	02/11/10	0812		
12	AR124802	WAR100211-02	02/11/10	0822		
13	AR124803	WAR100211-03	02/11/10	0833		
14	AR124804	WAR100211-04	02/11/10	0844		
15	AR124805	IAR100211-01	02/11/10	0854		
16	AR124801	WAR091217-48	02/11/10	0904		
17	DDTANALOGSTD	WAR091219-DD	02/11/10	0915		
18	PIBLK02	WAR100105-99	02/11/10	0926	2.29	5.94
19	ZZZZZ	ZZZZZ	02/11/10	0936	2.29	5.94
20	ZZZZZ	ZZZZZ	02/11/10	0947	2.29	5.94
21	ZZZZZ	ZZZZZ	02/11/10	0957	2.29	5.94
22	ZZZZZ	ZZZZZ	02/11/10	1010	2.29	5.94
23	ZZZZZ	ZZZZZ	02/11/10	1022	2.29	5.94
24	AR166002	WAR100203-60	02/11/10	1035	2.29	5.94
25	PIBLK03	WAR100105-99	02/11/10	1045	2.29	5.94
26	ZZZZZ	ZZZZZ	02/11/10	1056	2.29	5.94
27	ZZZZZ	ZZZZZ	02/11/10	1109	2.29	5.94
28	ZZZZZ	ZZZZZ	02/11/10	1121	2.29	5.94
29	ZZZZZ	ZZZZZ	02/11/10	1134	2.29	5.94
30	ZZZZZ	ZZZZZ	02/11/10	1146	2.29	5.94
31	ZZZZZ	ZZZZZ	02/11/10	1159	2.29	5.94
32	PIBLK04	WAR100105-99	02/11/10	1212	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1516

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/10/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/11/10	1222		
02	ZZZZZ	ZZZZZ	02/11/10	1235	2.29	5.94
03	ZZZZZ	ZZZZZ	02/11/10	1247	2.29	5.94
04	ZZZZZ	ZZZZZ	02/11/10	1300		
05	AR166003	WAR100203-60	02/11/10	1312	2.29	5.94
06	PIBLK05	WAR100105-99	02/11/10	1323	2.29	5.94
07	ZZZZZ	ZZZZZ	02/11/10	1333		
08	ZZZZZ	ZZZZZ	02/11/10	1346		
09	AR166004	WAR100203-60	02/11/10	1359	2.29	5.94
10	PIBLK06	WAR100105-99	02/11/10	1409	2.29	5.94
11	PBLK01	1202038652	02/11/10	1420	2.29	5.94
12	PBLK01LCS	1202038653	02/11/10	1433	2.29	5.94
13	ZZZZZ	ZZZZZ	02/11/10	1445	2.29	5.94
14	ZZZZZ	ZZZZZ	02/11/10	1458	2.29	5.94
15	ZZZZZ	ZZZZZ	02/11/10	1510	2.29	5.94
16	ZZZZZ	ZZZZZ	02/11/10	1523	2.29	5.94
17	ZZZZZ	ZZZZZ	02/11/10	1536	2.29	5.94
18	ZZZZZ	ZZZZZ	02/11/10	1548	2.29	5.94
19	ZZZZZ	ZZZZZ	02/11/10	1601	2.29	5.94
20	ZZZZZ	ZZZZZ	02/11/10	1614	2.29	5.94
21	AR166005	WAR100203-60	02/11/10	1626	2.29	5.94
22	PIBLK07	WAR100105-99	02/11/10	1637	2.29	5.94
23	ZZZZZ	ZZZZZ	02/11/10	1647	2.30	5.94
24	ZZZZZ	ZZZZZ	02/11/10	1700	2.29	5.94
25	ZZZZZ	ZZZZZ	02/11/10	1713	2.29	5.94
26	RE15-10-8122	245994001	02/11/10	1725	2.29	5.94
27	RE15-10-8122MS	1202038654	02/11/10	1738	2.29	5.94
28	RE15-10-8122MSD	1202038655	02/11/10	1751	2.29	5.94
29	RE15-10-8112	245994002	02/11/10	1803	2.29	5.94
30	RE15-10-8113	245994003	02/11/10	1816	2.29	5.94
31	AR166006	WAR100203-60	02/11/10	1828	2.29	5.94
32	PIBLK08	WAR100105-99	02/11/10	1839	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10-1516 **Client ID:** LCS for batch 951296

Lab Sample ID: 1202038653

Data File:	044f4401.d	**Data File:**	044b4401.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	11-FEB-10 14:33	**Analyzed:**	11-FEB-10 14:33

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.76
Column 1	1	2.42	2.39 – 2.45	21.8		ug/kg	
	2	2.7	2.68 – 2.74	22.3		ug/kg	
	3	2.79	2.76 – 2.82	21.8		ug/kg	
	4	2.82	2.79 – 2.85	21.7		ug/kg	
	5	3.03	3 – 3.06	21.7		ug/kg	
					21.9		
Column 2	1	3.19	3.16 – 3.22	21.9		ug/kg	
	2	3.27	3.24 – 3.3	21.1		ug/kg	
	3	3.34	3.31 – 3.37	20.6		ug/kg	
	4	3.56	3.53 – 3.59	21		ug/kg	
	5	3.64	3.61 – 3.67	20.6		ug/kg	
					21.1		
Aroclor-1260							3.46
Column 1	1	3.76	3.73 – 3.79	25		ug/kg	
	2	3.92	3.89 – 3.95	25.4		ug/kg	
	3	4.15	4.12 – 4.18	25.5		ug/kg	
	4	4.29	4.27 – 4.33	26.2		ug/kg	
	5	4.47	4.45 – 4.51	26.8		ug/kg	
					25.8		
Column 2	1	4.33	4.3 – 4.36	24.2		ug/kg	
	2	4.45	4.43 – 4.49	24.6		ug/kg	
	3	4.72	4.69 – 4.75	24.6		ug/kg	
	4	4.89	4.86 – 4.92	24.9		ug/kg	
	5	5.04	5.01 – 5.07	26		ug/kg	
					24.9		

Identification Summary

SDG Number: 10–1516 **Client ID:** RE15–10–8122MS

Lab Sample ID: 1202038654

Data File:	059f5901.d	**Data File:**	059b5901.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	11–FEB–10 17:38	**Analyzed:**	11–FEB–10 17:38

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.2
Column 1	1	2.42	2.39 – 2.45	23.5		ug/kg	
	2	2.71	2.68 – 2.74	24.4		ug/kg	
	3	2.79	2.76 – 2.82	24.6		ug/kg	
	4	2.82	2.79 – 2.85	24.1		ug/kg	
	5	3.03	3 – 3.06	24.8		ug/kg	
					24.3		
Column 2	1	3.19	3.16 – 3.22	23.7		ug/kg	
	2	3.27	3.24 – 3.3	23.9		ug/kg	
	3	3.34	3.31 – 3.37	23.3		ug/kg	
	4	3.56	3.53 – 3.59	24.2		ug/kg	
	5	3.64	3.61 – 3.67	23.6		ug/kg	
					23.8		
Aroclor–1260							2.01
Column 1	1	3.76	3.73 – 3.79	29.2		ug/kg	
	2	3.92	3.89 – 3.95	30		ug/kg	
	3	4.15	4.12 – 4.18	29.9		ug/kg	
	4	4.29	4.27 – 4.33	29.3		ug/kg	
	5	4.47	4.45 – 4.51	31.3		ug/kg	
					29.9		
Column 2	1	4.33	4.3 – 4.36	28.7		ug/kg	
	2	4.45	4.43 – 4.49	29.4		ug/kg	
	3	4.72	4.69 – 4.75	29.2		ug/kg	
	4	4.89	4.86 – 4.92	28.9		ug/kg	
	5	5.04	5.01 – 5.07	30.4		ug/kg	
					29.3		

Identification Summary

SDG Number: 10–1516 **Client ID:** RE15–10–8122MSD

Lab Sample ID: 1202038655

Data File:	060f6001.d	**Data File:**	060b6001.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	11–FEB–10 17:51	**Analyzed:**	11–FEB–10 17:51

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.93
Column 1	1	2.42	2.39 – 2.45	22.1		ug/kg	
	2	2.7	2.68 – 2.74	23.1		ug/kg	
	3	2.78	2.76 – 2.82	22.4		ug/kg	
	4	2.82	2.79 – 2.85	21.9		ug/kg	
	5	3.03	3 – 3.06	22.9		ug/kg	
					22.5		
Column 2	1	3.19	3.16 – 3.22	22.1		ug/kg	
	2	3.27	3.24 – 3.3	22.1		ug/kg	
	3	3.34	3.31 – 3.37	21.4		ug/kg	
	4	3.56	3.53 – 3.59	22		ug/kg	
	5	3.64	3.61 – 3.67	21.6		ug/kg	
					21.8		
Aroclor–1260							2.91
Column 1	1	3.76	3.73 – 3.79	26.3		ug/kg	
	2	3.92	3.89 – 3.95	26.9		ug/kg	
	3	4.15	4.12 – 4.18	26.8		ug/kg	
	4	4.29	4.27 – 4.33	26.6		ug/kg	
	5	4.47	4.45 – 4.51	27.8		ug/kg	
					26.9		
Column 2	1	4.33	4.3 – 4.36	25.6		ug/kg	
	2	4.45	4.43 – 4.49	26.2		ug/kg	
	3	4.72	4.69 – 4.75	26		ug/kg	
	4	4.89	4.86 – 4.92	25.9		ug/kg	
	5	5.04	5.01 – 5.07	26.9		ug/kg	
					26.1		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1516**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038652**				
Client Sample:	**QC for batch 951296**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 951296**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 14:20**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**043f4301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	043b4301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/043f4301-2.d
Lab Smp Id: 1202038652 Client Smp ID: PBLK01
Inj Date : 11-FEB-2010 14:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038652|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 43 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.962	0.002	57952146	132.562	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	49631389	148.797	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/043f4301-2.d
Date : 11-FEB-2010 14:20
Client ID: PBLK01
Sample Info: |120203865211|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

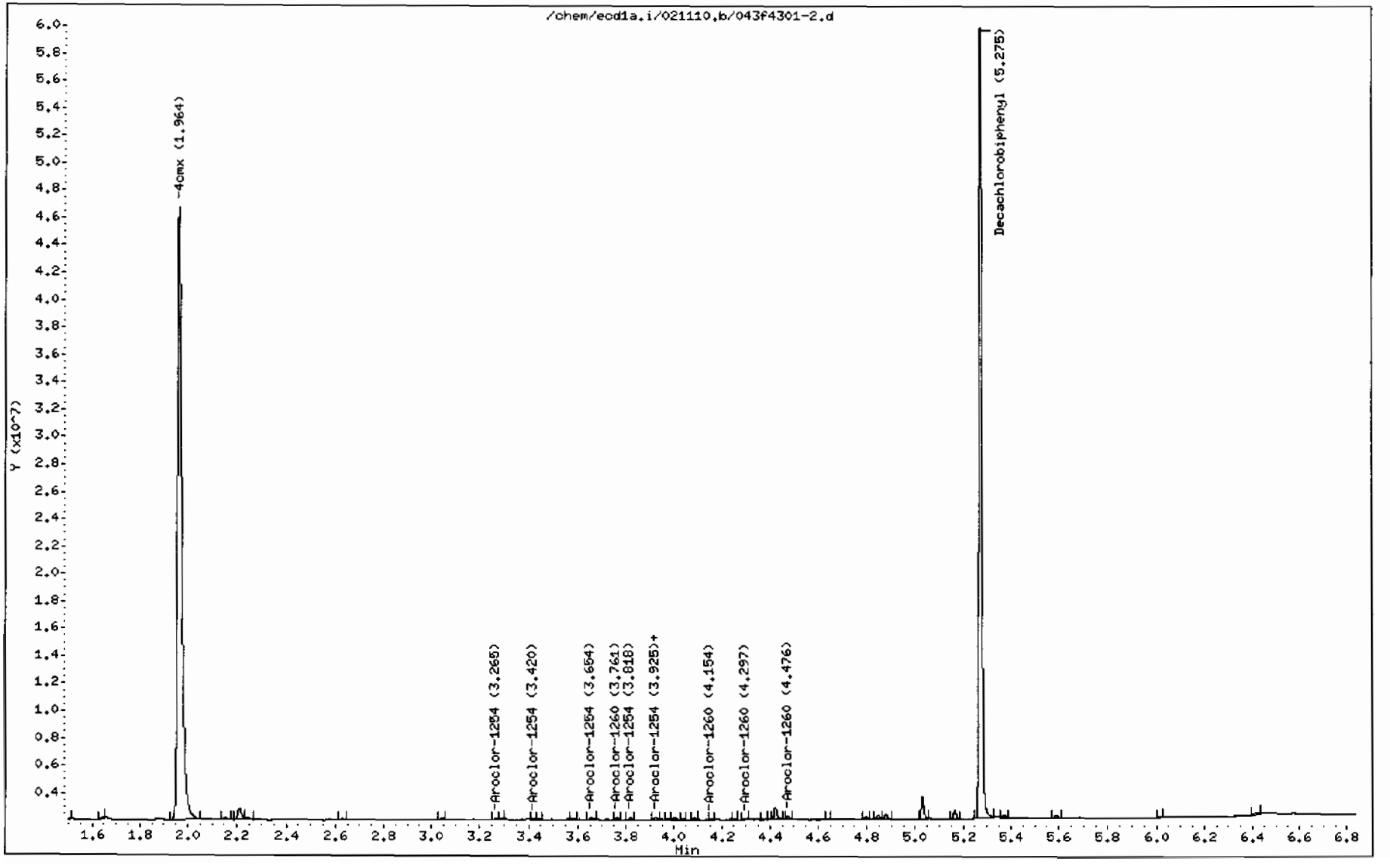

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/043b4301-2.d
Lab Smp Id: 1202038652 Client Smp ID: PBLK01
Inj Date : 11-FEB-2010 14:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038652|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 43 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.294	0.001	37224733	129.743	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.941	0.000	31033734	144.280	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/043b4301-2.d
Date : 11-FEB-2010 14:20
Client ID: PBLK01
Sample Info: (1202038652)1!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

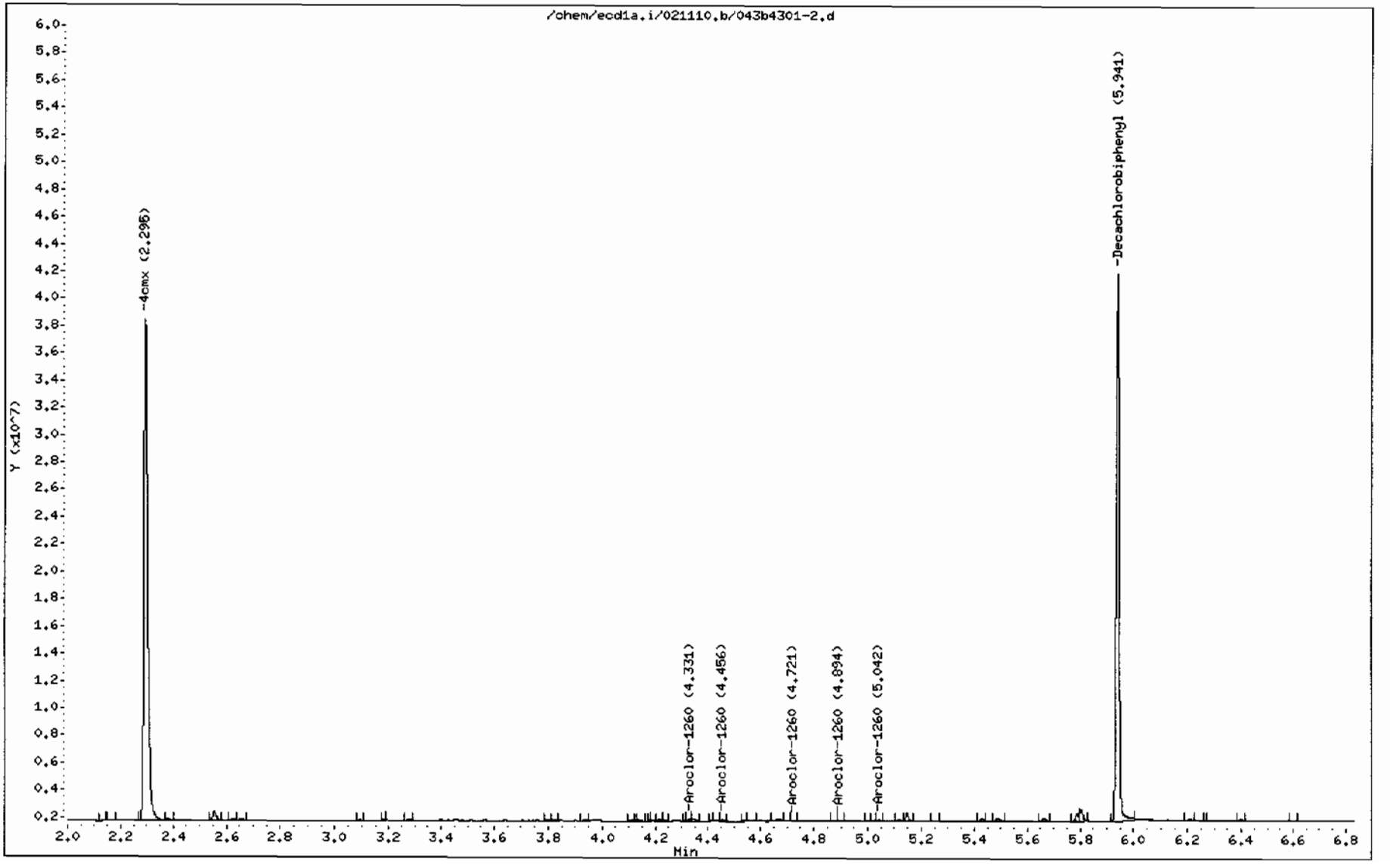

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1516**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038653**				
Client Sample:	**QC for batch 951296**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 951296**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951299**	**Inst:**	**ECD1A.J**	**Dilution:**	**1**
Run Date:	**02/11/2010 14:33**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	044b4401-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		21.9	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		25.8	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/044f4401-2.d
Lab Smp Id: 1202038653 Client Smp ID: PBLK01LCS
Inj Date : 11-FEB-2010 14:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038653|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 44 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	55925125	127.925	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.272	5.275	-0.003	46820369	140.370	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	10542930	654.491	21.8	80.00- 120.00	100.00
2.705	2.705	0.000	13213069	667.913	22.3	112.33- 152.33	125.33
2.786	2.786	0.000	8510200	653.354	21.8	64.59- 104.59	80.72
2.823	2.824	-0.001	5077807	652.549	21.8	30.95- 70.95	48.16

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.033	3.035	-0.002	6523083	650.847	21.7	44.74- 84.74	61.87
		Average of Peak Concentrations =			21.9		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	14247109	748.656	25.0	80.00- 120.00	100.00
3.921	3.924	-0.003	21579907	761.104	25.4	129.97- 169.97	151.47
4.151	4.154	-0.003	13026430	764.255	25.5	69.84- 109.84	91.43
4.294	4.296	-0.002	14072005	786.490	26.2	74.16- 114.16	98.77
4.474	4.475	-0.001	31212865	803.409	26.8	190.26- 230.26	219.08
		Average of Peak Concentrations =			25.8		

Data File: /chem/ecd1a.i/021110.b/044f4401-2.d

Date : 11-FEB-2010 14:33

Client ID: PBLK01LCS

Sample Info: |120203865311|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

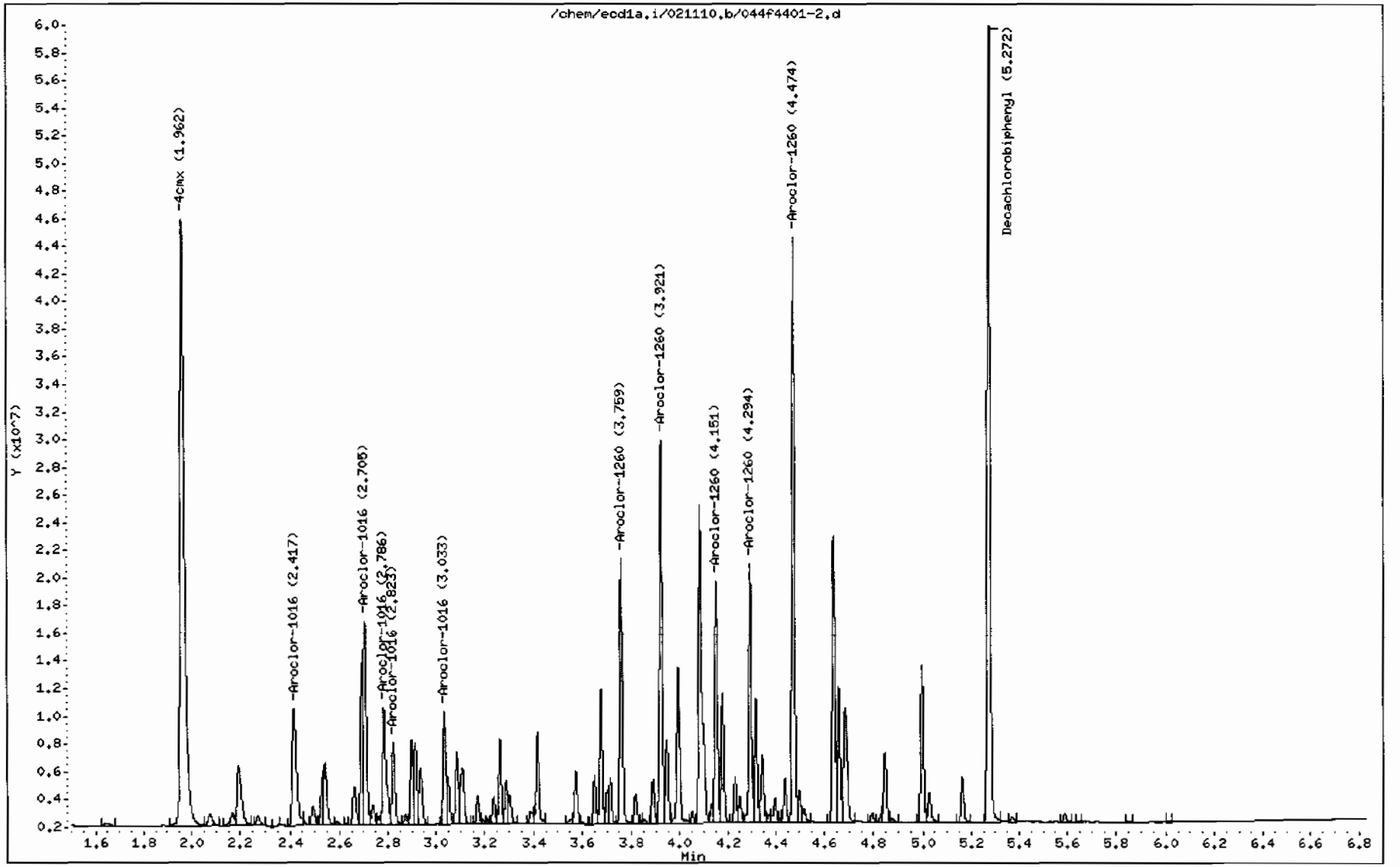

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/044b4401-2.d
Lab Smp Id: 1202038653 Client Smp ID: PBLK01LCS
Inj Date : 11-FEB-2010 14:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038653|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 44 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	35816508	124.835	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	29502665	137.161	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.189	3.190	-0.001	8161378	656.575	21.9	80.00- 120.00	100.00(M)
3.272	3.274	-0.002	5402647	634.036	21.1	46.60- 86.60	66.20
3.336	3.337	-0.001	3246461	617.933	20.6	21.35- 61.35	39.78
3.562	3.564	-0.002	4244219	630.451	21.0	32.46- 72.46	52.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.638	3.640	-0.002	3914834	619.027	20.6	29.42- 69.42	47.97
Average of Peak Concentrations =					21.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	9143268	726.091	24.2	80.00- 120.00	100.00
4.453	4.455	-0.002	11139712	739.342	24.6	102.02- 142.02	121.84
4.720	4.721	-0.001	8589647	739.342	24.6	72.44- 112.44	93.95
4.893	4.895	-0.002	8977372	746.246	24.9	75.48- 115.48	98.19
5.041	5.042	-0.001	20181460	781.505	26.0	192.44- 232.44	220.72
Average of Peak Concentrations =					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/044b4401-2.d

Date : 11-FEB-2010 14:33

Client ID: PBLK01LCS

Sample Info: |1202038653|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

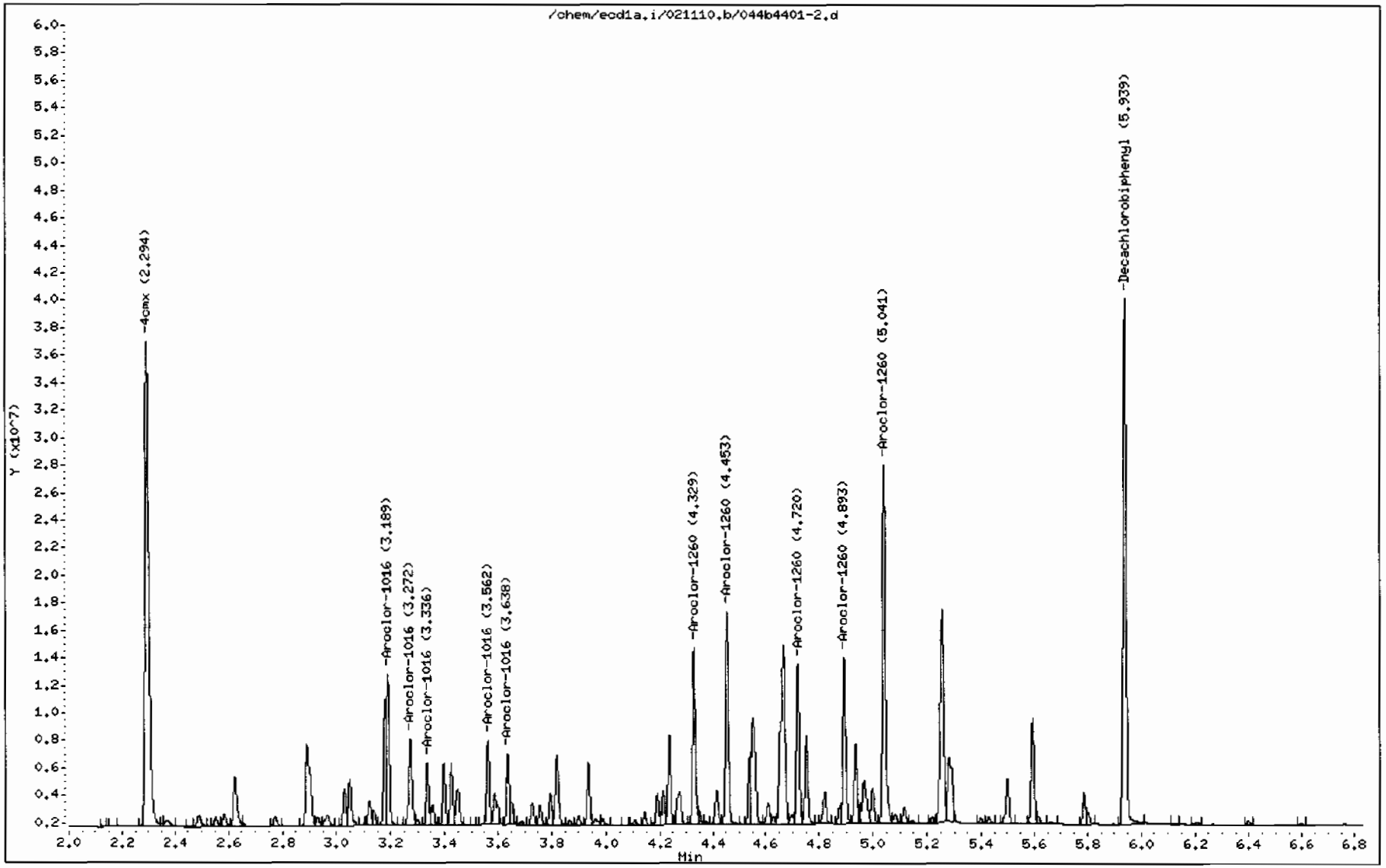

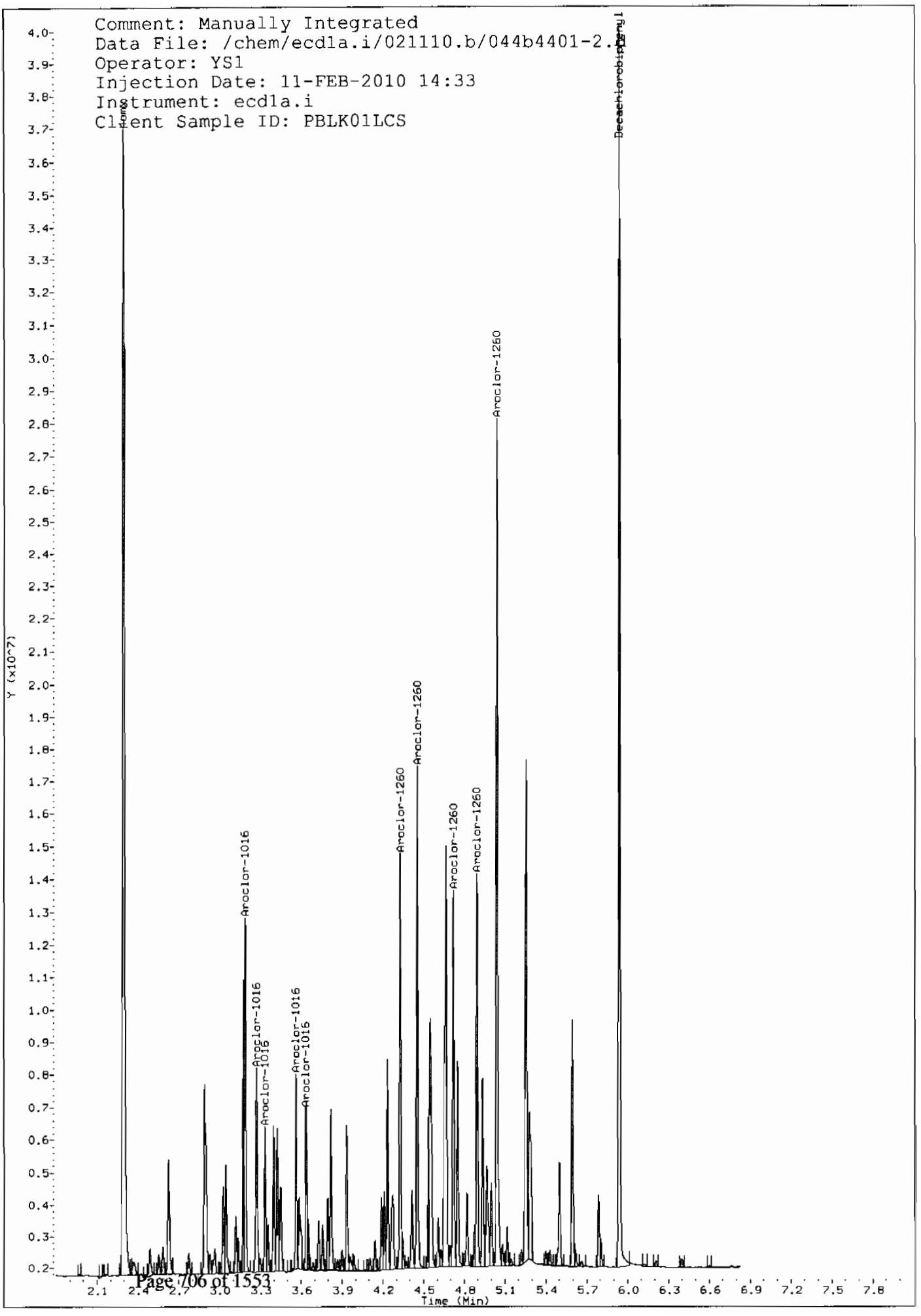
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/044b4401-2.
Operator: YS1
Injection Date: 11-FEB-2010 14:33
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Y (x10^7)
Time (Min)

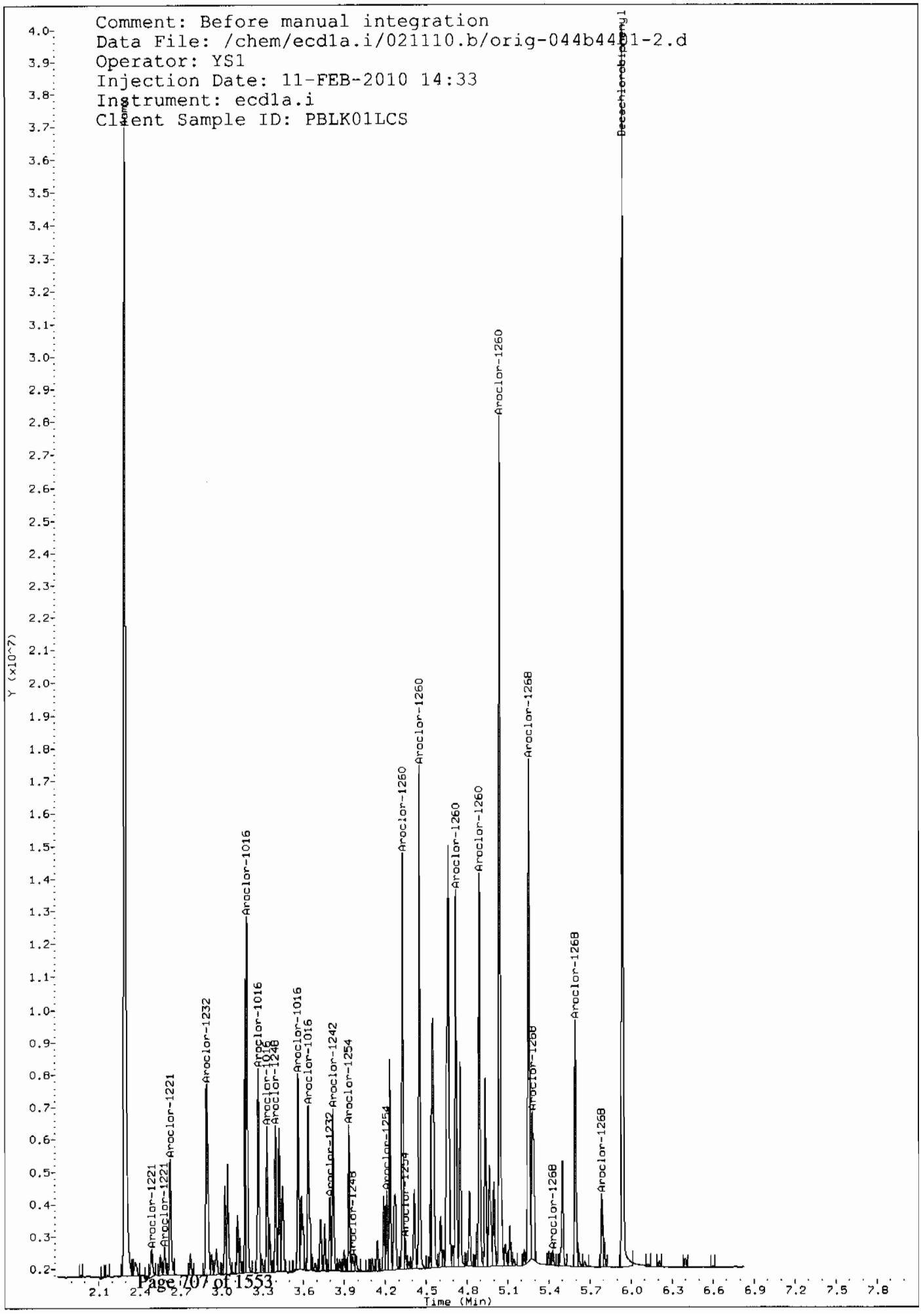
Comment: Before manual integration
Data File: /chem/ecd1a.i/021110.b/orig-044b44001-2.d
Operator: YS1
Injection Date: 11-FEB-2010 14:33
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1268
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1516	**Date Collected:**	01/28/2010 12:00	**Matrix:**	R
Lab Sample ID:	1202038654	**Date Received:**	02/02/2010 09:10	**%Moisture:**	14.9
Client Sample:	QC for batch 951296	**Client:**	LANL010	**Project:**	QC
Client ID:	RE15–10–8122MS	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 17:38	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.1 g	**Final Volume:**	1 mL
Data File:	059f5901.d	**Column:**	1 CLP1	**Level:**	LOW
	059b5901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		24.3	ug/kg	1.30	3.91	1
11104–28–2	Aroclor–1221	U	3.91	ug/kg	1.30	3.91	1
11141–16–5	Aroclor–1232	U	3.91	ug/kg	1.30	3.91	1
53469–21–9	Aroclor–1242	U	3.91	ug/kg	1.30	3.91	1
12672–29–6	Aroclor–1248	U	3.91	ug/kg	1.30	3.91	1
11097–69–1	Aroclor–1254	U	3.91	ug/kg	1.30	3.91	1
11096–82–5	Aroclor–1260		29.9	ug/kg	1.30	3.91	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/059f5901.d
Lab Smp Id: 1202038654 Client Smp ID: RE15-10-8122MS
Inj Date : 11-FEB-2010 17:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038654|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 59 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.962	0.002	52180049	119.359	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	45494756	136.396	5.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.418	0.000	9702444	602.315	23.5	80.00- 120.00	100.00
2.705	2.705	0.000	12364455	625.016	24.4	107.74- 147.74	127.44
2.786	2.786	0.000	8206438	630.033	24.6	62.06- 102.06	84.58
2.823	2.824	-0.001	4797044	616.468	24.1	29.56- 69.56	49.44

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.033	3.035	-0.002	6374552	636.027	24.8	44.36- 84.36	65.70
			Average of Peak Concentrations =		24.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.758	3.760	-0.002	14213694	746.900	29.2	80.00- 120.00	100.00
3.922	3.924	-0.002	21749241	767.076	30.0	130.55- 170.55	153.02
4.151	4.154	-0.003	13052842	765.805	29.9	69.92- 109.92	91.83
4.294	4.296	-0.002	13412693	749.641	29.3	76.48- 116.48	94.36
4.473	4.475	-0.002	31130200	801.281	31.3	190.91- 230.91	219.02
			Average of Peak Concentrations =		29.9		

Data File: /chem/ecd1a.i/021110.b/059f5901.d

Date : 11-FEB-2010 17:38

Client ID: RE15-10-8122MS

Sample Info: |1202038654|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

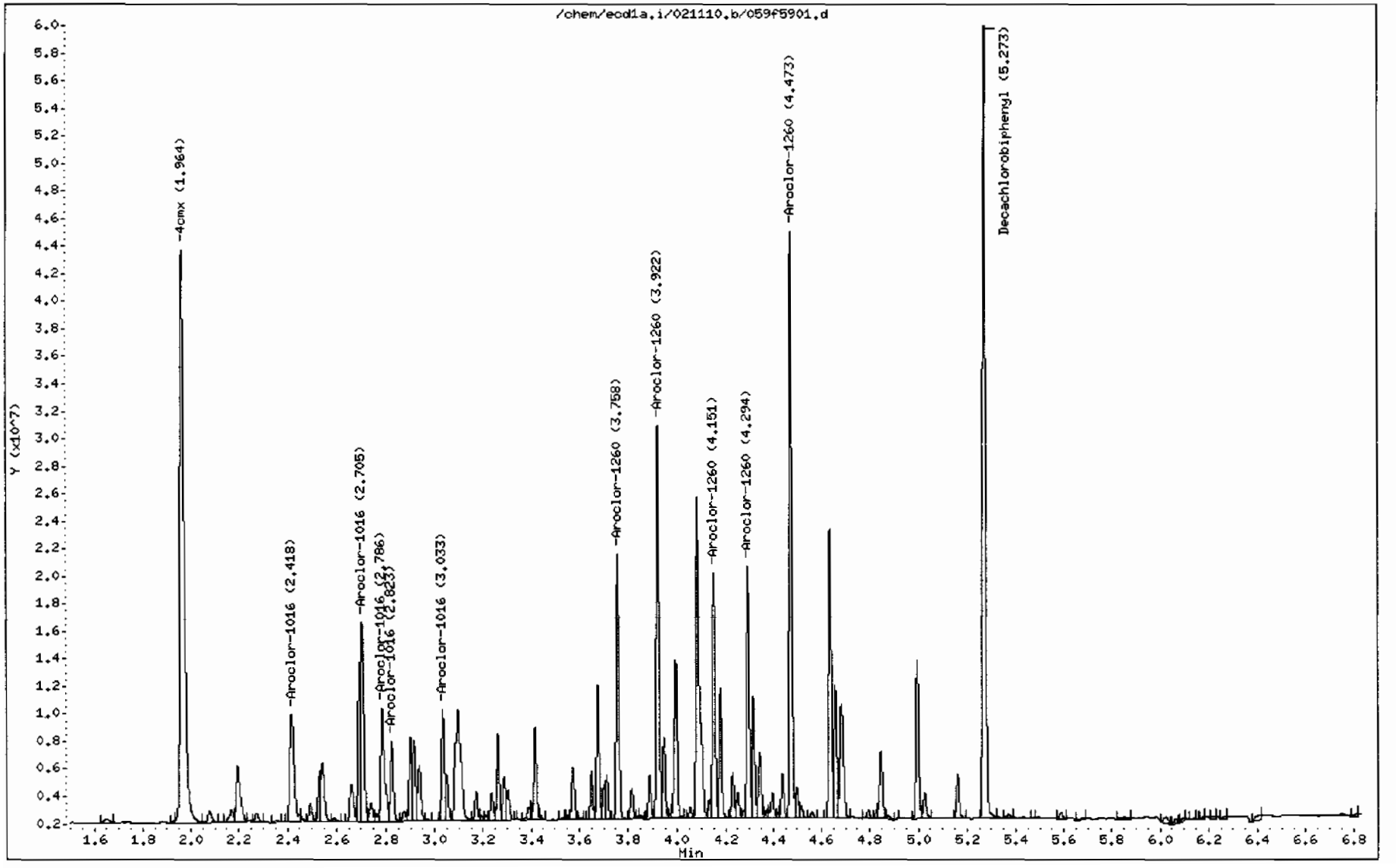

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/059b5901.d
Lab Smp Id: 1202038654 Client Smp ID: RE15-10-8122MS
Inj Date : 11-FEB-2010 17:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038654|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 59 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	33227908	115.812	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.938	5.941	-0.003	28377504	131.930	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.190	0.000	7548542	607.273	23.7	80.00- 120.00	100.00(M)
3.273	3.274	-0.001	5220008	612.602	23.9	46.60- 86.60	69.15
3.336	3.337	-0.001	3134932	596.704	23.3	21.35- 61.35	41.53
3.563	3.564	-0.001	4178448	620.682	24.2	32.46- 72.46	55.35

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.638	3.640	-0.002	3825888	604.963	23.6	38.93- 78.93	61.97
Average of Peak Concentrations =					23.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.328	4.330	-0.002	9243632	734.061	28.7	80.00- 120.00	100.00
4.453	4.455	-0.002	11347991	753.165	29.4	102.02- 142.02	122.77
4.719	4.721	-0.002	8692026	748.154	29.2	72.44- 112.44	94.03
4.893	4.895	-0.002	8906923	740.389	28.9	75.48- 115.48	96.36
5.040	5.042	-0.002	20112741	778.844	30.4	192.44- 232.44	217.58
Average of Peak Concentrations =					29.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/059b5901.d
Date : 11-FEB-2010 17:38
Client ID: RE15-10-8122MS
Sample Info: 1120203866411
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

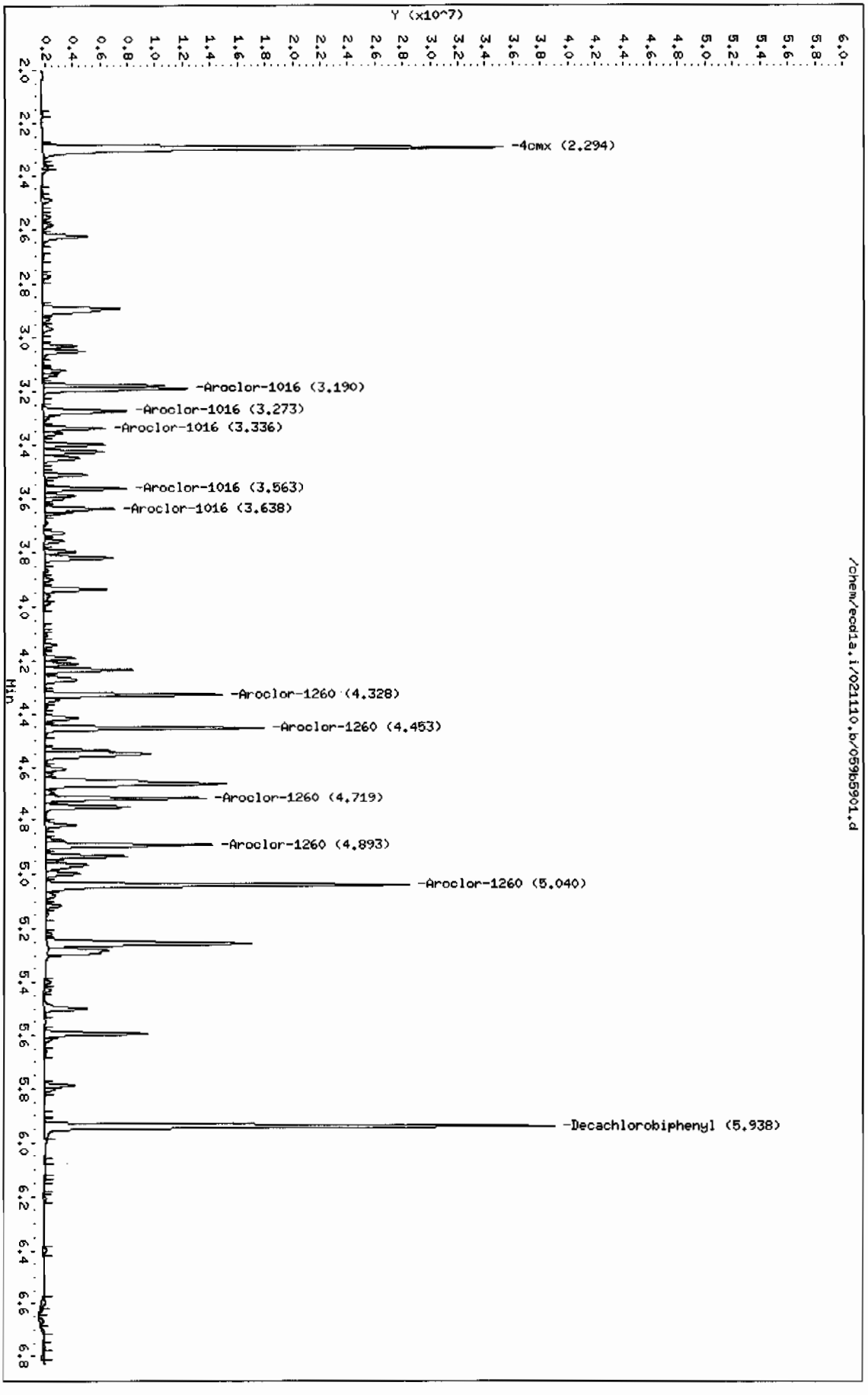

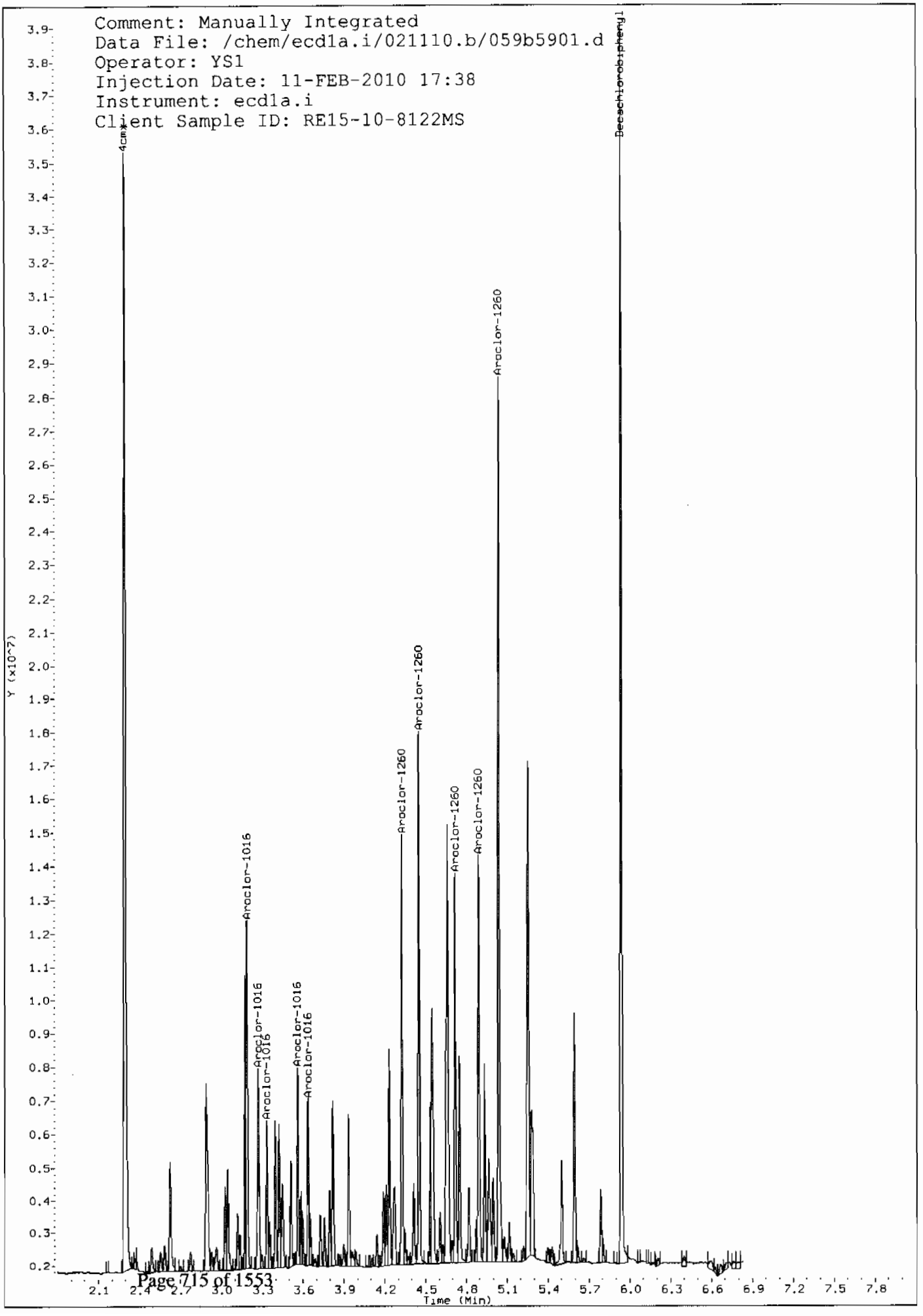
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/059b5901.d
Operator: YS1
Injection Date: 11-FEB-2010 17:38
Instrument: ecd1a.i
Client Sample ID: RE15-10-8122MS
4cm*
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

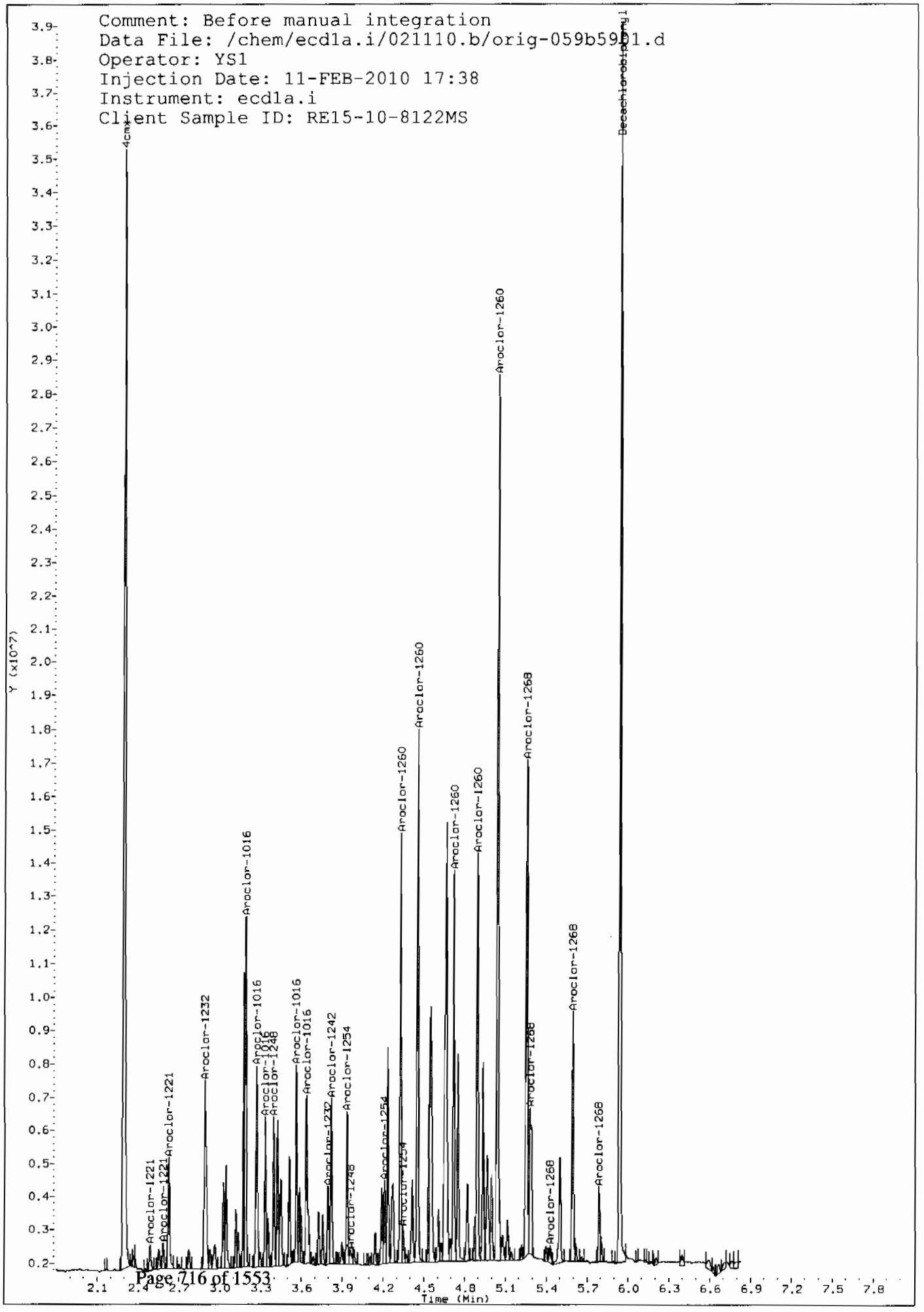
Comment: Before manual integration
Data File: /chem/ecd1a.i/021110.b/orig-059b5901.d
Operator: YS1
Injection Date: 11-FEB-2010 17:38
Instrument: ecd1a.i
Client Sample ID: RE15-10-8122MS
4cm*
Decachlorobiphenyl
Aroclor-1260
Aroclor-1268
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1242
Aroclor-1254
Aroclor-1248
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1516**	**Date Collected:**	**01/28/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**1202038655**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.9**
Client Sample:	**QC for batch 951296**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**RE15–10–8122MSD**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 17:51**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**060f6001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	060b6001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		22.5	ug/kg	1.30	3.91	1
11104–28–2	Aroclor–1221	U	3.91	ug/kg	1.30	3.91	1
11141–16–5	Aroclor–1232	U	3.91	ug/kg	1.30	3.91	1
53469–21–9	Aroclor–1242	U	3.91	ug/kg	1.30	3.91	1
12672–29–6	Aroclor–1248	U	3.91	ug/kg	1.30	3.91	1
11097–69–1	Aroclor–1254	U	3.91	ug/kg	1.30	3.91	1
11096–82–5	Aroclor–1260		26.9	ug/kg	1.30	3.91	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/060f6001.d
Lab Smp Id: 1202038655 Client Smp ID: RE15-10-8122MSD
Inj Date : 11-FEB-2010 17:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038655|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 60 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.961	1.962	-0.001	47847702	109.449	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	39946971	119.763	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	9089881	564.288	22.1	80.00- 120.00	100.00
2.704	2.705	-0.001	11669389	589.881	23.1	107.74- 147.74	128.38
2.785	2.786	-0.001	7445572	571.619	22.4	62.06- 102.06	81.91
2.822	2.824	-0.002	4360354	560.349	21.9	29.56- 69.56	47.97

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.033	3.035	-0.002	5866525	585.338	22.9	44.36- 84.36	64.54
Average of Peak Concentrations =					22.5		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	12804280	672.839	26.3	80.00- 120.00	100.00
3.922	3.924	-0.002	19455220	686.168	26.8	130.55- 170.55	151.94
4.152	4.154	-0.002	11669407	684.639	26.8	69.92- 109.92	91.14
4.295	4.296	-0.001	12164544	679.881	26.6	76.48- 116.48	95.00
4.474	4.475	-0.001	27616502	710.839	27.8	190.91- 230.91	215.68
Average of Peak Concentrations =					26.9		

Data File: /chem/ecd1a.i/021110.b/060f6001.d

Date : 11-FEB-2010 17:51

Client ID: RE15-10-8122MSD

Sample Info: |1202038655|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

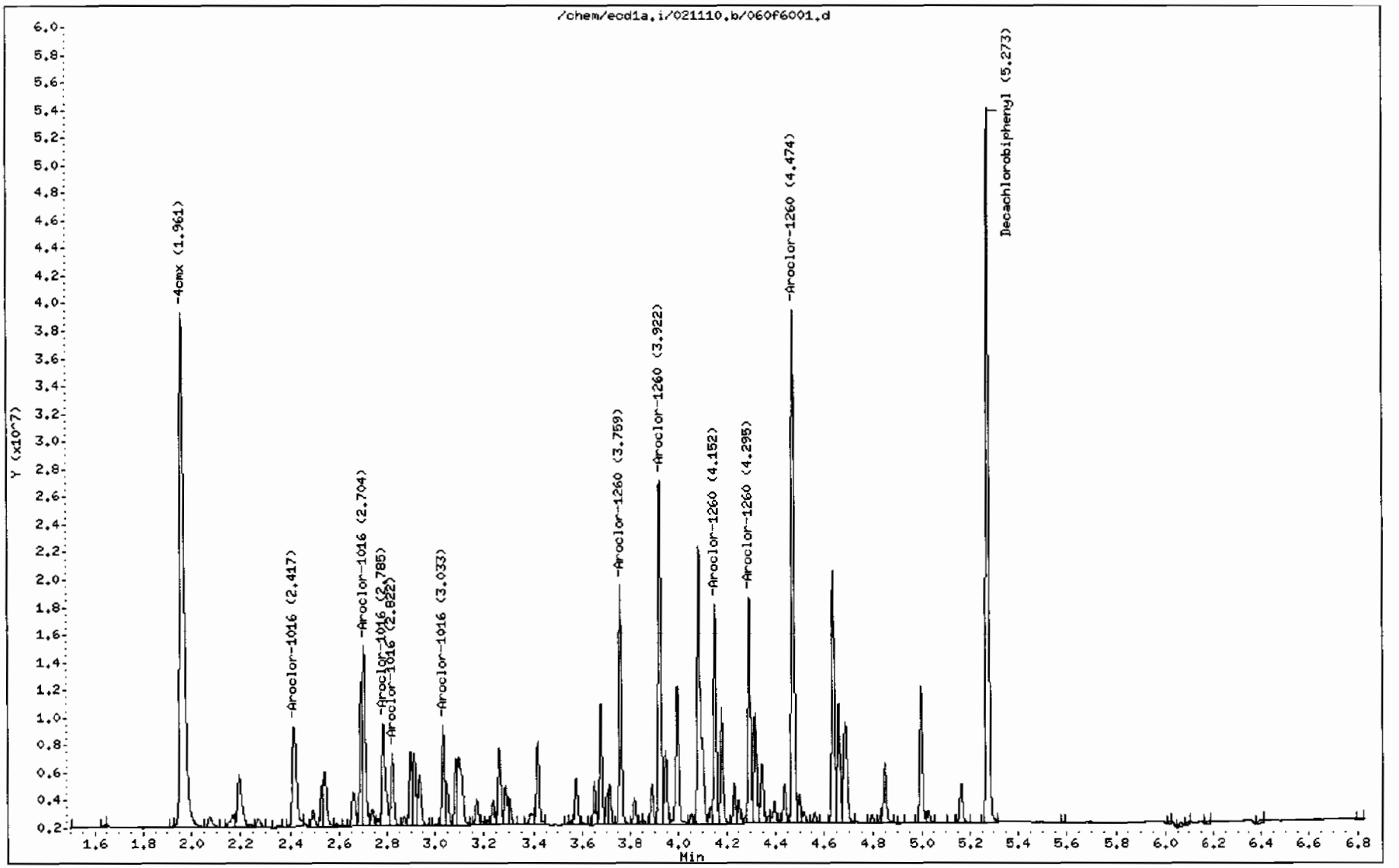

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/060b6001.d
Lab Smp Id: 1202038655 Client Smp ID: RE15-10-8122MSD
Inj Date : 11-FEB-2010 17:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038655|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 60 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.292	2.294	-0.002	30694699	106.983	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.941	-0.001	25097604	116.682	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.189	3.190	-0.001	7020813	564.818	22.1	80.00- 120.00	100.00(M)
3.272	3.274	-0.002	4810303	564.521	22.1	46.60- 86.60	68.51
3.336	3.337	-0.001	2868758	546.040	21.4	21.35- 61.35	40.86
3.563	3.564	-0.001	3782571	561.877	22.0	32.46- 72.46	53.88

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.638	3.640	-0.002	3487259	551.418	21.6	38.93- 78.93	60.11
Average of Peak Concentrations =					21.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	8250050	655.158	25.6	80.00- 120.00	100.00
4.454	4.455	-0.001	10078748	668.926	26.2	102.02- 142.02	122.17
4.720	4.721	-0.001	7709838	663.614	26.0	72.44- 112.44	93.45
4.894	4.895	-0.001	7948327	660.706	25.9	75.48- 115.48	96.34
5.041	5.042	-0.001	17752424	687.443	26.9	192.44- 232.44	215.18
Average of Peak Concentrations =					26.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/060b6001.d

Date : 11-FEB-2010 17:51

Client ID: RE15-10-8122MSD

Sample Info: 1120203865511

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

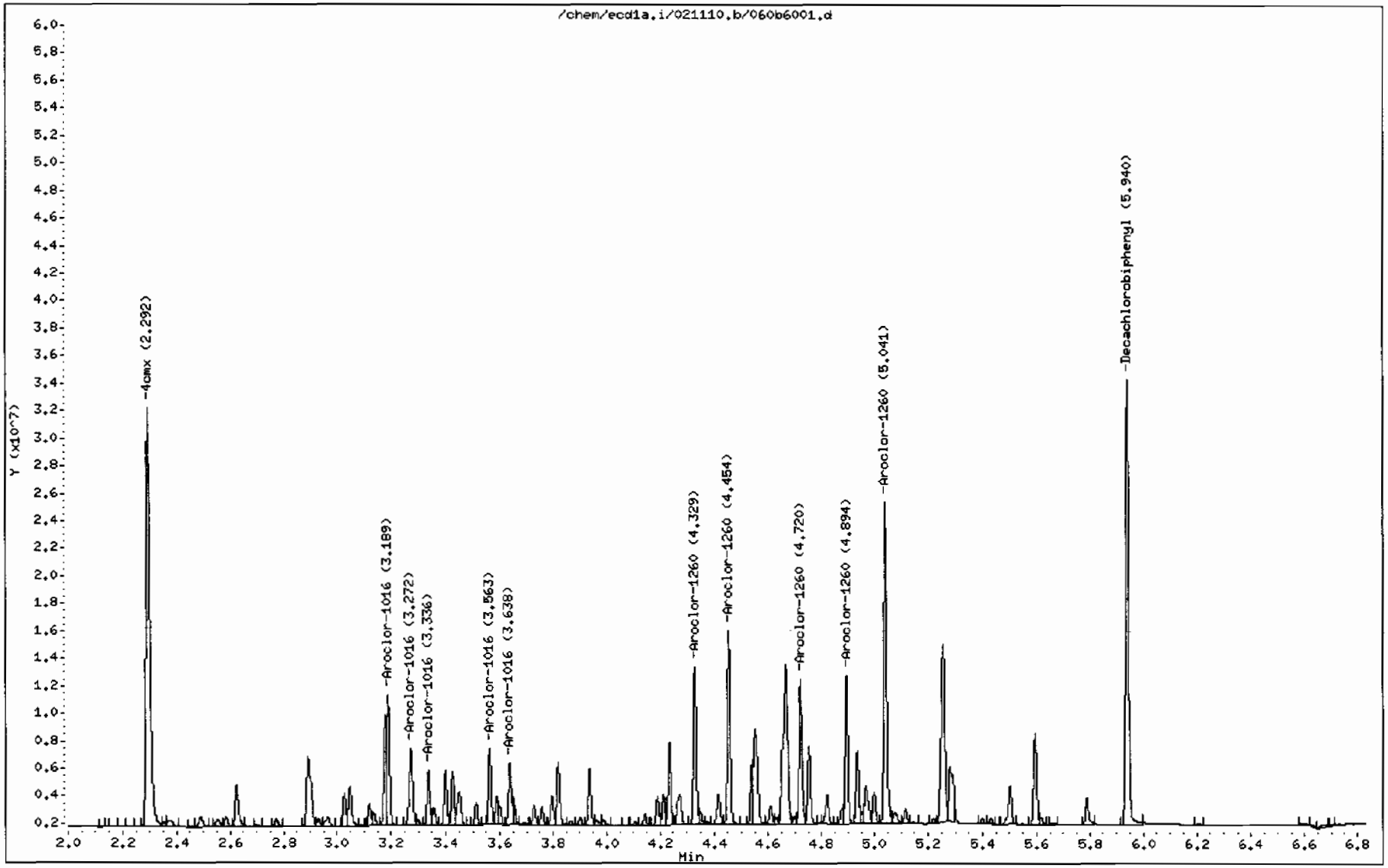

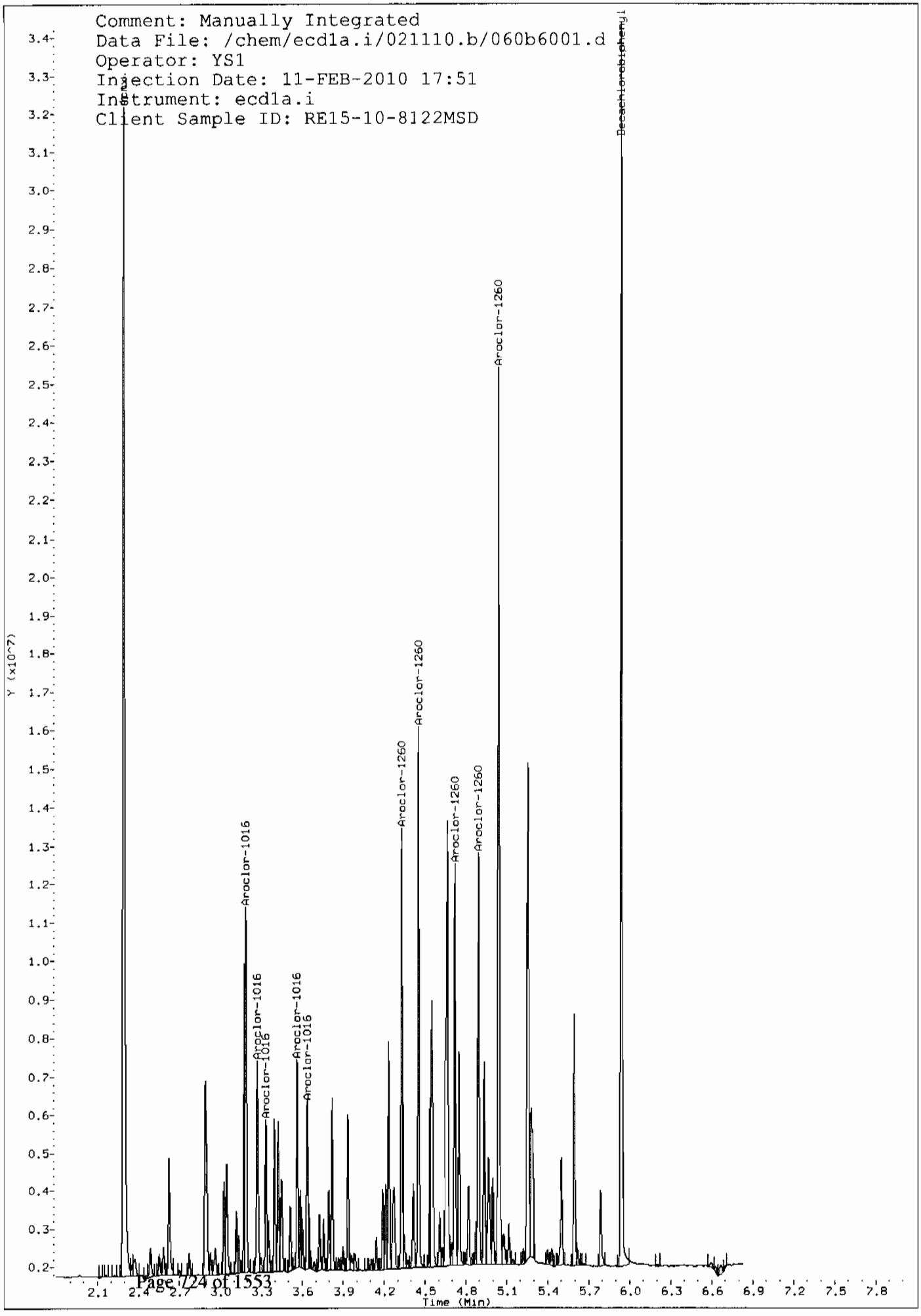
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/060b6001.d
Operator: YS1
Injection Date: 11-FEB-2010 17:51
Instrument: ecd1a.i
Client Sample ID: RE15-10-8122MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

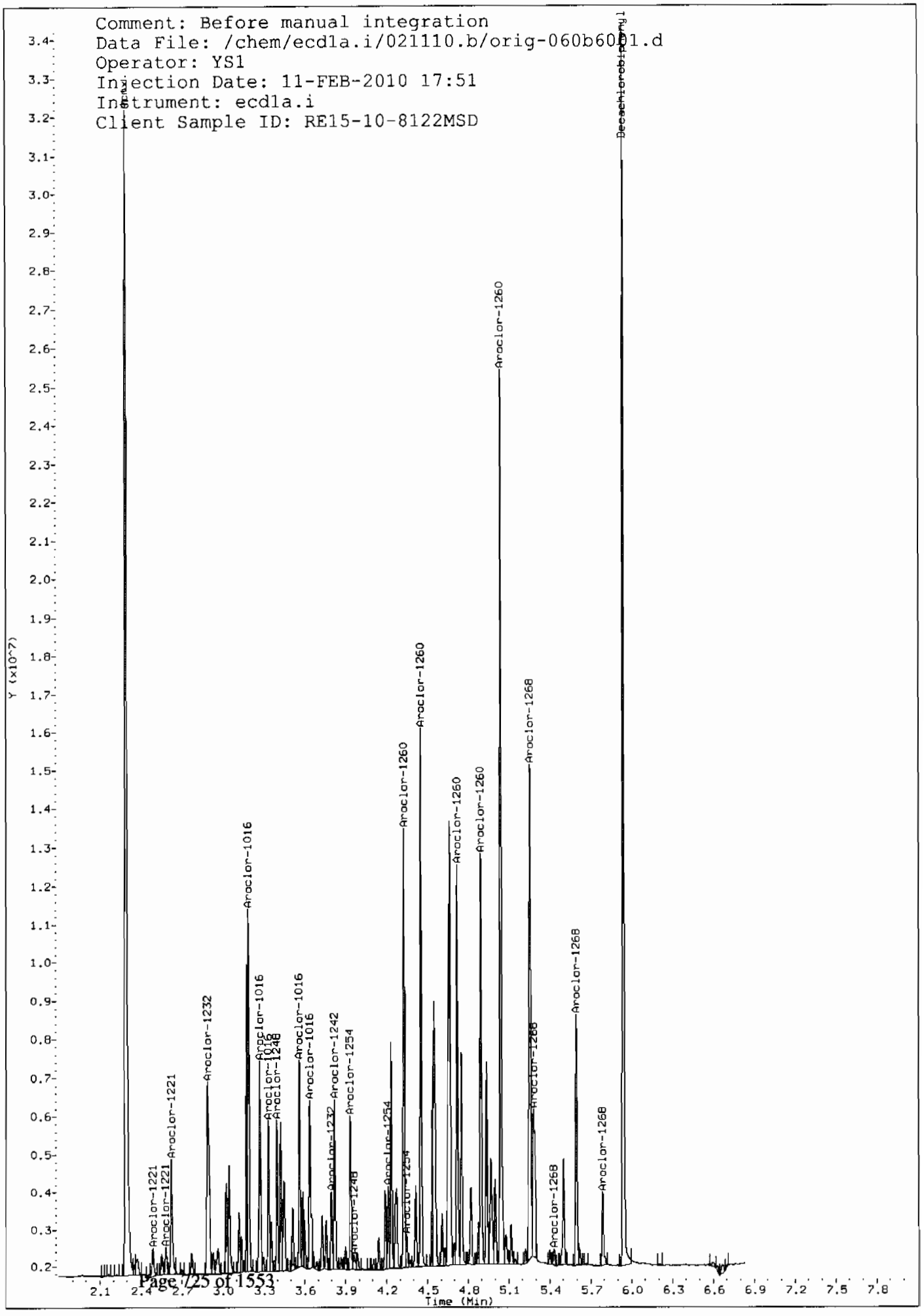
Comment: Before manual integration
Data File: /chem/ecd1a.i/021110.b/orig-060b6001.d
Operator: YS1
Injection Date: 11-FEB-2010 17:51
Instrument: ecd1a.i
Client Sample ID: RE15-10-8122MSD
Y (x10^7)
Time (Min)
Decachlorobiphenyl
Aroclor-1260
Aroclor-1268
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1242
Aroclor-1254
Aroclor-1248

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/11/2010 METHOD: ECD1-F-8082-021010C.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/021010c.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	10-FEB-2010 20:48		021010c	1.0		CLEAN
002f0201.d	WAR100210-01 60	YS1	10-FEB-2010 20:58		021010c	1.0		AR1660 I-CAL LEVEL 1
003f0301.d	WAR100210-02 60	YS1	10-FEB-2010 21:09		021010c	1.0		AR1660 I-CAL LEVEL 2
004f0401.d	WAR100210-03 60	YS1	10-FEB-2010 21:19		021010c	1.0		AR1660 I-CAL LEVEL 3
005f0501.d	WAR100210-04 60	YS1	10-FEB-2010 21:30		021010c	1.0		AR1660 I-CAL LEVEL 4
006f0601.d	IAR100104-01	YS1	10-FEB-2010 21:40		021010c	1.0		AR1660 I-CAL LEVEL 5
007f0701.d	WAR100203-60 01	YS1	10-FEB-2010 21:51		021010c	1.0		PASSED ON BOTH COLUMNS
008f0801.d	WAR100210-05 42	YS1	10-FEB-2010 22:01		021010c	1.0		AR1242 I-CAL LEVEL 1
009f0901.d	WAR100210-06 42	YS1	10-FEB-2010 22:12		021010c	1.0		AR1242 I-CAL LEVEL 2
010f1001.d	WAR100210-07 42	YS1	10-FEB-2010 22:22		021010c	1.0		AR1242 I-CAL LEVEL 3
011f1101.d	WAR100210-08 42	YS1	10-FEB-2010 22:33		021010c	1.0		AR1242 I-CAL LEVEL 4
012f1201.d	IAR091111-01	YS1	10-FEB-2010 22:43		021010c	1.0		AR1242 I-CAL LEVEL 5
013f1301.d	WAR091217-42	YS1	10-FEB-2010 22:54		021010c	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100210-09 48	YS1	10-FEB-2010 23:04		021010c	1.0		DUSE
015f1501.d	WAR100210-10 48	YS1	10-FEB-2010 23:15		021010c	1.0		DUSE

Instrument Batch: /chem/ecd1a.i/021010c.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100210-11 48	YS1	10-FEB-2010 23:25		021010c	1.0	DUSE
017f1701.d	WAR100210-12 48	YS1	10-FEB-2010 23:36		021010c	1.0	DUSE
018f1801.d	IAR091027-02	YS1	10-FEB-2010 23:46		021010c	1.0	DUSE
019f1901.d	WAR091217-48	YS1	10-FEB-2010 23:57		021010c	1.0	DUSE
020f2001.d	WAR100105-99 02	YS1	11-FEB-2010 00:07		021010c	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/12/2010 METHOD: ECD1-F-8082-021110.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/021110.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	11-FEB-2010 06:14		021110	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	11-FEB-2010 06:25		021110	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091216-54	YS1	11-FEB-2010 06:35		021110	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	11-FEB-2010 06:46		021110	1.0		PASSED ON BOTH COLUMNS
005f0501.d	1248-4 old	YS1	11-FEB-2010 06:56		021110	1.0		AR1248 SCREEN DUSE
006f0601.d	WAR100104-32	YS1	11-FEB-2010 07:19		021110	1.0		PATTERN ONLY
007f0701.d	1248-4	YS1	11-FEB-2010 07:30		021110	1.0		AR1248 SCREEN DUSE
008f0801.d	WAR100104-21	YS1	11-FEB-2010 07:40		021110	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	11-FEB-2010 07:51		021110	1.0		PATTERN ONLY
010f1001.d	WAR100107-68	YS1	11-FEB-2010 08:01		021110	1.0		PASSED ON BOTH COLUMNS
011f1101.d	WAR100211-01 48	YS1	11-FEB-2010 08:12		021110	1.0		AR1248 I-CAL LEVEL 1
012f1201.d	WAR100211-02 48	YS1	11-FEB-2010 08:22		021110	1.0		AR1248 I-CAL LEVEL 2
013f1301.d	WAR100211-03 48	YS1	11-FEB-2010 08:33		021110	1.0		AR1248 I-CAL LEVEL 3
014f1401.d	WAR100211-04 48	YS1	11-FEB-2010 08:44		021110	1.0		AR1248 I-CAL LEVEL 4
015f1501.d	IAR100211-01	YS1	11-FEB-2010 08:54		021110	1.0		AR1248 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/021110.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091217-48 48	YS1	11-FEB-2010 09:04		021110	1.0		PASSED ON BOTH COLUMNS
017f1701.d	WAR091219-DDT	YS1	11-FEB-2010 09:15		021110	1.0		DDT ANALOG STANDARD
018f1801.d	WAR100105-99 02	YS1	11-FEB-2010 09:26		021110	1.0		CLEAN
019f1901.d	1202038145	YS1	11-FEB-2010 09:36	951079	245514	1.0	QC A	DUSE
020f2001.d	1202038146	YS1	11-FEB-2010 09:47	951079	245514	1.0	QC A	DUSE
021f2101.d	245514001	YS1	11-FEB-2010 09:57	951079	245514	1.0	WSRB	DUSE CONFIRMATION ONLY PER CLIENT
022f2201.d	1202038147	YS1	11-FEB-2010 10:10	951079	245514	1.0	QC A	DUSE
023f2301.d	1202038148	YS1	11-FEB-2010 10:22	951079	245514	1.0	QC A	DUSE
024f2401.d	WAR100203-60 02	YS1	11-FEB-2010 10:35		021110	1.0		PASSED ON BOTH COLUMNS
025f2501.d	WAR100105-99 03	YS1	11-FEB-2010 10:45		021110	1.0		CLEAN
026f2601.d	1202039050	YS1	11-FEB-2010 10:56		EUI-7500	1.0		UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	1202039051	YS1	11-FEB-2010 11:09		EUI-7500	1.0		UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202039058	YS1	11-FEB-2010 11:21		EUI-7500	1.0		UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	246565001	YS1	11-FEB-2010 11:34	951451	EUI-7500	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	1202039052	YS1	11-FEB-2010 11:46	951451	65001MS)	1.0	QC A	DUSE RR 200X
031f3101.d	1202039053	YS1	11-FEB-2010 11:59	951451	65001MSD)	1.0	QC A	DUSE RR 200X
032f3201.d	WAR100105-99 04	YS1	11-FEB-2010 12:12		021110	1.0		CLEAN
033f3301.d	246570001	YS1	11-FEB-2010 12:22	951451	EUI-7501	200.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	246570002	YS1	11-FEB-2010 12:35		EUI-7501	20.0		UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	246570003	YS1	11-FEB-2010 12:47		EUI-7501	10.0		UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/021110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	246640001	YS1	11-FEB-2010 13:00		EUI-7503	200.0		UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	WAR100203-60 03	YS1	11-FEB-2010 13:12		021110	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100105-99 05	YS1	11-FEB-2010 13:23		021110	1.0		CLEAN
039f3901.d	1202039052	YS1	11-FEB-2010 13:33	951451	EUI-7501	200.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202039053	YS1	11-FEB-2010 13:46	951451	EUI-7501	200.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	WAR100203-60 04	YS1	11-FEB-2010 13:59		021110		1.0		PASSED ON BOTH COLUMNS
042f4201.d	WAR100105-99 06	YS1	11-FEB-2010 14:09		021110		1.0		CLEAN
043f4301.d	1202038652	YS1	11-FEB-2010 14:20	951299	10-1505		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	1202038653	YS1	11-FEB-2010 14:33	951299	10-1505		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	245935001	YS1	11-FEB-2010 14:45	951299	10-1505		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	245935002	YS1	11-FEB-2010 14:58	951299	10-1505		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	245935003	YS1	11-FEB-2010 15:10	951299	10-1505		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	245935004	YS1	11-FEB-2010 15:23	951299	10-1505		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	245935005	YS1	11-FEB-2010 15:36	951299	10-1505		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	245935006	YS1	11-FEB-2010 15:48	951299	10-1505		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	245935008	YS1	11-FEB-2010 16:01	951299	10-1505		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	245935009	YS1	11-FEB-2010 16:14	951299	10-1505		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	WAR100203-60 05	YS1	11-FEB-2010 16:26		021110		1.0		PASSED ON BOTH COLUMNS
054f5401.d	WAR100105-99 07	YS1	11-FEB-2010 16:37		021110		1.0		CLEAN
055f5501.d	245979013	YS1	11-FEB-2010 16:47	951299	10-1514		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/021110.b Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245979014	YS1	11-FEB-2010 17:00	951299	10-1514		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	245979015	YS1	11-FEB-2010 17:13	951299	10-1514		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	245994001	YS1	11-FEB-2010 17:25	951299	10-1516		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	1202038654	YS1	11-FEB-2010 17:38	951299	10-1516		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	1202038655	YS1	11-FEB-2010 17:51	951299	10-1516		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	245994002	YS1	11-FEB-2010 18:03	951299	10-1516		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	245994003	YS1	11-FEB-2010 18:16	951299	10-1516		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	WAR100203-60 06	YS1	11-FEB-2010 18:28		021110		1.0		PASSED ON BOTH COLUMNS
064f6401.d	WAR100105-99 08	YS1	11-FEB-2010 18:39		021110		1.0		CLEAN

065f6501.d	1202037852	YS1	11-FEB-2010 18:49	950925	245515		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1202037853	YS1	11-FEB-2010 19:02	950925	245515		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	245515001	YS1	11-FEB-2010 19:15	950925	245515		1.0	WSRB	DUSE RR 20X
068f6801.d	245515002	YS1	11-FEB-2010 19:27	950925	245515		1.0	WSRB	DUSE RR 5X
069f6901.d	245515003	YS1	11-FEB-2010 19:40	950925	245515		1.0	WSRB	DUSE RR
070f7001.d	245515004	YS1	11-FEB-2010 19:53	950925	245515		1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	245515005	YS1	11-FEB-2010 20:05	950925	245515		1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	245515006	YS1	11-FEB-2010 20:18	950925	245515		1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	245515007	YS1	11-FEB-2010 20:31	950925	245515		1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	245515008	YS1	11-FEB-2010 20:43	950925	245515		1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	WAR100203-60 07	YS1	11-FEB-2010 20:56		021110		1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/021110.b Page: 4

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 951296 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202038652 MB	10-FEB-2010 21:22:00	30	H2SO4/KMn2		2	9	1	0.03333
1202038653 LCS	10-FEB-2010 21:22:00	30	H2SO4/KMn2		2	9	1	0.03333
245935001	10-FEB-2010 21:22:00	30.15	H2SO4/KMn2		2	9	1	0.03317
245935002	10-FEB-2010 21:22:00	30.13	H2SO4/KMn2		2	9	1	0.03319
245935003	10-FEB-2010 21:22:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245935004	10-FEB-2010 21:22:00	30.07	H2SO4/KMn2		2	9	1	0.03326
245935005	10-FEB-2010 21:22:00	30.04	H2SO4/KMn2		2	9	1	0.03329
245935006	10-FEB-2010 21:22:00	30.06	H2SO4/KMn2		2	9	1	0.03327
245935008	10-FEB-2010 21:22:00	30.16	H2SO4/KMn2		2	9	1	0.03316
245935009	10-FEB-2010 21:22:00	30.12	H2SO4/KMn2		2	9	1	0.0332
245979013	10-FEB-2010 21:22:00	30.13	H2SO4/KMn2		2	9	1	0.03319
245979014	10-FEB-2010 21:22:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245979015	10-FEB-2010 21:22:00	30.19	H2SO4/KMn2		2	9	1	0.03312
245994001	10-FEB-2010 21:22:00	30.03	H2SO4/KMn2		2	9	1	0.0333
1202038654 MS (245994001)	10-FEB-2010 21:22:00	30.1	H2SO4/KMn2		2	9	1	0.03322
1202038655 MSD (245994001)	10-FEB-2010 21:22:00	30.03	H2SO4/KMn2		2	9	1	0.0333
245994002	10-FEB-2010 21:22:00	30.19	H2SO4/KMn2		2	9	1	0.03312
245994003	10-FEB-2010 21:22:00	30.02	H2SO4/KMn2		2	9	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202038653	PCB Laboratory Control	WE100126-07	1	mL
MS	1202038654	PCB Laboratory Control	WE100126-07	1	mL
MSD	1202038655	PCB Laboratory Control	WE100126-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100127-15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/10/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1516

Method/Analysis Information

Product:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	948544

Sample ID	Client ID
245994001	RE15-10-8122
245994002	RE15-10-8112
245994003	RE15-10-8113
245994004	RE15-10-8116
245994005	RE15-10-8119
245994006	RE15-10-8114
245994007	RE15-10-8115
245994008	RE15-10-8117
245994009	RE15-10-8118
1202032015	246020013(RE15-10-8061) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 246020013 (RE15-10-8061). The QC was from LANL work order 246020.

QC Information

All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949827
Prep Batch Number:	948544

Sample ID	Client ID
245994001	RE15-10-8122
245994002	RE15-10-8112
245994003	RE15-10-8113
245994004	RE15-10-8116
245994005	RE15-10-8119
245994006	RE15-10-8114
245994007	RE15-10-8115
245994008	RE15-10-8117
245994009	RE15-10-8118
1202035013	Method Blank (MB)
1202035014	246020013(RE15-10-8061) Sample Duplicate (DUP)

1202035015 Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035013 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020013 (RE15-10-8061). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949828
Prep Batch Number:	948544

Sample ID	Client ID
245994001	RE15-10-8122
245994002	RE15-10-8112
245994003	RE15-10-8113
245994004	RE15-10-8116
245994005	RE15-10-8119
245994006	RE15-10-8114
245994007	RE15-10-8115
245994008	RE15-10-8117
245994009	RE15-10-8118
1202035016	Method Blank (MB)
1202035017	246020013(RE15-10-8061) Sample Duplicate (DUP)
1202035018	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035016 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020013 (RE15-10-8061). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Samples, 1202035017 (RE15-10-8061) and 245994003 (RE15-10-8113), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	953461
Prep Batch Number:	948544

Sample ID	Client ID
245994001	RE15-10-8122
245994002	RE15-10-8112
245994003	RE15-10-8113
245994004	RE15-10-8116
245994005	RE15-10-8119
245994006	RE15-10-8114
245994007	RE15-10-8115
245994008	RE15-10-8117
245994009	RE15-10-8118
1202043974	Method Blank (MB)
1202043975	246020015(RE15-10-8062) Sample Duplicate (DUP)
1202043976	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202043974 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020015 (RE15-10-8062). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-238 blank, 1202043974 (MB), results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to the high level of activity in the Quality Control sample.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234 and U-238 blank, 1202043974 (MB), results are greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	948812
Prep Batch Number:	948544

Sample ID	Client ID
245994001	RE15-10-8122
245994002	RE15-10-8112
245994003	RE15-10-8113
245994004	RE15-10-8116
245994005	RE15-10-8119
245994006	RE15-10-8114
245994007	RE15-10-8115
245994008	RE15-10-8117
245994009	RE15-10-8118
1202032720	Method Blank (MB)
1202032721	245994002(RE15-10-8112) Sample Duplicate (DUP)
1202032722	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, June 2009, August 2009, October 2009, November 2009 and December 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245994002 (RE15-10-8112). The QC was from LANL work order 245994.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202032720 (MB) result is greater than 1.65 times the CSU but less than the MDC for Th-227.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample

UI	Data rejected due to interference.	Bismuth-211	245994001	RE15-10-8122
			245994002	RE15-10-8112
			245994003	RE15-10-8113
			245994004	RE15-10-8116
			245994005	RE15-10-8119
			245994006	RE15-10-8114
			245994007	RE15-10-8115
			245994008	RE15-10-8117
			245994009	RE15-10-8118
			1202032721	RE15-10-8112(245994002DUP)
		Cadmium-109	245994001	RE15-10-8122
			245994002	RE15-10-8112
			245994003	RE15-10-8113
			245994004	RE15-10-8116
			245994005	RE15-10-8119
			245994007	RE15-10-8115
			245994008	RE15-10-8117
			245994009	RE15-10-8118
			1202032721	RE15-10-8112(245994002DUP)
		Mercury-203	245994003	RE15-10-8113
		Radium-224	245994001	RE15-10-8122
			245994002	RE15-10-8112
			245994003	RE15-10-8113
			245994004	RE15-10-8116
			245994005	RE15-10-8119
			245994006	RE15-10-8114
			245994007	RE15-10-8115
			245994008	RE15-10-8117
			245994009	RE15-10-8118
			1202032721	RE15-10-8112(245994002DUP)
UI	Data rejected due to low abundance.	Cesium-134	245994002	RE15-10-8112

	245994003	RE15-10-8113
	245994004	RE15-10-8116
	245994005	RE15-10-8119
Strontium-85	245994001	RE15-10-8122
	245994004	RE15-10-8116
	245994005	RE15-10-8119
	245994008	RE15-10-8117

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Paula Walk 3/23/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1516 GEL Work Order: 245994

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8122
Sample ID: 245994001
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00928	0.0199	+/-0.00593	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00126	0.0364	+/-0.00281	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	0.00248	0.0276	+/-0.00396	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.983	0.0943	+/-0.0924	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236	U	0.0601	0.0601	+/-0.0184	0.100	pCi/g						
Uranium-238		1.17	0.0644	+/-0.106	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.131	0.222	+/-0.0701	0.200	pCi/g		MXR1	02/12/10	1231	948812	6
Bismuth-211	UI	4.32	0.270	+/-0.327		pCi/g						
Bismuth-214		1.18	0.0949	+/-0.096	0.200	pCi/g						
Cadmium-109	UI	4.12	0.902	+/-0.517		pCi/g						
Cerium-139	U	-0.0129	0.0442	+/-0.0133	0.050	pCi/g						
Cesium-134	U	0.0839	0.088	+/-0.0297	0.100	pCi/g						
Cesium-137	U	-0.00548	0.0575	+/-0.0178	0.100	pCi/g						
Cobalt-60	U	-0.000619	0.0531	+/-0.0165	0.100	pCi/g						
Europium-152	U	0.027	0.134	+/-0.0427	0.200	pCi/g						
Lanthanum-140	U	-0.058	0.115	+/-0.0393		pCi/g						
Lead-212		1.54	0.082	+/-0.105	0.100	pCi/g						
Lead-214		1.50	0.094	+/-0.120	0.100	pCi/g						
Mercury-203	U	-0.00179	0.0605	+/-0.0186	0.100	pCi/g						
Potassium-40		19.7	0.440	+/-1.15	1.00	pCi/g						
Radium-223	U	0.268	0.911	+/-0.305		pCi/g						
Radium-224	UI	3.85	0.934	+/-0.536		pCi/g						
Radium-226		1.18	0.0949	+/-0.096		pCi/g						
Radium-228		1.55	0.172	+/-0.191	0.500	pCi/g						
Ruthenium-106	U	-0.289	0.429	+/-0.145	0.800	pCi/g						

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8122
Sample ID: 245994001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Sodium-22	U	0.0126	0.0549	+/-0.016	0.080	pCi/g						
Strontium-85	UI	0.0587	0.0574	+/-0.0167		pCi/g						
Thallium-208		0.512	0.0492	+/-0.0461	0.080	pCi/g						
Thorium-227	U	0.205	0.560	+/-0.165		pCi/g						
Thorium-231	U	0.268	0.911	+/-0.305		pCi/g						
Thorium-234	U	1.47	1.72	+/-0.813	2.00	pCi/g						
Tin-113	U	-0.0122	0.0595	+/-0.0179	0.100	pCi/g						
Uranium-235	U	0.174	0.328	+/-0.0942	0.500	pCi/g						
Yttrium-88	U	-0.00139	0.0485	+/-0.015	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	89.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8122
Sample ID: 245994001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8112
Sample ID: 245994002
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 33%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00101	0.0224	+/-0.00641	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.000114	0.0331	+/-0.00627	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	0.0102	0.0251	+/-0.00526	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.44	0.0901	+/-0.196	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.102	0.0575	+/-0.024	0.100	pCi/g						
Uranium-238		3.73	0.0615	+/-0.288	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.052	0.277	+/-0.0897	0.200	pCi/g		MXR1	02/12/10	1231	948812	6
Bismuth-211	UI	4.81	0.341	+/-0.294		pCi/g						
Bismuth-214		1.36	0.110	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	2.54	1.42	+/-0.492		pCi/g						
Cerium-139	U	-0.00427	0.0532	+/-0.016	0.050	pCi/g						
Cesium-134	UI	0.111	0.0891	+/-0.0386	0.100	pCi/g						
Cesium-137		0.151	0.0615	+/-0.0339	0.100	pCi/g						
Cobalt-60	U	-0.0279	0.0564	+/-0.0187	0.100	pCi/g						
Europium-152	U	-0.0488	0.178	+/-0.0784	0.200	pCi/g						
Lanthanum-140	U	0.0248	0.139	+/-0.0405		pCi/g						
Lead-212		1.74	0.0939	+/-0.0847	0.100	pCi/g						
Lead-214		1.67	0.119	+/-0.111	0.100	pCi/g						
Mercury-203	U	-0.0276	0.0672	+/-0.0213	0.100	pCi/g						
Potassium-40		20.0	0.584	+/-1.04	1.00	pCi/g						
Radium-223	U	0.599	1.24	+/-0.395		pCi/g						
Radium-224	UI	5.43	1.07	+/-0.697		pCi/g						
Radium-226		1.36	0.110	+/-0.104		pCi/g						
Radium-228		1.67	0.221	+/-0.167	0.500	pCi/g						
Ruthenium-106	U	0.0355	0.515	+/-0.153	0.800	pCi/g						
Sodium-22	U	-0.046	0.0616	+/-0.0211	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8112
Sample ID: 245994002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0636	0.0723	+/-0.0222		pCi/g						
Thallium-208		0.477	0.0589	+/-0.0424	0.080	pCi/g						
Thorium-227	U	0.0599	0.676	+/-0.204		pCi/g						
Thorium-231	U	0.599	1.24	+/-0.395		pCi/g						
Thorium-234		5.43	2.31	+/-1.09	2.00	pCi/g						
Tin-113	U	-0.0214	0.0732	+/-0.0221	0.100	pCi/g						
Uranium-235	U	0.134	0.388	+/-0.116	0.500	pCi/g						
Yttrium-88	U	0.00973	0.0538	+/-0.0156	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

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Report Date: February 22, 2010

Client Sample ID: RE15-10-8112
Sample ID: 245994002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8113
Sample ID: 245994003
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00674	0.0197	+/-0.00473	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00418	0.0299	+/-0.00328	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	0.00308	0.0227	+/-0.0031	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.13	0.087	+/-0.101	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.0724	0.0555	+/-0.0193	0.100	pCi/g						
Uranium-238		1.29	0.0594	+/-0.113	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0647	0.196	+/-0.0628	0.200	pCi/g		MXR1	02/12/10	1232	948812	6
Bismuth-211	UI	4.15	0.337	+/-0.300		pCi/g						
Bismuth-214		1.15	0.115	+/-0.100	0.200	pCi/g						
Cadmium-109	UI	2.58	1.20	+/-0.503		pCi/g						
Cerium-139	U	-0.0175	0.0456	+/-0.0146	0.050	pCi/g						
Cesium-134	UI	0.0966	0.0925	+/-0.0295	0.100	pCi/g						
Cesium-137	U	-0.000896	0.0636	+/-0.0188	0.100	pCi/g						
Cobalt-60	U	-0.0203	0.0604	+/-0.0202	0.100	pCi/g						
Europium-152	U	-0.000663	0.151	+/-0.0514	0.200	pCi/g						
Lanthanum-140	U	-0.0478	0.123	+/-0.0432		pCi/g						
Lead-212		1.90	0.0839	+/-0.117	0.100	pCi/g						
Lead-214		1.44	0.112	+/-0.111	0.100	pCi/g						
Mercury-203	UI	0.108	0.0661	+/-0.0355	0.100	pCi/g						
Potassium-40		20.5	0.468	+/-1.17	1.00	pCi/g						
Radium-223	U	-0.241	1.11	+/-0.338		pCi/g						
Radium-224	UI	4.91	0.955	+/-0.731		pCi/g						
Radium-226		1.15	0.115	+/-0.100		pCi/g						
Radium-228		1.86	0.211	+/-0.178	0.500	pCi/g						
Ruthenium-106	U	-0.0691	0.478	+/-0.152	0.800	pCi/g						
Sodium-22	U	-0.019	0.0595	+/-0.0198	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8113
Sample ID: 245994003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0607	0.0665	+/-0.0206		pCi/g						
Thallium-208		0.625	0.0583	+/-0.0535	0.080	pCi/g						
Thorium-227	U	0.021	0.628	+/-0.184		pCi/g						
Thorium-231	U	-0.241	1.11	+/-0.338		pCi/g						
Thorium-234		2.85	1.69	+/-0.879	2.00	pCi/g						
Tin-113	U	-0.019	0.0695	+/-0.0216	0.100	pCi/g						
Uranium-235	U	0.0548	0.336	+/-0.102	0.500	pCi/g						
Yttrium-88	U	-0.00555	0.0414	+/-0.0134	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	108 *	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8113
Sample ID: 245994003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8116
Sample ID: 245994004
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 28.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00199	0.0202	+/-0.00589	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00117	0.0336	+/-0.00259	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	0.0104	0.0255	+/-0.00534	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		7.53	0.093	+/-0.557	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.456	0.0593	+/-0.0558	0.100	pCi/g						
Uranium-238		8.42	0.0635	+/-0.621	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0101	0.0969	+/-0.0312	0.200	pCi/g		MXR1	02/12/10	1232	948812	6
Bismuth-211	UI	4.06	0.337	+/-0.301		pCi/g						
Bismuth-214		1.19	0.116	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	3.24	1.26	+/-0.381		pCi/g						
Cerium-139	U	0.0155	0.0445	+/-0.0141	0.050	pCi/g						
Cesium-134	UI	0.144	0.108	+/-0.0382	0.100	pCi/g						
Cesium-137	U	0.0616	0.0778	+/-0.0349	0.100	pCi/g						
Cobalt-60	U	0.00457	0.0693	+/-0.0212	0.100	pCi/g						
Europium-152	U	-0.0818	0.148	+/-0.0497	0.200	pCi/g						
Lanthanum-140	U	-0.0216	0.145	+/-0.0452		pCi/g						
Lead-212		1.60	0.121	+/-0.109	0.100	pCi/g						
Lead-214		1.41	0.109	+/-0.111	0.100	pCi/g						
Mercury-203	U	0.0285	0.0663	+/-0.0219	0.100	pCi/g						
Potassium-40		23.0	0.618	+/-1.28	1.00	pCi/g						
Radium-223	U	-0.0128	0.970	+/-0.320		pCi/g						
Radium-224	UI	2.68	1.17	+/-0.618		pCi/g						
Radium-226		1.19	0.116	+/-0.105		pCi/g						
Radium-228		1.67	0.229	+/-0.174	0.500	pCi/g						
Ruthenium-106	U	-0.0126	0.565	+/-0.166	0.800	pCi/g						
Sodium-22	U	-0.0032	0.0759	+/-0.0232	0.080	pCi/g						

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Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8116 Project: LANL01004
Sample ID: 245994004 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0727	0.0682	+/-0.0186		pCi/g						
Thallium-208		0.524	0.0611	+/-0.0496	0.080	pCi/g						
Thorium-227	U	-0.166	0.563	+/-0.177		pCi/g						
Thorium-231	U	-0.0128	0.970	+/-0.320		pCi/g						
Thorium-234		11.2	0.879	+/-1.19	2.00	pCi/g						
Tin-113	U	-0.0361	0.0732	+/-0.0228	0.100	pCi/g						
Uranium-235		0.616	0.306	+/-0.136	0.500	pCi/g						
Yttrium-88	U	-0.0102	0.0528	+/-0.0172	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8116
Sample ID: 245994004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8119
Sample ID: 245994005
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 11.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00232	0.0218	+/-0.00327	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00123	0.0347	+/-0.00317	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	-0.0012	0.0263	+/-0.00268	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.917	0.0901	+/-0.0866	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236	U	0.053	0.0575	+/-0.0157	0.100	pCi/g						
Uranium-238		0.950	0.0615	+/-0.0887	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0331	0.183	+/-0.061	0.200	pCi/g		MXR1	02/12/10	1235	948812	6
Bismuth-211	UI	4.53	0.292	+/-0.378		pCi/g						
Bismuth-214		1.35	0.104	+/-0.114	0.200	pCi/g						
Cadmium-109	UI	2.79	1.20	+/-0.466		pCi/g						
Cerium-139	U	-0.0122	0.0411	+/-0.0123	0.050	pCi/g						
Cesium-134	UI	0.148	0.0982	+/-0.0325	0.100	pCi/g						
Cesium-137	U	-0.00663	0.061	+/-0.0189	0.100	pCi/g						
Cobalt-60	U	0.0198	0.0695	+/-0.0203	0.100	pCi/g						
Europium-152	U	-0.122	0.128	+/-0.048	0.200	pCi/g						
Lanthanum-140	U	-0.0997	0.0891	+/-0.0366		pCi/g						
Lead-212		1.87	0.0846	+/-0.143	0.100	pCi/g						
Lead-214		1.58	0.106	+/-0.138	0.100	pCi/g						
Mercury-203	U	-0.00426	0.0609	+/-0.021	0.100	pCi/g						
Potassium-40		18.9	0.431	+/-1.09	1.00	pCi/g						
Radium-223	U	-0.201	0.985	+/-0.351		pCi/g						
Radium-224	UI	5.50	0.963	+/-0.780		pCi/g						
Radium-226		1.35	0.104	+/-0.114		pCi/g						
Radium-228		1.80	0.180	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.143	0.534	+/-0.156	0.800	pCi/g						
Sodium-22	U	-0.00655	0.0654	+/-0.0205	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8119 Project: LANL01004
Sample ID: 245994005 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.0925	0.0697	+/-0.0186		pCi/g						
Thallium-208		0.551	0.0562	+/-0.0531	0.080	pCi/g						
Thorium-227	U	-0.0785	0.554	+/-0.170		pCi/g						
Thorium-231	U	-0.201	0.985	+/-0.351		pCi/g						
Thorium-234	U	0.865	1.52	+/-0.766	2.00	pCi/g						
Tin-113	U	-0.0432	0.0605	+/-0.0193	0.100	pCi/g						
Uranium-235	U	-0.079	0.300	+/-0.0904	0.500	pCi/g						
Yttrium-88	U	0.0102	0.0628	+/-0.0183	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8119
Sample ID: 245994005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8114
Sample ID: 245994006
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 43.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0175	0.0237	+/-0.00563	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00551	0.0401	+/-0.00391	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240		0.0358	0.0304	+/-0.0102	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		6.91	0.0986	+/-0.517	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.444	0.0629	+/-0.056	0.100	pCi/g						
Uranium-238		13.2	0.0673	+/-0.962	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.283	0.404	+/-0.129	0.200	pCi/g		MXR1	02/12/10	1235	948812	6
Bismuth-211	UI	3.72	0.382	+/-0.270		pCi/g						
Bismuth-214		1.18	0.112	+/-0.0986	0.200	pCi/g						
Cadmium-109	U	1.57	1.76	+/-0.691		pCi/g						
Cerium-139	U	-0.0451	0.0591	+/-0.0191	0.050	pCi/g						
Cesium-134	U	0.0581	0.0911	+/-0.0246	0.100	pCi/g						
Cesium-137		0.593	0.0681	+/-0.0531	0.100	pCi/g						
Cobalt-60	U	-0.00487	0.0697	+/-0.0219	0.100	pCi/g						
Europium-152	U	-0.0393	0.183	+/-0.0641	0.200	pCi/g						
Lanthanum-140	U	-0.0203	0.144	+/-0.0452		pCi/g						
Lead-212		1.29	0.109	+/-0.0741	0.100	pCi/g						
Lead-214		1.29	0.124	+/-0.0998	0.100	pCi/g						
Mercury-203	U	0.0534	0.0855	+/-0.0239	0.100	pCi/g						
Potassium-40		18.3	0.685	+/-1.13	1.00	pCi/g						
Radium-223	U	-0.0866	1.27	+/-0.435		pCi/g						
Radium-224	UI	3.27	1.24	+/-0.615		pCi/g						
Radium-226		1.18	0.112	+/-0.0986		pCi/g						
Radium-228		0.856	0.260	+/-0.203	0.500	pCi/g						
Ruthenium-106	U	-0.0992	0.623	+/-0.196	0.800	pCi/g						
Sodium-22	U	0.0153	0.0824	+/-0.0244	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8114
Sample ID: 245994006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0459	0.0706	+/-0.0223		pCi/g						
Thallium-208		0.459	0.0702	+/-0.0526	0.080	pCi/g						
Thorium-227	U	-0.142	0.746	+/-0.235		pCi/g						
Thorium-231	U	-0.0866	1.27	+/-0.435		pCi/g						
Thorium-234		10.4	3.32	+/-1.63	2.00	pCi/g						
Tin-113	U	-0.00554	0.0873	+/-0.0262	0.100	pCi/g						
Uranium-235		0.766	0.403	+/-0.199	0.500	pCi/g						
Yttrium-88	U	-0.00877	0.0679	+/-0.0216	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	78.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	80.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	88.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8114
Sample ID: 245994006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8115
Sample ID: 245994007
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.000319	0.0239	+/-0.00596	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00226	0.0329	+/-0.00226	0.050	pCi/g		JXD2	02/11/10	0903	949828	3
Plutonium-239/240	U	-0.00116	0.0249	+/-0.00301	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.997	0.0915	+/-0.093	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.103	0.0584	+/-0.0227	0.100	pCi/g						
Uranium-238		1.12	0.0625	+/-0.102	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0248	0.399	+/-0.116	0.200	pCi/g		MXR1	02/12/10	1238	948812	6
Bismuth-211	UI	3.91	0.316	+/-0.264		pCi/g						
Bismuth-214		0.991	0.102	+/-0.0823	0.200	pCi/g						
Cadmium-109	UI	2.54	1.21	+/-0.450		pCi/g						
Cerium-139	U	0.0254	0.0492	+/-0.0144	0.050	pCi/g						
Cesium-134	U	0.0556	0.0792	+/-0.0215	0.100	pCi/g						
Cesium-137	U	0.00198	0.0662	+/-0.0196	0.100	pCi/g						
Cobalt-60	U	-0.0174	0.0577	+/-0.0186	0.100	pCi/g						
Europium-152	U	-0.0834	0.143	+/-0.0496	0.200	pCi/g						
Lanthanum-140	U	-0.0509	0.123	+/-0.0425		pCi/g						
Lead-212		1.60	0.0875	+/-0.082	0.100	pCi/g						
Lead-214		1.36	0.110	+/-0.0986	0.100	pCi/g						
Mercury-203	U	-0.01	0.067	+/-0.020	0.100	pCi/g						
Potassium-40		18.8	0.552	+/-1.14	1.00	pCi/g						
Radium-223	U	0.465	1.09	+/-0.351		pCi/g						
Radium-224	UI	5.29	0.995	+/-0.537		pCi/g						
Radium-226		0.991	0.102	+/-0.0823		pCi/g						
Radium-228		1.33	0.211	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.0589	0.464	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0255	0.069	+/-0.0222	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8115
Sample ID: 245994007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0168	0.0595	+/-0.0201		pCi/g						
Thallium-208		0.458	0.053	+/-0.0469	0.080	pCi/g						
Thorium-227	U	0.104	0.612	+/-0.176		pCi/g						
Thorium-231	U	0.465	1.09	+/-0.351		pCi/g						
Thorium-234	U	1.90	3.19	+/-0.916	2.00	pCi/g						
Tin-113	U	-0.0394	0.0627	+/-0.0204	0.100	pCi/g						
Uranium-235	U	0.274	0.364	+/-0.108	0.500	pCi/g						
Yttrium-88	U	0.00182	0.0552	+/-0.017	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	67.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	97.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8115
Sample ID: 245994007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8117
Sample ID: 245994008
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 7.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00451	0.0201	+/-0.0064	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00118	0.0328	+/-0.00408	0.050	pCi/g		JXD2	02/11/10	0905	949828	3
Plutonium-239/240	U	0.00107	0.0249	+/-0.00466	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.23	0.0981	+/-0.256	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.173	0.0626	+/-0.0314	0.100	pCi/g						
Uranium-238		4.09	0.067	+/-0.317	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0227	0.210	+/-0.0668	0.200	pCi/g		MXR1	02/12/10	1326	948812	6
Bismuth-211	UI	3.75	0.279	+/-0.305		pCi/g						
Bismuth-214		1.14	0.0937	+/-0.0921	0.200	pCi/g						
Cadmium-109	UI	2.94	1.39	+/-0.422		pCi/g						
Cerium-139	U	-0.0164	0.0458	+/-0.0135	0.050	pCi/g						
Cesium-134	U	0.0533	0.0685	+/-0.0195	0.100	pCi/g						
Cesium-137		0.181	0.0496	+/-0.034	0.100	pCi/g						
Cobalt-60	U	-0.0299	0.0478	+/-0.0159	0.100	pCi/g						
Europium-152	U	0.0306	0.146	+/-0.061	0.200	pCi/g						
Lanthanum-140	U	-0.0538	0.111	+/-0.0361		pCi/g						
Lead-212		1.68	0.0834	+/-0.121	0.100	pCi/g						
Lead-214		1.31	0.0971	+/-0.111	0.100	pCi/g						
Mercury-203	U	0.0353	0.0654	+/-0.0218	0.100	pCi/g						
Potassium-40		20.3	0.422	+/-1.12	1.00	pCi/g						
Radium-223	U	0.183	1.00	+/-0.329		pCi/g						
Radium-224	UI	4.74	0.948	+/-0.628		pCi/g						
Radium-226		1.14	0.0937	+/-0.0921		pCi/g						
Radium-228		1.56	0.191	+/-0.156	0.500	pCi/g						
Ruthenium-106	U	-0.155	0.406	+/-0.126	0.800	pCi/g						
Sodium-22	U	-0.0117	0.0583	+/-0.018	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8117
Sample ID: 245994008
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	UI	0.125	0.0658	+/-0.0202		pCi/g						
Thallium-208		0.512	0.0479	+/-0.0422	0.080	pCi/g						
Thorium-227	U	-0.0494	0.568	+/-0.171		pCi/g						
Thorium-231	U	0.183	1.00	+/-0.329		pCi/g						
Thorium-234		4.89	1.71	+/-0.883	2.00	pCi/g						
Tin-113	U	0.0175	0.0669	+/-0.0194	0.100	pCi/g						
Uranium-235	U	0.261	0.336	+/-0.104	0.500	pCi/g						
Yttrium-88	U	-0.0114	0.0484	+/-0.0155	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	82.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

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Sample ID: 245994008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8118
Sample ID: 245994009
Matrix: R
Collect Date: 28-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 27.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0077	0.0216	+/-0.00742	0.050	pCi/g		JXD2	02/13/10	1115	949827	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00131	0.0385	+/-0.00297	0.050	pCi/g		JXD2	02/11/10	1020	949828	3
Plutonium-239/240	U	0.0066	0.0292	+/-0.00479	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.99	0.0908	+/-0.306	0.100	pCi/g		JXD2	02/18/10	1840	953461	4
Uranium-235/236		0.280	0.0579	+/-0.041	0.100	pCi/g						
Uranium-238		5.53	0.062	+/-0.415	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0275	0.258	+/-0.0795	0.200	pCi/g		MXR1	02/12/10	1342	948812	6
Bismuth-211	UI	3.82	0.297	+/-0.238		pCi/g						
Bismuth-214		1.10	0.102	+/-0.0856	0.200	pCi/g						
Cadmium-109	UI	2.36	1.65	+/-0.551		pCi/g						
Cerium-139	U	-0.00787	0.0453	+/-0.0136	0.050	pCi/g						
Cesium-134	U	0.0839	0.0875	+/-0.026	0.100	pCi/g						
Cesium-137		0.231	0.0602	+/-0.0332	0.100	pCi/g						
Cobalt-60	U	-0.0117	0.0554	+/-0.0176	0.100	pCi/g						
Europium-152	U	-0.000541	0.147	+/-0.0446	0.200	pCi/g						
Lanthanum-140	U	-0.0951	0.101	+/-0.0389		pCi/g						
Lead-212		1.51	0.0882	+/-0.0728	0.100	pCi/g						
Lead-214		1.33	0.103	+/-0.0897	0.100	pCi/g						
Mercury-203	U	-0.0208	0.0591	+/-0.0176	0.100	pCi/g						
Potassium-40		19.7	0.421	+/-0.980	1.00	pCi/g						
Radium-223	U	0.0041	0.956	+/-0.317		pCi/g						
Radium-224	UI	4.71	1.00	+/-0.713		pCi/g						
Radium-226		1.10	0.102	+/-0.0856		pCi/g						
Radium-228		1.45	0.207	+/-0.147	0.500	pCi/g						
Ruthenium-106	U	0.263	0.519	+/-0.142	0.800	pCi/g						
Sodium-22	U	-0.00504	0.0678	+/-0.0208	0.080	pCi/g						

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Report Date: February 22, 2010

Client Sample ID: RE15-10-8118
Sample ID: 245994009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Strontium-85	U	0.0456	0.0572	+/-0.0176		pCi/g						
Thallium-208		0.487	0.0585	+/-0.0414	0.080	pCi/g						
Thorium-227	U	-0.162	0.564	+/-0.166		pCi/g						
Thorium-231	U	0.0041	0.956	+/-0.317		pCi/g						
Thorium-234		7.71	2.15	+/-1.27	2.00	pCi/g						
Tin-113	U	-0.0267	0.0657	+/-0.0204	0.100	pCi/g						
Uranium-235	U	0.281	0.327	+/-0.151	0.500	pCi/g						
Yttrium-88	U	0.0205	0.0612	+/-0.0168	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	82.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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> Result is greater than value reported
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 22, 2010

Client Sample ID: RE15-10-8118
Sample ID: 245994009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

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QC Summary

Report Date: February 22, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245994

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949827										
QC1202035014 246020013 DUP										
Americium-241		0.0596		0.0329	pCi/g	0.812		(0-1)	JXD2	02/13/1011:15
	TPU:	+/-0.00936		+/-0.00706						
	Yield:	91.3		81.1						
QC1202035015 LCS										
Americium-241	33.2			32.0	pCi/g		96.4	(75%-125%)		
	TPU:			+/-2.29						
	Yield:			96.0						
QC1202035013 MB										
Americium-241			U	-0.00228	pCi/g					
	TPU:			+/-0.00226						
	Yield:			86.6						
Batch 949828										
QC1202035017 246020013 DUP										
Plutonium-238	U	0.0132	U	0.00709	pCi/g	0.295		(0-1)	JXD2	02/11/1010:20
	TPU:	+/-0.00544		+/-0.0049						
	Yield:	93.3		106						
Plutonium-239/240		0.142		0.179	pCi/g	0.449		(0-1)		
	TPU:	+/-0.0196		+/-0.0216						
	Yield:	93.3		106						
QC1202035018 LCS										
Plutonium-238				7.68	pCi/g			(75%-125%)		
	TPU:			+/-0.724						
	Yield:			82.3						
Plutonium-239/240	41.8			41.8	pCi/g		100	(75%-125%)		
	TPU:			+/-3.10						
	Yield:			82.3						
QC1202035016 MB										
Plutonium-238			U	-0.00302	pCi/g					
	TPU:			+/-0.00368						
	Yield:			83.7						
Plutonium-239/240			U	0.00148	pCi/g					
	TPU:			+/-0.00336						
	Yield:			83.7						
Batch 953461										
QC1202043975 246020015 DUP										
Uranium-233/234		1.00		1.11	pCi/g	0.298		(0-1)	JXD2	02/18/1018:41
	TPU:	+/-0.0856		+/-0.0909						
	Yield:	87.6		98.2						
Uranium-235/236		0.122		0.0969	pCi/g	0.316		(0-1)		
	TPU:	+/-0.0215		+/-0.0179						
	Yield:	87.6		98.2						
Uranium-238		3.22		3.17	pCi/g	0.0535		(0-1)		
	TPU:	+/-0.239		+/-0.232						

QC Summary

Workorder: 245994

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 953461										
	Yield:	87.6		98.2						
QC1202043976 LCS										
Uranium-233/234				6.27	pCi/g			(75%-125%)		02/18/1018:41
	TPU:			+/-0.510						
	Yield:			98.0						
Uranium-235/236				0.393	pCi/g			(75%-125%)		
	TPU:			+/-0.0815						
	Yield:			98.0						
Uranium-238	5.75			5.67	pCi/g		98.6	(75%-125%)		
	TPU:			+/-0.468						
	Yield:			98.0						
QC1202043974 MB										
Uranium-233/234			U	0.0256	pCi/g					02/18/1018:41
	TPU:			+/-0.0058						
	Yield:			105						
Uranium-235/236			U	0.0041	pCi/g					
	TPU:			+/-0.00306						
	Yield:			105						
Uranium-238			U	0.00883	pCi/g					
	TPU:			+/-0.00354						
	Yield:			105						
Rad Gamma Spec										
Batch 948812										
QC1202032721 245994002 DUP										
Americium-241	U	0.052	U	0.0415	pCi/g	0.035		(0-1)	MXR1	02/12/1014:38
	TPU:	+/-0.0897		+/-0.0601						
Bismuth-211	UI	4.81	UI	4.60	pCi/g	0.172		(0-1)		
	TPU:	+/-0.294		+/-0.314						
Bismuth-214		1.36		1.31	pCi/g	0.115		(0-1)		
	TPU:	+/-0.104		+/-0.113						
Cadmium-109	UI	2.54	UI	3.14	pCi/g	0.318		(0-1)		
	TPU:	+/-0.492		+/-0.457						
Cerium-139	U	-0.00427	U	0.00768	pCi/g	0.199		(0-1)		
	TPU:	+/-0.016		+/-0.014						
Cesium-134	UI	0.111	U	0.0747	pCi/g	0.248		(0-1)		
	TPU:	+/-0.0386		+/-0.0345						
Cesium-137		0.151		0.183	pCi/g	0.221		(0-1)		
	TPU:	+/-0.0339		+/-0.0386						
Cobalt-60	U	-0.0279	U	-0.00674	pCi/g	0.288		(0-1)		
	TPU:	+/-0.0187		+/-0.0179						
Europium-152	U	-0.0488	U	-0.0291	pCi/g	0.0791		(0-1)		
	TPU:	+/-0.0784		+/-0.0458						
Lanthanum-140	U	0.0248	U	-0.0555	pCi/g	0.508		(0-1)		
	TPU:	+/-0.0405		+/-0.0386						
Lead-212		1.74		1.88	pCi/g	0.357		(0-1)		
	TPU:	+/-0.0847		+/-0.114						
Lead-214		1.67		1.60	pCi/g	0.160		(0-1)		
	TPU:	+/-0.111		+/-0.117						
Mercury-203	U	-0.0276	U	0.0645	pCi/g	1.09		(0-1)		
	TPU:	+/-0.0213		+/-0.0209						

QC Summary

Workorder: 245994

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948812										
Potassium-40		20.0		20.6	pCi/g	0.154		(0-1)		
	TPU:	+/-1.04		+/-1.14						
Radium-223	U	0.599	U	0.355	pCi/g	0.170		(0-1)		
	TPU:	+/-0.395		+/-0.324						
Radium-224	Ul	5.43	Ul	5.41	pCi/g	0.00845		(0-1)		
	TPU:	+/-0.697		+/-0.722						
Radium-226		1.36		1.31	pCi/g	0.115		(0-1)		
	TPU:	+/-0.104		+/-0.113						
Radium-228		1.67		1.83	pCi/g	0.227		(0-1)		
	TPU:	+/-0.167		+/-0.175						
Ruthenium-106	U	0.0355	U	0.076	pCi/g	0.0694		(0-1)		
	TPU:	+/-0.153		+/-0.138						
Sodium-22	U	-0.046	U	0.0149	pCi/g	0.793		(0-1)		
	TPU:	+/-0.0211		+/-0.0174						
Strontium-85	U	0.0636	U	0.0361	pCi/g	0.331		(0-1)		
	TPU:	+/-0.0222		+/-0.0193						
Thallium-208		0.477		0.472	pCi/g	0.027		(0-1)		
	TPU:	+/-0.0424		+/-0.0428						
Thorium-227	U	0.0599	U	-0.126	pCi/g	0.248		(0-1)		
	TPU:	+/-0.204		+/-0.169						
Thorium-231	U	0.599	U	0.355	pCi/g	0.170		(0-1)		
	TPU:	+/-0.395		+/-0.324						
Thorium-234		5.43		4.16	pCi/g	0.324		(0-1)		
	TPU:	+/-1.09		+/-0.861						
Tin-113	U	-0.0214	U	0.0211	pCi/g	0.503		(0-1)		
	TPU:	+/-0.0221		+/-0.0202						
Uranium-235	U	0.134	U	0.180	pCi/g	0.106		(0-1)		
	TPU:	+/-0.116		+/-0.106						
Yttrium-88	U	0.00973	U	-0.0149	pCi/g	0.406		(0-1)		
	TPU:	+/-0.0156		+/-0.0148						
QC1202032722 LCS										
Americium-241	15.9			13.2	pCi/g		83.2	(75%-125%)		02/12/1014:39
	TPU:			+/-0.707						
Bismuth-211				2.47	pCi/g					
	TPU:			+/-0.375						
Bismuth-214				0.768	pCi/g					
	TPU:			+/-0.130						
Cadmium-109				31.8	pCi/g					
	TPU:			+/-1.87						
Cerium-139			U	0.0308	pCi/g					
	TPU:			+/-0.0179						
Cesium-134			U	0.135	pCi/g					
	TPU:			+/-0.0461						
Cesium-137	5.56			6.05	pCi/g		109	(75%-125%)		
	TPU:			+/-0.365						
Cobalt-60	6.40			6.57	pCi/g		103	(75%-125%)		
	TPU:			+/-0.314						
Europium-152			U	-0.00275	pCi/g					
	TPU:			+/-0.0773						
Lanthanum-140			U	0.0219	pCi/g					
	TPU:			+/-0.0397						

QC Summary

Workorder: 245994

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 948812											
Lead-212				1.08	pCi/g						
	TPU:			+/-0.0889							
Lead-214				0.858	pCi/g						
	TPU:			+/-0.132							
Mercury-203			U	-0.0286	pCi/g						
	TPU:			+/-0.0296							
Potassium-40				1.05	pCi/g						
	TPU:			+/-0.419							
Radium-223			U	-0.21	pCi/g						
	TPU:			+/-0.524							
Radium-224				2.98	pCi/g						
	TPU:			+/-0.909							
Radium-226				0.768	pCi/g						
	TPU:			+/-0.130							
Radium-228				1.24	pCi/g						
	TPU:			+/-0.271							
Ruthenium-106			U	-0.0307	pCi/g						
	TPU:			+/-0.260							
Sodium-22			U	-0.0039	pCi/g						
	TPU:			+/-0.021							
Strontium-85			U	0.00675	pCi/g						
	TPU:			+/-0.0334							
Thallium-208				0.300	pCi/g						
	TPU:			+/-0.0674							
Thorium-227			U	0.462	pCi/g						
	TPU:			+/-0.297							
Thorium-231			U	-0.21	pCi/g						
	TPU:			+/-0.524							
Thorium-234			U	0.886	pCi/g						
	TPU:			+/-0.366							
Tin-113			U	0.028	pCi/g						
	TPU:			+/-0.0369							
Uranium-235			U	0.170	pCi/g						
	TPU:			+/-0.125							
Yttrium-88			U	0.0121	pCi/g						
	TPU:			+/-0.0307							
QC1202032720 MB											
Americium-241			U	-0.00325	pCi/g					02/12/10	14:38
	TPU:			+/-0.0285							
Bismuth-211			U	-0.0917	pCi/g						
	TPU:			+/-0.0525							
Bismuth-214			U	-0.0399	pCi/g						
	TPU:			+/-0.0224							
Cadmium-109			U	0.0181	pCi/g						
	TPU:			+/-0.158							
Cerium-139			U	-0.00451	pCi/g						
	TPU:			+/-0.00605							
Cesium-134			U	-0.00542	pCi/g						
	TPU:			+/-0.0113							
Cesium-137			U	-0.00859	pCi/g						
	TPU:			+/-0.00883							

QC Summary

Workorder: 245994

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948812										
Cobalt-60			U	0.00966	pCi/g					
	TPU:			+/-0.0112						
Europium-152			U	0.0227	pCi/g					
	TPU:			+/-0.0241						
Lanthanum-140			U	0.0141	pCi/g					
	TPU:			+/-0.0149						
Lead-212			U	0.0164	pCi/g					
	TPU:			+/-0.0153						
Lead-214			U	-0.0153	pCi/g					
	TPU:			+/-0.0182						
Mercury-203			U	-0.00289	pCi/g					
	TPU:			+/-0.00814						
Potassium-40			U	-0.155	pCi/g					
	TPU:			+/-0.0952						
Radium-223			U	0.056	pCi/g					
	TPU:			+/-0.152						
Radium-224			U	0.238	pCi/g					
	TPU:			+/-0.157						
Radium-226			U	-0.0399	pCi/g					
	TPU:			+/-0.0224						
Radium-228			U	-0.00459	pCi/g					
	TPU:			+/-0.0323						
Ruthenium-106			U	0.0023	pCi/g					
	TPU:			+/-0.0796						
Sodium-22			U	0.00427	pCi/g					
	TPU:			+/-0.00778						
Strontium-85			U	-0.0259	pCi/g					
	TPU:			+/-0.0135						
Thallium-208			U	0.00201	pCi/g					
	TPU:			+/-0.00997						
Thorium-227			U	0.150	pCi/g					
	TPU:			+/-0.0893						
Thorium-231			U	0.056	pCi/g					
	TPU:			+/-0.152						
Thorium-234			U	-0.014	pCi/g					
	TPU:			+/-0.264						
Tin-113			U	0.0113	pCi/g					
	TPU:			+/-0.0103						
Uranium-235			U	-0.00948	pCi/g					
	TPU:			+/-0.0517						
Yttrium-88			U	-0.000903	pCi/g					
	TPU:			+/-0.00891						

Notes:
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported

QC Summary

Workorder: 245994

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 949827 Product: Am Date: 2/16/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JopLRL 2/16/10

Secondary Review Performed By: [illegible] 2/17/10

2/13 2/23

LANL

Am/Cm Que Sheet

08-FEB-10

Batch #: 949827 | Analyst: ~~SOIL~~ JXD2 02/08/10 | First Client Due Date: 23-FEB-10 | Internal Due Date: 13-FEB-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 05/11/10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): — | Expiration Date: — | Vol(s): —

Spike Isotope(s): Am241/Cm244 | Spike Code(s): — | Expiration Date: — | Vol(s): —

Prep Date: 02/09/10 | Initials: JXD2 | Pipet ID: 2971058 | Balance ID: 50410272 | Witness: [illegible] 2/9/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/f	Am/Cm Det #
245994001-1	RE15-10-8122	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.270	98
245994002-1	RE15-10-8112	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.263	65
245994003-1	RE15-10-8113	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.284	66
245994004-1	RE15-10-8116	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.257	67
245994005-1	RE15-10-8119	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.273	68
245994006-1	RE15-10-8114	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.255	69
245994007-1	RE15-10-8115	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.255	70
245994008-1	RE15-10-8117	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	8	8	1.257	71
245994009-1	RE15-10-8118	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	1.255	72
246008001-1	RE16-10-2893	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	10	10	1.261	73
246008002-1	RE16-10-2892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	11	11	1.256	74
246008003-1	RE16-10-2894	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	12	12	1.250	75
246008004-1	RE16-10-2888	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	13	13	1.275	76
246008005-1	RE16-10-2891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.260	83
246008006-1	RE16-10-2897	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.286	84
246008007-1	RE16-10-2890	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.255	85
246008008-1	RE16-10-2889	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.267	86
246020013-1	RE15-10-8061	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.285	87
246020014-1	RE15-10-8063	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.273	88
246020015-1	RE15-10-8062	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	20	1.252	89
1202035013-1	MB for batch 949827	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	90
1202035014-1	RE15-10-8061(246020013DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.252	91
1202035015-1	LCS for batch 949827	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.107	92

* SRM 0244-B exp 04/30/10 0.107g

Choose SOP Used: GL-RAD-A-011 / ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/16/10

Blank Correction Report

Batch ID 949827

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035014	DUP	Americium-241	1.25E+00 g	3.29E-02	7.06E-03	2.05E-02	-.001824	pCi/g	NO
1202035015	LCS	Americium-241	1.07E-01 g	3.20E+01	2.29E+00	2.22E-01	-.02130841	pCi/g	NO
1202035013	MB	Americium-241	1.00E+00 g	-2.28E-03	2.26E-03	2.55E-02	-.00228	pCi/g	NO
245994001	RE15-10-8122	Americium-241	1.27E+00 g	-9.28E-03	5.93E-03	1.99E-02	-.00179528	pCi/g	YES
245994002	RE15-10-8112	Americium-241	1.26E+00 g	1.01E-03	6.41E-03	2.24E-02	-.00180952	pCi/g	NO
245994003	RE15-10-8113	Americium-241	1.28E+00 g	-6.74E-03	4.73E-03	1.97E-02	-.00178125	pCi/g	NO
245994004	RE15-10-8116	Americium-241	1.26E+00 g	1.99E-03	5.89E-03	2.02E-02	-.00180952	pCi/g	NO
245994005	RE15-10-8119	Americium-241	1.27E+00 g	2.32E-03	3.27E-03	2.18E-02	-.00179528	pCi/g	NO
245994006	RE15-10-8114	Americium-241	1.26E+00 g	1.75E-02	5.63E-03	2.37E-02	-.00180952	pCi/g	NO
245994007	RE15-10-8115	Americium-241	1.26E+00 g	-3.19E-04	5.96E-03	2.39E-02	-.00180952	pCi/g	NO
245994008	RE15-10-8117	Americium-241	1.26E+00 g	4.51E-03	6.40E-03	2.01E-02	-.00180952	pCi/g	NO
245994009	RE15-10-8118	Americium-241	1.26E+00 g	7.70E-03	7.42E-03	2.16E-02	-.00180952	pCi/g	NO
246008001	RE16-10-2893	Americium-241	1.26E+00 g	6.35E-03	3.53E-03	2.17E-02	-.00180952	pCi/g	NO
246008002	RE16-10-2892	Americium-241	1.26E+00 g	-1.82E-03	3.38E-03	2.10E-02	-.00180952	pCi/g	NO
246008003	RE16-10-2894	Americium-241	1.25E+00 g	-5.27E-04	2.46E-03	2.07E-02	-.001824	pCi/g	NO
246008004	RE16-10-2888	Americium-241	1.28E+00 g	3.34E-03	2.08E-03	2.04E-02	-.00178125	pCi/g	NO
246008005	RE16-10-2891	Americium-241	1.26E+00 g	1.32E-02	6.32E-03	1.84E-02	-.00180952	pCi/g	NO
246008006	RE16-10-2897	Americium-241	1.29E+00 g	3.18E-03	2.65E-03	1.97E-02	-.00176744	pCi/g	NO
246008007	RE16-10-2890	Americium-241	1.26E+00 g	-3.51E-03	2.40E-03	2.70E-02	-.00180952	pCi/g	NO
246008008	RE16-10-2889	Americium-241	1.27E+00 g	-5.01E-04	1.30E-03	2.07E-02	-.00179528	pCi/g	NO
246020013	RE15-10-8061	Americium-241	1.29E+00 g	5.96E-02	9.36E-03	1.99E-02	-.00176744	pCi/g	NO
246020014	RE15-10-8063	Americium-241	1.27E+00 g	1.01E-02	4.91E-03	2.10E-02	-.00179528	pCi/g	NO
246020015	RE15-10-8062	Americium-241	1.25E+00 g	1.05E-03	2.37E-03	2.29E-02	-.001824	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0245994001_AM
SAMPLE QTY : 1.270 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 88.639

CHAMBER : 048
DETECTOR S/N : 42483
AVERAGE %EFFICIENCY : 32.0990
COUNT DATE : 13-FEB-2010 11:15:31
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B048.CNF;1110
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W048.CNF;316
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5852E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5463.210	69.074	9.000	-7.441	15.000	2.8409	99.94000	-9.28E-03	5.93E-03	8.24E-03	1.99E-02	5.92E-03
AM243	5270.000	5272.415	51.828	833.000	828.000	5.000	2.2361	99.78000	1.03E+00	7.23E-02	6.50E-03	1.64E-02	3.62E-02
CM-242	6102.000	6083.345	125.660	15.000	12.000	3.000	4.3413	100.0000	1.61E-02	5.76E-03	1.26E-02	2.86E-02	5.68E-03
CM-3/4	5795.020	5733.290	4.934	14.000	-6.000	20.000	5.1799	100.0000	-7.49E-03	7.28E-03	1.50E-02	3.34E-02	7.28E-03
CM-5/6	5386.000	5383.499	0.000	8.000	8.000	0.000	14.2480	86.09000	1.16E-02	4.16E-03	4.80E-02	9.99E-02	4.10E-03
CM-247	4946.000	4905.118	7.247	15.000	14.000	1.000	13.7917	79.30000	2.20E-02	6.43E-03	5.04E-02	1.05E-01	6.29E-03
CM-248	5078.600	5060.178	62.994	23.000	21.000	2.000	19.5080	91.00000	2.88E-02	7.07E-03	6.22E-02	1.28E-01	6.85E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

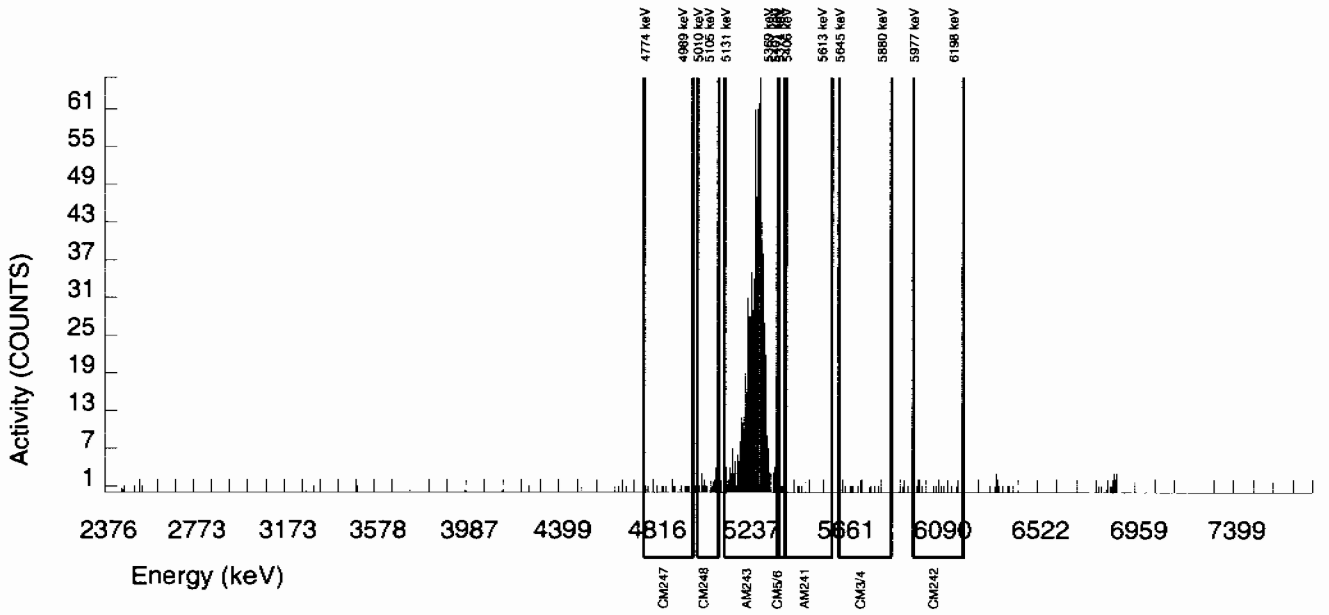

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0245994002_AM
SAMPLE QTY : 1.263 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 82.172

CHAMBER : 065
DETECTOR S/N : 68551
AVERAGE %EFFICIENCY : 30.8199
COUNT DATE : 13-FEB-2010 11:15:32
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B065.CNF;1942
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W065.CNF;307
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.3966E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5463.759	8.318	12.000	0.717	10.000	2.8409	99.94000	1.01E-03	6.41E-03	9.31E-03	2.24E-02	6.41E-03
AM243	5270.000	5275.984	46.024	743.000	737.000	6.000	2.4495	99.78000	1.04E+00	7.50E-02	8.04E-03	1.99E-02	3.86E-02
CM-242	6102.000	6045.541	166.569	7.000	5.000	2.000	4.3413	100.0000	7.56E-03	4.56E-03	1.42E-02	3.23E-02	4.54E-03
CM-3/4	5795.020	5731.923	127.376	8.000	-4.000	12.000	5.1799	100.0000	-5.64E-03	6.31E-03	1.70E-02	3.78E-02	6.31E-03
CM-5/6	5386.000	5382.911	0.000	7.000	5.000	2.000	14.2480	86.09000	8.18E-03	4.93E-03	5.42E-02	1.13E-01	4.91E-03
CM-247	4946.000	4861.874	107.168	8.000	6.000	2.000	13.7917	79.30000	1.07E-02	5.65E-03	5.70E-02	1.19E-01	5.62E-03
CM-248	5078.600	5064.860	6.532	18.000	17.000	1.000	19.5080	91.00000	2.63E-02	6.94E-03	7.02E-02	1.45E-01	6.75E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

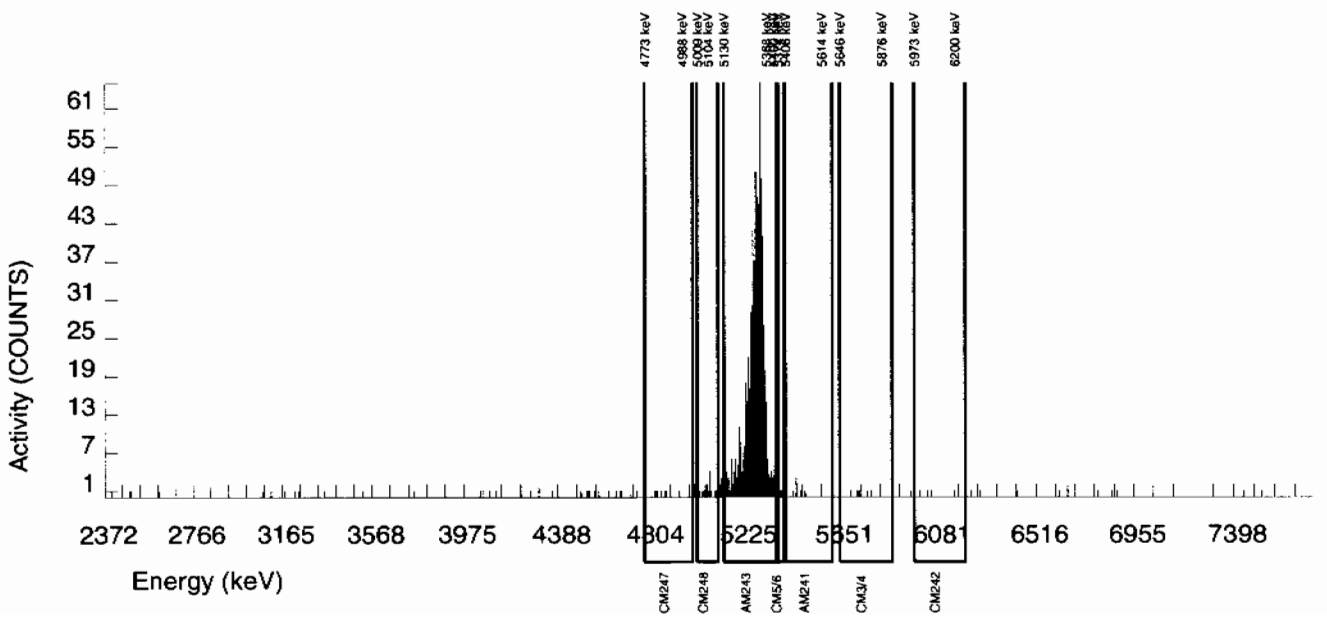

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0245994003_AM
SAMPLE QTY : 1.284 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 90.741

CHAMBER : 066
DETECTOR S/N : 46-089C1
AVERAGE %EFFICIENCY : 31.2039
COUNT DATE : 13-FEB-2010 11:15:32
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B066.CNF;1103
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W066.CNF;308
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.6465E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5478.525	159.304	6.000	-5.434	10.000	2.8409	99.94000	-6.74E-03	4.73E-03	8.19E-03	1.97E-02	4.73E-03
AM243	5270.000	5278.863	47.626	827.000	824.000	3.000	1.7321	99.78000	1.02E+00	7.14E-02	5.00E-03	1.34E-02	3.58E-02
CM-242	6102.000	6027.873	74.674	5.000	4.000	1.000	4.3413	100.0000	5.32E-03	3.28E-03	1.25E-02	2.84E-02	3.26E-03
CM-3/4	5795.020	5748.799	139.287	14.000	1.000	13.000	5.1799	100.0000	1.24E-03	6.45E-03	1.49E-02	3.32E-02	6.45E-03
CM-5/6	5386.000	5376.045	0.000	10.000	7.000	3.000	14.2480	86.09000	1.01E-02	5.22E-03	4.77E-02	9.93E-02	5.19E-03
CM-247	4946.000	4893.468	108.018	21.000	16.000	5.000	13.7917	79.30000	2.50E-02	8.11E-03	5.01E-02	1.04E-01	7.97E-03
CM-248	5078.600	5066.511	42.160	12.000	11.000	1.000	19.5080	91.00000	1.50E-02	4.99E-03	6.18E-02	1.27E-01	4.91E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

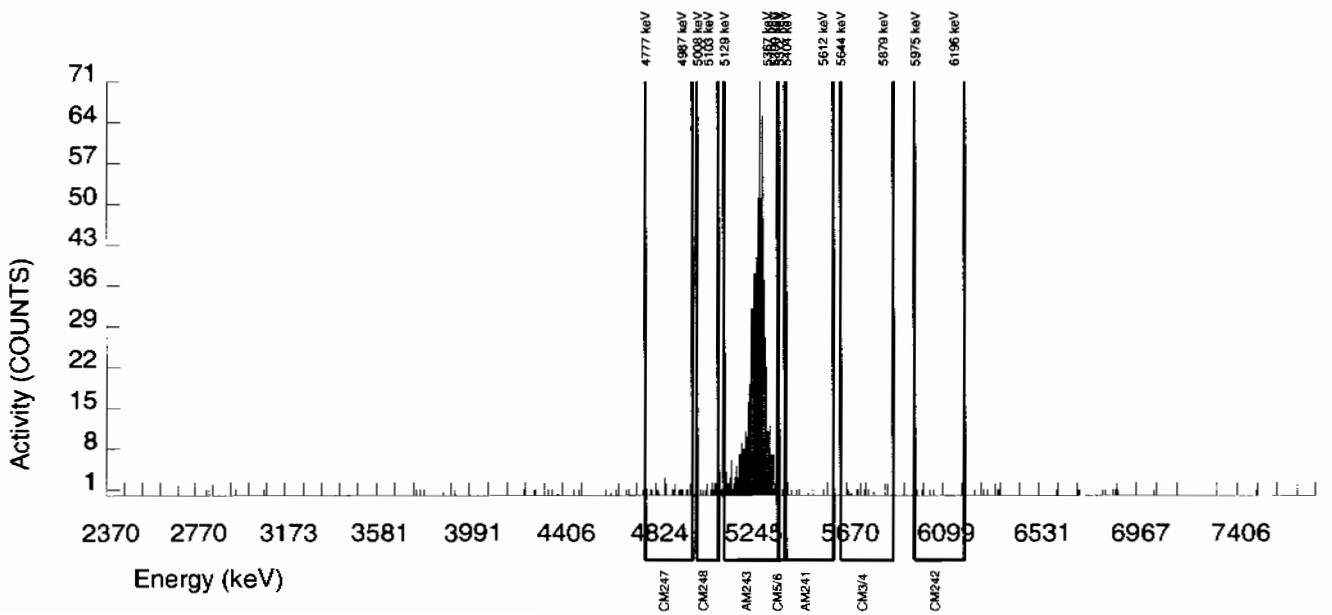

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0245994004_AM
SAMPLE QTY : 1.257 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 87.464

CHAMBER : 067
DETECTOR S/N : 46-089B4
AVERAGE %EFFICIENCY : 32.3338
COUNT DATE : 13-FEB-2010 11:15:32
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B067.CNF;1101
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W067.CNF;289
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5509E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.975	32.257	13.000	1.568	10.000	2.8409	99.94000	1.99E-03	5.89E-03	8.38E-03	2.02E-02	5.89E-03
AM243	5270.000	5277.251	48.899	825.000	823.000	2.000	1.4142	99.78000	1.05E+00	7.29E-02	4.18E-03	1.18E-02	3.65E-02
CM-242	6102.000	6048.529	7.324	8.000	7.000	1.000	4.3413	100.0000	9.53E-03	4.12E-03	1.28E-02	2.90E-02	4.08E-03
CM-3/4	5795.020	5750.005	7.324	14.000	10.000	4.000	5.1799	100.0000	1.27E-02	5.44E-03	1.53E-02	3.40E-02	5.39E-03
CM-5/6	5386.000	5375.855	0.000	16.000	16.000	0.000	14.2480	86.09000	2.36E-02	6.06E-03	4.88E-02	1.02E-01	5.89E-03
CM-247	4946.000	4899.601	117.185	15.000	13.000	2.000	13.7917	79.30000	2.08E-02	6.71E-03	5.13E-02	1.07E-01	6.59E-03
CM-248	5078.600	5071.171	39.893	12.000	12.000	0.000	19.5080	91.00000	1.67E-02	4.93E-03	6.32E-02	1.30E-01	4.82E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

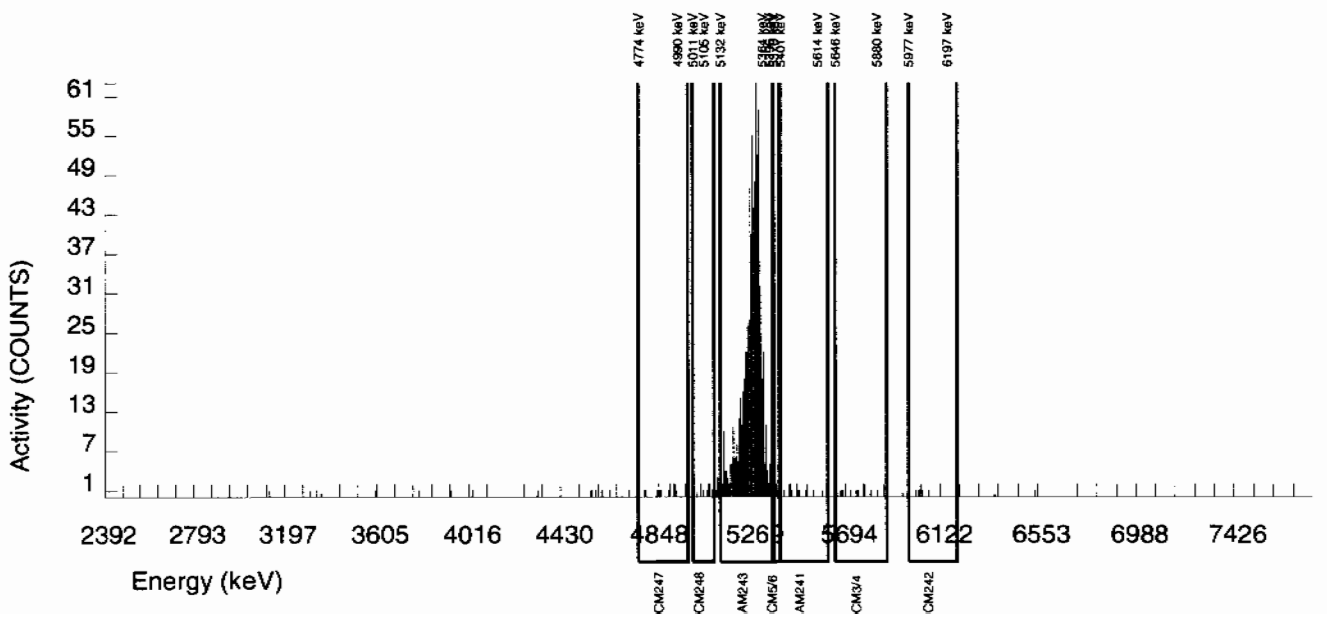

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827	CHAMBER : 068	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245994005_AM	DETECTOR S/N : 78794	BKG FILE : B068.CNF;1094
SAMPLE QTY : 1.273 G	AVERAGE %EFFICIENCY : 29.5953	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 11:15:32	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W068.CNF;280
% YIELD : 87.313		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5466E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5537.504	104.301	5.000	1.691	2.000	2.8409	99.94000	2.32E-03	3.27E-03	9.06E-03	2.18E-02	3.27E-03
AM243	5270.000	5277.843	32.299	756.000	752.000	4.000	2.0000	99.78000	1.03E+00	7.38E-02	6.39E-03	1.65E-02	3.78E-02
CM-242	6102.000	6036.986	7.295	6.000	4.000	2.000	4.3413	100.0000	5.88E-03	4.18E-03	1.38E-02	3.14E-02	4.16E-03
CM-3/4	5795.020	5756.838	153.969	8.000	4.000	4.000	5.1799	100.0000	5.49E-03	4.76E-03	1.65E-02	3.67E-02	4.75E-03
CM-5/6	5386.000	5375.614	0.000	8.000	8.000	0.000	14.2480	86.09000	1.27E-02	4.57E-03	5.27E-02	1.10E-01	4.50E-03
CM-247	4946.000	4865.628	139.069	7.000	5.000	2.000	13.7917	79.30000	8.63E-03	5.21E-03	5.54E-02	1.15E-01	5.18E-03
CM-248	5078.600	5060.830	39.734	14.000	14.000	0.000	19.5080	91.00000	2.11E-02	5.78E-03	6.83E-02	1.41E-01	5.63E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

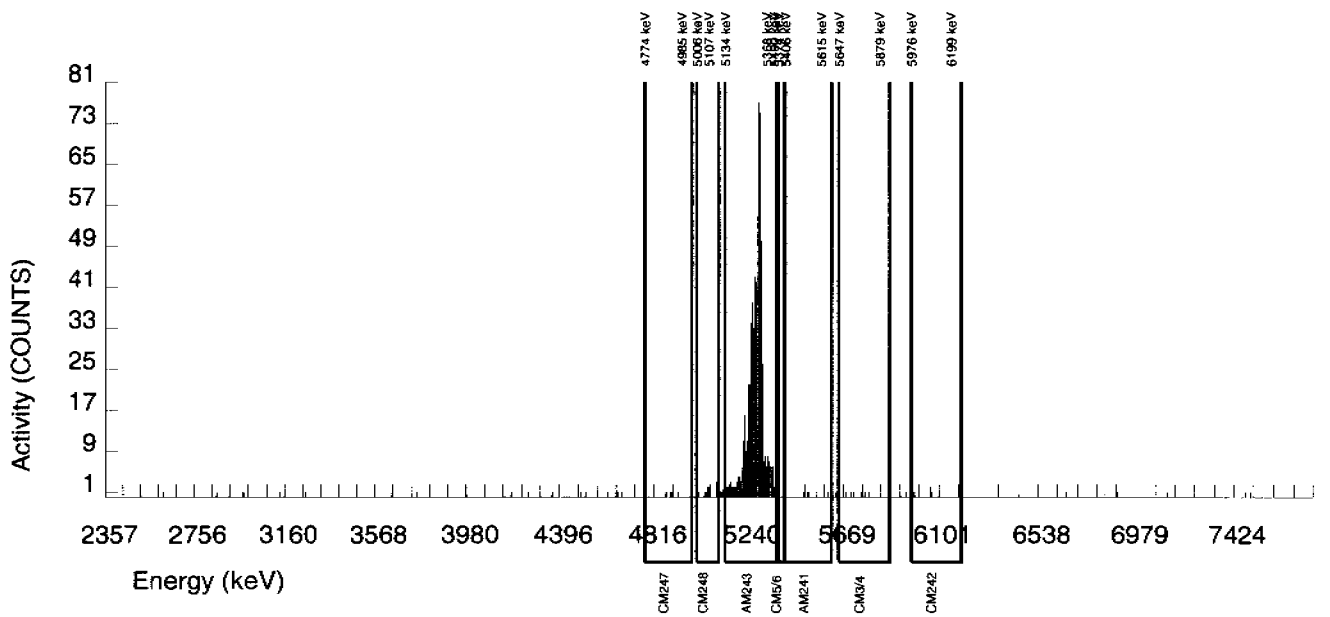

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0245994006_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 78.561

CHAMBER : 069
DETECTOR S/N : 78795
AVERAGE %EFFICIENCY : 30.7054
COUNT DATE : 13-FEB-2010 11:15:32
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B069.CNF;1096
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W069.CNF;287
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.2913E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5490.849	28.314	14.000	11.778	1.000	2.8409	99.94000	1.75E-02	5.63E-03	9.84E-03	2.37E-02	5.53E-03
AM243	5270.000	5277.516	31.204	703.000	702.000	1.000	1.0000	99.78000	1.05E+00	7.61E-02	3.47E-03	1.10E-02	3.96E-02
CM-242	6102.000	6039.477	108.529	4.000	4.000	0.000	4.3413	100.0000	6.39E-03	3.22E-03	1.50E-02	3.41E-02	3.20E-03
CM-3/4	5795.020	5723.189	143.061	7.000	4.000	3.000	5.1799	100.0000	5.96E-03	4.73E-03	1.79E-02	3.99E-02	4.71E-03
CM-5/6	5386.000	5381.228	0.000	3.000	3.000	0.000	14.2480	86.09000	5.19E-03	3.01E-03	5.73E-02	1.19E-01	2.99E-03
CM-247	4946.000	4885.182	0.000	8.000	6.000	2.000	13.7917	79.30000	1.13E-02	5.97E-03	6.02E-02	1.25E-01	5.93E-03
CM-248	5078.600	5054.288	17.266	9.000	8.000	1.000	19.5080	91.00000	1.31E-02	5.23E-03	7.42E-02	1.53E-01	5.17E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

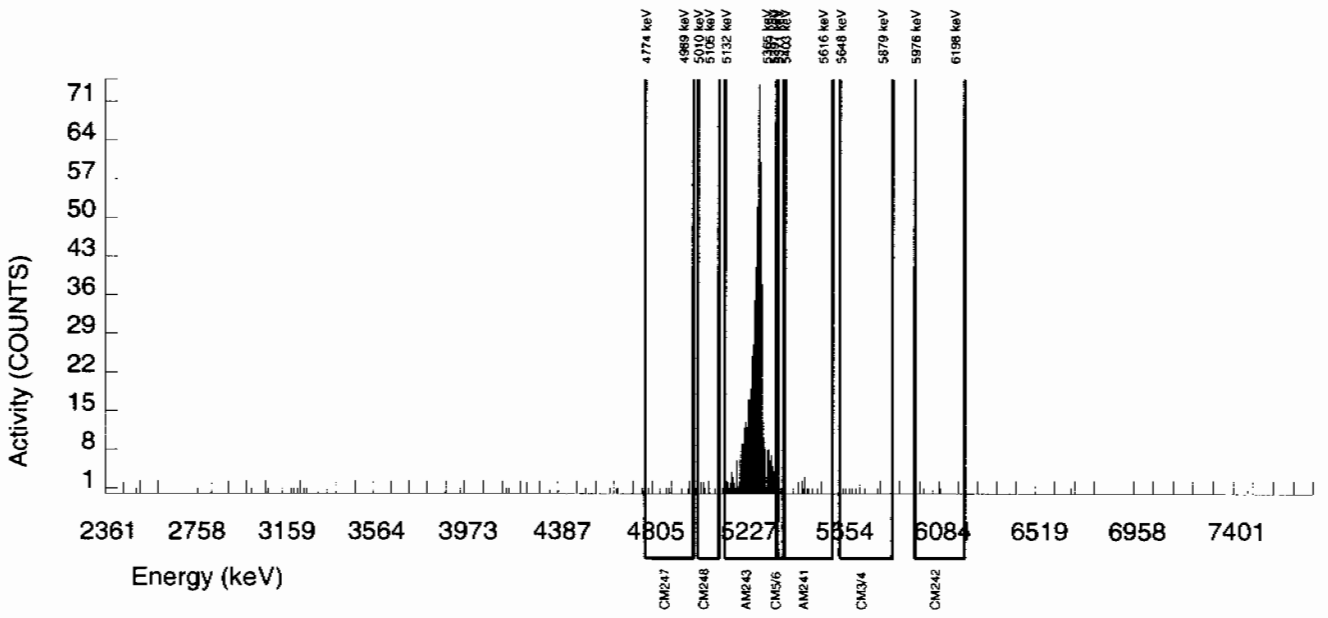

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0245994007_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 67.389

CHAMBER : 070
DETECTOR S/N : 46-089B2
AVERAGE %EFFICIENCY : 35.5412
COUNT DATE : 13-FEB-2010 11:15:32
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B070.CNF;1106
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W070.CNF;292
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 1.9654E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5505.189	162.516	9.000	-0.213	8.000	2.8409	99.94000	-3.19E-04	5.96E-03	9.91E-03	2.39E-02	5.96E-03
AM243	5270.000	5275.722	48.400	699.000	697.000	2.000	1.4142	99.78000	1.05E+00	7.63E-02	4.94E-03	1.40E-02	3.98E-02
CM-242	6102.000	6035.170	4.925	7.000	3.000	4.000	4.3413	100.0000	4.83E-03	5.35E-03	1.51E-02	3.43E-02	5.34E-03
CM-3/4	5795.020	5733.228	4.925	10.000	0.000	10.000	5.1799	100.0000	-1.43E-09	6.71E-03	1.81E-02	4.02E-02	6.71E-03
CM-5/6	5386.000	5380.265	16.005	8.000	6.000	2.000	14.2480	86.09000	1.04E-02	5.54E-03	5.77E-02	1.20E-01	5.50E-03
CM-247	4946.000	4894.760	9.234	14.000	6.000	8.000	13.7917	79.30000	1.13E-02	8.89E-03	6.06E-02	1.26E-01	8.86E-03
CM-248	5078.600	5057.972	0.000	21.000	20.000	1.000	19.5080	91.00000	3.29E-02	7.99E-03	7.47E-02	1.54E-01	7.72E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

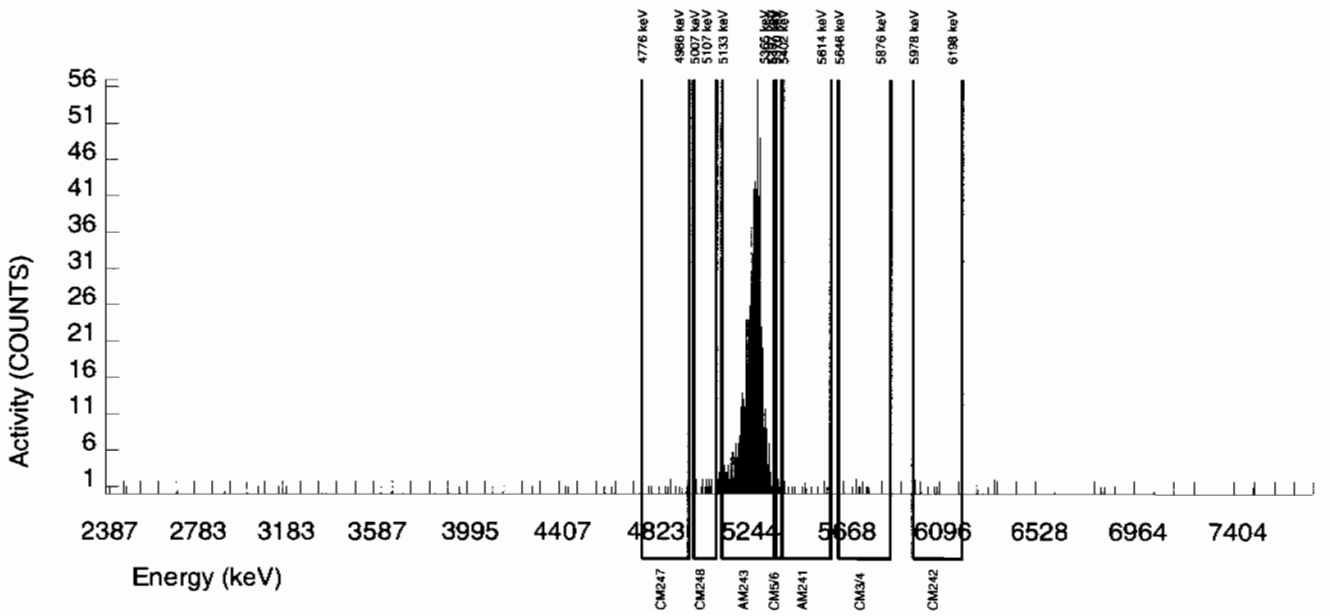

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0245994008_AM
SAMPLE QTY : 1.257 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 88.130

CHAMBER : 071
DETECTOR S/N : 64259
AVERAGE %EFFICIENCY : 32.1673
COUNT DATE : 13-FEB-2010 11:15:33
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B071.CNF;1099
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W071.CNF;286
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5704E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.364	57.130	16.000	3.564	11.000	2.8409	99.94000	4.51E-03	6.40E-03	8.36E-03	2.01E-02	6.40E-03
AM243	5270.000	5285.902	31.370	828.000	825.000	3.000	1.7321	99.78000	1.05E+00	7.29E-02	5.10E-03	1.36E-02	3.65E-02
CM-242	6102.000	6060.712	4.981	5.000	2.000	3.000	4.3413	100.0000	2.72E-03	3.84E-03	1.28E-02	2.90E-02	3.84E-03
CM-3/4	5795.020	5733.401	22.261	11.000	4.000	7.000	5.1799	100.0000	5.07E-03	5.38E-03	1.52E-02	3.39E-02	5.37E-03
CM-5/6	5386.000	5379.448	0.000	13.000	10.000	3.000	14.2480	86.09000	1.47E-02	5.94E-03	4.87E-02	1.01E-01	5.87E-03
CM-247	4946.000	4926.203	89.665	14.000	10.000	4.000	13.7917	79.30000	1.59E-02	6.83E-03	5.11E-02	1.07E-01	6.76E-03
CM-248	5078.600	5081.869	27.398	9.000	7.000	2.000	19.5080	91.00000	9.72E-03	4.64E-03	6.30E-02	1.30E-01	4.61E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

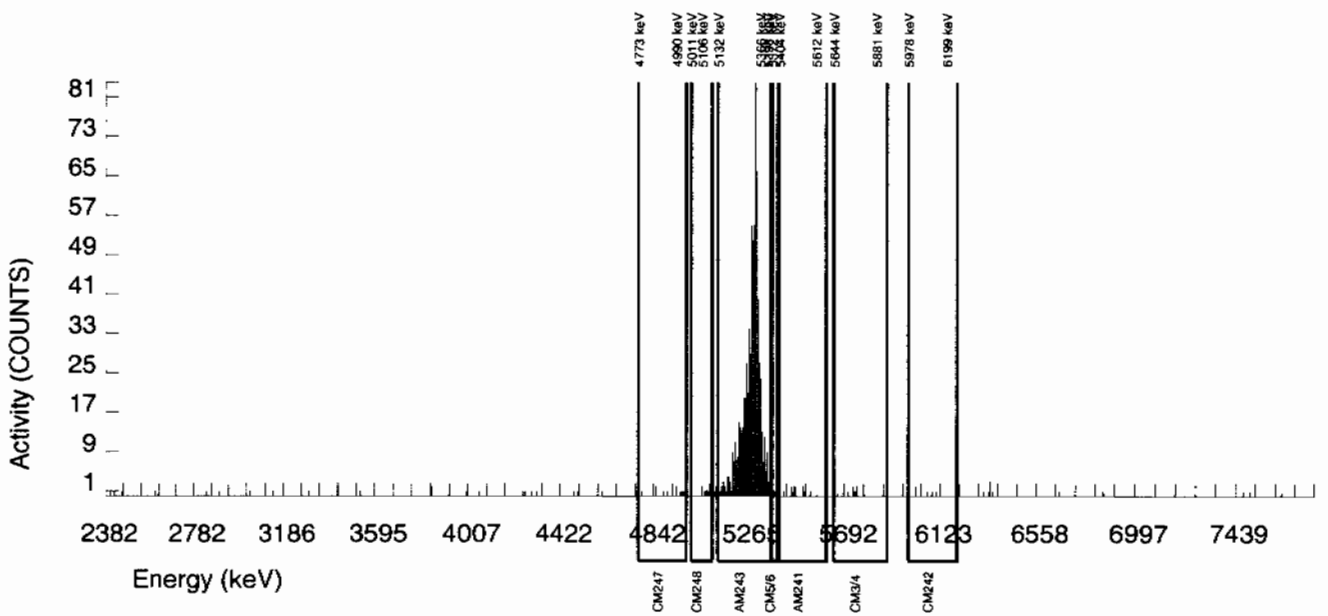

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0245994009_AM
SAMPLE QTY : 1.255 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 82.293

CHAMBER : 072
DETECTOR S/N : 45-149AA3
AVERAGE %EFFICIENCY : 32.1107
COUNT DATE : 13-FEB-2010 11:15:33
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B072.CNF;1097
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W072.CNF;277
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.4001E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5489.250	106.269	19.000	5.662	12.000	2.8409	99.94000	7.70E-03	7.42E-03	8.98E-03	2.16E-02	7.40E-03
AM243	5270.000	5283.194	52.809	772.000	769.000	3.000	1.7321	99.78000	1.05E+00	7.44E-02	5.49E-03	1.47E-02	3.79E-02
CM-242	6102.000	6073.336	4.964	12.000	10.000	2.000	4.3413	100.0000	1.46E-02	5.53E-03	1.37E-02	3.11E-02	5.46E-03
CM-3/4	5795.020	5743.566	61.900	13.000	1.000	12.000	5.1799	100.0000	1.36E-03	6.80E-03	1.64E-02	3.64E-02	6.80E-03
CM-5/6	5386.000	5381.251	0.000	10.000	10.000	0.000	14.2480	86.09000	1.58E-02	5.08E-03	5.23E-02	1.09E-01	4.99E-03
CM-247	4946.000	4876.201	7.291	11.000	9.000	2.000	13.7917	79.30000	1.54E-02	6.25E-03	5.50E-02	1.15E-01	6.18E-03
CM-248	5078.600	5074.447	37.977	18.000	12.000	6.000	19.5080	91.00000	1.79E-02	7.39E-03	6.77E-02	1.40E-01	7.31E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

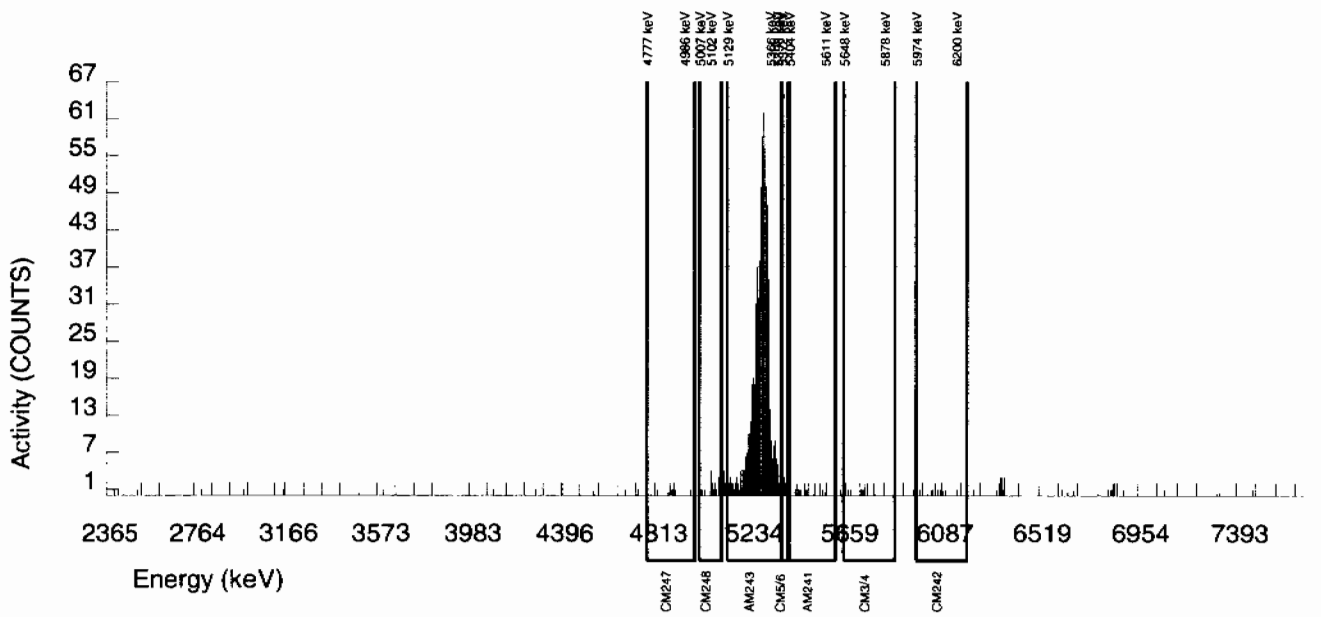

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0246020013_AM
SAMPLE QTY : 1.285 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 91.346

CHAMBER : 087
DETECTOR S/N : 78199
AVERAGE %EFFICIENCY : 30.6587
COUNT DATE : 13-FEB-2010 11:15:34
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B087.CNF;1028
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W087.CNF;276
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.6642E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5497.131	115.612	49.000	47.582	0.000	2.8409	99.94000	5.96E-02	9.36E-03	8.28E-03	1.99E-02	8.64E-03
AM243	5270.000	5282.508	29.887	820.000	815.000	5.000	2.2361	99.78000	1.02E+00	7.17E-02	6.53E-03	1.65E-02	3.60E-02
CM-242	6102.000	6035.863	34.637	7.000	7.000	0.000	4.3413	100.0000	9.45E-03	3.62E-03	1.26E-02	2.87E-02	3.57E-03
CM-3/4	5795.020	5758.647	113.189	12.000	12.000	0.000	5.1799	100.0000	1.50E-02	4.44E-03	1.51E-02	3.36E-02	4.34E-03
CM-5/6	5386.000	5376.078	0.000	12.000	12.000	0.000	14.2480	86.09000	1.74E-02	5.15E-03	4.82E-02	1.00E-01	5.04E-03
CM-247	4946.000	4896.957	4.948	14.000	13.000	1.000	13.7917	79.30000	2.05E-02	6.24E-03	5.06E-02	1.06E-01	6.11E-03
CM-248	5078.600	5069.521	39.379	16.000	11.000	5.000	19.5080	91.00000	1.51E-02	6.37E-03	6.24E-02	1.29E-01	6.30E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

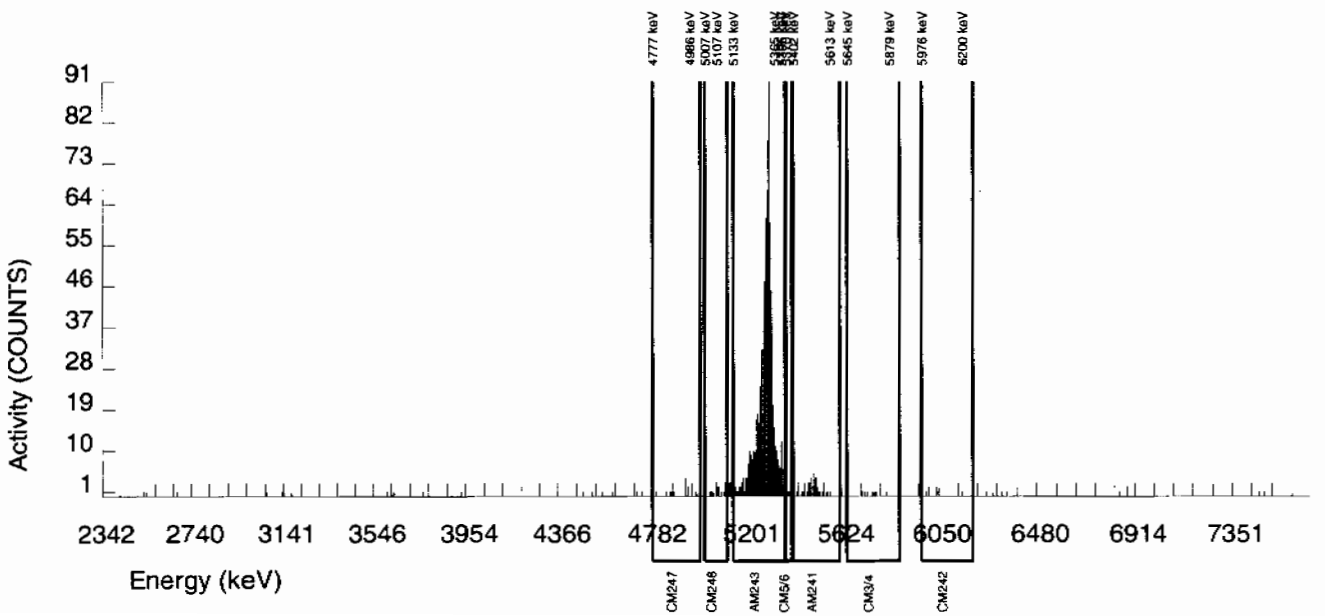

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S1202035013_AM
SAMPLE QTY : 1.000 G
SAMPLE DATE : 9-FEB-2010 00:00:00.
ANALYST : JXD2
% YIELD : 86.585

CHAMBER : 090
DETECTOR S/N : 78263
AVERAGE %EFFICIENCY : 32.5428
COUNT DATE : 13-FEB-2010 11:15:35
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B090.CNF;723
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W090.CNF;201
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5253E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3154E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3154E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5530.091	4.894	1.000	-1.427	1.000	2.8409	99.94000	-2.28E-03	2.26E-03	1.06E-02	2.55E-02	2.26E-03
AM243	5270.000	5278.708	24.469	821.000	820.000	1.000	1.0000	99.78000	1.31E+00	9.36E-02	3.73E-03	1.18E-02	4.59E-02
CM-242	6102.000	6032.106	58.115	5.000	5.000	0.000	4.3413	100.0000	8.16E-03	3.68E-03	1.61E-02	3.66E-02	3.65E-03
CM-3/4	5795.020	5772.853	107.666	8.000	8.000	0.000	5.1799	100.0000	1.28E-02	4.59E-03	1.93E-02	4.29E-02	4.52E-03
CM-5/6	5386.000	5375.043	0.000	5.000	5.000	0.000	14.2480	86.09000	9.28E-03	4.19E-03	6.16E-02	1.28E-01	4.15E-03
CM-247	4946.000	4881.976	173.735	15.000	13.000	2.000	13.7917	79.30000	2.62E-02	8.47E-03	6.47E-02	1.35E-01	8.31E-03
CM-248	5078.600	5061.636	0.000	16.000	16.000	0.000	19.5080	91.00000	2.81E-02	7.24E-03	7.97E-02	1.64E-01	7.03E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

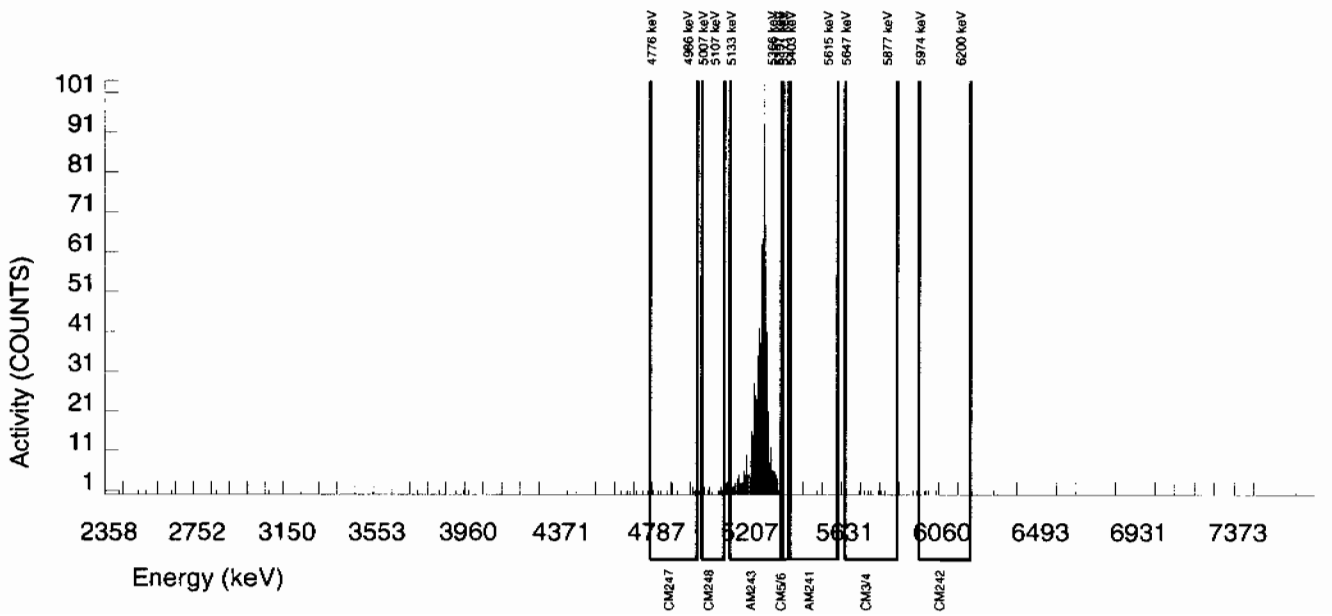

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S1202035014_AM
SAMPLE QTY : 1.252 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 81.075

CHAMBER : 091
DETECTOR S/N : 78259
AVERAGE %EFFICIENCY : 34.5001
COUNT DATE : 13-FEB-2010 11:15:35
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B091.CNF;721
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W091.CNF;192
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.3646E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5507.645	15.302	28.000	25.583	1.000	2.8409	99.94000	3.29E-02	7.06E-03	8.51E-03	2.05E-02	6.76E-03
AM243	5270.000	5281.450	30.712	814.000	814.000	0.000	0.0000	99.78000	1.05E+00	7.48E-02	0.00E+00	3.49E-03	3.68E-02
CM-242	6102.000	6039.702	69.478	3.000	3.000	0.000	4.3413	100.0000	4.16E-03	2.42E-03	1.30E-02	2.95E-02	2.40E-03
CM-3/4	5795.020	5753.160	143.920	5.000	5.000	0.000	5.1799	100.0000	6.44E-03	2.91E-03	1.55E-02	3.45E-02	2.88E-03
CM-5/6	5386.000	5374.064	0.000	10.000	10.000	0.000	14.2480	86.09000	1.49E-02	4.82E-03	4.95E-02	1.03E-01	4.72E-03
CM-247	4946.000	4901.473	133.994	7.000	4.000	3.000	13.7917	79.30000	6.49E-03	5.15E-03	5.20E-02	1.08E-01	5.13E-03
CM-248	5078.600	5069.530	51.954	14.000	14.000	0.000	19.5080	91.00000	1.98E-02	5.43E-03	6.41E-02	1.32E-01	5.29E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

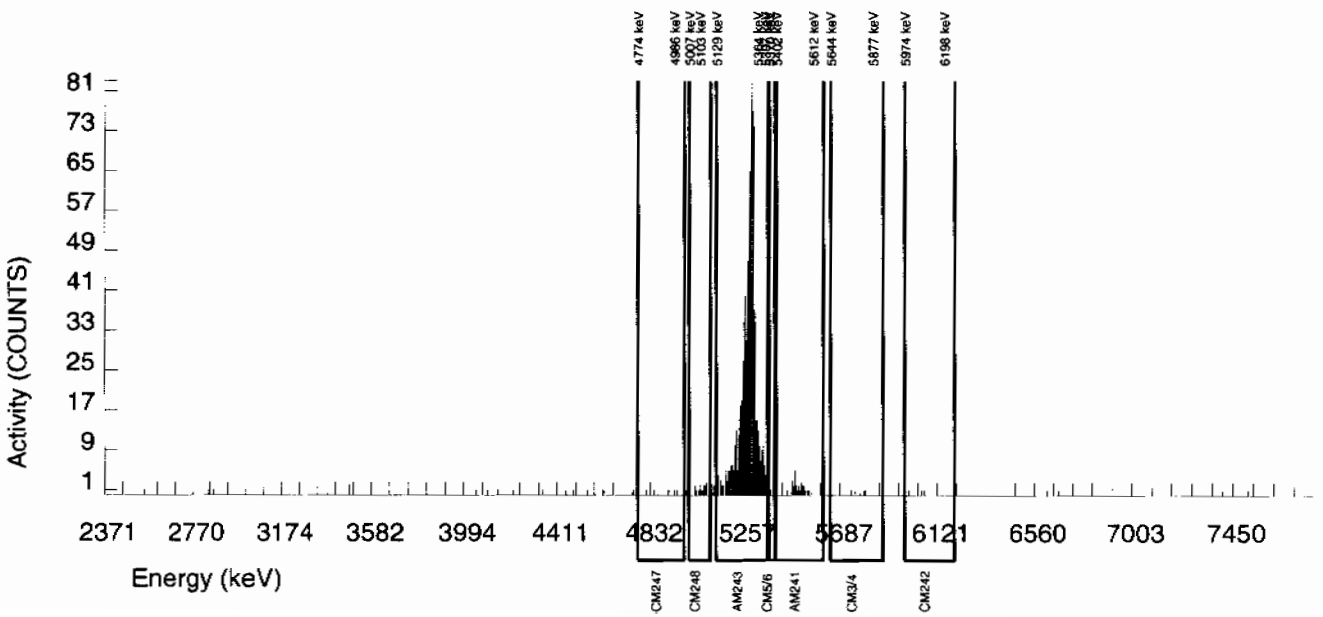

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S1202035015_AM
SAMPLE QTY : 0.107 G
SAMPLE DATE : 9-FEB-2010 00:00:00.
ANALYST : JXD2
% YIELD : 95.950

CHAMBER : 092
DETECTOR S/N : 79457
AVERAGE %EFFICIENCY : 31.5514
COUNT DATE : 13-FEB-2010 11:15:35
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B092.CNF;724
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W092.CNF;235
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.7984E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3154E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3154E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.231	36.263	2299.000	2297.467	0.000	2.8409	99.94000	3.20E+01	2.29E+00	9.20E-02	2.22E-01	6.67E-01
AM243	5270.000	5270.387	29.858	884.000	881.000	3.000	1.7321	99.78000	1.23E+01	9.37E-01	5.62E-02	1.50E-01	4.15E-01
CM-242	6102.000	6035.533	44.056	2.000	2.000	0.000	4.3413	100.0000	2.84E-02	2.02E-02	1.40E-01	3.19E-01	2.01E-02
CM-3/4	5795.020	5758.881	24.374	10.000	9.000	1.000	5.1799	100.0000	1.25E-01	4.69E-02	1.68E-01	3.73E-01	4.61E-02
CM-5/6	5386.000	5385.468	0.000	75.000	75.000	0.000	14.2480	86.09000	1.21E+00	1.63E-01	5.35E-01	1.11E+00	1.40E-01
CM-247	4946.000	4911.720	0.000	8.000	7.000	1.000	13.7917	79.30000	1.23E-01	5.33E-02	5.63E-01	1.17E+00	5.26E-02
CM-248	5078.600	5073.483	0.000	17.000	17.000	0.000	19.5080	91.00000	2.60E-01	6.55E-02	6.94E-01	1.43E+00	6.30E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

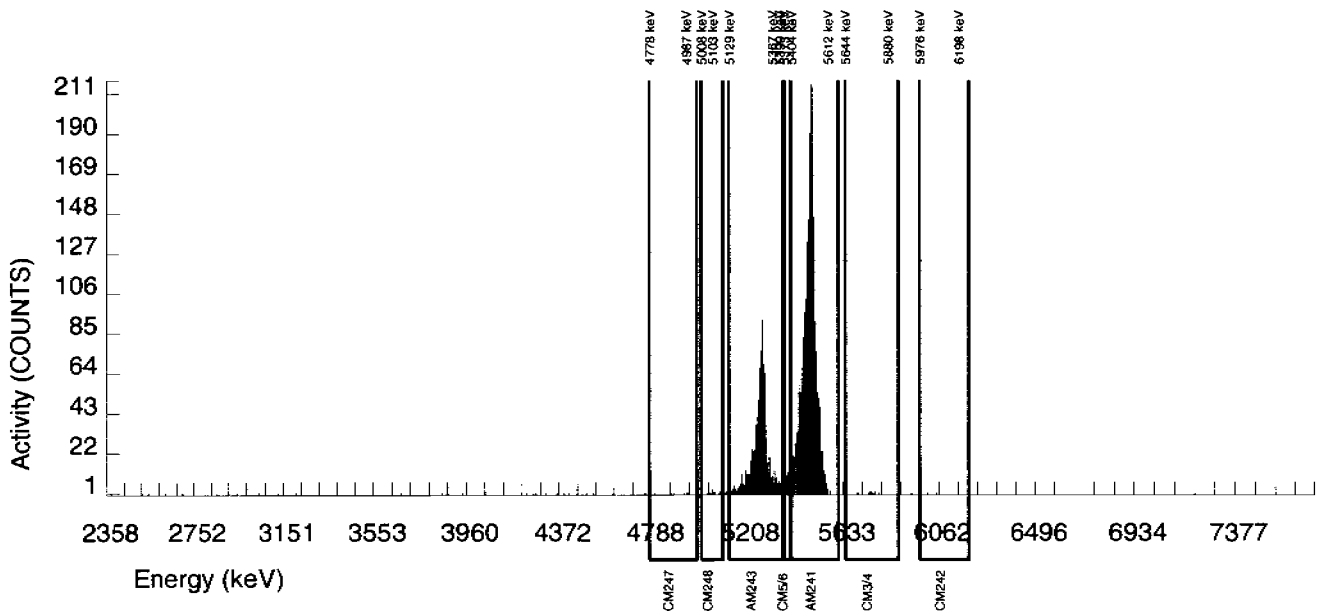

Radiochemistry Batch Checklist, Rev10

Batch# 949828 Product: Pu Date: 2/15/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/15/10

Secondary Review Performed By: [illegible] 2/17/10

2/23
LANL

P ✓

Plutonium Que Sheet

05-FEB-10

Batch #: 949828 Analyst: JXD2 First Client Due Date:23-FEB-10 Internal Due Date:13-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 01/08/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: — Expiration Date: — Vol: —

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 02/09/10 Initials: JXD Pipet ID: 2971058 Balance ID: 50410272 Witness: [illegible] 2/9/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
245994001-1	RE15-10-8122	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.270	69
245994002-1	RE15-10-8112	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.263	70
245994003-1	RE15-10-8113	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.284	77
245994004-1	RE15-10-8116	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.257	79
245994005-1	RE15-10-8119	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.273	80
245994006-1	RE15-10-8114	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.255	81
245994007-1	RE15-10-8115	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.255	82
245994008-1	RE15-10-8117	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	8	8	1.257	211
245994009-1	RE15-10-8118	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	1.253	89
246008001-1	RE16-10-2893	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	10	10	1.261	90
246008002-1	RE16-10-2892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	11	11	1.256	91
246008003-1	RE16-10-2894	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	12	12	1.250	92
246008004-1	RE16-10-2888	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	13	13	1.275	93
246008005-1	RE16-10-2891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.260	94
246008006-1	RE16-10-2897	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.286	95
246008007-1	RE16-10-2890	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.255	97
246008008-1	RE16-10-2889	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.267	99
246020013-1	RE15-10-8061	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.285	100
246020014-1	RE15-10-8063	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.273	107
246020015-1	RE15-10-8062	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	20	1.252	108
1202035016-1	MB for batch 949828	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21		109
1202035017-1	RE15-10-8061(246020013DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.252	111
1202035018-1	LCS for batch 949828	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.107	112

* SRM 0244-B exp 04/30/20 0.107g

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by LEACH or DIGESTION Circle One

Data Reviewed By: [illegible] 2/15/10

Blank Correction Report

Batch ID 949828

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035017	DUP	Plutonium-238	1.25 g	0.00709	0.0049	0.0296	-.002416	pCi/g	NO
		Plutonium-239/240	1.25 g	0.179	0.0216	0.0224	.001184	pCi/g	NO
1202035018	LCS	Plutonium-238	0.107 g	7.68	0.724	0.463	-.02822430	pCi/g	NO
		Plutonium-239/240	0.107 g	41.8	3.10	0.351	.013831776	pCi/g	NO
1202035016	MB	Plutonium-238	1.00 g	-0.00302	0.00368	0.0435	-.00302	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00148	0.00336	0.033	.00148	pCi/g	YES
245994001	RE15-10-8122	Plutonium-238	1.27 g	-0.00126	0.00281	0.0364	-.00237795	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00248	0.00396	0.0276	.001165354	pCi/g	YES
245994002	RE15-10-8112	Plutonium-238	1.26 g	-0.000114	0.00627	0.0331	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0102	0.00526	0.0251	.001174603	pCi/g	NO
245994003	RE15-10-8113	Plutonium-238	1.28 g	-0.00418	0.00328	0.0299	-.00235938	pCi/g	NO
		Plutonium-239/240	1.28 g	0.00308	0.0031	0.0227	.00115625	pCi/g	YES
245994004	RE15-10-8116	Plutonium-238	1.26 g	-0.00117	0.00259	0.0336	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0104	0.00534	0.0255	.001174603	pCi/g	NO
245994005	RE15-10-8119	Plutonium-238	1.27 g	-0.00123	0.00317	0.0347	-.00237795	pCi/g	NO
		Plutonium-239/240	1.27 g	-0.0012	0.00268	0.0263	.001165354	pCi/g	YES
245994006	RE15-10-8114	Plutonium-238	1.26 g	0.00551	0.00391	0.0401	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0358	0.0102	0.0304	.001174603	pCi/g	NO
245994007	RE15-10-8115	Plutonium-238	1.26 g	0.00226	0.00226	0.0329	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00116	0.00301	0.0249	.001174603	pCi/g	YES
245994008	RE15-10-8117	Plutonium-238	1.26 g	-0.00118	0.00408	0.0328	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00107	0.00466	0.0249	.001174603	pCi/g	YES
245994009	RE15-10-8118	Plutonium-238	1.25 g	0.00131	0.00297	0.0385	-.002416	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0066	0.00479	0.0292	.001184	pCi/g	NO
246008001	RE16-10-2893	Plutonium-238	1.26 g	0.00323	0.00325	0.0314	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0303	0.00829	0.0238	.001174603	pCi/g	NO
246008002	RE16-10-2892	Plutonium-238	1.26 g	-0.00128	0.00284	0.0367	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00	0.00253	0.0279	.001174603	pCi/g	YES
246008003	RE16-10-2894	Plutonium-238	1.25 g	0.00	0.00252	0.0365	-.002416	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00248	0.00398	0.0277	.001184	pCi/g	YES
246008004	RE16-10-2888	Plutonium-238	1.28 g	0.00117	0.00264	0.0342	-.00235938	pCi/g	NO
		Plutonium-239/240	1.28 g	0.00587	0.00426	0.026	.00115625	pCi/g	NO
246008005	RE16-10-2891	Plutonium-238	1.26 g	0.00555	0.00394	0.0403	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00554	0.00394	0.0306	.001174603	pCi/g	YES
246008006	RE16-10-2897	Plutonium-238	1.29 g	0.00597	0.00969	0.0359	-.00234109	pCi/g	NO
		Plutonium-239/240	1.29 g	0.0161	0.00673	0.0273	.001147287	pCi/g	NO
246008007	RE16-10-2890	Plutonium-238	1.26 g	0.00664	0.00459	0.0277	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00194	0.00271	0.021	.001174603	pCi/g	YES
246008008	RE16-10-2889	Plutonium-238	1.27 g	-0.00118	0.00306	0.0334	-.00237795	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246008008	RE16-10-2889	Plutonium-239/240	1.27 g	-0.00232	0.00283	0.0253	.001165354	pCi/g	YES
246020013	RE15-10-8061	Plutonium-238	1.29 g	0.0132	0.00544	0.032	-.00234109	pCi/g	NO
		Plutonium-239/240	1.29 g	0.142	0.0196	0.0242	.001147287	pCi/g	NO
246020014	RE15-10-8063	Plutonium-238	1.27 g	-0.0053	0.00373	0.0381	-.00237795	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00521	0.00492	0.0289	.001165354	pCi/g	YES
246020015	RE15-10-8062	Plutonium-238	1.25 g	0.00247	0.00395	0.0362	-.002416	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00123	0.0028	0.0275	.001184	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S0245994001_PU
SAMPLE QTY : 1.270 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 91.561

CHAMBER : 069
DETECTOR S/N : 78795
AVERAGE %EFFICIENCY : 30.7054
COUNT DATE : 11-FEB-2010 09:03:42
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B069.CNF;1096
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W069.CNF;287
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.0955E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.462	0.000	0.000	-1.515	1.515	2.6925	100.0000	-3.82E-03	3.35E-03	1.36E-02	3.39E-02	3.35E-03
PU-238	5499.000	5469.131	0.000	0.000	-0.505	0.505	2.9312	99.90000	-1.26E-03	2.81E-03	1.48E-02	3.64E-02	2.80E-03
PU-9/0	5155.000	5182.114	39.465	2.000	0.990	1.010	2.0604	99.90000	2.48E-03	3.96E-03	1.04E-02	2.76E-02	3.96E-03
PU242	4890.000	4893.535	24.969	481.000	479.990	1.010	1.0050	100.0000	1.20E+00	9.10E-02	5.07E-03	1.69E-02	5.48E-02
PU-244	4589.000	4504.242	88.796	2.000	1.495	0.505	3.7241	99.90000	3.74E-03	3.76E-03	1.88E-02	4.44E-02	3.76E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

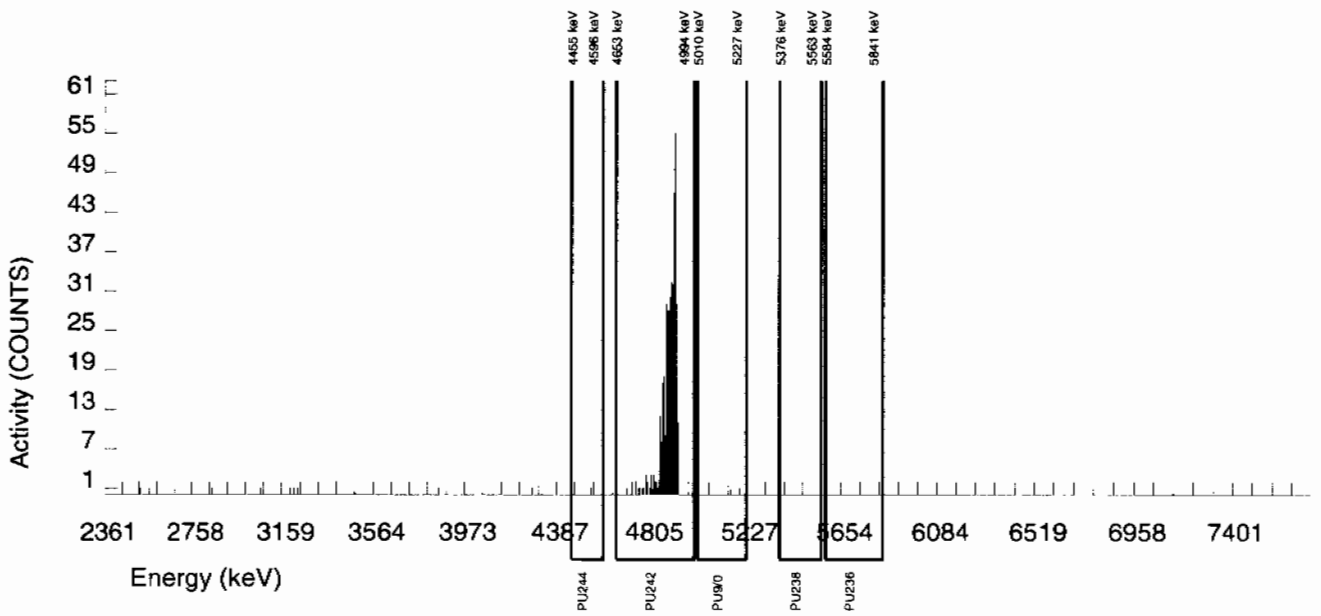

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S0245994002_PU
SAMPLE QTY : 1.263 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 87.253

CHAMBER : 070
DETECTOR S/N : 46-089B2
AVERAGE %EFFICIENCY : 35.5412
COUNT DATE : 11-FEB-2010 09:03:42
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B070.CNF;1106
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W070.CNF;292
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.9498E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.961	0.000	0.000	-5.555	5.555	2.6925	100.0000	-1.28E-02	4.49E-03	1.24E-02	3.09E-02	4.49E-03
PU-238	5499.000	5448.728	78.796	5.000	-0.050	5.050	2.9312	99.90000	-1.14E-04	6.27E-03	1.35E-02	3.31E-02	6.27E-03
PU-9/0	5155.000	5149.697	4.925	5.000	4.495	0.505	2.0604	99.90000	1.02E-02	5.26E-03	9.48E-03	2.51E-02	5.23E-03
PU242	4890.000	4887.472	68.737	535.000	529.445	5.555	2.3569	100.0000	1.21E+00	8.87E-02	1.08E-02	2.78E-02	5.28E-02
PU-244	4589.000	4505.751	44.322	2.000	1.495	0.505	3.7241	99.90000	3.41E-03	3.43E-03	1.71E-02	4.04E-02	3.42E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

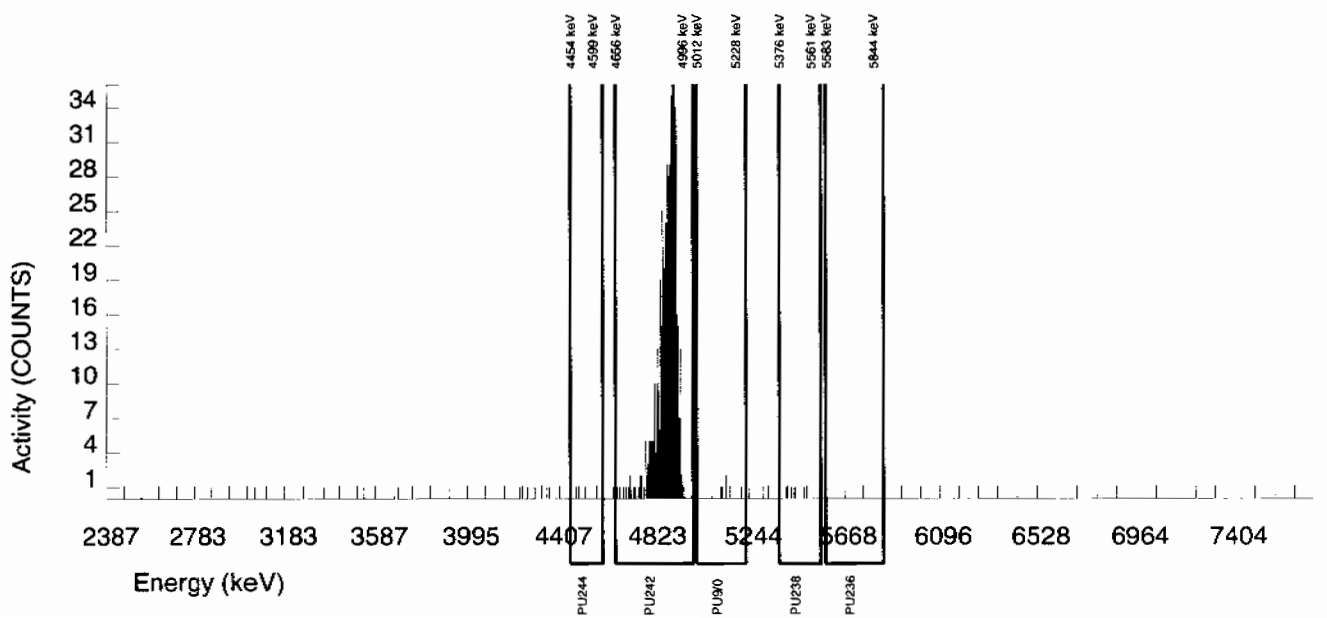

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S0245994003_PU
SAMPLE QTY : 1.284 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 107.698

CHAMBER : 077
DETECTOR S/N : 67576
AVERAGE %EFFICIENCY : 31.3532
COUNT DATE : 11-FEB-2010 09:03:43
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B077.CNF;1014
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W077.CNF;263
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.6410E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5725.573	117.889	5.000	1.970	3.030	2.6925	100.0000	4.09E-03	5.31E-03	1.12E-02	2.79E-02	5.31E-03
PU-238	5499.000	5447.419	4.938	1.000	-2.030	3.030	2.9312	99.90000	-4.18E-03	3.28E-03	1.22E-02	2.99E-02	3.28E-03
PU-9/0	5155.000	5188.773	64.191	2.000	1.495	0.505	2.0604	99.90000	3.08E-03	3.10E-03	8.56E-03	2.27E-02	3.09E-03
PU242	4890.000	4898.589	34.917	577.000	576.495	0.505	0.7106	100.0000	1.19E+00	8.43E-02	2.95E-03	1.15E-02	4.94E-02
PU-244	4589.000	4592.490	4.938	1.000	-0.010	1.010	3.7241	99.90000	-2.06E-05	2.53E-03	1.55E-02	3.65E-02	2.53E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

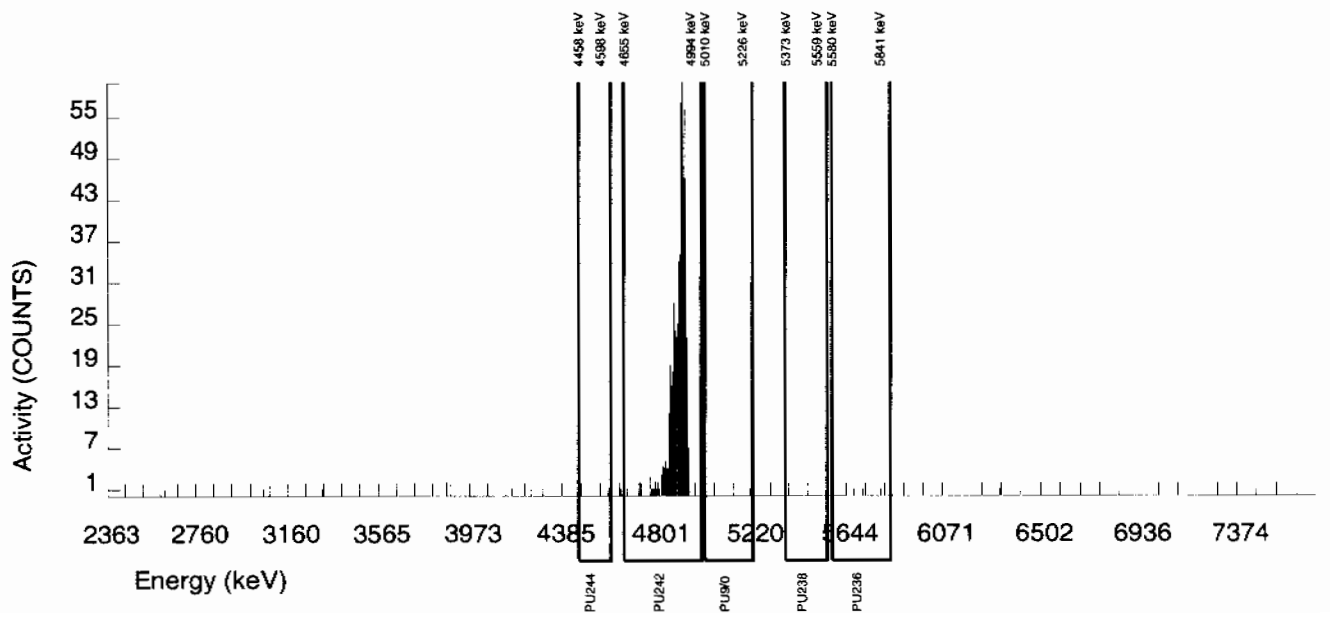

Alpha Spectroscopy Software Version 2.1
effective date 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S0245994004_PU
SAMPLE QTY : 1.257 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 95.261

CHAMBER : 079
DETECTOR S/N : 79466
AVERAGE %EFFICIENCY : 32.2486
COUNT DATE : 11-FEB-2010 09:03:43
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B079.CNF;1016
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W079.CNF;268
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.2206E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5681.829	4.918	1.000	0.495	0.505	2.6925	100.0000	1.15E-03	2.62E-03	1.26E-02	3.14E-02	2.61E-03
PU-238	5499.000	5467.502	0.000	0.000	-0.505	0.505	2.9312	99.90000	-1.17E-03	2.59E-03	1.37E-02	3.36E-02	2.59E-03
PU-9/0	5155.000	5171.177	4.918	5.000	4.495	0.505	2.0604	99.90000	1.04E-02	5.34E-03	9.61E-03	2.55E-02	5.30E-03
PU242	4890.000	4898.951	30.393	526.000	524.485	1.515	1.2309	100.0000	1.21E+00	8.91E-02	5.74E-03	1.77E-02	5.30E-02
PU-244	4589.000	4587.956	0.000	3.000	3.000	0.000	3.7241	99.90000	6.94E-03	4.03E-03	1.74E-02	4.10E-02	4.00E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

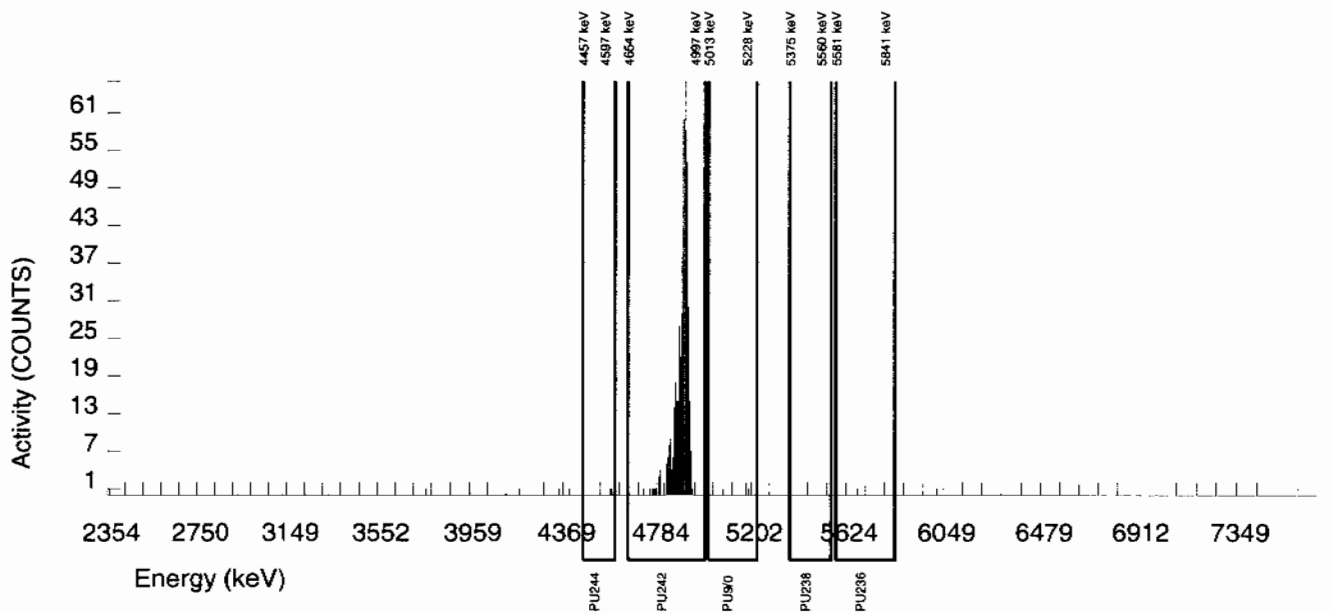

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828	CHAMBER : 080	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245994005_PU	DETECTOR S/N : 78197	BKG FILE : B080.CNF;1017
SAMPLE QTY : 1.273 G	AVERAGE %EFFICIENCY : 33.2957	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 11-FEB-2010 09:03:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W080.CNF;276
% YIELD : 88.308		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9855E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5738.264	85.327	2.000	0.485	1.515	2.6925	100.0000	1.17E-03	4.00E-03	1.29E-02	3.24E-02	4.00E-03
PU-238	5499.000	5421.899	5.019	1.000	-0.515	1.515	2.9312	99.90000	-1.23E-03	3.17E-03	1.41E-02	3.47E-02	3.17E-03
PU-9/0	5155.000	5118.083	0.000	0.000	-0.505	0.505	2.0604	99.90000	-1.20E-03	2.68E-03	9.92E-03	2.63E-02	2.67E-03
PU242	4890.000	4897.195	39.438	503.000	501.990	1.010	1.0050	100.0000	1.20E+00	8.93E-02	4.83E-03	1.61E-02	5.35E-02
PU-244	4589.000	4526.331	65.250	2.000	2.000	0.000	3.7241	99.90000	4.77E-03	3.39E-03	1.79E-02	4.23E-02	3.37E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

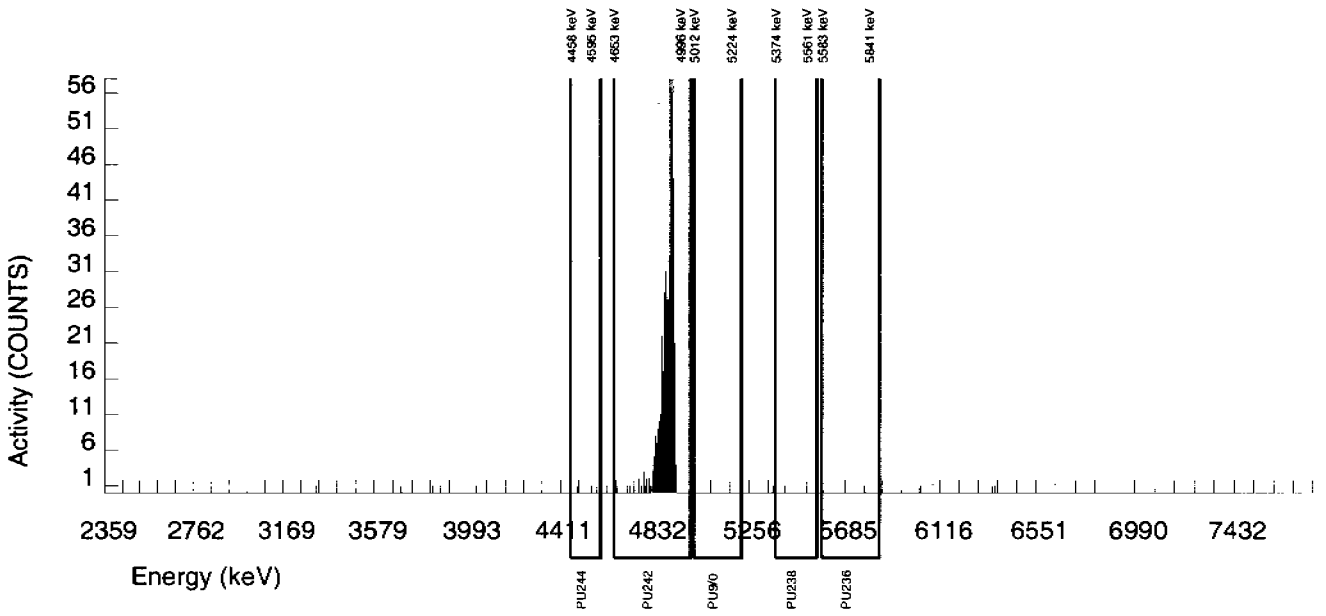

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S0245994006_PU
SAMPLE QTY : 1.255 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 80.168

CHAMBER : 081
DETECTOR S/N : 79996
AVERAGE %EFFICIENCY : 32.2195
COUNT DATE : 11-FEB-2010 09:03:43
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B081.CNF;1024
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W081.CNF;274
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.7103E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5707.355	4.879	1.000	-0.010	1.010	2.6925	100.0000	-2.78E-05	3.42E-03	1.50E-02	3.74E-02	3.41E-03
PU-238	5499.000	5477.631	48.786	2.000	2.000	0.000	2.9312	99.90000	5.51E-03	3.91E-03	1.63E-02	4.01E-02	3.90E-03
PU-9/0	5155.000	5153.683	41.468	13.000	13.000	0.000	2.0604	99.90000	3.58E-02	1.02E-02	1.15E-02	3.04E-02	9.93E-03
PU242	4890.000	4890.076	39.571	442.000	440.990	1.010	1.0050	100.0000	1.21E+00	9.50E-02	5.58E-03	1.86E-02	5.79E-02
PU-244	4589.000	4526.887	0.000	0.000	-0.505	0.505	3.7241	99.90000	-1.39E-03	3.09E-03	2.07E-02	4.89E-02	3.09E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

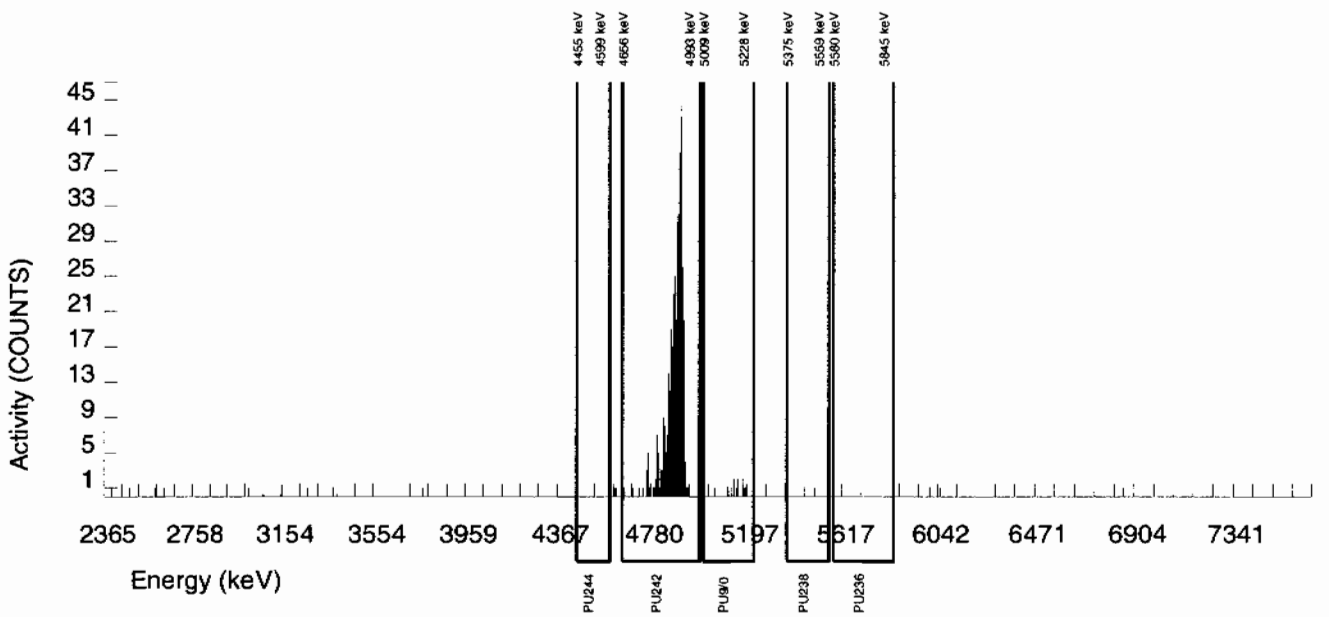

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828	CHAMBER : 082	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245994007_PU	DETECTOR S/N : 79997	BKG FILE : B082.CNF;1014
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 32.1841	BKG DATE : 7-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 11-FEB-2010 09:03:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W082.CNF;257
% YIELD : 97.820		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3071E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.369	0.000	0.000	-0.505	0.505	2.6925	100.0000	-1.15E-03	2.56E-03	1.23E-02	3.07E-02	2.55E-03
PU-238	5499.000	5381.750	4.942	1.000	1.000	0.000	2.9312	99.90000	2.26E-03	2.26E-03	1.34E-02	3.29E-02	2.26E-03
PU-9/0	5155.000	5122.167	4.942	1.000	-0.515	1.515	2.0604	99.90000	-1.16E-03	3.01E-03	9.40E-03	2.49E-02	3.00E-03
PU242	4890.000	4894.853	33.077	538.000	537.495	0.505	0.7106	100.0000	1.21E+00	8.84E-02	3.24E-03	1.26E-02	5.24E-02
PU-244	4589.000	4576.222	4.942	1.000	-0.010	1.010	3.7241	99.90000	-2.26E-05	2.78E-03	1.70E-02	4.01E-02	2.78E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

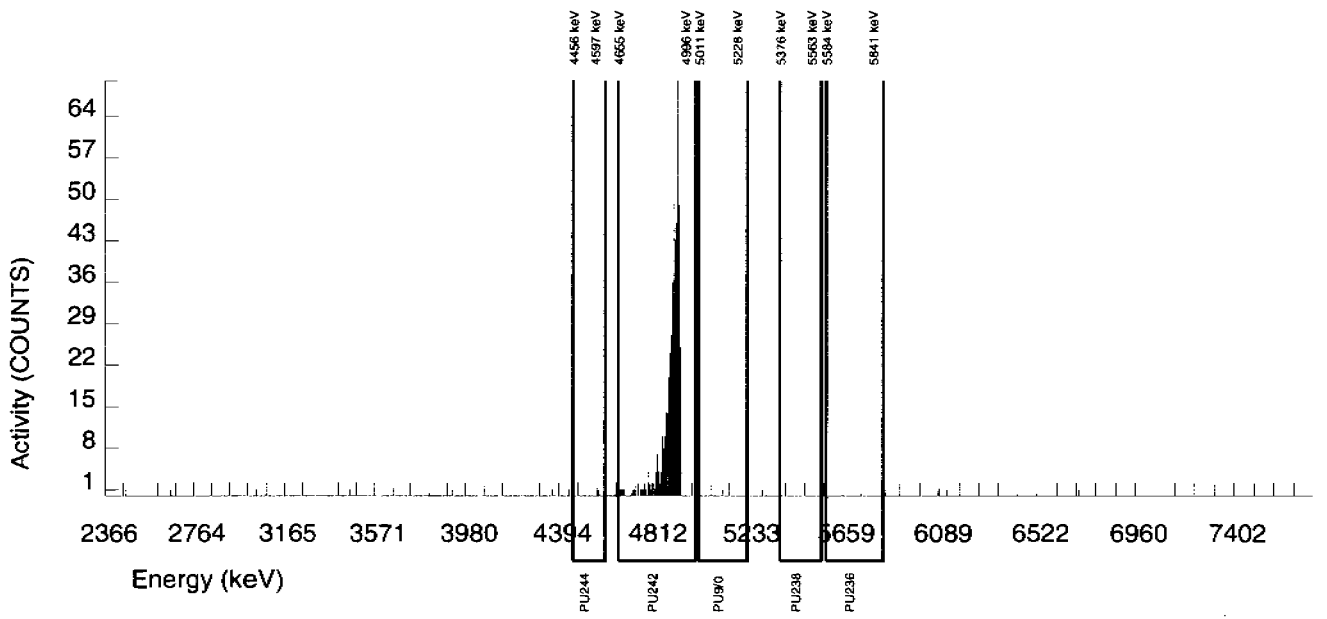

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S0245994008_PU
SAMPLE QTY : 1.257 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 82.499

CHAMBER : 211
DETECTOR S/N : 79190
AVERAGE %EFFICIENCY : 38.1959
COUNT DATE : 11-FEB-2010 09:05:47
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B211.CNF;78
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W211.CNF;29
CAL DATE : 29-JAN-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.7891E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.125	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	2.28E-03	1.22E-02	3.06E-02	2.27E-03
PU-238	5499.000	5451.649	128.729	2.000	-0.525	2.525	2.9312	99.90000	-1.18E-03	4.08E-03	1.33E-02	3.28E-02	4.08E-03
PU-9/0	5155.000	5171.382	89.120	3.000	0.475	2.525	2.0604	99.90000	1.07E-03	4.66E-03	9.37E-03	2.49E-02	4.66E-03
PU242	4890.000	4888.831	43.041	539.000	537.990	1.010	1.0050	100.0000	1.21E+00	8.81E-02	4.57E-03	1.52E-02	5.23E-02
PU-244	4589.000	4547.132	4.951	10.000	10.000	0.000	3.7241	99.90000	2.25E-02	7.25E-03	1.69E-02	4.00E-02	7.13E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

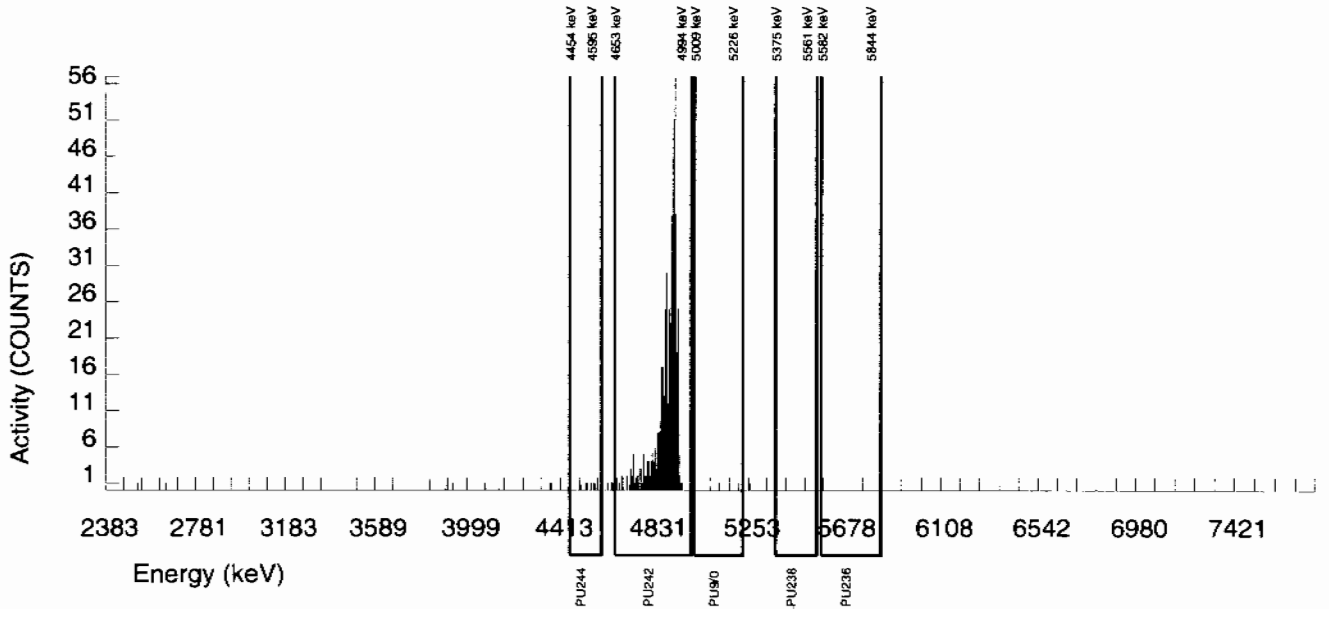

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S0245994009_PU
SAMPLE QTY : 1.253 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 91.344

CHAMBER : 089
DETECTOR S/N : 78262
AVERAGE %EFFICIENCY : 29.4965
COUNT DATE : 11-FEB-2010 10:20:43
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B089.CNF;715
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W089.CNF;195
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.0881E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5683.036	4.988	1.000	0.495	0.505	2.6925	100.0000	1.32E-03	2.99E-03	1.44E-02	3.59E-02	2.99E-03
PU-238	5499.000	5510.771	4.988	1.000	0.495	0.505	2.9312	99.90000	1.31E-03	2.97E-03	1.56E-02	3.85E-02	2.96E-03
PU-9/0	5155.000	5141.522	69.835	3.000	2.495	0.505	2.0604	99.90000	6.60E-03	4.79E-03	1.10E-02	2.92E-02	4.77E-03
PU242	4890.000	4891.104	30.721	460.000	460.000	0.000	0.0000	100.0000	1.22E+00	9.36E-02	0.00E+00	7.16E-03	5.67E-02
PU-244	4589.000	4574.864	4.988	1.000	0.495	0.505	3.7241	99.90000	1.31E-03	2.97E-03	1.99E-02	4.69E-02	2.96E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

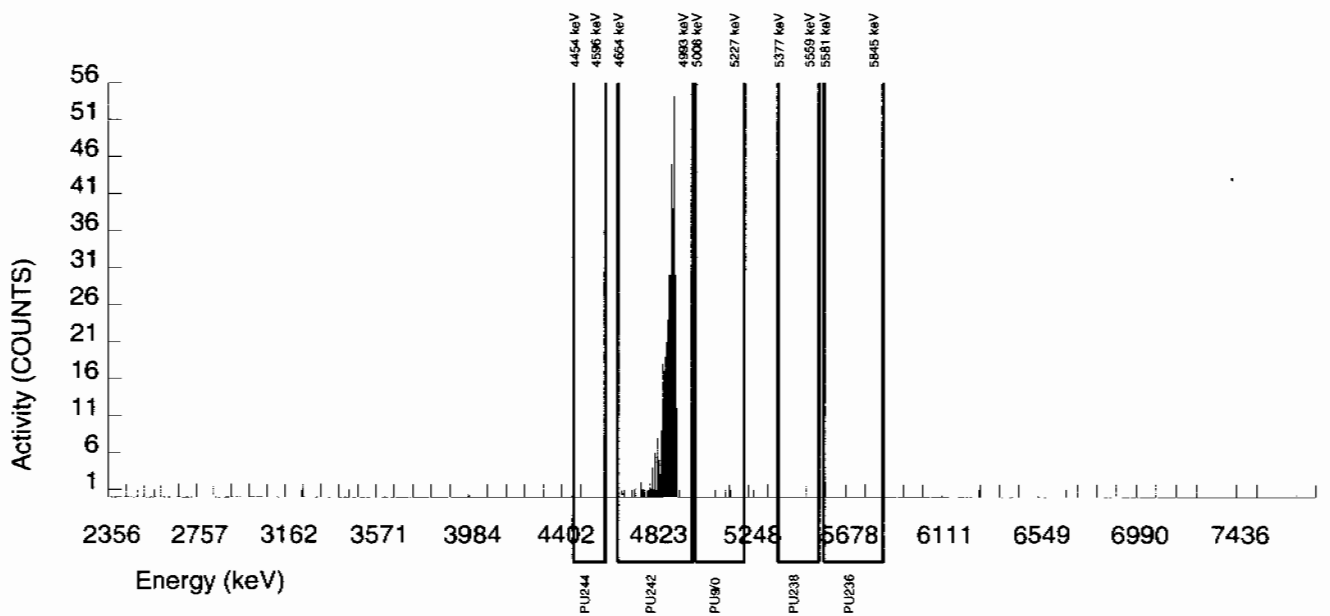

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER :	949828	CHAMBER :	100	LIB FILE :	ENV_ALPHA_PU
SAMPLE ID :	S0246020013_PU	DETECTOR S/N :	79456	BKG FILE :	B100.CNF;677
SAMPLE QTY :	1.285 G	AVERAGE %EFFICIENCY :	33.8558	BKG DATE :	7-FEB-2010
SAMPLE DATE :	27-JAN-2010 00:00:00	COUNT DATE :	11-FEB-2010 10:20:44	BKG LIVE TIME(SEC) :	59999.99
ANALYST :	JXD2	ELAPSED LIVE TIME(SEC) :	30299.99	EFF FILE :	W100.CNF;201
% YIELD :	93.334			CAL DATE :	9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1554E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.073	0.000	0.000	-0.505	0.505	2.6925	100.0000	-1.12E-03	2.49E-03	1.19E-02	2.98E-02	2.49E-03
PU-238	5499.000	5484.821	106.305	6.000	6.000	0.000	2.9312	99.90000	1.32E-02	5.44E-03	1.30E-02	3.20E-02	5.39E-03
PU-9/0	5155.000	5143.507	38.877	65.000	64.495	0.505	2.0604	99.90000	1.42E-01	1.96E-02	9.14E-03	2.42E-02	1.78E-02
PU242	4890.000	4885.822	39.852	541.000	539.485	1.515	1.2309	100.0000	1.19E+00	8.63E-02	5.46E-03	1.69E-02	5.11E-02
PU-244	4589.000	4521.383	0.000	3.000	2.495	0.505	3.7241	99.90000	5.49E-03	3.98E-03	1.65E-02	3.90E-02	3.97E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

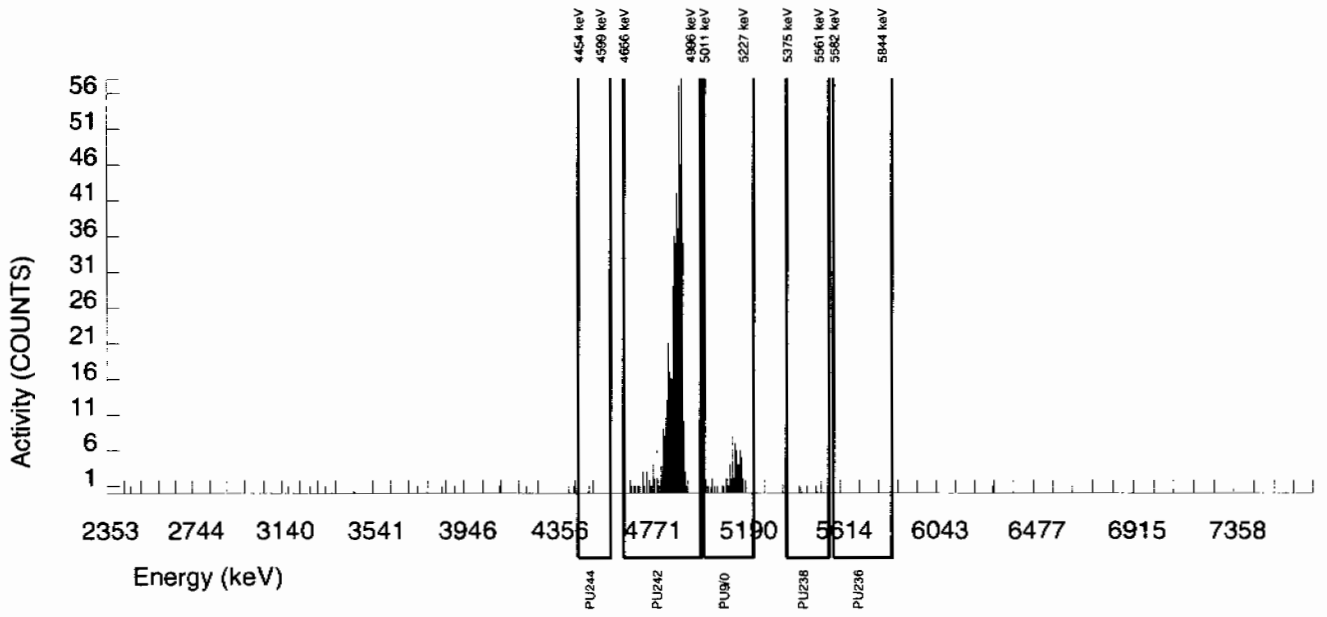

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S1202035016_PU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 9-FEB-2010 00:00:00.
ANALYST : JXD2
% YIELD : 83.709

CHAMBER : 109
DETECTOR S/N : 79463
AVERAGE %EFFICIENCY : 35.6501
COUNT DATE : 11-FEB-2010 10:20:45
ELAPSED LIVE TIME(SEC) : 30299.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B109.CNF;678
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W109.CNF;194
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 2.8300E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.879	0.000	0.000	-1.010	1.010	2.6925	100.0000	-3.02E-03	3.68E-03	1.62E-02	4.06E-02	3.68E-03
PU-238	5499.000	5466.257	0.000	0.000	-1.010	1.010	2.9312	99.90000	-3.02E-03	3.68E-03	1.77E-02	4.35E-02	3.68E-03
PU-9/0	5155.000	5155.951	4.914	1.000	0.495	0.505	2.0604	99.90000	1.48E-03	3.36E-03	1.24E-02	3.30E-02	3.35E-03
PU242	4890.000	4891.007	32.294	510.000	509.495	0.505	0.7106	100.0000	1.52E+00	1.13E-01	4.29E-03	1.67E-02	6.75E-02
PU-244	4589.000	4529.250	19.658	2.000	1.495	0.505	3.7241	99.90000	4.47E-03	4.50E-03	2.25E-02	5.31E-02	4.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

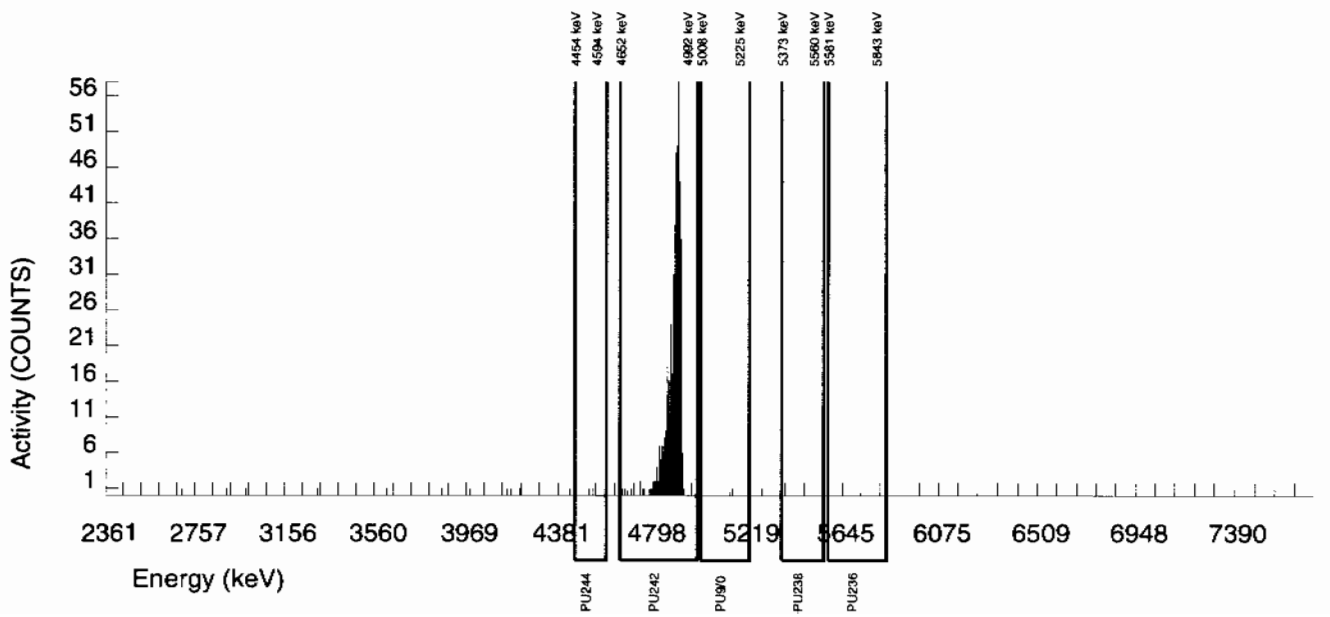

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S1202035017_PU
SAMPLE QTY : 1.252 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 105.928

CHAMBER : 111
DETECTOR S/N : 79462
AVERAGE %EFFICIENCY : 33.1216
COUNT DATE : 11-FEB-2010 10:20:45
ELAPSED LIVE TIME(SEC) : 30299.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B111.CNF;677
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W111.CNF;209
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.5812E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5806.059	4.969	1.000	1.000	0.000	2.6925	100.0000	2.05E-03	2.06E-03	1.10E-02	2.76E-02	2.05E-03
PU-238	5499.000	5486.072	78.887	5.000	3.485	1.515	2.9312	99.90000	7.09E-03	4.90E-03	1.20E-02	2.96E-02	4.88E-03
PU-9/0	5155.000	5150.213	52.798	88.000	88.000	0.000	2.0604	99.90000	1.79E-01	2.16E-02	8.45E-03	2.24E-02	1.91E-02
PU242	4890.000	4892.850	30.185	599.000	599.000	0.000	0.0000	100.0000	1.22E+00	8.53E-02	0.00E+00	5.50E-03	4.97E-02
PU-244	4589.000	4527.458	4.969	1.000	-0.010	1.010	3.7241	99.90000	-2.03E-05	2.50E-03	1.53E-02	3.61E-02	2.50E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

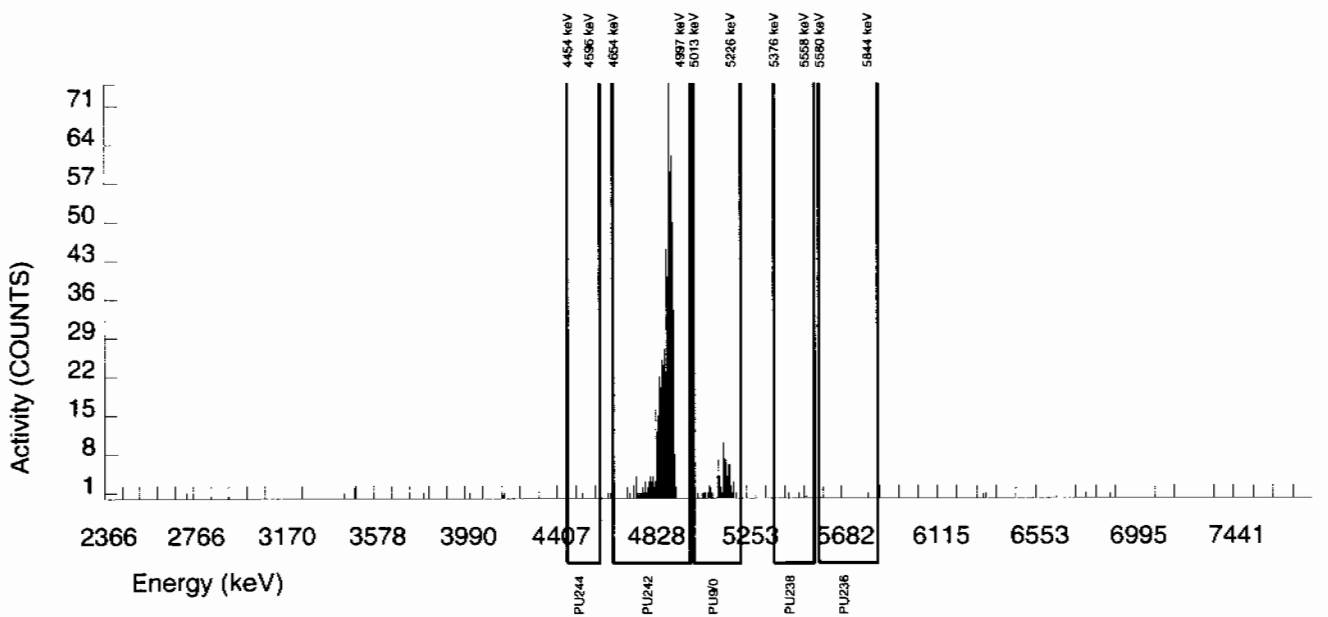

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER :	949828	CHAMBER :	112	LIB FILE :	ENV_ALPHA_PU
SAMPLE ID :	S1202035018_PU	DETECTOR S/N :	78261	BKG FILE :	B112.CNF;685
SAMPLE QTY :	0.107 G	AVERAGE %EFFICIENCY :	31.8150	BKG DATE :	7-FEB-2010
SAMPLE DATE :	9-FEB-2010 00:00:00.	COUNT DATE :	11-FEB-2010 10:20:45	BKG LIVE TIME(SEC) :	60000.00
ANALYST :	JXD2	ELAPSED LIVE TIME(SEC) :	30299.99	EFF FILE :	W112.CNF;221
% YIELD :	82.292			CAL DATE :	15-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7821E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.562	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	3.20E-02	1.73E-01	4.32E-01	3.19E-02
PU-238	5499.000	5496.537	53.807	241.000	241.000	0.000	2.9312	99.90000	7.68E+00	7.24E-01	1.89E-01	4.63E-01	4.95E-01
PU-9/0	5155.000	5153.410	32.090	1312.000	1310.485	1.515	2.0604	99.90000	4.18E+01	3.10E+00	1.33E-01	3.51E-01	1.15E+00
PU242	4890.000	4892.739	22.027	448.000	446.990	1.010	1.0050	100.0000	1.42E+01	1.19E+00	6.46E-02	2.15E-01	6.74E-01
PU-244	4589.000	4547.787	14.609	6.000	6.000	0.000	3.7241	99.90000	1.91E-01	7.92E-02	2.40E-01	5.65E-01	7.81E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

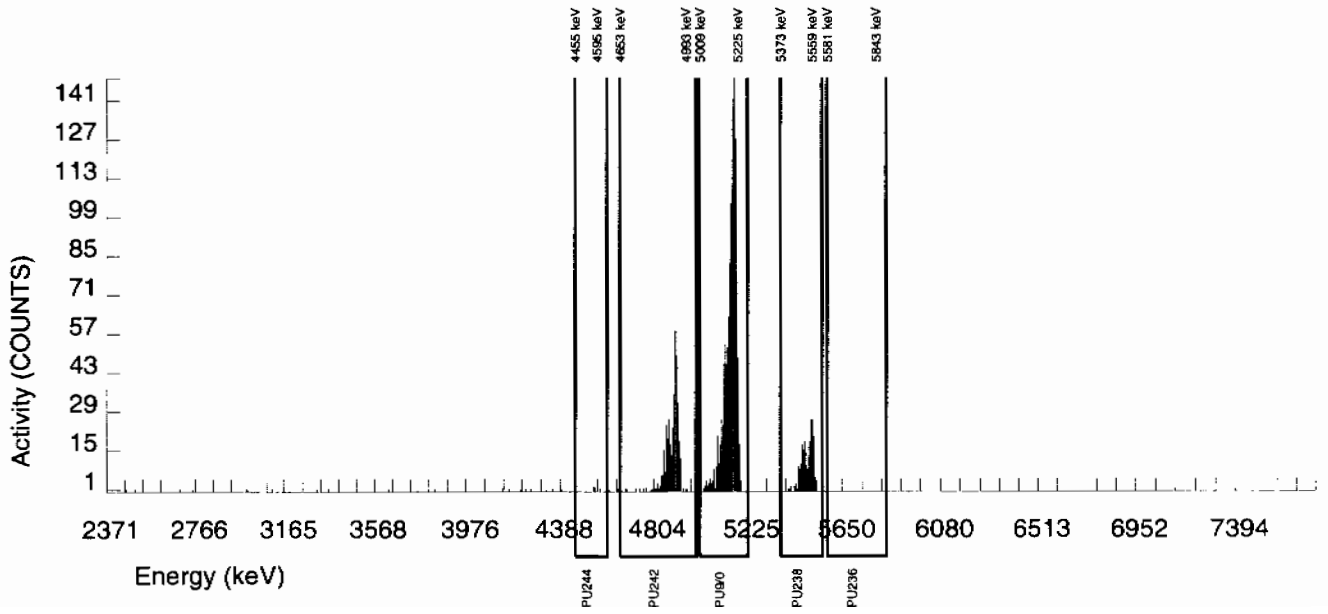

Radiochemistry Batch Checklist, Rev10

Batch# 953461 Product: U Date: 2/22/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	X		N/A DER # 793968
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	X		N/A [illegible] 2/22/10
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 2/22/10

Secondary Review Performed By: [illegible] 2/22/10

2/23

Uranium Que Sheet

P ✓

17-FEB-10

Batch #: 953461 Analyst: JXD2 First Client Due Date:23-FEB-10 Internal Due Date:18-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/07/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: — Expiration Date: — Vol: —

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 02/17/10 Initials: JXD Pipet ID: 2771058 Balance ID: 50410272 Witness: NDA 2/17/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
245994001-2	RE15-10-8122	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	1	1	0.513	120
245994002-2	RE15-10-8112	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	2	2	0.523	121
245994003-2	RE15-10-8113	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	3	3	0.545	122
245994004-2	RE15-10-8116	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	4	4	0.502	123
245994005-2	RE15-10-8119	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	5	5	0.509	124
245994006-2	RE15-10-8114	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	6	6	0.506	125
245994007-2	RE15-10-8115	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	7	7	0.543	126
245994008-2	RE15-10-8117	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	8	8	0.518	127
245994009-2	RE15-10-8118	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	9	9	0.521	128
246008001-2	RE16-10-2893	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	10	10	0.512	129
246008002-2	RE16-10-2892	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	11	11	0.526	130
246008003-2	RE16-10-2894	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	12	12	0.510	131
246008004-2	RE16-10-2888	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	13	13	0.519	132
246008005-2	RE16-10-2891	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	14	14	0.511	133
246008006-2	RE16-10-2897	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	15	15	0.514	161
246008007-2	RE16-10-2890	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	16	16	0.516	162
246008008-2	RE16-10-2889	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	17	17	0.514	163
246020013-2	RE15-10-8061	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	18	18	0.103	115 ~~164~~ 2/22/10
246020014-2	RE15-10-8063	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	19	19	0.524	165
246020015-2	RE15-10-8062	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	20	20	0.507	166
1202043974-1	MB for batch 953461	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		21	21		167
1202043975-2	RE15-10-8062(246020015DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	0.510	168
1202043976-1	LCS for batch 953461	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		23	23	0.100	169

* SRM 0244-A Exp 10/31/20 0.100g

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 2/19/10

Blank Correction Report

Batch ID 953461

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202043975	DUP	Uranium-233/234	0.510 g	1.11	0.0909	0.0582	.050196078	pCi/g	NO
		Uranium-235/236	0.510 g	0.0969	0.0179	0.0371	.008039216	pCi/g	NO
		Uranium-238	0.510 g	3.17	0.232	0.0397	.017313725	pCi/g	NO
1202043976	LCS	Uranium-233/234	0.100 g	6.27	0.510	0.308	.256	pCi/g	NO
		Uranium-235/236	0.100 g	0.393	0.0815	0.197	.041	pCi/g	NO
		Uranium-238	0.100 g	5.67	0.468	0.211	.0883	pCi/g	NO
1202043974	MB	Uranium-233/234	1.00 g	0.0256	0.0058	0.0279	.0256	pCi/g	YES
		Uranium-235/236	1.00 g	0.0041	0.00306	0.0178	.0041	pCi/g	YES
		Uranium-238	1.00 g	0.00883	0.00354	0.019	.00883	pCi/g	YES
245994001	RE15-10-8122	Uranium-233/234	0.513 g	0.983	0.0924	0.0943	.049902534	pCi/g	NO
		Uranium-235/236	0.513 g	0.0601	0.0184	0.0601	.007992203	pCi/g	NO
		Uranium-238	0.513 g	1.17	0.106	0.0644	.017212476	pCi/g	NO
245994002	RE15-10-8112	Uranium-233/234	0.523 g	2.44	0.196	0.0901	.048948375	pCi/g	NO
		Uranium-235/236	0.523 g	0.102	0.024	0.0575	.007839388	pCi/g	NO
		Uranium-238	0.523 g	3.73	0.288	0.0615	.016883365	pCi/g	NO
245994003	RE15-10-8113	Uranium-233/234	0.545 g	1.13	0.101	0.087	.046972477	pCi/g	NO
		Uranium-235/236	0.545 g	0.0724	0.0193	0.0555	.007522936	pCi/g	NO
		Uranium-238	0.545 g	1.29	0.113	0.0594	.016201835	pCi/g	NO
245994004	RE15-10-8116	Uranium-233/234	0.502 g	7.53	0.557	0.093	.050996016	pCi/g	NO
		Uranium-235/236	0.502 g	0.456	0.0558	0.0593	.008167331	pCi/g	NO
		Uranium-238	0.502 g	8.42	0.621	0.0635	.017589641	pCi/g	NO
245994005	RE15-10-8119	Uranium-233/234	0.509 g	0.917	0.0866	0.0901	.050294695	pCi/g	NO
		Uranium-235/236	0.509 g	0.053	0.0157	0.0575	.008055010	pCi/g	NO
		Uranium-238	0.509 g	0.950	0.0887	0.0615	.017347741	pCi/g	NO
245994006	RE15-10-8114	Uranium-233/234	0.506 g	6.91	0.517	0.0986	.050592885	pCi/g	NO
		Uranium-235/236	0.506 g	0.444	0.056	0.0629	.008102767	pCi/g	NO
		Uranium-238	0.506 g	13.2	0.962	0.0673	.017450593	pCi/g	NO
245994007	RE15-10-8115	Uranium-233/234	0.543 g	0.997	0.093	0.0915	.047145488	pCi/g	NO
		Uranium-235/236	0.543 g	0.103	0.0227	0.0584	.007550645	pCi/g	NO
		Uranium-238	0.543 g	1.12	0.102	0.0625	.016261510	pCi/g	NO
245994008	RE15-10-8117	Uranium-233/234	0.518 g	3.23	0.256	0.0981	.049420849	pCi/g	NO
		Uranium-235/236	0.518 g	0.173	0.0314	0.0626	.007915058	pCi/g	NO
		Uranium-238	0.518 g	4.09	0.317	0.067	.017046332	pCi/g	NO
245994009	RE15-10-8118	Uranium-233/234	0.521 g	3.99	0.306	0.0908	.049136276	pCi/g	NO
		Uranium-235/236	0.521 g	0.280	0.041	0.0579	.007869482	pCi/g	NO
		Uranium-238	0.521 g	5.53	0.415	0.062	.016948177	pCi/g	NO
246008001	RE16-10-2893	Uranium-233/234	0.512 g	0.647	0.0715	0.112	.05	pCi/g	NO
		Uranium-235/236	0.512 g	0.0219	0.0111	0.0712	.008007813	pCi/g	YES
		Uranium-238	0.512 g	0.726	0.0779	0.0763	.017246094	pCi/g	NO
246008002	RE16-10-2892	Uranium-233/234	0.526 g	0.597	0.0672	0.112	.048669202	pCi/g	NO
		Uranium-235/236	0.526 g	0.044	0.0177	0.0716	.007794677	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246008002	RE16-10-2892	Uranium-238	0.526 g	0.645	0.071	0.0766	.016787072	pCi/g	NO
246008003	RE16-10-2894	Uranium-233/234	0.510 g	0.538	0.0587	0.0937	.050196078	pCi/g	NO
		Uranium-235/236	0.510 g	0.0275	0.0131	0.0598	.008039216	pCi/g	YES
		Uranium-238	0.510 g	0.487	0.0547	0.064	.017313725	pCi/g	NO
246008004	RE16-10-2888	Uranium-233/234	0.519 g	0.747	0.0752	0.0962	.049325626	pCi/g	NO
		Uranium-235/236	0.519 g	0.0377	0.0151	0.0614	.007899807	pCi/g	YES
		Uranium-238	0.519 g	0.805	0.0797	0.0657	.017013487	pCi/g	NO
246008005	RE16-10-2891	Uranium-233/234	0.511 g	0.573	0.0633	0.0991	.050097847	pCi/g	NO
		Uranium-235/236	0.511 g	0.034	0.0131	0.0632	.008023483	pCi/g	YES
		Uranium-238	0.511 g	0.707	0.073	0.0677	.017279843	pCi/g	NO
246008006	RE16-10-2897	Uranium-233/234	0.514 g	0.707	0.0642	0.0632	.049805447	pCi/g	NO
		Uranium-235/236	0.514 g	0.0526	0.0133	0.0403	.007976654	pCi/g	NO
		Uranium-238	0.514 g	0.676	0.0621	0.0431	.017178988	pCi/g	NO
246008007	RE16-10-2890	Uranium-233/234	0.516 g	0.676	0.0612	0.0606	.049612403	pCi/g	NO
		Uranium-235/236	0.516 g	0.0564	0.0135	0.0386	.007945736	pCi/g	NO
		Uranium-238	0.516 g	0.639	0.0586	0.0414	.017112403	pCi/g	NO
246008008	RE16-10-2889	Uranium-233/234	0.514 g	0.826	0.071	0.0577	.049805447	pCi/g	NO
		Uranium-235/236	0.514 g	0.048	0.0121	0.0368	.007976654	pCi/g	NO
		Uranium-238	0.514 g	0.912	0.0772	0.0394	.017178988	pCi/g	NO
246020013	RE15-10-8061	Uranium-233/234	0.103 g	45.8	5.26	2.29	.248543689	pCi/g	NO
		Uranium-235/236	0.103 g	7.32	1.26	1.50	.039805825	pCi/g	NO
		Uranium-238	0.103 g	359	37.7	1.59	.085728155	pCi/g	NO
246020014	RE15-10-8063	Uranium-233/234	0.524 g	1.88	0.145	0.0601	.048854962	pCi/g	NO
		Uranium-235/236	0.524 g	0.150	0.0234	0.0383	.007824427	pCi/g	NO
		Uranium-238	0.524 g	6.05	0.430	0.041	.016851145	pCi/g	NO
246020015	RE15-10-8062	Uranium-233/234	0.507 g	1.00	0.0856	0.0654	.050493097	pCi/g	NO
		Uranium-235/236	0.507 g	0.122	0.0215	0.0417	.008086785	pCi/g	NO
		Uranium-238	0.507 g	3.22	0.239	0.0447	.017416174	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461
SAMPLE ID : S0245994001_UU
SAMPLE QTY : 0.513 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 89.894

CHAMBER : 120
DETECTOR S/N : 74430
AVERAGE %EFFICIENCY : 26.1342
COUNT DATE : 18-FEB-2010 18:40:39
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B120.CNF;464
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W120.CNF;128
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5062E+00 dpm
RESULTS : 4.0508E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5306.981	53.905	1060.000	1058.000	2.000	1.4142	100.0000	3.96E+00	3.05E-01	1.23E-02	3.47E-02	1.22E-01
U-3/4	4763.020	4762.501	19.809	265.000	262.929	1.000	4.8416	100.0000	9.83E-01	9.24E-02	4.21E-02	9.43E-02	6.08E-02
U-235	4391.000	4379.065	44.417	14.000	13.000	1.000	2.2152	80.90000	6.01E-02	1.84E-02	2.38E-02	6.01E-02	1.79E-02
U-238	4184.730	4192.188	34.390	314.000	314.000	0.000	3.1208	100.0000	1.17E+00	1.06E-01	2.71E-02	6.44E-02	6.62E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

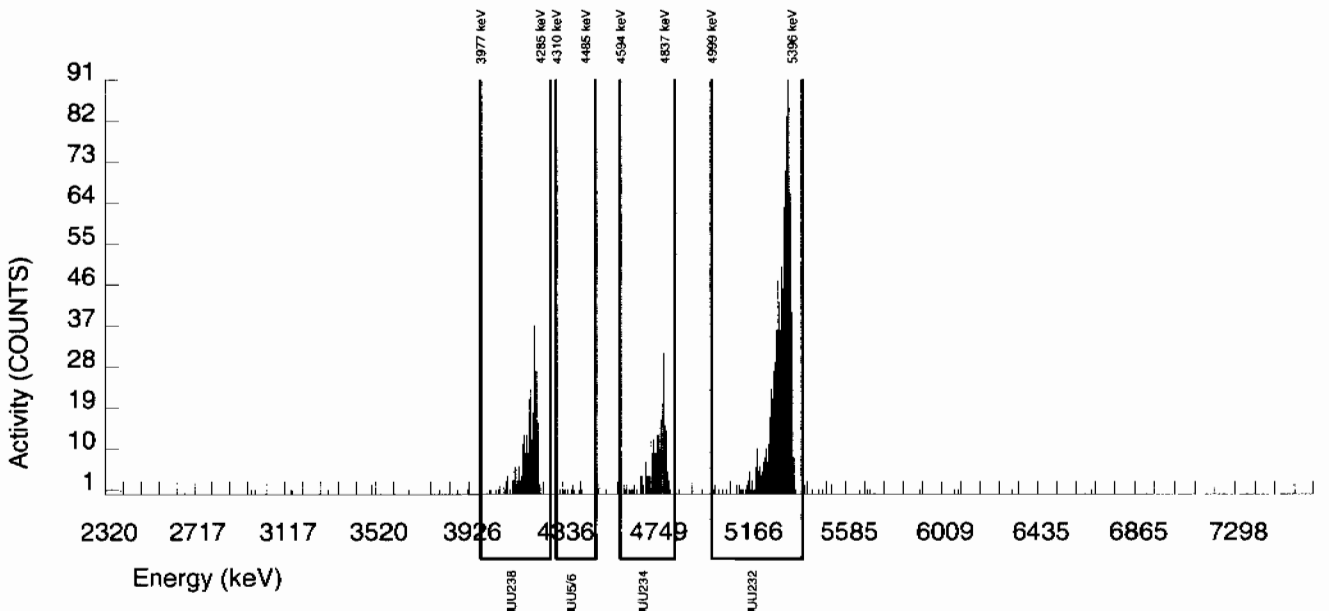

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 121	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245994002_UU	DETECTOR S/N : 75545	BKG FILE : B121.CNF;446
SAMPLE QTY : 0.523 G	AVERAGE %EFFICIENCY : 24.6447	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:40:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W121.CNF;119
% YIELD : 97.851		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4093E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5306.048	37.740	1092.000	1086.000	6.000	2.4495	100.0000	3.88E+00	2.99E-01	2.04E-02	5.04E-02	1.18E-01
U-3/4	4763.020	4760.167	44.420	685.000	682.901	1.000	4.8416	100.0000	2.44E+00	1.96E-01	4.02E-02	9.01E-02	9.35E-02
U-235	4391.000	4408.750	7.185	25.000	23.000	2.000	2.2152	80.90000	1.02E-01	2.40E-02	2.28E-02	5.75E-02	2.29E-02
U-238	4184.730	4191.750	38.533	1045.000	1044.000	1.000	3.1208	100.0000	3.73E+00	2.88E-01	2.59E-02	6.15E-02	1.16E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

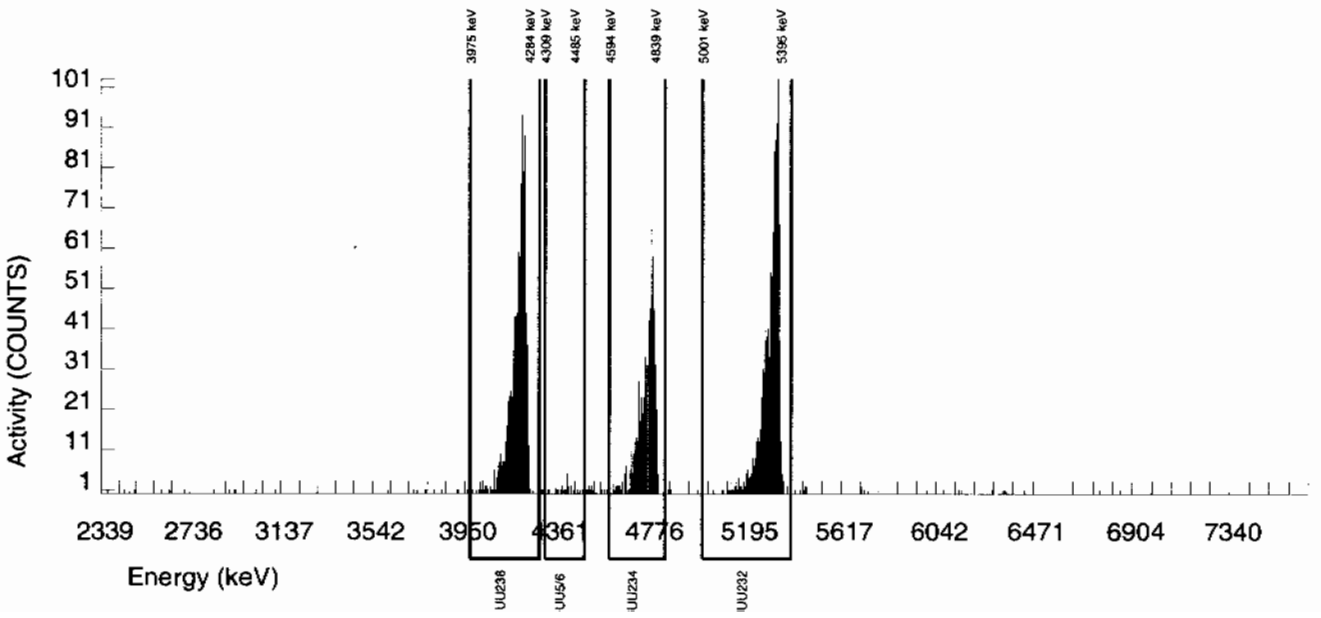

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461
SAMPLE ID : S0245994003_UU
SAMPLE QTY : 0.545 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 93.267

CHAMBER : 122
DETECTOR S/N : 75546
AVERAGE %EFFICIENCY : 25.7131
COUNT DATE : 18-FEB-2010 18:40:43
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B122.CNF;448
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W122.CNF;122
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5062E+00 dpm
RESULTS : 4.2028E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.324	55.397	1084.000	1080.000	4.000	2.0000	100.0000	3.72E+00	2.87E-01	1.60E-02	4.14E-02	1.14E-01
U-3/4	4763.020	4758.776	49.663	328.000	326.907	0.000	4.8416	100.0000	1.13E+00	1.01E-01	3.88E-02	8.70E-02	6.23E-02
U-235	4391.000	4417.100	78.042	18.000	17.000	1.000	2.2152	80.90000	7.24E-02	1.93E-02	2.20E-02	5.55E-02	1.86E-02
U-238	4184.730	4188.061	48.391	373.000	373.000	0.000	3.1208	100.0000	1.29E+00	1.13E-01	2.50E-02	5.94E-02	6.66E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

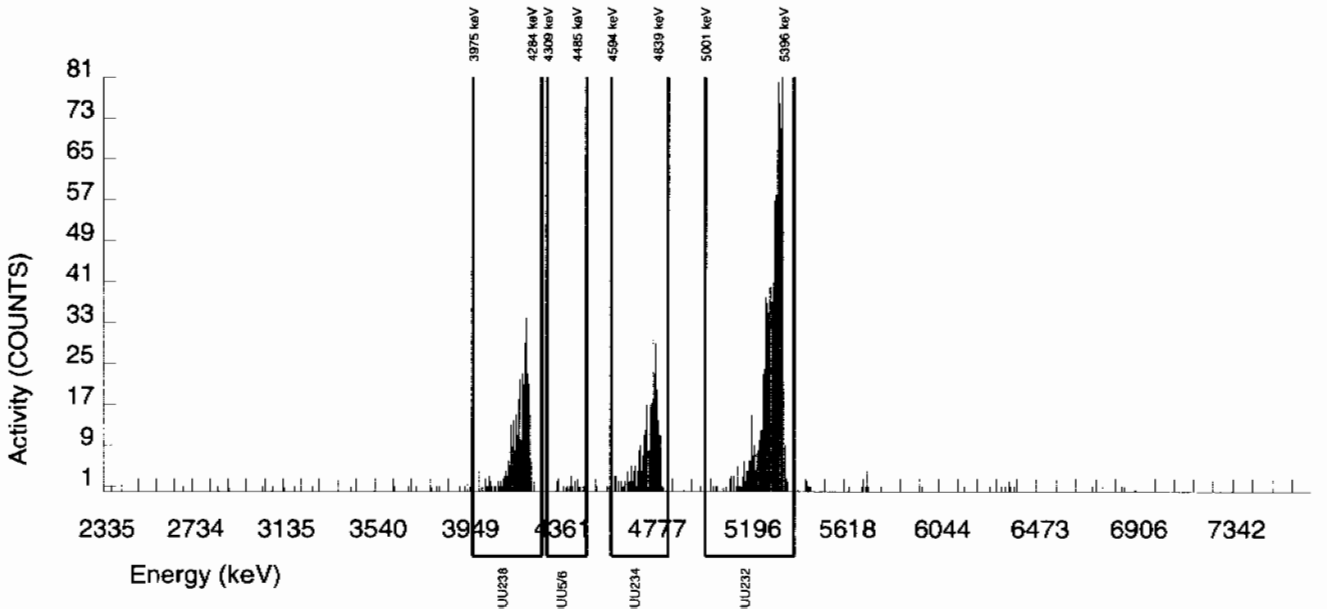

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461
SAMPLE ID : S0245994004_UU
SAMPLE QTY : 0.502 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 94.814

CHAMBER : 123
DETECTOR S/N : 45-142V3
AVERAGE %EFFICIENCY : 25.6683
COUNT DATE : 18-FEB-2010 18:40:46
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B123.CNF;446
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W123.CNF;118
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5062E+00 dpm
RESULTS : 4.2725E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.351	76.081	1108.000	1096.000	12.000	3.4641	100.0000	4.04E+00	3.11E-01	2.97E-02	6.94E-02	1.23E-01
U-3/4	4763.020	4759.257	81.607	2043.000	2041.891	0.000	4.8416	100.0000	7.53E+00	5.57E-01	4.15E-02	9.30E-02	1.67E-01
U-235	4391.000	4406.112	63.336	100.000	100.000	0.000	2.2152	80.90000	4.56E-01	5.58E-02	2.35E-02	5.93E-02	4.56E-02
U-238	4184.730	4189.110	73.929	2285.000	2285.000	0.000	3.1208	100.0000	8.42E+00	6.21E-01	2.68E-02	6.35E-02	1.76E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

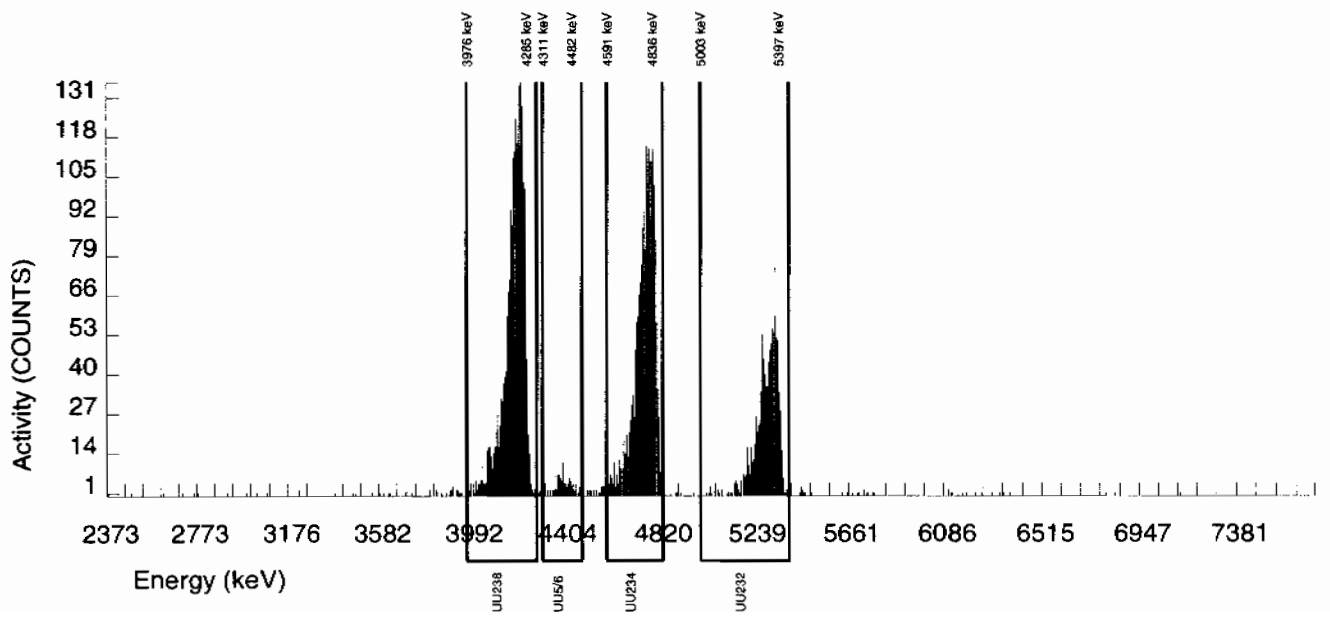

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461
SAMPLE ID : S0245994005_UU
SAMPLE QTY : 0.509 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 95.420

CHAMBER : 124
DETECTOR S/N : 45-142V2
AVERAGE %EFFICIENCY : 25.9705
COUNT DATE : 18-FEB-2010 18:40:48
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B124.CNF;442
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W124.CNF;114
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5062E+00 dpm
RESULTS : 4.2998E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5306.935	73.436	1118.000	1116.000	2.000	1.4142	100.0000	3.99E+00	3.05E-01	1.17E-02	3.32E-02	1.20E-01
U-3/4	4763.020	4765.407	77.725	260.000	256.870	2.000	4.8416	100.0000	9.17E-01	8.66E-02	4.02E-02	9.01E-02	5.77E-02
U-235	4391.000	4411.470	29.046	12.000	12.000	0.000	2.2152	80.90000	5.30E-02	1.57E-02	2.27E-02	5.75E-02	1.53E-02
U-238	4184.730	4195.025	61.735	266.000	266.000	0.000	3.1208	100.0000	9.50E-01	8.87E-02	2.59E-02	6.15E-02	5.82E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

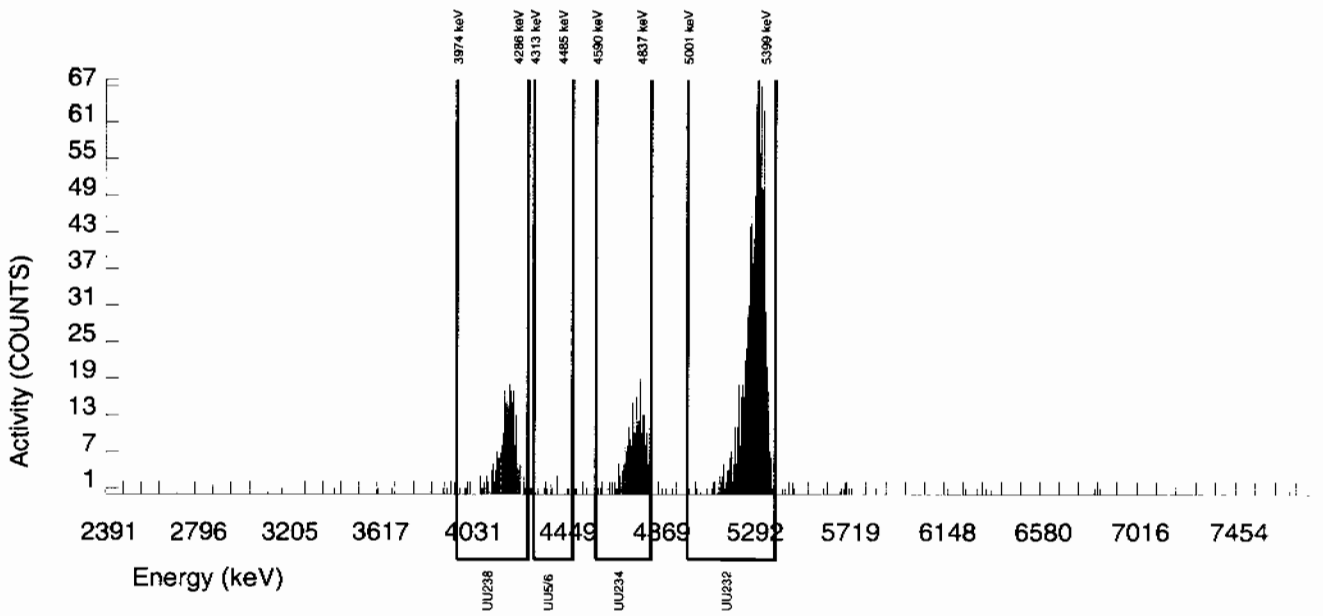

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461
SAMPLE ID : S0245994006_UU
SAMPLE QTY : 0.506 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 88.757

CHAMBER : 125
DETECTOR S/N : 75547
AVERAGE %EFFICIENCY : 25.6687
COUNT DATE : 18-FEB-2010 18:40:50
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B125.CNF;452
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W125.CNF;132
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5062E+00 dpm
RESULTS : 3.9995E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.710	32.436	1027.000	1026.000	1.000	1.0000	100.0000	4.01E+00	3.11E-01	9.09E-03	2.88E-02	1.25E-01
U-3/4	4763.020	4753.593	73.030	1770.000	1768.962	0.000	4.8416	100.0000	6.91E+00	5.17E-01	4.40E-02	9.86E-02	1.64E-01
U-235	4391.000	4399.087	78.254	92.000	92.000	0.000	2.2152	80.90000	4.44E-01	5.60E-02	2.49E-02	6.29E-02	4.63E-02
U-238	4184.730	4183.394	55.825	3372.000	3372.000	0.000	3.1208	100.0000	1.32E+01	9.62E-01	2.84E-02	6.73E-02	2.27E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

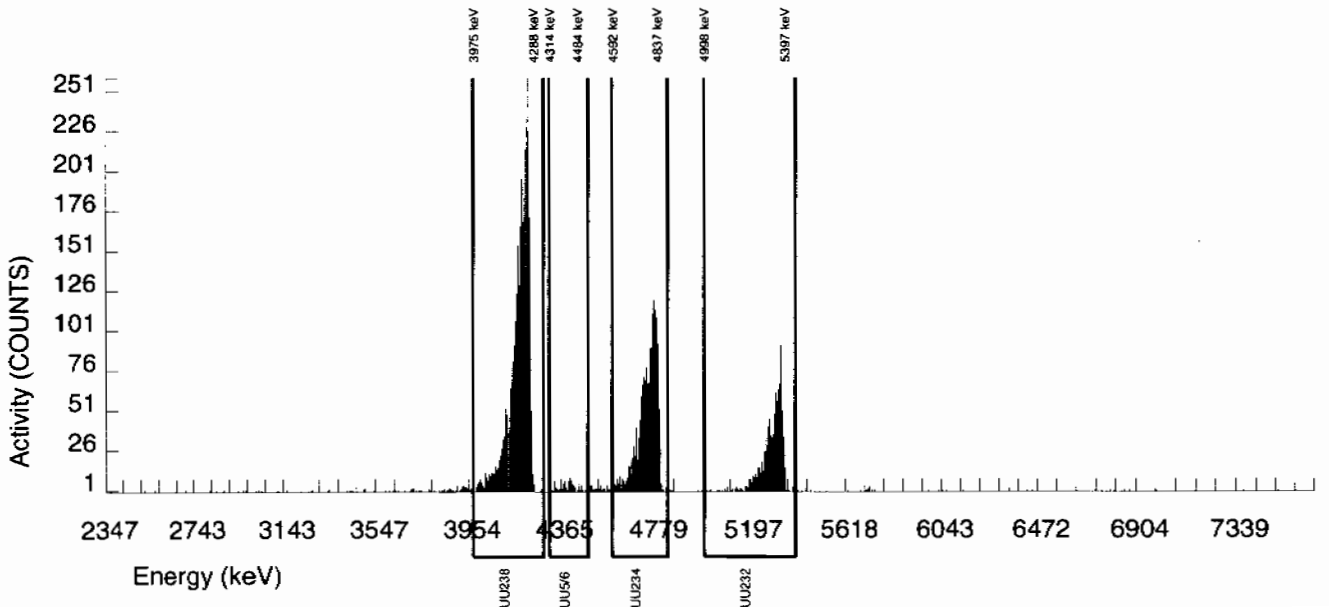

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER	: 953461	CHAMBER	: 126	LIB FILE	: ENV_ALPHA_UU
SAMPLE ID	: S0245994007_UU	DETECTOR S/N	: 75548	BKG FILE	: B126.CNF;451
SAMPLE QTY	: 0.543 G	AVERAGE %EFFICIENCY	: 25.0705	BKG DATE	: 14-FEB-2010
SAMPLE DATE	: 28-JAN-2010 00:00:00	COUNT DATE	: 18-FEB-2010 18:40:53	BKG LIVE TIME(SEC)	: 60000.00
ANALYST	: JXD2	ELAPSED LIVE TIME(SEC)	: 60000.00	EFF FILE	: W126.CNF;134
% YIELD	: 91.229			CAL DATE	: 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1109E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5315.384	66.779	1032.000	1030.000	2.000	1.4142	100.0000	3.74E+00	2.90E-01	1.19E-02	3.37E-02	1.17E-01
U-3/4	4763.020	4777.235	44.902	277.000	274.958	1.000	4.8416	100.0000	9.97E-01	9.30E-02	4.09E-02	9.15E-02	6.04E-02
U-235	4391.000	4411.539	25.825	23.000	23.000	0.000	2.2152	80.90000	1.03E-01	2.27E-02	2.31E-02	5.84E-02	2.15E-02
U-238	4184.730	4199.041	49.485	311.000	309.000	2.000	3.1208	100.0000	1.12E+00	1.02E-01	2.63E-02	6.25E-02	6.42E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

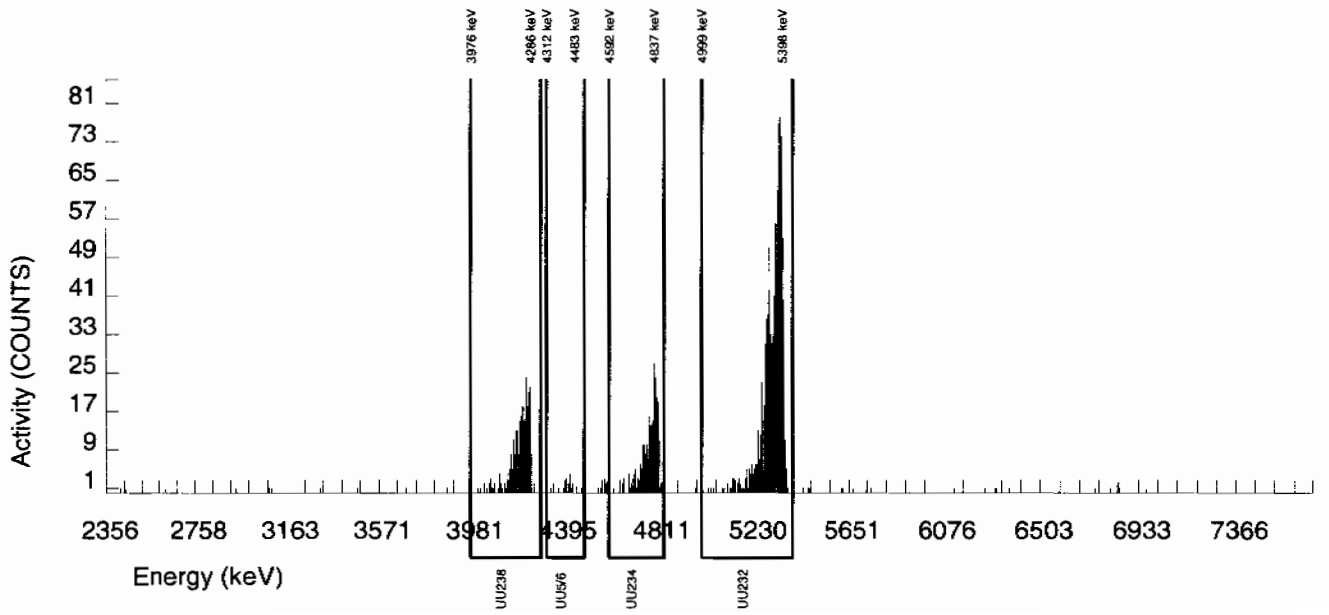

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461
SAMPLE ID : S0245994008_UU
SAMPLE QTY : 0.518 G
SAMPLE DATE : 28-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 91.292

CHAMBER : 127
DETECTOR S/N : 78770
AVERAGE %EFFICIENCY : 24.4938
COUNT DATE : 18-FEB-2010 18:40:56
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B127.CNF;455
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W127.CNF;125
CAL DATE : 18-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5062E+00 dpm
RESULTS : 4.1138E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.261	36.226	1011.000	1007.000	4.000	2.0000	100.0000	3.92E+00	3.05E-01	1.81E-02	4.67E-02	1.24E-01
U-3/4	4763.020	4756.446	38.728	832.000	830.981	0.000	4.8416	100.0000	3.23E+00	2.56E-01	4.38E-02	9.81E-02	1.12E-01
U-235	4391.000	4401.241	32.205	36.000	36.000	0.000	2.2152	80.90000	1.73E-01	3.14E-02	2.48E-02	6.26E-02	2.88E-02
U-238	4184.730	4185.446	37.866	1052.000	1051.000	1.000	3.1208	100.0000	4.09E+00	3.17E-01	2.82E-02	6.70E-02	1.26E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

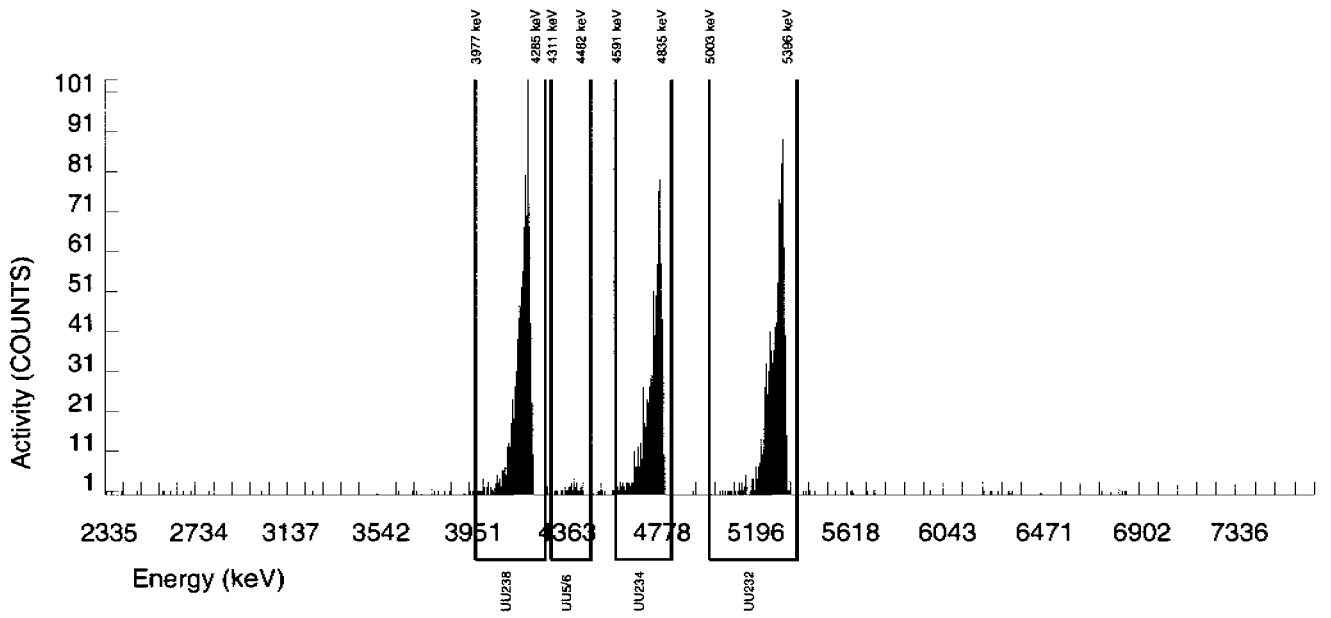

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 128	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245994009_UU	DETECTOR S/N : 75549	BKG FILE : B128.CNF;461
SAMPLE QTY : 0.521 G	AVERAGE %EFFICIENCY : 25.4275	BKG DATE : 14-FEB-2010
SAMPLE DATE : 28-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:40:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W128.CNF;135
% YIELD : 94.489		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5062E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2578E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5309.358	39.961	1084.000	1082.000	2.000	1.4142	100.0000	3.90E+00	3.00E-01	1.18E-02	3.34E-02	1.19E-01
U-3/4	4763.020	4766.390	46.421	1110.000	1108.905	0.000	4.8416	100.0000	3.99E+00	3.06E-01	4.05E-02	9.08E-02	1.20E-01
U-235	4391.000	4400.825	7.265	64.000	63.000	1.000	2.2152	80.90000	2.80E-01	4.10E-02	2.29E-02	5.79E-02	3.59E-02
U-238	4184.730	4193.138	47.790	1537.000	1536.000	1.000	3.1208	100.0000	5.53E+00	4.15E-01	2.61E-02	6.20E-02	1.41E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

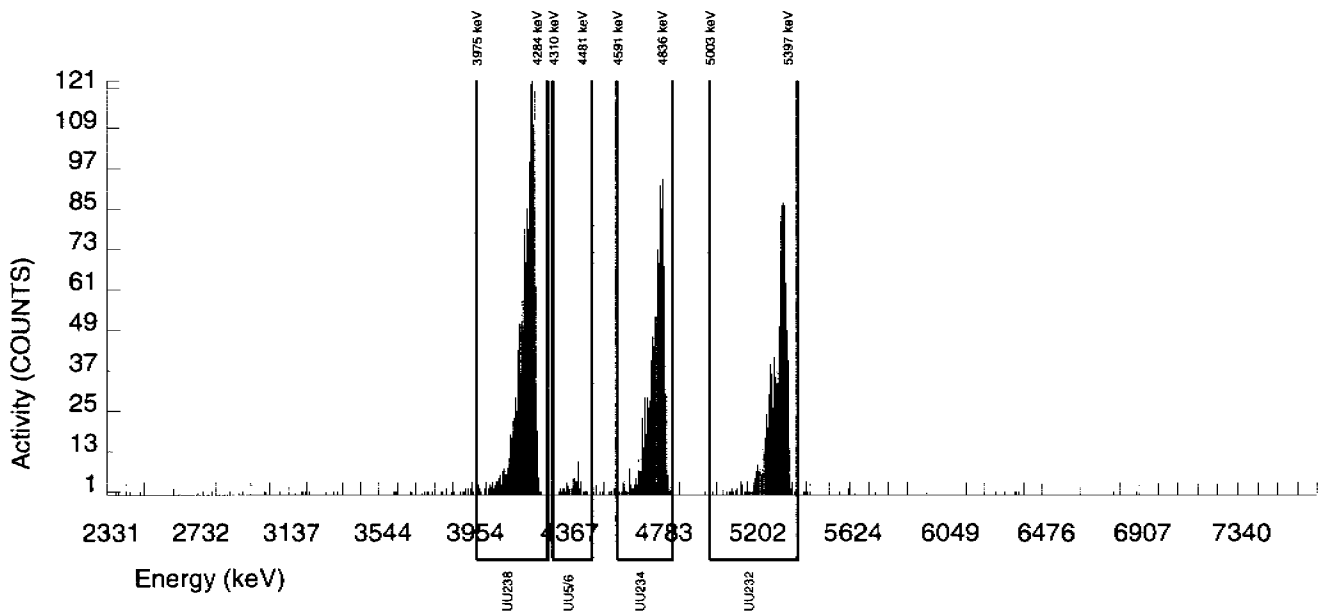

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 166	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020015_UU	DETECTOR S/N : 74545	BKG FILE : B166.CNF;171
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 39.0948	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:27	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W166.CNF;55
% YIELD : 87.640		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9493E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.104	51.364	1552.000	1543.000	9.000	3.0000	100.0000	4.00E+00	2.93E-01	1.81E-02	4.32E-02	1.03E-01
U-3/4	4763.020	4752.066	71.054	389.000	386.438	1.000	4.8416	100.0000	1.00E+00	8.56E-02	2.92E-02	6.54E-02	5.11E-02
U-235	4391.000	4386.346	0.000	38.000	38.000	0.000	2.2152	80.90000	1.22E-01	2.15E-02	1.65E-02	4.17E-02	1.98E-02
U-238	4184.730	4183.330	58.963	1244.000	1243.000	1.000	3.1208	100.0000	3.22E+00	2.39E-01	1.88E-02	4.47E-02	9.15E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

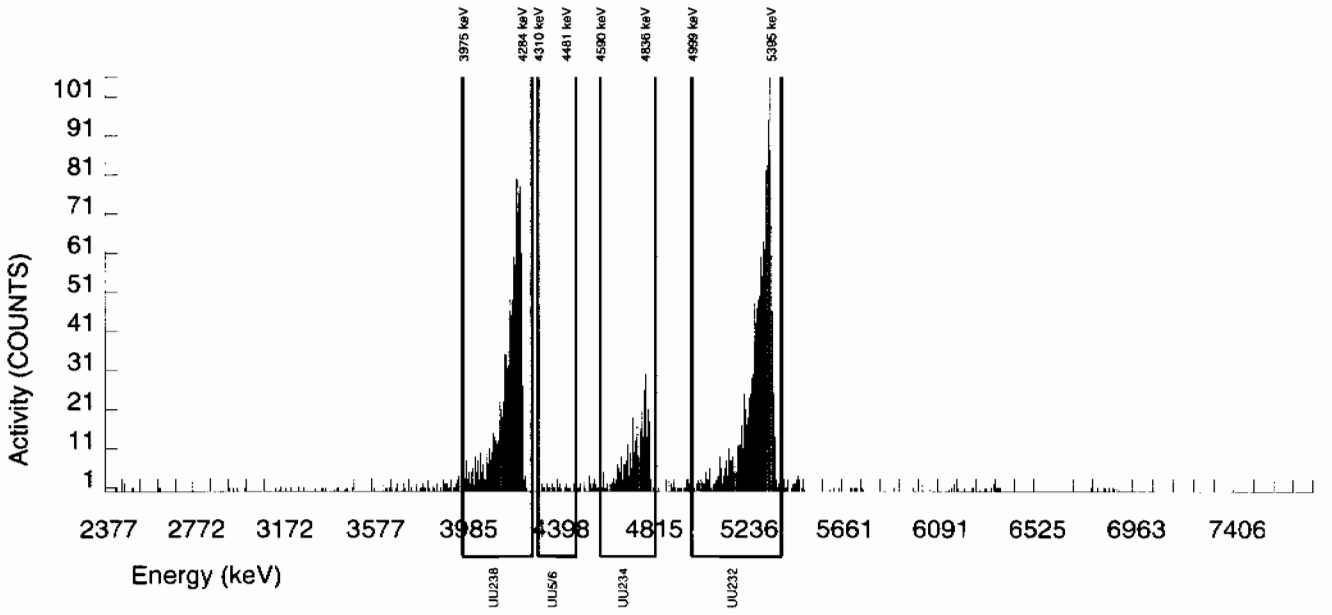

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461
SAMPLE ID : S1202043974_UU
SAMPLE QTY : 1.000 G
SAMPLE DATE : 17-FEB-2010 00:00:00
ANALYST : JXD2
% YIELD : 104.837

CHAMBER : 167
DETECTOR S/N : 72546
AVERAGE %EFFICIENCY : 38.9092
COUNT DATE : 18-FEB-2010 18:41:30
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B167.CNF;171
BKG DATE : 14-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W167.CNF;55
CAL DATE : 21-JAN-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5037E+00 dpm
RESULTS : 4.7215E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.998	37.508	1845.000	1837.000	8.000	2.8284	100.0000	2.03E+00	1.45E-01	7.27E-03	1.75E-02	4.75E-02
U-3/4	4763.020	4733.205	0.000	26.000	23.141	1.000	4.8416	100.0000	2.56E-02	5.80E-03	1.24E-02	2.79E-02	5.54E-03
U-235	4391.000	4424.648	0.000	4.000	3.000	1.000	2.2152	80.90000	4.09E-03	3.06E-03	7.03E-03	1.78E-02	3.05E-03
U-238	4184.730	4120.222	4.908	9.000	8.000	1.000	3.1208	100.0000	8.83E-03	3.54E-03	8.02E-03	1.90E-02	3.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

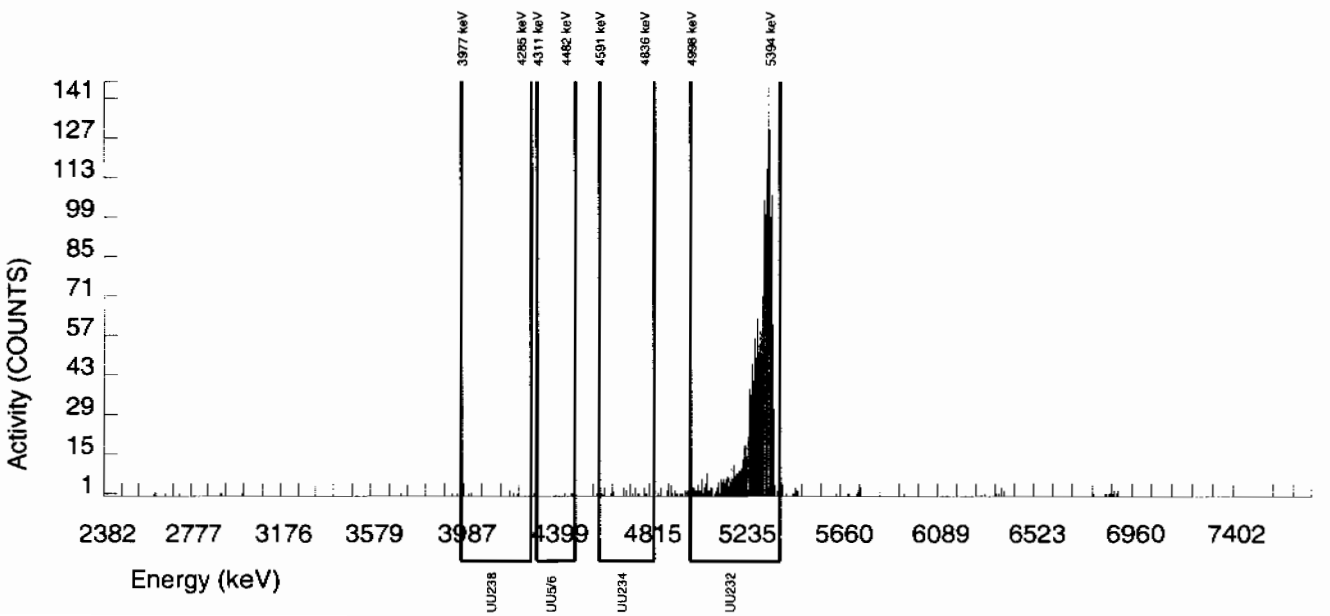

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 168	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202043975_UU	DETECTOR S/N : 72547	BKG FILE : B168.CNF;171
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 38.9921	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W168.CNF;55
% YIELD : 98.236		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4268E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.976	40.081	1735.000	1725.000	10.000	3.1623	100.0000	3.98E+00	2.87E-01	1.70E-02	4.02E-02	9.64E-02
U-3/4	4763.020	4762.761	50.877	485.000	480.254	3.000	4.8416	100.0000	1.11E+00	9.09E-02	2.60E-02	5.82E-02	5.08E-02
U-235	4391.000	4403.871	100.649	34.000	34.000	0.000	2.2152	80.90000	9.69E-02	1.79E-02	1.47E-02	3.71E-02	1.66E-02
U-238	4184.730	4185.553	63.931	1376.000	1376.000	0.000	3.1208	100.0000	3.17E+00	2.32E-01	1.67E-02	3.97E-02	8.55E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

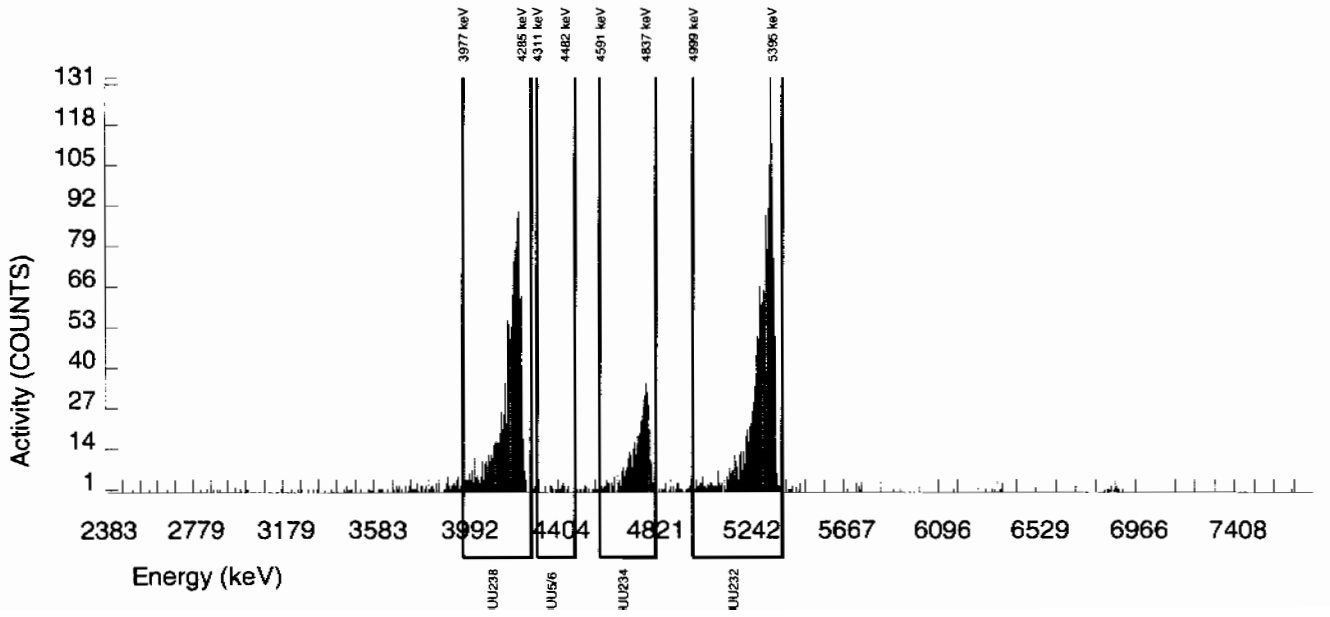

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 169	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202043976_UU	DETECTOR S/N : 72548	BKG FILE : B169.CNF;173
SAMPLE QTY : 0.100 G	AVERAGE %EFFICIENCY : 37.6264	BKG DATE : 14-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:35	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W169.CNF;65
% YIELD : 97.965		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5037E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4120E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.102	53.595	1666.000	1660.000	6.000	2.4495	100.0000	2.03E+01	1.47E+00	6.96E-02	1.72E-01	5.00E-01
U-3/4	4763.020	4764.487	72.641	518.000	513.320	3.000	4.8416	100.0000	6.27E+00	5.10E-01	1.38E-01	3.08E-01	2.78E-01
U-235	4391.000	4412.658	63.211	26.000	26.000	0.000	2.2152	80.90000	3.93E-01	8.15E-02	7.78E-02	1.97E-01	7.70E-02
U-238	4184.730	4188.423	51.591	466.000	464.000	2.000	3.1208	100.0000	5.67E+00	4.68E-01	8.87E-02	2.11E-01	2.64E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

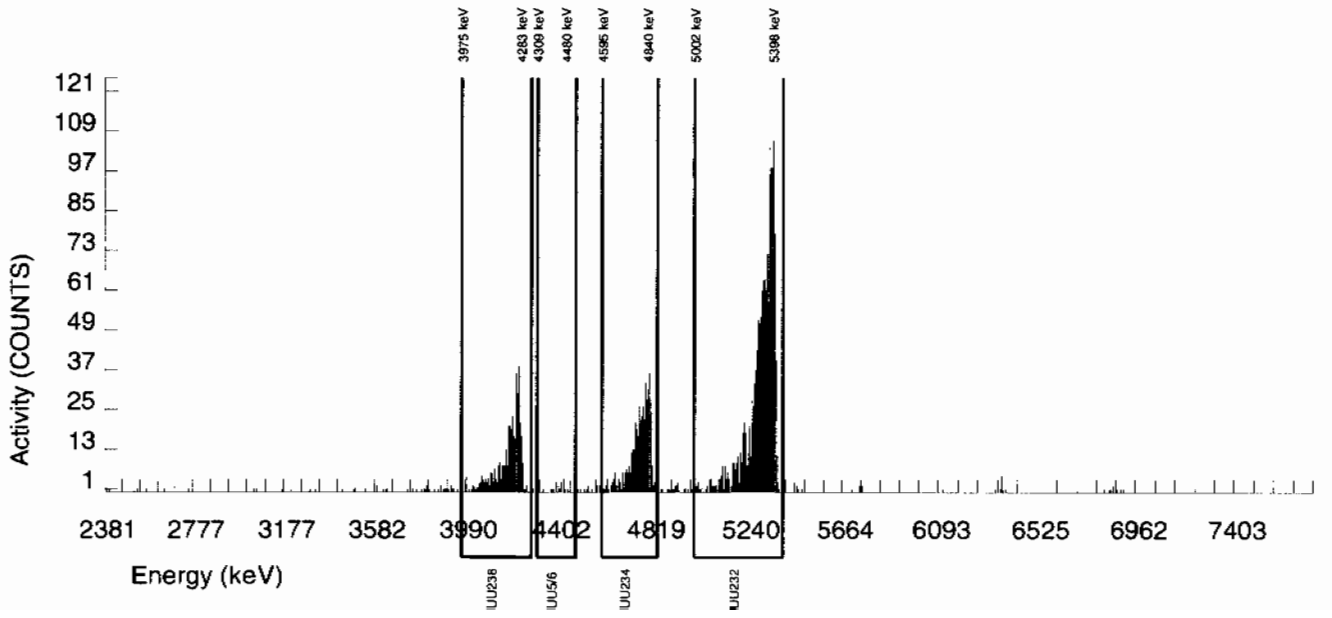

Radiochemistry Batch Checklist, Rev10

Batch# 948812 Product: γ-S Date: 2/15/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: KRobt 2/15/10

Secondary Review Performed By: [illegible] 2/17/10

LANL
2/23

Gamma Spec Que Sheet 1.G.-2/12/10

02/05/2010

Batch #:948812 Analyst: MXR1 First Client DueDate02/23/2010 Internal Due Date: 02/13/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: n/a Expiration Date: n/a Vol: n/a Nominal Concentration: n/a Co60 6.404
Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0mL Nominal Concentration: Cs-137 5.561 Am241 15.90
Initials: MS Prep Date: 2/5/10 Library: SOLID Witness: n/a

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1/8/F)	Detector	Sealing Date/Time (if Applicable)
245994001-1	RE15-10-8122	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF	Can	125.49	16	2/5/10
245994002-1	RE15-10-8112	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		130.62	19	2/4/10
245994003-1	RE15-10-8113	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		117.48	20	
245994004-1	RE15-10-8116	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		127.50	25	
245994005-1	RE15-10-8119	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		121.22	11	2/5/10
245994006-1	RE15-10-8114	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		113.22	23	2/4/10
245994007-1	RE15-10-8115	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		122.23	10	2/5/10
245994008-1	RE15-10-8117	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		135.54	22	2/4/10
245994009-1	RE15-10-8118	SAMPLE		LANL010	SOIL	28-JAN-10 12:00:00	RF		140.67	12	
246008001-1	RE16-10-2893	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	RF		155.21	17	
246008002-1	RE16-10-2892	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	RF		125.39	18	
246008003-1	RE16-10-2894	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	RF		108.94	1	
246008004-1	RE16-10-2888	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	RF		105.03	6	2/5/10
246008005-1	RE16-10-2891	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	RF		134.01	4	2/4/10
246008006-1	RE16-10-2897	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	RF		142.22	14	
246008007-1	RE16-10-2890	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	RF		123.20	15	
246008008-1	RE16-10-2889	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	RF		131.15	16	
1202032720-1	MB	MB		QC ACCOUNT	SOIL	2/5/10	RF		155.21	19	2/5/10
1202032721-1	DUP RE15-10-8112(245994002)	DUP		QC ACCOUNT	SOIL	28-JAN-10 12:00:00	RF		131.37	20	2/4/10
1202032722-1	LCS	LCS		QC ACCOUNT	SOIL	2/5/10	RF		155.44	25	2/5/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: KOtt 2/15/10

vnowstony
vdailres

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
948812	245994001	SAMPLE	12-FEB-10		Americium-241	0.1308	0.2222	0.200
948812	245994002	SAMPLE	12-FEB-10		Americium-241	0.05201	0.2772	0.200
					Cerium-139	-0.00427	0.05319	0.050
948812	245994003	SAMPLE	12-FEB-10					
948812	245994004	SAMPLE	12-FEB-10					
948812	245994005	SAMPLE	12-FEB-10					
948812	245994006	SAMPLE	12-FEB-10		Americium-241	0.2834	0.4041	0.200
					Cerium-139	-0.04512	0.05914	0.050
					Sodium-22	0.01526	0.08235	0.080
948812	245994007	SAMPLE	12-FEB-10		Americium-241	-0.0248	0.3992	0.200
					Thorium-234	1.902	3.192	2.00
948812	245994008	SAMPLE	12-FEB-10		Americium-241	-0.02269	0.21	0.200
948812	245994009	SAMPLE	12-FEB-10		Americium-241	-0.02753	0.2576	0.200
948812	246008001	SAMPLE	12-FEB-10					
948812	246008002	SAMPLE	12-FEB-10		Americium-241	-0.03713	0.2754	0.200
					Thorium-234	0.9871	2.415	2.00
948812	246008003	SAMPLE	12-FEB-10		Americium-241	0.06195	0.3165	0.200
					Cerium-139	0.0327	0.06236	0.050
					Cesium-134	0.08853	0.1155	0.100
					Sodium-22	-0.0086	0.09907	0.080
					Thorium-234	-0.5951	2.779	2.00
948812	246008004	SAMPLE	12-FEB-10		Americium-241	-0.04388	0.3383	0.200
					Cerium-139	-0.01569	0.06305	0.050
					Cesium-134	0.03284	0.1083	0.100
					Sodium-22	-0.02654	0.09503	0.080
					Thorium-234	2.488	3.18	2.00
948812	246008005	SAMPLE	12-FEB-10		Americium-241	-0.1694	0.3391	0.200
					Thorium-234	0.3776	2.811	2.00
948812	246008006	SAMPLE	12-FEB-10					
948812	246008007	SAMPLE	12-FEB-10		Americium-241	-0.354	0.4846	0.200
					Cerium-139	-0.02292	0.0626	0.050
					Cesium-134	0.076	0.1069	0.100
					Sodium-22	-0.00017	0.1067	0.080
					Thorium-234	0.9069	4.014	2.00
948812	246008008	SAMPLE	12-FEB-10		Americium-241	0.08533	0.2085	0.200
948812	1202032720	MB	12-FEB-10					
948812	1202032721	DUP	12-FEB-10					
948812	1202032722	LCS	12-FEB-10		Cerium-139	0.03084	0.06549	0.050
					Cesium-134	0.1349	0.1665	0.100
					Europium-152	-0.00275	0.2713	0.200
					Ruthenium-106	-0.03067	0.8985	0.800
					Tin-113	0.02802	0.1305	0.100
					Yttrium-88	0.01214	0.1049	0.100

GEL QUALS

Batch ID: 948812

Report run on: February 15, 2010 1:06 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245994001-1 12-FEB-2010 12:31	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.315			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.124			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.854			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.05872			
245994002-1 12-FEB-2010 12:31	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.807			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.535			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1109		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.429			
245994003-1 12-FEB-2010 12:32	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.151			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.581			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.09656		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.1082		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.913			
245994004-1 12-FEB-2010 12:32	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.06			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.242			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1442		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.677			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07271			
245994005-1 12-FEB-2010 12:35	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.526			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.793			

GEL QUALS

Batch ID: 948812

Report run on: February 15, 2010 1:06 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245994005-1 12-FEB-2010 12:35	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1483		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.497			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09245			
245994006-1 12-FEB-2010 12:35	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.718			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.273			
245994007-1 12-FEB-2010 12:38	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.911			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.544			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.294			
245994008-1 12-FEB-2010 13:26	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.75			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.939			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.741			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1253			
245994009-1 12-FEB-2010 13:42	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.816			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.361			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.711			
246008001-1 12-FEB-2010 13:42	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.713			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.772			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.248			
246008002-1	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.695			

GEL QUALS

Batch ID: 948812

Report run on: February 15, 2010 1:06 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246008002-1 12-FEB-2010 13:43	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.314			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.102			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08786			
246008003-1 12-FEB-2010 13:51	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.101			
	Cadmium-109	UI	UI	UI	Data rejected due to high peak-width.		3.419			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.589			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1421			
246008004-1 12-FEB-2010 13:52	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.513			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.178			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.006			
246008005-1 12-FEB-2010 14:27	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.777			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.738			
	Radium-224	UI	UI	UI	Data rejected due to interference.		1.783			
246008006-1 12-FEB-2010 14:27	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.714			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.092			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.875			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09167			
246008007-1 12-FEB-2010 14:28	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.04			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.787			

GEL QUALS

Batch ID: 948812

Report run on: February 15, 2010 1:06 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246008007-1 12-FEB-2010 14:28	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1246			
246008008-1 12-FEB-2010 14:37	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.256			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.938			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.574			
1202032721-1 DUP 12-FEB-2010 14:38	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.598			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.139			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.405			

Gamma Review Report based on Result > MDA for Batch:948812

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994001	28-JAN-10 12:00	12-FEB-10 12:31	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.547	0.1911	pCi/g	0.1723	N	911.3	3	1.515	IDENTIFIED	10.83		
Americium-243	INT	0.3884	0.03767	pCi/g	0.07464	N	74.83	1	1.126	IDENTIFIED	8.766		
Annihilation Rad.	HE	0.07998	0.03043	pCi/g	0.04564	N	510.7	1	1.521	IDENTIFIED	37.75		
Bismuth-211	INT	4.315	0.3272	pCi/g	0.2698	Y	351.9	4	1.209	IDENTIFIED	5.264	☑ UI	
Bismuth-212	—	1.202	0.2397	pCi/g	0.6643	N	0	9	0	FAIL_ABUND	0		
Bismuth-214	✓	1.183	0.09596	pCi/g	0.09486	0.200	609.3	4	1.404	IDENTIFIED	6.149		
Cadmium-109	INT	4.124	0.5168	pCi/g	0.9016	Y	87.15	3	1.4	IDENTIFIED	11.59	☑ UI	
Cerium-143	—	497.5	90.63	pCi/g	0	N	0	9	0	SHORT_HLIF	0		
Cesium-135	INT	0.5692	0.1341	pCi/g	0.2133	N	269.7	1	1.679	IDENTIFIED	22.67		
Gross Gamma	NR	8.201	1.25	pCi/g	2.693	N		0					
Iodine-123	HE	2.65E+06	2.11E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0		
Iodine-135	HE	1.59E+15	1.83E+15	pCi/g	0	N	0	9	0	SHORT_HLIF	0		
Krypton-85	HE	11.46	3.258	pCi/g	11.2	N	0	9	0	NOT_IDENTI	0		
Lead-212	✓	1.54	0.1053	pCi/g	0.08203	0.100	238.6	4	0.9516	IDENTIFIED	3.429		
Lead-214	✓	1.501	0.1204	pCi/g	0.09404	0.100	351.9	4	1.209	IDENTIFIED	5.264		
Lutetium-177	HE	3.013	0.8585	pCi/g	1.88	N	0	9	0	FAIL_ABUND	0		
Neptunium-237	INT	1.19	0.1933	pCi/g	0.2644	N	87.15	3	1.4	IDENTIFIED	11.59		
Polonium-212	NR	1.54	0.1053	pCi/g	0.08203	N	238.6	4	0.9516	IDENTIFIED	3.429		
Polonium-214	NR	1.501	0.1204	pCi/g	0.09404	N	351.9	4	1.209	IDENTIFIED	5.264		
Polonium-216	NR	1.54	0.1053	pCi/g	0.08203	N	238.6	4	0.9516	IDENTIFIED	3.429		
Polonium-218	NR	1.501	0.1204	pCi/g	0.09404	N	351.9	4	1.209	IDENTIFIED	5.264		
Potassium-40	✓	19.69	1.147	pCi/g	0.4395	1.00	1461	1	1.615	IDENTIFIED	3.82		
Radium-224	INT	3.854	0.5362	pCi/g	0.9335	Y	241.5	1	1.524	IDENTIFIED	12.77	☑ UI	
Radium-226	✓	1.183	0.09596	pCi/g	0.09486	Y	609.3	4	1.404	IDENTIFIED	6.149		
Radium-228	✓	1.547	0.1911	pCi/g	0.1723	0.500	911.3	3	1.515	IDENTIFIED	10.83		
Strontium-85	LA	0.05872	0.01669	pCi/g	0.05738	Y	0	9	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208	✓	0.5119	0.04612	pCi/g	0.04922	0.080	583.1	1	1.384	IDENTIFIED	7.524		
Thorium-228	NR	1.563	0.1069	pCi/g	0.08327	N	238.6	4	0.9516	IDENTIFIED	3.429		
Thorium-230	NR	1.183	0.09596	pCi/g	0.09486	N	609.3	4	1.404	IDENTIFIED	6.149		
Thorium-232	NR	1.547	0.1911	pCi/g	0.1723	N	911.3	3	1.515	IDENTIFIED	10.83		
Tin-126	NR	0.4054	0.05081	pCi/g	0.08904	N	87.15	3	1.4	IDENTIFIED	11.59		
Titanium-44	NR	0.3697	0.02692	pCi/g	0.06765	N	0	9	0	FAIL_ABUND	0		
Total Uranium	—	4.4568	2.42E-06	ug/g	2.5569	N		0					
Uranium-234	NR	1.183	0.09596	pCi/g	0.09486	N	609.3	4	1.404	IDENTIFIED	6.149		
Zirconium-97	—	3.32E+06	7.50E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994002	28-JAN-10 12:00	12-FEB-10 12:31	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.674	0.1668	pCi/g	0.2207	N	911.4	3	2.191	IDENTIFIED	8.205		
Americium-243	INT	0.3398	0.04329	pCi/g	0.09913	N	74.92	1	1.363	IDENTIFIED	12.1		

Annihilation Rad.	HE	0.1068	0.03223	pCi/g	0.04889	N	510.4	1	2.624	IDENTIFIED	30.05	☐		
Barium-137m	✓	0.1428	0.03207	pCi/g	0.05815	N	661.8	2	1.19	IDENTIFIED	22.27	☐		
Bismuth-211	INT	4.807	0.2941	pCi/g	0.3408	Y	351.8	4	1.514	IDENTIFIED	5.219	☑	UI	
Bismuth-212	HE	0.8213	0.2294	pCi/g	0.6714	N	0	11	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.359	0.1041	pCi/g	0.1102	0.200	609.3	4	1.527	IDENTIFIED	6.575	☐		
Cadmium-109	INT	2.535	0.4921	pCi/g	1.421	Y	87.29	3	1.187	IDENTIFIED	18.89	☑	UI	
Cerium-143	—	1139	154.8	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1109	0.03863	pCi/g	0.08909	0.100	0	11	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.4128	0.0919	pCi/g	0.3116	N	0	11	0	NOT_IDENTI	0	☐		
Cesium-137	✓	0.1509	0.03391	pCi/g	0.06147	0.100	661.8	2	1.19	IDENTIFIED	22.27	☐		
Gross Gamma	—	9.5	1.428	pCi/g	4.722	N		0				☐		
Iodine-135	HE	2.18E+14	2.23E+15	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.735	0.08471	pCi/g	0.09392	0.100	238.5	4	1.345	IDENTIFIED	3.288	☐		
Lead-214	✓	1.672	0.1112	pCi/g	0.1188	0.100	351.8	4	1.514	IDENTIFIED	5.219	☐		
Lutetium-177	HE	3.443	0.7774	pCi/g	2.179	N	0	11	0	FAIL_ABUND	0	☐		
Neptunium-237	HE	0.7319	0.1609	pCi/g	0.4443	N	87.29	3	1.187	IDENTIFIED	18.89	☐		
Niobium-95m	—	0.4702	0.08387	pCi/g	0.2725	N	0	11	0	NOT_IDENTI	0	☐		
Niobium-97	HE	73180	49440	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.735	0.08471	pCi/g	0.09392	N	238.5	4	1.345	IDENTIFIED	3.288	☐		
Polonium-214	NR	1.672	0.1112	pCi/g	0.1188	N	351.8	4	1.514	IDENTIFIED	5.219	☐		
Polonium-216	NR	1.735	0.08471	pCi/g	0.09392	N	238.5	4	1.345	IDENTIFIED	3.288	☐		
Polonium-218	NR	1.672	0.1112	pCi/g	0.1188	N	351.8	4	1.514	IDENTIFIED	5.219	☐		
Potassium-40	✓	19.97	1.04	pCi/g	0.584	1.00	1461	1	1.853	IDENTIFIED	3.641	☐		
Radium-224	INT	5.429	0.6973	pCi/g	1.068	Y	241.5	1	1.978	IDENTIFIED	12.53	☑	UI	
Radium-226	✓	1.359	0.1041	pCi/g	0.1102	Y	609.3	4	1.527	IDENTIFIED	6.575	☐		
Radium-228	✓	1.674	0.1668	pCi/g	0.2207	0.500	911.4	3	2.191	IDENTIFIED	8.205	☐		
Sodium-24	HE	4.10E+05	3.15E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.477	0.04236	pCi/g	0.05886	0.080	583.2	1	1.553	IDENTIFIED	8.204	☐		
Thorium-228	NR	1.761	0.08599	pCi/g	0.09533	N	238.5	4	1.345	IDENTIFIED	3.288	☐		
Thorium-230	NR	1.359	0.1041	pCi/g	0.1102	N	609.3	4	1.527	IDENTIFIED	6.575	☐		
Thorium-232	NR	1.674	0.1668	pCi/g	0.2207	N	911.4	3	2.191	IDENTIFIED	8.205	☐		
Thorium-234	✓	5.429	1.094	pCi/g	2.314	2.00	63.26	2	1.408	IDENTIFIED	18.15	☐		
Tin-126	NR	0.2492	0.04838	pCi/g	0.1403	N	87.29	3	1.187	IDENTIFIED	18.89	☐		
Titanium-44	—	0.4036	0.03281	pCi/g	0.09209	N	0	11	0	FAIL_ABUND	0	☐		
Total Uranium	—	16.212	3.26E-06	ug/g	3.4454	N		0				☐		
Uranium-234	NR	1.359	0.1041	pCi/g	0.1102	N	609.3	4	1.527	IDENTIFIED	6.575	☐		
Uranium-238	NR	5.429	1.094	pCi/g	2.314	N	63.26	2	1.408	IDENTIFIED	18.15	☐		
Zirconium-97	—	5.25E+06	9.67E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994003	28-JAN-10 12:00	12-FEB-10 12:32	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)		Qual	Qual Comment
Actinium-228	✓	1.86	0.1775	pCi/g	0.2108	N	911.3	3	1.522	IDENTIFIED	7.32	☐	
Americium-243	—	0.4381	0.03446	pCi/g	0.1182	N	0	8	0	FAIL_ABUND	0	☐	
Annihilation Rad.	—	0.1368	0.03433	pCi/g	0.04601	N	511.2	1	1.822	IDENTIFIED	24.66	☐	
Bismuth-211	INT	4.151	0.3003	pCi/g	0.3365	Y	352	4	1.187	IDENTIFIED	5.427	☑	UI
Bismuth-212	✓	1.244	0.2184	pCi/g	0.4467	N	727.4	1	1.411	IDENTIFIED	16.62	☐	

Bismuth-214	✓	1.152	0.1	pCi/g	0.1149	0.200	609.4	4	1.529	IDENTIFIED	6.669	☐		
Cadmium-109	INT	2.581	0.5025	pCi/g	1.196	Y	87.38	3	1.031	IDENTIFIED	18.9	☑	UI	
Cerium-143	—	605.3	103.3	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.09656	0.02954	pCi/g	0.09254	0.100	0	8	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-135	HE	0.3481	0.08117	pCi/g	0.2733	N	0	8	0	NOT_IDENTI	0	☐		
Gross Gamma	—	9.159	1.281	pCi/g	3.432	N		0				☐		
Iodine-123	HE	2.33E+06	2.65E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.904	0.117	pCi/g	0.08394	0.100	238.6	4	1.129	IDENTIFIED	3.087	☐		
Lead-214	✓	1.444	0.111	pCi/g	0.1122	0.100	352	4	1.187	IDENTIFIED	5.427	☐		
Lutetium-177	HE	3.395	0.7581	pCi/g	2.1	N	0	8	0	FAIL_ABUND	0	☐		
Mercury-203	INT	0.1082	0.03551	pCi/g	0.06611	0.100	277.8	1	2.263	IDENTIFIED	32.42	☑	UI	
Neptunium-237	INT	0.745	0.1641	pCi/g	0.3817	N	87.38	3	1.031	IDENTIFIED	18.9	☐		
Polonium-212	NR	1.904	0.117	pCi/g	0.08394	N	238.6	4	1.129	IDENTIFIED	3.087	☐		
Polonium-214	NR	1.444	0.111	pCi/g	0.1122	N	352	4	1.187	IDENTIFIED	5.427	☐		
Polonium-216	NR	1.904	0.117	pCi/g	0.08394	N	238.6	4	1.129	IDENTIFIED	3.087	☐		
Polonium-218	NR	1.444	0.111	pCi/g	0.1122	N	352	4	1.187	IDENTIFIED	5.427	☐		
Potassium-40	✓	20.49	1.172	pCi/g	0.4675	1.00	1461	1	2.04	IDENTIFIED	3.702	☐		
Radium-224	INT	4.913	0.731	pCi/g	0.9549	Y	241.6	1	1.793	IDENTIFIED	14.07	☑	UI	
Radium-226	✓	1.152	0.1	pCi/g	0.1149	Y	609.4	4	1.529	IDENTIFIED	6.669	☐		
Radium-228	✓	1.86	0.1775	pCi/g	0.2108	0.500	911.3	3	1.522	IDENTIFIED	7.32	☐		
Thallium-208	✓	0.6249	0.0535	pCi/g	0.05829	0.080	583.3	1	1.247	IDENTIFIED	6.846	☐		
Thorium-228	NR	1.932	0.1188	pCi/g	0.0852	N	238.6	4	1.129	IDENTIFIED	3.087	☐		
Thorium-230	NR	1.152	0.1	pCi/g	0.1149	N	609.4	4	1.529	IDENTIFIED	6.669	☐		
Thorium-232	NR	1.86	0.1775	pCi/g	0.2108	N	911.3	3	1.522	IDENTIFIED	7.32	☐		
Thorium-234	✓	2.851	0.8789	pCi/g	1.69	2.00	62.94	2	1.174	IDENTIFIED	29.58	☐		
Tin-126	NR	0.2537	0.04939	pCi/g	0.1179	N	87.38	3	1.031	IDENTIFIED	18.9	☐		
Titanium-44	—	0.3046	0.02344	pCi/g	0.07811	N	0	8	0	NOT_IDENTI	0	☐		
Total Uranium	NR	8.5072	2.62E-06	ug/g	2.516	N		0				☐		
Uranium-234	NR	1.152	0.1	pCi/g	0.1149	N	609.4	4	1.529	IDENTIFIED	6.669	☐		
Uranium-238	HE	2.851	0.8789	pCi/g	1.69	N	62.94	2	1.174	IDENTIFIED	29.58	☐		
Zirconium-97	HE	1.61E+06	8.54E+05	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994004	28-JAN-10 12:00	12-FEB-10 12:32	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	✓	1.67	0.1736	pCi/g	0.2291	N	911.1	3	1.638	IDENTIFIED	8.527	☐		
Americium-243	INT	0.4181	0.03131	pCi/g	0.05025	N	74.8	1	0.9536	IDENTIFIED	5.502	☐		
Annihilation Rad.	—	0.1984	0.03926	pCi/g	0.04302	N	511.2	1	1.916	IDENTIFIED	19.1	☐		
Bismuth-210	HE	1.287	0.3226	pCi/g	0.7146	N	46.51	3	0.9695	IDENTIFIED	24.53	☐		
Bismuth-211	INT	4.06	0.3012	pCi/g	0.3373	Y	351.9	4	1.166	IDENTIFIED	5.231	☑	UI	
Bismuth-212	—	1.159	0.2086	pCi/g	0.6668	N	0	16	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.186	0.1053	pCi/g	0.1163	0.200	609.3	4	1.411	IDENTIFIED	6.51	☐		
Cadmium-109	INT	3.242	0.3811	pCi/g	1.263	Y	87.14	3	0.8156	IDENTIFIED	10.47	☑	UI	
Cerium-143	—	386.6	84.37	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.1442	0.03822	pCi/g	0.1077	0.100	0	16	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gadolinium-153	—	0.2097	0.04113	pCi/g	0.1082	N	0	16	0	FAIL_ABUND	0	☐		
Gold-195	—	0.6106	0.1198	pCi/g	0.3421	N	0	16	0	FAIL_ABUND	0	☐		

Gross Gamma	—	10.56	1.354	pCi/g	4.427	N		0				☐		
Iodine-135	HE	7.65E+14	2.48E+15	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Krypton-85	HE	14.19	3.638	pCi/g	13.31	N	0	16	0	NOT_IDENTI	0	☐		
Lead-210	HE	1.287	0.3226	pCi/g	0.7146	N	46.51	3	0.9695	IDENTIFIED	24.53	☐		
Lead-212	✓	1.595	0.1086	pCi/g	0.1207	0.100	238.6	4	0.9823	IDENTIFIED	3.733	☐		
Lead-214	✓	1.412	0.1111	pCi/g	0.109	0.100	351.9	4	1.166	IDENTIFIED	5.231	☐		
Lutetium-177	HE	3.074	0.7126	pCi/g	1.855	N	0	16	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	0.9358	0.1464	pCi/g	0.321	N	87.14	3	0.8156	IDENTIFIED	10.47	☐		
Niobium-97	HE	1.02E+05	53660	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Polonium-210	HE	1.287	0.3216	pCi/g	0.7146	N	46.51	3	0.9695	IDENTIFIED	24.53	☐		
Polonium-212	NR	1.595	0.1086	pCi/g	0.1207	N	238.6	4	0.9823	IDENTIFIED	3.733	☐		
Polonium-214	NR	1.412	0.1111	pCi/g	0.109	N	351.9	4	1.166	IDENTIFIED	5.231	☐		
Polonium-216	NR	1.595	0.1086	pCi/g	0.1207	N	238.6	4	0.9823	IDENTIFIED	3.733	☐		
Polonium-218	NR	1.412	0.1111	pCi/g	0.109	N	351.9	4	1.166	IDENTIFIED	5.231	☐		
Potassium-40	✓	23.02	1.283	pCi/g	0.6181	1.00	1461	1	2.253	IDENTIFIED	3.594	☐		
Protactinium-234m	HE	15.41	4.793	pCi/g	12.07	N	0	16	0	FAIL_ABUND	0	☐		
Radium-224	INT	2.677	0.6179	pCi/g	1.171	Y	241.6	1	1.596	IDENTIFIED	22.48	☑	UI	
Radium-226	✓	1.186	0.1053	pCi/g	0.1163	Y	609.3	4	1.411	IDENTIFIED	6.51	☐		
Radium-228	✓	1.67	0.1736	pCi/g	0.2291	0.500	911.1	3	1.638	IDENTIFIED	8.527	☐		
Rhenium-183	HE	0.2988	0.08398	pCi/g	0.1913	N	0	16	0	FAIL_ABUND	0	☐		
Strontium-85	LA	0.07271	0.01864	pCi/g	0.06818	Y	0	16	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m	—	2.88E+16	0	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Thallium-200	HE	136.9	203.8	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5239	0.04958	pCi/g	0.06106	0.080	583	1	1.416	IDENTIFIED	7.602	☐		
Thorium-228	NR	1.619	0.1102	pCi/g	0.1225	N	238.6	4	0.9823	IDENTIFIED	3.733	☐		
Thorium-230	NR	1.186	0.1053	pCi/g	0.1163	N	609.3	4	1.411	IDENTIFIED	6.51	☐		
Thorium-232	NR	1.67	0.1736	pCi/g	0.2291	N	911.1	3	1.638	IDENTIFIED	8.527	☐		
Thorium-234	✓	11.17	1.193	pCi/g	0.8787	2.00	63.33	2	0.8313	IDENTIFIED	5.226	☐		
Tin-126	NR	0.3187	0.03746	pCi/g	0.1098	N	87.14	3	0.8156	IDENTIFIED	10.47	☐		
Titanium-44	—	0.4161	0.02647	pCi/g	0.05054	N	0	16	0	FAIL_ABUND	0	☐		
Total Uranium	—	33.53	3.55E-06	ug/g	1.3097	N		0				☐		
Uranium-234	NR	1.186	0.1053	pCi/g	0.1163	N	609.3	4	1.411	IDENTIFIED	6.51	☐		
Uranium-235	✓	0.6163	0.1359	pCi/g	0.3061	0.500	143.7	1	0.8244	IDENTIFIED	19.92	☐		
Uranium-238	NR	11.17	1.193	pCi/g	0.8787	N	63.33	2	0.8313	IDENTIFIED	5.226	☐		
Zirconium-97	HE	1.74E+06	8.86E+05	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994005	28-JAN-10 12:00	12-FEB-10 12:35	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	✓	1.796	0.1955	pCi/g	0.1797	N	911.5	3	1.475	IDENTIFIED	9.027	☐		
Americium-243	INT	0.4097	0.03397	pCi/g	0.0713	N	74.8	1	0.902	IDENTIFIED	7.232	☐		
Annihilation Rad.	—	0.174	0.03937	pCi/g	0.04041	N	511.5	1	2.084	IDENTIFIED	21.98	☐		
Bismuth-211	INT	4.526	0.3781	pCi/g	0.292	Y	351.9	4	1.125	IDENTIFIED	5.151	☑	UI	
Bismuth-212	—	1.183	0.2332	pCi/g	0.6885	N	0	13	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.349	0.1139	pCi/g	0.1044	0.200	609.5	4	1.306	IDENTIFIED	6.273	☐		
Cadmium-109	INT	2.793	0.4655	pCi/g	1.203	Y	87.24	3	0.946	IDENTIFIED	15.99	☑	UI	
Cerium-143	—	452.6	90.99	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

Cesium-134	LA	0.1483	0.0325	pCi/g	0.09816	0.100	0	13	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Gross Gamma	—	9.238	1.346	pCi/g	3.341	N		0				☐		
Iodine-123	HE	8.06E+05	2.22E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Iodine-135	HE	1.15E+15	1.87E+15	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Krypton-85	HE	18.05	3.625	pCi/g	13.61	N	0	13	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.874	0.1434	pCi/g	0.0846	0.100	238.6	4	0.9391	IDENTIFIED	3.08	☐		
Lead-214	✓	1.575	0.1378	pCi/g	0.1057	0.100	351.9	4	1.125	IDENTIFIED	5.151	☐		
Lutetium-177	HE	3.605	0.8789	pCi/g	1.915	N	0	13	0	FAIL_ABUND	0	☐		
Manganese-54	HE	0.0752	0.0214	pCi/g	0.05716	N	835.6	1	1.414	IDENTIFIED	28.03	☐		
Neptunium-237	INT	0.8064	0.158	pCi/g	0.3511	N	87.24	3	0.946	IDENTIFIED	15.99	☐		
Niobium-97	HE	79700	41680	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.874	0.1434	pCi/g	0.0846	N	238.6	4	0.9391	IDENTIFIED	3.08	☐		
Polonium-214	NR	1.575	0.1378	pCi/g	0.1057	N	351.9	4	1.125	IDENTIFIED	5.151	☐		
Polonium-216	NR	1.874	0.1434	pCi/g	0.0846	N	238.6	4	0.9391	IDENTIFIED	3.08	☐		
Polonium-218	NR	1.575	0.1378	pCi/g	0.1057	N	351.9	4	1.125	IDENTIFIED	5.151	☐		
Potassium-40	✓	18.86	1.09	pCi/g	0.4308	1.00	1461	1	1.902	IDENTIFIED	3.837	☐		
Radium-224	INT	5.497	0.7804	pCi/g	0.963	Y	241.6	1	1.773	IDENTIFIED	12.51	☑	UI	
Radium-226	✓	1.349	0.1139	pCi/g	0.1044	Y	609.5	4	1.306	IDENTIFIED	6.273	☐		
Radium-228	✓	1.796	0.1955	pCi/g	0.1797	0.500	911.5	3	1.475	IDENTIFIED	9.027	☐		
Sodium-24	HE	1.31E+05	3.42E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Strontium-85	LA	0.09245	0.01857	pCi/g	0.06971	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m	—	1.01E+16	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-200	HE	26.57	213.3	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5514	0.05312	pCi/g	0.05619	0.080	583.3	1	1.173	IDENTIFIED	7.976	☐		
Thorium-228	NR	1.902	0.1455	pCi/g	0.08587	N	238.6	4	0.9391	IDENTIFIED	3.08	☐		
Thorium-230	NR	1.349	0.1139	pCi/g	0.1044	N	609.5	4	1.306	IDENTIFIED	6.273	☐		
Thorium-232	NR	1.796	0.1955	pCi/g	0.1797	N	911.5	3	1.475	IDENTIFIED	9.027	☐		
Tin-126	NR	0.2746	0.04576	pCi/g	0.1186	N	87.24	3	0.946	IDENTIFIED	15.99	☐		
Titanium-44	—	0.4146	0.02711	pCi/g	0.06037	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium	—	2.5356	2.28E-06	ug/g	2.2621	N		0				☐		
Uranium-234	NR	1.349	0.1139	pCi/g	0.1044	N	609.5	4	1.306	IDENTIFIED	6.273	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994006	28-JAN-10 12:00	12-FEB-10 12:35	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	0.8559	0.2029	pCi/g	0.2595	N	910.6	3	2.099	IDENTIFIED	22.99	☐	
Americium-243	INT	0.3436	0.05372	pCi/g	0.1227	N	74.7	1	1.28	IDENTIFIED	14.99	☐	
Annihilation Rad.	HE	0.128	0.04016	pCi/g	0.055	N	510.6	1	2.546	IDENTIFIED	31.24	☐	
Barium-137m	NR	0.5608	0.05016	pCi/g	0.06443	N	661	2	1.589	IDENTIFIED	8.571	☐	
Bismuth-211	INT	3.718	0.2701	pCi/g	0.3819	Y	351.5	4	1.446	IDENTIFIED	6.492	☑	UI
Bismuth-212	HE	1.133	0.2107	pCi/g	0.732	N	0	11	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.18	0.09864	pCi/g	0.1123	0.200	608.8	4	1.639	IDENTIFIED	7.467	☐	
Cerium-143	—	1049	151.7	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.5928	0.05305	pCi/g	0.06811	0.100	661	2	1.589	IDENTIFIED	8.571	☐	
Gold-195	HE	0.6246	0.1448	pCi/g	0.5064	N	0	11	0	FAIL_ABUND	0	☐	
Gross Gamma	—	8.043	1.203	pCi/g	3.047	N		0				☐	
Iodine-135	HE	7.06E+14	2.54E+15	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

Lead-212	✓	1.287	0.07406	pCi/g	0.1092	0.100	238.4	4	1.113	IDENTIFIED	4.496	☐		
Lead-214	✓	1.293	0.09982	pCi/g	0.1243	0.100	351.5	4	1.446	IDENTIFIED	6.492	☐		
Niobium-95m	—	0.5133	0.09378	pCi/g	0.3032	N	0	11	0	NOT_IDENTI	0	☐		
Niobium-97	—	4.65E+05	76850	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.287	0.07406	pCi/g	0.1092	N	238.4	4	1.113	IDENTIFIED	4.496	☐		
Polonium-214	NR	1.293	0.09982	pCi/g	0.1243	N	351.5	4	1.446	IDENTIFIED	6.492	☐		
Polonium-216	NR	1.287	0.07406	pCi/g	0.1092	N	238.4	4	1.113	IDENTIFIED	4.496	☐		
Polonium-218	NR	1.293	0.09982	pCi/g	0.1243	N	351.5	4	1.446	IDENTIFIED	6.492	☐		
Potassium-40	✓	18.25	1.132	pCi/g	0.6851	1.00	1460	1	2.432	IDENTIFIED	4.95	☐		
Radium-224	INT	3.273	0.6151	pCi/g	1.243	Y	241.4	1	1.74	IDENTIFIED	18.58	☑	UI	
Radium-226	✓	1.18	0.09864	pCi/g	0.1123	Y	608.8	4	1.639	IDENTIFIED	7.467	☐		
Radium-228	✓	0.8559	0.2029	pCi/g	0.2595	0.500	910.6	3	2.099	IDENTIFIED	22.99	☐		
Silver-110m	HE	0.1418	0.02883	pCi/g	0.09958	N	0	11	0	NOT_IDENTI	0	☐		
Technetium-99m	—	9.11E+15	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4593	0.05262	pCi/g	0.07016	0.080	582.6	1	1.645	IDENTIFIED	10.99	☐		
Thorium-228	NR	1.306	0.07518	pCi/g	0.1109	N	238.4	4	1.113	IDENTIFIED	4.496	☐		
Thorium-230	NR	1.18	0.09864	pCi/g	0.1123	N	608.8	4	1.639	IDENTIFIED	7.467	☐		
Thorium-232	NR	0.8559	0.2029	pCi/g	0.2595	N	910.6	3	2.099	IDENTIFIED	22.99	☐		
Thorium-234	✓	10.35	1.626	pCi/g	3.322	2.00	63.2	2	1.084	IDENTIFIED	12.88	☐		
Titanium-44	—	0.32	0.03132	pCi/g	0.09969	N	0	11	0	FAIL_ABUND	0	☐		
Total Uranium	—	31.132	4.84E-06	ug/g	4.9453	N		0				☐		
Tungsten-181	HE	1.449	0.3111	pCi/g	1.011	N	0	11	0	NOT_IDENTI	0	☐		
Uranium-234	NR	1.18	0.09864	pCi/g	0.1123	N	608.8	4	1.639	IDENTIFIED	7.467	☐		
Uranium-235	✓	0.7659	0.1987	pCi/g	0.4025	0.500	143	1	1.182	IDENTIFIED	24.64	☐		
Uranium-238	NR	10.35	1.626	pCi/g	3.322	N	63.2	2	1.084	IDENTIFIED	12.88	☐		
Zirconium-97	—	7.47E+06	1.26E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994007	28-JAN-10 12:00	12-FEB-10 12:38	15	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.326	0.1764	pCi/g	0.2114	N	910.5	3	1.618	IDENTIFIED	11.79	☐		
Americium-243	INT	0.3717	0.05344	pCi/g	0.1049	N	74.58	1	1.301	IDENTIFIED	13.29	☐		
Annihilation Rad.	HE	0.0745	0.03212	pCi/g	0.04612	N	510.2	1	1.18	IDENTIFIED	43	☐		
Bismuth-211	INT	3.911	0.2644	pCi/g	0.3158	Y	351.5	4	1.333	IDENTIFIED	5.693	☑	UI	
Bismuth-212	HE	1.152	0.3183	pCi/g	0.6858	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	0.9908	0.08231	pCi/g	0.102	0.200	608.7	4	1.456	IDENTIFIED	7.383	☐		
Cadmium-109	INT	2.544	0.4497	pCi/g	1.214	Y	86.98	3	1.211	IDENTIFIED	16.75	☑	UI	
Cerium-143	—	799.1	119.2	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Cesium-135	INT	0.5246	0.1272	pCi/g	0.2385	N	269.5	1	1.09	IDENTIFIED	23.9	☐		
Gross Gamma	—	7.677	1.255	pCi/g	2.847	N		0				☐		
Iodine-123	HE	1.50E+06	2.47E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Iodine-135	HE	3.22E+15	2.27E+15	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.599	0.08204	pCi/g	0.08747	0.100	238.3	4	1.158	IDENTIFIED	3.457	☐		
Lead-214	✓	1.361	0.09859	pCi/g	0.1101	0.100	351.5	4	1.333	IDENTIFIED	5.693	☐		
Neptunium-237	INT	0.7343	0.1503	pCi/g	0.3759	N	86.98	3	1.211	IDENTIFIED	16.75	☐		
Niobium-95m	HE	0.2402	0.0687	pCi/g	0.2274	N	0	7	0	NOT_IDENTI	0	☐		
Polonium-212	NR	1.599	0.08204	pCi/g	0.08747	N	238.3	4	1.158	IDENTIFIED	3.457	☐		

Polonium-214	NR	1.361	0.09859	pCi/g	0.1101	N	351.5	4	1.333	IDENTIFIED	5.693	☐		
Polonium-216	NR	1.599	0.08204	pCi/g	0.08747	N	238.3	4	1.158	IDENTIFIED	3.457	☐		
Polonium-218	NR	1.361	0.09859	pCi/g	0.1101	N	351.5	4	1.333	IDENTIFIED	5.693	☐		
Potassium-40	✓	18.77	1.136	pCi/g	0.552	1.00	1460	1	1.809	IDENTIFIED	4.251	☐		
Radium-224	INT	5.294	0.5365	pCi/g	0.9952	Y	241.3	1	1.872	IDENTIFIED	9.658	☑	UI	
Radium-226	✓	0.9908	0.08231	pCi/g	0.102	Y	608.7	4	1.456	IDENTIFIED	7.383	☐		
Radium-228	✓	1.326	0.1764	pCi/g	0.2114	0.500	910.5	3	1.618	IDENTIFIED	11.79	☐		
Thallium-208	✓	0.4579	0.04692	pCi/g	0.05302	0.080	582.8	1	1.548	IDENTIFIED	9.679	☐		
Thorium-228	NR	1.623	0.08328	pCi/g	0.08879	N	238.3	4	1.158	IDENTIFIED	3.457	☐		
Thorium-230	NR	0.9908	0.08231	pCi/g	0.102	N	608.7	4	1.456	IDENTIFIED	7.383	☐		
Thorium-232	NR	1.326	0.1764	pCi/g	0.2114	N	910.5	3	1.618	IDENTIFIED	11.79	☐		
Tin-126	NR	0.2501	0.04421	pCi/g	0.1202	N	86.98	3	1.211	IDENTIFIED	16.75	☐		
Titanium-44	—	0.1349	0.023	pCi/g	0.07618	N	0	7	0	NOT_IDENTI	0	☐		
Total Uranium	—	5.7855	2.73E-06	ug/g	4.7515	N		0				☐		
Uranium-234	NR	0.9908	0.08231	pCi/g	0.102	N	608.7	4	1.456	IDENTIFIED	7.383	☐		
Zirconium-97	—	2.64E+06	9.42E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994008	28-JAN-10 12:00	12-FEB-10 13:26	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	✓	1.557	0.1557	pCi/g	0.1912	N	911.1	3	1.796	IDENTIFIED	7.49	☐		
Americium-243	INT	0.3647	0.03584	pCi/g	0.08124	N	74.92	1	1.209	IDENTIFIED	8.938	☐		
Annihilation Rad.	—	0.108	0.03072	pCi/g	0.04008	N	511	1	1.745	IDENTIFIED	28.01	☐		
Barium-137m	NR	0.1708	0.03213	pCi/g	0.04696	N	661.8	2	1.723	IDENTIFIED	18.06	☐		
Bismuth-211	INT	3.75	0.3046	pCi/g	0.2785	Y	351.8	4	1.519	IDENTIFIED	5.668	☑	UI	
Bismuth-212	—	1.336	0.2232	pCi/g	0.5551	N	0	13	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	1.138	0.09213	pCi/g	0.09373	0.200	609.3	4	1.494	IDENTIFIED	5.633	☐		
Cadmium-109	INT	2.939	0.4219	pCi/g	1.39	Y	87.2	3	1.329	IDENTIFIED	13.56	☑	UI	
Cerium-143	—	692.7	113.4	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Cesium-137	✓	0.1805	0.03397	pCi/g	0.04964	0.100	661.8	2	1.723	IDENTIFIED	18.06	☐		
Gross Gamma	—	8.545	1.081	pCi/g	2.07	N		0				☐		
Iodine-135	HE	8.42E+14	1.73E+15	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Krypton-85	—	24.46	3.934	pCi/g	12.84	N	0	13	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.678	0.1208	pCi/g	0.08344	0.100	238.7	4	1.225	IDENTIFIED	2.853	☐		
Lead-214	✓	1.305	0.1113	pCi/g	0.09707	0.100	351.8	4	1.519	IDENTIFIED	5.668	☐		
Lutetium-177	—	3.387	0.7232	pCi/g	1.914	N	0	13	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	0.8484	0.15	pCi/g	0.3179	N	87.2	3	1.329	IDENTIFIED	13.56	☐		
Niobium-95m	HE	0.2379	0.06465	pCi/g	0.2019	N	0	13	0	NOT_IDENTI	0	☐		
Niobium-97	HE	79700	41730	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.678	0.1208	pCi/g	0.08344	N	238.7	4	1.225	IDENTIFIED	2.853	☐		
Polonium-214	NR	1.305	0.1113	pCi/g	0.09707	N	351.8	4	1.519	IDENTIFIED	5.668	☐		
Polonium-216	NR	1.678	0.1208	pCi/g	0.08344	N	238.7	4	1.225	IDENTIFIED	2.853	☐		
Polonium-218	NR	1.305	0.1113	pCi/g	0.09707	N	351.8	4	1.519	IDENTIFIED	5.668	☐		
Potassium-40	✓	20.29	1.122	pCi/g	0.4215	1.00	1461	1	2.495	IDENTIFIED	3.101	☐		
Protactinium-234m	HE	13.04	3.912	pCi/g	7.732	N	0	13	0	FAIL_ABUND	0	☐		
Radium-224	INT	4.741	0.6275	pCi/g	0.9484	Y	241.8	1	1.886	IDENTIFIED	11.65	☑	UI	
Radium-226	✓	1.138	0.09213	pCi/g	0.09373	Y	609.3	4	1.494	IDENTIFIED	5.633	☐		

Radium-228	✓	1.557	0.1557	pCi/g	0.1912	0.500	911.1	3	1.796	IDENTIFIED	7.49	☐		
Strontium-85	LA	0.1253	0.02016	pCi/g	0.0658	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m	—	3.23E+16	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-200	HE	258.5	181.1	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5124	0.04218	pCi/g	0.04793	0.080	583.3	1	1.948	IDENTIFIED	6.194	☐		
Thorium-228	NR	1.703	0.1226	pCi/g	0.0847	N	238.7	4	1.225	IDENTIFIED	2.853	☐		
Thorium-230	NR	1.138	0.09213	pCi/g	0.09373	N	609.3	4	1.494	IDENTIFIED	5.633	☐		
Thorium-232	NR	1.557	0.1557	pCi/g	0.1912	N	911.1	3	1.796	IDENTIFIED	7.49	☐		
Thorium-234	✓	4.893	0.883	pCi/g	1.714	2.00	63.24	2	1.102	IDENTIFIED	15.81	☐		
Tin-126	NR	0.2889	0.04148	pCi/g	0.1351	N	87.2	3	1.329	IDENTIFIED	13.56	☐		
Titanium-44	—	0.3126	0.02402	pCi/g	0.06913	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium	—	14.677	2.63E-06	ug/g	2.5526	N		0				☐		
Uranium-234	NR	1.138	0.09213	pCi/g	0.09373	N	609.3	4	1.494	IDENTIFIED	5.633	☐		
Uranium-238	NR	4.893	0.883	pCi/g	1.714	N	63.24	2	1.102	IDENTIFIED	15.81	☐		
Zirconium-97	—	4.01E+06	8.67E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245994009	28-JAN-10 12:00	12-FEB-10 13:42	15.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	1.445	0.1466	pCi/g	0.2071	N	910.6	3	2.041	IDENTIFIED	8.526	☐	
Americium-243	INT	0.3975	0.03502	pCi/g	0.08916	N	74.73	1	0.9005	IDENTIFIED	8.128	☐	
Annihilation Rad.	—	0.1478	0.03281	pCi/g	0.04185	N	510.6	1	1.841	IDENTIFIED	21.99	☐	
Barium-137m	NR	0.2181	0.03137	pCi/g	0.05691	N	661.1	2	1.366	IDENTIFIED	14.01	☐	
Bismuth-211	INT	3.816	0.2379	pCi/g	0.2967	Y	351.6	4	1.285	IDENTIFIED	5.385	☑	UI
Bismuth-212	—	1.47	0.2504	pCi/g	0.6801	N	0	12	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.104	0.0856	pCi/g	0.1019	0.200	608.9	4	1.424	IDENTIFIED	6.568	☐	
Cadmium-109	INT	2.361	0.5509	pCi/g	1.648	Y	86.96	3	1.203	IDENTIFIED	23.02	☑	UI
Cerium-143	—	823.6	118.8	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.3677	0.09026	pCi/g	0.209	N	269.6	1	1.636	IDENTIFIED	24.26	☐	
Cesium-137	✓	0.2306	0.03316	pCi/g	0.06016	0.100	661.1	2	1.366	IDENTIFIED	14.01	☐	
Gadolinium-153	—	0.257	0.05512	pCi/g	0.1246	N	0	12	0	FAIL_ABUND	0	☐	
Gold-195	—	0.7484	0.1605	pCi/g	0.3869	N	0	12	0	FAIL_ABUND	0	☐	
Gross Gamma	—	9.21	1.369	pCi/g	3.869	N		0				☐	
Iodine-135	HE	2.67E+14	2.18E+15	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.509	0.07278	pCi/g	0.08819	0.100	238.4	4	1.066	IDENTIFIED	3.266	☐	
Lead-214	✓	1.328	0.08973	pCi/g	0.1034	0.100	351.6	4	1.285	IDENTIFIED	5.385	☐	
Lutetium-177	HE	2.477	0.679	pCi/g	1.871	N	0	12	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6814	0.1739	pCi/g	0.3857	N	86.96	3	1.203	IDENTIFIED	23.02	☐	
Niobium-97	HE	34340	53170	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.509	0.07278	pCi/g	0.08819	N	238.4	4	1.066	IDENTIFIED	3.266	☐	
Polonium-214	NR	1.328	0.08973	pCi/g	0.1034	N	351.6	4	1.285	IDENTIFIED	5.385	☐	
Polonium-216	NR	1.509	0.07278	pCi/g	0.08819	N	238.4	4	1.066	IDENTIFIED	3.266	☐	
Polonium-218	NR	1.328	0.08973	pCi/g	0.1034	N	351.6	4	1.285	IDENTIFIED	5.385	☐	
Potassium-40	✓	19.66	0.9797	pCi/g	0.421	1.00	1460	1	1.969	IDENTIFIED	3.48	☐	
Protactinium-234m	HE	7.741	4.109	pCi/g	6.389	N	1002	1	2.097	IDENTIFIED	52.89	☐	
Radium-224	INT	4.711	0.7127	pCi/g	1.004	Y	241.2	1	1.924	IDENTIFIED	14.87	☑	UI
Radium-226	✓	1.104	0.0856	pCi/g	0.1019	Y	608.9	4	1.424	IDENTIFIED	6.568	☐	

Radium-228	✓	1.445	0.1466	pCi/g	0.2071	0.500	910.6	3	2.041	IDENTIFIED	8.526	☐		
Technetium-99m	—	1.04E+16	0	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Thallium-200	HE	14.48	198.5	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.4872	0.04141	pCi/g	0.05847	0.080	582.8	1	1.255	IDENTIFIED	7.711	☐		
Thorium-228	NR	1.532	0.07388	pCi/g	0.08952	N	238.4	4	1.066	IDENTIFIED	3.266	☐		
Thorium-230	NR	1.104	0.0856	pCi/g	0.1019	N	608.9	4	1.424	IDENTIFIED	6.568	☐		
Thorium-232	NR	1.445	0.1466	pCi/g	0.2071	N	910.6	3	2.041	IDENTIFIED	8.526	☐		
Thorium-234	✓	7.708	1.266	pCi/g	2.151	2.00	62.89	2	0.8848	IDENTIFIED	14.05	☐		
Tin-126	HE	0.2321	0.05415	pCi/g	0.1536	N	86.96	3	1.203	IDENTIFIED	23.02	☐		
Titanium-44	—	0.371	0.02762	pCi/g	0.07209	N	0	12	0	FAIL_ABUND	0	☐		
Total Uranium	—	23.06	3.77E-06	ug/g	3.2017	N		0				☐		
Uranium-231	HE	1.738	0.556	pCi/g	1.582	N	0	12	0	FAIL_ABUND	0	☐		
Uranium-234	NR	1.104	0.0856	pCi/g	0.1019	N	608.9	4	1.424	IDENTIFIED	6.568	☐		
Uranium-238	NR	7.708	1.266	pCi/g	2.151	N	62.89	2	0.8848	IDENTIFIED	14.05	☐		
Zirconium-97	—	3.37E+06	9.25E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246008001	27-JAN-10 12:00	12-FEB-10 13:42	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.463	0.1733	pCi/g	0.2359	N	910.7	3	1.65	IDENTIFIED	10.4	☐	
Americium-243	INT	0.2405	0.02314	pCi/g	0.05055	N	74.86	1	0.995	IDENTIFIED	8.295	☐	
Annihilation Rad.	—	0.137	0.03453	pCi/g	0.04822	N	511	1	1.374	IDENTIFIED	24.81	☐	
Barium-137m	NR	0.3999	0.04624	pCi/g	0.06054	N	661.1	2	1.511	IDENTIFIED	10.77	☐	
Bismuth-211	INT	2.713	0.2205	pCi/g	0.3305	Y	351.8	4	1.254	IDENTIFIED	6.655	☑	UJ
Bismuth-212	HE	0.7008	0.2481	pCi/g	0.6988	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.7285	0.07973	pCi/g	0.1021	0.200	609	4	1.253	IDENTIFIED	9.691	☐	
Cadmium-109	INT	1.772	0.347	pCi/g	1.002	Y	87.34	3	1.004	IDENTIFIED	18.97	☑	UJ
Cerium-143	—	671.5	133	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cesium-135	HE	0.2067	0.07922	pCi/g	0.2016	N	269.6	1	1.162	IDENTIFIED	37.98	☐	
Cesium-137	✓	0.4227	0.04889	pCi/g	0.064	0.100	661.1	2	1.511	IDENTIFIED	10.77	☐	
Gross Gamma	—	7.888	1.39	pCi/g	3.231	N		0				☐	
Iodine-123	HE	9.64E+05	7.97E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Iodine-135	—	1.94E+16	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.226	0.07912	pCi/g	0.08779	0.100	238.6	4	1.013	IDENTIFIED	4.031	☐	
Lead-214	✓	0.9438	0.08055	pCi/g	0.1088	0.100	351.8	4	1.254	IDENTIFIED	6.655	☐	
Lutetium-177	HE	2.69	0.8268	pCi/g	2.063	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.5106	0.113	pCi/g	0.2876	N	87.34	3	1.004	IDENTIFIED	18.97	☐	
Niobium-97	HE	75340	1.54E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.226	0.07912	pCi/g	0.08779	N	238.6	4	1.013	IDENTIFIED	4.031	☐	
Polonium-214	NR	0.9438	0.08055	pCi/g	0.1088	N	351.8	4	1.254	IDENTIFIED	6.655	☐	
Polonium-216	NR	1.226	0.07912	pCi/g	0.08779	N	238.6	4	1.013	IDENTIFIED	4.031	☐	
Polonium-218	NR	0.9438	0.08055	pCi/g	0.1088	N	351.8	4	1.254	IDENTIFIED	6.655	☐	
Potassium-40	✓	27.95	1.568	pCi/g	0.4627	1.00	1460	1	1.844	IDENTIFIED	3.429	☐	
Radium-224	INT	3.248	0.5532	pCi/g	0.9997	Y	241.6	1	1.63	IDENTIFIED	16.42	☑	UJ
Radium-226	✓	0.7285	0.07973	pCi/g	0.1021	Y	609	4	1.253	IDENTIFIED	9.691	☐	
Radium-228	✓	1.463	0.1733	pCi/g	0.2359	0.500	910.7	3	1.65	IDENTIFIED	10.4	☐	
Sodium-24	HE	7.84E+05	1.06E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

Thallium-200	HE	459.4	369.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.3646	0.0452	pCi/g	0.0569	0.080	582.9	1	1.171	IDENTIFIED	11.46	☐		
Thorium-228	NR	1.246	0.0804	pCi/g	0.08921	N	238.6	4	1.013	IDENTIFIED	4.031	☐		
Thorium-230	NR	0.7285	0.07973	pCi/g	0.1021	N	609	4	1.253	IDENTIFIED	9.691	☐		
Thorium-232	NR	1.463	0.1733	pCi/g	0.2359	N	910.7	3	1.65	IDENTIFIED	10.4	☐		
Tin-126	NR	0.1739	0.03406	pCi/g	0.09823	N	87.34	3	1.004	IDENTIFIED	18.97	☐		
Titanium-44	—	0.2494	0.019	pCi/g	0.05055	N	0	10	0	FAIL_ABUND	0	☐		
Total Uranium	NR	1.7541	1.26E-06	ug/g	1.2909	N		0				☐		
Uranium-234	NR	0.7285	0.07973	pCi/g	0.1021	N	609	4	1.253	IDENTIFIED	9.691	☐		
Zirconium-97	HE	1.33E+06	2.75E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246008002	27-JAN-10 12:00	12-FEB-10 13:43	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.409	0.1455	pCi/g	0.1705	N	910.8	3	1.538	IDENTIFIED	7.915	☐		
Americium-243	INT	0.2693	0.03148	pCi/g	0.08766	N	75.09	1	0.8643	IDENTIFIED	10.91	☐		
Annihilation Rad.	HE	0.0683	0.0249	pCi/g	0.03855	N	510.9	1	2.129	IDENTIFIED	36.3	☐		
Bismuth-211	INT	2.695	0.1682	pCi/g	0.2609	Y	351.9	4	1.558	IDENTIFIED	5.353	☑	UI	
Bismuth-212	HE	0.7268	0.1873	pCi/g	0.5081	N	0	13	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	0.8802	0.07923	pCi/g	0.08671	0.200	609.4	4	1.772	IDENTIFIED	7.815	☐		
Cadmium-109	INT	2.314	0.4787	pCi/g	1.197	Y	87.42	3	1.133	IDENTIFIED	20.17	☑	UI	
Cerium-143	—	662.5	130.1	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Europium-155	HE	0.1803	0.07217	pCi/g	0.1496	N	105.4	1	1.696	IDENTIFIED	39.87	☐		
Gross Gamma	—	8.213	1.18	pCi/g	2.119	N		0				☐		
Iodine-123	HE	1.26E+07	7.50E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Iodine-133	HE	3868	4919	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Iodine-135	—	1.47E+16	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Krypton-85	HE	16.97	3.289	pCi/g	11.19	N	0	13	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.267	0.06272	pCi/g	0.07175	0.100	238.8	4	1.182	IDENTIFIED	3.43	☐		
Lead-214	✓	0.9376	0.06343	pCi/g	0.09091	0.100	351.9	4	1.558	IDENTIFIED	5.353	☐		
Lutetium-177	HE	2.859	0.6275	pCi/g	1.749	N	0	13	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	0.6669	0.1542	pCi/g	0.3528	N	87.42	3	1.133	IDENTIFIED	20.17	☐		
Niobium-95	HE	0.06513	0.01886	pCi/g	0.06258	N	0	13	0	NOT_IDENTI	0	☐		
Niobium-97	HE	13620	98850	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.267	0.06272	pCi/g	0.07175	N	238.8	4	1.182	IDENTIFIED	3.43	☐		
Polonium-214	NR	0.9376	0.06343	pCi/g	0.09091	N	351.9	4	1.558	IDENTIFIED	5.353	☐		
Polonium-216	NR	1.267	0.06272	pCi/g	0.07175	N	238.8	4	1.182	IDENTIFIED	3.43	☐		
Polonium-218	NR	0.9376	0.06343	pCi/g	0.09091	N	351.9	4	1.558	IDENTIFIED	5.353	☐		
Potassium-40	✓	34.41	1.511	pCi/g	0.437	1.00	1460	1	2.244	IDENTIFIED	2.21	☐		
Radium-224	INT	4.102	0.6058	pCi/g	0.8154	Y	241.7	1	2.007	IDENTIFIED	14.5	☑	UI	
Radium-226	✓	0.8802	0.07923	pCi/g	0.08671	Y	609.4	4	1.772	IDENTIFIED	7.815	☐		
Radium-228	✓	1.409	0.1455	pCi/g	0.1705	0.500	910.8	3	1.538	IDENTIFIED	7.915	☐		
Strontium-85	LA	0.08786	0.01703	pCi/g	0.05794	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-200	HE	362.3	308.5	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.436	0.0346	pCi/g	0.0415	0.080	583.2	1	1.499	IDENTIFIED	6.901	☐		
Thorium-228	NR	1.287	0.06373	pCi/g	0.0729	N	238.8	4	1.182	IDENTIFIED	3.43	☐		
Thorium-230	NR	0.8802	0.07923	pCi/g	0.08671	N	609.4	4	1.772	IDENTIFIED	7.815	☐		

Thorium-232	NR	1.409	0.1455	pCi/g	0.1705	N	910.8	3	1.538	IDENTIFIED	7.915	☐	
Tin-126	NR	0.2271	0.04698	pCi/g	0.1183	N	87.42	3	1.133	IDENTIFIED	20.17	☐	
Titanium-44	—	0.2783	0.02578	pCi/g	0.07386	N	0	13	0	FAIL_ABUND	0	☐	
Uranium-234	NR	0.8802	0.07923	pCi/g	0.08671	N	609.4	4	1.772	IDENTIFIED	7.815	☐	
Zirconium-97	—	8.37E+06	2.14E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246008003	27-JAN-10 12:00	12-FEB-10 13:51	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.525	0.1909	pCi/g	0.2431	N	911.3	3	1.202	IDENTIFIED	11.1	☐	
Americium-243	INT	0.3174	0.04915	pCi/g	0.1029	N	74.73	1	1.305	IDENTIFIED	14.92	☐	
Annihilation Rad.	HE	0.1316	0.05254	pCi/g	0.05447	N	511.5	1	2.267	IDENTIFIED	39.68	☐	
Bismuth-211	INT	3.101	0.291	pCi/g	0.4306	Y	352.3	4	1.184	IDENTIFIED	8.213	☑	UI
Bismuth-212	HE	1.186	0.2662	pCi/g	0.8058	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.838	0.1001	pCi/g	0.1314	0.200	609.7	4	1.304	IDENTIFIED	10.88	☐	
Cadmium-109	FPW	3.419	0.8113	pCi/g	1.502	Y	88.36	2	3.933	IDENTIFIED	23.26	☑	UI Data rejected due to high peak-width.
Cerium-143	—	457.3	151	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.84	1.735	pCi/g	3.682	N		0				☐	
Krypton-85	HE	27.43	5.117	pCi/g	18.94	N	0	8	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.391	0.09439	pCi/g	0.124	0.100	239	4	1.218	IDENTIFIED	4.517	☐	
Lead-214	✓	1.079	0.1051	pCi/g	0.1454	0.100	352.3	4	1.184	IDENTIFIED	8.213	☐	
Neptunium-237	—	0.9649	0.2084	pCi/g	0.5004	N	0	8	0	NOT_IDENTI	0	☐	
Polonium-212	NR	1.391	0.09439	pCi/g	0.124	N	239	4	1.218	IDENTIFIED	4.517	☐	
Polonium-214	NR	1.079	0.1051	pCi/g	0.1454	N	352.3	4	1.184	IDENTIFIED	8.213	☐	
Polonium-216	NR	1.391	0.09439	pCi/g	0.124	N	239	4	1.218	IDENTIFIED	4.517	☐	
Polonium-218	NR	1.079	0.1051	pCi/g	0.1454	N	352.3	4	1.184	IDENTIFIED	8.213	☐	
Potassium-40	✓	36.93	1.999	pCi/g	0.4934	1.00	1461	1	1.859	IDENTIFIED	3.09	☐	
Radium-224	INT	4.589	0.7867	pCi/g	1.233	Y	242	1	1.847	IDENTIFIED	16.53	☑	UI
Radium-226	✓	0.838	0.1001	pCi/g	0.1314	Y	609.7	4	1.304	IDENTIFIED	10.88	☐	
Radium-228	✓	1.525	0.1909	pCi/g	0.2431	0.500	911.3	3	1.202	IDENTIFIED	11.1	☐	
Strontium-85	LA	0.1421	0.0265	pCi/g	0.09812	Y	0	8	0	NOT_IDENTI	0	☑	UI Data rejected due to low abundance.
Technetium-99m	—	8.27E+16	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4213	0.04691	pCi/g	0.07033	0.080	583.5	1	1.271	IDENTIFIED	10.17	☐	
Thorium-228	NR	1.414	0.09592	pCi/g	0.126	N	239	4	1.218	IDENTIFIED	4.517	☐	
Thorium-230	NR	0.838	0.1001	pCi/g	0.1314	N	609.7	4	1.304	IDENTIFIED	10.88	☐	
Thorium-232	NR	1.525	0.1909	pCi/g	0.2431	N	911.3	3	1.202	IDENTIFIED	11.1	☐	
Tin-126	NR	0.3355	0.07963	pCi/g	0.1482	N	88.36	2	3.933	IDENTIFIED	23.26	☐	
Titanium-44	—	0.3231	0.02992	pCi/g	0.09099	N	0	8	0	FAIL_ABUND	0	☐	
Uranium-234	NR	0.838	0.1001	pCi/g	0.1314	N	609.7	4	1.304	IDENTIFIED	10.88	☐	
Zirconium-97	HE	2.65E+06	3.20E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246008004	27-JAN-10 12:00	12-FEB-10 13:52	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.533	0.222	pCi/g	0.2985	N	910.9	3	2.142	IDENTIFIED	13.56	☐	
Americium-243	INT	0.3715	0.06307	pCi/g	0.1162	N	74.42	1	1.673	IDENTIFIED	16.37	☐	
Annihilation Rad.	—	0.1635	0.04371	pCi/g	0.06188	N	510.3	1	2.269	IDENTIFIED	26.6	☐	

Bismuth-211	INT	3.513	0.29	pCi/g	0.4253	Y	351.8	4	1.233	IDENTIFIED	7.597	☑	UI	
Bismuth-212	—	1.522	0.338	pCi/g	0.8406	N	0	8	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	0.9148	0.09388	pCi/g	0.1381	0.200	609.2	4	1.197	IDENTIFIED	9.576	☐		
Cadmium-109	INT	3.178	0.4945	pCi/g	1.681	Y	87.02	3	1.196	IDENTIFIED	14.77	☑	UI	
Cerium-143	—	945	213.9	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Cesium-135	HE	0.4089	0.1119	pCi/g	0.3894	N	0	8	0	NOT_IDENTI	0	☐		
Gross Gamma	—	8.831	1.593	pCi/g	3.457	N		0				☐		
Iodine-123	HE	8.01E+05	1.36E+07	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.547	0.08779	pCi/g	0.1148	0.100	238.5	4	1.139	IDENTIFIED	4.316	☐		
Lead-214	✓	1.222	0.1058	pCi/g	0.1516	0.100	351.8	4	1.233	IDENTIFIED	7.597	☐		
Neptunium-237	INT	0.916	0.171	pCi/g	0.519	N	87.02	3	1.196	IDENTIFIED	14.77	☐		
Niobium-95m	HE	0.5179	0.09941	pCi/g	0.3203	N	0	8	0	NOT_IDENTI	0	☐		
Polonium-212	NR	1.547	0.08779	pCi/g	0.1148	N	238.5	4	1.139	IDENTIFIED	4.316	☐		
Polonium-214	NR	1.222	0.1058	pCi/g	0.1516	N	351.8	4	1.233	IDENTIFIED	7.597	☐		
Polonium-216	NR	1.547	0.08779	pCi/g	0.1148	N	238.5	4	1.139	IDENTIFIED	4.316	☐		
Polonium-218	NR	1.222	0.1058	pCi/g	0.1516	N	351.8	4	1.233	IDENTIFIED	7.597	☐		
Potassium-40	✓	29.97	1.476	pCi/g	0.5767	1.00	1461	1	1.907	IDENTIFIED	3.647	☐		
Radium-224	INT	4.006	0.713	pCi/g	1.306	Y	241.4	1	1.649	IDENTIFIED	17.55	☑	UI	
Radium-226	✓	0.9148	0.09388	pCi/g	0.1381	Y	609.2	4	1.197	IDENTIFIED	9.576	☐		
Radium-228	✓	1.533	0.222	pCi/g	0.2985	0.500	910.9	3	2.142	IDENTIFIED	13.56	☐		
Sodium-24	HE	2.74E+05	1.43E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.5	0.05704	pCi/g	0.07876	0.080	583.1	1	1.749	IDENTIFIED	10.96	☐		
Thorium-228	NR	1.572	0.08921	pCi/g	0.1166	N	238.5	4	1.139	IDENTIFIED	4.316	☐		
Thorium-230	NR	0.9148	0.09388	pCi/g	0.1381	N	609.2	4	1.197	IDENTIFIED	9.576	☐		
Thorium-232	NR	1.533	0.222	pCi/g	0.2985	N	910.9	3	2.142	IDENTIFIED	13.56	☐		
Tin-126	NR	0.3119	0.04854	pCi/g	0.1659	N	87.02	3	1.196	IDENTIFIED	14.77	☐		
Titanium-44	—	0.2716	0.03056	pCi/g	0.09863	N	0	8	0	NOT_IDENTI	0	☐		
Total Uranium	—	7.51	3.31E-06	ug/g	4.7345	N		0				☐		
Uranium-234	NR	0.9148	0.09388	pCi/g	0.1381	N	609.2	4	1.197	IDENTIFIED	9.576	☐		
Zirconium-97	—	1.70E+07	3.66E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246008005	27-JAN-10 12:00	12-FEB-10 14:27	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.29	0.1479	pCi/g	0.2229	N	911.1	3	1.672	IDENTIFIED	10.09	☐	
Americium-243	INT	0.2767	0.0391	pCi/g	0.0937	N	74.89	1	1.009	IDENTIFIED	12.92	☐	
Annihilation Rad.	HE	0.0656	0.03125	pCi/g	0.0436	N	510.9	1	1.492	IDENTIFIED	47.56	☐	
Barium-137m	NR	0.2191	0.03173	pCi/g	0.05045	N	661.8	2	1.206	IDENTIFIED	14.27	☐	
Bismuth-211	INT	2.777	0.2133	pCi/g	0.3085	Y	351.9	4	1.136	IDENTIFIED	6.899	☑	UI
Bismuth-212	HE	0.9105	0.2134	pCi/g	0.636	N	0	8	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.7288	0.07431	pCi/g	0.1042	0.200	609.3	4	1.372	IDENTIFIED	9.511	☐	
Cadmium-109	INT	2.738	0.4999	pCi/g	1.404	Y	87.1	3	1.601	IDENTIFIED	17.25	☑	UI
Cerium-143	—	354	123.3	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.2316	0.03354	pCi/g	0.05333	0.100	661.8	2	1.206	IDENTIFIED	14.27	☐	
Gross Gamma	—	7.571	1.136	pCi/g	2.663	N		0				☐	
Iodine-123	HE	6.92E+06	8.67E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.22	0.07402	pCi/g	0.09893	0.100	238.6	4	1.104	IDENTIFIED	4.545	☐	

Lead-214	✓	0.9661	0.07836	pCi/g	0.1061	0.100	351.9	4	1.136	IDENTIFIED	6.899	☐		
Lutetium-177	HE	2.831	0.7317	pCi/g	1.956	N	0	8	0	FAIL_ABUND	0	☐		
Neptunium-237	INT	0.7891	0.1655	pCi/g	0.2933	N	87.1	3	1.601	IDENTIFIED	17.25	☐		
Polonium-212	NR	1.22	0.07402	pCi/g	0.09893	N	238.6	4	1.104	IDENTIFIED	4.545	☐		
Polonium-214	NR	0.9661	0.07836	pCi/g	0.1061	N	351.9	4	1.136	IDENTIFIED	6.899	☐		
Polonium-216	NR	1.22	0.07402	pCi/g	0.09893	N	238.6	4	1.104	IDENTIFIED	4.545	☐		
Polonium-218	NR	0.9661	0.07836	pCi/g	0.1061	N	351.9	4	1.136	IDENTIFIED	6.899	☐		
Potassium-40	✓	26.55	1.265	pCi/g	0.4204	1.00	1461	1	1.882	IDENTIFIED	3.176	☐		
Radium-224	INT	1.783	0.3967	pCi/g	1.126	Y	241.4	1	1.595	IDENTIFIED	22	☑	UI	
Radium-226	✓	0.7288	0.07431	pCi/g	0.1042	Y	609.3	4	1.372	IDENTIFIED	9.511	☐		
Radium-228	✓	1.29	0.1479	pCi/g	0.2229	0.500	911.1	3	1.672	IDENTIFIED	10.09	☐		
Sodium-24	HE	48200	1.03E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-200	HE	270.4	365.3	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.3771	0.03482	pCi/g	0.05113	0.080	583.1	1	1.05	IDENTIFIED	8.683	☐		
Thorium-228	NR	1.24	0.07522	pCi/g	0.1005	N	238.6	4	1.104	IDENTIFIED	4.545	☐		
Thorium-230	NR	0.7288	0.07431	pCi/g	0.1042	N	609.3	4	1.372	IDENTIFIED	9.511	☐		
Thorium-232	NR	1.29	0.1479	pCi/g	0.2229	N	911.1	3	1.672	IDENTIFIED	10.09	☐		
Tin-126	NR	0.2687	0.04906	pCi/g	0.1327	N	87.1	3	1.601	IDENTIFIED	17.25	☐		
Titanium-44	—	0.2772	0.02917	pCi/g	0.07488	N	0	8	0	FAIL_ABUND	0	☐		
Uranium-234	NR	0.7288	0.07431	pCi/g	0.1042	N	609.3	4	1.372	IDENTIFIED	9.511	☐		
Zirconium-97	HE	3.38E+06	2.28E+06	pCi/g	0	N	0	8	0	SHORT_HLIF	0	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246008006	27-JAN-10 12:00	12-FEB-10 14:27	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.399	0.1498	pCi/g	0.2001	N	911.1	3	1.852	IDENTIFIED	8.953	☐		
Americium-243	INT	0.2992	0.03264	pCi/g	0.07731	N	74.95	1	1.367	IDENTIFIED	10.24	☐		
Annihilation Rad.	—	0.1193	0.02937	pCi/g	0.04088	N	510.8	1	1.492	IDENTIFIED	24.45	☐		
Barium-137m	✓	0.2584	0.02677	pCi/g	0.05828	N	661.4	2	1.401	IDENTIFIED	9.925	☐		
Bismuth-211	INT	2.714	0.1993	pCi/g	0.2898	Y	351.8	4	1.677	IDENTIFIED	6.627	☑	UI	
Bismuth-212	✓	1.15	0.2734	pCi/g	0.4037	N	727.3	1	0.9792	IDENTIFIED	23.39	☐		
Bismuth-214	✓	0.8303	0.06902	pCi/g	0.09425	0.200	609.1	4	1.27	IDENTIFIED	7.311	☐		
Cadmium-109	INT	2.092	0.412	pCi/g	1.364	Y	87.11	3	1.03	IDENTIFIED	19.21	☑	UI	
Cerium-143	—	1154	177.8	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Cesium-137	✓	0.2731	0.02831	pCi/g	0.06161	0.100	661.4	2	1.401	IDENTIFIED	9.925	☐		
Gross Gamma	—	8.045	1.235	pCi/g	3.011	N		0				☐		
Krypton-85	HE	17.69	3.711	pCi/g	12.83	N	0	9	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.3	0.06779	pCi/g	0.0858	0.100	238.5	4	1.319	IDENTIFIED	3.733	☐		
Lead-214	✓	0.9442	0.07359	pCi/g	0.101	0.100	351.8	4	1.677	IDENTIFIED	6.627	☐		
Lutetium-177	HE	2.256	0.7666	pCi/g	2.095	N	0	9	0	FAIL_ABUND	0	☐		
Neptunium-237	HE	0.6031	0.1341	pCi/g	0.3765	N	87.11	3	1.03	IDENTIFIED	19.21	☐		
Niobium-95m	—	0.6055	0.07695	pCi/g	0.2638	N	0	9	0	NOT_IDENTI	0	☐		
Niobium-97	HE	67670	1.28E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		
Polonium-212	NR	1.3	0.06779	pCi/g	0.0858	N	238.5	4	1.319	IDENTIFIED	3.733	☐		
Polonium-214	NR	0.9442	0.07359	pCi/g	0.101	N	351.8	4	1.677	IDENTIFIED	6.627	☐		
Polonium-216	NR	1.3	0.06779	pCi/g	0.0858	N	238.5	4	1.319	IDENTIFIED	3.733	☐		
Polonium-218	NR	0.9442	0.07359	pCi/g	0.101	N	351.8	4	1.677	IDENTIFIED	6.627	☐		

Potassium-40	✓	29.96	1.363	pCi/g	0.5107	1.00	1461	1	2.059	IDENTIFIED	2.74	☐		
Radium-224	INT	2.875	0.625	pCi/g	0.9757	Y	241.4	1	1.994	IDENTIFIED	21.55	☑	UI	
Radium-226	✓	0.8303	0.06902	pCi/g	0.09425	Y	609.1	4	1.27	IDENTIFIED	7.311	☐		
Radium-228	✓	1.399	0.1498	pCi/g	0.2001	0.500	911.1	3	1.852	IDENTIFIED	8.953	☐		
Strontium-85	LA	0.09167	0.01923	pCi/g	0.06645	Y	0	9	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.4661	0.04134	pCi/g	0.05389	0.080	583.2	1	1.705	IDENTIFIED	8.184	☐		
Thorium-228	NR	1.321	0.06888	pCi/g	0.08718	N	238.5	4	1.319	IDENTIFIED	3.733	☐		
Thorium-230	NR	0.8302	0.06902	pCi/g	0.09425	N	609.1	4	1.27	IDENTIFIED	7.311	☐		
Thorium-232	NR	1.399	0.1498	pCi/g	0.2001	N	911.1	3	1.852	IDENTIFIED	8.953	☐		
Tin-126	HE	0.2054	0.04044	pCi/g	0.1311	N	87.11	3	1.03	IDENTIFIED	19.21	☐		
Titanium-44	—	0.2827	0.02378	pCi/g	0.07084	N	0	9	0	FAIL_ABUND	0	☐		
Uranium-231	HE	2.796	1.077	pCi/g	1.962	N	0	9	0	FAIL_ABUND	0	☐		
Uranium-234	NR	0.8302	0.06902	pCi/g	0.09425	N	609.1	4	1.27	IDENTIFIED	7.311	☐		
Zirconium-97	—	1.12E+07	2.38E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246008007	27-JAN-10 12:00	12-FEB-10 14:28	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	✓	1.562	0.1879	pCi/g	0.2865	N	910.9	3	1.632	IDENTIFIED	10.49	☐		
Americium-243	HE	0.2499	0.0585	pCi/g	0.1372	N	74.96	1	1.442	IDENTIFIED	22.69	☐		
Annihilation Rad.	HE	0.1383	0.04429	pCi/g	0.05885	N	511.2	1	1.924	IDENTIFIED	31.72	☐		
Bismuth-211	INT	3.04	0.3175	pCi/g	0.3991	Y	351.9	4	1.564	IDENTIFIED	9.187	☑	UI	
Bismuth-212	HE	1.213	0.3067	pCi/g	0.8119	N	0	7	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	0.9262	0.09721	pCi/g	0.1326	0.200	609.4	4	1.432	IDENTIFIED	9.251	☐		
Cerium-143	—	1176	224	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		
Gross Gamma	—	8.616	1.549	pCi/g	2.917	N		0				☐		
Krypton-85	HE	24.05	5.036	pCi/g	18.51	N	0	7	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.633	0.1191	pCi/g	0.1162	0.100	238.8	4	1.387	IDENTIFIED	4.212	☐		
Lead-214	✓	1.057	0.1138	pCi/g	0.1391	0.100	351.9	4	1.564	IDENTIFIED	9.187	☐		
Niobium-95m	HE	0.3845	0.09559	pCi/g	0.3089	N	0	7	0	NOT_IDENTI	0	☐		
Polonium-212	NR	1.633	0.1191	pCi/g	0.1162	N	238.8	4	1.387	IDENTIFIED	4.212	☐		
Polonium-214	NR	1.057	0.1138	pCi/g	0.1391	N	351.9	4	1.564	IDENTIFIED	9.187	☐		
Polonium-216	NR	1.633	0.1191	pCi/g	0.1162	N	238.8	4	1.387	IDENTIFIED	4.212	☐		
Polonium-218	NR	1.057	0.1138	pCi/g	0.1391	N	351.9	4	1.564	IDENTIFIED	9.187	☐		
Potassium-40	✓	33.47	1.952	pCi/g	0.6621	1.00	1460	1	2.044	IDENTIFIED	3.142	☐		
Radium-224	INT	3.787	0.8106	pCi/g	1.321	Y	241.7	1	1.854	IDENTIFIED	20.68	☑	UI	
Radium-226	✓	0.9262	0.09721	pCi/g	0.1326	Y	609.4	4	1.432	IDENTIFIED	9.251	☐		
Radium-228	✓	1.562	0.1879	pCi/g	0.2865	0.500	910.9	3	1.632	IDENTIFIED	10.49	☐		
Strontium-85	LA	0.1246	0.02609	pCi/g	0.09589	Y	0	7	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✓	0.4918	0.04902	pCi/g	0.0729	0.080	583	1	1.578	IDENTIFIED	8.852	☐		
Thorium-228	NR	1.66	0.1211	pCi/g	0.118	N	238.8	4	1.387	IDENTIFIED	4.212	☐		
Thorium-230	NR	0.9262	0.09721	pCi/g	0.1326	N	609.4	4	1.432	IDENTIFIED	9.251	☐		
Thorium-232	NR	1.562	0.1879	pCi/g	0.2865	N	910.9	3	1.632	IDENTIFIED	10.49	☐		
Titanium-44	—	0.3521	0.04241	pCi/g	0.1106	N	0	7	0	FAIL_ABUND	0	☐		
Uranium-234	NR	0.9262	0.09721	pCi/g	0.1326	N	609.4	4	1.432	IDENTIFIED	9.251	☐		
Zirconium-97	—	1.11E+07	3.47E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246008008	27-JAN-10 12:00	12-FEB-10 14:37	16.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	✓	1.372	0.1489	pCi/g	0.1789	N	911.1	3	1.492	IDENTIFIED	9.077	☐	
Americium-243	INT	0.2958	0.03288	pCi/g	0.07236	N	74.85	1	0.9617	IDENTIFIED	10.31	☐	
Annihilation Rad.	HE	0.09651	0.02857	pCi/g	0.04094	N	510.9	1	2.042	IDENTIFIED	29.22	☐	
Bismuth-211	INT	3.256	0.2686	pCi/g	0.2595	Y	351.7	4	1.049	IDENTIFIED	6.185	☑	u1
Bismuth-212	—	1.156	0.2122	pCi/g	0.6304	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	0.9302	0.07835	pCi/g	0.09956	0.200	609.3	4	1.177	IDENTIFIED	6.556	☐	
Cadmium-109	INT	2.938	0.4666	pCi/g	0.9902	Y	87.31	3	1.09	IDENTIFIED	15.15	☑	u1
Cerium-143	—	524.5	125.5	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Gross Gamma	—	8.102	1.261	pCi/g	2.822	N		0				☐	
Iodine-135	---	1.80E+16	0	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.49	0.1017	pCi/g	0.07851	0.100	238.6	4	0.9638	IDENTIFIED	3.394	☐	
Lead-214	✓	1.133	0.09799	pCi/g	0.09047	0.100	351.7	4	1.049	IDENTIFIED	6.185	☐	
Lutetium-177	HE	2.104	0.6861	pCi/g	1.925	N	0	7	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	0.8466	0.1604	pCi/g	0.2899	N	87.31	3	1.09	IDENTIFIED	15.15	☐	
Polonium-212	NL	1.49	0.1017	pCi/g	0.07851	N	238.6	4	0.9638	IDENTIFIED	3.394	☐	
Polonium-214	NL	1.133	0.09799	pCi/g	0.09047	N	351.7	4	1.049	IDENTIFIED	6.185	☐	
Polonium-216	NL	1.49	0.1017	pCi/g	0.07851	N	238.6	4	0.9638	IDENTIFIED	3.394	☐	
Polonium-218	NL	1.133	0.09799	pCi/g	0.09047	N	351.7	4	1.049	IDENTIFIED	6.185	☐	
Potassium-40	✓	25.9	1.411	pCi/g	0.4964	1.00	1461	1	2.08	IDENTIFIED	3.221	☐	
Radium-224	INT	3.574	0.5805	pCi/g	0.8934	Y	241.4	1	1.578	IDENTIFIED	15.28	☑	u1
Radium-226	✓	0.9302	0.07835	pCi/g	0.09956	Y	609.3	4	1.177	IDENTIFIED	6.556	☐	
Radium-228	✓	1.372	0.1489	pCi/g	0.1789	0.500	911.1	3	1.492	IDENTIFIED	9.077	☐	
Sodium-24	HE	1.41E+06	8.56E+05	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5417	0.04769	pCi/g	0.04569	0.080	583.3	1	1.442	IDENTIFIED	7.277	☐	
Thorium-228	NL	1.514	0.1033	pCi/g	0.07978	N	238.6	4	0.9638	IDENTIFIED	3.394	☐	
Thorium-230	NL	0.9302	0.07835	pCi/g	0.09956	N	609.3	4	1.177	IDENTIFIED	6.556	☐	
Thorium-232	NL	1.372	0.1489	pCi/g	0.1789	N	911.1	3	1.492	IDENTIFIED	9.077	☐	
Thorium-234	✓	2.201	0.7511	pCi/g	1.78	2.00	63.28	2	1.044	IDENTIFIED	33	☐	
Tin-126	NL	0.2883	0.04579	pCi/g	0.09763	N	87.31	3	1.09	IDENTIFIED	15.15	☐	
Titanium-44	—	0.3064	0.02372	pCi/g	0.06495	N	0	7	0	FAIL_ABUND	0	☐	
Total Uranium	—	6.5226	2.23E-06	ug/g	2.6499	N		0				☐	
Uranium-234	NL	0.9302	0.07835	pCi/g	0.09956	N	609.3	4	1.177	IDENTIFIED	6.556	☐	
Uranium-238	HE	2.201	0.7511	pCi/g	1.78	N	63.28	2	1.044	IDENTIFIED	33	☐	
Zirconium-97	HE	3.38E+06	2.14E+06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032720		12-FEB-10 14:38	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-123	HE	67.03	94.22	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2.835	3.552	pCi/g	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032721	28-JAN-10 12:00	12-FEB-10 14:38	15.1	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	✓	1.829	0.1753	pCi/g	0.1881	N	911.4	3	1.422	IDENTIFIED	7.375	☐	
Americium-243	INT	0.3859	0.03355	pCi/g	0.07827	N	75	1	1.055	IDENTIFIED	7.7	☐	
Annihilation Rad.	—	0.1935	0.03316	pCi/g	0.03971	N	511.1	1	1.826	IDENTIFIED	16.49	☐	
Barium-137m	NR	0.1732	0.03654	pCi/g	0.05479	N	661.2	2	1.294	IDENTIFIED	20.5	☐	
Bismuth-211	INT	4.598	0.3139	pCi/g	0.3274	Y	351.8	4	1.409	IDENTIFIED	4.871	☑	UI
Bismuth-212	—	1.255	0.2601	pCi/g	0.6645	N	0	9	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.309	0.1129	pCi/g	0.1031	0.200	609.4	4	1.469	IDENTIFIED	6.582	☐	
Cadmium-109	INT	3.139	0.4572	pCi/g	1.444	Y	87.27	3	1.114	IDENTIFIED	13.79	☑	UI
Cerium-143	—	842.9	125	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.183	0.03863	pCi/g	0.05792	0.100	661.2	2	1.294	IDENTIFIED	20.5	☐	
Gross Gamma	—	9.929	1.326	pCi/g	4.276	N		0				☐	
Iodine-123	HE	1.20E+06	2.75E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-133	HE	168	2816	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.57E+15	2.49E+15	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.877	0.114	pCi/g	0.08592	0.100	238.6	4	1.123	IDENTIFIED	2.937	☐	
Lead-214	✓	1.599	0.1169	pCi/g	0.1141	0.100	351.8	4	1.409	IDENTIFIED	4.871	☐	
Lutetium-177	—	3.733	0.7147	pCi/g	2.023	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	INT	0.906	0.1617	pCi/g	0.3382	N	87.27	3	1.114	IDENTIFIED	13.79	☐	
Niobium-97	HE	13330	44630	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Polonium-212	NR	1.877	0.114	pCi/g	0.08592	N	238.6	4	1.123	IDENTIFIED	2.937	☐	
Polonium-214	NR	1.599	0.1169	pCi/g	0.1141	N	351.8	4	1.409	IDENTIFIED	4.871	☐	
Polonium-216	NR	1.877	0.114	pCi/g	0.08592	N	238.6	4	1.123	IDENTIFIED	2.937	☐	
Polonium-218	NR	1.599	0.1169	pCi/g	0.1141	N	351.8	4	1.409	IDENTIFIED	4.871	☐	
Potassium-40	✓	20.64	1.137	pCi/g	0.4719	1.00	1461	1	1.806	IDENTIFIED	3.366	☐	
Radium-224	INT	5.405	0.7221	pCi/g	0.9774	Y	241.7	1	1.974	IDENTIFIED	12.45	☑	UI
Radium-226	✓	1.309	0.1129	pCi/g	0.1031	Y	609.4	4	1.469	IDENTIFIED	6.582	☐	
Radium-228	✓	1.829	0.1753	pCi/g	0.1881	0.500	911.4	3	1.422	IDENTIFIED	7.375	☐	
Thallium-208	✓	0.4724	0.04282	pCi/g	0.04841	0.080	583.3	1	1.474	IDENTIFIED	7.465	☐	
Thorium-228	NR	1.906	0.1158	pCi/g	0.08722	N	238.6	4	1.123	IDENTIFIED	2.937	☐	
Thorium-230	NR	1.309	0.1128	pCi/g	0.1031	N	609.4	4	1.469	IDENTIFIED	6.582	☐	
Thorium-232	NR	1.829	0.1753	pCi/g	0.1881	N	911.4	3	1.422	IDENTIFIED	7.375	☐	
Thorium-234	✓	4.161	0.8613	pCi/g	1.714	2.00	63.29	2	1.089	IDENTIFIED	18.79	☐	
Tin-126	NR	0.3085	0.04494	pCi/g	0.1394	N	87.27	3	1.114	IDENTIFIED	13.79	☐	
Titanium-44	—	0.3864	0.02692	pCi/g	0.07508	N	0	9	0	FAIL_ABUND	0	☐	
Total Uranium	—	12.463	2.56E-06	ug/g	2.5521	N		0				☐	
Uranium-234	NR	1.309	0.1128	pCi/g	0.1031	N	609.4	4	1.469	IDENTIFIED	6.582	☐	
Uranium-238	NR	4.161	0.8613	pCi/g	1.714	N	63.29	2	1.089	IDENTIFIED	18.79	☐	
Zirconium-97	HE	1.30E+06	8.93E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032722		12-FEB-10 14:39	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228		1.244	0.2708	pCi/g	0.5384	N	910.9	3	1.803	IDENTIFIED	20.95	☐	
Americium-241	✓	13.23	0.7072	pCi/g	0.1825	0.200	59.56	1	0.9075	IDENTIFIED	1.257	☐	
Americium-243		0.2364	0.03064	pCi/g	0.06913	N	74.85	1	0.9435	IDENTIFIED	11.92	☐	
Barium-137m		5.726	0.3445	pCi/g	0.1039	N	661.5	2	1.451	IDENTIFIED	2.348	☐	

Bismuth-211	2.468	0.3752	pCi/g	0.5543	Y	351.8	4	1.187	IDENTIFIED	14.26	☐	
Bismuth-214	0.7677	0.1302	pCi/g	0.2211	0.200	609.5	4	1.615	IDENTIFIED	15.85	☐	
Cadmium-109	31.84	1.872	pCi/g	1.21	Y	88.02	2	0.8537	IDENTIFIED	2.386	☐	
Cesium-137 ✓	6.053	0.3645	pCi/g	0.1099	0.100	661.5	2	1.451	IDENTIFIED	2.348	☐	
Cobalt-57	0.232	0.03	pCi/g	0.05072	N	122	1	1.01	IDENTIFIED	11.2	☐	
Cobalt-60 ✓	6.572	0.3144	pCi/g	0.09566	0.100	1332	1	1.99	IDENTIFIED	2.528	☐	
Gross Gamma	27.72	2.963	pCi/g	5.44	N		0				☐	
Lead-212	1.08	0.08889	pCi/g	0.1407	0.100	238.6	4	0.9518	IDENTIFIED	5.95	☐	
Lead-214	0.8584	0.1324	pCi/g	0.1933	0.100	351.8	4	1.187	IDENTIFIED	14.26	☐	
Neptunium-237	2.085	0.2924	pCi/g	0.6277	N	0	4	0	NOT_IDENTI	0	☐	
Niobium-97	291.8	71.24	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Polonium-212	1.08	0.08889	pCi/g	0.1407	N	238.6	4	0.9518	IDENTIFIED	5.95	☐	
Polonium-214	0.8584	0.1324	pCi/g	0.1933	N	351.8	4	1.187	IDENTIFIED	14.26	☐	
Polonium-216	1.08	0.08889	pCi/g	0.1407	N	238.6	4	0.9518	IDENTIFIED	5.95	☐	
Polonium-218	0.8584	0.1324	pCi/g	0.1933	N	351.8	4	1.187	IDENTIFIED	14.26	☐	
Potassium-40	1.054	0.4191	pCi/g	0.8547	1.00	1460	1	2.417	IDENTIFIED	39.55	☐	
Radium-224	2.975	0.9087	pCi/g	1.602	Y	241.4	1	1.596	IDENTIFIED	30.09	☐	
Radium-226	0.7677	0.1302	pCi/g	0.2211	Y	609.5	4	1.615	IDENTIFIED	15.85	☐	
Radium-228	1.244	0.2708	pCi/g	0.5384	0.500	910.9	3	1.803	IDENTIFIED	20.95	☐	
Thallium-208	0.3004	0.06741	pCi/g	0.11	0.080	583	1	1.401	IDENTIFIED	21.73	☐	
Thorium-228	1.088	0.08957	pCi/g	0.1417	N	238.6	4	0.9518	IDENTIFIED	5.95	☐	
Thorium-230	0.7676	0.1302	pCi/g	0.2211	N	609.5	4	1.615	IDENTIFIED	15.85	☐	
Thorium-232	1.244	0.2708	pCi/g	0.5384	N	910.9	3	1.803	IDENTIFIED	20.95	☐	
Tin-126	3.165	0.1861	pCi/g	0.12	N	88.02	2	0.8537	IDENTIFIED	2.386	☐	
Titanium-44	0.2187	0.02144	pCi/g	0.06106	N	0	4	0	FAIL_ABUND	0	☐	
Total Uranium	2.7134	1.09E-06	ug/g	1.8817	N		0				☐	
Uranium-234	0.7676	0.1302	pCi/g	0.2211	N	609.5	4	1.615	IDENTIFIED	15.85	☐	
Zirconium-97 HE	208.3	1023	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
948812	1202032720	MB	12-FEB-10	Iodine-123	67.03	94.22	pCi/g	0	N
948812	1202032721	DUP	12-FEB-10	Bismuth-211	4.598	0.3139	pCi/g	0.1638	Y
				Bismuth-214	1.309	0.1129	pCi/g	0.05157	0.200
				Cadmium-109	3.139	0.4572	pCi/g	0.7222	Y
				Cerium-143	842.9	125	pCi/g	0	N
				Cesium-134	0.07472	0.03445	pCi/g	0.04209	0.100
				Cesium-137	0.183	0.03863	pCi/g	0.02898	0.100
				Gross Gamma	9.929	1.326	pCi/g	2.078	N
				Iodine-123	1.20E+06	2.75E+06	pCi/g	0	N
				Iodine-133	168	2816	pCi/g	0	N
				Iodine-135	1.57E+15	2.49E+15	pCi/g	0	N
				Krypton-85	7.041	3.772	pCi/g	5.898	N
				Lead-212	1.877	0.114	pCi/g	0.04298	0.100
				Lead-214	1.599	0.1169	pCi/g	0.0571	0.100
				Mercury-203	0.06453	0.02093	pCi/g	0.03459	0.100
				Niobium-97	13330	44630	pCi/g	0	N
				Potassium-40	20.64	1.137	pCi/g	0.2361	1.00
				Protactinium-234m	7.134	2.413	pCi/g	4.211	N
				Radium-224	5.405	0.7221	pCi/g	0.489	Y
				Radium-226	1.309	0.1129	pCi/g	0.05157	Y
				Radium-228	1.829	0.1753	pCi/g	0.09412	0.500
				Strontium-85	0.0361	0.01934	pCi/g	0.03024	Y
				Thallium-208	0.4724	0.04282	pCi/g	0.02422	0.080
				Thorium-234	4.161	0.8613	pCi/g	0.8574	2.00
				Zirconium-97	1.30E+06	8.93E+05	pCi/g	0	N
948812	1202032722	LCS	12-FEB-10	Americium-241	13.23	0.7072	pCi/g	0.09129	0.200
				Barium-137m	5.726	0.3445	pCi/g	0.052	N
				Bismuth-211	2.468	0.3752	pCi/g	0.2773	Y
				Bismuth-214	0.7677	0.1302	pCi/g	0.1106	0.200
				Cadmium-109	31.84	1.872	pCi/g	0.6054	Y
				Cerium-143	8.012	2.531	pCi/g	4.161	N
				Cesium-134	0.1349	0.04613	pCi/g	0.08329	0.100
				Cesium-137	6.053	0.3645	pCi/g	0.05497	0.100
				Cobalt-60	6.572	0.3144	pCi/g	0.04786	0.100
				Gross Gamma	27.72	2.963	pCi/g	2.66	N
				Lead-212	1.08	0.08889	pCi/g	0.07037	0.100
				Lead-214	0.8584	0.1324	pCi/g	0.0967	0.100

2/15/10

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:32:02.06

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994001.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:31:32
Sample ID         : G245994001           Sample quantity  : 1.25490E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.76  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.08*	65	377	0.68	126.36	122	8	9.08E-03	54.5	
2	3	74.83	438	393	1.13	149.84	144	21	6.08E-02	8.8	2.79E+00
3	3	77.15*	647	296	0.95	154.49	144	21	8.99E-02	5.9	
4	5	84.18*	114	258	1.39	168.55	165	29	1.58E-02	24.7	1.39E+00
5	5	87.15	313	337	1.40	174.48	165	29	4.35E-02	11.6	
6	5	89.89	158	246	1.05	179.96	165	29	2.20E-02	17.7	
7	5	92.88*	256	320	1.41	185.95	165	29	3.56E-02	14.7	
8	0	105.06	57	268	1.01	210.30	208	7	7.89E-03	49.8	
9	0	128.93	62	326	0.96	258.06	254	8	8.62E-03	51.9	
10	0	185.75*	203	298	1.33	371.69	366	10	2.82E-02	18.3	
11	0	209.66	133	333	1.12	419.51	414	11	1.85E-02	28.0	
12	5	238.57*	1200	178	0.95	477.34	473	16	1.67E-01	3.4	1.55E+00
13	5	241.48	264	237	1.52	483.16	473	16	3.66E-02	12.8	
14	0	269.72*	146	220	1.68	539.62	534	13	2.03E-02	22.7	
15	0	295.04*	423	174	1.10	590.28	584	12	5.88E-02	8.0	
16	0	300.32	136	137	1.18	600.83	596	11	1.89E-02	18.7	
17	0	328.03	86	109	0.98	656.24	653	8	1.19E-02	23.8	
18	0	338.31	271	179	1.11	676.80	670	14	3.77E-02	12.1	
19	0	351.85*	736	170	1.21	703.89	698	13	1.02E-01	5.3	
20	0	409.28	50	79	1.35	818.74	814	9	6.95E-03	34.9	
21	0	462.99	73	133	1.50	926.16	922	12	1.01E-02	34.0	
22	0	510.72*	79	130	1.52	1021.59	1015	14	1.10E-02	37.8	
23	0	583.09*	384	84	1.38	1166.32	1158	16	5.34E-02	7.5	
24	0	609.27*	472	76	1.40	1218.68	1212	14	6.55E-02	6.1	
25	0	727.52	105	73	1.36	1455.13	1450	13	1.46E-02	19.2	
26	0	795.38	44	54	1.03	1590.83	1586	10	6.07E-03	35.1	
27	0	860.72	55	63	1.54	1721.46	1714	14	7.70E-03	33.2	
28	0	911.28*	261	90	1.51	1822.57	1816	16	3.63E-02	10.8	
29	0	933.28	37	17	1.81	1866.55	1861	10	5.15E-03	26.6	
30	1	964.67*	33	22	1.76	1929.32	1925	18	4.56E-03	34.5	1.26E+00
31	1	968.85*	131	24	1.77	1937.68	1925	18	1.81E-02	12.0	
32	0	1120.33*	90	60	1.78	2240.54	2232	17	1.25E-02	22.6	
33	0	1238.69	32	44	0.81	2477.17	2471	11	4.51E-03	43.2	
34	0	1460.66*	849	34	1.62	2920.93	2913	17	1.18E-01	3.8	
35	0	1764.36*	72	10	1.87	3528.01	3522	15	1.00E-02	16.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 14:32:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:31:32
Sample ID : G245994001 Sample quantity : 125.49 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.76 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.969E+01	2.293E+00	4.398E-01	3.866E-02	44.779
CD-109	+	88.03	*	4.124E+00	1.034E+00	8.673E-01	8.358E-02	4.755
SN-126	+	64.28		5.823E-01	6.408E-01	6.043E-01	8.804E-02	0.964
	+	86.94		1.685E+00	8.020E-01	3.583E-01	1.489E-01	4.703
	+	87.57	*	4.054E-01	1.016E-01	8.565E-02	8.212E-03	4.734
CS-135	+	268.24	*	5.692E-01	2.682E-01	2.083E-01	2.657E-02	2.732
EU-155		48.70		-1.789E+00	2.198E+00	3.294E+00	2.706E-01	-0.543
		60.01		-8.309E-01	4.642E+00	6.579E+00	4.699E-01	-0.126
	+	86.54		4.882E-01	1.225E-01	1.042E-01	9.952E-03	4.684
	+	105.31	*	1.174E-01	1.173E-01	1.502E-01	1.299E-02	0.782
TL-208		277.35		3.373E-01	3.374E-01	5.661E-01	8.416E-02	0.596
	+	510.84		3.703E-01	2.835E-01	2.082E-01	2.633E-02	1.778
	+	583.14	*	5.119E-01	9.225E-02	4.861E-02	4.818E-03	10.531
	+	860.37		6.932E-01	4.656E-01	3.671E-01	3.676E-02	1.888
BI-211		72.87		2.233E+00	2.692E+00	4.306E+00	3.501E-01	0.519
	+	351.07	*	4.315E+00	6.543E-01	2.645E-01	2.892E-02	16.314
PB-212	+	74.81		2.396E+00	5.158E-01	4.406E-01	5.504E-02	5.438
	+	77.11		2.003E+00	2.918E-01	2.500E-01	2.123E-02	8.015
	+	87.30		1.875E+00	5.060E-01	3.972E-01	5.494E-02	4.721
	+	238.63	*	1.540E+00	2.107E-01	8.000E-02	9.471E-03	19.247
	+	300.09		2.695E+00	1.070E+00	1.021E+00	1.337E-01	2.641
PO-212	+	74.81		2.396E+00	5.158E-01	4.406E-01	5.504E-02	5.438
	+	77.11		2.003E+00	2.918E-01	2.500E-01	2.123E-02	8.015
	+	87.30		1.875E+00	5.060E-01	3.972E-01	5.494E-02	4.721
		115.19		3.499E+00	2.952E+00	5.183E+00	4.324E-01	0.675
	+	238.63	*	1.540E+00	2.107E-01	8.000E-02	9.471E-03	19.247
	+	300.09		2.695E+00	1.070E+00	1.021E+00	1.337E-01	2.641
BI-214	+	609.31	*	1.183E+00	1.919E-01	9.374E-02	9.911E-03	12.624
	+	1120.29		1.181E+00	5.496E-01	3.911E-01	4.199E-02	3.019
	+	1764.49		1.291E+00	4.385E-01	3.098E-01	2.564E-02	4.166
PB-214	+	74.81		4.128E+00	8.571E-01	7.591E-01	8.440E-02	5.438
	+	77.11		3.434E+00	5.645E-01	4.285E-01	4.889E-02	8.015
	+	87.30		3.212E+00	8.423E-01	6.804E-01	8.354E-02	4.721
	+	241.98		2.033E+00	5.769E-01	4.818E-01	5.969E-02	4.219

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	295.21		1.470E+00	3.063E-01	1.749E-01	2.335E-02	8.402
	+	351.92	*	1.501E+00	2.407E-01	9.221E-02	1.115E-02	16.280
PO-214	+	74.81		4.128E+00	8.571E-01	7.591E-01	8.440E-02	5.438
	+	77.11		3.434E+00	5.645E-01	4.285E-01	4.889E-02	8.015
	+	87.30		3.212E+00	8.423E-01	6.804E-01	8.354E-02	4.721
	+	241.98		2.033E+00	5.769E-01	4.818E-01	5.969E-02	4.219
	+	295.21		1.470E+00	3.063E-01	1.749E-01	2.335E-02	8.402
	+	351.92	*	1.501E+00	2.407E-01	9.221E-02	1.115E-02	16.280
PO-216	+	74.81		2.396E+00	5.158E-01	4.406E-01	5.504E-02	5.438
	+	77.11		2.003E+00	2.918E-01	2.500E-01	2.123E-02	8.015
	+	87.30		1.875E+00	5.060E-01	3.972E-01	5.494E-02	4.721
	+	238.63	*	1.540E+00	2.107E-01	8.000E-02	9.471E-03	19.247
	+	300.09		2.695E+00	1.070E+00	1.021E+00	1.337E-01	2.641
PO-218	+	74.81		4.128E+00	8.571E-01	7.591E-01	8.440E-02	5.438
	+	77.11		3.434E+00	5.645E-01	4.285E-01	4.889E-02	8.015
	+	87.30		3.212E+00	8.423E-01	6.804E-01	8.354E-02	4.721
	+	241.98		2.033E+00	5.769E-01	4.818E-01	5.969E-02	4.219
	+	295.21		1.470E+00	3.063E-01	1.749E-01	2.335E-02	8.402
	+	351.92	*	1.501E+00	2.407E-01	9.221E-02	1.115E-02	16.280
RA-224	+	240.98	*	3.854E+00	1.072E+00	9.105E-01	1.003E-01	4.233
RA-226	+	609.31	*	1.183E+00	1.919E-01	9.374E-02	9.911E-03	12.624
	+	1120.29		1.181E+00	5.496E-01	3.911E-01	4.199E-02	3.019
	+	1764.49		1.291E+00	4.385E-01	3.098E-01	2.564E-02	4.166
AC-228	+	338.32		1.755E+00	8.474E-01	3.207E-01	1.340E-01	5.473
	+	911.07	*	1.547E+00	3.822E-01	1.712E-01	2.034E-02	9.034
	+	969.11		1.362E+00	4.587E-01	3.368E-01	7.942E-02	4.045
RA-228	+	338.32		1.755E+00	8.474E-01	3.207E-01	1.340E-01	5.473
	+	911.07	*	1.547E+00	3.822E-01	1.712E-01	2.034E-02	9.034
	+	969.11		1.362E+00	4.587E-01	3.368E-01	7.942E-02	4.045
TH-228	+	74.81		2.432E+00	4.725E-01	4.472E-01	3.741E-02	5.438
	+	77.11		2.034E+00	2.962E-01	2.537E-01	2.155E-02	8.015
	+	87.30		1.903E+00	4.771E-01	4.032E-01	3.853E-02	4.721
	+	238.63	*	1.563E+00	2.138E-01	8.120E-02	9.614E-03	19.247
	+	300.09		2.736E+00	1.931E+00	1.036E+00	6.196E-01	2.641
TH-230	+	609.31	*	1.183E+00	1.919E-01	9.374E-02	9.910E-03	12.624
	+	1120.29		1.181E+00	5.496E-01	3.911E-01	4.199E-02	3.019
	+	1764.49		1.291E+00	4.385E-01	3.098E-01	2.564E-02	4.166
TH-232	+	338.32		1.755E+00	4.653E-01	3.207E-01	3.500E-02	5.473
	+	911.07	*	1.547E+00	3.822E-01	1.712E-01	2.034E-02	9.034
	+	969.11		1.362E+00	4.587E-01	3.368E-01	7.942E-02	4.045
TH-234	+	63.29	*	1.471E+00	1.625E+00	1.644E+00	2.868E-01	0.894
	+	92.38		2.148E+00	7.435E-01	5.624E-01	1.034E-01	3.819
U-234	+	609.31	*	1.183E+00	1.919E-01	9.374E-02	9.910E-03	12.624
	+	1120.29		1.181E+00	5.496E-01	3.911E-01	4.199E-02	3.019
	+	1764.49		1.291E+00	4.385E-01	3.098E-01	2.564E-02	4.166
U-235	+	89.95		2.726E+00	1.285E+00	1.148E+00	3.571E-01	2.374
	+	93.35		2.582E+00	1.051E+00	6.716E-01	1.894E-01	3.844
	+	105.00		1.150E+00	1.195E+00	1.476E+00	4.401E-01	0.780
		143.76	*	1.744E-01	1.884E-01	3.177E-01	5.552E-02	0.549

Sample ID : G245994001 Acquisition date : 12-FEB-2010 12:31:32

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		163.35		2.263E-01	4.221E-01	6.970E-01	1.342E-01	0.325
	+	185.71		1.828E-01	6.915E-02	5.995E-02	5.727E-03	3.049
		205.31		5.276E-02	5.052E-01	7.397E-01	1.463E-01	0.071
NP-237	+	86.50	*	1.190E+00	3.865E-01	2.543E-01	5.772E-02	4.682
		95.87		-5.966E-02	8.018E-01	1.217E+00	3.013E-01	-0.049
U-238	+	63.29	*	1.471E+00	1.625E+00	1.644E+00	2.868E-01	0.894
	+	92.38		2.148E+00	6.605E-01	5.624E-01	5.189E-02	3.819
AM-243	+	74.67	*	3.884E-01	7.533E-02	7.164E-02	5.931E-03	5.422
	+	86.72		4.464E+01	1.119E+01	9.513E+00	9.027E-01	4.693
		117.66		-2.331E-01	3.055E+00	5.108E+00	4.250E-01	-0.046
		142.18		-1.565E+01	1.531E+01	2.390E+01	2.038E+00	-0.655
ANH-511	+	511.00	*	7.998E-02	6.087E-02	4.499E-02	4.279E-03	1.778

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.197E-01	2.979E-01	4.650E-01	4.704E-02	-0.473
NA-22		1274.54	*	1.260E-02	3.203E-02	5.483E-02	4.563E-03	0.230
NA-24		1368.53	*	-2.398E-01	3.203E-02	Half-Life too short		
AL-26		1129.67		1.637E-02	1.550E+00	2.539E+00	2.128E-01	0.006
		1808.65	*	-3.190E-02	3.007E-02	3.790E-02	3.099E-03	-0.842
TI-44		67.85		-2.240E-02	4.053E-02	6.049E-02	4.684E-03	-0.370
	+	78.38	*	3.697E-01	5.384E-02	6.497E-02	5.595E-03	5.690
SC-46		889.25	*	1.226E-02	3.489E-02	6.022E-02	5.693E-03	0.204
	+	1120.51		2.019E-01	9.305E-02	1.192E-01	1.007E-02	1.694
V-48		944.10		-6.475E-01	8.174E-01	1.195E+00	1.117E-01	-0.542
		983.50	*	-3.808E-03	6.279E-02	1.034E-01	9.518E-03	-0.037
		1312.09		-2.692E-02	7.771E-02	1.202E-01	1.009E-02	-0.224
CR-51		320.08	*	-5.353E-02	3.147E-01	4.915E-01	5.746E-02	-0.109
MN-52		744.21		1.750E-02	1.972E-01	3.190E-01	2.929E-02	0.055
		848.13		-2.962E-01	5.786E+00	9.655E+00	9.087E-01	-0.031
		935.52		1.039E-01	2.646E-01	4.024E-01	3.769E-02	0.258
		1246.25		-4.994E-01	6.043E+00	9.723E+00	8.014E-01	-0.051
		1333.61		-2.108E+00	4.356E+00	6.519E+00	5.500E-01	-0.323
		1434.06	*	3.389E-02	1.975E-01	3.263E-01	2.784E-02	0.104
MN-54		834.83	*	-1.489E-02	3.246E-02	5.217E-02	4.900E-03	-0.285
CO-56		846.75	*	-1.931E-03	3.478E-02	5.802E-02	5.459E-03	-0.033
		977.42		-1.859E+00	2.360E+00	3.531E+00	3.258E-01	-0.527
		1037.82		8.494E-02	2.650E-01	4.524E-01	4.253E-02	0.188
		1175.09		-1.607E-01	1.979E+00	3.203E+00	2.577E-01	-0.050
	+	1238.25		1.194E-01	1.036E-01	1.457E-01	1.236E-02	0.820
		1360.21		2.163E-01	9.422E-01	1.568E+00	1.328E-01	0.138
		1771.40		1.615E-01	2.135E-01	3.701E-01	3.058E-02	0.436
CO-57		122.06	*	9.365E-03	2.053E-02	3.507E-02	2.915E-03	0.267
		136.48		-1.028E-01	1.778E-01	2.881E-01	2.619E-02	-0.357
CO-58		810.76	*	-6.512E-03	3.486E-02	5.766E-02	5.402E-03	-0.113
FE-59		142.65		-1.380E+00	2.351E+00	3.758E+00	3.208E-01	-0.367
		192.34		5.178E-02	8.109E-01	1.330E+00	1.883E-01	0.039

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1099.22	*	-9.899E-02	8.278E-02	1.166E-01	1.084E-02	-0.849
		1291.56		6.981E-02	1.160E-01	2.007E-01	1.916E-02	0.348
CO-60		1173.22		2.974E-02	3.727E-02	6.606E-02	5.311E-03	0.450
		1332.49	*	-6.191E-04	3.292E-02	5.302E-02	4.472E-03	-0.012
ZN-65		1115.52	*	6.937E-02	7.269E-02	1.199E-01	1.018E-02	0.578
GE-68		1077.35	*	-7.449E-02	1.050E+00	1.714E+00	1.497E-01	-0.043
AS-73		53.44	*	-7.209E-02	7.149E-01	1.114E+00	8.499E-02	-0.065
AS-74		595.88	*	3.227E-02	7.477E-02	1.267E-01	1.176E-02	0.255
		634.78		2.895E-02	3.035E-01	4.969E-01	4.504E-02	0.058
SE-75		66.05		-2.363E+00	4.433E+00	6.070E+00	5.840E-01	-0.389
		96.73		-6.446E-01	6.764E-01	9.650E-01	1.334E-01	-0.668
		121.11		-5.340E-02	1.107E-01	1.810E-01	1.988E-02	-0.295
		136.00		-2.849E-02	3.380E-02	5.404E-02	4.586E-03	-0.527
		198.60		-6.954E-01	1.578E+00	2.470E+00	2.648E-01	-0.282
		264.65	*	1.652E-02	4.279E-02	6.302E-02	7.354E-03	0.262
		279.53		-1.051E-01	1.033E-01	1.532E-01	1.876E-02	-0.686
		303.91		1.354E+00	1.969E+00	2.949E+00	4.098E-01	0.459
		400.65		6.680E-02	2.306E-01	3.936E-01	4.582E-02	0.170
BR-77	+	87.88		8.668E+02	2.173E+02	2.812E+02	2.706E+01	3.083
		200.40		1.597E+01	1.339E+02	2.198E+02	2.184E+01	0.073
	+	239.00		2.405E+02	3.109E+01	3.538E+01	3.881E+00	6.797
		249.79		8.930E+00	5.546E+01	9.013E+01	1.014E+01	0.099
		281.68		-1.815E+01	8.176E+01	1.287E+02	1.542E+01	-0.141
		297.23		1.122E+02	6.007E+01	8.116E+01	9.546E+00	1.383
		303.76		1.194E+02	1.635E+02	2.459E+02	2.866E+01	0.485
		439.47		1.707E+02	1.196E+02	2.176E+02	2.054E+01	0.784
		484.57		-1.159E+02	1.984E+02	3.128E+02	2.976E+01	-0.370
		520.65	*	1.034E+01	8.586E+00	1.544E+01	1.467E+00	0.669
		574.64		-4.301E+01	1.759E+02	2.707E+02	2.537E+01	-0.159
		578.91		2.304E+01	7.894E+01	1.170E+02	1.095E+01	0.197
		585.48		6.109E+02	1.991E+02	3.493E+02	3.258E+01	1.749
		755.35		6.668E+01	1.590E+02	2.641E+02	2.434E+01	0.252
		817.79		-4.629E+01	1.044E+02	1.673E+02	1.566E+01	-0.277
SR-82		698.33		-1.659E+01	3.208E+01	4.916E+01	4.436E+00	-0.337
		776.49	*	1.114E-01	3.277E-01	5.421E-01	5.026E-02	0.205
		1395.20		-3.340E-01	1.018E+01	1.652E+01	1.405E+00	-0.020
RB-83		520.41	*	7.141E-02	5.842E-02	1.052E-01	9.995E-03	0.679
		529.64		-2.820E-03	8.986E-02	1.474E-01	1.399E-02	-0.019
		552.65		7.031E-02	1.798E-01	3.040E-01	2.870E-02	0.231
RB-84		881.50	*	-1.460E-02	5.662E-02	9.199E-02	8.691E-03	-0.159
KR-85		513.99	*	1.146E+01	6.516E+00	1.104E+01	1.050E+00	1.038
SR-85		513.99	*	5.872E-02	3.338E-02	5.656E-02	5.378E-03	1.038
RB-86		1076.63	*	2.302E-02	6.630E-01	1.095E+00	9.568E-02	0.021
Y-88		898.02		3.857E-02	3.706E-02	6.755E-02	6.415E-03	0.571
		1836.01	*	-1.385E-03	2.990E-02	4.865E-02	3.950E-03	-0.028
ZR-88		392.90	*	-2.056E-02	2.527E-02	3.982E-02	3.683E-03	-0.516
Y-91		1204.90	*	-2.085E+01	1.664E+01	2.314E+01	1.882E+00	-0.901
NB-94		702.63	*	-1.848E-02	3.271E-02	4.993E-02	4.513E-03	-0.370
		871.10		-2.270E-02	3.110E-02	4.820E-02	4.549E-03	-0.471

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.79	*	-1.422E-02	4.240E-02	6.672E-02	6.167E-03	-0.213
NB-95M		235.69	*	-3.583E-02	1.209E-01	1.702E-01	2.024E-02	-0.210
ZR-95		724.18		-3.089E-02	9.171E-02	1.222E-01	1.201E-02	-0.253
		756.15	*	9.185E-02	6.628E-02	1.188E-01	1.193E-02	0.773
NB-97		657.90	*	-5.773E-02	6.628E-02	Half-Life too short		
		1024.50		5.184E+00	6.628E-02	Half-Life too short		
ZR-97		254.15		-1.612E+00	6.628E-02	Half-Life too short		
		355.39		5.228E-01	6.628E-02	Half-Life too short		
		507.63	*	3.322E+00	6.628E-02	Half-Life too short		
		602.52		4.642E+00	6.628E-02	Half-Life too short		
		1021.30		-4.360E+00	6.628E-02	Half-Life too short		
		1147.95		2.964E+00	6.628E-02	Half-Life too short		
		1362.66		5.284E+00	6.628E-02	Half-Life too short		
		1750.46		-4.808E+00	6.628E-02	Half-Life too short		
MO-99		140.51		-2.518E+01	2.308E+01	3.366E+01	9.308E+00	-0.748
		181.06		-5.292E+00	1.562E+01	2.234E+01	4.174E+00	-0.237
		366.43		4.029E+01	6.899E+01	1.206E+02	1.220E+01	0.334
		739.58	*	-3.480E-01	9.896E+00	1.580E+01	2.449E+00	-0.022
		778.00		-1.598E+00	3.034E+01	4.816E+01	4.468E+00	-0.033
TC-99M		140.51	*	-2.883E+10	3.034E+01	Half-Life too short		
RH-101		127.23		5.062E-03	2.850E-02	4.322E-02	3.598E-03	0.117
		198.01	*	-2.207E-02	2.935E-02	4.514E-02	4.457E-03	-0.489
		325.23		2.525E-02	2.124E-01	3.016E-01	3.386E-02	0.084
RH-102		418.52		-8.513E-02	2.316E-01	3.763E-01	3.524E-02	-0.226
		475.06	*	-3.615E-03	2.685E-02	4.406E-02	4.188E-03	-0.082
		631.29		-1.422E-02	4.614E-02	7.255E-02	6.593E-03	-0.196
		697.49		-3.127E-02	7.258E-02	1.122E-01	1.012E-02	-0.279
		766.84		5.263E-02	1.093E-01	1.838E-01	1.700E-02	0.286
		1046.59		-6.557E-02	1.014E-01	1.549E-01	1.381E-02	-0.423
		1112.84		-7.564E-02	2.048E-01	2.716E-01	2.309E-02	-0.278
RU-103		497.08	*	1.201E-02	3.385E-02	5.749E-02	8.464E-03	0.209
	+	610.33		1.276E+01	2.677E+00	2.820E+00	4.794E-01	4.523
RH-106	+	511.85		3.994E-01	3.040E-01	3.957E-01	3.763E-02	1.009
		621.84	*	-2.893E-01	2.912E-01	4.244E-01	5.815E-02	-0.682
		1050.47		2.216E+00	2.165E+00	3.908E+00	3.474E-01	0.567
RU-106	+	511.85		3.994E-01	3.040E-01	3.957E-01	3.763E-02	1.009
		621.84	*	-2.893E-01	2.897E-01	4.244E-01	3.881E-02	-0.682
		1050.47		2.216E+00	2.165E+00	3.908E+00	3.474E-01	0.567
AG-108M		433.93	*	-1.481E-02	2.790E-02	4.398E-02	4.281E-03	-0.337
		614.37		1.452E-03	3.725E-02	5.327E-02	5.064E-03	0.027
		722.95		-4.767E-02	4.208E-02	4.861E-02	4.585E-03	-0.981
AG-110M		657.75	*	-2.399E-02	3.096E-02	4.616E-02	4.225E-03	-0.520
		677.61		-9.655E-02	3.063E-01	4.805E-01	4.409E-02	-0.201
		706.67		1.223E-01	2.143E-01	3.603E-01	3.344E-02	0.339
		763.93		-1.062E-01	1.557E-01	2.317E-01	2.194E-02	-0.458
		884.67		-1.632E-02	4.100E-02	6.556E-02	6.362E-03	-0.249
		937.48		5.611E-02	9.912E-02	1.558E-01	1.504E-02	0.360
		1384.27		6.788E-02	1.264E-01	2.216E-01	1.937E-02	0.306
IN-111		171.28		-4.251E-01	8.551E-01	1.372E+00	1.261E-01	-0.310

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	-1.785E-01	1.002E+00	1.417E+00	1.579E-01	-0.126
IN-113M		391.69	*	-1.215E-02	3.570E-02	5.845E-02	5.548E-03	-0.208
SN-113		391.69	*	-1.215E-02	3.570E-02	5.845E-02	5.548E-03	-0.208
IN-114M		190.27	*	-1.020E-02	1.634E-01	2.539E-01	2.455E-02	-0.040
CD-115		260.90		-5.276E+01	1.101E+02	1.710E+02	1.973E+01	-0.309
		492.35		-1.291E+01	2.803E+01	4.439E+01	4.224E+00	-0.291
		527.90	*	4.912E+00	8.695E+00	1.498E+01	1.422E+00	0.328
SN-117M		156.02		-1.550E+00	1.934E+00	3.072E+00	2.710E-01	-0.505
		158.56	*	3.116E-02	4.507E-02	7.682E-02	6.823E-03	0.406
SB-122		563.90	*	2.031E+00	1.670E+00	3.002E+00	2.824E-01	0.677
		692.80		1.916E+01	3.759E+01	6.340E+01	5.708E+00	0.302
I-123		159.00	*	2.648E+00	3.759E+01	Half-Life too short		
		528.96		1.425E+02	3.759E+01	Half-Life too short		
TE-123M		159.00	*	1.475E-02	2.352E-02	3.997E-02	3.574E-03	0.369
I-124		602.71	*	4.448E-01	5.934E-01	9.245E-01	8.550E-02	0.481
		722.78		-1.625E+00	3.909E+00	5.117E+00	4.662E-01	-0.318
		1325.50		4.111E+00	2.951E+01	4.863E+01	4.095E+00	0.085
		1376.25		2.379E+01	2.666E+01	4.803E+01	4.077E+00	0.495
		1509.49		5.239E+00	1.299E+01	2.301E+01	1.968E+00	0.228
		1691.02		-1.982E+00	2.893E+00	3.982E+00	3.349E-01	-0.498
SB-124		602.71		2.623E-02	3.500E-02	5.453E-02	5.044E-03	0.481
		645.85		-1.497E-01	4.238E-01	6.616E-01	6.276E-02	-0.226
		709.31		1.695E+00	2.728E+00	4.615E+00	4.183E-01	0.367
		713.82		-1.240E+00	1.450E+00	2.108E+00	2.608E-01	-0.588
		722.78		-1.389E-01	3.342E-01	4.375E-01	4.063E-02	-0.318
	+	968.20		1.401E+01	3.609E+00	6.501E+00	6.021E-01	2.155
		1045.16		-5.268E-03	1.965E+00	3.239E+00	2.889E-01	-0.002
		1325.50		3.754E-01	2.695E+00	4.441E+00	3.740E-01	0.085
		1368.21		-7.736E-01	1.456E+00	2.124E+00	2.843E-01	-0.364
		1436.60		5.841E-01	3.047E+00	5.264E+00	4.492E-01	0.111
		1691.02	*	-3.997E-02	5.834E-02	8.031E-02	7.033E-03	-0.498
SB-125		427.89	*	-1.008E-03	7.840E-02	1.308E-01	1.249E-02	-0.008
	+	463.38		6.626E-01	4.561E-01	5.380E-01	5.438E-02	1.231
		600.56		-1.047E-01	1.487E-01	2.257E-01	2.224E-02	-0.464
		635.90		-8.090E-02	2.440E-01	3.833E-01	3.726E-02	-0.211
TE-125M		109.28	*	-2.019E+00	8.336E+00	1.227E+01	1.248E+00	-0.165
I-126		388.63		6.718E-02	1.783E-01	3.066E-01	2.869E-02	0.219
		666.33	*	4.405E-02	1.659E-01	2.744E-01	2.441E-02	0.161
		753.82		5.096E-01	1.382E+00	2.289E+00	2.108E-01	0.223
SB-126		223.80		-2.610E+00	3.654E+00	5.675E+00	5.994E-01	-0.460
		278.60		2.190E+00	2.233E+00	3.755E+00	4.504E-01	0.583
	+	296.50		1.456E+01	2.894E+00	3.243E+00	3.818E-01	4.489
		414.70		-5.001E-03	6.389E-02	1.027E-01	9.607E-03	-0.049
		415.30		1.616E+00	5.153E+00	8.810E+00	8.241E-01	0.183
		555.20		-1.195E+00	3.436E+00	5.455E+00	5.145E-01	-0.219
		573.80		1.997E-01	8.436E-01	1.409E+00	1.321E-01	0.142
		593.00		-3.818E-01	8.148E-01	1.271E+00	1.181E-01	-0.300
		656.30		1.742E+00	2.750E+00	4.721E+00	4.209E-01	0.369
		666.33		1.840E-02	6.932E-02	1.147E-01	1.020E-02	0.161

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		675.00		-1.709E-01	1.981E+00	3.175E+00	2.835E-01	-0.054
		695.00		3.852E-02	7.017E-02	1.185E-01	1.068E-02	0.325
		697.00		-1.218E-01	2.519E-01	3.873E-01	3.493E-02	-0.314
		720.50	*	9.461E-04	1.186E-01	1.906E-01	1.735E-02	0.005
		856.80		3.913E-01	4.378E-01	6.854E-01	6.458E-02	0.571
		989.30		3.286E-01	1.078E+00	1.843E+00	1.692E-01	0.178
		1034.80		-1.955E+00	7.788E+00	1.250E+01	1.121E+00	-0.156
		1213.00		-4.703E+00	4.039E+00	5.678E+00	4.630E-01	-0.828
SB-127		61.10		-1.980E+01	5.165E+01	7.212E+01	7.284E+00	-0.275
		252.40		-1.490E+00	3.634E+00	5.595E+00	2.387E+00	-0.266
		290.80		-4.403E+00	2.037E+01	2.827E+01	3.899E+00	-0.156
		411.60		3.175E+00	1.064E+01	1.615E+01	2.602E+00	0.197
		444.90		2.757E+00	7.881E+00	1.346E+01	1.763E+00	0.205
		473.00		1.559E+00	1.439E+00	2.553E+00	3.433E-01	0.611
		543.00		1.800E+00	1.378E+01	2.288E+01	3.407E+00	0.079
		603.60		6.527E+00	1.014E+01	1.560E+01	2.016E+00	0.418
		685.20	*	-1.685E-01	1.217E+00	1.936E+00	2.251E-01	-0.087
		698.50		-6.200E+00	1.408E+01	2.171E+01	3.479E+00	-0.286
		722.20		7.967E+00	2.555E+01	3.750E+01	4.319E+00	0.212
		783.80		3.345E+00	3.293E+00	5.723E+00	7.364E-01	0.584
XE-127		57.60		-1.830E+00	5.355E+00	8.212E+00	5.937E-01	-0.223
		145.22		3.399E-01	6.101E-01	1.019E+00	8.751E-02	0.333
		172.10		-7.158E-02	1.042E-01	1.653E-01	1.523E-02	-0.433
		202.84	*	-1.150E-02	4.026E-02	6.462E-02	6.462E-03	-0.178
		374.96		5.506E-02	1.757E-01	3.016E-01	2.966E-02	0.183
I-131		80.18		-6.968E-01	3.852E+00	5.873E+00	5.191E-01	-0.119
		284.30		-3.875E-01	1.384E+00	2.167E+00	2.660E-01	-0.179
		364.48	*	5.122E-02	9.740E-02	1.672E-01	1.767E-02	0.306
		636.97		-3.331E-01	1.393E+00	2.208E+00	2.100E-01	-0.151
		722.89		-3.119E+00	6.311E+00	8.141E+00	7.460E-01	-0.383
TE-132		49.72		-7.525E-01	1.652E+01	2.590E+01	2.697E+00	-0.029
		111.76		-6.028E+00	2.299E+01	3.821E+01	4.069E+00	-0.158
		116.30		8.968E+00	2.210E+01	3.772E+01	4.000E+00	0.238
		228.16	*	1.434E-01	5.979E-01	9.797E-01	1.657E-01	0.146
BA-133		53.15		5.790E-01	3.120E+00	4.941E+00	3.786E-01	0.117
		79.62		-1.869E-01	1.093E+00	1.668E+00	2.549E-01	-0.112
		81.00		5.698E-02	9.180E-02	1.184E-01	1.897E-02	0.481
		276.40		1.479E-01	3.339E-01	5.468E-01	9.101E-02	0.270
		302.84		7.756E-02	1.398E-01	2.068E-01	3.193E-02	0.375
		356.01	*	5.984E-03	3.706E-02	5.615E-02	8.113E-03	0.107
		383.85		-1.458E-01	2.606E-01	4.206E-01	5.569E-02	-0.347
I-133	+	510.53		7.542E-01	2.606E-01	Half-Life too short		
		529.87	*	-4.092E-04	2.606E-01	Half-Life too short		
		706.58		2.376E-01	2.606E-01	Half-Life too short		
		856.28		3.465E-01	2.606E-01	Half-Life too short		
		875.33		7.044E-02	2.606E-01	Half-Life too short		
		1236.41		2.288E-01	2.606E-01	Half-Life too short		
		1298.22		3.801E-02	2.606E-01	Half-Life too short		
CS-134		475.35		2.425E-01	1.705E+00	2.855E+00	2.714E-01	0.085

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		563.23		4.062E-01	3.024E-01	5.473E-01	5.191E-02	0.742
		569.32		-1.716E-02	1.662E-01	2.678E-01	2.543E-02	-0.064
		604.70		1.174E-02	2.953E-02	4.426E-02	4.098E-03	0.265
	+	795.84	*	8.393E-02	5.942E-02	8.725E-02	8.180E-03	0.962
		801.93		-7.019E-02	3.715E-01	5.796E-01	5.434E-02	-0.121
		1038.57		2.738E-04	3.307E+00	5.457E+00	4.886E-01	0.000
		1167.94		-1.511E+00	2.097E+00	3.130E+00	2.530E-01	-0.483
		1365.15		3.653E-01	1.102E+00	1.864E+00	1.654E-01	0.196
I-135		288.45		1.553E+10	1.102E+00	Half-Life too short		
		417.63		1.108E+10	1.102E+00	Half-Life too short		
		546.56		1.665E+09	1.102E+00	Half-Life too short		
		836.80		1.731E+10	1.102E+00	Half-Life too short		
		1038.76		1.044E+08	1.102E+00	Half-Life too short		
		1124.00		3.861E+09	1.102E+00	Half-Life too short		
		1131.51		-2.228E+08	1.102E+00	Half-Life too short		
		1260.41	*	1.585E+09	1.102E+00	Half-Life too short		
		1457.56		2.315E+11	1.102E+00	Half-Life too short		
		1678.03		-2.260E+09	1.102E+00	Half-Life too short		
		1706.46		-5.420E+09	1.102E+00	Half-Life too short		
		1791.20		-5.730E+09	1.102E+00	Half-Life too short		
CS-136		66.91		-5.659E-01	6.652E-01	9.687E-01	1.446E-01	-0.584
	+	86.29		5.264E+00	1.412E+00	1.707E+00	2.290E-01	3.083
		153.22		4.258E-01	5.469E-01	9.353E-01	9.125E-02	0.455
		163.89		3.189E-01	9.615E-01	1.581E+00	1.583E-01	0.202
		176.55		-7.326E-02	3.205E-01	5.206E-01	5.094E-02	-0.141
		273.65		7.520E-03	4.266E-01	6.081E-01	7.473E-02	0.012
		340.57		1.493E-01	1.127E-01	1.851E-01	2.046E-02	0.807
		818.51		-6.027E-02	6.298E-02	9.522E-02	8.923E-03	-0.633
		1048.07	*	-1.195E-01	1.011E-01	1.444E-01	1.336E-02	-0.828
		1235.34		-3.739E-01	6.053E-01	7.712E-01	8.913E-02	-0.485
BA-137M		661.65	*	-5.184E-03	3.371E-02	5.377E-02	4.772E-03	-0.096
CS-137		661.65	*	-5.480E-03	3.564E-02	5.684E-02	5.054E-03	-0.096
CE-139		165.85	*	-1.293E-02	2.661E-02	4.285E-02	3.886E-03	-0.302
BA-140		162.64		1.207E-01	6.563E-01	1.072E+00	1.015E-01	0.113
		304.84		7.065E-01	1.215E+00	1.786E+00	5.195E-01	0.396
		423.70		9.167E-01	1.658E+00	2.831E+00	9.239E-01	0.324
		537.32	*	1.093E-02	2.147E-01	3.544E-01	1.183E-01	0.031
LA-140	+	328.77		6.835E-01	3.350E-01	4.976E-01	5.735E-02	1.374
		432.53		-1.462E-01	1.715E+00	2.804E+00	2.748E-01	-0.052
		487.03		-3.613E-02	1.193E-01	1.926E-01	1.925E-02	-0.188
		751.79		-1.107E+00	1.626E+00	2.418E+00	2.435E-01	-0.458
		815.85		-1.093E-01	2.610E-01	4.198E-01	4.316E-02	-0.260
		867.82		1.134E+00	1.256E+00	2.179E+00	2.147E-01	0.520
		919.63		-6.721E-01	2.326E+00	3.515E+00	3.971E-01	-0.191
		925.24		-6.466E-02	9.274E-01	1.533E+00	1.517E-01	-0.042
		1596.49	*	-5.804E-02	7.862E-02	1.149E-01	9.789E-03	-0.505
CE-141		145.44	*	2.326E-02	5.500E-02	9.139E-02	7.994E-03	0.254
CE-143		57.37		-3.267E-04	5.500E-02	Half-Life too short		
		231.56		1.772E-03	5.500E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		293.26	*	4.975E-04	5.500E-02	Half-Life too short		
	+	350.59		3.261E-02	5.500E-02	Half-Life too short		
		490.36		2.441E-04	5.500E-02	Half-Life too short		
		664.57		1.397E-04	5.500E-02	Half-Life too short		
		721.93		1.971E-04	5.500E-02	Half-Life too short		
CE-144		80.11		-2.897E-01	1.789E+00	2.730E+00	2.397E-01	-0.106
		133.54	*	4.677E-02	1.857E-01	2.991E-01	4.619E-02	0.156
PM-144		476.78		-3.025E-02	6.154E-02	9.807E-02	1.005E-02	-0.308
		618.01		1.926E-02	2.906E-02	4.984E-02	4.681E-03	0.386
		696.49	*	-5.579E-03	3.234E-02	5.127E-02	4.624E-03	-0.109
		778.57		-1.145E-01	2.071E+00	3.285E+00	3.049E-01	-0.035
PR-144		696.49	*	-3.780E-01	2.191E+00	3.474E+00	3.132E-01	-0.109
		1489.15		-3.927E+00	8.551E+00	1.300E+01	1.112E+00	-0.302
PM-146		453.90	*	1.366E-02	3.786E-02	6.457E-02	7.374E-03	0.212
		633.02		-5.428E-01	1.205E+00	1.840E+00	6.898E-01	-0.295
		735.90		-8.147E-03	1.262E-01	2.009E-01	5.779E-02	-0.041
		747.13		-4.838E-02	8.036E-02	1.197E-01	1.723E-02	-0.404
ND-147	+	91.11		6.804E-01	2.507E-01	3.874E-01	3.873E-02	1.756
		319.41		8.838E-01	2.811E+00	4.553E+00	5.170E-01	0.194
		439.89		4.789E+00	5.078E+00	8.990E+00	8.486E-01	0.533
		531.02	*	-3.513E-02	4.725E-01	7.719E-01	1.194E-01	-0.046
PM-149		285.90	*	-4.871E+01	8.212E+01	1.251E+02	2.201E+01	-0.389
EU-152		121.78		1.685E-02	5.878E-02	9.973E-02	9.627E-03	0.169
		244.69		1.263E-01	3.035E-01	4.501E-01	5.004E-02	0.281
		344.27	*	2.696E-02	8.547E-02	1.315E-01	1.469E-02	0.205
		443.98		-2.948E-01	8.054E-01	1.303E+00	1.231E-01	-0.226
		778.89		-2.043E-02	2.384E-01	3.770E-01	3.497E-02	-0.054
		867.32		5.601E-01	7.629E-01	1.268E+00	1.196E-01	0.442
	+	964.01		3.940E-01	2.741E-01	4.830E-01	4.481E-02	0.816
		1085.78		2.898E-01	3.341E-01	6.002E-01	5.211E-02	0.483
		1112.02		-4.316E-02	2.665E-01	3.863E-01	3.286E-02	-0.112
		1407.95		3.467E-02	1.422E-01	2.382E-01	2.028E-02	0.146
GD-153		69.67		7.942E-01	1.413E+00	2.245E+00	1.769E-01	0.354
	+	83.37		2.676E+01	1.342E+01	2.017E+01	1.838E+00	1.327
		97.43	*	-5.325E-02	6.832E-02	9.905E-02	8.799E-03	-0.538
		103.18		5.980E-02	9.207E-02	1.448E-01	1.248E-02	0.413
EU-154		123.07		2.648E-02	4.279E-02	7.345E-02	8.172E-03	0.361
		247.94		1.637E-01	3.088E-01	5.122E-01	6.927E-02	0.320
		591.81		4.169E-03	5.377E-01	8.777E-01	1.069E-01	0.005
		723.30		-1.844E-01	1.771E-01	2.086E-01	2.081E-02	-0.884
		756.87		4.933E-01	7.333E-01	1.244E+00	1.545E-01	0.396
		873.19		-1.415E-01	2.652E-01	4.190E-01	5.378E-02	-0.338
		996.32		-6.992E-02	3.066E-01	4.943E-01	8.912E-02	-0.141
		1004.76		-2.254E-01	1.986E-01	2.818E-01	3.384E-02	-0.800
		1274.45	*	3.856E-02	8.998E-02	1.546E-01	1.713E-02	0.249
TB-160	+	86.79		1.303E+00	3.266E-01	4.374E-01	4.154E-02	2.979
		197.04		-4.740E-01	5.068E-01	7.714E-01	7.597E-02	-0.614
		215.65		1.504E-01	6.717E-01	1.103E+00	1.141E-01	0.136
		298.57		2.159E-01	1.264E-01	1.707E-01	2.004E-02	1.265

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	-6.065E-02	1.159E-01	1.828E-01	1.727E-02	-0.332
		962.29		6.896E-01	4.600E-01	7.962E-01	7.392E-02	0.866
	+	966.15		2.703E-01	1.880E-01	4.261E-01	3.950E-02	0.634
		1177.93		1.312E-02	3.184E-01	5.221E-01	4.205E-02	0.025
		1271.85		-1.012E-01	5.333E-01	8.408E-01	6.983E-02	-0.120
HO-166M		80.57		-9.936E-02	2.267E-01	3.407E-01	3.007E-02	-0.292
	+	184.41		1.371E-01	5.186E-02	5.803E-02	5.524E-03	2.363
		280.46		-4.304E-02	8.095E-02	1.248E-01	1.497E-02	-0.345
		410.95		2.649E-01	2.214E-01	3.623E-01	3.383E-02	0.731
		711.68	*	-1.846E-02	5.611E-02	8.730E-02	7.921E-03	-0.211
		752.31		-3.025E-02	2.575E-01	4.072E-01	3.749E-02	-0.074
		810.29		-1.063E-03	5.249E-02	8.816E-02	8.241E-03	-0.012
TM-171		51.35		1.793E+01	2.696E+01	4.381E+01	3.452E+00	0.409
		52.39		2.279E+00	1.385E+01	2.193E+01	1.700E+00	0.104
		59.40		2.369E+01	2.430E+01	3.693E+01	2.622E+00	0.642
		66.72	*	-1.690E+01	2.613E+01	3.551E+01	2.721E+00	-0.476
LU-176	+	88.36		9.615E-01	2.410E-01	2.950E-01	2.832E-02	3.259
		201.83		-1.231E-02	2.449E-02	3.882E-02	3.872E-03	-0.317
		306.84	*	-2.523E-02	2.285E-02	3.308E-02	3.836E-03	-0.763
		401.10		6.645E-01	6.055E+00	1.022E+01	9.498E-01	0.065
LU-177		112.95		1.967E-01	1.278E+00	2.163E+00	1.811E-01	0.091
	+	208.36	*	3.013E+00	1.717E+00	1.830E+00	1.857E-01	1.647
LU-177M		52.97		4.508E-01	1.422E+00	2.268E+00	1.742E-01	0.199
		54.07		-1.004E+00	7.635E-01	1.102E+00	8.331E-02	-0.911
		61.30		-3.939E-01	1.359E+00	1.911E+00	1.386E-01	-0.206
		121.62		-3.958E-02	3.050E-01	5.078E-01	4.215E-02	-0.078
		147.16		-7.173E-01	5.760E-01	8.802E-01	7.590E-02	-0.815
		171.86		-2.741E-01	4.209E-01	6.693E-01	6.163E-02	-0.409
		218.09		-5.135E-02	7.859E-01	1.271E+00	1.323E-01	-0.040
	+	268.79		2.859E+00	1.339E+00	1.315E+00	1.544E-01	2.175
		319.02		2.717E-02	2.259E-01	3.607E-01	4.099E-02	0.075
		367.43		-2.327E-01	7.596E-01	1.254E+00	1.264E-01	-0.186
		413.65	*	-6.475E-02	1.636E-01	2.310E-01	2.159E-02	-0.280
HF-181		56.28		-2.102E-01	8.260E-01	1.274E+00	9.350E-02	-0.165
		57.53		-1.727E-01	4.501E-01	6.887E-01	4.982E-02	-0.251
		65.20		1.699E-01	8.249E-01	1.193E+00	9.008E-02	0.142
		133.02		-6.074E-03	6.357E-02	9.459E-02	7.932E-03	-0.064
		136.25		-2.207E-01	3.891E-01	6.310E-01	5.319E-02	-0.350
		345.85		-3.382E-02	1.648E-01	2.550E-01	2.733E-02	-0.133
		482.03	*	2.231E-02	3.782E-02	6.529E-02	6.210E-03	0.342
W-181		56.28		-8.255E-02	3.236E-01	4.991E-01	3.663E-02	-0.165
		57.53		-6.793E-02	1.765E-01	2.700E-01	1.954E-02	-0.252
		65.20	*	6.610E-02	3.209E-01	4.641E-01	3.504E-02	0.142
TA-182		67.75		-6.128E-02	9.645E-02	1.433E-01	1.108E-02	-0.428
		100.10		7.588E-02	1.444E-01	2.492E-01	2.179E-02	0.304
		152.43		1.241E-02	2.870E-01	4.762E-01	4.161E-02	0.026
		222.10		-1.390E-02	3.118E-01	5.043E-01	5.303E-02	-0.028
		1001.68		-8.421E-03	1.881E+00	3.072E+00	2.804E-01	-0.003
	+	1121.28		5.579E-01	2.571E-01	3.262E-01	2.754E-02	1.710

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		-1.341E-01	2.931E-01	4.558E-01	3.686E-02	-0.294
		1221.42	*	-7.451E-02	1.701E-01	2.636E-01	2.156E-02	-0.283
		1230.97		1.888E-01	4.810E-01	7.676E-01	6.297E-02	0.246
RE-183		57.98		7.886E-03	1.756E-01	2.748E-01	1.979E-02	0.029
		59.32		1.430E-01	9.750E-02	1.523E-01	1.082E-02	0.939
		67.20		-1.296E-01	1.701E-01	2.505E-01	1.928E-02	-0.517
		162.32	*	2.980E-03	9.520E-02	1.543E-01	1.385E-02	0.019
	+	208.81		2.733E+00	1.557E+00	1.675E+00	1.701E-01	1.632
		291.72		-3.885E-02	8.943E-01	1.261E+00	1.494E-01	-0.031
RE-184		57.98		2.907E-02	6.473E-01	1.013E+00	7.296E-02	0.029
		59.32		5.270E-01	3.592E-01	5.610E-01	3.987E-02	0.939
		67.20		-4.776E-01	6.268E-01	9.233E-01	7.107E-02	-0.517
		161.27		-3.794E-01	3.045E-01	4.692E-01	4.199E-02	-0.809
		216.55		6.808E-02	2.412E-01	3.972E-01	4.118E-02	0.171
		252.85	*	-2.172E-02	1.928E-01	3.077E-01	3.488E-02	-0.071
		318.01		6.923E-02	3.973E-01	6.371E-01	7.252E-02	0.109
		792.07		2.437E-01	1.012E+00	1.529E+00	1.423E-01	0.159
		903.28		-3.339E-02	8.658E-01	1.401E+00	1.324E-01	-0.024
		920.93		-5.935E-02	3.622E-01	5.922E-01	5.571E-02	-0.100
OS-185		59.72		2.207E-01	2.643E-01	3.987E-01	2.837E-02	0.554
		61.14		-5.446E-02	1.494E-01	2.089E-01	1.513E-02	-0.261
		69.30		2.260E-01	2.368E-01	4.032E-01	3.166E-02	0.561
		592.07		-1.326E-01	2.180E+00	3.537E+00	3.289E-01	-0.037
		646.12	*	-1.170E-02	3.582E-02	5.607E-02	5.040E-03	-0.209
		717.42		-3.172E-01	7.672E-01	1.177E+00	1.071E-01	-0.269
		874.81		3.321E-01	5.079E-01	9.014E-01	8.512E-02	0.368
		880.27		-2.941E-01	6.514E-01	1.036E+00	9.788E-02	-0.284
RE-188		155.03	*	-1.015E-02	1.447E-01	2.386E-01	2.099E-02	-0.043
		477.96		-1.372E+00	2.783E+00	4.432E+00	4.214E-01	-0.310
		633.10		-6.578E-01	2.351E+00	3.707E+00	3.365E-01	-0.177
W-188	+	63.58		5.907E+01	6.458E+01	7.404E+01	5.503E+00	0.798
		227.08		9.972E+00	1.152E+01	1.942E+01	2.068E+00	0.513
		290.67	*	-1.499E+00	7.170E+00	9.959E+00	1.181E+00	-0.151
IR-192	+	295.96		1.120E+00	2.229E-01	2.733E-01	3.232E-02	4.097
		308.46		1.458E-02	8.561E-02	1.375E-01	1.595E-02	0.106
		316.51	*	2.874E-02	2.999E-02	5.054E-02	5.775E-03	0.569
		468.07		-2.270E-02	6.410E-02	8.976E-02	9.032E-03	-0.253
		604.41		1.811E-01	4.012E-01	6.045E-01	8.123E-02	0.300
		612.46		6.931E-02	6.765E-01	9.751E-01	1.015E-01	0.071
AU-195		65.12		3.890E-02	1.491E-01	2.163E-01	1.632E-02	0.180
		66.83		-5.720E-02	8.628E-02	1.171E-01	8.981E-03	-0.489
	+	75.70		1.257E+00	2.437E-01	3.789E-01	3.171E-02	3.316
		98.88	*	9.591E-02	2.014E-01	3.143E-01	2.768E-02	0.305
	+	129.76		3.402E+00	3.540E+00	4.399E+00	3.672E-01	0.774
TL-200		367.94	*	-2.583E-04	3.540E+00	Half-Life too short		
		579.30		2.296E-03	3.540E+00	Half-Life too short		
		828.27		-1.055E-03	3.540E+00	Half-Life too short		
		1205.75		-1.547E-03	3.540E+00	Half-Life too short		
TL-201		68.90		1.869E+00	3.606E+00	6.300E+00	4.928E-01	0.297

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		1.175E-01	2.280E+00	3.538E+00	2.818E-01	0.033
		80.30		-8.824E-01	4.136E+00	6.294E+00	5.537E-01	-0.140
		135.34		-9.788E+00	2.133E+01	3.479E+01	2.928E+00	-0.281
		167.43	*	2.750E+00	5.833E+00	9.820E+00	8.940E-01	0.280
TL-202		68.90		1.708E-01	3.296E-01	5.759E-01	4.505E-02	0.297
		70.82		1.071E-02	2.078E-01	3.225E-01	2.569E-02	0.033
		80.30		-8.046E-02	3.771E-01	5.740E-01	5.049E-02	-0.140
		439.56	*	6.502E-02	6.011E-02	1.073E-01	1.012E-02	0.606
HG-203		70.83		4.592E-02	9.043E-01	1.403E+00	1.852E-01	0.033
		72.87		4.435E-01	5.366E-01	8.553E-01	1.102E-01	0.519
		82.60		6.299E-01	1.062E+00	1.361E+00	1.906E-01	0.463
		279.20	*	-1.792E-03	3.709E-02	5.908E-02	7.200E-03	-0.030
BI-207		72.80		1.185E-01	1.568E-01	2.501E-01	2.031E-02	0.474
	+	74.97		6.972E-01	1.352E-01	1.965E-01	1.631E-02	3.549
	+	84.90		3.461E-01	1.736E-01	2.604E-01	2.417E-02	1.329
		569.67		-6.681E-04	2.528E-02	4.100E-02	3.849E-03	-0.016
		1063.62	*	6.069E-03	4.815E-02	8.032E-02	7.081E-03	0.076
		1770.23		7.640E-02	4.826E-01	7.146E-01	5.906E-02	0.107
TL-207		81.07		1.248E-01	2.018E-01	2.612E-01	2.318E-02	0.478
	+	83.78		2.282E-01	1.145E-01	1.737E-01	1.591E-02	1.314
		94.90		3.020E-01	1.904E-01	3.122E-01	2.822E-02	0.967
		122.32		8.647E-01	1.432E+00	2.459E+00	2.202E-01	0.352
		144.24		9.081E-01	5.994E-01	1.038E+00	9.956E-02	0.875
		154.21		2.767E-01	3.351E-01	5.737E-01	5.520E-02	0.482
	+	269.46		6.697E-01	3.139E-01	3.245E-01	3.860E-02	2.064
		323.87	*	2.681E-01	6.096E-01	8.917E-01	1.706E-01	0.301
	+	338.28		7.329E+00	2.047E+00	2.305E+00	3.231E-01	3.179
		445.03		7.542E-01	1.876E+00	3.217E+00	4.083E-01	0.234
PO-209		260.50		-7.236E-01	8.266E+00	1.319E+01	1.521E+00	-0.055
		262.80		-3.895E+00	2.332E+01	3.699E+01	4.287E+00	-0.105
		896.60	*	4.065E+00	6.801E+00	1.197E+01	1.132E+00	0.340
BI-210		46.50	*	-1.363E+00	3.175E+00	4.866E+00	4.538E-01	-0.280
PB-210		46.50	*	-1.363E+00	3.175E+00	4.866E+00	4.538E-01	-0.280
PO-210		46.50	*	-1.363E+00	3.174E+00	4.866E+00	4.110E-01	-0.280
PB-211		404.84	*	-5.576E-02	9.297E-01	1.364E+00	8.561E-01	-0.041
		427.08		-2.743E-01	1.755E+00	2.884E+00	1.795E+00	-0.095
		831.96		-5.586E-01	1.066E+00	1.598E+00	1.003E+00	-0.350
BI-212	+	727.18	*	1.202E+00	4.793E-01	6.581E-01	6.876E-02	1.827
		785.46		1.331E+00	1.645E+00	2.940E+00	2.733E-01	0.453
		1620.62		-1.273E-02	1.248E+00	2.071E+00	1.760E-01	-0.006
PO-215		81.07		1.248E-01	2.018E-01	2.612E-01	2.318E-02	0.478
	+	83.78		2.282E-01	1.145E-01	1.737E-01	1.591E-02	1.314
		94.90		3.020E-01	1.904E-01	3.122E-01	2.822E-02	0.967
		122.32		8.647E-01	1.432E+00	2.459E+00	2.202E-01	0.352
		144.24		9.081E-01	5.994E-01	1.038E+00	9.956E-02	0.875
		154.21		2.767E-01	3.351E-01	5.737E-01	5.520E-02	0.482
	+	269.46		6.697E-01	3.139E-01	3.245E-01	3.860E-02	2.064
		323.87	*	2.681E-01	6.096E-01	8.917E-01	1.706E-01	0.301
	+	338.28		7.329E+00	2.047E+00	2.305E+00	3.231E-01	3.179

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		7.542E-01	1.876E+00	3.217E+00	4.083E-01	0.234
RN-219		271.23		5.414E-01	2.363E-01	4.082E-01	5.345E-02	1.326
		401.81	*	-1.326E-01	3.744E-01	6.125E-01	9.447E-02	-0.216
RN-220		549.76	*	1.181E+01	2.352E+01	4.012E+01	3.791E+00	0.294
RA-223		81.07		1.248E-01	2.018E-01	2.612E-01	2.318E-02	0.478
	+	83.78		2.282E-01	1.145E-01	1.737E-01	1.591E-02	1.314
		94.90		3.020E-01	1.904E-01	3.122E-01	2.822E-02	0.967
		122.32		8.647E-01	1.432E+00	2.459E+00	2.202E-01	0.352
		144.24		9.081E-01	5.994E-01	1.038E+00	9.956E-02	0.875
		154.21		2.767E-01	3.351E-01	5.737E-01	5.520E-02	0.482
	+	269.46		6.697E-01	3.139E-01	3.245E-01	3.860E-02	2.064
		323.87	*	2.681E-01	6.096E-01	8.917E-01	1.706E-01	0.301
	+	338.28		7.329E+00	2.047E+00	2.305E+00	3.231E-01	3.179
		445.03		7.542E-01	1.876E+00	3.217E+00	4.083E-01	0.234
AC-227		79.80		-1.701E-01	1.389E+00	2.123E+00	4.577E-01	-0.080
		236.00		1.341E-02	2.233E-01	3.228E-01	4.497E-02	0.042
		256.20	*	2.046E-01	3.296E-01	5.471E-01	9.343E-02	0.374
		286.10		-7.138E-01	1.416E+00	2.177E+00	3.388E-01	-0.328
	+	299.80		4.995E+00	2.104E+00	2.393E+00	4.596E-01	2.088
		304.40		1.092E+00	1.752E+00	2.603E+00	5.212E-01	0.420
		334.20		-8.233E-01	2.188E+00	3.167E+00	6.520E-01	-0.260
TH-227		79.80		-1.701E-01	1.389E+00	2.123E+00	4.635E-01	-0.080
	+	94.00		8.299E+00	3.044E+00	3.162E+00	6.949E-01	2.624
		236.00		1.341E-02	2.233E-01	3.228E-01	4.170E-02	0.042
		256.20	*	2.046E-01	3.301E-01	5.471E-01	1.070E-01	0.374
		286.10		-7.138E-01	1.584E+00	2.177E+00	2.192E+00	-0.328
	+	299.80		4.995E+00	2.104E+00	2.393E+00	4.596E-01	2.088
		304.40		1.092E+00	1.752E+00	2.603E+00	5.212E-01	0.420
		334.20		-8.233E-01	2.188E+00	3.167E+00	6.520E-01	-0.260
TH-229	+	85.43		3.416E-01	1.714E-01	2.589E-01	2.419E-02	1.319
	+	88.47		5.535E-01	1.387E-01	1.685E-01	1.616E-02	3.284
		100.00		9.627E-02	1.509E-01	2.613E-01	2.287E-02	0.368
		193.63	*	1.543E-01	4.414E-01	7.336E-01	7.159E-02	0.210
	+	210.97		2.142E+00	1.221E+00	1.152E+00	1.177E-01	1.860
PA-231		283.67	*	4.927E-01	1.406E+00	2.290E+00	3.961E-01	0.215
	+	301.29		1.998E+00	8.038E-01	9.550E-01	1.392E-01	2.092
TH-231		81.07		1.248E-01	2.018E-01	2.612E-01	2.318E-02	0.478
	+	83.78		2.282E-01	1.145E-01	1.737E-01	1.591E-02	1.314
		94.90		3.020E-01	1.904E-01	3.122E-01	2.822E-02	0.967
		122.32		8.647E-01	1.432E+00	2.459E+00	2.202E-01	0.352
		144.24		9.081E-01	5.994E-01	1.038E+00	9.956E-02	0.875
		154.21		2.767E-01	3.351E-01	5.737E-01	5.520E-02	0.482
	+	269.46		6.697E-01	3.139E-01	3.245E-01	3.860E-02	2.064
		323.87	*	2.681E-01	6.096E-01	8.917E-01	1.706E-01	0.301
	+	338.28		7.329E+00	2.047E+00	2.305E+00	3.231E-01	3.179
		445.03		7.542E-01	1.876E+00	3.217E+00	4.083E-01	0.234
U-231	+	84.21		9.674E+00	4.852E+00	7.364E+00	6.779E-01	1.314
	+	92.29		8.068E+00	2.481E+00	3.370E+00	3.112E-01	2.394
		95.87	*	-6.655E-02	8.943E-01	1.358E+00	1.219E-01	-0.049

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		5.881E-01	1.778E+00	2.709E+00	2.294E-01	0.217
PA-233	+	75.28		2.035E+01	4.717E+00	5.737E+00	8.713E-01	3.547
	+	86.59		7.937E+00	2.832E+00	2.634E+00	7.140E-01	3.013
	+	300.12		1.393E+00	5.725E-01	6.708E-01	1.131E-01	2.076
		311.98	*	-2.466E-02	5.790E-02	8.885E-02	1.039E-02	-0.277
		340.50		7.852E-01	5.804E-01	9.133E-01	2.259E-01	0.860
		398.62		-6.047E-02	1.852E+00	3.101E+00	8.325E-01	-0.020
		415.76		4.299E-01	1.374E+00	2.345E+00	5.126E-01	0.183
PA-234	+	63.00		1.715E+00	1.888E+00	2.222E+00	3.300E-01	0.772
		94.67		3.305E-01	1.456E-01	2.383E-01	3.029E-02	1.387
		98.44		7.353E-02	8.803E-02	1.250E-01	6.976E-02	0.588
		99.86		2.471E-01	3.843E-01	6.656E-01	5.829E-02	0.371
		111.00		-9.681E-02	1.451E-01	2.359E-01	2.816E-02	-0.410
		131.20		-7.751E-02	1.031E-01	1.473E-01	1.232E-02	-0.526
		152.70		1.243E-01	2.733E-01	4.606E-01	7.881E-02	0.270
	+	186.00		4.936E+00	2.383E+00	2.398E+00	7.549E-01	2.059
		226.40		3.347E-01	3.611E-01	6.082E-01	8.878E-02	0.550
		227.20		3.045E-01	3.875E-01	6.514E-01	6.939E-02	0.467
		248.90		3.540E-01	6.996E-01	1.154E+00	2.716E-01	0.307
	+	293.70		7.055E+00	1.757E+00	1.560E+00	2.980E-01	4.522
		369.80		-1.416E-01	7.055E-01	1.172E+00	2.621E-01	-0.121
		568.70		1.406E-01	8.226E-01	1.358E+00	1.275E-01	0.104
		569.50		-3.817E-02	2.288E-01	3.664E-01	3.440E-02	-0.104
		574.00		1.998E-01	1.210E+00	2.008E+00	1.882E-01	0.099
		699.00		-2.580E-02	6.542E-01	1.049E+00	2.022E-01	-0.025
		706.10		1.128E+00	1.146E+00	1.806E+00	8.068E-01	0.625
		733.00		-9.348E-02	3.456E-01	4.616E-01	1.034E-01	-0.203
		742.81		-4.456E-01	1.216E+00	1.810E+00	1.218E+00	-0.246
	+	796.30		1.631E+00	1.228E+00	1.674E+00	4.568E-01	0.974
		805.60		1.866E-01	9.090E-01	1.554E+00	4.796E-01	0.120
		819.60		-9.898E-01	1.136E+00	1.637E+00	6.253E-01	-0.605
		826.30		-3.425E-01	7.839E-01	1.240E+00	5.568E-01	-0.276
		831.60		-8.014E-02	5.282E-01	8.734E-01	2.627E-01	-0.092
		876.40		2.074E-01	7.494E-01	1.236E+00	1.271E+00	0.168
		880.51		-9.542E-02	2.316E-01	3.699E-01	3.495E-02	-0.258
		883.24		-9.157E-02	2.429E-01	3.761E-01	2.533E-01	-0.243
		899.00		1.757E-01	7.730E-01	1.311E+00	5.755E-01	0.134
		925.00		-1.201E-01	9.626E-01	1.581E+00	1.486E-01	-0.076
		926.50		1.277E-01	1.533E-01	2.540E-01	6.491E-02	0.503
		946.00	*	-1.358E-01	2.567E-01	3.823E-01	7.304E-02	-0.355
		949.00		-1.382E-01	3.584E-01	5.692E-01	5.309E-02	-0.243
		980.50		-9.578E-02	5.998E-01	9.761E-01	8.997E-02	-0.098
		1394.10		6.499E-02	1.042E+00	1.717E+00	1.118E+00	0.038
PA-234M		766.42		3.447E+00	1.145E+01	1.881E+01	9.563E+00	0.183
		1001.03	*	1.321E+00	4.118E+00	6.938E+00	7.224E-01	0.190
NP-236		94.67		2.524E-01	1.082E-01	1.810E-01	1.639E-02	1.395
		98.44		5.557E-02	5.908E-02	9.447E-02	8.340E-03	0.588
		111.00		-7.323E-02	1.095E-01	1.784E-01	1.500E-02	-0.410
		160.31	*	-5.463E-02	6.743E-02	1.067E-01	9.524E-03	-0.512

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.059E-01	1.262E-01	2.202E-01	1.932E-02	0.481
		117.00	*	1.447E-02	1.556E-01	2.622E-01	2.183E-02	0.055
	+	209.75		2.158E+00	1.230E+00	1.340E+00	1.365E-01	1.610
		228.18		4.684E-02	1.994E-01	3.268E-01	3.490E-02	0.143
		277.60		2.260E-01	1.633E-01	2.791E-01	3.340E-02	0.810
		334.30		-5.097E-01	1.235E+00	1.785E+00	1.967E-01	-0.286
AM-241		59.54	*	1.308E-01	1.403E-01	2.127E-01	1.669E-02	0.615
CM-243		99.55		1.090E-01	1.299E-01	2.266E-01	1.988E-02	0.481
	+	103.76	*	1.051E-01	1.050E-01	1.339E-01	1.151E-02	0.785
		117.00		1.489E-02	1.601E-01	2.698E-01	2.246E-02	0.055
	+	209.75		2.127E+00	1.212E+00	1.321E+00	1.346E-01	1.610
		228.18		4.733E-02	2.015E-01	3.302E-01	3.526E-02	0.143
		277.60		2.278E-01	1.646E-01	2.813E-01	3.367E-02	0.810
AM-246		798.80		-2.735E-02	1.389E-01	1.987E-01	1.853E-02	-0.138
		1036.00		1.415E-01	2.564E-01	4.479E-01	4.016E-02	0.316
		1062.04		-6.307E-02	2.009E-01	3.192E-01	2.817E-02	-0.198
		1078.86	*	-3.259E-02	1.173E-01	1.865E-01	1.627E-02	-0.175
CM-247		278.00		9.981E-01	6.898E-01	1.180E+00	1.414E-01	0.846
		287.40		1.217E-01	1.106E+00	1.777E+00	2.116E-01	0.068
		402.60	*	7.725E-03	3.291E-02	5.599E-02	5.206E-03	0.138
CF-249		252.85		-8.154E-02	7.238E-01	1.155E+00	1.309E-01	-0.071
		333.44		1.790E-02	1.730E-01	2.446E-01	2.700E-02	0.073
		387.95	*	4.171E-02	3.507E-02	6.295E-02	5.906E-03	0.662
CF-251		176.60	*	-2.219E-02	1.112E-01	1.809E-01	1.687E-02	-0.123
		227.00		4.036E-01	3.426E-01	5.851E-01	6.230E-02	0.690
		285.00		-6.745E-01	1.624E+00	2.518E+00	3.006E-01	-0.268

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994001      *
* Acquisition date : 12-FEB-2010 12:31:32 Detector SN#     :               *
* Detector ID        : GAM16               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.76      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245994001           Analyst initials: MXR1          *
* Batch Number       : 948812               Sample Quantity : 1.2549E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM            :    0.000             MSD Isotope     :               *
* LCS DPM            :    0.000             LCS Isotope     :               *
* LCSD DPM           :    0.000             LCSD Isotope    :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.969E+01	2.248E+00	4.395E-01	0.000E+00
CD-109	4.124E+00	1.013E+00	9.016E-01	0.000E+00
SN-126	4.054E-01	9.958E-02	8.904E-02	0.000E+00
CS-135	5.692E-01	2.628E-01	2.133E-01	0.000E+00
EU-155	1.174E-01	1.149E-01	1.557E-01	0.000E+00
TL-208	5.119E-01	9.040E-02	4.922E-02	0.000E+00
BI-211	4.315E+00	6.412E-01	2.698E-01	0.000E+00
PB-212	1.540E+00	2.064E-01	8.203E-02	0.000E+00
PO-212	1.540E+00	2.064E-01	8.203E-02	0.000E+00
BI-214	1.183E+00	1.881E-01	9.486E-02	0.000E+00
PB-214	1.501E+00	2.359E-01	9.404E-02	0.000E+00
PO-214	1.501E+00	2.359E-01	9.404E-02	0.000E+00
PO-216	1.540E+00	2.064E-01	8.203E-02	0.000E+00
PO-218	1.501E+00	2.359E-01	9.404E-02	0.000E+00
RA-224	3.854E+00	1.051E+00	9.335E-01	0.000E+00
RA-226	1.183E+00	1.881E-01	9.486E-02	0.000E+00
AC-228	1.547E+00	3.745E-01	1.723E-01	0.000E+00
RA-228	1.547E+00	3.745E-01	1.723E-01	0.000E+00
TH-228	1.563E+00	2.096E-01	8.327E-02	0.000E+00
TH-230	1.183E+00	1.881E-01	9.486E-02	0.000E+00
TH-232	1.547E+00	3.745E-01	1.723E-01	0.000E+00
TH-234	1.471E+00	1.593E+00	1.717E+00	0.000E+00
U-234	1.183E+00	1.881E-01	9.486E-02	0.000E+00
U-235	1.744E-01	1.846E-01	3.281E-01	0.000E+00
NP-237	1.190E+00	3.788E-01	2.644E-01	0.000E+00
U-238	1.471E+00	1.593E+00	1.717E+00	0.000E+00
AM-243	3.884E-01	7.383E-02	7.464E-02	0.000E+00
ANH-511	7.998E-02	5.965E-02	4.564E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	-2.197E-01	2.920E-01	4.722E-01	0.000E+00	NOT IDENT.
NA-22	1.260E-02	3.138E-02	5.490E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.495E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-3.190E-02	2.947E-02	3.775E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.277E-02	6.765E-02	0.000E+00	FAIL ABUN
SC-46	1.226E-02	3.419E-02	6.062E-02	0.000E+00	FAIL ABUN
V-48	-3.808E-03	6.153E-02	1.039E-01	0.000E+00	NOT IDENT.
CR-51	-5.353E-02	3.084E-01	5.019E-01	0.000E+00	NOT IDENT.
MN-52	3.389E-02	1.936E-01	3.262E-01	0.000E+00	NOT IDENT.
MN-54	-1.489E-02	3.181E-02	5.256E-02	0.000E+00	NOT IDENT.
CO-56	-1.931E-03	3.408E-02	5.844E-02	0.000E+00	FAIL ABUN
CO-57	9.365E-03	2.012E-02	3.630E-02	0.000E+00	NOT IDENT.
CO-58	-6.512E-03	3.417E-02	5.811E-02	0.000E+00	NOT IDENT.
FE-59	-9.899E-02	8.112E-02	1.170E-01	0.000E+00	NOT IDENT.
CO-60	-6.191E-04	3.226E-02	5.305E-02	0.000E+00	NOT IDENT.
ZN-65	6.937E-02	7.123E-02	1.203E-01	0.000E+00	NOT IDENT.
GE-68	-7.449E-02	1.029E+00	1.720E+00	0.000E+00	NOT IDENT.
AS-73	-7.209E-02	7.006E-01	1.166E+00	0.000E+00	NOT IDENT.
AS-74	3.227E-02	7.327E-02	1.283E-01	0.000E+00	NOT IDENT.
SE-75	1.652E-02	4.194E-02	6.453E-02	0.000E+00	NOT IDENT.
BR-77	1.034E+01	8.414E+00	1.566E+01	0.000E+00	FAIL ABUN
SR-82	1.114E-01	3.212E-01	5.467E-01	0.000E+00	NOT IDENT.
RB-83	7.141E-02	5.725E-02	1.067E-01	0.000E+00	NOT IDENT.
RB-84	-1.460E-02	5.549E-02	9.260E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.386E+00	1.120E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.271E-02	5.738E-02	0.000E+00	NOT IDENT.
RB-86	2.302E-02	6.497E-01	1.099E+00	0.000E+00	NOT IDENT.
Y-88	-1.385E-03	2.930E-02	4.845E-02	0.000E+00	NOT IDENT.
ZR-88	-2.056E-02	2.476E-02	4.055E-02	0.000E+00	NOT IDENT.
Y-91	-2.085E+01	1.631E+01	2.319E+01	0.000E+00	NOT IDENT.
NB-94	-1.848E-02	3.206E-02	5.042E-02	0.000E+00	NOT IDENT.
NB-95	-1.422E-02	4.155E-02	6.730E-02	0.000E+00	NOT IDENT.
NB-95M	-3.583E-02	1.185E-01	1.746E-01	0.000E+00	NOT IDENT.
ZR-95	9.185E-02	6.495E-02	1.199E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.665E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.470E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-3.480E-01	9.698E+00	1.595E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.601E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.207E-02	2.877E-02	4.641E-02	0.000E+00	NOT IDENT.
RH-102	-3.615E-03	2.631E-02	4.474E-02	0.000E+00	NOT IDENT.
RU-103	1.201E-02	3.317E-02	5.834E-02	0.000E+00	FAIL ABUN
RH-106	-2.893E-01	2.854E-01	4.294E-01	0.000E+00	FAIL ABUN
RU-106	-2.893E-01	2.839E-01	4.294E-01	0.000E+00	FAIL ABUN
AG-108M	-1.481E-02	2.734E-02	4.472E-02	0.000E+00	NOT IDENT.
AG-110M	-2.399E-02	3.034E-02	4.666E-02	0.000E+00	NOT IDENT.
IN-111	-1.785E-01	9.822E-01	1.453E+00	0.000E+00	NOT IDENT.
IN-113M	-1.215E-02	3.499E-02	5.952E-02	0.000E+00	NOT IDENT.
SN-113	-1.215E-02	3.499E-02	5.952E-02	0.000E+00	NOT IDENT.
IN-114M	-1.020E-02	1.601E-01	2.611E-01	0.000E+00	NOT IDENT.
CD-115	4.912E+00	8.521E+00	1.519E+01	0.000E+00	NOT IDENT.
SN-117M	3.116E-02	4.417E-02	7.922E-02	0.000E+00	NOT IDENT.
SB-122	2.031E+00	1.636E+00	3.041E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.138E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.475E-02	2.305E-02	4.121E-02	0.000E+00	NOT IDENT.
I-124	4.448E-01	5.815E-01	9.357E-01	0.000E+00	NOT IDENT.
SB-124	-3.997E-02	5.718E-02	8.008E-02	0.000E+00	FAIL ABUN
SB-125	-1.008E-03	7.683E-02	1.330E-01	0.000E+00	FAIL ABUN
TE-125M	-2.019E+00	8.169E+00	1.271E+01	0.000E+00	NOT IDENT.
I-126	4.405E-02	1.626E-01	2.774E-01	0.000E+00	NOT IDENT.
SB-126	9.461E-04	1.162E-01	1.924E-01	0.000E+00	FAIL ABUN
SB-127	-1.685E-01	1.193E+00	1.956E+00	0.000E+00	NOT IDENT.
XE-127	-1.150E-02	3.945E-02	6.641E-02	0.000E+00	NOT IDENT.
I-131	5.122E-02	9.546E-02	1.704E-01	0.000E+00	NOT IDENT.
TE-132	1.434E-01	5.860E-01	1.005E+00	0.000E+00	NOT IDENT.
BA-133	5.984E-03	3.632E-02	5.725E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.690E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.393E-02	5.824E-02	8.795E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	3.593E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.195E-01	9.910E-02	1.449E-01	0.000E+00	FAIL ABUN
BA-137M	-5.184E-03	3.304E-02	5.435E-02	0.000E+00	NOT IDENT.
CS-137	-5.480E-03	3.492E-02	5.746E-02	0.000E+00	NOT IDENT.
CE-139	-1.293E-02	2.608E-02	4.416E-02	0.000E+00	NOT IDENT.
BA-140	1.093E-02	2.105E-01	3.593E-01	0.000E+00	NOT IDENT.
LA-140	-5.804E-02	7.705E-02	1.147E-01	0.000E+00	FAIL ABUN
CE-141	2.326E-02	5.390E-02	9.436E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.776E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.677E-02	1.820E-01	3.092E-01	0.000E+00	NOT IDENT.

PM-144	-5.579E-03	3.169E-02	5.178E-02	0.000E+00	NOT IDENT.
PR-144	-3.780E-01	2.148E+00	3.509E+00	0.000E+00	NOT IDENT.
PM-146	1.366E-02	3.710E-02	6.561E-02	0.000E+00	NOT IDENT.
ND-147	-3.513E-02	4.631E-01	7.827E-01	0.000E+00	FAIL ABUN
PM-149	-4.871E+01	8.047E+01	1.280E+02	0.000E+00	NOT IDENT.
EU-152	2.696E-02	8.376E-02	1.341E-01	0.000E+00	FAIL ABUN
GD-153	-5.325E-02	6.695E-02	1.028E-01	0.000E+00	FAIL ABUN
EU-154	3.856E-02	8.818E-02	1.548E-01	0.000E+00	NOT IDENT.
TB-160	-6.065E-02	1.136E-01	1.840E-01	0.000E+00	FAIL ABUN
HO-166M	-1.846E-02	5.499E-02	8.815E-02	0.000E+00	FAIL ABUN
TM-171	-1.690E+01	2.561E+01	3.705E+01	0.000E+00	NOT IDENT.
LU-176	-2.523E-02	2.239E-02	3.380E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.683E+00	1.880E+00	0.000E+00	FAIL ABUN
LU-177M	-6.475E-02	1.603E-01	2.350E-01	0.000E+00	FAIL ABUN
HF-181	2.231E-02	3.706E-02	6.629E-02	0.000E+00	NOT IDENT.
W-181	6.610E-02	3.145E-01	4.844E-01	0.000E+00	NOT IDENT.
TA-182	-7.451E-02	1.667E-01	2.641E-01	0.000E+00	FAIL ABUN
RE-183	2.980E-03	9.329E-02	1.591E-01	0.000E+00	FAIL ABUN
RE-184	-2.172E-02	1.890E-01	3.153E-01	0.000E+00	NOT IDENT.
OS-185	-1.170E-02	3.510E-02	5.669E-02	0.000E+00	NOT IDENT.
RE-188	-1.015E-02	1.418E-01	2.461E-01	0.000E+00	NOT IDENT.
W-188	-1.499E+00	7.027E+00	1.018E+01	0.000E+00	FAIL ABUN
IR-192	2.874E-02	2.939E-02	5.162E-02	0.000E+00	FAIL ABUN
AU-195	9.591E-02	1.974E-01	3.262E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.547E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.750E+00	5.717E+00	1.012E+01	0.000E+00	NOT IDENT.
TL-202	6.502E-02	5.890E-02	1.091E-01	0.000E+00	NOT IDENT.
HG-203	-1.792E-03	3.635E-02	6.045E-02	0.000E+00	NOT IDENT.
BI-207	6.069E-03	4.719E-02	8.064E-02	0.000E+00	FAIL ABUN
TL-207	2.681E-01	5.974E-01	9.105E-01	0.000E+00	FAIL ABUN
PO-209	4.065E+00	6.665E+00	1.204E+01	0.000E+00	NOT IDENT.
BI-210	-1.363E+00	3.111E+00	5.102E+00	0.000E+00	NOT IDENT.
PB-210	-1.363E+00	3.111E+00	5.102E+00	0.000E+00	NOT IDENT.
PO-210	-1.363E+00	3.111E+00	5.102E+00	0.000E+00	NOT IDENT.
PB-211	-5.576E-02	9.111E-01	1.388E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.697E-01	6.643E-01	0.000E+00	FAIL ABUN
PO-215	2.681E-01	5.974E-01	9.105E-01	0.000E+00	FAIL ABUN
RN-219	-1.326E-01	3.669E-01	6.235E-01	0.000E+00	NOT IDENT.
RN-220	1.181E+01	2.305E+01	4.066E+01	0.000E+00	NOT IDENT.
RA-223	2.681E-01	5.974E-01	9.105E-01	0.000E+00	FAIL ABUN
AC-227	2.046E-01	3.230E-01	5.604E-01	0.000E+00	FAIL ABUN
TH-227	2.046E-01	3.235E-01	5.604E-01	0.000E+00	FAIL ABUN
TH-229	1.543E-01	4.326E-01	7.545E-01	0.000E+00	FAIL ABUN
PA-231	4.927E-01	1.378E+00	2.342E+00	0.000E+00	FAIL ABUN
TH-231	2.681E-01	5.974E-01	9.105E-01	0.000E+00	FAIL ABUN
U-231	-6.655E-02	8.764E-01	1.410E+00	0.000E+00	FAIL ABUN
PA-233	-2.466E-02	5.674E-02	9.077E-02	0.000E+00	FAIL ABUN
PA-234	-1.358E-01	2.516E-01	3.845E-01	0.000E+00	FAIL ABUN
PA-234M	1.321E+00	4.035E+00	6.972E+00	0.000E+00	NOT IDENT.
NP-236	-5.463E-02	6.608E-02	1.100E-01	0.000E+00	NOT IDENT.
NP-239	1.447E-02	1.525E-01	2.715E-01	0.000E+00	FAIL ABUN
AM-241	1.308E-01	1.375E-01	2.222E-01	0.000E+00	NOT IDENT.
CM-243	1.051E-01	1.029E-01	1.389E-01	0.000E+00	FAIL ABUN
AM-246	-3.259E-02	1.150E-01	1.872E-01	0.000E+00	NOT IDENT.
CM-247	7.725E-03	3.225E-02	5.699E-02	0.000E+00	NOT IDENT.
CF-249	4.171E-02	3.437E-02	6.412E-02	0.000E+00	NOT IDENT.
CF-251	-2.219E-02	1.090E-01	1.863E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:32:03.13

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994001.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:31:32
Sample ID         : G245994001           Sample quantity  : 1.25490E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.76  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	849	10.67*	1.208E+00	1.969E+01	1.969E+01	11.65
CD-109	88.03	313	3.72*	6.252E+00	4.032E+00	4.124E+00	25.06
SN-126	64.28	65	9.60	3.499E+00	5.823E-01	5.823E-01	110.06
	86.94	313	8.90	6.252E+00	1.685E+00	1.685E+00	47.59
	87.57	313	37.00*	6.252E+00	4.054E-01	4.054E-01	25.06
CS-135	268.24	146	16.00*	4.790E+00	5.692E-01	5.692E-01	47.11
EU-155	48.70	------	4.60	1.302E+00	------	Line Not Found	------
	60.01	------	1.11	3.019E+00	------	Line Not Found	------
	86.54	313	30.90	6.252E+00	4.854E-01	4.882E-01	25.09
	105.31	57	20.70*	7.036E+00	1.167E-01	1.174E-01	99.92
TL-208	277.35	------	6.80	4.695E+00	------	Line Not Found	------
	510.84	79	21.60	2.965E+00	3.703E-01	3.703E-01	76.55
	583.14	384	84.20*	2.668E+00	5.119E-01	5.119E-01	18.02
	860.37	55	12.46	1.919E+00	6.932E-01	6.932E-01	67.16
BI-211	72.87	------	1.27	4.872E+00	------	Line Not Found	------
	351.07	736	12.94*	3.940E+00	4.315E+00	4.315E+00	15.16
PB-212	74.81	438	10.70	5.107E+00	2.396E+00	2.396E+00	21.53
	77.11	647	18.00	5.367E+00	2.003E+00	2.003E+00	14.56
	87.30	313	8.00	6.252E+00	1.875E+00	1.875E+00	26.99
	238.63	1200	44.60*	5.225E+00	1.540E+00	1.540E+00	13.68
	300.09	136	3.41	4.430E+00	2.695E+00	2.695E+00	39.71
PO-212	74.81	438	10.70	5.107E+00	2.396E+00	2.396E+00	21.53
	77.11	647	18.00	5.367E+00	2.003E+00	2.003E+00	14.56
	87.30	313	8.00	6.252E+00	1.875E+00	1.875E+00	26.99
	115.19	------	0.60	7.166E+00	------	Line Not Found	------
	238.63	1200	44.60*	5.225E+00	1.540E+00	1.540E+00	13.68
	300.09	136	3.41	4.430E+00	2.695E+00	2.695E+00	39.71
BI-214	609.31	472	46.30*	2.574E+00	1.183E+00	1.183E+00	16.22
	1120.29	90	15.10	1.516E+00	1.181E+00	1.181E+00	46.55
	1764.49	72	15.80	1.056E+00	1.291E+00	1.291E+00	33.97
PB-214	74.81	438	6.21	5.107E+00	4.128E+00	4.128E+00	20.76
	77.11	647	10.50	5.367E+00	3.434E+00	3.434E+00	16.44

Sample ID : G245994001 Acquisition date : 12-FEB-2010 12:31:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	87.30	313	4.67	6.252E+00	3.212E+00	3.212E+00	26.22
	241.98	264	7.49	5.181E+00	2.033E+00	2.033E+00	28.38
	295.21	423	19.20	4.488E+00	1.470E+00	1.470E+00	20.84
	351.92	736	37.20*	3.940E+00	1.501E+00	1.501E+00	16.04
PO-214	74.81	438	6.21	5.107E+00	4.128E+00	4.128E+00	20.76
	77.11	647	10.50	5.367E+00	3.434E+00	3.434E+00	16.44
	87.30	313	4.67	6.252E+00	3.212E+00	3.212E+00	26.22
	241.98	264	7.49	5.181E+00	2.033E+00	2.033E+00	28.38
	295.21	423	19.20	4.488E+00	1.470E+00	1.470E+00	20.84
	351.92	736	37.20*	3.940E+00	1.501E+00	1.501E+00	16.04
PO-216	74.81	438	10.70	5.107E+00	2.396E+00	2.396E+00	21.53
	77.11	647	18.00	5.367E+00	2.003E+00	2.003E+00	14.56
	87.30	313	8.00	6.252E+00	1.875E+00	1.875E+00	26.99
	238.63	1200	44.60*	5.225E+00	1.540E+00	1.540E+00	13.68
	300.09	136	3.41	4.430E+00	2.695E+00	2.695E+00	39.71
PO-218	74.81	438	6.21	5.107E+00	4.128E+00	4.128E+00	20.76
	77.11	647	10.50	5.367E+00	3.434E+00	3.434E+00	16.44
	87.30	313	4.67	6.252E+00	3.212E+00	3.212E+00	26.22
	241.98	264	7.49	5.181E+00	2.033E+00	2.033E+00	28.38
	295.21	423	19.20	4.488E+00	1.470E+00	1.470E+00	20.84
	351.92	736	37.20*	3.940E+00	1.501E+00	1.501E+00	16.04
RA-224	240.98	264	3.95*	5.181E+00	3.854E+00	3.854E+00	27.82
RA-226	609.31	472	46.30*	2.574E+00	1.183E+00	1.183E+00	16.22
	1120.29	90	15.10	1.516E+00	1.181E+00	1.181E+00	46.55
	1764.49	72	15.80	1.056E+00	1.291E+00	1.291E+00	33.97
AC-228	338.32	271	11.40	4.057E+00	1.755E+00	1.755E+00	48.28
	911.07	261	27.70*	1.824E+00	1.547E+00	1.547E+00	24.71
	969.11	131	16.60	1.727E+00	1.362E+00	1.362E+00	33.67
RA-228	338.32	271	11.40	4.057E+00	1.755E+00	1.755E+00	48.28
	911.07	261	27.70*	1.824E+00	1.547E+00	1.547E+00	24.71
	969.11	131	16.60	1.727E+00	1.362E+00	1.362E+00	33.67
TH-228	74.81	438	10.70	5.107E+00	2.396E+00	2.432E+00	19.43
	77.11	647	18.00	5.367E+00	2.003E+00	2.034E+00	14.56
	87.30	313	8.00	6.252E+00	1.875E+00	1.903E+00	25.06
	238.63	1200	44.60*	5.225E+00	1.540E+00	1.563E+00	13.68
	300.09	136	3.41	4.430E+00	2.695E+00	2.736E+00	70.59
TH-230	609.31	472	46.30*	2.574E+00	1.183E+00	1.183E+00	16.22
	1120.29	90	15.10	1.516E+00	1.181E+00	1.181E+00	46.55
	1764.49	72	15.80	1.056E+00	1.291E+00	1.291E+00	33.97
TH-232	338.32	271	11.40	4.057E+00	1.755E+00	1.755E+00	26.51
	911.07	261	27.70*	1.824E+00	1.547E+00	1.547E+00	24.71
	969.11	131	16.60	1.727E+00	1.362E+00	1.362E+00	33.67
TH-234	63.29	65	3.80*	3.499E+00	1.471E+00	1.471E+00	110.48
	92.38	256	5.41	6.600E+00	2.148E+00	2.148E+00	34.62
U-234	609.31	472	46.30*	2.574E+00	1.183E+00	1.183E+00	16.22
	1120.29	90	15.10	1.516E+00	1.181E+00	1.181E+00	46.55
	1764.49	72	15.80	1.056E+00	1.291E+00	1.291E+00	33.97
U-235	89.95	158	2.70	6.431E+00	2.726E+00	2.726E+00	47.15
	93.35	256	4.50	6.600E+00	2.582E+00	2.582E+00	40.70

Sample ID : G245994001 Acquisition date : 12-FEB-2010 12:31:32

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	105.00	57	2.10	7.036E+00	1.150E+00	1.150E+00	103.92
	143.76	------	10.50*	6.943E+00	------	Line Not Found	------
	163.35	------	4.70	6.588E+00	------	Line Not Found	------
	185.71	203	54.00	6.147E+00	1.828E-01	1.828E-01	37.83
	205.31	------	4.70	5.780E+00	------	Line Not Found	------
NP-237	86.50	313	12.60*	6.252E+00	1.190E+00	1.190E+00	32.47
	95.87	------	2.60	6.742E+00	------	Line Not Found	------
U-238	63.29	65	3.80*	3.499E+00	1.471E+00	1.471E+00	110.48
	92.38	256	5.41	6.600E+00	2.148E+00	2.148E+00	30.75
AM-243	74.67	438	66.00*	5.107E+00	3.884E-01	3.884E-01	19.39
	86.72	313	0.34	6.252E+00	4.464E+01	4.464E+01	25.06
	117.66	------	0.55	7.175E+00	------	Line Not Found	------
	142.18	------	0.13	6.968E+00	------	Line Not Found	------
ANH-511	511.00	79	100.00*	2.965E+00	7.998E-02	7.998E-02	76.10

Flag: "*" = Keyline

Sample ID : G245994001 Acquisition date : 12-FEB-2010 12:31:32

Total number of lines in spectrum 35
Number of unidentified lines 2
Number of lines tentatively identified by NID 33 94.29%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.969E+01	1.969E+01	0.229E+01	11.65	
CD-109	464.00D	1.02	4.032E+00	4.124E+00	1.034E+00	25.06	
SN-126	1.00E+05Y	1.00	4.054E-01	4.054E-01	1.016E-01	25.06	
CS-135	2.30E+06Y	1.00	5.692E-01	5.692E-01	2.682E-01	47.11	
EU-155	4.96Y	1.01	1.167E-01	1.174E-01	1.173E-01	99.92	
TL-208	1.41E+10Y	1.00	5.119E-01	5.119E-01	0.922E-01	18.02	
BI-211	7.04E+08Y	1.00	4.315E+00	4.315E+00	0.654E+00	15.16	
PB-212	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.211E+00	13.68	
PO-212	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.211E+00	13.68	
BI-214	1600.00Y	1.00	1.183E+00	1.183E+00	0.192E+00	16.22	
PB-214	1600.00Y	1.00	1.501E+00	1.501E+00	0.241E+00	16.04	
PO-214	1600.00Y	1.00	1.501E+00	1.501E+00	0.241E+00	16.04	
PO-216	1.41E+10Y	1.00	1.540E+00	1.540E+00	0.211E+00	13.68	
PO-218	1600.00Y	1.00	1.501E+00	1.501E+00	0.241E+00	16.04	
RA-224	1.41E+10Y	1.00	3.854E+00	3.854E+00	1.072E+00	27.82	
RA-226	1600.00Y	1.00	1.183E+00	1.183E+00	0.192E+00	16.22	
AC-228	1.41E+10Y	1.00	1.547E+00	1.547E+00	0.382E+00	24.71	
RA-228	1.41E+10Y	1.00	1.547E+00	1.547E+00	0.382E+00	24.71	
TH-228	1.91Y	1.02	1.540E+00	1.563E+00	0.214E+00	13.68	
TH-230	4.47E+09Y	1.00	1.183E+00	1.183E+00	0.192E+00	16.22	
TH-232	1.41E+10Y	1.00	1.547E+00	1.547E+00	0.382E+00	24.71	
TH-234	4.47E+09Y	1.00	1.471E+00	1.471E+00	1.625E+00	110.48	
U-234	4.47E+09Y	1.00	1.183E+00	1.183E+00	0.192E+00	16.22	
U-235	7.04E+08Y	1.00	1.828E-01	1.828E-01	0.691E-01	37.83	K
NP-237	2.14E+06Y	1.00	1.190E+00	1.190E+00	0.387E+00	32.47	
U-238	4.47E+09Y	1.00	1.471E+00	1.471E+00	1.625E+00	110.48	
AM-243	7380.00Y	1.00	3.884E-01	3.884E-01	0.753E-01	19.39	
ANH-511	1.00E+09Y	1.00	7.998E-02	7.998E-02	6.087E-02	76.10	
			---	---			
	Total Activity :		5.832E+01	5.843E+01			

Grand Total Activity : 5.832E+01 5.843E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994001 Acquisition date : 12-FEB-2010 12:31:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	84.18	114	258	1.39	168.55	165	29	1.58E-02	49.3	6.03E+00	T
0	128.93	62	326	0.96	258.06	254	8	8.62E-03	****	7.13E+00	T
0	209.66	133	333	1.12	419.51	414	11	1.85E-02	56.1	5.70E+00	T
0	328.03	86	109	0.98	656.24	653	8	1.19E-02	47.6	4.15E+00	T
0	409.28	50	79	1.35	818.74	814	9	6.95E-03	69.9	3.52E+00	
0	462.99	73	133	1.50	926.16	922	12	1.01E-02	68.1	3.20E+00	T
0	727.52	105	73	1.36	1455.13	1450	13	1.46E-02	38.5	2.22E+00	T
0	795.38	44	54	1.03	1590.83	1586	10	6.07E-03	70.2	2.06E+00	T
0	933.28	37	17	1.81	1866.55	1861	10	5.15E-03	53.3	1.79E+00	
1	964.67	33	22	1.76	1929.32	1925	18	4.56E-03	68.9	1.73E+00	T
0	1238.69	32	44	0.81	2477.17	2471	11	4.51E-03	86.4	1.39E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:32:08.96

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994001.CNF;1  *
* Acquisition date : 12-FEB-2010 12:31:32  Detector SN#    :                *
* Detector ID      : GAM16                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.76         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245994001            Analyst initials: MXR1           *
* Batch Number     : 948812                Sample Quantity : 1.25490E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.969E+01	2.293E+00	4.398E-01	3.866E-02	44.779
CD-109	4.124E+00	1.034E+00	8.673E-01	8.358E-02	4.755
SN-126	4.054E-01	1.016E-01	8.565E-02	8.212E-03	4.734
CS-135	5.692E-01	2.682E-01	2.083E-01	2.657E-02	2.732
EU-155	1.174E-01	1.173E-01	1.502E-01	1.299E-02	0.782
TL-208	5.119E-01	9.225E-02	4.861E-02	4.818E-03	10.531
BI-211	4.315E+00	6.543E-01	2.645E-01	2.892E-02	16.314
PB-212	1.540E+00	2.107E-01	8.000E-02	9.471E-03	19.247
PO-212	1.540E+00	2.107E-01	8.000E-02	9.471E-03	19.247
BI-214	1.183E+00	1.919E-01	9.374E-02	9.911E-03	12.624
PB-214	1.501E+00	2.407E-01	9.221E-02	1.115E-02	16.280
PO-214	1.501E+00	2.407E-01	9.221E-02	1.115E-02	16.280
PO-216	1.540E+00	2.107E-01	8.000E-02	9.471E-03	19.247
PO-218	1.501E+00	2.407E-01	9.221E-02	1.115E-02	16.280
RA-224	3.854E+00	1.072E+00	9.105E-01	1.003E-01	4.233
RA-226	1.183E+00	1.919E-01	9.374E-02	9.911E-03	12.624
AC-228	1.547E+00	3.822E-01	1.712E-01	2.034E-02	9.034
RA-228	1.547E+00	3.822E-01	1.712E-01	2.034E-02	9.034

Sample ID : G245994001 Acquisition date : 12-FEB-2010 12:31:32

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.563E+00	2.138E-01	8.120E-02	9.614E-03	19.247
TH-230	1.183E+00	1.919E-01	9.374E-02	9.910E-03	12.624
TH-232	1.547E+00	3.822E-01	1.712E-01	2.034E-02	9.034
TH-234	1.471E+00	1.625E+00	1.644E+00	2.868E-01	0.894
U-234	1.183E+00	1.919E-01	9.374E-02	9.910E-03	12.624
U-235	1.828E-01	6.915E-02	3.177E-01	5.552E-02	0.575
NP-237	1.190E+00	3.865E-01	2.543E-01	5.772E-02	4.682
U-238	1.471E+00	1.625E+00	1.644E+00	2.868E-01	0.894
AM-243	3.884E-01	7.533E-02	7.164E-02	5.931E-03	5.422
ANH-511	7.998E-02	6.087E-02	4.499E-02	4.279E-03	1.778

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.197E-01		2.979E-01	4.650E-01	4.704E-02	-0.473
NA-22	1.260E-02		3.203E-02	5.483E-02	4.563E-03	0.230
NA-24	-2.398E-01		2.804E-01	Half-Life too short		
AL-26	-3.190E-02		3.007E-02	3.790E-02	3.099E-03	-0.842
TI-44	3.697E-01	+	5.384E-02	6.497E-02	5.595E-03	5.690
SC-46	1.226E-02		3.489E-02	6.022E-02	5.693E-03	0.204
V-48	-3.808E-03		6.279E-02	1.034E-01	9.518E-03	-0.037
CR-51	-5.353E-02		3.147E-01	4.915E-01	5.746E-02	-0.109
MN-52	3.389E-02		1.975E-01	3.263E-01	2.784E-02	0.104
MN-54	-1.489E-02		3.246E-02	5.217E-02	4.900E-03	-0.285
CO-56	-1.931E-03		3.478E-02	5.802E-02	5.459E-03	-0.033
CO-57	9.365E-03		2.053E-02	3.507E-02	2.915E-03	0.267
CO-58	-6.512E-03		3.486E-02	5.766E-02	5.402E-03	-0.113
FE-59	-9.899E-02		8.278E-02	1.166E-01	1.084E-02	-0.849
CO-60	-6.191E-04		3.292E-02	5.302E-02	4.472E-03	-0.012
ZN-65	6.937E-02		7.269E-02	1.199E-01	1.018E-02	0.578
GE-68	-7.449E-02		1.050E+00	1.714E+00	1.497E-01	-0.043
AS-73	-7.209E-02		7.149E-01	1.114E+00	8.499E-02	-0.065
AS-74	3.227E-02		7.477E-02	1.267E-01	1.176E-02	0.255
SE-75	1.652E-02		4.279E-02	6.302E-02	7.354E-03	0.262
BR-77	1.034E+01		8.586E+00	1.544E+01	1.467E+00	0.669
SR-82	1.114E-01		3.277E-01	5.421E-01	5.026E-02	0.205
RB-83	7.141E-02		5.842E-02	1.052E-01	9.995E-03	0.679
RB-84	-1.460E-02		5.662E-02	9.199E-02	8.691E-03	-0.159
KR-85	1.146E+01		6.516E+00	1.104E+01	1.050E+00	1.038
SR-85	5.872E-02		3.338E-02	5.656E-02	5.378E-03	1.038
RB-86	2.302E-02		6.630E-01	1.095E+00	9.568E-02	0.021
Y-88	-1.385E-03		2.990E-02	4.865E-02	3.950E-03	-0.028
ZR-88	-2.056E-02		2.527E-02	3.982E-02	3.683E-03	-0.516
Y-91	-2.085E+01		1.664E+01	2.314E+01	1.882E+00	-0.901
NB-94	-1.848E-02		3.271E-02	4.993E-02	4.513E-03	-0.370
NB-95	-1.422E-02		4.240E-02	6.672E-02	6.167E-03	-0.213
NB-95M	-3.583E-02		1.209E-01	1.702E-01	2.024E-02	-0.210

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	9.185E-02		6.628E-02	1.188E-01	1.193E-02	0.773
NB-97	-5.773E-02		3.911E-02	Half-Life too short		
ZR-97	3.322E+00		7.501E-01	Half-Life too short		
MO-99	-3.480E-01		9.896E+00	1.580E+01	2.449E+00	-0.022
TC-99M	-2.883E+10		1.327E+10	Half-Life too short		
RH-101	-2.207E-02		2.935E-02	4.514E-02	4.457E-03	-0.489
RH-102	-3.615E-03		2.685E-02	4.406E-02	4.188E-03	-0.082
RU-103	1.201E-02		3.385E-02	5.749E-02	8.464E-03	0.209
RH-106	-2.893E-01		2.912E-01	4.244E-01	5.815E-02	-0.682
RU-106	-2.893E-01		2.897E-01	4.244E-01	3.881E-02	-0.682
AG-108M	-1.481E-02		2.790E-02	4.398E-02	4.281E-03	-0.337
AG-110M	-2.399E-02		3.096E-02	4.616E-02	4.225E-03	-0.520
IN-111	-1.785E-01		1.002E+00	1.417E+00	1.579E-01	-0.126
IN-113M	-1.215E-02		3.570E-02	5.845E-02	5.548E-03	-0.208
SN-113	-1.215E-02		3.570E-02	5.845E-02	5.548E-03	-0.208
IN-114M	-1.020E-02		1.634E-01	2.539E-01	2.455E-02	-0.040
CD-115	4.912E+00		8.695E+00	1.498E+01	1.422E+00	0.328
SN-117M	3.116E-02		4.507E-02	7.682E-02	6.823E-03	0.406
SB-122	2.031E+00		1.670E+00	3.002E+00	2.824E-01	0.677
I-123	2.648E+00		2.111E+00	Half-Life too short		
TE-123M	1.475E-02		2.352E-02	3.997E-02	3.574E-03	0.369
I-124	4.448E-01		5.934E-01	9.245E-01	8.550E-02	0.481
SB-124	-3.997E-02		5.834E-02	8.031E-02	7.033E-03	-0.498
SB-125	-1.008E-03		7.840E-02	1.308E-01	1.249E-02	-0.008
TE-125M	-2.019E+00		8.336E+00	1.227E+01	1.248E+00	-0.165
I-126	4.405E-02		1.659E-01	2.744E-01	2.441E-02	0.161
SB-126	9.461E-04		1.186E-01	1.906E-01	1.735E-02	0.005
SB-127	-1.685E-01		1.217E+00	1.936E+00	2.251E-01	-0.087
XE-127	-1.150E-02		4.026E-02	6.462E-02	6.462E-03	-0.178
I-131	5.122E-02		9.740E-02	1.672E-01	1.767E-02	0.306
TE-132	1.434E-01		5.979E-01	9.797E-01	1.657E-01	0.146
BA-133	5.984E-03		3.706E-02	5.615E-02	8.113E-03	0.107
I-133	-4.092E-04		2.393E-03	Half-Life too short		
CS-134	8.393E-02	+	5.942E-02	8.725E-02	8.180E-03	0.962
I-135	1.585E+09		1.833E+09	Half-Life too short		
CS-136	-1.195E-01		1.011E-01	1.444E-01	1.336E-02	-0.828
BA-137M	-5.184E-03		3.371E-02	5.377E-02	4.772E-03	-0.096
CS-137	-5.480E-03		3.564E-02	5.684E-02	5.054E-03	-0.096
CE-139	-1.293E-02		2.661E-02	4.285E-02	3.886E-03	-0.302
BA-140	1.093E-02		2.147E-01	3.544E-01	1.183E-01	0.031
LA-140	-5.804E-02		7.862E-02	1.149E-01	9.789E-03	-0.505
CE-141	2.326E-02		5.500E-02	9.139E-02	7.994E-03	0.254
CE-143	4.975E-04		9.063E-05	Half-Life too short		
CE-144	4.677E-02		1.857E-01	2.991E-01	4.619E-02	0.156
PM-144	-5.579E-03		3.234E-02	5.127E-02	4.624E-03	-0.109
PR-144	-3.780E-01		2.191E+00	3.474E+00	3.132E-01	-0.109
PM-146	1.366E-02		3.786E-02	6.457E-02	7.374E-03	0.212
ND-147	-3.513E-02		4.725E-01	7.719E-01	1.194E-01	-0.046

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-4.871E+01		8.212E+01	1.251E+02	2.201E+01	-0.389
EU-152	2.696E-02		8.547E-02	1.315E-01	1.469E-02	0.205
GD-153	-5.325E-02		6.832E-02	9.905E-02	8.799E-03	-0.538
EU-154	3.856E-02		8.998E-02	1.546E-01	1.713E-02	0.249
TB-160	-6.065E-02		1.159E-01	1.828E-01	1.727E-02	-0.332
HO-166M	-1.846E-02		5.611E-02	8.730E-02	7.921E-03	-0.211
TM-171	-1.690E+01		2.613E+01	3.551E+01	2.721E+00	-0.476
LU-176	-2.523E-02		2.285E-02	3.308E-02	3.836E-03	-0.763
LU-177	3.013E+00	+	1.717E+00	1.830E+00	1.857E-01	1.647
LU-177M	-6.475E-02		1.636E-01	2.310E-01	2.159E-02	-0.280
HF-181	2.231E-02		3.782E-02	6.529E-02	6.210E-03	0.342
W-181	6.610E-02		3.209E-01	4.641E-01	3.504E-02	0.142
TA-182	-7.451E-02		1.701E-01	2.636E-01	2.156E-02	-0.283
RE-183	2.980E-03		9.520E-02	1.543E-01	1.385E-02	0.019
RE-184	-2.172E-02		1.928E-01	3.077E-01	3.488E-02	-0.071
OS-185	-1.170E-02		3.582E-02	5.607E-02	5.040E-03	-0.209
RE-188	-1.015E-02		1.447E-01	2.386E-01	2.099E-02	-0.043
W-188	-1.499E+00		7.170E+00	9.959E+00	1.181E+00	-0.151
IR-192	2.874E-02		2.999E-02	5.054E-02	5.775E-03	0.569
AU-195	9.591E-02		2.014E-01	3.143E-01	2.768E-02	0.305
TL-200	-2.583E-04		1.810E-04	Half-Life too short		
TL-201	2.750E+00		5.833E+00	9.820E+00	8.940E-01	0.280
TL-202	6.502E-02		6.011E-02	1.073E-01	1.012E-02	0.606
HG-203	-1.792E-03		3.709E-02	5.908E-02	7.200E-03	-0.030
BI-207	6.069E-03		4.815E-02	8.032E-02	7.081E-03	0.076
TL-207	2.681E-01		6.096E-01	8.917E-01	1.706E-01	0.301
PO-209	4.065E+00		6.801E+00	1.197E+01	1.132E+00	0.340
BI-210	-1.363E+00		3.175E+00	4.866E+00	4.538E-01	-0.280
PB-210	-1.363E+00		3.175E+00	4.866E+00	4.538E-01	-0.280
PO-210	-1.363E+00		3.174E+00	4.866E+00	4.110E-01	-0.280
PB-211	-5.576E-02		9.297E-01	1.364E+00	8.561E-01	-0.041
BI-212	1.202E+00	+	4.793E-01	6.581E-01	6.876E-02	1.827
PO-215	2.681E-01		6.096E-01	8.917E-01	1.706E-01	0.301
RN-219	-1.326E-01		3.744E-01	6.125E-01	9.447E-02	-0.216
RN-220	1.181E+01		2.352E+01	4.012E+01	3.791E+00	0.294
RA-223	2.681E-01		6.096E-01	8.917E-01	1.706E-01	0.301
AC-227	2.046E-01		3.296E-01	5.471E-01	9.343E-02	0.374
TH-227	2.046E-01		3.301E-01	5.471E-01	1.070E-01	0.374
TH-229	1.543E-01		4.414E-01	7.336E-01	7.159E-02	0.210
PA-231	4.927E-01		1.406E+00	2.290E+00	3.961E-01	0.215
TH-231	2.681E-01		6.096E-01	8.917E-01	1.706E-01	0.301
U-231	-6.655E-02		8.943E-01	1.358E+00	1.219E-01	-0.049
PA-233	-2.466E-02		5.790E-02	8.885E-02	1.039E-02	-0.277
PA-234	-1.358E-01		2.567E-01	3.823E-01	7.304E-02	-0.355
PA-234M	1.321E+00		4.118E+00	6.938E+00	7.224E-01	0.190
NP-236	-5.463E-02		6.743E-02	1.067E-01	9.524E-03	-0.512
NP-239	1.447E-02		1.556E-01	2.622E-01	2.183E-02	0.055
AM-241	1.308E-01		1.403E-01	2.127E-01	1.669E-02	0.615

Sample ID : G245994001 Acquisition date : 12-FEB-2010 12:31:32

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.051E-01	+	1.050E-01	1.339E-01	1.151E-02	0.785
AM-246	-3.259E-02		1.173E-01	1.865E-01	1.627E-02	-0.175
CM-247	7.725E-03		3.291E-02	5.599E-02	5.206E-03	0.138
CF-249	4.171E-02		3.507E-02	6.295E-02	5.906E-03	0.662
CF-251	-2.219E-02		1.112E-01	1.809E-01	1.687E-02	-0.123

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994001            *
* Acquisition date : 12-FEB-2010 12:31:32 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.76     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245994001           Analyst initials: MXR1            *
* Batch Number     : 948812               Sample Quantity : 1.2549E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.969E+01	2.248E+00	2.199E-01	1.147E+00
CD-109	4.124E+00	1.013E+00	4.511E-01	5.168E-01
SN-126	4.054E-01	9.958E-02	4.455E-02	5.081E-02
CS-135	5.692E-01	2.628E-01	1.067E-01	1.341E-01
EU-155	1.174E-01	1.149E-01	7.792E-02	5.864E-02
TL-208	5.119E-01	9.040E-02	2.463E-02	4.612E-02
BI-211	4.315E+00	6.412E-01	1.350E-01	3.272E-01
PB-212	1.540E+00	2.064E-01	4.104E-02	1.053E-01
PO-212	1.540E+00	2.064E-01	4.104E-02	1.053E-01
BI-214	1.183E+00	1.881E-01	4.746E-02	9.596E-02
PB-214	1.501E+00	2.359E-01	4.705E-02	1.204E-01
PO-214	1.501E+00	2.359E-01	4.705E-02	1.204E-01
PO-216	1.540E+00	2.064E-01	4.104E-02	1.053E-01
PO-218	1.501E+00	2.359E-01	4.705E-02	1.204E-01
RA-224	3.854E+00	1.051E+00	4.670E-01	5.362E-01
RA-226	1.183E+00	1.881E-01	4.746E-02	9.596E-02
AC-228	1.547E+00	3.745E-01	8.619E-02	1.911E-01
RA-228	1.547E+00	3.745E-01	8.619E-02	1.911E-01
TH-228	1.563E+00	2.096E-01	4.166E-02	1.069E-01
TH-230	1.183E+00	1.881E-01	4.746E-02	9.596E-02
TH-232	1.547E+00	3.745E-01	8.619E-02	1.911E-01
TH-234	1.471E+00	1.593E+00	8.591E-01	8.125E-01
U-234	1.183E+00	1.881E-01	4.746E-02	9.596E-02
U-235	1.744E-01	1.846E-01	1.641E-01	9.420E-02
NP-237	1.190E+00	3.788E-01	1.323E-01	1.933E-01
U-238	1.471E+00	1.593E+00	8.591E-01	8.125E-01
AM-243	3.884E-01	7.383E-02	3.734E-02	3.767E-02
ANH-511	7.998E-02	5.965E-02	2.283E-02	3.043E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-2.197E-01	2.920E-01	2.362E-01	1.490E-01	NOT IDENT.
NA-22	1.260E-02	3.138E-02	2.747E-02	1.601E-02	NOT IDENT.
NA-24	-2.398E+05	5.495E+05	0.000E+00	2.804E+05	SHORT HLIF
AL-26	-3.190E-02	2.947E-02	1.889E-02	1.503E-02	NOT IDENT.
TI-44	3.697E-01	5.277E-02	3.384E-02	2.692E-02	FAIL ABUN
SC-46	1.226E-02	3.419E-02	3.033E-02	1.744E-02	FAIL ABUN
V-48	-3.808E-03	6.153E-02	5.199E-02	3.139E-02	NOT IDENT.
CR-51	-5.353E-02	3.084E-01	2.511E-01	1.574E-01	NOT IDENT.
MN-52	3.389E-02	1.936E-01	1.632E-01	9.876E-02	NOT IDENT.
MN-54	-1.489E-02	3.181E-02	2.629E-02	1.623E-02	NOT IDENT.
CO-56	-1.931E-03	3.408E-02	2.924E-02	1.739E-02	FAIL ABUN
CO-57	9.365E-03	2.012E-02	1.816E-02	1.026E-02	NOT IDENT.
CO-58	-6.512E-03	3.417E-02	2.907E-02	1.743E-02	NOT IDENT.
FE-59	-9.899E-02	8.112E-02	5.854E-02	4.139E-02	NOT IDENT.
CO-60	-6.191E-04	3.226E-02	2.654E-02	1.646E-02	NOT IDENT.
ZN-65	6.937E-02	7.123E-02	6.019E-02	3.634E-02	NOT IDENT.
GE-68	-7.449E-02	1.029E+00	8.605E-01	5.251E-01	NOT IDENT.
AS-73	-7.209E-02	7.006E-01	5.833E-01	3.574E-01	NOT IDENT.
AS-74	3.227E-02	7.327E-02	6.417E-02	3.739E-02	NOT IDENT.
SE-75	1.652E-02	4.194E-02	3.229E-02	2.140E-02	NOT IDENT.
BR-77	1.034E+01	8.414E+00	7.836E+00	4.293E+00	FAIL ABUN
SR-82	1.114E-01	3.212E-01	2.735E-01	1.639E-01	NOT IDENT.
RB-83	7.141E-02	5.725E-02	5.338E-02	2.921E-02	NOT IDENT.
RB-84	-1.460E-02	5.549E-02	4.633E-02	2.831E-02	NOT IDENT.
KR-85	1.146E+01	6.386E+00	5.605E+00	3.258E+00	NOT IDENT.
SR-85	5.872E-02	3.271E-02	2.871E-02	1.669E-02	NOT IDENT.
RB-86	2.302E-02	6.497E-01	5.498E-01	3.315E-01	NOT IDENT.
Y-88	-1.385E-03	2.930E-02	2.424E-02	1.495E-02	NOT IDENT.
ZR-88	-2.056E-02	2.476E-02	2.029E-02	1.263E-02	NOT IDENT.
Y-91	-2.085E+01	1.631E+01	1.160E+01	8.322E+00	NOT IDENT.
NB-94	-1.848E-02	3.206E-02	2.523E-02	1.636E-02	NOT IDENT.
NB-95	-1.422E-02	4.155E-02	3.367E-02	2.120E-02	NOT IDENT.
NB-95M	-3.583E-02	1.185E-01	8.735E-02	6.045E-02	NOT IDENT.
ZR-95	9.185E-02	6.495E-02	5.999E-02	3.314E-02	NOT IDENT.
NB-97	-5.773E+04	7.665E+04	0.000E+00	3.911E+04	SHORT HLIF
ZR-97	3.322E+06	1.470E+06	0.000E+00	7.501E+05	SHORT HLIF
MO-99	-3.480E-01	9.698E+00	7.978E+00	4.948E+00	NOT IDENT.
TC-99M	-2.883E+16	2.601E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.207E-02	2.877E-02	2.322E-02	1.468E-02	NOT IDENT.
RH-102	-3.615E-03	2.631E-02	2.239E-02	1.342E-02	NOT IDENT.
RU-103	1.201E-02	3.317E-02	2.919E-02	1.692E-02	FAIL ABUN
RH-106	-2.893E-01	2.854E-01	2.148E-01	1.456E-01	FAIL ABUN
RU-106	-2.893E-01	2.839E-01	2.148E-01	1.449E-01	FAIL ABUN
AG-108M	-1.481E-02	2.734E-02	2.237E-02	1.395E-02	NOT IDENT.
AG-110M	-2.399E-02	3.034E-02	2.335E-02	1.548E-02	NOT IDENT.
IN-111	-1.785E-01	9.822E-01	7.269E-01	5.011E-01	NOT IDENT.
IN-113M	-1.215E-02	3.499E-02	2.978E-02	1.785E-02	NOT IDENT.
SN-113	-1.215E-02	3.499E-02	2.978E-02	1.785E-02	NOT IDENT.
IN-114M	-1.020E-02	1.601E-01	1.306E-01	8.170E-02	NOT IDENT.
CD-115	4.912E+00	8.521E+00	7.602E+00	4.348E+00	NOT IDENT.
SN-117M	3.116E-02	4.417E-02	3.963E-02	2.254E-02	NOT IDENT.
SB-122	2.031E+00	1.636E+00	1.521E+00	8.348E-01	NOT IDENT.
I-123	2.648E+06	4.138E+06	0.000E+00	2.111E+06	SHORT HLIF
TE-123M	1.475E-02	2.305E-02	2.062E-02	1.176E-02	NOT IDENT.
I-124	4.448E-01	5.815E-01	4.681E-01	2.967E-01	NOT IDENT.
SB-124	-3.997E-02	5.718E-02	4.006E-02	2.917E-02	FAIL ABUN
SB-125	-1.008E-03	7.683E-02	6.654E-02	3.920E-02	FAIL ABUN
TE-125M	-2.019E+00	8.169E+00	6.361E+00	4.168E+00	NOT IDENT.
I-126	4.405E-02	1.626E-01	1.388E-01	8.296E-02	NOT IDENT.
SB-126	9.461E-04	1.162E-01	9.626E-02	5.928E-02	FAIL ABUN
SB-127	-1.685E-01	1.193E+00	9.788E-01	6.086E-01	NOT IDENT.
XE-127	-1.150E-02	3.945E-02	3.322E-02	2.013E-02	NOT IDENT.
I-131	5.122E-02	9.546E-02	8.525E-02	4.870E-02	NOT IDENT.
TE-132	1.434E-01	5.860E-01	5.029E-01	2.990E-01	NOT IDENT.
BA-133	5.984E-03	3.632E-02	2.864E-02	1.853E-02	NOT IDENT.
I-133	-4.092E+02	4.690E+03	0.000E+00	2.393E+03	SHORT HLIF
CS-134	8.393E-02	5.824E-02	4.400E-02	2.971E-02	FAIL ABUN
I-135	1.585E+15	3.593E+15	0.000E+00	1.833E+15	SHORT HLIF
CS-136	-1.195E-01	9.910E-02	7.252E-02	5.056E-02	FAIL ABUN
BA-137M	-5.184E-03	3.304E-02	2.719E-02	1.686E-02	NOT IDENT.
CS-137	-5.480E-03	3.492E-02	2.875E-02	1.782E-02	NOT IDENT.
CE-139	-1.293E-02	2.608E-02	2.209E-02	1.331E-02	NOT IDENT.
BA-140	1.093E-02	2.105E-01	1.797E-01	1.074E-01	NOT IDENT.
LA-140	-5.804E-02	7.705E-02	5.738E-02	3.931E-02	FAIL ABUN
CE-141	2.326E-02	5.390E-02	4.721E-02	2.750E-02	NOT IDENT.
CE-143	4.975E+02	1.776E+02	0.000E+00	9.063E+01	SHORT HLIF
CE-144	4.677E-02	1.820E-01	1.547E-01	9.286E-02	NOT IDENT.

PM-144	-5.579E-03	3.169E-02	2.591E-02	1.617E-02	NOT IDENT.
PR-144	-3.780E-01	2.148E+00	1.755E+00	1.096E+00	NOT IDENT.
PM-146	1.366E-02	3.710E-02	3.283E-02	1.893E-02	NOT IDENT.
ND-147	-3.513E-02	4.631E-01	3.916E-01	2.363E-01	FAIL ABUN
PM-149	-4.871E+01	8.047E+01	6.402E+01	4.106E+01	NOT IDENT.
EU-152	2.696E-02	8.376E-02	6.710E-02	4.273E-02	FAIL ABUN
GD-153	-5.325E-02	6.695E-02	5.144E-02	3.416E-02	FAIL ABUN
EU-154	3.856E-02	8.818E-02	7.747E-02	4.499E-02	NOT IDENT.
TB-160	-6.065E-02	1.136E-01	9.205E-02	5.797E-02	FAIL ABUN
HO-166M	-1.846E-02	5.499E-02	4.410E-02	2.805E-02	FAIL ABUN
TM-171	-1.690E+01	2.561E+01	1.854E+01	1.307E+01	NOT IDENT.
LU-176	-2.523E-02	2.239E-02	1.691E-02	1.142E-02	FAIL ABUN
LU-177	3.013E+00	1.683E+00	9.404E-01	8.585E-01	FAIL ABUN
LU-177M	-6.475E-02	1.603E-01	1.176E-01	8.178E-02	FAIL ABUN
HF-181	2.231E-02	3.706E-02	3.317E-02	1.891E-02	NOT IDENT.
W-181	6.610E-02	3.145E-01	2.423E-01	1.605E-01	NOT IDENT.
TA-182	-7.451E-02	1.667E-01	1.321E-01	8.507E-02	FAIL ABUN
RE-183	2.980E-03	9.329E-02	7.958E-02	4.760E-02	FAIL ABUN
RE-184	-2.172E-02	1.890E-01	1.577E-01	9.642E-02	NOT IDENT.
OS-185	-1.170E-02	3.510E-02	2.836E-02	1.791E-02	NOT IDENT.
RE-188	-1.015E-02	1.418E-01	1.231E-01	7.233E-02	NOT IDENT.
W-188	-1.499E+00	7.027E+00	5.095E+00	3.585E+00	FAIL ABUN
IR-192	2.874E-02	2.939E-02	2.582E-02	1.499E-02	FAIL ABUN
AU-195	9.591E-02	1.974E-01	1.632E-01	1.007E-01	FAIL ABUN
TL-200	-2.583E+02	3.547E+02	0.000E+00	1.810E+02	SHORT HLIF
TL-201	2.750E+00	5.717E+00	5.063E+00	2.917E+00	NOT IDENT.
TL-202	6.502E-02	5.890E-02	5.456E-02	3.005E-02	NOT IDENT.
HG-203	-1.792E-03	3.635E-02	3.024E-02	1.855E-02	NOT IDENT.
BI-207	6.069E-03	4.719E-02	4.034E-02	2.408E-02	FAIL ABUN
TL-207	2.681E-01	5.974E-01	4.555E-01	3.048E-01	FAIL ABUN
PO-209	4.065E+00	6.665E+00	6.025E+00	3.401E+00	NOT IDENT.
BI-210	-1.363E+00	3.111E+00	2.553E+00	1.587E+00	NOT IDENT.
PB-210	-1.363E+00	3.111E+00	2.553E+00	1.587E+00	NOT IDENT.
PO-210	-1.363E+00	3.111E+00	2.553E+00	1.587E+00	NOT IDENT.
PB-211	-5.576E-02	9.111E-01	6.946E-01	4.649E-01	NOT IDENT.
BI-212	1.202E+00	4.697E-01	3.324E-01	2.397E-01	FAIL ABUN
PO-215	2.681E-01	5.974E-01	4.555E-01	3.048E-01	FAIL ABUN
RN-219	-1.326E-01	3.669E-01	3.119E-01	1.872E-01	NOT IDENT.
RN-220	1.181E+01	2.305E+01	2.034E+01	1.176E+01	NOT IDENT.
RA-223	2.681E-01	5.974E-01	4.555E-01	3.048E-01	FAIL ABUN
AC-227	2.046E-01	3.230E-01	2.804E-01	1.648E-01	FAIL ABUN
TH-227	2.046E-01	3.235E-01	2.804E-01	1.651E-01	FAIL ABUN
TH-229	1.543E-01	4.326E-01	3.775E-01	2.207E-01	FAIL ABUN
PA-231	4.927E-01	1.378E+00	1.172E+00	7.030E-01	FAIL ABUN
TH-231	2.681E-01	5.974E-01	4.555E-01	3.048E-01	FAIL ABUN
U-231	-6.655E-02	8.764E-01	7.052E-01	4.472E-01	FAIL ABUN
PA-233	-2.466E-02	5.674E-02	4.541E-02	2.895E-02	FAIL ABUN
PA-234	-1.358E-01	2.516E-01	1.923E-01	1.283E-01	FAIL ABUN
PA-234M	1.321E+00	4.035E+00	3.488E+00	2.059E+00	NOT IDENT.
NP-236	-5.463E-02	6.608E-02	5.505E-02	3.371E-02	NOT IDENT.
NP-239	1.447E-02	1.525E-01	1.358E-01	7.779E-02	FAIL ABUN
AM-241	1.308E-01	1.375E-01	1.112E-01	7.014E-02	NOT IDENT.
CM-243	1.051E-01	1.029E-01	6.949E-02	5.252E-02	FAIL ABUN
AM-246	-3.259E-02	1.150E-01	9.366E-02	5.865E-02	NOT IDENT.
CM-247	7.725E-03	3.225E-02	2.851E-02	1.645E-02	NOT IDENT.
CF-249	4.171E-02	3.437E-02	3.208E-02	1.754E-02	NOT IDENT.
CF-251	-2.219E-02	1.090E-01	9.322E-02	5.561E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	196.3045
46.50	196.3045
46.50	196.3045
48.70	234.3448
49.72	205.3940
51.35	198.0483
52.39	210.6227
52.97	208.5821
53.15	208.6913
53.44	211.2673
54.07	252.5377
56.28	234.7583
56.28	234.7598
57.37	0.0000
57.53	250.1466
57.53	250.1478
57.60	250.1949
57.98	244.3768
57.98	244.3768
59.32	195.2386
59.32	195.2386
59.40	216.4362
59.54	214.8901
59.72	214.9938
60.01	257.5416
61.10	263.1940
61.14	263.2214
61.30	263.3324
63.00	251.3631
63.29	251.5522
63.29	251.5522
63.58	266.5488
64.28	235.7095
65.12	249.4298
65.20	249.4793
65.20	249.4793
66.05	276.5071
66.72	281.9464
66.83	282.0242
66.91	288.7185
67.20	287.6802
67.20	287.6802
67.75	299.2950
67.85	299.3701
68.90	281.8008
68.90	281.8008
69.30	267.3878
69.67	284.4185
70.82	309.0784
70.82	309.0784
70.83	309.0859
72.80	320.6355
72.87	320.6878
72.87	320.6878
74.67	299.2169
74.81	299.3123
74.81	299.3123
74.81	299.3123
74.81	299.3123
74.81	299.3123
74.81	299.3123
74.81	299.3123
74.97	299.4239
75.28	299.6382
75.70	299.9263
77.11	300.8914
77.11	300.8914

77.11	300.8914
77.11	300.8914
77.11	300.8914
77.11	300.8914
77.11	300.8914
78.38	301.7538
79.62	302.5893
79.80	302.7099
79.80	302.7099
80.11	302.9170
80.18	302.9638
80.30	303.0430
80.30	303.0430
80.57	303.2231
81.00	223.7738
81.07	223.8083
81.07	223.8083
81.07	223.8083
81.07	223.8083
82.60	224.5544
83.37	224.9261
83.78	203.1302
83.78	203.1302
83.78	203.1302
83.78	203.1302
84.21	203.3171
84.90	203.6154
85.43	203.8441
86.29	204.2143
86.50	204.3041
86.54	204.3209
86.59	204.3424
86.72	204.3975
86.79	204.4263
86.94	204.4922
87.30	204.6455
87.30	204.6455
87.30	204.6455
87.30	204.6455
87.30	204.6455
87.30	204.6455
87.30	204.6455
87.57	204.7605
87.88	204.8922
88.03	204.9557
88.36	205.0959
88.47	205.1426
89.95	205.7654
91.11	206.2506
92.29	206.7417
92.38	206.7788
92.38	206.7788
93.35	207.1789
94.00	207.4472
94.67	207.7191
94.67	207.7215
94.90	207.8149
94.90	207.8149
94.90	207.8149
94.90	207.8149
95.87	238.7123
95.87	238.7123
96.73	261.6978
97.43	247.4187
98.44	201.2508
98.44	201.2519
98.88	232.1013
99.55	220.8226
99.55	220.8226
99.86	233.4264
100.00	230.8141
100.10	230.8603
103.18	209.7821
103.76	227.5089
105.00	245.5692
105.31	244.8094
108.00	206.2110
109.28	225.7221

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111.00	230.9575
111.76	227.6243
112.95	218.9746
115.19	207.9182
116.30	217.4911
117.00	221.4266
117.00	221.4266
117.66	216.1553
121.11	223.8852
121.62	214.8155
121.78	200.9795
122.06	202.9265
122.32	203.0134
122.32	203.0134
122.32	203.0134
122.32	203.0134
123.07	207.9048
127.23	215.8540
129.76	230.7977
131.20	273.6384
133.02	251.7846
133.54	240.0941
135.34	249.8472
136.00	257.6812
136.25	246.4054
136.48	246.4927
140.51	250.8591
140.51	0.0000
142.18	251.4825
142.65	243.0472
143.76	216.6086
144.24	194.7007
144.24	194.7007
144.24	194.7007
144.24	194.7007
145.22	225.7175
145.44	225.7892
147.16	261.9920
152.43	230.0060
152.70	214.5591
153.22	204.0292
154.21	207.2299
154.21	207.2299
154.21	207.2299
154.21	207.2299
155.03	225.9749
156.02	245.7938
158.56	190.8661
159.00	0.0000
159.00	192.9379
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161.27	244.6230
162.32	202.6660
162.64	204.7204
163.35	202.9468
163.89	213.9383
165.85	246.1302
167.43	202.0701
171.28	224.9908
171.86	228.1497
172.10	228.2196
176.55	220.5036
176.60	220.5192
181.06	210.1671
184.41	204.4617
185.71	204.7864
186.00	204.8604
190.27	205.5149
192.34	198.2587
193.63	196.5156
197.04	209.6383
198.01	199.5889
198.60	187.3709
200.40	187.7634
201.83	204.6085
202.84	202.7770
205.31	203.8680

208.36	192.5992
208.81	192.6971
209.75	192.9003
209.75	192.9003
210.97	175.4136
215.65	194.1649
216.55	195.4075
218.09	206.2602
222.10	192.3586
223.80	206.4734
226.40	165.6357
227.00	159.3658
227.08	170.0049
227.20	170.0260
228.16	174.4535
228.18	174.4569
228.18	174.4569
231.56	0.0000
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236.00	194.6476
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238.63	179.5797
238.63	179.5797
238.63	179.5797
239.00	179.6460
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241.98	180.1896
241.98	180.1896
241.98	180.1896
244.69	137.9434
245.39	157.5288
247.94	133.5052
248.90	131.4587
249.79	140.2736
252.40	140.6331
252.85	133.0602
252.85	133.0602
254.15	0.0000
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256.20	130.2101
260.50	138.4406
260.90	147.2850
262.80	142.0464
264.65	130.7112
268.24	132.8125
268.79	128.4515
269.46	128.5317
269.46	128.5317
269.46	128.5317
269.46	128.5317
271.23	128.7418
273.65	140.1530
276.40	146.0824
277.35	132.8146
277.60	126.1479
277.60	126.1479
278.00	129.5442
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279.20	152.0426
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280.46	170.1248
281.68	155.7444
283.67	135.8197
284.30	150.4965
285.00	150.5892
285.90	150.7118
286.10	149.6115
286.10	149.6115
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288.45	0.0000
290.67	132.1463
290.80	132.1606
291.72	127.1805
293.26	0.0000
293.70	117.2082
295.21	117.3619
295.21	117.3619

295.21	117.3619
295.96	88.5054
296.50	88.5466
297.23	88.6022
298.57	88.7037
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299.80	122.9502
300.09	122.9810
300.09	122.9810
300.09	122.9810
300.09	122.9810
300.12	122.9854
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302.84	114.7105
303.76	102.8064
303.91	102.8192
304.40	101.1470
304.40	101.1470
304.84	104.6148
306.84	144.3032
308.46	116.9767
311.98	126.5228
316.51	94.6707
318.01	110.9707
319.02	108.7487
319.41	100.6823
320.08	106.5266
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323.87	94.0798
323.87	94.0798
323.87	94.0798
325.23	108.1367
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334.20	127.8843
334.30	127.8954
338.28	113.6683
338.28	113.6683
338.28	113.6683
338.28	113.6683
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338.32	113.6722
338.32	113.6722
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340.57	94.6277
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345.85	102.8151
350.59	0.0000
351.07	94.3270
351.92	94.3885
351.92	94.3885
351.92	94.3885
355.39	0.0000
356.01	84.3192
364.48	81.7967
366.43	88.2159
367.43	101.7924
367.94	0.0000
369.80	97.4581
374.96	104.1644
383.85	109.3872
387.95	85.9362
388.63	98.7814
391.69	90.7445
391.69	90.7445
392.90	100.9128
398.62	104.0770
400.65	103.2996
401.10	107.0225
401.81	114.4582
402.60	101.5909
404.84	103.5952
410.95	69.8459
411.60	77.3094
413.65	90.8149
414.70	87.2608
415.30	81.9723

415.76	81.9978
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427.89	86.4142
432.53	75.3699
433.93	83.9237
439.47	64.3508
439.56	71.9249
439.89	74.7797
443.98	84.4655
444.90	71.2200
445.03	71.2269
445.03	71.2269
445.03	71.2269
445.03	71.2269
453.90	79.2639
463.38	81.6512
468.07	83.2333
473.00	64.7376
475.06	90.9391
475.35	82.2465
476.78	93.9377
477.59	99.7970
477.96	92.0660
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511.00	91.8804
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511.85	91.9236
513.99	53.8355
513.99	53.8355
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529.87	0.0000
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537.32	63.1596
543.00	63.3538
546.56	0.0000
549.76	66.6143
552.65	68.7388
555.20	70.8566
563.23	48.7939
563.90	48.8101
568.70	54.0303
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574.00	57.2458
574.64	65.4453
578.91	60.6706
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592.07	63.9678
593.00	71.2236
595.88	53.7535
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602.71	51.4482
602.71	51.4482
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604.41	53.1531
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609.31	64.5203

609.31	64.5203
609.31	64.5203
609.31	64.5203
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621.84	77.4823
631.29	58.9036
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634.78	55.8418
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661.65	73.6220
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666.33	65.2258
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677.61	77.3855
685.20	62.5525
692.80	55.1898
695.00	58.4940
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696.49	71.5389
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698.33	77.0214
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722.78	52.6289
722.89	52.6318
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724.18	61.4380
727.18	40.6449
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739.58	51.9025
742.81	54.1859
744.21	46.4720
747.13	57.6066
751.79	68.8191
752.31	61.0626
753.82	56.6575
755.35	61.1398
756.15	43.3680
756.87	53.3921
763.93	73.6276
765.79	71.4512
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766.84	64.7809
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778.57	53.8682
778.89	53.8755
783.80	47.2346
785.46	56.7200
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801.93	57.7719
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810.29	53.6445
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831.96	54.0968
834.83	60.5811
836.80	0.0000
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867.82	37.1748
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880.51	44.8184
881.50	42.0326
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889.25	44.0246
896.60	44.1417
898.02	37.5869
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911.07	38.7068
911.07	38.7068
911.07	38.7068
919.63	39.0616
920.93	38.8429
925.00	39.8467
925.24	39.8498
926.50	28.4773
935.52	47.6111
937.48	31.7627
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946.00	33.4491
949.00	41.1376
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968.20	51.0371
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969.11	48.1641
969.11	48.1641
977.42	42.5025
980.50	38.6787
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1038.76	0.0000
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1046.59	48.4138
1048.07	59.3086

1050.47	37.5918
1050.47	37.5918
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1063.62	44.7012
1076.63	37.8998
1077.35	38.9067
1078.86	38.9238
1085.78	30.0059
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1112.84	38.6590
1115.52	23.5498
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1120.29	41.4404
1120.29	41.4404
1120.29	41.4404
1120.51	41.4424
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1147.95	0.0000
1167.94	47.1500
1173.22	32.8500
1175.09	46.2217
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1205.75	0.0000
1213.00	58.1437
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1271.85	27.4346
1274.45	22.1751
1274.54	22.1751
1291.56	32.8845
1298.22	0.0000
1312.09	39.4625
1325.50	25.6875
1325.50	25.6875
1332.49	24.6610
1333.61	30.0316
1360.21	25.9172
1362.66	0.0000
1365.15	21.6250
1368.21	23.8058
1368.53	0.0000
1376.25	20.6013
1384.27	15.2106
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1395.20	22.8785
1407.95	16.3938
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1436.60	17.4267
1457.56	0.0000
1460.81	16.6062
1489.15	14.8607
1509.49	16.7981
1596.49	24.7495
1620.62	21.0538
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1691.02	12.6308
1691.02	12.6308
1706.46	0.0000
1750.46	0.0000
1764.49	13.8114
1764.49	13.8114
1764.49	13.8114
1764.49	13.8114
1770.23	11.8521
1771.40	6.7743
1791.20	0.0000
1808.65	17.9165

1836.01 11.0085

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994001

Total Uranium Activity	4.4568E+00	ug/g
Total Uranium Counting Unc.	4.7387E+00	ug/g
Total Uranium Tpu	2.4177E-06	ug/g
Total Uranium Mda	2.5569E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G245994001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM16            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 12:31:32.55    SAMPLE ALQT:  125.490 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.201E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.250E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 2.693E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.298E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:33:04.22

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994002.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:31:59
Sample ID         : G245994002           Sample quantity  : 1.30620E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.26*	260	541	1.41	126.38	122	10	3.61E-02	18.2	
2	3	74.92	396	594	1.36	149.68	145	15	5.51E-02	12.1	7.48E-01
3	3	77.15	727	549	1.28	154.14	145	15	1.01E-01	7.1	
4	2	87.29	196	488	1.19	174.40	171	22	2.72E-02	18.9	4.78E+00
5	2	90.04	144	545	1.45	179.90	171	22	2.00E-02	30.8	
6	2	92.74*	481	409	1.30	185.29	171	22	6.68E-02	9.5	
7	0	129.24	52	306	1.09	258.23	254	7	7.20E-03	57.9	
8	0	186.00*	292	346	1.39	371.68	366	11	4.06E-02	14.0	
9	0	209.25	152	286	0.94	418.15	413	10	2.11E-02	22.4	
10	3	238.53*	1351	177	1.34	476.66	468	21	1.88E-01	3.3	1.52E+00
11	3	241.54	371	229	1.98	482.68	468	21	5.16E-02	12.5	
12	0	271.02	157	285	1.79	541.60	536	14	2.18E-02	24.3	
13	0	295.09	470	202	1.45	589.71	584	11	6.53E-02	7.5	
14	0	300.08	115	146	1.06	599.68	596	9	1.60E-02	21.1	
15	0	328.02*	65	208	1.40	655.52	650	11	9.07E-03	44.2	
16	0	338.21	271	182	1.33	675.90	671	12	3.76E-02	11.6	
17	0	351.84*	820	204	1.51	703.15	696	15	1.14E-01	5.2	
18	0	409.43	77	111	1.62	818.26	814	10	1.08E-02	27.8	
19	0	462.88	75	112	1.34	925.11	920	10	1.04E-02	29.0	
20	0	510.40*	106	137	2.62	1020.11	1012	15	1.47E-02	30.0	
21	0	568.29*	171	118	2.68	1135.85	1129	15	2.38E-02	16.5	
22	0	583.21*	357	109	1.55	1165.68	1157	14	4.96E-02	8.2	
23	0	609.26*	540	122	1.53	1217.75	1209	18	7.50E-02	6.6	
24	0	661.78	103	106	1.19	1322.77	1317	12	1.43E-02	22.3	
25	0	727.55	72	85	1.64	1454.27	1448	11	9.95E-03	27.6	
26	0	795.39	58	67	1.56	1589.92	1582	16	7.99E-03	34.6	
27	0	861.74	89	85	2.33	1722.61	1710	26	1.23E-02	31.1	
28	0	911.36	282	56	2.19	1821.84	1815	14	3.91E-02	8.2	
29	0	965.49	18	70	0.64	1930.11	1927	8	2.46E-03	87.4	
30	0	969.33*	136	50	1.77	1937.77	1934	9	1.89E-02	12.9	
31	0	1001.52*	37	23	1.92	2002.17	1998	10	5.13E-03	32.9	
32	0	1120.58	111	53	1.31	2240.30	2233	15	1.54E-02	17.1	
33	0	1238.66	46	61	1.13	2476.51	2472	13	6.36E-03	37.6	
34	0	1377.79	43	12	2.09	2754.87	2748	13	5.96E-03	23.0	
35	0	1461.07*	866	22	1.85	2921.50	2914	17	1.20E-01	3.6	
36	0	1629.43	27	18	5.44	3258.41	3250	18	3.75E-03	41.6	
37	0	1729.05	29	13	2.15	3457.77	3446	18	4.07E-03	34.6	
38	0	1764.46*	108	8	2.58	3528.64	3520	15	1.49E-02	11.6	

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 14:33:07

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:31:59
Sample ID : G245994002 Sample quantity : 130.62 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.56 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.997E+01	2.080E+00	5.835E-01	4.346E-02	34.218
CD-109	+	88.03	*	2.535E+00	9.842E-01	1.356E+00	1.215E-01	1.870
SN-126	+	64.28		2.149E+00	8.409E-01	8.574E-01	1.252E-01	2.506
	+	86.94		1.036E+00	5.809E-01	6.268E-01	2.595E-01	1.653
	+	87.57	*	2.492E-01	9.675E-02	1.339E-01	1.194E-02	1.862
BA-137M	+	661.65	*	1.428E-01	6.414E-02	5.733E-02	3.339E-03	2.490
CS-137	+	661.65	*	1.509E-01	6.781E-02	6.061E-02	3.544E-03	2.490
TL-208		277.35		2.143E-02	4.198E-01	6.183E-01	6.524E-02	0.035
	+	510.84		4.942E-01	3.013E-01	2.222E-01	2.269E-02	2.225
	+	583.14	*	4.770E-01	8.472E-02	5.791E-02	3.938E-03	8.236
	+	860.37		1.118E+00	7.031E-01	4.007E-01	3.588E-02	2.790
BI-211		72.87		7.899E+00	3.942E+00	6.034E+00	4.728E-01	1.309
	+	351.07	*	4.807E+00	5.881E-01	3.325E-01	2.123E-02	14.457
PB-212	+	74.81		2.096E+00	5.688E-01	5.805E-01	7.118E-02	3.611
	+	77.11		2.187E+00	3.556E-01	3.303E-01	2.669E-02	6.621
	+	87.30		1.153E+00	4.621E-01	6.949E-01	9.299E-02	1.659
	+	238.63	*	1.735E+00	1.694E-01	9.107E-02	6.573E-03	19.052
	+	300.09		2.276E+00	9.791E-01	1.191E+00	9.834E-02	1.912
PO-212	+	74.81		2.096E+00	5.688E-01	5.805E-01	7.118E-02	3.611
	+	77.11		2.187E+00	3.556E-01	3.303E-01	2.669E-02	6.621
	+	87.30		1.153E+00	4.621E-01	6.949E-01	9.299E-02	1.659
		115.19		3.302E+00	3.687E+00	6.206E+00	3.951E-01	0.532
	+	238.63	*	1.735E+00	1.694E-01	9.107E-02	6.573E-03	19.052
	+	300.09		2.276E+00	9.791E-01	1.191E+00	9.834E-02	1.912
BI-214	+	609.31	*	1.359E+00	2.082E-01	1.085E-01	8.531E-03	12.526
	+	1120.29		1.452E+00	5.143E-01	4.077E-01	3.730E-02	3.561
	+	1764.49		1.901E+00	4.558E-01	3.780E-01	2.291E-02	5.029
PB-214	+	74.81		3.611E+00	9.583E-01	1.000E+00	1.086E-01	3.611
	+	77.11		3.750E+00	6.732E-01	5.663E-01	6.289E-02	6.621
	+	87.30		1.975E+00	7.816E-01	1.190E+00	1.401E-01	1.659
	+	241.98		2.863E+00	7.528E-01	5.480E-01	4.370E-02	5.225
	+	295.21		1.631E+00	2.806E-01	1.980E-01	1.690E-02	8.238
	+	351.92	*	1.672E+00	2.224E-01	1.159E-01	9.555E-03	14.429
PO-214	+	74.81		3.611E+00	9.583E-01	1.000E+00	1.086E-01	3.611

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.750E+00	6.732E-01	5.663E-01	6.289E-02	6.621
	+	87.30		1.975E+00	7.816E-01	1.190E+00	1.401E-01	1.659
	+	241.98		2.863E+00	7.528E-01	5.480E-01	4.370E-02	5.225
	+	295.21		1.631E+00	2.806E-01	1.980E-01	1.690E-02	8.238
	+	351.92	*	1.672E+00	2.224E-01	1.159E-01	9.555E-03	14.429
PO-216	+	74.81		2.096E+00	5.688E-01	5.805E-01	7.118E-02	3.611
	+	77.11		2.187E+00	3.556E-01	3.303E-01	2.669E-02	6.621
	+	87.30		1.153E+00	4.621E-01	6.949E-01	9.299E-02	1.659
	+	238.63	*	1.735E+00	1.694E-01	9.107E-02	6.573E-03	19.052
	+	300.09		2.276E+00	9.791E-01	1.191E+00	9.834E-02	1.912
PO-218	+	74.81		3.611E+00	9.583E-01	1.000E+00	1.086E-01	3.611
	+	77.11		3.750E+00	6.732E-01	5.663E-01	6.289E-02	6.621
	+	87.30		1.975E+00	7.816E-01	1.190E+00	1.401E-01	1.659
	+	241.98		2.863E+00	7.528E-01	5.480E-01	4.370E-02	5.225
	+	295.21		1.631E+00	2.806E-01	1.980E-01	1.690E-02	8.238
	+	351.92	*	1.672E+00	2.224E-01	1.159E-01	9.555E-03	14.429
RA-224	+	240.98	*	5.429E+00	1.395E+00	1.036E+00	5.869E-02	5.241
RA-226	+	609.31	*	1.359E+00	2.082E-01	1.085E-01	8.531E-03	12.526
	+	1120.29		1.452E+00	5.143E-01	4.077E-01	3.730E-02	3.561
	+	1764.49		1.901E+00	4.558E-01	3.780E-01	2.291E-02	5.029
AC-228	+	338.32		1.750E+00	8.213E-01	3.874E-01	1.579E-01	4.516
	+	911.07	*	1.674E+00	3.336E-01	2.188E-01	2.475E-02	7.651
	+	969.11		1.427E+00	4.955E-01	3.943E-01	9.141E-02	3.619
RA-228	+	338.32		1.750E+00	8.213E-01	3.874E-01	1.579E-01	4.516
	+	911.07	*	1.674E+00	3.336E-01	2.188E-01	2.475E-02	7.651
	+	969.11		1.427E+00	4.955E-01	3.943E-01	9.141E-02	3.619
TH-228	+	74.81		2.128E+00	5.426E-01	5.893E-01	4.724E-02	3.611
	+	77.11		2.220E+00	3.609E-01	3.353E-01	2.709E-02	6.621
	+	87.30		1.170E+00	4.542E-01	7.054E-01	6.273E-02	1.659
	+	238.63	*	1.761E+00	1.720E-01	9.244E-02	6.672E-03	19.052
	+	300.09		2.310E+00	1.675E+00	1.209E+00	7.123E-01	1.912
TH-230	+	609.31	*	1.359E+00	2.082E-01	1.085E-01	8.530E-03	12.526
	+	1120.29		1.452E+00	5.143E-01	4.077E-01	3.729E-02	3.560
	+	1764.49		1.901E+00	4.558E-01	3.780E-01	2.290E-02	5.029
TH-232	+	338.32		1.750E+00	4.197E-01	3.874E-01	2.240E-02	4.516
	+	911.07	*	1.674E+00	3.336E-01	2.188E-01	2.475E-02	7.651
	+	969.11		1.427E+00	4.955E-01	3.943E-01	9.141E-02	3.619
TH-234	+	63.29	*	5.429E+00	2.188E+00	2.198E+00	3.845E-01	2.470
	+	92.38		4.000E+00	1.045E+00	8.807E-01	1.581E-01	4.542
U-234	+	609.31	*	1.359E+00	2.082E-01	1.085E-01	8.530E-03	12.526
	+	1120.29		1.452E+00	5.143E-01	4.077E-01	3.729E-02	3.560
	+	1764.49		1.901E+00	4.558E-01	3.780E-01	2.290E-02	5.029
NP-237	+	86.50	*	7.319E-01	3.218E-01	4.240E-01	9.516E-02	1.726
		95.87		1.279E-01	1.149E+00	1.655E+00	4.039E-01	0.077
U-238	+	63.29	*	5.429E+00	2.188E+00	2.198E+00	3.845E-01	2.470
	+	92.38		4.000E+00	8.289E-01	8.807E-01	7.355E-02	4.542
AM-243	+	74.67	*	3.398E-01	8.658E-02	9.438E-02	7.485E-03	3.600
	+	86.72		2.745E+01	1.065E+01	1.587E+01	1.403E+00	1.730
		117.66		-1.090E+00	3.965E+00	6.387E+00	3.968E-01	-0.171

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		5.637E+00	1.901E+01	3.117E+01	1.735E+00	0.181
ANH-511	+	511.00	*	1.068E-01	6.446E-02	4.800E-02	2.832E-03	2.224

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-8.859E-02	3.205E-01	5.204E-01	3.533E-02	-0.170
NA-22		1274.54	*	-4.603E-02	4.211E-02	6.145E-02	4.099E-03	-0.749
NA-24		1368.53	*	4.096E-01	4.211E-02	Half-Life too short		
AL-26		1129.67		3.665E-01	1.686E+00	2.813E+00	1.736E-01	0.130
		1808.65	*	3.033E-03	2.668E-02	4.456E-02	2.601E-03	0.068
TI-44		67.85		-6.552E-03	5.619E-02	8.075E-02	6.164E-03	-0.081
	+	78.38	*	4.036E-01	6.562E-02	8.775E-02	7.162E-03	4.600
SC-46		889.25	*	7.606E-04	3.904E-02	6.311E-02	5.484E-03	0.012
	+	1120.51		2.483E-01	8.643E-02	1.280E-01	8.071E-03	1.940
V-48		944.10		3.999E-01	9.431E-01	1.578E+00	1.329E-01	0.253
		983.50	*	1.452E-02	6.401E-02	1.054E-01	8.477E-03	0.138
		1312.09		5.200E-02	8.076E-02	1.427E-01	1.015E-02	0.364
CR-51		320.08	*	-1.617E-01	3.718E-01	6.091E-01	3.941E-02	-0.265
MN-52		744.21		1.441E-01	2.388E-01	4.079E-01	2.774E-02	0.353
		848.13		-2.443E+00	6.415E+00	9.965E+00	8.103E-01	-0.245
		935.52		2.334E-01	2.438E-01	4.282E-01	3.640E-02	0.545
		1246.25		-6.743E-02	8.300E+00	1.186E+01	7.499E-01	-0.006
		1333.61		-2.445E+00	4.399E+00	6.740E+00	4.966E-01	-0.363
		1434.06	*	-1.249E-01	1.960E-01	2.889E-01	2.084E-02	-0.432
MN-54		834.83	*	6.183E-03	3.932E-02	6.447E-02	5.129E-03	0.096
CO-56		846.75	*	-2.716E-02	3.782E-02	5.652E-02	4.585E-03	-0.481
		977.42		-1.969E+00	2.895E+00	4.292E+00	3.477E-01	-0.459
		1037.82		-1.110E-01	2.497E-01	3.971E-01	3.159E-02	-0.279
		1175.09		-5.055E-01	2.041E+00	3.321E+00	1.827E-01	-0.152
	+	1238.25		1.681E-01	1.269E-01	1.655E-01	1.087E-02	1.016
		1360.21		4.581E-01	9.990E-01	1.742E+00	1.278E-01	0.263
		1771.40		-7.056E-01	3.579E-01	4.206E-01	2.535E-02	-1.678
CO-57		122.06	*	1.467E-02	2.628E-02	4.370E-02	2.608E-03	0.336
		136.48		1.195E-01	2.233E-01	3.698E-01	2.441E-02	0.323
CO-58		810.76	*	-2.233E-02	3.731E-02	5.672E-02	4.346E-03	-0.394
FE-59		142.65		1.842E+00	2.922E+00	4.849E+00	2.696E-01	0.380
		192.34		7.635E-01	1.043E+00	1.670E+00	1.939E-01	0.457
		1099.22	*	-6.577E-02	8.476E-02	1.305E-01	9.797E-03	-0.504
		1291.56		2.578E-02	1.063E-01	1.813E-01	1.501E-02	0.142
CO-60		1173.22		1.842E-02	3.997E-02	6.954E-02	3.811E-03	0.265
		1332.49	*	-2.786E-02	3.747E-02	5.622E-02	4.143E-03	-0.496
ZN-65		1115.52	*	-1.046E-01	9.351E-02	1.115E-01	7.126E-03	-0.938
GE-68		1077.35	*	-2.397E-01	1.276E+00	2.101E+00	1.454E-01	-0.114
AS-73		53.44	*	9.360E-02	8.239E-01	1.367E+00	1.011E-01	0.068
AS-74		595.88	*	8.624E-02	8.888E-02	1.563E-01	9.260E-03	0.552
		634.78		2.920E-02	3.425E-01	5.647E-01	3.319E-02	0.052
SE-75		66.05		-5.051E-01	5.797E+00	8.346E+00	8.011E-01	-0.061

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		-3.618E-01	9.350E-01	1.304E+00	1.715E-01	-0.278
		121.11		2.288E-02	1.414E-01	2.316E-01	2.169E-02	0.099
		136.00		7.472E-03	4.191E-02	6.851E-02	3.946E-03	0.109
		198.60		-1.194E+00	2.010E+00	3.085E+00	2.106E-01	-0.387
		264.65	*	2.787E-02	4.489E-02	7.168E-02	4.169E-03	0.389
		279.53		-8.455E-02	1.111E-01	1.749E-01	1.095E-02	-0.483
		303.91		1.375E+00	2.261E+00	3.451E+00	3.296E-01	0.399
		400.65		-1.049E-01	2.616E-01	4.251E-01	3.817E-02	-0.247
BR-77	+	87.88		5.329E+02	2.069E+02	3.446E+02	3.084E+01	1.546
		200.40		1.937E+01	1.713E+02	2.768E+02	1.506E+01	0.070
	+	239.00		2.710E+02	2.351E+01	3.861E+01	2.184E+00	7.020
		249.79		-2.480E+01	6.803E+01	1.066E+02	6.077E+00	-0.233
		281.68		-2.858E+01	9.137E+01	1.486E+02	8.614E+00	-0.192
		297.23		3.966E+02	8.617E+01	1.259E+02	7.322E+00	3.149
		303.76		1.130E+02	1.872E+02	2.860E+02	1.663E+01	0.395
		439.47		8.799E+01	1.362E+02	2.353E+02	1.351E+01	0.374
		484.57		5.944E+01	2.031E+02	3.433E+02	2.011E+01	0.173
		520.65	*	-9.824E-01	1.015E+01	1.662E+01	9.828E-01	-0.059
		574.64		2.520E+01	2.770E+02	3.144E+02	1.866E+01	0.080
		578.91		5.120E+01	9.016E+01	1.362E+02	8.083E+00	0.376
		585.48		1.241E+03	2.587E+02	4.713E+02	2.795E+01	2.634
		755.35		2.763E+01	1.692E+02	2.787E+02	1.933E+01	0.099
		817.79		-4.200E+01	1.177E+02	1.833E+02	1.417E+01	-0.229
SR-82		698.33		-5.831E+00	3.339E+01	5.366E+01	3.353E+00	-0.109
		776.49	*	-3.620E-01	3.979E-01	5.924E-01	4.266E-02	-0.611
		1395.20		4.266E+00	1.115E+01	1.928E+01	1.404E+00	0.221
RB-83		520.41	*	3.823E-06	6.830E-02	1.127E-01	6.663E-03	0.000
		529.64		-1.537E-02	1.037E-01	1.690E-01	1.001E-02	-0.091
		552.65		-1.194E-01	1.856E-01	2.892E-01	1.716E-02	-0.413
RB-84		881.50	*	1.363E-02	6.562E-02	1.082E-01	9.288E-03	0.126
KR-85		513.99	*	1.241E+01	8.668E+00	1.385E+01	8.179E-01	0.896
SR-85		513.99	*	6.356E-02	4.440E-02	7.096E-02	4.190E-03	0.896
RB-86		1076.63	*	-4.168E-01	8.141E-01	1.300E+00	9.006E-02	-0.321
Y-88		898.02		-3.081E-02	4.065E-02	6.012E-02	5.322E-03	-0.513
		1836.01	*	9.734E-03	3.116E-02	5.398E-02	3.081E-03	0.180
ZR-88		392.90	*	-2.500E-02	3.065E-02	4.848E-02	2.700E-03	-0.516
Y-91		1204.90	*	-4.210E+00	1.786E+01	2.910E+01	1.699E+00	-0.145
NB-94		702.63	*	2.089E-02	3.269E-02	5.602E-02	3.528E-03	0.373
		871.10		-7.666E-03	3.871E-02	5.231E-02	4.415E-03	-0.147
NB-95		765.79	*	5.874E-02	4.510E-02	8.004E-02	5.656E-03	0.734
NB-95M		235.69	*	4.702E-01	1.677E-01	2.642E-01	1.957E-02	1.780
ZR-95		724.18		1.788E-02	1.171E-01	1.675E-01	1.257E-02	0.107
		756.15	*	-2.010E-02	7.438E-02	1.181E-01	9.454E-03	-0.170
NB-97		657.90	*	7.318E-02	7.438E-02	Half-Life too short		
		1024.50		1.805E+00	7.438E-02	Half-Life too short		
ZR-97		254.15		2.686E+00	7.438E-02	Half-Life too short		
		355.39		4.937E+00	7.438E-02	Half-Life too short		
		507.63	*	5.252E+00	7.438E-02	Half-Life too short		
		602.52		-6.386E+00	7.438E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		3.327E+00	7.438E-02	Half-Life too short		
		1147.95		6.711E-01	7.438E-02	Half-Life too short		
		1362.66		-2.455E+00	7.438E-02	Half-Life too short		
		1750.46		1.001E+00	7.438E-02	Half-Life too short		
MO-99		140.51		-3.444E+01	2.969E+01	4.361E+01	1.173E+01	-0.790
		181.06		6.681E+00	1.930E+01	2.771E+01	4.705E+00	0.241
		366.43		-2.822E+01	8.584E+01	1.407E+02	8.009E+00	-0.201
		739.58	*	-5.961E+00	1.161E+01	1.798E+01	2.554E+00	-0.331
		778.00		-5.155E+01	3.407E+01	4.704E+01	3.397E+00	-1.096
TC-99M		140.51	*	-3.946E+10	3.407E+01	Half-Life too short		
RH-101		127.23		1.791E-02	3.985E-02	5.799E-02	3.384E-03	0.309
		198.01	*	-1.507E-02	3.647E-02	5.643E-02	3.061E-03	-0.267
		325.23		2.884E-01	2.666E-01	4.170E-01	2.420E-02	0.692
RH-102		418.52		-3.921E-01	2.910E-01	4.408E-01	2.500E-02	-0.890
		475.06	*	-3.376E-03	3.031E-02	4.982E-02	2.908E-03	-0.068
		631.29		-1.300E-02	5.439E-02	8.734E-02	5.138E-03	-0.149
		697.49		-3.237E-02	7.758E-02	1.222E-01	7.622E-03	-0.265
		766.84		1.782E-01	1.187E-01	2.123E-01	1.503E-02	0.840
		1046.59		1.579E-02	1.089E-01	1.850E-01	1.354E-02	0.085
		1112.84		2.107E-02	2.221E-01	3.373E-01	2.165E-02	0.062
RU-103		497.08	*	1.697E-03	3.798E-02	6.298E-02	7.987E-03	0.027
	+	610.33		1.465E+01	2.974E+00	3.115E+00	4.816E-01	4.703
RH-106	+	511.85		5.331E-01	3.219E-01	4.348E-01	2.566E-02	1.226
		621.84	*	3.548E-02	3.067E-01	5.073E-01	5.978E-02	0.070
		1050.47		-1.025E+00	2.292E+00	3.681E+00	2.676E-01	-0.278
RU-106	+	511.85		5.331E-01	3.219E-01	4.348E-01	2.566E-02	1.226
		621.84	*	3.548E-02	3.067E-01	5.073E-01	2.991E-02	0.070
		1050.47		-1.025E+00	2.292E+00	3.681E+00	2.676E-01	-0.278
AG-108M		433.93	*	-1.049E-02	3.082E-02	4.997E-02	3.112E-03	-0.210
		614.37		3.051E-02	3.844E-02	5.967E-02	3.813E-03	0.511
		722.95		-4.090E-03	4.964E-02	6.919E-02	4.829E-03	-0.059
AG-110M		657.75	*	3.045E-02	3.904E-02	6.008E-02	3.728E-03	0.507
		677.61		-7.191E-02	2.987E-01	4.775E-01	3.032E-02	-0.151
		706.67		7.881E-02	1.983E-01	3.339E-01	2.226E-02	0.236
		763.93		-1.254E-01	1.809E-01	2.774E-01	2.036E-02	-0.452
		884.67		-1.939E-02	4.733E-02	7.297E-02	6.497E-03	-0.266
		937.48		-3.207E-02	1.163E-01	1.820E-01	1.602E-02	-0.176
		1384.27		5.658E-02	1.783E-01	2.682E-01	2.035E-02	0.211
IN-111		171.28		-1.232E-01	1.054E+00	1.693E+00	8.887E-02	-0.073
		245.39	*	4.856E-01	1.147E+00	1.649E+00	9.378E-02	0.294
IN-113M		391.69	*	-2.143E-02	4.421E-02	7.150E-02	4.266E-03	-0.300
SN-113		391.69	*	-2.143E-02	4.421E-02	7.150E-02	4.266E-03	-0.300
IN-114M		190.27	*	-1.062E-01	2.257E-01	3.082E-01	1.656E-02	-0.344
CD-115		260.90		-3.423E+01	1.254E+02	1.969E+02	1.131E+01	-0.174
		492.35		-4.217E+00	3.400E+01	5.509E+01	3.235E+00	-0.077
		527.90	*	-5.229E+00	1.031E+01	1.634E+01	9.671E-01	-0.320
SN-117M		156.02		1.999E+00	2.418E+00	4.037E+00	2.163E-01	0.495
		158.56	*	-3.571E-02	5.928E-02	9.349E-02	4.976E-03	-0.382
SB-122		563.90	*	1.412E+00	2.617E+00	3.911E+00	2.322E-01	0.361

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		-4.434E+00	4.415E+01	7.146E+01	4.418E+00	-0.062
I-123		159.00	*	-3.659E+00	4.415E+01	Half-Life too short		
		528.96		-1.317E+02	4.415E+01	Half-Life too short		
TE-123M		159.00	*	-2.037E-02	3.067E-02	4.822E-02	2.604E-03	-0.422
I-124		602.71	*	-5.299E-01	7.368E-01	9.602E-01	5.683E-02	-0.552
		722.78		-3.632E-01	5.109E+00	7.129E+00	4.661E-01	-0.051
		1325.50		3.139E+00	3.360E+01	5.626E+01	4.097E+00	0.056
		1376.25		4.309E+01	3.624E+01	6.052E+01	4.427E+00	0.712
		1509.49		2.344E+01	1.584E+01	3.064E+01	2.156E+00	0.765
		1691.02		-2.904E+00	3.355E+00	4.434E+00	2.836E-01	-0.655
SB-124		602.71		-3.125E-02	4.345E-02	5.663E-02	3.353E-03	-0.552
		645.85		-4.613E-01	4.951E-01	7.436E-01	4.903E-02	-0.620
		709.31		-2.154E+00	2.712E+00	4.106E+00	2.619E-01	-0.524
		713.82		-6.283E-01	1.517E+00	2.375E+00	2.513E-01	-0.265
		722.78		-3.105E-02	4.367E-01	6.095E-01	4.134E-02	-0.051
	+	968.20		1.468E+01	3.979E+00	7.390E+00	6.056E-01	1.986
		1045.16		1.619E-01	2.323E+00	3.920E+00	2.875E-01	0.041
		1325.50		2.866E-01	3.068E+00	5.137E+00	3.741E-01	0.056
		1368.21		9.362E-01	1.640E+00	2.857E+00	3.625E-01	0.328
		1436.60		-1.695E+00	3.215E+00	4.848E+00	3.495E-01	-0.350
		1691.02	*	-5.856E-02	6.768E-02	8.941E-02	6.123E-03	-0.655
SB-125		427.89	*	5.070E-02	9.213E-02	1.582E-01	9.421E-03	0.320
	+	463.38		6.818E-01	3.980E-01	5.781E-01	3.915E-02	1.179
		600.56		-2.717E-02	1.827E-01	2.787E-01	1.899E-02	-0.097
		635.90		-2.859E-02	2.687E-01	4.360E-01	2.989E-02	-0.066
TE-125M		109.28	*	-1.027E+01	9.977E+00	1.558E+01	1.377E+00	-0.659
I-126		388.63		2.221E-01	2.027E-01	3.585E-01	2.000E-02	0.619
		666.33	*	-8.146E-02	2.162E-01	2.924E-01	1.718E-02	-0.279
		753.82		1.270E+00	1.532E+00	2.654E+00	1.836E-01	0.479
SB-126		223.80		-2.343E+00	4.292E+00	6.697E+00	3.737E-01	-0.350
		278.60		-5.241E-01	2.661E+00	4.037E+00	2.337E-01	-0.130
	+	296.50		1.616E+01	2.588E+00	3.848E+00	2.237E-01	4.199
		414.70		1.293E-01	8.340E-02	1.361E-01	7.698E-03	0.950
		415.30		4.914E+00	7.343E+00	1.120E+01	6.338E-01	0.439
		555.20		-3.671E+00	3.943E+00	6.009E+00	3.566E-01	-0.611
		573.80		-4.753E-01	1.221E+00	1.556E+00	9.232E-02	-0.306
		593.00		-1.075E+00	9.471E-01	1.413E+00	8.372E-02	-0.761
		656.30		5.565E-01	3.864E+00	5.554E+00	3.241E-01	0.100
		666.33		-3.403E-02	9.034E-02	1.222E-01	7.179E-03	-0.279
		675.00		-8.455E-01	1.880E+00	2.947E+00	1.761E-01	-0.287
		695.00		8.783E-02	7.716E-02	1.367E-01	8.486E-03	0.642
		697.00		-6.729E-02	2.687E-01	4.293E-01	2.676E-02	-0.157
		720.50	*	1.823E-01	1.504E-01	2.501E-01	1.629E-02	0.729
		856.80		-5.654E-02	5.529E-01	7.601E-01	6.269E-02	-0.074
		989.30		-7.027E-02	1.152E+00	1.837E+00	1.465E-01	-0.038
		1034.80		1.487E+00	7.016E+00	1.204E+01	8.985E-01	0.124
		1213.00		-1.071E+00	4.622E+00	7.540E+00	4.473E-01	-0.142
SB-127		61.10		1.133E+02	6.611E+01	1.013E+02	1.044E+01	1.119
		252.40		4.428E-01	4.612E+00	7.396E+00	3.072E+00	0.060

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		290.80		-1.082E+00	2.398E+01	3.503E+01	3.198E+00	-0.031
		411.60		6.703E+00	1.534E+01	2.287E+01	3.269E+00	0.293
		444.90		4.640E+00	9.184E+00	1.573E+01	1.689E+00	0.295
		473.00		1.305E+00	1.707E+00	2.955E+00	3.298E-01	0.442
		543.00		-4.572E+00	1.526E+01	2.451E+01	3.172E+00	-0.186
		603.60		-1.452E+00	1.233E+01	1.728E+01	1.865E+00	-0.084
		685.20	*	-1.093E+00	1.365E+00	2.070E+00	1.983E-01	-0.528
		698.50		-4.136E+00	1.454E+01	2.313E+01	3.387E+00	-0.179
		722.20		8.451E+00	3.396E+01	4.915E+01	4.722E+00	0.172
		783.80		5.769E+00	3.672E+00	6.618E+00	7.616E-01	0.872
XE-127		57.60		5.281E+00	6.644E+00	1.047E+01	7.844E-01	0.504
		145.22		4.733E-01	7.677E-01	1.246E+00	6.880E-02	0.380
		172.10		-7.668E-02	1.279E-01	2.010E-01	1.056E-02	-0.382
		202.84	*	-1.624E-02	5.632E-02	8.227E-02	4.489E-03	-0.197
		374.96		-1.533E-01	2.007E-01	3.196E-01	1.807E-02	-0.480
I-131		80.18		-5.088E-01	5.451E+00	7.813E+00	6.522E-01	-0.065
		284.30		6.175E-01	1.520E+00	2.607E+00	1.680E-01	0.237
		364.48	*	6.208E-02	1.164E-01	2.001E-01	1.278E-02	0.310
		636.97		-8.648E-01	1.547E+00	2.414E+00	1.583E-01	-0.358
		722.89		-6.503E-01	8.295E+00	1.157E+01	7.647E-01	-0.056
TE-132		49.72		-1.294E+01	1.896E+01	3.054E+01	2.963E+00	-0.424
		111.76		-2.401E+01	3.041E+01	4.795E+01	4.458E+00	-0.501
		116.30		9.338E+00	2.816E+01	4.645E+01	4.223E+00	0.201
		228.16	*	-6.642E-02	7.334E-01	1.170E+00	1.669E-01	-0.057
BA-133		53.15		-1.426E+00	3.614E+00	5.888E+00	4.348E-01	-0.242
		79.62		3.224E+00	1.658E+00	2.468E+00	3.706E-01	1.306
		81.00		-1.758E-01	1.232E-01	1.619E-01	2.547E-02	-1.086
		276.40		4.706E-01	3.990E-01	6.257E-01	8.107E-02	0.752
		302.84		8.376E-02	1.618E-01	2.449E-01	2.857E-02	0.342
		356.01	*	3.702E-02	4.537E-02	7.026E-02	8.098E-03	0.527
		383.85		-1.608E-01	3.015E-01	4.860E-01	5.234E-02	-0.331
I-133	+	510.53		1.007E+00	3.015E-01	Half-Life too short		
		529.87	*	-8.164E-04	3.015E-01	Half-Life too short		
		706.58		1.444E-01	3.015E-01	Half-Life too short		
		856.28		-2.607E-01	3.015E-01	Half-Life too short		
		875.33		-2.919E-02	3.015E-01	Half-Life too short		
		1236.41		9.099E-01	3.015E-01	Half-Life too short		
		1298.22		2.984E-02	3.015E-01	Half-Life too short		
CS-134		475.35		1.646E-01	1.965E+00	3.270E+00	1.909E-01	0.050
		563.23		4.971E-02	4.784E-01	6.882E-01	4.167E-02	0.072
	+	569.32		1.240E+00	4.157E-01	5.187E-01	3.167E-02	2.390
		604.70		3.975E-02	3.254E-02	5.266E-02	3.132E-03	0.755
	+	795.84	*	1.109E-01	7.727E-02	8.811E-02	6.625E-03	1.259
		801.93		-8.460E-02	4.571E-01	6.279E-01	4.760E-02	-0.135
		1038.57		-1.054E+00	3.152E+00	5.084E+00	3.771E-01	-0.207
		1167.94		-6.056E-01	2.168E+00	3.512E+00	1.955E-01	-0.172
		1365.15		-1.286E+00	1.194E+00	1.676E+00	1.305E-01	-0.767
CS-135		268.24	*	4.128E-01	1.838E-01	3.027E-01	2.310E-02	1.364
I-135		288.45		-1.562E+10	1.838E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		417.63		-5.793E+09	1.838E-01	Half-Life too short		
		546.56		3.319E+09	1.838E-01	Half-Life too short		
		836.80		1.512E+10	1.838E-01	Half-Life too short		
		1038.76		-3.055E+09	1.838E-01	Half-Life too short		
		1124.00		1.565E+10	1.838E-01	Half-Life too short		
		1131.51		-1.235E+09	1.838E-01	Half-Life too short		
		1260.41	*	2.177E+08	1.838E-01	Half-Life too short		
		1457.56		1.829E+11	1.838E-01	Half-Life too short		
		1678.03		2.327E+09	1.838E-01	Half-Life too short		
		1706.46		5.886E+09	1.838E-01	Half-Life too short		
		1791.20		8.765E+09	1.838E-01	Half-Life too short		
CS-136		66.91		-4.159E-01	9.363E-01	1.324E+00	1.972E-01	-0.314
	+	86.29		3.236E+00	1.294E+00	2.171E+00	2.817E-01	1.491
		153.22		-1.685E-01	7.123E-01	1.142E+00	7.889E-02	-0.147
		163.89		4.880E-01	1.141E+00	1.875E+00	1.278E-01	0.260
		176.55		-1.534E-01	3.854E-01	6.108E-01	3.702E-02	-0.251
		273.65		1.305E-01	5.159E-01	7.698E-01	5.077E-02	0.170
		340.57		3.067E-01	1.626E-01	2.625E-01	1.613E-02	1.168
		818.51		-5.606E-02	6.697E-02	9.819E-02	7.609E-03	-0.571
		1048.07	*	1.243E-01	9.855E-02	1.836E-01	1.419E-02	0.677
		1235.34		4.210E-01	5.860E-01	9.145E-01	9.346E-02	0.460
CE-139		165.85	*	-4.269E-03	3.191E-02	5.128E-02	2.677E-03	-0.083
BA-140		162.64		5.439E-01	7.935E-01	1.318E+00	7.974E-02	0.413
		304.84		5.817E-01	1.399E+00	2.096E+00	5.720E-01	0.278
		423.70		1.795E+00	2.016E+00	3.344E+00	1.062E+00	0.537
		537.32	*	-4.448E-02	2.536E-01	4.118E-01	1.340E-01	-0.108
LA-140	+	328.77		5.187E-01	4.600E-01	5.640E-01	3.664E-02	0.920
		432.53		-6.289E-01	1.884E+00	3.054E+00	1.935E-01	-0.206
		487.03		-3.545E-02	1.298E-01	2.104E-01	1.393E-02	-0.169
		751.79		8.650E-01	1.809E+00	3.053E+00	2.447E-01	0.283
		815.85		1.591E-01	2.760E-01	4.742E-01	4.174E-02	0.336
		867.82		3.377E-01	1.328E+00	1.928E+00	1.709E-01	0.175
		919.63		2.011E-02	2.687E+00	4.212E+00	4.491E-01	0.005
		925.24		-3.622E-01	9.999E-01	1.541E+00	1.407E-01	-0.235
		1596.49	*	2.482E-02	8.091E-02	1.389E-01	9.399E-03	0.179
CE-141		145.44	*	3.322E-02	6.939E-02	1.121E-01	6.455E-03	0.296
CE-143		57.37		8.600E-04	6.939E-02	Half-Life too short		
		231.56		3.859E-04	6.939E-02	Half-Life too short		
		293.26	*	1.139E-03	6.939E-02	Half-Life too short		
	+	350.59		3.633E-02	6.939E-02	Half-Life too short		
		490.36		6.615E-04	6.939E-02	Half-Life too short		
		664.57		5.229E-04	6.939E-02	Half-Life too short		
		721.93		4.258E-04	6.939E-02	Half-Life too short		
CE-144		80.11		5.351E-02	2.537E+00	3.654E+00	3.028E-01	0.015
		133.54	*	-2.278E-01	2.416E-01	3.428E-01	4.857E-02	-0.664
PM-144		476.78		2.422E-02	6.739E-02	1.142E-01	7.968E-03	0.212
		618.01		-7.493E-03	3.159E-02	4.772E-02	2.980E-03	-0.157
		696.49	*	1.891E-02	3.400E-02	5.790E-02	3.607E-03	0.327
		778.57		-4.139E+00	2.394E+00	3.221E+00	2.329E-01	-1.285

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144		696.49	*	1.281E+00	2.304E+00	3.923E+00	2.442E-01	0.327
		1489.15		-4.539E+00	1.011E+01	1.532E+01	1.086E+00	-0.296
PM-146		453.90	*	3.617E-02	4.279E-02	7.468E-02	6.431E-03	0.484
		633.02		-9.834E-01	1.421E+00	2.116E+00	7.793E-01	-0.465
		735.90		3.220E-02	1.441E-01	2.388E-01	6.705E-02	0.135
		747.13		-1.102E-01	9.898E-02	1.438E-01	1.872E-02	-0.766
ND-147	+	91.11		6.113E-01	3.811E-01	6.206E-01	5.732E-02	0.985
		319.41		-2.082E+00	3.259E+00	5.276E+00	3.067E-01	-0.395
		439.89		1.607E+00	5.724E+00	9.674E+00	5.559E-01	0.166
		531.02	*	-1.158E-02	5.502E-01	9.058E-01	1.230E-01	-0.013
PM-149		285.90	*	-6.799E+00	9.200E+01	1.543E+02	2.187E+01	-0.044
EU-152		121.78		2.337E-02	7.635E-02	1.258E-01	9.735E-03	0.186
		244.69		3.810E-01	3.683E-01	5.511E-01	3.131E-02	0.691
		344.27	*	-4.878E-02	1.568E-01	1.736E-01	1.130E-02	-0.281
		443.98		2.562E-01	9.282E-01	1.568E+00	9.029E-02	0.163
		778.89		-3.413E-01	2.664E-01	3.777E-01	2.731E-02	-0.904
		867.32		-7.329E-02	8.230E-01	1.129E+00	9.476E-02	-0.065
	+	964.01		2.137E-01	3.739E-01	5.658E-01	4.660E-02	0.378
		1085.78		-2.928E-01	3.333E-01	5.012E-01	3.410E-02	-0.584
		1112.02		1.176E-01	3.045E-01	4.937E-01	3.176E-02	0.238
		1407.95		2.224E-01	1.857E-01	3.478E-01	2.526E-02	0.639
GD-153		69.67		-7.603E-01	2.181E+00	2.880E+00	2.217E-01	-0.264
		83.37		1.365E+01	1.912E+01	2.635E+01	2.251E+00	0.518
		97.43	*	3.016E-02	9.337E-02	1.350E-01	1.050E-02	0.223
		103.18		-1.383E-01	1.141E-01	1.773E-01	1.284E-02	-0.780
EU-154		123.07		2.447E-02	5.632E-02	9.008E-02	8.546E-03	0.272
		247.94		-4.770E-02	4.010E-01	5.862E-01	5.556E-02	-0.081
		591.81		-5.447E-01	6.234E-01	9.489E-01	9.346E-02	-0.574
		723.30		-4.480E-02	2.121E-01	2.913E-01	2.244E-02	-0.154
		756.87		-2.023E-02	7.868E-01	1.276E+00	1.383E-01	-0.016
		873.19		4.574E-02	2.873E-01	4.592E-01	5.575E-02	0.100
		996.32		1.258E-01	3.989E-01	5.773E-01	1.006E-01	0.218
		1004.76		-5.152E-02	2.244E-01	3.144E-01	3.475E-02	-0.164
		1274.45	*	-8.964E-02	1.143E-01	1.728E-01	1.710E-02	-0.519
EU-155		48.70		-2.837E-01	2.361E+00	3.889E+00	2.728E-01	-0.073
		60.01		6.748E+00	5.599E+00	8.518E+00	6.408E-01	0.792
	+	86.54		3.002E-01	1.166E-01	1.992E-01	1.775E-02	1.507
		105.31	*	6.554E-02	1.150E-01	1.915E-01	1.378E-02	0.342
TB-160	+	86.79		8.011E-01	3.110E-01	5.250E-01	4.644E-02	1.526
		197.04		7.418E-02	5.973E-01	9.659E-01	5.233E-02	0.077
		215.65		3.960E-01	7.625E-01	1.253E+00	6.935E-02	0.316
		298.57		3.669E-01	1.674E-01	2.131E-01	1.239E-02	1.721
		879.36	*	2.264E-02	1.303E-01	2.143E-01	1.833E-02	0.106
		962.29		1.562E-01	6.305E-01	9.000E-01	7.428E-02	0.174
	+	966.15		1.466E-01	2.565E-01	4.767E-01	3.916E-02	0.308
		1177.93		-2.865E-01	3.351E-01	5.113E-01	2.829E-02	-0.560
		1271.85		8.670E-02	6.405E-01	1.079E+00	7.150E-02	0.080
HO-166M		80.57		-4.002E-01	3.327E-01	4.517E-01	3.758E-02	-0.886
		184.41		1.831E-01	4.646E-02	7.602E-02	4.056E-03	2.408

---- Non-Identified Nuclides ----

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		280.46		-8.169E-02	8.666E-02	1.393E-01	8.066E-03	-0.587
		410.95		5.318E-02	3.308E-01	4.837E-01	2.730E-02	0.110
		711.68	*	1.666E-02	5.669E-02	9.476E-02	6.070E-03	0.176
		752.31		1.819E-01	2.866E-01	4.898E-01	3.379E-02	0.371
		810.29		-4.333E-02	5.641E-02	8.407E-02	6.417E-03	-0.515
TM-171		51.35		-2.199E+00	3.003E+01	4.952E+01	3.612E+00	-0.044
		52.39		-6.428E+00	1.576E+01	2.567E+01	1.887E+00	-0.250
		59.40		5.065E+00	3.077E+01	4.489E+01	3.377E+00	0.113
		66.72	*	-1.256E+01	3.412E+01	4.851E+01	3.687E+00	-0.259
LU-176	+	88.36		5.911E-01	2.295E-01	3.917E-01	3.489E-02	1.509
		201.83		-1.111E-02	3.189E-02	5.049E-02	2.751E-03	-0.220
		306.84	*	-1.067E-02	2.544E-02	4.066E-02	2.365E-03	-0.262
		401.10		-4.509E+00	6.875E+00	1.100E+01	6.162E-01	-0.410
LU-177		112.95		-3.336E-01	1.677E+00	2.713E+00	1.767E-01	-0.123
	+	208.36	*	3.443E+00	1.555E+00	2.109E+00	1.158E-01	1.633
LU-177M		52.97		-6.558E-01	1.635E+00	2.662E+00	1.964E-01	-0.246
		54.07		2.104E-01	8.708E-01	1.450E+00	1.076E-01	0.145
		61.30		3.371E+00	1.757E+00	2.723E+00	2.049E-01	1.238
		121.62		1.053E-01	3.908E-01	6.428E-01	3.843E-02	0.164
		147.16		-7.013E-01	7.129E-01	1.109E+00	6.088E-02	-0.632
		171.86		-3.666E-01	5.210E-01	8.152E-01	4.282E-02	-0.450
		218.09		-7.195E-01	8.895E-01	1.369E+00	7.598E-02	-0.525
		268.79		2.018E+00	9.619E-01	1.575E+00	9.083E-02	1.281
		319.02		-9.129E-02	2.514E-01	4.133E-01	2.402E-02	-0.221
		367.43		-5.369E-01	9.381E-01	1.515E+00	8.616E-02	-0.354
		413.65	*	2.301E-01	2.004E-01	3.172E-01	1.793E-02	0.725
HF-181		56.28		-6.359E-02	9.804E-01	1.615E+00	1.206E-01	-0.039
		57.53		4.408E-01	5.591E-01	8.810E-01	6.599E-02	0.500
		65.20		1.476E+00	1.158E+00	1.752E+00	1.326E-01	0.842
		133.02		-4.083E-02	8.030E-02	1.108E-01	6.343E-03	-0.368
		136.25		1.465E-01	4.906E-01	8.057E-01	4.564E-02	0.182
		345.85		-2.614E-02	2.521E-01	3.436E-01	1.980E-02	-0.076
		482.03	*	-3.355E-02	4.067E-02	6.312E-02	3.694E-03	-0.531
W-181		56.28		-9.470E-02	3.866E-01	6.330E-01	4.727E-02	-0.150
		57.53		1.728E-01	2.193E-01	3.455E-01	2.588E-02	0.500
		65.20	*	5.740E-01	4.506E-01	6.816E-01	5.158E-02	0.842
TA-182		67.75		4.352E-03	1.327E-01	1.919E-01	1.464E-02	0.023
		100.10		2.585E-01	1.915E-01	3.171E-01	2.383E-02	0.815
		152.43		-1.520E-01	3.655E-01	5.819E-01	3.149E-02	-0.261
		222.10		1.225E-01	3.577E-01	5.828E-01	3.247E-02	0.210
	+	1001.68		3.462E+00	2.291E+00	3.763E+00	2.952E-01	0.920
	+	1121.28		6.859E-01	2.387E-01	3.521E-01	2.217E-02	1.948
		1189.05		4.861E-02	2.863E-01	4.843E-01	2.741E-02	0.100
		1221.42	*	-3.390E-02	1.889E-01	3.094E-01	1.865E-02	-0.110
		1230.97		-6.118E-02	4.465E-01	6.985E-01	4.289E-02	-0.088
RE-183		57.98		9.618E-02	2.332E-01	3.440E-01	2.580E-02	0.280
		59.32		1.396E-02	1.263E-01	1.838E-01	1.382E-02	0.076
		67.20		-1.307E-01	2.397E-01	3.380E-01	2.574E-02	-0.387
		162.32	*	7.885E-02	1.158E-01	1.924E-01	1.013E-02	0.410

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	+	208.81		3.123E+00	1.410E+00	1.914E+00	1.051E-01	1.632
		291.72		-9.100E-02	1.116E+00	1.626E+00	9.443E-02	-0.056
RE-184		57.98		3.546E-01	8.596E-01	1.268E+00	9.511E-02	0.280
		59.32		5.142E-02	4.651E-01	6.769E-01	5.091E-02	0.076
		67.20		-4.817E-01	8.836E-01	1.246E+00	9.485E-02	-0.387
		161.27		1.033E-01	3.751E-01	6.134E-01	3.241E-02	0.168
		216.55		-1.202E-01	2.780E-01	4.367E-01	2.419E-02	-0.275
		252.85	*	1.956E-02	2.507E-01	4.020E-01	2.297E-02	0.049
		318.01		-9.822E-02	4.344E-01	7.197E-01	4.183E-02	-0.136
		792.07		6.579E-01	1.106E+00	1.663E+00	1.230E-01	0.396
		903.28		-1.719E-01	1.022E+00	1.518E+00	1.332E-01	-0.113
		920.93		-4.509E-03	4.092E-01	6.583E-01	5.679E-02	-0.007
OS-185		59.72		1.536E-01	3.415E-01	5.043E-01	3.794E-02	0.305
		61.14		3.422E-01	1.903E-01	2.942E-01	2.213E-02	1.163
		69.30		-1.827E-01	3.914E-01	5.139E-01	3.948E-02	-0.355
		592.07		-2.222E+00	2.537E+00	3.871E+00	2.294E-01	-0.574
		646.12	*	-3.787E-02	4.138E-02	6.217E-02	3.641E-03	-0.609
		717.42		-6.191E-01	8.920E-01	1.363E+00	8.823E-02	-0.454
		874.81		-2.588E-01	5.715E-01	8.784E-01	7.459E-02	-0.295
		880.27		2.685E-01	7.334E-01	1.228E+00	1.052E-01	0.219
RE-188		155.03	*	2.439E-01	1.827E-01	3.104E-01	1.668E-02	0.786
		477.96		-8.375E-01	3.059E+00	4.967E+00	2.903E-01	-0.169
		633.10		-1.933E+00	2.782E+00	4.287E+00	2.521E-01	-0.451
W-188	+	63.58		2.180E+02	8.083E+01	1.027E+02	7.742E+00	2.123
		227.08		1.193E+01	1.346E+01	2.244E+01	1.256E+00	0.532
		290.67	*	2.133E-01	8.366E+00	1.228E+01	7.133E-01	0.017
IR-192	+	295.96		1.243E+00	1.995E-01	3.049E-01	1.800E-02	4.077
		308.46		-3.524E-02	9.594E-02	1.580E-01	9.296E-03	-0.223
		316.51	*	-1.710E-02	3.311E-02	5.395E-02	3.152E-03	-0.317
		468.07		-3.378E-02	7.751E-02	1.067E-01	7.153E-03	-0.317
		604.41		4.503E-01	4.512E-01	7.103E-01	8.105E-02	0.634
		612.46		2.058E+00	8.801E-01	1.488E+00	1.140E-01	1.383
AU-195		65.12		2.949E-01	2.098E-01	3.185E-01	2.410E-02	0.926
		66.83		-4.238E-02	1.127E-01	1.602E-01	1.218E-02	-0.265
	+	75.70		1.099E+00	2.801E-01	5.019E-01	4.011E-02	2.190
		98.88	*	3.037E-01	2.665E-01	3.996E-01	3.050E-02	0.760
	+	129.76		2.857E+00	3.310E+00	5.285E+00	3.057E-01	0.541
TL-200		367.94	*	-1.517E-04	3.310E+00	Half-Life too short		
		579.30		2.870E-03	3.310E+00	Half-Life too short		
		828.27		6.077E-04	3.310E+00	Half-Life too short		
		1205.75		-6.595E-04	3.310E+00	Half-Life too short		
TL-201		68.90		-3.181E+00	6.177E+00	8.090E+00	6.203E-01	-0.393
		70.82		3.009E-01	3.213E+00	4.653E+00	3.602E-01	0.065
		80.30		-1.697E+00	5.831E+00	8.283E+00	6.875E-01	-0.205
		135.34		-1.402E+01	2.688E+01	4.273E+01	2.427E+00	-0.328
		167.43	*	9.508E-01	7.331E+00	1.191E+01	6.222E-01	0.080
TL-202		68.90		-2.907E-01	5.646E-01	7.395E-01	5.670E-02	-0.393
		70.82		2.743E-02	2.928E-01	4.242E-01	3.283E-02	0.065
		80.30		-1.547E-01	5.317E-01	7.553E-01	6.269E-02	-0.205

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		439.56	*	4.189E-02	6.729E-02	1.161E-01	6.669E-03	0.361
HG-203		70.83		2.756E-01	1.268E+00	1.845E+00	2.411E-01	0.149
		72.87		1.569E+00	7.985E-01	1.198E+00	1.523E-01	1.309
		82.60		1.760E-01	1.841E+00	1.921E+00	2.624E-01	0.092
		279.20	*	-2.755E-02	4.263E-02	6.536E-02	4.019E-03	-0.422
BI-207		72.80		4.387E-01	2.278E-01	3.483E-01	2.728E-02	1.260
	+	74.97		6.100E-01	1.554E-01	2.519E-01	2.002E-02	2.421
		84.90		3.745E-01	2.336E-01	3.525E-01	3.058E-02	1.062
	+	569.67		1.933E-01	6.473E-02	7.735E-02	4.591E-03	2.499
		1063.62	*	-3.081E-02	4.751E-02	7.529E-02	5.347E-03	-0.409
		1770.23		1.273E-01	5.614E-01	8.293E-01	5.002E-02	0.153
TL-207		81.07		-3.885E-01	2.669E-01	3.571E-01	2.985E-02	-1.088
		83.78		1.273E-01	1.627E-01	2.247E-01	1.928E-02	0.567
		94.90		1.222E+00	3.078E-01	4.896E-01	3.941E-02	2.496
		122.32		8.750E-01	1.843E+00	3.055E+00	2.086E-01	0.286
		144.24		2.604E-01	7.518E-01	1.209E+00	8.488E-02	0.215
		154.21		6.210E-02	4.303E-01	7.005E-01	4.676E-02	0.089
		269.46		5.267E-01	2.257E-01	3.730E-01	2.250E-02	1.412
		323.87	*	5.989E-01	7.899E-01	1.205E+00	1.991E-01	0.497
	+	338.28		7.306E+00	1.866E+00	2.542E+00	2.674E-01	2.875
		445.03		1.618E+00	2.144E+00	3.728E+00	3.820E-01	0.434
PO-209		260.50		-4.452E+00	9.770E+00	1.518E+01	8.717E-01	-0.293
		262.80		-2.151E+01	2.730E+01	4.154E+01	2.388E+00	-0.518
		896.60	*	2.230E+00	7.081E+00	1.179E+01	1.036E+00	0.189
BI-210		46.50	*	1.761E-01	3.473E+00	5.691E+00	4.337E-01	0.031
PB-210		46.50	*	1.761E-01	3.473E+00	5.691E+00	4.337E-01	0.031
PO-210		46.50	*	1.761E-01	3.473E+00	5.691E+00	3.709E-01	0.031
PB-211		404.84	*	4.397E-02	1.062E+00	1.542E+00	9.607E-01	0.029
		427.08		1.446E+00	2.288E+00	3.645E+00	2.253E+00	0.397
		831.96		-6.651E-01	1.308E+00	1.859E+00	1.163E+00	-0.358
BI-212	+	727.18	*	8.213E-01	4.589E-01	6.630E-01	5.519E-02	1.239
		785.46		9.361E-01	1.906E+00	3.211E+00	2.349E-01	0.292
		1620.62		1.106E+00	1.306E+00	2.245E+00	1.499E-01	0.493
PO-215		81.07		-3.885E-01	2.669E-01	3.571E-01	2.985E-02	-1.088
		83.78		1.273E-01	1.627E-01	2.247E-01	1.928E-02	0.567
		94.90		1.222E+00	3.078E-01	4.896E-01	3.941E-02	2.496
		122.32		8.750E-01	1.843E+00	3.055E+00	2.086E-01	0.286
		144.24		2.604E-01	7.518E-01	1.209E+00	8.488E-02	0.215
		154.21		6.210E-02	4.303E-01	7.005E-01	4.676E-02	0.089
		269.46		5.267E-01	2.257E-01	3.730E-01	2.250E-02	1.412
		323.87	*	5.989E-01	7.899E-01	1.205E+00	1.991E-01	0.497
	+	338.28		7.306E+00	1.866E+00	2.542E+00	2.674E-01	2.875
		445.03		1.618E+00	2.144E+00	3.728E+00	3.820E-01	0.434
RN-219	+	271.23		9.268E-01	4.558E-01	4.978E-01	4.025E-02	1.862
		401.81	*	-1.378E-01	4.207E-01	6.864E-01	9.283E-02	-0.201
RN-220		549.76	*	-7.310E-01	2.418E+01	3.971E+01	2.356E+00	-0.018
RA-223		81.07		-3.885E-01	2.669E-01	3.571E-01	2.985E-02	-1.088
		83.78		1.273E-01	1.627E-01	2.247E-01	1.928E-02	0.567
		94.90		1.222E+00	3.078E-01	4.896E-01	3.941E-02	2.496

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		8.750E-01	1.843E+00	3.055E+00	2.086E-01	0.286
		144.24		2.604E-01	7.518E-01	1.209E+00	8.488E-02	0.215
		154.21		6.210E-02	4.303E-01	7.005E-01	4.676E-02	0.089
		269.46		5.267E-01	2.257E-01	3.730E-01	2.250E-02	1.412
		323.87	*	5.989E-01	7.899E-01	1.205E+00	1.991E-01	0.497
	+	338.28		7.306E+00	1.866E+00	2.542E+00	2.674E-01	2.875
		445.03		1.618E+00	2.144E+00	3.728E+00	3.820E-01	0.434
AC-227		79.80		2.236E+00	2.020E+00	2.959E+00	6.321E-01	0.756
		236.00		2.036E+00	3.995E-01	6.028E-01	6.248E-02	3.378
		256.20	*	5.986E-02	4.081E-01	6.563E-01	9.142E-02	0.091
		286.10		-1.662E-01	1.586E+00	2.656E+00	3.070E-01	-0.063
	+	299.80		4.218E+00	1.909E+00	2.749E+00	4.479E-01	1.534
		304.40		1.351E+00	2.025E+00	3.090E+00	5.347E-01	0.437
		334.20		8.723E-01	3.101E+00	3.685E+00	6.755E-01	0.237
TH-227		79.80		2.236E+00	2.022E+00	2.959E+00	6.403E-01	0.756
	+	94.00		1.546E+01	4.452E+00	4.714E+00	1.018E+00	3.279
		236.00		2.036E+00	3.852E-01	6.028E-01	5.399E-02	3.378
		256.20	*	5.986E-02	4.081E-01	6.563E-01	1.107E-01	0.091
		286.10		-1.662E-01	1.594E+00	2.656E+00	2.660E+00	-0.063
	+	299.80		4.218E+00	1.909E+00	2.749E+00	4.479E-01	1.534
		304.40		1.351E+00	2.025E+00	3.090E+00	5.347E-01	0.437
		334.20		8.723E-01	3.101E+00	3.685E+00	6.755E-01	0.237
TH-229		85.43		5.196E-01	2.389E-01	3.644E-01	3.179E-02	1.426
	+	88.47		3.403E-01	1.321E-01	2.249E-01	1.999E-02	1.513
		100.00		2.779E-01	1.993E-01	3.304E-01	2.486E-02	0.841
		193.63	*	7.950E-02	5.546E-01	8.980E-01	4.845E-02	0.089
		210.97		1.301E+00	9.399E-01	1.419E+00	7.812E-02	0.917
PA-231		283.67	*	1.845E+00	1.637E+00	2.809E+00	3.871E-01	0.657
	+	301.29		1.687E+00	7.339E-01	1.107E+00	1.158E-01	1.524
TH-231		81.07		-3.885E-01	2.669E-01	3.571E-01	2.985E-02	-1.088
		83.78		1.273E-01	1.627E-01	2.247E-01	1.928E-02	0.567
		94.90		1.222E+00	3.078E-01	4.896E-01	3.941E-02	2.496
		122.32		8.750E-01	1.843E+00	3.055E+00	2.086E-01	0.286
		144.24		2.604E-01	7.518E-01	1.209E+00	8.488E-02	0.215
		154.21		6.210E-02	4.303E-01	7.005E-01	4.676E-02	0.089
		269.46		5.267E-01	2.257E-01	3.730E-01	2.250E-02	1.412
		323.87	*	5.989E-01	7.899E-01	1.205E+00	1.991E-01	0.497
	+	338.28		7.306E+00	1.866E+00	2.542E+00	2.674E-01	2.875
		445.03		1.618E+00	2.144E+00	3.728E+00	3.820E-01	0.434
U-231		84.21		5.189E+00	6.447E+00	9.508E+00	8.191E-01	0.546
	+	92.29		1.503E+01	3.114E+00	4.850E+00	4.056E-01	3.098
		95.87	*	1.427E-01	1.282E+00	1.846E+00	1.466E-01	0.077
		108.00		-8.806E-01	2.171E+00	3.489E+00	2.393E-01	-0.252
PA-233	+	75.28		1.780E+01	5.067E+00	7.764E+00	1.164E+00	2.293
	+	86.59		4.879E+00	2.263E+00	3.230E+00	8.685E-01	1.511
	+	300.12		1.176E+00	5.210E-01	7.699E-01	1.035E-01	1.527
		311.98	*	3.600E-02	6.270E-02	1.083E-01	6.688E-03	0.332
		340.50		1.704E+00	8.867E-01	1.308E+00	3.004E-01	1.302
		398.62		8.644E-01	2.125E+00	3.604E+00	9.301E-01	0.240

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.103E+00	1.877E+00	2.946E+00	6.053E-01	0.374
PA-234	+	63.00		6.328E+00	2.484E+00	3.032E+00	4.525E-01	2.087
		94.67		1.165E+00	2.555E-01	3.714E-01	4.468E-02	3.137
		98.44		1.150E-01	1.253E-01	1.617E-01	8.996E-02	0.712
		99.86		7.801E-01	5.238E-01	8.397E-01	6.330E-02	0.929
		111.00		-5.504E-02	1.921E-01	3.096E-01	3.334E-02	-0.178
		131.20		1.085E-01	1.257E-01	1.868E-01	1.075E-02	0.581
		152.70		-1.765E-01	3.531E-01	5.586E-01	8.752E-02	-0.316
	+	186.00		7.143E+00	2.960E+00	2.829E+00	8.619E-01	2.525
		226.40		1.641E-01	4.256E-01	6.937E-01	7.949E-02	0.237
		227.20		5.019E-01	4.527E-01	7.619E-01	4.266E-02	0.659
		248.90		-2.965E-01	8.555E-01	1.338E+00	2.871E-01	-0.222
	+	293.70		7.830E+00	1.719E+00	1.924E+00	3.095E-01	4.070
		369.80		3.287E-01	8.787E-01	1.493E+00	3.105E-01	0.220
	+	568.70		6.289E+00	2.107E+00	2.758E+00	1.637E-01	2.281
	+	569.50		1.715E+00	5.746E-01	7.013E-01	4.162E-02	2.446
		574.00		-7.083E-01	1.761E+00	2.240E+00	1.329E-01	-0.316
		699.00		-6.898E-01	7.193E-01	1.060E+00	1.922E-01	-0.651
		706.10		2.789E-01	1.038E+00	1.717E+00	7.588E-01	0.162
		733.00		-2.035E-01	4.492E-01	5.810E-01	1.250E-01	-0.350
		742.81		9.131E-01	1.525E+00	2.396E+00	1.605E+00	0.381
	+	796.30		2.156E+00	1.600E+00	1.679E+00	4.484E-01	1.284
		805.60		1.460E-01	9.821E-01	1.612E+00	4.896E-01	0.091
		819.60		-5.891E-01	1.138E+00	1.704E+00	6.447E-01	-0.346
		826.30		-2.057E-01	7.802E-01	1.220E+00	5.442E-01	-0.169
		831.60		-3.680E-01	6.362E-01	9.581E-01	2.840E-01	-0.384
		876.40		-2.072E-01	8.347E-01	1.268E+00	1.303E+00	-0.163
		880.51		1.101E-01	2.609E-01	4.396E-01	3.767E-02	0.250
		883.24		-9.901E-02	2.804E-01	4.224E-01	2.839E-01	-0.234
		899.00		-4.969E-01	8.505E-01	1.242E+00	5.434E-01	-0.400
		925.00		-4.050E-01	1.041E+00	1.599E+00	1.374E-01	-0.253
		926.50		6.572E-02	1.552E-01	2.605E-01	6.581E-02	0.252
		946.00	*	3.521E-02	3.116E-01	5.068E-01	9.460E-02	0.069
		949.00		-1.389E-01	4.597E-01	7.168E-01	6.006E-02	-0.194
		980.50		-1.640E-01	6.815E-01	1.064E+00	8.588E-02	-0.154
		1394.10		3.987E-01	1.208E+00	2.032E+00	1.319E+00	0.196
PA-234M		766.42		2.125E+01	1.634E+01	2.246E+01	1.134E+01	0.946
	+	1001.03	*	7.864E+00	5.219E+00	8.830E+00	8.220E-01	0.891
U-235	+	89.95		2.449E+00	1.689E+00	2.052E+00	6.336E-01	1.193
	+	93.35		4.809E+00	1.624E+00	1.514E+00	4.225E-01	3.176
		105.00		7.147E-01	1.145E+00	1.880E+00	5.534E-01	0.380
		143.76	*	1.335E-01	2.310E-01	3.732E-01	6.051E-02	0.358
		163.35		2.867E-01	5.061E-01	8.329E-01	1.484E-01	0.344
	+	185.71		2.646E-01	7.565E-02	1.048E-01	5.599E-03	2.525
		205.31		1.675E-02	6.503E-01	9.131E-01	1.632E-01	0.018
NP-236		94.67		8.880E-01	1.773E-01	2.820E-01	2.278E-02	3.148
		98.44		8.694E-02	8.174E-02	1.222E-01	9.379E-03	0.711
		111.00		-4.163E-02	1.452E-01	2.342E-01	1.556E-02	-0.178
		160.31	*	-8.578E-02	8.665E-02	1.342E-01	7.110E-03	-0.639

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.558E-01	1.749E-01	2.802E-01	2.120E-02	0.913
		117.00	*	-3.441E-02	1.998E-01	3.232E-01	2.021E-02	-0.106
	+	209.75		2.466E+00	1.114E+00	1.479E+00	8.133E-02	1.667
		228.18		-2.238E-02	2.448E-01	3.904E-01	2.188E-02	-0.057
		277.60		5.804E-03	2.024E-01	2.976E-01	1.722E-02	0.020
		334.30		4.800E-01	1.754E+00	2.086E+00	1.208E-01	0.230
AM-241		59.54	*	5.201E-02	1.794E-01	2.631E-01	2.166E-02	0.198
CM-243		99.55		2.632E-01	1.800E-01	2.883E-01	2.182E-02	0.913
		103.76	*	-3.533E-02	1.048E-01	1.690E-01	1.215E-02	-0.209
		117.00		-3.540E-02	2.055E-01	3.325E-01	2.079E-02	-0.106
	+	209.75		2.431E+00	1.098E+00	1.458E+00	8.018E-02	1.667
		228.18		-2.261E-02	2.473E-01	3.945E-01	2.211E-02	-0.057
		277.60		5.852E-03	2.040E-01	3.001E-01	1.736E-02	0.020
AM-246		798.80		-3.944E-02	1.557E-01	2.103E-01	1.574E-02	-0.188
		1036.00		-8.165E-02	2.410E-01	3.885E-01	2.894E-02	-0.210
		1062.04		-1.243E-01	2.057E-01	3.229E-01	2.299E-02	-0.385
		1078.86	*	7.390E-02	1.391E-01	2.437E-01	1.681E-02	0.303
CM-247		278.00		-8.996E-02	8.447E-01	1.231E+00	7.124E-02	-0.073
		287.40		-7.633E-01	1.300E+00	2.065E+00	1.199E-01	-0.370
		402.60	*	1.659E-02	3.852E-02	6.413E-02	3.597E-03	0.259
CF-249		252.85		7.343E-02	9.410E-01	1.509E+00	8.623E-02	0.049
		333.44		9.362E-02	2.708E-01	2.796E-01	1.619E-02	0.335
		387.95	*	4.666E-02	3.915E-02	6.963E-02	3.889E-03	0.670
CF-251		176.60	*	-2.456E-02	1.323E-01	2.116E-01	1.118E-02	-0.116
		227.00		3.353E-01	4.033E-01	6.708E-01	3.755E-02	0.500
		285.00		5.730E-02	1.807E+00	3.046E+00	1.767E-01	0.019

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994002      *
* Acquisition date : 12-FEB-2010 12:31:59 Detector SN#     :               *
* Detector ID        : GAM19               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.56     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245994002           Analyst initials: MXR1          *
* Batch Number       : 948812               Sample Quantity : 1.3062E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.997E+01	2.038E+00	5.840E-01	0.000E+00
CD-109	2.535E+00	9.646E-01	1.421E+00	0.000E+00
SN-126	2.492E-01	9.482E-02	1.403E-01	0.000E+00
BA-137M	1.428E-01	6.286E-02	5.815E-02	0.000E+00
CS-137	1.509E-01	6.646E-02	6.147E-02	0.000E+00
TL-208	4.770E-01	8.302E-02	5.886E-02	0.000E+00
BI-211	4.807E+00	5.763E-01	3.408E-01	0.000E+00
PB-212	1.735E+00	1.660E-01	9.392E-02	0.000E+00
PO-212	1.735E+00	1.660E-01	9.392E-02	0.000E+00
BI-214	1.359E+00	2.041E-01	1.102E-01	0.000E+00
PB-214	1.672E+00	2.180E-01	1.188E-01	0.000E+00
PO-214	1.672E+00	2.180E-01	1.188E-01	0.000E+00
PO-216	1.735E+00	1.660E-01	9.392E-02	0.000E+00
PO-218	1.672E+00	2.180E-01	1.188E-01	0.000E+00
RA-224	5.429E+00	1.367E+00	1.068E+00	0.000E+00
RA-226	1.359E+00	2.041E-01	1.102E-01	0.000E+00
AC-228	1.674E+00	3.269E-01	2.207E-01	0.000E+00
RA-228	1.674E+00	3.269E-01	2.207E-01	0.000E+00
TH-228	1.761E+00	1.685E-01	9.533E-02	0.000E+00
TH-230	1.359E+00	2.041E-01	1.102E-01	0.000E+00
TH-232	1.674E+00	3.269E-01	2.207E-01	0.000E+00
TH-234	5.429E+00	2.144E+00	2.314E+00	0.000E+00
U-234	1.359E+00	2.041E-01	1.102E-01	0.000E+00
NP-237	7.319E-01	3.153E-01	4.443E-01	0.000E+00
U-238	5.429E+00	2.144E+00	2.314E+00	0.000E+00
AM-243	3.398E-01	8.485E-02	9.913E-02	0.000E+00
ANH-511	1.068E-01	6.317E-02	4.889E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-8.859E-02	3.141E-01	5.307E-01	0.000E+00	NOT IDENT.
NA-22	-4.603E-02	4.127E-02	6.164E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.179E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.033E-03	2.615E-02	4.443E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.431E-02	9.209E-02	0.000E+00	FAIL ABUN
SC-46	7.606E-04	3.826E-02	6.370E-02	0.000E+00	FAIL ABUN
V-48	1.452E-02	6.273E-02	1.062E-01	0.000E+00	NOT IDENT.
CR-51	-1.617E-01	3.643E-01	6.251E-01	0.000E+00	NOT IDENT.
MN-52	-1.249E-01	1.921E-01	2.892E-01	0.000E+00	NOT IDENT.
MN-54	6.183E-03	3.854E-02	6.514E-02	0.000E+00	NOT IDENT.
CO-56	-2.716E-02	3.707E-02	5.709E-02	0.000E+00	FAIL ABUN
CO-57	1.467E-02	2.575E-02	4.554E-02	0.000E+00	NOT IDENT.
CO-58	-2.233E-02	3.657E-02	5.733E-02	0.000E+00	NOT IDENT.
FE-59	-6.577E-02	8.307E-02	1.313E-01	0.000E+00	NOT IDENT.
CO-60	-2.786E-02	3.672E-02	5.635E-02	0.000E+00	NOT IDENT.
ZN-65	-1.046E-01	9.164E-02	1.121E-01	0.000E+00	NOT IDENT.
GE-68	-2.397E-01	1.251E+00	2.113E+00	0.000E+00	NOT IDENT.
AS-73	9.360E-02	8.075E-01	1.443E+00	0.000E+00	NOT IDENT.
AS-74	8.624E-02	8.710E-02	1.588E-01	0.000E+00	NOT IDENT.
SE-75	2.787E-02	4.399E-02	7.380E-02	0.000E+00	NOT IDENT.
BR-77	-9.824E-01	9.943E+00	1.693E+01	0.000E+00	FAIL ABUN
SR-82	-3.620E-01	3.899E-01	5.992E-01	0.000E+00	NOT IDENT.
RB-83	3.823E-06	6.693E-02	1.148E-01	0.000E+00	NOT IDENT.
RB-84	1.363E-02	6.431E-02	1.092E-01	0.000E+00	NOT IDENT.
KR-85	1.241E+01	8.495E+00	1.411E+01	0.000E+00	NOT IDENT.
SR-85	6.356E-02	4.351E-02	7.227E-02	0.000E+00	NOT IDENT.
RB-86	-4.168E-01	7.978E-01	1.308E+00	0.000E+00	NOT IDENT.
Y-88	9.734E-03	3.054E-02	5.381E-02	0.000E+00	NOT IDENT.
ZR-88	-2.500E-02	3.004E-02	4.960E-02	0.000E+00	NOT IDENT.
Y-91	-4.210E+00	1.750E+01	2.922E+01	0.000E+00	NOT IDENT.
NB-94	2.089E-02	3.204E-02	5.676E-02	0.000E+00	NOT IDENT.
NB-95	5.874E-02	4.420E-02	8.098E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.644E-01	2.725E-01	0.000E+00	NOT IDENT.
ZR-95	-2.010E-02	7.289E-02	1.195E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.690E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.894E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-5.961E+00	1.138E+01	1.821E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.350E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.507E-02	3.574E-02	5.837E-02	0.000E+00	NOT IDENT.
RH-102	-3.376E-03	2.971E-02	5.081E-02	0.000E+00	NOT IDENT.
RU-103	1.697E-03	3.722E-02	6.418E-02	0.000E+00	FAIL ABUN
RH-106	3.548E-02	3.005E-01	5.150E-01	0.000E+00	FAIL ABUN
RU-106	3.548E-02	3.005E-01	5.150E-01	0.000E+00	FAIL ABUN
AG-108M	-1.049E-02	3.020E-02	5.104E-02	0.000E+00	NOT IDENT.
AG-110M	3.045E-02	3.826E-02	6.094E-02	0.000E+00	NOT IDENT.
IN-111	4.856E-01	1.124E+00	1.700E+00	0.000E+00	NOT IDENT.
IN-113M	-2.143E-02	4.333E-02	7.315E-02	0.000E+00	NOT IDENT.
SN-113	-2.143E-02	4.333E-02	7.315E-02	0.000E+00	NOT IDENT.
IN-114M	-1.062E-01	2.212E-01	3.190E-01	0.000E+00	NOT IDENT.
CD-115	-5.229E+00	1.010E+01	1.663E+01	0.000E+00	NOT IDENT.
SN-117M	-3.571E-02	5.810E-02	9.704E-02	0.000E+00	NOT IDENT.
SB-122	1.412E+00	2.564E+00	3.978E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.399E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.037E-02	3.006E-02	5.005E-02	0.000E+00	NOT IDENT.
I-124	-5.299E-01	7.220E-01	9.754E-01	0.000E+00	NOT IDENT.
SB-124	-5.856E-02	6.632E-02	8.926E-02	0.000E+00	FAIL ABUN
SB-125	5.070E-02	9.029E-02	1.617E-01	0.000E+00	FAIL ABUN
TE-125M	-1.027E+01	9.778E+00	1.627E+01	0.000E+00	NOT IDENT.
I-126	-8.146E-02	2.119E-01	2.966E-01	0.000E+00	NOT IDENT.
SB-126	1.823E-01	1.474E-01	2.534E-01	0.000E+00	FAIL ABUN
SB-127	-1.093E+00	1.338E+00	2.098E+00	0.000E+00	NOT IDENT.
XE-127	-1.624E-02	5.520E-02	8.506E-02	0.000E+00	NOT IDENT.
I-131	6.208E-02	1.141E-01	2.050E-01	0.000E+00	NOT IDENT.
TE-132	-6.642E-02	7.188E-01	1.207E+00	0.000E+00	NOT IDENT.
BA-133	3.702E-02	4.446E-02	7.199E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.397E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.572E-02	8.909E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.801E-01	3.116E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.369E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.243E-01	9.658E-02	1.848E-01	0.000E+00	FAIL ABUN
CE-139	-4.269E-03	3.128E-02	5.319E-02	0.000E+00	NOT IDENT.
BA-140	-4.448E-02	2.486E-01	4.192E-01	0.000E+00	NOT IDENT.
LA-140	2.482E-02	7.929E-02	1.388E-01	0.000E+00	FAIL ABUN
CE-141	3.322E-02	6.800E-02	1.165E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.034E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.278E-01	2.368E-01	3.568E-01	0.000E+00	NOT IDENT.
PM-144	1.891E-02	3.332E-02	5.867E-02	0.000E+00	NOT IDENT.
PR-144	1.281E+00	2.258E+00	3.976E+00	0.000E+00	NOT IDENT.

PM-146	3.617E-02	4.194E-02	7.621E-02	0.000E+00	NOT IDENT.
ND-147	-1.158E-02	5.392E-01	9.221E-01	0.000E+00	FAIL ABUN
PM-149	-6.799E+00	9.016E+01	1.586E+02	0.000E+00	NOT IDENT.
EU-152	-4.878E-02	1.537E-01	1.780E-01	0.000E+00	FAIL ABUN
GD-153	3.016E-02	9.151E-02	1.412E-01	0.000E+00	NOT IDENT.
EU-154	-8.964E-02	1.120E-01	1.734E-01	0.000E+00	NOT IDENT.
EU-155	6.554E-02	1.127E-01	2.001E-01	0.000E+00	FAIL ABUN
TB-160	2.264E-02	1.277E-01	2.163E-01	0.000E+00	FAIL ABUN
HO-166M	1.666E-02	5.555E-02	9.600E-02	0.000E+00	NOT IDENT.
TM-171	-1.256E+01	3.344E+01	5.104E+01	0.000E+00	NOT IDENT.
LU-176	-1.067E-02	2.493E-02	4.176E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.524E+00	2.179E+00	0.000E+00	FAIL ABUN
LU-177M	2.301E-01	1.964E-01	3.242E-01	0.000E+00	NOT IDENT.
HF-181	-3.355E-02	3.986E-02	6.436E-02	0.000E+00	NOT IDENT.
W-181	5.740E-01	4.416E-01	7.174E-01	0.000E+00	NOT IDENT.
TA-182	-3.390E-02	1.851E-01	3.106E-01	0.000E+00	FAIL ABUN
RE-183	7.885E-02	1.135E-01	1.996E-01	0.000E+00	FAIL ABUN
RE-184	1.956E-02	2.457E-01	4.141E-01	0.000E+00	NOT IDENT.
OS-185	-3.787E-02	4.055E-02	6.308E-02	0.000E+00	NOT IDENT.
RE-188	2.439E-01	1.790E-01	3.223E-01	0.000E+00	NOT IDENT.
W-188	2.133E-01	8.199E+00	1.262E+01	0.000E+00	FAIL ABUN
IR-192	-1.710E-02	3.245E-02	5.538E-02	0.000E+00	FAIL ABUN
AU-195	3.037E-01	2.612E-01	4.179E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.356E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	9.508E-01	7.185E+00	1.235E+01	0.000E+00	NOT IDENT.
TL-202	4.189E-02	6.594E-02	1.186E-01	0.000E+00	NOT IDENT.
HG-203	-2.755E-02	4.178E-02	6.723E-02	0.000E+00	NOT IDENT.
BI-207	-3.081E-02	4.656E-02	7.576E-02	0.000E+00	FAIL ABUN
TL-207	5.989E-01	7.741E-01	1.237E+00	0.000E+00	FAIL ABUN
PO-209	2.230E+00	6.939E+00	1.190E+01	0.000E+00	NOT IDENT.
BI-210	1.761E-01	3.403E+00	6.020E+00	0.000E+00	NOT IDENT.
PB-210	1.761E-01	3.403E+00	6.020E+00	0.000E+00	NOT IDENT.
PO-210	1.761E-01	3.403E+00	6.020E+00	0.000E+00	NOT IDENT.
PB-211	4.397E-02	1.041E+00	1.576E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.497E-01	6.714E-01	0.000E+00	FAIL ABUN
PO-215	5.989E-01	7.741E-01	1.237E+00	0.000E+00	FAIL ABUN
RN-219	-1.378E-01	4.123E-01	7.019E-01	0.000E+00	FAIL ABUN
RN-220	-7.310E-01	2.369E+01	4.040E+01	0.000E+00	NOT IDENT.
RA-223	5.989E-01	7.741E-01	1.237E+00	0.000E+00	FAIL ABUN
AC-227	5.986E-02	3.999E-01	6.760E-01	0.000E+00	FAIL ABUN
TH-227	5.986E-02	3.999E-01	6.760E-01	0.000E+00	FAIL ABUN
TH-229	7.950E-02	5.435E-01	9.291E-01	0.000E+00	FAIL ABUN
PA-231	1.845E+00	1.604E+00	2.889E+00	0.000E+00	FAIL ABUN
TH-231	5.989E-01	7.741E-01	1.237E+00	0.000E+00	FAIL ABUN
U-231	1.427E-01	1.256E+00	1.932E+00	0.000E+00	FAIL ABUN
PA-233	3.600E-02	6.145E-02	1.112E-01	0.000E+00	FAIL ABUN
PA-234	3.521E-02	3.054E-01	5.109E-01	0.000E+00	FAIL ABUN
PA-234M	7.864E+00	5.115E+00	8.894E+00	0.000E+00	FAIL ABUN
U-235	1.335E-01	2.264E-01	3.880E-01	0.000E+00	FAIL ABUN
NP-236	-8.578E-02	8.491E-02	1.393E-01	0.000E+00	NOT IDENT.
NP-239	-3.441E-02	1.958E-01	3.371E-01	0.000E+00	FAIL ABUN
AM-241	5.201E-02	1.758E-01	2.772E-01	0.000E+00	NOT IDENT.
CM-243	-3.533E-02	1.027E-01	1.766E-01	0.000E+00	FAIL ABUN
AM-246	7.390E-02	1.363E-01	2.452E-01	0.000E+00	NOT IDENT.
CM-247	1.659E-02	3.775E-02	6.558E-02	0.000E+00	NOT IDENT.
CF-249	4.666E-02	3.837E-02	7.124E-02	0.000E+00	NOT IDENT.
CF-251	-2.456E-02	1.296E-01	2.193E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:33:05.29

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*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994002.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:31:59
Sample ID         : G245994002           Sample quantity  : 1.30620E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	866	10.67*	1.168E+00	1.997E+01	1.997E+01	10.41
CD-109	88.03	196	3.72*	6.097E+00	2.479E+00	2.535E+00	38.82
SN-126	64.28	260	9.60	3.620E+00	2.149E+00	2.149E+00	39.13
	86.94	196	8.90	6.097E+00	1.036E+00	1.036E+00	56.06
	87.57	196	37.00*	6.097E+00	2.492E-01	2.492E-01	38.82
BA-137M	661.65	103	89.98*	2.301E+00	1.426E-01	1.428E-01	44.93
CS-137	661.65	103	85.12*	2.301E+00	1.508E-01	1.509E-01	44.93
TL-208	277.35	------	6.80	4.511E+00	------ Line Not Found		------
	510.84	106	21.60	2.844E+00	4.942E-01	4.942E-01	60.96
	583.14	357	84.20*	2.555E+00	4.770E-01	4.770E-01	17.76
	860.37	89	12.46	1.834E+00	1.118E+00	1.118E+00	62.88
BI-211	72.87	------	1.27	4.857E+00	------ Line Not Found		------
	351.07	820	12.94*	3.787E+00	4.807E+00	4.807E+00	12.23
PB-212	74.81	396	10.70	5.079E+00	2.096E+00	2.096E+00	27.14
	77.11	727	18.00	5.303E+00	2.187E+00	2.187E+00	16.26
	87.30	196	8.00	6.097E+00	1.153E+00	1.153E+00	40.09
	238.63	1351	44.60*	5.017E+00	1.735E+00	1.735E+00	9.76
	300.09	115	3.41	4.261E+00	2.276E+00	2.276E+00	43.02
PO-212	74.81	396	10.70	5.079E+00	2.096E+00	2.096E+00	27.14
	77.11	727	18.00	5.303E+00	2.187E+00	2.187E+00	16.26
	87.30	196	8.00	6.097E+00	1.153E+00	1.153E+00	40.09
	115.19	------	0.60	6.866E+00	------ Line Not Found		------
	238.63	1351	44.60*	5.017E+00	1.735E+00	1.735E+00	9.76
	300.09	115	3.41	4.261E+00	2.276E+00	2.276E+00	43.02
BI-214	609.31	540	46.30*	2.465E+00	1.359E+00	1.359E+00	15.32
	1120.29	111	15.10	1.455E+00	1.452E+00	1.452E+00	35.43
	1764.49	108	15.80	1.030E+00	1.901E+00	1.901E+00	23.98
PB-214	74.81	396	6.21	5.079E+00	3.611E+00	3.611E+00	26.53
	77.11	727	10.50	5.303E+00	3.750E+00	3.750E+00	17.95
	87.30	196	4.67	6.097E+00	1.975E+00	1.975E+00	39.58
	241.98	371	7.49	4.974E+00	2.863E+00	2.863E+00	26.29
	295.21	470	19.20	4.313E+00	1.631E+00	1.631E+00	17.20

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	820	37.20*	3.787E+00	1.672E+00	1.672E+00	13.30
PO-214	74.81	396	6.21	5.079E+00	3.611E+00	3.611E+00	26.53
	77.11	727	10.50	5.303E+00	3.750E+00	3.750E+00	17.95
	87.30	196	4.67	6.097E+00	1.975E+00	1.975E+00	39.58
	241.98	371	7.49	4.974E+00	2.863E+00	2.863E+00	26.29
	295.21	470	19.20	4.313E+00	1.631E+00	1.631E+00	17.20
	351.92	820	37.20*	3.787E+00	1.672E+00	1.672E+00	13.30
PO-216	74.81	396	10.70	5.079E+00	2.096E+00	2.096E+00	27.14
	77.11	727	18.00	5.303E+00	2.187E+00	2.187E+00	16.26
	87.30	196	8.00	6.097E+00	1.153E+00	1.153E+00	40.09
	238.63	1351	44.60*	5.017E+00	1.735E+00	1.735E+00	9.76
	300.09	115	3.41	4.261E+00	2.276E+00	2.276E+00	43.02
PO-218	74.81	396	6.21	5.079E+00	3.611E+00	3.611E+00	26.53
	77.11	727	10.50	5.303E+00	3.750E+00	3.750E+00	17.95
	87.30	196	4.67	6.097E+00	1.975E+00	1.975E+00	39.58
	241.98	371	7.49	4.974E+00	2.863E+00	2.863E+00	26.29
	295.21	470	19.20	4.313E+00	1.631E+00	1.631E+00	17.20
	351.92	820	37.20*	3.787E+00	1.672E+00	1.672E+00	13.30
RA-224	240.98	371	3.95*	4.974E+00	5.429E+00	5.429E+00	25.69
RA-226	609.31	540	46.30*	2.465E+00	1.359E+00	1.359E+00	15.32
	1120.29	111	15.10	1.455E+00	1.452E+00	1.452E+00	35.43
	1764.49	108	15.80	1.030E+00	1.901E+00	1.901E+00	23.98
AC-228	338.32	271	11.40	3.901E+00	1.750E+00	1.750E+00	46.94
	911.07	282	27.70*	1.746E+00	1.674E+00	1.674E+00	19.93
	969.11	136	16.60	1.653E+00	1.427E+00	1.427E+00	34.72
RA-228	338.32	271	11.40	3.901E+00	1.750E+00	1.750E+00	46.94
	911.07	282	27.70*	1.746E+00	1.674E+00	1.674E+00	19.93
	969.11	136	16.60	1.653E+00	1.427E+00	1.427E+00	34.72
TH-228	74.81	396	10.70	5.079E+00	2.096E+00	2.128E+00	25.50
	77.11	727	18.00	5.303E+00	2.187E+00	2.220E+00	16.26
	87.30	196	8.00	6.097E+00	1.153E+00	1.170E+00	38.82
	238.63	1351	44.60*	5.017E+00	1.735E+00	1.761E+00	9.76
	300.09	115	3.41	4.261E+00	2.276E+00	2.310E+00	72.50
TH-230	609.31	540	46.30*	2.465E+00	1.359E+00	1.359E+00	15.32
	1120.29	111	15.10	1.455E+00	1.452E+00	1.452E+00	35.43
	1764.49	108	15.80	1.030E+00	1.901E+00	1.901E+00	23.98
TH-232	338.32	271	11.40	3.901E+00	1.750E+00	1.750E+00	23.99
	911.07	282	27.70*	1.746E+00	1.674E+00	1.674E+00	19.93
	969.11	136	16.60	1.653E+00	1.427E+00	1.427E+00	34.72
TH-234	63.29	260	3.80*	3.620E+00	5.429E+00	5.429E+00	40.30
	92.38	481	5.41	6.386E+00	4.000E+00	4.000E+00	26.12
U-234	609.31	540	46.30*	2.465E+00	1.359E+00	1.359E+00	15.32
	1120.29	111	15.10	1.455E+00	1.452E+00	1.452E+00	35.43
	1764.49	108	15.80	1.030E+00	1.901E+00	1.901E+00	23.98
NP-237	86.50	196	12.60*	6.097E+00	7.319E-01	7.319E-01	43.96
	95.87	------	2.60	6.515E+00	------	Line Not Found	------
U-238	63.29	260	3.80*	3.620E+00	5.429E+00	5.429E+00	40.30
	92.38	481	5.41	6.386E+00	4.000E+00	4.000E+00	20.72
AM-243	74.67	396	66.00*	5.079E+00	3.398E-01	3.398E-01	25.48

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	196	0.34	6.097E+00	2.745E+01	2.745E+01	38.82
	117.66	------	0.55	6.871E+00	------	Line Not Found	------
	142.18	------	0.13	6.659E+00	------	Line Not Found	------
ANH-511	511.00	106	100.00*	2.844E+00	1.068E-01	1.068E-01	60.38

Flag: "*" = Keyline

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

Total number of lines in spectrum 38
Number of unidentified lines 4
Number of lines tentatively identified by NID 34 89.47%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.997E+01	1.997E+01	0.208E+01	10.41	
CD-109	464.00D	1.02	2.479E+00	2.535E+00	0.984E+00	38.82	
SN-126	1.00E+05Y	1.00	2.492E-01	2.492E-01	0.968E-01	38.82	
BA-137M	30.17Y	1.00	1.426E-01	1.428E-01	0.641E-01	44.93	
CS-137	30.17Y	1.00	1.508E-01	1.509E-01	0.678E-01	44.93	
TL-208	1.41E+10Y	1.00	4.770E-01	4.770E-01	0.847E-01	17.76	
BI-211	7.04E+08Y	1.00	4.807E+00	4.807E+00	0.588E+00	12.23	
PB-212	1.41E+10Y	1.00	1.735E+00	1.735E+00	0.169E+00	9.76	
PO-212	1.41E+10Y	1.00	1.735E+00	1.735E+00	0.169E+00	9.76	
BI-214	1600.00Y	1.00	1.359E+00	1.359E+00	0.208E+00	15.32	
PB-214	1600.00Y	1.00	1.672E+00	1.672E+00	0.222E+00	13.30	
PO-214	1600.00Y	1.00	1.672E+00	1.672E+00	0.222E+00	13.30	
PO-216	1.41E+10Y	1.00	1.735E+00	1.735E+00	0.169E+00	9.76	
PO-218	1600.00Y	1.00	1.672E+00	1.672E+00	0.222E+00	13.30	
RA-224	1.41E+10Y	1.00	5.429E+00	5.429E+00	1.395E+00	25.69	
RA-226	1600.00Y	1.00	1.359E+00	1.359E+00	0.208E+00	15.32	
AC-228	1.41E+10Y	1.00	1.674E+00	1.674E+00	0.334E+00	19.93	
RA-228	1.41E+10Y	1.00	1.674E+00	1.674E+00	0.334E+00	19.93	
TH-228	1.91Y	1.02	1.735E+00	1.761E+00	0.172E+00	9.76	
TH-230	4.47E+09Y	1.00	1.359E+00	1.359E+00	0.208E+00	15.32	
TH-232	1.41E+10Y	1.00	1.674E+00	1.674E+00	0.334E+00	19.93	
TH-234	4.47E+09Y	1.00	5.429E+00	5.429E+00	2.188E+00	40.30	
U-234	4.47E+09Y	1.00	1.359E+00	1.359E+00	0.208E+00	15.32	
NP-237	2.14E+06Y	1.00	7.319E-01	7.319E-01	3.218E-01	43.96	
U-238	4.47E+09Y	1.00	5.429E+00	5.429E+00	2.188E+00	40.30	
AM-243	7380.00Y	1.00	3.398E-01	3.398E-01	0.866E-01	25.48	
ANH-511	1.00E+09Y	1.00	1.068E-01	1.068E-01	0.645E-01	60.38	
		Total Activity :	6.815E+01	6.823E+01			

Grand Total Activity : 6.815E+01 6.823E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
2	90.04	144	545	1.45	179.90	171	22	2.00E-02	61.6	6.25E+00	T
0	129.24	52	306	1.09	258.23	254	7	7.20E-03	****	6.82E+00	T
0	186.00	292	346	1.39	371.68	366	11	4.06E-02	28.1	5.88E+00	T
0	209.25	152	286	0.94	418.15	413	10	2.11E-02	44.8	5.47E+00	T
0	271.02	157	285	1.79	541.60	536	14	2.18E-02	48.5	4.59E+00	T
0	328.02	65	208	1.40	655.52	650	11	9.07E-03	88.4	3.99E+00	T
0	409.43	77	111	1.62	818.26	814	10	1.08E-02	55.6	3.38E+00	
0	462.88	75	112	1.34	925.11	920	10	1.04E-02	58.0	3.07E+00	T
0	568.29	171	118	2.68	1135.85	1129	15	2.38E-02	33.0	2.61E+00	T
0	727.55	72	85	1.64	1454.27	1448	11	9.95E-03	55.2	2.12E+00	T
0	795.39	58	67	1.56	1589.92	1582	16	7.99E-03	69.3	1.97E+00	T
0	965.49	18	70	0.64	1930.11	1927	8	2.46E-03	****	1.66E+00	T
0	1001.52	37	23	1.92	2002.17	1998	10	5.13E-03	65.7	1.61E+00	T
0	1238.66	46	61	1.13	2476.51	2472	13	6.36E-03	75.2	1.34E+00	T
0	1377.79	43	12	2.09	2754.87	2748	13	5.96E-03	45.9	1.22E+00	
0	1629.43	27	18	5.44	3258.41	3250	18	3.75E-03	83.1	1.08E+00	
0	1729.05	29	13	2.15	3457.77	3446	18	4.07E-03	69.3	1.04E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:33:12.16

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994002.CNF;1    *
* Acquisition date : 12-FEB-2010 12:31:59  Detector SN#     :                 *
* Detector ID      : GAM19                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.56         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245994002            Analyst initials: MXR1             *
* Batch Number     : 948812                Sample Quantity : 1.30620E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.997E+01	2.080E+00	5.835E-01	4.346E-02	34.218
CD-109	2.535E+00	9.842E-01	1.356E+00	1.215E-01	1.870
SN-126	2.492E-01	9.675E-02	1.339E-01	1.194E-02	1.862
BA-137M	1.428E-01	6.414E-02	5.733E-02	3.339E-03	2.490
CS-137	1.509E-01	6.781E-02	6.061E-02	3.544E-03	2.490
TL-208	4.770E-01	8.472E-02	5.791E-02	3.938E-03	8.236
BI-211	4.807E+00	5.881E-01	3.325E-01	2.123E-02	14.457
PB-212	1.735E+00	1.694E-01	9.107E-02	6.573E-03	19.052
PO-212	1.735E+00	1.694E-01	9.107E-02	6.573E-03	19.052
BI-214	1.359E+00	2.082E-01	1.085E-01	8.531E-03	12.526
PB-214	1.672E+00	2.224E-01	1.159E-01	9.555E-03	14.429
PO-214	1.672E+00	2.224E-01	1.159E-01	9.555E-03	14.429
PO-216	1.735E+00	1.694E-01	9.107E-02	6.573E-03	19.052
PO-218	1.672E+00	2.224E-01	1.159E-01	9.555E-03	14.429
RA-224	5.429E+00	1.395E+00	1.036E+00	5.869E-02	5.241
RA-226	1.359E+00	2.082E-01	1.085E-01	8.531E-03	12.526
AC-228	1.674E+00	3.336E-01	2.188E-01	2.475E-02	7.651
RA-228	1.674E+00	3.336E-01	2.188E-01	2.475E-02	7.651

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.761E+00	1.720E-01	9.244E-02	6.672E-03	19.052
TH-230	1.359E+00	2.082E-01	1.085E-01	8.530E-03	12.526
TH-232	1.674E+00	3.336E-01	2.188E-01	2.475E-02	7.651
TH-234	5.429E+00	2.188E+00	2.198E+00	3.845E-01	2.470
U-234	1.359E+00	2.082E-01	1.085E-01	8.530E-03	12.526
NP-237	7.319E-01	3.218E-01	4.240E-01	9.516E-02	1.726
U-238	5.429E+00	2.188E+00	2.198E+00	3.845E-01	2.470
AM-243	3.398E-01	8.658E-02	9.438E-02	7.485E-03	3.600
ANH-511	1.068E-01	6.446E-02	4.800E-02	2.832E-03	2.224

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-8.859E-02		3.205E-01	5.204E-01	3.533E-02	-0.170
NA-22	-4.603E-02		4.211E-02	6.145E-02	4.099E-03	-0.749
NA-24	4.096E-01		3.152E-01	Half-Life too short		
AL-26	3.033E-03		2.668E-02	4.456E-02	2.601E-03	0.068
TI-44	4.036E-01	+	6.562E-02	8.775E-02	7.162E-03	4.600
SC-46	7.606E-04		3.904E-02	6.311E-02	5.484E-03	0.012
V-48	1.452E-02		6.401E-02	1.054E-01	8.477E-03	0.138
CR-51	-1.617E-01		3.718E-01	6.091E-01	3.941E-02	-0.265
MN-52	-1.249E-01		1.960E-01	2.889E-01	2.084E-02	-0.432
MN-54	6.183E-03		3.932E-02	6.447E-02	5.129E-03	0.096
CO-56	-2.716E-02		3.782E-02	5.652E-02	4.585E-03	-0.481
CO-57	1.467E-02		2.628E-02	4.370E-02	2.608E-03	0.336
CO-58	-2.233E-02		3.731E-02	5.672E-02	4.346E-03	-0.394
FE-59	-6.577E-02		8.476E-02	1.305E-01	9.797E-03	-0.504
CO-60	-2.786E-02		3.747E-02	5.622E-02	4.143E-03	-0.496
ZN-65	-1.046E-01		9.351E-02	1.115E-01	7.126E-03	-0.938
GE-68	-2.397E-01		1.276E+00	2.101E+00	1.454E-01	-0.114
AS-73	9.360E-02		8.239E-01	1.367E+00	1.011E-01	0.068
AS-74	8.624E-02		8.888E-02	1.563E-01	9.260E-03	0.552
SE-75	2.787E-02		4.489E-02	7.168E-02	4.169E-03	0.389
BR-77	-9.824E-01		1.015E+01	1.662E+01	9.828E-01	-0.059
SR-82	-3.620E-01		3.979E-01	5.924E-01	4.266E-02	-0.611
RB-83	3.823E-06		6.830E-02	1.127E-01	6.663E-03	0.000
RB-84	1.363E-02		6.562E-02	1.082E-01	9.288E-03	0.126
KR-85	1.241E+01		8.668E+00	1.385E+01	8.179E-01	0.896
SR-85	6.356E-02		4.440E-02	7.096E-02	4.190E-03	0.896
RB-86	-4.168E-01		8.141E-01	1.300E+00	9.006E-02	-0.321
Y-88	9.734E-03		3.116E-02	5.398E-02	3.081E-03	0.180
ZR-88	-2.500E-02		3.065E-02	4.848E-02	2.700E-03	-0.516
Y-91	-4.210E+00		1.786E+01	2.910E+01	1.699E+00	-0.145
NB-94	2.089E-02		3.269E-02	5.602E-02	3.528E-03	0.373
NB-95	5.874E-02		4.510E-02	8.004E-02	5.656E-03	0.734
NB-95M	4.702E-01		1.677E-01	2.642E-01	1.957E-02	1.780
ZR-95	-2.010E-02		7.438E-02	1.181E-01	9.454E-03	-0.170

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	7.318E-02		4.944E-02	Half-Life too short		
ZR-97	5.252E+00		9.665E-01	Half-Life too short		
MO-99	-5.961E+00		1.161E+01	1.798E+01	2.554E+00	-0.331
TC-99M	-3.946E+10		1.709E+10	Half-Life too short		
RH-101	-1.507E-02		3.647E-02	5.643E-02	3.061E-03	-0.267
RH-102	-3.376E-03		3.031E-02	4.982E-02	2.908E-03	-0.068
RU-103	1.697E-03		3.798E-02	6.298E-02	7.987E-03	0.027
RH-106	3.548E-02		3.067E-01	5.073E-01	5.978E-02	0.070
RU-106	3.548E-02		3.067E-01	5.073E-01	2.991E-02	0.070
AG-108M	-1.049E-02		3.082E-02	4.997E-02	3.112E-03	-0.210
AG-110M	3.045E-02		3.904E-02	6.008E-02	3.728E-03	0.507
IN-111	4.856E-01		1.147E+00	1.649E+00	9.378E-02	0.294
IN-113M	-2.143E-02		4.421E-02	7.150E-02	4.266E-03	-0.300
SN-113	-2.143E-02		4.421E-02	7.150E-02	4.266E-03	-0.300
IN-114M	-1.062E-01		2.257E-01	3.082E-01	1.656E-02	-0.344
CD-115	-5.229E+00		1.031E+01	1.634E+01	9.671E-01	-0.320
SN-117M	-3.571E-02		5.928E-02	9.349E-02	4.976E-03	-0.382
SB-122	1.412E+00		2.617E+00	3.911E+00	2.322E-01	0.361
I-123	-3.659E+00		2.755E+00	Half-Life too short		
TE-123M	-2.037E-02		3.067E-02	4.822E-02	2.604E-03	-0.422
I-124	-5.299E-01		7.368E-01	9.602E-01	5.683E-02	-0.552
SB-124	-5.856E-02		6.768E-02	8.941E-02	6.123E-03	-0.655
SB-125	5.070E-02		9.213E-02	1.582E-01	9.421E-03	0.320
TE-125M	-1.027E+01		9.977E+00	1.558E+01	1.377E+00	-0.659
I-126	-8.146E-02		2.162E-01	2.924E-01	1.718E-02	-0.279
SB-126	1.823E-01		1.504E-01	2.501E-01	1.629E-02	0.729
SB-127	-1.093E+00		1.365E+00	2.070E+00	1.983E-01	-0.528
XE-127	-1.624E-02		5.632E-02	8.227E-02	4.489E-03	-0.197
I-131	6.208E-02		1.164E-01	2.001E-01	1.278E-02	0.310
TE-132	-6.642E-02		7.334E-01	1.170E+00	1.669E-01	-0.057
BA-133	3.702E-02		4.537E-02	7.026E-02	8.098E-03	0.527
I-133	-8.164E-04		2.754E-03	Half-Life too short		
CS-134	1.109E-01	+	7.727E-02	8.811E-02	6.625E-03	1.259
CS-135	4.128E-01		1.838E-01	3.027E-01	2.310E-02	1.364
I-135	2.177E+08		2.229E+09	Half-Life too short		
CS-136	1.243E-01		9.855E-02	1.836E-01	1.419E-02	0.677
CE-139	-4.269E-03		3.191E-02	5.128E-02	2.677E-03	-0.083
BA-140	-4.448E-02		2.536E-01	4.118E-01	1.340E-01	-0.108
LA-140	2.482E-02		8.091E-02	1.389E-01	9.399E-03	0.179
CE-141	3.322E-02		6.939E-02	1.121E-01	6.455E-03	0.296
CE-143	1.139E-03		1.548E-04	Half-Life too short		
CE-144	-2.278E-01		2.416E-01	3.428E-01	4.857E-02	-0.664
PM-144	1.891E-02		3.400E-02	5.790E-02	3.607E-03	0.327
PR-144	1.281E+00		2.304E+00	3.923E+00	2.442E-01	0.327
PM-146	3.617E-02		4.279E-02	7.468E-02	6.431E-03	0.484
ND-147	-1.158E-02		5.502E-01	9.058E-01	1.230E-01	-0.013
PM-149	-6.799E+00		9.200E+01	1.543E+02	2.187E+01	-0.044
EU-152	-4.878E-02		1.568E-01	1.736E-01	1.130E-02	-0.281

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	3.016E-02		9.337E-02	1.350E-01	1.050E-02	0.223
EU-154	-8.964E-02		1.143E-01	1.728E-01	1.710E-02	-0.519
EU-155	6.554E-02		1.150E-01	1.915E-01	1.378E-02	0.342
TB-160	2.264E-02		1.303E-01	2.143E-01	1.833E-02	0.106
HO-166M	1.666E-02		5.669E-02	9.476E-02	6.070E-03	0.176
TM-171	-1.256E+01		3.412E+01	4.851E+01	3.687E+00	-0.259
LU-176	-1.067E-02		2.544E-02	4.066E-02	2.365E-03	-0.262
LU-177	3.443E+00	+	1.555E+00	2.109E+00	1.158E-01	1.633
LU-177M	2.301E-01		2.004E-01	3.172E-01	1.793E-02	0.725
HF-181	-3.355E-02		4.067E-02	6.312E-02	3.694E-03	-0.531
W-181	5.740E-01		4.506E-01	6.816E-01	5.158E-02	0.842
TA-182	-3.390E-02		1.889E-01	3.094E-01	1.865E-02	-0.110
RE-183	7.885E-02		1.158E-01	1.924E-01	1.013E-02	0.410
RE-184	1.956E-02		2.507E-01	4.020E-01	2.297E-02	0.049
OS-185	-3.787E-02		4.138E-02	6.217E-02	3.641E-03	-0.609
RE-188	2.439E-01		1.827E-01	3.104E-01	1.668E-02	0.786
W-188	2.133E-01		8.366E+00	1.228E+01	7.133E-01	0.017
IR-192	-1.710E-02		3.311E-02	5.395E-02	3.152E-03	-0.317
AU-195	3.037E-01		2.665E-01	3.996E-01	3.050E-02	0.760
TL-200	-1.517E-04		2.222E-04	Half-Life too short		
TL-201	9.508E-01		7.331E+00	1.191E+01	6.222E-01	0.080
TL-202	4.189E-02		6.729E-02	1.161E-01	6.669E-03	0.361
HG-203	-2.755E-02		4.263E-02	6.536E-02	4.019E-03	-0.422
BI-207	-3.081E-02		4.751E-02	7.529E-02	5.347E-03	-0.409
TL-207	5.989E-01		7.899E-01	1.205E+00	1.991E-01	0.497
PO-209	2.230E+00		7.081E+00	1.179E+01	1.036E+00	0.189
BI-210	1.761E-01		3.473E+00	5.691E+00	4.337E-01	0.031
PB-210	1.761E-01		3.473E+00	5.691E+00	4.337E-01	0.031
PO-210	1.761E-01		3.473E+00	5.691E+00	3.709E-01	0.031
PB-211	4.397E-02		1.062E+00	1.542E+00	9.607E-01	0.029
BI-212	8.213E-01	+	4.589E-01	6.630E-01	5.519E-02	1.239
PO-215	5.989E-01		7.899E-01	1.205E+00	1.991E-01	0.497
RN-219	-1.378E-01		4.207E-01	6.864E-01	9.283E-02	-0.201
RN-220	-7.310E-01		2.418E+01	3.971E+01	2.356E+00	-0.018
RA-223	5.989E-01		7.899E-01	1.205E+00	1.991E-01	0.497
AC-227	5.986E-02		4.081E-01	6.563E-01	9.142E-02	0.091
TH-227	5.986E-02		4.081E-01	6.563E-01	1.107E-01	0.091
TH-229	7.950E-02		5.546E-01	8.980E-01	4.845E-02	0.089
PA-231	1.845E+00		1.637E+00	2.809E+00	3.871E-01	0.657
TH-231	5.989E-01		7.899E-01	1.205E+00	1.991E-01	0.497
U-231	1.427E-01		1.282E+00	1.846E+00	1.466E-01	0.077
PA-233	3.600E-02		6.270E-02	1.083E-01	6.688E-03	0.332
PA-234	3.521E-02		3.116E-01	5.068E-01	9.460E-02	0.069
PA-234M	7.864E+00	+	5.219E+00	8.830E+00	8.220E-01	0.891
U-235	1.335E-01		2.310E-01	3.732E-01	6.051E-02	0.358
NP-236	-8.578E-02		8.665E-02	1.342E-01	7.110E-03	-0.639
NP-239	-3.441E-02		1.998E-01	3.232E-01	2.021E-02	-0.106
AM-241	5.201E-02		1.794E-01	2.631E-01	2.166E-02	0.198

Sample ID : G245994002 Acquisition date : 12-FEB-2010 12:31:59

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.533E-02		1.048E-01	1.690E-01	1.215E-02	-0.209
AM-246	7.390E-02		1.391E-01	2.437E-01	1.681E-02	0.303
CM-247	1.659E-02		3.852E-02	6.413E-02	3.597E-03	0.259
CF-249	4.666E-02		3.915E-02	6.963E-02	3.889E-03	0.670
CF-251	-2.456E-02		1.323E-01	2.116E-01	1.118E-02	-0.116

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994002            *
* Acquisition date : 12-FEB-2010 12:31:59 Detector SN#     :                *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.56     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245994002           Analyst initials: MXR1            *
* Batch Number     : 948812               Sample Quantity : 1.3062E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.997E+01	2.038E+00	2.922E-01	1.040E+00
CD-109	2.535E+00	9.646E-01	7.108E-01	4.921E-01
SN-126	2.492E-01	9.482E-02	7.018E-02	4.838E-02
BA-137M	1.428E-01	6.286E-02	2.909E-02	3.207E-02
CS-137	1.509E-01	6.646E-02	3.075E-02	3.391E-02
TL-208	4.770E-01	8.302E-02	2.945E-02	4.236E-02
BI-211	4.807E+00	5.763E-01	1.705E-01	2.941E-01
PB-212	1.735E+00	1.660E-01	4.699E-02	8.471E-02
PO-212	1.735E+00	1.660E-01	4.699E-02	8.471E-02
BI-214	1.359E+00	2.041E-01	5.513E-02	1.041E-01
PB-214	1.672E+00	2.180E-01	5.942E-02	1.112E-01
PO-214	1.672E+00	2.180E-01	5.942E-02	1.112E-01
PO-216	1.735E+00	1.660E-01	4.699E-02	8.471E-02
PO-218	1.672E+00	2.180E-01	5.942E-02	1.112E-01
RA-224	5.429E+00	1.367E+00	5.343E-01	6.973E-01
RA-226	1.359E+00	2.041E-01	5.513E-02	1.041E-01
AC-228	1.674E+00	3.269E-01	1.104E-01	1.668E-01
RA-228	1.674E+00	3.269E-01	1.104E-01	1.668E-01
TH-228	1.761E+00	1.685E-01	4.770E-02	8.599E-02
TH-230	1.359E+00	2.041E-01	5.513E-02	1.041E-01
TH-232	1.674E+00	3.269E-01	1.104E-01	1.668E-01
TH-234	5.429E+00	2.144E+00	1.158E+00	1.094E+00
U-234	1.359E+00	2.041E-01	5.513E-02	1.041E-01
NP-237	7.319E-01	3.153E-01	2.223E-01	1.609E-01
U-238	5.429E+00	2.144E+00	1.158E+00	1.094E+00
AM-243	3.398E-01	8.485E-02	4.959E-02	4.329E-02
ANH-511	1.068E-01	6.317E-02	2.446E-02	3.223E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-8.859E-02	3.141E-01	2.655E-01	1.603E-01	NOT IDENT.
NA-22	-4.603E-02	4.127E-02	3.084E-02	2.106E-02	NOT IDENT.
NA-24	4.096E+05	6.179E+05	0.000E+00	3.152E+05	SHORT HLIF
AL-26	3.033E-03	2.615E-02	2.223E-02	1.334E-02	NOT IDENT.
TI-44	4.036E-01	6.431E-02	4.607E-02	3.281E-02	FAIL ABUN
SC-46	7.606E-04	3.826E-02	3.187E-02	1.952E-02	FAIL ABUN
V-48	1.452E-02	6.273E-02	5.315E-02	3.201E-02	NOT IDENT.
CR-51	-1.617E-01	3.643E-01	3.128E-01	1.859E-01	NOT IDENT.
MN-52	-1.249E-01	1.921E-01	1.447E-01	9.801E-02	NOT IDENT.
MN-54	6.183E-03	3.854E-02	3.259E-02	1.966E-02	NOT IDENT.
CO-56	-2.716E-02	3.707E-02	2.856E-02	1.891E-02	FAIL ABUN
CO-57	1.467E-02	2.575E-02	2.278E-02	1.314E-02	NOT IDENT.
CO-58	-2.233E-02	3.657E-02	2.868E-02	1.866E-02	NOT IDENT.
FE-59	-6.577E-02	8.307E-02	6.568E-02	4.238E-02	NOT IDENT.
CO-60	-2.786E-02	3.672E-02	2.819E-02	1.874E-02	NOT IDENT.
ZN-65	-1.046E-01	9.164E-02	5.607E-02	4.676E-02	NOT IDENT.
GE-68	-2.397E-01	1.251E+00	1.057E+00	6.382E-01	NOT IDENT.
AS-73	9.360E-02	8.075E-01	7.219E-01	4.120E-01	NOT IDENT.
AS-74	8.624E-02	8.710E-02	7.945E-02	4.444E-02	NOT IDENT.
SE-75	2.787E-02	4.399E-02	3.692E-02	2.244E-02	NOT IDENT.
BR-77	-9.824E-01	9.943E+00	8.468E+00	5.073E+00	FAIL ABUN
SR-82	-3.620E-01	3.899E-01	2.998E-01	1.990E-01	NOT IDENT.
RB-83	3.823E-06	6.693E-02	5.741E-02	3.415E-02	NOT IDENT.
RB-84	1.363E-02	6.431E-02	5.465E-02	3.281E-02	NOT IDENT.
KR-85	1.241E+01	8.495E+00	7.059E+00	4.334E+00	NOT IDENT.
SR-85	6.356E-02	4.351E-02	3.616E-02	2.220E-02	NOT IDENT.
RB-86	-4.168E-01	7.978E-01	6.542E-01	4.071E-01	NOT IDENT.
Y-88	9.734E-03	3.054E-02	2.692E-02	1.558E-02	NOT IDENT.
ZR-88	-2.500E-02	3.004E-02	2.481E-02	1.532E-02	NOT IDENT.
Y-91	-4.210E+00	1.750E+01	1.462E+01	8.929E+00	NOT IDENT.
NB-94	2.089E-02	3.204E-02	2.840E-02	1.635E-02	NOT IDENT.
NB-95	5.874E-02	4.420E-02	4.051E-02	2.255E-02	NOT IDENT.
NB-95M	4.702E-01	1.644E-01	1.363E-01	8.387E-02	NOT IDENT.
ZR-95	-2.010E-02	7.289E-02	5.979E-02	3.719E-02	NOT IDENT.
NB-97	7.318E+04	9.690E+04	0.000E+00	4.944E+04	SHORT HLIF
ZR-97	5.252E+06	1.894E+06	0.000E+00	9.665E+05	SHORT HLIF
MO-99	-5.961E+00	1.138E+01	9.109E+00	5.805E+00	NOT IDENT.
TC-99M	-3.946E+16	3.350E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.507E-02	3.574E-02	2.920E-02	1.824E-02	NOT IDENT.
RH-102	-3.376E-03	2.971E-02	2.542E-02	1.516E-02	NOT IDENT.
RU-103	1.697E-03	3.722E-02	3.211E-02	1.899E-02	FAIL ABUN
RH-106	3.548E-02	3.005E-01	2.577E-01	1.533E-01	FAIL ABUN
RU-106	3.548E-02	3.005E-01	2.577E-01	1.533E-01	FAIL ABUN
AG-108M	-1.049E-02	3.020E-02	2.553E-02	1.541E-02	NOT IDENT.
AG-110M	3.045E-02	3.826E-02	3.049E-02	1.952E-02	NOT IDENT.
IN-111	4.856E-01	1.124E+00	8.506E-01	5.736E-01	NOT IDENT.
IN-113M	-2.143E-02	4.333E-02	3.660E-02	2.211E-02	NOT IDENT.
SN-113	-2.143E-02	4.333E-02	3.660E-02	2.211E-02	NOT IDENT.
IN-114M	-1.062E-01	2.212E-01	1.596E-01	1.128E-01	NOT IDENT.
CD-115	-5.229E+00	1.010E+01	8.321E+00	5.154E+00	NOT IDENT.
SN-117M	-3.571E-02	5.810E-02	4.855E-02	2.964E-02	NOT IDENT.
SB-122	1.412E+00	2.564E+00	1.990E+00	1.308E+00	NOT IDENT.
I-123	-3.659E+06	5.399E+06	0.000E+00	2.755E+06	SHORT HLIF
TE-123M	-2.037E-02	3.006E-02	2.504E-02	1.534E-02	NOT IDENT.
I-124	-5.299E-01	7.220E-01	4.880E-01	3.684E-01	NOT IDENT.
SB-124	-5.856E-02	6.632E-02	4.466E-02	3.384E-02	FAIL ABUN
SB-125	5.070E-02	9.029E-02	8.087E-02	4.607E-02	FAIL ABUN
TE-125M	-1.027E+01	9.778E+00	8.137E+00	4.989E+00	NOT IDENT.
I-126	-8.146E-02	2.119E-01	1.484E-01	1.081E-01	NOT IDENT.
SB-126	1.823E-01	1.474E-01	1.268E-01	7.520E-02	FAIL ABUN
SB-127	-1.093E+00	1.338E+00	1.050E+00	6.825E-01	NOT IDENT.
XE-127	-1.624E-02	5.520E-02	4.256E-02	2.816E-02	NOT IDENT.
I-131	6.208E-02	1.141E-01	1.025E-01	5.820E-02	NOT IDENT.
TE-132	-6.642E-02	7.188E-01	6.040E-01	3.667E-01	NOT IDENT.
BA-133	3.702E-02	4.446E-02	3.602E-02	2.268E-02	NOT IDENT.
I-133	-8.164E+02	5.397E+03	0.000E+00	2.754E+03	SHORT HLIF
CS-134	1.109E-01	7.572E-02	4.457E-02	3.863E-02	FAIL ABUN
CS-135	4.128E-01	1.801E-01	1.559E-01	9.190E-02	NOT IDENT.
I-135	2.177E+14	4.369E+15	0.000E+00	2.229E+15	SHORT HLIF
CS-136	1.243E-01	9.658E-02	9.243E-02	4.927E-02	FAIL ABUN
CE-139	-4.269E-03	3.128E-02	2.661E-02	1.596E-02	NOT IDENT.
BA-140	-4.448E-02	2.486E-01	2.097E-01	1.268E-01	NOT IDENT.
LA-140	2.482E-02	7.929E-02	6.945E-02	4.045E-02	FAIL ABUN
CE-141	3.322E-02	6.800E-02	5.829E-02	3.469E-02	NOT IDENT.
CE-143	1.139E+03	3.034E+02	0.000E+00	1.548E+02	SHORT HLIF
CE-144	-2.278E-01	2.368E-01	1.785E-01	1.208E-01	NOT IDENT.
PM-144	1.891E-02	3.332E-02	2.935E-02	1.700E-02	NOT IDENT.
PR-144	1.281E+00	2.258E+00	1.989E+00	1.152E+00	NOT IDENT.

PM-146	3.617E-02	4.194E-02	3.813E-02	2.140E-02	NOT IDENT.
ND-147	-1.158E-02	5.392E-01	4.613E-01	2.751E-01	FAIL ABUN
PM-149	-6.799E+00	9.016E+01	7.937E+01	4.600E+01	NOT IDENT.
EU-152	-4.878E-02	1.537E-01	8.905E-02	7.840E-02	FAIL ABUN
GD-153	3.016E-02	9.151E-02	7.065E-02	4.669E-02	NOT IDENT.
EU-154	-8.964E-02	1.120E-01	8.673E-02	5.714E-02	NOT IDENT.
EU-155	6.554E-02	1.127E-01	1.001E-01	5.751E-02	FAIL ABUN
TB-160	2.264E-02	1.277E-01	1.082E-01	6.517E-02	FAIL ABUN
HO-166M	1.666E-02	5.555E-02	4.803E-02	2.834E-02	NOT IDENT.
TM-171	-1.256E+01	3.344E+01	2.553E+01	1.706E+01	NOT IDENT.
LU-176	-1.067E-02	2.493E-02	2.089E-02	1.272E-02	FAIL ABUN
LU-177	3.443E+00	1.524E+00	1.090E+00	7.774E-01	FAIL ABUN
LU-177M	2.301E-01	1.964E-01	1.622E-01	1.002E-01	NOT IDENT.
HF-181	-3.355E-02	3.986E-02	3.220E-02	2.034E-02	NOT IDENT.
W-181	5.740E-01	4.416E-01	3.589E-01	2.253E-01	NOT IDENT.
TA-182	-3.390E-02	1.851E-01	1.554E-01	9.445E-02	FAIL ABUN
RE-183	7.885E-02	1.135E-01	9.986E-02	5.791E-02	FAIL ABUN
RE-184	1.956E-02	2.457E-01	2.072E-01	1.253E-01	NOT IDENT.
OS-185	-3.787E-02	4.055E-02	3.156E-02	2.069E-02	NOT IDENT.
RE-188	2.439E-01	1.790E-01	1.612E-01	9.133E-02	NOT IDENT.
W-188	2.133E-01	8.199E+00	6.316E+00	4.183E+00	FAIL ABUN
IR-192	-1.710E-02	3.245E-02	2.771E-02	1.655E-02	FAIL ABUN
AU-195	3.037E-01	2.612E-01	2.091E-01	1.332E-01	FAIL ABUN
TL-200	-1.517E+02	4.356E+02	0.000E+00	2.222E+02	SHORT HLIF
TL-201	9.508E-01	7.185E+00	6.178E+00	3.666E+00	NOT IDENT.
TL-202	4.189E-02	6.594E-02	5.933E-02	3.364E-02	NOT IDENT.
HG-203	-2.755E-02	4.178E-02	3.363E-02	2.131E-02	NOT IDENT.
BI-207	-3.081E-02	4.656E-02	3.790E-02	2.375E-02	FAIL ABUN
TL-207	5.989E-01	7.741E-01	6.187E-01	3.949E-01	FAIL ABUN
PO-209	2.230E+00	6.939E+00	5.952E+00	3.541E+00	NOT IDENT.
BI-210	1.761E-01	3.403E+00	3.012E+00	1.736E+00	NOT IDENT.
PB-210	1.761E-01	3.403E+00	3.012E+00	1.736E+00	NOT IDENT.
PO-210	1.761E-01	3.403E+00	3.012E+00	1.736E+00	NOT IDENT.
PB-211	4.397E-02	1.041E+00	7.886E-01	5.312E-01	NOT IDENT.
BI-212	8.213E-01	4.497E-01	3.359E-01	2.294E-01	FAIL ABUN
PO-215	5.989E-01	7.741E-01	6.187E-01	3.949E-01	FAIL ABUN
RN-219	-1.378E-01	4.123E-01	3.512E-01	2.104E-01	FAIL ABUN
RN-220	-7.310E-01	2.369E+01	2.021E+01	1.209E+01	NOT IDENT.
RA-223	5.989E-01	7.741E-01	6.187E-01	3.949E-01	FAIL ABUN
AC-227	5.986E-02	3.999E-01	3.382E-01	2.040E-01	FAIL ABUN
TH-227	5.986E-02	3.999E-01	3.382E-01	2.041E-01	FAIL ABUN
TH-229	7.950E-02	5.435E-01	4.648E-01	2.773E-01	FAIL ABUN
PA-231	1.845E+00	1.604E+00	1.445E+00	8.183E-01	FAIL ABUN
TH-231	5.989E-01	7.741E-01	6.187E-01	3.949E-01	FAIL ABUN
U-231	1.427E-01	1.256E+00	9.664E-01	6.408E-01	FAIL ABUN
PA-233	3.600E-02	6.145E-02	5.565E-02	3.135E-02	FAIL ABUN
PA-234	3.521E-02	3.054E-01	2.556E-01	1.558E-01	FAIL ABUN
PA-234M	7.864E+00	5.115E+00	4.450E+00	2.610E+00	FAIL ABUN
U-235	1.335E-01	2.264E-01	1.941E-01	1.155E-01	FAIL ABUN
NP-236	-8.578E-02	8.491E-02	6.969E-02	4.332E-02	NOT IDENT.
NP-239	-3.441E-02	1.958E-01	1.687E-01	9.989E-02	FAIL ABUN
AM-241	5.201E-02	1.758E-01	1.387E-01	8.968E-02	NOT IDENT.
CM-243	-3.533E-02	1.027E-01	8.834E-02	5.239E-02	FAIL ABUN
AM-246	7.390E-02	1.363E-01	1.227E-01	6.954E-02	NOT IDENT.
CM-247	1.659E-02	3.775E-02	3.281E-02	1.926E-02	NOT IDENT.
CF-249	4.666E-02	3.837E-02	3.564E-02	1.958E-02	NOT IDENT.
CF-251	-2.456E-02	1.296E-01	1.097E-01	6.614E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.50	379.9812
46.50	379.9812
46.50	379.9812
48.70	384.8916
49.72	417.5532
51.35	382.1850
52.39	406.1307
52.97	413.2548
53.15	413.3401
53.44	388.0013
54.07	406.9072
56.28	442.3113
56.28	453.1251
57.37	0.0000
57.53	408.1412
57.53	408.1424
57.60	408.1725
57.98	434.8634
57.98	434.8634
59.32	451.2696
59.32	451.2696
59.40	451.3080
59.54	451.3760
59.72	451.4625
60.01	407.3893
61.10	434.7338
61.14	434.7514
61.30	445.8927
63.00	512.8154
63.29	512.9691
63.29	512.9691
63.58	513.1222
64.28	537.6783
65.12	533.3759
65.20	533.4189
65.20	533.4189
66.05	554.5338
66.72	564.4465
66.83	564.5094
66.91	567.7355
67.20	567.8989
67.20	567.8989
67.75	549.1089
67.85	565.0836
68.90	597.5372
68.90	597.5372
69.30	597.7730
69.67	594.0038
70.82	579.4995
70.82	579.4995
70.83	569.9275
72.80	596.5974
72.87	606.2358
72.87	606.2358
74.67	554.7925
74.81	554.8665
74.81	554.8665
74.81	554.8665
74.81	554.8665
74.81	554.8665
74.81	554.8665
74.81	554.8665
74.97	554.9489
75.28	555.1095
75.70	555.3272
77.11	556.0542
77.11	556.0542

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77.11	556.0542
77.11	556.0542
77.11	556.0542
77.11	556.0542
78.38	482.3419
79.62	516.6877
79.80	516.7720
79.80	516.7720
80.11	550.7340
80.18	550.7674
80.30	550.8279
80.30	550.8279
80.57	608.9575
81.00	620.4741
81.07	620.5117
81.07	620.5117
81.07	620.5117
81.07	620.5117
82.60	544.6987
83.37	518.8235
83.78	519.0117
83.78	519.0117
83.78	519.0117
83.78	519.0117
84.21	525.2686
84.90	515.8828
85.43	535.5355
86.29	550.5078
86.50	584.6155
86.54	584.6353
86.59	584.6617
86.72	584.7278
86.79	584.7609
86.94	643.1599
87.30	643.3586
87.30	643.3586
87.30	643.3586
87.30	643.3586
87.30	643.3586
87.30	643.3586
87.30	643.3586
87.57	513.6318
87.88	513.7673
88.03	513.8330
88.36	513.9781
88.47	514.0264
89.95	514.6724
91.11	515.1733
92.29	515.6819
92.38	515.7206
92.38	515.7206
93.35	516.1345
94.00	516.4111
94.67	384.8194
94.67	384.8209
94.90	397.9416
94.90	397.9416
94.90	397.9416
94.90	397.9416
95.87	432.5320
95.87	432.5320
96.73	416.5010
97.43	367.7083
98.44	336.9302
98.44	336.9315
98.88	335.4135
99.55	331.4998
99.55	331.4998
99.86	330.2169
100.00	335.7125
100.10	335.7401
103.18	428.9003
103.76	402.4047
105.00	363.7445
105.31	366.9156
108.00	398.5682
109.28	411.3242

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111.00	365.4055
111.76	383.1712
112.95	363.8688
115.19	320.9812
116.30	335.7478
117.00	349.3966
117.00	349.3966
117.66	345.4146
121.11	323.3928
121.62	319.3482
121.78	319.3845
122.06	312.1639
122.32	323.6693
122.32	323.6693
122.32	323.6693
122.32	323.6693
123.07	324.8826
127.23	370.9395
129.76	331.4125
131.20	323.3598
133.02	367.3730
133.54	383.1635
135.34	371.7227
136.00	342.4701
136.25	342.5273
136.48	333.1219
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140.51	0.0000
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142.65	352.4032
143.76	337.8735
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144.24	349.5965
144.24	349.5965
144.24	349.5965
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145.44	343.5223
147.16	393.6294
152.43	365.2061
152.70	367.3901
153.22	362.1980
154.21	349.6654
154.21	349.6654
154.21	349.6654
154.21	349.6654
155.03	303.0539
156.02	318.1346
158.56	352.7279
159.00	0.0000
159.00	349.6236
160.31	362.7000
161.27	311.6758
162.32	301.1913
162.64	304.4542
163.35	310.9947
163.89	316.4399
165.85	326.4383
167.43	316.0303
171.28	314.5919
171.86	331.8817
172.10	323.3329
176.55	308.0034
176.60	297.2424
181.06	278.1259
184.41	314.9897
185.71	303.0905
186.00	303.1396
190.27	324.6842
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193.63	306.5743
197.04	297.3316
198.01	309.4701
198.60	320.4679
200.40	297.8606
201.83	328.6561
202.84	324.8250
205.31	315.0330

208.36	308.5178
208.81	294.7811
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209.75	238.5694
210.97	275.5798
215.65	237.5255
216.55	269.5370
218.09	273.0494
222.10	238.2918
223.80	272.7191
226.40	244.3221
227.00	231.1243
227.08	231.1339
227.20	223.4049
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228.18	265.5579
228.18	265.5579
231.56	0.0000
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236.00	275.4448
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238.63	232.4191
238.63	232.4191
238.63	232.4191
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241.98	232.7858
241.98	232.7858
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252.85	217.1680
254.15	0.0000
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256.20	211.8939
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260.90	184.2548
262.80	203.5256
264.65	163.3411
268.24	174.3351
268.79	196.9264
269.46	190.9702
269.46	190.9702
269.46	190.9702
269.46	190.9702
271.23	210.3798
273.65	213.9158
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277.35	199.1709
277.60	199.1924
277.60	199.1924
278.00	203.7552
278.60	205.7484
279.20	210.6549
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281.68	206.7975
283.67	174.2930
284.30	187.9601
285.00	198.0069
285.90	200.8073
286.10	200.8262
286.10	200.8262
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291.72	212.5350
293.26	0.0000
293.70	192.9572
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295.21	150.5101

295.21	150.5101
295.96	127.7449
296.50	127.7739
297.23	127.8132
298.57	127.8833
299.80	167.5513
299.80	167.5513
300.09	167.5714
300.09	167.5714
300.09	167.5714
300.09	167.5714
300.12	167.5737
301.29	166.1301
302.84	167.7594
303.76	149.5142
303.91	149.5242
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304.40	146.5020
304.84	155.6853
306.84	178.2162
308.46	175.1735
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319.02	160.2576
319.41	170.4148
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323.87	166.1001
323.87	166.1001
323.87	166.1001
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334.20	142.0598
334.30	142.0654
338.28	166.0994
338.28	166.0994
338.28	166.0994
338.28	166.0994
338.32	166.1016
338.32	166.1016
338.32	166.1016
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340.57	188.8429
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351.92	149.2324
351.92	149.2324
351.92	149.2324
355.39	0.0000
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364.48	132.1187
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367.43	155.7101
367.94	0.0000
369.80	137.0675
374.96	152.3694
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387.95	108.6618
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391.69	138.1333
392.90	143.8693
398.62	126.1341
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402.60	127.6779
404.84	128.3044
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411.60	153.9997
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415.30	120.8096

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439.47	99.0193
439.56	99.0231
439.89	106.7250
443.98	101.0894
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445.03	87.6397
445.03	87.6397
445.03	87.6397
445.03	87.6397
453.90	93.6822
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475.06	114.7173
475.35	109.8660
476.78	99.2147
477.59	107.9947
477.96	107.0338
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511.00	104.1665
511.85	108.1235
511.85	108.1235
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513.99	108.1920
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529.87	0.0000
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537.32	91.0971
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555.20	100.5093
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563.90	109.7288
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569.32	105.8965
569.50	105.9017
569.67	81.5949
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574.00	88.0258
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592.07	97.4997
593.00	104.5611
595.88	70.4324
600.56	88.1494
602.52	0.0000
602.71	97.4384
602.71	97.4384
603.60	85.6993
604.41	60.5068
604.70	55.4686
609.31	85.8280

609.31	85.8280
609.31	85.8280
609.31	85.8280
610.33	85.8508
612.46	79.1595
614.37	58.9785
618.01	70.8408
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621.84	73.9499
631.29	81.2383
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633.10	86.3551
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646.12	83.5815
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657.75	66.4457
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661.65	78.7896
661.65	78.7896
664.57	0.0000
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666.33	92.1973
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696.49	71.2034
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697.49	87.7351
698.33	80.5251
698.50	80.5289
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722.78	84.7970
722.78	84.7970
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724.18	93.4805
727.18	67.5613
733.00	72.8557
735.90	62.4902
739.58	78.1787
742.81	64.6747
744.21	63.6524
747.13	92.9329
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752.31	67.9517
753.82	65.8839
755.35	74.2744
756.15	79.5198
756.87	72.2074
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765.79	71.3037
766.42	71.3137
766.84	75.5156
776.49	85.1390
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778.57	92.5396
778.89	82.0295
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785.46	75.8285
792.07	59.7670

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796.30	68.6198
798.80	65.1354
801.93	61.6573
805.60	60.2953
810.29	64.5921
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817.79	53.0298
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819.60	54.1115
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831.96	69.1482
834.83	73.4473
836.80	0.0000
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848.13	58.7087
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856.80	65.9439
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867.32	42.8682
867.82	37.5131
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873.19	47.6888
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875.33	0.0000
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881.50	47.2914
883.24	53.7598
884.67	54.8511
889.25	54.9022
896.60	47.4364
898.02	61.4698
899.00	60.4037
903.28	55.3277
911.07	62.7111
911.07	62.7111
911.07	62.7111
919.63	48.1369
920.93	44.4173
925.00	45.5376
925.24	45.5396
926.50	37.9591
935.52	43.4590
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944.10	55.5023
946.00	56.6122
949.00	61.0025
962.29	69.1672
964.01	58.2656
966.15	51.0029
968.20	32.8008
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969.11	65.6133
969.11	65.6133
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983.50	40.5717
989.30	43.9092
996.32	43.9678
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1001.68	45.8455
1004.76	50.3281
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1038.57	39.6966
1038.76	0.0000
1045.16	48.9866
1046.59	48.9995
1048.07	34.2163

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1050.47	60.1361
1062.04	50.9896
1063.62	47.2958
1076.63	65.0639
1077.35	60.4244
1078.86	47.4244
1085.78	46.5515
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1112.02	43.6475
1112.84	46.3035
1115.52	60.9654
1120.29	44.9590
1120.29	44.9590
1120.29	44.9590
1120.29	44.9590
1120.51	44.9609
1121.28	44.9668
1124.00	0.0000
1129.67	53.2187
1131.51	0.0000
1147.95	0.0000
1167.94	48.1570
1173.22	43.4750
1175.09	52.9421
1177.93	61.4797
1189.05	52.1175
1204.90	60.8047
1205.75	0.0000
1213.00	67.5448
1221.42	63.8267
1230.97	57.2485
1235.34	49.1037
1236.41	0.0000
1238.25	55.6769
1246.25	59.0299
1260.41	0.0000
1271.85	38.4163
1274.45	49.9603
1274.54	55.7273
1291.56	31.7915
1298.22	0.0000
1312.09	35.7594
1325.50	35.8332
1325.50	35.8332
1332.49	39.7488
1333.61	32.9679
1360.21	29.2078
1362.66	0.0000
1365.15	37.9987
1368.21	22.3311
1368.53	0.0000
1376.25	30.1151
1384.27	26.8002
1394.10	27.3996
1395.20	28.3817
1407.95	22.5527
1434.06	23.6230
1436.60	23.6318
1457.56	0.0000
1460.81	29.6436
1489.15	19.8421
1509.49	16.9142
1596.49	19.1314
1620.62	13.6373
1678.03	0.0000
1691.02	17.3320
1691.02	17.3320
1706.46	0.0000
1750.46	0.0000
1764.49	21.1708
1764.49	21.1708
1764.49	21.1708
1764.49	21.1708
1770.23	15.8894
1771.40	53.5594
1791.20	0.0000
1808.65	10.3479

1836.01	10.3825

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994002

Total Uranium Activity	1.6212E+01	ug/g
Total Uranium Counting Unc.	6.3799E+00	ug/g
Total Uranium Tpu	3.2550E-06	ug/g
Total Uranium Mda	3.4454E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G245994002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 12:31:59.91    SAMPLE ALQT:  130.620 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.500E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.428E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.722E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.300E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:35:00.56

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994003.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:32:28
Sample ID         : G245994003           Sample quantity  : 1.17480E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:34.17  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948812                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.94*	155	533	1.17	125.86	121	10	2.16E-02	29.6	
2	0	76.39*	1343	1137	3.18	152.72	146	19	1.87E-01	6.7	
3	0	87.38	204	467	1.03	174.68	171	7	2.83E-02	18.9	
4	4	89.90	135	426	0.98	179.69	177	13	1.87E-02	24.6	2.94E+00
5	4	92.95*	214	470	1.31	185.78	177	13	2.98E-02	20.2	
6	0	129.65	70	429	1.13	259.09	252	10	9.70E-03	56.8	
7	0	154.22	58	233	0.76	308.15	305	7	8.11E-03	45.5	
8	0	186.12*	236	333	1.34	371.86	367	11	3.28E-02	16.9	
9	0	209.09	141	251	1.46	417.75	414	9	1.96E-02	21.8	
10	4	238.60*	1395	146	1.13	476.69	469	21	1.94E-01	3.1	1.93E+00
11	4	241.60	316	210	1.79	482.68	469	21	4.39E-02	14.1	
12	0	270.15	177	158	0.90	539.71	535	10	2.45E-02	15.3	
13	0	277.76	99	217	2.26	554.92	550	13	1.37E-02	32.4	
14	0	295.37	370	187	1.29	590.10	585	10	5.13E-02	8.7	
15	0	299.99	98	152	1.14	599.32	596	9	1.37E-02	24.6	
16	0	338.44*	293	178	1.12	676.14	671	12	4.06E-02	11.2	
17	0	351.96*	667	163	1.19	703.16	698	11	9.27E-02	5.4	
18	0	463.11	76	74	1.36	925.25	921	9	1.06E-02	23.3	
19	0	511.17*	128	140	1.82	1021.30	1015	14	1.78E-02	24.7	
20	0	583.27*	444	113	1.25	1165.39	1160	12	6.17E-02	6.8	
21	0	609.38*	434	96	1.53	1217.60	1212	12	6.03E-02	6.7	
22	0	727.35	103	55	1.41	1453.43	1448	10	1.44E-02	16.6	
23	0	794.99	48	48	1.06	1588.66	1585	10	6.65E-03	30.2	
24	0	861.20	55	49	1.28	1721.08	1715	11	7.68E-03	28.9	
25	0	911.30*	300	42	1.52	1821.28	1815	12	4.17E-02	7.3	
26	2	965.06	80	48	2.02	1928.79	1920	23	1.11E-02	21.9	2.04E+00
27	2	969.12*	192	40	1.70	1936.93	1920	23	2.66E-02	9.6	
28	0	1120.42	122	50	1.04	2239.60	2233	16	1.70E-02	15.6	
29	0	1237.90	59	21	1.35	2474.68	2469	12	8.17E-03	20.3	
30	0	1460.89	858	25	2.04	2921.05	2912	20	1.19E-01	3.7	
31	0	1588.86	28	16	3.41	3177.28	3171	12	3.83E-03	35.9	
32	0	1620.72	21	0	1.98	3241.10	3237	8	2.92E-03	21.8	
33	0	1764.40*	80	6	2.29	3528.88	3523	12	1.11E-02	13.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 14:35:03

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:32:28
Sample ID : G245994003 Sample quantity : 117.48 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:34.17 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.049E+01	2.345E+00	4.690E-01	4.090E-02	43.700
CD-109	+	88.03	*	2.581E+00	1.005E+00	1.165E+00	1.101E-01	2.216
SN-126	+	64.28		1.129E+00	6.872E-01	6.813E-01	9.865E-02	1.656
	+	86.94		1.055E+00	5.922E-01	5.418E-01	2.249E-01	1.947
	+	87.57	*	2.537E-01	9.879E-02	1.148E-01	1.080E-02	2.210
RE-188	+	155.03	*	2.119E-01	1.938E-01	2.600E-01	2.232E-02	0.815
		477.96		-3.491E+00	2.881E+00	4.146E+00	3.768E-01	-0.842
		633.10		-2.212E-01	2.658E+00	4.205E+00	4.180E-01	-0.053
HG-203		70.83		3.750E-01	9.690E-01	1.441E+00	1.882E-01	0.260
		72.87		8.137E-01	5.816E-01	8.888E-01	1.133E-01	0.915
		82.60		-9.364E-01	1.226E+00	1.544E+00	2.142E-01	-0.607
	+	279.20	*	1.082E-01	7.102E-02	6.516E-02	6.627E-03	1.661
TL-208	+	277.35		9.831E-01	6.508E-01	5.888E-01	7.829E-02	1.670
	+	510.84		6.332E-01	3.222E-01	2.113E-01	2.641E-02	2.997
	+	583.14	*	6.249E-01	1.070E-01	5.790E-02	5.953E-03	10.793
	+	860.37		7.266E-01	4.267E-01	4.337E-01	4.597E-02	1.675
BI-211		72.87		4.097E+00	2.899E+00	4.475E+00	3.534E-01	0.915
	+	351.07	*	4.151E+00	6.006E-01	3.324E-01	3.185E-02	12.487
BI-212	+	727.18	*	1.244E+00	4.368E-01	4.447E-01	5.048E-02	2.796
		785.46		8.749E-01	1.702E+00	2.953E+00	2.999E-01	0.296
	+	1620.62		2.100E+00	9.333E-01	1.939E+00	1.633E-01	1.083
PB-212		74.81		2.772E+00	5.014E-01	7.132E-01	8.802E-02	3.887
	+	77.11		3.853E+00	6.047E-01	2.652E-01	2.193E-02	14.532
	+	87.30		1.173E+00	4.717E-01	6.367E-01	8.726E-02	1.843
	+	238.63	*	1.904E+00	2.341E-01	8.259E-02	8.783E-03	23.050
	+	300.09		2.067E+00	1.042E+00	1.074E+00	1.228E-01	1.926
PO-212		74.81		2.772E+00	5.014E-01	7.132E-01	8.802E-02	3.887
	+	77.11		3.853E+00	6.047E-01	2.652E-01	2.193E-02	14.532
	+	87.30		1.173E+00	4.717E-01	6.367E-01	8.726E-02	1.843
		115.19		5.221E-01	3.351E+00	5.435E+00	4.565E-01	0.096
	+	238.63	*	1.904E+00	2.341E-01	8.259E-02	8.783E-03	23.050
	+	300.09		2.067E+00	1.042E+00	1.074E+00	1.228E-01	1.926
BI-214	+	609.31	*	1.152E+00	2.001E-01	1.142E-01	1.271E-02	10.088
	+	1120.29		1.659E+00	5.487E-01	4.182E-01	4.524E-02	3.968

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1764.49		1.467E+00	4.111E-01	2.408E-01	1.978E-02	6.093
PB-214		74.81		4.776E+00	8.200E-01	1.229E+00	1.345E-01	3.887
	+	77.11		6.606E+00	1.152E+00	4.546E-01	5.112E-02	14.532
	+	87.30		2.010E+00	7.979E-01	1.091E+00	1.324E-01	1.843
	+	241.98		2.591E+00	7.846E-01	4.972E-01	5.560E-02	5.211
	+	295.21		1.363E+00	2.854E-01	2.041E-01	2.382E-02	6.677
	+	351.92	*	1.444E+00	2.221E-01	1.109E-01	1.208E-02	13.027
PO-214		74.81		4.776E+00	8.200E-01	1.229E+00	1.345E-01	3.887
	+	77.11		6.606E+00	1.152E+00	4.546E-01	5.112E-02	14.532
	+	87.30		2.010E+00	7.979E-01	1.091E+00	1.324E-01	1.843
	+	241.98		2.591E+00	7.846E-01	4.972E-01	5.560E-02	5.211
	+	295.21		1.363E+00	2.854E-01	2.041E-01	2.382E-02	6.677
	+	351.92	*	1.444E+00	2.221E-01	1.109E-01	1.208E-02	13.027
PO-216		74.81		2.772E+00	5.014E-01	7.132E-01	8.802E-02	3.887
	+	77.11		3.853E+00	6.047E-01	2.652E-01	2.193E-02	14.532
	+	87.30		1.173E+00	4.717E-01	6.367E-01	8.726E-02	1.843
	+	238.63	*	1.904E+00	2.341E-01	8.259E-02	8.783E-03	23.050
	+	300.09		2.067E+00	1.042E+00	1.074E+00	1.228E-01	1.926
PO-218		74.81		4.776E+00	8.200E-01	1.229E+00	1.345E-01	3.887
	+	77.11		6.606E+00	1.152E+00	4.546E-01	5.112E-02	14.532
	+	87.30		2.010E+00	7.979E-01	1.091E+00	1.324E-01	1.843
	+	241.98		2.591E+00	7.846E-01	4.972E-01	5.560E-02	5.211
	+	295.21		1.363E+00	2.854E-01	2.041E-01	2.382E-02	6.677
	+	351.92	*	1.444E+00	2.221E-01	1.109E-01	1.208E-02	13.027
RA-224	+	240.98	*	4.913E+00	1.462E+00	9.397E-01	9.083E-02	5.228
RA-226	+	609.31	*	1.152E+00	2.001E-01	1.142E-01	1.271E-02	10.088
	+	1120.29		1.659E+00	5.487E-01	4.182E-01	4.524E-02	3.968
	+	1764.49		1.467E+00	4.111E-01	2.408E-01	1.978E-02	6.093
AC-228	+	338.32		2.007E+00	9.449E-01	3.528E-01	1.461E-01	5.690
	+	911.07	*	1.860E+00	3.551E-01	2.104E-01	2.577E-02	8.842
	+	969.11		2.092E+00	6.383E-01	3.445E-01	8.176E-02	6.073
RA-228	+	338.32		2.007E+00	9.449E-01	3.528E-01	1.461E-01	5.690
	+	911.07	*	1.860E+00	3.551E-01	2.104E-01	2.577E-02	8.842
	+	969.11		2.092E+00	6.383E-01	3.445E-01	8.176E-02	6.073
TH-228		74.81		2.814E+00	4.369E-01	7.239E-01	5.892E-02	3.887
	+	77.11		3.911E+00	6.139E-01	2.692E-01	2.226E-02	14.532
	+	87.30		1.191E+00	4.638E-01	6.463E-01	6.057E-02	1.843
	+	238.63	*	1.932E+00	2.376E-01	8.384E-02	8.916E-03	23.050
	+	300.09		2.098E+00	1.618E+00	1.090E+00	6.480E-01	1.926
TH-230	+	609.31	*	1.152E+00	2.001E-01	1.142E-01	1.271E-02	10.088
	+	1120.29		1.659E+00	5.487E-01	4.182E-01	4.524E-02	3.968
	+	1764.49		1.467E+00	4.111E-01	2.408E-01	1.978E-02	6.093
TH-232	+	338.32		2.007E+00	4.867E-01	3.528E-01	3.305E-02	5.690
	+	911.07	*	1.860E+00	3.551E-01	2.104E-01	2.577E-02	8.842
	+	969.11		2.092E+00	6.383E-01	3.445E-01	8.176E-02	6.073
TH-234	+	63.29	*	2.851E+00	1.758E+00	1.640E+00	2.849E-01	1.739
	+	92.38		1.766E+00	7.831E-01	7.221E-01	1.324E-01	2.446
U-234	+	609.31	*	1.152E+00	2.001E-01	1.142E-01	1.271E-02	10.088
	+	1120.29		1.659E+00	5.487E-01	4.182E-01	4.524E-02	3.968

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1764.49		1.467E+00	4.111E-01	2.408E-01	1.978E-02	6.093
NP-237	+	86.50	*	7.450E-01	3.283E-01	3.717E-01	8.409E-02	2.004
		95.87		-1.335E+00	1.022E+00	1.286E+00	3.184E-01	-1.038
U-238	+	63.29	*	2.851E+00	1.758E+00	1.640E+00	2.849E-01	1.739
	+	92.38		1.766E+00	7.310E-01	7.221E-01	6.600E-02	2.446
ANH-511	+	511.00	*	1.368E-01	6.866E-02	4.564E-02	4.253E-03	2.997

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.066E-01	2.987E-01	4.385E-01	4.262E-02	-0.699
NA-22		1274.54	*	-1.904E-02	3.952E-02	5.961E-02	4.938E-03	-0.319
NA-24		1368.53	*	-5.702E-01	3.952E-02	Half-Life too short		
AL-26		1129.67		4.051E-01	1.677E+00	2.723E+00	2.306E-01	0.149
		1808.65	*	-2.096E-02	3.179E-02	4.533E-02	3.682E-03	-0.462
TI-44		67.85		2.633E-02	3.982E-02	6.375E-02	4.797E-03	0.413
		78.38	*	3.046E-01	4.689E-02	7.598E-02	6.376E-03	4.009
SC-46		889.25	*	-2.882E-03	3.449E-02	5.648E-02	5.630E-03	-0.051
	+	1120.51		2.838E-01	9.196E-02	1.318E-01	1.127E-02	2.154
V-48		944.10		3.032E-01	8.618E-01	1.467E+00	1.432E-01	0.207
		983.50	*	-7.117E-02	6.908E-02	1.000E-01	9.561E-03	-0.711
		1312.09		1.928E-02	7.994E-02	1.324E-01	1.104E-02	0.146
CR-51		320.08	*	-3.295E-01	3.683E-01	5.750E-01	5.764E-02	-0.573
MN-52		744.21		2.103E-01	2.322E-01	4.149E-01	4.214E-02	0.507
		848.13		-5.876E+00	6.064E+00	8.965E+00	9.033E-01	-0.655
		935.52		3.739E-01	2.748E-01	4.997E-01	4.895E-02	0.748
		1246.25		-7.431E-01	6.683E+00	1.065E+01	8.752E-01	-0.070
		1333.61		-1.452E+00	5.107E+00	7.891E+00	6.611E-01	-0.184
		1434.06	*	7.089E-02	1.975E-01	3.479E-01	2.944E-02	0.204
MN-54		834.83	*	-2.529E-04	3.873E-02	6.422E-02	6.487E-03	-0.004
CO-56		846.75	*	-8.199E-03	3.474E-02	5.615E-02	5.659E-03	-0.146
		977.42		1.047E+00	2.781E+00	4.743E+00	4.549E-01	0.221
		1037.82		-8.816E-02	2.852E-01	4.498E-01	4.340E-02	-0.196
		1175.09		-1.749E+00	2.202E+00	3.257E+00	2.620E-01	-0.537
	+	1238.25		2.237E-01	9.293E-02	1.538E-01	1.301E-02	1.454
		1360.21		-1.026E-01	9.240E-01	1.523E+00	1.280E-01	-0.067
		1771.40		-2.676E-01	2.321E-01	2.882E-01	2.364E-02	-0.929
CO-57		122.06	*	-1.372E-02	2.505E-02	3.918E-02	3.270E-03	-0.350
		136.48		6.832E-02	2.057E-01	3.340E-01	3.024E-02	0.205
CO-58		810.76	*	1.813E-03	3.729E-02	6.226E-02	6.322E-03	0.029
FE-59		142.65		-5.261E-01	2.605E+00	4.123E+00	3.483E-01	-0.128
		192.34		1.788E-01	9.018E-01	1.493E+00	2.050E-01	0.120
		1099.22	*	-2.826E-02	7.664E-02	1.190E-01	1.122E-02	-0.238
		1291.56		3.226E-02	1.171E-01	1.949E-01	1.854E-02	0.165
CO-60		1173.22		1.239E-02	4.367E-02	7.285E-02	5.857E-03	0.170
		1332.49	*	-2.027E-02	4.045E-02	6.057E-02	5.073E-03	-0.335
ZN-65		1115.52	*	1.001E-02	9.784E-02	1.396E-01	1.202E-02	0.072
GE-68		1077.35	*	1.211E-01	1.186E+00	1.957E+00	1.746E-01	0.062

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	2.160E-02	5.501E-01	9.076E-01	6.738E-02	0.024
AS-74		595.88	*	2.051E-02	8.611E-02	1.409E-01	1.379E-02	0.146
		634.78		-1.121E-01	3.070E-01	5.007E-01	4.981E-02	-0.224
SE-75		66.05		-4.743E-01	4.398E+00	6.419E+00	6.072E-01	-0.074
		96.73		-1.717E+00	8.515E-01	1.038E+00	1.433E-01	-1.655
		121.11		1.291E-01	1.309E-01	2.188E-01	2.409E-02	0.590
		136.00		-7.627E-03	3.935E-02	6.238E-02	5.271E-03	-0.122
		198.60		3.019E-01	1.653E+00	2.820E+00	2.838E-01	0.107
		264.65	*	-1.425E-03	4.041E-02	6.256E-02	6.194E-03	-0.023
		279.53		3.406E-02	1.065E-01	1.806E-01	1.848E-02	0.189
		303.91		-1.165E+00	2.213E+00	3.082E+00	3.814E-01	-0.378
		400.65		7.139E-02	2.342E-01	3.919E-01	4.301E-02	0.182
BR-77	+	87.88		5.426E+02	2.113E+02	3.180E+02	3.003E+01	1.706
		200.40		1.088E+02	1.439E+02	2.510E+02	2.309E+01	0.434
	+	239.00		2.974E+02	3.406E+01	4.011E+01	3.869E+00	7.415
		249.79		-3.134E+01	5.930E+01	9.645E+01	9.401E+00	-0.325
		281.68		-7.413E+00	9.332E+01	1.361E+02	1.353E+01	-0.054
		297.23		2.479E+02	8.044E+01	1.117E+02	1.099E+01	2.220
		303.76		-8.174E+01	1.841E+02	2.587E+02	2.531E+01	-0.316
		439.47		-6.409E+01	1.409E+02	2.218E+02	1.948E+01	-0.289
		484.57		-6.674E+01	2.151E+02	3.396E+02	3.102E+01	-0.197
		520.65	*	2.175E-01	9.932E+00	1.606E+01	1.507E+00	0.014
		574.64		-4.042E+01	2.050E+02	3.234E+02	3.132E+01	-0.125
		578.91		-5.079E+01	9.830E+01	1.289E+02	1.251E+01	-0.394
		585.48		1.300E+03	2.779E+02	4.791E+02	4.666E+01	2.713
		755.35		1.333E+02	1.733E+02	3.051E+02	3.100E+01	0.437
		817.79		2.341E+01	1.193E+02	2.020E+02	2.045E+01	0.116
SR-82		698.33		-5.530E+00	3.301E+01	5.463E+01	5.523E+00	-0.101
		776.49	*	-3.173E-01	3.836E-01	5.912E-01	6.007E-02	-0.537
		1395.20		-1.987E+00	8.630E+00	1.393E+01	1.175E+00	-0.143
RB-83		520.41	*	2.559E-02	6.562E-02	1.094E-01	1.026E-02	0.234
		529.64		-5.871E-02	1.038E-01	1.589E-01	1.499E-02	-0.370
		552.65		1.488E-02	1.970E-01	3.190E-01	3.053E-02	0.047
RB-84		881.50	*	3.033E-02	6.158E-02	1.069E-01	1.069E-02	0.284
KR-85		513.99	*	1.185E+01	8.023E+00	1.288E+01	1.203E+00	0.920
SR-85		513.99	*	6.068E-02	4.110E-02	6.597E-02	6.160E-03	0.920
RB-86		1076.63	*	3.463E-01	7.350E-01	1.259E+00	1.124E-01	0.275
Y-88		898.02		-7.660E-03	3.857E-02	6.260E-02	6.246E-03	-0.122
		1836.01	*	-5.550E-03	2.673E-02	4.158E-02	3.355E-03	-0.133
ZR-88		392.90	*	-1.067E-02	2.898E-02	4.625E-02	3.868E-03	-0.231
Y-91		1204.90	*	-2.798E-01	1.727E+01	2.789E+01	2.265E+00	-0.010
NB-94		702.63	*	3.145E-02	3.339E-02	5.962E-02	6.032E-03	0.528
		871.10		9.008E-04	3.316E-02	5.500E-02	5.512E-03	0.016
NB-95		765.79	*	-3.334E-02	4.126E-02	6.397E-02	6.502E-03	-0.521
NB-95M		235.69	*	1.011E-01	1.229E-01	1.913E-01	2.055E-02	0.529
ZR-95		724.18		9.399E-02	9.776E-02	1.573E-01	1.697E-02	0.597
		756.15	*	7.925E-02	7.583E-02	1.357E-01	1.480E-02	0.584
NB-97		657.90	*	-2.683E-02	7.583E-02	Half-Life too short		
		1024.50		-5.733E+00	7.583E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97		254.15		-7.924E-02	7.583E-02	Half-Life too short		
		355.39		1.364E+00	7.583E-02	Half-Life too short		
		507.63	*	1.614E+00	7.583E-02	Half-Life too short		
		602.52		-7.318E+00	7.583E-02	Half-Life too short		
		1021.30		2.717E+00	7.583E-02	Half-Life too short		
		1147.95		-1.183E+00	7.583E-02	Half-Life too short		
		1362.66		4.736E+00	7.583E-02	Half-Life too short		
		1750.46		-2.407E+00	7.583E-02	Half-Life too short		
MO-99		140.51		-5.939E+00	2.495E+01	3.902E+01	1.078E+01	-0.152
		181.06		-1.417E+01	1.815E+01	2.376E+01	4.381E+00	-0.596
		366.43		-3.362E+01	7.740E+01	1.234E+02	1.097E+01	-0.272
		739.58	*	1.168E+00	1.071E+01	1.807E+01	2.910E+00	0.065
		778.00		-4.929E+00	3.306E+01	5.438E+01	5.526E+00	-0.091
TC-99M		140.51	*	-6.814E+09	3.306E+01	Half-Life too short		
RH-101		127.23		9.533E-03	3.580E-02	5.192E-02	4.331E-03	0.184
		198.01	*	-4.417E-03	3.004E-02	5.053E-02	4.631E-03	-0.087
		325.23		-1.370E-01	2.318E-01	3.707E-01	3.540E-02	-0.370
RH-102		418.52		2.185E-01	2.764E-01	4.761E-01	4.095E-02	0.459
		475.06	*	-1.006E-03	2.667E-02	4.315E-02	3.912E-03	-0.023
		631.29		3.118E-03	5.247E-02	8.418E-02	8.363E-03	0.037
		697.49		2.792E-02	7.302E-02	1.261E-01	1.274E-02	0.221
		766.84		1.629E-02	1.047E-01	1.767E-01	1.796E-02	0.092
		1046.59		8.233E-02	1.124E-01	1.969E-01	1.802E-02	0.418
		1112.84		2.175E-01	2.382E-01	3.912E-01	3.374E-02	0.556
RU-103		497.08	*	9.332E-04	3.986E-02	6.465E-02	9.399E-03	0.014
	+	610.33		1.242E+01	2.718E+00	3.005E+00	5.214E-01	4.133
RH-106	+	511.85		6.831E-01	3.429E-01	4.759E-01	4.437E-02	1.435
		621.84	*	-6.911E-02	3.043E-01	4.749E-01	6.750E-02	-0.146
		1050.47		-8.649E-01	2.315E+00	3.633E+00	3.316E-01	-0.238
RU-106	+	511.85		6.831E-01	3.429E-01	4.759E-01	4.437E-02	1.435
		621.84	*	-6.911E-02	3.042E-01	4.749E-01	4.700E-02	-0.146
		1050.47		-8.649E-01	2.315E+00	3.633E+00	3.316E-01	-0.238
AG-108M		433.93	*	-1.500E-02	3.190E-02	5.012E-02	4.549E-03	-0.299
		614.37		6.388E-05	4.201E-02	5.852E-02	5.949E-03	0.001
		722.95		1.917E-02	4.530E-02	6.912E-02	7.210E-03	0.277
AG-110M		657.75	*	-1.229E-02	3.136E-02	5.098E-02	5.223E-03	-0.241
		677.61		1.531E-01	3.012E-01	5.255E-01	5.402E-02	0.291
		706.67		-1.227E-01	2.057E-01	3.277E-01	3.384E-02	-0.375
		763.93		-3.747E-02	1.578E-01	2.580E-01	2.676E-02	-0.145
		884.67		-2.590E-02	4.574E-02	6.963E-02	7.119E-03	-0.372
		937.48		-1.664E-01	1.233E-01	1.755E-01	1.766E-02	-0.948
		1384.27		-6.789E-02	1.466E-01	2.300E-01	1.996E-02	-0.295
IN-111		171.28		-4.907E-01	9.916E-01	1.530E+00	1.346E-01	-0.321
		245.39	*	3.767E-01	9.985E-01	1.518E+00	1.474E-01	0.248
IN-113M		391.69	*	-1.903E-02	4.327E-02	6.876E-02	5.931E-03	-0.277
SN-113		391.69	*	-1.903E-02	4.327E-02	6.876E-02	5.931E-03	-0.277
IN-114M		190.27	*	-5.913E-02	1.855E-01	2.723E-01	2.468E-02	-0.217
CD-115		260.90		-8.050E+01	1.160E+02	1.862E+02	1.832E+01	-0.432
		492.35		-1.450E+01	3.305E+01	5.144E+01	4.729E+00	-0.282

---- Non-Identified Nuclides ----

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		527.90	*	-8.268E+00	1.019E+01	1.518E+01	1.431E+00	-0.544
SN-117M		156.02		3.949E-01	2.473E+00	3.534E+00	3.038E-01	0.112
		158.56	*	3.741E-02	5.959E-02	8.678E-02	7.489E-03	0.431
SB-122		563.90	*	1.091E+00	2.039E+00	3.416E+00	3.290E-01	0.320
		692.80		-3.074E+01	4.148E+01	6.524E+01	6.590E+00	-0.471
I-123		159.00	*	2.328E+00	4.148E+01	Half-Life too short		
		528.96		-3.368E+02	4.148E+01	Half-Life too short		
TE-123M		159.00	*	1.295E-02	2.953E-02	4.518E-02	3.925E-03	0.287
I-124		602.71	*	-6.909E-01	6.801E-01	8.796E-01	8.636E-02	-0.785
		722.78		1.670E+00	4.635E+00	7.027E+00	7.127E-01	0.238
		1325.50		-1.792E+01	3.632E+01	5.464E+01	4.571E+00	-0.328
		1376.25		3.812E+01	3.044E+01	5.745E+01	4.839E+00	0.663
		1509.49		9.597E+00	1.417E+01	2.580E+01	2.187E+00	0.372
		1691.02		3.532E+00	3.065E+00	6.187E+00	5.159E-01	0.571
SB-124		602.71		-4.074E-02	4.011E-02	5.187E-02	5.093E-03	-0.785
		645.85		3.305E-01	4.806E-01	8.508E-01	8.878E-02	0.389
		709.31		1.438E+00	2.583E+00	4.519E+00	4.576E-01	0.318
		713.82		-8.695E-01	1.598E+00	2.549E+00	3.356E-01	-0.341
		722.78		1.428E-01	3.962E-01	6.007E-01	6.188E-02	0.238
	+	968.20		2.152E+01	4.617E+00	8.122E+00	7.830E-01	2.649
		1045.16		2.940E-02	2.442E+00	3.996E+00	3.663E-01	0.007
		1325.50		-1.636E+00	3.316E+00	4.989E+00	4.173E-01	-0.328
		1368.21		-1.475E+00	1.530E+00	2.174E+00	2.902E-01	-0.678
		1436.60		-2.776E+00	3.203E+00	4.601E+00	3.895E-01	-0.603
		1691.02	*	7.123E-02	6.182E-02	1.248E-01	1.084E-02	0.571
SB-125		427.89	*	1.502E-02	8.905E-02	1.472E-01	1.303E-02	0.102
	+	463.38		7.384E-01	3.513E-01	5.417E-01	5.216E-02	1.363
		600.56		-4.220E-02	1.598E-01	2.491E-01	2.583E-02	-0.169
		635.90		-1.580E-01	2.468E-01	3.925E-01	4.145E-02	-0.402
TE-125M		109.28	*	-5.200E+00	9.100E+00	1.429E+01	1.461E+00	-0.364
I-126		388.63		-3.573E-02	1.995E-01	3.234E-01	2.724E-02	-0.110
		666.33	*	1.271E-01	1.774E-01	3.133E-01	3.148E-02	0.406
		753.82		1.560E+00	1.553E+00	2.776E+00	2.821E-01	0.562
SB-126		223.80		8.006E-01	3.797E+00	6.457E+00	6.125E-01	0.124
	+	278.60		6.466E+00	4.242E+00	4.522E+00	4.501E-01	1.430
	+	296.50		1.350E+01	2.697E+00	3.712E+00	3.654E-01	3.636
		414.70		3.176E-02	7.258E-02	1.223E-01	1.048E-02	0.260
		415.30		5.564E+00	6.058E+00	1.051E+01	9.008E-01	0.530
		555.20		3.735E+00	3.840E+00	6.664E+00	6.387E-01	0.561
		573.80		-1.489E-01	1.047E+00	1.660E+00	1.608E-01	-0.090
		593.00		-8.906E-01	8.963E-01	1.290E+00	1.261E-01	-0.690
		656.30		-1.546E+00	2.970E+00	4.767E+00	4.776E-01	-0.324
		666.33		5.311E-02	7.410E-02	1.309E-01	1.315E-02	0.406
		675.00		1.040E-01	1.848E+00	3.120E+00	3.141E-01	0.033
		695.00		3.362E-02	7.388E-02	1.282E-01	1.296E-02	0.262
		697.00		1.839E-01	2.574E-01	4.542E-01	4.592E-02	0.405
		720.50	*	-7.040E-02	1.533E-01	2.318E-01	2.350E-02	-0.304
		856.80		1.124E-01	5.397E-01	7.960E-01	8.005E-02	0.141
		989.30		-2.517E-01	1.254E+00	2.015E+00	1.919E-01	-0.125

---- Non-Identified Nuclides ----

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		1034.80		6.409E+00	7.687E+00	1.372E+01	1.268E+00	0.467
		1213.00		-3.566E-01	4.441E+00	7.123E+00	5.798E-01	-0.050
SB-127		61.10		1.735E+01	4.681E+01	7.004E+01	7.027E+00	0.248
		252.40		1.152E+00	4.105E+00	6.929E+00	2.929E+00	0.166
		290.80		-2.612E+01	2.315E+01	3.051E+01	3.703E+00	-0.856
		411.60		-3.061E+00	1.154E+01	1.851E+01	2.899E+00	-0.165
		444.90		-4.446E-01	9.901E+00	1.608E+01	2.034E+00	-0.028
		473.00		2.344E-02	1.633E+00	2.654E+00	3.485E-01	0.009
		543.00		7.129E+00	1.454E+01	2.442E+01	3.645E+00	0.292
		603.60		3.016E+00	1.159E+01	1.670E+01	2.229E+00	0.181
		685.20	*	-7.139E-01	1.293E+00	2.067E+00	2.584E-01	-0.345
		698.50		-2.427E+00	1.449E+01	2.398E+01	3.995E+00	-0.101
		722.20		1.955E+00	3.215E+01	4.715E+01	5.822E+00	0.041
		783.80		1.231E+00	3.558E+00	6.086E+00	8.220E-01	0.202
XE-127		57.60		2.622E+00	4.645E+00	7.467E+00	5.335E-01	0.351
		145.22		5.362E-01	6.742E-01	1.115E+00	9.443E-02	0.481
		172.10		-2.727E-02	1.193E-01	1.867E-01	1.645E-02	-0.146
		202.84	*	-2.993E-02	4.321E-02	7.068E-02	6.523E-03	-0.423
		374.96		-8.995E-02	1.995E-01	3.180E-01	2.773E-02	-0.283
I-131		80.18		-2.228E+00	3.875E+00	6.174E+00	5.327E-01	-0.361
		284.30		-3.679E-01	1.658E+00	2.389E+00	2.466E-01	-0.154
		364.48	*	-2.961E-02	1.050E-01	1.694E-01	1.589E-02	-0.175
		636.97		-3.824E-01	1.351E+00	2.221E+00	2.304E-01	-0.172
		722.89		3.030E+00	7.554E+00	1.150E+01	1.172E+00	0.263
TE-132		49.72		-3.625E+00	1.157E+01	1.886E+01	1.929E+00	-0.192
		111.76		3.452E-02	2.848E+01	4.531E+01	4.846E+00	0.001
		116.30		-1.628E+01	2.587E+01	4.033E+01	4.293E+00	-0.404
		228.16	*	-1.571E-01	6.454E-01	1.073E+00	1.740E-01	-0.146
BA-133		53.15		-6.487E-01	2.380E+00	3.876E+00	2.888E-01	-0.167
		79.62		-3.622E-01	1.105E+00	1.778E+00	2.697E-01	-0.204
		81.00		-6.635E-02	9.391E-02	1.309E-01	2.082E-02	-0.507
	+	276.40		9.715E-01	6.472E-01	6.448E-01	9.848E-02	1.507
		302.84		6.740E-02	1.437E-01	2.178E-01	3.066E-02	0.309
		356.01	*	7.606E-03	4.403E-02	6.474E-02	8.746E-03	0.117
		383.85		-4.843E-02	3.007E-01	4.884E-01	6.126E-02	-0.099
I-133	+	510.53		1.291E+00	3.007E-01	Half-Life too short		
		529.87	*	-3.120E-03	3.007E-01	Half-Life too short		
		706.58		-2.365E-01	3.007E-01	Half-Life too short		
		856.28		2.853E-01	3.007E-01	Half-Life too short		
		875.33		1.405E-02	3.007E-01	Half-Life too short		
	+	1236.41		1.504E+00	3.007E-01	Half-Life too short		
		1298.22		1.510E-01	3.007E-01	Half-Life too short		
CS-134		475.35		-1.124E+00	1.783E+00	2.733E+00	2.479E-01	-0.411
		563.23		3.557E-01	3.602E-01	6.228E-01	6.042E-02	0.571
		569.32		1.648E-02	2.019E-01	3.264E-01	3.187E-02	0.050
		604.70		1.272E-02	3.433E-02	5.012E-02	4.935E-03	0.254
	+	795.84	*	9.656E-02	5.907E-02	9.223E-02	9.411E-03	1.047
		801.93		2.306E-01	4.255E-01	7.025E-01	7.156E-02	0.328
		1038.57		-1.747E+00	3.532E+00	5.437E+00	5.009E-01	-0.321

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		1167.94		-2.167E+00	2.466E+00	3.611E+00	2.922E-01	-0.600
		1365.15		-5.740E-02	1.063E+00	1.770E+00	1.560E-01	-0.032
CS-135		268.24	*	3.481E-01	1.623E-01	2.692E-01	2.983E-02	1.293
I-135		288.45		-4.057E+09	1.623E-01	Half-Life too short		
		417.63		2.207E+10	1.623E-01	Half-Life too short		
		546.56		-5.556E+09	1.623E-01	Half-Life too short		
		836.80		1.327E+10	1.623E-01	Half-Life too short		
		1038.76		-7.977E+09	1.623E-01	Half-Life too short		
		1124.00		3.056E+10	1.623E-01	Half-Life too short		
		1131.51		4.148E+09	1.623E-01	Half-Life too short		
		1260.41	*	-9.895E+08	1.623E-01	Half-Life too short		
		1457.56		1.796E+11	1.623E-01	Half-Life too short		
		1678.03		6.527E+08	1.623E-01	Half-Life too short		
		1706.46		-8.613E+09	1.623E-01	Half-Life too short		
		1791.20		1.254E+09	1.623E-01	Half-Life too short		
CS-136		66.91		-2.664E-01	7.276E-01	1.047E+00	1.552E-01	-0.254
	+	86.29		3.294E+00	1.321E+00	1.871E+00	2.485E-01	1.761
	+	153.22		8.104E-01	7.420E-01	1.113E+00	1.067E-01	0.728
		163.89		4.563E-01	9.946E-01	1.616E+00	1.572E-01	0.282
		176.55		2.597E-01	3.639E-01	5.957E-01	5.575E-02	0.436
		273.65		4.928E-02	6.198E-01	6.682E-01	6.963E-02	0.074
		340.57		2.349E-01	1.416E-01	2.274E-01	2.176E-02	1.033
		818.51		2.880E-02	6.838E-02	1.180E-01	1.196E-02	0.244
		1048.07	*	3.886E-02	1.057E-01	1.792E-01	1.700E-02	0.217
		1235.34		3.603E-01	5.803E-01	8.803E-01	1.016E-01	0.409
BA-137M		661.65	*	-8.479E-04	3.561E-02	5.980E-02	6.002E-03	-0.014
CS-137		661.65	*	-8.963E-04	3.764E-02	6.322E-02	6.353E-03	-0.014
CE-139		165.85	*	-1.745E-02	2.910E-02	4.467E-02	3.899E-03	-0.391
BA-140		162.64		-5.853E-01	7.276E-01	1.104E+00	1.014E-01	-0.530
		304.84		-1.288E+00	1.380E+00	1.779E+00	5.053E-01	-0.724
		423.70		-5.135E-01	1.769E+00	2.812E+00	9.117E-01	-0.183
		537.32	*	-8.830E-02	2.396E-01	3.698E-01	1.234E-01	-0.239
LA-140		328.77		3.398E-01	3.098E-01	5.389E-01	5.359E-02	0.631
		432.53		-2.152E-01	1.980E+00	3.203E+00	2.928E-01	-0.067
		487.03		-1.935E-02	1.292E-01	2.068E-01	1.997E-02	-0.094
		751.79		-5.175E-01	1.767E+00	2.880E+00	3.154E-01	-0.180
		815.85		-1.232E-01	2.907E-01	4.617E-01	5.073E-02	-0.267
		867.82		6.118E-01	1.332E+00	2.190E+00	2.283E-01	0.279
		919.63		1.126E+00	2.624E+00	4.507E+00	5.262E-01	0.250
		925.24		-4.234E-01	1.037E+00	1.631E+00	1.683E-01	-0.260
		1596.49	*	-4.775E-02	8.644E-02	1.230E-01	1.039E-02	-0.388
CE-141		145.44	*	6.681E-02	5.962E-02	9.979E-02	8.616E-03	0.669
CE-143		57.37		4.188E-04	5.962E-02	Half-Life too short		
		231.56		-1.126E-03	5.962E-02	Half-Life too short		
		293.26	*	6.053E-04	5.962E-02	Half-Life too short		
	+	350.59		3.138E-02	5.962E-02	Half-Life too short		
		490.36		-3.884E-04	5.962E-02	Half-Life too short		
		664.57		1.264E-03	5.962E-02	Half-Life too short		
		721.93		1.591E-04	5.962E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-144		80.11		-1.087E+00	1.796E+00	2.858E+00	2.448E-01	-0.380
		133.54	*	-1.313E-01	2.153E-01	3.157E-01	4.871E-02	-0.416
PM-144		476.78		-9.778E-02	6.502E-02	9.055E-02	8.918E-03	-1.080
		618.01		-8.279E-03	3.072E-02	4.780E-02	4.824E-03	-0.173
		696.49	*	3.042E-02	3.301E-02	5.904E-02	5.969E-03	0.515
		778.57		-1.704E-01	2.260E+00	3.742E+00	3.803E-01	-0.046
PR-144		696.49	*	2.061E+00	2.237E+00	4.001E+00	4.044E-01	0.515
		1489.15		5.744E-01	9.173E+00	1.548E+01	1.312E+00	0.037
PM-146		453.90	*	-8.591E-03	4.310E-02	6.905E-02	7.563E-03	-0.124
		633.02		-3.028E-01	1.341E+00	2.083E+00	7.852E-01	-0.145
		735.90		-2.548E-02	1.363E-01	2.237E-01	6.509E-02	-0.114
		747.13		-4.343E-02	9.007E-02	1.438E-01	2.162E-02	-0.302
ND-147	+	91.11		5.638E-01	2.834E-01	4.752E-01	4.701E-02	1.187
		319.41		-1.322E+00	3.176E+00	5.126E+00	4.932E-01	-0.258
		439.89		-7.472E-01	5.751E+00	9.284E+00	8.160E-01	-0.080
		531.02	*	2.041E-01	5.267E-01	8.767E-01	1.354E-01	0.233
PM-149		285.90	*	7.872E+00	8.436E+01	1.413E+02	2.303E+01	0.056
EU-152		121.78		-2.623E-02	7.292E-02	1.151E-01	1.115E-02	-0.228
		244.69		1.594E-01	3.137E-01	4.814E-01	4.670E-02	0.331
		344.27	*	-6.628E-04	1.029E-01	1.490E-01	1.454E-02	-0.004
		443.98		4.529E-01	9.650E-01	1.624E+00	1.433E-01	0.279
		778.89		-4.234E-02	2.570E-01	4.219E-01	4.286E-02	-0.100
		867.32		1.150E-02	8.445E-01	1.272E+00	1.276E-01	0.009
	+	964.01		1.002E+00	4.485E-01	6.885E-01	6.652E-02	1.455
		1085.78		1.574E-02	3.734E-01	6.116E-01	5.415E-02	0.026
		1112.02		1.820E-01	3.139E-01	5.280E-01	4.556E-02	0.345
		1407.95		1.908E-01	1.761E-01	3.318E-01	2.803E-02	0.575
GD-153		69.67		-9.816E-01	1.405E+00	2.241E+00	1.715E-01	-0.438
		83.37		1.142E+01	1.770E+01	2.135E+01	1.903E+00	0.535
		97.43	*	-1.416E-01	8.073E-02	1.113E-01	9.872E-03	-1.272
		103.18		-1.894E-01	1.061E-01	1.562E-01	1.351E-02	-1.212
EU-154		123.07		-6.802E-02	5.486E-02	7.744E-02	8.636E-03	-0.878
		247.94		-1.299E-01	3.507E-01	5.318E-01	6.559E-02	-0.244
		591.81		-2.586E-01	6.023E-01	9.247E-01	1.160E-01	-0.280
		723.30		7.913E-02	1.894E-01	2.887E-01	3.154E-02	0.274
		756.87		8.351E-01	8.308E-01	1.479E+00	1.942E-01	0.565
		873.19		-2.754E-02	2.865E-01	4.693E-01	6.225E-02	-0.059
		996.32		7.214E-02	3.678E-01	6.144E-01	1.118E-01	0.117
		1004.76		-1.841E-01	2.048E-01	3.006E-01	3.683E-02	-0.613
		1274.45	*	-4.074E-02	1.084E-01	1.659E-01	1.833E-02	-0.246
EU-155		48.70		-1.187E+00	1.457E+00	2.318E+00	1.855E-01	-0.512
		60.01		4.871E-01	4.102E+00	6.070E+00	4.306E-01	0.080
	+	86.54		3.055E-01	1.190E-01	1.744E-01	1.633E-02	1.752
		105.31	*	1.426E-01	1.058E-01	1.793E-01	1.559E-02	0.796
TB-160	+	86.79		8.154E-01	3.175E-01	4.671E-01	4.349E-02	1.746
		197.04		-2.419E-01	5.154E-01	8.540E-01	7.817E-02	-0.283
		215.65		6.549E-02	6.833E-01	1.158E+00	1.087E-01	0.057
	+	298.57		3.005E-01	1.505E-01	2.035E-01	2.000E-02	1.477
		879.36	*	-3.862E-02	1.302E-01	2.086E-01	2.086E-02	-0.185

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		7.240E-01	6.209E-01	9.987E-01	9.657E-02	0.725
	+	966.15		6.873E-01	3.077E-01	5.394E-01	5.205E-02	1.274
		1177.93		1.330E-01	3.269E-01	5.531E-01	4.453E-02	0.240
		1271.85		4.114E-01	6.870E-01	1.182E+00	9.774E-02	0.348
HO-166M		80.57		-1.582E-01	2.297E-01	3.642E-01	3.137E-02	-0.434
		184.41		9.814E-02	4.044E-02	6.782E-02	6.091E-03	1.447
		280.46		-2.051E-02	9.210E-02	1.328E-01	1.322E-02	-0.154
		410.95		2.345E-02	2.422E-01	3.989E-01	3.404E-02	0.059
		711.68	*	-4.068E-02	5.776E-02	9.070E-02	9.188E-03	-0.448
		752.31		-4.972E-02	2.833E-01	4.662E-01	4.738E-02	-0.107
		810.29		1.701E-02	5.610E-02	9.581E-02	9.711E-03	0.178
TM-171		51.35		2.572E+00	1.931E+01	3.206E+01	2.449E+00	0.080
		52.39		-1.054E+00	1.029E+01	1.689E+01	1.271E+00	-0.062
		59.40		1.090E+01	2.159E+01	3.258E+01	2.305E+00	0.335
		66.72	*	-1.426E+01	2.667E+01	3.812E+01	2.840E+00	-0.374
LU-176	+	88.36		6.017E-01	2.343E-01	3.621E-01	3.414E-02	1.662
		201.83		-2.782E-02	2.661E-02	4.270E-02	3.935E-03	-0.651
		306.84	*	5.757E-03	2.279E-02	3.842E-02	3.748E-03	0.150
		401.10		-1.084E-01	6.334E+00	1.036E+01	8.749E-01	-0.010
LU-177		112.95		-1.039E+00	1.603E+00	2.473E+00	2.085E-01	-0.420
	+	208.36	*	3.395E+00	1.516E+00	2.064E+00	1.919E-01	1.645
LU-177M		52.97		-2.927E-01	1.074E+00	1.749E+00	1.306E-01	-0.167
		54.07		-1.238E-03	5.760E-01	9.485E-01	6.990E-02	-0.001
		61.30		6.238E-01	1.234E+00	1.858E+00	1.329E-01	0.336
		121.62		1.065E-01	3.648E-01	5.940E-01	4.954E-02	0.179
		147.16		-5.080E-01	6.381E-01	9.756E-01	8.285E-02	-0.521
		171.86		-1.049E-01	4.816E-01	7.543E-01	6.644E-02	-0.139
		218.09		-5.469E-01	7.859E-01	1.279E+00	1.204E-01	-0.428
	+	268.79		3.684E+00	1.183E+00	1.551E+00	1.535E-01	2.375
		319.02		-3.901E-02	2.454E-01	4.028E-01	3.877E-02	-0.097
		367.43		-4.207E-01	8.665E-01	1.377E+00	1.221E-01	-0.306
		413.65	*	-2.980E-01	1.843E-01	2.644E-01	2.263E-02	-1.127
HF-181		56.28		-2.354E-01	6.757E-01	1.097E+00	7.915E-02	-0.215
		57.53		2.176E-01	3.906E-01	6.277E-01	4.487E-02	0.347
		65.20		1.400E-01	8.640E-01	1.277E+00	9.399E-02	0.110
		133.02		-9.160E-03	7.293E-02	1.031E-01	8.629E-03	-0.089
		136.25		1.408E-01	4.495E-01	7.295E-01	6.121E-02	0.193
		345.85		-6.479E-02	1.989E-01	2.963E-01	2.742E-02	-0.219
		482.03	*	1.199E-02	4.170E-02	6.913E-02	6.303E-03	0.173
W-181		56.28		-9.176E-02	2.648E-01	4.300E-01	3.102E-02	-0.213
		57.53		8.530E-02	1.532E-01	2.462E-01	1.760E-02	0.347
		65.20	*	5.446E-02	3.361E-01	4.969E-01	3.657E-02	0.110
TA-182		67.75		2.319E-02	1.027E-01	1.520E-01	1.143E-02	0.153
		100.10		2.668E-01	1.751E-01	2.954E-01	2.586E-02	0.903
		152.43		1.161E-01	3.833E-01	5.527E-01	4.727E-02	0.210
		222.10		-9.866E-02	3.311E-01	5.501E-01	5.208E-02	-0.179
		1001.68		-4.496E-01	2.104E+00	3.132E+00	2.960E-01	-0.144
	+	1121.28		7.840E-01	2.540E-01	3.602E-01	3.078E-02	2.177
		1189.05		7.125E-03	2.851E-01	4.630E-01	3.742E-02	0.015

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1221.42	*	5.131E-02	1.831E-01	3.044E-01	2.484E-02	0.169
		1230.97		1.767E-01	4.421E-01	6.827E-01	5.585E-02	0.259
RE-183		57.98		1.784E-01	1.595E-01	2.478E-01	1.766E-02	0.720
		59.32		4.427E-02	8.866E-02	1.337E-01	9.467E-03	0.331
		67.20		-6.370E-02	1.874E-01	2.703E-01	2.022E-02	-0.236
		162.32	*	-7.960E-02	1.077E-01	1.643E-01	1.426E-02	-0.485
	+	208.81		3.079E+00	1.375E+00	1.864E+00	1.734E-01	1.652
		291.72		-8.548E-01	1.026E+00	1.399E+00	1.382E-01	-0.611
RE-184		57.98		6.578E-01	5.881E-01	9.136E-01	6.512E-02	0.720
		59.32		1.631E-01	3.266E-01	4.927E-01	3.488E-02	0.331
		67.20		-2.348E-01	6.905E-01	9.962E-01	7.453E-02	-0.236
		161.27		-6.231E-02	3.457E-01	5.442E-01	4.716E-02	-0.115
		216.55		-1.496E-01	2.432E-01	3.975E-01	3.737E-02	-0.376
		252.85	*	5.717E-02	2.204E-01	3.742E-01	3.657E-02	0.153
		318.01		-1.142E-01	4.358E-01	7.109E-01	6.850E-02	-0.161
		792.07		3.817E-01	1.018E+00	1.544E+00	1.567E-01	0.247
		903.28		6.300E-02	9.591E-01	1.552E+00	1.540E-01	0.041
		920.93		1.811E-01	4.237E-01	7.282E-01	7.178E-02	0.249
OS-185		59.72		1.259E-01	2.385E-01	3.602E-01	2.551E-02	0.349
		61.14		5.109E-02	1.354E-01	2.026E-01	1.448E-02	0.252
		69.30		-2.133E-01	2.502E-01	3.967E-01	3.024E-02	-0.538
		592.07		-5.432E-01	2.418E+00	3.790E+00	3.703E-01	-0.143
		646.12	*	3.623E-02	4.059E-02	7.285E-02	7.275E-03	0.497
		717.42		6.066E-01	8.734E-01	1.540E+00	1.561E-01	0.394
		874.81		1.946E-01	5.490E-01	9.394E-01	9.405E-02	0.207
		880.27		1.013E-01	7.056E-01	1.184E+00	1.183E-01	0.086
W-188	+	63.58		1.145E+02	6.823E+01	7.622E+01	5.540E+00	1.502
		227.08		2.575E+00	1.218E+01	2.071E+01	1.972E+00	0.124
		290.67	*	-8.870E+00	8.132E+00	1.080E+01	1.068E+00	-0.821
IR-192	+	295.96		1.038E+00	2.078E-01	2.966E-01	2.938E-02	3.500
		308.46		5.384E-02	8.994E-02	1.544E-01	1.510E-02	0.349
		316.51	*	-2.678E-03	3.382E-02	5.582E-02	5.398E-03	-0.048
		468.07		4.857E-03	7.334E-02	1.050E-01	1.008E-02	0.046
		604.41		1.710E-01	4.640E-01	6.769E-01	9.373E-02	0.253
		612.46		1.165E+00	8.037E-01	1.285E+00	1.413E-01	0.907
AU-195		65.12		4.112E-02	1.562E-01	2.319E-01	1.705E-02	0.177
		66.83		-3.278E-02	8.768E-02	1.263E-01	9.419E-03	-0.260
	+	75.70		3.400E+00	5.335E-01	4.289E-01	3.491E-02	7.927
		98.88	*	2.757E-01	2.191E-01	3.668E-01	3.230E-02	0.752
	+	129.76		4.005E+00	4.563E+00	5.081E+00	4.243E-01	0.788
TL-200		367.94	*	-1.167E-04	4.563E+00	Half-Life too short		
		579.30		-1.313E-03	4.563E+00	Half-Life too short		
		828.27		-2.768E-03	4.563E+00	Half-Life too short		
		1205.75		6.842E-04	4.563E+00	Half-Life too short		
TL-201		68.90		-2.744E+00	3.957E+00	6.315E+00	4.797E-01	-0.434
		70.82		9.515E-01	2.442E+00	3.634E+00	2.811E-01	0.262
		80.30		-2.349E+00	4.169E+00	6.646E+00	5.706E-01	-0.353
		135.34		2.964E+00	2.407E+01	3.875E+01	3.248E+00	0.076
		167.43	*	6.532E-01	6.669E+00	1.063E+01	9.302E-01	0.061

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TL-202		68.90		-2.508E-01	3.616E-01	5.772E-01	4.384E-02	-0.434
		70.82		8.673E-02	2.225E-01	3.312E-01	2.562E-02	0.262
		80.30		-2.142E-01	3.801E-01	6.060E-01	5.203E-02	-0.353
		439.56	*	-3.304E-02	6.965E-02	1.095E-01	9.616E-03	-0.302
BI-207		72.80		1.515E-01	1.689E-01	2.561E-01	2.021E-02	0.591
	+	74.97		1.886E+00	2.961E-01	2.095E-01	1.692E-02	9.003
		84.90		9.282E-02	2.066E-01	2.802E-01	2.547E-02	0.331
		569.67		1.753E-02	3.121E-02	5.234E-02	5.057E-03	0.335
		1063.62	*	2.379E-02	5.431E-02	9.238E-02	8.341E-03	0.258
		1770.23		-2.111E+00	6.884E-01	4.858E-01	3.985E-02	-4.345
TL-207		81.07		-1.451E-01	2.064E-01	2.892E-01	2.506E-02	-0.502
		83.78		2.707E-02	1.589E-01	1.850E-01	1.658E-02	0.146
		94.90		4.432E-01	2.306E-01	3.620E-01	3.256E-02	1.224
		122.32		-1.852E+00	1.767E+00	2.689E+00	2.417E-01	-0.689
		144.24		2.335E-01	6.621E-01	1.075E+00	1.021E-01	0.217
	+	154.21		4.900E-01	4.486E-01	6.564E-01	6.195E-02	0.747
	+	269.46		8.629E-01	2.776E-01	3.804E-01	3.825E-02	2.268
		323.87	*	-2.410E-01	6.766E-01	1.096E+00	1.993E-01	-0.220
	+	338.28		8.382E+00	2.162E+00	2.712E+00	3.484E-01	3.091
		445.03		-4.137E-02	2.350E+00	3.824E+00	4.680E-01	-0.011
PO-209		260.50		-7.032E+00	8.965E+00	1.431E+01	1.407E+00	-0.491
		262.80		-6.822E+00	2.394E+01	3.937E+01	3.879E+00	-0.173
		896.60	*	1.459E-01	6.689E+00	1.107E+01	1.101E+00	0.013
BI-210		46.50	*	9.387E-01	2.063E+00	3.457E+00	3.206E-01	0.272
PB-210		46.50	*	9.387E-01	2.063E+00	3.457E+00	3.206E-01	0.272
PO-210		46.50	*	9.387E-01	2.063E+00	3.457E+00	2.900E-01	0.272
PB-211		404.84	*	3.614E-02	9.278E-01	1.523E+00	9.540E-01	0.024
		427.08		7.624E-02	1.988E+00	3.255E+00	2.023E+00	0.023
		831.96		-7.657E-01	1.342E+00	1.900E+00	1.195E+00	-0.403
PO-215		81.07		-1.451E-01	2.064E-01	2.892E-01	2.506E-02	-0.502
		83.78		2.707E-02	1.589E-01	1.850E-01	1.658E-02	0.146
		94.90		4.432E-01	2.306E-01	3.620E-01	3.256E-02	1.224
		122.32		-1.852E+00	1.767E+00	2.689E+00	2.417E-01	-0.689
		144.24		2.335E-01	6.621E-01	1.075E+00	1.021E-01	0.217
	+	154.21		4.900E-01	4.486E-01	6.564E-01	6.195E-02	0.747
	+	269.46		8.629E-01	2.776E-01	3.804E-01	3.825E-02	2.268
		323.87	*	-2.410E-01	6.766E-01	1.096E+00	1.993E-01	-0.220
	+	338.28		8.382E+00	2.162E+00	2.712E+00	3.484E-01	3.091
		445.03		-4.137E-02	2.350E+00	3.824E+00	4.680E-01	-0.011
RN-219	+	271.23		1.107E+00	3.611E-01	4.910E-01	5.603E-02	2.255
		401.81	*	4.087E-03	4.008E-01	6.570E-01	9.808E-02	0.006
RN-220		549.76	*	1.208E+00	2.469E+01	3.991E+01	3.813E+00	0.030
RA-223		81.07		-1.451E-01	2.064E-01	2.892E-01	2.506E-02	-0.502
		83.78		2.707E-02	1.589E-01	1.850E-01	1.658E-02	0.146
		94.90		4.432E-01	2.306E-01	3.620E-01	3.256E-02	1.224
		122.32		-1.852E+00	1.767E+00	2.689E+00	2.417E-01	-0.689
		144.24		2.335E-01	6.621E-01	1.075E+00	1.021E-01	0.217
	+	154.21		4.900E-01	4.486E-01	6.564E-01	6.195E-02	0.747
	+	269.46		8.629E-01	2.776E-01	3.804E-01	3.825E-02	2.268

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-2.410E-01	6.766E-01	1.096E+00	1.993E-01	-0.220
	+	338.28		8.382E+00	2.162E+00	2.712E+00	3.484E-01	3.091
		445.03		-4.137E-02	2.350E+00	3.824E+00	4.680E-01	-0.011
AC-227		79.80		-9.191E-01	1.399E+00	2.202E+00	4.727E-01	-0.417
		236.00		4.812E-01	2.507E-01	4.024E-01	5.217E-02	1.196
		256.20	*	2.104E-02	3.684E-01	6.188E-01	9.926E-02	0.034
		286.10		4.256E-01	1.456E+00	2.463E+00	3.469E-01	0.173
	+	299.80		3.831E+00	2.005E+00	2.705E+00	4.899E-01	1.416
		304.40		-2.163E+00	2.064E+00	2.686E+00	5.104E-01	-0.806
		334.20		-1.091E+00	2.608E+00	3.645E+00	7.211E-01	-0.299
TH-227		79.80		-9.191E-01	1.399E+00	2.202E+00	4.788E-01	-0.417
	+	94.00		6.825E+00	3.137E+00	3.655E+00	8.022E-01	1.867
		236.00		4.812E-01	2.494E-01	4.024E-01	4.776E-02	1.196
		256.20	*	2.104E-02	3.684E-01	6.188E-01	1.154E-01	0.034
		286.10		4.256E-01	1.516E+00	2.463E+00	2.475E+00	0.173
	+	299.80		3.831E+00	2.005E+00	2.705E+00	4.899E-01	1.416
		304.40		-2.163E+00	2.064E+00	2.686E+00	5.104E-01	-0.806
		334.20		-1.091E+00	2.608E+00	3.645E+00	7.211E-01	-0.299
TH-229		85.43		2.764E-01	1.912E-01	2.923E-01	2.674E-02	0.946
	+	88.47		3.464E-01	1.349E-01	2.075E-01	1.954E-02	1.670
		100.00		2.894E-01	1.825E-01	3.082E-01	2.700E-02	0.939
		193.63	*	2.991E-01	4.704E-01	8.176E-01	7.446E-02	0.366
		210.97		1.058E+00	8.334E-01	1.324E+00	1.236E-01	0.799
PA-231		283.67	*	3.744E-01	1.637E+00	2.443E+00	3.900E-01	0.153
	+	301.29		1.532E+00	7.789E-01	1.085E+00	1.422E-01	1.412
TH-231		81.07		-1.451E-01	2.064E-01	2.892E-01	2.506E-02	-0.502
		83.78		2.707E-02	1.589E-01	1.850E-01	1.658E-02	0.146
		94.90		4.432E-01	2.306E-01	3.620E-01	3.256E-02	1.224
		122.32		-1.852E+00	1.767E+00	2.689E+00	2.417E-01	-0.689
		144.24		2.335E-01	6.621E-01	1.075E+00	1.021E-01	0.217
	+	154.21		4.900E-01	4.486E-01	6.564E-01	6.195E-02	0.747
	+	269.46		8.629E-01	2.776E-01	3.804E-01	3.825E-02	2.268
		323.87	*	-2.410E-01	6.766E-01	1.096E+00	1.993E-01	-0.220
	+	338.28		8.382E+00	2.162E+00	2.712E+00	3.484E-01	3.091
		445.03		-4.137E-02	2.350E+00	3.824E+00	4.680E-01	-0.011
U-231		84.21		2.850E+00	6.584E+00	7.810E+00	7.036E-01	0.365
	+	92.29		6.636E+00	2.747E+00	3.757E+00	3.436E-01	1.766
		95.87	*	-1.490E+00	1.087E+00	1.435E+00	1.283E-01	-1.038
		108.00		-2.699E+00	2.040E+00	3.085E+00	2.629E-01	-0.875
PA-233	+	75.28		5.505E+01	1.111E+01	6.275E+00	9.452E-01	8.773
	+	86.59		4.967E+00	2.309E+00	2.839E+00	7.677E-01	1.750
	+	300.12		1.068E+00	5.503E-01	7.619E-01	1.188E-01	1.402
		311.98	*	-1.824E-03	6.310E-02	1.045E-01	1.037E-02	-0.017
		340.50		1.418E+00	7.747E-01	1.154E+00	2.782E-01	1.229
		398.62		-1.400E+00	2.002E+00	3.055E+00	8.117E-01	-0.458
		415.76		1.647E+00	1.689E+00	2.882E+00	6.205E-01	0.572
PA-234	+	63.00		3.323E+00	2.026E+00	2.272E+00	3.357E-01	1.463
		94.67		5.222E-01	1.777E-01	2.763E-01	3.502E-02	1.890
		98.44		8.678E-02	9.975E-02	1.454E-01	8.118E-02	0.597

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		99.86		8.668E-01	4.606E-01	7.839E-01	6.872E-02	1.106
		111.00		1.317E-01	1.756E-01	2.913E-01	3.489E-02	0.452
		131.20		1.450E-01	1.161E-01	1.770E-01	1.479E-02	0.820
		152.70		2.341E-01	3.735E-01	5.461E-01	9.292E-02	0.429
	+	186.00		6.120E+00	2.820E+00	2.704E+00	8.470E-01	2.263
		226.40		4.864E-02	3.843E-01	6.508E-01	8.982E-02	0.075
		227.20		7.266E-03	4.152E-01	6.996E-01	6.662E-02	0.010
		248.90		-2.696E-01	7.464E-01	1.223E+00	2.796E-01	-0.220
		293.70		5.505E+00	1.327E+00	1.717E+00	3.083E-01	3.206
		369.80		6.231E-01	8.285E-01	1.413E+00	3.088E-01	0.441
		568.70		-1.903E-01	1.029E+00	1.627E+00	1.571E-01	-0.117
		569.50		5.324E-02	2.817E-01	4.592E-01	4.436E-02	0.116
		574.00		-2.146E-01	1.512E+00	2.397E+00	2.321E-01	-0.090
		699.00		-5.272E-01	7.194E-01	1.125E+00	2.227E-01	-0.469
		706.10		-4.312E-01	1.046E+00	1.666E+00	7.480E-01	-0.259
		733.00		-1.281E-01	3.740E-01	5.445E-01	1.243E-01	-0.235
		742.81		-1.808E-02	1.363E+00	2.275E+00	1.534E+00	-0.008
	+	796.30		1.877E+00	1.245E+00	1.784E+00	4.920E-01	1.052
		805.60		3.665E-01	1.034E+00	1.759E+00	5.472E-01	0.208
		819.60		8.680E-01	1.196E+00	2.043E+00	7.843E-01	0.425
		826.30		-2.899E-01	7.523E-01	1.181E+00	5.320E-01	-0.246
		831.60		-2.939E-01	6.492E-01	9.898E-01	3.000E-01	-0.297
		876.40		-3.091E-02	7.934E-01	1.306E+00	1.344E+00	-0.024
		880.51		8.009E-02	2.516E-01	4.295E-01	4.293E-02	0.186
		883.24		-2.234E-02	2.584E-01	4.152E-01	2.799E-01	-0.054
		899.00		-3.168E-01	7.903E-01	1.235E+00	5.432E-01	-0.257
		925.00		-4.143E-01	1.086E+00	1.714E+00	1.686E-01	-0.242
		926.50		-7.690E-02	1.628E-01	2.525E-01	6.493E-02	-0.305
		946.00	*	-1.452E-01	3.106E-01	4.858E-01	9.380E-02	-0.299
		949.00		-5.952E-02	4.547E-01	7.386E-01	7.190E-02	-0.081
		980.50		3.076E-01	7.068E-01	1.211E+00	1.159E-01	0.254
		1394.10		1.168E-01	8.969E-01	1.529E+00	9.952E-01	0.076
PA-234M		766.42		-4.823E+00	1.130E+01	1.775E+01	9.055E+00	-0.272
		1001.03	*	-1.270E+00	4.838E+00	7.176E+00	7.676E-01	-0.177
U-235	+	89.95		2.259E+00	1.316E+00	1.809E+00	5.618E-01	1.249
	+	93.35		2.123E+00	1.045E+00	1.195E+00	3.366E-01	1.777
		105.00		1.104E+00	1.087E+00	1.748E+00	5.215E-01	0.631
		143.76	*	5.477E-02	2.033E-01	3.287E-01	5.729E-02	0.167
		163.35		-1.053E-01	4.561E-01	7.149E-01	1.366E-01	-0.147
	+	185.71		2.267E-01	7.929E-02	9.983E-02	8.984E-03	2.271
		205.31		3.555E-01	5.341E-01	8.234E-01	1.596E-01	0.432
NP-236		94.67		3.987E-01	1.302E-01	2.099E-01	1.890E-02	1.900
		98.44		6.554E-02	6.617E-02	1.099E-01	9.701E-03	0.596
		111.00		9.960E-02	1.325E-01	2.204E-01	1.865E-02	0.452
		160.31	*	3.150E-03	7.903E-02	1.242E-01	1.074E-02	0.025
NP-239		99.55		3.031E-01	1.531E-01	2.613E-01	2.293E-02	1.160
		117.00	*	-1.822E-01	1.826E-01	2.789E-01	2.336E-02	-0.653
	+	209.75		2.431E+00	1.086E+00	1.459E+00	1.360E-01	1.666
		228.18		-1.873E-03	2.129E-01	3.582E-01	3.415E-02	-0.005

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	277.60		4.741E-01	3.110E-01	3.326E-01	3.308E-02	1.426
		334.30		-6.484E-01	1.473E+00	2.059E+00	1.942E-01	-0.315
AM-241		59.54	*	6.467E-02	1.256E-01	1.896E-01	1.483E-02	0.341
AM-243		74.67	*	4.381E-01	6.893E-02	1.150E-01	9.253E-03	3.811
	+	86.72		2.794E+01	1.088E+01	1.602E+01	1.490E+00	1.744
		117.66		-3.942E+00	3.660E+00	5.563E+00	4.657E-01	-0.709
		142.18		-1.998E+01	1.722E+01	2.582E+01	2.180E+00	-0.774
CM-243		99.55		3.119E-01	1.576E-01	2.688E-01	2.360E-02	1.160
		103.76	*	-6.165E-02	9.386E-02	1.471E-01	1.270E-02	-0.419
		117.00		-1.875E-01	1.878E-01	2.869E-01	2.404E-02	-0.653
	+	209.75		2.397E+00	1.070E+00	1.438E+00	1.340E-01	1.666
		228.18		-1.892E-03	2.151E-01	3.619E-01	3.450E-02	-0.005
	+	277.60		4.780E-01	3.136E-01	3.353E-01	3.335E-02	1.426
AM-246		798.80		-1.807E-01	1.673E-01	2.072E-01	2.103E-02	-0.872
		1036.00		1.403E-01	2.589E-01	4.494E-01	4.148E-02	0.312
		1062.04		-1.992E-02	2.390E-01	3.870E-01	3.499E-02	-0.051
		1078.86	*	7.818E-02	1.331E-01	2.304E-01	2.053E-02	0.339
CM-247	+	278.00		1.966E+00	1.290E+00	1.386E+00	1.379E-01	1.419
		287.40		9.961E-01	1.150E+00	2.002E+00	1.984E-01	0.498
		402.60	*	2.746E-03	3.577E-02	5.890E-02	4.981E-03	0.047
CF-249		252.85		2.146E-01	8.274E-01	1.405E+00	1.373E-01	0.153
		333.44		-3.663E-02	1.938E-01	2.771E-01	2.616E-02	-0.132
		387.95	*	-7.887E-03	4.000E-02	6.477E-02	5.465E-03	-0.122
CF-251		176.60	*	9.057E-02	1.261E-01	2.065E-01	1.833E-02	0.438
		227.00		7.887E-02	3.660E-01	6.222E-01	5.924E-02	0.127
		285.00		-1.071E+00	1.774E+00	2.748E+00	2.727E-01	-0.390

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                              DETECTOR DATA                                  *
*                                                                             *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994003        *
* Acquisition date : 12-FEB-2010 12:32:28 Detector SN#     :                  *
* Detector ID        : GAM20               Sensitivity     : 5.000           *
* Geometry           : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:     0 02:00:34.17     Half life ratio :  8.000          *
*******************************************************************************
*                                                                             *
*                               SAMPLE DATA                                   *
*                                                                             *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID          : G245994003           Analyst initials: MXR1            *
* Batch Number       : 948812               Sample Quantity : 1.1748E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000       *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
* Standard Weight  :    0.00000                                               *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                   *
* MSD DPM          :     0.000            MSD Isotope     :                   *
* LCS DPM          :     0.000            LCS Isotope     :                   *
* LCSD DPM         :     0.000            LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.049E+01	2.298E+00	4.675E-01	0.000E+00
CD-109	2.581E+00	9.848E-01	1.196E+00	0.000E+00
SN-126	2.537E-01	9.681E-02	1.179E-01	0.000E+00
RE-188	2.119E-01	1.899E-01	2.654E-01	0.000E+00
HG-203	1.082E-01	6.960E-02	6.611E-02	0.000E+00
TL-208	6.249E-01	1.049E-01	5.829E-02	0.000E+00
BI-211	4.151E+00	5.886E-01	3.365E-01	0.000E+00
BI-212	1.244E+00	4.281E-01	4.467E-01	0.000E+00
PB-212	1.904E+00	2.294E-01	8.394E-02	0.000E+00
PO-212	1.904E+00	2.294E-01	8.394E-02	0.000E+00
BI-214	1.152E+00	1.961E-01	1.149E-01	0.000E+00
PB-214	1.444E+00	2.176E-01	1.122E-01	0.000E+00
PO-214	1.444E+00	2.176E-01	1.122E-01	0.000E+00
PO-216	1.904E+00	2.294E-01	8.394E-02	0.000E+00
PO-218	1.444E+00	2.176E-01	1.122E-01	0.000E+00
RA-224	4.913E+00	1.433E+00	9.549E-01	0.000E+00
RA-226	1.152E+00	1.961E-01	1.149E-01	0.000E+00
AC-228	1.860E+00	3.480E-01	2.108E-01	0.000E+00
RA-228	1.860E+00	3.480E-01	2.108E-01	0.000E+00
TH-228	1.932E+00	2.329E-01	8.520E-02	0.000E+00
TH-230	1.152E+00	1.961E-01	1.149E-01	0.000E+00
TH-232	1.860E+00	3.480E-01	2.108E-01	0.000E+00
TH-234	2.851E+00	1.723E+00	1.690E+00	0.000E+00
U-234	1.152E+00	1.961E-01	1.149E-01	0.000E+00
NP-237	7.450E-01	3.217E-01	3.817E-01	0.000E+00
U-238	2.851E+00	1.723E+00	1.690E+00	0.000E+00
ANH-511	1.368E-01	6.729E-02	4.601E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-3.066E-01	2.927E-01	4.424E-01	0.000E+00	NOT IDENT.
NA-22	-1.904E-02	3.873E-02	5.951E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.680E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.096E-02	3.115E-02	4.508E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.595E-02	7.811E-02	0.000E+00	NOT IDENT.
SC-46	-2.882E-03	3.380E-02	5.660E-02	0.000E+00	FAIL ABUN
V-48	-7.117E-02	6.769E-02	1.001E-01	0.000E+00	NOT IDENT.
CR-51	-3.295E-01	3.609E-01	5.825E-01	0.000E+00	NOT IDENT.
MN-52	7.089E-02	1.935E-01	3.468E-01	0.000E+00	NOT IDENT.
MN-54	-2.529E-04	3.796E-02	6.441E-02	0.000E+00	NOT IDENT.
CO-56	-8.199E-03	3.405E-02	5.630E-02	0.000E+00	FAIL ABUN
CO-57	-1.372E-02	2.455E-02	4.009E-02	0.000E+00	NOT IDENT.
CO-58	1.813E-03	3.655E-02	6.246E-02	0.000E+00	NOT IDENT.
FE-59	-2.826E-02	7.510E-02	1.190E-01	0.000E+00	NOT IDENT.
CO-60	-2.027E-02	3.964E-02	6.043E-02	0.000E+00	NOT IDENT.
ZN-65	1.001E-02	9.588E-02	1.396E-01	0.000E+00	NOT IDENT.
GE-68	1.211E-01	1.163E+00	1.957E+00	0.000E+00	NOT IDENT.
AS-73	2.160E-02	5.391E-01	9.368E-01	0.000E+00	NOT IDENT.
AS-74	2.051E-02	8.439E-02	1.418E-01	0.000E+00	NOT IDENT.
SE-75	-1.425E-03	3.961E-02	6.351E-02	0.000E+00	NOT IDENT.
BR-77	2.175E-01	9.733E+00	1.619E+01	0.000E+00	FAIL ABUN
SR-82	-3.173E-01	3.759E-01	5.933E-01	0.000E+00	NOT IDENT.
RB-83	2.559E-02	6.431E-02	1.103E-01	0.000E+00	NOT IDENT.
RB-84	3.033E-02	6.035E-02	1.072E-01	0.000E+00	NOT IDENT.
KR-85	1.185E+01	7.863E+00	1.298E+01	0.000E+00	NOT IDENT.
SR-85	6.068E-02	4.027E-02	6.650E-02	0.000E+00	NOT IDENT.
RB-86	3.463E-01	7.203E-01	1.259E+00	0.000E+00	NOT IDENT.
Y-88	-5.550E-03	2.620E-02	4.135E-02	0.000E+00	NOT IDENT.
ZR-88	-1.067E-02	2.840E-02	4.675E-02	0.000E+00	NOT IDENT.
Y-91	-2.798E-01	1.692E+01	2.786E+01	0.000E+00	NOT IDENT.
NB-94	3.145E-02	3.272E-02	5.990E-02	0.000E+00	NOT IDENT.
NB-95	-3.334E-02	4.043E-02	6.422E-02	0.000E+00	NOT IDENT.
NB-95M	1.011E-01	1.204E-01	1.944E-01	0.000E+00	NOT IDENT.
ZR-95	7.925E-02	7.431E-02	1.362E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.850E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.674E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.168E+00	1.049E+01	1.814E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.805E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.417E-03	2.944E-02	5.145E-02	0.000E+00	NOT IDENT.
RH-102	-1.006E-03	2.614E-02	4.354E-02	0.000E+00	NOT IDENT.
RU-103	9.332E-04	3.907E-02	6.520E-02	0.000E+00	FAIL ABUN
RH-106	-6.911E-02	2.982E-01	4.777E-01	0.000E+00	FAIL ABUN
RU-106	-6.911E-02	2.981E-01	4.777E-01	0.000E+00	FAIL ABUN
AG-108M	-1.500E-02	3.126E-02	5.062E-02	0.000E+00	NOT IDENT.
AG-110M	-1.229E-02	3.073E-02	5.125E-02	0.000E+00	NOT IDENT.
IN-111	3.767E-01	9.785E-01	1.543E+00	0.000E+00	NOT IDENT.
IN-113M	-1.903E-02	4.241E-02	6.951E-02	0.000E+00	NOT IDENT.
SN-113	-1.903E-02	4.241E-02	6.951E-02	0.000E+00	NOT IDENT.
IN-114M	-5.913E-02	1.818E-01	2.774E-01	0.000E+00	NOT IDENT.
CD-115	-8.268E+00	9.984E+00	1.530E+01	0.000E+00	NOT IDENT.
SN-117M	3.741E-02	5.840E-02	8.857E-02	0.000E+00	NOT IDENT.
SB-122	1.091E+00	1.998E+00	3.440E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.201E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.295E-02	2.893E-02	4.611E-02	0.000E+00	NOT IDENT.
I-124	-6.909E-01	6.665E-01	8.852E-01	0.000E+00	NOT IDENT.
SB-124	7.123E-02	6.058E-02	1.242E-01	0.000E+00	FAIL ABUN
SB-125	1.502E-02	8.727E-02	1.486E-01	0.000E+00	FAIL ABUN
TE-125M	-5.200E+00	8.918E+00	1.464E+01	0.000E+00	NOT IDENT.
I-126	1.271E-01	1.738E-01	3.150E-01	0.000E+00	NOT IDENT.
SB-126	-7.040E-02	1.503E-01	2.328E-01	0.000E+00	FAIL ABUN
SB-127	-7.139E-01	1.267E+00	2.077E+00	0.000E+00	NOT IDENT.
XE-127	-2.993E-02	4.235E-02	7.195E-02	0.000E+00	NOT IDENT.
I-131	-2.961E-02	1.029E-01	1.714E-01	0.000E+00	NOT IDENT.
TE-132	-1.571E-01	6.324E-01	1.091E+00	0.000E+00	NOT IDENT.
BA-133	7.606E-03	4.315E-02	6.552E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.417E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.789E-02	9.254E-02	0.000E+00	FAIL ABUN
CS-135	0.000E+00	1.591E-01	2.733E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.899E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.886E-02	1.036E-01	1.792E-01	0.000E+00	FAIL ABUN
BA-137M	-8.479E-04	3.489E-02	6.012E-02	0.000E+00	NOT IDENT.
CS-137	-8.963E-04	3.689E-02	6.355E-02	0.000E+00	NOT IDENT.
CE-139	-1.745E-02	2.852E-02	4.557E-02	0.000E+00	NOT IDENT.
BA-140	-8.830E-02	2.348E-01	3.726E-01	0.000E+00	NOT IDENT.
LA-140	-4.775E-02	8.471E-02	1.225E-01	0.000E+00	NOT IDENT.
CE-141	6.681E-02	5.843E-02	1.019E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.025E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.313E-01	2.110E-01	3.228E-01	0.000E+00	NOT IDENT.

PM-144	3.042E-02	3.235E-02	5.933E-02	0.000E+00	NOT IDENT.
PR-144	2.061E+00	2.192E+00	4.020E+00	0.000E+00	NOT IDENT.
PM-146	-8.591E-03	4.224E-02	6.970E-02	0.000E+00	NOT IDENT.
ND-147	2.041E-01	5.162E-01	8.835E-01	0.000E+00	FAIL ABUN
PM-149	7.872E+00	8.267E+01	1.433E+02	0.000E+00	NOT IDENT.
EU-152	-6.628E-04	1.008E-01	1.509E-01	0.000E+00	FAIL ABUN
GD-153	-1.416E-01	7.912E-02	1.142E-01	0.000E+00	NOT IDENT.
EU-154	-4.074E-02	1.063E-01	1.656E-01	0.000E+00	NOT IDENT.
EU-155	1.426E-01	1.037E-01	1.837E-01	0.000E+00	FAIL ABUN
TB-160	-3.862E-02	1.276E-01	2.091E-01	0.000E+00	FAIL ABUN
HO-166M	-4.068E-02	5.660E-02	9.111E-02	0.000E+00	NOT IDENT.
TM-171	-1.426E+01	2.614E+01	3.925E+01	0.000E+00	NOT IDENT.
LU-176	5.757E-03	2.234E-02	3.895E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.486E+00	2.100E+00	0.000E+00	FAIL ABUN
LU-177M	-2.980E-01	1.806E-01	2.671E-01	0.000E+00	FAIL ABUN
HF-181	1.199E-02	4.086E-02	6.973E-02	0.000E+00	NOT IDENT.
W-181	5.446E-02	3.294E-01	5.118E-01	0.000E+00	NOT IDENT.
TA-182	5.131E-02	1.794E-01	3.040E-01	0.000E+00	FAIL ABUN
RE-183	-7.960E-02	1.056E-01	1.676E-01	0.000E+00	FAIL ABUN
RE-184	5.717E-02	2.160E-01	3.801E-01	0.000E+00	NOT IDENT.
OS-185	3.623E-02	3.978E-02	7.326E-02	0.000E+00	NOT IDENT.
W-188	-8.870E+00	7.970E+00	1.095E+01	0.000E+00	FAIL ABUN
IR-192	-2.678E-03	3.315E-02	5.656E-02	0.000E+00	FAIL ABUN
AU-195	2.757E-01	2.147E-01	3.762E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.026E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	6.532E-01	6.536E+00	1.085E+01	0.000E+00	NOT IDENT.
TL-202	-3.304E-02	6.825E-02	1.105E-01	0.000E+00	NOT IDENT.
BI-207	2.379E-02	5.323E-02	9.240E-02	0.000E+00	FAIL ABUN
TL-207	-2.410E-01	6.631E-01	1.110E+00	0.000E+00	FAIL ABUN
PO-209	1.459E-01	6.555E+00	1.109E+01	0.000E+00	NOT IDENT.
BI-210	9.387E-01	2.022E+00	3.573E+00	0.000E+00	NOT IDENT.
PB-210	9.387E-01	2.022E+00	3.573E+00	0.000E+00	NOT IDENT.
PO-210	9.387E-01	2.021E+00	3.573E+00	0.000E+00	NOT IDENT.
PB-211	3.614E-02	9.093E-01	1.539E+00	0.000E+00	NOT IDENT.
PO-215	-2.410E-01	6.631E-01	1.110E+00	0.000E+00	FAIL ABUN
RN-219	4.087E-03	3.928E-01	6.640E-01	0.000E+00	FAIL ABUN
RN-220	1.208E+00	2.420E+01	4.020E+01	0.000E+00	NOT IDENT.
RA-223	-2.410E-01	6.631E-01	1.110E+00	0.000E+00	FAIL ABUN
AC-227	2.104E-02	3.611E-01	6.284E-01	0.000E+00	FAIL ABUN
TH-227	2.104E-02	3.611E-01	6.284E-01	0.000E+00	FAIL ABUN
TH-229	2.991E-01	4.610E-01	8.327E-01	0.000E+00	FAIL ABUN
PA-231	3.744E-01	1.604E+00	2.478E+00	0.000E+00	FAIL ABUN
TH-231	-2.410E-01	6.631E-01	1.110E+00	0.000E+00	FAIL ABUN
U-231	-1.490E+00	1.065E+00	1.472E+00	0.000E+00	FAIL ABUN
PA-233	-1.824E-03	6.184E-02	1.059E-01	0.000E+00	FAIL ABUN
PA-234	-1.452E-01	3.044E-01	4.865E-01	0.000E+00	FAIL ABUN
PA-234M	-1.270E+00	4.741E+00	7.182E+00	0.000E+00	NOT IDENT.
U-235	5.477E-02	1.993E-01	3.359E-01	0.000E+00	FAIL ABUN
NP-236	3.150E-03	7.745E-02	1.267E-01	0.000E+00	NOT IDENT.
NP-239	-1.822E-01	1.789E-01	2.855E-01	0.000E+00	FAIL ABUN
AM-241	6.467E-02	1.231E-01	1.955E-01	0.000E+00	NOT IDENT.
AM-243	0.000E+00	6.755E-02	1.182E-01	0.000E+00	FAIL ABUN
CM-243	-6.165E-02	9.199E-02	1.508E-01	0.000E+00	FAIL ABUN
AM-246	7.818E-02	1.304E-01	2.305E-01	0.000E+00	NOT IDENT.
CM-247	2.746E-03	3.505E-02	5.953E-02	0.000E+00	FAIL ABUN
CF-249	-7.887E-03	3.920E-02	6.549E-02	0.000E+00	NOT IDENT.
CF-251	9.057E-02	1.236E-01	2.106E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:35:01.62

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994003.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:32:28
Sample ID         : G245994003           Sample quantity  : 1.17480E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:34.17  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	858	10.67*	1.253E+00	2.049E+01	2.049E+01	11.44
CD-109	88.03	204	3.72*	6.944E+00	2.523E+00	2.581E+00	38.94
SN-126	64.28	155	9.60	4.583E+00	1.129E+00	1.129E+00	60.89
	86.94	204	8.90	6.944E+00	1.055E+00	1.055E+00	56.15
	87.57	204	37.00*	6.944E+00	2.537E-01	2.537E-01	38.94
RE-188	155.03	58	15.00*	6.827E+00	1.823E-01	2.119E-01	91.45
	477.96	------	1.04	3.151E+00	------ Line Not Found		------
	633.10	------	1.26	2.524E+00	------ Line Not Found		------
HG-203	70.83	------	4.75	5.621E+00	------ Line Not Found		------
	72.87	------	8.00	5.845E+00	------ Line Not Found		------
	82.60	------	3.55	6.669E+00	------ Line Not Found		------
	279.20	99	77.30*	4.717E+00	8.648E-02	1.082E-01	65.64
TL-208	277.35	99	6.80	4.717E+00	9.831E-01	9.831E-01	66.20
	510.84	128	21.60	2.991E+00	6.332E-01	6.332E-01	50.89
	583.14	444	84.20*	2.696E+00	6.249E-01	6.249E-01	17.12
	860.37	55	12.46	1.953E+00	7.266E-01	7.266E-01	58.72
BI-211	72.87	------	1.27	5.845E+00	------ Line Not Found		------
	351.07	667	12.94*	3.969E+00	4.151E+00	4.151E+00	14.47
BI-212	727.18	103	11.80*	2.252E+00	1.244E+00	1.244E+00	35.13
	785.46	------	1.97	2.111E+00	------ Line Not Found		------
	1620.62	21	2.75	1.162E+00	2.100E+00	2.100E+00	44.45
PB-212	74.81	------	10.70	6.041E+00	------ Line Not Found		------
	77.11	1343	18.00	6.188E+00	3.853E+00	3.853E+00	15.69
	87.30	204	8.00	6.944E+00	1.173E+00	1.173E+00	40.20
	238.63	1395	44.60*	5.249E+00	1.904E+00	1.904E+00	12.30
	300.09	98	3.41	4.462E+00	2.067E+00	2.067E+00	50.42
PO-212	74.81	------	10.70	6.041E+00	------ Line Not Found		------
	77.11	1343	18.00	6.188E+00	3.853E+00	3.853E+00	15.69
	87.30	204	8.00	6.944E+00	1.173E+00	1.173E+00	40.20
	115.19	------	0.60	7.430E+00	------ Line Not Found		------
	238.63	1395	44.60*	5.249E+00	1.904E+00	1.904E+00	12.30
	300.09	98	3.41	4.462E+00	2.067E+00	2.067E+00	50.42

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
BI-214	609.31	434	46.30*	2.603E+00	1.152E+00	1.152E+00	17.37
	1120.29	122	15.10	1.557E+00	1.659E+00	1.659E+00	33.07
	1764.49	80	15.80	1.100E+00	1.467E+00	1.467E+00	28.02
PB-214	74.81	------	6.21	6.041E+00	------ Line Not Found		------
	77.11	1343	10.50	6.188E+00	6.606E+00	6.606E+00	17.45
	87.30	204	4.67	6.944E+00	2.010E+00	2.010E+00	39.69
	241.98	316	7.49	5.204E+00	2.591E+00	2.591E+00	30.28
	295.21	370	19.20	4.512E+00	1.363E+00	1.363E+00	20.94
	351.92	667	37.20*	3.969E+00	1.444E+00	1.444E+00	15.38
PO-214	74.81	------	6.21	6.041E+00	------ Line Not Found		------
	77.11	1343	10.50	6.188E+00	6.606E+00	6.606E+00	17.45
	87.30	204	4.67	6.944E+00	2.010E+00	2.010E+00	39.69
	241.98	316	7.49	5.204E+00	2.591E+00	2.591E+00	30.28
	295.21	370	19.20	4.512E+00	1.363E+00	1.363E+00	20.94
	351.92	667	37.20*	3.969E+00	1.444E+00	1.444E+00	15.38
PO-216	74.81	------	10.70	6.041E+00	------ Line Not Found		------
	77.11	1343	18.00	6.188E+00	3.853E+00	3.853E+00	15.69
	87.30	204	8.00	6.944E+00	1.173E+00	1.173E+00	40.20
	238.63	1395	44.60*	5.249E+00	1.904E+00	1.904E+00	12.30
	300.09	98	3.41	4.462E+00	2.067E+00	2.067E+00	50.42
PO-218	74.81	------	6.21	6.041E+00	------ Line Not Found		------
	77.11	1343	10.50	6.188E+00	6.606E+00	6.606E+00	17.45
	87.30	204	4.67	6.944E+00	2.010E+00	2.010E+00	39.69
	241.98	316	7.49	5.204E+00	2.591E+00	2.591E+00	30.28
	295.21	370	19.20	4.512E+00	1.363E+00	1.363E+00	20.94
	351.92	667	37.20*	3.969E+00	1.444E+00	1.444E+00	15.38
RA-224	240.98	316	3.95*	5.204E+00	4.913E+00	4.913E+00	29.76
RA-226	609.31	434	46.30*	2.603E+00	1.152E+00	1.152E+00	17.37
	1120.29	122	15.10	1.557E+00	1.659E+00	1.659E+00	33.07
	1764.49	80	15.80	1.100E+00	1.467E+00	1.467E+00	28.02
AC-228	338.32	293	11.40	4.085E+00	2.007E+00	2.007E+00	47.07
	911.07	300	27.70*	1.860E+00	1.860E+00	1.860E+00	19.09
	969.11	192	16.60	1.764E+00	2.092E+00	2.092E+00	30.51
RA-228	338.32	293	11.40	4.085E+00	2.007E+00	2.007E+00	47.07
	911.07	300	27.70*	1.860E+00	1.860E+00	1.860E+00	19.09
	969.11	192	16.60	1.764E+00	2.092E+00	2.092E+00	30.51
TH-228	74.81	------	10.70	6.041E+00	------ Line Not Found		------
	77.11	1343	18.00	6.188E+00	3.853E+00	3.911E+00	15.69
	87.30	204	8.00	6.944E+00	1.173E+00	1.191E+00	38.94
	238.63	1395	44.60*	5.249E+00	1.904E+00	1.932E+00	12.30
	300.09	98	3.41	4.462E+00	2.067E+00	2.098E+00	77.12
TH-230	609.31	434	46.30*	2.603E+00	1.152E+00	1.152E+00	17.37
	1120.29	122	15.10	1.557E+00	1.659E+00	1.659E+00	33.07
	1764.49	80	15.80	1.100E+00	1.467E+00	1.467E+00	28.02
TH-232	338.32	293	11.40	4.085E+00	2.007E+00	2.007E+00	24.24
	911.07	300	27.70*	1.860E+00	1.860E+00	1.860E+00	19.09
	969.11	192	16.60	1.764E+00	2.092E+00	2.092E+00	30.51
TH-234	63.29	155	3.80*	4.583E+00	2.851E+00	2.851E+00	61.65
	92.38	214	5.41	7.173E+00	1.766E+00	1.766E+00	44.34

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
U-234	609.31	434	46.30*	2.603E+00	1.152E+00	1.152E+00	17.37
	1120.29	122	15.10	1.557E+00	1.659E+00	1.659E+00	33.07
	1764.49	80	15.80	1.100E+00	1.467E+00	1.467E+00	28.02
NP-237	86.50	204	12.60*	6.944E+00	7.450E-01	7.450E-01	44.07
	95.87	------	2.60	7.260E+00	------ Line Not Found		------
U-238	63.29	155	3.80*	4.583E+00	2.851E+00	2.851E+00	61.65
	92.38	214	5.41	7.173E+00	1.766E+00	1.766E+00	41.39
ANH-511	511.00	128	100.00*	2.991E+00	1.368E-01	1.368E-01	50.20

Flag: "*" = Keyline

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

Total number of lines in spectrum	33	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	32	96.97%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.049E+01	2.049E+01	0.234E+01	11.44	
CD-109	464.00D	1.02	2.523E+00	2.581E+00	1.005E+00	38.94	
SN-126	1.00E+05Y	1.00	2.537E-01	2.537E-01	0.988E-01	38.94	
RE-188	69.40D	1.16	1.823E-01	2.119E-01	1.938E-01	91.45	
HG-203	46.60D	1.25	8.648E-02	1.082E-01	0.710E-01	65.64	
TL-208	1.41E+10Y	1.00	6.249E-01	6.249E-01	1.070E-01	17.12	
BI-211	7.04E+08Y	1.00	4.151E+00	4.151E+00	0.601E+00	14.47	
BI-212	1.41E+10Y	1.00	1.244E+00	1.244E+00	0.437E+00	35.13	
PB-212	1.41E+10Y	1.00	1.904E+00	1.904E+00	0.234E+00	12.30	
PO-212	1.41E+10Y	1.00	1.904E+00	1.904E+00	0.234E+00	12.30	
BI-214	1600.00Y	1.00	1.152E+00	1.152E+00	0.200E+00	17.37	
PB-214	1600.00Y	1.00	1.444E+00	1.444E+00	0.222E+00	15.38	
PO-214	1600.00Y	1.00	1.444E+00	1.444E+00	0.222E+00	15.38	
PO-216	1.41E+10Y	1.00	1.904E+00	1.904E+00	0.234E+00	12.30	
PO-218	1600.00Y	1.00	1.444E+00	1.444E+00	0.222E+00	15.38	
RA-224	1.41E+10Y	1.00	4.913E+00	4.913E+00	1.462E+00	29.76	
RA-226	1600.00Y	1.00	1.152E+00	1.152E+00	0.200E+00	17.37	
AC-228	1.41E+10Y	1.00	1.860E+00	1.860E+00	0.355E+00	19.09	
RA-228	1.41E+10Y	1.00	1.860E+00	1.860E+00	0.355E+00	19.09	
TH-228	1.91Y	1.02	1.904E+00	1.932E+00	0.238E+00	12.30	
TH-230	4.47E+09Y	1.00	1.152E+00	1.152E+00	0.200E+00	17.37	
TH-232	1.41E+10Y	1.00	1.860E+00	1.860E+00	0.355E+00	19.09	
TH-234	4.47E+09Y	1.00	2.851E+00	2.851E+00	1.758E+00	61.65	
U-234	4.47E+09Y	1.00	1.152E+00	1.152E+00	0.200E+00	17.37	
NP-237	2.14E+06Y	1.00	7.450E-01	7.450E-01	3.283E-01	44.07	
U-238	4.47E+09Y	1.00	2.851E+00	2.851E+00	1.758E+00	61.65	
ANH-511	1.00E+09Y	1.00	1.368E-01	1.368E-01	0.687E-01	50.20	
			---	---			
	Total Activity :		6.319E+01	6.333E+01			

Grand Total Activity : 6.319E+01 6.333E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	89.90	135	426	0.98	179.69	177	13	1.87E-02	49.3	7.06E+00	T
0	129.65	70	429	1.13	259.09	252	10	9.70E-03	****	7.28E+00	T
0	186.12	236	333	1.34	371.86	367	11	3.28E-02	33.8	6.17E+00	T
0	209.09	141	251	1.46	417.75	414	9	1.96E-02	43.7	5.74E+00	T
0	270.15	177	158	0.90	539.71	535	10	2.45E-02	30.6	4.81E+00	T
0	463.11	76	74	1.36	925.25	921	9	1.06E-02	46.6	3.23E+00	T
0	794.99	48	48	1.06	1588.66	1585	10	6.65E-03	60.3	2.09E+00	T
2	965.06	80	48	2.02	1928.79	1920	23	1.11E-02	43.7	1.77E+00	T
0	1237.90	59	21	1.35	2474.68	2469	12	8.17E-03	40.7	1.43E+00	T
0	1588.86	28	16	3.41	3177.28	3171	12	3.83E-03	71.8	1.18E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:35:07.20

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994003.CNF;1    *
* Acquisition date : 12-FEB-2010 12:32:28  Detector SN#    :                  *
* Detector ID      : GAM20                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:34.17         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                  SAMPLE DATA                                *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID             *
* Sample ID        : G245994003            Analyst initials: MXR1              *
* Batch Number     : 948812                Sample Quantity : 1.17480E+02 GRAM  *
*******************************************************************************
*                                                                             *
*                                    QC DATA                                  *
*                                                                             *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.049E+01	2.345E+00	4.690E-01	4.090E-02	43.700
CD-109	2.581E+00	1.005E+00	1.165E+00	1.101E-01	2.216
SN-126	2.537E-01	9.879E-02	1.148E-01	1.080E-02	2.210
RE-188	2.119E-01	1.938E-01	2.600E-01	2.232E-02	0.815
HG-203	1.082E-01	7.102E-02	6.516E-02	6.627E-03	1.661
TL-208	6.249E-01	1.070E-01	5.790E-02	5.953E-03	10.793
BI-211	4.151E+00	6.006E-01	3.324E-01	3.185E-02	12.487
BI-212	1.244E+00	4.368E-01	4.447E-01	5.048E-02	2.796
PB-212	1.904E+00	2.341E-01	8.259E-02	8.783E-03	23.050
PO-212	1.904E+00	2.341E-01	8.259E-02	8.783E-03	23.050
BI-214	1.152E+00	2.001E-01	1.142E-01	1.271E-02	10.088
PB-214	1.444E+00	2.221E-01	1.109E-01	1.208E-02	13.027
PO-214	1.444E+00	2.221E-01	1.109E-01	1.208E-02	13.027
PO-216	1.904E+00	2.341E-01	8.259E-02	8.783E-03	23.050
PO-218	1.444E+00	2.221E-01	1.109E-01	1.208E-02	13.027
RA-224	4.913E+00	1.462E+00	9.397E-01	9.083E-02	5.228
RA-226	1.152E+00	2.001E-01	1.142E-01	1.271E-02	10.088
AC-228	1.860E+00	3.551E-01	2.104E-01	2.577E-02	8.842

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.860E+00	3.551E-01	2.104E-01	2.577E-02	8.842
TH-228	1.932E+00	2.376E-01	8.384E-02	8.916E-03	23.050
TH-230	1.152E+00	2.001E-01	1.142E-01	1.271E-02	10.088
TH-232	1.860E+00	3.551E-01	2.104E-01	2.577E-02	8.842
TH-234	2.851E+00	1.758E+00	1.640E+00	2.849E-01	1.739
U-234	1.152E+00	2.001E-01	1.142E-01	1.271E-02	10.088
NP-237	7.450E-01	3.283E-01	3.717E-01	8.409E-02	2.004
U-238	2.851E+00	1.758E+00	1.640E+00	2.849E-01	1.739
ANH-511	1.368E-01	6.866E-02	4.564E-02	4.253E-03	2.997

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.066E-01		2.987E-01	4.385E-01	4.262E-02	-0.699
NA-22	-1.904E-02		3.952E-02	5.961E-02	4.938E-03	-0.319
NA-24	-5.702E-01		2.898E-01	Half-Life too short		
AL-26	-2.096E-02		3.179E-02	4.533E-02	3.682E-03	-0.462
TI-44	3.046E-01		4.689E-02	7.598E-02	6.376E-03	4.009
SC-46	-2.882E-03		3.449E-02	5.648E-02	5.630E-03	-0.051
V-48	-7.117E-02		6.908E-02	1.000E-01	9.561E-03	-0.711
CR-51	-3.295E-01		3.683E-01	5.750E-01	5.764E-02	-0.573
MN-52	7.089E-02		1.975E-01	3.479E-01	2.944E-02	0.204
MN-54	-2.529E-04		3.873E-02	6.422E-02	6.487E-03	-0.004
CO-56	-8.199E-03		3.474E-02	5.615E-02	5.659E-03	-0.146
CO-57	-1.372E-02		2.505E-02	3.918E-02	3.270E-03	-0.350
CO-58	1.813E-03		3.729E-02	6.226E-02	6.322E-03	0.029
FE-59	-2.826E-02		7.664E-02	1.190E-01	1.122E-02	-0.238
CO-60	-2.027E-02		4.045E-02	6.057E-02	5.073E-03	-0.335
ZN-65	1.001E-02		9.784E-02	1.396E-01	1.202E-02	0.072
GE-68	1.211E-01		1.186E+00	1.957E+00	1.746E-01	0.062
AS-73	2.160E-02		5.501E-01	9.076E-01	6.738E-02	0.024
AS-74	2.051E-02		8.611E-02	1.409E-01	1.379E-02	0.146
SE-75	-1.425E-03		4.041E-02	6.256E-02	6.194E-03	-0.023
BR-77	2.175E-01		9.932E+00	1.606E+01	1.507E+00	0.014
SR-82	-3.173E-01		3.836E-01	5.912E-01	6.007E-02	-0.537
RB-83	2.559E-02		6.562E-02	1.094E-01	1.026E-02	0.234
RB-84	3.033E-02		6.158E-02	1.069E-01	1.069E-02	0.284
KR-85	1.185E+01		8.023E+00	1.288E+01	1.203E+00	0.920
SR-85	6.068E-02		4.110E-02	6.597E-02	6.160E-03	0.920
RB-86	3.463E-01		7.350E-01	1.259E+00	1.124E-01	0.275
Y-88	-5.550E-03		2.673E-02	4.158E-02	3.355E-03	-0.133
ZR-88	-1.067E-02		2.898E-02	4.625E-02	3.868E-03	-0.231
Y-91	-2.798E-01		1.727E+01	2.789E+01	2.265E+00	-0.010
NB-94	3.145E-02		3.339E-02	5.962E-02	6.032E-03	0.528
NB-95	-3.334E-02		4.126E-02	6.397E-02	6.502E-03	-0.521
NB-95M	1.011E-01		1.229E-01	1.913E-01	2.055E-02	0.529
ZR-95	7.925E-02		7.583E-02	1.357E-01	1.480E-02	0.584

Sample ID : G245994003 Acquisition date : 12-FEB-2010 12:32:28

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	-2.683E-02		4.005E-02	Half-Life too short		
ZR-97	1.614E+00		8.539E-01	Half-Life too short		
MO-99	1.168E+00		1.071E+01	1.807E+01	2.910E+00	0.065
TC-99M	-6.814E+09		1.431E+10	Half-Life too short		
RH-101	-4.417E-03		3.004E-02	5.053E-02	4.631E-03	-0.087
RH-102	-1.006E-03		2.667E-02	4.315E-02	3.912E-03	-0.023
RU-103	9.332E-04		3.986E-02	6.465E-02	9.399E-03	0.014
RH-106	-6.911E-02		3.043E-01	4.749E-01	6.750E-02	-0.146
RU-106	-6.911E-02		3.042E-01	4.749E-01	4.700E-02	-0.146
AG-108M	-1.500E-02		3.190E-02	5.012E-02	4.549E-03	-0.299
AG-110M	-1.229E-02		3.136E-02	5.098E-02	5.223E-03	-0.241
IN-111	3.767E-01		9.985E-01	1.518E+00	1.474E-01	0.248
IN-113M	-1.903E-02		4.327E-02	6.876E-02	5.931E-03	-0.277
SN-113	-1.903E-02		4.327E-02	6.876E-02	5.931E-03	-0.277
IN-114M	-5.913E-02		1.855E-01	2.723E-01	2.468E-02	-0.217
CD-115	-8.268E+00		1.019E+01	1.518E+01	1.431E+00	-0.544
SN-117M	3.741E-02		5.959E-02	8.678E-02	7.489E-03	0.431
SB-122	1.091E+00		2.039E+00	3.416E+00	3.290E-01	0.320
I-123	2.328E+00		2.654E+00	Half-Life too short		
TE-123M	1.295E-02		2.953E-02	4.518E-02	3.925E-03	0.287
I-124	-6.909E-01		6.801E-01	8.796E-01	8.636E-02	-0.785
SB-124	7.123E-02		6.182E-02	1.248E-01	1.084E-02	0.571
SB-125	1.502E-02		8.905E-02	1.472E-01	1.303E-02	0.102
TE-125M	-5.200E+00		9.100E+00	1.429E+01	1.461E+00	-0.364
I-126	1.271E-01		1.774E-01	3.133E-01	3.148E-02	0.406
SB-126	-7.040E-02		1.533E-01	2.318E-01	2.350E-02	-0.304
SB-127	-7.139E-01		1.293E+00	2.067E+00	2.584E-01	-0.345
XE-127	-2.993E-02		4.321E-02	7.068E-02	6.523E-03	-0.423
I-131	-2.961E-02		1.050E-01	1.694E-01	1.589E-02	-0.175
TE-132	-1.571E-01		6.454E-01	1.073E+00	1.740E-01	-0.146
BA-133	7.606E-03		4.403E-02	6.474E-02	8.746E-03	0.117
I-133	-3.120E-03		2.764E-03	Half-Life too short		
CS-134	9.656E-02	+	5.907E-02	9.223E-02	9.411E-03	1.047
CS-135	3.481E-01		1.623E-01	2.692E-01	2.983E-02	1.293
I-135	-9.895E+08		1.990E+09	Half-Life too short		
CS-136	3.886E-02		1.057E-01	1.792E-01	1.700E-02	0.217
BA-137M	-8.479E-04		3.561E-02	5.980E-02	6.002E-03	-0.014
CS-137	-8.963E-04		3.764E-02	6.322E-02	6.353E-03	-0.014
CE-139	-1.745E-02		2.910E-02	4.467E-02	3.899E-03	-0.391
BA-140	-8.830E-02		2.396E-01	3.698E-01	1.234E-01	-0.239
LA-140	-4.775E-02		8.644E-02	1.230E-01	1.039E-02	-0.388
CE-141	6.681E-02		5.962E-02	9.979E-02	8.616E-03	0.669
CE-143	6.053E-04		1.033E-04	Half-Life too short		
CE-144	-1.313E-01		2.153E-01	3.157E-01	4.871E-02	-0.416
PM-144	3.042E-02		3.301E-02	5.904E-02	5.969E-03	0.515
PR-144	2.061E+00		2.237E+00	4.001E+00	4.044E-01	0.515
PM-146	-8.591E-03		4.310E-02	6.905E-02	7.563E-03	-0.124
ND-147	2.041E-01		5.267E-01	8.767E-01	1.354E-01	0.233

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	7.872E+00		8.436E+01	1.413E+02	2.303E+01	0.056
EU-152	-6.628E-04		1.029E-01	1.490E-01	1.454E-02	-0.004
GD-153	-1.416E-01		8.073E-02	1.113E-01	9.872E-03	-1.272
EU-154	-4.074E-02		1.084E-01	1.659E-01	1.833E-02	-0.246
EU-155	1.426E-01		1.058E-01	1.793E-01	1.559E-02	0.796
TB-160	-3.862E-02		1.302E-01	2.086E-01	2.086E-02	-0.185
HO-166M	-4.068E-02		5.776E-02	9.070E-02	9.188E-03	-0.448
TM-171	-1.426E+01		2.667E+01	3.812E+01	2.840E+00	-0.374
LU-176	5.757E-03		2.279E-02	3.842E-02	3.748E-03	0.150
LU-177	3.395E+00	+	1.516E+00	2.064E+00	1.919E-01	1.645
LU-177M	-2.980E-01		1.843E-01	2.644E-01	2.263E-02	-1.127
HF-181	1.199E-02		4.170E-02	6.913E-02	6.303E-03	0.173
W-181	5.446E-02		3.361E-01	4.969E-01	3.657E-02	0.110
TA-182	5.131E-02		1.831E-01	3.044E-01	2.484E-02	0.169
RE-183	-7.960E-02		1.077E-01	1.643E-01	1.426E-02	-0.485
RE-184	5.717E-02		2.204E-01	3.742E-01	3.657E-02	0.153
OS-185	3.623E-02		4.059E-02	7.285E-02	7.275E-03	0.497
W-188	-8.870E+00		8.132E+00	1.080E+01	1.068E+00	-0.821
IR-192	-2.678E-03		3.382E-02	5.582E-02	5.398E-03	-0.048
AU-195	2.757E-01		2.191E-01	3.668E-01	3.230E-02	0.752
TL-200	-1.167E-04		2.054E-04	Half-Life too short		
TL-201	6.532E-01		6.669E+00	1.063E+01	9.302E-01	0.061
TL-202	-3.304E-02		6.965E-02	1.095E-01	9.616E-03	-0.302
BI-207	2.379E-02		5.431E-02	9.238E-02	8.341E-03	0.258
TL-207	-2.410E-01		6.766E-01	1.096E+00	1.993E-01	-0.220
PO-209	1.459E-01		6.689E+00	1.107E+01	1.101E+00	0.013
BI-210	9.387E-01		2.063E+00	3.457E+00	3.206E-01	0.272
PB-210	9.387E-01		2.063E+00	3.457E+00	3.206E-01	0.272
PO-210	9.387E-01		2.063E+00	3.457E+00	2.900E-01	0.272
PB-211	3.614E-02		9.278E-01	1.523E+00	9.540E-01	0.024
PO-215	-2.410E-01		6.766E-01	1.096E+00	1.993E-01	-0.220
RN-219	4.087E-03		4.008E-01	6.570E-01	9.808E-02	0.006
RN-220	1.208E+00		2.469E+01	3.991E+01	3.813E+00	0.030
RA-223	-2.410E-01		6.766E-01	1.096E+00	1.993E-01	-0.220
AC-227	2.104E-02		3.684E-01	6.188E-01	9.926E-02	0.034
TH-227	2.104E-02		3.684E-01	6.188E-01	1.154E-01	0.034
TH-229	2.991E-01		4.704E-01	8.176E-01	7.446E-02	0.366
PA-231	3.744E-01		1.637E+00	2.443E+00	3.900E-01	0.153
TH-231	-2.410E-01		6.766E-01	1.096E+00	1.993E-01	-0.220
U-231	-1.490E+00		1.087E+00	1.435E+00	1.283E-01	-1.038
PA-233	-1.824E-03		6.310E-02	1.045E-01	1.037E-02	-0.017
PA-234	-1.452E-01		3.106E-01	4.858E-01	9.380E-02	-0.299
PA-234M	-1.270E+00		4.838E+00	7.176E+00	7.676E-01	-0.177
U-235	5.477E-02		2.033E-01	3.287E-01	5.729E-02	0.167
NP-236	3.150E-03		7.903E-02	1.242E-01	1.074E-02	0.025
NP-239	-1.822E-01		1.826E-01	2.789E-01	2.336E-02	-0.653
AM-241	6.467E-02		1.256E-01	1.896E-01	1.483E-02	0.341
AM-243	4.381E-01		6.893E-02	1.150E-01	9.253E-03	3.811

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-6.165E-02		9.386E-02	1.471E-01	1.270E-02	-0.419
AM-246	7.818E-02		1.331E-01	2.304E-01	2.053E-02	0.339
CM-247	2.746E-03		3.577E-02	5.890E-02	4.981E-03	0.047
CF-249	-7.887E-03		4.000E-02	6.477E-02	5.465E-03	-0.122
CF-251	9.057E-02		1.261E-01	2.065E-01	1.833E-02	0.438

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994003            *
* Acquisition date : 12-FEB-2010 12:32:28 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:34.17     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245994003           Analyst initials: MXR1            *
* Batch Number     : 948812               Sample Quantity : 1.1748E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.049E+01	2.298E+00	2.339E-01	1.172E+00
CD-109	2.581E+00	9.848E-01	5.983E-01	5.025E-01
SN-126	2.537E-01	9.681E-02	5.899E-02	4.939E-02
RE-188	2.119E-01	1.899E-01	1.328E-01	9.689E-02
HG-203	1.082E-01	6.960E-02	3.307E-02	3.551E-02
TL-208	6.249E-01	1.049E-01	2.916E-02	5.350E-02
BI-211	4.151E+00	5.886E-01	1.683E-01	3.003E-01
BI-212	1.244E+00	4.281E-01	2.235E-01	2.184E-01
PB-212	1.904E+00	2.294E-01	4.199E-02	1.170E-01
PO-212	1.904E+00	2.294E-01	4.199E-02	1.170E-01
BI-214	1.152E+00	1.961E-01	5.748E-02	1.000E-01
PB-214	1.444E+00	2.176E-01	5.613E-02	1.110E-01
PO-214	1.444E+00	2.176E-01	5.613E-02	1.110E-01
PO-216	1.904E+00	2.294E-01	4.199E-02	1.170E-01
PO-218	1.444E+00	2.176E-01	5.613E-02	1.110E-01
RA-224	4.913E+00	1.433E+00	4.777E-01	7.310E-01
RA-226	1.152E+00	1.961E-01	5.748E-02	1.000E-01
AC-228	1.860E+00	3.480E-01	1.055E-01	1.775E-01
RA-228	1.860E+00	3.480E-01	1.055E-01	1.775E-01
TH-228	1.932E+00	2.329E-01	4.263E-02	1.188E-01
TH-230	1.152E+00	1.961E-01	5.748E-02	1.000E-01
TH-232	1.860E+00	3.480E-01	1.055E-01	1.775E-01
TH-234	2.851E+00	1.723E+00	8.453E-01	8.789E-01
U-234	1.152E+00	1.961E-01	5.748E-02	1.000E-01
NP-237	7.450E-01	3.217E-01	1.910E-01	1.641E-01
U-238	2.851E+00	1.723E+00	8.453E-01	8.789E-01
ANH-511	1.368E-01	6.729E-02	2.302E-02	3.433E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-3.066E-01	2.927E-01	2.213E-01	1.493E-01	NOT IDENT.
NA-22	-1.904E-02	3.873E-02	2.977E-02	1.976E-02	NOT IDENT.
NA-24	-5.702E+05	5.680E+05	0.000E+00	2.898E+05	SHORT HLIF
AL-26	-2.096E-02	3.115E-02	2.255E-02	1.589E-02	NOT IDENT.
TI-44	3.046E-01	4.595E-02	3.908E-02	2.344E-02	NOT IDENT.
SC-46	-2.882E-03	3.380E-02	2.832E-02	1.725E-02	FAIL ABUN
V-48	-7.117E-02	6.769E-02	5.010E-02	3.454E-02	NOT IDENT.
CR-51	-3.295E-01	3.609E-01	2.914E-01	1.842E-01	NOT IDENT.
MN-52	7.089E-02	1.935E-01	1.735E-01	9.874E-02	NOT IDENT.
MN-54	-2.529E-04	3.796E-02	3.222E-02	1.937E-02	NOT IDENT.
CO-56	-8.199E-03	3.405E-02	2.817E-02	1.737E-02	FAIL ABUN
CO-57	-1.372E-02	2.455E-02	2.006E-02	1.252E-02	NOT IDENT.
CO-58	1.813E-03	3.655E-02	3.125E-02	1.865E-02	NOT IDENT.
FE-59	-2.826E-02	7.510E-02	5.952E-02	3.832E-02	NOT IDENT.
CO-60	-2.027E-02	3.964E-02	3.023E-02	2.023E-02	NOT IDENT.
ZN-65	1.001E-02	9.588E-02	6.982E-02	4.892E-02	NOT IDENT.
GE-68	1.211E-01	1.163E+00	9.789E-01	5.932E-01	NOT IDENT.
AS-73	2.160E-02	5.391E-01	4.687E-01	2.750E-01	NOT IDENT.
AS-74	2.051E-02	8.439E-02	7.093E-02	4.306E-02	NOT IDENT.
SE-75	-1.425E-03	3.961E-02	3.177E-02	2.021E-02	NOT IDENT.
BR-77	2.175E-01	9.733E+00	8.100E+00	4.966E+00	FAIL ABUN
SR-82	-3.173E-01	3.759E-01	2.968E-01	1.918E-01	NOT IDENT.
RB-83	2.559E-02	6.431E-02	5.517E-02	3.281E-02	NOT IDENT.
RB-84	3.033E-02	6.035E-02	5.363E-02	3.079E-02	NOT IDENT.
KR-85	1.185E+01	7.863E+00	6.496E+00	4.012E+00	NOT IDENT.
SR-85	6.068E-02	4.027E-02	3.327E-02	2.055E-02	NOT IDENT.
RB-86	3.463E-01	7.203E-01	6.299E-01	3.675E-01	NOT IDENT.
Y-88	-5.550E-03	2.620E-02	2.069E-02	1.337E-02	NOT IDENT.
ZR-88	-1.067E-02	2.840E-02	2.339E-02	1.449E-02	NOT IDENT.
Y-91	-2.798E-01	1.692E+01	1.394E+01	8.633E+00	NOT IDENT.
NB-94	3.145E-02	3.272E-02	2.997E-02	1.669E-02	NOT IDENT.
NB-95	-3.334E-02	4.043E-02	3.213E-02	2.063E-02	NOT IDENT.
NB-95M	1.011E-01	1.204E-01	9.726E-02	6.143E-02	NOT IDENT.
ZR-95	7.925E-02	7.431E-02	6.814E-02	3.791E-02	NOT IDENT.
NB-97	-2.683E+04	7.850E+04	0.000E+00	4.005E+04	SHORT HLIF
ZR-97	1.614E+06	1.674E+06	0.000E+00	8.539E+05	SHORT HLIF
MO-99	1.168E+00	1.049E+01	9.076E+00	5.354E+00	NOT IDENT.
TC-99M	-6.814E+15	2.805E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.417E-03	2.944E-02	2.574E-02	1.502E-02	NOT IDENT.
RH-102	-1.006E-03	2.614E-02	2.178E-02	1.334E-02	NOT IDENT.
RU-103	9.332E-04	3.907E-02	3.262E-02	1.993E-02	FAIL ABUN
RH-106	-6.911E-02	2.982E-01	2.390E-01	1.521E-01	FAIL ABUN
RU-106	-6.911E-02	2.981E-01	2.390E-01	1.521E-01	FAIL ABUN
AG-108M	-1.500E-02	3.126E-02	2.532E-02	1.595E-02	NOT IDENT.
AG-110M	-1.229E-02	3.073E-02	2.564E-02	1.568E-02	NOT IDENT.
IN-111	3.767E-01	9.785E-01	7.718E-01	4.993E-01	NOT IDENT.
IN-113M	-1.903E-02	4.241E-02	3.478E-02	2.164E-02	NOT IDENT.
SN-113	-1.903E-02	4.241E-02	3.478E-02	2.164E-02	NOT IDENT.
IN-114M	-5.913E-02	1.818E-01	1.388E-01	9.275E-02	NOT IDENT.
CD-115	-8.268E+00	9.984E+00	7.656E+00	5.094E+00	NOT IDENT.
SN-117M	3.741E-02	5.840E-02	4.431E-02	2.980E-02	NOT IDENT.
SB-122	1.091E+00	1.998E+00	1.721E+00	1.019E+00	NOT IDENT.
I-123	2.328E+06	5.201E+06	0.000E+00	2.654E+06	SHORT HLIF
TE-123M	1.295E-02	2.893E-02	2.307E-02	1.476E-02	NOT IDENT.
I-124	-6.909E-01	6.665E-01	4.428E-01	3.400E-01	NOT IDENT.
SB-124	7.123E-02	6.058E-02	6.212E-02	3.091E-02	FAIL ABUN
SB-125	1.502E-02	8.727E-02	7.437E-02	4.453E-02	FAIL ABUN
TE-125M	-5.200E+00	8.918E+00	7.325E+00	4.550E+00	NOT IDENT.
I-126	1.271E-01	1.738E-01	1.576E-01	8.868E-02	NOT IDENT.
SB-126	-7.040E-02	1.503E-01	1.165E-01	7.666E-02	FAIL ABUN
SB-127	-7.139E-01	1.267E+00	1.039E+00	6.465E-01	NOT IDENT.
XE-127	-2.993E-02	4.235E-02	3.600E-02	2.161E-02	NOT IDENT.
I-131	-2.961E-02	1.029E-01	8.573E-02	5.250E-02	NOT IDENT.
TE-132	-1.571E-01	6.324E-01	5.458E-01	3.227E-01	NOT IDENT.
BA-133	7.606E-03	4.315E-02	3.278E-02	2.201E-02	FAIL ABUN
I-133	-3.120E+03	5.417E+03	0.000E+00	2.764E+03	SHORT HLIF
CS-134	9.656E-02	5.789E-02	4.630E-02	2.954E-02	FAIL ABUN
CS-135	3.481E-01	1.591E-01	1.367E-01	8.117E-02	NOT IDENT.
I-135	-9.895E+14	3.899E+15	0.000E+00	1.990E+15	SHORT HLIF
CS-136	3.886E-02	1.036E-01	8.967E-02	5.286E-02	FAIL ABUN
BA-137M	-8.479E-04	3.489E-02	3.008E-02	1.780E-02	NOT IDENT.
CS-137	-8.963E-04	3.689E-02	3.180E-02	1.882E-02	NOT IDENT.
CE-139	-1.745E-02	2.852E-02	2.280E-02	1.455E-02	NOT IDENT.
BA-140	-8.830E-02	2.348E-01	1.864E-01	1.198E-01	NOT IDENT.
LA-140	-4.775E-02	8.471E-02	6.130E-02	4.322E-02	NOT IDENT.
CE-141	6.681E-02	5.843E-02	5.100E-02	2.981E-02	NOT IDENT.
CE-143	6.053E+02	2.025E+02	0.000E+00	1.033E+02	SHORT HLIF
CE-144	-1.313E-01	2.110E-01	1.615E-01	1.076E-01	NOT IDENT.

PM-144	3.042E-02	3.235E-02	2.968E-02	1.650E-02	NOT IDENT.
PR-144	2.061E+00	2.192E+00	2.011E+00	1.118E+00	NOT IDENT.
PM-146	-8.591E-03	4.224E-02	3.487E-02	2.155E-02	NOT IDENT.
ND-147	2.041E-01	5.162E-01	4.420E-01	2.634E-01	FAIL ABUN
PM-149	7.872E+00	8.267E+01	7.170E+01	4.218E+01	NOT IDENT.
EU-152	-6.628E-04	1.008E-01	7.548E-02	5.143E-02	FAIL ABUN
GD-153	-1.416E-01	7.912E-02	5.713E-02	4.036E-02	NOT IDENT.
EU-154	-4.074E-02	1.063E-01	8.285E-02	5.421E-02	NOT IDENT.
EU-155	1.426E-01	1.037E-01	9.193E-02	5.289E-02	FAIL ABUN
TB-160	-3.862E-02	1.276E-01	1.046E-01	6.509E-02	FAIL ABUN
HO-166M	-4.068E-02	5.660E-02	4.558E-02	2.888E-02	NOT IDENT.
TM-171	-1.426E+01	2.614E+01	1.964E+01	1.334E+01	NOT IDENT.
LU-176	5.757E-03	2.234E-02	1.948E-02	1.140E-02	FAIL ABUN
LU-177	3.395E+00	1.486E+00	1.051E+00	7.581E-01	FAIL ABUN
LU-177M	-2.980E-01	1.806E-01	1.336E-01	9.215E-02	FAIL ABUN
HF-181	1.199E-02	4.086E-02	3.489E-02	2.085E-02	NOT IDENT.
W-181	5.446E-02	3.294E-01	2.561E-01	1.681E-01	NOT IDENT.
TA-182	5.131E-02	1.794E-01	1.521E-01	9.154E-02	FAIL ABUN
RE-183	-7.960E-02	1.056E-01	8.386E-02	5.387E-02	FAIL ABUN
RE-184	5.717E-02	2.160E-01	1.901E-01	1.102E-01	NOT IDENT.
OS-185	3.623E-02	3.978E-02	3.665E-02	2.029E-02	NOT IDENT.
W-188	-8.870E+00	7.970E+00	5.480E+00	4.066E+00	FAIL ABUN
IR-192	-2.678E-03	3.315E-02	2.830E-02	1.691E-02	FAIL ABUN
AU-195	2.757E-01	2.147E-01	1.882E-01	1.095E-01	FAIL ABUN
TL-200	-1.167E+02	4.026E+02	0.000E+00	2.054E+02	SHORT HLIF
TL-201	6.532E-01	6.536E+00	5.426E+00	3.335E+00	NOT IDENT.
TL-202	-3.304E-02	6.825E-02	5.529E-02	3.482E-02	NOT IDENT.
BI-207	2.379E-02	5.323E-02	4.623E-02	2.716E-02	FAIL ABUN
TL-207	-2.410E-01	6.631E-01	5.554E-01	3.383E-01	FAIL ABUN
PO-209	1.459E-01	6.555E+00	5.550E+00	3.344E+00	NOT IDENT.
BI-210	9.387E-01	2.022E+00	1.788E+00	1.031E+00	NOT IDENT.
PB-210	9.387E-01	2.022E+00	1.788E+00	1.031E+00	NOT IDENT.
PO-210	9.387E-01	2.021E+00	1.788E+00	1.031E+00	NOT IDENT.
PB-211	3.614E-02	9.093E-01	7.700E-01	4.639E-01	NOT IDENT.
PO-215	-2.410E-01	6.631E-01	5.554E-01	3.383E-01	FAIL ABUN
RN-219	4.087E-03	3.928E-01	3.322E-01	2.004E-01	FAIL ABUN
RN-220	1.208E+00	2.420E+01	2.011E+01	1.235E+01	NOT IDENT.
RA-223	-2.410E-01	6.631E-01	5.554E-01	3.383E-01	FAIL ABUN
AC-227	2.104E-02	3.611E-01	3.144E-01	1.842E-01	FAIL ABUN
TH-227	2.104E-02	3.611E-01	3.144E-01	1.842E-01	FAIL ABUN
TH-229	2.991E-01	4.610E-01	4.166E-01	2.352E-01	FAIL ABUN
PA-231	3.744E-01	1.604E+00	1.240E+00	8.186E-01	FAIL ABUN
TH-231	-2.410E-01	6.631E-01	5.554E-01	3.383E-01	FAIL ABUN
U-231	-1.490E+00	1.065E+00	7.366E-01	5.436E-01	FAIL ABUN
PA-233	-1.824E-03	6.184E-02	5.300E-02	3.155E-02	FAIL ABUN
PA-234	-1.452E-01	3.044E-01	2.434E-01	1.553E-01	FAIL ABUN
PA-234M	-1.270E+00	4.741E+00	3.593E+00	2.419E+00	NOT IDENT.
U-235	5.477E-02	1.993E-01	1.680E-01	1.017E-01	FAIL ABUN
NP-236	3.150E-03	7.745E-02	6.339E-02	3.952E-02	NOT IDENT.
NP-239	-1.822E-01	1.789E-01	1.428E-01	9.129E-02	FAIL ABUN
AM-241	6.467E-02	1.231E-01	9.778E-02	6.281E-02	NOT IDENT.
AM-243	4.381E-01	6.755E-02	5.916E-02	3.446E-02	FAIL ABUN
CM-243	-6.165E-02	9.199E-02	7.546E-02	4.693E-02	FAIL ABUN
AM-246	7.818E-02	1.304E-01	1.153E-01	6.653E-02	NOT IDENT.
CM-247	2.746E-03	3.505E-02	2.978E-02	1.788E-02	FAIL ABUN
CF-249	-7.887E-03	3.920E-02	3.276E-02	2.000E-02	NOT IDENT.
CF-251	9.057E-02	1.236E-01	1.053E-01	6.306E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
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46.50	239.2403
46.50	239.2403
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54.07	278.5784
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56.28	322.4461
57.37	0.0000
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57.53	311.4851
57.60	311.5258
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57.98	286.6670
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59.32	315.8311
59.40	315.8778
59.54	315.9607
59.72	316.0670
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61.14	343.9307
61.30	342.5297
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63.29	377.9440
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65.20	396.3777
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66.91	418.8094
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67.20	419.0200
67.75	390.5450
67.85	390.3077
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68.90	454.7585
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69.67	456.3719
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70.82	403.2812
70.83	403.2872
72.80	419.9367
72.87	404.6569
72.87	404.6569
74.67	401.7498
74.81	401.8415
74.81	401.8415
74.81	401.8415
74.81	401.8415
74.81	401.8415
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74.81	401.8415
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77.11	403.3269

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77.11	403.3269
77.11	403.3269
78.38	404.1384
79.62	404.9239
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79.80	405.0376
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80.18	405.2768
80.30	405.3526
80.30	405.3526
80.57	405.5221
81.00	406.8264
81.07	406.8704
81.07	406.8704
81.07	406.8704
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83.78	402.3180
83.78	402.3180
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84.90	391.5405
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86.54	472.8773
86.59	472.9118
86.72	473.0017
86.79	479.3156
86.94	504.4909
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87.57	395.1843
87.88	395.3650
88.03	395.4515
88.36	395.6418
88.47	395.7053
89.95	352.4951
91.11	353.0830
92.29	353.6777
92.38	353.7239
92.38	353.7239
93.35	265.6569
94.00	251.6558
94.67	259.8110
94.67	259.8135
94.90	277.3281
94.90	277.3281
94.90	277.3281
94.90	277.3281
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95.87	345.9390
96.73	374.9492
97.43	352.4091
98.44	267.5385
98.44	267.5385
98.88	268.7610
99.55	244.5505
99.55	244.5505
99.86	249.9720
100.00	261.7228
100.10	261.7591
103.18	366.4769
103.76	316.5023
105.00	281.6754
105.31	271.0747
108.00	351.5855
109.28	314.4694

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111.00	260.1119
111.76	277.6467
112.95	299.7001
115.19	260.3906
116.30	281.3896
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117.00	285.9801
117.66	287.2985
121.11	231.6712
121.62	252.5869
121.78	279.9766
122.06	282.2584
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122.32	303.1378
122.32	303.1378
122.32	303.1378
123.07	303.6274
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129.76	268.2433
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136.00	276.8043
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136.48	254.7061
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140.51	0.0000
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144.24	233.3060
144.24	233.3060
144.24	233.3060
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145.44	221.2502
147.16	275.6599
152.43	263.0336
152.70	259.7108
153.22	256.4530
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154.21	258.4135
154.21	258.4135
154.21	258.4135
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163.35	235.6246
163.89	205.9955
165.85	244.2272
167.43	226.2281
171.28	247.8129
171.86	236.4161
172.10	236.4703
176.55	213.1375
176.60	213.1487
181.06	233.8048
184.41	219.8192
185.71	215.5221
186.00	215.5784
190.27	220.9767
192.34	215.5413
193.63	205.5762
197.04	230.0807
198.01	219.6470
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200.40	191.6993
201.83	239.9167
202.84	230.3419
205.31	198.2056

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208.81	217.2005
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209.75	216.1188
210.97	213.4727
215.65	194.1597
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218.09	208.9561
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226.40	199.4707
227.00	196.8433
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227.20	204.1328
228.16	204.2856
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228.18	195.2095
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236.00	179.7734
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238.63	169.3345
238.63	169.3345
238.63	169.3345
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241.98	169.7649
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252.85	160.0414
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268.79	116.7791
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269.46	146.0429
269.46	146.0429
269.46	146.0429
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277.60	161.9350
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284.30	160.4052
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285.90	143.9148
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300.09	120.8048
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303.91	142.5652
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323.87	158.1500
323.87	158.1500
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334.20	151.5341
334.30	151.5435
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338.28	122.3469
338.28	122.3469
338.32	122.3507
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351.92	121.3634
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388.63	113.8190
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391.69	114.0087
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439.56	106.5252
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445.03	102.6663
445.03	102.6663
445.03	102.6663
445.03	102.6663
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468.07	87.2473
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510.53	0.0000
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511.00	84.4950
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511.85	84.5276
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513.99	77.1108
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563.90	74.4020
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569.32	82.2464
569.50	82.2510
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574.00	81.3056
574.64	81.3259
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592.07	69.7272
593.00	79.7168
595.88	64.2906
600.56	66.6321
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602.71	84.4725
602.71	84.4725
603.60	62.2634
604.41	62.2839
604.70	62.2908
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609.31	85.8049
609.31	85.8049
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618.01	69.3243
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621.84	66.0689
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636.97	61.2714
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661.65	78.2063
664.57	0.0000
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666.33	66.5002
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695.00	64.4304
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696.49	58.9391
697.00	62.6327
697.49	65.4081
698.33	75.5637
698.50	75.5677
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722.78	63.5103
722.78	63.5103
722.89	63.5120
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724.18	54.2417
727.18	63.2968
733.00	59.9587
735.90	57.8828
739.58	57.9555
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744.21	53.3651
747.13	69.3497
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752.31	73.2259
753.82	61.9910
755.35	66.7220
756.15	62.0394
756.87	62.9941
763.93	69.7399
765.79	81.0995
766.42	78.2867
766.84	70.7501
776.49	75.7070
778.00	65.3293
778.57	63.4472
778.89	62.5066
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792.07	50.7266

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798.80	81.0198
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867.82	41.3867
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873.19	50.7190
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884.67	47.9568
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896.60	43.2147
898.02	43.2319
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903.28	48.1095
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911.07	53.2604
911.07	53.2604
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920.93	41.5427
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926.50	48.5430
935.52	48.6686
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949.00	55.8332
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968.20	46.1089
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969.11	46.1202
969.11	46.1202
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983.50	57.3757
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1036.00	31.6456
1037.82	43.9154
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1038.76	0.0000
1045.16	48.0947
1046.59	39.9217
1048.07	44.0351

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1050.47	53.2848
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1077.35	43.3351
1078.86	37.1584
1085.78	42.3934
1099.22	38.3875
1112.02	42.7893
1112.84	40.1535
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1120.29	43.8047
1120.51	43.8067
1121.28	43.8149
1124.00	0.0000
1129.67	45.2990
1131.51	0.0000
1147.95	0.0000
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1173.22	47.5400
1175.09	59.1855
1177.93	40.1895
1189.05	46.6576
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1205.75	0.0000
1213.00	53.3179
1221.42	48.0806
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1235.34	42.8750
1236.41	0.0000
1238.25	46.4775
1246.25	46.2040
1260.41	0.0000
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1274.54	38.9303
1291.56	33.6504
1298.22	0.0000
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1325.50	41.5569
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1365.15	22.9767
1368.21	29.4297
1368.53	0.0000
1376.25	24.8730
1384.27	28.6059
1394.10	15.7196
1395.20	19.4226
1407.95	19.4739
1434.06	16.7820
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1457.56	0.0000
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1596.49	24.2495
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1691.02	4.8952
1691.02	4.8952
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1764.49	7.9339
1764.49	7.9339
1764.49	7.9339
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1808.65	17.9868

1836.01	9.0348

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994003

Total Uranium Activity	8.5072E+00	ug/g
Total Uranium Counting Unc.	5.1256E+00	ug/g
Total Uranium Tpu	2.6151E-06	ug/g
Total Uranium Mda	2.5160E+00	ug/g

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*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G245994003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM20            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 12:32:28.82    SAMPLE ALQT:  117.480 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.159E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.281E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 3.432E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.663E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:34:04.63

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994004.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:32:53
Sample ID         : G245994004           Sample quantity  : 1.27500E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.15  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.51*	163	462	0.97	92.59	89	7	2.26E-02	24.5	
2	0	53.52	90	635	1.01	106.60	103	7	1.25E-02	47.6	
3	0	63.33*	1410	1099	0.83	126.22	121	10	1.96E-01	5.2	
4	3	74.80	909	654	0.95	149.16	143	22	1.26E-01	5.5	4.46E+00
5	3	77.12*	1331	496	0.90	153.80	143	22	1.85E-01	3.8	
6	1	84.14*	259	462	0.90	167.84	165	13	3.60E-02	14.6	2.74E+00
7	1	87.14*	377	522	0.82	173.84	165	13	5.23E-02	10.5	
8	0	92.68*	2219	722	1.13	184.92	182	8	3.08E-01	3.1	
9	0	98.60*	193	394	1.01	196.76	194	7	2.69E-02	18.8	
10	0	143.66*	166	323	0.82	286.86	284	7	2.31E-02	19.9	
11	0	162.94*	143	401	2.73	325.41	321	10	1.99E-02	27.7	
12	0	185.76*	966	420	1.03	371.05	366	11	1.34E-01	5.3	
13	0	205.30*	75	265	0.84	410.13	406	8	1.04E-02	40.1	
14	0	209.12	143	277	1.29	417.77	414	9	1.98E-02	22.7	
15	0	238.57*	1290	322	0.98	476.68	472	8	1.79E-01	3.7	
16	0	241.56	190	362	1.60	482.65	481	11	2.64E-02	22.5	
17	0	270.06	168	223	1.21	539.65	535	11	2.33E-02	18.8	
18	0	277.59	62	174	1.03	554.71	550	9	8.66E-03	40.1	
19	0	295.23*	431	227	1.04	589.98	585	11	5.98E-02	8.4	
20	0	300.15	70	171	1.08	599.82	596	8	9.74E-03	34.4	
21	0	328.06	22	188	0.72	655.65	651	9	3.08E-03	113.1	
22	0	338.36*	234	220	1.27	676.23	671	11	3.25E-02	14.1	
23	0	351.86*	694	173	1.17	703.23	699	10	9.63E-02	5.2	
24	0	463.25	70	161	1.33	925.99	920	11	9.71E-03	37.4	
25	0	511.17*	189	151	1.92	1021.84	1013	20	2.63E-02	19.1	
26	0	583.02*	374	116	1.42	1165.54	1160	10	5.20E-02	7.6	
27	0	609.26*	448	90	1.41	1218.01	1212	12	6.22E-02	6.5	
28	0	661.89*	40	112	1.55	1323.27	1317	10	5.51E-03	56.4	
29	0	727.33	95	45	2.62	1454.15	1449	11	1.32E-02	17.0	
30	0	794.46	70	66	1.65	1588.41	1582	12	9.77E-03	26.0	
31	0	860.33	56	48	1.85	1720.14	1714	13	7.84E-03	28.7	
32	0	911.11*	264	58	1.64	1821.71	1815	12	3.66E-02	8.5	
33	1	964.58	62	43	1.97	1928.64	1923	24	8.62E-03	24.2	7.06E-01
34	1	968.75*	148	27	1.72	1936.98	1923	24	2.06E-02	10.8	
35	0	1001.19*	68	75	1.84	2001.87	1992	15	9.42E-03	30.7	
36	0	1120.13	104	41	1.63	2239.76	2234	12	1.44E-02	15.9	
37	0	1237.91	51	50	1.10	2475.31	2470	10	7.08E-03	29.5	
38	0	1460.51*	925	32	2.25	2920.55	2912	16	1.28E-01	3.6	

Sample ID : G245994004 Acquisition date : 12-FEB-2010 12:32:53

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1630.99	19	3	1.76	3261.53	3255	11	2.64E-03	28.6	
40	0	1763.97*	83	7	1.13	3527.53	3521	13	1.15E-02	13.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 14:34:07

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:32:53
Sample ID : G245994004 Sample quantity : 127.50 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.15 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.302E+01	2.565E+00	6.181E-01	5.264E-02	37.239
AS-73	+	53.44	*	3.056E-01	2.927E-01	3.324E-01	3.191E-02	0.919
CD-109	+	88.03	*	3.242E+00	7.622E-01	1.212E+00	1.302E-01	2.675
SN-126	+	64.28		4.423E+00	8.426E-01	3.325E-01	5.298E-02	13.304
	+	86.94		1.325E+00	6.198E-01	4.366E-01	1.826E-01	3.035
	+	87.57	*	3.187E-01	7.492E-02	1.053E-01	1.129E-02	3.026
BA-137M	+	661.65	*	5.827E-02	6.601E-02	7.272E-02	8.055E-03	0.801
CS-137	+	661.65	*	6.160E-02	6.978E-02	7.687E-02	8.525E-03	0.801
TL-208	+	277.35		5.701E-01	4.646E-01	5.504E-01	7.818E-02	1.036
	+	510.84		9.187E-01	3.714E-01	1.959E-01	2.595E-02	4.689
	+	583.14	*	5.239E-01	9.915E-02	6.021E-02	6.788E-03	8.701
	+	860.37		7.554E-01	4.407E-01	4.640E-01	4.850E-02	1.628
BI-210	+	46.50	*	1.287E+00	6.452E-01	6.791E-01	7.003E-02	1.895
PB-210	+	46.50	*	1.287E+00	6.452E-01	6.791E-01	7.003E-02	1.895
PO-210	+	46.50	*	1.287E+00	6.432E-01	6.791E-01	6.468E-02	1.895
BI-211		72.87		3.657E+00	1.850E+00	2.838E+00	2.865E-01	1.289
	+	351.07	*	4.060E+00	6.024E-01	3.301E-01	3.478E-02	12.301
PB-212	+	74.81		2.579E+00	4.553E-01	2.967E-01	4.096E-02	8.694
	+	77.11		2.255E+00	2.869E-01	1.778E-01	1.822E-02	12.683
	+	87.30		1.474E+00	3.766E-01	4.864E-01	7.127E-02	3.030
	+	238.63	*	1.595E+00	2.171E-01	1.175E-01	1.337E-02	13.578
	+	300.09		1.363E+00	9.524E-01	1.117E+00	1.392E-01	1.220
PO-212	+	74.81		2.579E+00	4.553E-01	2.967E-01	4.096E-02	8.694
	+	77.11		2.255E+00	2.869E-01	1.778E-01	1.822E-02	12.683
	+	87.30		1.474E+00	3.766E-01	4.864E-01	7.127E-02	3.030
		115.19		-1.711E+00	2.966E+00	4.910E+00	6.089E-01	-0.348
	+	238.63	*	1.595E+00	2.171E-01	1.175E-01	1.337E-02	13.578
	+	300.09		1.363E+00	9.524E-01	1.117E+00	1.392E-01	1.220
BI-214	+	609.31	*	1.186E+00	2.105E-01	1.148E-01	1.385E-02	10.332
	+	1120.29		1.446E+00	4.852E-01	4.380E-01	4.754E-02	3.301
	+	1764.49		1.638E+00	4.508E-01	2.693E-01	2.218E-02	6.084
PB-214	+	74.81		4.444E+00	7.426E-01	5.112E-01	6.428E-02	8.694
	+	77.11		3.866E+00	5.733E-01	3.048E-01	3.892E-02	12.683
	+	87.30		2.525E+00	6.247E-01	8.333E-01	1.100E-01	3.030

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		1.412E+00	6.566E-01	5.965E-01	7.115E-02	2.367
	+	295.21		1.466E+00	3.084E-01	1.879E-01	2.383E-02	7.805
	+	351.92	*	1.412E+00	2.221E-01	1.067E-01	1.252E-02	13.242
PO-214	+	74.81		4.444E+00	7.426E-01	5.112E-01	6.428E-02	8.694
	+	77.11		3.866E+00	5.733E-01	3.048E-01	3.892E-02	12.683
	+	87.30		2.525E+00	6.247E-01	8.333E-01	1.100E-01	3.030
	+	241.98		1.412E+00	6.566E-01	5.965E-01	7.115E-02	2.367
	+	295.21		1.466E+00	3.084E-01	1.879E-01	2.383E-02	7.805
	+	351.92	*	1.412E+00	2.221E-01	1.067E-01	1.252E-02	13.242
PO-216	+	74.81		2.579E+00	4.553E-01	2.967E-01	4.096E-02	8.694
	+	77.11		2.255E+00	2.869E-01	1.778E-01	1.822E-02	12.683
	+	87.30		1.474E+00	3.766E-01	4.864E-01	7.127E-02	3.030
	+	238.63	*	1.595E+00	2.171E-01	1.175E-01	1.337E-02	13.578
	+	300.09		1.363E+00	9.524E-01	1.117E+00	1.392E-01	1.220
PO-218	+	74.81		4.444E+00	7.426E-01	5.112E-01	6.428E-02	8.694
	+	77.11		3.866E+00	5.733E-01	3.048E-01	3.892E-02	12.683
	+	87.30		2.525E+00	6.247E-01	8.333E-01	1.100E-01	3.030
	+	241.98		1.412E+00	6.566E-01	5.965E-01	7.115E-02	2.367
	+	295.21		1.466E+00	3.084E-01	1.879E-01	2.383E-02	7.805
	+	351.92	*	1.412E+00	2.221E-01	1.067E-01	1.252E-02	13.242
RA-224	+	240.98	*	2.677E+00	1.236E+00	1.139E+00	1.197E-01	2.350
RA-226	+	609.31	*	1.186E+00	2.105E-01	1.148E-01	1.385E-02	10.332
	+	1120.29		1.446E+00	4.852E-01	4.380E-01	4.754E-02	3.301
	+	1764.49		1.638E+00	4.508E-01	2.693E-01	2.218E-02	6.084
AC-228	+	338.32		1.502E+00	7.557E-01	3.523E-01	1.468E-01	4.264
	+	911.07	*	1.670E+00	3.473E-01	2.274E-01	2.705E-02	7.344
	+	969.11		1.652E+00	5.281E-01	3.533E-01	8.340E-02	4.676
RA-228	+	338.32		1.502E+00	7.557E-01	3.523E-01	1.468E-01	4.264
	+	911.07	*	1.670E+00	3.473E-01	2.274E-01	2.705E-02	7.344
	+	969.11		1.652E+00	5.281E-01	3.533E-01	8.340E-02	4.676
TH-228	+	74.81		2.618E+00	3.932E-01	3.011E-01	3.079E-02	8.694
	+	77.11		2.289E+00	2.912E-01	1.805E-01	1.849E-02	12.683
	+	87.30		1.496E+00	3.517E-01	4.938E-01	5.288E-02	3.030
	+	238.63	*	1.619E+00	2.204E-01	1.192E-01	1.357E-02	13.578
	+	300.09		1.384E+00	1.260E+00	1.134E+00	6.768E-01	1.220
TH-229	+	85.43		4.873E-01	1.511E-01	2.339E-01	2.483E-02	2.083
	+	88.47		4.351E-01	1.023E-01	1.465E-01	1.578E-02	2.970
	+	100.00		5.070E-01	1.989E-01	2.074E-01	2.367E-02	2.445
		193.63	*	-8.321E-02	4.552E-01	7.369E-01	7.029E-02	-0.113
		210.97		4.940E-01	7.345E-01	1.107E+00	1.097E-01	0.446
TH-230	+	609.31	*	1.186E+00	2.105E-01	1.148E-01	1.385E-02	10.332
	+	1120.29		1.446E+00	4.852E-01	4.380E-01	4.754E-02	3.301
	+	1764.49		1.638E+00	4.508E-01	2.693E-01	2.218E-02	6.084
TH-232	+	338.32		1.502E+00	4.513E-01	3.523E-01	3.672E-02	4.264
	+	911.07	*	1.670E+00	3.473E-01	2.274E-01	2.705E-02	7.344
	+	969.11		1.652E+00	5.281E-01	3.533E-01	8.340E-02	4.676
TH-234	+	63.29	*	1.117E+01	2.386E+00	8.387E-01	1.562E-01	13.323
	+	92.38		1.306E+01	2.649E+00	6.894E-01	1.332E-01	18.948
U-234	+	609.31	*	1.186E+00	2.105E-01	1.148E-01	1.385E-02	10.332

Sample ID : G245994004 Acquisition date : 12-FEB-2010 12:32:53

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1120.29		1.446E+00	4.852E-01	4.380E-01	4.754E-02	3.301
	+	1764.49		1.638E+00	4.508E-01	2.693E-01	2.218E-02	6.084
U-235		89.95		1.651E+00	1.227E+00	1.487E+00	4.693E-01	1.110
	+	93.35		1.570E+01	4.631E+00	8.326E-01	2.403E-01	18.861
		105.00		1.483E+00	9.267E-01	1.455E+00	4.494E-01	1.019
	+	143.76	*	6.163E-01	2.717E-01	2.957E-01	5.583E-02	2.084
	+	163.35		1.282E+00	7.527E-01	6.846E-01	1.324E-01	1.872
	+	185.71		8.200E-01	1.165E-01	6.016E-02	5.633E-03	13.630
	+	205.31		7.872E-01	6.494E-01	7.010E-01	1.376E-01	1.123
NP-237	+	86.50	*	9.358E-01	2.927E-01	3.078E-01	7.149E-02	3.041
		95.87		8.516E-01	8.768E-01	1.126E+00	2.887E-01	0.756
U-238	+	63.29	*	1.117E+01	2.386E+00	8.387E-01	1.562E-01	13.323
	+	92.38		1.306E+01	1.644E+00	6.894E-01	7.567E-02	18.948
AM-243	+	74.67	*	4.181E-01	6.263E-02	4.807E-02	4.882E-03	8.698
	+	86.72		3.509E+01	8.250E+00	1.155E+01	1.234E+00	3.038
		117.66		-2.887E+00	2.988E+00	4.828E+00	6.070E-01	-0.598
	+	142.18		5.177E+01	2.142E+01	2.513E+01	2.837E+00	2.060
ANH-511	+	511.00	*	1.984E-01	7.851E-02	4.233E-02	4.358E-03	4.688

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-8.934E-03	3.425E-01	5.571E-01	5.898E-02	-0.016
NA-22		1274.54	*	-3.196E-03	4.642E-02	7.578E-02	6.214E-03	-0.042
NA-24		1368.53	*	-4.599E-01	4.642E-02	Half-Life too short		
AL-26		1129.67		-6.944E-01	1.697E+00	2.708E+00	2.312E-01	-0.256
		1808.65	*	5.854E-03	3.469E-02	5.893E-02	4.829E-03	0.099
TI-44		67.85		-6.685E-04	2.245E-02	3.533E-02	3.516E-03	-0.019
	+	78.38	*	4.161E-01	5.294E-02	4.839E-02	4.983E-03	8.600
SC-46		889.25	*	-2.975E-03	4.221E-02	6.820E-02	6.531E-03	-0.044
	+	1120.51		2.473E-01	8.137E-02	1.329E-01	1.142E-02	1.861
V-48		944.10		1.939E-01	1.032E+00	1.697E+00	1.593E-01	0.114
		983.50	*	-7.074E-02	7.876E-02	1.145E-01	1.061E-02	-0.618
		1312.09		-1.145E-02	8.589E-02	1.387E-01	1.130E-02	-0.083
CR-51		320.08	*	-1.284E-01	3.219E-01	5.292E-01	5.877E-02	-0.243
MN-52		744.21		3.400E-02	2.610E-01	4.363E-01	4.714E-02	0.078
		848.13		4.964E+00	7.203E+00	1.246E+01	1.249E+00	0.398
		935.52		2.434E-01	2.761E-01	4.814E-01	4.526E-02	0.506
		1246.25		-2.124E+00	7.737E+00	1.242E+01	1.020E+00	-0.171
		1333.61		8.428E-01	5.266E+00	8.647E+00	7.024E-01	0.097
		1434.06	*	-4.507E-02	2.313E-01	3.643E-01	3.003E-02	-0.124
MN-54		834.83	*	-9.228E-03	4.313E-02	6.938E-02	7.040E-03	-0.133
CO-56		846.75	*	1.159E-02	4.290E-02	7.177E-02	7.201E-03	0.161
		977.42		9.650E-01	3.186E+00	4.843E+00	4.498E-01	0.199
		1037.82		4.714E-02	3.154E-01	5.363E-01	5.089E-02	0.088
		1175.09		-1.150E+00	2.441E+00	3.872E+00	3.187E-01	-0.297
	+	1238.25		1.998E-01	1.190E-01	1.921E-01	1.629E-02	1.040
		1360.21		-6.932E-01	9.593E-01	1.394E+00	1.137E-01	-0.497

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1771.40		-4.304E-01	3.065E-01	3.830E-01	3.153E-02	-1.124
CO-57		122.06	*	-2.821E-03	2.099E-02	3.523E-02	4.543E-03	-0.080
		136.48		-4.644E-02	1.739E-01	2.879E-01	3.530E-02	-0.161
CO-58		810.76	*	-9.373E-03	4.177E-02	6.716E-02	6.968E-03	-0.140
FE-59	+	142.65		7.939E+00	3.285E+00	4.509E+00	5.073E-01	1.761
		192.34		6.002E-01	8.296E-01	1.394E+00	1.954E-01	0.430
		1099.22	*	-7.015E-02	8.957E-02	1.371E-01	1.291E-02	-0.512
		1291.56		7.547E-03	1.230E-01	2.034E-01	1.911E-02	0.037
CO-60		1173.22		-7.396E-03	4.801E-02	7.848E-02	6.459E-03	-0.094
		1332.49	*	4.570E-03	4.238E-02	6.918E-02	5.619E-03	0.066
ZN-65		1115.52	*	-5.736E-02	1.069E-01	1.420E-01	1.227E-02	-0.404
GE-68		1077.35	*	3.979E-01	1.262E+00	2.171E+00	1.922E-01	0.183
AS-74		595.88	*	1.982E-02	9.281E-02	1.508E-01	1.634E-02	0.131
		634.78		2.403E-01	3.543E-01	6.235E-01	6.857E-02	0.385
SE-75		66.05		-2.007E+00	2.272E+00	3.160E+00	3.643E-01	-0.635
		96.73		-6.228E-01	7.744E-01	8.962E-01	1.381E-01	-0.695
		121.11		5.826E-02	1.113E-01	1.910E-01	2.807E-02	0.305
		136.00		3.925E-03	3.280E-02	5.519E-02	6.548E-03	0.071
		198.60		2.994E-01	1.657E+00	2.685E+00	2.819E-01	0.111
		264.65	*	-9.433E-03	4.087E-02	6.081E-02	6.665E-03	-0.155
		279.53		7.601E-02	1.149E-01	1.698E-01	1.937E-02	0.448
		303.91		1.646E+00	2.051E+00	3.232E+00	4.302E-01	0.509
		400.65		-1.752E-01	2.667E-01	4.225E-01	4.887E-02	-0.415
BR-77	+	87.88		6.816E+02	1.602E+02	2.487E+02	2.670E+01	2.741
		200.40		1.260E+02	1.500E+02	2.423E+02	2.348E+01	0.520
	+	239.00		2.492E+02	3.203E+01	3.611E+01	3.781E+00	6.901
		249.79		-7.482E+01	5.867E+01	8.561E+01	9.134E+00	-0.874
		281.68		7.495E+01	9.275E+01	1.384E+02	1.543E+01	0.541
		297.23		1.418E+02	7.175E+01	9.440E+01	1.040E+01	1.502
		303.76		1.327E+02	1.704E+02	2.685E+02	2.940E+01	0.494
		439.47		3.092E+01	1.321E+02	2.205E+02	2.124E+01	0.140
		484.57		-1.402E+02	2.399E+02	3.733E+02	3.759E+01	-0.376
		520.65	*	4.372E+00	9.872E+00	1.652E+01	1.713E+00	0.265
		574.64		-3.458E+01	2.231E+02	3.529E+02	3.785E+01	-0.098
		578.91		1.434E+00	1.121E+02	1.566E+02	1.683E+01	0.009
		585.48		8.335E+02	2.600E+02	4.313E+02	4.651E+01	1.933
		755.35		-9.144E+01	1.882E+02	2.981E+02	3.203E+01	-0.307
		817.79		9.218E-01	1.263E+02	2.072E+02	2.134E+01	0.004
SR-82		698.33		-2.016E+01	3.514E+01	5.575E+01	6.130E+00	-0.362
		776.49	*	-3.061E-01	4.309E-01	6.672E-01	7.081E-02	-0.459
		1395.20		2.291E+00	1.198E+01	2.000E+01	1.641E+00	0.115
RB-83		520.41	*	3.717E-02	6.968E-02	1.137E-01	1.179E-02	0.327
		529.64		3.887E-03	1.060E-01	1.716E-01	1.791E-02	0.023
		552.65		3.726E-02	2.170E-01	3.535E-01	3.744E-02	0.105
RB-84		881.50	*	6.108E-03	7.586E-02	1.245E-01	1.203E-02	0.049
KR-85		513.99	*	1.419E+01	7.276E+00	1.310E+01	1.351E+00	1.084
SR-85		513.99	*	7.271E-02	3.727E-02	6.710E-02	6.923E-03	1.084
RB-86		1076.63	*	3.812E-01	8.111E-01	1.413E+00	1.251E-01	0.270
Y-88		898.02		-2.553E-02	4.247E-02	6.459E-02	6.143E-03	-0.395

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1836.01	*	-1.022E-02	3.440E-02	5.302E-02	4.333E-03	-0.193
ZR-88		392.90	*	-2.161E-02	3.212E-02	5.099E-02	4.641E-03	-0.424
Y-91		1204.90	*	-1.938E+01	1.943E+01	2.953E+01	2.430E+00	-0.656
NB-94		702.63	*	8.761E-03	3.575E-02	6.051E-02	6.645E-03	0.145
		871.10		1.457E-02	3.324E-02	5.658E-02	5.534E-03	0.258
NB-95		765.79	*	8.807E-02	5.363E-02	9.627E-02	1.028E-02	0.915
NB-95M		235.69	*	1.649E-01	1.095E-01	1.719E-01	1.970E-02	0.959
ZR-95		724.18		1.270E-01	1.031E-01	1.677E-01	1.928E-02	0.757
		756.15	*	-3.011E-02	8.258E-02	1.321E-01	1.513E-02	-0.228
NB-97		657.90	*	1.016E-01	8.258E-02	Half-Life too short		
		1024.50		-1.955E+00	8.258E-02	Half-Life too short		
ZR-97		254.15		1.324E+00	8.258E-02	Half-Life too short		
		355.39		-6.935E-01	8.258E-02	Half-Life too short		
		507.63	*	1.743E+00	8.258E-02	Half-Life too short		
		602.52		3.521E+00	8.258E-02	Half-Life too short		
		1021.30		6.240E-01	8.258E-02	Half-Life too short		
		1147.95		-6.841E-01	8.258E-02	Half-Life too short		
		1362.66		1.801E+00	8.258E-02	Half-Life too short		
		1750.46		-4.779E+00	8.258E-02	Half-Life too short		
MO-99		140.51		2.509E+01	2.447E+01	3.705E+01	1.063E+01	0.677
		181.06		3.434E+00	1.593E+01	2.367E+01	4.402E+00	0.145
		366.43		2.007E+01	8.013E+01	1.355E+02	1.328E+01	0.148
		739.58	*	3.142E+00	1.251E+01	2.109E+01	3.488E+00	0.149
		778.00		-2.504E+01	3.836E+01	5.975E+01	6.336E+00	-0.419
TC-99M		140.51	*	2.880E+10	3.836E+01	Half-Life too short		
RH-101		127.23		-1.116E-02	2.664E-02	4.406E-02	5.514E-03	-0.253
		198.01	*	-5.621E-03	3.040E-02	4.846E-02	4.669E-03	-0.116
		325.23		-8.790E-02	2.147E-01	3.076E-01	3.277E-02	-0.286
RH-102		418.52		-1.401E-01	2.804E-01	4.459E-01	4.193E-02	-0.314
		475.06	*	-1.514E-02	2.992E-02	4.690E-02	4.682E-03	-0.323
		631.29		-5.456E-02	5.288E-02	8.060E-02	8.854E-03	-0.677
		697.49		-2.187E-02	8.038E-02	1.310E-01	1.440E-02	-0.167
		766.84		2.811E-01	1.409E-01	2.551E-01	2.724E-02	1.102
		1046.59		2.979E-02	1.247E-01	2.132E-01	1.921E-02	0.140
		1112.84		4.893E-02	2.522E-01	3.858E-01	3.335E-02	0.127
RU-103		497.08	*	6.830E-03	4.340E-02	7.124E-02	1.080E-02	0.096
	+	610.33		1.278E+01	2.837E+00	3.048E+00	5.478E-01	4.194
RH-106	+	511.85		9.910E-01	3.921E-01	4.330E-01	4.460E-02	2.289
		621.84	*	-1.264E-02	3.328E-01	5.580E-01	8.352E-02	-0.023
		1050.47		-6.156E-01	2.571E+00	4.217E+00	3.791E-01	-0.146
RU-106	+	511.85		9.910E-01	3.921E-01	4.330E-01	4.460E-02	2.289
		621.84	*	-1.264E-02	3.327E-01	5.580E-01	6.111E-02	-0.023
		1050.47		-6.156E-01	2.571E+00	4.217E+00	3.791E-01	-0.146
AG-108M		433.93	*	-1.247E-02	3.164E-02	5.049E-02	4.989E-03	-0.247
		614.37		2.942E-02	4.090E-02	6.444E-02	7.210E-03	0.456
		722.95		1.023E-02	4.639E-02	6.855E-02	7.659E-03	0.149
AG-110M		657.75	*	4.825E-02	4.091E-02	6.636E-02	7.478E-03	0.727
		677.61		-4.478E-03	3.097E-01	5.163E-01	5.803E-02	-0.009
		706.67		-4.791E-02	2.283E-01	3.736E-01	4.168E-02	-0.128

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		763.93		-2.786E-01	2.104E-01	3.117E-01	3.395E-02	-0.894
		884.67		-2.543E-02	5.412E-02	8.399E-02	8.297E-03	-0.303
		937.48		-5.137E-02	1.268E-01	1.973E-01	1.910E-02	-0.260
		1384.27		5.102E-02	1.421E-01	2.444E-01	2.064E-02	0.209
IN-111		171.28		1.511E-01	8.516E-01	1.414E+00	1.278E-01	0.107
		245.39	*	1.146E-02	9.930E-01	1.417E+00	1.501E-01	0.008
IN-113M		391.69	*	-3.612E-02	4.561E-02	7.175E-02	6.702E-03	-0.503
SN-113		391.69	*	-3.612E-02	4.561E-02	7.175E-02	6.702E-03	-0.503
IN-114M		190.27	*	6.663E-04	1.742E-01	2.545E-01	2.409E-02	0.003
CD-115		260.90		-5.022E+01	1.177E+02	1.826E+02	1.984E+01	-0.275
		492.35		-8.184E-01	3.475E+01	5.635E+01	5.713E+00	-0.015
		527.90	*	7.651E+00	1.041E+01	1.776E+01	1.851E+00	0.431
SN-117M		156.02		-8.127E-01	1.959E+00	3.192E+00	3.184E-01	-0.255
		158.56	*	-1.134E-02	5.285E-02	7.750E-02	7.524E-03	-0.146
SB-122		563.90	*	1.551E+00	2.148E+00	3.629E+00	3.870E-01	0.427
		692.80		2.865E+01	4.459E+01	7.761E+01	8.546E+00	0.369
I-123		159.00	*	-8.802E-01	4.459E+01	Half-Life too short		
		528.96		1.981E+02	4.459E+01	Half-Life too short		
TE-123M		159.00	*	-4.896E-03	2.745E-02	4.032E-02	3.915E-03	-0.121
I-124		602.71	*	4.235E-01	6.874E-01	1.114E+00	1.211E-01	0.380
		722.78		1.676E+00	4.707E+00	7.063E+00	7.702E-01	0.237
		1325.50		1.660E-01	3.379E+01	5.537E+01	4.503E+00	0.003
		1376.25		3.463E+01	3.099E+01	5.705E+01	4.667E+00	0.607
		1509.49		1.772E+01	1.672E+01	3.083E+01	2.557E+00	0.575
		1691.02		2.029E+00	3.451E+00	6.369E+00	5.279E-01	0.319
SB-124		602.71		2.497E-02	4.053E-02	6.568E-02	7.139E-03	0.380
		645.85		5.757E-02	5.066E-01	8.564E-01	9.799E-02	0.067
		709.31		-9.556E-01	3.016E+00	4.889E+00	5.358E-01	-0.195
		713.82		-4.706E-01	1.737E+00	2.821E+00	3.892E-01	-0.167
		722.78		1.433E-01	4.024E-01	6.038E-01	6.674E-02	0.237
	+	968.20		1.699E+01	3.989E+00	7.339E+00	6.837E-01	2.315
		1045.16		1.194E+00	2.583E+00	4.503E+00	4.060E-01	0.265
		1325.50		1.516E-02	3.085E+00	5.056E+00	4.111E-01	0.003
		1368.21		-9.937E-01	1.722E+00	2.562E+00	3.380E-01	-0.388
		1436.60		3.490E-01	3.545E+00	5.849E+00	4.822E-01	0.060
		1691.02	*	4.091E-02	6.959E-02	1.284E-01	1.110E-02	0.319
SB-125		427.89	*	2.629E-02	8.823E-02	1.481E-01	1.430E-02	0.178
	+	463.38		6.562E-01	4.961E-01	6.106E-01	6.392E-02	1.075
		600.56		2.062E-02	1.819E-01	2.929E-01	3.330E-02	0.070
		635.90		-4.601E-02	2.813E-01	4.662E-01	5.387E-02	-0.099
TE-125M		109.28	*	3.230E+00	7.610E+00	1.309E+01	1.738E+00	0.247
I-126		388.63		2.699E-02	2.103E-01	3.478E-01	3.193E-02	0.078
		666.33	*	-9.092E-02	2.330E-01	3.250E-01	3.598E-02	-0.280
		753.82		-5.343E-01	1.657E+00	2.659E+00	2.859E-01	-0.201
SB-126		223.80		-1.764E-02	3.709E+00	5.986E+00	6.092E-01	-0.003
	+	278.60		3.750E+00	3.038E+00	3.989E+00	4.448E-01	0.940
	+	296.50		1.452E+01	2.917E+00	3.522E+00	3.883E-01	4.124
		414.70		1.166E-02	7.442E-02	1.240E-01	1.161E-02	0.094
		415.30		3.742E+00	6.007E+00	1.029E+01	9.643E-01	0.364

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		555.20		-3.321E+00	4.431E+00	6.676E+00	7.082E-01	-0.497
		573.80		-5.594E-01	1.102E+00	1.688E+00	1.810E-01	-0.331
		593.00		1.909E-01	1.003E+00	1.626E+00	1.760E-01	0.117
		656.30		1.067E+00	3.981E+00	5.960E+00	6.594E-01	0.179
		666.33		-3.799E-02	9.735E-02	1.358E-01	1.503E-02	-0.280
		675.00		-1.569E+00	2.090E+00	3.272E+00	3.617E-01	-0.480
		695.00		9.581E-03	8.140E-02	1.367E-01	1.505E-02	0.070
		697.00		8.340E-03	2.785E-01	4.647E-01	5.111E-02	0.018
		720.50	*	-5.928E-02	1.638E-01	2.466E-01	2.692E-02	-0.240
		856.80		3.254E-01	5.614E-01	8.504E-01	8.447E-02	0.383
		989.30		1.718E-01	1.318E+00	2.151E+00	1.989E-01	0.080
		1034.80		6.405E+00	9.328E+00	1.656E+01	1.501E+00	0.387
		1213.00		2.976E+00	4.858E+00	8.440E+00	6.943E-01	0.353
SB-127		61.10		-2.375E+00	2.444E+01	3.573E+01	4.325E+00	-0.066
		252.40		2.123E+00	3.940E+00	6.332E+00	2.691E+00	0.335
		290.80		-1.096E+00	2.069E+01	3.092E+01	4.059E+00	-0.035
		411.60		-9.953E-01	1.193E+01	1.958E+01	3.154E+00	-0.051
		444.90		3.597E+00	9.208E+00	1.550E+01	2.057E+00	0.232
		473.00		-4.475E-01	1.697E+00	2.713E+00	3.739E-01	-0.165
		543.00		8.371E+00	1.652E+01	2.703E+01	4.214E+00	0.310
		603.60		7.709E+00	1.208E+01	1.885E+01	2.665E+00	0.409
		685.20	*	5.774E-01	1.416E+00	2.431E+00	3.228E-01	0.238
		698.50		-9.049E+00	1.546E+01	2.442E+01	4.203E+00	-0.370
		722.20		-5.197E-01	3.461E+01	4.985E+01	6.473E+00	-0.010
		783.80		4.976E+00	4.185E+00	7.392E+00	1.021E+00	0.673
XE-127		57.60		-4.628E-01	2.035E+00	3.225E+00	3.144E-01	-0.143
		145.22		1.155E+00	6.563E-01	1.052E+00	1.160E-01	1.097
		172.10		1.511E-02	1.023E-01	1.696E-01	1.536E-02	0.089
		202.84	*	-4.714E-02	4.759E-02	6.434E-02	6.267E-03	-0.733
		374.96		5.623E-02	1.920E-01	3.250E-01	3.112E-02	0.173
I-131		80.18		7.672E-01	3.169E+00	4.607E+00	4.800E-01	0.167
		284.30		-6.710E-02	1.474E+00	2.326E+00	2.670E-01	-0.029
		364.48	*	3.859E-02	1.101E-01	1.874E-01	1.923E-02	0.206
		636.97		4.812E-01	1.572E+00	2.696E+00	3.069E-01	0.179
		722.89		2.595E+00	7.636E+00	1.144E+01	1.252E+00	0.227
TE-132		49.72		-6.604E-01	3.962E+00	5.124E+00	5.926E-01	-0.129
		111.76		3.941E+01	2.541E+01	4.421E+01	6.110E+00	0.892
		116.30		-1.026E+01	2.167E+01	3.596E+01	5.069E+00	-0.285
		228.16	*	3.359E-01	6.143E-01	1.014E+00	1.690E-01	0.331
BA-133	+	53.15		1.295E+00	1.240E+00	1.510E+00	1.448E-01	0.858
		79.62		-8.740E-02	8.802E-01	1.261E+00	2.052E-01	-0.069
		81.00		-5.682E-03	6.850E-02	9.812E-02	1.660E-02	-0.058
	+	276.40		5.634E-01	4.611E-01	5.551E-01	8.916E-02	1.015
		302.84		4.726E-02	1.414E-01	2.164E-01	3.227E-02	0.218
		356.01	*	-1.067E-02	4.449E-02	6.404E-02	9.080E-03	-0.167
		383.85		-1.683E-02	2.817E-01	4.660E-01	6.103E-02	-0.036
I-133	+	510.53		1.873E+00	2.817E-01	Half-Life too short		
		529.87	*	-1.504E-03	2.817E-01	Half-Life too short		
		706.58		-1.244E-01	2.817E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		856.28		4.337E-01	2.817E-01	Half-Life too short		
		875.33		-6.497E-02	2.817E-01	Half-Life too short		
	+	1236.41		1.344E+00	2.817E-01	Half-Life too short		
		1298.22		-1.688E-01	2.817E-01	Half-Life too short		
CS-134		475.35		-6.980E-01	1.995E+00	3.168E+00	3.164E-01	-0.220
		563.23		1.254E-01	3.830E-01	6.300E-01	6.757E-02	0.199
		569.32		1.574E-01	2.086E-01	3.531E-01	3.810E-02	0.446
		604.70		-5.222E-03	3.504E-02	5.064E-02	5.518E-03	-0.103
	+	795.84	*	1.442E-01	7.644E-02	1.067E-01	1.123E-02	1.352
		801.93		-6.349E-01	4.506E-01	6.131E-01	6.419E-02	-1.036
		1038.57		-1.151E+00	3.791E+00	6.165E+00	5.577E-01	-0.187
		1167.94		1.717E+00	2.594E+00	4.550E+00	3.763E-01	0.377
		1365.15		1.134E+00	1.123E+00	2.091E+00	1.794E-01	0.542
CS-135		268.24	*	2.091E-01	1.586E-01	2.445E-01	2.951E-02	0.855
I-135		288.45		-1.108E+09	1.586E-01	Half-Life too short		
		417.63		-1.343E+10	1.586E-01	Half-Life too short		
		546.56		-6.566E+09	1.586E-01	Half-Life too short		
		836.80		7.826E+09	1.586E-01	Half-Life too short		
		1038.76		-4.719E+09	1.586E-01	Half-Life too short		
		1124.00		-5.433E+09	1.586E-01	Half-Life too short		
		1131.51		4.873E+07	1.586E-01	Half-Life too short		
		1260.41	*	7.648E+08	1.586E-01	Half-Life too short		
		1457.56		4.839E+11	1.586E-01	Half-Life too short		
		1678.03		-8.918E+09	1.586E-01	Half-Life too short		
		1706.46		4.178E+09	1.586E-01	Half-Life too short		
		1791.20		-3.901E+09	1.586E-01	Half-Life too short		
CS-136		66.91		-2.079E-01	3.891E-01	5.510E-01	8.928E-02	-0.377
	+	86.29		4.138E+00	1.050E+00	1.470E+00	2.102E-01	2.815
		153.22		3.305E-01	5.871E-01	9.947E-01	1.106E-01	0.332
	+	163.89		2.889E+00	1.629E+00	1.741E+00	1.762E-01	1.659
		176.55		-1.034E-01	3.089E-01	4.997E-01	4.810E-02	-0.207
		273.65		4.222E-01	5.176E-01	6.230E-01	7.177E-02	0.678
		340.57		2.340E-01	1.358E-01	2.215E-01	2.345E-02	1.057
		818.51		-2.800E-02	7.282E-02	1.147E-01	1.182E-02	-0.244
		1048.07	*	4.893E-02	1.170E-01	2.029E-01	1.898E-02	0.241
		1235.34		6.159E-01	8.057E-01	1.228E+00	1.420E-01	0.501
CE-139		165.85	*	1.547E-02	2.827E-02	4.310E-02	3.843E-03	0.359
BA-140	+	162.64		2.034E+00	1.145E+00	1.271E+00	1.238E-01	1.600
		304.84		-3.034E-01	1.221E+00	1.883E+00	5.427E-01	-0.161
		423.70		-5.935E-01	1.835E+00	2.936E+00	9.587E-01	-0.202
		537.32	*	2.396E-02	2.529E-01	4.056E-01	1.366E-01	0.059
LA-140	+	328.77		1.749E-01	3.960E-01	5.194E-01	5.709E-02	0.337
		432.53		6.896E-03	1.943E+00	3.194E+00	3.174E-01	0.002
		487.03		1.426E-02	1.425E-01	2.335E-01	2.463E-02	0.061
		751.79		-5.405E-01	1.932E+00	3.123E+00	3.596E-01	-0.173
		815.85		-7.765E-02	3.219E-01	5.156E-01	5.753E-02	-0.151
		867.82		2.955E-01	1.422E+00	2.239E+00	2.288E-01	0.132
		919.63		2.721E-01	2.950E+00	4.828E+00	5.464E-01	0.056
		925.24		-4.933E-01	1.244E+00	1.935E+00	1.920E-01	-0.255

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1596.49	*	-2.163E-02	9.031E-02	1.456E-01	1.211E-02	-0.149
CE-141		145.44	*	6.314E-02	5.727E-02	9.011E-02	1.002E-02	0.701
CE-143		57.37		6.780E-06	5.727E-02	Half-Life too short		
		231.56		-1.542E-03	5.727E-02	Half-Life too short		
		293.26	*	3.866E-04	5.727E-02	Half-Life too short		
	+	350.59		3.070E-02	5.727E-02	Half-Life too short		
		490.36		-4.229E-04	5.727E-02	Half-Life too short		
		664.57		2.170E-03	5.727E-02	Half-Life too short		
		721.93		6.670E-05	5.727E-02	Half-Life too short		
CE-144		80.11		2.774E-01	1.466E+00	2.127E+00	2.206E-01	0.130
		133.54	*	3.614E-02	1.712E-01	2.893E-01	5.115E-02	0.125
PM-144		476.78		4.179E-02	7.005E-02	1.187E-01	1.271E-02	0.352
		618.01		-1.451E-02	3.201E-02	5.196E-02	5.779E-03	-0.279
		696.49	*	-6.037E-03	3.646E-02	5.993E-02	6.594E-03	-0.101
		778.57		1.742E-01	2.528E+00	4.188E+00	4.440E-01	0.042
PR-144		696.49	*	-4.091E-01	2.470E+00	4.061E+00	4.467E-01	-0.101
		1489.15		-6.816E+00	1.166E+01	1.685E+01	1.396E+00	-0.404
PM-146		453.90	*	-1.404E-03	4.287E-02	7.001E-02	8.174E-03	-0.020
		633.02		1.230E+00	1.403E+00	2.382E+00	9.050E-01	0.516
		735.90		5.485E-02	1.661E-01	2.808E-01	8.243E-02	0.195
		747.13		-5.067E-02	1.049E-01	1.665E-01	2.575E-02	-0.304
ND-147		91.11		1.557E+00	3.615E-01	4.890E-01	5.612E-02	3.185
		319.41		-1.233E+00	2.865E+00	4.700E+00	5.050E-01	-0.262
		439.89		2.326E+00	5.285E+00	8.950E+00	8.626E-01	0.260
		531.02	*	-2.532E-01	5.628E-01	8.715E-01	1.401E-01	-0.291
PM-149		285.90	*	4.206E+01	8.777E+01	1.424E+02	2.428E+01	0.295
EU-152		121.78		-2.902E-03	6.122E-02	1.031E-01	1.421E-02	-0.028
		244.69		-7.577E-02	3.153E-01	4.410E-01	4.664E-02	-0.172
		344.27	*	-8.177E-02	9.943E-02	1.449E-01	1.556E-02	-0.564
		443.98		3.014E-02	9.247E-01	1.520E+00	1.471E-01	0.020
		778.89		2.018E-02	2.919E-01	4.836E-01	5.124E-02	0.042
		867.32		2.342E-01	8.828E-01	1.350E+00	1.326E-01	0.173
	+	964.01		7.967E-01	3.924E-01	6.221E-01	5.803E-02	1.281
		1085.78		-1.921E-02	3.974E-01	6.605E-01	5.817E-02	-0.029
		1112.02		9.526E-02	3.458E-01	5.654E-01	4.891E-02	0.168
		1407.95		2.737E-02	2.054E-01	3.399E-01	2.793E-02	0.081
GD-153		69.67		6.495E-01	9.253E-01	1.381E+00	1.380E-01	0.471
	+	83.37		3.816E+01	1.183E+01	1.825E+01	1.920E+00	2.091
	+	97.43	*	2.097E-01	8.226E-02	1.039E-01	1.170E-02	2.019
		103.18		-1.304E-01	8.267E-02	1.239E-01	1.438E-02	-1.053
EU-154		123.07		-1.731E-02	4.249E-02	7.042E-02	1.043E-02	-0.246
		247.94		3.459E-01	3.383E-01	5.181E-01	6.766E-02	0.668
		591.81		-3.688E-02	6.938E-01	1.103E+00	1.476E-01	-0.033
		723.30		7.493E-02	1.965E-01	2.953E-01	3.436E-02	0.254
		756.87		1.250E-01	8.642E-01	1.443E+00	1.960E-01	0.087
		873.19		-1.538E-01	3.003E-01	4.621E-01	6.041E-02	-0.333
		996.32		5.068E-02	4.468E-01	6.295E-01	1.137E-01	0.081
		1004.76		7.541E-02	2.498E-01	3.615E-01	4.363E-02	0.209
		1274.45	*	2.730E-02	1.265E-01	2.127E-01	2.337E-02	0.128

---- Non-Identified Nuclides ----

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EU-155		48.70		-2.762E-01	3.895E-01	5.577E-01	5.308E-02	-0.495
		60.01		-1.574E+00	2.110E+00	3.000E+00	2.952E-01	-0.525
	+	86.54		3.838E-01	9.036E-02	1.396E-01	1.499E-02	2.750
		105.31	*	1.266E-01	8.512E-02	1.497E-01	1.770E-02	0.845
TB-160	+	86.79		1.024E+00	2.408E-01	3.796E-01	4.055E-02	2.699
		197.04		-2.777E-01	5.173E-01	8.101E-01	7.788E-02	-0.343
		215.65		-3.945E-01	6.741E-01	1.057E+00	1.058E-01	-0.373
		298.57		1.674E-01	1.500E-01	1.854E-01	2.040E-02	0.903
		879.36	*	1.821E-01	1.449E-01	2.621E-01	2.540E-02	0.695
		962.29		8.268E-01	6.476E-01	1.035E+00	9.663E-02	0.799
		966.15		1.177E+00	2.890E-01	5.500E-01	5.127E-02	2.140
		1177.93		-2.559E-02	3.849E-01	6.340E-01	5.218E-02	-0.040
		1271.85		4.931E-01	7.325E-01	1.286E+00	1.053E-01	0.383
HO-166M		80.57		1.192E-02	1.887E-01	2.721E-01	2.828E-02	0.044
	+	184.41		6.150E-01	8.739E-02	8.958E-02	8.362E-03	6.866
		280.46		2.738E-02	9.040E-02	1.302E-01	1.453E-02	0.210
		410.95		1.366E-01	2.457E-01	4.188E-01	3.901E-02	0.326
		711.68	*	1.672E-02	6.399E-02	1.084E-01	1.187E-02	0.154
		752.31		-2.199E-02	3.083E-01	5.068E-01	5.453E-02	-0.043
		810.29		-2.906E-02	6.314E-02	9.921E-02	1.028E-02	-0.293
TM-171		51.35		2.243E+00	6.531E+00	9.852E+00	9.409E-01	0.228
	+	52.39		5.395E+00	5.166E+00	5.997E+00	5.740E-01	0.900
		59.40		2.453E+00	1.070E+01	1.587E+01	1.561E+00	0.155
		66.72	*	-7.993E+00	1.395E+01	1.977E+01	1.962E+00	-0.404
LU-176	+	88.36		7.559E-01	1.777E-01	2.605E-01	2.804E-02	2.902
		201.83		-2.699E-02	2.949E-02	4.017E-02	3.904E-03	-0.672
		306.84	*	-5.370E-03	2.163E-02	3.606E-02	3.934E-03	-0.149
		401.10		-3.610E+00	6.873E+00	1.099E+01	1.011E+00	-0.328
LU-177		112.95		8.609E-01	1.395E+00	2.404E+00	2.945E-01	0.358
	+	208.36	*	3.074E+00	1.425E+00	1.802E+00	1.776E-01	1.706
LU-177M	+	52.97		5.785E-01	5.540E-01	6.726E-01	6.447E-02	0.860
	+	54.07		3.278E-01	3.139E-01	3.755E-01	3.611E-02	0.873
		61.30		-5.038E-02	6.444E-01	9.425E-01	9.280E-02	-0.053
		121.62		1.070E-01	3.108E-01	5.306E-01	6.822E-02	0.202
		147.16		-3.187E-01	5.944E-01	8.595E-01	9.316E-02	-0.371
		171.86		1.021E-01	4.137E-01	6.891E-01	6.235E-02	0.148
		218.09		1.226E+00	7.792E-01	1.342E+00	1.350E-01	0.914
	+	268.79		3.198E+00	1.255E+00	1.392E+00	1.531E-01	2.297
		319.02		-4.967E-02	2.225E-01	3.701E-01	3.978E-02	-0.134
		367.43		7.187E-01	8.583E-01	1.498E+00	1.464E-01	0.480
		413.65	*	-3.933E-02	1.777E-01	2.890E-01	2.701E-02	-0.136
HF-181		56.28		-1.919E-01	3.172E-01	4.551E-01	4.412E-02	-0.422
		57.53		5.964E-03	1.690E-01	2.704E-01	2.635E-02	0.022
		65.20		5.436E-02	4.153E-01	6.086E-01	6.023E-02	0.089
		133.02		-1.632E-02	5.447E-02	9.025E-02	1.089E-02	-0.181
		136.25		-9.556E-02	3.834E-01	6.356E-01	7.500E-02	-0.150
		345.85		-1.937E-02	1.859E-01	2.992E-01	3.074E-02	-0.065
		482.03	*	2.021E-02	4.557E-02	7.640E-02	7.676E-03	0.265
W-181		56.28		-7.536E-02	1.243E-01	1.783E-01	1.729E-02	-0.423

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		57.53		2.326E-03	6.625E-02	1.060E-01	1.033E-02	0.022
		65.20	*	2.115E-02	1.615E-01	2.368E-01	2.343E-02	0.089
TA-182		67.75		1.875E-02	5.240E-02	8.351E-02	8.309E-03	0.225
	+	100.10		4.884E-01	1.915E-01	2.235E-01	2.552E-02	2.185
		152.43		1.888E-01	3.002E-01	5.101E-01	5.271E-02	0.370
		222.10		1.123E-01	3.121E-01	5.132E-01	5.205E-02	0.219
	+	1001.68		6.782E+00	4.206E+00	5.183E+00	4.769E-01	1.309
	+	1121.28		6.831E-01	2.248E-01	3.635E-01	3.123E-02	1.879
		1189.05		3.987E-02	3.047E-01	5.106E-01	4.203E-02	0.078
		1221.42	*	1.591E-01	2.238E-01	3.895E-01	3.203E-02	0.408
		1230.97		1.141E-01	5.927E-01	8.932E-01	7.342E-02	0.128
RE-183		57.98		-3.536E-02	6.924E-02	1.086E-01	1.060E-02	-0.326
		59.32		4.335E-02	4.267E-02	6.504E-02	6.393E-03	0.666
		67.20		-2.772E-02	1.002E-01	1.440E-01	1.431E-02	-0.193
	+	162.32	*	2.988E-01	1.680E-01	1.851E-01	1.722E-02	1.615
	+	208.81		2.788E+00	1.293E+00	1.628E+00	1.606E-01	1.713
		291.72		-2.823E-01	9.111E-01	1.335E+00	1.477E-01	-0.211
RE-184		57.98		-1.304E-01	2.553E-01	4.003E-01	3.909E-02	-0.326
		59.32		1.597E-01	1.572E-01	2.396E-01	2.355E-02	0.666
		67.20		-1.022E-01	3.694E-01	5.306E-01	5.273E-02	-0.193
		161.27		2.215E-01	3.529E-01	5.403E-01	5.090E-02	0.410
		216.55		-3.331E-02	2.408E-01	3.871E-01	3.882E-02	-0.086
		252.85	*	1.492E-01	2.098E-01	3.485E-01	3.737E-02	0.428
		318.01		6.014E-03	3.889E-01	6.563E-01	7.064E-02	0.009
		792.07		1.420E+00	1.220E+00	1.953E+00	2.052E-01	0.727
		903.28		5.477E-01	1.078E+00	1.743E+00	1.650E-01	0.314
		920.93		-1.541E-01	4.776E-01	7.484E-01	7.060E-02	-0.206
OS-185		59.72		-9.468E-02	1.239E-01	1.760E-01	1.732E-02	-0.538
		61.14		-1.989E-03	7.053E-02	1.034E-01	1.018E-02	-0.019
		69.30		6.564E-02	1.514E-01	2.424E-01	2.422E-02	0.271
		592.07		-2.560E-01	2.823E+00	4.475E+00	4.841E-01	-0.057
		646.12	*	1.986E-03	4.288E-02	7.212E-02	7.958E-03	0.028
		717.42		-2.007E-01	9.504E-01	1.551E+00	1.695E-01	-0.129
		874.81		-1.980E-01	5.810E-01	9.123E-01	8.887E-02	-0.217
		880.27		5.858E-01	8.100E-01	1.407E+00	1.362E-01	0.416
RE-188		155.03	*	8.359E-02	1.493E-01	2.531E-01	2.549E-02	0.330
		477.96		1.430E-01	3.188E+00	5.211E+00	5.217E-01	0.027
		633.10		2.597E+00	2.697E+00	4.840E+00	5.320E-01	0.536
W-188	+	63.58		4.487E+02	6.450E+01	6.587E+01	6.502E+00	6.812
		227.08		7.276E+00	1.171E+01	1.944E+01	1.991E+00	0.374
		290.67	*	-1.761E+00	7.373E+00	1.087E+01	1.204E+00	-0.162
IR-192	+	295.96		1.117E+00	2.247E-01	2.887E-01	3.199E-02	3.869
		308.46		-7.077E-03	8.414E-02	1.415E-01	1.547E-02	-0.050
		316.51	*	-1.161E-03	3.015E-02	5.074E-02	5.480E-03	-0.023
		468.07		-4.121E-02	7.521E-02	1.011E-01	1.058E-02	-0.407
		604.41		8.767E-03	4.790E-01	7.053E-01	1.030E-01	0.012
		612.46		8.357E-01	8.228E-01	1.313E+00	1.569E-01	0.636
AU-195		65.12		1.273E-02	7.473E-02	1.097E-01	1.086E-02	0.116
		66.83		-2.666E-02	4.670E-02	6.617E-02	6.570E-03	-0.403

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	75.70		1.353E+00	2.026E-01	2.760E-01	2.813E-02	4.901
	+	98.88	*	6.106E-01	2.395E-01	3.286E-01	3.729E-02	1.858
		129.76		3.169E+00	2.405E+00	4.180E+00	5.150E-01	0.758
TL-200		367.94	*	1.369E-04	2.405E+00	Half-Life too short		
		579.30		3.259E-04	2.405E+00	Half-Life too short		
		828.27		7.590E-06	2.405E+00	Half-Life too short		
		1205.75		-3.390E-03	2.405E+00	Half-Life too short		
TL-201		68.90		2.092E+00	2.304E+00	3.738E+00	3.730E-01	0.560
		70.82		6.181E-01	1.522E+00	2.245E+00	2.251E-01	0.275
		80.30		7.629E-01	3.413E+00	4.957E+00	5.145E-01	0.154
		135.34		8.761E-01	2.069E+01	3.473E+01	4.124E+00	0.025
		167.43	*	4.826E+00	6.437E+00	9.914E+00	8.868E-01	0.487
TL-202		68.90		1.912E-01	2.106E-01	3.416E-01	3.409E-02	0.560
		70.82		5.634E-02	1.387E-01	2.046E-01	2.052E-02	0.275
		80.30		6.955E-02	3.112E-01	4.520E-01	4.691E-02	0.154
		439.56	*	3.853E-02	6.370E-02	1.090E-01	1.050E-02	0.353
HG-203		70.83		2.452E-01	6.041E-01	8.903E-01	1.295E-01	0.275
		72.87		7.263E-01	3.746E-01	5.637E-01	8.010E-02	1.289
		82.60		1.322E+00	8.872E-01	1.182E+00	1.771E-01	1.118
		279.20	*	2.847E-02	4.380E-02	6.461E-02	7.334E-03	0.441
BI-207		72.80		1.911E-01	1.068E-01	1.634E-01	1.649E-02	1.169
	+	74.97		7.506E-01	1.124E-01	1.444E-01	1.468E-02	5.199
	+	84.90		4.937E-01	1.531E-01	2.365E-01	2.504E-02	2.088
		569.67		1.793E-02	3.200E-02	5.351E-02	5.724E-03	0.335
		1063.62	*	2.257E-03	4.753E-02	7.992E-02	7.133E-03	0.028
		1770.23		2.035E-01	4.832E-01	7.695E-01	6.336E-02	0.264
TL-207		81.07		-1.663E-02	1.512E-01	2.164E-01	2.253E-02	-0.077
	+	83.78		3.255E-01	1.009E-01	1.612E-01	1.699E-02	2.019
		94.90		5.440E-01	2.146E-01	2.987E-01	3.320E-02	1.821
		122.32		1.415E-01	1.435E+00	2.430E+00	3.234E-01	0.058
	+	144.24		1.997E+00	8.309E-01	1.175E+00	1.401E-01	1.699
		154.21		-1.085E-01	3.543E-01	5.810E-01	6.329E-02	-0.187
	+	269.46		7.490E-01	2.942E-01	3.514E-01	3.917E-02	2.132
		323.87	*	-1.283E-02	6.397E-01	9.484E-01	1.782E-01	-0.014
	+	338.28		6.273E+00	1.963E+00	2.485E+00	3.388E-01	2.525
		445.03		1.033E+00	2.185E+00	3.697E+00	4.759E-01	0.280
PO-209		260.50		-1.833E+00	8.806E+00	1.386E+01	1.505E+00	-0.132
		262.80		-3.505E+00	2.382E+01	3.759E+01	4.096E+00	-0.093
		896.60	*	-9.575E-01	7.287E+00	1.168E+01	1.108E+00	-0.082
PB-211		404.84	*	5.050E-01	9.764E-01	1.578E+00	9.903E-01	0.320
		427.08		1.350E+00	2.134E+00	3.379E+00	2.104E+00	0.400
		831.96		-5.286E-01	1.426E+00	2.199E+00	1.383E+00	-0.240
BI-212	+	727.18	*	1.159E+00	4.172E-01	6.597E-01	7.927E-02	1.757
		785.46		6.215E-01	2.093E+00	3.425E+00	3.614E-01	0.181
		1620.62		6.836E-01	1.234E+00	2.232E+00	1.855E-01	0.306
PO-215		81.07		-1.663E-02	1.512E-01	2.164E-01	2.253E-02	-0.077
	+	83.78		3.255E-01	1.009E-01	1.612E-01	1.699E-02	2.019
		94.90		5.440E-01	2.146E-01	2.987E-01	3.320E-02	1.821
		122.32		1.415E-01	1.435E+00	2.430E+00	3.234E-01	0.058

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	144.24		1.997E+00	8.309E-01	1.175E+00	1.401E-01	1.699
		154.21		-1.085E-01	3.543E-01	5.810E-01	6.329E-02	-0.187
	+	269.46		7.490E-01	2.942E-01	3.514E-01	3.917E-02	2.132
		323.87	*	-1.283E-02	6.397E-01	9.484E-01	1.782E-01	-0.014
	+	338.28		6.273E+00	1.963E+00	2.485E+00	3.388E-01	2.525
		445.03		1.033E+00	2.185E+00	3.697E+00	4.759E-01	0.280
RN-219	+	271.23		9.610E-01	3.810E-01	4.445E-01	5.513E-02	2.162
		401.81	*	-1.118E-01	4.180E-01	6.795E-01	1.045E-01	-0.164
RN-220		549.76	*	2.235E+00	2.658E+01	4.305E+01	4.552E+00	0.052
RA-223		81.07		-1.663E-02	1.512E-01	2.164E-01	2.253E-02	-0.077
	+	83.78		3.255E-01	1.009E-01	1.612E-01	1.699E-02	2.019
		94.90		5.440E-01	2.146E-01	2.987E-01	3.320E-02	1.821
		122.32		1.415E-01	1.435E+00	2.430E+00	3.234E-01	0.058
	+	144.24		1.997E+00	8.309E-01	1.175E+00	1.401E-01	1.699
		154.21		-1.085E-01	3.543E-01	5.810E-01	6.329E-02	-0.187
	+	269.46		7.490E-01	2.942E-01	3.514E-01	3.917E-02	2.132
		323.87	*	-1.283E-02	6.397E-01	9.484E-01	1.782E-01	-0.014
	+	338.28		6.273E+00	1.963E+00	2.485E+00	3.388E-01	2.525
		445.03		1.033E+00	2.185E+00	3.697E+00	4.759E-01	0.280
AC-227		79.80		-5.304E-02	1.122E+00	1.611E+00	3.586E-01	-0.033
		236.00		4.397E-01	2.142E-01	3.389E-01	4.598E-02	1.298
		256.20	*	-1.664E-01	3.545E-01	5.484E-01	9.136E-02	-0.303
		286.10		6.785E-01	1.511E+00	2.450E+00	3.662E-01	0.277
	+	299.80		2.527E+00	1.800E+00	2.488E+00	4.670E-01	1.016
		304.40		8.577E-01	1.851E+00	2.851E+00	5.596E-01	0.301
		334.20		6.309E-01	2.493E+00	3.755E+00	7.628E-01	0.168
TH-227		79.80		-5.304E-02	1.122E+00	1.611E+00	3.628E-01	-0.033
	+	94.00		5.048E+01	1.193E+01	4.025E+00	9.201E-01	12.540
		236.00		4.397E-01	2.130E-01	3.389E-01	4.244E-02	1.298
		256.20	*	-1.664E-01	3.548E-01	5.484E-01	1.052E-01	-0.303
		286.10		6.785E-01	1.655E+00	2.450E+00	2.465E+00	0.277
	+	299.80		2.527E+00	1.800E+00	2.488E+00	4.670E-01	1.016
		304.40		8.577E-01	1.851E+00	2.851E+00	5.596E-01	0.301
		334.20		6.309E-01	2.493E+00	3.755E+00	7.628E-01	0.168
PA-231		283.67	*	-1.289E+00	1.576E+00	2.349E+00	3.931E-01	-0.549
	+	301.29		1.011E+00	7.090E-01	1.010E+00	1.415E-01	1.000
TH-231		81.07		-1.663E-02	1.512E-01	2.164E-01	2.253E-02	-0.077
	+	83.78		3.255E-01	1.009E-01	1.612E-01	1.699E-02	2.019
		94.90		5.440E-01	2.146E-01	2.987E-01	3.320E-02	1.821
		122.32		1.415E-01	1.435E+00	2.430E+00	3.234E-01	0.058
	+	144.24		1.997E+00	8.309E-01	1.175E+00	1.401E-01	1.699
		154.21		-1.085E-01	3.543E-01	5.810E-01	6.329E-02	-0.187
	+	269.46		7.490E-01	2.942E-01	3.514E-01	3.917E-02	2.132
		323.87	*	-1.283E-02	6.397E-01	9.484E-01	1.782E-01	-0.014
	+	338.28		6.273E+00	1.963E+00	2.485E+00	3.388E-01	2.525
		445.03		1.033E+00	2.185E+00	3.697E+00	4.759E-01	0.280
U-231	+	84.21		1.380E+01	4.279E+00	6.876E+00	7.259E-01	2.007
	+	92.29		4.908E+01	6.177E+00	5.362E+00	5.883E-01	9.153
		95.87	*	9.501E-01	9.534E-01	1.256E+00	1.404E-01	0.756

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.847E+00	1.653E+00	2.680E+00	3.194E-01	-0.689
PA-233	+	75.28		2.190E+01	4.301E+00	4.180E+00	6.803E-01	5.240
	+	86.59		6.239E+00	2.159E+00	2.279E+00	6.279E-01	2.737
	+	300.12		7.044E-01	4.977E-01	6.982E-01	1.142E-01	1.009
		311.98	*	-1.348E-02	5.654E-02	9.414E-02	1.040E-02	-0.143
		340.50		1.298E+00	7.315E-01	1.105E+00	2.710E-01	1.175
		398.62		-5.277E-03	2.146E+00	3.551E+00	9.522E-01	-0.001
		415.76		9.648E-01	1.608E+00	2.734E+00	5.978E-01	0.353
PA-234	+	63.00		1.303E+01	2.514E+00	1.926E+00	3.124E-01	6.765
		94.67		4.787E-01	1.555E-01	2.295E-01	3.268E-02	2.086
	+	98.44		2.475E-01	1.674E-01	1.314E-01	7.393E-02	1.884
	+	99.86		1.283E+00	5.032E-01	6.145E-01	7.009E-02	2.088
		111.00		-8.288E-02	1.601E-01	2.664E-01	3.939E-02	-0.311
		131.20		-7.946E-02	8.992E-02	1.451E-01	1.771E-02	-0.548
		152.70		2.857E-01	2.899E-01	4.927E-01	8.847E-02	0.580
	+	186.00		2.214E+01	7.350E+00	3.800E+00	1.194E+00	5.827
		226.40		9.101E-02	3.725E-01	6.079E-01	8.696E-02	0.150
		227.20		2.638E-01	3.959E-01	6.586E-01	6.746E-02	0.400
		248.90		-8.470E-01	8.115E-01	1.109E+00	2.582E-01	-0.763
		293.70		4.773E+00	1.244E+00	1.636E+00	3.049E-01	2.917
		369.80		-5.652E-01	8.087E-01	1.271E+00	2.825E-01	-0.445
		568.70		6.030E-01	1.061E+00	1.773E+00	1.896E-01	0.340
		569.50		1.877E-01	2.863E-01	4.816E-01	5.151E-02	0.390
		574.00		-6.216E-01	1.603E+00	2.485E+00	2.664E-01	-0.250
		699.00		-4.506E-01	7.586E-01	1.196E+00	2.424E-01	-0.377
		706.10		2.985E-01	1.158E+00	1.948E+00	8.785E-01	0.153
		733.00		-2.317E-01	4.788E-01	6.460E-01	1.496E-01	-0.359
		742.81		6.803E-01	1.560E+00	2.556E+00	1.726E+00	0.266
		796.30		2.939E+00	1.387E+00	2.035E+00	5.638E-01	1.444
		805.60		-6.760E-02	1.060E+00	1.732E+00	5.402E-01	-0.039
		819.60		-6.840E-02	1.244E+00	2.029E+00	7.800E-01	-0.034
		826.30		1.380E-01	9.247E-01	1.531E+00	6.902E-01	0.090
		831.60		-2.527E-01	7.238E-01	1.144E+00	3.470E-01	-0.221
		876.40		-3.632E-01	9.346E-01	1.335E+00	1.374E+00	-0.272
		880.51		2.081E-01	2.955E-01	5.122E-01	4.957E-02	0.406
		883.24		-1.794E-01	3.329E-01	4.763E-01	3.208E-01	-0.377
		899.00		-7.017E-01	9.089E-01	1.269E+00	5.571E-01	-0.553
		925.00		-1.288E-01	1.274E+00	2.044E+00	1.926E-01	-0.063
		926.50		1.352E-01	1.856E-01	3.171E-01	8.105E-02	0.427
		946.00	*	3.181E-01	3.490E-01	6.020E-01	1.151E-01	0.528
		949.00		-1.348E-01	4.975E-01	7.827E-01	7.333E-02	-0.172
		980.50		2.297E-01	7.606E-01	1.264E+00	1.172E-01	0.182
		1394.10		4.071E-01	1.209E+00	2.015E+00	1.311E+00	0.202
PA-234M		766.42		3.416E+01	2.253E+01	2.691E+01	1.376E+01	1.270
	+	1001.03	*	1.541E+01	9.585E+00	1.200E+01	1.257E+00	1.284
NP-236		94.67		3.699E-01	1.139E-01	1.747E-01	1.940E-02	2.117
	+	98.44		1.871E-01	7.339E-02	9.931E-02	1.124E-02	1.884
		111.00		-6.269E-02	1.210E-01	2.015E-01	2.441E-02	-0.311
		160.31	*	3.534E-02	7.728E-02	1.175E-01	1.119E-02	0.301

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		4.277E-01	1.677E-01	2.170E-01	2.471E-02	1.971
		117.00	*	-1.186E-01	1.504E-01	2.456E-01	3.076E-02	-0.483
	+	209.75		2.201E+00	1.021E+00	1.279E+00	1.264E-01	1.722
		228.18		1.105E-01	2.044E-01	3.382E-01	3.471E-02	0.327
	+	277.60		2.750E-01	2.227E-01	2.853E-01	3.177E-02	0.964
		334.30		2.717E-01	1.407E+00	2.112E+00	2.217E-01	0.129
AM-241		59.54	*	1.009E-02	6.243E-02	9.238E-02	9.598E-03	0.109
CM-243	+	99.55		4.401E-01	1.726E-01	2.233E-01	2.543E-02	1.971
		103.76	*	-2.471E-03	7.133E-02	1.214E-01	1.414E-02	-0.020
		117.00		-1.220E-01	1.547E-01	2.526E-01	3.165E-02	-0.483
	+	209.75		2.170E+00	1.006E+00	1.260E+00	1.246E-01	1.722
		228.18		1.116E-01	2.065E-01	3.418E-01	3.507E-02	0.327
	+	277.60		2.772E-01	2.246E-01	2.877E-01	3.203E-02	0.964
AM-246		798.80		-1.355E-01	1.689E-01	2.141E-01	2.238E-02	-0.633
		1036.00		4.390E-02	3.154E-01	5.355E-01	4.851E-02	0.082
		1062.04		-1.502E-02	2.072E-01	3.441E-01	3.074E-02	-0.044
		1078.86	*	3.574E-02	1.419E-01	2.428E-01	2.147E-02	0.147
CM-247	+	278.00		1.140E+00	9.238E-01	1.191E+00	1.327E-01	0.958
		287.40		-2.934E-02	1.232E+00	1.946E+00	2.160E-01	-0.015
		402.60	*	1.625E-02	3.703E-02	6.283E-02	5.792E-03	0.259
CF-249		252.85		5.599E-01	7.877E-01	1.308E+00	1.403E-01	0.428
		333.44		5.530E-02	1.988E-01	2.811E-01	2.955E-02	0.197
		387.95	*	2.136E-02	4.100E-02	6.930E-02	6.377E-03	0.308
CF-251		176.60	*	-3.459E-02	1.071E-01	1.734E-01	1.587E-02	-0.200
		227.00		2.116E-01	3.513E-01	5.829E-01	5.968E-02	0.363
		285.00		8.352E-01	1.728E+00	2.809E+00	3.124E-01	0.297

VAX/VMS Nuclide Identification Report Generated

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*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994004      *
* Acquisition date : 12-FEB-2010 12:32:53 Detector SN#    :                 *
* Detector ID        : GAM25                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:02.15      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245994004           Analyst initials: MXR1          *
* Batch Number       : 948812               Sample Quantity : 1.2750E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.302E+01	2.514E+00	6.181E-01	0.000E+00
AS-73	3.056E-01	2.868E-01	3.491E-01	0.000E+00
CD-109	3.242E+00	7.469E-01	1.263E+00	0.000E+00
SN-126	3.187E-01	7.342E-02	1.098E-01	0.000E+00
BA-137M	5.827E-02	6.469E-02	7.360E-02	0.000E+00
CS-137	6.160E-02	6.838E-02	7.781E-02	0.000E+00
TL-208	5.239E-01	9.717E-02	6.106E-02	0.000E+00
BI-210	1.287E+00	6.323E-01	7.146E-01	0.000E+00
PB-210	1.287E+00	6.323E-01	7.146E-01	0.000E+00
PO-210	1.287E+00	6.304E-01	7.146E-01	0.000E+00
BI-211	4.060E+00	5.904E-01	3.373E-01	0.000E+00
PB-212	1.595E+00	2.128E-01	1.207E-01	0.000E+00
PO-212	1.595E+00	2.128E-01	1.207E-01	0.000E+00
BI-214	1.186E+00	2.063E-01	1.163E-01	0.000E+00
PB-214	1.412E+00	2.177E-01	1.090E-01	0.000E+00
PO-214	1.412E+00	2.177E-01	1.090E-01	0.000E+00
PO-216	1.595E+00	2.128E-01	1.207E-01	0.000E+00
PO-218	1.412E+00	2.177E-01	1.090E-01	0.000E+00
RA-224	2.677E+00	1.211E+00	1.171E+00	0.000E+00
RA-226	1.186E+00	2.063E-01	1.163E-01	0.000E+00
AC-228	1.670E+00	3.403E-01	2.291E-01	0.000E+00
RA-228	1.670E+00	3.403E-01	2.291E-01	0.000E+00
TH-228	1.619E+00	2.160E-01	1.225E-01	0.000E+00
TH-229	-8.321E-02	4.461E-01	7.596E-01	0.000E+00
TH-230	1.186E+00	2.063E-01	1.163E-01	0.000E+00
TH-232	1.670E+00	3.403E-01	2.291E-01	0.000E+00
TH-234	1.117E+01	2.338E+00	8.787E-01	0.000E+00
U-234	1.186E+00	2.063E-01	1.163E-01	0.000E+00
U-235	6.163E-01	2.663E-01	3.061E-01	0.000E+00
NP-237	9.358E-01	2.869E-01	3.210E-01	0.000E+00
U-238	1.117E+01	2.338E+00	8.787E-01	0.000E+00
AM-243	4.181E-01	6.138E-02	5.025E-02	0.000E+00
ANH-511	1.984E-01	7.694E-02	4.302E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-8.934E-03	3.357E-01	5.667E-01	0.000E+00	NOT IDENT.
NA-22	-3.196E-03	4.549E-02	7.593E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.440E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	5.854E-03	3.399E-02	5.873E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.188E-02	5.054E-02	0.000E+00	FAIL ABUN
SC-46	-2.975E-03	4.136E-02	6.872E-02	0.000E+00	FAIL ABUN
V-48	-7.074E-02	7.718E-02	1.152E-01	0.000E+00	NOT IDENT.
CR-51	-1.284E-01	3.155E-01	5.415E-01	0.000E+00	NOT IDENT.
MN-52	-4.507E-02	2.267E-01	3.644E-01	0.000E+00	NOT IDENT.
MN-54	-9.228E-03	4.227E-02	6.998E-02	0.000E+00	NOT IDENT.
CO-56	1.159E-02	4.204E-02	7.237E-02	0.000E+00	FAIL ABUN
CO-57	-2.821E-03	2.057E-02	3.656E-02	0.000E+00	NOT IDENT.
CO-58	-9.373E-03	4.093E-02	6.777E-02	0.000E+00	NOT IDENT.
FE-59	-7.015E-02	8.778E-02	1.377E-01	0.000E+00	FAIL ABUN
CO-60	4.570E-03	4.153E-02	6.928E-02	0.000E+00	NOT IDENT.
ZN-65	-5.736E-02	1.048E-01	1.426E-01	0.000E+00	NOT IDENT.
GE-68	3.979E-01	1.237E+00	2.181E+00	0.000E+00	NOT IDENT.
AS-74	1.982E-02	9.095E-02	1.529E-01	0.000E+00	NOT IDENT.
SE-75	-9.433E-03	4.006E-02	6.240E-02	0.000E+00	NOT IDENT.
BR-77	4.372E+00	9.675E+00	1.678E+01	0.000E+00	FAIL ABUN
SR-82	-3.061E-01	4.223E-01	6.736E-01	0.000E+00	NOT IDENT.
RB-83	3.717E-02	6.829E-02	1.155E-01	0.000E+00	NOT IDENT.
RB-84	6.108E-03	7.434E-02	1.254E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.131E+00	1.331E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.653E-02	6.818E-02	0.000E+00	NOT IDENT.
RB-86	3.812E-01	7.948E-01	1.419E+00	0.000E+00	NOT IDENT.
Y-88	-1.022E-02	3.371E-02	5.283E-02	0.000E+00	NOT IDENT.
ZR-88	-2.161E-02	3.147E-02	5.201E-02	0.000E+00	NOT IDENT.
Y-91	-1.938E+01	1.904E+01	2.962E+01	0.000E+00	NOT IDENT.
NB-94	8.761E-03	3.503E-02	6.119E-02	0.000E+00	NOT IDENT.
NB-95	8.807E-02	5.256E-02	9.723E-02	0.000E+00	NOT IDENT.
NB-95M	1.649E-01	1.073E-01	1.767E-01	0.000E+00	NOT IDENT.
ZR-95	-3.011E-02	8.093E-02	1.335E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.052E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.737E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.142E+00	1.226E+01	2.131E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.762E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.621E-03	2.979E-02	4.994E-02	0.000E+00	NOT IDENT.
RH-102	-1.514E-02	2.932E-02	4.770E-02	0.000E+00	NOT IDENT.
RU-103	6.830E-03	4.253E-02	7.242E-02	0.000E+00	FAIL ABUN
RH-106	-1.264E-02	3.261E-01	5.653E-01	0.000E+00	FAIL ABUN
RU-106	-1.264E-02	3.261E-01	5.653E-01	0.000E+00	FAIL ABUN
AG-108M	-1.247E-02	3.101E-02	5.143E-02	0.000E+00	NOT IDENT.
AG-110M	4.825E-02	4.009E-02	6.717E-02	0.000E+00	NOT IDENT.
IN-111	1.146E-02	9.731E-01	1.456E+00	0.000E+00	NOT IDENT.
IN-113M	-3.612E-02	4.470E-02	7.320E-02	0.000E+00	NOT IDENT.
SN-113	-3.612E-02	4.470E-02	7.320E-02	0.000E+00	NOT IDENT.
IN-114M	6.663E-04	1.707E-01	2.625E-01	0.000E+00	NOT IDENT.
CD-115	7.651E+00	1.020E+01	1.804E+01	0.000E+00	NOT IDENT.
SN-117M	-1.134E-02	5.179E-02	8.012E-02	0.000E+00	NOT IDENT.
SB-122	1.551E+00	2.105E+00	3.682E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.835E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-4.896E-03	2.690E-02	4.169E-02	0.000E+00	NOT IDENT.
I-124	4.235E-01	6.736E-01	1.129E+00	0.000E+00	NOT IDENT.
SB-124	4.091E-02	6.820E-02	1.281E-01	0.000E+00	FAIL ABUN
SB-125	2.629E-02	8.647E-02	1.509E-01	0.000E+00	FAIL ABUN
TE-125M	3.230E+00	7.458E+00	1.360E+01	0.000E+00	NOT IDENT.
I-126	-9.092E-02	2.284E-01	3.289E-01	0.000E+00	NOT IDENT.
SB-126	-5.928E-02	1.605E-01	2.493E-01	0.000E+00	FAIL ABUN
SB-127	5.774E-01	1.388E+00	2.459E+00	0.000E+00	NOT IDENT.
XE-127	-4.714E-02	4.664E-02	6.628E-02	0.000E+00	NOT IDENT.
I-131	3.859E-02	1.079E-01	1.914E-01	0.000E+00	NOT IDENT.
TE-132	3.359E-01	6.021E-01	1.043E+00	0.000E+00	NOT IDENT.
BA-133	-1.067E-02	4.360E-02	6.543E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.506E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.491E-02	1.077E-01	0.000E+00	FAIL ABUN
CS-135	2.091E-01	1.555E-01	2.508E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.862E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.893E-02	1.146E-01	2.039E-01	0.000E+00	FAIL ABUN
CE-139	1.547E-02	2.770E-02	4.453E-02	0.000E+00	NOT IDENT.
BA-140	2.396E-02	2.479E-01	4.118E-01	0.000E+00	FAIL ABUN
LA-140	-2.163E-02	8.850E-02	1.454E-01	0.000E+00	FAIL ABUN

CE-141	6.314E-02	5.613E-02	9.328E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.654E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	3.614E-02	1.678E-01	2.999E-01	0.000E+00	NOT IDENT.
PM-144	-6.037E-03	3.573E-02	6.061E-02	0.000E+00	NOT IDENT.
PR-144	-4.091E-01	2.421E+00	4.107E+00	0.000E+00	NOT IDENT.
PM-146	-1.404E-03	4.201E-02	7.126E-02	0.000E+00	NOT IDENT.
ND-147	-2.532E-01	5.515E-01	8.851E-01	0.000E+00	NOT IDENT.
PM-149	4.206E+01	8.602E+01	1.459E+02	0.000E+00	NOT IDENT.
EU-152	-8.177E-02	9.744E-02	1.481E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	8.062E-02	1.082E-01	0.000E+00	FAIL ABUN
EU-154	2.730E-02	1.240E-01	2.131E-01	0.000E+00	NOT IDENT.
EU-155	1.266E-01	8.341E-02	1.557E-01	0.000E+00	FAIL ABUN
TB-160	1.821E-01	1.420E-01	2.642E-01	0.000E+00	FAIL ABUN
HO-166M	1.672E-02	6.271E-02	1.096E-01	0.000E+00	FAIL ABUN
TM-171	-7.993E+00	1.368E+01	2.069E+01	0.000E+00	FAIL ABUN
LU-176	-5.370E-03	2.120E-02	3.692E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.397E+00	1.855E+00	0.000E+00	FAIL ABUN
LU-177M	-3.933E-02	1.741E-01	2.946E-01	0.000E+00	FAIL ABUN
HF-181	2.021E-02	4.466E-02	7.770E-02	0.000E+00	NOT IDENT.
W-181	2.115E-02	1.583E-01	2.479E-01	0.000E+00	NOT IDENT.
TA-182	1.591E-01	2.193E-01	3.905E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.646E-01	1.913E-01	0.000E+00	FAIL ABUN
RE-184	1.492E-01	2.057E-01	3.578E-01	0.000E+00	NOT IDENT.
OS-185	1.986E-03	4.202E-02	7.302E-02	0.000E+00	NOT IDENT.
RE-188	8.359E-02	1.463E-01	2.617E-01	0.000E+00	NOT IDENT.
W-188	-1.761E+00	7.225E+00	1.114E+01	0.000E+00	FAIL ABUN
IR-192	-1.161E-03	2.954E-02	5.192E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.347E-01	3.421E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.994E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	4.826E+00	6.308E+00	1.024E+01	0.000E+00	NOT IDENT.
TL-202	3.853E-02	6.243E-02	1.110E-01	0.000E+00	NOT IDENT.
HG-203	2.847E-02	4.292E-02	6.625E-02	0.000E+00	NOT IDENT.
BI-207	2.257E-03	4.658E-02	8.031E-02	0.000E+00	FAIL ABUN
TL-207	-1.283E-02	6.269E-01	9.703E-01	0.000E+00	FAIL ABUN
PO-209	-9.575E-01	7.141E+00	1.177E+01	0.000E+00	NOT IDENT.
PB-211	5.050E-01	9.569E-01	1.609E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.088E-01	6.668E-01	0.000E+00	FAIL ABUN
PO-215	-1.283E-02	6.269E-01	9.703E-01	0.000E+00	FAIL ABUN
RN-219	-1.118E-01	4.097E-01	6.930E-01	0.000E+00	FAIL ABUN
RN-220	2.235E+00	2.605E+01	4.370E+01	0.000E+00	NOT IDENT.
RA-223	-1.283E-02	6.269E-01	9.703E-01	0.000E+00	FAIL ABUN
AC-227	-1.664E-01	3.474E-01	5.630E-01	0.000E+00	FAIL ABUN
TH-227	-1.664E-01	3.477E-01	5.630E-01	0.000E+00	FAIL ABUN
PA-231	-1.289E+00	1.545E+00	2.408E+00	0.000E+00	FAIL ABUN
TH-231	-1.283E-02	6.269E-01	9.703E-01	0.000E+00	FAIL ABUN
U-231	9.501E-01	9.343E-01	1.308E+00	0.000E+00	FAIL ABUN
PA-233	-1.348E-02	5.541E-02	9.637E-02	0.000E+00	FAIL ABUN
PA-234	3.181E-01	3.420E-01	6.060E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	9.394E+00	1.207E+01	0.000E+00	FAIL ABUN
NP-236	3.534E-02	7.573E-02	1.214E-01	0.000E+00	FAIL ABUN
NP-239	-1.186E-01	1.474E-01	2.550E-01	0.000E+00	FAIL ABUN
AM-241	1.009E-02	6.118E-02	9.686E-02	0.000E+00	NOT IDENT.
CM-243	-2.471E-03	6.990E-02	1.263E-01	0.000E+00	FAIL ABUN
AM-246	3.574E-02	1.391E-01	2.439E-01	0.000E+00	NOT IDENT.
CM-247	1.625E-02	3.629E-02	6.407E-02	0.000E+00	FAIL ABUN
CF-249	2.136E-02	4.018E-02	7.070E-02	0.000E+00	NOT IDENT.
CF-251	-3.459E-02	1.050E-01	1.790E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:34:05.76

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994004.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:32:53
Sample ID         : G245994004           Sample quantity  : 1.27500E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.15  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	925	10.67*	1.109E+00	2.302E+01	2.302E+01	11.14
AS-73	53.44	90	10.30*	9.582E+00	2.684E-01	3.056E-01	95.76
CD-109	88.03	377	3.72*	9.407E+00	3.170E+00	3.242E+00	23.51
SN-126	64.28	1410	9.60	9.779E+00	4.423E+00	4.423E+00	19.05
	86.94	377	8.90	9.407E+00	1.325E+00	1.325E+00	46.79
	87.57	377	37.00*	9.407E+00	3.187E-01	3.187E-01	23.51
BA-137M	661.65	40	89.98*	2.230E+00	5.821E-02	5.827E-02	113.28
CS-137	661.65	40	85.12*	2.230E+00	6.154E-02	6.160E-02	113.28
TL-208	277.35	62	6.80	4.735E+00	5.701E-01	5.701E-01	81.49
	510.84	189	21.60	2.806E+00	9.187E-01	9.187E-01	40.43
	583.14	374	84.20*	2.497E+00	5.239E-01	5.239E-01	18.93
	860.37	56	12.46	1.766E+00	7.554E-01	7.554E-01	58.34
BI-210	46.50	163	4.05*	9.189E+00	1.286E+00	1.287E+00	50.12
PB-210	46.50	163	4.05*	9.189E+00	1.286E+00	1.287E+00	50.12
PO-210	46.50	163	4.05*	9.189E+00	1.286E+00	1.287E+00	49.97
BI-211	72.87	------	1.27	9.724E+00	------ Line Not Found		------
	351.07	694	12.94*	3.886E+00	4.060E+00	4.060E+00	14.84
PB-212	74.81	909	10.70	9.694E+00	2.579E+00	2.579E+00	17.65
	77.11	1331	18.00	9.651E+00	2.255E+00	2.255E+00	12.72
	87.30	377	8.00	9.407E+00	1.474E+00	1.474E+00	25.55
	238.63	1290	44.60*	5.340E+00	1.595E+00	1.595E+00	13.61
	300.09	70	3.41	4.441E+00	1.363E+00	1.363E+00	69.85
PO-212	74.81	909	10.70	9.694E+00	2.579E+00	2.579E+00	17.65
	77.11	1331	18.00	9.651E+00	2.255E+00	2.255E+00	12.72
	87.30	377	8.00	9.407E+00	1.474E+00	1.474E+00	25.55
	115.19	------	0.60	8.498E+00	------ Line Not Found		------
	238.63	1290	44.60*	5.340E+00	1.595E+00	1.595E+00	13.61
	300.09	70	3.41	4.441E+00	1.363E+00	1.363E+00	69.85
BI-214	609.31	448	46.30*	2.401E+00	1.186E+00	1.186E+00	17.75
	1120.29	104	15.10	1.398E+00	1.446E+00	1.446E+00	33.56
	1764.49	83	15.80	9.415E-01	1.638E+00	1.638E+00	27.52
PB-214	74.81	909	6.21	9.694E+00	4.444E+00	4.444E+00	16.71

Sample ID : G245994004 Acquisition date : 12-FEB-2010 12:32:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	1331	10.50	9.651E+00	3.866E+00	3.866E+00	14.83
	87.30	377	4.67	9.407E+00	2.525E+00	2.525E+00	24.74
	241.98	190	7.49	5.288E+00	1.412E+00	1.412E+00	46.50
	295.21	431	19.20	4.502E+00	1.466E+00	1.466E+00	21.03
	351.92	694	37.20*	3.886E+00	1.412E+00	1.412E+00	15.73
PO-214	74.81	909	6.21	9.694E+00	4.444E+00	4.444E+00	16.71
	77.11	1331	10.50	9.651E+00	3.866E+00	3.866E+00	14.83
	87.30	377	4.67	9.407E+00	2.525E+00	2.525E+00	24.74
	241.98	190	7.49	5.288E+00	1.412E+00	1.412E+00	46.50
	295.21	431	19.20	4.502E+00	1.466E+00	1.466E+00	21.03
	351.92	694	37.20*	3.886E+00	1.412E+00	1.412E+00	15.73
PO-216	74.81	909	10.70	9.694E+00	2.579E+00	2.579E+00	17.65
	77.11	1331	18.00	9.651E+00	2.255E+00	2.255E+00	12.72
	87.30	377	8.00	9.407E+00	1.474E+00	1.474E+00	25.55
	238.63	1290	44.60*	5.340E+00	1.595E+00	1.595E+00	13.61
	300.09	70	3.41	4.441E+00	1.363E+00	1.363E+00	69.85
PO-218	74.81	909	6.21	9.694E+00	4.444E+00	4.444E+00	16.71
	77.11	1331	10.50	9.651E+00	3.866E+00	3.866E+00	14.83
	87.30	377	4.67	9.407E+00	2.525E+00	2.525E+00	24.74
	241.98	190	7.49	5.288E+00	1.412E+00	1.412E+00	46.50
	295.21	431	19.20	4.502E+00	1.466E+00	1.466E+00	21.03
	351.92	694	37.20*	3.886E+00	1.412E+00	1.412E+00	15.73
RA-224	240.98	190	3.95*	5.288E+00	2.677E+00	2.677E+00	46.17
RA-226	609.31	448	46.30*	2.401E+00	1.186E+00	1.186E+00	17.75
	1120.29	104	15.10	1.398E+00	1.446E+00	1.446E+00	33.56
	1764.49	83	15.80	9.415E-01	1.638E+00	1.638E+00	27.52
AC-228	338.32	234	11.40	4.018E+00	1.502E+00	1.502E+00	50.30
	911.07	264	27.70*	1.678E+00	1.670E+00	1.670E+00	20.79
	969.11	148	16.60	1.589E+00	1.652E+00	1.652E+00	31.96
RA-228	338.32	234	11.40	4.018E+00	1.502E+00	1.502E+00	50.30
	911.07	264	27.70*	1.678E+00	1.670E+00	1.670E+00	20.79
	969.11	148	16.60	1.589E+00	1.652E+00	1.652E+00	31.96
TH-228	74.81	909	10.70	9.694E+00	2.579E+00	2.618E+00	15.02
	77.11	1331	18.00	9.651E+00	2.255E+00	2.289E+00	12.72
	87.30	377	8.00	9.407E+00	1.474E+00	1.496E+00	23.51
	238.63	1290	44.60*	5.340E+00	1.595E+00	1.619E+00	13.61
	300.09	70	3.41	4.441E+00	1.363E+00	1.384E+00	91.02
TH-229	85.43	259	16.50	9.488E+00	4.873E-01	4.873E-01	31.00
	88.47	377	27.10	9.407E+00	4.351E-01	4.351E-01	23.51
	100.00	193	12.40	9.055E+00	5.070E-01	5.070E-01	39.22
	193.63	------	4.59*	6.236E+00	------ Line Not Found		------
	210.97	------	3.26	5.861E+00	------ Line Not Found		------
TH-230	609.31	448	46.30*	2.401E+00	1.186E+00	1.186E+00	17.75
	1120.29	104	15.10	1.398E+00	1.446E+00	1.446E+00	33.56
	1764.49	83	15.80	9.415E-01	1.638E+00	1.638E+00	27.52
TH-232	338.32	234	11.40	4.018E+00	1.502E+00	1.502E+00	30.04
	911.07	264	27.70*	1.678E+00	1.670E+00	1.670E+00	20.79
	969.11	148	16.60	1.589E+00	1.652E+00	1.652E+00	31.96
TH-234	63.29	1410	3.80*	9.779E+00	1.117E+01	1.117E+01	21.35

Sample ID : G245994004 Acquisition date : 12-FEB-2010 12:32:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	2219	5.41	9.243E+00	1.306E+01	1.306E+01	20.28
U-234	609.31	448	46.30*	2.401E+00	1.186E+00	1.186E+00	17.75
	1120.29	104	15.10	1.398E+00	1.446E+00	1.446E+00	33.56
	1764.49	83	15.80	9.415E-01	1.638E+00	1.638E+00	27.52
U-235	89.95	------	2.70	9.325E+00	------ Line Not Found		------
	93.35	2219	4.50	9.243E+00	1.570E+01	1.570E+01	29.49
	105.00	------	2.10	8.843E+00	------ Line Not Found		------
	143.76	166	10.50*	7.571E+00	6.163E-01	6.163E-01	44.09
	163.35	143	4.70	7.009E+00	1.282E+00	1.282E+00	58.73
	185.71	966	54.00	6.421E+00	8.200E-01	8.200E-01	14.21
	205.31	75	4.70	5.979E+00	7.872E-01	7.872E-01	82.49
NP-237	86.50	377	12.60*	9.407E+00	9.358E-01	9.358E-01	31.28
	95.87	------	2.60	9.143E+00	------ Line Not Found		------
U-238	63.29	1410	3.80*	9.779E+00	1.117E+01	1.117E+01	21.35
	92.38	2219	5.41	9.243E+00	1.306E+01	1.306E+01	12.58
AM-243	74.67	909	66.00*	9.694E+00	4.181E-01	4.181E-01	14.98
	86.72	377	0.34	9.407E+00	3.509E+01	3.509E+01	23.51
	117.66	------	0.55	8.415E+00	------ Line Not Found		------
	142.18	166	0.13	7.571E+00	5.177E+01	5.177E+01	41.38
ANH-511	511.00	189	100.00*	2.806E+00	1.984E-01	1.984E-01	39.56

Flag: "*" = Keyline

Sample ID : G245994004 Acquisition date : 12-FEB-2010 12:32:53

Total number of lines in spectrum 40
Number of unidentified lines 1
Number of lines tentatively identified by NID 39 97.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.302E+01	2.302E+01	0.257E+01	11.14	
AS-73	80.30D	1.14	2.684E-01	3.056E-01	2.927E-01	95.76	
CD-109	464.00D	1.02	3.170E+00	3.242E+00	0.762E+00	23.51	
SN-126	1.00E+05Y	1.00	3.187E-01	3.187E-01	0.749E-01	23.51	
BA-137M	30.17Y	1.00	5.821E-02	5.827E-02	6.601E-02	113.28	
CS-137	30.17Y	1.00	6.154E-02	6.160E-02	6.978E-02	113.28	
TL-208	1.41E+10Y	1.00	5.239E-01	5.239E-01	0.992E-01	18.93	
BI-210	22.26Y	1.00	1.286E+00	1.287E+00	0.645E+00	50.12	
PB-210	22.26Y	1.00	1.286E+00	1.287E+00	0.645E+00	50.12	
PO-210	22.26Y	1.00	1.286E+00	1.287E+00	0.643E+00	49.97	
BI-211	7.04E+08Y	1.00	4.060E+00	4.060E+00	0.602E+00	14.84	
PB-212	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.217E+00	13.61	
PO-212	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.217E+00	13.61	
BI-214	1600.00Y	1.00	1.186E+00	1.186E+00	0.211E+00	17.75	
PB-214	1600.00Y	1.00	1.412E+00	1.412E+00	0.222E+00	15.73	
PO-214	1600.00Y	1.00	1.412E+00	1.412E+00	0.222E+00	15.73	
PO-216	1.41E+10Y	1.00	1.595E+00	1.595E+00	0.217E+00	13.61	
PO-218	1600.00Y	1.00	1.412E+00	1.412E+00	0.222E+00	15.73	
RA-224	1.41E+10Y	1.00	2.677E+00	2.677E+00	1.236E+00	46.17	
RA-226	1600.00Y	1.00	1.186E+00	1.186E+00	0.211E+00	17.75	
AC-228	1.41E+10Y	1.00	1.670E+00	1.670E+00	0.347E+00	20.79	
RA-228	1.41E+10Y	1.00	1.670E+00	1.670E+00	0.347E+00	20.79	
TH-228	1.91Y	1.02	1.595E+00	1.619E+00	0.220E+00	13.61	
TH-229	7340.00Y	1.00	4.351E-01	4.351E-01	1.023E-01	23.51	K
TH-230	4.47E+09Y	1.00	1.186E+00	1.186E+00	0.211E+00	17.75	
TH-232	1.41E+10Y	1.00	1.670E+00	1.670E+00	0.347E+00	20.79	
TH-234	4.47E+09Y	1.00	1.117E+01	1.117E+01	0.239E+01	21.35	
U-234	4.47E+09Y	1.00	1.186E+00	1.186E+00	0.211E+00	17.75	
U-235	7.04E+08Y	1.00	6.163E-01	6.163E-01	2.717E-01	44.09	
NP-237	2.14E+06Y	1.00	9.358E-01	9.358E-01	2.927E-01	31.28	
U-238	4.47E+09Y	1.00	1.117E+01	1.117E+01	0.239E+01	21.35	
AM-243	7380.00Y	1.00	4.181E-01	4.181E-01	0.626E-01	14.98	
ANH-511	1.00E+09Y	1.00	1.984E-01	1.984E-01	0.785E-01	39.56	
	Total Activity :		8.334E+01	8.348E+01			

Grand Total Activity : 8.334E+01 8.348E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994004 Acquisition date : 12-FEB-2010 12:32:53

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	209.12	143	277	1.29	417.77	414	9	1.98E-02	45.3	5.90E+00	T
0	270.06	168	223	1.21	539.65	535	11	2.33E-02	37.7	4.84E+00	T
0	328.06	22	188	0.72	655.65	651	9	3.08E-03	****	4.12E+00	T
0	463.25	70	161	1.33	925.99	920	11	9.71E-03	74.9	3.06E+00	T
0	727.33	95	45	2.62	1454.15	1449	11	1.32E-02	33.9	2.05E+00	T
0	794.46	70	66	1.65	1588.41	1582	12	9.77E-03	51.9	1.90E+00	T
1	964.58	62	43	1.97	1928.64	1923	24	8.62E-03	48.4	1.60E+00	T
0	1001.19	68	75	1.84	2001.87	1992	15	9.42E-03	61.3	1.54E+00	T
0	1237.91	51	50	1.10	2475.31	2470	10	7.08E-03	59.0	1.28E+00	T
0	1630.99	19	3	1.76	3261.53	3255	11	2.64E-03	57.2	1.01E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:34:11.02

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994004.CNF;1   *
* Acquisition date  : 12-FEB-2010 12:32:53  Detector SN#     :                *
* Detector ID       : GAM25                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.15          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245994004            Analyst initials: MXR1            *
* Batch Number      : 948812                Sample Quantity : 1.27500E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.302E+01	2.565E+00	6.181E-01	5.264E-02	37.239
AS-73	3.056E-01	2.927E-01	3.324E-01	3.191E-02	0.919
CD-109	3.242E+00	7.622E-01	1.212E+00	1.302E-01	2.675
SN-126	3.187E-01	7.492E-02	1.053E-01	1.129E-02	3.026
BA-137M	5.827E-02	6.601E-02	7.272E-02	8.055E-03	0.801
CS-137	6.160E-02	6.978E-02	7.687E-02	8.525E-03	0.801
TL-208	5.239E-01	9.915E-02	6.021E-02	6.788E-03	8.701
BI-210	1.287E+00	6.452E-01	6.791E-01	7.003E-02	1.895
PB-210	1.287E+00	6.452E-01	6.791E-01	7.003E-02	1.895
PO-210	1.287E+00	6.432E-01	6.791E-01	6.468E-02	1.895
BI-211	4.060E+00	6.024E-01	3.301E-01	3.478E-02	12.301
PB-212	1.595E+00	2.171E-01	1.175E-01	1.337E-02	13.578
PO-212	1.595E+00	2.171E-01	1.175E-01	1.337E-02	13.578
BI-214	1.186E+00	2.105E-01	1.148E-01	1.385E-02	10.332
PB-214	1.412E+00	2.221E-01	1.067E-01	1.252E-02	13.242
PO-214	1.412E+00	2.221E-01	1.067E-01	1.252E-02	13.242
PO-216	1.595E+00	2.171E-01	1.175E-01	1.337E-02	13.578
PO-218	1.412E+00	2.221E-01	1.067E-01	1.252E-02	13.242

Sample ID : G245994004 Acquisition date : 12-FEB-2010 12:32:53

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	2.677E+00	1.236E+00	1.139E+00	1.197E-01	2.350
RA-226	1.186E+00	2.105E-01	1.148E-01	1.385E-02	10.332
AC-228	1.670E+00	3.473E-01	2.274E-01	2.705E-02	7.344
RA-228	1.670E+00	3.473E-01	2.274E-01	2.705E-02	7.344
TH-228	1.619E+00	2.204E-01	1.192E-01	1.357E-02	13.578
TH-229	4.351E-01	1.023E-01	7.369E-01	7.029E-02	0.590
TH-230	1.186E+00	2.105E-01	1.148E-01	1.385E-02	10.332
TH-232	1.670E+00	3.473E-01	2.274E-01	2.705E-02	7.344
TH-234	1.117E+01	2.386E+00	8.387E-01	1.562E-01	13.323
U-234	1.186E+00	2.105E-01	1.148E-01	1.385E-02	10.332
U-235	6.163E-01	2.717E-01	2.957E-01	5.583E-02	2.084
NP-237	9.358E-01	2.927E-01	3.078E-01	7.149E-02	3.041
U-238	1.117E+01	2.386E+00	8.387E-01	1.562E-01	13.323
AM-243	4.181E-01	6.263E-02	4.807E-02	4.882E-03	8.698
ANH-511	1.984E-01	7.851E-02	4.233E-02	4.358E-03	4.688

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-8.934E-03		3.425E-01	5.571E-01	5.898E-02	-0.016
NA-22	-3.196E-03		4.642E-02	7.578E-02	6.214E-03	-0.042
NA-24	-4.599E-01		3.286E-01	Half-Life too short		
AL-26	5.854E-03		3.469E-02	5.893E-02	4.829E-03	0.099
TI-44	4.161E-01	+	5.294E-02	4.839E-02	4.983E-03	8.600
SC-46	-2.975E-03		4.221E-02	6.820E-02	6.531E-03	-0.044
V-48	-7.074E-02		7.876E-02	1.145E-01	1.061E-02	-0.618
CR-51	-1.284E-01		3.219E-01	5.292E-01	5.877E-02	-0.243
MN-52	-4.507E-02		2.313E-01	3.643E-01	3.003E-02	-0.124
MN-54	-9.228E-03		4.313E-02	6.938E-02	7.040E-03	-0.133
CO-56	1.159E-02		4.290E-02	7.177E-02	7.201E-03	0.161
CO-57	-2.821E-03		2.099E-02	3.523E-02	4.543E-03	-0.080
CO-58	-9.373E-03		4.177E-02	6.716E-02	6.968E-03	-0.140
FE-59	-7.015E-02		8.957E-02	1.371E-01	1.291E-02	-0.512
CO-60	4.570E-03		4.238E-02	6.918E-02	5.619E-03	0.066
ZN-65	-5.736E-02		1.069E-01	1.420E-01	1.227E-02	-0.404
GE-68	3.979E-01		1.262E+00	2.171E+00	1.922E-01	0.183
AS-74	1.982E-02		9.281E-02	1.508E-01	1.634E-02	0.131
SE-75	-9.433E-03		4.087E-02	6.081E-02	6.665E-03	-0.155
BR-77	4.372E+00		9.872E+00	1.652E+01	1.713E+00	0.265
SR-82	-3.061E-01		4.309E-01	6.672E-01	7.081E-02	-0.459
RB-83	3.717E-02		6.968E-02	1.137E-01	1.179E-02	0.327
RB-84	6.108E-03		7.586E-02	1.245E-01	1.203E-02	0.049
KR-85	1.419E+01		7.276E+00	1.310E+01	1.351E+00	1.084
SR-85	7.271E-02		3.727E-02	6.710E-02	6.923E-03	1.084
RB-86	3.812E-01		8.111E-01	1.413E+00	1.251E-01	0.270
Y-88	-1.022E-02		3.440E-02	5.302E-02	4.333E-03	-0.193
ZR-88	-2.161E-02		3.212E-02	5.099E-02	4.641E-03	-0.424

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-1.938E+01		1.943E+01	2.953E+01	2.430E+00	-0.656
NB-94	8.761E-03		3.575E-02	6.051E-02	6.645E-03	0.145
NB-95	8.807E-02		5.363E-02	9.627E-02	1.028E-02	0.915
NB-95M	1.649E-01		1.095E-01	1.719E-01	1.970E-02	0.959
ZR-95	-3.011E-02		8.258E-02	1.321E-01	1.513E-02	-0.228
NB-97	1.016E-01		5.366E-02	Half-Life too short		
ZR-97	1.743E+00		8.863E-01	Half-Life too short		
MO-99	3.142E+00		1.251E+01	2.109E+01	3.488E+00	0.149
TC-99M	2.880E+10		1.409E+10	Half-Life too short		
RH-101	-5.621E-03		3.040E-02	4.846E-02	4.669E-03	-0.116
RH-102	-1.514E-02		2.992E-02	4.690E-02	4.682E-03	-0.323
RU-103	6.830E-03		4.340E-02	7.124E-02	1.080E-02	0.096
RH-106	-1.264E-02		3.328E-01	5.580E-01	8.352E-02	-0.023
RU-106	-1.264E-02		3.327E-01	5.580E-01	6.111E-02	-0.023
AG-108M	-1.247E-02		3.164E-02	5.049E-02	4.989E-03	-0.247
AG-110M	4.825E-02		4.091E-02	6.636E-02	7.478E-03	0.727
IN-111	1.146E-02		9.930E-01	1.417E+00	1.501E-01	0.008
IN-113M	-3.612E-02		4.561E-02	7.175E-02	6.702E-03	-0.503
SN-113	-3.612E-02		4.561E-02	7.175E-02	6.702E-03	-0.503
IN-114M	6.663E-04		1.742E-01	2.545E-01	2.409E-02	0.003
CD-115	7.651E+00		1.041E+01	1.776E+01	1.851E+00	0.431
SN-117M	-1.134E-02		5.285E-02	7.750E-02	7.524E-03	-0.146
SB-122	1.551E+00		2.148E+00	3.629E+00	3.870E-01	0.427
I-123	-8.802E-01		2.467E+00	Half-Life too short		
TE-123M	-4.896E-03		2.745E-02	4.032E-02	3.915E-03	-0.121
I-124	4.235E-01		6.874E-01	1.114E+00	1.211E-01	0.380
SB-124	4.091E-02		6.959E-02	1.284E-01	1.110E-02	0.319
SB-125	2.629E-02		8.823E-02	1.481E-01	1.430E-02	0.178
TE-125M	3.230E+00		7.610E+00	1.309E+01	1.738E+00	0.247
I-126	-9.092E-02		2.330E-01	3.250E-01	3.598E-02	-0.280
SB-126	-5.928E-02		1.638E-01	2.466E-01	2.692E-02	-0.240
SB-127	5.774E-01		1.416E+00	2.431E+00	3.228E-01	0.238
XE-127	-4.714E-02		4.759E-02	6.434E-02	6.267E-03	-0.733
I-131	3.859E-02		1.101E-01	1.874E-01	1.923E-02	0.206
TE-132	3.359E-01		6.143E-01	1.014E+00	1.690E-01	0.331
BA-133	-1.067E-02		4.449E-02	6.404E-02	9.080E-03	-0.167
I-133	-1.504E-03		2.809E-03	Half-Life too short		
CS-134	1.442E-01	+	7.644E-02	1.067E-01	1.123E-02	1.352
CS-135	2.091E-01		1.586E-01	2.445E-01	2.951E-02	0.855
I-135	7.648E+08		2.480E+09	Half-Life too short		
CS-136	4.893E-02		1.170E-01	2.029E-01	1.898E-02	0.241
CE-139	1.547E-02		2.827E-02	4.310E-02	3.843E-03	0.359
BA-140	2.396E-02		2.529E-01	4.056E-01	1.366E-01	0.059
LA-140	-2.163E-02		9.031E-02	1.456E-01	1.211E-02	-0.149
CE-141	6.314E-02		5.727E-02	9.011E-02	1.002E-02	0.701
CE-143	3.866E-04		8.437E-05	Half-Life too short		
CE-144	3.614E-02		1.712E-01	2.893E-01	5.115E-02	0.125
PM-144	-6.037E-03		3.646E-02	5.993E-02	6.594E-03	-0.101

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144	-4.091E-01		2.470E+00	4.061E+00	4.467E-01	-0.101
PM-146	-1.404E-03		4.287E-02	7.001E-02	8.174E-03	-0.020
ND-147	-2.532E-01		5.628E-01	8.715E-01	1.401E-01	-0.291
PM-149	4.206E+01		8.777E+01	1.424E+02	2.428E+01	0.295
EU-152	-8.177E-02		9.943E-02	1.449E-01	1.556E-02	-0.564
GD-153	2.097E-01	+	8.226E-02	1.039E-01	1.170E-02	2.019
EU-154	2.730E-02		1.265E-01	2.127E-01	2.337E-02	0.128
EU-155	1.266E-01		8.512E-02	1.497E-01	1.770E-02	0.845
TB-160	1.821E-01		1.449E-01	2.621E-01	2.540E-02	0.695
HO-166M	1.672E-02		6.399E-02	1.084E-01	1.187E-02	0.154
TM-171	-7.993E+00		1.395E+01	1.977E+01	1.962E+00	-0.404
LU-176	-5.370E-03		2.163E-02	3.606E-02	3.934E-03	-0.149
LU-177	3.074E+00	+	1.425E+00	1.802E+00	1.776E-01	1.706
LU-177M	-3.933E-02		1.777E-01	2.890E-01	2.701E-02	-0.136
HF-181	2.021E-02		4.557E-02	7.640E-02	7.676E-03	0.265
W-181	2.115E-02		1.615E-01	2.368E-01	2.343E-02	0.089
TA-182	1.591E-01		2.238E-01	3.895E-01	3.203E-02	0.408
RE-183	2.988E-01	+	1.680E-01	1.851E-01	1.722E-02	1.615
RE-184	1.492E-01		2.098E-01	3.485E-01	3.737E-02	0.428
OS-185	1.986E-03		4.288E-02	7.212E-02	7.958E-03	0.028
RE-188	8.359E-02		1.493E-01	2.531E-01	2.549E-02	0.330
W-188	-1.761E+00		7.373E+00	1.087E+01	1.204E+00	-0.162
IR-192	-1.161E-03		3.015E-02	5.074E-02	5.480E-03	-0.023
AU-195	6.106E-01	+	2.395E-01	3.286E-01	3.729E-02	1.858
TL-200	1.369E-04		2.038E-04	Half-Life too short		
TL-201	4.826E+00		6.437E+00	9.914E+00	8.868E-01	0.487
TL-202	3.853E-02		6.370E-02	1.090E-01	1.050E-02	0.353
HG-203	2.847E-02		4.380E-02	6.461E-02	7.334E-03	0.441
BI-207	2.257E-03		4.753E-02	7.992E-02	7.133E-03	0.028
TL-207	-1.283E-02		6.397E-01	9.484E-01	1.782E-01	-0.014
PO-209	-9.575E-01		7.287E+00	1.168E+01	1.108E+00	-0.082
PB-211	5.050E-01		9.764E-01	1.578E+00	9.903E-01	0.320
BI-212	1.159E+00	+	4.172E-01	6.597E-01	7.927E-02	1.757
PO-215	-1.283E-02		6.397E-01	9.484E-01	1.782E-01	-0.014
RN-219	-1.118E-01		4.180E-01	6.795E-01	1.045E-01	-0.164
RN-220	2.235E+00		2.658E+01	4.305E+01	4.552E+00	0.052
RA-223	-1.283E-02		6.397E-01	9.484E-01	1.782E-01	-0.014
AC-227	-1.664E-01		3.545E-01	5.484E-01	9.136E-02	-0.303
TH-227	-1.664E-01		3.548E-01	5.484E-01	1.052E-01	-0.303
PA-231	-1.289E+00		1.576E+00	2.349E+00	3.931E-01	-0.549
TH-231	-1.283E-02		6.397E-01	9.484E-01	1.782E-01	-0.014
U-231	9.501E-01		9.534E-01	1.256E+00	1.404E-01	0.756
PA-233	-1.348E-02		5.654E-02	9.414E-02	1.040E-02	-0.143
PA-234	3.181E-01		3.490E-01	6.020E-01	1.151E-01	0.528
PA-234M	1.541E+01	+	9.585E+00	1.200E+01	1.257E+00	1.284
NP-236	3.534E-02		7.728E-02	1.175E-01	1.119E-02	0.301
NP-239	-1.186E-01		1.504E-01	2.456E-01	3.076E-02	-0.483
AM-241	1.009E-02		6.243E-02	9.238E-02	9.598E-03	0.109

Sample ID : G245994004 Acquisition date : 12-FEB-2010 12:32:53

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.471E-03		7.133E-02	1.214E-01	1.414E-02	-0.020
AM-246	3.574E-02		1.419E-01	2.428E-01	2.147E-02	0.147
CM-247	1.625E-02		3.703E-02	6.283E-02	5.792E-03	0.259
CF-249	2.136E-02		4.100E-02	6.930E-02	6.377E-03	0.308
CF-251	-3.459E-02		1.071E-01	1.734E-01	1.587E-02	-0.200

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994004           *
* Acquisition date  : 12-FEB-2010 12:32:53 Detector SN#     :               *
* Detector ID       : GAM25                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.15      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245994004           Analyst initials: MXR1           *
* Batch Number      : 948812               Sample Quantity : 1.2750E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.302E+01	2.514E+00	3.092E-01	1.283E+00
AS-73	3.056E-01	2.868E-01	1.747E-01	1.463E-01
CD-109	3.242E+00	7.469E-01	6.321E-01	3.811E-01
SN-126	3.187E-01	7.342E-02	5.494E-02	3.746E-02
BA-137M	5.827E-02	6.469E-02	3.682E-02	3.300E-02
CS-137	6.160E-02	6.838E-02	3.893E-02	3.489E-02
TL-208	5.239E-01	9.717E-02	3.055E-02	4.958E-02
BI-210	1.287E+00	6.323E-01	3.575E-01	3.226E-01
PB-210	1.287E+00	6.323E-01	3.575E-01	3.226E-01
PO-210	1.287E+00	6.304E-01	3.575E-01	3.216E-01
BI-211	4.060E+00	5.904E-01	1.688E-01	3.012E-01
PB-212	1.595E+00	2.128E-01	6.040E-02	1.086E-01
PO-212	1.595E+00	2.128E-01	6.040E-02	1.086E-01
BI-214	1.186E+00	2.063E-01	5.820E-02	1.053E-01
PB-214	1.412E+00	2.177E-01	5.453E-02	1.111E-01
PO-214	1.412E+00	2.177E-01	5.453E-02	1.111E-01
PO-216	1.595E+00	2.128E-01	6.040E-02	1.086E-01
PO-218	1.412E+00	2.177E-01	5.453E-02	1.111E-01
RA-224	2.677E+00	1.211E+00	5.857E-01	6.179E-01
RA-226	1.186E+00	2.063E-01	5.820E-02	1.053E-01
AC-228	1.670E+00	3.403E-01	1.146E-01	1.736E-01
RA-228	1.670E+00	3.403E-01	1.146E-01	1.736E-01
TH-228	1.619E+00	2.160E-01	6.131E-02	1.102E-01
TH-229	-8.321E-02	4.461E-01	3.800E-01	2.276E-01
TH-230	1.186E+00	2.063E-01	5.820E-02	1.053E-01
TH-232	1.670E+00	3.403E-01	1.146E-01	1.736E-01
TH-234	1.117E+01	2.338E+00	4.396E-01	1.193E+00
U-234	1.186E+00	2.063E-01	5.820E-02	1.053E-01
U-235	6.163E-01	2.663E-01	1.532E-01	1.359E-01
NP-237	9.358E-01	2.869E-01	1.606E-01	1.464E-01
U-238	1.117E+01	2.338E+00	4.396E-01	1.193E+00
AM-243	4.181E-01	6.138E-02	2.514E-02	3.131E-02
ANH-511	1.984E-01	7.694E-02	2.152E-02	3.926E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-8.934E-03	3.357E-01	2.835E-01	1.713E-01	NOT IDENT.
NA-22	-3.196E-03	4.549E-02	3.799E-02	2.321E-02	NOT IDENT.
NA-24	-4.599E+05	6.440E+05	0.000E+00	3.286E+05	SHORT HLIF
AL-26	5.854E-03	3.399E-02	2.938E-02	1.734E-02	NOT IDENT.
TI-44	4.161E-01	5.188E-02	2.528E-02	2.647E-02	FAIL ABUN
SC-46	-2.975E-03	4.136E-02	3.438E-02	2.110E-02	FAIL ABUN
V-48	-7.074E-02	7.718E-02	5.763E-02	3.938E-02	NOT IDENT.
CR-51	-1.284E-01	3.155E-01	2.709E-01	1.610E-01	NOT IDENT.
MN-52	-4.507E-02	2.267E-01	1.823E-01	1.157E-01	NOT IDENT.
MN-54	-9.228E-03	4.227E-02	3.501E-02	2.157E-02	NOT IDENT.
CO-56	1.159E-02	4.204E-02	3.621E-02	2.145E-02	FAIL ABUN
CO-57	-2.821E-03	2.057E-02	1.829E-02	1.049E-02	NOT IDENT.
CO-58	-9.373E-03	4.093E-02	3.390E-02	2.088E-02	NOT IDENT.
FE-59	-7.015E-02	8.778E-02	6.887E-02	4.478E-02	FAIL ABUN
CO-60	4.570E-03	4.153E-02	3.466E-02	2.119E-02	NOT IDENT.
ZN-65	-5.736E-02	1.048E-01	7.136E-02	5.347E-02	NOT IDENT.
GE-68	3.979E-01	1.237E+00	1.091E+00	6.311E-01	NOT IDENT.
AS-74	1.982E-02	9.095E-02	7.650E-02	4.640E-02	NOT IDENT.
SE-75	-9.433E-03	4.006E-02	3.122E-02	2.044E-02	NOT IDENT.
BR-77	4.372E+00	9.675E+00	8.397E+00	4.936E+00	FAIL ABUN
SR-82	-3.061E-01	4.223E-01	3.370E-01	2.154E-01	NOT IDENT.
RB-83	3.717E-02	6.829E-02	5.781E-02	3.484E-02	NOT IDENT.
RB-84	6.108E-03	7.434E-02	6.275E-02	3.793E-02	NOT IDENT.
KR-85	1.419E+01	7.131E+00	6.659E+00	3.638E+00	NOT IDENT.
SR-85	7.271E-02	3.653E-02	3.411E-02	1.864E-02	NOT IDENT.
RB-86	3.812E-01	7.948E-01	7.100E-01	4.055E-01	NOT IDENT.
Y-88	-1.022E-02	3.371E-02	2.643E-02	1.720E-02	NOT IDENT.
ZR-88	-2.161E-02	3.147E-02	2.602E-02	1.606E-02	NOT IDENT.
Y-91	-1.938E+01	1.904E+01	1.482E+01	9.717E+00	NOT IDENT.
NB-94	8.761E-03	3.503E-02	3.061E-02	1.787E-02	NOT IDENT.
NB-95	8.807E-02	5.256E-02	4.864E-02	2.682E-02	NOT IDENT.
NB-95M	1.649E-01	1.073E-01	8.838E-02	5.475E-02	NOT IDENT.
ZR-95	-3.011E-02	8.093E-02	6.677E-02	4.129E-02	NOT IDENT.
NB-97	1.016E+05	1.052E+05	0.000E+00	5.366E+04	SHORT HLIF
ZR-97	1.743E+06	1.737E+06	0.000E+00	8.863E+05	SHORT HLIF
MO-99	3.142E+00	1.226E+01	1.066E+01	6.253E+00	NOT IDENT.
TC-99M	2.880E+16	2.762E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.621E-03	2.979E-02	2.498E-02	1.520E-02	NOT IDENT.
RH-102	-1.514E-02	2.932E-02	2.387E-02	1.496E-02	NOT IDENT.
RU-103	6.830E-03	4.253E-02	3.623E-02	2.170E-02	FAIL ABUN
RH-106	-1.264E-02	3.261E-01	2.828E-01	1.664E-01	FAIL ABUN
RU-106	-1.264E-02	3.261E-01	2.828E-01	1.664E-01	FAIL ABUN
AG-108M	-1.247E-02	3.101E-02	2.573E-02	1.582E-02	NOT IDENT.
AG-110M	4.825E-02	4.009E-02	3.361E-02	2.046E-02	NOT IDENT.
IN-111	1.146E-02	9.731E-01	7.285E-01	4.965E-01	NOT IDENT.
IN-113M	-3.612E-02	4.470E-02	3.662E-02	2.281E-02	NOT IDENT.
SN-113	-3.612E-02	4.470E-02	3.662E-02	2.281E-02	NOT IDENT.
IN-114M	6.663E-04	1.707E-01	1.313E-01	8.709E-02	NOT IDENT.
CD-115	7.651E+00	1.020E+01	9.023E+00	5.205E+00	NOT IDENT.
SN-117M	-1.134E-02	5.179E-02	4.009E-02	2.643E-02	NOT IDENT.
SB-122	1.551E+00	2.105E+00	1.842E+00	1.074E+00	NOT IDENT.
I-123	-8.802E+05	4.835E+06	0.000E+00	2.467E+06	SHORT HLIF
TE-123M	-4.896E-03	2.690E-02	2.086E-02	1.372E-02	NOT IDENT.
I-124	4.235E-01	6.736E-01	5.648E-01	3.437E-01	NOT IDENT.
SB-124	4.091E-02	6.820E-02	6.409E-02	3.480E-02	FAIL ABUN
SB-125	2.629E-02	8.647E-02	7.549E-02	4.412E-02	FAIL ABUN
TE-125M	3.230E+00	7.458E+00	6.807E+00	3.805E+00	NOT IDENT.
I-126	-9.092E-02	2.284E-01	1.646E-01	1.165E-01	NOT IDENT.
SB-126	-5.928E-02	1.605E-01	1.247E-01	8.191E-02	FAIL ABUN
SB-127	5.774E-01	1.388E+00	1.230E+00	7.082E-01	NOT IDENT.
XE-127	-4.714E-02	4.664E-02	3.316E-02	2.380E-02	NOT IDENT.
I-131	3.859E-02	1.079E-01	9.574E-02	5.506E-02	NOT IDENT.
TE-132	3.359E-01	6.021E-01	5.219E-01	3.072E-01	NOT IDENT.
BA-133	-1.067E-02	4.360E-02	3.273E-02	2.224E-02	FAIL ABUN
I-133	-1.504E+03	5.506E+03	0.000E+00	2.809E+03	SHORT HLIF
CS-134	1.442E-01	7.491E-02	5.387E-02	3.822E-02	FAIL ABUN
CS-135	2.091E-01	1.555E-01	1.255E-01	7.931E-02	NOT IDENT.
I-135	7.648E+14	4.862E+15	0.000E+00	2.480E+15	SHORT HLIF
CS-136	4.893E-02	1.146E-01	1.020E-01	5.849E-02	FAIL ABUN
CE-139	1.547E-02	2.770E-02	2.228E-02	1.413E-02	NOT IDENT.
BA-140	2.396E-02	2.479E-01	2.060E-01	1.265E-01	FAIL ABUN
LA-140	-2.163E-02	8.850E-02	7.273E-02	4.516E-02	FAIL ABUN

CE-141	6.314E-02	5.613E-02	4.667E-02	2.864E-02	NOT IDENT.
CE-143	3.866E+02	1.654E+02	0.000E+00	8.437E+01	SHORT HLIF
CE-144	3.614E-02	1.678E-01	1.500E-01	8.562E-02	NOT IDENT.
PM-144	-6.037E-03	3.573E-02	3.032E-02	1.823E-02	NOT IDENT.
PR-144	-4.091E-01	2.421E+00	2.055E+00	1.235E+00	NOT IDENT.
PM-146	-1.404E-03	4.201E-02	3.565E-02	2.144E-02	NOT IDENT.
ND-147	-2.532E-01	5.515E-01	4.428E-01	2.814E-01	NOT IDENT.
PM-149	4.206E+01	8.602E+01	7.301E+01	4.389E+01	NOT IDENT.
EU-152	-8.177E-02	9.744E-02	7.408E-02	4.972E-02	FAIL ABUN
GD-153	2.097E-01	8.062E-02	5.411E-02	4.113E-02	FAIL ABUN
EU-154	2.730E-02	1.240E-01	1.066E-01	6.327E-02	NOT IDENT.
EU-155	1.266E-01	8.341E-02	7.790E-02	4.256E-02	FAIL ABUN
TB-160	1.821E-01	1.420E-01	1.322E-01	7.247E-02	FAIL ABUN
HO-166M	1.672E-02	6.271E-02	5.484E-02	3.199E-02	FAIL ABUN
TM-171	-7.993E+00	1.368E+01	1.035E+01	6.977E+00	FAIL ABUN
LU-176	-5.370E-03	2.120E-02	1.847E-02	1.082E-02	FAIL ABUN
LU-177	3.074E+00	1.397E+00	9.282E-01	7.126E-01	FAIL ABUN
LU-177M	-3.933E-02	1.741E-01	1.474E-01	8.883E-02	FAIL ABUN
HF-181	2.021E-02	4.466E-02	3.887E-02	2.279E-02	NOT IDENT.
W-181	2.115E-02	1.583E-01	1.240E-01	8.077E-02	NOT IDENT.
TA-182	1.591E-01	2.193E-01	1.954E-01	1.119E-01	FAIL ABUN
RE-183	2.988E-01	1.646E-01	9.569E-02	8.398E-02	FAIL ABUN
RE-184	1.492E-01	2.057E-01	1.790E-01	1.049E-01	NOT IDENT.
OS-185	1.986E-03	4.202E-02	3.653E-02	2.144E-02	NOT IDENT.
RE-188	8.359E-02	1.463E-01	1.310E-01	7.467E-02	NOT IDENT.
W-188	-1.761E+00	7.225E+00	5.573E+00	3.686E+00	FAIL ABUN
IR-192	-1.161E-03	2.954E-02	2.598E-02	1.507E-02	FAIL ABUN
AU-195	6.106E-01	2.347E-01	1.711E-01	1.198E-01	FAIL ABUN
TL-200	1.369E+02	3.994E+02	0.000E+00	2.038E+02	SHORT HLIF
TL-201	4.826E+00	6.308E+00	5.124E+00	3.218E+00	NOT IDENT.
TL-202	3.853E-02	6.243E-02	5.554E-02	3.185E-02	NOT IDENT.
HG-203	2.847E-02	4.292E-02	3.314E-02	2.190E-02	NOT IDENT.
BI-207	2.257E-03	4.658E-02	4.018E-02	2.377E-02	FAIL ABUN
TL-207	-1.283E-02	6.269E-01	4.854E-01	3.198E-01	FAIL ABUN
PO-209	-9.575E-01	7.141E+00	5.887E+00	3.643E+00	NOT IDENT.
PB-211	5.050E-01	9.569E-01	8.050E-01	4.882E-01	NOT IDENT.
BI-212	1.159E+00	4.088E-01	3.336E-01	2.086E-01	FAIL ABUN
PO-215	-1.283E-02	6.269E-01	4.854E-01	3.198E-01	FAIL ABUN
RN-219	-1.118E-01	4.097E-01	3.467E-01	2.090E-01	FAIL ABUN
RN-220	2.235E+00	2.605E+01	2.186E+01	1.329E+01	NOT IDENT.
RA-223	-1.283E-02	6.269E-01	4.854E-01	3.198E-01	FAIL ABUN
AC-227	-1.664E-01	3.474E-01	2.817E-01	1.772E-01	FAIL ABUN
TH-227	-1.664E-01	3.477E-01	2.817E-01	1.774E-01	FAIL ABUN
PA-231	-1.289E+00	1.545E+00	1.204E+00	7.881E-01	FAIL ABUN
TH-231	-1.283E-02	6.269E-01	4.854E-01	3.198E-01	FAIL ABUN
U-231	9.501E-01	9.343E-01	6.546E-01	4.767E-01	FAIL ABUN
PA-233	-1.348E-02	5.541E-02	4.821E-02	2.827E-02	FAIL ABUN
PA-234	3.181E-01	3.420E-01	3.032E-01	1.745E-01	FAIL ABUN
PA-234M	1.541E+01	9.394E+00	6.037E+00	4.793E+00	FAIL ABUN
NP-236	3.534E-02	7.573E-02	6.075E-02	3.864E-02	FAIL ABUN
NP-239	-1.186E-01	1.474E-01	1.276E-01	7.520E-02	FAIL ABUN
AM-241	1.009E-02	6.118E-02	4.846E-02	3.121E-02	NOT IDENT.
CM-243	-2.471E-03	6.990E-02	6.320E-02	3.567E-02	FAIL ABUN
AM-246	3.574E-02	1.391E-01	1.220E-01	7.096E-02	NOT IDENT.
CM-247	1.625E-02	3.629E-02	3.206E-02	1.851E-02	FAIL ABUN
CF-249	2.136E-02	4.018E-02	3.537E-02	2.050E-02	NOT IDENT.
CF-251	-3.459E-02	1.050E-01	8.953E-02	5.355E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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46.50	339.8526
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53.44	442.6014
54.07	481.5665
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56.28	509.6277
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57.53	502.4958
57.53	502.4992
57.60	520.5063
57.98	549.2508
57.98	549.2508
59.32	488.7811
59.32	488.7811
59.40	544.4261
59.54	544.7197
59.72	612.6724
60.01	613.3551
61.10	584.2045
61.14	578.2538
61.30	578.6045
63.00	517.6775
63.29	518.2325
63.29	518.2325
63.58	518.7850
64.28	520.1160
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65.20	439.8600
65.20	439.8600
66.05	498.0861
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66.83	524.1356
66.91	524.2808
67.20	512.4716
67.20	512.4716
67.75	496.4489
67.85	529.1147
68.90	498.4441
68.90	498.4441
69.30	544.6183
69.67	534.0289
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70.82	548.6303
70.83	548.6482
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72.87	502.0557
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74.81	505.2715
74.81	505.2715
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75.70	506.7351
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77.11	509.0326

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77.11	509.0326
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80.11	513.8514
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80.30	514.1532
80.30	514.1532
80.57	514.5815
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81.07	515.3734
81.07	515.3734
81.07	515.3734
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83.78	706.9498
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84.90	709.3161
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86.29	712.2255
86.50	712.6626
86.54	712.7465
86.59	712.8524
86.72	713.1218
86.79	713.2630
86.94	713.5809
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87.30	714.3270
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91.11	608.9985
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94.67	349.5273
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94.90	312.7549
94.90	312.7549
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99.55	287.3028
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103.76	329.6062
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105.31	317.0781
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109.28	363.8442

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111.00	422.3237
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115.19	366.3835
116.30	329.1840
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117.00	319.9438
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121.78	314.4763
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122.32	299.5642
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144.24	265.6487
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147.16	277.1198
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152.70	270.9780
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154.21	310.1561
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163.35	270.4712
163.89	270.7332
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171.86	233.9018
172.10	234.9893
176.55	235.7743
176.60	235.7935
181.06	237.0476
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186.00	232.3685
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198.01	247.1422
198.60	238.0485
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205.31	207.0174

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208.81	186.0225
209.75	186.2782
209.75	186.2782
210.97	207.1701
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216.55	221.0677
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227.20	195.2603
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228.18	191.2008
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236.00	142.4662
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238.63	417.3893
238.63	417.3893
238.63	417.3893
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241.98	297.0895
241.98	297.0895
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249.79	188.9465
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268.79	148.4825
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269.46	160.5585
269.46	160.5585
271.23	160.8970
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286.10	157.8947
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295.21	140.7520

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323.87	126.2520
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338.28	138.9566
338.28	138.9566
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351.92	126.8256
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391.69	146.9972
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511.85	75.3980
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513.99	75.5106
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569.50	79.4509
569.67	79.4597
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614.37	65.0371
618.01	85.4881
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633.10	56.8868
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661.65	113.4625
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696.49	85.5417
697.00	80.8123
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698.50	87.5370
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717.42	78.8029
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722.78	62.6403
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756.15	84.2909
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766.84	87.6941
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778.89	73.3442
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883.24	64.4567
884.67	64.4976
889.25	58.3707
896.60	49.1446
898.02	58.5908
899.00	60.7088
903.28	48.4981
911.07	59.6176
911.07	59.6176
911.07	59.6176
919.63	53.8494
920.93	57.0480
925.00	57.1456
925.24	62.4426
926.50	44.4743
935.52	51.0176
937.48	69.1418
944.10	61.8629
946.00	52.3041
949.00	63.0563
962.29	53.7256
964.01	46.5939
966.15	46.2754
968.20	46.3132
969.11	46.3300
969.11	46.3300
969.11	46.3300
977.42	41.6959
980.50	46.5399
983.50	66.1007
989.30	48.8738
996.32	50.8229
1001.03	54.5532
1001.68	50.9289
1004.76	45.5271
1021.30	0.0000
1024.50	0.0000
1034.80	46.9720
1036.00	52.5237
1037.82	48.8702
1038.57	49.8054
1038.76	0.0000
1045.16	49.0039
1046.59	55.5078
1048.07	53.6859

1050.47	63.9238
1050.47	63.9238
1062.04	40.9385
1063.62	40.0308
1076.63	46.7712
1077.35	46.7834
1078.86	45.8717
1085.78	48.8029
1099.22	55.6390
1112.02	53.4304
1112.84	51.1721
1115.52	63.4158
1120.29	45.6055
1120.29	45.6055
1120.29	45.6055
1120.29	45.6055
1120.51	47.2383
1121.28	45.6211
1124.00	0.0000
1129.67	55.2883
1131.51	0.0000
1147.95	0.0000
1167.94	49.2568
1173.22	61.9245
1175.09	67.7726
1177.93	61.0518
1189.05	51.5529
1204.90	65.5142
1205.75	0.0000
1213.00	54.9040
1221.42	65.8686
1230.97	72.4832
1235.34	81.2612
1236.41	0.0000
1238.25	63.2630
1246.25	62.4335
1260.41	0.0000
1271.85	37.9644
1274.45	42.9948
1274.54	47.9941
1291.56	38.1979
1298.22	0.0000
1312.09	41.4738
1325.50	31.4856
1325.50	31.4856
1332.49	33.5881
1333.61	31.5626
1360.21	30.7874
1362.66	0.0000
1365.15	15.4163
1368.21	29.8307
1368.53	0.0000
1376.25	23.7150
1384.27	18.6028
1394.10	22.8021
1395.20	29.0299
1407.95	32.2576
1434.06	24.1109
1436.60	19.9316
1457.56	0.0000
1460.81	28.5161
1489.15	22.3518
1509.49	18.1939
1596.49	24.4004
1620.62	14.1635
1678.03	0.0000
1691.02	8.6472
1691.02	8.6472
1706.46	0.0000
1750.46	0.0000
1764.49	8.5550
1764.49	8.5550
1764.49	8.5550
1764.49	8.5550
1770.23	8.5663
1771.40	31.3371
1791.20	0.0000
1808.65	13.8276

1836.01	12.9197

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994004

Total Uranium Activity	3.3530E+01	ug/g
Total Uranium Counting Unc.	6.9576E+00	ug/g
Total Uranium Tpu	3.5498E-06	ug/g
Total Uranium Mda	1.3097E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G245994004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 12:32:53.33    SAMPLE ALQT:  127.500 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.056E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.354E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.427E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.158E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:36:06.87

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994005.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:35:05
Sample ID         : G245994005           Sample quantity  : 1.21220E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.66  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.20*	45	486	1.04	125.27	122	8	6.29E-03	88.2	
2	4	74.80*	506	359	0.90	148.50	142	18	7.02E-02	7.2	1.56E+00
3	4	77.08	786	331	0.87	153.06	142	18	1.09E-01	5.1	
4	4	84.00*	77	173	0.86	166.92	165	13	1.07E-02	26.7	7.36E+00
5	4	87.24	223	465	0.95	173.41	165	13	3.10E-02	16.0	
6	6	89.94	202	152	0.85	178.80	177	15	2.80E-02	10.2	3.39E+00
7	6	92.86*	284	377	1.46	184.65	177	15	3.94E-02	14.8	
8	0	129.48	114	397	1.01	257.93	252	10	1.59E-02	34.2	
9	0	185.97*	222	294	1.08	371.00	367	9	3.09E-02	16.3	
10	0	209.42	154	311	1.13	417.93	413	11	2.14E-02	23.7	
11	6	238.62*	1406	163	0.94	476.38	472	17	1.95E-01	3.1	6.79E-01
12	6	241.60	362	249	1.77	482.34	472	17	5.03E-02	12.5	
13	0	270.22*	126	250	1.47	539.63	535	12	1.75E-02	26.9	
14	0	277.32	49	120	1.28	553.83	551	6	6.83E-03	38.1	
15	0	295.25	494	228	1.12	589.71	584	12	6.87E-02	7.6	
16	0	300.22	94	146	0.97	599.66	595	9	1.30E-02	25.7	
17	0	327.85	95	143	1.01	654.97	651	9	1.32E-02	24.8	
18	0	338.48*	270	208	0.99	676.25	671	11	3.74E-02	12.2	
19	0	351.89*	742	191	1.12	703.07	699	11	1.03E-01	5.2	
20	0	409.38	56	134	1.63	818.13	813	13	7.83E-03	44.3	
21	0	462.99	62	74	1.14	925.42	921	9	8.62E-03	28.0	
22	0	511.52*	166	158	2.08	1022.54	1015	18	2.30E-02	22.0	
23	0	583.31*	399	144	1.17	1166.19	1161	12	5.54E-02	8.0	
24	0	609.47*	518	119	1.31	1218.56	1213	13	7.19E-02	6.3	
25	0	727.46*	100	65	1.59	1454.67	1449	11	1.39E-02	18.9	
26	0	795.52*	75	44	1.87	1590.85	1586	11	1.04E-02	21.3	
27	0	835.64	46	37	1.41	1671.14	1667	9	6.44E-03	28.0	
28	0	861.05	60	47	1.72	1721.96	1717	11	8.28E-03	26.2	
29	0	911.47*	295	80	1.47	1822.86	1815	16	4.09E-02	9.0	
30	2	965.25	49	37	1.91	1930.46	1926	26	6.76E-03	28.0	1.29E+00
31	2	969.30	166	46	1.62	1938.56	1926	26	2.31E-02	10.9	
32	0	1120.53	123	49	1.96	2241.15	2235	13	1.71E-02	14.7	
33	0	1238.84	53	39	1.57	2477.84	2473	11	7.35E-03	26.6	
34	0	1377.70	33	33	3.43	2755.64	2747	15	4.60E-03	41.9	
35	0	1461.18*	796	23	1.90	2922.64	2912	18	1.11E-01	3.8	
36	0	1730.06	28	3	1.10	3460.50	3455	12	3.86E-03	22.8	
37	0	1765.06*	98	7	2.62	3530.51	3523	14	1.35E-02	12.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 14:36:10

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994005.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:35:05
Sample ID         : G245994005           Sample quantity  : 121.22 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA11              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.66   0.0%
Peak Width (FWHM):      3.00             Confidence level :      5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :      8.00
Errors propagated: Yes                   Systematic Error :      0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :     75.00             WTM error limit  :      3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.886E+01	2.180E+00	4.317E-01	3.732E-02	43.691
MN-54	+	834.83	*	7.520E-02	4.280E-02	5.688E-02	5.601E-03	1.322
CD-109	+	88.03	*	2.793E+00	9.309E-01	1.165E+00	1.104E-01	2.399
SN-126	+	64.28		3.422E-01	6.058E-01	5.700E-01	8.268E-02	0.600
	+	86.94		1.142E+00	5.983E-01	4.796E-01	1.991E-01	2.380
	+	87.57	*	2.746E-01	9.151E-02	1.148E-01	1.083E-02	2.391
TL-208	+	277.35		4.787E-01	3.747E-01	5.343E-01	9.473E-02	0.896
	+	510.84		8.057E-01	3.707E-01	1.850E-01	2.508E-02	4.355
	+	583.14	*	5.514E-01	1.062E-01	5.566E-02	6.012E-03	9.907
	+	860.37		7.690E-01	4.104E-01	4.553E-01	4.742E-02	1.689
BI-211		72.87		3.394E+00	2.545E+00	4.152E+00	3.298E-01	0.817
	+	351.07	*	4.526E+00	7.563E-01	2.874E-01	3.792E-02	15.749
PB-212	+	74.81		2.527E+00	4.810E-01	4.240E-01	5.245E-02	5.961
	+	77.11		2.247E+00	2.938E-01	2.430E-01	2.019E-02	9.245
	+	87.30		1.270E+00	4.419E-01	5.322E-01	7.304E-02	2.387
	+	238.63	*	1.874E+00	2.867E-01	8.289E-02	1.161E-02	22.611
	+	300.09		1.927E+00	1.038E+00	1.011E+00	1.620E-01	1.907
PO-212	+	74.81		2.527E+00	4.810E-01	4.240E-01	5.245E-02	5.961
	+	77.11		2.247E+00	2.938E-01	2.430E-01	2.019E-02	9.245
	+	87.30		1.270E+00	4.419E-01	5.322E-01	7.304E-02	2.387
		115.19		1.507E+00	2.993E+00	5.196E+00	4.403E-01	0.290
	+	238.63	*	1.874E+00	2.867E-01	8.289E-02	1.161E-02	22.611
	+	300.09		1.927E+00	1.038E+00	1.011E+00	1.620E-01	1.907
BI-214	+	609.31	*	1.349E+00	2.277E-01	1.035E-01	1.169E-02	13.034
	+	1120.29		1.654E+00	5.188E-01	4.078E-01	4.404E-02	4.056
	+	1764.49		1.785E+00	4.540E-01	2.920E-01	2.406E-02	6.112
PB-214	+	74.81		4.355E+00	7.908E-01	7.305E-01	8.021E-02	5.961
	+	77.11		3.851E+00	5.830E-01	4.166E-01	4.697E-02	9.245
	+	87.30		2.176E+00	7.442E-01	9.117E-01	1.108E-01	2.387
	+	241.98		2.899E+00	8.390E-01	4.994E-01	7.276E-02	5.805
	+	295.21		1.785E+00	3.976E-01	1.770E-01	2.886E-02	10.087
	+	351.92	*	1.575E+00	2.756E-01	1.040E-01	1.472E-02	15.137
PO-214	+	74.81		4.355E+00	7.908E-01	7.305E-01	8.021E-02	5.961
	+	77.11		3.851E+00	5.830E-01	4.166E-01	4.697E-02	9.245

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		2.176E+00	7.442E-01	9.117E-01	1.108E-01	2.387
	+	241.98		2.899E+00	8.390E-01	4.994E-01	7.276E-02	5.805
	+	295.21		1.785E+00	3.976E-01	1.770E-01	2.886E-02	10.087
	+	351.92	*	1.575E+00	2.756E-01	1.040E-01	1.472E-02	15.137
PO-216	+	74.81		2.527E+00	4.810E-01	4.240E-01	5.245E-02	5.961
	+	77.11		2.247E+00	2.938E-01	2.430E-01	2.019E-02	9.245
	+	87.30		1.270E+00	4.419E-01	5.322E-01	7.304E-02	2.387
	+	238.63	*	1.874E+00	2.867E-01	8.289E-02	1.161E-02	22.611
	+	300.09		1.927E+00	1.038E+00	1.011E+00	1.620E-01	1.907
PO-218	+	74.81		4.355E+00	7.908E-01	7.305E-01	8.021E-02	5.961
	+	77.11		3.851E+00	5.830E-01	4.166E-01	4.697E-02	9.245
	+	87.30		2.176E+00	7.442E-01	9.117E-01	1.108E-01	2.387
	+	241.98		2.899E+00	8.390E-01	4.994E-01	7.276E-02	5.805
	+	295.21		1.785E+00	3.976E-01	1.770E-01	2.886E-02	10.087
	+	351.92	*	1.575E+00	2.756E-01	1.040E-01	1.472E-02	15.137
RA-224	+	240.98	*	5.497E+00	1.561E+00	9.437E-01	1.264E-01	5.825
RA-226	+	609.31	*	1.349E+00	2.277E-01	1.035E-01	1.169E-02	13.034
	+	1120.29		1.654E+00	5.188E-01	4.078E-01	4.404E-02	4.056
	+	1764.49		1.785E+00	4.540E-01	2.920E-01	2.406E-02	6.112
AC-228	+	338.32		1.814E+00	8.890E-01	3.410E-01	1.451E-01	5.319
	+	911.07	*	1.796E+00	3.911E-01	1.790E-01	2.180E-02	10.031
	+	969.11		1.786E+00	5.758E-01	3.402E-01	8.062E-02	5.251
RA-228	+	338.32		1.814E+00	8.890E-01	3.410E-01	1.451E-01	5.319
	+	911.07	*	1.796E+00	3.911E-01	1.790E-01	2.180E-02	10.031
	+	969.11		1.786E+00	5.758E-01	3.402E-01	8.062E-02	5.251
TH-228	+	74.81		2.565E+00	4.263E-01	4.304E-01	3.521E-02	5.961
	+	77.11		2.280E+00	2.983E-01	2.467E-01	2.050E-02	9.245
	+	87.30		1.289E+00	4.296E-01	5.402E-01	5.078E-02	2.387
	+	238.63	*	1.902E+00	2.911E-01	8.414E-02	1.178E-02	22.611
	+	300.09		1.956E+00	1.553E+00	1.026E+00	6.209E-01	1.907
TH-230	+	609.31	*	1.349E+00	2.277E-01	1.035E-01	1.169E-02	13.034
	+	1120.29		1.654E+00	5.187E-01	4.078E-01	4.404E-02	4.056
	+	1764.49		1.785E+00	4.540E-01	2.920E-01	2.406E-02	6.112
TH-232	+	338.32		1.814E+00	5.047E-01	3.410E-01	4.598E-02	5.319
	+	911.07	*	1.796E+00	3.911E-01	1.790E-01	2.180E-02	10.031
	+	969.11		1.786E+00	5.758E-01	3.402E-01	8.062E-02	5.251
TH-234	+	63.29	*	8.646E-01	1.533E+00	1.465E+00	2.549E-01	0.590
	+	92.38		2.300E+00	8.016E-01	5.507E-01	1.010E-01	4.177
U-234	+	609.31	*	1.349E+00	2.277E-01	1.035E-01	1.169E-02	13.034
	+	1120.29		1.654E+00	5.187E-01	4.078E-01	4.404E-02	4.056
	+	1764.49		1.785E+00	4.540E-01	2.920E-01	2.406E-02	6.112
NP-237	+	86.50	*	8.064E-01	3.161E-01	3.399E-01	7.694E-02	2.372
		95.87		9.251E-02	8.059E-01	1.158E+00	2.865E-01	0.080
U-238	+	63.29	*	8.646E-01	1.533E+00	1.465E+00	2.549E-01	0.590
	+	92.38		2.300E+00	7.133E-01	5.507E-01	5.043E-02	4.177
AM-243	+	74.67	*	4.097E-01	6.793E-02	6.890E-02	5.576E-03	5.947
	+	86.72		3.024E+01	1.008E+01	1.273E+01	1.187E+00	2.376
		117.66		-1.214E+00	3.137E+00	5.248E+00	4.439E-01	-0.231
		142.18		-6.336E+00	1.523E+01	2.476E+01	2.208E+00	-0.256

Sample ID : G245994005 Acquisition date : 12-FEB-2010 12:35:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	1.740E-01	7.874E-02	3.997E-02	4.274E-03	4.354

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	9.447E-02	2.690E-01	4.613E-01	5.221E-02	0.205
NA-22		1274.54	*	-6.549E-03	4.100E-02	6.541E-02	5.372E-03	-0.100
NA-24		1368.53	*	1.309E-01	4.100E-02	Half-Life too short		
AL-26		1129.67		-8.716E-02	1.448E+00	2.364E+00	1.997E-01	-0.037
		1808.65	*	6.965E-03	2.639E-02	4.596E-02	3.751E-03	0.152
TI-44		67.85		-1.700E-02	3.560E-02	5.472E-02	4.146E-03	-0.311
	+	78.38	*	4.146E-01	5.423E-02	5.837E-02	4.921E-03	7.102
SC-46		889.25	*	-9.893E-03	3.379E-02	5.495E-02	5.413E-03	-0.180
	+	1120.51		2.829E-01	8.673E-02	1.341E-01	1.143E-02	2.111
V-48		944.10		2.275E-01	7.981E-01	1.370E+00	1.325E-01	0.166
		983.50	*	-7.636E-02	6.045E-02	8.470E-02	8.034E-03	-0.902
		1312.09		2.104E-02	6.330E-02	1.077E-01	8.879E-03	0.195
CR-51		320.08	*	1.652E-01	3.607E-01	5.931E-01	8.608E-02	0.279
MN-52		744.21		7.010E-02	2.151E-01	3.577E-01	3.476E-02	0.196
		848.13		-1.478E+00	5.707E+00	9.362E+00	9.224E-01	-0.158
		935.52		3.233E-01	2.300E-01	4.300E-01	4.175E-02	0.752
		1246.25		4.508E+00	6.909E+00	1.144E+01	9.339E-01	0.394
		1333.61		2.772E+00	5.193E+00	8.935E+00	7.385E-01	0.310
		1434.06	*	1.229E-01	2.251E-01	3.913E-01	3.279E-02	0.314
CO-56		846.75	*	-3.019E-02	3.386E-02	5.164E-02	5.088E-03	-0.585
		977.42		2.159E+00	2.908E+00	4.661E+00	4.436E-01	0.463
		1037.82		-1.019E-01	2.680E-01	4.243E-01	4.071E-02	-0.240
		1175.09		-1.873E+00	2.050E+00	2.917E+00	2.344E-01	-0.642
	+	1238.25		1.990E-01	1.071E-01	1.649E-01	1.387E-02	1.207
		1360.21		-6.504E-01	9.148E-01	1.310E+00	1.088E-01	-0.496
		1771.40		-1.040E+00	3.674E-01	3.322E-01	2.733E-02	-3.131
CO-57		122.06	*	3.371E-04	1.993E-02	3.388E-02	2.866E-03	0.010
		136.48		7.004E-02	1.781E-01	3.055E-01	2.869E-02	0.229
CO-58		810.76	*	-9.895E-03	3.968E-02	6.182E-02	6.087E-03	-0.160
FE-59		142.65		-1.924E-01	2.341E+00	3.862E+00	3.449E-01	-0.050
		192.34		-1.472E-02	8.573E-01	1.418E+00	2.127E-01	-0.010
		1099.22	*	5.268E-02	7.195E-02	1.285E-01	1.208E-02	0.410
		1291.56		-5.052E-02	1.066E-01	1.617E-01	1.526E-02	-0.312
CO-60		1173.22		-3.640E-02	4.075E-02	5.806E-02	4.665E-03	-0.627
		1332.49	*	1.983E-02	4.062E-02	6.957E-02	5.749E-03	0.285
ZN-65		1115.52	*	1.783E-02	9.533E-02	1.395E-01	1.197E-02	0.128
GE-68		1077.35	*	7.031E-01	1.102E+00	1.939E+00	1.722E-01	0.363
AS-73		53.44	*	-1.656E-01	5.660E-01	8.915E-01	6.694E-02	-0.186
AS-74		595.88	*	-1.383E-02	8.287E-02	1.340E-01	1.362E-02	-0.103
		634.78		-2.065E-01	3.131E-01	4.766E-01	4.662E-02	-0.433
SE-75		66.05		-2.820E+00	3.952E+00	5.506E+00	5.232E-01	-0.512
		96.73		-7.995E-02	6.598E-01	9.321E-01	1.288E-01	-0.086
		121.11		-1.773E-02	1.061E-01	1.790E-01	1.985E-02	-0.099

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		136.00		2.176E-02	3.308E-02	5.734E-02	5.048E-03	0.380
		198.60		1.360E+00	1.648E+00	2.750E+00	3.289E-01	0.495
		264.65	*	-1.838E-02	4.193E-02	6.255E-02	9.194E-03	-0.294
		279.53		-2.396E-02	1.116E-01	1.576E-01	2.468E-02	-0.152
		303.91		-4.723E-01	2.035E+00	2.840E+00	4.721E-01	-0.166
		400.65		4.660E-03	2.273E-01	3.847E-01	4.922E-02	0.012
BR-77	+	87.88		5.876E+02	1.958E+02	2.841E+02	2.690E+01	2.068
		200.40		-7.209E+01	1.449E+02	2.331E+02	2.637E+01	-0.309
	+	239.00		2.930E+02	4.285E+01	3.901E+01	5.183E+00	7.511
		249.79		2.012E+01	5.671E+01	9.416E+01	1.306E+01	0.214
		281.68		4.880E+01	8.375E+01	1.335E+02	2.059E+01	0.365
		297.23		8.940E+01	7.347E+01	9.278E+01	1.392E+01	0.964
		303.76		-5.468E+01	1.692E+02	2.340E+02	3.463E+01	-0.234
		439.47		2.481E+01	1.170E+02	1.996E+02	2.153E+01	0.124
		484.57		-8.045E+01	1.909E+02	3.070E+02	3.305E+01	-0.262
		520.65	*	3.540E+00	8.671E+00	1.486E+01	1.584E+00	0.238
		574.64		1.217E+01	1.971E+02	3.259E+02	3.370E+01	0.037
		578.91		1.771E+01	9.416E+01	1.385E+02	1.428E+01	0.128
		585.48		1.004E+03	2.352E+02	4.163E+02	4.270E+01	2.411
		755.35		1.281E+02	1.551E+02	2.682E+02	2.613E+01	0.477
		817.79		-5.910E-01	1.208E+02	1.929E+02	1.897E+01	-0.003
SR-82		698.33		1.057E+01	3.139E+01	5.237E+01	5.022E+00	0.202
		776.49	*	-2.715E-01	3.380E-01	4.914E-01	4.807E-02	-0.552
		1395.20		-5.519E+00	9.384E+00	1.355E+01	1.130E+00	-0.407
RB-83		520.41	*	6.146E-03	6.057E-02	9.803E-02	1.045E-02	0.063
		529.64		-9.251E-02	9.412E-02	1.417E-01	1.504E-02	-0.653
		552.65		2.543E-02	1.764E-01	2.948E-01	3.092E-02	0.086
RB-84		881.50	*	-4.445E-02	6.822E-02	1.074E-01	1.058E-02	-0.414
KR-85		513.99	*	1.805E+01	7.251E+00	1.346E+01	1.438E+00	1.341
SR-85		513.99	*	9.245E-02	3.714E-02	6.895E-02	7.365E-03	1.341
RB-86		1076.63	*	4.123E-01	6.839E-01	1.201E+00	1.068E-01	0.343
Y-88		898.02		1.955E-02	3.390E-02	6.016E-02	5.945E-03	0.325
		1836.01	*	1.022E-02	3.657E-02	6.311E-02	5.124E-03	0.162
ZR-88		392.90	*	1.172E-02	2.600E-02	4.529E-02	4.830E-03	0.259
Y-91		1204.90	*	1.244E+01	1.585E+01	2.802E+01	2.268E+00	0.444
NB-94		702.63	*	-5.593E-04	3.302E-02	5.337E-02	5.125E-03	-0.010
		871.10		3.873E-03	3.254E-02	5.527E-02	5.447E-03	0.070
NB-95		765.79	*	2.402E-02	4.416E-02	7.408E-02	7.231E-03	0.324
NB-95M		235.69	*	-5.460E-02	1.275E-01	1.804E-01	2.519E-02	-0.303
ZR-95		724.18		9.315E-03	9.901E-02	1.413E-01	1.461E-02	0.066
		756.15	*	8.034E-02	6.940E-02	1.227E-01	1.291E-02	0.655
NB-97		657.90	*	7.970E-02	6.940E-02	Half-Life too short		
		1024.50		3.897E-01	6.940E-02	Half-Life too short		
ZR-97		254.15		4.735E-01	6.940E-02	Half-Life too short		
		355.39		1.420E+00	6.940E-02	Half-Life too short		
		507.63	*	-2.558E-01	6.940E-02	Half-Life too short		
		602.52		-3.194E+00	6.940E-02	Half-Life too short		
		1021.30		4.572E+00	6.940E-02	Half-Life too short		
		1147.95		-3.480E-01	6.940E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		1362.66		6.567E+00	6.940E-02	Half-Life too short		
		1750.46		1.762E+00	6.940E-02	Half-Life too short		
MO-99		140.51		8.791E+00	2.206E+01	3.676E+01	1.021E+01	0.239
		181.06		4.144E+00	1.485E+01	2.387E+01	4.579E+00	0.174
		366.43		2.784E+01	7.997E+01	1.298E+02	1.572E+01	0.215
		739.58	*	1.044E+00	1.083E+01	1.762E+01	2.789E+00	0.059
		778.00		-5.885E+00	2.883E+01	4.519E+01	4.421E+00	-0.130
TC-99M		140.51	*	1.013E+10	2.883E+01	Half-Life too short		
RH-101		127.23		6.147E-03	2.982E-02	4.601E-02	3.930E-03	0.134
		198.01	*	1.425E-02	3.097E-02	5.104E-02	5.712E-03	0.279
		325.23		2.436E-02	2.257E-01	3.238E-01	4.543E-02	0.075
RH-102		418.52		9.039E-02	2.592E-01	4.467E-01	4.802E-02	0.202
		475.06	*	-1.288E-02	2.353E-02	3.736E-02	4.028E-03	-0.345
		631.29		-6.520E-03	4.767E-02	7.682E-02	7.544E-03	-0.085
		697.49		-3.506E-03	7.217E-02	1.164E-01	1.116E-02	-0.030
		766.84		1.356E-01	1.162E-01	2.026E-01	1.978E-02	0.669
		1046.59		-2.606E-02	1.025E-01	1.648E-01	1.500E-02	-0.158
		1112.84		9.347E-02	2.177E-01	3.550E-01	3.051E-02	0.263
RU-103		497.08	*	1.472E-03	3.609E-02	6.026E-02	9.364E-03	0.024
	+	610.33		1.454E+01	3.126E+00	3.202E+00	5.589E-01	4.541
RH-106	+	511.85		8.691E-01	3.932E-01	4.600E-01	4.917E-02	1.889
		621.84	*	1.426E-01	3.129E-01	5.299E-01	7.541E-02	0.269
		1050.47		2.431E-01	2.048E+00	3.431E+00	3.114E-01	0.071
RU-106	+	511.85		8.691E-01	3.932E-01	4.600E-01	4.917E-02	1.889
		621.84	*	1.426E-01	3.126E-01	5.299E-01	5.256E-02	0.269
		1050.47		2.431E-01	2.048E+00	3.431E+00	3.114E-01	0.071
AG-108M		433.93	*	2.841E-03	2.772E-02	4.694E-02	5.189E-03	0.061
		614.37		-3.490E-02	4.278E-02	5.520E-02	5.680E-03	-0.632
		722.95		3.287E-02	4.087E-02	6.373E-02	6.351E-03	0.516
AG-110M		657.75	*	3.773E-02	3.232E-02	5.763E-02	5.616E-03	0.655
		677.61		3.469E-02	2.696E-01	4.433E-01	4.318E-02	0.078
		706.67		-1.461E-01	2.026E-01	3.050E-01	2.998E-02	-0.479
		763.93		-1.211E-01	1.702E-01	2.552E-01	2.545E-02	-0.474
		884.67		3.090E-02	4.598E-02	8.177E-02	8.255E-03	0.378
		937.48		-4.691E-02	1.037E-01	1.655E-01	1.651E-02	-0.283
		1384.27		1.206E-01	1.499E-01	2.464E-01	2.115E-02	0.490
IN-111		171.28		3.858E-01	8.331E-01	1.418E+00	1.411E-01	0.272
		245.39	*	8.294E-01	9.670E-01	1.495E+00	2.037E-01	0.555
IN-113M		391.69	*	-4.319E-02	3.854E-02	5.968E-02	6.491E-03	-0.724
SN-113		391.69	*	-4.319E-02	3.854E-02	5.968E-02	6.491E-03	-0.724
IN-114M		190.27	*	-6.878E-02	1.794E-01	2.594E-01	2.806E-02	-0.265
CD-115		260.90		-6.834E+01	1.190E+02	1.857E+02	2.686E+01	-0.368
		492.35		-4.637E+00	3.343E+01	5.510E+01	5.923E+00	-0.084
		527.90	*	1.313E+00	8.792E+00	1.475E+01	1.567E+00	0.089
SN-117M		156.02		-6.588E-01	2.010E+00	3.320E+00	3.108E-01	-0.198
		158.56	*	7.422E-03	4.812E-02	8.111E-02	7.665E-03	0.092
SB-122		563.90	*	2.022E+00	1.931E+00	3.418E+00	3.560E-01	0.592
		692.80		1.464E+01	3.680E+01	6.192E+01	5.927E+00	0.236
I-123		159.00	*	8.060E-01	3.680E+01	Half-Life too short		

---- Non-Identified Nuclides ----

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		528.96		-3.238E+02	3.680E+01	Half-Life too short		
TE-123M		159.00	*	4.475E-03	2.469E-02	4.167E-02	3.965E-03	0.107
I-124		602.71	*	-3.039E-01	6.180E-01	9.320E-01	9.420E-02	-0.326
		722.78		3.558E+00	4.219E+00	6.606E+00	6.383E-01	0.539
		1325.50		-7.124E+00	3.411E+01	5.378E+01	4.441E+00	-0.132
	+	1376.25		5.994E+01	5.048E+01	6.218E+01	5.175E+00	0.964
		1509.49		1.157E+01	1.420E+01	2.634E+01	2.217E+00	0.439
		1691.02		-2.755E-01	3.438E+00	5.614E+00	4.681E-01	-0.049
SB-124		602.71		-1.792E-02	3.644E-02	5.495E-02	5.554E-03	-0.326
		645.85		3.659E-01	4.484E-01	7.835E-01	7.929E-02	0.467
		709.31		9.114E-02	2.701E+00	4.382E+00	4.217E-01	0.021
		713.82		-3.898E-02	1.589E+00	2.562E+00	3.276E-01	-0.015
		722.78		3.041E-01	3.606E-01	5.646E-01	5.549E-02	0.539
	+	968.20		1.837E+01	4.381E+00	7.639E+00	7.305E-01	2.405
		1045.16		-1.158E+00	2.216E+00	3.452E+00	3.146E-01	-0.336
		1325.50		-6.502E-01	3.114E+00	4.909E+00	4.054E-01	-0.132
		1368.21		2.110E-01	1.710E+00	2.738E+00	3.636E-01	0.077
		1436.60		2.389E+00	3.694E+00	6.495E+00	5.443E-01	0.368
		1691.02	*	-5.554E-03	6.931E-02	1.132E-01	9.835E-03	-0.049
SB-125		427.89	*	-4.683E-02	8.340E-02	1.345E-01	1.467E-02	-0.348
	+	463.38		5.890E-01	3.369E-01	4.774E-01	5.412E-02	1.234
		600.56		1.709E-02	1.649E-01	2.728E-01	2.911E-02	0.063
		635.90		-4.331E-02	2.323E-01	3.722E-01	3.866E-02	-0.116
TE-125M		109.28	*	5.675E+00	7.259E+00	1.276E+01	1.309E+00	0.445
I-126		388.63		6.983E-02	1.688E-01	2.937E-01	3.186E-02	0.238
		666.33	*	5.215E-02	1.947E-01	3.180E-01	3.015E-02	0.164
		753.82		8.518E-01	1.400E+00	2.380E+00	2.317E-01	0.358
SB-126		223.80		4.121E+00	3.519E+00	6.068E+00	7.579E-01	0.679
	+	278.60		3.148E+00	2.449E+00	3.789E+00	5.854E-01	0.831
	+	296.50		1.768E+01	3.779E+00	3.712E+00	5.576E-01	4.764
		414.70		-5.045E-02	7.270E-02	1.002E-01	1.076E-02	-0.504
		415.30		-2.560E+00	6.017E+00	8.555E+00	9.190E-01	-0.299
		555.20		9.650E-01	3.751E+00	6.248E+00	6.545E-01	0.154
		573.80		-3.564E-01	1.038E+00	1.662E+00	1.720E-01	-0.214
		593.00		3.288E-01	8.203E-01	1.393E+00	1.420E-01	0.236
		656.30		-8.901E-02	3.202E+00	5.200E+00	4.956E-01	-0.017
		666.33		2.179E-02	8.134E-02	1.329E-01	1.259E-02	0.164
		675.00		-6.054E-01	1.765E+00	2.767E+00	2.632E-01	-0.219
		695.00		-7.007E-03	7.153E-02	1.148E-01	1.100E-02	-0.061
		697.00		-1.076E-01	2.536E-01	3.945E-01	3.781E-02	-0.273
		720.50	*	1.067E-02	1.331E-01	2.092E-01	2.020E-02	0.051
		856.80		4.114E-02	4.772E-01	7.077E-01	6.974E-02	0.058
		989.30		8.372E-01	1.076E+00	1.932E+00	1.827E-01	0.433
		1034.80		5.141E+00	7.590E+00	1.347E+01	1.237E+00	0.382
		1213.00		1.294E+00	4.114E+00	6.937E+00	5.625E-01	0.186
SB-127		61.10		-1.370E+01	4.393E+01	6.313E+01	6.355E+00	-0.217
		252.40		-8.846E-02	3.807E+00	6.182E+00	2.686E+00	-0.014
		290.80		-8.167E+00	2.086E+01	2.879E+01	4.820E+00	-0.284
		411.60		5.647E+00	1.099E+01	1.714E+01	2.907E+00	0.329

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		444.90		-1.112E+00	7.825E+00	1.298E+01	1.829E+00	-0.086
		473.00		-4.198E-01	1.286E+00	2.084E+00	2.997E-01	-0.201
		543.00		8.716E-01	1.426E+01	2.370E+01	3.698E+00	0.037
		603.60		-7.333E+00	1.187E+01	1.573E+01	2.131E+00	-0.466
		685.20	*	1.368E-02	1.223E+00	1.986E+00	2.398E-01	0.007
		698.50		6.066E+00	1.394E+01	2.339E+01	3.825E+00	0.259
		722.20		2.038E+01	2.908E+01	4.475E+01	5.351E+00	0.455
		783.80		5.186E-01	3.354E+00	5.461E+00	7.227E-01	0.095
XE-127		57.60		-9.306E-01	4.347E+00	6.855E+00	4.934E-01	-0.136
		145.22		1.571E-01	5.688E-01	9.685E-01	8.724E-02	0.162
		172.10		-2.031E-02	1.022E-01	1.686E-01	1.684E-02	-0.120
		202.84	*	-1.610E-02	4.164E-02	6.730E-02	7.692E-03	-0.239
		374.96		-9.887E-02	1.934E-01	2.929E-01	3.411E-02	-0.338
I-131		80.18		-1.179E+00	3.868E+00	5.478E+00	4.745E-01	-0.215
		284.30		-1.506E+00	1.396E+00	2.057E+00	3.212E-01	-0.732
		364.48	*	4.785E-02	1.069E-01	1.748E-01	2.195E-02	0.274
		636.97		-2.672E-01	1.460E+00	2.282E+00	2.325E-01	-0.117
		722.89		5.593E+00	6.837E+00	1.068E+01	1.037E+00	0.524
TE-132		49.72		5.853E-02	1.246E+01	2.000E+01	2.060E+00	0.003
		111.76		-1.791E+00	2.397E+01	3.987E+01	4.282E+00	-0.045
		116.30		4.107E+00	2.234E+01	3.831E+01	4.103E+00	0.107
		228.16	*	2.291E-01	6.296E-01	1.048E+00	1.915E-01	0.219
BA-133		53.15		1.312E+00	2.398E+00	3.941E+00	2.970E-01	0.333
		79.62		-5.283E-01	1.099E+00	1.536E+00	2.333E-01	-0.344
		81.00		3.413E-03	9.470E-02	1.196E-01	1.904E-02	0.029
	+	276.40		4.730E-01	3.720E-01	6.012E-01	1.155E-01	0.787
		302.84		-7.441E-02	1.373E-01	1.848E-01	3.318E-02	-0.403
		356.01	*	1.412E-02	4.556E-02	6.608E-02	1.066E-02	0.214
		383.85		-2.196E-01	2.561E-01	4.050E-01	5.849E-02	-0.542
I-133	+	510.53		1.644E+00	2.561E-01	Half-Life too short		
		529.87	*	-4.824E-03	2.561E-01	Half-Life too short		
		706.58		-2.710E-01	2.561E-01	Half-Life too short		
		856.28		6.653E-02	2.561E-01	Half-Life too short		
		875.33		-2.172E-02	2.561E-01	Half-Life too short		
		1236.41		8.095E-01	2.561E-01	Half-Life too short		
		1298.22		-1.318E-02	2.561E-01	Half-Life too short		
CS-134		475.35		-1.022E+00	1.579E+00	2.486E+00	2.680E-01	-0.411
		563.23		2.421E-01	3.552E-01	6.138E-01	6.438E-02	0.394
		569.32		-7.711E-02	1.914E-01	3.010E-01	3.153E-02	-0.256
		604.70		-8.070E-03	3.458E-02	4.829E-02	4.881E-03	-0.167
	+	795.84	*	1.483E-01	6.500E-02	9.761E-02	9.630E-03	1.520
		801.93		1.627E-02	4.176E-01	6.254E-01	6.167E-02	0.026
		1038.57		-3.079E-01	3.194E+00	5.229E+00	4.788E-01	-0.059
		1167.94		8.776E-01	2.254E+00	3.842E+00	3.107E-01	0.228
		1365.15		2.865E-02	1.216E+00	1.971E+00	1.718E-01	0.015
CS-135		268.24	*	2.200E-01	1.646E-01	2.566E-01	4.026E-02	0.857
I-135		288.45		1.332E+09	1.646E-01	Half-Life too short		
		417.63		1.039E+09	1.646E-01	Half-Life too short		
		546.56		5.622E+09	1.646E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	836.80		3.190E+10	1.646E-01	Half-Life too short		
		1038.76		-3.017E+09	1.646E-01	Half-Life too short		
		1124.00		2.533E+10	1.646E-01	Half-Life too short		
		1131.51		-1.903E+09	1.646E-01	Half-Life too short		
		1260.41	*	1.153E+09	1.646E-01	Half-Life too short		
		1457.56		1.044E+11	1.646E-01	Half-Life too short		
		1678.03		-4.276E+09	1.646E-01	Half-Life too short		
		1706.46		-1.724E+10	1.646E-01	Half-Life too short		
		1791.20		-4.408E+09	1.646E-01	Half-Life too short		
CS-136		66.91		-3.789E-02	6.261E-01	9.072E-01	1.347E-01	-0.042
	+	86.29		3.566E+00	1.236E+00	1.639E+00	2.180E-01	2.176
		153.22		4.352E-01	5.772E-01	9.963E-01	1.018E-01	0.437
		163.89		3.135E-01	9.019E-01	1.531E+00	1.619E-01	0.205
		176.55		1.187E-01	3.176E-01	5.374E-01	5.701E-02	0.221
		273.65		1.227E-01	5.562E-01	6.487E-01	1.006E-01	0.189
		340.57		2.582E-01	1.299E-01	2.090E-01	2.831E-02	1.235
		818.51		7.759E-03	6.477E-02	1.049E-01	1.032E-02	0.074
		1048.07	*	5.807E-02	9.509E-02	1.672E-01	1.579E-02	0.347
		1235.34		4.717E-01	5.164E-01	8.266E-01	9.514E-02	0.571
BA-137M		661.65	*	-6.276E-03	3.572E-02	5.725E-02	5.417E-03	-0.110
CS-137		661.65	*	-6.634E-03	3.776E-02	6.052E-02	5.736E-03	-0.110
CE-139		165.85	*	-1.215E-02	2.464E-02	4.012E-02	3.899E-03	-0.303
BA-140		162.64		4.193E-01	6.410E-01	1.101E+00	1.107E-01	0.381
		304.84		-7.610E-01	1.226E+00	1.745E+00	5.319E-01	-0.436
		423.70		1.062E+00	1.856E+00	3.181E+00	1.051E+00	0.334
		537.32	*	3.533E-02	2.325E-01	3.890E-01	1.311E-01	0.091
LA-140	+	328.77		7.869E-01	4.060E-01	5.400E-01	7.665E-02	1.457
		432.53		7.825E-01	1.714E+00	2.976E+00	3.308E-01	0.263
		487.03		-1.951E-02	1.249E-01	2.056E-01	2.301E-02	-0.095
		751.79		-9.043E-01	1.627E+00	2.467E+00	2.604E-01	-0.367
		815.85		1.097E-01	2.883E-01	4.800E-01	5.142E-02	0.229
		867.82		-1.109E-01	1.399E+00	2.204E+00	2.260E-01	-0.050
		919.63		-7.187E-01	2.318E+00	3.674E+00	4.261E-01	-0.196
		925.24		-7.947E-02	9.064E-01	1.501E+00	1.536E-01	-0.053
		1596.49	*	-9.971E-02	7.318E-02	8.933E-02	7.512E-03	-1.116
CE-141		145.44	*	1.102E-03	5.171E-02	8.709E-02	7.982E-03	0.013
CE-143		57.37		-1.528E-04	5.171E-02	Half-Life too short		
		231.56		7.070E-04	5.171E-02	Half-Life too short		
		293.26	*	4.526E-04	5.171E-02	Half-Life too short		
	+	350.59		3.425E-02	5.171E-02	Half-Life too short		
		490.36		1.264E-03	5.171E-02	Half-Life too short		
		664.57		8.391E-04	5.171E-02	Half-Life too short		
		721.93		9.515E-04	5.171E-02	Half-Life too short		
CE-144		80.11		-5.377E-01	1.795E+00	2.542E+00	2.186E-01	-0.212
		133.54	*	3.252E-02	1.909E-01	2.931E-01	4.573E-02	0.111
PM-144		476.78		7.371E-03	5.644E-02	9.520E-02	1.089E-02	0.077
		618.01		1.530E-02	3.266E-02	5.533E-02	5.625E-03	0.277
		696.49	*	-2.516E-02	3.262E-02	4.888E-02	4.686E-03	-0.515
		778.57		6.127E-01	1.949E+00	3.236E+00	3.167E-01	0.189

---- Non-Identified Nuclides ----

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PR-144		696.49	*	-1.705E+00	2.211E+00	3.312E+00	3.174E-01	-0.515
		1489.15		-1.755E+01	9.789E+00	1.010E+01	8.497E-01	-1.737
PM-146		453.90	*	4.128E-02	3.836E-02	6.866E-02	8.609E-03	0.601
		633.02		-2.877E-02	1.168E+00	1.902E+00	7.164E-01	-0.015
		735.90		-6.348E-02	1.448E-01	2.215E-01	6.410E-02	-0.287
		747.13		-3.163E-02	8.206E-02	1.273E-01	1.877E-02	-0.248
ND-147	+	91.11		8.335E-01	1.887E-01	3.885E-01	3.850E-02	2.145
		319.41		9.734E-01	3.241E+00	5.281E+00	7.529E-01	0.184
		439.89		-2.067E-01	4.881E+00	8.170E+00	8.814E-01	-0.025
		531.02	*	1.003E-01	4.928E-01	8.294E-01	1.342E-01	0.121
PM-149		285.90	*	1.332E+01	8.076E+01	1.315E+02	2.637E+01	0.101
EU-152		121.78		3.302E-03	5.782E-02	9.848E-02	9.633E-03	0.034
		244.69		3.796E-01	2.979E-01	4.718E-01	6.413E-02	0.804
		344.27	*	-1.220E-01	9.594E-02	1.263E-01	1.712E-02	-0.966
		443.98		2.415E-01	8.082E-01	1.386E+00	1.496E-01	0.174
		778.89		2.919E-02	2.343E-01	3.810E-01	3.728E-02	0.077
		867.32		-7.672E-02	8.686E-01	1.317E+00	1.298E-01	-0.058
	+	964.01		6.014E-01	3.421E-01	5.603E-01	5.370E-02	1.073
		1085.78		-1.071E-01	3.184E-01	5.029E-01	4.433E-02	-0.213
		1112.02		-7.031E-02	3.006E-01	4.830E-01	4.155E-02	-0.146
		1407.95		9.093E-02	1.800E-01	3.132E-01	2.617E-02	0.290
GD-153		69.67		1.188E-01	1.380E+00	2.016E+00	1.553E-01	0.059
	+	83.37		1.722E+01	9.323E+00	1.967E+01	1.760E+00	0.875
		97.43	*	-4.468E-02	7.068E-02	9.612E-02	8.540E-03	-0.465
		103.18		-9.608E-02	8.357E-02	1.357E-01	1.177E-02	-0.708
EU-154		123.07		-8.400E-03	4.176E-02	7.025E-02	7.902E-03	-0.120
		247.94		-1.551E-01	3.196E-01	5.034E-01	7.910E-02	-0.308
		591.81		1.743E-01	5.272E-01	8.911E-01	1.148E-01	0.196
		723.30		5.161E-02	1.795E-01	2.627E-01	2.753E-02	0.196
		756.87		8.554E-01	7.363E-01	1.301E+00	1.667E-01	0.657
		873.19		-2.584E-01	3.039E-01	4.687E-01	6.160E-02	-0.551
		996.32		-5.129E-02	3.173E-01	5.178E-01	9.406E-02	-0.099
		1004.76		-1.233E-02	1.987E-01	3.279E-01	4.001E-02	-0.038
		1274.45	*	-2.059E-02	1.143E-01	1.818E-01	2.000E-02	-0.113
EU-155		48.70		-1.668E+00	1.625E+00	2.465E+00	1.994E-01	-0.677
		60.01		1.050E+00	3.807E+00	5.670E+00	4.046E-01	0.185
	+	86.54		3.307E-01	1.103E-01	1.602E-01	1.504E-02	2.064
		105.31	*	1.109E-01	8.608E-02	1.538E-01	1.342E-02	0.721
TB-160	+	86.79		8.827E-01	2.941E-01	4.358E-01	4.070E-02	2.025
		197.04		-2.078E-01	5.285E-01	8.369E-01	9.327E-02	-0.248
		215.65		3.983E-01	6.472E-01	1.095E+00	1.322E-01	0.364
		298.57		6.780E-02	1.544E-01	1.826E-01	2.731E-02	0.371
		879.36	*	1.301E-02	1.368E-01	2.276E-01	2.242E-02	0.057
		962.29		3.527E-01	5.097E-01	8.055E-01	7.726E-02	0.438
	+	966.15		4.126E-01	2.347E-01	4.343E-01	4.158E-02	0.950
		1177.93		5.382E-02	3.308E-01	5.509E-01	4.431E-02	0.098
		1271.85		-1.145E-01	6.485E-01	1.032E+00	8.462E-02	-0.111
HO-166M		80.57		-7.352E-02	2.299E-01	3.252E-01	2.812E-02	-0.226
		184.41		6.829E-02	3.595E-02	5.789E-02	6.104E-03	1.180

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		2.705E-02	8.448E-02	1.247E-01	1.928E-02	0.217
		410.95		2.479E-01	2.130E-01	3.838E-01	4.118E-02	0.646
		711.68	*	3.609E-02	5.902E-02	1.005E-01	9.676E-03	0.359
		752.31		-1.049E-01	2.603E-01	4.015E-01	3.908E-02	-0.261
		810.29		-2.431E-02	6.066E-02	9.300E-02	9.139E-03	-0.261
TM-171		51.35		-7.197E+00	2.099E+01	3.304E+01	2.555E+00	-0.218
		52.39		1.590E+00	1.048E+01	1.691E+01	1.288E+00	0.094
		59.40		-2.375E+00	2.076E+01	3.024E+01	2.151E+00	-0.079
		66.72	*	3.705E-01	2.292E+01	3.336E+01	2.504E+00	0.011
LU-176	+	88.36		6.513E-01	2.171E-01	2.977E-01	2.814E-02	2.188
		201.83		-5.144E-03	2.572E-02	4.202E-02	4.782E-03	-0.122
		306.84	*	1.802E-02	2.238E-02	3.763E-02	5.532E-03	0.479
		401.10		2.430E+00	5.849E+00	1.015E+01	1.085E+00	0.240
LU-177		112.95		-1.266E+00	1.344E+00	2.145E+00	1.822E-01	-0.590
	+	208.36	*	3.605E+00	1.758E+00	1.874E+00	2.193E-01	1.924
LU-177M		52.97		6.197E-01	1.085E+00	1.785E+00	1.349E-01	0.347
		54.07		1.154E-01	5.757E-01	9.296E-01	6.926E-02	0.124
		61.30		-3.004E-01	1.156E+00	1.667E+00	1.200E-01	-0.180
		121.62		1.443E-02	2.962E-01	5.043E-01	4.261E-02	0.029
		147.16		-1.785E-01	5.350E-01	8.857E-01	8.032E-02	-0.202
		171.86		-1.158E-02	4.157E-01	6.919E-01	6.902E-02	-0.017
		218.09		-5.756E-01	7.712E-01	1.211E+00	1.477E-01	-0.475
	+	268.79		2.563E+00	1.433E+00	1.385E+00	2.064E-01	1.850
		319.02		7.359E-02	2.506E-01	4.083E-01	5.827E-02	0.180
		367.43		2.541E-01	8.883E-01	1.435E+00	1.731E-01	0.177
		413.65	*	-7.448E-02	1.621E-01	2.292E-01	2.461E-02	-0.325
HF-181		56.28		1.377E-01	6.404E-01	1.033E+00	7.518E-02	0.133
		57.53		-7.718E-02	3.658E-01	5.770E-01	4.155E-02	-0.134
		65.20		-7.086E-01	7.788E-01	1.074E+00	7.958E-02	-0.660
		133.02		1.723E-02	5.937E-02	9.182E-02	7.961E-03	0.188
		136.25		2.191E-01	3.861E-01	6.669E-01	5.837E-02	0.329
		345.85		1.002E-01	1.675E-01	2.778E-01	3.651E-02	0.361
		482.03	*	5.455E-03	3.629E-02	6.125E-02	6.596E-03	0.089
W-181		56.28		5.462E-02	2.510E-01	4.048E-01	2.947E-02	0.135
		57.53		-3.025E-02	1.435E-01	2.263E-01	1.630E-02	-0.134
		65.20	*	-2.757E-01	3.030E-01	4.176E-01	3.096E-02	-0.660
TA-182		67.75		-4.679E-02	8.469E-02	1.297E-01	9.817E-03	-0.361
		100.10		7.372E-02	1.386E-01	2.425E-01	2.128E-02	0.304
		152.43		-1.192E-01	2.940E-01	4.844E-01	4.475E-02	-0.246
		222.10		-1.430E-01	3.172E-01	5.072E-01	6.291E-02	-0.282
		1001.68		1.853E+00	1.944E+00	3.481E+00	3.267E-01	0.532
	+	1121.28		7.816E-01	2.396E-01	3.700E-01	3.153E-02	2.112
		1189.05		-2.344E-01	2.821E-01	4.189E-01	3.379E-02	-0.560
		1221.42	*	-4.067E-02	1.777E-01	2.833E-01	2.301E-02	-0.144
		1230.97		-4.807E-01	4.166E-01	5.895E-01	4.798E-02	-0.815
RE-183		57.98		1.041E-01	1.405E-01	2.316E-01	1.663E-02	0.449
		59.32		-8.957E-03	8.532E-02	1.244E-01	8.852E-03	-0.072
		67.20		-1.943E-01	1.715E-01	2.330E-01	1.755E-02	-0.834
		162.32	*	3.204E-02	9.490E-02	1.610E-01	1.544E-02	0.199

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		3.269E+00	1.594E+00	1.729E+00	2.027E-01	1.891
		291.72		-4.299E-02	9.233E-01	1.318E+00	1.999E-01	-0.033
RE-184		57.98		3.838E-01	5.181E-01	8.540E-01	6.130E-02	0.449
		59.32		-3.299E-02	3.143E-01	4.582E-01	3.261E-02	-0.072
		67.20		-7.163E-01	6.321E-01	8.586E-01	6.470E-02	-0.834
		161.27		-1.324E-01	3.106E-01	5.091E-01	4.861E-02	-0.260
		216.55		-8.065E-02	2.293E-01	3.692E-01	4.474E-02	-0.218
		252.85	*	-3.861E-02	2.091E-01	3.360E-01	4.715E-02	-0.115
		318.01		7.356E-02	4.349E-01	7.034E-01	1.006E-01	0.105
		792.07		3.113E-01	9.814E-01	1.435E+00	1.407E-01	0.217
		903.28		-2.919E-01	8.909E-01	1.353E+00	1.329E-01	-0.216
		920.93		-1.786E-01	3.590E-01	5.650E-01	5.518E-02	-0.316
OS-185		59.72		-7.161E-02	2.330E-01	3.354E-01	2.388E-02	-0.214
		61.14		-3.942E-02	1.269E-01	1.825E-01	1.313E-02	-0.216
		69.30		-1.581E-01	2.550E-01	3.580E-01	2.748E-02	-0.442
		592.07		1.141E+00	2.173E+00	3.732E+00	3.807E-01	0.306
		646.12	*	3.312E-02	3.835E-02	6.726E-02	6.492E-03	0.492
		717.42		-7.872E-01	8.261E-01	1.198E+00	1.156E-01	-0.657
		874.81		-2.023E-01	5.760E-01	9.365E-01	9.228E-02	-0.216
		880.27		-1.700E-01	7.646E-01	1.235E+00	1.217E-01	-0.138
RE-188		155.03	*	1.220E-01	1.529E-01	2.643E-01	2.465E-02	0.462
		477.96		3.689E-01	2.583E+00	4.361E+00	4.700E-01	0.085
		633.10		-1.131E-01	2.353E+00	3.823E+00	3.747E-01	-0.030
W-188	+	63.58		3.472E+01	6.131E+01	6.845E+01	5.011E+00	0.507
		227.08		-2.396E-01	1.156E+01	1.892E+01	2.395E+00	-0.013
		290.67	*	-4.960E+00	7.522E+00	1.010E+01	1.534E+00	-0.491
IR-192	+	295.96		1.360E+00	2.910E-01	3.125E-01	4.711E-02	4.352
		308.46		3.596E-03	8.692E-02	1.398E-01	2.051E-02	0.026
		316.51	*	-6.569E-03	3.248E-02	5.122E-02	7.363E-03	-0.128
		468.07		-7.492E-03	5.813E-02	8.899E-02	1.005E-02	-0.084
		604.41		-3.087E-01	4.802E-01	6.345E-01	8.906E-02	-0.487
		612.46		6.964E-01	7.217E-01	1.141E+00	1.271E-01	0.610
AU-195		65.12		-3.670E-02	1.352E-01	1.942E-01	1.439E-02	-0.189
		66.83		-2.157E-03	7.564E-02	1.098E-01	8.249E-03	-0.020
	+	75.70		1.325E+00	2.198E-01	3.690E-01	3.019E-02	3.592
		98.88	*	1.036E-01	1.781E-01	3.002E-01	2.648E-02	0.345
	+	129.76		6.350E+00	4.375E+00	4.537E+00	3.899E-01	1.400
TL-200		367.94	*	2.657E-05	4.375E+00	Half-Life too short		
		579.30		8.320E-04	4.375E+00	Half-Life too short		
		828.27		-4.289E-03	4.375E+00	Half-Life too short		
		1205.75		3.832E-04	4.375E+00	Half-Life too short		
TL-201		68.90		-2.787E-01	3.580E+00	5.636E+00	4.310E-01	-0.049
		70.82		-2.824E-01	2.265E+00	3.268E+00	2.544E-01	-0.086
		80.30		-1.303E+00	4.160E+00	5.887E+00	5.075E-01	-0.221
		135.34		1.718E+00	2.112E+01	3.580E+01	3.125E+00	0.048
		167.43	*	-4.681E-01	5.848E+00	9.725E+00	9.514E-01	-0.048
TL-202		68.90		-2.547E-02	3.271E-01	5.150E-01	3.938E-02	-0.049
		70.82		-2.573E-02	2.064E-01	2.978E-01	2.318E-02	-0.086
		80.30		-1.188E-01	3.792E-01	5.366E-01	4.626E-02	-0.221

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	1.098E-02	5.777E-02	9.839E-02	1.061E-02	0.112
HG-203		70.83		-1.135E-01	8.979E-01	1.295E+00	1.696E-01	-0.088
		72.87		6.741E-01	5.099E-01	8.248E-01	1.053E-01	0.817
	+	82.60		1.279E+00	7.057E-01	1.377E+00	1.913E-01	0.929
		279.20	*	-4.259E-03	4.189E-02	5.978E-02	9.338E-03	-0.071
BI-207		72.80		1.820E-01	1.479E-01	2.406E-01	1.910E-02	0.756
	+	74.97		7.355E-01	1.219E-01	1.969E-01	1.598E-02	3.736
	+	84.90		2.228E-01	1.206E-01	2.470E-01	2.252E-02	0.902
		569.67		-1.661E-02	3.077E-02	4.788E-02	4.969E-03	-0.347
		1063.62	*	7.250E-04	4.441E-02	7.353E-02	6.606E-03	0.010
		1770.23		1.749E-01	4.386E-01	6.983E-01	5.747E-02	0.250
TL-207		81.07		1.530E-02	2.093E-01	2.651E-01	2.306E-02	0.058
	+	83.78		1.469E-01	7.952E-02	1.686E-01	1.516E-02	0.871
		94.90		2.448E-01	1.957E-01	2.997E-01	2.699E-02	0.817
		122.32		2.128E-02	1.382E+00	2.349E+00	2.136E-01	0.009
		144.24		-1.061E-01	5.833E-01	9.571E-01	9.536E-02	-0.111
		154.21		4.670E-01	3.552E-01	6.230E-01	6.292E-02	0.750
	+	269.46		6.003E-01	3.357E-01	3.541E-01	5.328E-02	1.695
		323.87	*	-2.014E-01	7.018E-01	9.688E-01	2.027E-01	-0.208
	+	338.28		7.573E+00	2.210E+00	2.632E+00	4.238E-01	2.877
		445.03		-1.795E-01	1.860E+00	3.097E+00	4.250E-01	-0.058
PO-209		260.50		-2.502E+00	8.859E+00	1.412E+01	2.040E+00	-0.177
		262.80		-3.838E+00	2.427E+01	3.897E+01	5.679E+00	-0.098
		896.60	*	4.342E+00	6.127E+00	1.100E+01	1.083E+00	0.395
BI-210		46.50	*	1.510E+00	2.258E+00	3.787E+00	3.525E-01	0.399
PB-210		46.50	*	1.510E+00	2.258E+00	3.787E+00	3.525E-01	0.399
PO-210		46.50	*	1.510E+00	2.257E+00	3.787E+00	3.192E-01	0.399
PB-211		404.84	*	-3.678E-01	9.949E-01	1.393E+00	8.773E-01	-0.264
		427.08		-7.380E-01	1.978E+00	3.153E+00	1.970E+00	-0.234
		831.96		8.726E-01	1.332E+00	1.870E+00	1.175E+00	0.467
BI-212	+	727.18	*	1.183E+00	4.664E-01	6.839E-01	7.474E-02	1.730
		785.46		1.256E+00	1.665E+00	2.857E+00	2.798E-01	0.440
		1620.62		8.704E-01	1.204E+00	2.216E+00	1.861E-01	0.393
PO-215		81.07		1.530E-02	2.093E-01	2.651E-01	2.306E-02	0.058
	+	83.78		1.469E-01	7.952E-02	1.686E-01	1.516E-02	0.871
		94.90		2.448E-01	1.957E-01	2.997E-01	2.699E-02	0.817
		122.32		2.128E-02	1.382E+00	2.349E+00	2.136E-01	0.009
		144.24		-1.061E-01	5.833E-01	9.571E-01	9.536E-02	-0.111
		154.21		4.670E-01	3.552E-01	6.230E-01	6.292E-02	0.750
	+	269.46		6.003E-01	3.357E-01	3.541E-01	5.328E-02	1.695
		323.87	*	-2.014E-01	7.018E-01	9.688E-01	2.027E-01	-0.208
	+	338.28		7.573E+00	2.210E+00	2.632E+00	4.238E-01	2.877
		445.03		-1.795E-01	1.860E+00	3.097E+00	4.250E-01	-0.058
RN-219	+	271.23		7.702E-01	4.327E-01	4.357E-01	7.000E-02	1.768
		401.81	*	4.287E-01	3.657E-01	6.533E-01	1.065E-01	0.656
RN-220		549.76	*	-2.177E+01	2.400E+01	3.634E+01	3.819E+00	-0.599
RA-223		81.07		1.530E-02	2.093E-01	2.651E-01	2.306E-02	0.058
	+	83.78		1.469E-01	7.952E-02	1.686E-01	1.516E-02	0.871
		94.90		2.448E-01	1.957E-01	2.997E-01	2.699E-02	0.817

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		2.128E-02	1.382E+00	2.349E+00	2.136E-01	0.009
		144.24		-1.061E-01	5.833E-01	9.571E-01	9.536E-02	-0.111
		154.21		4.670E-01	3.552E-01	6.230E-01	6.292E-02	0.750
	+	269.46		6.003E-01	3.357E-01	3.541E-01	5.328E-02	1.695
		323.87	*	-2.014E-01	7.018E-01	9.688E-01	2.027E-01	-0.208
	+	338.28		7.573E+00	2.210E+00	2.632E+00	4.238E-01	2.877
		445.03		-1.795E-01	1.860E+00	3.097E+00	4.250E-01	-0.058
AC-227		79.80		-6.168E-01	1.398E+00	1.957E+00	4.204E-01	-0.315
		236.00		4.647E-02	2.306E-01	3.409E-01	5.368E-02	0.136
		256.20	*	-7.852E-02	3.398E-01	5.437E-01	1.036E-01	-0.144
		286.10		4.025E-01	1.388E+00	2.276E+00	4.163E-01	0.177
	+	299.80		3.572E+00	1.987E+00	2.489E+00	5.305E-01	1.435
		304.40		-7.354E-02	1.832E+00	2.607E+00	5.736E-01	-0.028
		334.20		-1.681E+00	2.602E+00	3.437E+00	7.602E-01	-0.489
TH-227		79.80		-6.168E-01	1.399E+00	1.957E+00	4.257E-01	-0.315
	+	94.00		8.890E+00	3.280E+00	2.967E+00	6.514E-01	2.996
		236.00		4.647E-02	2.305E-01	3.409E-01	5.065E-02	0.136
		256.20	*	-7.852E-02	3.399E-01	5.437E-01	1.158E-01	-0.144
		286.10		4.025E-01	1.444E+00	2.276E+00	2.303E+00	0.177
	+	299.80		3.572E+00	1.987E+00	2.489E+00	5.305E-01	1.435
		304.40		-7.354E-02	1.832E+00	2.607E+00	5.736E-01	-0.028
		334.20		-1.681E+00	2.602E+00	3.437E+00	7.602E-01	-0.489
TH-229	+	85.43		2.199E-01	1.190E-01	2.369E-01	2.175E-02	0.928
	+	88.47		3.749E-01	1.249E-01	1.693E-01	1.599E-02	2.214
		100.00		5.823E-02	1.445E-01	2.516E-01	2.209E-02	0.231
		193.63	*	3.883E-01	4.561E-01	7.817E-01	8.584E-02	0.497
		210.97		8.815E-01	7.354E-01	1.157E+00	1.370E-01	0.762
PA-231		283.67	*	-1.089E+00	1.454E+00	2.206E+00	4.371E-01	-0.494
	+	301.29		1.429E+00	7.747E-01	9.535E-01	1.643E-01	1.498
TH-231		81.07		1.530E-02	2.093E-01	2.651E-01	2.306E-02	0.058
	+	83.78		1.469E-01	7.952E-02	1.686E-01	1.516E-02	0.871
		94.90		2.448E-01	1.957E-01	2.997E-01	2.699E-02	0.817
		122.32		2.128E-02	1.382E+00	2.349E+00	2.136E-01	0.009
		144.24		-1.061E-01	5.833E-01	9.571E-01	9.536E-02	-0.111
		154.21		4.670E-01	3.552E-01	6.230E-01	6.292E-02	0.750
	+	269.46		6.003E-01	3.357E-01	3.541E-01	5.328E-02	1.695
		323.87	*	-2.014E-01	7.018E-01	9.688E-01	2.027E-01	-0.208
	+	338.28		7.573E+00	2.210E+00	2.632E+00	4.238E-01	2.877
		445.03		-1.795E-01	1.860E+00	3.097E+00	4.250E-01	-0.058
U-231	+	84.21		6.229E+00	3.372E+00	7.155E+00	6.468E-01	0.871
	+	92.29		8.646E+00	2.681E+00	3.319E+00	3.041E-01	2.605
		95.87	*	1.032E-01	8.990E-01	1.292E+00	1.157E-01	0.080
		108.00		-1.664E+00	1.624E+00	2.648E+00	2.267E-01	-0.629
PA-233	+	75.28		2.146E+01	4.482E+00	5.800E+00	8.750E-01	3.700
	+	86.59		5.376E+00	2.252E+00	2.625E+00	7.101E-01	2.048
	+	300.12		9.958E-01	5.464E-01	6.964E-01	1.338E-01	1.430
		311.98	*	-1.763E-02	5.571E-02	8.702E-02	1.277E-02	-0.203
		340.50		1.416E+00	7.194E-01	1.047E+00	2.716E-01	1.353
		398.62		-1.974E+00	1.917E+00	2.882E+00	7.887E-01	-0.685

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		415.76		1.604E-02	1.581E+00	2.354E+00	5.294E-01	0.007
PA-234	+	63.00		1.008E+00	1.784E+00	2.018E+00	2.986E-01	0.500
		94.67		2.638E-01	1.462E-01	2.261E-01	2.867E-02	1.167
		98.44		3.058E-02	7.861E-02	1.215E-01	6.781E-02	0.252
		99.86		1.426E-01	3.654E-01	6.362E-01	5.589E-02	0.224
		111.00		-7.743E-03	1.472E-01	2.506E-01	3.011E-02	-0.031
		131.20		-2.266E-03	9.203E-02	1.399E-01	1.207E-02	-0.016
		152.70		-1.690E-03	2.846E-01	4.775E-01	8.295E-02	-0.004
	+	186.00		5.592E+00	2.546E+00	2.591E+00	8.245E-01	2.158
		226.40		-2.670E-01	3.690E-01	5.768E-01	9.290E-02	-0.463
		227.20		-5.059E-02	3.943E-01	6.412E-01	8.122E-02	-0.079
		248.90		-9.088E-02	7.281E-01	1.176E+00	2.925E-01	-0.077
		293.70		5.085E+00	1.381E+00	1.639E+00	3.489E-01	3.102
		369.80		-1.349E-01	8.444E-01	1.318E+00	3.070E-01	-0.102
		568.70		-3.375E-01	9.559E-01	1.509E+00	1.567E-01	-0.224
		569.50		-1.721E-01	2.713E-01	4.183E-01	4.341E-02	-0.411
		574.00		-4.987E-02	1.463E+00	2.401E+00	2.484E-01	-0.021
		699.00		2.983E-01	6.746E-01	1.131E+00	2.210E-01	0.264
		706.10		-3.571E-01	9.981E-01	1.540E+00	6.899E-01	-0.232
		733.00		3.537E-01	4.073E-01	6.240E-01	1.412E-01	0.567
		742.81		-1.303E-01	1.319E+00	2.100E+00	1.415E+00	-0.062
	+	796.30		2.883E+00	1.463E+00	1.852E+00	5.084E-01	1.557
		805.60		2.429E-01	1.021E+00	1.667E+00	5.169E-01	0.146
		819.60		-6.998E-01	1.220E+00	1.777E+00	6.809E-01	-0.394
		826.30		-3.889E-02	7.974E-01	1.266E+00	5.695E-01	-0.031
		831.60		3.513E-01	6.282E-01	9.361E-01	2.829E-01	0.375
		876.40		4.144E-01	9.091E-01	1.411E+00	1.452E+00	0.294
		880.51		-9.364E-02	2.736E-01	4.363E-01	4.299E-02	-0.215
		883.24		2.373E-01	3.067E-01	4.762E-01	3.209E-01	0.498
		899.00		2.582E-01	7.012E-01	1.205E+00	5.299E-01	0.214
		925.00		-5.460E-02	9.499E-01	1.578E+00	1.539E-01	-0.035
		926.50		-1.760E-02	1.439E-01	2.373E-01	6.094E-02	-0.074
		946.00	*	9.091E-02	2.766E-01	4.756E-01	9.164E-02	0.191
		949.00		-1.353E-01	4.081E-01	6.580E-01	6.351E-02	-0.206
		980.50		6.923E-02	6.183E-01	1.016E+00	9.651E-02	0.068
		1394.10		-5.884E-02	9.893E-01	1.578E+00	1.026E+00	-0.037
PA-234M		766.42		1.254E+01	1.374E+01	2.113E+01	1.077E+01	0.593
		1001.03	*	1.580E+00	4.422E+00	7.546E+00	8.028E-01	0.209
U-235	+	89.95		3.339E+00	1.239E+00	1.623E+00	5.042E-01	2.057
	+	93.35		2.766E+00	1.131E+00	1.063E+00	2.996E-01	2.601
		105.00		1.245E+00	9.157E-01	1.516E+00	4.525E-01	0.821
		143.76	*	-7.895E-02	1.807E-01	2.924E-01	5.169E-02	-0.270
		163.35		1.244E-01	4.025E-01	6.811E-01	1.332E-01	0.183
	+	185.71		2.071E-01	7.095E-02	9.549E-02	1.013E-02	2.169
		205.31		-1.354E-01	5.110E-01	7.393E-01	1.521E-01	-0.183
NP-236		94.67		2.016E-01	1.096E-01	1.717E-01	1.549E-02	1.174
		98.44		2.307E-02	5.804E-02	9.182E-02	8.118E-03	0.251
		111.00		-5.857E-03	1.113E-01	1.896E-01	1.614E-02	-0.031
		160.31	*	8.903E-03	6.960E-02	1.171E-01	1.114E-02	0.076

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		4.401E-02	1.217E-01	2.117E-01	1.862E-02	0.208
		117.00	*	2.865E-02	1.579E-01	2.708E-01	2.291E-02	0.106
	+	209.75		2.581E+00	1.259E+00	1.377E+00	1.621E-01	1.875
		228.18		2.840E-02	2.122E-01	3.498E-01	4.449E-02	0.081
	+	277.60		2.309E-01	1.796E-01	2.927E-01	4.506E-02	0.789
		334.30		-9.450E-01	1.466E+00	1.949E+00	2.662E-01	-0.485
AM-241		59.54	*	-3.314E-02	1.220E-01	1.760E-01	1.383E-02	-0.188
CM-243		99.55		4.529E-02	1.252E-01	2.178E-01	1.916E-02	0.208
		103.76	*	-4.472E-02	7.627E-02	1.273E-01	1.102E-02	-0.351
		117.00		2.948E-02	1.625E-01	2.786E-01	2.358E-02	0.106
	+	209.75		2.545E+00	1.241E+00	1.357E+00	1.598E-01	1.875
		228.18		2.869E-02	2.144E-01	3.535E-01	4.496E-02	0.081
	+	277.60		2.327E-01	1.810E-01	2.951E-01	4.543E-02	0.789
AM-246		798.80		-9.086E-02	1.552E-01	1.978E-01	1.941E-02	-0.459
		1036.00		-1.856E-01	2.589E-01	3.921E-01	3.597E-02	-0.473
		1062.04		-7.888E-02	1.948E-01	3.066E-01	2.758E-02	-0.257
		1078.86	*	3.022E-02	1.278E-01	2.163E-01	1.918E-02	0.140
CM-247	+	278.00		9.574E-01	7.447E-01	1.212E+00	1.868E-01	0.790
		287.40		9.173E-01	1.126E+00	1.895E+00	2.895E-01	0.484
		402.60	*	3.550E-02	3.296E-02	5.913E-02	6.328E-03	0.600
CF-249		252.85		-1.449E-01	7.848E-01	1.261E+00	1.770E-01	-0.115
		333.44		2.008E-03	1.833E-01	2.601E-01	3.562E-02	0.008
		387.95	*	2.850E-02	3.340E-02	5.955E-02	6.485E-03	0.478
CF-251		176.60	*	3.563E-02	1.098E-01	1.853E-01	1.888E-02	0.192
		227.00		-1.619E-02	3.468E-01	5.666E-01	7.171E-02	-0.029
		285.00		-1.058E+00	1.638E+00	2.517E+00	3.862E-01	-0.420

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994005      *
* Acquisition date : 12-FEB-2010 12:35:05 Detector SN#    :                 *
* Detector ID        : GAM11                Sensitivity     : 5.000         *
* Geometry           : CAN                  Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.66      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245994005           Analyst initials: MXR1          *
* Batch Number       : 948812               Sample Quantity : 1.2122E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.886E+01	2.137E+00	4.308E-01	0.000E+00
MN-54	7.520E-02	4.194E-02	5.716E-02	0.000E+00
CD-109	2.793E+00	9.123E-01	1.203E+00	0.000E+00
SN-126	2.746E-01	8.968E-02	1.186E-01	0.000E+00
TL-208	5.514E-01	1.041E-01	5.619E-02	0.000E+00
BI-211	4.526E+00	7.412E-01	2.920E-01	0.000E+00
PB-212	1.874E+00	2.810E-01	8.460E-02	0.000E+00
PO-212	1.874E+00	2.810E-01	8.460E-02	0.000E+00
BI-214	1.349E+00	2.232E-01	1.044E-01	0.000E+00
PB-214	1.575E+00	2.701E-01	1.057E-01	0.000E+00
PO-214	1.575E+00	2.701E-01	1.057E-01	0.000E+00
PO-216	1.874E+00	2.810E-01	8.460E-02	0.000E+00
PO-218	1.575E+00	2.701E-01	1.057E-01	0.000E+00
RA-224	5.497E+00	1.530E+00	9.630E-01	0.000E+00
RA-226	1.349E+00	2.232E-01	1.044E-01	0.000E+00
AC-228	1.796E+00	3.832E-01	1.797E-01	0.000E+00
RA-228	1.796E+00	3.832E-01	1.797E-01	0.000E+00
TH-228	1.902E+00	2.852E-01	8.587E-02	0.000E+00
TH-230	1.349E+00	2.232E-01	1.044E-01	0.000E+00
TH-232	1.796E+00	3.832E-01	1.797E-01	0.000E+00
TH-234	8.646E-01	1.502E+00	1.519E+00	0.000E+00
U-234	1.349E+00	2.232E-01	1.044E-01	0.000E+00
NP-237	8.064E-01	3.098E-01	3.511E-01	0.000E+00
U-238	8.646E-01	1.502E+00	1.519E+00	0.000E+00
AM-243	4.097E-01	6.657E-02	7.130E-02	0.000E+00
ANH-511	1.740E-01	7.716E-02	4.041E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	9.447E-02	2.636E-01	4.668E-01	0.000E+00	NOT IDENT.

NA-22	-6.549E-03	4.018E-02	6.539E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.710E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	6.965E-03	2.587E-02	4.574E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.314E-02	6.037E-02	0.000E+00	FAIL ABUN
SC-46	-9.893E-03	3.312E-02	5.518E-02	0.000E+00	FAIL ABUN
V-48	-7.636E-02	5.924E-02	8.495E-02	0.000E+00	NOT IDENT.
CR-51	1.652E-01	3.535E-01	6.032E-01	0.000E+00	NOT IDENT.
MN-52	1.229E-01	2.206E-01	3.906E-01	0.000E+00	NOT IDENT.
CO-56	-3.019E-02	3.318E-02	5.189E-02	0.000E+00	FAIL ABUN
CO-57	3.371E-04	1.953E-02	3.486E-02	0.000E+00	NOT IDENT.
CO-58	-9.895E-03	3.889E-02	6.215E-02	0.000E+00	NOT IDENT.
FE-59	5.268E-02	7.051E-02	1.287E-01	0.000E+00	NOT IDENT.
CO-60	1.983E-02	3.980E-02	6.951E-02	0.000E+00	NOT IDENT.
ZN-65	1.783E-02	9.343E-02	1.397E-01	0.000E+00	NOT IDENT.
GE-68	7.031E-01	1.080E+00	1.943E+00	0.000E+00	NOT IDENT.
AS-73	-1.656E-01	5.547E-01	9.261E-01	0.000E+00	NOT IDENT.
AS-74	-1.383E-02	8.122E-02	1.352E-01	0.000E+00	NOT IDENT.
SE-75	-1.838E-02	4.109E-02	6.376E-02	0.000E+00	NOT IDENT.
BR-77	3.540E+00	8.498E+00	1.502E+01	0.000E+00	FAIL ABUN
SR-82	-2.715E-01	3.312E-01	4.943E-01	0.000E+00	NOT IDENT.
RB-83	6.146E-03	5.936E-02	9.910E-02	0.000E+00	NOT IDENT.
RB-84	-4.445E-02	6.685E-02	1.079E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.105E+00	1.361E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.640E-02	6.971E-02	0.000E+00	NOT IDENT.
RB-86	4.123E-01	6.702E-01	1.203E+00	0.000E+00	NOT IDENT.
Y-88	1.022E-02	3.584E-02	6.280E-02	0.000E+00	NOT IDENT.
ZR-88	1.172E-02	2.548E-02	4.594E-02	0.000E+00	NOT IDENT.
Y-91	1.244E+01	1.553E+01	2.803E+01	0.000E+00	NOT IDENT.
NB-94	-5.593E-04	3.236E-02	5.375E-02	0.000E+00	NOT IDENT.
NB-95	2.402E-02	4.328E-02	7.452E-02	0.000E+00	NOT IDENT.
NB-95M	-5.460E-02	1.250E-01	1.841E-01	0.000E+00	NOT IDENT.
ZR-95	8.034E-02	6.801E-02	1.235E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.168E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.621E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.044E+00	1.062E+01	1.774E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.492E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.425E-02	3.035E-02	5.220E-02	0.000E+00	NOT IDENT.
RH-102	-1.288E-02	2.306E-02	3.781E-02	0.000E+00	NOT IDENT.
RU-103	1.472E-03	3.537E-02	6.095E-02	0.000E+00	FAIL ABUN
RH-106	1.426E-01	3.066E-01	5.344E-01	0.000E+00	FAIL ABUN
RU-106	1.426E-01	3.063E-01	5.344E-01	0.000E+00	FAIL ABUN
AG-108M	2.841E-03	2.716E-02	4.756E-02	0.000E+00	NOT IDENT.
AG-110M	3.773E-02	3.167E-02	5.809E-02	0.000E+00	NOT IDENT.
IN-111	8.294E-01	9.477E-01	1.525E+00	0.000E+00	NOT IDENT.
IN-113M	-4.319E-02	3.777E-02	6.054E-02	0.000E+00	NOT IDENT.
SN-113	-4.319E-02	3.777E-02	6.054E-02	0.000E+00	NOT IDENT.
IN-114M	-6.878E-02	1.759E-01	2.654E-01	0.000E+00	NOT IDENT.
CD-115	1.313E+00	8.616E+00	1.491E+01	0.000E+00	NOT IDENT.
SN-117M	7.422E-03	4.715E-02	8.318E-02	0.000E+00	NOT IDENT.
SB-122	2.022E+00	1.893E+00	3.451E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.359E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.475E-03	2.420E-02	4.273E-02	0.000E+00	NOT IDENT.
I-124	-3.039E-01	6.057E-01	9.405E-01	0.000E+00	FAIL ABUN
SB-124	-5.554E-03	6.793E-02	1.127E-01	0.000E+00	FAIL ABUN
SB-125	-4.683E-02	8.173E-02	1.363E-01	0.000E+00	FAIL ABUN
TE-125M	5.675E+00	7.114E+00	1.314E+01	0.000E+00	NOT IDENT.
I-126	5.215E-02	1.908E-01	3.205E-01	0.000E+00	NOT IDENT.
SB-126	1.067E-02	1.304E-01	2.107E-01	0.000E+00	FAIL ABUN
SB-127	1.368E-02	1.198E+00	2.000E+00	0.000E+00	NOT IDENT.
XE-127	-1.610E-02	4.080E-02	6.882E-02	0.000E+00	NOT IDENT.
I-131	4.785E-02	1.047E-01	1.775E-01	0.000E+00	NOT IDENT.
TE-132	2.291E-01	6.170E-01	1.070E+00	0.000E+00	NOT IDENT.
BA-133	1.412E-02	4.465E-02	6.712E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.946E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.370E-02	9.816E-02	0.000E+00	FAIL ABUN
CS-135	2.200E-01	1.613E-01	2.615E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.667E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.807E-02	9.318E-02	1.676E-01	0.000E+00	FAIL ABUN
BA-137M	-6.276E-03	3.501E-02	5.770E-02	0.000E+00	NOT IDENT.
CS-137	-6.634E-03	3.701E-02	6.100E-02	0.000E+00	NOT IDENT.
CE-139	-1.215E-02	2.415E-02	4.112E-02	0.000E+00	NOT IDENT.
BA-140	3.533E-02	2.279E-01	3.931E-01	0.000E+00	NOT IDENT.
LA-140	-9.971E-02	7.172E-02	8.905E-02	0.000E+00	FAIL ABUN
CE-141	1.102E-03	5.067E-02	8.941E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.783E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	3.252E-02	1.871E-01	3.012E-01	0.000E+00	NOT IDENT.
PM-144	-2.516E-02	3.197E-02	4.923E-02	0.000E+00	NOT IDENT.
PR-144	-1.705E+00	2.166E+00	3.336E+00	0.000E+00	NOT IDENT.

PM-146	4.128E-02	3.760E-02	6.952E-02	0.000E+00	NOT IDENT.
ND-147	1.003E-01	4.829E-01	8.382E-01	0.000E+00	FAIL ABUN
PM-149	1.332E+01	7.914E+01	1.339E+02	0.000E+00	NOT IDENT.
EU-152	-1.220E-01	9.402E-02	1.283E-01	0.000E+00	FAIL ABUN
GD-153	-4.468E-02	6.927E-02	9.916E-02	0.000E+00	FAIL ABUN
EU-154	-2.059E-02	1.120E-01	1.818E-01	0.000E+00	NOT IDENT.
EU-155	1.109E-01	8.436E-02	1.586E-01	0.000E+00	FAIL ABUN
TB-160	1.301E-02	1.340E-01	2.286E-01	0.000E+00	FAIL ABUN
HO-166M	3.609E-02	5.784E-02	1.012E-01	0.000E+00	NOT IDENT.
TM-171	3.705E-01	2.246E+01	3.457E+01	0.000E+00	NOT IDENT.
LU-176	1.802E-02	2.193E-02	3.829E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.723E+00	1.915E+00	0.000E+00	FAIL ABUN
LU-177M	-7.448E-02	1.589E-01	2.324E-01	0.000E+00	FAIL ABUN
HF-181	5.455E-03	3.556E-02	6.197E-02	0.000E+00	NOT IDENT.
W-181	-2.757E-01	2.969E-01	4.329E-01	0.000E+00	NOT IDENT.
TA-182	-4.067E-02	1.742E-01	2.833E-01	0.000E+00	FAIL ABUN
RE-183	3.204E-02	9.300E-02	1.651E-01	0.000E+00	FAIL ABUN
RE-184	-3.861E-02	2.049E-01	3.427E-01	0.000E+00	NOT IDENT.
OS-185	3.312E-02	3.759E-02	6.781E-02	0.000E+00	NOT IDENT.
RE-188	1.220E-01	1.499E-01	2.711E-01	0.000E+00	NOT IDENT.
W-188	-4.960E+00	7.372E+00	1.028E+01	0.000E+00	FAIL ABUN
IR-192	-6.569E-03	3.183E-02	5.209E-02	0.000E+00	FAIL ABUN
AU-195	1.036E-01	1.746E-01	3.096E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.180E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.681E-01	5.731E+00	9.967E+00	0.000E+00	NOT IDENT.
TL-202	1.098E-02	5.661E-02	9.967E-02	0.000E+00	NOT IDENT.
HG-203	-4.259E-03	4.105E-02	6.090E-02	0.000E+00	FAIL ABUN
BI-207	7.250E-04	4.352E-02	7.368E-02	0.000E+00	FAIL ABUN
TL-207	-2.014E-01	6.877E-01	9.851E-01	0.000E+00	FAIL ABUN
PO-209	4.342E+00	6.005E+00	1.104E+01	0.000E+00	NOT IDENT.
BI-210	1.510E+00	2.213E+00	3.940E+00	0.000E+00	NOT IDENT.
PB-210	1.510E+00	2.213E+00	3.940E+00	0.000E+00	NOT IDENT.
PO-210	1.510E+00	2.212E+00	3.940E+00	0.000E+00	NOT IDENT.
PB-211	-3.678E-01	9.750E-01	1.412E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.570E-01	6.885E-01	0.000E+00	FAIL ABUN
PO-215	-2.014E-01	6.877E-01	9.851E-01	0.000E+00	FAIL ABUN
RN-219	4.287E-01	3.584E-01	6.625E-01	0.000E+00	FAIL ABUN
RN-220	-2.177E+01	2.352E+01	3.672E+01	0.000E+00	NOT IDENT.
RA-223	-2.014E-01	6.877E-01	9.851E-01	0.000E+00	FAIL ABUN
AC-227	-7.852E-02	3.330E-01	5.544E-01	0.000E+00	FAIL ABUN
TH-227	-7.852E-02	3.331E-01	5.544E-01	0.000E+00	FAIL ABUN
TH-229	3.883E-01	4.470E-01	7.998E-01	0.000E+00	FAIL ABUN
PA-231	-1.089E+00	1.425E+00	2.247E+00	0.000E+00	FAIL ABUN
TH-231	-2.014E-01	6.877E-01	9.851E-01	0.000E+00	FAIL ABUN
U-231	1.032E-01	8.810E-01	1.333E+00	0.000E+00	FAIL ABUN
PA-233	-1.763E-02	5.459E-02	8.852E-02	0.000E+00	FAIL ABUN
PA-234	9.091E-02	2.711E-01	4.773E-01	0.000E+00	FAIL ABUN
PA-234M	1.580E+00	4.334E+00	7.567E+00	0.000E+00	NOT IDENT.
U-235	-7.895E-02	1.771E-01	3.002E-01	0.000E+00	FAIL ABUN
NP-236	8.903E-03	6.820E-02	1.201E-01	0.000E+00	NOT IDENT.
NP-239	2.865E-02	1.548E-01	2.788E-01	0.000E+00	FAIL ABUN
AM-241	-3.314E-02	1.195E-01	1.826E-01	0.000E+00	NOT IDENT.
CM-243	-4.472E-02	7.475E-02	1.312E-01	0.000E+00	FAIL ABUN
AM-246	3.022E-02	1.253E-01	2.167E-01	0.000E+00	NOT IDENT.
CM-247	3.550E-02	3.230E-02	5.996E-02	0.000E+00	FAIL ABUN
CF-249	2.850E-02	3.273E-02	6.042E-02	0.000E+00	NOT IDENT.
CF-251	3.563E-02	1.076E-01	1.898E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:36:08.14

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994005.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:35:05
Sample ID         : G245994005           Sample quantity  : 1.21220E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.66  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	796	10.67*	1.225E+00	1.886E+01	1.886E+01	11.56
MN-54	834.83	46	99.97*	1.976E+00	7.273E-02	7.520E-02	56.91
CD-109	88.03	223	3.72*	6.792E+00	2.731E+00	2.793E+00	33.33
SN-126	64.28	45	9.60	4.268E+00	3.422E-01	3.422E-01	177.03
	86.94	223	8.90	6.792E+00	1.142E+00	1.142E+00	52.41
	87.57	223	37.00*	6.792E+00	2.746E-01	2.746E-01	33.33
TL-208	277.35	49	6.80	4.677E+00	4.787E-01	4.787E-01	78.29
	510.84	166	21.60	2.951E+00	8.057E-01	8.057E-01	46.01
	583.14	399	84.20*	2.661E+00	5.514E-01	5.514E-01	19.26
	860.37	60	12.46	1.926E+00	7.690E-01	7.690E-01	53.36
BI-211	72.87	------	1.27	5.576E+00	------ Line Not Found		------
	351.07	742	12.94*	3.922E+00	4.526E+00	4.526E+00	16.71
PB-212	74.81	506	10.70	5.789E+00	2.527E+00	2.527E+00	19.03
	77.11	786	18.00	6.019E+00	2.247E+00	2.247E+00	13.08
	87.30	223	8.00	6.792E+00	1.270E+00	1.270E+00	34.79
	238.63	1406	44.60*	5.210E+00	1.874E+00	1.874E+00	15.30
	300.09	94	3.41	4.412E+00	1.927E+00	1.927E+00	53.84
PO-212	74.81	506	10.70	5.789E+00	2.527E+00	2.527E+00	19.03
	77.11	786	18.00	6.019E+00	2.247E+00	2.247E+00	13.08
	87.30	223	8.00	6.792E+00	1.270E+00	1.270E+00	34.79
	115.19	------	0.60	7.407E+00	------ Line Not Found		------
	238.63	1406	44.60*	5.210E+00	1.874E+00	1.874E+00	15.30
	300.09	94	3.41	4.412E+00	1.927E+00	1.927E+00	53.84
BI-214	609.31	518	46.30*	2.569E+00	1.349E+00	1.349E+00	16.89
	1120.29	123	15.10	1.531E+00	1.654E+00	1.654E+00	31.36
	1764.49	98	15.80	1.071E+00	1.785E+00	1.785E+00	25.44
PB-214	74.81	506	6.21	5.789E+00	4.355E+00	4.355E+00	18.16
	77.11	786	10.50	6.019E+00	3.851E+00	3.851E+00	15.14
	87.30	223	4.67	6.792E+00	2.176E+00	2.176E+00	34.21
	241.98	362	7.49	5.165E+00	2.899E+00	2.899E+00	28.94
	295.21	494	19.20	4.467E+00	1.785E+00	1.785E+00	22.27
	351.92	742	37.20*	3.922E+00	1.575E+00	1.575E+00	17.50

Sample ID : G245994005 Acquisition date : 12-FEB-2010 12:35:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	74.81	506	6.21	5.789E+00	4.355E+00	4.355E+00	18.16
	77.11	786	10.50	6.019E+00	3.851E+00	3.851E+00	15.14
	87.30	223	4.67	6.792E+00	2.176E+00	2.176E+00	34.21
	241.98	362	7.49	5.165E+00	2.899E+00	2.899E+00	28.94
	295.21	494	19.20	4.467E+00	1.785E+00	1.785E+00	22.27
	351.92	742	37.20*	3.922E+00	1.575E+00	1.575E+00	17.50
PO-216	74.81	506	10.70	5.789E+00	2.527E+00	2.527E+00	19.03
	77.11	786	18.00	6.019E+00	2.247E+00	2.247E+00	13.08
	87.30	223	8.00	6.792E+00	1.270E+00	1.270E+00	34.79
	238.63	1406	44.60*	5.210E+00	1.874E+00	1.874E+00	15.30
	300.09	94	3.41	4.412E+00	1.927E+00	1.927E+00	53.84
PO-218	74.81	506	6.21	5.789E+00	4.355E+00	4.355E+00	18.16
	77.11	786	10.50	6.019E+00	3.851E+00	3.851E+00	15.14
	87.30	223	4.67	6.792E+00	2.176E+00	2.176E+00	34.21
	241.98	362	7.49	5.165E+00	2.899E+00	2.899E+00	28.94
	295.21	494	19.20	4.467E+00	1.785E+00	1.785E+00	22.27
	351.92	742	37.20*	3.922E+00	1.575E+00	1.575E+00	17.50
RA-224	240.98	362	3.95*	5.165E+00	5.497E+00	5.497E+00	28.39
RA-226	609.31	518	46.30*	2.569E+00	1.349E+00	1.349E+00	16.89
	1120.29	123	15.10	1.531E+00	1.654E+00	1.654E+00	31.36
	1764.49	98	15.80	1.071E+00	1.785E+00	1.785E+00	25.44
AC-228	338.32	270	11.40	4.037E+00	1.814E+00	1.814E+00	49.02
	911.07	295	27.70*	1.833E+00	1.796E+00	1.796E+00	21.77
	969.11	166	16.60	1.738E+00	1.786E+00	1.786E+00	32.24
RA-228	338.32	270	11.40	4.037E+00	1.814E+00	1.814E+00	49.02
	911.07	295	27.70*	1.833E+00	1.796E+00	1.796E+00	21.77
	969.11	166	16.60	1.738E+00	1.786E+00	1.786E+00	32.24
TH-228	74.81	506	10.70	5.789E+00	2.527E+00	2.565E+00	16.62
	77.11	786	18.00	6.019E+00	2.247E+00	2.280E+00	13.08
	87.30	223	8.00	6.792E+00	1.270E+00	1.289E+00	33.33
	238.63	1406	44.60*	5.210E+00	1.874E+00	1.902E+00	15.30
	300.09	94	3.41	4.412E+00	1.927E+00	1.956E+00	79.40
TH-230	609.31	518	46.30*	2.569E+00	1.349E+00	1.349E+00	16.89
	1120.29	123	15.10	1.531E+00	1.654E+00	1.654E+00	31.36
	1764.49	98	15.80	1.071E+00	1.785E+00	1.785E+00	25.44
TH-232	338.32	270	11.40	4.037E+00	1.814E+00	1.814E+00	27.83
	911.07	295	27.70*	1.833E+00	1.796E+00	1.796E+00	21.77
	969.11	166	16.60	1.738E+00	1.786E+00	1.786E+00	32.24
TH-234	63.29	45	3.80*	4.268E+00	8.646E-01	8.646E-01	177.29
	92.38	284	5.41	7.062E+00	2.300E+00	2.300E+00	34.84
U-234	609.31	518	46.30*	2.569E+00	1.349E+00	1.349E+00	16.89
	1120.29	123	15.10	1.531E+00	1.654E+00	1.654E+00	31.36
	1764.49	98	15.80	1.071E+00	1.785E+00	1.785E+00	25.44
NP-237	86.50	223	12.60*	6.792E+00	8.064E-01	8.064E-01	39.20
	95.87	------	2.60	7.169E+00	------ Line Not Found		------
U-238	63.29	45	3.80*	4.268E+00	8.646E-01	8.646E-01	177.29
	92.38	284	5.41	7.062E+00	2.300E+00	2.300E+00	31.01
AM-243	74.67	506	66.00*	5.789E+00	4.097E-01	4.097E-01	16.58
	86.72	223	0.34	6.792E+00	3.024E+01	3.024E+01	33.33

Sample ID : G245994005 Acquisition date : 12-FEB-2010 12:35:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	117.66	------	0.55	7.397E+00	------	Line Not Found	------
	142.18	------	0.13	7.065E+00	------	Line Not Found	------
ANH-511	511.00	166	100.00*	2.951E+00	1.740E-01	1.740E-01	45.24

Flag: "*" = Keyline

Sample ID : G245994005 Acquisition date : 12-FEB-2010 12:35:05

Total number of lines in spectrum 37
Number of unidentified lines 2
Number of lines tentatively identified by NID 35 94.59%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.886E+01	1.886E+01	0.218E+01	11.56	
MN-54	312.70D	1.03	7.273E-02	7.520E-02	4.280E-02	56.91	
CD-109	464.00D	1.02	2.731E+00	2.793E+00	0.931E+00	33.33	
SN-126	1.00E+05Y	1.00	2.746E-01	2.746E-01	0.915E-01	33.33	
TL-208	1.41E+10Y	1.00	5.514E-01	5.514E-01	1.062E-01	19.26	
BI-211	7.04E+08Y	1.00	4.526E+00	4.526E+00	0.756E+00	16.71	
PB-212	1.41E+10Y	1.00	1.874E+00	1.874E+00	0.287E+00	15.30	
PO-212	1.41E+10Y	1.00	1.874E+00	1.874E+00	0.287E+00	15.30	
BI-214	1600.00Y	1.00	1.349E+00	1.349E+00	0.228E+00	16.89	
PB-214	1600.00Y	1.00	1.575E+00	1.575E+00	0.276E+00	17.50	
PO-214	1600.00Y	1.00	1.575E+00	1.575E+00	0.276E+00	17.50	
PO-216	1.41E+10Y	1.00	1.874E+00	1.874E+00	0.287E+00	15.30	
PO-218	1600.00Y	1.00	1.575E+00	1.575E+00	0.276E+00	17.50	
RA-224	1.41E+10Y	1.00	5.497E+00	5.497E+00	1.561E+00	28.39	
RA-226	1600.00Y	1.00	1.349E+00	1.349E+00	0.228E+00	16.89	
AC-228	1.41E+10Y	1.00	1.796E+00	1.796E+00	0.391E+00	21.77	
RA-228	1.41E+10Y	1.00	1.796E+00	1.796E+00	0.391E+00	21.77	
TH-228	1.91Y	1.02	1.874E+00	1.902E+00	0.291E+00	15.30	
TH-230	4.47E+09Y	1.00	1.349E+00	1.349E+00	0.228E+00	16.89	
TH-232	1.41E+10Y	1.00	1.796E+00	1.796E+00	0.391E+00	21.77	
TH-234	4.47E+09Y	1.00	8.646E-01	8.646E-01	15.33E-01	177.29	
U-234	4.47E+09Y	1.00	1.349E+00	1.349E+00	0.228E+00	16.89	
NP-237	2.14E+06Y	1.00	8.064E-01	8.064E-01	3.161E-01	39.20	
U-238	4.47E+09Y	1.00	8.646E-01	8.646E-01	15.33E-01	177.29	
AM-243	7380.00Y	1.00	4.097E-01	4.097E-01	0.679E-01	16.58	
ANH-511	1.00E+09Y	1.00	1.740E-01	1.740E-01	0.787E-01	45.24	
	Total Activity :		5.864E+01	5.873E+01			

Grand Total Activity : 5.864E+01 5.873E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994005 Acquisition date : 12-FEB-2010 12:35:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	84.00	77	173	0.86	166.92	165	13	1.07E-02	53.4	6.59E+00	T
6	89.94	202	152	0.85	178.80	177	15	2.80E-02	20.3	6.93E+00	T
0	129.48	114	397	1.01	257.93	252	10	1.59E-02	68.4	7.28E+00	T
0	185.97	222	294	1.08	371.00	367	9	3.09E-02	32.6	6.15E+00	T
0	209.42	154	311	1.13	417.93	413	11	2.14E-02	47.3	5.70E+00	T
0	270.22	126	250	1.47	539.63	535	12	1.75E-02	53.8	4.77E+00	T
0	327.85	95	143	1.01	654.97	651	9	1.32E-02	49.6	4.13E+00	T
0	409.38	56	134	1.63	818.13	813	13	7.83E-03	88.5	3.50E+00	
0	462.99	62	74	1.14	925.42	921	9	8.62E-03	56.1	3.19E+00	T
0	727.46	100	65	1.59	1454.67	1449	11	1.39E-02	37.9	2.22E+00	T
0	795.52	75	44	1.87	1590.85	1586	11	1.04E-02	42.7	2.06E+00	T
2	965.25	49	37	1.91	1930.46	1926	26	6.76E-03	56.1	1.74E+00	T
0	1238.84	53	39	1.57	2477.84	2473	11	7.35E-03	53.1	1.40E+00	T
0	1377.70	33	33	3.43	2755.64	2747	15	4.60E-03	83.8	1.28E+00	T
0	1730.06	28	3	1.10	3460.50	3455	12	3.86E-03	45.5	1.08E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:36:13.42

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994005.CNF;1    *
* Acquisition date : 12-FEB-2010 12:35:05  Detector SN#     :                 *
* Detector ID      : GAM11                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.66         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245994005            Analyst initials: MXR1             *
* Batch Number     : 948812                Sample Quantity : 1.21220E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.886E+01	2.180E+00	4.317E-01	3.732E-02	43.691
MN-54	7.520E-02	4.280E-02	5.688E-02	5.601E-03	1.322
CD-109	2.793E+00	9.309E-01	1.165E+00	1.104E-01	2.399
SN-126	2.746E-01	9.151E-02	1.148E-01	1.083E-02	2.391
TL-208	5.514E-01	1.062E-01	5.566E-02	6.012E-03	9.907
BI-211	4.526E+00	7.563E-01	2.874E-01	3.792E-02	15.749
PB-212	1.874E+00	2.867E-01	8.289E-02	1.161E-02	22.611
PO-212	1.874E+00	2.867E-01	8.289E-02	1.161E-02	22.611
BI-214	1.349E+00	2.277E-01	1.035E-01	1.169E-02	13.034
PB-214	1.575E+00	2.756E-01	1.040E-01	1.472E-02	15.137
PO-214	1.575E+00	2.756E-01	1.040E-01	1.472E-02	15.137
PO-216	1.874E+00	2.867E-01	8.289E-02	1.161E-02	22.611
PO-218	1.575E+00	2.756E-01	1.040E-01	1.472E-02	15.137
RA-224	5.497E+00	1.561E+00	9.437E-01	1.264E-01	5.825
RA-226	1.349E+00	2.277E-01	1.035E-01	1.169E-02	13.034
AC-228	1.796E+00	3.911E-01	1.790E-01	2.180E-02	10.031
RA-228	1.796E+00	3.911E-01	1.790E-01	2.180E-02	10.031
TH-228	1.902E+00	2.911E-01	8.414E-02	1.178E-02	22.611

Sample ID : G245994005 Acquisition date : 12-FEB-2010 12:35:05

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.349E+00	2.277E-01	1.035E-01	1.169E-02	13.034
TH-232	1.796E+00	3.911E-01	1.790E-01	2.180E-02	10.031
TH-234	8.646E-01	1.533E+00	1.465E+00	2.549E-01	0.590
U-234	1.349E+00	2.277E-01	1.035E-01	1.169E-02	13.034
NP-237	8.064E-01	3.161E-01	3.399E-01	7.694E-02	2.372
U-238	8.646E-01	1.533E+00	1.465E+00	2.549E-01	0.590
AM-243	4.097E-01	6.793E-02	6.890E-02	5.576E-03	5.947
ANH-511	1.740E-01	7.874E-02	3.997E-02	4.274E-03	4.354

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.447E-02		2.690E-01	4.613E-01	5.221E-02	0.205
NA-22	-6.549E-03		4.100E-02	6.541E-02	5.372E-03	-0.100
NA-24	1.309E-01		3.424E-01	Half-Life too short		
AL-26	6.965E-03		2.639E-02	4.596E-02	3.751E-03	0.152
TI-44	4.146E-01	+	5.423E-02	5.837E-02	4.921E-03	7.102
SC-46	-9.893E-03		3.379E-02	5.495E-02	5.413E-03	-0.180
V-48	-7.636E-02		6.045E-02	8.470E-02	8.034E-03	-0.902
CR-51	1.652E-01		3.607E-01	5.931E-01	8.608E-02	0.279
MN-52	1.229E-01		2.251E-01	3.913E-01	3.279E-02	0.314
CO-56	-3.019E-02		3.386E-02	5.164E-02	5.088E-03	-0.585
CO-57	3.371E-04		1.993E-02	3.388E-02	2.866E-03	0.010
CO-58	-9.895E-03		3.968E-02	6.182E-02	6.087E-03	-0.160
FE-59	5.268E-02		7.195E-02	1.285E-01	1.208E-02	0.410
CO-60	1.983E-02		4.062E-02	6.957E-02	5.749E-03	0.285
ZN-65	1.783E-02		9.533E-02	1.395E-01	1.197E-02	0.128
GE-68	7.031E-01		1.102E+00	1.939E+00	1.722E-01	0.363
AS-73	-1.656E-01		5.660E-01	8.915E-01	6.694E-02	-0.186
AS-74	-1.383E-02		8.287E-02	1.340E-01	1.362E-02	-0.103
SE-75	-1.838E-02		4.193E-02	6.255E-02	9.194E-03	-0.294
BR-77	3.540E+00		8.671E+00	1.486E+01	1.584E+00	0.238
SR-82	-2.715E-01		3.380E-01	4.914E-01	4.807E-02	-0.552
RB-83	6.146E-03		6.057E-02	9.803E-02	1.045E-02	0.063
RB-84	-4.445E-02		6.822E-02	1.074E-01	1.058E-02	-0.414
KR-85	1.805E+01		7.251E+00	1.346E+01	1.438E+00	1.341
SR-85	9.245E-02		3.714E-02	6.895E-02	7.365E-03	1.341
RB-86	4.123E-01		6.839E-01	1.201E+00	1.068E-01	0.343
Y-88	1.022E-02		3.657E-02	6.311E-02	5.124E-03	0.162
ZR-88	1.172E-02		2.600E-02	4.529E-02	4.830E-03	0.259
Y-91	1.244E+01		1.585E+01	2.802E+01	2.268E+00	0.444
NB-94	-5.593E-04		3.302E-02	5.337E-02	5.125E-03	-0.010
NB-95	2.402E-02		4.416E-02	7.408E-02	7.231E-03	0.324
NB-95M	-5.460E-02		1.275E-01	1.804E-01	2.519E-02	-0.303
ZR-95	8.034E-02		6.940E-02	1.227E-01	1.291E-02	0.655
NB-97	7.970E-02		4.168E-02	Half-Life too short		
ZR-97	-2.558E-01		8.271E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	1.044E+00		1.083E+01	1.762E+01	2.789E+00	0.059
TC-99M	1.013E+10		1.271E+10	Half-Life too short		
RH-101	1.425E-02		3.097E-02	5.104E-02	5.712E-03	0.279
RH-102	-1.288E-02		2.353E-02	3.736E-02	4.028E-03	-0.345
RU-103	1.472E-03		3.609E-02	6.026E-02	9.364E-03	0.024
RH-106	1.426E-01		3.129E-01	5.299E-01	7.541E-02	0.269
RU-106	1.426E-01		3.126E-01	5.299E-01	5.256E-02	0.269
AG-108M	2.841E-03		2.772E-02	4.694E-02	5.189E-03	0.061
AG-110M	3.773E-02		3.232E-02	5.763E-02	5.616E-03	0.655
IN-111	8.294E-01		9.670E-01	1.495E+00	2.037E-01	0.555
IN-113M	-4.319E-02		3.854E-02	5.968E-02	6.491E-03	-0.724
SN-113	-4.319E-02		3.854E-02	5.968E-02	6.491E-03	-0.724
IN-114M	-6.878E-02		1.794E-01	2.594E-01	2.806E-02	-0.265
CD-115	1.313E+00		8.792E+00	1.475E+01	1.567E+00	0.089
SN-117M	7.422E-03		4.812E-02	8.111E-02	7.665E-03	0.092
SB-122	2.022E+00		1.931E+00	3.418E+00	3.560E-01	0.592
I-123	8.060E-01		2.224E+00	Half-Life too short		
TE-123M	4.475E-03		2.469E-02	4.167E-02	3.965E-03	0.107
I-124	-3.039E-01		6.180E-01	9.320E-01	9.420E-02	-0.326
SB-124	-5.554E-03		6.931E-02	1.132E-01	9.835E-03	-0.049
SB-125	-4.683E-02		8.340E-02	1.345E-01	1.467E-02	-0.348
TE-125M	5.675E+00		7.259E+00	1.276E+01	1.309E+00	0.445
I-126	5.215E-02		1.947E-01	3.180E-01	3.015E-02	0.164
SB-126	1.067E-02		1.331E-01	2.092E-01	2.020E-02	0.051
SB-127	1.368E-02		1.223E+00	1.986E+00	2.398E-01	0.007
XE-127	-1.610E-02		4.164E-02	6.730E-02	7.692E-03	-0.239
I-131	4.785E-02		1.069E-01	1.748E-01	2.195E-02	0.274
TE-132	2.291E-01		6.296E-01	1.048E+00	1.915E-01	0.219
BA-133	1.412E-02		4.556E-02	6.608E-02	1.066E-02	0.214
I-133	-4.824E-03		2.524E-03	Half-Life too short		
CS-134	1.483E-01	+	6.500E-02	9.761E-02	9.630E-03	1.520
CS-135	2.200E-01		1.646E-01	2.566E-01	4.026E-02	0.857
I-135	1.153E+09		1.871E+09	Half-Life too short		
CS-136	5.807E-02		9.509E-02	1.672E-01	1.579E-02	0.347
BA-137M	-6.276E-03		3.572E-02	5.725E-02	5.417E-03	-0.110
CS-137	-6.634E-03		3.776E-02	6.052E-02	5.736E-03	-0.110
CE-139	-1.215E-02		2.464E-02	4.012E-02	3.899E-03	-0.303
BA-140	3.533E-02		2.325E-01	3.890E-01	1.311E-01	0.091
LA-140	-9.971E-02		7.318E-02	8.933E-02	7.512E-03	-1.116
CE-141	1.102E-03		5.171E-02	8.709E-02	7.982E-03	0.013
CE-143	4.526E-04		9.099E-05	Half-Life too short		
CE-144	3.252E-02		1.909E-01	2.931E-01	4.573E-02	0.111
PM-144	-2.516E-02		3.262E-02	4.888E-02	4.686E-03	-0.515
PR-144	-1.705E+00		2.211E+00	3.312E+00	3.174E-01	-0.515
PM-146	4.128E-02		3.836E-02	6.866E-02	8.609E-03	0.601
ND-147	1.003E-01		4.928E-01	8.294E-01	1.342E-01	0.121
PM-149	1.332E+01		8.076E+01	1.315E+02	2.637E+01	0.101
EU-152	-1.220E-01		9.594E-02	1.263E-01	1.712E-02	-0.966

Sample ID : G245994005 Acquisition date : 12-FEB-2010 12:35:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-4.468E-02		7.068E-02	9.612E-02	8.540E-03	-0.465
EU-154	-2.059E-02		1.143E-01	1.818E-01	2.000E-02	-0.113
EU-155	1.109E-01		8.608E-02	1.538E-01	1.342E-02	0.721
TB-160	1.301E-02		1.368E-01	2.276E-01	2.242E-02	0.057
HO-166M	3.609E-02		5.902E-02	1.005E-01	9.676E-03	0.359
TM-171	3.705E-01		2.292E+01	3.336E+01	2.504E+00	0.011
LU-176	1.802E-02		2.238E-02	3.763E-02	5.532E-03	0.479
LU-177	3.605E+00	+	1.758E+00	1.874E+00	2.193E-01	1.924
LU-177M	-7.448E-02		1.621E-01	2.292E-01	2.461E-02	-0.325
HF-181	5.455E-03		3.629E-02	6.125E-02	6.596E-03	0.089
W-181	-2.757E-01		3.030E-01	4.176E-01	3.096E-02	-0.660
TA-182	-4.067E-02		1.777E-01	2.833E-01	2.301E-02	-0.144
RE-183	3.204E-02		9.490E-02	1.610E-01	1.544E-02	0.199
RE-184	-3.861E-02		2.091E-01	3.360E-01	4.715E-02	-0.115
OS-185	3.312E-02		3.835E-02	6.726E-02	6.492E-03	0.492
RE-188	1.220E-01		1.529E-01	2.643E-01	2.465E-02	0.462
W-188	-4.960E+00		7.522E+00	1.010E+01	1.534E+00	-0.491
IR-192	-6.569E-03		3.248E-02	5.122E-02	7.363E-03	-0.128
AU-195	1.036E-01		1.781E-01	3.002E-01	2.648E-02	0.345
TL-200	2.657E-05		2.133E-04	Half-Life too short		
TL-201	-4.681E-01		5.848E+00	9.725E+00	9.514E-01	-0.048
TL-202	1.098E-02		5.777E-02	9.839E-02	1.061E-02	0.112
HG-203	-4.259E-03		4.189E-02	5.978E-02	9.338E-03	-0.071
BI-207	7.250E-04		4.441E-02	7.353E-02	6.606E-03	0.010
TL-207	-2.014E-01		7.018E-01	9.688E-01	2.027E-01	-0.208
PO-209	4.342E+00		6.127E+00	1.100E+01	1.083E+00	0.395
BI-210	1.510E+00		2.258E+00	3.787E+00	3.525E-01	0.399
PB-210	1.510E+00		2.258E+00	3.787E+00	3.525E-01	0.399
PO-210	1.510E+00		2.257E+00	3.787E+00	3.192E-01	0.399
PB-211	-3.678E-01		9.949E-01	1.393E+00	8.773E-01	-0.264
BI-212	1.183E+00	+	4.664E-01	6.839E-01	7.474E-02	1.730
PO-215	-2.014E-01		7.018E-01	9.688E-01	2.027E-01	-0.208
RN-219	4.287E-01		3.657E-01	6.533E-01	1.065E-01	0.656
RN-220	-2.177E+01		2.400E+01	3.634E+01	3.819E+00	-0.599
RA-223	-2.014E-01		7.018E-01	9.688E-01	2.027E-01	-0.208
AC-227	-7.852E-02		3.398E-01	5.437E-01	1.036E-01	-0.144
TH-227	-7.852E-02		3.399E-01	5.437E-01	1.158E-01	-0.144
TH-229	3.883E-01		4.561E-01	7.817E-01	8.584E-02	0.497
PA-231	-1.089E+00		1.454E+00	2.206E+00	4.371E-01	-0.494
TH-231	-2.014E-01		7.018E-01	9.688E-01	2.027E-01	-0.208
U-231	1.032E-01		8.990E-01	1.292E+00	1.157E-01	0.080
PA-233	-1.763E-02		5.571E-02	8.702E-02	1.277E-02	-0.203
PA-234	9.091E-02		2.766E-01	4.756E-01	9.164E-02	0.191
PA-234M	1.580E+00		4.422E+00	7.546E+00	8.028E-01	0.209
U-235	-7.895E-02		1.807E-01	2.924E-01	5.169E-02	-0.270
NP-236	8.903E-03		6.960E-02	1.171E-01	1.114E-02	0.076
NP-239	2.865E-02		1.579E-01	2.708E-01	2.291E-02	0.106
AM-241	-3.314E-02		1.220E-01	1.760E-01	1.383E-02	-0.188

Sample ID : G245994005 Acquisition date : 12-FEB-2010 12:35:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.472E-02		7.627E-02	1.273E-01	1.102E-02	-0.351
AM-246	3.022E-02		1.278E-01	2.163E-01	1.918E-02	0.140
CM-247	3.550E-02		3.296E-02	5.913E-02	6.328E-03	0.600
CF-249	2.850E-02		3.340E-02	5.955E-02	6.485E-03	0.478
CF-251	3.563E-02		1.098E-01	1.853E-01	1.888E-02	0.192

VAX/VMS Nuclide Identification Report Generated

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*******************************************************************************
*                          GEL Laboratories LLC                               *
*                              2040 Savage Road                               *
*                            Charleston, SC 29414                             *
*******************************************************************************
*                                                                             *
*                              DETECTOR DATA                                  *
*                                                                             *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994005              *
* Acquisition date : 12-FEB-2010 12:35:05 Detector SN#    :                   *
* Detector ID      : GAM11                Sensitivity     : 5.000             *
* Geometry         : CAN                  Energy tolerance: 1.500             *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000            *
* Elapsed real time:    0 02:00:01.66     Half life ratio : 8.000             *
*******************************************************************************
*                                                                             *
*                               SAMPLE DATA                                   *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID             *
* Sample ID        : G245994005           Analyst initials: MXR1              *
* Batch Number     : 948812               Sample Quantity : 1.2122E+02 GRAM   *
* Recovery         :    1.00000           Carrier Weight :    0.00000         *
*******************************************************************************
*                                                                             *
*                                 QC DATA                                     *
*                                                                             *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                   *
* MSD DPM          :    0.000             MSD Isotope     :                   *
* LCS DPM          :    0.000             LCS Isotope     :                   *
* LCSD DPM         :    0.000             LCSD Isotope    :                   *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.886E+01	2.137E+00	2.155E-01	1.090E+00
MN-54	7.520E-02	4.194E-02	2.860E-02	2.140E-02
CD-109	2.793E+00	9.123E-01	6.017E-01	4.655E-01
SN-126	2.746E-01	8.968E-02	5.934E-02	4.576E-02
TL-208	5.514E-01	1.041E-01	2.811E-02	5.312E-02
BI-211	4.526E+00	7.412E-01	1.461E-01	3.781E-01
PB-212	1.874E+00	2.810E-01	4.232E-02	1.434E-01
PO-212	1.874E+00	2.810E-01	4.232E-02	1.434E-01
BI-214	1.349E+00	2.232E-01	5.222E-02	1.139E-01
PB-214	1.575E+00	2.701E-01	5.286E-02	1.378E-01
PO-214	1.575E+00	2.701E-01	5.286E-02	1.378E-01
PO-216	1.874E+00	2.810E-01	4.232E-02	1.434E-01
PO-218	1.575E+00	2.701E-01	5.286E-02	1.378E-01
RA-224	5.497E+00	1.530E+00	4.818E-01	7.804E-01
RA-226	1.349E+00	2.232E-01	5.222E-02	1.139E-01
AC-228	1.796E+00	3.832E-01	8.993E-02	1.955E-01
RA-228	1.796E+00	3.832E-01	8.993E-02	1.955E-01
TH-228	1.902E+00	2.852E-01	4.296E-02	1.455E-01
TH-230	1.349E+00	2.232E-01	5.222E-02	1.139E-01
TH-232	1.796E+00	3.832E-01	8.993E-02	1.955E-01
TH-234	8.646E-01	1.502E+00	7.600E-01	7.664E-01
U-234	1.349E+00	2.232E-01	5.222E-02	1.139E-01
NP-237	8.064E-01	3.098E-01	1.757E-01	1.580E-01
U-238	8.646E-01	1.502E+00	7.600E-01	7.664E-01
AM-243	4.097E-01	6.657E-02	3.567E-02	3.397E-02
ANH-511	1.740E-01	7.716E-02	2.022E-02	3.937E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	9.447E-02	2.636E-01	2.336E-01	1.345E-01	NOT IDENT.

NA-22	-6.549E-03	4.018E-02	3.271E-02	2.050E-02	NOT IDENT.
NA-24	1.309E+05	6.710E+05	0.000E+00	3.424E+05	SHORT HLIF
AL-26	6.965E-03	2.587E-02	2.288E-02	1.320E-02	NOT IDENT.
TI-44	4.146E-01	5.314E-02	3.020E-02	2.711E-02	FAIL ABUN
SC-46	-9.893E-03	3.312E-02	2.761E-02	1.690E-02	FAIL ABUN
V-48	-7.636E-02	5.924E-02	4.250E-02	3.023E-02	NOT IDENT.
CR-51	1.652E-01	3.535E-01	3.018E-01	1.804E-01	NOT IDENT.
MN-52	1.229E-01	2.206E-01	1.954E-01	1.125E-01	NOT IDENT.
CO-56	-3.019E-02	3.318E-02	2.596E-02	1.693E-02	FAIL ABUN
CO-57	3.371E-04	1.953E-02	1.744E-02	9.966E-03	NOT IDENT.
CO-58	-9.895E-03	3.889E-02	3.110E-02	1.984E-02	NOT IDENT.
FE-59	5.268E-02	7.051E-02	6.439E-02	3.598E-02	NOT IDENT.
CO-60	1.983E-02	3.980E-02	3.477E-02	2.031E-02	NOT IDENT.
ZN-65	1.783E-02	9.343E-02	6.989E-02	4.767E-02	NOT IDENT.
GE-68	7.031E-01	1.080E+00	9.720E-01	5.509E-01	NOT IDENT.
AS-73	-1.656E-01	5.547E-01	4.633E-01	2.830E-01	NOT IDENT.
AS-74	-1.383E-02	8.122E-02	6.765E-02	4.144E-02	NOT IDENT.
SE-75	-1.838E-02	4.109E-02	3.190E-02	2.097E-02	NOT IDENT.
BR-77	3.540E+00	8.498E+00	7.516E+00	4.336E+00	FAIL ABUN
SR-82	-2.715E-01	3.312E-01	2.473E-01	1.690E-01	NOT IDENT.
RB-83	6.146E-03	5.936E-02	4.958E-02	3.029E-02	NOT IDENT.
RB-84	-4.445E-02	6.685E-02	5.396E-02	3.411E-02	NOT IDENT.
KR-85	1.805E+01	7.105E+00	6.808E+00	3.625E+00	NOT IDENT.
SR-85	9.245E-02	3.640E-02	3.487E-02	1.857E-02	NOT IDENT.
RB-86	4.123E-01	6.702E-01	6.021E-01	3.419E-01	NOT IDENT.
Y-88	1.022E-02	3.584E-02	3.142E-02	1.829E-02	NOT IDENT.
ZR-88	1.172E-02	2.548E-02	2.298E-02	1.300E-02	NOT IDENT.
Y-91	1.244E+01	1.553E+01	1.402E+01	7.925E+00	NOT IDENT.
NB-94	-5.593E-04	3.236E-02	2.689E-02	1.651E-02	NOT IDENT.
NB-95	2.402E-02	4.328E-02	3.728E-02	2.208E-02	NOT IDENT.
NB-95M	-5.460E-02	1.250E-01	9.213E-02	6.377E-02	NOT IDENT.
ZR-95	8.034E-02	6.801E-02	6.176E-02	3.470E-02	NOT IDENT.
NB-97	7.970E+04	8.168E+04	0.000E+00	4.168E+04	SHORT HLIF
ZR-97	-2.558E+05	1.621E+06	0.000E+00	8.271E+05	SHORT HLIF
MO-99	1.044E+00	1.062E+01	8.873E+00	5.416E+00	NOT IDENT.
TC-99M	1.013E+16	2.492E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.425E-02	3.035E-02	2.612E-02	1.548E-02	NOT IDENT.
RH-102	-1.288E-02	2.306E-02	1.892E-02	1.176E-02	NOT IDENT.
RU-103	1.472E-03	3.537E-02	3.049E-02	1.805E-02	FAIL ABUN
RH-106	1.426E-01	3.066E-01	2.674E-01	1.564E-01	FAIL ABUN
RU-106	1.426E-01	3.063E-01	2.674E-01	1.563E-01	FAIL ABUN
AG-108M	2.841E-03	2.716E-02	2.379E-02	1.386E-02	NOT IDENT.
AG-110M	3.773E-02	3.167E-02	2.906E-02	1.616E-02	NOT IDENT.
IN-111	8.294E-01	9.477E-01	7.629E-01	4.835E-01	NOT IDENT.
IN-113M	-4.319E-02	3.777E-02	3.029E-02	1.927E-02	NOT IDENT.
SN-113	-4.319E-02	3.777E-02	3.029E-02	1.927E-02	NOT IDENT.
IN-114M	-6.878E-02	1.759E-01	1.328E-01	8.972E-02	NOT IDENT.
CD-115	1.313E+00	8.616E+00	7.460E+00	4.396E+00	NOT IDENT.
SN-117M	7.422E-03	4.715E-02	4.162E-02	2.406E-02	NOT IDENT.
SB-122	2.022E+00	1.893E+00	1.727E+00	9.656E-01	NOT IDENT.
I-123	8.060E+05	4.359E+06	0.000E+00	2.224E+06	SHORT HLIF
TE-123M	4.475E-03	2.420E-02	2.138E-02	1.235E-02	NOT IDENT.
I-124	-3.039E-01	6.057E-01	4.705E-01	3.090E-01	FAIL ABUN
SB-124	-5.554E-03	6.793E-02	5.640E-02	3.466E-02	FAIL ABUN
SB-125	-4.683E-02	8.173E-02	6.820E-02	4.170E-02	FAIL ABUN
TE-125M	5.675E+00	7.114E+00	6.575E+00	3.629E+00	NOT IDENT.
I-126	5.215E-02	1.908E-01	1.603E-01	9.734E-02	NOT IDENT.
SB-126	1.067E-02	1.304E-01	1.054E-01	6.654E-02	FAIL ABUN
SB-127	1.368E-02	1.198E+00	1.001E+00	6.113E-01	NOT IDENT.
XE-127	-1.610E-02	4.080E-02	3.443E-02	2.082E-02	NOT IDENT.
I-131	4.785E-02	1.047E-01	8.881E-02	5.343E-02	NOT IDENT.
TE-132	2.291E-01	6.170E-01	5.354E-01	3.148E-01	NOT IDENT.
BA-133	1.412E-02	4.465E-02	3.358E-02	2.278E-02	FAIL ABUN
I-133	-4.824E+03	4.946E+03	0.000E+00	2.524E+03	SHORT HLIF
CS-134	1.483E-01	6.370E-02	4.911E-02	3.250E-02	FAIL ABUN
CS-135	2.200E-01	1.613E-01	1.308E-01	8.230E-02	NOT IDENT.
I-135	1.153E+15	3.667E+15	0.000E+00	1.871E+15	SHORT HLIF
CS-136	5.807E-02	9.318E-02	8.383E-02	4.754E-02	FAIL ABUN
BA-137M	-6.276E-03	3.501E-02	2.887E-02	1.786E-02	NOT IDENT.
CS-137	-6.634E-03	3.701E-02	3.052E-02	1.888E-02	NOT IDENT.
CE-139	-1.215E-02	2.415E-02	2.057E-02	1.232E-02	NOT IDENT.
BA-140	3.533E-02	2.279E-01	1.967E-01	1.163E-01	NOT IDENT.
LA-140	-9.971E-02	7.172E-02	4.455E-02	3.659E-02	FAIL ABUN
CE-141	1.102E-03	5.067E-02	4.473E-02	2.585E-02	NOT IDENT.
CE-143	4.526E+02	1.783E+02	0.000E+00	9.099E+01	SHORT HLIF
CE-144	3.252E-02	1.871E-01	1.507E-01	9.546E-02	NOT IDENT.
PM-144	-2.516E-02	3.197E-02	2.463E-02	1.631E-02	NOT IDENT.
PR-144	-1.705E+00	2.166E+00	1.669E+00	1.105E+00	NOT IDENT.

PM-146	4.128E-02	3.760E-02	3.478E-02	1.918E-02	NOT IDENT.
ND-147	1.003E-01	4.829E-01	4.194E-01	2.464E-01	FAIL ABUN
PM-149	1.332E+01	7.914E+01	6.701E+01	4.038E+01	NOT IDENT.
EU-152	-1.220E-01	9.402E-02	6.418E-02	4.797E-02	FAIL ABUN
GD-153	-4.468E-02	6.927E-02	4.961E-02	3.534E-02	FAIL ABUN
EU-154	-2.059E-02	1.120E-01	9.095E-02	5.714E-02	NOT IDENT.
EU-155	1.109E-01	8.436E-02	7.932E-02	4.304E-02	FAIL ABUN
TB-160	1.301E-02	1.340E-01	1.143E-01	6.838E-02	FAIL ABUN
HO-166M	3.609E-02	5.784E-02	5.062E-02	2.951E-02	NOT IDENT.
TM-171	3.705E-01	2.246E+01	1.729E+01	1.146E+01	NOT IDENT.
LU-176	1.802E-02	2.193E-02	1.916E-02	1.119E-02	FAIL ABUN
LU-177	3.605E+00	1.723E+00	9.582E-01	8.789E-01	FAIL ABUN
LU-177M	-7.448E-02	1.589E-01	1.163E-01	8.105E-02	FAIL ABUN
HF-181	5.455E-03	3.556E-02	3.100E-02	1.814E-02	NOT IDENT.
W-181	-2.757E-01	2.969E-01	2.166E-01	1.515E-01	NOT IDENT.
TA-182	-4.067E-02	1.742E-01	1.417E-01	8.887E-02	FAIL ABUN
RE-183	3.204E-02	9.300E-02	8.260E-02	4.745E-02	FAIL ABUN
RE-184	-3.861E-02	2.049E-01	1.715E-01	1.045E-01	NOT IDENT.
OS-185	3.312E-02	3.759E-02	3.392E-02	1.918E-02	NOT IDENT.
RE-188	1.220E-01	1.499E-01	1.356E-01	7.647E-02	NOT IDENT.
W-188	-4.960E+00	7.372E+00	5.144E+00	3.761E+00	FAIL ABUN
IR-192	-6.569E-03	3.183E-02	2.606E-02	1.624E-02	FAIL ABUN
AU-195	1.036E-01	1.746E-01	1.549E-01	8.907E-02	FAIL ABUN
TL-200	2.657E+01	4.180E+02	0.000E+00	2.133E+02	SHORT HLIF
TL-201	-4.681E-01	5.731E+00	4.987E+00	2.924E+00	NOT IDENT.
TL-202	1.098E-02	5.661E-02	4.986E-02	2.888E-02	NOT IDENT.
HG-203	-4.259E-03	4.105E-02	3.047E-02	2.095E-02	FAIL ABUN
BI-207	7.250E-04	4.352E-02	3.686E-02	2.221E-02	FAIL ABUN
TL-207	-2.014E-01	6.877E-01	4.928E-01	3.509E-01	FAIL ABUN
PO-209	4.342E+00	6.005E+00	5.526E+00	3.064E+00	NOT IDENT.
BI-210	1.510E+00	2.213E+00	1.971E+00	1.129E+00	NOT IDENT.
PB-210	1.510E+00	2.213E+00	1.971E+00	1.129E+00	NOT IDENT.
PO-210	1.510E+00	2.212E+00	1.971E+00	1.129E+00	NOT IDENT.
PB-211	-3.678E-01	9.750E-01	7.066E-01	4.975E-01	NOT IDENT.
BI-212	1.183E+00	4.570E-01	3.445E-01	2.332E-01	FAIL ABUN
PO-215	-2.014E-01	6.877E-01	4.928E-01	3.509E-01	FAIL ABUN
RN-219	4.287E-01	3.584E-01	3.314E-01	1.829E-01	FAIL ABUN
RN-220	-2.177E+01	2.352E+01	1.837E+01	1.200E+01	NOT IDENT.
RA-223	-2.014E-01	6.877E-01	4.928E-01	3.509E-01	FAIL ABUN
AC-227	-7.852E-02	3.330E-01	2.774E-01	1.699E-01	FAIL ABUN
TH-227	-7.852E-02	3.331E-01	2.774E-01	1.700E-01	FAIL ABUN
TH-229	3.883E-01	4.470E-01	4.001E-01	2.280E-01	FAIL ABUN
PA-231	-1.089E+00	1.425E+00	1.124E+00	7.270E-01	FAIL ABUN
TH-231	-2.014E-01	6.877E-01	4.928E-01	3.509E-01	FAIL ABUN
U-231	1.032E-01	8.810E-01	6.668E-01	4.495E-01	FAIL ABUN
PA-233	-1.763E-02	5.459E-02	4.429E-02	2.785E-02	FAIL ABUN
PA-234	9.091E-02	2.711E-01	2.388E-01	1.383E-01	FAIL ABUN
PA-234M	1.580E+00	4.334E+00	3.786E+00	2.211E+00	NOT IDENT.
U-235	-7.895E-02	1.771E-01	1.502E-01	9.036E-02	FAIL ABUN
NP-236	8.903E-03	6.820E-02	6.009E-02	3.480E-02	NOT IDENT.
NP-239	2.865E-02	1.548E-01	1.395E-01	7.897E-02	FAIL ABUN
AM-241	-3.314E-02	1.195E-01	9.136E-02	6.099E-02	NOT IDENT.
CM-243	-4.472E-02	7.475E-02	6.565E-02	3.814E-02	FAIL ABUN
AM-246	3.022E-02	1.253E-01	1.084E-01	6.391E-02	NOT IDENT.
CM-247	3.550E-02	3.230E-02	3.000E-02	1.648E-02	FAIL ABUN
CF-249	2.850E-02	3.273E-02	3.023E-02	1.670E-02	NOT IDENT.
CF-251	3.563E-02	1.076E-01	9.497E-02	5.488E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	195.7468
46.50	195.7468
46.50	195.7468
48.70	256.4383
49.72	222.1442
51.35	241.0579
52.39	214.1484
52.97	206.7737
53.15	206.8951
53.44	232.6973
54.07	216.4361
56.28	219.0797
56.28	219.0819
57.37	0.0000
57.53	257.1532
57.53	257.1549
57.60	257.2089
57.98	229.2741
57.98	229.2741
59.32	266.1216
59.32	266.1216
59.40	266.1860
59.54	275.3763
59.72	280.0670
60.01	253.0376
61.10	281.2224
61.14	281.2554
61.30	281.3881
63.00	274.0016
63.29	274.2313
63.29	274.2313
63.58	274.4611
64.28	283.8350
65.12	298.3551
65.20	321.4966
65.20	321.4966
66.05	309.9323
66.72	285.7936
66.83	285.8839
66.91	285.9460
67.20	348.0537
67.20	348.0537
67.75	311.4003
67.85	311.4862
68.90	315.8806
68.90	315.8806
69.30	350.0633
69.67	314.5976
70.82	339.0029
70.82	339.0029
70.83	339.0117
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72.87	331.0313
72.87	331.0313
74.67	332.5834
74.81	332.7035
74.81	332.7035
74.81	332.7035
74.81	332.7035
74.81	332.7035
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74.81	332.7035
74.97	332.8407
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75.70	333.4645
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77.11	334.6587

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77.11	334.6587
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79.80	314.9286
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80.30	310.5137
80.30	310.5137
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81.07	300.6764
81.07	300.6764
81.07	300.6764
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83.78	300.2217
83.78	300.2217
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86.50	402.8663
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86.72	403.0732
86.79	403.1362
86.94	403.2775
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87.30	403.6155
87.30	403.6155
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87.30	403.6155
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88.03	404.2942
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88.47	254.5712
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92.29	212.3335
92.38	212.3755
92.38	212.3755
93.35	212.8322
94.00	213.1366
94.67	213.4476
94.67	213.4502
94.90	213.5565
94.90	213.5565
94.90	213.5565
94.90	213.5565
95.87	218.9849
95.87	218.9849
96.73	217.7310
97.43	239.6953
98.44	222.6956
98.44	222.6969
98.88	217.3947
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99.55	231.5800
99.86	231.7322
100.00	231.7998
100.10	226.8285
103.18	264.5031
103.76	247.1085
105.00	202.9211
105.31	208.1255
108.00	262.8405
109.28	208.0766

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111.00	233.5943
111.76	233.0832
112.95	255.9513
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116.30	232.5223
117.00	231.0977
117.00	231.0977
117.66	239.1837
121.11	203.2125
121.62	201.6562
121.78	201.7150
122.06	202.6920
122.32	203.6617
122.32	203.6617
122.32	203.6617
122.32	203.6617
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144.24	224.1503
144.24	224.1503
144.24	224.1503
145.22	213.5975
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147.16	222.4653
152.43	245.4562
152.70	239.1215
153.22	222.7466
154.21	213.8656
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154.21	213.8656
154.21	213.8656
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163.89	201.0966
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171.86	203.4215
172.10	203.4915
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176.60	196.2075
181.06	196.6479
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185.71	215.0535
186.00	215.1352
190.27	215.3854
192.34	214.0247
193.63	189.0466
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198.01	201.8739
198.60	181.4300
200.40	222.1469
201.83	209.7455
202.84	209.0261
205.31	206.2094

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208.81	180.7781
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209.75	180.9854
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228.18	190.0531
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236.00	195.3292
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238.63	178.9330
238.63	178.9330
238.63	178.9330
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241.98	179.5950
241.98	179.5950
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252.85	149.3351
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256.20	146.7192
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264.65	148.4295
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268.79	143.3221
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269.46	146.6082
269.46	146.6082
269.46	146.6082
271.23	146.8693
273.65	137.6215
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277.60	144.5883
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284.30	154.1602
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285.90	127.4060
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286.10	124.1903
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295.21	111.1101

295.21	111.1101
295.96	111.1890
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299.80	111.5874
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300.09	111.6185
300.09	111.6185
300.09	111.6185
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323.87	129.1245
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323.87	129.1245
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338.28	118.8470
338.28	118.8470
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351.92	111.0452
351.92	111.0452
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367.94	0.0000
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374.96	114.2715
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391.69	108.9538
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427.89	99.1222
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439.56	73.3411
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445.03	71.7753
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475.35	75.1062
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511.85	67.2352
511.85	67.2352
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513.99	67.3217
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529.87	0.0000
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537.32	68.2611
543.00	64.5740
546.56	0.0000
549.76	81.5233
552.65	64.9325
555.20	66.0124
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569.32	79.4482
569.50	86.4079
569.67	86.4159
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574.00	81.6447
574.64	78.6866
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579.30	0.0000
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591.81	54.2917
592.07	53.2944
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595.88	69.5243
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602.52	0.0000
602.71	78.5918
602.71	78.5918
603.60	80.9399
604.41	84.2156
604.70	76.1294
609.31	73.0679

609.31	73.0679
609.31	73.0679
609.31	73.0679
610.33	73.1052
612.46	61.8038
614.37	87.9135
618.01	75.4385
621.84	67.4180
621.84	67.4180
631.29	57.4817
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633.10	52.3976
634.78	63.7540
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646.12	48.6064
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661.65	78.1654
661.65	78.1654
664.57	0.0000
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677.61	52.5162
685.20	57.9793
692.80	50.7832
695.00	64.6040
696.49	75.2468
696.49	75.2468
697.00	72.0861
697.49	66.8010
698.33	60.4633
698.50	60.4668
699.00	61.5418
702.63	72.2770
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706.58	0.0000
706.67	76.6714
709.31	67.1701
711.68	58.7061
713.82	65.1736
717.42	67.4239
720.50	55.1168
721.93	0.0000
722.20	48.0512
722.78	46.3469
722.78	46.3469
722.89	46.3496
722.95	46.3509
723.30	56.6591
724.18	63.5522
727.18	55.8990
733.00	43.1128
735.90	64.7552
739.58	57.2943
742.81	60.6262
744.21	49.8310
747.13	50.9803
751.79	64.1279
752.31	61.9698
753.82	52.2188
755.35	50.0767
756.15	47.9169
756.87	44.6636
763.93	83.0485
765.79	72.1794
766.42	72.1996
766.84	70.0234
776.49	57.1321
778.00	48.3748
778.57	41.7886
778.89	47.2937
783.80	56.2108
785.46	49.6321
792.07	46.0116

795.84	47.6362
796.30	42.5484
798.80	63.8895
801.93	48.8689
805.60	58.9554
810.29	64.6429
810.76	61.3110
815.85	41.3326
817.79	48.0732
818.51	41.3777
819.60	57.0606
826.30	52.7301
828.27	0.0000
831.60	39.5764
831.96	39.5828
834.83	57.0417
836.80	0.0000
846.75	54.2988
848.13	47.0856
856.28	0.0000
856.80	49.9740
860.37	57.6278
867.32	54.7441
867.82	54.7544
871.10	51.1697
873.19	68.5876
874.81	59.4791
875.33	0.0000
876.40	47.6138
879.36	50.4185
880.27	54.1040
880.51	54.1090
881.50	61.4696
883.24	38.5588
884.67	42.2546
889.25	45.0893
896.60	32.2981
898.02	33.2385
899.00	36.0217
903.28	45.1009
911.07	39.8989
911.07	39.8989
911.07	39.8989
919.63	36.2001
920.93	39.1145
925.00	36.3759
925.24	36.3797
926.50	38.2633
935.52	33.7087
937.48	54.3481
944.10	41.3295
946.00	43.2384
949.00	49.8725
962.29	42.5490
964.01	48.8828
966.15	46.3945
968.20	46.4292
969.11	46.4447
969.11	46.4447
969.11	46.4447
977.42	33.2731
980.50	34.8951
983.50	49.5409
989.30	31.5031
996.32	42.1083
1001.03	42.1771
1001.68	35.4752
1004.76	47.9907
1021.30	0.0000
1024.50	0.0000
1034.80	32.0010
1036.00	44.6254
1037.82	41.7402
1038.57	35.9250
1038.76	0.0000
1045.16	46.7109
1046.59	43.8113
1048.07	35.0666

1050.47	39.9690
1050.47	39.9690
1062.04	41.1018
1063.62	37.2059
1076.63	33.4322
1077.35	34.4241
1078.86	39.3613
1085.78	35.5043
1099.22	26.7442
1112.02	51.7182
1112.84	42.2821
1115.52	48.1257
1120.29	42.8803
1120.29	42.8803
1120.29	42.8803
1120.29	42.8803
1120.51	42.8824
1121.28	34.9128
1124.00	0.0000
1129.67	40.0059
1131.51	0.0000
1147.95	0.0000
1167.94	41.4945
1173.22	49.6699
1175.09	50.7129
1177.93	45.6812
1189.05	56.0205
1204.90	34.7952
1205.75	0.0000
1213.00	44.1107
1221.42	52.4468
1230.97	59.8125
1235.34	32.6980
1236.41	0.0000
1238.25	44.7827
1246.25	38.8440
1260.41	0.0000
1271.85	38.6079
1274.45	40.7253
1274.54	40.7253
1291.56	34.6258
1298.22	0.0000
1312.09	21.1055
1325.50	36.0121
1325.50	36.0121
1332.49	31.8354
1333.61	31.8457
1360.21	29.9359
1362.66	0.0000
1365.15	27.8345
1368.21	25.0002
1368.53	0.0000
1376.25	22.5483
1384.27	14.3464
1394.10	19.4177
1395.20	23.7402
1407.95	20.5707
1434.06	19.6198
1436.60	19.6321
1457.56	0.0000
1460.81	15.3638
1489.15	25.7874
1509.49	16.6611
1596.49	24.5707
1620.62	14.2548
1678.03	0.0000
1691.02	13.5169
1691.02	13.5169
1706.46	0.0000
1750.46	0.0000
1764.49	11.7725
1764.49	11.7725
1764.49	11.7725
1764.49	11.7725
1770.23	8.4194
1771.40	59.9327
1791.20	0.0000
1808.65	8.9121

1836.01 13.9419

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994005

Total Uranium Activity	2.5356E+00	ug/g
Total Uranium Counting Unc.	4.4697E+00	ug/g
Total Uranium Tpu	2.2805E-06	ug/g
Total Uranium Mda	2.2621E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G245994005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM11            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 12:35:05.42    SAMPLE ALQT:  121.220 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.238E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.346E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.341E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.613E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:37:01.71

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994006.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:35:35
Sample ID         : G245994006           Sample quantity  : 1.13220E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.20*	306	394	1.08	126.39	122	8	4.24E-02	12.9	
2	2	74.70*	277	454	1.28	149.40	143	15	3.84E-02	15.0	2.04E+00
3	2	77.06	405	319	1.04	154.13	143	15	5.63E-02	8.7	
4	0	87.58	91	487	1.04	175.17	170	8	1.26E-02	43.7	
5	0	92.67*	776	620	1.25	185.33	181	10	1.08E-01	7.2	
6	0	143.01*	150	317	1.18	286.02	280	11	2.09E-02	24.6	
7	0	185.50*	355	324	1.13	371.01	367	10	4.93E-02	11.2	
8	3	238.36*	803	168	1.11	476.71	472	17	1.11E-01	4.5	1.58E+00
9	3	241.42	179	209	1.74	482.83	472	17	2.49E-02	18.6	
10	0	269.65	58	204	0.73	539.30	535	10	8.10E-03	47.5	
11	0	294.95*	283	207	1.10	589.91	584	12	3.93E-02	11.9	
12	0	327.86	67	130	1.51	655.71	651	11	9.37E-03	34.8	
13	0	337.88	147	154	1.34	675.76	671	10	2.05E-02	17.8	
14	0	351.54*	499	132	1.45	703.09	697	12	6.94E-02	6.5	
15	0	510.60*	98	123	2.55	1021.20	1014	16	1.36E-02	31.2	
16	0	582.65*	266	103	1.64	1165.30	1156	18	3.69E-02	11.0	
17	0	608.80*	361	66	1.64	1217.60	1210	16	5.02E-02	7.5	
18	0	660.99	310	92	1.59	1321.98	1313	14	4.31E-02	8.6	
19	0	726.57	76	30	1.97	1453.15	1447	11	1.05E-02	18.2	
20	0	860.73	36	30	1.93	1721.47	1716	12	4.99E-03	35.8	
21	0	910.64*	109	104	2.10	1821.27	1811	15	1.52E-02	23.0	
22	0	969.04	55	96	2.02	1938.08	1929	17	7.63E-03	44.7	
23	0	1001.08*	35	45	0.86	2002.16	1992	18	4.89E-03	48.6	
24	0	1119.15	82	48	1.84	2238.30	2229	16	1.14E-02	21.8	
25	0	1459.55*	586	40	2.43	2919.11	2909	20	8.13E-02	5.0	
26	0	1762.76*	65	0	4.35	3525.52	3518	16	9.07E-03	12.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 14:37:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:35:35
Sample ID : G245994006 Sample quantity : 113.22 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.56 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.825E+01	2.265E+00	6.883E-01	5.148E-02	26.512
CD-109	+	88.03	*	1.573E+00	1.382E+00	1.723E+00	1.682E-01	0.913
SN-126	+	64.28		4.095E+00	1.225E+00	1.151E+00	1.752E-01	3.557
	+	86.94		6.429E-01	6.218E-01	8.510E-01	3.539E-01	0.755
	+	87.57	*	1.546E-01	1.358E-01	1.998E-01	1.944E-02	0.774
CS-135	+	268.24	*	2.859E-01	2.725E-01	3.184E-01	2.432E-02	0.898
BA-137M	+	661.65	*	5.608E-01	1.003E-01	6.427E-02	3.283E-03	8.725
CS-137	+	661.65	*	5.928E-01	1.061E-01	6.794E-02	3.490E-03	8.725
TL-208		277.35		2.895E-01	4.720E-01	7.768E-01	8.208E-02	0.373
	+	510.84		5.927E-01	3.751E-01	2.533E-01	2.574E-02	2.339
	+	583.14	*	4.593E-01	1.052E-01	6.992E-02	4.539E-03	6.569
	+	860.37		5.942E-01	4.284E-01	5.072E-01	4.585E-02	1.171
BI-211		72.87		9.115E+00	5.003E+00	7.730E+00	6.819E-01	1.179
	+	351.07	*	3.718E+00	5.401E-01	3.788E-01	2.468E-02	9.815
PB-212	+	74.81		2.120E+00	6.917E-01	7.382E-01	9.522E-02	2.871
	+	77.11		1.734E+00	3.394E-01	4.224E-01	3.801E-02	4.105
	+	87.30		7.152E-01	6.324E-01	9.685E-01	1.350E-01	0.738
	+	238.63	*	1.287E+00	1.481E-01	1.080E-01	7.765E-03	11.912
		300.09		1.900E+00	9.840E-01	1.626E+00	1.350E-01	1.169
PO-212	+	74.81		2.120E+00	6.917E-01	7.382E-01	9.522E-02	2.871
	+	77.11		1.734E+00	3.394E-01	4.224E-01	3.801E-02	4.105
	+	87.30		7.152E-01	6.324E-01	9.685E-01	1.350E-01	0.738
		115.19		-1.395E+00	4.232E+00	6.876E+00	4.386E-01	-0.203
	+	238.63	*	1.287E+00	1.481E-01	1.080E-01	7.765E-03	11.912
		300.09		1.900E+00	9.840E-01	1.626E+00	1.350E-01	1.169
BI-214	+	609.31	*	1.180E+00	1.973E-01	1.119E-01	8.416E-03	10.539
	+	1120.29		1.437E+00	6.400E-01	4.990E-01	4.637E-02	2.879
		1764.49		1.102E+00	4.183E-01	8.507E-01	5.289E-02	1.296
PB-214	+	74.81		3.652E+00	1.174E+00	1.272E+00	1.472E-01	2.871
	+	77.11		2.973E+00	6.244E-01	7.242E-01	8.538E-02	4.105
	+	87.30		1.225E+00	1.080E+00	1.659E+00	2.057E-01	0.738
	+	241.98		1.726E+00	6.560E-01	6.505E-01	5.174E-02	2.654
	+	295.21		1.238E+00	3.130E-01	2.661E-01	2.281E-02	4.652
	+	351.92	*	1.293E+00	1.996E-01	1.233E-01	1.030E-02	10.486

Sample ID : G245994006 Acquisition date : 12-FEB-2010 12:35:35

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		3.652E+00	1.174E+00	1.272E+00	1.472E-01	2.871
	+	77.11		2.973E+00	6.244E-01	7.242E-01	8.538E-02	4.105
	+	87.30		1.225E+00	1.080E+00	1.659E+00	2.057E-01	0.738
	+	241.98		1.726E+00	6.560E-01	6.505E-01	5.174E-02	2.654
	+	295.21		1.238E+00	3.130E-01	2.661E-01	2.281E-02	4.652
	+	351.92	*	1.293E+00	1.996E-01	1.233E-01	1.030E-02	10.486
PO-216	+	74.81		2.120E+00	6.917E-01	7.382E-01	9.522E-02	2.871
	+	77.11		1.734E+00	3.394E-01	4.224E-01	3.801E-02	4.105
	+	87.30		7.152E-01	6.324E-01	9.685E-01	1.350E-01	0.738
	+	238.63	*	1.287E+00	1.481E-01	1.080E-01	7.765E-03	11.912
		300.09		1.900E+00	9.840E-01	1.626E+00	1.350E-01	1.169
PO-218	+	74.81		3.652E+00	1.174E+00	1.272E+00	1.472E-01	2.871
	+	77.11		2.973E+00	6.244E-01	7.242E-01	8.538E-02	4.105
	+	87.30		1.225E+00	1.080E+00	1.659E+00	2.057E-01	0.738
	+	241.98		1.726E+00	6.560E-01	6.505E-01	5.174E-02	2.654
	+	295.21		1.238E+00	3.130E-01	2.661E-01	2.281E-02	4.652
	+	351.92	*	1.293E+00	1.996E-01	1.233E-01	1.030E-02	10.486
RA-224	+	240.98	*	3.273E+00	1.230E+00	1.229E+00	6.926E-02	2.663
RA-226	+	609.31	*	1.180E+00	1.973E-01	1.119E-01	8.416E-03	10.539
	+	1120.29		1.437E+00	6.400E-01	4.990E-01	4.637E-02	2.879
		1764.49		1.102E+00	4.183E-01	8.507E-01	5.289E-02	1.296
AC-228	+	338.32		1.208E+00	6.537E-01	4.531E-01	1.848E-01	2.665
	+	911.07	*	8.559E-01	4.057E-01	2.596E-01	2.995E-02	3.297
	+	969.11		7.623E-01	7.036E-01	4.529E-01	1.054E-01	1.683
RA-228	+	338.32		1.208E+00	6.537E-01	4.531E-01	1.848E-01	2.665
	+	911.07	*	8.559E-01	4.057E-01	2.596E-01	2.995E-02	3.297
	+	969.11		7.623E-01	7.036E-01	4.529E-01	1.054E-01	1.683
TH-228	+	74.81		2.152E+00	6.732E-01	7.493E-01	6.716E-02	2.871
	+	77.11		1.760E+00	3.445E-01	4.288E-01	3.858E-02	4.105
	+	87.30		7.260E-01	6.378E-01	9.831E-01	9.543E-02	0.738
	+	238.63	*	1.306E+00	1.504E-01	1.096E-01	7.883E-03	11.912
		300.09		1.928E+00	1.505E+00	1.650E+00	9.726E-01	1.169
TH-230	+	609.31	*	1.180E+00	1.973E-01	1.119E-01	8.416E-03	10.539
	+	1120.29		1.437E+00	6.400E-01	4.990E-01	4.637E-02	2.879
		1764.49		1.102E+00	4.182E-01	8.507E-01	5.289E-02	1.296
TH-232	+	338.32		1.208E+00	4.357E-01	4.531E-01	2.676E-02	2.665
	+	911.07	*	8.559E-01	4.057E-01	2.596E-01	2.995E-02	3.297
	+	969.11		7.623E-01	7.036E-01	4.529E-01	1.054E-01	1.683
TH-234	+	63.29	*	1.035E+01	3.253E+00	3.248E+00	5.852E-01	3.185
	+	92.38		8.510E+00	1.980E+00	1.102E+00	2.010E-01	7.723
U-234	+	609.31	*	1.180E+00	1.973E-01	1.119E-01	8.416E-03	10.539
	+	1120.29		1.437E+00	6.400E-01	4.990E-01	4.637E-02	2.879
		1764.49		1.102E+00	4.182E-01	8.507E-01	5.289E-02	1.296
U-235		89.95		3.346E-01	2.526E+00	2.688E+00	8.355E-01	0.124
	+	93.35		1.023E+01	3.235E+00	1.061E+00	2.978E-01	9.644
		105.00		8.723E-01	1.349E+00	2.219E+00	6.543E-01	0.393
	+	143.76	*	7.659E-01	3.973E-01	3.963E-01	6.409E-02	1.933
		163.35		4.752E-01	5.921E-01	9.868E-01	1.754E-01	0.482
	+	185.71		3.966E-01	9.132E-02	8.718E-02	4.565E-03	4.549

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		205.31		-7.863E-01	6.990E-01	1.050E+00	1.875E-01	-0.749
NP-237	+	86.50	*	4.541E-01	4.098E-01	5.692E-01	1.296E-01	0.798
		95.87		-1.171E+00	1.390E+00	1.890E+00	4.641E-01	-0.620
U-238	+	63.29	*	1.035E+01	3.253E+00	3.248E+00	5.852E-01	3.185
	+	92.38		8.510E+00	1.446E+00	1.102E+00	9.847E-02	7.723
AM-243	+	74.67	*	3.436E-01	1.074E-01	1.201E-01	1.068E-02	2.860
	+	86.72		1.703E+01	1.496E+01	2.207E+01	2.131E+00	0.772
		117.66		-4.078E+00	4.297E+00	6.760E+00	4.186E-01	-0.603
	+	142.18		6.434E+01	3.190E+01	3.188E+01	1.736E+00	2.018
ANH-511	+	511.00	*	1.280E-01	8.032E-02	5.474E-02	3.180E-03	2.339

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.306E-01	4.093E-01	6.996E-01	4.755E-02	0.330
NA-22		1274.54	*	1.526E-02	4.881E-02	8.262E-02	5.549E-03	0.185
NA-24		1368.53	*	-2.882E-01	4.881E-02	Half-Life too short		
AL-26		1129.67		1.804E+00	1.873E+00	3.391E+00	2.160E-01	0.532
		1808.65	*	1.466E-02	3.023E-02	5.569E-02	3.347E-03	0.263
TI-44		67.85		-3.451E-02	7.366E-02	1.059E-01	9.225E-03	-0.326
	+	78.38	*	3.200E-01	6.264E-02	9.764E-02	8.851E-03	3.278
SC-46		889.25	*	2.090E-02	4.472E-02	7.792E-02	6.962E-03	0.268
	+	1120.51		2.458E-01	1.083E-01	1.531E-01	9.977E-03	1.605
V-48		944.10		-4.873E-01	9.598E-01	1.499E+00	1.306E-01	-0.325
		983.50	*	6.960E-02	7.785E-02	1.409E-01	1.173E-02	0.494
		1312.09		-7.796E-04	9.089E-02	1.477E-01	1.051E-02	-0.005
CR-51		320.08	*	2.080E-02	4.398E-01	7.395E-01	4.849E-02	0.028
MN-52		744.21		1.041E-01	2.815E-01	4.691E-01	2.986E-02	0.222
		848.13		-2.937E-01	7.213E+00	1.200E+01	9.792E-01	-0.024
		935.52		2.392E-01	2.916E-01	5.216E-01	4.586E-02	0.459
		1246.25		2.309E+00	8.752E+00	1.465E+01	9.374E-01	0.158
		1333.61		-1.798E+00	5.397E+00	8.307E+00	6.098E-01	-0.216
		1434.06	*	-3.895E-02	2.902E-01	4.592E-01	3.323E-02	-0.085
MN-54		834.83	*	-3.453E-03	3.901E-02	6.465E-02	5.119E-03	-0.053
CO-56		846.75	*	-4.748E-03	4.137E-02	6.828E-02	5.555E-03	-0.070
		977.42		2.454E-01	3.485E+00	5.404E+00	4.530E-01	0.045
		1037.82		1.810E-01	3.813E-01	6.592E-01	5.404E-02	0.275
		1175.09		1.671E+00	2.299E+00	4.083E+00	2.311E-01	0.409
		1238.25		1.020E-01	1.121E-01	1.971E-01	1.311E-02	0.517
		1360.21		-5.599E-01	1.096E+00	1.624E+00	1.190E-01	-0.345
		1771.40		-2.691E-01	2.791E-01	3.644E-01	2.254E-02	-0.739
CO-57		122.06	*	1.311E-02	2.929E-02	4.908E-02	2.894E-03	0.267
		136.48		-3.759E-02	2.578E-01	3.878E-01	2.522E-02	-0.097
CO-58		810.76	*	-1.300E-02	4.781E-02	7.811E-02	5.868E-03	-0.166
FE-59	+	142.65		9.866E+00	4.892E+00	5.999E+00	3.262E-01	1.644
		192.34		2.655E-01	1.183E+00	1.869E+00	2.162E-01	0.142
		1099.22	*	-8.214E-02	9.677E-02	1.418E-01	1.092E-02	-0.579
		1291.56		5.105E-02	1.393E-01	2.374E-01	1.971E-02	0.215

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-60		1173.22		3.592E-02	4.637E-02	8.272E-02	4.666E-03	0.434
		1332.49	*	-4.867E-03	4.378E-02	6.994E-02	5.135E-03	-0.070
ZN-65		1115.52	*	8.533E-02	1.265E-01	1.952E-01	1.289E-02	0.437
GE-68		1077.35	*	4.894E-01	1.296E+00	2.231E+00	1.597E-01	0.219
AS-73		53.44	*	3.597E-01	1.338E+00	2.271E+00	2.005E-01	0.158
AS-74		595.88	*	1.713E-02	1.108E-01	1.827E-01	1.008E-02	0.094
		634.78		1.229E-01	4.487E-01	6.964E-01	3.687E-02	0.177
SE-75		66.05		-4.740E-01	7.619E+00	1.119E+01	1.174E+00	-0.042
		96.73		-1.199E-01	1.102E+00	1.594E+00	2.137E-01	-0.075
		121.11		1.830E-02	1.572E-01	2.598E-01	2.423E-02	0.070
		136.00		4.913E-03	4.626E-02	7.360E-02	4.156E-03	0.067
		198.60		1.040E+00	2.126E+00	3.516E+00	2.374E-01	0.296
		264.65	*	-4.994E-03	6.515E-02	9.022E-02	5.252E-03	-0.055
		279.53		7.896E-03	1.299E-01	2.197E-01	1.381E-02	0.036
		303.91		-4.249E+00	2.468E+00	3.690E+00	3.540E-01	-1.151
		400.65		2.690E-01	3.210E-01	5.583E-01	5.080E-02	0.482
BR-77	+	87.88		3.309E+02	2.907E+02	4.170E+02	4.069E+01	0.794
		200.40		9.039E+01	1.919E+02	3.169E+02	1.695E+01	0.285
	+	239.00		2.011E+02	2.133E+01	3.844E+01	2.161E+00	5.233
		249.79		-6.949E+01	7.603E+01	1.150E+02	6.536E+00	-0.605
		281.68		-6.052E+01	1.048E+02	1.715E+02	9.995E+00	-0.353
		297.23		1.754E+02	8.217E+01	1.343E+02	7.886E+00	1.306
		303.76		-3.384E+02	2.038E+02	3.091E+02	1.820E+01	-1.095
		439.47		6.782E+01	1.743E+02	2.955E+02	1.729E+01	0.230
		484.57		1.840E+02	2.584E+02	4.479E+02	2.619E+01	0.411
		520.65	*	-6.660E+00	1.176E+01	1.834E+01	1.062E+00	-0.363
		574.64		-2.178E+02	2.786E+02	3.533E+02	1.983E+01	-0.616
		578.91		9.439E+01	1.127E+02	1.740E+02	9.733E+00	0.543
		585.48		6.690E+02	2.407E+02	4.256E+02	2.369E+01	1.572
		755.35		-1.074E+02	1.797E+02	2.692E+02	1.762E+01	-0.399
		817.79		7.926E+00	1.368E+02	2.304E+02	1.754E+01	0.034
SR-82		698.33		-4.155E+00	4.058E+01	6.486E+01	3.664E+00	-0.064
		776.49	*	-5.537E-01	4.134E-01	5.973E-01	4.121E-02	-0.927
		1395.20		-7.119E+00	1.281E+01	1.881E+01	1.371E+00	-0.378
RB-83		520.41	*	-5.143E-02	7.927E-02	1.227E-01	7.103E-03	-0.419
		529.64		-6.111E-02	1.272E-01	2.001E-01	1.154E-02	-0.305
		552.65		-1.257E-01	2.383E-01	3.721E-01	2.120E-02	-0.338
RB-84		881.50	*	1.971E-02	7.910E-02	1.351E-01	1.187E-02	0.146
KR-85		513.99	*	8.961E+00	8.686E+00	1.373E+01	7.964E-01	0.653
SR-85		513.99	*	4.590E-02	4.449E-02	7.030E-02	4.080E-03	0.653
RB-86		1076.63	*	3.465E-01	7.990E-01	1.385E+00	9.930E-02	0.250
Y-88		898.02		-5.916E-02	4.672E-02	6.629E-02	6.062E-03	-0.892
		1836.01	*	-8.774E-03	4.310E-02	6.833E-02	4.023E-03	-0.128
ZR-88		392.90	*	-1.262E-02	3.698E-02	6.011E-02	3.471E-03	-0.210
Y-91		1204.90	*	3.218E+00	2.050E+01	3.411E+01	2.035E+00	0.094
NB-94		702.63	*	5.239E-03	4.081E-02	6.660E-02	3.805E-03	0.079
		871.10		-8.068E-03	3.738E-02	6.091E-02	5.231E-03	-0.132
NB-95		765.79	*	3.869E-02	5.855E-02	9.810E-02	6.592E-03	0.394
NB-95M		235.69	*	5.133E-01	1.876E-01	2.998E-01	2.211E-02	1.712

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95		724.18		1.665E-01	1.321E-01	2.105E-01	1.488E-02	0.791
		756.15	*	-4.253E-02	7.679E-02	1.154E-01	8.853E-03	-0.369
NB-97		657.90	*	4.650E-01	7.679E-02	Half-Life too short		
		1024.50		7.855E+00	7.679E-02	Half-Life too short		
ZR-97		254.15		-1.751E+00	7.679E-02	Half-Life too short		
		355.39		8.120E-01	7.679E-02	Half-Life too short		
		507.63	*	7.470E+00	7.679E-02	Half-Life too short		
		602.52		1.694E+00	7.679E-02	Half-Life too short		
		1021.30		-9.229E+00	7.679E-02	Half-Life too short		
		1147.95		1.263E+00	7.679E-02	Half-Life too short		
		1362.66		-4.439E+00	7.679E-02	Half-Life too short		
		1750.46		-4.151E+00	7.679E-02	Half-Life too short		
MO-99		140.51		7.903E+00	3.425E+01	4.923E+01	1.323E+01	0.161
		181.06		5.767E+00	2.265E+01	3.263E+01	5.529E+00	0.177
		366.43		2.548E+01	1.005E+02	1.702E+02	9.974E+00	0.150
		739.58	*	6.759E-01	1.403E+01	2.268E+01	3.173E+00	0.030
		778.00		-2.952E+01	3.599E+01	5.540E+01	3.836E+00	-0.533
TC-99M		140.51	*	9.113E+09	3.599E+01	Half-Life too short		
RH-101		127.23		-1.500E-02	3.914E-02	6.329E-02	3.635E-03	-0.237
		198.01	*	-7.341E-03	3.887E-02	6.230E-02	3.321E-03	-0.118
		325.23		9.629E-02	2.976E-01	4.451E-01	2.630E-02	0.216
RH-102		418.52		-5.383E-02	3.376E-01	5.533E-01	3.224E-02	-0.097
		475.06	*	2.263E-02	3.847E-02	6.579E-02	3.851E-03	0.344
		631.29		2.668E-03	6.636E-02	1.081E-01	5.746E-03	0.025
		697.49		-9.972E-02	9.543E-02	1.388E-01	7.824E-03	-0.718
		766.84		8.259E-02	1.529E-01	2.555E-01	1.722E-02	0.323
		1046.59		-1.003E-01	1.319E-01	1.982E-01	1.501E-02	-0.506
		1112.84		9.292E-02	2.910E-01	4.315E-01	2.862E-02	0.215
RU-103		497.08	*	1.067E-02	5.121E-02	8.541E-02	1.081E-02	0.125
		610.33		1.100E+01	2.293E+00	3.197E+00	4.887E-01	3.440
RH-106	+	511.85		6.393E-01	4.011E-01	4.821E-01	2.800E-02	1.326
		621.84	*	-9.916E-02	3.913E-01	6.212E-01	7.164E-02	-0.160
		1050.47		3.923E-01	2.560E+00	4.295E+00	3.231E-01	0.091
RU-106	+	511.85		6.393E-01	4.011E-01	4.821E-01	2.800E-02	1.326
		621.84	*	-9.916E-02	3.912E-01	6.212E-01	3.338E-02	-0.160
		1050.47		3.923E-01	2.560E+00	4.295E+00	3.231E-01	0.091
AG-108M		433.93	*	-1.732E-03	3.927E-02	6.477E-02	4.106E-03	-0.027
		614.37		-3.247E-02	5.168E-02	6.652E-02	3.952E-03	-0.488
		722.95		2.212E-02	5.377E-02	7.889E-02	5.129E-03	0.280
AG-110M		657.75	*	1.418E-01	5.766E-02	9.933E-02	5.520E-03	1.428
		677.61		-7.860E-02	3.152E-01	4.954E-01	2.835E-02	-0.159
		706.67		5.489E-02	2.419E-01	3.985E-01	2.441E-02	0.138
		763.93		-1.057E-01	2.331E-01	3.567E-01	2.497E-02	-0.296
		884.67		-9.362E-03	5.730E-02	9.391E-02	8.561E-03	-0.100
		937.48		-1.057E-01	1.345E-01	2.051E-01	1.863E-02	-0.515
		1384.27		2.539E-02	2.053E-01	3.385E-01	2.567E-02	0.075
IN-111		171.28		-6.707E-01	1.179E+00	1.866E+00	9.571E-02	-0.359
		245.39	*	7.981E-01	1.349E+00	1.974E+00	1.118E-01	0.404
IN-113M		391.69	*	-5.538E-03	5.249E-02	8.666E-02	5.338E-03	-0.064

---- Non-Identified Nuclides ----

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SN-113		391.69	*	-5.538E-03	5.249E-02	8.666E-02	5.338E-03	-0.064
IN-114M		190.27	*	-1.354E-01	2.599E-01	3.557E-01	1.875E-02	-0.381
CD-115		260.90		2.608E+01	1.612E+02	2.601E+02	1.494E+01	0.100
		492.35		9.376E+00	4.135E+01	6.918E+01	4.039E+00	0.136
		527.90	*	-4.771E+00	1.281E+01	2.036E+01	1.175E+00	-0.234
SN-117M		156.02		1.802E+00	2.708E+00	4.539E+00	2.375E-01	0.397
		158.56	*	-7.189E-02	6.821E-02	1.060E-01	5.508E-03	-0.678
SB-122		563.90	*	2.087E+00	2.502E+00	4.341E+00	2.456E-01	0.481
		692.80		-6.615E+00	5.086E+01	8.111E+01	4.514E+00	-0.082
I-123		159.00	*	-8.123E+00	5.086E+01	Half-Life too short		
		528.96		-2.777E+02	5.086E+01	Half-Life too short		
TE-123M		159.00	*	-4.508E-02	3.562E-02	5.477E-02	2.890E-03	-0.823
I-124		602.71	*	1.528E-01	8.415E-01	1.210E+00	6.630E-02	0.126
		722.78		1.526E+00	5.470E+00	7.892E+00	4.756E-01	0.193
		1325.50		-1.597E+00	3.877E+01	6.264E+01	4.550E+00	-0.025
		1376.25		5.878E+01	3.759E+01	7.224E+01	5.279E+00	0.814
		1509.49		6.847E-01	1.828E+01	2.964E+01	2.102E+00	0.023
		1691.02		-3.224E+00	3.886E+00	5.139E+00	3.355E-01	-0.627
SB-124		602.71		9.007E-03	4.961E-02	7.132E-02	3.910E-03	0.126
		645.85		-3.494E-01	5.952E-01	9.101E-01	5.494E-02	-0.384
		709.31		6.893E-01	3.335E+00	5.481E+00	3.188E-01	0.126
		713.82		-8.756E-01	1.961E+00	3.019E+00	3.097E-01	-0.290
		722.78		1.304E-01	4.674E-01	6.745E-01	4.242E-02	0.193
	+	968.20		7.839E+00	7.033E+00	7.405E+00	6.279E-01	1.059
		1045.16		-1.457E+00	2.841E+00	4.414E+00	3.351E-01	-0.330
		1325.50		-1.458E-01	3.539E+00	5.717E+00	4.153E-01	-0.025
		1368.21		-4.342E-01	2.094E+00	3.288E+00	4.169E-01	-0.132
		1436.60		6.798E-01	4.655E+00	7.695E+00	5.565E-01	0.088
		1691.02	*	-6.499E-02	7.836E-02	1.036E-01	7.223E-03	-0.627
SB-125		427.89	*	-1.660E-02	1.101E-01	1.804E-01	1.097E-02	-0.092
		463.38		4.113E-01	3.486E-01	6.032E-01	4.109E-02	0.682
		600.56		2.944E-02	2.180E-01	3.386E-01	2.182E-02	0.087
		635.90		-2.192E-01	3.269E-01	4.967E-01	3.158E-02	-0.441
TE-125M		109.28	*	-3.471E+00	1.192E+01	1.945E+01	1.735E+00	-0.178
I-126		388.63		2.143E-01	2.403E-01	4.213E-01	2.436E-02	0.509
		666.33	*	4.976E-02	2.146E-01	3.099E-01	1.604E-02	0.161
		753.82		9.194E-02	1.584E+00	2.562E+00	1.671E-01	0.036
SB-126		223.80		8.662E-01	4.815E+00	7.821E+00	4.319E-01	0.111
		278.60		3.788E+00	2.895E+00	5.169E+00	3.007E-01	0.733
		296.50		8.245E+00	2.477E+00	4.147E+00	2.435E-01	1.988
		414.70		-4.645E-02	8.904E-02	1.423E-01	8.284E-03	-0.326
		415.30		1.414E+00	7.217E+00	1.212E+01	7.057E-01	0.117
		555.20		2.401E+00	4.425E+00	7.568E+00	4.305E-01	0.317
		573.80		-6.470E-01	1.323E+00	1.846E+00	1.037E-01	-0.350
		593.00		-1.459E-01	1.125E+00	1.812E+00	1.002E-01	-0.081
		656.30		1.678E+00	4.667E+00	6.817E+00	3.509E-01	0.246
		666.33		2.079E-02	8.967E-02	1.295E-01	6.699E-03	0.161
		675.00		-1.251E-02	2.113E+00	3.414E+00	1.810E-01	-0.004
		695.00		-3.779E-02	9.130E-02	1.415E-01	7.924E-03	-0.267

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		697.00		-2.257E-01	3.247E-01	4.897E-01	2.756E-02	-0.461
		720.50	*	-4.816E-03	1.891E-01	2.616E-01	1.567E-02	-0.018
		856.80		-1.166E-01	6.277E-01	8.796E-01	7.319E-02	-0.133
		989.30		7.267E-01	1.468E+00	2.554E+00	2.109E-01	0.285
		1034.80		-1.025E+00	1.077E+01	1.760E+01	1.360E+00	-0.058
		1213.00		-8.077E-01	5.229E+00	8.405E+00	5.085E-01	-0.096
SB-127		61.10		2.520E+02	9.791E+01	1.554E+02	1.738E+01	1.622
		252.40		1.760E+00	4.942E+00	7.996E+00	3.321E+00	0.220
		290.80		-1.006E+01	2.602E+01	3.695E+01	3.385E+00	-0.272
		411.60		-2.431E+00	1.486E+01	2.439E+01	3.502E+00	-0.100
		444.90		-1.527E+00	1.183E+01	1.938E+01	2.091E+00	-0.079
		473.00		-7.028E-01	2.234E+00	3.602E+00	4.025E-01	-0.195
		543.00		2.481E+00	1.926E+01	3.185E+01	4.092E+00	0.078
		603.60		2.325E-01	1.432E+01	2.016E+01	2.129E+00	0.012
		685.20	*	-5.098E-02	1.485E+00	2.391E+00	2.196E-01	-0.021
		698.50		4.201E+00	1.762E+01	2.904E+01	4.180E+00	0.145
		722.20		-7.769E+00	3.791E+01	5.103E+01	4.728E+00	-0.152
		783.80		7.118E+00	4.098E+00	7.729E+00	8.763E-01	0.921
XE-127		57.60		-1.627E+00	9.950E+00	1.516E+01	1.328E+00	-0.107
		145.22		5.189E-01	9.839E-01	1.450E+00	7.823E-02	0.358
		172.10		-7.400E-02	1.428E-01	2.265E-01	1.163E-02	-0.327
		202.84	*	-2.978E-02	5.839E-02	9.208E-02	4.943E-03	-0.323
		374.96		-2.384E-01	2.340E-01	3.631E-01	2.118E-02	-0.656
I-131		80.18		-3.884E+00	6.853E+00	9.762E+00	9.002E-01	-0.398
		284.30		-8.428E-01	1.702E+00	2.792E+00	1.809E-01	-0.302
		364.48	*	1.086E-01	1.417E-01	2.465E-01	1.610E-02	0.440
		636.97		-8.578E-01	1.855E+00	2.879E+00	1.737E-01	-0.298
		722.89		3.266E+00	8.948E+00	1.305E+01	7.969E-01	0.250
TE-132		49.72		-2.126E+01	3.349E+01	5.485E+01	5.842E+00	-0.388
		111.76		3.205E+01	3.726E+01	6.320E+01	5.905E+00	0.507
		116.30		-4.238E+01	3.225E+01	4.976E+01	4.523E+00	-0.852
		228.16	*	-4.237E-01	7.956E-01	1.239E+00	1.765E-01	-0.342
BA-133		53.15		1.987E+00	5.833E+00	9.927E+00	8.756E-01	0.200
		79.62		-4.363E-01	1.937E+00	2.806E+00	4.356E-01	-0.155
		81.00		-2.362E-01	1.695E-01	2.086E-01	3.382E-02	-1.132
		276.40		1.783E-01	4.815E-01	7.567E-01	9.813E-02	0.236
		302.84		-1.100E-01	1.654E-01	2.672E-01	3.126E-02	-0.412
		356.01	*	-4.210E-02	5.689E-02	7.657E-02	8.884E-03	-0.550
		383.85		-9.909E-02	3.523E-01	5.752E-01	6.254E-02	-0.172
I-133	+	510.53		1.210E+00	3.523E-01	Half-Life too short		
		529.87	*	-3.546E-03	3.523E-01	Half-Life too short		
		706.58		7.587E-02	3.523E-01	Half-Life too short		
		856.28		-2.668E-01	3.523E-01	Half-Life too short		
		875.33		2.295E-03	3.523E-01	Half-Life too short		
		1236.41		9.730E-01	3.523E-01	Half-Life too short		
		1298.22		-1.302E-01	3.523E-01	Half-Life too short		
CS-134		475.35		9.105E-01	2.521E+00	4.251E+00	2.488E-01	0.214
		563.23		6.105E-01	4.408E-01	7.932E-01	4.587E-02	0.770
		569.32		1.146E-01	2.421E-01	3.998E-01	2.324E-02	0.287

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		604.70		-8.206E-04	4.512E-02	6.326E-02	3.482E-03	-0.013
		795.84	*	5.814E-02	4.924E-02	9.106E-02	6.650E-03	0.639
		801.93		-4.585E-01	4.690E-01	7.042E-01	5.205E-02	-0.651
		1038.57		1.857E+00	4.763E+00	8.169E+00	6.270E-01	0.227
		1167.94		7.286E-01	2.386E+00	4.063E+00	2.329E-01	0.179
		1365.15		1.360E+00	1.363E+00	2.500E+00	1.944E-01	0.544
I-135		288.45		2.338E+09	1.363E+00	Half-Life too short		
		417.63		5.944E+09	1.363E+00	Half-Life too short		
		546.56		7.088E+07	1.363E+00	Half-Life too short		
		836.80		1.324E+10	1.363E+00	Half-Life too short		
		1038.76		3.665E+09	1.363E+00	Half-Life too short		
		1124.00		-2.151E+10	1.363E+00	Half-Life too short		
		1131.51		5.151E+09	1.363E+00	Half-Life too short		
		1260.41	*	7.055E+08	1.363E+00	Half-Life too short		
		1457.56		6.166E+11	1.363E+00	Half-Life too short		
		1678.03		-5.816E+09	1.363E+00	Half-Life too short		
		1706.46		-9.105E+09	1.363E+00	Half-Life too short		
		1791.20		1.614E+09	1.363E+00	Half-Life too short		
CS-136		66.91		-2.165E-01	1.224E+00	1.786E+00	2.764E-01	-0.121
	+	86.29		2.008E+00	1.775E+00	2.538E+00	3.437E-01	0.791
		153.22		-5.405E-01	8.261E-01	1.286E+00	8.754E-02	-0.420
		163.89		6.113E-01	1.324E+00	2.197E+00	1.477E-01	0.278
		176.55		2.118E-01	4.294E-01	7.130E-01	4.251E-02	0.297
		273.65		-1.010E+00	6.842E-01	8.381E-01	5.543E-02	-1.205
		340.57		2.719E-01	1.573E-01	2.591E-01	1.623E-02	1.049
		818.51		-5.642E-03	7.776E-02	1.292E-01	9.861E-03	-0.044
		1048.07	*	-9.658E-03	1.191E-01	1.948E-01	1.552E-02	-0.050
		1235.34		1.333E+00	7.407E-01	1.373E+00	1.411E-01	0.970
CE-139		165.85	*	-4.512E-02	3.824E-02	5.829E-02	2.972E-03	-0.774
BA-140		162.64		1.013E+00	9.289E-01	1.579E+00	9.383E-02	0.642
		304.84		-2.894E+00	1.654E+00	2.161E+00	5.903E-01	-1.339
		423.70		2.514E-02	2.232E+00	3.700E+00	1.176E+00	0.007
		537.32	*	2.659E-02	3.174E-01	5.229E-01	1.700E-01	0.051
LA-140	+	328.77		6.791E-01	4.753E-01	6.218E-01	4.100E-02	1.092
		432.53		-1.572E+00	2.474E+00	3.906E+00	2.518E-01	-0.402
		487.03		4.722E-02	1.591E-01	2.676E-01	1.768E-02	0.176
		751.79		5.829E-01	1.853E+00	3.078E+00	2.361E-01	0.189
		815.85		-1.632E-01	3.511E-01	5.594E-01	4.862E-02	-0.292
		867.82		6.489E-01	1.611E+00	2.548E+00	2.290E-01	0.255
		919.63		-5.157E+00	3.100E+00	4.039E+00	4.402E-01	-1.277
		925.24		2.295E-01	1.213E+00	2.035E+00	1.915E-01	0.113
		1596.49	*	-2.026E-02	9.034E-02	1.446E-01	9.922E-03	-0.140
CE-141		145.44	*	3.601E-02	8.888E-02	1.302E-01	7.341E-03	0.277
CE-143		57.37		-1.048E-03	8.888E-02	Half-Life too short		
		231.56		5.875E-04	8.888E-02	Half-Life too short		
		293.26	*	1.049E-03	8.888E-02	Half-Life too short		
	+	350.59		2.813E-02	8.888E-02	Half-Life too short		
		490.36		-8.545E-04	8.888E-02	Half-Life too short		
		664.57		1.091E-03	8.888E-02	Half-Life too short		

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		721.93		-6.354E-04	8.888E-02	Half-Life too short		
CE-144		80.11		-1.870E+00	3.179E+00	4.523E+00	4.146E-01	-0.413
		133.54	*	-4.406E-02	2.416E-01	3.930E-01	5.550E-02	-0.112
PM-144		476.78		1.841E-02	8.660E-02	1.447E-01	1.011E-02	0.127
		618.01		3.570E-02	3.878E-02	6.775E-02	3.908E-03	0.527
		696.49	*	-3.445E-02	4.182E-02	6.219E-02	3.499E-03	-0.554
		778.57		-2.881E+00	2.467E+00	3.635E+00	2.521E-01	-0.793
PR-144		696.49	*	-2.335E+00	2.834E+00	4.214E+00	2.369E-01	-0.554
		1489.15		7.843E+00	1.443E+01	2.537E+01	1.810E+00	0.309
PM-146		453.90	*	2.499E-02	5.187E-02	8.847E-02	7.662E-03	0.283
		633.02		-8.510E-01	1.854E+00	2.657E+00	9.765E-01	-0.320
		735.90		-3.409E-02	1.745E-01	2.748E-01	7.686E-02	-0.124
		747.13		-1.601E-02	1.041E-01	1.645E-01	2.106E-02	-0.097
ND-147		91.11		3.492E+00	7.615E-01	9.360E-01	9.203E-02	3.731
		319.41		-3.075E-01	3.917E+00	6.541E+00	3.865E-01	-0.047
		439.89		4.767E-01	7.186E+00	1.193E+01	6.986E-01	0.040
		531.02	*	-5.353E-02	6.804E-01	1.107E+00	1.496E-01	-0.048
PM-149		285.90	*	-9.587E+00	9.994E+01	1.675E+02	2.377E+01	-0.057
EU-152		121.78		4.529E-02	8.538E-02	1.435E-01	1.103E-02	0.316
		244.69		3.323E-01	4.243E-01	6.295E-01	3.561E-02	0.528
		344.27	*	-3.929E-02	1.281E-01	1.812E-01	1.201E-02	-0.217
		443.98		-6.634E-01	1.170E+00	1.854E+00	1.085E-01	-0.358
		778.89		-3.232E-01	2.857E-01	4.232E-01	2.937E-02	-0.764
		867.32		4.396E-01	9.879E-01	1.519E+00	1.294E-01	0.289
		964.01		3.623E-01	4.198E-01	6.567E-01	5.596E-02	0.552
		1085.78		1.300E-01	4.187E-01	7.148E-01	5.030E-02	0.182
		1112.02		7.527E-02	4.154E-01	6.032E-01	4.009E-02	0.125
		1407.95		2.334E-01	2.067E-01	3.897E-01	2.834E-02	0.599
GD-153		69.67		-3.828E-01	2.576E+00	3.761E+00	3.286E-01	-0.102
		83.37		7.250E-01	2.271E+01	3.325E+01	3.122E+00	0.022
		97.43	*	9.410E-02	1.108E-01	1.679E-01	1.371E-02	0.561
		103.18		-1.045E-01	1.322E-01	2.089E-01	1.561E-02	-0.500
EU-154		123.07		1.764E-02	6.057E-02	1.008E-01	9.513E-03	0.175
		247.94		2.292E-02	4.509E-01	6.692E-01	6.334E-02	0.034
		591.81		-4.809E-01	7.720E-01	1.149E+00	1.105E-01	-0.419
		723.30		1.819E-01	2.250E-01	3.462E-01	2.518E-02	0.525
		756.87		-1.333E-01	8.496E-01	1.341E+00	1.421E-01	-0.099
		873.19		-6.796E-02	3.236E-01	5.273E-01	6.459E-02	-0.129
		996.32		-4.386E-01	4.986E-01	5.959E-01	1.046E-01	-0.736
		1004.76		-1.803E-02	2.747E-01	3.865E-01	4.348E-02	-0.047
		1274.45	*	4.563E-02	1.367E-01	2.320E-01	2.303E-02	0.197
EU-155		48.70		-3.330E+00	4.298E+00	7.000E+00	5.646E-01	-0.476
		60.01		1.057E+01	8.214E+00	1.269E+01	1.102E+00	0.833
	+	86.54		1.862E-01	1.636E-01	2.315E-01	2.250E-02	0.804
		105.31	*	8.822E-02	1.337E-01	2.261E-01	1.668E-02	0.390
TB-160	+	86.79		4.971E-01	4.367E-01	6.102E-01	5.896E-02	0.815
		197.04		-4.077E-01	6.689E-01	1.050E+00	5.589E-02	-0.388
		215.65		8.983E-04	8.613E-01	1.388E+00	7.587E-02	0.001
		298.57		1.721E-01	1.476E-01	2.337E-01	1.373E-02	0.736

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		879.36	*	-3.180E-02	1.550E-01	2.528E-01	2.211E-02	-0.126
		962.29		2.034E-01	7.547E-01	1.113E+00	9.507E-02	0.183
		966.15		9.416E-01	3.490E-01	6.102E-01	5.187E-02	1.543
		1177.93		1.381E-01	3.697E-01	6.324E-01	3.598E-02	0.218
		1271.85		4.635E-01	8.011E-01	1.378E+00	9.201E-02	0.336
HO-166M		80.57		-5.595E-01	4.255E-01	5.820E-01	5.352E-02	-0.961
	+	184.41		2.974E-01	6.849E-02	1.006E-01	5.258E-03	2.956
		280.46		-1.004E-01	1.010E-01	1.614E-01	9.399E-03	-0.622
		410.95		-3.002E-02	3.064E-01	5.051E-01	2.936E-02	-0.059
		711.68	*	1.853E-02	7.415E-02	1.223E-01	7.157E-03	0.152
		752.31		6.712E-02	2.952E-01	4.862E-01	3.159E-02	0.138
		810.29		-1.572E-03	7.255E-02	1.213E-01	9.072E-03	-0.013
TM-171		51.35		7.167E+00	5.162E+01	8.728E+01	7.587E+00	0.082
		52.39		2.523E+01	2.599E+01	4.514E+01	3.966E+00	0.559
		59.40		4.653E+01	4.431E+01	6.787E+01	5.896E+00	0.686
		66.72	*	-1.140E+01	4.485E+01	6.522E+01	5.672E+00	-0.175
LU-176	+	88.36		3.668E-01	3.222E-01	4.713E-01	4.569E-02	0.778
		201.83		-2.672E-02	3.621E-02	5.649E-02	3.028E-03	-0.473
		306.84	*	-1.333E-02	2.812E-02	4.594E-02	2.706E-03	-0.290
		401.10		2.142E+00	8.603E+00	1.449E+01	8.397E-01	0.148
LU-177		112.95		1.746E+00	2.024E+00	3.440E+00	2.256E-01	0.507
		208.36	*	1.753E+00	1.371E+00	2.329E+00	1.260E-01	0.753
LU-177M		52.97		2.410E+00	2.621E+00	4.547E+00	4.007E-01	0.530
		54.07		2.612E-01	1.367E+00	2.314E+00	2.045E-01	0.113
		61.30		7.068E+00	2.654E+00	4.264E+00	3.704E-01	1.657
		121.62		3.093E-01	4.337E-01	7.346E-01	4.342E-02	0.421
		147.16		5.444E-02	8.840E-01	1.270E+00	6.814E-02	0.043
		171.86		-2.986E-01	5.762E-01	9.140E-01	4.692E-02	-0.327
		218.09		-1.058E-01	1.006E+00	1.612E+00	8.837E-02	-0.066
	+	268.79		1.436E+00	1.367E+00	1.759E+00	1.017E-01	0.816
		319.02		-5.229E-02	3.053E-01	5.072E-01	2.995E-02	-0.103
		367.43		-7.310E-01	1.114E+00	1.781E+00	1.043E-01	-0.410
		413.65	*	-2.038E-01	2.159E-01	3.351E-01	1.950E-02	-0.608
HF-181		56.28		-2.280E+00	1.473E+00	2.300E+00	2.025E-01	-0.991
		57.53		-3.365E-01	8.458E-01	1.274E+00	1.116E-01	-0.264
		65.20		3.724E+00	1.599E+00	2.542E+00	2.208E-01	1.465
		133.02		-4.135E-02	7.827E-02	1.255E-01	7.043E-03	-0.330
		136.25		-7.831E-02	5.685E-01	8.558E-01	4.750E-02	-0.092
		345.85		-1.020E-01	2.485E-01	3.478E-01	2.052E-02	-0.293
		482.03	*	-5.061E-02	5.189E-02	7.888E-02	4.614E-03	-0.642
W-181		56.28		-8.934E-01	5.769E-01	9.011E-01	7.934E-02	-0.992
		57.53		-1.323E-01	3.317E-01	4.995E-01	4.377E-02	-0.265
		65.20	*	1.449E+00	6.221E-01	9.890E-01	8.591E-02	1.465
TA-182		67.75		-7.862E-02	1.760E-01	2.535E-01	2.207E-02	-0.310
		100.10		2.113E-01	2.189E-01	3.744E-01	2.930E-02	0.564
		152.43		-3.318E-01	4.211E-01	6.514E-01	3.442E-02	-0.509
		222.10		1.967E-01	4.177E-01	6.883E-01	3.793E-02	0.286
	+	1001.68		4.375E+00	4.265E+00	4.760E+00	3.864E-01	0.919
		1121.28		5.825E-01	2.235E-01	4.028E-01	2.619E-02	1.446

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		2.674E-01	3.306E-01	5.890E-01	3.417E-02	0.454
		1221.42	*	-7.768E-02	2.146E-01	3.364E-01	2.065E-02	-0.231
		1230.97		-5.511E-01	5.827E-01	8.587E-01	5.357E-02	-0.642
RE-183		57.98		6.193E-02	3.411E-01	5.027E-01	4.396E-02	0.123
		59.32		1.839E-01	1.820E-01	2.784E-01	2.420E-02	0.661
		67.20		-4.084E-03	3.151E-01	4.635E-01	4.033E-02	-0.009
		162.32	*	1.516E-01	1.361E-01	2.317E-01	1.192E-02	0.654
		208.81		1.397E+00	1.239E+00	2.093E+00	1.133E-01	0.667
		291.72		3.318E-01	1.164E+00	1.745E+00	1.023E-01	0.190
RE-184		57.98		2.283E-01	1.258E+00	1.853E+00	1.621E-01	0.123
		59.32		6.775E-01	6.705E-01	1.026E+00	8.913E-02	0.661
		67.20		-1.505E-02	1.161E+00	1.708E+00	1.486E-01	-0.009
		161.27		3.780E-01	4.373E-01	7.377E-01	3.806E-02	0.512
		216.55		-2.083E-01	3.097E-01	4.811E-01	2.632E-02	-0.433
		252.85	*	2.991E-02	2.707E-01	4.364E-01	2.488E-02	0.069
		318.01		-2.311E-03	5.299E-01	8.886E-01	5.247E-02	-0.003
		792.07		1.069E-01	1.016E+00	1.721E+00	1.233E-01	0.062
		903.28		1.234E+00	1.384E+00	2.215E+00	2.007E-01	0.557
		920.93		-1.702E-02	4.528E-01	7.495E-01	6.685E-02	-0.023
OS-185		59.72		5.624E-01	4.884E-01	7.509E-01	6.521E-02	0.749
		61.14		6.122E-01	2.847E-01	4.532E-01	3.937E-02	1.351
		69.30		-2.280E-01	4.663E-01	6.697E-01	5.847E-02	-0.340
		592.07		-1.709E+00	3.077E+00	4.768E+00	2.638E-01	-0.358
		646.12	*	-4.021E-02	5.145E-02	7.714E-02	4.026E-03	-0.521
		717.42		-3.791E-01	1.041E+00	1.615E+00	9.594E-02	-0.235
		874.81		6.401E-02	6.203E-01	1.046E+00	9.056E-02	0.061
		880.27		1.951E-02	8.572E-01	1.432E+00	1.255E-01	0.014
RE-188		155.03	*	1.962E-01	2.048E-01	3.472E-01	1.822E-02	0.565
		477.96		3.477E+00	3.822E+00	6.683E+00	3.911E-01	0.520
		633.10		-1.649E+00	3.698E+00	5.386E+00	2.857E-01	-0.306
W-188	+	63.58		4.154E+02	1.129E+02	1.622E+02	1.409E+01	2.561
		227.08		-1.037E+01	1.512E+01	2.341E+01	1.298E+00	-0.443
		290.67	*	-3.157E+00	9.168E+00	1.307E+01	7.655E-01	-0.241
IR-192	+	295.96		9.431E-01	2.312E-01	3.317E-01	1.977E-02	2.843
		308.46		4.389E-02	1.093E-01	1.877E-01	1.118E-02	0.234
		316.51	*	-1.703E-02	4.085E-02	6.691E-02	3.969E-03	-0.255
		468.07		-4.432E-02	8.596E-02	1.366E-01	9.204E-03	-0.324
		604.41		-6.700E-02	6.057E-01	8.396E-01	9.392E-02	-0.080
		612.46		-2.259E-01	9.669E-01	1.319E+00	9.620E-02	-0.171
AU-195		65.12		7.625E-01	2.929E-01	4.678E-01	4.063E-02	1.630
		66.83		-3.661E-02	1.480E-01	2.154E-01	1.873E-02	-0.170
	+	75.70		1.112E+00	3.476E-01	5.757E-01	5.141E-02	1.931
		98.88	*	6.246E-01	2.895E-01	4.969E-01	3.965E-02	1.257
		129.76		5.784E+00	3.418E+00	5.956E+00	3.385E-01	0.971
TL-200		367.94	*	-4.440E-04	3.418E+00	Half-Life too short		
		579.30		7.900E-03	3.418E+00	Half-Life too short		
		828.27		-1.251E-03	3.418E+00	Half-Life too short		
		1205.75		1.078E-03	3.418E+00	Half-Life too short		
TL-201		68.90		-4.499E+00	7.311E+00	1.043E+01	9.097E-01	-0.431

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		4.300E+00	3.974E+00	6.102E+00	5.347E-01	0.705
		80.30		-3.604E+00	7.379E+00	1.055E+01	9.686E-01	-0.342
		135.34		-3.060E+00	2.845E+01	4.642E+01	2.584E+00	-0.066
		167.43	*	3.095E+00	8.548E+00	1.396E+01	7.127E-01	0.222
TL-202		68.90		-4.111E-01	6.680E-01	9.528E-01	8.312E-02	-0.431
		70.82		3.918E-01	3.621E-01	5.560E-01	4.872E-02	0.705
		80.30		-3.285E-01	6.726E-01	9.619E-01	8.828E-02	-0.342
		439.56	*	2.929E-02	8.591E-02	1.452E-01	8.498E-03	0.202
HG-203		70.83		1.704E+00	1.585E+00	2.418E+00	3.312E-01	0.704
		72.87		1.811E+00	1.010E+00	1.535E+00	2.048E-01	1.179
		82.60		1.774E+00	1.768E+00	2.509E+00	3.563E-01	0.707
		279.20	*	5.344E-02	4.773E-02	8.462E-02	5.227E-03	0.632
BI-207		72.80		4.841E-01	2.903E-01	4.471E-01	3.942E-02	1.083
	+	74.97		6.168E-01	1.929E-01	2.930E-01	2.607E-02	2.105
		84.90		1.838E-01	2.988E-01	4.372E-01	4.156E-02	0.420
		569.67		2.238E-02	3.644E-02	6.080E-02	3.425E-03	0.368
		1063.62	*	-3.453E-02	5.793E-02	8.863E-02	6.511E-03	-0.390
		1770.23		-1.496E+00	7.253E-01	7.314E-01	4.528E-02	-2.045
TL-207		81.07		-5.204E-01	3.673E-01	4.603E-01	4.247E-02	-1.131
		83.78		5.195E-02	1.905E-01	2.817E-01	2.654E-02	0.184
		94.90		6.541E-01	3.621E-01	5.621E-01	4.795E-02	1.164
		122.32		4.629E-01	2.032E+00	3.375E+00	2.283E-01	0.137
	+	144.24		2.482E+00	1.235E+00	1.466E+00	1.015E-01	1.693
		154.21		1.264E-01	4.779E-01	7.885E-01	5.183E-02	0.160
	+	269.46		3.364E-01	3.202E-01	4.131E-01	2.497E-02	0.814
		323.87	*	-8.659E-02	8.690E-01	1.257E+00	2.081E-01	-0.069
	+	338.28		5.042E+00	1.873E+00	2.719E+00	2.880E-01	1.855
		445.03		-3.103E-01	2.807E+00	4.602E+00	4.740E-01	-0.067
PO-209		260.50		4.649E+00	1.224E+01	1.998E+01	1.147E+00	0.233
		262.80		-2.260E+01	3.431E+01	5.277E+01	3.035E+00	-0.428
		896.60	*	-7.347E+00	7.895E+00	1.168E+01	1.060E+00	-0.629
BI-210		46.50	*	2.183E+00	6.574E+00	1.112E+01	8.661E-01	0.196
PB-210		46.50	*	2.183E+00	6.574E+00	1.112E+01	8.661E-01	0.196
PO-210		46.50	*	2.183E+00	6.574E+00	1.112E+01	7.462E-01	0.196
PB-211		404.84	*	-8.612E-01	1.349E+00	1.970E+00	1.228E+00	-0.437
		427.08		3.255E-01	2.405E+00	4.006E+00	2.476E+00	0.081
		831.96		-1.631E-01	1.268E+00	2.086E+00	1.305E+00	-0.078
BI-212	+	727.18	*	1.133E+00	4.214E-01	7.308E-01	5.801E-02	1.550
		785.46		2.627E+00	2.013E+00	3.733E+00	2.632E-01	0.704
		1620.62		-2.513E-02	1.369E+00	2.274E+00	1.542E-01	-0.011
PO-215		81.07		-5.204E-01	3.673E-01	4.603E-01	4.247E-02	-1.131
		83.78		5.195E-02	1.905E-01	2.817E-01	2.654E-02	0.184
		94.90		6.541E-01	3.621E-01	5.621E-01	4.795E-02	1.164
		122.32		4.629E-01	2.032E+00	3.375E+00	2.283E-01	0.137
	+	144.24		2.482E+00	1.235E+00	1.466E+00	1.015E-01	1.693
		154.21		1.264E-01	4.779E-01	7.885E-01	5.183E-02	0.160
	+	269.46		3.364E-01	3.202E-01	4.131E-01	2.497E-02	0.814
		323.87	*	-8.659E-02	8.690E-01	1.257E+00	2.081E-01	-0.069
	+	338.28		5.042E+00	1.873E+00	2.719E+00	2.880E-01	1.855

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-3.103E-01	2.807E+00	4.602E+00	4.740E-01	-0.067
RN-219		271.23		6.147E-01	3.403E-01	5.317E-01	4.305E-02	1.156
		401.81	*	-1.249E-01	5.376E-01	8.799E-01	1.197E-01	-0.142
RN-220		549.76	*	7.268E+00	3.090E+01	5.151E+01	2.939E+00	0.141
RA-223		81.07		-5.204E-01	3.673E-01	4.603E-01	4.247E-02	-1.131
		83.78		5.195E-02	1.905E-01	2.817E-01	2.654E-02	0.184
		94.90		6.541E-01	3.621E-01	5.621E-01	4.795E-02	1.164
		122.32		4.629E-01	2.032E+00	3.375E+00	2.283E-01	0.137
	+	144.24		2.482E+00	1.235E+00	1.466E+00	1.015E-01	1.693
		154.21		1.264E-01	4.779E-01	7.885E-01	5.183E-02	0.160
	+	269.46		3.364E-01	3.202E-01	4.131E-01	2.497E-02	0.814
		323.87	*	-8.659E-02	8.690E-01	1.257E+00	2.081E-01	-0.069
	+	338.28		5.042E+00	1.873E+00	2.719E+00	2.880E-01	1.855
		445.03		-3.103E-01	2.807E+00	4.602E+00	4.740E-01	-0.067
AC-227		79.80		-9.653E-01	2.450E+00	3.509E+00	7.623E-01	-0.275
		236.00		1.906E+00	4.235E-01	6.616E-01	6.844E-02	2.881
		256.20	*	-1.423E-01	4.696E-01	7.379E-01	1.028E-01	-0.193
		286.10		1.409E-01	1.705E+00	2.886E+00	3.342E-01	0.049
		299.80		2.984E+00	1.906E+00	3.015E+00	4.918E-01	0.990
		304.40		-4.891E+00	2.339E+00	3.195E+00	5.535E-01	-1.531
		334.20		-2.137E-01	3.965E+00	4.523E+00	8.308E-01	-0.047
TH-227		79.80		-9.653E-01	2.450E+00	3.509E+00	7.718E-01	-0.275
	+	94.00		3.289E+01	8.630E+00	6.498E+00	1.417E+00	5.061
		236.00		1.906E+00	4.116E-01	6.616E-01	5.910E-02	2.881
		256.20	*	-1.423E-01	4.698E-01	7.379E-01	1.245E-01	-0.193
		286.10		1.409E-01	1.711E+00	2.886E+00	2.891E+00	0.049
		299.80		2.984E+00	1.906E+00	3.015E+00	4.918E-01	0.990
		304.40		-4.891E+00	2.339E+00	3.195E+00	5.535E-01	-1.531
		334.20		-2.137E-01	3.965E+00	4.523E+00	8.308E-01	-0.047
TH-229		85.43		4.345E-01	2.940E-01	4.417E-01	4.218E-02	0.984
	+	88.47		2.111E-01	1.855E-01	2.704E-01	2.615E-02	0.781
		100.00		2.485E-01	2.287E-01	3.926E-01	3.077E-02	0.633
		193.63	*	5.710E-01	6.036E-01	1.019E+00	5.397E-02	0.560
		210.97		8.039E-01	9.374E-01	1.569E+00	8.521E-02	0.512
PA-231		283.67	*	-1.077E+00	1.761E+00	2.861E+00	3.947E-01	-0.376
		301.29		1.168E+00	7.121E-01	1.192E+00	1.251E-01	0.980
TH-231		81.07		-5.204E-01	3.673E-01	4.603E-01	4.247E-02	-1.131
		83.78		5.195E-02	1.905E-01	2.817E-01	2.654E-02	0.184
		94.90		6.541E-01	3.621E-01	5.621E-01	4.795E-02	1.164
		122.32		4.629E-01	2.032E+00	3.375E+00	2.283E-01	0.137
	+	144.24		2.482E+00	1.235E+00	1.466E+00	1.015E-01	1.693
		154.21		1.264E-01	4.779E-01	7.885E-01	5.183E-02	0.160
	+	269.46		3.364E-01	3.202E-01	4.131E-01	2.497E-02	0.814
		323.87	*	-8.659E-02	8.690E-01	1.257E+00	2.081E-01	-0.069
	+	338.28		5.042E+00	1.873E+00	2.719E+00	2.880E-01	1.855
		445.03		-3.103E-01	2.807E+00	4.602E+00	4.740E-01	-0.067
U-231		84.21		-9.239E-01	8.172E+00	1.189E+01	1.123E+00	-0.078
	+	92.29		3.199E+01	5.434E+00	7.066E+00	6.325E-01	4.527
		95.87	*	-1.307E+00	1.521E+00	2.109E+00	1.769E-01	-0.620

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.848E+00	2.602E+00	4.174E+00	2.917E-01	-0.443
PA-233	+	75.28		1.800E+01	6.075E+00	9.009E+00	1.398E+00	1.998
	+	86.59		3.027E+00	2.768E+00	3.750E+00	1.019E+00	0.807
		300.12		9.777E-01	5.187E-01	8.393E-01	1.131E-01	1.165
		311.98	*	3.087E-02	7.552E-02	1.296E-01	8.101E-03	0.238
		340.50		1.468E+00	8.408E-01	1.288E+00	2.961E-01	1.140
		398.62		4.983E-01	2.626E+00	4.407E+00	1.139E+00	0.113
		415.76		8.318E-01	1.924E+00	3.270E+00	6.735E-01	0.254
PA-234	+	63.00		1.206E+01	3.628E+00	4.857E+00	7.546E-01	2.483
		94.67		1.006E+00	2.922E-01	4.441E-01	5.491E-02	2.266
		98.44		2.226E-01	1.732E-01	2.012E-01	1.121E-01	1.107
		99.86		7.284E-01	5.839E-01	1.007E+00	7.907E-02	0.724
		111.00		2.878E-01	2.360E-01	4.034E-01	4.364E-02	0.713
		131.20		4.421E-02	1.270E-01	2.113E-01	1.194E-02	0.209
		152.70		-2.863E-01	4.065E-01	6.276E-01	9.806E-02	-0.456
	+	186.00		1.071E+01	4.050E+00	3.677E+00	1.120E+00	2.912
		226.40		-1.491E-01	4.766E-01	7.536E-01	8.615E-02	-0.198
		227.20		-3.767E-01	5.099E-01	7.870E-01	4.364E-02	-0.479
		248.90		-7.275E-01	9.594E-01	1.446E+00	3.103E-01	-0.503
	+	293.70		5.942E+00	1.707E+00	2.043E+00	3.291E-01	2.908
		369.80		-3.292E-02	1.016E+00	1.690E+00	3.522E-01	-0.019
		568.70		-1.589E-01	1.231E+00	1.936E+00	1.091E-01	-0.082
		569.50		2.251E-01	3.255E-01	5.464E-01	3.078E-02	0.412
		574.00		-1.203E+00	1.930E+00	2.648E+00	1.487E-01	-0.454
		699.00		5.318E-01	8.426E-01	1.429E+00	2.563E-01	0.372
		706.10		-8.483E-01	1.341E+00	1.950E+00	8.606E-01	-0.435
		733.00		2.108E-02	4.543E-01	6.914E-01	1.478E-01	0.030
		742.81		1.641E+00	1.964E+00	2.871E+00	1.923E+00	0.572
		796.30		1.490E+00	1.026E+00	1.810E+00	4.822E-01	0.823
		805.60		9.071E-01	1.258E+00	2.183E+00	6.620E-01	0.416
		819.60		-4.696E-01	1.329E+00	2.122E+00	8.024E-01	-0.221
		826.30		-1.700E-01	8.651E-01	1.412E+00	6.294E-01	-0.120
		831.60		-4.353E-02	6.446E-01	1.070E+00	3.172E-01	-0.041
		876.40		-1.333E-01	9.036E-01	1.465E+00	1.506E+00	-0.091
		880.51		1.835E-02	3.079E-01	5.165E-01	4.528E-02	0.036
		883.24		-3.320E-02	3.209E-01	5.278E-01	3.549E-01	-0.063
		899.00		-5.671E-01	9.555E-01	1.433E+00	6.280E-01	-0.396
		925.00		3.098E-01	1.275E+00	2.152E+00	1.911E-01	0.144
		926.50		4.183E-02	1.963E-01	3.299E-01	8.368E-02	0.127
		946.00	*	-3.657E-01	3.276E-01	4.583E-01	8.615E-02	-0.798
		949.00		4.393E-01	4.603E-01	8.418E-01	7.296E-02	0.522
		980.50		-2.857E-01	8.321E-01	1.326E+00	1.107E-01	-0.216
		1394.10		-7.499E-01	1.471E+00	2.048E+00	1.330E+00	-0.366
PA-234M		766.42		1.034E+01	1.693E+01	2.693E+01	1.359E+01	0.384
	+	1001.03	*	9.938E+00	9.701E+00	1.068E+01	1.019E+00	0.930
NP-236		94.67		7.737E-01	2.115E-01	3.378E-01	2.894E-02	2.291
		98.44		1.683E-01	9.245E-02	1.521E-01	1.222E-02	1.106
		111.00		2.177E-01	1.775E-01	3.052E-01	2.051E-02	0.713
		160.31	*	-4.243E-02	9.898E-02	1.583E-01	8.189E-03	-0.268

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		3.542E-01	1.958E-01	3.424E-01	2.703E-02	1.034
		117.00	*	-2.378E-01	2.213E-01	3.465E-01	2.163E-02	-0.686
		209.75		1.337E+00	9.810E-01	1.672E+00	9.061E-02	0.800
		228.18		-1.406E-01	2.648E-01	4.134E-01	2.295E-02	-0.340
		277.60		1.822E-01	2.249E-01	3.745E-01	2.178E-02	0.486
		334.30		-9.372E-02	2.248E+00	2.568E+00	1.517E-01	-0.036
AM-241		59.54	*	2.834E-01	2.575E-01	3.949E-01	3.674E-02	0.718
CM-243		99.55		3.645E-01	2.015E-01	3.523E-01	2.781E-02	1.034
		103.76	*	1.311E-02	1.201E-01	1.971E-01	1.460E-02	0.067
		117.00		-2.447E-01	2.277E-01	3.565E-01	2.225E-02	-0.686
		209.75		1.318E+00	9.671E-01	1.648E+00	8.932E-02	0.800
		228.18		-1.420E-01	2.675E-01	4.177E-01	2.319E-02	-0.340
		277.60		1.837E-01	2.268E-01	3.776E-01	2.195E-02	0.486
AM-246		798.80		-1.386E-01	1.565E-01	2.394E-01	1.743E-02	-0.579
		1036.00		3.663E-01	3.655E-01	6.616E-01	5.100E-02	0.554
		1062.04		-1.019E-01	2.519E-01	3.954E-01	2.913E-02	-0.258
		1078.86	*	-4.229E-02	1.581E-01	2.522E-01	1.800E-02	-0.168
CM-247		278.00		1.034E+00	8.828E-01	1.567E+00	9.115E-02	0.659
		287.40		6.085E-01	1.390E+00	2.340E+00	1.368E-01	0.260
		402.60	*	-1.154E-02	4.937E-02	8.084E-02	4.686E-03	-0.143
CF-249		252.85		1.123E-01	1.016E+00	1.638E+00	9.341E-02	0.069
		333.44		3.516E-03	3.400E-01	3.333E-01	1.970E-02	0.011
		387.95	*	1.206E-02	4.786E-02	8.083E-02	4.677E-03	0.149
CF-251		176.60	*	7.373E-02	1.488E-01	2.471E-01	1.277E-02	0.298
		227.00		-2.411E-01	4.525E-01	7.068E-01	3.918E-02	-0.341
		285.00		-3.146E-01	2.027E+00	3.387E+00	1.978E-01	-0.093

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994006      *
* Acquisition date : 12-FEB-2010 12:35:35 Detector SN#     :               *
* Detector ID        : GAM23               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.56      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245994006           Analyst initials: MXR1          *
* Batch Number       : 948812               Sample Quantity : 1.1322E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.825E+01	2.219E+00	6.851E-01	0.000E+00
CD-109	1.573E+00	1.354E+00	1.757E+00	0.000E+00
SN-126	1.546E-01	1.331E-01	2.038E-01	0.000E+00
CS-135	2.859E-01	2.670E-01	3.217E-01	0.000E+00
BA-137M	5.608E-01	9.831E-02	6.443E-02	0.000E+00
CS-137	5.928E-01	1.040E-01	6.811E-02	0.000E+00
TL-208	4.593E-01	1.031E-01	7.016E-02	0.000E+00
BI-211	3.718E+00	5.293E-01	3.819E-01	0.000E+00
PB-212	1.287E+00	1.452E-01	1.092E-01	0.000E+00
PO-212	1.287E+00	1.452E-01	1.092E-01	0.000E+00
BI-214	1.180E+00	1.933E-01	1.123E-01	0.000E+00
PB-214	1.293E+00	1.956E-01	1.243E-01	0.000E+00
PO-214	1.293E+00	1.956E-01	1.243E-01	0.000E+00
PO-216	1.287E+00	1.452E-01	1.092E-01	0.000E+00
PO-218	1.293E+00	1.956E-01	1.243E-01	0.000E+00
RA-224	3.273E+00	1.206E+00	1.243E+00	0.000E+00
RA-226	1.180E+00	1.933E-01	1.123E-01	0.000E+00
AC-228	8.559E-01	3.976E-01	2.595E-01	0.000E+00
RA-228	8.559E-01	3.976E-01	2.595E-01	0.000E+00
TH-228	1.306E+00	1.473E-01	1.109E-01	0.000E+00
TH-230	1.180E+00	1.933E-01	1.123E-01	0.000E+00
TH-232	8.559E-01	3.976E-01	2.595E-01	0.000E+00
TH-234	1.035E+01	3.187E+00	3.322E+00	0.000E+00
U-234	1.180E+00	1.933E-01	1.123E-01	0.000E+00
U-235	7.659E-01	3.894E-01	4.025E-01	0.000E+00
NP-237	4.541E-01	4.016E-01	5.807E-01	0.000E+00
U-238	1.035E+01	3.187E+00	3.322E+00	0.000E+00
AM-243	3.436E-01	1.053E-01	1.227E-01	0.000E+00
ANH-511	1.280E-01	7.871E-02	5.500E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	2.306E-01	4.011E-01	7.033E-01	0.000E+00	NOT IDENT.
NA-22	1.526E-02	4.783E-02	8.235E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.825E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.466E-02	2.963E-02	5.534E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.138E-02	9.969E-02	0.000E+00	FAIL ABUN
SC-46	2.090E-02	4.383E-02	7.791E-02	0.000E+00	FAIL ABUN
V-48	6.960E-02	7.630E-02	1.408E-01	0.000E+00	NOT IDENT.
CR-51	2.080E-02	4.310E-01	7.460E-01	0.000E+00	NOT IDENT.
MN-52	-3.895E-02	2.844E-01	4.572E-01	0.000E+00	NOT IDENT.
MN-54	-3.453E-03	3.823E-02	6.468E-02	0.000E+00	NOT IDENT.
CO-56	-4.748E-03	4.054E-02	6.830E-02	0.000E+00	NOT IDENT.
CO-57	1.311E-02	2.870E-02	4.993E-02	0.000E+00	NOT IDENT.
CO-58	-1.300E-02	4.685E-02	7.816E-02	0.000E+00	NOT IDENT.
FE-59	-8.214E-02	9.484E-02	1.415E-01	0.000E+00	FAIL ABUN
CO-60	-4.867E-03	4.290E-02	6.968E-02	0.000E+00	NOT IDENT.
ZN-65	8.533E-02	1.240E-01	1.947E-01	0.000E+00	NOT IDENT.
GE-68	4.894E-01	1.271E+00	2.227E+00	0.000E+00	NOT IDENT.
AS-73	3.597E-01	1.312E+00	2.327E+00	0.000E+00	NOT IDENT.
AS-74	1.713E-02	1.086E-01	1.833E-01	0.000E+00	NOT IDENT.
SE-75	-4.994E-03	6.385E-02	9.116E-02	0.000E+00	NOT IDENT.
BR-77	-6.660E+00	1.152E+01	1.843E+01	0.000E+00	FAIL ABUN
SR-82	-5.537E-01	4.052E-01	5.979E-01	0.000E+00	NOT IDENT.
RB-83	-5.143E-02	7.769E-02	1.233E-01	0.000E+00	NOT IDENT.
RB-84	1.971E-02	7.752E-02	1.351E-01	0.000E+00	NOT IDENT.
KR-85	8.961E+00	8.512E+00	1.379E+01	0.000E+00	NOT IDENT.
SR-85	4.590E-02	4.360E-02	7.063E-02	0.000E+00	NOT IDENT.
RB-86	3.465E-01	7.830E-01	1.383E+00	0.000E+00	NOT IDENT.
Y-88	-8.774E-03	4.224E-02	6.788E-02	0.000E+00	NOT IDENT.
ZR-88	-1.262E-02	3.624E-02	6.053E-02	0.000E+00	NOT IDENT.
Y-91	3.218E+00	2.009E+01	3.401E+01	0.000E+00	NOT IDENT.
NB-94	5.239E-03	4.000E-02	6.672E-02	0.000E+00	NOT IDENT.
NB-95	3.869E-02	5.738E-02	9.821E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.838E-01	3.032E-01	0.000E+00	NOT IDENT.
ZR-95	-4.253E-02	7.525E-02	1.155E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.506E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.474E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	6.759E-01	1.375E+01	2.271E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.871E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-7.341E-03	3.810E-02	6.311E-02	0.000E+00	NOT IDENT.
RH-102	2.263E-02	3.770E-02	6.614E-02	0.000E+00	NOT IDENT.
RU-103	1.067E-02	5.019E-02	8.584E-02	0.000E+00	NOT IDENT.
RH-106	-9.916E-02	3.835E-01	6.230E-01	0.000E+00	FAIL ABUN
RU-106	-9.916E-02	3.833E-01	6.230E-01	0.000E+00	FAIL ABUN
AG-108M	-1.732E-03	3.848E-02	6.516E-02	0.000E+00	NOT IDENT.
AG-110M	0.000E+00	5.651E-02	9.958E-02	0.000E+00	NOT IDENT.
IN-111	7.981E-01	1.322E+00	1.996E+00	0.000E+00	NOT IDENT.
IN-113M	-5.538E-03	5.144E-02	8.727E-02	0.000E+00	NOT IDENT.
SN-113	-5.538E-03	5.144E-02	8.727E-02	0.000E+00	NOT IDENT.
IN-114M	-1.354E-01	2.547E-01	3.605E-01	0.000E+00	NOT IDENT.
CD-115	-4.771E+00	1.255E+01	2.045E+01	0.000E+00	NOT IDENT.
SN-117M	-7.189E-02	6.684E-02	1.076E-01	0.000E+00	NOT IDENT.
SB-122	2.087E+00	2.452E+00	4.358E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.289E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-4.508E-02	3.490E-02	5.558E-02	0.000E+00	NOT IDENT.
I-124	1.528E-01	8.247E-01	1.214E+00	0.000E+00	NOT IDENT.
SB-124	-6.499E-02	7.679E-02	1.030E-01	0.000E+00	FAIL ABUN
SB-125	-1.660E-02	1.079E-01	1.815E-01	0.000E+00	NOT IDENT.
TE-125M	-3.471E+00	1.168E+01	1.980E+01	0.000E+00	NOT IDENT.
I-126	4.976E-02	2.103E-01	3.106E-01	0.000E+00	NOT IDENT.
SB-126	-4.816E-03	1.853E-01	2.620E-01	0.000E+00	NOT IDENT.
SB-127	-5.098E-02	1.455E+00	2.396E+00	0.000E+00	NOT IDENT.
XE-127	-2.978E-02	5.722E-02	9.326E-02	0.000E+00	NOT IDENT.
I-131	1.086E-01	1.388E-01	2.484E-01	0.000E+00	NOT IDENT.
TE-132	-4.237E-01	7.797E-01	1.254E+00	0.000E+00	NOT IDENT.
BA-133	-4.210E-02	5.575E-02	7.718E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.624E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.814E-02	4.826E-02	9.113E-02	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.986E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.658E-03	1.168E-01	1.944E-01	0.000E+00	FAIL ABUN
CE-139	-4.512E-02	3.747E-02	5.914E-02	0.000E+00	NOT IDENT.
BA-140	2.659E-02	3.111E-01	5.251E-01	0.000E+00	NOT IDENT.
LA-140	-2.026E-02	8.853E-02	1.439E-01	0.000E+00	FAIL ABUN
CE-141	3.601E-02	8.711E-02	1.322E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.974E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.406E-02	2.368E-01	3.994E-01	0.000E+00	NOT IDENT.
PM-144	-3.445E-02	4.099E-02	6.232E-02	0.000E+00	NOT IDENT.

PR-144	-2.335E+00	2.777E+00	4.223E+00	0.000E+00	NOT IDENT.
PM-146	2.499E-02	5.083E-02	8.898E-02	0.000E+00	NOT IDENT.
ND-147	-5.353E-02	6.668E-01	1.112E+00	0.000E+00	NOT IDENT.
PM-149	-9.587E+00	9.794E+01	1.691E+02	0.000E+00	NOT IDENT.
EU-152	-3.929E-02	1.256E-01	1.827E-01	0.000E+00	NOT IDENT.
GD-153	9.410E-02	1.086E-01	1.711E-01	0.000E+00	NOT IDENT.
EU-154	4.563E-02	1.340E-01	2.312E-01	0.000E+00	NOT IDENT.
EU-155	8.822E-02	1.310E-01	2.303E-01	0.000E+00	FAIL ABUN
TB-160	-3.180E-02	1.519E-01	2.528E-01	0.000E+00	FAIL ABUN
HO-166M	1.853E-02	7.267E-02	1.225E-01	0.000E+00	FAIL ABUN
TM-171	-1.140E+01	4.395E+01	6.668E+01	0.000E+00	NOT IDENT.
LU-176	-1.333E-02	2.755E-02	4.636E-02	0.000E+00	FAIL ABUN
LU-177	1.753E+00	1.344E+00	2.358E+00	0.000E+00	NOT IDENT.
LU-177M	-2.038E-01	2.116E-01	3.373E-01	0.000E+00	FAIL ABUN
HF-181	-5.061E-02	5.085E-02	7.930E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	6.097E-01	1.011E+00	0.000E+00	NOT IDENT.
TA-182	-7.768E-02	2.103E-01	3.354E-01	0.000E+00	FAIL ABUN
RE-183	1.516E-01	1.334E-01	2.351E-01	0.000E+00	NOT IDENT.
RE-184	2.991E-02	2.653E-01	4.412E-01	0.000E+00	NOT IDENT.
OS-185	-4.021E-02	5.042E-02	7.735E-02	0.000E+00	NOT IDENT.
RE-188	1.962E-01	2.007E-01	3.525E-01	0.000E+00	NOT IDENT.
W-188	-3.157E+00	8.985E+00	1.320E+01	0.000E+00	FAIL ABUN
IR-192	-1.703E-02	4.003E-02	6.751E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.837E-01	5.064E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	5.155E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.095E+00	8.377E+00	1.417E+01	0.000E+00	NOT IDENT.
TL-202	2.929E-02	8.419E-02	1.461E-01	0.000E+00	NOT IDENT.
HG-203	5.344E-02	4.677E-02	8.547E-02	0.000E+00	NOT IDENT.
BI-207	-3.453E-02	5.677E-02	8.847E-02	0.000E+00	FAIL ABUN
TL-207	-8.659E-02	8.517E-01	1.268E+00	0.000E+00	FAIL ABUN
PO-209	-7.347E+00	7.738E+00	1.168E+01	0.000E+00	NOT IDENT.
BI-210	2.183E+00	6.443E+00	1.141E+01	0.000E+00	NOT IDENT.
PB-210	2.183E+00	6.443E+00	1.141E+01	0.000E+00	NOT IDENT.
PO-210	2.183E+00	6.442E+00	1.141E+01	0.000E+00	NOT IDENT.
PB-211	-8.612E-01	1.322E+00	1.983E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.129E-01	7.320E-01	0.000E+00	FAIL ABUN
PO-215	-8.659E-02	8.517E-01	1.268E+00	0.000E+00	FAIL ABUN
RN-219	-1.249E-01	5.269E-01	8.859E-01	0.000E+00	NOT IDENT.
RN-220	7.268E+00	3.029E+01	5.172E+01	0.000E+00	NOT IDENT.
RA-223	-8.659E-02	8.517E-01	1.268E+00	0.000E+00	FAIL ABUN
AC-227	-1.423E-01	4.602E-01	7.458E-01	0.000E+00	NOT IDENT.
TH-227	-1.423E-01	4.604E-01	7.458E-01	0.000E+00	FAIL ABUN
TH-229	5.710E-01	5.915E-01	1.032E+00	0.000E+00	FAIL ABUN
PA-231	-1.077E+00	1.726E+00	2.889E+00	0.000E+00	NOT IDENT.
TH-231	-8.659E-02	8.517E-01	1.268E+00	0.000E+00	FAIL ABUN
U-231	-1.307E+00	1.491E+00	2.150E+00	0.000E+00	FAIL ABUN
PA-233	3.087E-02	7.401E-02	1.307E-01	0.000E+00	FAIL ABUN
PA-234	-3.657E-01	3.210E-01	4.580E-01	0.000E+00	FAIL ABUN
PA-234M	9.938E+00	9.507E+00	1.067E+01	0.000E+00	FAIL ABUN
NP-236	-4.243E-02	9.700E-02	1.607E-01	0.000E+00	NOT IDENT.
NP-239	-2.378E-01	2.169E-01	3.526E-01	0.000E+00	NOT IDENT.
AM-241	2.834E-01	2.523E-01	4.041E-01	0.000E+00	NOT IDENT.
CM-243	1.311E-02	1.177E-01	2.007E-01	0.000E+00	NOT IDENT.
AM-246	-4.229E-02	1.549E-01	2.517E-01	0.000E+00	NOT IDENT.
CM-247	-1.154E-02	4.838E-02	8.139E-02	0.000E+00	NOT IDENT.
CF-249	1.206E-02	4.690E-02	8.141E-02	0.000E+00	NOT IDENT.
CF-251	7.373E-02	1.458E-01	2.506E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:37:03.05

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994006.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:35:35
Sample ID         : G245994006           Sample quantity  : 1.13220E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	586	10.67*	9.974E-01	1.825E+01	1.825E+01	12.41
CD-109	88.03	91	3.72*	5.253E+00	1.538E+00	1.573E+00	87.85
SN-126	64.28	306	9.60	2.577E+00	4.095E+00	4.095E+00	29.92
	86.94	91	8.90	5.253E+00	6.429E-01	6.429E-01	96.71
	87.57	91	37.00*	5.253E+00	1.546E-01	1.546E-01	87.85
CS-135	268.24	58	16.00*	4.229E+00	2.859E-01	2.859E-01	95.30
BA-137M	661.65	310	89.98*	2.042E+00	5.603E-01	5.608E-01	17.89
CS-137	661.65	310	85.12*	2.042E+00	5.922E-01	5.928E-01	17.90
TL-208	277.35	------	6.80	4.140E+00	------ Line Not Found		------
	510.84	98	21.60	2.545E+00	5.927E-01	5.927E-01	63.30
	583.14	266	84.20*	2.278E+00	4.593E-01	4.593E-01	22.91
	860.37	36	12.46	1.608E+00	5.942E-01	5.942E-01	72.10
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	499	12.94*	3.441E+00	3.718E+00	3.718E+00	14.53
PB-212	74.81	277	10.70	4.043E+00	2.120E+00	2.120E+00	32.63
	77.11	405	18.00	4.305E+00	1.734E+00	1.734E+00	19.57
	87.30	91	8.00	5.253E+00	7.152E-01	7.152E-01	88.42
	238.63	803	44.60*	4.638E+00	1.287E+00	1.287E+00	11.51
	300.09	------	3.41	3.896E+00	------ Line Not Found		------
PO-212	74.81	277	10.70	4.043E+00	2.120E+00	2.120E+00	32.63
	77.11	405	18.00	4.305E+00	1.734E+00	1.734E+00	19.57
	87.30	91	8.00	5.253E+00	7.152E-01	7.152E-01	88.42
	115.19	------	0.60	6.293E+00	------ Line Not Found		------
	238.63	803	44.60*	4.638E+00	1.287E+00	1.287E+00	11.51
	300.09	------	3.41	3.896E+00	------ Line Not Found		------
BI-214	609.31	361	46.30*	2.193E+00	1.180E+00	1.180E+00	16.72
	1120.29	82	15.10	1.259E+00	1.437E+00	1.437E+00	44.55
	1764.49	------	15.80	8.740E-01	------ Line Not Found		------
PB-214	74.81	277	6.21	4.043E+00	3.652E+00	3.652E+00	32.13
	77.11	405	10.50	4.305E+00	2.973E+00	2.973E+00	21.00
	87.30	91	4.67	5.253E+00	1.225E+00	1.225E+00	88.19
	241.98	179	7.49	4.595E+00	1.726E+00	1.726E+00	38.00

Sample ID : G245994006 Acquisition date : 12-FEB-2010 12:35:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	283	19.20	3.948E+00	1.238E+00	1.238E+00	25.28
	351.92	499	37.20*	3.441E+00	1.293E+00	1.293E+00	15.44
PO-214	74.81	277	6.21	4.043E+00	3.652E+00	3.652E+00	32.13
	77.11	405	10.50	4.305E+00	2.973E+00	2.973E+00	21.00
	87.30	91	4.67	5.253E+00	1.225E+00	1.225E+00	88.19
	241.98	179	7.49	4.595E+00	1.726E+00	1.726E+00	38.00
	295.21	283	19.20	3.948E+00	1.238E+00	1.238E+00	25.28
	351.92	499	37.20*	3.441E+00	1.293E+00	1.293E+00	15.44
PO-216	74.81	277	10.70	4.043E+00	2.120E+00	2.120E+00	32.63
	77.11	405	18.00	4.305E+00	1.734E+00	1.734E+00	19.57
	87.30	91	8.00	5.253E+00	7.152E-01	7.152E-01	88.42
	238.63	803	44.60*	4.638E+00	1.287E+00	1.287E+00	11.51
	300.09	------	3.41	3.896E+00	------ Line Not Found		------
PO-218	74.81	277	6.21	4.043E+00	3.652E+00	3.652E+00	32.13
	77.11	405	10.50	4.305E+00	2.973E+00	2.973E+00	21.00
	87.30	91	4.67	5.253E+00	1.225E+00	1.225E+00	88.19
	241.98	179	7.49	4.595E+00	1.726E+00	1.726E+00	38.00
	295.21	283	19.20	3.948E+00	1.238E+00	1.238E+00	25.28
	351.92	499	37.20*	3.441E+00	1.293E+00	1.293E+00	15.44
RA-224	240.98	179	3.95*	4.595E+00	3.273E+00	3.273E+00	37.59
RA-226	609.31	361	46.30*	2.193E+00	1.180E+00	1.180E+00	16.72
	1120.29	82	15.10	1.259E+00	1.437E+00	1.437E+00	44.55
	1764.49	------	15.80	8.740E-01	------ Line Not Found		------
AC-228	338.32	147	11.40	3.550E+00	1.208E+00	1.208E+00	54.13
	911.07	109	27.70*	1.526E+00	8.559E-01	8.559E-01	47.41
	969.11	55	16.60	1.440E+00	7.623E-01	7.623E-01	92.30
RA-228	338.32	147	11.40	3.550E+00	1.208E+00	1.208E+00	54.13
	911.07	109	27.70*	1.526E+00	8.559E-01	8.559E-01	47.41
	969.11	55	16.60	1.440E+00	7.623E-01	7.623E-01	92.30
TH-228	74.81	277	10.70	4.043E+00	2.120E+00	2.152E+00	31.29
	77.11	405	18.00	4.305E+00	1.734E+00	1.760E+00	19.57
	87.30	91	8.00	5.253E+00	7.152E-01	7.260E-01	87.85
	238.63	803	44.60*	4.638E+00	1.287E+00	1.306E+00	11.51
	300.09	------	3.41	3.896E+00	------ Line Not Found		------
TH-230	609.31	361	46.30*	2.193E+00	1.180E+00	1.180E+00	16.72
	1120.29	82	15.10	1.259E+00	1.437E+00	1.437E+00	44.55
	1764.49	------	15.80	8.740E-01	------ Line Not Found		------
TH-232	338.32	147	11.40	3.550E+00	1.208E+00	1.208E+00	36.09
	911.07	109	27.70*	1.526E+00	8.559E-01	8.559E-01	47.41
	969.11	55	16.60	1.440E+00	7.623E-01	7.623E-01	92.30
TH-234	63.29	306	3.80*	2.577E+00	1.035E+01	1.035E+01	31.44
	92.38	776	5.41	5.586E+00	8.510E+00	8.510E+00	23.27
U-234	609.31	361	46.30*	2.193E+00	1.180E+00	1.180E+00	16.72
	1120.29	82	15.10	1.259E+00	1.437E+00	1.437E+00	44.55
	1764.49	------	15.80	8.740E-01	------ Line Not Found		------
U-235	89.95	------	2.70	5.418E+00	------ Line Not Found		------
	93.35	776	4.50	5.586E+00	1.023E+01	1.023E+01	31.62
	105.00	------	2.10	6.104E+00	------ Line Not Found		------
	143.76	150	10.50*	6.199E+00	7.659E-01	7.659E-01	51.88

Sample ID : G245994006 Acquisition date : 12-FEB-2010 12:35:35

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	163.35	------	4.70	5.886E+00	------ Line Not Found		------
	185.71	355	54.00	5.494E+00	3.966E-01	3.966E-01	23.03
	205.31	------	4.70	5.150E+00	------ Line Not Found		------
NP-237	86.50	91	12.60*	5.253E+00	4.541E-01	4.541E-01	90.24
	95.87	------	2.60	5.757E+00	------ Line Not Found		------
U-238	63.29	306	3.80*	2.577E+00	1.035E+01	1.035E+01	31.44
	92.38	776	5.41	5.586E+00	8.510E+00	8.510E+00	16.99
AM-243	74.67	277	66.00*	4.043E+00	3.436E-01	3.436E-01	31.27
	86.72	91	0.34	5.253E+00	1.703E+01	1.703E+01	87.85
	117.66	------	0.55	6.314E+00	------ Line Not Found		------
	142.18	150	0.13	6.199E+00	6.434E+01	6.434E+01	49.59
ANH-511	511.00	98	100.00*	2.545E+00	1.280E-01	1.280E-01	62.74

Flag: "*" = Keyline

Sample ID : G245994006 Acquisition date : 12-FEB-2010 12:35:35

Total number of lines in spectrum 26
Number of unidentified lines 1
Number of lines tentatively identified by NID 25 96.15%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.825E+01	1.825E+01	0.226E+01	12.41	
CD-109	464.00D	1.02	1.538E+00	1.573E+00	1.382E+00	87.85	
SN-126	1.00E+05Y	1.00	1.546E-01	1.546E-01	1.358E-01	87.85	
CS-135	2.30E+06Y	1.00	2.859E-01	2.859E-01	2.725E-01	95.30	
BA-137M	30.17Y	1.00	5.603E-01	5.608E-01	1.003E-01	17.89	
CS-137	30.17Y	1.00	5.922E-01	5.928E-01	1.061E-01	17.90	
TL-208	1.41E+10Y	1.00	4.593E-01	4.593E-01	1.052E-01	22.91	
BI-211	7.04E+08Y	1.00	3.718E+00	3.718E+00	0.540E+00	14.53	
PB-212	1.41E+10Y	1.00	1.287E+00	1.287E+00	0.148E+00	11.51	
PO-212	1.41E+10Y	1.00	1.287E+00	1.287E+00	0.148E+00	11.51	
BI-214	1600.00Y	1.00	1.180E+00	1.180E+00	0.197E+00	16.72	
PB-214	1600.00Y	1.00	1.293E+00	1.293E+00	0.200E+00	15.44	
PO-214	1600.00Y	1.00	1.293E+00	1.293E+00	0.200E+00	15.44	
PO-216	1.41E+10Y	1.00	1.287E+00	1.287E+00	0.148E+00	11.51	
PO-218	1600.00Y	1.00	1.293E+00	1.293E+00	0.200E+00	15.44	
RA-224	1.41E+10Y	1.00	3.273E+00	3.273E+00	1.230E+00	37.59	
RA-226	1600.00Y	1.00	1.180E+00	1.180E+00	0.197E+00	16.72	
AC-228	1.41E+10Y	1.00	8.559E-01	8.559E-01	4.057E-01	47.41	
RA-228	1.41E+10Y	1.00	8.559E-01	8.559E-01	4.057E-01	47.41	
TH-228	1.91Y	1.02	1.287E+00	1.306E+00	0.150E+00	11.51	
TH-230	4.47E+09Y	1.00	1.180E+00	1.180E+00	0.197E+00	16.72	
TH-232	1.41E+10Y	1.00	8.559E-01	8.559E-01	4.057E-01	47.41	
TH-234	4.47E+09Y	1.00	1.035E+01	1.035E+01	0.325E+01	31.44	
U-234	4.47E+09Y	1.00	1.180E+00	1.180E+00	0.197E+00	16.72	
U-235	7.04E+08Y	1.00	7.659E-01	7.659E-01	3.973E-01	51.88	
NP-237	2.14E+06Y	1.00	4.541E-01	4.541E-01	4.098E-01	90.24	
U-238	4.47E+09Y	1.00	1.035E+01	1.035E+01	0.325E+01	31.44	
AM-243	7380.00Y	1.00	3.436E-01	3.436E-01	1.074E-01	31.27	
ANH-511	1.00E+09Y	1.00	1.280E-01	1.280E-01	0.803E-01	62.74	
	Total Activity :		6.752E+01	6.758E+01			

Grand Total Activity : 6.752E+01 6.758E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994006 Acquisition date : 12-FEB-2010 12:35:35

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	327.86	67	130	1.51	655.71	651	11	9.37E-03	69.7	3.64E+00	T
0	726.57	76	30	1.97	1453.15	1447	11	1.05E-02	36.3	1.88E+00	T
0	1001.08	35	45	0.86	2002.16	1992	18	4.89E-03	97.2	1.40E+00	T
0	1762.76	65	0	4.35	3525.52	3518	16	9.07E-03	25.7	8.74E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:37:11.81

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994006.CNF;1   *
* Acquisition date  : 12-FEB-2010 12:35:35  Detector SN#     :                *
* Detector ID       : GAM23                 Sensitivity      : 5.00000        *
* Geometry          : CAN                   Energy tolerance: 1.50000         *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000        *
* Elapsed real time: 0 02:00:01.56          Half life ratio : 8.00000         *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245994006            Analyst initials: MXR1            *
* Batch Number      : 948812                Sample Quantity : 1.13220E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.825E+01	2.265E+00	6.883E-01	5.148E-02	26.512
CD-109	1.573E+00	1.382E+00	1.723E+00	1.682E-01	0.913
SN-126	1.546E-01	1.358E-01	1.998E-01	1.944E-02	0.774
CS-135	2.859E-01	2.725E-01	3.184E-01	2.432E-02	0.898
BA-137M	5.608E-01	1.003E-01	6.427E-02	3.283E-03	8.725
CS-137	5.928E-01	1.061E-01	6.794E-02	3.490E-03	8.725
TL-208	4.593E-01	1.052E-01	6.992E-02	4.539E-03	6.569
BI-211	3.718E+00	5.401E-01	3.788E-01	2.468E-02	9.815
PB-212	1.287E+00	1.481E-01	1.080E-01	7.765E-03	11.912
PO-212	1.287E+00	1.481E-01	1.080E-01	7.765E-03	11.912
BI-214	1.180E+00	1.973E-01	1.119E-01	8.416E-03	10.539
PB-214	1.293E+00	1.996E-01	1.233E-01	1.030E-02	10.486
PO-214	1.293E+00	1.996E-01	1.233E-01	1.030E-02	10.486
PO-216	1.287E+00	1.481E-01	1.080E-01	7.765E-03	11.912
PO-218	1.293E+00	1.996E-01	1.233E-01	1.030E-02	10.486
RA-224	3.273E+00	1.230E+00	1.229E+00	6.926E-02	2.663
RA-226	1.180E+00	1.973E-01	1.119E-01	8.416E-03	10.539
AC-228	8.559E-01	4.057E-01	2.596E-01	2.995E-02	3.297

Sample ID : G245994006 Acquisition date : 12-FEB-2010 12:35:35

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	8.559E-01	4.057E-01	2.596E-01	2.995E-02	3.297
TH-228	1.306E+00	1.504E-01	1.096E-01	7.883E-03	11.912
TH-230	1.180E+00	1.973E-01	1.119E-01	8.416E-03	10.539
TH-232	8.559E-01	4.057E-01	2.596E-01	2.995E-02	3.297
TH-234	1.035E+01	3.253E+00	3.248E+00	5.852E-01	3.185
U-234	1.180E+00	1.973E-01	1.119E-01	8.416E-03	10.539
U-235	7.659E-01	3.973E-01	3.963E-01	6.409E-02	1.933
NP-237	4.541E-01	4.098E-01	5.692E-01	1.296E-01	0.798
U-238	1.035E+01	3.253E+00	3.248E+00	5.852E-01	3.185
AM-243	3.436E-01	1.074E-01	1.201E-01	1.068E-02	2.860
ANH-511	1.280E-01	8.032E-02	5.474E-02	3.180E-03	2.339

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.306E-01		4.093E-01	6.996E-01	4.755E-02	0.330
NA-22	1.526E-02		4.881E-02	8.262E-02	5.549E-03	0.185
NA-24	-2.882E-01		3.992E-01	Half-Life too short		
AL-26	1.466E-02		3.023E-02	5.569E-02	3.347E-03	0.263
TI-44	3.200E-01	+	6.264E-02	9.764E-02	8.851E-03	3.278
SC-46	2.090E-02		4.472E-02	7.792E-02	6.962E-03	0.268
V-48	6.960E-02		7.785E-02	1.409E-01	1.173E-02	0.494
CR-51	2.080E-02		4.398E-01	7.395E-01	4.849E-02	0.028
MN-52	-3.895E-02		2.902E-01	4.592E-01	3.323E-02	-0.085
MN-54	-3.453E-03		3.901E-02	6.465E-02	5.119E-03	-0.053
CO-56	-4.748E-03		4.137E-02	6.828E-02	5.555E-03	-0.070
CO-57	1.311E-02		2.929E-02	4.908E-02	2.894E-03	0.267
CO-58	-1.300E-02		4.781E-02	7.811E-02	5.868E-03	-0.166
FE-59	-8.214E-02		9.677E-02	1.418E-01	1.092E-02	-0.579
CO-60	-4.867E-03		4.378E-02	6.994E-02	5.135E-03	-0.070
ZN-65	8.533E-02		1.265E-01	1.952E-01	1.289E-02	0.437
GE-68	4.894E-01		1.296E+00	2.231E+00	1.597E-01	0.219
AS-73	3.597E-01		1.338E+00	2.271E+00	2.005E-01	0.158
AS-74	1.713E-02		1.108E-01	1.827E-01	1.008E-02	0.094
SE-75	-4.994E-03		6.515E-02	9.022E-02	5.252E-03	-0.055
BR-77	-6.660E+00		1.176E+01	1.834E+01	1.062E+00	-0.363
SR-82	-5.537E-01		4.134E-01	5.973E-01	4.121E-02	-0.927
RB-83	-5.143E-02		7.927E-02	1.227E-01	7.103E-03	-0.419
RB-84	1.971E-02		7.910E-02	1.351E-01	1.187E-02	0.146
KR-85	8.961E+00		8.686E+00	1.373E+01	7.964E-01	0.653
SR-85	4.590E-02		4.449E-02	7.030E-02	4.080E-03	0.653
RB-86	3.465E-01		7.990E-01	1.385E+00	9.930E-02	0.250
Y-88	-8.774E-03		4.310E-02	6.833E-02	4.023E-03	-0.128
ZR-88	-1.262E-02		3.698E-02	6.011E-02	3.471E-03	-0.210
Y-91	3.218E+00		2.050E+01	3.411E+01	2.035E+00	0.094
NB-94	5.239E-03		4.081E-02	6.660E-02	3.805E-03	0.079
NB-95	3.869E-02		5.855E-02	9.810E-02	6.592E-03	0.394

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	5.133E-01		1.876E-01	2.998E-01	2.211E-02	1.712
ZR-95	-4.253E-02		7.679E-02	1.154E-01	8.853E-03	-0.369
NB-97	4.650E-01		7.685E-02	Half-Life too short		
ZR-97	7.470E+00		1.262E+00	Half-Life too short		
MO-99	6.759E-01		1.403E+01	2.268E+01	3.173E+00	0.030
TC-99M	9.113E+09		1.975E+10	Half-Life too short		
RH-101	-7.341E-03		3.887E-02	6.230E-02	3.321E-03	-0.118
RH-102	2.263E-02		3.847E-02	6.579E-02	3.851E-03	0.344
RU-103	1.067E-02		5.121E-02	8.541E-02	1.081E-02	0.125
RH-106	-9.916E-02		3.913E-01	6.212E-01	7.164E-02	-0.160
RU-106	-9.916E-02		3.912E-01	6.212E-01	3.338E-02	-0.160
AG-108M	-1.732E-03		3.927E-02	6.477E-02	4.106E-03	-0.027
AG-110M	1.418E-01		5.766E-02	9.933E-02	5.520E-03	1.428
IN-111	7.981E-01		1.349E+00	1.974E+00	1.118E-01	0.404
IN-113M	-5.538E-03		5.249E-02	8.666E-02	5.338E-03	-0.064
SN-113	-5.538E-03		5.249E-02	8.666E-02	5.338E-03	-0.064
IN-114M	-1.354E-01		2.599E-01	3.557E-01	1.875E-02	-0.381
CD-115	-4.771E+00		1.281E+01	2.036E+01	1.175E+00	-0.234
SN-117M	-7.189E-02		6.821E-02	1.060E-01	5.508E-03	-0.678
SB-122	2.087E+00		2.502E+00	4.341E+00	2.456E-01	0.481
I-123	-8.123E+00		3.209E+00	Half-Life too short		
TE-123M	-4.508E-02		3.562E-02	5.477E-02	2.890E-03	-0.823
I-124	1.528E-01		8.415E-01	1.210E+00	6.630E-02	0.126
SB-124	-6.499E-02		7.836E-02	1.036E-01	7.223E-03	-0.627
SB-125	-1.660E-02		1.101E-01	1.804E-01	1.097E-02	-0.092
TE-125M	-3.471E+00		1.192E+01	1.945E+01	1.735E+00	-0.178
I-126	4.976E-02		2.146E-01	3.099E-01	1.604E-02	0.161
SB-126	-4.816E-03		1.891E-01	2.616E-01	1.567E-02	-0.018
SB-127	-5.098E-02		1.485E+00	2.391E+00	2.196E-01	-0.021
XE-127	-2.978E-02		5.839E-02	9.208E-02	4.943E-03	-0.323
I-131	1.086E-01		1.417E-01	2.465E-01	1.610E-02	0.440
TE-132	-4.237E-01		7.956E-01	1.239E+00	1.765E-01	-0.342
BA-133	-4.210E-02		5.689E-02	7.657E-02	8.884E-03	-0.550
I-133	-3.546E-03		3.380E-03	Half-Life too short		
CS-134	5.814E-02		4.924E-02	9.106E-02	6.650E-03	0.639
I-135	7.055E+08		2.544E+09	Half-Life too short		
CS-136	-9.658E-03		1.191E-01	1.948E-01	1.552E-02	-0.050
CE-139	-4.512E-02		3.824E-02	5.829E-02	2.972E-03	-0.774
BA-140	2.659E-02		3.174E-01	5.229E-01	1.700E-01	0.051
LA-140	-2.026E-02		9.034E-02	1.446E-01	9.922E-03	-0.140
CE-141	3.601E-02		8.888E-02	1.302E-01	7.341E-03	0.277
CE-143	1.049E-03		1.517E-04	Half-Life too short		
CE-144	-4.406E-02		2.416E-01	3.930E-01	5.550E-02	-0.112
PM-144	-3.445E-02		4.182E-02	6.219E-02	3.499E-03	-0.554
PR-144	-2.335E+00		2.834E+00	4.214E+00	2.369E-01	-0.554
PM-146	2.499E-02		5.187E-02	8.847E-02	7.662E-03	0.283
ND-147	-5.353E-02		6.804E-01	1.107E+00	1.496E-01	-0.048
PM-149	-9.587E+00		9.994E+01	1.675E+02	2.377E+01	-0.057

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-3.929E-02		1.281E-01	1.812E-01	1.201E-02	-0.217
GD-153	9.410E-02		1.108E-01	1.679E-01	1.371E-02	0.561
EU-154	4.563E-02		1.367E-01	2.320E-01	2.303E-02	0.197
EU-155	8.822E-02		1.337E-01	2.261E-01	1.668E-02	0.390
TB-160	-3.180E-02		1.550E-01	2.528E-01	2.211E-02	-0.126
HO-166M	1.853E-02		7.415E-02	1.223E-01	7.157E-03	0.152
TM-171	-1.140E+01		4.485E+01	6.522E+01	5.672E+00	-0.175
LU-176	-1.333E-02		2.812E-02	4.594E-02	2.706E-03	-0.290
LU-177	1.753E+00		1.371E+00	2.329E+00	1.260E-01	0.753
LU-177M	-2.038E-01		2.159E-01	3.351E-01	1.950E-02	-0.608
HF-181	-5.061E-02		5.189E-02	7.888E-02	4.614E-03	-0.642
W-181	1.449E+00		6.221E-01	9.890E-01	8.591E-02	1.465
TA-182	-7.768E-02		2.146E-01	3.364E-01	2.065E-02	-0.231
RE-183	1.516E-01		1.361E-01	2.317E-01	1.192E-02	0.654
RE-184	2.991E-02		2.707E-01	4.364E-01	2.488E-02	0.069
OS-185	-4.021E-02		5.145E-02	7.714E-02	4.026E-03	-0.521
RE-188	1.962E-01		2.048E-01	3.472E-01	1.822E-02	0.565
W-188	-3.157E+00		9.168E+00	1.307E+01	7.655E-01	-0.241
IR-192	-1.703E-02		4.085E-02	6.691E-02	3.969E-03	-0.255
AU-195	6.246E-01		2.895E-01	4.969E-01	3.965E-02	1.257
TL-200	-4.440E-04		2.630E-04	Half-Life too short		
TL-201	3.095E+00		8.548E+00	1.396E+01	7.127E-01	0.222
TL-202	2.929E-02		8.591E-02	1.452E-01	8.498E-03	0.202
HG-203	5.344E-02		4.773E-02	8.462E-02	5.227E-03	0.632
BI-207	-3.453E-02		5.793E-02	8.863E-02	6.511E-03	-0.390
TL-207	-8.659E-02		8.690E-01	1.257E+00	2.081E-01	-0.069
PO-209	-7.347E+00		7.895E+00	1.168E+01	1.060E+00	-0.629
BI-210	2.183E+00		6.574E+00	1.112E+01	8.661E-01	0.196
PB-210	2.183E+00		6.574E+00	1.112E+01	8.661E-01	0.196
PO-210	2.183E+00		6.574E+00	1.112E+01	7.462E-01	0.196
PB-211	-8.612E-01		1.349E+00	1.970E+00	1.228E+00	-0.437
BI-212	1.133E+00	+	4.214E-01	7.308E-01	5.801E-02	1.550
PO-215	-8.659E-02		8.690E-01	1.257E+00	2.081E-01	-0.069
RN-219	-1.249E-01		5.376E-01	8.799E-01	1.197E-01	-0.142
RN-220	7.268E+00		3.090E+01	5.151E+01	2.939E+00	0.141
RA-223	-8.659E-02		8.690E-01	1.257E+00	2.081E-01	-0.069
AC-227	-1.423E-01		4.696E-01	7.379E-01	1.028E-01	-0.193
TH-227	-1.423E-01		4.698E-01	7.379E-01	1.245E-01	-0.193
TH-229	5.710E-01		6.036E-01	1.019E+00	5.397E-02	0.560
PA-231	-1.077E+00		1.761E+00	2.861E+00	3.947E-01	-0.376
TH-231	-8.659E-02		8.690E-01	1.257E+00	2.081E-01	-0.069
U-231	-1.307E+00		1.521E+00	2.109E+00	1.769E-01	-0.620
PA-233	3.087E-02		7.552E-02	1.296E-01	8.101E-03	0.238
PA-234	-3.657E-01		3.276E-01	4.583E-01	8.615E-02	-0.798
PA-234M	9.938E+00	+	9.701E+00	1.068E+01	1.019E+00	0.930
NP-236	-4.243E-02		9.898E-02	1.583E-01	8.189E-03	-0.268
NP-239	-2.378E-01		2.213E-01	3.465E-01	2.163E-02	-0.686
AM-241	2.834E-01		2.575E-01	3.949E-01	3.674E-02	0.718

Sample ID : G245994006 Acquisition date : 12-FEB-2010 12:35:35

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.311E-02		1.201E-01	1.971E-01	1.460E-02	0.067
AM-246	-4.229E-02		1.581E-01	2.522E-01	1.800E-02	-0.168
CM-247	-1.154E-02		4.937E-02	8.084E-02	4.686E-03	-0.143
CF-249	1.206E-02		4.786E-02	8.083E-02	4.677E-03	0.149
CF-251	7.373E-02		1.488E-01	2.471E-01	1.277E-02	0.298

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994006            *
* Acquisition date : 12-FEB-2010 12:35:35 Detector SN#     :                *
* Detector ID      : GAM23                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.56     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245994006           Analyst initials: MXR1            *
* Batch Number     : 948812               Sample Quantity : 1.1322E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.825E+01	2.219E+00	3.428E-01	1.132E+00
CD-109	1.573E+00	1.354E+00	8.790E-01	6.910E-01
SN-126	1.546E-01	1.331E-01	1.019E-01	6.792E-02
CS-135	2.859E-01	2.670E-01	1.609E-01	1.362E-01
BA-137M	5.608E-01	9.831E-02	3.223E-02	5.016E-02
CS-137	5.928E-01	1.040E-01	3.407E-02	5.305E-02
TL-208	4.593E-01	1.031E-01	3.510E-02	5.262E-02
BI-211	3.718E+00	5.293E-01	1.910E-01	2.701E-01
PB-212	1.287E+00	1.452E-01	5.465E-02	7.406E-02
PO-212	1.287E+00	1.452E-01	5.465E-02	7.406E-02
BI-214	1.180E+00	1.933E-01	5.618E-02	9.864E-02
PB-214	1.293E+00	1.956E-01	6.220E-02	9.982E-02
PO-214	1.293E+00	1.956E-01	6.220E-02	9.982E-02
PO-216	1.287E+00	1.452E-01	5.465E-02	7.406E-02
PO-218	1.293E+00	1.956E-01	6.220E-02	9.982E-02
RA-224	3.273E+00	1.206E+00	6.219E-01	6.151E-01
RA-226	1.180E+00	1.933E-01	5.618E-02	9.864E-02
AC-228	8.559E-01	3.976E-01	1.298E-01	2.029E-01
RA-228	8.559E-01	3.976E-01	1.298E-01	2.029E-01
TH-228	1.306E+00	1.473E-01	5.547E-02	7.518E-02
TH-230	1.180E+00	1.933E-01	5.618E-02	9.864E-02
TH-232	8.559E-01	3.976E-01	1.298E-01	2.029E-01
TH-234	1.035E+01	3.187E+00	1.662E+00	1.626E+00
U-234	1.180E+00	1.933E-01	5.618E-02	9.864E-02
U-235	7.659E-01	3.894E-01	2.014E-01	1.987E-01
NP-237	4.541E-01	4.016E-01	2.905E-01	2.049E-01
U-238	1.035E+01	3.187E+00	1.662E+00	1.626E+00
AM-243	3.436E-01	1.053E-01	6.139E-02	5.372E-02
ANH-511	1.280E-01	7.871E-02	2.751E-02	4.016E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	2.306E-01	4.011E-01	3.519E-01	2.047E-01	NOT IDENT.
NA-22	1.526E-02	4.783E-02	4.120E-02	2.440E-02	NOT IDENT.
NA-24	-2.882E+05	7.825E+05	0.000E+00	3.992E+05	SHORT HLIF
AL-26	1.466E-02	2.963E-02	2.768E-02	1.511E-02	NOT IDENT.
TI-44	3.200E-01	6.138E-02	4.988E-02	3.132E-02	FAIL ABUN
SC-46	2.090E-02	4.383E-02	3.898E-02	2.236E-02	FAIL ABUN
V-48	6.960E-02	7.630E-02	7.044E-02	3.893E-02	NOT IDENT.
CR-51	2.080E-02	4.310E-01	3.732E-01	2.199E-01	NOT IDENT.
MN-52	-3.895E-02	2.844E-01	2.287E-01	1.451E-01	NOT IDENT.
MN-54	-3.453E-03	3.823E-02	3.236E-02	1.951E-02	NOT IDENT.
CO-56	-4.748E-03	4.054E-02	3.417E-02	2.069E-02	NOT IDENT.
CO-57	1.311E-02	2.870E-02	2.498E-02	1.465E-02	NOT IDENT.
CO-58	-1.300E-02	4.685E-02	3.910E-02	2.390E-02	NOT IDENT.
FE-59	-8.214E-02	9.484E-02	7.079E-02	4.839E-02	FAIL ABUN
CO-60	-4.867E-03	4.290E-02	3.486E-02	2.189E-02	NOT IDENT.
ZN-65	8.533E-02	1.240E-01	9.743E-02	6.326E-02	NOT IDENT.
GE-68	4.894E-01	1.271E+00	1.114E+00	6.482E-01	NOT IDENT.
AS-73	3.597E-01	1.312E+00	1.164E+00	6.691E-01	NOT IDENT.
AS-74	1.713E-02	1.086E-01	9.170E-02	5.539E-02	NOT IDENT.
SE-75	-4.994E-03	6.385E-02	4.561E-02	3.258E-02	NOT IDENT.
BR-77	-6.660E+00	1.152E+01	9.219E+00	5.878E+00	FAIL ABUN
SR-82	-5.537E-01	4.052E-01	2.991E-01	2.067E-01	NOT IDENT.
RB-83	-5.143E-02	7.769E-02	6.167E-02	3.964E-02	NOT IDENT.
RB-84	1.971E-02	7.752E-02	6.761E-02	3.955E-02	NOT IDENT.
KR-85	8.961E+00	8.512E+00	6.899E+00	4.343E+00	NOT IDENT.
SR-85	4.590E-02	4.360E-02	3.534E-02	2.225E-02	NOT IDENT.
RB-86	3.465E-01	7.830E-01	6.919E-01	3.995E-01	NOT IDENT.
Y-88	-8.774E-03	4.224E-02	3.396E-02	2.155E-02	NOT IDENT.
ZR-88	-1.262E-02	3.624E-02	3.029E-02	1.849E-02	NOT IDENT.
Y-91	3.218E+00	2.009E+01	1.702E+01	1.025E+01	NOT IDENT.
NB-94	5.239E-03	4.000E-02	3.338E-02	2.041E-02	NOT IDENT.
NB-95	3.869E-02	5.738E-02	4.913E-02	2.927E-02	NOT IDENT.
NB-95M	5.133E-01	1.838E-01	1.517E-01	9.378E-02	NOT IDENT.
ZR-95	-4.253E-02	7.525E-02	5.780E-02	3.839E-02	NOT IDENT.
NB-97	4.650E+05	1.506E+05	0.000E+00	7.685E+04	SHORT HLIF
ZR-97	7.470E+06	2.474E+06	0.000E+00	1.262E+06	SHORT HLIF
MO-99	6.759E-01	1.375E+01	1.136E+01	7.016E+00	NOT IDENT.
TC-99M	9.113E+15	3.871E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-7.341E-03	3.810E-02	3.157E-02	1.944E-02	NOT IDENT.
RH-102	2.263E-02	3.770E-02	3.309E-02	1.923E-02	NOT IDENT.
RU-103	1.067E-02	5.019E-02	4.294E-02	2.561E-02	NOT IDENT.
RH-106	-9.916E-02	3.835E-01	3.117E-01	1.956E-01	FAIL ABUN
RU-106	-9.916E-02	3.833E-01	3.117E-01	1.956E-01	FAIL ABUN
AG-108M	-1.732E-03	3.848E-02	3.260E-02	1.963E-02	NOT IDENT.
AG-110M	1.418E-01	5.651E-02	4.982E-02	2.883E-02	NOT IDENT.
IN-111	7.981E-01	1.322E+00	9.987E-01	6.745E-01	NOT IDENT.
IN-113M	-5.538E-03	5.144E-02	4.366E-02	2.624E-02	NOT IDENT.
SN-113	-5.538E-03	5.144E-02	4.366E-02	2.624E-02	NOT IDENT.
IN-114M	-1.354E-01	2.547E-01	1.803E-01	1.299E-01	NOT IDENT.
CD-115	-4.771E+00	1.255E+01	1.023E+01	6.405E+00	NOT IDENT.
SN-117M	-7.189E-02	6.684E-02	5.382E-02	3.410E-02	NOT IDENT.
SB-122	2.087E+00	2.452E+00	2.180E+00	1.251E+00	NOT IDENT.
I-123	-8.123E+06	6.289E+06	0.000E+00	3.209E+06	SHORT HLIF
TE-123M	-4.508E-02	3.490E-02	2.781E-02	1.781E-02	NOT IDENT.
I-124	1.528E-01	8.247E-01	6.072E-01	4.208E-01	NOT IDENT.
SB-124	-6.499E-02	7.679E-02	5.152E-02	3.918E-02	FAIL ABUN
SB-125	-1.660E-02	1.079E-01	9.080E-02	5.505E-02	NOT IDENT.
TE-125M	-3.471E+00	1.168E+01	9.906E+00	5.960E+00	NOT IDENT.
I-126	4.976E-02	2.103E-01	1.554E-01	1.073E-01	NOT IDENT.
SB-126	-4.816E-03	1.853E-01	1.311E-01	9.456E-02	NOT IDENT.
SB-127	-5.098E-02	1.455E+00	1.199E+00	7.426E-01	NOT IDENT.
XE-127	-2.978E-02	5.722E-02	4.666E-02	2.919E-02	NOT IDENT.
I-131	1.086E-01	1.388E-01	1.243E-01	7.083E-02	NOT IDENT.
TE-132	-4.237E-01	7.797E-01	6.272E-01	3.978E-01	NOT IDENT.
BA-133	-4.210E-02	5.575E-02	3.861E-02	2.844E-02	NOT IDENT.
I-133	-3.546E+03	6.624E+03	0.000E+00	3.380E+03	SHORT HLIF
CS-134	5.814E-02	4.826E-02	4.559E-02	2.462E-02	NOT IDENT.
I-135	7.055E+14	4.986E+15	0.000E+00	2.544E+15	SHORT HLIF
CS-136	-9.658E-03	1.168E-01	9.728E-02	5.957E-02	FAIL ABUN
CE-139	-4.512E-02	3.747E-02	2.959E-02	1.912E-02	NOT IDENT.
BA-140	2.659E-02	3.111E-01	2.627E-01	1.587E-01	NOT IDENT.
LA-140	-2.026E-02	8.853E-02	7.197E-02	4.517E-02	FAIL ABUN
CE-141	3.601E-02	8.711E-02	6.614E-02	4.444E-02	NOT IDENT.
CE-143	1.049E+03	2.974E+02	0.000E+00	1.517E+02	SHORT HLIF
CE-144	-4.406E-02	2.368E-01	1.998E-01	1.208E-01	NOT IDENT.
PM-144	-3.445E-02	4.099E-02	3.118E-02	2.091E-02	NOT IDENT.

PR-144	-2.335E+00	2.777E+00	2.113E+00	1.417E+00	NOT IDENT.
PM-146	2.499E-02	5.083E-02	4.451E-02	2.593E-02	NOT IDENT.
ND-147	-5.353E-02	6.668E-01	5.565E-01	3.402E-01	NOT IDENT.
PM-149	-9.587E+00	9.794E+01	8.461E+01	4.997E+01	NOT IDENT.
EU-152	-3.929E-02	1.256E-01	9.140E-02	6.406E-02	NOT IDENT.
GD-153	9.410E-02	1.086E-01	8.560E-02	5.539E-02	NOT IDENT.
EU-154	4.563E-02	1.340E-01	1.157E-01	6.837E-02	NOT IDENT.
EU-155	8.822E-02	1.310E-01	1.152E-01	6.684E-02	FAIL ABUN
TB-160	-3.180E-02	1.519E-01	1.265E-01	7.750E-02	FAIL ABUN
HO-166M	1.853E-02	7.267E-02	6.129E-02	3.708E-02	FAIL ABUN
TM-171	-1.140E+01	4.395E+01	3.336E+01	2.242E+01	NOT IDENT.
LU-176	-1.333E-02	2.755E-02	2.319E-02	1.406E-02	FAIL ABUN
LU-177	1.753E+00	1.344E+00	1.180E+00	6.855E-01	NOT IDENT.
LU-177M	-2.038E-01	2.116E-01	1.687E-01	1.079E-01	FAIL ABUN
HF-181	-5.061E-02	5.085E-02	3.967E-02	2.594E-02	NOT IDENT.
W-181	1.449E+00	6.097E-01	5.060E-01	3.111E-01	NOT IDENT.
TA-182	-7.768E-02	2.103E-01	1.678E-01	1.073E-01	FAIL ABUN
RE-183	1.516E-01	1.334E-01	1.176E-01	6.806E-02	NOT IDENT.
RE-184	2.991E-02	2.653E-01	2.207E-01	1.354E-01	NOT IDENT.
OS-185	-4.021E-02	5.042E-02	3.870E-02	2.572E-02	NOT IDENT.
RE-188	1.962E-01	2.007E-01	1.763E-01	1.024E-01	NOT IDENT.
W-188	-3.157E+00	8.985E+00	6.603E+00	4.584E+00	FAIL ABUN
IR-192	-1.703E-02	4.003E-02	3.377E-02	2.042E-02	FAIL ABUN
AU-195	6.246E-01	2.837E-01	2.533E-01	1.448E-01	FAIL ABUN
TL-200	-4.440E+02	5.155E+02	0.000E+00	2.630E+02	SHORT HLIF
TL-201	3.095E+00	8.377E+00	7.087E+00	4.274E+00	NOT IDENT.
TL-202	2.929E-02	8.419E-02	7.310E-02	4.296E-02	NOT IDENT.
HG-203	5.344E-02	4.677E-02	4.276E-02	2.386E-02	NOT IDENT.
BI-207	-3.453E-02	5.677E-02	4.426E-02	2.896E-02	FAIL ABUN
TL-207	-8.659E-02	8.517E-01	6.344E-01	4.345E-01	FAIL ABUN
PO-209	-7.347E+00	7.738E+00	5.842E+00	3.948E+00	NOT IDENT.
BI-210	2.183E+00	6.443E+00	5.707E+00	3.287E+00	NOT IDENT.
PB-210	2.183E+00	6.443E+00	5.707E+00	3.287E+00	NOT IDENT.
PO-210	2.183E+00	6.442E+00	5.707E+00	3.287E+00	NOT IDENT.
PB-211	-8.612E-01	1.322E+00	9.921E-01	6.745E-01	NOT IDENT.
BI-212	1.133E+00	4.129E-01	3.662E-01	2.107E-01	FAIL ABUN
PO-215	-8.659E-02	8.517E-01	6.344E-01	4.345E-01	FAIL ABUN
RN-219	-1.249E-01	5.269E-01	4.432E-01	2.688E-01	NOT IDENT.
RN-220	7.268E+00	3.029E+01	2.587E+01	1.545E+01	NOT IDENT.
RA-223	-8.659E-02	8.517E-01	6.344E-01	4.345E-01	FAIL ABUN
AC-227	-1.423E-01	4.602E-01	3.731E-01	2.348E-01	NOT IDENT.
TH-227	-1.423E-01	4.604E-01	3.731E-01	2.349E-01	FAIL ABUN
TH-229	5.710E-01	5.915E-01	5.165E-01	3.018E-01	FAIL ABUN
PA-231	-1.077E+00	1.726E+00	1.446E+00	8.806E-01	NOT IDENT.
TH-231	-8.659E-02	8.517E-01	6.344E-01	4.345E-01	FAIL ABUN
U-231	-1.307E+00	1.491E+00	1.076E+00	7.606E-01	FAIL ABUN
PA-233	3.087E-02	7.401E-02	6.541E-02	3.776E-02	FAIL ABUN
PA-234	-3.657E-01	3.210E-01	2.291E-01	1.638E-01	FAIL ABUN
PA-234M	9.938E+00	9.507E+00	5.337E+00	4.851E+00	FAIL ABUN
NP-236	-4.243E-02	9.700E-02	8.039E-02	4.949E-02	NOT IDENT.
NP-239	-2.378E-01	2.169E-01	1.764E-01	1.106E-01	NOT IDENT.
AM-241	2.834E-01	2.523E-01	2.022E-01	1.287E-01	NOT IDENT.
CM-243	1.311E-02	1.177E-01	1.004E-01	6.006E-02	NOT IDENT.
AM-246	-4.229E-02	1.549E-01	1.259E-01	7.904E-02	NOT IDENT.
CM-247	-1.154E-02	4.838E-02	4.072E-02	2.468E-02	NOT IDENT.
CF-249	1.206E-02	4.690E-02	4.073E-02	2.393E-02	NOT IDENT.
CF-251	7.373E-02	1.458E-01	1.254E-01	7.440E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	266.5116
46.50	266.5116
46.50	266.5116
48.70	301.1296
49.72	309.8508
51.35	286.1269
52.39	264.7285
52.97	263.1616
53.15	285.1786
53.44	286.2323
54.07	292.9431
56.28	350.0593
56.28	350.0608
57.37	0.0000
57.53	326.5274
57.53	326.5281
57.60	315.5148
57.98	309.5654
57.98	309.5654
59.32	298.4087
59.32	298.4087
59.40	298.4463
59.54	298.5122
59.72	300.0755
60.01	300.2124
61.10	309.6125
61.14	345.1874
61.30	345.2734
63.00	416.0078
63.29	429.5687
63.29	429.5687
63.58	398.5306
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65.20	377.1436
65.20	377.1436
66.05	407.4738
66.72	419.8278
66.83	419.8981
66.91	416.9589
67.20	417.1360
67.20	417.1360
67.75	438.4198
67.85	438.4842
68.90	440.6537
68.90	440.6537
69.30	448.4069
69.67	435.1434
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70.83	384.7625
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72.87	456.7155
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74.81	431.6870
74.97	431.7812
75.28	431.9660
75.70	432.2135
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77.11	451.8054

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77.11	451.8054
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79.80	462.5628
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80.18	476.4978
80.30	476.5723
80.30	476.5723
80.57	537.6678
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81.07	548.6902
81.07	548.6902
81.07	548.6902
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83.78	480.2663
83.78	480.2663
83.78	480.2663
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84.90	487.0831
85.43	458.2890
86.29	521.7000
86.50	578.8466
86.54	578.8743
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86.72	622.8720
86.79	622.9240
86.94	653.9390
87.30	691.3641
87.30	691.3641
87.30	691.3641
87.30	691.3641
87.30	691.3641
87.30	691.3641
87.30	691.3641
87.57	633.9645
87.88	461.2445
88.03	461.3306
88.36	634.5889
88.47	634.6770
89.95	635.8401
91.11	609.7330
92.29	463.7531
92.38	463.8043
92.38	463.8043
93.35	303.3741
94.00	346.9840
94.67	392.2172
94.67	392.2195
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94.90	417.1388
94.90	417.1388
94.90	417.1388
95.87	389.6750
95.87	389.6750
96.73	357.4363
97.43	312.6247
98.44	278.9943
98.44	278.9954
98.88	268.1946
99.55	280.6545
99.55	280.6545
99.86	296.3520
100.00	296.3995
100.10	296.4355
103.18	340.5354
103.76	308.4451
105.00	302.9919
105.31	307.0204
108.00	369.9185
109.28	357.6300

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111.00	306.9734
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112.95	311.5742
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116.30	319.6318
117.00	298.0122
117.00	298.0122
117.66	278.3369
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121.62	245.5411
121.78	254.5652
122.06	254.6381
122.32	261.6972
122.32	261.6972
122.32	261.6972
122.32	261.6972
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127.23	326.2317
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135.34	268.1156
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140.51	0.0000
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144.24	295.4573
144.24	295.4573
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145.44	310.4895
147.16	288.0625
152.43	310.3938
152.70	306.3553
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154.21	284.1154
154.21	284.1154
154.21	284.1154
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162.64	266.4940
163.35	273.9177
163.89	282.3480
165.85	322.3270
167.43	265.4901
171.28	271.5607
171.86	267.5117
172.10	267.5645
176.55	234.9683
176.60	234.9768
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184.41	278.6631
185.71	281.0603
186.00	281.1253
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193.63	221.1222
197.04	261.1293
198.01	246.3874
198.60	232.6229
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202.84	275.1056
205.31	329.2254

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208.81	258.0322
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209.75	251.7510
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216.55	223.7878
218.09	215.3728
222.10	208.3813
223.80	209.7141
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227.00	214.5324
227.08	218.9007
227.20	218.9191
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228.18	210.3457
228.18	210.3457
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236.00	222.6360
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238.63	209.6363
238.63	209.6363
238.63	209.6363
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241.98	210.1012
241.98	210.1012
241.98	210.1012
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249.79	185.7418
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252.85	161.7359
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256.20	187.6133
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260.90	185.9435
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268.24	196.8560
268.79	177.2308
269.46	195.2127
269.46	195.2127
269.46	195.2127
269.46	195.2127
271.23	154.1890
273.65	242.3969
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277.60	168.7317
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278.60	155.7760
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284.30	164.4376
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285.90	150.1234
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286.10	143.8084
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290.80	148.1345
291.72	140.6523
293.26	0.0000
293.70	134.7584
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295.21	170.9418

295.21	170.9418
295.96	210.7397
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297.23	201.7892
298.57	145.7637
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299.80	132.1921
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300.09	120.0558
300.09	120.0558
300.09	120.0558
300.12	120.0574
301.29	127.7415
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304.40	192.8646
304.84	181.9397
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323.87	138.5907
323.87	138.5907
323.87	138.5907
325.23	140.2324
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334.20	148.6504
334.30	148.6582
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338.28	141.2118
338.28	141.2118
338.28	141.2118
338.32	141.2137
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338.32	141.2137
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340.57	105.6468
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351.92	104.7066
351.92	104.7066
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367.94	0.0000
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388.63	100.2589
391.69	113.7923
391.69	113.7923
392.90	121.5120
398.62	121.8406
400.65	111.3937
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404.84	152.9851
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415.30	98.6158

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427.08	95.2545
427.89	104.0403
432.53	110.1019
433.93	100.4200
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439.56	101.6476
439.89	104.5954
443.98	108.6992
444.90	103.8443
445.03	103.8508
445.03	103.8508
445.03	103.8508
445.03	103.8508
453.90	87.5301
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468.07	117.7420
473.00	119.9690
475.06	100.2245
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484.57	72.7246
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497.08	91.1200
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511.00	81.5582
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511.85	81.5863
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513.99	65.5253
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520.65	81.8681
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528.96	0.0000
529.64	86.2119
529.87	0.0000
531.02	82.1984
537.32	81.3789
543.00	73.3992
546.56	0.0000
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555.20	59.3990
563.23	63.6847
563.90	72.9483
568.70	77.1936
569.32	68.9760
569.50	61.7739
569.67	61.7769
573.80	76.6017
574.00	79.5536
574.64	82.5195
578.91	65.4285
579.30	0.0000
583.14	75.5308
585.48	58.6810
591.81	80.7248
592.07	80.9631
593.00	75.7981
595.88	73.7960
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602.52	0.0000
602.71	65.9867
602.71	65.9867
603.60	66.0083
604.41	76.4521
604.70	76.4593
609.31	54.3042

609.31	54.3042
609.31	54.3042
609.31	54.3042
610.33	53.9750
612.46	81.8943
614.37	76.7189
618.01	60.7542
621.84	74.4685
621.84	74.4685
631.29	67.3453
633.02	72.6488
633.10	72.6505
634.78	56.8898
635.90	73.7734
636.97	71.6922
645.85	69.7915
646.12	74.0281
656.30	63.6680
657.75	63.6987
657.90	0.0000
661.65	58.4657
661.65	58.4657
664.57	0.0000
666.33	47.9092
666.33	47.9092
675.00	50.1796
677.61	48.0850
685.20	53.5583
692.80	66.5743
695.00	68.7703
696.49	77.4035
696.49	77.4035
697.00	76.3406
697.49	83.8805
698.33	67.7665
698.50	62.3925
699.00	57.0229
702.63	66.7817
706.10	76.5590
706.58	0.0000
706.67	58.2385
709.31	61.5255
711.68	61.5714
713.82	65.9354
717.42	60.5992
720.50	55.9630
721.93	0.0000
722.20	57.7988
722.78	52.3890
722.78	52.3890
722.89	52.3914
722.95	52.3926
723.30	48.7848
724.18	56.0273
727.18	48.8430
733.00	53.0073
735.90	56.5919
739.58	59.9226
742.81	45.8042
744.21	52.3699
747.13	52.4168
751.79	43.7412
752.31	43.7480
753.82	45.9570
755.35	54.7351
756.15	51.4636
756.87	49.2847
763.93	87.8008
765.79	72.4759
766.42	79.0787
766.84	84.5816
776.49	63.3412
778.00	56.9406
778.57	59.7050
778.89	59.7103
783.80	36.7977
785.46	42.3379
792.07	45.1858

795.84	36.9263
796.30	32.3148
798.80	61.9047
801.93	61.9606
805.60	51.8415
810.29	58.3998
810.76	60.2617
815.85	49.2077
817.79	40.8740
818.51	41.8112
819.60	45.5417
826.30	42.8339
828.27	0.0000
831.60	42.8976
831.96	44.7676
834.83	46.6705
836.80	0.0000
846.75	42.1417
848.13	43.0951
856.28	0.0000
856.80	53.1243
860.37	43.5077
867.32	33.9031
867.82	35.3203
871.10	43.3646
873.19	42.4457
874.81	37.7466
875.33	0.0000
876.40	40.5942
879.36	44.4058
880.27	41.5821
880.51	40.6397
881.50	41.5955
883.24	43.5059
884.67	47.3073
889.25	39.7869
896.60	46.5087
898.02	55.0712
899.00	47.4874
903.28	42.3797
911.07	50.6323
911.07	50.6323
911.07	50.6323
919.63	55.3827
920.93	33.4320
925.00	33.4669
925.24	33.4690
926.50	36.3502
935.52	38.3521
937.48	57.5562
944.10	42.2795
946.00	47.1069
949.00	26.9387
962.29	59.5735
964.01	54.6321
966.15	56.3184
968.20	49.3035
969.11	49.3149
969.11	49.3149
969.11	49.3149
977.42	37.4662
980.50	43.6359
983.50	30.0830
989.30	37.9003
996.32	50.0642
1001.03	29.2377
1001.68	29.2419
1004.76	40.1334
1021.30	0.0000
1024.50	0.0000
1034.80	46.1796
1036.00	35.3804
1037.82	41.2959
1038.57	42.2861
1038.76	0.0000
1045.16	45.3075
1046.59	47.2930
1048.07	38.4382

1050.47	36.4881
1050.47	36.4881
1062.04	40.5429
1063.62	42.5363
1076.63	27.7813
1077.35	29.7705
1078.86	39.7070
1085.78	30.8221
1099.22	41.8872
1112.02	39.4366
1112.84	37.7296
1115.52	44.6150
1120.29	37.7925
1120.29	37.7925
1120.29	37.7925
1120.29	37.7925
1120.51	37.7941
1121.28	39.5184
1124.00	0.0000
1129.67	30.1245
1131.51	0.0000
1147.95	0.0000
1167.94	27.3406
1173.22	28.3862
1175.09	28.3976
1177.93	31.4591
1189.05	31.5348
1204.90	39.8062
1205.75	0.0000
1213.00	46.0089
1221.42	46.0913
1230.97	65.6823
1235.34	42.1161
1236.41	0.0000
1238.25	53.4473
1246.25	41.1816
1260.41	0.0000
1271.85	25.8738
1274.45	30.0290
1274.54	30.0302
1291.56	28.0547
1298.22	0.0000
1312.09	28.1700
1325.50	26.1525
1325.50	26.1525
1332.49	25.1416
1333.61	25.1465
1360.21	24.2241
1362.66	0.0000
1365.15	12.6504
1368.21	25.3164
1368.53	0.0000
1376.25	17.9601
1384.27	26.4526
1394.10	25.4414
1395.20	25.4473
1407.95	13.8167
1434.06	23.4967
1436.60	21.3704
1457.56	0.0000
1460.81	22.5398
1489.15	15.1040
1509.49	19.4897
1596.49	16.0187
1620.62	14.1922
1678.03	0.0000
1691.02	13.4019
1691.02	13.4019
1706.46	0.0000
1750.46	0.0000
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1770.23	34.9026
1771.40	17.4545
1791.20	0.0000
1808.65	5.8523

1836.01 13.7129

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994006

Total Uranium Activity	3.1132E+01	ug/g
Total Uranium Counting Unc.	9.4845E+00	ug/g
Total Uranium Tpu	4.8390E-06	ug/g
Total Uranium Mda	4.9453E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID   : G245994006      *
*   ANALYST       : MXR1                      DETECTOR    : GAM23           *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 12:35:35.84    SAMPLE ALQT:  113.220 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.043E+00
         GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.203E+00
         GROSS GAMMA MDA    (pCi/GRAM  )   : 3.047E+00
         GROSS GAMMA DLC    (pCi/GRAM  )   : 1.473E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:39:02.27

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994007.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:38:33
Sample ID         : G245994007           Sample quantity  : 1.22230E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.95  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	74.58*	308	443	1.30	149.30	143	14	4.28E-02	13.3	9.01E-01
2	4	76.80	438	308	0.95	153.74	143	14	6.08E-02	8.1	
3	0	83.94*	59	268	1.19	168.01	165	6	8.18E-03	47.5	
4	2	86.98*	158	231	1.21	174.08	171	11	2.20E-02	16.8	3.49E-01
5	2	89.43	96	228	1.14	178.98	171	11	1.34E-02	25.7	
6	0	92.57*	194	385	1.31	185.24	182	9	2.70E-02	20.4	
7	0	128.69	81	296	1.32	257.42	253	8	1.12E-02	38.7	
8	0	185.51*	197	363	1.20	370.97	366	11	2.74E-02	20.7	
9	0	209.43	71	336	0.88	418.77	415	10	9.92E-03	49.4	
10	6	238.32*	1188	169	1.16	476.50	471	16	1.65E-01	3.5	4.90E+00
11	6	241.34	346	166	1.87	482.54	471	16	4.80E-02	9.7	
12	0	269.46	129	203	1.09	538.74	533	12	1.79E-02	23.9	
13	2	294.87	366	138	1.33	589.51	584	20	5.08E-02	7.6	1.79E+00
14	2	299.71*	95	154	1.54	599.19	584	20	1.32E-02	25.9	
15	0	327.97	42	153	1.18	655.68	652	10	5.77E-03	58.1	
16	0	337.92	195	142	1.12	675.57	671	9	2.71E-02	13.1	
17	0	351.46*	641	146	1.33	702.62	695	14	8.91E-02	5.7	
18	0	462.80	112	103	1.52	925.17	918	14	1.56E-02	21.5	
19	0	510.16*	71	143	1.18	1019.84	1013	14	9.88E-03	43.0	
20	0	582.79*	330	133	1.55	1165.03	1159	15	4.58E-02	9.7	
21	0	608.68*	378	84	1.46	1216.78	1210	13	5.26E-02	7.4	
22	0	726.66*	96	104	1.67	1452.65	1444	18	1.33E-02	27.3	
23	0	799.78	72	119	12.66	1598.84	1581	34	1.00E-02	48.2	
24	0	860.19	46	26	1.00	1719.64	1716	7	6.44E-03	23.4	
25	0	910.52*	208	82	1.62	1820.27	1813	15	2.89E-02	11.8	
26	1	963.95*	64	38	1.92	1927.12	1921	33	8.85E-03	22.9	2.48E+00
27	1	967.95*	133	39	1.78	1935.12	1921	33	1.85E-02	12.8	
28	0	1119.65*	96	58	1.46	2238.51	2234	14	1.33E-02	20.1	
29	0	1237.21	56	54	1.15	2473.64	2468	13	7.82E-03	29.7	
30	0	1459.50*	723	38	1.81	2918.31	2911	17	1.00E-01	4.3	
31	0	1762.69*	62	4	2.70	3524.96	3518	14	8.55E-03	15.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 14:39:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:38:33
Sample ID : G245994007 Sample quantity : 122.23 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.95 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.877E+01	2.272E+00	5.530E-01	4.763E-02	33.942
CD-109	+	88.03	*	2.544E+00	8.994E-01	1.174E+00	1.331E-01	2.167
SN-126		64.28		-7.927E-02	6.637E-01	1.087E+00	1.859E-01	-0.073
	+	86.94		1.040E+00	5.585E-01	4.882E-01	2.050E-01	2.130
	+	87.57	*	2.501E-01	8.842E-02	1.162E-01	1.315E-02	2.152
CS-135	+	268.24	*	5.246E-01	2.543E-01	2.338E-01	1.889E-02	2.244
TL-208		277.35		4.753E-01	3.677E-01	6.467E-01	7.053E-02	0.735
	+	510.84		3.449E-01	2.988E-01	2.109E-01	2.217E-02	1.635
	+	583.14	*	4.579E-01	9.383E-02	5.248E-02	3.527E-03	8.725
	+	860.37		6.202E-01	2.970E-01	4.249E-01	4.149E-02	1.460
BI-211		72.87		8.217E+00	3.798E+00	6.567E+00	7.222E-01	1.251
	+	351.07	*	3.911E+00	5.288E-01	3.106E-01	2.264E-02	12.594
PB-212	+	74.81		2.293E+00	6.932E-01	6.213E-01	8.944E-02	3.690
	+	77.11		1.802E+00	3.524E-01	3.195E-01	3.494E-02	5.640
	+	87.30		1.157E+00	4.250E-01	5.399E-01	8.146E-02	2.142
	+	238.63	*	1.599E+00	1.641E-01	8.561E-02	6.494E-03	18.676
	+	300.09		1.966E+00	1.033E+00	1.121E+00	9.849E-02	1.754
PO-212	+	74.81		2.293E+00	6.932E-01	6.213E-01	8.944E-02	3.690
	+	77.11		1.802E+00	3.524E-01	3.195E-01	3.494E-02	5.640
	+	87.30		1.157E+00	4.250E-01	5.399E-01	8.146E-02	2.142
		115.19		-1.264E+00	3.542E+00	5.613E+00	4.016E-01	-0.225
	+	238.63	*	1.599E+00	1.641E-01	8.561E-02	6.494E-03	18.676
	+	300.09		1.966E+00	1.033E+00	1.121E+00	9.849E-02	1.754
BI-214	+	609.31	*	9.908E-01	1.646E-01	1.010E-01	7.689E-03	9.806
	+	1120.29		1.379E+00	5.714E-01	4.483E-01	4.382E-02	3.076
		1764.49		9.060E-01	4.135E-01	7.853E-01	5.244E-02	1.154
PB-214	+	74.81		3.951E+00	1.173E+00	1.070E+00	1.415E-01	3.690
	+	77.11		3.090E+00	6.484E-01	5.478E-01	7.300E-02	5.640
	+	87.30		1.981E+00	7.170E-01	9.249E-01	1.265E-01	2.142
	+	241.98		2.792E+00	5.871E-01	4.955E-01	4.123E-02	5.635
	+	295.21		1.325E+00	2.331E-01	1.954E-01	1.765E-02	6.780
	+	351.92	*	1.361E+00	1.972E-01	1.083E-01	9.708E-03	12.568
PO-214	+	74.81		3.951E+00	1.173E+00	1.070E+00	1.415E-01	3.690
	+	77.11		3.090E+00	6.484E-01	5.478E-01	7.300E-02	5.640

Sample ID : G245994007 Acquisition date : 12-FEB-2010 12:38:33

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		1.981E+00	7.170E-01	9.249E-01	1.265E-01	2.142
	+	241.98		2.792E+00	5.871E-01	4.955E-01	4.123E-02	5.635
	+	295.21		1.325E+00	2.331E-01	1.954E-01	1.765E-02	6.780
	+	351.92	*	1.361E+00	1.972E-01	1.083E-01	9.708E-03	12.568
PO-216	+	74.81		2.293E+00	6.932E-01	6.213E-01	8.944E-02	3.690
	+	77.11		1.802E+00	3.524E-01	3.195E-01	3.494E-02	5.640
	+	87.30		1.157E+00	4.250E-01	5.399E-01	8.146E-02	2.142
	+	238.63	*	1.599E+00	1.641E-01	8.561E-02	6.494E-03	18.676
	+	300.09		1.966E+00	1.033E+00	1.121E+00	9.849E-02	1.754
PO-218	+	74.81		3.951E+00	1.173E+00	1.070E+00	1.415E-01	3.690
	+	77.11		3.090E+00	6.484E-01	5.478E-01	7.300E-02	5.640
	+	87.30		1.981E+00	7.170E-01	9.249E-01	1.265E-01	2.142
	+	241.98		2.792E+00	5.871E-01	4.955E-01	4.123E-02	5.635
	+	295.21		1.325E+00	2.331E-01	1.954E-01	1.765E-02	6.780
	+	351.92	*	1.361E+00	1.972E-01	1.083E-01	9.708E-03	12.568
RA-224	+	240.98	*	5.294E+00	1.073E+00	9.741E-01	5.979E-02	5.435
RA-226	+	609.31	*	9.908E-01	1.646E-01	1.010E-01	7.689E-03	9.806
	+	1120.29		1.379E+00	5.714E-01	4.483E-01	4.382E-02	3.076
		1764.49		9.060E-01	4.135E-01	7.853E-01	5.244E-02	1.154
AC-228	+	338.32		1.313E+00	6.382E-01	3.664E-01	1.499E-01	3.583
	+	911.07	*	1.326E+00	3.529E-01	2.105E-01	2.598E-02	6.298
	+	969.11		1.506E+00	5.253E-01	3.232E-01	7.642E-02	4.660
RA-228	+	338.32		1.313E+00	6.382E-01	3.664E-01	1.499E-01	3.583
	+	911.07	*	1.326E+00	3.529E-01	2.105E-01	2.598E-02	6.298
	+	969.11		1.506E+00	5.253E-01	3.232E-01	7.642E-02	4.660
TH-228	+	74.81		2.327E+00	6.697E-01	6.306E-01	6.941E-02	3.690
	+	77.11		1.829E+00	3.577E-01	3.244E-01	3.547E-02	5.640
	+	87.30		1.174E+00	4.151E-01	5.480E-01	6.192E-02	2.142
	+	238.63	*	1.623E+00	1.666E-01	8.690E-02	6.592E-03	18.676
	+	300.09		1.996E+00	1.567E+00	1.138E+00	6.714E-01	1.754
TH-230	+	609.31	*	9.908E-01	1.646E-01	1.010E-01	7.689E-03	9.806
	+	1120.29		1.379E+00	5.714E-01	4.483E-01	4.381E-02	3.076
		1764.49		9.060E-01	4.135E-01	7.853E-01	5.244E-02	1.154
TH-232	+	338.32		1.313E+00	3.558E-01	3.664E-01	2.456E-02	3.583
	+	911.07	*	1.326E+00	3.529E-01	2.105E-01	2.598E-02	6.298
	+	969.11		1.506E+00	5.253E-01	3.232E-01	7.642E-02	4.660
U-234	+	609.31	*	9.908E-01	1.646E-01	1.010E-01	7.689E-03	9.806
	+	1120.29		1.379E+00	5.714E-01	4.483E-01	4.381E-02	3.076
		1764.49		9.060E-01	4.135E-01	7.853E-01	5.244E-02	1.154
NP-237	+	86.50	*	7.343E-01	3.006E-01	3.633E-01	8.539E-02	2.021
		95.87		-6.189E-01	1.044E+00	1.457E+00	3.641E-01	-0.425
AM-243	+	74.67	*	3.717E-01	1.069E-01	1.012E-01	1.108E-02	3.674
	+	86.72		2.754E+01	9.736E+00	1.298E+01	1.462E+00	2.122
		117.66		-2.466E+00	3.704E+00	5.813E+00	4.034E-01	-0.424
		142.18		3.234E+00	1.817E+01	2.908E+01	1.736E+00	0.111
ANH-511	+	511.00	*	7.450E-02	6.424E-02	4.558E-02	2.920E-03	1.635

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.909E-01	2.906E-01	4.944E-01	3.677E-02	0.386

Sample ID : G245994007 Acquisition date : 12-FEB-2010 12:38:33

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-2.545E-02	4.431E-02	6.895E-02	5.341E-03	-0.369
NA-24		1368.53	*	-1.929E-02	4.431E-02	Half-Life too short		
AL-26		1129.67		-7.720E-03	1.661E+00	2.728E+00	1.914E-01	-0.003
		1808.65	*	-2.964E-03	3.088E-02	4.882E-02	3.096E-03	-0.061
TI-44		67.85		-1.531E-02	5.537E-02	9.084E-02	1.025E-02	-0.169
		78.38	*	1.349E-01	4.601E-02	7.354E-02	8.047E-03	1.834
SC-46		889.25	*	2.061E-02	3.649E-02	6.315E-02	6.249E-03	0.326
	+	1120.51		2.359E-01	9.648E-02	1.363E-01	9.792E-03	1.731
V-48		944.10		-2.522E-01	9.383E-01	1.485E+00	1.438E-01	-0.170
		983.50	*	-2.535E-02	6.977E-02	1.085E-01	1.003E-02	-0.234
		1312.09		7.904E-02	7.823E-02	1.446E-01	1.208E-02	0.546
CR-51		320.08	*	-6.207E-02	3.543E-01	5.806E-01	4.193E-02	-0.107
MN-52		744.21		-2.968E-02	2.284E-01	3.739E-01	2.439E-02	-0.079
		848.13		4.136E-02	6.061E+00	9.952E+00	8.821E-01	0.004
		935.52		2.058E-01	2.346E-01	4.159E-01	4.066E-02	0.495
		1246.25		3.248E+00	7.054E+00	1.206E+01	8.784E-01	0.269
		1333.61		-8.642E-01	4.662E+00	7.530E+00	6.542E-01	-0.115
		1434.06	*	2.476E-01	2.292E-01	4.342E-01	3.670E-02	0.570
MN-54		834.83	*	4.807E-03	3.930E-02	6.523E-02	5.572E-03	0.074
CO-56		846.75	*	-8.518E-03	3.650E-02	5.841E-02	5.158E-03	-0.146
		977.42		-1.309E+00	3.428E+00	4.505E+00	4.199E-01	-0.291
		1037.82		-1.575E-01	3.189E-01	4.857E-01	4.368E-02	-0.324
		1175.09		-2.072E+00	2.000E+00	2.951E+00	1.828E-01	-0.702
	+	1238.25		2.295E-01	1.372E-01	1.894E-01	1.412E-02	1.212
		1360.21		-2.538E-01	8.848E-01	1.398E+00	1.208E-01	-0.182
		1771.40		1.336E-01	2.241E-01	4.074E-01	2.699E-02	0.328
CO-57		122.06	*	2.526E-03	2.503E-02	4.075E-02	2.688E-03	0.062
		136.48		2.139E-02	1.960E-01	3.176E-01	2.221E-02	0.067
CO-58		810.76	*	-1.109E-02	4.336E-02	5.956E-02	4.765E-03	-0.186
FE-59		142.65		2.230E+00	2.764E+00	4.542E+00	2.706E-01	0.491
		192.34		-7.130E-01	9.575E-01	1.451E+00	1.706E-01	-0.491
		1099.22	*	-2.326E-02	8.739E-02	1.359E-01	1.135E-02	-0.171
		1291.56		2.562E-02	1.144E-01	1.951E-01	1.806E-02	0.131
CO-60		1173.22		-2.809E-02	4.108E-02	6.353E-02	3.917E-03	-0.442
		1332.49	*	-1.739E-02	3.726E-02	5.773E-02	5.017E-03	-0.301
ZN-65		1115.52	*	5.421E-02	9.978E-02	1.496E-01	1.089E-02	0.362
GE-68		1077.35	*	2.746E-01	1.117E+00	1.853E+00	1.468E-01	0.148
AS-73		53.44	*	-4.347E-01	1.490E+00	2.460E+00	3.256E-01	-0.177
AS-74		595.88	*	-2.842E-02	8.200E-02	1.340E-01	7.657E-03	-0.212
		634.78		2.034E-01	3.352E-01	5.882E-01	3.105E-02	0.346
SE-75		66.05		-7.356E+00	6.117E+00	9.551E+00	1.230E+00	-0.770
		96.73		1.081E-01	8.198E-01	1.209E+00	1.711E-01	0.089
		121.11		5.334E-02	1.321E-01	2.180E-01	2.135E-02	0.245
		136.00		6.204E-04	3.725E-02	6.011E-02	3.733E-03	0.010
		198.60		1.161E+00	1.820E+00	2.923E+00	2.071E-01	0.397
		264.65	*	1.186E-02	4.475E-02	6.689E-02	4.266E-03	0.177
		279.53		-5.131E-02	1.053E-01	1.711E-01	1.172E-02	-0.300
		303.91		-5.066E-01	2.134E+00	3.053E+00	3.060E-01	-0.166
		400.65		-6.934E-02	2.493E-01	3.993E-01	3.899E-02	-0.174

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77	+	87.88		5.354E+02	1.893E+02	3.397E+02	3.852E+01	1.576
		200.40		-1.763E+01	1.524E+02	2.392E+02	1.379E+01	-0.074
	+	239.00		2.501E+02	2.309E+01	3.737E+01	2.287E+00	6.693
		249.79		1.067E+01	5.781E+01	9.803E+01	6.088E+00	0.109
		281.68		-2.320E+01	8.248E+01	1.355E+02	8.721E+00	-0.171
		297.23		1.155E+02	5.136E+01	9.382E+01	6.126E+00	1.232
		303.76		-6.185E+01	1.782E+02	2.524E+02	1.657E+01	-0.245
		439.47		7.612E+00	1.276E+02	2.082E+02	1.400E+01	0.037
		484.57		-1.680E+02	2.038E+02	3.040E+02	1.992E+01	-0.553
		520.65	*	2.065E+00	9.937E+00	1.623E+01	1.030E+00	0.127
		574.64		-5.567E+01	1.941E+02	3.203E+02	1.896E+01	-0.174
		578.91		-2.686E+01	9.391E+01	1.338E+02	7.867E+00	-0.201
		585.48		3.496E+02	1.871E+02	3.194E+02	1.857E+01	1.095
		755.35		-1.849E+01	1.517E+02	2.482E+02	1.677E+01	-0.075
		817.79		-3.453E+01	1.262E+02	2.019E+02	1.643E+01	-0.171
SR-82		698.33		-2.054E+01	3.166E+01	4.970E+01	2.789E+00	-0.413
		776.49	*	2.181E-02	4.128E-01	6.803E-01	4.904E-02	0.032
		1395.20		2.758E+00	1.081E+01	1.850E+01	1.584E+00	0.149
RB-83		520.41	*	1.651E-02	6.759E-02	1.107E-01	7.026E-03	0.149
		529.64		-8.328E-02	1.012E-01	1.498E-01	9.413E-03	-0.556
		552.65		-6.120E-02	1.929E-01	2.995E-01	1.830E-02	-0.204
RB-84		881.50	*	-1.279E-02	6.310E-02	1.008E-01	9.779E-03	-0.127
KR-85		513.99	*	3.270E+00	7.835E+00	1.147E+01	7.326E-01	0.285
SR-85		513.99	*	1.675E-02	4.014E-02	5.875E-02	3.753E-03	0.285
RB-86		1076.63	*	1.889E-01	7.074E-01	1.177E+00	9.340E-02	0.160
Y-88		898.02		7.778E-03	3.966E-02	6.612E-02	6.717E-03	0.118
		1836.01	*	1.821E-03	3.395E-02	5.544E-02	3.401E-03	0.033
ZR-88		392.90	*	-2.104E-02	2.908E-02	4.504E-02	3.061E-03	-0.467
Y-91		1204.90	*	7.232E+00	1.894E+01	3.272E+01	2.174E+00	0.221
NB-94		702.63	*	-5.500E-03	3.187E-02	5.225E-02	2.975E-03	-0.105
		871.10		-1.497E-02	3.234E-02	5.023E-02	4.739E-03	-0.298
NB-95		765.79	*	2.569E-02	4.313E-02	7.455E-02	5.202E-03	0.345
NB-95M		235.69	*	2.402E-01	1.374E-01	2.226E-01	1.726E-02	1.079
ZR-95		724.18		2.095E-01	1.081E-01	1.855E-01	1.322E-02	1.129
		756.15	*	-2.930E-02	6.810E-02	1.082E-01	8.496E-03	-0.271
NB-97		657.90	*	-9.202E-02	6.810E-02	Half-Life too short		
		1024.50		1.284E+01	6.810E-02	Half-Life too short		
ZR-97		254.15		-1.177E+00	6.810E-02	Half-Life too short		
		355.39		-2.027E+00	6.810E-02	Half-Life too short		
		507.63	*	2.643E+00	6.810E-02	Half-Life too short		
		602.52		-3.168E+00	6.810E-02	Half-Life too short		
		1021.30		-2.626E+00	6.810E-02	Half-Life too short		
		1147.95		-1.729E+00	6.810E-02	Half-Life too short		
		1362.66		-8.054E-01	6.810E-02	Half-Life too short		
		1750.46		-3.678E+00	6.810E-02	Half-Life too short		
MO-99		140.51		-2.599E+01	2.679E+01	3.927E+01	1.060E+01	-0.662
		181.06		2.780E+00	1.801E+01	2.568E+01	4.384E+00	0.108
		366.43		1.757E+01	7.952E+01	1.325E+02	8.975E+00	0.133
		739.58	*	-9.308E+00	1.067E+01	1.607E+01	2.260E+00	-0.579

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		778.00		4.713E+00	3.443E+01	5.711E+01	4.137E+00	0.083
TC-99M		140.51	*	-3.012E+10	3.443E+01	Half-Life too short		
RH-101	+	127.23		5.439E-02	4.220E-02	5.412E-02	3.459E-03	1.005
		198.01	*	-3.293E-03	3.402E-02	5.271E-02	3.028E-03	-0.062
		325.23		5.354E-02	2.378E-01	3.521E-01	2.344E-02	0.152
RH-102		418.52		-8.540E-02	2.717E-01	4.322E-01	2.926E-02	-0.198
		475.06	*	3.256E-04	2.681E-02	4.336E-02	2.860E-03	0.008
		631.29		-3.295E-02	5.037E-02	7.963E-02	4.237E-03	-0.414
		697.49		-4.979E-02	7.341E-02	1.151E-01	6.441E-03	-0.432
		766.84		1.786E-02	1.118E-01	1.871E-01	1.310E-02	0.095
		1046.59		-1.499E-01	1.054E-01	1.357E-01	1.140E-02	-1.105
		1112.84		9.146E-02	2.203E-01	3.518E-01	2.575E-02	0.260
RU-103		497.08	*	1.779E-02	3.926E-02	6.546E-02	8.493E-03	0.272
		610.33		8.665E+00	1.868E+00	2.643E+00	4.051E-01	3.279
RH-106		511.85		2.272E-01	2.310E-01	4.081E-01	2.612E-02	0.557
		621.84	*	-5.885E-02	2.792E-01	4.597E-01	5.313E-02	-0.128
		1050.47		-7.955E-02	1.938E+00	3.110E+00	2.594E-01	-0.026
RU-106		511.85		2.272E-01	2.310E-01	4.081E-01	2.612E-02	0.557
		621.84	*	-5.885E-02	2.792E-01	4.597E-01	2.496E-02	-0.128
		1050.47		-7.955E-02	1.938E+00	3.110E+00	2.594E-01	-0.026
AG-108M		433.93	*	-8.681E-03	3.134E-02	4.986E-02	3.575E-03	-0.174
		614.37		1.062E-02	3.887E-02	5.859E-02	3.534E-03	0.181
		722.95		1.863E-03	4.628E-02	6.701E-02	4.397E-03	0.028
AG-110M		657.75	*	-3.692E-02	3.276E-02	4.931E-02	2.671E-03	-0.749
		677.61		7.024E-02	2.841E-01	4.837E-01	2.715E-02	0.145
		706.67		5.810E-02	2.043E-01	3.474E-01	2.126E-02	0.167
		763.93		-5.073E-02	1.713E-01	2.764E-01	2.001E-02	-0.184
		884.67		-1.621E-02	4.295E-02	6.701E-02	6.717E-03	-0.242
		937.48		-5.048E-02	1.126E-01	1.745E-01	1.751E-02	-0.289
		1384.27		-1.156E-02	1.400E-01	2.283E-01	2.016E-02	-0.051
IN-111		171.28		2.859E-01	9.578E-01	1.549E+00	8.522E-02	0.185
		245.39	*	6.515E-01	9.801E-01	1.525E+00	9.414E-02	0.427
IN-113M		391.69	*	-3.943E-02	4.080E-02	6.176E-02	4.404E-03	-0.638
SN-113		391.69	*	-3.943E-02	4.080E-02	6.176E-02	4.404E-03	-0.638
IN-114M		190.27	*	-1.631E-02	2.027E-01	2.837E-01	1.609E-02	-0.057
CD-115		260.90		-5.615E+01	1.176E+02	1.919E+02	1.208E+01	-0.293
		492.35		-5.554E+00	3.318E+01	5.271E+01	3.433E+00	-0.105
		527.90	*	9.684E-01	1.032E+01	1.668E+01	1.050E+00	0.058
SN-117M		156.02		-1.644E+00	2.200E+00	3.389E+00	1.919E-01	-0.485
		158.56	*	-2.357E-03	5.237E-02	8.360E-02	4.688E-03	-0.028
SB-122		563.90	*	2.021E+00	1.861E+00	3.250E+00	1.955E-01	0.622
		692.80		3.590E+01	4.039E+01	7.195E+01	3.961E+00	0.499
I-123		159.00	*	1.501E+00	4.039E+01	Half-Life too short		
		528.96		-2.680E+02	4.039E+01	Half-Life too short		
TE-123M		159.00	*	8.307E-03	2.739E-02	4.446E-02	2.525E-03	0.187
I-124		602.71	*	-3.475E-01	6.620E-01	9.086E-01	5.126E-02	-0.382
		722.78		1.318E-01	4.758E+00	6.879E+00	4.188E-01	0.019
		1325.50		-1.744E+00	3.088E+01	5.081E+01	4.356E+00	-0.034
		1376.25		3.556E+01	3.095E+01	5.785E+01	4.978E+00	0.615

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		1509.49		2.790E+00	1.520E+01	2.565E+01	2.097E+00	0.109
		1691.02		-3.906E-01	2.970E+00	4.659E+00	3.351E-01	-0.084
SB-124		602.71		-2.048E-02	3.901E-02	5.355E-02	3.022E-03	-0.382
		645.85		1.949E-01	4.566E-01	7.909E-01	4.720E-02	0.246
		709.31		1.272E+00	2.699E+00	4.656E+00	2.711E-01	0.273
		713.82		2.293E-02	1.614E+00	2.684E+00	2.758E-01	0.009
		722.78		1.126E-02	4.065E-01	5.877E-01	3.731E-02	0.019
	+	968.20		1.549E+01	4.231E+00	7.195E+00	6.782E-01	2.153
		1045.16		8.337E-01	2.150E+00	3.639E+00	3.064E-01	0.229
		1325.50		-1.591E-01	2.818E+00	4.636E+00	3.975E-01	-0.034
		1368.21		-2.098E-01	1.587E+00	2.571E+00	3.465E-01	-0.082
		1436.60		1.743E+00	3.686E+00	6.495E+00	5.484E-01	0.268
		1691.02	*	-7.871E-03	5.986E-02	9.388E-02	7.133E-03	-0.084
SB-125		427.89	*	7.885E-02	8.814E-02	1.524E-01	1.061E-02	0.517
	+	463.38		1.061E+00	4.639E-01	5.482E-01	4.112E-02	1.935
		600.56		1.818E-02	1.584E-01	2.620E-01	1.727E-02	0.069
		635.90		-4.200E-02	2.653E-01	4.387E-01	2.782E-02	-0.096
TE-125M		109.28	*	2.055E+00	9.142E+00	1.504E+01	1.443E+00	0.137
I-126		388.63		1.117E-01	1.844E-01	3.145E-01	2.137E-02	0.355
		666.33	*	-2.250E-02	1.848E-01	3.056E-01	1.533E-02	-0.074
		753.82		4.375E-01	1.359E+00	2.315E+00	1.557E-01	0.189
SB-126		223.80		-1.933E+00	3.841E+00	6.336E+00	3.793E-01	-0.305
		278.60		2.359E+00	2.379E+00	4.161E+00	2.671E-01	0.567
		296.50		9.045E+00	1.737E+00	3.290E+00	2.146E-01	2.750
		414.70		9.150E-03	7.312E-02	1.202E-01	8.146E-03	0.076
		415.30		4.314E+00	5.990E+00	1.024E+01	6.940E-01	0.421
		555.20		-7.750E-01	3.962E+00	6.222E+00	3.788E-01	-0.125
		573.80		-3.601E-01	9.520E-01	1.558E+00	9.234E-02	-0.231
		593.00		6.810E-02	8.548E-01	1.447E+00	8.309E-02	0.047
		656.30		-2.387E+00	3.103E+00	4.839E+00	2.422E-01	-0.493
		666.33		-9.401E-03	7.720E-02	1.277E-01	6.405E-03	-0.074
		675.00		-3.033E-01	1.791E+00	2.942E+00	1.522E-01	-0.103
		695.00		4.309E-02	7.467E-02	1.299E-01	7.205E-03	0.332
		697.00		-2.309E-01	2.580E-01	3.966E-01	2.215E-02	-0.582
		720.50	*	-2.735E-02	1.549E-01	2.182E-01	1.319E-02	-0.125
		856.80		4.593E-01	4.455E-01	7.299E-01	6.625E-02	0.629
		989.30		8.494E-01	1.159E+00	2.033E+00	1.866E-01	0.418
		1034.80		4.592E+00	8.825E+00	1.506E+01	1.291E+00	0.305
		1213.00		2.106E+00	4.845E+00	8.393E+00	5.679E-01	0.251
SB-127		61.10		-8.281E+01	8.269E+01	1.310E+02	1.838E+01	-0.632
		252.40		2.062E+00	4.035E+00	6.796E+00	2.827E+00	0.303
		290.80		-2.162E+01	2.297E+01	3.102E+01	2.972E+00	-0.697
		411.60		-1.200E+01	1.246E+01	1.880E+01	2.778E+00	-0.639
		444.90		-2.722E-01	9.059E+00	1.467E+01	1.654E+00	-0.019
		473.00		-1.015E+00	1.571E+00	2.394E+00	2.774E-01	-0.424
		543.00		3.435E+00	1.604E+01	2.613E+01	3.412E+00	0.131
		603.60		-6.383E-01	1.093E+01	1.588E+01	1.690E+00	-0.040
		685.20	*	6.599E-01	1.277E+00	2.216E+00	2.024E-01	0.298
		698.50		-5.702E+00	1.372E+01	2.196E+01	3.158E+00	-0.260

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		722.20		-6.931E+00	3.167E+01	4.439E+01	4.130E+00	-0.156
		783.80		1.940E+00	3.459E+00	5.975E+00	6.906E-01	0.325
XE-127		57.60		6.886E-01	9.529E+00	1.595E+01	2.028E+00	0.043
		145.22		-1.946E-01	6.770E-01	1.073E+00	6.328E-02	-0.181
		172.10		-2.445E-02	1.183E-01	1.865E-01	1.027E-02	-0.131
		202.84	*	-3.693E-02	4.144E-02	6.738E-02	3.902E-03	-0.548
		374.96		-1.942E-01	1.895E-01	2.879E-01	1.953E-02	-0.675
I-131		80.18		-1.280E+00	6.399E+00	7.342E+00	8.089E-01	-0.174
		284.30		-1.804E+00	1.387E+00	2.128E+00	1.499E-01	-0.847
		364.48	*	1.191E-02	1.129E-01	1.867E-01	1.373E-02	0.064
		636.97		-1.211E+00	1.490E+00	2.326E+00	1.398E-01	-0.520
		722.89		2.770E-01	7.732E+00	1.119E+01	6.900E-01	0.025
TE-132		49.72		-1.749E+01	4.092E+01	6.728E+01	9.592E+00	-0.260
		111.76		-1.550E+01	2.908E+01	4.610E+01	4.585E+00	-0.336
		116.30		9.011E+00	2.658E+01	4.346E+01	4.187E+00	0.207
		228.16	*	6.204E-01	6.426E-01	1.121E+00	1.618E-01	0.553
BA-133		53.15		1.440E-02	6.551E+00	1.097E+01	1.452E+00	0.001
		79.62		5.850E-01	1.549E+00	2.139E+00	3.563E-01	0.274
		81.00		-6.995E-02	1.189E-01	1.529E-01	2.642E-02	-0.457
		276.40		2.193E-01	3.662E-01	6.276E-01	8.313E-02	0.349
		302.84		2.214E-04	1.451E-01	2.120E-01	2.556E-02	0.001
		356.01	*	-5.359E-03	4.366E-02	6.227E-02	7.513E-03	-0.086
		383.85		-3.971E-01	2.945E-01	4.304E-01	4.921E-02	-0.923
I-133	+	510.53		7.052E-01	2.945E-01	Half-Life too short		
		529.87	*	-3.405E-03	2.945E-01	Half-Life too short		
		706.58		1.068E-01	2.945E-01	Half-Life too short		
		856.28		3.323E-01	2.945E-01	Half-Life too short		
		875.33		1.286E-01	2.945E-01	Half-Life too short		
	+	1236.41		1.549E+00	2.945E-01	Half-Life too short		
		1298.22		-3.983E-02	2.945E-01	Half-Life too short		
CS-134		475.35		-2.035E-01	1.794E+00	2.871E+00	1.894E-01	-0.071
		563.23		3.497E-01	3.415E-01	5.924E-01	3.636E-02	0.590
		569.32		1.036E-01	1.785E-01	2.998E-01	1.839E-02	0.346
		604.70		-7.468E-03	3.164E-02	4.496E-02	2.542E-03	-0.166
		795.84	*	5.561E-02	4.300E-02	7.871E-02	6.068E-03	0.707
		801.93		-3.384E-02	3.472E-01	5.491E-01	4.300E-02	-0.062
		1038.57		-5.007E+00	4.054E+00	5.566E+00	4.741E-01	-0.900
		1167.94		2.362E+00	2.373E+00	4.343E+00	2.724E-01	0.544
		1365.15		1.739E-01	1.111E+00	1.882E+00	1.698E-01	0.092
I-135		288.45		3.297E+10	1.111E+00	Half-Life too short		
		417.63		-6.776E+08	1.111E+00	Half-Life too short		
		546.56		3.427E+09	1.111E+00	Half-Life too short		
		836.80		4.683E+09	1.111E+00	Half-Life too short		
		1038.76		-1.926E+10	1.111E+00	Half-Life too short		
		1124.00		4.958E+09	1.111E+00	Half-Life too short		
		1131.51		2.546E+09	1.111E+00	Half-Life too short		
		1260.41	*	3.218E+09	1.111E+00	Half-Life too short		
		1457.56		6.285E+11	1.111E+00	Half-Life too short		
		1678.03		3.302E+09	1.111E+00	Half-Life too short		

---- Non-Identified Nuclides ----

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		1706.46		1.318E+10	1.111E+00	Half-Life too short		
		1791.20		5.188E+09	1.111E+00	Half-Life too short		
CS-136		66.91		-8.751E-02	9.304E-01	1.539E+00	2.636E-01	-0.057
	+	86.29		3.248E+00	1.189E+00	2.034E+00	2.996E-01	1.597
		153.22		-2.005E-01	6.428E-01	1.014E+00	7.262E-02	-0.198
		163.89		1.064E-02	1.014E+00	1.620E+00	1.136E-01	0.007
		176.55		1.947E-01	3.645E-01	5.951E-01	3.744E-02	0.327
		273.65		-5.132E-01	5.079E-01	6.919E-01	4.936E-02	-0.742
		340.57		1.061E-01	1.281E-01	1.982E-01	1.393E-02	0.536
		818.51		-8.514E-03	7.367E-02	1.198E-01	9.786E-03	-0.071
		1048.07	*	-1.409E-01	9.801E-02	1.276E-01	1.117E-02	-1.104
		1235.34		1.089E+00	7.460E-01	1.229E+00	1.328E-01	0.886
BA-137M		661.65	*	1.870E-03	3.705E-02	6.211E-02	3.064E-03	0.030
CS-137		661.65	*	1.977E-03	3.917E-02	6.566E-02	3.258E-03	0.030
CE-139		165.85	*	2.535E-02	2.883E-02	4.797E-02	2.620E-03	0.528
BA-140		162.64		-2.308E-01	7.050E-01	1.107E+00	6.952E-02	-0.208
		304.84		2.111E-01	1.213E+00	1.890E+00	5.190E-01	0.112
		423.70		-3.884E-01	1.807E+00	2.887E+00	9.230E-01	-0.135
		537.32	*	-4.245E-02	2.496E-01	3.932E-01	1.282E-01	-0.108
LA-140	+	328.77		3.442E-01	4.008E-01	4.946E-01	3.603E-02	0.696
		432.53		-1.151E+00	1.940E+00	3.004E+00	2.184E-01	-0.383
		487.03		1.493E-01	1.219E-01	2.162E-01	1.563E-02	0.690
		751.79		-1.157E+00	1.634E+00	2.522E+00	1.976E-01	-0.459
		815.85		-2.426E-01	3.257E-01	4.959E-01	4.535E-02	-0.489
		867.82		4.384E-01	1.271E+00	2.158E+00	2.109E-01	0.203
		919.63		-4.003E-01	2.555E+00	4.090E+00	4.799E-01	-0.098
		925.24		4.365E-01	1.006E+00	1.719E+00	1.780E-01	0.254
		1596.49	*	-5.085E-02	8.492E-02	1.236E-01	9.594E-03	-0.411
CE-141		145.44	*	-4.704E-02	6.191E-02	9.578E-02	5.862E-03	-0.491
CE-143		57.37		-3.000E-04	6.191E-02	Half-Life too short		
		231.56		-1.809E-03	6.191E-02	Half-Life too short		
		293.26	*	7.991E-04	6.191E-02	Half-Life too short		
	+	350.59		2.963E-02	6.191E-02	Half-Life too short		
		490.36		-2.460E-03	6.191E-02	Half-Life too short		
		664.57		-1.485E-04	6.191E-02	Half-Life too short		
		721.93		-3.766E-04	6.191E-02	Half-Life too short		
CE-144		80.11		4.077E-01	2.892E+00	3.421E+00	3.754E-01	0.119
		133.54	*	-1.476E-01	1.947E-01	3.004E-01	4.316E-02	-0.491
PM-144		476.78		3.122E-02	6.275E-02	1.054E-01	8.024E-03	0.296
		618.01		-1.457E-03	2.939E-02	4.912E-02	2.870E-03	-0.030
		696.49	*	-3.044E-02	3.348E-02	5.142E-02	2.869E-03	-0.592
		778.57		-1.406E-01	2.435E+00	3.975E+00	2.885E-01	-0.035
PR-144		696.49	*	-2.063E+00	2.269E+00	3.484E+00	1.943E-01	-0.592
		1489.15		4.772E+00	1.308E+01	2.263E+01	1.869E+00	0.211
PM-146		453.90	*	-1.229E-02	4.179E-02	6.613E-02	6.108E-03	-0.186
		633.02		3.396E-01	1.326E+00	2.256E+00	8.292E-01	0.151
		735.90		7.542E-02	1.458E-01	2.445E-01	6.845E-02	0.309
		747.13		4.111E-02	8.806E-02	1.515E-01	1.953E-02	0.271
ND-147	+	91.11		9.671E-01	4.083E-01	5.065E-01	5.647E-02	1.909

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		319.41		8.730E-01	3.123E+00	5.258E+00	3.490E-01	0.166
		439.89		3.012E-01	5.337E+00	8.706E+00	5.854E-01	0.035
		531.02	*	-2.279E-01	5.196E-01	7.975E-01	1.095E-01	-0.286
PM-149		285.90	*	-6.876E+01	8.497E+01	1.342E+02	1.940E+01	-0.512
EU-152		121.78		2.395E-02	7.203E-02	1.185E-01	9.765E-03	0.202
		244.69		-6.277E-03	3.171E-01	4.694E-01	2.896E-02	-0.013
		344.27	*	-8.342E-02	9.909E-02	1.407E-01	1.037E-02	-0.593
		443.98		1.853E-01	8.618E-01	1.423E+00	9.548E-02	0.130
		778.89		4.902E-02	2.787E-01	4.669E-01	3.391E-02	0.105
		867.32		5.074E-01	7.533E-01	1.319E+00	1.232E-01	0.385
	+	964.01		8.277E-01	3.874E-01	5.262E-01	4.985E-02	1.573
		1085.78		-1.841E-01	3.432E-01	5.106E-01	3.975E-02	-0.361
		1112.02		6.708E-02	3.042E-01	4.883E-01	3.582E-02	0.137
		1407.95		4.648E-02	1.777E-01	3.041E-01	2.593E-02	0.153
GD-153		69.67		1.533E-01	2.161E+00	3.222E+00	3.594E-01	0.048
	+	83.37		1.732E+01	1.658E+01	2.600E+01	2.882E+00	0.666
		97.43	*	6.803E-03	8.634E-02	1.269E-01	1.181E-02	0.054
		103.18		2.631E-02	1.085E-01	1.790E-01	1.513E-02	0.147
EU-154		123.07		1.242E-03	5.107E-02	8.281E-02	8.184E-03	0.015
		247.94		-2.165E-01	3.249E-01	5.252E-01	5.139E-02	-0.412
		591.81		2.463E-01	5.718E-01	9.932E-01	9.680E-02	0.248
		723.30		6.935E-02	1.915E-01	2.876E-01	2.107E-02	0.241
		756.87		-2.204E-01	7.450E-01	1.199E+00	1.287E-01	-0.184
		873.19		-7.121E-02	2.859E-01	4.554E-01	5.860E-02	-0.156
		996.32		-4.079E-01	3.714E-01	5.127E-01	9.227E-02	-0.796
		1004.76		-7.012E-02	2.143E-01	3.344E-01	3.982E-02	-0.210
		1274.45	*	-6.799E-02	1.242E-01	1.938E-01	2.064E-02	-0.351
EU-155		48.70		-3.801E+00	5.495E+00	8.923E+00	1.072E+00	-0.426
		60.01		-3.683E+00	7.440E+00	1.214E+01	1.495E+00	-0.303
	+	86.54		3.012E-01	1.065E-01	1.901E-01	2.151E-02	1.585
		105.31	*	2.920E-02	1.127E-01	1.857E-01	1.541E-02	0.157
TB-160	+	86.79		8.038E-01	2.842E-01	5.091E-01	5.736E-02	1.579
		197.04		-1.929E-01	5.889E-01	9.021E-01	5.174E-02	-0.214
		215.65		1.024E-01	7.161E-01	1.181E+00	6.984E-02	0.087
	+	298.57		2.858E-01	1.493E-01	2.073E-01	1.355E-02	1.379
		879.36	*	-5.699E-03	1.294E-01	2.107E-01	2.031E-02	-0.027
		962.29		5.784E-01	5.614E-01	9.051E-01	8.592E-02	0.639
		966.15		1.332E+00	2.969E-01	5.679E-01	5.367E-02	2.346
		1177.93		1.126E-01	3.078E-01	5.354E-01	3.339E-02	0.210
		1271.85		-9.024E-02	6.612E-01	1.082E+00	8.326E-02	-0.083
HO-166M		80.57		3.099E-03	3.671E-01	4.291E-01	4.714E-02	0.007
	+	184.41		1.406E-01	5.869E-02	6.877E-02	3.862E-03	2.044
		280.46		-3.798E-02	8.250E-02	1.343E-01	8.634E-03	-0.283
		410.95		3.958E-02	2.407E-01	3.970E-01	2.692E-02	0.100
		711.68	*	-2.562E-02	6.096E-02	9.776E-02	5.737E-03	-0.262
		752.31		-1.256E-01	2.616E-01	4.137E-01	2.768E-02	-0.304
		810.29		-1.196E-02	6.362E-02	8.823E-02	7.030E-03	-0.136
TM-171		51.35		3.639E+01	6.062E+01	1.038E+02	1.365E+01	0.351
		52.39		1.224E+01	3.011E+01	5.119E+01	6.780E+00	0.239

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		59.40		-4.980E+00	3.997E+01	6.632E+01	8.238E+00	-0.075
		66.72	*	6.218E+00	3.355E+01	5.612E+01	6.394E+00	0.111
LU-176	+	88.36		3.476E-01	1.825E-01	3.668E-01	4.126E-02	0.947
		201.83		-3.129E-02	2.530E-02	4.038E-02	2.335E-03	-0.775
		306.84	*	1.665E-03	2.251E-02	3.754E-02	2.470E-03	0.044
		401.10		-2.493E+00	6.533E+00	1.039E+01	7.054E-01	-0.240
LU-177		112.95		5.404E-01	1.572E+00	2.595E+00	1.911E-01	0.208
	+	208.36	*	1.697E+00	1.680E+00	1.950E+00	1.140E-01	0.870
LU-177M		52.97		6.211E-01	2.992E+00	5.050E+00	6.691E-01	0.123
		54.07		-1.986E-01	1.496E+00	2.488E+00	3.282E-01	-0.080
		61.30		-1.109E+00	2.144E+00	3.456E+00	4.181E-01	-0.321
		121.62		2.475E-01	3.646E-01	6.093E-01	4.031E-02	0.406
		147.16		-8.065E-01	6.322E-01	9.485E-01	5.551E-02	-0.850
		171.86		6.397E-02	4.707E-01	7.551E-01	4.157E-02	0.085
		218.09		-7.154E-01	8.100E-01	1.313E+00	7.794E-02	-0.545
	+	268.79		2.635E+00	1.271E+00	1.462E+00	9.286E-02	1.803
		319.02		9.368E-02	2.454E-01	4.157E-01	2.757E-02	0.225
		367.43		-7.298E-01	8.662E-01	1.337E+00	9.057E-02	-0.546
		413.65	*	-7.343E-02	1.739E-01	2.750E-01	1.864E-02	-0.267
HF-181		56.28		-8.916E-02	1.546E+00	2.576E+00	3.328E-01	-0.035
		57.53		-1.850E-02	8.032E-01	1.340E+00	1.704E-01	-0.014
		65.20		-1.779E+00	1.223E+00	1.887E+00	2.180E-01	-0.943
		133.02		-2.541E-02	6.461E-02	9.702E-02	6.025E-03	-0.262
		136.25		-2.670E-02	4.356E-01	7.000E-01	4.284E-02	-0.038
		345.85		-5.073E-03	1.903E-01	2.746E-01	1.847E-02	-0.018
		482.03	*	-3.653E-02	3.775E-02	5.534E-02	3.633E-03	-0.660
W-181		56.28		-3.542E-02	6.056E-01	1.009E+00	1.304E-01	-0.035
		57.53		-7.891E-03	3.149E-01	5.252E-01	6.683E-02	-0.015
		65.20	*	-6.921E-01	4.759E-01	7.339E-01	8.479E-02	-0.943
TA-182		67.75		-3.161E-02	1.325E-01	2.178E-01	2.461E-02	-0.145
		100.10		-6.431E-02	1.773E-01	2.850E-01	2.533E-02	-0.226
		152.43		-1.308E-01	3.292E-01	5.174E-01	2.968E-02	-0.253
		222.10		2.746E-01	3.300E-01	5.772E-01	3.447E-02	0.476
		1001.68		1.442E+00	1.986E+00	3.456E+00	3.117E-01	0.417
		1121.28		5.635E-01	1.908E-01	3.665E-01	2.628E-02	1.537
		1189.05		-3.230E-01	3.012E-01	4.477E-01	2.867E-02	-0.721
		1221.42	*	-1.253E-01	1.893E-01	2.952E-01	2.036E-02	-0.424
		1230.97		3.502E-01	5.331E-01	8.319E-01	5.860E-02	0.421
RE-183		57.98		1.064E-01	3.072E-01	5.195E-01	6.573E-02	0.205
		59.32		-2.214E-02	1.646E-01	2.730E-01	3.395E-02	-0.081
		67.20		5.324E-02	2.360E-01	3.953E-01	4.485E-02	0.135
		162.32	*	-6.015E-02	1.043E-01	1.617E-01	8.941E-03	-0.372
	+	208.81		1.539E+00	1.523E+00	1.765E+00	1.032E-01	0.872
		291.72		-6.770E-01	9.904E-01	1.370E+00	8.904E-02	-0.494
RE-184		57.98		3.923E-01	1.133E+00	1.915E+00	2.423E-01	0.205
		59.32		-8.157E-02	6.064E-01	1.006E+00	1.251E-01	-0.081
		67.20		1.962E-01	8.698E-01	1.457E+00	1.653E-01	0.135
		161.27		-2.165E-01	3.425E-01	5.295E-01	2.940E-02	-0.409
		216.55		8.327E-02	2.495E-01	4.283E-01	2.536E-02	0.194

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.85	*	1.398E-01	2.156E-01	3.736E-01	2.329E-02	0.374
		318.01		2.212E-01	4.153E-01	7.099E-01	4.706E-02	0.312
		792.07		1.270E+00	1.010E+00	1.675E+00	1.265E-01	0.758
		903.28		7.263E-01	1.157E+00	1.772E+00	1.786E-01	0.410
		920.93		2.237E-01	3.794E-01	6.616E-01	6.562E-02	0.338
OS-185		59.72		3.728E-02	4.326E-01	7.238E-01	8.951E-02	0.052
		61.14		-2.359E-01	2.381E-01	3.784E-01	4.588E-02	-0.623
		69.30		-3.575E-02	3.884E-01	5.744E-01	6.420E-02	-0.062
		592.07		6.921E-01	2.304E+00	3.967E+00	2.282E-01	0.174
		646.12	*	3.243E-02	3.707E-02	6.664E-02	3.423E-03	0.487
		717.42		4.241E-01	8.700E-01	1.470E+00	8.791E-02	0.289
		874.81		4.132E-01	5.520E-01	9.711E-01	9.252E-02	0.426
		880.27		-6.945E-01	7.386E-01	1.075E+00	1.039E-01	-0.646
RE-188		155.03	*	1.981E-01	1.616E-01	2.737E-01	1.555E-02	0.724
		477.96		2.002E+00	2.779E+00	4.753E+00	3.129E-01	0.421
		633.10		6.488E-01	2.662E+00	4.546E+00	2.409E-01	0.143
W-188		63.58		7.015E+01	7.106E+01	1.206E+02	1.418E+01	0.581
		227.08		1.921E-01	1.179E+01	1.991E+01	1.198E+00	0.010
		290.67	*	-9.454E+00	8.202E+00	1.090E+01	7.078E-01	-0.867
IR-192	+	295.96		1.009E+00	1.663E-01	2.779E-01	1.835E-02	3.632
		308.46		2.037E-02	8.387E-02	1.413E-01	9.391E-03	0.144
		316.51	*	2.213E-03	3.215E-02	5.351E-02	3.558E-03	0.041
		468.07		2.962E-02	6.665E-02	9.903E-02	7.342E-03	0.299
		604.41		-1.008E-01	4.276E-01	6.074E-01	6.840E-02	-0.166
		612.46		-8.525E-02	7.177E-01	1.035E+00	7.631E-02	-0.082
AU-195		65.12		-3.192E-01	2.210E-01	3.409E-01	3.943E-02	-0.936
		66.83		-1.357E-02	1.123E-01	1.856E-01	2.113E-02	-0.073
	+	75.70		1.590E+00	3.109E-01	5.245E-01	5.737E-02	3.032
		98.88	*	1.401E-01	2.217E-01	3.722E-01	3.378E-02	0.376
	+	129.76		4.792E+00	3.719E+00	4.804E+00	3.031E-01	0.998
TL-200		367.94	*	-4.854E-04	3.719E+00	Half-Life too short		
		579.30		-5.953E-04	3.719E+00	Half-Life too short		
		828.27		-4.263E-03	3.719E+00	Half-Life too short		
		1205.75		9.797E-04	3.719E+00	Half-Life too short		
TL-201		68.90		-1.106E+00	6.149E+00	9.050E+00	1.014E+00	-0.122
		70.82		1.876E+00	3.398E+00	5.179E+00	5.741E-01	0.362
		80.30		4.929E-01	6.681E+00	7.856E+00	8.624E-01	0.063
		135.34		-3.602E+00	2.331E+01	3.730E+01	2.292E+00	-0.097
		167.43	*	2.099E+00	6.659E+00	1.079E+01	5.902E-01	0.195
TL-202		68.90		-1.010E-01	5.616E-01	8.266E-01	9.263E-02	-0.122
		70.82		1.708E-01	3.095E-01	4.717E-01	5.229E-02	0.362
		80.30		4.491E-02	6.087E-01	7.157E-01	7.857E-02	0.063
		439.56	*	8.273E-03	6.305E-02	1.034E-01	6.955E-03	0.080
HG-203		70.83		7.560E-01	1.349E+00	2.053E+00	3.139E-01	0.368
		72.87		1.632E+00	7.719E-01	1.304E+00	1.939E-01	1.251
	+	82.60		1.286E+00	1.239E+00	1.856E+00	2.855E-01	0.693
		279.20	*	-1.002E-02	3.991E-02	6.575E-02	4.437E-03	-0.152
BI-207		72.80		4.225E-01	2.185E-01	3.775E-01	4.152E-02	1.119
	+	74.97		6.672E-01	1.919E-01	2.659E-01	2.911E-02	2.509

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	84.90		2.241E-01	2.145E-01	3.365E-01	3.755E-02	0.666
		569.67		1.945E-02	2.812E-02	4.764E-02	2.841E-03	0.408
		1063.62	*	1.182E-03	5.298E-02	8.562E-02	6.970E-03	0.014
		1770.23		-2.371E-01	5.227E-01	7.704E-01	5.112E-02	-0.308
TL-207		81.07		-1.586E-01	2.612E-01	3.365E-01	3.701E-02	-0.471
	+	83.78		1.478E-01	1.414E-01	2.199E-01	2.442E-02	0.672
		94.90		5.983E-02	2.402E-01	3.568E-01	3.483E-02	0.168
		122.32		4.435E-01	1.721E+00	2.821E+00	2.082E-01	0.157
		144.24		6.669E-01	6.858E-01	1.133E+00	8.306E-02	0.588
		154.21		1.746E-01	3.734E-01	6.118E-01	4.240E-02	0.285
	+	269.46		6.172E-01	2.978E-01	3.512E-01	2.317E-02	1.757
		323.87	*	4.649E-01	7.019E-01	1.071E+00	1.802E-01	0.434
	+	338.28		5.483E+00	1.562E+00	2.388E+00	2.640E-01	2.296
		445.03		-4.380E-02	2.147E+00	3.477E+00	3.758E-01	-0.013
PO-209		260.50		-6.390E+00	9.018E+00	1.452E+01	9.140E-01	-0.440
		262.80		4.401E+00	2.518E+01	4.122E+01	2.601E+00	0.107
		896.60	*	-3.830E-01	7.187E+00	1.168E+01	1.178E+00	-0.033
BI-210		46.50	*	4.597E+00	8.763E+00	1.502E+01	1.474E+00	0.306
PB-210		46.50	*	4.597E+00	8.763E+00	1.502E+01	1.474E+00	0.306
PO-210		46.50	*	4.597E+00	8.761E+00	1.502E+01	1.349E+00	0.306
PB-211		404.84	*	-1.062E+00	1.144E+00	1.401E+00	8.750E-01	-0.758
		427.08		-4.908E-02	2.023E+00	3.286E+00	2.034E+00	-0.015
		831.96		6.868E-01	1.258E+00	2.046E+00	1.282E+00	0.336
BI-212	+	727.18	*	1.152E+00	6.367E-01	6.808E-01	5.446E-02	1.692
		785.46		3.095E-01	1.695E+00	2.842E+00	2.105E-01	0.109
		1620.62		9.769E-01	1.313E+00	2.396E+00	1.827E-01	0.408
PO-215		81.07		-1.586E-01	2.612E-01	3.365E-01	3.701E-02	-0.471
	+	83.78		1.478E-01	1.414E-01	2.199E-01	2.442E-02	0.672
		94.90		5.983E-02	2.402E-01	3.568E-01	3.483E-02	0.168
		122.32		4.435E-01	1.721E+00	2.821E+00	2.082E-01	0.157
		144.24		6.669E-01	6.858E-01	1.133E+00	8.306E-02	0.588
		154.21		1.746E-01	3.734E-01	6.118E-01	4.240E-02	0.285
	+	269.46		6.172E-01	2.978E-01	3.512E-01	2.317E-02	1.757
		323.87	*	4.649E-01	7.019E-01	1.071E+00	1.802E-01	0.434
	+	338.28		5.483E+00	1.562E+00	2.388E+00	2.640E-01	2.296
		445.03		-4.380E-02	2.147E+00	3.477E+00	3.758E-01	-0.013
RN-219		271.23		4.229E-01	2.772E-01	4.445E-01	3.788E-02	0.951
		401.81	*	-2.057E-01	4.001E-01	6.283E-01	8.832E-02	-0.327
RN-220		549.76	*	6.824E+00	2.577E+01	4.214E+01	2.584E+00	0.162
RA-223		81.07		-1.586E-01	2.612E-01	3.365E-01	3.701E-02	-0.471
	+	83.78		1.478E-01	1.414E-01	2.199E-01	2.442E-02	0.672
		94.90		5.983E-02	2.402E-01	3.568E-01	3.483E-02	0.168
		122.32		4.435E-01	1.721E+00	2.821E+00	2.082E-01	0.157
		144.24		6.669E-01	6.858E-01	1.133E+00	8.306E-02	0.588
		154.21		1.746E-01	3.734E-01	6.118E-01	4.240E-02	0.285
	+	269.46		6.172E-01	2.978E-01	3.512E-01	2.317E-02	1.757
		323.87	*	4.649E-01	7.019E-01	1.071E+00	1.802E-01	0.434
	+	338.28		5.483E+00	1.562E+00	2.388E+00	2.640E-01	2.296
		445.03		-4.380E-02	2.147E+00	3.477E+00	3.758E-01	-0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-227		79.80		6.336E-01	2.260E+00	2.702E+00	6.091E-01	0.235
		236.00		9.489E-01	2.897E-01	4.752E-01	5.047E-02	1.997
		256.20	*	1.044E-01	3.526E-01	5.999E-01	8.494E-02	0.174
		286.10		-4.648E-01	1.434E+00	2.345E+00	2.792E-01	-0.198
	+	299.80		3.644E+00	1.982E+00	2.634E+00	4.363E-01	1.383
		304.40		-2.647E-01	1.914E+00	2.762E+00	4.852E-01	-0.096
		334.20		7.666E-01	2.740E+00	3.463E+00	6.453E-01	0.221
TH-227		79.80		6.336E-01	2.261E+00	2.702E+00	6.162E-01	0.235
	+	94.00		7.471E+00	3.480E+00	3.534E+00	7.893E-01	2.114
		236.00		9.489E-01	2.855E-01	4.752E-01	4.396E-02	1.997
		256.20	*	1.044E-01	3.527E-01	5.999E-01	1.024E-01	0.174
		286.10		-4.648E-01	1.507E+00	2.345E+00	2.349E+00	-0.198
	+	299.80		3.644E+00	1.982E+00	2.634E+00	4.363E-01	1.383
		304.40		-2.647E-01	1.914E+00	2.762E+00	4.852E-01	-0.096
		334.20		7.666E-01	2.740E+00	3.463E+00	6.453E-01	0.221
TH-229	+	85.43		2.212E-01	2.117E-01	3.394E-01	3.797E-02	0.652
	+	88.47		2.001E-01	1.050E-01	2.085E-01	2.339E-02	0.960
		100.00		-5.431E-02	1.848E-01	2.980E-01	2.652E-02	-0.182
		193.63	*	2.268E-01	5.056E-01	8.187E-01	4.669E-02	0.277
		210.97		1.336E+00	7.924E-01	1.296E+00	7.605E-02	1.031
PA-231		283.67	*	-1.432E-01	1.404E+00	2.328E+00	3.274E-01	-0.062
		301.29		1.377E+00	6.084E-01	1.010E+00	1.099E-01	1.364
TH-231		81.07		-1.586E-01	2.612E-01	3.365E-01	3.701E-02	-0.471
	+	83.78		1.478E-01	1.414E-01	2.199E-01	2.442E-02	0.672
		94.90		5.983E-02	2.402E-01	3.568E-01	3.483E-02	0.168
		122.32		4.435E-01	1.721E+00	2.821E+00	2.082E-01	0.157
		144.24		6.669E-01	6.858E-01	1.133E+00	8.306E-02	0.588
		154.21		1.746E-01	3.734E-01	6.118E-01	4.240E-02	0.285
	+	269.46		6.172E-01	2.978E-01	3.512E-01	2.317E-02	1.757
		323.87	*	4.649E-01	7.019E-01	1.071E+00	1.802E-01	0.434
	+	338.28		5.483E+00	1.562E+00	2.388E+00	2.640E-01	2.296
		445.03		-4.380E-02	2.147E+00	3.477E+00	3.758E-01	-0.013
U-231	+	84.21		6.268E+00	6.000E+00	9.371E+00	1.042E+00	0.669
	+	92.29		7.269E+00	3.058E+00	4.044E+00	4.163E-01	1.798
		95.87	*	-6.910E-01	1.155E+00	1.627E+00	1.559E-01	-0.425
		108.00		-3.501E-01	2.040E+00	3.298E+00	2.596E-01	-0.106
PA-233	+	75.28		1.947E+01	6.120E+00	8.068E+00	1.352E+00	2.413
	+	86.59		4.896E+00	2.131E+00	3.094E+00	8.596E-01	1.582
	+	300.12		1.016E+00	5.446E-01	7.328E-01	1.009E-01	1.386
		311.98	*	2.190E-02	5.712E-02	9.699E-02	6.712E-03	0.226
		340.50		5.843E-01	6.415E-01	9.786E-01	2.272E-01	0.597
		398.62		5.984E-02	2.054E+00	3.363E+00	8.777E-01	0.018
		415.76		1.120E+00	1.591E+00	2.695E+00	5.627E-01	0.416
PA-234		63.00		2.632E+00	2.168E+00	3.654E+00	6.394E-01	0.720
		94.67		1.798E-01	1.722E-01	2.650E-01	3.512E-02	0.679
		98.44		4.689E-02	9.420E-02	1.514E-01	8.460E-02	0.310
		99.86		-9.493E-02	4.698E-01	7.610E-01	6.790E-02	-0.125
		111.00		-9.698E-02	1.827E-01	2.896E-01	3.288E-02	-0.335
		131.20		1.119E-01	1.060E-01	1.628E-01	1.020E-02	0.687

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		152.70		-1.166E-01	3.194E-01	5.021E-01	7.925E-02	-0.232
	+	186.00		5.060E+00	2.602E+00	2.633E+00	8.037E-01	1.922
		226.40		-2.121E-01	3.825E-01	6.278E-01	7.325E-02	-0.338
		227.20		7.096E-02	4.001E-01	6.808E-01	4.097E-02	0.104
		248.90		-3.372E-01	7.462E-01	1.217E+00	2.629E-01	-0.277
	+	293.70		6.359E+00	1.415E+00	1.696E+00	2.774E-01	3.749
		369.80		-2.138E-01	7.962E-01	1.281E+00	2.705E-01	-0.167
		568.70		-2.594E-01	9.445E-01	1.468E+00	8.770E-02	-0.177
		569.50		1.584E-01	2.483E-01	4.190E-01	2.499E-02	0.378
		574.00		-4.505E-01	1.380E+00	2.268E+00	1.344E-01	-0.199
		699.00		-6.955E-02	6.594E-01	1.087E+00	1.949E-01	-0.064
		706.10		3.246E-01	1.020E+00	1.722E+00	7.600E-01	0.188
		733.00		-3.760E-02	4.294E-01	6.112E-01	1.308E-01	-0.062
		742.81		1.568E-01	1.246E+00	2.082E+00	1.394E+00	0.075
		796.30		7.119E-01	8.186E-01	1.423E+00	3.809E-01	0.500
		805.60		1.026E+00	1.052E+00	1.640E+00	4.993E-01	0.626
		819.60		5.308E-01	1.211E+00	2.049E+00	7.772E-01	0.259
		826.30		-6.375E-02	7.526E-01	1.225E+00	5.476E-01	-0.052
		831.60		-9.014E-02	6.085E-01	9.847E-01	2.934E-01	-0.092
		876.40		4.146E-01	9.105E-01	1.386E+00	1.426E+00	0.299
		880.51		-2.714E-01	2.653E-01	3.812E-01	3.687E-02	-0.712
		883.24		-4.647E-03	2.453E-01	4.002E-01	2.697E-01	-0.012
		899.00		-5.400E-01	8.843E-01	1.300E+00	5.725E-01	-0.415
		925.00		-1.256E-01	1.096E+00	1.764E+00	1.742E-01	-0.071
		926.50		8.541E-02	1.554E-01	2.668E-01	6.865E-02	0.320
		946.00	*	-3.221E-01	3.304E-01	4.739E-01	9.131E-02	-0.680
		949.00		3.668E-01	4.647E-01	8.120E-01	7.825E-02	0.452
		980.50		-4.492E-01	8.620E-01	1.104E+00	1.025E-01	-0.407
		1394.10		-1.041E-01	1.137E+00	1.849E+00	1.203E+00	-0.056
PA-234M		766.42		4.549E+00	1.198E+01	2.001E+01	1.010E+01	0.227
		1001.03	*	2.021E+00	4.479E+00	7.598E+00	7.841E-01	0.266
TH-234		63.29	*	1.902E+00	1.833E+00	3.073E+00	6.058E-01	0.619
	+	92.38		1.933E+00	8.695E-01	1.073E+00	2.030E-01	1.802
U-235	+	89.95		2.008E+00	1.210E+00	1.854E+00	5.849E-01	1.083
	+	93.35		2.324E+00	1.158E+00	1.240E+00	3.535E-01	1.874
		105.00		8.808E-01	1.123E+00	1.843E+00	5.479E-01	0.478
		143.76	*	2.740E-01	2.155E-01	3.540E-01	5.789E-02	0.774
		163.35		-1.235E-01	4.512E-01	7.097E-01	1.270E-01	-0.174
	+	185.71		1.874E-01	7.825E-02	9.669E-02	5.442E-03	1.938
		205.31		5.991E-01	5.127E-01	8.076E-01	1.453E-01	0.742
NP-236		94.67		1.384E-01	1.301E-01	2.012E-01	1.974E-02	0.688
		98.44		3.544E-02	6.848E-02	1.145E-01	1.047E-02	0.310
		111.00		-7.335E-02	1.381E-01	2.191E-01	1.655E-02	-0.335
		160.31	*	2.650E-02	7.339E-02	1.195E-01	6.661E-03	0.222
U-238		63.29	*	1.902E+00	1.833E+00	3.073E+00	6.058E-01	0.619
	+	92.38		1.933E+00	8.134E-01	1.073E+00	1.102E-01	1.802
NP-239		99.55		7.465E-02	1.540E-01	2.570E-01	2.306E-02	0.290
		117.00	*	-8.487E-02	1.842E-01	2.923E-01	2.044E-02	-0.290
	+	209.75		1.215E+00	1.203E+00	1.413E+00	8.276E-02	0.860

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		228.18		2.064E-01	2.125E-01	3.737E-01	2.252E-02	0.552
		277.60		2.236E-01	1.769E-01	3.126E-01	2.005E-02	0.715
		334.30		3.744E-01	1.548E+00	1.950E+00	1.305E-01	0.192
AM-241		59.54	*	-2.480E-02	2.314E-01	3.841E-01	4.933E-02	-0.065
CM-243		99.55		7.681E-02	1.585E-01	2.645E-01	2.373E-02	0.290
		103.76	*	1.051E-01	9.923E-02	1.687E-01	1.413E-02	0.623
		117.00		-8.731E-02	1.895E-01	3.007E-01	2.103E-02	-0.290
	+	209.75		1.198E+00	1.186E+00	1.393E+00	8.159E-02	0.860
		228.18		2.086E-01	2.147E-01	3.776E-01	2.276E-02	0.552
		277.60		2.254E-01	1.783E-01	3.152E-01	2.021E-02	0.715
AM-246	+	798.80		4.512E-01	4.360E-01	1.769E-01	1.363E-02	2.551
		1036.00		1.773E-01	2.870E-01	4.957E-01	4.240E-02	0.358
		1062.04		6.744E-02	2.267E-01	3.776E-01	3.083E-02	0.179
		1078.86	*	2.424E-02	1.308E-01	2.154E-01	1.701E-02	0.113
CM-247		278.00		8.052E-01	7.349E-01	1.290E+00	8.274E-02	0.624
		287.40		9.716E-01	1.139E+00	1.985E+00	1.285E-01	0.489
		402.60	*	1.643E-02	3.478E-02	5.865E-02	3.983E-03	0.280
CF-249		252.85		5.248E-01	8.095E-01	1.402E+00	8.744E-02	0.374
		333.44		1.348E-01	2.338E-01	2.671E-01	1.786E-02	0.505
		387.95	*	2.973E-02	3.676E-02	6.347E-02	4.312E-03	0.468
CF-251		176.60	*	1.199E-01	1.238E-01	2.064E-01	1.144E-02	0.581
		227.00		-1.518E-01	3.598E-01	5.952E-01	3.581E-02	-0.255
		285.00		-1.121E+00	1.609E+00	2.571E+00	1.661E-01	-0.436

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994007      *
* Acquisition date : 12-FEB-2010 12:38:33 Detector SN#     :               *
* Detector ID        : GAM10                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:00.95      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245994007           Analyst initials: MXR1          *
* Batch Number       : 948812               Sample Quantity : 1.2223E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM            :    0.000             MSD Isotope     :               *
* LCS DPM            :    0.000             LCS Isotope     :               *
* LCSD DPM           :    0.000             LCSD Isotope    :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.877E+01	2.227E+00	5.520E-01	0.000E+00
CD-109	2.544E+00	8.814E-01	1.214E+00	0.000E+00
SN-126	2.501E-01	8.665E-02	1.202E-01	0.000E+00
CS-135	5.246E-01	2.492E-01	2.385E-01	0.000E+00
TL-208	4.579E-01	9.195E-02	5.302E-02	0.000E+00
BI-211	3.911E+00	5.182E-01	3.158E-01	0.000E+00
PB-212	1.599E+00	1.608E-01	8.747E-02	0.000E+00
PO-212	1.599E+00	1.608E-01	8.747E-02	0.000E+00
BI-214	9.908E-01	1.613E-01	1.020E-01	0.000E+00
PB-214	1.361E+00	1.932E-01	1.101E-01	0.000E+00
PO-214	1.361E+00	1.932E-01	1.101E-01	0.000E+00
PO-216	1.599E+00	1.608E-01	8.747E-02	0.000E+00
PO-218	1.361E+00	1.932E-01	1.101E-01	0.000E+00
RA-224	5.294E+00	1.052E+00	9.952E-01	0.000E+00
RA-226	9.908E-01	1.613E-01	1.020E-01	0.000E+00
AC-228	1.326E+00	3.458E-01	2.114E-01	0.000E+00
RA-228	1.326E+00	3.458E-01	2.114E-01	0.000E+00
TH-228	1.623E+00	1.632E-01	8.879E-02	0.000E+00
TH-230	9.908E-01	1.613E-01	1.020E-01	0.000E+00
TH-232	1.326E+00	3.458E-01	2.114E-01	0.000E+00
U-234	9.908E-01	1.613E-01	1.020E-01	0.000E+00
NP-237	7.343E-01	2.946E-01	3.759E-01	0.000E+00
AM-243	3.717E-01	1.047E-01	1.049E-01	0.000E+00
ANH-511	7.450E-02	6.296E-02	4.612E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.909E-01	2.848E-01	5.007E-01	0.000E+00	NOT IDENT.
NA-22	-2.545E-02	4.342E-02	6.896E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.030E+05	0.000E+00	0.000E+00	SHORT HLIF

AL-26	-2.964E-03	3.026E-02	4.860E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.509E-02	7.618E-02	0.000E+00	NOT IDENT.
SC-46	2.061E-02	3.576E-02	6.345E-02	0.000E+00	FAIL ABUN
V-48	-2.535E-02	6.837E-02	1.088E-01	0.000E+00	NOT IDENT.
CR-51	-6.207E-02	3.472E-01	5.910E-01	0.000E+00	NOT IDENT.
MN-52	2.476E-01	2.246E-01	4.336E-01	0.000E+00	NOT IDENT.
MN-54	4.807E-03	3.851E-02	6.559E-02	0.000E+00	NOT IDENT.
CO-56	-8.518E-03	3.577E-02	5.872E-02	0.000E+00	FAIL ABUN
CO-57	2.526E-03	2.453E-02	4.198E-02	0.000E+00	NOT IDENT.
CO-58	-1.109E-02	4.249E-02	5.991E-02	0.000E+00	NOT IDENT.
FE-59	-2.326E-02	8.564E-02	1.362E-01	0.000E+00	NOT IDENT.
CO-60	-1.739E-02	3.652E-02	5.770E-02	0.000E+00	NOT IDENT.
ZN-65	5.421E-02	9.779E-02	1.498E-01	0.000E+00	NOT IDENT.
GE-68	2.746E-01	1.094E+00	1.858E+00	0.000E+00	NOT IDENT.
AS-73	-4.347E-01	1.460E+00	2.560E+00	0.000E+00	NOT IDENT.
AS-74	-2.842E-02	8.036E-02	1.354E-01	0.000E+00	NOT IDENT.
SE-75	1.186E-02	4.386E-02	6.825E-02	0.000E+00	NOT IDENT.
BR-77	2.065E+00	9.739E+00	1.642E+01	0.000E+00	FAIL ABUN
SR-82	2.181E-02	4.045E-01	6.847E-01	0.000E+00	NOT IDENT.
RB-83	1.651E-02	6.624E-02	1.120E-01	0.000E+00	NOT IDENT.
RB-84	-1.279E-02	6.184E-02	1.013E-01	0.000E+00	NOT IDENT.
KR-85	3.270E+00	7.679E+00	1.161E+01	0.000E+00	NOT IDENT.
SR-85	1.675E-02	3.933E-02	5.945E-02	0.000E+00	NOT IDENT.
RB-86	1.889E-01	6.933E-01	1.180E+00	0.000E+00	NOT IDENT.
Y-88	1.821E-03	3.327E-02	5.518E-02	0.000E+00	NOT IDENT.
ZR-88	-2.104E-02	2.850E-02	4.573E-02	0.000E+00	NOT IDENT.
Y-91	7.232E+00	1.856E+01	3.275E+01	0.000E+00	NOT IDENT.
NB-94	-5.500E-03	3.124E-02	5.266E-02	0.000E+00	NOT IDENT.
NB-95	2.569E-02	4.227E-02	7.505E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.346E-01	2.274E-01	0.000E+00	NOT IDENT.
ZR-95	-2.930E-02	6.674E-02	1.089E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.209E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.847E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-9.308E+00	1.046E+01	1.619E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.053E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.293E-03	3.334E-02	5.398E-02	0.000E+00	FAIL ABUN
RH-102	3.256E-04	2.627E-02	4.391E-02	0.000E+00	NOT IDENT.
RU-103	1.779E-02	3.847E-02	6.626E-02	0.000E+00	NOT IDENT.
RH-106	-5.885E-02	2.736E-01	4.640E-01	0.000E+00	NOT IDENT.
RU-106	-5.885E-02	2.736E-01	4.640E-01	0.000E+00	NOT IDENT.
AG-108M	-8.681E-03	3.072E-02	5.055E-02	0.000E+00	NOT IDENT.
AG-110M	-3.692E-02	3.210E-02	4.974E-02	0.000E+00	NOT IDENT.
IN-111	6.515E-01	9.605E-01	1.557E+00	0.000E+00	NOT IDENT.
IN-113M	-3.943E-02	3.999E-02	6.271E-02	0.000E+00	NOT IDENT.
SN-113	-3.943E-02	3.999E-02	6.271E-02	0.000E+00	NOT IDENT.
IN-114M	-1.631E-02	1.987E-01	2.907E-01	0.000E+00	NOT IDENT.
CD-115	9.684E-01	1.011E+01	1.687E+01	0.000E+00	NOT IDENT.
SN-117M	-2.357E-03	5.132E-02	8.585E-02	0.000E+00	NOT IDENT.
SB-122	2.021E+00	1.824E+00	3.285E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.849E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	8.307E-03	2.684E-02	4.566E-02	0.000E+00	NOT IDENT.
I-124	-3.475E-01	6.487E-01	9.175E-01	0.000E+00	NOT IDENT.
SB-124	-7.871E-03	5.866E-02	9.354E-02	0.000E+00	FAIL ABUN
SB-125	7.885E-02	8.638E-02	1.545E-01	0.000E+00	FAIL ABUN
TE-125M	2.055E+00	8.959E+00	1.551E+01	0.000E+00	NOT IDENT.
I-126	-2.250E-02	1.811E-01	3.082E-01	0.000E+00	NOT IDENT.
SB-126	-2.735E-02	1.518E-01	2.198E-01	0.000E+00	NOT IDENT.
SB-127	6.599E-01	1.251E+00	2.234E+00	0.000E+00	NOT IDENT.
XE-127	-3.693E-02	4.062E-02	6.899E-02	0.000E+00	NOT IDENT.
I-131	1.191E-02	1.106E-01	1.898E-01	0.000E+00	NOT IDENT.
TE-132	6.204E-01	6.297E-01	1.146E+00	0.000E+00	NOT IDENT.
BA-133	-5.359E-03	4.278E-02	6.330E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.183E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.561E-02	4.214E-02	7.920E-02	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.451E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.409E-01	9.605E-02	1.279E-01	0.000E+00	FAIL ABUN
BA-137M	1.870E-03	3.631E-02	6.264E-02	0.000E+00	NOT IDENT.
CS-137	1.977E-03	3.838E-02	6.622E-02	0.000E+00	NOT IDENT.
CE-139	2.535E-02	2.825E-02	4.923E-02	0.000E+00	NOT IDENT.
BA-140	-4.245E-02	2.446E-01	3.977E-01	0.000E+00	NOT IDENT.
LA-140	-5.085E-02	8.322E-02	1.233E-01	0.000E+00	FAIL ABUN
CE-141	-4.704E-02	6.067E-02	9.847E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.336E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.476E-01	1.908E-01	3.092E-01	0.000E+00	NOT IDENT.
PM-144	-3.044E-02	3.282E-02	5.183E-02	0.000E+00	NOT IDENT.
PR-144	-2.063E+00	2.224E+00	3.512E+00	0.000E+00	NOT IDENT.
PM-146	-1.229E-02	4.095E-02	6.702E-02	0.000E+00	NOT IDENT.
ND-147	-2.279E-01	5.092E-01	8.066E-01	0.000E+00	FAIL ABUN

PM-149	-6.876E+01	8.327E+01	1.368E+02	0.000E+00	NOT IDENT.
EU-152	-8.342E-02	9.711E-02	1.431E-01	0.000E+00	FAIL ABUN
GD-153	6.803E-03	8.462E-02	1.311E-01	0.000E+00	FAIL ABUN
EU-154	-6.799E-02	1.217E-01	1.938E-01	0.000E+00	NOT IDENT.
EU-155	2.920E-02	1.104E-01	1.917E-01	0.000E+00	FAIL ABUN
TB-160	-5.699E-03	1.268E-01	2.117E-01	0.000E+00	FAIL ABUN
HO-166M	-2.562E-02	5.974E-02	9.850E-02	0.000E+00	FAIL ABUN
TM-171	6.218E+00	3.288E+01	5.825E+01	0.000E+00	NOT IDENT.
LU-176	1.665E-03	2.206E-02	3.824E-02	0.000E+00	FAIL ABUN
LU-177	1.697E+00	1.647E+00	1.996E+00	0.000E+00	FAIL ABUN
LU-177M	-7.343E-02	1.704E-01	2.790E-01	0.000E+00	FAIL ABUN
HF-181	-3.653E-02	3.699E-02	5.605E-02	0.000E+00	NOT IDENT.
W-181	-6.921E-01	4.664E-01	7.619E-01	0.000E+00	NOT IDENT.
TA-182	-1.253E-01	1.856E-01	2.954E-01	0.000E+00	NOT IDENT.
RE-183	-6.015E-02	1.022E-01	1.660E-01	0.000E+00	FAIL ABUN
RE-184	1.398E-01	2.113E-01	3.815E-01	0.000E+00	NOT IDENT.
OS-185	3.243E-02	3.633E-02	6.723E-02	0.000E+00	NOT IDENT.
RE-188	1.981E-01	1.583E-01	2.811E-01	0.000E+00	NOT IDENT.
W-188	-9.454E+00	8.038E+00	1.111E+01	0.000E+00	NOT IDENT.
IR-192	2.213E-03	3.151E-02	5.448E-02	0.000E+00	FAIL ABUN
AU-195	1.401E-01	2.173E-01	3.845E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	4.120E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.099E+00	6.526E+00	1.107E+01	0.000E+00	NOT IDENT.
TL-202	8.273E-03	6.178E-02	1.049E-01	0.000E+00	NOT IDENT.
HG-203	-1.002E-02	3.911E-02	6.704E-02	0.000E+00	FAIL ABUN
BI-207	1.182E-03	5.192E-02	8.582E-02	0.000E+00	FAIL ABUN
TL-207	4.649E-01	6.879E-01	1.090E+00	0.000E+00	FAIL ABUN
PO-209	-3.830E-01	7.043E+00	1.173E+01	0.000E+00	NOT IDENT.
BI-210	4.597E+00	8.588E+00	1.566E+01	0.000E+00	NOT IDENT.
PB-210	4.597E+00	8.588E+00	1.566E+01	0.000E+00	NOT IDENT.
PO-210	4.597E+00	8.586E+00	1.566E+01	0.000E+00	NOT IDENT.
PB-211	-1.062E+00	1.121E+00	1.422E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.240E-01	6.858E-01	0.000E+00	FAIL ABUN
PO-215	4.649E-01	6.879E-01	1.090E+00	0.000E+00	FAIL ABUN
RN-219	-2.057E-01	3.921E-01	6.377E-01	0.000E+00	NOT IDENT.
RN-220	6.824E+00	2.525E+01	4.260E+01	0.000E+00	NOT IDENT.
RA-223	4.649E-01	6.879E-01	1.090E+00	0.000E+00	FAIL ABUN
AC-227	1.044E-01	3.456E-01	6.124E-01	0.000E+00	FAIL ABUN
TH-227	1.044E-01	3.457E-01	6.124E-01	0.000E+00	FAIL ABUN
TH-229	2.268E-01	4.955E-01	8.387E-01	0.000E+00	FAIL ABUN
PA-231	-1.432E-01	1.376E+00	2.373E+00	0.000E+00	NOT IDENT.
TH-231	4.649E-01	6.879E-01	1.090E+00	0.000E+00	FAIL ABUN
U-231	-6.910E-01	1.132E+00	1.681E+00	0.000E+00	FAIL ABUN
PA-233	2.190E-02	5.598E-02	9.876E-02	0.000E+00	FAIL ABUN
PA-234	-3.221E-01	3.238E-01	4.758E-01	0.000E+00	FAIL ABUN
PA-234M	2.021E+00	4.390E+00	7.622E+00	0.000E+00	NOT IDENT.
TH-234	1.902E+00	1.796E+00	3.192E+00	0.000E+00	FAIL ABUN
U-235	2.740E-01	2.111E-01	3.640E-01	0.000E+00	FAIL ABUN
NP-236	2.650E-02	7.193E-02	1.227E-01	0.000E+00	NOT IDENT.
U-238	1.902E+00	1.796E+00	3.192E+00	0.000E+00	FAIL ABUN
NP-239	-8.487E-02	1.805E-01	3.013E-01	0.000E+00	FAIL ABUN
AM-241	-2.480E-02	2.267E-01	3.992E-01	0.000E+00	NOT IDENT.
CM-243	1.051E-01	9.725E-02	1.741E-01	0.000E+00	FAIL ABUN
AM-246	2.424E-02	1.281E-01	2.158E-01	0.000E+00	FAIL ABUN
CM-247	1.643E-02	3.409E-02	5.953E-02	0.000E+00	NOT IDENT.
CF-249	2.973E-02	3.603E-02	6.445E-02	0.000E+00	NOT IDENT.
CF-251	1.199E-01	1.213E-01	2.116E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:39:03.34

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994007.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 12:38:33
Sample ID         : G245994007           Sample quantity  : 1.22230E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.95  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	723	10.67*	1.108E+00	1.877E+01	1.877E+01	12.10
CD-109	88.03	158	3.72*	5.252E+00	2.487E+00	2.544E+00	35.36
SN-126	64.28	------	9.60	2.419E+00	------ Line Not Found		------
	86.94	158	8.90	5.252E+00	1.040E+00	1.040E+00	53.72
	87.57	158	37.00*	5.252E+00	2.501E-01	2.501E-01	35.36
CS-135	268.24	129	16.00*	4.704E+00	5.246E-01	5.246E-01	48.48
TL-208	277.35	------	6.80	4.610E+00	------ Line Not Found		------
	510.84	71	21.60	2.932E+00	3.449E-01	3.449E-01	86.63
	583.14	330	84.20*	2.629E+00	4.579E-01	4.579E-01	20.49
	860.37	46	12.46	1.841E+00	6.202E-01	6.202E-01	47.88
BI-211	72.87	------	1.27	3.633E+00	------ Line Not Found		------
	351.07	641	12.94*	3.891E+00	3.911E+00	3.911E+00	13.52
PB-212	74.81	308	10.70	3.861E+00	2.293E+00	2.293E+00	30.23
	77.11	438	18.00	4.145E+00	1.802E+00	1.802E+00	19.55
	87.30	158	8.00	5.252E+00	1.157E+00	1.157E+00	36.74
	238.63	1188	44.60*	5.118E+00	1.599E+00	1.599E+00	10.26
	300.09	95	3.41	4.363E+00	1.966E+00	1.966E+00	52.56
PO-212	74.81	308	10.70	3.861E+00	2.293E+00	2.293E+00	30.23
	77.11	438	18.00	4.145E+00	1.802E+00	1.802E+00	19.55
	87.30	158	8.00	5.252E+00	1.157E+00	1.157E+00	36.74
	115.19	------	0.60	6.657E+00	------ Line Not Found		------
	238.63	1188	44.60*	5.118E+00	1.599E+00	1.599E+00	10.26
	300.09	95	3.41	4.363E+00	1.966E+00	1.966E+00	52.56
BI-214	609.31	378	46.30*	2.533E+00	9.908E-01	9.908E-01	16.61
	1120.29	96	15.10	1.416E+00	1.379E+00	1.379E+00	41.43
	1764.49	------	15.80	9.764E-01	------ Line Not Found		------
PB-214	74.81	308	6.21	3.861E+00	3.951E+00	3.951E+00	29.69
	77.11	438	10.50	4.145E+00	3.090E+00	3.090E+00	20.99
	87.30	158	4.67	5.252E+00	1.981E+00	1.981E+00	36.19
	241.98	346	7.49	5.075E+00	2.792E+00	2.792E+00	21.03
	295.21	366	19.20	4.414E+00	1.325E+00	1.325E+00	17.59
	351.92	641	37.20*	3.891E+00	1.361E+00	1.361E+00	14.49

Sample ID : G245994007 Acquisition date : 12-FEB-2010 12:38:33

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	74.81	308	6.21	3.861E+00	3.951E+00	3.951E+00	29.69
	77.11	438	10.50	4.145E+00	3.090E+00	3.090E+00	20.99
	87.30	158	4.67	5.252E+00	1.981E+00	1.981E+00	36.19
	241.98	346	7.49	5.075E+00	2.792E+00	2.792E+00	21.03
	295.21	366	19.20	4.414E+00	1.325E+00	1.325E+00	17.59
	351.92	641	37.20*	3.891E+00	1.361E+00	1.361E+00	14.49
PO-216	74.81	308	10.70	3.861E+00	2.293E+00	2.293E+00	30.23
	77.11	438	18.00	4.145E+00	1.802E+00	1.802E+00	19.55
	87.30	158	8.00	5.252E+00	1.157E+00	1.157E+00	36.74
	238.63	1188	44.60*	5.118E+00	1.599E+00	1.599E+00	10.26
	300.09	95	3.41	4.363E+00	1.966E+00	1.966E+00	52.56
PO-218	74.81	308	6.21	3.861E+00	3.951E+00	3.951E+00	29.69
	77.11	438	10.50	4.145E+00	3.090E+00	3.090E+00	20.99
	87.30	158	4.67	5.252E+00	1.981E+00	1.981E+00	36.19
	241.98	346	7.49	5.075E+00	2.792E+00	2.792E+00	21.03
	295.21	366	19.20	4.414E+00	1.325E+00	1.325E+00	17.59
	351.92	641	37.20*	3.891E+00	1.361E+00	1.361E+00	14.49
RA-224	240.98	346	3.95*	5.075E+00	5.294E+00	5.294E+00	20.27
RA-226	609.31	378	46.30*	2.533E+00	9.908E-01	9.908E-01	16.61
	1120.29	96	15.10	1.416E+00	1.379E+00	1.379E+00	41.43
	1764.49	------	15.80	9.764E-01	------	Line Not Found	------
AC-228	338.32	195	11.40	4.003E+00	1.313E+00	1.313E+00	48.60
	911.07	208	27.70*	1.741E+00	1.326E+00	1.326E+00	26.62
	969.11	133	16.60	1.638E+00	1.506E+00	1.506E+00	34.88
RA-228	338.32	195	11.40	4.003E+00	1.313E+00	1.313E+00	48.60
	911.07	208	27.70*	1.741E+00	1.326E+00	1.326E+00	26.62
	969.11	133	16.60	1.638E+00	1.506E+00	1.506E+00	34.88
TH-228	74.81	308	10.70	3.861E+00	2.293E+00	2.327E+00	28.78
	77.11	438	18.00	4.145E+00	1.802E+00	1.829E+00	19.55
	87.30	158	8.00	5.252E+00	1.157E+00	1.174E+00	35.36
	238.63	1188	44.60*	5.118E+00	1.599E+00	1.623E+00	10.26
	300.09	95	3.41	4.363E+00	1.966E+00	1.996E+00	78.53
TH-230	609.31	378	46.30*	2.533E+00	9.908E-01	9.908E-01	16.61
	1120.29	96	15.10	1.416E+00	1.379E+00	1.379E+00	41.43
	1764.49	------	15.80	9.764E-01	------	Line Not Found	------
TH-232	338.32	195	11.40	4.003E+00	1.313E+00	1.313E+00	27.10
	911.07	208	27.70*	1.741E+00	1.326E+00	1.326E+00	26.62
	969.11	133	16.60	1.638E+00	1.506E+00	1.506E+00	34.88
U-234	609.31	378	46.30*	2.533E+00	9.908E-01	9.908E-01	16.61
	1120.29	96	15.10	1.416E+00	1.379E+00	1.379E+00	41.43
	1764.49	------	15.80	9.764E-01	------	Line Not Found	------
NP-237	86.50	158	12.60*	5.252E+00	7.343E-01	7.343E-01	40.94
	95.87	------	2.60	5.933E+00	------	Line Not Found	------
AM-243	74.67	308	66.00*	3.861E+00	3.717E-01	3.717E-01	28.75
	86.72	158	0.34	5.252E+00	2.754E+01	2.754E+01	35.36
	117.66	------	0.55	6.694E+00	------	Line Not Found	------
	142.18	------	0.13	6.676E+00	------	Line Not Found	------
ANH-511	511.00	71	100.00*	2.932E+00	7.450E-02	7.450E-02	86.23

Flag: "*" = Keyline

Sample ID : G245994007 Acquisition date : 12-FEB-2010 12:38:33

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.877E+01	1.877E+01	0.227E+01	12.10	
CD-109	464.00D	1.02	2.487E+00	2.544E+00	0.899E+00	35.36	
SN-126	1.00E+05Y	1.00	2.501E-01	2.501E-01	0.884E-01	35.36	
CS-135	2.30E+06Y	1.00	5.246E-01	5.246E-01	2.543E-01	48.48	
TL-208	1.41E+10Y	1.00	4.579E-01	4.579E-01	0.938E-01	20.49	
BI-211	7.04E+08Y	1.00	3.911E+00	3.911E+00	0.529E+00	13.52	
PB-212	1.41E+10Y	1.00	1.599E+00	1.599E+00	0.164E+00	10.26	
PO-212	1.41E+10Y	1.00	1.599E+00	1.599E+00	0.164E+00	10.26	
BI-214	1600.00Y	1.00	9.908E-01	9.908E-01	1.646E-01	16.61	
PB-214	1600.00Y	1.00	1.361E+00	1.361E+00	0.197E+00	14.49	
PO-214	1600.00Y	1.00	1.361E+00	1.361E+00	0.197E+00	14.49	
PO-216	1.41E+10Y	1.00	1.599E+00	1.599E+00	0.164E+00	10.26	
PO-218	1600.00Y	1.00	1.361E+00	1.361E+00	0.197E+00	14.49	
RA-224	1.41E+10Y	1.00	5.294E+00	5.294E+00	1.073E+00	20.27	
RA-226	1600.00Y	1.00	9.908E-01	9.908E-01	1.646E-01	16.61	
AC-228	1.41E+10Y	1.00	1.326E+00	1.326E+00	0.353E+00	26.62	
RA-228	1.41E+10Y	1.00	1.326E+00	1.326E+00	0.353E+00	26.62	
TH-228	1.91Y	1.02	1.599E+00	1.623E+00	0.167E+00	10.26	
TH-230	4.47E+09Y	1.00	9.908E-01	9.908E-01	1.646E-01	16.61	
TH-232	1.41E+10Y	1.00	1.326E+00	1.326E+00	0.353E+00	26.62	
U-234	4.47E+09Y	1.00	9.908E-01	9.908E-01	1.646E-01	16.61	
NP-237	2.14E+06Y	1.00	7.343E-01	7.343E-01	3.006E-01	40.94	
AM-243	7380.00Y	1.00	3.717E-01	3.717E-01	1.069E-01	28.75	
ANH-511	1.00E+09Y	1.00	7.450E-02	7.450E-02	6.424E-02	86.23	
	Total Activity :		5.129E+01	5.137E+01			

Grand Total Activity : 5.129E+01 5.137E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994007 Acquisition date : 12-FEB-2010 12:38:33

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.94	59	268	1.19	168.01	165	6	8.18E-03	95.1	4.96E+00	T
2	89.43	96	228	1.14	178.98	171	11	1.34E-02	51.3	5.47E+00	T
0	92.57	194	385	1.31	185.24	182	9	2.70E-02	40.8	5.71E+00	T
0	128.69	81	296	1.32	257.42	253	8	1.12E-02	77.3	6.76E+00	T
0	185.51	197	363	1.20	370.97	366	11	2.74E-02	41.4	5.98E+00	T
0	209.43	71	336	0.88	418.77	415	10	9.92E-03	98.8	5.57E+00	T
0	327.97	42	153	1.18	655.68	652	10	5.77E-03	****	4.09E+00	T
0	462.80	112	103	1.52	925.17	918	14	1.56E-02	43.1	3.17E+00	T
0	726.66	96	104	1.67	1452.65	1444	18	1.33E-02	54.7	2.16E+00	T
0	799.78	72	119	12.66	1598.84	1581	34	1.00E-02	96.3	1.98E+00	T
1	963.95	64	38	1.92	1927.12	1921	33	8.85E-03	45.8	1.64E+00	T
0	1237.21	56	54	1.15	2473.64	2468	13	7.82E-03	59.3	1.28E+00	T
0	1762.69	62	4	2.70	3524.96	3518	14	8.55E-03	31.9	9.77E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 14:39:09.37

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994007.CNF;1    *
* Acquisition date : 12-FEB-2010 12:38:33  Detector SN#    :                  *
* Detector ID      : GAM10                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:00.95         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245994007            Analyst initials: MXR1             *
* Batch Number     : 948812                Sample Quantity : 1.22230E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08.8MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.877E+01	2.272E+00	5.530E-01	4.763E-02	33.942
CD-109	2.544E+00	8.994E-01	1.174E+00	1.331E-01	2.167
SN-126	2.501E-01	8.842E-02	1.162E-01	1.315E-02	2.152
CS-135	5.246E-01	2.543E-01	2.338E-01	1.889E-02	2.244
TL-208	4.579E-01	9.383E-02	5.248E-02	3.527E-03	8.725
BI-211	3.911E+00	5.288E-01	3.106E-01	2.264E-02	12.594
PB-212	1.599E+00	1.641E-01	8.561E-02	6.494E-03	18.676
PO-212	1.599E+00	1.641E-01	8.561E-02	6.494E-03	18.676
BI-214	9.908E-01	1.646E-01	1.010E-01	7.689E-03	9.806
PB-214	1.361E+00	1.972E-01	1.083E-01	9.708E-03	12.568
PO-214	1.361E+00	1.972E-01	1.083E-01	9.708E-03	12.568
PO-216	1.599E+00	1.641E-01	8.561E-02	6.494E-03	18.676
PO-218	1.361E+00	1.972E-01	1.083E-01	9.708E-03	12.568
RA-224	5.294E+00	1.073E+00	9.741E-01	5.979E-02	5.435
RA-226	9.908E-01	1.646E-01	1.010E-01	7.689E-03	9.806
AC-228	1.326E+00	3.529E-01	2.105E-01	2.598E-02	6.298
RA-228	1.326E+00	3.529E-01	2.105E-01	2.598E-02	6.298
TH-228	1.623E+00	1.666E-01	8.690E-02	6.592E-03	18.676

Sample ID : G245994007 Acquisition date : 12-FEB-2010 12:38:33

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	9.908E-01	1.646E-01	1.010E-01	7.689E-03	9.806
TH-232	1.326E+00	3.529E-01	2.105E-01	2.598E-02	6.298
U-234	9.908E-01	1.646E-01	1.010E-01	7.689E-03	9.806
NP-237	7.343E-01	3.006E-01	3.633E-01	8.539E-02	2.021
AM-243	3.717E-01	1.069E-01	1.012E-01	1.108E-02	3.674
ANH-511	7.450E-02	6.424E-02	4.558E-02	2.920E-03	1.635

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.909E-01		2.906E-01	4.944E-01	3.677E-02	0.386
NA-22	-2.545E-02		4.431E-02	6.895E-02	5.341E-03	-0.369
NA-24	-1.929E-02		3.077E-01	Half-Life too short		
AL-26	-2.964E-03		3.088E-02	4.882E-02	3.096E-03	-0.061
TI-44	1.349E-01		4.601E-02	7.354E-02	8.047E-03	1.834
SC-46	2.061E-02		3.649E-02	6.315E-02	6.249E-03	0.326
V-48	-2.535E-02		6.977E-02	1.085E-01	1.003E-02	-0.234
CR-51	-6.207E-02		3.543E-01	5.806E-01	4.193E-02	-0.107
MN-52	2.476E-01		2.292E-01	4.342E-01	3.670E-02	0.570
MN-54	4.807E-03		3.930E-02	6.523E-02	5.572E-03	0.074
CO-56	-8.518E-03		3.650E-02	5.841E-02	5.158E-03	-0.146
CO-57	2.526E-03		2.503E-02	4.075E-02	2.688E-03	0.062
CO-58	-1.109E-02		4.336E-02	5.956E-02	4.765E-03	-0.186
FE-59	-2.326E-02		8.739E-02	1.359E-01	1.135E-02	-0.171
CO-60	-1.739E-02		3.726E-02	5.773E-02	5.017E-03	-0.301
ZN-65	5.421E-02		9.978E-02	1.496E-01	1.089E-02	0.362
GE-68	2.746E-01		1.117E+00	1.853E+00	1.468E-01	0.148
AS-73	-4.347E-01		1.490E+00	2.460E+00	3.256E-01	-0.177
AS-74	-2.842E-02		8.200E-02	1.340E-01	7.657E-03	-0.212
SE-75	1.186E-02		4.475E-02	6.689E-02	4.266E-03	0.177
BR-77	2.065E+00		9.937E+00	1.623E+01	1.030E+00	0.127
SR-82	2.181E-02		4.128E-01	6.803E-01	4.904E-02	0.032
RB-83	1.651E-02		6.759E-02	1.107E-01	7.026E-03	0.149
RB-84	-1.279E-02		6.310E-02	1.008E-01	9.779E-03	-0.127
KR-85	3.270E+00		7.835E+00	1.147E+01	7.326E-01	0.285
SR-85	1.675E-02		4.014E-02	5.875E-02	3.753E-03	0.285
RB-86	1.889E-01		7.074E-01	1.177E+00	9.340E-02	0.160
Y-88	1.821E-03		3.395E-02	5.544E-02	3.401E-03	0.033
ZR-88	-2.104E-02		2.908E-02	4.504E-02	3.061E-03	-0.467
Y-91	7.232E+00		1.894E+01	3.272E+01	2.174E+00	0.221
NB-94	-5.500E-03		3.187E-02	5.225E-02	2.975E-03	-0.105
NB-95	2.569E-02		4.313E-02	7.455E-02	5.202E-03	0.345
NB-95M	2.402E-01		1.374E-01	2.226E-01	1.726E-02	1.079
ZR-95	-2.930E-02		6.810E-02	1.082E-01	8.496E-03	-0.271
NB-97	-9.202E-02		4.188E-02	Half-Life too short		
ZR-97	2.643E+00		9.422E-01	Half-Life too short		
MO-99	-9.308E+00		1.067E+01	1.607E+01	2.260E+00	-0.579

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TC-99M	-3.012E+10		1.558E+10	Half-Life too short		
RH-101	-3.293E-03		3.402E-02	5.271E-02	3.028E-03	-0.062
RH-102	3.256E-04		2.681E-02	4.336E-02	2.860E-03	0.008
RU-103	1.779E-02		3.926E-02	6.546E-02	8.493E-03	0.272
RH-106	-5.885E-02		2.792E-01	4.597E-01	5.313E-02	-0.128
RU-106	-5.885E-02		2.792E-01	4.597E-01	2.496E-02	-0.128
AG-108M	-8.681E-03		3.134E-02	4.986E-02	3.575E-03	-0.174
AG-110M	-3.692E-02		3.276E-02	4.931E-02	2.671E-03	-0.749
IN-111	6.515E-01		9.801E-01	1.525E+00	9.414E-02	0.427
IN-113M	-3.943E-02		4.080E-02	6.176E-02	4.404E-03	-0.638
SN-113	-3.943E-02		4.080E-02	6.176E-02	4.404E-03	-0.638
IN-114M	-1.631E-02		2.027E-01	2.837E-01	1.609E-02	-0.057
CD-115	9.684E-01		1.032E+01	1.668E+01	1.050E+00	0.058
SN-117M	-2.357E-03		5.237E-02	8.360E-02	4.688E-03	-0.028
SB-122	2.021E+00		1.861E+00	3.250E+00	1.955E-01	0.622
I-123	1.501E+00		2.474E+00	Half-Life too short		
TE-123M	8.307E-03		2.739E-02	4.446E-02	2.525E-03	0.187
I-124	-3.475E-01		6.620E-01	9.086E-01	5.126E-02	-0.382
SB-124	-7.871E-03		5.986E-02	9.388E-02	7.133E-03	-0.084
SB-125	7.885E-02		8.814E-02	1.524E-01	1.061E-02	0.517
TE-125M	2.055E+00		9.142E+00	1.504E+01	1.443E+00	0.137
I-126	-2.250E-02		1.848E-01	3.056E-01	1.533E-02	-0.074
SB-126	-2.735E-02		1.549E-01	2.182E-01	1.319E-02	-0.125
SB-127	6.599E-01		1.277E+00	2.216E+00	2.024E-01	0.298
XE-127	-3.693E-02		4.144E-02	6.738E-02	3.902E-03	-0.548
I-131	1.191E-02		1.129E-01	1.867E-01	1.373E-02	0.064
TE-132	6.204E-01		6.426E-01	1.121E+00	1.618E-01	0.553
BA-133	-5.359E-03		4.366E-02	6.227E-02	7.513E-03	-0.086
I-133	-3.405E-03		2.644E-03	Half-Life too short		
CS-134	5.561E-02		4.300E-02	7.871E-02	6.068E-03	0.707
I-135	3.218E+09		2.271E+09	Half-Life too short		
CS-136	-1.409E-01		9.801E-02	1.276E-01	1.117E-02	-1.104
BA-137M	1.870E-03		3.705E-02	6.211E-02	3.064E-03	0.030
CS-137	1.977E-03		3.917E-02	6.566E-02	3.258E-03	0.030
CE-139	2.535E-02		2.883E-02	4.797E-02	2.620E-03	0.528
BA-140	-4.245E-02		2.496E-01	3.932E-01	1.282E-01	-0.108
LA-140	-5.085E-02		8.492E-02	1.236E-01	9.594E-03	-0.411
CE-141	-4.704E-02		6.191E-02	9.578E-02	5.862E-03	-0.491
CE-143	7.991E-04		1.192E-04	Half-Life too short		
CE-144	-1.476E-01		1.947E-01	3.004E-01	4.316E-02	-0.491
PM-144	-3.044E-02		3.348E-02	5.142E-02	2.869E-03	-0.592
PR-144	-2.063E+00		2.269E+00	3.484E+00	1.943E-01	-0.592
PM-146	-1.229E-02		4.179E-02	6.613E-02	6.108E-03	-0.186
ND-147	-2.279E-01		5.196E-01	7.975E-01	1.095E-01	-0.286
PM-149	-6.876E+01		8.497E+01	1.342E+02	1.940E+01	-0.512
EU-152	-8.342E-02		9.909E-02	1.407E-01	1.037E-02	-0.593
GD-153	6.803E-03		8.634E-02	1.269E-01	1.181E-02	0.054
EU-154	-6.799E-02		1.242E-01	1.938E-01	2.064E-02	-0.351

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	2.920E-02		1.127E-01	1.857E-01	1.541E-02	0.157
TB-160	-5.699E-03		1.294E-01	2.107E-01	2.031E-02	-0.027
HO-166M	-2.562E-02		6.096E-02	9.776E-02	5.737E-03	-0.262
TM-171	6.218E+00		3.355E+01	5.612E+01	6.394E+00	0.111
LU-176	1.665E-03		2.251E-02	3.754E-02	2.470E-03	0.044
LU-177	1.697E+00	+	1.680E+00	1.950E+00	1.140E-01	0.870
LU-177M	-7.343E-02		1.739E-01	2.750E-01	1.864E-02	-0.267
HF-181	-3.653E-02		3.775E-02	5.534E-02	3.633E-03	-0.660
W-181	-6.921E-01		4.759E-01	7.339E-01	8.479E-02	-0.943
TA-182	-1.253E-01		1.893E-01	2.952E-01	2.036E-02	-0.424
RE-183	-6.015E-02		1.043E-01	1.617E-01	8.941E-03	-0.372
RE-184	1.398E-01		2.156E-01	3.736E-01	2.329E-02	0.374
OS-185	3.243E-02		3.707E-02	6.664E-02	3.423E-03	0.487
RE-188	1.981E-01		1.616E-01	2.737E-01	1.555E-02	0.724
W-188	-9.454E+00		8.202E+00	1.090E+01	7.078E-01	-0.867
IR-192	2.213E-03		3.215E-02	5.351E-02	3.558E-03	0.041
AU-195	1.401E-01		2.217E-01	3.722E-01	3.378E-02	0.376
TL-200	-4.854E-04		2.102E-04	Half-Life too short		
TL-201	2.099E+00		6.659E+00	1.079E+01	5.902E-01	0.195
TL-202	8.273E-03		6.305E-02	1.034E-01	6.955E-03	0.080
HG-203	-1.002E-02		3.991E-02	6.575E-02	4.437E-03	-0.152
BI-207	1.182E-03		5.298E-02	8.562E-02	6.970E-03	0.014
TL-207	4.649E-01		7.019E-01	1.071E+00	1.802E-01	0.434
PO-209	-3.830E-01		7.187E+00	1.168E+01	1.178E+00	-0.033
BI-210	4.597E+00		8.763E+00	1.502E+01	1.474E+00	0.306
PB-210	4.597E+00		8.763E+00	1.502E+01	1.474E+00	0.306
PO-210	4.597E+00		8.761E+00	1.502E+01	1.349E+00	0.306
PB-211	-1.062E+00		1.144E+00	1.401E+00	8.750E-01	-0.758
BI-212	1.152E+00	+	6.367E-01	6.808E-01	5.446E-02	1.692
PO-215	4.649E-01		7.019E-01	1.071E+00	1.802E-01	0.434
RN-219	-2.057E-01		4.001E-01	6.283E-01	8.832E-02	-0.327
RN-220	6.824E+00		2.577E+01	4.214E+01	2.584E+00	0.162
RA-223	4.649E-01		7.019E-01	1.071E+00	1.802E-01	0.434
AC-227	1.044E-01		3.526E-01	5.999E-01	8.494E-02	0.174
TH-227	1.044E-01		3.527E-01	5.999E-01	1.024E-01	0.174
TH-229	2.268E-01		5.056E-01	8.187E-01	4.669E-02	0.277
PA-231	-1.432E-01		1.404E+00	2.328E+00	3.274E-01	-0.062
TH-231	4.649E-01		7.019E-01	1.071E+00	1.802E-01	0.434
U-231	-6.910E-01		1.155E+00	1.627E+00	1.559E-01	-0.425
PA-233	2.190E-02		5.712E-02	9.699E-02	6.712E-03	0.226
PA-234	-3.221E-01		3.304E-01	4.739E-01	9.131E-02	-0.680
PA-234M	2.021E+00		4.479E+00	7.598E+00	7.841E-01	0.266
TH-234	1.902E+00		1.833E+00	3.073E+00	6.058E-01	0.619
U-235	2.740E-01		2.155E-01	3.540E-01	5.789E-02	0.774
NP-236	2.650E-02		7.339E-02	1.195E-01	6.661E-03	0.222
U-238	1.902E+00		1.833E+00	3.073E+00	6.058E-01	0.619
NP-239	-8.487E-02		1.842E-01	2.923E-01	2.044E-02	-0.290
AM-241	-2.480E-02		2.314E-01	3.841E-01	4.933E-02	-0.065

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.051E-01		9.923E-02	1.687E-01	1.413E-02	0.623
AM-246	2.424E-02		1.308E-01	2.154E-01	1.701E-02	0.113
CM-247	1.643E-02		3.478E-02	5.865E-02	3.983E-03	0.280
CF-249	2.973E-02		3.676E-02	6.347E-02	4.312E-03	0.468
CF-251	1.199E-01		1.238E-01	2.064E-01	1.144E-02	0.581

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994007           *
* Acquisition date  : 12-FEB-2010 12:38:33 Detector SN#    :                *
* Detector ID       : GAM10                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.95      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245994007           Analyst initials: MXR1           *
* Batch Number      : 948812               Sample Quantity : 1.2223E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.877E+01	2.227E+00	2.762E-01	1.136E+00
CD-109	2.544E+00	8.814E-01	6.074E-01	4.497E-01
SN-126	2.501E-01	8.665E-02	6.015E-02	4.421E-02
CS-135	5.246E-01	2.492E-01	1.193E-01	1.272E-01
TL-208	4.579E-01	9.195E-02	2.653E-02	4.692E-02
BI-211	3.911E+00	5.182E-01	1.580E-01	2.644E-01
PB-212	1.599E+00	1.608E-01	4.376E-02	8.204E-02
PO-212	1.599E+00	1.608E-01	4.376E-02	8.204E-02
BI-214	9.908E-01	1.613E-01	5.104E-02	8.231E-02
PB-214	1.361E+00	1.932E-01	5.507E-02	9.859E-02
PO-214	1.361E+00	1.932E-01	5.507E-02	9.859E-02
PO-216	1.599E+00	1.608E-01	4.376E-02	8.204E-02
PO-218	1.361E+00	1.932E-01	5.507E-02	9.859E-02
RA-224	5.294E+00	1.052E+00	4.979E-01	5.365E-01
RA-226	9.908E-01	1.613E-01	5.104E-02	8.231E-02
AC-228	1.326E+00	3.458E-01	1.058E-01	1.764E-01
RA-228	1.326E+00	3.458E-01	1.058E-01	1.764E-01
TH-228	1.623E+00	1.632E-01	4.442E-02	8.328E-02
TH-230	9.908E-01	1.613E-01	5.104E-02	8.231E-02
TH-232	1.326E+00	3.458E-01	1.058E-01	1.764E-01
U-234	9.908E-01	1.613E-01	5.104E-02	8.231E-02
NP-237	7.343E-01	2.946E-01	1.881E-01	1.503E-01
AM-243	3.717E-01	1.047E-01	5.247E-02	5.344E-02
ANH-511	7.450E-02	6.296E-02	2.307E-02	3.212E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.909E-01	2.848E-01	2.505E-01	1.453E-01	NOT IDENT.
NA-22	-2.545E-02	4.342E-02	3.450E-02	2.215E-02	NOT IDENT.
NA-24	-1.929E+04	6.030E+05	0.000E+00	3.077E+05	SHORT HLIF

AL-26	-2.964E-03	3.026E-02	2.431E-02	1.544E-02	NOT IDENT.
TI-44	1.349E-01	4.509E-02	3.811E-02	2.300E-02	NOT IDENT.
SC-46	2.061E-02	3.576E-02	3.174E-02	1.825E-02	FAIL ABUN
V-48	-2.535E-02	6.837E-02	5.445E-02	3.488E-02	NOT IDENT.
CR-51	-6.207E-02	3.472E-01	2.957E-01	1.771E-01	NOT IDENT.
MN-52	2.476E-01	2.246E-01	2.169E-01	1.146E-01	NOT IDENT.
MN-54	4.807E-03	3.851E-02	3.281E-02	1.965E-02	NOT IDENT.
CO-56	-8.518E-03	3.577E-02	2.938E-02	1.825E-02	FAIL ABUN
CO-57	2.526E-03	2.453E-02	2.100E-02	1.252E-02	NOT IDENT.
CO-58	-1.109E-02	4.249E-02	2.997E-02	2.168E-02	NOT IDENT.
FE-59	-2.326E-02	8.564E-02	6.815E-02	4.369E-02	NOT IDENT.
CO-60	-1.739E-02	3.652E-02	2.887E-02	1.863E-02	NOT IDENT.
ZN-65	5.421E-02	9.779E-02	7.497E-02	4.989E-02	NOT IDENT.
GE-68	2.746E-01	1.094E+00	9.293E-01	5.583E-01	NOT IDENT.
AS-73	-4.347E-01	1.460E+00	1.281E+00	7.450E-01	NOT IDENT.
AS-74	-2.842E-02	8.036E-02	6.773E-02	4.100E-02	NOT IDENT.
SE-75	1.186E-02	4.386E-02	3.415E-02	2.238E-02	NOT IDENT.
BR-77	2.065E+00	9.739E+00	8.215E+00	4.969E+00	FAIL ABUN
SR-82	2.181E-02	4.045E-01	3.425E-01	2.064E-01	NOT IDENT.
RB-83	1.651E-02	6.624E-02	5.604E-02	3.379E-02	NOT IDENT.
RB-84	-1.279E-02	6.184E-02	5.070E-02	3.155E-02	NOT IDENT.
KR-85	3.270E+00	7.679E+00	5.806E+00	3.918E+00	NOT IDENT.
SR-85	1.675E-02	3.933E-02	2.974E-02	2.007E-02	NOT IDENT.
RB-86	1.889E-01	6.933E-01	5.903E-01	3.537E-01	NOT IDENT.
Y-88	1.821E-03	3.327E-02	2.761E-02	1.697E-02	NOT IDENT.
ZR-88	-2.104E-02	2.850E-02	2.288E-02	1.454E-02	NOT IDENT.
Y-91	7.232E+00	1.856E+01	1.638E+01	9.469E+00	NOT IDENT.
NB-94	-5.500E-03	3.124E-02	2.634E-02	1.594E-02	NOT IDENT.
NB-95	2.569E-02	4.227E-02	3.755E-02	2.157E-02	NOT IDENT.
NB-95M	2.402E-01	1.346E-01	1.138E-01	6.870E-02	NOT IDENT.
ZR-95	-2.930E-02	6.674E-02	5.449E-02	3.405E-02	NOT IDENT.
NB-97	-9.202E+04	8.209E+04	0.000E+00	4.188E+04	SHORT HLIF
ZR-97	2.643E+06	1.847E+06	0.000E+00	9.422E+05	SHORT HLIF
MO-99	-9.308E+00	1.046E+01	8.099E+00	5.337E+00	NOT IDENT.
TC-99M	-3.012E+16	3.053E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.293E-03	3.334E-02	2.701E-02	1.701E-02	FAIL ABUN
RH-102	3.256E-04	2.627E-02	2.197E-02	1.340E-02	NOT IDENT.
RU-103	1.779E-02	3.847E-02	3.315E-02	1.963E-02	NOT IDENT.
RH-106	-5.885E-02	2.736E-01	2.321E-01	1.396E-01	NOT IDENT.
RU-106	-5.885E-02	2.736E-01	2.321E-01	1.396E-01	NOT IDENT.
AG-108M	-8.681E-03	3.072E-02	2.529E-02	1.567E-02	NOT IDENT.
AG-110M	-3.692E-02	3.210E-02	2.488E-02	1.638E-02	NOT IDENT.
IN-111	6.515E-01	9.605E-01	7.791E-01	4.900E-01	NOT IDENT.
IN-113M	-3.943E-02	3.999E-02	3.137E-02	2.040E-02	NOT IDENT.
SN-113	-3.943E-02	3.999E-02	3.137E-02	2.040E-02	NOT IDENT.
IN-114M	-1.631E-02	1.987E-01	1.454E-01	1.014E-01	NOT IDENT.
CD-115	9.684E-01	1.011E+01	8.441E+00	5.159E+00	NOT IDENT.
SN-117M	-2.357E-03	5.132E-02	4.295E-02	2.619E-02	NOT IDENT.
SB-122	2.021E+00	1.824E+00	1.643E+00	9.304E-01	NOT IDENT.
I-123	1.501E+06	4.849E+06	0.000E+00	2.474E+06	SHORT HLIF
TE-123M	8.307E-03	2.684E-02	2.284E-02	1.369E-02	NOT IDENT.
I-124	-3.475E-01	6.487E-01	4.590E-01	3.310E-01	NOT IDENT.
SB-124	-7.871E-03	5.866E-02	4.680E-02	2.993E-02	FAIL ABUN
SB-125	7.885E-02	8.638E-02	7.732E-02	4.407E-02	FAIL ABUN
TE-125M	2.055E+00	8.959E+00	7.760E+00	4.571E+00	NOT IDENT.
I-126	-2.250E-02	1.811E-01	1.542E-01	9.238E-02	NOT IDENT.
SB-126	-2.735E-02	1.518E-01	1.100E-01	7.743E-02	NOT IDENT.
SB-127	6.599E-01	1.251E+00	1.118E+00	6.384E-01	NOT IDENT.
XE-127	-3.693E-02	4.062E-02	3.451E-02	2.072E-02	NOT IDENT.
I-131	1.191E-02	1.106E-01	9.495E-02	5.643E-02	NOT IDENT.
TE-132	6.204E-01	6.297E-01	5.733E-01	3.213E-01	NOT IDENT.
BA-133	-5.359E-03	4.278E-02	3.167E-02	2.183E-02	NOT IDENT.
I-133	-3.405E+03	5.183E+03	0.000E+00	2.644E+03	SHORT HLIF
CS-134	5.561E-02	4.214E-02	3.962E-02	2.150E-02	NOT IDENT.
I-135	3.218E+15	4.451E+15	0.000E+00	2.271E+15	SHORT HLIF
CS-136	-1.409E-01	9.605E-02	6.401E-02	4.901E-02	FAIL ABUN
BA-137M	1.870E-03	3.631E-02	3.134E-02	1.853E-02	NOT IDENT.
CS-137	1.977E-03	3.838E-02	3.313E-02	1.958E-02	NOT IDENT.
CE-139	2.535E-02	2.825E-02	2.463E-02	1.441E-02	NOT IDENT.
BA-140	-4.245E-02	2.446E-01	1.990E-01	1.248E-01	NOT IDENT.
LA-140	-5.085E-02	8.322E-02	6.167E-02	4.246E-02	FAIL ABUN
CE-141	-4.704E-02	6.067E-02	4.926E-02	3.095E-02	NOT IDENT.
CE-143	7.991E+02	2.336E+02	0.000E+00	1.192E+02	SHORT HLIF
CE-144	-1.476E-01	1.908E-01	1.547E-01	9.733E-02	NOT IDENT.
PM-144	-3.044E-02	3.282E-02	2.593E-02	1.674E-02	NOT IDENT.
PR-144	-2.063E+00	2.224E+00	1.757E+00	1.134E+00	NOT IDENT.
PM-146	-1.229E-02	4.095E-02	3.353E-02	2.089E-02	NOT IDENT.
ND-147	-2.279E-01	5.092E-01	4.036E-01	2.598E-01	FAIL ABUN

PM-149	-6.876E+01	8.327E+01	6.844E+01	4.249E+01	NOT IDENT.
EU-152	-8.342E-02	9.711E-02	7.161E-02	4.955E-02	FAIL ABUN
GD-153	6.803E-03	8.462E-02	6.557E-02	4.317E-02	FAIL ABUN
EU-154	-6.799E-02	1.217E-01	9.697E-02	6.210E-02	NOT IDENT.
EU-155	2.920E-02	1.104E-01	9.590E-02	5.633E-02	FAIL ABUN
TB-160	-5.699E-03	1.268E-01	1.059E-01	6.469E-02	FAIL ABUN
HO-166M	-2.562E-02	5.974E-02	4.928E-02	3.048E-02	FAIL ABUN
TM-171	6.218E+00	3.288E+01	2.914E+01	1.677E+01	NOT IDENT.
LU-176	1.665E-03	2.206E-02	1.913E-02	1.125E-02	FAIL ABUN
LU-177	1.697E+00	1.647E+00	9.987E-01	8.402E-01	FAIL ABUN
LU-177M	-7.343E-02	1.704E-01	1.396E-01	8.693E-02	FAIL ABUN
HF-181	-3.653E-02	3.699E-02	2.804E-02	1.887E-02	NOT IDENT.
W-181	-6.921E-01	4.664E-01	3.812E-01	2.380E-01	NOT IDENT.
TA-182	-1.253E-01	1.856E-01	1.478E-01	9.467E-02	NOT IDENT.
RE-183	-6.015E-02	1.022E-01	8.303E-02	5.217E-02	FAIL ABUN
RE-184	1.398E-01	2.113E-01	1.908E-01	1.078E-01	NOT IDENT.
OS-185	3.243E-02	3.633E-02	3.363E-02	1.854E-02	NOT IDENT.
RE-188	1.981E-01	1.583E-01	1.406E-01	8.079E-02	NOT IDENT.
W-188	-9.454E+00	8.038E+00	5.559E+00	4.101E+00	NOT IDENT.
IR-192	2.213E-03	3.151E-02	2.726E-02	1.608E-02	FAIL ABUN
AU-195	1.401E-01	2.173E-01	1.923E-01	1.109E-01	FAIL ABUN
TL-200	-4.854E+02	4.120E+02	0.000E+00	2.102E+02	SHORT HLIF
TL-201	2.099E+00	6.526E+00	5.540E+00	3.329E+00	NOT IDENT.
TL-202	8.273E-03	6.178E-02	5.247E-02	3.152E-02	NOT IDENT.
HG-203	-1.002E-02	3.911E-02	3.354E-02	1.995E-02	FAIL ABUN
BI-207	1.182E-03	5.192E-02	4.294E-02	2.649E-02	FAIL ABUN
TL-207	4.649E-01	6.879E-01	5.451E-01	3.510E-01	FAIL ABUN
PO-209	-3.830E-01	7.043E+00	5.868E+00	3.593E+00	NOT IDENT.
BI-210	4.597E+00	8.588E+00	7.836E+00	4.382E+00	NOT IDENT.
PB-210	4.597E+00	8.588E+00	7.836E+00	4.382E+00	NOT IDENT.
PO-210	4.597E+00	8.586E+00	7.836E+00	4.381E+00	NOT IDENT.
PB-211	-1.062E+00	1.121E+00	7.116E-01	5.719E-01	NOT IDENT.
BI-212	1.152E+00	6.240E-01	3.431E-01	3.183E-01	FAIL ABUN
PO-215	4.649E-01	6.879E-01	5.451E-01	3.510E-01	FAIL ABUN
RN-219	-2.057E-01	3.921E-01	3.191E-01	2.001E-01	NOT IDENT.
RN-220	6.824E+00	2.525E+01	2.132E+01	1.288E+01	NOT IDENT.
RA-223	4.649E-01	6.879E-01	5.451E-01	3.510E-01	FAIL ABUN
AC-227	1.044E-01	3.456E-01	3.064E-01	1.763E-01	FAIL ABUN
TH-227	1.044E-01	3.457E-01	3.064E-01	1.764E-01	FAIL ABUN
TH-229	2.268E-01	4.955E-01	4.196E-01	2.528E-01	FAIL ABUN
PA-231	-1.432E-01	1.376E+00	1.187E+00	7.021E-01	NOT IDENT.
TH-231	4.649E-01	6.879E-01	5.451E-01	3.510E-01	FAIL ABUN
U-231	-6.910E-01	1.132E+00	8.409E-01	5.773E-01	FAIL ABUN
PA-233	2.190E-02	5.598E-02	4.941E-02	2.856E-02	FAIL ABUN
PA-234	-3.221E-01	3.238E-01	2.380E-01	1.652E-01	FAIL ABUN
PA-234M	2.021E+00	4.390E+00	3.813E+00	2.240E+00	NOT IDENT.
TH-234	1.902E+00	1.796E+00	1.597E+00	9.163E-01	FAIL ABUN
U-235	2.740E-01	2.111E-01	1.821E-01	1.077E-01	FAIL ABUN
NP-236	2.650E-02	7.193E-02	6.141E-02	3.670E-02	NOT IDENT.
U-238	1.902E+00	1.796E+00	1.597E+00	9.163E-01	FAIL ABUN
NP-239	-8.487E-02	1.805E-01	1.507E-01	9.208E-02	FAIL ABUN
AM-241	-2.480E-02	2.267E-01	1.997E-01	1.157E-01	NOT IDENT.
CM-243	1.051E-01	9.725E-02	8.712E-02	4.962E-02	FAIL ABUN
AM-246	2.424E-02	1.281E-01	1.080E-01	6.538E-02	FAIL ABUN
CM-247	1.643E-02	3.409E-02	2.978E-02	1.739E-02	NOT IDENT.
CF-249	2.973E-02	3.603E-02	3.224E-02	1.838E-02	NOT IDENT.
CF-251	1.199E-01	1.213E-01	1.059E-01	6.191E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	244.8100
46.50	244.8100
46.50	244.8100
48.70	272.9283
49.72	267.2206
51.35	235.9743
52.39	245.8860
52.97	246.2499
53.15	250.0811
53.44	253.9859
54.07	251.5938
56.28	262.3419
56.28	262.3441
57.37	0.0000
57.53	268.7803
57.53	268.7814
57.60	266.9455
57.98	258.7224
57.98	258.7224
59.32	291.6387
59.32	291.6387
59.40	291.6937
59.54	291.7904
59.72	282.4675
60.01	314.8018
61.10	339.2977
61.14	339.3287
61.30	305.3192
63.00	269.3885
63.29	277.1862
63.29	277.1862
63.58	277.3683
64.28	302.6275
65.12	348.1502
65.20	348.2117
65.20	348.2117
66.05	339.2842
66.72	278.3533
66.83	294.7424
66.91	294.7939
67.20	282.4902
67.20	282.4902
67.75	306.8782
67.85	306.9447
68.90	309.5695
68.90	309.5695
69.30	311.2835
69.67	310.0822
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70.82	303.5740
70.83	303.5804
72.80	326.7117
72.87	326.7595
72.87	326.7595
74.67	327.9695
74.81	328.0635
74.81	328.0635
74.81	328.0635
74.81	328.0635
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74.81	328.0635
74.81	328.0635
74.97	328.1694
75.28	328.3762
75.70	328.6548
77.11	283.9738
77.11	283.9738

77.11	283.9738
77.11	283.9738
77.11	283.9738
77.11	283.9738
77.11	283.9738
78.38	289.1161
79.62	270.1048
79.80	272.1718
79.80	272.1718
80.11	272.3375
80.18	293.0981
80.30	272.4371
80.30	272.4371
80.57	272.5803
81.00	302.4608
81.07	302.5012
81.07	302.5012
81.07	302.5012
81.07	302.5012
82.60	264.7226
83.37	287.4503
83.78	289.1662
83.78	289.1662
83.78	289.1662
83.78	289.1662
84.21	277.4660
84.90	277.8264
85.43	278.1017
86.29	278.5459
86.50	278.6552
86.54	278.6750
86.59	278.7006
86.72	254.7886
86.79	254.8197
86.94	254.8911
87.30	255.0610
87.30	255.0610
87.30	255.0610
87.30	255.0610
87.30	255.0610
87.30	255.0610
87.30	255.0610
87.57	255.1868
87.88	255.3320
88.03	255.4021
88.36	255.5564
88.47	255.6070
89.95	274.3858
91.11	274.9579
92.29	255.8544
92.38	255.8956
92.38	255.8956
93.35	256.3340
94.00	236.8862
94.67	237.1611
94.67	237.1635
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94.90	257.0303
94.90	257.0303
94.90	257.0303
95.87	278.7905
95.87	278.7905
96.73	244.1138
97.43	253.5707
98.44	244.8267
98.44	244.8267
98.88	239.9054
99.55	242.2208
99.55	242.2208
99.86	267.9114
100.00	267.9754
100.10	268.0220
103.18	271.4510
103.76	245.9801
105.00	260.9166
105.31	280.6536
108.00	274.6170
109.28	253.3699

111.00	271.7569
111.00	271.7569
111.76	279.3780
112.95	247.5187
115.19	255.7093
116.30	230.9470
117.00	251.1586
117.00	251.1586
117.66	257.7205
121.11	229.4444
121.62	222.2107
121.78	236.0222
122.06	245.6480
122.32	239.3859
122.32	239.3859
122.32	239.3859
122.32	239.3859
123.07	248.1335
127.23	256.0297
129.76	224.8318
131.20	196.3214
133.02	241.3446
133.54	251.8504
135.34	234.1319
136.00	235.4238
136.25	238.7445
136.48	228.0145
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140.51	0.0000
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142.65	241.8934
143.76	220.4238
144.24	228.2047
144.24	228.2047
144.24	228.2047
144.24	228.2047
145.22	265.6700
145.44	279.9636
147.16	278.3964
152.43	259.3118
152.70	261.6079
153.22	259.5700
154.21	222.2892
154.21	222.2892
154.21	222.2892
154.21	222.2892
155.03	204.8053
156.02	261.5868
158.56	231.2747
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159.00	225.8371
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161.27	245.4277
162.32	237.9219
162.64	229.0735
163.35	233.7431
163.89	226.0603
165.85	212.0078
167.43	223.6442
171.28	219.0117
171.86	222.5488
172.10	236.1710
176.55	222.6154
176.60	204.4537
181.06	222.6103
184.41	238.9105
185.71	229.4983
186.00	229.5715
190.27	231.7949
192.34	248.4931
193.63	216.4299
197.04	246.2529
198.01	232.5500
198.60	207.0981
200.40	209.8187
201.83	228.5184
202.84	222.6221
205.31	172.9267

208.36	245.3884
208.81	245.5010
209.75	225.0802
209.75	225.0802
210.97	190.8902
215.65	204.9731
216.55	204.3945
218.09	232.2938
222.10	192.9963
223.80	221.0566
226.40	217.1228
227.00	209.1671
227.08	193.9208
227.20	192.1481
228.16	179.7409
228.18	179.7440
228.18	179.7440
231.56	0.0000
235.69	205.6331
236.00	205.6937
236.00	205.6937
238.63	186.9531
238.63	186.9531
238.63	186.9531
238.63	186.9531
239.00	187.0160
240.98	187.3555
241.98	173.3257
241.98	173.3257
241.98	173.3257
244.69	153.3113
245.39	132.9531
247.94	168.4023
248.90	166.7148
249.79	150.3467
252.40	151.6134
252.85	150.7546
252.85	150.7546
254.15	0.0000
256.20	155.8072
256.20	155.8072
260.50	174.8977
260.90	166.6269
262.80	148.3545
264.65	130.7604
268.24	152.7690
268.79	152.8416
269.46	152.9267
269.46	152.9267
269.46	152.9267
269.46	152.9267
271.23	170.3376
273.65	211.1076
276.40	172.5730
277.35	152.9966
277.60	154.9065
277.60	154.9065
278.00	158.7134
278.60	155.0349
279.20	179.5521
279.53	178.6613
280.46	175.9745
281.68	159.1931
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284.30	168.0293
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285.90	164.4658
286.10	151.2573
286.10	151.2573
287.40	127.7552
288.45	0.0000
290.67	183.6920
290.80	174.6001
291.72	162.5742
293.26	0.0000
293.70	138.4818
295.21	134.2658
295.21	134.2658

295.21	134.2658
295.96	134.3454
296.50	134.4014
297.23	134.4788
298.57	134.6208
299.80	134.7499
299.80	134.7499
300.09	136.1183
300.09	136.1183
300.09	136.1183
300.09	136.1183
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302.84	130.2787
303.76	136.5051
303.91	133.4545
304.40	131.9689
304.40	131.9689
304.84	122.8047
306.84	124.9139
308.46	111.5997
311.98	111.8989
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318.01	116.2830
319.02	125.0987
319.41	126.1041
320.08	135.8728
323.87	119.9027
323.87	119.9027
323.87	119.9027
323.87	119.9027
325.23	132.4929
328.77	138.6979
333.44	109.7646
334.20	115.0560
334.20	115.0560
334.30	115.0632
338.28	136.8954
338.28	136.8954
338.28	136.8954
338.28	136.8954
338.32	136.8997
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338.32	136.8997
340.50	116.6241
340.57	116.6295
344.27	134.3170
345.85	104.4092
350.59	0.0000
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351.92	120.1433
351.92	120.1433
351.92	120.1433
355.39	0.0000
356.01	105.1472
364.48	117.1714
366.43	109.3044
367.43	123.4260
367.94	0.0000
369.80	109.5505
374.96	126.0624
383.85	131.8686
387.95	89.5026
388.63	89.5415
391.69	112.1468
391.69	112.1468
392.90	115.2932
398.62	111.6162
400.65	114.8352
401.10	116.9189
401.81	116.9711
402.60	96.4972
404.84	134.6680
410.95	111.4459
411.60	138.3306
413.65	116.7985
414.70	104.4629
415.30	92.0854

415.76	90.0413
417.63	0.0000
418.52	101.5963
423.70	99.8350
427.08	102.1212
427.89	83.4058
432.53	99.3183
433.93	97.3069
439.47	83.9783
439.56	82.9334
439.89	85.0490
443.98	77.8854
444.90	88.4566
445.03	88.4643
445.03	88.4643
445.03	88.4643
445.03	88.4643
453.90	94.2094
463.38	76.6252
468.07	69.9983
473.00	92.0180
475.06	78.1974
475.35	83.5665
476.78	73.9821
477.59	67.5787
477.96	66.5202
482.03	82.7983
484.57	85.0658
487.03	56.0681
490.36	0.0000
492.35	80.0184
497.08	75.8842
507.63	0.0000
510.53	0.0000
510.84	87.3578
511.00	87.3651
511.85	80.4107
511.85	80.4107
513.99	89.2506
513.99	89.2506
520.41	76.8188
520.65	76.8274
527.90	77.1136
528.96	0.0000
529.64	84.9002
529.87	0.0000
531.02	75.0287
537.32	77.4811
543.00	74.3711
546.56	0.0000
549.76	73.5078
552.65	78.0728
555.20	80.4045
563.23	60.5407
563.90	56.0745
568.70	75.3137
569.32	59.5943
569.50	59.5991
569.67	59.6040
573.80	79.3289
574.00	79.3354
574.64	83.8703
578.91	90.3662
579.30	0.0000
583.14	66.0992
585.48	71.0068
591.81	65.4592
592.07	65.4680
593.00	70.0444
595.88	72.8711
600.56	65.9275
602.52	0.0000
602.71	76.1454
602.71	76.1454
603.60	65.5131
604.41	65.5376
604.70	65.5463
609.31	68.7396

609.31	68.7396
609.31	68.7396
609.31	68.7396
610.33	74.8837
612.46	74.9555
614.37	64.3040
618.01	69.0106
621.84	62.6775
621.84	62.6775
631.29	72.1976
633.02	65.7686
633.10	65.7721
634.78	60.2583
635.90	74.2012
636.97	80.7320
645.85	56.8256
646.12	46.5833
656.30	74.8633
657.75	80.5284
657.90	0.0000
661.65	83.4766
661.65	83.4766
664.57	0.0000
666.33	83.6417
666.33	83.6417
675.00	61.3120
677.61	58.5458
685.20	58.7320
692.80	57.0161
695.00	63.7269
696.49	82.7987
696.49	82.7987
697.00	81.8659
697.49	78.0722
698.33	74.2904
698.50	69.5336
699.00	66.6897
702.63	70.6053
706.10	65.9273
706.58	0.0000
706.67	67.8539
709.31	63.1431
711.68	76.6094
713.82	68.0498
717.42	56.5238
720.50	64.0682
721.93	0.0000
722.20	67.3169
722.78	68.9354
722.78	68.9354
722.89	68.9389
722.95	68.9407
723.30	64.1406
724.18	54.5375
727.18	62.6323
733.00	67.6057
735.90	52.6434
739.58	65.8451
742.81	52.3547
744.21	62.0844
747.13	54.3853
751.79	67.1318
752.31	64.2259
753.82	52.5788
755.35	58.4546
756.15	64.3210
756.87	63.3639
763.93	80.1522
765.79	68.4705
766.42	75.3363
766.84	78.2832
776.49	69.7311
778.00	60.9268
778.57	66.8379
778.89	66.8445
783.80	55.1510
785.46	58.1415
792.07	39.5146

795.84	41.5488
796.30	41.5550
798.80	41.5939
801.93	41.6421
805.60	36.4026
810.29	51.3829
810.76	54.7073
815.85	64.7731
817.79	54.8469
818.51	55.8592
819.60	46.9002
826.30	47.0126
828.27	0.0000
831.60	57.1239
831.96	50.1147
834.83	67.2225
836.80	0.0000
846.75	49.3708
848.13	44.3545
856.28	0.0000
856.80	30.3333
860.37	46.5694
867.32	36.5335
867.82	40.5996
871.10	49.7907
873.19	48.8098
874.81	37.6450
875.33	0.0000
876.40	41.7377
879.36	43.8178
880.27	54.0248
880.51	54.0287
881.50	42.8295
883.24	36.7330
884.67	40.8340
889.25	37.8302
896.60	47.1489
898.02	44.0949
899.00	58.4709
903.28	46.2272
911.07	50.4667
911.07	50.4667
911.07	50.4667
919.63	42.3473
920.93	28.9324
925.00	42.4224
925.24	34.1473
926.50	32.0906
935.52	35.2999
937.48	55.0613
944.10	55.1803
946.00	65.6317
949.00	43.7965
962.29	36.6517
964.01	37.7200
966.15	37.7455
968.20	37.7701
969.11	37.7807
969.11	37.7807
969.11	37.7807
977.42	49.1037
980.50	50.9058
983.50	47.4401
989.30	31.6838
996.32	56.0964
1001.03	41.3385
1001.68	39.2258
1004.76	49.8744
1021.30	0.0000
1024.50	0.0000
1034.80	38.5506
1036.00	34.2797
1037.82	50.3758
1038.57	58.9639
1038.76	0.0000
1045.16	30.0768
1046.59	48.3596
1048.07	45.1541

1050.47	31.2005
1050.47	31.2005
1062.04	39.9430
1063.62	44.2812
1076.63	32.5239
1077.35	32.5313
1078.86	34.7156
1085.78	35.8714
1099.22	42.5572
1112.02	37.7224
1112.84	35.6008
1115.52	40.1955
1120.29	45.0059
1120.29	45.0059
1120.29	45.0059
1120.29	45.0059
1120.51	45.0099
1121.28	45.0199
1124.00	0.0000
1129.67	45.0250
1131.51	0.0000
1147.95	0.0000
1167.94	35.2214
1173.22	42.6982
1175.09	49.2195
1177.93	33.4585
1189.05	59.6589
1204.90	49.6142
1205.75	0.0000
1213.00	53.4723
1221.42	57.3513
1230.97	46.8560
1235.34	56.6162
1236.41	0.0000
1238.25	53.4201
1246.25	40.2586
1260.41	0.0000
1271.85	35.2400
1274.45	45.7480
1274.54	45.7480
1291.56	29.6730
1298.22	0.0000
1312.09	23.0898
1325.50	25.0965
1325.50	25.0965
1332.49	29.9732
1333.61	27.0806
1360.21	22.3879
1362.66	0.0000
1365.15	19.4906
1368.21	21.4557
1368.53	0.0000
1376.25	21.4960
1384.27	19.5793
1394.10	22.5686
1395.20	21.5927
1407.95	21.6571
1434.06	13.8650
1436.60	17.8367
1457.56	0.0000
1460.81	20.9248
1489.15	20.0545
1509.49	19.1376
1596.49	21.5511
1620.62	13.4084
1678.03	0.0000
1691.02	8.3701
1691.02	8.3701
1706.46	0.0000
1750.46	0.0000
1764.49	14.5569
1764.49	14.5569
1764.49	14.5569
1764.49	14.5569
1770.23	18.0646
1771.40	8.5029
1791.20	0.0000
1808.65	11.7748

1836.01 10.7593

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994007

Total Uranium Activity	5.7855E+00	ug/g
Total Uranium Counting Unc.	5.3438E+00	ug/g
Total Uranium Tpu	2.7264E-06	ug/g
Total Uranium Mda	4.7515E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G245994007       *
*   ANALYST       : MXR1                      DETECTOR   : GAM10            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 12:38:33.21    SAMPLE ALQT:  122.230 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 7.677E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.255E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 2.847E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.376E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:27:13.87

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994008.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 13:26:37
Sample ID         : G245994008           Sample quantity  : 1.35540E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948812                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.24*	290	564	1.10	126.73	123	8	4.03E-02	15.8	
2	2	74.92	537	666	1.21	150.07	146	14	7.46E-02	8.9	1.22E+00
3	2	77.19	713	530	0.92	154.61	146	14	9.90E-02	6.4	
4	0	84.02	134	489	1.26	168.24	166	6	1.86E-02	27.7	
5	0	87.20*	289	485	1.33	174.61	172	6	4.01E-02	13.6	
6	0	92.96*	710	840	1.34	186.11	182	11	9.87E-02	9.3	
7	0	129.19	99	389	1.25	258.49	256	7	1.38E-02	34.4	
8	0	143.88*	83	348	1.00	287.86	285	6	1.15E-02	39.0	
9	0	185.95*	422	534	1.25	371.91	367	10	5.86E-02	11.9	
10	0	209.17	203	440	0.95	418.32	413	10	2.82E-02	20.6	
11	3	238.70*	1813	267	1.23	477.32	470	21	2.52E-01	2.9	1.46E+00
12	3	241.79	451	342	1.89	483.49	470	21	6.26E-02	11.7	
13	0	270.42*	117	293	1.44	540.70	537	9	1.63E-02	28.5	
14	0	277.46	92	287	1.19	554.77	550	10	1.27E-02	36.1	
15	0	295.29*	603	301	1.41	590.41	583	13	8.37E-02	7.3	
16	0	300.05*	138	214	1.03	599.91	596	9	1.92E-02	21.2	
17	0	329.39	131	396	1.85	658.55	652	17	1.81E-02	36.0	
18	0	338.42*	364	250	1.43	676.58	672	10	5.06E-02	10.0	
19	0	351.81*	947	358	1.52	703.36	695	17	1.31E-01	5.7	
20	0	462.70	116	167	1.46	924.96	920	11	1.62E-02	23.3	
21	0	511.03*	168	279	1.74	1021.56	1012	19	2.33E-02	28.0	
22	0	583.30*	612	142	1.95	1166.01	1160	15	8.50E-02	6.2	
23	0	609.30*	725	188	1.49	1217.98	1210	14	1.01E-01	5.6	
24	0	661.78	199	190	1.72	1322.89	1314	19	2.76E-02	18.1	
25	0	726.87*	190	127	1.63	1453.00	1444	17	2.64E-02	15.6	
26	0	860.97	96	83	1.92	1721.10	1714	14	1.33E-02	22.6	
27	0	911.12*	434	111	1.80	1821.37	1814	16	6.03E-02	7.5	
28	0	969.41*	197	185	2.45	1937.91	1930	14	2.73E-02	16.8	
29	0	1000.89*	102	108	2.36	2000.84	1990	24	1.42E-02	29.5	
30	0	1120.15*	166	87	3.11	2239.32	2231	15	2.30E-02	15.3	
31	0	1238.47*	98	68	1.76	2475.94	2468	16	1.36E-02	22.0	
32	0	1460.63*	1492	82	2.49	2920.28	2908	25	2.07E-01	3.1	
33	0	1764.61*	147	16	2.31	3528.42	3517	20	2.05E-02	11.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 15:27:17

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 13:26:37
Sample ID : G245994008 Sample quantity : 135.54 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.17 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.029E+01	2.244E+00	4.205E-01	3.852E-02	48.241
CD-109	+	88.03	*	2.939E+00	8.439E-01	1.318E+00	1.250E-01	2.231
SN-126	+	64.28		1.937E+00	6.736E-01	6.407E-01	9.305E-02	3.023
	+	86.94		1.201E+00	5.958E-01	5.284E-01	2.194E-01	2.273
	+	87.57	*	2.889E-01	8.295E-02	1.280E-01	1.208E-02	2.257
BA-137M	+	661.65	*	1.708E-01	6.427E-02	4.615E-02	4.866E-03	3.701
CS-137	+	661.65	*	1.805E-01	6.794E-02	4.878E-02	5.151E-03	3.701
TL-208	+	277.35		6.044E-01	4.479E-01	5.183E-01	8.547E-02	1.166
	+	510.84		4.998E-01	2.875E-01	1.814E-01	2.364E-02	2.755
	+	583.14	*	5.124E-01	8.436E-02	4.699E-02	5.095E-03	10.905
	+	860.37		7.305E-01	3.417E-01	3.668E-01	4.274E-02	1.992
BI-211		72.87		4.075E+00	2.896E+00	4.452E+00	3.563E-01	0.915
	+	351.07	*	3.750E+00	6.092E-01	2.705E-01	3.157E-02	13.862
PB-212	+	74.81		2.249E+00	4.896E-01	4.721E-01	5.859E-02	4.764
	+	77.11		1.694E+00	2.603E-01	2.688E-01	2.248E-02	6.301
	+	87.30		1.336E+00	4.063E-01	5.934E-01	8.148E-02	2.252
	+	238.63	*	1.678E+00	2.415E-01	8.047E-02	1.063E-02	20.851
	+	300.09		1.899E+00	8.520E-01	1.041E+00	1.518E-01	1.825
PO-212	+	74.81		2.249E+00	4.896E-01	4.721E-01	5.859E-02	4.764
	+	77.11		1.694E+00	2.603E-01	2.688E-01	2.248E-02	6.301
	+	87.30		1.336E+00	4.063E-01	5.934E-01	8.148E-02	2.252
		115.19		-2.174E+00	3.344E+00	5.188E+00	4.298E-01	-0.419
	+	238.63	*	1.678E+00	2.415E-01	8.047E-02	1.063E-02	20.851
	+	300.09		1.899E+00	8.520E-01	1.041E+00	1.518E-01	1.825
BI-214	+	609.31	*	1.138E+00	1.843E-01	9.197E-02	1.069E-02	12.374
	+	1120.29		1.295E+00	4.205E-01	3.204E-01	3.540E-02	4.041
	+	1764.49		1.504E+00	3.633E-01	2.370E-01	1.975E-02	6.346
PB-214	+	74.81		3.876E+00	8.141E-01	8.135E-01	8.967E-02	4.764
	+	77.11		2.904E+00	4.981E-01	4.609E-01	5.214E-02	6.301
	+	87.30		2.289E+00	6.805E-01	1.016E+00	1.237E-01	2.252
	+	241.98		2.500E+00	6.765E-01	4.839E-01	6.654E-02	5.167
	+	295.21		1.456E+00	3.037E-01	1.826E-01	2.719E-02	7.973
	+	351.92	*	1.305E+00	2.226E-01	9.428E-02	1.202E-02	13.837
PO-214	+	74.81		3.876E+00	8.141E-01	8.135E-01	8.967E-02	4.764

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.904E+00	4.981E-01	4.609E-01	5.214E-02	6.301
	+	87.30		2.289E+00	6.805E-01	1.016E+00	1.237E-01	2.252
	+	241.98		2.500E+00	6.765E-01	4.839E-01	6.654E-02	5.167
	+	295.21		1.456E+00	3.037E-01	1.826E-01	2.719E-02	7.973
	+	351.92	*	1.305E+00	2.226E-01	9.428E-02	1.202E-02	13.837
PO-216	+	74.81		2.249E+00	4.896E-01	4.721E-01	5.859E-02	4.764
	+	77.11		1.694E+00	2.603E-01	2.688E-01	2.248E-02	6.301
	+	87.30		1.336E+00	4.063E-01	5.934E-01	8.148E-02	2.252
	+	238.63	*	1.678E+00	2.415E-01	8.047E-02	1.063E-02	20.851
	+	300.09		1.899E+00	8.520E-01	1.041E+00	1.518E-01	1.825
PO-218	+	74.81		3.876E+00	8.141E-01	8.135E-01	8.967E-02	4.764
	+	77.11		2.904E+00	4.981E-01	4.609E-01	5.214E-02	6.301
	+	87.30		2.289E+00	6.805E-01	1.016E+00	1.237E-01	2.252
	+	241.98		2.500E+00	6.765E-01	4.839E-01	6.654E-02	5.167
	+	295.21		1.456E+00	3.037E-01	1.826E-01	2.719E-02	7.973
	+	351.92	*	1.305E+00	2.226E-01	9.428E-02	1.202E-02	13.837
RA-224	+	240.98	*	4.741E+00	1.255E+00	9.149E-01	1.145E-01	5.182
RA-226	+	609.31	*	1.138E+00	1.843E-01	9.197E-02	1.069E-02	12.374
	+	1120.29		1.295E+00	4.205E-01	3.204E-01	3.540E-02	4.041
	+	1764.49		1.504E+00	3.633E-01	2.370E-01	1.975E-02	6.346
AC-228	+	338.32		1.602E+00	7.460E-01	3.317E-01	1.396E-01	4.829
	+	911.07	*	1.557E+00	3.113E-01	1.890E-01	2.504E-02	8.236
	+	969.11		1.239E+00	5.118E-01	3.462E-01	8.360E-02	3.580
RA-228	+	338.32		1.602E+00	7.460E-01	3.317E-01	1.396E-01	4.829
	+	911.07	*	1.557E+00	3.113E-01	1.890E-01	2.504E-02	8.236
	+	969.11		1.239E+00	5.118E-01	3.462E-01	8.360E-02	3.580
TH-228	+	74.81		2.284E+00	4.496E-01	4.793E-01	3.949E-02	4.764
	+	77.11		1.720E+00	2.642E-01	2.729E-01	2.282E-02	6.301
	+	87.30		1.356E+00	3.895E-01	6.023E-01	5.669E-02	2.252
	+	238.63	*	1.703E+00	2.452E-01	8.169E-02	1.079E-02	20.851
	+	300.09		1.928E+00	1.419E+00	1.056E+00	6.355E-01	1.825
TH-230	+	609.31	*	1.138E+00	1.843E-01	9.197E-02	1.069E-02	12.374
	+	1120.29		1.295E+00	4.205E-01	3.204E-01	3.540E-02	4.041
	+	1764.49		1.504E+00	3.633E-01	2.370E-01	1.975E-02	6.346
TH-232	+	338.32		1.602E+00	3.724E-01	3.317E-01	3.945E-02	4.829
	+	911.07	*	1.557E+00	3.113E-01	1.890E-01	2.504E-02	8.236
	+	969.11		1.239E+00	5.118E-01	3.462E-01	8.360E-02	3.580
TH-234	+	63.29	*	4.893E+00	1.766E+00	1.615E+00	2.812E-01	3.029
	+	92.38		4.618E+00	1.203E+00	7.572E-01	1.387E-01	6.099
U-234	+	609.31	*	1.138E+00	1.843E-01	9.197E-02	1.069E-02	12.374
	+	1120.29		1.295E+00	4.205E-01	3.204E-01	3.540E-02	4.041
	+	1764.49		1.504E+00	3.633E-01	2.370E-01	1.975E-02	6.346
U-235		89.95		9.534E-01	1.439E+00	1.665E+00	5.173E-01	0.572
	+	93.35		5.551E+00	1.872E+00	9.049E-01	2.548E-01	6.135
		105.00		1.205E+00	1.008E+00	1.580E+00	4.709E-01	0.763
	+	143.76	*	2.610E-01	2.086E-01	3.211E-01	5.664E-02	0.813
		163.35		2.781E-01	4.350E-01	7.353E-01	1.440E-01	0.378
	+	185.71		2.844E-01	7.370E-02	6.429E-02	6.732E-03	4.423
		205.31		-8.268E-02	5.394E-01	7.624E-01	1.552E-01	-0.108

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-237	+	86.50	*	8.484E-01	3.000E-01	3.011E-01	6.818E-02	2.817
		95.87		-4.080E-01	9.160E-01	1.281E+00	3.167E-01	-0.319
U-238	+	63.29	*	4.893E+00	1.766E+00	1.615E+00	2.812E-01	3.029
	+	92.38		4.618E+00	9.528E-01	7.572E-01	6.899E-02	6.099
AM-243	+	74.67	*	3.647E-01	7.168E-02	7.676E-02	6.257E-03	4.751
	+	86.72		3.182E+01	9.135E+00	1.403E+01	1.311E+00	2.268
		117.66		9.192E-01	3.476E+00	5.580E+00	4.609E-01	0.165
		142.18		1.866E+01	1.799E+01	2.780E+01	2.455E+00	0.671
ANH-511	+	511.00	*	1.080E-01	6.144E-02	3.920E-02	3.927E-03	2.754

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	9.417E-02	2.747E-01	4.520E-01	4.717E-02	0.208
NA-22		1274.54	*	-1.169E-02	3.593E-02	5.804E-02	5.002E-03	-0.201
NA-24		1368.53	*	-8.067E-01	3.593E-02	Half-Life too short		
AL-26		1129.67		-8.322E-01	1.360E+00	1.996E+00	1.738E-01	-0.417
		1808.65	*	3.311E-03	2.065E-02	3.480E-02	2.846E-03	0.095
TI-44		67.85		2.188E-03	3.865E-02	6.094E-02	4.651E-03	0.036
	+	78.38	*	3.126E-01	4.803E-02	6.537E-02	5.543E-03	4.782
SC-46		889.25	*	4.389E-03	3.301E-02	5.522E-02	6.181E-03	0.079
	+	1120.51		2.216E-01	7.043E-02	1.029E-01	9.101E-03	2.152
V-48		944.10		6.507E-01	7.044E-01	1.230E+00	1.334E-01	0.529
		983.50	*	-4.358E-02	5.635E-02	8.689E-02	9.113E-03	-0.502
		1312.09		-1.936E-02	6.557E-02	1.056E-01	9.303E-03	-0.183
CR-51		320.08	*	2.734E-02	3.207E-01	5.384E-01	6.971E-02	0.051
MN-52		744.21		6.803E-02	1.939E-01	3.218E-01	3.496E-02	0.211
		848.13		-2.094E+00	5.435E+00	8.820E+00	9.821E-01	-0.237
		935.52		2.862E-01	2.025E-01	3.612E-01	3.943E-02	0.792
		1246.25		1.674E+00	6.122E+00	8.896E+00	7.520E-01	0.188
		1333.61		-1.627E+00	3.927E+00	6.225E+00	5.551E-01	-0.261
		1434.06	*	-1.307E-01	1.803E-01	2.707E-01	2.419E-02	-0.483
MN-54		834.83	*	-6.208E-03	3.129E-02	5.160E-02	5.732E-03	-0.120
CO-56		846.75	*	-2.222E-02	3.351E-02	5.339E-02	5.944E-03	-0.416
		977.42		1.596E+00	2.484E+00	3.941E+00	4.157E-01	0.405
		1037.82		6.172E-02	2.343E-01	3.906E-01	4.027E-02	0.158
		1175.09		-4.853E-01	1.712E+00	2.800E+00	2.254E-01	-0.173
	+	1238.25		2.147E-01	9.626E-02	1.365E-01	1.183E-02	1.573
		1360.21		4.746E-01	7.598E-01	1.321E+00	1.180E-01	0.359
		1771.40		-1.336E-02	1.894E-01	2.598E-01	2.159E-02	-0.051
CO-57		122.06	*	-1.044E-02	2.338E-02	3.639E-02	3.001E-03	-0.287
		136.48		-1.096E-01	1.834E-01	3.037E-01	2.818E-02	-0.361
CO-58		810.76	*	7.857E-03	3.122E-02	5.303E-02	5.872E-03	0.148
FE-59	+	142.65		3.364E+00	2.640E+00	4.348E+00	3.847E-01	0.774
		192.34		-2.659E-01	8.693E-01	1.417E+00	2.104E-01	-0.188
		1099.22	*	-6.451E-02	6.909E-02	1.031E-01	1.011E-02	-0.626
		1291.56		5.820E-03	9.819E-02	1.630E-01	1.607E-02	0.036
CO-60		1173.22		1.492E-02	3.462E-02	5.938E-02	4.775E-03	0.251

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	-2.990E-02	3.170E-02	4.765E-02	4.249E-03	-0.628
ZN-65		1115.52	*	1.201E-01	8.760E-02	1.358E-01	1.211E-02	0.885
GE-68		1077.35	*	-6.209E-01	9.686E-01	1.493E+00	1.408E-01	-0.416
AS-73		53.44	*	-1.812E-02	6.851E-01	1.114E+00	8.420E-02	-0.016
AS-74		595.88	*	-1.204E-02	7.834E-02	1.288E-01	1.335E-02	-0.093
		634.78		1.822E-01	2.859E-01	4.880E-01	5.114E-02	0.373
SE-75		66.05		-4.995E+00	4.341E+00	5.985E+00	5.710E-01	-0.835
		96.73		-8.765E-02	7.268E-01	1.038E+00	1.428E-01	-0.084
		121.11		-1.336E-01	1.280E-01	1.935E-01	2.115E-02	-0.690
		136.00		-1.833E-02	3.431E-02	5.698E-02	4.945E-03	-0.322
		198.60		1.186E+00	1.751E+00	2.866E+00	3.350E-01	0.414
		264.65	*	2.277E-03	4.398E-02	6.541E-02	8.803E-03	0.035
		279.53		7.787E-02	1.159E-01	1.673E-01	2.374E-02	0.466
		303.91		6.178E-01	1.938E+00	2.888E+00	4.400E-01	0.214
		400.65		3.465E-02	2.071E-01	3.428E-01	4.012E-02	0.101
BR-77	+	87.88		6.247E+02	1.793E+02	2.883E+02	2.732E+01	2.167
		200.40		-1.512E+01	1.493E+02	2.445E+02	2.689E+01	-0.062
	+	239.00		2.650E+02	3.625E+01	3.265E+01	4.063E+00	8.117
		249.79		1.037E+01	5.753E+01	9.362E+01	1.204E+01	0.111
		281.68		-5.341E-01	9.270E+01	1.291E+02	1.799E+01	-0.004
		297.23		4.311E+02	9.166E+01	1.091E+02	1.468E+01	3.950
		303.76		5.180E+01	1.624E+02	2.421E+02	3.202E+01	0.214
		439.47		-7.176E+01	1.231E+02	1.939E+02	1.866E+01	-0.370
		484.57		-7.996E+01	1.927E+02	3.033E+02	2.998E+01	-0.264
		520.65	*	6.429E+00	8.939E+00	1.489E+01	1.498E+00	0.432
		574.64		-4.155E+01	1.751E+02	2.811E+02	2.892E+01	-0.148
		578.91		4.507E+01	8.052E+01	1.200E+02	1.237E+01	0.376
		585.48		1.714E+03	2.790E+02	4.241E+02	4.381E+01	4.041
		755.35		6.327E+01	1.358E+02	2.264E+02	2.468E+01	0.279
		817.79		1.757E+00	1.027E+02	1.719E+02	1.904E+01	0.010
SR-82		698.33		-8.731E+00	2.950E+01	4.735E+01	5.067E+00	-0.184
		776.49	*	-2.696E-01	3.232E-01	4.911E-01	5.386E-02	-0.549
		1395.20		-7.669E+00	8.788E+00	1.310E+01	1.171E+00	-0.585
RB-83		520.41	*	3.858E-02	5.977E-02	9.920E-02	9.984E-03	0.389
		529.64		-5.348E-02	8.626E-02	1.394E-01	1.409E-02	-0.384
		552.65		-1.068E-01	1.614E-01	2.588E-01	2.641E-02	-0.413
RB-84		881.50	*	-2.634E-02	5.553E-02	8.904E-02	9.958E-03	-0.296
KR-85		513.99	*	2.446E+01	7.868E+00	1.256E+01	1.260E+00	1.947
SR-85		513.99	*	1.253E-01	4.031E-02	6.436E-02	6.458E-03	1.947
RB-86		1076.63	*	-5.323E-01	6.319E-01	9.580E-01	9.040E-02	-0.556
Y-88		898.02		1.598E-03	3.574E-02	5.940E-02	6.674E-03	0.027
		1836.01	*	-1.142E-02	3.093E-02	4.850E-02	3.921E-03	-0.235
ZR-88		392.90	*	2.898E-05	2.672E-02	4.394E-02	4.091E-03	0.001
Y-91		1204.90	*	4.538E+00	1.389E+01	2.362E+01	1.942E+00	0.192
NB-94		702.63	*	-9.309E-03	2.880E-02	4.611E-02	4.941E-03	-0.202
		871.10		-6.423E-04	2.705E-02	4.488E-02	5.014E-03	-0.014
NB-95		765.79	*	4.463E-02	3.747E-02	6.422E-02	7.022E-03	0.695
NB-95M		235.69	*	2.379E-01	1.293E-01	1.947E-01	2.574E-02	1.222
ZR-95		724.18		1.726E-01	9.065E-02	1.433E-01	1.634E-02	1.205

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		756.15	*	-4.568E-03	5.947E-02	9.592E-02	1.113E-02	-0.048
NB-97		657.90	*	7.970E-02	5.947E-02	Half-Life too short		
		1024.50		-5.639E+00	5.947E-02	Half-Life too short		
ZR-97		254.15		2.384E+00	5.947E-02	Half-Life too short		
		355.39		3.748E+00	5.947E-02	Half-Life too short		
		507.63	*	4.006E+00	5.947E-02	Half-Life too short		
		602.52		2.542E-01	5.947E-02	Half-Life too short		
		1021.30		1.332E-01	5.947E-02	Half-Life too short		
		1147.95		2.411E+00	5.947E-02	Half-Life too short		
		1362.66		-4.891E-01	5.947E-02	Half-Life too short		
		1750.46		1.727E+00	5.947E-02	Half-Life too short		
MO-99		140.51		2.566E+01	2.669E+01	3.924E+01	1.088E+01	0.654
		181.06		-2.788E+00	1.722E+01	2.486E+01	4.759E+00	-0.112
		366.43		2.313E+01	6.864E+01	1.153E+02	1.223E+01	0.201
		739.58	*	-1.948E+00	9.387E+00	1.503E+01	2.488E+00	-0.130
		778.00		-1.200E+01	2.795E+01	4.381E+01	4.807E+00	-0.274
TC-99M		140.51	*	3.234E+10	2.795E+01	Half-Life too short		
RH-101		127.23		1.684E-03	3.402E-02	4.785E-02	3.999E-03	0.035
		198.01	*	2.760E-02	3.198E-02	5.260E-02	5.738E-03	0.525
		325.23		-7.583E-02	2.207E-01	3.138E-01	3.901E-02	-0.242
RH-102		418.52		-1.840E-01	2.490E-01	3.907E-01	3.708E-02	-0.471
		475.06	*	-6.388E-03	2.463E-02	3.922E-02	3.857E-03	-0.163
		631.29		7.634E-03	4.377E-02	7.292E-02	7.636E-03	0.105
		697.49		4.344E-02	6.397E-02	1.083E-01	1.159E-02	0.401
		766.84		6.211E-02	9.666E-02	1.617E-01	1.768E-02	0.384
		1046.59		-6.145E-02	8.797E-02	1.353E-01	1.326E-02	-0.454
		1112.84		-8.883E-02	2.202E-01	2.903E-01	2.598E-02	-0.306
RU-103		497.08	*	5.525E-03	3.372E-02	5.479E-02	8.223E-03	0.101
	+	610.33		1.228E+01	2.573E+00	2.382E+00	4.211E-01	5.154
RH-106	+	511.85		5.392E-01	3.069E-01	3.619E-01	3.627E-02	1.490
		621.84	*	-1.551E-01	2.518E-01	3.983E-01	5.816E-02	-0.389
		1050.47		5.491E-03	1.774E+00	2.896E+00	2.827E-01	0.002
RU-106	+	511.85		5.392E-01	3.069E-01	3.619E-01	3.627E-02	1.490
		621.84	*	-1.551E-01	2.513E-01	3.983E-01	4.160E-02	-0.389
		1050.47		5.491E-03	1.774E+00	2.896E+00	2.827E-01	0.002
AG-108M		433.93	*	1.235E-02	2.809E-02	4.679E-02	4.632E-03	0.264
		614.37		6.046E-03	3.635E-02	5.235E-02	5.604E-03	0.115
		722.95		4.401E-02	3.581E-02	5.530E-02	6.119E-03	0.796
AG-110M		657.75	*	2.767E-02	3.149E-02	4.769E-02	5.126E-03	0.580
		677.61		7.445E-02	2.440E-01	4.072E-01	4.403E-02	0.183
		706.67		1.321E-01	1.750E-01	2.971E-01	3.246E-02	0.445
		763.93		5.346E-02	1.437E-01	2.376E-01	2.643E-02	0.225
		884.67		-2.076E-02	4.023E-02	6.431E-02	7.334E-03	-0.323
		937.48		-2.026E-02	8.958E-02	1.455E-01	1.622E-02	-0.139
		1384.27		-1.878E-01	1.512E-01	2.203E-01	2.021E-02	-0.852
IN-111		171.28		9.213E-02	8.791E-01	1.468E+00	1.465E-01	0.063
		245.39	*	-4.558E-01	1.055E+00	1.452E+00	1.842E-01	-0.314
IN-113M		391.69	*	1.751E-02	3.877E-02	6.506E-02	6.213E-03	0.269
SN-113		391.69	*	1.751E-02	3.877E-02	6.506E-02	6.213E-03	0.269

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-114M		190.27	*	1.500E-01	1.824E-01	2.738E-01	2.911E-02	0.548
CD-115		260.90		4.281E+01	1.165E+02	1.901E+02	2.526E+01	0.225
		492.35		5.687E+00	3.011E+01	4.904E+01	4.868E+00	0.116
		527.90	*	-3.972E-01	8.729E+00	1.459E+01	1.474E+00	-0.027
SN-117M		156.02		-9.599E-01	2.016E+00	3.322E+00	3.115E-01	-0.289
		158.56	*	-1.373E-02	4.974E-02	8.246E-02	7.820E-03	-0.166
SB-122		563.90	*	3.986E-01	1.690E+00	2.850E+00	2.921E-01	0.140
		692.80		-1.727E+01	3.576E+01	5.668E+01	6.051E+00	-0.305
I-123		159.00	*	-1.764E+00	3.576E+01	Half-Life too short		
		528.96		-2.475E+02	3.576E+01	Half-Life too short		
TE-123M		159.00	*	-9.362E-03	2.591E-02	4.282E-02	4.089E-03	-0.219
I-124		602.71	*	-1.456E-02	6.448E-01	9.167E-01	9.522E-02	-0.016
		722.78		4.094E+00	3.672E+00	5.632E+00	6.078E-01	0.727
		1325.50		1.248E+01	3.141E+01	5.031E+01	4.468E+00	0.248
		1376.25		6.102E+01	2.830E+01	5.267E+01	4.707E+00	1.159
		1509.49		1.557E+01	1.316E+01	2.367E+01	2.104E+00	0.658
		1691.02		-1.148E+00	2.803E+00	4.378E+00	3.744E-01	-0.262
SB-124		602.71		-8.537E-04	3.780E-02	5.375E-02	5.584E-03	-0.016
		645.85		-4.983E-01	4.179E-01	6.309E-01	6.900E-02	-0.790
		709.31		-7.716E-01	2.307E+00	3.683E+00	3.957E-01	-0.209
		713.82		2.477E-01	1.287E+00	2.123E+00	2.899E-01	0.117
		722.78		3.479E-01	3.122E-01	4.787E-01	5.237E-02	0.727
	+	968.20		1.275E+01	4.481E+00	6.160E+00	6.550E-01	2.069
		1045.16		-1.466E+00	1.870E+00	2.851E+00	2.800E-01	-0.514
		1325.50		1.133E+00	2.851E+00	4.567E+00	4.056E-01	0.248
		1368.21		-1.713E+00	1.482E+00	2.137E+00	2.923E-01	-0.802
		1436.60		-9.736E-01	2.752E+00	4.316E+00	3.857E-01	-0.226
		1691.02	*	-2.301E-02	5.619E-02	8.777E-02	7.808E-03	-0.262
SB-125		427.89	*	-6.816E-02	7.757E-02	1.201E-01	1.165E-02	-0.567
	+	463.38		6.875E-01	3.282E-01	4.606E-01	4.777E-02	1.493
		600.56		1.326E-01	1.603E-01	2.583E-01	2.819E-02	0.513
		635.90		8.829E-02	2.254E-01	3.718E-01	4.114E-02	0.237
TE-125M		109.28	*	-3.548E+00	8.609E+00	1.354E+01	1.371E+00	-0.262
I-126		388.63		-2.508E-02	1.790E-01	2.927E-01	2.771E-02	-0.086
		666.33	*	1.795E-01	1.703E-01	2.596E-01	2.743E-02	0.691
		753.82		1.273E+00	1.223E+00	2.101E+00	2.289E-01	0.606
SB-126		223.80		2.910E-01	3.668E+00	5.995E+00	7.113E-01	0.049
	+	278.60		3.983E+00	2.931E+00	3.800E+00	5.312E-01	1.048
	+	296.50		1.445E+01	2.875E+00	3.136E+00	4.224E-01	4.609
		414.70		-4.884E-02	6.539E-02	1.027E-01	9.724E-03	-0.475
		415.30		-3.133E+00	5.336E+00	8.457E+00	8.007E-01	-0.371
		555.20		2.560E+00	3.208E+00	5.565E+00	5.685E-01	0.460
		573.80		-5.208E-01	8.688E-01	1.396E+00	1.436E-01	-0.373
		593.00		-2.536E-01	7.986E-01	1.271E+00	1.316E-01	-0.200
		656.30		-1.744E+00	3.143E+00	4.199E+00	4.423E-01	-0.415
		666.33		7.498E-02	7.113E-02	1.085E-01	1.146E-02	0.691
		675.00		-4.062E-01	1.585E+00	2.554E+00	2.708E-01	-0.159
		695.00		6.688E-02	6.482E-02	1.116E-01	1.192E-02	0.599
		697.00		2.050E-01	2.239E-01	3.833E-01	4.099E-02	0.535

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		720.50	*	3.298E-02	1.235E-01	1.768E-01	1.907E-02	0.187
		856.80		4.207E-01	3.946E-01	6.184E-01	6.894E-02	0.680
		989.30		7.050E-01	1.010E+00	1.648E+00	1.719E-01	0.428
		1034.80		-3.300E+00	6.900E+00	1.085E+01	1.078E+00	-0.304
		1213.00		-1.964E-01	3.657E+00	6.061E+00	5.011E-01	-0.032
SB-127		61.10		3.113E+01	4.775E+01	7.296E+01	7.347E+00	0.427
		252.40		-3.877E+00	4.202E+00	5.946E+00	2.565E+00	-0.652
		290.80		-1.073E+01	2.075E+01	2.950E+01	4.535E+00	-0.364
		411.60		3.423E+00	1.056E+01	1.754E+01	2.838E+00	0.195
		444.90		1.000E+00	8.516E+00	1.393E+01	1.847E+00	0.072
		473.00		-8.278E-01	1.388E+00	2.159E+00	2.955E-01	-0.383
		543.00		-7.638E-01	1.378E+01	2.298E+01	3.528E+00	-0.033
		603.60		-5.534E+00	1.131E+01	1.546E+01	2.130E+00	-0.358
		685.20	*	7.048E-01	1.117E+00	1.891E+00	2.453E-01	0.373
		698.50		-3.979E+00	1.303E+01	2.089E+01	3.557E+00	-0.191
		722.20		1.267E+01	2.520E+01	3.681E+01	4.746E+00	0.344
		783.80		1.547E+00	3.073E+00	5.106E+00	7.225E-01	0.303
XE-127		57.60		2.176E+00	4.777E+00	8.075E+00	5.800E-01	0.269
	+	145.22		8.616E-01	6.761E-01	1.122E+00	1.003E-01	0.768
		172.10		-9.338E-03	1.074E-01	1.781E-01	1.783E-02	-0.052
		202.84	*	-2.699E-02	4.618E-02	6.828E-02	7.568E-03	-0.395
		374.96		-2.268E-02	1.654E-01	2.713E-01	2.762E-02	-0.084
I-131		80.18		-2.514E-01	5.286E+00	6.062E+00	5.277E-01	-0.041
		284.30		-5.561E-01	1.426E+00	2.235E+00	3.159E-01	-0.249
		364.48	*	-1.039E-01	9.478E-02	1.470E-01	1.629E-02	-0.706
		636.97		-3.984E-01	1.289E+00	2.039E+00	2.220E-01	-0.195
		722.89		7.112E+00	5.981E+00	9.217E+00	9.988E-01	0.772
TE-132		49.72		-2.089E+01	1.522E+01	2.404E+01	2.491E+00	-0.869
		111.76		-9.040E+00	2.812E+01	4.354E+01	4.620E+00	-0.208
		116.30		-1.245E+01	2.549E+01	3.976E+01	4.201E+00	-0.313
		228.16	*	4.834E-01	6.241E-01	1.036E+00	1.844E-01	0.467
BA-133		53.15		5.644E-01	2.960E+00	4.851E+00	3.681E-01	0.116
		79.62		6.876E-01	1.262E+00	1.721E+00	2.618E-01	0.400
		81.00		-6.354E-02	1.164E-01	1.284E-01	2.047E-02	-0.495
	+	276.40		5.973E-01	4.449E-01	5.563E-01	1.007E-01	1.074
		302.84		9.939E-02	1.352E-01	2.050E-01	3.419E-02	0.485
		356.01	*	1.074E-02	4.065E-02	5.950E-02	8.892E-03	0.181
		383.85		-1.032E-01	2.610E-01	4.213E-01	5.638E-02	-0.245
I-133	+	510.53		1.050E+00	2.610E-01	Half-Life too short		
		529.87	*	-2.412E-03	2.610E-01	Half-Life too short		
		706.58		2.461E-01	2.610E-01	Half-Life too short		
		856.28		2.132E-01	2.610E-01	Half-Life too short		
		875.33		1.108E-02	2.610E-01	Half-Life too short		
		1236.41		8.349E-01	2.610E-01	Half-Life too short		
		1298.22		1.293E-01	2.610E-01	Half-Life too short		
CS-134		475.35		-3.807E-01	1.617E+00	2.578E+00	2.536E-01	-0.148
		563.23		2.150E-01	3.007E-01	5.182E-01	5.346E-02	0.415
		569.32		9.018E-02	1.642E-01	2.807E-01	2.911E-02	0.321
		604.70		-7.319E-03	3.334E-02	4.667E-02	4.859E-03	-0.157

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		795.84	*	5.329E-02	3.898E-02	6.754E-02	7.476E-03	0.789
		801.93		-1.931E-01	3.518E-01	5.180E-01	5.736E-02	-0.373
		1038.57		1.715E+00	2.908E+00	4.960E+00	4.911E-01	0.346
		1167.94		-8.719E-01	2.030E+00	3.292E+00	2.675E-01	-0.265
		1365.15		-7.736E-01	1.018E+00	1.480E+00	1.378E-01	-0.523
CS-135		268.24	*	7.738E-02	1.731E-01	2.437E-01	3.526E-02	0.317
I-135		288.45		9.837E+09	1.731E-01	Half-Life too short		
		417.63		-2.072E+10	1.731E-01	Half-Life too short		
		546.56		8.818E+09	1.731E-01	Half-Life too short		
		836.80		3.567E+09	1.731E-01	Half-Life too short		
		1038.76		4.977E+09	1.731E-01	Half-Life too short		
		1124.00		8.639E+10	1.731E-01	Half-Life too short		
		1131.51		-1.062E+09	1.731E-01	Half-Life too short		
		1260.41	*	8.422E+08	1.731E-01	Half-Life too short		
		1457.56		6.628E+11	1.731E-01	Half-Life too short		
		1678.03		-5.275E+09	1.731E-01	Half-Life too short		
		1706.46		-7.829E+08	1.731E-01	Half-Life too short		
		1791.20		-2.414E+09	1.731E-01	Half-Life too short		
CS-136		66.91		-6.491E-01	7.084E-01	9.840E-01	1.464E-01	-0.660
	+	86.29		3.759E+00	1.137E+00	1.696E+00	2.258E-01	2.216
		153.22		-3.715E-02	5.990E-01	1.003E+00	1.024E-01	-0.037
		163.89		7.089E-01	9.731E-01	1.657E+00	1.764E-01	0.428
		176.55		1.058E-01	3.281E-01	5.503E-01	5.824E-02	0.192
		273.65		3.960E-01	5.682E-01	6.109E-01	8.643E-02	0.648
		340.57		5.378E-01	1.570E-01	2.395E-01	2.869E-02	2.246
		818.51		-1.980E-02	5.947E-02	9.722E-02	1.077E-02	-0.204
		1048.07	*	-6.938E-02	8.421E-02	1.281E-01	1.295E-02	-0.542
		1235.34		7.632E-01	5.485E-01	8.569E-01	1.001E-01	0.891
CE-139		165.85	*	-1.636E-02	2.690E-02	4.387E-02	4.303E-03	-0.373
BA-140		162.64		2.852E-01	6.936E-01	1.172E+00	1.185E-01	0.243
		304.84		7.552E-01	1.186E+00	1.771E+00	5.268E-01	0.426
		423.70		1.516E+00	1.722E+00	2.817E+00	9.202E-01	0.538
		537.32	*	-5.694E-02	2.132E-01	3.501E-01	1.175E-01	-0.163
LA-140	+	328.77		7.126E-01	5.206E-01	4.478E-01	5.657E-02	1.591
		432.53		7.044E-01	1.783E+00	2.938E+00	2.926E-01	0.240
		487.03		1.009E-01	1.113E-01	1.883E-01	1.952E-02	0.536
		751.79		-5.174E-01	1.464E+00	2.319E+00	2.698E-01	-0.223
		815.85		-3.231E-02	2.564E-01	4.253E-01	5.044E-02	-0.076
		867.82		7.276E-01	1.242E+00	1.867E+00	2.151E-01	0.390
		919.63		6.633E-01	2.355E+00	3.544E+00	4.497E-01	0.187
		925.24		-2.669E-02	8.713E-01	1.436E+00	1.642E-01	-0.019
		1596.49	*	-5.380E-02	7.227E-02	1.112E-01	9.748E-03	-0.484
CE-141		145.44	*	9.269E-02	6.454E-02	1.007E-01	9.171E-03	0.920
CE-143		57.37		1.058E-04	6.454E-02	Half-Life too short		
		231.56		-1.204E-03	6.454E-02	Half-Life too short		
		293.26	*	6.927E-04	6.454E-02	Half-Life too short		
	+	350.59		2.889E-02	6.454E-02	Half-Life too short		
		490.36		-1.294E-03	6.454E-02	Half-Life too short		
		664.57		3.794E-03	6.454E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		721.93		6.146E-04	6.454E-02	Half-Life too short		
CE-144		80.11		-7.151E-02	2.446E+00	2.809E+00	2.428E-01	-0.025
		133.54	*	1.819E-01	2.031E-01	3.126E-01	4.852E-02	0.582
PM-144		476.78		1.149E-04	5.756E-02	9.303E-02	9.821E-03	0.001
		618.01		7.942E-03	2.567E-02	4.315E-02	4.587E-03	0.184
		696.49	*	2.851E-02	2.899E-02	4.978E-02	5.323E-03	0.573
		778.57		-1.054E+00	1.904E+00	2.956E+00	3.244E-01	-0.357
PR-144		696.49	*	1.932E+00	1.965E+00	3.373E+00	3.606E-01	0.573
		1489.15		2.542E-01	9.135E+00	1.493E+01	1.330E+00	0.017
PM-146		453.90	*	-3.539E-02	3.763E-02	5.754E-02	6.687E-03	-0.615
		633.02		1.334E-01	1.130E+00	1.874E+00	7.090E-01	0.071
		735.90		-3.971E-02	1.268E-01	1.907E-01	5.596E-02	-0.208
		747.13		-8.487E-03	7.693E-02	1.239E-01	1.924E-02	-0.068
ND-147		91.11		1.444E+00	3.983E-01	5.070E-01	5.009E-02	2.849
		319.41		-8.848E-01	2.863E+00	4.724E+00	5.980E-01	-0.187
		439.89		7.885E-02	4.953E+00	8.070E+00	7.771E-01	0.010
		531.02	*	-3.539E-01	4.608E-01	7.340E-01	1.164E-01	-0.482
PM-149		285.90	*	-6.529E-01	8.506E+01	1.358E+02	2.568E+01	-0.005
EU-152		121.78		-7.574E-02	6.930E-02	1.046E-01	1.004E-02	-0.724
		244.69		1.901E-01	3.307E-01	4.816E-01	6.098E-02	0.395
		344.27	*	3.062E-02	1.220E-01	1.421E-01	1.707E-02	0.216
		443.98		-4.513E-02	8.456E-01	1.372E+00	1.324E-01	-0.033
		778.89		-1.463E-01	2.204E-01	3.390E-01	3.720E-02	-0.432
		867.32		3.932E-01	7.398E-01	1.107E+00	1.236E-01	0.355
		964.01		4.012E-01	2.961E-01	4.573E-01	4.880E-02	0.877
		1085.78		-3.098E-02	3.277E-01	5.292E-01	4.931E-02	-0.059
		1112.02		-1.512E-01	3.132E-01	4.091E-01	3.666E-02	-0.369
		1407.95		1.398E-01	1.698E-01	2.956E-01	2.643E-02	0.473
GD-153		69.67		4.198E-02	1.434E+00	2.239E+00	1.738E-01	0.019
	+	83.37		2.440E+01	1.369E+01	2.164E+01	1.942E+00	1.128
		97.43	*	1.407E-03	7.618E-02	1.095E-01	9.625E-03	0.013
		103.18		-9.560E-02	9.410E-02	1.447E-01	1.237E-02	-0.661
EU-154		123.07		1.666E-02	4.802E-02	7.703E-02	8.544E-03	0.216
		247.94		3.502E-01	3.601E-01	5.327E-01	7.917E-02	0.657
		591.81		2.107E-01	5.763E-01	8.786E-01	1.142E-01	0.240
		723.30		2.058E-01	1.549E-01	2.398E-01	2.765E-02	0.858
		756.87		-1.126E-01	6.520E-01	1.045E+00	1.433E-01	-0.108
		873.19		-1.290E-01	2.397E-01	3.824E-01	5.415E-02	-0.337
		996.32		1.503E-01	3.300E-01	4.826E-01	9.011E-02	0.311
		1004.76		2.176E-01	1.938E-01	2.999E-01	3.872E-02	0.726
		1274.45	*	-2.864E-02	1.007E-01	1.631E-01	1.844E-02	-0.176
EU-155		48.70		-6.922E-01	1.899E+00	3.149E+00	2.565E-01	-0.220
		60.01		-2.751E-01	4.265E+00	6.334E+00	4.498E-01	-0.043
	+	86.54		3.480E-01	1.000E-01	1.591E-01	1.496E-02	2.187
		105.31	*	1.143E-01	9.657E-02	1.606E-01	1.378E-02	0.712
TB-160	+	86.79		9.290E-01	2.667E-01	4.238E-01	3.963E-02	2.192
		197.04		7.082E-01	5.424E-01	9.000E-01	9.787E-02	0.787
		215.65		1.828E-01	6.408E-01	1.059E+00	1.224E-01	0.173
	+	298.57		2.762E-01	1.228E-01	1.782E-01	2.389E-02	1.550

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		879.36	*	9.714E-04	1.085E-01	1.803E-01	2.016E-02	0.005
		962.29		5.450E-01	5.036E-01	7.703E-01	8.232E-02	0.707
		966.15		1.249E+00	2.771E-01	4.494E-01	4.786E-02	2.780
		1177.93		-1.432E-01	2.757E-01	4.430E-01	3.574E-02	-0.323
		1271.85		1.103E-01	5.607E-01	9.416E-01	8.092E-02	0.117
HO-166M		80.57		-5.457E-02	3.123E-01	3.548E-01	3.083E-02	-0.154
		184.41		1.583E-01	4.349E-02	6.805E-02	7.095E-03	2.326
		280.46		-2.671E-02	8.961E-02	1.225E-01	1.711E-02	-0.218
		410.95		2.150E-01	2.138E-01	3.651E-01	3.446E-02	0.589
		711.68	*	-2.449E-03	4.848E-02	7.879E-02	8.471E-03	-0.031
		752.31		-1.123E-02	2.327E-01	3.762E-01	4.098E-02	-0.030
		810.29		-1.025E-02	4.743E-02	7.827E-02	8.653E-03	-0.131
TM-171		51.35		7.985E+00	2.442E+01	4.139E+01	3.229E+00	0.193
		52.39		2.794E+00	1.306E+01	2.144E+01	1.646E+00	0.130
		59.40		-2.990E+00	2.305E+01	3.416E+01	2.414E+00	-0.088
		66.72	*	-2.353E+01	2.566E+01	3.590E+01	2.713E+00	-0.655
LU-176	+	88.36		6.853E-01	1.967E-01	3.200E-01	3.026E-02	2.141
		201.83		-3.133E-02	2.691E-02	4.206E-02	4.647E-03	-0.745
		306.84	*	-5.713E-03	2.119E-02	3.422E-02	4.489E-03	-0.167
		401.10		1.340E+00	5.393E+00	8.964E+00	8.399E-01	0.150
LU-177		112.95		7.185E-01	1.524E+00	2.424E+00	2.015E-01	0.296
	+	208.36	*	3.387E+00	1.446E+00	1.841E+00	2.079E-01	1.839
LU-177M		52.97		5.290E-01	1.330E+00	2.194E+00	1.669E-01	0.241
		54.07		-7.240E-01	7.163E-01	1.122E+00	8.400E-02	-0.646
		61.30		1.420E+00	1.266E+00	1.969E+00	1.416E-01	0.721
		121.62		-3.976E-01	3.545E-01	5.351E-01	4.408E-02	-0.743
		147.16		-4.975E-01	6.673E-01	9.550E-01	8.611E-02	-0.521
		171.86		-1.001E-01	4.311E-01	7.112E-01	7.112E-02	-0.141
		218.09		-4.154E-01	7.531E-01	1.201E+00	1.399E-01	-0.346
		268.79		7.401E-01	8.987E-01	1.285E+00	1.747E-01	0.576
		319.02		-3.045E-02	2.219E-01	3.691E-01	4.677E-02	-0.082
		367.43		2.669E-01	7.344E-01	1.236E+00	1.304E-01	0.216
		413.65	*	-4.109E-02	1.524E-01	2.460E-01	2.327E-02	-0.167
HF-181		56.28		-2.038E-01	7.510E-01	1.241E+00	9.037E-02	-0.164
		57.53		7.792E-02	4.053E-01	6.795E-01	4.884E-02	0.115
		65.20		-3.725E-02	8.452E-01	1.234E+00	9.199E-02	-0.030
		133.02		7.337E-02	6.325E-02	9.898E-02	8.437E-03	0.741
		136.25		-2.137E-01	4.001E-01	6.643E-01	5.731E-02	-0.322
		345.85		-4.144E-02	1.896E-01	2.699E-01	3.121E-02	-0.154
		482.03	*	-8.465E-03	3.657E-02	5.825E-02	5.751E-03	-0.145
W-181		56.28		-7.939E-02	2.941E-01	4.859E-01	3.540E-02	-0.163
		57.53		3.042E-02	1.589E-01	2.663E-01	1.914E-02	0.114
		65.20	*	-1.449E-02	3.287E-01	4.799E-01	3.577E-02	-0.030
TA-182		67.75		3.232E-03	9.217E-02	1.452E-01	1.107E-02	0.022
		100.10		1.043E-01	1.547E-01	2.544E-01	2.205E-02	0.410
		152.43		2.030E-01	3.022E-01	5.167E-01	4.767E-02	0.393
		222.10		1.289E-01	3.103E-01	5.135E-01	6.059E-02	0.251
	+	1001.68		5.741E+00	3.433E+00	3.350E+00	3.452E-01	1.713
	+	1121.28		6.120E-01	1.946E-01	2.830E-01	2.499E-02	2.162

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1189.05		2.300E-02	2.463E-01	4.129E-01	3.358E-02	0.056
		1221.42	*	-4.550E-02	1.576E-01	2.571E-01	2.138E-02	-0.177
		1230.97		2.932E-01	3.924E-01	5.957E-01	4.985E-02	0.492
RE-183		57.98		6.523E-02	1.559E-01	2.631E-01	1.883E-02	0.248
		59.32		-1.014E-02	9.485E-02	1.407E-01	9.952E-03	-0.072
		67.20		-1.605E-01	1.810E-01	2.536E-01	1.924E-02	-0.633
		162.32	*	6.219E-02	1.017E-01	1.727E-01	1.667E-02	0.360
	+	208.81		3.061E+00	1.307E+00	1.657E+00	1.873E-01	1.848
		291.72		-6.571E-01	9.210E-01	1.292E+00	1.761E-01	-0.509
RE-184		57.98		2.405E-01	5.746E-01	9.700E-01	6.941E-02	0.248
		59.32		-3.734E-02	3.493E-01	5.182E-01	3.666E-02	-0.072
		67.20		-5.914E-01	6.669E-01	9.344E-01	7.090E-02	-0.633
		161.27		1.918E-01	3.262E-01	5.543E-01	5.322E-02	0.346
		216.55		1.202E-01	2.283E-01	3.800E-01	4.405E-02	0.316
		252.85	*	-2.085E-01	2.118E-01	3.242E-01	4.207E-02	-0.643
		318.01		-2.934E-01	3.815E-01	6.143E-01	7.808E-02	-0.478
		792.07		5.856E-02	8.559E-01	1.387E+00	1.527E-01	0.042
		903.28		8.253E-01	9.851E-01	1.495E+00	1.669E-01	0.552
		920.93		-3.590E-01	3.908E-01	5.557E-01	6.131E-02	-0.646
OS-185		59.72		-3.725E-02	2.535E-01	3.752E-01	2.656E-02	-0.099
		61.14		9.424E-02	1.372E-01	2.101E-01	1.509E-02	0.449
		69.30		-1.407E-01	2.471E-01	3.962E-01	3.065E-02	-0.355
		592.07		8.185E-01	2.265E+00	3.565E+00	3.691E-01	0.230
		646.12	*	-3.254E-02	3.527E-02	5.445E-02	5.722E-03	-0.598
		717.42		-2.240E-01	7.522E-01	1.104E+00	1.190E-01	-0.203
		874.81		-2.026E-01	4.670E-01	7.519E-01	8.403E-02	-0.269
		880.27		1.080E-02	6.114E-01	1.016E+00	1.137E-01	0.011
RE-188		155.03	*	9.638E-02	1.528E-01	2.608E-01	2.434E-02	0.370
		477.96		1.929E+00	2.635E+00	4.419E+00	4.352E-01	0.437
		633.10		8.076E-01	2.256E+00	3.797E+00	3.977E-01	0.213
W-188	+	63.58		1.965E+02	6.379E+01	8.627E+01	6.339E+00	2.278
		227.08		8.922E+00	1.174E+01	1.957E+01	2.347E+00	0.456
		290.67	*	-3.296E+00	7.262E+00	1.038E+01	1.418E+00	-0.318
IR-192	+	295.96		1.110E+00	2.211E-01	2.429E-01	3.286E-02	4.570
		308.46		-7.349E-02	8.122E-02	1.300E-01	1.702E-02	-0.565
		316.51	*	-3.680E-02	2.965E-02	4.633E-02	5.922E-03	-0.794
		468.07		-1.134E-03	6.360E-02	8.870E-02	9.175E-03	-0.013
		604.41		-1.739E-01	4.478E-01	6.175E-01	8.802E-02	-0.282
		612.46		4.462E+00	1.000E+00	1.562E+00	1.797E-01	2.856
AU-195		65.12		3.919E-03	1.533E-01	2.245E-01	1.672E-02	0.017
		66.83		-7.803E-02	8.479E-02	1.186E-01	8.971E-03	-0.658
	+	75.70		1.180E+00	2.319E-01	3.788E-01	3.121E-02	3.115
		98.88	*	3.387E-01	2.039E-01	3.303E-01	2.881E-02	1.025
	+	129.76		4.213E+00	2.919E+00	4.400E+00	3.708E-01	0.957
TL-200		367.94	*	2.585E-04	2.919E+00	Half-Life too short		
		579.30		4.566E-03	2.919E+00	Half-Life too short		
		828.27		1.907E-03	2.919E+00	Half-Life too short		
		1205.75		4.779E-04	2.919E+00	Half-Life too short		
TL-201		68.90		-2.013E+00	3.895E+00	6.257E+00	4.822E-01	-0.322

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		1.247E+00	2.487E+00	3.713E+00	2.913E-01	0.336
		80.30		-4.939E-01	5.710E+00	6.529E+00	5.656E-01	-0.076
		135.34		-5.517E+00	2.194E+01	3.681E+01	3.165E+00	-0.150
		167.43	*	-1.496E+00	6.158E+00	1.018E+01	1.003E+00	-0.147
TL-202		68.90		-1.828E-01	3.537E-01	5.683E-01	4.379E-02	-0.322
		70.82		1.129E-01	2.253E-01	3.362E-01	2.638E-02	0.336
		80.30		-4.475E-02	5.173E-01	5.915E-01	5.124E-02	-0.076
		439.56	*	-2.699E-02	5.995E-02	9.519E-02	9.163E-03	-0.284
HG-203		70.83		4.931E-01	9.799E-01	1.461E+00	1.918E-01	0.338
		72.87		8.099E-01	5.812E-01	8.847E-01	1.133E-01	0.915
	+	82.60		1.813E+00	1.035E+00	1.548E+00	2.155E-01	1.171
		279.20	*	3.530E-02	4.359E-02	6.327E-02	8.956E-03	0.558
BI-207		72.80		2.112E-01	1.682E-01	2.576E-01	2.060E-02	0.820
	+	74.97		6.546E-01	1.287E-01	1.889E-01	1.545E-02	3.465
	+	84.90		3.157E-01	1.770E-01	2.752E-01	2.515E-02	1.147
		569.67		2.064E-02	2.565E-02	4.433E-02	4.554E-03	0.466
		1063.62	*	-1.103E-02	4.441E-02	7.109E-02	6.825E-03	-0.155
		1770.23		6.666E-01	4.206E-01	7.457E-01	6.199E-02	0.894
TL-207		81.07		-1.395E-01	2.562E-01	2.835E-01	2.477E-02	-0.492
	+	83.78		2.081E-01	1.167E-01	1.855E-01	1.673E-02	1.122
		94.90		6.747E-01	2.260E-01	3.551E-01	3.174E-02	1.900
		122.32		-3.125E-01	1.630E+00	2.564E+00	2.282E-01	-0.122
	+	144.24		8.457E-01	6.647E-01	1.100E+00	1.089E-01	0.769
		154.21		1.036E-01	3.581E-01	6.055E-01	6.116E-02	0.171
	+	269.46		3.806E-01	2.234E-01	3.107E-01	4.267E-02	1.225
		323.87	*	1.833E-01	6.582E-01	9.711E-01	1.930E-01	0.189
	+	338.28		6.689E+00	1.663E+00	2.120E+00	3.136E-01	3.155
		445.03		1.437E-01	2.000E+00	3.264E+00	4.194E-01	0.044
PO-209		260.50		3.483E+00	8.723E+00	1.426E+01	1.893E+00	0.244
		262.80		-8.417E+00	2.450E+01	3.877E+01	5.181E+00	-0.217
		896.60	*	2.145E+00	6.269E+00	1.061E+01	1.188E+00	0.202
BI-210		46.50	*	1.302E+00	2.770E+00	4.639E+00	4.310E-01	0.281
PB-210		46.50	*	1.302E+00	2.770E+00	4.639E+00	4.310E-01	0.281
PO-210		46.50	*	1.302E+00	2.770E+00	4.639E+00	3.901E-01	0.281
PB-211		404.84	*	-5.433E-01	8.491E-01	1.230E+00	7.723E-01	-0.442
		427.08		-1.846E+00	2.100E+00	2.709E+00	1.687E+00	-0.681
		831.96		-6.322E-01	1.064E+00	1.582E+00	9.974E-01	-0.400
BI-212	+	727.18	*	1.336E+00	4.464E-01	5.465E-01	6.527E-02	2.444
		785.46		2.152E+00	1.483E+00	2.581E+00	2.837E-01	0.834
		1620.62		2.593E-01	1.081E+00	1.841E+00	1.605E-01	0.141
PO-215		81.07		-1.395E-01	2.562E-01	2.835E-01	2.477E-02	-0.492
	+	83.78		2.081E-01	1.167E-01	1.855E-01	1.673E-02	1.122
		94.90		6.747E-01	2.260E-01	3.551E-01	3.174E-02	1.900
		122.32		-3.125E-01	1.630E+00	2.564E+00	2.282E-01	-0.122
	+	144.24		8.457E-01	6.647E-01	1.100E+00	1.089E-01	0.769
		154.21		1.036E-01	3.581E-01	6.055E-01	6.116E-02	0.171
	+	269.46		3.806E-01	2.234E-01	3.107E-01	4.267E-02	1.225
		323.87	*	1.833E-01	6.582E-01	9.711E-01	1.930E-01	0.189
	+	338.28		6.689E+00	1.663E+00	2.120E+00	3.136E-01	3.155

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.437E-01	2.000E+00	3.264E+00	4.194E-01	0.044
RN-219	+	271.23		4.883E-01	2.878E-01	3.917E-01	5.803E-02	1.247
		401.81	*	4.726E-02	3.332E-01	5.508E-01	8.521E-02	0.086
RN-220		549.76	*	-1.244E+01	2.148E+01	3.466E+01	3.533E+00	-0.359
RA-223		81.07		-1.395E-01	2.562E-01	2.835E-01	2.477E-02	-0.492
	+	83.78		2.081E-01	1.167E-01	1.855E-01	1.673E-02	1.122
		94.90		6.747E-01	2.260E-01	3.551E-01	3.174E-02	1.900
		122.32		-3.125E-01	1.630E+00	2.564E+00	2.282E-01	-0.122
	+	144.24		8.457E-01	6.647E-01	1.100E+00	1.089E-01	0.769
		154.21		1.036E-01	3.581E-01	6.055E-01	6.116E-02	0.171
	+	269.46		3.806E-01	2.234E-01	3.107E-01	4.267E-02	1.225
		323.87	*	1.833E-01	6.582E-01	9.711E-01	1.930E-01	0.189
	+	338.28		6.689E+00	1.663E+00	2.120E+00	3.136E-01	3.155
		445.03		1.437E-01	2.000E+00	3.264E+00	4.194E-01	0.044
AC-227		79.80		7.017E-01	1.598E+00	2.165E+00	4.655E-01	0.324
		236.00		9.970E-01	2.993E-01	4.279E-01	6.455E-02	2.330
		256.20	*	-4.944E-02	3.423E-01	5.481E-01	1.000E-01	-0.090
		286.10		3.775E-01	1.441E+00	2.325E+00	3.962E-01	0.162
	+	299.80		3.519E+00	1.654E+00	2.240E+00	4.536E-01	1.571
		304.40		1.200E+00	1.721E+00	2.599E+00	5.451E-01	0.462
		334.20		1.163E+00	3.224E+00	3.264E+00	6.909E-01	0.356
TH-227		79.80		7.017E-01	1.598E+00	2.165E+00	4.714E-01	0.324
	+	94.00		1.784E+01	5.128E+00	3.847E+00	8.437E-01	4.638
		236.00		9.970E-01	2.948E-01	4.279E-01	6.057E-02	2.330
		256.20	*	-4.944E-02	3.424E-01	5.481E-01	1.128E-01	-0.090
		286.10		3.775E-01	1.489E+00	2.325E+00	2.347E+00	0.162
	+	299.80		3.519E+00	1.654E+00	2.240E+00	4.536E-01	1.571
		304.40		1.200E+00	1.721E+00	2.599E+00	5.451E-01	0.462
		334.20		1.163E+00	3.224E+00	3.264E+00	6.909E-01	0.356
TH-229	+	85.43		3.116E-01	1.747E-01	2.774E-01	2.552E-02	1.123
	+	88.47		3.945E-01	1.133E-01	1.842E-01	1.740E-02	2.142
		100.00		1.706E-01	1.597E-01	2.659E-01	2.305E-02	0.642
		193.63	*	-2.272E-01	4.659E-01	7.540E-01	8.106E-02	-0.301
		210.97		2.005E+00	7.996E-01	1.236E+00	1.407E-01	1.622
PA-231		283.67	*	-3.835E-01	1.501E+00	2.282E+00	4.260E-01	-0.168
	+	301.29		1.408E+00	6.380E-01	9.203E-01	1.463E-01	1.529
TH-231		81.07		-1.395E-01	2.562E-01	2.835E-01	2.477E-02	-0.492
	+	83.78		2.081E-01	1.167E-01	1.855E-01	1.673E-02	1.122
		94.90		6.747E-01	2.260E-01	3.551E-01	3.174E-02	1.900
		122.32		-3.125E-01	1.630E+00	2.564E+00	2.282E-01	-0.122
	+	144.24		8.457E-01	6.647E-01	1.100E+00	1.089E-01	0.769
		154.21		1.036E-01	3.581E-01	6.055E-01	6.116E-02	0.171
	+	269.46		3.806E-01	2.234E-01	3.107E-01	4.267E-02	1.225
		323.87	*	1.833E-01	6.582E-01	9.711E-01	1.930E-01	0.189
	+	338.28		6.689E+00	1.663E+00	2.120E+00	3.136E-01	3.155
		445.03		1.437E-01	2.000E+00	3.264E+00	4.194E-01	0.044
U-231	+	84.21		8.879E+00	4.980E+00	7.813E+00	7.083E-01	1.136
	+	92.29		1.746E+01	3.602E+00	4.219E+00	3.847E-01	4.137
		95.87	*	-4.580E-01	1.023E+00	1.438E+00	1.277E-01	-0.319

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-4.906E-01	1.904E+00	3.017E+00	2.536E-01	-0.163
PA-233	+	75.28		1.910E+01	4.470E+00	5.701E+00	8.619E-01	3.351
	+	86.59		5.656E+00	2.168E+00	2.590E+00	7.006E-01	2.184
	+	300.12		9.811E-01	4.523E-01	6.293E-01	1.135E-01	1.559
		311.98	*	3.975E-02	5.343E-02	9.197E-02	1.205E-02	0.432
		340.50		2.789E+00	9.926E-01	1.183E+00	2.976E-01	2.358
		398.62		-7.394E-01	1.739E+00	2.776E+00	7.461E-01	-0.266
		415.76		-1.135E+00	1.429E+00	2.207E+00	4.835E-01	-0.514
PA-234	+	63.00		5.703E+00	1.992E+00	2.569E+00	3.805E-01	2.220
		94.67		7.078E-01	1.849E-01	2.741E-01	3.464E-02	2.582
		98.44		7.467E-02	9.770E-02	1.319E-01	7.362E-02	0.566
		99.86		4.800E-01	4.064E-01	6.784E-01	5.885E-02	0.708
		111.00		1.320E-02	1.705E-01	2.730E-01	3.247E-02	0.048
		131.20		2.372E-02	1.060E-01	1.603E-01	1.358E-02	0.148
		152.70		9.790E-02	2.937E-01	4.970E-01	8.631E-02	0.197
	+	186.00		7.679E+00	3.044E+00	2.610E+00	8.295E-01	2.942
		226.40		1.795E-01	3.694E-01	6.106E-01	9.521E-02	0.294
		227.20		4.125E-01	3.962E-01	6.649E-01	7.975E-02	0.620
		248.90		7.921E-01	7.901E-01	1.206E+00	2.935E-01	0.657
		293.70		5.607E+00	1.378E+00	1.471E+00	2.975E-01	3.811
		369.80		1.971E-01	7.053E-01	1.179E+00	2.661E-01	0.167
		568.70		3.916E-01	8.376E-01	1.427E+00	1.465E-01	0.275
		569.50		1.660E-01	2.266E-01	3.904E-01	4.010E-02	0.425
		574.00		-3.797E-01	1.242E+00	2.030E+00	2.088E-01	-0.187
		699.00		-1.404E-01	6.209E-01	9.999E-01	2.010E-01	-0.140
		706.10		6.815E-01	9.218E-01	1.483E+00	6.682E-01	0.459
		733.00		1.016E-02	3.500E-01	4.883E-01	1.130E-01	0.021
		742.81		-6.179E-02	1.139E+00	1.842E+00	1.244E+00	-0.034
		796.30		9.011E-01	7.884E-01	1.297E+00	3.620E-01	0.695
		805.60		4.094E-01	7.904E-01	1.348E+00	4.235E-01	0.304
		819.60		-4.357E-01	1.007E+00	1.613E+00	6.236E-01	-0.270
		826.30		-1.866E-01	6.613E-01	1.075E+00	4.870E-01	-0.174
		831.60		-6.542E-01	5.679E-01	7.933E-01	2.432E-01	-0.825
		876.40		-3.608E-02	6.576E-01	1.086E+00	1.119E+00	-0.033
		880.51		9.185E-03	2.215E-01	3.688E-01	4.125E-02	0.025
		883.24		-1.367E-01	2.502E-01	3.705E-01	2.504E-01	-0.369
		899.00		-4.736E-01	7.668E-01	1.173E+00	5.196E-01	-0.404
		925.00		-6.010E-02	9.105E-01	1.497E+00	1.647E-01	-0.040
		926.50		-6.178E-02	1.403E-01	2.230E-01	5.837E-02	-0.277
		946.00	*	1.746E-01	2.447E-01	4.190E-01	8.329E-02	0.417
		949.00		2.266E-01	3.597E-01	6.169E-01	6.665E-02	0.367
		980.50		1.013E-01	5.752E-01	9.571E-01	1.007E-01	0.106
		1394.10		-7.308E-01	1.069E+00	1.450E+00	9.446E-01	-0.504
PA-234M		766.42		1.117E+01	1.155E+01	1.725E+01	8.829E+00	0.647
	+	1001.03	*	1.304E+01	7.824E+00	7.658E+00	8.776E-01	1.703
NP-236		94.67		5.420E-01	1.321E-01	2.084E-01	1.866E-02	2.601
		98.44		5.644E-02	6.698E-02	9.972E-02	8.718E-03	0.566
		111.00		9.988E-03	1.290E-01	2.065E-01	1.723E-02	0.048
		160.31	*	-2.475E-02	7.335E-02	1.212E-01	1.159E-02	-0.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.382E-01	1.354E-01	2.292E-01	1.991E-02	1.039
		117.00	*	2.420E-02	1.745E-01	2.789E-01	2.306E-02	0.087
	+	209.75		2.416E+00	1.032E+00	1.287E+00	1.459E-01	1.878
		228.18		1.591E-01	2.055E-01	3.427E-01	4.123E-02	0.464
	+	277.60		2.915E-01	2.145E-01	2.727E-01	3.802E-02	1.069
		334.30		6.444E-01	1.823E+00	1.847E+00	2.228E-01	0.349
AM-241		59.54	*	-2.269E-02	1.337E-01	1.977E-01	1.545E-02	-0.115
CM-243		99.55		2.451E-01	1.393E-01	2.358E-01	2.049E-02	1.039
		103.76	*	-3.191E-02	8.691E-02	1.375E-01	1.172E-02	-0.232
		117.00		2.489E-02	1.795E-01	2.870E-01	2.372E-02	0.087
	+	209.75		2.382E+00	1.017E+00	1.268E+00	1.438E-01	1.878
		228.18		1.608E-01	2.076E-01	3.463E-01	4.166E-02	0.464
	+	277.60		2.939E-01	2.162E-01	2.750E-01	3.833E-02	1.069
AM-246		798.80		-1.059E-01	1.191E-01	1.796E-01	1.980E-02	-0.590
		1036.00		-9.006E-02	2.327E-01	3.686E-01	3.660E-02	-0.244
		1062.04		2.460E-02	1.914E-01	3.148E-01	3.028E-02	0.078
		1078.86	*	-1.074E-02	1.078E-01	1.741E-01	1.638E-02	-0.062
CM-247	+	278.00		1.209E+00	8.894E-01	1.135E+00	1.583E-01	1.065
		287.40		1.847E-01	1.206E+00	1.869E+00	2.572E-01	0.099
		402.60	*	-9.994E-04	2.945E-02	4.824E-02	4.525E-03	-0.021
CF-249		252.85		-7.824E-01	7.947E-01	1.217E+00	1.579E-01	-0.643
		333.44		1.159E-01	2.369E-01	2.439E-01	2.950E-02	0.475
		387.95	*	-1.001E-02	3.515E-02	5.707E-02	5.424E-03	-0.175
CF-251		176.60	*	3.698E-02	1.135E-01	1.904E-01	1.934E-02	0.194
		227.00		2.501E-01	3.517E-01	5.856E-01	7.019E-02	0.427
		285.00		-3.538E-01	1.668E+00	2.638E+00	3.649E-01	-0.134

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994008      *
* Acquisition date : 12-FEB-2010 13:26:37 Detector SN#     :               *
* Detector ID        : GAM22               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.17      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245994008           Analyst initials: MXR1          *
* Batch Number       : 948812               Sample Quantity : 1.3554E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.029E+01	2.199E+00	4.215E-01	0.000E+00
CD-109	2.939E+00	8.270E-01	1.390E+00	0.000E+00
SN-126	2.889E-01	8.129E-02	1.351E-01	0.000E+00
BA-137M	1.708E-01	6.298E-02	4.696E-02	0.000E+00
CS-137	1.805E-01	6.658E-02	4.964E-02	0.000E+00
TL-208	5.124E-01	8.267E-02	4.793E-02	0.000E+00
BI-211	3.750E+00	5.970E-01	2.785E-01	0.000E+00
PB-212	1.678E+00	2.367E-01	8.344E-02	0.000E+00
PO-212	1.678E+00	2.367E-01	8.344E-02	0.000E+00
BI-214	1.138E+00	1.806E-01	9.373E-02	0.000E+00
PB-214	1.305E+00	2.181E-01	9.707E-02	0.000E+00
PO-214	1.305E+00	2.181E-01	9.707E-02	0.000E+00
PO-216	1.678E+00	2.367E-01	8.344E-02	0.000E+00
PO-218	1.305E+00	2.181E-01	9.707E-02	0.000E+00
RA-224	4.741E+00	1.230E+00	9.484E-01	0.000E+00
RA-226	1.138E+00	1.806E-01	9.373E-02	0.000E+00
AC-228	1.557E+00	3.051E-01	1.912E-01	0.000E+00
RA-228	1.557E+00	3.051E-01	1.912E-01	0.000E+00
TH-228	1.703E+00	2.403E-01	8.470E-02	0.000E+00
TH-230	1.138E+00	1.806E-01	9.373E-02	0.000E+00
TH-232	1.557E+00	3.051E-01	1.912E-01	0.000E+00
TH-234	4.893E+00	1.731E+00	1.714E+00	0.000E+00
U-234	1.138E+00	1.806E-01	9.373E-02	0.000E+00
U-235	2.610E-01	2.044E-01	3.359E-01	0.000E+00
NP-237	8.484E-01	2.940E-01	3.179E-01	0.000E+00
U-238	4.893E+00	1.731E+00	1.714E+00	0.000E+00
AM-243	3.647E-01	7.025E-02	8.124E-02	0.000E+00
ANH-511	1.080E-01	6.021E-02	4.008E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	9.417E-02	2.692E-01	4.627E-01	0.000E+00	NOT IDENT.
NA-22	-1.169E-02	3.521E-02	5.833E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.882E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.311E-03	2.023E-02	3.474E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.707E-02	6.913E-02	0.000E+00	FAIL ABUN
SC-46	4.389E-03	3.235E-02	5.587E-02	0.000E+00	FAIL ABUN
V-48	-4.358E-02	5.523E-02	8.776E-02	0.000E+00	NOT IDENT.
CR-51	2.734E-02	3.142E-01	5.552E-01	0.000E+00	NOT IDENT.
MN-52	-1.307E-01	1.767E-01	2.714E-01	0.000E+00	NOT IDENT.
MN-54	-6.208E-03	3.067E-02	5.228E-02	0.000E+00	NOT IDENT.
CO-56	-2.222E-02	3.284E-02	5.408E-02	0.000E+00	FAIL ABUN
CO-57	-1.044E-02	2.291E-02	3.819E-02	0.000E+00	NOT IDENT.
CO-58	7.857E-03	3.059E-02	5.375E-02	0.000E+00	NOT IDENT.
FE-59	-6.451E-02	6.770E-02	1.039E-01	0.000E+00	FAIL ABUN
CO-60	-2.990E-02	3.107E-02	4.784E-02	0.000E+00	NOT IDENT.
ZN-65	1.201E-01	8.585E-02	1.368E-01	0.000E+00	NOT IDENT.
GE-68	-6.209E-01	9.493E-01	1.506E+00	0.000E+00	NOT IDENT.
AS-73	-1.812E-02	6.714E-01	1.186E+00	0.000E+00	NOT IDENT.
AS-74	-1.204E-02	7.677E-02	1.313E-01	0.000E+00	NOT IDENT.
SE-75	2.277E-03	4.310E-02	6.769E-02	0.000E+00	NOT IDENT.
BR-77	6.429E+00	8.760E+00	1.521E+01	0.000E+00	FAIL ABUN
SR-82	-2.696E-01	3.168E-01	4.983E-01	0.000E+00	NOT IDENT.
RB-83	3.858E-02	5.858E-02	1.014E-01	0.000E+00	NOT IDENT.
RB-84	-2.634E-02	5.442E-02	9.011E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.710E+00	1.284E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.951E-02	6.580E-02	0.000E+00	NOT IDENT.
RB-86	-5.323E-01	6.193E-01	9.659E-01	0.000E+00	NOT IDENT.
Y-88	-1.142E-02	3.031E-02	4.840E-02	0.000E+00	NOT IDENT.
ZR-88	2.898E-05	2.618E-02	4.514E-02	0.000E+00	NOT IDENT.
Y-91	4.538E+00	1.361E+01	2.376E+01	0.000E+00	NOT IDENT.
NB-94	-9.309E-03	2.823E-02	4.687E-02	0.000E+00	NOT IDENT.
NB-95	4.463E-02	3.672E-02	6.517E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.267E-01	2.019E-01	0.000E+00	NOT IDENT.
ZR-95	-4.568E-03	5.828E-02	9.736E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.180E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.699E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.948E+00	9.199E+00	1.526E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.308E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.760E-02	3.134E-02	5.472E-02	0.000E+00	NOT IDENT.
RH-102	-6.388E-03	2.414E-02	4.015E-02	0.000E+00	NOT IDENT.
RU-103	5.525E-03	3.304E-02	5.605E-02	0.000E+00	FAIL ABUN
RH-106	-1.551E-01	2.468E-01	4.057E-01	0.000E+00	FAIL ABUN
RU-106	-1.551E-01	2.463E-01	4.057E-01	0.000E+00	FAIL ABUN
AG-108M	1.235E-02	2.753E-02	4.799E-02	0.000E+00	NOT IDENT.
AG-110M	2.767E-02	3.086E-02	4.854E-02	0.000E+00	NOT IDENT.
IN-111	-4.558E-01	1.034E+00	1.504E+00	0.000E+00	NOT IDENT.
IN-113M	1.751E-02	3.799E-02	6.685E-02	0.000E+00	NOT IDENT.
SN-113	1.751E-02	3.799E-02	6.685E-02	0.000E+00	NOT IDENT.
IN-114M	1.500E-01	1.787E-01	2.850E-01	0.000E+00	NOT IDENT.
CD-115	-3.972E-01	8.554E+00	1.491E+01	0.000E+00	NOT IDENT.
SN-117M	-1.373E-02	4.875E-02	8.612E-02	0.000E+00	NOT IDENT.
SB-122	3.986E-01	1.657E+00	2.909E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.785E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-9.362E-03	2.539E-02	4.472E-02	0.000E+00	NOT IDENT.
I-124	-1.456E-02	6.319E-01	9.345E-01	0.000E+00	NOT IDENT.
SB-124	-2.301E-02	5.506E-02	8.774E-02	0.000E+00	FAIL ABUN
SB-125	-6.816E-02	7.601E-02	1.232E-01	0.000E+00	FAIL ABUN
TE-125M	-3.548E+00	8.437E+00	1.424E+01	0.000E+00	NOT IDENT.
I-126	1.795E-01	1.668E-01	2.641E-01	0.000E+00	NOT IDENT.
SB-126	3.298E-02	1.210E-01	1.796E-01	0.000E+00	FAIL ABUN
SB-127	7.048E-01	1.095E+00	1.923E+00	0.000E+00	NOT IDENT.
XE-127	-2.699E-02	4.526E-02	7.100E-02	0.000E+00	FAIL ABUN
I-131	-1.039E-01	9.288E-02	1.513E-01	0.000E+00	NOT IDENT.
TE-132	4.834E-01	6.116E-01	1.075E+00	0.000E+00	NOT IDENT.
BA-133	1.074E-02	3.983E-02	6.125E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	4.594E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.329E-02	3.820E-02	6.849E-02	0.000E+00	NOT IDENT.
CS-135	7.738E-02	1.697E-01	2.522E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.393E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.938E-02	8.252E-02	1.292E-01	0.000E+00	FAIL ABUN
CE-139	-1.636E-02	2.636E-02	4.579E-02	0.000E+00	NOT IDENT.
BA-140	-5.694E-02	2.089E-01	3.577E-01	0.000E+00	NOT IDENT.
LA-140	-5.380E-02	7.083E-02	1.113E-01	0.000E+00	FAIL ABUN
CE-141	9.269E-02	6.325E-02	1.054E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.222E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.819E-01	1.991E-01	3.275E-01	0.000E+00	NOT IDENT.
PM-144	2.851E-02	2.841E-02	5.060E-02	0.000E+00	NOT IDENT.

PR-144	1.932E+00	1.925E+00	3.429E+00	0.000E+00	NOT IDENT.
PM-146	-3.539E-02	3.688E-02	5.897E-02	0.000E+00	NOT IDENT.
ND-147	-3.539E-01	4.516E-01	7.499E-01	0.000E+00	NOT IDENT.
PM-149	-6.529E-01	8.336E+01	1.403E+02	0.000E+00	NOT IDENT.
EU-152	3.062E-02	1.195E-01	1.463E-01	0.000E+00	NOT IDENT.
GD-153	1.407E-03	7.466E-02	1.153E-01	0.000E+00	FAIL ABUN
EU-154	-2.864E-02	9.866E-02	1.639E-01	0.000E+00	NOT IDENT.
EU-155	1.143E-01	9.464E-02	1.689E-01	0.000E+00	FAIL ABUN
TB-160	9.714E-04	1.063E-01	1.824E-01	0.000E+00	FAIL ABUN
HO-166M	-2.449E-03	4.751E-02	8.007E-02	0.000E+00	NOT IDENT.
TM-171	-2.353E+01	2.515E+01	3.807E+01	0.000E+00	NOT IDENT.
LU-176	-5.713E-03	2.077E-02	3.531E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.417E+00	1.914E+00	0.000E+00	FAIL ABUN
LU-177M	-4.109E-02	1.493E-01	2.525E-01	0.000E+00	NOT IDENT.
HF-181	-8.465E-03	3.584E-02	5.963E-02	0.000E+00	NOT IDENT.
W-181	-1.449E-02	3.221E-01	5.090E-01	0.000E+00	NOT IDENT.
TA-182	-4.550E-02	1.545E-01	2.586E-01	0.000E+00	FAIL ABUN
RE-183	6.219E-02	9.962E-02	1.803E-01	0.000E+00	FAIL ABUN
RE-184	-2.085E-01	2.075E-01	3.358E-01	0.000E+00	NOT IDENT.
OS-185	-3.254E-02	3.456E-02	5.543E-02	0.000E+00	NOT IDENT.
RE-188	9.638E-02	1.498E-01	2.725E-01	0.000E+00	NOT IDENT.
W-188	-3.296E+00	7.117E+00	1.072E+01	0.000E+00	FAIL ABUN
IR-192	-3.680E-02	2.906E-02	4.779E-02	0.000E+00	FAIL ABUN
AU-195	3.387E-01	1.998E-01	3.479E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.549E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.496E+00	6.035E+00	1.062E+01	0.000E+00	NOT IDENT.
TL-202	-2.699E-02	5.875E-02	9.760E-02	0.000E+00	NOT IDENT.
HG-203	3.530E-02	4.272E-02	6.542E-02	0.000E+00	FAIL ABUN
BI-207	-1.103E-02	4.352E-02	7.169E-02	0.000E+00	FAIL ABUN
TL-207	1.833E-01	6.450E-01	1.001E+00	0.000E+00	FAIL ABUN
PO-209	2.145E+00	6.143E+00	1.073E+01	0.000E+00	NOT IDENT.
BI-210	1.302E+00	2.715E+00	4.950E+00	0.000E+00	NOT IDENT.
PB-210	1.302E+00	2.715E+00	4.950E+00	0.000E+00	NOT IDENT.
PO-210	1.302E+00	2.715E+00	4.950E+00	0.000E+00	NOT IDENT.
PB-211	-5.433E-01	8.322E-01	1.263E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.374E-01	5.551E-01	0.000E+00	FAIL ABUN
PO-215	1.833E-01	6.450E-01	1.001E+00	0.000E+00	FAIL ABUN
RN-219	4.726E-02	3.266E-01	5.656E-01	0.000E+00	FAIL ABUN
RN-220	-1.244E+01	2.105E+01	3.539E+01	0.000E+00	NOT IDENT.
RA-223	1.833E-01	6.450E-01	1.001E+00	0.000E+00	FAIL ABUN
AC-227	-4.944E-02	3.355E-01	5.675E-01	0.000E+00	FAIL ABUN
TH-227	-4.944E-02	3.355E-01	5.675E-01	0.000E+00	FAIL ABUN
TH-229	-2.272E-01	4.566E-01	7.846E-01	0.000E+00	FAIL ABUN
PA-231	-3.835E-01	1.471E+00	2.358E+00	0.000E+00	FAIL ABUN
TH-231	1.833E-01	6.450E-01	1.001E+00	0.000E+00	FAIL ABUN
U-231	-4.580E-01	1.002E+00	1.515E+00	0.000E+00	FAIL ABUN
PA-233	3.975E-02	5.236E-02	9.490E-02	0.000E+00	FAIL ABUN
PA-234	1.746E-01	2.398E-01	4.235E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	7.668E+00	7.732E+00	0.000E+00	FAIL ABUN
NP-236	-2.475E-02	7.188E-02	1.266E-01	0.000E+00	NOT IDENT.
NP-239	2.420E-02	1.710E-01	2.929E-01	0.000E+00	FAIL ABUN
AM-241	-2.269E-02	1.310E-01	2.100E-01	0.000E+00	NOT IDENT.
CM-243	-3.191E-02	8.518E-02	1.447E-01	0.000E+00	FAIL ABUN
AM-246	-1.074E-02	1.057E-01	1.755E-01	0.000E+00	NOT IDENT.
CM-247	-9.994E-04	2.886E-02	4.954E-02	0.000E+00	FAIL ABUN
CF-249	-1.001E-02	3.445E-02	5.865E-02	0.000E+00	NOT IDENT.
CF-251	3.698E-02	1.112E-01	1.985E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:27:14.86

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994008.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 13:26:37
Sample ID         : G245994008           Sample quantity  : 1.35540E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1492	10.67*	1.909E+00	2.029E+01	2.029E+01	11.06
CD-109	88.03	289	3.72*	7.479E+00	2.874E+00	2.939E+00	28.71
SN-126	64.28	290	9.60	4.325E+00	1.937E+00	1.937E+00	34.78
	86.94	289	8.90	7.479E+00	1.201E+00	1.201E+00	49.60
	87.57	289	37.00*	7.479E+00	2.889E-01	2.889E-01	28.71
BA-137M	661.65	199	89.98*	3.589E+00	1.706E-01	1.708E-01	37.63
CS-137	661.65	199	85.12*	3.589E+00	1.804E-01	1.805E-01	37.64
TL-208	277.35	92	6.80	6.181E+00	6.044E-01	6.044E-01	74.10
	510.84	168	21.60	4.298E+00	4.998E-01	4.998E-01	57.52
	583.14	612	84.20*	3.930E+00	5.124E-01	5.124E-01	16.46
	860.37	96	12.46	2.922E+00	7.305E-01	7.305E-01	46.77
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	947	12.94*	5.402E+00	3.750E+00	3.750E+00	16.24
PB-212	74.81	537	10.70	6.180E+00	2.249E+00	2.249E+00	21.76
	77.11	713	18.00	6.472E+00	1.694E+00	1.694E+00	15.37
	87.30	289	8.00	7.479E+00	1.336E+00	1.336E+00	30.40
	238.63	1813	44.60*	6.709E+00	1.678E+00	1.678E+00	14.39
	300.09	138	3.41	5.916E+00	1.899E+00	1.899E+00	44.87
PO-212	74.81	537	10.70	6.180E+00	2.249E+00	2.249E+00	21.76
	77.11	713	18.00	6.472E+00	1.694E+00	1.694E+00	15.37
	87.30	289	8.00	7.479E+00	1.336E+00	1.336E+00	30.40
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	1813	44.60*	6.709E+00	1.678E+00	1.678E+00	14.39
	300.09	138	3.41	5.916E+00	1.899E+00	1.899E+00	44.87
BI-214	609.31	725	46.30*	3.811E+00	1.138E+00	1.138E+00	16.19
	1120.29	166	15.10	2.346E+00	1.295E+00	1.295E+00	32.47
	1764.49	147	15.80	1.716E+00	1.504E+00	1.504E+00	24.16
PB-214	74.81	537	6.21	6.180E+00	3.876E+00	3.876E+00	21.00
	77.11	713	10.50	6.472E+00	2.904E+00	2.904E+00	17.15
	87.30	289	4.67	7.479E+00	2.289E+00	2.289E+00	29.73
	241.98	451	7.49	6.663E+00	2.500E+00	2.500E+00	27.06
	295.21	603	19.20	5.970E+00	1.456E+00	1.456E+00	20.85

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	947	37.20*	5.402E+00	1.305E+00	1.305E+00	17.06
PO-214	74.81	537	6.21	6.180E+00	3.876E+00	3.876E+00	21.00
	77.11	713	10.50	6.472E+00	2.904E+00	2.904E+00	17.15
	87.30	289	4.67	7.479E+00	2.289E+00	2.289E+00	29.73
	241.98	451	7.49	6.663E+00	2.500E+00	2.500E+00	27.06
	295.21	603	19.20	5.970E+00	1.456E+00	1.456E+00	20.85
	351.92	947	37.20*	5.402E+00	1.305E+00	1.305E+00	17.06
PO-216	74.81	537	10.70	6.180E+00	2.249E+00	2.249E+00	21.76
	77.11	713	18.00	6.472E+00	1.694E+00	1.694E+00	15.37
	87.30	289	8.00	7.479E+00	1.336E+00	1.336E+00	30.40
	238.63	1813	44.60*	6.709E+00	1.678E+00	1.678E+00	14.39
	300.09	138	3.41	5.916E+00	1.899E+00	1.899E+00	44.87
PO-218	74.81	537	6.21	6.180E+00	3.876E+00	3.876E+00	21.00
	77.11	713	10.50	6.472E+00	2.904E+00	2.904E+00	17.15
	87.30	289	4.67	7.479E+00	2.289E+00	2.289E+00	29.73
	241.98	451	7.49	6.663E+00	2.500E+00	2.500E+00	27.06
	295.21	603	19.20	5.970E+00	1.456E+00	1.456E+00	20.85
	351.92	947	37.20*	5.402E+00	1.305E+00	1.305E+00	17.06
RA-224	240.98	451	3.95*	6.663E+00	4.741E+00	4.741E+00	26.47
RA-226	609.31	725	46.30*	3.811E+00	1.138E+00	1.138E+00	16.19
	1120.29	166	15.10	2.346E+00	1.295E+00	1.295E+00	32.47
	1764.49	147	15.80	1.716E+00	1.504E+00	1.504E+00	24.16
AC-228	338.32	364	11.40	5.525E+00	1.602E+00	1.602E+00	46.57
	911.07	434	27.70*	2.789E+00	1.557E+00	1.557E+00	20.00
	969.11	197	16.60	2.648E+00	1.239E+00	1.239E+00	41.30
RA-228	338.32	364	11.40	5.525E+00	1.602E+00	1.602E+00	46.57
	911.07	434	27.70*	2.789E+00	1.557E+00	1.557E+00	20.00
	969.11	197	16.60	2.648E+00	1.239E+00	1.239E+00	41.30
TH-228	74.81	537	10.70	6.180E+00	2.249E+00	2.284E+00	19.69
	77.11	713	18.00	6.472E+00	1.694E+00	1.720E+00	15.37
	87.30	289	8.00	7.479E+00	1.336E+00	1.356E+00	28.71
	238.63	1813	44.60*	6.709E+00	1.678E+00	1.703E+00	14.39
	300.09	138	3.41	5.916E+00	1.899E+00	1.928E+00	73.61
TH-230	609.31	725	46.30*	3.811E+00	1.138E+00	1.138E+00	16.19
	1120.29	166	15.10	2.346E+00	1.295E+00	1.295E+00	32.47
	1764.49	147	15.80	1.716E+00	1.504E+00	1.504E+00	24.16
TH-232	338.32	364	11.40	5.525E+00	1.602E+00	1.602E+00	23.25
	911.07	434	27.70*	2.789E+00	1.557E+00	1.557E+00	20.00
	969.11	197	16.60	2.648E+00	1.239E+00	1.239E+00	41.30
TH-234	63.29	290	3.80*	4.325E+00	4.893E+00	4.893E+00	36.09
	92.38	710	5.41	7.875E+00	4.618E+00	4.618E+00	26.05
U-234	609.31	725	46.30*	3.811E+00	1.138E+00	1.138E+00	16.19
	1120.29	166	15.10	2.346E+00	1.295E+00	1.295E+00	32.47
	1764.49	147	15.80	1.716E+00	1.504E+00	1.504E+00	24.16
U-235	89.95	------	2.70	7.683E+00	------ Line Not Found		------
	93.35	710	4.50	7.875E+00	5.551E+00	5.551E+00	33.72
	105.00	------	2.10	8.370E+00	------ Line Not Found		------
	143.76	83	10.50*	8.362E+00	2.610E-01	2.610E-01	79.94
	163.35	------	4.70	8.031E+00	------ Line Not Found		------

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	185.71	422	54.00	7.606E+00	2.844E-01	2.844E-01	25.91
	205.31	------	4.70	7.253E+00	------ Line Not Found		------
NP-237	86.50	289	12.60*	7.479E+00	8.484E-01	8.484E-01	35.36
	95.87	------	2.60	8.032E+00	------ Line Not Found		------
U-238	63.29	290	3.80*	4.325E+00	4.893E+00	4.893E+00	36.09
	92.38	710	5.41	7.875E+00	4.618E+00	4.618E+00	20.64
AM-243	74.67	537	66.00*	6.180E+00	3.647E-01	3.647E-01	19.66
	86.72	289	0.34	7.479E+00	3.182E+01	3.182E+01	28.71
	117.66	------	0.55	8.550E+00	------ Line Not Found		------
	142.18	------	0.13	8.387E+00	------ Line Not Found		------
ANH-511	511.00	168	100.00*	4.298E+00	1.080E-01	1.080E-01	56.92

Flag: "*" = Keyline

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

Total number of lines in spectrum 33
Number of unidentified lines 0
Number of lines tentatively identified by NID 33 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.029E+01	2.029E+01	0.224E+01	11.06	
CD-109	464.00D	1.02	2.874E+00	2.939E+00	0.844E+00	28.71	
SN-126	1.00E+05Y	1.00	2.889E-01	2.889E-01	0.830E-01	28.71	
BA-137M	30.17Y	1.00	1.706E-01	1.708E-01	0.643E-01	37.63	
CS-137	30.17Y	1.00	1.804E-01	1.805E-01	0.679E-01	37.64	
TL-208	1.41E+10Y	1.00	5.124E-01	5.124E-01	0.844E-01	16.46	
BI-211	7.04E+08Y	1.00	3.750E+00	3.750E+00	0.609E+00	16.24	
PB-212	1.41E+10Y	1.00	1.678E+00	1.678E+00	0.242E+00	14.39	
PO-212	1.41E+10Y	1.00	1.678E+00	1.678E+00	0.242E+00	14.39	
BI-214	1600.00Y	1.00	1.138E+00	1.138E+00	0.184E+00	16.19	
PB-214	1600.00Y	1.00	1.305E+00	1.305E+00	0.223E+00	17.06	
PO-214	1600.00Y	1.00	1.305E+00	1.305E+00	0.223E+00	17.06	
PO-216	1.41E+10Y	1.00	1.678E+00	1.678E+00	0.242E+00	14.39	
PO-218	1600.00Y	1.00	1.305E+00	1.305E+00	0.223E+00	17.06	
RA-224	1.41E+10Y	1.00	4.741E+00	4.741E+00	1.255E+00	26.47	
RA-226	1600.00Y	1.00	1.138E+00	1.138E+00	0.184E+00	16.19	
AC-228	1.41E+10Y	1.00	1.557E+00	1.557E+00	0.311E+00	20.00	
RA-228	1.41E+10Y	1.00	1.557E+00	1.557E+00	0.311E+00	20.00	
TH-228	1.91Y	1.02	1.678E+00	1.703E+00	0.245E+00	14.39	
TH-230	4.47E+09Y	1.00	1.138E+00	1.138E+00	0.184E+00	16.19	
TH-232	1.41E+10Y	1.00	1.557E+00	1.557E+00	0.311E+00	20.00	
TH-234	4.47E+09Y	1.00	4.893E+00	4.893E+00	1.766E+00	36.09	
U-234	4.47E+09Y	1.00	1.138E+00	1.138E+00	0.184E+00	16.19	
U-235	7.04E+08Y	1.00	2.610E-01	2.610E-01	2.086E-01	79.94	
NP-237	2.14E+06Y	1.00	8.484E-01	8.484E-01	3.000E-01	35.36	
U-238	4.47E+09Y	1.00	4.893E+00	4.893E+00	1.766E+00	36.09	
AM-243	7380.00Y	1.00	3.647E-01	3.647E-01	0.717E-01	19.66	
ANH-511	1.00E+09Y	1.00	1.080E-01	1.080E-01	0.614E-01	56.92	
	Total Activity :		6.402E+01	6.411E+01			

Grand Total Activity : 6.402E+01 6.411E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.02	134	489	1.26	168.24	166	6	1.86E-02	55.4	7.20E+00	T
0	129.19	99	389	1.25	258.49	256	7	1.38E-02	68.8	8.53E+00	T
0	209.17	203	440	0.95	418.32	413	10	2.82E-02	41.2	7.19E+00	T
0	270.42	117	293	1.44	540.70	537	9	1.63E-02	57.1	6.27E+00	T
0	329.39	131	396	1.85	658.55	652	17	1.81E-02	72.0	5.61E+00	T
0	462.70	116	167	1.46	924.96	920	11	1.62E-02	46.6	4.58E+00	T
0	726.87	190	127	1.63	1453.00	1444	17	2.64E-02	31.2	3.34E+00	T
0	1000.89	102	108	2.36	2000.84	1990	24	1.42E-02	58.9	2.58E+00	T
0	1238.47	98	68	1.76	2475.94	2468	16	1.36E-02	44.0	2.16E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:27:21.46

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994008.CNF;1 *
* Acquisition date  : 12-FEB-2010 13:26:37  Detector SN#     :             *
* Detector ID       : GAM22                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:02.17          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245994008            Analyst initials: MXR1         *
* Batch Number      : 948812                Sample Quantity : 1.35540E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.029E+01	2.244E+00	4.205E-01	3.852E-02	48.241
CD-109	2.939E+00	8.439E-01	1.318E+00	1.250E-01	2.231
SN-126	2.889E-01	8.295E-02	1.280E-01	1.208E-02	2.257
BA-137M	1.708E-01	6.427E-02	4.615E-02	4.866E-03	3.701
CS-137	1.805E-01	6.794E-02	4.878E-02	5.151E-03	3.701
TL-208	5.124E-01	8.436E-02	4.699E-02	5.095E-03	10.905
BI-211	3.750E+00	6.092E-01	2.705E-01	3.157E-02	13.862
PB-212	1.678E+00	2.415E-01	8.047E-02	1.063E-02	20.851
PO-212	1.678E+00	2.415E-01	8.047E-02	1.063E-02	20.851
BI-214	1.138E+00	1.843E-01	9.197E-02	1.069E-02	12.374
PB-214	1.305E+00	2.226E-01	9.428E-02	1.202E-02	13.837
PO-214	1.305E+00	2.226E-01	9.428E-02	1.202E-02	13.837
PO-216	1.678E+00	2.415E-01	8.047E-02	1.063E-02	20.851
PO-218	1.305E+00	2.226E-01	9.428E-02	1.202E-02	13.837
RA-224	4.741E+00	1.255E+00	9.149E-01	1.145E-01	5.182
RA-226	1.138E+00	1.843E-01	9.197E-02	1.069E-02	12.374
AC-228	1.557E+00	3.113E-01	1.890E-01	2.504E-02	8.236
RA-228	1.557E+00	3.113E-01	1.890E-01	2.504E-02	8.236

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.703E+00	2.452E-01	8.169E-02	1.079E-02	20.851
TH-230	1.138E+00	1.843E-01	9.197E-02	1.069E-02	12.374
TH-232	1.557E+00	3.113E-01	1.890E-01	2.504E-02	8.236
TH-234	4.893E+00	1.766E+00	1.615E+00	2.812E-01	3.029
U-234	1.138E+00	1.843E-01	9.197E-02	1.069E-02	12.374
U-235	2.610E-01	2.086E-01	3.211E-01	5.664E-02	0.813
NP-237	8.484E-01	3.000E-01	3.011E-01	6.818E-02	2.817
U-238	4.893E+00	1.766E+00	1.615E+00	2.812E-01	3.029
AM-243	3.647E-01	7.168E-02	7.676E-02	6.257E-03	4.751
ANH-511	1.080E-01	6.144E-02	3.920E-02	3.927E-03	2.754

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.417E-02		2.747E-01	4.520E-01	4.717E-02	0.208
NA-22	-1.169E-02		3.593E-02	5.804E-02	5.002E-03	-0.201
NA-24	-8.067E-01		3.001E-01	Half-Life too short		
AL-26	3.311E-03		2.065E-02	3.480E-02	2.846E-03	0.095
TI-44	3.126E-01	+	4.803E-02	6.537E-02	5.543E-03	4.782
SC-46	4.389E-03		3.301E-02	5.522E-02	6.181E-03	0.079
V-48	-4.358E-02		5.635E-02	8.689E-02	9.113E-03	-0.502
CR-51	2.734E-02		3.207E-01	5.384E-01	6.971E-02	0.051
MN-52	-1.307E-01		1.803E-01	2.707E-01	2.419E-02	-0.483
MN-54	-6.208E-03		3.129E-02	5.160E-02	5.732E-03	-0.120
CO-56	-2.222E-02		3.351E-02	5.339E-02	5.944E-03	-0.416
CO-57	-1.044E-02		2.338E-02	3.639E-02	3.001E-03	-0.287
CO-58	7.857E-03		3.122E-02	5.303E-02	5.872E-03	0.148
FE-59	-6.451E-02		6.909E-02	1.031E-01	1.011E-02	-0.626
CO-60	-2.990E-02		3.170E-02	4.765E-02	4.249E-03	-0.628
ZN-65	1.201E-01		8.760E-02	1.358E-01	1.211E-02	0.885
GE-68	-6.209E-01		9.686E-01	1.493E+00	1.408E-01	-0.416
AS-73	-1.812E-02		6.851E-01	1.114E+00	8.420E-02	-0.016
AS-74	-1.204E-02		7.834E-02	1.288E-01	1.335E-02	-0.093
SE-75	2.277E-03		4.398E-02	6.541E-02	8.803E-03	0.035
BR-77	6.429E+00		8.939E+00	1.489E+01	1.498E+00	0.432
SR-82	-2.696E-01		3.232E-01	4.911E-01	5.386E-02	-0.549
RB-83	3.858E-02		5.977E-02	9.920E-02	9.984E-03	0.389
RB-84	-2.634E-02		5.553E-02	8.904E-02	9.958E-03	-0.296
KR-85	2.446E+01		7.868E+00	1.256E+01	1.260E+00	1.947
SR-85	1.253E-01		4.031E-02	6.436E-02	6.458E-03	1.947
RB-86	-5.323E-01		6.319E-01	9.580E-01	9.040E-02	-0.556
Y-88	-1.142E-02		3.093E-02	4.850E-02	3.921E-03	-0.235
ZR-88	2.898E-05		2.672E-02	4.394E-02	4.091E-03	0.001
Y-91	4.538E+00		1.389E+01	2.362E+01	1.942E+00	0.192
NB-94	-9.309E-03		2.880E-02	4.611E-02	4.941E-03	-0.202
NB-95	4.463E-02		3.747E-02	6.422E-02	7.022E-03	0.695
NB-95M	2.379E-01		1.293E-01	1.947E-01	2.574E-02	1.222

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	-4.568E-03		5.947E-02	9.592E-02	1.113E-02	-0.048
NB-97	7.970E-02		4.173E-02	Half-Life too short		
ZR-97	4.006E+00		8.670E-01	Half-Life too short		
MO-99	-1.948E+00		9.387E+00	1.503E+01	2.488E+00	-0.130
TC-99M	3.234E+10		1.688E+10	Half-Life too short		
RH-101	2.760E-02		3.198E-02	5.260E-02	5.738E-03	0.525
RH-102	-6.388E-03		2.463E-02	3.922E-02	3.857E-03	-0.163
RU-103	5.525E-03		3.372E-02	5.479E-02	8.223E-03	0.101
RH-106	-1.551E-01		2.518E-01	3.983E-01	5.816E-02	-0.389
RU-106	-1.551E-01		2.513E-01	3.983E-01	4.160E-02	-0.389
AG-108M	1.235E-02		2.809E-02	4.679E-02	4.632E-03	0.264
AG-110M	2.767E-02		3.149E-02	4.769E-02	5.126E-03	0.580
IN-111	-4.558E-01		1.055E+00	1.452E+00	1.842E-01	-0.314
IN-113M	1.751E-02		3.877E-02	6.506E-02	6.213E-03	0.269
SN-113	1.751E-02		3.877E-02	6.506E-02	6.213E-03	0.269
IN-114M	1.500E-01		1.824E-01	2.738E-01	2.911E-02	0.548
CD-115	-3.972E-01		8.729E+00	1.459E+01	1.474E+00	-0.027
SN-117M	-1.373E-02		4.974E-02	8.246E-02	7.820E-03	-0.166
SB-122	3.986E-01		1.690E+00	2.850E+00	2.921E-01	0.140
I-123	-1.764E+00		2.441E+00	Half-Life too short		
TE-123M	-9.362E-03		2.591E-02	4.282E-02	4.089E-03	-0.219
I-124	-1.456E-02		6.448E-01	9.167E-01	9.522E-02	-0.016
SB-124	-2.301E-02		5.619E-02	8.777E-02	7.808E-03	-0.262
SB-125	-6.816E-02		7.757E-02	1.201E-01	1.165E-02	-0.567
TE-125M	-3.548E+00		8.609E+00	1.354E+01	1.371E+00	-0.262
I-126	1.795E-01		1.703E-01	2.596E-01	2.743E-02	0.691
SB-126	3.298E-02		1.235E-01	1.768E-01	1.907E-02	0.187
SB-127	7.048E-01		1.117E+00	1.891E+00	2.453E-01	0.373
XE-127	-2.699E-02		4.618E-02	6.828E-02	7.568E-03	-0.395
I-131	-1.039E-01		9.478E-02	1.470E-01	1.629E-02	-0.706
TE-132	4.834E-01		6.241E-01	1.036E+00	1.844E-01	0.467
BA-133	1.074E-02		4.065E-02	5.950E-02	8.892E-03	0.181
I-133	-2.412E-03		2.344E-03	Half-Life too short		
CS-134	5.329E-02		3.898E-02	6.754E-02	7.476E-03	0.789
CS-135	7.738E-02		1.731E-01	2.437E-01	3.526E-02	0.317
I-135	8.422E+08		1.731E+09	Half-Life too short		
CS-136	-6.938E-02		8.421E-02	1.281E-01	1.295E-02	-0.542
CE-139	-1.636E-02		2.690E-02	4.387E-02	4.303E-03	-0.373
BA-140	-5.694E-02		2.132E-01	3.501E-01	1.175E-01	-0.163
LA-140	-5.380E-02		7.227E-02	1.112E-01	9.748E-03	-0.484
CE-141	9.269E-02		6.454E-02	1.007E-01	9.171E-03	0.920
CE-143	6.927E-04		1.134E-04	Half-Life too short		
CE-144	1.819E-01		2.031E-01	3.126E-01	4.852E-02	0.582
PM-144	2.851E-02		2.899E-02	4.978E-02	5.323E-03	0.573
PR-144	1.932E+00		1.965E+00	3.373E+00	3.606E-01	0.573
PM-146	-3.539E-02		3.763E-02	5.754E-02	6.687E-03	-0.615
ND-147	-3.539E-01		4.608E-01	7.340E-01	1.164E-01	-0.482
PM-149	-6.529E-01		8.506E+01	1.358E+02	2.568E+01	-0.005

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	3.062E-02		1.220E-01	1.421E-01	1.707E-02	0.216
GD-153	1.407E-03		7.618E-02	1.095E-01	9.625E-03	0.013
EU-154	-2.864E-02		1.007E-01	1.631E-01	1.844E-02	-0.176
EU-155	1.143E-01		9.657E-02	1.606E-01	1.378E-02	0.712
TB-160	9.714E-04		1.085E-01	1.803E-01	2.016E-02	0.005
HO-166M	-2.449E-03		4.848E-02	7.879E-02	8.471E-03	-0.031
TM-171	-2.353E+01		2.566E+01	3.590E+01	2.713E+00	-0.655
LU-176	-5.713E-03		2.119E-02	3.422E-02	4.489E-03	-0.167
LU-177	3.387E+00	+	1.446E+00	1.841E+00	2.079E-01	1.839
LU-177M	-4.109E-02		1.524E-01	2.460E-01	2.327E-02	-0.167
HF-181	-8.465E-03		3.657E-02	5.825E-02	5.751E-03	-0.145
W-181	-1.449E-02		3.287E-01	4.799E-01	3.577E-02	-0.030
TA-182	-4.550E-02		1.576E-01	2.571E-01	2.138E-02	-0.177
RE-183	6.219E-02		1.017E-01	1.727E-01	1.667E-02	0.360
RE-184	-2.085E-01		2.118E-01	3.242E-01	4.207E-02	-0.643
OS-185	-3.254E-02		3.527E-02	5.445E-02	5.722E-03	-0.598
RE-188	9.638E-02		1.528E-01	2.608E-01	2.434E-02	0.370
W-188	-3.296E+00		7.262E+00	1.038E+01	1.418E+00	-0.318
IR-192	-3.680E-02		2.965E-02	4.633E-02	5.922E-03	-0.794
AU-195	3.387E-01		2.039E-01	3.303E-01	2.881E-02	1.025
TL-200	2.585E-04		1.811E-04	Half-Life too short		
TL-201	-1.496E+00		6.158E+00	1.018E+01	1.003E+00	-0.147
TL-202	-2.699E-02		5.995E-02	9.519E-02	9.163E-03	-0.284
HG-203	3.530E-02		4.359E-02	6.327E-02	8.956E-03	0.558
BI-207	-1.103E-02		4.441E-02	7.109E-02	6.825E-03	-0.155
TL-207	1.833E-01		6.582E-01	9.711E-01	1.930E-01	0.189
PO-209	2.145E+00		6.269E+00	1.061E+01	1.188E+00	0.202
BI-210	1.302E+00		2.770E+00	4.639E+00	4.310E-01	0.281
PB-210	1.302E+00		2.770E+00	4.639E+00	4.310E-01	0.281
PO-210	1.302E+00		2.770E+00	4.639E+00	3.901E-01	0.281
PB-211	-5.433E-01		8.491E-01	1.230E+00	7.723E-01	-0.442
BI-212	1.336E+00	+	4.464E-01	5.465E-01	6.527E-02	2.444
PO-215	1.833E-01		6.582E-01	9.711E-01	1.930E-01	0.189
RN-219	4.726E-02		3.332E-01	5.508E-01	8.521E-02	0.086
RN-220	-1.244E+01		2.148E+01	3.466E+01	3.533E+00	-0.359
RA-223	1.833E-01		6.582E-01	9.711E-01	1.930E-01	0.189
AC-227	-4.944E-02		3.423E-01	5.481E-01	1.000E-01	-0.090
TH-227	-4.944E-02		3.424E-01	5.481E-01	1.128E-01	-0.090
TH-229	-2.272E-01		4.659E-01	7.540E-01	8.106E-02	-0.301
PA-231	-3.835E-01		1.501E+00	2.282E+00	4.260E-01	-0.168
TH-231	1.833E-01		6.582E-01	9.711E-01	1.930E-01	0.189
U-231	-4.580E-01		1.023E+00	1.438E+00	1.277E-01	-0.319
PA-233	3.975E-02		5.343E-02	9.197E-02	1.205E-02	0.432
PA-234	1.746E-01		2.447E-01	4.190E-01	8.329E-02	0.417
PA-234M	1.304E+01	+	7.824E+00	7.658E+00	8.776E-01	1.703
NP-236	-2.475E-02		7.335E-02	1.212E-01	1.159E-02	-0.204
NP-239	2.420E-02		1.745E-01	2.789E-01	2.306E-02	0.087
AM-241	-2.269E-02		1.337E-01	1.977E-01	1.545E-02	-0.115

Sample ID : G245994008 Acquisition date : 12-FEB-2010 13:26:37

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.191E-02		8.691E-02	1.375E-01	1.172E-02	-0.232
AM-246	-1.074E-02		1.078E-01	1.741E-01	1.638E-02	-0.062
CM-247	-9.994E-04		2.945E-02	4.824E-02	4.525E-03	-0.021
CF-249	-1.001E-02		3.515E-02	5.707E-02	5.424E-03	-0.175
CF-251	3.698E-02		1.135E-01	1.904E-01	1.934E-02	0.194

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994008            *
* Acquisition date : 12-FEB-2010 13:26:37 Detector SN#     :                *
* Detector ID      : GAM22                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.17     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245994008           Analyst initials: MXR1            *
* Batch Number     : 948812               Sample Quantity : 1.3554E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.029E+01	2.199E+00	2.109E-01	1.122E+00
CD-109	2.939E+00	8.270E-01	6.956E-01	4.219E-01
SN-126	2.889E-01	8.129E-02	6.758E-02	4.148E-02
BA-137M	1.708E-01	6.298E-02	2.349E-02	3.213E-02
CS-137	1.805E-01	6.658E-02	2.483E-02	3.397E-02
TL-208	5.124E-01	8.267E-02	2.398E-02	4.218E-02
BI-211	3.750E+00	5.970E-01	1.394E-01	3.046E-01
PB-212	1.678E+00	2.367E-01	4.174E-02	1.208E-01
PO-212	1.678E+00	2.367E-01	4.174E-02	1.208E-01
BI-214	1.138E+00	1.806E-01	4.689E-02	9.213E-02
PB-214	1.305E+00	2.181E-01	4.856E-02	1.113E-01
PO-214	1.305E+00	2.181E-01	4.856E-02	1.113E-01
PO-216	1.678E+00	2.367E-01	4.174E-02	1.208E-01
PO-218	1.305E+00	2.181E-01	4.856E-02	1.113E-01
RA-224	4.741E+00	1.230E+00	4.745E-01	6.275E-01
RA-226	1.138E+00	1.806E-01	4.689E-02	9.213E-02
AC-228	1.557E+00	3.051E-01	9.565E-02	1.557E-01
RA-228	1.557E+00	3.051E-01	9.565E-02	1.557E-01
TH-228	1.703E+00	2.403E-01	4.237E-02	1.226E-01
TH-230	1.138E+00	1.806E-01	4.689E-02	9.213E-02
TH-232	1.557E+00	3.051E-01	9.565E-02	1.557E-01
TH-234	4.893E+00	1.731E+00	8.576E-01	8.830E-01
U-234	1.138E+00	1.806E-01	4.689E-02	9.213E-02
U-235	2.610E-01	2.044E-01	1.681E-01	1.043E-01
NP-237	8.484E-01	2.940E-01	1.590E-01	1.500E-01
U-238	4.893E+00	1.731E+00	8.576E-01	8.830E-01
AM-243	3.647E-01	7.025E-02	4.064E-02	3.584E-02
ANH-511	1.080E-01	6.021E-02	2.005E-02	3.072E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	9.417E-02	2.692E-01	2.315E-01	1.373E-01	NOT IDENT.
NA-22	-1.169E-02	3.521E-02	2.918E-02	1.797E-02	NOT IDENT.
NA-24	-8.067E+05	5.882E+05	0.000E+00	3.001E+05	SHORT HLIF
AL-26	3.311E-03	2.023E-02	1.738E-02	1.032E-02	NOT IDENT.
TI-44	3.126E-01	4.707E-02	3.458E-02	2.402E-02	FAIL ABUN
SC-46	4.389E-03	3.235E-02	2.795E-02	1.651E-02	FAIL ABUN
V-48	-4.358E-02	5.523E-02	4.391E-02	2.818E-02	NOT IDENT.
CR-51	2.734E-02	3.142E-01	2.778E-01	1.603E-01	NOT IDENT.
MN-52	-1.307E-01	1.767E-01	1.358E-01	9.014E-02	NOT IDENT.
MN-54	-6.208E-03	3.067E-02	2.616E-02	1.565E-02	NOT IDENT.
CO-56	-2.222E-02	3.284E-02	2.706E-02	1.675E-02	FAIL ABUN
CO-57	-1.044E-02	2.291E-02	1.910E-02	1.169E-02	NOT IDENT.
CO-58	7.857E-03	3.059E-02	2.689E-02	1.561E-02	NOT IDENT.
FE-59	-6.451E-02	6.770E-02	5.199E-02	3.454E-02	FAIL ABUN
CO-60	-2.990E-02	3.107E-02	2.394E-02	1.585E-02	NOT IDENT.
ZN-65	1.201E-01	8.585E-02	6.844E-02	4.380E-02	NOT IDENT.
GE-68	-6.209E-01	9.493E-01	7.533E-01	4.843E-01	NOT IDENT.
AS-73	-1.812E-02	6.714E-01	5.934E-01	3.425E-01	NOT IDENT.
AS-74	-1.204E-02	7.677E-02	6.569E-02	3.917E-02	NOT IDENT.
SE-75	2.277E-03	4.310E-02	3.386E-02	2.199E-02	NOT IDENT.
BR-77	6.429E+00	8.760E+00	7.612E+00	4.470E+00	FAIL ABUN
SR-82	-2.696E-01	3.168E-01	2.493E-01	1.616E-01	NOT IDENT.
RB-83	3.858E-02	5.858E-02	5.073E-02	2.989E-02	NOT IDENT.
RB-84	-2.634E-02	5.442E-02	4.508E-02	2.777E-02	NOT IDENT.
KR-85	2.446E+01	7.710E+00	6.425E+00	3.934E+00	NOT IDENT.
SR-85	1.253E-01	3.951E-02	3.292E-02	2.016E-02	NOT IDENT.
RB-86	-5.323E-01	6.193E-01	4.832E-01	3.160E-01	NOT IDENT.
Y-88	-1.142E-02	3.031E-02	2.421E-02	1.546E-02	NOT IDENT.
ZR-88	2.898E-05	2.618E-02	2.258E-02	1.336E-02	NOT IDENT.
Y-91	4.538E+00	1.361E+01	1.189E+01	6.944E+00	NOT IDENT.
NB-94	-9.309E-03	2.823E-02	2.345E-02	1.440E-02	NOT IDENT.
NB-95	4.463E-02	3.672E-02	3.260E-02	1.874E-02	NOT IDENT.
NB-95M	2.379E-01	1.267E-01	1.010E-01	6.465E-02	NOT IDENT.
ZR-95	-4.568E-03	5.828E-02	4.871E-02	2.974E-02	NOT IDENT.
NB-97	7.970E+04	8.180E+04	0.000E+00	4.173E+04	SHORT HLIF
ZR-97	4.006E+06	1.699E+06	0.000E+00	8.670E+05	SHORT HLIF
MO-99	-1.948E+00	9.199E+00	7.635E+00	4.693E+00	NOT IDENT.
TC-99M	3.234E+16	3.308E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.760E-02	3.134E-02	2.738E-02	1.599E-02	NOT IDENT.
RH-102	-6.388E-03	2.414E-02	2.009E-02	1.232E-02	NOT IDENT.
RU-103	5.525E-03	3.304E-02	2.804E-02	1.686E-02	FAIL ABUN
RH-106	-1.551E-01	2.468E-01	2.030E-01	1.259E-01	FAIL ABUN
RU-106	-1.551E-01	2.463E-01	2.030E-01	1.256E-01	FAIL ABUN
AG-108M	1.235E-02	2.753E-02	2.401E-02	1.405E-02	NOT IDENT.
AG-110M	2.767E-02	3.086E-02	2.428E-02	1.575E-02	NOT IDENT.
IN-111	-4.558E-01	1.034E+00	7.525E-01	5.277E-01	NOT IDENT.
IN-113M	1.751E-02	3.799E-02	3.345E-02	1.938E-02	NOT IDENT.
SN-113	1.751E-02	3.799E-02	3.345E-02	1.938E-02	NOT IDENT.
IN-114M	1.500E-01	1.787E-01	1.426E-01	9.118E-02	NOT IDENT.
CD-115	-3.972E-01	8.554E+00	7.460E+00	4.364E+00	NOT IDENT.
SN-117M	-1.373E-02	4.875E-02	4.309E-02	2.487E-02	NOT IDENT.
SB-122	3.986E-01	1.657E+00	1.455E+00	8.452E-01	NOT IDENT.
I-123	-1.764E+06	4.785E+06	0.000E+00	2.441E+06	SHORT HLIF
TE-123M	-9.362E-03	2.539E-02	2.237E-02	1.296E-02	NOT IDENT.
I-124	-1.456E-02	6.319E-01	4.675E-01	3.224E-01	NOT IDENT.
SB-124	-2.301E-02	5.506E-02	4.389E-02	2.809E-02	FAIL ABUN
SB-125	-6.816E-02	7.601E-02	6.164E-02	3.878E-02	FAIL ABUN
TE-125M	-3.548E+00	8.437E+00	7.123E+00	4.305E+00	NOT IDENT.
I-126	1.795E-01	1.668E-01	1.321E-01	8.513E-02	NOT IDENT.
SB-126	3.298E-02	1.210E-01	8.987E-02	6.175E-02	FAIL ABUN
SB-127	7.048E-01	1.095E+00	9.623E-01	5.585E-01	NOT IDENT.
XE-127	-2.699E-02	4.526E-02	3.552E-02	2.309E-02	FAIL ABUN
I-131	-1.039E-01	9.288E-02	7.569E-02	4.739E-02	NOT IDENT.
TE-132	4.834E-01	6.116E-01	5.376E-01	3.120E-01	NOT IDENT.
BA-133	1.074E-02	3.983E-02	3.064E-02	2.032E-02	FAIL ABUN
I-133	-2.412E+03	4.594E+03	0.000E+00	2.344E+03	SHORT HLIF
CS-134	5.329E-02	3.820E-02	3.427E-02	1.949E-02	NOT IDENT.
CS-135	7.738E-02	1.697E-01	1.262E-01	8.657E-02	NOT IDENT.
I-135	8.422E+14	3.393E+15	0.000E+00	1.731E+15	SHORT HLIF
CS-136	-6.938E-02	8.252E-02	6.463E-02	4.210E-02	FAIL ABUN
CE-139	-1.636E-02	2.636E-02	2.291E-02	1.345E-02	NOT IDENT.
BA-140	-5.694E-02	2.089E-01	1.789E-01	1.066E-01	NOT IDENT.
LA-140	-5.380E-02	7.083E-02	5.567E-02	3.614E-02	FAIL ABUN
CE-141	9.269E-02	6.325E-02	5.272E-02	3.227E-02	NOT IDENT.
CE-143	6.927E+02	2.222E+02	0.000E+00	1.134E+02	SHORT HLIF
CE-144	1.819E-01	1.991E-01	1.638E-01	1.016E-01	NOT IDENT.
PM-144	2.851E-02	2.841E-02	2.532E-02	1.450E-02	NOT IDENT.

PR-144	1.932E+00	1.925E+00	1.716E+00	9.823E-01	NOT IDENT.
PM-146	-3.539E-02	3.688E-02	2.950E-02	1.881E-02	NOT IDENT.
ND-147	-3.539E-01	4.516E-01	3.752E-01	2.304E-01	NOT IDENT.
PM-149	-6.529E-01	8.336E+01	7.019E+01	4.253E+01	NOT IDENT.
EU-152	3.062E-02	1.195E-01	7.320E-02	6.099E-02	NOT IDENT.
GD-153	1.407E-03	7.466E-02	5.769E-02	3.809E-02	FAIL ABUN
EU-154	-2.864E-02	9.866E-02	8.201E-02	5.034E-02	NOT IDENT.
EU-155	1.143E-01	9.464E-02	8.451E-02	4.829E-02	FAIL ABUN
TB-160	9.714E-04	1.063E-01	9.127E-02	5.424E-02	FAIL ABUN
HO-166M	-2.449E-03	4.751E-02	4.006E-02	2.424E-02	NOT IDENT.
TM-171	-2.353E+01	2.515E+01	1.905E+01	1.283E+01	NOT IDENT.
LU-176	-5.713E-03	2.077E-02	1.767E-02	1.060E-02	FAIL ABUN
LU-177	3.387E+00	1.417E+00	9.575E-01	7.232E-01	FAIL ABUN
LU-177M	-4.109E-02	1.493E-01	1.263E-01	7.618E-02	NOT IDENT.
HF-181	-8.465E-03	3.584E-02	2.983E-02	1.829E-02	NOT IDENT.
W-181	-1.449E-02	3.221E-01	2.547E-01	1.643E-01	NOT IDENT.
TA-182	-4.550E-02	1.545E-01	1.294E-01	7.881E-02	FAIL ABUN
RE-183	6.219E-02	9.962E-02	9.022E-02	5.083E-02	FAIL ABUN
RE-184	-2.085E-01	2.075E-01	1.680E-01	1.059E-01	NOT IDENT.
OS-185	-3.254E-02	3.456E-02	2.773E-02	1.763E-02	NOT IDENT.
RE-188	9.638E-02	1.498E-01	1.363E-01	7.642E-02	NOT IDENT.
W-188	-3.296E+00	7.117E+00	5.365E+00	3.631E+00	FAIL ABUN
IR-192	-3.680E-02	2.906E-02	2.391E-02	1.483E-02	FAIL ABUN
AU-195	3.387E-01	1.998E-01	1.741E-01	1.019E-01	FAIL ABUN
TL-200	2.585E+02	3.549E+02	0.000E+00	1.811E+02	SHORT HLIF
TL-201	-1.496E+00	6.035E+00	5.312E+00	3.079E+00	NOT IDENT.
TL-202	-2.699E-02	5.875E-02	4.883E-02	2.998E-02	NOT IDENT.
HG-203	3.530E-02	4.272E-02	3.273E-02	2.180E-02	FAIL ABUN
BI-207	-1.103E-02	4.352E-02	3.587E-02	2.221E-02	FAIL ABUN
TL-207	1.833E-01	6.450E-01	5.009E-01	3.291E-01	FAIL ABUN
PO-209	2.145E+00	6.143E+00	5.370E+00	3.134E+00	NOT IDENT.
BI-210	1.302E+00	2.715E+00	2.476E+00	1.385E+00	NOT IDENT.
PB-210	1.302E+00	2.715E+00	2.476E+00	1.385E+00	NOT IDENT.
PO-210	1.302E+00	2.715E+00	2.476E+00	1.385E+00	NOT IDENT.
PB-211	-5.433E-01	8.322E-01	6.320E-01	4.246E-01	NOT IDENT.
BI-212	1.336E+00	4.374E-01	2.777E-01	2.232E-01	FAIL ABUN
PO-215	1.833E-01	6.450E-01	5.009E-01	3.291E-01	FAIL ABUN
RN-219	4.726E-02	3.266E-01	2.830E-01	1.666E-01	FAIL ABUN
RN-220	-1.244E+01	2.105E+01	1.771E+01	1.074E+01	NOT IDENT.
RA-223	1.833E-01	6.450E-01	5.009E-01	3.291E-01	FAIL ABUN
AC-227	-4.944E-02	3.355E-01	2.839E-01	1.712E-01	FAIL ABUN
TH-227	-4.944E-02	3.355E-01	2.839E-01	1.712E-01	FAIL ABUN
TH-229	-2.272E-01	4.566E-01	3.926E-01	2.329E-01	FAIL ABUN
PA-231	-3.835E-01	1.471E+00	1.180E+00	7.507E-01	FAIL ABUN
TH-231	1.833E-01	6.450E-01	5.009E-01	3.291E-01	FAIL ABUN
U-231	-4.580E-01	1.002E+00	7.580E-01	5.114E-01	FAIL ABUN
PA-233	3.975E-02	5.236E-02	4.748E-02	2.671E-02	FAIL ABUN
PA-234	1.746E-01	2.398E-01	2.119E-01	1.224E-01	FAIL ABUN
PA-234M	1.304E+01	7.668E+00	3.868E+00	3.912E+00	FAIL ABUN
NP-236	-2.475E-02	7.188E-02	6.334E-02	3.668E-02	NOT IDENT.
NP-239	2.420E-02	1.710E-01	1.465E-01	8.725E-02	FAIL ABUN
AM-241	-2.269E-02	1.310E-01	1.051E-01	6.684E-02	NOT IDENT.
CM-243	-3.191E-02	8.518E-02	7.237E-02	4.346E-02	FAIL ABUN
AM-246	-1.074E-02	1.057E-01	8.780E-02	5.391E-02	NOT IDENT.
CM-247	-9.994E-04	2.886E-02	2.478E-02	1.472E-02	FAIL ABUN
CF-249	-1.001E-02	3.445E-02	2.934E-02	1.757E-02	NOT IDENT.
CF-251	3.698E-02	1.112E-01	9.929E-02	5.675E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	320.6263
46.50	320.6263
46.50	320.6263
48.70	358.6189
49.72	393.2980
51.35	356.4701
52.39	352.5362
52.97	341.3353
53.15	353.7016
53.44	361.5989
54.07	404.6271
56.28	397.0793
56.28	397.0836
57.37	0.0000
57.53	395.3353
57.53	395.3385
57.60	381.2240
57.98	381.8129
57.98	381.8129
59.32	412.5212
59.32	412.5212
59.40	412.6520
59.54	412.8816
59.72	413.1771
60.01	413.6517
61.10	393.7882
61.14	393.8491
61.30	394.0944
63.00	426.2271
63.29	426.6982
63.29	426.6982
63.58	427.1670
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65.12	467.2359
65.20	462.9798
65.20	462.9798
66.05	493.8307
66.72	497.9899
66.83	498.1910
66.91	498.3380
67.20	500.3400
67.20	500.3400
67.75	492.1668
67.85	492.3458
68.90	537.5647
68.90	537.5647
69.30	551.2179
69.67	526.5314
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70.82	533.7432
70.83	533.7623
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72.87	560.1258
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74.81	585.0342
74.97	585.3493
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77.11	589.5105

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77.11	589.5105
77.11	589.5105
77.11	589.5105
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81.07	566.1311
81.07	566.1311
81.07	566.1311
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83.78	494.4951
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85.43	476.6143
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86.50	478.1543
86.54	478.2123
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86.72	741.3169
86.79	741.4678
86.94	741.8056
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87.30	761.5232
87.30	761.5232
87.30	761.5232
87.30	761.5232
87.30	761.5232
87.30	761.5232
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88.03	787.9323
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88.47	645.5123
89.95	648.3201
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92.29	621.7889
92.38	621.9491
92.38	621.9491
93.35	623.6660
94.00	624.8135
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94.67	389.7697
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94.90	390.0208
94.90	390.0208
94.90	390.0208
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95.87	462.1818
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97.43	425.2243
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98.44	393.8501
98.88	362.3841
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99.55	355.8600
99.86	379.0284
100.00	379.1718
100.10	396.7161
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103.76	440.1957
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105.31	391.1451
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109.28	467.6711

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111.00	446.1427
111.76	472.8134
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117.00	414.0248
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121.78	454.3481
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122.32	422.6656
122.32	422.6656
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136.25	443.5655
136.48	448.2377
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140.51	0.0000
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144.24	463.6250
144.24	463.6250
144.24	463.6250
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145.44	425.5367
147.16	482.3783
152.43	427.0172
152.70	445.6558
153.22	467.3017
154.21	445.1050
154.21	445.1050
154.21	445.1050
154.21	445.1050
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161.27	429.5386
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162.64	443.7587
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163.89	418.4437
165.85	445.4169
167.43	421.1360
171.28	396.3953
171.86	411.1060
172.10	411.2802
176.55	396.2017
176.60	396.2363
181.06	431.0391
184.41	422.5476
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186.00	421.1220
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193.63	430.3238
197.04	374.9694
198.01	397.4536
198.60	407.7893
200.40	430.9342
201.83	464.9594
202.84	426.8747
205.31	402.9694

208.36	400.7856
208.81	401.0576
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209.75	313.1844
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215.65	333.5262
216.55	325.7685
218.09	369.6213
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223.80	368.5211
226.40	358.4476
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227.08	350.4700
227.20	339.0876
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228.18	340.5942
228.18	340.5942
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236.00	385.7666
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238.63	349.7354
238.63	349.7354
238.63	349.7354
239.00	349.9097
240.98	350.8390
241.98	351.3087
241.98	351.3087
241.98	351.3087
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247.94	265.2918
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249.79	291.6646
252.40	327.0797
252.85	331.5737
252.85	331.5737
254.15	0.0000
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260.90	294.7357
262.80	315.0575
264.65	308.8604
268.24	330.1245
268.79	340.8925
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269.46	311.2754
269.46	311.2754
269.46	311.2754
271.23	258.4857
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277.60	286.3644
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279.53	300.8167
280.46	311.8384
281.68	296.2265
283.67	313.0133
284.30	323.3126
285.00	315.7397
285.90	305.9836
286.10	294.8437
286.10	294.8437
287.40	301.5405
288.45	0.0000
290.67	302.0316
290.80	302.0766
291.72	309.9178
293.26	0.0000
293.70	263.8707
295.21	264.3229
295.21	264.3229

295.21	264.3229
295.96	185.9389
296.50	186.0515
297.23	186.2042
298.57	186.4844
299.80	245.9498
299.80	245.9498
300.09	265.7755
300.09	265.7755
300.09	265.7755
300.09	265.7755
300.12	265.7827
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303.91	237.9229
304.40	221.2672
304.40	221.2672
304.84	224.4268
306.84	252.9716
308.46	269.4620
311.98	222.4837
316.51	275.5154
318.01	262.9496
319.02	255.7883
319.41	264.2704
320.08	254.2112
323.87	260.2138
323.87	260.2138
323.87	260.2138
323.87	260.2138
325.23	277.7448
328.77	259.5813
333.44	231.3234
334.20	236.2274
334.20	236.2274
334.30	236.2518
338.28	263.2964
338.28	263.2964
338.28	263.2964
338.28	263.2964
338.32	263.3100
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338.32	263.3100
340.50	251.9991
340.57	252.0153
344.27	238.6292
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351.92	216.3895
351.92	216.3895
351.92	216.3895
355.39	0.0000
356.01	207.5936
364.48	221.9354
366.43	194.0639
367.43	187.4133
367.94	0.0000
369.80	196.6326
374.96	210.3584
383.85	228.9218
387.95	234.7411
388.63	230.9040
391.69	211.5756
391.69	211.5756
392.90	219.7959
398.62	205.8458
400.65	187.0989
401.10	184.1549
401.81	187.2897
402.60	185.4038
404.84	218.0698
410.95	201.9660
411.60	216.2943
413.65	218.7058
414.70	227.0479
415.30	214.9382

415.76	217.0613
417.63	0.0000
418.52	219.6086
423.70	185.6841
427.08	215.0108
427.89	203.8298
432.53	177.7403
433.93	182.0822
439.47	207.8442
439.56	202.6624
439.89	187.1235
443.98	199.2117
444.90	194.1398
445.03	194.1602
445.03	194.1602
445.03	194.1602
445.03	194.1602
453.90	203.9368
463.38	164.1464
468.07	171.8241
473.00	178.1592
475.06	176.2994
475.35	177.4084
476.78	175.4592
477.59	169.1422
477.96	161.6946
482.03	179.3721
484.57	179.7126
487.03	136.9157
490.36	0.0000
492.35	161.2645
497.08	155.3048
507.63	0.0000
510.53	0.0000
510.84	171.1049
511.00	171.1239
511.85	171.2258
511.85	171.2258
513.99	163.0580
513.99	163.0580
520.41	153.4871
520.65	153.5142
527.90	160.9479
528.96	0.0000
529.64	170.3999
529.87	0.0000
531.02	172.4186
537.32	164.7816
543.00	166.3499
546.56	0.0000
549.76	167.1031
552.65	164.6037
555.20	135.6738
563.23	153.4373
563.90	161.0870
568.70	159.6875
569.32	155.9455
569.50	151.2104
569.67	151.2266
573.80	175.4686
574.00	167.8610
574.64	167.5856
578.91	154.1761
579.30	0.0000
583.14	145.8182
585.48	148.2307
591.81	149.0275
592.07	147.9240
593.00	164.2750
595.88	171.1627
600.56	152.5863
602.52	0.0000
602.71	174.7998
602.71	174.7998
603.60	188.2204
604.41	188.3149
604.70	188.3465
609.31	158.7917

609.31	158.7917
609.31	158.7917
609.31	158.7917
610.33	162.2361
612.46	172.4941
614.37	152.5723
618.01	136.2456
621.84	142.4541
621.84	142.4541
631.29	130.4102
633.02	135.4893
633.10	128.5718
634.78	122.7588
635.90	126.8021
636.97	140.7606
645.85	159.4238
646.12	153.4705
656.30	144.3457
657.75	113.5089
657.90	0.0000
661.65	133.7252
661.65	133.7252
664.57	0.0000
666.33	124.4305
666.33	124.4305
675.00	132.7057
677.61	120.7238
685.20	125.3073
692.80	153.4485
695.00	129.0505
696.49	132.2308
696.49	132.2308
697.00	132.2675
697.49	136.4040
698.33	167.2481
698.50	167.2647
699.00	166.2814
702.63	162.4939
706.10	131.8854
706.58	0.0000
706.67	132.9578
709.31	146.5617
711.68	128.1449
713.82	118.9798
717.42	121.6254
720.50	105.0135
721.93	0.0000
722.20	105.1061
722.78	96.2289
722.78	96.2289
722.89	96.2346
722.95	96.2365
723.30	101.6028
724.18	114.1317
727.18	119.8174
733.00	121.8223
735.90	125.5957
739.58	126.8811
742.81	129.1935
744.21	117.7217
747.13	131.5816
751.79	141.3908
752.31	134.0409
753.82	110.9045
755.35	120.5034
756.15	131.1269
756.87	134.3484
763.93	147.5659
765.79	140.2634
766.42	147.7469
766.84	159.4727
776.49	143.1452
778.00	130.4218
778.57	131.5283
778.89	133.6873
783.80	129.7220
785.46	106.2228
792.07	139.9314

795.84	107.8349
796.30	110.0165
798.80	144.7059
801.93	121.1305
805.60	104.9364
810.29	119.1317
810.76	109.8492
815.85	112.9121
817.79	106.4774
818.51	116.7908
819.60	118.7192
826.30	115.3425
828.27	0.0000
831.60	142.8870
831.96	134.4490
834.83	141.2188
836.80	0.0000
846.75	136.3133
848.13	118.4017
856.28	0.0000
856.80	79.8794
860.37	107.6282
867.32	90.2895
867.82	90.3093
871.10	102.4042
873.19	112.0788
874.81	109.2825
875.33	0.0000
876.40	100.7263
879.36	97.9765
880.27	99.9375
880.51	99.9484
881.50	108.6451
883.24	114.5010
884.67	113.6108
889.25	111.9097
896.60	109.3643
898.02	120.0839
899.00	136.6036
903.28	107.0104
911.07	128.5495
911.07	128.5495
911.07	128.5495
919.63	85.1439
920.93	114.5099
925.00	94.0446
925.24	93.0750
926.50	104.8878
935.52	82.6538
937.48	108.3254
944.10	82.9482
946.00	90.9203
949.00	93.0115
962.29	113.1688
964.01	128.9264
966.15	125.5518
968.20	183.2469
969.11	139.6704
969.11	139.6704
969.11	139.6704
977.42	81.2793
980.50	90.1993
983.50	105.3589
989.30	75.5217
996.32	84.7178
1001.03	73.7600
1001.68	73.7791
1004.76	77.9158
1021.30	0.0000
1024.50	0.0000
1034.80	95.2056
1036.00	93.1995
1037.82	79.9397
1038.57	74.8382
1038.76	0.0000
1045.16	94.5509
1046.59	95.6305
1048.07	100.8301

1050.47	87.5317
1050.47	87.5317
1062.04	101.3564
1063.62	109.6970
1076.63	105.0263
1077.35	96.7334
1078.86	85.3404
1085.78	100.1618
1099.22	97.5086
1112.02	116.1255
1112.84	114.3163
1115.52	95.9702
1120.29	77.6451
1120.29	77.6451
1120.29	77.6451
1120.29	77.6451
1120.51	77.6528
1121.28	79.5227
1124.00	0.0000
1129.67	98.9258
1131.51	0.0000
1147.95	0.0000
1167.94	118.4211
1173.22	95.0944
1175.09	103.6353
1177.93	107.5082
1189.05	110.7515
1204.90	94.2113
1205.75	0.0000
1213.00	114.5032
1221.42	125.3471
1230.97	87.0254
1235.34	111.0734
1236.41	0.0000
1238.25	101.0234
1246.25	84.0273
1260.41	0.0000
1271.85	82.6654
1274.45	97.3328
1274.54	97.3358
1291.56	80.2433
1298.22	0.0000
1312.09	80.7563
1325.50	68.2335
1325.50	68.2335
1332.49	78.2888
1333.61	68.4020
1360.21	46.9670
1362.66	0.0000
1365.15	59.0450
1368.21	75.1259
1368.53	0.0000
1376.25	58.2354
1384.27	93.5988
1394.10	63.5883
1395.20	63.6075
1407.95	65.8708
1434.06	53.0918
1436.60	44.9574
1457.56	0.0000
1460.81	44.2361
1489.15	39.3997
1509.49	41.7041
1596.49	57.8477
1620.62	44.8479
1678.03	0.0000
1691.02	30.1044
1691.02	30.1044
1706.46	0.0000
1750.46	0.0000
1764.49	24.9067
1764.49	24.9067
1764.49	24.9067
1764.49	24.9067
1770.23	17.8145
1771.40	23.1651
1791.20	0.0000
1808.65	18.9727

1836.01 39.1883

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994008

Total Uranium Activity	1.4677E+01	ug/g
Total Uranium Counting Unc.	5.1496E+00	ug/g
Total Uranium Tpu	2.6274E-06	ug/g
Total Uranium Mda	2.5526E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G245994008       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 13:26:37.43    SAMPLE ALQT:  135.540 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.545E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.081E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 2.070E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.006E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:42:56.89

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994009.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 13:42:33
Sample ID         : G245994009           Sample quantity  : 1.40670E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.57  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.89*	346	598	0.88	125.27	120	9	4.81E-02	14.1	
2	4	74.73*	451	389	0.90	148.96	145	14	6.26E-02	8.1	2.87E-01
3	4	76.99	653	429	1.04	153.46	145	14	9.07E-02	6.6	
4	0	83.83*	86	428	1.01	167.17	165	6	1.19E-02	40.4	
5	0	86.96*	181	556	1.20	173.43	171	7	2.52E-02	23.0	
6	0	92.85*	932	692	1.33	185.22	181	12	1.29E-01	7.0	
7	0	98.83*	180	357	3.42	197.17	193	10	2.50E-02	21.2	
8	0	128.18	78	396	1.36	255.90	253	9	1.08E-02	47.2	
9	0	143.34*	72	419	1.02	286.24	283	9	1.00E-02	53.2	
10	0	185.62*	473	401	1.14	370.85	366	10	6.57E-02	9.5	
11	0	209.05	117	278	1.07	417.73	414	9	1.63E-02	27.3	
12	5	238.39*	1265	162	1.07	476.44	470	19	1.76E-01	3.3	9.85E-01
13	5	241.20	347	276	1.92	482.06	470	19	4.82E-02	14.9	
14	3	269.57	101	157	1.64	538.81	535	11	1.41E-02	24.3	2.05E+00
15	3	271.20	45	167	1.34	542.09	535	11	6.27E-03	54.7	
16	0	294.95*	360	217	1.19	589.59	585	10	4.99E-02	9.5	
17	0	299.41	78	154	1.33	598.52	595	9	1.08E-02	31.0	
18	0	327.80	114	143	1.27	655.33	650	11	1.58E-02	22.5	
19	0	337.90*	220	193	1.03	675.55	670	11	3.06E-02	14.1	
20	0	351.62*	696	171	1.29	703.00	698	12	9.67E-02	5.4	
21	0	462.47	93	72	1.23	924.77	920	9	1.29E-02	19.5	
22	0	510.63*	155	148	1.84	1021.11	1013	17	2.15E-02	22.0	
23	0	582.82*	385	110	1.25	1165.54	1160	13	5.35E-02	7.7	
24	0	608.91*	463	98	1.42	1217.74	1211	13	6.43E-02	6.6	
25	0	661.14*	166	85	1.37	1322.22	1316	13	2.30E-02	14.0	
26	0	727.09	135	72	1.95	1454.16	1448	16	1.87E-02	16.5	
27	0	767.86	84	85	2.04	1535.71	1528	18	1.17E-02	28.0	
28	0	794.31	66	42	1.81	1588.62	1583	10	9.14E-03	22.2	
29	0	860.02	51	59	1.11	1720.06	1715	12	7.06E-03	33.0	
30	0	910.60*	256	51	2.04	1821.24	1815	12	3.56E-02	8.5	
31	1	964.13	53	49	2.00	1928.31	1922	20	7.37E-03	29.6	1.88E+00
32	1	968.30*	168	43	1.70	1936.64	1922	20	2.33E-02	10.8	
33	0	1001.52*	38	74	2.10	2003.09	1997	15	5.31E-03	52.9	
34	0	1119.78	107	48	1.87	2239.63	2234	15	1.49E-02	17.2	
35	0	1237.38	46	39	2.35	2474.83	2469	12	6.37E-03	31.0	
36	0	1459.76*	895	10	1.97	2919.54	2910	19	1.24E-01	3.5	
37	0	1587.35	24	8	1.27	3174.67	3168	12	3.40E-03	31.4	
38	0	1763.55	95	12	2.12	3526.97	3520	15	1.33E-02	12.8	

Sample ID : G245994009 Acquisition date : 12-FEB-2010 13:42:33

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1846.89	22	8	1.47	3693.60	3687	15	2.99E-03	35.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 15:43:00

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 13:42:33
Sample ID : G245994009 Sample quantity : 140.67 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.57 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.966E+01	1.959E+00	4.194E-01	2.990E-02	46.889
CD-109	+	88.03	*	2.361E+00	1.102E+00	1.550E+00	1.186E-01	1.523
SN-126	+	64.28		3.051E+00	9.584E-01	7.705E-01	1.082E-01	3.960
	+	86.94		9.647E-01	5.958E-01	6.045E-01	2.488E-01	1.596
	+	87.57	*	2.321E-01	1.083E-01	1.444E-01	1.101E-02	1.607
CS-135	+	268.24	*	3.677E-01	1.805E-01	2.009E-01	1.511E-02	1.830
BA-137M	+	661.65	*	2.181E-01	6.273E-02	5.573E-02	3.613E-03	3.914
CS-137	+	661.65	*	2.306E-01	6.632E-02	5.892E-02	3.832E-03	3.914
TL-208		277.35		3.669E-01	3.252E-01	5.705E-01	5.975E-02	0.643
	+	510.84		6.842E-01	3.091E-01	1.887E-01	1.948E-02	3.625
	+	583.14	*	4.872E-01	8.282E-02	5.711E-02	4.086E-03	8.530
	+	860.37		6.064E-01	4.034E-01	3.681E-01	3.217E-02	1.647
BI-211		72.87		2.549E+00	3.195E+00	4.971E+00	3.335E-01	0.513
	+	351.07	*	3.816E+00	4.759E-01	2.868E-01	1.803E-02	13.307
PB-212	+	74.81		2.452E+00	4.890E-01	5.141E-01	5.942E-02	4.769
	+	77.11		2.010E+00	2.994E-01	2.917E-01	2.019E-02	6.892
	+	87.30		1.073E+00	5.122E-01	6.700E-01	8.415E-02	1.602
	+	238.63	*	1.509E+00	1.456E-01	8.459E-02	6.006E-03	17.839
	+	300.09		1.431E+00	8.944E-01	9.849E-01	8.041E-02	1.453
PO-212	+	74.81		2.452E+00	4.890E-01	5.141E-01	5.942E-02	4.769
	+	77.11		2.010E+00	2.994E-01	2.917E-01	2.019E-02	6.892
	+	87.30		1.073E+00	5.122E-01	6.700E-01	8.415E-02	1.602
		115.19		-3.776E-02	3.278E+00	5.382E+00	3.414E-01	-0.007
	+	238.63	*	1.509E+00	1.456E-01	8.459E-02	6.006E-03	17.839
	+	300.09		1.431E+00	8.944E-01	9.849E-01	8.041E-02	1.453
BI-214	+	609.31	*	1.104E+00	1.712E-01	9.963E-02	8.202E-03	11.085
	+	1120.29		1.330E+00	4.722E-01	4.033E-01	3.664E-02	3.298
	+	1764.49		1.628E+00	4.276E-01	2.728E-01	1.617E-02	5.968
PB-214	+	74.81		4.224E+00	8.075E-01	8.857E-01	8.907E-02	4.769
	+	77.11		3.446E+00	5.765E-01	5.001E-01	5.148E-02	6.892
	+	87.30		1.839E+00	8.697E-01	1.148E+00	1.242E-01	1.602
	+	241.98		2.484E+00	7.645E-01	5.095E-01	4.009E-02	4.877
	+	295.21		1.161E+00	2.409E-01	2.016E-01	1.702E-02	5.758
	+	351.92	*	1.328E+00	1.795E-01	9.999E-02	8.168E-03	13.277

Sample ID : G245994009 Acquisition date : 12-FEB-2010 13:42:33

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.224E+00	8.075E-01	8.857E-01	8.907E-02	4.769
	+	77.11		3.446E+00	5.765E-01	5.001E-01	5.148E-02	6.892
	+	87.30		1.839E+00	8.697E-01	1.148E+00	1.242E-01	1.602
	+	241.98		2.484E+00	7.645E-01	5.095E-01	4.009E-02	4.877
	+	295.21		1.161E+00	2.409E-01	2.016E-01	1.702E-02	5.758
	+	351.92	*	1.328E+00	1.795E-01	9.999E-02	8.168E-03	13.277
PO-216	+	74.81		2.452E+00	4.890E-01	5.141E-01	5.942E-02	4.769
	+	77.11		2.010E+00	2.994E-01	2.917E-01	2.019E-02	6.892
	+	87.30		1.073E+00	5.122E-01	6.700E-01	8.415E-02	1.602
	+	238.63	*	1.509E+00	1.456E-01	8.459E-02	6.006E-03	17.839
	+	300.09		1.431E+00	8.944E-01	9.849E-01	8.041E-02	1.453
PO-218	+	74.81		4.224E+00	8.075E-01	8.857E-01	8.907E-02	4.769
	+	77.11		3.446E+00	5.765E-01	5.001E-01	5.148E-02	6.892
	+	87.30		1.839E+00	8.697E-01	1.148E+00	1.242E-01	1.602
	+	241.98		2.484E+00	7.645E-01	5.095E-01	4.009E-02	4.877
	+	295.21		1.161E+00	2.409E-01	2.016E-01	1.702E-02	5.758
	+	351.92	*	1.328E+00	1.795E-01	9.999E-02	8.168E-03	13.277
RA-224	+	240.98	*	4.711E+00	1.425E+00	9.628E-01	5.311E-02	4.893
RA-226	+	609.31	*	1.104E+00	1.712E-01	9.963E-02	8.202E-03	11.085
	+	1120.29		1.330E+00	4.722E-01	4.033E-01	3.664E-02	3.298
	+	1764.49		1.628E+00	4.276E-01	2.728E-01	1.617E-02	5.968
AC-228	+	338.32		1.329E+00	6.583E-01	3.256E-01	1.327E-01	4.080
	+	911.07	*	1.445E+00	2.931E-01	2.042E-01	2.242E-02	7.077
	+	969.11		1.668E+00	5.270E-01	3.180E-01	7.333E-02	5.244
RA-228	+	338.32		1.329E+00	6.583E-01	3.256E-01	1.327E-01	4.080
	+	911.07	*	1.445E+00	2.931E-01	2.042E-01	2.242E-02	7.077
	+	969.11		1.668E+00	5.270E-01	3.180E-01	7.333E-02	5.244
TH-228	+	74.81		2.489E+00	4.394E-01	5.218E-01	3.597E-02	4.769
	+	77.11		2.041E+00	3.039E-01	2.961E-01	2.050E-02	6.892
	+	87.30		1.089E+00	5.084E-01	6.801E-01	5.169E-02	1.602
	+	238.63	*	1.532E+00	1.478E-01	8.587E-02	6.097E-03	17.839
	+	300.09		1.452E+00	1.242E+00	9.998E-01	5.892E-01	1.453
TH-230	+	609.31	*	1.104E+00	1.712E-01	9.962E-02	8.202E-03	11.085
	+	1120.29		1.330E+00	4.722E-01	4.033E-01	3.664E-02	3.298
	+	1764.49		1.628E+00	4.276E-01	2.728E-01	1.617E-02	5.968
TH-232	+	338.32		1.329E+00	3.821E-01	3.256E-01	1.844E-02	4.080
	+	911.07	*	1.445E+00	2.931E-01	2.042E-01	2.242E-02	7.077
	+	969.11		1.668E+00	5.270E-01	3.180E-01	7.333E-02	5.244
PA-234M	+	766.42		3.535E+01	2.667E+01	1.606E+01	8.114E+00	2.202
	+	1001.03	*	7.741E+00	8.219E+00	6.313E+00	5.713E-01	1.226
TH-234	+	63.29	*	7.708E+00	2.533E+00	2.010E+00	3.422E-01	3.835
	+	92.38		7.687E+00	1.719E+00	9.105E-01	1.592E-01	8.442
U-234	+	609.31	*	1.104E+00	1.712E-01	9.962E-02	8.202E-03	11.085
	+	1120.29		1.330E+00	4.722E-01	4.033E-01	3.664E-02	3.298
	+	1764.49		1.628E+00	4.276E-01	2.728E-01	1.617E-02	5.968
U-235		89.95		-9.612E-01	1.668E+00	1.875E+00	5.728E-01	-0.513
	+	93.35		9.241E+00	2.861E+00	1.087E+00	3.002E-01	8.504
		105.00		3.003E-01	9.548E-01	1.590E+00	4.662E-01	0.189
	+	143.76	*	2.808E-01	3.021E-01	3.104E-01	5.041E-02	0.905

Sample ID : G245994009 Acquisition date : 12-FEB-2010 13:42:33

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		163.35		1.734E-02	4.388E-01	6.896E-01	1.227E-01	0.025
	+	185.71		3.989E-01	7.850E-02	6.699E-02	3.497E-03	5.955
		205.31		1.915E-01	5.450E-01	7.841E-01	1.399E-01	0.244
NP-237	+	86.50	*	6.814E-01	3.477E-01	3.626E-01	7.966E-02	1.879
		95.87		1.545E+00	1.051E+00	1.325E+00	3.197E-01	1.166
U-238	+	63.29	*	7.708E+00	2.533E+00	2.010E+00	3.422E-01	3.835
	+	92.38		7.687E+00	1.210E+00	9.105E-01	6.628E-02	8.442
AM-243	+	74.67	*	3.975E-01	7.004E-02	8.359E-02	5.680E-03	4.755
	+	86.72		2.555E+01	1.193E+01	1.357E+01	1.025E+00	1.884
		117.66		-5.701E+00	3.451E+00	5.217E+00	3.286E-01	-1.093
	+	142.18		2.359E+01	2.512E+01	2.587E+01	1.464E+00	0.912
ANH-511	+	511.00	*	1.478E-01	6.561E-02	4.077E-02	2.485E-03	3.624

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.325E-02	2.980E-01	4.826E-01	3.321E-02	0.048
NA-22		1274.54	*	-5.040E-03	4.151E-02	6.738E-02	4.339E-03	-0.075
NA-24		1368.53	*	-2.803E-01	4.151E-02	Half-Life too short		
AL-26		1129.67		6.454E-01	1.516E+00	2.571E+00	1.567E-01	0.251
		1808.65	*	-4.654E-03	2.540E-02	4.036E-02	2.316E-03	-0.115
TI-44		67.85		-1.202E-02	4.348E-02	7.203E-02	4.689E-03	-0.167
	+	78.38	*	3.710E-01	5.525E-02	6.765E-02	4.732E-03	5.484
SC-46		889.25	*	-9.358E-03	3.421E-02	5.375E-02	4.455E-03	-0.174
	+	1120.51		2.276E-01	7.938E-02	1.182E-01	7.342E-03	1.927
V-48		944.10		6.670E-01	7.753E-01	1.362E+00	1.094E-01	0.490
		983.50	*	8.076E-03	7.129E-02	1.019E-01	7.851E-03	0.079
		1312.09		-5.862E-02	7.198E-02	1.057E-01	7.175E-03	-0.554
CR-51		320.08	*	3.335E-02	3.239E-01	5.402E-01	3.434E-02	0.062
MN-52		744.21		-8.721E-02	2.184E-01	3.464E-01	2.474E-02	-0.252
		848.13		-1.780E+00	6.012E+00	9.483E+00	7.554E-01	-0.188
		935.52		2.357E-01	2.332E-01	4.119E-01	3.335E-02	0.572
		1246.25		2.536E-02	6.394E+00	1.054E+01	6.492E-01	0.002
		1333.61		-8.311E-01	4.573E+00	7.314E+00	5.108E-01	-0.114
		1434.06	*	1.596E-01	2.156E-01	3.863E-01	2.653E-02	0.413
MN-54		834.83	*	-1.132E-02	3.784E-02	6.008E-02	4.723E-03	-0.188
CO-56		846.75	*	-1.953E-02	3.513E-02	5.384E-02	4.283E-03	-0.363
		977.42		-2.144E-01	2.666E+00	4.245E+00	3.293E-01	-0.051
		1037.82		-2.416E-01	2.676E-01	4.043E-01	3.123E-02	-0.597
		1175.09		-1.290E+00	2.087E+00	3.253E+00	1.794E-01	-0.397
	+	1238.25		1.598E-01	9.961E-02	1.492E-01	9.604E-03	1.071
		1360.21		-4.373E-01	8.223E-01	1.233E+00	8.587E-02	-0.355
		1771.40		-1.933E-01	2.671E-01	3.012E-01	1.776E-02	-0.642
CO-57		122.06	*	1.806E-03	2.346E-02	3.854E-02	2.410E-03	0.047
		136.48		-1.910E-01	1.890E-01	2.930E-01	1.970E-02	-0.652
CO-58		810.76	*	-7.970E-03	3.823E-02	6.125E-02	4.713E-03	-0.130
FE-59	+	142.65		3.620E+00	3.855E+00	4.539E+00	2.564E-01	0.798
		192.34		3.934E-01	8.859E-01	1.440E+00	1.664E-01	0.273

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1099.22	*	-4.944E-03	7.894E-02	1.306E-01	9.647E-03	-0.038
		1291.56		-3.698E-02	1.102E-01	1.738E-01	1.400E-02	-0.213
CO-60		1173.22		-8.097E-03	3.988E-02	6.474E-02	3.559E-03	-0.125
		1332.49	*	-1.169E-02	3.513E-02	5.502E-02	3.843E-03	-0.212
ZN-65		1115.52	*	4.389E-02	9.402E-02	1.427E-01	8.978E-03	0.308
GE-68		1077.35	*	7.887E-01	1.133E+00	2.009E+00	1.354E-01	0.393
AS-73		53.44	*	7.352E-01	8.059E-01	1.394E+00	8.997E-02	0.528
AS-74		595.88	*	5.718E-02	8.790E-02	1.535E-01	9.769E-03	0.373
		634.78		-5.678E-02	3.293E-01	5.411E-01	3.487E-02	-0.105
SE-75		66.05		-1.855E+00	4.924E+00	7.314E+00	6.385E-01	-0.254
		96.73		1.234E+00	8.274E-01	1.091E+00	1.381E-01	1.131
		121.11		1.138E-01	1.255E-01	2.126E-01	2.024E-02	0.536
		136.00		-1.760E-02	3.452E-02	5.486E-02	3.239E-03	-0.321
		198.60		4.552E-01	1.717E+00	2.730E+00	1.834E-01	0.167
		264.65	*	1.339E-02	4.070E-02	6.169E-02	3.497E-03	0.217
		279.53		-1.169E-01	9.567E-02	1.494E-01	9.156E-03	-0.782
		303.91		1.478E+00	1.827E+00	2.848E+00	2.697E-01	0.519
		400.65		4.516E-02	2.250E-01	3.720E-01	3.325E-02	0.121
BR-77	+	87.88		5.033E+02	2.349E+02	3.243E+02	2.479E+01	1.552
		200.40		2.056E+01	1.530E+02	2.447E+02	1.298E+01	0.084
	+	239.00		2.391E+02	2.042E+01	3.497E+01	1.926E+00	6.837
		249.79		-7.375E+01	5.656E+01	8.880E+01	4.931E+00	-0.831
		281.68		-1.430E+01	7.642E+01	1.265E+02	7.149E+00	-0.113
		297.23		1.156E+02	6.759E+01	8.684E+01	4.929E+00	1.332
		303.76		8.252E+01	1.576E+02	2.405E+02	1.367E+01	0.343
		439.47		-4.571E+01	1.283E+02	2.023E+02	1.165E+01	-0.226
		484.57		3.202E+00	2.093E+02	3.369E+02	2.016E+01	0.010
		520.65	*	2.936E+00	9.036E+00	1.485E+01	9.107E-01	0.198
		574.64		-1.627E+02	2.018E+02	3.168E+02	1.999E+01	-0.514
		578.91		2.661E+01	9.004E+01	1.353E+02	8.552E+00	0.197
		585.48		5.195E+02	1.915E+02	3.373E+02	2.138E+01	1.540
		755.35		8.663E+01	1.593E+02	2.699E+02	1.952E+01	0.321
		817.79		-5.109E-01	1.181E+02	1.927E+02	1.489E+01	-0.003
SR-82		698.33		-1.844E+01	3.287E+01	4.937E+01	3.346E+00	-0.373
		776.49	*	-1.198E-01	3.543E-01	5.037E-01	3.727E-02	-0.238
		1395.20		6.496E+00	9.898E+00	1.755E+01	1.215E+00	0.370
RB-83		520.41	*	-3.839E-03	6.173E-02	9.816E-02	6.019E-03	-0.039
		529.64		-2.056E-02	1.009E-01	1.584E-01	9.765E-03	-0.130
		552.65		-1.183E-01	1.647E-01	2.610E-01	1.630E-02	-0.453
RB-84		881.50	*	-5.179E-03	6.509E-02	1.047E-01	8.613E-03	-0.049
KR-85		513.99	*	8.902E+00	6.856E+00	1.087E+01	6.641E-01	0.819
SR-85		513.99	*	4.562E-02	3.514E-02	5.573E-02	3.403E-03	0.819
RB-86		1076.63	*	4.700E-01	6.937E-01	1.231E+00	8.307E-02	0.382
Y-88		898.02		-1.531E-02	3.967E-02	5.977E-02	5.021E-03	-0.256
		1836.01	*	2.046E-02	3.361E-02	6.125E-02	3.448E-03	0.334
ZR-88		392.90	*	-3.463E-03	2.822E-02	4.574E-02	2.509E-03	-0.076
Y-91		1204.90	*	-8.906E+00	1.725E+01	2.711E+01	1.567E+00	-0.328
NB-94		702.63	*	3.381E-02	2.916E-02	5.252E-02	3.577E-03	0.644
		871.10		-4.429E-03	3.113E-02	4.978E-02	4.055E-03	-0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.79	*	7.177E-02	4.789E-02	7.818E-02	5.718E-03	0.918
NB-95M		235.69	*	4.401E-02	1.238E-01	1.884E-01	1.375E-02	0.234
ZR-95		724.18		1.304E-01	1.001E-01	1.621E-01	1.278E-02	0.804
		756.15	*	7.942E-02	6.815E-02	1.206E-01	9.957E-03	0.659
NB-97		657.90	*	3.434E-02	6.815E-02	Half-Life too short		
		1024.50		2.658E+00	6.815E-02	Half-Life too short		
ZR-97		254.15		3.833E+00	6.815E-02	Half-Life too short		
		355.39		2.845E+00	6.815E-02	Half-Life too short		
		507.63	*	3.369E+00	6.815E-02	Half-Life too short		
		602.52		-2.847E+00	6.815E-02	Half-Life too short		
		1021.30		-4.923E+00	6.815E-02	Half-Life too short		
		1147.95		6.734E-02	6.815E-02	Half-Life too short		
		1362.66		2.068E+00	6.815E-02	Half-Life too short		
		1750.46		1.099E+00	6.815E-02	Half-Life too short		
MO-99		140.51		8.014E+00	2.689E+01	3.900E+01	1.050E+01	0.205
		181.06		-4.467E+00	1.754E+01	2.455E+01	4.160E+00	-0.182
		366.43		-1.573E+01	7.418E+01	1.201E+02	6.715E+00	-0.131
		739.58	*	7.040E+00	9.803E+00	1.710E+01	2.458E+00	0.412
		778.00		-1.858E+01	2.901E+01	4.449E+01	3.297E+00	-0.418
TC-99M		140.51	*	1.038E+10	2.901E+01	Half-Life too short		
RH-101	+	127.23		4.654E-02	4.407E-02	4.900E-02	2.973E-03	0.950
		198.01	*	6.609E-03	3.117E-02	4.945E-02	2.616E-03	0.134
		325.23		-1.143E-02	2.151E-01	3.116E-01	1.770E-02	-0.037
RH-102		418.52		3.583E-02	2.615E-01	4.292E-01	2.421E-02	0.083
		475.06	*	-8.290E-03	2.717E-02	4.272E-02	2.537E-03	-0.194
		631.29		-3.696E-02	4.971E-02	7.776E-02	5.006E-03	-0.475
		697.49		-6.197E-02	7.079E-02	1.085E-01	7.342E-03	-0.571
	+	766.84		3.360E-01	1.898E-01	1.989E-01	1.457E-02	1.689
		1046.59		-3.118E-02	1.014E-01	1.645E-01	1.165E-02	-0.190
		1112.84		9.236E-02	2.209E-01	3.466E-01	2.187E-02	0.266
RU-103		497.08	*	-2.314E-02	3.839E-02	5.814E-02	7.416E-03	-0.398
	+	610.33		1.192E+01	2.435E+00	2.702E+00	4.230E-01	4.410
RH-106	+	511.85		7.381E-01	3.277E-01	4.070E-01	2.482E-02	1.813
		621.84	*	2.627E-01	2.860E-01	5.073E-01	6.116E-02	0.518
		1050.47		-1.614E-01	2.028E+00	3.364E+00	2.369E-01	-0.048
RU-106	+	511.85		7.381E-01	3.277E-01	4.070E-01	2.482E-02	1.813
		621.84	*	2.627E-01	2.847E-01	5.073E-01	3.257E-02	0.518
		1050.47		-1.614E-01	2.028E+00	3.364E+00	2.369E-01	-0.048
AG-108M		433.93	*	-6.303E-03	3.234E-02	5.084E-02	3.168E-03	-0.124
		614.37		3.381E-03	3.715E-02	5.449E-02	3.735E-03	0.062
		722.95		-7.242E-03	3.903E-02	5.437E-02	4.016E-03	-0.133
AG-110M		657.75	*	6.645E-03	3.947E-02	5.792E-02	3.948E-03	0.115
		677.61		-1.401E-01	2.627E-01	4.142E-01	2.868E-02	-0.338
		706.67		-1.739E-01	1.930E-01	2.943E-01	2.101E-02	-0.591
		763.93		1.676E-01	1.666E-01	2.644E-01	2.006E-02	0.634
		884.67		2.382E-02	4.432E-02	7.569E-02	6.465E-03	0.315
		937.48		-1.369E-01	1.057E-01	1.457E-01	1.226E-02	-0.940
		1384.27		6.908E-02	1.324E-01	2.322E-01	1.680E-02	0.298
IN-111		171.28		1.018E-01	9.035E-01	1.458E+00	7.501E-02	0.070

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	-3.613E-01	1.017E+00	1.478E+00	8.181E-02	-0.244
IN-113M		391.69	*	-2.672E-02	4.077E-02	6.366E-02	3.748E-03	-0.420
SN-113		391.69	*	-2.672E-02	4.077E-02	6.366E-02	3.748E-03	-0.420
IN-114M		190.27	*	-1.073E-01	1.954E-01	2.673E-01	1.402E-02	-0.401
CD-115		260.90		-3.481E+01	1.076E+02	1.776E+02	9.938E+00	-0.196
		492.35		-1.477E+01	3.128E+01	4.818E+01	2.899E+00	-0.307
		527.90	*	2.766E+00	9.929E+00	1.622E+01	9.991E-01	0.171
SN-117M		156.02		-3.407E-01	2.047E+00	3.281E+00	1.752E-01	-0.104
		158.56	*	-3.153E-02	4.889E-02	7.640E-02	4.036E-03	-0.413
SB-122		563.90	*	1.770E+00	1.769E+00	3.178E+00	1.996E-01	0.557
		692.80		2.017E+01	3.944E+01	6.781E+01	4.565E+00	0.297
I-123		159.00	*	-3.264E+00	3.944E+01	Half-Life too short		
		528.96		1.446E+02	3.944E+01	Half-Life too short		
TE-123M		159.00	*	-1.708E-02	2.544E-02	3.970E-02	2.127E-03	-0.430
I-124		602.71	*	-9.992E-02	6.473E-01	9.254E-01	5.905E-02	-0.108
		722.78		-8.026E-01	4.042E+00	5.621E+00	3.919E-01	-0.143
		1325.50		-1.040E+01	2.888E+01	4.497E+01	3.110E+00	-0.231
		1376.25		3.997E+01	2.959E+01	5.526E+01	3.838E+00	0.723
		1509.49		2.957E+01	1.524E+01	3.053E+01	2.055E+00	0.968
		1691.02		3.151E+00	3.396E+00	6.512E+00	4.042E-01	0.484
SB-124		602.71		-5.849E-03	3.789E-02	5.416E-02	3.458E-03	-0.108
		645.85		1.313E-02	4.511E-01	7.521E-01	5.368E-02	0.017
		709.31		1.926E+00	2.559E+00	4.469E+00	3.068E-01	0.431
		713.82		4.988E-01	1.533E+00	2.594E+00	2.820E-01	0.192
		722.78		-6.810E-02	3.430E-01	4.769E-01	3.434E-02	-0.143
	+	968.20		1.716E+01	3.944E+00	7.108E+00	5.570E-01	2.414
		1045.16		-1.717E-01	2.212E+00	3.671E+00	2.607E-01	-0.047
		1325.50		-9.428E-01	2.617E+00	4.075E+00	2.818E-01	-0.231
		1368.21		-5.233E-01	1.600E+00	2.493E+00	3.111E-01	-0.210
		1436.60		-2.216E+00	3.443E+00	5.037E+00	3.458E-01	-0.440
		1691.02	*	6.307E-02	6.799E-02	1.303E-01	8.697E-03	0.484
SB-125		427.89	*	5.375E-02	8.934E-02	1.507E-01	8.958E-03	0.357
	+	463.38		7.970E-01	3.158E-01	5.062E-01	3.459E-02	1.575
		600.56		-1.039E-01	1.732E-01	2.666E-01	1.923E-02	-0.390
		635.90		6.551E-02	2.512E-01	4.266E-01	3.136E-02	0.154
TE-125M		109.28	*	-2.593E+00	8.743E+00	1.423E+01	1.227E+00	-0.182
I-126		388.63		7.496E-02	1.812E-01	3.042E-01	1.671E-02	0.246
		666.33	*	1.366E-02	1.919E-01	2.786E-01	1.816E-02	0.049
		753.82		-5.079E-01	1.455E+00	2.292E+00	1.655E-01	-0.222
SB-126		223.80		-2.220E-01	3.465E+00	5.860E+00	3.184E-01	-0.038
		278.60		5.891E-01	2.162E+00	3.666E+00	2.069E-01	0.161
		296.50		9.485E+00	2.054E+00	3.108E+00	1.764E-01	3.052
		414.70		1.312E-02	6.633E-02	1.094E-01	6.150E-03	0.120
		415.30		-2.022E+00	5.648E+00	8.957E+00	5.036E-01	-0.226
		555.20		1.495E+00	3.043E+00	5.326E+00	3.330E-01	0.281
		573.80		-4.260E-01	9.818E-01	1.598E+00	1.008E-01	-0.267
		593.00		-1.911E-01	8.693E-01	1.432E+00	9.106E-02	-0.133
		656.30		-1.107E+00	3.672E+00	5.118E+00	3.315E-01	-0.216
		666.33		5.707E-03	8.018E-02	1.164E-01	7.589E-03	0.049

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		675.00		6.431E-01	1.693E+00	2.897E+00	1.909E-01	0.222
		695.00		1.175E-02	7.093E-02	1.188E-01	8.020E-03	0.099
		697.00		-2.441E-01	2.483E-01	3.766E-01	2.548E-02	-0.648
		720.50	*	1.784E-02	1.377E-01	2.000E-01	1.391E-02	0.089
		856.80		1.485E-01	4.819E-01	7.051E-01	5.665E-02	0.211
		989.30		-3.002E-01	1.116E+00	1.735E+00	1.328E-01	-0.173
		1034.80		-8.211E-02	7.310E+00	1.222E+01	8.810E-01	-0.007
		1213.00		5.081E-01	4.281E+00	7.142E+00	4.182E-01	0.071
SB-127		61.10		6.911E+01	5.873E+01	9.383E+01	8.892E+00	0.737
		252.40		-1.901E-01	3.643E+00	6.116E+00	2.539E+00	-0.031
		290.80		-5.632E-01	2.095E+01	3.070E+01	2.781E+00	-0.018
		411.60		-3.552E+00	1.112E+01	1.770E+01	2.528E+00	-0.201
		444.90		5.159E+00	8.514E+00	1.438E+01	1.549E+00	0.359
		473.00		2.085E-01	1.534E+00	2.496E+00	2.803E-01	0.084
		543.00		2.528E+00	1.344E+01	2.297E+01	3.005E+00	0.110
		603.60		-7.537E+00	1.143E+01	1.536E+01	1.701E+00	-0.491
		685.20	*	7.709E-02	1.185E+00	1.972E+00	1.967E-01	0.039
		698.50		-7.965E+00	1.459E+01	2.189E+01	3.258E+00	-0.364
		722.20		1.618E+00	2.675E+01	3.853E+01	3.824E+00	0.042
		783.80		6.445E+00	3.618E+00	6.599E+00	7.673E-01	0.977
XE-127		57.60		7.352E-01	5.814E+00	9.482E+00	5.992E-01	0.078
		145.22		3.779E-01	7.320E-01	1.088E+00	6.081E-02	0.347
		172.10		2.243E-02	1.084E-01	1.757E-01	9.047E-03	0.128
		202.84	*	-1.178E-02	4.500E-02	7.056E-02	3.752E-03	-0.167
		374.96		8.377E-02	1.757E-01	2.969E-01	1.650E-02	0.282
I-131		80.18		-3.961E-01	5.684E+00	6.749E+00	4.838E-01	-0.059
		284.30		-1.277E-01	1.277E+00	2.122E+00	1.341E-01	-0.060
		364.48	*	9.904E-03	1.002E-01	1.657E-01	1.043E-02	0.060
		636.97		1.024E+00	1.368E+00	2.409E+00	1.705E-01	0.425
		722.89		-1.247E+00	6.545E+00	9.112E+00	6.415E-01	-0.137
TE-132		49.72		1.102E+00	1.763E+01	3.016E+01	2.798E+00	0.037
		111.76		1.755E+01	2.891E+01	4.817E+01	4.426E+00	0.364
		116.30		-1.954E+01	2.468E+01	3.904E+01	3.562E+00	-0.500
		228.16	*	4.889E-01	6.037E-01	1.051E+00	1.494E-01	0.465
BA-133		53.15		3.711E+00	3.486E+00	6.055E+00	3.915E-01	0.613
		79.62		-1.455E-01	1.376E+00	1.880E+00	2.707E-01	-0.077
		81.00		9.234E-02	1.162E-01	1.457E-01	2.204E-02	0.634
		276.40		3.145E-01	3.345E-01	5.649E-01	7.283E-02	0.557
		302.84		1.989E-02	1.277E-01	1.893E-01	2.195E-02	0.105
		356.01	*	3.123E-02	4.038E-02	6.218E-02	7.134E-03	0.502
		383.85		-2.707E-02	2.552E-01	4.146E-01	4.446E-02	-0.065
I-133	+	510.53		1.449E+00	2.552E-01	Half-Life too short		
		529.87	*	-1.415E-03	2.552E-01	Half-Life too short		
		706.58		-3.475E-01	2.552E-01	Half-Life too short		
		856.28		1.504E-01	2.552E-01	Half-Life too short		
		875.33		-3.238E-02	2.552E-01	Half-Life too short		
	+	1236.41		1.117E+00	2.552E-01	Half-Life too short		
		1298.22		1.962E-01	2.552E-01	Half-Life too short		
CS-134		475.35		-3.197E-01	1.752E+00	2.781E+00	1.652E-01	-0.115

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		563.23		2.194E-01	3.111E-01	5.488E-01	3.507E-02	0.400
		569.32		1.197E-01	1.873E-01	3.246E-01	2.095E-02	0.369
		604.70		-1.055E-02	3.243E-02	4.542E-02	2.914E-03	-0.232
		795.84	*	8.390E-02	5.190E-02	8.604E-02	6.560E-03	0.975
		801.93		2.096E-01	3.571E-01	6.142E-01	4.702E-02	0.341
		1038.57		-2.559E+00	3.346E+00	5.148E+00	3.691E-01	-0.497
		1167.94		-1.346E+00	2.113E+00	3.265E+00	1.819E-01	-0.412
		1365.15		2.987E-01	1.067E+00	1.811E+00	1.347E-01	0.165
I-135		288.45		-1.376E+10	1.067E+00	Half-Life too short		
		417.63		5.543E+09	1.067E+00	Half-Life too short		
		546.56		8.595E+09	1.067E+00	Half-Life too short		
		836.80		1.728E+10	1.067E+00	Half-Life too short		
		1038.76		-1.052E+10	1.067E+00	Half-Life too short		
		1124.00		-2.139E+10	1.067E+00	Half-Life too short		
		1131.51		3.107E+09	1.067E+00	Half-Life too short		
		1260.41	*	2.674E+08	1.067E+00	Half-Life too short		
		1457.56		6.810E+11	1.067E+00	Half-Life too short		
		1678.03		-9.444E+09	1.067E+00	Half-Life too short		
		1706.46		-1.781E+08	1.067E+00	Half-Life too short		
		1791.20		7.151E+09	1.067E+00	Half-Life too short		
CS-136		66.91		6.323E-02	7.524E-01	1.209E+00	1.736E-01	0.052
	+	86.29		3.021E+00	1.439E+00	1.939E+00	2.354E-01	1.558
		153.22		2.067E-01	6.103E-01	1.001E+00	6.912E-02	0.207
		163.89		-6.690E-02	1.006E+00	1.575E+00	1.064E-01	-0.042
		176.55		-6.565E-03	3.336E-01	5.341E-01	3.185E-02	-0.012
		273.65		-3.270E-01	4.521E-01	6.331E-01	4.095E-02	-0.517
		340.57		1.264E-01	1.222E-01	1.911E-01	1.154E-02	0.661
		818.51		3.840E-03	6.447E-02	1.058E-01	8.192E-03	0.036
		1048.07	*	-4.671E-03	9.594E-02	1.596E-01	1.199E-02	-0.029
		1235.34		5.388E-01	6.012E-01	9.418E-01	9.550E-02	0.572
CE-139		165.85	*	-7.866E-03	2.720E-02	4.315E-02	2.211E-03	-0.182
BA-140		162.64		2.479E-01	7.016E-01	1.119E+00	6.704E-02	0.222
		304.84		-8.318E-01	1.134E+00	1.617E+00	4.408E-01	-0.514
		423.70		-4.849E-01	1.804E+00	2.867E+00	9.104E-01	-0.169
		537.32	*	-1.932E-01	2.187E-01	3.269E-01	1.065E-01	-0.591
LA-140	+	328.77		8.454E-01	3.850E-01	4.789E-01	3.059E-02	1.765
		432.53		-4.061E-01	2.009E+00	3.156E+00	1.999E-01	-0.129
		487.03		4.571E-02	1.218E-01	2.017E-01	1.359E-02	0.227
		751.79		-7.557E-01	1.587E+00	2.497E+00	2.068E-01	-0.303
		815.85		-5.366E-02	3.023E-01	4.780E-01	4.210E-02	-0.112
		867.82		1.112E+00	1.319E+00	2.206E+00	1.898E-01	0.504
		919.63		-4.232E-01	2.577E+00	4.090E+00	4.221E-01	-0.103
		925.24		-4.617E-01	1.070E+00	1.649E+00	1.441E-01	-0.280
		1596.49	*	-9.506E-02	7.785E-02	1.006E-01	6.551E-03	-0.945
CE-141		145.44	*	1.548E-02	6.505E-02	9.534E-02	5.551E-03	0.162
CE-143		57.37		6.463E-05	6.505E-02	Half-Life too short		
		231.56		-1.108E-03	6.505E-02	Half-Life too short		
		293.26	*	8.236E-04	6.505E-02	Half-Life too short		
	+	350.59		2.956E-02	6.505E-02	Half-Life too short		

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		490.36		-6.681E-04	6.505E-02	Half-Life too short		
		664.57		7.968E-04	6.505E-02	Half-Life too short		
		721.93		1.844E-04	6.505E-02	Half-Life too short		
CE-144		80.11		-1.877E-01	2.627E+00	3.119E+00	2.214E-01	-0.060
		133.54	*	-1.069E-02	1.925E-01	2.980E-01	4.243E-02	-0.036
PM-144		476.78		-1.193E-02	6.197E-02	9.826E-02	6.943E-03	-0.121
		618.01		-1.871E-02	2.881E-02	4.560E-02	3.069E-03	-0.410
		696.49	*	-2.092E-02	3.199E-02	5.006E-02	3.387E-03	-0.418
		778.57		-9.066E-01	2.009E+00	3.147E+00	2.335E-01	-0.288
PR-144		696.49	*	-1.417E+00	2.168E+00	3.392E+00	2.294E-01	-0.418
		1489.15		2.693E+00	9.578E+00	1.629E+01	1.103E+00	0.165
PM-146		453.90	*	1.334E-03	3.848E-02	6.236E-02	5.391E-03	0.021
		633.02		1.723E-01	1.260E+00	2.118E+00	7.822E-01	0.081
		735.90		-2.881E-02	1.365E-01	2.065E-01	5.819E-02	-0.139
		747.13		2.740E-02	8.532E-02	1.440E-01	1.900E-02	0.190
ND-147		91.11		1.060E+00	4.557E-01	6.192E-01	5.077E-02	1.711
		319.41		-3.281E-01	2.946E+00	4.852E+00	2.759E-01	-0.068
		439.89		-2.357E+00	5.304E+00	8.306E+00	4.787E-01	-0.284
		531.02	*	8.639E-02	5.354E-01	8.657E-01	1.185E-01	0.100
PM-149		285.90	*	-8.588E+00	7.619E+01	1.265E+02	1.785E+01	-0.068
EU-152		121.78		3.982E-02	6.754E-02	1.132E-01	9.007E-03	0.352
		244.69		-2.237E-01	3.217E-01	4.565E-01	2.525E-02	-0.490
		344.27	*	-5.411E-04	8.912E-02	1.420E-01	9.099E-03	-0.004
		443.98		2.170E-01	8.551E-01	1.411E+00	8.158E-02	0.154
		778.89		-1.860E-01	2.407E-01	3.651E-01	2.709E-02	-0.510
		867.32		3.720E-01	8.363E-01	1.298E+00	1.053E-01	0.287
	+	964.01		6.066E-01	3.620E-01	5.092E-01	4.008E-02	1.191
		1085.78		-2.135E-02	3.590E-01	5.950E-01	3.953E-02	-0.036
		1112.02		5.877E-02	3.035E-01	4.788E-01	3.027E-02	0.123
		1407.95		5.200E-02	1.740E-01	2.850E-01	1.969E-02	0.182
GD-153		69.67		-5.489E-01	1.615E+00	2.549E+00	1.676E-01	-0.215
	+	83.37		2.008E+01	1.632E+01	2.512E+01	1.837E+00	0.799
	+	97.43	*	2.570E-01	1.102E-01	1.175E-01	8.168E-03	2.188
		103.18		-7.850E-02	1.048E-01	1.482E-01	9.906E-03	-0.530
EU-154		123.07		-2.930E-02	4.768E-02	7.584E-02	7.328E-03	-0.386
		247.94		1.216E-01	3.256E-01	5.411E-01	5.081E-02	0.225
		591.81		-3.731E-01	5.752E-01	9.147E-01	9.251E-02	-0.408
		723.30		-5.146E-02	1.683E-01	2.307E-01	1.863E-02	-0.223
		756.87		6.413E-01	7.314E-01	1.282E+00	1.414E-01	0.500
		873.19		-2.126E-01	2.731E-01	4.046E-01	4.826E-02	-0.525
		996.32		3.917E-02	3.609E-01	5.310E-01	9.180E-02	0.074
		1004.76		1.269E-01	2.194E-01	3.414E-01	3.701E-02	0.372
		1274.45	*	-1.514E-02	1.158E-01	1.878E-01	1.830E-02	-0.081
EU-155		48.70		-3.488E-01	2.298E+00	3.856E+00	2.520E-01	-0.090
		60.01		6.938E-01	5.124E+00	7.890E+00	4.958E-01	0.088
	+	86.54		2.795E-01	1.305E-01	1.829E-01	1.398E-02	1.528
		105.31	*	6.335E-02	9.774E-02	1.653E-01	1.114E-02	0.383
TB-160	+	86.79		7.462E-01	3.482E-01	4.913E-01	3.715E-02	1.519
		197.04		-2.001E-02	5.246E-01	8.222E-01	4.345E-02	-0.024

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		215.65		1.885E-01	6.944E-01	1.113E+00	6.001E-02	0.169
	+	298.57		2.081E-01	1.295E-01	1.763E-01	1.001E-02	1.180
		879.36	*	2.844E-02	1.270E-01	2.105E-01	1.729E-02	0.135
		962.29		3.305E-01	5.892E-01	8.820E-01	6.955E-02	0.375
		966.15		1.362E+00	2.802E-01	5.425E-01	4.261E-02	2.510
		1177.93		1.541E-01	3.436E-01	5.909E-01	3.273E-02	0.261
		1271.85		-4.574E-01	6.518E-01	9.876E-01	6.322E-02	-0.463
HO-166M		80.57		-2.162E-02	3.362E-01	3.992E-01	2.845E-02	-0.054
	+	184.41		2.992E-01	5.887E-02	7.878E-02	4.107E-03	3.798
		280.46		-6.988E-02	7.459E-02	1.185E-01	6.692E-03	-0.590
		410.95		1.866E-01	2.238E-01	3.838E-01	2.148E-02	0.486
		711.68	*	3.708E-02	5.616E-02	9.747E-02	6.709E-03	0.380
		752.31		1.980E-02	2.645E-01	4.372E-01	3.151E-02	0.045
		810.29		1.595E-02	5.503E-02	9.221E-02	7.070E-03	0.173
TM-171		51.35		-1.635E+01	2.888E+01	4.820E+01	3.141E+00	-0.339
		52.39		7.934E+00	1.522E+01	2.602E+01	1.688E+00	0.305
		59.40		-9.141E+00	2.723E+01	4.087E+01	2.563E+00	-0.224
		66.72	*	-1.451E+00	2.906E+01	4.381E+01	2.835E+00	-0.033
LU-176	+	88.36		5.504E-01	2.569E-01	3.502E-01	2.669E-02	1.571
		201.83		-1.987E-02	2.813E-02	4.317E-02	2.293E-03	-0.460
		306.84	*	-5.604E-03	2.024E-02	3.308E-02	1.880E-03	-0.169
		401.10		-7.060E-01	5.947E+00	9.623E+00	5.327E-01	-0.073
LU-177		112.95		1.976E+00	1.567E+00	2.669E+00	1.705E-01	0.740
	+	208.36	*	2.477E+00	1.358E+00	1.790E+00	9.572E-02	1.384
LU-177M		52.97		1.568E+00	1.573E+00	2.727E+00	1.765E-01	0.575
		54.07		3.714E-01	8.144E-01	1.388E+00	8.931E-02	0.268
		61.30		2.389E+00	1.546E+00	2.507E+00	1.584E-01	0.953
		121.62		2.321E-01	3.474E-01	5.844E-01	3.649E-02	0.397
		147.16		-1.919E-01	6.783E-01	9.640E-01	5.342E-02	-0.199
		171.86		1.271E-01	4.389E-01	7.140E-01	3.675E-02	0.178
		218.09		4.211E-01	7.899E-01	1.282E+00	6.928E-02	0.328
	+	268.79		1.847E+00	9.022E-01	1.308E+00	7.349E-02	1.412
		319.02		1.142E-03	2.318E-01	3.845E-01	2.185E-02	0.003
		367.43		5.040E-03	8.058E-01	1.324E+00	7.394E-02	0.004
		413.65	*	-3.565E-02	1.587E-01	2.542E-01	1.427E-02	-0.140
HF-181		56.28		-4.114E-01	8.799E-01	1.469E+00	9.343E-02	-0.280
		57.53		5.296E-02	4.890E-01	7.970E-01	5.038E-02	0.066
		65.20		-8.484E-01	1.001E+00	1.456E+00	9.358E-02	-0.583
		133.02		5.209E-02	6.354E-02	9.684E-02	5.712E-03	0.538
		136.25		-3.066E-01	4.071E-01	6.393E-01	3.715E-02	-0.480
		345.85		-1.555E-01	1.870E-01	2.673E-01	1.510E-02	-0.582
		482.03	*	6.010E-05	3.964E-02	6.377E-02	3.808E-03	0.001
W-181		56.28		-1.601E-01	3.446E-01	5.754E-01	3.660E-02	-0.278
		57.53		2.065E-02	1.916E-01	3.123E-01	1.975E-02	0.066
		65.20	*	-3.299E-01	3.892E-01	5.663E-01	3.639E-02	-0.583
TA-182		67.75		-2.868E-02	1.038E-01	1.719E-01	1.119E-02	-0.167
	+	100.10		5.986E-01	2.567E-01	2.683E-01	1.829E-02	2.231
		152.43		1.163E-02	3.131E-01	5.071E-01	2.748E-02	0.023
		222.10		-1.064E-01	3.030E-01	4.966E-01	2.694E-02	-0.214

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1001.68		3.409E+00	3.615E+00	4.194E+00	3.161E-01	0.813
	+	1121.28		6.288E-01	2.193E-01	3.138E-01	1.947E-02	2.004
		1189.05		-2.104E-01	2.971E-01	4.597E-01	2.592E-02	-0.458
		1221.42	*	-1.234E-03	1.755E-01	2.895E-01	1.717E-02	-0.004
		1230.97		9.957E-03	4.695E-01	6.671E-01	4.016E-02	0.015
RE-183		57.98		7.894E-02	2.021E-01	3.142E-01	1.982E-02	0.251
		59.32		2.312E-03	1.093E-01	1.669E-01	1.047E-02	0.014
		67.20		-2.378E-02	1.961E-01	3.129E-01	2.030E-02	-0.076
		162.32	*	3.290E-02	1.024E-01	1.631E-01	8.480E-03	0.202
	+	208.81		2.237E+00	1.226E+00	1.614E+00	8.640E-02	1.385
		291.72		7.039E-02	9.351E-01	1.380E+00	7.825E-02	0.051
RE-184		57.98		2.910E-01	7.448E-01	1.158E+00	7.306E-02	0.251
		59.32		8.516E-03	4.026E-01	6.147E-01	3.857E-02	0.014
		67.20		-8.763E-02	7.226E-01	1.153E+00	7.479E-02	-0.076
		161.27		6.757E-02	3.179E-01	5.173E-01	2.701E-02	0.131
		216.55		1.876E-02	2.506E-01	3.978E-01	2.146E-02	0.047
		252.85	*	-7.741E-03	1.957E-01	3.289E-01	1.830E-02	-0.024
		318.01		-1.207E-01	4.080E-01	6.653E-01	3.782E-02	-0.181
		792.07		1.774E+00	1.078E+00	1.798E+00	1.353E-01	0.987
		903.28		4.252E-01	1.039E+00	1.597E+00	1.329E-01	0.266
		920.93		9.939E-02	4.146E-01	6.861E-01	5.627E-02	0.145
OS-185		59.72		6.984E-03	3.032E-01	4.629E-01	2.905E-02	0.015
		61.14		2.044E-01	1.680E-01	2.697E-01	1.703E-02	0.758
		69.30		-3.985E-02	2.759E-01	4.587E-01	3.009E-02	-0.087
		592.07		-1.768E+00	2.402E+00	3.802E+00	2.417E-01	-0.465
		646.12	*	3.384E-03	3.833E-02	6.421E-02	4.149E-03	0.053
		717.42		-1.708E-01	7.890E-01	1.277E+00	8.845E-02	-0.134
		874.81		-2.338E-01	5.198E-01	8.020E-01	6.557E-02	-0.292
		880.27		5.711E-01	6.843E-01	1.201E+00	9.871E-02	0.475
RE-188		155.03	*	1.836E-01	1.551E-01	2.631E-01	1.410E-02	0.698
		477.96		9.805E-01	2.846E+00	4.701E+00	2.798E-01	0.209
		633.10		3.818E-01	2.545E+00	4.288E+00	2.762E-01	0.089
W-188	+	63.58		3.097E+02	8.923E+01	1.076E+02	6.863E+00	2.878
		227.08		-2.566E+00	1.105E+01	1.854E+01	1.010E+00	-0.138
		290.67	*	-8.046E-01	7.314E+00	1.065E+01	6.038E-01	-0.076
IR-192	+	295.96		8.849E-01	1.753E-01	2.595E-01	1.497E-02	3.410
		308.46		-1.189E-02	8.189E-02	1.349E-01	7.761E-03	-0.088
		316.51	*	1.155E-03	3.061E-02	5.090E-02	2.909E-03	0.023
		468.07		-2.310E-02	6.251E-02	9.414E-02	6.381E-03	-0.245
		604.41		-1.005E-01	4.413E-01	6.253E-01	7.290E-02	-0.161
		612.46		7.003E-01	6.891E-01	1.103E+00	8.869E-02	0.635
AU-195		65.12		-6.479E-02	1.787E-01	2.660E-01	1.709E-02	-0.244
		66.83		-2.670E-04	9.617E-02	1.453E-01	9.407E-03	-0.002
	+	75.70		1.286E+00	2.266E-01	4.454E-01	3.050E-02	2.887
	+	98.88	*	7.484E-01	3.210E-01	3.648E-01	2.508E-02	2.052
		129.76		2.024E+00	2.972E+00	4.487E+00	2.688E-01	0.451
TL-200		367.94	*	1.448E-05	2.972E+00	Half-Life too short		
		579.30		1.590E-03	2.972E+00	Half-Life too short		
		828.27		3.662E-04	2.972E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1205.75		-9.462E-05	2.972E+00	Half-Life too short		
TL-201		68.90		-6.633E-03	4.429E+00	7.401E+00	4.845E-01	-0.001
		70.82		2.375E-01	2.773E+00	4.206E+00	2.785E-01	0.056
		80.30		-4.103E-01	6.153E+00	7.306E+00	5.195E-01	-0.056
		135.34		-2.789E+00	2.203E+01	3.567E+01	2.081E+00	-0.078
		167.43	*	-1.273E+00	6.212E+00	9.889E+00	5.069E-01	-0.129
TL-202		68.90		-6.012E-04	4.015E-01	6.708E-01	4.391E-02	-0.001
		70.82		2.147E-02	2.506E-01	3.802E-01	2.517E-02	0.056
		80.30		-3.710E-02	5.564E-01	6.607E-01	4.698E-02	-0.056
		439.56	*	-2.197E-02	6.280E-02	9.908E-02	5.706E-03	-0.222
HG-203		70.83		9.692E-02	1.088E+00	1.651E+00	2.053E-01	0.059
		72.87		5.067E-01	6.370E-01	9.881E-01	1.190E-01	0.513
	+	82.60		1.492E+00	1.223E+00	1.798E+00	2.326E-01	0.830
		279.20	*	-2.075E-02	3.512E-02	5.690E-02	3.422E-03	-0.365
BI-207		72.80		1.056E-01	1.851E-01	2.858E-01	1.916E-02	0.370
	+	74.97		7.135E-01	1.257E-01	2.245E-01	1.529E-02	3.178
	+	84.90		2.598E-01	2.110E-01	3.226E-01	2.394E-02	0.805
		569.67		1.634E-02	2.958E-02	5.098E-02	3.210E-03	0.320
		1063.62	*	2.354E-02	4.499E-02	7.890E-02	5.443E-03	0.298
		1770.23		-8.803E-02	4.921E-01	6.626E-01	3.910E-02	-0.133
TL-207		81.07		2.086E-01	2.551E-01	3.220E-01	2.305E-02	0.648
	+	83.78		1.713E-01	1.392E-01	2.125E-01	1.560E-02	0.806
		94.90		-7.252E-01	2.752E-01	3.538E-01	2.514E-02	-2.049
		122.32		-2.068E-01	1.608E+00	2.619E+00	1.854E-01	-0.079
	+	144.24		9.101E-01	9.699E-01	1.140E+00	8.075E-02	0.798
		154.21		4.405E-01	3.629E-01	6.152E-01	4.104E-02	0.716
	+	269.46		4.326E-01	2.114E-01	3.243E-01	1.911E-02	1.334
		323.87	*	4.100E-03	6.334E-01	9.223E-01	1.519E-01	0.004
	+	338.28		5.548E+00	1.669E+00	2.245E+00	2.347E-01	2.472
		445.03		5.784E-01	2.031E+00	3.356E+00	3.444E-01	0.172
PO-209		260.50		1.196E+00	7.952E+00	1.347E+01	7.531E-01	0.089
		262.80		4.243E+00	2.219E+01	3.764E+01	2.108E+00	0.113
		896.60	*	-8.586E-01	6.766E+00	1.045E+01	8.723E-01	-0.082
BI-210		46.50	*	8.566E-01	3.136E+00	5.390E+00	4.060E-01	0.159
PB-210		46.50	*	8.566E-01	3.136E+00	5.390E+00	4.060E-01	0.159
PO-210		46.50	*	8.566E-01	3.136E+00	5.390E+00	3.457E-01	0.159
PB-211		404.84	*	-1.115E-01	8.778E-01	1.415E+00	8.816E-01	-0.079
		427.08		-3.308E-01	2.033E+00	3.249E+00	2.008E+00	-0.102
		831.96		-1.235E-01	1.176E+00	1.894E+00	1.185E+00	-0.065
BI-212	+	727.18	*	1.470E+00	5.008E-01	6.674E-01	5.778E-02	2.202
		785.46		2.246E+00	1.823E+00	3.247E+00	2.425E-01	0.692
		1620.62		-1.480E-01	1.123E+00	1.835E+00	1.182E-01	-0.081
PO-215		81.07		2.086E-01	2.551E-01	3.220E-01	2.305E-02	0.648
	+	83.78		1.713E-01	1.392E-01	2.125E-01	1.560E-02	0.806
		94.90		-7.252E-01	2.752E-01	3.538E-01	2.514E-02	-2.049
		122.32		-2.068E-01	1.608E+00	2.619E+00	1.854E-01	-0.079
	+	144.24		9.101E-01	9.699E-01	1.140E+00	8.075E-02	0.798
		154.21		4.405E-01	3.629E-01	6.152E-01	4.104E-02	0.716
	+	269.46		4.326E-01	2.114E-01	3.243E-01	1.911E-02	1.334

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	4.100E-03	6.334E-01	9.223E-01	1.519E-01	0.004
	+	338.28		5.548E+00	1.669E+00	2.245E+00	2.347E-01	2.472
		445.03		5.784E-01	2.031E+00	3.356E+00	3.444E-01	0.172
RN-219	+	271.23		2.482E-01	2.721E-01	4.077E-01	3.254E-02	0.609
		401.81	*	-4.679E-01	3.838E-01	5.650E-01	7.626E-02	-0.828
RN-220		549.76	*	1.687E+01	2.233E+01	3.964E+01	2.471E+00	0.426
RA-223		81.07		2.086E-01	2.551E-01	3.220E-01	2.305E-02	0.648
	+	83.78		1.713E-01	1.392E-01	2.125E-01	1.560E-02	0.806
		94.90		-7.252E-01	2.752E-01	3.538E-01	2.514E-02	-2.049
		122.32		-2.068E-01	1.608E+00	2.619E+00	1.854E-01	-0.079
	+	144.24		9.101E-01	9.699E-01	1.140E+00	8.075E-02	0.798
		154.21		4.405E-01	3.629E-01	6.152E-01	4.104E-02	0.716
	+	269.46		4.326E-01	2.114E-01	3.243E-01	1.911E-02	1.334
		323.87	*	4.100E-03	6.334E-01	9.223E-01	1.519E-01	0.004
	+	338.28		5.548E+00	1.669E+00	2.245E+00	2.347E-01	2.472
		445.03		5.784E-01	2.031E+00	3.356E+00	3.444E-01	0.172
AC-227		79.80		-9.894E-02	1.747E+00	2.393E+00	5.010E-01	-0.041
		236.00		5.233E-01	2.539E-01	4.096E-01	4.212E-02	1.278
		256.20	*	-1.622E-01	3.307E-01	5.415E-01	7.510E-02	-0.300
		286.10		5.162E-02	1.295E+00	2.167E+00	2.491E-01	0.024
	+	299.80		2.652E+00	1.699E+00	2.264E+00	3.677E-01	1.171
		304.40		-3.746E-01	1.723E+00	2.473E+00	4.267E-01	-0.152
		334.20		-4.492E-02	2.384E+00	3.218E+00	5.886E-01	-0.014
TH-227		79.80		-9.894E-02	1.747E+00	2.393E+00	5.078E-01	-0.041
	+	94.00		2.970E+01	7.559E+00	4.300E+00	9.135E-01	6.908
		236.00		5.233E-01	2.524E-01	4.096E-01	3.630E-02	1.278
		256.20	*	-1.622E-01	3.311E-01	5.415E-01	9.110E-02	-0.300
		286.10		5.162E-02	1.296E+00	2.167E+00	2.171E+00	0.024
	+	299.80		2.652E+00	1.699E+00	2.264E+00	3.677E-01	1.171
		304.40		-3.746E-01	1.723E+00	2.473E+00	4.267E-01	-0.152
		334.20		-4.492E-02	2.384E+00	3.218E+00	5.886E-01	-0.014
TH-229		85.43		2.039E-01	2.454E-01	3.117E-01	2.325E-02	0.654
		88.47		-2.072E-03	1.690E-01	2.010E-01	1.530E-02	-0.010
	+	100.00		6.212E-01	2.664E-01	2.814E-01	1.919E-02	2.208
		193.63	*	2.708E-01	4.666E-01	7.638E-01	4.021E-02	0.355
		210.97		4.052E-01	7.678E-01	1.118E+00	5.994E-02	0.363
PA-231		283.67	*	5.047E-01	1.269E+00	2.164E+00	2.969E-01	0.233
		301.29		7.470E-01	5.480E-01	8.742E-01	9.080E-02	0.854
TH-231		81.07		2.086E-01	2.551E-01	3.220E-01	2.305E-02	0.648
	+	83.78		1.713E-01	1.392E-01	2.125E-01	1.560E-02	0.806
		94.90		-7.252E-01	2.752E-01	3.538E-01	2.514E-02	-2.049
		122.32		-2.068E-01	1.608E+00	2.619E+00	1.854E-01	-0.079
	+	144.24		9.101E-01	9.699E-01	1.140E+00	8.075E-02	0.798
		154.21		4.405E-01	3.629E-01	6.152E-01	4.104E-02	0.716
	+	269.46		4.326E-01	2.114E-01	3.243E-01	1.911E-02	1.334
		323.87	*	4.100E-03	6.334E-01	9.223E-01	1.519E-01	0.004
	+	338.28		5.548E+00	1.669E+00	2.245E+00	2.347E-01	2.472
		445.03		5.784E-01	2.031E+00	3.356E+00	3.444E-01	0.172
U-231	+	84.21		7.321E+00	5.947E+00	9.096E+00	6.705E-01	0.805

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		2.911E+01	4.581E+00	5.391E+00	3.928E-01	5.401
		95.87	*	1.738E+00	1.112E+00	1.490E+00	1.050E-01	1.166
		108.00		1.172E+00	1.891E+00	3.190E+00	2.079E-01	0.367
PA-233	+	75.28		2.082E+01	4.522E+00	6.842E+00	9.864E-01	3.043
	+	86.59		4.543E+00	2.414E+00	2.984E+00	7.906E-01	1.522
	+	300.12		7.392E-01	4.687E-01	6.234E-01	8.345E-02	1.186
		311.98	*	2.171E-03	5.606E-02	9.331E-02	5.646E-03	0.023
		340.50		6.767E-01	6.161E-01	9.403E-01	2.156E-01	0.720
		398.62		-8.638E-02	1.904E+00	3.098E+00	7.990E-01	-0.028
		415.76		-4.078E-01	1.489E+00	2.372E+00	4.872E-01	-0.172
PA-234	+	63.00		8.984E+00	2.836E+00	3.237E+00	4.651E-01	2.776
		94.67		-2.659E-01	2.026E-01	2.814E-01	3.211E-02	-0.945
	+	98.44		3.033E-01	2.118E-01	1.489E-01	8.273E-02	2.036
	+	99.86		1.572E+00	6.743E-01	7.211E-01	4.924E-02	2.180
		111.00		-9.912E-02	1.772E-01	2.847E-01	3.029E-02	-0.348
		131.20		-4.856E-02	1.092E-01	1.550E-01	9.221E-03	-0.313
		152.70		3.253E-02	3.020E-01	4.904E-01	7.685E-02	0.066
	+	186.00		1.077E+01	3.864E+00	3.013E+00	9.174E-01	3.575
		226.40		-1.739E-01	3.546E-01	5.874E-01	6.688E-02	-0.296
		227.20		-2.022E-02	3.707E-01	6.267E-01	3.416E-02	-0.032
		248.90		-1.382E-01	7.202E-01	1.202E+00	2.574E-01	-0.115
	+	293.70		5.573E+00	1.384E+00	1.639E+00	2.629E-01	3.400
		369.80		6.081E-02	7.569E-01	1.248E+00	2.592E-01	0.049
		568.70		2.416E-01	9.393E-01	1.589E+00	1.000E-01	0.152
		569.50		1.828E-01	2.604E-01	4.531E-01	2.852E-02	0.403
		574.00		-7.185E-01	1.406E+00	2.274E+00	1.435E-01	-0.316
		699.00		-2.894E-01	6.879E-01	1.043E+00	1.911E-01	-0.277
		706.10		-1.017E+00	1.051E+00	1.426E+00	6.315E-01	-0.713
		733.00		-1.190E-01	3.613E-01	4.906E-01	1.062E-01	-0.243
		742.81		-2.223E-01	1.250E+00	2.009E+00	1.347E+00	-0.111
		796.30		1.299E+00	1.026E+00	1.580E+00	4.223E-01	0.822
		805.60		3.293E-01	9.633E-01	1.612E+00	4.899E-01	0.204
		819.60		1.181E-01	1.071E+00	1.765E+00	6.679E-01	0.067
		826.30		-4.913E-01	7.993E-01	1.175E+00	5.241E-01	-0.418
		831.60		3.828E-02	5.977E-01	9.792E-01	2.901E-01	0.039
		876.40		1.745E-01	7.432E-01	1.200E+00	1.233E+00	0.145
		880.51		1.162E-01	2.568E-01	4.348E-01	3.574E-02	0.267
		883.24		-2.029E-02	2.629E-01	4.221E-01	2.836E-01	-0.048
		899.00		-4.152E-01	8.325E-01	1.210E+00	5.282E-01	-0.343
		925.00		-4.893E-02	1.088E+00	1.748E+00	1.428E-01	-0.028
		926.50		-1.247E-01	1.653E-01	2.402E-01	6.034E-02	-0.519
		946.00	*	2.363E-01	2.711E-01	4.708E-01	8.707E-02	0.502
		949.00		9.934E-02	3.832E-01	6.349E-01	5.075E-02	0.156
		980.50		-3.738E-02	6.514E-01	1.039E+00	8.036E-02	-0.036
		1394.10		8.798E-01	1.251E+00	2.000E+00	1.298E+00	0.440
NP-236		94.67		-1.975E-01	1.527E-01	2.139E-01	1.523E-02	-0.924
	+	98.44		2.293E-01	9.833E-02	1.126E-01	7.767E-03	2.036
		111.00		-7.498E-02	1.339E-01	2.153E-01	1.385E-02	-0.348
		160.31	*	-2.371E-03	7.104E-02	1.143E-01	5.995E-03	-0.021

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		5.240E-01	2.248E-01	2.476E-01	1.694E-02	2.116
		117.00	*	-1.758E-01	1.694E-01	2.646E-01	1.670E-02	-0.664
	+	209.75		1.765E+00	9.678E-01	1.268E+00	6.791E-02	1.393
		228.18		1.742E-01	1.977E-01	3.471E-01	1.894E-02	0.502
		277.60		1.382E-01	1.588E-01	2.767E-01	1.561E-02	0.499
		334.30		-9.259E-02	1.348E+00	1.810E+00	1.026E-01	-0.051
AM-241		59.54	*	-2.753E-02	1.589E-01	2.404E-01	1.709E-02	-0.115
CM-243	+	99.55		5.392E-01	2.313E-01	2.548E-01	1.744E-02	2.116
		103.76	*	-3.117E-02	9.601E-02	1.393E-01	9.280E-03	-0.224
		117.00		-1.808E-01	1.742E-01	2.722E-01	1.718E-02	-0.664
	+	209.75		1.740E+00	9.540E-01	1.250E+00	6.694E-02	1.393
		228.18		1.760E-01	1.998E-01	3.507E-01	1.913E-02	0.502
		277.60		1.393E-01	1.601E-01	2.789E-01	1.574E-02	0.499
AM-246		798.80		-7.348E-02	1.431E-01	1.878E-01	1.423E-02	-0.391
		1036.00		-9.794E-02	2.481E-01	3.978E-01	2.863E-02	-0.246
		1062.04		1.957E-02	1.997E-01	3.367E-01	2.329E-02	0.058
		1078.86	*	8.010E-02	1.272E-01	2.246E-01	1.510E-02	0.357
CM-247		278.00		5.429E-01	6.529E-01	1.136E+00	6.408E-02	0.478
		287.40		3.835E-01	1.060E+00	1.763E+00	9.985E-02	0.217
		402.60	*	-3.275E-02	3.358E-02	5.100E-02	2.828E-03	-0.642
CF-249		252.85		-2.905E-02	7.346E-01	1.234E+00	6.869E-02	-0.024
		333.44		2.198E-01	1.818E-01	2.537E-01	1.439E-02	0.866
		387.95	*	7.978E-03	3.596E-02	5.966E-02	3.279E-03	0.134
CF-251		176.60	*	-5.059E-04	1.154E-01	1.849E-01	9.560E-03	-0.003
		227.00		-7.440E-02	3.319E-01	5.569E-01	3.035E-02	-0.134
		285.00		-1.128E+00	1.502E+00	2.404E+00	1.360E-01	-0.469

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994009       *
* Acquisition date : 12-FEB-2010 13:42:33 Detector SN#    :                 *
* Detector ID       : GAM12               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.57     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245994009           Analyst initials: MXR1           *
* Batch Number      : 948812               Sample Quantity : 1.4067E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.966E+01	1.920E+00	4.210E-01	0.000E+00
CD-109	2.361E+00	1.080E+00	1.648E+00	0.000E+00
SN-126	2.321E-01	1.061E-01	1.536E-01	0.000E+00
CS-135	3.677E-01	1.769E-01	2.090E-01	0.000E+00
BA-137M	2.181E-01	6.148E-02	5.691E-02	0.000E+00
CS-137	2.306E-01	6.500E-02	6.016E-02	0.000E+00
TL-208	4.872E-01	8.116E-02	5.847E-02	0.000E+00
BI-211	3.816E+00	4.664E-01	2.967E-01	0.000E+00
PB-212	1.509E+00	1.427E-01	8.819E-02	0.000E+00
PO-212	1.509E+00	1.427E-01	8.819E-02	0.000E+00
BI-214	1.104E+00	1.678E-01	1.019E-01	0.000E+00
PB-214	1.328E+00	1.759E-01	1.034E-01	0.000E+00
PO-214	1.328E+00	1.759E-01	1.034E-01	0.000E+00
PO-216	1.509E+00	1.427E-01	8.819E-02	0.000E+00
PO-218	1.328E+00	1.759E-01	1.034E-01	0.000E+00
RA-224	4.711E+00	1.397E+00	1.004E+00	0.000E+00
RA-226	1.104E+00	1.678E-01	1.019E-01	0.000E+00
AC-228	1.445E+00	2.873E-01	2.071E-01	0.000E+00
RA-228	1.445E+00	2.873E-01	2.071E-01	0.000E+00
TH-228	1.532E+00	1.448E-01	8.952E-02	0.000E+00
TH-230	1.104E+00	1.678E-01	1.019E-01	0.000E+00
TH-232	1.445E+00	2.873E-01	2.071E-01	0.000E+00
PA-234M	7.741E+00	8.055E+00	6.389E+00	0.000E+00
TH-234	7.708E+00	2.482E+00	2.151E+00	0.000E+00
U-234	1.104E+00	1.678E-01	1.019E-01	0.000E+00
U-235	2.808E-01	2.960E-01	3.268E-01	0.000E+00
NP-237	6.814E-01	3.408E-01	3.857E-01	0.000E+00
U-238	7.708E+00	2.482E+00	2.151E+00	0.000E+00
AM-243	3.975E-01	6.864E-02	8.916E-02	0.000E+00
ANH-511	1.478E-01	6.430E-02	4.185E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	2.325E-02	2.921E-01	4.961E-01	0.000E+00	NOT IDENT.
NA-22	-5.040E-03	4.068E-02	6.784E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.315E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-4.654E-03	2.489E-02	4.034E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.414E-02	7.209E-02	0.000E+00	FAIL ABUN
SC-46	-9.358E-03	3.353E-02	5.454E-02	0.000E+00	FAIL ABUN
V-48	8.076E-03	6.987E-02	1.032E-01	0.000E+00	NOT IDENT.
CR-51	3.335E-02	3.174E-01	5.599E-01	0.000E+00	NOT IDENT.
MN-52	1.596E-01	2.113E-01	3.879E-01	0.000E+00	NOT IDENT.
MN-54	-1.132E-02	3.708E-02	6.105E-02	0.000E+00	NOT IDENT.
CO-56	-1.953E-02	3.443E-02	5.469E-02	0.000E+00	FAIL ABUN
CO-57	1.806E-03	2.299E-02	4.072E-02	0.000E+00	NOT IDENT.
CO-58	-7.970E-03	3.746E-02	6.227E-02	0.000E+00	NOT IDENT.
FE-59	-4.944E-03	7.736E-02	1.319E-01	0.000E+00	FAIL ABUN
CO-60	-1.169E-02	3.443E-02	5.535E-02	0.000E+00	NOT IDENT.
ZN-65	4.389E-02	9.214E-02	1.441E-01	0.000E+00	NOT IDENT.
GE-68	7.887E-01	1.110E+00	2.030E+00	0.000E+00	NOT IDENT.
AS-73	7.352E-01	7.898E-01	1.496E+00	0.000E+00	NOT IDENT.
AS-74	5.718E-02	8.615E-02	1.570E-01	0.000E+00	NOT IDENT.
SE-75	1.339E-02	3.989E-02	6.418E-02	0.000E+00	NOT IDENT.
BR-77	2.936E+00	8.855E+00	1.524E+01	0.000E+00	FAIL ABUN
SR-82	-1.198E-01	3.472E-01	5.126E-01	0.000E+00	NOT IDENT.
RB-83	-3.839E-03	6.049E-02	1.007E-01	0.000E+00	NOT IDENT.
RB-84	-5.179E-03	6.379E-02	1.062E-01	0.000E+00	NOT IDENT.
KR-85	8.902E+00	6.719E+00	1.116E+01	0.000E+00	NOT IDENT.
SR-85	4.562E-02	3.443E-02	5.720E-02	0.000E+00	NOT IDENT.
RB-86	4.700E-01	6.798E-01	1.244E+00	0.000E+00	NOT IDENT.
Y-88	2.046E-02	3.294E-02	6.119E-02	0.000E+00	NOT IDENT.
ZR-88	-3.463E-03	2.766E-02	4.720E-02	0.000E+00	NOT IDENT.
Y-91	-8.906E+00	1.690E+01	2.733E+01	0.000E+00	NOT IDENT.
NB-94	3.381E-02	2.858E-02	5.356E-02	0.000E+00	NOT IDENT.
NB-95	7.177E-02	4.693E-02	7.958E-02	0.000E+00	NOT IDENT.
NB-95M	4.401E-02	1.213E-01	1.965E-01	0.000E+00	NOT IDENT.
ZR-95	7.942E-02	6.679E-02	1.228E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.042E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.813E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	7.040E+00	9.607E+00	1.741E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.416E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	6.609E-03	3.055E-02	5.175E-02	0.000E+00	FAIL ABUN
RH-102	-8.290E-03	2.663E-02	4.392E-02	0.000E+00	FAIL ABUN
RU-103	-2.314E-02	3.763E-02	5.972E-02	0.000E+00	FAIL ABUN
RH-106	2.627E-01	2.803E-01	5.186E-01	0.000E+00	FAIL ABUN
RU-106	2.627E-01	2.790E-01	5.186E-01	0.000E+00	FAIL ABUN
AG-108M	-6.303E-03	3.170E-02	5.236E-02	0.000E+00	NOT IDENT.
AG-110M	6.645E-03	3.868E-02	5.915E-02	0.000E+00	NOT IDENT.
IN-111	-3.613E-01	9.971E-01	1.540E+00	0.000E+00	NOT IDENT.
IN-113M	-2.672E-02	3.996E-02	6.571E-02	0.000E+00	NOT IDENT.
SN-113	-2.672E-02	3.996E-02	6.571E-02	0.000E+00	NOT IDENT.
IN-114M	-1.073E-01	1.915E-01	2.800E-01	0.000E+00	NOT IDENT.
CD-115	2.766E+00	9.730E+00	1.664E+01	0.000E+00	NOT IDENT.
SN-117M	-3.153E-02	4.791E-02	8.031E-02	0.000E+00	NOT IDENT.
SB-122	1.770E+00	1.734E+00	3.256E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.764E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.708E-02	2.493E-02	4.172E-02	0.000E+00	NOT IDENT.
I-124	-9.992E-02	6.344E-01	9.467E-01	0.000E+00	NOT IDENT.
SB-124	6.307E-02	6.663E-02	1.304E-01	0.000E+00	FAIL ABUN
SB-125	5.375E-02	8.755E-02	1.553E-01	0.000E+00	FAIL ABUN
TE-125M	-2.593E+00	8.569E+00	1.507E+01	0.000E+00	NOT IDENT.
I-126	1.366E-02	1.881E-01	2.844E-01	0.000E+00	NOT IDENT.
SB-126	1.784E-02	1.349E-01	2.039E-01	0.000E+00	NOT IDENT.
SB-127	7.709E-02	1.161E+00	2.012E+00	0.000E+00	NOT IDENT.
XE-127	-1.178E-02	4.410E-02	7.381E-02	0.000E+00	NOT IDENT.
I-131	9.904E-03	9.823E-02	1.713E-01	0.000E+00	NOT IDENT.
TE-132	4.889E-01	5.916E-01	1.097E+00	0.000E+00	NOT IDENT.
BA-133	3.123E-02	3.957E-02	6.431E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.443E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.390E-02	5.086E-02	8.750E-02	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.263E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.671E-03	9.402E-02	1.614E-01	0.000E+00	FAIL ABUN
CE-139	-7.866E-03	2.665E-02	4.532E-02	0.000E+00	NOT IDENT.
BA-140	-1.932E-01	2.143E-01	3.352E-01	0.000E+00	NOT IDENT.
LA-140	-9.506E-02	7.629E-02	1.008E-01	0.000E+00	FAIL ABUN
CE-141	1.548E-02	6.375E-02	1.004E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.328E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.069E-02	1.887E-01	3.143E-01	0.000E+00	NOT IDENT.

PM-144	-2.092E-02	3.135E-02	5.106E-02	0.000E+00	NOT IDENT.
PR-144	-1.417E+00	2.124E+00	3.460E+00	0.000E+00	NOT IDENT.
PM-146	1.334E-03	3.771E-02	6.417E-02	0.000E+00	NOT IDENT.
ND-147	8.639E-02	5.247E-01	8.880E-01	0.000E+00	NOT IDENT.
PM-149	-8.588E+00	7.467E+01	1.314E+02	0.000E+00	NOT IDENT.
EU-152	-5.411E-04	8.734E-02	1.469E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.080E-01	1.246E-01	0.000E+00	FAIL ABUN
EU-154	-1.514E-02	1.135E-01	1.891E-01	0.000E+00	NOT IDENT.
EU-155	6.335E-02	9.578E-02	1.752E-01	0.000E+00	FAIL ABUN
TB-160	2.844E-02	1.244E-01	2.137E-01	0.000E+00	FAIL ABUN
HO-166M	3.708E-02	5.504E-02	9.937E-02	0.000E+00	FAIL ABUN
TM-171	-1.451E+00	2.848E+01	4.683E+01	0.000E+00	NOT IDENT.
LU-176	-5.604E-03	1.984E-02	3.432E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.331E+00	1.871E+00	0.000E+00	FAIL ABUN
LU-177M	-3.565E-02	1.555E-01	2.621E-01	0.000E+00	FAIL ABUN
HF-181	6.010E-05	3.884E-02	6.554E-02	0.000E+00	NOT IDENT.
W-181	-3.299E-01	3.814E-01	6.056E-01	0.000E+00	NOT IDENT.
TA-182	-1.234E-03	1.720E-01	2.917E-01	0.000E+00	FAIL ABUN
RE-183	3.290E-02	1.004E-01	1.714E-01	0.000E+00	FAIL ABUN
RE-184	-7.741E-03	1.918E-01	3.425E-01	0.000E+00	NOT IDENT.
OS-185	3.384E-03	3.757E-02	6.559E-02	0.000E+00	NOT IDENT.
RE-188	1.836E-01	1.520E-01	2.766E-01	0.000E+00	NOT IDENT.
W-188	-8.046E-01	7.168E+00	1.106E+01	0.000E+00	FAIL ABUN
IR-192	1.155E-03	3.000E-02	5.276E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.145E-01	3.869E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.890E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.273E+00	6.088E+00	1.038E+01	0.000E+00	NOT IDENT.
TL-202	-2.197E-02	6.154E-02	1.020E-01	0.000E+00	NOT IDENT.
HG-203	-2.075E-02	3.441E-02	5.914E-02	0.000E+00	FAIL ABUN
BI-207	2.354E-02	4.409E-02	7.976E-02	0.000E+00	FAIL ABUN
TL-207	4.100E-03	6.207E-01	9.557E-01	0.000E+00	FAIL ABUN
PO-209	-8.586E-01	6.631E+00	1.060E+01	0.000E+00	NOT IDENT.
BI-210	8.566E-01	3.073E+00	5.800E+00	0.000E+00	NOT IDENT.
PB-210	8.566E-01	3.073E+00	5.800E+00	0.000E+00	NOT IDENT.
PO-210	8.566E-01	3.073E+00	5.800E+00	0.000E+00	NOT IDENT.
PB-211	-1.115E-01	8.602E-01	1.459E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.908E-01	6.801E-01	0.000E+00	FAIL ABUN
PO-215	4.100E-03	6.207E-01	9.557E-01	0.000E+00	FAIL ABUN
RN-219	-4.679E-01	3.762E-01	5.828E-01	0.000E+00	FAIL ABUN
RN-220	1.687E+01	2.189E+01	4.062E+01	0.000E+00	NOT IDENT.
RA-223	4.100E-03	6.207E-01	9.557E-01	0.000E+00	FAIL ABUN
AC-227	-1.622E-01	3.241E-01	5.637E-01	0.000E+00	FAIL ABUN
TH-227	-1.622E-01	3.245E-01	5.637E-01	0.000E+00	FAIL ABUN
TH-229	2.708E-01	4.572E-01	7.997E-01	0.000E+00	FAIL ABUN
PA-231	5.047E-01	1.244E+00	2.248E+00	0.000E+00	NOT IDENT.
TH-231	4.100E-03	6.207E-01	9.557E-01	0.000E+00	FAIL ABUN
U-231	0.000E+00	1.090E+00	1.582E+00	0.000E+00	FAIL ABUN
PA-233	2.171E-03	5.494E-02	9.675E-02	0.000E+00	FAIL ABUN
PA-234	2.363E-01	2.657E-01	4.771E-01	0.000E+00	FAIL ABUN
NP-236	-2.371E-03	6.962E-02	1.202E-01	0.000E+00	FAIL ABUN
NP-239	-1.758E-01	1.660E-01	2.798E-01	0.000E+00	FAIL ABUN
AM-241	-2.753E-02	1.557E-01	2.576E-01	0.000E+00	NOT IDENT.
CM-243	-3.117E-02	9.409E-02	1.477E-01	0.000E+00	FAIL ABUN
AM-246	8.010E-02	1.247E-01	2.269E-01	0.000E+00	NOT IDENT.
CM-247	-3.275E-02	3.291E-02	5.261E-02	0.000E+00	NOT IDENT.
CF-249	7.978E-03	3.524E-02	6.159E-02	0.000E+00	NOT IDENT.
CF-251	-5.059E-04	1.131E-01	1.939E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:42:57.97

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994009.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 13:42:33
Sample ID         : G245994009           Sample quantity  : 1.40670E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.57  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948812                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	895	10.67*	1.138E+00	1.966E+01	1.966E+01	9.96
CD-109	88.03	181	3.72*	5.634E+00	2.308E+00	2.361E+00	46.67
SN-126	64.28	346	9.60	3.153E+00	3.051E+00	3.051E+00	31.41
	86.94	181	8.90	5.634E+00	9.647E-01	9.647E-01	61.76
	87.57	181	37.00*	5.634E+00	2.321E-01	2.321E-01	46.67
CS-135	268.24	101	16.00*	4.599E+00	3.677E-01	3.677E-01	49.09
BA-137M	661.65	166	89.98*	2.253E+00	2.179E-01	2.181E-01	28.76
CS-137	661.65	166	85.12*	2.253E+00	2.304E-01	2.306E-01	28.76
TL-208	277.35	------	6.80	4.505E+00	------ Line Not Found		------
	510.84	155	21.60	2.795E+00	6.842E-01	6.842E-01	45.18
	583.14	385	84.20*	2.506E+00	4.872E-01	4.872E-01	17.00
	860.37	51	12.46	1.795E+00	6.064E-01	6.064E-01	66.53
BI-211	72.87	------	1.27	4.387E+00	------ Line Not Found		------
	351.07	696	12.94*	3.763E+00	3.816E+00	3.816E+00	12.47
PB-212	74.81	451	10.70	4.587E+00	2.452E+00	2.452E+00	19.95
	77.11	653	18.00	4.815E+00	2.010E+00	2.010E+00	14.89
	87.30	181	8.00	5.634E+00	1.073E+00	1.073E+00	47.73
	238.63	1265	44.60*	5.017E+00	1.509E+00	1.509E+00	9.65
	300.09	78	3.41	4.256E+00	1.431E+00	1.431E+00	62.51
PO-212	74.81	451	10.70	4.587E+00	2.452E+00	2.452E+00	19.95
	77.11	653	18.00	4.815E+00	2.010E+00	2.010E+00	14.89
	87.30	181	8.00	5.634E+00	1.073E+00	1.073E+00	47.73
	115.19	------	0.60	6.604E+00	------ Line Not Found		------
	238.63	1265	44.60*	5.017E+00	1.509E+00	1.509E+00	9.65
	300.09	78	3.41	4.256E+00	1.431E+00	1.431E+00	62.51
BI-214	609.31	463	46.30*	2.416E+00	1.104E+00	1.104E+00	15.50
	1120.29	107	15.10	1.423E+00	1.330E+00	1.330E+00	35.49
	1764.49	95	15.80	9.905E-01	1.628E+00	1.628E+00	26.26
PB-214	74.81	451	6.21	4.587E+00	4.224E+00	4.224E+00	19.11
	77.11	653	10.50	4.815E+00	3.446E+00	3.446E+00	16.73
	87.30	181	4.67	5.634E+00	1.839E+00	1.839E+00	47.30
	241.98	347	7.49	4.977E+00	2.484E+00	2.484E+00	30.77

Sample ID : G245994009 Acquisition date : 12-FEB-2010 13:42:33

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	360	19.20	4.304E+00	1.161E+00	1.161E+00	20.75
	351.92	696	37.20*	3.763E+00	1.328E+00	1.328E+00	13.52
PO-214	74.81	451	6.21	4.587E+00	4.224E+00	4.224E+00	19.11
	77.11	653	10.50	4.815E+00	3.446E+00	3.446E+00	16.73
	87.30	181	4.67	5.634E+00	1.839E+00	1.839E+00	47.30
	241.98	347	7.49	4.977E+00	2.484E+00	2.484E+00	30.77
	295.21	360	19.20	4.304E+00	1.161E+00	1.161E+00	20.75
	351.92	696	37.20*	3.763E+00	1.328E+00	1.328E+00	13.52
PO-216	74.81	451	10.70	4.587E+00	2.452E+00	2.452E+00	19.95
	77.11	653	18.00	4.815E+00	2.010E+00	2.010E+00	14.89
	87.30	181	8.00	5.634E+00	1.073E+00	1.073E+00	47.73
	238.63	1265	44.60*	5.017E+00	1.509E+00	1.509E+00	9.65
	300.09	78	3.41	4.256E+00	1.431E+00	1.431E+00	62.51
PO-218	74.81	451	6.21	4.587E+00	4.224E+00	4.224E+00	19.11
	77.11	653	10.50	4.815E+00	3.446E+00	3.446E+00	16.73
	87.30	181	4.67	5.634E+00	1.839E+00	1.839E+00	47.30
	241.98	347	7.49	4.977E+00	2.484E+00	2.484E+00	30.77
	295.21	360	19.20	4.304E+00	1.161E+00	1.161E+00	20.75
	351.92	696	37.20*	3.763E+00	1.328E+00	1.328E+00	13.52
RA-224	240.98	347	3.95*	4.977E+00	4.711E+00	4.711E+00	30.26
RA-226	609.31	463	46.30*	2.416E+00	1.104E+00	1.104E+00	15.50
	1120.29	107	15.10	1.423E+00	1.330E+00	1.330E+00	35.49
	1764.49	95	15.80	9.905E-01	1.628E+00	1.628E+00	26.26
AC-228	338.32	220	11.40	3.881E+00	1.329E+00	1.329E+00	49.55
	911.07	256	27.70*	1.707E+00	1.445E+00	1.445E+00	20.28
	969.11	168	16.60	1.617E+00	1.668E+00	1.668E+00	31.60
RA-228	338.32	220	11.40	3.881E+00	1.329E+00	1.329E+00	49.55
	911.07	256	27.70*	1.707E+00	1.445E+00	1.445E+00	20.28
	969.11	168	16.60	1.617E+00	1.668E+00	1.668E+00	31.60
TH-228	74.81	451	10.70	4.587E+00	2.452E+00	2.489E+00	17.66
	77.11	653	18.00	4.815E+00	2.010E+00	2.041E+00	14.89
	87.30	181	8.00	5.634E+00	1.073E+00	1.089E+00	46.67
	238.63	1265	44.60*	5.017E+00	1.509E+00	1.532E+00	9.65
	300.09	78	3.41	4.256E+00	1.431E+00	1.452E+00	85.51
TH-230	609.31	463	46.30*	2.416E+00	1.104E+00	1.104E+00	15.50
	1120.29	107	15.10	1.423E+00	1.330E+00	1.330E+00	35.49
	1764.49	95	15.80	9.905E-01	1.628E+00	1.628E+00	26.26
TH-232	338.32	220	11.40	3.881E+00	1.329E+00	1.329E+00	28.76
	911.07	256	27.70*	1.707E+00	1.445E+00	1.445E+00	20.28
	969.11	168	16.60	1.617E+00	1.668E+00	1.668E+00	31.60
PA-234M	766.42	84	0.32	1.982E+00	3.535E+01	3.535E+01	75.44
	1001.03	38	0.84*	1.570E+00	7.741E+00	7.741E+00	106.17
TH-234	63.29	346	3.80*	3.153E+00	7.708E+00	7.708E+00	32.86
	92.38	932	5.41	5.981E+00	7.687E+00	7.687E+00	22.37
U-234	609.31	463	46.30*	2.416E+00	1.104E+00	1.104E+00	15.50
	1120.29	107	15.10	1.423E+00	1.330E+00	1.330E+00	35.49
	1764.49	95	15.80	9.905E-01	1.628E+00	1.628E+00	26.26
U-235	89.95	------	2.70	5.822E+00	------ Line Not Found		------
	93.35	932	4.50	5.981E+00	9.241E+00	9.241E+00	30.96

Sample ID : G245994009 Acquisition date : 12-FEB-2010 13:42:33

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	105.00	------	2.10	6.433E+00	------	Line Not Found	------
	143.76	72	10.50*	6.521E+00	2.808E-01	2.808E-01	107.57
	163.35	------	4.70	6.238E+00	------	Line Not Found	------
	185.71	473	54.00	5.863E+00	3.989E-01	3.989E-01	19.68
	205.31	------	4.70	5.531E+00	------	Line Not Found	------
NP-237	86.50	181	12.60*	5.634E+00	6.814E-01	6.814E-01	51.03
	95.87	------	2.60	6.124E+00	------	Line Not Found	------
U-238	63.29	346	3.80*	3.153E+00	7.708E+00	7.708E+00	32.86
	92.38	932	5.41	5.981E+00	7.687E+00	7.687E+00	15.74
AM-243	74.67	451	66.00*	4.587E+00	3.975E-01	3.975E-01	17.62
	86.72	181	0.34	5.634E+00	2.555E+01	2.555E+01	46.67
	117.66	------	0.55	6.624E+00	------	Line Not Found	------
	142.18	72	0.13	6.521E+00	2.359E+01	2.359E+01	106.48
ANH-511	511.00	155	100.00*	2.795E+00	1.478E-01	1.478E-01	44.40

Flag: "*" = Keyline

Sample ID : G245994009 Acquisition date : 12-FEB-2010 13:42:33

Total number of lines in spectrum 39
Number of unidentified lines 3
Number of lines tentatively identified by NID 36 92.31%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.966E+01	1.966E+01	0.196E+01	9.96	
CD-109	464.00D	1.02	2.308E+00	2.361E+00	1.102E+00	46.67	
SN-126	1.00E+05Y	1.00	2.321E-01	2.321E-01	1.083E-01	46.67	
CS-135	2.30E+06Y	1.00	3.677E-01	3.677E-01	1.805E-01	49.09	
BA-137M	30.17Y	1.00	2.179E-01	2.181E-01	0.627E-01	28.76	
CS-137	30.17Y	1.00	2.304E-01	2.306E-01	0.663E-01	28.76	
TL-208	1.41E+10Y	1.00	4.872E-01	4.872E-01	0.828E-01	17.00	
BI-211	7.04E+08Y	1.00	3.816E+00	3.816E+00	0.476E+00	12.47	
PB-212	1.41E+10Y	1.00	1.509E+00	1.509E+00	0.146E+00	9.65	
PO-212	1.41E+10Y	1.00	1.509E+00	1.509E+00	0.146E+00	9.65	
BI-214	1600.00Y	1.00	1.104E+00	1.104E+00	0.171E+00	15.50	
PB-214	1600.00Y	1.00	1.328E+00	1.328E+00	0.179E+00	13.52	
PO-214	1600.00Y	1.00	1.328E+00	1.328E+00	0.179E+00	13.52	
PO-216	1.41E+10Y	1.00	1.509E+00	1.509E+00	0.146E+00	9.65	
PO-218	1600.00Y	1.00	1.328E+00	1.328E+00	0.179E+00	13.52	
RA-224	1.41E+10Y	1.00	4.711E+00	4.711E+00	1.425E+00	30.26	
RA-226	1600.00Y	1.00	1.104E+00	1.104E+00	0.171E+00	15.50	
AC-228	1.41E+10Y	1.00	1.445E+00	1.445E+00	0.293E+00	20.28	
RA-228	1.41E+10Y	1.00	1.445E+00	1.445E+00	0.293E+00	20.28	
TH-228	1.91Y	1.02	1.509E+00	1.532E+00	0.148E+00	9.65	
TH-230	4.47E+09Y	1.00	1.104E+00	1.104E+00	0.171E+00	15.50	
TH-232	1.41E+10Y	1.00	1.445E+00	1.445E+00	0.293E+00	20.28	
PA-234M	4.47E+09Y	1.00	7.741E+00	7.741E+00	8.219E+00	106.17	
TH-234	4.47E+09Y	1.00	7.708E+00	7.708E+00	2.533E+00	32.86	
U-234	4.47E+09Y	1.00	1.104E+00	1.104E+00	0.171E+00	15.50	
U-235	7.04E+08Y	1.00	2.808E-01	2.808E-01	3.021E-01	107.57	
NP-237	2.14E+06Y	1.00	6.814E-01	6.814E-01	3.477E-01	51.03	
U-238	4.47E+09Y	1.00	7.708E+00	7.708E+00	2.533E+00	32.86	
AM-243	7380.00Y	1.00	3.975E-01	3.975E-01	0.700E-01	17.62	
ANH-511	1.00E+09Y	1.00	1.478E-01	1.478E-01	0.656E-01	44.40	
			---	---			
	Total Activity :		7.547E+01	7.555E+01			

Grand Total Activity : 7.547E+01 7.555E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245994009 Acquisition date : 12-FEB-2010 13:42:33

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.83	86	428	1.01	167.17	165	6	1.19E-02	80.9	5.41E+00	T
0	98.83	180	357	3.42	197.17	193	10	2.50E-02	42.3	6.24E+00	T
0	128.18	78	396	1.36	255.90	253	9	1.08E-02	94.5	6.64E+00	T
0	209.05	117	278	1.07	417.73	414	9	1.63E-02	54.6	5.47E+00	T
3	271.20	45	167	1.34	542.09	535	11	6.27E-03	****	4.58E+00	T
0	327.80	114	143	1.27	655.33	650	11	1.58E-02	45.1	3.97E+00	T
0	462.47	93	72	1.23	924.77	920	9	1.29E-02	39.0	3.03E+00	T
0	727.09	135	72	1.95	1454.16	1448	16	1.87E-02	33.0	2.08E+00	T
0	794.31	66	42	1.81	1588.62	1583	10	9.14E-03	44.5	1.92E+00	
1	964.13	53	49	2.00	1928.31	1922	20	7.37E-03	59.1	1.62E+00	T
0	1237.38	46	39	2.35	2474.83	2469	12	6.37E-03	62.0	1.31E+00	T
0	1587.35	24	8	1.27	3174.67	3168	12	3.40E-03	62.8	1.07E+00	
0	1846.89	22	8	1.47	3693.60	3687	15	2.99E-03	70.3	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:43:03.29

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245994009.CNF;1    *
* Acquisition date : 12-FEB-2010 13:42:33  Detector SN#    :                  *
* Detector ID      : GAM12                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:01.57         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245994009            Analyst initials: MXR1             *
* Batch Number     : 948812                Sample Quantity : 1.40670E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24.5MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.966E+01	1.959E+00	4.194E-01	2.990E-02	46.889
CD-109	2.361E+00	1.102E+00	1.550E+00	1.186E-01	1.523
SN-126	2.321E-01	1.083E-01	1.444E-01	1.101E-02	1.607
CS-135	3.677E-01	1.805E-01	2.009E-01	1.511E-02	1.830
BA-137M	2.181E-01	6.273E-02	5.573E-02	3.613E-03	3.914
CS-137	2.306E-01	6.632E-02	5.892E-02	3.832E-03	3.914
TL-208	4.872E-01	8.282E-02	5.711E-02	4.086E-03	8.530
BI-211	3.816E+00	4.759E-01	2.868E-01	1.803E-02	13.307
PB-212	1.509E+00	1.456E-01	8.459E-02	6.006E-03	17.839
PO-212	1.509E+00	1.456E-01	8.459E-02	6.006E-03	17.839
BI-214	1.104E+00	1.712E-01	9.963E-02	8.202E-03	11.085
PB-214	1.328E+00	1.795E-01	9.999E-02	8.168E-03	13.277
PO-214	1.328E+00	1.795E-01	9.999E-02	8.168E-03	13.277
PO-216	1.509E+00	1.456E-01	8.459E-02	6.006E-03	17.839
PO-218	1.328E+00	1.795E-01	9.999E-02	8.168E-03	13.277
RA-224	4.711E+00	1.425E+00	9.628E-01	5.311E-02	4.893
RA-226	1.104E+00	1.712E-01	9.963E-02	8.202E-03	11.085
AC-228	1.445E+00	2.931E-01	2.042E-01	2.242E-02	7.077

Sample ID : G245994009 Acquisition date : 12-FEB-2010 13:42:33

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.445E+00	2.931E-01	2.042E-01	2.242E-02	7.077
TH-228	1.532E+00	1.478E-01	8.587E-02	6.097E-03	17.839
TH-230	1.104E+00	1.712E-01	9.962E-02	8.202E-03	11.085
TH-232	1.445E+00	2.931E-01	2.042E-01	2.242E-02	7.077
PA-234M	7.741E+00	8.219E+00	6.313E+00	5.713E-01	1.226
TH-234	7.708E+00	2.533E+00	2.010E+00	3.422E-01	3.835
U-234	1.104E+00	1.712E-01	9.962E-02	8.202E-03	11.085
U-235	2.808E-01	3.021E-01	3.104E-01	5.041E-02	0.905
NP-237	6.814E-01	3.477E-01	3.626E-01	7.966E-02	1.879
U-238	7.708E+00	2.533E+00	2.010E+00	3.422E-01	3.835
AM-243	3.975E-01	7.004E-02	8.359E-02	5.680E-03	4.755
ANH-511	1.478E-01	6.561E-02	4.077E-02	2.485E-03	3.624

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.325E-02		2.980E-01	4.826E-01	3.321E-02	0.048
NA-22	-5.040E-03		4.151E-02	6.738E-02	4.339E-03	-0.075
NA-24	-2.803E-01		3.222E-01	Half-Life too short		
AL-26	-4.654E-03		2.540E-02	4.036E-02	2.316E-03	-0.115
TI-44	3.710E-01	+	5.525E-02	6.765E-02	4.732E-03	5.484
SC-46	-9.358E-03		3.421E-02	5.375E-02	4.455E-03	-0.174
V-48	8.076E-03		7.129E-02	1.019E-01	7.851E-03	0.079
CR-51	3.335E-02		3.239E-01	5.402E-01	3.434E-02	0.062
MN-52	1.596E-01		2.156E-01	3.863E-01	2.653E-02	0.413
MN-54	-1.132E-02		3.784E-02	6.008E-02	4.723E-03	-0.188
CO-56	-1.953E-02		3.513E-02	5.384E-02	4.283E-03	-0.363
CO-57	1.806E-03		2.346E-02	3.854E-02	2.410E-03	0.047
CO-58	-7.970E-03		3.823E-02	6.125E-02	4.713E-03	-0.130
FE-59	-4.944E-03		7.894E-02	1.306E-01	9.647E-03	-0.038
CO-60	-1.169E-02		3.513E-02	5.502E-02	3.843E-03	-0.212
ZN-65	4.389E-02		9.402E-02	1.427E-01	8.978E-03	0.308
GE-68	7.887E-01		1.133E+00	2.009E+00	1.354E-01	0.393
AS-73	7.352E-01		8.059E-01	1.394E+00	8.997E-02	0.528
AS-74	5.718E-02		8.790E-02	1.535E-01	9.769E-03	0.373
SE-75	1.339E-02		4.070E-02	6.169E-02	3.497E-03	0.217
BR-77	2.936E+00		9.036E+00	1.485E+01	9.107E-01	0.198
SR-82	-1.198E-01		3.543E-01	5.037E-01	3.727E-02	-0.238
RB-83	-3.839E-03		6.173E-02	9.816E-02	6.019E-03	-0.039
RB-84	-5.179E-03		6.509E-02	1.047E-01	8.613E-03	-0.049
KR-85	8.902E+00		6.856E+00	1.087E+01	6.641E-01	0.819
SR-85	4.562E-02		3.514E-02	5.573E-02	3.403E-03	0.819
RB-86	4.700E-01		6.937E-01	1.231E+00	8.307E-02	0.382
Y-88	2.046E-02		3.361E-02	6.125E-02	3.448E-03	0.334
ZR-88	-3.463E-03		2.822E-02	4.574E-02	2.509E-03	-0.076
Y-91	-8.906E+00		1.725E+01	2.711E+01	1.567E+00	-0.328
NB-94	3.381E-02		2.916E-02	5.252E-02	3.577E-03	0.644

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	7.177E-02		4.789E-02	7.818E-02	5.718E-03	0.918
NB-95M	4.401E-02		1.238E-01	1.884E-01	1.375E-02	0.234
ZR-95	7.942E-02		6.815E-02	1.206E-01	9.957E-03	0.659
NB-97	3.434E-02		5.317E-02	Half-Life too short		
ZR-97	3.369E+00		9.248E-01	Half-Life too short		
MO-99	7.040E+00		9.803E+00	1.710E+01	2.458E+00	0.412
TC-99M	1.038E+10		1.743E+10	Half-Life too short		
RH-101	6.609E-03		3.117E-02	4.945E-02	2.616E-03	0.134
RH-102	-8.290E-03		2.717E-02	4.272E-02	2.537E-03	-0.194
RU-103	-2.314E-02		3.839E-02	5.814E-02	7.416E-03	-0.398
RH-106	2.627E-01		2.860E-01	5.073E-01	6.116E-02	0.518
RU-106	2.627E-01		2.847E-01	5.073E-01	3.257E-02	0.518
AG-108M	-6.303E-03		3.234E-02	5.084E-02	3.168E-03	-0.124
AG-110M	6.645E-03		3.947E-02	5.792E-02	3.948E-03	0.115
IN-111	-3.613E-01		1.017E+00	1.478E+00	8.181E-02	-0.244
IN-113M	-2.672E-02		4.077E-02	6.366E-02	3.748E-03	-0.420
SN-113	-2.672E-02		4.077E-02	6.366E-02	3.748E-03	-0.420
IN-114M	-1.073E-01		1.954E-01	2.673E-01	1.402E-02	-0.401
CD-115	2.766E+00		9.929E+00	1.622E+01	9.991E-01	0.171
SN-117M	-3.153E-02		4.889E-02	7.640E-02	4.036E-03	-0.413
SB-122	1.770E+00		1.769E+00	3.178E+00	1.996E-01	0.557
I-123	-3.264E+00		2.430E+00	Half-Life too short		
TE-123M	-1.708E-02		2.544E-02	3.970E-02	2.127E-03	-0.430
I-124	-9.992E-02		6.473E-01	9.254E-01	5.905E-02	-0.108
SB-124	6.307E-02		6.799E-02	1.303E-01	8.697E-03	0.484
SB-125	5.375E-02		8.934E-02	1.507E-01	8.958E-03	0.357
TE-125M	-2.593E+00		8.743E+00	1.423E+01	1.227E+00	-0.182
I-126	1.366E-02		1.919E-01	2.786E-01	1.816E-02	0.049
SB-126	1.784E-02		1.377E-01	2.000E-01	1.391E-02	0.089
SB-127	7.709E-02		1.185E+00	1.972E+00	1.967E-01	0.039
XE-127	-1.178E-02		4.500E-02	7.056E-02	3.752E-03	-0.167
I-131	9.904E-03		1.002E-01	1.657E-01	1.043E-02	0.060
TE-132	4.889E-01		6.037E-01	1.051E+00	1.494E-01	0.465
BA-133	3.123E-02		4.038E-02	6.218E-02	7.134E-03	0.502
I-133	-1.415E-03		2.777E-03	Half-Life too short		
CS-134	8.390E-02		5.190E-02	8.604E-02	6.560E-03	0.975
I-135	2.674E+08		2.175E+09	Half-Life too short		
CS-136	-4.671E-03		9.594E-02	1.596E-01	1.199E-02	-0.029
CE-139	-7.866E-03		2.720E-02	4.315E-02	2.211E-03	-0.182
BA-140	-1.932E-01		2.187E-01	3.269E-01	1.065E-01	-0.591
LA-140	-9.506E-02		7.785E-02	1.006E-01	6.551E-03	-0.945
CE-141	1.548E-02		6.505E-02	9.534E-02	5.551E-03	0.162
CE-143	8.236E-04		1.188E-04	Half-Life too short		
CE-144	-1.069E-02		1.925E-01	2.980E-01	4.243E-02	-0.036
PM-144	-2.092E-02		3.199E-02	5.006E-02	3.387E-03	-0.418
PR-144	-1.417E+00		2.168E+00	3.392E+00	2.294E-01	-0.418
PM-146	1.334E-03		3.848E-02	6.236E-02	5.391E-03	0.021
ND-147	8.639E-02		5.354E-01	8.657E-01	1.185E-01	0.100

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-8.588E+00		7.619E+01	1.265E+02	1.785E+01	-0.068
EU-152	-5.411E-04		8.912E-02	1.420E-01	9.099E-03	-0.004
GD-153	2.570E-01	+	1.102E-01	1.175E-01	8.168E-03	2.188
EU-154	-1.514E-02		1.158E-01	1.878E-01	1.830E-02	-0.081
EU-155	6.335E-02		9.774E-02	1.653E-01	1.114E-02	0.383
TB-160	2.844E-02		1.270E-01	2.105E-01	1.729E-02	0.135
HO-166M	3.708E-02		5.616E-02	9.747E-02	6.709E-03	0.380
TM-171	-1.451E+00		2.906E+01	4.381E+01	2.835E+00	-0.033
LU-176	-5.604E-03		2.024E-02	3.308E-02	1.880E-03	-0.169
LU-177	2.477E+00	+	1.358E+00	1.790E+00	9.572E-02	1.384
LU-177M	-3.565E-02		1.587E-01	2.542E-01	1.427E-02	-0.140
HF-181	6.010E-05		3.964E-02	6.377E-02	3.808E-03	0.001
W-181	-3.299E-01		3.892E-01	5.663E-01	3.639E-02	-0.583
TA-182	-1.234E-03		1.755E-01	2.895E-01	1.717E-02	-0.004
RE-183	3.290E-02		1.024E-01	1.631E-01	8.480E-03	0.202
RE-184	-7.741E-03		1.957E-01	3.289E-01	1.830E-02	-0.024
OS-185	3.384E-03		3.833E-02	6.421E-02	4.149E-03	0.053
RE-188	1.836E-01		1.551E-01	2.631E-01	1.410E-02	0.698
W-188	-8.046E-01		7.314E+00	1.065E+01	6.038E-01	-0.076
IR-192	1.155E-03		3.061E-02	5.090E-02	2.909E-03	0.023
AU-195	7.484E-01	+	3.210E-01	3.648E-01	2.508E-02	2.052
TL-200	1.448E-05		1.985E-04	Half-Life too short		
TL-201	-1.273E+00		6.212E+00	9.889E+00	5.069E-01	-0.129
TL-202	-2.197E-02		6.280E-02	9.908E-02	5.706E-03	-0.222
HG-203	-2.075E-02		3.512E-02	5.690E-02	3.422E-03	-0.365
BI-207	2.354E-02		4.499E-02	7.890E-02	5.443E-03	0.298
TL-207	4.100E-03		6.334E-01	9.223E-01	1.519E-01	0.004
PO-209	-8.586E-01		6.766E+00	1.045E+01	8.723E-01	-0.082
BI-210	8.566E-01		3.136E+00	5.390E+00	4.060E-01	0.159
PB-210	8.566E-01		3.136E+00	5.390E+00	4.060E-01	0.159
PO-210	8.566E-01		3.136E+00	5.390E+00	3.457E-01	0.159
PB-211	-1.115E-01		8.778E-01	1.415E+00	8.816E-01	-0.079
BI-212	1.470E+00	+	5.008E-01	6.674E-01	5.778E-02	2.202
PO-215	4.100E-03		6.334E-01	9.223E-01	1.519E-01	0.004
RN-219	-4.679E-01		3.838E-01	5.650E-01	7.626E-02	-0.828
RN-220	1.687E+01		2.233E+01	3.964E+01	2.471E+00	0.426
RA-223	4.100E-03		6.334E-01	9.223E-01	1.519E-01	0.004
AC-227	-1.622E-01		3.307E-01	5.415E-01	7.510E-02	-0.300
TH-227	-1.622E-01		3.311E-01	5.415E-01	9.110E-02	-0.300
TH-229	2.708E-01		4.666E-01	7.638E-01	4.021E-02	0.355
PA-231	5.047E-01		1.269E+00	2.164E+00	2.969E-01	0.233
TH-231	4.100E-03		6.334E-01	9.223E-01	1.519E-01	0.004
U-231	1.738E+00		1.112E+00	1.490E+00	1.050E-01	1.166
PA-233	2.171E-03		5.606E-02	9.331E-02	5.646E-03	0.023
PA-234	2.363E-01		2.711E-01	4.708E-01	8.707E-02	0.502
NP-236	-2.371E-03		7.104E-02	1.143E-01	5.995E-03	-0.021
NP-239	-1.758E-01		1.694E-01	2.646E-01	1.670E-02	-0.664
AM-241	-2.753E-02		1.589E-01	2.404E-01	1.709E-02	-0.115

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.117E-02		9.601E-02	1.393E-01	9.280E-03	-0.224
AM-246	8.010E-02		1.272E-01	2.246E-01	1.510E-02	0.357
CM-247	-3.275E-02		3.358E-02	5.100E-02	2.828E-03	-0.642
CF-249	7.978E-03		3.596E-02	5.966E-02	3.279E-03	0.134
CF-251	-5.059E-04		1.154E-01	1.849E-01	9.560E-03	-0.003

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245994009           *
* Acquisition date  : 12-FEB-2010 13:42:33 Detector SN#     :               *
* Detector ID       : GAM12                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.57      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245994009           Analyst initials: MXR1           *
* Batch Number      : 948812               Sample Quantity : 1.4067E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.966E+01	1.920E+00	2.106E-01	9.797E-01
CD-109	2.361E+00	1.080E+00	8.247E-01	5.509E-01
SN-126	2.321E-01	1.061E-01	7.684E-02	5.415E-02
CS-135	3.677E-01	1.769E-01	1.046E-01	9.026E-02
BA-137M	2.181E-01	6.148E-02	2.847E-02	3.137E-02
CS-137	2.306E-01	6.500E-02	3.010E-02	3.316E-02
TL-208	4.872E-01	8.116E-02	2.925E-02	4.141E-02
BI-211	3.816E+00	4.664E-01	1.484E-01	2.379E-01
PB-212	1.509E+00	1.427E-01	4.412E-02	7.278E-02
PO-212	1.509E+00	1.427E-01	4.412E-02	7.278E-02
BI-214	1.104E+00	1.678E-01	5.098E-02	8.560E-02
PB-214	1.328E+00	1.759E-01	5.175E-02	8.973E-02
PO-214	1.328E+00	1.759E-01	5.175E-02	8.973E-02
PO-216	1.509E+00	1.427E-01	4.412E-02	7.278E-02
PO-218	1.328E+00	1.759E-01	5.175E-02	8.973E-02
RA-224	4.711E+00	1.397E+00	5.021E-01	7.127E-01
RA-226	1.104E+00	1.678E-01	5.098E-02	8.560E-02
AC-228	1.445E+00	2.873E-01	1.036E-01	1.466E-01
RA-228	1.445E+00	2.873E-01	1.036E-01	1.466E-01
TH-228	1.532E+00	1.448E-01	4.479E-02	7.388E-02
TH-230	1.104E+00	1.678E-01	5.098E-02	8.560E-02
TH-232	1.445E+00	2.873E-01	1.036E-01	1.466E-01
PA-234M	7.741E+00	8.055E+00	3.197E+00	4.109E+00
TH-234	7.708E+00	2.482E+00	1.076E+00	1.266E+00
U-234	1.104E+00	1.678E-01	5.098E-02	8.560E-02
U-235	2.808E-01	2.960E-01	1.635E-01	1.510E-01
NP-237	6.814E-01	3.408E-01	1.930E-01	1.739E-01
U-238	7.708E+00	2.482E+00	1.076E+00	1.266E+00
AM-243	3.975E-01	6.864E-02	4.460E-02	3.502E-02
ANH-511	1.478E-01	6.430E-02	2.094E-02	3.281E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.325E-02	2.921E-01	2.482E-01	1.490E-01	NOT IDENT.
NA-22	-5.040E-03	4.068E-02	3.394E-02	2.075E-02	NOT IDENT.
NA-24	-2.803E+05	6.315E+05	0.000E+00	3.222E+05	SHORT HLIF
AL-26	-4.654E-03	2.489E-02	2.018E-02	1.270E-02	NOT IDENT.
TI-44	3.710E-01	5.414E-02	3.607E-02	2.762E-02	FAIL ABUN
SC-46	-9.358E-03	3.353E-02	2.729E-02	1.711E-02	FAIL ABUN
V-48	8.076E-03	6.987E-02	5.163E-02	3.565E-02	NOT IDENT.
CR-51	3.335E-02	3.174E-01	2.801E-01	1.620E-01	NOT IDENT.
MN-52	1.596E-01	2.113E-01	1.941E-01	1.078E-01	NOT IDENT.
MN-54	-1.132E-02	3.708E-02	3.054E-02	1.892E-02	NOT IDENT.
CO-56	-1.953E-02	3.443E-02	2.736E-02	1.757E-02	FAIL ABUN
CO-57	1.806E-03	2.299E-02	2.037E-02	1.173E-02	NOT IDENT.
CO-58	-7.970E-03	3.746E-02	3.115E-02	1.911E-02	NOT IDENT.
FE-59	-4.944E-03	7.736E-02	6.601E-02	3.947E-02	FAIL ABUN
CO-60	-1.169E-02	3.443E-02	2.769E-02	1.756E-02	NOT IDENT.
ZN-65	4.389E-02	9.214E-02	7.211E-02	4.701E-02	NOT IDENT.
GE-68	7.887E-01	1.110E+00	1.016E+00	5.665E-01	NOT IDENT.
AS-73	7.352E-01	7.898E-01	7.484E-01	4.029E-01	NOT IDENT.
AS-74	5.718E-02	8.615E-02	7.856E-02	4.395E-02	NOT IDENT.
SE-75	1.339E-02	3.989E-02	3.211E-02	2.035E-02	NOT IDENT.
BR-77	2.936E+00	8.855E+00	7.623E+00	4.518E+00	FAIL ABUN
SR-82	-1.198E-01	3.472E-01	2.564E-01	1.772E-01	NOT IDENT.
RB-83	-3.839E-03	6.049E-02	5.039E-02	3.086E-02	NOT IDENT.
RB-84	-5.179E-03	6.379E-02	5.315E-02	3.255E-02	NOT IDENT.
KR-85	8.902E+00	6.719E+00	5.584E+00	3.428E+00	NOT IDENT.
SR-85	4.562E-02	3.443E-02	2.862E-02	1.757E-02	NOT IDENT.
RB-86	4.700E-01	6.798E-01	6.222E-01	3.468E-01	NOT IDENT.
Y-88	2.046E-02	3.294E-02	3.061E-02	1.680E-02	NOT IDENT.
ZR-88	-3.463E-03	2.766E-02	2.362E-02	1.411E-02	NOT IDENT.
Y-91	-8.906E+00	1.690E+01	1.367E+01	8.623E+00	NOT IDENT.
NB-94	3.381E-02	2.858E-02	2.679E-02	1.458E-02	NOT IDENT.
NB-95	7.177E-02	4.693E-02	3.981E-02	2.394E-02	NOT IDENT.
NB-95M	4.401E-02	1.213E-01	9.832E-02	6.189E-02	NOT IDENT.
ZR-95	7.942E-02	6.679E-02	6.141E-02	3.408E-02	NOT IDENT.
NB-97	3.434E+04	1.042E+05	0.000E+00	5.317E+04	SHORT HLIF
ZR-97	3.369E+06	1.813E+06	0.000E+00	9.248E+05	SHORT HLIF
MO-99	7.040E+00	9.607E+00	8.712E+00	4.901E+00	NOT IDENT.
TC-99M	1.038E+16	3.416E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	6.609E-03	3.055E-02	2.589E-02	1.559E-02	FAIL ABUN
RH-102	-8.290E-03	2.663E-02	2.198E-02	1.359E-02	FAIL ABUN
RU-103	-2.314E-02	3.763E-02	2.988E-02	1.920E-02	FAIL ABUN
RH-106	2.627E-01	2.803E-01	2.595E-01	1.430E-01	FAIL ABUN
RU-106	2.627E-01	2.790E-01	2.595E-01	1.424E-01	FAIL ABUN
AG-108M	-6.303E-03	3.170E-02	2.620E-02	1.617E-02	NOT IDENT.
AG-110M	6.645E-03	3.868E-02	2.959E-02	1.974E-02	NOT IDENT.
IN-111	-3.613E-01	9.971E-01	7.705E-01	5.087E-01	NOT IDENT.
IN-113M	-2.672E-02	3.996E-02	3.287E-02	2.039E-02	NOT IDENT.
SN-113	-2.672E-02	3.996E-02	3.287E-02	2.039E-02	NOT IDENT.
IN-114M	-1.073E-01	1.915E-01	1.401E-01	9.768E-02	NOT IDENT.
CD-115	2.766E+00	9.730E+00	8.324E+00	4.964E+00	NOT IDENT.
SN-117M	-3.153E-02	4.791E-02	4.018E-02	2.444E-02	NOT IDENT.
SB-122	1.770E+00	1.734E+00	1.629E+00	8.846E-01	NOT IDENT.
I-123	-3.264E+06	4.764E+06	0.000E+00	2.430E+06	SHORT HLIF
TE-123M	-1.708E-02	2.493E-02	2.087E-02	1.272E-02	NOT IDENT.
I-124	-9.992E-02	6.344E-01	4.736E-01	3.237E-01	NOT IDENT.
SB-124	6.307E-02	6.663E-02	6.526E-02	3.399E-02	FAIL ABUN
SB-125	5.375E-02	8.755E-02	7.767E-02	4.467E-02	FAIL ABUN
TE-125M	-2.593E+00	8.569E+00	7.537E+00	4.372E+00	NOT IDENT.
I-126	1.366E-02	1.881E-01	1.423E-01	9.595E-02	NOT IDENT.
SB-126	1.784E-02	1.349E-01	1.020E-01	6.883E-02	NOT IDENT.
SB-127	7.709E-02	1.161E+00	1.007E+00	5.923E-01	NOT IDENT.
XE-127	-1.178E-02	4.410E-02	3.693E-02	2.250E-02	NOT IDENT.
I-131	9.904E-03	9.823E-02	8.571E-02	5.012E-02	NOT IDENT.
TE-132	4.889E-01	5.916E-01	5.487E-01	3.018E-01	NOT IDENT.
BA-133	3.123E-02	3.957E-02	3.217E-02	2.019E-02	NOT IDENT.
I-133	-1.415E+03	5.443E+03	0.000E+00	2.777E+03	SHORT HLIF
CS-134	8.390E-02	5.086E-02	4.378E-02	2.595E-02	NOT IDENT.
I-135	2.674E+14	4.263E+15	0.000E+00	2.175E+15	SHORT HLIF
CS-136	-4.671E-03	9.402E-02	8.076E-02	4.797E-02	FAIL ABUN
CE-139	-7.866E-03	2.665E-02	2.267E-02	1.360E-02	NOT IDENT.
BA-140	-1.932E-01	2.143E-01	1.677E-01	1.093E-01	NOT IDENT.
LA-140	-9.506E-02	7.629E-02	5.043E-02	3.892E-02	FAIL ABUN
CE-141	1.548E-02	6.375E-02	5.022E-02	3.252E-02	NOT IDENT.
CE-143	8.236E+02	2.328E+02	0.000E+00	1.188E+02	SHORT HLIF
CE-144	-1.069E-02	1.887E-01	1.573E-01	9.627E-02	NOT IDENT.

PM-144	-2.092E-02	3.135E-02	2.554E-02	1.600E-02	NOT IDENT.
PR-144	-1.417E+00	2.124E+00	1.731E+00	1.084E+00	NOT IDENT.
PM-146	1.334E-03	3.771E-02	3.210E-02	1.924E-02	NOT IDENT.
ND-147	8.639E-02	5.247E-01	4.442E-01	2.677E-01	NOT IDENT.
PM-149	-8.588E+00	7.467E+01	6.572E+01	3.810E+01	NOT IDENT.
EU-152	-5.411E-04	8.734E-02	7.351E-02	4.456E-02	FAIL ABUN
GD-153	2.570E-01	1.080E-01	6.236E-02	5.512E-02	FAIL ABUN
EU-154	-1.514E-02	1.135E-01	9.462E-02	5.792E-02	NOT IDENT.
EU-155	6.335E-02	9.578E-02	8.765E-02	4.887E-02	FAIL ABUN
TB-160	2.844E-02	1.244E-01	1.069E-01	6.349E-02	FAIL ABUN
HO-166M	3.708E-02	5.504E-02	4.972E-02	2.808E-02	FAIL ABUN
TM-171	-1.451E+00	2.848E+01	2.343E+01	1.453E+01	NOT IDENT.
LU-176	-5.604E-03	1.984E-02	1.717E-02	1.012E-02	FAIL ABUN
LU-177	2.477E+00	1.331E+00	9.359E-01	6.790E-01	FAIL ABUN
LU-177M	-3.565E-02	1.555E-01	1.311E-01	7.934E-02	FAIL ABUN
HF-181	6.010E-05	3.884E-02	3.279E-02	1.982E-02	NOT IDENT.
W-181	-3.299E-01	3.814E-01	3.030E-01	1.946E-01	NOT IDENT.
TA-182	-1.234E-03	1.720E-01	1.460E-01	8.777E-02	FAIL ABUN
RE-183	3.290E-02	1.004E-01	8.574E-02	5.120E-02	FAIL ABUN
RE-184	-7.741E-03	1.918E-01	1.713E-01	9.787E-02	NOT IDENT.
OS-185	3.384E-03	3.757E-02	3.282E-02	1.917E-02	NOT IDENT.
RE-188	1.836E-01	1.520E-01	1.384E-01	7.756E-02	NOT IDENT.
W-188	-8.046E-01	7.168E+00	5.534E+00	3.657E+00	FAIL ABUN
IR-192	1.155E-03	3.000E-02	2.640E-02	1.531E-02	FAIL ABUN
AU-195	7.484E-01	3.145E-01	1.936E-01	1.605E-01	FAIL ABUN
TL-200	1.448E+01	3.890E+02	0.000E+00	1.985E+02	SHORT HLIF
TL-201	-1.273E+00	6.088E+00	5.195E+00	3.106E+00	NOT IDENT.
TL-202	-2.197E-02	6.154E-02	5.104E-02	3.140E-02	NOT IDENT.
HG-203	-2.075E-02	3.441E-02	2.959E-02	1.756E-02	FAIL ABUN
BI-207	2.354E-02	4.409E-02	3.990E-02	2.249E-02	FAIL ABUN
TL-207	4.100E-03	6.207E-01	4.781E-01	3.167E-01	FAIL ABUN
PO-209	-8.586E-01	6.631E+00	5.305E+00	3.383E+00	NOT IDENT.
BI-210	8.566E-01	3.073E+00	2.902E+00	1.568E+00	NOT IDENT.
PB-210	8.566E-01	3.073E+00	2.902E+00	1.568E+00	NOT IDENT.
PO-210	8.566E-01	3.073E+00	2.902E+00	1.568E+00	NOT IDENT.
PB-211	-1.115E-01	8.602E-01	7.301E-01	4.389E-01	NOT IDENT.
BI-212	1.470E+00	4.908E-01	3.402E-01	2.504E-01	FAIL ABUN
PO-215	4.100E-03	6.207E-01	4.781E-01	3.167E-01	FAIL ABUN
RN-219	-4.679E-01	3.762E-01	2.916E-01	1.919E-01	FAIL ABUN
RN-220	1.687E+01	2.189E+01	2.032E+01	1.117E+01	NOT IDENT.
RA-223	4.100E-03	6.207E-01	4.781E-01	3.167E-01	FAIL ABUN
AC-227	-1.622E-01	3.241E-01	2.820E-01	1.654E-01	FAIL ABUN
TH-227	-1.622E-01	3.245E-01	2.820E-01	1.655E-01	FAIL ABUN
TH-229	2.708E-01	4.572E-01	4.001E-01	2.333E-01	FAIL ABUN
PA-231	5.047E-01	1.244E+00	1.125E+00	6.344E-01	NOT IDENT.
TH-231	4.100E-03	6.207E-01	4.781E-01	3.167E-01	FAIL ABUN
U-231	1.738E+00	1.090E+00	7.914E-01	5.560E-01	FAIL ABUN
PA-233	2.171E-03	5.494E-02	4.841E-02	2.803E-02	FAIL ABUN
PA-234	2.363E-01	2.657E-01	2.387E-01	1.356E-01	FAIL ABUN
NP-236	-2.371E-03	6.962E-02	6.011E-02	3.552E-02	FAIL ABUN
NP-239	-1.758E-01	1.660E-01	1.400E-01	8.468E-02	FAIL ABUN
AM-241	-2.753E-02	1.557E-01	1.289E-01	7.946E-02	NOT IDENT.
CM-243	-3.117E-02	9.409E-02	7.389E-02	4.800E-02	FAIL ABUN
AM-246	8.010E-02	1.247E-01	1.135E-01	6.361E-02	NOT IDENT.
CM-247	-3.275E-02	3.291E-02	2.632E-02	1.679E-02	NOT IDENT.
CF-249	7.978E-03	3.524E-02	3.081E-02	1.798E-02	NOT IDENT.
CF-251	-5.059E-04	1.131E-01	9.701E-02	5.770E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	280.2636
46.50	280.2636
46.50	280.2636
48.70	319.0560
49.72	307.3032
51.35	336.4869
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52.97	296.7169
53.15	296.8862
53.44	301.4901
54.07	304.6926
56.28	341.7372
56.28	341.7402
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57.53	325.3128
57.53	325.3147
57.60	325.3817
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57.98	320.2177
59.32	336.0454
59.32	336.0454
59.40	361.2670
59.54	361.4159
59.72	361.6065
60.01	356.6109
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61.14	341.8213
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63.29	389.4200
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65.20	443.9688
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66.83	397.3033
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67.20	414.4764
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68.90	414.0144
69.30	414.4538
69.67	424.8463
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77.11	417.2429

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81.07	341.8629
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83.78	427.2380
83.78	427.2380
84.21	405.0805
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86.50	425.6584
86.54	425.6973
86.59	425.7454
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86.79	425.9377
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88.47	618.5275
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92.38	559.1905
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94.67	561.9506
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96.73	197.3262
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98.44	231.5212
98.88	231.7323
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99.55	232.0525
99.86	232.2005
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100.10	251.3114
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105.31	280.5382
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111.00	343.3716
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116.30	300.5603
117.00	293.9011
117.00	293.9011
117.66	316.4276
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121.62	266.9355
121.78	267.0117
122.06	284.4135
122.32	284.5445
122.32	284.5445
122.32	284.5445
122.32	284.5445
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131.20	309.6008
133.02	240.6762
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142.65	310.7343
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144.24	293.0702
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144.24	293.0702
144.24	293.0702
145.22	299.3298
145.44	293.0964
147.16	303.4183
152.43	291.4705
152.70	290.5218
153.22	284.3351
154.21	252.6441
154.21	252.6441
154.21	252.6441
154.21	252.6441
155.03	246.5252
156.02	276.9464
158.56	271.5260
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161.27	253.1334
162.32	250.2688
162.64	251.4679
163.35	254.9802
163.89	264.9514
165.85	271.1406
167.43	257.5632
171.28	250.1798
171.86	245.9889
172.10	246.0710
176.55	252.0005
176.60	252.0179
181.06	275.2224
184.41	279.7994
185.71	292.0240
186.00	292.1355
190.27	287.0073
192.34	248.2721
193.63	235.1151
197.04	241.8069
198.01	242.0994
198.60	245.6895
200.40	259.9210
201.83	296.9248
202.84	274.4263
205.31	251.1692

208.36	262.4584
208.81	224.5920
209.75	217.9276
209.75	217.9276
210.97	228.6374
215.65	226.4229
216.55	235.9598
218.09	215.4231
222.10	219.3489
223.80	220.6534
226.40	238.0586
227.00	224.1026
227.08	224.1239
227.20	217.0930
228.16	205.8429
228.18	203.1978
228.18	203.1978
231.56	0.0000
235.69	248.0137
236.00	253.8021
236.00	253.8021
238.63	232.3679
238.63	232.3679
238.63	232.3679
238.63	232.3679
239.00	232.4591
240.98	232.9590
241.98	233.2089
241.98	233.2089
241.98	233.2089
244.69	214.4549
245.39	200.2112
247.94	181.5645
248.90	194.2696
249.79	208.0181
252.40	174.1230
252.85	172.3904
252.85	172.3904
254.15	0.0000
256.20	190.2864
256.20	190.2864
260.50	158.2041
260.90	170.1604
262.80	156.7404
264.65	148.4005
268.24	143.0347
268.79	151.9652
269.46	165.1686
269.46	165.1686
269.46	165.1686
269.46	165.1686
271.23	178.9536
273.65	207.5459
276.40	163.5068
277.35	156.2208
277.60	167.4179
277.60	167.4179
278.00	164.6924
278.60	176.8900
279.20	182.5836
279.53	200.3454
280.46	191.1990
281.68	167.1433
283.67	139.3942
284.30	158.2003
285.00	169.5466
285.90	152.8150
286.10	150.0317
286.10	150.0317
287.40	138.0099
288.45	0.0000
290.67	168.7574
290.80	167.2723
291.72	170.4325
293.26	0.0000
293.70	160.1671
295.21	180.0630
295.21	180.0630

295.21	180.0630
295.96	136.2766
296.50	136.3425
297.23	136.4348
298.57	136.6018
299.80	132.1971
299.80	132.1971
300.09	132.2332
300.09	132.2332
300.09	132.2332
300.09	132.2332
300.12	132.2353
301.29	133.8992
302.84	124.9439
303.76	118.9481
303.91	108.2871
304.40	135.8010
304.40	135.8010
304.84	143.7421
306.84	132.8492
308.46	140.6993
311.98	142.0991
316.51	143.6299
318.01	156.3665
319.02	146.8441
319.41	146.8928
320.08	137.3090
323.87	133.4890
323.87	133.4890
323.87	133.4890
323.87	133.4890
325.23	139.8625
328.77	163.6652
333.44	104.3245
334.20	137.0135
334.20	137.0135
334.30	137.0242
338.28	134.5333
338.28	134.5333
338.28	134.5333
338.28	134.5333
338.32	134.5395
338.32	134.5395
338.32	134.5395
340.50	129.0759
340.57	129.0819
344.27	134.2133
345.85	151.5131
350.59	0.0000
351.07	127.0176
351.92	127.1055
351.92	127.1055
351.92	127.1055
355.39	0.0000
356.01	98.8291
364.48	113.3345
366.43	121.5428
367.43	118.6212
367.94	0.0000
369.80	116.8248
374.96	110.2125
383.85	106.8858
387.95	115.3846
388.63	109.3135
391.69	131.0645
391.69	131.0645
392.90	122.9828
398.62	118.3533
400.65	107.1913
401.10	114.4433
401.81	139.2599
402.60	132.1133
404.84	128.1929
410.95	106.9496
411.60	124.6600
413.65	115.4782
414.70	103.0696
415.30	115.6120

415.76	112.5253
417.63	0.0000
418.52	107.5232
423.70	120.4854
427.08	126.0187
427.89	110.3288
432.53	114.8977
433.93	117.1160
439.47	105.9082
439.56	105.9143
439.89	108.0575
443.98	92.4202
444.90	83.9737
445.03	91.4222
445.03	91.4222
445.03	91.4222
445.03	91.4222
453.90	91.9616
463.38	94.6843
468.07	101.1372
473.00	93.1046
475.06	100.8148
475.35	96.4963
476.78	96.5846
477.59	94.4620
477.96	90.1404
482.03	94.7261
484.57	92.6964
487.03	79.7318
490.36	0.0000
492.35	86.5702
497.08	96.7133
507.63	0.0000
510.53	0.0000
510.84	84.2232
511.00	84.2313
511.85	84.2742
511.85	84.2742
513.99	71.0581
513.99	71.0581
520.41	80.2441
520.65	72.4545
527.90	80.5979
528.96	0.0000
529.64	91.8846
529.87	0.0000
531.02	86.3524
537.32	81.9400
543.00	68.6561
546.56	0.0000
549.76	67.1059
552.65	80.8388
555.20	55.4853
563.23	71.2664
563.90	67.6370
568.70	84.3116
569.32	80.6738
569.50	80.6824
569.67	84.3565
573.80	100.1704
574.00	100.1810
574.64	103.8932
578.91	89.0815
579.30	0.0000
583.14	94.2130
585.48	75.5257
591.81	93.7209
592.07	99.3041
593.00	90.0660
595.88	84.6238
600.56	97.3659
602.52	0.0000
602.71	80.8840
602.71	80.8840
603.60	90.2592
604.41	82.5127
604.70	82.5257
609.31	80.5389

609.31	80.5389
609.31	80.5389
609.31	80.5389
610.33	79.6439
612.46	68.7894
614.37	71.9873
618.01	86.5465
621.84	63.1511
621.84	63.1511
631.29	84.2914
633.02	72.9883
633.10	72.9921
634.78	79.6954
635.90	74.0448
636.97	61.7357
645.85	71.5503
646.12	70.6053
656.30	86.3020
657.75	86.3635
657.90	0.0000
661.65	82.6805
661.65	82.6805
664.57	0.0000
666.33	78.6919
666.33	78.6919
675.00	59.0238
677.61	68.7847
685.20	65.1434
692.80	69.2787
695.00	74.2336
696.49	86.9923
696.49	86.9923
697.00	90.9225
697.49	88.9872
698.33	83.1531
698.50	83.1593
699.00	80.2443
702.63	54.8926
706.10	87.3791
706.58	0.0000
706.67	87.4030
709.31	64.8930
711.68	64.9639
713.82	69.9530
717.42	67.1085
720.50	57.6483
721.93	0.0000
722.20	54.3958
722.78	61.0057
722.78	61.0057
722.89	61.0087
722.95	61.0103
723.30	65.9668
724.18	64.3430
727.18	55.5092
733.00	59.6294
735.90	60.9494
739.58	48.8397
742.81	66.8757
744.21	70.9116
747.13	64.0031
751.79	73.1515
752.31	72.1670
753.82	77.2293
755.35	63.2292
756.15	53.2109
756.87	59.2535
763.93	55.4055
765.79	67.2119
766.42	67.5660
766.84	67.5790
776.49	57.8739
778.00	62.8340
778.57	62.8492
778.89	70.9690
783.80	54.8609
785.46	68.1156
792.07	52.6733

795.84	56.1588
796.30	54.4674
798.80	64.7481
801.93	53.2302
805.60	62.5384
810.29	57.5230
810.76	68.8353
815.85	55.5952
817.79	54.6084
818.51	50.5013
819.60	49.4930
826.30	66.1703
828.27	0.0000
831.60	65.2748
831.96	69.4291
834.83	81.9586
836.80	0.0000
846.75	59.4158
848.13	56.3190
856.28	0.0000
856.80	52.3254
860.37	44.0149
867.32	49.5380
867.82	43.3538
871.10	53.6695
873.19	60.0323
874.81	53.7467
875.33	0.0000
876.40	44.2887
879.36	49.6174
880.27	40.1301
880.51	47.5269
881.50	54.9415
883.24	52.8625
884.67	44.4291
889.25	49.8055
896.60	45.6928
898.02	54.2236
899.00	57.4343
903.28	53.2654
911.07	60.5431
911.07	60.5431
911.07	60.5431
919.63	53.5901
920.93	48.2542
925.00	51.5484
925.24	57.9973
926.50	59.0981
935.52	43.1221
937.48	69.0453
944.10	36.7683
946.00	38.9575
949.00	42.2497
962.29	61.6803
964.01	46.8328
966.15	46.8685
968.20	45.4478
969.11	47.2816
969.11	47.2816
969.11	47.2816
977.42	48.1497
980.50	46.0103
983.50	39.4787
989.30	47.2507
996.32	45.6341
1001.03	45.0513
1001.68	45.0612
1004.76	45.7666
1021.30	0.0000
1024.50	0.0000
1034.80	41.8506
1036.00	45.5886
1037.82	53.9950
1038.57	53.0757
1038.76	0.0000
1045.16	50.3943
1046.59	51.3499
1048.07	49.5085

1050.47	48.6125
1050.47	48.6125
1062.04	45.9814
1063.62	40.3720
1076.63	40.5435
1077.35	43.3814
1078.86	42.4585
1085.78	50.1188
1099.22	47.4854
1112.02	49.5858
1112.84	47.2139
1115.52	52.3661
1120.29	48.7567
1120.29	48.7567
1120.29	48.7567
1120.29	48.7567
1120.51	48.7609
1121.28	48.7733
1124.00	0.0000
1129.67	44.9775
1131.51	0.0000
1147.95	0.0000
1167.94	53.3551
1173.22	54.4118
1175.09	64.1658
1177.93	55.4623
1189.05	71.2653
1204.90	64.7351
1205.75	0.0000
1213.00	58.9893
1221.42	58.1477
1230.97	54.2143
1235.34	54.2835
1236.41	0.0000
1238.25	45.8394
1246.25	50.6244
1260.41	0.0000
1271.85	50.9917
1274.45	49.0279
1274.54	49.0299
1291.56	42.2239
1298.22	0.0000
1312.09	42.4631
1325.50	31.4566
1325.50	31.4566
1332.49	34.5658
1333.61	34.5755
1360.21	27.6526
1362.66	0.0000
1365.15	23.5868
1368.21	30.7910
1368.53	0.0000
1376.25	25.7131
1384.27	19.5829
1394.10	22.7332
1395.20	21.7058
1407.95	23.8516
1434.06	19.8350
1436.60	29.2487
1457.56	0.0000
1460.81	16.8151
1489.15	14.8169
1509.49	12.7632
1596.49	29.0621
1620.62	16.8430
1678.03	0.0000
1691.02	9.5054
1691.02	9.5054
1706.46	0.0000
1750.46	0.0000
1764.49	11.8296
1764.49	11.8296
1764.49	11.8296
1764.49	11.8296
1770.23	15.2276
1771.40	20.3086
1791.20	0.0000
1808.65	11.6953

1836.01 11.7614

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245994009

Total Uranium Activity	2.3060E+01	ug/g
Total Uranium Counting Unc.	7.3854E+00	ug/g
Total Uranium Tpu	3.7681E-06	ug/g
Total Uranium Mda	3.2017E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 948812                    SAMPLE ID  : G245994009         *
*   ANALYST       : MXR1                      DETECTOR   : GAM12              *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 12-FEB-2010 13:42:33.52    SAMPLE ALQT:  140.670 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.210E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.369E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.869E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.878E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:38:50.93

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032720.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 14:38:07
Sample ID         : G1202032720          Sample quantity  : 1.55210E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.66  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.89*	45	78	1.71	185.58	179	15	6.25E-03	54.7	
2	0	185.34*	14	54	1.34	370.36	366	9	1.94E-03	121.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 16:38:53

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032720.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 12-FEB-2010 14:38:07
Sample ID : G1202032720 Sample quantity : 155.21 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.66 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	477.59	*	-4.890E-02	1.383E-01	2.188E-01	1.485E-02	-0.223
NA-22	1274.54	*	4.268E-03	1.556E-02	2.742E-02	1.829E-03	0.156
NA-24	1368.53	*	-2.822E-05	1.556E-02	Half-Life too short		
AL-26	1129.67		1.141E-01	6.741E-01	1.161E+00	7.161E-02	0.098
	1808.65	*	9.131E-03	1.809E-02	3.329E-02	1.944E-03	0.274
K-40	1460.81	*	-1.547E-01	1.904E-01	2.852E-01	2.124E-02	-0.542
TI-44	67.85		2.554E-03	1.581E-02	2.636E-02	2.012E-03	0.097
	78.38	*	-3.650E-03	1.299E-02	2.090E-02	1.706E-03	-0.175
SC-46	889.25	*	3.248E-03	1.980E-02	3.275E-02	2.846E-03	0.099
	1120.51		1.961E-03	1.760E-02	3.001E-02	1.893E-03	0.065
V-48	944.10		2.306E-03	3.100E-01	4.994E-01	4.207E-02	0.005
	983.50	*	-1.812E-03	2.629E-02	4.171E-02	3.353E-03	-0.043
	1312.09		2.037E-02	2.700E-02	5.085E-02	3.619E-03	0.401
CR-51	320.08	*	1.294E-02	1.323E-01	2.242E-01	1.451E-02	0.058
MN-52	744.21		4.521E-03	4.200E-02	6.951E-02	4.726E-03	0.065
	848.13		4.205E-03	1.203E+00	1.946E+00	1.582E-01	0.002
	935.52		-8.082E-03	5.227E-02	8.201E-02	6.972E-03	-0.099
	1246.25		-1.289E+00	1.180E+00	1.518E+00	9.594E-02	-0.849
	1333.61		8.828E-01	1.042E+00	1.972E+00	1.453E-01	0.448
	1434.06	*	-4.757E-03	4.303E-02	6.911E-02	4.985E-03	-0.069
MN-54	834.83	*	5.684E-03	1.814E-02	3.073E-02	2.444E-03	0.185
CO-56	846.75	*	-6.473E-03	1.795E-02	2.723E-02	2.209E-03	-0.238
	977.42		6.115E-01	1.444E+00	2.477E+00	2.007E-01	0.247
	1037.82		-4.930E-02	1.167E-01	1.794E-01	1.427E-02	-0.275
	1175.09		-2.635E-01	8.603E-01	1.353E+00	7.444E-02	-0.195
	1238.25		-1.368E-02	3.109E-02	4.747E-02	3.117E-03	-0.288
	1360.21		5.463E-01	5.225E-01	1.014E+00	7.438E-02	0.539
	1771.40		-3.198E-02	1.489E-01	2.310E-01	1.392E-02	-0.138
CO-57	122.06	*	6.445E-04	1.051E-02	1.720E-02	1.027E-03	0.037
	136.48		-3.760E-02	8.603E-02	1.344E-01	8.870E-03	-0.280
CO-58	810.76	*	-1.299E-03	1.629E-02	2.603E-02	1.994E-03	-0.050
FE-59	142.65		9.974E-01	1.026E+00	1.789E+00	9.946E-02	0.558
	192.34		-2.156E-01	3.659E-01	5.554E-01	6.450E-02	-0.388
	1099.22	*	1.325E-02	3.740E-02	6.603E-02	4.955E-03	0.201

Sample ID : G1202032720 Acquisition date : 12-FEB-2010 14:38:07

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.56		0.000E+00	4.661E-02	7.733E-02	6.403E-03	0.000
CO-60		1173.22		-9.480E-03	1.824E-02	2.740E-02	1.502E-03	-0.346
		1332.49	*	9.660E-03	2.240E-02	3.968E-02	2.924E-03	0.243
ZN-65		1115.52	*	-2.828E-02	3.400E-02	4.727E-02	3.022E-03	-0.598
GE-68		1077.35	*	-8.375E-02	4.625E-01	7.455E-01	5.158E-02	-0.112
AS-73		53.44	*	1.098E-02	2.593E-01	4.301E-01	3.181E-02	0.026
AS-74		595.88	*	-7.517E-03	3.334E-02	5.308E-02	3.145E-03	-0.142
		634.78		-1.976E-01	1.306E-01	1.619E-01	9.515E-03	-1.221
SE-75		66.05		-1.200E+00	1.647E+00	2.553E+00	2.451E-01	-0.470
		96.73		1.662E-01	3.097E-01	4.544E-01	5.978E-02	0.366
		121.11		-1.238E-02	5.501E-02	8.783E-02	8.226E-03	-0.141
		136.00		-6.812E-03	1.578E-02	2.466E-02	1.420E-03	-0.276
		198.60		-3.995E-01	8.582E-01	1.225E+00	8.363E-02	-0.326
		264.65	*	-2.765E-06	1.836E-02	3.097E-02	1.801E-03	0.000
		279.53		-1.850E-02	4.784E-02	7.786E-02	4.875E-03	-0.238
		303.91		-1.464E-01	8.595E-01	1.420E+00	1.356E-01	-0.103
		400.65		6.672E-03	1.062E-01	1.782E-01	1.600E-02	0.037
BR-77		87.88		2.064E-01	7.740E+00	1.115E+01	9.976E-01	0.019
		200.40		-3.519E+00	8.447E+00	1.309E+01	7.118E-01	-0.269
		239.00		4.716E-01	5.475E-01	9.181E-01	5.194E-02	0.514
		249.79		1.897E+00	3.183E+00	5.403E+00	3.082E-01	0.351
		281.68		2.880E-01	4.952E+00	7.860E+00	4.555E-01	0.037
		297.23		1.752E+00	2.627E+00	4.665E+00	2.712E-01	0.376
		303.76		-5.022E+00	8.856E+00	1.406E+01	8.177E-01	-0.357
		439.47		5.332E+00	6.941E+00	1.257E+01	7.219E-01	0.424
		484.57		-1.006E+01	1.179E+01	1.725E+01	1.010E+00	-0.583
		520.65	*	3.510E-01	5.599E-01	9.938E-01	5.875E-02	0.353
		574.64		-1.673E+01	1.150E+01	1.490E+01	8.844E-01	-1.123
		578.91		3.395E+00	4.498E+00	8.088E+00	4.799E-01	0.420
		585.48		2.528E+00	8.490E+00	1.449E+01	8.592E-01	0.175
		755.35		4.049E+00	8.982E+00	1.557E+01	1.080E+00	0.260
		817.79		-5.673E-01	6.985E+00	1.115E+01	8.623E-01	-0.051
SR-82		698.33		8.808E+00	1.524E+01	2.654E+01	1.658E+00	0.332
		776.49	*	-1.002E-02	1.358E-01	2.176E-01	1.567E-02	-0.046
		1395.20		-4.842E-01	4.567E+00	7.380E+00	5.376E-01	-0.066
RB-83		520.41	*	1.956E-02	3.112E-02	5.525E-02	3.266E-03	0.354
		529.64		2.171E-02	4.768E-02	8.303E-02	4.916E-03	0.262
		552.65		-5.815E-02	9.372E-02	1.417E-01	8.410E-03	-0.410
RB-84		881.50	*	-1.704E-02	3.178E-02	4.669E-02	4.007E-03	-0.365
KR-85		513.99	*	-5.474E+00	5.678E+00	8.718E+00	5.147E-01	-0.628
SR-85		513.99	*	-2.594E-02	2.690E-02	4.131E-02	2.439E-03	-0.628
RB-86		1076.63	*	9.689E-03	2.179E-01	3.681E-01	2.550E-02	0.026
Y-88		898.02		1.144E-02	1.746E-02	3.143E-02	2.782E-03	0.364
		1836.01	*	-9.026E-04	1.783E-02	2.860E-02	1.632E-03	-0.032
ZR-88		392.90	*	1.511E-02	1.383E-02	2.550E-02	1.420E-03	0.593
Y-91		1204.90	*	3.706E-01	7.725E+00	1.296E+01	7.567E-01	0.029
NB-94		702.63	*	-7.520E-03	1.778E-02	2.736E-02	1.723E-03	-0.275
		871.10		1.272E-03	1.704E-02	2.787E-02	2.352E-03	0.046
NB-95		765.79	*	2.236E-03	1.556E-02	2.591E-02	1.831E-03	0.086

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M		235.69	*	-4.413E-02	5.137E-02	7.541E-02	5.586E-03	-0.585
ZR-95		724.18		-3.778E-03	3.881E-02	6.226E-02	4.675E-03	-0.061
		756.15	*	1.629E-02	3.198E-02	5.579E-02	4.466E-03	0.292
NB-97		657.90	*	-5.898E-06	3.198E-02	Half-Life too short		
		1024.50		6.463E-04	3.198E-02	Half-Life too short		
ZR-97		254.15		-9.655E-04	3.198E-02	Half-Life too short		
		355.39		-9.960E-05	3.198E-02	Half-Life too short		
		507.63	*	-1.336E-03	3.198E-02	Half-Life too short		
		602.52		1.450E-03	3.198E-02	Half-Life too short		
		1021.30		-1.130E-04	3.198E-02	Half-Life too short		
		1147.95		1.218E-04	3.198E-02	Half-Life too short		
		1362.66		-2.994E-04	3.198E-02	Half-Life too short		
		1750.46		-1.983E-03	3.198E-02	Half-Life too short		
MO-99		140.51		-7.466E-01	1.763E+00	2.745E+00	7.386E-01	-0.272
		181.06		5.872E-01	1.234E+00	1.832E+00	3.112E-01	0.320
		366.43		-1.935E+00	6.093E+00	9.842E+00	5.601E-01	-0.197
		739.58	*	-1.891E-01	8.214E-01	1.286E+00	1.827E-01	-0.147
		778.00		-1.799E+00	2.331E+00	3.255E+00	2.350E-01	-0.553
TC-99M		140.51	*	-7.040E+00	2.331E+00	Half-Life too short		
RH-101		127.23		-1.225E-02	1.360E-02	2.042E-02	1.191E-03	-0.600
		198.01	*	-1.039E-02	1.672E-02	2.363E-02	1.282E-03	-0.440
		325.23		1.441E-02	1.028E-01	1.745E-01	1.013E-02	0.083
RH-102		418.52		-8.324E-02	1.417E-01	2.204E-01	1.250E-02	-0.378
		475.06	*	9.581E-03	1.411E-02	2.514E-02	1.467E-03	0.381
		631.29		7.386E-03	2.488E-02	4.250E-02	2.500E-03	0.174
		697.49		2.597E-02	4.299E-02	7.500E-02	4.678E-03	0.346
		766.84		-1.079E-02	4.329E-02	6.725E-02	4.761E-03	-0.160
		1046.59		-3.995E-03	4.862E-02	8.030E-02	5.876E-03	-0.050
		1112.84		1.128E-02	8.385E-02	1.437E-01	9.230E-03	0.078
RU-103		497.08	*	-2.068E-03	1.738E-02	2.831E-02	3.590E-03	-0.073
		610.33		-1.106E-01	4.185E-01	6.159E-01	9.522E-02	-0.180
RH-106		511.85		-1.336E-01	1.444E-01	2.664E-01	1.572E-02	-0.502
		621.84	*	2.300E-03	1.592E-01	2.614E-01	3.080E-02	0.009
		1050.47		2.506E-02	1.018E+00	1.713E+00	1.245E-01	0.015
RU-106		511.85		-1.336E-01	1.444E-01	2.664E-01	1.572E-02	-0.502
		621.84	*	2.300E-03	1.592E-01	2.614E-01	1.541E-02	0.009
		1050.47		2.506E-02	1.018E+00	1.713E+00	1.245E-01	0.015
AG-108M		433.93	*	-7.417E-04	1.370E-02	2.260E-02	1.407E-03	-0.033
		614.37		4.181E-03	2.083E-02	3.493E-02	2.232E-03	0.120
		722.95		-5.352E-03	1.848E-02	2.870E-02	2.003E-03	-0.186
CD-109		88.03	*	1.807E-02	3.166E-01	4.574E-01	4.097E-02	0.039
AG-110M		657.75	*	-3.693E-03	1.608E-02	2.540E-02	1.576E-03	-0.145
		677.61		-5.328E-02	1.524E-01	2.365E-01	1.501E-02	-0.225
		706.67		-2.183E-02	9.564E-02	1.506E-01	1.003E-02	-0.145
		763.93		6.656E-02	6.135E-02	1.178E-01	8.647E-03	0.565
		884.67		-1.688E-02	2.543E-02	3.632E-02	3.234E-03	-0.465
		937.48		2.194E-02	5.315E-02	9.141E-02	8.045E-03	0.240
		1384.27		-2.099E-02	6.854E-02	1.047E-01	7.945E-03	-0.200
IN-111		171.28		-4.225E-02	7.355E-02	1.129E-01	5.926E-03	-0.374

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		245.39	*	-8.186E-02	7.550E-02	1.064E-01	6.051E-03	-0.769
IN-113M		391.69	*	1.130E-02	2.069E-02	3.633E-02	2.168E-03	0.311
SN-113		391.69	*	1.130E-02	2.069E-02	3.633E-02	2.168E-03	0.311
IN-114M		190.27	*	-3.183E-02	7.141E-02	1.103E-01	5.927E-03	-0.289
CD-115		260.90		-2.623E+00	6.056E+00	9.232E+00	5.302E-01	-0.284
		492.35		-1.179E+00	1.940E+00	2.910E+00	1.708E-01	-0.405
		527.90	*	4.061E-01	4.936E-01	8.959E-01	5.303E-02	0.453
SN-117M		156.02		-2.341E-01	6.710E-01	1.054E+00	5.646E-02	-0.222
		158.56	*	1.718E-03	1.677E-02	2.735E-02	1.456E-03	0.063
SB-122		563.90	*	-3.875E-02	1.721E-01	2.760E-01	1.639E-02	-0.140
		692.80		-1.794E+00	3.278E+00	4.943E+00	3.056E-01	-0.363
I-123		159.00	*	6.703E-05	3.278E+00	Half-Life too short		
		528.96		1.429E-02	3.278E+00	Half-Life too short		
TE-123M		159.00	*	4.284E-03	1.204E-02	2.005E-02	1.083E-03	0.214
I-124		602.71	*	3.014E-02	1.049E-01	1.776E-01	1.051E-02	0.170
		722.78		-1.469E-01	5.580E-01	8.708E-01	5.694E-02	-0.169
		1325.50		9.878E-01	5.390E+00	9.213E+00	6.709E-01	0.107
		1376.25		7.766E-01	3.796E+00	6.559E+00	4.797E-01	0.118
		1509.49		5.399E-01	2.536E+00	4.350E+00	3.060E-01	0.124
		1691.02		-2.546E-01	5.889E-01	8.387E-01	5.365E-02	-0.304
SB-124		602.71		5.579E-03	1.942E-02	3.287E-02	1.946E-03	0.170
		645.85		-5.948E-02	2.273E-01	3.580E-01	2.361E-02	-0.166
		709.31		-1.868E-01	1.139E+00	1.808E+00	1.153E-01	-0.103
		713.82		5.795E-01	6.927E-01	1.262E+00	1.335E-01	0.459
		722.78		-3.942E-02	1.497E-01	2.337E-01	1.585E-02	-0.169
		968.20		1.613E-01	1.001E+00	1.655E+00	1.357E-01	0.097
		1045.16		1.942E-02	9.830E-01	1.653E+00	1.213E-01	0.012
		1325.50		2.831E-01	1.545E+00	2.640E+00	1.923E-01	0.107
		1368.21		-3.083E-01	8.278E-01	1.261E+00	1.600E-01	-0.244
		1436.60		2.138E-01	1.402E+00	2.408E+00	1.736E-01	0.089
		1691.02	*	-1.611E-02	3.728E-02	5.308E-02	3.636E-03	-0.304
SB-125		427.89	*	-1.480E-02	4.502E-02	7.209E-02	4.292E-03	-0.205
		463.38		-2.688E-03	1.334E-01	2.206E-01	1.493E-02	-0.012
		600.56		5.329E-02	1.020E-01	1.765E-01	1.202E-02	0.302
		635.90		-6.005E-02	1.261E-01	1.914E-01	1.313E-02	-0.314
TE-125M		109.28	*	-3.219E+00	3.602E+00	5.429E+00	4.790E-01	-0.593
I-126		388.63		-2.887E-02	6.385E-02	1.012E-01	5.647E-03	-0.285
		666.33	*	2.443E-02	5.819E-02	1.005E-01	5.904E-03	0.243
		753.82		1.807E-01	4.914E-01	8.408E-01	5.816E-02	0.215
SB-126		223.80		4.186E-01	1.126E+00	1.870E+00	1.044E-01	0.224
		278.60		-1.567E-01	7.017E-01	1.158E+00	6.704E-02	-0.135
		296.50		1.651E-01	4.084E-01	7.099E-01	4.127E-02	0.233
		414.70		6.782E-03	2.432E-02	4.161E-02	2.354E-03	0.163
		415.30		7.261E-01	2.000E+00	3.452E+00	1.954E-01	0.210
		555.20		3.431E-01	1.359E+00	2.303E+00	1.367E-01	0.149
		573.80		-6.998E-01	3.686E-01	4.480E-01	2.659E-02	-1.562
		593.00		-2.060E-01	2.605E-01	3.724E-01	2.207E-02	-0.553
		656.30		4.687E-01	9.883E-01	1.727E+00	1.008E-01	0.271
		666.33		1.004E-02	2.390E-02	4.127E-02	2.425E-03	0.243

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		675.00		9.026E-02	6.759E-01	1.124E+00	6.714E-02	0.080
		695.00		1.859E-02	2.733E-02	4.824E-02	2.995E-03	0.385
		697.00		1.119E-01	9.859E-02	1.813E-01	1.130E-02	0.617
		720.50	*	7.669E-03	4.201E-02	7.038E-02	4.582E-03	0.109
		856.80		8.416E-02	1.535E-01	2.687E-01	2.216E-02	0.313
		989.30		4.890E-03	4.086E-01	6.574E-01	5.245E-02	0.007
		1034.80		-6.947E-01	2.481E+00	3.948E+00	2.946E-01	-0.176
		1213.00		-5.323E-02	1.195E+00	1.973E+00	1.170E-01	-0.027
SN-126		64.28		-1.129E-01	2.069E-01	3.058E-01	4.466E-02	-0.369
		86.94		7.888E-02	1.294E-01	1.925E-01	7.972E-02	0.410
		87.57	*	2.499E-03	3.102E-02	4.495E-02	4.010E-03	0.056
SB-127		61.10		3.966E-01	5.463E+00	9.057E+00	7.545E-01	0.044
		252.40		-2.669E-01	5.338E-01	7.900E-01	3.245E-01	-0.338
		290.80		-3.165E-02	2.361E+00	3.967E+00	2.706E-01	-0.008
		411.60		-5.658E-01	1.545E+00	2.470E+00	3.196E-01	-0.229
		444.90		7.767E-01	1.216E+00	2.157E+00	1.911E-01	0.360
		473.00		7.416E-02	2.170E-01	3.728E-01	3.493E-02	0.199
		543.00		-1.885E-01	1.934E+00	3.143E+00	3.592E-01	-0.060
		603.60		3.567E-01	1.655E+00	2.778E+00	2.480E-01	0.128
		685.20	*	-1.515E-02	1.785E-01	2.879E-01	2.134E-02	-0.053
		698.50		1.338E+00	2.179E+00	3.800E+00	5.062E-01	0.352
		722.20		1.891E-01	3.365E+00	5.528E+00	4.117E-01	0.034
		783.80		-4.260E-02	3.779E-01	6.004E-01	5.871E-02	-0.071
XE-127		57.60		-5.987E-01	1.811E+00	2.904E+00	2.176E-01	-0.206
		145.22		-9.899E-02	2.952E-01	4.280E-01	2.362E-02	-0.231
		172.10		-5.503E-03	4.696E-02	7.506E-02	3.944E-03	-0.073
		202.84	*	3.134E-03	1.833E-02	2.990E-02	1.631E-03	0.105
		374.96		-1.294E-02	7.555E-02	1.237E-01	6.991E-03	-0.105
I-131		80.18		3.989E-02	8.417E-01	1.387E+00	1.152E-01	0.029
		284.30		-7.284E-04	3.557E-01	5.986E-01	3.827E-02	-0.001
		364.48	*	7.793E-03	2.784E-02	4.785E-02	3.029E-03	0.163
		636.97		-4.964E-02	3.653E-01	5.856E-01	3.810E-02	-0.085
		722.89		-4.573E-01	1.632E+00	2.538E+00	1.665E-01	-0.180
TE-132		49.72		-1.092E-02	1.419E+00	2.345E+00	1.850E-01	-0.005
		111.76		3.179E-01	2.400E+00	3.956E+00	2.922E-01	0.080
		116.30		7.937E-01	2.232E+00	3.745E+00	2.667E-01	0.212
		228.16	*	3.709E-02	6.518E-02	1.095E-01	1.434E-02	0.339
BA-133		53.15		2.070E-01	1.217E+00	2.041E+00	1.507E-01	0.101
		79.62		6.025E-02	4.572E-01	7.578E-01	1.138E-01	0.080
		81.00		1.271E-02	3.450E-02	5.808E-02	9.139E-03	0.219
		276.40		1.013E-01	1.552E-01	2.756E-01	3.570E-02	0.368
		302.84		-5.450E-02	6.475E-02	9.956E-02	1.161E-02	-0.547
		356.01	*	4.474E-03	2.010E-02	3.433E-02	3.956E-03	0.130
		383.85		-3.714E-02	1.266E-01	2.036E-01	2.193E-02	-0.182
I-133		510.53		-5.941E-04	1.266E-01	Half-Life too short		
		529.87	*	2.835E-06	1.266E-01	Half-Life too short		
		706.58		-9.654E-05	1.266E-01	Half-Life too short		
		856.28		1.009E-04	1.266E-01	Half-Life too short		
		875.33		1.206E-04	1.266E-01	Half-Life too short		

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		1236.41		-4.266E-04	1.266E-01	Half-Life too short		
		1298.22		-1.094E-04	1.266E-01	Half-Life too short		
CS-134		475.35		7.564E-01	8.982E-01	1.629E+00	9.509E-02	0.464
		563.23		-6.965E-02	2.044E-01	3.235E-01	1.959E-02	-0.215
		569.32		-4.096E-02	1.232E-01	1.995E-01	1.218E-02	-0.205
		604.70		-1.583E-02	1.907E-02	2.835E-02	1.686E-03	-0.558
		795.84	*	-5.418E-03	2.251E-02	3.514E-02	2.642E-03	-0.154
		801.93		-4.794E-02	2.255E-01	3.497E-01	2.651E-02	-0.137
		1038.57		-5.782E-01	1.557E+00	2.423E+00	1.797E-01	-0.239
		1167.94		4.564E-01	1.156E+00	2.043E+00	1.137E-01	0.223
		1365.15		-2.269E-02	6.459E-01	1.061E+00	8.265E-02	-0.021
CS-135		268.24	*	2.139E-02	6.683E-02	1.158E-01	8.835E-03	0.185
I-135		288.45		-4.213E+01	6.683E-02	Half-Life too short		
		417.63		3.049E+01	6.683E-02	Half-Life too short		
		546.56		5.521E-01	6.683E-02	Half-Life too short		
		836.80		4.555E+00	6.683E-02	Half-Life too short		
		1038.76		-1.674E+01	6.683E-02	Half-Life too short		
		1124.00		-7.796E+01	6.683E-02	Half-Life too short		
		1131.51		6.245E+00	6.683E-02	Half-Life too short		
		1260.41	*	-2.827E+00	6.683E-02	Half-Life too short		
		1457.56		-2.138E+01	6.683E-02	Half-Life too short		
		1678.03		3.257E+01	6.683E-02	Half-Life too short		
		1706.46		1.429E+01	6.683E-02	Half-Life too short		
		1791.20		3.327E+01	6.683E-02	Half-Life too short		
CS-136		66.91		-1.154E-01	1.900E-01	2.972E-01	4.426E-02	-0.388
		86.29		3.873E-01	2.537E-01	4.337E-01	5.625E-02	0.893
		153.22		6.352E-02	1.799E-01	3.001E-01	2.070E-02	0.212
		163.89		-1.263E-01	3.182E-01	4.968E-01	3.383E-02	-0.254
		176.55		4.583E-02	1.077E-01	1.800E-01	1.090E-02	0.255
		273.65		-4.004E-02	1.268E-01	2.075E-01	1.367E-02	-0.193
		340.57		-3.530E-02	4.179E-02	6.461E-02	3.965E-03	-0.546
		818.51		2.612E-03	2.212E-02	3.659E-02	2.833E-03	0.071
		1048.07	*	-1.023E-02	3.247E-02	5.144E-02	3.972E-03	-0.199
		1235.34		-6.515E-02	1.378E-01	2.072E-01	2.116E-02	-0.314
BA-137M		661.65	*	-8.121E-03	1.670E-02	2.531E-02	1.474E-03	-0.321
CS-137		661.65	*	-8.585E-03	1.765E-02	2.675E-02	1.564E-03	-0.321
CE-139		165.85	*	-4.506E-03	1.209E-02	1.888E-02	9.858E-04	-0.239
BA-140		162.64		5.821E-02	2.185E-01	3.610E-01	2.184E-02	0.161
		304.84		1.520E-01	3.624E-01	6.293E-01	1.718E-01	0.242
		423.70		2.561E-02	6.981E-01	1.119E+00	3.556E-01	0.023
		537.32	*	8.019E-02	8.193E-02	1.450E-01	4.717E-02	0.553
LA-140		328.77		-1.782E-02	9.368E-02	1.527E-01	9.917E-03	-0.117
		432.53		5.743E-01	5.783E-01	1.074E+00	6.802E-02	0.535
		487.03		1.098E-02	4.222E-02	7.208E-02	4.772E-03	0.152
		751.79		-1.726E-01	5.653E-01	8.759E-01	7.020E-02	-0.197
		815.85		1.005E-02	9.743E-02	1.607E-01	1.414E-02	0.063
		867.82		6.243E-02	4.485E-01	7.414E-01	6.572E-02	0.084
		919.63		2.339E-01	7.453E-01	1.278E+00	1.362E-01	0.183
		925.24		-5.351E-02	3.629E-01	5.687E-01	5.195E-02	-0.094

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1596.49	*	1.405E-02	2.983E-02	5.411E-02	3.661E-03	0.260
CE-141		145.44	*	-2.548E-03	2.610E-02	3.857E-02	2.221E-03	-0.066
CE-143		57.37		-3.404E+00	8.276E+00	1.317E+01	1.163E+00	-0.258
		231.56		-1.925E+01	2.617E+01	3.770E+01	1.164E+01	-0.511
		293.26	*	2.123E-01	1.297E+00	2.211E+00	4.523E-01	0.096
		350.59		-4.938E+00	1.705E+01	2.758E+01	8.366E+00	-0.179
		490.36		2.000E+01	3.400E+01	5.751E+01	1.778E+01	0.348
		664.57		-5.622E-01	1.402E+01	2.278E+01	7.213E+00	-0.025
		721.93		2.431E+00	1.371E+01	2.292E+01	6.555E+00	0.106
CE-144		80.11		3.833E-02	7.271E-01	1.198E+00	9.929E-02	0.032
		133.54	*	-5.342E-02	8.621E-02	1.322E-01	1.872E-02	-0.404
PM-144		476.78		1.025E-02	3.180E-02	5.462E-02	3.809E-03	0.188
		618.01		-3.593E-03	1.731E-02	2.752E-02	1.718E-03	-0.131
		696.49	*	1.727E-02	1.903E-02	3.424E-02	2.132E-03	0.504
		778.57		-4.896E-01	1.017E+00	1.511E+00	1.092E-01	-0.324
PR-144		696.49	*	1.165E+00	1.284E+00	2.311E+00	1.439E-01	0.504
		1489.15		-1.987E+00	5.878E+00	8.857E+00	6.278E-01	-0.224
PM-146		453.90	*	-2.793E-02	2.097E-02	2.872E-02	2.473E-03	-0.972
		633.02		3.296E-01	6.381E-01	1.104E+00	4.065E-01	0.299
		735.90		3.591E-02	7.275E-02	1.258E-01	3.532E-02	0.286
		747.13		-6.023E-04	4.323E-02	7.015E-02	9.133E-03	-0.009
ND-147		91.11		1.569E-01	7.283E-02	1.231E-01	1.137E-02	1.275
		319.41		-4.639E-02	9.009E-01	1.503E+00	8.737E-02	-0.031
		439.89		1.062E+00	1.578E+00	2.828E+00	1.625E-01	0.376
		531.02	*	-4.908E-02	1.661E-01	2.629E-01	3.569E-02	-0.187
PM-149		285.90	*	8.426E-01	3.885E+00	6.663E+00	9.432E-01	0.126
EU-152		121.78		3.729E-03	3.101E-02	5.097E-02	3.946E-03	0.073
		244.69		-1.482E-01	1.488E-01	2.129E-01	1.210E-02	-0.696
		344.27	*	2.269E-02	4.817E-02	8.400E-02	5.467E-03	0.270
		443.98		-1.760E-01	4.757E-01	7.565E-01	4.355E-02	-0.233
		778.89		-3.288E-02	1.163E-01	1.793E-01	1.297E-02	-0.183
		867.32		-2.165E-03	3.918E-01	6.323E-01	5.304E-02	-0.003
		964.01		-6.458E-02	1.271E-01	1.851E-01	1.524E-02	-0.349
		1085.78		3.385E-02	1.690E-01	2.927E-01	1.992E-02	0.116
		1112.02		6.528E-02	1.154E-01	2.136E-01	1.374E-02	0.306
		1407.95		4.428E-02	9.532E-02	1.714E-01	1.245E-02	0.258
GD-153		69.67		4.409E-01	5.269E-01	9.223E-01	7.098E-02	0.478
		83.37		-6.170E+00	5.569E+00	7.838E+00	6.696E-01	-0.787
		97.43	*	1.836E-02	3.250E-02	4.791E-02	3.726E-03	0.383
		103.18		7.373E-04	3.972E-02	6.498E-02	4.705E-03	0.011
EU-154		123.07		1.607E-02	2.158E-02	3.717E-02	3.526E-03	0.432
		247.94		-2.494E-02	1.561E-01	2.450E-01	2.322E-02	-0.102
		591.81		-1.541E-01	2.599E-01	3.851E-01	3.793E-02	-0.400
		723.30		-1.063E-02	7.706E-02	1.228E-01	9.456E-03	-0.087
		756.87		2.330E-01	3.663E-01	6.503E-01	7.049E-02	0.358
		873.19		-1.864E-01	1.634E-01	2.098E-01	2.547E-02	-0.888
		996.32		-1.644E-01	1.906E-01	2.536E-01	4.420E-02	-0.648
		1004.76		1.640E-02	1.005E-01	1.729E-01	1.912E-02	0.095
		1274.45	*	1.371E-02	4.406E-02	7.815E-02	7.735E-03	0.175

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155		48.70		-1.751E-01	8.698E-01	1.415E+00	9.927E-02	-0.124
		60.01		-5.769E-01	1.825E+00	2.937E+00	2.209E-01	-0.196
		86.54		3.346E-02	3.679E-02	5.793E-02	5.160E-03	0.578
		105.31	*	1.757E-02	4.356E-02	7.340E-02	5.280E-03	0.239
TB-160		86.79		6.880E-02	9.038E-02	1.405E-01	1.243E-02	0.490
		197.04		1.198E-01	2.320E-01	3.895E-01	2.111E-02	0.308
		215.65		4.663E-02	3.116E-01	5.068E-01	2.805E-02	0.092
		298.57		5.994E-02	4.623E-02	8.598E-02	4.999E-03	0.697
		879.36	*	4.761E-02	6.107E-02	1.113E-01	9.517E-03	0.428
		962.29		4.756E-02	1.909E-01	3.216E-01	2.655E-02	0.148
		966.15		1.099E-02	7.784E-02	1.283E-01	1.054E-02	0.086
		1177.93		-5.724E-02	1.434E-01	2.221E-01	1.229E-02	-0.258
		1271.85		-6.471E-02	2.795E-01	4.426E-01	2.933E-02	-0.146
HO-166M		80.57		3.345E-02	9.475E-02	1.596E-01	1.328E-02	0.210
	+	184.41		7.954E-03	1.925E-02	2.890E-02	1.542E-03	0.275
		280.46		-4.532E-03	3.859E-02	6.431E-02	3.725E-03	-0.070
		410.95		-6.406E-02	1.195E-01	1.875E-01	1.058E-02	-0.342
		711.68	*	-5.755E-03	2.857E-02	4.513E-02	2.891E-03	-0.128
		752.31		4.086E-03	1.364E-01	2.228E-01	1.537E-02	0.018
		810.29		-5.071E-03	2.590E-02	4.046E-02	3.088E-03	-0.125
TM-171		51.35		-1.056E+00	1.063E+01	1.743E+01	1.271E+00	-0.061
		52.39		1.403E+00	5.329E+00	9.005E+00	6.621E-01	0.156
		59.40		-1.353E-01	9.779E+00	1.612E+01	1.212E+00	-0.008
		66.72	*	-7.933E+00	1.031E+01	1.596E+01	1.214E+00	-0.497
LU-176		88.36		8.745E-03	7.472E-02	1.086E-01	9.676E-03	0.080
		201.83		-3.495E-03	1.321E-02	2.075E-02	1.131E-03	-0.168
		306.84	*	-4.439E-03	1.088E-02	1.753E-02	1.020E-03	-0.253
		401.10		3.167E-01	2.916E+00	4.916E+00	2.754E-01	0.064
LU-177		112.95		4.153E-02	3.124E-01	5.147E-01	3.352E-02	0.081
		208.36	*	-8.539E-02	2.104E-01	3.250E-01	1.784E-02	-0.263
LU-177M		52.97		1.334E-01	5.379E-01	9.075E-01	6.696E-02	0.147
		54.07		-1.542E-01	2.799E-01	4.394E-01	3.259E-02	-0.351
		61.30		5.347E-02	5.345E-01	8.877E-01	6.679E-02	0.060
		121.62		1.262E-02	1.536E-01	2.517E-01	1.505E-02	0.050
		147.16		1.190E-02	2.633E-01	4.284E-01	2.352E-02	0.028
		171.86		-5.025E-02	2.093E-01	3.310E-01	1.738E-02	-0.152
		218.09		2.704E-01	3.514E-01	6.042E-01	3.352E-02	0.448
		268.79		-3.112E-04	3.233E-01	5.450E-01	3.143E-02	-0.001
		319.02		-1.113E-02	1.098E-01	1.822E-01	1.059E-02	-0.061
		367.43		-4.017E-02	4.113E-01	6.800E-01	3.867E-02	-0.059
		413.65	*	4.003E-02	8.214E-02	1.435E-01	8.110E-03	0.279
HF-181		56.28		-1.464E-01	2.848E-01	4.488E-01	3.351E-02	-0.326
		57.53		-5.500E-02	1.552E-01	2.484E-01	1.860E-02	-0.221
		65.20		-1.560E-03	2.996E-01	4.934E-01	3.734E-02	-0.003
		133.02		-1.313E-02	2.522E-02	3.919E-02	2.243E-03	-0.335
		136.25		-6.658E-02	1.705E-01	2.676E-01	1.516E-02	-0.249
		345.85		4.739E-02	8.510E-02	1.494E-01	8.607E-03	0.317
		482.03	*	6.488E-03	1.544E-02	2.701E-02	1.581E-03	0.240
W-181		56.28		-4.145E-02	1.189E-01	1.902E-01	1.421E-02	-0.218

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		57.53		-2.338E-02	6.585E-02	1.054E-01	7.892E-03	-0.222
		65.20	*	-6.566E-04	1.261E-01	2.077E-01	1.572E-02	-0.003
TA-182		67.75		-1.680E-02	3.760E-02	5.976E-02	4.560E-03	-0.281
		100.10		4.452E-02	6.669E-02	1.079E-01	8.108E-03	0.413
		152.43		4.590E-02	1.306E-01	2.180E-01	1.180E-02	0.211
		222.10		-1.778E-01	1.458E-01	2.040E-01	1.137E-02	-0.871
		1001.68		-1.172E+00	1.167E+00	1.509E+00	1.183E-01	-0.777
		1121.28		2.836E-02	4.863E-02	8.981E-02	5.655E-03	0.316
		1189.05		1.124E-02	1.082E-01	1.839E-01	1.040E-02	0.061
		1221.42	*	7.011E-02	8.333E-02	1.559E-01	9.398E-03	0.450
		1230.97		4.659E-02	1.648E-01	2.885E-01	1.771E-02	0.162
RE-183		57.98		4.681E-04	6.295E-02	1.040E-01	7.795E-03	0.005
		59.32		1.946E-02	3.612E-02	6.202E-02	4.665E-03	0.314
		67.20		-5.220E-02	6.606E-02	1.019E-01	7.763E-03	-0.512
		162.32	*	8.856E-03	4.428E-02	7.279E-02	3.835E-03	0.122
		208.81		-2.066E-01	3.776E-01	5.745E-01	3.156E-02	-0.360
		291.72		-2.397E-01	3.796E-01	6.002E-01	3.487E-02	-0.399
RE-184		57.98		1.802E-03	2.423E-01	4.001E-01	3.000E-02	0.005
		59.32		7.484E-02	1.389E-01	2.385E-01	1.794E-02	0.314
		67.20		-2.008E-01	2.542E-01	3.922E-01	2.987E-02	-0.512
		161.27		5.064E-02	1.544E-01	2.563E-01	1.354E-02	0.198
		216.55		7.387E-02	1.101E-01	1.877E-01	1.040E-02	0.393
		252.85	*	-6.577E-02	1.068E-01	1.597E-01	9.125E-03	-0.412
		318.01		-8.213E-02	1.920E-01	3.079E-01	1.790E-02	-0.267
		792.07		2.201E-01	4.530E-01	7.882E-01	5.831E-02	0.279
		903.28		-3.722E-01	4.801E-01	6.643E-01	5.826E-02	-0.560
		920.93		6.551E-02	1.932E-01	3.310E-01	2.855E-02	0.198
OS-185		59.72		-1.151E-02	1.018E-01	1.665E-01	1.253E-02	-0.069
		61.14		5.311E-03	5.687E-02	9.442E-02	7.104E-03	0.056
		69.30		7.794E-02	9.329E-02	1.631E-01	1.253E-02	0.478
		592.07		-6.758E-01	9.920E-01	1.444E+00	8.559E-02	-0.468
		646.12	*	-1.589E-03	1.967E-02	3.182E-02	1.863E-03	-0.050
		717.42		-9.188E-02	4.026E-01	6.328E-01	4.097E-02	-0.145
		874.81		1.806E-01	2.798E-01	4.972E-01	4.222E-02	0.363
		880.27		1.619E-02	3.665E-01	5.960E-01	5.105E-02	0.027
RE-188		155.03	*	-1.985E-02	6.862E-02	1.083E-01	5.821E-03	-0.183
		477.96		-9.914E-01	1.372E+00	2.064E+00	1.206E-01	-0.480
		633.10		5.780E-01	1.172E+00	2.056E+00	1.209E-01	0.281
W-188		63.58		-1.057E+01	2.015E+01	2.996E+01	2.260E+00	-0.353
		227.08		3.136E+00	5.495E+00	9.251E+00	5.179E-01	0.339
		290.67	*	-3.361E-01	2.954E+00	4.916E+00	2.855E-01	-0.068
IR-192		295.96		-2.586E-02	4.497E-02	7.179E-02	4.239E-03	-0.360
		308.46		1.104E-02	3.932E-02	6.780E-02	3.988E-03	0.163
		316.51	*	-1.748E-03	1.376E-02	2.278E-02	1.331E-03	-0.077
		468.07		-1.507E-02	2.843E-02	4.394E-02	2.946E-03	-0.343
		604.41		-6.560E-02	2.314E-01	3.672E-01	4.189E-02	-0.179
		612.46		-5.907E-02	3.463E-01	5.564E-01	4.260E-02	-0.106
AU-195		65.12		1.103E-03	5.940E-02	9.798E-02	7.413E-03	0.011
		66.83		-1.608E-02	3.278E-02	5.195E-02	3.951E-03	-0.309

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		75.70		7.759E-02	6.080E-02	1.084E-01	8.662E-03	0.716
		98.88	*	4.282E-02	9.374E-02	1.365E-01	1.042E-02	0.314
		129.76		6.961E-01	1.153E+00	1.964E+00	1.136E-01	0.354
TL-200		367.94	*	5.546E-02	1.802E+00	3.019E+00	1.716E-01	0.018
		579.30		1.043E+01	1.410E+01	2.523E+01	1.497E+00	0.414
		828.27		7.716E+00	2.065E+01	3.534E+01	2.781E+00	0.218
		1205.75		1.046E+00	9.383E+00	1.589E+01	9.295E-01	0.066
TL-201		68.90		2.405E-01	2.879E-01	5.034E-01	3.860E-02	0.478
		70.82		-6.407E-02	1.635E-01	2.603E-01	2.015E-02	-0.246
		80.30		1.212E-02	3.168E-01	5.215E-01	4.329E-02	0.023
		135.34		-2.021E-01	1.919E+00	3.088E+00	1.754E-01	-0.065
		167.43	*	-2.506E-01	5.488E-01	8.505E-01	4.444E-02	-0.295
TL-202		68.90		7.811E-02	9.349E-02	1.635E-01	1.253E-02	0.478
		70.82		-2.075E-02	5.293E-02	8.431E-02	6.527E-03	-0.246
		80.30		3.926E-03	1.026E-01	1.689E-01	1.402E-02	0.023
		439.56	*	1.506E-02	1.961E-02	3.551E-02	2.039E-03	0.424
HG-203		70.83		-2.340E-01	3.238E-01	5.000E-01	6.534E-02	-0.468
		72.87		-1.656E-01	1.853E-01	2.813E-01	3.574E-02	-0.589
		82.60		-2.838E-01	3.520E-01	5.373E-01	7.337E-02	-0.528
		279.20	*	-2.885E-03	1.627E-02	2.698E-02	1.659E-03	-0.107
BI-207		72.80		-5.699E-02	6.072E-02	9.221E-02	7.222E-03	-0.618
		74.97		3.989E-02	3.438E-02	6.102E-02	4.850E-03	0.654
		84.90		-2.282E-02	6.993E-02	1.054E-01	9.146E-03	-0.216
		569.67		-9.748E-03	1.938E-02	3.085E-02	1.831E-03	-0.316
		1063.62	*	4.838E-03	2.516E-02	4.467E-02	3.172E-03	0.108
		1770.23		-1.353E-01	3.466E-01	5.183E-01	3.126E-02	-0.261
TL-207		81.07		2.446E-02	7.585E-02	1.275E-01	1.065E-02	0.192
		83.78		-5.351E-02	4.829E-02	6.795E-02	5.829E-03	-0.787
		94.90		4.247E-02	1.025E-01	1.531E-01	1.233E-02	0.277
		122.32		3.762E-01	7.121E-01	1.210E+00	8.265E-02	0.311
		144.24		-7.689E-02	3.354E-01	4.916E-01	3.452E-02	-0.156
		154.21		4.600E-03	1.653E-01	2.683E-01	1.791E-02	0.017
		269.46		1.164E-02	7.622E-02	1.303E-01	7.857E-03	0.089
		323.87	*	5.603E-02	3.032E-01	5.169E-01	8.538E-02	0.108
		338.28		3.611E-02	4.702E-01	7.928E-01	8.342E-02	0.046
		445.03		7.554E-01	1.117E+00	1.984E+00	2.033E-01	0.381
TL-208		277.35		-1.923E-02	1.625E-01	2.709E-01	2.858E-02	-0.071
		510.84		-9.027E-02	1.377E-01	2.559E-01	2.613E-02	-0.353
		583.14	*	2.012E-03	1.993E-02	3.351E-02	2.279E-03	0.060
		860.37		4.005E-02	1.564E-01	2.619E-01	2.345E-02	0.153
PO-209		260.50		-1.895E+00	4.618E+00	7.059E+00	4.053E-01	-0.268
		262.80		1.247E+00	1.239E+01	1.997E+01	1.148E+00	0.062
		896.60	*	-2.119E+00	3.771E+00	5.476E+00	4.814E-01	-0.387
BI-210		46.50	*	-5.703E-01	1.402E+00	2.124E+00	1.619E-01	-0.268
PB-210		46.50	*	-5.703E-01	1.402E+00	2.124E+00	1.619E-01	-0.268
PO-210		46.50	*	-5.703E-01	1.402E+00	2.124E+00	1.385E-01	-0.268
BI-211		72.87		-9.308E-01	1.037E+00	1.581E+00	1.239E-01	-0.589
		351.07	*	-9.167E-02	1.050E-01	1.518E-01	9.690E-03	-0.604
PB-211		404.84	*	2.920E-01	4.662E-01	7.654E-01	4.770E-01	0.381

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		427.08		1.936E-01	1.050E+00	1.767E+00	1.092E+00	0.110
		831.96		-1.327E-01	6.615E-01	9.646E-01	6.036E-01	-0.138
BI-212		727.18	*	4.661E-02	1.326E-01	2.270E-01	1.890E-02	0.205
		785.46		-1.104E-01	7.074E-01	1.114E+00	8.150E-02	-0.099
		1620.62		6.734E-01	5.719E-01	1.211E+00	8.088E-02	0.556
PB-212		74.81		1.062E-01	1.204E-01	2.094E-01	2.568E-02	0.507
		77.11		8.486E-04	7.052E-02	1.159E-01	9.365E-03	0.007
		87.30		6.605E-02	1.376E-01	2.080E-01	2.783E-02	0.318
		238.63	*	1.642E-02	3.061E-02	5.013E-02	3.618E-03	0.327
		300.09		2.283E-01	3.468E-01	6.147E-01	5.077E-02	0.371
PO-212		74.81		1.062E-01	1.204E-01	2.094E-01	2.568E-02	0.507
		77.11		8.486E-04	7.052E-02	1.159E-01	9.365E-03	0.007
		87.30		6.605E-02	1.376E-01	2.080E-01	2.783E-02	0.318
		115.19		3.652E-02	1.484E+00	2.423E+00	1.543E-01	0.015
		238.63	*	1.642E-02	3.061E-02	5.013E-02	3.618E-03	0.327
		300.09		2.283E-01	3.468E-01	6.147E-01	5.077E-02	0.371
BI-214		609.31	*	-3.985E-02	4.483E-02	6.099E-02	4.795E-03	-0.653
		1120.29		1.342E-02	1.096E-01	1.873E-01	1.713E-02	0.072
		1764.49		1.689E-02	1.696E-01	2.875E-01	1.742E-02	0.059
PB-214		74.81		1.830E-01	2.073E-01	3.608E-01	3.917E-02	0.507
		77.11		1.455E-03	1.209E-01	1.987E-01	2.207E-02	0.007
		87.30		1.131E-01	2.356E-01	3.563E-01	4.194E-02	0.318
		241.98		-7.289E-02	1.696E-01	2.610E-01	2.081E-02	-0.279
		295.21		-3.741E-02	6.165E-02	9.791E-02	8.357E-03	-0.382
		351.92	*	-1.526E-02	3.640E-02	5.532E-02	4.561E-03	-0.276
PO-214		74.81		1.830E-01	2.073E-01	3.608E-01	3.917E-02	0.507
		77.11		1.455E-03	1.209E-01	1.987E-01	2.207E-02	0.007
		87.30		1.131E-01	2.356E-01	3.563E-01	4.194E-02	0.318
		241.98		-7.289E-02	1.696E-01	2.610E-01	2.081E-02	-0.279
		295.21		-3.741E-02	6.165E-02	9.791E-02	8.357E-03	-0.382
		351.92	*	-1.526E-02	3.640E-02	5.532E-02	4.561E-03	-0.276
PO-215		81.07		2.446E-02	7.585E-02	1.275E-01	1.065E-02	0.192
		83.78		-5.351E-02	4.829E-02	6.795E-02	5.829E-03	-0.787
		94.90		4.247E-02	1.025E-01	1.531E-01	1.233E-02	0.277
		122.32		3.762E-01	7.121E-01	1.210E+00	8.265E-02	0.311
		144.24		-7.689E-02	3.354E-01	4.916E-01	3.452E-02	-0.156
		154.21		4.600E-03	1.653E-01	2.683E-01	1.791E-02	0.017
		269.46		1.164E-02	7.622E-02	1.303E-01	7.857E-03	0.089
		323.87	*	5.603E-02	3.032E-01	5.169E-01	8.538E-02	0.108
		338.28		3.611E-02	4.702E-01	7.928E-01	8.342E-02	0.046
		445.03		7.554E-01	1.117E+00	1.984E+00	2.033E-01	0.381
PO-216		74.81		1.062E-01	1.204E-01	2.094E-01	2.568E-02	0.507
		77.11		8.486E-04	7.052E-02	1.159E-01	9.365E-03	0.007
		87.30		6.605E-02	1.376E-01	2.080E-01	2.783E-02	0.318
		238.63	*	1.642E-02	3.061E-02	5.013E-02	3.618E-03	0.327
		300.09		2.283E-01	3.468E-01	6.147E-01	5.077E-02	0.371
PO-218		74.81		1.830E-01	2.073E-01	3.608E-01	3.917E-02	0.507
		77.11		1.455E-03	1.209E-01	1.987E-01	2.207E-02	0.007
		87.30		1.131E-01	2.356E-01	3.563E-01	4.194E-02	0.318

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		241.98		-7.289E-02	1.696E-01	2.610E-01	2.081E-02	-0.279
		295.21		-3.741E-02	6.165E-02	9.791E-02	8.357E-03	-0.382
		351.92	*	-1.526E-02	3.640E-02	5.532E-02	4.561E-03	-0.276
RN-219		271.23		1.751E-02	9.942E-02	1.702E-01	1.376E-02	0.103
		401.81	*	-3.812E-02	1.849E-01	3.006E-01	4.065E-02	-0.127
RN-220		549.76	*	-5.291E+00	1.239E+01	1.921E+01	1.140E+00	-0.275
RA-223		81.07		2.446E-02	7.585E-02	1.275E-01	1.065E-02	0.192
		83.78		-5.351E-02	4.829E-02	6.795E-02	5.829E-03	-0.787
		94.90		4.247E-02	1.025E-01	1.531E-01	1.233E-02	0.277
		122.32		3.762E-01	7.121E-01	1.210E+00	8.265E-02	0.311
		144.24		-7.689E-02	3.354E-01	4.916E-01	3.452E-02	-0.156
		154.21		4.600E-03	1.653E-01	2.683E-01	1.791E-02	0.017
		269.46		1.164E-02	7.622E-02	1.303E-01	7.857E-03	0.089
		323.87	*	5.603E-02	3.032E-01	5.169E-01	8.538E-02	0.108
		338.28		3.611E-02	4.702E-01	7.928E-01	8.342E-02	0.046
		445.03		7.554E-01	1.117E+00	1.984E+00	2.033E-01	0.381
RA-224		240.98	*	2.381E-01	3.140E-01	5.339E-01	3.025E-02	0.446
RA-226		609.31	*	-3.985E-02	4.483E-02	6.099E-02	4.795E-03	-0.653
		1120.29		1.342E-02	1.096E-01	1.873E-01	1.713E-02	0.072
		1764.49		1.689E-02	1.696E-01	2.875E-01	1.742E-02	0.059
AC-227		79.80		2.942E-02	5.769E-01	9.505E-01	2.031E-01	0.031
		236.00		-4.323E-02	1.017E-01	1.562E-01	1.619E-02	-0.277
		256.20	*	1.495E-01	1.780E-01	3.056E-01	4.257E-02	0.489
		286.10		1.348E-01	6.832E-01	1.170E+00	1.353E-01	0.115
		299.80		4.406E-01	6.469E-01	1.144E+00	1.863E-01	0.385
		304.40		2.095E-01	7.951E-01	1.368E+00	2.368E-01	0.153
		334.20		5.308E-01	1.115E+00	1.939E+00	3.554E-01	0.274
TH-227		79.80		2.942E-02	5.769E-01	9.505E-01	2.057E-01	0.031
	+	94.00		1.216E+00	1.356E+00	1.500E+00	3.239E-01	0.810
		236.00		-4.323E-02	1.017E-01	1.562E-01	1.399E-02	-0.277
		256.20	*	1.495E-01	1.786E-01	3.056E-01	5.157E-02	0.489
		286.10		1.348E-01	6.962E-01	1.170E+00	1.172E+00	0.115
		299.80		4.406E-01	6.469E-01	1.144E+00	1.863E-01	0.385
		304.40		2.095E-01	7.951E-01	1.368E+00	2.368E-01	0.153
		334.20		5.308E-01	1.115E+00	1.939E+00	3.554E-01	0.274
AC-228		338.32		8.215E-03	1.126E-01	1.897E-01	7.734E-02	0.043
		911.07	*	-4.594E-03	6.468E-02	1.030E-01	1.165E-02	-0.045
		969.11		-7.548E-02	1.223E-01	1.768E-01	4.097E-02	-0.427
RA-228		338.32		8.215E-03	1.126E-01	1.897E-01	7.734E-02	0.043
		911.07	*	-4.594E-03	6.468E-02	1.030E-01	1.165E-02	-0.045
		969.11		-7.548E-02	1.223E-01	1.768E-01	4.097E-02	-0.427
TH-228		74.81		1.070E-01	1.210E-01	2.110E-01	1.692E-02	0.507
		77.11		8.551E-04	7.106E-02	1.168E-01	9.436E-03	0.007
		87.30		6.655E-02	1.385E-01	2.096E-01	1.864E-02	0.318
		238.63	*	1.654E-02	3.084E-02	5.051E-02	3.646E-03	0.327
		300.09		2.300E-01	3.743E-01	6.194E-01	3.651E-01	0.371
TH-229		85.43		2.155E-02	6.955E-02	1.075E-01	9.378E-03	0.200
		88.47		9.705E-03	4.204E-02	6.188E-02	5.501E-03	0.157
		100.00		5.139E-02	7.269E-02	1.180E-01	8.879E-03	0.436

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		193.63	*	2.517E-02	2.266E-01	3.682E-01	1.987E-02	0.068
		210.97		-1.009E-01	3.138E-01	4.881E-01	2.688E-02	-0.207
TH-230		609.31	*	-3.985E-02	4.483E-02	6.099E-02	4.795E-03	-0.653
		1120.29		1.342E-02	1.096E-01	1.873E-01	1.713E-02	0.072
		1764.49		1.689E-02	1.696E-01	2.875E-01	1.742E-02	0.059
PA-231		283.67	*	6.820E-02	7.568E-01	1.203E+00	1.657E-01	0.057
		301.29		-1.227E-01	2.526E-01	4.050E-01	4.237E-02	-0.303
TH-231		81.07		2.446E-02	7.585E-02	1.275E-01	1.065E-02	0.192
		83.78		-5.351E-02	4.829E-02	6.795E-02	5.829E-03	-0.787
		94.90		4.247E-02	1.025E-01	1.531E-01	1.233E-02	0.277
		122.32		3.762E-01	7.121E-01	1.210E+00	8.265E-02	0.311
		144.24		-7.689E-02	3.354E-01	4.916E-01	3.452E-02	-0.156
		154.21		4.600E-03	1.653E-01	2.683E-01	1.791E-02	0.017
		269.46		1.164E-02	7.622E-02	1.303E-01	7.857E-03	0.089
		323.87	*	5.603E-02	3.032E-01	5.169E-01	8.538E-02	0.108
		338.28		3.611E-02	4.702E-01	7.928E-01	8.342E-02	0.046
		445.03		7.554E-01	1.117E+00	1.984E+00	2.033E-01	0.381
U-231		84.21		-5.609E-01	5.941E-01	8.485E-01	7.310E-02	-0.661
	+	92.29		3.478E-01	3.816E-01	4.550E-01	3.805E-02	0.764
		95.87	*	7.150E-03	1.250E-01	1.803E-01	1.432E-02	0.040
		108.00		-1.331E-01	2.502E-01	3.904E-01	2.678E-02	-0.341
TH-232		338.32		8.215E-03	1.126E-01	1.897E-01	1.097E-02	0.043
		911.07	*	-4.594E-03	6.468E-02	1.030E-01	1.165E-02	-0.045
		969.11		-7.548E-02	1.223E-01	1.768E-01	4.097E-02	-0.427
PA-233		75.28		1.227E+00	1.015E+00	1.786E+00	2.677E-01	0.687
		86.59		5.261E-01	6.127E-01	9.392E-01	2.525E-01	0.560
		300.12		1.174E-01	1.796E-01	3.175E-01	4.268E-02	0.370
		311.98	*	2.023E-02	2.774E-02	4.980E-02	3.075E-03	0.406
		340.50		-2.445E-01	3.066E-01	4.684E-01	1.076E-01	-0.522
		398.62		-4.929E-01	9.368E-01	1.450E+00	3.743E-01	-0.340
		415.76		1.549E-01	8.278E-01	1.402E+00	2.881E-01	0.110
PA-234		63.00		7.042E-03	6.237E-01	9.621E-01	1.436E-01	0.007
		94.67		7.771E-02	6.615E-02	1.162E-01	1.398E-02	0.669
		98.44		7.271E-03	4.036E-02	5.668E-02	3.154E-02	0.128
		99.86		1.870E-01	1.879E-01	3.010E-01	2.269E-02	0.621
		111.00		3.339E-02	7.388E-02	1.248E-01	1.344E-02	0.268
		131.20		3.207E-02	4.384E-02	7.540E-02	4.340E-03	0.425
		152.70		7.760E-02	1.318E-01	2.233E-01	3.499E-02	0.347
	+	186.00		2.863E-01	6.982E-01	1.019E+00	3.105E-01	0.281
		226.40		8.702E-02	1.848E-01	3.084E-01	3.533E-02	0.282
		227.20		4.153E-03	2.084E-01	3.345E-01	1.873E-02	0.012
		248.90		6.092E-02	3.436E-01	5.593E-01	1.200E-01	0.109
		293.70		-1.600E-03	2.807E-01	4.718E-01	7.590E-02	-0.003
		369.80		8.785E-03	4.183E-01	7.000E-01	1.455E-01	0.013
		568.70		-1.941E-01	6.419E-01	1.043E+00	6.191E-02	-0.186
		569.50		-6.313E-02	1.710E-01	2.760E-01	1.638E-02	-0.229
		574.00		-1.566E+00	8.013E-01	9.593E-01	5.693E-02	-1.633
		699.00		2.781E-01	4.026E-01	7.042E-01	1.277E-01	0.395
		706.10		-4.668E-02	4.763E-01	7.642E-01	3.378E-01	-0.061

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		733.00		-5.956E-02	2.166E-01	3.081E-01	6.629E-02	-0.193
		742.81		-4.622E-02	6.082E-01	9.754E-01	6.536E-01	-0.047
		796.30		-1.931E-01	4.310E-01	6.433E-01	1.718E-01	-0.300
		805.60		5.797E-01	5.169E-01	9.252E-01	2.810E-01	0.627
		819.60		8.571E-02	5.335E-01	8.880E-01	3.360E-01	0.097
		826.30		1.274E-01	4.028E-01	6.789E-01	3.028E-01	0.188
		831.60		-1.080E-01	3.105E-01	4.715E-01	1.398E-01	-0.229
		876.40		7.197E-02	4.309E-01	7.044E-01	7.240E-01	0.102
		880.51		-6.657E-02	1.514E-01	2.268E-01	1.943E-02	-0.294
		883.24		3.150E-02	1.410E-01	2.336E-01	1.570E-01	0.135
		899.00		2.556E-01	4.002E-01	6.909E-01	3.023E-01	0.370
		925.00		-1.619E-02	5.774E-01	9.252E-01	7.950E-02	-0.018
		926.50		-7.145E-02	9.635E-02	1.328E-01	3.355E-02	-0.538
		946.00	*	-1.038E-01	1.460E-01	2.006E-01	3.745E-02	-0.517
		949.00		6.024E-02	2.222E-01	3.736E-01	3.131E-02	0.161
		980.50		1.520E-01	3.828E-01	6.545E-01	5.282E-02	0.232
		1394.10		-2.634E-01	6.411E-01	9.282E-01	6.026E-01	-0.284
PA-234M		766.42		-8.146E-01	4.644E+00	7.287E+00	3.680E+00	-0.112
		1001.03	*	-3.016E+00	2.746E+00	3.454E+00	3.215E-01	-0.873
TH-234		63.29	*	-1.402E-02	5.277E-01	8.113E-01	1.420E-01	-0.017
	+	92.38		3.146E-01	3.488E-01	4.102E-01	7.365E-02	0.767
U-234		609.31	*	-3.985E-02	4.483E-02	6.099E-02	4.795E-03	-0.653
		1120.29		1.342E-02	1.096E-01	1.873E-01	1.713E-02	0.072
		1764.49		1.689E-02	1.696E-01	2.875E-01	1.742E-02	0.059
U-235		89.95		1.224E-01	4.326E-01	6.372E-01	1.967E-01	0.192
	+	93.35		3.782E-01	4.271E-01	4.886E-01	1.364E-01	0.774
		105.00		2.795E-01	4.277E-01	7.223E-01	2.126E-01	0.387
		143.76	*	-9.477E-03	1.033E-01	1.532E-01	2.484E-02	-0.062
		163.35		5.785E-02	2.023E-01	3.346E-01	5.961E-02	0.173
	+	185.71		1.061E-02	2.566E-02	3.807E-02	2.034E-03	0.279
		205.31		1.881E-01	2.271E-01	3.873E-01	6.924E-02	0.486
NP-236		94.67		5.943E-02	4.993E-02	8.824E-02	7.127E-03	0.674
		98.44		5.499E-03	3.036E-02	4.285E-02	3.289E-03	0.128
		111.00		2.526E-02	5.584E-02	9.442E-02	6.273E-03	0.268
		160.31	*	1.355E-02	3.558E-02	5.931E-02	3.142E-03	0.228
NP-237		86.50	*	8.413E-02	9.183E-02	1.423E-01	3.192E-02	0.591
		95.87		2.178E-02	3.807E-01	5.493E-01	1.341E-01	0.040
U-238		63.29	*	-1.402E-02	5.277E-01	8.113E-01	1.420E-01	-0.017
	+	92.38		3.146E-01	3.452E-01	4.102E-01	3.425E-02	0.767
NP-239		99.55		6.332E-02	6.445E-02	1.028E-01	7.782E-03	0.616
		117.00	*	4.927E-03	7.806E-02	1.278E-01	7.995E-03	0.039
		209.75		-1.854E-01	3.238E-01	4.914E-01	2.702E-02	-0.377
		228.18		5.990E-02	1.050E-01	1.768E-01	9.909E-03	0.339
		277.60		-7.379E-03	7.862E-02	1.313E-01	7.599E-03	-0.056
		334.30		3.431E-01	6.340E-01	1.111E+00	6.434E-02	0.309
AM-241		59.54	*	-3.253E-03	5.701E-02	9.364E-02	7.710E-03	-0.035
AM-243		74.67	*	1.605E-02	1.942E-02	3.376E-02	2.678E-03	0.475
		86.72		2.678E+00	3.338E+00	5.208E+00	4.604E-01	0.514
		117.66		3.192E-01	1.550E+00	2.568E+00	1.596E-01	0.124

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		6.816E+00	7.508E+00	1.303E+01	7.256E-01	0.523
CM-243		99.55		6.512E-02	6.629E-02	1.058E-01	8.003E-03	0.616
		103.76	*	7.235E-03	3.801E-02	6.306E-02	4.536E-03	0.115
		117.00		5.066E-03	8.027E-02	1.315E-01	8.221E-03	0.039
		209.75		-1.827E-01	3.191E-01	4.842E-01	2.663E-02	-0.377
		228.18		6.050E-02	1.061E-01	1.786E-01	1.001E-02	0.339
		277.60		-7.435E-03	7.922E-02	1.323E-01	7.658E-03	-0.056
AM-246		798.80		-1.060E-02	6.884E-02	1.089E-01	8.154E-03	-0.097
		1036.00		-3.293E-02	1.195E-01	1.896E-01	1.412E-02	-0.174
		1062.04		1.164E-02	1.013E-01	1.730E-01	1.232E-02	0.067
		1078.86	*	-2.022E-02	5.599E-02	8.694E-02	5.998E-03	-0.233
CM-247		278.00		-2.624E-02	3.188E-01	5.330E-01	3.085E-02	-0.049
		287.40		-1.006E-01	5.418E-01	8.959E-01	5.200E-02	-0.112
		402.60	*	6.480E-04	1.663E-02	2.781E-02	1.560E-03	0.023
CF-249		252.85		-2.545E-01	4.133E-01	6.178E-01	3.531E-02	-0.412
		333.44		-1.764E-02	8.293E-02	1.363E-01	7.892E-03	-0.129
		387.95	*	-1.370E-02	1.850E-02	2.828E-02	1.579E-03	-0.485
CF-251		176.60	*	1.532E-02	5.609E-02	9.260E-02	4.892E-03	0.165
		227.00		1.087E-01	1.783E-01	3.011E-01	1.686E-02	0.361
		285.00		-1.133E-01	7.987E-01	1.327E+00	7.698E-02	-0.085
ANH-511		511.00	*	-1.923E-02	2.972E-02	5.534E-02	3.266E-03	-0.347

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032720      *
* Acquisition date : 12-FEB-2010 14:38:07 Detector SN#     :               *
* Detector ID       : GAM19               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.66     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032720         Analyst initials: MXR1            *
* Batch Number      : 948812              Sample Quantity : 1.5521E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)	
BE-7	-4.890E-02	1.355E-01	2.275E-01	0.000E+00 NOT IDENT.
NA-22	4.268E-03	1.525E-02	2.776E-02	0.000E+00 NOT IDENT.
NA-24	0.000E+00	9.149E+01	0.000E+00	0.000E+00 SHORT HLIF
AL-26	9.131E-03	1.773E-02	3.337E-02	0.000E+00 NOT IDENT.
K-40	-1.547E-01	1.866E-01	2.876E-01	0.000E+00 NOT IDENT.
TI-44	-3.650E-03	1.273E-02	2.275E-02	0.000E+00 NOT IDENT.
SC-46	3.248E-03	1.940E-02	3.349E-02	0.000E+00 NOT IDENT.
V-48	-1.812E-03	2.576E-02	4.253E-02	0.000E+00 NOT IDENT.
CR-51	1.294E-02	1.297E-01	2.355E-01	0.000E+00 NOT IDENT.
MN-52	-4.757E-03	4.217E-02	6.973E-02	0.000E+00 NOT IDENT.
MN-54	5.684E-03	1.778E-02	3.147E-02	0.000E+00 NOT IDENT.
CO-56	-6.473E-03	1.759E-02	2.787E-02	0.000E+00 NOT IDENT.
CO-57	6.445E-04	1.030E-02	1.852E-02	0.000E+00 NOT IDENT.
CO-58	-1.299E-03	1.597E-02	2.668E-02	0.000E+00 NOT IDENT.
FE-59	1.325E-02	3.665E-02	6.712E-02	0.000E+00 NOT IDENT.
CO-60	9.660E-03	2.196E-02	4.012E-02	0.000E+00 NOT IDENT.
ZN-65	-2.828E-02	3.332E-02	4.803E-02	0.000E+00 NOT IDENT.
GE-68	-8.375E-02	4.532E-01	7.582E-01	0.000E+00 NOT IDENT.
AS-73	1.098E-02	2.542E-01	4.725E-01	0.000E+00 NOT IDENT.
AS-74	-7.517E-03	3.267E-02	5.487E-02	0.000E+00 NOT IDENT.
SE-75	-2.765E-06	1.799E-02	3.270E-02	0.000E+00 NOT IDENT.
BR-77	3.510E-01	5.487E-01	1.031E+00	0.000E+00 NOT IDENT.
SR-82	-1.002E-02	1.331E-01	2.234E-01	0.000E+00 NOT IDENT.
RB-83	1.956E-02	3.050E-02	5.732E-02	0.000E+00 NOT IDENT.
RB-84	-1.704E-02	3.114E-02	4.775E-02	0.000E+00 NOT IDENT.
KR-85	-5.474E+00	5.565E+00	9.047E+00	0.000E+00 NOT IDENT.

SR-85	-2.594E-02	2.637E-02	4.286E-02	0.000E+00	NOT IDENT.
RB-86	9.689E-03	2.136E-01	3.744E-01	0.000E+00	NOT IDENT.
Y-88	-9.026E-04	1.747E-02	2.865E-02	0.000E+00	NOT IDENT.
ZR-88	1.511E-02	1.356E-02	2.665E-02	0.000E+00	NOT IDENT.
Y-91	3.706E-01	7.571E+00	1.314E+01	0.000E+00	NOT IDENT.
NB-94	-7.520E-03	1.743E-02	2.816E-02	0.000E+00	NOT IDENT.
NB-95	2.236E-03	1.525E-02	2.660E-02	0.000E+00	NOT IDENT.
NB-95M	-4.413E-02	5.034E-02	7.987E-02	0.000E+00	NOT IDENT.
ZR-95	1.629E-02	3.134E-02	5.730E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.779E+01	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	8.580E+02	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.891E-01	8.050E-01	1.322E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.622E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.039E-02	1.639E-02	2.513E-02	0.000E+00	NOT IDENT.
RH-102	9.581E-03	1.383E-02	2.614E-02	0.000E+00	NOT IDENT.
RU-103	-2.068E-03	1.703E-02	2.940E-02	0.000E+00	NOT IDENT.
RH-106	2.300E-03	1.560E-01	2.698E-01	0.000E+00	NOT IDENT.
RU-106	2.300E-03	1.560E-01	2.698E-01	0.000E+00	NOT IDENT.
AG-108M	-7.417E-04	1.343E-02	2.355E-02	0.000E+00	NOT IDENT.
CD-109	1.807E-02	3.102E-01	4.965E-01	0.000E+00	NOT IDENT.
AG-110M	-3.693E-03	1.576E-02	2.619E-02	0.000E+00	NOT IDENT.
IN-111	-8.186E-02	7.399E-02	1.126E-01	0.000E+00	NOT IDENT.
IN-113M	1.130E-02	2.027E-02	3.797E-02	0.000E+00	NOT IDENT.
SN-113	1.130E-02	2.027E-02	3.797E-02	0.000E+00	NOT IDENT.
IN-114M	-3.183E-02	6.998E-02	1.175E-01	0.000E+00	NOT IDENT.
CD-115	4.061E-01	4.837E-01	9.291E-01	0.000E+00	NOT IDENT.
SN-117M	1.718E-03	1.643E-02	2.926E-02	0.000E+00	NOT IDENT.
SB-122	-3.875E-02	1.686E-01	2.858E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.847E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.284E-03	1.180E-02	2.145E-02	0.000E+00	NOT IDENT.
I-124	3.014E-02	1.028E-01	1.835E-01	0.000E+00	NOT IDENT.
SB-124	-1.611E-02	3.653E-02	5.331E-02	0.000E+00	NOT IDENT.
SB-125	-1.480E-02	4.412E-02	7.517E-02	0.000E+00	NOT IDENT.
TE-125M	-3.219E+00	3.530E+00	5.862E+00	0.000E+00	NOT IDENT.
I-126	2.443E-02	5.702E-02	1.035E-01	0.000E+00	NOT IDENT.
SB-126	7.669E-03	4.117E-02	7.237E-02	0.000E+00	NOT IDENT.
SN-126	2.499E-03	3.040E-02	4.880E-02	0.000E+00	NOT IDENT.
SB-127	-1.515E-02	1.749E-01	2.964E-01	0.000E+00	NOT IDENT.
XE-127	3.134E-03	1.797E-02	3.179E-02	0.000E+00	NOT IDENT.
I-131	7.793E-03	2.728E-02	5.011E-02	0.000E+00	NOT IDENT.
TE-132	3.709E-02	6.388E-02	1.160E-01	0.000E+00	NOT IDENT.
BA-133	4.474E-03	1.969E-02	3.597E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.962E+00	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-5.418E-03	2.206E-02	3.603E-02	0.000E+00	NOT IDENT.
CS-135	2.139E-02	6.550E-02	1.222E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.376E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.023E-02	3.182E-02	5.236E-02	0.000E+00	NOT IDENT.
BA-137M	-8.121E-03	1.636E-02	2.609E-02	0.000E+00	NOT IDENT.
CS-137	-8.585E-03	1.730E-02	2.758E-02	0.000E+00	NOT IDENT.
CE-139	-4.506E-03	1.185E-02	2.018E-02	0.000E+00	NOT IDENT.
BA-140	8.019E-02	8.029E-02	1.502E-01	0.000E+00	NOT IDENT.
LA-140	1.405E-02	2.923E-02	5.443E-02	0.000E+00	NOT IDENT.
CE-141	-2.548E-03	2.558E-02	4.135E-02	0.000E+00	NOT IDENT.
CE-143	2.123E-01	1.271E+00	2.328E+00	0.000E+00	NOT IDENT.
CE-144	-5.342E-02	8.448E-02	1.420E-01	0.000E+00	NOT IDENT.
PM-144	1.727E-02	1.865E-02	3.524E-02	0.000E+00	NOT IDENT.
PR-144	1.165E+00	1.259E+00	2.379E+00	0.000E+00	NOT IDENT.
PM-146	-2.793E-02	2.055E-02	2.990E-02	0.000E+00	NOT IDENT.
ND-147	-4.908E-02	1.628E-01	2.726E-01	0.000E+00	NOT IDENT.
PM-149	8.426E-01	3.808E+00	7.022E+00	0.000E+00	NOT IDENT.
EU-152	2.269E-02	4.721E-02	8.809E-02	0.000E+00	NOT IDENT.
GD-153	1.836E-02	3.185E-02	5.187E-02	0.000E+00	NOT IDENT.
EU-154	1.371E-02	4.318E-02	7.911E-02	0.000E+00	NOT IDENT.
EU-155	1.757E-02	4.269E-02	7.932E-02	0.000E+00	NOT IDENT.
TB-160	4.761E-02	5.985E-02	1.138E-01	0.000E+00	NOT IDENT.
HO-166M	-5.755E-03	2.800E-02	4.642E-02	0.000E+00	FAIL ABUN
TM-171	-7.933E+00	1.010E+01	1.744E+01	0.000E+00	NOT IDENT.
LU-176	-4.439E-03	1.067E-02	1.844E-02	0.000E+00	NOT IDENT.
LU-177	-8.539E-02	2.062E-01	3.452E-01	0.000E+00	NOT IDENT.
LU-177M	4.003E-02	8.050E-02	1.497E-01	0.000E+00	NOT IDENT.
HF-181	6.488E-03	1.514E-02	2.808E-02	0.000E+00	NOT IDENT.
W-181	-6.566E-04	1.236E-01	2.270E-01	0.000E+00	NOT IDENT.
TA-182	7.011E-02	8.166E-02	1.580E-01	0.000E+00	NOT IDENT.
RE-183	8.856E-03	4.339E-02	7.782E-02	0.000E+00	NOT IDENT.
RE-184	-6.577E-02	1.047E-01	1.688E-01	0.000E+00	NOT IDENT.
OS-185	-1.589E-03	1.928E-02	3.281E-02	0.000E+00	NOT IDENT.
RE-188	-1.985E-02	6.724E-02	1.159E-01	0.000E+00	NOT IDENT.
W-188	-3.361E-01	2.895E+00	5.178E+00	0.000E+00	NOT IDENT.

IR-192	-1.748E-03	1.348E-02	2.394E-02	0.000E+00	NOT IDENT.
AU-195	4.282E-02	9.186E-02	1.477E-01	0.000E+00	NOT IDENT.
TL-200	5.546E-02	1.766E+00	3.160E+00	0.000E+00	NOT IDENT.
TL-201	-2.506E-01	5.378E-01	9.086E-01	0.000E+00	NOT IDENT.
TL-202	1.506E-02	1.921E-02	3.700E-02	0.000E+00	NOT IDENT.
HG-203	-2.885E-03	1.595E-02	2.844E-02	0.000E+00	NOT IDENT.
BI-207	4.838E-03	2.466E-02	4.545E-02	0.000E+00	NOT IDENT.
TL-207	5.603E-02	2.971E-01	5.429E-01	0.000E+00	NOT IDENT.
TL-208	2.012E-03	1.953E-02	3.466E-02	0.000E+00	NOT IDENT.
PO-209	-2.119E+00	3.695E+00	5.598E+00	0.000E+00	NOT IDENT.
BI-210	-5.703E-01	1.374E+00	2.341E+00	0.000E+00	NOT IDENT.
PB-210	-5.703E-01	1.374E+00	2.341E+00	0.000E+00	NOT IDENT.
PO-210	-5.703E-01	1.374E+00	2.341E+00	0.000E+00	NOT IDENT.
BI-211	-9.167E-02	1.029E-01	1.591E-01	0.000E+00	NOT IDENT.
PB-211	2.920E-01	4.568E-01	7.993E-01	0.000E+00	NOT IDENT.
BI-212	4.661E-02	1.300E-01	2.334E-01	0.000E+00	NOT IDENT.
PB-212	1.642E-02	2.999E-02	5.307E-02	0.000E+00	NOT IDENT.
PO-212	1.642E-02	2.999E-02	5.307E-02	0.000E+00	NOT IDENT.
BI-214	-3.985E-02	4.394E-02	6.300E-02	0.000E+00	NOT IDENT.
PB-214	-1.526E-02	3.567E-02	5.799E-02	0.000E+00	NOT IDENT.
PO-214	-1.526E-02	3.567E-02	5.799E-02	0.000E+00	NOT IDENT.
PO-215	5.603E-02	2.971E-01	5.429E-01	0.000E+00	NOT IDENT.
PO-216	1.642E-02	2.999E-02	5.307E-02	0.000E+00	NOT IDENT.
PO-218	-1.526E-02	3.567E-02	5.799E-02	0.000E+00	NOT IDENT.
RN-219	-3.812E-02	1.812E-01	3.140E-01	0.000E+00	NOT IDENT.
RN-220	-5.291E+00	1.214E+01	1.990E+01	0.000E+00	NOT IDENT.
RA-223	5.603E-02	2.971E-01	5.429E-01	0.000E+00	NOT IDENT.
RA-224	2.381E-01	3.077E-01	5.651E-01	0.000E+00	NOT IDENT.
RA-226	-3.985E-02	4.394E-02	6.300E-02	0.000E+00	NOT IDENT.
AC-227	1.495E-01	1.745E-01	3.230E-01	0.000E+00	NOT IDENT.
TH-227	1.495E-01	1.750E-01	3.230E-01	0.000E+00	FAIL ABUN
AC-228	-4.594E-03	6.339E-02	1.052E-01	0.000E+00	NOT IDENT.
RA-228	-4.594E-03	6.339E-02	1.052E-01	0.000E+00	NOT IDENT.
TH-228	1.654E-02	3.022E-02	5.348E-02	0.000E+00	NOT IDENT.
TH-229	2.517E-02	2.220E-01	3.919E-01	0.000E+00	NOT IDENT.
TH-230	-3.985E-02	4.394E-02	6.300E-02	0.000E+00	NOT IDENT.
PA-231	6.820E-02	7.417E-01	1.268E+00	0.000E+00	NOT IDENT.
TH-231	5.603E-02	2.971E-01	5.429E-01	0.000E+00	NOT IDENT.
U-231	7.150E-03	1.225E-01	1.953E-01	0.000E+00	FAIL ABUN
TH-232	-4.594E-03	6.339E-02	1.052E-01	0.000E+00	NOT IDENT.
PA-233	2.023E-02	2.718E-02	5.236E-02	0.000E+00	NOT IDENT.
PA-234	-1.038E-01	1.431E-01	2.048E-01	0.000E+00	FAIL ABUN
PA-234M	-3.016E+00	2.691E+00	3.520E+00	0.000E+00	NOT IDENT.
TH-234	-1.402E-02	5.171E-01	8.876E-01	0.000E+00	FAIL ABUN
U-234	-3.985E-02	4.394E-02	6.300E-02	0.000E+00	NOT IDENT.
U-235	-9.477E-03	1.012E-01	1.643E-01	0.000E+00	FAIL ABUN
NP-236	1.355E-02	3.487E-02	6.343E-02	0.000E+00	NOT IDENT.
NP-237	8.413E-02	9.000E-02	1.545E-01	0.000E+00	NOT IDENT.
U-238	-1.402E-02	5.171E-01	8.876E-01	0.000E+00	FAIL ABUN
NP-239	4.927E-03	7.650E-02	1.378E-01	0.000E+00	NOT IDENT.
AM-241	-3.253E-03	5.587E-02	1.026E-01	0.000E+00	NOT IDENT.
AM-243	1.605E-02	1.903E-02	3.679E-02	0.000E+00	NOT IDENT.
CM-243	7.235E-03	3.725E-02	6.817E-02	0.000E+00	NOT IDENT.
AM-246	-2.022E-02	5.487E-02	8.842E-02	0.000E+00	NOT IDENT.
CM-247	6.480E-04	1.630E-02	2.905E-02	0.000E+00	NOT IDENT.
CF-249	-1.370E-02	1.813E-02	2.956E-02	0.000E+00	NOT IDENT.
CF-251	1.532E-02	5.497E-02	9.879E-02	0.000E+00	NOT IDENT.
ANH-511	-1.923E-02	2.913E-02	5.744E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:38:51.88

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032720.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 14:38:07
Sample ID         : G1202032720          Sample quantity  : 1.55210E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.66  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948812                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202032720 Acquisition date : 12-FEB-2010 14:38:07

Total number of lines in spectrum	2	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	2	100.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032720 Acquisition date : 12-FEB-2010 14:38:07

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.89	45	78	1.71	185.58	179	15	6.25E-03	****	6.39E+00	T
0	185.34	14	54	1.34	370.36	366	9	1.94E-03	****	5.89E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:38:56.85

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032720.CNF;1   *
* Acquisition date : 12-FEB-2010 14:38:07  Detector SN#     :                 *
* Detector ID      : GAM19                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:00.66         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 5-FEB-2010 00:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G1202032720           Analyst initials: MXR1             *
* Batch Number     : 948812                Sample Quantity : 1.55210E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-4.890E-02		1.383E-01	2.188E-01	1.485E-02	-0.223
NA-22	4.268E-03		1.556E-02	2.742E-02	1.829E-03	0.156
NA-24	-2.822E-05		4.668E-05	Half-Life too short		
AL-26	9.131E-03		1.809E-02	3.329E-02	1.944E-03	0.274
K-40	-1.547E-01		1.904E-01	2.852E-01	2.124E-02	-0.542
TI-44	-3.650E-03		1.299E-02	2.090E-02	1.706E-03	-0.175
SC-46	3.248E-03		1.980E-02	3.275E-02	2.846E-03	0.099
V-48	-1.812E-03		2.629E-02	4.171E-02	3.353E-03	-0.043
CR-51	1.294E-02		1.323E-01	2.242E-01	1.451E-02	0.058
MN-52	-4.757E-03		4.303E-02	6.911E-02	4.985E-03	-0.069
MN-54	5.684E-03		1.814E-02	3.073E-02	2.444E-03	0.185
CO-56	-6.473E-03		1.795E-02	2.723E-02	2.209E-03	-0.238
CO-57	6.445E-04		1.051E-02	1.720E-02	1.027E-03	0.037
CO-58	-1.299E-03		1.629E-02	2.603E-02	1.994E-03	-0.050
FE-59	1.325E-02		3.740E-02	6.603E-02	4.955E-03	0.201
CO-60	9.660E-03		2.240E-02	3.968E-02	2.924E-03	0.243
ZN-65	-2.828E-02		3.400E-02	4.727E-02	3.022E-03	-0.598

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GE-68	-8.375E-02		4.625E-01	7.455E-01	5.158E-02	-0.112
AS-73	1.098E-02		2.593E-01	4.301E-01	3.181E-02	0.026
AS-74	-7.517E-03		3.334E-02	5.308E-02	3.145E-03	-0.142
SE-75	-2.765E-06		1.836E-02	3.097E-02	1.801E-03	0.000
BR-77	3.510E-01		5.599E-01	9.938E-01	5.875E-02	0.353
SR-82	-1.002E-02		1.358E-01	2.176E-01	1.567E-02	-0.046
RB-83	1.956E-02		3.112E-02	5.525E-02	3.266E-03	0.354
RB-84	-1.704E-02		3.178E-02	4.669E-02	4.007E-03	-0.365
KR-85	-5.474E+00		5.678E+00	8.718E+00	5.147E-01	-0.628
SR-85	-2.594E-02		2.690E-02	4.131E-02	2.439E-03	-0.628
RB-86	9.689E-03		2.179E-01	3.681E-01	2.550E-02	0.026
Y-88	-9.026E-04		1.783E-02	2.860E-02	1.632E-03	-0.032
ZR-88	1.511E-02		1.383E-02	2.550E-02	1.420E-03	0.593
Y-91	3.706E-01		7.725E+00	1.296E+01	7.567E-01	0.029
NB-94	-7.520E-03		1.778E-02	2.736E-02	1.723E-03	-0.275
NB-95	2.236E-03		1.556E-02	2.591E-02	1.831E-03	0.086
NB-95M	-4.413E-02		5.137E-02	7.541E-02	5.586E-03	-0.585
ZR-95	1.629E-02		3.198E-02	5.579E-02	4.466E-03	0.292
NB-97	-5.898E-06		1.418E-05	Half-Life too short		
ZR-97	-1.336E-03		4.378E-04	Half-Life too short		
MO-99	-1.891E-01		8.214E-01	1.286E+00	1.827E-01	-0.147
TC-99M	-7.040E+00		8.277E+00	Half-Life too short		
RH-101	-1.039E-02		1.672E-02	2.363E-02	1.282E-03	-0.440
RH-102	9.581E-03		1.411E-02	2.514E-02	1.467E-03	0.381
RU-103	-2.068E-03		1.738E-02	2.831E-02	3.590E-03	-0.073
RH-106	2.300E-03		1.592E-01	2.614E-01	3.080E-02	0.009
RU-106	2.300E-03		1.592E-01	2.614E-01	1.541E-02	0.009
AG-108M	-7.417E-04		1.370E-02	2.260E-02	1.407E-03	-0.033
CD-109	1.807E-02		3.166E-01	4.574E-01	4.097E-02	0.039
AG-110M	-3.693E-03		1.608E-02	2.540E-02	1.576E-03	-0.145
IN-111	-8.186E-02		7.550E-02	1.064E-01	6.051E-03	-0.769
IN-113M	1.130E-02		2.069E-02	3.633E-02	2.168E-03	0.311
SN-113	1.130E-02		2.069E-02	3.633E-02	2.168E-03	0.311
IN-114M	-3.183E-02		7.141E-02	1.103E-01	5.927E-03	-0.289
CD-115	4.061E-01		4.936E-01	8.959E-01	5.303E-02	0.453
SN-117M	1.718E-03		1.677E-02	2.735E-02	1.456E-03	0.063
SB-122	-3.875E-02		1.721E-01	2.760E-01	1.639E-02	-0.140
I-123	6.703E-05		9.422E-05	Half-Life too short		
TE-123M	4.284E-03		1.204E-02	2.005E-02	1.083E-03	0.214
I-124	3.014E-02		1.049E-01	1.776E-01	1.051E-02	0.170
SB-124	-1.611E-02		3.728E-02	5.308E-02	3.636E-03	-0.304
SB-125	-1.480E-02		4.502E-02	7.209E-02	4.292E-03	-0.205
TE-125M	-3.219E+00		3.602E+00	5.429E+00	4.790E-01	-0.593
I-126	2.443E-02		5.819E-02	1.005E-01	5.904E-03	0.243
SB-126	7.669E-03		4.201E-02	7.038E-02	4.582E-03	0.109
SN-126	2.499E-03		3.102E-02	4.495E-02	4.010E-03	0.056
SB-127	-1.515E-02		1.785E-01	2.879E-01	2.134E-02	-0.053
XE-127	3.134E-03		1.833E-02	2.990E-02	1.631E-03	0.105

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-131	7.793E-03		2.784E-02	4.785E-02	3.029E-03	0.163
TE-132	3.709E-02		6.518E-02	1.095E-01	1.434E-02	0.339
BA-133	4.474E-03		2.010E-02	3.433E-02	3.956E-03	0.130
I-133	2.835E-06		3.552E-06	Half-Life too short		
CS-134	-5.418E-03		2.251E-02	3.514E-02	2.642E-03	-0.154
CS-135	2.139E-02		6.683E-02	1.158E-01	8.835E-03	0.185
I-135	-2.827E+00		7.023E+00	Half-Life too short		
CS-136	-1.023E-02		3.247E-02	5.144E-02	3.972E-03	-0.199
BA-137M	-8.121E-03		1.670E-02	2.531E-02	1.474E-03	-0.321
CS-137	-8.585E-03		1.765E-02	2.675E-02	1.564E-03	-0.321
CE-139	-4.506E-03		1.209E-02	1.888E-02	9.858E-04	-0.239
BA-140	8.019E-02		8.193E-02	1.450E-01	4.717E-02	0.553
LA-140	1.405E-02		2.983E-02	5.411E-02	3.661E-03	0.260
CE-141	-2.548E-03		2.610E-02	3.857E-02	2.221E-03	-0.066
CE-143	2.123E-01		1.297E+00	2.211E+00	4.523E-01	0.096
CE-144	-5.342E-02		8.621E-02	1.322E-01	1.872E-02	-0.404
PM-144	1.727E-02		1.903E-02	3.424E-02	2.132E-03	0.504
PR-144	1.165E+00		1.284E+00	2.311E+00	1.439E-01	0.504
PM-146	-2.793E-02		2.097E-02	2.872E-02	2.473E-03	-0.972
ND-147	-4.908E-02		1.661E-01	2.629E-01	3.569E-02	-0.187
PM-149	8.426E-01		3.885E+00	6.663E+00	9.432E-01	0.126
EU-152	2.269E-02		4.817E-02	8.400E-02	5.467E-03	0.270
GD-153	1.836E-02		3.250E-02	4.791E-02	3.726E-03	0.383
EU-154	1.371E-02		4.406E-02	7.815E-02	7.735E-03	0.175
EU-155	1.757E-02		4.356E-02	7.340E-02	5.280E-03	0.239
TB-160	4.761E-02		6.107E-02	1.113E-01	9.517E-03	0.428
HO-166M	-5.755E-03		2.857E-02	4.513E-02	2.891E-03	-0.128
TM-171	-7.933E+00		1.031E+01	1.596E+01	1.214E+00	-0.497
LU-176	-4.439E-03		1.088E-02	1.753E-02	1.020E-03	-0.253
LU-177	-8.539E-02		2.104E-01	3.250E-01	1.784E-02	-0.263
LU-177M	4.003E-02		8.214E-02	1.435E-01	8.110E-03	0.279
HF-181	6.488E-03		1.544E-02	2.701E-02	1.581E-03	0.240
W-181	-6.566E-04		1.261E-01	2.077E-01	1.572E-02	-0.003
TA-182	7.011E-02		8.333E-02	1.559E-01	9.398E-03	0.450
RE-183	8.856E-03		4.428E-02	7.279E-02	3.835E-03	0.122
RE-184	-6.577E-02		1.068E-01	1.597E-01	9.125E-03	-0.412
OS-185	-1.589E-03		1.967E-02	3.182E-02	1.863E-03	-0.050
RE-188	-1.985E-02		6.862E-02	1.083E-01	5.821E-03	-0.183
W-188	-3.361E-01		2.954E+00	4.916E+00	2.855E-01	-0.068
IR-192	-1.748E-03		1.376E-02	2.278E-02	1.331E-03	-0.077
AU-195	4.282E-02		9.374E-02	1.365E-01	1.042E-02	0.314
TL-200	5.546E-02		1.802E+00	3.019E+00	1.716E-01	0.018
TL-201	-2.506E-01		5.488E-01	8.505E-01	4.444E-02	-0.295
TL-202	1.506E-02		1.961E-02	3.551E-02	2.039E-03	0.424
HG-203	-2.885E-03		1.627E-02	2.698E-02	1.659E-03	-0.107
BI-207	4.838E-03		2.516E-02	4.467E-02	3.172E-03	0.108
TL-207	5.603E-02		3.032E-01	5.169E-01	8.538E-02	0.108
TL-208	2.012E-03		1.993E-02	3.351E-02	2.279E-03	0.060

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-209	-2.119E+00		3.771E+00	5.476E+00	4.814E-01	-0.387
BI-210	-5.703E-01		1.402E+00	2.124E+00	1.619E-01	-0.268
PB-210	-5.703E-01		1.402E+00	2.124E+00	1.619E-01	-0.268
PO-210	-5.703E-01		1.402E+00	2.124E+00	1.385E-01	-0.268
BI-211	-9.167E-02		1.050E-01	1.518E-01	9.690E-03	-0.604
PB-211	2.920E-01		4.662E-01	7.654E-01	4.770E-01	0.381
BI-212	4.661E-02		1.326E-01	2.270E-01	1.890E-02	0.205
PB-212	1.642E-02		3.061E-02	5.013E-02	3.618E-03	0.327
PO-212	1.642E-02		3.061E-02	5.013E-02	3.618E-03	0.327
BI-214	-3.985E-02		4.483E-02	6.099E-02	4.795E-03	-0.653
PB-214	-1.526E-02		3.640E-02	5.532E-02	4.561E-03	-0.276
PO-214	-1.526E-02		3.640E-02	5.532E-02	4.561E-03	-0.276
PO-215	5.603E-02		3.032E-01	5.169E-01	8.538E-02	0.108
PO-216	1.642E-02		3.061E-02	5.013E-02	3.618E-03	0.327
PO-218	-1.526E-02		3.640E-02	5.532E-02	4.561E-03	-0.276
RN-219	-3.812E-02		1.849E-01	3.006E-01	4.065E-02	-0.127
RN-220	-5.291E+00		1.239E+01	1.921E+01	1.140E+00	-0.275
RA-223	5.603E-02		3.032E-01	5.169E-01	8.538E-02	0.108
RA-224	2.381E-01		3.140E-01	5.339E-01	3.025E-02	0.446
RA-226	-3.985E-02		4.483E-02	6.099E-02	4.795E-03	-0.653
AC-227	1.495E-01		1.780E-01	3.056E-01	4.257E-02	0.489
TH-227	1.495E-01		1.786E-01	3.056E-01	5.157E-02	0.489
AC-228	-4.594E-03		6.468E-02	1.030E-01	1.165E-02	-0.045
RA-228	-4.594E-03		6.468E-02	1.030E-01	1.165E-02	-0.045
TH-228	1.654E-02		3.084E-02	5.051E-02	3.646E-03	0.327
TH-229	2.517E-02		2.266E-01	3.682E-01	1.987E-02	0.068
TH-230	-3.985E-02		4.483E-02	6.099E-02	4.795E-03	-0.653
PA-231	6.820E-02		7.568E-01	1.203E+00	1.657E-01	0.057
TH-231	5.603E-02		3.032E-01	5.169E-01	8.538E-02	0.108
U-231	7.150E-03		1.250E-01	1.803E-01	1.432E-02	0.040
TH-232	-4.594E-03		6.468E-02	1.030E-01	1.165E-02	-0.045
PA-233	2.023E-02		2.774E-02	4.980E-02	3.075E-03	0.406
PA-234	-1.038E-01		1.460E-01	2.006E-01	3.745E-02	-0.517
PA-234M	-3.016E+00		2.746E+00	3.454E+00	3.215E-01	-0.873
TH-234	-1.402E-02		5.277E-01	8.113E-01	1.420E-01	-0.017
U-234	-3.985E-02		4.483E-02	6.099E-02	4.795E-03	-0.653
U-235	-9.477E-03		1.033E-01	1.532E-01	2.484E-02	-0.062
NP-236	1.355E-02		3.558E-02	5.931E-02	3.142E-03	0.228
NP-237	8.413E-02		9.183E-02	1.423E-01	3.192E-02	0.591
U-238	-1.402E-02		5.277E-01	8.113E-01	1.420E-01	-0.017
NP-239	4.927E-03		7.806E-02	1.278E-01	7.995E-03	0.039
AM-241	-3.253E-03		5.701E-02	9.364E-02	7.710E-03	-0.035
AM-243	1.605E-02		1.942E-02	3.376E-02	2.678E-03	0.475
CM-243	7.235E-03		3.801E-02	6.306E-02	4.536E-03	0.115
AM-246	-2.022E-02		5.599E-02	8.694E-02	5.998E-03	-0.233
CM-247	6.480E-04		1.663E-02	2.781E-02	1.560E-03	0.023
CF-249	-1.370E-02		1.850E-02	2.828E-02	1.579E-03	-0.485
CF-251	1.532E-02		5.609E-02	9.260E-02	4.892E-03	0.165

Sample ID : G1202032720 Acquisition date : 12-FEB-2010 14:38:07

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	-1.923E-02		2.972E-02	5.534E-02	3.266E-03	-0.347

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032720          *
* Acquisition date  : 12-FEB-2010 14:38:07 Detector SN#     :               *
* Detector ID       : GAM19                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.66      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032720          Analyst initials: MXR1           *
* Batch Number      : 948812               Sample Quantity : 1.5521E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act Error	DLC (pCi/GRAM)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-4.890E-02	1.355E-01	1.138E-01	6.913E-02 NOT IDENT.
NA-22	4.268E-03	1.525E-02	1.389E-02	7.780E-03 NOT IDENT.
NA-24	-2.822E+01	9.149E+01	0.000E+00	4.668E+01 SHORT HLIF
AL-26	9.131E-03	1.773E-02	1.670E-02	9.046E-03 NOT IDENT.
K-40	-1.547E-01	1.866E-01	1.439E-01	9.521E-02 NOT IDENT.
TI-44	-3.650E-03	1.273E-02	1.138E-02	6.496E-03 NOT IDENT.
SC-46	3.248E-03	1.940E-02	1.675E-02	9.899E-03 NOT IDENT.
V-48	-1.812E-03	2.576E-02	2.128E-02	1.314E-02 NOT IDENT.
CR-51	1.294E-02	1.297E-01	1.178E-01	6.617E-02 NOT IDENT.
MN-52	-4.757E-03	4.217E-02	3.489E-02	2.152E-02 NOT IDENT.
MN-54	5.684E-03	1.778E-02	1.575E-02	9.072E-03 NOT IDENT.
CO-56	-6.473E-03	1.759E-02	1.395E-02	8.974E-03 NOT IDENT.
CO-57	6.445E-04	1.030E-02	9.266E-03	5.257E-03 NOT IDENT.
CO-58	-1.299E-03	1.597E-02	1.335E-02	8.147E-03 NOT IDENT.
FE-59	1.325E-02	3.665E-02	3.358E-02	1.870E-02 NOT IDENT.
CO-60	9.660E-03	2.196E-02	2.007E-02	1.120E-02 NOT IDENT.
ZN-65	-2.828E-02	3.332E-02	2.403E-02	1.700E-02 NOT IDENT.
GE-68	-8.375E-02	4.532E-01	3.793E-01	2.312E-01 NOT IDENT.
AS-73	1.098E-02	2.542E-01	2.364E-01	1.297E-01 NOT IDENT.
AS-74	-7.517E-03	3.267E-02	2.745E-02	1.667E-02 NOT IDENT.
SE-75	-2.765E-06	1.799E-02	1.636E-02	9.181E-03 NOT IDENT.
BR-77	3.510E-01	5.487E-01	5.158E-01	2.799E-01 NOT IDENT.
SR-82	-1.002E-02	1.331E-01	1.117E-01	6.790E-02 NOT IDENT.
RB-83	1.956E-02	3.050E-02	2.868E-02	1.556E-02 NOT IDENT.
RB-84	-1.704E-02	3.114E-02	2.389E-02	1.589E-02 NOT IDENT.
KR-85	-5.474E+00	5.565E+00	4.526E+00	2.839E+00 NOT IDENT.

SR-85	-2.594E-02	2.637E-02	2.144E-02	1.345E-02	NOT IDENT.
RB-86	9.689E-03	2.136E-01	1.873E-01	1.090E-01	NOT IDENT.
Y-88	-9.026E-04	1.747E-02	1.433E-02	8.914E-03	NOT IDENT.
ZR-88	1.511E-02	1.356E-02	1.333E-02	6.917E-03	NOT IDENT.
Y-91	3.706E-01	7.571E+00	6.574E+00	3.863E+00	NOT IDENT.
NB-94	-7.520E-03	1.743E-02	1.409E-02	8.891E-03	NOT IDENT.
NB-95	2.236E-03	1.525E-02	1.331E-02	7.782E-03	NOT IDENT.
NB-95M	-4.413E-02	5.034E-02	3.996E-02	2.568E-02	NOT IDENT.
ZR-95	1.629E-02	3.134E-02	2.867E-02	1.599E-02	NOT IDENT.
NB-97	-5.898E+00	2.779E+01	0.000E+00	1.418E+01	SHORT HLIF
ZR-97	-1.336E+03	8.580E+02	0.000E+00	4.378E+02	SHORT HLIF
MO-99	-1.891E-01	8.050E-01	6.613E-01	4.107E-01	NOT IDENT.
TC-99M	-7.040E+06	1.622E+07	0.000E+00	8.277E+06	SHORT HLIF
RH-101	-1.039E-02	1.639E-02	1.257E-02	8.361E-03	NOT IDENT.
RH-102	9.581E-03	1.383E-02	1.308E-02	7.057E-03	NOT IDENT.
RU-103	-2.068E-03	1.703E-02	1.471E-02	8.689E-03	NOT IDENT.
RH-106	2.300E-03	1.560E-01	1.350E-01	7.959E-02	NOT IDENT.
RU-106	2.300E-03	1.560E-01	1.350E-01	7.959E-02	NOT IDENT.
AG-108M	-7.417E-04	1.343E-02	1.178E-02	6.850E-03	NOT IDENT.
CD-109	1.807E-02	3.102E-01	2.484E-01	1.583E-01	NOT IDENT.
AG-110M	-3.693E-03	1.576E-02	1.310E-02	8.040E-03	NOT IDENT.
IN-111	-8.186E-02	7.399E-02	5.634E-02	3.775E-02	NOT IDENT.
IN-113M	1.130E-02	2.027E-02	1.900E-02	1.034E-02	NOT IDENT.
SN-113	1.130E-02	2.027E-02	1.900E-02	1.034E-02	NOT IDENT.
IN-114M	-3.183E-02	6.998E-02	5.876E-02	3.570E-02	NOT IDENT.
CD-115	4.061E-01	4.837E-01	4.648E-01	2.468E-01	NOT IDENT.
SN-117M	1.718E-03	1.643E-02	1.464E-02	8.384E-03	NOT IDENT.
SB-122	-3.875E-02	1.686E-01	1.430E-01	8.603E-02	NOT IDENT.
I-123	6.703E+01	1.847E+02	0.000E+00	9.422E+01	SHORT HLIF
TE-123M	4.284E-03	1.180E-02	1.073E-02	6.022E-03	NOT IDENT.
I-124	3.014E-02	1.028E-01	9.181E-02	5.245E-02	NOT IDENT.
SB-124	-1.611E-02	3.653E-02	2.667E-02	1.864E-02	NOT IDENT.
SB-125	-1.480E-02	4.412E-02	3.761E-02	2.251E-02	NOT IDENT.
TE-125M	-3.219E+00	3.530E+00	2.933E+00	1.801E+00	NOT IDENT.
I-126	2.443E-02	5.702E-02	5.180E-02	2.909E-02	NOT IDENT.
SB-126	7.669E-03	4.117E-02	3.621E-02	2.101E-02	NOT IDENT.
SN-126	2.499E-03	3.040E-02	2.441E-02	1.551E-02	NOT IDENT.
SB-127	-1.515E-02	1.749E-01	1.483E-01	8.924E-02	NOT IDENT.
XE-127	3.134E-03	1.797E-02	1.590E-02	9.166E-03	NOT IDENT.
I-131	7.793E-03	2.728E-02	2.507E-02	1.392E-02	NOT IDENT.
TE-132	3.709E-02	6.388E-02	5.805E-02	3.259E-02	NOT IDENT.
BA-133	4.474E-03	1.969E-02	1.799E-02	1.005E-02	NOT IDENT.
I-133	2.835E+00	6.962E+00	0.000E+00	3.552E+00	SHORT HLIF
CS-134	-5.418E-03	2.206E-02	1.803E-02	1.125E-02	NOT IDENT.
CS-135	2.139E-02	6.550E-02	6.114E-02	3.342E-02	NOT IDENT.
I-135	-2.827E+06	1.376E+07	0.000E+00	7.023E+06	SHORT HLIF
CS-136	-1.023E-02	3.182E-02	2.619E-02	1.623E-02	NOT IDENT.
BA-137M	-8.121E-03	1.636E-02	1.305E-02	8.349E-03	NOT IDENT.
CS-137	-8.585E-03	1.730E-02	1.380E-02	8.826E-03	NOT IDENT.
CE-139	-4.506E-03	1.185E-02	1.009E-02	6.047E-03	NOT IDENT.
BA-140	8.019E-02	8.029E-02	7.517E-02	4.097E-02	NOT IDENT.
LA-140	1.405E-02	2.923E-02	2.723E-02	1.492E-02	NOT IDENT.
CE-141	-2.548E-03	2.558E-02	2.069E-02	1.305E-02	NOT IDENT.
CE-143	2.123E-01	1.271E+00	1.165E+00	6.484E-01	NOT IDENT.
CE-144	-5.342E-02	8.448E-02	7.103E-02	4.310E-02	NOT IDENT.
PM-144	1.727E-02	1.865E-02	1.763E-02	9.514E-03	NOT IDENT.
PR-144	1.165E+00	1.259E+00	1.190E+00	6.422E-01	NOT IDENT.
PM-146	-2.793E-02	2.055E-02	1.496E-02	1.048E-02	NOT IDENT.
ND-147	-4.908E-02	1.628E-01	1.364E-01	8.304E-02	NOT IDENT.
PM-149	8.426E-01	3.808E+00	3.513E+00	1.943E+00	NOT IDENT.
EU-152	2.269E-02	4.721E-02	4.407E-02	2.409E-02	NOT IDENT.
GD-153	1.836E-02	3.185E-02	2.595E-02	1.625E-02	NOT IDENT.
EU-154	1.371E-02	4.318E-02	3.958E-02	2.203E-02	NOT IDENT.
EU-155	1.757E-02	4.269E-02	3.968E-02	2.178E-02	NOT IDENT.
TB-160	4.761E-02	5.985E-02	5.693E-02	3.054E-02	NOT IDENT.
HO-166M	-5.755E-03	2.800E-02	2.322E-02	1.428E-02	FAIL ABUN
TM-171	-7.933E+00	1.010E+01	8.727E+00	5.153E+00	NOT IDENT.
LU-176	-4.439E-03	1.067E-02	9.227E-03	5.442E-03	NOT IDENT.
LU-177	-8.539E-02	2.062E-01	1.727E-01	1.052E-01	NOT IDENT.
LU-177M	4.003E-02	8.050E-02	7.491E-02	4.107E-02	NOT IDENT.
HF-181	6.488E-03	1.514E-02	1.405E-02	7.722E-03	NOT IDENT.
W-181	-6.566E-04	1.236E-01	1.136E-01	6.306E-02	NOT IDENT.
TA-182	7.011E-02	8.166E-02	7.903E-02	4.167E-02	NOT IDENT.
RE-183	8.856E-03	4.339E-02	3.894E-02	2.214E-02	NOT IDENT.
RE-184	-6.577E-02	1.047E-01	8.444E-02	5.340E-02	NOT IDENT.
OS-185	-1.589E-03	1.928E-02	1.642E-02	9.835E-03	NOT IDENT.
RE-188	-1.985E-02	6.724E-02	5.801E-02	3.431E-02	NOT IDENT.
W-188	-3.361E-01	2.895E+00	2.591E+00	1.477E+00	NOT IDENT.

IR-192	-1.748E-03	1.348E-02	1.198E-02	6.878E-03	NOT IDENT.
AU-195	4.282E-02	9.186E-02	7.390E-02	4.687E-02	NOT IDENT.
TL-200	5.546E-02	1.766E+00	1.581E+00	9.009E-01	NOT IDENT.
TL-201	-2.506E-01	5.378E-01	4.546E-01	2.744E-01	NOT IDENT.
TL-202	1.506E-02	1.921E-02	1.851E-02	9.803E-03	NOT IDENT.
HG-203	-2.885E-03	1.595E-02	1.423E-02	8.136E-03	NOT IDENT.
BI-207	4.838E-03	2.466E-02	2.274E-02	1.258E-02	NOT IDENT.
TL-207	5.603E-02	2.971E-01	2.716E-01	1.516E-01	NOT IDENT.
TL-208	2.012E-03	1.953E-02	1.734E-02	9.965E-03	NOT IDENT.
PO-209	-2.119E+00	3.695E+00	2.801E+00	1.885E+00	NOT IDENT.
BI-210	-5.703E-01	1.374E+00	1.171E+00	7.010E-01	NOT IDENT.
PB-210	-5.703E-01	1.374E+00	1.171E+00	7.010E-01	NOT IDENT.
PO-210	-5.703E-01	1.374E+00	1.171E+00	7.009E-01	NOT IDENT.
BI-211	-9.167E-02	1.029E-01	7.959E-02	5.252E-02	NOT IDENT.
PB-211	2.920E-01	4.568E-01	3.999E-01	2.331E-01	NOT IDENT.
BI-212	4.661E-02	1.300E-01	1.168E-01	6.632E-02	NOT IDENT.
PB-212	1.642E-02	2.999E-02	2.655E-02	1.530E-02	NOT IDENT.
PO-212	1.642E-02	2.999E-02	2.655E-02	1.530E-02	NOT IDENT.
BI-214	-3.985E-02	4.394E-02	3.152E-02	2.242E-02	NOT IDENT.
PB-214	-1.526E-02	3.567E-02	2.901E-02	1.820E-02	NOT IDENT.
PO-214	-1.526E-02	3.567E-02	2.901E-02	1.820E-02	NOT IDENT.
PO-215	5.603E-02	2.971E-01	2.716E-01	1.516E-01	NOT IDENT.
PO-216	1.642E-02	2.999E-02	2.655E-02	1.530E-02	NOT IDENT.
PO-218	-1.526E-02	3.567E-02	2.901E-02	1.820E-02	NOT IDENT.
RN-219	-3.812E-02	1.812E-01	1.571E-01	9.244E-02	NOT IDENT.
RN-220	-5.291E+00	1.214E+01	9.954E+00	6.193E+00	NOT IDENT.
RA-223	5.603E-02	2.971E-01	2.716E-01	1.516E-01	NOT IDENT.
RA-224	2.381E-01	3.077E-01	2.827E-01	1.570E-01	NOT IDENT.
RA-226	-3.985E-02	4.394E-02	3.152E-02	2.242E-02	NOT IDENT.
AC-227	1.495E-01	1.745E-01	1.616E-01	8.901E-02	NOT IDENT.
TH-227	1.495E-01	1.750E-01	1.616E-01	8.930E-02	FAIL ABUN
AC-228	-4.594E-03	6.339E-02	5.265E-02	3.234E-02	NOT IDENT.
RA-228	-4.594E-03	6.339E-02	5.265E-02	3.234E-02	NOT IDENT.
TH-228	1.654E-02	3.022E-02	2.675E-02	1.542E-02	NOT IDENT.
TH-229	2.517E-02	2.220E-01	1.960E-01	1.133E-01	NOT IDENT.
TH-230	-3.985E-02	4.394E-02	3.152E-02	2.242E-02	NOT IDENT.
PA-231	6.820E-02	7.417E-01	6.343E-01	3.784E-01	NOT IDENT.
TH-231	5.603E-02	2.971E-01	2.716E-01	1.516E-01	NOT IDENT.
U-231	7.150E-03	1.225E-01	9.771E-02	6.248E-02	FAIL ABUN
TH-232	-4.594E-03	6.339E-02	5.265E-02	3.234E-02	NOT IDENT.
PA-233	2.023E-02	2.718E-02	2.620E-02	1.387E-02	NOT IDENT.
PA-234	-1.038E-01	1.431E-01	1.025E-01	7.300E-02	FAIL ABUN
PA-234M	-3.016E+00	2.691E+00	1.761E+00	1.373E+00	NOT IDENT.
TH-234	-1.402E-02	5.171E-01	4.441E-01	2.638E-01	FAIL ABUN
U-234	-3.985E-02	4.394E-02	3.152E-02	2.242E-02	NOT IDENT.
U-235	-9.477E-03	1.012E-01	8.219E-02	5.165E-02	FAIL ABUN
NP-236	1.355E-02	3.487E-02	3.173E-02	1.779E-02	NOT IDENT.
NP-237	8.413E-02	9.000E-02	7.728E-02	4.592E-02	NOT IDENT.
U-238	-1.402E-02	5.171E-01	4.441E-01	2.638E-01	FAIL ABUN
NP-239	4.927E-03	7.650E-02	6.894E-02	3.903E-02	NOT IDENT.
AM-241	-3.253E-03	5.587E-02	5.133E-02	2.851E-02	NOT IDENT.
AM-243	1.605E-02	1.903E-02	1.841E-02	9.709E-03	NOT IDENT.
CM-243	7.235E-03	3.725E-02	3.411E-02	1.901E-02	NOT IDENT.
AM-246	-2.022E-02	5.487E-02	4.424E-02	2.800E-02	NOT IDENT.
CM-247	6.480E-04	1.630E-02	1.453E-02	8.315E-03	NOT IDENT.
CF-249	-1.370E-02	1.813E-02	1.479E-02	9.250E-03	NOT IDENT.
CF-251	1.532E-02	5.497E-02	4.942E-02	2.805E-02	NOT IDENT.
ANH-511	-1.923E-02	2.913E-02	2.874E-02	1.486E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.50	67.0555
46.50	67.0555
46.50	67.0555
48.70	76.0039
49.72	74.1450
51.35	69.3993
52.39	61.6536
52.97	62.6737
53.15	62.6866
53.44	61.7275
54.07	70.5959
56.28	72.7356
56.28	68.8042
57.37	73.8069
57.53	73.8198
57.53	73.8200
57.60	73.8254
57.98	68.9322
57.98	68.9322
59.32	71.9901
59.32	71.9901
59.40	85.8037
59.54	85.8167
59.72	85.8331
60.01	90.7941
61.10	88.9228
61.14	88.9264
61.30	90.9178
63.00	73.2593
63.29	73.2813
63.29	73.2813
63.58	89.1525
64.28	87.2339
65.12	90.2850
65.20	90.2923
65.20	90.2923
66.05	98.3146
66.72	104.3431
66.83	97.3977
66.91	99.3935
67.20	99.4221
67.20	99.4221
67.75	94.5024
67.85	79.5892
68.90	67.7209
68.90	67.7209
69.30	67.7476
69.67	64.7823
70.82	85.8074
70.82	85.8074
70.83	94.7884
72.80	99.9660
72.87	98.9732
72.87	98.9732
74.67	78.1116
74.81	78.1220
74.81	78.1220
74.81	78.1220
74.81	78.1220
74.81	78.1220
74.81	78.1220
74.81	78.1220
74.97	72.1233
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75.70	74.1773
77.11	96.3560
77.11	96.3560

77.11	96.3560
77.11	96.3560
77.11	96.3560
77.11	96.3560
77.11	96.3560
78.38	104.5074
79.62	86.5170
79.80	86.5311
79.80	86.5311
80.11	85.5490
80.18	85.5541
80.30	85.5635
80.30	85.5635
80.57	81.5568
81.00	82.5956
81.07	82.6006
81.07	82.6006
81.07	82.6006
81.07	82.6006
82.60	97.8440
83.37	98.9196
83.78	98.9555
83.78	98.9555
83.78	98.9555
83.78	98.9555
84.21	94.9524
84.90	81.8701
85.43	70.4956
86.29	55.3206
86.50	66.3968
86.54	66.3990
86.59	66.4020
86.72	66.4095
86.79	66.4133
86.94	68.0421
87.30	68.0631
87.30	68.0631
87.30	68.0631
87.30	68.0631
87.30	68.0631
87.30	68.0631
87.30	68.0631
87.57	79.4255
87.88	82.6892
88.03	82.6997
88.36	82.7231
88.47	77.8644
89.95	82.8348
91.11	71.5349
92.29	77.3014
92.38	77.3072
92.38	77.3072
93.35	77.3693
94.00	77.4107
94.67	77.4531
94.67	77.4534
94.90	84.8072
94.90	84.8072
94.90	84.8072
94.90	84.8072
95.87	66.9200
95.87	66.9200
96.73	52.2668
97.43	50.6620
98.44	58.8810
98.44	58.8812
98.88	52.3572
99.55	54.0222
99.55	54.0222
99.86	50.7606
100.00	57.3168
100.10	57.3215
103.18	70.7993
103.76	70.8314
105.00	66.7892
105.31	72.9720
108.00	90.6305
109.28	95.8726

111.00	69.1587
111.00	69.1587
111.76	73.3293
112.95	79.5963
115.19	78.6922
116.30	67.3568
117.00	73.6117
117.00	73.6117
117.66	70.5351
121.11	79.0285
121.62	74.8960
121.78	74.9045
122.06	75.9599
122.32	64.5257
122.32	64.5257
122.32	64.5257
122.32	64.5257
123.07	65.6013
127.23	93.9880
129.76	72.1827
131.20	68.0647
133.02	89.1173
133.54	87.0508
135.34	76.6547
136.00	80.8902
136.25	80.9037
136.48	80.9160
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140.51	0.0000
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142.65	68.5815
143.76	84.4684
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144.24	86.6070
144.24	86.6070
144.24	86.6070
145.22	86.6614
145.44	81.3884
147.16	75.1282
152.43	65.8220
152.70	62.6474
153.22	65.8542
154.21	73.3341
154.21	73.3341
154.21	73.3341
154.21	73.3341
155.03	81.8777
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159.00	74.6148
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161.27	76.8516
162.32	73.6957
162.64	73.7100
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163.89	83.3862
165.85	74.9203
167.43	79.2754
171.28	88.0428
171.86	79.4798
172.10	79.4905
176.55	66.7700
176.60	71.0797
181.06	63.9171
184.41	70.9592
185.71	69.2778
186.00	69.2891
190.27	77.0474
192.34	76.0471
193.63	71.7514
197.04	67.5258
198.01	80.6366
198.60	74.1218
200.40	82.9209
201.83	80.7992
202.84	72.1024
205.31	60.1625

208.36	72.3089
208.81	72.3255
209.75	73.4566
209.75	73.4566
210.97	66.9203
215.65	65.9793
216.55	53.9074
218.09	51.7473
222.10	76.1210
223.80	54.1022
226.40	61.9097
227.00	61.9280
227.08	61.9306
227.20	74.0996
228.16	61.9631
228.18	61.9635
228.18	61.9635
231.56	69.8229
235.69	82.1767
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236.00	75.5252
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238.63	65.6111
238.63	65.6111
238.63	65.6111
239.00	60.0612
240.98	67.9102
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241.98	85.7632
241.98	85.7632
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247.94	52.4942
248.90	45.8131
249.79	43.5962
252.40	62.6749
252.85	66.0460
252.85	66.0460
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256.20	48.2087
256.20	48.2087
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260.90	64.0398
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264.65	54.0183
268.24	51.3988
268.79	54.1172
269.46	49.6222
269.46	49.6222
269.46	49.6222
269.46	49.6222
271.23	50.5634
273.65	56.9438
276.40	45.2478
277.35	57.0353
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277.60	57.0415
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278.60	57.0661
279.20	58.8928
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281.68	54.4204
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284.30	54.4812
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285.90	49.9747
286.10	49.9794
286.10	49.9794
287.40	52.7342
288.45	0.0000
290.67	51.8963
290.80	50.0781
291.72	59.2062
293.26	53.7756
293.70	52.8733
295.21	64.7650
295.21	64.7650

295.21	64.7650
295.96	67.5223
296.50	54.7603
297.23	49.2994
298.57	41.1053
299.80	49.3515
299.80	49.3515
300.09	49.3574
300.09	49.3574
300.09	49.3574
300.09	49.3574
300.12	49.3581
301.29	59.4410
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303.76	55.8390
303.91	48.5191
304.40	43.0349
304.40	43.0349
304.84	41.2108
306.84	50.4097
308.46	43.1055
311.98	36.7378
316.51	43.2449
318.01	48.7947
319.02	45.1300
319.41	44.2157
320.08	41.4630
323.87	47.9845
323.87	47.9845
323.87	47.9845
323.87	47.9845
325.23	50.7797
328.77	50.8495
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334.20	50.9562
334.20	50.9562
334.30	50.9583
338.28	54.7479
338.28	54.7479
338.28	54.7479
338.28	54.7479
338.32	54.7486
338.32	54.7486
338.32	54.7486
340.50	70.5820
340.57	70.5839
344.27	48.3615
345.85	48.3907
350.59	50.3409
351.07	51.2825
351.92	45.7024
351.92	45.7024
351.92	45.7024
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364.48	38.4175
366.43	46.8842
367.43	43.1486
367.94	42.2183
369.80	46.0021
374.96	38.5626
383.85	35.8541
387.95	47.2443
388.63	45.3650
391.69	38.7908
391.69	38.7908
392.90	32.1813
398.62	40.7802
400.65	34.1653
401.10	34.1706
401.81	38.9260
402.60	37.0371
404.84	33.2641
410.95	49.5231
411.60	47.6288
413.65	37.1757
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415.30	38.1504

415.76	41.9719
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427.89	43.0983
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433.93	28.7889
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439.56	24.0347
439.89	24.9987
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444.90	30.8172
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445.03	31.7814
445.03	31.7814
445.03	31.7814
453.90	47.3240
463.38	38.7471
468.07	36.8631
473.00	34.0045
475.06	29.1654
475.35	26.2512
476.78	31.1262
477.59	35.9982
477.96	39.8944
482.03	21.4333
484.57	37.0500
487.03	28.2959
490.36	25.3944
492.35	42.0232
497.08	34.2536
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510.53	0.0000
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511.00	41.2735
511.85	41.2835
511.85	41.2835
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513.99	118.0276
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520.65	25.6223
527.90	22.7131
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529.64	26.6763
529.87	0.0000
531.02	31.6289
537.32	18.8135
543.00	26.7779
546.56	0.0000
549.76	31.7969
552.65	36.7940
555.20	31.8445
563.23	45.8787
563.90	44.8890
568.70	34.9598
569.32	32.9678
569.50	32.9694
569.67	34.9692
573.80	53.0129
574.00	53.0155
574.64	42.0195
578.91	23.0371
579.30	25.0433
583.14	26.0717
585.48	26.0882
591.81	25.1270
592.07	25.1288
593.00	27.1457
595.88	31.1915
600.56	38.2820
602.52	0.0000
602.71	37.2954
602.71	37.2954
603.60	39.3209
604.41	43.3632
604.70	52.4431
609.31	39.3799

609.31	39.3799
609.31	39.3799
609.31	39.3799
610.33	31.3103
612.46	39.4113
614.37	35.3871
618.01	32.3844
621.84	29.3774
621.84	29.3774
631.29	21.3250
633.02	19.3024
633.10	19.3029
634.78	37.6052
635.90	27.4496
636.97	23.3897
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646.12	26.5015
656.30	19.4156
657.75	26.5783
657.90	0.0000
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661.65	28.6508
664.57	26.6233
666.33	23.5615
666.33	23.5615
675.00	27.7178
677.61	29.7901
685.20	27.7864
692.80	34.0232
695.00	26.8204
696.49	27.8622
696.49	27.8622
697.00	25.8014
697.49	30.9653
698.33	29.9388
698.50	29.9402
699.00	29.9438
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713.82	16.5785
717.42	24.8889
720.50	19.7181
721.93	19.7246
722.20	20.7642
722.78	23.8816
722.78	23.8816
722.89	23.8822
722.95	23.8827
723.30	22.8459
724.18	23.8895
727.18	20.7881
733.00	24.9791
735.90	19.7886
739.58	22.9324
742.81	19.8197
744.21	18.7827
747.13	21.9280
751.79	26.1322
752.31	24.0444
753.82	21.9613
755.35	19.8762
756.15	19.8800
756.87	17.7902
763.93	9.4333
765.79	16.7773
766.42	19.9259
766.84	19.9277
776.49	18.9198
778.00	24.1831
778.57	22.0833
778.89	19.9815
783.80	16.8445
785.46	16.8508
792.07	18.9848

795.84	25.3342
796.30	25.3365
798.80	24.2937
801.93	25.3676
805.60	13.7516
810.29	18.0011
810.76	18.0031
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817.79	19.0907
818.51	15.9115
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826.30	18.0629
828.27	19.1338
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836.80	0.0000
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856.80	18.1791
860.37	24.6138
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867.82	18.2206
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873.19	31.1169
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875.33	0.0000
876.40	19.3267
879.36	12.8921
880.27	19.3417
880.51	25.7906
881.50	25.7953
883.24	17.2031
884.67	25.8123
889.25	21.5303
896.60	23.7182
898.02	11.8626
899.00	12.9437
903.28	24.8300
911.07	20.5433
911.07	20.5433
911.07	20.5433
919.63	10.8308
920.93	13.0002
925.00	18.4319
925.24	18.4327
926.50	27.1136
935.52	22.8160
937.48	16.3033
944.10	17.4125
946.00	21.7739
949.00	17.4293
962.29	13.1054
964.01	21.8496
966.15	16.3938
968.20	16.4004
969.11	20.7775
969.11	20.7775
969.11	20.7775
977.42	17.5242
980.50	17.5348
983.50	19.7376
989.30	17.5637
996.32	25.2815
1001.03	22.9197
1001.68	22.9228
1004.76	17.4314
1021.30	0.0000
1024.50	0.0000
1034.80	15.6829
1036.00	13.8409
1037.82	14.7689
1038.57	14.7708
1038.76	0.0000
1045.16	14.7884
1046.59	14.7923
1048.07	17.5705

1050.47	15.7279
1050.47	15.7279
1062.04	14.8333
1063.62	12.0558
1076.63	10.2243
1077.35	12.0849
1078.86	13.9484
1085.78	13.0344
1099.22	14.9316
1112.02	8.4177
1112.84	11.2251
1115.52	17.7816
1120.29	12.1764
1120.29	12.1764
1120.29	12.1764
1120.29	12.1764
1120.51	12.1769
1121.28	9.3681
1124.00	0.0000
1129.67	12.1960
1131.51	0.0000
1147.95	0.0000
1167.94	16.0523
1173.22	17.0120
1175.09	16.0717
1177.93	17.9710
1189.05	11.3711
1204.90	18.0514
1205.75	18.0545
1213.00	14.2700
1221.42	13.3369
1230.97	11.4497
1235.34	15.2767
1236.41	0.0000
1238.25	17.1943
1246.25	20.0865
1260.41	0.0000
1271.85	13.4457
1274.45	7.6862
1274.54	7.6865
1291.56	11.5605
1298.22	0.0000
1312.09	8.6982
1325.50	14.5270
1325.50	14.5270
1332.49	14.5422
1333.61	9.6965
1360.21	8.7623
1362.66	0.0000
1365.15	12.6662
1368.21	13.6468
1368.53	0.0000
1376.25	8.7836
1384.27	9.7709
1394.10	13.6998
1395.20	11.7441
1407.95	9.8055
1434.06	8.8586
1436.60	5.9080
1457.56	0.0000
1460.81	7.9049
1489.15	9.9211
1509.49	10.9445
1596.49	7.0484
1620.62	2.0203
1678.03	0.0000
1691.02	8.1563
1691.02	8.1563
1706.46	0.0000
1750.46	0.0000
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1764.49	9.2622
1764.49	9.2622
1764.49	9.2622
1770.23	14.4181
1771.40	11.3299
1791.20	0.0000
1808.65	5.1740

1836.01 6.2295

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032720

Total Uranium Activity	-4.6088E-02	ug/g
Total Uranium Counting Unc.	1.5391E+00	ug/g
Total Uranium Tpu	7.8525E-07	ug/g
Total Uranium Mda	1.3217E+00	ug/g

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*                                                                             *
*                          GEL Laboratories LLC                               *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 948812                    SAMPLE ID   : G1202032720       *
*   ANALYST       : MXR1                      DETECTOR    : GAM19             *
*   SAMPLE DATE   :  5-FEB-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 12-FEB-2010 14:38:07.39    SAMPLE ALQT:  155.210 GRAM      *
*                                                                             *
*******************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.274E-02
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.725E-02
         GROSS GAMMA MDA     (pCi/GRAM  )  : 3.217E-02
         GROSS GAMMA DLC     (pCi/GRAM  )  : 1.502E-02
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:39:49.82

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032721.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:38:33
Sample ID         : G1202032721          Sample quantity  : 1.31370E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:34.78  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948812                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.29*	257	604	1.09	126.57	122	9	3.56E-02	18.8	
2	2	75.00	540	497	1.06	149.94	145	20	7.50E-02	7.7	1.13E+00
3	2	77.16*	825	447	0.95	154.26	145	20	1.15E-01	5.6	
4	0	84.11*	112	475	1.13	168.13	165	7	1.55E-02	34.2	
5	0	87.27	277	478	1.11	174.44	172	6	3.85E-02	13.8	
6	0	92.95*	529	620	1.35	185.80	182	9	7.35E-02	10.0	
7	0	129.37	146	354	1.98	258.52	254	9	2.03E-02	24.7	
8	0	185.80*	430	409	1.28	371.23	366	12	5.97E-02	10.8	
9	0	209.08	172	260	0.91	417.73	413	9	2.39E-02	18.6	
10	5	238.58*	1538	162	1.12	476.65	470	20	2.14E-01	2.9	1.63E+00
11	5	241.66	389	244	1.97	482.80	470	20	5.40E-02	12.5	
12	0	270.34	117	215	1.55	540.10	535	11	1.62E-02	26.0	
13	0	277.37	167	377	3.36	554.15	546	20	2.32E-02	29.5	
14	0	294.97	498	203	1.21	589.29	582	12	6.92E-02	7.3	
15	0	300.16	90	165	1.24	599.66	595	9	1.25E-02	28.0	
16	0	328.05	92	187	1.49	655.39	650	12	1.28E-02	31.4	
17	0	338.31	289	171	1.14	675.89	671	9	4.01E-02	10.1	
18	0	351.83*	827	191	1.41	702.89	696	12	1.15E-01	4.9	
19	0	463.44	87	96	1.18	925.91	921	12	1.21E-02	24.5	
20	0	511.12*	203	127	1.83	1021.20	1014	17	2.81E-02	16.5	
21	0	583.30*	375	96	1.47	1165.47	1159	12	5.21E-02	7.5	
22	0	609.41*	552	157	1.47	1217.64	1211	15	7.67E-02	6.6	
23	0	661.19	133	129	1.29	1321.15	1315	15	1.84E-02	20.5	
24	0	726.99	117	94	1.91	1452.71	1445	14	1.62E-02	19.9	
25	0	795.37	41	76	1.19	1589.42	1583	13	5.75E-03	45.8	
26	0	836.31	17	61	0.93	1671.30	1666	10	2.40E-03	87.4	
27	0	860.87	95	53	1.35	1720.42	1712	15	1.33E-02	19.5	
28	0	911.36*	330	57	1.42	1821.39	1816	13	4.58E-02	7.4	
29	0	934.46	38	34	1.77	1867.59	1863	8	5.26E-03	31.3	
30	3	964.70	58	48	2.23	1928.08	1922	23	8.12E-03	24.2	1.49E+00
31	3	969.16*	185	24	1.59	1937.01	1922	23	2.57E-02	9.2	
32	0	1120.57	165	42	1.77	2239.90	2234	13	2.29E-02	11.2	
33	0	1238.67	49	61	0.83	2476.23	2468	14	6.75E-03	37.4	
34	0	1377.48	51	23	1.78	2754.07	2745	15	7.01E-03	24.8	
35	0	1408.13	24	10	1.17	2815.42	2811	10	3.33E-03	32.0	
36	0	1460.88	966	18	1.81	2921.02	2911	17	1.34E-01	3.4	
37	0	1589.05	30	13	1.50	3177.66	3172	10	4.22E-03	28.3	
38	0	1729.24	35	13	0.84	3458.45	3451	16	4.93E-03	27.6	

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1764.50*	108	5	1.86	3529.09	3524	10	1.51E-02	10.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 16:39:53

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032721.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:38:33
Sample ID : G1202032721 Sample quantity : 131.37 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:34.78 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.064E+01	2.273E+00	4.714E-01	4.110E-02	43.780
MN-54	+	834.83	*	2.550E-02	4.466E-02	4.515E-02	4.561E-03	0.565
CD-109	+	88.03	*	3.139E+00	9.145E-01	1.376E+00	1.302E-01	2.281
SN-126	+	64.28		1.647E+00	6.631E-01	6.318E-01	9.147E-02	2.607
	+	86.94		1.283E+00	6.394E-01	5.553E-01	2.305E-01	2.310
	+	87.57	*	3.085E-01	8.988E-02	1.329E-01	1.250E-02	2.322
BA-137M	+	661.65	*	1.732E-01	7.308E-02	5.399E-02	5.418E-03	3.207
CS-137	+	661.65	*	1.830E-01	7.726E-02	5.707E-02	5.736E-03	3.207
TL-208	+	277.35		1.489E+00	9.020E-01	5.053E-01	6.719E-02	2.947
	+	510.84		8.956E-01	3.160E-01	1.804E-01	2.254E-02	4.966
	+	583.14	*	4.724E-01	8.564E-02	4.760E-02	4.894E-03	9.925
	+	860.37		1.120E+00	4.520E-01	3.688E-01	3.908E-02	3.038
BI-211		72.87		4.116E+00	2.851E+00	4.381E+00	3.459E-01	0.940
	+	351.07	*	4.598E+00	6.278E-01	3.193E-01	3.059E-02	14.401
PB-212	+	74.81		2.380E+00	4.699E-01	4.581E-01	5.654E-02	5.195
	+	77.11		2.094E+00	2.917E-01	2.636E-01	2.180E-02	7.942
	+	87.30		1.427E+00	4.395E-01	6.228E-01	8.536E-02	2.291
	+	238.63	*	1.877E+00	2.281E-01	8.324E-02	8.853E-03	22.554
	+	300.09		1.689E+00	9.661E-01	1.107E+00	1.266E-01	1.526
PO-212	+	74.81		2.380E+00	4.699E-01	4.581E-01	5.654E-02	5.195
	+	77.11		2.094E+00	2.917E-01	2.636E-01	2.180E-02	7.942
	+	87.30		1.427E+00	4.395E-01	6.228E-01	8.536E-02	2.291
		115.19		-1.737E+00	3.298E+00	5.186E+00	4.356E-01	-0.335
	+	238.63	*	1.877E+00	2.281E-01	8.324E-02	8.853E-03	22.554
	+	300.09		1.689E+00	9.661E-01	1.107E+00	1.266E-01	1.526
BI-214	+	609.31	*	1.309E+00	2.257E-01	1.014E-01	1.129E-02	12.908
	+	1120.29		2.006E+00	5.005E-01	4.240E-01	4.588E-02	4.732
	+	1764.49		1.783E+00	4.115E-01	1.865E-01	1.532E-02	9.563
PB-214	+	74.81		4.101E+00	7.752E-01	7.894E-01	8.642E-02	5.195
	+	77.11		3.589E+00	5.700E-01	4.519E-01	5.082E-02	7.942
	+	87.30		2.445E+00	7.367E-01	1.067E+00	1.295E-01	2.291
	+	241.98		2.851E+00	7.782E-01	5.011E-01	5.604E-02	5.689
	+	295.21		1.640E+00	3.067E-01	2.008E-01	2.343E-02	8.172
	+	351.92	*	1.599E+00	2.338E-01	1.113E-01	1.213E-02	14.372

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.101E+00	7.752E-01	7.894E-01	8.642E-02	5.195
	+	77.11		3.589E+00	5.700E-01	4.519E-01	5.082E-02	7.942
	+	87.30		2.445E+00	7.367E-01	1.067E+00	1.295E-01	2.291
	+	241.98		2.851E+00	7.782E-01	5.011E-01	5.604E-02	5.689
	+	295.21		1.640E+00	3.067E-01	2.008E-01	2.343E-02	8.172
	+	351.92	*	1.599E+00	2.338E-01	1.113E-01	1.213E-02	14.372
PO-216	+	74.81		2.380E+00	4.699E-01	4.581E-01	5.654E-02	5.195
	+	77.11		2.094E+00	2.917E-01	2.636E-01	2.180E-02	7.942
	+	87.30		1.427E+00	4.395E-01	6.228E-01	8.536E-02	2.291
	+	238.63	*	1.877E+00	2.281E-01	8.324E-02	8.853E-03	22.554
	+	300.09		1.689E+00	9.661E-01	1.107E+00	1.266E-01	1.526
PO-218	+	74.81		4.101E+00	7.752E-01	7.894E-01	8.642E-02	5.195
	+	77.11		3.589E+00	5.700E-01	4.519E-01	5.082E-02	7.942
	+	87.30		2.445E+00	7.367E-01	1.067E+00	1.295E-01	2.291
	+	241.98		2.851E+00	7.782E-01	5.011E-01	5.604E-02	5.689
	+	295.21		1.640E+00	3.067E-01	2.008E-01	2.343E-02	8.172
	+	351.92	*	1.599E+00	2.338E-01	1.113E-01	1.213E-02	14.372
RA-224	+	240.98	*	5.405E+00	1.444E+00	9.471E-01	9.155E-02	5.707
RA-226	+	609.31	*	1.309E+00	2.257E-01	1.014E-01	1.129E-02	12.908
	+	1120.29		2.006E+00	5.005E-01	4.240E-01	4.588E-02	4.732
	+	1764.49		1.783E+00	4.115E-01	1.865E-01	1.532E-02	9.563
AC-228	+	338.32		1.772E+00	8.162E-01	3.569E-01	1.479E-01	4.966
	+	911.07	*	1.829E+00	3.506E-01	1.864E-01	2.283E-02	9.810
	+	969.11		1.807E+00	5.426E-01	3.212E-01	7.623E-02	5.626
RA-228	+	338.32		1.772E+00	8.162E-01	3.569E-01	1.479E-01	4.966
	+	911.07	*	1.829E+00	3.506E-01	1.864E-01	2.283E-02	9.810
	+	969.11		1.807E+00	5.426E-01	3.212E-01	7.623E-02	5.626
TH-228	+	74.81		2.416E+00	4.211E-01	4.651E-01	3.785E-02	5.195
	+	77.11		2.125E+00	2.961E-01	2.676E-01	2.213E-02	7.942
	+	87.30		1.449E+00	4.220E-01	6.323E-01	5.926E-02	2.291
	+	238.63	*	1.906E+00	2.316E-01	8.451E-02	8.987E-03	22.554
	+	300.09		1.715E+00	1.401E+00	1.124E+00	6.682E-01	1.526
TH-230	+	609.31	*	1.309E+00	2.257E-01	1.014E-01	1.129E-02	12.908
	+	1120.29		2.006E+00	5.005E-01	4.240E-01	4.588E-02	4.732
	+	1764.49		1.783E+00	4.115E-01	1.865E-01	1.532E-02	9.563
TH-232	+	338.32		1.772E+00	3.933E-01	3.569E-01	3.344E-02	4.966
	+	911.07	*	1.829E+00	3.506E-01	1.864E-01	2.283E-02	9.810
	+	969.11		1.807E+00	5.426E-01	3.212E-01	7.623E-02	5.626
TH-234	+	63.29	*	4.161E+00	1.723E+00	1.626E+00	2.825E-01	2.560
	+	92.38		3.898E+00	1.057E+00	9.122E-01	1.673E-01	4.273
U-234	+	609.31	*	1.309E+00	2.257E-01	1.014E-01	1.129E-02	12.908
	+	1120.29		2.006E+00	5.005E-01	4.240E-01	4.588E-02	4.732
	+	1764.49		1.783E+00	4.115E-01	1.865E-01	1.532E-02	9.563
NP-237	+	86.50	*	9.060E-01	3.235E-01	3.223E-01	7.293E-02	2.811
		95.87		-8.425E-01	9.621E-01	1.294E+00	3.202E-01	-0.651
U-238	+	63.29	*	4.161E+00	1.723E+00	1.626E+00	2.825E-01	2.560
	+	92.38		3.898E+00	8.561E-01	9.122E-01	8.338E-02	4.273
AM-243	+	74.67	*	3.859E-01	6.710E-02	7.443E-02	5.991E-03	5.184
	+	86.72		3.398E+01	9.898E+00	1.207E+01	1.123E+00	2.815

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		-1.953E+00	3.460E+00	5.421E+00	4.538E-01	-0.360
		142.18		1.249E+01	1.704E+01	2.799E+01	2.363E+00	0.446
ANH-511	+	511.00	*	1.935E-01	6.632E-02	3.897E-02	3.631E-03	4.965

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.646E-01	2.958E-01	5.095E-01	4.953E-02	0.519
NA-22		1274.54	*	1.490E-02	3.470E-02	5.891E-02	4.880E-03	0.253
NA-24		1368.53	*	-4.010E-01	3.470E-02	Half-Life too short		
AL-26		1129.67		-7.897E-01	1.575E+00	2.429E+00	2.057E-01	-0.325
		1808.65	*	-2.615E-03	2.744E-02	4.429E-02	3.598E-03	-0.059
TI-44		67.85		-2.970E-02	3.861E-02	5.844E-02	4.397E-03	-0.508
	+	78.38	*	3.864E-01	5.383E-02	7.146E-02	5.997E-03	5.407
SC-46		889.25	*	-9.025E-03	3.403E-02	5.472E-02	5.455E-03	-0.165
	+	1120.51		3.434E-01	8.260E-02	1.367E-01	1.169E-02	2.512
V-48		944.10		-2.875E-01	7.804E-01	1.235E+00	1.205E-01	-0.233
		983.50	*	-3.685E-02	5.996E-02	9.158E-02	8.753E-03	-0.402
		1312.09		9.466E-03	6.859E-02	1.123E-01	9.368E-03	0.084
CR-51		320.08	*	8.754E-02	3.448E-01	5.793E-01	5.808E-02	0.151
MN-52		744.21		8.186E-02	2.102E-01	3.622E-01	3.679E-02	0.226
		848.13		-1.797E+00	5.653E+00	9.069E+00	9.137E-01	-0.198
	+	935.52		4.115E-01	2.603E-01	4.735E-01	4.639E-02	0.869
		1246.25		2.010E+00	6.584E+00	1.068E+01	8.776E-01	0.188
		1333.61		-8.458E-01	4.521E+00	7.078E+00	5.930E-01	-0.120
		1434.06	*	2.216E-02	1.928E-01	3.277E-01	2.773E-02	0.068
CO-56		846.75	*	1.308E-02	3.320E-02	5.704E-02	5.749E-03	0.229
		977.42		2.363E+00	2.747E+00	4.657E+00	4.467E-01	0.507
		1037.82		-7.782E-03	2.947E-01	4.808E-01	4.639E-02	-0.016
		1175.09		-1.710E+00	1.937E+00	2.826E+00	2.274E-01	-0.605
	+	1238.25		1.656E-01	1.246E-01	1.504E-01	1.273E-02	1.101
		1360.21		-5.983E-01	7.851E-01	1.166E+00	9.802E-02	-0.513
		1771.40		-4.178E-01	2.437E-01	2.676E-01	2.194E-02	-1.561
CO-57		122.06	*	1.262E-02	2.321E-02	3.815E-02	3.184E-03	0.331
		136.48		-1.419E-01	1.919E-01	2.959E-01	2.678E-02	-0.479
CO-58		810.76	*	-1.586E-02	3.349E-02	5.309E-02	5.391E-03	-0.299
FE-59		142.65		1.554E+00	2.692E+00	4.398E+00	3.715E-01	0.353
		192.34		3.123E-01	8.757E-01	1.458E+00	2.002E-01	0.214
		1099.22	*	6.421E-03	7.596E-02	1.249E-01	1.178E-02	0.051
		1291.56		2.300E-02	1.058E-01	1.748E-01	1.663E-02	0.132
CO-60		1173.22		9.530E-04	3.928E-02	6.385E-02	5.133E-03	0.015
		1332.49	*	-6.740E-03	3.576E-02	5.600E-02	4.691E-03	-0.120
ZN-65		1115.52	*	-1.038E-02	8.584E-02	1.184E-01	1.019E-02	-0.088
GE-68		1077.35	*	-5.491E-01	1.206E+00	1.877E+00	1.675E-01	-0.293
AS-73		53.44	*	-1.353E-01	5.554E-01	9.068E-01	6.732E-02	-0.149
AS-74		595.88	*	-2.872E-02	9.015E-02	1.406E-01	1.376E-02	-0.204
		634.78		1.024E-01	3.124E-01	5.397E-01	5.368E-02	0.190
SE-75		66.05		-3.519E-01	4.174E+00	6.099E+00	5.770E-01	-0.058

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		-2.871E-01	7.472E-01	1.056E+00	1.458E-01	-0.272
		121.11		1.160E-02	1.252E-01	2.020E-01	2.224E-02	0.057
		136.00		-3.135E-02	3.607E-02	5.522E-02	4.666E-03	-0.568
		198.60		2.946E-01	1.611E+00	2.747E+00	2.765E-01	0.107
		264.65	*	3.319E-02	4.070E-02	6.626E-02	6.560E-03	0.501
		279.53		1.325E-01	1.095E-01	1.732E-01	1.773E-02	0.765
		303.91		-1.845E+00	2.291E+00	3.131E+00	3.874E-01	-0.589
		400.65		2.937E-01	2.298E-01	4.040E-01	4.434E-02	0.727
BR-77	+	87.88		6.769E+02	1.972E+02	3.215E+02	3.037E+01	2.105
		200.40		-3.337E+01	1.469E+02	2.462E+02	2.265E+01	-0.136
	+	239.00		3.009E+02	3.398E+01	3.861E+01	3.724E+00	7.794
		249.79		-5.792E+01	5.734E+01	9.062E+01	8.833E+00	-0.639
		281.68		-4.630E+01	9.052E+01	1.275E+02	1.268E+01	-0.363
		297.23		2.061E+02	7.871E+01	1.048E+02	1.031E+01	1.967
		303.76		-1.569E+02	1.945E+02	2.662E+02	2.605E+01	-0.589
		439.47		1.317E+02	1.290E+02	2.246E+02	1.973E+01	0.586
		484.57		2.099E+02	2.024E+02	3.528E+02	3.223E+01	0.595
		520.65	*	2.913E+00	9.924E+00	1.638E+01	1.536E+00	0.178
		574.64		-6.464E+01	2.013E+02	3.144E+02	3.046E+01	-0.206
		578.91		-2.268E+01	9.072E+01	1.232E+02	1.196E+01	-0.184
		585.48		9.401E+02	2.342E+02	4.046E+02	3.941E+01	2.323
		755.35		2.072E+01	1.447E+02	2.444E+02	2.484E+01	0.085
		817.79		-1.262E+02	1.153E+02	1.697E+02	1.718E+01	-0.744
SR-82		698.33		2.360E+01	2.835E+01	5.049E+01	5.105E+00	0.467
		776.49	*	-4.132E-01	3.509E-01	5.211E-01	5.294E-02	-0.793
		1395.20		1.921E+00	8.701E+00	1.502E+01	1.268E+00	0.128
RB-83		520.41	*	5.196E-02	6.322E-02	1.083E-01	1.016E-02	0.480
		529.64		1.474E-02	9.975E-02	1.627E-01	1.535E-02	0.091
		552.65		1.535E-01	1.779E-01	3.057E-01	2.926E-02	0.502
RB-84		881.50	*	3.282E-02	6.301E-02	1.090E-01	1.089E-02	0.301
KR-85		513.99	*	7.041E+00	7.545E+00	1.157E+01	1.080E+00	0.609
SR-85		513.99	*	3.610E-02	3.868E-02	5.931E-02	5.538E-03	0.609
RB-86		1076.63	*	-2.197E-01	7.338E-01	1.160E+00	1.036E-01	-0.189
Y-88		898.02		-1.726E-02	3.734E-02	5.903E-02	5.890E-03	-0.292
		1836.01	*	-1.493E-02	2.960E-02	4.339E-02	3.502E-03	-0.344
ZR-88		392.90	*	2.820E-02	2.734E-02	4.770E-02	3.989E-03	0.591
Y-91		1204.90	*	-5.703E+00	1.691E+01	2.644E+01	2.147E+00	-0.216
NB-94		702.63	*	-1.820E-02	2.901E-02	4.608E-02	4.662E-03	-0.395
		871.10		1.038E-03	2.852E-02	4.736E-02	4.746E-03	0.022
NB-95		765.79	*	2.067E-02	4.389E-02	7.540E-02	7.663E-03	0.274
NB-95M		235.69	*	1.154E-01	1.202E-01	1.876E-01	2.015E-02	0.615
ZR-95		724.18		1.070E-01	9.159E-02	1.493E-01	1.610E-02	0.717
		756.15	*	4.184E-02	6.200E-02	1.090E-01	1.189E-02	0.384
NB-97		657.90	*	1.333E-02	6.200E-02	Half-Life too short		
		1024.50		-1.984E+00	6.200E-02	Half-Life too short		
ZR-97		254.15		3.528E+00	6.200E-02	Half-Life too short		
		355.39		2.458E+00	6.200E-02	Half-Life too short		
		507.63	*	1.304E+00	6.200E-02	Half-Life too short		
		602.52		-1.032E+00	6.200E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		-1.030E+00	6.200E-02	Half-Life too short		
		1147.95		2.595E+00	6.200E-02	Half-Life too short		
		1362.66		1.087E+00	6.200E-02	Half-Life too short		
		1750.46		-2.806E-01	6.200E-02	Half-Life too short		
MO-99		140.51		-3.263E+01	2.676E+01	3.770E+01	1.042E+01	-0.866
		181.06		-9.063E+00	1.912E+01	2.594E+01	4.783E+00	-0.349
		366.43		-3.210E+01	7.433E+01	1.187E+02	1.056E+01	-0.270
		739.58	*	2.815E+00	1.048E+01	1.788E+01	2.880E+00	0.157
		778.00		-7.583E-01	3.011E+01	5.006E+01	5.087E+00	-0.015
TC-99M		140.51	*	-4.664E+10	3.011E+01	Half-Life too short		
RH-101		127.23		2.141E-02	3.142E-02	4.662E-02	3.889E-03	0.459
		198.01	*	-2.145E-03	2.941E-02	4.966E-02	4.551E-03	-0.043
		325.23		7.215E-02	2.209E-01	3.298E-01	3.149E-02	0.219
RH-102		418.52		1.451E-01	2.586E-01	4.385E-01	3.772E-02	0.331
		475.06	*	-1.540E-02	2.831E-02	4.407E-02	3.996E-03	-0.349
		631.29		1.217E-03	5.123E-02	8.190E-02	8.136E-03	0.015
		697.49		9.756E-02	6.321E-02	1.175E-01	1.188E-02	0.830
		766.84		2.052E-01	1.155E-01	2.107E-01	2.141E-02	0.974
		1046.59		-1.377E-02	1.011E-01	1.629E-01	1.492E-02	-0.084
		1112.84		9.364E-02	1.907E-01	3.104E-01	2.677E-02	0.302
RU-103		497.08	*	-1.120E-02	3.574E-02	5.629E-02	8.184E-03	-0.199
	+	610.33		1.414E+01	3.079E+00	3.016E+00	5.234E-01	4.687
RH-106	+	511.85		9.663E-01	3.312E-01	4.343E-01	4.049E-02	2.225
		621.84	*	7.595E-02	2.768E-01	4.531E-01	6.441E-02	0.168
		1050.47		-8.932E-01	2.037E+00	3.171E+00	2.894E-01	-0.282
RU-106	+	511.85		9.663E-01	3.312E-01	4.343E-01	4.049E-02	2.225
		621.84	*	7.595E-02	2.767E-01	4.531E-01	4.485E-02	0.168
		1050.47		-8.932E-01	2.037E+00	3.171E+00	2.894E-01	-0.282
AG-108M		433.93	*	1.477E-02	2.931E-02	4.948E-02	4.490E-03	0.299
		614.37		-1.167E-02	3.818E-02	5.106E-02	5.191E-03	-0.229
		722.95		3.348E-02	3.859E-02	6.172E-02	6.438E-03	0.542
AG-110M		657.75	*	5.971E-03	3.232E-02	4.843E-02	4.962E-03	0.123
		677.61		1.175E-01	2.567E-01	4.470E-01	4.596E-02	0.263
		706.67		6.561E-02	1.958E-01	3.360E-01	3.470E-02	0.195
		763.93		-9.023E-02	1.719E-01	2.759E-01	2.861E-02	-0.327
		884.67		-2.680E-02	4.436E-02	6.776E-02	6.928E-03	-0.396
		937.48		6.674E-03	1.090E-01	1.569E-01	1.579E-02	0.043
		1384.27		2.965E-02	1.321E-01	2.075E-01	1.801E-02	0.143
IN-111		171.28		2.954E-01	9.483E-01	1.525E+00	1.342E-01	0.194
		245.39	*	2.596E-01	1.001E+00	1.507E+00	1.463E-01	0.172
IN-113M		391.69	*	2.110E-02	4.038E-02	6.842E-02	5.902E-03	0.308
SN-113		391.69	*	2.110E-02	4.038E-02	6.842E-02	5.902E-03	0.308
IN-114M		190.27	*	-1.124E-01	1.820E-01	2.626E-01	2.379E-02	-0.428
CD-115		260.90		-7.023E+01	1.123E+02	1.814E+02	1.784E+01	-0.387
		492.35		-2.185E+01	3.100E+01	4.706E+01	4.326E+00	-0.464
		527.90	*	2.286E-01	9.817E+00	1.587E+01	1.495E+00	0.014
SN-117M		156.02		-9.141E-01	2.145E+00	3.344E+00	2.875E-01	-0.273
		158.56	*	1.408E-02	5.265E-02	8.377E-02	7.229E-03	0.168
SB-122		563.90	*	2.332E+00	2.033E+00	3.525E+00	3.395E-01	0.662

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		-2.116E+01	3.627E+01	5.778E+01	5.837E+00	-0.366
I-123		159.00	*	1.204E+00	3.627E+01	Half-Life too short		
		528.96		1.281E+02	3.627E+01	Half-Life too short		
TE-123M		159.00	*	5.998E-03	2.738E-02	4.346E-02	3.776E-03	0.138
I-124		602.71	*	-3.854E-01	7.683E-01	1.012E+00	9.937E-02	-0.381
		722.78		3.166E+00	3.997E+00	6.351E+00	6.441E-01	0.499
		1325.50		-2.055E+01	3.345E+01	4.949E+01	4.140E+00	-0.415
	+	1376.25		8.377E+01	4.221E+01	6.319E+01	5.322E+00	1.326
		1509.49		3.913E+00	1.294E+01	2.249E+01	1.906E+00	0.174
		1691.02		5.398E-01	2.840E+00	4.880E+00	4.069E-01	0.111
SB-124		602.71		-2.242E-02	4.470E-02	5.889E-02	5.782E-03	-0.381
		645.85		1.377E-01	4.240E-01	7.324E-01	7.642E-02	0.188
		709.31		1.605E+00	2.710E+00	4.721E+00	4.781E-01	0.340
		713.82		-4.136E-01	1.543E+00	2.531E+00	3.331E-01	-0.163
		722.78		2.670E-01	3.371E-01	5.356E-01	5.518E-02	0.499
	+	968.20		1.860E+01	3.862E+00	6.872E+00	6.624E-01	2.707
		1045.16		-6.799E-01	2.161E+00	3.413E+00	3.128E-01	-0.199
		1325.50		-1.851E+00	3.013E+00	4.458E+00	3.729E-01	-0.415
		1368.21		-1.144E+00	1.561E+00	2.112E+00	2.818E-01	-0.542
		1436.60		-2.126E+00	3.247E+00	4.936E+00	4.178E-01	-0.431
		1691.02	*	1.074E-02	5.650E-02	9.708E-02	8.437E-03	0.111
SB-125		427.89	*	1.304E-02	7.874E-02	1.301E-01	1.152E-02	0.100
	+	463.38		7.523E-01	3.751E-01	4.951E-01	4.767E-02	1.520
		600.56		-5.338E-02	1.783E-01	2.785E-01	2.889E-02	-0.192
		635.90		1.901E-02	2.405E-01	4.079E-01	4.307E-02	0.047
TE-125M		109.28	*	-1.795E+00	8.804E+00	1.408E+01	1.440E+00	-0.127
I-126		388.63		-2.855E-02	1.795E-01	2.914E-01	2.454E-02	-0.098
		666.33	*	5.768E-02	1.959E-01	2.954E-01	2.968E-02	0.195
		753.82		9.110E-02	1.312E+00	2.203E+00	2.239E-01	0.041
SB-126		223.80		1.625E+00	3.632E+00	6.231E+00	5.910E-01	0.261
	+	278.60		9.843E+00	5.898E+00	4.299E+00	4.279E-01	2.290
		296.50		1.326E+01	2.576E+00	3.607E+00	3.551E-01	3.677
		414.70		-1.281E-02	7.182E-02	1.161E-01	9.946E-03	-0.110
		415.30		-1.503E+00	5.786E+00	9.293E+00	7.967E-01	-0.162
		555.20		-4.215E+00	3.792E+00	5.485E+00	5.257E-01	-0.768
		573.80		-4.052E-01	1.033E+00	1.606E+00	1.555E-01	-0.252
		593.00		-1.264E-01	8.438E-01	1.333E+00	1.303E-01	-0.095
		656.30		1.783E+00	2.901E+00	4.574E+00	4.583E-01	0.390
		666.33		2.410E-02	8.185E-02	1.234E-01	1.240E-02	0.195
		675.00		-6.044E-01	1.670E+00	2.720E+00	2.738E-01	-0.222
		695.00		-1.769E-02	6.701E-02	1.100E-01	1.112E-02	-0.161
		697.00		1.861E-01	2.288E-01	4.065E-01	4.109E-02	0.458
		720.50	*	-4.028E-02	1.357E-01	1.901E-01	1.927E-02	-0.212
		856.80		1.477E-01	4.341E-01	6.533E-01	6.570E-02	0.226
		989.30		-3.854E-02	1.051E+00	1.718E+00	1.636E-01	-0.022
		1034.80		-1.685E+00	8.277E+00	1.326E+01	1.225E+00	-0.127
		1213.00		-7.215E-01	4.453E+00	7.093E+00	5.774E-01	-0.102
SB-127		61.10		4.797E+01	4.453E+01	6.841E+01	6.884E+00	0.701
		252.40		1.317E+00	3.809E+00	6.426E+00	2.717E+00	0.205

---- Non-Identified Nuclides ----

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		290.80		-4.070E+00	2.040E+01	2.940E+01	3.576E+00	-0.138
		411.60		1.599E+01	1.187E+01	2.058E+01	3.227E+00	0.777
		444.90		2.751E+00	8.474E+00	1.413E+01	1.791E+00	0.195
		473.00		1.441E-01	1.578E+00	2.578E+00	3.392E-01	0.056
		543.00		9.693E+00	1.619E+01	2.716E+01	4.060E+00	0.357
		603.60		-3.283E+00	1.286E+01	1.742E+01	2.328E+00	-0.188
		685.20	*	-8.340E-01	1.085E+00	1.685E+00	2.111E-01	-0.495
		698.50		9.746E+00	1.261E+01	2.226E+01	3.712E+00	0.438
		722.20		4.298E+00	2.806E+01	4.161E+01	5.148E+00	0.103
		783.80		-1.631E+00	3.290E+00	5.243E+00	7.092E-01	-0.311
XE-127		57.60		-4.141E-01	4.207E+00	6.901E+00	4.931E-01	-0.060
		145.22		3.300E-01	6.780E-01	1.104E+00	9.354E-02	0.299
		172.10		1.962E-02	1.142E-01	1.823E-01	1.607E-02	0.108
		202.84	*	-9.667E-03	4.395E-02	7.124E-02	6.575E-03	-0.136
		374.96		8.346E-02	1.781E-01	3.013E-01	2.627E-02	0.277
I-131		80.18		-2.828E+00	4.356E+00	6.147E+00	5.304E-01	-0.460
		284.30		4.714E-01	1.506E+00	2.258E+00	2.331E-01	0.209
		364.48	*	2.332E-02	1.017E-01	1.699E-01	1.594E-02	0.137
		636.97		6.185E-01	1.341E+00	2.339E+00	2.426E-01	0.264
		722.89		5.449E+00	6.478E+00	1.034E+01	1.053E+00	0.527
TE-132		49.72		-9.120E+00	1.192E+01	1.906E+01	1.955E+00	-0.478
		111.76		-7.067E+00	2.860E+01	4.513E+01	4.837E+00	-0.157
		116.30		-1.597E+01	2.515E+01	3.926E+01	4.189E+00	-0.407
		228.16	*	-1.153E-01	6.192E-01	1.033E+00	1.677E-01	-0.112
BA-133		53.15		5.181E-01	2.356E+00	3.914E+00	2.916E-01	0.132
		79.62		-6.111E-01	1.229E+00	1.745E+00	2.647E-01	-0.350
		81.00		5.754E-02	1.087E-01	1.292E-01	2.055E-02	0.445
	+	276.40		1.472E+00	8.982E-01	6.502E-01	9.930E-02	2.264
		302.84		-2.165E-02	1.483E-01	2.143E-01	3.017E-02	-0.101
		356.01	*	2.928E-02	4.376E-02	6.668E-02	9.007E-03	0.439
		383.85		1.152E-01	2.784E-01	4.684E-01	5.875E-02	0.246
I-133	+	510.53		1.958E+00	2.784E-01	Half-Life too short		
		529.87	*	1.680E-04	2.784E-01	Half-Life too short		
		706.58		1.208E-01	2.784E-01	Half-Life too short		
		856.28		2.588E-01	2.784E-01	Half-Life too short		
		875.33		-1.808E-02	2.784E-01	Half-Life too short		
		1236.41		6.992E-01	2.784E-01	Half-Life too short		
		1298.22		1.781E-02	2.784E-01	Half-Life too short		
CS-134		475.35		-2.223E-01	1.800E+00	2.895E+00	2.625E-01	-0.077
		563.23		3.707E-01	3.579E-01	6.162E-01	5.977E-02	0.602
		569.32		7.121E-02	1.940E-01	3.200E-01	3.124E-02	0.223
		604.70		1.611E-02	3.635E-02	5.308E-02	5.226E-03	0.303
	+	795.84	*	7.472E-02	6.889E-02	8.317E-02	8.486E-03	0.899
		801.93		-3.037E-01	4.036E-01	5.566E-01	5.670E-02	-0.546
		1038.57		2.771E+00	3.542E+00	6.216E+00	5.727E-01	0.446
		1167.94		-4.774E-01	2.115E+00	3.346E+00	2.708E-01	-0.143
		1365.15		1.104E+00	9.374E-01	1.809E+00	1.595E-01	0.610
CS-135		268.24	*	9.621E-02	1.554E-01	2.381E-01	2.638E-02	0.404
I-135		288.45		-1.151E+10	1.554E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		417.63		-1.141E+10	1.554E-01	Half-Life too short		
		546.56		1.031E+09	1.554E-01	Half-Life too short		
	+	836.80		1.343E+10	1.554E-01	Half-Life too short		
		1038.76		1.347E+10	1.554E-01	Half-Life too short		
		1124.00		5.827E+10	1.554E-01	Half-Life too short		
		1131.51		2.964E+09	1.554E-01	Half-Life too short		
		1260.41	*	1.565E+09	1.554E-01	Half-Life too short		
		1457.56		2.457E+11	1.554E-01	Half-Life too short		
		1678.03		8.324E+09	1.554E-01	Half-Life too short		
		1706.46		-1.464E+10	1.554E-01	Half-Life too short		
		1791.20		-3.664E+09	1.554E-01	Half-Life too short		
CS-136		66.91		3.787E-01	6.779E-01	1.015E+00	1.504E-01	0.373
	+	86.29		4.025E+00	1.234E+00	1.847E+00	2.453E-01	2.179
		153.22		4.233E-01	6.252E-01	1.023E+00	9.807E-02	0.414
		163.89		3.730E-01	1.020E+00	1.646E+00	1.602E-01	0.227
		176.55		4.823E-02	3.631E-01	5.781E-01	5.410E-02	0.083
		273.65		3.544E-01	5.833E-01	6.699E-01	6.982E-02	0.529
		340.57		2.422E-01	1.428E-01	2.272E-01	2.174E-02	1.066
		818.51		-4.142E-03	6.131E-02	1.012E-01	1.025E-02	-0.041
		1048.07	*	2.664E-02	9.203E-02	1.550E-01	1.471E-02	0.172
		1235.34		3.918E-01	6.075E-01	9.133E-01	1.054E-01	0.429
CE-139		165.85	*	7.682E-03	2.806E-02	4.510E-02	3.937E-03	0.170
BA-140		162.64		4.092E-01	7.186E-01	1.169E+00	1.074E-01	0.350
		304.84		3.213E-01	1.335E+00	1.980E+00	5.624E-01	0.162
		423.70		-7.245E-01	1.677E+00	2.625E+00	8.512E-01	-0.276
		537.32	*	-2.446E-01	2.615E-01	3.679E-01	1.228E-01	-0.665
LA-140	+	328.77		6.982E-01	4.440E-01	5.076E-01	5.048E-02	1.375
		432.53		3.208E-01	1.845E+00	3.048E+00	2.786E-01	0.105
		487.03		4.263E-02	1.246E-01	2.071E-01	2.000E-02	0.206
		751.79		1.085E-01	1.487E+00	2.498E+00	2.736E-01	0.043
		815.85		-2.416E-01	2.796E-01	4.234E-01	4.652E-02	-0.571
		867.82		9.106E-02	1.157E+00	1.760E+00	1.834E-01	0.052
		919.63		-1.901E+00	2.640E+00	3.898E+00	4.551E-01	-0.488
		925.24		7.139E-01	9.761E-01	1.719E+00	1.774E-01	0.415
		1596.49	*	-5.551E-02	7.718E-02	1.100E-01	9.282E-03	-0.505
CE-141		145.44	*	4.469E-02	6.020E-02	9.892E-02	8.541E-03	0.452
CE-143		57.37		-7.851E-05	6.020E-02	Half-Life too short		
		231.56		-5.372E-04	6.020E-02	Half-Life too short		
		293.26	*	8.429E-04	6.020E-02	Half-Life too short		
	+	350.59		3.632E-02	6.020E-02	Half-Life too short		
		490.36		6.122E-04	6.020E-02	Half-Life too short		
		664.57		5.473E-04	6.020E-02	Half-Life too short		
		721.93		4.792E-05	6.020E-02	Half-Life too short		
CE-144		80.11		-1.330E+00	2.005E+00	2.828E+00	2.422E-01	-0.470
		133.54	*	1.953E-01	2.105E-01	3.133E-01	4.835E-02	0.623
PM-144		476.78		2.872E-02	6.430E-02	1.076E-01	1.059E-02	0.267
		618.01		1.292E-02	2.713E-02	4.522E-02	4.563E-03	0.286
		696.49	*	1.864E-02	2.930E-02	5.148E-02	5.205E-03	0.362
		778.57		6.966E-01	1.946E+00	3.342E+00	3.396E-01	0.208

---- Non-Identified Nuclides ----

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PR-144		696.49	*	1.263E+00	1.985E+00	3.488E+00	3.526E-01	0.362
		1489.15		-1.119E+00	8.993E+00	1.468E+01	1.245E+00	-0.076
PM-146		453.90	*	-1.571E-03	4.205E-02	6.824E-02	7.474E-03	-0.023
		633.02		-9.175E-01	1.414E+00	2.060E+00	7.765E-01	-0.445
		735.90		-9.633E-03	1.363E-01	2.266E-01	6.595E-02	-0.043
		747.13		-4.980E-02	8.146E-02	1.284E-01	1.930E-02	-0.388
ND-147		91.11		9.190E-01	4.021E-01	5.061E-01	5.006E-02	1.816
		319.41		-6.570E-01	3.089E+00	5.058E+00	4.867E-01	-0.130
		439.89		5.537E+00	5.249E+00	9.155E+00	8.047E-01	0.605
		531.02	*	-8.915E-02	5.336E-01	8.487E-01	1.310E-01	-0.105
PM-149		285.90	*	-1.520E-01	9.343E+01	1.370E+02	2.232E+01	-0.001
EU-152		121.78		2.837E-02	6.812E-02	1.113E-01	1.079E-02	0.255
		244.69		2.842E-01	3.064E-01	4.804E-01	4.660E-02	0.592
		344.27	*	-2.913E-02	9.154E-02	1.429E-01	1.395E-02	-0.204
		443.98		-5.999E-01	8.613E-01	1.327E+00	1.170E-01	-0.452
		778.89		1.026E-01	2.286E-01	3.952E-01	4.015E-02	0.260
		867.32		1.932E-02	7.480E-01	1.078E+00	1.082E-01	0.018
	+	964.01		6.561E-01	3.236E-01	5.312E-01	5.132E-02	1.235
		1085.78		-1.560E-01	3.632E-01	5.650E-01	5.003E-02	-0.276
		1112.02		-3.538E-02	2.557E-01	4.097E-01	3.536E-02	-0.086
	+	1407.95		2.575E-01	1.663E-01	2.957E-01	2.498E-02	0.871
GD-153		69.67		-6.845E-01	1.371E+00	2.098E+00	1.605E-01	-0.326
	+	83.37		2.238E+01	1.545E+01	2.158E+01	1.924E+00	1.037
		97.43	*	-3.497E-03	7.927E-02	1.138E-01	1.009E-02	-0.031
		103.18		-8.704E-02	9.671E-02	1.501E-01	1.298E-02	-0.580
EU-154		123.07		-2.306E-02	4.804E-02	7.540E-02	8.409E-03	-0.306
		247.94		1.193E-01	3.249E-01	5.173E-01	6.379E-02	0.231
		591.81		-7.391E-02	5.550E-01	8.784E-01	1.102E-01	-0.084
		723.30		1.903E-01	1.600E-01	2.635E-01	2.879E-02	0.722
		756.87		4.649E-02	6.812E-01	1.143E+00	1.501E-01	0.041
		873.19		3.019E-02	2.516E-01	4.212E-01	5.586E-02	0.072
		996.32		-4.861E-01	3.821E-01	5.351E-01	9.739E-02	-0.908
		1004.76		-3.772E-01	2.022E-01	2.563E-01	3.141E-02	-1.472
		1274.45	*	2.440E-02	9.948E-02	1.651E-01	1.825E-02	0.148
EU-155		48.70		-1.193E+00	1.472E+00	2.353E+00	1.883E-01	-0.507
		60.01		2.740E+00	3.867E+00	5.873E+00	4.167E-01	0.467
	+	86.54		3.716E-01	1.084E-01	1.719E-01	1.609E-02	2.162
		105.31	*	9.440E-02	9.944E-02	1.662E-01	1.445E-02	0.568
TB-160	+	86.79		9.926E-01	2.891E-01	4.627E-01	4.308E-02	2.145
		197.04		-1.150E-02	5.067E-01	8.573E-01	7.847E-02	-0.013
		215.65		3.920E-01	6.497E-01	1.123E+00	1.055E-01	0.349
		298.57		1.779E-01	1.552E-01	1.870E-01	1.838E-02	0.951
		879.36	*	3.619E-02	1.236E-01	2.100E-01	2.100E-02	0.172
		962.29		2.400E-01	5.497E-01	8.235E-01	7.964E-02	0.291
	+	966.15		4.505E-01	2.222E-01	4.120E-01	3.976E-02	1.093
		1177.93		-9.877E-03	3.033E-01	4.899E-01	3.945E-02	-0.020
		1271.85		3.736E-01	5.986E-01	1.034E+00	8.553E-02	0.361
HO-166M		80.57		-1.962E-01	2.565E-01	3.597E-01	3.098E-02	-0.546
	+	184.41		2.763E-01	6.481E-02	7.204E-02	6.470E-03	3.836

---- Non-Identified Nuclides ----

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		280.46		5.900E-02	8.366E-02	1.288E-01	1.282E-02	0.458
		410.95		1.987E-01	2.379E-01	4.080E-01	3.482E-02	0.487
		711.68	*	1.025E-02	5.820E-02	9.874E-02	1.000E-02	0.104
		752.31		1.691E-01	2.364E-01	4.172E-01	4.239E-02	0.405
		810.29		-3.673E-02	5.101E-02	7.875E-02	7.983E-03	-0.466
TM-171		51.35		1.392E+00	1.947E+01	3.223E+01	2.462E+00	0.043
		52.39		4.905E+00	1.023E+01	1.716E+01	1.291E+00	0.286
		59.40		5.533E+00	2.061E+01	3.072E+01	2.174E+00	0.180
		66.72	*	5.134E+00	2.493E+01	3.688E+01	2.748E+00	0.139
LU-176	+	88.36		7.318E-01	2.132E-01	3.509E-01	3.309E-02	2.086
		201.83		-3.310E-04	2.622E-02	4.433E-02	4.086E-03	-0.007
		306.84	*	1.253E-02	2.381E-02	4.056E-02	3.956E-03	0.309
		401.10		6.574E+00	5.979E+00	1.046E+01	8.827E-01	0.629
LU-177		112.95		-5.439E-03	1.562E+00	2.489E+00	2.098E-01	-0.002
	+	208.36	*	3.733E+00	1.429E+00	1.956E+00	1.819E-01	1.909
LU-177M		52.97		2.410E-01	1.064E+00	1.768E+00	1.320E-01	0.136
		54.07		-2.967E-01	5.770E-01	9.315E-01	6.865E-02	-0.319
		61.30		1.451E+00	1.158E+00	1.795E+00	1.284E-01	0.808
		121.62		2.291E-01	3.451E-01	5.698E-01	4.752E-02	0.402
		147.16		-9.314E-01	6.364E-01	9.405E-01	7.987E-02	-0.990
		171.86		1.068E-01	4.613E-01	7.388E-01	6.508E-02	0.145
		218.09		-5.978E-01	7.424E-01	1.203E+00	1.133E-01	-0.497
		268.79		1.134E+00	8.092E-01	1.290E+00	1.276E-01	0.880
		319.02		3.221E-03	2.356E-01	3.908E-01	3.761E-02	0.008
		367.43		7.517E-02	7.872E-01	1.304E+00	1.157E-01	0.058
		413.65	*	-1.280E-01	1.717E-01	2.668E-01	2.283E-02	-0.480
HF-181		56.28		-3.031E-02	6.461E-01	1.062E+00	7.665E-02	-0.029
		57.53		-3.572E-02	3.538E-01	5.802E-01	4.148E-02	-0.062
		65.20		6.598E-01	8.473E-01	1.282E+00	9.431E-02	0.515
		133.02		5.731E-02	6.768E-02	1.010E-01	8.449E-03	0.568
		136.25		-3.541E-01	4.187E-01	6.418E-01	5.385E-02	-0.552
		345.85		-1.249E-01	2.048E-01	2.813E-01	2.603E-02	-0.444
		482.03	*	-3.505E-02	3.906E-02	5.862E-02	5.345E-03	-0.598
W-181		56.28		-1.167E-02	2.529E-01	4.160E-01	3.001E-02	-0.028
		57.53		-1.400E-02	1.386E-01	2.273E-01	1.625E-02	-0.062
		65.20	*	2.564E-01	3.293E-01	4.981E-01	3.665E-02	0.515
TA-182		67.75		-6.906E-02	9.859E-02	1.398E-01	1.051E-02	-0.494
		100.10		4.450E-02	1.606E-01	2.601E-01	2.278E-02	0.171
		152.43		-8.271E-02	3.257E-01	5.128E-01	4.386E-02	-0.161
		222.10		2.714E-01	3.093E-01	5.391E-01	5.103E-02	0.503
		1001.68		2.896E+00	2.082E+00	3.593E+00	3.397E-01	0.806
	+	1121.28		9.486E-01	2.282E-01	3.764E-01	3.217E-02	2.520
		1189.05		-8.592E-02	2.237E-01	3.446E-01	2.784E-02	-0.249
		1221.42	*	-1.065E-01	1.794E-01	2.727E-01	2.225E-02	-0.390
		1230.97		-7.941E-02	4.934E-01	6.721E-01	5.499E-02	-0.118
RE-183		57.98		-1.893E-02	1.448E-01	2.261E-01	1.612E-02	-0.084
		59.32		1.897E-02	8.459E-02	1.258E-01	8.906E-03	0.151
		67.20		8.105E-02	1.730E-01	2.587E-01	1.935E-02	0.313
		162.32	*	3.053E-02	1.052E-01	1.693E-01	1.469E-02	0.180

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	+	208.81		3.358E+00	1.286E+00	1.756E+00	1.634E-01	1.913
		291.72		-4.358E-01	9.198E-01	1.296E+00	1.281E-01	-0.336
RE-184		57.98		-6.977E-02	5.338E-01	8.331E-01	5.938E-02	-0.084
		59.32		6.984E-02	3.114E-01	4.632E-01	3.279E-02	0.151
		67.20		2.986E-01	6.373E-01	9.531E-01	7.130E-02	0.313
		161.27		-7.004E-02	3.422E-01	5.385E-01	4.667E-02	-0.130
		216.55		1.953E-01	2.287E-01	3.990E-01	3.751E-02	0.489
		252.85	*	3.500E-02	2.033E-01	3.436E-01	3.358E-02	0.102
		318.01		-1.673E-01	4.203E-01	6.807E-01	6.559E-02	-0.246
		792.07		1.977E-02	9.361E-01	1.357E+00	1.378E-01	0.015
		903.28		8.191E-02	8.475E-01	1.412E+00	1.401E-01	0.058
		920.93		-1.758E-01	4.081E-01	6.437E-01	6.345E-02	-0.273
OS-185		59.72		1.017E-01	2.290E-01	3.439E-01	2.436E-02	0.296
		61.14		1.379E-01	1.265E-01	1.950E-01	1.393E-02	0.707
		69.30		-1.592E-01	2.444E-01	3.715E-01	2.832E-02	-0.429
		592.07		-3.527E-02	2.287E+00	3.658E+00	3.574E-01	-0.010
		646.12	*	2.963E-02	3.630E-02	6.483E-02	6.474E-03	0.457
		717.42		-1.966E-01	7.633E-01	1.250E+00	1.267E-01	-0.157
		874.81		1.429E-01	5.079E-01	8.625E-01	8.635E-02	0.166
		880.27		6.271E-01	7.079E-01	1.259E+00	1.259E-01	0.498
RE-188		155.03	*	5.254E-02	1.620E-01	2.615E-01	2.245E-02	0.201
		477.96		3.350E+00	2.772E+00	4.874E+00	4.429E-01	0.687
		633.10		-2.537E-02	2.623E+00	4.181E+00	4.156E-01	-0.006
W-188	+	63.58		1.672E+02	6.399E+01	8.062E+01	5.860E+00	2.074
		227.08		2.178E-01	1.142E+01	1.925E+01	1.833E+00	0.011
		290.67	*	-1.173E+00	7.083E+00	1.024E+01	1.012E+00	-0.115
IR-192	+	295.96		1.251E+00	2.208E-01	2.882E-01	2.854E-02	4.340
		308.46		8.398E-02	9.108E-02	1.579E-01	1.544E-02	0.532
		316.51	*	-1.964E-02	3.161E-02	5.045E-02	4.879E-03	-0.389
		468.07		1.297E-02	6.368E-02	9.251E-02	8.889E-03	0.140
		604.41		-3.243E-02	5.128E-01	7.102E-01	9.834E-02	-0.046
		612.46		1.897E+00	7.642E-01	1.294E+00	1.423E-01	1.466
AU-195		65.12		1.636E-01	1.540E-01	2.351E-01	1.729E-02	0.696
		66.83		4.759E-02	8.131E-02	1.222E-01	9.110E-03	0.390
	+	75.70		1.249E+00	2.171E-01	4.101E-01	3.338E-02	3.045
		98.88	*	1.850E-01	2.051E-01	3.394E-01	2.988E-02	0.545
	+	129.76		7.485E+00	3.743E+00	4.810E+00	4.017E-01	1.556
TL-200		367.94	*	-2.338E-04	3.743E+00	Half-Life too short		
		579.30		-2.035E-03	3.743E+00	Half-Life too short		
		828.27		-1.250E-03	3.743E+00	Half-Life too short		
		1205.75		2.747E-05	3.743E+00	Half-Life too short		
TL-201		68.90		-2.993E+00	3.804E+00	6.058E+00	4.601E-01	-0.494
		70.82		9.168E-01	2.372E+00	3.527E+00	2.728E-01	0.260
		80.30		-3.145E+00	4.743E+00	6.687E+00	5.741E-01	-0.470
		135.34		-9.371E+00	2.345E+01	3.683E+01	3.088E+00	-0.254
		167.43	*	-2.038E+00	6.533E+00	1.020E+01	8.925E-01	-0.200
TL-202		68.90		-2.694E-01	3.426E-01	5.455E-01	4.143E-02	-0.494
		70.82		8.232E-02	2.130E-01	3.167E-01	2.450E-02	0.260
		80.30		-2.825E-01	4.260E-01	6.006E-01	5.157E-02	-0.470

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	6.346E-02	6.252E-02	1.088E-01	9.558E-03	0.583
HG-203		70.83		3.614E-01	9.243E-01	1.373E+00	1.794E-01	0.263
		72.87		8.187E-01	5.728E-01	8.712E-01	1.110E-01	0.940
		82.60		1.211E+00	1.265E+00	1.538E+00	2.134E-01	0.787
		279.20	*	6.453E-02	4.186E-02	6.716E-02	6.830E-03	0.961
BI-207		72.80		2.397E-01	1.638E-01	2.521E-01	1.989E-02	0.951
	+	74.97		6.927E-01	1.204E-01	1.982E-01	1.600E-02	3.495
	+	84.90		2.895E-01	1.999E-01	2.840E-01	2.581E-02	1.019
		569.67		2.282E-02	2.957E-02	5.017E-02	4.847E-03	0.455
		1063.62	*	4.599E-02	4.920E-02	8.711E-02	7.866E-03	0.528
		1770.23		-2.841E+00	7.500E-01	4.620E-01	3.790E-02	-6.149
TL-207		81.07		1.229E-01	2.393E-01	2.848E-01	2.468E-02	0.432
	+	83.78		1.909E-01	1.318E-01	1.865E-01	1.671E-02	1.024
		94.90		6.652E-01	2.331E-01	3.705E-01	3.332E-02	1.795
		122.32		6.513E-02	1.622E+00	2.611E+00	2.347E-01	0.025
		144.24		8.095E-01	6.791E-01	1.130E+00	1.074E-01	0.716
		154.21		2.442E-01	3.779E-01	6.176E-01	5.829E-02	0.395
	+	269.46		5.099E-01	2.702E-01	3.185E-01	3.202E-02	1.601
		323.87	*	3.551E-01	6.481E-01	9.809E-01	1.784E-01	0.362
	+	338.28		7.401E+00	1.767E+00	2.490E+00	3.199E-01	2.973
		445.03		6.987E-01	1.981E+00	3.309E+00	4.050E-01	0.211
PO-209		260.50		-3.768E+00	8.333E+00	1.360E+01	1.338E+00	-0.277
		262.80		-8.427E+00	2.337E+01	3.833E+01	3.776E+00	-0.220
		896.60	*	1.064E+00	6.531E+00	1.095E+01	1.089E+00	0.097
BI-210		46.50	*	7.530E-01	2.061E+00	3.441E+00	3.191E-01	0.219
PB-210		46.50	*	7.530E-01	2.061E+00	3.441E+00	3.191E-01	0.219
PO-210		46.50	*	7.530E-01	2.061E+00	3.441E+00	2.887E-01	0.219
PB-211		404.84	*	-7.870E-02	8.569E-01	1.392E+00	8.722E-01	-0.057
		427.08		4.128E-01	1.753E+00	2.883E+00	1.792E+00	0.143
		831.96		-4.411E-02	1.121E+00	1.560E+00	9.807E-01	-0.028
BI-212	+	727.18	*	1.255E+00	5.202E-01	6.558E-01	7.443E-02	1.914
		785.46		1.416E+00	1.615E+00	2.864E+00	2.909E-01	0.494
		1620.62		6.140E-01	1.199E+00	2.128E+00	1.792E-01	0.288
PO-215		81.07		1.229E-01	2.393E-01	2.848E-01	2.468E-02	0.432
	+	83.78		1.909E-01	1.318E-01	1.865E-01	1.671E-02	1.024
		94.90		6.652E-01	2.331E-01	3.705E-01	3.332E-02	1.795
		122.32		6.513E-02	1.622E+00	2.611E+00	2.347E-01	0.025
		144.24		8.095E-01	6.791E-01	1.130E+00	1.074E-01	0.716
		154.21		2.442E-01	3.779E-01	6.176E-01	5.829E-02	0.395
	+	269.46		5.099E-01	2.702E-01	3.185E-01	3.202E-02	1.601
		323.87	*	3.551E-01	6.481E-01	9.809E-01	1.784E-01	0.362
	+	338.28		7.401E+00	1.767E+00	2.490E+00	3.199E-01	2.973
		445.03		6.987E-01	1.981E+00	3.309E+00	4.050E-01	0.211
RN-219	+	271.23		6.542E-01	3.485E-01	4.190E-01	4.781E-02	1.562
		401.81	*	-1.228E-01	3.866E-01	6.196E-01	9.250E-02	-0.198
RN-220		549.76	*	-1.041E+01	2.433E+01	3.772E+01	3.604E+00	-0.276
RA-223		81.07		1.229E-01	2.393E-01	2.848E-01	2.468E-02	0.432
	+	83.78		1.909E-01	1.318E-01	1.865E-01	1.671E-02	1.024
		94.90		6.652E-01	2.331E-01	3.705E-01	3.332E-02	1.795

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		6.513E-02	1.622E+00	2.611E+00	2.347E-01	0.025
		144.24		8.095E-01	6.791E-01	1.130E+00	1.074E-01	0.716
		154.21		2.442E-01	3.779E-01	6.176E-01	5.829E-02	0.395
	+	269.46		5.099E-01	2.702E-01	3.185E-01	3.202E-02	1.601
		323.87	*	3.551E-01	6.481E-01	9.809E-01	1.784E-01	0.362
	+	338.28		7.401E+00	1.767E+00	2.490E+00	3.199E-01	2.973
		445.03		6.987E-01	1.981E+00	3.309E+00	4.050E-01	0.211
AC-227		79.80		-1.056E+00	1.564E+00	2.185E+00	4.690E-01	-0.483
		236.00		5.644E-01	2.516E-01	4.016E-01	5.206E-02	1.406
		256.20	*	-1.255E-01	3.381E-01	5.546E-01	8.897E-02	-0.226
		286.10		-1.854E-01	1.504E+00	2.306E+00	3.248E-01	-0.080
	+	299.80		3.131E+00	1.844E+00	2.441E+00	4.420E-01	1.283
		304.40		-1.563E+00	2.080E+00	2.839E+00	5.395E-01	-0.550
		334.20		9.696E-01	2.787E+00	3.536E+00	6.996E-01	0.274
TH-227		79.80		-1.056E+00	1.565E+00	2.185E+00	4.750E-01	-0.483
	+	94.00		1.506E+01	4.474E+00	4.002E+00	8.783E-01	3.764
		236.00		5.644E-01	2.498E-01	4.016E-01	4.766E-02	1.406
		256.20	*	-1.255E-01	3.383E-01	5.546E-01	1.035E-01	-0.226
		286.10		-1.854E-01	1.515E+00	2.306E+00	2.317E+00	-0.080
	+	299.80		3.131E+00	1.844E+00	2.441E+00	4.420E-01	1.283
		304.40		-1.563E+00	2.080E+00	2.839E+00	5.395E-01	-0.550
		334.20		9.696E-01	2.787E+00	3.536E+00	6.996E-01	0.274
TH-229	+	85.43		2.858E-01	1.973E-01	2.918E-01	2.670E-02	0.979
	+	88.47		4.213E-01	1.227E-01	2.006E-01	1.889E-02	2.100
		100.00		6.504E-02	1.674E-01	2.723E-01	2.386E-02	0.239
		193.63	*	2.785E-01	4.545E-01	7.878E-01	7.175E-02	0.354
		210.97		9.570E-01	7.654E-01	1.213E+00	1.132E-01	0.789
PA-231		283.67	*	4.617E-01	1.494E+00	2.241E+00	3.578E-01	0.206
	+	301.29		1.252E+00	7.207E-01	9.533E-01	1.249E-01	1.313
TH-231		81.07		1.229E-01	2.393E-01	2.848E-01	2.468E-02	0.432
	+	83.78		1.909E-01	1.318E-01	1.865E-01	1.671E-02	1.024
		94.90		6.652E-01	2.331E-01	3.705E-01	3.332E-02	1.795
		122.32		6.513E-02	1.622E+00	2.611E+00	2.347E-01	0.025
		144.24		8.095E-01	6.791E-01	1.130E+00	1.074E-01	0.716
		154.21		2.442E-01	3.779E-01	6.176E-01	5.829E-02	0.395
	+	269.46		5.099E-01	2.702E-01	3.185E-01	3.202E-02	1.601
		323.87	*	3.551E-01	6.481E-01	9.809E-01	1.784E-01	0.362
	+	338.28		7.401E+00	1.767E+00	2.490E+00	3.199E-01	2.973
		445.03		6.987E-01	1.981E+00	3.309E+00	4.050E-01	0.211
U-231	+	84.21		8.211E+00	5.668E+00	7.989E+00	7.198E-01	1.028
	+	92.29		1.486E+01	3.264E+00	4.327E+00	3.958E-01	3.434
		95.87	*	-9.536E-01	1.067E+00	1.465E+00	1.310E-01	-0.651
		108.00		-1.143E+00	1.940E+00	3.053E+00	2.601E-01	-0.374
PA-233	+	75.28		2.021E+01	4.352E+00	5.990E+00	9.023E-01	3.374
	+	86.59		6.040E+00	2.334E+00	2.800E+00	7.572E-01	2.157
	+	300.12		8.727E-01	5.077E-01	6.748E-01	1.052E-01	1.293
		311.98	*	-3.692E-02	5.866E-02	9.365E-02	9.291E-03	-0.394
		340.50		1.434E+00	7.764E-01	1.141E+00	2.751E-01	1.257
		398.62		-2.696E-01	1.905E+00	3.090E+00	8.209E-01	-0.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-1.216E+00	1.562E+00	2.382E+00	5.129E-01	-0.510
PA-234	+	63.00		4.850E+00	1.958E+00	2.396E+00	3.540E-01	2.025
		94.67		7.584E-01	1.924E-01	2.889E-01	3.661E-02	2.625
		98.44		6.084E-02	8.955E-02	1.367E-01	7.631E-02	0.445
		99.86		2.896E-01	4.231E-01	6.953E-01	6.095E-02	0.417
		111.00		-8.151E-04	1.731E-01	2.790E-01	3.341E-02	-0.003
		131.20		-2.239E-03	1.162E-01	1.656E-01	1.384E-02	-0.014
		152.70		7.581E-02	3.113E-01	5.007E-01	8.519E-02	0.151
	+	186.00		9.947E+00	3.788E+00	2.873E+00	8.998E-01	3.462
		226.40		7.436E-03	3.569E-01	6.016E-01	8.303E-02	0.012
		227.20		-6.080E-02	3.881E-01	6.489E-01	6.179E-02	-0.094
		248.90		-5.187E-01	7.118E-01	1.132E+00	2.588E-01	-0.458
	+	293.70		7.874E+00	1.822E+00	1.716E+00	3.081E-01	4.589
		369.80		2.917E-01	7.424E-01	1.249E+00	2.730E-01	0.234
		568.70		9.551E-02	9.803E-01	1.586E+00	1.531E-01	0.060
		569.50		1.053E-01	2.689E-01	4.443E-01	4.292E-02	0.237
		574.00		-6.032E-01	1.483E+00	2.302E+00	2.229E-01	-0.262
		699.00		6.746E-03	5.946E-01	9.982E-01	1.976E-01	0.007
		706.10		3.623E-01	9.882E-01	1.678E+00	7.534E-01	0.216
		733.00		-2.806E-01	4.104E-01	5.424E-01	1.239E-01	-0.517
		742.81		3.526E-01	1.249E+00	2.096E+00	1.413E+00	0.168
	+	796.30		1.452E+00	1.390E+00	1.621E+00	4.471E-01	0.896
		805.60		8.552E-01	8.821E-01	1.524E+00	4.742E-01	0.561
		819.60		-7.814E-01	1.117E+00	1.662E+00	6.382E-01	-0.470
		826.30		5.690E-01	7.457E-01	1.249E+00	5.626E-01	0.456
		831.60		-1.747E-01	5.967E-01	7.971E-01	2.416E-01	-0.219
		876.40		3.261E-02	7.298E-01	1.211E+00	1.246E+00	0.027
		880.51		2.895E-01	2.536E-01	4.596E-01	4.594E-02	0.630
		883.24		-1.212E-02	2.678E-01	4.351E-01	2.933E-01	-0.028
		899.00		-2.296E-01	7.435E-01	1.183E+00	5.205E-01	-0.194
		925.00		7.669E-01	1.017E+00	1.795E+00	1.766E-01	0.427
		926.50		6.538E-02	1.468E-01	2.513E-01	6.463E-02	0.260
		946.00	*	1.138E-01	2.601E-01	4.451E-01	8.595E-02	0.256
		949.00		8.551E-02	4.013E-01	6.737E-01	6.558E-02	0.127
		980.50		-2.383E-01	6.470E-01	1.021E+00	9.774E-02	-0.233
		1394.10		2.966E-01	9.537E-01	1.634E+00	1.063E+00	0.182
PA-234M		766.42		1.726E+01	1.481E+01	2.167E+01	1.106E+01	0.797
		1001.03	*	7.134E+00	4.825E+00	8.352E+00	8.934E-01	0.854
U-235		89.95		2.821E-01	1.505E+00	1.735E+00	5.390E-01	0.163
	+	93.35		4.686E+00	1.619E+00	1.357E+00	3.823E-01	3.453
		105.00		7.508E-01	1.010E+00	1.638E+00	4.889E-01	0.458
		143.76	*	1.803E-01	2.121E-01	3.468E-01	6.043E-02	0.520
		163.35		1.379E-01	4.544E-01	7.305E-01	1.396E-01	0.189
	+	185.71		3.684E-01	8.641E-02	1.061E-01	9.547E-03	3.473
		205.31		-1.272E-01	5.298E-01	7.792E-01	1.510E-01	-0.163
NP-236		94.67		5.793E-01	1.369E-01	2.195E-01	1.977E-02	2.639
		98.44		4.599E-02	6.277E-02	1.033E-01	9.119E-03	0.445
		111.00		-6.166E-04	1.309E-01	2.110E-01	1.786E-02	-0.003
		160.31	*	-2.930E-02	7.786E-02	1.201E-01	1.040E-02	-0.244

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.191E-01	1.423E-01	2.350E-01	2.063E-02	0.507
		117.00	*	-9.988E-02	1.705E-01	2.668E-01	2.235E-02	-0.374
	+	209.75		2.650E+00	1.015E+00	1.362E+00	1.269E-01	1.946
		228.18		-3.274E-02	2.026E-01	3.385E-01	3.227E-02	-0.097
	+	277.60		7.183E-01	4.304E-01	3.216E-01	3.199E-02	2.233
		334.30		5.221E-01	1.575E+00	1.999E+00	1.884E-01	0.261
AM-241		59.54	*	4.152E-02	1.202E-01	1.797E-01	1.406E-02	0.231
CM-243		99.55		1.226E-01	1.464E-01	2.418E-01	2.123E-02	0.507
		103.76	*	1.434E-02	8.770E-02	1.427E-01	1.232E-02	0.101
		117.00		-1.028E-01	1.754E-01	2.745E-01	2.299E-02	-0.374
	+	209.75		2.612E+00	1.000E+00	1.342E+00	1.251E-01	1.946
		228.18		-3.308E-02	2.047E-01	3.420E-01	3.261E-02	-0.097
	+	277.60		7.241E-01	4.339E-01	3.242E-01	3.226E-02	2.233
AM-246		798.80		-1.182E-01	1.404E-01	1.793E-01	1.820E-02	-0.659
		1036.00		2.141E-02	2.765E-01	4.557E-01	4.206E-02	0.047
		1062.04		-3.880E-02	2.257E-01	3.626E-01	3.278E-02	-0.107
		1078.86	*	3.651E-02	1.292E-01	2.167E-01	1.931E-02	0.168
CM-247	+	278.00		2.979E+00	1.785E+00	1.337E+00	1.330E-01	2.228
		287.40		9.071E-01	1.123E+00	1.888E+00	1.871E-01	0.480
		402.60	*	-2.759E-02	3.508E-02	5.439E-02	4.599E-03	-0.507
CF-249		252.85		1.313E-01	7.630E-01	1.289E+00	1.260E-01	0.102
		333.44		6.044E-02	2.399E-01	2.609E-01	2.463E-02	0.232
		387.95	*	-9.856E-03	3.574E-02	5.757E-02	4.858E-03	-0.171
CF-251		176.60	*	1.969E-02	1.254E-01	1.999E-01	1.774E-02	0.098
		227.00		7.875E-03	3.428E-01	5.778E-01	5.501E-02	0.014
		285.00		4.120E-01	1.792E+00	2.671E+00	2.651E-01	0.154

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032721    *
* Acquisition date : 12-FEB-2010 14:38:33 Detector SN#    :                *
* Detector ID        : GAM20                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:34.78      Half life ratio :  8.000       *
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*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 28-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G1202032721          Analyst initials: MXR1         *
* Batch Number       : 948812               Sample Quantity : 1.3137E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :     0.000            MSD Isotope     :                 *
* LCS DPM          :     0.000            LCS Isotope     :                 *
* LCSD DPM         :     0.000            LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.064E+01	2.228E+00	4.719E-01	0.000E+00
MN-54	2.550E-02	4.377E-02	4.564E-02	0.000E+00
CD-109	3.139E+00	8.962E-01	1.444E+00	0.000E+00
SN-126	3.085E-01	8.809E-02	1.394E-01	0.000E+00
BA-137M	1.732E-01	7.162E-02	5.479E-02	0.000E+00
CS-137	1.830E-01	7.571E-02	5.792E-02	0.000E+00
TL-208	4.724E-01	8.393E-02	4.841E-02	0.000E+00
BI-211	4.598E+00	6.153E-01	3.274E-01	0.000E+00
PB-212	1.877E+00	2.235E-01	8.592E-02	0.000E+00
PO-212	1.877E+00	2.235E-01	8.592E-02	0.000E+00
BI-214	1.309E+00	2.212E-01	1.031E-01	0.000E+00
PB-214	1.599E+00	2.291E-01	1.141E-01	0.000E+00
PO-214	1.599E+00	2.291E-01	1.141E-01	0.000E+00
PO-216	1.877E+00	2.235E-01	8.592E-02	0.000E+00
PO-218	1.599E+00	2.291E-01	1.141E-01	0.000E+00
RA-224	5.405E+00	1.415E+00	9.774E-01	0.000E+00
RA-226	1.309E+00	2.212E-01	1.031E-01	0.000E+00
AC-228	1.829E+00	3.436E-01	1.881E-01	0.000E+00
RA-228	1.829E+00	3.436E-01	1.881E-01	0.000E+00
TH-228	1.906E+00	2.269E-01	8.722E-02	0.000E+00
TH-230	1.309E+00	2.212E-01	1.031E-01	0.000E+00
TH-232	1.829E+00	3.436E-01	1.881E-01	0.000E+00
TH-234	4.161E+00	1.688E+00	1.714E+00	0.000E+00
U-234	1.309E+00	2.212E-01	1.031E-01	0.000E+00
NP-237	9.060E-01	3.170E-01	3.382E-01	0.000E+00
U-238	4.161E+00	1.688E+00	1.714E+00	0.000E+00
AM-243	3.859E-01	6.576E-02	7.827E-02	0.000E+00
ANH-511	1.935E-01	6.499E-02	3.971E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	2.646E-01	2.899E-01	5.199E-01	0.000E+00	NOT IDENT.
NA-22	1.490E-02	3.401E-02	5.911E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.528E+05	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.615E-03	2.689E-02	4.417E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.276E-02	7.508E-02	0.000E+00	FAIL ABUN
SC-46	-9.025E-03	3.335E-02	5.525E-02	0.000E+00	FAIL ABUN
V-48	-3.685E-02	5.876E-02	9.231E-02	0.000E+00	NOT IDENT.
CR-51	8.754E-02	3.379E-01	5.951E-01	0.000E+00	NOT IDENT.
MN-52	2.216E-02	1.890E-01	3.282E-01	0.000E+00	FAIL ABUN
CO-56	1.308E-02	3.254E-02	5.764E-02	0.000E+00	FAIL ABUN
CO-57	1.262E-02	2.275E-02	3.980E-02	0.000E+00	NOT IDENT.
CO-58	-1.586E-02	3.282E-02	5.369E-02	0.000E+00	NOT IDENT.
FE-59	6.421E-03	7.444E-02	1.256E-01	0.000E+00	NOT IDENT.
CO-60	-6.740E-03	3.504E-02	5.615E-02	0.000E+00	NOT IDENT.
ZN-65	-1.038E-02	8.412E-02	1.191E-01	0.000E+00	NOT IDENT.
GE-68	-5.491E-01	1.182E+00	1.889E+00	0.000E+00	NOT IDENT.
AS-73	-1.353E-01	5.443E-01	9.585E-01	0.000E+00	NOT IDENT.
AS-74	-2.872E-02	8.835E-02	1.429E-01	0.000E+00	NOT IDENT.
SE-75	3.319E-02	3.989E-02	6.827E-02	0.000E+00	NOT IDENT.
BR-77	2.913E+00	9.726E+00	1.669E+01	0.000E+00	FAIL ABUN
SR-82	-4.132E-01	3.439E-01	5.273E-01	0.000E+00	NOT IDENT.
RB-83	5.196E-02	6.195E-02	1.104E-01	0.000E+00	NOT IDENT.
RB-84	3.282E-02	6.175E-02	1.101E-01	0.000E+00	NOT IDENT.
KR-85	7.041E+00	7.394E+00	1.179E+01	0.000E+00	NOT IDENT.
SR-85	3.610E-02	3.791E-02	6.044E-02	0.000E+00	NOT IDENT.
RB-86	-2.197E-01	7.191E-01	1.168E+00	0.000E+00	NOT IDENT.
Y-88	-1.493E-02	2.901E-02	4.327E-02	0.000E+00	NOT IDENT.
ZR-88	2.820E-02	2.680E-02	4.883E-02	0.000E+00	NOT IDENT.
Y-91	-5.703E+00	1.658E+01	2.656E+01	0.000E+00	NOT IDENT.
NB-94	-1.820E-02	2.843E-02	4.672E-02	0.000E+00	NOT IDENT.
NB-95	2.067E-02	4.301E-02	7.633E-02	0.000E+00	NOT IDENT.
NB-95M	1.154E-01	1.178E-01	1.936E-01	0.000E+00	NOT IDENT.
ZR-95	4.184E-02	6.076E-02	1.103E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.747E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.750E+06	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.815E+00	1.027E+01	1.811E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.771E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.145E-03	2.883E-02	5.141E-02	0.000E+00	NOT IDENT.
RH-102	-1.540E-02	2.775E-02	4.497E-02	0.000E+00	NOT IDENT.
RU-103	-1.120E-02	3.503E-02	5.740E-02	0.000E+00	FAIL ABUN
RH-106	7.595E-02	2.713E-01	4.603E-01	0.000E+00	FAIL ABUN
RU-106	7.595E-02	2.712E-01	4.603E-01	0.000E+00	FAIL ABUN
AG-108M	1.477E-02	2.872E-02	5.057E-02	0.000E+00	NOT IDENT.
AG-110M	5.971E-03	3.167E-02	4.915E-02	0.000E+00	NOT IDENT.
IN-111	2.596E-01	9.809E-01	1.554E+00	0.000E+00	NOT IDENT.
IN-113M	2.110E-02	3.958E-02	7.004E-02	0.000E+00	NOT IDENT.
SN-113	2.110E-02	3.958E-02	7.004E-02	0.000E+00	NOT IDENT.
IN-114M	-1.124E-01	1.783E-01	2.720E-01	0.000E+00	NOT IDENT.
CD-115	2.286E-01	9.621E+00	1.616E+01	0.000E+00	NOT IDENT.
SN-117M	1.408E-02	5.160E-02	8.703E-02	0.000E+00	NOT IDENT.
SB-122	2.332E+00	1.993E+00	3.586E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.386E+06	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	5.998E-03	2.683E-02	4.516E-02	0.000E+00	NOT IDENT.
I-124	-3.854E-01	7.529E-01	1.029E+00	0.000E+00	FAIL ABUN
SB-124	1.074E-02	5.537E-02	9.694E-02	0.000E+00	FAIL ABUN
SB-125	1.304E-02	7.717E-02	1.330E-01	0.000E+00	FAIL ABUN
TE-125M	-1.795E+00	8.628E+00	1.472E+01	0.000E+00	NOT IDENT.
I-126	5.768E-02	1.919E-01	2.997E-01	0.000E+00	NOT IDENT.
SB-126	-4.028E-02	1.329E-01	1.926E-01	0.000E+00	FAIL ABUN
SB-127	-8.340E-01	1.063E+00	1.709E+00	0.000E+00	NOT IDENT.
XE-127	-9.667E-03	4.307E-02	7.372E-02	0.000E+00	NOT IDENT.
I-131	2.332E-02	9.965E-02	1.741E-01	0.000E+00	NOT IDENT.
TE-132	-1.153E-01	6.068E-01	1.067E+00	0.000E+00	NOT IDENT.
BA-133	2.928E-02	4.288E-02	6.837E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.519E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.472E-02	6.752E-02	8.413E-02	0.000E+00	FAIL ABUN
CS-135	9.621E-02	1.523E-01	2.452E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.883E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.664E-02	9.019E-02	1.560E-01	0.000E+00	FAIL ABUN
CE-139	7.682E-03	2.750E-02	4.682E-02	0.000E+00	NOT IDENT.
BA-140	-2.446E-01	2.562E-01	3.747E-01	0.000E+00	NOT IDENT.
LA-140	-5.551E-02	7.564E-02	1.099E-01	0.000E+00	FAIL ABUN
CE-141	4.469E-02	5.900E-02	1.029E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.451E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.953E-01	2.063E-01	3.264E-01	0.000E+00	NOT IDENT.
PM-144	1.864E-02	2.871E-02	5.219E-02	0.000E+00	NOT IDENT.
PR-144	1.263E+00	1.946E+00	3.537E+00	0.000E+00	NOT IDENT.

PM-146	-1.571E-03	4.121E-02	6.969E-02	0.000E+00	NOT IDENT.
ND-147	-8.915E-02	5.229E-01	8.644E-01	0.000E+00	NOT IDENT.
PM-149	-1.520E-01	9.156E+01	1.409E+02	0.000E+00	NOT IDENT.
EU-152	-2.913E-02	8.971E-02	1.466E-01	0.000E+00	FAIL ABUN
GD-153	-3.497E-03	7.768E-02	1.191E-01	0.000E+00	FAIL ABUN
EU-154	2.440E-02	9.749E-02	1.657E-01	0.000E+00	NOT IDENT.
EU-155	9.440E-02	9.746E-02	1.738E-01	0.000E+00	FAIL ABUN
TB-160	3.619E-02	1.212E-01	2.121E-01	0.000E+00	FAIL ABUN
HO-166M	1.025E-02	5.704E-02	1.001E-01	0.000E+00	FAIL ABUN
TM-171	5.134E+00	2.443E+01	3.885E+01	0.000E+00	NOT IDENT.
LU-176	1.253E-02	2.333E-02	4.169E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.401E+00	2.023E+00	0.000E+00	FAIL ABUN
LU-177M	-1.280E-01	1.683E-01	2.728E-01	0.000E+00	NOT IDENT.
HF-181	-3.505E-02	3.828E-02	5.980E-02	0.000E+00	NOT IDENT.
W-181	2.564E-01	3.227E-01	5.249E-01	0.000E+00	NOT IDENT.
TA-182	-1.065E-01	1.758E-01	2.739E-01	0.000E+00	FAIL ABUN
RE-183	3.053E-02	1.031E-01	1.758E-01	0.000E+00	FAIL ABUN
RE-184	3.500E-02	1.993E-01	3.543E-01	0.000E+00	NOT IDENT.
OS-185	2.963E-02	3.557E-02	6.582E-02	0.000E+00	NOT IDENT.
RE-188	5.254E-02	1.587E-01	2.717E-01	0.000E+00	NOT IDENT.
W-188	-1.173E+00	6.942E+00	1.053E+01	0.000E+00	FAIL ABUN
IR-192	-1.964E-02	3.098E-02	5.182E-02	0.000E+00	FAIL ABUN
AU-195	1.850E-01	2.010E-01	3.553E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.923E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.038E+00	6.402E+00	1.059E+01	0.000E+00	NOT IDENT.
TL-202	6.346E-02	6.127E-02	1.112E-01	0.000E+00	NOT IDENT.
HG-203	6.453E-02	4.102E-02	6.914E-02	0.000E+00	NOT IDENT.
BI-207	4.599E-02	4.822E-02	8.769E-02	0.000E+00	FAIL ABUN
TL-207	3.551E-01	6.351E-01	1.007E+00	0.000E+00	FAIL ABUN
PO-209	1.064E+00	6.401E+00	1.106E+01	0.000E+00	NOT IDENT.
BI-210	7.530E-01	2.020E+00	3.645E+00	0.000E+00	NOT IDENT.
PB-210	7.530E-01	2.020E+00	3.645E+00	0.000E+00	NOT IDENT.
PO-210	7.530E-01	2.019E+00	3.645E+00	0.000E+00	NOT IDENT.
PB-211	-7.870E-02	8.397E-01	1.425E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.098E-01	6.645E-01	0.000E+00	FAIL ABUN
PO-215	3.551E-01	6.351E-01	1.007E+00	0.000E+00	FAIL ABUN
RN-219	-1.228E-01	3.789E-01	6.340E-01	0.000E+00	FAIL ABUN
RN-220	-1.041E+01	2.385E+01	3.840E+01	0.000E+00	NOT IDENT.
RA-223	3.551E-01	6.351E-01	1.007E+00	0.000E+00	FAIL ABUN
AC-227	-1.255E-01	3.313E-01	5.718E-01	0.000E+00	FAIL ABUN
TH-227	-1.255E-01	3.316E-01	5.718E-01	0.000E+00	FAIL ABUN
TH-229	2.785E-01	4.454E-01	8.159E-01	0.000E+00	FAIL ABUN
PA-231	4.617E-01	1.464E+00	2.307E+00	0.000E+00	FAIL ABUN
TH-231	3.551E-01	6.351E-01	1.007E+00	0.000E+00	FAIL ABUN
U-231	-9.536E-01	1.045E+00	1.534E+00	0.000E+00	FAIL ABUN
PA-233	-3.692E-02	5.749E-02	9.623E-02	0.000E+00	FAIL ABUN
PA-234	1.138E-01	2.549E-01	4.490E-01	0.000E+00	FAIL ABUN
PA-234M	7.134E+00	4.729E+00	8.416E+00	0.000E+00	NOT IDENT.
U-235	1.803E-01	2.078E-01	3.609E-01	0.000E+00	FAIL ABUN
NP-236	-2.930E-02	7.630E-02	1.248E-01	0.000E+00	NOT IDENT.
NP-239	-9.988E-02	1.671E-01	2.785E-01	0.000E+00	FAIL ABUN
AM-241	4.152E-02	1.178E-01	1.896E-01	0.000E+00	NOT IDENT.
CM-243	1.434E-02	8.595E-02	1.493E-01	0.000E+00	FAIL ABUN
AM-246	3.651E-02	1.267E-01	2.181E-01	0.000E+00	NOT IDENT.
CM-247	-2.759E-02	3.438E-02	5.566E-02	0.000E+00	FAIL ABUN
CF-249	-9.856E-03	3.503E-02	5.894E-02	0.000E+00	NOT IDENT.
CF-251	1.969E-02	1.229E-01	2.073E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:39:50.92

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032721.CNF;1
Sample date       : 28-JAN-2010 12:00:00 Acquisition date : 12-FEB-2010 14:38:33
Sample ID         : G1202032721          Sample quantity  : 1.31370E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:34.78  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	966	10.67*	1.253E+00	2.064E+01	2.064E+01	11.02
MN-54	834.83	17	99.97*	2.002E+00	2.465E-02	2.550E-02	175.16
CD-109	88.03	277	3.72*	6.938E+00	3.069E+00	3.139E+00	29.13
SN-126	64.28	257	9.60	4.636E+00	1.647E+00	1.647E+00	40.26
	86.94	277	8.90	6.938E+00	1.283E+00	1.283E+00	49.85
	87.57	277	37.00*	6.938E+00	3.085E-01	3.085E-01	29.13
BA-137M	661.65	133	89.98*	2.436E+00	1.730E-01	1.732E-01	42.20
CS-137	661.65	133	85.12*	2.436E+00	1.829E-01	1.830E-01	42.21
TL-208	277.35	167	6.80	4.721E+00	1.489E+00	1.489E+00	60.56
	510.84	203	21.60	2.992E+00	8.956E-01	8.956E-01	35.28
	583.14	375	84.20*	2.696E+00	4.724E-01	4.724E-01	18.13
	860.37	95	12.46	1.953E+00	1.120E+00	1.120E+00	40.34
BI-211	72.87	------	1.27	5.845E+00	------ Line Not Found		------
	351.07	827	12.94*	3.970E+00	4.598E+00	4.598E+00	13.66
PB-212	74.81	540	10.70	6.058E+00	2.380E+00	2.380E+00	19.74
	77.11	825	18.00	6.256E+00	2.094E+00	2.094E+00	13.93
	87.30	277	8.00	6.938E+00	1.427E+00	1.427E+00	30.80
	238.63	1538	44.60*	5.250E+00	1.877E+00	1.877E+00	12.15
	300.09	90	3.41	4.460E+00	1.689E+00	1.689E+00	57.19
PO-212	74.81	540	10.70	6.058E+00	2.380E+00	2.380E+00	19.74
	77.11	825	18.00	6.256E+00	2.094E+00	2.094E+00	13.93
	87.30	277	8.00	6.938E+00	1.427E+00	1.427E+00	30.80
	115.19	------	0.60	7.430E+00	------ Line Not Found		------
	238.63	1538	44.60*	5.250E+00	1.877E+00	1.877E+00	12.15
	300.09	90	3.41	4.460E+00	1.689E+00	1.689E+00	57.19
BI-214	609.31	552	46.30*	2.603E+00	1.309E+00	1.309E+00	17.24
	1120.29	165	15.10	1.557E+00	2.006E+00	2.006E+00	24.95
	1764.49	108	15.80	1.100E+00	1.783E+00	1.783E+00	23.07
PB-214	74.81	540	6.21	6.058E+00	4.101E+00	4.101E+00	18.90
	77.11	825	10.50	6.256E+00	3.589E+00	3.589E+00	15.88
	87.30	277	4.67	6.938E+00	2.445E+00	2.445E+00	30.13
	241.98	389	7.49	5.203E+00	2.851E+00	2.851E+00	27.30

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	498	19.20	4.517E+00	1.640E+00	1.640E+00	18.70
	351.92	827	37.20*	3.970E+00	1.599E+00	1.599E+00	14.62
PO-214	74.81	540	6.21	6.058E+00	4.101E+00	4.101E+00	18.90
	77.11	825	10.50	6.256E+00	3.589E+00	3.589E+00	15.88
	87.30	277	4.67	6.938E+00	2.445E+00	2.445E+00	30.13
	241.98	389	7.49	5.203E+00	2.851E+00	2.851E+00	27.30
	295.21	498	19.20	4.517E+00	1.640E+00	1.640E+00	18.70
	351.92	827	37.20*	3.970E+00	1.599E+00	1.599E+00	14.62
PO-216	74.81	540	10.70	6.058E+00	2.380E+00	2.380E+00	19.74
	77.11	825	18.00	6.256E+00	2.094E+00	2.094E+00	13.93
	87.30	277	8.00	6.938E+00	1.427E+00	1.427E+00	30.80
	238.63	1538	44.60*	5.250E+00	1.877E+00	1.877E+00	12.15
	300.09	90	3.41	4.460E+00	1.689E+00	1.689E+00	57.19
PO-218	74.81	540	6.21	6.058E+00	4.101E+00	4.101E+00	18.90
	77.11	825	10.50	6.256E+00	3.589E+00	3.589E+00	15.88
	87.30	277	4.67	6.938E+00	2.445E+00	2.445E+00	30.13
	241.98	389	7.49	5.203E+00	2.851E+00	2.851E+00	27.30
	295.21	498	19.20	4.517E+00	1.640E+00	1.640E+00	18.70
	351.92	827	37.20*	3.970E+00	1.599E+00	1.599E+00	14.62
RA-224	240.98	389	3.95*	5.203E+00	5.405E+00	5.405E+00	26.72
RA-226	609.31	552	46.30*	2.603E+00	1.309E+00	1.309E+00	17.24
	1120.29	165	15.10	1.557E+00	2.006E+00	2.006E+00	24.95
	1764.49	108	15.80	1.100E+00	1.783E+00	1.783E+00	23.07
AC-228	338.32	289	11.40	4.087E+00	1.772E+00	1.772E+00	46.05
	911.07	330	27.70*	1.860E+00	1.829E+00	1.829E+00	19.17
	969.11	185	16.60	1.764E+00	1.807E+00	1.807E+00	30.02
RA-228	338.32	289	11.40	4.087E+00	1.772E+00	1.772E+00	46.05
	911.07	330	27.70*	1.860E+00	1.829E+00	1.829E+00	19.17
	969.11	185	16.60	1.764E+00	1.807E+00	1.807E+00	30.02
TH-228	74.81	540	10.70	6.058E+00	2.380E+00	2.416E+00	17.43
	77.11	825	18.00	6.256E+00	2.094E+00	2.125E+00	13.93
	87.30	277	8.00	6.938E+00	1.427E+00	1.449E+00	29.13
	238.63	1538	44.60*	5.250E+00	1.877E+00	1.906E+00	12.15
	300.09	90	3.41	4.460E+00	1.689E+00	1.715E+00	81.71
TH-230	609.31	552	46.30*	2.603E+00	1.309E+00	1.309E+00	17.24
	1120.29	165	15.10	1.557E+00	2.006E+00	2.006E+00	24.95
	1764.49	108	15.80	1.100E+00	1.783E+00	1.783E+00	23.07
TH-232	338.32	289	11.40	4.087E+00	1.772E+00	1.772E+00	22.19
	911.07	330	27.70*	1.860E+00	1.829E+00	1.829E+00	19.17
	969.11	185	16.60	1.764E+00	1.807E+00	1.807E+00	30.02
TH-234	63.29	257	3.80*	4.636E+00	4.161E+00	4.161E+00	41.40
	92.38	529	5.41	7.173E+00	3.898E+00	3.898E+00	27.11
U-234	609.31	552	46.30*	2.603E+00	1.309E+00	1.309E+00	17.24
	1120.29	165	15.10	1.557E+00	2.006E+00	2.006E+00	24.95
	1764.49	108	15.80	1.100E+00	1.783E+00	1.783E+00	23.07
NP-237	86.50	277	12.60*	6.938E+00	9.060E-01	9.060E-01	35.70
	95.87	------	2.60	7.260E+00	------ Line Not Found		------
U-238	63.29	257	3.80*	4.636E+00	4.161E+00	4.161E+00	41.40
	92.38	529	5.41	7.173E+00	3.898E+00	3.898E+00	21.96

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	540	66.00*	6.058E+00	3.859E-01	3.859E-01	17.39
	86.72	277	0.34	6.938E+00	3.398E+01	3.398E+01	29.13
	117.66	------	0.55	7.416E+00	------	Line Not Found	------
	142.18	------	0.13	7.067E+00	------	Line Not Found	------
ANH-511	511.00	203	100.00*	2.992E+00	1.935E-01	1.935E-01	34.28

Flag: "*" = Keyline

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

Total number of lines in spectrum 39
Number of unidentified lines 2
Number of lines tentatively identified by NID 37 94.87%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.064E+01	2.064E+01	0.227E+01	11.02	
MN-54	312.70D	1.03	2.465E-02	2.550E-02	4.466E-02	175.16	
CD-109	464.00D	1.02	3.069E+00	3.139E+00	0.914E+00	29.13	
SN-126	1.00E+05Y	1.00	3.085E-01	3.085E-01	0.899E-01	29.13	
BA-137M	30.17Y	1.00	1.730E-01	1.732E-01	0.731E-01	42.20	
CS-137	30.17Y	1.00	1.829E-01	1.830E-01	0.773E-01	42.21	
TL-208	1.41E+10Y	1.00	4.724E-01	4.724E-01	0.856E-01	18.13	
BI-211	7.04E+08Y	1.00	4.598E+00	4.598E+00	0.628E+00	13.66	
PB-212	1.41E+10Y	1.00	1.877E+00	1.877E+00	0.228E+00	12.15	
PO-212	1.41E+10Y	1.00	1.877E+00	1.877E+00	0.228E+00	12.15	
BI-214	1600.00Y	1.00	1.309E+00	1.309E+00	0.226E+00	17.24	
PB-214	1600.00Y	1.00	1.599E+00	1.599E+00	0.234E+00	14.62	
PO-214	1600.00Y	1.00	1.599E+00	1.599E+00	0.234E+00	14.62	
PO-216	1.41E+10Y	1.00	1.877E+00	1.877E+00	0.228E+00	12.15	
PO-218	1600.00Y	1.00	1.599E+00	1.599E+00	0.234E+00	14.62	
RA-224	1.41E+10Y	1.00	5.405E+00	5.405E+00	1.444E+00	26.72	
RA-226	1600.00Y	1.00	1.309E+00	1.309E+00	0.226E+00	17.24	
AC-228	1.41E+10Y	1.00	1.829E+00	1.829E+00	0.351E+00	19.17	
RA-228	1.41E+10Y	1.00	1.829E+00	1.829E+00	0.351E+00	19.17	
TH-228	1.91Y	1.02	1.877E+00	1.906E+00	0.232E+00	12.15	
TH-230	4.47E+09Y	1.00	1.309E+00	1.309E+00	0.226E+00	17.24	
TH-232	1.41E+10Y	1.00	1.829E+00	1.829E+00	0.351E+00	19.17	
TH-234	4.47E+09Y	1.00	4.161E+00	4.161E+00	1.723E+00	41.40	
U-234	4.47E+09Y	1.00	1.309E+00	1.309E+00	0.226E+00	17.24	
NP-237	2.14E+06Y	1.00	9.060E-01	9.060E-01	3.235E-01	35.70	
U-238	4.47E+09Y	1.00	4.161E+00	4.161E+00	1.723E+00	41.40	
AM-243	7380.00Y	1.00	3.859E-01	3.859E-01	0.671E-01	17.39	
ANH-511	1.00E+09Y	1.00	1.935E-01	1.935E-01	0.663E-01	34.28	
			---	---			
	Total Activity :		6.771E+01	6.781E+01			

Grand Total Activity : 6.771E+01 6.781E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.11	112	475	1.13	168.13	165	7	1.55E-02	68.4	6.76E+00	T
0	129.37	146	354	1.98	258.52	254	9	2.03E-02	49.3	7.29E+00	T
0	185.80	430	409	1.28	371.23	366	12	5.97E-02	21.7	6.18E+00	T
0	209.08	172	260	0.91	417.73	413	9	2.39E-02	37.1	5.74E+00	T
0	270.34	117	215	1.55	540.10	535	11	1.62E-02	52.0	4.81E+00	T
0	328.05	92	187	1.49	655.39	650	12	1.28E-02	62.8	4.18E+00	T
0	463.44	87	96	1.18	925.91	921	12	1.21E-02	48.9	3.23E+00	T
0	726.99	117	94	1.91	1452.71	1445	14	1.62E-02	39.9	2.25E+00	T
0	795.37	41	76	1.19	1589.42	1583	13	5.75E-03	91.6	2.09E+00	T
0	934.46	38	34	1.77	1867.59	1863	8	5.26E-03	62.5	1.82E+00	T
3	964.70	58	48	2.23	1928.08	1922	23	8.12E-03	48.4	1.77E+00	T
0	1238.67	49	61	0.83	2476.23	2468	14	6.75E-03	74.8	1.43E+00	T
0	1377.48	51	23	1.78	2754.07	2745	15	7.01E-03	49.7	1.31E+00	T
0	1408.13	24	10	1.17	2815.42	2811	10	3.33E-03	64.0	1.29E+00	T
0	1589.05	30	13	1.50	3177.66	3172	10	4.22E-03	56.7	1.18E+00	
0	1729.24	35	13	0.84	3458.45	3451	16	4.93E-03	55.2	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 16:39:56.88

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032721.CNF;1   *
* Acquisition date : 12-FEB-2010 14:38:33  Detector SN#    :                  *
* Detector ID      : GAM20                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:34.78         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 28-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G1202032721           Analyst initials: MXR1             *
* Batch Number     : 948812                Sample Quantity : 1.31370E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.064E+01	2.273E+00	4.714E-01	4.110E-02	43.780
MN-54	2.550E-02	4.466E-02	4.515E-02	4.561E-03	0.565
CD-109	3.139E+00	9.145E-01	1.376E+00	1.302E-01	2.281
SN-126	3.085E-01	8.988E-02	1.329E-01	1.250E-02	2.322
BA-137M	1.732E-01	7.308E-02	5.399E-02	5.418E-03	3.207
CS-137	1.830E-01	7.726E-02	5.707E-02	5.736E-03	3.207
TL-208	4.724E-01	8.564E-02	4.760E-02	4.894E-03	9.925
BI-211	4.598E+00	6.278E-01	3.193E-01	3.059E-02	14.401
PB-212	1.877E+00	2.281E-01	8.324E-02	8.853E-03	22.554
PO-212	1.877E+00	2.281E-01	8.324E-02	8.853E-03	22.554
BI-214	1.309E+00	2.257E-01	1.014E-01	1.129E-02	12.908
PB-214	1.599E+00	2.338E-01	1.113E-01	1.213E-02	14.372
PO-214	1.599E+00	2.338E-01	1.113E-01	1.213E-02	14.372
PO-216	1.877E+00	2.281E-01	8.324E-02	8.853E-03	22.554
PO-218	1.599E+00	2.338E-01	1.113E-01	1.213E-02	14.372
RA-224	5.405E+00	1.444E+00	9.471E-01	9.155E-02	5.707
RA-226	1.309E+00	2.257E-01	1.014E-01	1.129E-02	12.908
AC-228	1.829E+00	3.506E-01	1.864E-01	2.283E-02	9.810

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.829E+00	3.506E-01	1.864E-01	2.283E-02	9.810
TH-228	1.906E+00	2.316E-01	8.451E-02	8.987E-03	22.554
TH-230	1.309E+00	2.257E-01	1.014E-01	1.129E-02	12.908
TH-232	1.829E+00	3.506E-01	1.864E-01	2.283E-02	9.810
TH-234	4.161E+00	1.723E+00	1.626E+00	2.825E-01	2.560
U-234	1.309E+00	2.257E-01	1.014E-01	1.129E-02	12.908
NP-237	9.060E-01	3.235E-01	3.223E-01	7.293E-02	2.811
U-238	4.161E+00	1.723E+00	1.626E+00	2.825E-01	2.560
AM-243	3.859E-01	6.710E-02	7.443E-02	5.991E-03	5.184
ANH-511	1.935E-01	6.632E-02	3.897E-02	3.631E-03	4.965

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.646E-01		2.958E-01	5.095E-01	4.953E-02	0.519
NA-22	1.490E-02		3.470E-02	5.891E-02	4.880E-03	0.253
NA-24	-4.010E-01		3.331E-01	Half-Life too short		
AL-26	-2.615E-03		2.744E-02	4.429E-02	3.598E-03	-0.059
TI-44	3.864E-01	+	5.383E-02	7.146E-02	5.997E-03	5.407
SC-46	-9.025E-03		3.403E-02	5.472E-02	5.455E-03	-0.165
V-48	-3.685E-02		5.996E-02	9.158E-02	8.753E-03	-0.402
CR-51	8.754E-02		3.448E-01	5.793E-01	5.808E-02	0.151
MN-52	2.216E-02		1.928E-01	3.277E-01	2.773E-02	0.068
CO-56	1.308E-02		3.320E-02	5.704E-02	5.749E-03	0.229
CO-57	1.262E-02		2.321E-02	3.815E-02	3.184E-03	0.331
CO-58	-1.586E-02		3.349E-02	5.309E-02	5.391E-03	-0.299
FE-59	6.421E-03		7.596E-02	1.249E-01	1.178E-02	0.051
CO-60	-6.740E-03		3.576E-02	5.600E-02	4.691E-03	-0.120
ZN-65	-1.038E-02		8.584E-02	1.184E-01	1.019E-02	-0.088
GE-68	-5.491E-01		1.206E+00	1.877E+00	1.675E-01	-0.293
AS-73	-1.353E-01		5.554E-01	9.068E-01	6.732E-02	-0.149
AS-74	-2.872E-02		9.015E-02	1.406E-01	1.376E-02	-0.204
SE-75	3.319E-02		4.070E-02	6.626E-02	6.560E-03	0.501
BR-77	2.913E+00		9.924E+00	1.638E+01	1.536E+00	0.178
SR-82	-4.132E-01		3.509E-01	5.211E-01	5.294E-02	-0.793
RB-83	5.196E-02		6.322E-02	1.083E-01	1.016E-02	0.480
RB-84	3.282E-02		6.301E-02	1.090E-01	1.089E-02	0.301
KR-85	7.041E+00		7.545E+00	1.157E+01	1.080E+00	0.609
SR-85	3.610E-02		3.868E-02	5.931E-02	5.538E-03	0.609
RB-86	-2.197E-01		7.338E-01	1.160E+00	1.036E-01	-0.189
Y-88	-1.493E-02		2.960E-02	4.339E-02	3.502E-03	-0.344
ZR-88	2.820E-02		2.734E-02	4.770E-02	3.989E-03	0.591
Y-91	-5.703E+00		1.691E+01	2.644E+01	2.147E+00	-0.216
NB-94	-1.820E-02		2.901E-02	4.608E-02	4.662E-03	-0.395
NB-95	2.067E-02		4.389E-02	7.540E-02	7.663E-03	0.274
NB-95M	1.154E-01		1.202E-01	1.876E-01	2.015E-02	0.615
ZR-95	4.184E-02		6.200E-02	1.090E-01	1.189E-02	0.384

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	1.333E-02		4.463E-02	Half-Life too short		
ZR-97	1.304E+00		8.929E-01	Half-Life too short		
MO-99	2.815E+00		1.048E+01	1.788E+01	2.880E+00	0.157
TC-99M	-4.664E+10		1.924E+10	Half-Life too short		
RH-101	-2.145E-03		2.941E-02	4.966E-02	4.551E-03	-0.043
RH-102	-1.540E-02		2.831E-02	4.407E-02	3.996E-03	-0.349
RU-103	-1.120E-02		3.574E-02	5.629E-02	8.184E-03	-0.199
RH-106	7.595E-02		2.768E-01	4.531E-01	6.441E-02	0.168
RU-106	7.595E-02		2.767E-01	4.531E-01	4.485E-02	0.168
AG-108M	1.477E-02		2.931E-02	4.948E-02	4.490E-03	0.299
AG-110M	5.971E-03		3.232E-02	4.843E-02	4.962E-03	0.123
IN-111	2.596E-01		1.001E+00	1.507E+00	1.463E-01	0.172
IN-113M	2.110E-02		4.038E-02	6.842E-02	5.902E-03	0.308
SN-113	2.110E-02		4.038E-02	6.842E-02	5.902E-03	0.308
IN-114M	-1.124E-01		1.820E-01	2.626E-01	2.379E-02	-0.428
CD-115	2.286E-01		9.817E+00	1.587E+01	1.495E+00	0.014
SN-117M	1.408E-02		5.265E-02	8.377E-02	7.229E-03	0.168
SB-122	2.332E+00		2.033E+00	3.525E+00	3.395E-01	0.662
I-123	1.204E+00		2.748E+00	Half-Life too short		
TE-123M	5.998E-03		2.738E-02	4.346E-02	3.776E-03	0.138
I-124	-3.854E-01		7.683E-01	1.012E+00	9.937E-02	-0.381
SB-124	1.074E-02		5.650E-02	9.708E-02	8.437E-03	0.111
SB-125	1.304E-02		7.874E-02	1.301E-01	1.152E-02	0.100
TE-125M	-1.795E+00		8.804E+00	1.408E+01	1.440E+00	-0.127
I-126	5.768E-02		1.959E-01	2.954E-01	2.968E-02	0.195
SB-126	-4.028E-02		1.357E-01	1.901E-01	1.927E-02	-0.212
SB-127	-8.340E-01		1.085E+00	1.685E+00	2.111E-01	-0.495
XE-127	-9.667E-03		4.395E-02	7.124E-02	6.575E-03	-0.136
I-131	2.332E-02		1.017E-01	1.699E-01	1.594E-02	0.137
TE-132	-1.153E-01		6.192E-01	1.033E+00	1.677E-01	-0.112
BA-133	2.928E-02		4.376E-02	6.668E-02	9.007E-03	0.439
I-133	1.680E-04		2.816E-03	Half-Life too short		
CS-134	7.472E-02	+	6.889E-02	8.317E-02	8.486E-03	0.899
CS-135	9.621E-02		1.554E-01	2.381E-01	2.638E-02	0.404
I-135	1.565E+09		2.491E+09	Half-Life too short		
CS-136	2.664E-02		9.203E-02	1.550E-01	1.471E-02	0.172
CE-139	7.682E-03		2.806E-02	4.510E-02	3.937E-03	0.170
BA-140	-2.446E-01		2.615E-01	3.679E-01	1.228E-01	-0.665
LA-140	-5.551E-02		7.718E-02	1.100E-01	9.282E-03	-0.505
CE-141	4.469E-02		6.020E-02	9.892E-02	8.541E-03	0.452
CE-143	8.429E-04		1.250E-04	Half-Life too short		
CE-144	1.953E-01		2.105E-01	3.133E-01	4.835E-02	0.623
PM-144	1.864E-02		2.930E-02	5.148E-02	5.205E-03	0.362
PR-144	1.263E+00		1.985E+00	3.488E+00	3.526E-01	0.362
PM-146	-1.571E-03		4.205E-02	6.824E-02	7.474E-03	-0.023
ND-147	-8.915E-02		5.336E-01	8.487E-01	1.310E-01	-0.105
PM-149	-1.520E-01		9.343E+01	1.370E+02	2.232E+01	-0.001
EU-152	-2.913E-02		9.154E-02	1.429E-01	1.395E-02	-0.204

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-3.497E-03		7.927E-02	1.138E-01	1.009E-02	-0.031
EU-154	2.440E-02		9.948E-02	1.651E-01	1.825E-02	0.148
EU-155	9.440E-02		9.944E-02	1.662E-01	1.445E-02	0.568
TB-160	3.619E-02		1.236E-01	2.100E-01	2.100E-02	0.172
HO-166M	1.025E-02		5.820E-02	9.874E-02	1.000E-02	0.104
TM-171	5.134E+00		2.493E+01	3.688E+01	2.748E+00	0.139
LU-176	1.253E-02		2.381E-02	4.056E-02	3.956E-03	0.309
LU-177	3.733E+00	+	1.429E+00	1.956E+00	1.819E-01	1.909
LU-177M	-1.280E-01		1.717E-01	2.668E-01	2.283E-02	-0.480
HF-181	-3.505E-02		3.906E-02	5.862E-02	5.345E-03	-0.598
W-181	2.564E-01		3.293E-01	4.981E-01	3.665E-02	0.515
TA-182	-1.065E-01		1.794E-01	2.727E-01	2.225E-02	-0.390
RE-183	3.053E-02		1.052E-01	1.693E-01	1.469E-02	0.180
RE-184	3.500E-02		2.033E-01	3.436E-01	3.358E-02	0.102
OS-185	2.963E-02		3.630E-02	6.483E-02	6.474E-03	0.457
RE-188	5.254E-02		1.620E-01	2.615E-01	2.245E-02	0.201
W-188	-1.173E+00		7.083E+00	1.024E+01	1.012E+00	-0.115
IR-192	-1.964E-02		3.161E-02	5.045E-02	4.879E-03	-0.389
AU-195	1.850E-01		2.051E-01	3.394E-01	2.988E-02	0.545
TL-200	-2.338E-04		2.001E-04	Half-Life too short		
TL-201	-2.038E+00		6.533E+00	1.020E+01	8.925E-01	-0.200
TL-202	6.346E-02		6.252E-02	1.088E-01	9.558E-03	0.583
HG-203	6.453E-02		4.186E-02	6.716E-02	6.830E-03	0.961
BI-207	4.599E-02		4.920E-02	8.711E-02	7.866E-03	0.528
TL-207	3.551E-01		6.481E-01	9.809E-01	1.784E-01	0.362
PO-209	1.064E+00		6.531E+00	1.095E+01	1.089E+00	0.097
BI-210	7.530E-01		2.061E+00	3.441E+00	3.191E-01	0.219
PB-210	7.530E-01		2.061E+00	3.441E+00	3.191E-01	0.219
PO-210	7.530E-01		2.061E+00	3.441E+00	2.887E-01	0.219
PB-211	-7.870E-02		8.569E-01	1.392E+00	8.722E-01	-0.057
BI-212	1.255E+00	+	5.202E-01	6.558E-01	7.443E-02	1.914
PO-215	3.551E-01		6.481E-01	9.809E-01	1.784E-01	0.362
RN-219	-1.228E-01		3.866E-01	6.196E-01	9.250E-02	-0.198
RN-220	-1.041E+01		2.433E+01	3.772E+01	3.604E+00	-0.276
RA-223	3.551E-01		6.481E-01	9.809E-01	1.784E-01	0.362
AC-227	-1.255E-01		3.381E-01	5.546E-01	8.897E-02	-0.226
TH-227	-1.255E-01		3.383E-01	5.546E-01	1.035E-01	-0.226
TH-229	2.785E-01		4.545E-01	7.878E-01	7.175E-02	0.354
PA-231	4.617E-01		1.494E+00	2.241E+00	3.578E-01	0.206
TH-231	3.551E-01		6.481E-01	9.809E-01	1.784E-01	0.362
U-231	-9.536E-01		1.067E+00	1.465E+00	1.310E-01	-0.651
PA-233	-3.692E-02		5.866E-02	9.365E-02	9.291E-03	-0.394
PA-234	1.138E-01		2.601E-01	4.451E-01	8.595E-02	0.256
PA-234M	7.134E+00		4.825E+00	8.352E+00	8.934E-01	0.854
U-235	1.803E-01		2.121E-01	3.468E-01	6.043E-02	0.520
NP-236	-2.930E-02		7.786E-02	1.201E-01	1.040E-02	-0.244
NP-239	-9.988E-02		1.705E-01	2.668E-01	2.235E-02	-0.374
AM-241	4.152E-02		1.202E-01	1.797E-01	1.406E-02	0.231

Sample ID : G1202032721 Acquisition date : 12-FEB-2010 14:38:33

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.434E-02		8.770E-02	1.427E-01	1.232E-02	0.101
AM-246	3.651E-02		1.292E-01	2.167E-01	1.931E-02	0.168
CM-247	-2.759E-02		3.508E-02	5.439E-02	4.599E-03	-0.507
CF-249	-9.856E-03		3.574E-02	5.757E-02	4.858E-03	-0.171
CF-251	1.969E-02		1.254E-01	1.999E-01	1.774E-02	0.098

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032721          *
* Acquisition date : 12-FEB-2010 14:38:33 Detector SN#     :               *
* Detector ID      : GAM20                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:34.78     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 28-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202032721          Analyst initials: MXR1           *
* Batch Number     : 948812               Sample Quantity : 1.3137E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.064E+01	2.228E+00	2.361E-01	1.137E+00
MN-54	2.550E-02	4.377E-02	2.283E-02	2.233E-02
CD-109	3.139E+00	8.962E-01	7.222E-01	4.572E-01
SN-126	3.085E-01	8.809E-02	6.972E-02	4.494E-02
BA-137M	1.732E-01	7.162E-02	2.741E-02	3.654E-02
CS-137	1.830E-01	7.571E-02	2.898E-02	3.863E-02
TL-208	4.724E-01	8.393E-02	2.422E-02	4.282E-02
BI-211	4.598E+00	6.153E-01	1.638E-01	3.139E-01
PB-212	1.877E+00	2.235E-01	4.298E-02	1.140E-01
PO-212	1.877E+00	2.235E-01	4.298E-02	1.140E-01
BI-214	1.309E+00	2.212E-01	5.157E-02	1.129E-01
PB-214	1.599E+00	2.291E-01	5.710E-02	1.169E-01
PO-214	1.599E+00	2.291E-01	5.710E-02	1.169E-01
PO-216	1.877E+00	2.235E-01	4.298E-02	1.140E-01
PO-218	1.599E+00	2.291E-01	5.710E-02	1.169E-01
RA-224	5.405E+00	1.415E+00	4.890E-01	7.221E-01
RA-226	1.309E+00	2.212E-01	5.157E-02	1.129E-01
AC-228	1.829E+00	3.436E-01	9.412E-02	1.753E-01
RA-228	1.829E+00	3.436E-01	9.412E-02	1.753E-01
TH-228	1.906E+00	2.269E-01	4.364E-02	1.158E-01
TH-230	1.309E+00	2.212E-01	5.157E-02	1.128E-01
TH-232	1.829E+00	3.436E-01	9.412E-02	1.753E-01
TH-234	4.161E+00	1.688E+00	8.574E-01	8.613E-01
U-234	1.309E+00	2.212E-01	5.157E-02	1.128E-01
NP-237	9.060E-01	3.170E-01	1.692E-01	1.617E-01
U-238	4.161E+00	1.688E+00	8.574E-01	8.613E-01
AM-243	3.859E-01	6.576E-02	3.916E-02	3.355E-02
ANH-511	1.935E-01	6.499E-02	1.987E-02	3.316E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	2.646E-01	2.899E-01	2.601E-01	1.479E-01	NOT IDENT.
NA-22	1.490E-02	3.401E-02	2.957E-02	1.735E-02	NOT IDENT.
NA-24	-4.010E+05	6.528E+05	0.000E+00	3.331E+05	SHORT HLIF
AL-26	-2.615E-03	2.689E-02	2.210E-02	1.372E-02	NOT IDENT.
TI-44	3.864E-01	5.276E-02	3.756E-02	2.692E-02	FAIL ABUN
SC-46	-9.025E-03	3.335E-02	2.764E-02	1.701E-02	FAIL ABUN
V-48	-3.685E-02	5.876E-02	4.618E-02	2.998E-02	NOT IDENT.
CR-51	8.754E-02	3.379E-01	2.977E-01	1.724E-01	NOT IDENT.
MN-52	2.216E-02	1.890E-01	1.642E-01	9.641E-02	FAIL ABUN
CO-56	1.308E-02	3.254E-02	2.884E-02	1.660E-02	FAIL ABUN
CO-57	1.262E-02	2.275E-02	1.991E-02	1.161E-02	NOT IDENT.
CO-58	-1.586E-02	3.282E-02	2.686E-02	1.674E-02	NOT IDENT.
FE-59	6.421E-03	7.444E-02	6.285E-02	3.798E-02	NOT IDENT.
CO-60	-6.740E-03	3.504E-02	2.809E-02	1.788E-02	NOT IDENT.
ZN-65	-1.038E-02	8.412E-02	5.958E-02	4.292E-02	NOT IDENT.
GE-68	-5.491E-01	1.182E+00	9.451E-01	6.028E-01	NOT IDENT.
AS-73	-1.353E-01	5.443E-01	4.795E-01	2.777E-01	NOT IDENT.
AS-74	-2.872E-02	8.835E-02	7.148E-02	4.508E-02	NOT IDENT.
SE-75	3.319E-02	3.989E-02	3.415E-02	2.035E-02	NOT IDENT.
BR-77	2.913E+00	9.726E+00	8.348E+00	4.962E+00	FAIL ABUN
SR-82	-4.132E-01	3.439E-01	2.638E-01	1.755E-01	NOT IDENT.
RB-83	5.196E-02	6.195E-02	5.523E-02	3.161E-02	NOT IDENT.
RB-84	3.282E-02	6.175E-02	5.508E-02	3.151E-02	NOT IDENT.
KR-85	7.041E+00	7.394E+00	5.898E+00	3.772E+00	NOT IDENT.
SR-85	3.610E-02	3.791E-02	3.024E-02	1.934E-02	NOT IDENT.
RB-86	-2.197E-01	7.191E-01	5.841E-01	3.669E-01	NOT IDENT.
Y-88	-1.493E-02	2.901E-02	2.165E-02	1.480E-02	NOT IDENT.
ZR-88	2.820E-02	2.680E-02	2.443E-02	1.367E-02	NOT IDENT.
Y-91	-5.703E+00	1.658E+01	1.329E+01	8.457E+00	NOT IDENT.
NB-94	-1.820E-02	2.843E-02	2.337E-02	1.451E-02	NOT IDENT.
NB-95	2.067E-02	4.301E-02	3.819E-02	2.194E-02	NOT IDENT.
NB-95M	1.154E-01	1.178E-01	9.687E-02	6.011E-02	NOT IDENT.
ZR-95	4.184E-02	6.076E-02	5.521E-02	3.100E-02	NOT IDENT.
NB-97	1.333E+04	8.747E+04	0.000E+00	4.463E+04	SHORT HLIF
ZR-97	1.304E+06	1.750E+06	0.000E+00	8.929E+05	SHORT HLIF
MO-99	2.815E+00	1.027E+01	9.060E+00	5.240E+00	NOT IDENT.
TC-99M	-4.664E+16	3.771E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.145E-03	2.883E-02	2.572E-02	1.471E-02	NOT IDENT.
RH-102	-1.540E-02	2.775E-02	2.250E-02	1.416E-02	NOT IDENT.
RU-103	-1.120E-02	3.503E-02	2.872E-02	1.787E-02	FAIL ABUN
RH-106	7.595E-02	2.713E-01	2.303E-01	1.384E-01	FAIL ABUN
RU-106	7.595E-02	2.712E-01	2.303E-01	1.384E-01	FAIL ABUN
AG-108M	1.477E-02	2.872E-02	2.530E-02	1.465E-02	NOT IDENT.
AG-110M	5.971E-03	3.167E-02	2.459E-02	1.616E-02	NOT IDENT.
IN-111	2.596E-01	9.809E-01	7.777E-01	5.005E-01	NOT IDENT.
IN-113M	2.110E-02	3.958E-02	3.504E-02	2.019E-02	NOT IDENT.
SN-113	2.110E-02	3.958E-02	3.504E-02	2.019E-02	NOT IDENT.
IN-114M	-1.124E-01	1.783E-01	1.361E-01	9.099E-02	NOT IDENT.
CD-115	2.286E-01	9.621E+00	8.085E+00	4.909E+00	NOT IDENT.
SN-117M	1.408E-02	5.160E-02	4.354E-02	2.633E-02	NOT IDENT.
SB-122	2.332E+00	1.993E+00	1.794E+00	1.017E+00	NOT IDENT.
I-123	1.204E+06	5.386E+06	0.000E+00	2.748E+06	SHORT HLIF
TE-123M	5.998E-03	2.683E-02	2.259E-02	1.369E-02	NOT IDENT.
I-124	-3.854E-01	7.529E-01	5.146E-01	3.842E-01	FAIL ABUN
SB-124	1.074E-02	5.537E-02	4.850E-02	2.825E-02	FAIL ABUN
SB-125	1.304E-02	7.717E-02	6.655E-02	3.937E-02	FAIL ABUN
TE-125M	-1.795E+00	8.628E+00	7.364E+00	4.402E+00	NOT IDENT.
I-126	5.768E-02	1.919E-01	1.499E-01	9.793E-02	NOT IDENT.
SB-126	-4.028E-02	1.329E-01	9.635E-02	6.783E-02	FAIL ABUN
SB-127	-8.340E-01	1.063E+00	8.549E-01	5.423E-01	NOT IDENT.
XE-127	-9.667E-03	4.307E-02	3.688E-02	2.197E-02	NOT IDENT.
I-131	2.332E-02	9.965E-02	8.711E-02	5.084E-02	NOT IDENT.
TE-132	-1.153E-01	6.068E-01	5.338E-01	3.096E-01	NOT IDENT.
BA-133	2.928E-02	4.288E-02	3.420E-02	2.188E-02	FAIL ABUN
I-133	1.680E+02	5.519E+03	0.000E+00	2.816E+03	SHORT HLIF
CS-134	7.472E-02	6.752E-02	4.209E-02	3.445E-02	FAIL ABUN
CS-135	9.621E-02	1.523E-01	1.227E-01	7.772E-02	NOT IDENT.
I-135	1.565E+15	4.883E+15	0.000E+00	2.491E+15	SHORT HLIF
CS-136	2.664E-02	9.019E-02	7.805E-02	4.601E-02	FAIL ABUN
CE-139	7.682E-03	2.750E-02	2.342E-02	1.403E-02	NOT IDENT.
BA-140	-2.446E-01	2.562E-01	1.875E-01	1.307E-01	NOT IDENT.
LA-140	-5.551E-02	7.564E-02	5.498E-02	3.859E-02	FAIL ABUN
CE-141	4.469E-02	5.900E-02	5.149E-02	3.010E-02	NOT IDENT.
CE-143	8.429E+02	2.451E+02	0.000E+00	1.250E+02	SHORT HLIF
CE-144	1.953E-01	2.063E-01	1.633E-01	1.053E-01	NOT IDENT.
PM-144	1.864E-02	2.871E-02	2.611E-02	1.465E-02	NOT IDENT.
PR-144	1.263E+00	1.946E+00	1.769E+00	9.926E-01	NOT IDENT.

PM-146	-1.571E-03	4.121E-02	3.487E-02	2.102E-02	NOT IDENT.
ND-147	-8.915E-02	5.229E-01	4.325E-01	2.668E-01	NOT IDENT.
PM-149	-1.520E-01	9.156E+01	7.051E+01	4.671E+01	NOT IDENT.
EU-152	-2.913E-02	8.971E-02	7.336E-02	4.577E-02	FAIL ABUN
GD-153	-3.497E-03	7.768E-02	5.961E-02	3.963E-02	FAIL ABUN
EU-154	2.440E-02	9.749E-02	8.290E-02	4.974E-02	NOT IDENT.
EU-155	9.440E-02	9.746E-02	8.693E-02	4.972E-02	FAIL ABUN
TB-160	3.619E-02	1.212E-01	1.061E-01	6.182E-02	FAIL ABUN
HO-166M	1.025E-02	5.704E-02	5.007E-02	2.910E-02	FAIL ABUN
TM-171	5.134E+00	2.443E+01	1.943E+01	1.246E+01	NOT IDENT.
LU-176	1.253E-02	2.333E-02	2.086E-02	1.190E-02	FAIL ABUN
LU-177	3.733E+00	1.401E+00	1.012E+00	7.147E-01	FAIL ABUN
LU-177M	-1.280E-01	1.683E-01	1.365E-01	8.586E-02	NOT IDENT.
HF-181	-3.505E-02	3.828E-02	2.992E-02	1.953E-02	NOT IDENT.
W-181	2.564E-01	3.227E-01	2.626E-01	1.647E-01	NOT IDENT.
TA-182	-1.065E-01	1.758E-01	1.370E-01	8.968E-02	FAIL ABUN
RE-183	3.053E-02	1.031E-01	8.796E-02	5.261E-02	FAIL ABUN
RE-184	3.500E-02	1.993E-01	1.773E-01	1.017E-01	NOT IDENT.
OS-185	2.963E-02	3.557E-02	3.293E-02	1.815E-02	NOT IDENT.
RE-188	5.254E-02	1.587E-01	1.360E-01	8.099E-02	NOT IDENT.
W-188	-1.173E+00	6.942E+00	5.270E+00	3.542E+00	FAIL ABUN
IR-192	-1.964E-02	3.098E-02	2.593E-02	1.581E-02	FAIL ABUN
AU-195	1.850E-01	2.010E-01	1.777E-01	1.025E-01	FAIL ABUN
TL-200	-2.338E+02	3.923E+02	0.000E+00	2.001E+02	SHORT HLIF
TL-201	-2.038E+00	6.402E+00	5.298E+00	3.266E+00	NOT IDENT.
TL-202	6.346E-02	6.127E-02	5.561E-02	3.126E-02	NOT IDENT.
HG-203	6.453E-02	4.102E-02	3.459E-02	2.093E-02	NOT IDENT.
BI-207	4.599E-02	4.822E-02	4.387E-02	2.460E-02	FAIL ABUN
TL-207	3.551E-01	6.351E-01	5.040E-01	3.240E-01	FAIL ABUN
PO-209	1.064E+00	6.401E+00	5.532E+00	3.266E+00	NOT IDENT.
BI-210	7.530E-01	2.020E+00	1.823E+00	1.030E+00	NOT IDENT.
PB-210	7.530E-01	2.020E+00	1.823E+00	1.030E+00	NOT IDENT.
PO-210	7.530E-01	2.019E+00	1.823E+00	1.030E+00	NOT IDENT.
PB-211	-7.870E-02	8.397E-01	7.127E-01	4.284E-01	NOT IDENT.
BI-212	1.255E+00	5.098E-01	3.324E-01	2.601E-01	FAIL ABUN
PO-215	3.551E-01	6.351E-01	5.040E-01	3.240E-01	FAIL ABUN
RN-219	-1.228E-01	3.789E-01	3.172E-01	1.933E-01	FAIL ABUN
RN-220	-1.041E+01	2.385E+01	1.921E+01	1.217E+01	NOT IDENT.
RA-223	3.551E-01	6.351E-01	5.040E-01	3.240E-01	FAIL ABUN
AC-227	-1.255E-01	3.313E-01	2.861E-01	1.691E-01	FAIL ABUN
TH-227	-1.255E-01	3.316E-01	2.861E-01	1.692E-01	FAIL ABUN
TH-229	2.785E-01	4.454E-01	4.082E-01	2.273E-01	FAIL ABUN
PA-231	4.617E-01	1.464E+00	1.154E+00	7.471E-01	FAIL ABUN
TH-231	3.551E-01	6.351E-01	5.040E-01	3.240E-01	FAIL ABUN
U-231	-9.536E-01	1.045E+00	7.674E-01	5.333E-01	FAIL ABUN
PA-233	-3.692E-02	5.749E-02	4.814E-02	2.933E-02	FAIL ABUN
PA-234	1.138E-01	2.549E-01	2.246E-01	1.301E-01	FAIL ABUN
PA-234M	7.134E+00	4.729E+00	4.211E+00	2.413E+00	NOT IDENT.
U-235	1.803E-01	2.078E-01	1.805E-01	1.060E-01	FAIL ABUN
NP-236	-2.930E-02	7.630E-02	6.244E-02	3.893E-02	NOT IDENT.
NP-239	-9.988E-02	1.671E-01	1.393E-01	8.523E-02	FAIL ABUN
AM-241	4.152E-02	1.178E-01	9.486E-02	6.008E-02	NOT IDENT.
CM-243	1.434E-02	8.595E-02	7.467E-02	4.385E-02	FAIL ABUN
AM-246	3.651E-02	1.267E-01	1.091E-01	6.462E-02	NOT IDENT.
CM-247	-2.759E-02	3.438E-02	2.784E-02	1.754E-02	FAIL ABUN
CF-249	-9.856E-03	3.503E-02	2.949E-02	1.787E-02	NOT IDENT.
CF-251	1.969E-02	1.229E-01	1.037E-01	6.269E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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46.50	313.1519
46.50	313.1519
46.50	313.1519
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49.72	358.3834
51.35	337.9750
52.39	322.9351
52.97	332.1835
53.15	332.3026
53.44	355.1880
54.07	364.5228
56.28	359.1534
56.28	359.1553
57.37	0.0000
57.53	368.9677
57.53	368.9686
57.60	369.0168
57.98	370.2782
57.98	370.2782
59.32	366.7234
59.32	366.7234
59.40	366.7776
59.54	366.8738
59.72	366.9972
60.01	362.6981
61.10	355.9204
61.14	355.9457
61.30	356.0506
63.00	464.1472
63.29	464.3886
63.29	464.3886
63.58	464.6301
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65.12	461.3668
65.20	461.4320
65.20	461.4320
66.05	445.4547
66.72	449.0089
66.83	424.8193
66.91	424.8792
67.20	425.0928
67.20	425.0928
67.75	478.6836
67.85	502.1716
68.90	506.5278
68.90	506.5278
69.30	486.3543
69.67	486.6612
70.82	458.2741
70.82	458.2741
70.83	458.2809
72.80	475.1109
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72.87	492.0260
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74.81	496.6638
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74.81	496.6638
74.81	496.6638
74.81	496.6638
74.81	496.6638
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75.28	497.0408
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77.11	498.4997

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77.11	498.4997
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77.11	498.4997
77.11	498.4997
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79.62	500.4736
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80.18	500.9097
80.30	501.0034
80.30	501.0034
80.57	501.2129
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81.07	397.5527
81.07	397.5527
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83.37	398.9492
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83.78	452.2179
83.78	452.2179
83.78	452.2179
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85.43	443.9602
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86.54	444.6925
86.59	444.7250
86.72	444.8095
86.79	662.5834
86.94	662.7319
87.30	677.1918
87.30	677.1918
87.30	677.1918
87.30	677.1918
87.30	677.1918
87.30	677.1918
87.30	677.1918
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88.03	690.4709
88.36	599.7428
88.47	599.8390
89.95	601.1301
91.11	602.1326
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92.38	705.8687
92.38	705.8687
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94.67	307.3403
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94.90	321.7006
94.90	321.7006
94.90	321.7006
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95.87	393.5452
96.73	349.5290
97.43	340.3229
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98.44	313.1899
98.88	309.1283
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99.55	306.2197
99.86	305.2849
100.00	314.9185
100.10	314.9622
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103.76	325.0565
105.00	327.7289
105.31	313.9324
108.00	368.7885
109.28	357.5474

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111.00	339.9803
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116.30	319.4152
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117.00	302.2908
117.66	309.0635
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121.62	273.3625
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122.32	295.4773
122.32	295.4773
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144.24	289.3892
144.24	289.3892
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145.44	295.3747
147.16	353.2947
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152.70	296.4890
153.22	279.6640
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154.21	281.0813
154.21	281.0813
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167.43	269.8661
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172.10	260.6941
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176.60	279.1784
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186.00	251.5082
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193.63	241.7506
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198.01	261.2737
198.60	256.9737
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201.83	266.5741
202.84	266.2971
205.31	268.0767

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208.81	244.9092
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209.75	208.9625
210.97	226.3670
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228.18	224.2640
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236.00	217.7743
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238.63	215.1005
238.63	215.1005
238.63	215.1005
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241.98	215.6474
241.98	215.6474
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247.94	157.3125
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249.79	191.9880
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252.85	172.0676
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256.20	186.3987
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262.80	175.1743
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268.79	161.6941
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269.46	164.7664
269.46	164.7664
269.46	164.7664
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277.60	149.1308
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295.21	171.4828

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311.98	160.8308
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323.87	125.7438
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338.28	156.6040
338.28	156.6040
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391.69	108.9641
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569.50	91.0244
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574.00	101.0826
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602.71	108.4805
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609.31	84.6906
609.31	84.6906
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618.01	59.2611
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621.84	62.7095
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696.49	61.7018
697.00	59.8695
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911.07	52.2741
911.07	52.2741
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969.11	50.1306
969.11	50.1306
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1036.00	51.0413
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1077.35	61.9072
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1085.78	54.8012
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1112.84	37.7368
1115.52	48.6149
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1120.29	56.3203
1120.29	56.3203
1120.29	56.3203
1120.51	56.3229
1121.28	55.6380
1124.00	0.0000
1129.67	60.6310
1131.51	0.0000
1147.95	0.0000
1167.94	49.5887
1173.22	50.7094
1175.09	58.1287
1177.93	47.5928
1189.05	39.2348
1204.90	60.6683
1205.75	0.0000
1213.00	67.1805
1221.42	67.3128
1230.97	62.4634
1235.34	58.9531
1236.41	0.0000
1238.25	63.2810
1246.25	47.7561
1260.41	0.0000
1271.85	32.4229
1274.45	33.5233
1274.54	30.2791
1291.56	34.7359
1298.22	0.0000
1312.09	31.6210
1325.50	43.7441
1325.50	43.7441
1332.49	35.0469
1333.61	33.9607
1360.21	26.6258
1362.66	0.0000
1365.15	13.7860
1368.21	30.6559
1368.53	0.0000
1376.25	15.6608
1384.27	19.3782
1394.10	20.3430
1395.20	21.2724
1407.95	27.8198
1434.06	21.4436
1436.60	26.1178
1457.56	0.0000
1460.81	22.4971
1489.15	16.9680
1509.49	19.8755
1596.49	26.2440
1620.62	19.3327
1678.03	0.0000
1691.02	9.7904
1691.02	9.7904
1706.46	0.0000
1750.46	0.0000
1764.49	5.9504
1764.49	5.9504
1764.49	5.9504
1764.49	5.9504
1770.23	81.4028
1771.40	30.7805
1791.20	0.0000
1808.65	13.9897

1836.01 15.0580

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032721

Total Uranium Activity	1.2463E+01	ug/g
Total Uranium Counting Unc.	5.0229E+00	ug/g
Total Uranium Tpu	2.5627E-06	ug/g
Total Uranium Mda	2.5521E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G1202032721      *
*   ANALYST       : MXR1                      DETECTOR   : GAM20            *
*   SAMPLE DATE   : 28-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 14:38:33.93    SAMPLE ALQT:  131.370 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.929E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.326E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 4.276E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 2.078E+00
```

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:39:39.62

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032722.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 14:39:09
Sample ID         : G1202032722          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.96  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.66*	39	511	0.60	92.89	90	5	1.07E-02	91.0	
2	0	49.63	454	1720	2.48	98.82	95	11	1.26E-01	18.2	
3	0	59.56	9580	1329	0.91	118.68	114	10	2.66E+00	1.3	
4	2	74.85	313	429	0.94	149.26	143	16	8.70E-02	11.9	6.22E-01
5	2	77.12*	426	358	0.78	153.79	143	16	1.18E-01	8.4	
6	3	88.02*	2275	288	0.85	175.60	171	18	6.32E-01	2.4	4.77E+00
7	3	90.19	81	316	1.10	179.94	171	18	2.26E-02	43.0	
8	3	92.90*	104	296	1.11	185.34	171	18	2.88E-02	32.7	
9	0	122.02	333	326	1.01	243.59	240	9	9.25E-02	11.2	
10	0	136.80	60	263	1.35	273.14	269	8	1.67E-02	48.5	
11	0	185.71*	38	266	1.07	370.96	368	8	1.07E-02	77.3	
12	0	209.01	55	312	1.43	417.55	413	9	1.53E-02	59.2	
13	5	238.58*	532	188	0.95	476.69	472	16	1.48E-01	6.0	1.72E+00
14	5	241.36	129	288	1.60	482.25	472	16	3.58E-02	30.1	
15	0	295.29*	179	184	0.98	590.11	585	10	4.96E-02	16.2	
16	0	337.81*	129	188	0.97	675.14	670	10	3.58E-02	21.9	
17	0	351.77*	257	255	1.19	703.05	697	13	7.14E-02	14.3	
18	0	511.23*	27	169	1.07	1021.96	1016	12	7.42E-03	105.1	
19	0	583.04*	131	157	1.40	1165.57	1161	13	3.63E-02	21.7	
20	0	609.46*	177	127	1.61	1218.40	1213	14	4.91E-02	15.9	
21	0	661.50*	2379	150	1.45	1322.48	1315	15	6.61E-01	2.3	
22	0	795.26	40	50	1.68	1590.01	1587	8	1.12E-02	33.8	
23	0	910.86*	120	126	1.80	1821.21	1816	12	3.32E-02	20.9	
24	0	969.23*	62	116	1.22	1937.94	1932	14	1.71E-02	39.2	
25	0	1172.95	1753	97	1.92	2345.40	2338	18	4.87E-01	2.7	
26	0	1332.16	1630	13	1.99	2663.84	2656	17	4.53E-01	2.5	
27	0	1460.05*	26	14	2.42	2919.62	2911	15	7.17E-03	39.6	
28	0	1765.24*	18	7	0.91	3530.06	3525	12	5.02E-03	40.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 12-FEB-2010 15:39:42

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032722.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 12-FEB-2010 14:39:09
Sample ID : G1202032722 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA25 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.96 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.054E+00	8.383E-01	8.475E-01	7.217E-02	1.243
CO-57	+	122.06	*	2.320E-01	5.999E-02	4.709E-02	6.073E-03	4.928
	+	136.48		3.595E-01	3.518E-01	4.135E-01	5.069E-02	0.869
CO-60	+	1173.22		6.324E+00	6.241E-01	1.278E-01	1.052E-02	49.472
	+	1332.49	*	6.572E+00	6.288E-01	9.460E-02	7.683E-03	69.473
CD-109	+	88.03	*	3.184E+01	3.744E+00	1.115E+00	1.198E-01	28.570
SN-126		64.28		3.831E-03	2.713E-01	4.440E-01	7.074E-02	0.009
	+	86.94		1.316E+01	5.543E+00	4.583E-01	1.918E-01	28.710
	+	87.57	*	3.165E+00	3.721E-01	1.106E-01	1.185E-02	28.629
BA-137M	+	661.65	*	5.726E+00	6.890E-01	1.008E-01	1.117E-02	56.792
CS-137	+	661.65	*	6.053E+00	7.290E-01	1.066E-01	1.182E-02	56.792
TL-208		277.35		4.272E-01	6.111E-01	1.002E+00	1.423E-01	0.426
	+	510.84		2.129E-01	4.484E-01	3.776E-01	5.001E-02	0.564
	+	583.14	*	3.004E-01	1.348E-01	1.063E-01	1.199E-02	2.825
		860.37		4.340E-01	6.345E-01	1.082E+00	1.132E-01	0.401
BI-210	+	46.50	*	5.018E-01	9.151E-01	1.350E+00	1.393E-01	0.372
PB-210	+	46.50	*	5.018E-01	9.151E-01	1.350E+00	1.393E-01	0.372
PO-210	+	46.50	*	5.018E-01	9.149E-01	1.350E+00	1.286E-01	0.372
BI-211		72.87		1.359E+00	2.136E+00	3.447E+00	3.480E-01	0.394
	+	351.07	*	2.468E+00	7.504E-01	5.287E-01	5.571E-02	4.667
PB-212	+	74.81		1.458E+00	4.018E-01	3.913E-01	5.403E-02	3.726
	+	77.11		1.185E+00	2.325E-01	2.345E-01	2.403E-02	5.055
	+	87.30		1.464E+01	2.260E+00	5.107E-01	7.483E-02	28.664
	+	238.63	*	1.080E+00	1.778E-01	1.328E-01	1.512E-02	8.128
		300.09		1.718E+00	1.242E+00	2.011E+00	2.505E-01	0.854
PO-212	+	74.81		1.458E+00	4.018E-01	3.913E-01	5.403E-02	3.726
	+	77.11		1.185E+00	2.325E-01	2.345E-01	2.403E-02	5.055
	+	87.30		1.464E+01	2.260E+00	5.107E-01	7.483E-02	28.664
		115.19		1.656E+00	3.594E+00	6.206E+00	7.696E-01	0.267
	+	238.63	*	1.080E+00	1.778E-01	1.328E-01	1.512E-02	8.128
		300.09		1.718E+00	1.242E+00	2.011E+00	2.505E-01	0.854
BI-214	+	609.31	*	7.677E-01	2.604E-01	2.140E-01	2.583E-02	3.587
		1120.29		7.184E-01	6.307E-01	1.122E+00	1.218E-01	0.640
	+	1764.49		5.874E-01	4.832E-01	5.587E-01	4.603E-02	1.051

Sample ID : G1202032722 Acquisition date : 12-FEB-2010 14:39:09

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-214	+	74.81		2.513E+00	6.773E-01	6.743E-01	8.479E-02	3.726
	+	77.11		2.032E+00	4.276E-01	4.020E-01	5.134E-02	5.055
	+	87.30		2.508E+01	3.526E+00	8.749E-01	1.154E-01	28.664
	+	241.98		1.569E+00	9.625E-01	8.013E-01	9.557E-02	1.958
	+	295.21		9.983E-01	3.474E-01	3.130E-01	3.970E-02	3.190
	+	351.92	*	8.584E-01	2.648E-01	1.844E-01	2.165E-02	4.656
PO-214	+	74.81		2.513E+00	6.773E-01	6.743E-01	8.479E-02	3.726
	+	77.11		2.032E+00	4.276E-01	4.020E-01	5.134E-02	5.055
	+	87.30		2.508E+01	3.526E+00	8.749E-01	1.154E-01	28.664
	+	241.98		1.569E+00	9.625E-01	8.013E-01	9.557E-02	1.958
	+	295.21		9.983E-01	3.474E-01	3.130E-01	3.970E-02	3.190
	+	351.92	*	8.584E-01	2.648E-01	1.844E-01	2.165E-02	4.656
PO-216	+	74.81		1.458E+00	4.018E-01	3.913E-01	5.403E-02	3.726
	+	77.11		1.185E+00	2.325E-01	2.345E-01	2.403E-02	5.055
	+	87.30		1.464E+01	2.260E+00	5.107E-01	7.483E-02	28.664
	+	238.63	*	1.080E+00	1.778E-01	1.328E-01	1.512E-02	8.128
		300.09		1.718E+00	1.242E+00	2.011E+00	2.505E-01	0.854
PO-218	+	74.81		2.513E+00	6.773E-01	6.743E-01	8.479E-02	3.726
	+	77.11		2.032E+00	4.276E-01	4.020E-01	5.134E-02	5.055
	+	87.30		2.508E+01	3.526E+00	8.749E-01	1.154E-01	28.664
	+	241.98		1.569E+00	9.625E-01	8.013E-01	9.557E-02	1.958
	+	295.21		9.983E-01	3.474E-01	3.130E-01	3.970E-02	3.190
	+	351.92	*	8.584E-01	2.648E-01	1.844E-01	2.165E-02	4.656
RA-224	+	240.98	*	2.975E+00	1.817E+00	1.513E+00	1.590E-01	1.966
RA-226	+	609.31	*	7.677E-01	2.604E-01	2.140E-01	2.583E-02	3.587
		1120.29		7.184E-01	6.307E-01	1.122E+00	1.218E-01	0.640
	+	1764.49		5.874E-01	4.832E-01	5.587E-01	4.603E-02	1.051
AC-228	+	338.32		1.358E+00	8.201E-01	6.067E-01	2.529E-01	2.238
	+	911.07	*	1.244E+00	5.416E-01	5.268E-01	6.266E-02	2.360
	+	969.11		1.130E+00	9.245E-01	9.187E-01	2.168E-01	1.230
RA-228	+	338.32		1.358E+00	8.201E-01	6.067E-01	2.529E-01	2.238
	+	911.07	*	1.244E+00	5.416E-01	5.268E-01	6.266E-02	2.360
	+	969.11		1.130E+00	9.245E-01	9.187E-01	2.168E-01	1.230
TH-228	+	74.81		1.469E+00	3.812E-01	3.943E-01	4.031E-02	3.726
	+	77.11		1.194E+00	2.343E-01	2.363E-01	2.421E-02	5.055
	+	87.30		1.475E+01	1.734E+00	5.146E-01	5.511E-02	28.664
	+	238.63	*	1.088E+00	1.791E-01	1.338E-01	1.524E-02	8.128
		300.09		1.731E+00	1.608E+00	2.027E+00	1.209E+00	0.854
TH-230	+	609.31	*	7.676E-01	2.604E-01	2.140E-01	2.583E-02	3.587
		1120.29		7.183E-01	6.307E-01	1.122E+00	1.218E-01	0.640
	+	1764.49		5.874E-01	4.832E-01	5.587E-01	4.603E-02	1.051
TH-232	+	338.32		1.358E+00	6.101E-01	6.067E-01	6.324E-02	2.238
	+	911.07	*	1.244E+00	5.416E-01	5.268E-01	6.266E-02	2.360
	+	969.11		1.130E+00	9.245E-01	9.187E-01	2.168E-01	1.230
U-234	+	609.31	*	7.676E-01	2.604E-01	2.140E-01	2.583E-02	3.587
		1120.29		7.183E-01	6.307E-01	1.122E+00	1.218E-01	0.640
	+	1764.49		5.874E-01	4.832E-01	5.587E-01	4.603E-02	1.051
AM-241	+	59.54	*	1.323E+01	1.414E+00	1.665E-01	1.730E-02	79.480
AM-243	+	74.67	*	2.364E-01	6.127E-02	6.342E-02	6.440E-03	3.728

Sample ID : G1202032722 Acquisition date : 12-FEB-2010 14:39:09

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.72		3.485E+02	4.098E+01	1.213E+01	1.295E+00	28.738
		117.66		-1.588E+00	4.366E+00	6.480E+00	8.148E-01	-0.245
		142.18		-6.360E+00	2.091E+01	3.434E+01	3.877E+00	-0.185
ANH-511	+	511.00	*	4.598E-02	9.679E-02	8.159E-02	8.398E-03	0.564

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.650E-01	5.680E-01	9.510E-01	1.007E-01	0.279
NA-22		1274.54	*	-3.903E-03	4.192E-02	6.772E-02	5.553E-03	-0.058
NA-24		1368.53	*	-4.666E-05	4.192E-02	Half-Life too short		
AL-26		1129.67		1.176E+00	3.030E+00	5.207E+00	4.445E-01	0.226
		1808.65	*	1.915E-02	5.073E-02	8.985E-02	7.363E-03	0.213
TI-44		67.85		2.350E-02	3.024E-02	4.922E-02	4.898E-03	0.478
	+	78.38	*	2.187E-01	4.289E-02	5.608E-02	5.775E-03	3.900
SC-46		889.25	*	-1.311E-02	9.015E-02	1.452E-01	1.390E-02	-0.090
		1120.51		1.437E-01	9.849E-02	1.790E-01	1.539E-02	0.803
V-48		944.10		1.331E+00	1.762E+00	2.979E+00	2.795E-01	0.447
		983.50	*	3.575E-02	1.288E-01	2.114E-01	1.959E-02	0.169
		1312.09		4.610E-03	6.746E-02	1.119E-01	9.115E-03	0.041
CR-51		320.08	*	1.953E-01	4.878E-01	8.384E-01	9.310E-02	0.233
MN-52		744.21		8.480E-02	1.787E-01	3.056E-01	3.302E-02	0.277
		848.13		5.328E+00	6.094E+00	1.052E+01	1.054E+00	0.507
		935.52		1.204E-01	2.628E-01	4.375E-01	4.113E-02	0.275
		1246.25		2.188E+00	3.315E+00	5.935E+00	4.873E-01	0.369
	+	1333.61		3.330E+02	3.185E+01	3.768E+01	3.061E+00	8.837
		1434.06	*	-1.691E-02	1.038E-01	1.624E-01	1.338E-02	-0.104
MN-54		834.83	*	-8.847E-03	8.122E-02	1.320E-01	1.339E-02	-0.067
CO-56		846.75	*	7.888E-02	8.390E-02	1.454E-01	1.459E-02	0.543
		977.42		-3.889E+00	6.925E+00	9.939E+00	9.230E-01	-0.391
		1037.82		8.029E-03	6.755E-01	1.134E+00	1.076E-01	0.007
		1175.09		2.450E+02	2.419E+01	3.051E+01	2.512E+00	8.028
		1238.25		6.255E-02	8.673E-02	1.563E-01	1.325E-02	0.400
		1360.21		-3.411E-01	9.942E-01	1.501E+00	1.225E-01	-0.227
		1771.40		-6.998E-02	4.215E-01	5.656E-01	4.656E-02	-0.124
CO-58		810.76	*	-1.472E-02	7.603E-02	1.230E-01	1.276E-02	-0.120
FE-59		142.65		5.967E-01	2.891E+00	4.861E+00	5.469E-01	0.123
		192.34		-7.213E-01	1.171E+00	1.847E+00	2.589E-01	-0.390
		1099.22	*	1.122E-01	1.799E-01	3.127E-01	2.945E-02	0.359
		1291.56		-6.081E-02	1.298E-01	1.965E-01	1.846E-02	-0.310
ZN-65		1115.52	*	-2.244E-01	1.990E-01	3.041E-01	2.627E-02	-0.738
GE-68		1077.35	*	-3.820E-01	2.711E+00	4.484E+00	3.969E-01	-0.085
AS-73		53.44	*	-5.804E-02	4.845E-01	7.149E-01	6.862E-02	-0.081
AS-74		595.88	*	-9.898E-02	1.271E-01	1.893E-01	2.051E-02	-0.523
		634.78		-1.206E-01	4.730E-01	7.791E-01	8.568E-02	-0.155
SE-75		66.05		-2.849E+00	2.815E+00	4.238E+00	4.885E-01	-0.672
		96.73		-1.670E-01	7.000E-01	1.065E+00	1.641E-01	-0.157
	+	121.11		1.218E+00	3.267E-01	3.727E-01	5.478E-02	3.267

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	136.00		6.598E-02	6.452E-02	8.007E-02	9.499E-03	0.824
		198.60		-2.062E-01	2.316E+00	3.751E+00	3.938E-01	-0.055
		264.65	*	-7.812E-03	6.682E-02	1.057E-01	1.158E-02	-0.074
		279.53		-1.968E-01	1.748E-01	2.565E-01	2.926E-02	-0.767
		303.91		-2.776E+00	2.995E+00	4.778E+00	6.360E-01	-0.581
		400.65		-2.651E-01	4.443E-01	7.083E-01	8.193E-02	-0.374
BR-77	+	87.88		7.746E+02	9.107E+01	8.033E+01	8.626E+00	9.642
		200.40		-1.382E+01	2.504E+01	3.957E+01	3.833E+00	-0.349
	+	239.00		1.930E+01	3.058E+00	4.650E+00	4.869E-01	4.150
		249.79		1.971E+00	1.115E+01	1.801E+01	1.922E+00	0.109
		281.68		-2.095E-01	1.628E+01	2.577E+01	2.871E+00	-0.008
		297.23		9.822E-01	9.870E+00	1.488E+01	1.639E+00	0.066
		303.76		-2.503E+01	2.987E+01	4.811E+01	5.267E+00	-0.520
		439.47		8.280E+00	3.231E+01	5.377E+01	5.179E+00	0.154
		484.57		2.724E+00	4.771E+01	7.793E+01	7.848E+00	0.035
		520.65	*	-1.562E-01	2.365E+00	3.807E+00	3.947E-01	-0.041
		574.64		-1.128E+01	4.229E+01	6.629E+01	7.109E+00	-0.170
		578.91		6.938E+00	1.896E+01	2.751E+01	2.957E+00	0.252
		585.48		7.581E+01	4.296E+01	6.825E+01	7.360E+00	1.111
		755.35		1.301E+01	3.696E+01	6.274E+01	6.741E+00	0.207
		817.79		-6.395E+00	3.169E+01	5.118E+01	5.272E+00	-0.125
SR-82		698.33		-5.518E+00	4.370E+01	7.198E+01	7.914E+00	-0.077
		776.49	*	5.190E-02	5.886E-01	9.766E-01	1.036E-01	0.053
		1395.20		-4.334E+00	1.063E+01	1.584E+01	1.299E+00	-0.274
RB-83		520.41	*	1.461E-02	1.320E-01	2.149E-01	2.228E-02	0.068
		529.64		-2.205E-02	1.847E-01	2.955E-01	3.084E-02	-0.075
		552.65		-3.232E-02	3.556E-01	5.678E-01	6.014E-02	-0.057
RB-84		881.50	*	-2.125E-02	1.425E-01	2.296E-01	2.219E-02	-0.093
KR-85		513.99	*	1.425E+00	1.409E+01	2.012E+01	2.076E+00	0.071
SR-85		513.99	*	6.752E-03	6.674E-02	9.531E-02	9.833E-03	0.071
RB-86		1076.63	*	-2.499E-01	1.297E+00	2.137E+00	1.893E-01	-0.117
Y-88		898.02		2.135E-02	1.004E-01	1.655E-01	1.574E-02	0.129
		1836.01	*	1.214E-02	6.142E-02	1.047E-01	8.555E-03	0.116
ZR-88		392.90	*	-1.944E-02	5.131E-02	8.315E-02	7.568E-03	-0.234
Y-91		1204.90	*	5.448E+00	2.086E+01	3.629E+01	2.987E+00	0.150
NB-94		702.63	*	-3.017E-02	5.619E-02	8.932E-02	9.808E-03	-0.338
		871.10		2.524E-02	8.041E-02	1.339E-01	1.310E-02	0.188
NB-95		765.79	*	8.719E-02	7.282E-02	1.293E-01	1.381E-02	0.674
NB-95M		235.69	*	1.205E-01	1.719E-01	2.578E-01	2.955E-02	0.467
ZR-95		724.18		-1.245E-01	1.657E-01	2.594E-01	2.983E-02	-0.480
		756.15	*	3.855E-02	1.263E-01	2.140E-01	2.451E-02	0.180
NB-97		657.90	*	2.918E-04	1.263E-01	Half-Life too short		
		1024.50		-1.848E-03	1.263E-01	Half-Life too short		
ZR-97		254.15		-1.778E-03	1.263E-01	Half-Life too short		
		355.39		6.016E-04	1.263E-01	Half-Life too short		
		507.63	*	2.083E-04	1.263E-01	Half-Life too short		
		602.52		1.744E-03	1.263E-01	Half-Life too short		
		1021.30		3.274E-03	1.263E-01	Half-Life too short		
		1147.95		-1.304E-03	1.263E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1362.66		2.062E-03	1.263E-01	Half-Life too short		
		1750.46		1.937E-04	1.263E-01	Half-Life too short		
MO-99		140.51		-5.536E-01	5.059E+00	7.532E+00	2.161E+00	-0.073
		181.06		2.589E+00	3.464E+00	5.595E+00	1.041E+00	0.463
		366.43		1.105E+01	2.132E+01	3.654E+01	3.580E+00	0.302
		739.58	*	-1.907E+00	3.467E+00	5.485E+00	9.071E-01	-0.348
		778.00		2.361E+00	9.505E+00	1.596E+01	1.693E+00	0.148
TC-99M		140.51	*	-4.971E+00	9.505E+00	Half-Life too short		
RH-101		127.23		-2.278E-02	3.829E-02	5.952E-02	7.448E-03	-0.383
		198.01	*	2.428E-03	4.417E-02	7.209E-02	6.947E-03	0.034
		325.23		-2.821E-01	3.553E-01	5.712E-01	6.085E-02	-0.494
RH-102		418.52		4.095E-01	5.379E-01	9.220E-01	8.669E-02	0.444
		475.06	*	-1.612E-02	5.974E-02	9.578E-02	9.563E-03	-0.168
		631.29		-2.113E-02	1.006E-01	1.666E-01	1.830E-02	-0.127
		697.49		-1.138E-02	1.221E-01	2.018E-01	2.219E-02	-0.056
		766.84		2.321E-01	2.029E-01	3.586E-01	3.828E-02	0.647
		1046.59		-5.815E-02	2.626E-01	4.333E-01	3.904E-02	-0.134
		1112.84		7.841E-02	4.821E-01	8.123E-01	7.023E-02	0.097
RU-103		497.08	*	1.393E-02	6.588E-02	1.084E-01	1.644E-02	0.128
	+	610.33		7.260E+00	2.646E+00	3.103E+00	5.577E-01	2.339
RH-106	+	511.85		2.264E-01	4.766E-01	5.737E-01	5.909E-02	0.395
		621.84	*	-3.067E-02	5.197E-01	8.701E-01	1.302E-01	-0.035
		1050.47		1.892E+00	5.029E+00	8.639E+00	7.768E-01	0.219
RU-106	+	511.85		2.264E-01	4.766E-01	5.737E-01	5.909E-02	0.395
		621.84	*	-3.067E-02	5.197E-01	8.701E-01	9.528E-02	-0.035
		1050.47		1.892E+00	5.029E+00	8.639E+00	7.768E-01	0.219
AG-108M		433.93	*	2.300E-02	6.577E-02	1.101E-01	1.088E-02	0.209
		614.37		3.280E-02	7.689E-02	1.172E-01	1.312E-02	0.280
		722.95		-8.372E-02	8.008E-02	1.220E-01	1.363E-02	-0.686
AG-110M		657.75	*	7.642E-02	7.819E-02	1.230E-01	1.387E-02	0.621
		677.61		2.550E-01	5.266E-01	9.091E-01	1.022E-01	0.281
		706.67		2.032E-01	3.397E-01	5.896E-01	6.578E-02	0.345
		763.93		-1.381E-02	3.095E-01	5.092E-01	5.546E-02	-0.027
		884.67		3.132E-02	1.160E-01	1.923E-01	1.900E-02	0.163
		937.48		-2.673E-01	2.992E-01	4.544E-01	4.401E-02	-0.588
		1384.27		4.607E-02	2.500E-01	4.183E-01	3.532E-02	0.110
IN-111		171.28		9.498E-02	1.947E-01	3.287E-01	2.969E-02	0.289
		245.39	*	1.037E-01	2.741E-01	4.019E-01	4.256E-02	0.258
IN-113M		391.69	*	2.802E-02	7.375E-02	1.248E-01	1.166E-02	0.224
SN-113		391.69	*	2.802E-02	7.375E-02	1.248E-01	1.166E-02	0.224
IN-114M		190.27	*	2.777E-02	2.534E-01	3.728E-01	3.529E-02	0.074
CD-115		260.90		1.130E+01	1.913E+01	3.150E+01	3.422E+00	0.359
		492.35		3.313E-01	6.546E+00	1.067E+01	1.082E+00	0.031
		527.90	*	-6.700E-01	2.061E+00	3.252E+00	3.389E-01	-0.206
SN-117M		156.02		-1.487E+00	1.876E+00	2.981E+00	2.973E-01	-0.499
		158.56	*	-1.438E-02	4.579E-02	7.467E-02	7.250E-03	-0.193
SB-122		563.90	*	7.176E-02	5.429E-01	8.797E-01	9.380E-02	0.082
		692.80		4.205E+00	1.118E+01	1.911E+01	2.105E+00	0.220
I-123		159.00	*	-6.098E-05	1.118E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		528.96		2.832E-02	1.118E+01	Half-Life too short		
TE-123M		159.00	*	-3.997E-03	3.298E-02	5.432E-02	5.274E-03	-0.074
I-124		602.71	*	8.418E-02	3.515E-01	5.704E-01	6.200E-02	0.148
		722.78		-2.750E+00	2.398E+00	3.617E+00	3.944E-01	-0.760
		1325.50		1.495E+00	1.490E+01	2.141E+01	1.741E+00	0.070
		1376.25		1.046E+01	1.274E+01	2.310E+01	1.890E+00	0.453
		1509.49		4.001E+00	6.772E+00	1.199E+01	9.947E-01	0.334
		1691.02		-1.414E-01	1.395E+00	2.259E+00	1.873E-01	-0.063
SB-124		602.71		1.563E-02	6.527E-02	1.059E-01	1.151E-02	0.148
		645.85		1.627E-01	7.970E-01	1.355E+00	1.551E-01	0.120
		709.31		-3.209E+00	4.332E+00	6.745E+00	7.391E-01	-0.476
		713.82		4.861E-01	2.678E+00	4.509E+00	6.220E-01	0.108
		722.78		-7.402E-01	6.456E-01	9.736E-01	1.076E-01	-0.760
	+	968.20		1.067E+01	8.415E+00	9.826E+00	9.153E-01	1.086
		1045.16		-3.131E+00	5.292E+00	8.498E+00	7.662E-01	-0.368
		1325.50		4.297E-01	4.282E+00	6.155E+00	5.005E-01	0.070
		1368.21		-1.539E-02	2.001E+00	3.261E+00	4.303E-01	-0.005
		1436.60		-2.781E-01	3.555E+00	5.663E+00	4.668E-01	-0.049
		1691.02	*	-8.976E-03	8.857E-02	1.434E-01	1.240E-02	-0.063
SB-125		427.89	*	3.394E-02	1.752E-01	2.913E-01	2.814E-02	0.116
		463.38		1.403E-01	5.802E-01	9.599E-01	1.005E-01	0.146
		600.56		2.091E-01	3.146E-01	5.265E-01	5.986E-02	0.397
		635.90		1.107E-01	4.765E-01	8.126E-01	9.390E-02	0.136
TE-125M		109.28	*	2.086E+00	8.282E+00	1.422E+01	1.887E+00	0.147
I-126		388.63		-4.885E-02	2.429E-01	3.985E-01	3.659E-02	-0.123
		666.33	*	8.900E-02	2.230E-01	3.382E-01	3.744E-02	0.263
		753.82		1.284E+00	1.959E+00	3.389E+00	3.644E-01	0.379
SB-126		223.80		7.105E-01	3.950E+00	6.436E+00	6.549E-01	0.110
		278.60		-1.760E-01	2.623E+00	4.142E+00	4.619E-01	-0.042
	+	296.50		6.526E+00	2.234E+00	2.767E+00	3.050E-01	2.358
		414.70		7.178E-03	9.481E-02	1.571E-01	1.470E-02	0.046
		415.30		-4.622E+00	7.991E+00	1.274E+01	1.193E+00	-0.363
		555.20		-7.223E-01	4.823E+00	7.660E+00	8.127E-01	-0.094
		573.80		8.434E-03	1.235E+00	1.980E+00	2.123E-01	0.004
		593.00		4.714E-01	1.127E+00	1.857E+00	2.009E-01	0.254
		656.30		-9.070E-02	4.547E+00	6.607E+00	7.309E-01	-0.014
		666.33		3.656E-02	9.158E-02	1.389E-01	1.538E-02	0.263
		675.00		-1.141E+00	2.277E+00	3.649E+00	4.034E-01	-0.313
		695.00		-6.743E-02	8.790E-02	1.371E-01	1.509E-02	-0.492
		697.00		1.793E-02	2.823E-01	4.723E-01	5.194E-02	0.038
		720.50	*	-1.129E-02	1.781E-01	2.948E-01	3.217E-02	-0.038
		856.80		1.509E-01	6.715E-01	1.114E+00	1.106E-01	0.135
		989.30		3.859E-01	1.907E+00	3.118E+00	2.883E-01	0.124
		1034.80		-1.984E+00	1.350E+01	2.242E+01	2.032E+00	-0.088
		1213.00		2.890E-01	3.603E+00	6.013E+00	4.947E-01	0.048
SB-127		61.10		9.820E+01	1.500E+01	2.080E+01	2.178E+00	4.721
		252.40		1.079E-01	1.725E+00	2.766E+00	1.164E+00	0.039
		290.80		-5.476E+00	8.906E+00	1.272E+01	1.480E+00	-0.431
		411.60		5.108E+00	6.087E+00	1.041E+01	1.552E+00	0.491

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		444.90		-6.014E+00	5.379E+00	8.192E+00	9.661E-01	-0.734
		473.00		-5.817E-02	8.980E-01	1.459E+00	1.804E-01	-0.040
		543.00		-2.858E+00	7.862E+00	1.226E+01	1.760E+00	-0.233
		603.60		-2.032E+00	6.070E+00	8.634E+00	1.102E+00	-0.235
		685.20	*	-5.716E-01	6.084E-01	9.316E-01	1.100E-01	-0.614
		698.50		2.856E-01	6.106E+00	1.020E+01	1.643E+00	0.028
		722.20		-1.743E+01	1.484E+01	2.235E+01	2.565E+00	-0.780
		783.80		-1.845E-01	1.752E+00	2.862E+00	3.551E-01	-0.064
XE-127		57.60		7.119E+00	4.573E+00	6.957E+00	6.783E-01	1.023
		145.22		2.357E-01	7.045E-01	1.192E+00	1.314E-01	0.198
		172.10		-1.140E-02	1.296E-01	2.126E-01	1.925E-02	-0.054
		202.84	*	5.528E-02	5.394E-02	9.195E-02	8.956E-03	0.601
		374.96		-3.640E-02	2.863E-01	4.728E-01	4.527E-02	-0.077
I-131		80.18		-2.509E-01	2.172E+00	3.106E+00	3.225E-01	-0.081
		284.30		-2.455E-01	1.299E+00	2.032E+00	2.326E-01	-0.121
		364.48	*	9.671E-03	1.016E-01	1.704E-01	1.742E-02	0.057
		636.97		-3.645E-01	1.437E+00	2.366E+00	2.687E-01	-0.154
		722.89		-7.797E+00	7.056E+00	1.069E+01	1.167E+00	-0.729
TE-132	+	49.72		9.036E+00	3.411E+00	2.856E+00	2.882E-01	3.163
		111.76		9.676E-02	5.963E+00	1.012E+01	1.277E+00	0.010
		116.30		-3.389E+00	5.788E+00	9.502E+00	1.227E+00	-0.357
		228.16	*	9.910E-02	2.155E-01	3.545E-01	5.555E-02	0.279
BA-133		53.15		-6.800E-01	2.188E+00	3.208E+00	3.077E-01	-0.212
		79.62		-1.358E-01	1.188E+00	1.700E+00	2.765E-01	-0.080
		81.00		1.431E-02	8.802E-02	1.276E-01	2.159E-02	0.112
		276.40		8.399E-01	5.944E-01	9.932E-01	1.595E-01	0.846
		302.84		-1.447E-01	2.144E-01	3.483E-01	5.194E-02	-0.415
		356.01	*	-7.692E-03	7.860E-02	1.147E-01	1.626E-02	-0.067
		383.85		-2.613E-01	5.361E-01	8.641E-01	1.132E-01	-0.302
I-133	+	510.53		1.136E-03	5.361E-01	Half-Life too short		
		529.87	*	-6.427E-06	5.361E-01	Half-Life too short		
		706.58		1.009E-03	5.361E-01	Half-Life too short		
		856.28		-2.585E-04	5.361E-01	Half-Life too short		
		875.33		5.013E-06	5.361E-01	Half-Life too short		
		1236.41		1.980E-04	5.361E-01	Half-Life too short		
		1298.22		-3.442E-04	5.361E-01	Half-Life too short		
CS-134		475.35		-7.308E-01	3.848E+00	6.200E+00	6.192E-01	-0.118
		563.23		-9.123E-02	6.542E-01	1.039E+00	1.114E-01	-0.088
		569.32		1.014E-01	3.545E-01	5.804E-01	6.262E-02	0.175
		604.70		3.870E-03	6.670E-02	9.854E-02	1.074E-02	0.039
	+	795.84	*	1.349E-01	9.226E-02	1.623E-01	1.709E-02	0.831
		801.93		-1.020E-01	8.948E-01	1.384E+00	1.449E-01	-0.074
		1038.57		8.596E-01	8.987E+00	1.517E+01	1.372E+00	0.057
		1167.94		1.325E+00	5.082E+00	7.491E+00	6.195E-01	0.177
		1365.15		-4.889E-01	1.485E+00	2.268E+00	1.946E-01	-0.216
CS-135		268.24	*	-2.529E-01	2.519E-01	3.742E-01	4.517E-02	-0.676
I-135		288.45		9.084E+01	2.519E-01	Half-Life too short		
		417.63		5.778E+01	2.519E-01	Half-Life too short		
		546.56		-5.948E+01	2.519E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		836.80		2.406E+02	2.519E-01	Half-Life too short		
		1038.76		4.136E+01	2.519E-01	Half-Life too short		
		1124.00		-8.131E+02	2.519E-01	Half-Life too short		
		1131.51		-2.339E+00	2.519E-01	Half-Life too short		
		1260.41	*	-7.748E+00	2.519E-01	Half-Life too short		
		1457.56		2.538E+02	2.519E-01	Half-Life too short		
		1678.03		-4.855E+01	2.519E-01	Half-Life too short		
		1706.46		1.244E+02	2.519E-01	Half-Life too short		
		1791.20		-2.154E+01	2.519E-01	Half-Life too short		
CS-136		66.91		4.162E-01	3.260E-01	5.326E-01	8.628E-02	0.782
		86.29		2.034E+00	9.161E-01	1.370E+00	1.959E-01	1.484
		153.22		2.483E-01	5.294E-01	8.980E-01	9.983E-02	0.277
		163.89		-6.864E-01	9.345E-01	1.487E+00	1.504E-01	-0.462
		176.55		4.002E-02	3.181E-01	5.264E-01	5.064E-02	0.076
		273.65		-6.126E-01	4.969E-01	7.190E-01	8.280E-02	-0.852
		340.57		8.149E-02	1.434E-01	2.205E-01	2.334E-02	0.369
		818.51		-8.469E-03	1.089E-01	1.776E-01	1.829E-02	-0.048
		1048.07	*	8.458E-02	1.642E-01	2.844E-01	2.658E-02	0.297
		1235.34		8.197E-02	4.345E-01	7.338E-01	8.479E-02	0.112
CE-139		165.85	*	3.084E-02	3.570E-02	6.128E-02	5.464E-03	0.503
BA-140		162.64		3.735E-01	6.150E-01	1.046E+00	1.019E-01	0.357
		304.84		-1.120E+00	1.270E+00	1.974E+00	5.690E-01	-0.568
		423.70		-2.794E+00	2.572E+00	3.689E+00	1.204E+00	-0.757
		537.32	*	2.630E-01	3.292E-01	5.415E-01	1.824E-01	0.486
LA-140		328.77		3.095E-01	3.020E-01	5.314E-01	5.841E-02	0.582
		432.53		1.574E+00	2.691E+00	4.560E+00	4.532E-01	0.345
		487.03		8.331E-02	1.712E-01	2.870E-01	3.028E-02	0.290
		751.79		-9.108E-01	2.291E+00	3.675E+00	4.231E-01	-0.248
		815.85		-2.065E-01	4.463E-01	7.049E-01	7.866E-02	-0.293
		867.82		-1.445E+00	2.060E+00	3.170E+00	3.240E-01	-0.456
		919.63		-1.864E-01	4.762E+00	7.701E+00	8.716E-01	-0.024
		925.24		3.828E-01	1.986E+00	3.259E+00	3.234E-01	0.117
		1596.49	*	2.192E-02	7.947E-02	1.390E-01	1.156E-02	0.158
CE-141		145.44	*	1.360E-03	6.257E-02	1.044E-01	1.162E-02	0.013
CE-143		57.37		1.656E+01	1.983E+01	2.983E+01	3.220E+00	0.555
		231.56		-6.242E+01	8.678E+01	1.305E+02	4.185E+01	-0.478
		293.26	*	8.012E+00	5.062E+00	7.895E+00	1.777E+00	1.015
	+	350.59		4.400E+02	1.869E+02	1.545E+02	4.863E+01	2.847
		490.36		-2.800E+00	1.212E+02	1.967E+02	6.296E+01	-0.014
		664.57		5.883E+02	2.125E+02	1.756E+02	5.802E+01	3.349
		721.93		-5.165E+01	6.055E+01	9.107E+01	2.723E+01	-0.567
CE-144		80.11		-1.452E-01	1.879E+00	2.692E+00	2.792E-01	-0.054
		133.54	*	-1.840E-02	2.551E-01	3.824E-01	6.761E-02	-0.048
PM-144		476.78		6.038E-02	1.317E-01	2.204E-01	2.359E-02	0.274
		618.01		-5.908E-02	5.743E-02	8.606E-02	9.572E-03	-0.687
		696.49	*	-1.108E-03	5.586E-02	9.284E-02	1.021E-02	-0.012
		778.57		-7.463E-01	4.351E+00	7.073E+00	7.497E-01	-0.106
PR-144		696.49	*	-7.481E-02	3.770E+00	6.266E+00	6.893E-01	-0.012
		1489.15		-1.332E+00	1.817E+01	2.902E+01	2.404E+00	-0.046

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146		453.90	*	2.032E-02	8.874E-02	1.471E-01	1.717E-02	0.138
		633.02		-1.549E+00	2.605E+00	4.079E+00	1.550E+00	-0.380
		735.90		-5.031E-02	2.921E-01	4.772E-01	1.401E-01	-0.105
		747.13		-2.151E-01	1.809E-01	2.668E-01	4.126E-02	-0.806
ND-147	+	91.11		2.440E-01	2.118E-01	2.341E-01	2.687E-02	1.042
		319.41		1.742E+00	3.264E+00	5.644E+00	6.064E-01	0.309
		439.89		3.976E+00	7.224E+00	1.221E+01	1.176E+00	0.326
		531.02	*	-3.032E-02	6.654E-01	1.070E+00	1.720E-01	-0.028
PM-149		285.90	*	3.111E+00	1.413E+01	2.263E+01	3.855E+00	0.137
EU-152	+	121.78		6.859E-01	1.805E-01	2.227E-01	3.069E-02	3.080
		244.69		2.804E-01	5.313E-01	7.869E-01	8.323E-02	0.356
		344.27	*	-2.746E-03	1.545E-01	2.586E-01	2.778E-02	-0.011
		443.98		-1.236E+00	1.972E+00	3.114E+00	3.014E-01	-0.397
		778.89		-1.377E-01	5.052E-01	8.144E-01	8.630E-02	-0.169
		867.32		-1.404E+00	1.847E+00	2.828E+00	2.778E-01	-0.496
		964.01		3.706E-01	7.390E-01	1.079E+00	1.006E-01	0.344
		1085.78		6.817E-02	9.262E-01	1.554E+00	1.369E-01	0.044
		1112.02		2.308E-01	6.981E-01	1.189E+00	1.029E-01	0.194
		1407.95		-5.871E-02	2.030E-01	3.097E-01	2.544E-02	-0.190
GD-153		69.67		-4.939E-01	1.191E+00	1.693E+00	1.693E-01	-0.292
		83.37		-2.091E+00	1.435E+01	2.045E+01	2.151E+00	-0.102
		97.43	*	-2.325E-02	6.724E-02	1.130E-01	1.273E-02	-0.206
		103.18		-4.951E-02	9.202E-02	1.526E-01	1.772E-02	-0.324
EU-154	+	123.07		4.812E-01	1.294E-01	1.442E-01	2.135E-02	3.337
		247.94		-3.798E-01	5.571E-01	8.533E-01	1.114E-01	-0.445
		591.81		-4.955E-01	1.155E+00	1.778E+00	2.379E-01	-0.279
		723.30		-2.857E-01	3.335E-01	5.166E-01	6.011E-02	-0.553
		756.87		1.501E+00	1.488E+00	2.614E+00	3.550E-01	0.574
		873.19		3.832E-01	7.251E-01	1.221E+00	1.596E-01	0.314
		996.32		2.877E-01	8.501E-01	1.400E+00	2.530E-01	0.205
		1004.76		-5.575E-01	5.197E-01	7.586E-01	9.154E-02	-0.735
		1274.45	*	-6.651E-02	1.273E-01	1.893E-01	2.080E-02	-0.351
EU-155	+	48.70		5.090E+00	1.914E+00	1.524E+00	1.451E-01	3.339
	+	60.01		4.292E+02	4.358E+01	2.056E+01	2.023E+00	20.878
	+	86.54		3.801E+00	4.493E-01	2.445E-01	2.627E-02	15.544
		105.31	*	2.769E-02	1.043E-01	1.796E-01	2.124E-02	0.154
TB-160	+	86.79		9.474E+00	1.114E+00	7.311E-01	7.810E-02	12.959
		197.04		1.859E-02	7.007E-01	1.142E+00	1.098E-01	0.016
		215.65		1.048E+00	9.502E-01	1.619E+00	1.621E-01	0.647
		298.57		-5.326E-02	1.721E-01	2.517E-01	2.769E-02	-0.212
		879.36	*	-9.493E-02	3.121E-01	4.971E-01	4.817E-02	-0.191
		962.29		-5.639E-01	1.259E+00	1.764E+00	1.646E-01	-0.320
		966.15		8.178E-01	4.779E-01	7.640E-01	7.122E-02	1.070
		1177.93		7.765E-01	5.876E-01	9.878E-01	8.131E-02	0.786
		1271.85		-1.960E-01	7.569E-01	1.193E+00	9.772E-02	-0.164
HO-166M		80.57		9.928E-02	2.409E-01	3.542E-01	3.680E-02	0.280
	+	184.41		4.018E-02	6.225E-02	7.569E-02	7.065E-03	0.531
		280.46		-9.852E-02	1.404E-01	2.126E-01	2.371E-02	-0.463
		410.95		3.873E-01	4.696E-01	8.063E-01	7.512E-02	0.480

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		711.68	*	-1.435E-02	1.048E-01	1.722E-01	1.886E-02	-0.083
		752.31		2.380E-01	5.335E-01	9.094E-01	9.786E-02	0.262
		810.29		-3.077E-02	1.206E-01	1.940E-01	2.011E-02	-0.159
TM-171		51.35		2.004E+01	1.462E+01	2.416E+01	2.308E+00	0.829
		52.39		-4.419E+00	9.015E+00	1.314E+01	1.258E+00	-0.336
	+	59.40		2.247E+03	2.281E+02	1.099E+02	1.080E+01	20.452
		66.72	*	1.364E+01	1.717E+01	2.802E+01	2.781E+00	0.487
LU-176	+	88.36		7.507E+00	8.826E-01	7.691E-01	8.278E-02	9.761
		201.83		3.090E-02	3.840E-02	6.488E-02	6.305E-03	0.476
		306.84	*	9.877E-03	3.709E-02	6.357E-02	6.936E-03	0.155
		401.10		-6.044E+00	1.199E+01	1.924E+01	1.770E+00	-0.314
LU-177		112.95		4.028E-01	7.613E-01	1.318E+00	1.615E-01	0.306
	+	208.36	*	9.027E-01	1.072E+00	1.271E+00	1.253E-01	0.710
LU-177M		52.97		-3.783E-01	9.462E-01	1.383E+00	1.326E-01	-0.273
		54.07		-1.175E-01	5.439E-01	7.993E-01	7.687E-02	-0.147
		61.30		5.077E+00	1.071E+00	1.679E+00	1.653E-01	3.024
	+	121.62		3.409E+00	8.812E-01	1.102E+00	1.416E-01	3.094
		147.16		-1.436E-01	7.081E-01	1.168E+00	1.265E-01	-0.123
		171.86		1.198E-01	5.737E-01	9.554E-01	8.644E-02	0.125
		218.09		1.011E-01	1.160E+00	1.886E+00	1.897E-01	0.054
		268.79		2.861E-01	1.222E+00	1.967E+00	2.163E-01	0.145
		319.02		9.279E-02	3.989E-01	6.803E-01	7.313E-02	0.136
		367.43		1.630E+00	1.465E+00	2.580E+00	2.522E-01	0.632
		413.65	*	-2.295E-01	3.320E-01	5.260E-01	4.917E-02	-0.436
HF-181		56.28		2.255E-01	6.496E-01	9.681E-01	9.385E-02	0.233
		57.53		5.976E-01	3.857E-01	5.872E-01	5.723E-02	1.018
		65.20		-1.111E+00	5.078E-01	7.102E-01	7.028E-02	-1.564
		133.02		6.797E-02	7.104E-02	1.128E-01	1.361E-02	0.603
	+	136.25		7.104E-01	6.946E-01	8.689E-01	1.025E-01	0.818
		345.85		8.666E-02	3.065E-01	4.619E-01	4.746E-02	0.188
		482.03	*	-3.484E-02	7.249E-02	1.142E-01	1.147E-02	-0.305
W-181		56.28		9.609E-02	2.755E-01	4.106E-01	3.980E-02	0.234
		57.53		2.521E-01	1.636E-01	2.490E-01	2.427E-02	1.012
		65.20	*	-4.677E-01	2.138E-01	2.990E-01	2.959E-02	-1.564
TA-182		67.75		8.276E-02	6.791E-02	1.120E-01	1.115E-02	0.739
		100.10		-3.796E-02	1.467E-01	2.470E-01	2.821E-02	-0.154
		152.43		3.954E-01	3.831E-01	6.642E-01	6.863E-02	0.595
		222.10		-3.085E-02	4.906E-01	7.901E-01	8.012E-02	-0.039
		1001.68		-5.649E-01	4.462E+00	7.103E+00	6.536E-01	-0.080
		1121.28		3.341E-01	2.723E-01	4.896E-01	4.207E-02	0.682
		1189.05		5.326E-02	4.108E-01	6.897E-01	5.677E-02	0.077
		1221.42	*	1.645E-01	2.238E-01	4.019E-01	3.305E-02	0.409
		1230.97		3.084E-01	5.122E-01	9.086E-01	7.468E-02	0.339
RE-183		57.98		1.766E+00	2.555E-01	3.362E-01	3.283E-02	5.252
	+	59.32		8.610E+00	8.742E-01	4.207E-01	4.135E-02	20.465
		67.20		1.647E-01	1.156E-01	1.919E-01	1.907E-02	0.858
		162.32	*	6.904E-02	1.243E-01	2.111E-01	1.965E-02	0.327
	+	208.81		1.639E+00	1.947E+00	2.322E+00	2.291E-01	0.706
		291.72		-1.271E+00	1.427E+00	1.989E+00	2.201E-01	-0.639

---- Non-Identified Nuclides ----

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RE-184		57.98		6.796E+00	9.836E-01	1.294E+00	1.264E-01	5.252
	+	59.32		3.312E+01	3.362E+00	1.618E+00	1.590E-01	20.465
		67.20		6.337E-01	4.447E-01	7.384E-01	7.338E-02	0.858
		161.27		-3.164E-01	4.334E-01	6.900E-01	6.500E-02	-0.459
		216.55		2.423E-01	3.599E-01	6.018E-01	6.035E-02	0.403
		252.85	*	6.250E-02	3.483E-01	5.623E-01	6.031E-02	0.111
		318.01		3.948E-02	6.776E-01	1.146E+00	1.233E-01	0.034
		792.07		1.086E+00	2.063E+00	3.104E+00	3.260E-01	0.350
		903.28		6.221E-02	2.586E+00	4.093E+00	3.874E-01	0.015
		920.93		-1.027E-02	1.141E+00	1.849E+00	1.745E-01	-0.006
OS-185	+	59.72		2.393E+01	2.430E+00	1.160E+00	1.142E-01	20.625
		61.14		9.029E-01	1.422E-01	2.084E-01	2.051E-02	4.334
		69.30		-9.017E-02	1.896E-01	2.932E-01	2.929E-02	-0.308
		592.07		-1.916E+00	4.465E+00	6.878E+00	7.440E-01	-0.279
		646.12	*	2.199E-03	6.896E-02	1.159E-01	1.278E-02	0.019
		717.42		1.042E+00	1.578E+00	2.737E+00	2.991E-01	0.381
		874.81		-1.464E-01	1.340E+00	2.167E+00	2.110E-01	-0.068
		880.27		1.872E-01	1.741E+00	2.856E+00	2.765E-01	0.066
RE-188		155.03	*	-6.660E-02	1.889E-01	3.080E-01	3.102E-02	-0.216
		477.96		9.651E-01	5.634E+00	9.275E+00	9.285E-01	0.104
		633.10		-2.968E+00	4.777E+00	7.652E+00	8.412E-01	-0.388
W-188		63.58		3.531E+01	2.692E+01	4.329E+01	4.273E+00	0.816
		227.08		-6.114E+00	1.822E+01	2.886E+01	2.956E+00	-0.212
		290.67	*	-4.919E+00	1.097E+01	1.590E+01	1.761E+00	-0.309
IR-192	+	295.96		7.094E-01	2.430E-01	3.162E-01	3.503E-02	2.244
		308.46		8.834E-02	1.351E-01	2.357E-01	2.575E-02	0.375
		316.51	*	-1.054E-02	4.979E-02	8.300E-02	8.965E-03	-0.127
		468.07		4.155E-02	1.299E-01	2.156E-01	2.256E-02	0.193
		604.41		1.099E-01	8.502E-01	1.264E+00	1.847E-01	0.087
		612.46		7.082E-01	1.266E+00	1.951E+00	2.332E-01	0.363
AU-195		65.12		-2.201E-01	1.002E-01	1.400E-01	1.386E-02	-1.572
		66.83		6.914E-02	5.554E-02	9.187E-02	9.122E-03	0.753
	+	75.70		7.436E-01	1.927E-01	2.957E-01	3.014E-02	2.515
		98.88	*	1.279E-02	1.914E-01	3.276E-01	3.718E-02	0.039
		129.76		1.467E+00	3.178E+00	5.439E+00	6.701E-01	0.270
TL-200		367.94	*	5.273E-01	6.318E+00	1.058E+01	1.033E+00	0.050
		579.30		3.742E+01	5.586E+01	8.354E+01	8.982E+00	0.448
		828.27		4.569E+01	9.352E+01	1.581E+02	1.614E+01	0.289
		1205.75		1.450E+01	2.463E+01	4.439E+01	3.653E+00	0.327
TL-201		68.90		-7.497E-02	5.689E-01	8.940E-01	8.920E-02	-0.084
		70.82		7.980E-02	3.549E-01	5.214E-01	5.230E-02	0.153
		80.30		2.910E-01	7.971E-01	1.169E+00	1.214E-01	0.249
	+	135.34		8.015E+00	7.838E+00	9.598E+00	1.140E+00	0.835
		167.43	*	-2.168E-01	1.548E+00	2.537E+00	2.269E-01	-0.085
TL-202		68.90		-2.443E-02	1.854E-01	2.913E-01	2.907E-02	-0.084
		70.82		2.593E-02	1.153E-01	1.694E-01	1.700E-02	0.153
		80.30		9.459E-02	2.591E-01	3.801E-01	3.945E-02	0.249
		439.56	*	5.125E-02	9.022E-02	1.526E-01	1.470E-02	0.336
HG-203		70.83		1.514E-01	6.849E-01	1.006E+00	1.462E-01	0.151

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		72.87		2.417E-01	3.806E-01	6.131E-01	8.711E-02	0.394
		82.60		-9.642E-01	8.970E-01	1.314E+00	1.969E-01	-0.734
		279.20	*	-2.855E-02	5.928E-02	9.117E-02	1.035E-02	-0.313
BI-207		72.80		6.415E-02	1.238E-01	1.990E-01	2.009E-02	0.322
	+	74.97		4.242E-01	1.099E-01	1.618E-01	1.645E-02	2.622
		84.90		1.894E-01	1.899E-01	2.852E-01	3.021E-02	0.664
		569.67		9.143E-03	5.516E-02	8.953E-02	9.577E-03	0.102
		1063.62	*	9.369E-03	1.183E-01	1.991E-01	1.777E-02	0.047
		1770.23		-3.405E-01	9.199E-01	1.155E+00	9.512E-02	-0.295
TL-207		81.07		2.408E-02	1.944E-01	2.814E-01	2.930E-02	0.086
		83.78		6.481E-02	1.241E-01	1.829E-01	1.928E-02	0.354
		94.90		1.241E-01	2.052E-01	3.274E-01	3.640E-02	0.379
	+	122.32		1.635E+01	4.262E+00	5.294E+00	7.045E-01	3.089
		144.24		5.921E-01	8.154E-01	1.397E+00	1.665E-01	0.424
		154.21		1.383E-01	4.702E-01	7.915E-01	8.623E-02	0.175
		269.46		1.532E-01	2.964E-01	4.839E-01	5.394E-02	0.317
		323.87	*	-2.095E-01	1.048E+00	1.746E+00	3.280E-01	-0.120
	+	338.28		5.671E+00	2.596E+00	3.315E+00	4.520E-01	1.711
		445.03		-4.877E+00	4.817E+00	7.381E+00	9.502E-01	-0.661
PO-209		260.50		1.831E+00	1.489E+01	2.392E+01	2.597E+00	0.077
		262.80		3.912E+00	4.196E+01	6.721E+01	7.323E+00	0.058
		896.60	*	4.087E+00	1.854E+01	3.059E+01	2.902E+00	0.134
PB-211		404.84	*	6.584E-01	1.704E+00	2.795E+00	1.754E+00	0.236
		427.08		-1.543E-01	3.884E+00	6.374E+00	3.969E+00	-0.024
		831.96		-2.887E-01	2.786E+00	4.520E+00	2.843E+00	-0.064
BI-212		727.18	*	5.567E-01	5.695E-01	9.987E-01	1.200E-01	0.557
		785.46		3.651E+00	3.248E+00	5.740E+00	6.057E-01	0.636
		1620.62		1.257E-01	1.720E+00	2.907E+00	2.416E-01	0.043
PO-215		81.07		2.408E-02	1.944E-01	2.814E-01	2.930E-02	0.086
		83.78		6.481E-02	1.241E-01	1.829E-01	1.928E-02	0.354
		94.90		1.241E-01	2.052E-01	3.274E-01	3.640E-02	0.379
	+	122.32		1.635E+01	4.262E+00	5.294E+00	7.045E-01	3.089
		144.24		5.921E-01	8.154E-01	1.397E+00	1.665E-01	0.424
		154.21		1.383E-01	4.702E-01	7.915E-01	8.623E-02	0.175
		269.46		1.532E-01	2.964E-01	4.839E-01	5.394E-02	0.317
		323.87	*	-2.095E-01	1.048E+00	1.746E+00	3.280E-01	-0.120
	+	338.28		5.671E+00	2.596E+00	3.315E+00	4.520E-01	1.711
		445.03		-4.877E+00	4.817E+00	7.381E+00	9.502E-01	-0.661
RN-219		271.23		4.872E-01	3.817E-01	6.374E-01	7.904E-02	0.764
		401.81	*	-6.478E-02	7.348E-01	1.209E+00	1.859E-01	-0.054
RN-220		549.76	*	-1.545E+01	5.112E+01	8.040E+01	8.501E+00	-0.192
RA-223		81.07		2.408E-02	1.944E-01	2.814E-01	2.930E-02	0.086
		83.78		6.481E-02	1.241E-01	1.829E-01	1.928E-02	0.354
		94.90		1.241E-01	2.052E-01	3.274E-01	3.640E-02	0.379
	+	122.32		1.635E+01	4.262E+00	5.294E+00	7.045E-01	3.089
		144.24		5.921E-01	8.154E-01	1.397E+00	1.665E-01	0.424
		154.21		1.383E-01	4.702E-01	7.915E-01	8.623E-02	0.175
		269.46		1.532E-01	2.964E-01	4.839E-01	5.394E-02	0.317
		323.87	*	-2.095E-01	1.048E+00	1.746E+00	3.280E-01	-0.120

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		5.671E+00	2.596E+00	3.315E+00	4.520E-01	1.711
		445.03		-4.877E+00	4.817E+00	7.381E+00	9.502E-01	-0.661
AC-227		79.80		1.347E-01	1.482E+00	2.143E+00	4.770E-01	0.063
		236.00		2.980E-01	3.483E-01	5.258E-01	7.133E-02	0.567
		256.20	*	4.624E-01	5.930E-01	9.806E-01	1.634E-01	0.472
		286.10		4.997E-01	2.503E+00	4.004E+00	5.986E-01	0.125
		299.80		3.112E+00	2.336E+00	3.713E+00	6.969E-01	0.838
		304.40		-4.277E+00	2.891E+00	4.286E+00	8.412E-01	-0.998
		334.20		1.015E+00	4.032E+00	6.073E+00	1.234E+00	0.167
TH-227		79.80		1.347E-01	1.482E+00	2.143E+00	4.827E-01	0.063
	+	94.00		3.876E+00	2.688E+00	3.090E+00	7.063E-01	1.254
		236.00		2.980E-01	3.479E-01	5.258E-01	6.585E-02	0.567
		256.20	*	4.624E-01	5.946E-01	9.806E-01	1.882E-01	0.472
		286.10		4.997E-01	2.551E+00	4.004E+00	4.029E+00	0.125
		299.80		3.112E+00	2.336E+00	3.713E+00	6.969E-01	0.838
		304.40		-4.277E+00	2.891E+00	4.286E+00	8.412E-01	-0.998
		334.20		1.015E+00	4.032E+00	6.073E+00	1.234E+00	0.167
TH-229		85.43		1.457E-01	1.893E-01	2.815E-01	2.989E-02	0.518
	+	88.47		4.321E+00	5.081E-01	4.403E-01	4.741E-02	9.815
		100.00		-3.400E-02	1.595E-01	2.693E-01	3.074E-02	-0.126
		193.63	*	2.542E-01	6.808E-01	1.132E+00	1.080E-01	0.225
		210.97		8.094E-01	1.156E+00	1.749E+00	1.733E-01	0.463
PA-231		283.67	*	-3.742E-01	2.527E+00	3.963E+00	6.633E-01	-0.094
		301.29		9.260E-01	8.467E-01	1.493E+00	2.091E-01	0.620
TH-231		81.07		2.408E-02	1.944E-01	2.814E-01	2.930E-02	0.086
		83.78		6.481E-02	1.241E-01	1.829E-01	1.928E-02	0.354
		94.90		1.241E-01	2.052E-01	3.274E-01	3.640E-02	0.379
	+	122.32		1.635E+01	4.262E+00	5.294E+00	7.045E-01	3.089
		144.24		5.921E-01	8.154E-01	1.397E+00	1.665E-01	0.424
		154.21		1.383E-01	4.702E-01	7.915E-01	8.623E-02	0.175
		269.46		1.532E-01	2.964E-01	4.839E-01	5.394E-02	0.317
		323.87	*	-2.095E-01	1.048E+00	1.746E+00	3.280E-01	-0.120
	+	338.28		5.671E+00	2.596E+00	3.315E+00	4.520E-01	1.711
		445.03		-4.877E+00	4.817E+00	7.381E+00	9.502E-01	-0.661
U-231		84.21		1.798E+00	1.527E+00	2.312E+00	2.441E-01	0.778
	+	92.29		1.105E+00	7.340E-01	9.419E-01	1.033E-01	1.173
		95.87	*	1.478E-01	2.804E-01	4.459E-01	4.981E-02	0.331
		108.00		1.050E-01	5.779E-01	9.903E-01	1.180E-01	0.106
PA-233	+	75.28		1.238E+01	3.574E+00	4.701E+00	7.650E-01	2.635
	+	86.59		6.196E+01	1.734E+01	4.148E+00	1.143E+00	14.939
		300.12		8.896E-01	6.490E-01	1.040E+00	1.701E-01	0.856
		311.98	*	1.236E-02	9.696E-02	1.648E-01	1.820E-02	0.075
		340.50		6.700E-01	1.049E+00	1.605E+00	3.936E-01	0.417
		398.62		4.704E-01	3.788E+00	6.309E+00	1.692E+00	0.075
		415.76		-1.494E+00	3.160E+00	5.045E+00	1.103E+00	-0.296
PA-234		63.00		6.011E-01	8.402E-01	1.317E+00	2.136E-01	0.457
		94.67		8.571E-02	1.510E-01	2.400E-01	3.418E-02	0.357
		98.44		2.316E-02	8.055E-02	1.375E-01	7.736E-02	0.168
		99.86		-6.148E-02	4.047E-01	6.853E-01	7.816E-02	-0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-1.202E-01	1.885E-01	3.093E-01	4.573E-02	-0.389
		131.20		-1.294E-01	1.227E-01	1.943E-01	2.372E-02	-0.666
		152.70		3.181E-01	3.916E-01	6.687E-01	1.201E-01	0.476
	+	186.00		1.446E+00	2.283E+00	2.971E+00	9.338E-01	0.487
		226.40		-3.467E-01	6.229E-01	9.731E-01	1.392E-01	-0.356
		227.20		-3.293E-01	6.705E-01	1.053E+00	1.079E-01	-0.313
		248.90		1.937E-01	1.232E+00	1.988E+00	4.626E-01	0.097
		293.70		3.541E+00	1.329E+00	2.049E+00	3.818E-01	1.728
		369.80		-5.351E-01	1.426E+00	2.316E+00	5.148E-01	-0.231
		568.70		9.640E-01	1.821E+00	3.031E+00	3.240E-01	0.318
		569.50		1.104E-01	4.917E-01	8.016E-01	8.574E-02	0.138
		574.00		-1.974E-02	2.700E+00	4.322E+00	4.634E-01	-0.005
		699.00		-3.940E-01	1.142E+00	1.842E+00	3.732E-01	-0.214
		706.10		1.186E+00	1.810E+00	3.028E+00	1.366E+00	0.392
		733.00		-2.465E-01	7.363E-01	1.187E+00	2.749E-01	-0.208
		742.81		7.107E-01	2.641E+00	4.385E+00	2.961E+00	0.162
	+	796.30		2.639E+00	1.928E+00	3.266E+00	9.046E-01	0.808
		805.60		-4.570E-01	2.189E+00	3.536E+00	1.103E+00	-0.129
		819.60		3.300E-02	2.670E+00	4.382E+00	1.684E+00	0.008
		826.30		-1.899E+00	2.091E+00	2.904E+00	1.309E+00	-0.654
		831.60		8.939E-02	1.455E+00	2.391E+00	7.253E-01	0.037
		876.40		-7.151E-01	2.185E+00	3.272E+00	3.367E+00	-0.219
		880.51		4.095E-02	6.667E-01	1.090E+00	1.055E-01	0.038
		883.24		1.731E-01	6.945E-01	1.134E+00	7.642E-01	0.153
		899.00		1.663E-01	2.156E+00	3.520E+00	1.545E+00	0.047
		925.00		1.140E+00	3.098E+00	5.140E+00	4.844E-01	0.222
		926.50		5.081E-02	4.614E-01	7.528E-01	1.924E-01	0.068
		946.00	*	-5.964E-01	8.640E-01	1.324E+00	2.532E-01	-0.451
		949.00		-1.359E-01	1.222E+00	1.962E+00	1.838E-01	-0.069
		980.50		1.419E+00	1.748E+00	2.977E+00	2.762E-01	0.477
		1394.10		-1.168E+00	1.648E+00	1.985E+00	1.291E+00	-0.589
PA-234M		766.42		2.660E+01	2.519E+01	3.801E+01	1.943E+01	0.700
		1001.03	*	1.318E+00	1.060E+01	1.721E+01	1.802E+00	0.077
TH-234		63.29	*	8.857E-01	7.323E-01	1.153E+00	2.147E-01	0.768
	+	92.38		1.003E+00	6.850E-01	8.611E-01	1.663E-01	1.165
U-235	+	89.95		1.563E+00	1.432E+00	1.760E+00	5.555E-01	0.888
	+	93.35		1.206E+00	8.630E-01	1.053E+00	3.039E-01	1.145
		105.00		7.800E-01	1.024E+00	1.754E+00	5.418E-01	0.445
		143.76	*	1.695E-01	2.498E-01	4.255E-01	8.034E-02	0.398
		163.35		-2.401E-01	6.025E-01	9.746E-01	1.885E-01	-0.246
	+	185.71		5.357E-02	8.300E-02	1.094E-01	1.024E-02	0.490
		205.31		-5.951E-01	7.921E-01	1.075E+00	2.110E-01	-0.554
NP-236		94.67		6.612E-02	1.144E-01	1.822E-01	2.023E-02	0.363
		98.44		1.751E-02	6.013E-02	1.039E-01	1.177E-02	0.169
		111.00		-9.095E-02	1.423E-01	2.340E-01	2.835E-02	-0.389
		160.31	*	-2.124E-02	9.562E-02	1.565E-01	1.491E-02	-0.136
NP-237		86.50	*	2.085E+00	5.848E-01	5.779E-01	1.342E-01	3.608
		95.87		4.517E-01	8.632E-01	1.363E+00	3.494E-01	0.331
U-238		63.29	*	8.857E-01	7.323E-01	1.153E+00	2.147E-01	0.768

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		1.003E+00	6.661E-01	8.611E-01	9.451E-02	1.165
NP-239		99.55		4.122E-02	1.340E-01	2.317E-01	2.639E-02	0.178
		117.00	*	-6.994E-02	1.961E-01	3.258E-01	4.082E-02	-0.215
	+	209.75		1.393E+00	1.655E+00	1.986E+00	1.963E-01	0.702
		228.18		1.653E-01	3.494E-01	5.758E-01	5.910E-02	0.287
		277.60		1.880E-01	2.934E-01	4.807E-01	5.353E-02	0.391
		334.30		6.808E-01	2.288E+00	3.461E+00	3.633E-01	0.197
CM-243		99.55		4.239E-02	1.378E-01	2.383E-01	2.714E-02	0.178
		103.76	*	4.869E-02	9.012E-02	1.570E-01	1.829E-02	0.310
		117.00		-7.192E-02	2.017E-01	3.351E-01	4.198E-02	-0.215
	+	209.75		1.373E+00	1.631E+00	1.956E+00	1.934E-01	0.702
		228.18		1.670E-01	3.528E-01	5.816E-01	5.968E-02	0.287
		277.60		1.895E-01	2.956E-01	4.844E-01	5.394E-02	0.391
AM-246		798.80		-1.819E-01	3.464E-01	4.658E-01	4.869E-02	-0.390
		1036.00		-2.506E-01	6.910E-01	1.129E+00	1.023E-01	-0.222
		1062.04		1.450E-01	5.016E-01	8.563E-01	7.649E-02	0.169
		1078.86	*	-5.303E-03	3.184E-01	5.314E-01	4.700E-02	-0.010
CM-247		278.00		7.203E-01	1.208E+00	1.975E+00	2.201E-01	0.365
		287.40		1.471E+00	1.934E+00	3.191E+00	3.543E-01	0.461
		402.60	*	1.746E-03	6.594E-02	1.092E-01	1.007E-02	0.016
CF-249		252.85		2.419E-01	1.348E+00	2.176E+00	2.334E-01	0.111
		333.44		8.797E-02	2.916E-01	4.415E-01	4.642E-02	0.199
		387.95	*	1.063E-02	7.042E-02	1.179E-01	1.085E-02	0.090
CF-251		176.60	*	2.052E-02	1.631E-01	2.698E-01	2.471E-02	0.076
		227.00		-1.932E-01	5.896E-01	9.344E-01	9.567E-02	-0.207
		285.00		5.204E-02	2.898E+00	4.589E+00	5.104E-01	0.011

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032722    *
* Acquisition date : 12-FEB-2010 14:39:09 Detector SN#     :               *
* Detector ID        : GAM25               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 01:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 01:00:01.96     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        :  5-FEB-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202032722          Analyst initials: MXR1          *
* Batch Number       : 948812               Sample Quantity : 1.5544E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope      :                *
* LCS DPM          :    0.000             LCS Isotope      :                *
* LCSD DPM         :    0.000             LCSD Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.054E+00	8.215E-01	8.547E-01	0.000E+00
CO-57	2.320E-01	5.879E-02	5.072E-02	0.000E+00
CO-60	6.572E+00	6.162E-01	9.566E-02	0.000E+00
CD-109	3.184E+01	3.669E+00	1.210E+00	0.000E+00
SN-126	3.165E+00	3.647E-01	1.200E-01	0.000E+00
BA-137M	5.726E+00	6.752E-01	1.039E-01	0.000E+00
CS-137	6.053E+00	7.144E-01	1.099E-01	0.000E+00
TL-208	3.004E-01	1.321E-01	1.100E-01	0.000E+00
BI-210	5.018E-01	8.968E-01	1.489E+00	0.000E+00
PB-210	5.018E-01	8.968E-01	1.489E+00	0.000E+00
PO-210	5.018E-01	8.966E-01	1.489E+00	0.000E+00
BI-211	2.468E+00	7.354E-01	5.543E-01	0.000E+00
PB-212	1.080E+00	1.742E-01	1.407E-01	0.000E+00
PO-212	1.080E+00	1.742E-01	1.407E-01	0.000E+00
BI-214	7.677E-01	2.552E-01	2.211E-01	0.000E+00
PB-214	8.584E-01	2.595E-01	1.933E-01	0.000E+00
PO-214	8.584E-01	2.595E-01	1.933E-01	0.000E+00
PO-216	1.080E+00	1.742E-01	1.407E-01	0.000E+00
PO-218	8.584E-01	2.595E-01	1.933E-01	0.000E+00
RA-224	2.975E+00	1.781E+00	1.602E+00	0.000E+00
RA-226	7.677E-01	2.552E-01	2.211E-01	0.000E+00
AC-228	1.244E+00	5.307E-01	5.384E-01	0.000E+00
RA-228	1.244E+00	5.307E-01	5.384E-01	0.000E+00
TH-228	1.088E+00	1.756E-01	1.417E-01	0.000E+00
TH-230	7.676E-01	2.552E-01	2.211E-01	0.000E+00
TH-232	1.244E+00	5.307E-01	5.384E-01	0.000E+00
U-234	7.676E-01	2.552E-01	2.211E-01	0.000E+00
AM-241	1.323E+01	1.386E+00	1.825E-01	0.000E+00
AM-243	2.364E-01	6.005E-02	6.913E-02	0.000E+00
ANH-511	4.598E-02	9.485E-02	8.470E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	2.650E-01	5.566E-01	9.890E-01	0.000E+00	NOT IDENT.
NA-22	-3.903E-03	4.108E-02	6.856E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.200E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.915E-02	4.971E-02	9.007E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.203E-02	6.106E-02	0.000E+00	FAIL ABUN
SC-46	-1.311E-02	8.835E-02	1.484E-01	0.000E+00	NOT IDENT.
V-48	3.575E-02	1.262E-01	2.156E-01	0.000E+00	NOT IDENT.
CR-51	1.953E-01	4.781E-01	8.811E-01	0.000E+00	NOT IDENT.
MN-52	-1.691E-02	1.017E-01	1.639E-01	0.000E+00	FAIL ABUN
MN-54	-8.847E-03	7.960E-02	1.352E-01	0.000E+00	NOT IDENT.
CO-56	7.888E-02	8.222E-02	1.489E-01	0.000E+00	NOT IDENT.
CO-58	-1.472E-02	7.451E-02	1.261E-01	0.000E+00	NOT IDENT.
FE-59	1.122E-01	1.764E-01	3.178E-01	0.000E+00	NOT IDENT.
ZN-65	-2.244E-01	1.950E-01	3.090E-01	0.000E+00	NOT IDENT.
GE-68	-3.820E-01	2.657E+00	4.561E+00	0.000E+00	NOT IDENT.
AS-73	-5.804E-02	4.749E-01	7.856E-01	0.000E+00	NOT IDENT.
AS-74	-9.898E-02	1.245E-01	1.956E-01	0.000E+00	NOT IDENT.
SE-75	-7.812E-03	6.549E-02	1.116E-01	0.000E+00	FAIL ABUN
BR-77	-1.562E-01	2.318E+00	3.950E+00	0.000E+00	FAIL ABUN
SR-82	5.190E-02	5.768E-01	1.002E+00	0.000E+00	NOT IDENT.
RB-83	1.461E-02	1.293E-01	2.230E-01	0.000E+00	NOT IDENT.
RB-84	-2.125E-02	1.397E-01	2.348E-01	0.000E+00	NOT IDENT.
KR-85	1.425E+00	1.381E+01	2.088E+01	0.000E+00	NOT IDENT.
SR-85	6.752E-03	6.540E-02	9.893E-02	0.000E+00	NOT IDENT.
RB-86	-2.499E-01	1.271E+00	2.174E+00	0.000E+00	NOT IDENT.
Y-88	1.214E-02	6.019E-02	1.049E-01	0.000E+00	NOT IDENT.
ZR-88	-1.944E-02	5.028E-02	8.691E-02	0.000E+00	NOT IDENT.
Y-91	5.448E+00	2.045E+01	3.680E+01	0.000E+00	NOT IDENT.
NB-94	-3.017E-02	5.506E-02	9.193E-02	0.000E+00	NOT IDENT.
NB-95	8.719E-02	7.137E-02	1.328E-01	0.000E+00	NOT IDENT.
NB-95M	1.205E-01	1.684E-01	2.731E-01	0.000E+00	NOT IDENT.
ZR-95	3.855E-02	1.238E-01	2.198E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.396E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.005E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.907E+00	3.398E+00	5.637E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	4.450E+07	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.428E-03	4.329E-02	7.671E-02	0.000E+00	NOT IDENT.
RH-102	-1.612E-02	5.854E-02	9.962E-02	0.000E+00	NOT IDENT.
RU-103	1.393E-02	6.456E-02	1.127E-01	0.000E+00	FAIL ABUN
RH-106	-3.067E-02	5.093E-01	8.985E-01	0.000E+00	FAIL ABUN
RU-106	-3.067E-02	5.093E-01	8.985E-01	0.000E+00	FAIL ABUN
AG-108M	2.300E-02	6.445E-02	1.148E-01	0.000E+00	NOT IDENT.
AG-110M	7.642E-02	7.663E-02	1.269E-01	0.000E+00	NOT IDENT.
IN-111	1.037E-01	2.686E-01	4.252E-01	0.000E+00	NOT IDENT.
IN-113M	2.802E-02	7.228E-02	1.305E-01	0.000E+00	NOT IDENT.
SN-113	2.802E-02	7.228E-02	1.305E-01	0.000E+00	NOT IDENT.
IN-114M	2.777E-02	2.484E-01	3.971E-01	0.000E+00	NOT IDENT.
CD-115	-6.700E-01	2.020E+00	3.373E+00	0.000E+00	NOT IDENT.
SN-117M	-1.438E-02	4.487E-02	7.990E-02	0.000E+00	NOT IDENT.
SB-122	7.176E-02	5.320E-01	9.108E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.932E+02	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.997E-03	3.232E-02	5.811E-02	0.000E+00	NOT IDENT.
I-124	8.418E-02	3.445E-01	5.895E-01	0.000E+00	NOT IDENT.
SB-124	-8.976E-03	8.680E-02	1.441E-01	0.000E+00	FAIL ABUN
SB-125	3.394E-02	1.717E-01	3.038E-01	0.000E+00	NOT IDENT.
TE-125M	2.086E+00	8.116E+00	1.536E+01	0.000E+00	NOT IDENT.
I-126	8.900E-02	2.185E-01	3.486E-01	0.000E+00	NOT IDENT.
SB-126	-1.129E-02	1.745E-01	3.032E-01	0.000E+00	FAIL ABUN
SB-127	-5.716E-01	5.963E-01	9.595E-01	0.000E+00	NOT IDENT.
XE-127	5.528E-02	5.286E-02	9.778E-02	0.000E+00	NOT IDENT.
I-131	9.671E-03	9.958E-02	1.784E-01	0.000E+00	NOT IDENT.
TE-132	9.910E-02	2.112E-01	3.759E-01	0.000E+00	FAIL ABUN
BA-133	-7.692E-03	7.702E-02	1.202E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.709E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.349E-01	9.042E-02	1.665E-01	0.000E+00	FAIL ABUN
CS-135	-2.529E-01	2.468E-01	3.951E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.030E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.458E-02	1.609E-01	2.895E-01	0.000E+00	NOT IDENT.
CE-139	3.084E-02	3.498E-02	6.549E-02	0.000E+00	NOT IDENT.
BA-140	2.630E-01	3.226E-01	5.614E-01	0.000E+00	NOT IDENT.
LA-140	2.192E-02	7.788E-02	1.398E-01	0.000E+00	NOT IDENT.
CE-141	1.360E-03	6.132E-02	1.120E-01	0.000E+00	NOT IDENT.
CE-143	8.012E+00	4.961E+00	8.317E+00	0.000E+00	FAIL ABUN
CE-144	-1.840E-02	2.500E-01	4.110E-01	0.000E+00	NOT IDENT.
PM-144	-1.108E-03	5.474E-02	9.558E-02	0.000E+00	NOT IDENT.

PR-144	-7.481E-02	3.695E+00	6.451E+00	0.000E+00	NOT IDENT.
PM-146	2.032E-02	8.697E-02	1.532E-01	0.000E+00	NOT IDENT.
ND-147	-3.032E-02	6.521E-01	1.110E+00	0.000E+00	FAIL ABUN
PM-149	3.111E+00	1.385E+01	2.385E+01	0.000E+00	NOT IDENT.
EU-152	-2.746E-03	1.514E-01	2.713E-01	0.000E+00	FAIL ABUN
GD-153	-2.325E-02	6.590E-02	1.224E-01	0.000E+00	NOT IDENT.
EU-154	-6.651E-02	1.248E-01	1.916E-01	0.000E+00	FAIL ABUN
EU-155	2.769E-02	1.022E-01	1.942E-01	0.000E+00	FAIL ABUN
TB-160	-9.493E-02	3.058E-01	5.085E-01	0.000E+00	FAIL ABUN
HO-166M	-1.435E-02	1.027E-01	1.772E-01	0.000E+00	FAIL ABUN
TM-171	1.364E+01	1.683E+01	3.063E+01	0.000E+00	FAIL ABUN
LU-176	9.877E-03	3.635E-02	6.688E-02	0.000E+00	FAIL ABUN
LU-177	9.027E-01	1.051E+00	1.350E+00	0.000E+00	FAIL ABUN
LU-177M	-2.295E-01	3.254E-01	5.491E-01	0.000E+00	FAIL ABUN
HF-181	-3.484E-02	7.104E-02	1.187E-01	0.000E+00	FAIL ABUN
W-181	-4.677E-01	2.095E-01	3.270E-01	0.000E+00	NOT IDENT.
TA-182	1.645E-01	2.194E-01	4.073E-01	0.000E+00	NOT IDENT.
RE-183	6.904E-02	1.219E-01	2.258E-01	0.000E+00	FAIL ABUN
RE-184	6.250E-02	3.413E-01	5.946E-01	0.000E+00	FAIL ABUN
OS-185	2.199E-03	6.758E-02	1.195E-01	0.000E+00	FAIL ABUN
RE-188	-6.660E-02	1.852E-01	3.297E-01	0.000E+00	NOT IDENT.
W-188	-4.919E+00	1.076E+01	1.675E+01	0.000E+00	NOT IDENT.
IR-192	-1.054E-02	4.879E-02	8.725E-02	0.000E+00	FAIL ABUN
AU-195	1.279E-02	1.876E-01	3.547E-01	0.000E+00	FAIL ABUN
TL-200	5.273E-01	6.192E+00	1.108E+01	0.000E+00	NOT IDENT.
TL-201	-2.168E-01	1.517E+00	2.711E+00	0.000E+00	FAIL ABUN
TL-202	5.125E-02	8.841E-02	1.590E-01	0.000E+00	NOT IDENT.
HG-203	-2.855E-02	5.810E-02	9.616E-02	0.000E+00	NOT IDENT.
BI-207	9.369E-03	1.160E-01	2.026E-01	0.000E+00	FAIL ABUN
TL-207	-2.095E-01	1.028E+00	1.834E+00	0.000E+00	FAIL ABUN
PO-209	4.087E+00	1.817E+01	3.127E+01	0.000E+00	NOT IDENT.
PB-211	6.584E-01	1.670E+00	2.919E+00	0.000E+00	NOT IDENT.
BI-212	5.567E-01	5.581E-01	1.027E+00	0.000E+00	NOT IDENT.
PO-215	-2.095E-01	1.028E+00	1.834E+00	0.000E+00	FAIL ABUN
RN-219	-6.478E-02	7.201E-01	1.263E+00	0.000E+00	NOT IDENT.
RN-220	-1.545E+01	5.010E+01	8.329E+01	0.000E+00	NOT IDENT.
RA-223	-2.095E-01	1.028E+00	1.834E+00	0.000E+00	FAIL ABUN
AC-227	4.624E-01	5.811E-01	1.037E+00	0.000E+00	NOT IDENT.
TH-227	4.624E-01	5.827E-01	1.037E+00	0.000E+00	FAIL ABUN
TH-229	2.542E-01	6.672E-01	1.205E+00	0.000E+00	FAIL ABUN
PA-231	-3.742E-01	2.476E+00	4.178E+00	0.000E+00	NOT IDENT.
TH-231	-2.095E-01	1.028E+00	1.834E+00	0.000E+00	FAIL ABUN
U-231	1.478E-01	2.747E-01	4.831E-01	0.000E+00	FAIL ABUN
PA-233	1.236E-02	9.502E-02	1.733E-01	0.000E+00	FAIL ABUN
PA-234	-5.964E-01	8.467E-01	1.351E+00	0.000E+00	FAIL ABUN
PA-234M	1.318E+00	1.039E+01	1.754E+01	0.000E+00	NOT IDENT.
TH-234	8.857E-01	7.176E-01	1.262E+00	0.000E+00	FAIL ABUN
U-235	1.695E-01	2.448E-01	4.564E-01	0.000E+00	FAIL ABUN
NP-236	-2.124E-02	9.371E-02	1.675E-01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	5.731E-01	6.277E-01	0.000E+00	NOT IDENT.
U-238	8.857E-01	7.176E-01	1.262E+00	0.000E+00	FAIL ABUN
NP-239	-6.994E-02	1.922E-01	3.513E-01	0.000E+00	FAIL ABUN
CM-243	4.869E-02	8.832E-02	1.698E-01	0.000E+00	FAIL ABUN
AM-246	-5.303E-03	3.121E-01	5.406E-01	0.000E+00	NOT IDENT.
CM-247	1.746E-03	6.462E-02	1.141E-01	0.000E+00	NOT IDENT.
CF-249	1.063E-02	6.902E-02	1.232E-01	0.000E+00	NOT IDENT.
CF-251	2.052E-02	1.598E-01	2.880E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:39:40.66

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032722.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 12-FEB-2010 14:39:09
Sample ID         : G1202032722          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM25                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.96  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948812               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	26	10.67*	1.109E+00	1.054E+00	1.054E+00	79.56
CO-57	122.06	333	85.51*	8.268E+00	2.276E-01	2.320E-01	25.85
	136.48	60	10.60	7.786E+00	3.526E-01	3.595E-01	97.85
CO-60	1173.22	1753	100.00	1.343E+00	6.307E+00	6.324E+00	9.87
	1332.49	1630	100.00*	1.201E+00	6.554E+00	6.572E+00	9.57
CD-109	88.03	2275	3.72*	9.382E+00	3.148E+01	3.184E+01	11.76
SN-126	64.28	------	9.60	9.782E+00	------ Line Not Found		------
	86.94	2275	8.90	9.382E+00	1.316E+01	1.316E+01	42.12
	87.57	2275	37.00*	9.382E+00	3.165E+00	3.165E+00	11.76
BA-137M	661.65	2379	89.98*	2.231E+00	5.724E+00	5.726E+00	12.03
CS-137	661.65	2379	85.12*	2.231E+00	6.050E+00	6.053E+00	12.04
TL-208	277.35	------	6.80	4.738E+00	------ Line Not Found		------
	510.84	27	21.60	2.806E+00	2.129E-01	2.129E-01	210.67
	583.14	131	84.20*	2.497E+00	3.004E-01	3.004E-01	44.89
	860.37	------	12.46	1.765E+00	------ Line Not Found		------
BI-210	46.50	39	4.05*	9.200E+00	5.015E-01	5.018E-01	182.35
PB-210	46.50	39	4.05*	9.200E+00	5.015E-01	5.018E-01	182.35
PO-210	46.50	39	4.05*	9.200E+00	5.015E-01	5.018E-01	182.31
BI-211	72.87	------	1.27	9.724E+00	------ Line Not Found		------
	351.07	257	12.94*	3.887E+00	2.468E+00	2.468E+00	30.41
PB-212	74.81	313	10.70	9.693E+00	1.458E+00	1.458E+00	27.55
	77.11	426	18.00	9.652E+00	1.185E+00	1.185E+00	19.61
	87.30	2275	8.00	9.382E+00	1.464E+01	1.464E+01	15.43
	238.63	532	44.60*	5.340E+00	1.080E+00	1.080E+00	16.47
	300.09	------	3.41	4.442E+00	------ Line Not Found		------
PO-212	74.81	313	10.70	9.693E+00	1.458E+00	1.458E+00	27.55
	77.11	426	18.00	9.652E+00	1.185E+00	1.185E+00	19.61
	87.30	2275	8.00	9.382E+00	1.464E+01	1.464E+01	15.43
	115.19	------	0.60	8.498E+00	------ Line Not Found		------
	238.63	532	44.60*	5.340E+00	1.080E+00	1.080E+00	16.47
	300.09	------	3.41	4.442E+00	------ Line Not Found		------
BI-214	609.31	177	46.30*	2.400E+00	7.676E-01	7.677E-01	33.93

Sample ID : G1202032722 Acquisition date : 12-FEB-2010 14:39:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	18	15.80	9.409E-01	5.874E-01	5.874E-01	82.26
PB-214	74.81	313	6.21	9.693E+00	2.513E+00	2.513E+00	26.95
	77.11	426	10.50	9.652E+00	2.032E+00	2.032E+00	21.04
	87.30	2275	4.67	9.382E+00	2.508E+01	2.508E+01	14.06
	241.98	129	7.49	5.292E+00	1.569E+00	1.569E+00	61.34
	295.21	179	19.20	4.502E+00	9.983E-01	9.983E-01	34.80
	351.92	257	37.20*	3.887E+00	8.584E-01	8.584E-01	30.85
PO-214	74.81	313	6.21	9.693E+00	2.513E+00	2.513E+00	26.95
	77.11	426	10.50	9.652E+00	2.032E+00	2.032E+00	21.04
	87.30	2275	4.67	9.382E+00	2.508E+01	2.508E+01	14.06
	241.98	129	7.49	5.292E+00	1.569E+00	1.569E+00	61.34
	295.21	179	19.20	4.502E+00	9.983E-01	9.983E-01	34.80
	351.92	257	37.20*	3.887E+00	8.584E-01	8.584E-01	30.85
PO-216	74.81	313	10.70	9.693E+00	1.458E+00	1.458E+00	27.55
	77.11	426	18.00	9.652E+00	1.185E+00	1.185E+00	19.61
	87.30	2275	8.00	9.382E+00	1.464E+01	1.464E+01	15.43
	238.63	532	44.60*	5.340E+00	1.080E+00	1.080E+00	16.47
	300.09	------	3.41	4.442E+00	------ Line Not Found		------
PO-218	74.81	313	6.21	9.693E+00	2.513E+00	2.513E+00	26.95
	77.11	426	10.50	9.652E+00	2.032E+00	2.032E+00	21.04
	87.30	2275	4.67	9.382E+00	2.508E+01	2.508E+01	14.06
	241.98	129	7.49	5.292E+00	1.569E+00	1.569E+00	61.34
	295.21	179	19.20	4.502E+00	9.983E-01	9.983E-01	34.80
	351.92	257	37.20*	3.887E+00	8.584E-01	8.584E-01	30.85
RA-224	240.98	129	3.95*	5.292E+00	2.975E+00	2.975E+00	61.08
RA-226	609.31	177	46.30*	2.400E+00	7.676E-01	7.677E-01	33.93
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	18	15.80	9.409E-01	5.874E-01	5.874E-01	82.26
AC-228	338.32	129	11.40	4.023E+00	1.358E+00	1.358E+00	60.39
	911.07	120	27.70*	1.678E+00	1.244E+00	1.244E+00	43.55
	969.11	62	16.60	1.588E+00	1.130E+00	1.130E+00	81.81
RA-228	338.32	129	11.40	4.023E+00	1.358E+00	1.358E+00	60.39
	911.07	120	27.70*	1.678E+00	1.244E+00	1.244E+00	43.55
	969.11	62	16.60	1.588E+00	1.130E+00	1.130E+00	81.81
TH-228	74.81	313	10.70	9.693E+00	1.458E+00	1.469E+00	25.94
	77.11	426	18.00	9.652E+00	1.185E+00	1.194E+00	19.61
	87.30	2275	8.00	9.382E+00	1.464E+01	1.475E+01	11.76
	238.63	532	44.60*	5.340E+00	1.080E+00	1.088E+00	16.47
	300.09	------	3.41	4.442E+00	------ Line Not Found		------
TH-230	609.31	177	46.30*	2.400E+00	7.676E-01	7.676E-01	33.93
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	18	15.80	9.409E-01	5.874E-01	5.874E-01	82.26
TH-232	338.32	129	11.40	4.023E+00	1.358E+00	1.358E+00	44.93
	911.07	120	27.70*	1.678E+00	1.244E+00	1.244E+00	43.55
	969.11	62	16.60	1.588E+00	1.130E+00	1.130E+00	81.81
U-234	609.31	177	46.30*	2.400E+00	7.676E-01	7.676E-01	33.93
	1120.29	------	15.10	1.398E+00	------ Line Not Found		------
	1764.49	18	15.80	9.409E-01	5.874E-01	5.874E-01	82.26

Sample ID : G1202032722 Acquisition date : 12-FEB-2010 14:39:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-241	59.54	9580	35.90*	9.741E+00	1.323E+01	1.323E+01	10.69
AM-243	74.67	313	66.00*	9.693E+00	2.364E-01	2.364E-01	25.92
	86.72	2275	0.34	9.382E+00	3.485E+02	3.485E+02	11.76
	117.66	------	0.55	8.415E+00	------	Line Not Found	------
	142.18	------	0.13	7.617E+00	------	Line Not Found	------
ANH-511	511.00	27	100.00*	2.806E+00	4.598E-02	4.598E-02	210.50

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G1202032722 Acquisition date : 12-FEB-2010 14:39:09

Total number of lines in spectrum 28
Number of unidentified lines 0
Number of lines tentatively identified by NID 28 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.054E+00	1.054E+00	0.838E+00	79.56	
CO-57	270.90D	1.02	2.276E-01	2.320E-01	0.600E-01	25.85	
CO-60	5.27Y	1.00	6.554E+00	6.572E+00	0.629E+00	9.57	
CD-109	464.00D	1.01	3.148E+01	3.184E+01	0.374E+01	11.76	
SN-126	1.00E+05Y	1.00	3.165E+00	3.165E+00	0.372E+00	11.76	
BA-137M	30.17Y	1.00	5.724E+00	5.726E+00	0.689E+00	12.03	
CS-137	30.17Y	1.00	6.050E+00	6.053E+00	0.729E+00	12.04	
TL-208	1.41E+10Y	1.00	3.004E-01	3.004E-01	1.348E-01	44.89	
BI-210	22.26Y	1.00	5.015E-01	5.018E-01	9.151E-01	182.35	
PB-210	22.26Y	1.00	5.015E-01	5.018E-01	9.151E-01	182.35	
PO-210	22.26Y	1.00	5.015E-01	5.018E-01	9.149E-01	182.31	
BI-211	7.04E+08Y	1.00	2.468E+00	2.468E+00	0.750E+00	30.41	
PB-212	1.41E+10Y	1.00	1.080E+00	1.080E+00	0.178E+00	16.47	
PO-212	1.41E+10Y	1.00	1.080E+00	1.080E+00	0.178E+00	16.47	
BI-214	1600.00Y	1.00	7.676E-01	7.677E-01	2.604E-01	33.93	
PB-214	1600.00Y	1.00	8.584E-01	8.584E-01	2.648E-01	30.85	
PO-214	1600.00Y	1.00	8.584E-01	8.584E-01	2.648E-01	30.85	
PO-216	1.41E+10Y	1.00	1.080E+00	1.080E+00	0.178E+00	16.47	
PO-218	1600.00Y	1.00	8.584E-01	8.584E-01	2.648E-01	30.85	
RA-224	1.41E+10Y	1.00	2.975E+00	2.975E+00	1.817E+00	61.08	
RA-226	1600.00Y	1.00	7.676E-01	7.677E-01	2.604E-01	33.93	
AC-228	1.41E+10Y	1.00	1.244E+00	1.244E+00	0.542E+00	43.55	
RA-228	1.41E+10Y	1.00	1.244E+00	1.244E+00	0.542E+00	43.55	
TH-228	1.91Y	1.01	1.080E+00	1.088E+00	0.179E+00	16.47	
TH-230	4.47E+09Y	1.00	7.676E-01	7.676E-01	2.604E-01	33.93	
TH-232	1.41E+10Y	1.00	1.244E+00	1.244E+00	0.542E+00	43.55	
U-234	4.47E+09Y	1.00	7.676E-01	7.676E-01	2.604E-01	33.93	
AM-241	432.20Y	1.00	1.323E+01	1.323E+01	0.141E+01	10.69	
AM-243	7380.00Y	1.00	2.364E-01	2.364E-01	0.613E-01	25.92	
ANH-511	1.00E+09Y	1.00	4.598E-02	4.598E-02	9.679E-02	210.50	
	Total Activity :		8.871E+01	8.911E+01			

Grand Total Activity : 8.871E+01 8.911E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032722 Acquisition date : 12-FEB-2010 14:39:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	49.63	454	1720	2.48	98.82	95	11	1.26E-01	36.4	9.40E+00	T
3	90.19	81	316	1.10	179.94	171	18	2.26E-02	86.0	9.32E+00	T
3	92.90	104	296	1.11	185.34	171	18	2.88E-02	65.5	9.24E+00	T
0	185.71	38	266	1.07	370.96	368	8	1.07E-02	****	6.42E+00	T
0	209.01	55	312	1.43	417.55	413	9	1.53E-02	****	5.90E+00	T
0	795.26	40	50	1.68	1590.01	1587	8	1.12E-02	67.6	1.89E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 12-FEB-2010 15:39:46.53

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032722.CNF;1   *
* Acquisition date : 12-FEB-2010 14:39:09  Detector SN#     :                 *
* Detector ID      : GAM25                 Sensitivity      : 5.00000         *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 01:00:01.96         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date      : 5-FEB-2010 00:00:00.  Nuclide Library : SOLID            *
* Sample ID        : G1202032722           Analyst initials: MXR1             *
* Batch Number     : 948812                Sample Quantity : 1.55440E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 7-OCT-2009 09:38:43.34MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.054E+00	8.383E-01	8.475E-01	7.217E-02	1.243
CO-57	2.320E-01	5.999E-02	4.709E-02	6.073E-03	4.928
CO-60	6.572E+00	6.288E-01	9.460E-02	7.683E-03	69.473
CD-109	3.184E+01	3.744E+00	1.115E+00	1.198E-01	28.570
SN-126	3.165E+00	3.721E-01	1.106E-01	1.185E-02	28.629
BA-137M	5.726E+00	6.890E-01	1.008E-01	1.117E-02	56.792
CS-137	6.053E+00	7.290E-01	1.066E-01	1.182E-02	56.792
TL-208	3.004E-01	1.348E-01	1.063E-01	1.199E-02	2.825
BI-210	5.018E-01	9.151E-01	1.350E+00	1.393E-01	0.372
PB-210	5.018E-01	9.151E-01	1.350E+00	1.393E-01	0.372
PO-210	5.018E-01	9.149E-01	1.350E+00	1.286E-01	0.372
BI-211	2.468E+00	7.504E-01	5.287E-01	5.571E-02	4.667
PB-212	1.080E+00	1.778E-01	1.328E-01	1.512E-02	8.128
PO-212	1.080E+00	1.778E-01	1.328E-01	1.512E-02	8.128
BI-214	7.677E-01	2.604E-01	2.140E-01	2.583E-02	3.587
PB-214	8.584E-01	2.648E-01	1.844E-01	2.165E-02	4.656
PO-214	8.584E-01	2.648E-01	1.844E-01	2.165E-02	4.656
PO-216	1.080E+00	1.778E-01	1.328E-01	1.512E-02	8.128

Sample ID : G1202032722 Acquisition date : 12-FEB-2010 14:39:09

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-218	8.584E-01	2.648E-01	1.844E-01	2.165E-02	4.656
RA-224	2.975E+00	1.817E+00	1.513E+00	1.590E-01	1.966
RA-226	7.677E-01	2.604E-01	2.140E-01	2.583E-02	3.587
AC-228	1.244E+00	5.416E-01	5.268E-01	6.266E-02	2.360
RA-228	1.244E+00	5.416E-01	5.268E-01	6.266E-02	2.360
TH-228	1.088E+00	1.791E-01	1.338E-01	1.524E-02	8.128
TH-230	7.676E-01	2.604E-01	2.140E-01	2.583E-02	3.587
TH-232	1.244E+00	5.416E-01	5.268E-01	6.266E-02	2.360
U-234	7.676E-01	2.604E-01	2.140E-01	2.583E-02	3.587
AM-241	1.323E+01	1.414E+00	1.665E-01	1.730E-02	79.480
AM-243	2.364E-01	6.127E-02	6.342E-02	6.440E-03	3.728
ANH-511	4.598E-02	9.679E-02	8.159E-02	8.398E-03	0.564

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.650E-01		5.680E-01	9.510E-01	1.007E-01	0.279
NA-22	-3.903E-03		4.192E-02	6.772E-02	5.553E-03	-0.058
NA-24	-4.666E-05		1.122E-04	Half-Life too short		
AL-26	1.915E-02		5.073E-02	8.985E-02	7.363E-03	0.213
TI-44	2.187E-01	+	4.289E-02	5.608E-02	5.775E-03	3.900
SC-46	-1.311E-02		9.015E-02	1.452E-01	1.390E-02	-0.090
V-48	3.575E-02		1.288E-01	2.114E-01	1.959E-02	0.169
CR-51	1.953E-01		4.878E-01	8.384E-01	9.310E-02	0.233
MN-52	-1.691E-02		1.038E-01	1.624E-01	1.338E-02	-0.104
MN-54	-8.847E-03		8.122E-02	1.320E-01	1.339E-02	-0.067
CO-56	7.888E-02		8.390E-02	1.454E-01	1.459E-02	0.543
CO-58	-1.472E-02		7.603E-02	1.230E-01	1.276E-02	-0.120
FE-59	1.122E-01		1.799E-01	3.127E-01	2.945E-02	0.359
ZN-65	-2.244E-01		1.990E-01	3.041E-01	2.627E-02	-0.738
GE-68	-3.820E-01		2.711E+00	4.484E+00	3.969E-01	-0.085
AS-73	-5.804E-02		4.845E-01	7.149E-01	6.862E-02	-0.081
AS-74	-9.898E-02		1.271E-01	1.893E-01	2.051E-02	-0.523
SE-75	-7.812E-03		6.682E-02	1.057E-01	1.158E-02	-0.074
BR-77	-1.562E-01		2.365E+00	3.807E+00	3.947E-01	-0.041
SR-82	5.190E-02		5.886E-01	9.766E-01	1.036E-01	0.053
RB-83	1.461E-02		1.320E-01	2.149E-01	2.228E-02	0.068
RB-84	-2.125E-02		1.425E-01	2.296E-01	2.219E-02	-0.093
KR-85	1.425E+00		1.409E+01	2.012E+01	2.076E+00	0.071
SR-85	6.752E-03		6.674E-02	9.531E-02	9.833E-03	0.071
RB-86	-2.499E-01		1.297E+00	2.137E+00	1.893E-01	-0.117
Y-88	1.214E-02		6.142E-02	1.047E-01	8.555E-03	0.116
ZR-88	-1.944E-02		5.131E-02	8.315E-02	7.568E-03	-0.234
Y-91	5.448E+00		2.086E+01	3.629E+01	2.987E+00	0.150
NB-94	-3.017E-02		5.619E-02	8.932E-02	9.808E-03	-0.338
NB-95	8.719E-02		7.282E-02	1.293E-01	1.381E-02	0.674
NB-95M	1.205E-01		1.719E-01	2.578E-01	2.955E-02	0.467

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	3.855E-02		1.263E-01	2.140E-01	2.451E-02	0.180
NB-97	2.918E-04		7.124E-05	Half-Life too short		
ZR-97	2.083E-04		1.023E-03	Half-Life too short		
MO-99	-1.907E+00		3.467E+00	5.485E+00	9.071E-01	-0.348
TC-99M	-4.971E+00		2.271E+01	Half-Life too short		
RH-101	2.428E-03		4.417E-02	7.209E-02	6.947E-03	0.034
RH-102	-1.612E-02		5.974E-02	9.578E-02	9.563E-03	-0.168
RU-103	1.393E-02		6.588E-02	1.084E-01	1.644E-02	0.128
RH-106	-3.067E-02		5.197E-01	8.701E-01	1.302E-01	-0.035
RU-106	-3.067E-02		5.197E-01	8.701E-01	9.528E-02	-0.035
AG-108M	2.300E-02		6.577E-02	1.101E-01	1.088E-02	0.209
AG-110M	7.642E-02		7.819E-02	1.230E-01	1.387E-02	0.621
IN-111	1.037E-01		2.741E-01	4.019E-01	4.256E-02	0.258
IN-113M	2.802E-02		7.375E-02	1.248E-01	1.166E-02	0.224
SN-113	2.802E-02		7.375E-02	1.248E-01	1.166E-02	0.224
IN-114M	2.777E-02		2.534E-01	3.728E-01	3.529E-02	0.074
CD-115	-6.700E-01		2.061E+00	3.252E+00	3.389E-01	-0.206
SN-117M	-1.438E-02		4.579E-02	7.467E-02	7.250E-03	-0.193
SB-122	7.176E-02		5.429E-01	8.797E-01	9.380E-02	0.082
I-123	-6.098E-05		2.516E-04	Half-Life too short		
TE-123M	-3.997E-03		3.298E-02	5.432E-02	5.274E-03	-0.074
I-124	8.418E-02		3.515E-01	5.704E-01	6.200E-02	0.148
SB-124	-8.976E-03		8.857E-02	1.434E-01	1.240E-02	-0.063
SB-125	3.394E-02		1.752E-01	2.913E-01	2.814E-02	0.116
TE-125M	2.086E+00		8.282E+00	1.422E+01	1.887E+00	0.147
I-126	8.900E-02		2.230E-01	3.382E-01	3.744E-02	0.263
SB-126	-1.129E-02		1.781E-01	2.948E-01	3.217E-02	-0.038
SB-127	-5.716E-01		6.084E-01	9.316E-01	1.100E-01	-0.614
XE-127	5.528E-02		5.394E-02	9.195E-02	8.956E-03	0.601
I-131	9.671E-03		1.016E-01	1.704E-01	1.742E-02	0.057
TE-132	9.910E-02		2.155E-01	3.545E-01	5.555E-02	0.279
BA-133	-7.692E-03		7.860E-02	1.147E-01	1.626E-02	-0.067
I-133	-6.427E-06		1.382E-05	Half-Life too short		
CS-134	1.349E-01	+	9.226E-02	1.623E-01	1.709E-02	0.831
CS-135	-2.529E-01		2.519E-01	3.742E-01	4.517E-02	-0.676
I-135	-7.748E+00		2.056E+01	Half-Life too short		
CS-136	8.458E-02		1.642E-01	2.844E-01	2.658E-02	0.297
CE-139	3.084E-02		3.570E-02	6.128E-02	5.464E-03	0.503
BA-140	2.630E-01		3.292E-01	5.415E-01	1.824E-01	0.486
LA-140	2.192E-02		7.947E-02	1.390E-01	1.156E-02	0.158
CE-141	1.360E-03		6.257E-02	1.044E-01	1.162E-02	0.013
CE-143	8.012E+00		5.062E+00	7.895E+00	1.777E+00	1.015
CE-144	-1.840E-02		2.551E-01	3.824E-01	6.761E-02	-0.048
PM-144	-1.108E-03		5.586E-02	9.284E-02	1.021E-02	-0.012
PR-144	-7.481E-02		3.770E+00	6.266E+00	6.893E-01	-0.012
PM-146	2.032E-02		8.874E-02	1.471E-01	1.717E-02	0.138
ND-147	-3.032E-02		6.654E-01	1.070E+00	1.720E-01	-0.028
PM-149	3.111E+00		1.413E+01	2.263E+01	3.855E+00	0.137

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-2.746E-03		1.545E-01	2.586E-01	2.778E-02	-0.011
GD-153	-2.325E-02		6.724E-02	1.130E-01	1.273E-02	-0.206
EU-154	-6.651E-02		1.273E-01	1.893E-01	2.080E-02	-0.351
EU-155	2.769E-02		1.043E-01	1.796E-01	2.124E-02	0.154
TB-160	-9.493E-02		3.121E-01	4.971E-01	4.817E-02	-0.191
HO-166M	-1.435E-02		1.048E-01	1.722E-01	1.886E-02	-0.083
TM-171	1.364E+01		1.717E+01	2.802E+01	2.781E+00	0.487
LU-176	9.877E-03		3.709E-02	6.357E-02	6.936E-03	0.155
LU-177	9.027E-01	+	1.072E+00	1.271E+00	1.253E-01	0.710
LU-177M	-2.295E-01		3.320E-01	5.260E-01	4.917E-02	-0.436
HF-181	-3.484E-02		7.249E-02	1.142E-01	1.147E-02	-0.305
W-181	-4.677E-01		2.138E-01	2.990E-01	2.959E-02	-1.564
TA-182	1.645E-01		2.238E-01	4.019E-01	3.305E-02	0.409
RE-183	6.904E-02		1.243E-01	2.111E-01	1.965E-02	0.327
RE-184	6.250E-02		3.483E-01	5.623E-01	6.031E-02	0.111
OS-185	2.199E-03		6.896E-02	1.159E-01	1.278E-02	0.019
RE-188	-6.660E-02		1.889E-01	3.080E-01	3.102E-02	-0.216
W-188	-4.919E+00		1.097E+01	1.590E+01	1.761E+00	-0.309
IR-192	-1.054E-02		4.979E-02	8.300E-02	8.965E-03	-0.127
AU-195	1.279E-02		1.914E-01	3.276E-01	3.718E-02	0.039
TL-200	5.273E-01		6.318E+00	1.058E+01	1.033E+00	0.050
TL-201	-2.168E-01		1.548E+00	2.537E+00	2.269E-01	-0.085
TL-202	5.125E-02		9.022E-02	1.526E-01	1.470E-02	0.336
HG-203	-2.855E-02		5.928E-02	9.117E-02	1.035E-02	-0.313
BI-207	9.369E-03		1.183E-01	1.991E-01	1.777E-02	0.047
TL-207	-2.095E-01		1.048E+00	1.746E+00	3.280E-01	-0.120
PO-209	4.087E+00		1.854E+01	3.059E+01	2.902E+00	0.134
PB-211	6.584E-01		1.704E+00	2.795E+00	1.754E+00	0.236
BI-212	5.567E-01		5.695E-01	9.987E-01	1.200E-01	0.557
PO-215	-2.095E-01		1.048E+00	1.746E+00	3.280E-01	-0.120
RN-219	-6.478E-02		7.348E-01	1.209E+00	1.859E-01	-0.054
RN-220	-1.545E+01		5.112E+01	8.040E+01	8.501E+00	-0.192
RA-223	-2.095E-01		1.048E+00	1.746E+00	3.280E-01	-0.120
AC-227	4.624E-01		5.930E-01	9.806E-01	1.634E-01	0.472
TH-227	4.624E-01		5.946E-01	9.806E-01	1.882E-01	0.472
TH-229	2.542E-01		6.808E-01	1.132E+00	1.080E-01	0.225
PA-231	-3.742E-01		2.527E+00	3.963E+00	6.633E-01	-0.094
TH-231	-2.095E-01		1.048E+00	1.746E+00	3.280E-01	-0.120
U-231	1.478E-01		2.804E-01	4.459E-01	4.981E-02	0.331
PA-233	1.236E-02		9.696E-02	1.648E-01	1.820E-02	0.075
PA-234	-5.964E-01		8.640E-01	1.324E+00	2.532E-01	-0.451
PA-234M	1.318E+00		1.060E+01	1.721E+01	1.802E+00	0.077
TH-234	8.857E-01		7.323E-01	1.153E+00	2.147E-01	0.768
U-235	1.695E-01		2.498E-01	4.255E-01	8.034E-02	0.398
NP-236	-2.124E-02		9.562E-02	1.565E-01	1.491E-02	-0.136
NP-237	2.085E+00		5.848E-01	5.779E-01	1.342E-01	3.608
U-238	8.857E-01		7.323E-01	1.153E+00	2.147E-01	0.768
NP-239	-6.994E-02		1.961E-01	3.258E-01	4.082E-02	-0.215

Sample ID : G1202032722 Acquisition date : 12-FEB-2010 14:39:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	4.869E-02		9.012E-02	1.570E-01	1.829E-02	0.310
AM-246	-5.303E-03		3.184E-01	5.314E-01	4.700E-02	-0.010
CM-247	1.746E-03		6.594E-02	1.092E-01	1.007E-02	0.016
CF-249	1.063E-02		7.042E-02	1.179E-01	1.085E-02	0.090
CF-251	2.052E-02		1.631E-01	2.698E-01	2.471E-02	0.076

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032722          *
* Acquisition date  : 12-FEB-2010 14:39:09 Detector SN#     :               *
* Detector ID       : GAM25                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.96      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032722          Analyst initials: MXR1           *
* Batch Number      : 948812               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  7-OCT-2009 09:38:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.054E+00	8.215E-01	4.276E-01	4.191E-01
CO-57	2.320E-01	5.879E-02	2.537E-02	3.000E-02
CO-60	6.572E+00	6.162E-01	4.786E-02	3.144E-01
CD-109	3.184E+01	3.669E+00	6.054E-01	1.872E+00
SN-126	3.165E+00	3.647E-01	6.006E-02	1.861E-01
BA-137M	5.726E+00	6.752E-01	5.200E-02	3.445E-01
CS-137	6.053E+00	7.144E-01	5.497E-02	3.645E-01
TL-208	3.004E-01	1.321E-01	5.503E-02	6.741E-02
BI-210	5.018E-01	8.968E-01	7.449E-01	4.575E-01
PB-210	5.018E-01	8.968E-01	7.449E-01	4.575E-01
PO-210	5.018E-01	8.966E-01	7.449E-01	4.574E-01
BI-211	2.468E+00	7.354E-01	2.773E-01	3.752E-01
PB-212	1.080E+00	1.742E-01	7.037E-02	8.889E-02
PO-212	1.080E+00	1.742E-01	7.037E-02	8.889E-02
BI-214	7.677E-01	2.552E-01	1.106E-01	1.302E-01
PB-214	8.584E-01	2.595E-01	9.670E-02	1.324E-01
PO-214	8.584E-01	2.595E-01	9.670E-02	1.324E-01
PO-216	1.080E+00	1.742E-01	7.037E-02	8.889E-02
PO-218	8.584E-01	2.595E-01	9.670E-02	1.324E-01
RA-224	2.975E+00	1.781E+00	8.016E-01	9.087E-01
RA-226	7.677E-01	2.552E-01	1.106E-01	1.302E-01
AC-228	1.244E+00	5.307E-01	2.694E-01	2.708E-01
RA-228	1.244E+00	5.307E-01	2.694E-01	2.708E-01
TH-228	1.088E+00	1.756E-01	7.090E-02	8.957E-02
TH-230	7.676E-01	2.552E-01	1.106E-01	1.302E-01
TH-232	1.244E+00	5.307E-01	2.694E-01	2.708E-01
U-234	7.676E-01	2.552E-01	1.106E-01	1.302E-01
AM-241	1.323E+01	1.386E+00	9.129E-02	7.072E-01
AM-243	2.364E-01	6.005E-02	3.458E-02	3.064E-02
ANH-511	4.598E-02	9.485E-02	4.238E-02	4.839E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.650E-01	5.566E-01	4.948E-01	2.840E-01	NOT IDENT.
NA-22	-3.903E-03	4.108E-02	3.430E-02	2.096E-02	NOT IDENT.
NA-24	-4.666E+01	2.200E+02	0.000E+00	1.122E+02	SHORT HLIF
AL-26	1.915E-02	4.971E-02	4.506E-02	2.536E-02	NOT IDENT.
TI-44	2.187E-01	4.203E-02	3.055E-02	2.144E-02	FAIL ABUN
SC-46	-1.311E-02	8.835E-02	7.427E-02	4.508E-02	NOT IDENT.
V-48	3.575E-02	1.262E-01	1.079E-01	6.438E-02	NOT IDENT.
CR-51	1.953E-01	4.781E-01	4.408E-01	2.439E-01	NOT IDENT.
MN-52	-1.691E-02	1.017E-01	8.199E-02	5.191E-02	FAIL ABUN
MN-54	-8.847E-03	7.960E-02	6.763E-02	4.061E-02	NOT IDENT.
CO-56	7.888E-02	8.222E-02	7.447E-02	4.195E-02	NOT IDENT.
CO-58	-1.472E-02	7.451E-02	6.307E-02	3.801E-02	NOT IDENT.
FE-59	1.122E-01	1.764E-01	1.590E-01	8.997E-02	NOT IDENT.
ZN-65	-2.244E-01	1.950E-01	1.546E-01	9.952E-02	NOT IDENT.
GE-68	-3.820E-01	2.657E+00	2.282E+00	1.355E+00	NOT IDENT.
AS-73	-5.804E-02	4.749E-01	3.930E-01	2.423E-01	NOT IDENT.
AS-74	-9.898E-02	1.245E-01	9.788E-02	6.353E-02	NOT IDENT.
SE-75	-7.812E-03	6.549E-02	5.583E-02	3.341E-02	FAIL ABUN
BR-77	-1.562E-01	2.318E+00	1.976E+00	1.183E+00	FAIL ABUN
SR-82	5.190E-02	5.768E-01	5.015E-01	2.943E-01	NOT IDENT.
RB-83	1.461E-02	1.293E-01	1.116E-01	6.599E-02	NOT IDENT.
RB-84	-2.125E-02	1.397E-01	1.175E-01	7.126E-02	NOT IDENT.
KR-85	1.425E+00	1.381E+01	1.045E+01	7.044E+00	NOT IDENT.
SR-85	6.752E-03	6.540E-02	4.949E-02	3.337E-02	NOT IDENT.
RB-86	-2.499E-01	1.271E+00	1.088E+00	6.486E-01	NOT IDENT.
Y-88	1.214E-02	6.019E-02	5.248E-02	3.071E-02	NOT IDENT.
ZR-88	-1.944E-02	5.028E-02	4.348E-02	2.566E-02	NOT IDENT.
Y-91	5.448E+00	2.045E+01	1.841E+01	1.043E+01	NOT IDENT.
NB-94	-3.017E-02	5.506E-02	4.599E-02	2.809E-02	NOT IDENT.
NB-95	8.719E-02	7.137E-02	6.642E-02	3.641E-02	NOT IDENT.
NB-95M	1.205E-01	1.684E-01	1.366E-01	8.593E-02	NOT IDENT.
ZR-95	3.855E-02	1.238E-01	1.100E-01	6.317E-02	NOT IDENT.
NB-97	2.918E+02	1.396E+02	0.000E+00	7.124E+01	SHORT HLIF
ZR-97	2.083E+02	2.005E+03	0.000E+00	1.023E+03	SHORT HLIF
MO-99	-1.907E+00	3.398E+00	2.820E+00	1.734E+00	NOT IDENT.
TC-99M	-4.971E+06	4.450E+07	0.000E+00	2.271E+07	SHORT HLIF
RH-101	2.428E-03	4.329E-02	3.838E-02	2.209E-02	NOT IDENT.
RH-102	-1.612E-02	5.854E-02	4.984E-02	2.987E-02	NOT IDENT.
RU-103	1.393E-02	6.456E-02	5.636E-02	3.294E-02	FAIL ABUN
RH-106	-3.067E-02	5.093E-01	4.495E-01	2.599E-01	FAIL ABUN
RU-106	-3.067E-02	5.093E-01	4.495E-01	2.599E-01	FAIL ABUN
AG-108M	2.300E-02	6.445E-02	5.743E-02	3.288E-02	NOT IDENT.
AG-110M	7.642E-02	7.663E-02	6.347E-02	3.910E-02	NOT IDENT.
IN-111	1.037E-01	2.686E-01	2.128E-01	1.371E-01	NOT IDENT.
IN-113M	2.802E-02	7.228E-02	6.529E-02	3.688E-02	NOT IDENT.
SN-113	2.802E-02	7.228E-02	6.529E-02	3.688E-02	NOT IDENT.
IN-114M	2.777E-02	2.484E-01	1.987E-01	1.267E-01	NOT IDENT.
CD-115	-6.700E-01	2.020E+00	1.687E+00	1.031E+00	NOT IDENT.
SN-117M	-1.438E-02	4.487E-02	3.997E-02	2.289E-02	NOT IDENT.
SB-122	7.176E-02	5.320E-01	4.557E-01	2.714E-01	NOT IDENT.
I-123	-6.098E+01	4.932E+02	0.000E+00	2.516E+02	SHORT HLIF
TE-123M	-3.997E-03	3.232E-02	2.907E-02	1.649E-02	NOT IDENT.
I-124	8.418E-02	3.445E-01	2.949E-01	1.757E-01	NOT IDENT.
SB-124	-8.976E-03	8.680E-02	7.207E-02	4.428E-02	FAIL ABUN
SB-125	3.394E-02	1.717E-01	1.520E-01	8.758E-02	NOT IDENT.
TE-125M	2.086E+00	8.116E+00	7.685E+00	4.141E+00	NOT IDENT.
I-126	8.900E-02	2.185E-01	1.744E-01	1.115E-01	NOT IDENT.
SB-126	-1.129E-02	1.745E-01	1.517E-01	8.905E-02	FAIL ABUN
SB-127	-5.716E-01	5.963E-01	4.800E-01	3.042E-01	NOT IDENT.
XE-127	5.528E-02	5.286E-02	4.892E-02	2.697E-02	NOT IDENT.
I-131	9.671E-03	9.958E-02	8.927E-02	5.081E-02	NOT IDENT.
TE-132	9.910E-02	2.112E-01	1.881E-01	1.078E-01	FAIL ABUN
BA-133	-7.692E-03	7.702E-02	6.014E-02	3.930E-02	NOT IDENT.
I-133	-6.427E+00	2.709E+01	0.000E+00	1.382E+01	SHORT HLIF
CS-134	1.349E-01	9.042E-02	8.329E-02	4.613E-02	FAIL ABUN
CS-135	-2.529E-01	2.468E-01	1.977E-01	1.259E-01	NOT IDENT.
I-135	-7.748E+06	4.030E+07	0.000E+00	2.056E+07	SHORT HLIF
CS-136	8.458E-02	1.609E-01	1.448E-01	8.208E-02	NOT IDENT.
CE-139	3.084E-02	3.498E-02	3.277E-02	1.785E-02	NOT IDENT.
BA-140	2.630E-01	3.226E-01	2.809E-01	1.646E-01	NOT IDENT.
LA-140	2.192E-02	7.788E-02	6.995E-02	3.974E-02	NOT IDENT.
CE-141	1.360E-03	6.132E-02	5.603E-02	3.129E-02	NOT IDENT.
CE-143	8.012E+00	4.961E+00	4.161E+00	2.531E+00	FAIL ABUN
CE-144	-1.840E-02	2.500E-01	2.056E-01	1.275E-01	NOT IDENT.
PM-144	-1.108E-03	5.474E-02	4.782E-02	2.793E-02	NOT IDENT.

PR-144	-7.481E-02	3.695E+00	3.227E+00	1.885E+00	NOT IDENT.
PM-146	2.032E-02	8.697E-02	7.663E-02	4.437E-02	NOT IDENT.
ND-147	-3.032E-02	6.521E-01	5.552E-01	3.327E-01	FAIL ABUN
PM-149	3.111E+00	1.385E+01	1.193E+01	7.064E+00	NOT IDENT.
EU-152	-2.746E-03	1.514E-01	1.357E-01	7.726E-02	FAIL ABUN
GD-153	-2.325E-02	6.590E-02	6.125E-02	3.362E-02	NOT IDENT.
EU-154	-6.651E-02	1.248E-01	9.587E-02	6.366E-02	FAIL ABUN
EU-155	2.769E-02	1.022E-01	9.715E-02	5.216E-02	FAIL ABUN
TB-160	-9.493E-02	3.058E-01	2.544E-01	1.560E-01	FAIL ABUN
HO-166M	-1.435E-02	1.027E-01	8.865E-02	5.240E-02	FAIL ABUN
TM-171	1.364E+01	1.683E+01	1.532E+01	8.586E+00	FAIL ABUN
LU-176	9.877E-03	3.635E-02	3.346E-02	1.854E-02	FAIL ABUN
LU-177	9.027E-01	1.051E+00	6.756E-01	5.361E-01	FAIL ABUN
LU-177M	-2.295E-01	3.254E-01	2.747E-01	1.660E-01	FAIL ABUN
HF-181	-3.484E-02	7.104E-02	5.938E-02	3.624E-02	FAIL ABUN
W-181	-4.677E-01	2.095E-01	1.636E-01	1.069E-01	NOT IDENT.
TA-182	1.645E-01	2.194E-01	2.038E-01	1.119E-01	NOT IDENT.
RE-183	6.904E-02	1.219E-01	1.130E-01	6.217E-02	FAIL ABUN
RE-184	6.250E-02	3.413E-01	2.975E-01	1.742E-01	FAIL ABUN
OS-185	2.199E-03	6.758E-02	5.979E-02	3.448E-02	FAIL ABUN
RE-188	-6.660E-02	1.852E-01	1.650E-01	9.447E-02	NOT IDENT.
W-188	-4.919E+00	1.076E+01	8.381E+00	5.487E+00	NOT IDENT.
IR-192	-1.054E-02	4.879E-02	4.365E-02	2.489E-02	FAIL ABUN
AU-195	1.279E-02	1.876E-01	1.775E-01	9.569E-02	FAIL ABUN
TL-200	5.273E-01	6.192E+00	5.542E+00	3.159E+00	NOT IDENT.
TL-201	-2.168E-01	1.517E+00	1.356E+00	7.740E-01	FAIL ABUN
TL-202	5.125E-02	8.841E-02	7.955E-02	4.511E-02	NOT IDENT.
HG-203	-2.855E-02	5.810E-02	4.811E-02	2.964E-02	NOT IDENT.
BI-207	9.369E-03	1.160E-01	1.013E-01	5.916E-02	FAIL ABUN
TL-207	-2.095E-01	1.028E+00	9.176E-01	5.242E-01	FAIL ABUN
PO-209	4.087E+00	1.817E+01	1.564E+01	9.272E+00	NOT IDENT.
PB-211	6.584E-01	1.670E+00	1.460E+00	8.521E-01	NOT IDENT.
BI-212	5.567E-01	5.581E-01	5.138E-01	2.847E-01	NOT IDENT.
PO-215	-2.095E-01	1.028E+00	9.176E-01	5.242E-01	FAIL ABUN
RN-219	-6.478E-02	7.201E-01	6.321E-01	3.674E-01	NOT IDENT.
RN-220	-1.545E+01	5.010E+01	4.167E+01	2.556E+01	NOT IDENT.
RA-223	-2.095E-01	1.028E+00	9.176E-01	5.242E-01	FAIL ABUN
AC-227	4.624E-01	5.811E-01	5.186E-01	2.965E-01	NOT IDENT.
TH-227	4.624E-01	5.827E-01	5.186E-01	2.973E-01	FAIL ABUN
TH-229	2.542E-01	6.672E-01	6.029E-01	3.404E-01	FAIL ABUN
PA-231	-3.742E-01	2.476E+00	2.090E+00	1.264E+00	NOT IDENT.
TH-231	-2.095E-01	1.028E+00	9.176E-01	5.242E-01	FAIL ABUN
U-231	1.478E-01	2.747E-01	2.417E-01	1.402E-01	FAIL ABUN
PA-233	1.236E-02	9.502E-02	8.672E-02	4.848E-02	FAIL ABUN
PA-234	-5.964E-01	8.467E-01	6.761E-01	4.320E-01	FAIL ABUN
PA-234M	1.318E+00	1.039E+01	8.774E+00	5.300E+00	NOT IDENT.
TH-234	8.857E-01	7.176E-01	6.315E-01	3.661E-01	FAIL ABUN
U-235	1.695E-01	2.448E-01	2.283E-01	1.249E-01	FAIL ABUN
NP-236	-2.124E-02	9.371E-02	8.378E-02	4.781E-02	NOT IDENT.
NP-237	2.085E+00	5.731E-01	3.140E-01	2.924E-01	NOT IDENT.
U-238	8.857E-01	7.176E-01	6.315E-01	3.661E-01	FAIL ABUN
NP-239	-6.994E-02	1.922E-01	1.758E-01	9.805E-02	FAIL ABUN
CM-243	4.869E-02	8.832E-02	8.495E-02	4.506E-02	FAIL ABUN
AM-246	-5.303E-03	3.121E-01	2.704E-01	1.592E-01	NOT IDENT.
CM-247	1.746E-03	6.462E-02	5.708E-02	3.297E-02	NOT IDENT.
CF-249	1.063E-02	6.902E-02	6.166E-02	3.521E-02	NOT IDENT.
CF-251	2.052E-02	1.598E-01	1.441E-01	8.154E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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46.50	500.0130
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53.15	881.9360
53.44	875.6846
54.07	905.8736
56.28	967.3904
56.28	967.4037
57.37	968.6426
57.53	969.2585
57.53	969.2651
57.60	997.8232
57.98	999.3158
57.98	999.3158
59.32	671.3244
59.32	671.3244
59.40	671.5339
59.54	671.8960
59.72	672.3629
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61.14	342.7249
61.30	342.9327
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63.29	246.5600
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65.20	416.1045
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66.91	300.6905
67.20	300.9999
67.20	300.9999
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68.90	358.6934
68.90	358.6934
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70.82	329.8034
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72.87	324.6050
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74.81	326.6842
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74.81	326.6842
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77.11	329.1159

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83.78	327.4122
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88.36	293.4582
88.47	293.5522
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92.38	318.9415
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94.67	211.7329
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94.90	197.9940
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98.44	179.9403
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99.86	179.7634
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100.10	179.8782
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103.76	183.3058
105.00	180.4290
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108.00	198.3113
109.28	192.8287

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111.00	222.5523
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116.30	210.2874
117.00	198.1874
117.00	198.1874
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163.89	228.7061
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172.10	190.3711
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176.60	194.8294
181.06	186.0144
184.41	197.3605
185.71	233.2755
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198.01	198.5410
198.60	200.7887
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202.84	170.8367
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208.81	196.5322
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209.75	198.9072
210.97	189.7742
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216.55	178.5547
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227.20	233.0178
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228.18	209.5647
228.18	209.5647
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236.00	171.9420
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238.63	198.2873
238.63	198.2873
238.63	198.2873
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241.98	199.1600
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323.87	165.0708
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387.95	144.5869
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391.69	136.3592
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513.99	114.0104
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569.67	93.8066
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609.31	112.1873
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696.49	75.0866
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713.82	78.6547
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747.13	105.3791
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883.24	101.8832
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896.60	111.8824
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911.07	118.8845
911.07	118.8845
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937.48	153.1758
944.10	119.4594
946.00	155.8450
949.00	136.8000
962.29	125.8714
964.01	103.9403
966.15	87.8874
968.20	140.0166
969.11	116.3637
969.11	116.3637
969.11	116.3637
977.42	102.6956
980.50	85.5036
983.50	104.0274
989.30	86.8867
996.32	89.3031
1001.03	93.8316
1001.68	97.1286
1004.76	118.0063
1021.30	0.0000
1024.50	0.0000
1034.80	99.4702
1036.00	101.3615
1037.82	97.7403
1038.57	97.7662
1038.76	0.0000
1045.16	108.1783
1046.59	99.9141
1048.07	86.0825

1050.47	84.3053
1050.47	84.3053
1062.04	83.7378
1063.62	92.1639
1076.63	87.9299
1077.35	90.7599
1078.86	90.8073
1085.78	96.6673
1099.22	82.0439
1112.02	89.0506
1112.84	88.1298
1115.52	121.4115
1120.29	79.8096
1120.29	79.8096
1120.29	79.8096
1120.29	79.8096
1120.51	70.3145
1121.28	71.2830
1124.00	0.0000
1129.67	56.2416
1131.51	0.0000
1147.95	0.0000
1167.94	57.9492
1173.22	58.0542
1175.09	58.0908
1177.93	33.2254
1189.05	37.9352
1204.90	26.4012
1205.75	23.4736
1213.00	28.4324
1221.42	24.5778
1230.97	23.6680
1235.34	27.6514
1236.41	0.0000
1238.25	20.7582
1246.25	20.8112
1260.41	0.0000
1271.85	21.9794
1274.45	19.9976
1274.54	14.9982
1291.56	23.1198
1298.22	0.0000
1312.09	17.1965
1325.50	19.1526
1325.50	19.1526
1332.49	25.4456
1333.61	27.9263
1360.21	13.3412
1362.66	0.0000
1365.15	16.4440
1368.21	15.4297
1368.53	0.0000
1376.25	18.5596
1384.27	23.7702
1394.10	18.6563
1395.20	15.5518
1407.95	13.5274
1434.06	11.5313
1436.60	9.4413
1457.56	0.0000
1460.81	19.9160
1489.15	18.0943
1509.49	14.9832
1596.49	13.1387
1620.62	12.2750
1678.03	0.0000
1691.02	8.6472
1691.02	8.6472
1706.46	0.0000
1750.46	0.0000
1764.49	13.6880
1764.49	13.6880
1764.49	13.6880
1764.49	13.6880
1770.23	15.4193
1771.40	13.7100
1791.20	0.0000
1808.65	9.8769

1836.01 13.9136

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032722

Total Uranium Activity	2.7134E+00	ug/g
Total Uranium Counting Unc.	2.1379E+00	ug/g
Total Uranium Tpu	1.0908E-06	ug/g
Total Uranium Mda	1.8817E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948812                    SAMPLE ID  : G1202032722      *
*   ANALYST       : MXR1                      DETECTOR   : GAM25            *
*   SAMPLE DATE   :  5-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 12-FEB-2010 14:39:09.12    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.772E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.963E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 5.440E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.660E+00
```

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

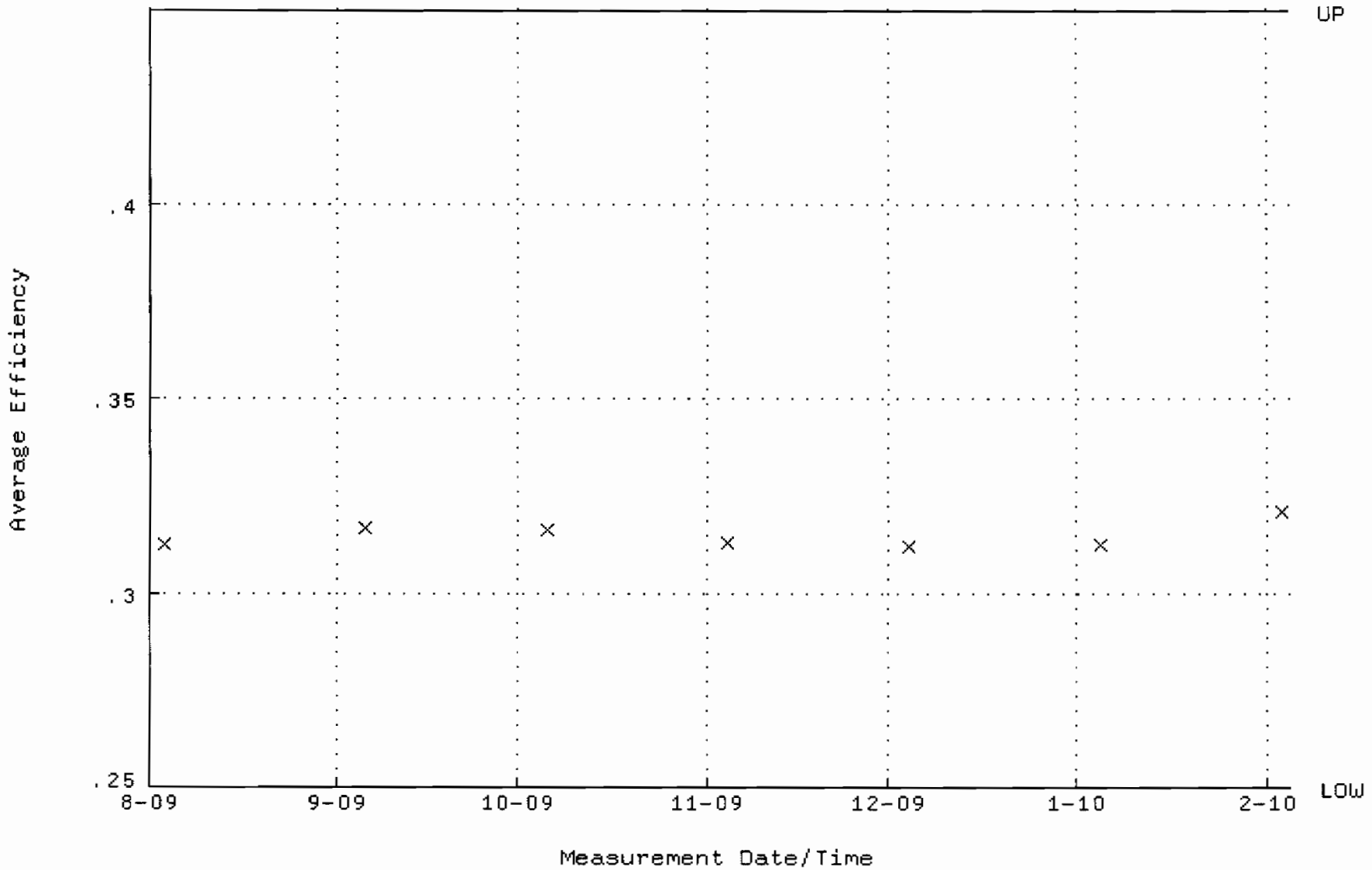

QA filename : DKA100:[ENV_ALPHA.QA.W]W048.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

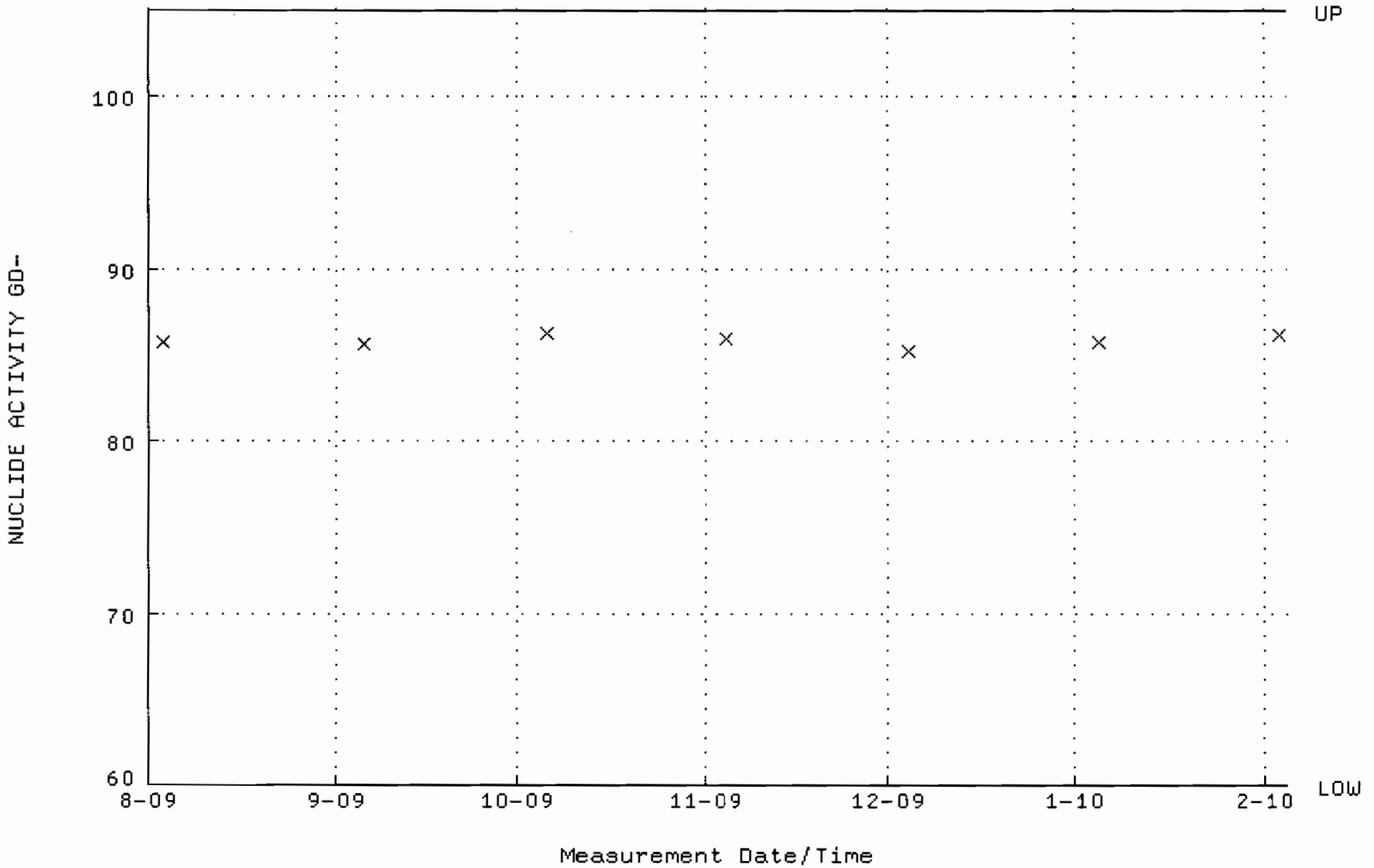

QA filename : DKA100:[ENV_ALPHA.QA.B]B048.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

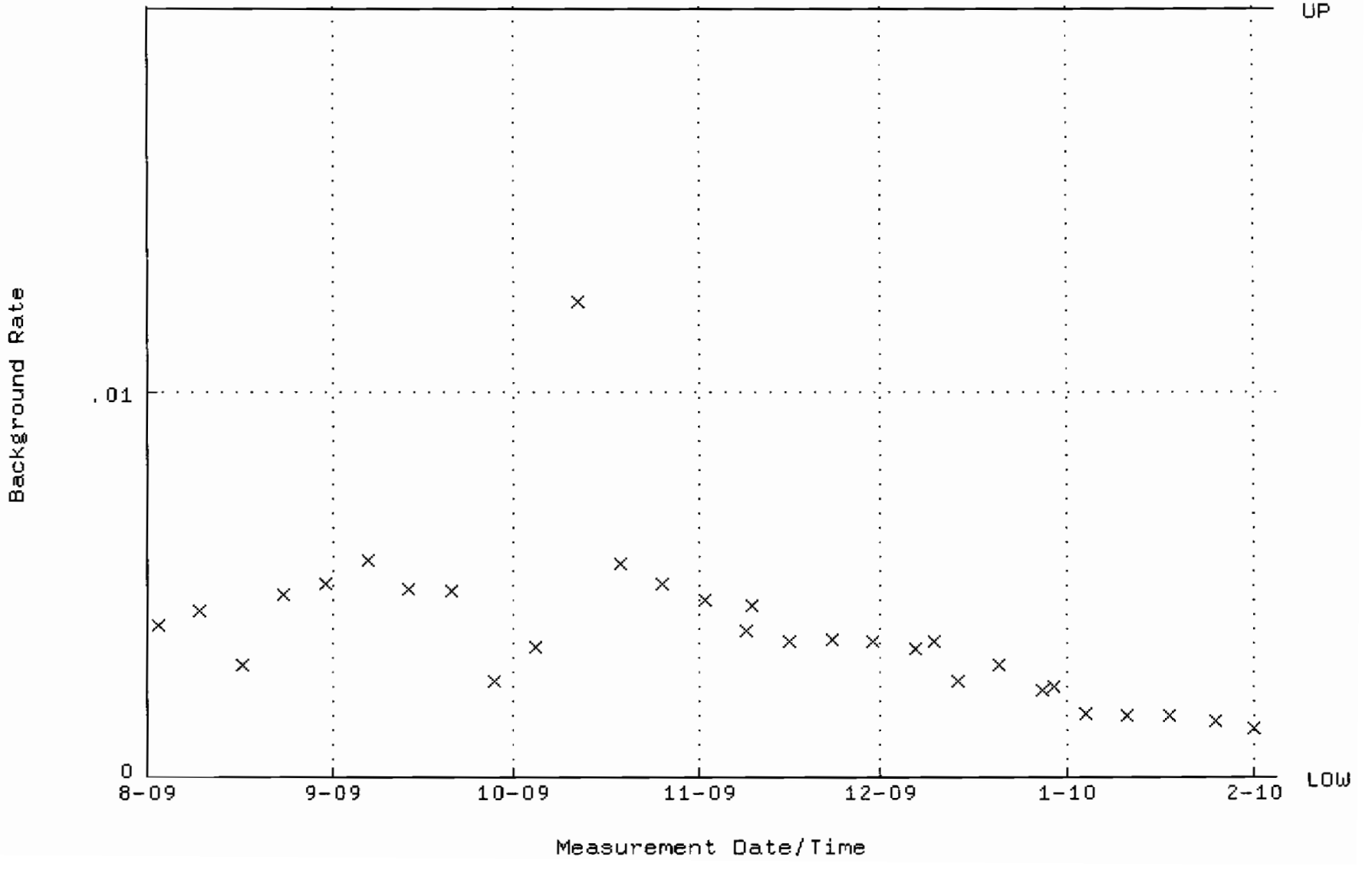

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.302750 through 0.322750

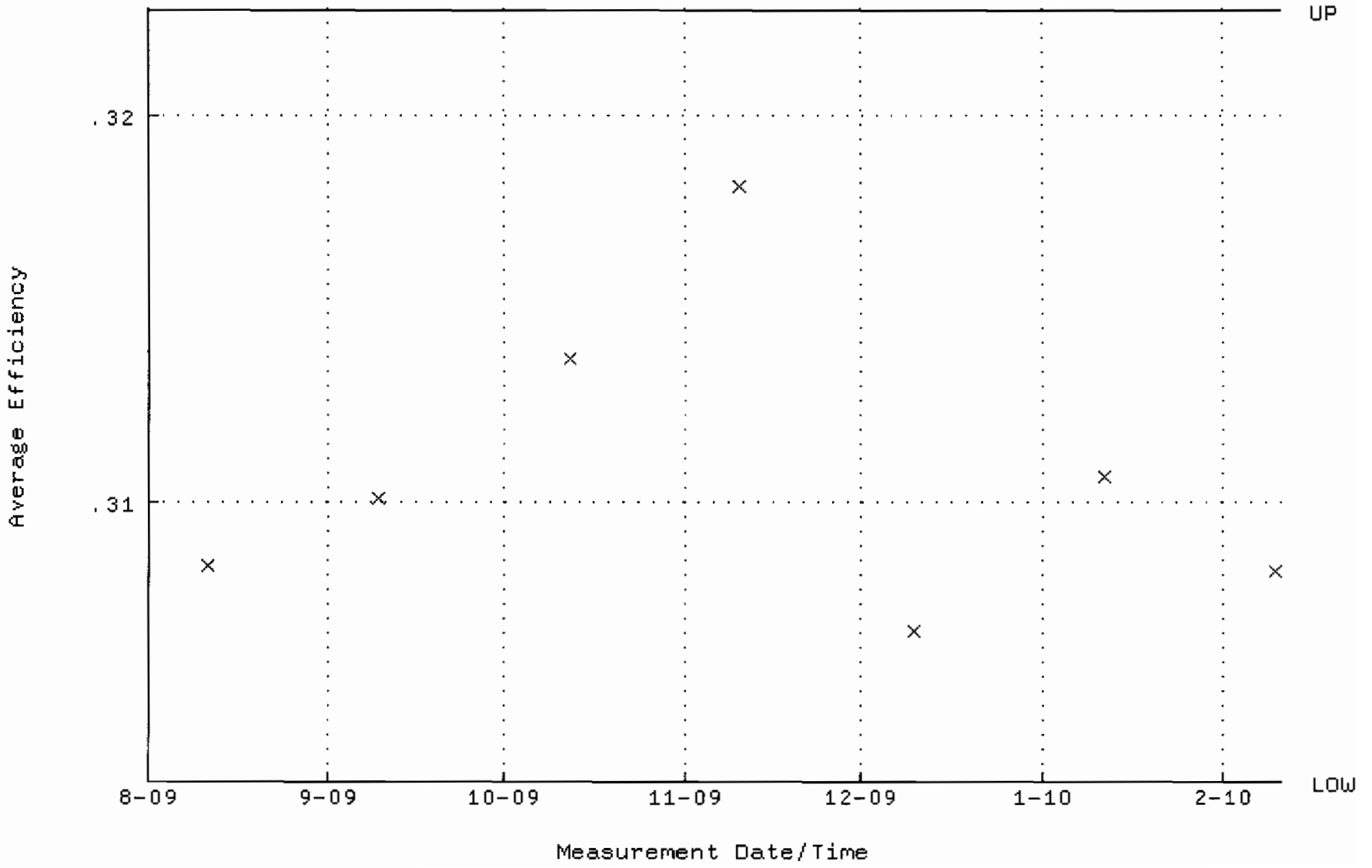

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8638 through 96.0074

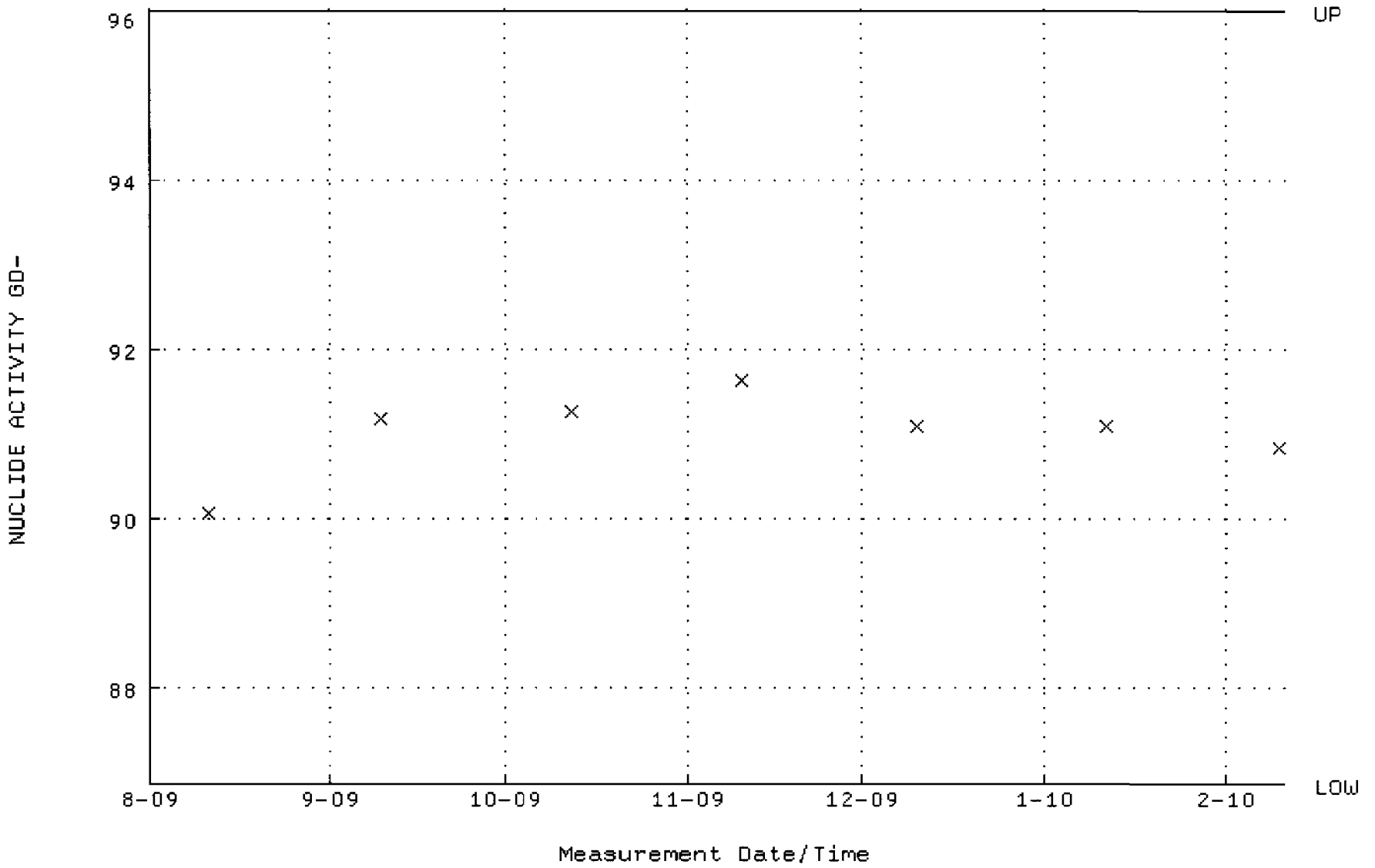

QA filename : DKA100:[ENV_ALPHA.QA.B]B065.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

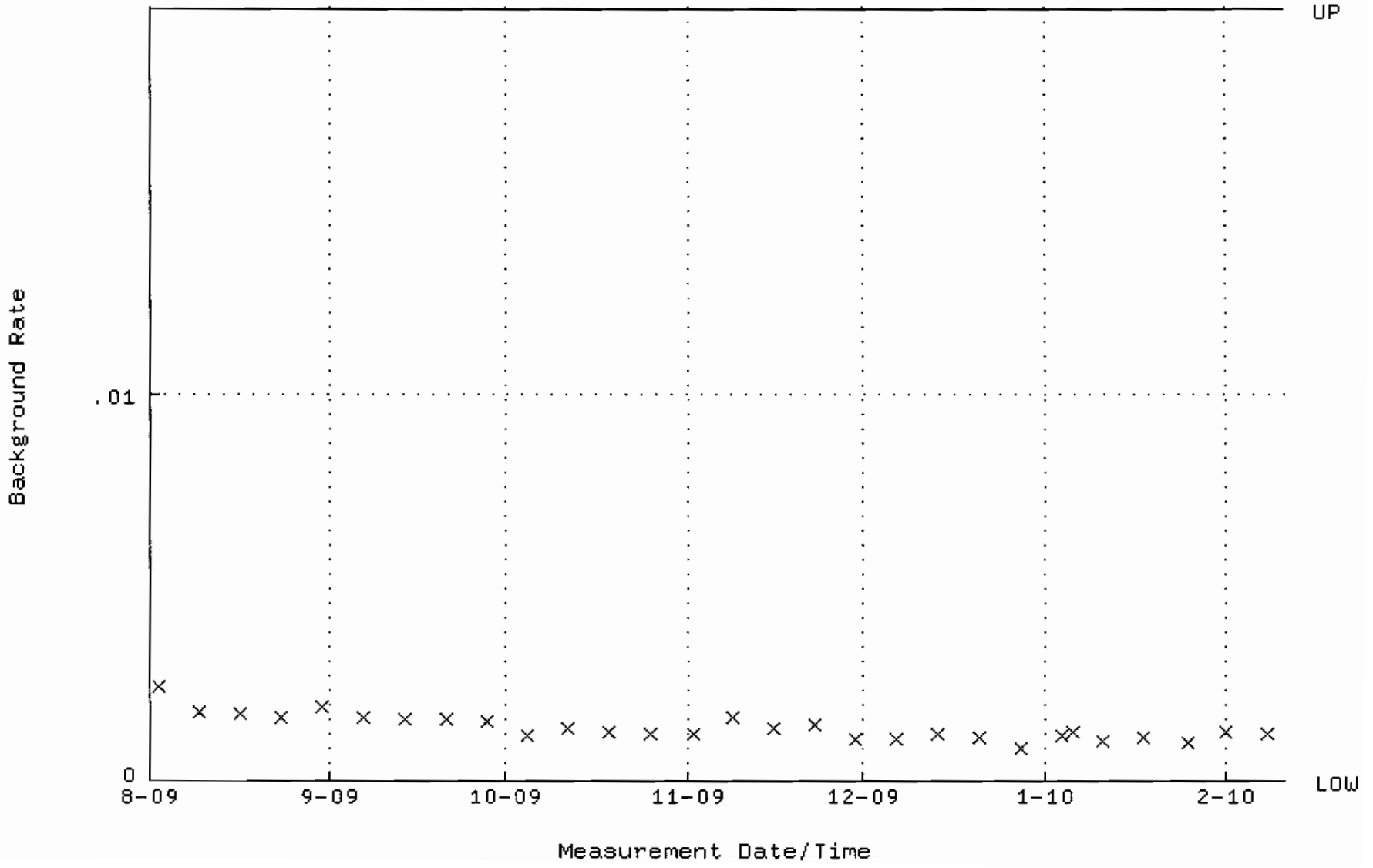

QA filename : DKA100:[ENV_ALPHA.QA.W]W066.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.300416 through 0.320416

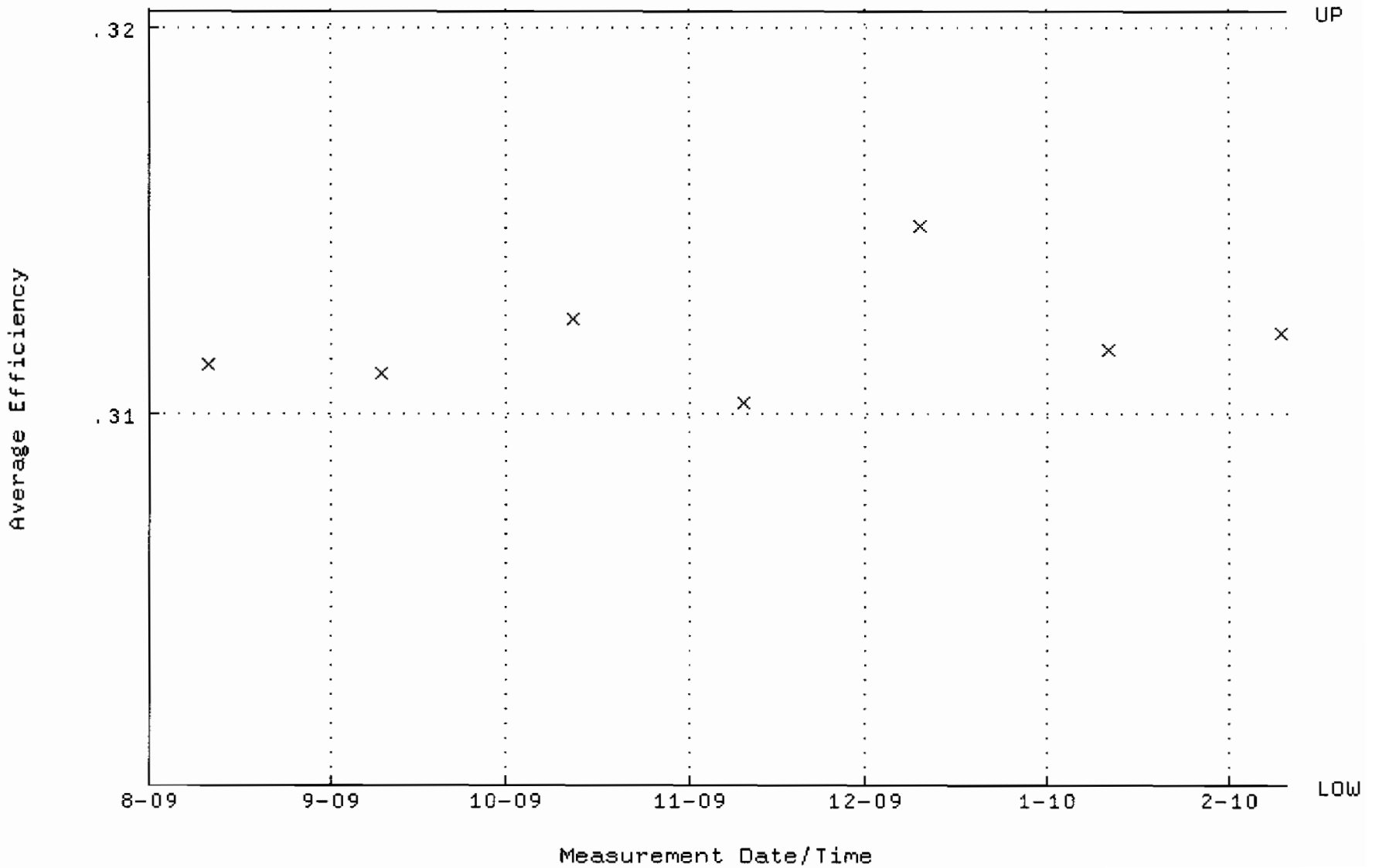

QA filename : DKA100:[ENV_ALPHA.QA.W]W066.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.0864 through 94.0428

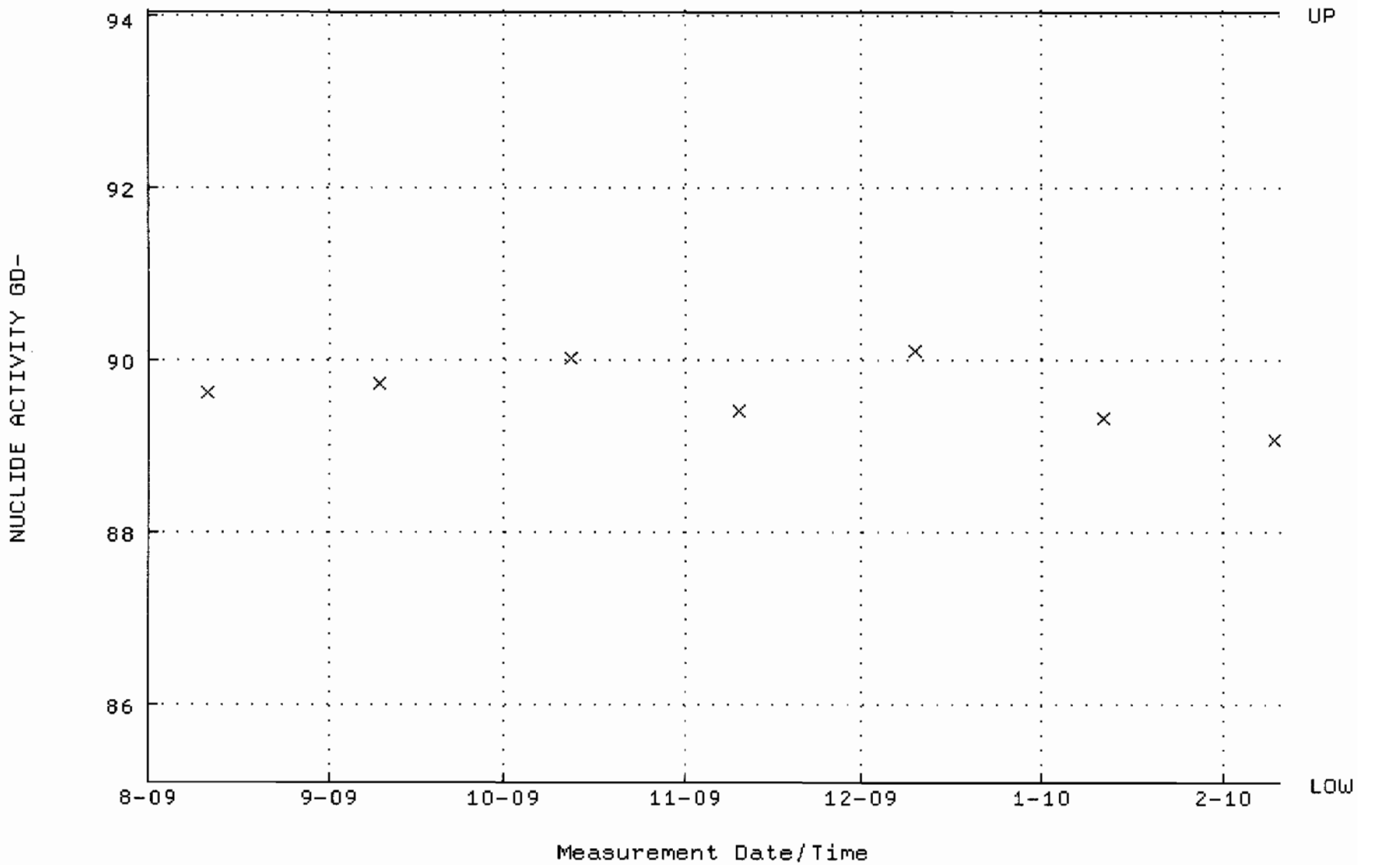

QA filename : DKA100:[ENV_ALPHA.QA.B]B066.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

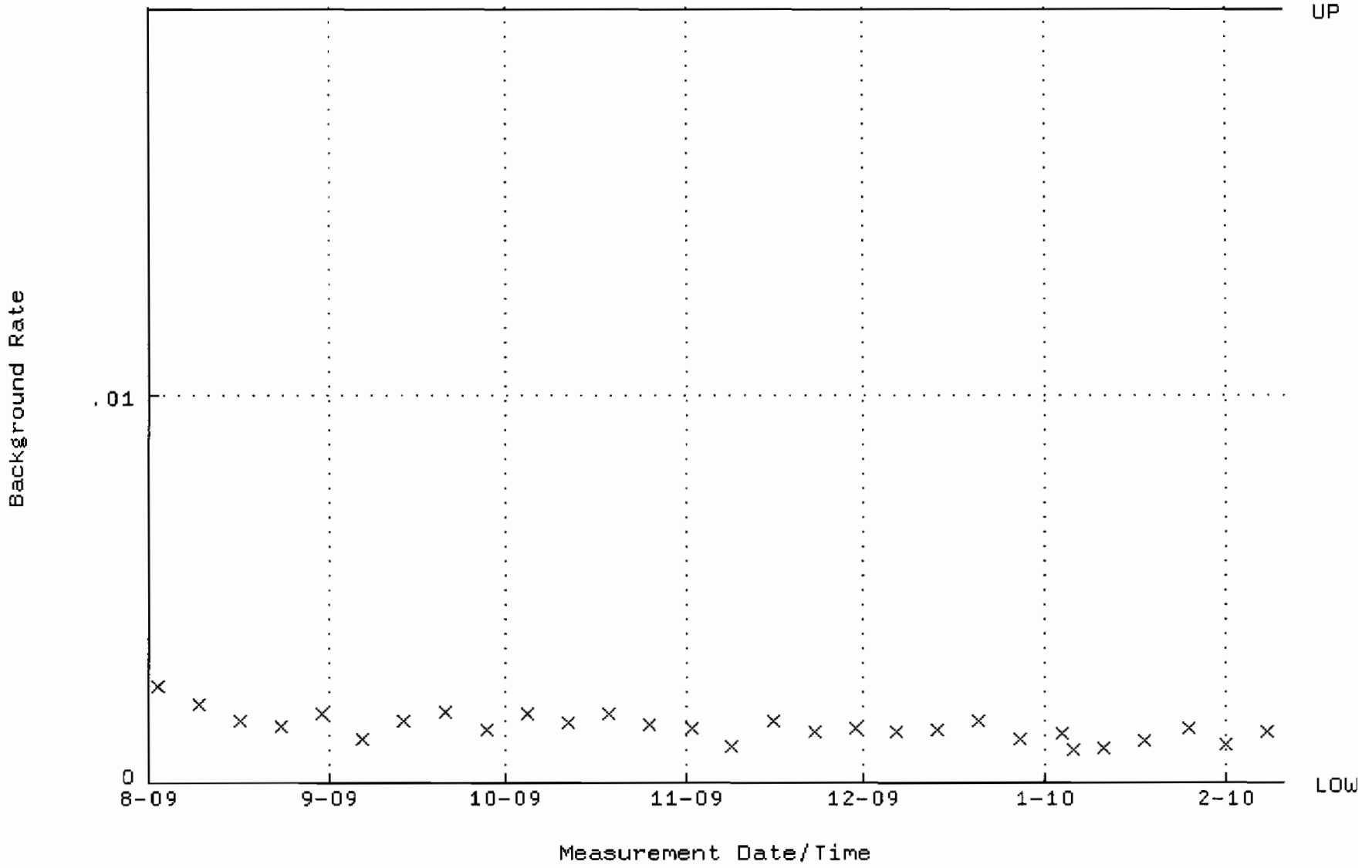

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316597 through 0.336597

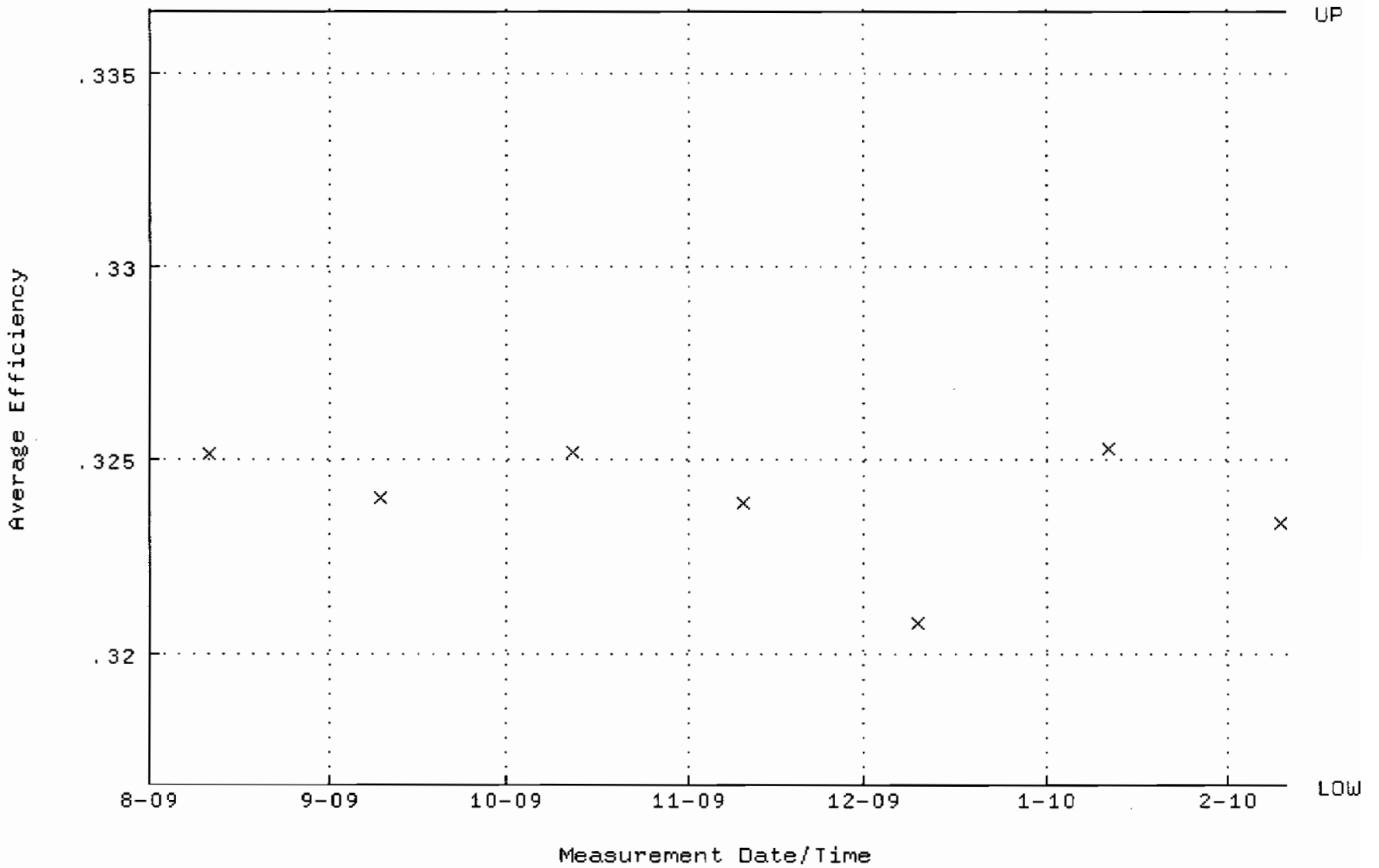

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.2683 through 95.3491

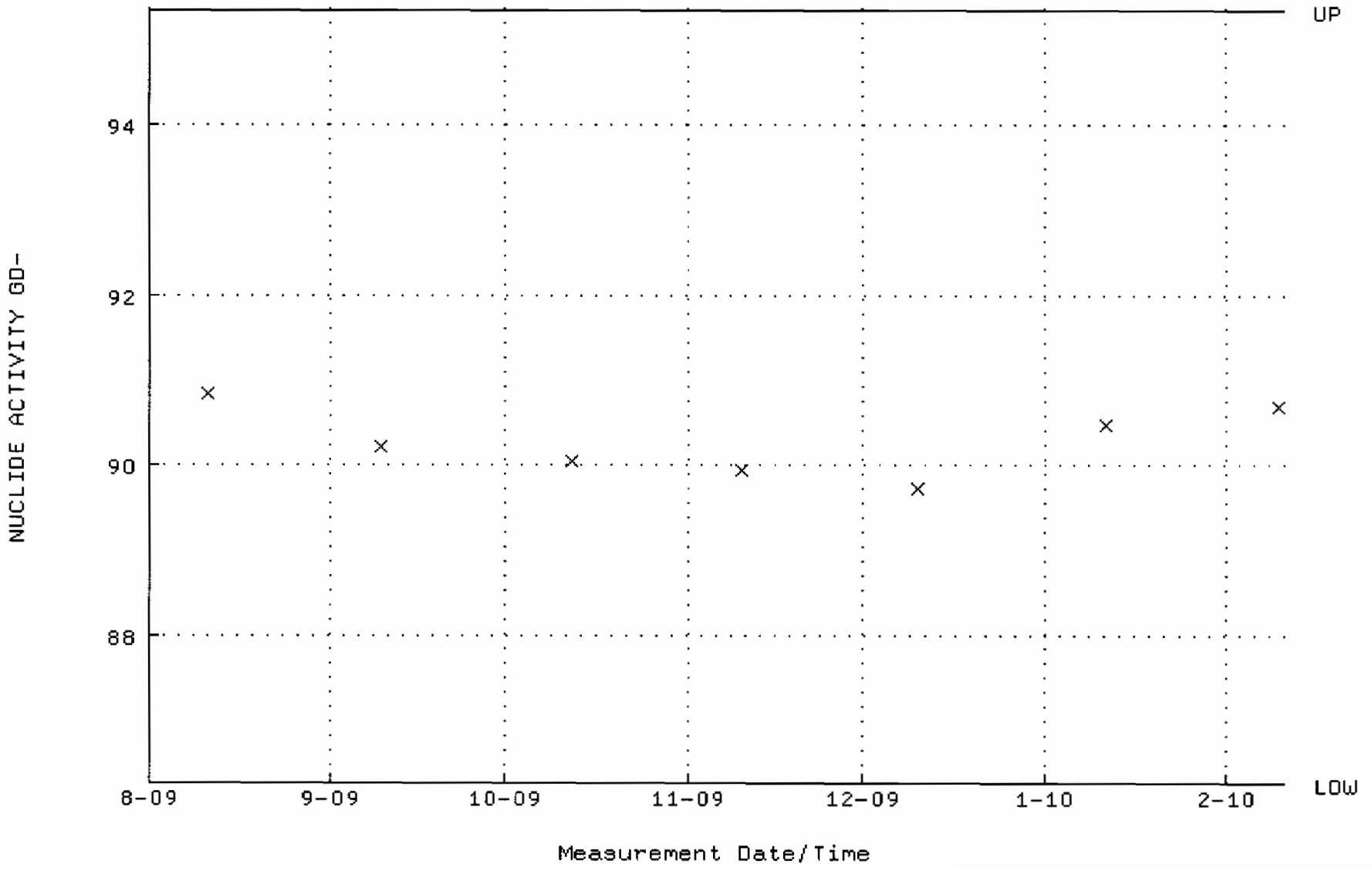

QA filename : DKA100:[ENV_ALPHA.QA.B]B067.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

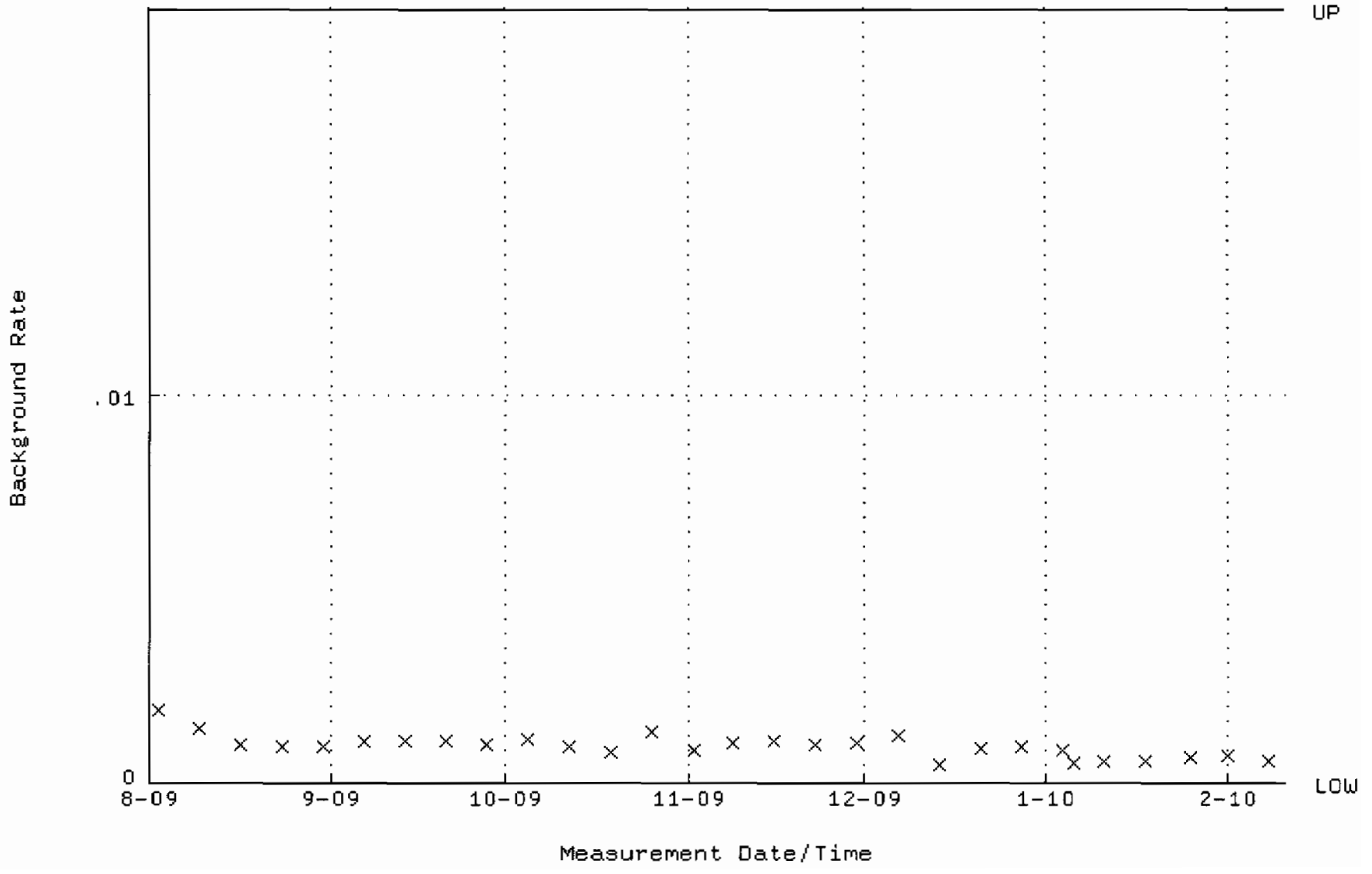

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.289178 through 0.309178

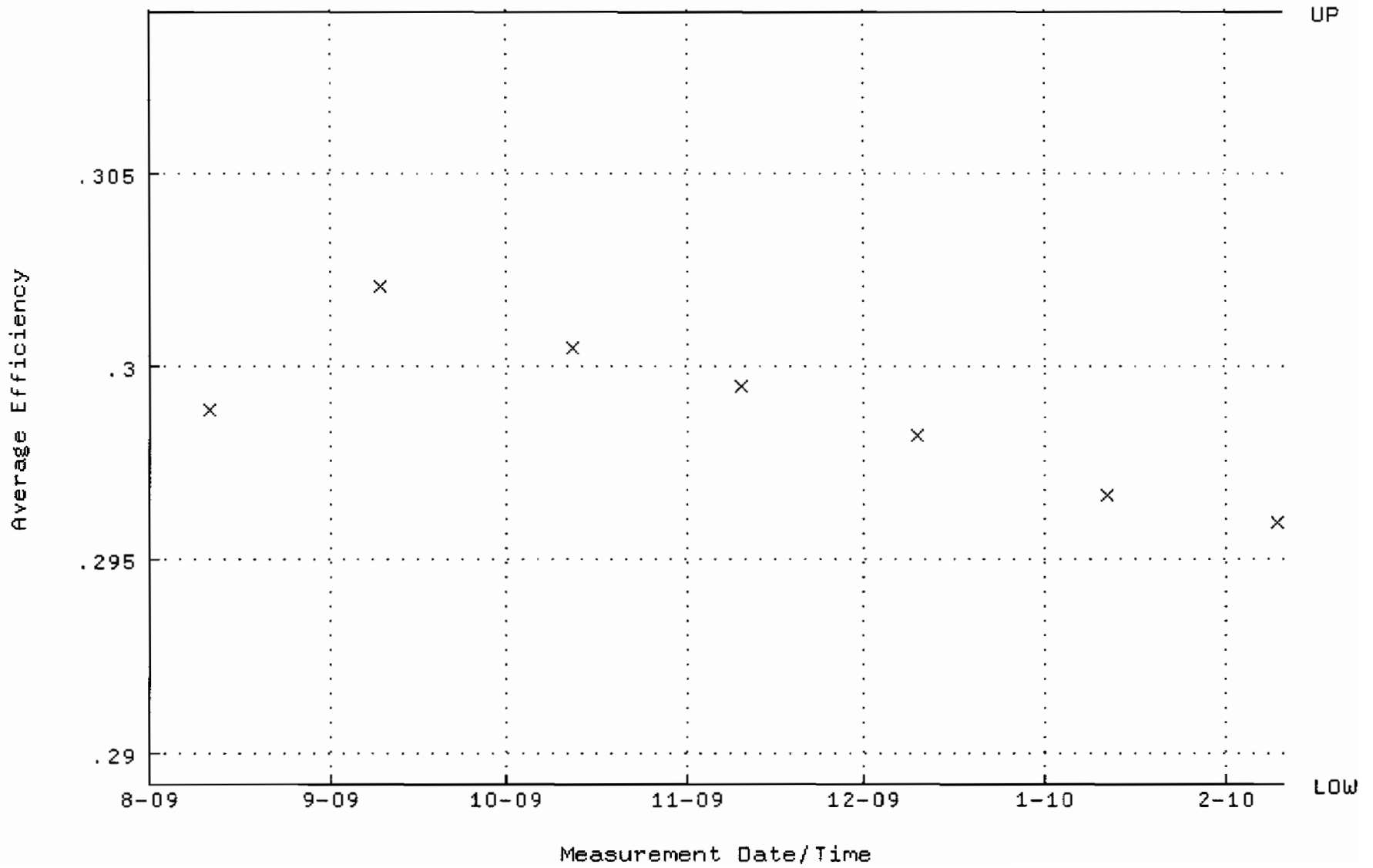

QA filename : DKA100:[ENV_ALPHA.QA.W]W068.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.4419 through 96.6463

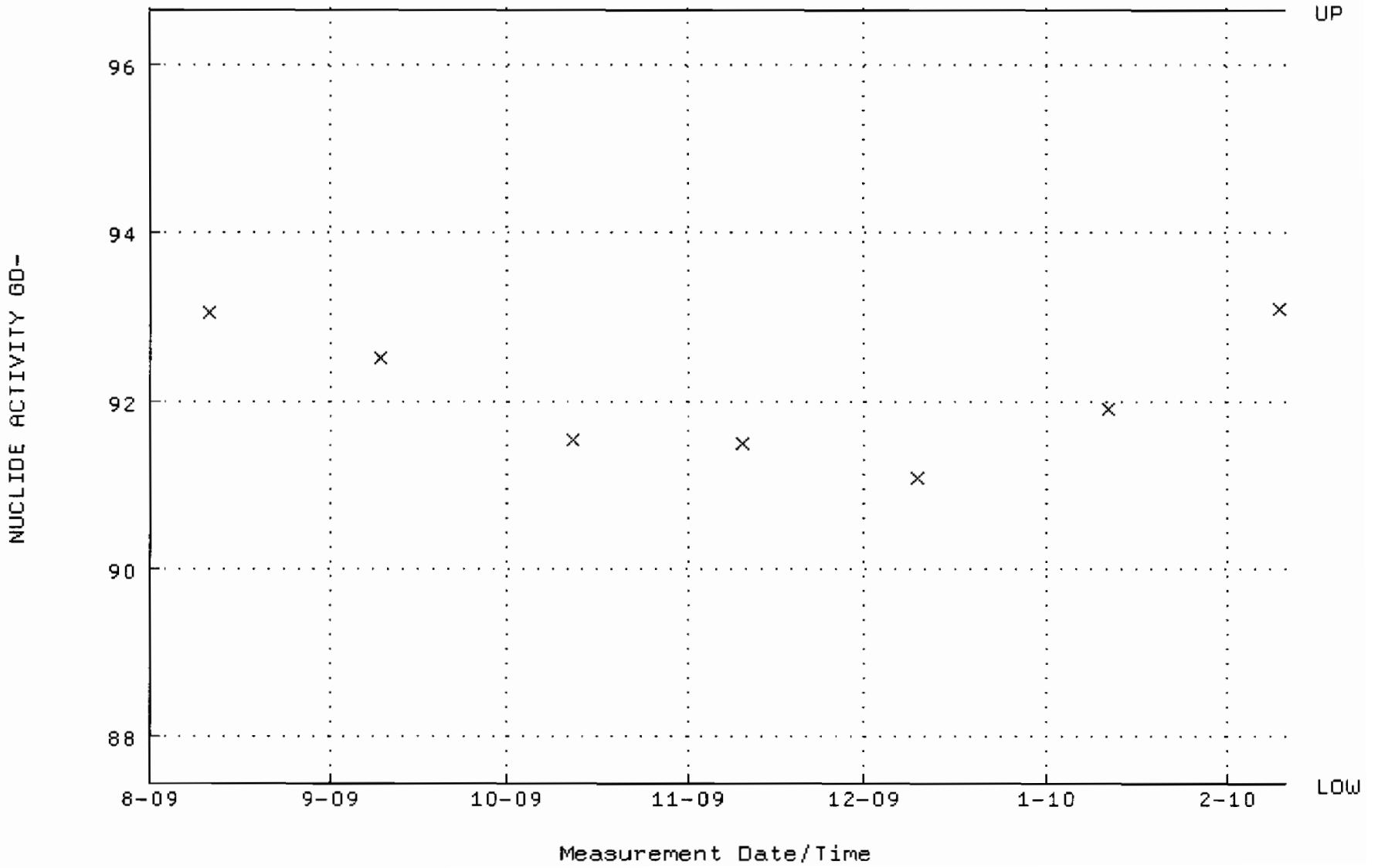

QA filename : DKA100:[ENV_ALPHA.QA.B]B068.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

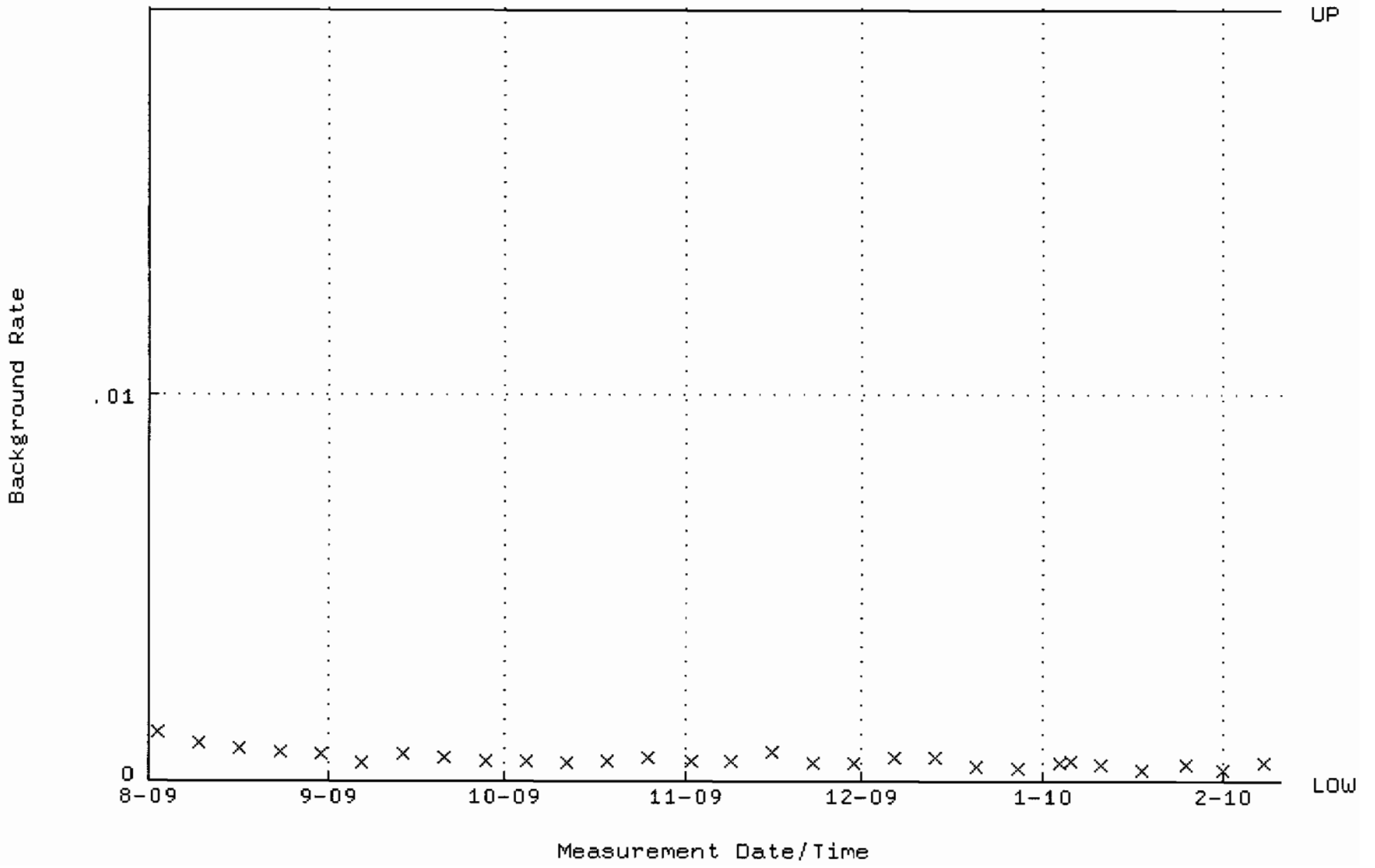

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.306636 through 0.326636

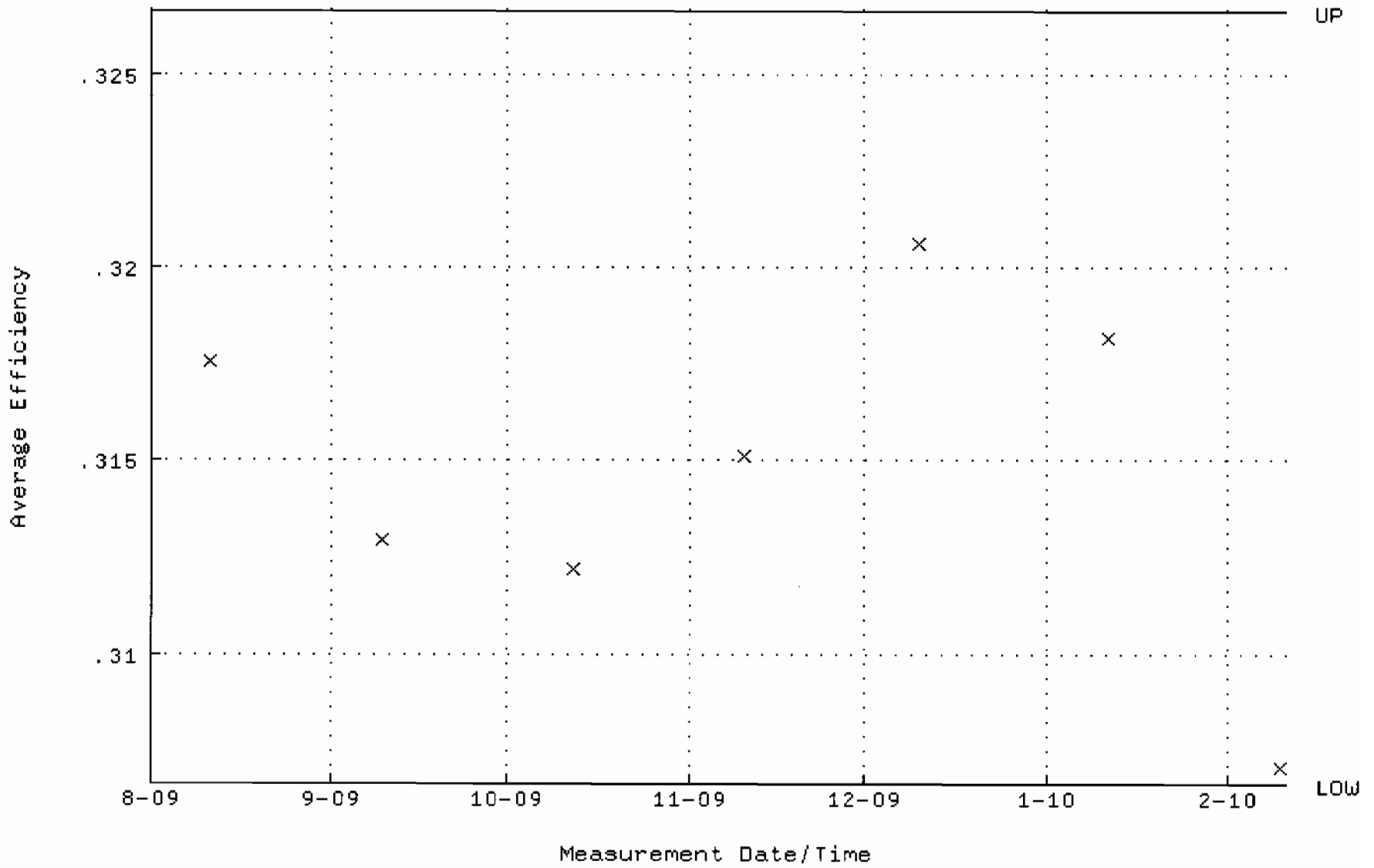

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 89.6479 through 99.0845

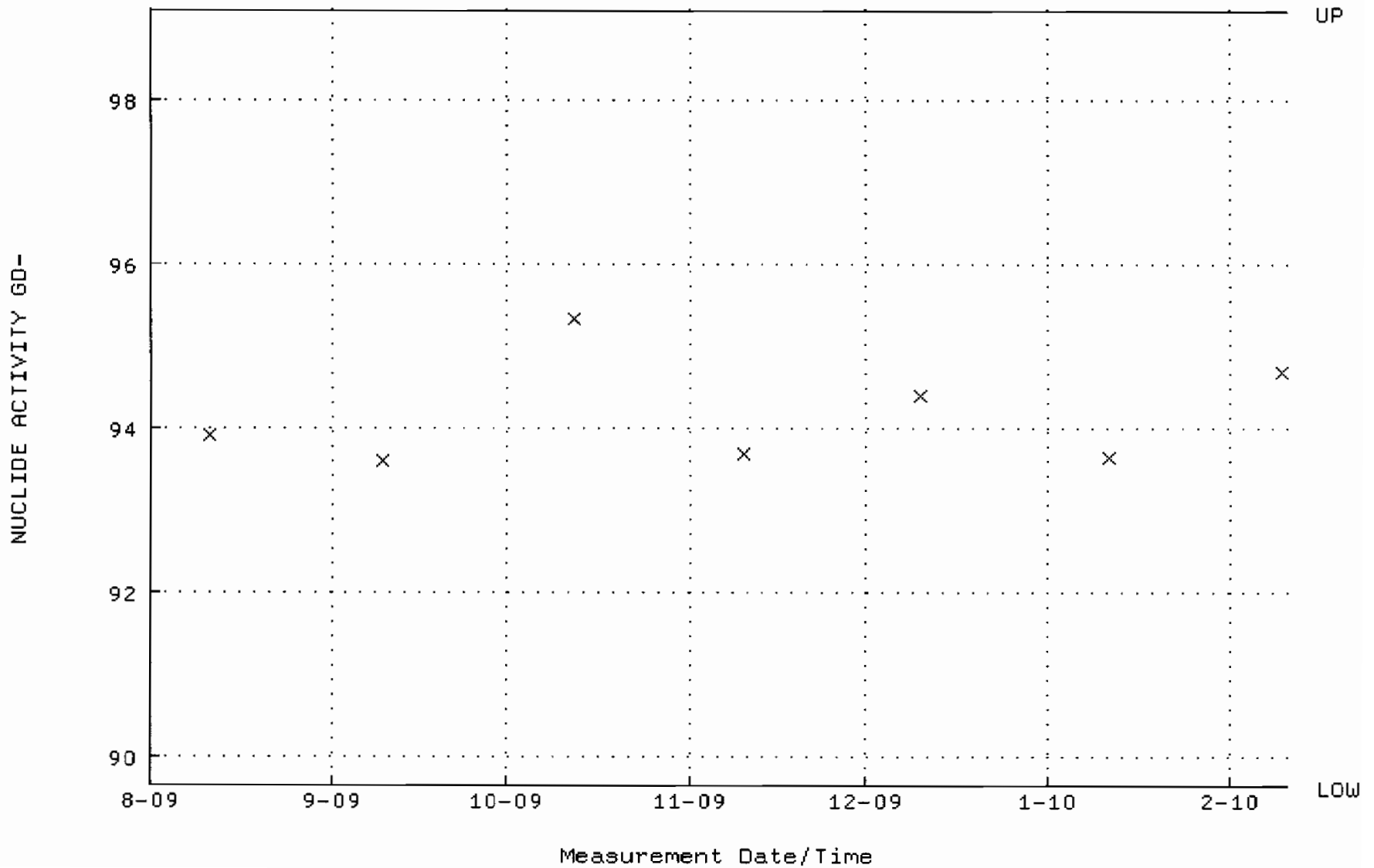

QA filename : DKA100:[ENV_ALPHA.QA.B]B069.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

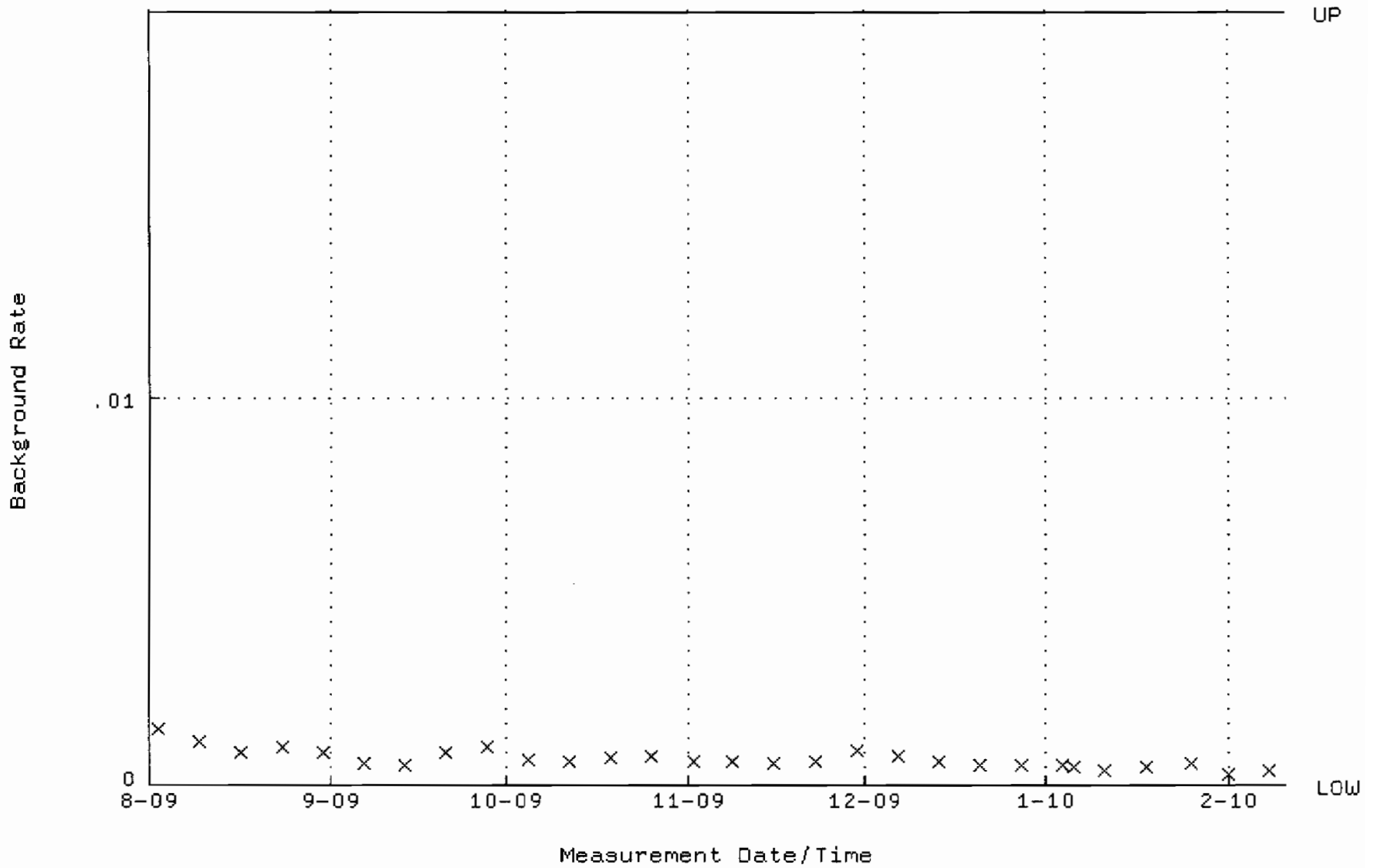

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5293 through 94.5323

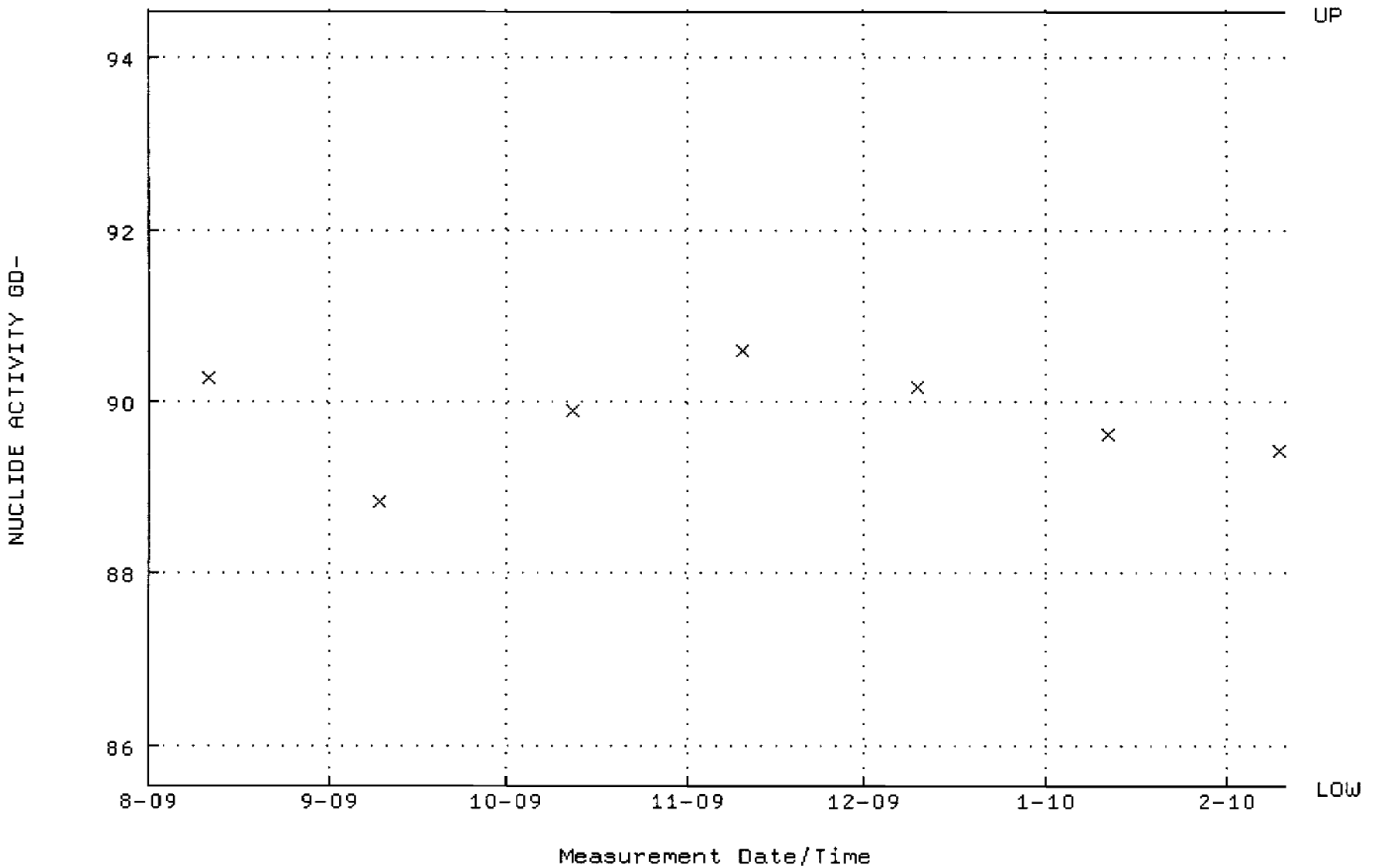

QA filename : DKA100:[ENV_ALPHA.QA.W]W070.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.342785 through 0.362785

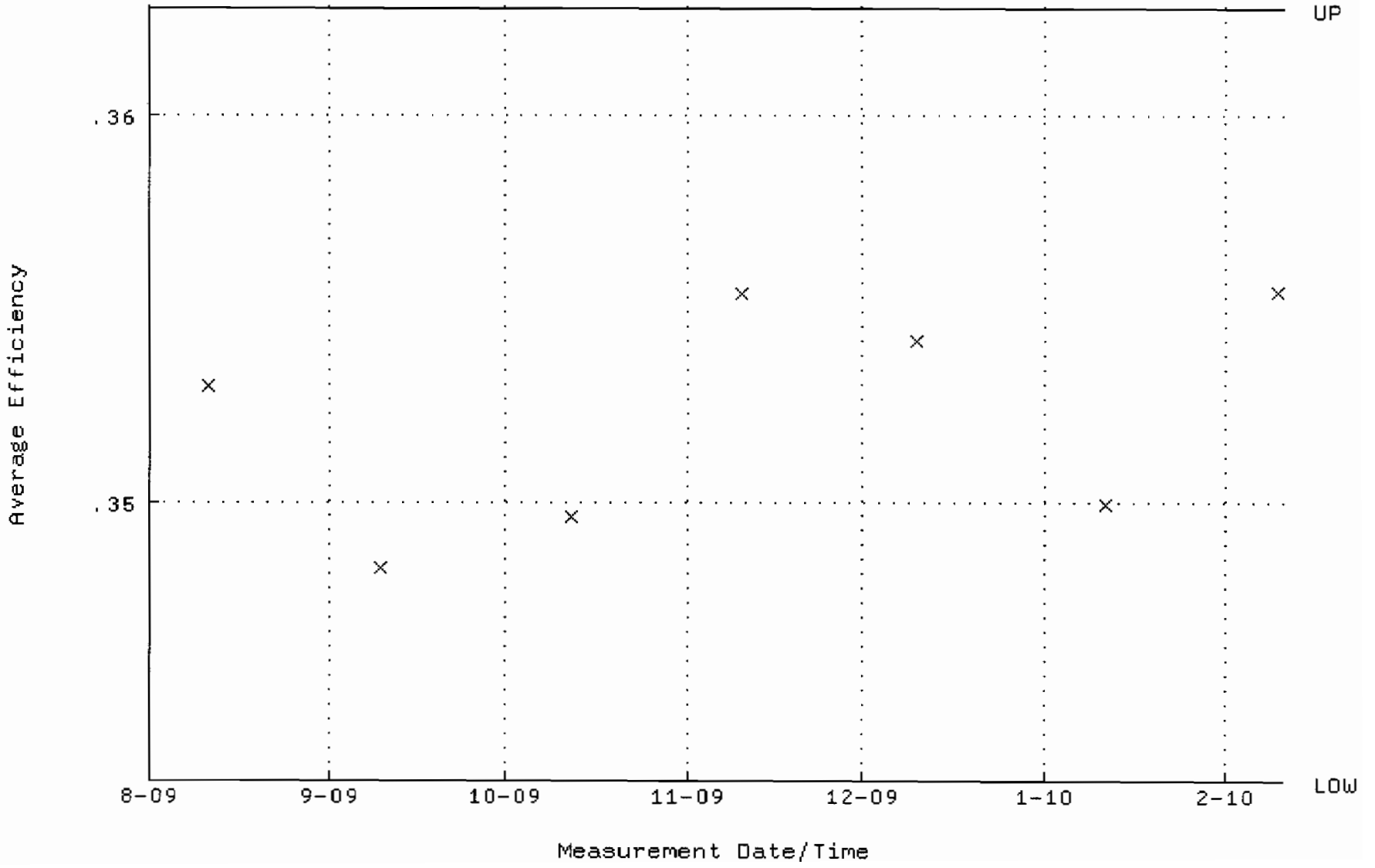

QA filename : DKA100:[ENV_ALPHA.QA.B]B070.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

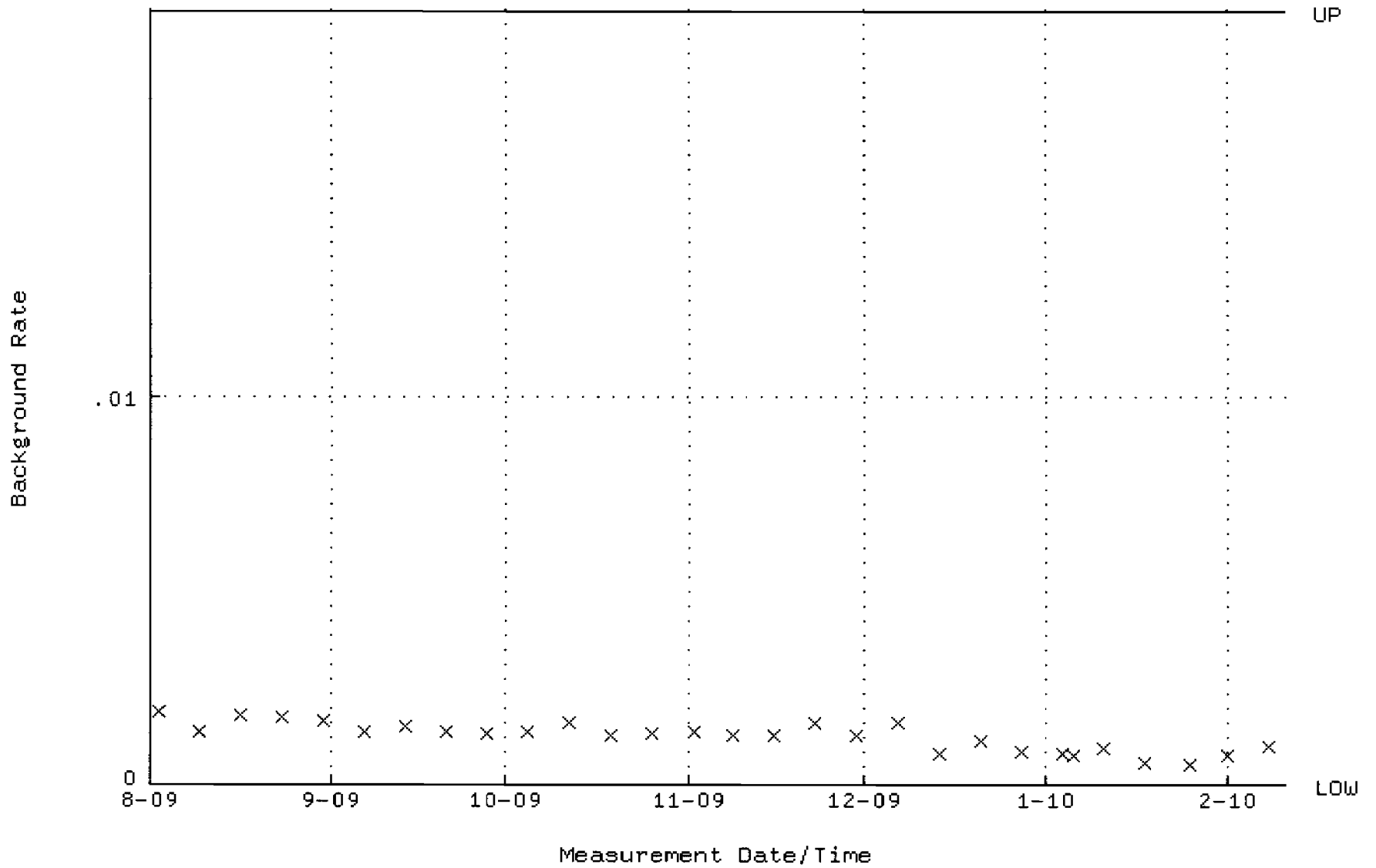

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.309161 through 0.329161

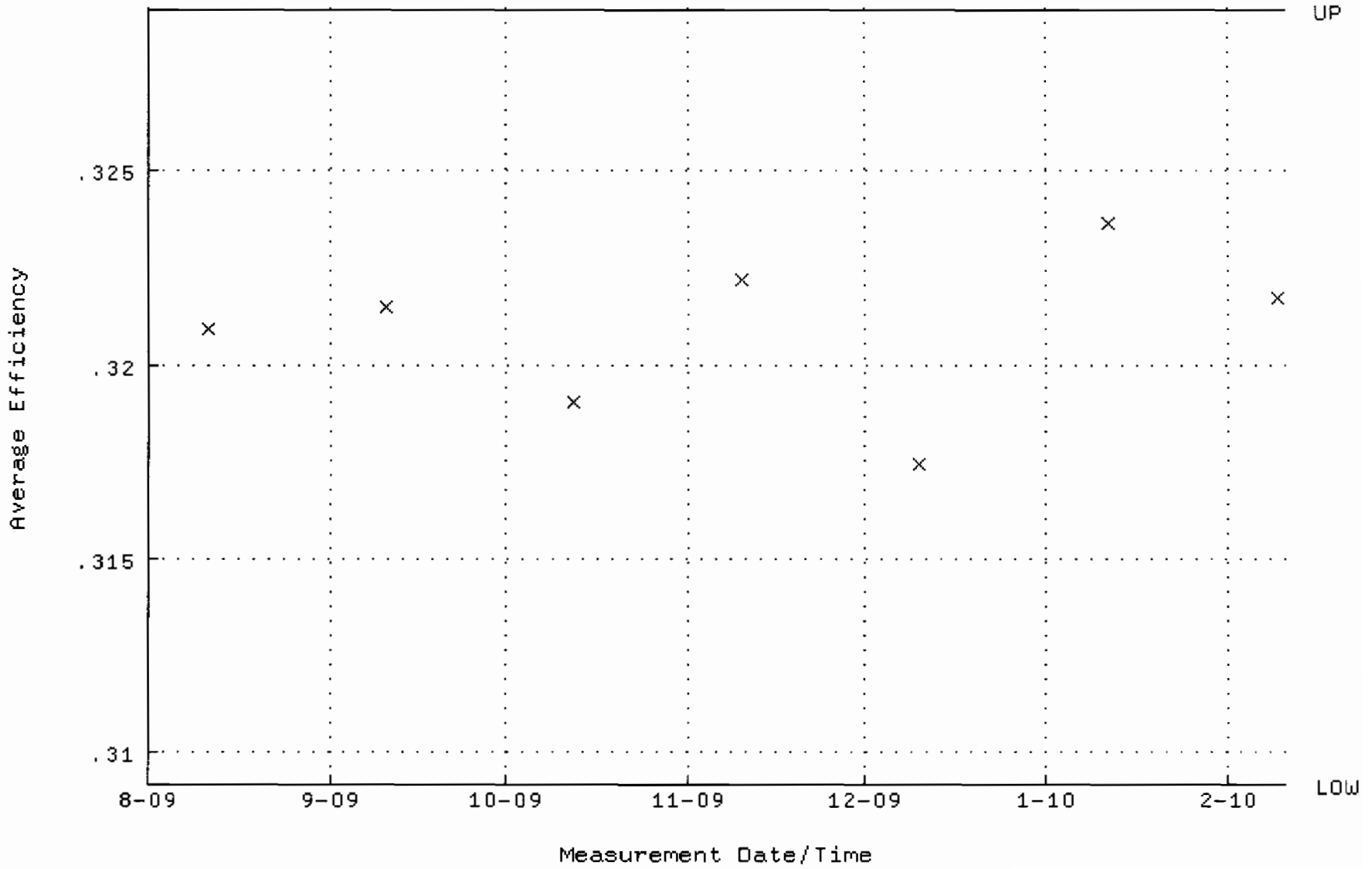

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7769 through 95.9113

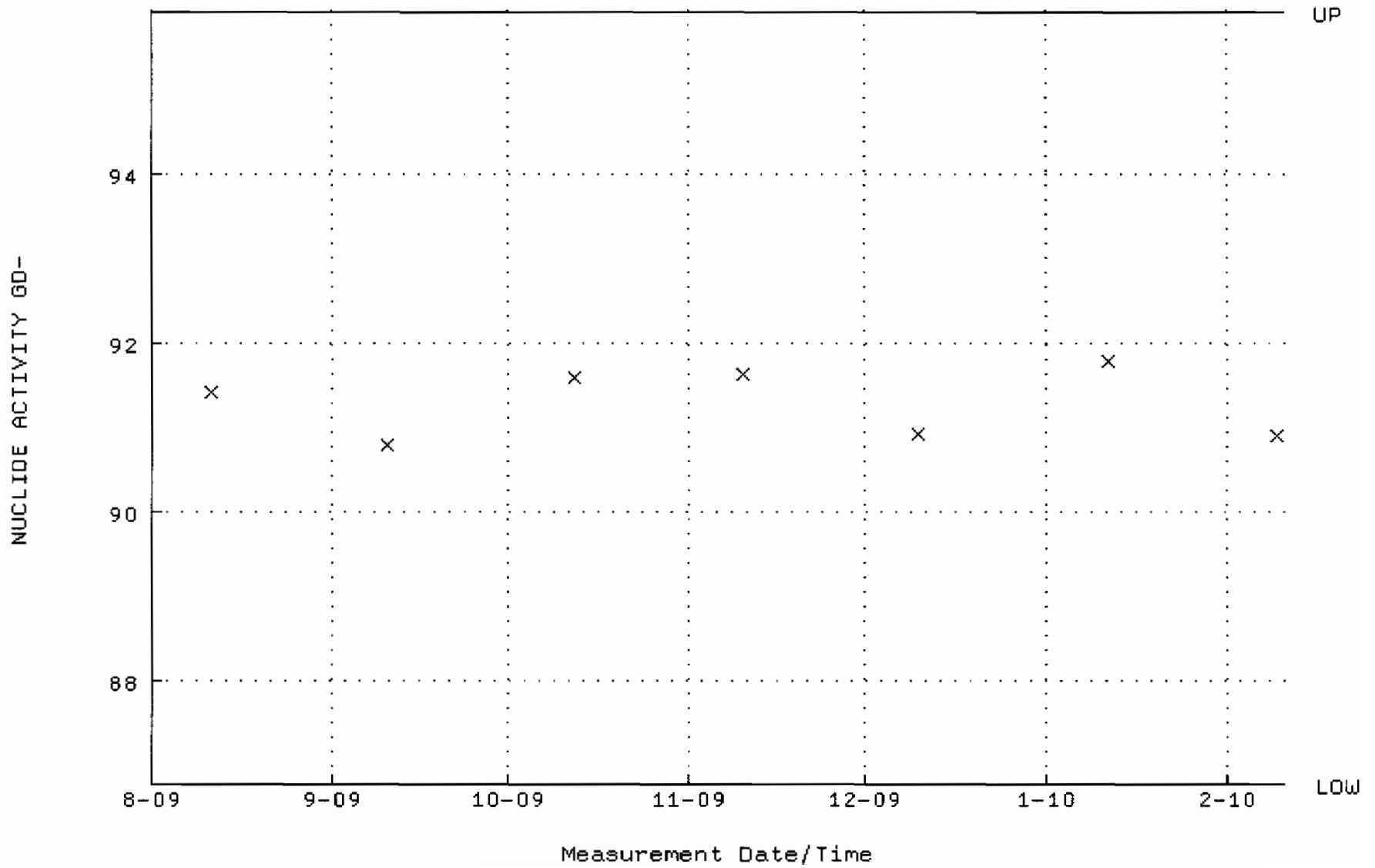

QA filename : DKA100:[ENV_ALPHA.QA.B]B071.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

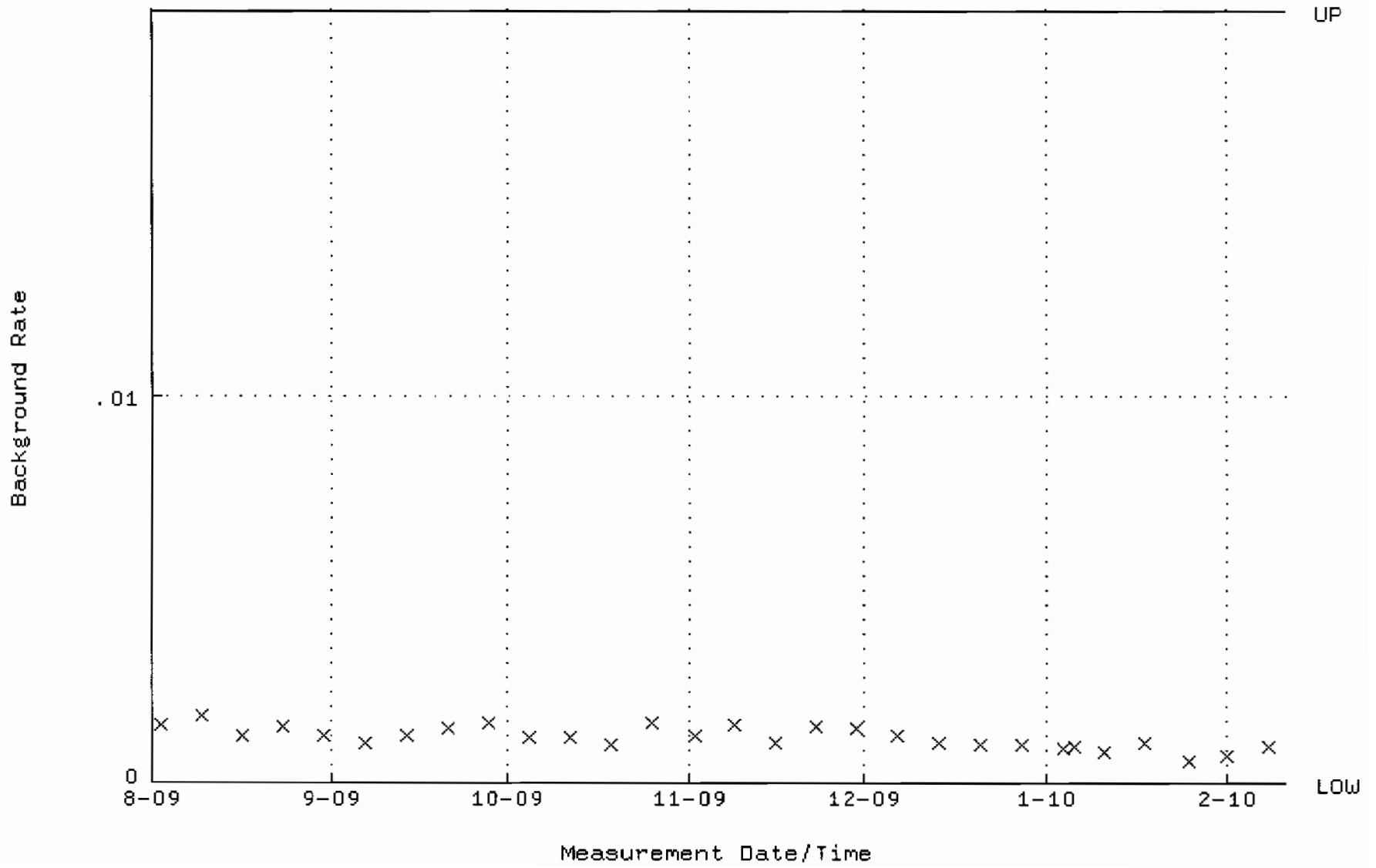

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313761 through 0.333761

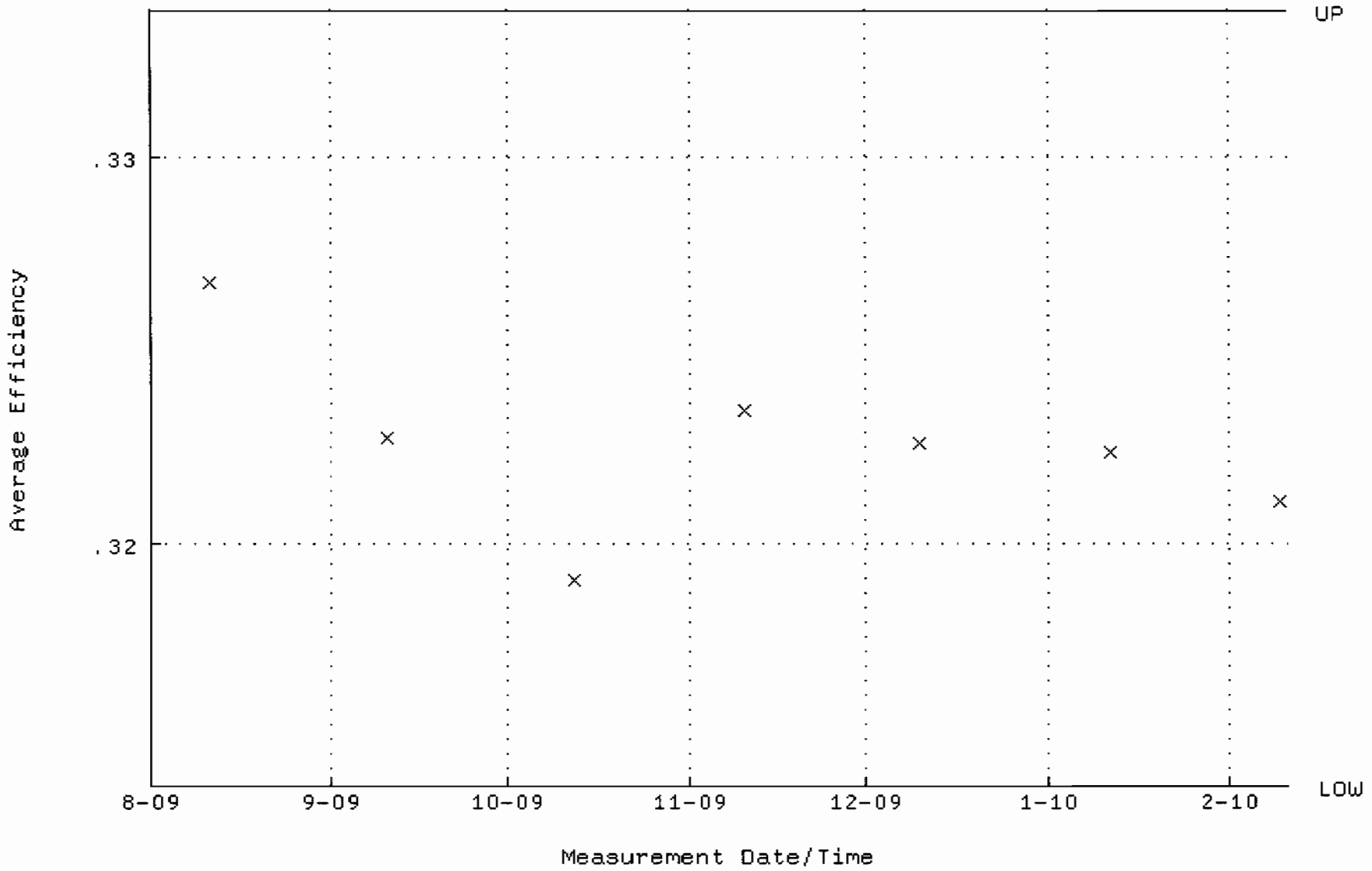

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.3348 through 96.5280

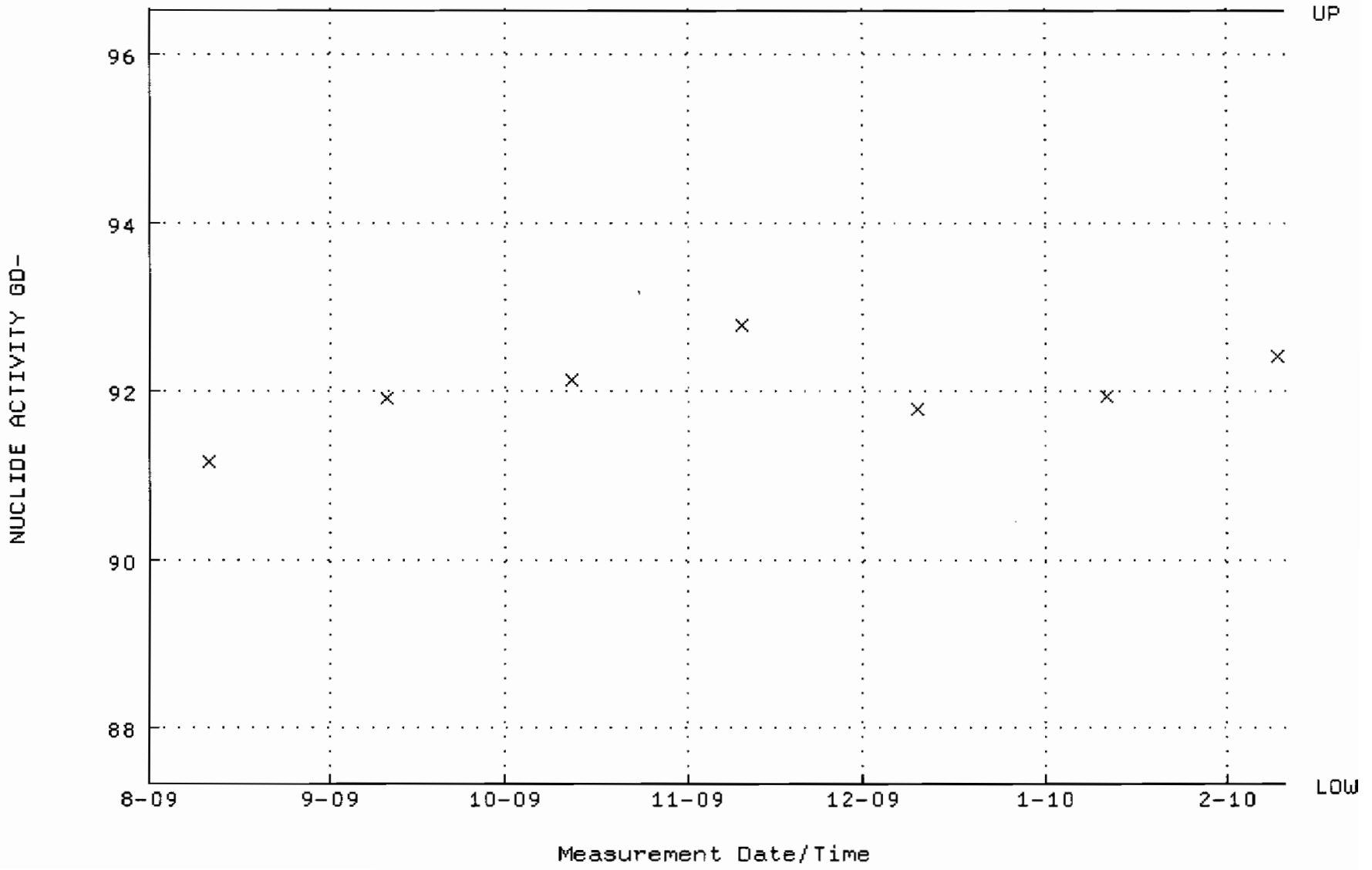

QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

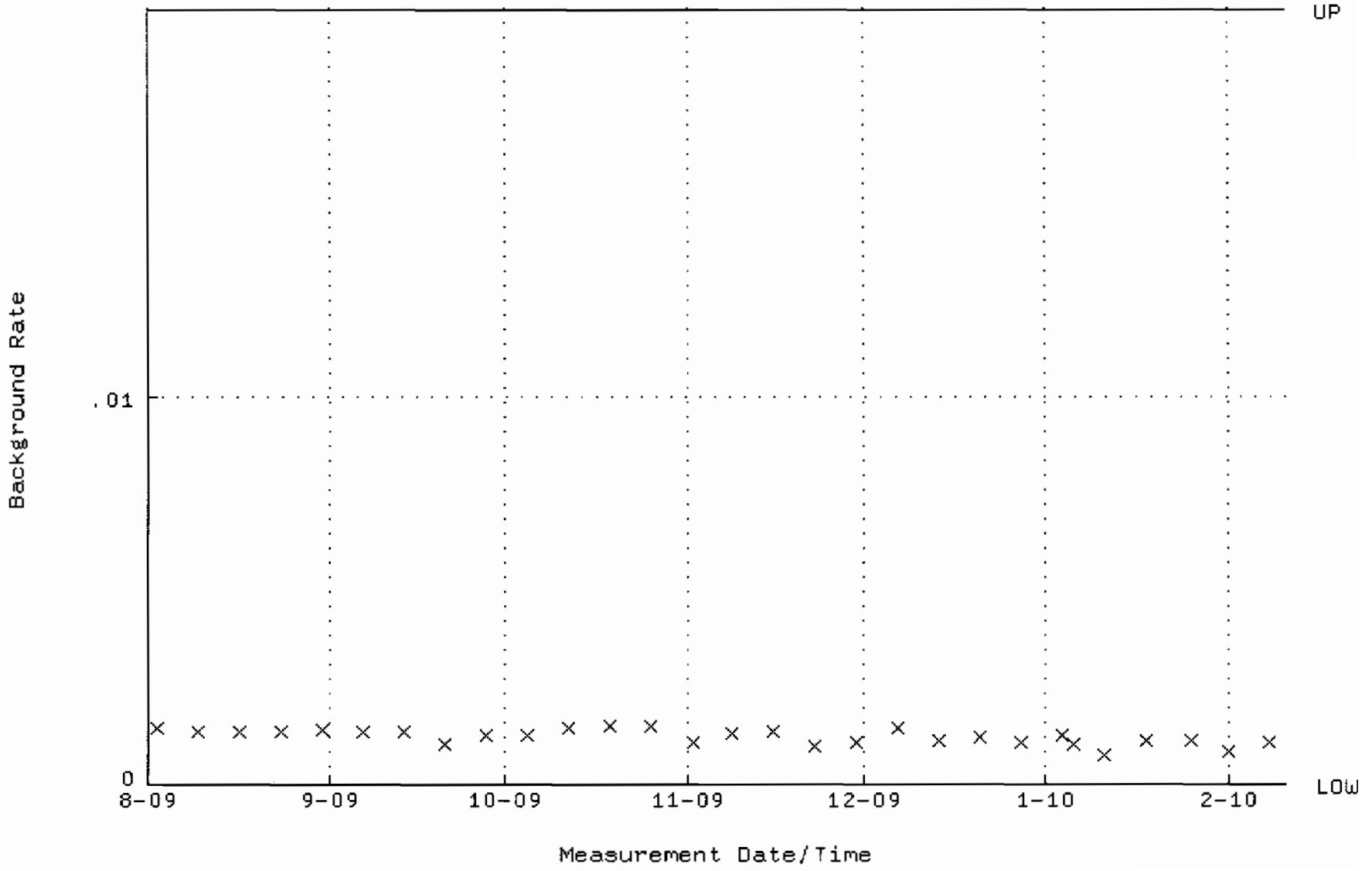

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

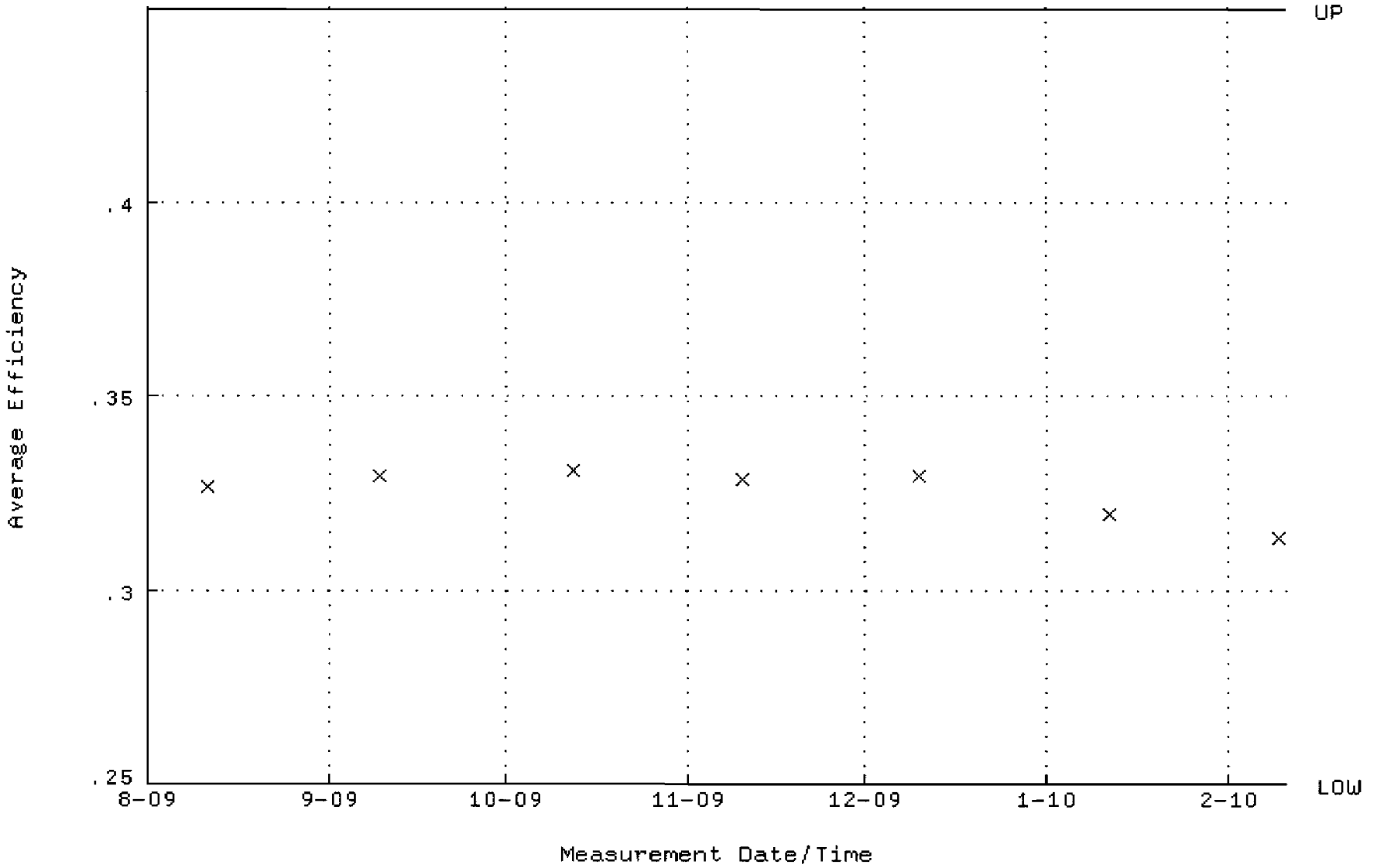

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

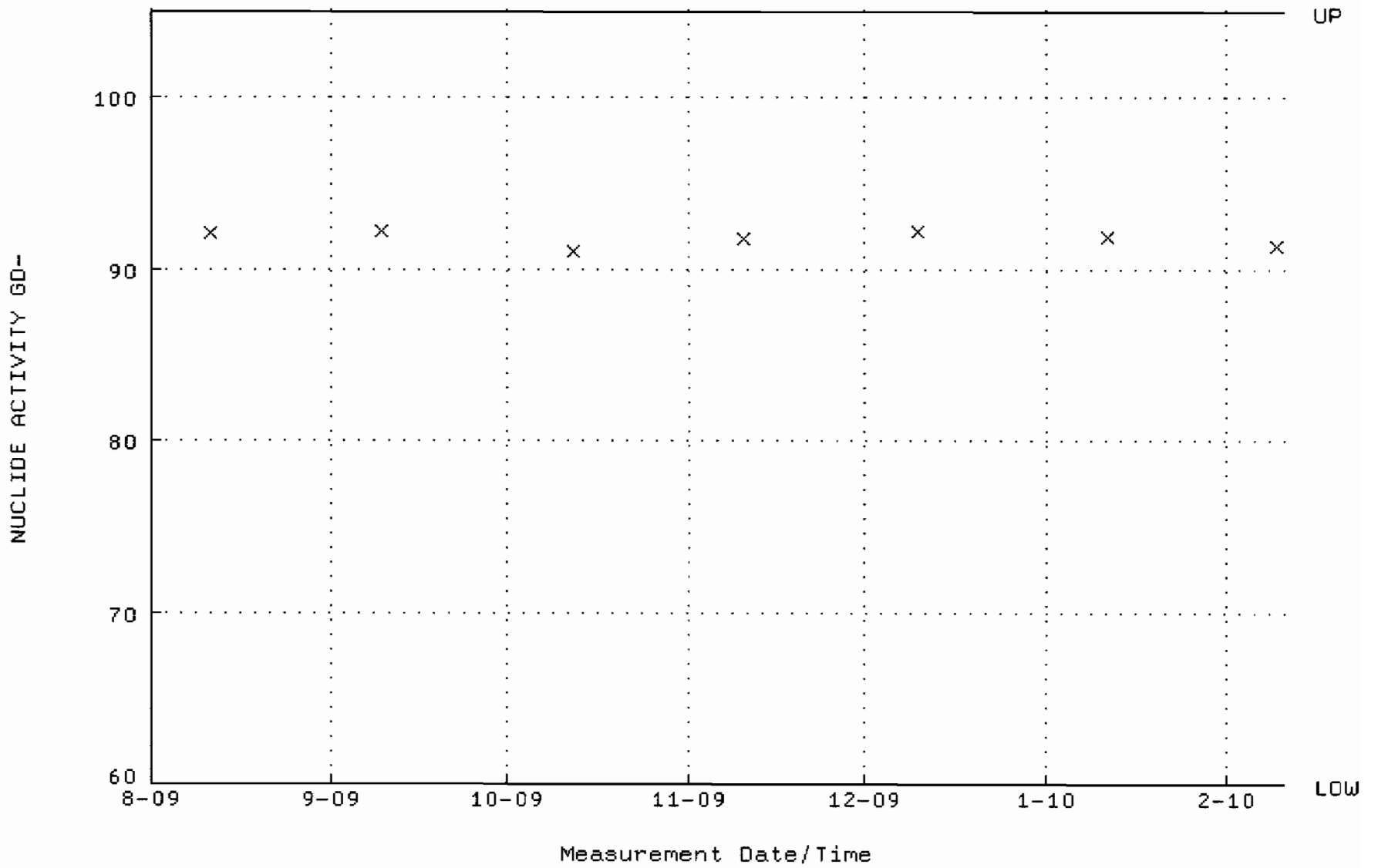

QA filename : DKA100:[ENV_ALPHA.QA.B]B077.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

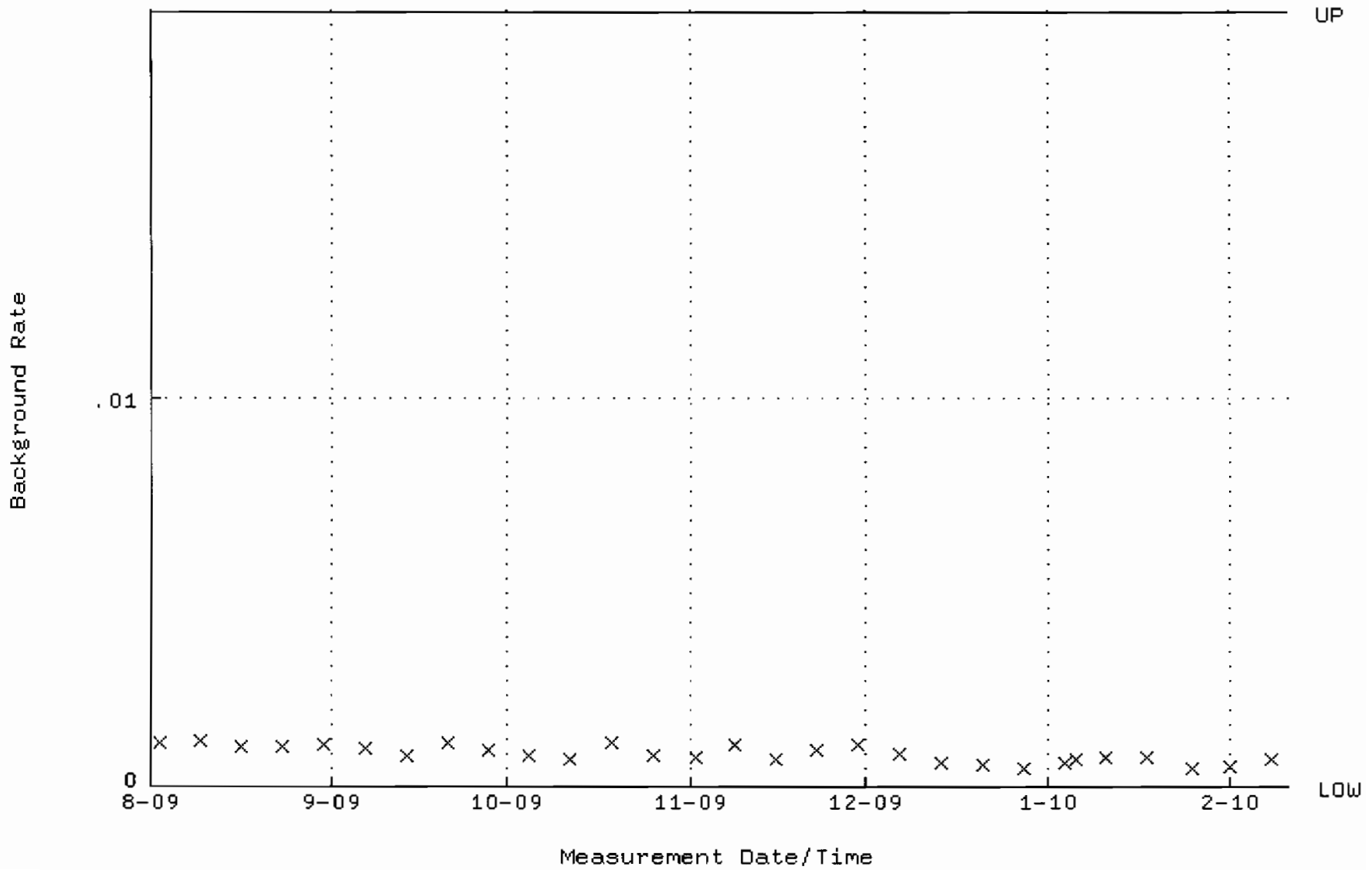

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316654 through 0.336654

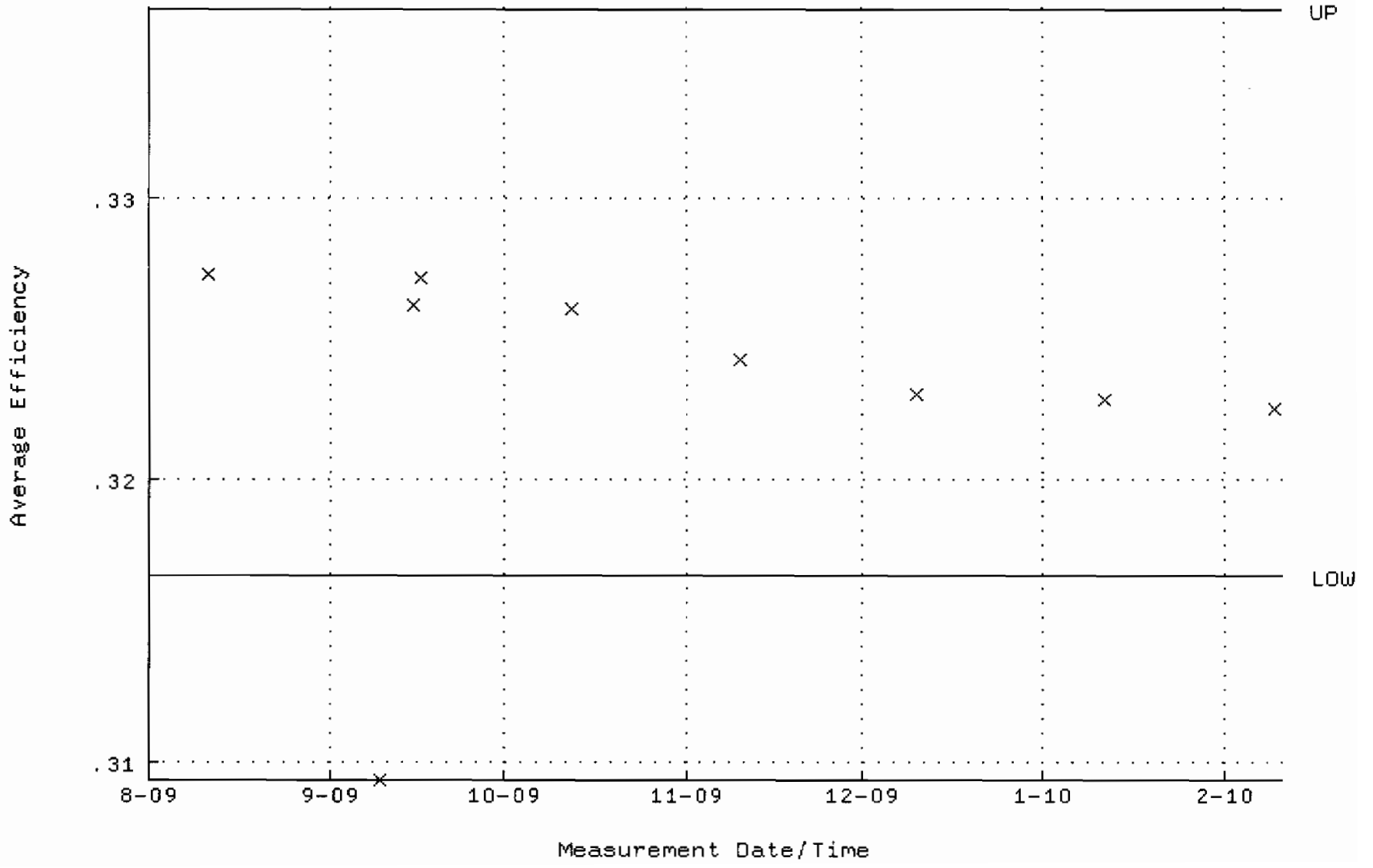

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8913 through 94.9325

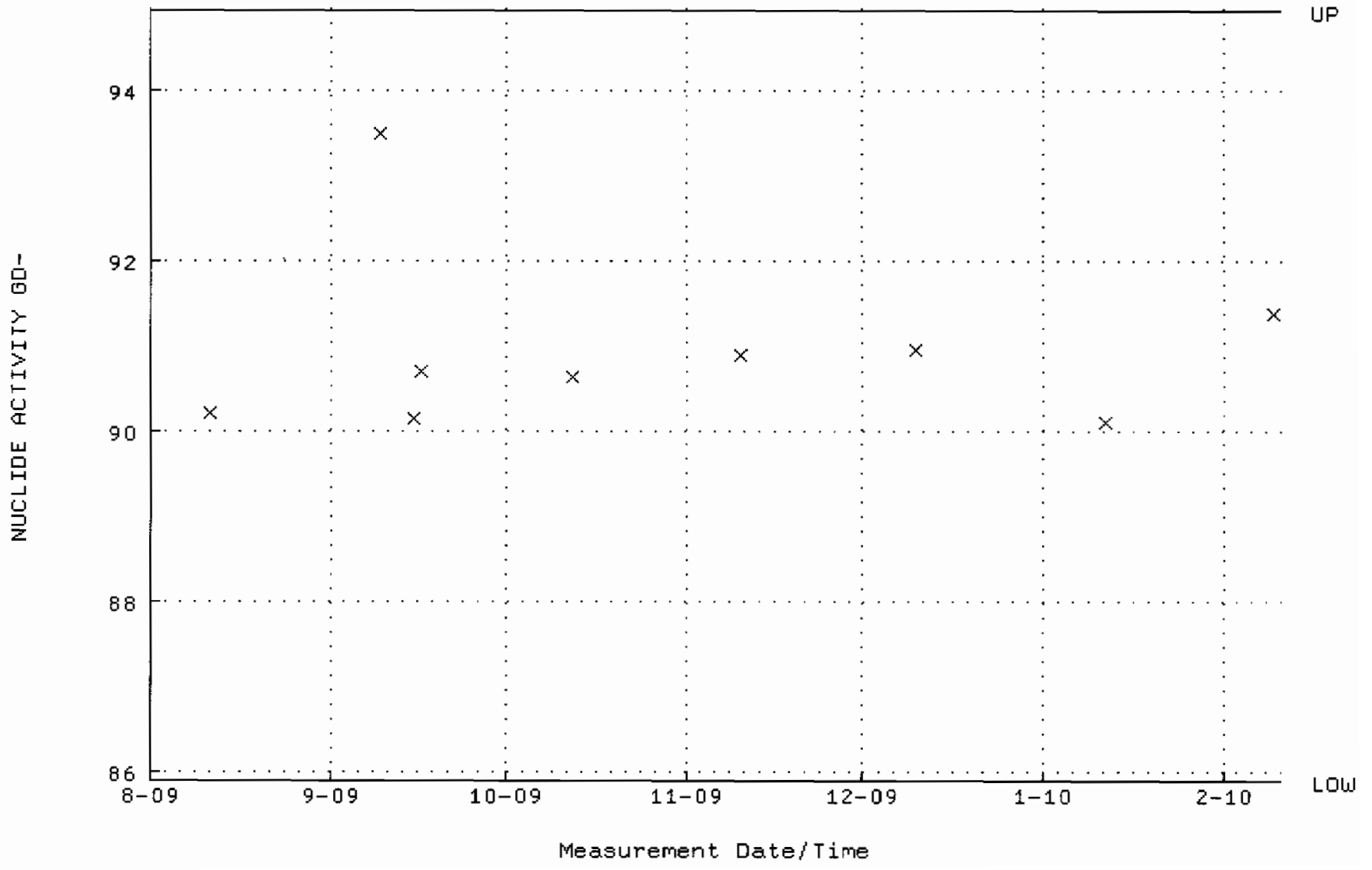

QA filename : DKA100:[ENV_ALPHA.QA.B]B079.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

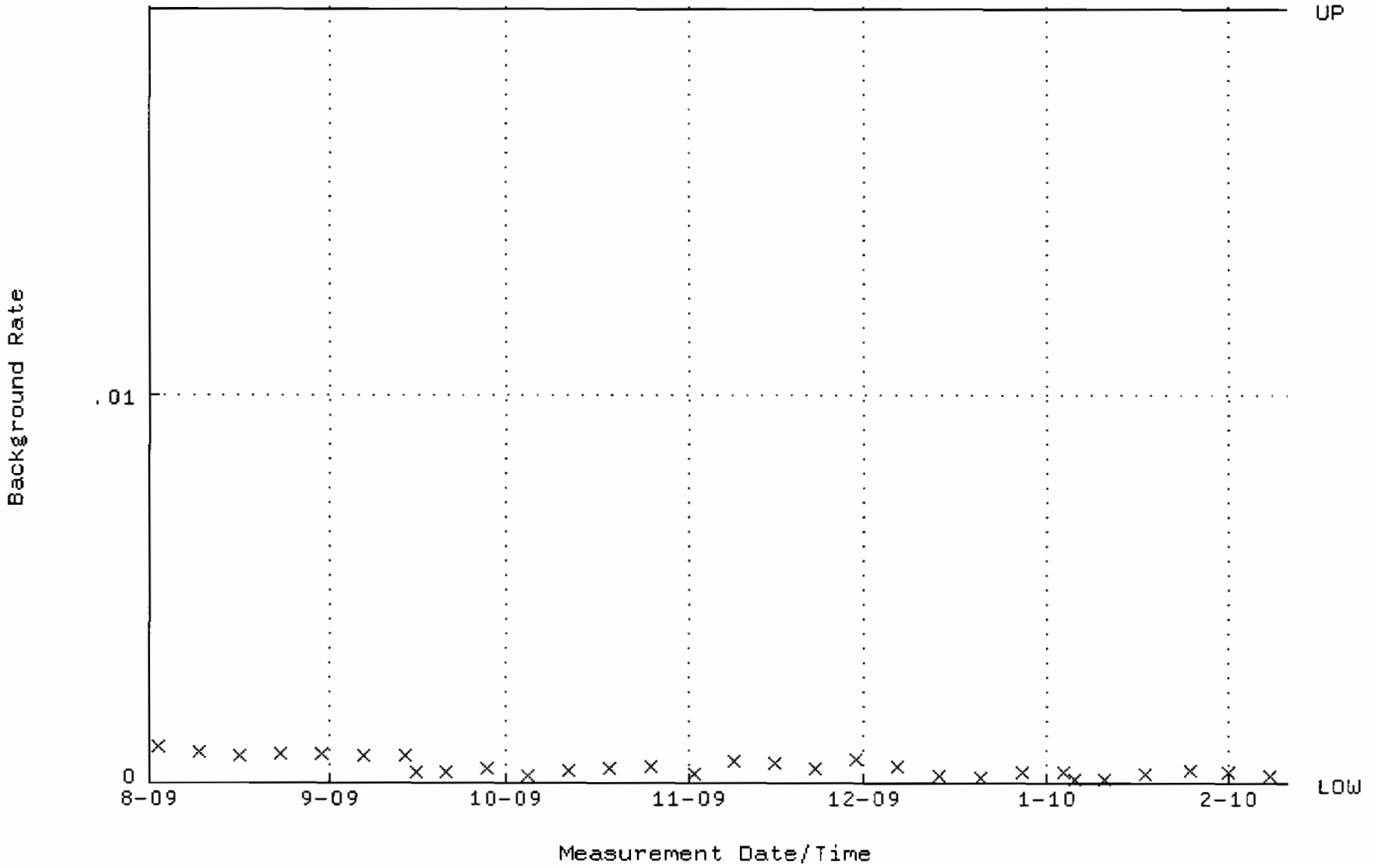

QA filename : DKA100:[ENV_ALPHA.QA.W]W080.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 12:17:29 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.324032 through 0.344032

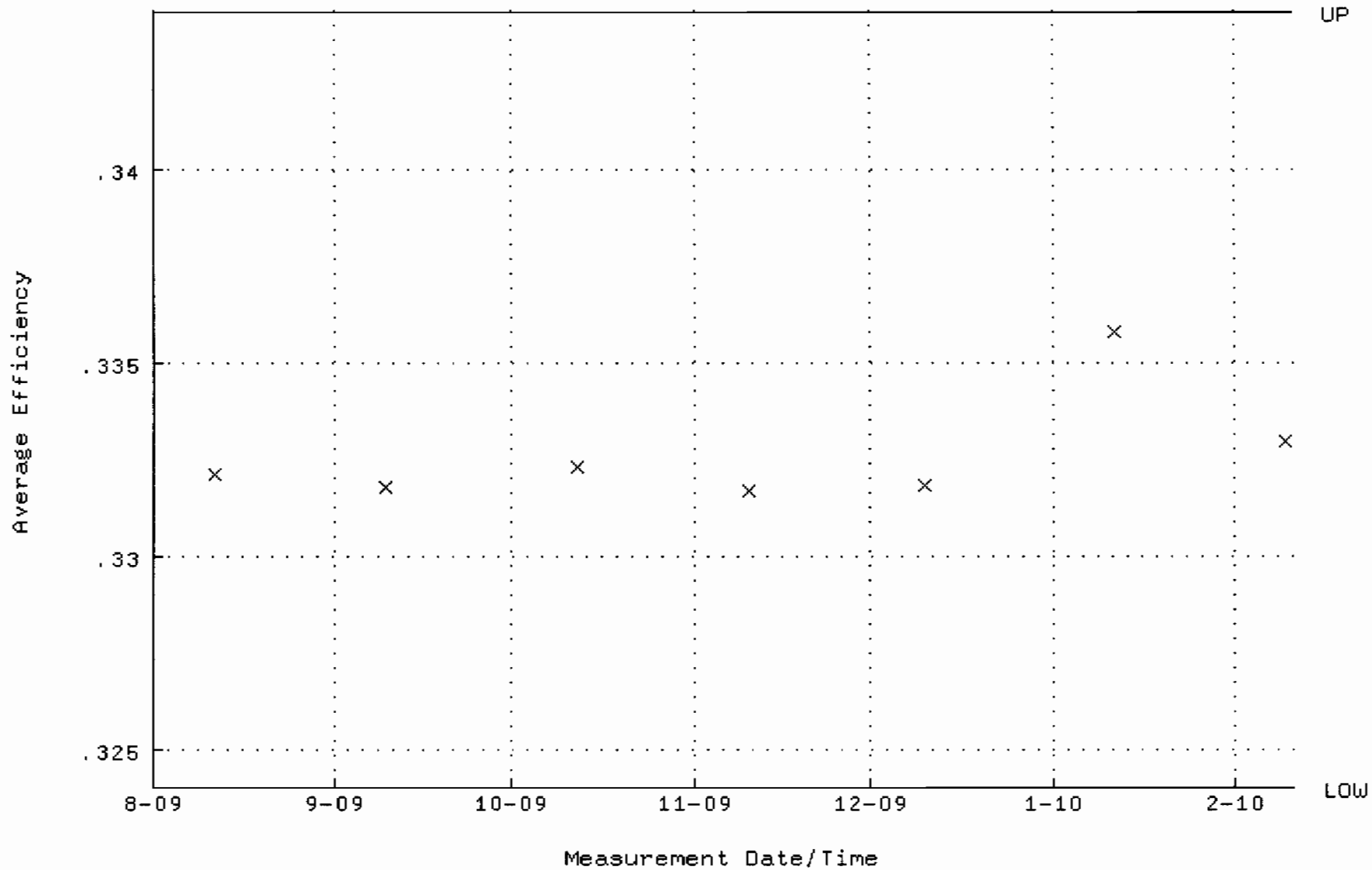

QA filename : DKA100:[ENV_ALPHA.QA.W]W080.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 12:17:29 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.5393 through 95.6487

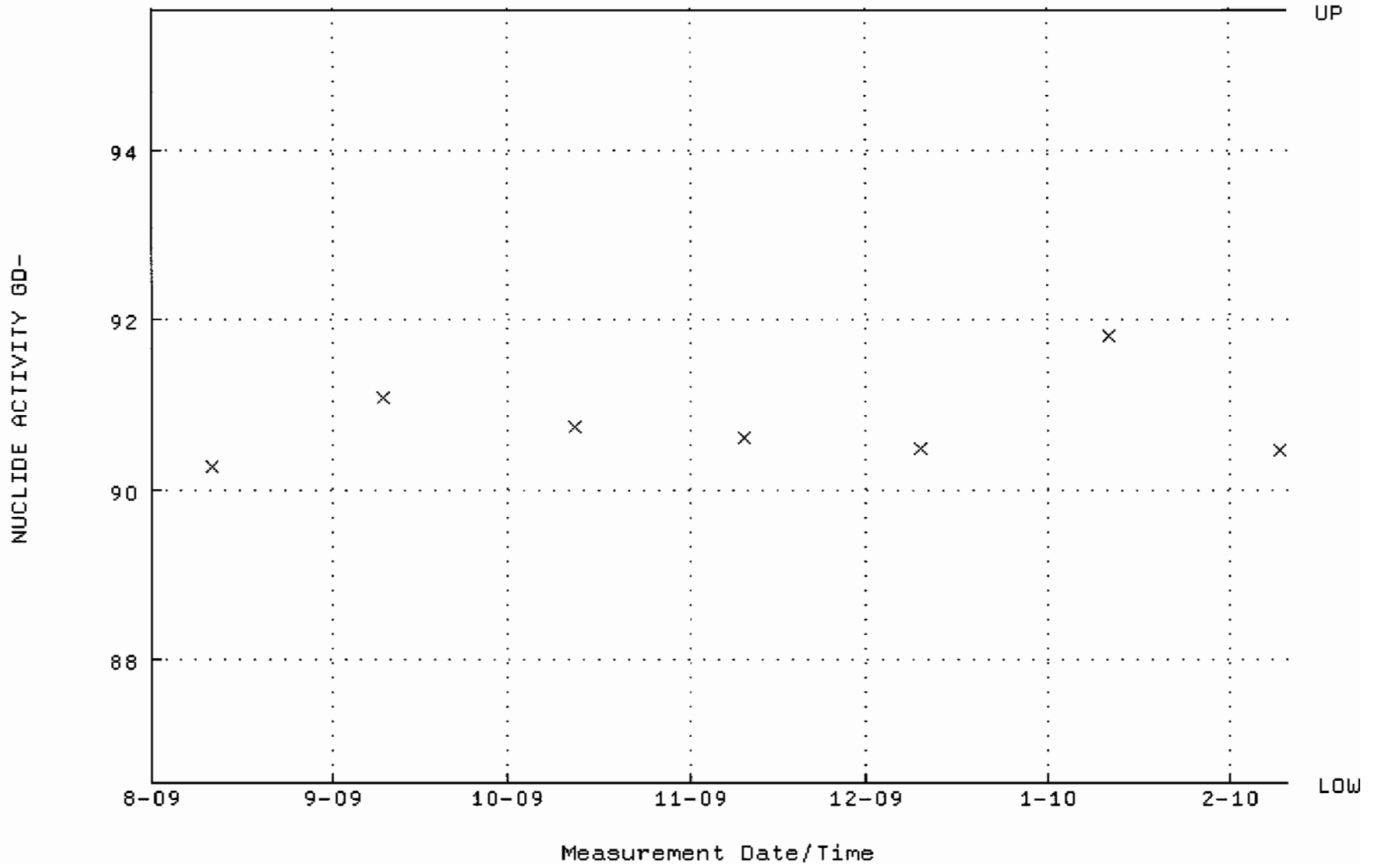

QA filename : DKA100:[ENV_ALPHA.QA.B]B080.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

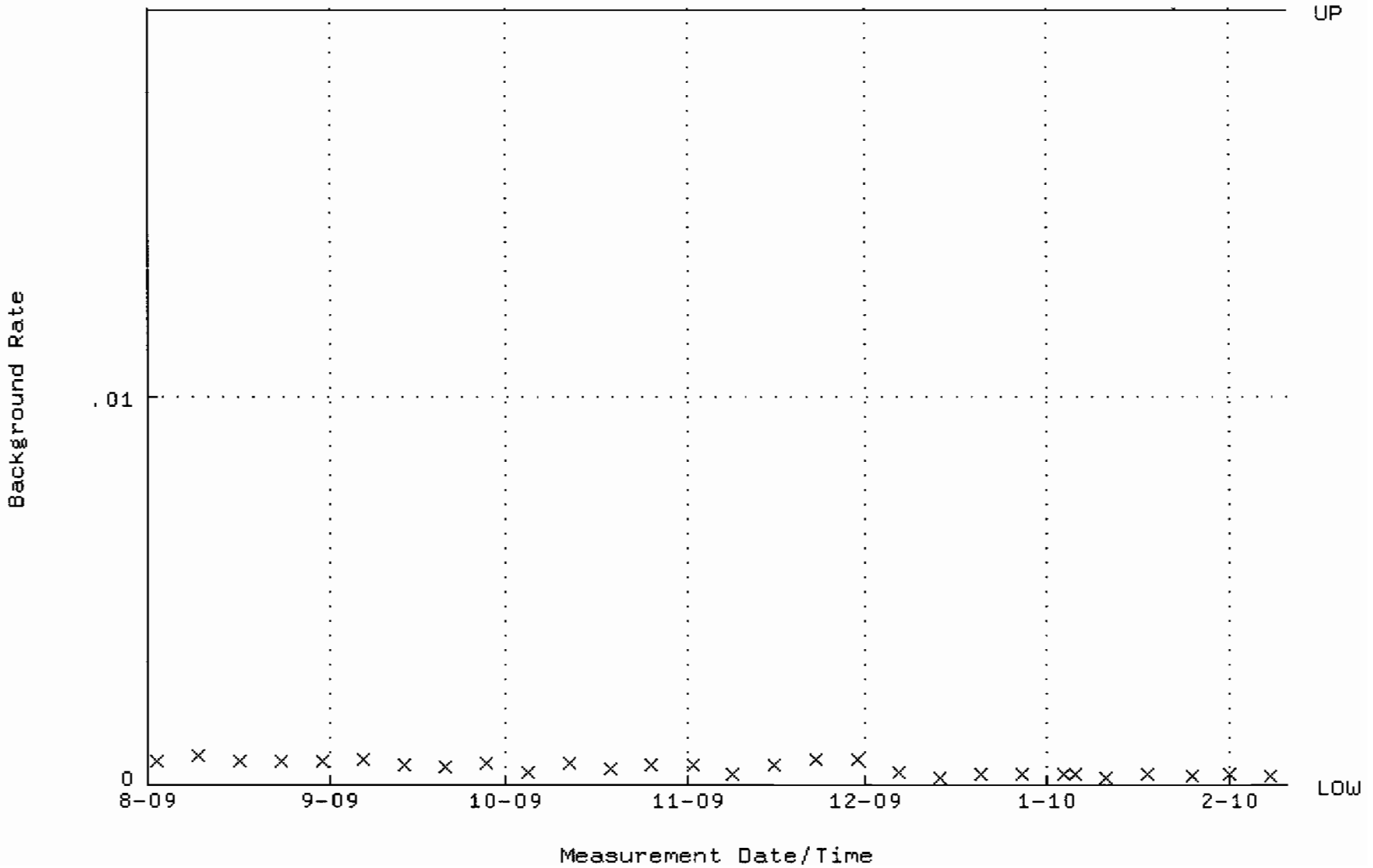

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310202 through 0.330202

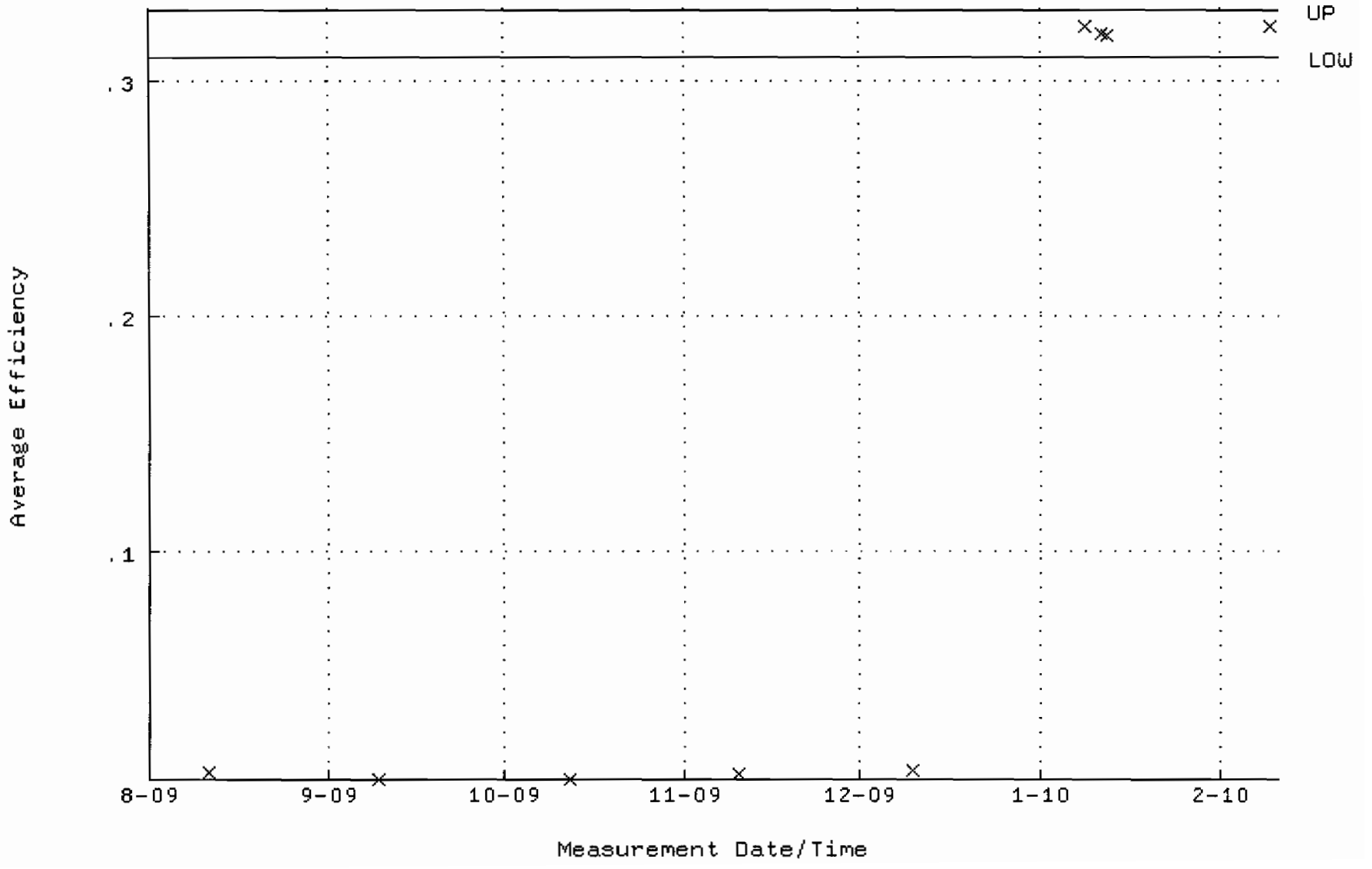

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 89.2016 through 98.5912

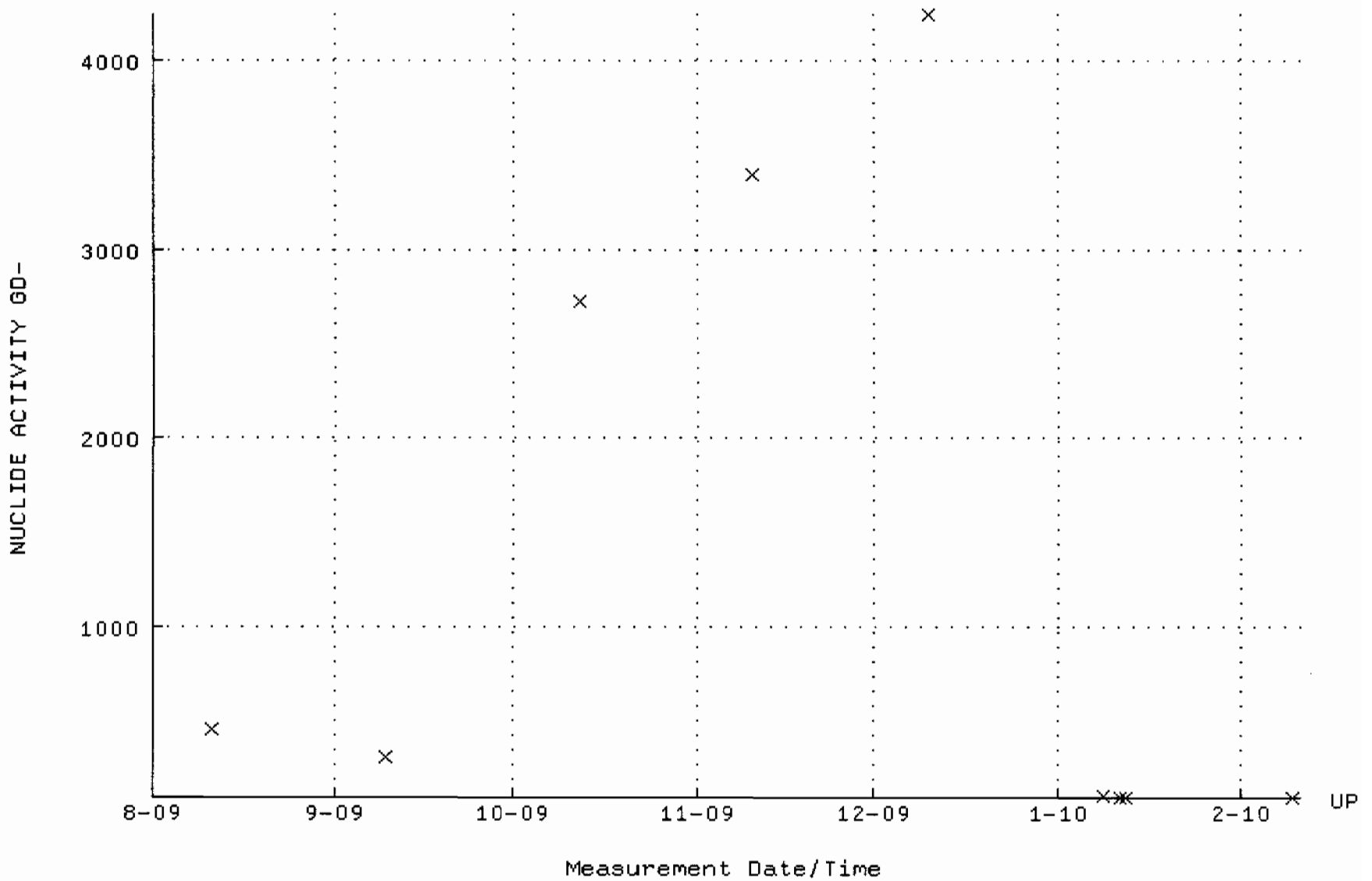

QA filename : DKA100:[ENV_ALPHA.QA.B]B081.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

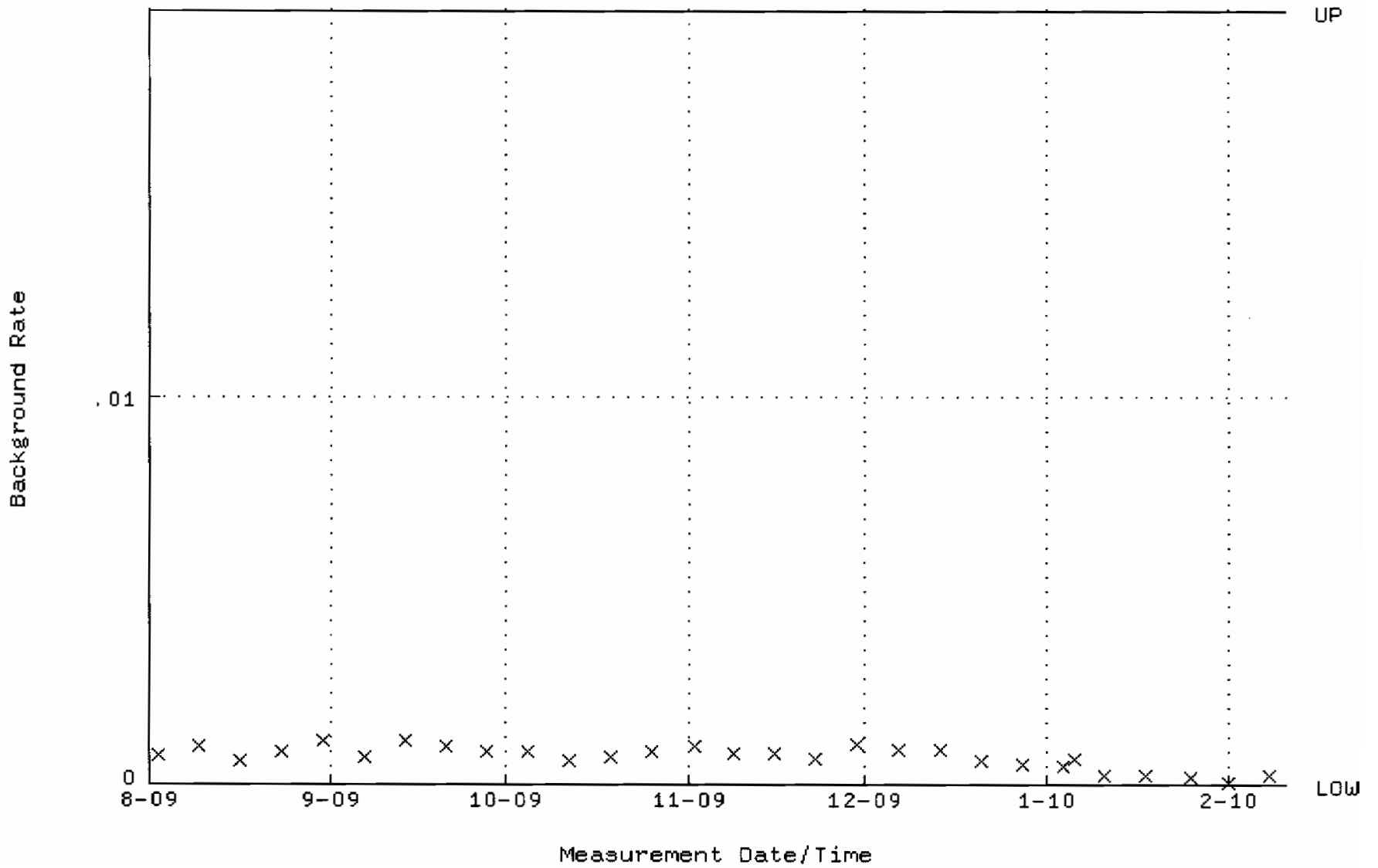

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.311357 through 0.331357

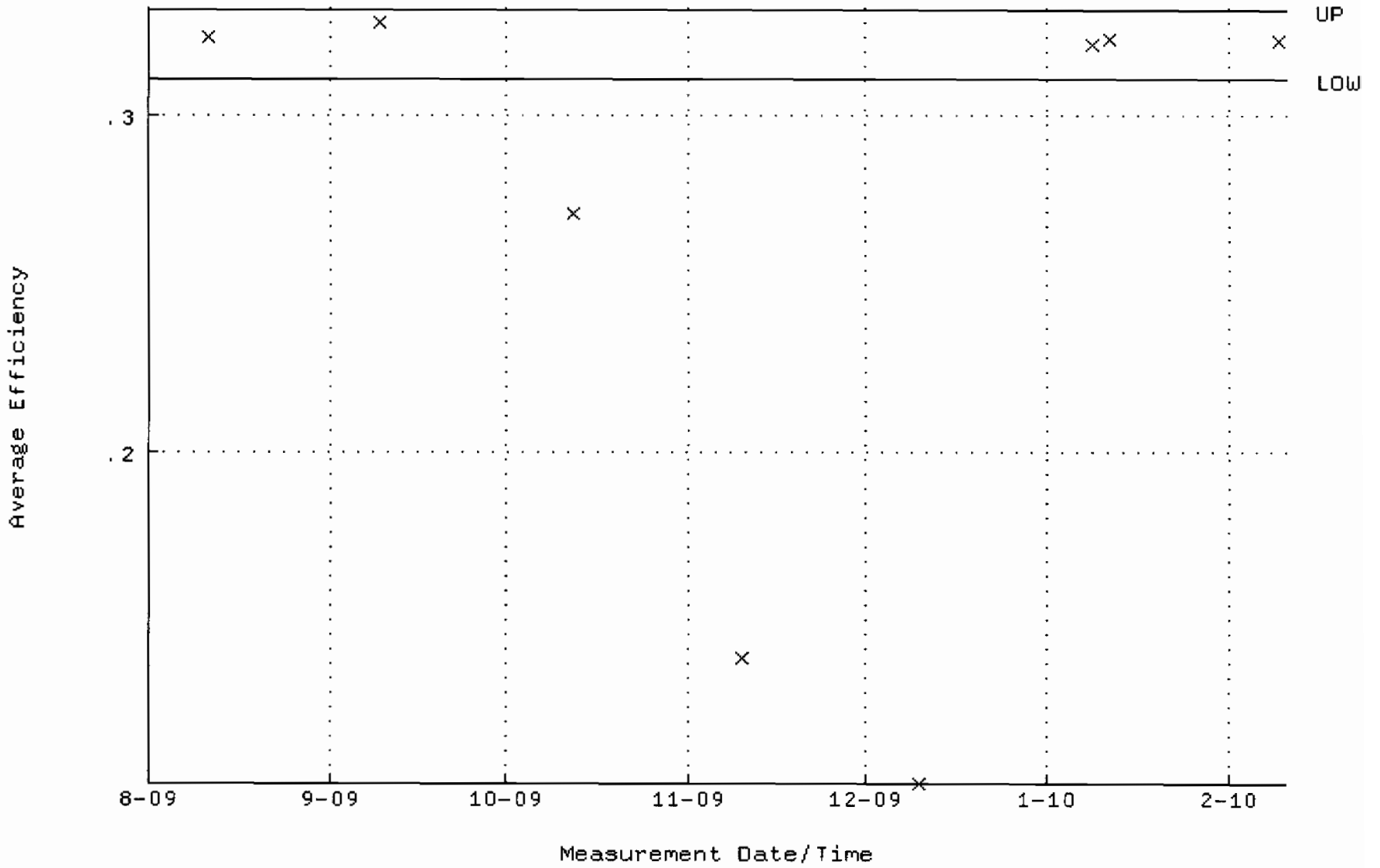

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.9094 through 96.0578

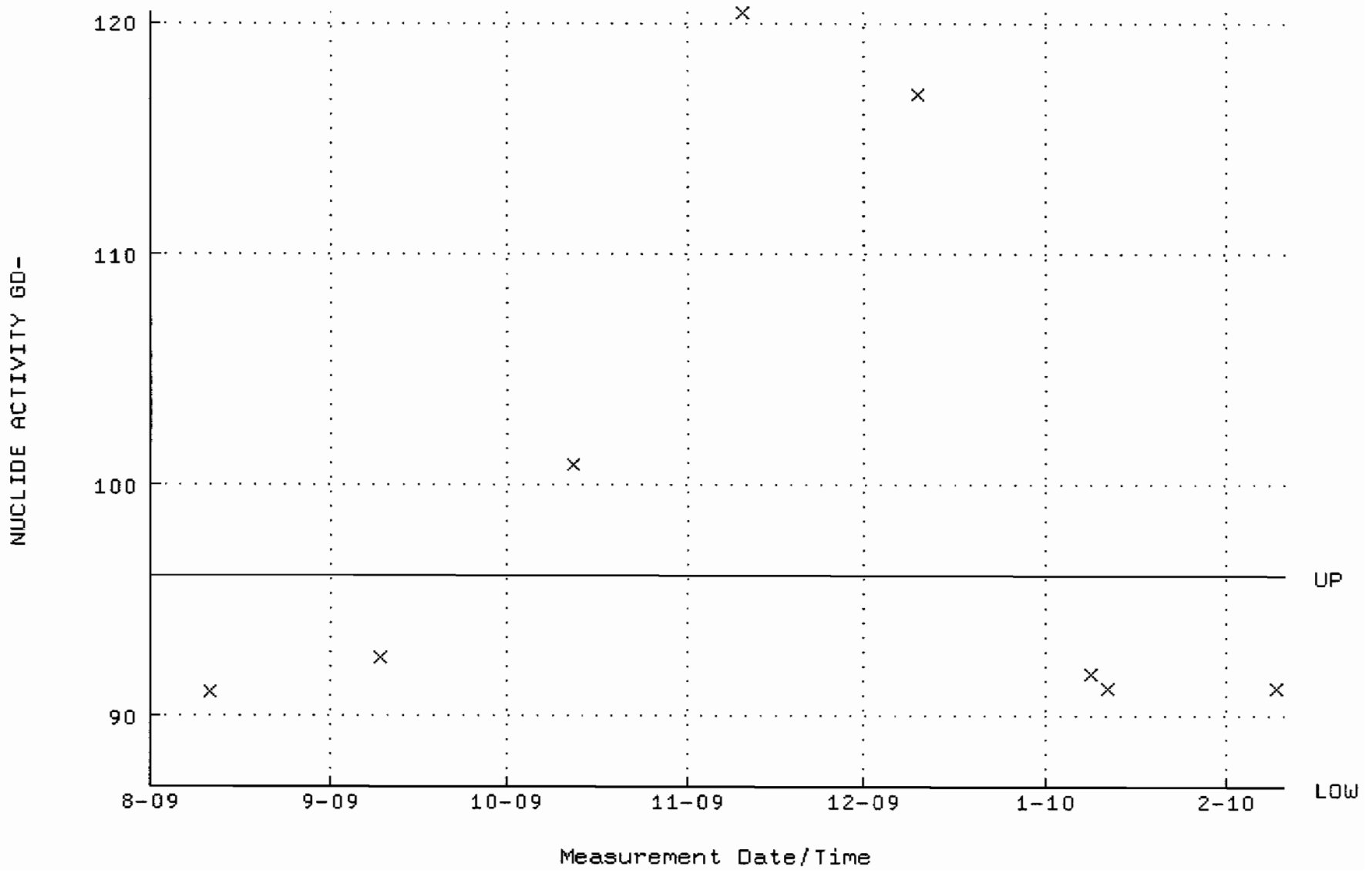

QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

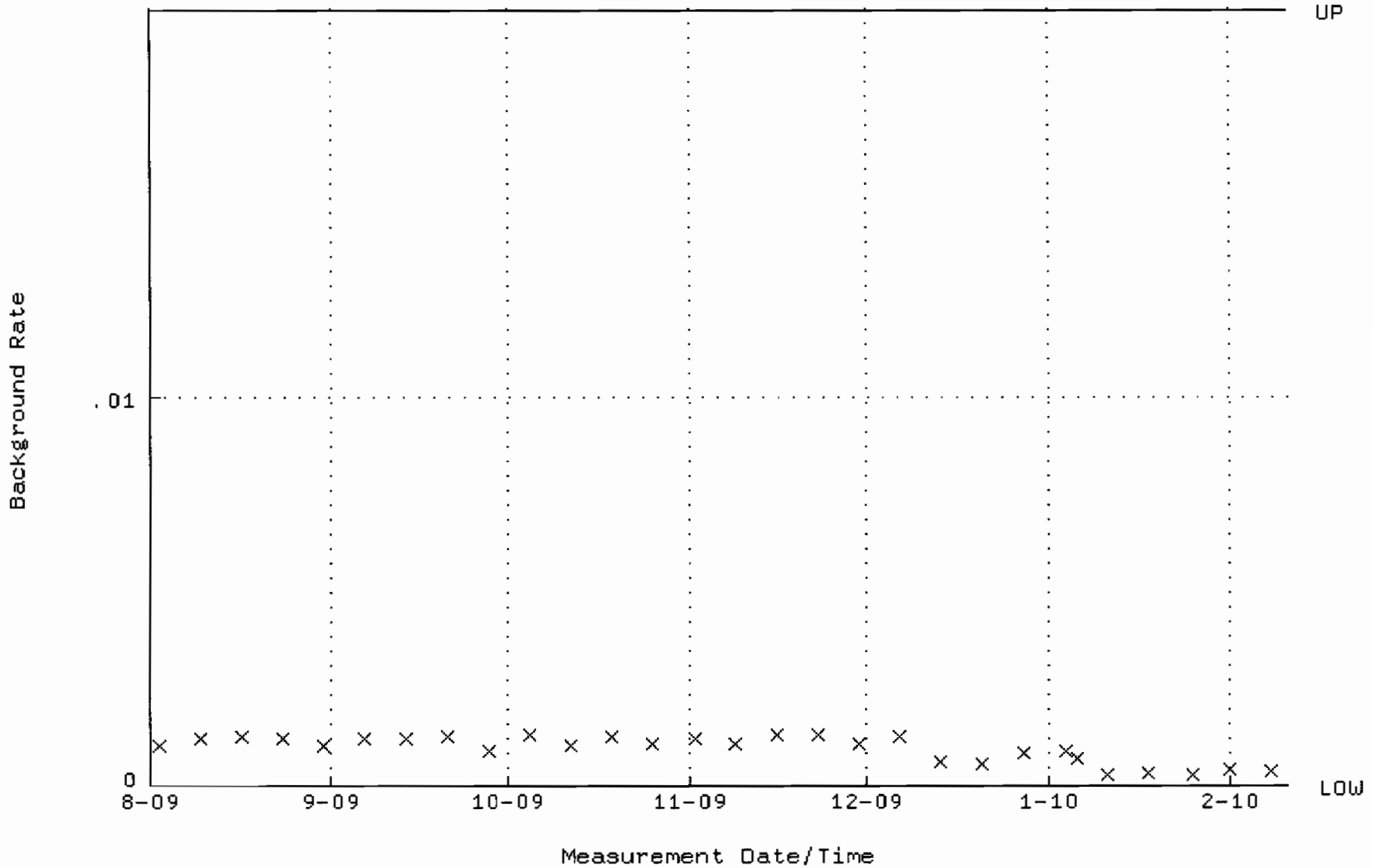

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.300530 through 0.320530

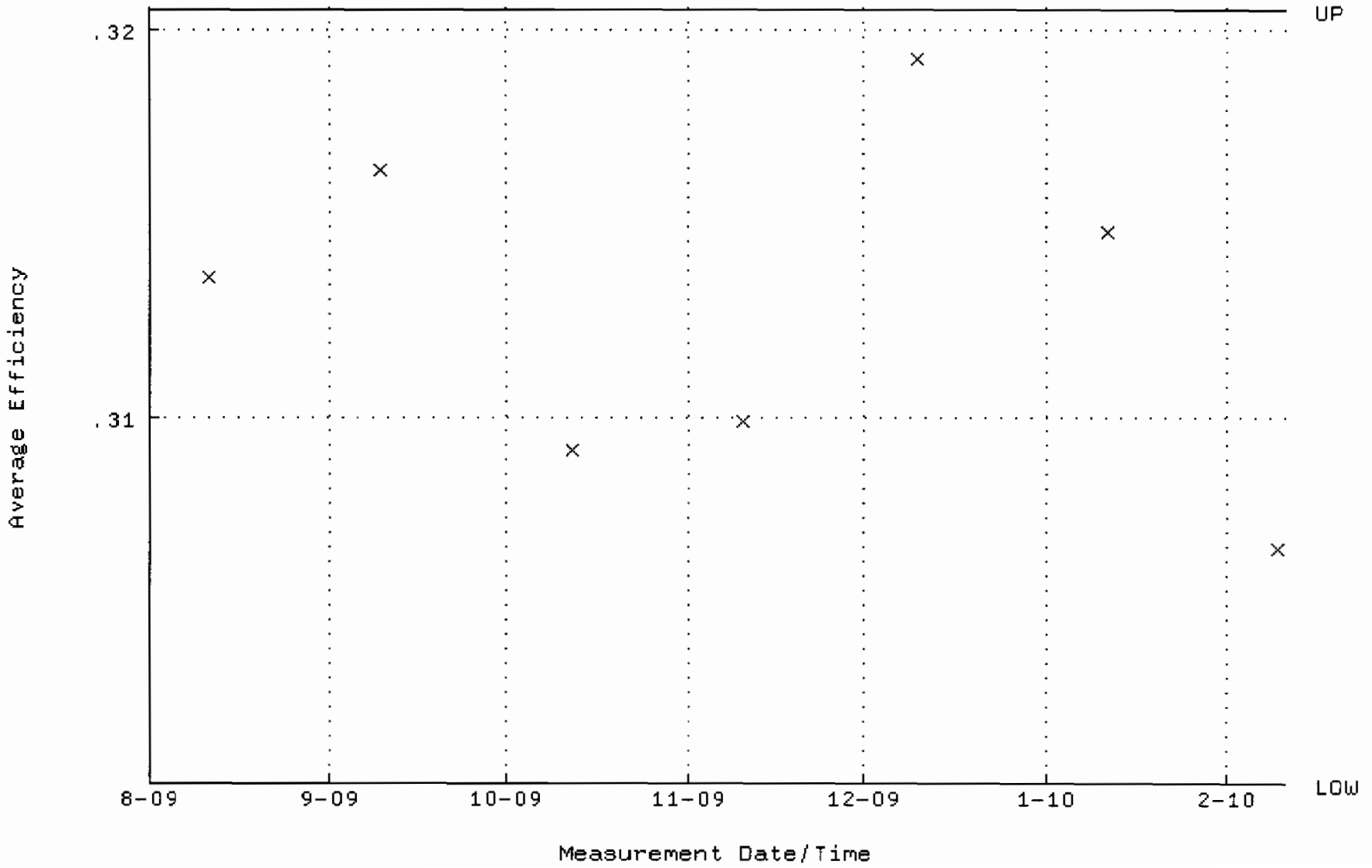

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1845 through 96.3619

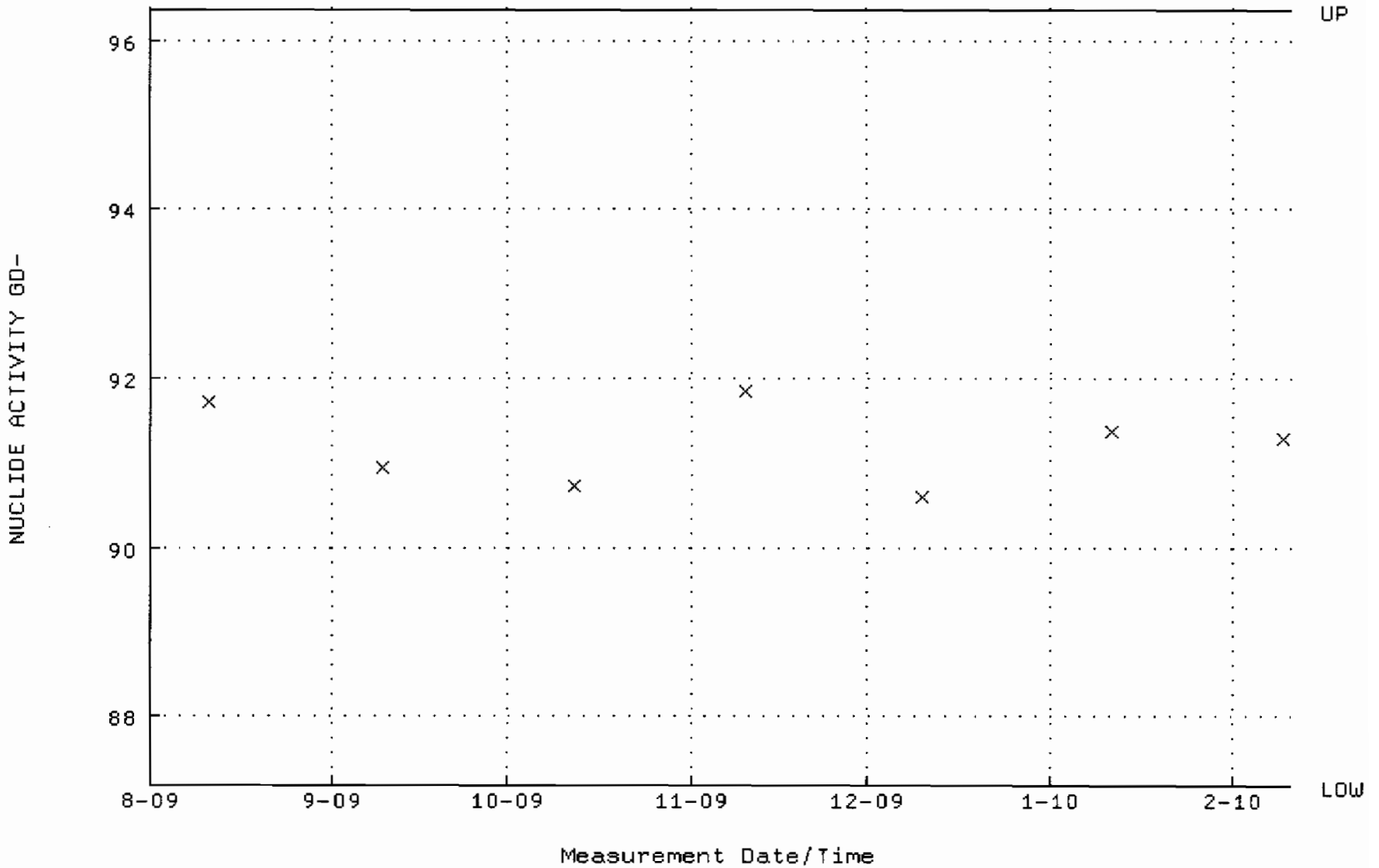

QA filename : DKA100:[ENV_ALPHA.QA.B]B087.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

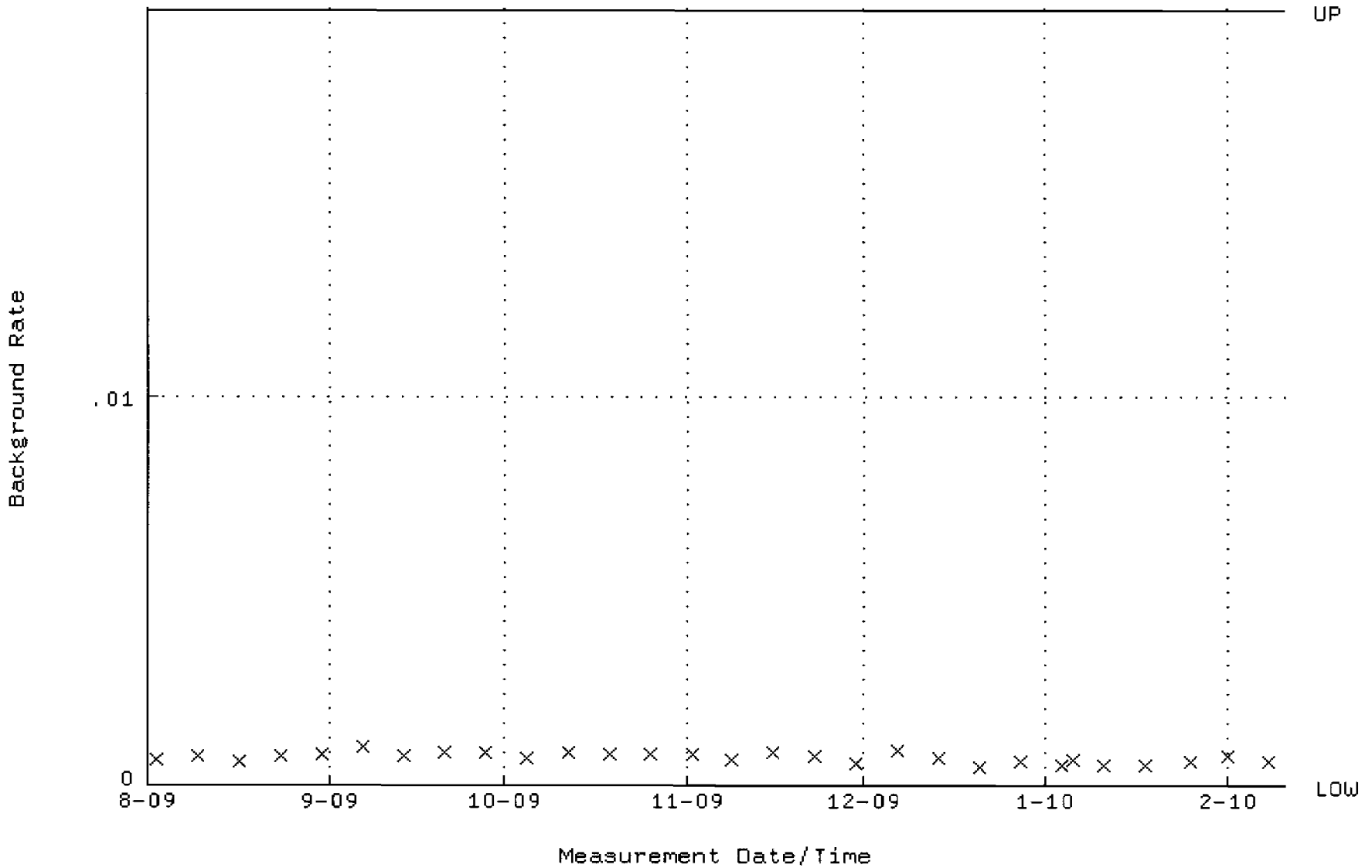

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.287888 through 0.307888

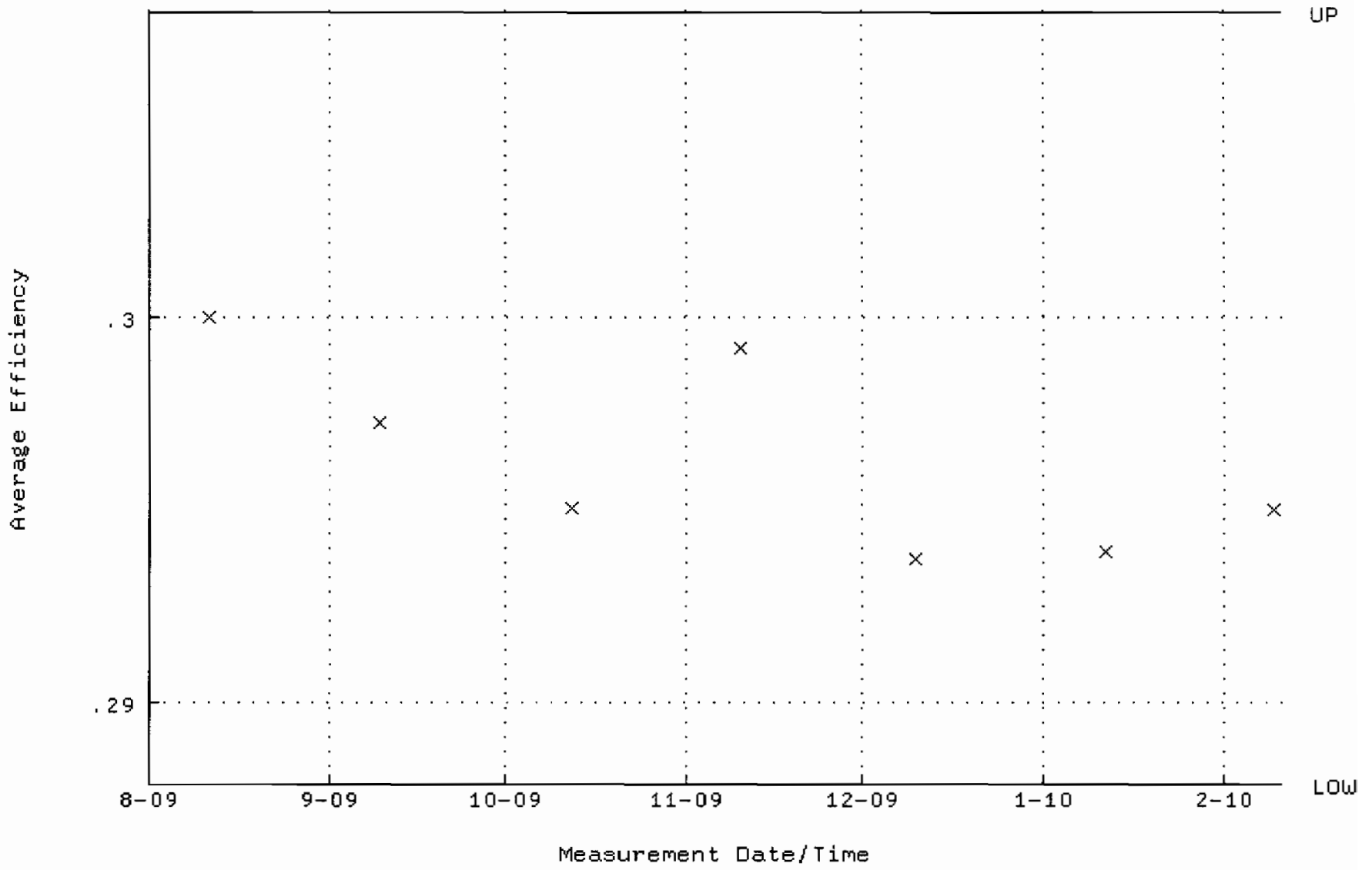

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 84.1413 through 92.9983

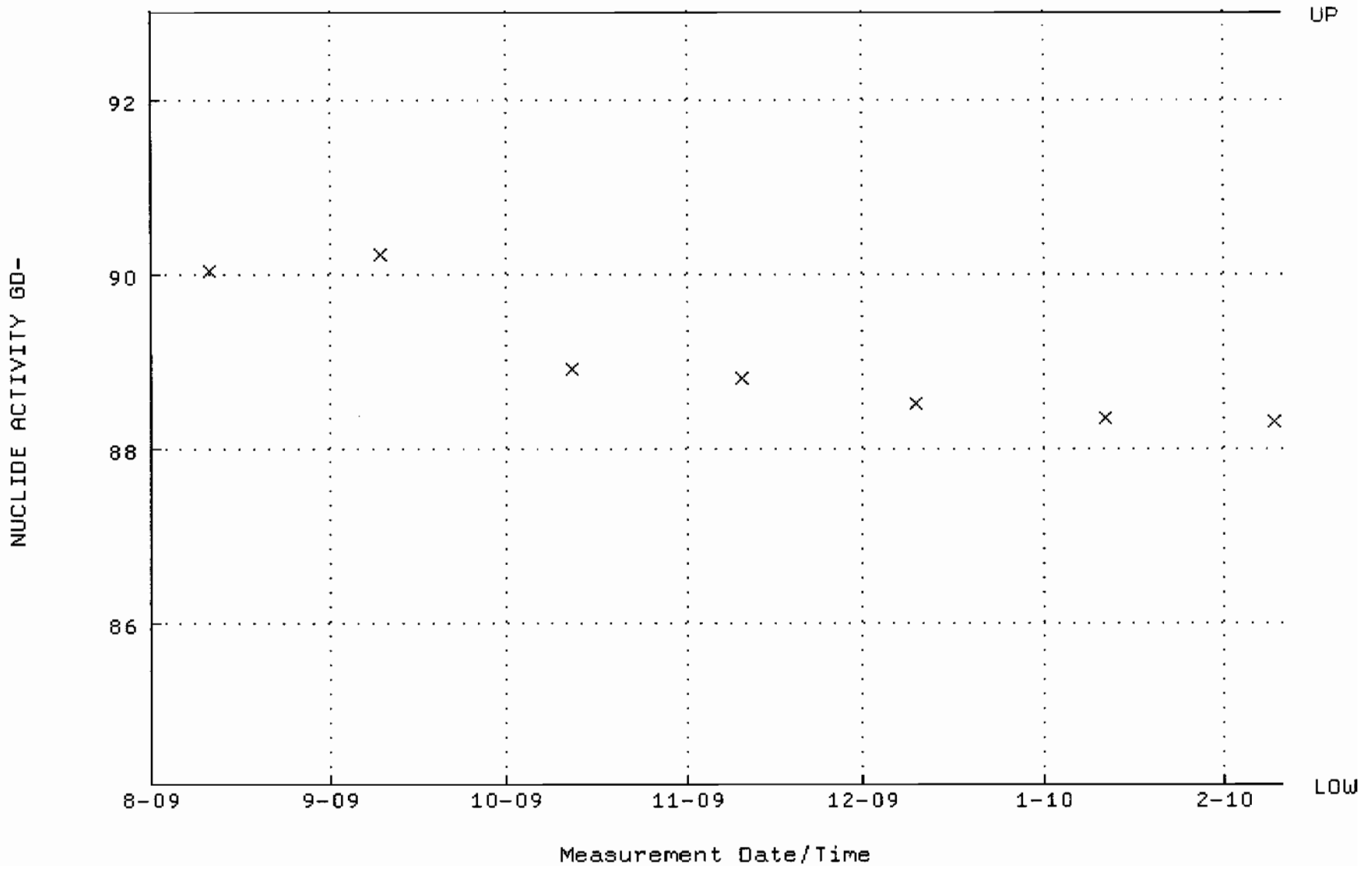

QA filename : DKA100:[ENV_ALPHA.QA.B]B089.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:42 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

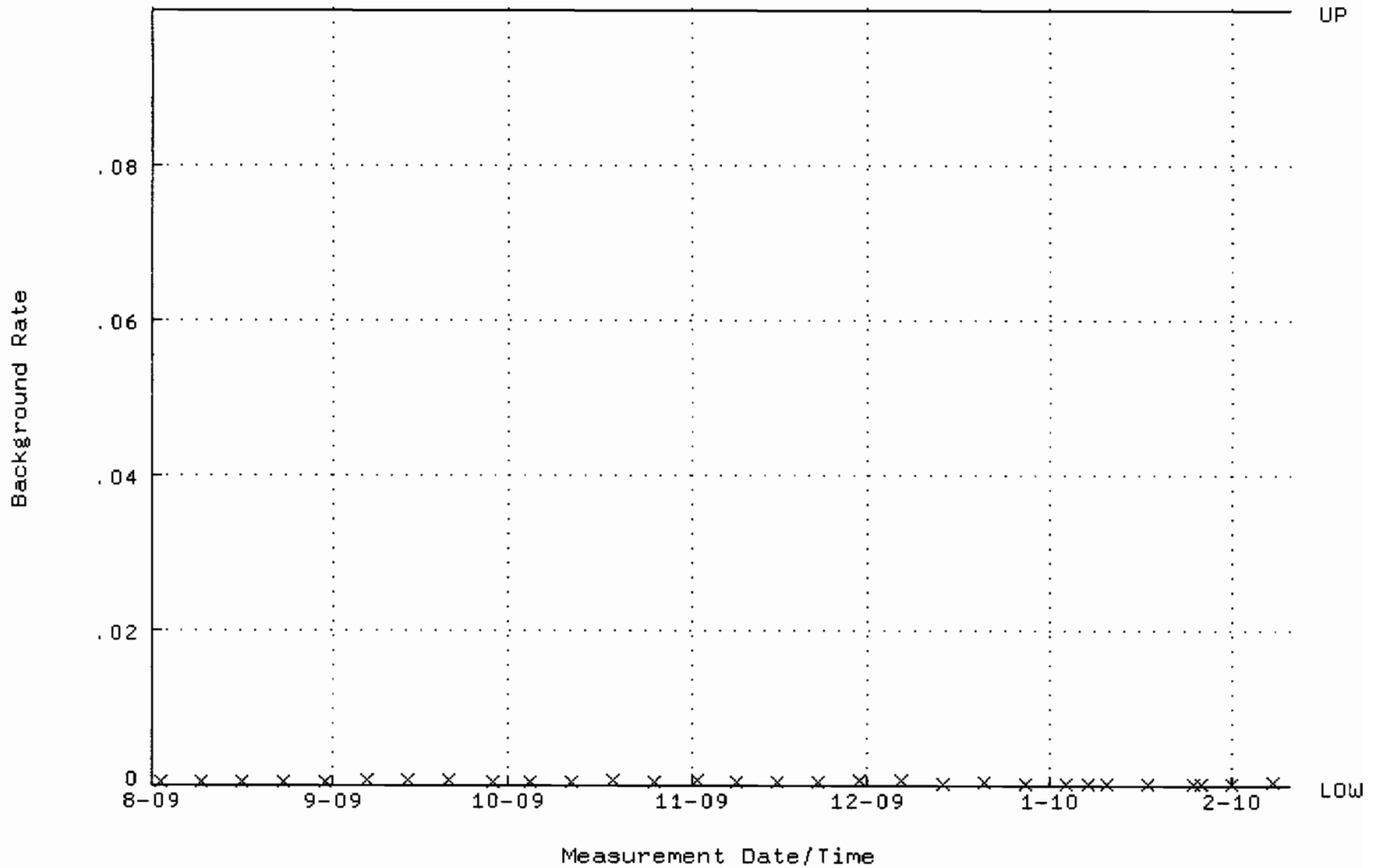

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313529 through 0.333529

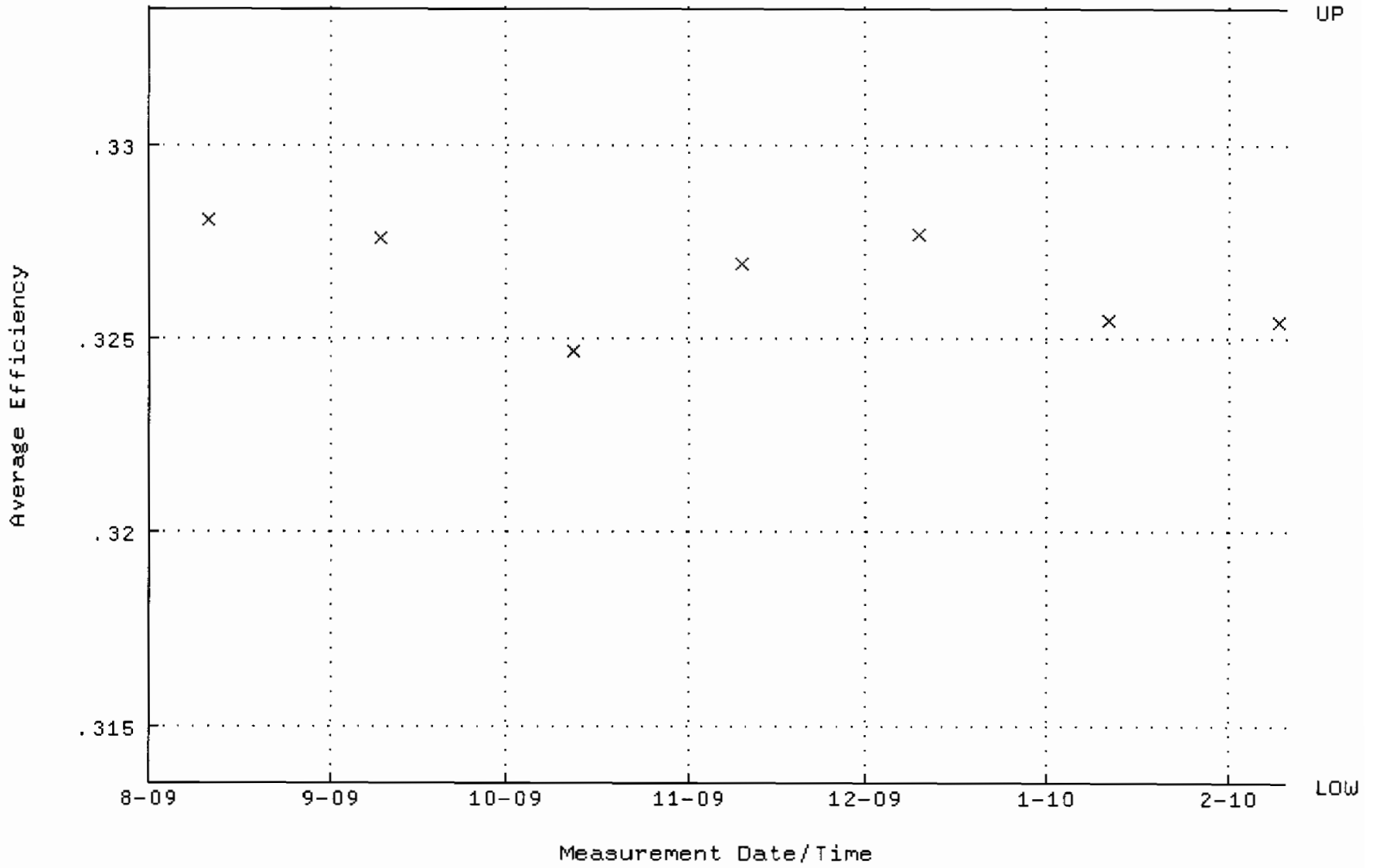

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0139 through 95.0680

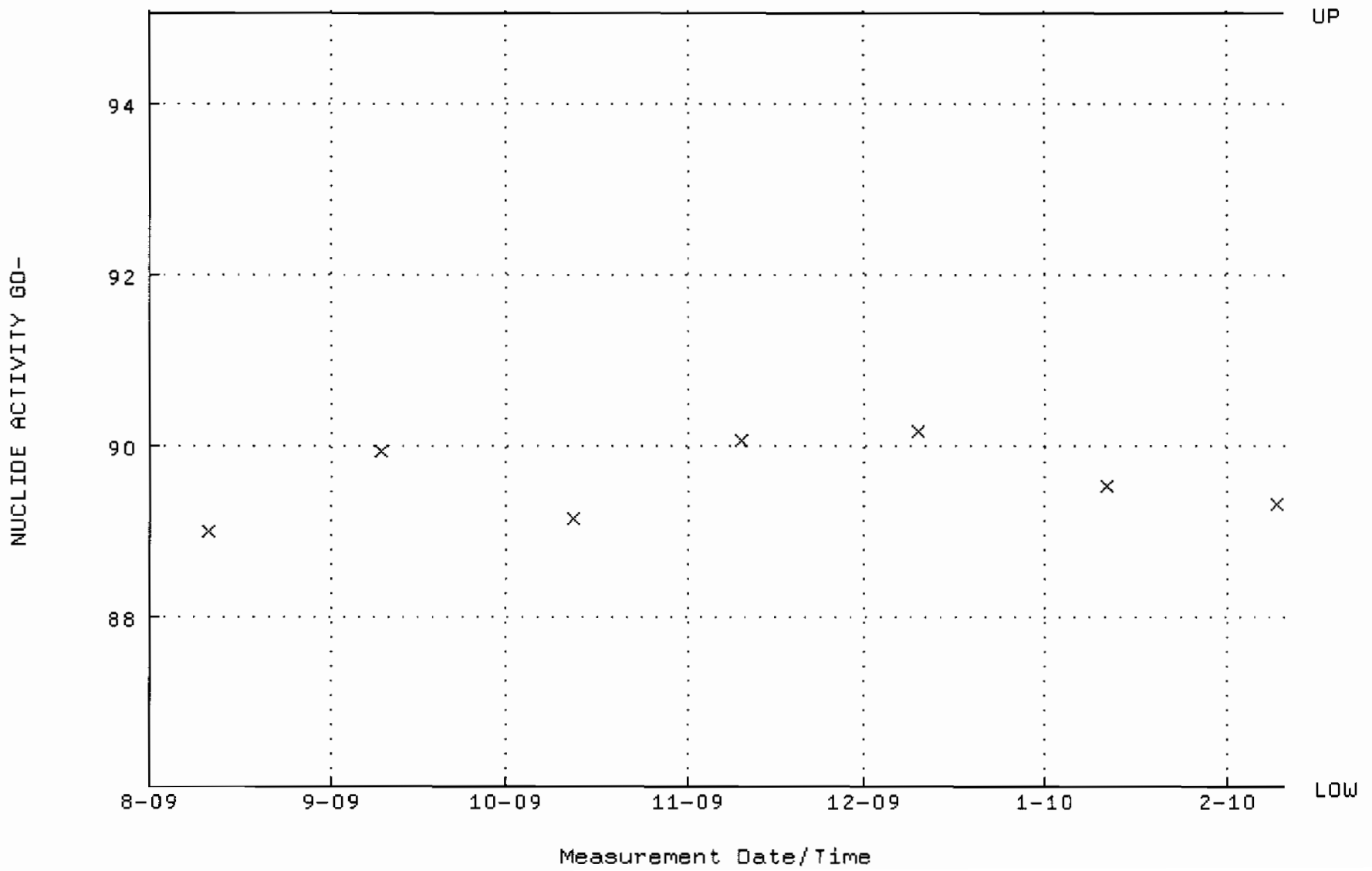

QA filename : DKA100:[ENV_ALPHA.QA.B]B090.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:42 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

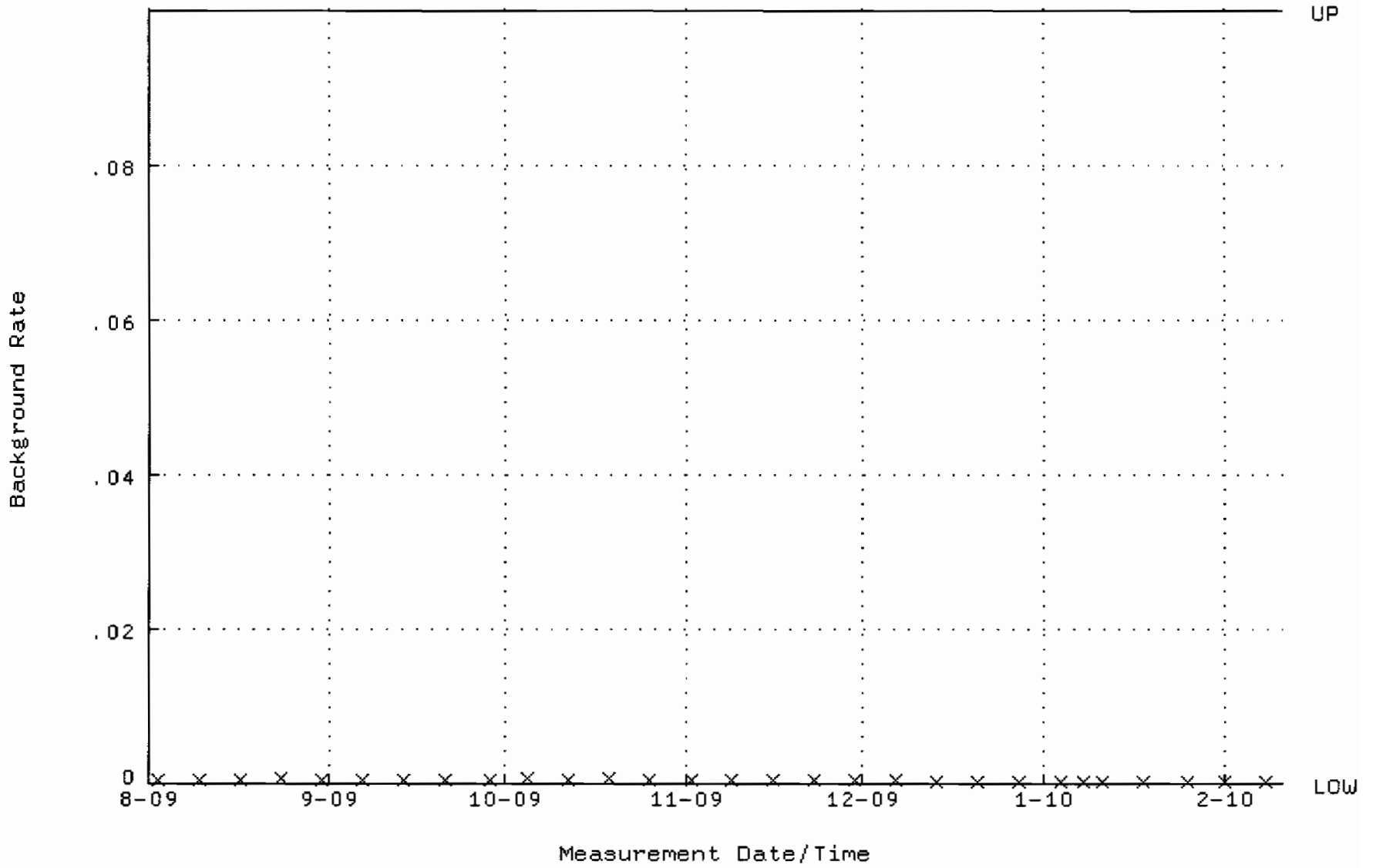

QA filename : DKA100:[ENV_ALPHA.QA.W]W091.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.332648 through 0.359902

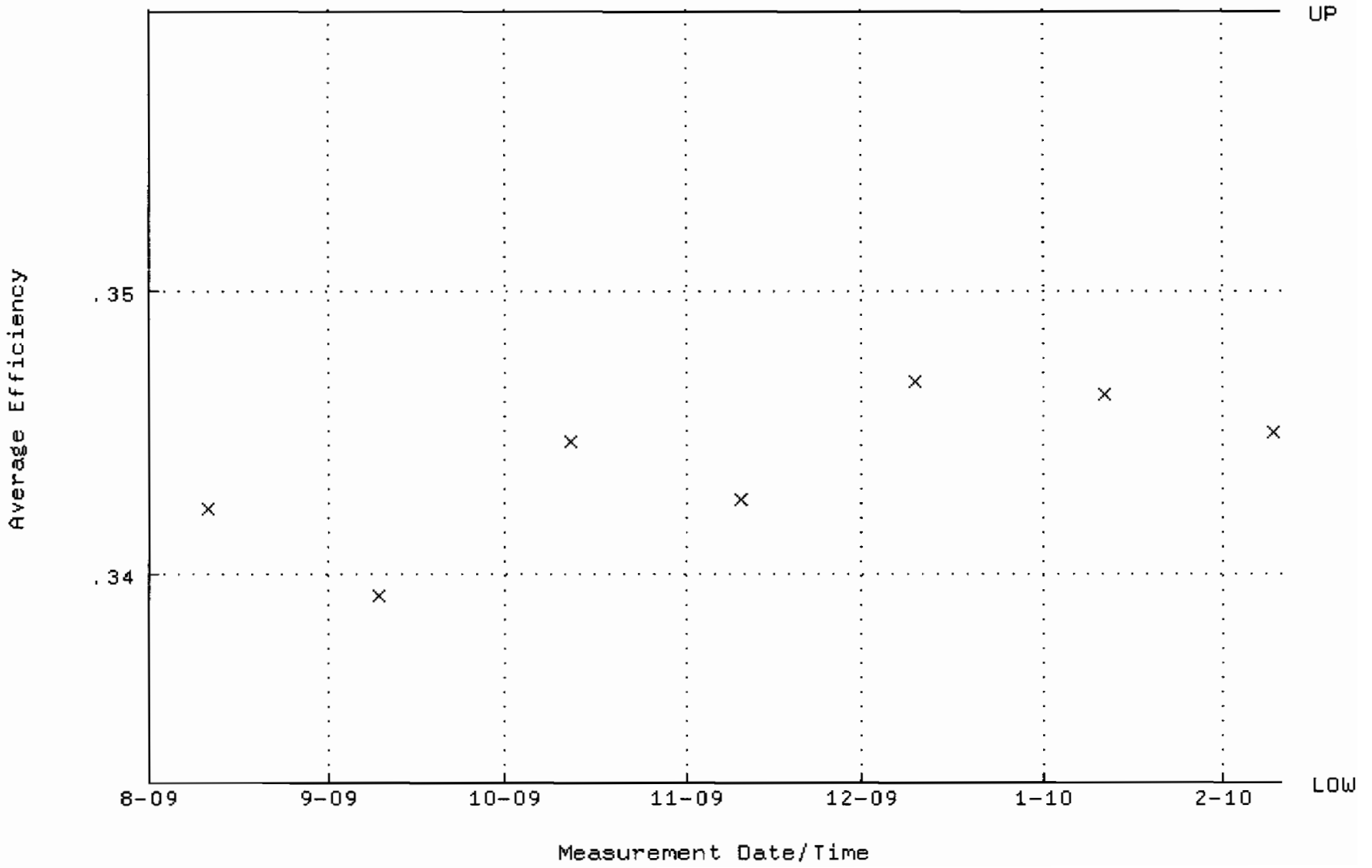

QA filename : DKA100:[ENV_ALPHA.QA.W]W091.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 84.0764 through 86.3518

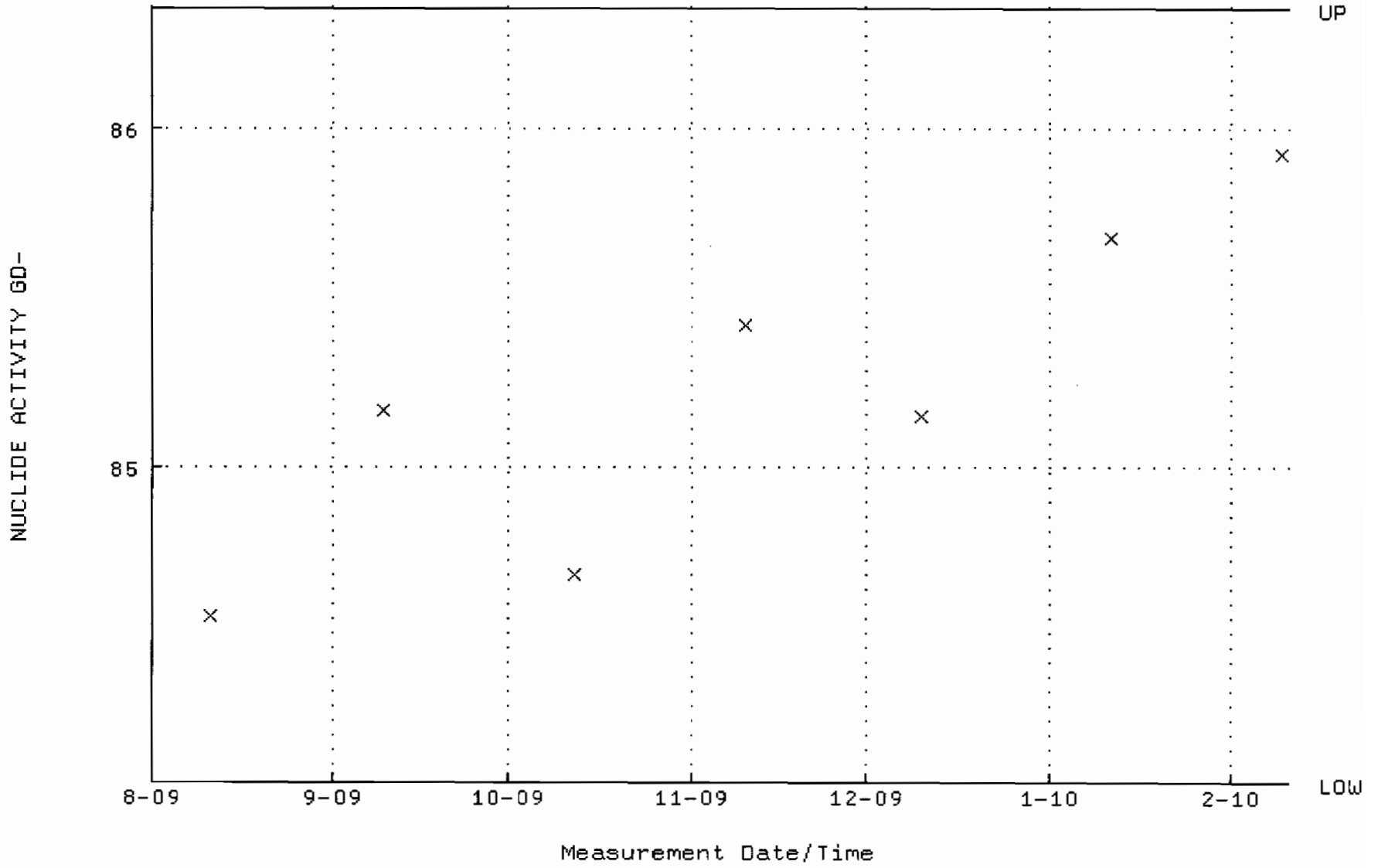

QA filename : DKA100:[ENV_ALPHA.QA.B]B091.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:42 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

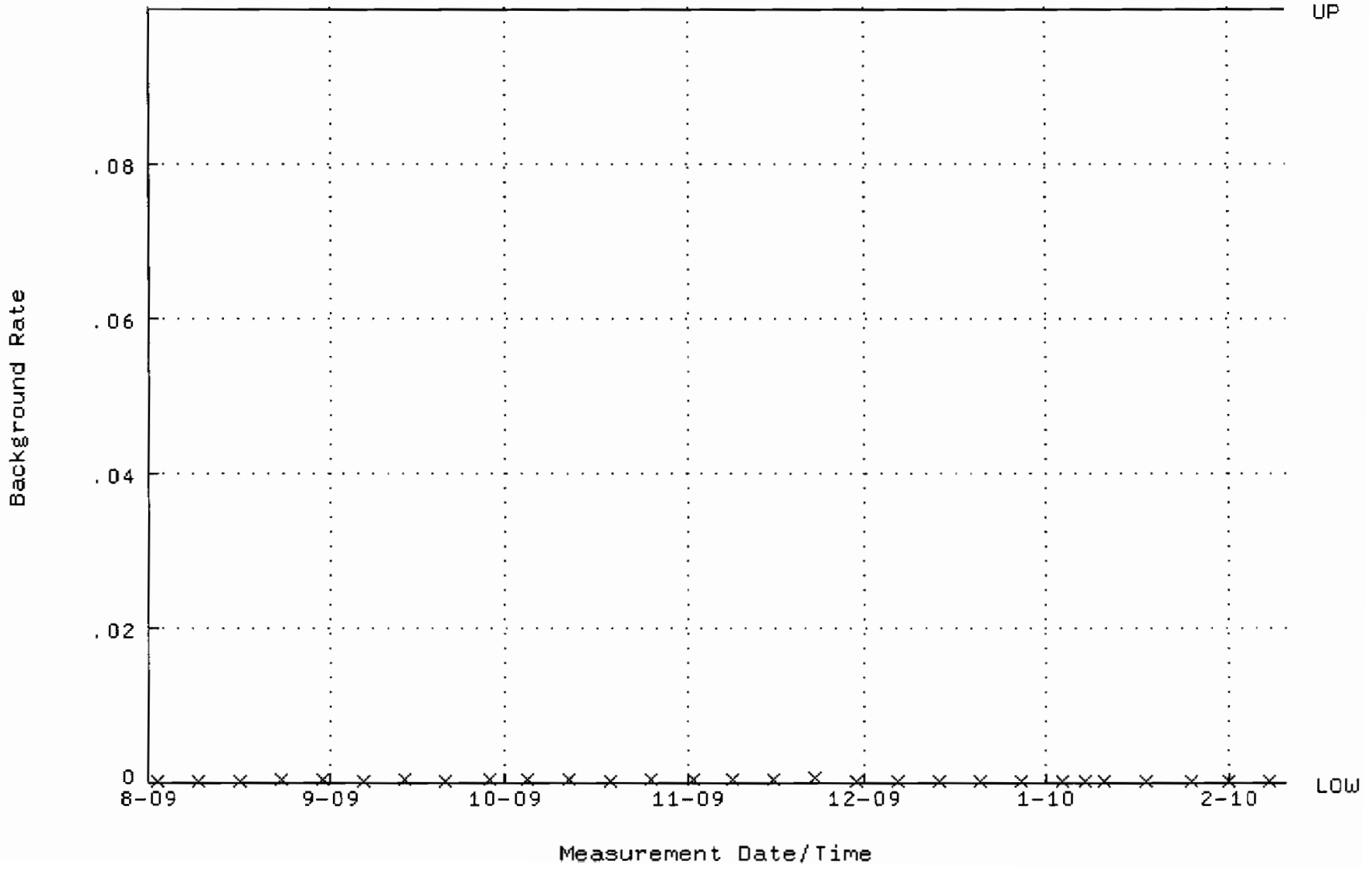

QA filename : DKA100:[ENV_ALPHA.QA.W]W092.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.301529 through 0.329133

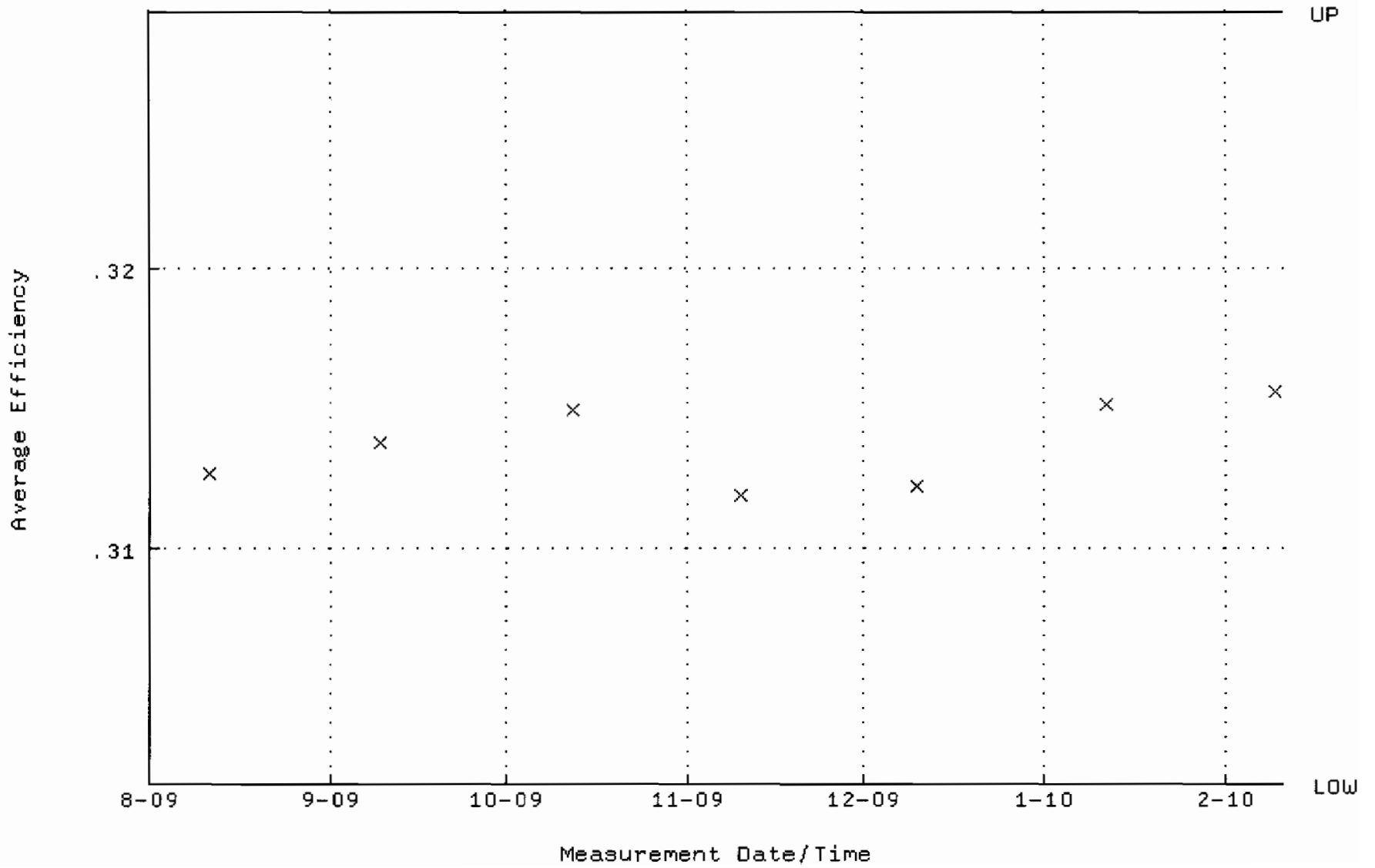

QA filename : DKA100:[ENV_ALPHA.QA.W]W092.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.3140 through 91.8878

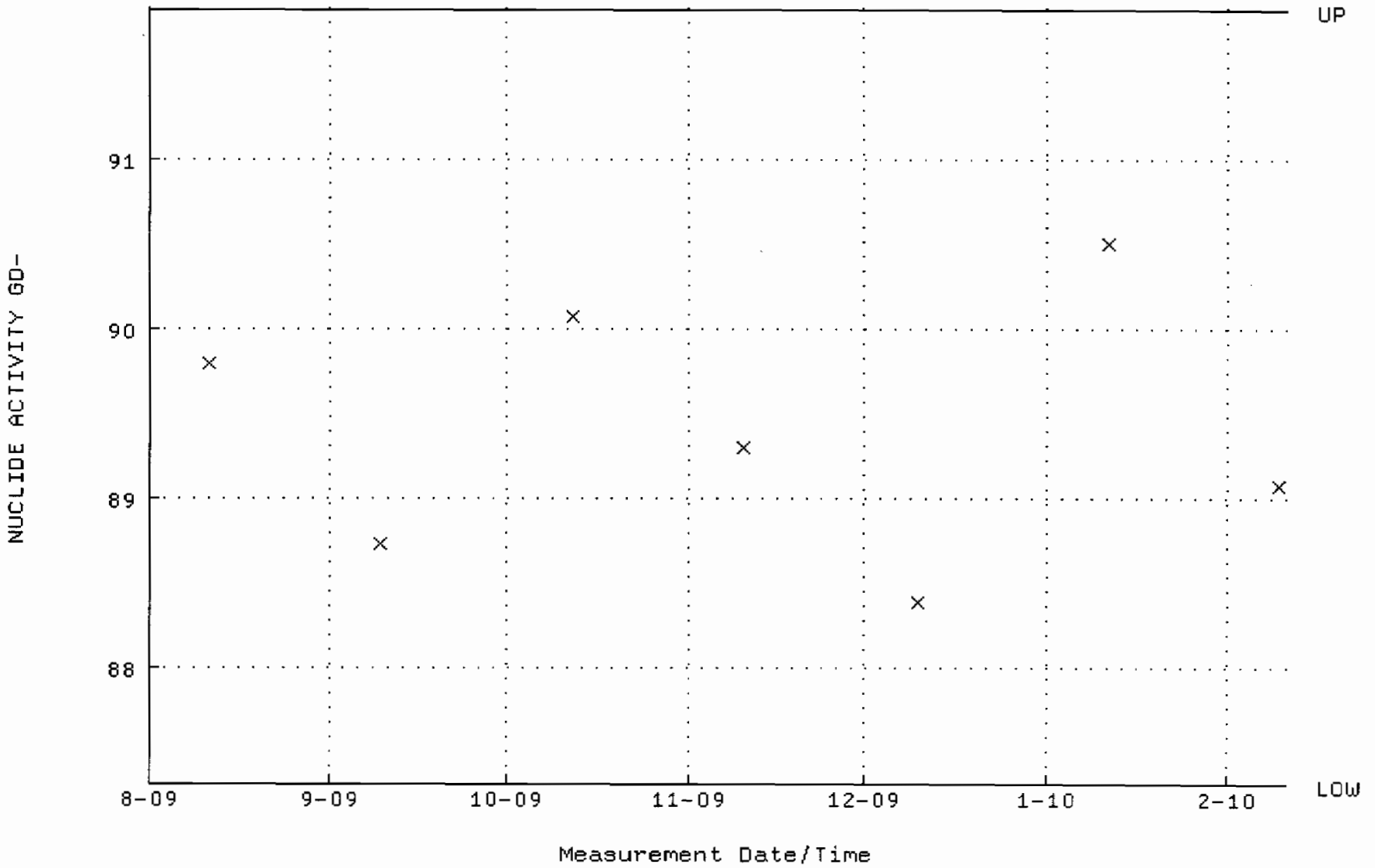

QA filename : DKA100:[ENV_ALPHA.QA.B]B092.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:42 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: -1.00000 through 0.100000

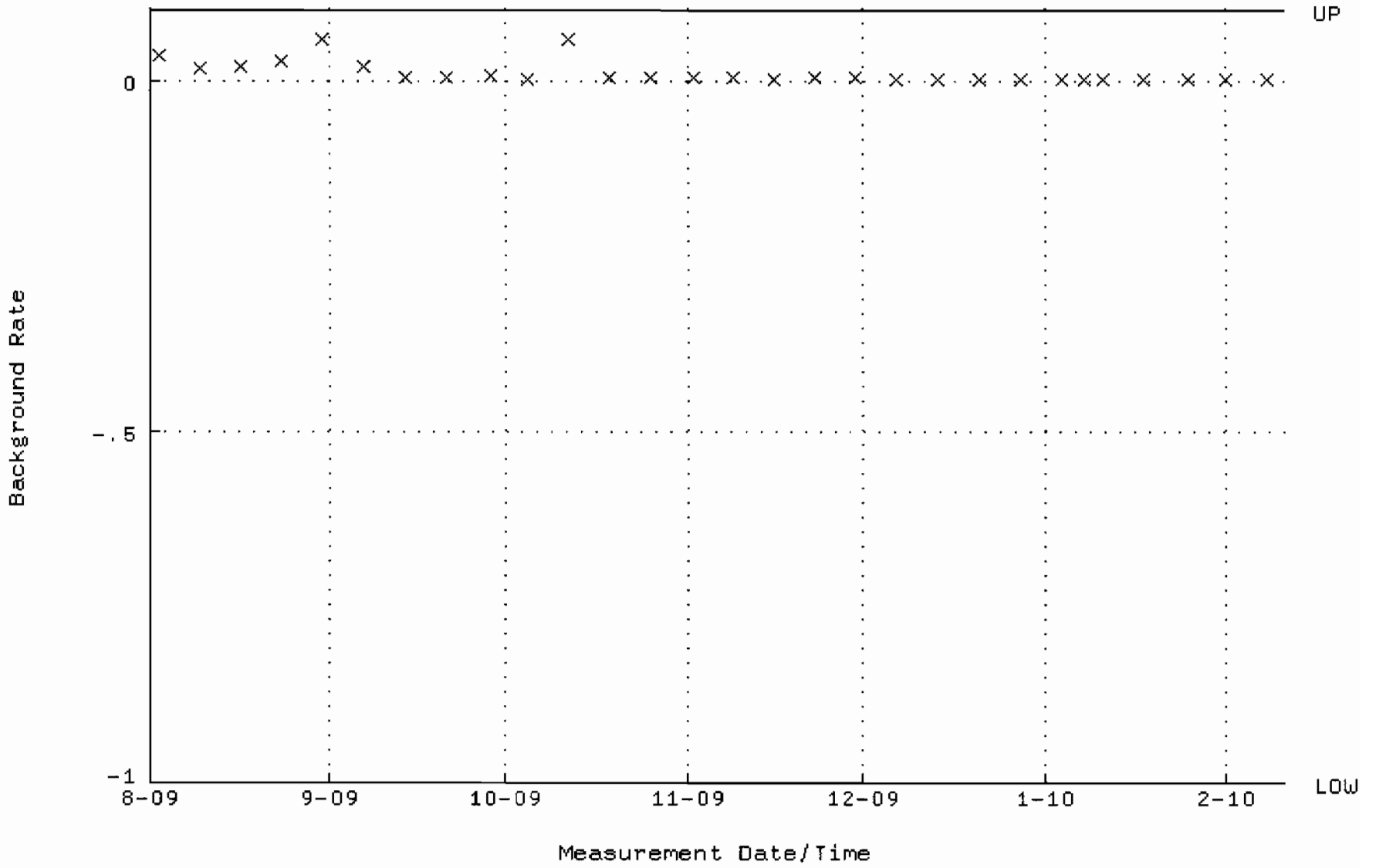

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.331433 through 0.351433

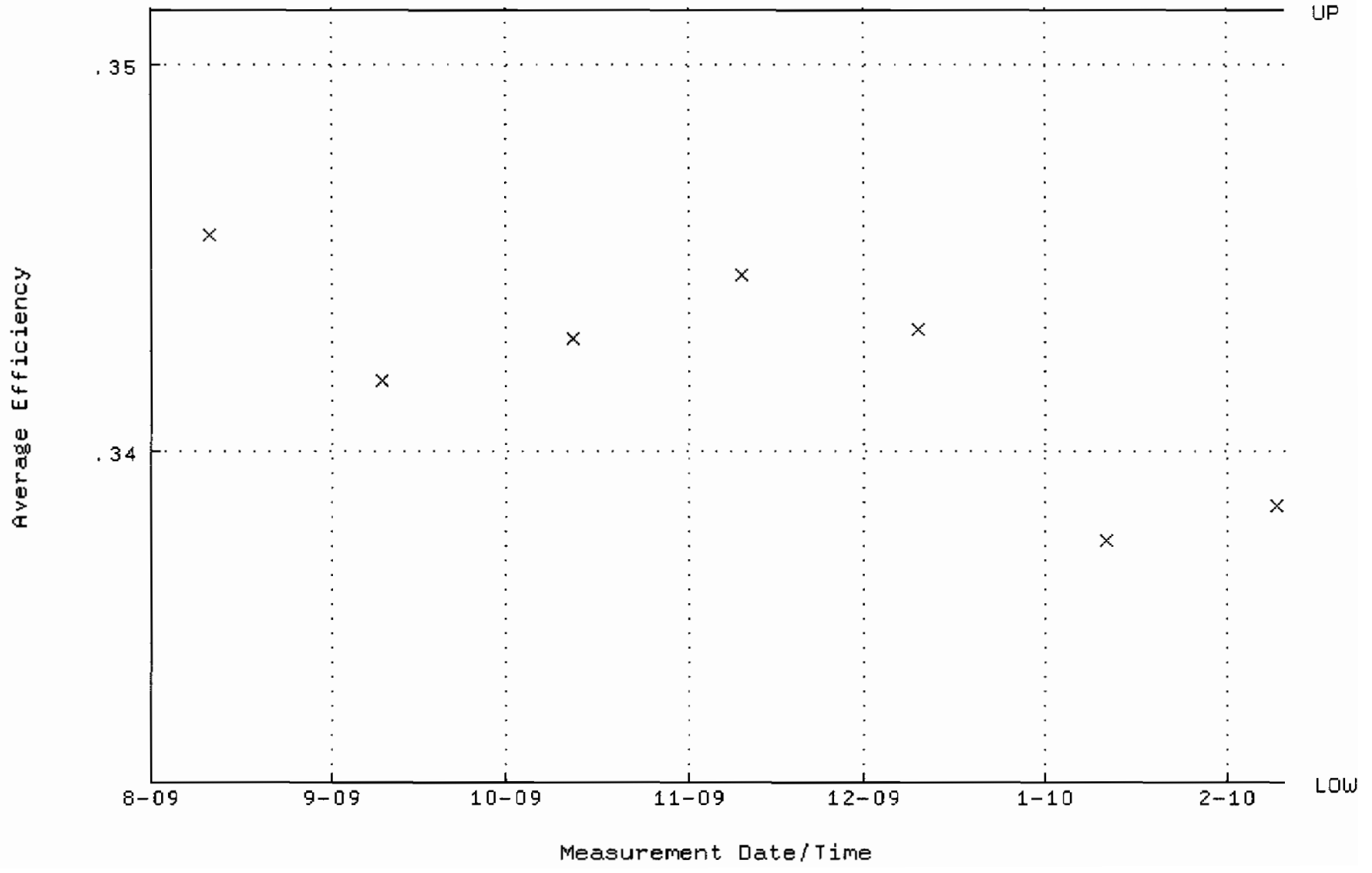

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 65.4550 through 72.3450

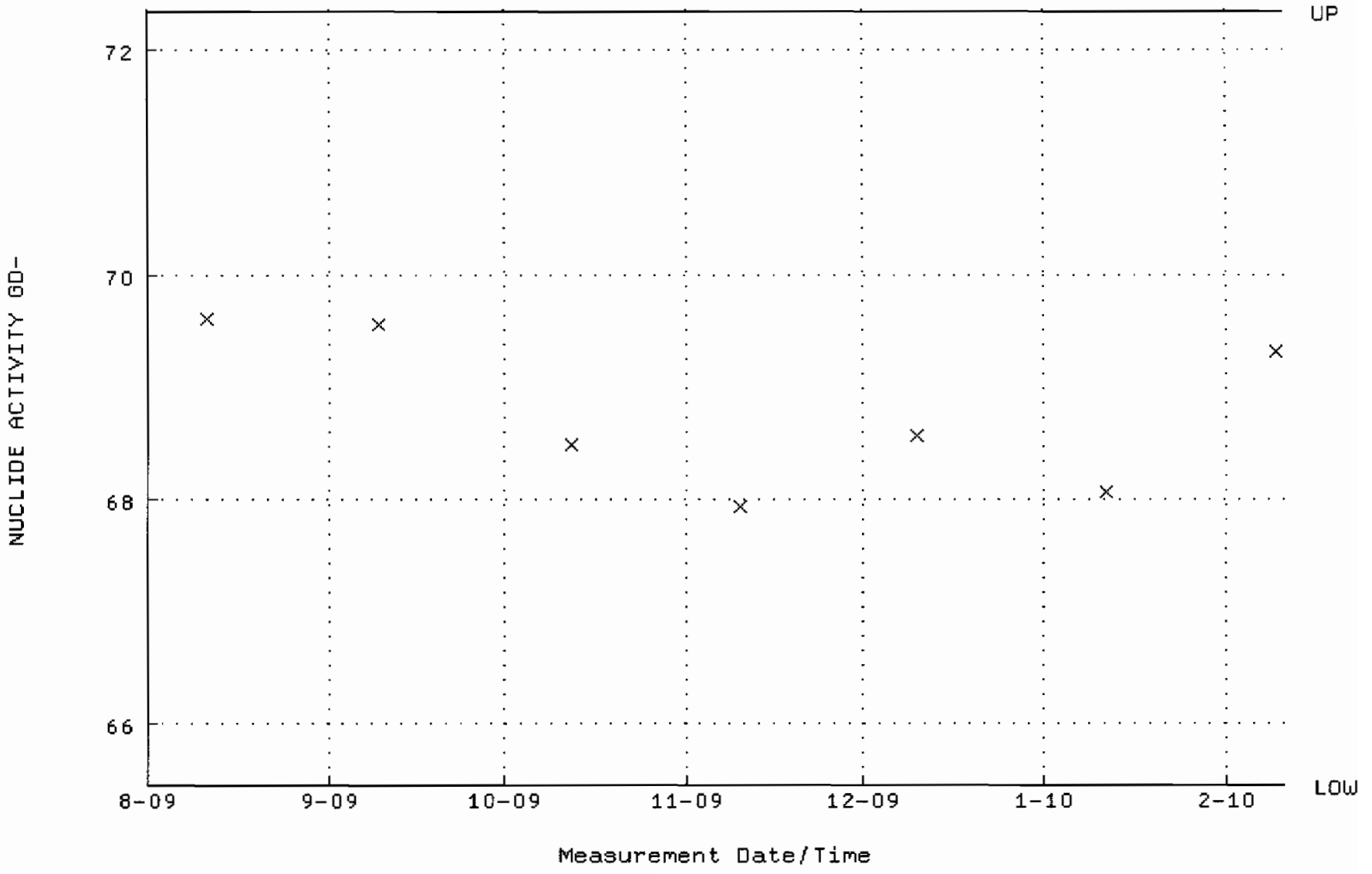

QA filename : DKA100:[ENV_ALPHA.QA.B]B100.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

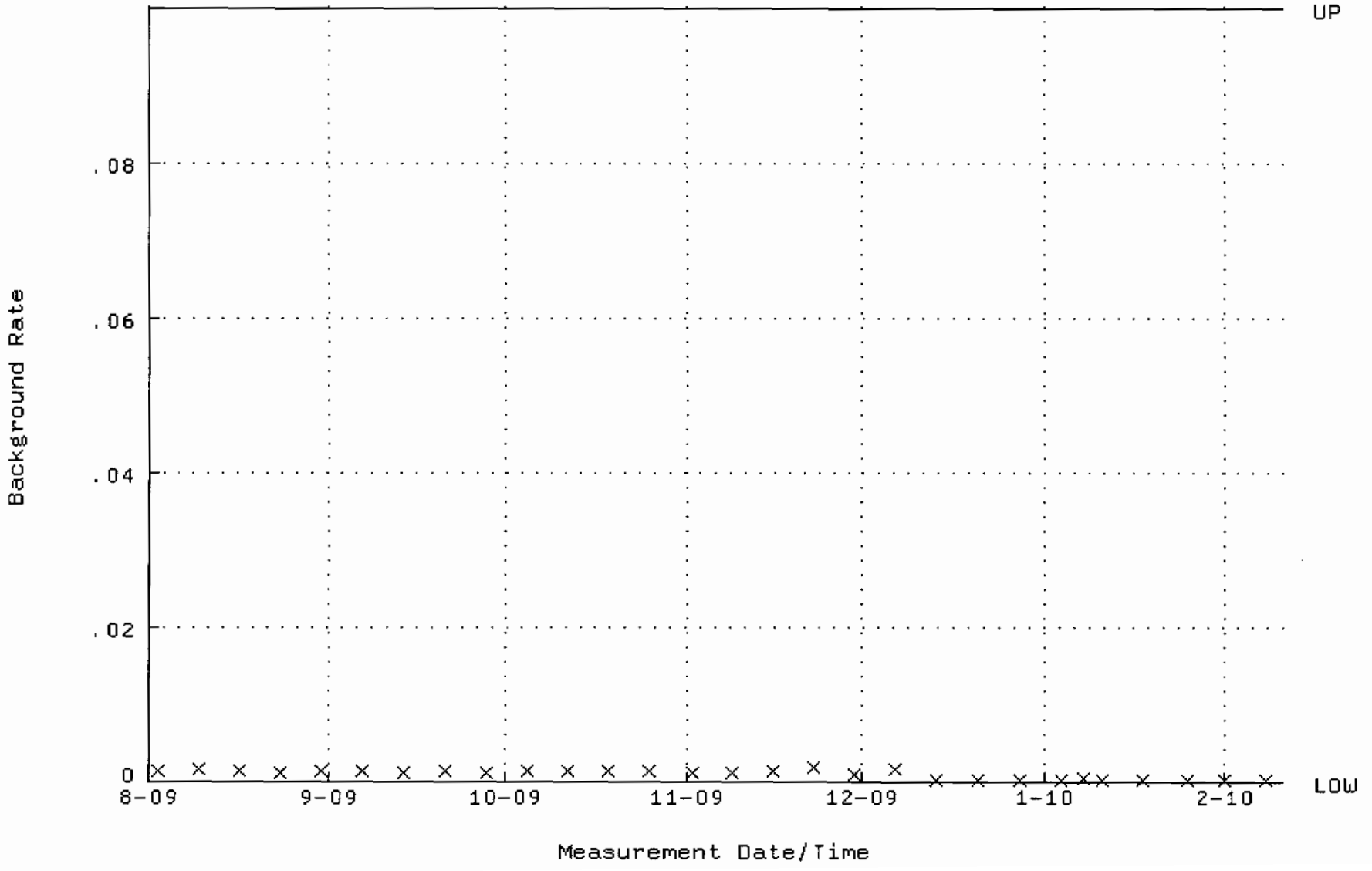

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.344397 through 0.364397

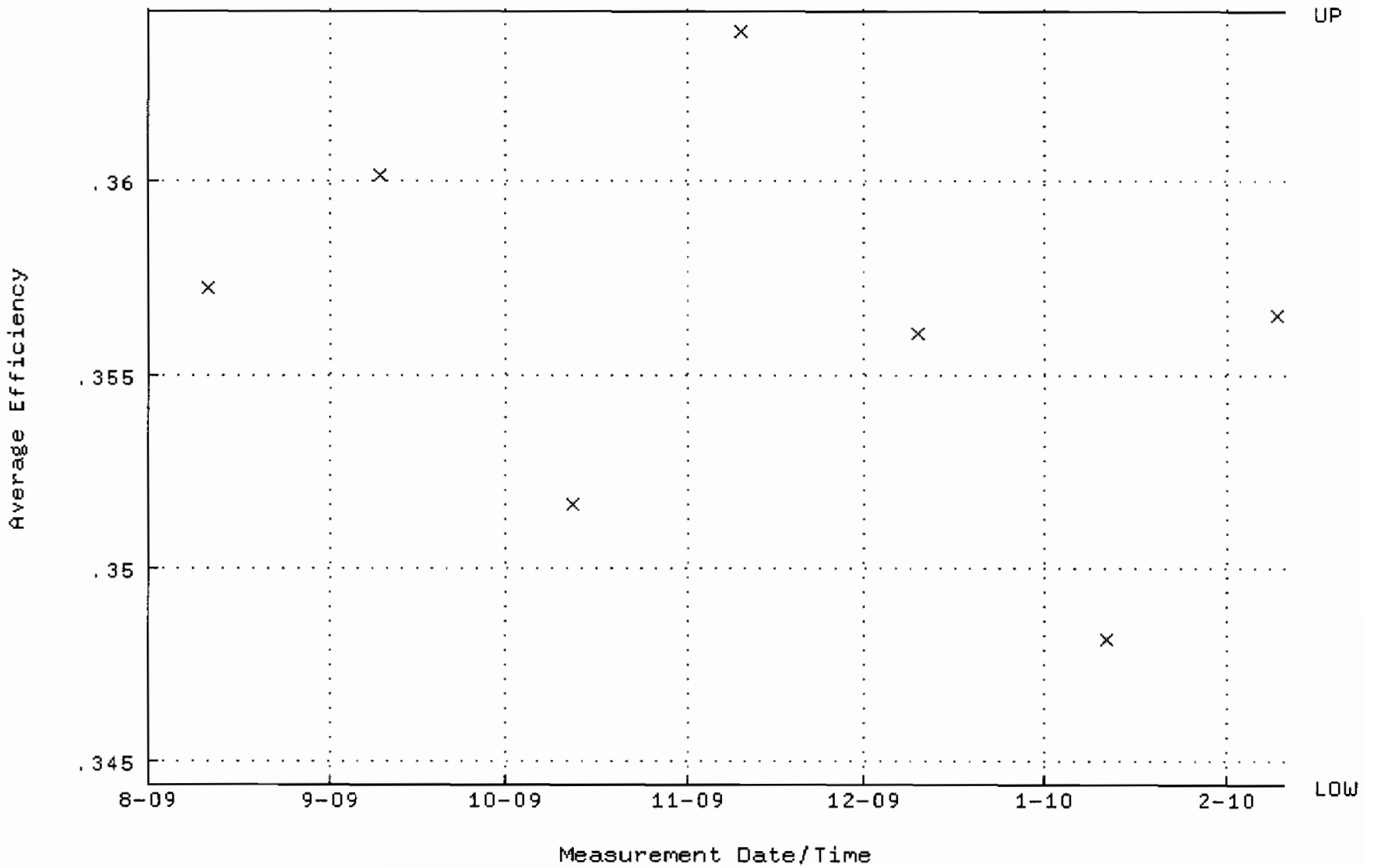

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 63.4194 through 70.0952

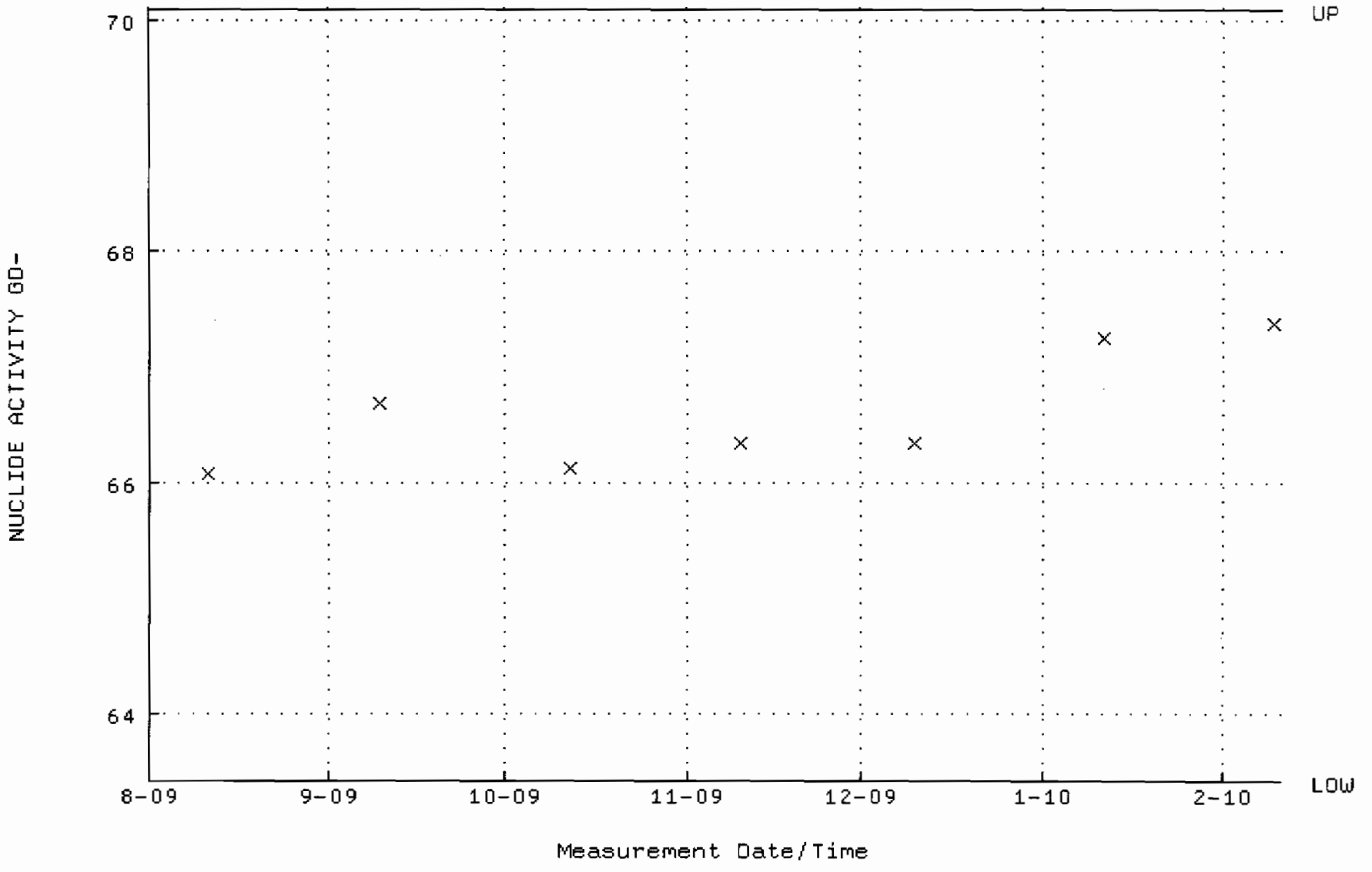

QA filename : DKA100:[ENV_ALPHA.QA.B]B109.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

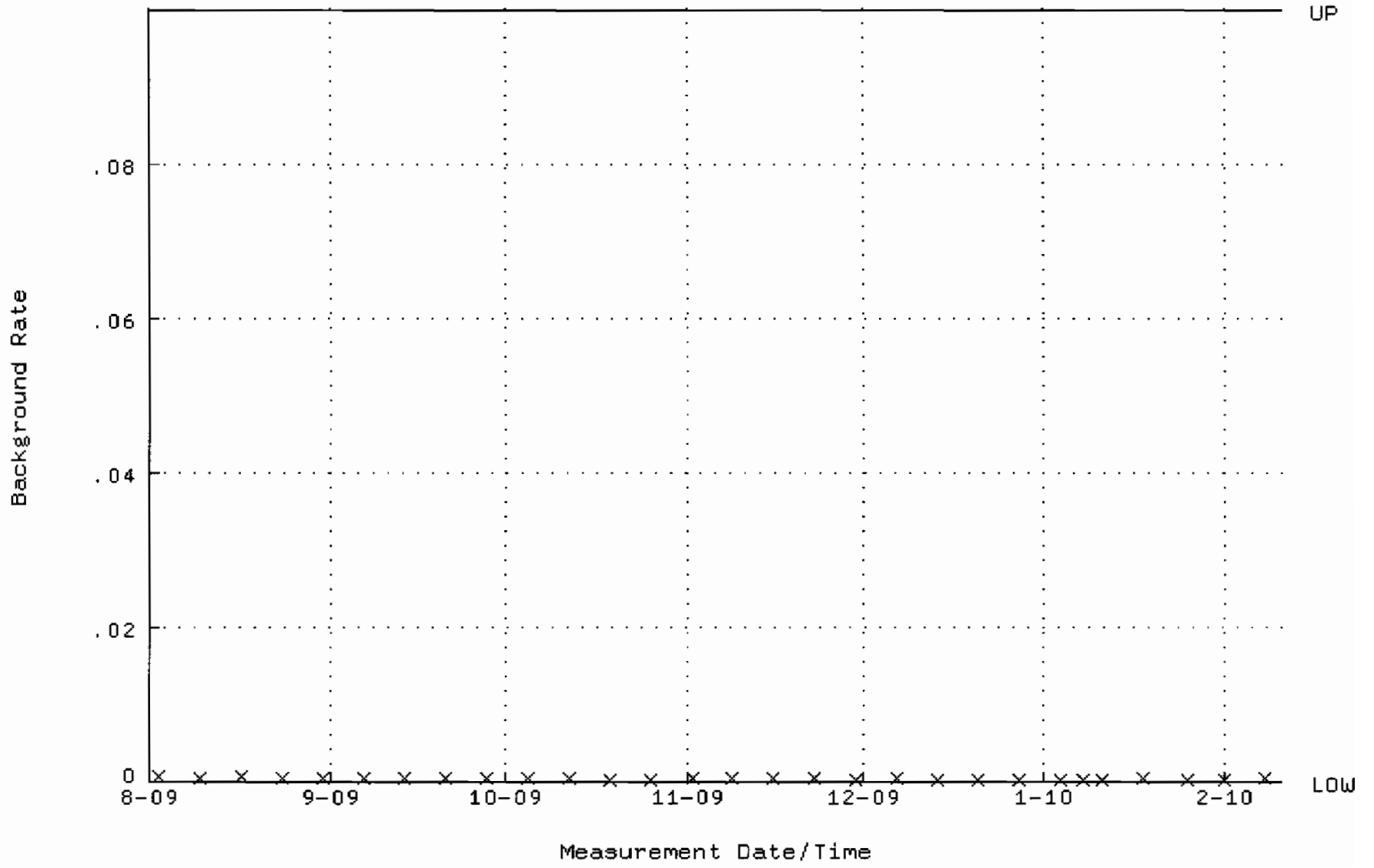

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.321662 through 0.358794

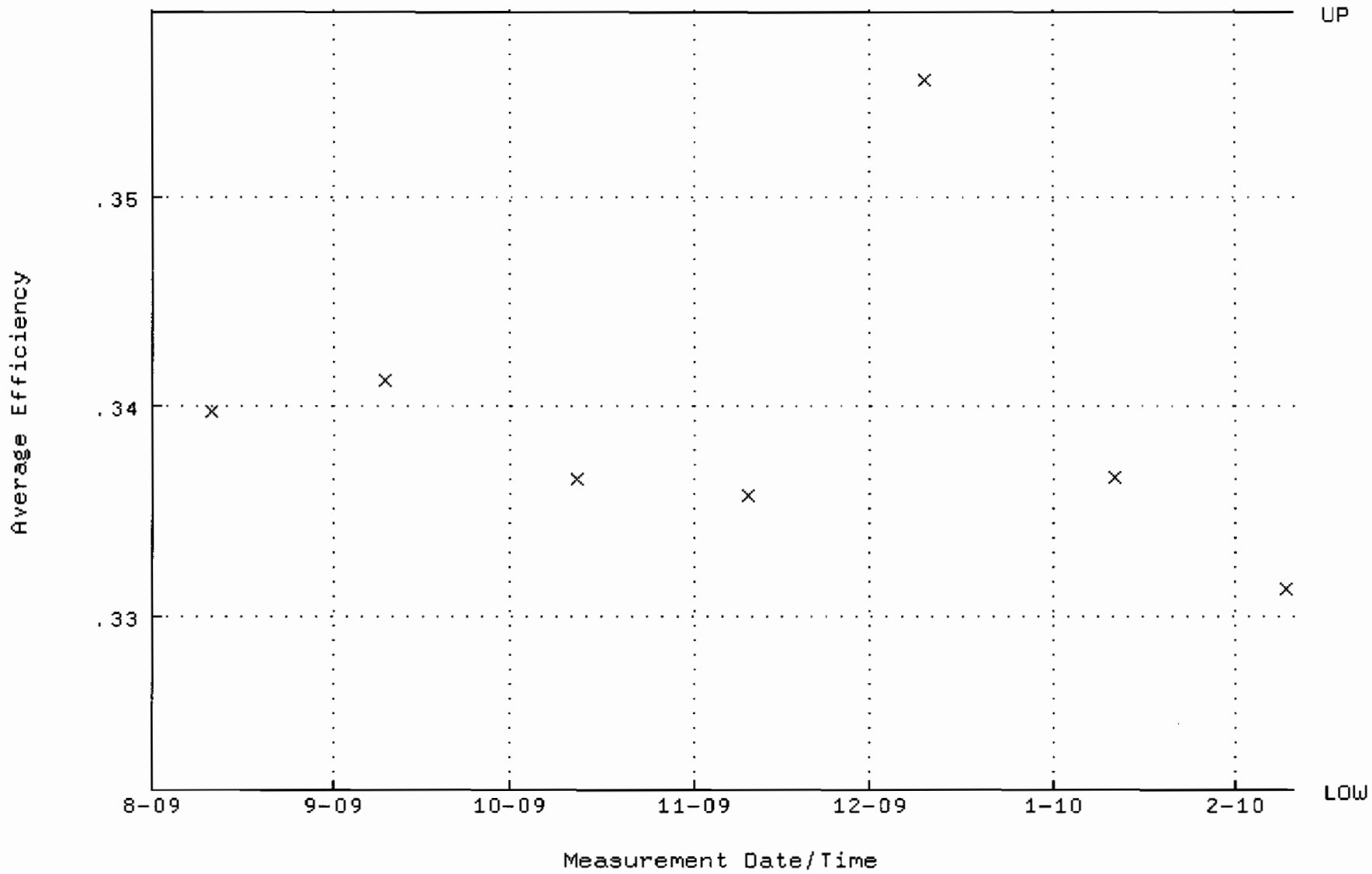

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 69.0200 through 71.9448

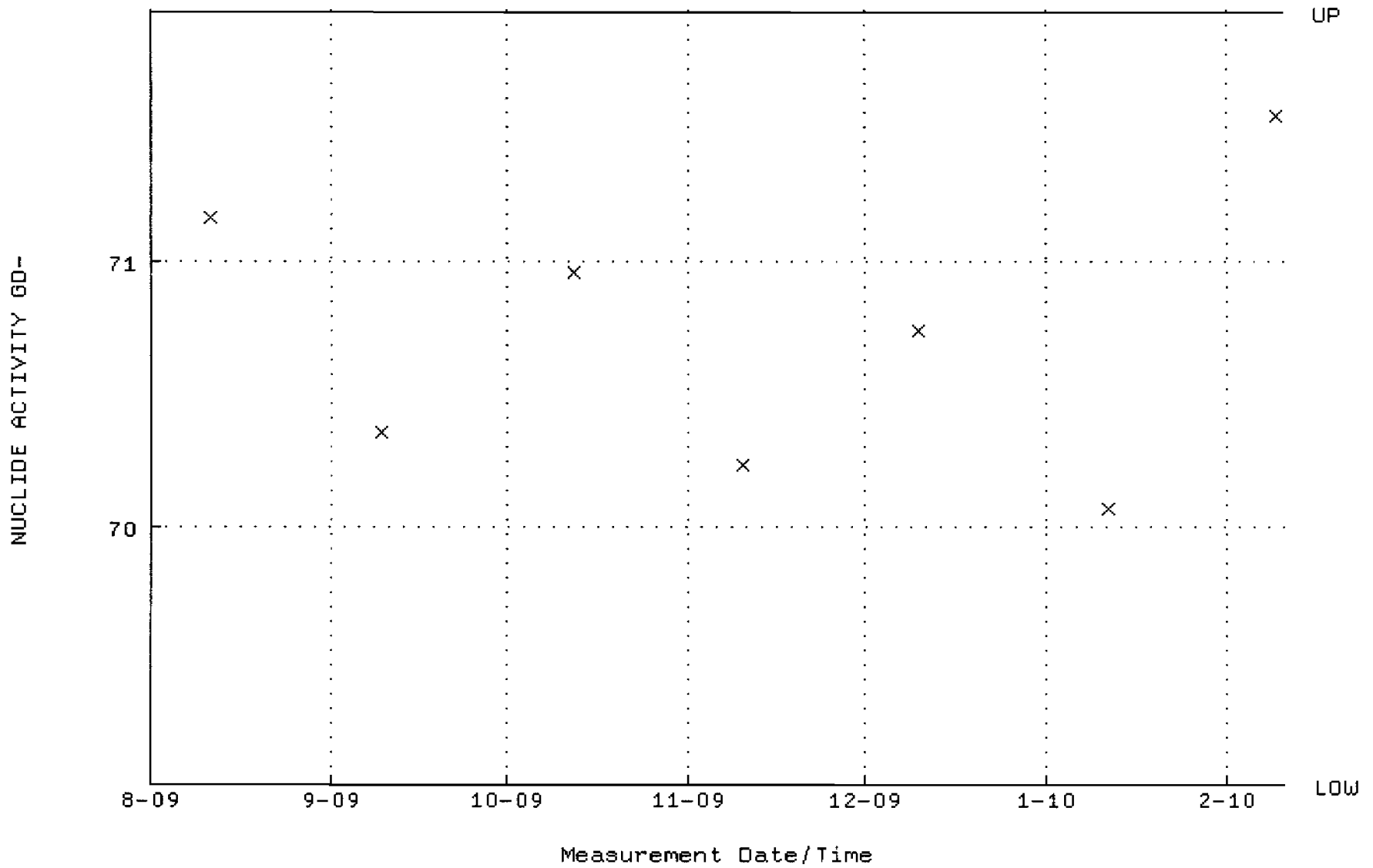

QA filename : DKA100:[ENV_ALPHA.QA.B]B111.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

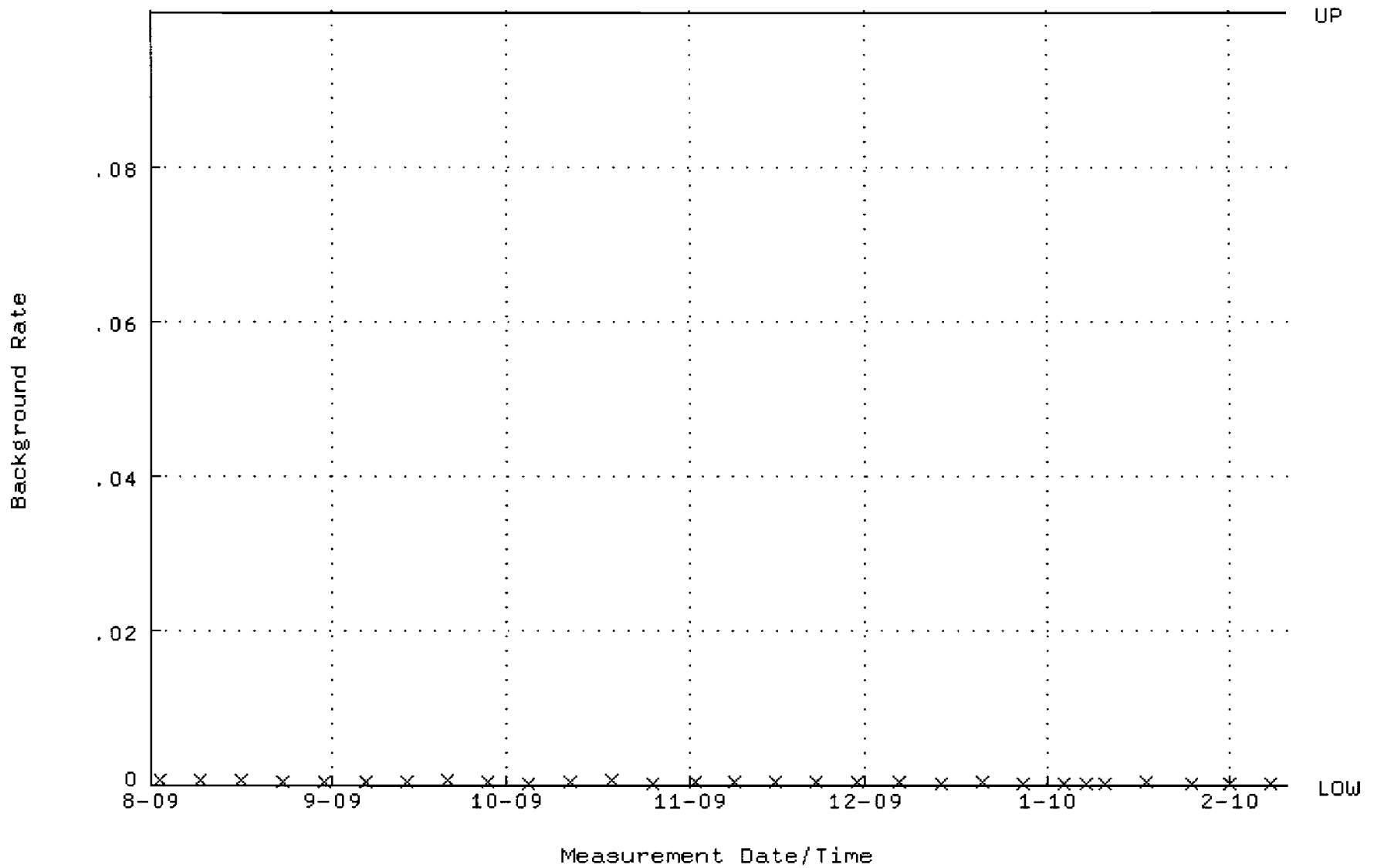

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.308263 through 0.328263

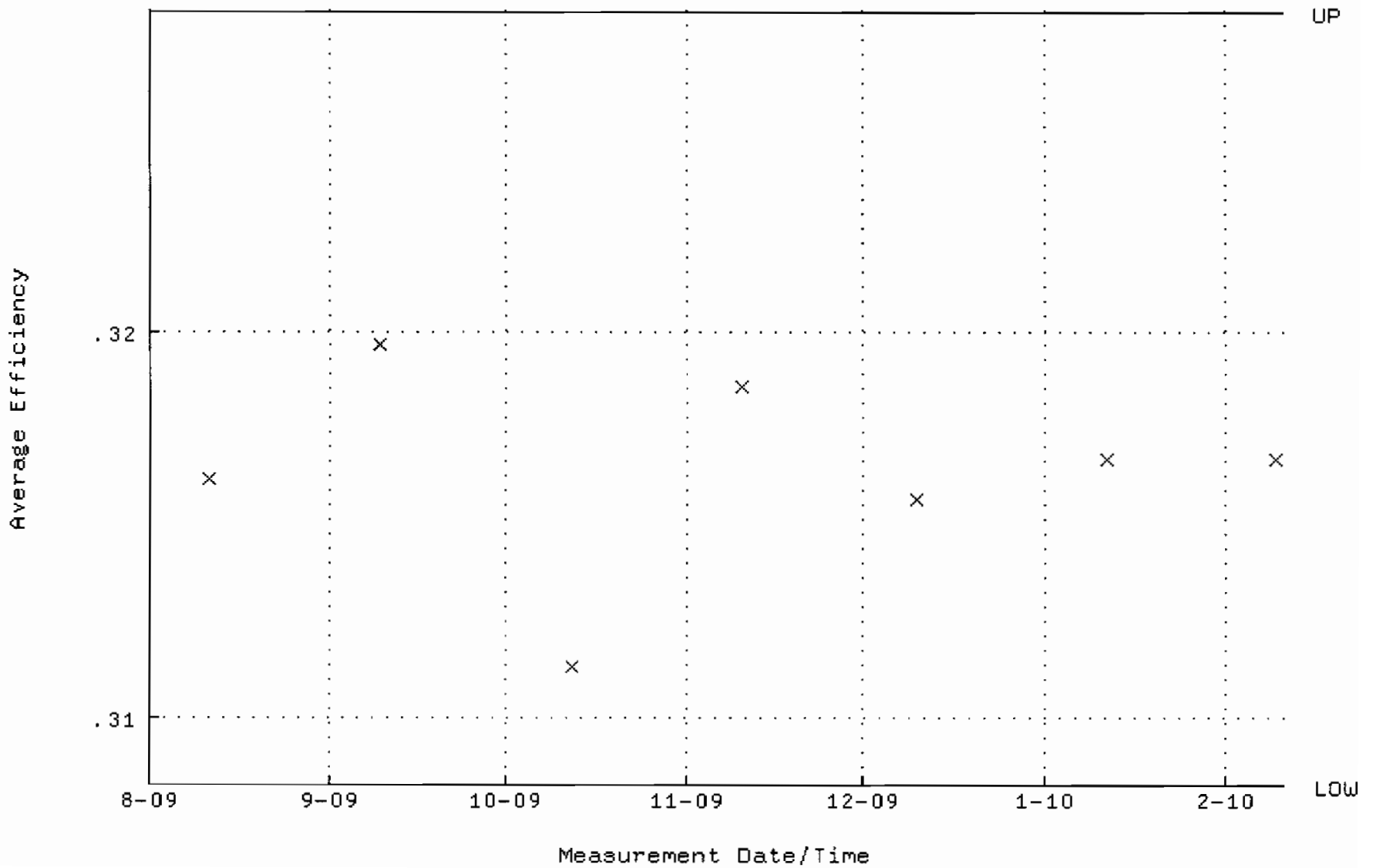

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 64.8451 through 71.6709

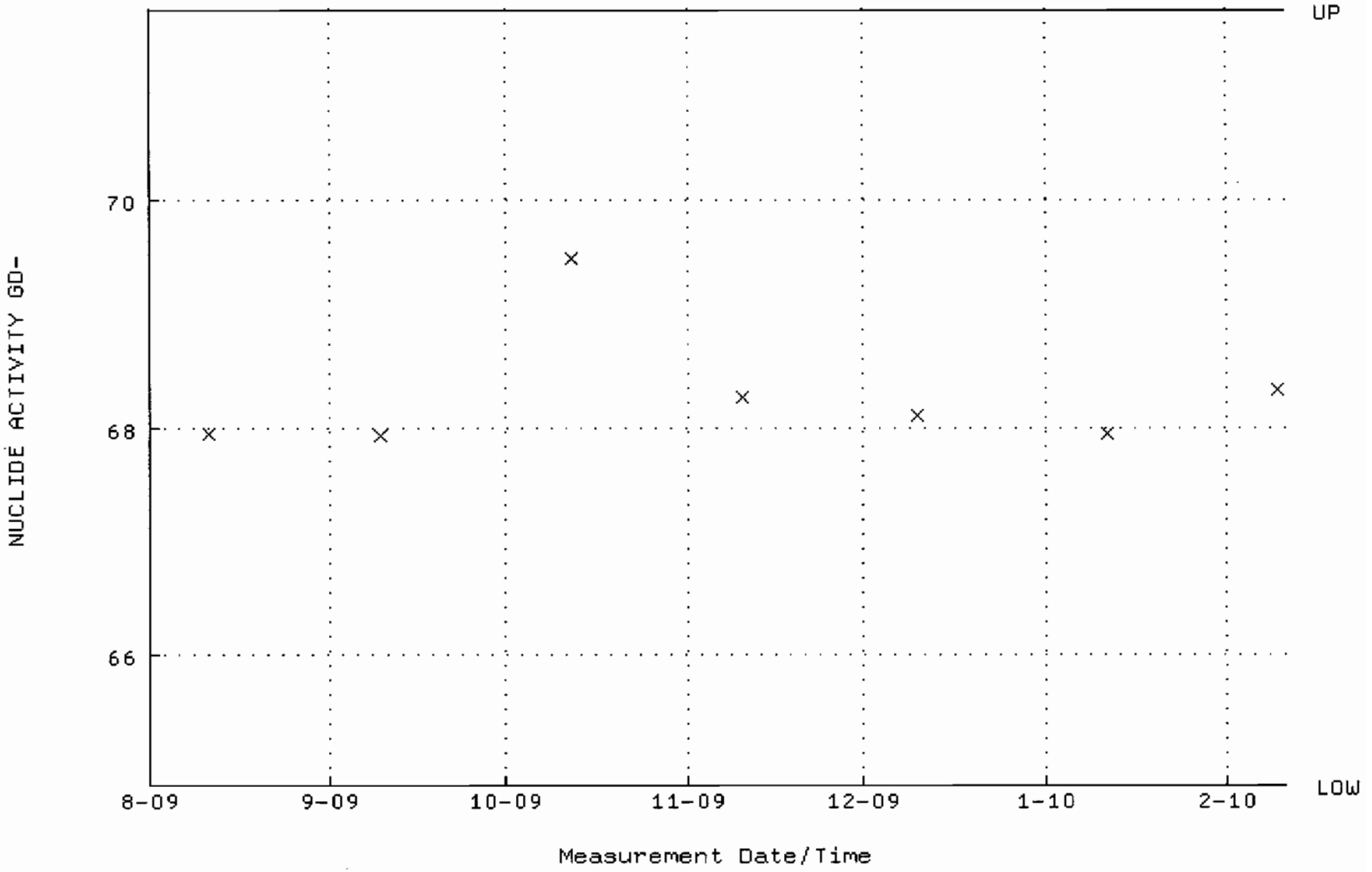

QA filename : DKA100:[ENV_ALPHA.QA.B]B112.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

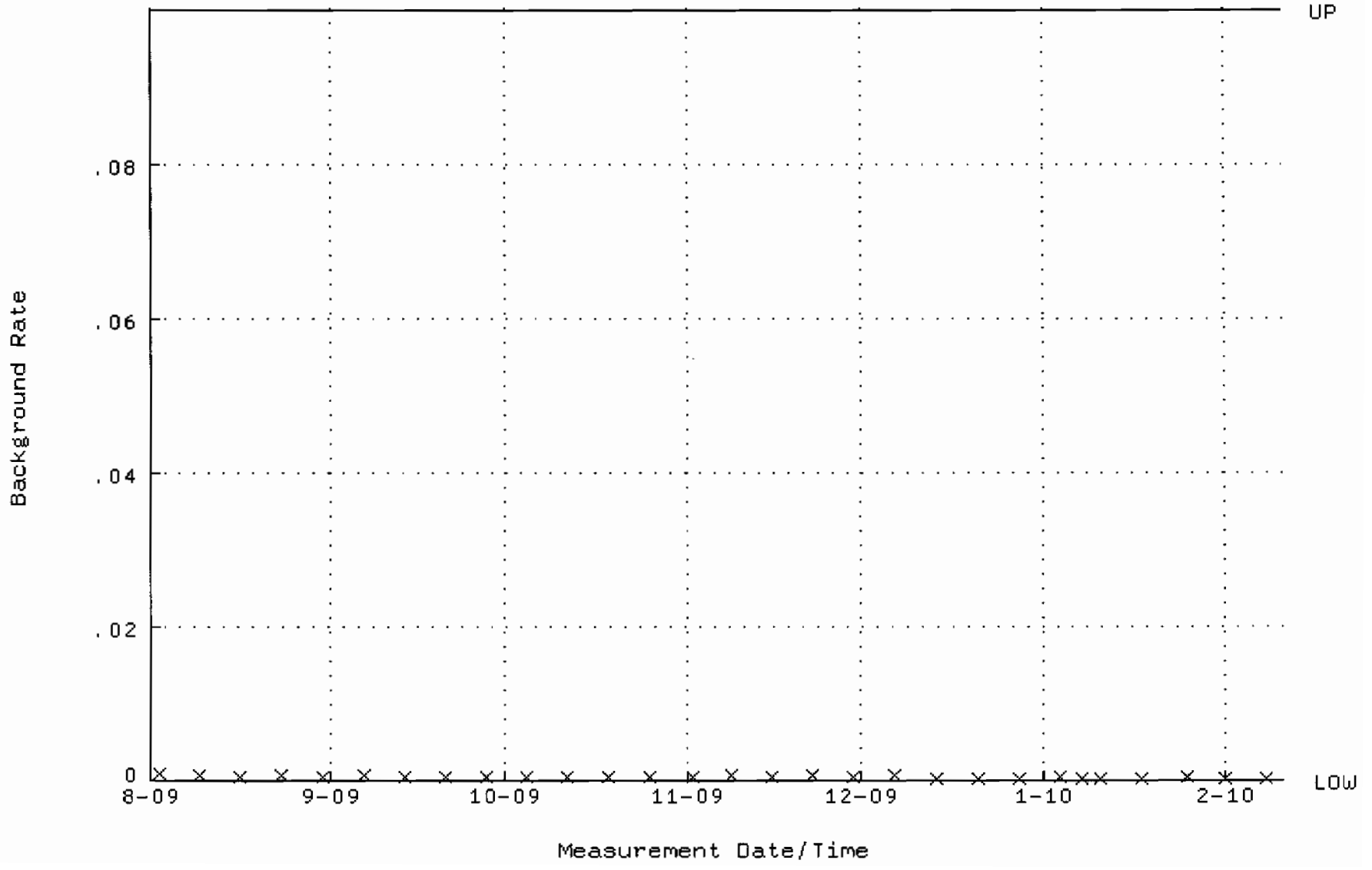

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.232847 through 0.282381

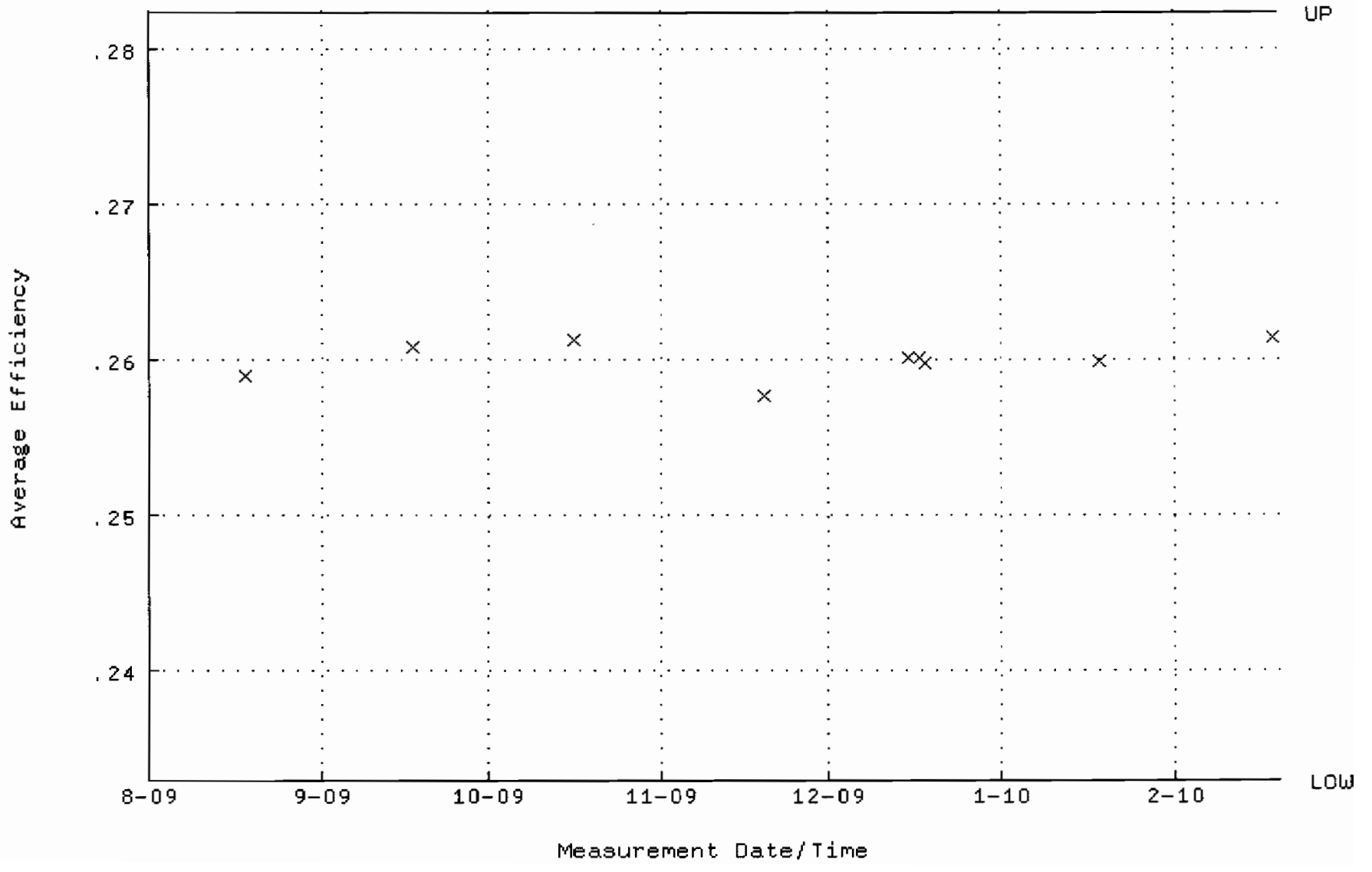

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.3881 through 91.8481

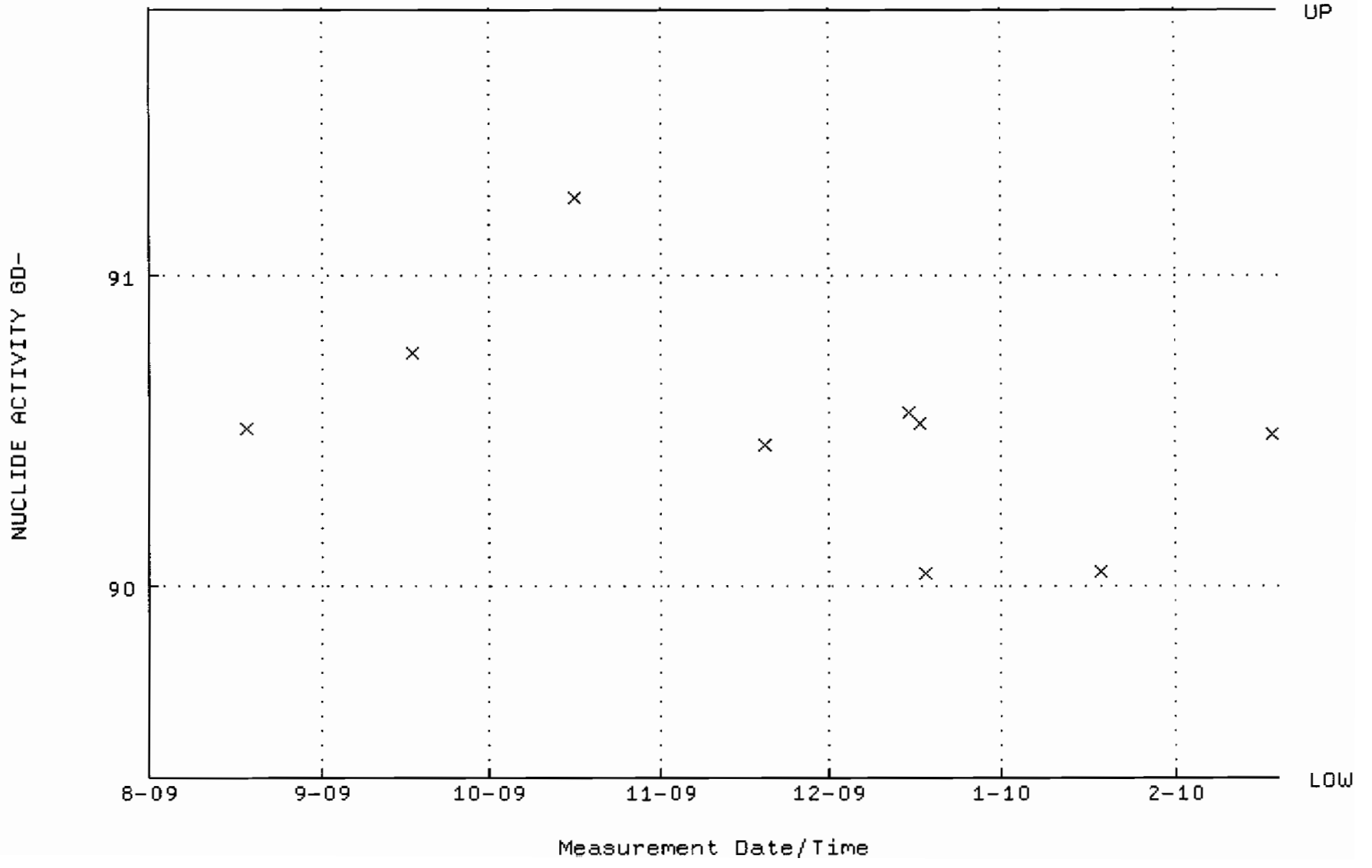

QA filename : DKA100:[ENV_ALPHA.QA.B]B120.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 3-AUG-2009 15:38:20 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

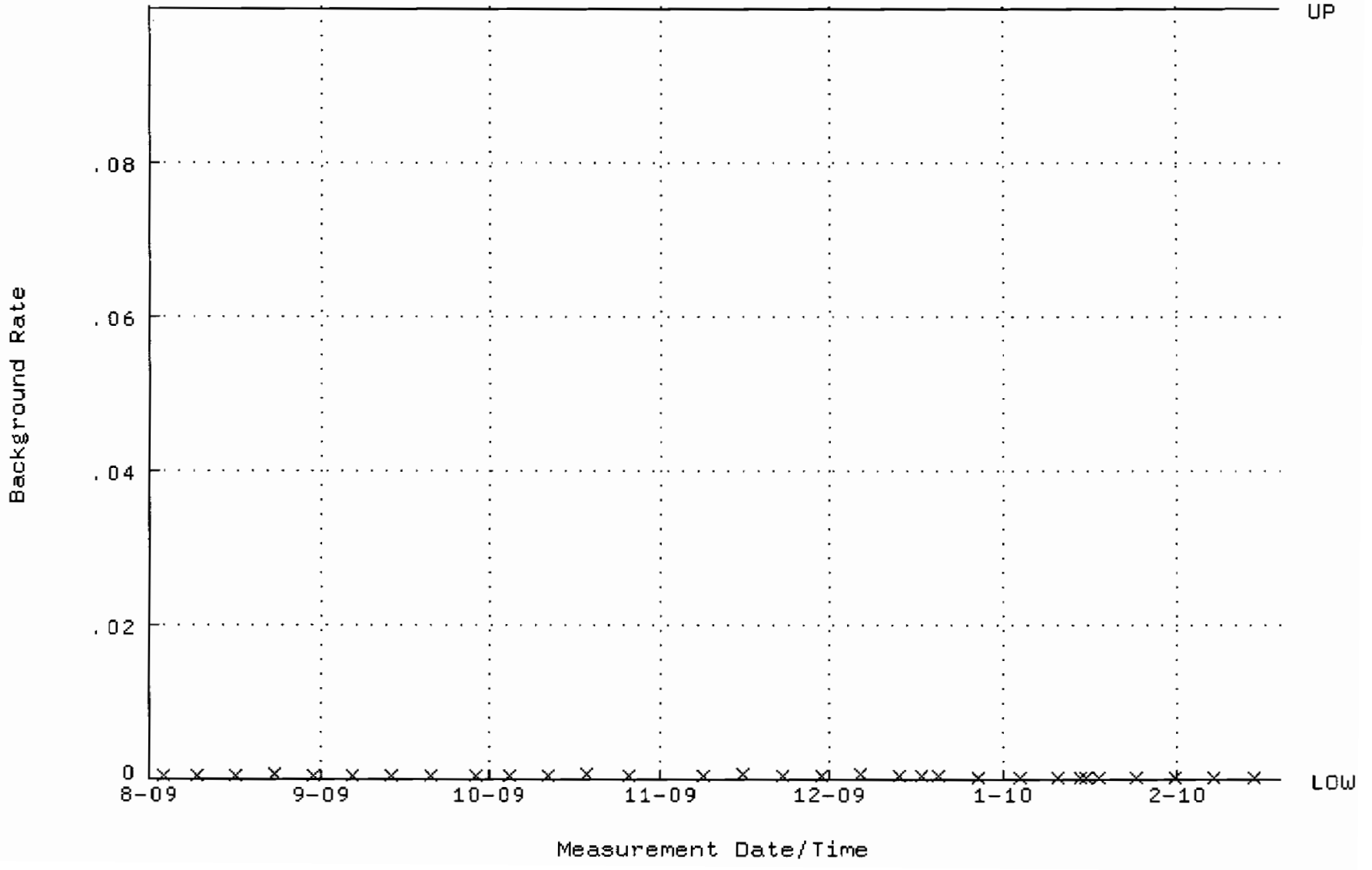

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686

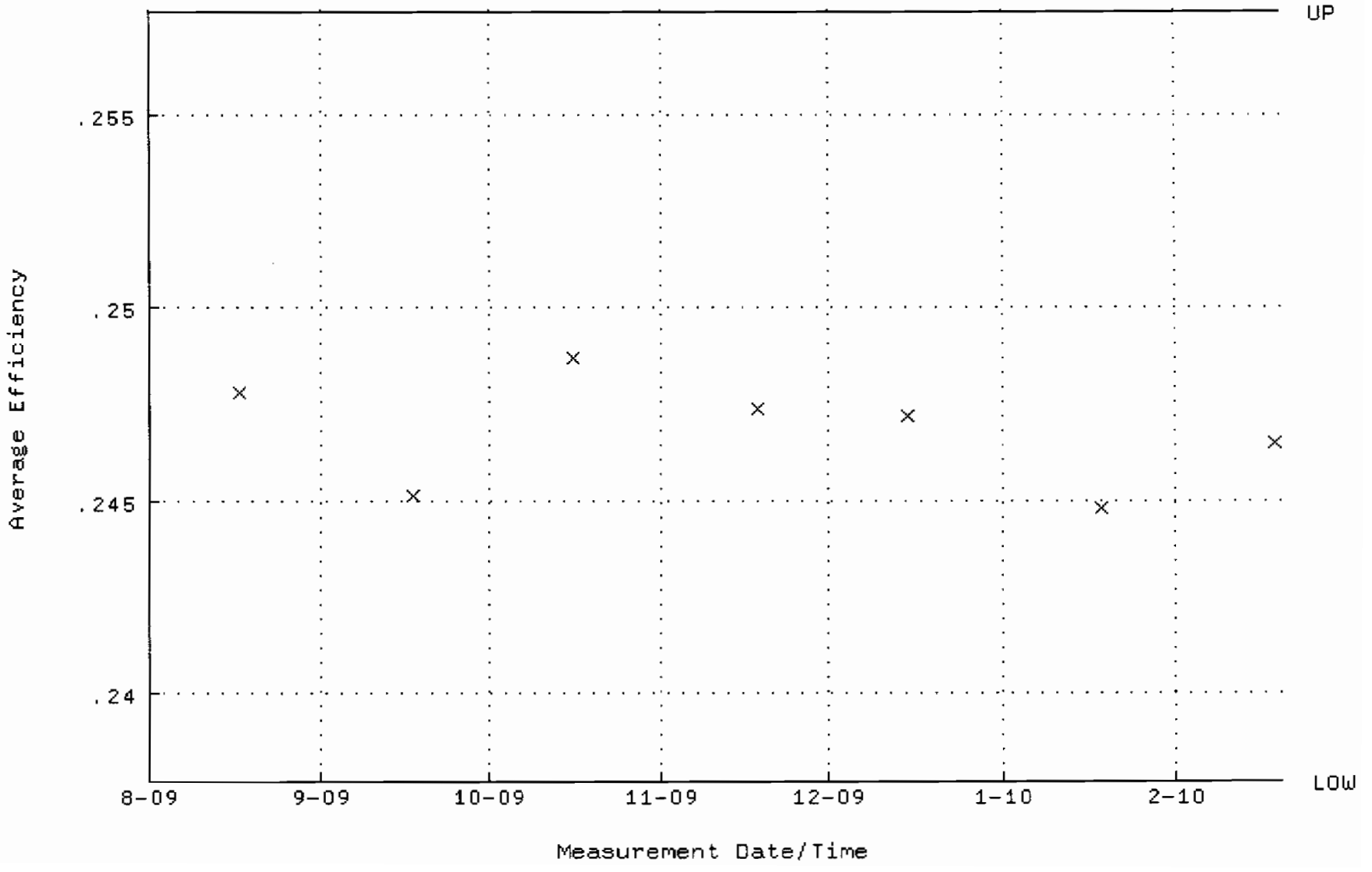

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395

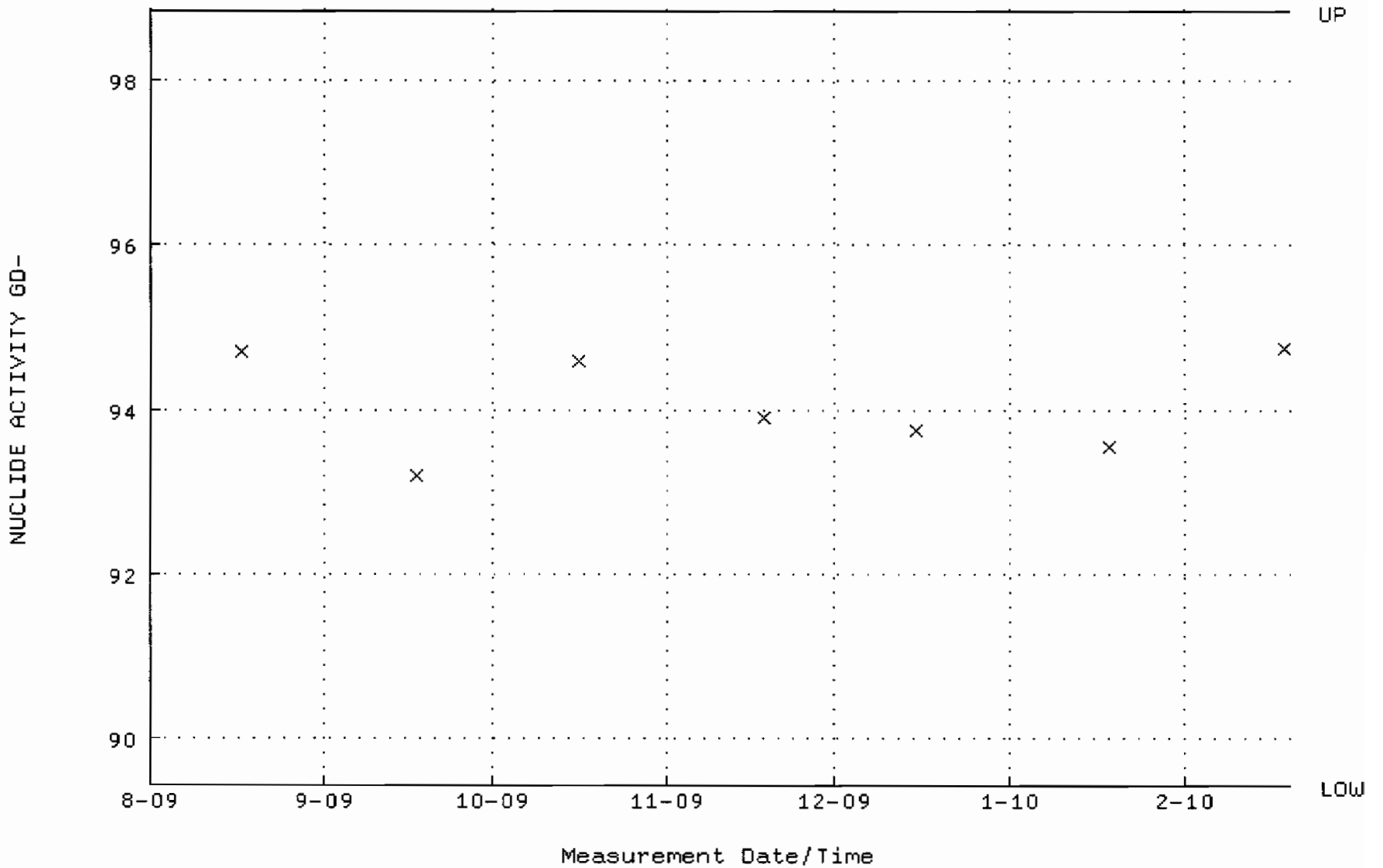

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:33 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

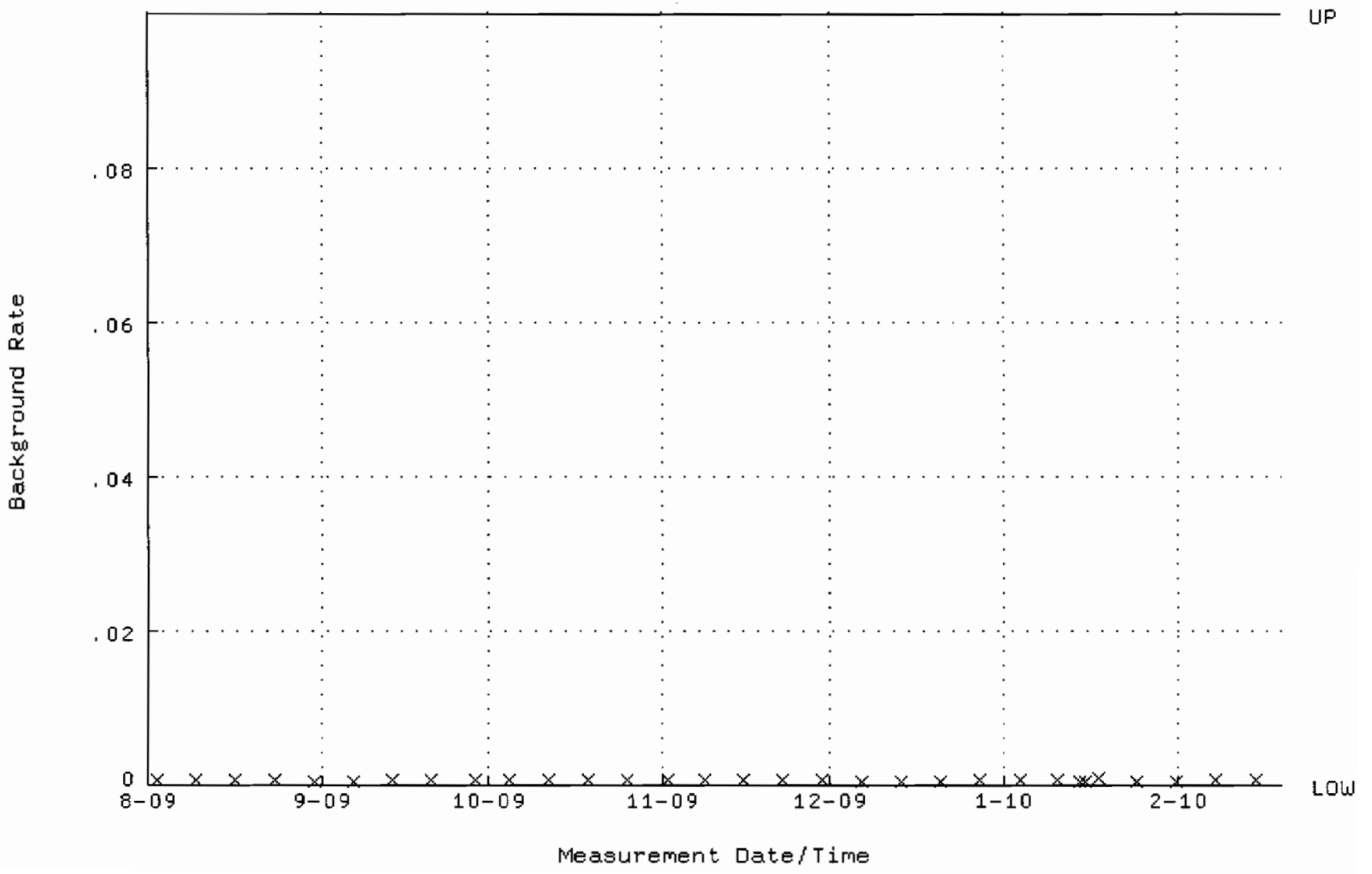

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242659 through 0.262659

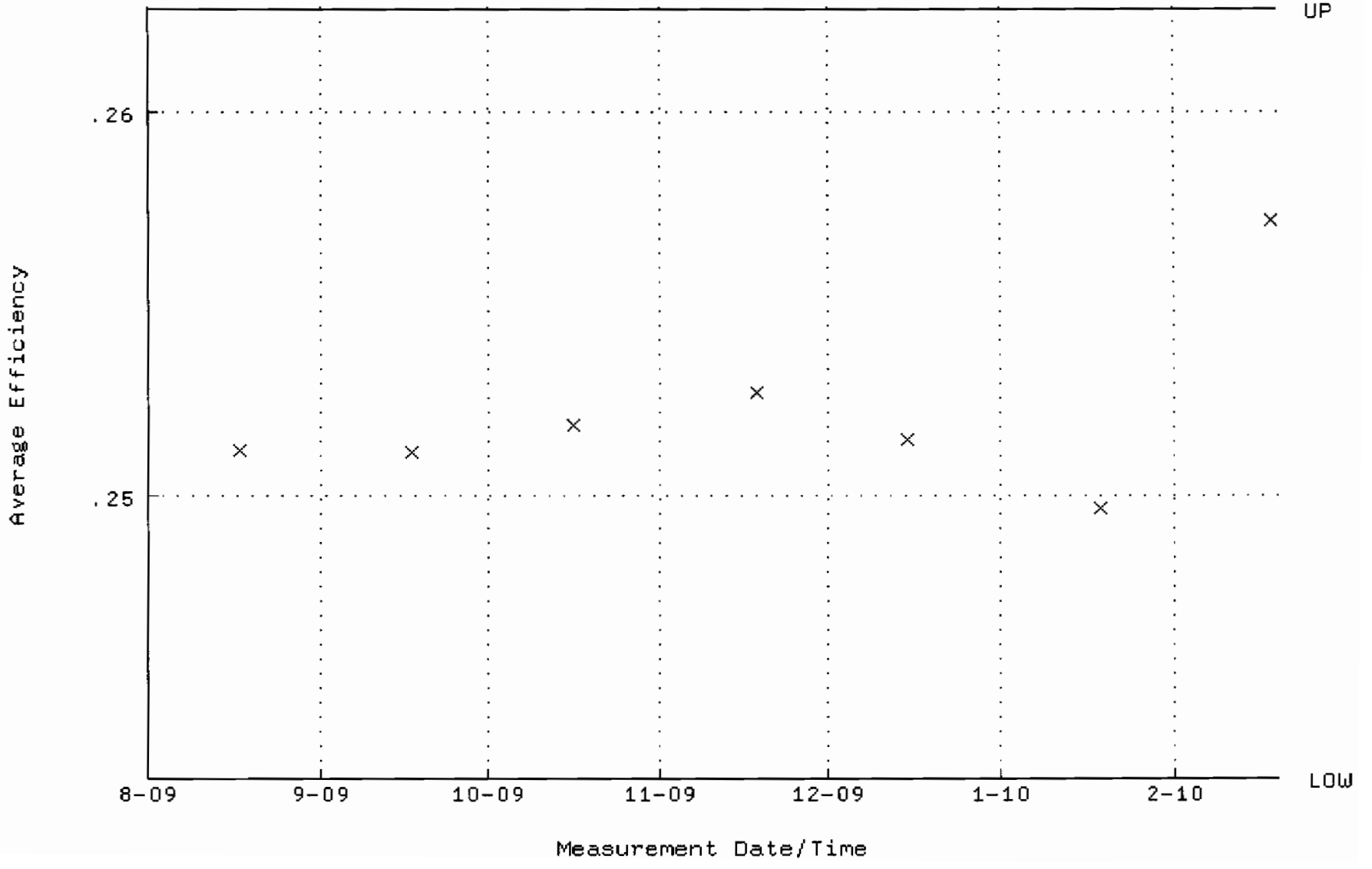

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.5949 through 100.131

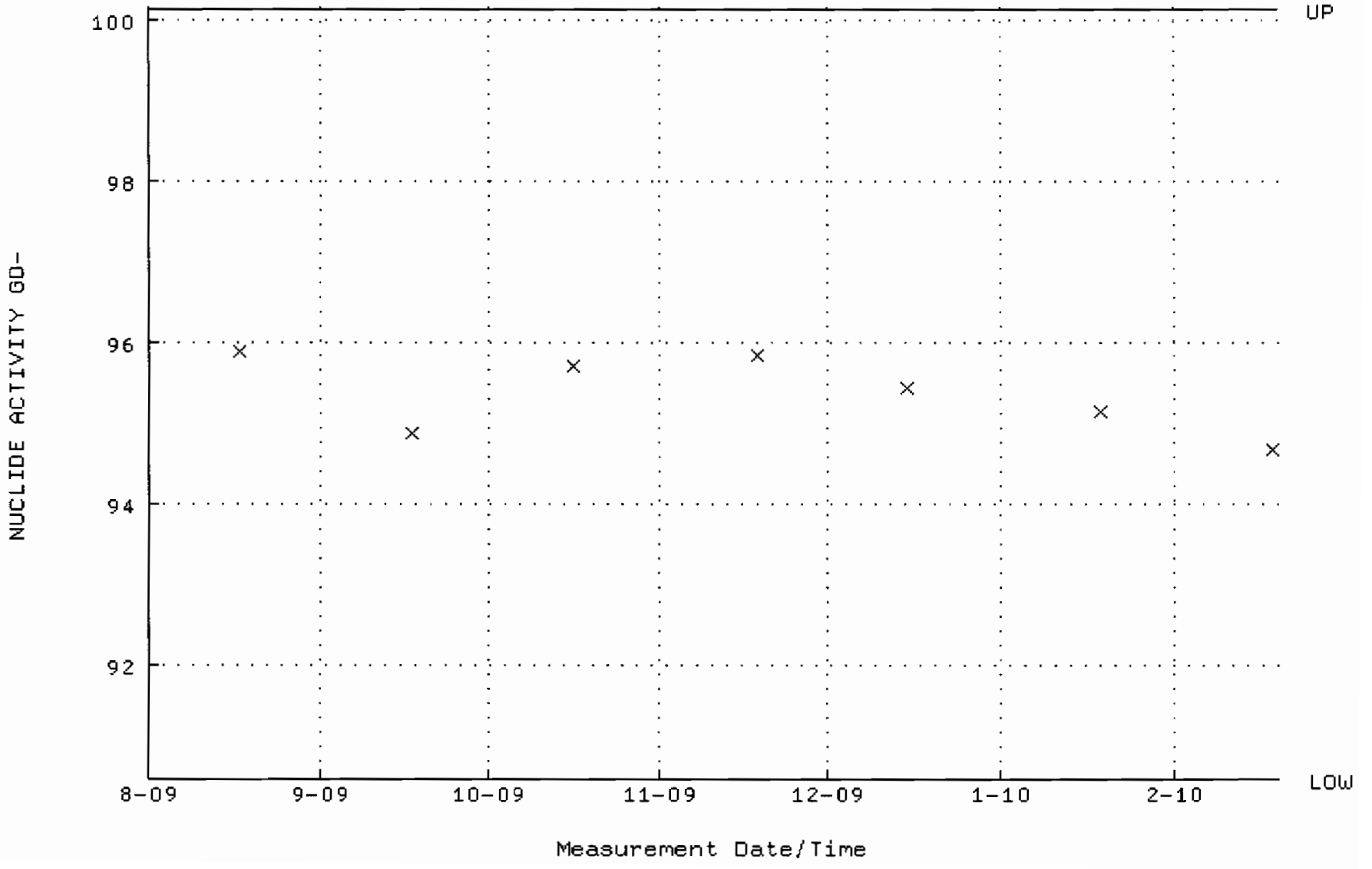

QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:37 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

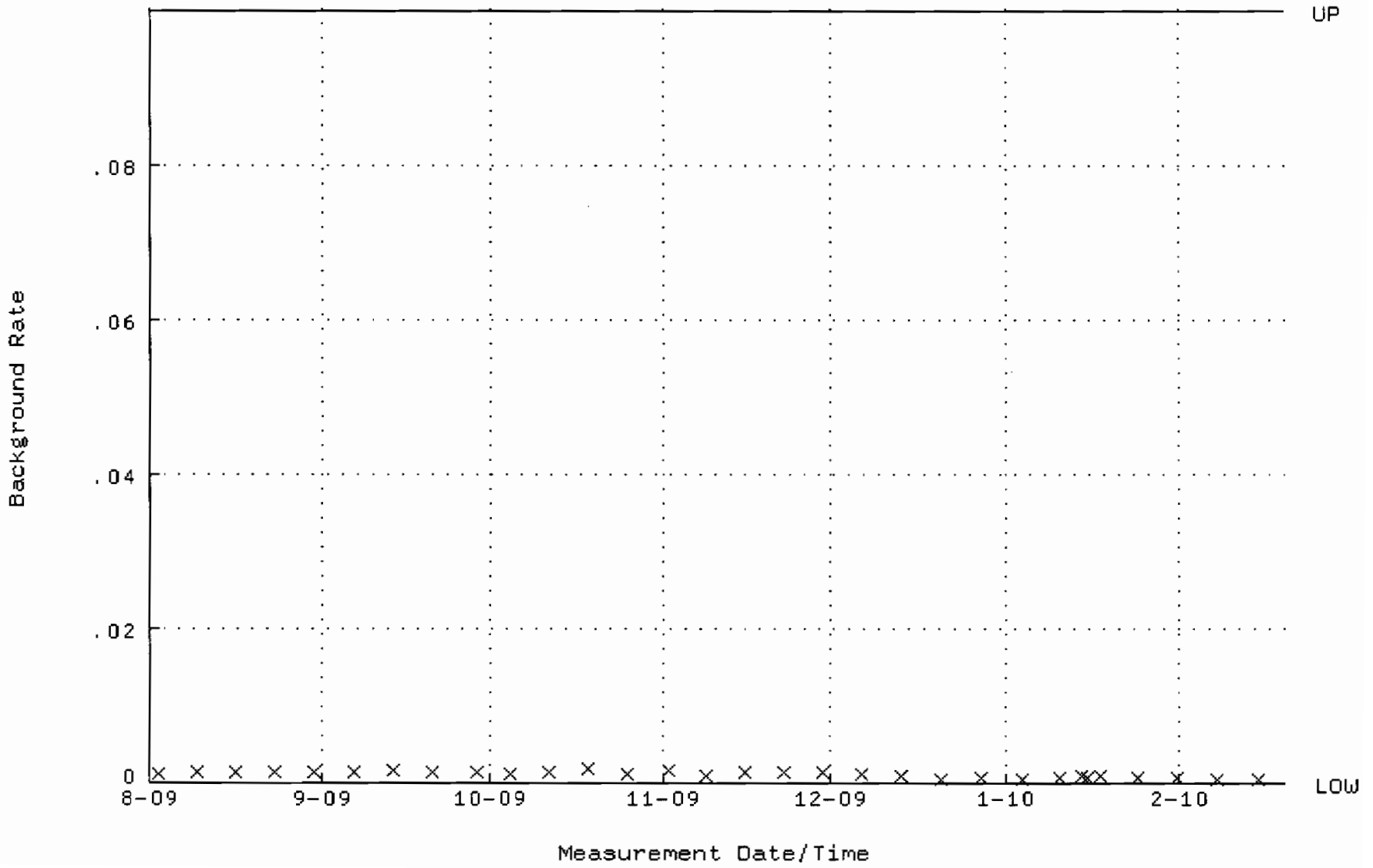

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.249752 through 0.269752

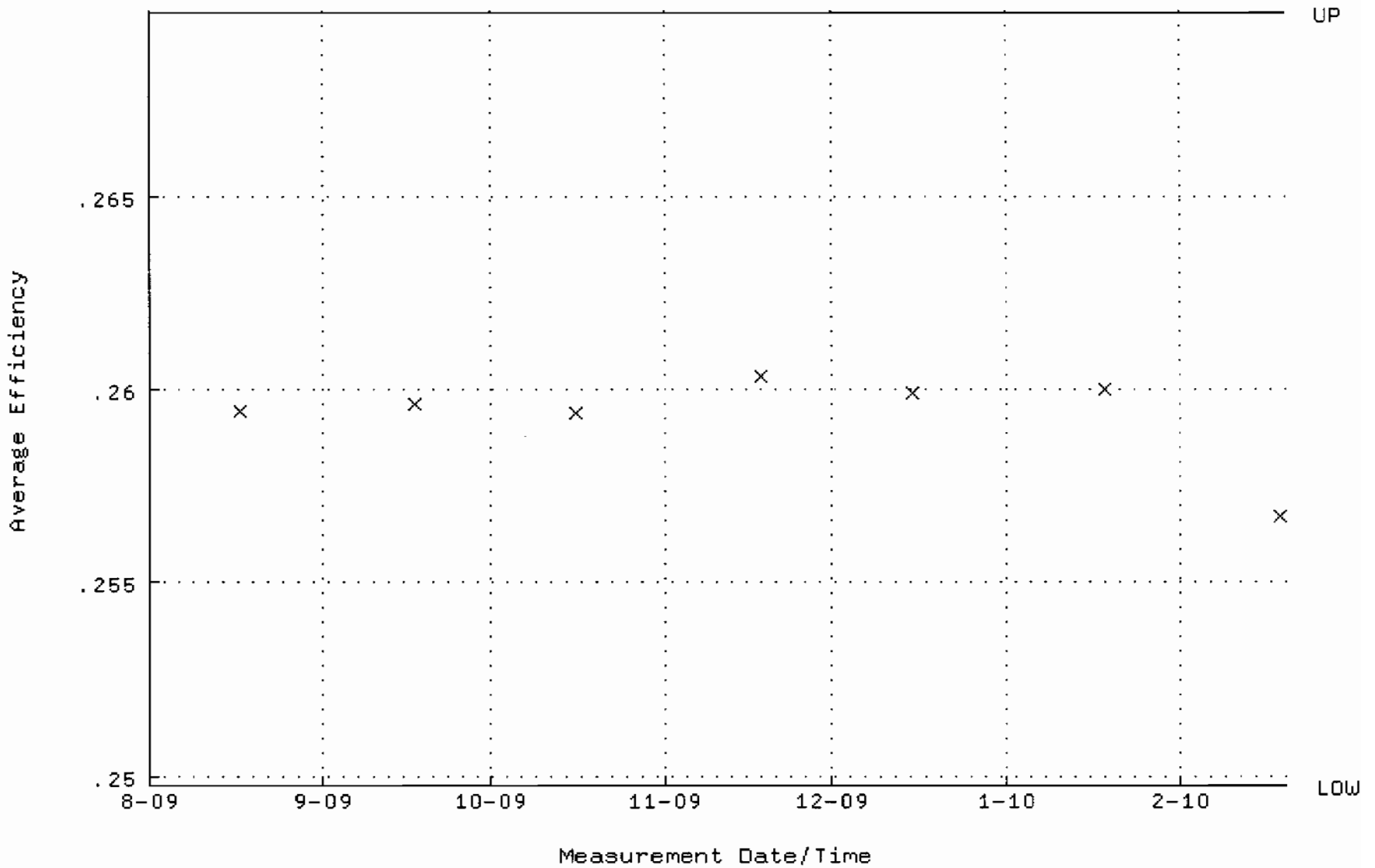

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0496 through 95.1074

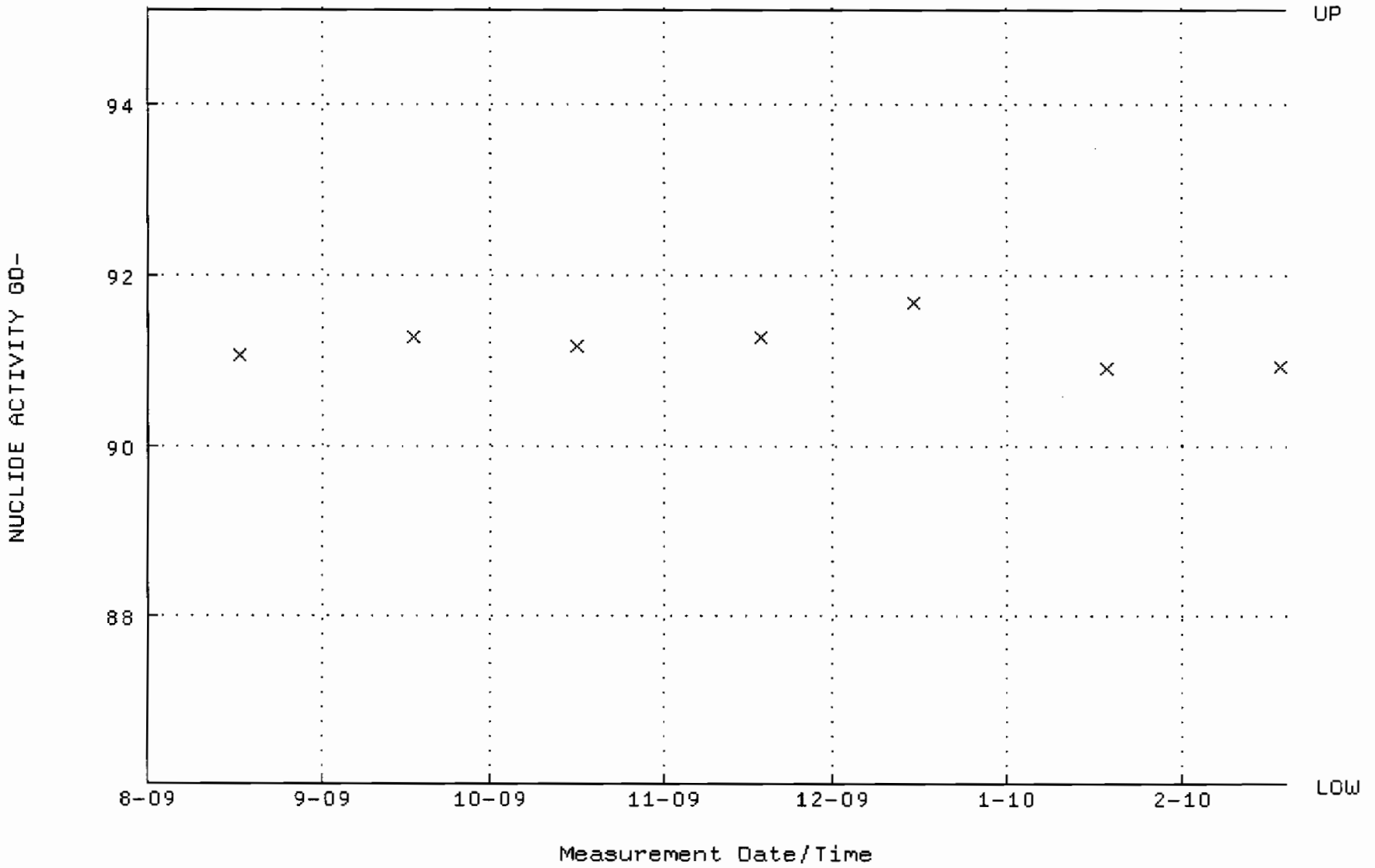

QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:42 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

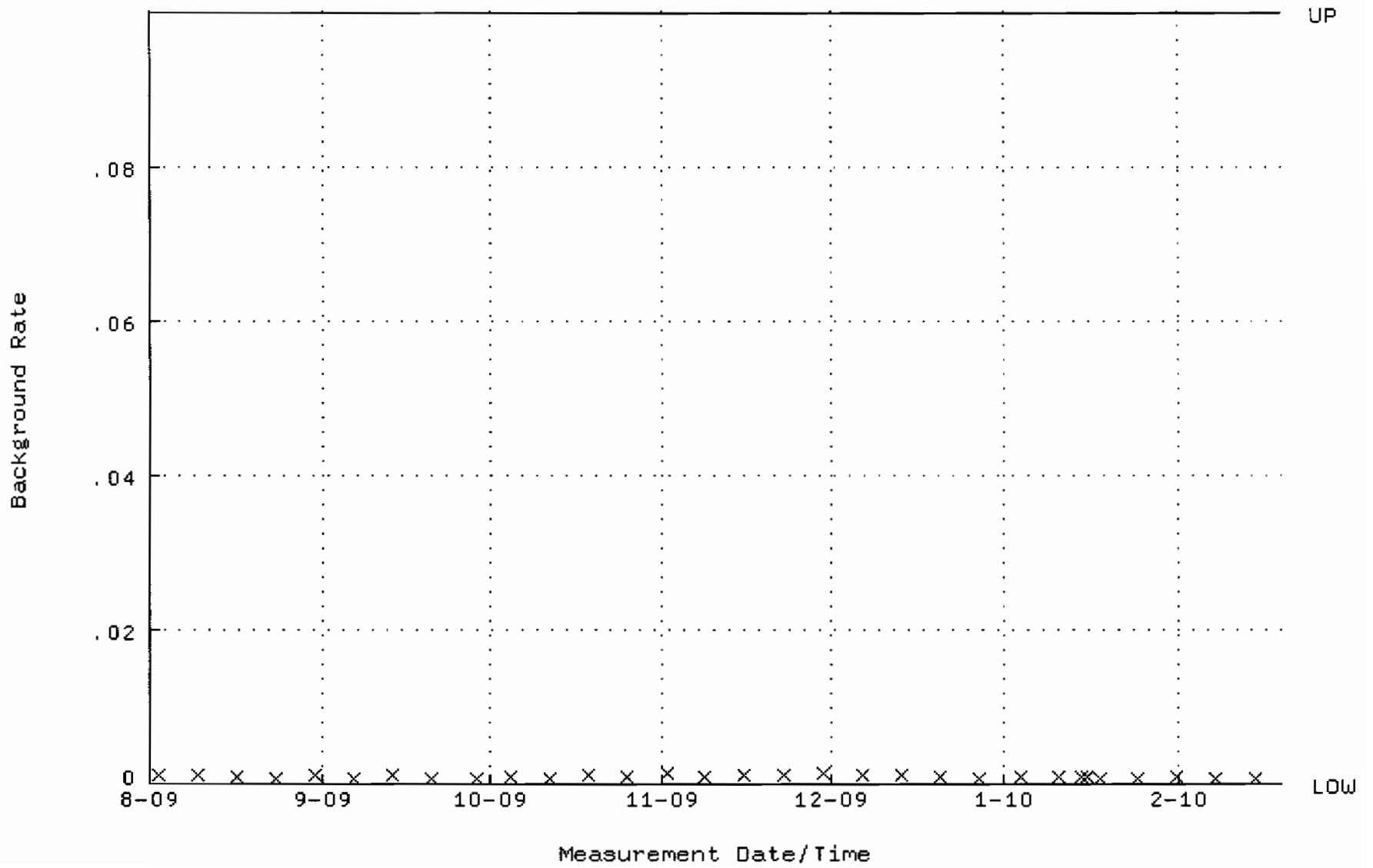

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.251398 through 0.271398

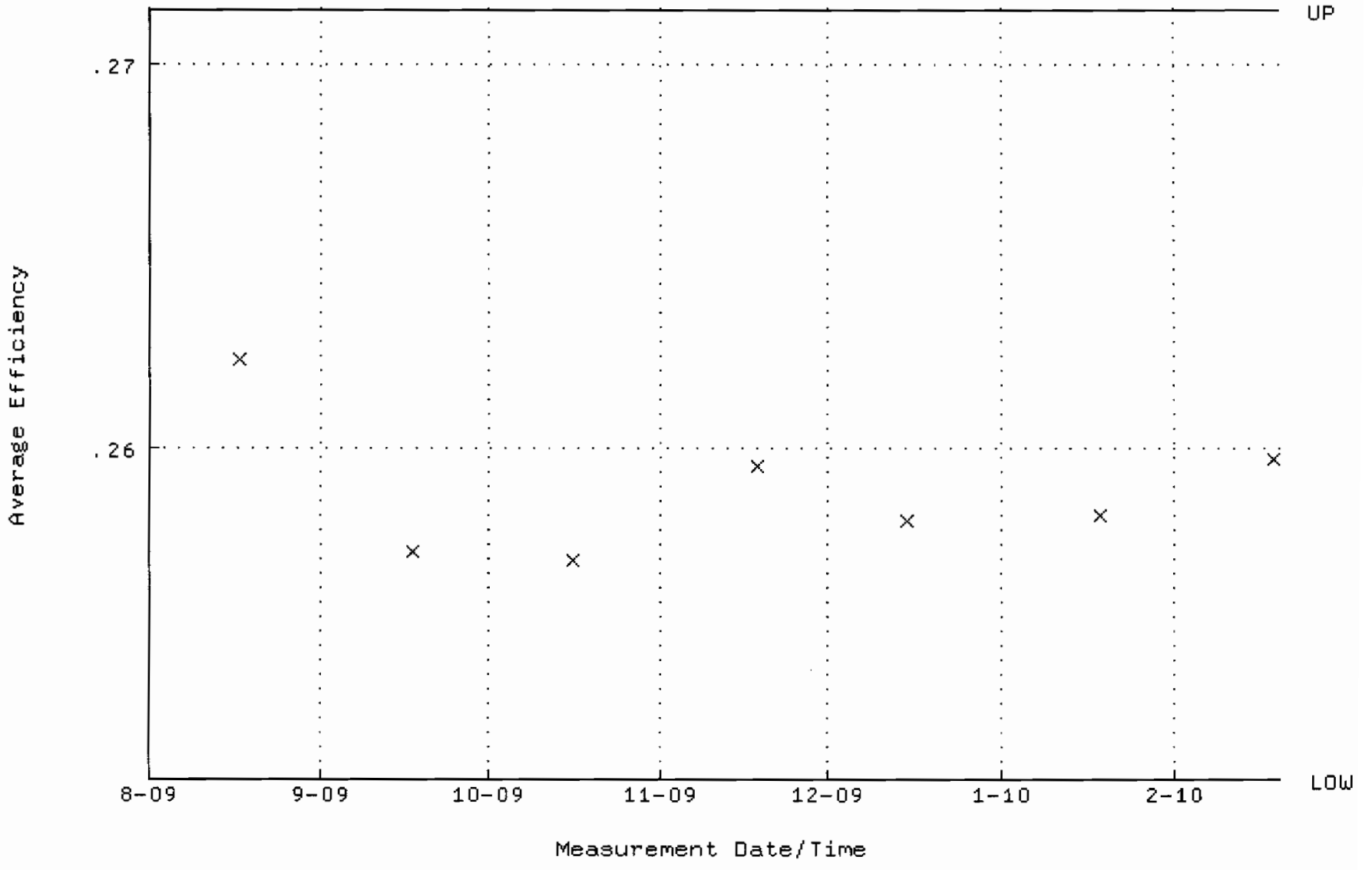

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8862 through 96.0322

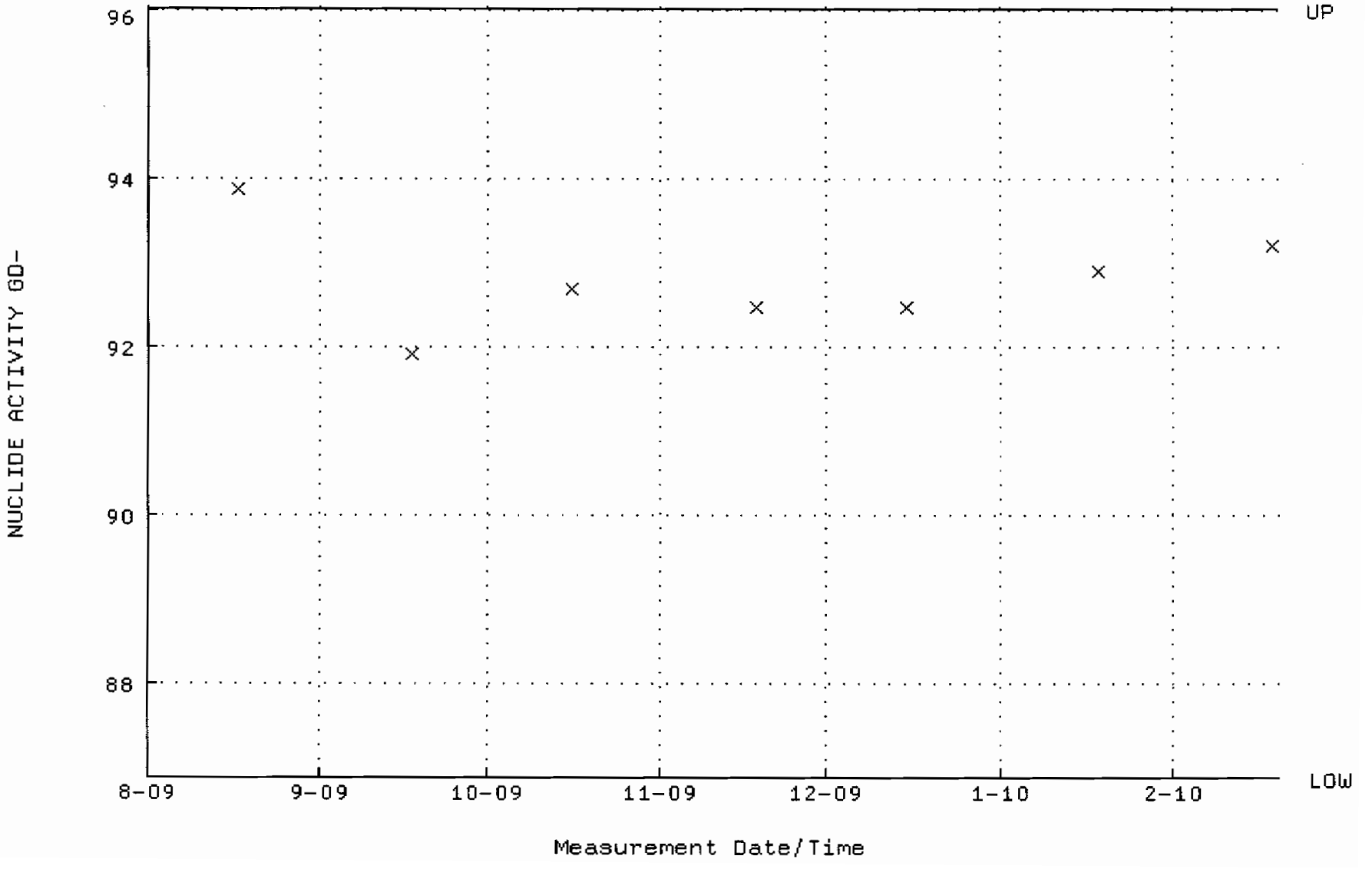

QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:47 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

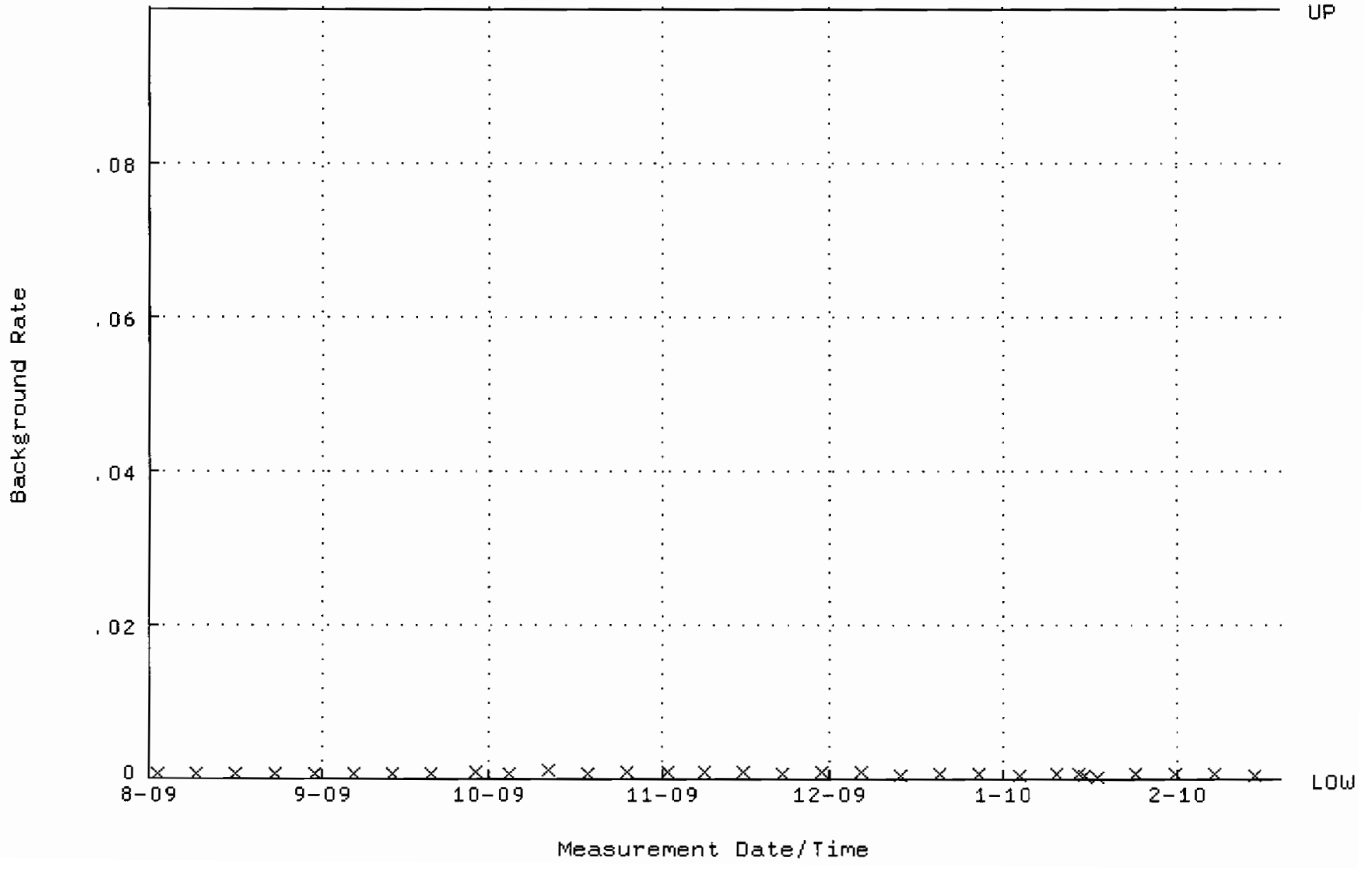

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247512 through 0.267512

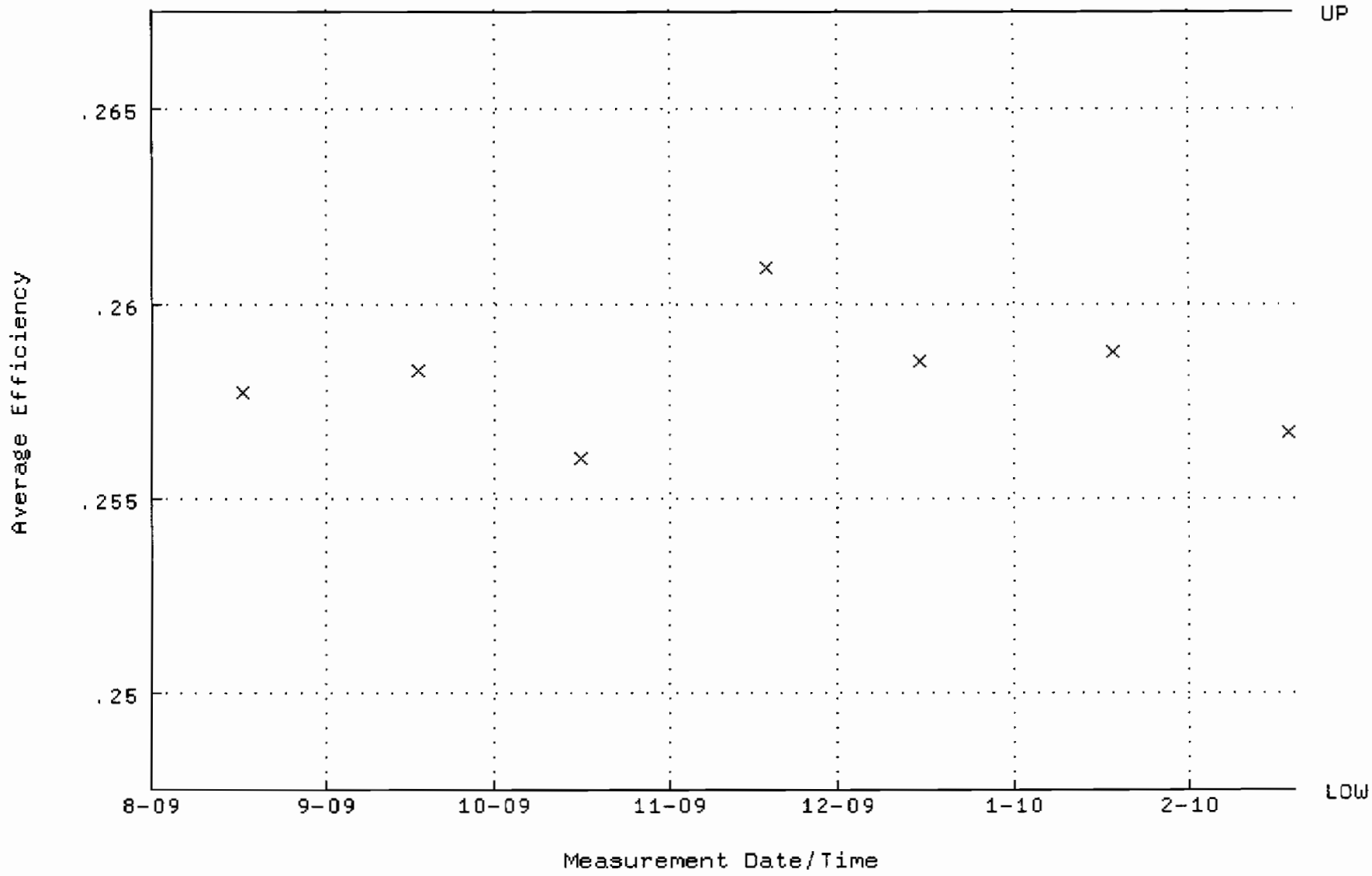

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.6956 through 96.9268

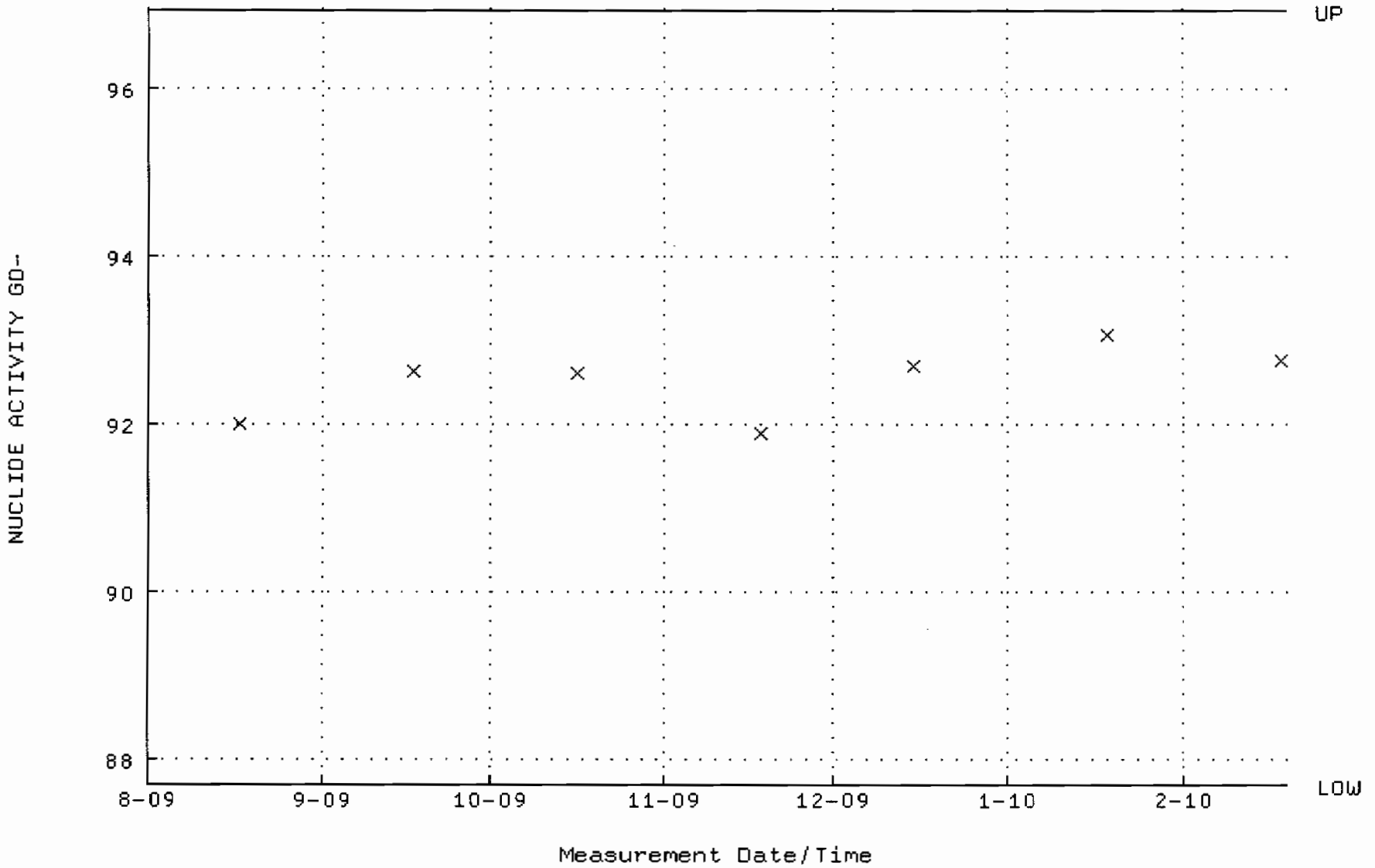

QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:51 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

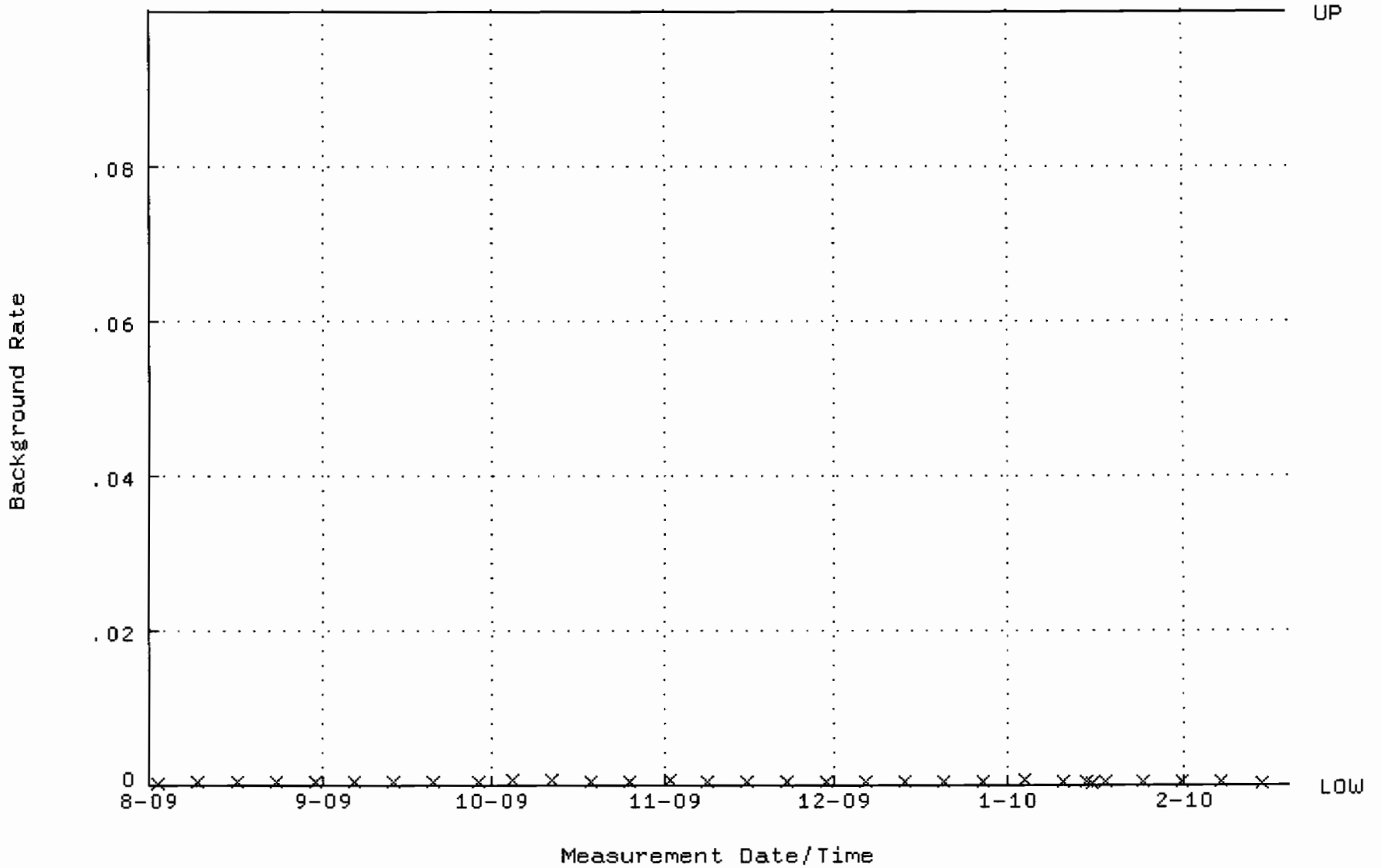

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.243156 through 0.263156

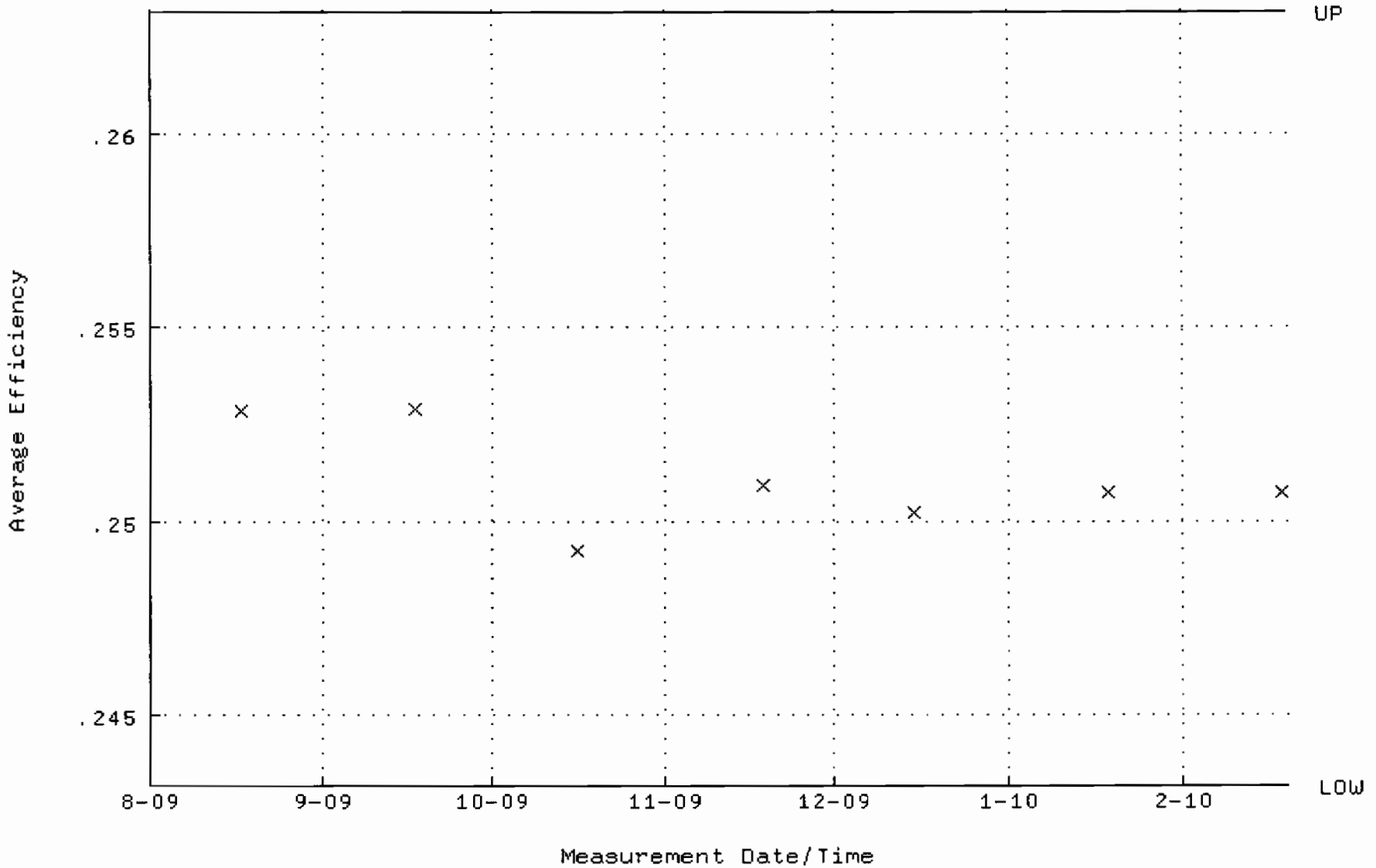

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.7449 through 94.7707

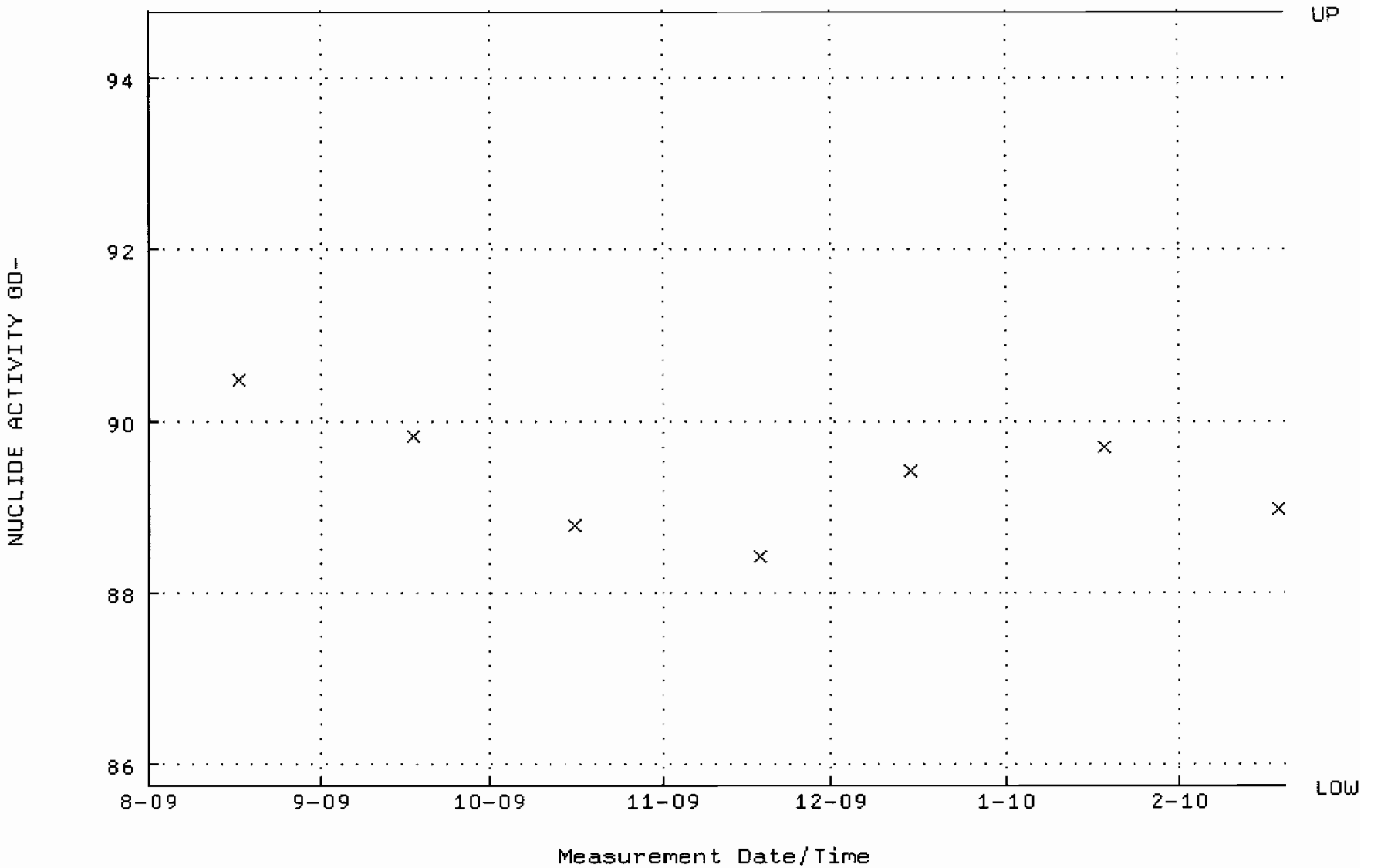

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:55 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

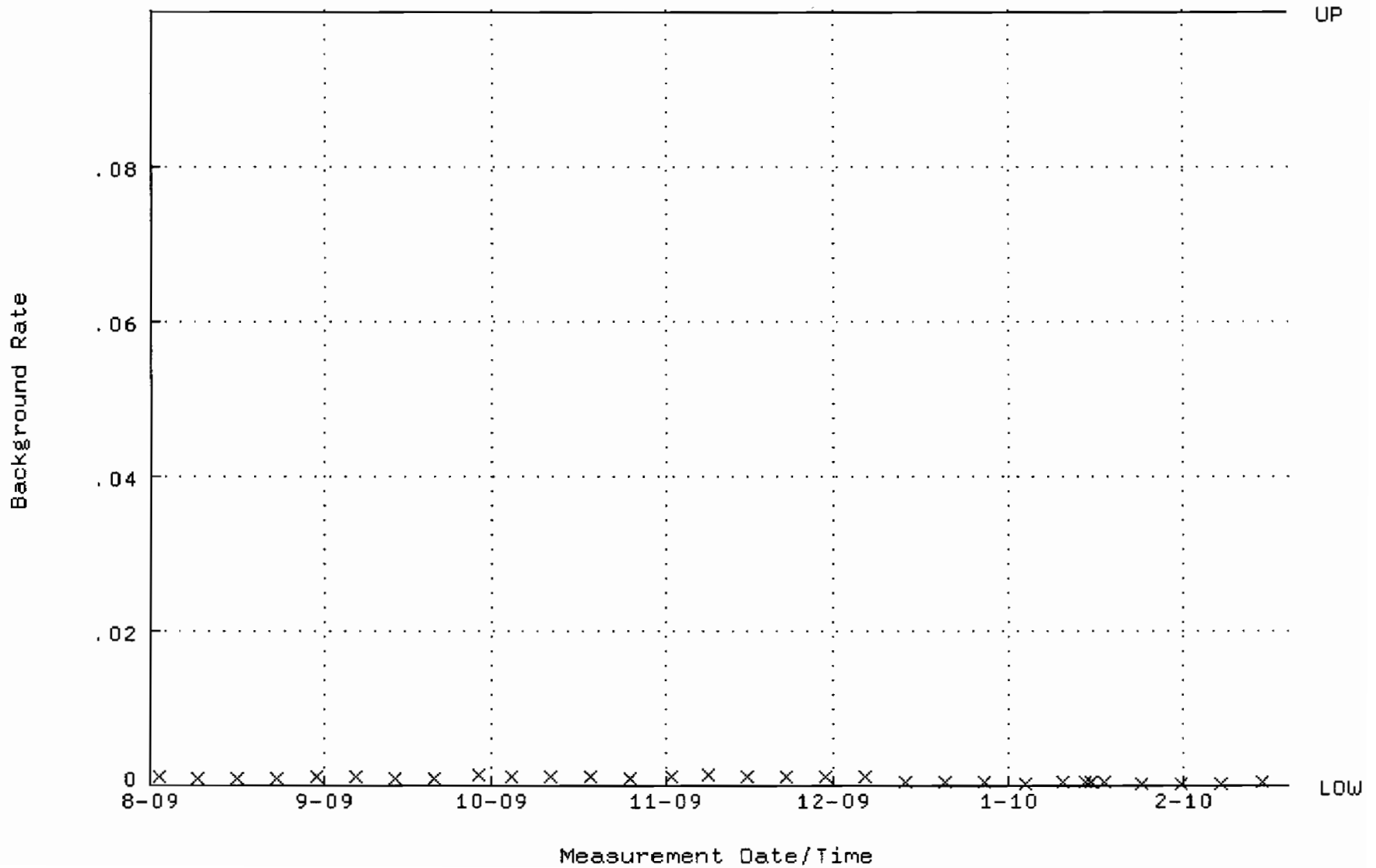

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773

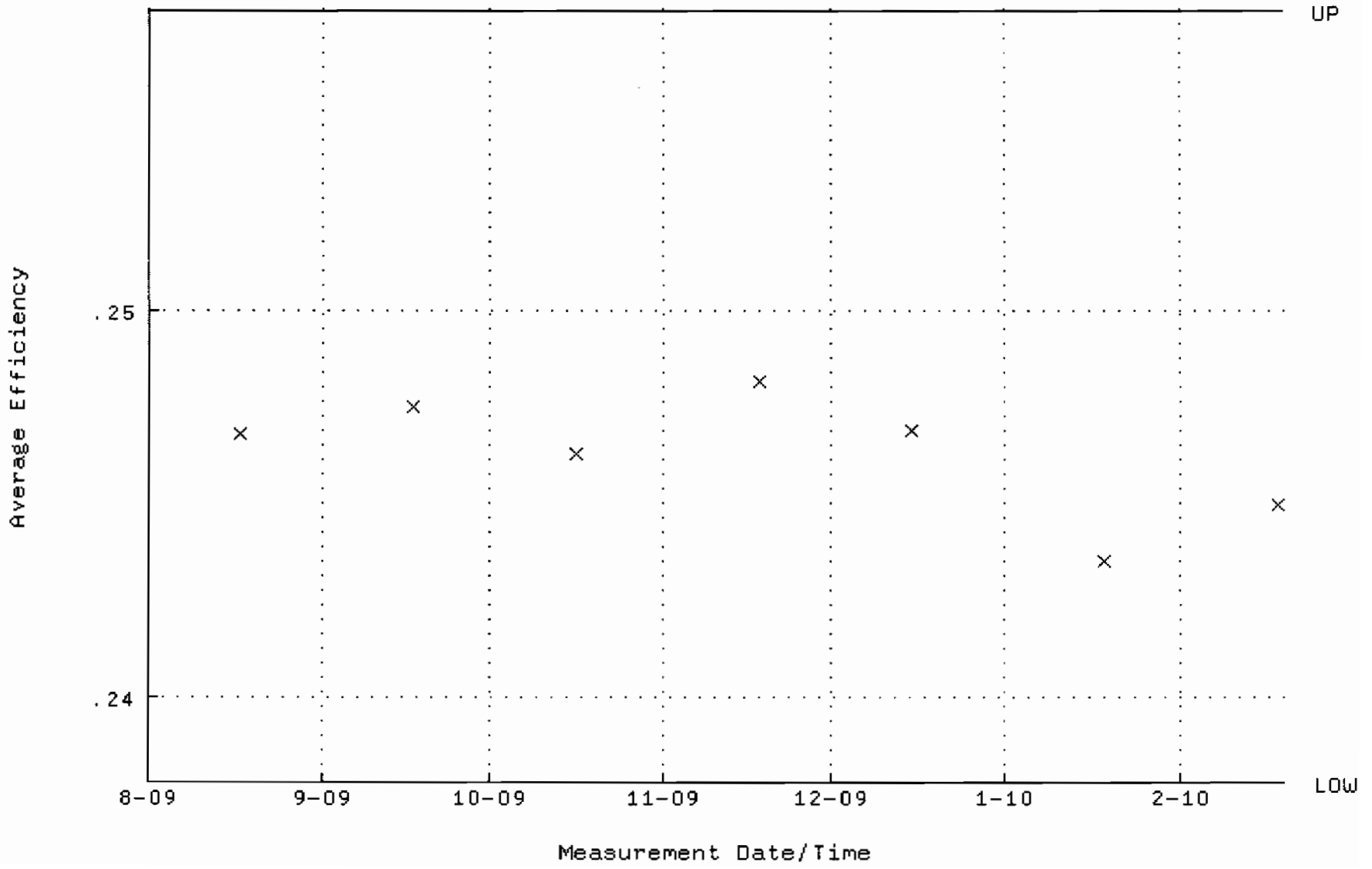

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713

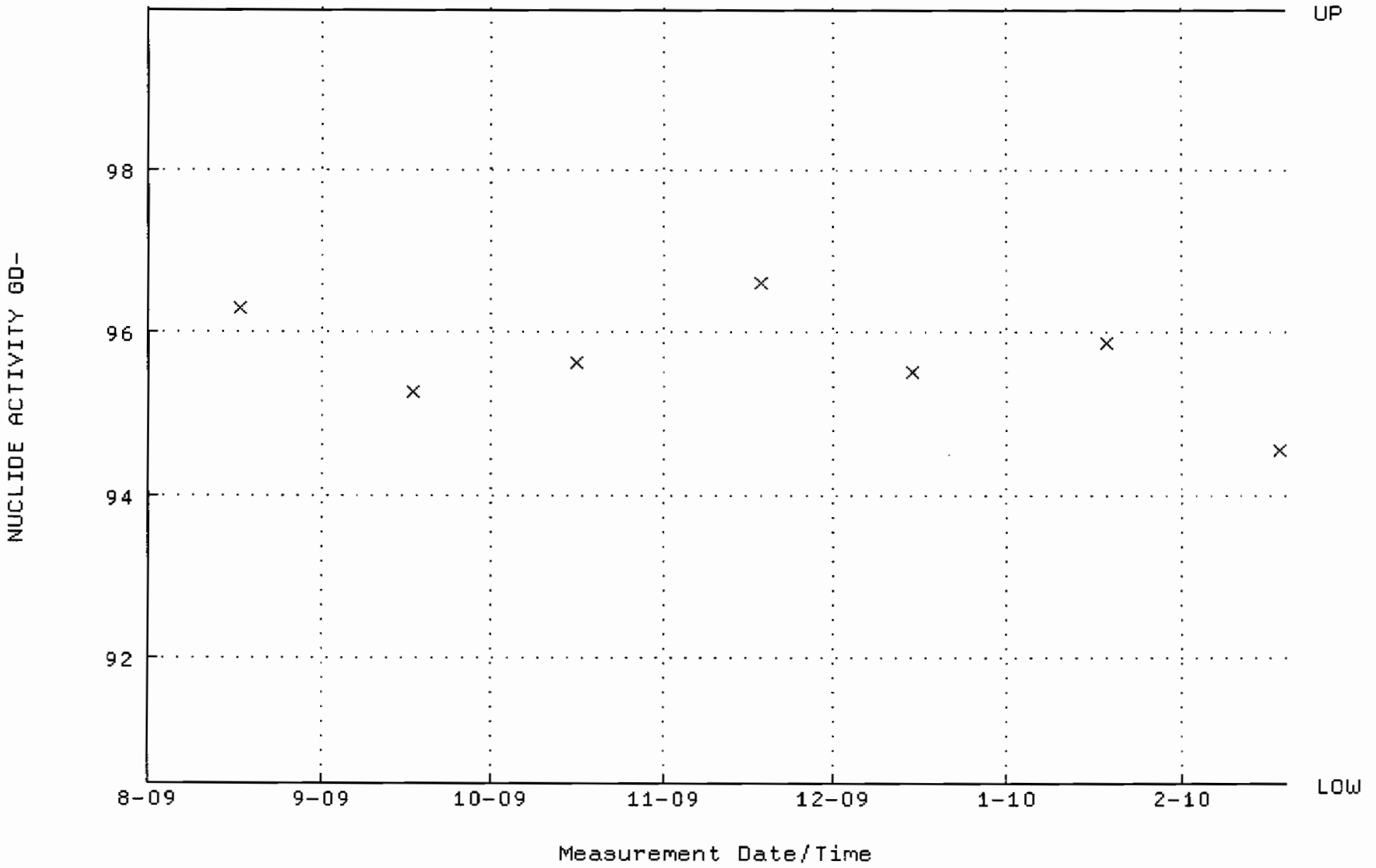

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:00 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

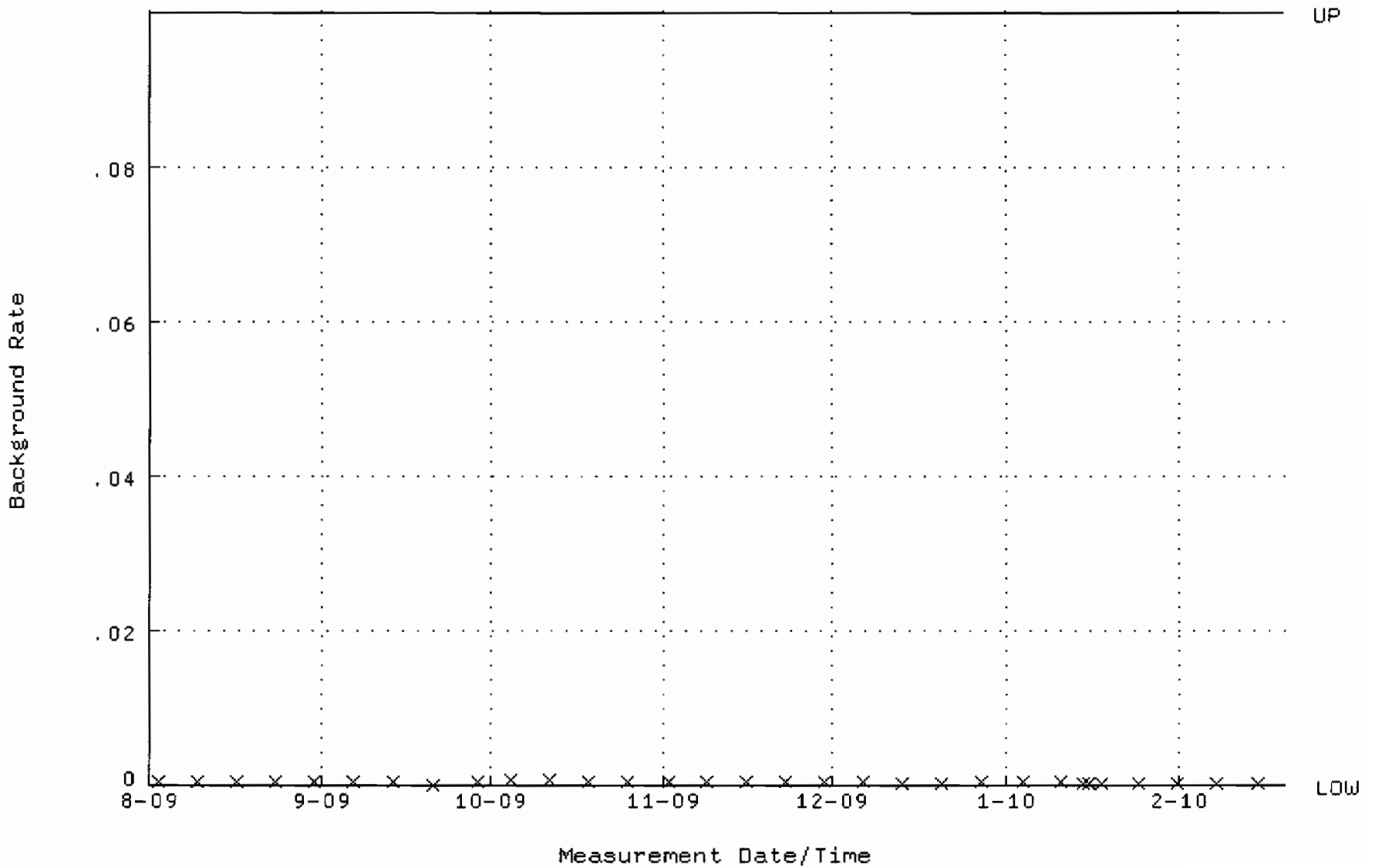

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:59 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.246062 through 0.266062

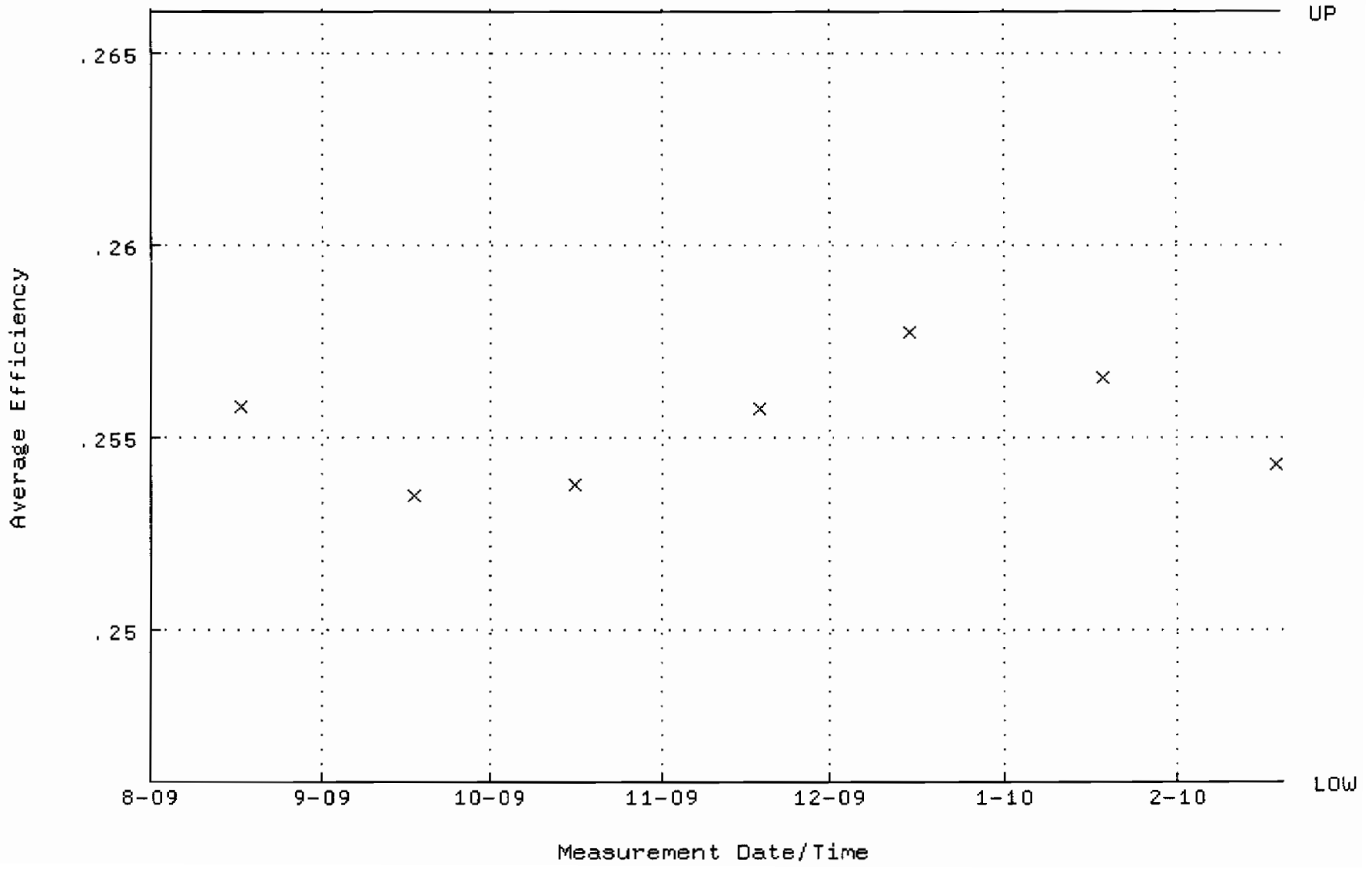

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:59 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.1964 through 95.2697

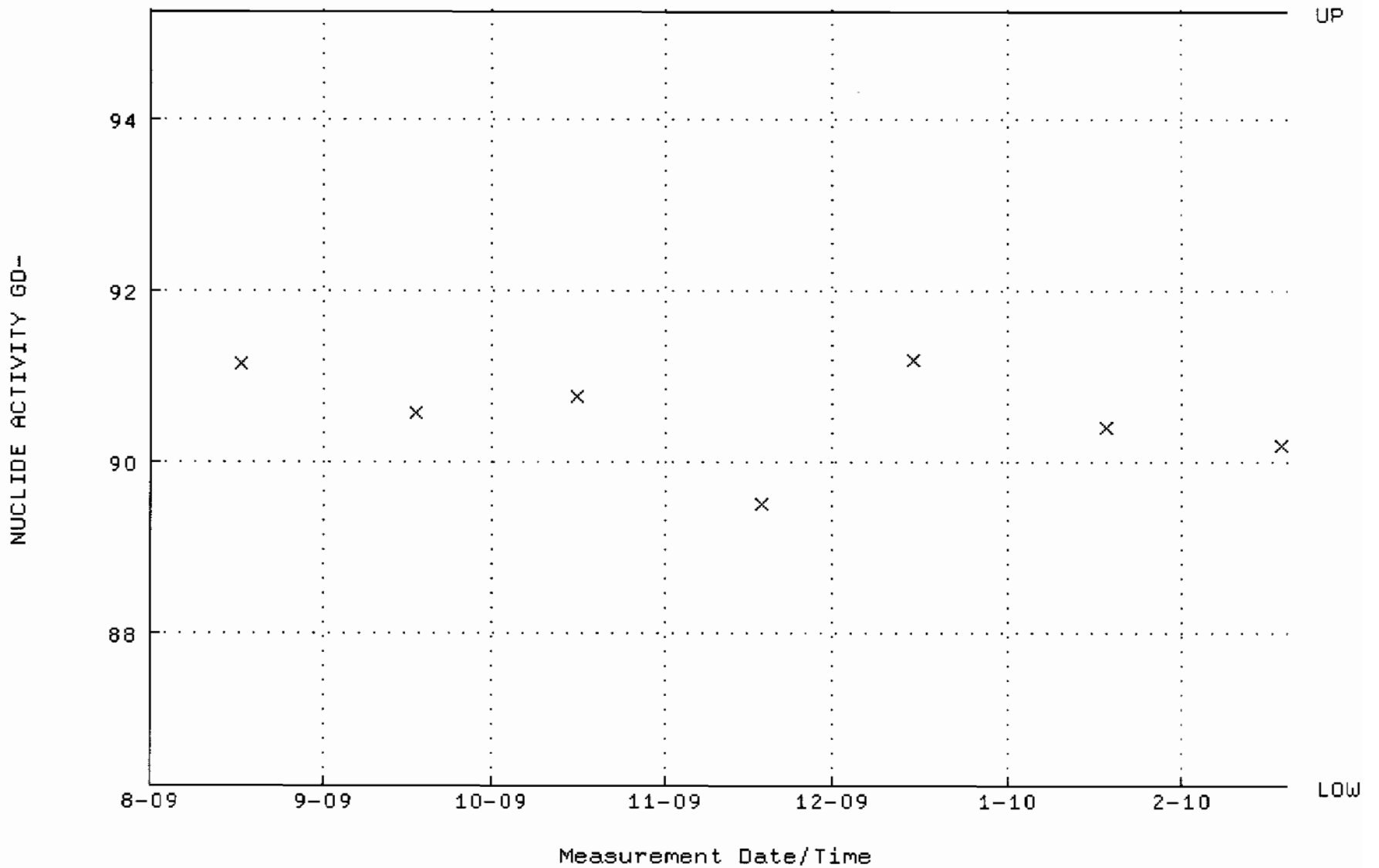

QA filename : DKA100:[ENV_ALPHA.QA.B]B128.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:04 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

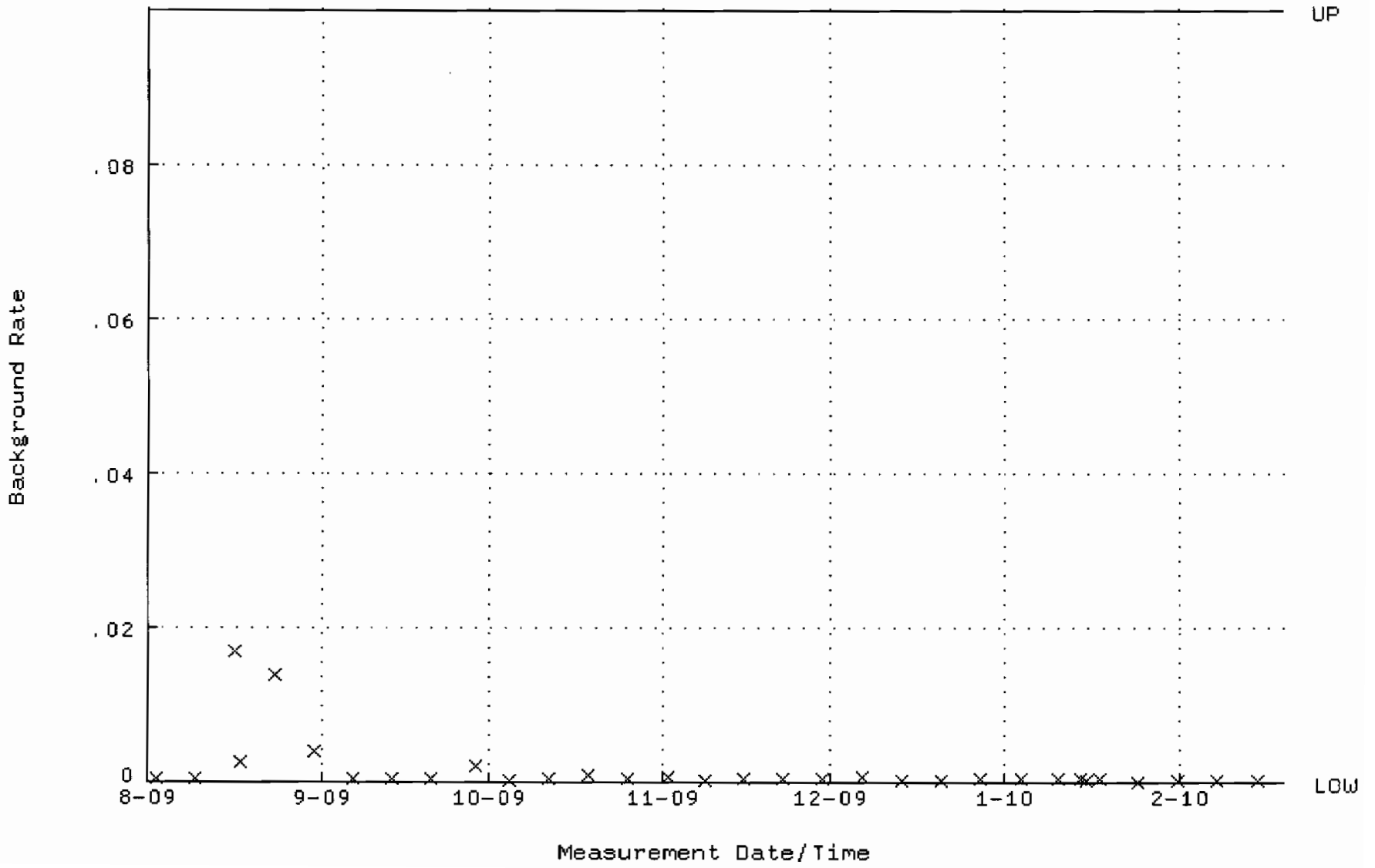

QA filename : DKA100:[ENV_ALPHA.QA.W]W166.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:20 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.385564 through 0.404504

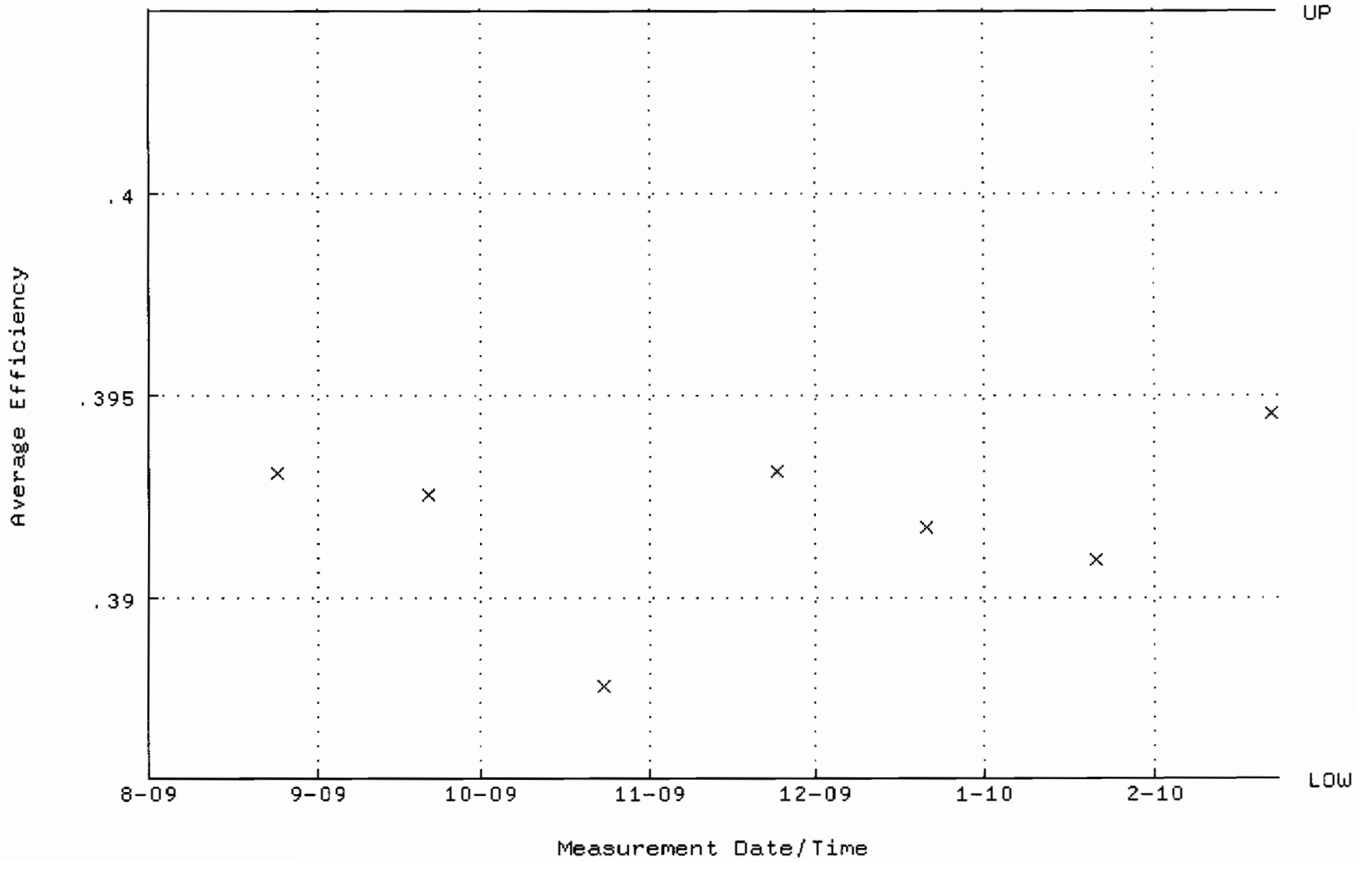

QA filename : DKA100:[ENV_ALPHA.QA.W]W166.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:20 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 88.1264 through 91.2442

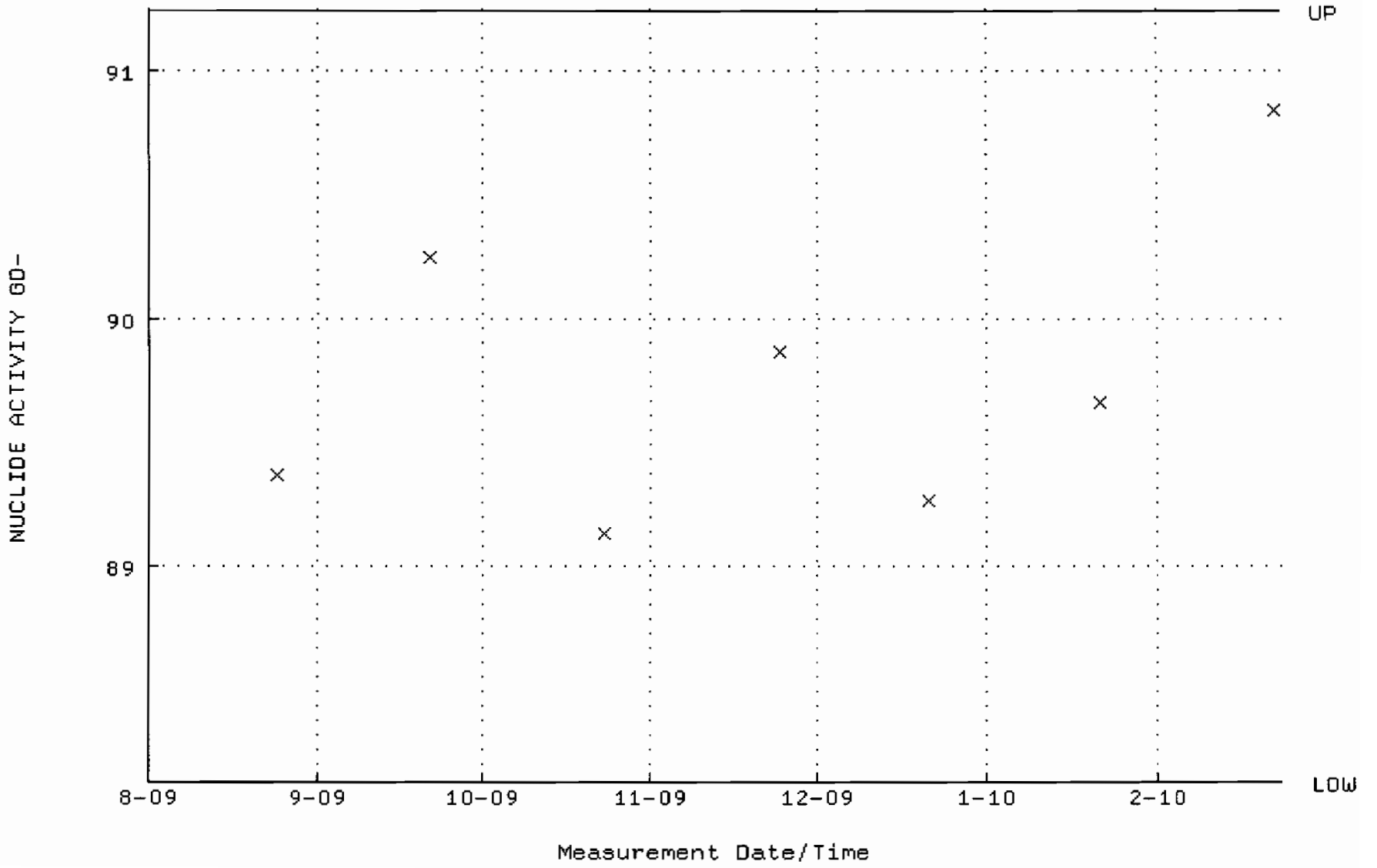

QA filename : DKA100:[ENV_ALPHA.QA.B]B166.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:21:58 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

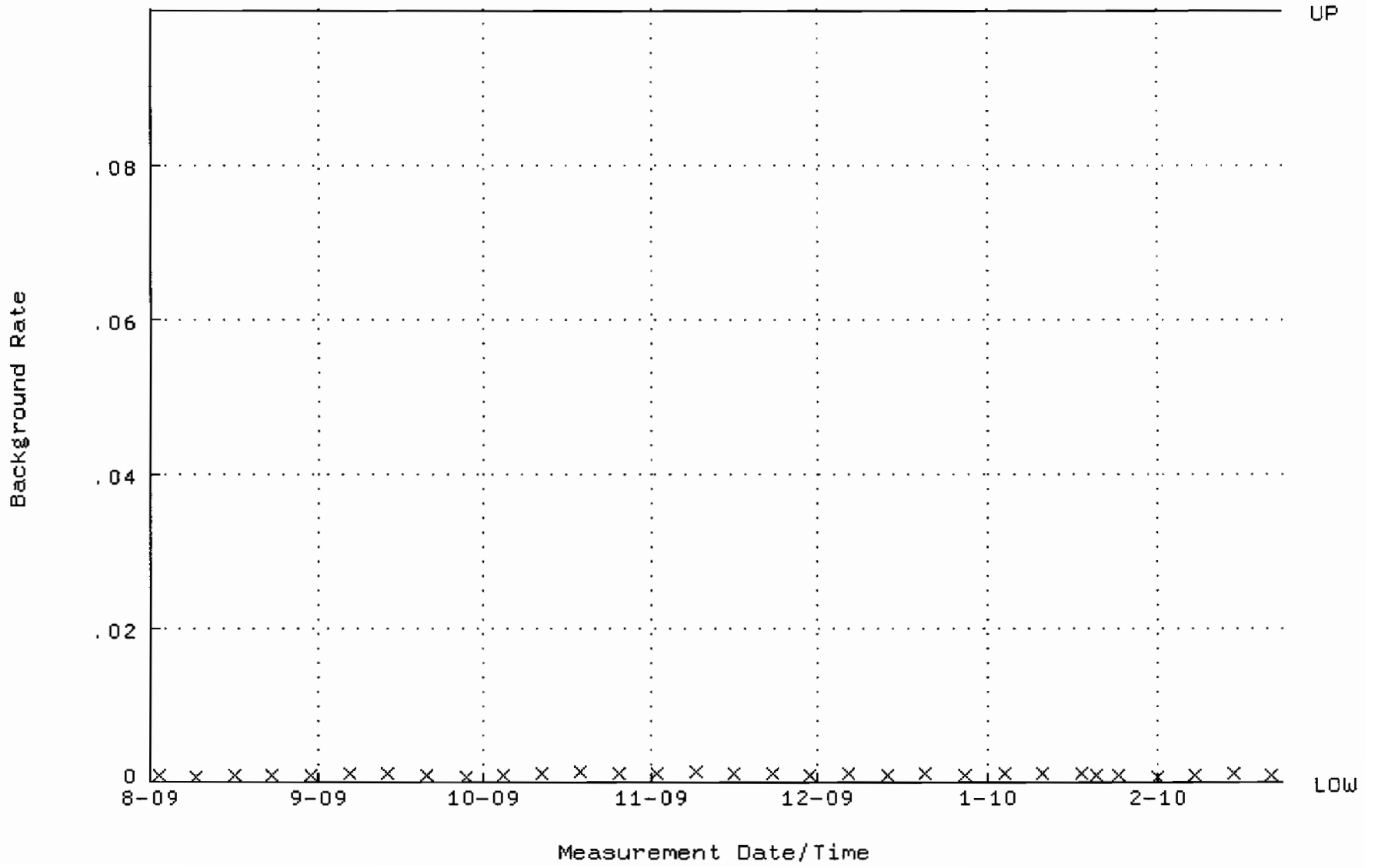

QA filename : DKA100:[ENV_ALPHA.QA.W]W167.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:25 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.384285 through 0.404285

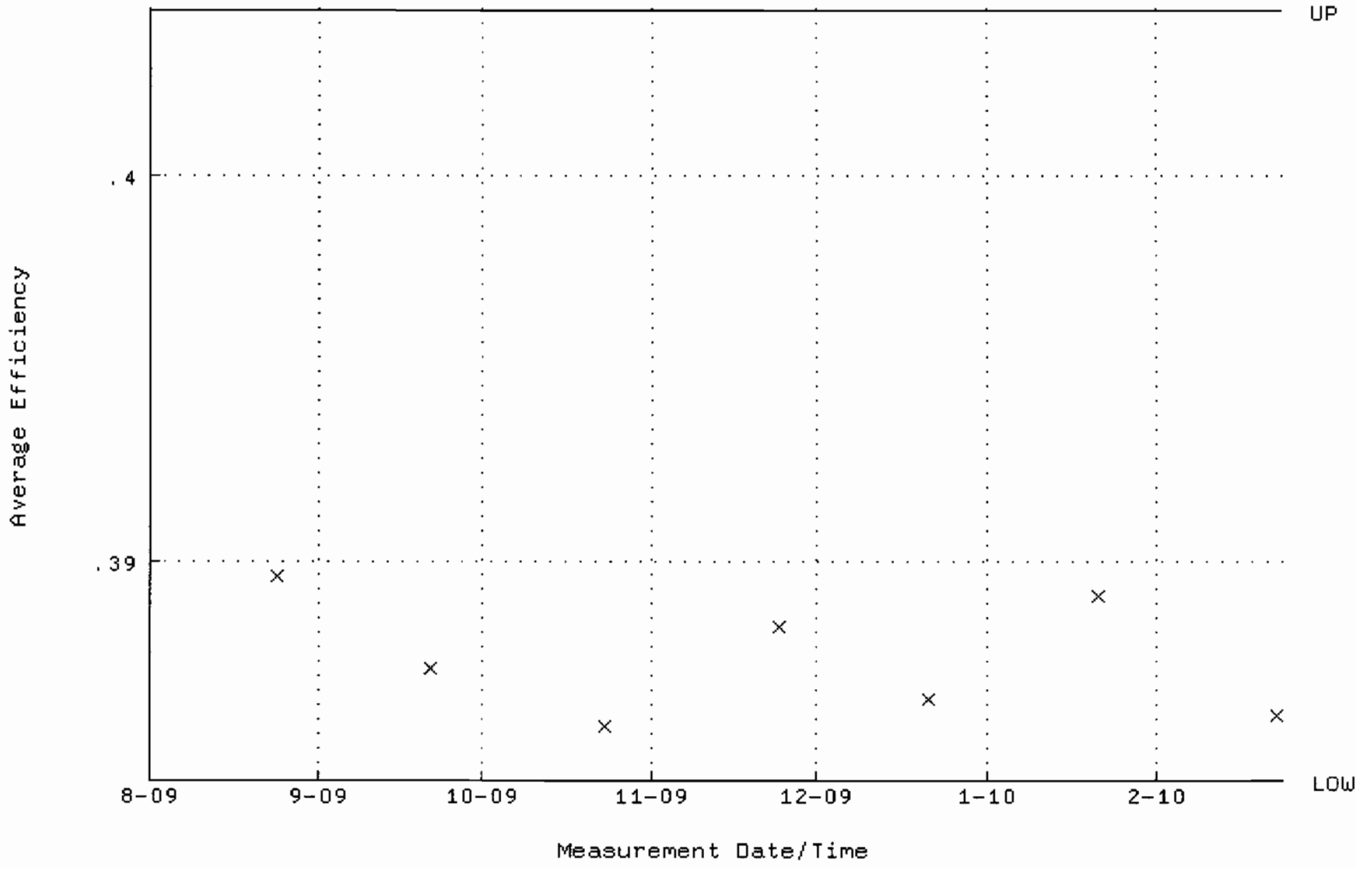

QA filename : DKA100:[ENV_ALPHA.QA.W]W167.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:25 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7740 through 95.9082

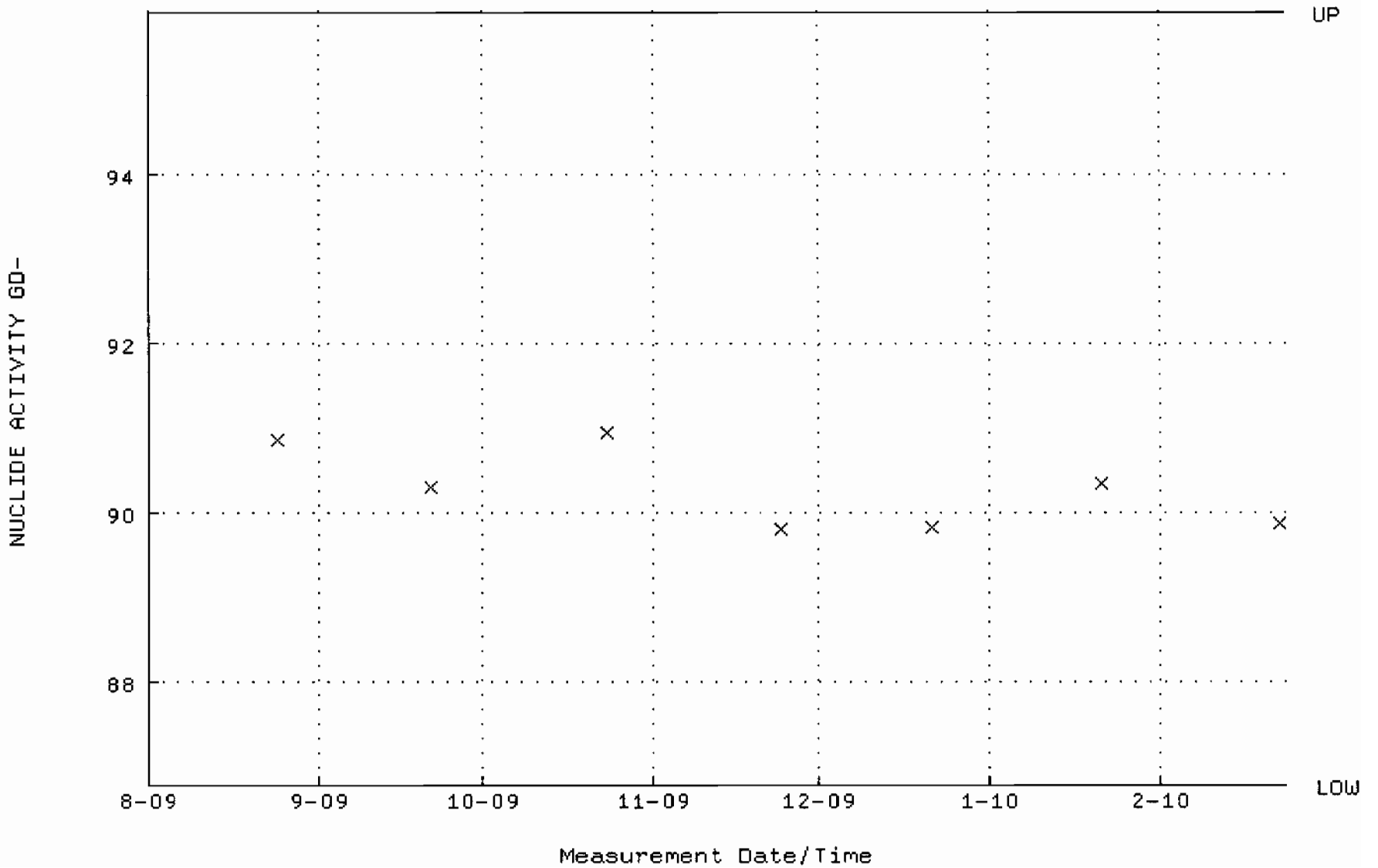

QA filename : DKA100:[ENV_ALPHA.QA.B]B167.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:22:02 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

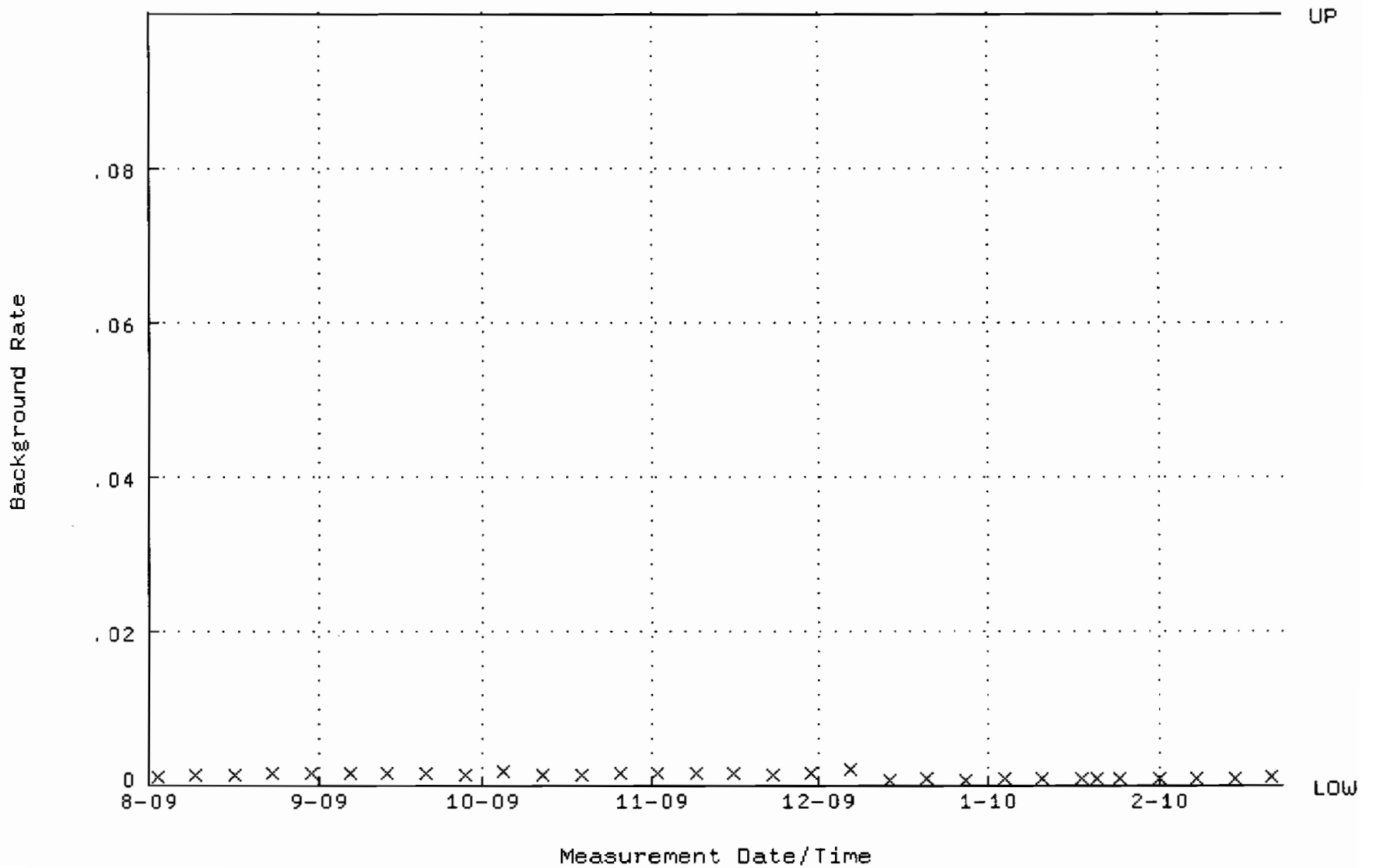

QA filename : DKA100:[ENV_ALPHA.QA.W]W168.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:32 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.381339 through 0.408495

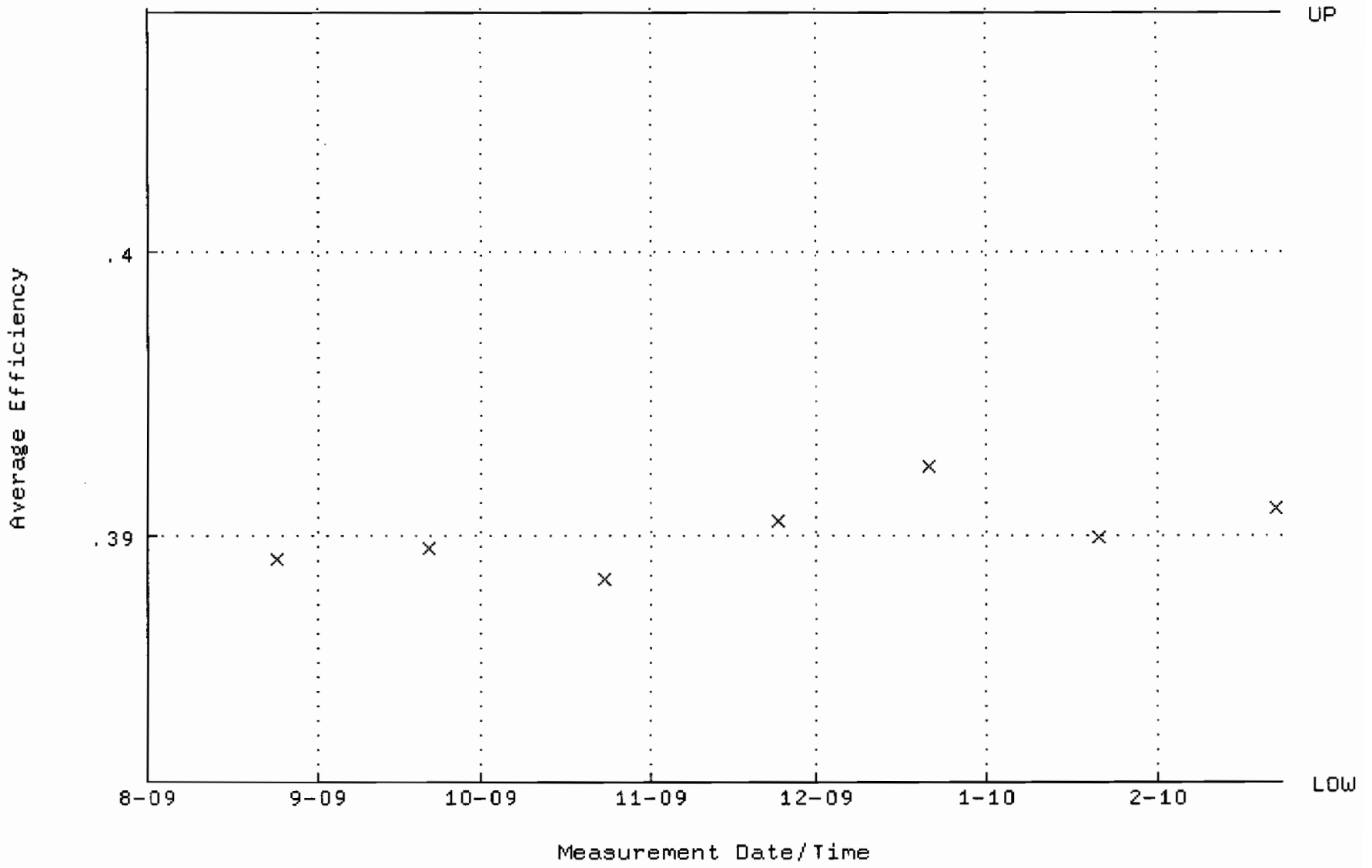

QA filename : DKA100:[ENV_ALPHA.QA.W]W168.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:32 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8544 through 90.7976

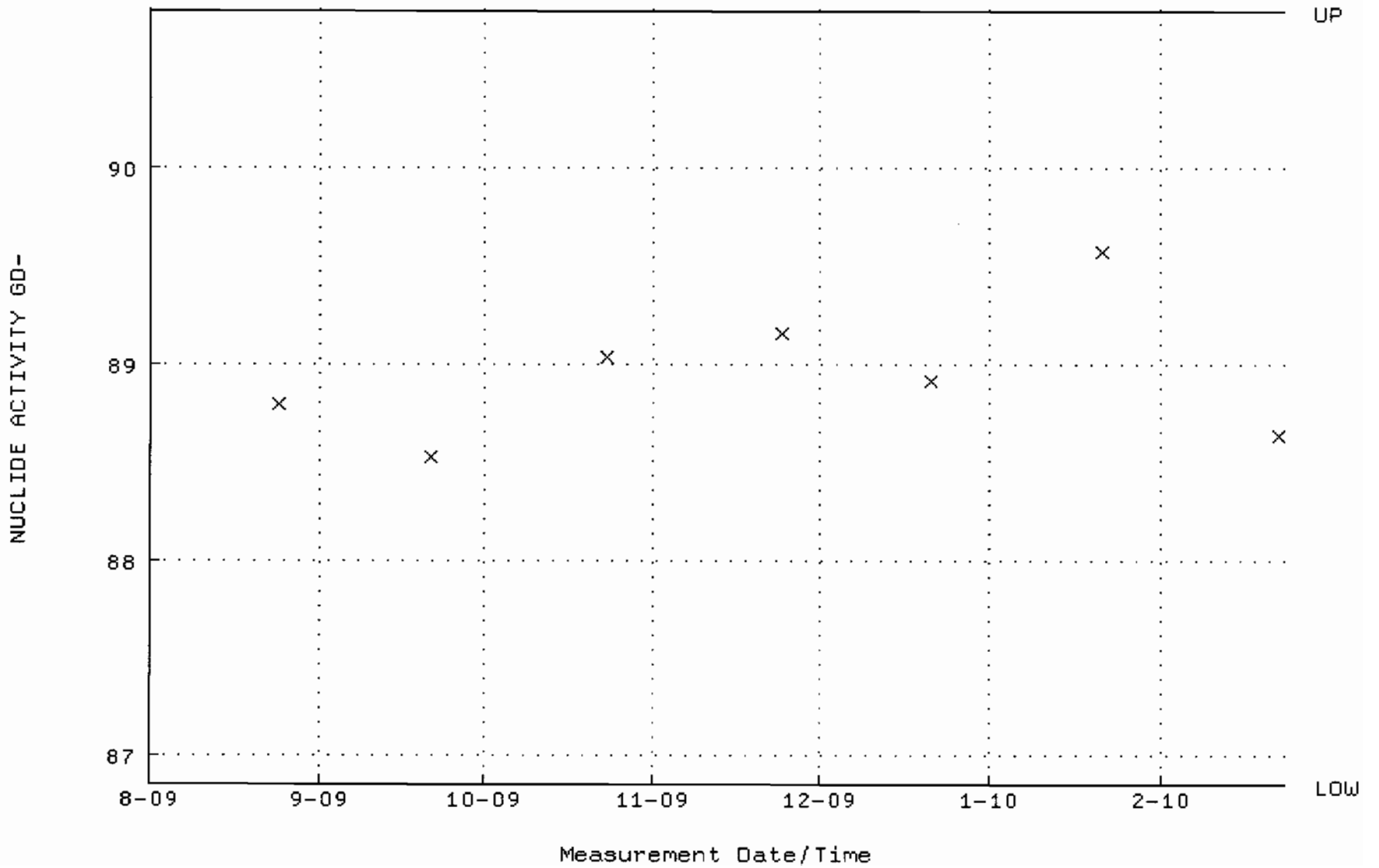

QA filename : DKA100:[ENV_ALPHA.QA.B]B168.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:22:06 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

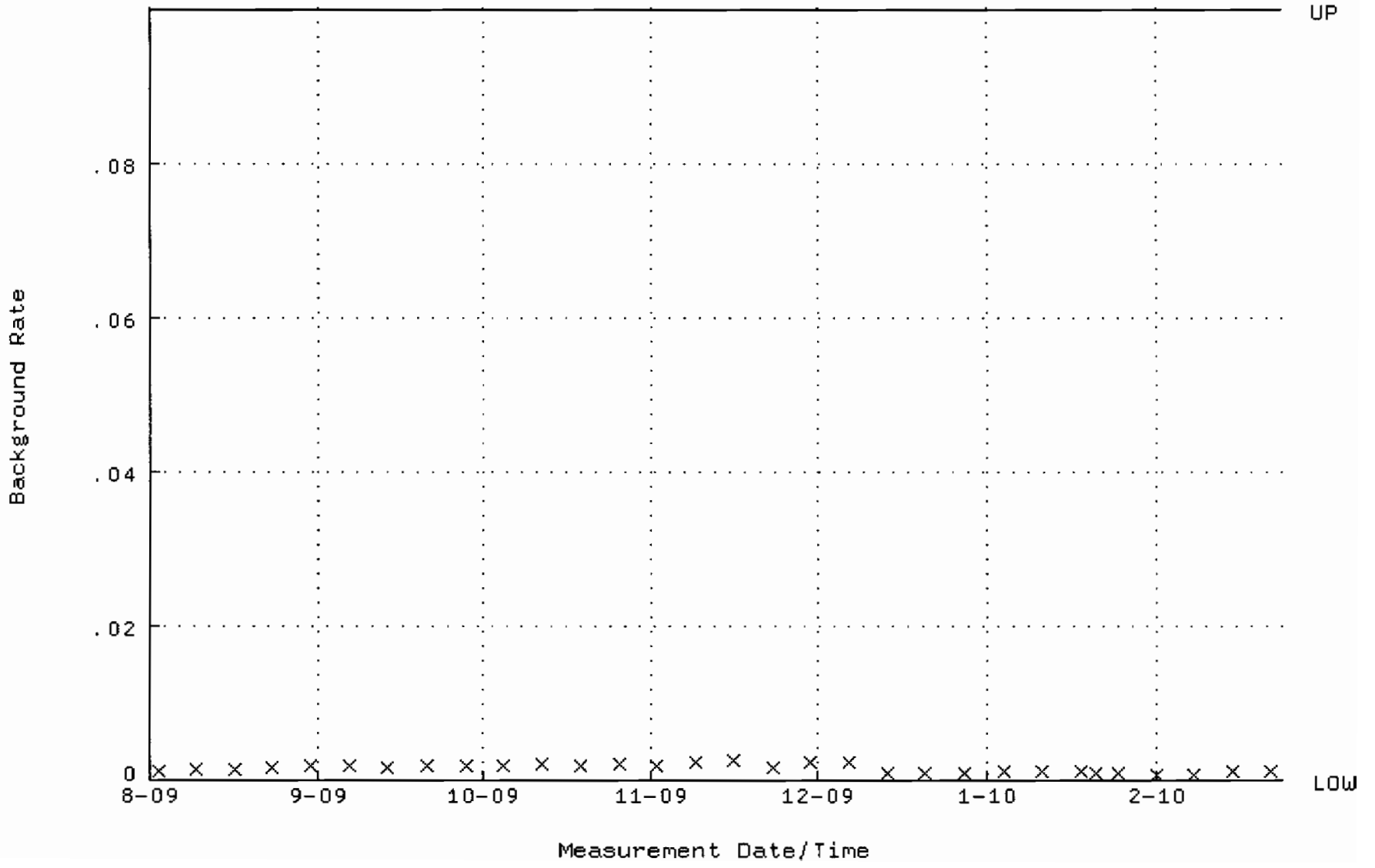

QA filename : DKA100:[ENV_ALPHA.QA.W]W169.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:03:40 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.368144 through 0.388144

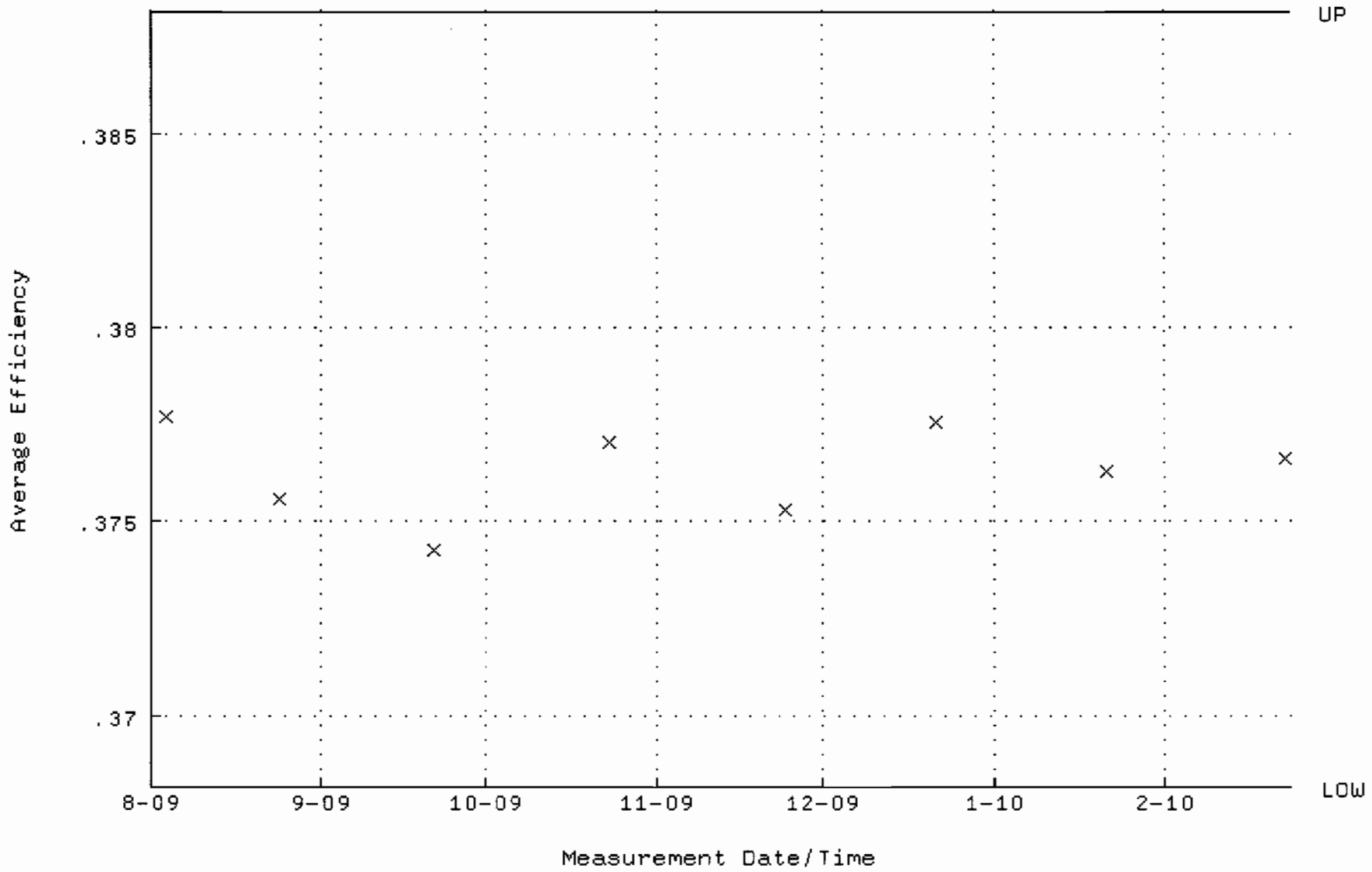

QA filename : DKA100:[ENV_ALPHA.QA.W]W169.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:03:40 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 87.7141 through 96.9471

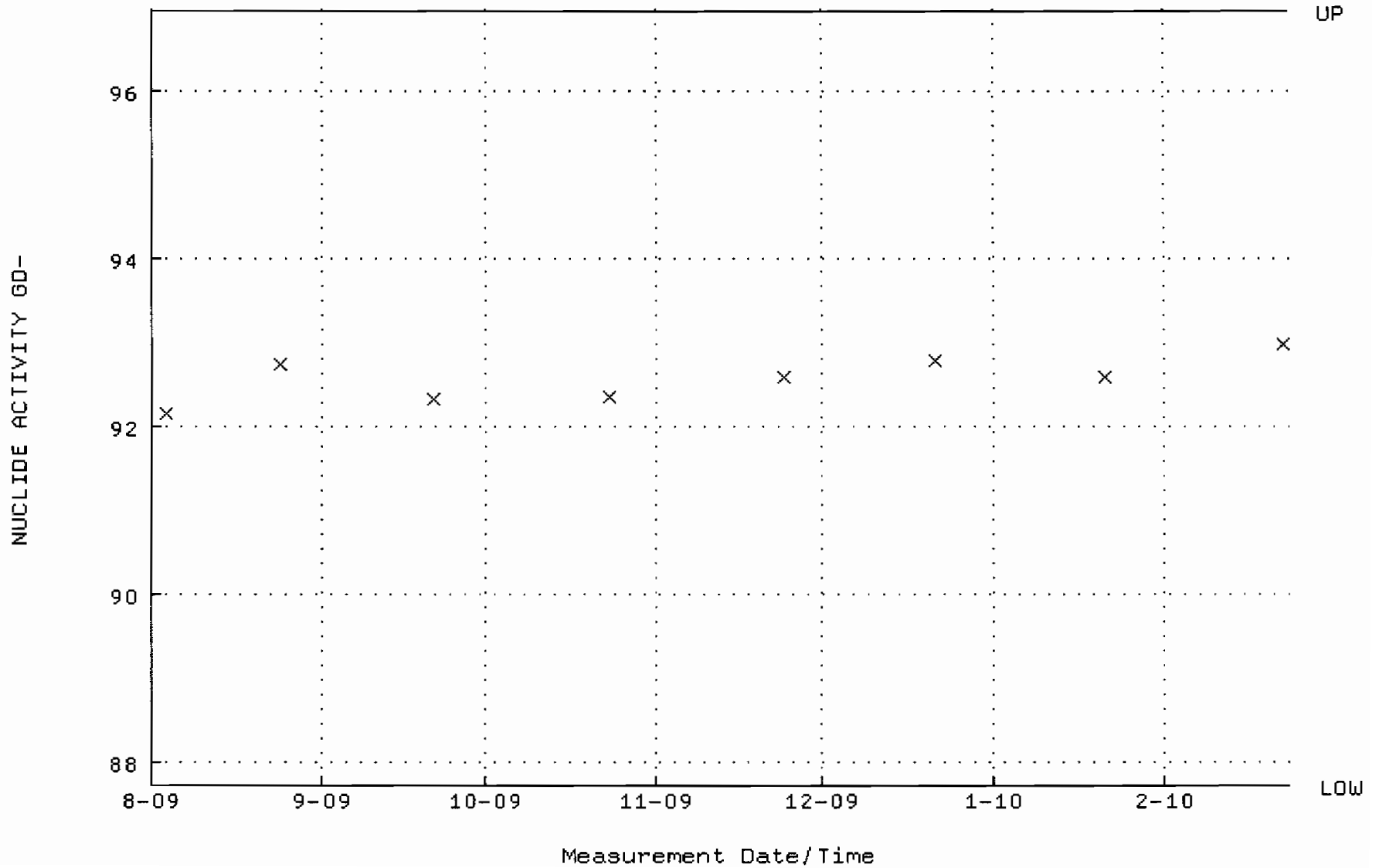

QA filename : DKA100:[ENV_ALPHA.QA.B]B169.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:22:11 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

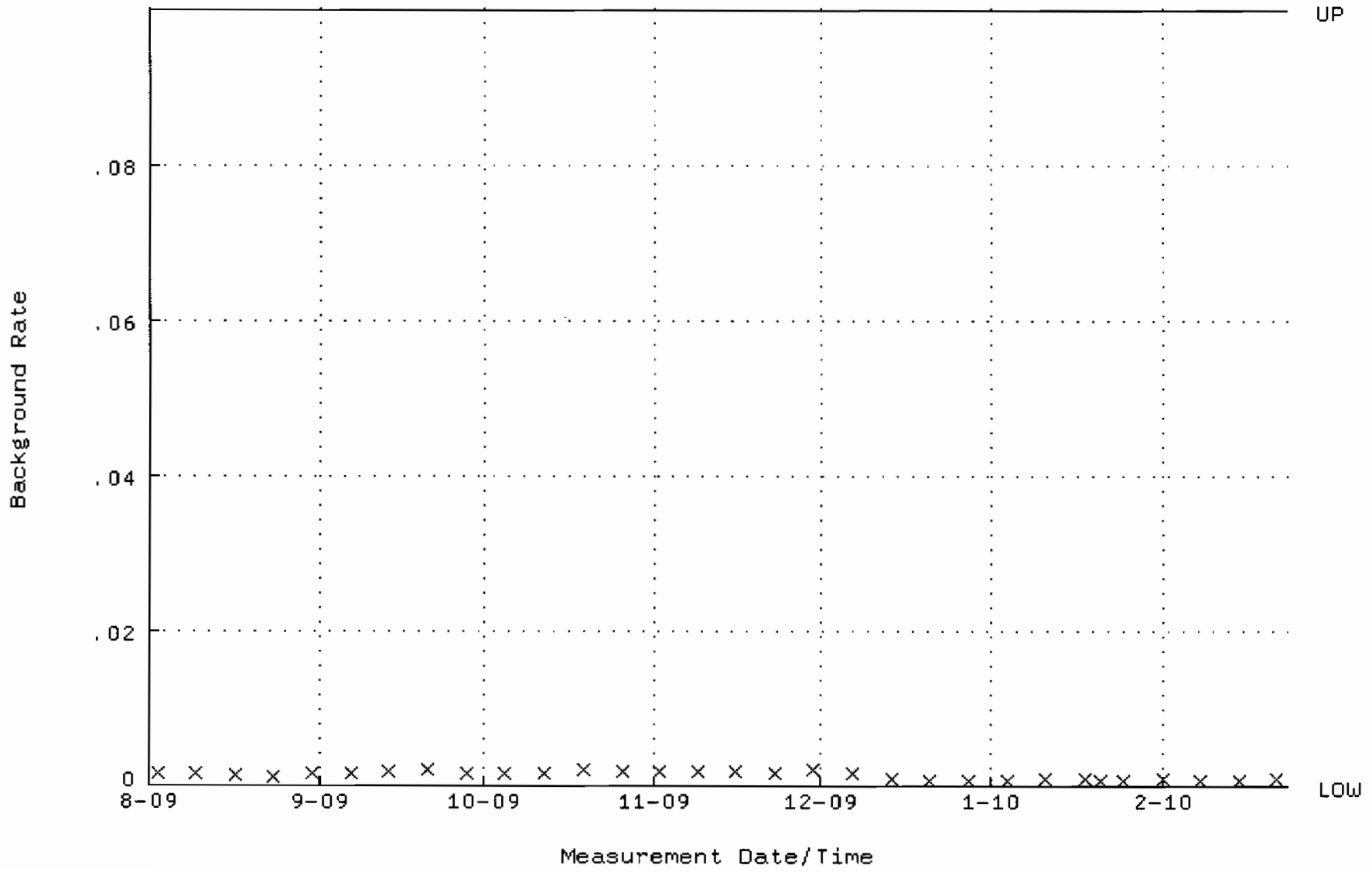

QA filename : DKA100:[ENV_ALPHA.QA.W]W211.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:47:25 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.373189 through 0.393189

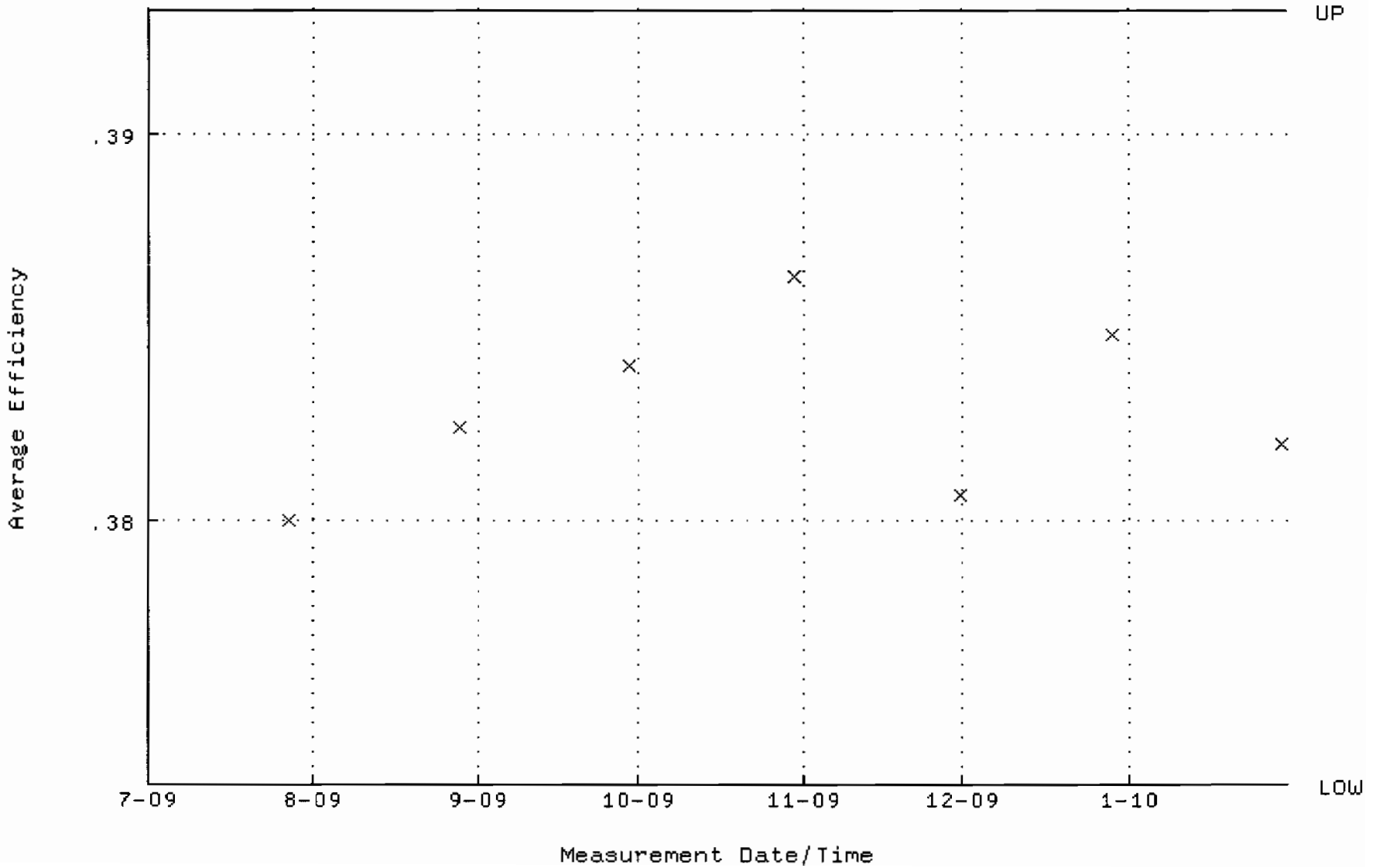

QA filename : DKA100:[ENV_ALPHA.QA.W]W211.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:47:25 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 84.1583 through 93.0171

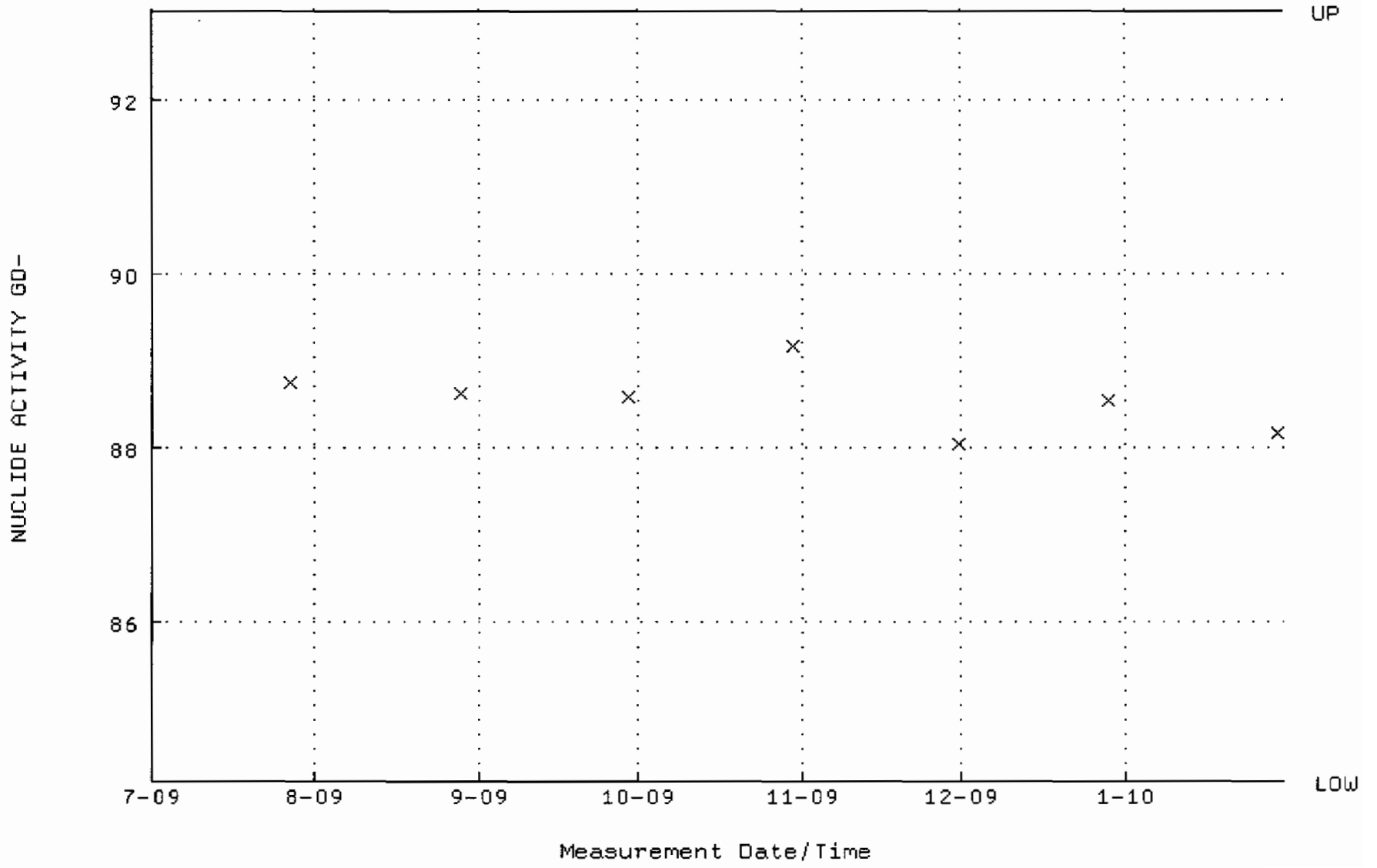

QA filename : DKA100:[ENV_ALPHA.QA.B]B211.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:28 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

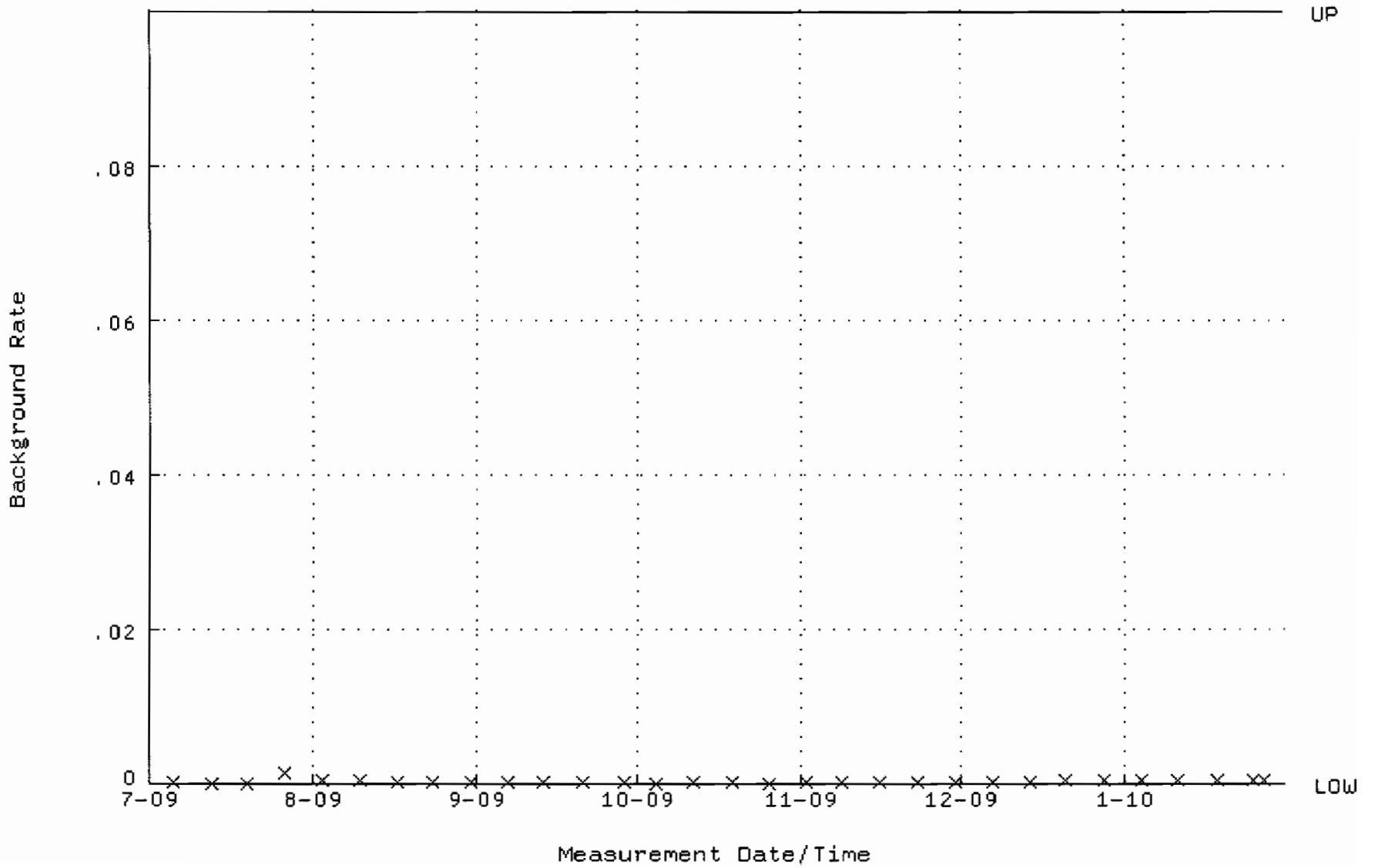

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:36:50 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

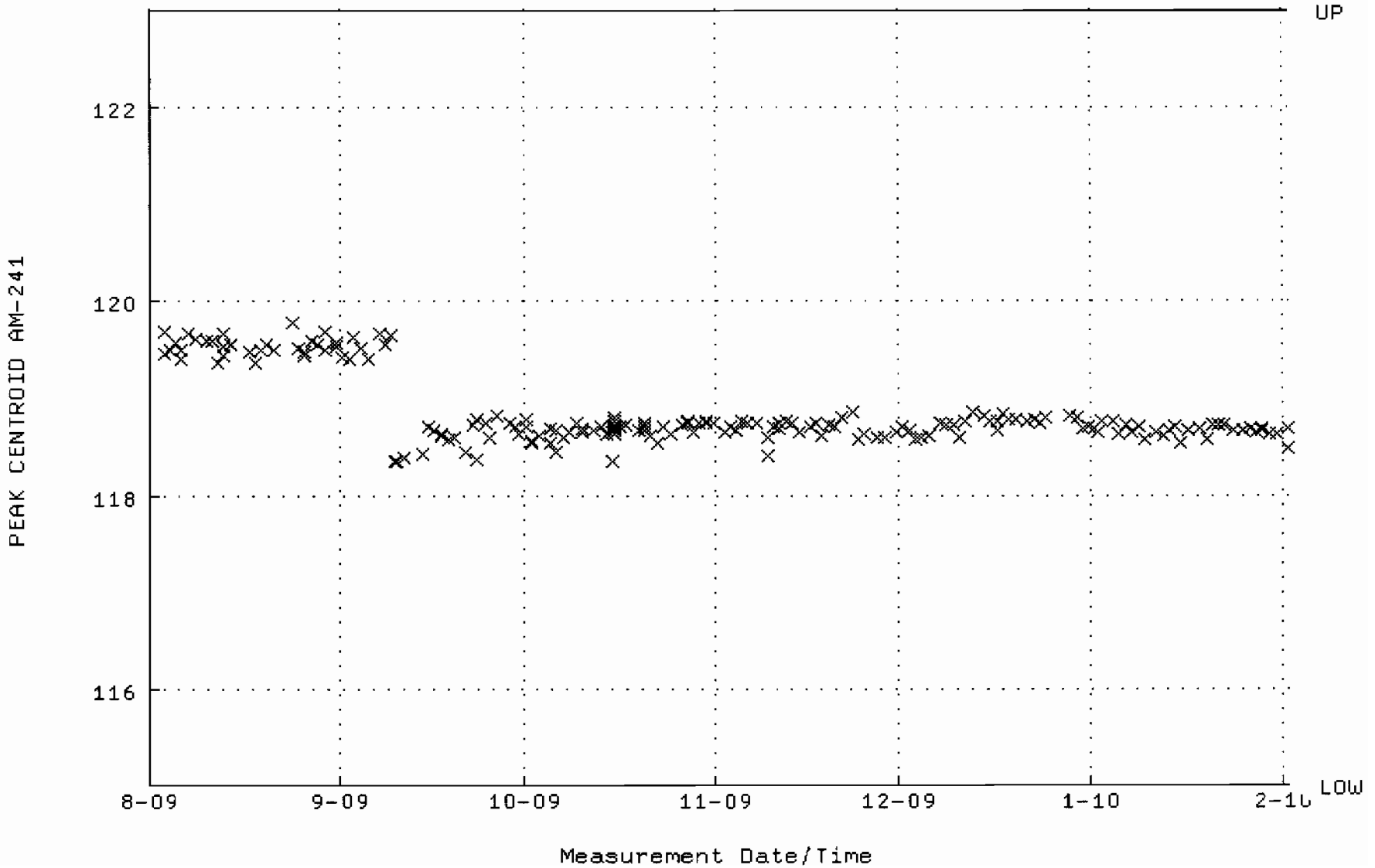

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:43 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

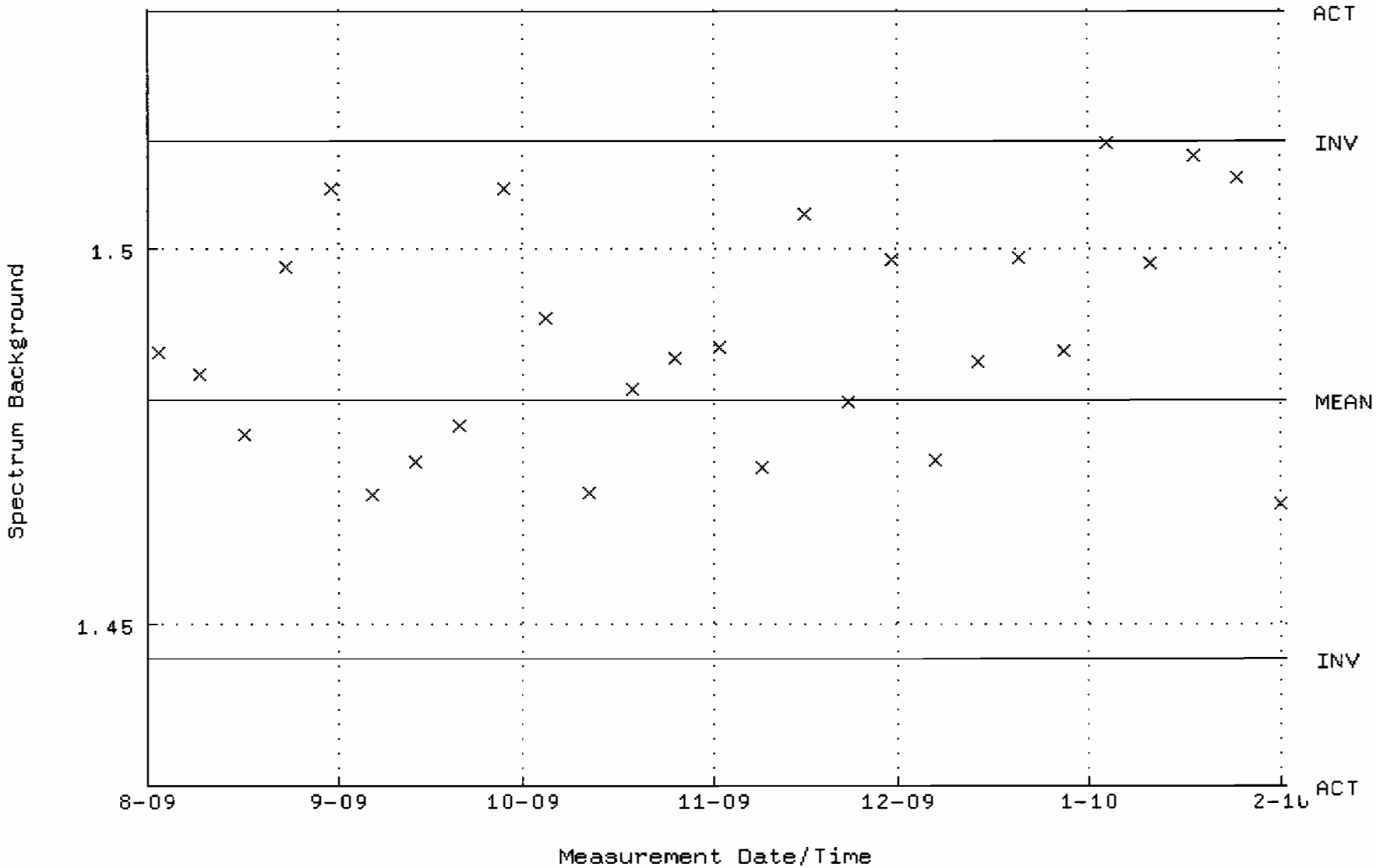

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

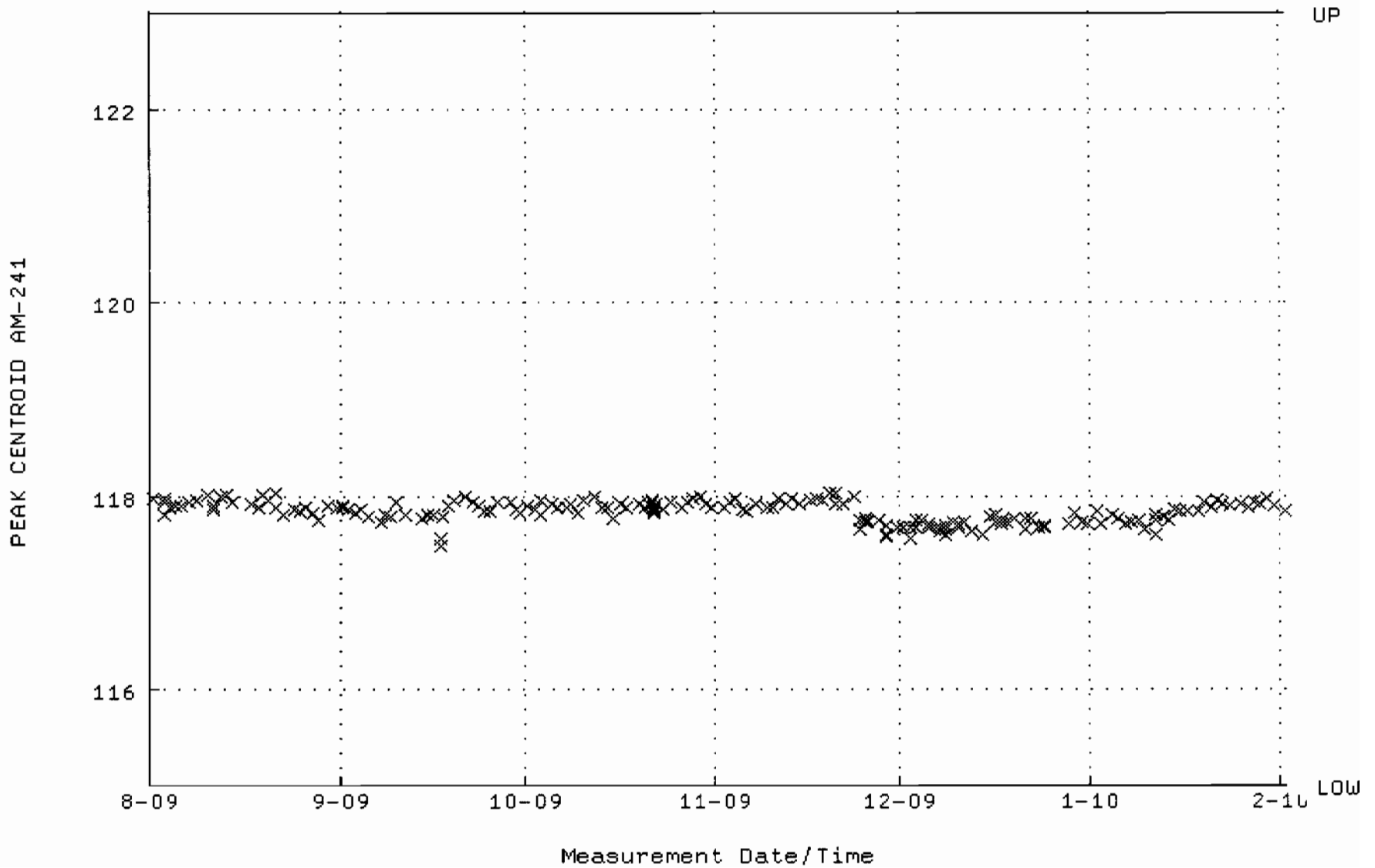

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)

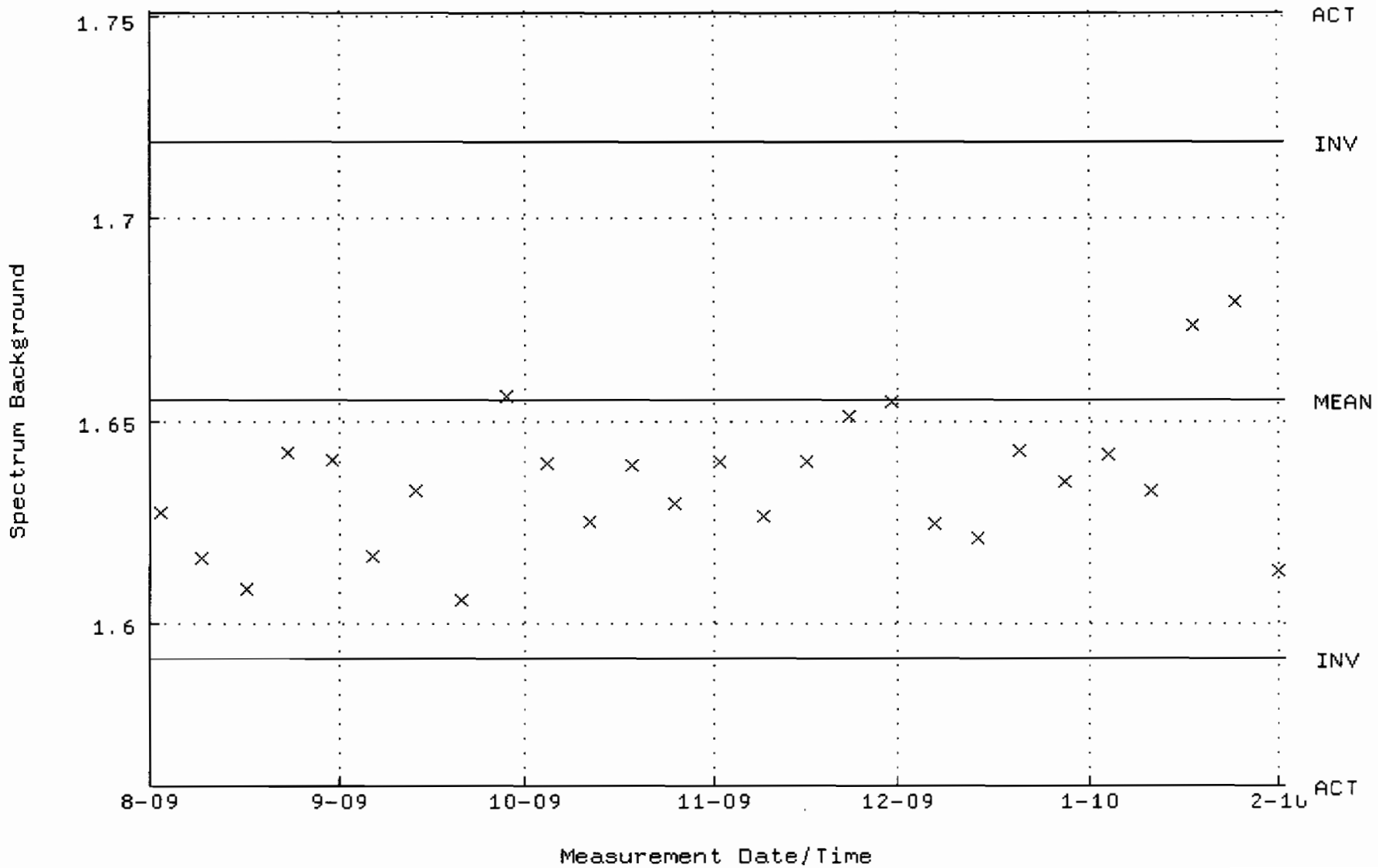

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

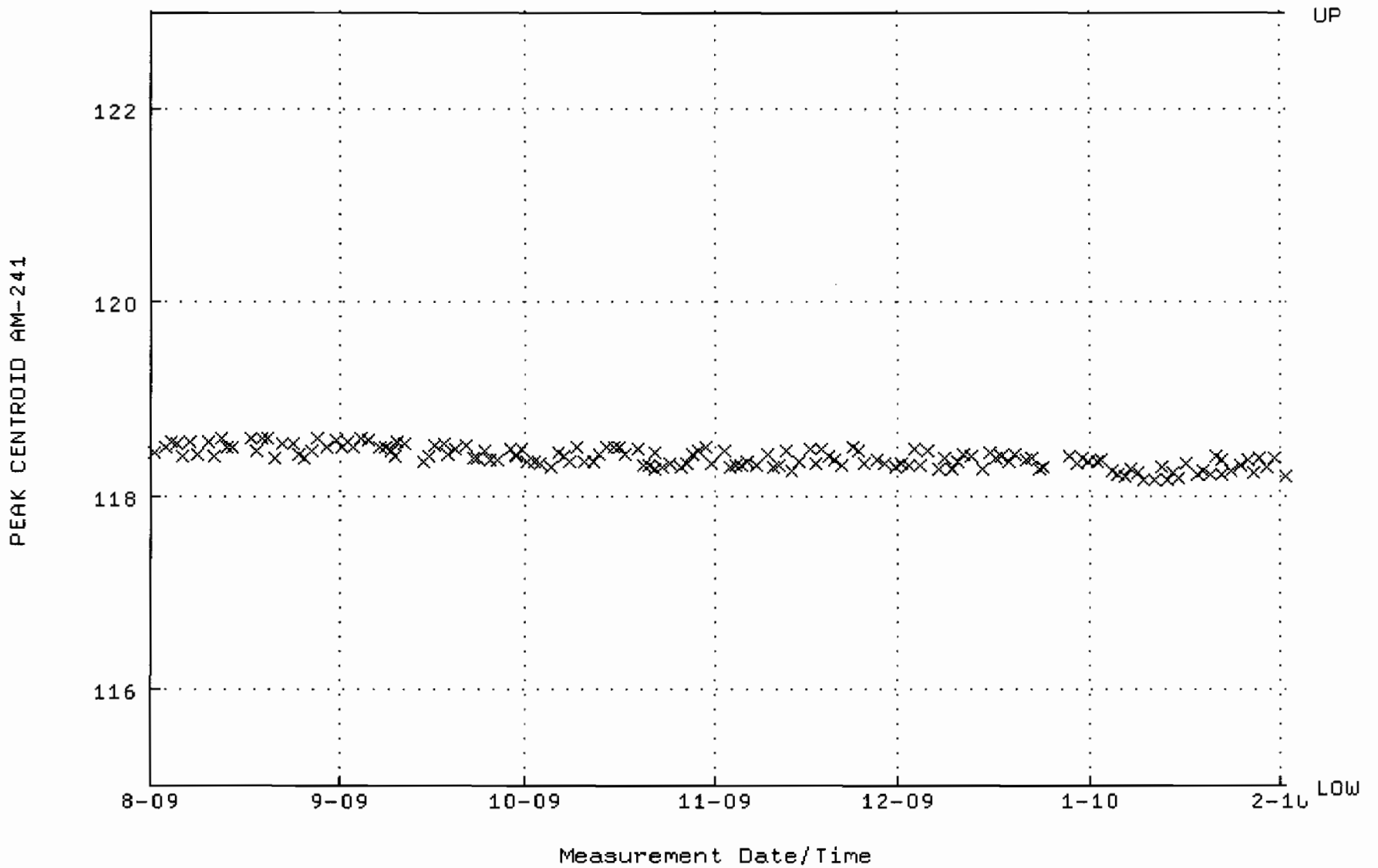

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

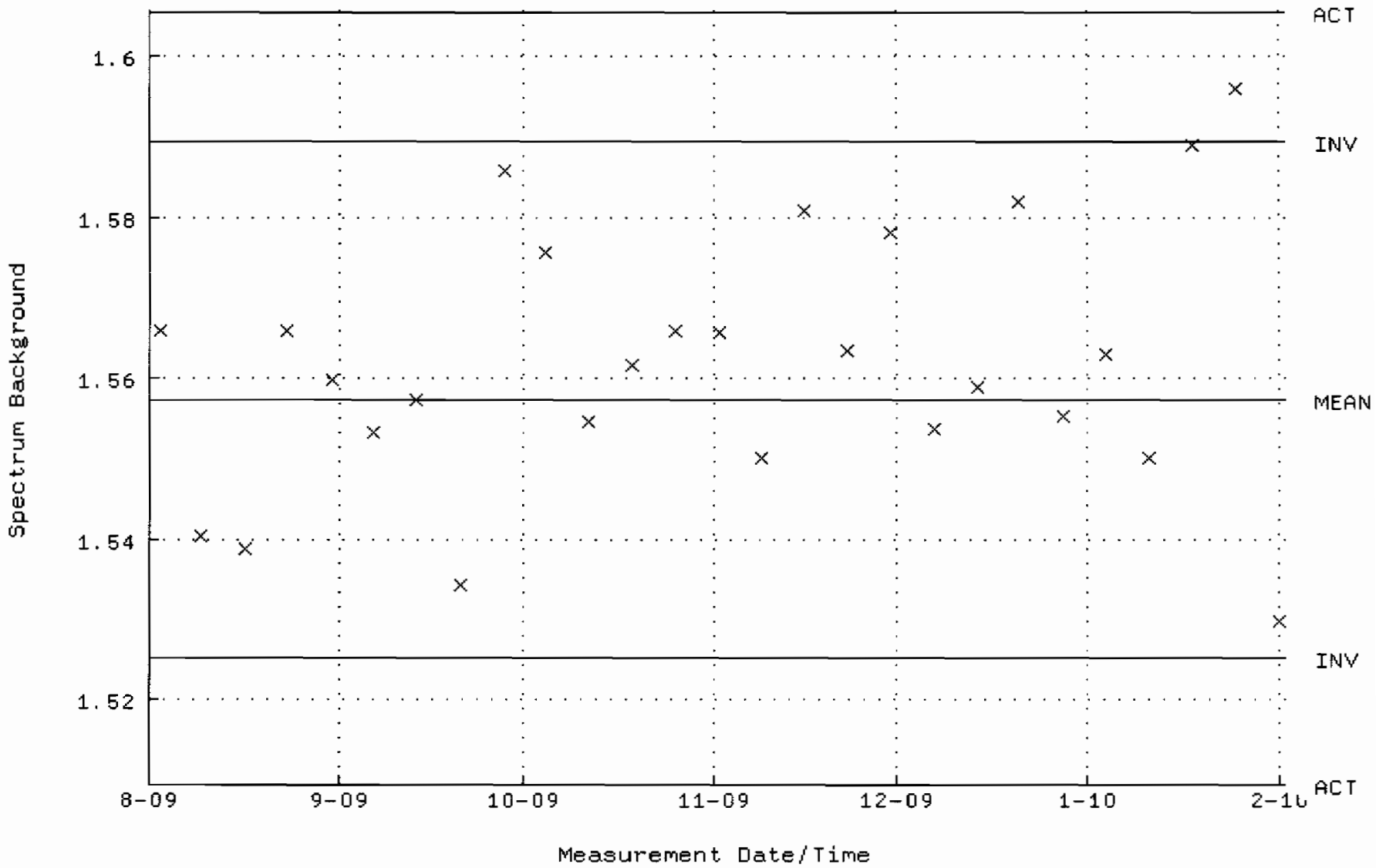

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:30 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

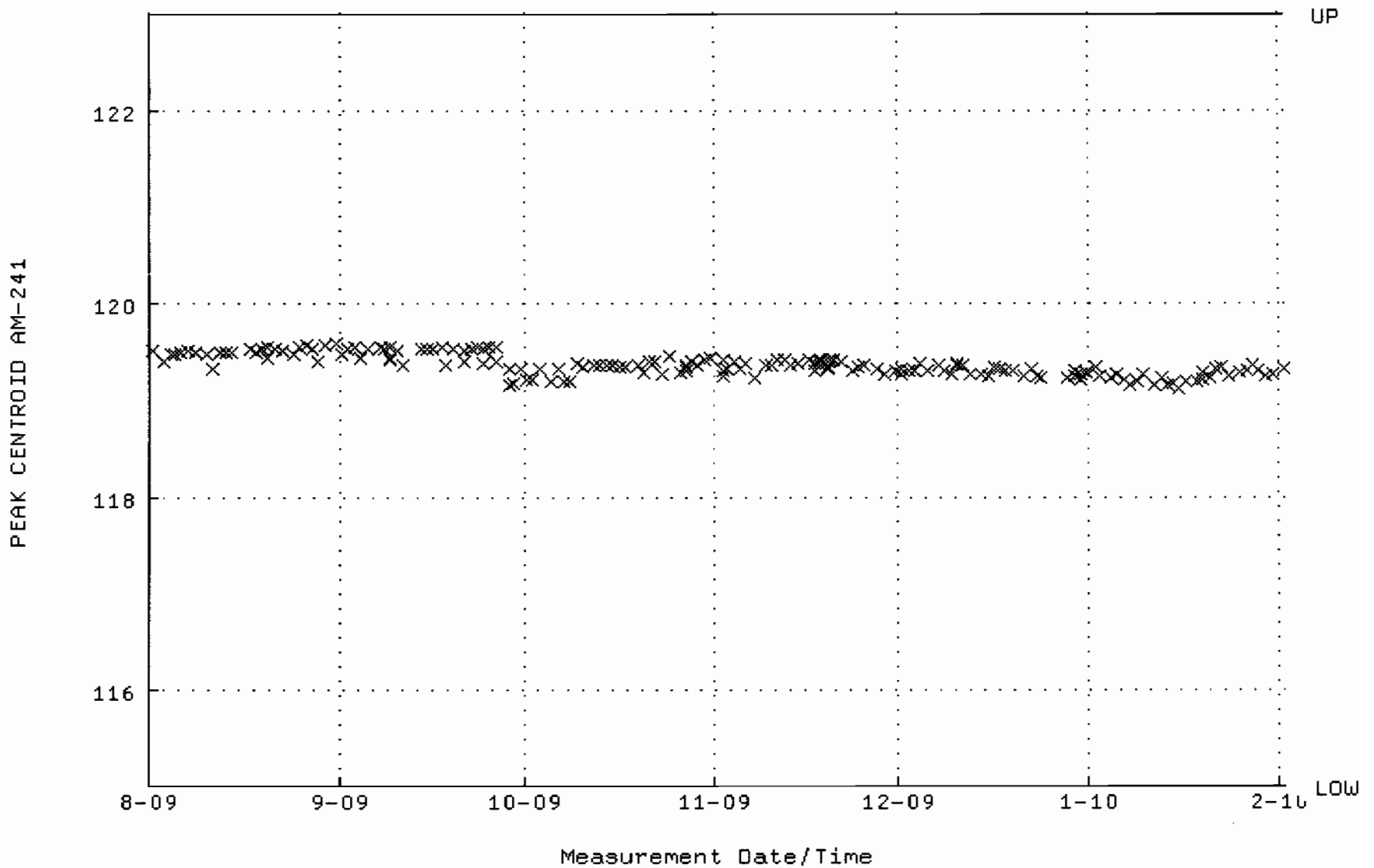

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:58 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

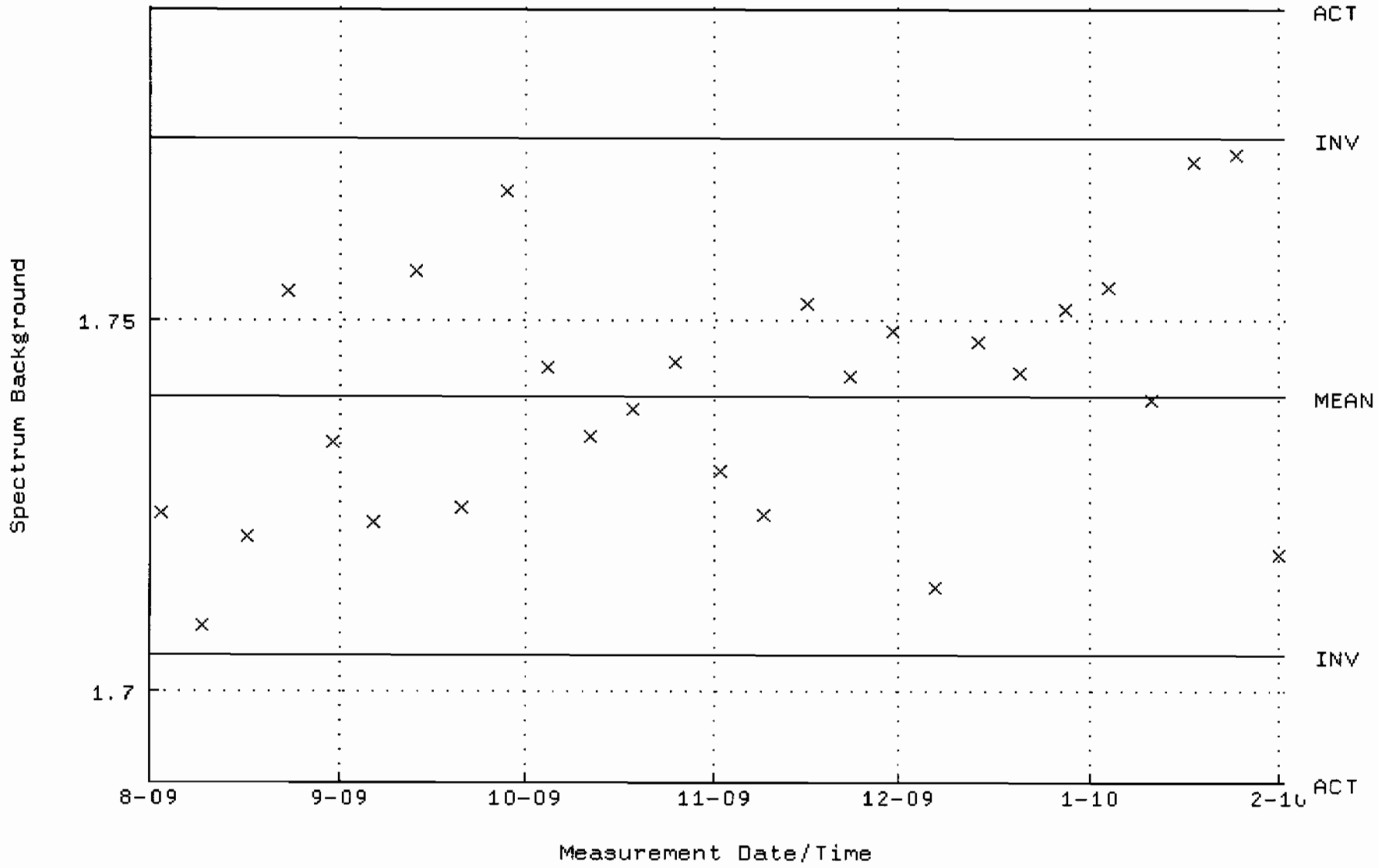

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:08:04 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

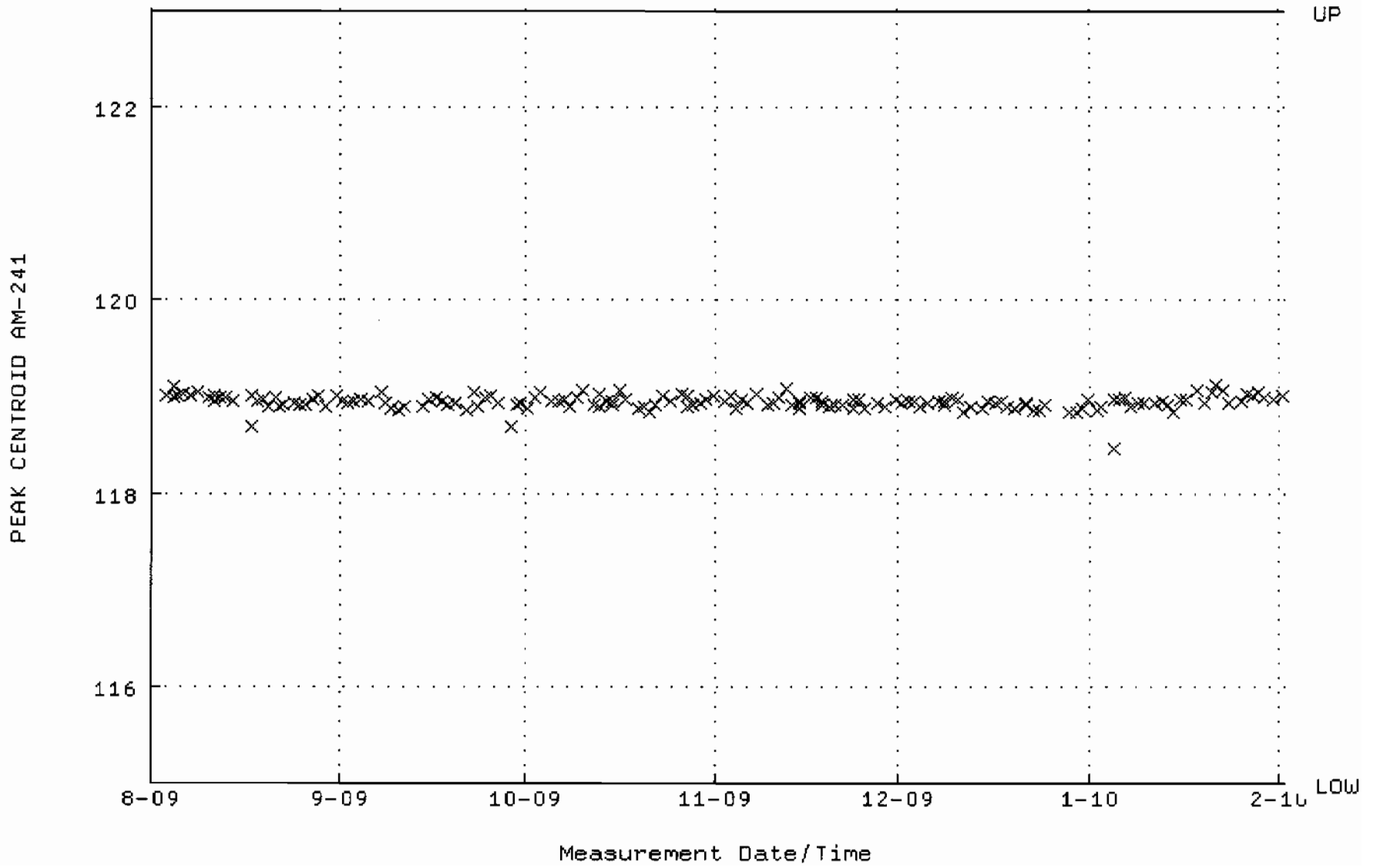

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

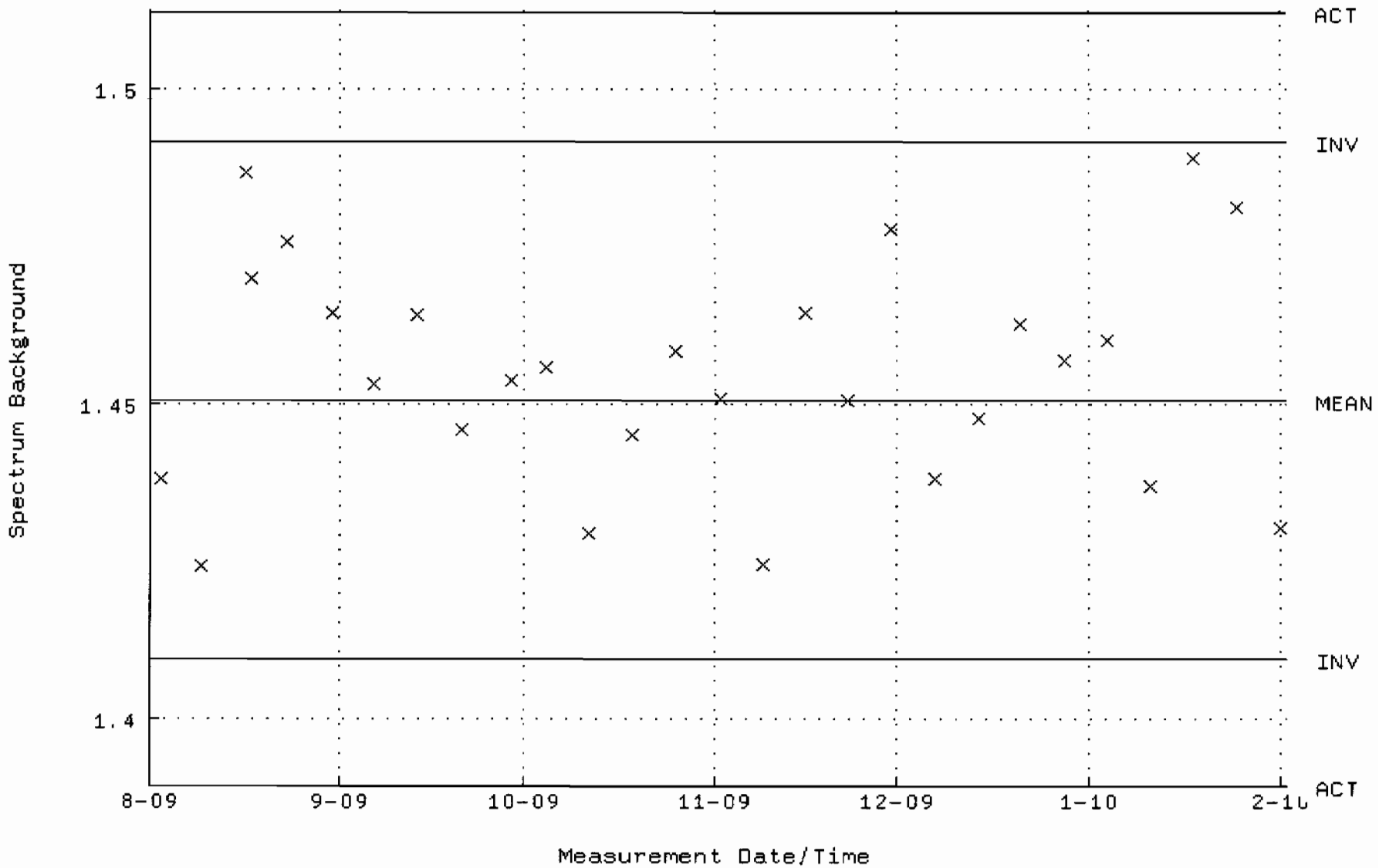

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:19:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

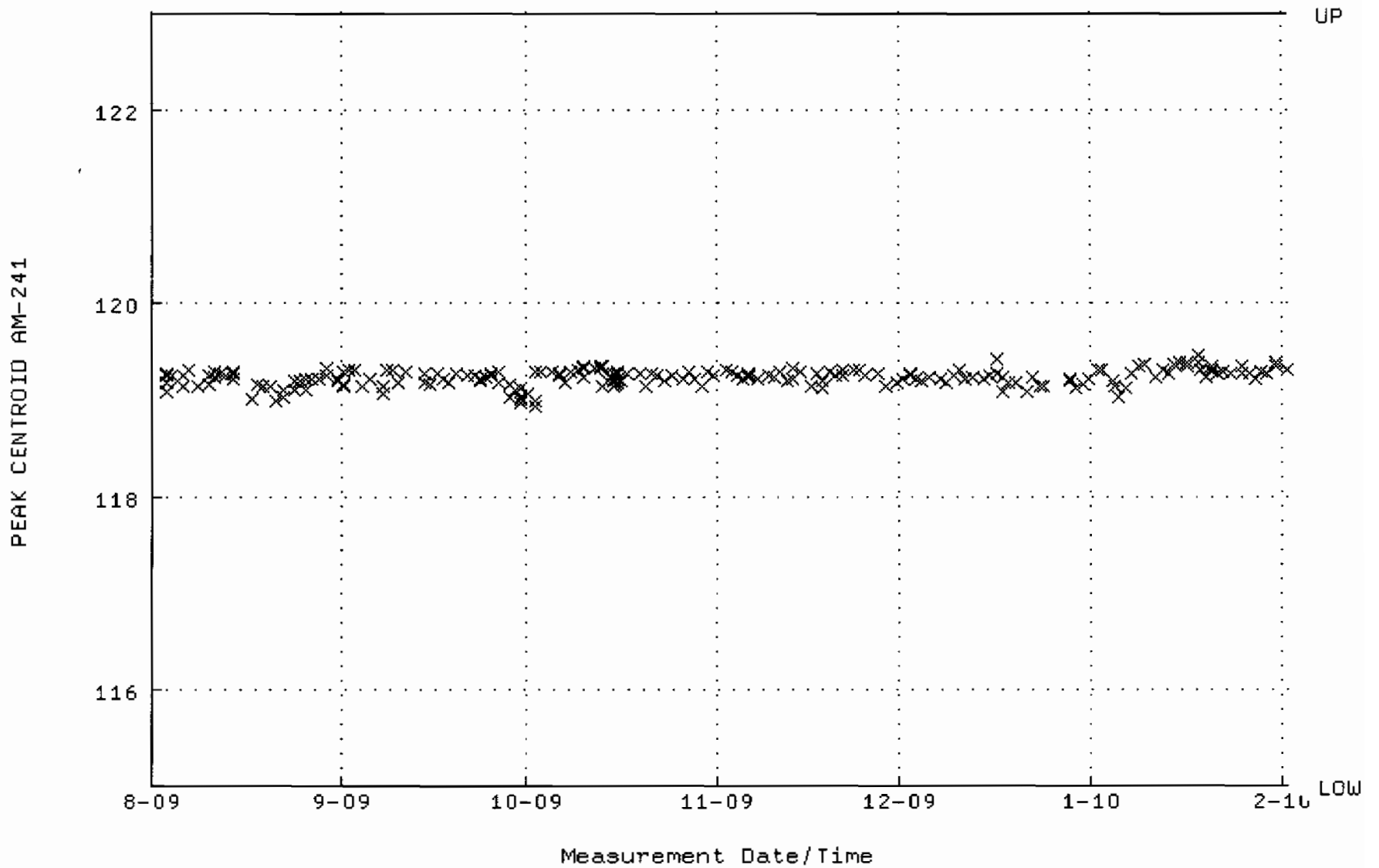

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

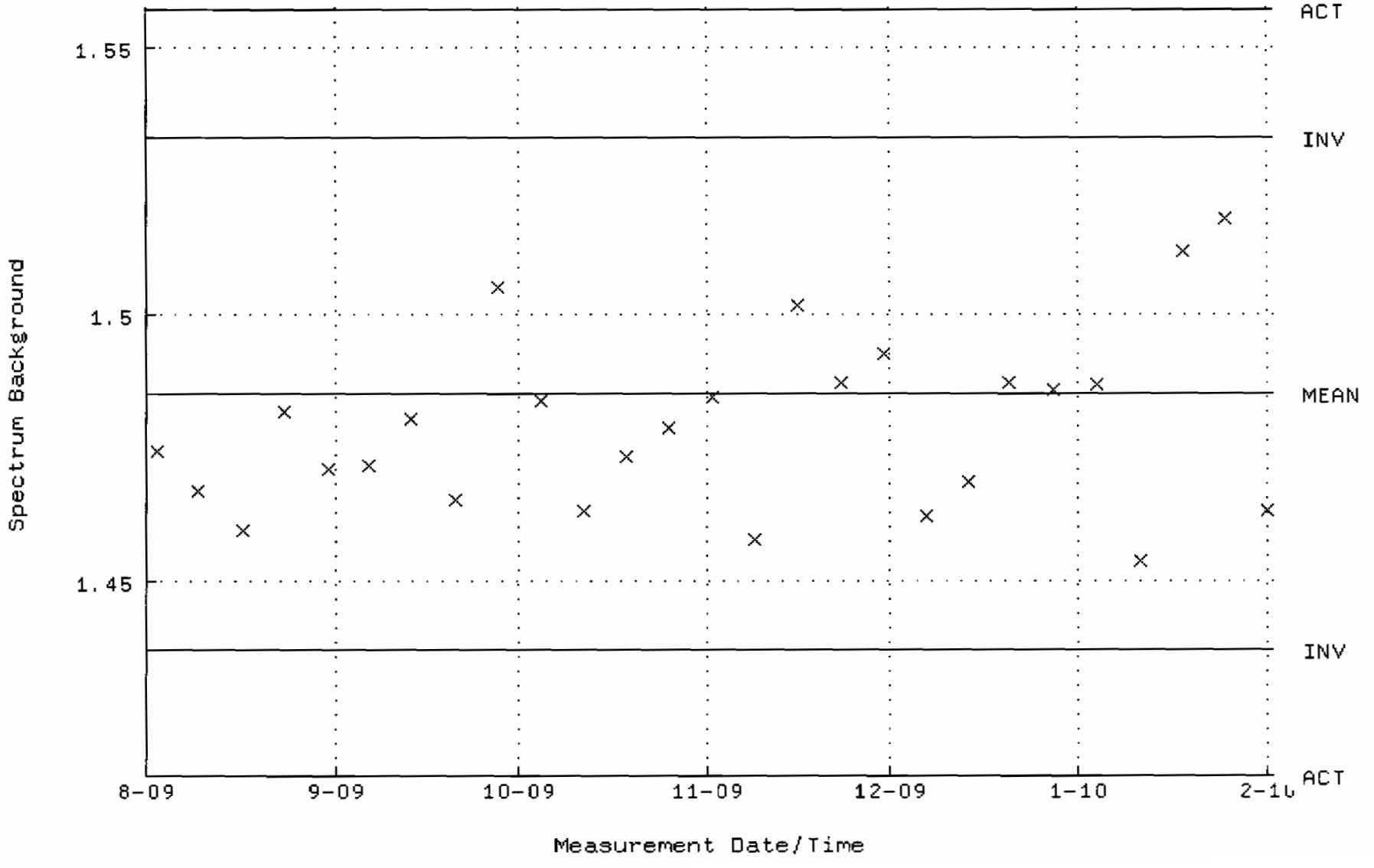

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

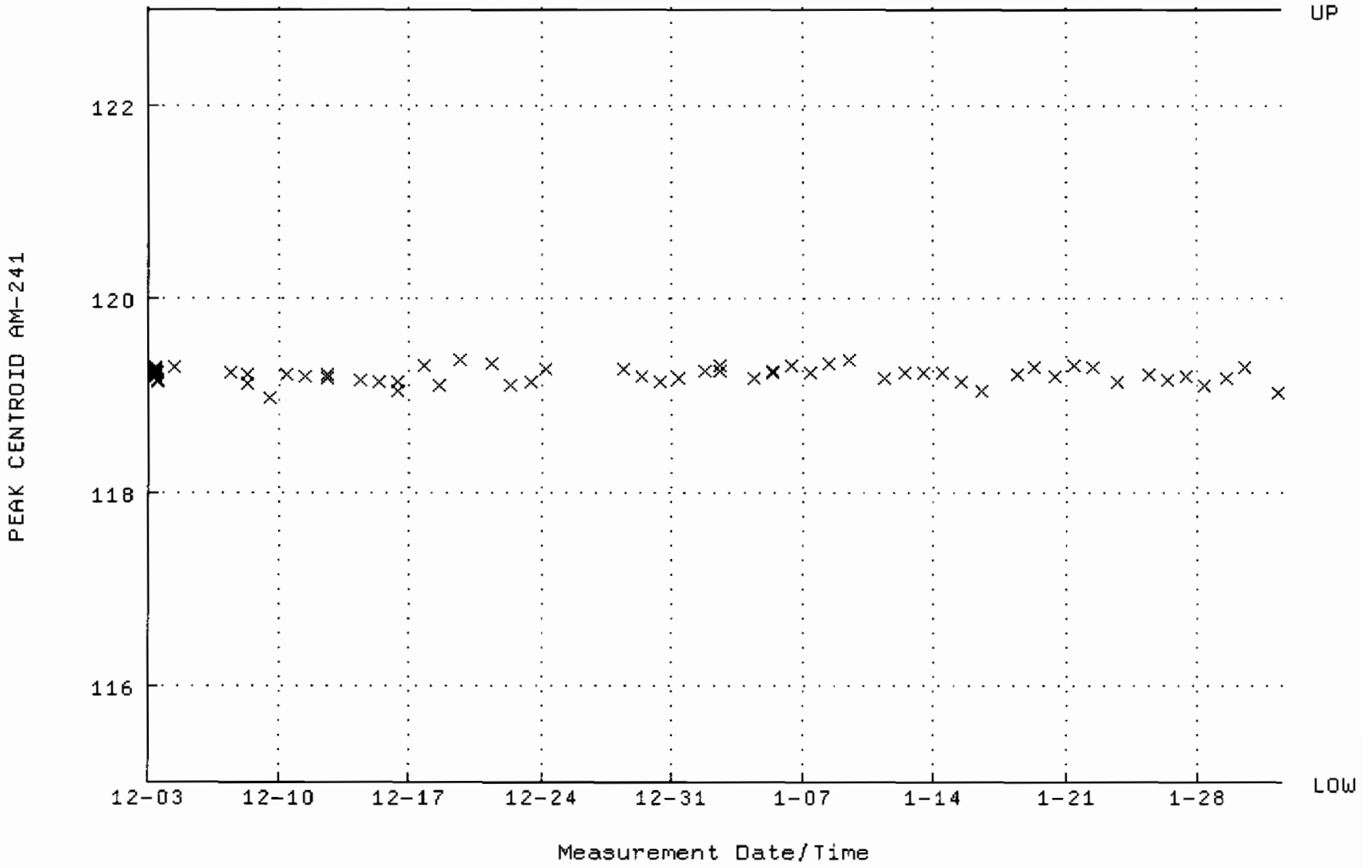

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

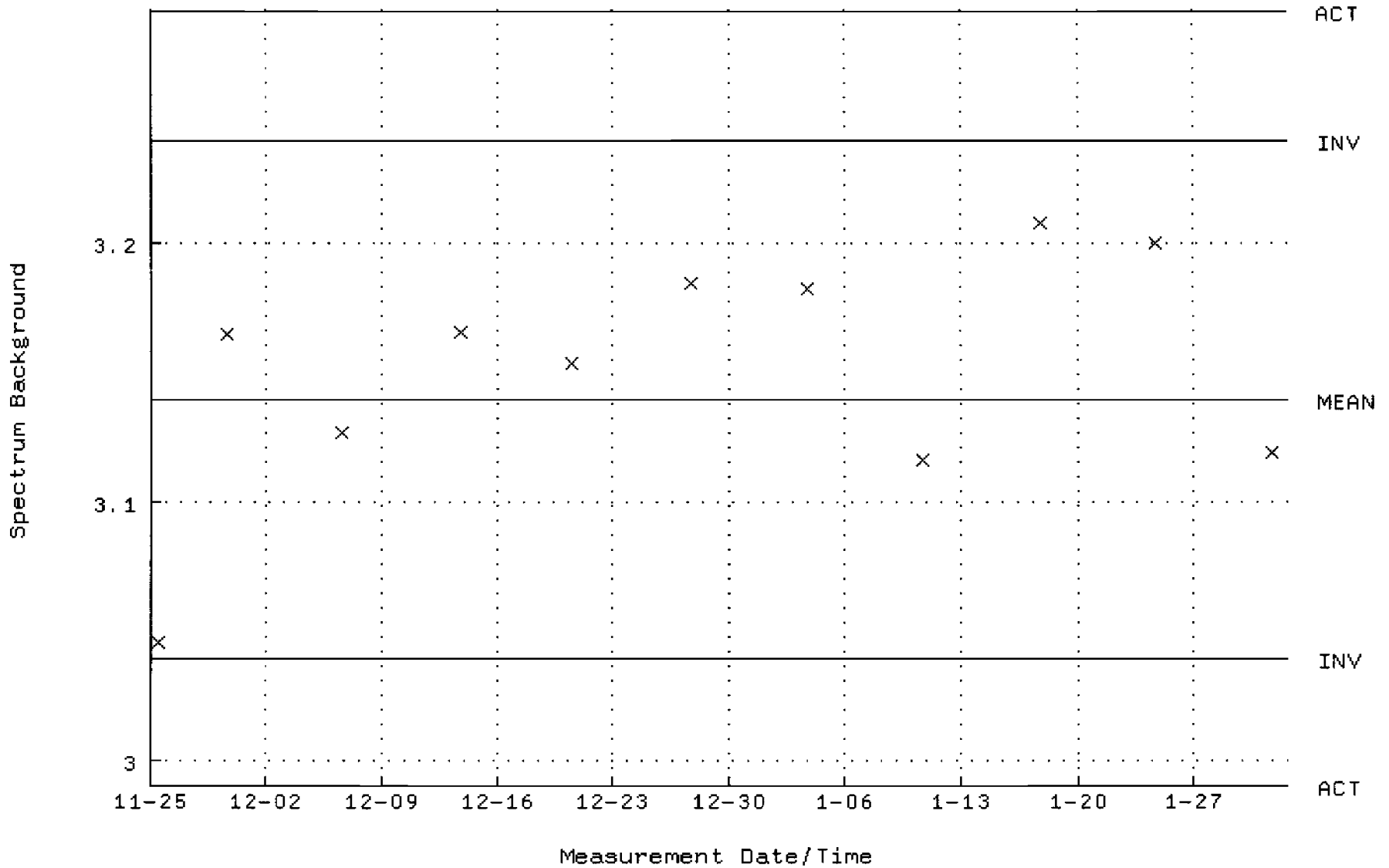

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

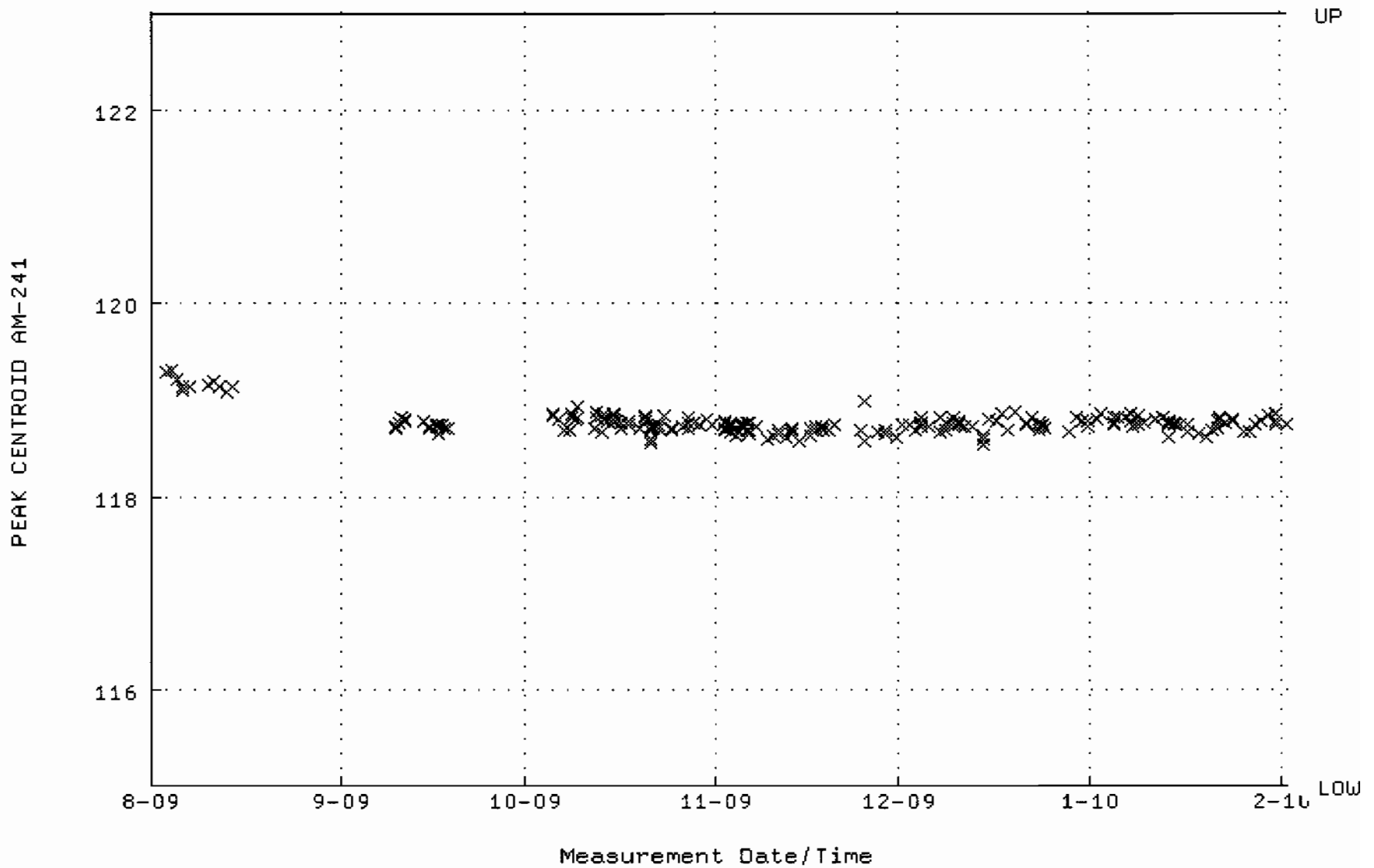

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

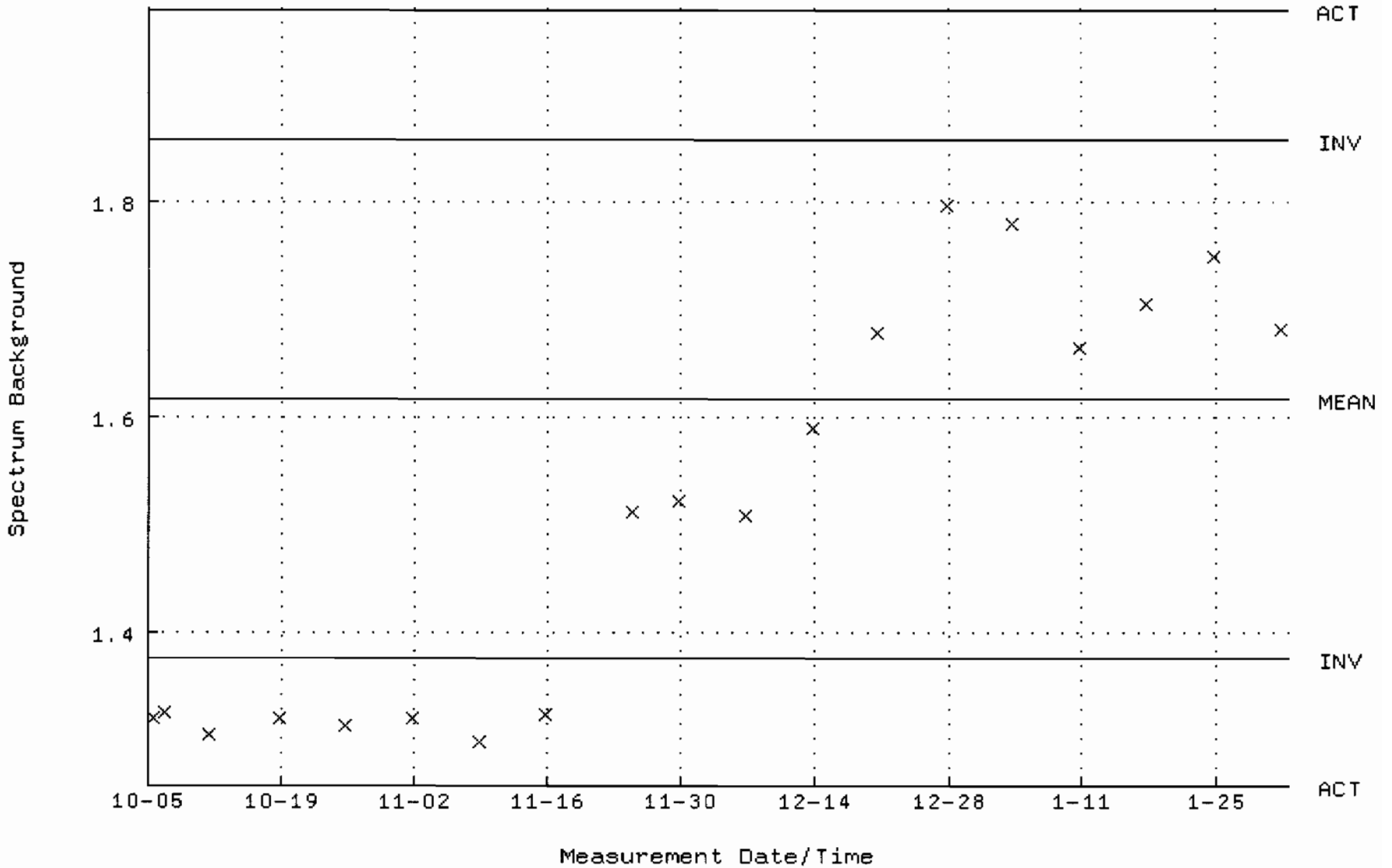

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM25_2LMB.QAF;1
Parameter Name : PSCENTRD-59 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:11:17 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

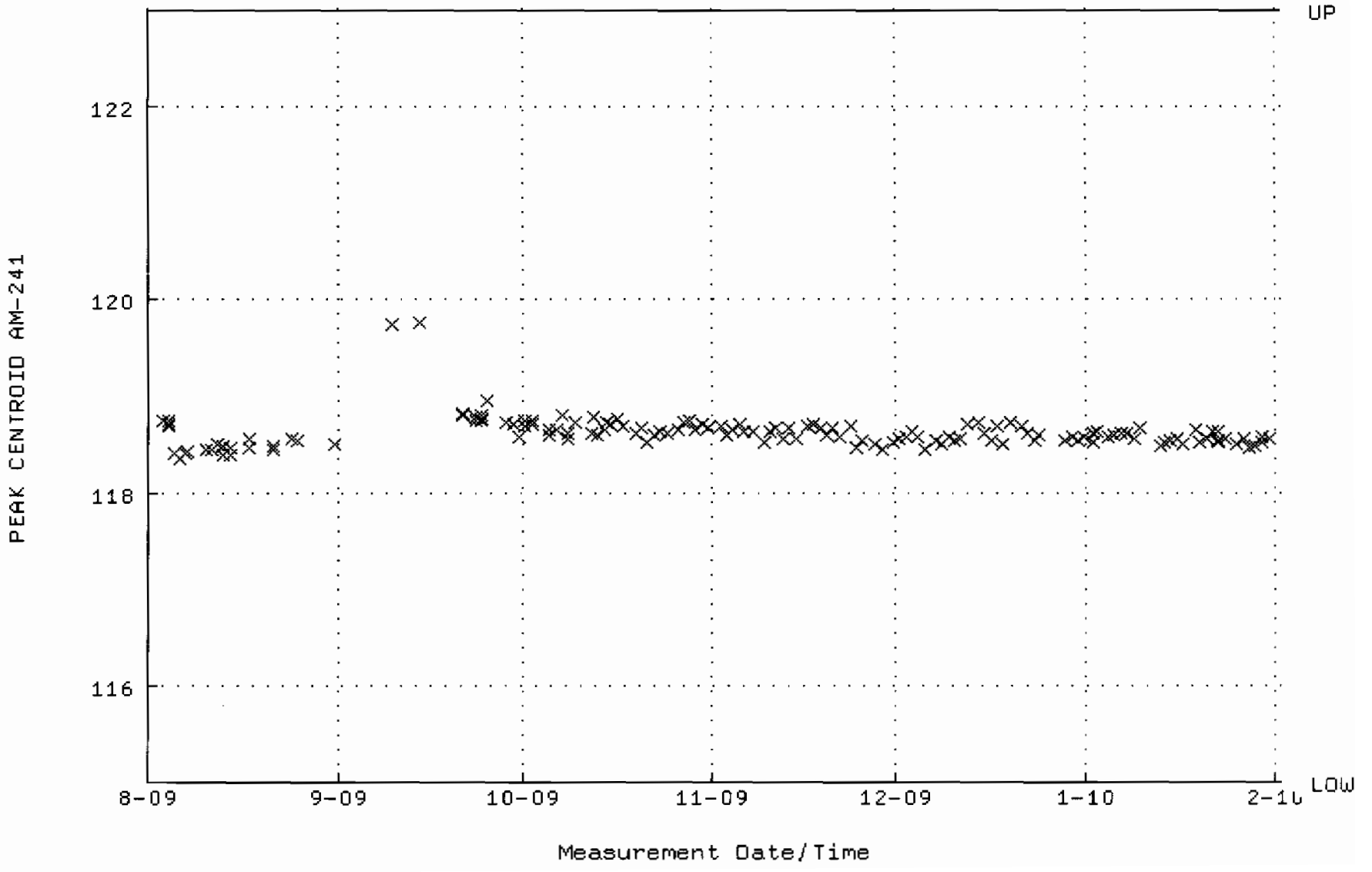

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM25.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:26:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.62502 +- 9.370414E-03 (0.58 %)

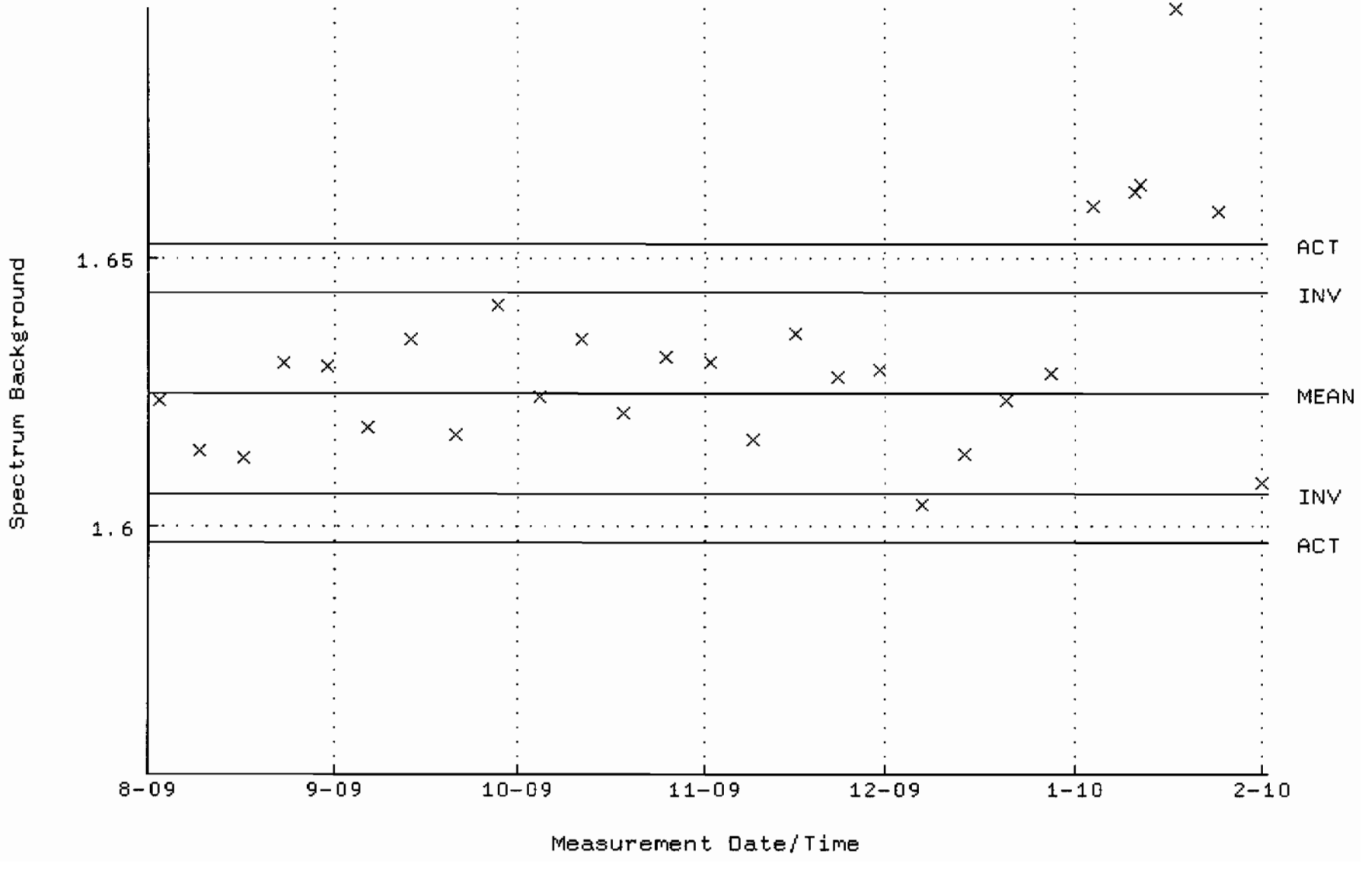

STANDARDS DATA

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74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

Rec'd 11/30/06
RC-S-045-073-0

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404•352•8677
Fax 404•352•2837

www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result	
	Mixed Gamma N1	2534	pCi/L - Ver. JAR-1
	Mixed Gamma N2	2510	pCi/L - Ver. JAR-3
	Mixed Gamma N3	2413	pCi/L - Ver. JAR-5

Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**

Certificate Value =	2485.68018	pCi/L
Lower Limit =	2357.536524	pCi/L
Upper Limit =	2613.796809	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	128.1301422	
10 % of Mean =	248.56666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	95.01	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATA 4/14/2000 Scott C Reid 12/1/04

Angela D. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped 11-16-99 SMO USE
Carrier/Waybill No. 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking (SMO USE) Date Entered (mm/dd/yy) Entered by
QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DP	Weston / 7577 / 845-0867

1. Relinquished by Douglas E. Perry	Org. EMS	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Stalel 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: [redacted]
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: [signature]
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location Tech Area VI
Building N/A Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab
Turnaround Time ☒Normal ☐Rush Required Report Date

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by
QC Limits

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL per behalf of Hank Mistaer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DP	Weston / 7577 / 845-0667

1. Relinquished by	[signature]	Org.	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) | 1st Copy To Accompany Samples, Return to SMO (Blue) | 2nd Copy SMO Suspense Copy (Yellow) | 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution:	5.3739 g (in a 5 ml Flame Sealed Ampoule)	
b. Chemical form:	Am(NO3)3 in 2N HNO3	
c. Carrier content:	None added	
d. Density:	1.0651	g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under:	228, 278	keV.
Branching ratio(s) used:	0.108, 0.1420	gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration:	±3.0%
b. Random uncertainty in assay:	±0.4%
c. Random uncertainty in weighing(s):	±0.0%
d. Total uncertainty at the 99% confidence level:	±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Pier
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridean 5/15/09
007509

Eckert & Ziegler
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Atlanta, Georgia 30318
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Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao
W. Mao, Radiochemist

QA Approved: D. M. Montgomery
D. M. Montgomery, QA Manager

Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-5-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

Calculation AMD 12/14/09

1375

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/2/07

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

RC-S-08-9-094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}·{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 948812**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245994001	SAMPLE	MXR1	GAM16	12-FEB-10 12:31	DONE	CAN	16-NOV-09 00:00
245994002	SAMPLE	MXR1	GAM19	12-FEB-10 12:31	DONE	CAN	12-MAR-09 00:00
245994003	SAMPLE	MXR1	GAM20	12-FEB-10 12:32	DONE	CAN	26-AUG-09 00:00
245994004	SAMPLE	MXR1	GAM25	12-FEB-10 12:32	DONE	CAN	07-OCT-09 00:00
245994005	SAMPLE	MXR1	GAM11	12-FEB-10 12:35	DONE	CAN	18-NOV-09 00:00
245994006	SAMPLE	MXR1	GAM23	12-FEB-10 12:35	DONE	CAN	02-JUN-09 00:00
245994007	SAMPLE	MXR1	GAM10	12-FEB-10 12:38	DONE	CAN	16-MAR-09 00:00
245994008	SAMPLE	MXR1	GAM22	12-FEB-10 13:26	DONE	CAN	02-DEC-09 00:00
245994009	SAMPLE	MXR1	GAM12	12-FEB-10 13:42	DONE	CAN	10-FEB-09 00:00
246008001	SAMPLE	MXR1	GAM17	12-FEB-10 13:42	DONE	CAN	06-JAN-10 00:00
246008002	SAMPLE	MXR1	GAM18	12-FEB-10 13:43	DONE	CAN	23-APR-09 00:00
246008003	SAMPLE	MXR1	GAM01	12-FEB-10 13:51	DONE	CAN	12-JAN-10 00:00
246008004	SAMPLE	MXR1	GAM06	12-FEB-10 13:52	DONE	CAN	04-FEB-09 00:00
246008005	SAMPLE	MXR1	GAM04	12-FEB-10 14:27	DONE	CAN	05-MAY-09 00:00
246008006	SAMPLE	MXR1	GAM14	12-FEB-10 14:27	DONE	CAN	06-MAR-09 00:00
246008007	SAMPLE	MXR1	GAM15	12-FEB-10 14:28	DONE	CAN	03-FEB-10 00:00
246008008	SAMPLE	MXR1	GAM16	12-FEB-10 14:37	DONE	CAN	16-NOV-09 00:00
1202032720	MB	MXR1	GAM19	12-FEB-10 14:38	DONE	CAN	12-MAR-09 00:00
1202032721	DUP	MXR1	GAM20	12-FEB-10 14:38	DONE	CAN	26-AUG-09 00:00
1202032722	LCS	MXR1	GAM25	12-FEB-10 14:39	DONE	CAN	07-OCT-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949827**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245994001	SAMPLE	JXD2	1048	13-FEB-10 11:15	DONE		
245994002	SAMPLE	JXD2	1065	13-FEB-10 11:15	DONE		
245994003	SAMPLE	JXD2	1066	13-FEB-10 11:15	DONE		
245994004	SAMPLE	JXD2	1067	13-FEB-10 11:15	DONE		
245994005	SAMPLE	JXD2	1068	13-FEB-10 11:15	DONE		
245994006	SAMPLE	JXD2	1069	13-FEB-10 11:15	DONE		
245994007	SAMPLE	JXD2	1070	13-FEB-10 11:15	DONE		
245994008	SAMPLE	JXD2	1071	13-FEB-10 11:15	DONE		
245994009	SAMPLE	JXD2	1072	13-FEB-10 11:15	DONE		
246008001	SAMPLE	JXD2	1073	13-FEB-10 11:15	DONE		
246008002	SAMPLE	JXD2	1074	13-FEB-10 11:15	DONE		
246008003	SAMPLE	JXD2	1075	13-FEB-10 11:15	DONE		
246008004	SAMPLE	JXD2	1076	13-FEB-10 11:15	DONE		
246008005	SAMPLE	JXD2	1083	13-FEB-10 11:15	DONE		
246008006	SAMPLE	JXD2	1084	13-FEB-10 11:15	DONE		
246008007	SAMPLE	JXD2	1085	13-FEB-10 11:15	DONE		
246008008	SAMPLE	JXD2	1086	13-FEB-10 11:15	DONE		
246020013	SAMPLE	JXD2	1087	13-FEB-10 11:15	DONE		
246020014	SAMPLE	JXD2	1088	13-FEB-10 11:15	DONE		
246020015	SAMPLE	JXD2	1089	13-FEB-10 11:15	DONE		
1202035013	MB	JXD2	1090	13-FEB-10 11:15	DONE		
1202035014	DUP	JXD2	1091	13-FEB-10 11:15	DONE		
1202035015	LCS	JXD2	1092	13-FEB-10 11:15	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949828**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245994001	SAMPLE	JXD2	1069	11-FEB-10 09:03	DONE		
245994002	SAMPLE	JXD2	1070	11-FEB-10 09:03	DONE		
245994003	SAMPLE	JXD2	1077	11-FEB-10 09:03	DONE		
245994004	SAMPLE	JXD2	1079	11-FEB-10 09:03	DONE		
245994005	SAMPLE	JXD2	1080	11-FEB-10 09:03	DONE		
245994006	SAMPLE	JXD2	1081	11-FEB-10 09:03	DONE		
245994007	SAMPLE	JXD2	1082	11-FEB-10 09:03	DONE		
245994008	SAMPLE	JXD2	1211	11-FEB-10 09:05	DONE		
245994009	SAMPLE	JXD2	1089	11-FEB-10 10:20	DONE		
246008001	SAMPLE	JXD2	1090	11-FEB-10 10:20	DONE		
246008002	SAMPLE	JXD2	1091	11-FEB-10 10:20	DONE		
246008003	SAMPLE	JXD2	1092	11-FEB-10 10:20	DONE		
246008004	SAMPLE	JXD2	1093	11-FEB-10 10:20	DONE		
246008005	SAMPLE	JXD2	1094	11-FEB-10 10:20	DONE		
246008006	SAMPLE	JXD2	1095	11-FEB-10 10:20	DONE		
246008007	SAMPLE	JXD2	1097	11-FEB-10 10:20	DONE		
246008008	SAMPLE	JXD2	1099	11-FEB-10 10:20	DONE		
246020013	SAMPLE	JXD2	1100	11-FEB-10 10:20	DONE		
246020014	SAMPLE	JXD2	1107	11-FEB-10 10:20	DONE		
246020015	SAMPLE	JXD2	1108	11-FEB-10 10:20	DONE		
1202035016	MB	JXD2	1109	11-FEB-10 10:20	DONE		
1202035017	DUP	JXD2	1111	11-FEB-10 10:20	DONE		
1202035018	LCS	JXD2	1112	11-FEB-10 10:20	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 953461**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245994001	SAMPLE	JXD2	1120	18-FEB-10 18:40	DONE		
245994002	SAMPLE	JXD2	1121	18-FEB-10 18:40	DONE		
245994003	SAMPLE	JXD2	1122	18-FEB-10 18:40	DONE		
245994004	SAMPLE	JXD2	1123	18-FEB-10 18:40	DONE		
245994005	SAMPLE	JXD2	1124	18-FEB-10 18:40	DONE		
245994006	SAMPLE	JXD2	1125	18-FEB-10 18:40	DONE		
245994007	SAMPLE	JXD2	1126	18-FEB-10 18:40	DONE		
245994008	SAMPLE	JXD2	1127	18-FEB-10 18:40	DONE		
245994009	SAMPLE	JXD2	1128	18-FEB-10 18:40	DONE		
246008001	SAMPLE	JXD2	1129	18-FEB-10 18:41	DONE		
246008002	SAMPLE	JXD2	1130	18-FEB-10 18:41	DONE		
246008003	SAMPLE	JXD2	1131	18-FEB-10 18:41	DONE		
246008004	SAMPLE	JXD2	1132	18-FEB-10 18:41	DONE		
246008005	SAMPLE	JXD2	1133	18-FEB-10 18:41	DONE		
246008006	SAMPLE	JXD2	1161	18-FEB-10 18:41	DONE		
246008007	SAMPLE	JXD2	1162	18-FEB-10 18:41	DONE		
246008008	SAMPLE	JXD2	1163	18-FEB-10 18:41	DONE		
246020013	SAMPLE	JXD2	1164	18-FEB-10 18:41	DUSE		
246020014	SAMPLE	JXD2	1165	18-FEB-10 18:41	DONE		
246020015	SAMPLE	JXD2	1166	18-FEB-10 18:41	DONE		
1202043974	MB	JXD2	1167	18-FEB-10 18:41	DONE		
1202043975	DUP	JXD2	1168	18-FEB-10 18:41	DONE		
1202043976	LCS	JXD2	1169	18-FEB-10 18:41	DONE		
246020013	SAMPLE	JXD2	1115	21-FEB-10 10:45	DONE		

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1515
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	EPA:906.0	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:AM-241	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:ISOPU	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:ISOU	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	

Final Page of REQUEST NUMBER 10-1515

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1515C

REQUEST NUMBER: 10-1515

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7980	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7980	1	POLY	H3	Ice	R
RE15-10-7958	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7958	1	POLY	H3	Ice	R
RE15-10-7960	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7960	1	POLY	H3	Ice	R
RE15-10-7979	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7979	1	POLY	H3	Ice	R
RE15-10-7972	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7972	1	POLY	H3	Ice	R
RE15-10-7957	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7957	1	POLY	H3	Ice	R
RE15-10-7974	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7974	1	POLY	H3	Ice	R
RE15-10-7961	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7961	1	POLY	H3	Ice	R
RE15-10-7971	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7971	1	POLY	H3	Ice	R
RE15-10-7966	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7966	1	POLY	H3	Ice	R
RE15-10-7959	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7959	1	POLY	H3	Ice	R
RE15-10-7969	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7969	1	POLY	H3	Ice	R
RE15-10-8061	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8061	1	POLY	H3	Ice	R
RE15-10-8063	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1515C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8063	1	POLY	H3	Ice	R
RE15-10-8062	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	2/1/10	3:00			

Printed Name	Signature	Printed Name	Signature

Received for DISPOSAL By:	Date	Time	Remarks:

Printed Name	Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7959 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		0845	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610749	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown silty sand some ~~rock~~ tuff fragments, pine needles, wood chips TZM 1/27/10

SAMPLE COMMENTS: TZM 1/27/10
NA Wire not placed in sample containers

LOCATION DESC: 8b-33 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 22 dpm
Beta/Gamma ≤ 7170 dpm

PID Ambient Reading 0.2 / 3.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sheryl Sherwood	1/28/10
(Signature)	0805 AM	(Signature)	0805
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7960 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		0859	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610749	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 KC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-33 mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 dpm
Beta/Gamma ≤ 5440 dpm

PID Ambient 0.0 / Reading 0.4 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) E. Lujan	8:05 AM	(Signature) Sherri Sherwood	805
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8062 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1142	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	↓
LOCATION ID:	UNK	15-610752	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	4.2	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER TRM 1/27/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082+~~NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 AC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7966

Pinkish gray tuff

SAMPLE COMMENTS:

Hit tuff at 3.3'

LOCATION DESC: 8b-70 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 44 **dpm**
Beta/Gamma ≤ 2150 **dpm**

PID Ambient 0.0 / Reading 0.4 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Martin	1/28/10
(Signature)	0811 Am	(Signature)	811
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7958 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	All h
TIME COLLECTED (HH:MM)		0835	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610748	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, some clay

FD RE 15-10-8061

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-34 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 60 dpm
Beta/Gamma ≤ 14,040 dpm

PID Ambient Reading 0.2 / 1.7 ppm

COLLECTED BY (PRINT) THMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10 7:57AM	(Printed Name) Sherry Sherwood	1/28/10 757
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8063 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Alth
TIME COLLECTED (HH:MM)		1351	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	15-16D7516	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES (NO) NA

BOREHOLE: YES (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER 12m 1/27/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 xc	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7973

Dark brown silty sand, moist, tuff fragments minor clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-5a mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 49 **dpm**
Beta/Gamma ≤ 2120 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) Th McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/27/10	(Printed Name) Melissa Martin	1/28/10
(Signature)	0812 Am	(Signature)	812
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8061 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		0835	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610748	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	3.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER 1/27/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 LC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7958

Brown sandy silt, some clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

8b-34 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 60 **dpm**
Beta/Gamma ≤ 14,040 **dpm**

PID Ambient 0.2 / Reading 1.7 **ppm**

COLLECTED BY (PRINT) THMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0811 Am	(Signature) Sherri Sherwood	811
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7972 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1336	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610755	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Grey tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-57 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 88 dpm
Beta/Gamma = 2450 dpm

PID Ambient Reading 0.2 / 1.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Martin	1/28/10
(Signature)	0811 AM	(Signature)	811
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7979 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Alh
TIME COLLECTED (HH:MM)		1533	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610759	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 JC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks and wood chips

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-55 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 2050 **dpm**

HE negative
PID Ambient Reading 0.0 / 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) [signature]	07:51 AM	(Signature) Sherri Sherwood	0757
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7974 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1407	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.7	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: whitish grey tuff

FR: RE15-10-8084

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b - 5 Le mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 38 dpm
Beta/Gamma ≤ 2280 dpm

PID Ambient 0.1 / Reading 0.5 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarlana

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Victor Martinez	1/28/10
(Signature)	0810 Am	(Signature)	810
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7961 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Alh
TIME COLLECTED (HH:MM)		0927	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610750	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, pine needles, some rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-61 mesa top next to pine tree

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 370 dpm

PID Ambient 0.3 / Reading 2.7 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0806 Am	(Signature) Sherri Sherwood	0806
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7971 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1323	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610755	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: wet silty sandy clay, and wood chips

SAMPLE COMMENTS: hit tuff at 6 inch

LOCATION DESC: 8b-57 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 55 dpm
Beta/Gamma ≤ 6250 dpm

PID Ambient 0.0 / Reading 0.4 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLM cFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	0810 AM	(Signature)	810
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7966 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1142	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610752	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.2	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 JC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray tuff
FD : RE15-10-8062

SAMPLE COMMENTS: hit tuff at 3.3' 1/27/10

LOCATION DESC: 8b-70 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 44 dpm
Beta/Gamma ≤ 2150 dpm

PID Ambient 0.0 / Reading 6.4 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	0808 AM	(Signature)	808
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7980 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1545	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610759	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: greyish pink tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-55 mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2000 dpm

PID Ambient 0.1 / Reading 0.3 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) E Lujan	07:52 AM	(Signature) Sherri Sherwood	752
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7957 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0825	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610748	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks, pine needles, and wood chips

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-34 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 16 dpm
Beta/Gamma ≤ 8210 dpm

PID Ambient Reading 0.4 / 0.5 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	7:55 AM	(Signature)	755
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7969 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		~~1238~~ 1301	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610754	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand numerous pebbels, minor clay

SAMPLE COMMENTS: next to road

LOCATION DESC: 8b - 74 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 38 dpm
Beta/Gamma ≤ 2150 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan (Signature)	1/28/10 0809 AM	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	1/28/10 0809
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8083 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1027	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610751	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	y	
1		SW-846:6850	250 ML POLY	Ice	y	
1		TCN	500 ML POLY	Sodium Hydroxide	y	

SAMPLE DESC: QC Sample of RE15-10-7963

SAMPLE COMMENTS: Rinsate

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

~~Alpha = _____ dpm~~ 12m 1/27/10
~~Beta/Gamma = _____ dpm~~

PID ~~Ambient Reading~~ = ppm 12m 1/27/10

COLLECTED BY (PRINT) TLMcFarlana **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Martz	1/28/10
(Signature)	0813 Am	(Signature)	813
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1515 VALIDATION DATE: 3/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories, LLC

VALIDATOR: Charissa Lewis ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The sample results that were rejected by the laboratory due to high peak width, interference, low abundance or no valid peak were qualified R,R5a. Some duplicate sample results were also rejected by the laboratory. Since this was a QC sample, no sample data were qualified as a result.
2. An MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria. Thus, no sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Charissa Lewis DATE: 3/11/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7980
Sample ID: 246020001
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 4.62%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00156		0.0485	+/-0.00778	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0511	+/-0.00443	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00626		0.0385	+/-0.00443	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.249		0.0366	+/-0.0258	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236	U	0.0215		0.0233	+/-0.00687	0.100	pCi/g						
Uranium-238		0.316		0.025	+/-0.0308	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0454		0.217	+/-0.0726	0.200	pCi/g		MXR1	02/13/10	1452	948751	4
Bismuth-211	UI	4.16	R,R5a	0.271	+/-0.313		pCi/g						
Bismuth-214		1.21		0.105	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.55	R,R5a	1.14	+/-0.526		pCi/g						
Cerium-139	U	-0.0152		0.0433	+/-0.0129	0.050	pCi/g						
Cesium-134	U	0.067		0.0801	+/-0.0213	0.100	pCi/g						
Cesium-137	U	-0.0106		0.0572	+/-0.0178	0.100	pCi/g						
Cobalt-60	U	-0.0226		0.0549	+/-0.0184	0.100	pCi/g						
Europium-152	U	0.0488		0.146	+/-0.0419	0.200	pCi/g						
Lanthanum-140	U	-0.0265		0.144	+/-0.0451		pCi/g						
Lead-212		1.85		0.0802	+/-0.123	0.100	pCi/g						
Lead-214		1.45		0.0943	+/-0.115	0.100	pCi/g						
Mercury-203	U	0.0172		0.0657	+/-0.0194	0.100	pCi/g						
Potassium-40		37.2		0.518	+/-1.89	1.00	pCi/g						
Radium-223	U	0.0562		0.999	+/-0.343		pCi/g						
Radium-224	UI	5.55	R,R5a	0.913	+/-0.688		pCi/g						
Radium-226		1.21		0.105	+/-0.107		pCi/g						
Radium-228		1.94		0.188	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	0.0968		0.506	+/-0.149	0.800	pCi/g						
Sodium-22	U	-0.00228		0.0732	+/-0.0226	0.080	pCi/g						
Strontium-85	U	0.0147		0.0561	+/-0.0183		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7980
Sample ID: 246020001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.495	0.054	+/-0.0433	0.080	pCi/g						
Thorium-227	U	-0.226	0.575	+/-0.181		pCi/g						
Thorium-231	U	0.0562	0.999	+/-0.343		pCi/g						
Thorium-234		2.23	1.84	+/-0.962	2.00	pCi/g						
Tin-113	U	-0.0223	0.0614	+/-0.0186	0.100	pCi/g						
Uranium-235	U	-0.0519	0.328	+/-0.0962	0.500	pCi/g						
Yttrium-88	U	-0.00389	0.0459	+/-0.0144	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		567	206	+/-81.7	250	pCi/L		KXK2	02/17/10	0705	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7958
Sample ID: 246020002
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 19.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.0173		0.0511	+/-0.0131	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00309		0.0505	+/-0.00818	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00		0.038	+/-0.00437	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.279		0.0362	+/-0.0281	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236	U	0.023		0.0231	+/-0.00659	0.100	pCi/g						
Uranium-238		0.403		0.0247	+/-0.0371	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	UI	1.13	R,R5a	0.939	+/-0.290	0.200	pCi/g		MXR1	02/13/10	1452	948751	4
Bismuth-211	UI	2.91	R,R5a	0.398	+/-0.253		pCi/g						
Bismuth-214		0.946		0.130	+/-0.0886	0.200	pCi/g						
Cadmium-109	U	2.83		4.51	+/-1.83		pCi/g						
Cerium-139	U	0.0663		0.0858	+/-0.0269	0.050	pCi/g						
Cesium-134	UI	0.111	R,R5a	0.0981	+/-0.0279	0.100	pCi/g						
Cesium-137		0.155		0.0717	+/-0.0379	0.100	pCi/g						
Cobalt-60	U	0.00655		0.0524	+/-0.0157	0.100	pCi/g						
Europium-152	U	-0.113		0.191	+/-0.0693	0.200	pCi/g						
Lanthanum-140	U	-0.022		0.136	+/-0.0421		pCi/g						
Lead-212		1.10		0.124	+/-0.0648	0.100	pCi/g						
Lead-214		1.01		0.139	+/-0.0918	0.100	pCi/g						
Mercury-203	U	0.00612		0.0896	+/-0.0266	0.100	pCi/g						
Potassium-40		21.0		0.432	+/-1.01	1.00	pCi/g						
Radium-223	U	-0.551		1.32	+/-0.410		pCi/g						
Radium-224	UI	3.03	R,R5a	1.41	+/-0.684		pCi/g						
Radium-226		0.946		0.130	+/-0.0886		pCi/g						
Radium-228		1.11		0.197	+/-0.124	0.500	pCi/g						
Ruthenium-106	U	-0.258		0.590	+/-0.186	0.800	pCi/g						
Sodium-22	U	-0.0129		0.0576	+/-0.018	0.080	pCi/g						
Strontium-85	UI	0.0909	R,R5a	0.0789	+/-0.0251		pCi/g						
Thallium-208		0.463		0.0694	+/-0.0469	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7958
Sample ID: 246020002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	UI	1.40	R,R5a	0.970	+/-0.324		pCi/g						
Thorium-231	U	-0.551		1.32	+/-0.410		pCi/g						
Thorium-234		351		6.75	+/-31.3	2.00	pCi/g						
Tin-113	U	-0.0293		0.0883	+/-0.0262	0.100	pCi/g						
Uranium-235		5.41		0.617	+/-0.555	0.500	pCi/g						
Yttrium-88	U	0.025		0.0477	+/-0.0145	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		8.17E+05		1040	+/-57500	250	pCi/L		KXK2	02/17/10	0841	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7960
Sample ID: 246020003
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 6.69%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241		0.0731		0.0494	+/-0.0157	0.050	pCi/g		CXM2	02/24/10	2000	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0153		0.050	+/-0.00688	0.050	pCi/g		CXM2	02/23/10	1308	951669	3
Plutonium-239/240		0.303		0.0376	+/-0.0345	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		11.0		0.320	+/-0.899	0.100	pCi/g		CXM2	02/26/10	2340	957637	4
Uranium-235/236		1.08		0.204	+/-0.153	0.100	pCi/g						
Uranium-238		57.7		0.219	+/-4.39	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.496		0.536	+/-0.163	0.200	pCi/g		MXR1	02/13/10	1453	948751	6
Bismuth-211	UI	3.26	R,R5a	0.360	+/-0.230		pCi/g						
Bismuth-214		0.911		0.118	+/-0.0815	0.200	pCi/g						
Cadmium-109	UI	3.68	R,R5a	2.69	+/-1.12		pCi/g						
Cerium-139	U	-0.0116		0.062	+/-0.021	0.050	pCi/g						
Cesium-134	U	0.0577		0.0912	+/-0.0279	0.100	pCi/g						
Cesium-137	UI	0.0883	R,R5a	0.088	+/-0.0239	0.100	pCi/g						
Cobalt-60	U	0.0508		0.0772	+/-0.0207	0.100	pCi/g						
Europium-152	U	-0.102		0.175	+/-0.0658	0.200	pCi/g						
Lanthanum-140	U	-0.0758		0.135	+/-0.0464		pCi/g						
Lead-212	UI	1.43	R,R5a	0.233	+/-0.0753	0.100	pCi/g						
Lead-214		1.13		0.126	+/-0.0852	0.100	pCi/g						
Mercury-203	U	0.0412		0.0823	+/-0.0226	0.100	pCi/g						
Potassium-40		29.9		0.490	+/-1.46	1.00	pCi/g						
Radium-223	U	-0.688		1.24	+/-0.436		pCi/g						
Radium-224	UI	2.94	R,R5a	1.22	+/-0.666		pCi/g						
Radium-226		0.911		0.118	+/-0.0815		pCi/g						
Radium-228		1.19		0.221	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.343		0.545	+/-0.177	0.800	pCi/g						
Sodium-22	U	0.0197		0.0863	+/-0.0253	0.080	pCi/g						
Strontium-85	U	0.0526		0.0732	+/-0.0228		pCi/g						
Thallium-208		0.479		0.0665	+/-0.0447	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7960
Sample ID: 246020003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.536	0.797	+/-0.231		pCi/g						
Thorium-231	U	-0.688	1.24	+/-0.436		pCi/g						
Thorium-234		52.0	3.99	+/-5.13	2.00	pCi/g						
Tin-113	U	-0.0457	0.0816	+/-0.025	0.100	pCi/g						
Uranium-235		1.00	0.460	+/-0.217	0.500	pCi/g						
Yttrium-88	U	0.00875	0.058	+/-0.0167	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.73E+05	441	+/-12200	250	pCi/L		KXK2	02/17/10	0845	951366	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7979
Sample ID: 246020004
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 25.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00723		0.0461	+/-0.00616	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00613		0.0501	+/-0.00435	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.0184		0.0377	+/-0.00973	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.57		0.0392	+/-0.121	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236		0.113		0.025	+/-0.0168	0.100	pCi/g						
Uranium-238		4.15		0.0268	+/-0.304	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0978		0.306	+/-0.0947	0.200	pCi/g		MXR1	02/13/10	1626	948751	4
Bismuth-211	UI	3.67	R,R5a	0.340	+/-0.265		pCi/g						
Bismuth-214		1.25		0.113	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	2.54	R,R5a	1.50	+/-0.539		pCi/g						
Cerium-139	U	-0.00369		0.055	+/-0.0154	0.050	pCi/g						
Cesium-134	U	0.0581		0.0923	+/-0.0256	0.100	pCi/g						
Cesium-137		0.130		0.0646	+/-0.0355	0.100	pCi/g						
Cobalt-60	U	-0.00638		0.0648	+/-0.0197	0.100	pCi/g						
Europium-152	U	0.0778		0.175	+/-0.0554	0.200	pCi/g						
Lanthanum-140	U	-0.025		0.147	+/-0.0476		pCi/g						
Lead-212		1.34		0.0976	+/-0.0871	0.100	pCi/g						
Lead-214		1.28		0.119	+/-0.098	0.100	pCi/g						
Mercury-203	U	0.0447		0.0786	+/-0.0217	0.100	pCi/g						
Potassium-40		22.0		0.485	+/-1.24	1.00	pCi/g						
Radium-223	U	-0.349		1.15	+/-0.348		pCi/g						
Radium-224	UI	3.25	R,R5a	1.11	+/-0.571		pCi/g						
Radium-226		1.25		0.113	+/-0.103		pCi/g						
Radium-228		1.42		0.194	+/-0.174	0.500	pCi/g						
Ruthenium-106	U	-0.247		0.489	+/-0.153	0.800	pCi/g						
Sodium-22	U	0.00554		0.068	+/-0.0199	0.080	pCi/g						
Strontium-85	U	0.0576		0.0728	+/-0.0203		pCi/g						
Thallium-208		0.434		0.0582	+/-0.0388	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7979
Sample ID: 246020004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.397	0.648	+/-0.199		pCi/g						
Thorium-231	U	-0.349	1.15	+/-0.348		pCi/g						
Thorium-234		7.82	2.39	+/-1.28	2.00	pCi/g						
Tin-113	U	-0.00715	0.078	+/-0.0233	0.100	pCi/g						
Uranium-235	U	0.139	0.397	+/-0.110	0.500	pCi/g						
Yttrium-88	U	-0.00149	0.0538	+/-0.0167	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1180	206	+/-116	250	pCi/L		KXK2	02/17/10	0903	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7972
Sample ID: 246020005
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 8.75%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00737		0.0475	+/-0.00471	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.0222		0.0518	+/-0.0114	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.0127		0.039	+/-0.00779	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.380		0.0381	+/-0.036	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236		0.0448		0.0243	+/-0.00967	0.100	pCi/g						
Uranium-238		1.34		0.026	+/-0.104	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.254		0.420	+/-0.126	0.200	pCi/g		MXR1	02/13/10	1626	948751	4
Bismuth-211	UI	3.20	R,R5a	0.329	+/-0.242		pCi/g						
Bismuth-214		1.10		0.120	+/-0.088	0.200	pCi/g						
Cadmium-109	UI	3.42	R,R5a	1.53	+/-0.601		pCi/g						
Cerium-139	U	-4.26E-05		0.0495	+/-0.0148	0.050	pCi/g						
Cesium-134	UI	0.111	R,R5a	0.0919	+/-0.0454	0.100	pCi/g						
Cesium-137	U	-0.0405		0.0657	+/-0.0206	0.100	pCi/g						
Cobalt-60	U	0.00613		0.0802	+/-0.0237	0.100	pCi/g						
Europium-152	U	-0.05		0.144	+/-0.0455	0.200	pCi/g						
Lanthanum-140	U	-0.0029		0.168	+/-0.0513		pCi/g						
Lead-212		1.71		0.0923	+/-0.0896	0.100	pCi/g						
Lead-214		1.11		0.116	+/-0.089	0.100	pCi/g						
Mercury-203	U	-0.00832		0.0718	+/-0.021	0.100	pCi/g						
Potassium-40		36.7		0.642	+/-1.65	1.00	pCi/g						
Radium-223	U	0.00215		1.16	+/-0.385		pCi/g						
Radium-224	UI	4.60	R,R5a	1.05	+/-0.677		pCi/g						
Radium-226		1.10		0.120	+/-0.088		pCi/g						
Radium-228		1.74		0.218	+/-0.183	0.500	pCi/g						
Ruthenium-106	U	0.214		0.574	+/-0.168	0.800	pCi/g						
Sodium-22	U	0.0124		0.0817	+/-0.0238	0.080	pCi/g						
Strontium-85	U	0.0434		0.0666	+/-0.0187		pCi/g						
Thallium-208		0.530		0.0637	+/-0.0419	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7972
Sample ID: 246020005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0762	0.629	+/-0.183		pCi/g						
Thorium-231	U	0.00215	1.16	+/-0.385		pCi/g						
Thorium-234		4.40	3.16	+/-1.53	2.00	pCi/g						
Tin-113	U	-0.00377	0.0728	+/-0.0217	0.100	pCi/g						
Uranium-235	U	0.177	0.365	+/-0.105	0.500	pCi/g						
Yttrium-88	U	-0.000984	0.0522	+/-0.0163	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3350	205	+/-258	250	pCi/L		KXK2	02/17/10	1041	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7957
Sample ID: 246020006
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 22.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241		0.0769		0.0418	+/-0.0158	0.050	pCi/g		CXM2	02/24/10	2000	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00288		0.047	+/-0.00288	0.050	pCi/g		CXM2	02/23/10	1308	951669	3
Plutonium-239/240		0.333		0.0353	+/-0.0355	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		36.4		0.590	+/-3.01	0.100	pCi/g		CXM2	02/26/10	2340	957637	4
Uranium-235/236		4.95		0.376	+/-0.544	0.100	pCi/g						
Uranium-238		269		0.403	+/-21.3	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	UI	1.03	R,R5a	0.950	+/-0.286	0.200	pCi/g		MXR1	02/13/10	1627	948751	6
Bismuth-211	UI	1.72	R,R5a	0.441	+/-0.273		pCi/g						
Bismuth-214		0.702		0.145	+/-0.0828	0.200	pCi/g						
Cadmium-109	U	0.269		4.57	+/-1.96		pCi/g						
Cerium-139	U	0.0412		0.0953	+/-0.0303	0.050	pCi/g						
Cesium-134	U	0.097		0.113	+/-0.0341	0.100	pCi/g						
Cesium-137	U	0.0364		0.0926	+/-0.0266	0.100	pCi/g						
Cobalt-60	U	0.0225		0.0668	+/-0.019	0.100	pCi/g						
Europium-152	U	-0.00606		0.220	+/-0.0715	0.200	pCi/g						
Lanthanum-140	U	-0.0175		0.134	+/-0.0412		pCi/g						
Lead-212	UI	0.818	R,R5a	0.212	+/-0.0571	0.100	pCi/g						
Lead-214		0.598		0.154	+/-0.0963	0.100	pCi/g						
Mercury-203	U	-0.00606		0.103	+/-0.0288	0.100	pCi/g						
Potassium-40		20.6		0.537	+/-0.984	1.00	pCi/g						
Radium-223	U	-0.915		1.50	+/-0.444		pCi/g						
Radium-224	UI	2.75	R,R5a	1.62	+/-0.605		pCi/g						
Radium-226		0.702		0.145	+/-0.0828		pCi/g						
Radium-228		0.688		0.238	+/-0.104	0.500	pCi/g						
Ruthenium-106	U	-0.0153		0.700	+/-0.208	0.800	pCi/g						
Sodium-22	U	-0.0685		0.0577	+/-0.0214	0.080	pCi/g						
Strontium-85	U	0.0287		0.0872	+/-0.0284		pCi/g						
Thallium-208		0.257		0.0762	+/-0.0409	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7957
Sample ID: 246020006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	UI	1.71	R,R5a	1.15	+/-0.380		pCi/g						
Thorium-231	U	-0.915		1.50	+/-0.444		pCi/g						
Thorium-234		191		6.90	+/-17.7	2.00	pCi/g						
Tin-113	U	0.0172		0.108	+/-0.0304	0.100	pCi/g						
Uranium-235		3.35		0.684	+/-0.387	0.500	pCi/g						
Yttrium-88	U	-0.00728		0.0467	+/-0.0148	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		2.39E+05		519	+/-16800	250	pCi/L		KXK2	02/17/10	1217	951366	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	58.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7974
Sample ID: 246020007
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 5.14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00131		0.050	+/-0.00594	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00816		0.0442	+/-0.00755	0.050	pCi/g		CXM2	02/24/10	2001	951669	2
Plutonium-239/240	U	0.000267		0.0331	+/-0.00768	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.275		0.0375	+/-0.028	0.100	pCi/g		CXM2	02/24/10	1321	951672	4
Uranium-235/236	U	0.0221		0.0239	+/-0.00705	0.100	pCi/g						
Uranium-238		0.254		0.0256	+/-0.0264	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0552		0.188	+/-0.0591	0.200	pCi/g		MXR1	02/13/10	1627	948751	5
Bismuth-211	UI	3.72	R,R5a	0.362	+/-0.289		pCi/g						
Bismuth-214		1.04		0.115	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	3.83	R,R5a	1.16	+/-0.512		pCi/g						
Cerium-139	U	-0.0184		0.0496	+/-0.0156	0.050	pCi/g						
Cesium-134	UI	0.178	R,R5a	0.101	+/-0.0374	0.100	pCi/g						
Cesium-137	U	-0.0271		0.0651	+/-0.0204	0.100	pCi/g						
Cobalt-60	U	-0.00783		0.071	+/-0.022	0.100	pCi/g						
Europium-152	U	-0.0981		0.164	+/-0.0567	0.200	pCi/g						
Lanthanum-140	U	0.00535		0.153	+/-0.0467		pCi/g						
Lead-212		1.94		0.0981	+/-0.110	0.100	pCi/g						
Lead-214		1.29		0.126	+/-0.106	0.100	pCi/g						
Mercury-203	U	0.0315		0.0753	+/-0.0214	0.100	pCi/g						
Potassium-40		37.5		0.550	+/-1.89	1.00	pCi/g						
Radium-223	U	0.348		1.16	+/-0.382		pCi/g						
Radium-224	UI	4.81	R,R5a	1.12	+/-0.708		pCi/g						
Radium-226		1.04		0.115	+/-0.103		pCi/g						
Radium-228		1.89		0.204	+/-0.199	0.500	pCi/g						
Ruthenium-106	U	-0.10		0.534	+/-0.162	0.800	pCi/g						
Sodium-22	U	0.00133		0.0794	+/-0.0239	0.080	pCi/g						
Strontium-85	UI	0.0993	R,R5a	0.0801	+/-0.0234		pCi/g						
Thallium-208		0.592		0.0594	+/-0.0554	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7974
Sample ID: 246020007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.118	0.674	+/-0.194		pCi/g						
Thorium-231	U	0.348	1.16	+/-0.382		pCi/g						
Thorium-234	U	1.38	1.73	+/-0.750	2.00	pCi/g						
Tin-113	U	0.0124	0.0816	+/-0.0242	0.100	pCi/g						
Uranium-235	U	0.0244	0.350	+/-0.107	0.500	pCi/g						
Yttrium-88	U	-0.00128	0.0529	+/-0.0161	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		509	206	+/-78.7	250	pCi/L		KXK2	02/17/10	1231	951366	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	79.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7961
Sample ID: 246020008
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0159		0.054	+/-0.020	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00273		0.0446	+/-0.00386	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.0218		0.0335	+/-0.00779	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		4.46		0.044	+/-0.331	0.100	pCi/g		CXM2	02/24/10	1302	951672	3
Uranium-235/236		0.551		0.028	+/-0.0524	0.100	pCi/g						
Uranium-238		23.1		0.030	+/-1.67	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.533		0.673	+/-0.202	0.200	pCi/g		MXR1	02/13/10	1642	948751	4
Bismuth-211	UI	2.98	R,R5a	0.408	+/-0.260		pCi/g						
Bismuth-214		1.04		0.118	+/-0.0895	0.200	pCi/g						
Cadmium-109	U	2.48		2.70	+/-1.14		pCi/g						
Cerium-139	U	0.0346		0.0716	+/-0.023	0.050	pCi/g						
Cesium-134	UI	0.118	R,R5a	0.0942	+/-0.0372	0.100	pCi/g						
Cesium-137	UI	0.0999	R,R5a	0.0694	+/-0.0424	0.100	pCi/g						
Cobalt-60	U	-0.000741		0.058	+/-0.0178	0.100	pCi/g						
Europium-152	U	-0.0821		0.184	+/-0.064	0.200	pCi/g						
Lanthanum-140	U	-0.00553		0.156	+/-0.0472		pCi/g						
Lead-212		1.36		0.111	+/-0.0991	0.100	pCi/g						
Lead-214		1.04		0.139	+/-0.0942	0.100	pCi/g						
Mercury-203	U	0.0644		0.0901	+/-0.0244	0.100	pCi/g						
Potassium-40		25.9		0.548	+/-1.53	1.00	pCi/g						
Radium-223	U	-0.345		1.30	+/-0.380		pCi/g						
Radium-224	UI	4.05	R,R5a	1.26	+/-0.710		pCi/g						
Radium-226		1.04		0.118	+/-0.0895		pCi/g						
Radium-228		1.20		0.222	+/-0.153	0.500	pCi/g						
Ruthenium-106	U	-0.239		0.539	+/-0.171	0.800	pCi/g						
Sodium-22	U	-0.0203		0.0722	+/-0.0231	0.080	pCi/g						
Strontium-85	U	0.0655		0.0748	+/-0.023		pCi/g						
Thallium-208		0.414		0.0661	+/-0.0441	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7961
Sample ID: 246020008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.126	0.804	+/-0.256		pCi/g						
Thorium-231	U	-0.345	1.30	+/-0.380		pCi/g						
Thorium-234		39.9	4.74	+/-4.63	2.00	pCi/g						
Tin-113	U	-0.0557	0.0788	+/-0.0245	0.100	pCi/g						
Uranium-235		0.616	0.463	+/-0.213	0.500	pCi/g						
Yttrium-88	U	0.0125	0.0637	+/-0.0183	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		26600	208	+/-1880	250	pCi/L		KXK2	02/17/10	1409	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	66.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7971
Sample ID: 246020009
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 25.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00215		0.0524	+/-0.0126	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00573		0.0468	+/-0.00407	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	-0.00287		0.0352	+/-0.00641	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.33		0.0346	+/-0.173	0.100	pCi/g		CXM2	02/24/10	1302	951672	3
Uranium-235/236		0.278		0.0221	+/-0.0293	0.100	pCi/g						
Uranium-238		13.1		0.0236	+/-0.926	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.120		0.304	+/-0.0925	0.200	pCi/g		MXR1	02/13/10	1643	948751	4
Bismuth-211	UI	3.85	R,R5a	0.298	+/-0.305		pCi/g						
Bismuth-214		1.20		0.101	+/-0.0985	0.200	pCi/g						
Cadmium-109	UI	4.59	R,R5a	1.51	+/-0.663		pCi/g						
Cerium-139	U	-0.00253		0.0537	+/-0.0152	0.050	pCi/g						
Cesium-134	UI	0.0837	R,R5a	0.0757	+/-0.0213	0.100	pCi/g						
Cesium-137	UI	0.0701	R,R5a	0.0558	+/-0.0193	0.100	pCi/g						
Cobalt-60	U	-0.00537		0.0493	+/-0.0151	0.100	pCi/g						
Europium-152	U	0.022		0.148	+/-0.0615	0.200	pCi/g						
Lanthanum-140	U	-0.0894		0.126	+/-0.0418		pCi/g						
Lead-212		1.69		0.0874	+/-0.121	0.100	pCi/g						
Lead-214		1.34		0.104	+/-0.112	0.100	pCi/g						
Mercury-203	U	0.0201		0.0692	+/-0.0203	0.100	pCi/g						
Potassium-40		27.4		0.457	+/-1.42	1.00	pCi/g						
Radium-223	U	0.285		0.998	+/-0.322		pCi/g						
Radium-224	UI	4.97	R,R5a	0.993	+/-0.547		pCi/g						
Radium-226		1.20		0.101	+/-0.0985		pCi/g						
Radium-228		1.80		0.179	+/-0.164	0.500	pCi/g						
Ruthenium-106	U	-0.0771		0.455	+/-0.136	0.800	pCi/g						
Sodium-22	U	0.0118		0.0646	+/-0.019	0.080	pCi/g						
Strontium-85	UI	0.119	R,R5a	0.0662	+/-0.0205		pCi/g						
Thallium-208		0.515		0.0532	+/-0.0455	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7971
Sample ID: 246020009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.433	0.648	+/-0.213		pCi/g						
Thorium-231	U	0.285	0.998	+/-0.322		pCi/g						
Thorium-234		30.0	2.37	+/-2.89	2.00	pCi/g						
Tin-113	U	-0.016	0.067	+/-0.020	0.100	pCi/g						
Uranium-235		0.651	0.383	+/-0.157	0.500	pCi/g						
Yttrium-88	U	0.0151	0.0471	+/-0.0134	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1010	206	+/-106	250	pCi/L		KXK2	02/17/10	1542	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	86.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7966
Sample ID: 246020010
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.56%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00101		0.0432	+/-0.00418	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.0109		0.0446	+/-0.0116	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00273		0.0335	+/-0.0061	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.476		0.0282	+/-0.0401	0.100	pCi/g		CXM2	02/24/10	1302	951672	3
Uranium-235/236		0.0442		0.018	+/-0.00838	0.100	pCi/g						
Uranium-238		1.33		0.0192	+/-0.0991	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0842		0.227	+/-0.0713	0.200	pCi/g		MXR1	02/13/10	1656	948751	4
Bismuth-211	UI	3.93	R,R5a	0.274	+/-0.299		pCi/g						
Bismuth-214		1.23		0.0854	+/-0.0949	0.200	pCi/g						
Cadmium-109	UI	2.31	R,R5a	1.05	+/-0.431		pCi/g						
Cerium-139	U	0.00191		0.0453	+/-0.013	0.050	pCi/g						
Cesium-134	UI	0.131	R,R5a	0.0873	+/-0.0323	0.100	pCi/g						
Cesium-137	U	-0.00114		0.0574	+/-0.0174	0.100	pCi/g						
Cobalt-60	U	0.0014		0.056	+/-0.0171	0.100	pCi/g						
Europium-152	U	-0.0417		0.137	+/-0.0416	0.200	pCi/g						
Lanthanum-140	U	-0.058		0.126	+/-0.0422		pCi/g						
Lead-212		1.51		0.0823	+/-0.103	0.100	pCi/g						
Lead-214		1.37		0.0955	+/-0.110	0.100	pCi/g						
Mercury-203	U	-0.00876		0.0637	+/-0.0218	0.100	pCi/g						
Potassium-40		38.5		0.447	+/-1.92	1.00	pCi/g						
Radium-223	U	-0.279		0.978	+/-0.308		pCi/g						
Radium-224	UI	4.66	R,R5a	0.937	+/-0.647		pCi/g						
Radium-226		1.23		0.0854	+/-0.0949		pCi/g						
Radium-228		1.67		0.198	+/-0.168	0.500	pCi/g						
Ruthenium-106	U	0.225		0.489	+/-0.138	0.800	pCi/g						
Sodium-22	U	0.00487		0.060	+/-0.0181	0.080	pCi/g						
Strontium-85	U	0.0399		0.0554	+/-0.0168		pCi/g						
Thallium-208		0.529		0.0529	+/-0.0456	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7966
Sample ID: 246020010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.145	0.554	+/-0.170		pCi/g						
Thorium-231	U	-0.279	0.978	+/-0.308		pCi/g						
Thorium-234		3.94	1.77	+/-0.996	2.00	pCi/g						
Tin-113	U	0.00664	0.0676	+/-0.0193	0.100	pCi/g						
Uranium-235	U	0.183	0.340	+/-0.0955	0.500	pCi/g						
Yttrium-88	U	0.00489	0.0455	+/-0.0133	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		6510	205	+/-475	250	pCi/L		KXK2	02/17/10	1720	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	94.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7959
Sample ID: 246020011
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 20.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0196		0.048	+/-0.00984	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0148		0.0485	+/-0.00789	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240		0.113		0.0365	+/-0.0201	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		24.5		0.401	+/-1.96	0.100	pCi/g		CXM2	02/26/10	2340	957637	3
Uranium-235/236		3.67		0.256	+/-0.388	0.100	pCi/g						
Uranium-238		181		0.274	+/-13.8	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.111		0.610	+/-0.183	0.200	pCi/g		MXR1	02/13/10	1656	948751	5
Bismuth-211	UI	2.67	R,R5a	0.300	+/-0.193		pCi/g						
Bismuth-214		0.869		0.0931	+/-0.067	0.200	pCi/g						
Cadmium-109	U	2.18		3.00	+/-1.16		pCi/g						
Cerium-139	U	0.0622		0.0643	+/-0.0192	0.050	pCi/g						
Cesium-134	UI	0.0893	R,R5a	0.0745	+/-0.0207	0.100	pCi/g						
Cesium-137		0.117		0.0571	+/-0.0239	0.100	pCi/g						
Cobalt-60	U	-0.0136		0.0419	+/-0.0133	0.100	pCi/g						
Europium-152	U	0.0126		0.149	+/-0.0502	0.200	pCi/g						
Lanthanum-140	U	0.0418		0.113	+/-0.0316		pCi/g						
Lead-212		1.13		0.096	+/-0.0594	0.100	pCi/g						
Lead-214		0.927		0.105	+/-0.0715	0.100	pCi/g						
Mercury-203	U	0.0151		0.0679	+/-0.0194	0.100	pCi/g						
Potassium-40		23.8		0.323	+/-1.06	1.00	pCi/g						
Radium-223	U	-0.524		0.967	+/-0.343		pCi/g						
Radium-224	UI	3.50	R,R5a	1.09	+/-0.559		pCi/g						
Radium-226		0.869		0.0931	+/-0.067		pCi/g						
Radium-228		1.12		0.166	+/-0.130	0.500	pCi/g						
Ruthenium-106	U	0.0209		0.443	+/-0.132	0.800	pCi/g						
Sodium-22	U	-0.0461		0.046	+/-0.0157	0.080	pCi/g						
Strontium-85	UI	0.0766	R,R5a	0.0585	+/-0.0177		pCi/g						
Thallium-208		0.390		0.0465	+/-0.0336	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7959
Sample ID: 246020011
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	UI	0.838	R,R5a	0.725	+/-0.232		pCi/g						
Thorium-231	U	-0.524		0.967	+/-0.343		pCi/g						
Thorium-234		133		4.50	+/-12.0	2.00	pCi/g						
Tin-113	U	0.00752		0.0689	+/-0.0195	0.100	pCi/g						
Uranium-235		2.54		0.446	+/-0.286	0.500	pCi/g						
Yttrium-88	U	-0.033		0.0359	+/-0.0131	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		17300		205	+/-1220	250	pCi/L		KXK2	02/17/10	1858	951366	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	82.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7969
Sample ID: 246020012
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00137		0.0499	+/-0.00444	0.050	pCi/g		CXM2	02/23/10	1325	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00913		0.0497	+/-0.00682	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240		0.0517		0.0374	+/-0.0128	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		2.23		0.0313	+/-0.163	0.100	pCi/g		CXM2	02/24/10	1302	951672	3
Uranium-235/236		0.305		0.020	+/-0.0303	0.100	pCi/g						
Uranium-238		14.7		0.0214	+/-1.03	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.374		0.476	+/-0.146	0.200	pCi/g		MXR1	02/13/10	1657	948751	4
Bismuth-211	UI	2.37	R,R5a	0.338	+/-0.237		pCi/g						
Bismuth-214	UI	0.732		0.249	+/-0.0731	0.200	pCi/g						
Cadmium-109	UI	2.17		2.02	+/-0.644		pCi/g						
Cerium-139	U	-0.0401		0.0565	+/-0.0175	0.050	pCi/g						
Cesium-134	U	0.0781		0.0942	+/-0.025	0.100	pCi/g						
Cesium-137		0.105		0.0598	+/-0.0266	0.100	pCi/g						
Cobalt-60	U	0.0149		0.0617	+/-0.0178	0.100	pCi/g						
Europium-152	U	-0.0047		0.171	+/-0.0652	0.200	pCi/g						
Lanthanum-140	U	-0.057		0.125	+/-0.0425		pCi/g						
Lead-212		1.15		0.0958	+/-0.064	0.100	pCi/g						
Lead-214		0.824		0.118	+/-0.0851	0.100	pCi/g						
Mercury-203	U	-0.00276		0.0764	+/-0.0219	0.100	pCi/g						
Potassium-40		19.3		0.526	+/-1.07	1.00	pCi/g						
Radium-223	U	-0.411		1.11	+/-0.383		pCi/g						
Radium-224	UI	3.01	R,R5a	1.09	+/-0.429		pCi/g						
Radium-226	UI	0.732	R,R5a	0.249	+/-0.0731		pCi/g						
Radium-228		0.930		0.215	+/-0.159	0.500	pCi/g						
Ruthenium-106	U	-0.259		0.558	+/-0.178	0.800	pCi/g						
Sodium-22	U	-0.000945		0.0705	+/-0.0216	0.080	pCi/g						
Strontium-85	U	0.0332		0.0643	+/-0.0204		pCi/g						
Thallium-208		0.376		0.057	+/-0.0367	0.080	pCi/g						

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Certificate of Analysis

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7969
Sample ID: 246020012
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.332	0.725	+/-0.240		pCi/g						
Thorium-231	U	-0.411	1.11	+/-0.383		pCi/g						
Thorium-234		34.5	3.50	+/-3.64	2.00	pCi/g						
Tin-113	U	0.0141	0.0736	+/-0.021	0.100	pCi/g						
Uranium-235		0.491	0.410	+/-0.197	0.500	pCi/g						
Yttrium-88	U	-0.0168	0.0364	+/-0.0134	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		34100	224	+/-2400	250	pCi/L		KXK2	02/17/10	2036	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8061
Sample ID: 246020013
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241		0.0596		0.0199	+/-0.00936	0.050	pCi/g		JXD2	02/13/10	1115	949827	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0132		0.032	+/-0.00544	0.050	pCi/g		JXD2	02/11/10	1020	949828	2
Plutonium-239/240		0.142		0.0242	+/-0.0196	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		45.8		2.29	+/-5.26	0.100	pCi/g		JXD2	02/21/10	1045	953461	3
Uranium-235/236		7.32		1.50	+/-1.26	0.100	pCi/g						
Uranium-238		359		1.59	+/-37.7	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	UI	1.10	R,R5a	0.503	+/-0.159	0.200	pCi/g		MXR1	02/13/10	1959	948751	6
Bismuth-211	UI	2.33	R,R5a	0.310	+/-0.202		pCi/g						
Bismuth-214		0.844		0.0986	+/-0.0812	0.200	pCi/g						
Cadmium-109	UI	5.01	R,R5a	3.07	+/-1.24		pCi/g						
Cerium-139	U	0.0223		0.0646	+/-0.0214	0.050	pCi/g						
Cesium-134	UI	0.172	R,R5a	0.0793	+/-0.0371	0.100	pCi/g						
Cesium-137		0.211		0.0586	+/-0.0275	0.100	pCi/g						
Cobalt-60	U	0.0148		0.0372	+/-0.0108	0.100	pCi/g						
Europium-152	U	-0.00507		0.149	+/-0.0447	0.200	pCi/g						
Lanthanum-140	U	-0.0334		0.0903	+/-0.0288		pCi/g						
Lead-212		1.01		0.0985	+/-0.0669	0.100	pCi/g						
Lead-214		0.812		0.106	+/-0.0734	0.100	pCi/g						
Mercury-203	U	0.0369		0.070	+/-0.0197	0.100	pCi/g						
Potassium-40		20.4		0.329	+/-1.01	1.00	pCi/g						
Radium-223	U	-0.304		1.01	+/-0.296		pCi/g						
Radium-224	UI	1.55	R,R5a	1.11	+/-0.344		pCi/g						
Radium-226		0.844		0.0986	+/-0.0812		pCi/g						
Radium-228		1.09		0.155	+/-0.117	0.500	pCi/g						
Ruthenium-106	U	0.0508		0.476	+/-0.144	0.800	pCi/g						
Sodium-22	U	-0.00673		0.0415	+/-0.013	0.080	pCi/g						
Strontium-85	UI	0.0648	R,R5a	0.0583	+/-0.0188		pCi/g						
Thallium-208		0.314		0.055	+/-0.035	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8061
Sample ID: 246020013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	UI	1.10	R,R5a	0.730	+/-0.244		pCi/g						
Thorium-231	U	-0.304		1.01	+/-0.296		pCi/g						
Thorium-234		351		3.80	+/-30.6	2.00	pCi/g						
Tin-113	U	-0.0218		0.0686	+/-0.0204	0.100	pCi/g						
Uranium-235		5.49		0.472	+/-0.527	0.500	pCi/g						
Yttrium-88	U	0.016		0.0341	+/-0.0105	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		4.80E+05		762	+/-33800	250	pCi/L		KXK2	02/17/10	2148	951366	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	91.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	63.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8063
Sample ID: 246020014
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 18.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0101		0.021	+/-0.00491	0.050	pCi/g		JXD2	02/13/10	1115	949827	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.0053		0.0381	+/-0.00373	0.050	pCi/g		JXD2	02/11/10	1020	949828	2
Plutonium-239/240	U	0.00521		0.0289	+/-0.00492	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.88		0.0601	+/-0.145	0.100	pCi/g		JXD2	02/18/10	1841	953461	3
Uranium-235/236		0.150		0.0383	+/-0.0234	0.100	pCi/g						
Uranium-238		6.05		0.041	+/-0.430	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.180		0.312	+/-0.095	0.200	pCi/g		MXR1	02/14/10	1107	948751	5
Bismuth-211	UI	3.92	R,R5a	0.325	+/-0.284		pCi/g						
Bismuth-214		0.989		0.119	+/-0.0935	0.200	pCi/g						
Cadmium-109	UI	2.21	R,R5a	1.65	+/-0.455		pCi/g						
Cerium-139	U	0.0262		0.0547	+/-0.0148	0.050	pCi/g						
Cesium-134	U	0.0858		0.0939	+/-0.0314	0.100	pCi/g						
Cesium-137	U	0.0451		0.0762	+/-0.0208	0.100	pCi/g						
Cobalt-60	U	-0.0104		0.0645	+/-0.0198	0.100	pCi/g						
Europium-152	U	0.0344		0.163	+/-0.0532	0.200	pCi/g						
Lanthanum-140	U	-0.046		0.162	+/-0.0526		pCi/g						
Lead-212		1.52		0.0885	+/-0.095	0.100	pCi/g						
Lead-214		1.36		0.113	+/-0.105	0.100	pCi/g						
Mercury-203	U	0.00198		0.077	+/-0.0222	0.100	pCi/g						
Potassium-40		22.1		0.608	+/-1.27	1.00	pCi/g						
Radium-223	U	-0.636		1.12	+/-0.401		pCi/g						
Radium-224	UI	4.61	R,R5a	1.01	+/-0.659		pCi/g						
Radium-226		0.989		0.119	+/-0.0935		pCi/g						
Radium-228		1.53		0.215	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.0461		0.541	+/-0.159	0.800	pCi/g						
Sodium-22	U	0.0135		0.0689	+/-0.0197	0.080	pCi/g						
Strontium-85	UI	0.111	R,R5a	0.0776	+/-0.0223		pCi/g						
Thallium-208		0.439		0.0623	+/-0.0448	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8063
Sample ID: 246020014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0149	0.661	+/-0.190		pCi/g						
Thorium-231	U	-0.636	1.12	+/-0.401		pCi/g						
Thorium-234		5.27	2.46	+/-1.25	2.00	pCi/g						
Tin-113	U	0.0156	0.0814	+/-0.0236	0.100	pCi/g						
Uranium-235	U	0.071	0.359	+/-0.171	0.500	pCi/g						
Yttrium-88	U	0.00616	0.0493	+/-0.0144	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1210	204	+/-117	250	pCi/L		KXK2	02/17/10	2156	951366	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8062
Sample ID: 246020015
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.48%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00105		0.0229	+/-0.00237	0.050	pCi/g		JXD2	02/13/10	1115	949827	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00247		0.0362	+/-0.00395	0.050	pCi/g		JXD2	02/11/10	1020	949828	2
Plutonium-239/240	U	0.00123		0.0275	+/-0.0028	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.00		0.0654	+/-0.0856	0.100	pCi/g		JXD2	02/18/10	1841	953461	3
Uranium-235/236		0.122		0.0417	+/-0.0215	0.100	pCi/g						
Uranium-238		3.22		0.0447	+/-0.239	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0373		0.353	+/-0.113	0.200	pCi/g		MXR1	02/14/10	1108	948751	5
Bismuth-211	U1	3.76	R,R5a	0.388	+/-0.261		pCi/g						
Bismuth-214		1.13		0.120	+/-0.0891	0.200	pCi/g						
Cadmium-109	UI	3.49	R,R5a	1.42	+/-0.561		pCi/g						
Cerium-139	U	-0.029		0.0562	+/-0.0172	0.050	pCi/g						
Cesium-134	U	0.0993		0.112	+/-0.0366	0.100	pCi/g						
Cesium-137	U	-0.00339		0.0737	+/-0.0225	0.100	pCi/g						
Cobalt-60	U	-0.00941		0.0708	+/-0.0223	0.100	pCi/g						
Europium-152	U	-0.023		0.192	+/-0.0687	0.200	pCi/g						
Lanthanum-140	U	-0.194		0.127	+/-0.0552		pCi/g						
Lead-212		1.68		0.107	+/-0.086	0.100	pCi/g						
Lead-214		1.31		0.141	+/-0.0971	0.100	pCi/g						
Mercury-203	U	0.0817		0.091	+/-0.0275	0.100	pCi/g						
Potassium-40		36.1		0.590	+/-1.59	1.00	pCi/g						
Radium-223	U	0.799		1.32	+/-0.414		pCi/g						
Radium-224	UI	4.91	R,R5a	1.22	+/-0.763		pCi/g						
Radium-226		1.13		0.120	+/-0.0891		pCi/g						
Radium-228		1.61		0.239	+/-0.168	0.500	pCi/g						
Ruthenium-106	U	0.228		0.635	+/-0.183	0.800	pCi/g						
Sodium-22	U	0.0153		0.097	+/-0.0289	0.080	pCi/g						
Strontium-85	U	0.0535		0.0789	+/-0.0248		pCi/g						
Thallium-208		0.524		0.0648	+/-0.0516	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8062
Sample ID: 246020015

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0441	0.772	+/-0.234		pCi/g						
Thorium-231	U	0.799	1.32	+/-0.414		pCi/g						
Thorium-234		7.15	2.73	+/-1.58	2.00	pCi/g						
Tin-113	U	-0.0556	0.0854	+/-0.0267	0.100	pCi/g						
Uranium-235	U	-0.0414	0.415	+/-0.122	0.500	pCi/g						
Yttrium-88	U	0.00723	0.0629	+/-0.0184	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	84.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

CLL
3/11/10

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1515C

REQUEST NUMBER: 10-1515

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246020

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7980	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7980	1	POLY	H3	Ice	R
RE15-10-7958	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7958	1	POLY	H3	Ice	R
RE15-10-7960	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7960	1	POLY	H3	Ice	R
RE15-10-7979	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7979	1	POLY	H3	Ice	R
RE15-10-7972	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7972	1	POLY	H3	Ice	R
RE15-10-7957	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7957	1	POLY	H3	Ice	R
RE15-10-7974	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7974	1	POLY	H3	Ice	R
RE15-10-7961	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7961	1	POLY	H3	Ice	R
RE15-10-7971	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7971	1	POLY	H3	Ice	R
RE15-10-7966	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7966	1	POLY	H3	Ice	R
RE15-10-7959	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7959	1	POLY	H3	Ice	R
RE15-10-7969	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7969	1	POLY	H3	Ice	R
RE15-10-8061	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8061	1	POLY	H3	Ice	R
RE15-10-8063	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1515C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8063	1	POLY	H3	Ice	R
RE15-10-8062	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
		2/1/10	3:00	Dionne Franco		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1515
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	EPA:906.0	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:AM-241	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:ISOPU	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:ISOU	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	

Final Page of REQUEST NUMBER 10-1515

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178
www.gel.com

February 09, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 246020
SDG: 10-1515

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1515
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 246020
SDG: 10-1515

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 20

Radiological Analysis..... 22
- Sample Data Summary.....42
- Quality Control Data.....89
- Raw Data..... 98
- Background and Efficiency Data.....1034
- Standards Data.....1243
- Runlogs.....1278

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246020
SDG # : 10-1515

February 09, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13-15,19C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
246020001	RE15-10-7980
246020002	RE15-10-7958
246020003	RE15-10-7960
246020004	RE15-10-7979
246020005	RE15-10-7972
246020006	RE15-10-7957
246020007	RE15-10-7974
246020008	RE15-10-7961
246020009	RE15-10-7971
246020010	RE15-10-7966
246020011	RE15-10-7959
246020012	RE15-10-7969
246020013	RE15-10-8061
246020014	RE15-10-8063
246020015	RE15-10-8062

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 09 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1515C

REQUEST NUMBER: 10-1515

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246020

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7980	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7980	1	POLY	H3	Ice	R
RE15-10-7958	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7958	1	POLY	H3	Ice	R
RE15-10-7960	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7960	1	POLY	H3	Ice	R
RE15-10-7979	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7979	1	POLY	H3	Ice	R
RE15-10-7972	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7972	1	POLY	H3	Ice	R
RE15-10-7957	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7957	1	POLY	H3	Ice	R
RE15-10-7974	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7974	1	POLY	H3	Ice	R
RE15-10-7961	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7961	1	POLY	H3	Ice	R
RE15-10-7971	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7971	1	POLY	H3	Ice	R
RE15-10-7966	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7966	1	POLY	H3	Ice	R
RE15-10-7959	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7959	1	POLY	H3	Ice	R
RE15-10-7969	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7969	1	POLY	H3	Ice	R
RE15-10-8061	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-8061	1	POLY	H3	Ice	R
RE15-10-8063	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1515C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8063	1	POLY	H3	Ice	R
RE15-10-8062	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/1/10	3:00	Dionne Francis		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1515
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	EPA:906.0	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:AM-241	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:ISOPU	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	HASL-300:ISOU	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1515

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	

Final Page of REQUEST NUMBER 10-1515

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1515**
Received By: Dionne Francis	**Date Received: February 2, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C 7209 7849 7886 2C 7209 7849 7967 3C 7209 7849 7739 19C
7209 7849 7772 1C 7209 7849 7901 2C 7209 7849 7945 4C
7209 7849 7934 1C 7209 7849 7853 2C 7209 7849 7810 5C
7209 7849 7831 1C 7209 7849 7875 2C 7209 7849 7897 5C
7209 7849 7783 1C 7209 7849 7956 2C 7209 7849 7728 13C
7209 7849 7864 1C 7209 7849 7794 2C 7209 7849 7706 13C
7209 7849 7923 1C 7209 7849 7820 2C 7209 7849 7717 14C
7209 7849 7761 1C 7209 7849 7809 2C 7209 7849 7750 15C
7209 7849 7842 1C 7209 7849 7912 3C 7209 7849 7740 15C

PM (or PMA) review: Initials GRT Date 2-3-10

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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Part # 156148-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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(843) 556-8171
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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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CHS

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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
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Part # 156148-434 NRT V3.04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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Mstr# 7209 7[illegible] 7853 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
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Part # 156148-434 NRT V3.04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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MPS# 0263 7209 7849 7923
Mstr# 7209 7849 7912 0201

TUE - 02 FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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MPS# 0263 7209 7849 7842
Matr# 7209 7849 7831 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

Part # 156148-434 NAIT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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FedEx Express

2 of 2
MPS# 0263 7209 7849 7886
Matr# 7209 7849 7875 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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FedEx Express

2 of 2
MPS# 0263 7209 7849 7901
Matr# 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7853
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TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7875
TUE - 02FEB A1
PRIORITY OVERNIGHT

MM MASTER MM

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29407
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Part # 158148-434 NRTT 0904-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7956
TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
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Part # 158148-434 NRTT 0904-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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FedEx Express

2 of 2
MPS# 0263 7209 7849 7794
Matrix 7209 7849 7783 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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3 of 3
MPS# 0263 7209 7849 7820
Matrix 7209 7849 7809 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

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LOS ALAMOS, NM 87545
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GENERAL ENGINEERING LAB
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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 3

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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CHARLESTON SC 29407
(843) 556-8171
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TUE - 02FEB A1

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Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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IGIN ID: SAFA (505) 665-9968
YLENE VALDEZ
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SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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TUE - 02FEB A1
PRIORITY OVERNIGHT

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CHS

Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
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REF: 6B010AMR1A015AGWK0

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TUE - 02FEB A1
PRIORITY OVERNIGHT

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Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 03FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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TRK# 0201 7209 7849 7728
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YD0

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2 of 3
MPS# 0263 7209 7849 7706
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR2A05158YDO

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TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

Part # 156143-434 NAIT V3.04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR2A05158YDO

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MPS# 0263 7209 7849 7750
Mstr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156143-434 NAIT V3.04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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1 of 2
TRK# 0201 7209 7849 7740
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YDO

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FedEx Express

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MPS# 0263 7209 7849 7739
Mstr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1515

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949827
Prep Batch Number:	948544

Sample ID	Client ID
246020013	RE15-10-8061
246020014	RE15-10-8063
246020015	RE15-10-8062
1202035013	Method Blank (MB)
1202035014	246020013(RE15-10-8061) Sample Duplicate (DUP)
1202035015	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035013 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020013 (RE15-10-8061). The QC was from LANL work order

246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	951665
Prep Batch Number:	948543

Sample ID	Client ID
246020001	RE15-10-7980
246020002	RE15-10-7958
246020003	RE15-10-7960
246020004	RE15-10-7979
246020005	RE15-10-7972

246020006	RE15-10-7957
246020007	RE15-10-7974
246020008	RE15-10-7961
246020009	RE15-10-7971
246020010	RE15-10-7966
246020011	RE15-10-7959
246020012	RE15-10-7969
1202039541	Method Blank (MB)
1202039542	246020001(RE15-10-7980) Sample Duplicate (DUP)
1202039543	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202039541 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020001 (RE15-10-7980). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 246020003 (RE15-10-7960) and 246020006 (RE15-10-7957) were recounted to verify activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202039543 (LCS), did not meet the client tracer yield requirements, however it is equal to 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949828
Prep Batch Number:	948544

Sample ID	Client ID
246020013	RE15-10-8061
246020014	RE15-10-8063
246020015	RE15-10-8062
1202035016	Method Blank (MB)
1202035017	246020013(RE15-10-8061) Sample Duplicate (DUP)
1202035018	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using

mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035016 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020013 (RE15-10-8061). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202035017 (RE15-10-8061), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	951669
Prep Batch Number:	948543

Sample ID	Client ID
246020001	RE15-10-7980
246020002	RE15-10-7958
246020003	RE15-10-7960
246020004	RE15-10-7979
246020005	RE15-10-7972
246020006	RE15-10-7957
246020007	RE15-10-7974
246020008	RE15-10-7961
246020009	RE15-10-7971
246020010	RE15-10-7966
246020011	RE15-10-7959
246020012	RE15-10-7969
1202039555	Method Blank (MB)
1202039556	246020001(RE15-10-7980) Sample Duplicate (DUP)
1202039557	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202039555 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020001 (RE15-10-7980). The QC was from LANL work order

246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 1202039556 (RE15-10-7980) and 246020007 (RE15-10-7974) were recounted due to high MDAs.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	951672
Prep Batch Number:	948543

Sample ID	Client ID
246020001	RE15-10-7980
246020002	RE15-10-7958
246020004	RE15-10-7979
246020005	RE15-10-7972
246020007	RE15-10-7974

246020008	RE15-10-7961
246020009	RE15-10-7971
246020010	RE15-10-7966
246020012	RE15-10-7969
1202039558	Method Blank (MB)
1202039559	246020001(RE15-10-7980) Sample Duplicate (DUP)
1202039560	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202039558 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020001 (RE15-10-7980). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U233/234 and U235 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U238 blank result is greater than the decision level and MDA; however, all sample activities are greater than five time the blank activity.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	953461
Prep Batch Number:	948544

Sample ID	Client ID
246020013	RE15-10-8061
246020014	RE15-10-8063
246020015	RE15-10-8062
1202043974	Method Blank (MB)
1202043975	246020015(RE15-10-8062) Sample Duplicate (DUP)
1202043976	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry

All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202043974 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020015 (RE15-10-8062). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-238 blank, 1202043974 (MB), results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to the high level of activity in the Quality Control sample. Sample 246020013 (RE15-10-8061) was recounted for a shorter count time to reduce the effects of tailing from U-238 activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 793968 was generated due to Other. 1. Sample 246020013 does not meet the resolution requirement of having a full width half maximum of 100 keV or less. 1. Sample does meet the client's tracer yield requirement of 50 - 105%, and tracer counts are within the expected region of interest. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234 and U-238 blank, 1202043974 (MB), results are greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified

Prep Method: Dry Soil Prep

Analytical Batch Number: 957637

Prep Batch Number: 948543

Sample ID	Client ID
246020003	RE15-10-7960
246020006	RE15-10-7957
246020011	RE15-10-7959
1202053428	Method Blank (MB)
1202053429	246020003(RE15-10-7960) Sample Duplicate (DUP)
1202053430	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202053428 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020003 (RE15-10-7960). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U233/234, U235 and U238 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202053428 (MB) was recounted due to a peak shift. Samples 246020003 (RE15-10-7960), 246020006 (RE15-10-7957) and 246020011 (RE15-10-7959) were reprepped with reduced aliquot size due to high activity levels.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U238 blank result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	948751
Prep Batch Number:	948543

Sample ID	Client ID
246020001	RE15-10-7980
246020002	RE15-10-7958
246020003	RE15-10-7960
246020004	RE15-10-7979
246020005	RE15-10-7972
246020006	RE15-10-7957
246020007	RE15-10-7974
246020008	RE15-10-7961
246020009	RE15-10-7971
246020010	RE15-10-7966
246020011	RE15-10-7959
246020012	RE15-10-7969
246020013	RE15-10-8061
246020014	RE15-10-8063
246020015	RE15-10-8062
1202032579	Method Blank (MB)

1202032580 246020001(RE15-10-7980) Sample Duplicate (DUP)
1202032581 Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, April 2009, May 2009, June 2009, July 2009, August 2009, November 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 246020001 (RE15-10-7980). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank 1202032579 (MB) result is greater than 1.65 times the CSU but less than the MDC for Bi-211, La-140, Pb-214, Ra-224, and Na-22.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank 1202032579 (MB) result is greater than the decision level but less than the MDC for Bi-211, Pb-214, and Ra-224.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to high peak-width.	Cesium-137	246020008	RE15-10-7961
UI	Data rejected due to interference.	Bismuth-211	246020001	RE15-10-7980
			246020002	RE15-10-7958
			246020003	RE15-10-7960
			246020004	RE15-10-7979
			246020005	RE15-10-7972
			246020006	RE15-10-7957
			246020007	RE15-10-7974
			246020008	RE15-10-7961
			246020009	RE15-10-7971
			246020010	RE15-10-7966
			246020011	RE15-10-7959
			246020012	RE15-10-7969
			246020013	RE15-10-8061
			246020014	RE15-10-8063
			246020015	RE15-10-8062
			1202032580	RE15-10-7980(246020001DUP)
		Cadmium-109	246020001	RE15-10-7980
			246020004	RE15-10-7979
			246020005	RE15-10-7972
			246020007	RE15-10-7974
			246020009	RE15-10-7971
			246020010	RE15-10-7966
			246020012	RE15-10-7969
			246020015	RE15-10-8062

			1202032580	RE15-10-7980(246020001DUP)
		Radium-224	246020001	RE15-10-7980
			246020002	RE15-10-7958
			246020003	RE15-10-7960
			246020004	RE15-10-7979
			246020005	RE15-10-7972
			246020006	RE15-10-7957
			246020007	RE15-10-7974
			246020008	RE15-10-7961
			246020009	RE15-10-7971
			246020010	RE15-10-7966
			246020011	RE15-10-7959
			246020012	RE15-10-7969
			246020013	RE15-10-8061
			246020014	RE15-10-8063
			246020015	RE15-10-8062
			1202032580	RE15-10-7980(246020001DUP)
UI	Data rejected due to low abundance.	Americium-241	246020002	RE15-10-7958
			246020006	RE15-10-7957
			246020013	RE15-10-8061
		Bismuth-214	246020012	RE15-10-7969
		Cadmium-109	246020003	RE15-10-7960
			246020013	RE15-10-8061
			246020014	RE15-10-8063
		Cesium-134	246020002	RE15-10-7958
			246020005	RE15-10-7972
			246020007	RE15-10-7974
			246020008	RE15-10-7961
			246020009	RE15-10-7971
			246020010	RE15-10-7966
			246020011	RE15-10-7959
			246020013	RE15-10-8061

		Cesium-137	246020003	RE15-10-7960
		Lead-212	246020003	RE15-10-7960
			246020006	RE15-10-7957
		Radium-226	246020012	RE15-10-7969
		Strontium-85	246020002	RE15-10-7958
			246020007	RE15-10-7974
			246020009	RE15-10-7971
			246020011	RE15-10-7959
			246020013	RE15-10-8061
			246020014	RE15-10-8063
		Thorium-227	246020002	RE15-10-7958
			246020006	RE15-10-7957
			246020011	RE15-10-7959
			246020013	RE15-10-8061
UI	Data rejected due to no valid peak.	Cesium-137	246020009	RE15-10-7971

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	951366

Sample ID	**Client ID**
246020001	RE15-10-7980
246020002	RE15-10-7958
246020003	RE15-10-7960
246020004	RE15-10-7979
246020005	RE15-10-7972
246020006	RE15-10-7957
246020007	RE15-10-7974
246020008	RE15-10-7961
246020009	RE15-10-7971
246020010	RE15-10-7966
246020011	RE15-10-7959
246020012	RE15-10-7969
246020013	RE15-10-8061

246020014	RE15-10-8063
1202038814	Method Blank (MB)
1202038815	246020002(RE15-10-7958) Sample Duplicate (DUP)
1202038816	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 246020002 (RE15-10-7958). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted to verify sample activity. Original count being reported.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 3/1/2010

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-FEB-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, U-02-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
953461	See below		

Potentially affected work order(s)(SDG): 245994(10-1516),246008(10-1521),246020(10-1515)

Application Issues:

Other

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 246020013 does not meet the resolution requirement of having a full width half maximum of 100 keV or less.	1. Sample does meet the client's tracer yield requirement of 50 - 105%, and tracer counts are within the expected region of interest. Reporting results.

Originator's Name:

Joseph Moulden 22-FEB-10

Data Validator/Group Leader:

Mary Aders 22-FEB-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1515 GEL Work Order: 246020

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Theresa L Austin

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID:	RE15-10-7980	Project:	LANL01004
Sample ID:	246020001	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	4.62%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00156	0.0485	+/-0.00778	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0511	+/-0.00443	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00626	0.0385	+/-0.00443	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.249	0.0366	+/-0.0258	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236	U	0.0215	0.0233	+/-0.00687	0.100	pCi/g						
Uranium-238		0.316	0.025	+/-0.0308	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0454	0.217	+/-0.0726	0.200	pCi/g		MXR1	02/13/10	1452	948751	4
Bismuth-211	UI	4.16	0.271	+/-0.313		pCi/g						
Bismuth-214		1.21	0.105	+/-0.107	0.200	pCi/g						
Cadmium-109	UI	3.55	1.14	+/-0.526		pCi/g						
Cerium-139	U	-0.0152	0.0433	+/-0.0129	0.050	pCi/g						
Cesium-134	U	0.067	0.0801	+/-0.0213	0.100	pCi/g						
Cesium-137	U	-0.0106	0.0572	+/-0.0178	0.100	pCi/g						
Cobalt-60	U	-0.0226	0.0549	+/-0.0184	0.100	pCi/g						
Europium-152	U	0.0488	0.146	+/-0.0419	0.200	pCi/g						
Lanthanum-140	U	-0.0265	0.144	+/-0.0451		pCi/g						
Lead-212		1.85	0.0802	+/-0.123	0.100	pCi/g						
Lead-214		1.45	0.0943	+/-0.115	0.100	pCi/g						
Mercury-203	U	0.0172	0.0657	+/-0.0194	0.100	pCi/g						
Potassium-40		37.2	0.518	+/-1.89	1.00	pCi/g						
Radium-223	U	0.0562	0.999	+/-0.343		pCi/g						
Radium-224	UI	5.55	0.913	+/-0.688		pCi/g						
Radium-226		1.21	0.105	+/-0.107		pCi/g						
Radium-228		1.94	0.188	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	0.0968	0.506	+/-0.149	0.800	pCi/g						
Sodium-22	U	-0.00228	0.0732	+/-0.0226	0.080	pCi/g						
Strontium-85	U	0.0147	0.0561	+/-0.0183		pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7980
Sample ID: 246020001
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.495	0.054	+/-0.0433	0.080	pCi/g						
Thorium-227	U	-0.226	0.575	+/-0.181		pCi/g						
Thorium-231	U	0.0562	0.999	+/-0.343		pCi/g						
Thorium-234		2.23	1.84	+/-0.962	2.00	pCi/g						
Tin-113	U	-0.0223	0.0614	+/-0.0186	0.100	pCi/g						
Uranium-235	U	-0.0519	0.328	+/-0.0962	0.500	pCi/g						
Yttrium-88	U	-0.00389	0.0459	+/-0.0144	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		567	206	+/-81.7	250	pCi/L		KXK2	02/17/10	0705	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7980
Sample ID: 246020001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7958
Sample ID: 246020002
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 19.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.0173	0.0511	+/-0.0131	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00309	0.0505	+/-0.00818	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00	0.038	+/-0.00437	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.279	0.0362	+/-0.0281	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236	U	0.023	0.0231	+/-0.00659	0.100	pCi/g						
Uranium-238		0.403	0.0247	+/-0.0371	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	UI	1.13	0.939	+/-0.290	0.200	pCi/g		MXR1	02/13/10	1452	948751	4
Bismuth-211	UI	2.91	0.398	+/-0.253		pCi/g						
Bismuth-214		0.946	0.130	+/-0.0886	0.200	pCi/g						
Cadmium-109	U	2.83	4.51	+/-1.83		pCi/g						
Cerium-139	U	0.0663	0.0858	+/-0.0269	0.050	pCi/g						
Cesium-134	UI	0.111	0.0981	+/-0.0279	0.100	pCi/g						
Cesium-137		0.155	0.0717	+/-0.0379	0.100	pCi/g						
Cobalt-60	U	0.00655	0.0524	+/-0.0157	0.100	pCi/g						
Europium-152	U	-0.113	0.191	+/-0.0693	0.200	pCi/g						
Lanthanum-140	U	-0.022	0.136	+/-0.0421		pCi/g						
Lead-212		1.10	0.124	+/-0.0648	0.100	pCi/g						
Lead-214		1.01	0.139	+/-0.0918	0.100	pCi/g						
Mercury-203	U	0.00612	0.0896	+/-0.0266	0.100	pCi/g						
Potassium-40		21.0	0.432	+/-1.01	1.00	pCi/g						
Radium-223	U	-0.551	1.32	+/-0.410		pCi/g						
Radium-224	UI	3.03	1.41	+/-0.684		pCi/g						
Radium-226		0.946	0.130	+/-0.0886		pCi/g						
Radium-228		1.11	0.197	+/-0.124	0.500	pCi/g						
Ruthenium-106	U	-0.258	0.590	+/-0.186	0.800	pCi/g						
Sodium-22	U	-0.0129	0.0576	+/-0.018	0.080	pCi/g						
Strontium-85	UI	0.0909	0.0789	+/-0.0251		pCi/g						
Thallium-208		0.463	0.0694	+/-0.0469	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7958
Sample ID: 246020002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	UI	1.40	0.970	+/-0.324		pCi/g						
Thorium-231	U	-0.551	1.32	+/-0.410		pCi/g						
Thorium-234		351	6.75	+/-31.3	2.00	pCi/g						
Tin-113	U	-0.0293	0.0883	+/-0.0262	0.100	pCi/g						
Uranium-235		5.41	0.617	+/-0.555	0.500	pCi/g						
Yttrium-88	U	0.025	0.0477	+/-0.0145	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		8.17E+05	1040	+/-57500	250	pCi/L		KXK2	02/17/10	0841	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7958
Sample ID: 246020002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7960
Sample ID: 246020003
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 6.69%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.0731	0.0494	+/-0.0157	0.050	pCi/g		CXM2	02/24/10	2000	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0153	0.050	+/-0.00688	0.050	pCi/g		CXM2	02/23/10	1308	951669	3
Plutonium-239/240		0.303	0.0376	+/-0.0345	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		11.0	0.320	+/-0.899	0.100	pCi/g		CXM2	02/26/10	2340	957637	4
Uranium-235/236		1.08	0.204	+/-0.153	0.100	pCi/g						
Uranium-238		57.7	0.219	+/-4.39	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.496	0.536	+/-0.163	0.200	pCi/g		MXR1	02/13/10	1453	948751	6
Bismuth-211	UI	3.26	0.360	+/-0.230		pCi/g						
Bismuth-214		0.911	0.118	+/-0.0815	0.200	pCi/g						
Cadmium-109	UI	3.68	2.69	+/-1.12		pCi/g						
Cerium-139	U	-0.0116	0.062	+/-0.021	0.050	pCi/g						
Cesium-134	U	0.0577	0.0912	+/-0.0279	0.100	pCi/g						
Cesium-137	UI	0.0883	0.088	+/-0.0239	0.100	pCi/g						
Cobalt-60	U	0.0508	0.0772	+/-0.0207	0.100	pCi/g						
Europium-152	U	-0.102	0.175	+/-0.0658	0.200	pCi/g						
Lanthanum-140	U	-0.0758	0.135	+/-0.0464		pCi/g						
Lead-212	UI	1.43	0.233	+/-0.0753	0.100	pCi/g						
Lead-214		1.13	0.126	+/-0.0852	0.100	pCi/g						
Mercury-203	U	0.0412	0.0823	+/-0.0226	0.100	pCi/g						
Potassium-40		29.9	0.490	+/-1.46	1.00	pCi/g						
Radium-223	U	-0.688	1.24	+/-0.436		pCi/g						
Radium-224	UI	2.94	1.22	+/-0.666		pCi/g						
Radium-226		0.911	0.118	+/-0.0815		pCi/g						
Radium-228		1.19	0.221	+/-0.176	0.500	pCi/g						
Ruthenium-106	U	-0.343	0.545	+/-0.177	0.800	pCi/g						
Sodium-22	U	0.0197	0.0863	+/-0.0253	0.080	pCi/g						
Strontium-85	U	0.0526	0.0732	+/-0.0228		pCi/g						
Thallium-208		0.479	0.0665	+/-0.0447	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7960
Sample ID: 246020003
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.536	0.797	+/-0.231		pCi/g						
Thorium-231	U	-0.688	1.24	+/-0.436		pCi/g						
Thorium-234		52.0	3.99	+/-5.13	2.00	pCi/g						
Tin-113	U	-0.0457	0.0816	+/-0.025	0.100	pCi/g						
Uranium-235		1.00	0.460	+/-0.217	0.500	pCi/g						
Yttrium-88	U	0.00875	0.058	+/-0.0167	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.73E+05	441	+/-12200	250	pCi/L		KXK2	02/17/10	0845	951366	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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> Result is greater than value reported
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7960
Sample ID: 246020003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

Certificate of Analysis

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7979
Sample ID: 246020004
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 25.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00723	0.0461	+/-0.00616	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00613	0.0501	+/-0.00435	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.0184	0.0377	+/-0.00973	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.57	0.0392	+/-0.121	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236		0.113	0.025	+/-0.0168	0.100	pCi/g						
Uranium-238		4.15	0.0268	+/-0.304	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0978	0.306	+/-0.0947	0.200	pCi/g		MXR1	02/13/10	1626	948751	4
Bismuth-211	UI	3.67	0.340	+/-0.265		pCi/g						
Bismuth-214		1.25	0.113	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	2.54	1.50	+/-0.539		pCi/g						
Cerium-139	U	-0.00369	0.055	+/-0.0154	0.050	pCi/g						
Cesium-134	U	0.0581	0.0923	+/-0.0256	0.100	pCi/g						
Cesium-137		0.130	0.0646	+/-0.0355	0.100	pCi/g						
Cobalt-60	U	-0.00638	0.0648	+/-0.0197	0.100	pCi/g						
Europium-152	U	0.0778	0.175	+/-0.0554	0.200	pCi/g						
Lanthanum-140	U	-0.025	0.147	+/-0.0476		pCi/g						
Lead-212		1.34	0.0976	+/-0.0871	0.100	pCi/g						
Lead-214		1.28	0.119	+/-0.098	0.100	pCi/g						
Mercury-203	U	0.0447	0.0786	+/-0.0217	0.100	pCi/g						
Potassium-40		22.0	0.485	+/-1.24	1.00	pCi/g						
Radium-223	U	-0.349	1.15	+/-0.348		pCi/g						
Radium-224	UI	3.25	1.11	+/-0.571		pCi/g						
Radium-226		1.25	0.113	+/-0.103		pCi/g						
Radium-228		1.42	0.194	+/-0.174	0.500	pCi/g						
Ruthenium-106	U	-0.247	0.489	+/-0.153	0.800	pCi/g						
Sodium-22	U	0.00554	0.068	+/-0.0199	0.080	pCi/g						
Strontium-85	U	0.0576	0.0728	+/-0.0203		pCi/g						
Thallium-208		0.434	0.0582	+/-0.0388	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7979
Sample ID: 246020004
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.397	0.648	+/-0.199		pCi/g						
Thorium-231	U	-0.349	1.15	+/-0.348		pCi/g						
Thorium-234		7.82	2.39	+/-1.28	2.00	pCi/g						
Tin-113	U	-0.00715	0.078	+/-0.0233	0.100	pCi/g						
Uranium-235	U	0.139	0.397	+/-0.110	0.500	pCi/g						
Yttrium-88	U	-0.00149	0.0538	+/-0.0167	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1180	206	+/-116	250	pCi/L		KXK2	02/17/10	0903	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	94.0	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7979
Sample ID: 246020004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7972
Sample ID: 246020005
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 8.75%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00737	0.0475	+/-0.00471	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.0222	0.0518	+/-0.0114	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.0127	0.039	+/-0.00779	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.380	0.0381	+/-0.036	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236		0.0448	0.0243	+/-0.00967	0.100	pCi/g						
Uranium-238		1.34	0.026	+/-0.104	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.254	0.420	+/-0.126	0.200	pCi/g		MXR1	02/13/10	1626	948751	4
Bismuth-211	UI	3.20	0.329	+/-0.242		pCi/g						
Bismuth-214		1.10	0.120	+/-0.088	0.200	pCi/g						
Cadmium-109	UI	3.42	1.53	+/-0.601		pCi/g						
Cerium-139	U	-4.26E-05	0.0495	+/-0.0148	0.050	pCi/g						
Cesium-134	UI	0.111	0.0919	+/-0.0454	0.100	pCi/g						
Cesium-137	U	-0.0405	0.0657	+/-0.0206	0.100	pCi/g						
Cobalt-60	U	0.00613	0.0802	+/-0.0237	0.100	pCi/g						
Europium-152	U	-0.05	0.144	+/-0.0455	0.200	pCi/g						
Lanthanum-140	U	-0.0029	0.168	+/-0.0513		pCi/g						
Lead-212		1.71	0.0923	+/-0.0896	0.100	pCi/g						
Lead-214		1.11	0.116	+/-0.089	0.100	pCi/g						
Mercury-203	U	-0.00832	0.0718	+/-0.021	0.100	pCi/g						
Potassium-40		36.7	0.642	+/-1.65	1.00	pCi/g						
Radium-223	U	0.00215	1.16	+/-0.385		pCi/g						
Radium-224	UI	4.60	1.05	+/-0.677		pCi/g						
Radium-226		1.10	0.120	+/-0.088		pCi/g						
Radium-228		1.74	0.218	+/-0.183	0.500	pCi/g						
Ruthenium-106	U	0.214	0.574	+/-0.168	0.800	pCi/g						
Sodium-22	U	0.0124	0.0817	+/-0.0238	0.080	pCi/g						
Strontium-85	U	0.0434	0.0666	+/-0.0187		pCi/g						
Thallium-208		0.530	0.0637	+/-0.0419	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7972
Sample ID: 246020005
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0762	0.629	+/-0.183		pCi/g						
Thorium-231	U	0.00215	1.16	+/-0.385		pCi/g						
Thorium-234		4.40	3.16	+/-1.53	2.00	pCi/g						
Tin-113	U	-0.00377	0.0728	+/-0.0217	0.100	pCi/g						
Uranium-235	U	0.177	0.365	+/-0.105	0.500	pCi/g						
Yttrium-88	U	-0.000984	0.0522	+/-0.0163	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3350	205	+/-258	250	pCi/L		KXK2	02/17/10	1041	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	95.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	90.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	93.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
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- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7972
Sample ID: 246020005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7957
Sample ID: 246020006
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 22.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.0769	0.0418	+/-0.0158	0.050	pCi/g		CXM2	02/24/10	2000	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00288	0.047	+/-0.00288	0.050	pCi/g		CXM2	02/23/10	1308	951669	3
Plutonium-239/240		0.333	0.0353	+/-0.0355	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		36.4	0.590	+/-3.01	0.100	pCi/g		CXM2	02/26/10	2340	957637	4
Uranium-235/236		4.95	0.376	+/-0.544	0.100	pCi/g						
Uranium-238		269	0.403	+/-21.3	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	UI	1.03	0.950	+/-0.286	0.200	pCi/g		MXR1	02/13/10	1627	948751	6
Bismuth-211	UI	1.72	0.441	+/-0.273		pCi/g						
Bismuth-214		0.702	0.145	+/-0.0828	0.200	pCi/g						
Cadmium-109	U	0.269	4.57	+/-1.96		pCi/g						
Cerium-139	U	0.0412	0.0953	+/-0.0303	0.050	pCi/g						
Cesium-134	U	0.097	0.113	+/-0.0341	0.100	pCi/g						
Cesium-137	U	0.0364	0.0926	+/-0.0266	0.100	pCi/g						
Cobalt-60	U	0.0225	0.0668	+/-0.019	0.100	pCi/g						
Europium-152	U	-0.00606	0.220	+/-0.0715	0.200	pCi/g						
Lanthanum-140	U	-0.0175	0.134	+/-0.0412		pCi/g						
Lead-212	UI	0.818	0.212	+/-0.0571	0.100	pCi/g						
Lead-214		0.598	0.154	+/-0.0963	0.100	pCi/g						
Mercury-203	U	-0.00606	0.103	+/-0.0288	0.100	pCi/g						
Potassium-40		20.6	0.537	+/-0.984	1.00	pCi/g						
Radium-223	U	-0.915	1.50	+/-0.444		pCi/g						
Radium-224	UI	2.75	1.62	+/-0.605		pCi/g						
Radium-226		0.702	0.145	+/-0.0828		pCi/g						
Radium-228		0.688	0.238	+/-0.104	0.500	pCi/g						
Ruthenium-106	U	-0.0153	0.700	+/-0.208	0.800	pCi/g						
Sodium-22	U	-0.0685	0.0577	+/-0.0214	0.080	pCi/g						
Strontium-85	U	0.0287	0.0872	+/-0.0284		pCi/g						
Thallium-208		0.257	0.0762	+/-0.0409	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7957 Project: LANL01004
Sample ID: 246020006 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	UI	1.71	1.15	+/-0.380		pCi/g						
Thorium-231	U	-0.915	1.50	+/-0.444		pCi/g						
Thorium-234		191	6.90	+/-17.7	2.00	pCi/g						
Tin-113	U	0.0172	0.108	+/-0.0304	0.100	pCi/g						
Uranium-235		3.35	0.684	+/-0.387	0.500	pCi/g						
Yttrium-88	U	-0.00728	0.0467	+/-0.0148	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		2.39E+05	519	+/-16800	250	pCi/L		KXK2	02/17/10	1217	951366	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	58.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7957
Sample ID: 246020006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

Certificate of Analysis

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7974
Sample ID: 246020007
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 5.14%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00131	0.050	+/-0.00594	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00816	0.0442	+/-0.00755	0.050	pCi/g		CXM2	02/24/10	2001	951669	2
Plutonium-239/240	U	0.000267	0.0331	+/-0.00768	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.275	0.0375	+/-0.028	0.100	pCi/g		CXM2	02/24/10	1321	951672	4
Uranium-235/236	U	0.0221	0.0239	+/-0.00705	0.100	pCi/g						
Uranium-238		0.254	0.0256	+/-0.0264	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0552	0.188	+/-0.0591	0.200	pCi/g		MXR1	02/13/10	1627	948751	5
Bismuth-211	UI	3.72	0.362	+/-0.289		pCi/g						
Bismuth-214		1.04	0.115	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	3.83	1.16	+/-0.512		pCi/g						
Cerium-139	U	-0.0184	0.0496	+/-0.0156	0.050	pCi/g						
Cesium-134	UI	0.178	0.101	+/-0.0374	0.100	pCi/g						
Cesium-137	U	-0.0271	0.0651	+/-0.0204	0.100	pCi/g						
Cobalt-60	U	-0.00783	0.071	+/-0.022	0.100	pCi/g						
Europium-152	U	-0.0981	0.164	+/-0.0567	0.200	pCi/g						
Lanthanum-140	U	0.00535	0.153	+/-0.0467		pCi/g						
Lead-212		1.94	0.0981	+/-0.110	0.100	pCi/g						
Lead-214		1.29	0.126	+/-0.106	0.100	pCi/g						
Mercury-203	U	0.0315	0.0753	+/-0.0214	0.100	pCi/g						
Potassium-40		37.5	0.550	+/-1.89	1.00	pCi/g						
Radium-223	U	0.348	1.16	+/-0.382		pCi/g						
Radium-224	UI	4.81	1.12	+/-0.708		pCi/g						
Radium-226		1.04	0.115	+/-0.103		pCi/g						
Radium-228		1.89	0.204	+/-0.199	0.500	pCi/g						
Ruthenium-106	U	-0.10	0.534	+/-0.162	0.800	pCi/g						
Sodium-22	U	0.00133	0.0794	+/-0.0239	0.080	pCi/g						
Strontium-85	UI	0.0993	0.0801	+/-0.0234		pCi/g						
Thallium-208		0.592	0.0594	+/-0.0554	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7974
Sample ID: 246020007
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.118	0.674	+/-0.194		pCi/g						
Thorium-231	U	0.348	1.16	+/-0.382		pCi/g						
Thorium-234	U	1.38	1.73	+/-0.750	2.00	pCi/g						
Tin-113	U	0.0124	0.0816	+/-0.0242	0.100	pCi/g						
Uranium-235	U	0.0244	0.350	+/-0.107	0.500	pCi/g						
Yttrium-88	U	-0.00128	0.0529	+/-0.0161	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		509	206	+/-78.7	250	pCi/L		KXK2	02/17/10	1231	951366	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	79.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7974
Sample ID: 246020007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID:	RE15-10-7961	Project:	LANL01004
Sample ID:	246020008	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.7%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0159	0.054	+/-0.020	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00273	0.0446	+/-0.00386	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.0218	0.0335	+/-0.00779	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		4.46	0.044	+/-0.331	0.100	pCi/g		CXM2	02/24/10	1302	951672	3
Uranium-235/236		0.551	0.028	+/-0.0524	0.100	pCi/g						
Uranium-238		23.1	0.030	+/-1.67	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.533	0.673	+/-0.202	0.200	pCi/g		MXR1	02/13/10	1642	948751	4
Bismuth-211	UI	2.98	0.408	+/-0.260		pCi/g						
Bismuth-214		1.04	0.118	+/-0.0895	0.200	pCi/g						
Cadmium-109	U	2.48	2.70	+/-1.14		pCi/g						
Cerium-139	U	0.0346	0.0716	+/-0.023	0.050	pCi/g						
Cesium-134	UI	0.118	0.0942	+/-0.0372	0.100	pCi/g						
Cesium-137	UI	0.0999	0.0694	+/-0.0424	0.100	pCi/g						
Cobalt-60	U	-0.000741	0.058	+/-0.0178	0.100	pCi/g						
Europium-152	U	-0.0821	0.184	+/-0.064	0.200	pCi/g						
Lanthanum-140	U	-0.00553	0.156	+/-0.0472		pCi/g						
Lead-212		1.36	0.111	+/-0.0991	0.100	pCi/g						
Lead-214		1.04	0.139	+/-0.0942	0.100	pCi/g						
Mercury-203	U	0.0644	0.0901	+/-0.0244	0.100	pCi/g						
Potassium-40		25.9	0.548	+/-1.53	1.00	pCi/g						
Radium-223	U	-0.345	1.30	+/-0.380		pCi/g						
Radium-224	UI	4.05	1.26	+/-0.710		pCi/g						
Radium-226		1.04	0.118	+/-0.0895		pCi/g						
Radium-228		1.20	0.222	+/-0.153	0.500	pCi/g						
Ruthenium-106	U	-0.239	0.539	+/-0.171	0.800	pCi/g						
Sodium-22	U	-0.0203	0.0722	+/-0.0231	0.080	pCi/g						
Strontium-85	U	0.0655	0.0748	+/-0.023		pCi/g						
Thallium-208		0.414	0.0661	+/-0.0441	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7961
Sample ID: 246020008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.126	0.804	+/-0.256		pCi/g						
Thorium-231	U	-0.345	1.30	+/-0.380		pCi/g						
Thorium-234		39.9	4.74	+/-4.63	2.00	pCi/g						
Tin-113	U	-0.0557	0.0788	+/-0.0245	0.100	pCi/g						
Uranium-235		0.616	0.463	+/-0.213	0.500	pCi/g						
Yttrium-88	U	0.0125	0.0637	+/-0.0183	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		26600	208	+/-1880	250	pCi/L		KXK2	02/17/10	1409	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	84.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	101	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	66.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7961
Sample ID: 246020008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7971
Sample ID: 246020009
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 25.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00215	0.0524	+/-0.0126	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00573	0.0468	+/-0.00407	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	-0.00287	0.0352	+/-0.00641	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.33	0.0346	+/-0.173	0.100	pCi/g		CXM2	02/24/10	1302	951672	3
Uranium-235/236		0.278	0.0221	+/-0.0293	0.100	pCi/g						
Uranium-238		13.1	0.0236	+/-0.926	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.120	0.304	+/-0.0925	0.200	pCi/g		MXR1	02/13/10	1643	948751	4
Bismuth-211	UI	3.85	0.298	+/-0.305		pCi/g						
Bismuth-214		1.20	0.101	+/-0.0985	0.200	pCi/g						
Cadmium-109	UI	4.59	1.51	+/-0.663		pCi/g						
Cerium-139	U	-0.00253	0.0537	+/-0.0152	0.050	pCi/g						
Cesium-134	UI	0.0837	0.0757	+/-0.0213	0.100	pCi/g						
Cesium-137	UI	0.0701	0.0558	+/-0.0193	0.100	pCi/g						
Cobalt-60	U	-0.00537	0.0493	+/-0.0151	0.100	pCi/g						
Europium-152	U	0.022	0.148	+/-0.0615	0.200	pCi/g						
Lanthanum-140	U	-0.0894	0.126	+/-0.0418		pCi/g						
Lead-212		1.69	0.0874	+/-0.121	0.100	pCi/g						
Lead-214		1.34	0.104	+/-0.112	0.100	pCi/g						
Mercury-203	U	0.0201	0.0692	+/-0.0203	0.100	pCi/g						
Potassium-40		27.4	0.457	+/-1.42	1.00	pCi/g						
Radium-223	U	0.285	0.998	+/-0.322		pCi/g						
Radium-224	UI	4.97	0.993	+/-0.547		pCi/g						
Radium-226		1.20	0.101	+/-0.0985		pCi/g						
Radium-228		1.80	0.179	+/-0.164	0.500	pCi/g						
Ruthenium-106	U	-0.0771	0.455	+/-0.136	0.800	pCi/g						
Sodium-22	U	0.0118	0.0646	+/-0.019	0.080	pCi/g						
Strontium-85	UI	0.119	0.0662	+/-0.0205		pCi/g						
Thallium-208		0.515	0.0532	+/-0.0455	0.080	pCi/g						

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7971
Sample ID: 246020009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.433	0.648	+/-0.213		pCi/g						
Thorium-231	U	0.285	0.998	+/-0.322		pCi/g						
Thorium-234		30.0	2.37	+/-2.89	2.00	pCi/g						
Tin-113	U	-0.016	0.067	+/-0.020	0.100	pCi/g						
Uranium-235		0.651	0.383	+/-0.157	0.500	pCi/g						
Yttrium-88	U	0.0151	0.0471	+/-0.0134	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1010	206	+/-106	250	pCi/L		KXK2	02/17/10	1542	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.1	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	95.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	86.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7971
Sample ID: 246020009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7966
Sample ID: 246020010
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.56%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00101	0.0432	+/-0.00418	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.0109	0.0446	+/-0.0116	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00273	0.0335	+/-0.0061	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.476	0.0282	+/-0.0401	0.100	pCi/g		CXM2	02/24/10	1302	951672	3
Uranium-235/236		0.0442	0.018	+/-0.00838	0.100	pCi/g						
Uranium-238		1.33	0.0192	+/-0.0991	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0842	0.227	+/-0.0713	0.200	pCi/g		MXR1	02/13/10	1656	948751	4
Bismuth-211	UI	3.93	0.274	+/-0.299		pCi/g						
Bismuth-214		1.23	0.0854	+/-0.0949	0.200	pCi/g						
Cadmium-109	UI	2.31	1.05	+/-0.431		pCi/g						
Cerium-139	U	0.00191	0.0453	+/-0.013	0.050	pCi/g						
Cesium-134	UI	0.131	0.0873	+/-0.0323	0.100	pCi/g						
Cesium-137	U	-0.00114	0.0574	+/-0.0174	0.100	pCi/g						
Cobalt-60	U	0.0014	0.056	+/-0.0171	0.100	pCi/g						
Europium-152	U	-0.0417	0.137	+/-0.0416	0.200	pCi/g						
Lanthanum-140	U	-0.058	0.126	+/-0.0422		pCi/g						
Lead-212		1.51	0.0823	+/-0.103	0.100	pCi/g						
Lead-214		1.37	0.0955	+/-0.110	0.100	pCi/g						
Mercury-203	U	-0.00876	0.0637	+/-0.0218	0.100	pCi/g						
Potassium-40		38.5	0.447	+/-1.92	1.00	pCi/g						
Radium-223	U	-0.279	0.978	+/-0.308		pCi/g						
Radium-224	UI	4.66	0.937	+/-0.647		pCi/g						
Radium-226		1.23	0.0854	+/-0.0949		pCi/g						
Radium-228		1.67	0.198	+/-0.168	0.500	pCi/g						
Ruthenium-106	U	0.225	0.489	+/-0.138	0.800	pCi/g						
Sodium-22	U	0.00487	0.060	+/-0.0181	0.080	pCi/g						
Strontium-85	U	0.0399	0.0554	+/-0.0168		pCi/g						
Thallium-208		0.529	0.0529	+/-0.0456	0.080	pCi/g						

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Client Sample ID: RE15-10-7966
Sample ID: 246020010
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.145	0.554	+/-0.170		pCi/g						
Thorium-231	U	-0.279	0.978	+/-0.308		pCi/g						
Thorium-234		3.94	1.77	+/-0.996	2.00	pCi/g						
Tin-113	U	0.00664	0.0676	+/-0.0193	0.100	pCi/g						
Uranium-235	U	0.183	0.340	+/-0.0955	0.500	pCi/g						
Yttrium-88	U	0.00489	0.0455	+/-0.0133	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		6510	205	+/-475	250	pCi/L		KXK2	02/17/10	1720	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	94.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.0	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	101	(50%-105%)

Notes:
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- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7966
Sample ID: 246020010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7959
Sample ID: 246020011
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 20.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0196	0.048	+/-0.00984	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0148	0.0485	+/-0.00789	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240		0.113	0.0365	+/-0.0201	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		24.5	0.401	+/-1.96	0.100	pCi/g		CXM2	02/26/10	2340	957637	3
Uranium-235/236		3.67	0.256	+/-0.388	0.100	pCi/g						
Uranium-238		181	0.274	+/-13.8	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.111	0.610	+/-0.183	0.200	pCi/g		MXR1	02/13/10	1656	948751	5
Bismuth-211	UI	2.67	0.300	+/-0.193		pCi/g						
Bismuth-214		0.869	0.0931	+/-0.067	0.200	pCi/g						
Cadmium-109	U	2.18	3.00	+/-1.16		pCi/g						
Cerium-139	U	0.0622	0.0643	+/-0.0192	0.050	pCi/g						
Cesium-134	UI	0.0893	0.0745	+/-0.0207	0.100	pCi/g						
Cesium-137		0.117	0.0571	+/-0.0239	0.100	pCi/g						
Cobalt-60	U	-0.0136	0.0419	+/-0.0133	0.100	pCi/g						
Europium-152	U	0.0126	0.149	+/-0.0502	0.200	pCi/g						
Lanthanum-140	U	0.0418	0.113	+/-0.0316		pCi/g						
Lead-212		1.13	0.096	+/-0.0594	0.100	pCi/g						
Lead-214		0.927	0.105	+/-0.0715	0.100	pCi/g						
Mercury-203	U	0.0151	0.0679	+/-0.0194	0.100	pCi/g						
Potassium-40		23.8	0.323	+/-1.06	1.00	pCi/g						
Radium-223	U	-0.524	0.967	+/-0.343		pCi/g						
Radium-224	UI	3.50	1.09	+/-0.559		pCi/g						
Radium-226		0.869	0.0931	+/-0.067		pCi/g						
Radium-228		1.12	0.166	+/-0.130	0.500	pCi/g						
Ruthenium-106	U	0.0209	0.443	+/-0.132	0.800	pCi/g						
Sodium-22	U	-0.0461	0.046	+/-0.0157	0.080	pCi/g						
Strontium-85	UI	0.0766	0.0585	+/-0.0177		pCi/g						
Thallium-208		0.390	0.0465	+/-0.0336	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7959
Sample ID: 246020011
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	UI	0.838	0.725	+/-0.232		pCi/g						
Thorium-231	U	-0.524	0.967	+/-0.343		pCi/g						
Thorium-234		133	4.50	+/-12.0	2.00	pCi/g						
Tin-113	U	0.00752	0.0689	+/-0.0195	0.100	pCi/g						
Uranium-235		2.54	0.446	+/-0.286	0.500	pCi/g						
Yttrium-88	U	-0.033	0.0359	+/-0.0131	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		17300	205	+/-1220	250	pCi/L		KXK2	02/17/10	1858	951366	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	86.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	82.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7959
Sample ID: 246020011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7969
Sample ID: 246020012
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00137	0.0499	+/-0.00444	0.050	pCi/g		CXM2	02/23/10	1325	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00913	0.0497	+/-0.00682	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240		0.0517	0.0374	+/-0.0128	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		2.23	0.0313	+/-0.163	0.100	pCi/g		CXM2	02/24/10	1302	951672	3
Uranium-235/236		0.305	0.020	+/-0.0303	0.100	pCi/g						
Uranium-238		14.7	0.0214	+/-1.03	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.374	0.476	+/-0.146	0.200	pCi/g		MXR1	02/13/10	1657	948751	4
Bismuth-211	UI	2.37	0.338	+/-0.237		pCi/g						
Bismuth-214	UI	0.732	0.249	+/-0.0731	0.200	pCi/g						
Cadmium-109	UI	2.17	2.02	+/-0.644		pCi/g						
Cerium-139	U	-0.0401	0.0565	+/-0.0175	0.050	pCi/g						
Cesium-134	U	0.0781	0.0942	+/-0.025	0.100	pCi/g						
Cesium-137		0.105	0.0598	+/-0.0266	0.100	pCi/g						
Cobalt-60	U	0.0149	0.0617	+/-0.0178	0.100	pCi/g						
Europium-152	U	-0.0047	0.171	+/-0.0652	0.200	pCi/g						
Lanthanum-140	U	-0.057	0.125	+/-0.0425		pCi/g						
Lead-212		1.15	0.0958	+/-0.064	0.100	pCi/g						
Lead-214		0.824	0.118	+/-0.0851	0.100	pCi/g						
Mercury-203	U	-0.00276	0.0764	+/-0.0219	0.100	pCi/g						
Potassium-40		19.3	0.526	+/-1.07	1.00	pCi/g						
Radium-223	U	-0.411	1.11	+/-0.383		pCi/g						
Radium-224	UI	3.01	1.09	+/-0.429		pCi/g						
Radium-226	UI	0.732	0.249	+/-0.0731		pCi/g						
Radium-228		0.930	0.215	+/-0.159	0.500	pCi/g						
Ruthenium-106	U	-0.259	0.558	+/-0.178	0.800	pCi/g						
Sodium-22	U	-0.000945	0.0705	+/-0.0216	0.080	pCi/g						
Strontium-85	U	0.0332	0.0643	+/-0.0204		pCi/g						
Thallium-208		0.376	0.057	+/-0.0367	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7969 Project: LANL01004
Sample ID: 246020012 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.332	0.725	+/-0.240		pCi/g						
Thorium-231	U	-0.411	1.11	+/-0.383		pCi/g						
Thorium-234		34.5	3.50	+/-3.64	2.00	pCi/g						
Tin-113	U	0.0141	0.0736	+/-0.021	0.100	pCi/g						
Uranium-235		0.491	0.410	+/-0.197	0.500	pCi/g						
Yttrium-88	U	-0.0168	0.0364	+/-0.0134	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		34100	224	+/-2400	250	pCi/L		KXK2	02/17/10	2036	951366	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	77.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	92.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7969
Sample ID: 246020012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8061
Sample ID: 246020013
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 14.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241		0.0596	0.0199	+/-0.00936	0.050	pCi/g		JXD2	02/13/10	1115	949827	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0132	0.032	+/-0.00544	0.050	pCi/g		JXD2	02/11/10	1020	949828	2
Plutonium-239/240		0.142	0.0242	+/-0.0196	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		45.8	2.29	+/-5.26	0.100	pCi/g		JXD2	02/21/10	1045	953461	3
Uranium-235/236		7.32	1.50	+/-1.26	0.100	pCi/g						
Uranium-238		359	1.59	+/-37.7	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	UI	1.10	0.503	+/-0.159	0.200	pCi/g		MXR1	02/13/10	1959	948751	6
Bismuth-211	UI	2.33	0.310	+/-0.202		pCi/g						
Bismuth-214		0.844	0.0986	+/-0.0812	0.200	pCi/g						
Cadmium-109	UI	5.01	3.07	+/-1.24		pCi/g						
Cerium-139	U	0.0223	0.0646	+/-0.0214	0.050	pCi/g						
Cesium-134	UI	0.172	0.0793	+/-0.0371	0.100	pCi/g						
Cesium-137		0.211	0.0586	+/-0.0275	0.100	pCi/g						
Cobalt-60	U	0.0148	0.0372	+/-0.0108	0.100	pCi/g						
Europium-152	U	-0.00507	0.149	+/-0.0447	0.200	pCi/g						
Lanthanum-140	U	-0.0334	0.0903	+/-0.0288		pCi/g						
Lead-212		1.01	0.0985	+/-0.0669	0.100	pCi/g						
Lead-214		0.812	0.106	+/-0.0734	0.100	pCi/g						
Mercury-203	U	0.0369	0.070	+/-0.0197	0.100	pCi/g						
Potassium-40		20.4	0.329	+/-1.01	1.00	pCi/g						
Radium-223	U	-0.304	1.01	+/-0.296		pCi/g						
Radium-224	UI	1.55	1.11	+/-0.344		pCi/g						
Radium-226		0.844	0.0986	+/-0.0812		pCi/g						
Radium-228		1.09	0.155	+/-0.117	0.500	pCi/g						
Ruthenium-106	U	0.0508	0.476	+/-0.144	0.800	pCi/g						
Sodium-22	U	-0.00673	0.0415	+/-0.013	0.080	pCi/g						
Strontium-85	UI	0.0648	0.0583	+/-0.0188		pCi/g						
Thallium-208		0.314	0.055	+/-0.035	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8061 Project: LANL01004
Sample ID: 246020013 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	UI	1.10	0.730	+/-0.244		pCi/g						
Thorium-231	U	-0.304	1.01	+/-0.296		pCi/g						
Thorium-234		351	3.80	+/-30.6	2.00	pCi/g						
Tin-113	U	-0.0218	0.0686	+/-0.0204	0.100	pCi/g						
Uranium-235		5.49	0.472	+/-0.527	0.500	pCi/g						
Yttrium-88	U	0.016	0.0341	+/-0.0105	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		4.80E+05	762	+/-33800	250	pCi/L		KXK2	02/17/10	2148	951366	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	91.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	63.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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> Result is greater than value reported
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8061
Sample ID: 246020013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID:	RE15-10-8063	Project:	LANL01004
Sample ID:	246020014	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0101	0.021	+/-0.00491	0.050	pCi/g		JXD2	02/13/10	1115	949827	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.0053	0.0381	+/-0.00373	0.050	pCi/g		JXD2	02/11/10	1020	949828	2
Plutonium-239/240	U	0.00521	0.0289	+/-0.00492	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.88	0.0601	+/-0.145	0.100	pCi/g		JXD2	02/18/10	1841	953461	3
Uranium-235/236		0.150	0.0383	+/-0.0234	0.100	pCi/g						
Uranium-238		6.05	0.041	+/-0.430	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.180	0.312	+/-0.095	0.200	pCi/g		MXR1	02/14/10	1107	948751	5
Bismuth-211	UI	3.92	0.325	+/-0.284		pCi/g						
Bismuth-214		0.989	0.119	+/-0.0935	0.200	pCi/g						
Cadmium-109	UI	2.21	1.65	+/-0.455		pCi/g						
Cerium-139	U	0.0262	0.0547	+/-0.0148	0.050	pCi/g						
Cesium-134	U	0.0858	0.0939	+/-0.0314	0.100	pCi/g						
Cesium-137	U	0.0451	0.0762	+/-0.0208	0.100	pCi/g						
Cobalt-60	U	-0.0104	0.0645	+/-0.0198	0.100	pCi/g						
Europium-152	U	0.0344	0.163	+/-0.0532	0.200	pCi/g						
Lanthanum-140	U	-0.046	0.162	+/-0.0526		pCi/g						
Lead-212		1.52	0.0885	+/-0.095	0.100	pCi/g						
Lead-214		1.36	0.113	+/-0.105	0.100	pCi/g						
Mercury-203	U	0.00198	0.077	+/-0.0222	0.100	pCi/g						
Potassium-40		22.1	0.608	+/-1.27	1.00	pCi/g						
Radium-223	U	-0.636	1.12	+/-0.401		pCi/g						
Radium-224	UI	4.61	1.01	+/-0.659		pCi/g						
Radium-226		0.989	0.119	+/-0.0935		pCi/g						
Radium-228		1.53	0.215	+/-0.166	0.500	pCi/g						
Ruthenium-106	U	-0.0461	0.541	+/-0.159	0.800	pCi/g						
Sodium-22	U	0.0135	0.0689	+/-0.0197	0.080	pCi/g						
Strontium-85	UI	0.111	0.0776	+/-0.0223		pCi/g						
Thallium-208		0.439	0.0623	+/-0.0448	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8063 Project: LANL01004
Sample ID: 246020014 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0149	0.661	+/-0.190		pCi/g						
Thorium-231	U	-0.636	1.12	+/-0.401		pCi/g						
Thorium-234		5.27	2.46	+/-1.25	2.00	pCi/g						
Tin-113	U	0.0156	0.0814	+/-0.0236	0.100	pCi/g						
Uranium-235	U	0.071	0.359	+/-0.171	0.500	pCi/g						
Yttrium-88	U	0.00616	0.0493	+/-0.0144	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1210	204	+/-117	250	pCi/L		KXK2	02/17/10	2156	951366	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	86.8	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	96.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Client Sample ID: RE15-10-8063
Sample ID: 246020014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID:	RE15-10-8062	Project:	LANL01004
Sample ID:	246020015	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.48%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00105	0.0229	+/-0.00237	0.050	pCi/g		JXD2	02/13/10	1115	949827	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00247	0.0362	+/-0.00395	0.050	pCi/g		JXD2	02/11/10	1020	949828	2
Plutonium-239/240	U	0.00123	0.0275	+/-0.0028	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.00	0.0654	+/-0.0856	0.100	pCi/g		JXD2	02/18/10	1841	953461	3
Uranium-235/236		0.122	0.0417	+/-0.0215	0.100	pCi/g						
Uranium-238		3.22	0.0447	+/-0.239	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0373	0.353	+/-0.113	0.200	pCi/g		MXR1	02/14/10	1108	948751	5
Bismuth-211	UI	3.76	0.388	+/-0.261		pCi/g						
Bismuth-214		1.13	0.120	+/-0.0891	0.200	pCi/g						
Cadmium-109	UI	3.49	1.42	+/-0.561		pCi/g						
Cerium-139	U	-0.029	0.0562	+/-0.0172	0.050	pCi/g						
Cesium-134	U	0.0993	0.112	+/-0.0366	0.100	pCi/g						
Cesium-137	U	-0.00339	0.0737	+/-0.0225	0.100	pCi/g						
Cobalt-60	U	-0.00941	0.0708	+/-0.0223	0.100	pCi/g						
Europium-152	U	-0.023	0.192	+/-0.0687	0.200	pCi/g						
Lanthanum-140	U	-0.194	0.127	+/-0.0552		pCi/g						
Lead-212		1.68	0.107	+/-0.086	0.100	pCi/g						
Lead-214		1.31	0.141	+/-0.0971	0.100	pCi/g						
Mercury-203	U	0.0817	0.091	+/-0.0275	0.100	pCi/g						
Potassium-40		36.1	0.590	+/-1.59	1.00	pCi/g						
Radium-223	U	0.799	1.32	+/-0.414		pCi/g						
Radium-224	UI	4.91	1.22	+/-0.763		pCi/g						
Radium-226		1.13	0.120	+/-0.0891		pCi/g						
Radium-228		1.61	0.239	+/-0.168	0.500	pCi/g						
Ruthenium-106	U	0.228	0.635	+/-0.183	0.800	pCi/g						
Sodium-22	U	0.0153	0.097	+/-0.0289	0.080	pCi/g						
Strontium-85	U	0.0535	0.0789	+/-0.0248		pCi/g						
Thallium-208		0.524	0.0648	+/-0.0516	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-8062
Sample ID: 246020015

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0441	0.772	+/-0.234		pCi/g						
Thorium-231	U	0.799	1.32	+/-0.414		pCi/g						
Thorium-234		7.15	2.73	+/-1.58	2.00	pCi/g						
Tin-113	U	-0.0556	0.0854	+/-0.0267	0.100	pCi/g						
Uranium-235	U	-0.0414	0.415	+/-0.122	0.500	pCi/g						
Yttrium-88	U	0.00723	0.0629	+/-0.0184	0.100	pCi/g						

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	84.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	87.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure

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Report Date: March 1, 2010

Client Sample ID: RE15-10-8062
Sample ID: 246020015

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

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QC Summary

Report Date: March 1, 2010
Page 1 of 8

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 246020

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949827										
QC1202035014 246020013 DUP										
Americium-241		0.0596		0.0329	pCi/g	0.812		(0-1)	JXD2	02/13/1011:15
	TPU:	+/-0.00936		+/-0.00706						
	Yield:	91.3		81.1						
QC1202035015 LCS										
Americium-241	33.2			32.0	pCi/g		96.4	(75%-125%)		
	TPU:			+/-2.29						
	Yield:			96.0						
QC1202035013 MB										
Americium-241			U	-0.00228	pCi/g					
	TPU:			+/-0.00226						
	Yield:			86.6						
Batch 949828										
QC1202035017 246020013 DUP										
Plutonium-238	U	0.0132	U	0.00709	pCi/g	0.295		(0-1)	JXD2	02/11/1010:20
	TPU:	+/-0.00544		+/-0.0049						
	Yield:	93.3		106						
Plutonium-239/240		0.142		0.179	pCi/g	0.449		(0-1)		
	TPU:	+/-0.0196		+/-0.0216						
	Yield:	93.3		106						
QC1202035018 LCS										
Plutonium-238				7.68	pCi/g			(75%-125%)		
	TPU:			+/-0.724						
	Yield:			82.3						
Plutonium-239/240	41.8			41.8	pCi/g		100	(75%-125%)		
	TPU:			+/-3.10						
	Yield:			82.3						
QC1202035016 MB										
Plutonium-238			U	-0.00302	pCi/g					
	TPU:			+/-0.00368						
	Yield:			83.7						
Plutonium-239/240			U	0.00148	pCi/g					
	TPU:			+/-0.00336						
	Yield:			83.7						
Batch 951665										
QC1202039542 246020001 DUP										
Americium-241	U	0.00156	U	0.00328	pCi/g	0.0808		(0-1)	CXM2	02/23/1013:26
	TPU:	+/-0.00778		+/-0.00289						
	Yield:	95.5		89.5						
QC1202039543 LCS										
Americium-241	33.2			25.9	pCi/g		78	(75%-125%)		02/23/1013:26
	TPU:			+/-1.71						
	Yield:			110						
QC1202039541 MB										

QC Summary

Workorder: 246020

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 951665										
Americium-241			U	-0.00228	pCi/g					
	TPU:			+/-0.00387						
	Yield:			89.4						
Batch 951669										
QC1202039556 246020001 DUP										
Plutonium-238	U	0.00	U	-0.00106	pCi/g	0.0614		(0-1)	CXM2	02/25/1022:19
	TPU:	+/-0.00443		+/-0.00424						
	Yield:	86.5		73.2						
Plutonium-239/240	U	0.00626	U	0.00135	pCi/g	0.263		(0-1)		
	TPU:	+/-0.00443		+/-0.00488						
	Yield:	86.5		73.2						
QC1202039557 LCS										
Plutonium-238				7.15	pCi/g			(75%-125%)		02/23/1013:08
	TPU:			+/-0.530						
	Yield:			90.7						
Plutonium-239/240	41.8			39.3	pCi/g		94	(75%-125%)		
	TPU:			+/-2.42						
	Yield:			90.7						
QC1202039555 MB										
Plutonium-238			U	-0.00339	pCi/g					
	TPU:			+/-0.00294						
	Yield:			90.4						
Plutonium-239/240			U	-0.00169	pCi/g					
	TPU:			+/-0.00294						
	Yield:			90.4						
Batch 951672										
QC1202039559 246020001 DUP										
Uranium-233/234		0.249		0.280	pCi/g	0.283		(0-1)	CXM2	02/24/1013:02
	TPU:	+/-0.0258		+/-0.0289						
	Yield:	94.7		71.5						
Uranium-235/236	U	0.0215	U	0.0115	pCi/g	0.427		(0-1)		
	TPU:	+/-0.00687		+/-0.00478						
	Yield:	94.7		71.5						
Uranium-238		0.316		0.412	pCi/g	0.694		(0-1)		
	TPU:	+/-0.0308		+/-0.0386						
	Yield:	94.7		71.5						
QC1202039560 LCS										
Uranium-233/234				6.11	pCi/g			(75%-125%)		
	TPU:			+/-0.542						
	Yield:			95.7						
Uranium-235/236				0.409	pCi/g			(75%-125%)		
	TPU:			+/-0.0953						
	Yield:			95.7						
Uranium-238	5.75			5.34	pCi/g		92.9	(75%-125%)		
	TPU:			+/-0.484						
	Yield:			95.7						
QC1202039558 MB										
Uranium-233/234			U	0.0108	pCi/g					02/24/1009:54
	TPU:			+/-0.00398						

QC Summary

Workorder: 246020

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 951672										
	Yield:			97.8						
Uranium-235/236			U	0.00577	pCi/g					
	TPU:			+/-0.00291						
	Yield:			97.8						
Uranium-238				0.049	pCi/g					
	TPU:			+/-0.00843						
	Yield:			97.8						
Batch 953461										
QC1202043975 246020015 DUP										
Uranium-233/234		1.00		1.11	pCi/g	0.298		(0-1)	JXD2	02/18/1018:41
	TPU:	+/-0.0856		+/-0.0909						
	Yield:	87.6		98.2						
Uranium-235/236		0.122		0.0969	pCi/g	0.316		(0-1)		
	TPU:	+/-0.0215		+/-0.0179						
	Yield:	87.6		98.2						
Uranium-238		3.22		3.17	pCi/g	0.0535		(0-1)		
	TPU:	+/-0.239		+/-0.232						
	Yield:	87.6		98.2						
QC1202043976 LCS										
Uranium-233/234				6.27	pCi/g			(75%-125%)		02/18/1018:41
	TPU:			+/-0.510						
	Yield:			98.0						
Uranium-235/236				0.393	pCi/g			(75%-125%)		
	TPU:			+/-0.0815						
	Yield:			98.0						
Uranium-238	5.75			5.67	pCi/g		98.6	(75%-125%)		
	TPU:			+/-0.468						
	Yield:			98.0						
QC1202043974 MB										
Uranium-233/234			U	0.0256	pCi/g					02/18/1018:41
	TPU:			+/-0.0058						
	Yield:			105						
Uranium-235/236			U	0.0041	pCi/g					
	TPU:			+/-0.00306						
	Yield:			105						
Uranium-238			U	0.00883	pCi/g					
	TPU:			+/-0.00354						
	Yield:			105						
Batch 957637										
QC1202053429 246020003 DUP										
Uranium-233/234		11.0		12.8	pCi/g	0.463		(0-1)	CXM2	02/26/1023:40
	TPU:	+/-0.899		+/-1.08						
	Yield:	98.2		88.4						
Uranium-235/236		1.08		1.41	pCi/g	0.460		(0-1)		
	TPU:	+/-0.153		+/-0.197						
	Yield:	98.2		88.4						
Uranium-238		57.7		60.5	pCi/g	0.153		(0-1)		
	TPU:	+/-4.39		+/-4.72						
	Yield:	98.2		88.4						

QC Summary

Workorder: 246020

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 957637										
QC1202053430 LCS										
Uranium-233/234				5.67	pCi/g			(75%-125%)		
	TPU:			+/-0.494						
	Yield:			93.2						
Uranium-235/236			U	0.230	pCi/g			(75%-125%)		
	TPU:			+/-0.0735						
	Yield:			93.2						
Uranium-238	5.75			5.26	pCi/g		91.5	(75%-125%)		
	TPU:			+/-0.463						
	Yield:			93.2						
QC1202053428 MB										
Uranium-233/234			U	0.0106	pCi/g					02/27/1020:05
	TPU:			+/-0.00511						
	Yield:			102						
Uranium-235/236			U	0.00669	pCi/g					
	TPU:			+/-0.00389						
	Yield:			102						
Uranium-238			U	0.018	pCi/g					
	TPU:			+/-0.00584						
	Yield:			102						
Rad Gamma Spec										
Batch 948751										
QC1202032580 246020001 DUP										
Americium-241	U	-0.0454	U	0.0419	pCi/g	0.290		(0-1)	MXR1	02/14/1011:09
	TPU:	+/-0.0726		+/-0.0778						
Bismuth-211	UI	4.16	UI	4.08	pCi/g	0.0709		(0-1)		
	TPU:	+/-0.313		+/-0.272						
Bismuth-214		1.21		1.24	pCi/g	0.0831		(0-1)		
	TPU:	+/-0.107		+/-0.0976						
Cadmium-109	UI	3.55	UI	3.00	pCi/g	0.257		(0-1)		
	TPU:	+/-0.526		+/-0.542						
Cerium-139	U	-0.0152	U	-0.00612	pCi/g	0.167		(0-1)		
	TPU:	+/-0.0129		+/-0.0143						
Cesium-134	U	0.067	U	0.0868	pCi/g	0.207		(0-1)		
	TPU:	+/-0.0213		+/-0.0265						
Cesium-137	U	-0.0106	U	-0.0387	pCi/g	0.369		(0-1)		
	TPU:	+/-0.0178		+/-0.0202						
Cobalt-60	U	-0.0226	U	-0.000717	pCi/g	0.285		(0-1)		
	TPU:	+/-0.0184		+/-0.020						
Europium-152	U	0.0488	U	0.00448	pCi/g	0.241		(0-1)		
	TPU:	+/-0.0419		+/-0.0503						
Lanthanum-140	U	-0.0265	U	-0.0488	pCi/g	0.116		(0-1)		
	TPU:	+/-0.0451		+/-0.0508						
Lead-212		1.85		1.60	pCi/g	0.630		(0-1)		
	TPU:	+/-0.123		+/-0.0783						
Lead-214		1.45		1.42	pCi/g	0.0669		(0-1)		
	TPU:	+/-0.115		+/-0.102						
Mercury-203	U	0.0172	U	0.000814	pCi/g	0.204		(0-1)		
	TPU:	+/-0.0194		+/-0.0207						
Potassium-40		37.2		32.5	pCi/g	0.689		(0-1)		

QC Summary

Workorder: 246020

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948751										
	TPU:	+/-1.89		+/-1.50						
Radium-223	U	0.0562	U	-0.351	pCi/g	0.291		(0-1)		
	TPU:	+/-0.343		+/-0.356						
Radium-224	UI	5.55	UI	4.16	pCi/g	0.591		(0-1)		
	TPU:	+/-0.688		+/-0.482						
Radium-226		1.21		1.24	pCi/g	0.0831		(0-1)		
	TPU:	+/-0.107		+/-0.0976						
Radium-228		1.94		1.89	pCi/g	0.0695		(0-1)		
	TPU:	+/-0.182		+/-0.178						
Ruthenium-106	U	0.0968	U	-0.182	pCi/g	0.445		(0-1)		
	TPU:	+/-0.149		+/-0.164						
Sodium-22	U	-0.00228	U	-0.0544	pCi/g	0.562		(0-1)		
	TPU:	+/-0.0226		+/-0.0238						
Strontium-85	U	0.0147	U	0.0149	pCi/g	0.00181		(0-1)		
	TPU:	+/-0.0183		+/-0.0205						
Thallium-208		0.495		0.634	pCi/g	0.777		(0-1)		
	TPU:	+/-0.0433		+/-0.0463						
Thorium-227	U	-0.226	U	-0.153	pCi/g	0.100		(0-1)		
	TPU:	+/-0.181		+/-0.180						
Thorium-231	U	0.0562	U	-0.351	pCi/g	0.291		(0-1)		
	TPU:	+/-0.343		+/-0.356						
Thorium-234		2.23	U	1.27	pCi/g	0.275		(0-1)		
	TPU:	+/-0.962		+/-0.774						
Tin-113	U	-0.0223	U	-0.0352	pCi/g	0.158		(0-1)		
	TPU:	+/-0.0186		+/-0.0221						
Uranium-235	U	-0.0519	U	0.0721	pCi/g	0.313		(0-1)		
	TPU:	+/-0.0962		+/-0.102						
Yttrium-88	U	-0.00389	U	0.00879	pCi/g	0.197		(0-1)		
	TPU:	+/-0.0144		+/-0.0178						
QC1202032581 LCS										
Americium-241	15.9			13.4	pCi/g		84.1	(75%-125%)		02/13/1018:38
	TPU:			+/-0.702						
Bismuth-211				2.09	pCi/g					
	TPU:			+/-0.274						
Bismuth-214				0.632	pCi/g					
	TPU:			+/-0.119						
Cadmium-109				32.9	pCi/g					
	TPU:			+/-2.20						
Cerium-139			U	-0.0104	pCi/g					
	TPU:			+/-0.0235						
Cesium-134			U	0.110	pCi/g					
	TPU:			+/-0.0502						
Cesium-137	5.56			5.75	pCi/g		103	(75%-125%)		
	TPU:			+/-0.280						
Cobalt-60	6.40			6.66	pCi/g		104	(75%-125%)		
	TPU:			+/-0.338						
Europium-152			U	-0.0889	pCi/g					
	TPU:			+/-0.102						
Lanthanum-140			U	-0.0385	pCi/g					
	TPU:			+/-0.0432						
Lead-212				1.02	pCi/g					

QC Summary

Workorder: 246020

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948751										
	TPU:			+/-0.117						
Lead-214				0.699	pCi/g					
	TPU:			+/-0.148						
Mercury-203			U	0.0296	pCi/g					
	TPU:			+/-0.0382						
Potassium-40				0.871	pCi/g					
	TPU:			+/-0.423						
Radium-223			U	-0.646	pCi/g					
	TPU:			+/-0.645						
Radium-224				6.79	pCi/g					
	TPU:			+/-0.870						
Radium-226				0.632	pCi/g					
	TPU:			+/-0.119						
Radium-228				1.30	pCi/g					
	TPU:			+/-0.284						
Ruthenium-106			U	-0.0727	pCi/g					
	TPU:			+/-0.296						
Sodium-22			U	-0.0354	pCi/g					
	TPU:			+/-0.0268						
Strontium-85			U	0.023	pCi/g					
	TPU:			+/-0.0386						
Thallium-208				0.309	pCi/g					
	TPU:			+/-0.0718						
Thorium-227			U	0.202	pCi/g					
	TPU:			+/-0.368						
Thorium-231			U	-0.646	pCi/g					
	TPU:			+/-0.645						
Thorium-234			U	-1.51	pCi/g					
	TPU:			+/-1.32						
Tin-113			U	0.0682	pCi/g					
	TPU:			+/-0.0477						
Uranium-235			U	0.258	pCi/g					
	TPU:			+/-0.167						
Yttrium-88			U	0.0307	pCi/g					
	TPU:			+/-0.0234						
QC1202032579 MB										
Americium-241			U	-0.0292	pCi/g					02/14/1011:08
	TPU:			+/-0.0191						
Bismuth-211			U	0.0786	pCi/g					
	TPU:			+/-0.0425						
Bismuth-214			U	-0.0265	pCi/g					
	TPU:			+/-0.0159						
Cadmium-109			U	-0.108	pCi/g					
	TPU:			+/-0.109						
Cerium-139			U	-0.00434	pCi/g					
	TPU:			+/-0.00484						
Cesium-134			U	-0.00155	pCi/g					
	TPU:			+/-0.00899						
Cesium-137			U	-0.0043	pCi/g					
	TPU:			+/-0.00669						
Cobalt-60			U	0.000994	pCi/g					

QC Summary

Workorder: 246020

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948751										
	TPU:			+/-0.00686						
Europium-152			U	-0.00741	pCi/g					
	TPU:			+/-0.0188						
Lanthanum-140			U	0.0279	pCi/g					
	TPU:			+/-0.0137						
Lead-212			U	0.0161	pCi/g					
	TPU:			+/-0.0194						
Lead-214			U	0.0336	pCi/g					
	TPU:			+/-0.015						
Mercury-203			U	-0.00835	pCi/g					
	TPU:			+/-0.00726						
Potassium-40			U	0.00958	pCi/g					
	TPU:			+/-0.0973						
Radium-223			U	0.120	pCi/g					
	TPU:			+/-0.131						
Radium-224			U	0.261	pCi/g					
	TPU:			+/-0.129						
Radium-226			U	-0.0265	pCi/g					
	TPU:			+/-0.0159						
Radium-228			U	0.0226	pCi/g					
	TPU:			+/-0.029						
Ruthenium-106			U	-0.0449	pCi/g					
	TPU:			+/-0.0752						
Sodium-22			U	0.0106	pCi/g					
	TPU:			+/-0.00488						
Strontium-85			U	-0.0573	pCi/g					
	TPU:			+/-0.0118						
Thallium-208			U	0.00936	pCi/g					
	TPU:			+/-0.00927						
Thorium-227			U	-0.00539	pCi/g					
	TPU:			+/-0.0677						
Thorium-231			U	0.120	pCi/g					
	TPU:			+/-0.131						
Thorium-234			U	-0.156	pCi/g					
	TPU:			+/-0.208						
Tin-113			U	-0.00942	pCi/g					
	TPU:			+/-0.00776						
Uranium-235			U	0.0122	pCi/g					
	TPU:			+/-0.0383						
Yttrium-88			U	-0.0139	pCi/g					
	TPU:			+/-0.008						
Rad Liquid Scintillation										
Batch 951366										
QC1202038815 246020002 DUP										
Tritium		8.17E+05		8.09E+05	pCi/L	0.0354		(0-1)	KXK2	02/18/1001:10
	TPU:	+/-57500		+/-56900						
QC1202038816 LCS										
Tritium	5560			5830	pCi/L		105	(80%-120%)		02/18/1001:15
	TPU:			+/-521						
QC1202038814 MB										

QC Summary

Workorder: 246020

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 951366										
Tritium			U	4.88	pCi/L					
	TPU:			+/-59.9						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 949827 Product: Am Date: 2/16/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JopLAL 2/16/10

Secondary Review Performed By: [signature] 2/17/10

2/13 2/23

LANL

Am/Cm Que Sheet

08-FEB-10

Batch #: 949827 | Analyst: ~~SOH~~ JXD2 02/09/10 | First Client Due Date: 23-FEB-10 | Internal Due Date: 13-FEB-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 05/11/10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): — | Expiration Date: — | Vol(s): —

Spike Isotope(s): Am241/Cm244 | Spike Code(s): — | Expiration Date: — | Vol(s): —

Prep Date: 02/09/10 | Initials: JXD | Pipet ID: 2971058 | Balance ID: 50410272 | Witness: [illegible] 2/9/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/f	Am/Cm Det #
245994001-1	RE15-10-8122	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.270	98
245994002-1	RE15-10-8112	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.263	65
245994003-1	RE15-10-8113	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.284	66
245994004-1	RE15-10-8116	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.257	67
245994005-1	RE15-10-8119	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.273	68
245994006-1	RE15-10-8114	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.255	69
245994007-1	RE15-10-8115	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.255	70
245994008-1	RE15-10-8117	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	8	8	1.257	71
245994009-1	RE15-10-8118	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	1.255	72
246008001-1	RE16-10-2893	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	10	10	1.261	73
246008002-1	RE16-10-2892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	11	11	1.256	74
246008003-1	RE16-10-2894	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	12	12	1.250	75
246008004-1	RE16-10-2888	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	13	13	1.275	76
246008005-1	RE16-10-2891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.260	83
246008006-1	RE16-10-2897	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.286	84
246008007-1	RE16-10-2890	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.255	85
246008008-1	RE16-10-2889	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.267	86
246020013-1	RE15-10-8061	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.285	87
246020014-1	RE15-10-8063	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.273	88
246020015-1	RE15-10-8062	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	20	1.252	89
1202035013-1	MB for batch 949827	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	90
1202035014-1	RE15-10-8061(246020013DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.252	91
1202035015-1	LCS for batch 949827	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.107	92

* SRM 0244-B exp 04/30/20 0.107g

Choose SOP Used: GL-RAD-A-011 / ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/16/10

Blank Correction Report

Batch ID 949827

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035014	DUP	Americium-241	1.25 g	0.0329	0.00706	0.0205	-.001824	pCi/g	NO
1202035015	LCS	Americium-241	0.107 g	32.0	2.29	0.222	-.02130841	pCi/g	NO
1202035013	MB	Americium-241	1.00 g	-0.00228	0.00226	0.0255	-.00228	pCi/g	NO
245994001	RE15-10-8122	Americium-241	1.27 g	-0.00928	0.00593	0.0199	-.00179528	pCi/g	YES
245994002	RE15-10-8112	Americium-241	1.26 g	0.00101	0.00641	0.0224	-.00180952	pCi/g	NO
245994003	RE15-10-8113	Americium-241	1.28 g	-0.00674	0.00473	0.0197	-.00178125	pCi/g	NO
245994004	RE15-10-8116	Americium-241	1.26 g	0.00199	0.00589	0.0202	-.00180952	pCi/g	NO
245994005	RE15-10-8119	Americium-241	1.27 g	0.00232	0.00327	0.0218	-.00179528	pCi/g	NO
245994006	RE15-10-8114	Americium-241	1.26 g	0.0175	0.00563	0.0237	-.00180952	pCi/g	NO
245994007	RE15-10-8115	Americium-241	1.26 g	-0.000319	0.00596	0.0239	-.00180952	pCi/g	NO
245994008	RE15-10-8117	Americium-241	1.26 g	0.00451	0.0064	0.0201	-.00180952	pCi/g	NO
245994009	RE15-10-8118	Americium-241	1.26 g	0.0077	0.00742	0.0216	-.00180952	pCi/g	NO
246008001	RE16-10-2893	Americium-241	1.26 g	0.00635	0.00353	0.0217	-.00180952	pCi/g	NO
246008002	RE16-10-2892	Americium-241	1.26 g	-0.00182	0.00338	0.021	-.00180952	pCi/g	NO
246008003	RE16-10-2894	Americium-241	1.25 g	-0.000527	0.00246	0.0207	-.001824	pCi/g	NO
246008004	RE16-10-2888	Americium-241	1.28 g	0.00334	0.00208	0.0204	-.00178125	pCi/g	NO
246008005	RE16-10-2891	Americium-241	1.26 g	0.0132	0.00632	0.0184	-.00180952	pCi/g	NO
246008006	RE16-10-2897	Americium-241	1.29 g	0.00318	0.00265	0.0197	-.00176744	pCi/g	NO
246008007	RE16-10-2890	Americium-241	1.26 g	-0.00351	0.0024	0.027	-.00180952	pCi/g	NO
246008008	RE16-10-2889	Americium-241	1.27 g	-0.000501	0.0013	0.0207	-.00179528	pCi/g	NO
246020013	RE15-10-8061	Americium-241	1.29 g	0.0596	0.00936	0.0199	-.00176744	pCi/g	NO
246020014	RE15-10-8063	Americium-241	1.27 g	0.0101	0.00491	0.021	-.00179528	pCi/g	NO
246020015	RE15-10-8062	Americium-241	1.25 g	0.00105	0.00237	0.0229	-.001824	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0246020013_AM
SAMPLE QTY : 1.285 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 91.346

CHAMBER : 087
DETECTOR S/N : 78199
AVERAGE %EFFICIENCY : 30.6587
COUNT DATE : 13-FEB-2010 11:15:34
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B087.CNF;1028
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W087.CNF;276
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.6642E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5497.131	115.612	49.000	47.582	0.000	2.8409	99.94000	5.96E-02	9.36E-03	8.28E-03	1.99E-02	8.64E-03
AM243	5270.000	5282.508	29.887	820.000	815.000	5.000	2.2361	99.78000	1.02E+00	7.17E-02	6.53E-03	1.65E-02	3.60E-02
CM-242	6102.000	6035.863	34.637	7.000	7.000	0.000	4.3413	100.0000	9.45E-03	3.62E-03	1.26E-02	2.87E-02	3.57E-03
CM-3/4	5795.020	5758.647	113.189	12.000	12.000	0.000	5.1799	100.0000	1.50E-02	4.44E-03	1.51E-02	3.36E-02	4.34E-03
CM-5/6	5386.000	5376.078	0.000	12.000	12.000	0.000	14.2480	86.09000	1.74E-02	5.15E-03	4.82E-02	1.00E-01	5.04E-03
CM-247	4946.000	4896.957	4.948	14.000	13.000	1.000	13.7917	79.30000	2.05E-02	6.24E-03	5.06E-02	1.06E-01	6.11E-03
CM-248	5078.600	5069.521	39.379	16.000	11.000	5.000	19.5080	91.00000	1.51E-02	6.37E-03	6.24E-02	1.29E-01	6.30E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

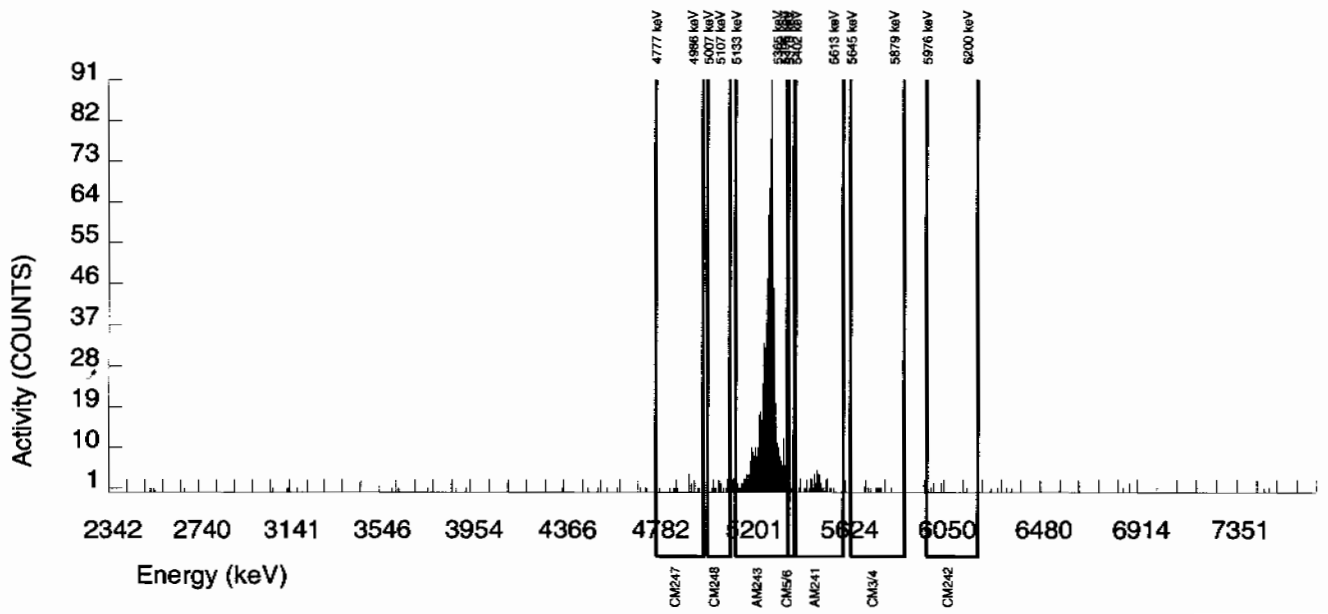

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827
SAMPLE ID : S0246020014_AM
SAMPLE QTY : 1.273 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 88.432

CHAMBER : 088
DETECTOR S/N : 33452
AVERAGE %EFFICIENCY : 30.3479
COUNT DATE : 13-FEB-2010 11:15:34
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B088.CNF;1016
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W088.CNF;286
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5792E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5465.475	9.957	12.000	7.641	3.000	2.8409	99.94000	1.01E-02	4.91E-03	8.72E-03	2.10E-02	4.87E-03
AM243	5270.000	5286.123	40.555	783.000	781.000	2.000	1.4142	99.78000	1.03E+00	7.30E-02	4.35E-03	1.23E-02	3.70E-02
CM-242	6102.000	6057.085	109.532	5.000	5.000	0.000	4.3413	100.0000	7.11E-03	3.21E-03	1.33E-02	3.02E-02	3.18E-03
CM-3/4	5795.020	5739.894	17.426	13.000	4.000	9.000	5.1799	100.0000	5.28E-03	6.20E-03	1.59E-02	3.54E-02	6.20E-03
CM-5/6	5386.000	5378.116	0.000	12.000	10.000	2.000	14.2480	86.09000	1.53E-02	5.81E-03	5.08E-02	1.06E-01	5.73E-03
CM-247	4946.000	4954.416	59.745	2.000	-2.000	4.000	13.7917	79.30000	-3.33E-03	4.07E-03	5.33E-02	1.11E-01	4.07E-03
CM-248	5078.600	5064.631	79.660	6.000	6.000	0.000	19.5080	91.00000	8.69E-03	3.59E-03	6.58E-02	1.35E-01	3.55E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

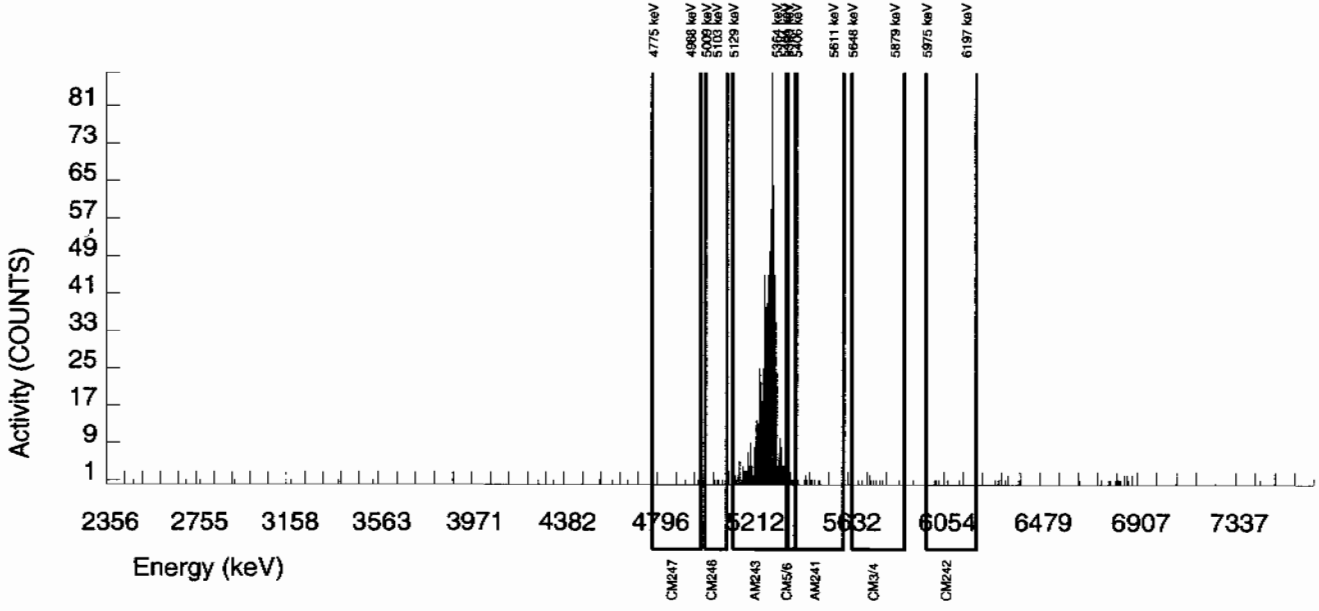

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827	CHAMBER : 089	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246020015_AM	DETECTOR S/N : 78262	BKG FILE : B089.CNF;715
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 29.4965	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 11:15:35	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W089.CNF;195
% YIELD : 85.043		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4803E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5462.438	84.799	3.000	0.730	1.000	2.8409	99.94000	1.05E-03	2.37E-03	9.48E-03	2.29E-02	2.37E-03
AM243	5270.000	5276.087	33.548	731.000	730.000	1.000	1.0000	99.78000	1.05E+00	7.56E-02	3.34E-03	1.06E-02	3.89E-02
CM-242	6102.000	6028.419	9.976	10.000	10.000	0.000	4.3413	100.0000	1.55E-02	4.99E-03	1.45E-02	3.29E-02	4.89E-03
CM-3/4	5795.020	5778.675	29.929	7.000	6.000	1.000	5.1799	100.0000	8.62E-03	4.10E-03	1.73E-02	3.85E-02	4.06E-03
CM-5/6	5386.000	5387.354	4.988	1.000	1.000	0.000	14.2480	86.09000	1.67E-03	1.67E-03	5.52E-02	1.15E-01	1.67E-03
CM-247	4946.000	4868.177	0.000	9.000	9.000	0.000	13.7917	79.30000	1.63E-02	5.52E-03	5.80E-02	1.21E-01	5.43E-03
CM-248	5078.600	5060.984	13.718	8.000	8.000	0.000	19.5080	91.00000	1.26E-02	4.53E-03	7.15E-02	1.47E-01	4.46E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

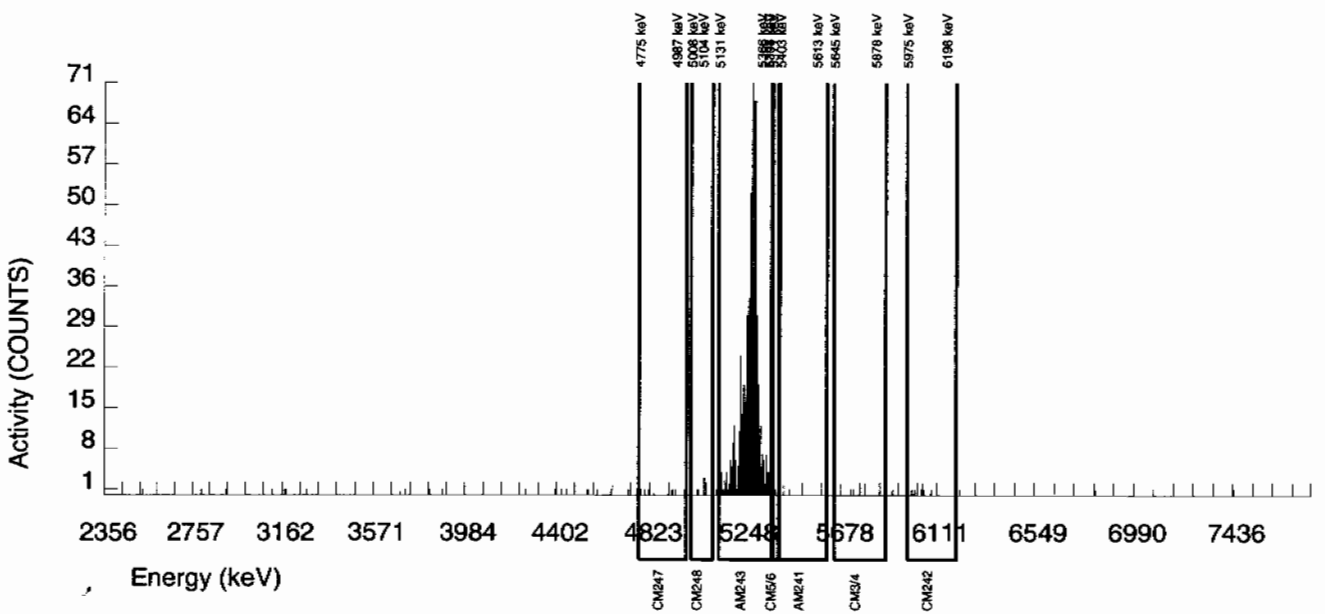

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827	CHAMBER : 090	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202035013_AM	DETECTOR S/N : 78263	BKG FILE : B090.CNF;723
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.5428	BKG DATE : 7-FEB-2010
SAMPLE DATE : 9-FEB-2010 00:00:00.	COUNT DATE : 13-FEB-2010 11:15:35	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W090.CNF;201
% YIELD : 86.585		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.5253E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5530.091	4.894	1.000	-1.427	1.000	2.8409	99.94000	-2.28E-03	2.26E-03	1.06E-02	2.55E-02	2.26E-03
AM243	5270.000	5278.708	24.469	821.000	820.000	1.000	1.0000	99.78000	1.31E+00	9.36E-02	3.73E-03	1.18E-02	4.59E-02
CM-242	6102.000	6032.106	58.115	5.000	5.000	0.000	4.3413	100.0000	8.16E-03	3.68E-03	1.61E-02	3.66E-02	3.65E-03
CM-3/4	5795.020	5772.853	107.666	8.000	8.000	0.000	5.1799	100.0000	1.28E-02	4.59E-03	1.93E-02	4.29E-02	4.52E-03
CM-5/6	5386.000	5375.043	0.000	5.000	5.000	0.000	14.2480	86.09000	9.28E-03	4.19E-03	6.16E-02	1.28E-01	4.15E-03
CM-247	4946.000	4881.976	173.735	15.000	13.000	2.000	13.7917	79.30000	2.62E-02	8.47E-03	6.47E-02	1.35E-01	8.31E-03
CM-248	5078.600	5061.636	0.000	16.000	16.000	0.000	19.5080	91.00000	2.81E-02	7.24E-03	7.97E-02	1.64E-01	7.03E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

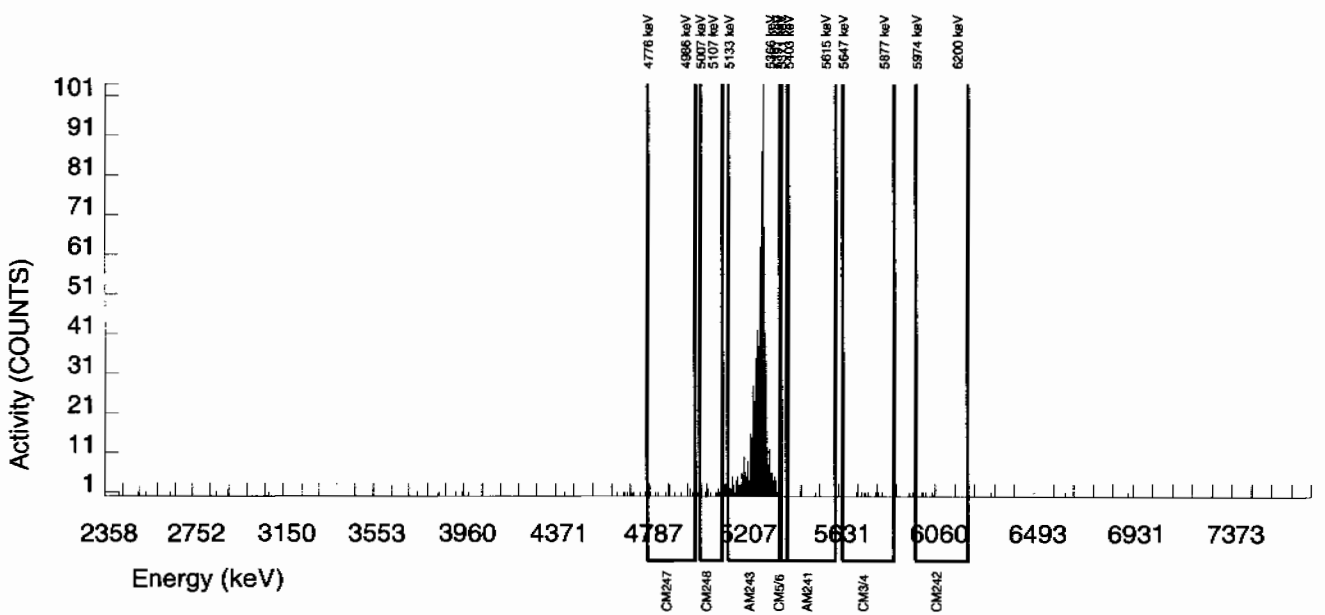

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827	CHAMBER : 091	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202035014_AM	DETECTOR S/N : 78259	BKG FILE : B091.CNF;721
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 34.5001	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 11:15:35	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W091.CNF;192
% YIELD : 81.075		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3646E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5507.645	15.302	28.000	25.583	1.000	2.8409	99.94000	3.29E-02	7.06E-03	8.51E-03	2.05E-02	6.76E-03
AM243	5270.000	5281.450	30.712	814.000	814.000	0.000	0.0000	99.78000	1.05E+00	7.48E-02	0.00E+00	3.49E-03	3.68E-02
CM-242	6102.000	6039.702	69.478	3.000	3.000	0.000	4.3413	100.0000	4.16E-03	2.42E-03	1.30E-02	2.95E-02	2.40E-03
CM-3/4	5795.020	5753.160	143.920	5.000	5.000	0.000	5.1799	100.0000	6.44E-03	2.91E-03	1.55E-02	3.45E-02	2.88E-03
CM-5/6	5386.000	5374.064	0.000	10.000	10.000	0.000	14.2480	86.09000	1.49E-02	4.82E-03	4.95E-02	1.03E-01	4.72E-03
CM-247	4946.000	4901.473	133.994	7.000	4.000	3.000	13.7917	79.30000	6.49E-03	5.15E-03	5.20E-02	1.08E-01	5.13E-03
CM-248	5078.600	5069.530	51.954	14.000	14.000	0.000	19.5080	91.00000	1.98E-02	5.43E-03	6.41E-02	1.32E-01	5.29E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

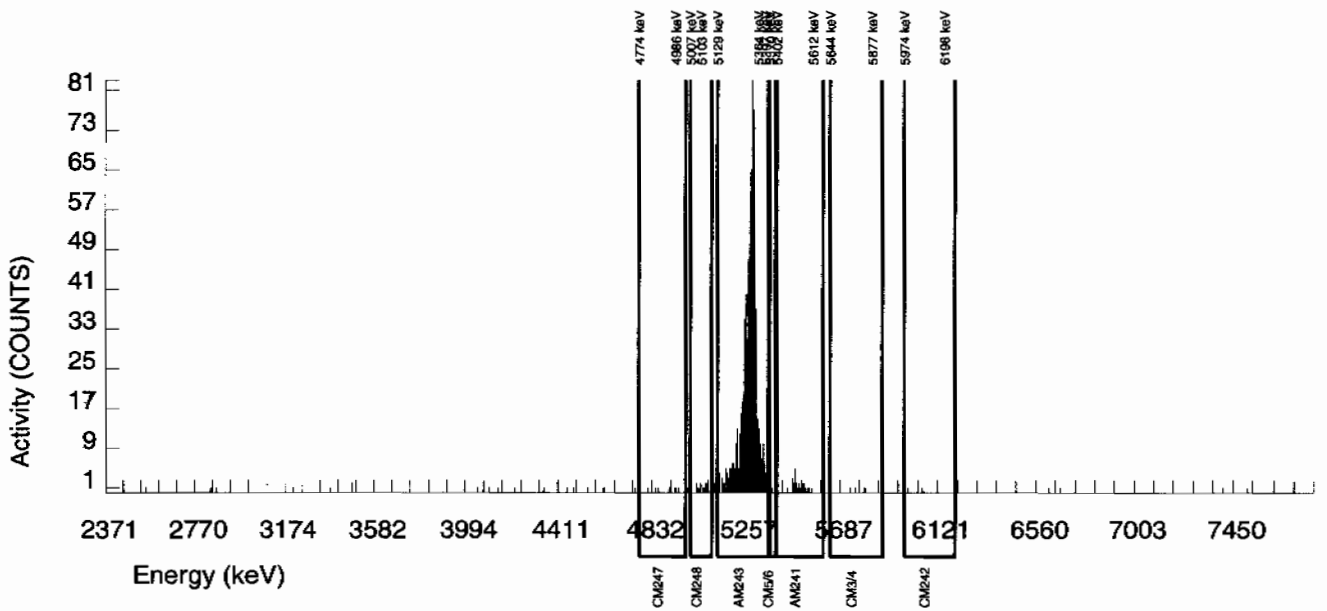

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949827	CHAMBER : 092	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202035015_AM	DETECTOR S/N : 79457	BKG FILE : B092.CNF;724
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 31.5514	BKG DATE : 7-FEB-2010
SAMPLE DATE : 9-FEB-2010 00:00:00.	COUNT DATE : 13-FEB-2010 11:15:35	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W092.CNF;235
% YIELD : 95.950		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.7984E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.231	36.263	2299.000	2297.467	0.000	2.8409	99.94000	3.20E+01	2.29E+00	9.20E-02	2.22E-01	6.67E-01
AM243	5270.000	5270.387	29.858	884.000	881.000	3.000	1.7321	99.78000	1.23E+01	9.37E-01	5.62E-02	1.50E-01	4.15E-01
CM-242	6102.000	6035.533	44.056	2.000	2.000	0.000	4.3413	100.0000	2.84E-02	2.02E-02	1.40E-01	3.19E-01	2.01E-02
CM-3/4	5795.020	5758.881	24.374	10.000	9.000	1.000	5.1799	100.0000	1.25E-01	4.69E-02	1.68E-01	3.73E-01	4.61E-02
CM-5/6	5386.000	5385.468	0.000	75.000	75.000	0.000	14.2480	86.09000	1.21E+00	1.63E-01	5.35E-01	1.11E+00	1.40E-01
CM-247	4946.000	4911.720	0.000	8.000	7.000	1.000	13.7917	79.30000	1.23E-01	5.33E-02	5.63E-01	1.17E+00	5.26E-02
CM-248	5078.600	5073.483	0.000	17.000	17.000	0.000	19.5080	91.00000	2.60E-01	6.55E-02	6.94E-01	1.43E+00	6.30E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

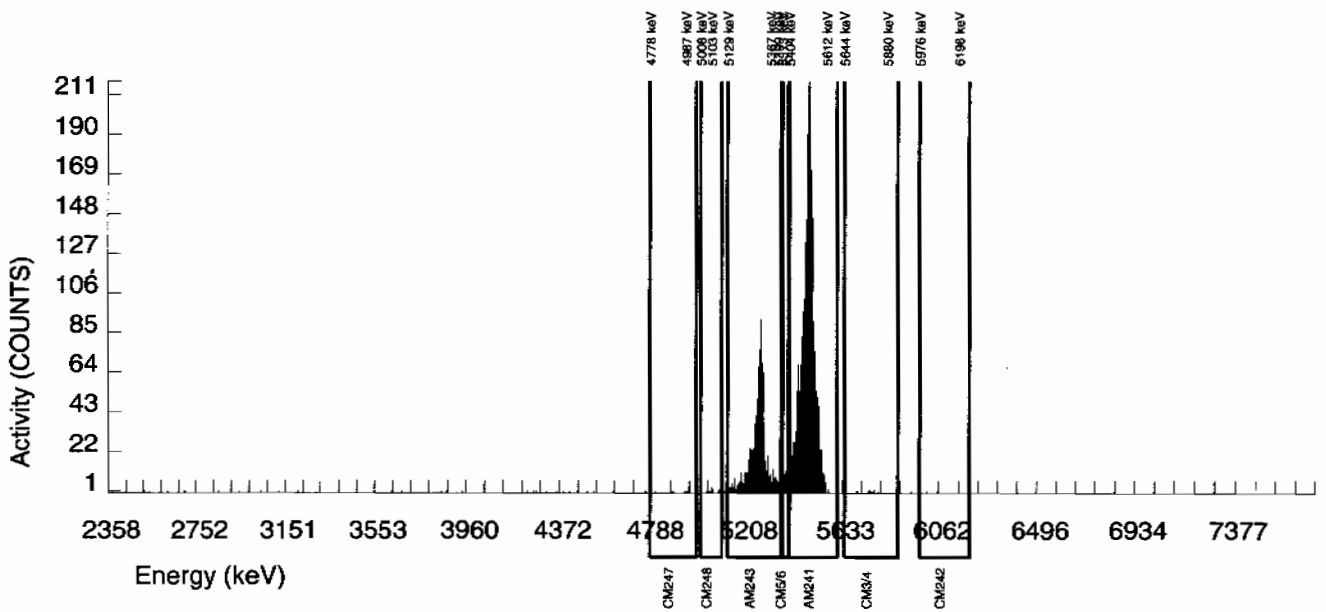

Radiochemistry Batch Checklist, Rev10

Batch# 949828 Product: Pu Date: 2/15/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-129% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/15/10

Secondary Review Performed By: [illegible] 2/17/10

2/23
LANL

P ✓

Plutonium Que Sheet

05-FEB-10

Batch #: 949828 **Analyst:** JXD2 **First Client Due Date:** 23-FEB-10 **Internal Due Date:** 13-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1375-A **Expiration Date:** 01/08/11 **Vol:** 0.1

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** — **Expiration Date:** — **Vol:** —

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 02/03/10 **Initials:** JXD **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** [illegible] 2/9/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
245994001-1	RE15-10-8122	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.270	69
245994002-1	RE15-10-8112	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.263	70
245994003-1	RE15-10-8113	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.284	77
245994004-1	RE15-10-8116	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.257	79
245994005-1	RE15-10-8119	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.273	80
245994006-1	RE15-10-8114	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.255	81
245994007-1	RE15-10-8115	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.255	82
245994008-1	RE15-10-8117	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	8	8	1.257	211
245994009-1	RE15-10-8118	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	1.253	89
246008001-1	RE16-10-2893	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	10	10	1.261	90
246008002-1	RE16-10-2892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	11	11	1.256	91
246008003-1	RE16-10-2894	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	12	12	1.250	92
246008004-1	RE16-10-2888	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	13	13	1.275	93
246008005-1	RE16-10-2891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.260	94
246008006-1	RE16-10-2897	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.286	95
246008007-1	RE16-10-2890	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.255	97
246008008-1	RE16-10-2889	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.267	99
246020013-1	RE15-10-8061	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.285	100
246020014-1	RE15-10-8063	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.273	107
246020015-1	RE15-10-8062	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	20	1.252	108
1202035016-1	MB for batch 949828	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	109
1202035017-1	RE15-10-8061(246020013DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.252	111
1202035018-1	LCS for batch 949828	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.107	112

* SRM 0244-B exp 04/30/20 0.107g

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/15/10

Blank Correction Report

Batch ID 949828

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035017	DUP	Plutonium-238	1.25 g	0.00709	0.0049	0.0296	-.002416	pCi/g	NO
		Plutonium-239/240	1.25 g	0.179	0.0216	0.0224	.001184	pCi/g	NO
1202035018	LCS	Plutonium-238	0.107 g	7.68	0.724	0.463	-.02822430	pCi/g	NO
		Plutonium-239/240	0.107 g	41.8	3.10	0.351	.013831776	pCi/g	NO
1202035016	MB	Plutonium-238	1.00 g	-0.00302	0.00368	0.0435	-.00302	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00148	0.00336	0.033	.00148	pCi/g	YES
245994001	RE15-10-8122	Plutonium-238	1.27 g	-0.00126	0.00281	0.0364	-.00237795	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00248	0.00396	0.0276	.001165354	pCi/g	YES
245994002	RE15-10-8112	Plutonium-238	1.26 g	-0.000114	0.00627	0.0331	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0102	0.00526	0.0251	.001174603	pCi/g	NO
245994003	RE15-10-8113	Plutonium-238	1.28 g	-0.00418	0.00328	0.0299	-.00235938	pCi/g	NO
		Plutonium-239/240	1.28 g	0.00308	0.0031	0.0227	.00115625	pCi/g	YES
245994004	RE15-10-8116	Plutonium-238	1.26 g	-0.00117	0.00259	0.0336	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0104	0.00534	0.0255	.001174603	pCi/g	NO
245994005	RE15-10-8119	Plutonium-238	1.27 g	-0.00123	0.00317	0.0347	-.00237795	pCi/g	NO
		Plutonium-239/240	1.27 g	-0.0012	0.00268	0.0263	.001165354	pCi/g	YES
245994006	RE15-10-8114	Plutonium-238	1.26 g	0.00551	0.00391	0.0401	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0358	0.0102	0.0304	.001174603	pCi/g	NO
245994007	RE15-10-8115	Plutonium-238	1.26 g	0.00226	0.00228	0.0329	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00116	0.00301	0.0249	.001174603	pCi/g	YES
245994008	RE15-10-8117	Plutonium-238	1.26 g	-0.00118	0.00408	0.0328	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00107	0.00466	0.0249	.001174603	pCi/g	YES
245994009	RE15-10-8118	Plutonium-238	1.25 g	0.00131	0.00297	0.0385	-.002416	pCi/g	NO
		Plutonium-239/240	1.25 g	0.0066	0.00479	0.0292	.001184	pCi/g	NO
246008001	RE16-10-2893	Plutonium-238	1.26 g	0.00323	0.00325	0.0314	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.0303	0.00829	0.0238	.001174603	pCi/g	NO
246008002	RE16-10-2892	Plutonium-238	1.26 g	-0.00128	0.00284	0.0367	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00	0.00253	0.0279	.001174603	pCi/g	YES
246008003	RE16-10-2894	Plutonium-238	1.25 g	0.00	0.00252	0.0365	-.002416	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00248	0.00398	0.0277	.001184	pCi/g	YES
246008004	RE16-10-2888	Plutonium-238	1.28 g	0.00117	0.00264	0.0342	-.00235938	pCi/g	NO
		Plutonium-239/240	1.28 g	0.00587	0.00426	0.026	.00115625	pCi/g	NO
246008005	RE16-10-2891	Plutonium-238	1.26 g	0.00555	0.00394	0.0403	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00554	0.00394	0.0306	.001174603	pCi/g	YES
246008006	RE16-10-2897	Plutonium-238	1.29 g	0.00597	0.00969	0.0359	-.00234109	pCi/g	NO
		Plutonium-239/240	1.29 g	0.0161	0.00673	0.0273	.001147287	pCi/g	NO
246008007	RE16-10-2890	Plutonium-238	1.26 g	0.00664	0.00459	0.0277	-.00239683	pCi/g	NO
		Plutonium-239/240	1.26 g	-0.00194	0.00271	0.021	.001174603	pCi/g	YES
246008008	RE16-10-2889	Plutonium-238	1.27 g	-0.00118	0.00306	0.0334	-.00237795	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246008008	RE16-10-2889	Plutonium-239/240	1.27 g	-0.00232	0.00283	0.0253	.001165354	pCi/g	YES
246020013	RE15-10-8061	Plutonium-238	1.29 g	0.0132	0.00544	0.032	-.00234109	pCi/g	NO
		Plutonium-239/240	1.29 g	0.142	0.0196	0.0242	.001147287	pCi/g	NO
246020014	RE15-10-8063	Plutonium-238	1.27 g	-0.0053	0.00373	0.0381	-.00237795	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00521	0.00492	0.0289	.001165354	pCi/g	YES
246020015	RE15-10-8062	Plutonium-238	1.25 g	0.00247	0.00395	0.0362	-.002416	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00123	0.0028	0.0275	.001184	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828	CHAMBER : 100	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020013_PU	DETECTOR S/N : 79456	BKG FILE : B100.CNF;677
SAMPLE QTY : 1.285 G	AVERAGE %EFFICIENCY : 33.8558	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 11-FEB-2010 10:20:44	BKG LIVE TIME(SEC) : 59999.99
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 30299.99	EFF FILE : W100.CNF;201
% YIELD : 93.334		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1554E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.073	0.000	0.000	-0.505	0.505	2.6925	100.0000	-1.12E-03	2.49E-03	1.19E-02	2.98E-02	2.49E-03
PU-238	5499.000	5484.821	106.305	6.000	6.000	0.000	2.9312	99.90000	1.32E-02	5.44E-03	1.30E-02	3.20E-02	5.39E-03
PU-9/0	5155.000	5143.507	38.877	65.000	64.495	0.505	2.0604	99.90000	1.42E-01	1.96E-02	9.14E-03	2.42E-02	1.78E-02
PU242	4890.000	4885.822	39.852	541.000	539.485	1.515	1.2309	100.0000	1.19E+00	8.63E-02	5.46E-03	1.69E-02	5.11E-02
PU-244	4589.000	4521.383	0.000	3.000	2.495	0.505	3.7241	99.90000	5.49E-03	3.98E-03	1.65E-02	3.90E-02	3.97E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

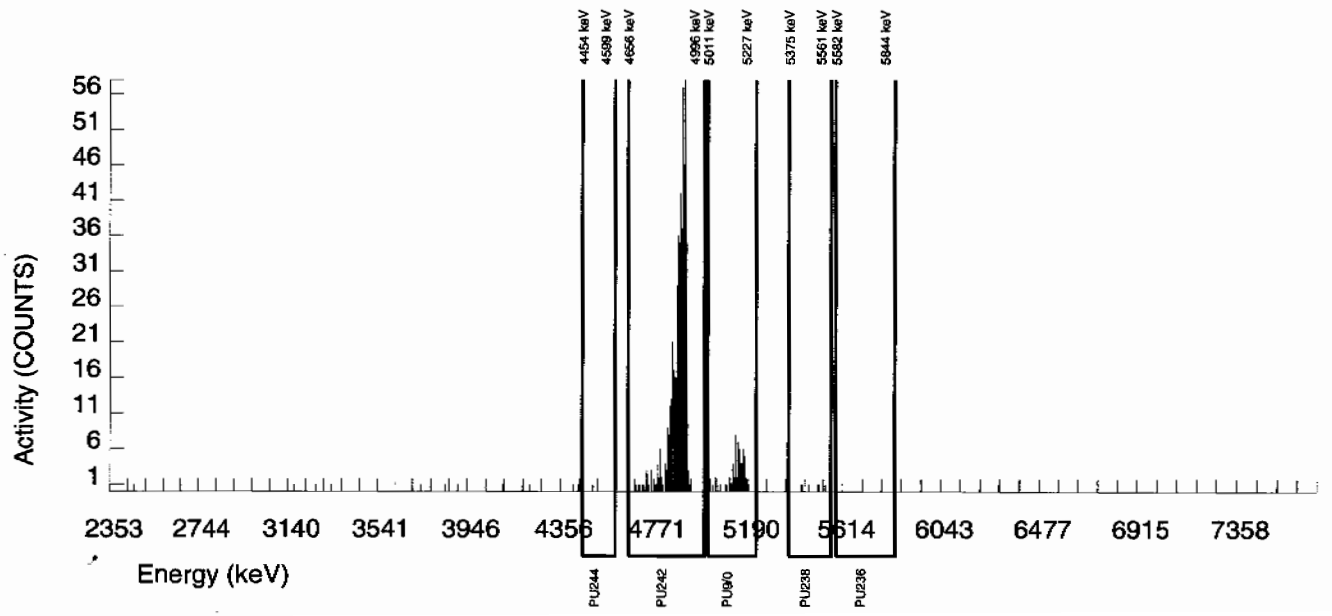

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828	CHAMBER : 107	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020014_PU	DETECTOR S/N : 67578	BKG FILE : B107.CNF;682
SAMPLE QTY : 1.273 G	AVERAGE %EFFICIENCY : 30.8518	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 11-FEB-2010 10:20:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 30299.99	EFF FILE : W107.CNF;232
% YIELD : 86.756		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9330E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5720.355	59.637	2.000	0.990	1.010	2.6925	100.0000	2.62E-03	4.19E-03	1.42E-02	3.55E-02	4.19E-03
PU-238	5499.000	5467.947	0.000	0.000	-2.020	2.020	2.9312	99.90000	-5.30E-03	3.73E-03	1.55E-02	3.81E-02	3.73E-03
PU-9/0	5155.000	5153.981	54.667	3.000	1.990	1.010	2.0604	99.90000	5.21E-03	4.92E-03	1.09E-02	2.89E-02	4.91E-03
PU242	4890.000	4897.484	30.428	460.000	456.970	3.030	1.7407	100.0000	1.20E+00	9.27E-02	9.20E-03	2.55E-02	5.62E-02
PU-244	4589.000	4459.365	4.970	1.000	1.000	0.000	3.7241	99.90000	2.62E-03	2.63E-03	1.97E-02	4.65E-02	2.62E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

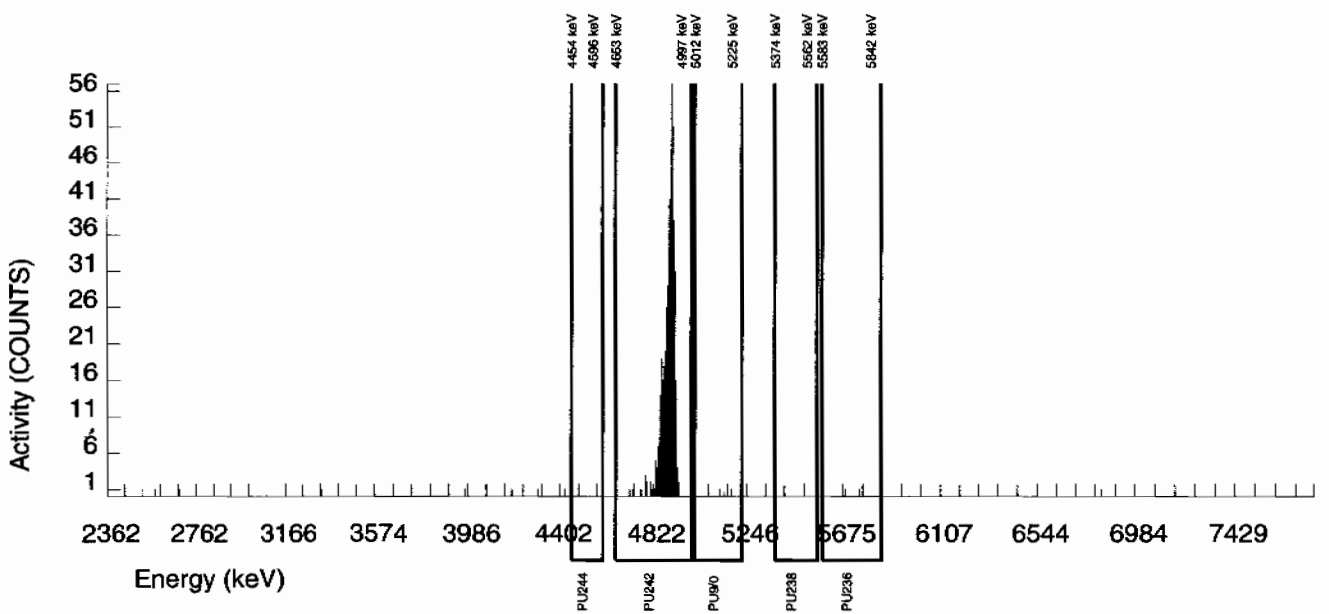

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828	CHAMBER : 108	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020015_PU	DETECTOR S/N : 78778	BKG FILE : B108.CNF;680
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 33.8473	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 11-FEB-2010 10:20:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 30299.99	EFF FILE : W108.CNF;213
% YIELD : 84.532		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8578E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.504	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	2.52E-03	1.35E-02	3.38E-02	2.52E-03
PU-238	5499.000	5457.758	4.872	2.000	0.990	1.010	2.9312	99.90000	2.47E-03	3.95E-03	1.47E-02	3.62E-02	3.95E-03
PU-9/0	5155.000	5151.306	4.872	1.000	0.495	0.505	2.0604	99.90000	1.23E-03	2.80E-03	1.04E-02	2.75E-02	2.79E-03
PU242	4890.000	4893.473	34.877	490.000	488.485	1.515	1.2309	100.0000	1.22E+00	9.18E-02	6.19E-03	1.91E-02	5.52E-02
PU-244	4589.000	4592.202	4.872	1.000	1.000	0.000	3.7241	99.90000	2.49E-03	2.50E-03	1.87E-02	4.42E-02	2.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

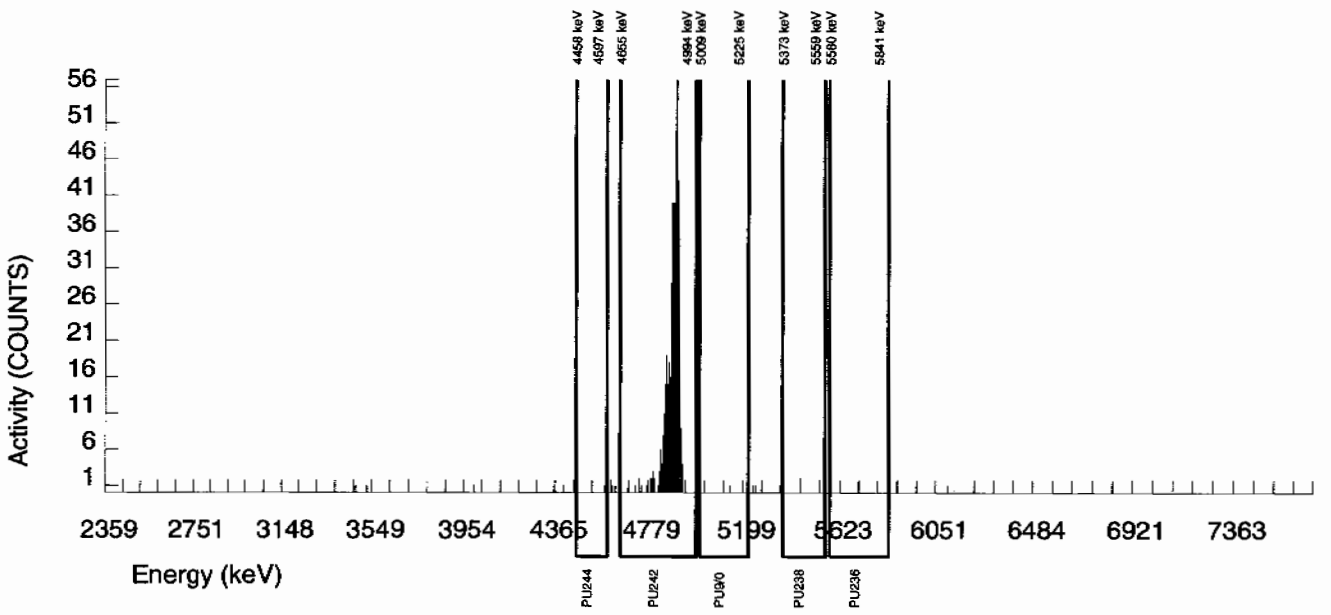

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828	CHAMBER : 109	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035016_PU	DETECTOR S/N : 79463	BKG FILE : B109.CNF;678
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 35.6501	BKG DATE : 7-FEB-2010
SAMPLE DATE : 9-FEB-2010 00:00:00.	COUNT DATE : 11-FEB-2010 10:20:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 30299.99	EFF FILE : W109.CNF;194
% YIELD : 83.709		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8300E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.879	0.000	0.000	-1.010	1.010	2.6925	100.0000	-3.02E-03	3.68E-03	1.62E-02	4.06E-02	3.68E-03
PU-238	5499.000	5466.257	0.000	0.000	-1.010	1.010	2.9312	99.90000	-3.02E-03	3.68E-03	1.77E-02	4.35E-02	3.68E-03
PU-9/0	5155.000	5155.951	4.914	1.000	0.495	0.505	2.0604	99.90000	1.48E-03	3.36E-03	1.24E-02	3.30E-02	3.35E-03
PU242	4890.000	4891.007	32.294	510.000	509.495	0.505	0.7106	100.0000	1.52E+00	1.13E-01	4.29E-03	1.67E-02	6.75E-02
PU-244	4589.000	4529.250	19.658	2.000	1.495	0.505	3.7241	99.90000	4.47E-03	4.50E-03	2.25E-02	5.31E-02	4.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

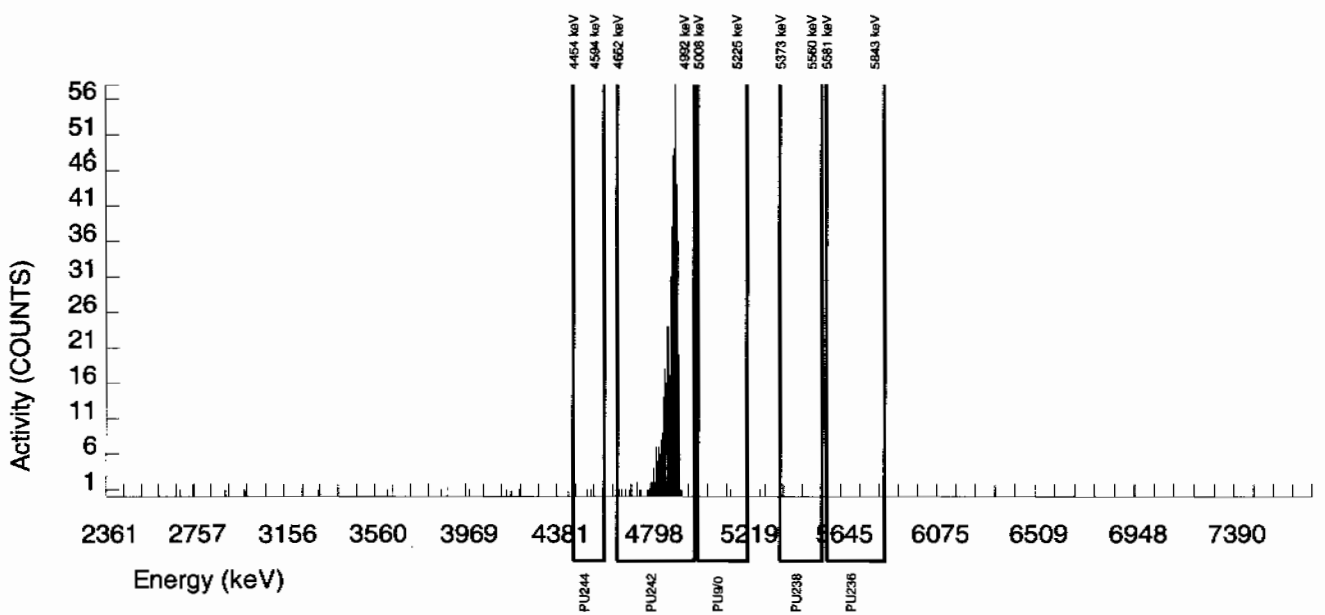

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828
SAMPLE ID : S1202035017_PU
SAMPLE QTY : 1.252 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : JXD2
% YIELD : 105.928

CHAMBER : 111
DETECTOR S/N : 79462
AVERAGE %EFFICIENCY : 33.1216
COUNT DATE : 11-FEB-2010 10:20:45
ELAPSED LIVE TIME(SEC) : 30299.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B111.CNF;677
BKG DATE : 7-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W111.CNF;209
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.5812E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5806.059	4.969	1.000	1.000	0.000	2.6925	100.0000	2.05E-03	2.06E-03	1.10E-02	2.76E-02	2.05E-03
PU-238	5499.000	5486.072	78.887	5.000	3.485	1.515	2.9312	99.90000	7.09E-03	4.90E-03	1.20E-02	2.96E-02	4.88E-03
PU-9/0	5155.000	5150.213	52.798	88.000	88.000	0.000	2.0604	99.90000	1.79E-01	2.16E-02	8.45E-03	2.24E-02	1.91E-02
PU242	4890.000	4892.850	30.185	599.000	599.000	0.000	0.0000	100.0000	1.22E+00	8.53E-02	0.00E+00	5.50E-03	4.97E-02
PU-244	4589.000	4527.458	4.969	1.000	-0.010	1.010	3.7241	99.90000	-2.03E-05	2.50E-03	1.53E-02	3.61E-02	2.50E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

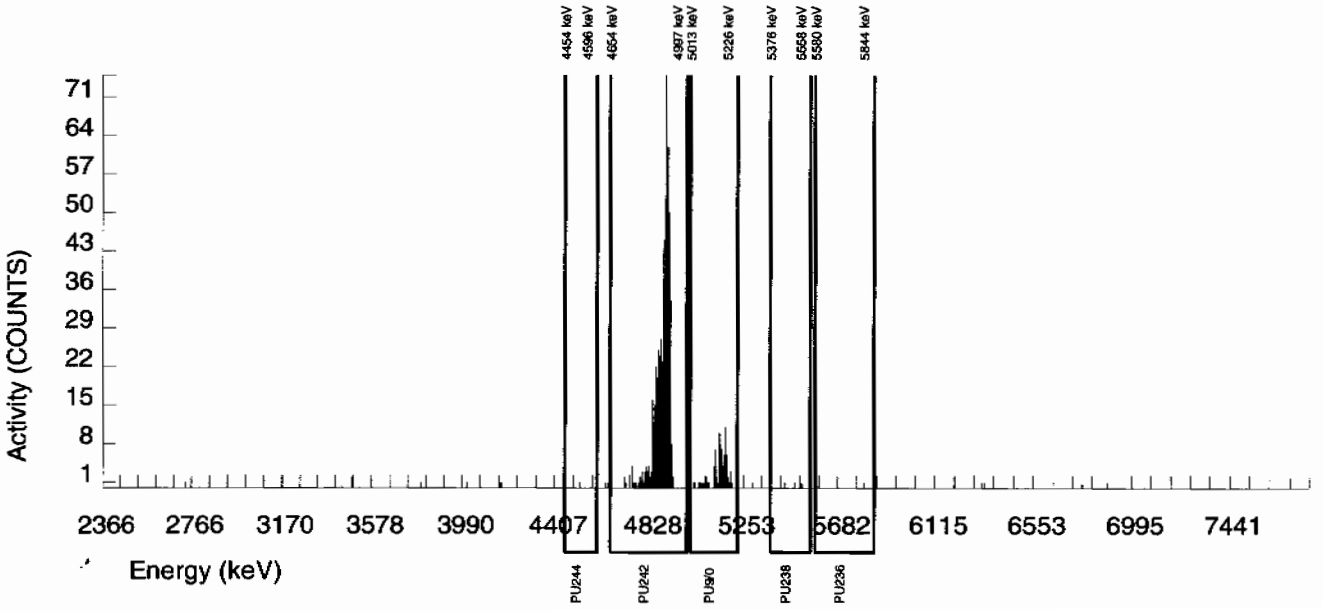

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949828	CHAMBER : 112	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035018_PU	DETECTOR S/N : 78261	BKG FILE : B112.CNF;685
SAMPLE QTY : 0.107 G	AVERAGE %EFFICIENCY : 31.8150	BKG DATE : 7-FEB-2010
SAMPLE DATE : 9-FEB-2010 00:00:00.	COUNT DATE : 11-FEB-2010 10:20:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 30299.99	EFF FILE : W112.CNF;221
% YIELD : 82.292		CAL DATE : 15-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7821E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5711.562	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	3.20E-02	1.73E-01	4.32E-01	3.19E-02
PU-238	5499.000	5496.537	53.807	241.000	241.000	0.000	2.9312	99.90000	7.68E+00	7.24E-01	1.89E-01	4.63E-01	4.95E-01
PU-9/0	5155.000	5153.410	32.090	1312.000	1310.485	1.515	2.0604	99.90000	4.18E+01	3.10E+00	1.33E-01	3.51E-01	1.15E+00
PU242	4890.000	4892.739	22.027	448.000	446.990	1.010	1.0050	100.0000	1.42E+01	1.19E+00	6.46E-02	2.15E-01	6.74E-01
PU-244	4589.000	4547.787	14.609	6.000	6.000	0.000	3.7241	99.90000	1.91E-01	7.92E-02	2.40E-01	5.65E-01	7.81E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

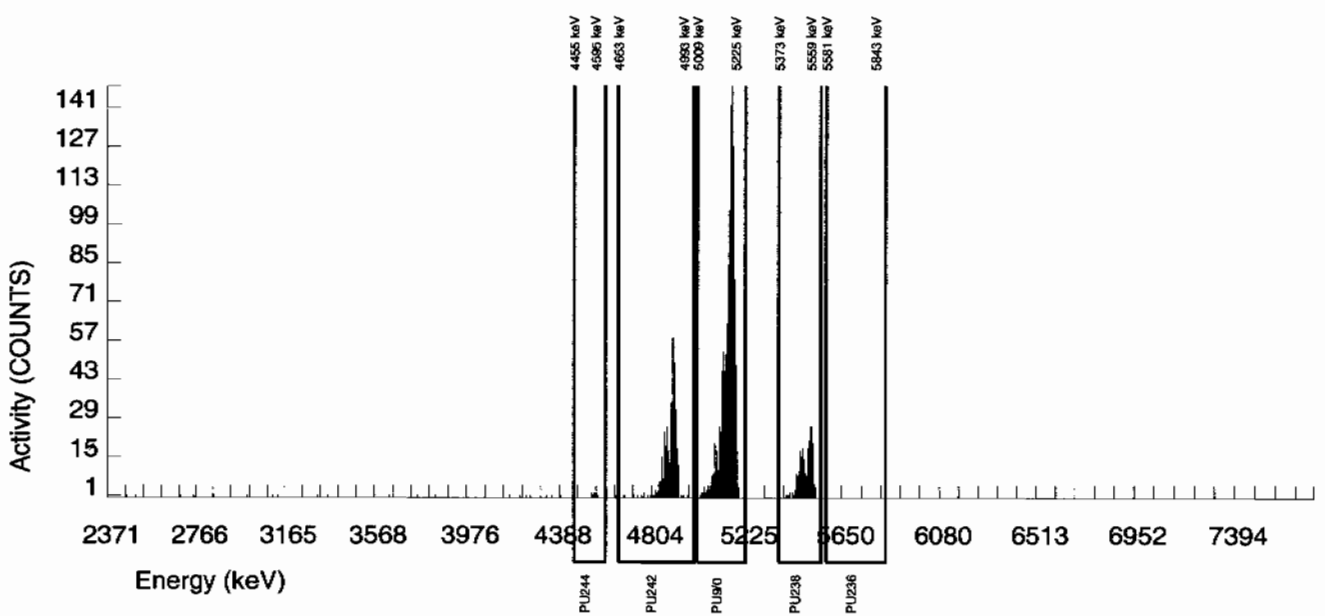

Radiochemistry Batch Checklist, Rev10

Batch# 9516665 Product: Am Date: 2/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/26/10

Secondary Review Performed By: [illegible] 2/26/10

3/2
LANC

Am/Cm Que Sheet

10-FEB-10

Batch #: 951665 | Analyst: CXM2 | First Client Due Date: 02-MAR-10 | Internal Due Date: 19-FEB-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 5/11/10 | Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 | LCS Code(s): 0244-B / — | Expiration Date: ~~10/1~~ 4/30/10 / — | Vol(s): 0.115g / —

Spike Isotope(s): Am241/Cm244 | Spike Code(s): — / — | Expiration Date: — / — | Vol(s): — / —

Prep Date: 2/18/10 | Initials: CMM | Pipet ID: 2971058 | Balance ID: 50410272 | Witness: [illegible] 2/18/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #	
245978008-1	RE15-10-7975	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	1	31	0.525	13	
245978009-1	RE15-10-7978	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	2	32	0.508	229 ~~14~~	DS 2/26/10
245978010-1	RE15-10-7970	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	3	33	0.501	16	
~~245978011-1~~	~~RE15-10-7964~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~4~~	~~34~~	~~0.527~~	~~17~~	
245978012-1	RE15-10-7973	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	5	35	0.509	18	
245978013-1	RE15-10-7962	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	6	36	0.515	25	
245978014-1	RE15-10-7963	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	7	37	0.510	26	
245978015-1	RE15-10-7977	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	8	38	0.508	27	
246020001-1	RE15-10-7980	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	9	39	0.503	28	
246020002-1	RE15-10-7958	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	10	40	0.510	29	
246020003-1	RE15-10-7960	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	11	41	0.514	209 ~~30~~	DS 2/26/10
246020004-1	RE15-10-7979	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	12	42	0.525	31	
246020005-1	RE15-10-7972	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	13	43	0.500	33	
246020006-1	RE15-10-7957	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	44	0.519	210 ~~35~~	DS 2/26/10
246020007-1	RE15-10-7974	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	45	0.513	36	
246020008-1	RE15-10-7961	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	46	0.510	95	
246020009-1	RE15-10-7971	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	47	0.514	97	
246020010-1	RE15-10-7966	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	48	0.517	99	
246020011-1	RE15-10-7959	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	49	0.510	100	
246020012-1	RE15-10-7969	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	50	0.507	217	
1202039541-1	MB for batch 951665	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	51	1	218	
1202039542-1	RE15-10-7980(246020001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	52	0.526	233	
1202039543-1	LCS for batch 951665	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	53	0.115	234	

Choose SOP Used: ~~GL-RAD-A-011~~ GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/26/10

[illegible] 2/26/10

Blank Correction Report

Batch ID 951665

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202039542	DUP	Americium-241	0.526 g	0.00328	0.00289	0.0404	-.00433460	pCi/g	NO
1202039543	LCS	Americium-241	0.115 g	25.9	1.71	0.147	-.01982609	pCi/g	NO
1202039541	MB	Americium-241	1.00 g	-0.00228	0.00387	0.0214	-.00228	pCi/g	NO
245978008	RE15-10-7975	Americium-241	0.525 g	0.0324	0.0159	0.0487	-.00434286	pCi/g	NO
245978009	RE15-10-7978	Americium-241	0.508 g	0.0163	0.00703	0.0473	-.00448819	pCi/g	NO
245978010	RE15-10-7970	Americium-241	0.501 g	0.0204	0.0127	0.0496	-.00455090	pCi/g	NO
245978012	RE15-10-7973	Americium-241	0.509 g	-0.0108	0.0151	0.0505	-.00447937	pCi/g	NO
245978013	RE15-10-7962	Americium-241	0.515 g	-0.00747	0.0147	0.0484	-.00442718	pCi/g	NO
245978014	RE15-10-7963	Americium-241	0.510 g	0.00205	0.00703	0.052	-.00447059	pCi/g	NO
245978015	RE15-10-7977	Americium-241	0.508 g	0.00875	0.00855	0.0527	-.00448819	pCi/g	NO
246020001	RE15-10-7980	Americium-241	0.503 g	0.00156	0.00778	0.0485	-.00453280	pCi/g	NO
246020002	RE15-10-7958	Americium-241	0.510 g	-0.0173	0.0131	0.0511	-.00447059	pCi/g	NO
246020003	RE15-10-7960	Americium-241	0.519 g	0.0731	0.0157	0.0494	-.00439306	pCi/g	NO
246020004	RE15-10-7979	Americium-241	0.525 g	0.00723	0.00616	0.0461	-.00434286	pCi/g	NO
246020005	RE15-10-7972	Americium-241	0.500 g	0.00737	0.00471	0.0475	-.00456	pCi/g	NO
246020006	RE15-10-7957	Americium-241	0.519 g	0.0769	0.0158	0.0418	-.00439306	pCi/g	NO
246020007	RE15-10-7974	Americium-241	0.513 g	-0.00131	0.00594	0.050	-.00444444	pCi/g	NO
246020008	RE15-10-7961	Americium-241	0.510 g	0.0159	0.020	0.054	-.00447059	pCi/g	NO
246020009	RE15-10-7971	Americium-241	0.514 g	0.00215	0.0126	0.0524	-.00443580	pCi/g	NO
246020010	RE15-10-7966	Americium-241	0.517 g	0.00101	0.00418	0.0432	-.00441006	pCi/g	NO
246020011	RE15-10-7959	Americium-241	0.510 g	0.0196	0.00984	0.048	-.00447059	pCi/g	NO
246020012	RE15-10-7969	Americium-241	0.507 g	-0.00137	0.00444	0.0499	-.00449704	pCi/g	NO

2/26/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 028	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246020001_AM	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1126
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 30.7898	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W028.CNF;321
% YIELD : 95.533		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7863E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5538.199	0.000	5.000	0.510	3.000	2.8409	99.94000	1.56E-03	7.78E-03	2.01E-02	4.85E-02	7.77E-03
AM243	5270.000	5267.915	38.606	857.000	856.000	1.000	1.0000	99.78000	2.61E+00	1.85E-01	7.10E-03	2.25E-02	8.94E-02
CM-242	6102.000	6035.088	4.947	10.000	9.000	1.000	4.3413	100.0000	3.09E-02	1.15E-02	3.07E-02	6.97E-02	1.14E-02
CM-3/4	5795.020	5773.550	28.442	15.000	9.000	6.000	5.1799	100.0000	2.75E-02	1.41E-02	3.67E-02	8.16E-02	1.40E-02
CM-5/6	5386.000	5385.738	0.000	1.000	1.000	0.000	14.2480	86.09000	3.54E-03	3.54E-03	1.17E-01	2.44E-01	3.54E-03
CM-247	4946.000	4918.887	7.265	10.000	7.000	3.000	13.7917	79.30000	2.69E-02	1.39E-02	1.23E-01	2.57E-01	1.38E-02
CM-248	5078.600	5064.624	0.000	14.000	14.000	0.000	19.5080	91.00000	4.68E-02	1.29E-02	1.52E-01	3.13E-01	1.25E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

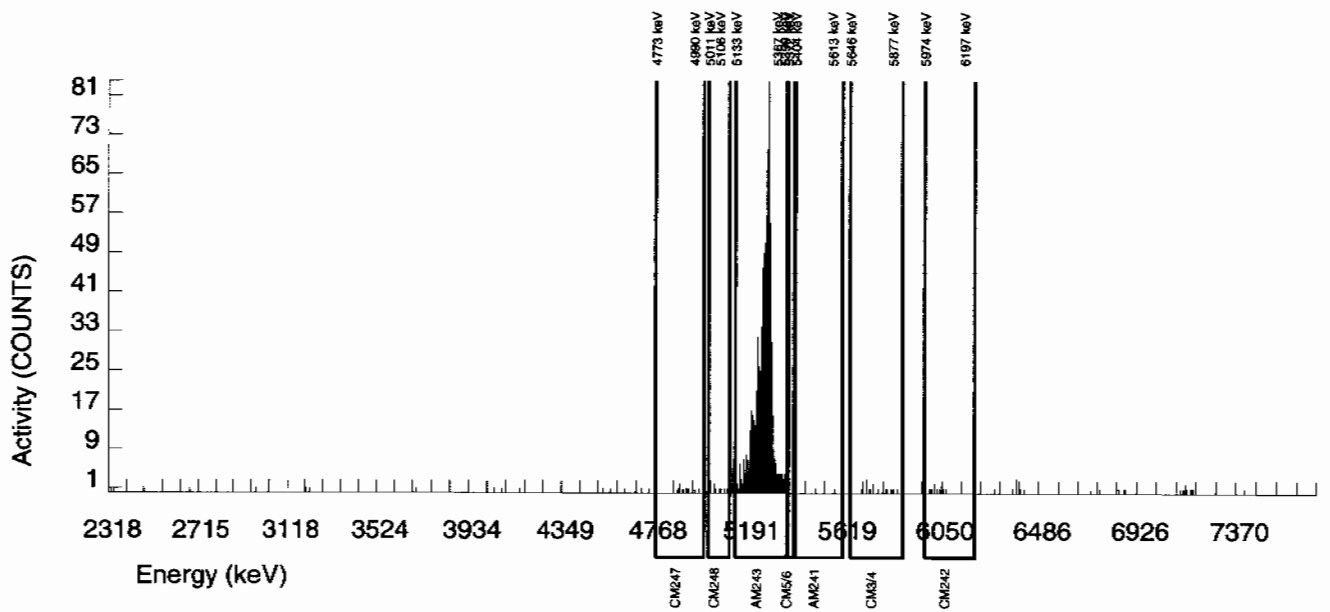

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665
SAMPLE ID : S0246020002_AM
SAMPLE QTY : 0.510 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 87.842

CHAMBER : 029
DETECTOR S/N : 33454
AVERAGE %EFFICIENCY : 31.3340
COUNT DATE : 23-FEB-2010 21:21:26
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B029.CNF;1117
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W029.CNF;320
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5620E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5446.469	9.788	7.000	-5.394	11.000	2.8409	99.94000	-1.73E-02	1.31E-02	2.12E-02	5.11E-02	1.31E-02
AM243	5270.000	5275.765	60.090	803.000	801.000	2.000	1.4142	99.78000	2.58E+00	1.85E-01	1.06E-02	2.99E-02	9.12E-02
CM-242	6102.000	6081.807	5.684	12.000	7.000	5.000	4.3413	100.0000	2.53E-02	1.50E-02	3.24E-02	7.35E-02	1.49E-02
CM-3/4	5795.020	5753.384	81.719	15.000	4.000	11.000	5.1799	100.0000	1.29E-02	1.64E-02	3.87E-02	8.60E-02	1.64E-02
CM-5/6	5386.000	5383.369	0.000	13.000	12.000	1.000	14.2480	86.09000	4.47E-02	1.42E-02	1.24E-01	2.57E-01	1.39E-02
CM-247	4946.000	4900.133	132.137	11.000	8.000	3.000	13.7917	79.30000	3.24E-02	1.53E-02	1.30E-01	2.71E-01	1.51E-02
CM-248	5078.600	5051.437	68.515	5.000	5.000	0.000	19.5080	91.00000	1.76E-02	7.96E-03	1.60E-01	3.30E-01	7.88E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

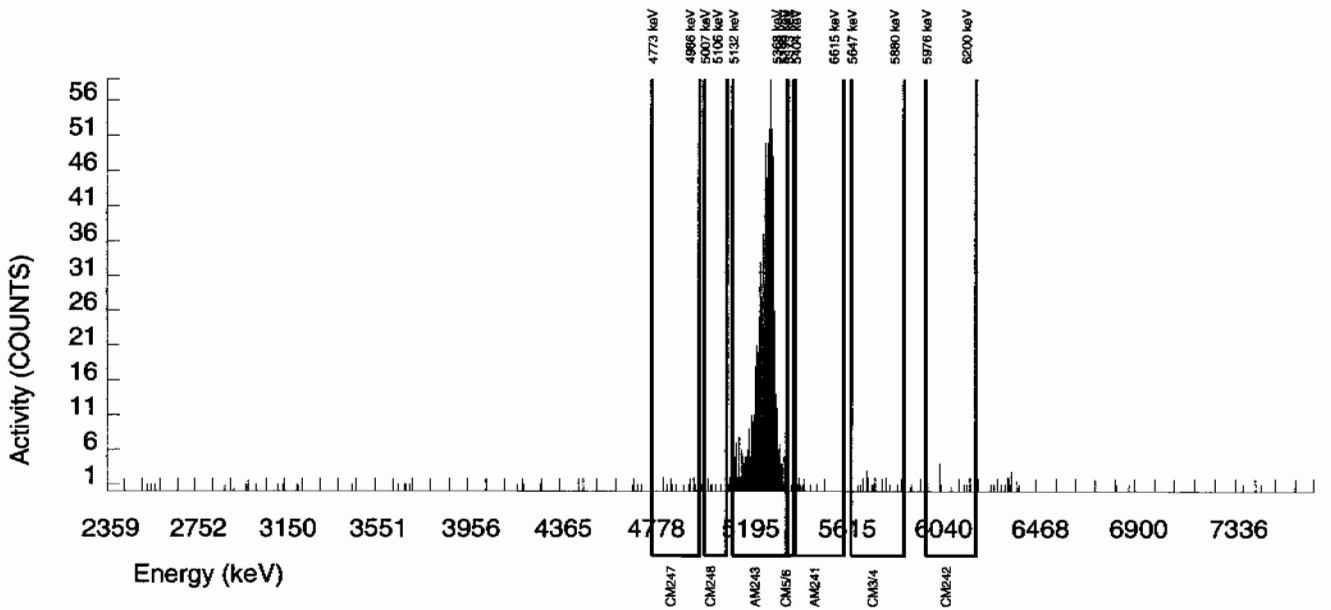

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 209	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246020003_AM	DETECTOR S/N : 79188	BKG FILE : B209.CNF;84
SAMPLE QTY : 0.519 G	AVERAGE %EFFICIENCY : 36.2314	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 20:00:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W209.CNF;31
% YIELD : 77.296		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2544E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5495.058	68.606	25.000	23.582	0.000	2.8409	99.94000	7.31E-02	1.57E-02	2.05E-02	4.94E-02	1.51E-02
AM243	5270.000	5272.538	40.651	815.000	815.000	0.000	0.0000	99.78000	2.53E+00	1.77E-01	0.00E+00	8.42E-03	8.87E-02
CM-242	6102.000	6040.965	66.353	10.000	9.000	1.000	4.3413	100.0000	3.16E-02	1.18E-02	3.13E-02	7.10E-02	1.16E-02
CM-3/4	5795.020	5738.433	58.980	12.000	11.000	1.000	5.1799	100.0000	3.42E-02	1.14E-02	3.73E-02	8.31E-02	1.12E-02
CM-5/6	5386.000	5378.897	8.141	10.000	10.000	0.000	14.2480	86.09000	3.60E-02	1.16E-02	1.19E-01	2.48E-01	1.14E-02
CM-247	4946.000	4904.753	159.739	19.000	19.000	0.000	13.7917	79.30000	7.43E-02	1.76E-02	1.25E-01	2.61E-01	1.70E-02
CM-248	5078.600	5078.208	10.188	24.000	24.000	0.000	19.5080	91.00000	8.17E-02	1.74E-02	1.55E-01	3.18E-01	1.67E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

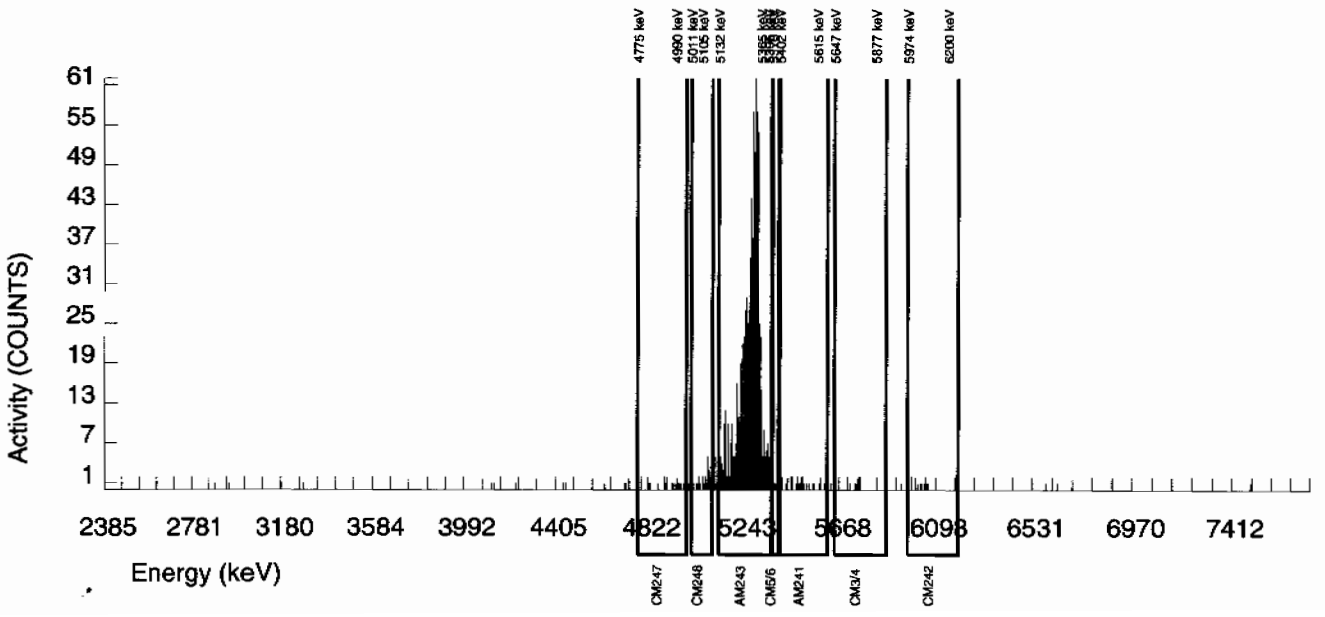

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 031	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246020004_AM	DETECTOR S/N : 79988	BKG FILE : B031.CNF;1112
SAMPLE QTY : 0.525 G	AVERAGE %EFFICIENCY : 33.8909	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:27	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.98	EFF FILE : W031.CNF;345
% YIELD : 87.501		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5520E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5492.448	4.896	5.000	2.498	1.000	2.8409	99.94000	7.23E-03	6.16E-03	1.91E-02	4.61E-02	6.14E-03
AM243	5270.000	5270.922	37.030	869.000	863.000	6.000	2.4495	99.78000	2.50E+00	1.74E-01	1.65E-02	4.09E-02	8.58E-02
CM-242	6102.000	6051.263	4.896	8.000	6.000	2.000	4.3413	100.0000	1.96E-02	1.04E-02	2.92E-02	6.63E-02	1.03E-02
CM-3/4	5795.020	5760.220	4.896	14.000	13.000	1.000	5.1799	100.0000	3.77E-02	1.15E-02	3.49E-02	7.76E-02	1.12E-02
CM-5/6	5386.000	5380.532	9.180	2.000	1.000	1.000	14.2480	86.09000	3.36E-03	5.82E-03	1.11E-01	2.32E-01	5.82E-03
CM-247	4946.000	4915.983	0.000	13.000	7.000	6.000	13.7917	79.30000	2.55E-02	1.60E-02	1.17E-01	2.44E-01	1.59E-02
CM-248	5078.600	5056.438	86.501	26.000	21.000	5.000	19.5080	91.00000	6.68E-02	1.82E-02	1.44E-01	2.97E-01	1.77E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

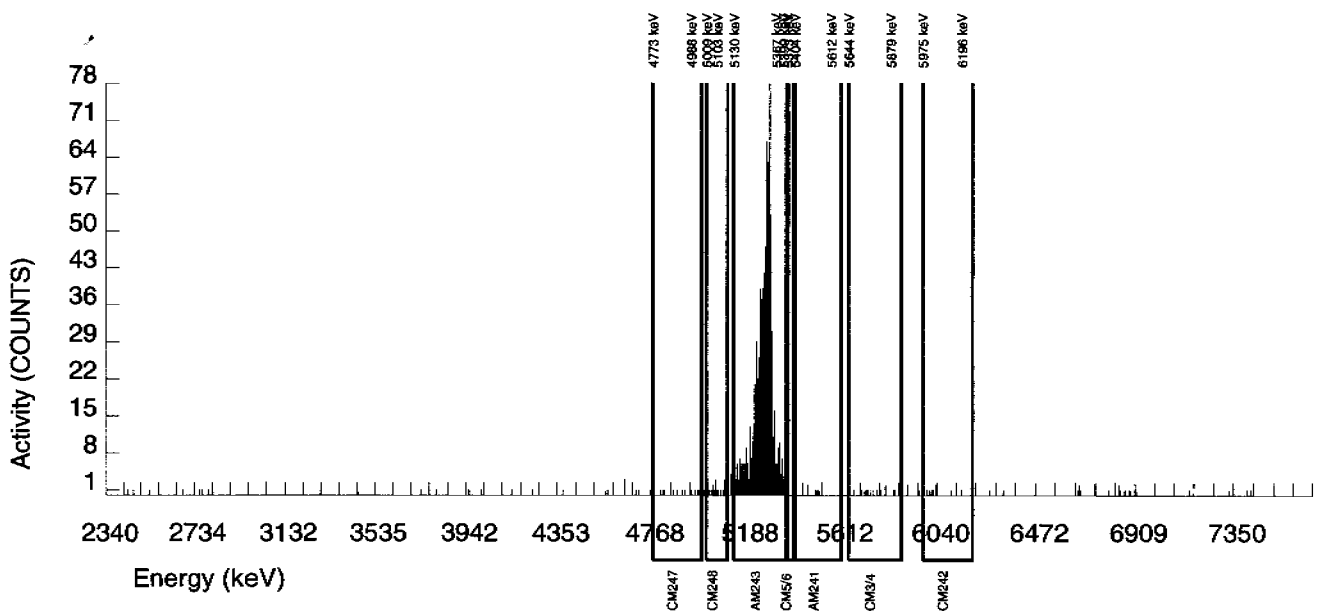

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 033	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246020005_AM	DETECTOR S/N : 78785	BKG FILE : B033.CNF;1111
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 31.8048	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:27	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.98	EFF FILE : W033.CNF;330
% YIELD : 94.969		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7698E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5504.222	39.695	4.000	2.470	0.000	2.8409	99.94000	7.37E-03	4.71E-03	1.97E-02	4.75E-02	4.69E-03
AM243	5270.000	5271.542	42.280	880.000	879.000	1.000	1.0000	99.78000	2.63E+00	1.81E-01	6.95E-03	2.20E-02	8.87E-02
CM-242	6102.000	6029.365	66.986	14.000	13.000	1.000	4.3413	100.0000	4.37E-02	1.33E-02	3.01E-02	6.83E-02	1.30E-02
CM-3/4	5795.020	5778.333	4.962	8.000	3.000	5.000	5.1799	100.0000	8.97E-03	1.08E-02	3.59E-02	8.00E-02	1.08E-02
CM-5/6	5386.000	5385.442	0.000	2.000	2.000	0.000	14.2480	86.09000	6.93E-03	4.92E-03	1.15E-01	2.39E-01	4.90E-03
CM-247	4946.000	4947.742	0.000	6.000	6.000	0.000	13.7917	79.30000	2.26E-02	9.31E-03	1.21E-01	2.52E-01	9.21E-03
CM-248	5078.600	5074.102	6.151	10.000	9.000	1.000	19.5080	91.00000	2.95E-02	1.10E-02	1.49E-01	3.06E-01	1.09E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

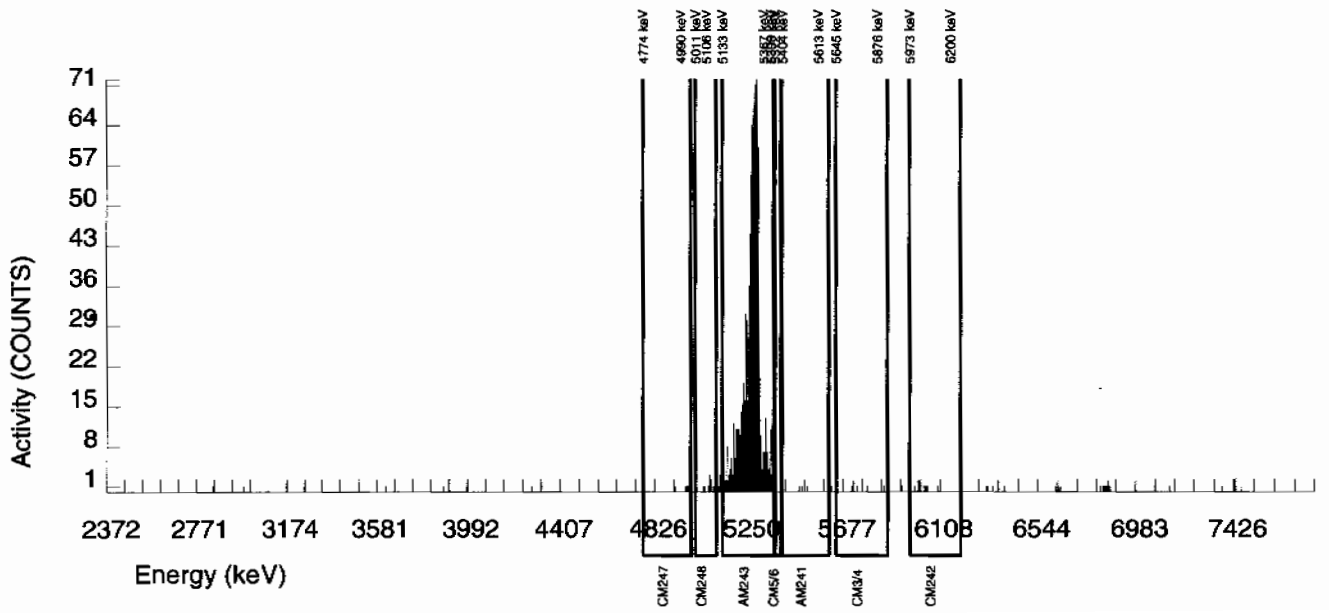

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665
SAMPLE ID : S0246020006_AM
SAMPLE QTY : 0.519 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 85.990

CHAMBER : 210
DETECTOR S/N : 79189
AVERAGE %EFFICIENCY : 38.5227
COUNT DATE : 24-FEB-2010 20:00:41
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B210.CNF;83
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W210.CNF;29
CAL DATE : 29-JAN-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5080E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5504.401	55.916	33.000	29.323	2.000	2.8409	99.94000	7.69E-02	1.58E-02	1.73E-02	4.18E-02	1.51E-02
AM243	5270.000	5272.554	37.655	964.000	964.000	0.000	0.0000	99.78000	2.53E+00	1.70E-01	0.00E+00	7.12E-03	8.15E-02
CM-242	6102.000	6061.706	9.877	8.000	8.000	0.000	4.3413	100.0000	2.37E-02	8.51E-03	2.65E-02	6.00E-02	8.39E-03
CM-3/4	5795.020	5784.674	34.568	2.000	2.000	0.000	5.1799	100.0000	5.26E-03	3.73E-03	3.16E-02	7.02E-02	3.72E-03
CM-5/6	5386.000	5381.840	0.000	16.000	16.000	0.000	14.2480	86.09000	4.87E-02	1.25E-02	1.01E-01	2.10E-01	1.22E-02
CM-247	4946.000	4914.987	0.000	26.000	25.000	1.000	13.7917	79.30000	8.26E-02	1.78E-02	1.06E-01	2.21E-01	1.72E-02
CM-248	5078.600	5064.504	0.000	43.000	43.000	0.000	19.5080	91.00000	1.24E-01	2.02E-02	1.31E-01	2.69E-01	1.89E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

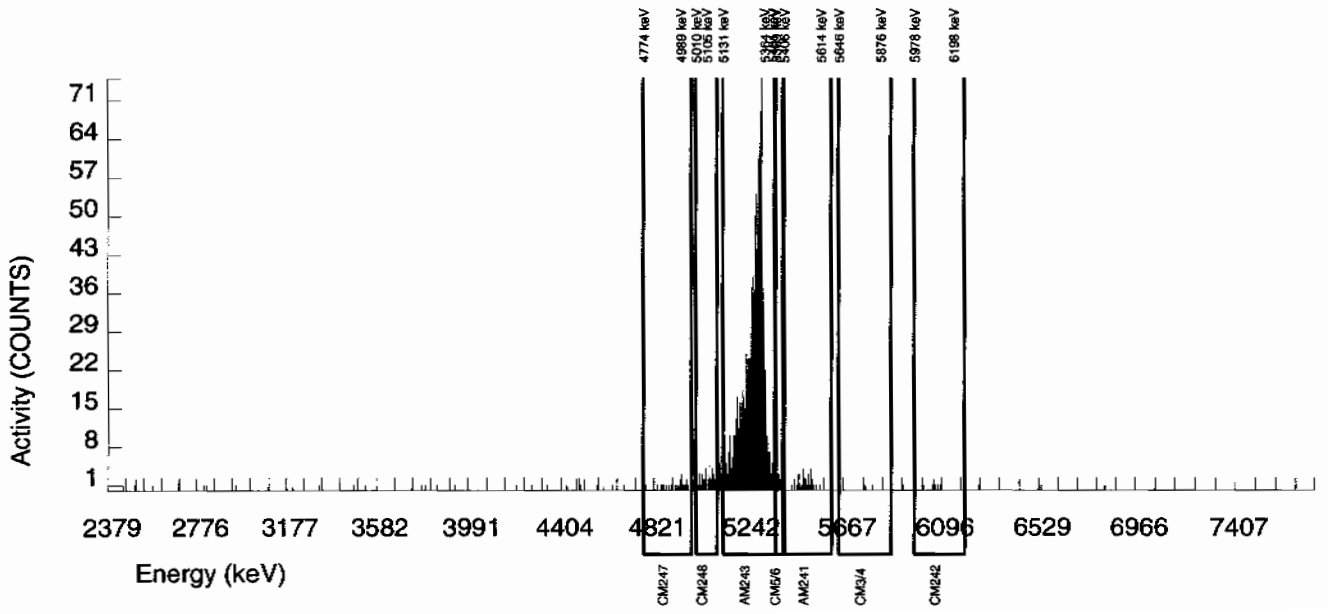

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665
SAMPLE ID : S0246020007_AM
SAMPLE QTY : 0.513 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.856

CHAMBER : 036
DETECTOR S/N : 78203
AVERAGE %EFFICIENCY : 32.2436
COUNT DATE : 23-FEB-2010 21:21:27
ELAPSED LIVE TIME(SEC) : 59999.98

LIB FILE : ENV_ALPHA_AM
BKG FILE : B036.CNF;1107
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W036.CNF;331
CAL DATE : 3-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5332E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5523.202	43.591	3.000	-0.418	2.000	2.8409	99.94000	-1.31E-03	5.94E-03	2.07E-02	5.00E-02	5.94E-03
AM243	5270.000	5277.233	31.435	818.000	815.000	3.000	1.7321	99.78000	2.56E+00	1.80E-01	1.27E-02	3.38E-02	9.00E-02
CM-242	6102.000	6022.242	61.396	8.000	6.000	2.000	4.3413	100.0000	2.12E-02	1.13E-02	3.17E-02	7.18E-02	1.12E-02
CM-3/4	5795.020	5779.632	4.912	10.000	5.000	5.000	5.1799	100.0000	1.57E-02	1.22E-02	3.78E-02	8.41E-02	1.22E-02
CM-5/6	5386.000	5378.001	0.000	5.000	5.000	0.000	14.2480	86.09000	1.82E-02	8.22E-03	1.21E-01	2.51E-01	8.14E-03
CM-247	4946.000	4895.151	4.912	11.000	8.000	3.000	13.7917	79.30000	3.16E-02	1.49E-02	1.27E-01	2.64E-01	1.48E-02
CM-248	5078.600	5059.618	5.705	16.000	15.000	1.000	19.5080	91.00000	5.17E-02	1.45E-02	1.56E-01	3.22E-01	1.42E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

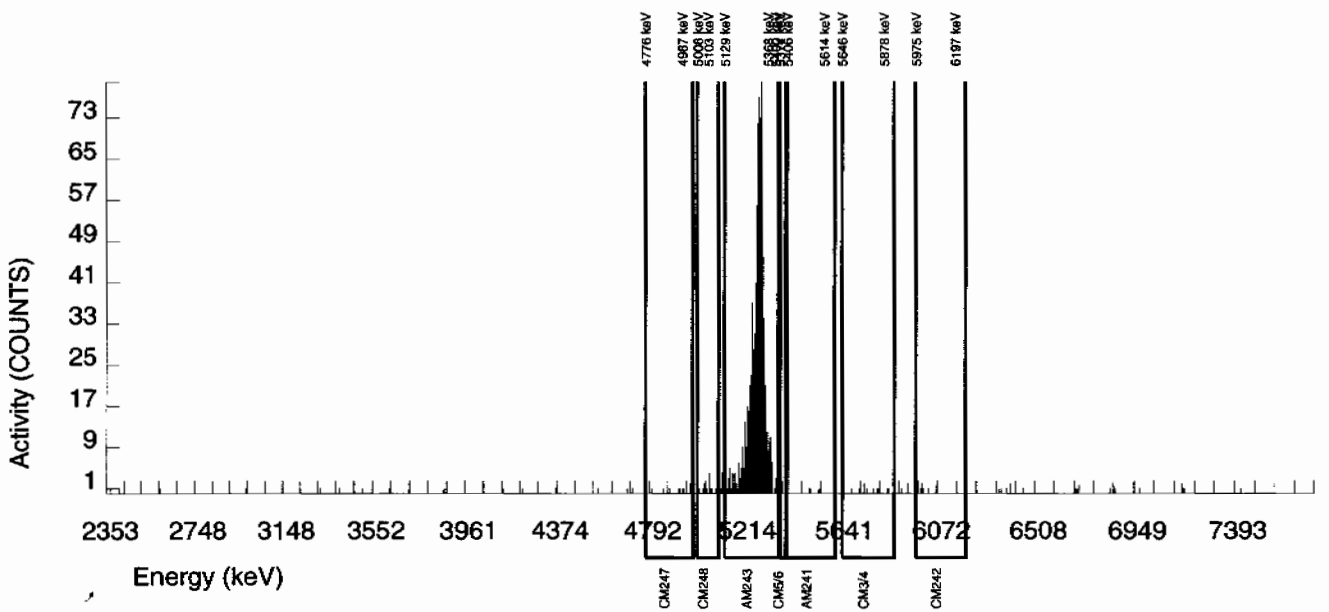

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 095	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246020008_AM	DETECTOR S/N : 64279	BKG FILE : B095.CNF;684
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 30.7522	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.98	EFF FILE : W095.CNF;209
% YIELD : 84.699		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4703E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5479.467	8.737	21.000	4.681	15.000	2.8409	99.94000	1.59E-02	2.00E-02	2.24E-02	5.40E-02	2.00E-02
AM243	5270.000	5274.968	40.555	762.000	758.000	4.000	2.0000	99.78000	2.58E+00	1.85E-01	1.58E-02	4.08E-02	9.41E-02
CM-242	6102.000	6096.520	113.709	23.000	16.000	7.000	4.3413	100.0000	6.12E-02	2.13E-02	3.42E-02	7.77E-02	2.09E-02
CM-3/4	5795.020	5747.043	34.525	21.000	10.000	11.000	5.1799	100.0000	3.40E-02	1.94E-02	4.09E-02	9.09E-02	1.92E-02
CM-5/6	5386.000	5379.260	0.000	7.000	6.000	1.000	14.2480	86.09000	2.36E-02	1.12E-02	1.31E-01	2.72E-01	1.11E-02
CM-247	4946.000	4902.049	0.000	11.000	10.000	1.000	13.7917	79.30000	4.28E-02	1.50E-02	1.37E-01	2.86E-01	1.48E-02
CM-248	5078.600	5070.977	0.000	18.000	18.000	0.000	19.5080	91.00000	6.71E-02	1.63E-02	1.69E-01	3.48E-01	1.58E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

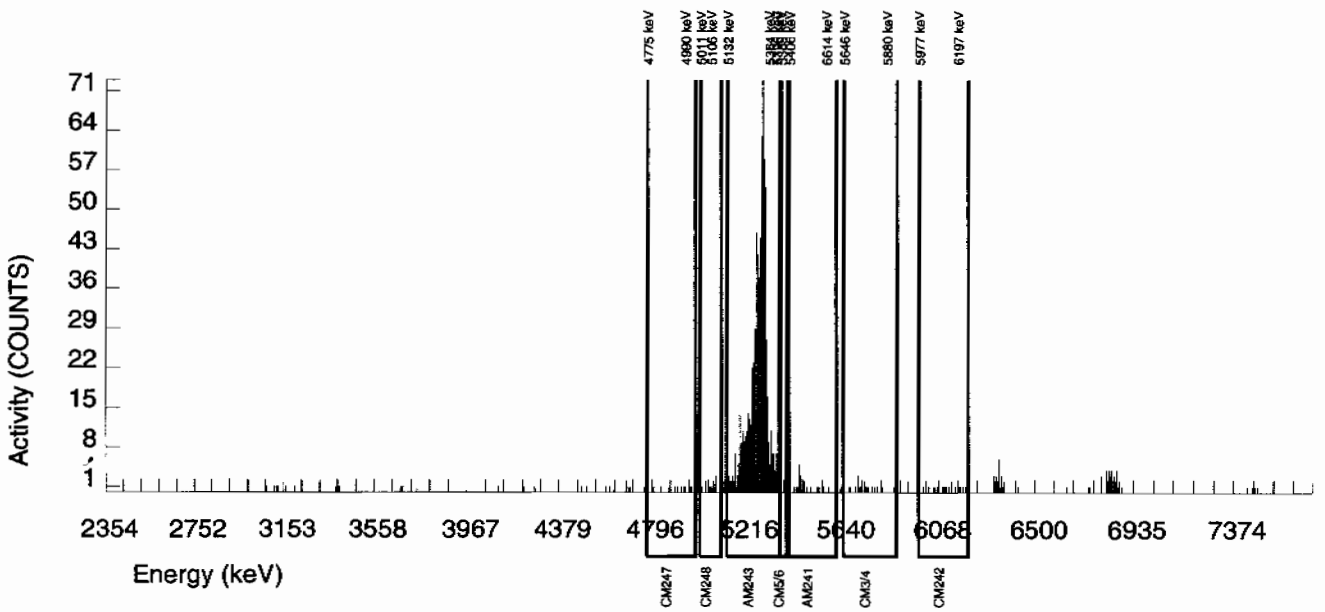

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665
SAMPLE ID : S0246020009_AM
SAMPLE QTY : 0.514 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 77.073

CHAMBER : 097
DETECTOR S/N : 67599
AVERAGE %EFFICIENCY : 34.5530
COUNT DATE : 23-FEB-2010 21:21:28
ELAPSED LIVE TIME(SEC) : 59999.98

LIB FILE : ENV_ALPHA_AM
BKG FILE : B097.CNF;678
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W097.CNF;193
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.2479E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5496.610	7.225	9.000	0.651	7.000	2.8409	99.94000	2.15E-03	1.26E-02	2.18E-02	5.24E-02	1.26E-02
AM243	5270.000	5272.920	51.751	777.000	775.000	2.000	1.4142	99.78000	2.56E+00	1.82E-01	1.09E-02	3.06E-02	9.20E-02
CM-242	6102.000	6053.801	4.919	5.000	4.000	1.000	4.3413	100.0000	1.48E-02	9.13E-03	3.32E-02	7.54E-02	9.09E-03
CM-3/4	5795.020	5743.402	118.066	9.000	5.000	4.000	5.1799	100.0000	1.65E-02	1.19E-02	3.97E-02	8.82E-02	1.19E-02
CM-5/6	5386.000	5376.438	0.000	6.000	5.000	1.000	14.2480	86.09000	1.91E-02	1.02E-02	1.27E-01	2.64E-01	1.01E-02
CM-247	4946.000	4913.070	130.211	9.000	7.000	2.000	13.7917	79.30000	2.90E-02	1.39E-02	1.33E-01	2.78E-01	1.38E-02
CM-248	5078.600	5067.741	9.839	22.000	22.000	0.000	19.5080	91.00000	7.96E-02	1.76E-02	1.64E-01	3.38E-01	1.70E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

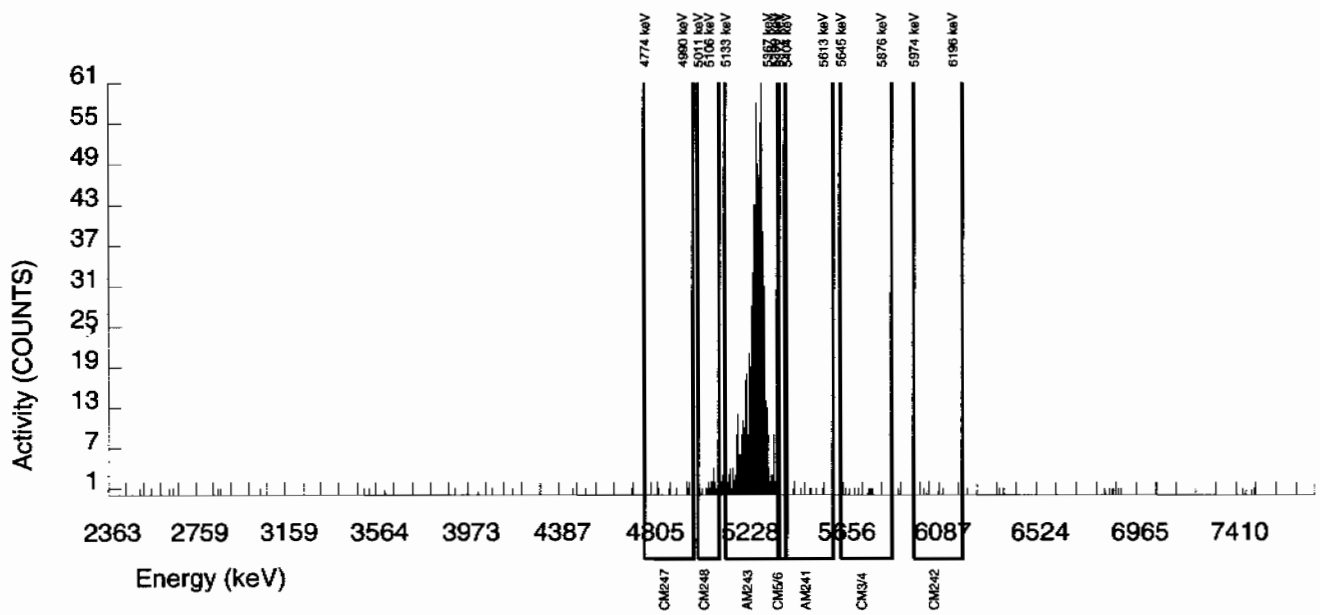

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 099	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246020010_AM	DETECTOR S/N : 70317	BKG FILE : B099.CNF;681
SAMPLE QTY : 0.517 G	AVERAGE %EFFICIENCY : 33.8661	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.98	EFF FILE : W099.CNF;193
% YIELD : 94.871		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7670E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5498.145	63.727	3.000	0.373	1.000	2.8409	99.94000	1.01E-03	4.18E-03	1.79E-02	4.32E-02	4.18E-03
AM243	5270.000	5274.322	34.102	936.000	935.000	1.000	1.0000	99.78000	2.54E+00	1.72E-01	6.32E-03	2.00E-02	8.32E-02
CM-242	6102.000	6104.069	68.629	2.000	1.000	1.000	4.3413	100.0000	3.06E-03	5.30E-03	2.74E-02	6.21E-02	5.30E-03
CM-3/4	5795.020	5755.532	4.902	5.000	4.000	1.000	5.1799	100.0000	1.09E-02	6.69E-03	3.27E-02	7.27E-02	6.66E-03
CM-5/6	5386.000	5385.473	0.000	2.000	2.000	0.000	14.2480	86.09000	6.30E-03	4.47E-03	1.04E-01	2.17E-01	4.45E-03
CM-247	4946.000	4882.459	0.000	11.000	6.000	5.000	13.7917	79.30000	2.05E-02	1.37E-02	1.10E-01	2.29E-01	1.37E-02
CM-248	5078.600	5064.702	62.410	23.000	23.000	0.000	19.5080	91.00000	6.85E-02	1.49E-02	1.35E-01	2.79E-01	1.43E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

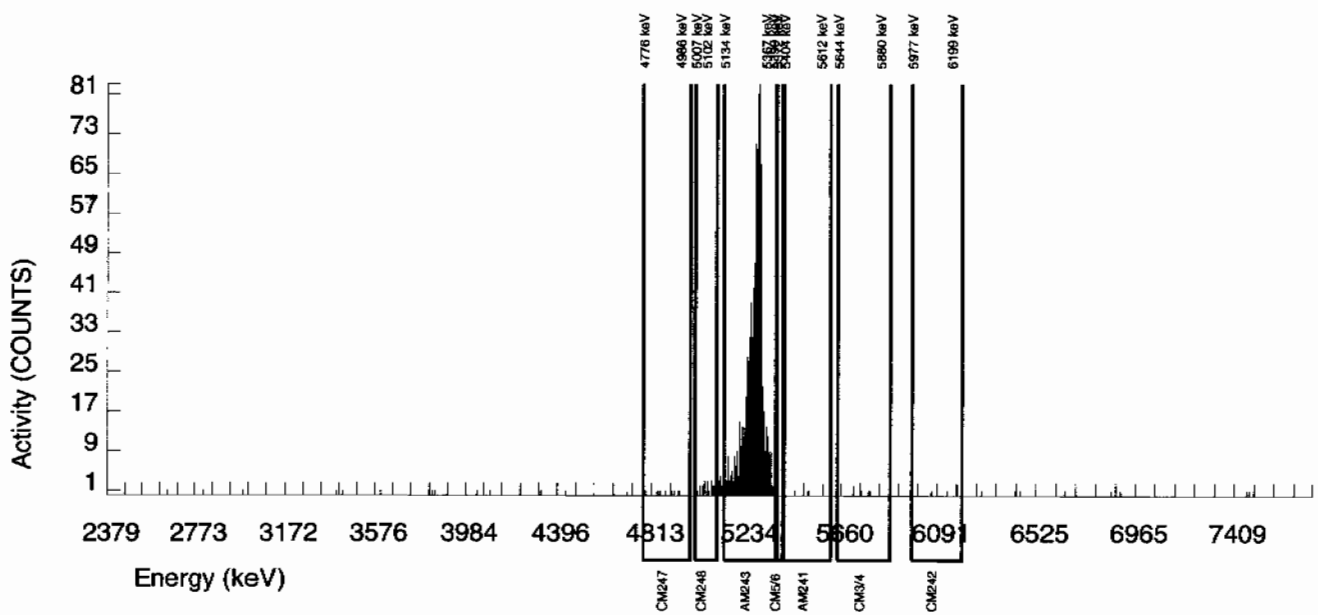

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665
SAMPLE ID : S0246020011_AM
SAMPLE QTY : 0.510 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.679

CHAMBER : 100
DETECTOR S/N : 79456
AVERAGE %EFFICIENCY : 33.8558
COUNT DATE : 23-FEB-2010 21:21:28
ELAPSED LIVE TIME(SEC) : 59999.98

LIB FILE : ENV_ALPHA_AM
BKG FILE : B100.CNF;682
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W100.CNF;201
CAL DATE : 9-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9166E+00 dpm
RESULTS : 2.5280E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : AM-241
NOMINAL : 3.3156E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5480.216	7.138	10.000	6.514	2.000	2.8409	99.94000	1.96E-02	9.84E-03	1.99E-02	4.80E-02	9.77E-03
AM243	5270.000	5268.234	38.858	857.000	854.000	3.000	1.7321	99.78000	2.58E+00	1.79E-01	1.22E-02	3.25E-02	8.85E-02
CM-242	6102.000	6021.603	43.129	3.000	3.000	0.000	4.3413	100.0000	1.02E-02	5.91E-03	3.04E-02	6.90E-02	5.88E-03
CM-3/4	5795.020	5716.814	67.428	5.000	4.000	1.000	5.1799	100.0000	1.21E-02	7.43E-03	3.63E-02	8.07E-02	7.39E-03
CM-5/6	5386.000	5373.054	0.000	5.000	5.000	0.000	14.2480	86.09000	1.75E-02	7.89E-03	1.16E-01	2.41E-01	7.82E-03
CM-247	4946.000	4901.863	87.474	10.000	9.000	1.000	13.7917	79.30000	3.42E-02	1.28E-02	1.22E-01	2.54E-01	1.26E-02
CM-248	5078.600	5066.743	0.000	22.000	21.000	1.000	19.5080	91.00000	6.95E-02	1.64E-02	1.50E-01	3.09E-01	1.59E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

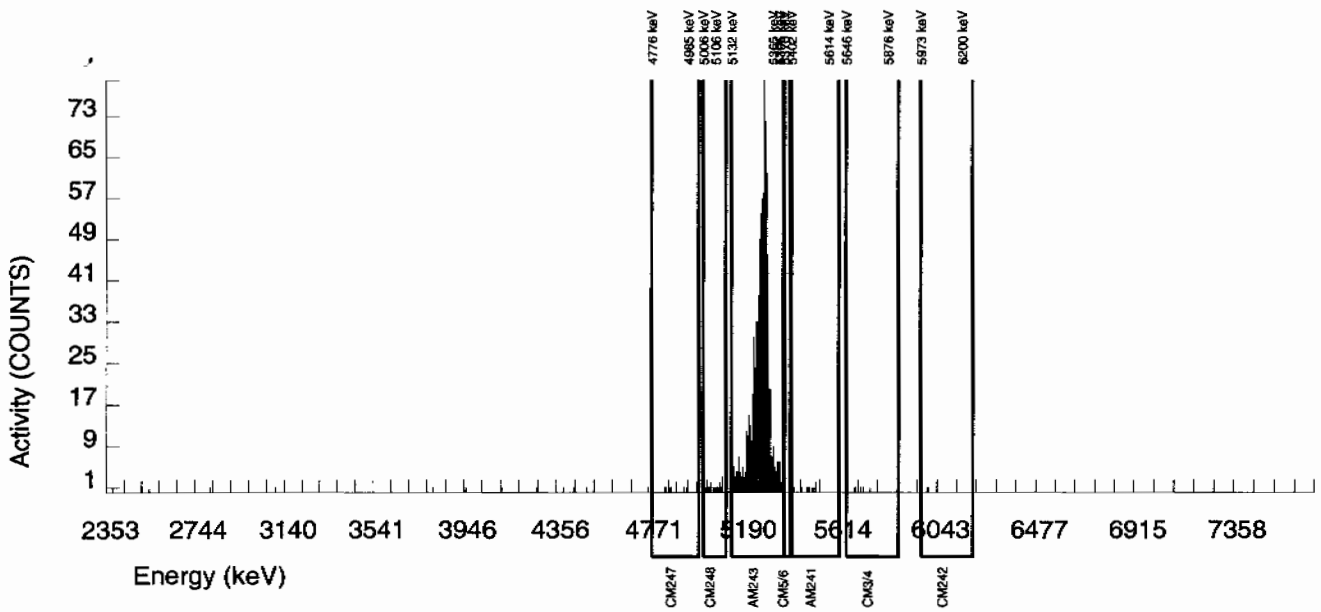

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 217	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0246020012_AM	DETECTOR S/N : 79410	BKG FILE : B217.CNF;85
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 36.8046	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:25:59	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W217.CNF;30
% YIELD : 77.026		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2465E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5459.650	64.065	2.000	-0.436	1.000	2.8409	99.94000	-1.37E-03	4.44E-03	2.07E-02	4.99E-02	4.44E-03
AM243	5270.000	5264.969	56.881	825.000	825.000	0.000	0.0000	99.78000	2.59E+00	1.81E-01	0.00E+00	8.51E-03	9.02E-02
CM-242	6102.000	6044.388	73.305	6.000	5.000	1.000	4.3413	100.0000	1.76E-02	9.40E-03	3.17E-02	7.18E-02	9.34E-03
CM-3/4	5795.020	5773.479	128.131	14.000	14.000	0.000	5.1799	100.0000	4.40E-02	1.21E-02	3.78E-02	8.40E-02	1.18E-02
CM-5/6	5386.000	5375.781	0.000	5.000	5.000	0.000	14.2480	86.09000	1.82E-02	8.21E-03	1.21E-01	2.51E-01	8.14E-03
CM-247	4946.000	4899.469	137.987	18.000	17.000	1.000	13.7917	79.30000	6.72E-02	1.77E-02	1.27E-01	2.64E-01	1.72E-02
CM-248	5078.600	5064.226	68.788	25.000	25.000	0.000	19.5080	91.00000	8.61E-02	1.80E-02	1.56E-01	3.22E-01	1.72E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

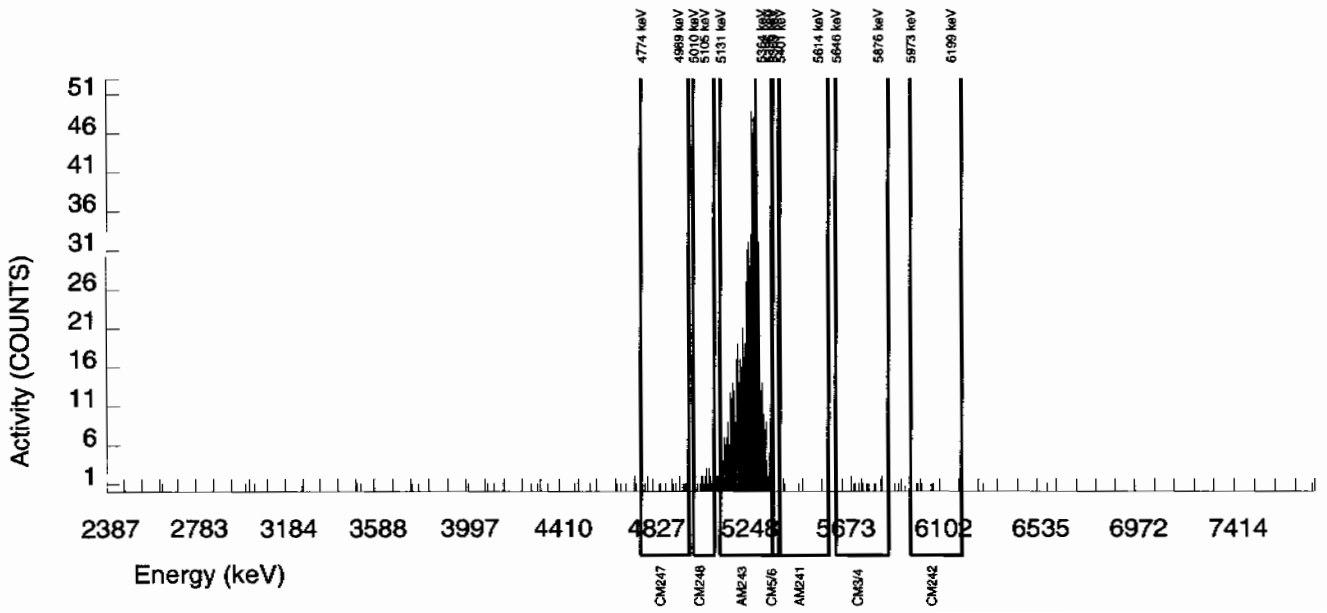

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 218	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202039541_AM	DETECTOR S/N : 79411	BKG FILE : B218.CNF;83
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.5225	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:26:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W218.CNF;28
% YIELD : 89.381		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.6068E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5533.230	4.944	5.000	-1.698	5.000	2.8409	99.94000	-2.28E-03	3.87E-03	8.88E-03	2.14E-02	3.87E-03
AM243	5270.000	5275.834	54.303	977.000	976.000	1.000	1.0000	99.78000	1.31E+00	8.78E-02	3.13E-03	9.91E-03	4.21E-02
CM-242	6102.000	6056.878	17.304	9.000	9.000	0.000	4.3413	100.0000	1.24E-02	4.20E-03	1.36E-02	3.08E-02	4.13E-03
CM-3/4	5795.020	5763.906	4.944	1.000	0.000	1.000	5.1799	100.0000	0.00E+00	1.90E-03	1.62E-02	3.60E-02	1.90E-03
CM-5/6	5386.000	5376.111	0.000	12.000	12.000	0.000	14.2480	86.09000	1.87E-02	5.51E-03	5.17E-02	1.08E-01	5.40E-03
CM-247	4946.000	4906.367	0.000	14.000	12.000	2.000	13.7917	79.30000	2.03E-02	6.88E-03	5.43E-02	1.13E-01	6.77E-03
CM-248	5078.600	5062.874	7.416	33.000	33.000	0.000	19.5080	91.00000	4.87E-02	8.95E-03	6.70E-02	1.38E-01	8.48E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

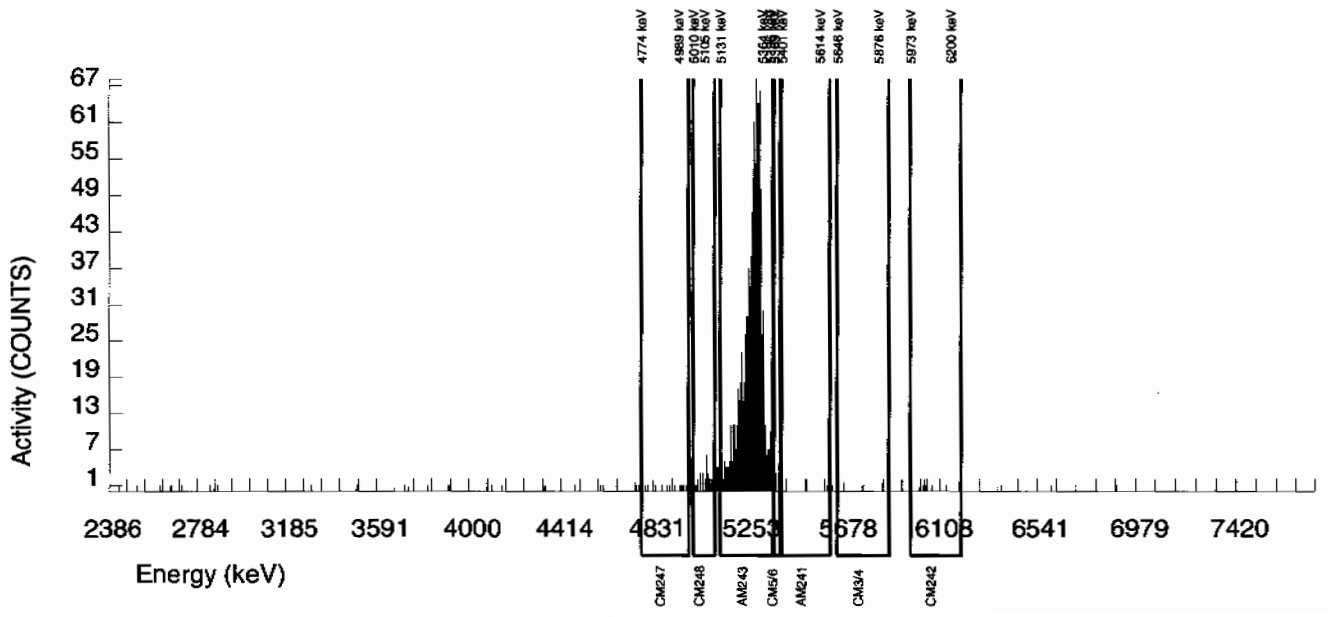

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 233	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202039542_AM	DETECTOR S/N : 79426	BKG FILE : B233.CNF;83
SAMPLE QTY : 0.526 G	AVERAGE %EFFICIENCY : 37.7051	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:26:04	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W233.CNF;28
% YIELD : 89.495		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.6102E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.161	4.909	3.000	1.291	0.000	2.8409	99.94000	3.28E-03	2.89E-03	1.68E-02	4.04E-02	2.89E-03
AM243	5270.000	5276.011	38.479	984.000	982.000	2.000	1.4142	99.78000	2.50E+00	1.67E-01	8.37E-03	2.36E-02	7.99E-02
CM-242	6102.000	6053.310	58.296	3.000	3.000	0.000	4.3413	100.0000	8.57E-03	4.98E-03	2.56E-02	5.81E-02	4.95E-03
CM-3/4	5795.020	5802.671	4.909	4.000	3.000	1.000	5.1799	100.0000	7.64E-03	5.71E-03	3.06E-02	6.80E-02	5.69E-03
CM-5/6	5386.000	5377.062	0.000	9.000	9.000	0.000	14.2480	86.09000	2.65E-02	8.98E-03	9.77E-02	2.03E-01	8.84E-03
CM-247	4946.000	4936.871	87.751	9.000	9.000	0.000	13.7917	79.30000	2.88E-02	9.75E-03	1.03E-01	2.14E-01	9.60E-03
CM-248	5078.600	5062.440	53.878	20.000	20.000	0.000	19.5080	91.00000	5.58E-02	1.29E-02	1.27E-01	2.61E-01	1.25E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

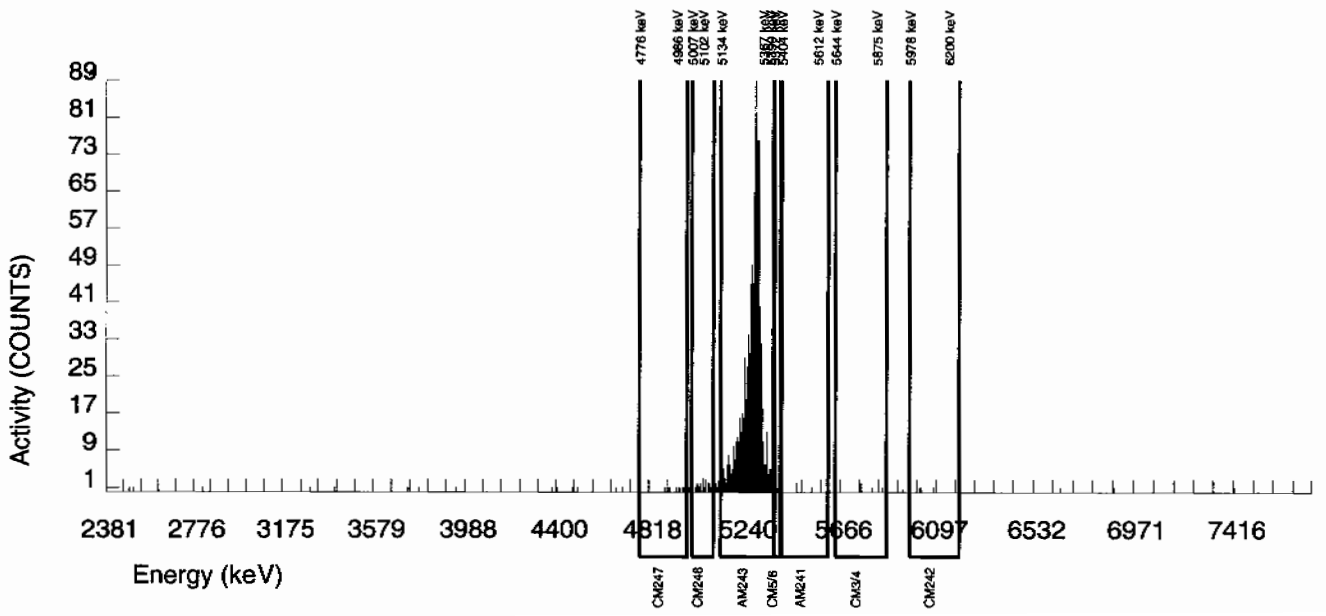

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 234	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202039543_AM	DETECTOR S/N : 79427	BKG FILE : B234.CNF;83
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 38.3923	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:26:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W234.CNF;28
% YIELD : 110.269		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 3.2161E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5496.893	55.212	2795.000	2792.856	0.000	2.8409	99.94000	2.59E+01	1.71E+00	6.12E-02	1.47E-01	4.89E-01
AM243	5270.000	5274.375	44.178	1232.000	1232.000	0.000	0.0000	99.78000	1.14E+01	7.93E-01	0.00E+00	2.51E-02	3.25E-01
CM-242	6102.000	6057.657	4.914	11.000	10.000	1.000	4.3413	100.0000	9.49E-02	3.34E-02	9.34E-02	2.12E-01	3.29E-02
CM-3/4	5795.020	5747.720	41.617	11.000	11.000	0.000	5.1799	100.0000	1.02E-01	3.14E-02	1.11E-01	2.48E-01	3.07E-02
CM-5/6	5386.000	5386.784	0.000	134.000	134.000	0.000	14.2480	86.09000	1.44E+00	1.54E-01	3.56E-01	7.42E-01	1.24E-01
CM-247	4946.000	4913.074	0.000	40.000	38.000	2.000	13.7917	79.30000	4.43E-01	8.07E-02	3.74E-01	7.80E-01	7.56E-02
CM-248	5078.600	5065.289	0.000	58.000	57.000	1.000	19.5080	91.00000	5.80E-01	8.63E-02	4.61E-01	9.50E-01	7.81E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

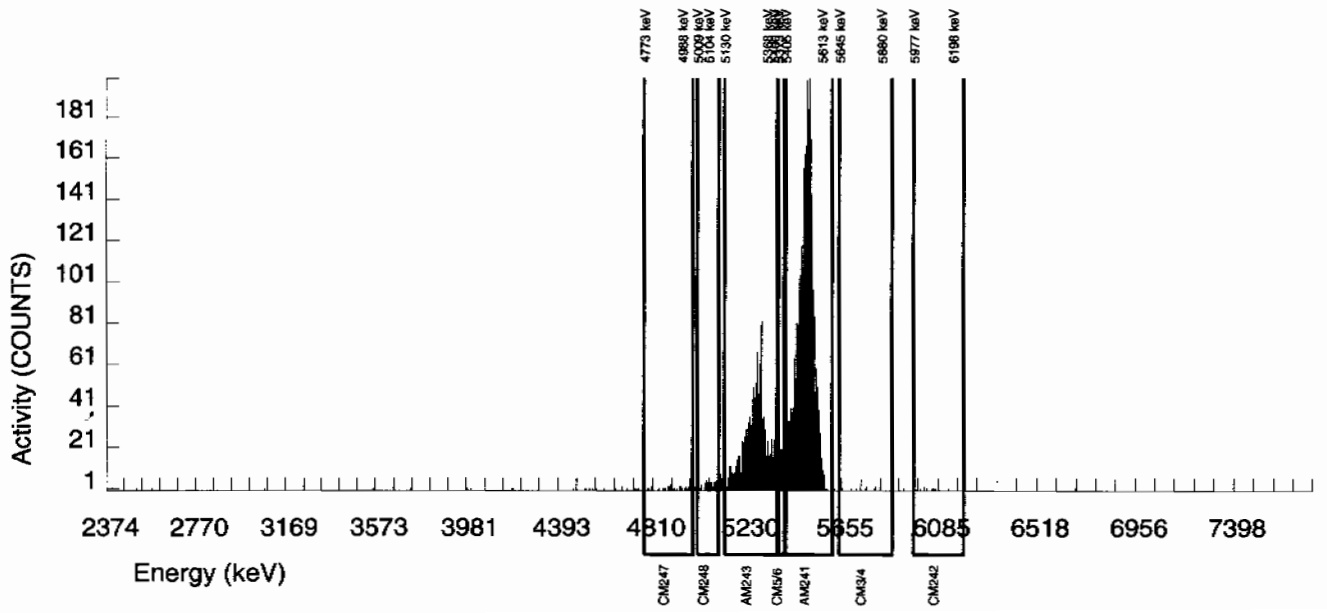

1

Radiochemistry Batch Checklist, Rev10

Batch# 9516669 Product: PU Date: 2/27/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/27/10

Secondary Review Performed By: [illegible] 2/27/10

3/2

LANL

✓P

Plutonium Que Sheet

10-FEB-10

Batch #: 951669 **Analyst:** CXM2 **First Client Due Date:** 02-MAR-10 **Internal Due Date:** 19-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1375-A **Expiration Date:** 1/8/11 **Vol:** 0.1mL
LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0244-B **Expiration Date:** 4/30/20 **Vol:** 0.115g
Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** —— **Expiration Date:** —— **Vol:** ——

Prep Date: 2/18/10 **Initials:** CMM **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** 2/18/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
245978008-1	RE15-10-7975	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	1	31	0.525	65
245978009-1	RE15-10-7978	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	2	32	0.508	66
245978010-1	RE15-10-7970	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	3	33	0.501	67
245978011-1	RE15-10-7964	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	4	34	0.527	~~68~~ 43
245978012-1	RE15-10-7973	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	5	35	0.509	~~69~~ 44
245978013-1	RE15-10-7962	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	6	36	0.515	~~70~~ 45
245978014-1	RE15-10-7963	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	7	37	0.510	71
245978015-1	RE15-10-7977	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	8	38	0.508	72
246020001-1	RE15-10-7980	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	9	39	0.503	73
246020002-1	RE15-10-7958	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	10	40	0.510	74
246020003-1	RE15-10-7960	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	11	41	0.519	75
246020004-1	RE15-10-7979	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	12	42	0.525	76
246020005-1	RE15-10-7972	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	13	43	0.500	77
246020006-1	RE15-10-7957	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	44	0.519	79
246020007-1	RE15-10-7974	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	45	0.513	~~80~~ 46
246020008-1	RE15-10-7961	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	46	0.510	81
246020009-1	RE15-10-7971	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	47	0.514	82
246020010-1	RE15-10-7966	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	48	0.517	83
246020011-1	RE15-10-7959	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	49	0.510	84
246020012-1	RE15-10-7969	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	50	0.507	85
1202039555-1	MB for batch 951669	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	51	1.0	86
1202039556-1	RE15-10-7980(246020001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	52	0.526	~~87~~ 43
1202039557-1	LCS for batch 951669	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	53	0.115	88

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/27/10 2/27/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 951669

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202039556	DUP	Plutonium-238	0.526 g	-0.00106	0.00424	0.043	-.00644487	pCi/g	NO
		Plutonium-239/240	0.526 g	0.00135	0.00488	0.0321	-.00321293	pCi/g	NO
1202039557	LCS	Plutonium-238	0.115 g	7.15	0.530	0.233	-.02947826	pCi/g	NO
		Plutonium-239/240	0.115 g	39.3	2.42	0.175	-.01469565	pCi/g	NO
1202039555	MB	Plutonium-238	1.00 g	-0.00339	0.00294	0.0277	-.00339	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.00169	0.00294	0.0208	-.00169	pCi/g	NO
245978008	RE15-10-7975	Plutonium-238	0.525 g	0.00	0.0147	0.0472	-.00645714	pCi/g	NO
		Plutonium-239/240	0.525 g	0.0549	0.0153	0.0355	-.00321905	pCi/g	NO
245978009	RE15-10-7978	Plutonium-238	0.508 g	-0.00887	0.0148	0.0483	-.00667323	pCi/g	NO
		Plutonium-239/240	0.508 g	0.00591	0.00725	0.0364	-.00332677	pCi/g	NO
245978010	RE15-10-7970	Plutonium-238	0.501 g	-0.0236	0.0102	0.0482	-.00676647	pCi/g	NO
		Plutonium-239/240	0.501 g	0.00	0.00418	0.0363	-.00337325	pCi/g	NO
245978011	RE15-10-7964	Plutonium-238	0.527 g	0.00374	0.00476	0.038	-.00643264	pCi/g	NO
		Plutonium-239/240	0.527 g	0.00154	0.00422	0.0285	-.00320683	pCi/g	NO
245978012	RE15-10-7973	Plutonium-238	0.509 g	-0.00493	0.00646	0.0535	-.00666012	pCi/g	NO
		Plutonium-239/240	0.509 g	0.00742	0.00894	0.0401	-.00332024	pCi/g	NO
245978013	RE15-10-7962	Plutonium-238	0.515 g	0.00146	0.00399	0.036	-.00658252	pCi/g	NO
		Plutonium-239/240	0.515 g	0.00499	0.00601	0.027	-.00328155	pCi/g	NO
245978014	RE15-10-7963	Plutonium-238	0.510 g	0.00296	0.0148	0.0483	-.00664706	pCi/g	NO
		Plutonium-239/240	0.510 g	0.00591	0.00836	0.0363	-.00331373	pCi/g	NO
245978015	RE15-10-7977	Plutonium-238	0.508 g	0.00906	0.0151	0.0494	-.00667323	pCi/g	NO
		Plutonium-239/240	0.508 g	0.0483	0.0144	0.0371	-.00332677	pCi/g	NO
246020001	RE15-10-7980	Plutonium-238	0.503 g	0.00	0.00443	0.0511	-.00673956	pCi/g	NO
		Plutonium-239/240	0.503 g	0.00626	0.00443	0.0385	-.00335984	pCi/g	NO
246020002	RE15-10-7958	Plutonium-238	0.510 g	-0.00309	0.00818	0.0505	-.00664706	pCi/g	NO
		Plutonium-239/240	0.510 g	0.00	0.00437	0.038	-.00331373	pCi/g	NO
246020003	RE15-10-7960	Plutonium-238	0.519 g	0.0153	0.00688	0.050	-.00653179	pCi/g	NO
		Plutonium-239/240	0.519 g	0.303	0.0345	0.0376	-.00325626	pCi/g	NO
246020004	RE15-10-7979	Plutonium-238	0.525 g	0.00613	0.00435	0.0501	-.00645714	pCi/g	NO
		Plutonium-239/240	0.525 g	0.0184	0.00973	0.0377	-.00321905	pCi/g	NO
246020005	RE15-10-7972	Plutonium-238	0.500 g	-0.0222	0.0114	0.0518	-.00678	pCi/g	NO
		Plutonium-239/240	0.500 g	0.0127	0.00779	0.039	-.00338	pCi/g	NO
246020006	RE15-10-7957	Plutonium-238	0.519 g	0.00288	0.00288	0.047	-.00653179	pCi/g	NO
		Plutonium-239/240	0.519 g	0.333	0.0355	0.0353	-.00325626	pCi/g	NO
246020007	RE15-10-7974	Plutonium-238	0.513 g	-0.00816	0.00755	0.0442	-.00660819	pCi/g	NO
		Plutonium-239/240	0.513 g	0.000267	0.00768	0.0331	-.00329435	pCi/g	NO
246020008	RE15-10-7961	Plutonium-238	0.510 g	-0.00273	0.00386	0.0446	-.00664706	pCi/g	NO
		Plutonium-239/240	0.510 g	0.0218	0.00779	0.0335	-.00331373	pCi/g	NO
246020009	RE15-10-7971	Plutonium-238	0.514 g	0.00573	0.00407	0.0468	-.00659533	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246020009	RE15-10-7971	Plutonium-239/240	0.514 g	-0.00287	0.00641	0.0352	-.00328794	pCi/g	NO
246020010	RE15-10-7966	Plutonium-238	0.517 g	-0.0109	0.0116	0.0446	-.00655706	pCi/g	NO
		Plutonium-239/240	0.517 g	0.00273	0.0061	0.0335	-.00326886	pCi/g	NO
246020011	RE15-10-7959	Plutonium-238	0.510 g	0.0148	0.00789	0.0485	-.00664706	pCi/g	NO
		Plutonium-239/240	0.510 g	0.113	0.0201	0.0365	-.00331373	pCi/g	NO
246020012	RE15-10-7969	Plutonium-238	0.507 g	0.00913	0.00682	0.0497	-.00668639	pCi/g	NO
		Plutonium-239/240	0.507 g	0.0517	0.0128	0.0374	-.00333333	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 073	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020001_PU	DETECTOR S/N : 78775	BKG FILE : B073.CNF;1104
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 33.1249	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W073.CNF;285
% YIELD : 86.528		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9253E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5691.438	113.493	3.000	1.000	2.000	2.6925	100.0000	3.18E-03	7.12E-03	1.96E-02	4.76E-02	7.12E-03
PU-238	5499.000	5476.451	4.934	1.000	0.000	1.000	2.9312	99.90000	0.00E+00	4.43E-03	2.13E-02	5.11E-02	4.43E-03
PU-9/0	5155.000	5058.304	54.279	2.000	2.000	0.000	2.0604	99.90000	6.26E-03	4.43E-03	1.50E-02	3.85E-02	4.42E-03
PU242	4890.000	4890.462	39.739	974.000	969.000	5.000	2.2361	100.0000	3.03E+00	1.84E-01	1.63E-02	4.10E-02	9.78E-02
PU-244	4589.000	4510.880	4.934	9.000	8.000	1.000	3.7241	99.90000	2.50E-02	9.97E-03	2.71E-02	6.27E-02	9.89E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

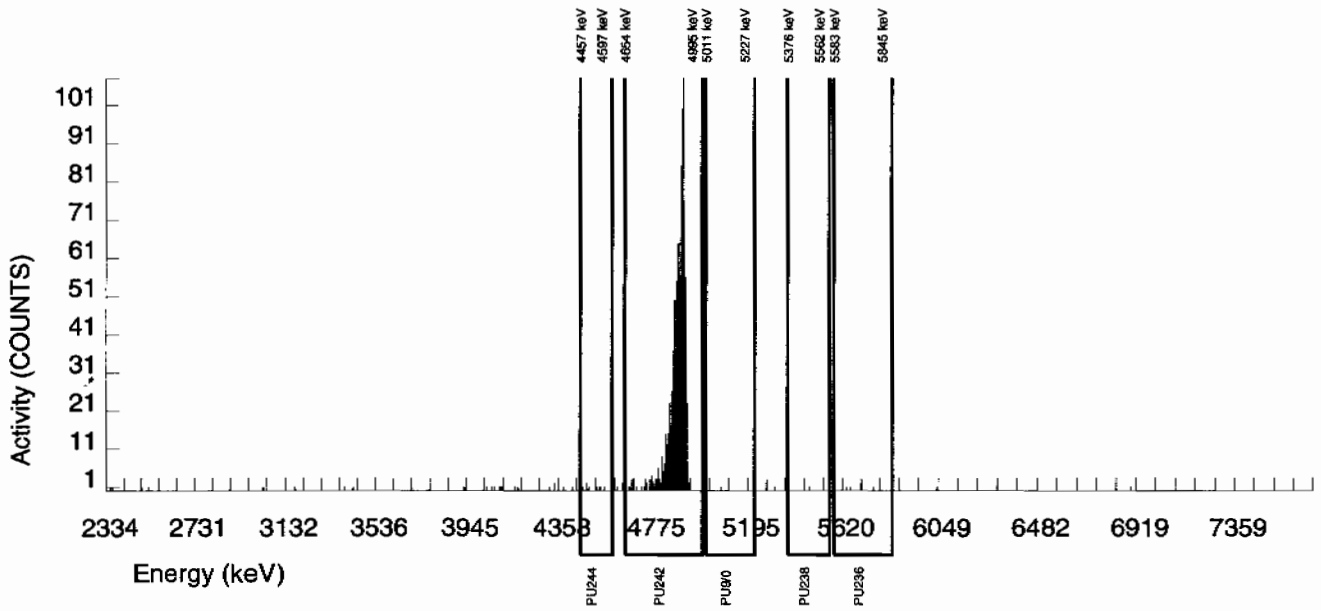

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 074	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020002_PU	DETECTOR S/N : 78266	BKG FILE : B074.CNF;1126
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 31.7390	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W074.CNF;332
% YIELD : 90.120		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0467E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5641.957	109.760	3.000	1.000	2.000	2.6925	100.0000	3.15E-03	7.04E-03	1.93E-02	4.71E-02	7.03E-03
PU-238	5499.000	5429.620	74.836	3.000	-1.000	4.000	2.9312	99.90000	-3.09E-03	8.18E-03	2.11E-02	5.05E-02	8.18E-03
PU-9/0	5155.000	5129.661	4.989	1.000	0.000	1.000	2.0604	99.90000	0.00E+00	4.37E-03	1.48E-02	3.80E-02	4.37E-03
PU242	4890.000	4893.835	43.995	971.000	967.000	4.000	2.0000	100.0000	2.99E+00	1.82E-01	1.44E-02	3.71E-02	9.64E-02
PU-244	4589.000	4521.032	4.989	5.000	4.000	1.000	3.7241	99.90000	1.24E-02	7.60E-03	2.68E-02	6.19E-02	7.57E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

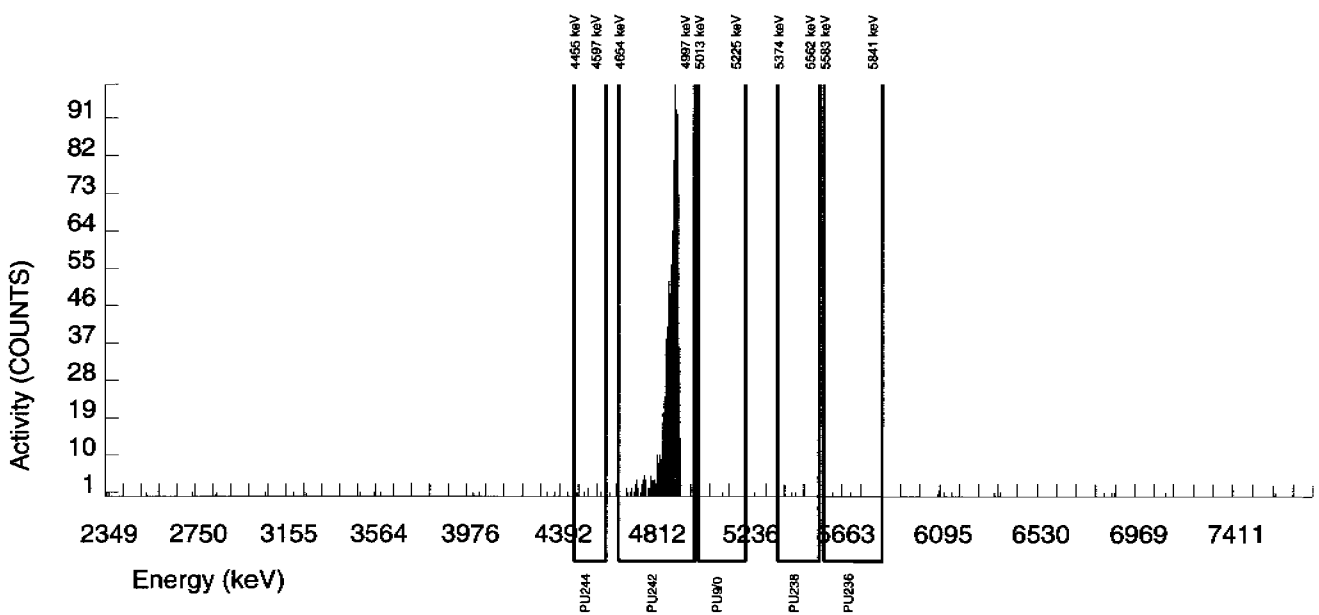

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 075	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020003_PU	DETECTOR S/N : 80010	BKG FILE : B075.CNF;1107
SAMPLE QTY : 0.519 G	AVERAGE %EFFICIENCY : 30.5707	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W075.CNF;290
% YIELD : 92.983		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1435E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5791.275	4.939	1.000	0.000	1.000	2.6925	100.0000	0.00E+00	4.40E-03	1.91E-02	4.65E-02	4.40E-03
PU-238	5499.000	5524.301	53.712	5.000	5.000	0.000	2.9312	99.90000	1.53E-02	6.88E-03	2.08E-02	5.00E-02	6.84E-03
PU-9/0	5155.000	5168.792	47.344	100.000	99.000	1.000	2.0604	99.90000	3.03E-01	3.45E-02	1.47E-02	3.76E-02	3.07E-02
PU242	4890.000	4909.717	28.930	968.000	961.000	7.000	2.6458	100.0000	2.93E+00	1.79E-01	1.88E-02	4.59E-02	9.53E-02
PU-244	4589.000	4520.627	7.254	5.000	5.000	0.000	3.7241	99.90000	1.53E-02	6.88E-03	2.65E-02	6.12E-02	6.83E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

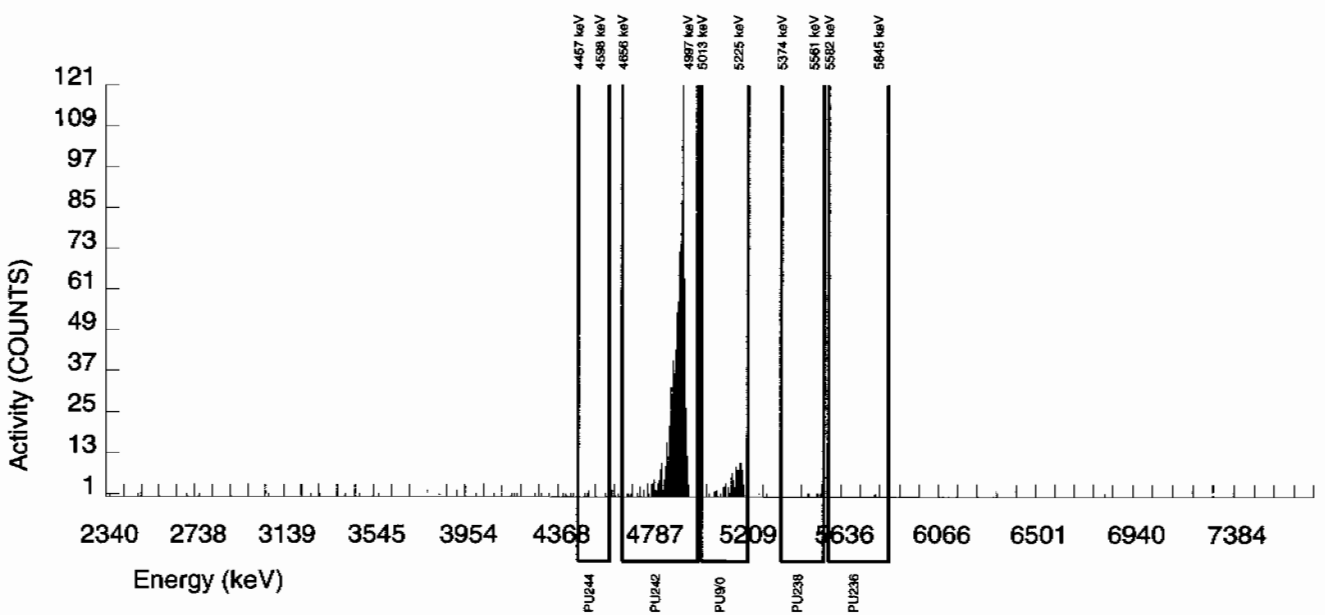

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669
SAMPLE ID : S0246020004_PU
SAMPLE QTY : 0.525 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 92.332

CHAMBER : 076
DETECTOR S/N : 78779
AVERAGE %EFFICIENCY : 30.3696
COUNT DATE : 23-FEB-2010 13:08:45
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_PU
BKG FILE : B076.CNF;1110
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W076.CNF;295
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.1215E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.294	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	3.12E-03	1.92E-02	4.66E-02	3.12E-03
PU-238	5499.000	5463.680	9.292	2.000	2.000	0.000	2.9312	99.90000	6.13E-03	4.35E-03	2.09E-02	5.01E-02	4.33E-03
PU-9/0	5155.000	5170.026	94.159	8.000	6.000	2.000	2.0604	99.90000	1.84E-02	9.73E-03	1.47E-02	3.77E-02	9.69E-03
PU242	4890.000	4893.375	37.074	949.000	948.000	1.000	1.0000	100.0000	2.90E+00	1.77E-01	7.12E-03	2.25E-02	9.43E-02
PU-244	4589.000	4584.471	4.956	1.000	-2.000	3.000	3.7241	99.90000	-6.13E-03	6.13E-03	2.65E-02	6.14E-02	6.13E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

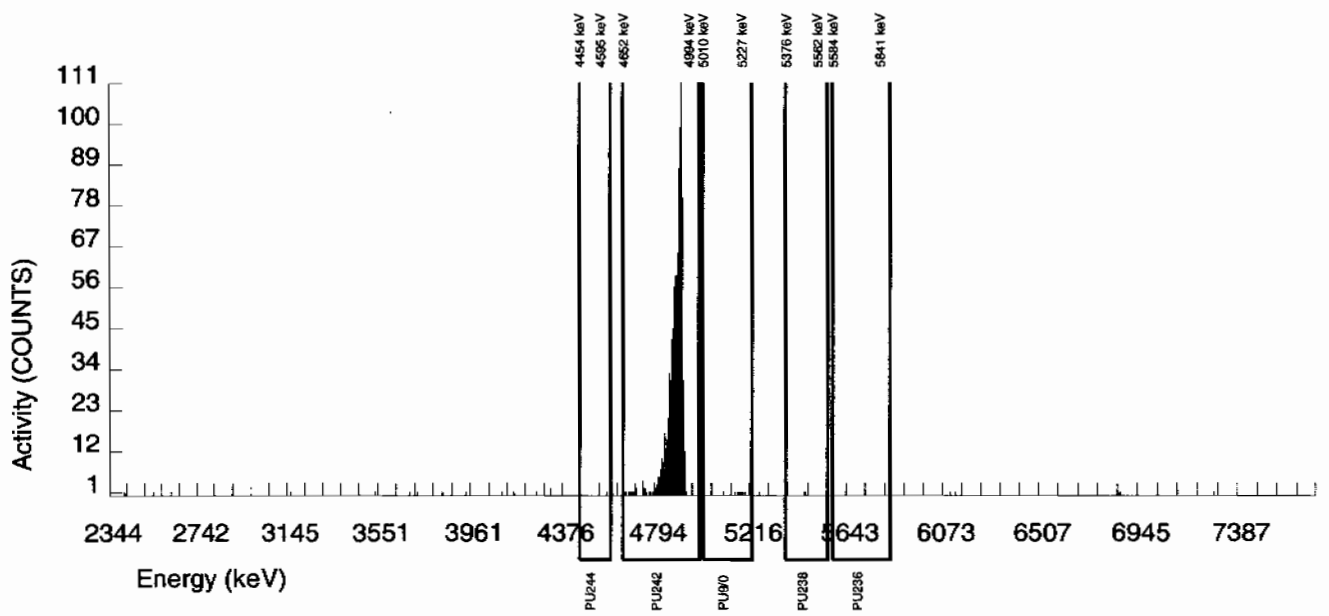

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 077	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020005_PU	DETECTOR S/N : 67576	BKG FILE : B077.CNF;1019
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 31.3532	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:46	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W077.CNF;263
% YIELD : 90.757		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0683E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5709.756	4.938	7.000	-3.000	10.000	2.6925	100.0000	-9.68E-03	1.33E-02	1.98E-02	4.82E-02	1.33E-02
PU-238	5499.000	5422.725	4.938	3.000	-7.000	10.000	2.9312	99.90000	-2.22E-02	1.14E-02	2.16E-02	5.18E-02	1.14E-02
PU-9/0	5155.000	5119.339	98.755	5.000	4.000	1.000	2.0604	99.90000	1.27E-02	7.79E-03	1.52E-02	3.90E-02	7.76E-03
PU242	4890.000	4895.065	42.063	962.000	962.000	0.000	0.0000	100.0000	3.05E+00	1.85E-01	0.00E+00	8.58E-03	9.82E-02
PU-244	4589.000	4523.032	4.938	8.000	5.000	3.000	3.7241	99.90000	1.58E-02	1.05E-02	2.75E-02	6.35E-02	1.05E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

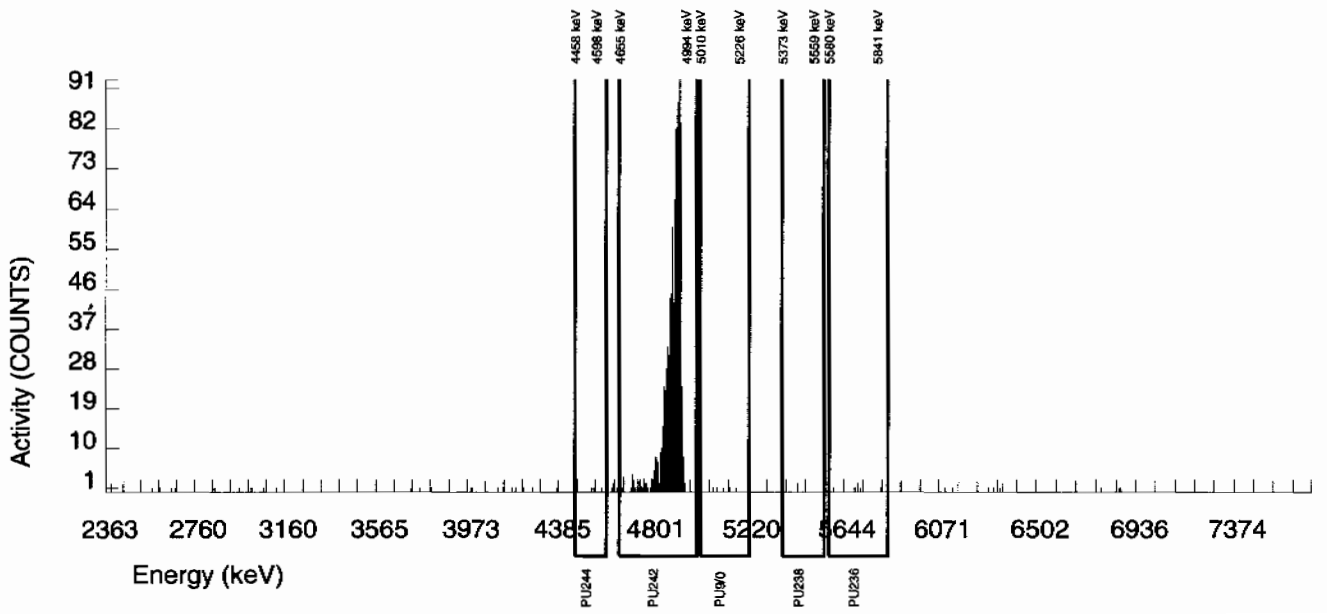

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 079	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020006_PU	DETECTOR S/N : 79466	BKG FILE : B079.CNF;1021
SAMPLE QTY : 0.519 G	AVERAGE %EFFICIENCY : 32.2486	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:46	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W079.CNF;268
% YIELD : 93.740		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1691E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5788.026	4.918	1.000	1.000	0.000	2.6925	100.0000	2.92E-03	2.93E-03	1.80E-02	4.37E-02	2.92E-03
PU-238	5499.000	5396.277	4.918	1.000	1.000	0.000	2.9312	99.90000	2.88E-03	2.88E-03	1.96E-02	4.70E-02	2.88E-03
PU-9/0	5155.000	5146.412	56.966	117.000	116.000	1.000	2.0604	99.90000	3.33E-01	3.55E-02	1.38E-02	3.53E-02	3.12E-02
PU242	4890.000	4889.346	43.143	1022.000	1022.000	0.000	0.0000	100.0000	2.93E+00	1.75E-01	0.00E+00	7.78E-03	9.18E-02
PU-244	4589.000	4519.798	113.112	6.000	6.000	0.000	3.7241	99.90000	1.72E-02	7.09E-03	2.49E-02	5.76E-02	7.04E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

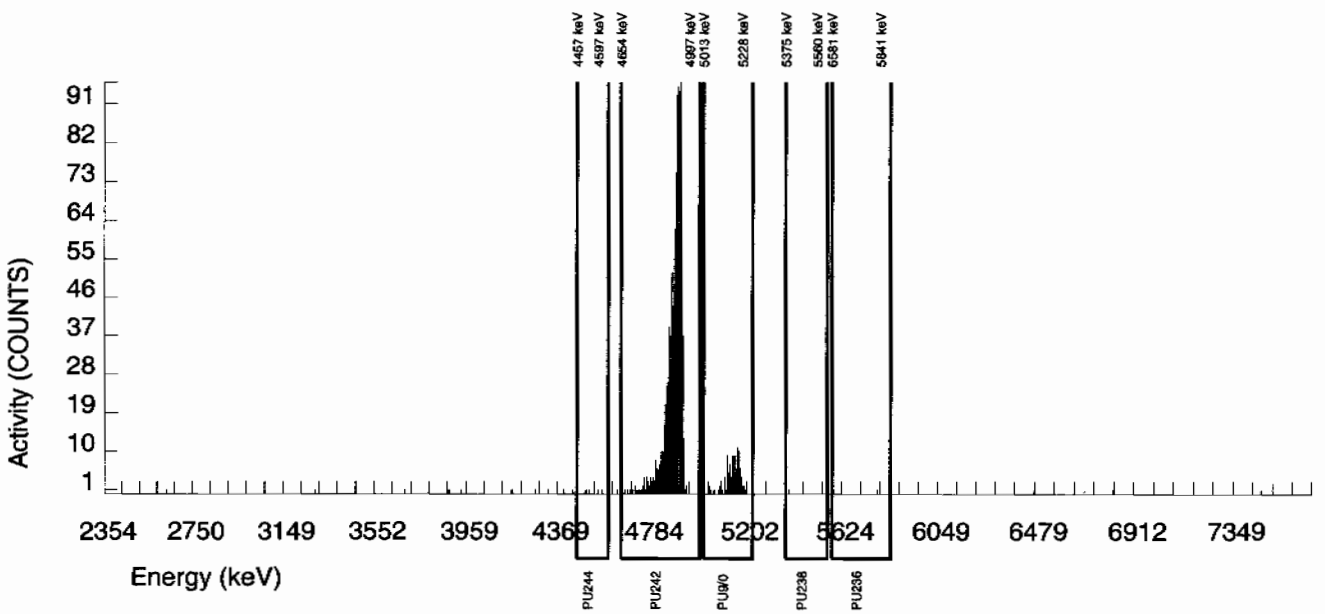

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 046	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020007_PU	DETECTOR S/N : 76544	BKG FILE : B046.CNF;1119
SAMPLE QTY : 0.513 G	AVERAGE %EFFICIENCY : 33.4175	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 20:01:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 77909.54	EFF FILE : W046.CNF;289
% YIELD : 79.374		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6834E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5781.983	97.871	4.000	1.403	2.597	2.6925	100.0000	3.65E-03	7.06E-03	1.71E-02	4.11E-02	7.06E-03
PU-238	5499.000	5483.142	63.616	2.000	-3.194	5.194	2.9312	99.90000	-8.16E-03	7.55E-03	1.87E-02	4.42E-02	7.55E-03
PU-9/0	5155.000	5149.540	141.913	4.000	0.105	3.895	2.0604	99.90000	2.67E-04	7.68E-03	1.31E-02	3.31E-02	7.68E-03
PU242	4890.000	4889.407	23.475	1167.000	1164.403	2.597	1.6115	100.0000	2.97E+00	1.72E-01	1.02E-02	2.74E-02	8.72E-02
PU-244	4589.000	4518.463	112.552	8.000	8.000	0.000	3.7241	99.90000	2.04E-02	7.29E-03	2.37E-02	5.43E-02	7.22E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

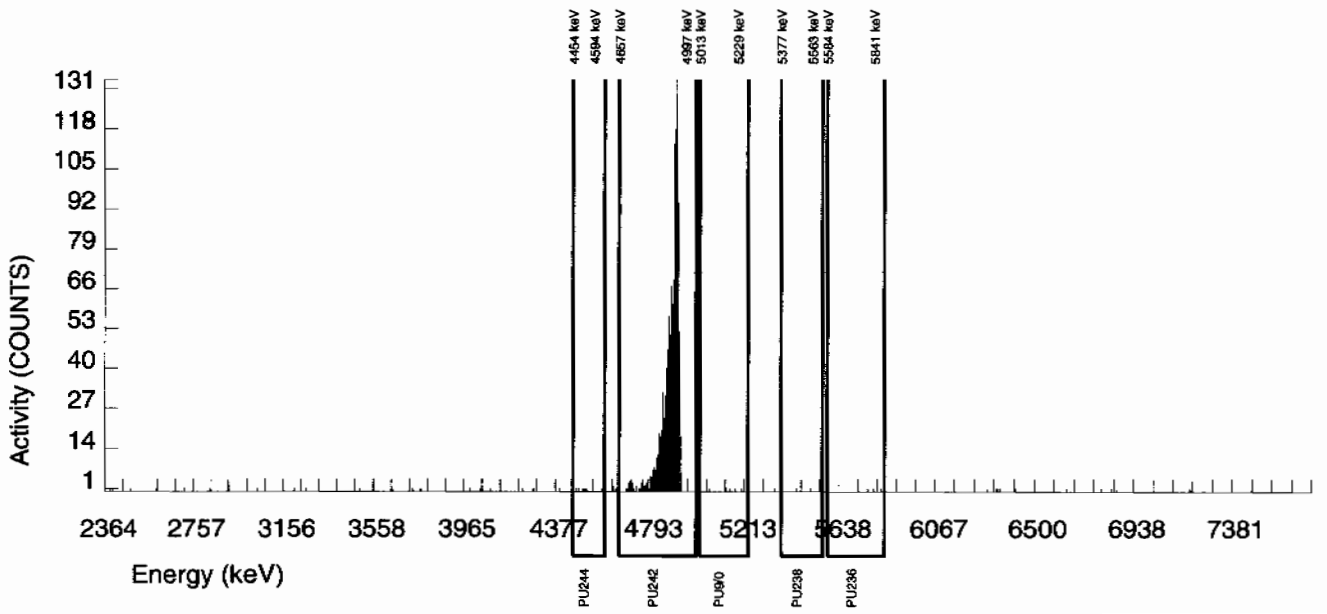

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 081	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020008_PU	DETECTOR S/N : 79996	BKG FILE : B081.CNF;1029
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 32.2195	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:46	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W081.CNF;274
% YIELD : 100.618		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.4017E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5717.946	4.879	1.000	0.000	1.000	2.6925	100.0000	0.00E+00	3.93E-03	1.71E-02	4.15E-02	3.93E-03
PU-238	5499.000	5467.098	0.000	0.000	-1.000	1.000	2.9312	99.90000	-2.73E-03	3.86E-03	1.86E-02	4.46E-02	3.86E-03
PU-9/0	5155.000	5142.474	28.052	8.000	8.000	0.000	2.0604	99.90000	2.18E-02	7.79E-03	1.31E-02	3.35E-02	7.71E-03
PU242	4890.000	4883.713	34.932	1096.000	1096.000	0.000	0.0000	100.0000	2.99E+00	1.75E-01	0.00E+00	7.38E-03	9.02E-02
PU-244	4589.000	4530.751	0.000	4.000	4.000	0.000	3.7241	99.90000	1.09E-02	5.48E-03	2.36E-02	5.46E-02	5.45E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

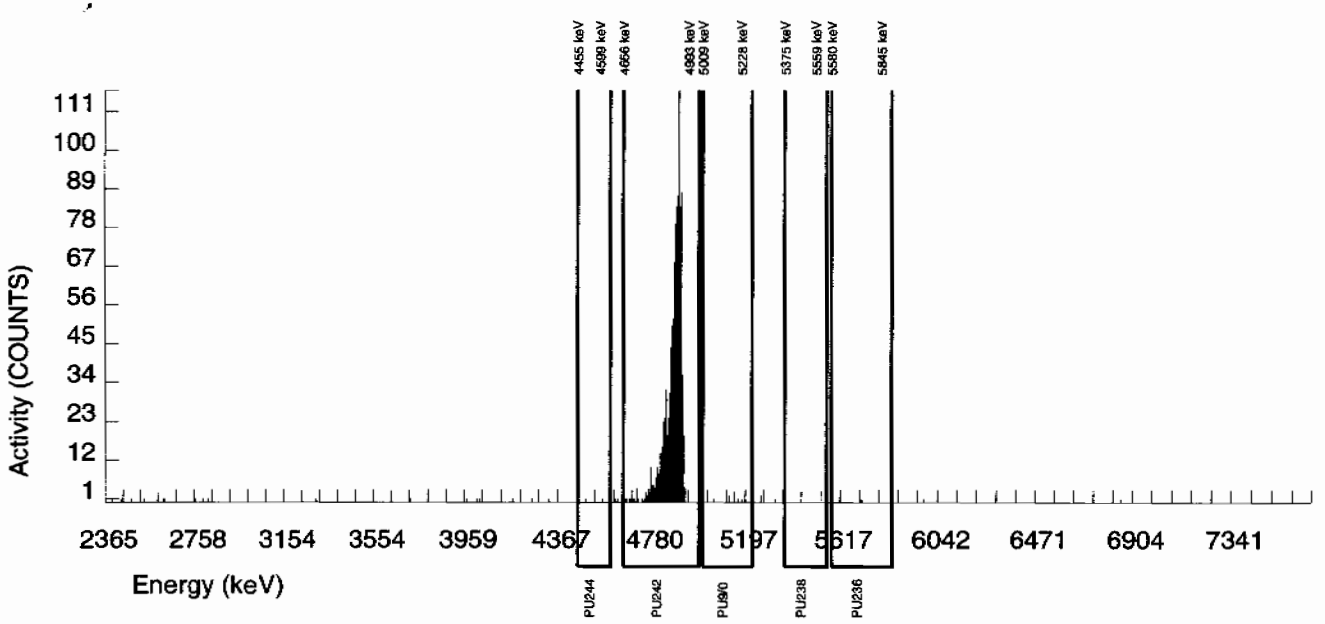

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 082	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020009_PU	DETECTOR S/N : 79997	BKG FILE : B082.CNF;1019
SAMPLE QTY : 0.514 G	AVERAGE %EFFICIENCY : 32.1841	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:46	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W082.CNF;257
% YIELD : 95.123		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2159E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5798.083	4.942	1.000	1.000	0.000	2.6925	100.0000	2.92E-03	2.92E-03	1.79E-02	4.36E-02	2.92E-03
PU-238	5499.000	5416.299	29.654	2.000	2.000	0.000	2.9312	99.90000	5.73E-03	4.07E-03	1.95E-02	4.68E-02	4.05E-03
PU-9/0	5155.000	5164.445	64.250	2.000	-1.000	3.000	2.0604	99.90000	-2.87E-03	6.41E-03	1.37E-02	3.52E-02	6.41E-03
PU242	4890.000	4892.686	33.563	1037.000	1035.000	2.000	1.4142	100.0000	2.96E+00	1.77E-01	9.42E-03	2.66E-02	9.23E-02
PU-244	4589.000	4552.753	7.259	8.000	8.000	0.000	3.7241	99.90000	2.29E-02	8.19E-03	2.48E-02	5.74E-02	8.10E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

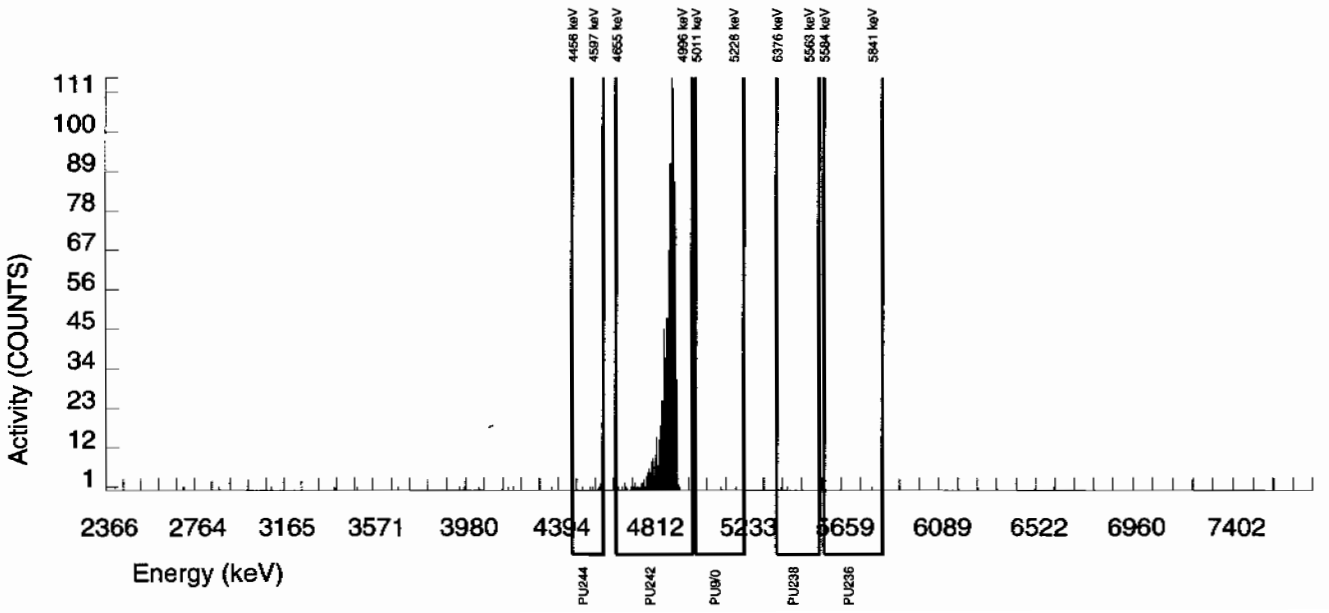

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669
SAMPLE ID : S0246020010_PU
SAMPLE QTY : 0.517 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 91.978

CHAMBER : 083
DETECTOR S/N : 64278
AVERAGE %EFFICIENCY : 34.7636
COUNT DATE : 23-FEB-2010 13:08:47
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_PU
BKG FILE : B083.CNF;1026
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W083.CNF;292
CAL DATE : 9-FEB-2010

TRACER
ID : 1375-A
NUCLIDE : PU242
NOMINAL : 3.3808E+00 dpm
RESULTS : 3.1096E+00 dpm

MS/MSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

LCS/LCSD
ID : 0244-B
NUCLIDE : PU-9/0
NOMINAL : 4.1778E+01 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5749.956	5.063	1.000	-5.000	6.000	2.6925	100.0000	-1.39E-02	7.35E-03	1.71E-02	4.15E-02	7.34E-03
PU-238	5499.000	5448.705	5.063	7.000	-4.000	11.000	2.9312	99.90000	-1.09E-02	1.16E-02	1.86E-02	4.46E-02	1.16E-02
PU-9/0	5155.000	5066.881	75.938	3.000	1.000	2.000	2.0604	99.90000	2.73E-03	6.10E-03	1.31E-02	3.35E-02	6.10E-03
PU242	4890.000	4902.270	44.050	1086.000	1081.000	5.000	2.2361	100.0000	2.95E+00	1.74E-01	1.42E-02	3.57E-02	9.00E-02
PU-244	4589.000	4549.548	42.082	11.000	11.000	0.000	3.7241	99.90000	3.00E-02	9.17E-03	2.36E-02	5.47E-02	9.05E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

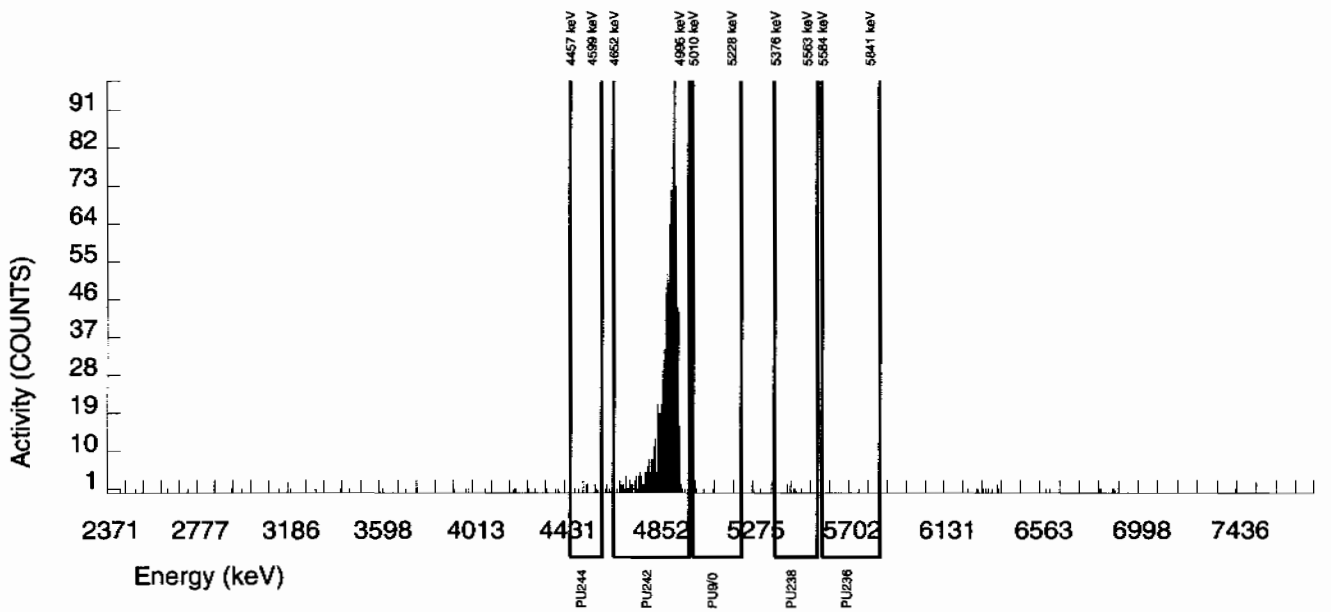

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 084	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020011_PU	DETECTOR S/N : 78265	BKG FILE : B084.CNF;1024
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 33.6931	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W084.CNF;295
% YIELD : 88.492		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9917E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5717.609	181.278	2.000	2.000	0.000	2.6925	100.0000	6.04E-03	4.28E-03	1.86E-02	4.51E-02	4.27E-03
PU-238	5499.000	5484.323	7.396	6.000	5.000	1.000	2.9312	99.90000	1.48E-02	7.89E-03	2.02E-02	4.85E-02	7.85E-03
PU-9/0	5155.000	5149.944	59.115	40.000	38.000	2.000	2.0604	99.90000	1.13E-01	2.01E-02	1.42E-02	3.65E-02	1.92E-02
PU242	4890.000	4895.599	35.123	1012.000	1008.000	4.000	2.0000	100.0000	2.99E+00	1.79E-01	1.38E-02	3.56E-02	9.44E-02
PU-244	4589.000	4540.041	5.035	9.000	9.000	0.000	3.7241	99.90000	2.67E-02	9.00E-03	2.57E-02	5.94E-02	8.90E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

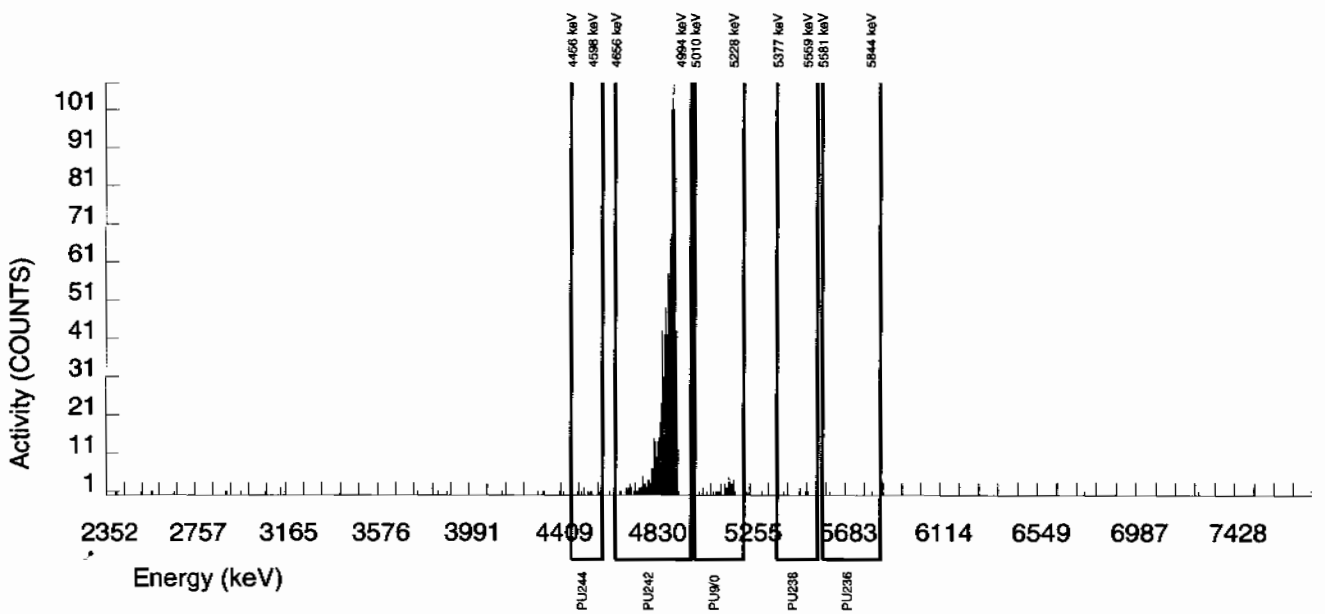

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 085	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020012_PU	DETECTOR S/N : 78776	BKG FILE : B085.CNF;1027
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 31.5289	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W085.CNF;302
% YIELD : 92.784		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1368E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5622.261	50.220	2.000	1.000	1.000	2.6925	100.0000	3.09E-03	5.36E-03	1.90E-02	4.63E-02	5.36E-03
PU-238	5499.000	5457.120	70.309	4.000	3.000	1.000	2.9312	99.90000	9.13E-03	6.82E-03	2.07E-02	4.97E-02	6.80E-03
PU-9/0	5155.000	5160.472	42.687	17.000	17.000	0.000	2.0604	99.90000	5.17E-02	1.28E-02	1.46E-02	3.74E-02	1.25E-02
PU242	4890.000	4893.523	34.029	991.000	989.000	2.000	1.4142	100.0000	3.00E+00	1.81E-01	9.99E-03	2.82E-02	9.57E-02
PU-244	4589.000	4554.720	20.088	2.000	1.000	1.000	3.7241	99.90000	3.04E-03	5.27E-03	2.63E-02	6.09E-02	5.27E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

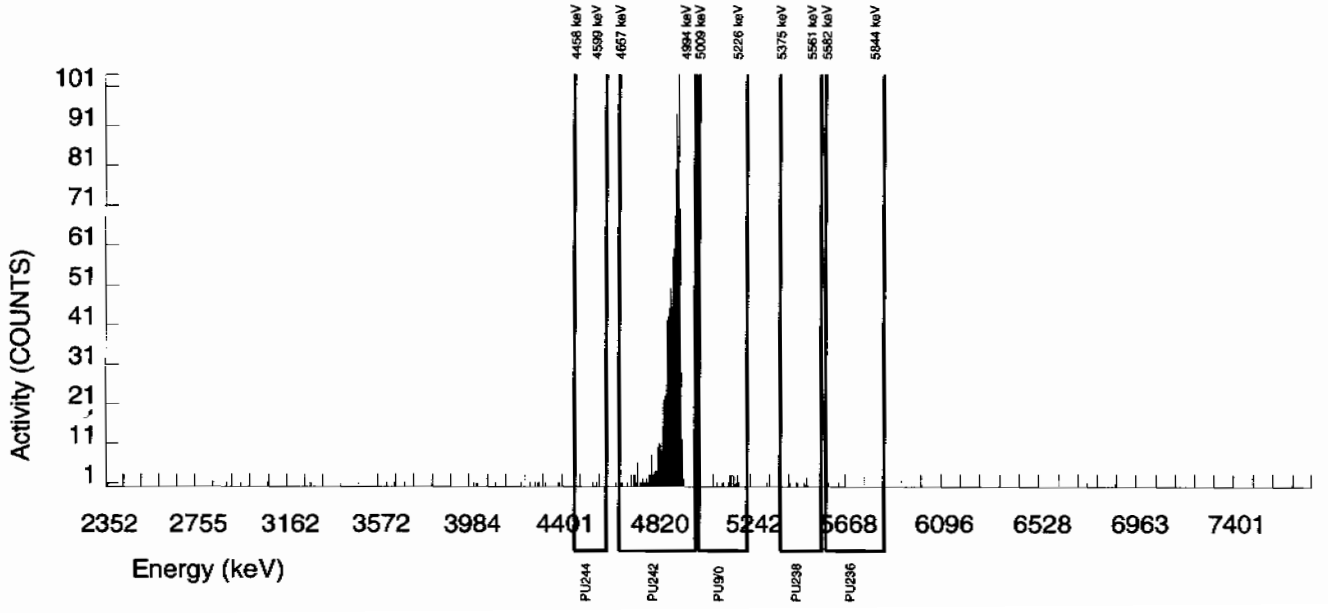

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 086	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202039555_PU	DETECTOR S/N : 78198	BKG FILE : B086.CNF;1026
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 29.4361	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W086.CNF;283
% YIELD : 90.437		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0575E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.410	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.70E-03	1.06E-02	2.58E-02	1.70E-03
PU-238	5499.000	5468.799	0.000	0.000	-2.000	2.000	2.9312	99.90000	-3.39E-03	2.94E-03	1.15E-02	2.77E-02	2.93E-03
PU-9/0	5155.000	5175.005	5.021	1.000	-1.000	2.000	2.0604	99.90000	-1.69E-03	2.94E-03	8.12E-03	2.08E-02	2.93E-03
PU242	4890.000	4894.702	34.850	902.000	900.000	2.000	1.4142	100.0000	1.52E+00	9.41E-02	5.57E-03	1.57E-02	5.09E-02
PU-244	4589.000	4563.577	40.165	5.000	4.000	1.000	3.7241	99.90000	6.78E-03	4.16E-03	1.47E-02	3.39E-02	4.15E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

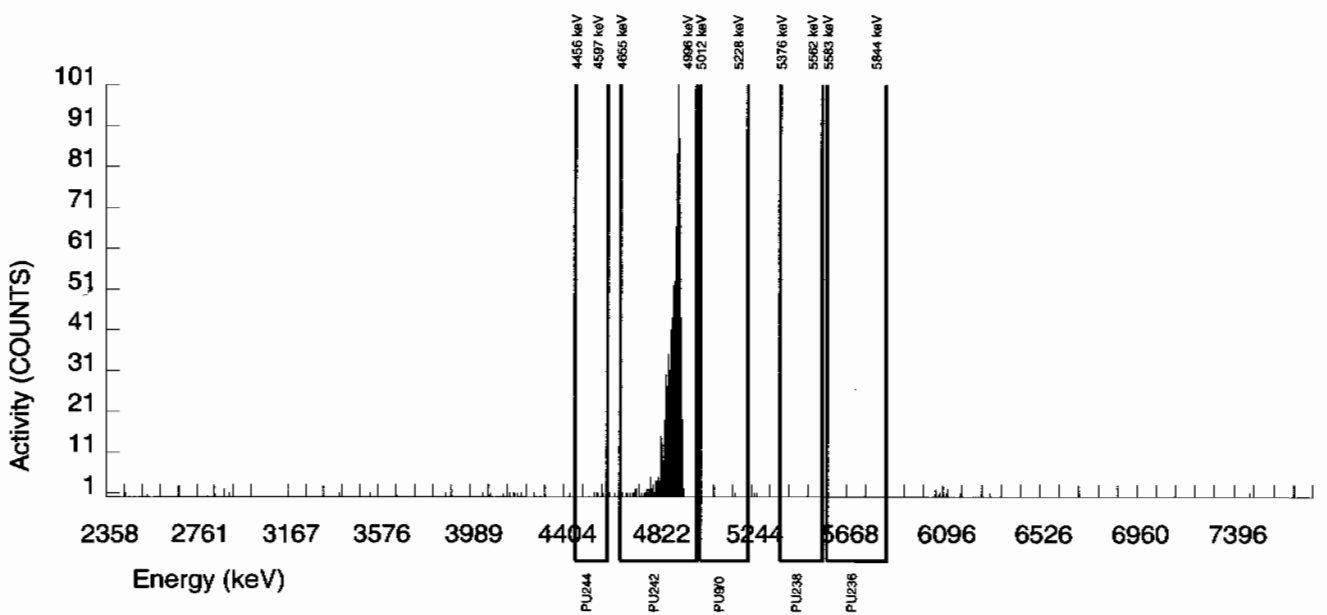

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 043	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202039556_PU	DETECTOR S/N : 76543	BKG FILE : B043.CNF;1109
SAMPLE QTY : 0.526 G	AVERAGE %EFFICIENCY : 33.6471	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 25-FEB-2010 22:19:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 86400.00	EFF FILE : W043.CNF;286
% YIELD : 73.197		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4746E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.672	79.167	2.000	-3.760	5.760	2.6925	100.0000	-9.26E-03	7.91E-03	1.67E-02	4.00E-02	7.91E-03
PU-238	5499.000	5459.754	4.948	1.000	-0.440	1.440	2.9312	99.90000	-1.06E-03	4.24E-03	1.82E-02	4.30E-02	4.24E-03
PU-9/0	5155.000	5181.594	9.277	2.000	0.560	1.440	2.0604	99.90000	1.35E-03	4.88E-03	1.28E-02	3.21E-02	4.88E-03
PU242	4890.000	4895.170	31.632	1199.000	1199.000	0.000	0.0000	100.0000	2.90E+00	1.66E-01	0.00E+00	6.54E-03	8.36E-02
PU-244	4589.000	4540.475	18.503	11.000	11.000	0.000	3.7241	99.90000	2.66E-02	8.12E-03	2.31E-02	5.28E-02	8.02E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

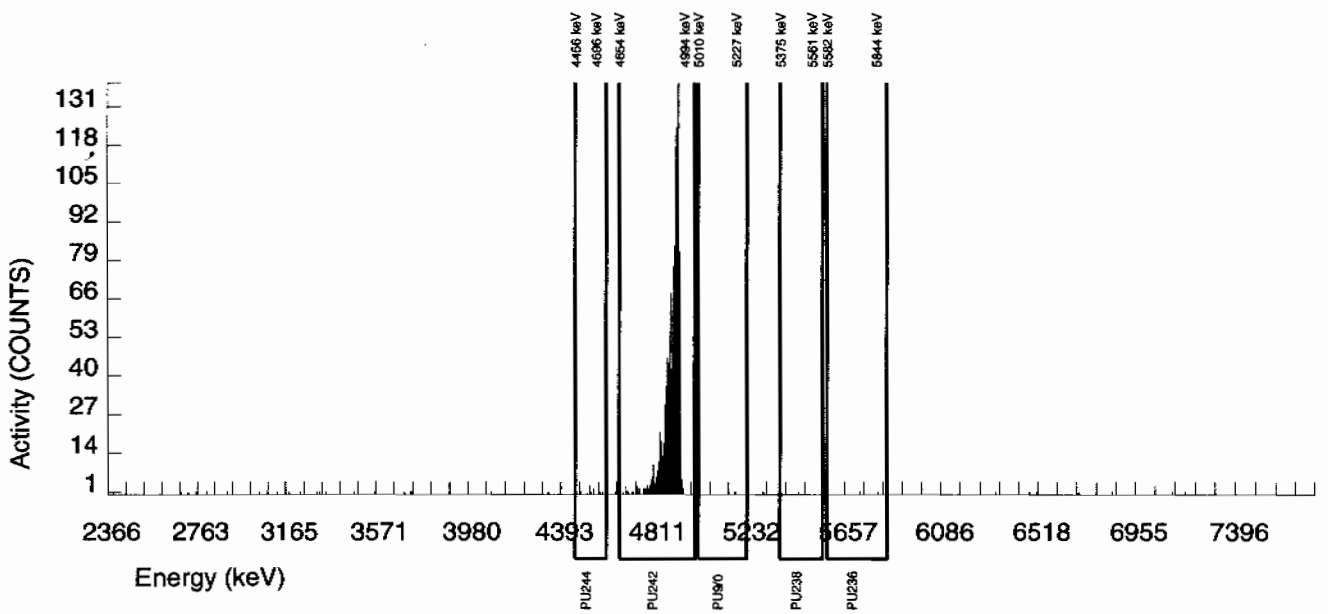

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 088	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202039557_PU	DETECTOR S/N : 33452	BKG FILE : B088.CNF;1021
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 30.3479	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W088.CNF;286
% YIELD : 90.741		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0678E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5728.028	164.299	7.000	4.000	3.000	2.6925	100.0000	5.71E-02	4.53E-02	8.91E-02	2.17E-01	4.52E-02
PU-238	5499.000	5511.380	61.878	511.000	502.000	9.000	2.9312	99.90000	7.15E+00	5.30E-01	9.71E-02	2.33E-01	3.25E-01
PU-9/0	5155.000	5167.284	47.647	2761.000	2758.000	3.000	2.0604	99.90000	3.93E+01	2.42E+00	6.82E-02	1.75E-01	7.49E-01
PU242	4890.000	4904.020	42.430	932.000	931.000	1.000	1.0000	100.0000	1.32E+01	8.90E-01	3.31E-02	1.05E-01	4.34E-01
PU-244	4589.000	4542.208	0.000	9.000	8.000	1.000	3.7241	99.90000	1.14E-01	4.55E-02	1.23E-01	2.85E-01	4.50E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

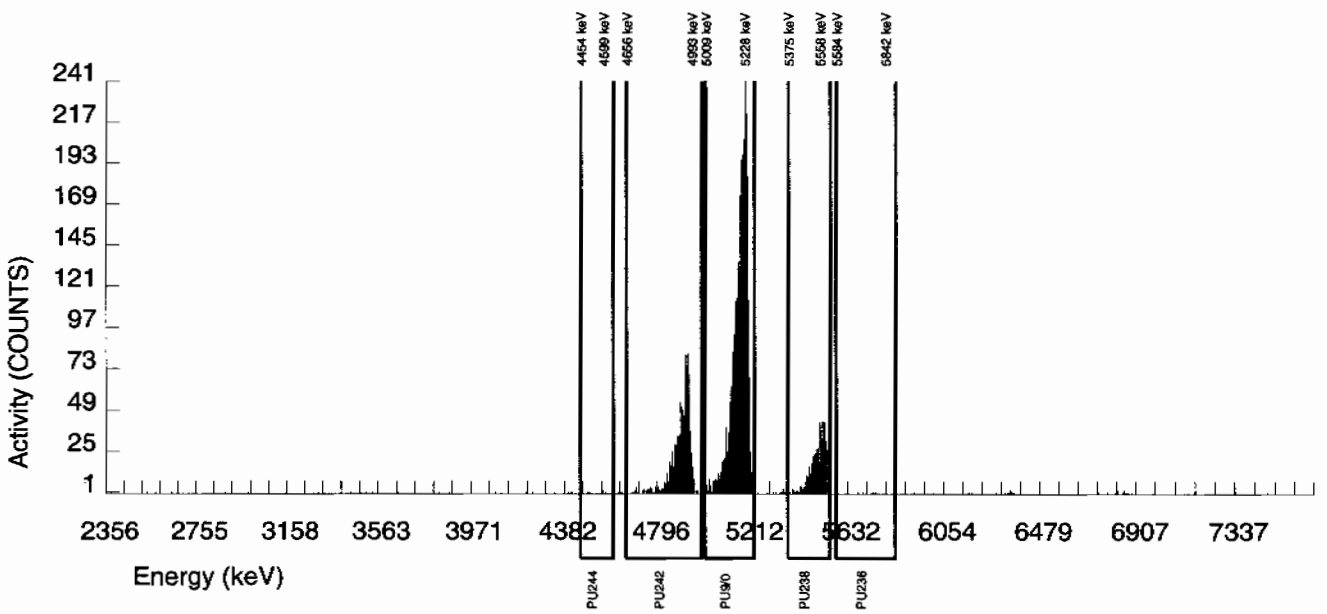

Radiochemistry Batch Checklist, Rev10

Batch# 951672 Product: U Date: 2/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/25/10

Secondary Review Performed By: [signature] 2/25/10

5/2

LANL

Uranium Que Sheet

10-FEB-10

Batch #: 951672 Analyst: CXM2 First Client Due Date:02-MAR-10 Internal Due Date:19-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-14 Expiration Date: 12/9/10 Vol: 0.1 mL

LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.115g * SRM

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 2/18/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: MER 2/18/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (1/f)	U Det #
245978008-1	RE15-10-7975	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	1	31	1.272	113
245978009-1	RE15-10-7978	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	2	32	1.260	114
245978010-1	RE15-10-7970	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	3	33	1.260	115
245978011-1	RE15-10-7964	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	4	34	1.253	119 ~~118~~
245978012-1	RE15-10-7973	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	5	35	1.255	20 119
245978013-1	RE15-10-7962	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	6	36	1.253	21 120
245978014-1	RE15-10-7963	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	7	37	1.257	22 121
245978015-1	RE15-10-7977	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	8	38	1.257	23 122
246020001-1	RE15-10-7980	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	9	39	1.265	24 123
246020002-1	RE15-10-7958	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	10	40	1.255	25 124
* ~~246020003-1~~	~~RE15-10-7960~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~11~~	~~41~~	~~1.257~~	~~26 125~~
246020004-1	RE15-10-7979	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	12	42	1.258	27 126
246020005-1	RE15-10-7972	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	13	43	1.259	28 127
* ~~246020006-1~~	~~RE15-10-7967~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~14~~	~~44~~	~~1.257~~	~~29 128~~
246020007-1	RE15-10-7974	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	15	45	1.255	130 ~~129~~
246020008-1	RE15-10-7961	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	16	46	1.255	3
246020009-1	RE15-10-7971	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	17	47	1.252	4
246020010-1	RE15-10-7966	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	18	48	1.257	5
* ~~246020011-1~~	~~RE15-10-7959~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~19~~	~~49~~	~~1.264~~	~~8~~
246020012-1	RE15-10-7969	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	20	50	1.257	9
1202039558-1	MB for batch 951672	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	51	1	166
1202039559-1	RE15-10-7980(246020001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	52	1.270	10
1202039560-1	LCS for batch 951672	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	53	0.115g	11

* 2/25/10

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 2/25/10

Blank Correction Report

Batch ID 951672

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202039559	DUP	Uranium-233/234	1.27 g	0.280	0.0289	0.0392	.008503937	pCi/g	NO
		Uranium-235/236	1.27 g	0.0115	0.00478	0.025	.004543307	pCi/g	YES
		Uranium-238	1.27 g	0.412	0.0386	0.0268	.038582677	pCi/g	NO
1202039560	LCS	Uranium-233/234	0.115 g	6.11	0.542	0.348	.093913043	pCi/g	NO
		Uranium-235/236	0.115 g	0.409	0.0953	0.222	.050173913	pCi/g	NO
		Uranium-238	0.115 g	5.34	0.484	0.238	.426086957	pCi/g	NO
1202039558	MB	Uranium-233/234	1.00 g	0.0108	0.00398	0.0295	.0108	pCi/g	YES
		Uranium-235/236	1.00 g	0.00577	0.00291	0.0188	.00577	pCi/g	YES
		Uranium-238	1.00 g	0.049	0.00843	0.0201	.049	pCi/g	YES
245978008	RE15-10-7975	Uranium-233/234	1.27 g	1.60	0.126	0.0447	.008503937	pCi/g	NO
		Uranium-235/236	1.27 g	0.171	0.0229	0.0285	.004543307	pCi/g	NO
		Uranium-238	1.27 g	6.11	0.451	0.0305	.038582677	pCi/g	NO
245978009	RE15-10-7978	Uranium-233/234	1.26 g	0.461	0.0433	0.0435	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0213	0.00754	0.0278	.004579365	pCi/g	YES
		Uranium-238	1.26 g	0.609	0.0543	0.0297	.038888889	pCi/g	NO
245978010	RE15-10-7970	Uranium-233/234	1.26 g	0.309	0.0308	0.0384	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0226	0.00671	0.0245	.004579365	pCi/g	YES
		Uranium-238	1.26 g	1.16	0.0921	0.0262	.038888889	pCi/g	NO
245978011	RE15-10-7964	Uranium-233/234	1.25 g	0.444	0.0408	0.0385	.00864	pCi/g	NO
		Uranium-235/236	1.25 g	0.034	0.00836	0.0246	.004616	pCi/g	NO
		Uranium-238	1.25 g	0.509	0.0455	0.0263	.0392	pCi/g	NO
245978012	RE15-10-7973	Uranium-233/234	1.26 g	0.687	0.059	0.0404	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0772	0.0138	0.0258	.004579365	pCi/g	NO
		Uranium-238	1.26 g	2.27	0.172	0.0276	.038888889	pCi/g	NO
245978013	RE15-10-7962	Uranium-233/234	1.25 g	0.375	0.0354	0.0371	.00864	pCi/g	NO
		Uranium-235/236	1.25 g	0.0327	0.00805	0.0237	.004616	pCi/g	NO
		Uranium-238	1.25 g	0.937	0.0757	0.0254	.0392	pCi/g	NO
245978014	RE15-10-7963	Uranium-233/234	1.26 g	0.864	0.0709	0.0383	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0619	0.0119	0.0244	.004579365	pCi/g	NO
		Uranium-238	1.26 g	2.99	0.222	0.0261	.038888889	pCi/g	NO
245978015	RE15-10-7977	Uranium-233/234	1.26 g	1.00	0.0836	0.0453	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0555	0.0118	0.0289	.004579365	pCi/g	NO
		Uranium-238	1.26 g	2.21	0.171	0.0309	.038888889	pCi/g	NO
246020001	RE15-10-7980	Uranium-233/234	1.27 g	0.249	0.0258	0.0366	.008503937	pCi/g	NO
		Uranium-235/236	1.27 g	0.0215	0.00687	0.0233	.004543307	pCi/g	YES
		Uranium-238	1.27 g	0.316	0.0308	0.025	.038582677	pCi/g	NO
246020002	RE15-10-7958	Uranium-233/234	1.26 g	0.279	0.0281	0.0362	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.023	0.00659	0.0231	.004579365	pCi/g	NO
		Uranium-238	1.26 g	0.403	0.0371	0.0247	.038888889	pCi/g	NO
246020004	RE15-10-7979	Uranium-233/234	1.26 g	1.57	0.121	0.0392	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.113	0.0168	0.025	.004579365	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246020004	RE15-10-7979	Uranium-238	1.26 g	4.15	0.304	0.0268	.038888889	pCi/g	NO
246020005	RE15-10-7972	Uranium-233/234	1.26 g	0.380	0.036	0.0381	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0448	0.00967	0.0243	.004579365	pCi/g	NO
		Uranium-238	1.26 g	1.34	0.104	0.026	.038888889	pCi/g	NO
246020007	RE15-10-7974	Uranium-233/234	1.26 g	0.275	0.028	0.0375	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0221	0.00705	0.0239	.004579365	pCi/g	YES
		Uranium-238	1.26 g	0.254	0.0264	0.0256	.038888889	pCi/g	NO
246020008	RE15-10-7961	Uranium-233/234	1.26 g	4.46	0.331	0.044	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.551	0.0524	0.028	.004579365	pCi/g	NO
		Uranium-238	1.26 g	23.1	1.67	0.030	.038888889	pCi/g	NO
246020009	RE15-10-7971	Uranium-233/234	1.25 g	2.33	0.173	0.0346	.00864	pCi/g	NO
		Uranium-235/236	1.25 g	0.278	0.0293	0.0221	.004616	pCi/g	NO
		Uranium-238	1.25 g	13.1	0.926	0.0236	.0392	pCi/g	NO
246020010	RE15-10-7966	Uranium-233/234	1.26 g	0.476	0.0401	0.0282	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0442	0.00838	0.018	.004579365	pCi/g	NO
		Uranium-238	1.26 g	1.33	0.0991	0.0192	.038888889	pCi/g	NO
246020012	RE15-10-7969	Uranium-233/234	1.26 g	2.23	0.163	0.0313	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.305	0.0303	0.020	.004579365	pCi/g	NO
		Uranium-238	1.26 g	14.7	1.03	0.0214	.038888889	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 124	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020001_UU	DETECTOR S/N : 45-142V2	BKG FILE : B124.CNF;445
SAMPLE QTY : 1.265 G	AVERAGE %EFFICIENCY : 25.9705	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:10	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W124.CNF;114
% YIELD : 94.666		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2659E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5295.275	83.338	1109.000	1107.000	2.000	1.4142	100.0000	1.60E+00	1.23E-01	4.77E-03	1.35E-02	4.83E-02
U-3/4	4763.020	4746.444	28.545	173.000	171.879	0.000	4.8416	100.0000	2.49E-01	2.58E-02	1.63E-02	3.66E-02	1.90E-02
U-235	4391.000	4404.660	0.000	13.000	12.000	1.000	2.2152	80.90000	2.15E-02	6.87E-03	9.23E-03	2.33E-02	6.70E-03
U-238	4184.730	4184.963	56.144	218.000	218.000	0.000	3.1208	100.0000	3.16E-01	3.08E-02	1.05E-02	2.50E-02	2.14E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

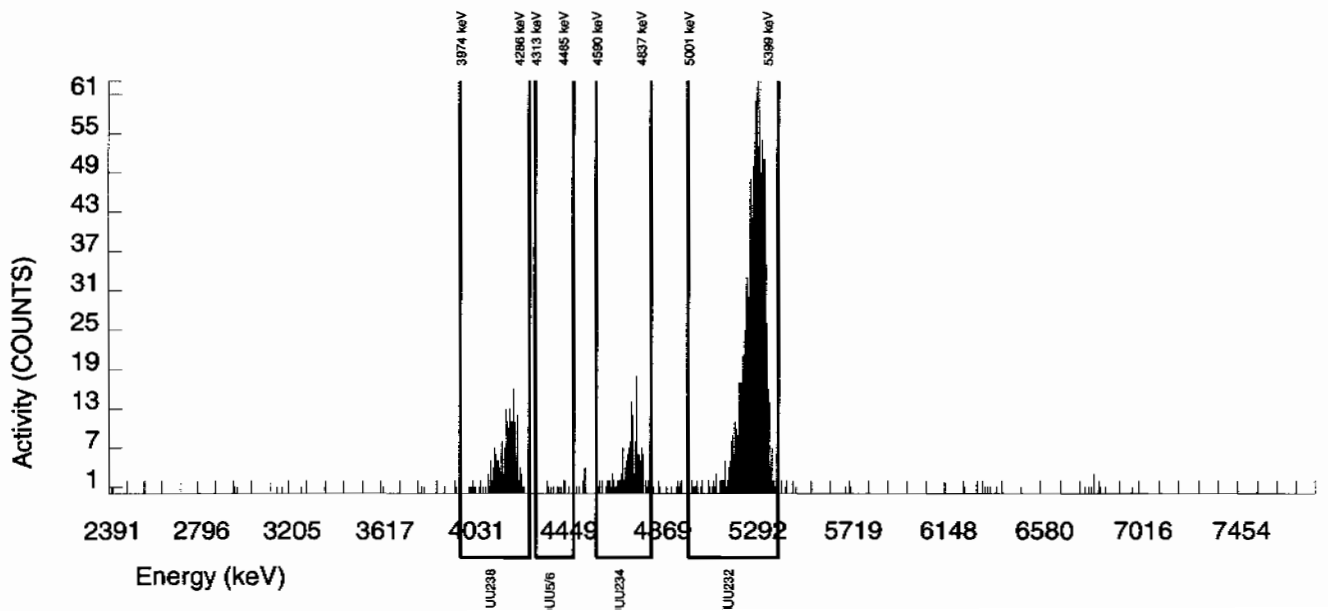

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 125	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020002_UU	DETECTOR S/N : 75547	BKG FILE : B125.CNF;455
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 25.6687	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W125.CNF;132
% YIELD : 97.509		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3941E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.073	28.360	1128.000	1127.000	1.000	1.0000	100.0000	1.62E+00	1.23E-01	3.34E-03	1.06E-02	4.82E-02
U-3/4	4763.020	4755.120	36.932	197.000	194.859	1.000	4.8416	100.0000	2.79E-01	2.81E-02	1.62E-02	3.62E-02	2.01E-02
U-235	4391.000	4394.812	9.870	13.000	13.000	0.000	2.2152	80.90000	2.30E-02	6.59E-03	9.13E-03	2.31E-02	6.39E-03
U-238	4184.730	4188.015	69.350	281.000	281.000	0.000	3.1208	100.0000	4.03E-01	3.71E-02	1.04E-02	2.47E-02	2.40E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

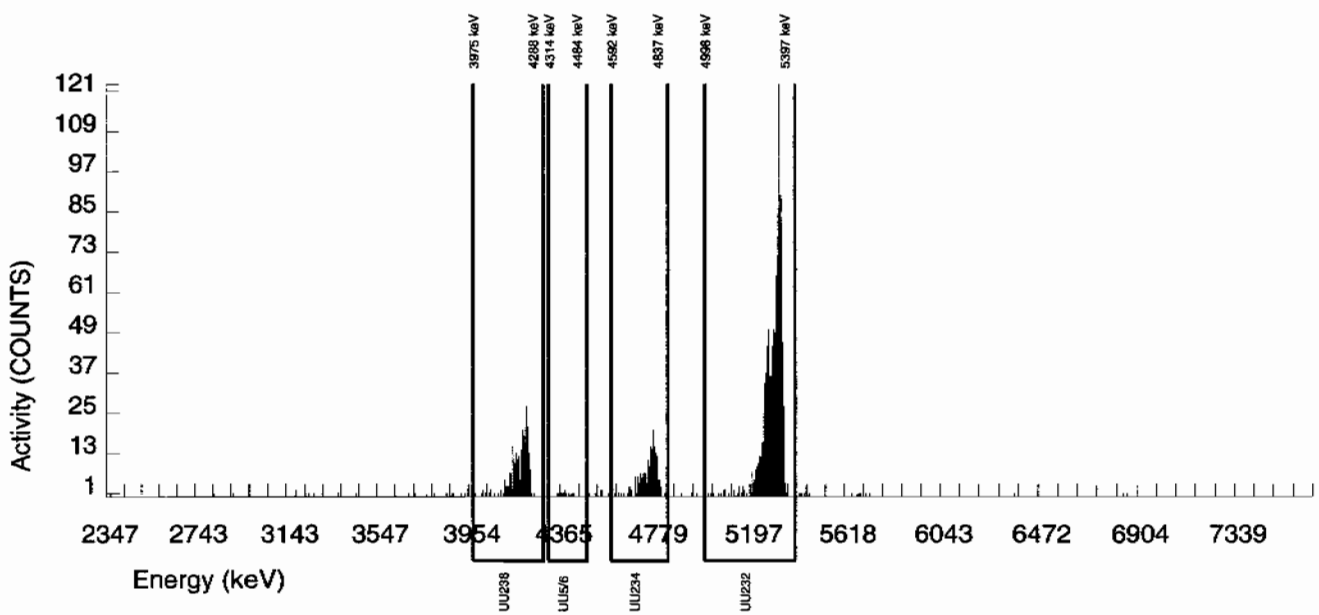

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 127	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020004_UU	DETECTOR S/N : 78770	BKG FILE : B127.CNF;458
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 24.4938	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:17	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W127.CNF;125
% YIELD : 94.026		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2371E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5288.402	54.285	1039.000	1037.000	2.000	1.4142	100.0000	1.61E+00	1.25E-01	5.12E-03	1.44E-02	5.02E-02
U-3/4	4763.020	4747.284	65.602	1010.000	1007.950	1.000	4.8416	100.0000	1.57E+00	1.21E-01	1.75E-02	3.92E-02	4.94E-02
U-235	4391.000	4401.278	87.462	59.000	59.000	0.000	2.2152	80.90000	1.13E-01	1.68E-02	9.90E-03	2.50E-02	1.48E-02
U-238	4184.730	4176.784	51.650	2669.000	2669.000	0.000	3.1208	100.0000	4.15E+00	3.04E-01	1.13E-02	2.68E-02	8.03E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

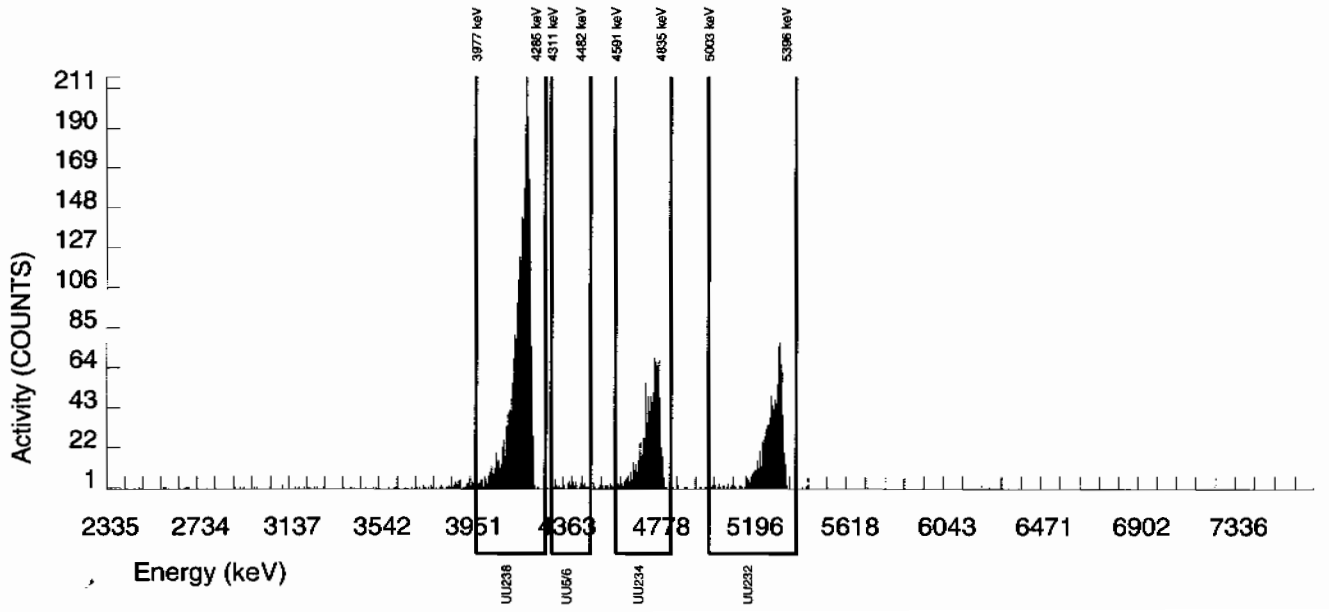

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 128	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020005_UU	DETECTOR S/N : 75549	BKG FILE : B128.CNF;464
SAMPLE QTY : 1.259 G	AVERAGE %EFFICIENCY : 25.4275	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:20	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W128.CNF;135
% YIELD : 93.194		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1996E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.651	71.105	1068.000	1067.000	1.000	1.0000	100.0000	1.61E+00	1.24E-01	3.51E-03	1.11E-02	4.94E-02
U-3/4	4763.020	4761.191	51.259	253.000	251.920	0.000	4.8416	100.0000	3.80E-01	3.60E-02	1.70E-02	3.81E-02	2.40E-02
U-235	4391.000	4413.734	97.423	24.000	24.000	0.000	2.2152	80.90000	4.48E-02	9.67E-03	9.62E-03	2.43E-02	9.14E-03
U-238	4184.730	4192.509	36.247	885.000	885.000	0.000	3.1208	100.0000	1.34E+00	1.04E-01	1.10E-02	2.60E-02	4.49E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

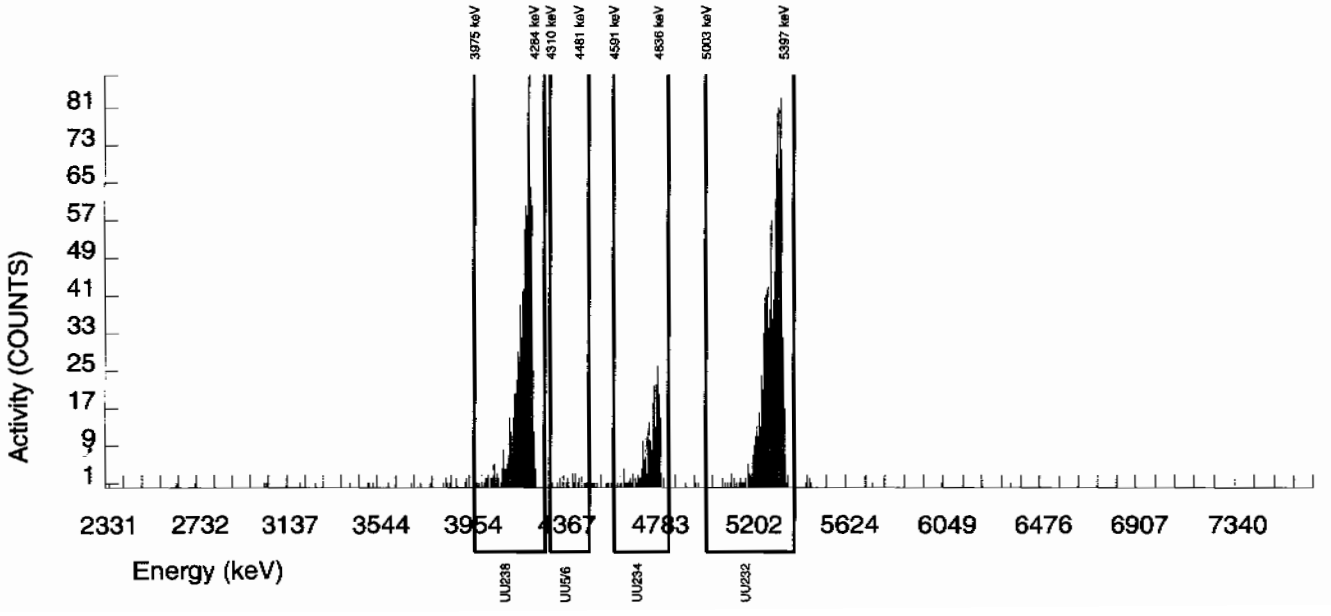

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 130	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020007_UU	DETECTOR S/N : 76228	BKG FILE : B130.CNF;453
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 24.7879	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W130.CNF;132
% YIELD : 97.390		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3887E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5313.149	27.989	1088.000	1087.000	1.000	1.0000	100.0000	1.62E+00	1.24E-01	3.46E-03	1.09E-02	4.91E-02
U-3/4	4763.020	4768.888	45.050	186.000	184.900	0.000	4.8416	100.0000	2.75E-01	2.80E-02	1.67E-02	3.75E-02	2.02E-02
U-235	4391.000	4398.250	4.965	13.000	12.000	1.000	2.2152	80.90000	2.21E-02	7.05E-03	9.47E-03	2.39E-02	6.88E-03
U-238	4184.730	4192.643	66.673	171.000	171.000	0.000	3.1208	100.0000	2.54E-01	2.64E-02	1.08E-02	2.56E-02	1.94E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

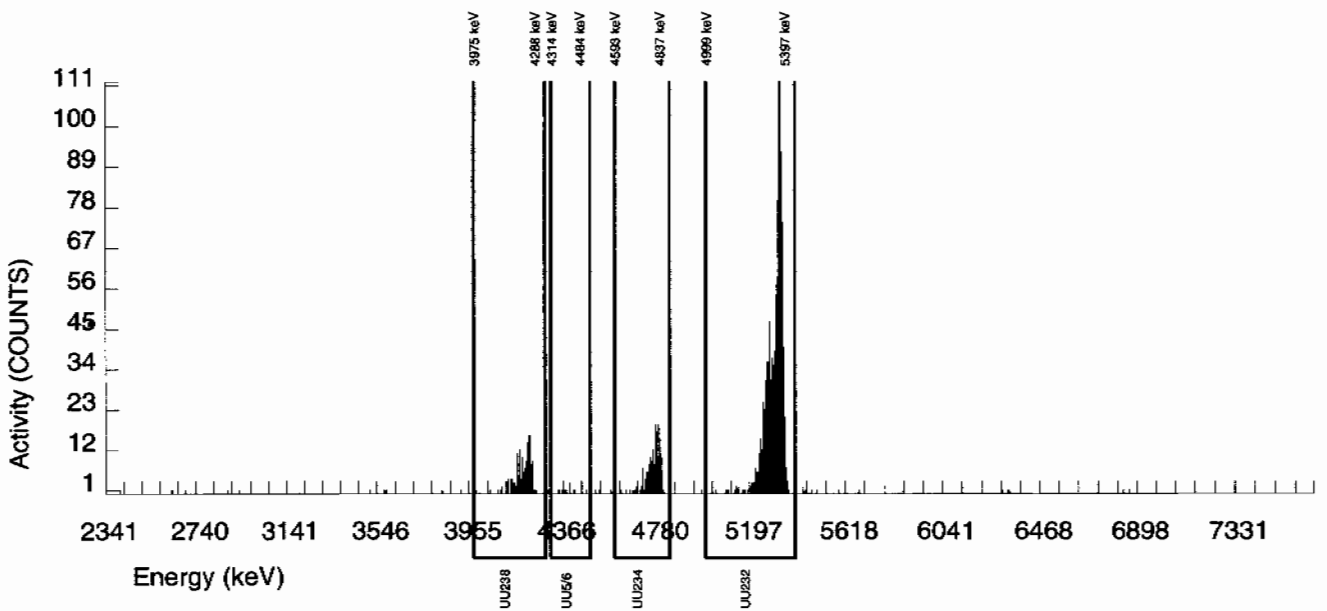

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 003	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020008_UU	DETECTOR S/N : 79453	BKG FILE : B003.CNF;1112
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 31.0941	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:02:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W003.CNF;341
% YIELD : 66.282		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.9869E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.817	68.331	930.000	928.000	2.000	1.4142	100.0000	1.62E+00	1.27E-01	5.73E-03	1.62E-02	5.32E-02
U-3/4	4763.020	4752.996	77.965	2561.000	2560.061	0.000	4.8416	100.0000	4.46E+00	3.31E-01	1.96E-02	4.40E-02	8.81E-02
U-235	4391.000	4404.802	94.379	257.000	256.000	1.000	2.2152	80.90000	5.51E-01	5.24E-02	1.11E-02	2.80E-02	3.46E-02
U-238	4184.730	4179.063	72.562	13292.000	13291.000	1.000	3.1208	100.0000	2.31E+01	1.67E+00	1.26E-02	3.00E-02	2.01E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

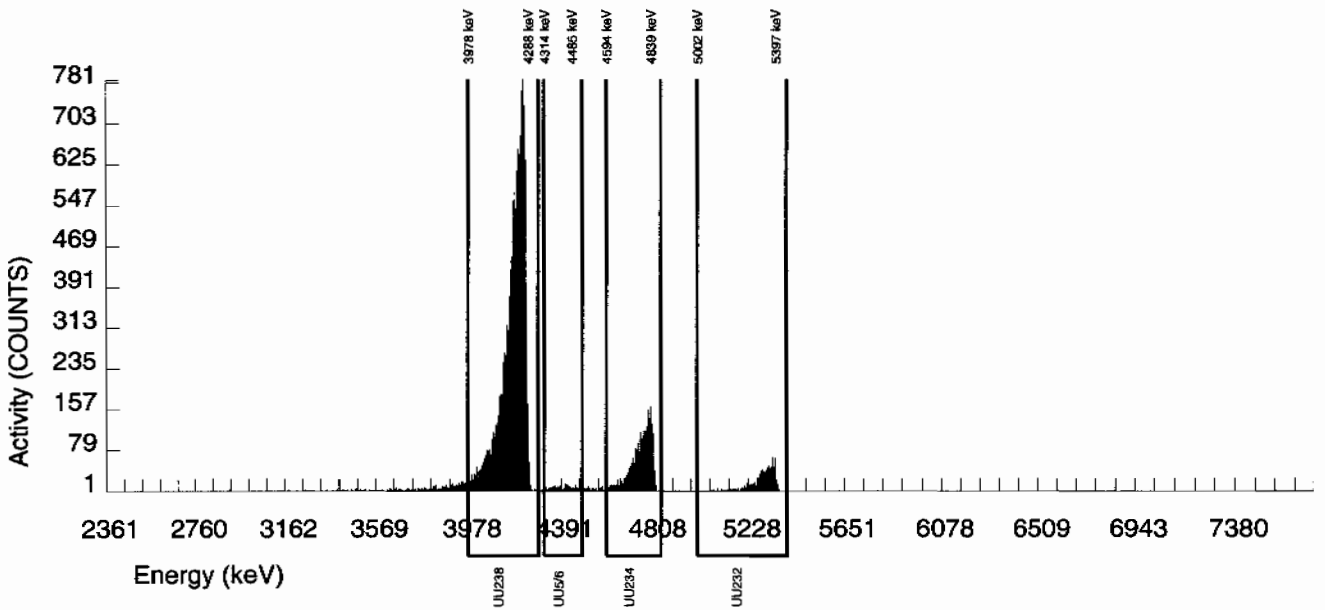

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672
SAMPLE ID : S0246020009_UU
SAMPLE QTY : 1.252 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 86.056

CHAMBER : 004
DETECTOR S/N : 68548
AVERAGE %EFFICIENCY : 30.4786
COUNT DATE : 24-FEB-2010 13:02:39
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B004.CNF;1121
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W004.CNF;330
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5063E+00 dpm
RESULTS : 3.8779E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5288.646	77.374	1186.000	1181.000	5.000	2.2361	100.0000	1.62E+00	1.23E-01	7.14E-03	1.80E-02	4.74E-02
U-3/4	4763.020	4744.792	78.696	1707.000	1700.805	5.000	4.8416	100.0000	2.33E+00	1.73E-01	1.55E-02	3.46E-02	5.67E-02
U-235	4391.000	4398.821	110.201	166.000	164.000	2.000	2.2152	80.90000	2.78E-01	2.93E-02	8.74E-03	2.21E-02	2.20E-02
U-238	4184.730	4175.278	66.054	9560.000	9556.000	4.000	3.1208	100.0000	1.31E+01	9.26E-01	9.96E-03	2.36E-02	1.34E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

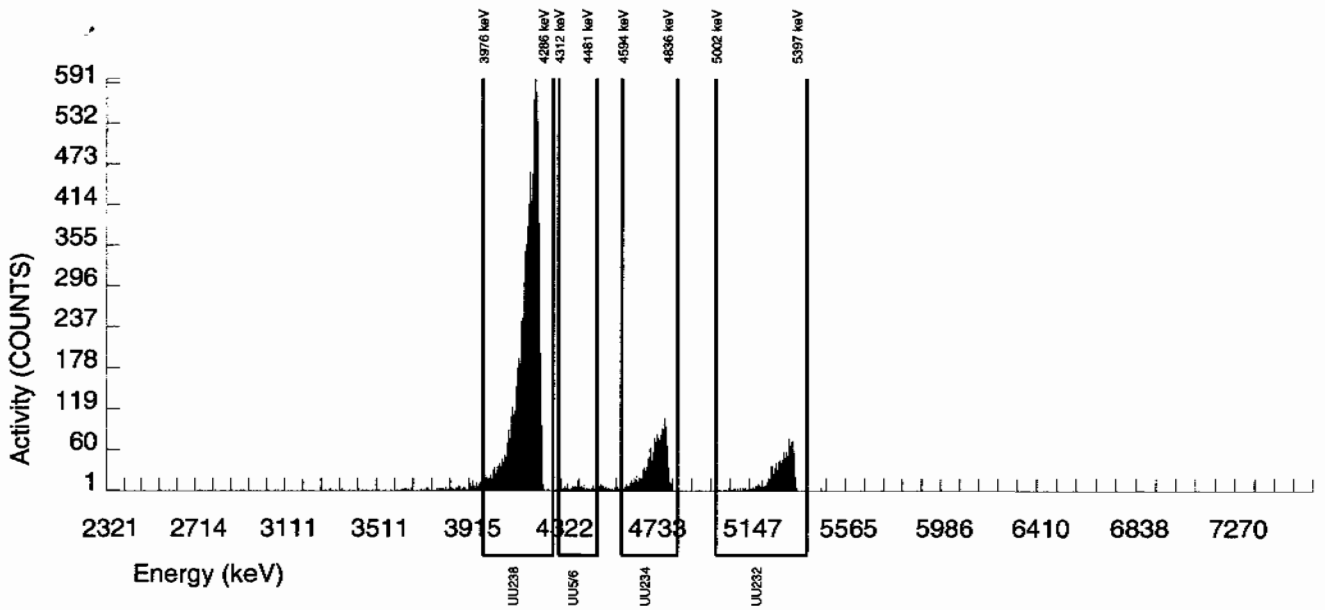

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 005	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020010_UU	DETECTOR S/N : 79454	BKG FILE : B005.CNF;1107
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 31.9230	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:02:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W005.CNF;337
% YIELD : 100.529		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5301E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5321.415	55.718	1450.000	1445.000	5.000	2.2361	100.0000	1.61E+00	1.19E-01	5.81E-03	1.46E-02	4.26E-02
U-3/4	4763.020	4773.064	64.704	430.000	426.537	2.000	4.8416	100.0000	4.76E-01	4.01E-02	1.26E-02	2.82E-02	2.32E-02
U-235	4391.000	4407.209	38.484	32.000	32.000	0.000	2.2152	80.90000	4.42E-02	8.38E-03	7.11E-03	1.80E-02	7.81E-03
U-238	4184.730	4199.551	56.944	1190.000	1190.000	0.000	3.1208	100.0000	1.33E+00	9.91E-02	8.11E-03	1.92E-02	3.85E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

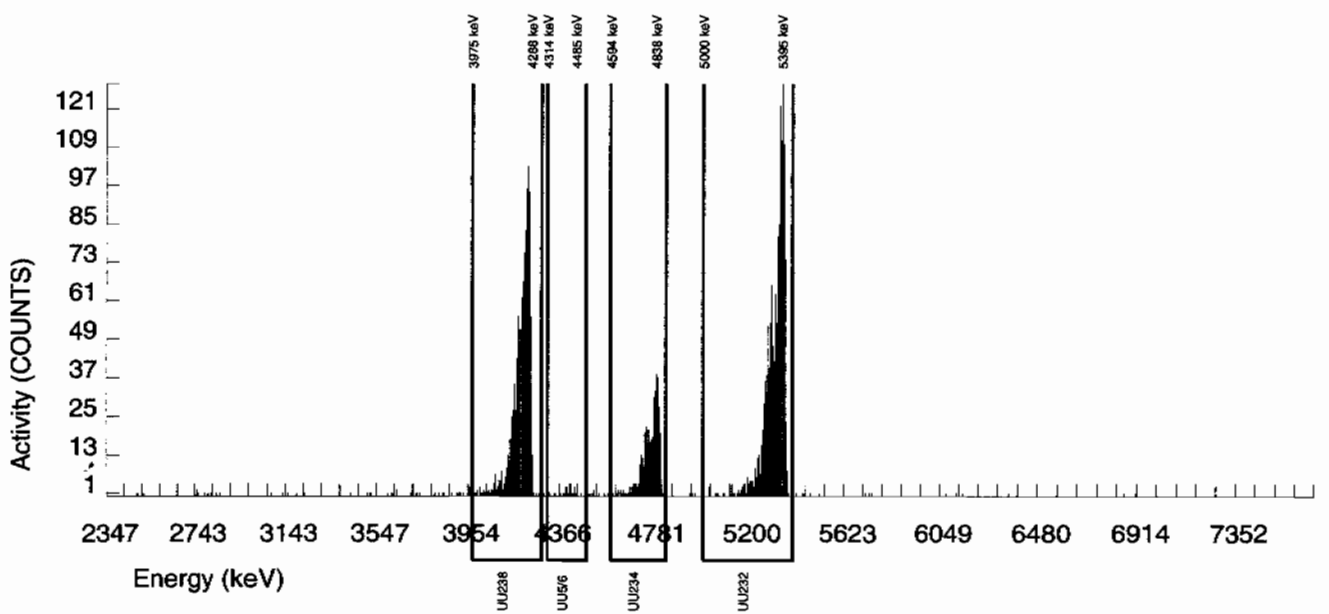

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 009	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020012_UU	DETECTOR S/N : 72528	BKG FILE : B009.CNF;1108
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 34.1471	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:02:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W009.CNF;307
% YIELD : 84.550		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8101E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5281.151	86.819	1309.000	1300.000	9.000	3.0000	100.0000	1.61E+00	1.21E-01	8.66E-03	2.07E-02	4.51E-02
U-3/4	4763.020	4742.848	75.300	1803.000	1798.684	3.000	4.8416	100.0000	2.23E+00	1.63E-01	1.40E-02	3.13E-02	5.27E-02
U-235	4391.000	4407.294	122.405	199.000	199.000	0.000	2.2152	80.90000	3.05E-01	3.03E-02	7.91E-03	2.00E-02	2.16E-02
U-238	4184.730	4167.514	69.691	11864.000	11863.000	1.000	3.1208	100.0000	1.47E+01	1.03E+00	9.01E-03	2.14E-02	1.35E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

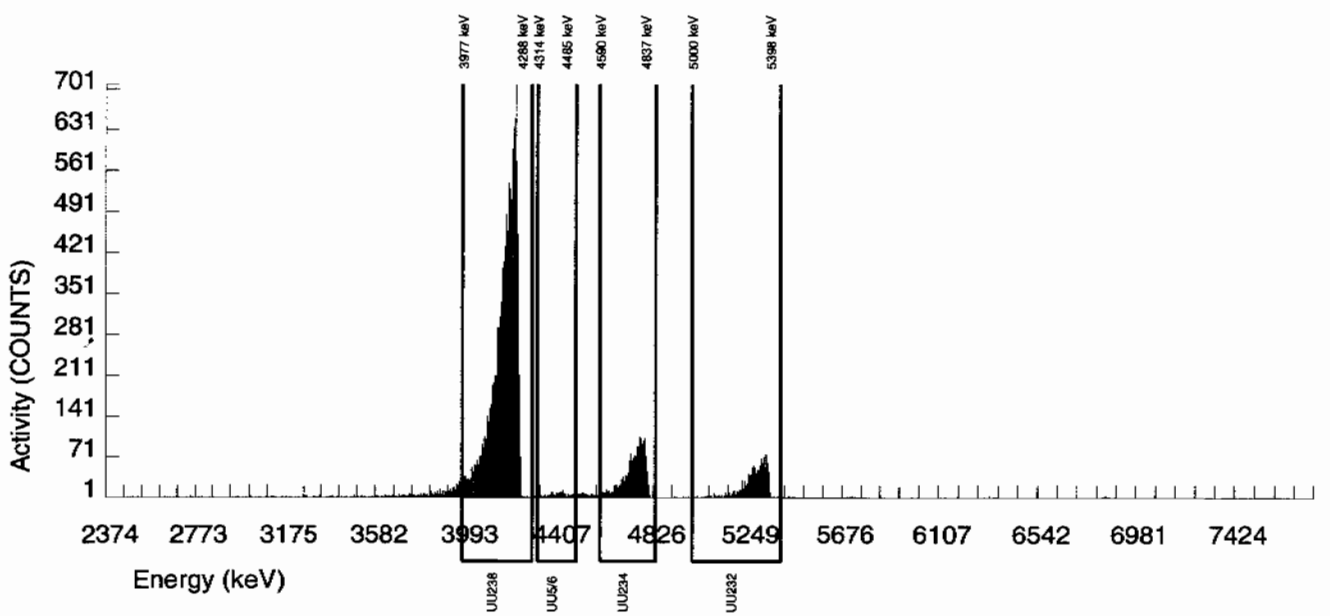

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 166	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202039558_UU	DETECTOR S/N : 74545	BKG FILE : B166.CNF;173
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 39.4562	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 24-FEB-2010 09:54:24	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W166.CNF;58
% YIELD : 97.771		CAL DATE : 22-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5036E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4032E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.138	38.766	1743.000	1737.000	6.000	2.4495	100.0000	2.03E+00	1.46E-01	6.65E-03	1.65E-02	4.88E-02
U-3/4	4763.020	4701.810	162.298	12.000	9.242	1.000	4.8416	100.0000	1.08E-02	3.98E-03	1.32E-02	2.95E-02	3.92E-03
U-235	4391.000	4365.460	68.854	4.000	4.000	0.000	2.2152	80.90000	5.77E-03	2.91E-03	7.44E-03	1.88E-02	2.89E-03
U-238	4184.730	4162.271	31.063	43.000	42.000	1.000	3.1208	100.0000	4.90E-02	8.43E-03	8.48E-03	2.01E-02	7.75E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

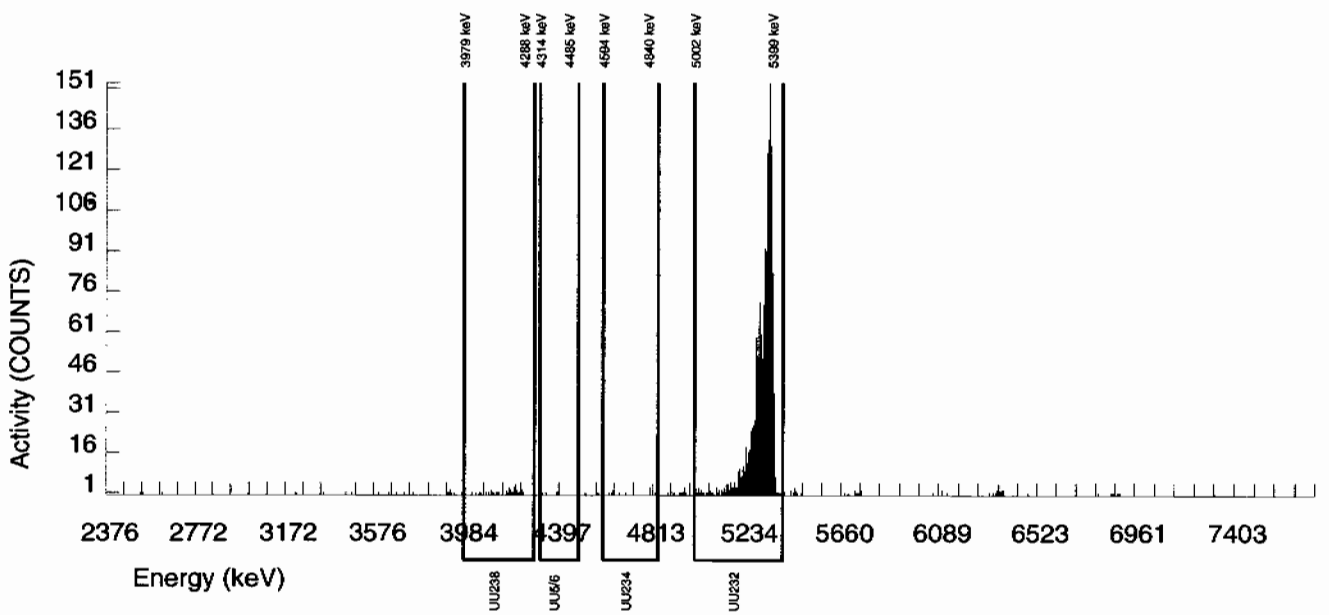

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 010	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202039559_UU	DETECTOR S/N : 72529	BKG FILE : B010.CNF;1126
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 31.8962	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:02:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W010.CNF;335
% YIELD : 71.508		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.2224E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5314.646	32.698	1036.000	1027.000	9.000	3.0000	100.0000	1.60E+00	1.24E-01	1.09E-02	2.59E-02	5.03E-02
U-3/4	4763.020	4768.191	23.687	182.000	179.960	1.000	4.8416	100.0000	2.80E-01	2.89E-02	1.75E-02	3.92E-02	2.10E-02
U-235	4391.000	4436.009	4.951	6.000	6.000	0.000	2.2152	80.90000	1.15E-02	4.78E-03	9.91E-03	2.50E-02	4.71E-03
U-238	4184.730	4192.995	33.245	265.000	265.000	0.000	3.1208	100.0000	4.12E-01	3.86E-02	1.13E-02	2.68E-02	2.53E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

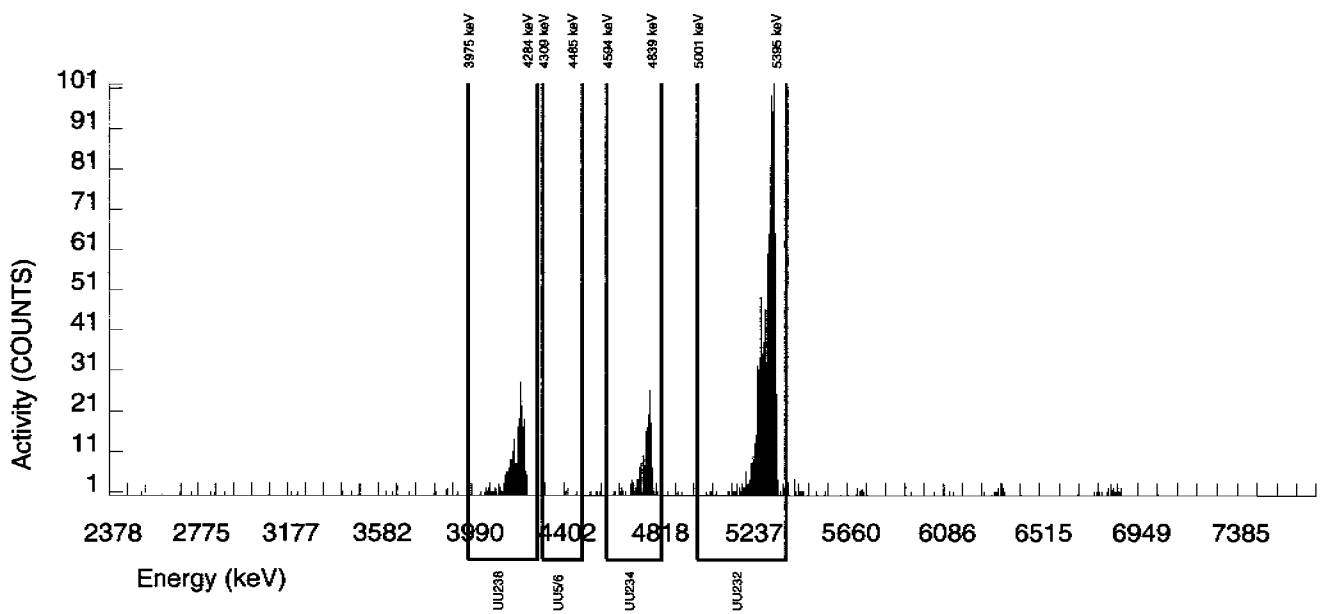

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 011	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202039560_UU	DETECTOR S/N : 72531	BKG FILE : B011.CNF;1118
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 29.6489	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:02:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W011.CNF;313
% YIELD : 95.730		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5036E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3113E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.083	30.915	1286.000	1278.000	8.000	2.8284	100.0000	1.76E+01	1.41E+00	9.08E-02	2.19E-01	4.97E-01
U-3/4	4763.020	4765.798	39.118	445.000	442.706	1.000	4.8416	100.0000	6.11E+00	5.42E-01	1.55E-01	3.48E-01	2.91E-01
U-235	4391.000	4413.266	69.936	26.000	24.000	2.000	2.2152	80.90000	4.09E-01	9.53E-02	8.79E-02	2.22E-01	9.03E-02
U-238	4184.730	4191.473	50.718	390.000	387.000	3.000	3.1208	100.0000	5.34E+00	4.84E-01	1.00E-01	2.38E-01	2.74E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

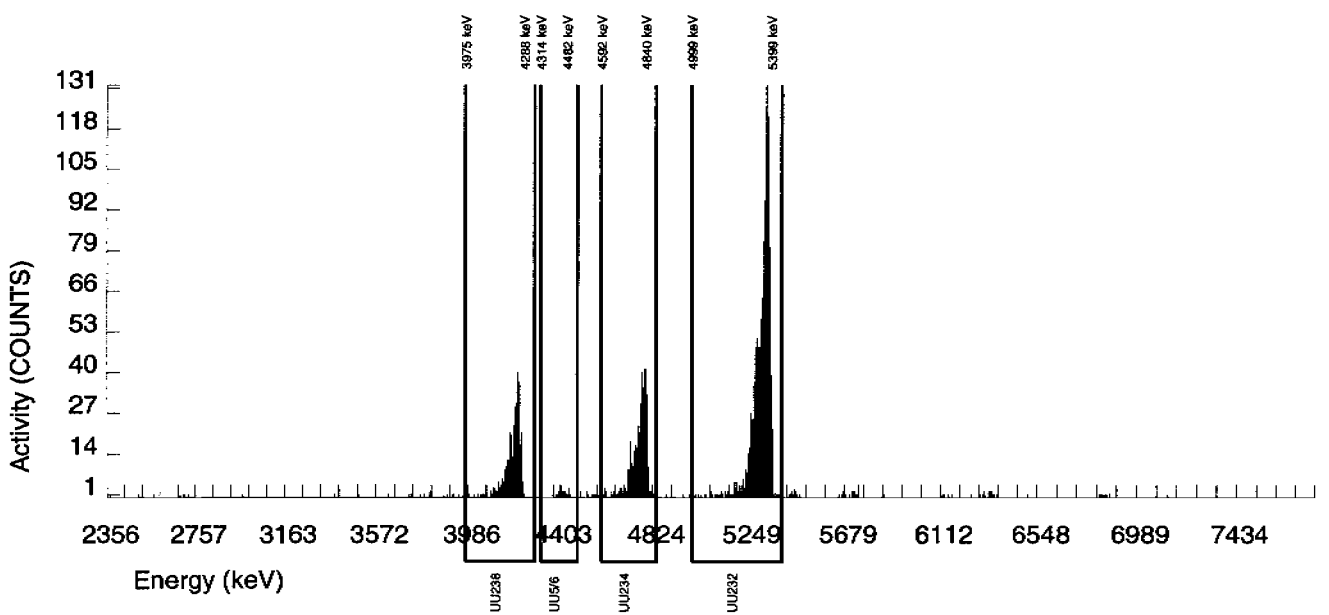

Radiochemistry Batch Checklist, Rev10

Batch# 953461 Product: U Date: 2/22/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	X		N/A DER # 793968
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	X		N/A [illegible] 2/22/10
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 2/22/10

Secondary Review Performed By: [illegible] 2/22/10

2/23

Uranium Que Sheet

17-FEB-10

Batch #: 953461 Analyst: JXD2 First Client Due Date:23-FEB-10 Internal Due Date:18-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/07/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: — Expiration Date: — Vol: —

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 02/17/10 Initials: JXD Pipet ID: 2571058 Balance ID: 50410272 Witness: NDA 2/17/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g)	U Det #
245994001-2	RE15-10-8122	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	1	1	0.513	120
245994002-2	RE15-10-8112	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	2	2	0.523	121
245994003-2	RE15-10-8113	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	3	3	0.545	122
245994004-2	RE15-10-8116	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	4	4	0.502	123
245994005-2	RE15-10-8119	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	5	5	0.509	124
245994006-2	RE15-10-8114	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	6	6	0.506	125
245994007-2	RE15-10-8115	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	7	7	0.543	126
245994008-2	RE15-10-8117	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	8	8	0.518	127
245994009-2	RE15-10-8118	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	9	9	0.521	128
246008001-2	RE16-10-2893	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	10	10	0.512	129
246008002-2	RE16-10-2892	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	11	11	0.526	130
246008003-2	RE16-10-2894	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	12	12	0.510	131
246008004-2	RE16-10-2888	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	13	13	0.519	132
246008005-2	RE16-10-2891	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	14	14	0.511	133
246008006-2	RE16-10-2897	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	15	15	0.514	161
246008007-2	RE16-10-2890	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	16	16	0.516	162
246008008-2	RE16-10-2889	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	17	17	0.514	163
246020013-2	RE15-10-8061	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	18	18	0.103	115 ~~164~~ 2/22/10
246020014-2	RE15-10-8063	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	19	19	0.524	165
246020015-2	RE15-10-8062	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	20	20	0.507	166
1202043974-1	MB for batch 953461	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		21	21	1	167
1202043975-2	RE15-10-8062(246020015DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	0.510	168
1202043976-1	LCS for batch 953461	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		23	23	0.100	169

* SRM 0244-A Exp 10/31/20 0.100g

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 2/19/10

Blank Correction Report

Batch ID 953461

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202043975	DUP	Uranium-233/234	0.510 g	1.11	0.0909	0.0582	.050196078	pCi/g	NO
		Uranium-235/236	0.510 g	0.0969	0.0179	0.0371	.008039216	pCi/g	NO
		Uranium-238	0.510 g	3.17	0.232	0.0397	.017313725	pCi/g	NO
1202043976	LCS	Uranium-233/234	0.100 g	6.27	0.510	0.308	.256	pCi/g	NO
		Uranium-235/236	0.100 g	0.393	0.0815	0.197	.041	pCi/g	NO
		Uranium-238	0.100 g	5.67	0.468	0.211	.0883	pCi/g	NO
1202043974	MB	Uranium-233/234	1.00 g	0.0256	0.0058	0.0279	.0256	pCi/g	YES
		Uranium-235/236	1.00 g	0.0041	0.00306	0.0178	.0041	pCi/g	YES
		Uranium-238	1.00 g	0.00883	0.00354	0.019	.00883	pCi/g	YES
245994001	RE15-10-8122	Uranium-233/234	0.513 g	0.983	0.0924	0.0943	.049902534	pCi/g	NO
		Uranium-235/236	0.513 g	0.0601	0.0184	0.0601	.007992203	pCi/g	NO
		Uranium-238	0.513 g	1.17	0.106	0.0644	.017212476	pCi/g	NO
245994002	RE15-10-8112	Uranium-233/234	0.523 g	2.44	0.196	0.0901	.048948375	pCi/g	NO
		Uranium-235/236	0.523 g	0.102	0.024	0.0575	.007839388	pCi/g	NO
		Uranium-238	0.523 g	3.73	0.288	0.0615	.016883365	pCi/g	NO
245994003	RE15-10-8113	Uranium-233/234	0.545 g	1.13	0.101	0.087	.046972477	pCi/g	NO
		Uranium-235/236	0.545 g	0.0724	0.0193	0.0555	.007522936	pCi/g	NO
		Uranium-238	0.545 g	1.29	0.113	0.0594	.016201835	pCi/g	NO
245994004	RE15-10-8116	Uranium-233/234	0.502 g	7.53	0.557	0.093	.050996016	pCi/g	NO
		Uranium-235/236	0.502 g	0.456	0.0558	0.0593	.008167331	pCi/g	NO
		Uranium-238	0.502 g	8.42	0.621	0.0635	.017589641	pCi/g	NO
245994005	RE15-10-8119	Uranium-233/234	0.509 g	0.917	0.0866	0.0901	.050294695	pCi/g	NO
		Uranium-235/236	0.509 g	0.053	0.0157	0.0575	.008055010	pCi/g	NO
		Uranium-238	0.509 g	0.950	0.0887	0.0615	.017347741	pCi/g	NO
245994006	RE15-10-8114	Uranium-233/234	0.506 g	6.91	0.517	0.0986	.050592885	pCi/g	NO
		Uranium-235/236	0.506 g	0.444	0.056	0.0629	.008102767	pCi/g	NO
		Uranium-238	0.506 g	13.2	0.962	0.0673	.017450593	pCi/g	NO
245994007	RE15-10-8115	Uranium-233/234	0.543 g	0.997	0.093	0.0915	.047145488	pCi/g	NO
		Uranium-235/236	0.543 g	0.103	0.0227	0.0584	.007550645	pCi/g	NO
		Uranium-238	0.543 g	1.12	0.102	0.0625	.016261510	pCi/g	NO
245994008	RE15-10-8117	Uranium-233/234	0.518 g	3.23	0.256	0.0981	.049420849	pCi/g	NO
		Uranium-235/236	0.518 g	0.173	0.0314	0.0626	.007915058	pCi/g	NO
		Uranium-238	0.518 g	4.09	0.317	0.067	.017046332	pCi/g	NO
245994009	RE15-10-8118	Uranium-233/234	0.521 g	3.99	0.306	0.0908	.049136276	pCi/g	NO
		Uranium-235/236	0.521 g	0.280	0.041	0.0579	.007869482	pCi/g	NO
		Uranium-238	0.521 g	5.53	0.415	0.062	.016948177	pCi/g	NO
246008001	RE16-10-2893	Uranium-233/234	0.512 g	0.647	0.0715	0.112	.05	pCi/g	NO
		Uranium-235/236	0.512 g	0.0219	0.0111	0.0712	.008007813	pCi/g	YES
		Uranium-238	0.512 g	0.726	0.0779	0.0763	.017246094	pCi/g	NO
246008002	RE16-10-2892	Uranium-233/234	0.526 g	0.597	0.0672	0.112	.048669202	pCi/g	NO
		Uranium-235/236	0.526 g	0.044	0.0177	0.0716	.007794677	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246008002	RE16-10-2892	Uranium-238	0.526 g	0.645	0.071	0.0766	.016787072	pCi/g	NO
246008003	RE16-10-2894	Uranium-233/234	0.510 g	0.538	0.0587	0.0937	.050196078	pCi/g	NO
		Uranium-235/236	0.510 g	0.0275	0.0131	0.0598	.008039216	pCi/g	YES
		Uranium-238	0.510 g	0.487	0.0547	0.064	.017313725	pCi/g	NO
246008004	RE16-10-2888	Uranium-233/234	0.519 g	0.747	0.0752	0.0962	.049325626	pCi/g	NO
		Uranium-235/236	0.519 g	0.0377	0.0151	0.0614	.007899807	pCi/g	YES
		Uranium-238	0.519 g	0.805	0.0797	0.0657	.017013487	pCi/g	NO
246008005	RE16-10-2891	Uranium-233/234	0.511 g	0.573	0.0633	0.0991	.050097847	pCi/g	NO
		Uranium-235/236	0.511 g	0.034	0.0131	0.0632	.008023483	pCi/g	YES
		Uranium-238	0.511 g	0.707	0.073	0.0677	.017279843	pCi/g	NO
246008006	RE16-10-2897	Uranium-233/234	0.514 g	0.707	0.0642	0.0632	.049805447	pCi/g	NO
		Uranium-235/236	0.514 g	0.0526	0.0133	0.0403	.007976654	pCi/g	NO
		Uranium-238	0.514 g	0.676	0.0621	0.0431	.017178988	pCi/g	NO
246008007	RE16-10-2890	Uranium-233/234	0.516 g	0.676	0.0612	0.0606	.049612403	pCi/g	NO
		Uranium-235/236	0.516 g	0.0564	0.0135	0.0386	.007945736	pCi/g	NO
		Uranium-238	0.516 g	0.639	0.0586	0.0414	.017112403	pCi/g	NO
246008008	RE16-10-2889	Uranium-233/234	0.514 g	0.826	0.071	0.0577	.049805447	pCi/g	NO
		Uranium-235/236	0.514 g	0.048	0.0121	0.0368	.007976654	pCi/g	NO
		Uranium-238	0.514 g	0.912	0.0772	0.0394	.017178988	pCi/g	NO
246020013	RE15-10-8061	Uranium-233/234	0.103 g	45.8	5.26	2.29	.248543689	pCi/g	NO
		Uranium-235/236	0.103 g	7.32	1.26	1.50	.039805825	pCi/g	NO
		Uranium-238	0.103 g	359	37.7	1.59	.085728155	pCi/g	NO
246020014	RE15-10-8063	Uranium-233/234	0.524 g	1.88	0.145	0.0601	.048854962	pCi/g	NO
		Uranium-235/236	0.524 g	0.150	0.0234	0.0383	.007824427	pCi/g	NO
		Uranium-238	0.524 g	6.05	0.430	0.041	.016851145	pCi/g	NO
246020015	RE15-10-8062	Uranium-233/234	0.507 g	1.00	0.0856	0.0654	.050493097	pCi/g	NO
		Uranium-235/236	0.507 g	0.122	0.0215	0.0417	.008086785	pCi/g	NO
		Uranium-238	0.507 g	3.22	0.239	0.0447	.017416174	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 115	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020013_UU	DETECTOR S/N : 79995	BKG FILE : B115.CNF;454
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 25.6793	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 21-FEB-2010 10:45:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 14400.00	EFF FILE : W115.CNF;149
% YIELD : 63.244		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.8500E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5278.234	118.223	176.000	175.520	0.480	0.6928	100.0000	1.97E+01	2.53E+00	1.42E-01	5.89E-01	1.49E+00
U-3/4	4763.020	4735.674	79.046	409.000	408.102	0.720	4.8416	100.0000	4.58E+01	5.26E+00	9.95E-01	2.29E+00	2.27E+00
U-235	4391.000	4407.961	159.395	53.000	52.760	0.240	2.2152	80.90000	7.32E+00	1.26E+00	5.63E-01	1.50E+00	1.01E+00
U-238	4184.730	4162.759	75.602	3199.000	3198.760	0.240	3.1208	100.0000	3.59E+02	3.77E+01	6.41E-01	1.59E+00	6.35E+00

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

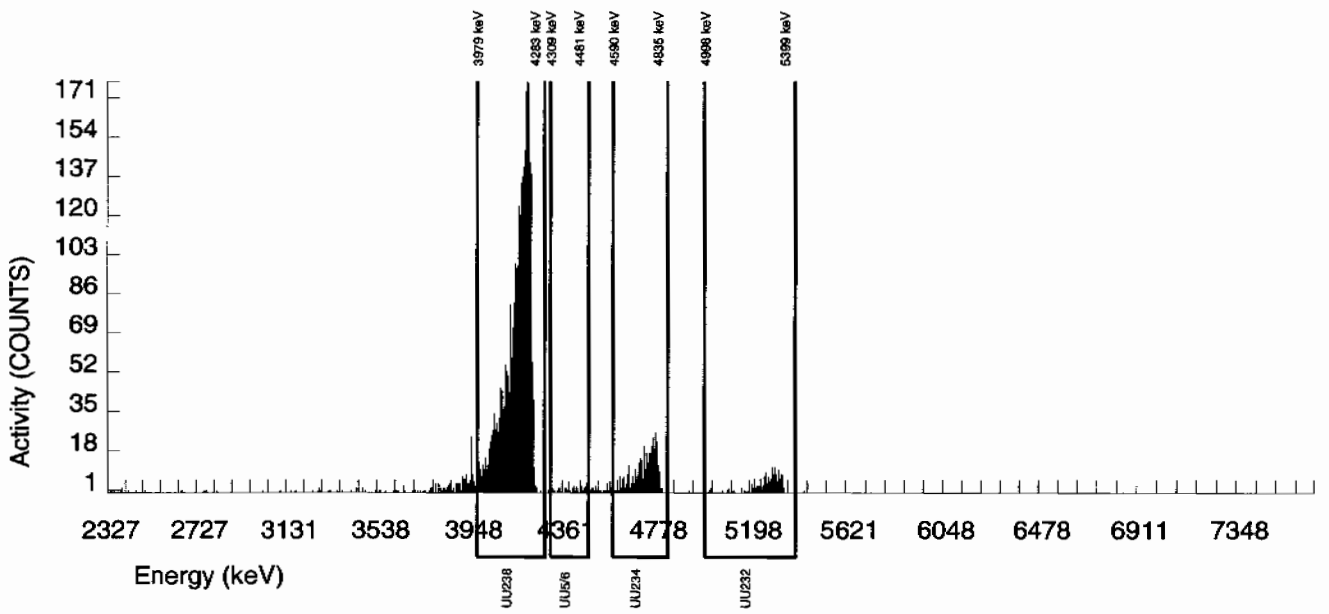

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 165	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020014_UU	DETECTOR S/N : 72544	BKG FILE : B165.CNF;170
SAMPLE QTY : 0.524 G	AVERAGE %EFFICIENCY : 37.5440	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W165.CNF;55
% YIELD : 96.110		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3310E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC ~~pCi/G~~
U232	5302.100	5308.043	64.856	1628.000	1625.000	3.000	1.7321	100.0000	3.87E+00	2.81E-01	9.60E-03	2.57E-02	9.63E-02
U-3/4	4763.020	4767.948	62.822	792.000	790.355	0.000	4.8416	100.0000	1.88E+00	1.45E-01	2.68E-02	6.01E-02	6.70E-02
U-235	4391.000	4421.907	0.000	51.000	51.000	0.000	2.2152	80.90000	1.50E-01	2.34E-02	1.52E-02	3.83E-02	2.10E-02
U-238	4184.730	4192.176	68.620	2540.000	2538.000	2.000	3.1208	100.0000	6.05E+00	4.30E-01	1.73E-02	4.10E-02	1.20E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

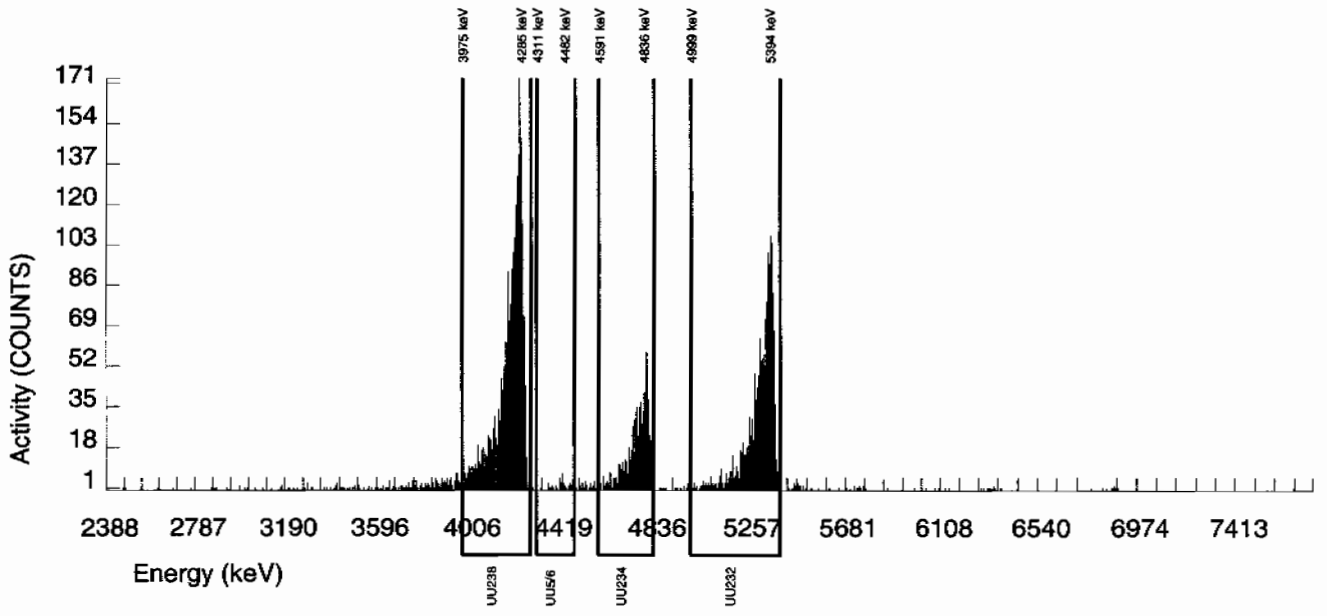

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 166	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020015_UU	DETECTOR S/N : 74545	BKG FILE : B166.CNF;171
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 39.0948	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:27	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W166.CNF;55
% YIELD : 87.640		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9493E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.104	51.364	1552.000	1543.000	9.000	3.0000	100.0000	4.00E+00	2.93E-01	1.81E-02	4.32E-02	1.03E-01
U-3/4	4763.020	4752.066	71.054	389.000	386.438	1.000	4.8416	100.0000	1.00E+00	8.56E-02	2.92E-02	6.54E-02	5.11E-02
U-235	4391.000	4386.346	0.000	38.000	38.000	0.000	2.2152	80.90000	1.22E-01	2.15E-02	1.65E-02	4.17E-02	1.98E-02
U-238	4184.730	4183.330	58.963	1244.000	1243.000	1.000	3.1208	100.0000	3.22E+00	2.39E-01	1.88E-02	4.47E-02	9.15E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

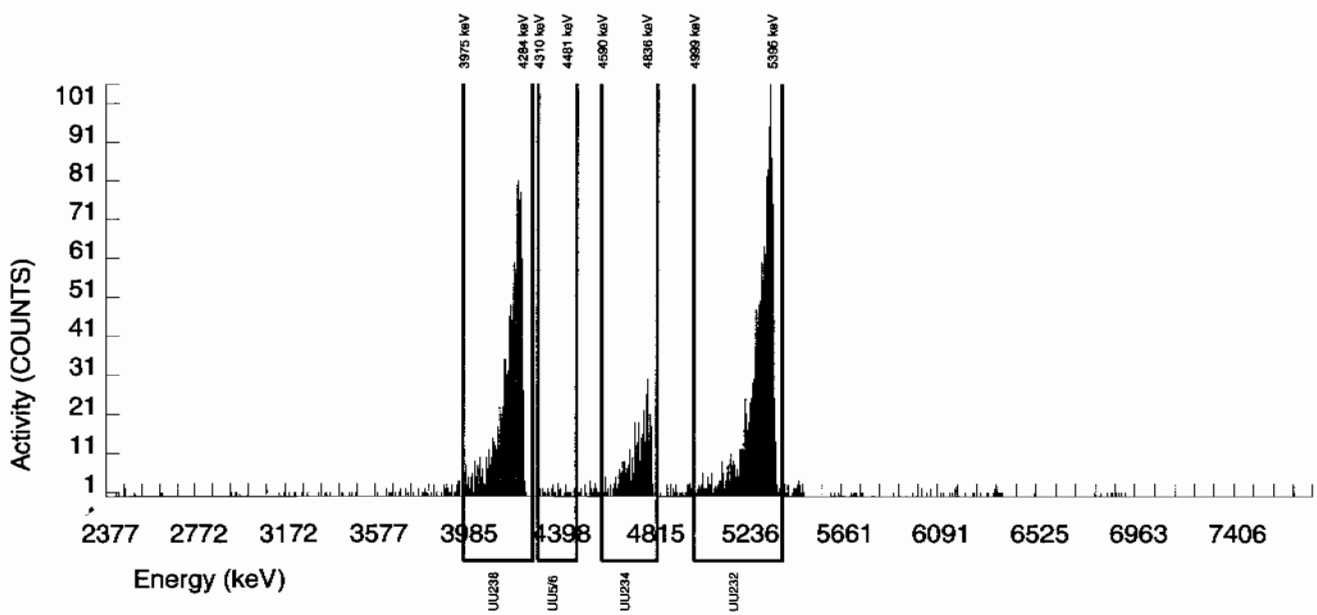

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 167	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202043974_UU	DETECTOR S/N : 72546	BKG FILE : B167.CNF;171
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 38.9092	BKG DATE : 14-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W167.CNF;55
% YIELD : 104.837		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5037E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.7215E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.998	37.508	1845.000	1837.000	8.000	2.8284	100.0000	2.03E+00	1.45E-01	7.27E-03	1.75E-02	4.75E-02
U-3/4	4763.020	4733.205	0.000	26.000	23.141	1.000	4.8416	100.0000	2.56E-02	5.80E-03	1.24E-02	2.79E-02	5.54E-03
U-235	4391.000	4424.648	0.000	4.000	3.000	1.000	2.2152	80.90000	4.09E-03	3.06E-03	7.03E-03	1.78E-02	3.05E-03
U-238	4184.730	4120.222	4.908	9.000	8.000	1.000	3.1208	100.0000	8.83E-03	3.54E-03	8.02E-03	1.90E-02	3.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

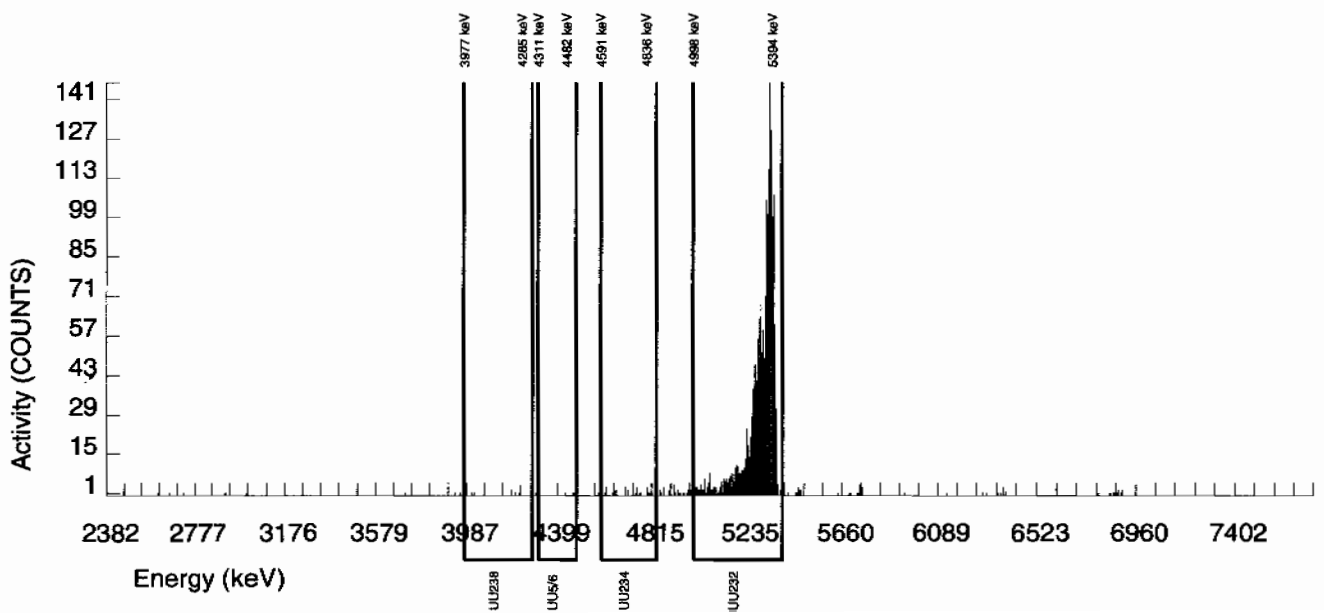

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 168	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202043975_UU	DETECTOR S/N : 72547	BKG FILE : B168.CNF;171
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 38.9921	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W168.CNF;55
% YIELD : 98.236		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4268E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5302.976	40.081	1735.000	1725.000	10.000	3.1623	100.0000	3.98E+00	2.87E-01	1.70E-02	4.02E-02	9.64E-02
U-3/4	4763.020	4762.761	50.877	485.000	480.254	3.000	4.8416	100.0000	1.11E+00	9.09E-02	2.60E-02	5.82E-02	5.08E-02
U-235	4391.000	4403.871	100.649	34.000	34.000	0.000	2.2152	80.90000	9.69E-02	1.79E-02	1.47E-02	3.71E-02	1.66E-02
U-238	4184.730	4185.553	63.931	1376.000	1376.000	0.000	3.1208	100.0000	3.17E+00	2.32E-01	1.67E-02	3.97E-02	8.55E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

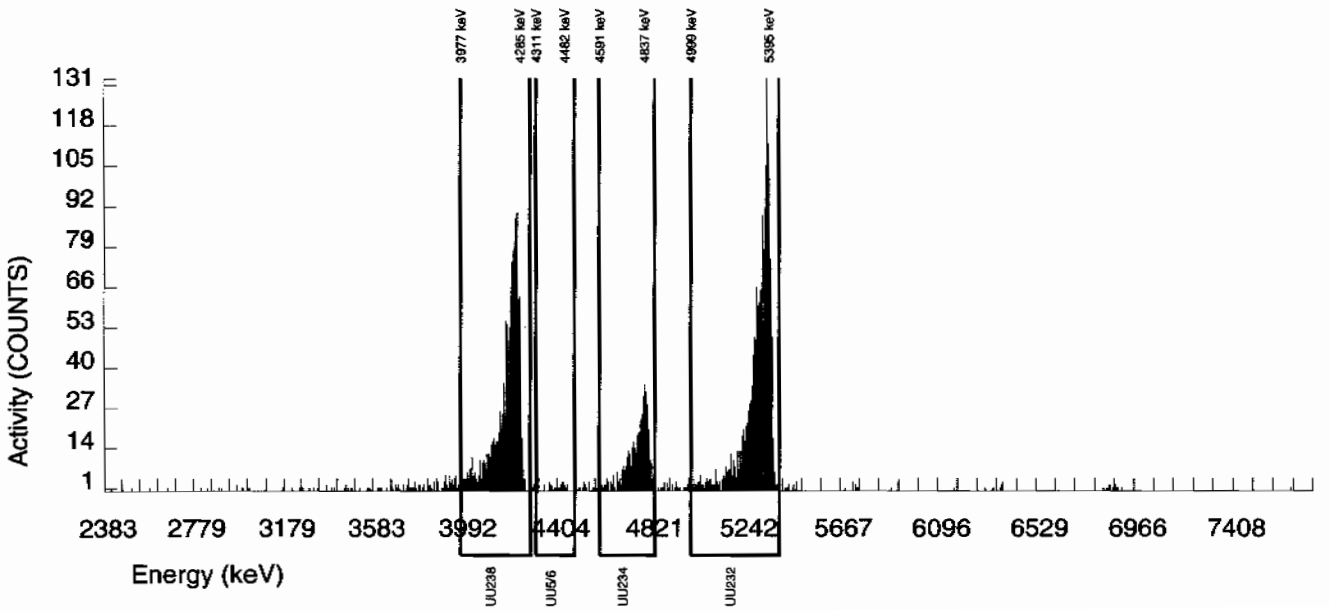

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953461	CHAMBER : 169	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202043976_UU	DETECTOR S/N : 72548	BKG FILE : B169.CNF;173
SAMPLE QTY : 0.100 G	AVERAGE %EFFICIENCY : 37.6264	BKG DATE : 14-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:41:35	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXD2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W169.CNF;65
% YIELD : 97.965		CAL DATE : 21-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5037E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4120E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.102	53.595	1666.000	1660.000	6.000	2.4495	100.0000	2.03E+01	1.47E+00	6.96E-02	1.72E-01	5.00E-01
U-3/4	4763.020	4764.487	72.641	518.000	513.320	3.000	4.8416	100.0000	6.27E+00	5.10E-01	1.38E-01	3.08E-01	2.78E-01
U-235	4391.000	4412.658	63.211	26.000	26.000	0.000	2.2152	80.90000	3.93E-01	8.15E-02	7.78E-02	1.97E-01	7.70E-02
U-238	4184.730	4188.423	51.591	466.000	464.000	2.000	3.1208	100.0000	5.67E+00	4.68E-01	8.87E-02	2.11E-01	2.64E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

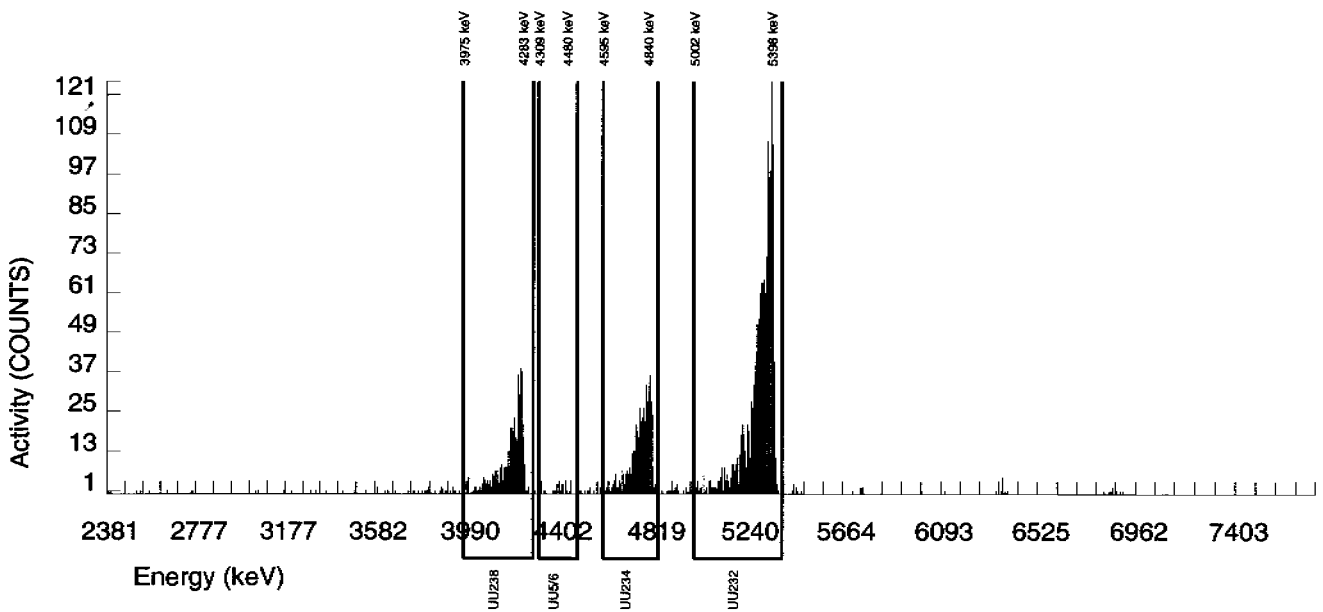

Radiochemistry Batch Checklist, Rev10

Batch# 957637 Product: U Date: ~~2/~~ 3/1/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/1/10

Secondary Review Performed By: [signature] 3/1/10

3/2

LANL

Uranium Que Sheet

25-FEB-10

Batch #: 957637 Analyst: CXM2 First Client Due Date:02-MAR-10 Internal Due Date24-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: / Expiration Date: / Vol: /

Spike Isotope: U-238 Spike Code: / Expiration Date: / Vol: /

Prep Date: 2/25/10 Initials: [illegible] Pipet ID: 2971058 Balance ID: 50410272 Witness: [illegible] 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	U Det #
246020003-2	RE15-10-7960	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	1	1	0.112	1
246020006-2	RE15-10-7957	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	2	2	0.111	2
246020011-2	RE15-10-7959	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	3	3	0.110	3
1202053428-1	MB for batch 957637	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		4	4	1	160 ~~4~~ [illegible] 3/1/10
1202053429-2	RE15-10-7960(246020003DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	5	5	0.101	5
1202053430-1	LCS for batch 957637	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		6	6	0.100	6

* SRM 0244-A Exp 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [illegible] 3/1/10

Blank Correction Report

Batch ID 957637

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202053429	DUP	Uranium-233/234	0.101 g	12.8	1.08	0.399	.104950495	pCi/g	NO
		Uranium-235/236	0.101 g	1.41	0.197	0.254	.066237624	pCi/g	NO
		Uranium-238	0.101 g	60.5	4.72	0.272	.178217822	pCi/g	NO
1202053430	LCS	Uranium-233/234	0.100 g	5.67	0.494	0.391	.106	pCi/g	NO
		Uranium-235/236	0.100 g	0.230	0.0735	0.249	.0669	pCi/g	YES
		Uranium-238	0.100 g	5.26	0.463	0.267	.18	pCi/g	NO
1202053428	MB	Uranium-233/234	1.00 g	0.0106	0.00511	0.0455	.0106	pCi/g	YES
		Uranium-235/236	1.00 g	0.00669	0.00389	0.029	.00669	pCi/g	YES
		Uranium-238	1.00 g	0.018	0.00584	0.0311	.018	pCi/g	YES
246020003	RE15-10-7960	Uranium-233/234	0.112 g	11.0	0.899	0.320	.094642857	pCi/g	NO
		Uranium-235/236	0.112 g	1.08	0.153	0.204	.059732143	pCi/g	NO
		Uranium-238	0.112 g	57.7	4.39	0.219	.160714286	pCi/g	NO
246020006	RE15-10-7957	Uranium-233/234	0.111 g	36.4	3.01	0.590	.095495495	pCi/g	NO
		Uranium-235/236	0.111 g	4.95	0.544	0.376	.060270270	pCi/g	NO
		Uranium-238	0.111 g	269	21.3	0.403	.162162162	pCi/g	NO
246020011	RE15-10-7959	Uranium-233/234	0.110 g	24.5	1.96	0.401	.096363636	pCi/g	NO
		Uranium-235/236	0.110 g	3.67	0.388	0.256	.060818182	pCi/g	NO
		Uranium-238	0.110 g	181	13.8	0.274	.163636364	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957637	CHAMBER : 001	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020003_UU	DETECTOR S/N : 79451	BKG FILE : B001.CNF;1127
SAMPLE QTY : 0.112 G	AVERAGE %EFFICIENCY : 32.2368	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 26-FEB-2010 23:40:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W001.CNF;382
% YIELD : 98.248		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4273E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5290.058	67.846	1432.000	1426.000	6.000	2.4495	100.0000	1.81E+01	1.44E+00	7.24E-02	1.79E-01	4.82E-01
U-3/4	4763.020	4743.323	70.305	866.000	863.556	1.000	4.8416	100.0000	1.10E+01	8.99E-01	1.43E-01	3.20E-01	3.74E-01
U-235	4391.000	4391.291	148.183	69.000	69.000	0.000	2.2152	80.90000	1.08E+00	1.53E-01	8.09E-02	2.04E-01	1.30E-01
U-238	4184.730	4171.137	66.296	4548.000	4546.000	2.000	3.1208	100.0000	5.77E+01	4.39E+00	9.22E-02	2.19E-01	8.57E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

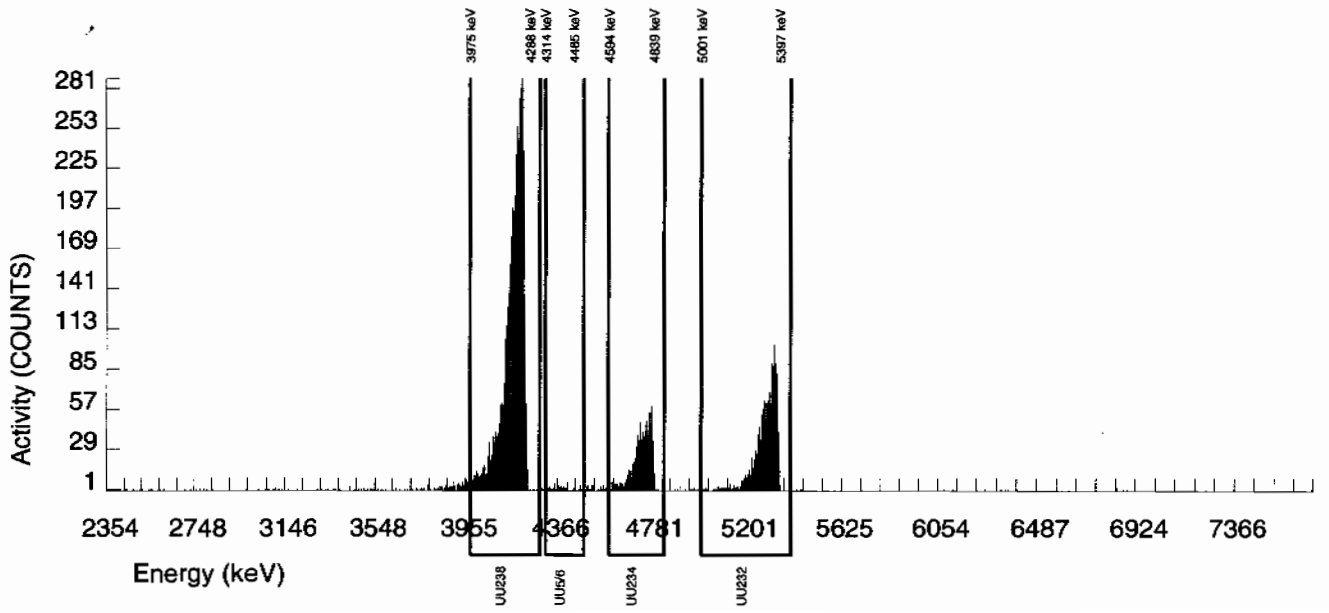

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957637	CHAMBER : 002	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020006_UU	DETECTOR S/N : 79452	BKG FILE : B002.CNF;1117
SAMPLE QTY : 0.111 G	AVERAGE %EFFICIENCY : 29.5805	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 26-FEB-2010 23:40:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W002.CNF;328
% YIELD : 58.641		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 2.6425E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5281.900	69.814	788.000	781.000	7.000	2.6458	100.0000	1.83E+01	1.58E+00	1.44E-01	3.51E-01	6.60E-01
U-3/4	4763.020	4739.921	66.757	1557.000	1556.209	0.000	4.8416	100.0000	3.64E+01	3.01E+00	2.64E-01	5.90E-01	9.23E-01
U-235	4391.000	4403.804	128.143	172.000	171.000	1.000	2.2152	80.90000	4.94E+00	5.44E-01	1.49E-01	3.76E-01	3.80E-01
U-238	4184.730	4165.734	80.835	11493.000	11493.000	0.000	3.1208	100.0000	2.69E+02	2.13E+01	1.70E-01	4.03E-01	2.51E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

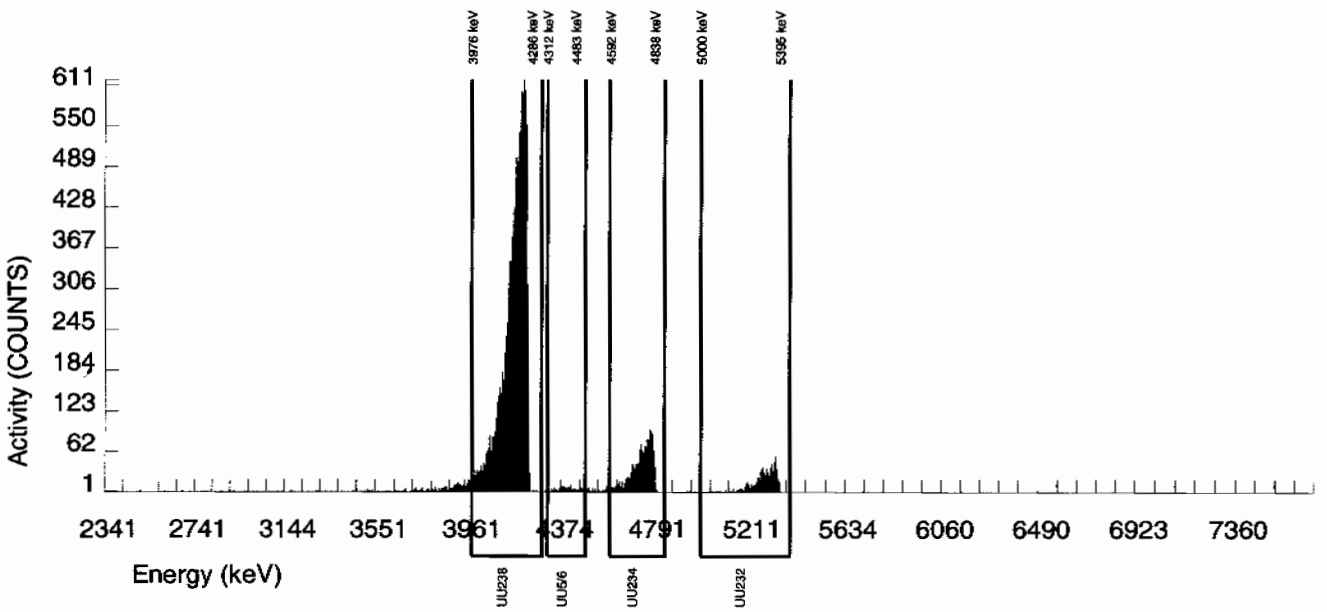

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957637
SAMPLE ID : S0246020011_UU
SAMPLE QTY : 0.110 G
SAMPLE DATE : 27-JAN-2010 00:00:00
ANALYST : CXM2
% YIELD : 82.930

CHAMBER : 003
DETECTOR S/N : 79453
AVERAGE %EFFICIENCY : 31.0941
COUNT DATE : 26-FEB-2010 23:40:05
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_UU
BKG FILE : B003.CNF;1112
BKG DATE : 21-FEB-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W003.CNF;341
CAL DATE : 3-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5063E+00 dpm
RESULTS : 3.7371E+00 dpm

MS/MSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

LCS/LCSD
ID : 0244-A
NUCLIDE : U-238
NOMINAL : 5.7500E+00 pCi/G

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5289.725	83.162	1163.000	1161.000	2.000	1.4142	100.0000	1.85E+01	1.50E+00	5.22E-02	1.48E-01	5.43E-01
U-3/4	4763.020	4750.240	70.276	1542.000	1540.825	0.000	4.8416	100.0000	2.45E+01	1.96E+00	1.79E-01	4.01E-01	6.23E-01
U-235	4391.000	4406.131	0.000	188.000	187.000	1.000	2.2152	80.90000	3.67E+00	3.88E-01	1.01E-01	2.56E-01	2.70E-01
U-238	4184.730	4174.005	75.666	11387.000	11386.000	1.000	3.1208	100.0000	1.81E+02	1.38E+01	1.15E-01	2.74E-01	1.69E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

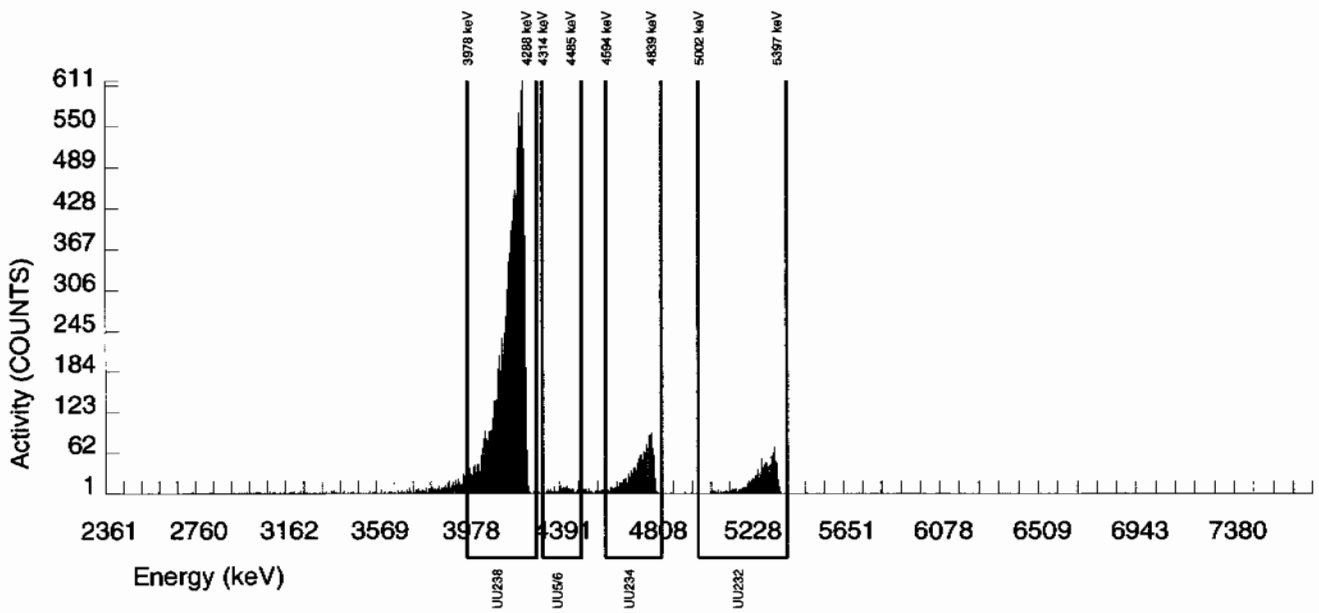

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957637	CHAMBER : 160	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202053428_UU	DETECTOR S/N : 79994	BKG FILE : B160.CNF;377
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 24.4502	BKG DATE : 21-FEB-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 27-FEB-2010 20:05:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W160.CNF;118
% YIELD : 102.105		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5975E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.496	34.574	1126.000	1124.000	2.000	1.4142	100.0000	2.03E+00	1.55E-01	5.94E-03	1.68E-02	~~6.66E-02~~
U-3/4	4763.020	4699.494	0.000	8.000	5.862	1.000	4.8416	100.0000	1.06E-02	5.11E-03	2.03E-02	4.55E-02	5.06E-03
U-235	4391.000	4421.358	4.987	3.000	3.000	0.000	2.2152	80.90000	6.69E-03	3.89E-03	1.15E-02	2.90E-02	3.86E-03
U-238	4184.730	4146.547	7.325	10.000	10.000	0.000	3.1208	100.0000	1.80E-02	5.84E-03	1.31E-02	3.11E-02	5.71E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)
* Sg of U232 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  U-3/4

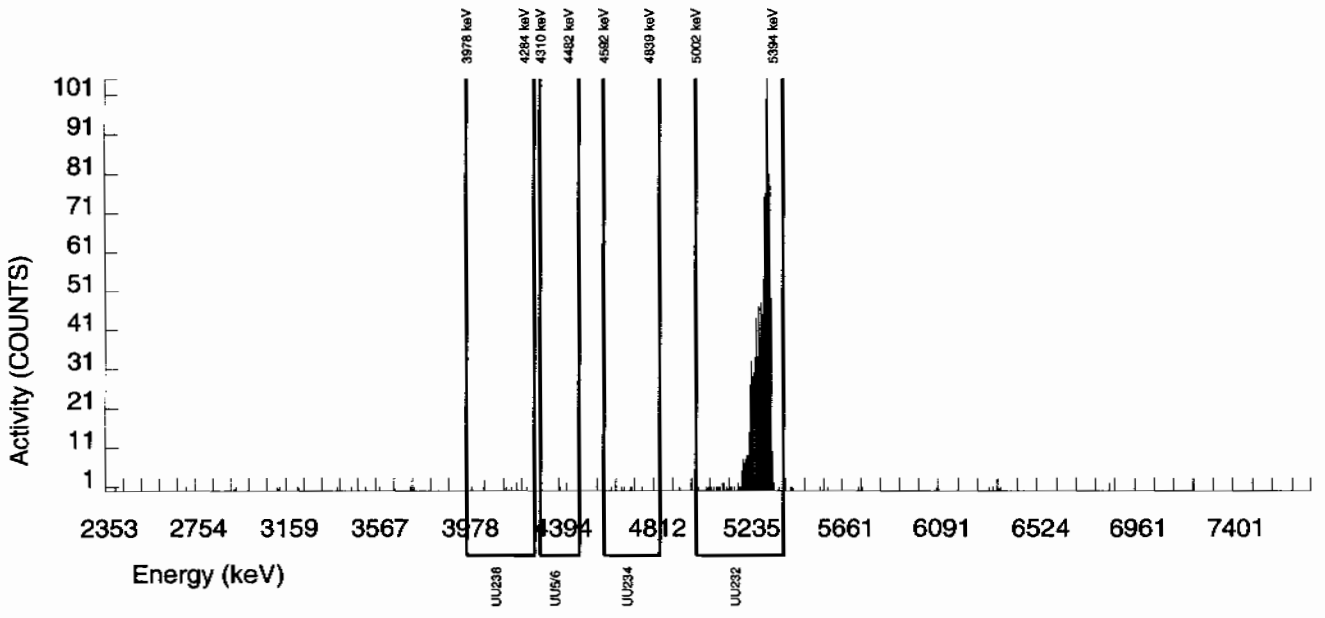

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957637	CHAMBER : 005	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202053429_UU	DETECTOR S/N : 79454	BKG FILE : B005.CNF;1107
SAMPLE QTY : 0.101 G	AVERAGE %EFFICIENCY : 31.9230	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 26-FEB-2010 23:40:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W005.CNF;337
% YIELD : 88.429		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9849E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5325.391	58.399	1276.000	1271.000	5.000	2.2361	100.0000	2.01E+01	1.64E+00	8.22E-02	2.07E-01	5.66E-01
U-3/4	4763.020	4772.447	61.557	813.000	809.713	2.000	4.8416	100.0000	1.28E+01	1.08E+00	1.78E-01	3.99E-01	4.51E-01
U-235	4391.000	4421.339	49.612	72.000	72.000	0.000	2.2152	80.90000	1.41E+00	1.97E-01	1.01E-01	2.54E-01	1.66E-01
U-238	4184.730	4201.061	57.469	3831.000	3831.000	0.000	3.1208	100.0000	6.05E+01	4.72E+00	1.15E-01	2.72E-01	9.78E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

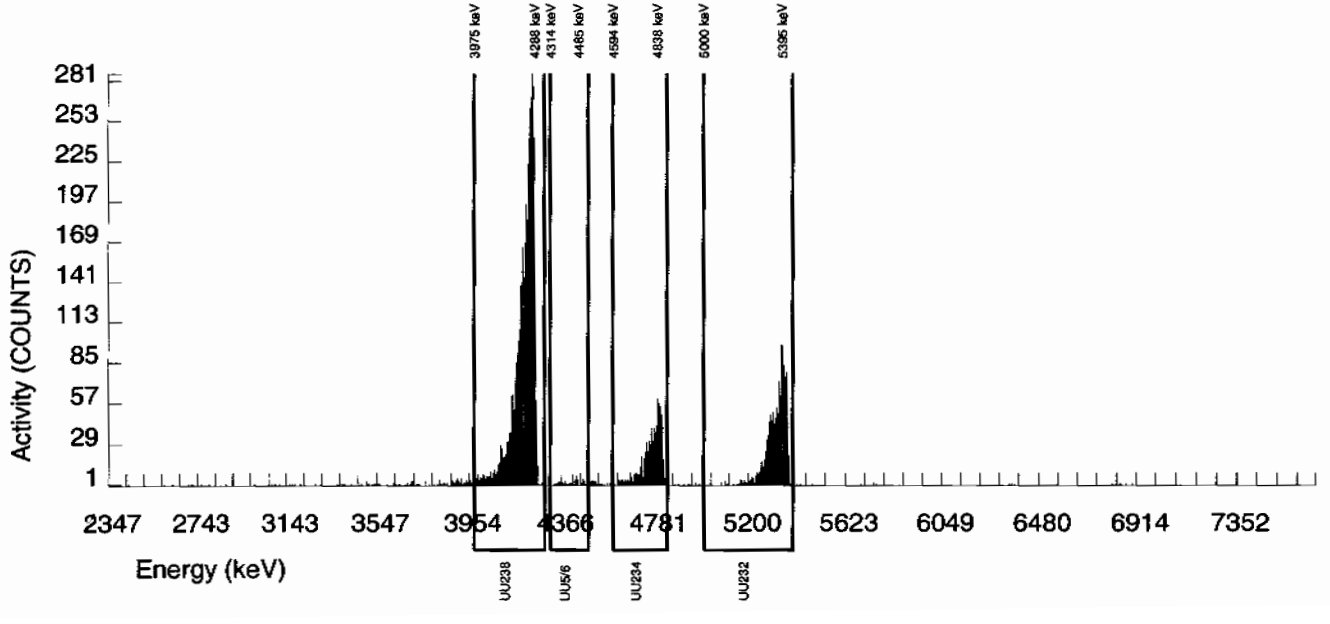

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957637	CHAMBER : 006	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202053430_UU	DETECTOR S/N : 79455	BKG FILE : B006.CNF;1120
SAMPLE QTY : 0.100 G	AVERAGE %EFFICIENCY : 31.1643	BKG DATE : 21-FEB-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 26-FEB-2010 23:40:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W006.CNF;361
% YIELD : 93.219		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1974E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5310.112	34.174	1309.000	1308.000	1.000	1.0000	100.0000	2.03E+01	1.51E+00	3.61E-02	1.14E-01	5.61E-01
U-3/4	4763.020	4766.666	58.717	370.000	365.676	3.000	4.8416	100.0000	5.67E+00	4.94E-01	1.75E-01	3.91E-01	2.99E-01
U-235	4391.000	4384.897	83.028	13.000	12.000	1.000	2.2152	80.90000	2.30E-01	7.35E-02	9.88E-02	2.49E-01	7.17E-02
U-238	4184.730	4196.404	30.493	340.000	339.000	1.000	3.1208	100.0000	5.26E+00	4.63E-01	1.13E-01	2.67E-01	2.86E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

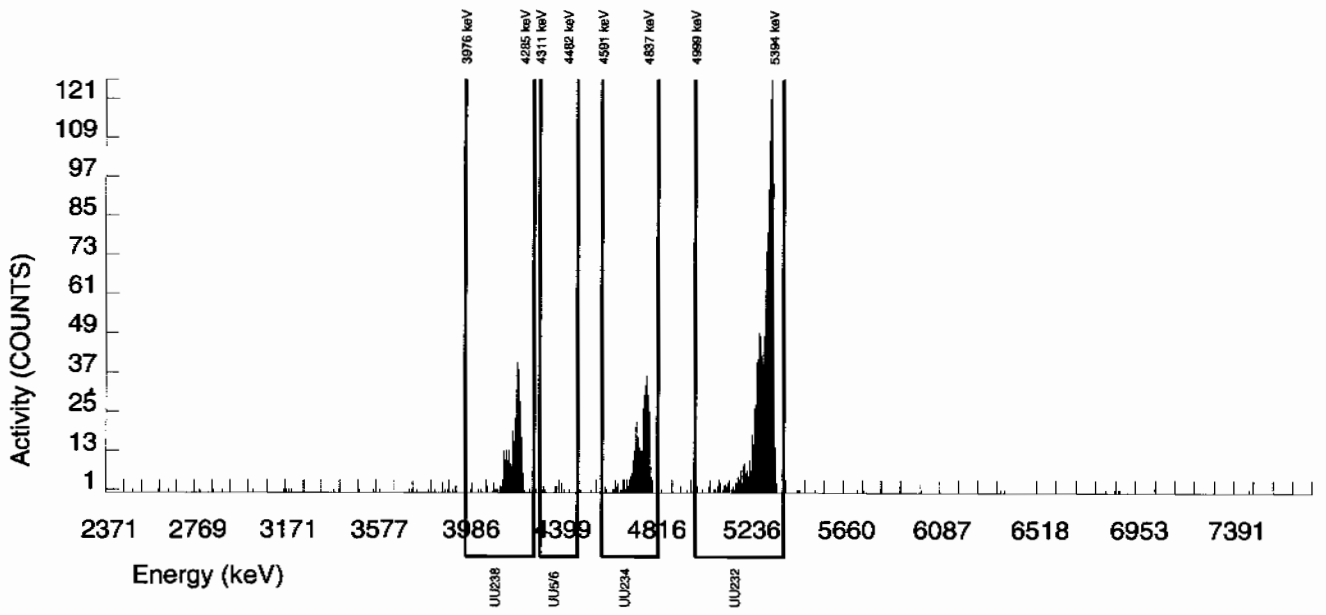

Radiochemistry Batch Checklist, Rev10

Batch# 948751 Product: SS Date: 2/19/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (if REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 2/19/10

Secondary Review Performed By: [signature] 2/19/10

LANL
3/2/10

Gamma Spec Que Sheet 1.G.- 2/12/10

02/03/2010

Batch #:948751 Analyst: MXR1 First Client DueDate03/02/2010 Internal Due Date: 02/19/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: n/a Expiration Date: n/a Vol: n/a Nominal Concentration: n/a
Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0mL Nominal Concentration: V
Initials: MS Prep Date: 2/5/10 Library: SOLID Witness: MA

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1/2/F)	Detector	Sealing Date/Time (if Applicable)
246020001-1	RE15-10-7980	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U	CAN	135.48	16	2/4/10
246020002-1	RE15-10-7958	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		133.73	18	2/5/10
246020003-1	RE15-10-7960	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		144.56	23	2/4/10
246020004-1	RE15-10-7979	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		150.70	1	
246020005-1	RE15-10-7972	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		128.14	4	
246020006-1	RE15-10-7957	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		165.89	6	
246020007-1	RE15-10-7974	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		127.89	7	
246020008-1	RE15-10-7961	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		160.94	15	
246020009-1	RE15-10-7971	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		148.35	22	
246020010-1	RE15-10-7966	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		143.35	16	
246020011-1	RE15-10-7959	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		160.57	18	
246020012-1	RE15-10-7969	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		140.89	23	
246020013-1	RE15-10-8061	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		149.62	20	
246020014-1	RE15-10-8063	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		149.74	1	
246020015-1	RE15-10-8062	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		135.85	6	
1202032579-1	MB	MB		QC ACCOUNT	SOIL	2/5/10	U		165.89	11	2/5/10
1202032580-1	DUP RE15-10-7980(246020001)	DUP		QC ACCOUNT	SOIL	27-JAN-10 12:00:00	U		135.48	12	2/4/10
1202032581-1	LCS	LCS		QC ACCOUNT	SOIL	2/5/10	U		155.44	1	2/5/10

Data Reviewed By: SEilau 2/19/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
948751	246020001	SAMPLE	13-FEB-10		Americium-241	-0.04541	0.2169	0.200
948751	246020002	SAMPLE	13-FEB-10		Cerium-139	0.06632	0.08581	0.050
948751	246020003	SAMPLE	13-FEB-10		Americium-241	0.4963	0.5359	0.200
					Cerium-139	-0.01155	0.06201	0.050
					Sodium-22	0.01971	0.08627	0.080
948751	246020004	SAMPLE	13-FEB-10		Americium-241	0.09782	0.3059	0.200
					Cerium-139	-0.00369	0.05497	0.050
948751	246020005	SAMPLE	13-FEB-10		Americium-241	0.2535	0.4204	0.200
					Sodium-22	0.01238	0.08167	0.080
948751	246020006	SAMPLE	13-FEB-10		Cerium-139	0.04124	0.0953	0.050
					Cesium-134	0.09704	0.1131	0.100
					Europium-152	-0.00606	0.2195	0.200
					Mercury-203	-0.00606	0.103	0.100
					Tin-113	0.0172	0.1078	0.100
948751	246020007	SAMPLE	13-FEB-10					
948751	246020008	SAMPLE	13-FEB-10		Americium-241	0.5328	0.673	0.200
					Cerium-139	0.03455	0.07161	0.050
948751	246020009	SAMPLE	13-FEB-10		Americium-241	0.1198	0.3042	0.200
					Cerium-139	-0.00253	0.05374	0.050
948751	246020010	SAMPLE	13-FEB-10		Americium-241	0.08418	0.2269	0.200
948751	246020011	SAMPLE	13-FEB-10		Americium-241	0.1114	0.6101	0.200
					Cerium-139	0.06224	0.06431	0.050
948751	246020012	SAMPLE	13-FEB-10		Americium-241	0.374	0.4761	0.200
					Cerium-139	-0.04009	0.05652	0.050
948751	246020013	SAMPLE	13-FEB-10		Cerium-139	0.02233	0.06458	0.050
948751	246020014	SAMPLE	14-FEB-10		Americium-241	0.1803	0.3123	0.200
					Cerium-139	0.02618	0.05467	0.050
948751	246020015	SAMPLE	14-FEB-10		Americium-241	-0.03726	0.3532	0.200
					Cerium-139	-0.02901	0.05622	0.050
					Cesium-134	0.09932	0.1117	0.100
					Sodium-22	0.0153	0.09695	0.080
948751	1202032579	MB	14-FEB-10					
948751	1202032580	DUP	14-FEB-10		Americium-241	0.04194	0.2553	0.200
					Thorium-234	1.27	2.154	2.00
948751	1202032581	LCS	13-FEB-10		Cerium-139	-0.0104	0.08371	0.050
					Cesium-134	0.1101	0.1823	0.100
					Europium-152	-0.08894	0.3131	0.200
					Mercury-203	0.02959	0.1351	0.100
					Ruthenium-106	-0.07272	1.012	0.800
					Sodium-22	-0.03538	0.08035	0.080
					Thorium-234	-1.509	4.122	2.00
					Tin-113	0.06817	0.1679	0.100
					Uranium-235	0.2579	0.62	0.500

GEL QUALS

Batch ID: 948751

Report run on: February 18, 2010 9:27 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246020001-1 13-FEB-2010 14:52	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.163			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.545			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.546			
246020002-1 13-FEB-2010 14:52	Americium-241	UI	UI	UI	Data rejected due to low abundance.		1.133		.2	.2
	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.913			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.111		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.033			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09091			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		1.4			
246020003-1 13-FEB-2010 14:53	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.255			
	Cadmium-109	UI	UI	UI	Data rejected due to low abundance.		3.676			
	Cesium-137	UI	UI	UI	Data rejected due to low abundance.		.08829		.1	.1
	Lead-212	UI	UI	UI	Data rejected due to low abundance.		1.432		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.94			
246020004-1 13-FEB-2010 16:26	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.673			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.535			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.247			
246020005-1 13-FEB-2010 16:26	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.201			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.423			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1113		.1	.1

GEL QUALS

Batch ID: 948751

Report run on: February 18, 2010 9:27 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246020005-1 13-FEB-2010 16:26	Radium-224	UI	UI	UI	Data rejected due to interference.		4.604			
246020006-1 13-FEB-2010 16:27	Americium-241	UI	UI	UI	Data rejected due to low abundance.		1.026		.2	.2
	Bismuth-211	UI	UI	UI	Data rejected due to interference.		1.719			
	Lead-212	UI	UI	UI	Data rejected due to low abundance.		.8182		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.749			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		1.706			
246020007-1 13-FEB-2010 16:27	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.719			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.825			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.178		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.811			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09931			
246020008-1 13-FEB-2010 16:42	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.981			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1176		.1	.1
	Cesium-137	UI	UI	UI	Data rejected due to high peak-width.		.09985		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.048			
246020009-1 13-FEB-2010 16:43	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.854			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.591			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.08373		.1	.1
	Cesium-137	UI	UI	UI	Data rejected due to no valid peak.		.07011		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.97			

GEL QUALS

Batch ID: 948751

Report run on: February 18, 2010 9:27 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246020009-1 13-FEB-2010 16:43	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1189			
246020010-1 13-FEB-2010 16:56	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.933			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.314			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1313		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.655			
246020011-1 13-FEB-2010 16:56	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.666			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.08934		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.501			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07657			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		.8377			
246020012-1 13-FEB-2010 16:57	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.368			
	Bismuth-214	UI	UI	UI	Data rejected due to low abundance.		.7317		.2	.2
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.173			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.008			
	Radium-226	UI	UI	UI	Data rejected due to low abundance.		.7317			
246020013-1 13-FEB-2010 19:59	Americium-241	UI	UI	UI	Data rejected due to low abundance.		1.098		.2	.2
	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.333			
	Cadmium-109	UI	UI	UI	Data rejected due to low abundance.		5.008			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.172		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		1.553			

GEL QUALS

Batch ID: 948751

Report run on: February 18, 2010 9:27 PM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
246020013-1 13-FEB-2010 19:59	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.06475			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		1.103			
246020014-1 14-FEB-2010 11:07	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.922			
	Cadmium-109	UI	UI	UI	Data rejected due to low abundance.		2.21			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.606			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1108			
246020015-1 14-FEB-2010 11:08	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.759			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.493			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.911			
1202032580-1 DUP 14-FEB-2010 11:09	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.08			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.996			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.163			

Gamma Review Report based on Result > MDA for Batch:948751

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020001	27-JAN-10 12:00	13-FEB-10 14:52	17.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	ML	1.944	0.1819	pCi/g	0.1875	N	911.1	3	1.691	IDENTIFIED	7.228	☐	
Americium-243	ML	0.3604	0.03343	pCi/g	0.08134	N	74.91	1	0.8717	IDENTIFIED	8.295	☐	
Annihilation Rad.		0.1304	0.0302	pCi/g	0.04351	N	510.7	1	1.687	IDENTIFIED	22.67	☐	
Bismuth-211	DNT	4.163	0.3127	pCi/g	0.2706	Y	351.8	4	1.107	IDENTIFIED	5.162	☑ UI	
Bismuth-212	ML	1.202	0.2122	pCi/g	0.4053	N	727.5	1	1.288	IDENTIFIED	16.85	☐	
Bismuth-214	✓	1.205	0.1071	pCi/g	0.1048	0.200	609.4	4	1.429	IDENTIFIED	7.145	☐	
Cadmium-109	DNT	3.545	0.526	pCi/g	1.136	Y	87.16	3	1.084	IDENTIFIED	14.05	☑ UI	
Cerium-143		1197	246.6	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Gross Gamma		10.99	1.472	pCi/g	3.56	N		0				☐	
Iodine-123	HE	4.98E+07	3.09E+07	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-133	HE	6966	12590	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-135		1.58E+17	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.854	0.1225	pCi/g	0.0802	0.100	238.6	4	0.9965	IDENTIFIED	2.943	☐	
Lead-214	✓	1.448	0.1152	pCi/g	0.09433	0.100	351.8	4	1.107	IDENTIFIED	5.162	☐	
Lutetium-177	HE	3.242	0.9289	pCi/g	2.382	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	ML	1.02	0.1844	pCi/g	0.3691	N	87.16	3	1.084	IDENTIFIED	14.05	☐	
Niobium-97	HE	3.36E+05	3.35E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Polonium-212	ML	1.854	0.1225	pCi/g	0.0802	N	238.6	4	0.9965	IDENTIFIED	2.943	☐	
Polonium-214	ML	1.448	0.1152	pCi/g	0.09433	N	351.8	4	1.107	IDENTIFIED	5.162	☐	
Polonium-216	ML	1.854	0.1225	pCi/g	0.0802	N	238.6	4	0.9965	IDENTIFIED	2.943	☐	
Polonium-218	ML	1.448	0.1152	pCi/g	0.09433	N	351.8	4	1.107	IDENTIFIED	5.162	☐	
Potassium-40	✓	37.21	1.892	pCi/g	0.5183	1.00	1461	1	1.998	IDENTIFIED	2.556	☐	
Radium-224	DNT	5.546	0.6884	pCi/g	0.9126	Y	241.6	1	1.726	IDENTIFIED	11.12	☑ UI	
Radium-226	✓	1.205	0.1071	pCi/g	0.1048	Y	609.4	4	1.429	IDENTIFIED	7.145	☐	
Radium-228	✓	1.944	0.1819	pCi/g	0.1875	0.500	911.1	3	1.691	IDENTIFIED	7.228	☐	
Technetium-99m		3.26E+18	0	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4945	0.04325	pCi/g	0.05401	0.080	583.2	1	1.321	IDENTIFIED	7.208	☐	
Thorium-228	ML	1.886	0.1246	pCi/g	0.08157	N	238.6	4	0.9965	IDENTIFIED	2.943	☐	
Thorium-230	ML	1.205	0.1071	pCi/g	0.1048	N	609.4	4	1.429	IDENTIFIED	7.145	☐	
Thorium-232	ML	1.944	0.1819	pCi/g	0.1875	N	911.1	3	1.691	IDENTIFIED	7.228	☐	
Thorium-234	✓	2.226	0.9621	pCi/g	1.839	2.00	62.93	2	1.114	IDENTIFIED	42.33	☐	
Tin-126	ML	0.3474	0.05154	pCi/g	0.1118	N	87.16	3	1.084	IDENTIFIED	14.05	☐	
Titanium-44	LA	0.4239	0.02818	pCi/g	0.07163	N	0	9	0	FAIL_ABUND	0	☐	
Total Uranium		6.598	2.86E-06	ug/g	2.738	N		0				☐	
Uranium-234	ML	1.205	0.1071	pCi/g	0.1048	N	609.4	4	1.429	IDENTIFIED	7.145	☐	
Uranium-238	HE	2.226	0.9621	pCi/g	1.839	N	62.93	2	1.114	IDENTIFIED	42.33	☐	
Zirconium-97	—	1.52E+07	6.27E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020002	27-JAN-10 12:00	13-FEB-10 14:52	17.1	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-227	HE	1.4	0.3174	pCi/g	0.9701	N	0	23	0	FAIL_ABUND	0	☐	
Actinium-228	MU	1.109	0.124	pCi/g	0.1974	N	910.6	3	1.831	IDENTIFIED	9.004	☐	
Americium-241	LA	1.133	0.2902	pCi/g	0.9387	0.200	0	23	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Americium-243	HE	0.4277	0.09358	pCi/g	0.2962	N	0	23	0	NOT_IDENTI	0	☐	
Barium-137m	MU	0.1464	0.03589	pCi/g	0.06778	N	661.8	2	1.264	IDENTIFIED	24.22	☐	
Bismuth-211	INT	2.913	0.2527	pCi/g	0.3982	Y	351.8	4	1.379	IDENTIFIED	8.06	☑ UI	
Bismuth-212	HE	0.774	0.2585	pCi/g	0.5261	N	726.9	1	1.709	IDENTIFIED	33.02	☐	
Bismuth-214	✓	0.946	0.08858	pCi/g	0.1298	0.200	609.4	4	1.721	IDENTIFIED	8.229	☐	
W-235 Cerium-141	INT	1.693	0.1169	pCi/g	0.1937	N	144	2	1.161	IDENTIFIED	6.284	☐	
Cerium-143		1665	324.3	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.111	0.02793	pCi/g	0.09808	0.100	0	23	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.1547	0.03794	pCi/g	0.07165	0.100	661.8	2	1.264	IDENTIFIED	24.22	☐	
Gadolinium-153	LA	3.842	0.2051	pCi/g	0.4467	N	0	23	0	FAIL_ABUND	0	☐	
Gold-195	LA	11.21	0.5985	pCi/g	1.336	N	0	23	0	FAIL_ABUND	0	☐	
Gross Gamma		52.48	3.355	pCi/g	9.446	N		0				☐	
Iodine-133	HE	11710	17220	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐	
Iodine-135	—	4.23E+16	0	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐	
Krypton-85	HE	17.36	4.789	pCi/g	15.06	N	0	23	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.102	0.06484	pCi/g	0.1236	0.100	238.8	4	1.157	IDENTIFIED	4.675	☐	
Lead-214	✓	1.013	0.0918	pCi/g	0.1388	0.100	351.8	4	1.379	IDENTIFIED	8.06	☐	
Manganese-52	HE	0.5667	0.1485	pCi/g	0.5535	N	0	23	0	NOT_IDENTI	0	☐	
Molybdenum-99	LA	91.92	17.3	pCi/g	52.4	N	0	23	0	NOT_IDENTI	0	☐	
Pa234m Niobium-95	INT	1.753	0.1002	pCi/g	0.08091	N	766.1	1	1.654	IDENTIFIED	3.427	☐	
Niobium-97	HE	2.50E+05	4.79E+05	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐	
Polonium-212	MU	1.102	0.06484	pCi/g	0.1236	N	238.8	4	1.157	IDENTIFIED	4.675	☐	
Polonium-214	MU	1.013	0.0918	pCi/g	0.1388	N	351.8	4	1.379	IDENTIFIED	8.06	☐	
Polonium-216	MU	1.102	0.06484	pCi/g	0.1236	N	238.8	4	1.157	IDENTIFIED	4.675	☐	
Polonium-218	MU	1.013	0.0918	pCi/g	0.1388	N	351.8	4	1.379	IDENTIFIED	8.06	☐	
Potassium-40	✓	20.95	1.013	pCi/g	0.4319	1.00	1460	1	2.337	IDENTIFIED	2.993	☐	
Protactinium-234	LA	1.156	0.2452	pCi/g	0.6582	N	0	23	0	FAIL_ABUND	0	☐	
Protactinium-234m	✓	481.9	27.41	pCi/g	6.653	N	1001	1	1.891	IDENTIFIED	1.796	☐	
Radium-224	INT	3.033	0.6838	pCi/g	1.405	Y	241.3	1	1.957	IDENTIFIED	22.37	☑ UI	
Radium-226	✓	0.946	0.08858	pCi/g	0.1298	Y	609.4	4	1.721	IDENTIFIED	8.229	☐	
Radium-228	✓	1.109	0.124	pCi/g	0.1974	0.500	910.6	3	1.831	IDENTIFIED	9.004	☐	
Rhenium-183	LA	1.637	0.153	pCi/g	0.3831	N	0	23	0	FAIL_ABUND	0	☐	
Rubidium-84	HE	0.1654	0.05299	pCi/g	0.1636	N	0	23	0	NOT_IDENTI	0	☐	
Strontium-85	LA	0.09091	0.02508	pCi/g	0.07885	Y	0	23	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Tellurium-125m	LA	66.69	13.04	pCi/g	40.31	N	0	23	0	NOT_IDENTI	0	☐	
Tellurium-132	HE	3.676	0.8993	pCi/g	2.341	N	226.8	1	1.615	IDENTIFIED	23.34	☐	
Terbium-160	HE	0.3504	0.1443	pCi/g	0.306	N	0	23	0	FAIL_ABUND	0	☐	
Thallium-208	✓	0.4625	0.04692	pCi/g	0.06942	0.080	583.1	1	1.549	IDENTIFIED	9.359	☐	
Thorium-227	LA	1.4	0.3243	pCi/g	0.9701	Y	0	23	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Thorium-228	MU	1.121	0.06595	pCi/g	0.1258	N	238.8	4	1.157	IDENTIFIED	4.675	☐	
Thorium-230	MU	0.946	0.08857	pCi/g	0.1298	N	609.4	4	1.721	IDENTIFIED	8.229	☐	
Thorium-232	MU	1.109	0.124	pCi/g	0.1974	N	910.6	3	1.831	IDENTIFIED	9.004	☐	
Thorium-234	✓	350.7	31.27	pCi/g	6.753	2.00	63.45	2	0.9866	IDENTIFIED	1.324	☐	

Titanium-44	HE	0.1847	0.06012	pCi/g	0.1813	N	0	23	0	FAIL_ABUND	0	☐	
Total Uranium		1045.8	9.30E-05	ug/g	10.053	N		0				☐	
Tungsten-181	LA	23.79	1.168	pCi/g	2.641	N	0	23	0	NOT_IDENTI	0	☐	
Uranium-231	MU	44.21	5.323	pCi/g	5.978	N	94.87	1	1.251	IDENTIFIED	11.33	☐	
Uranium-234	MU	0.946	0.08857	pCi/g	0.1298	N	609.4	4	1.721	IDENTIFIED	8.229	☐	
Uranium-235	V	5.411	0.5546	pCi/g	0.6174	0.500	144	2	1.161	IDENTIFIED	6.284	☐	
Uranium-238	V	350.7	31.27	pCi/g	6.753	N	63.45	2	0.9866	IDENTIFIED	1.324	☐	
Zirconium-97		3.26E+07	8.24E+06	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020003	27-JAN-10 12:00	13-FEB-10 14:53	17.1	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)		Qual	Qual Comment
Actinium-228	MU	1.193	0.1761	pCi/g	0.2213	N	910.5	3	1.78	IDENTIFIED	13.59	☐	
Americium-243	MU	0.3102	0.05845	pCi/g	0.1905	N	0	24	0	FAIL_ABUND	0	☐	
Annihilation Rad.		0.1749	0.03765	pCi/g	0.05002	N	510.5	1	2.238	IDENTIFIED	21.33	☐	
Barium-137m	HE	0.08352	0.02258	pCi/g	0.08324	N	0	24	0	NOT_IDENTI	0	☐	
Bismuth-211	INT	3.255	0.2298	pCi/g	0.3602	Y	351.5	4	1.394	IDENTIFIED	6.261	☑ UI	
Bismuth-212	LA	1.396	0.2701	pCi/g	0.7296	N	0	24	0	FAIL_ABUND	0	☐	
Bismuth-214	V	0.9114	0.08152	pCi/g	0.1183	0.200	608.7	4	1.713	IDENTIFIED	8.115	☐	
Cadmium-109	~~INT~~ LA MR 2/18/10	3.676	1.123	pCi/g	2.693	Y	0	24	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cerium-141	HE	0.1889	0.0487	pCi/g	0.1584	N	0	24	0	NOT_IDENTI	0	☐	
Cerium-143		2578	394.5	pCi/g	0	N	0	24	0	SHORT_HLIF	0	☐	
Cesium-137	LA	0.08829	0.02387	pCi/g	0.08799	0.100	0	24	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Gadolinium-153	LA	0.5823	0.08294	pCi/g	0.2429	N	0	24	0	FAIL_ABUND	0	☐	
Gold-195	LA	1.699	0.2419	pCi/g	0.6903	N	0	24	0	FAIL_ABUND	0	☐	
Gross Gamma		14.03	1.583	pCi/g	4.378	N		0				☐	
Iodine-123	HE	8.47E+06	5.03E+07	pCi/g	0	N	0	24	0	SHORT_HLIF	0	☐	
Iodine-135		2.31E+17	0	pCi/g	0	N	0	24	0	SHORT_HLIF	0	☐	
Lead-212	LA	1.432	0.0753	pCi/g	0.233	0.100	0	24	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Lead-214	V	1.132	0.08521	pCi/g	0.1255	0.100	351.5	4	1.394	IDENTIFIED	6.261	☐	
Lutetium-177	HE	2.949	0.8455	pCi/g	2.275	N	209.1	1	1.015	IDENTIFIED	28.54	☐	
Niobium-95	INT	0.2906	0.05089	pCi/g	0.08655	N	766	1	1.501	IDENTIFIED	17.19	☐	
Niobium-95m	LA	0.5725	0.09107	pCi/g	0.3012	N	0	24	0	NOT_IDENTI	0	☐	
Polonium-212	MU	1.432	0.0753	pCi/g	0.233	N	0	24	0	FAIL_ABUND	0	☐	
Polonium-214	MU	1.132	0.08521	pCi/g	0.1255	N	351.5	4	1.394	IDENTIFIED	6.261	☐	
Polonium-216	MU	1.432	0.0753	pCi/g	0.233	N	0	24	0	FAIL_ABUND	0	☐	
Polonium-218	MU	1.132	0.08521	pCi/g	0.1255	N	351.5	4	1.394	IDENTIFIED	6.261	☐	
Potassium-40	V	29.89	1.462	pCi/g	0.4896	1.00	1459	1	2.307	IDENTIFIED	3.15	☐	
Protactinium-234	HE	0.7181	0.1957	pCi/g	0.7062	N	0	24	0	FAIL_ABUND	0	☐	
Protactinium-234m	V	67.6	6.701	pCi/g	7.844	N	1000	1	2.209	IDENTIFIED	8.687	☐	
Radium-224	INT	2.94	0.6657	pCi/g	1.218	Y	241.3	1	1.774	IDENTIFIED	22.47	☑ UI	
Radium-226	V	0.9114	0.08152	pCi/g	0.1183	Y	608.7	4	1.713	IDENTIFIED	8.115	☐	
Radium-228	V	1.193	0.1761	pCi/g	0.2213	0.500	910.5	3	1.78	IDENTIFIED	13.59	☐	
Rhenium-183	HE	0.2993	0.08025	pCi/g	0.2584	N	0	24	0	FAIL_ABUND	0	☐	
Technetium-99m		3.52E+18	0	pCi/g	0	N	0	24	0	SHORT_HLIF	0	☐	
Thallium-208	V	0.479	0.04471	pCi/g	0.06645	0.080	582.4	1	1.487	IDENTIFIED	8.751	☐	

Thorium-228	LA	1.457	0.0766	pCi/g	0.237	N	0	24	0	FAIL_ABUND	0	☐
Thorium-230	MR	0.9114	0.08152	pCi/g	0.1183	N	608.7	4	1.713	IDENTIFIED	8.115	☐
Thorium-232	MR	1.193	0.1761	pCi/g	0.2213	N	910.5	3	1.78	IDENTIFIED	13.59	☐
Thorium-234	✓	52.03	5.131	pCi/g	3.992	2.00	63.18	2	1.028	IDENTIFIED	4.009	☐
Tin-126	HE	0.2706	0.1097	pCi/g	0.2601	N	0	24	0	FAIL_ABUND	0	☐
Titanium-44	LA	0.2556	0.03479	pCi/g	0.1195	N	0	24	0	FAIL_ABUND	0	☐
Total Uranium		155.26	1.53E-05	ug/g	5.9429	N		0				☐
Tungsten-181	LA	4.216	0.4357	pCi/g	1.425	N	0	24	0	NOT_IDENTI	0	☐
Uranium-231	HE	4.617	1.773	pCi/g	4.259	N	0	24	0	FAIL_ABUND	0	☐
Uranium-234	MR	0.9114	0.08152	pCi/g	0.1183	N	608.7	4	1.713	IDENTIFIED	8.115	☐
Uranium-235	✓	1.004	0.217	pCi/g	0.4597	0.500	143.6	1	1.504	IDENTIFIED	20.06	☐
Uranium-238	✓	52.03	5.131	pCi/g	3.992	N	63.18	2	1.028	IDENTIFIED	4.009	☐
Zirconium-97	–	4.81E+07	8.69E+06	pCi/g	0	N	0	24	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020004	27-JAN-10 12:00	13-FEB-10 16:26	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MR	1.415	0.174	pCi/g	0.1941	N	911.5	3	1.39	IDENTIFIED	10.85	☐	
Americium-243	MR	0.3623	0.04936	pCi/g	0.1017	N	74.83	1	1.436	IDENTIFIED	12.97	☐	
Annihilation Rad.	HE	0.1205	0.03579	pCi/g	0.04939	N	511.5	1	2.147	IDENTIFIED	29.41	☐	
Barium-137m	HE	0.1229	0.03355	pCi/g	0.06113	N	662.5	2	1.813	IDENTIFIED	27	☐	
Bismuth-211	INT	3.673	0.265	pCi/g	0.3404	Y	352.3	4	1.309	IDENTIFIED	5.604	☑ UI	
Bismuth-212	HE	0.7402	0.1765	pCi/g	0.665	N	0	6	0	NOT_IDENTI	0	☐	
Bismuth-214	✓	1.251	0.1034	pCi/g	0.113	0.200	609.6	4	1.474	IDENTIFIED	6.632	☐	
Cadmium-109	INT	2.535	0.5392	pCi/g	1.495	Y	87.25	3	1.214	IDENTIFIED	20.75	☑ UI	
Cerium-143		1171	259.1	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.1299	0.03546	pCi/g	0.06462	0.100	662.5	2	1.813	IDENTIFIED	27	☐	
Gross Gamma		8.364	1.076	pCi/g	2.821	N		0				☐	
Iodine-135		4.76E+17	0	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.341	0.08705	pCi/g	0.09762	0.100	239	4	1.178	IDENTIFIED	4.061	☐	
Lead-214	✓	1.278	0.09802	pCi/g	0.1189	0.100	352.3	4	1.309	IDENTIFIED	5.604	☐	
Lutetium-177	HE	2.983	0.9557	pCi/g	2.679	N	0	6	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.7294	0.1724	pCi/g	0.4837	N	87.25	3	1.214	IDENTIFIED	20.75	☐	
Polonium-212	MR	1.341	0.08705	pCi/g	0.09762	N	239	4	1.178	IDENTIFIED	4.061	☐	
Polonium-214	MR	1.278	0.09802	pCi/g	0.1189	N	352.3	4	1.309	IDENTIFIED	5.604	☐	
Polonium-216	MR	1.341	0.08705	pCi/g	0.09762	N	239	4	1.178	IDENTIFIED	4.061	☐	
Polonium-218	MR	1.278	0.09802	pCi/g	0.1189	N	352.3	4	1.309	IDENTIFIED	5.604	☐	
Potassium-40	✓	21.99	1.236	pCi/g	0.4848	1.00	1461	1	1.971	IDENTIFIED	3.435	☐	
Radium-224	INT	3.247	0.5709	pCi/g	1.111	Y	241.9	1	1.426	IDENTIFIED	16.98	☑ UI	
Radium-226	✓	1.251	0.1034	pCi/g	0.113	Y	609.6	4	1.474	IDENTIFIED	6.632	☐	
Radium-228	✓	1.415	0.174	pCi/g	0.1941	0.500	911.5	3	1.39	IDENTIFIED	10.85	☐	
Thallium-208	✓	0.4337	0.0388	pCi/g	0.05823	0.080	583.4	1	1.478	IDENTIFIED	7.708	☐	
Thorium-228	MR	1.364	0.08855	pCi/g	0.0993	N	239	4	1.178	IDENTIFIED	4.061	☐	
Thorium-230	MR	1.251	0.1034	pCi/g	0.113	N	609.6	4	1.474	IDENTIFIED	6.632	☐	
Thorium-232	MR	1.415	0.174	pCi/g	0.1941	N	911.5	3	1.39	IDENTIFIED	10.85	☐	
Thorium-234	✓	7.817	1.281	pCi/g	2.394	2.00	63.41	2	1.189	IDENTIFIED	13.84	☐	

Tin-126	HE	0.2484	0.05283	pCi/g	0.1473	N	87.25	3	1.214	IDENTIFIED	20.75	☐
Titanium-44	LA	0.374	0.03074	pCi/g	0.08853	N	0	6	0	FAIL_ABUND	0	☐
Total Uranium		23.32	3.81E-06	ug/g	3.5648	N		0				☐
Uranium-234	NL	1.251	0.1034	pCi/g	0.113	N	609.6	4	1.474	IDENTIFIED	6.632	☐
Uranium-238	✓	7.817	1.281	pCi/g	2.394	N	63.41	2	1.189	IDENTIFIED	13.84	☐
Zirconium-97	HE	6.15E+06	7.73E+06	pCi/g	0	N	0	6	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020005	27-JAN-10 12:00	13-FEB-10 16:26	17.2	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NL	1.741	0.1831	pCi/g	0.2184	N	911.2	3	1.532	IDENTIFIED	8.993	☐
Americium-243	NL	0.3874	0.05123	pCi/g	0.1067	N	74.79	1	1.11	IDENTIFIED	11.92	☐
Annihilation Rad.	HE	0.1074	0.03961	pCi/g	0.04627	N	511.1	1	2.152	IDENTIFIED	36.77	☐
Bismuth-211	INT	3.201	0.2417	pCi/g	0.3291	Y	351.9	4	1.152	IDENTIFIED	6.755	☑ UI
Bismuth-212	LA	1.251	0.2762	pCi/g	0.6938	N	0	10	0	FAIL_ABUND	0	☐
Bismuth-214	✓	1.098	0.08795	pCi/g	0.1201	0.200	609.3	4	1.337	IDENTIFIED	7.119	☐
Cadmium-109	INT	3.423	0.601	pCi/g	1.53	Y	87.09	3	0.9005	IDENTIFIED	16.51	☑ UI
Cerium-143		1572	292.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Cesium-134	LA	0.1113	0.04535	pCi/g	0.09194	0.100	0	10	0	FAIL_ABUND	0	☑ UI Data rejected due to low abundance.
Gross Gamma		10.26	1.472	pCi/g	2.973	N		0				☐
Iodine-123	HE	1.57E+07	3.86E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Iodine-135		2.27E+17	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Lead-212	✓	1.71	0.08964	pCi/g	0.09226	0.100	238.6	4	1.154	IDENTIFIED	3.368	☐
Lead-214	✓	1.113	0.08895	pCi/g	0.1158	0.100	351.9	4	1.152	IDENTIFIED	6.755	☐
Lutetium-177	HE	3.714	1.199	pCi/g	2.556	N	0	10	0	FAIL_ABUND	0	☐
Neptunium-237	NL	0.985	0.2006	pCi/g	0.4524	N	87.09	3	0.9005	IDENTIFIED	16.51	☐
Polonium-212	NL	1.71	0.08964	pCi/g	0.09226	N	238.6	4	1.154	IDENTIFIED	3.368	☐
Polonium-214	NL	1.113	0.08895	pCi/g	0.1158	N	351.9	4	1.152	IDENTIFIED	6.755	☐
Polonium-216	NL	1.71	0.08964	pCi/g	0.09226	N	238.6	4	1.154	IDENTIFIED	3.368	☐
Polonium-218	NL	1.113	0.08895	pCi/g	0.1158	N	351.9	4	1.152	IDENTIFIED	6.755	☐
Potassium-40	✓	36.7	1.646	pCi/g	0.6424	1.00	1461	1	1.926	IDENTIFIED	2.737	☐
Radium-224	INT	4.604	0.6768	pCi/g	1.05	Y	241.6	1	1.863	IDENTIFIED	14.32	☑ UI
Radium-226	✓	1.098	0.08795	pCi/g	0.1201	Y	609.3	4	1.337	IDENTIFIED	7.119	☐
Radium-228	✓	1.741	0.1831	pCi/g	0.2184	0.500	911.2	3	1.532	IDENTIFIED	8.993	☐
Technetium-99m		1.24E+18	0	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Thallium-200	HE	811.4	848.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐
Thallium-208	✓	0.5303	0.0419	pCi/g	0.0637	0.080	583.1	1	1.174	IDENTIFIED	7.249	☐
Thorium-228	NL	1.74	0.09118	pCi/g	0.09385	N	238.6	4	1.154	IDENTIFIED	3.368	☐
Thorium-230	NL	1.098	0.08795	pCi/g	0.1201	N	609.3	4	1.337	IDENTIFIED	7.119	☐
Thorium-232	NL	1.741	0.1831	pCi/g	0.2184	N	911.2	3	1.532	IDENTIFIED	8.993	☐
Thorium-234	✓	4.396	1.53	pCi/g	3.16	2.00	63.34	2	0.95	IDENTIFIED	33.36	☐
Tin-126	NL	0.3354	0.05889	pCi/g	0.1563	N	87.09	3	0.9005	IDENTIFIED	16.51	☐
Titanium-44	LA	0.3675	0.03517	pCi/g	0.08631	N	0	10	0	FAIL_ABUND	0	☐
Total Uranium		13.159	4.55E-06	ug/g	4.7034	N		0				☐
Uranium-234	NL	1.098	0.08795	pCi/g	0.1201	N	609.3	4	1.337	IDENTIFIED	7.119	☐
Uranium-238	HE	4.396	1.53	pCi/g	3.16	N	63.34	2	0.95	IDENTIFIED	33.36	☐

Zirconium-97		1.82E+07	7.27E+06	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020006	27-JAN-10 12:00	13-FEB-10 16:27	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-227	HE	1.706	0.3712	pCi/g	1.154	N	0	22	0	NOT_IDENTI	0	☐	
Actinium-228	NL	0.6881	0.1036	pCi/g	0.2375	N	911	3	1.588	IDENTIFIED	14.17	☐	
Americium-241	LA	1.026	0.2858	pCi/g	0.9497	0.200	0	22	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Annihilation Rad.	HE	0.08242	0.0418	pCi/g	0.06701	N	510.8	1	2.029	IDENTIFIED	50.63	☐	
Bismuth-211	INT	1.719	0.2731	pCi/g	0.4414	Y	351.9	4	1.241	IDENTIFIED	15.55	☑ UI	
Bismuth-214	✓	0.7022	0.0828	pCi/g	0.1447	0.200	608.9	4	1.342	IDENTIFIED	11.2	☐	
Cerium-141	LA	0.7364	0.07508	pCi/g	0.2519	N	0	22	0	NOT_IDENTI	0	☐	
Cerium-143		1126	453.3	pCi/g	0	N	0	22	0	SHORT_HLIF	0	☐	
Gadolinium-153	LA	2.528	0.1648	pCi/g	0.454	N	0	22	0	FAIL_ABUND	0	☐	
Gold-195	LA	7.374	0.4808	pCi/g	1.272	N	0	22	0	FAIL_ABUND	0	☐	
Gross Gamma		31.2	2.26	pCi/g	9.363	N		0				☐	
Iodine-123	HE	1.07E+07	8.07E+07	pCi/g	0	N	0	22	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2925	21710	pCi/g	0	N	0	22	0	SHORT_HLIF	0	☐	
Iodine-135		4.51E+17	0	pCi/g	0	N	0	22	0	SHORT_HLIF	0	☐	
Lead-212	LA	0.8182	0.05713	pCi/g	0.2123	0.100	0	22	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Lead-214	✓	0.5981	0.09628	pCi/g	0.1539	0.100	351.9	4	1.241	IDENTIFIED	15.55	☐	
Niobium-95	INT	1.07	0.07069	pCi/g	0.09462	N	766.2	1	1.508	IDENTIFIED	5.908	☐	
Polonium-212	NL	0.8182	0.05713	pCi/g	0.2123	N	0	22	0	FAIL_ABUND	0	☐	
Polonium-214	NL	0.5981	0.09628	pCi/g	0.1539	N	351.9	4	1.241	IDENTIFIED	15.55	☐	
Polonium-216	NL	0.8182	0.05713	pCi/g	0.2123	N	0	22	0	FAIL_ABUND	0	☐	
Polonium-218	NL	0.5981	0.09628	pCi/g	0.1539	N	351.9	4	1.241	IDENTIFIED	15.55	☐	
Potassium-40	✓	20.55	0.9838	pCi/g	0.5371	1.00	1460	1	2.143	IDENTIFIED	3.462	☐	
Protactinium-234	HE	0.841	0.3	pCi/g	0.7264	N	0	22	0	FAIL_ABUND	0	☐	
Protactinium-234m	✓	285.9	14.9	pCi/g	7.729	N	1001	1	1.847	IDENTIFIED	2.982	☐	
Radium-224	INT	2.749	0.6047	pCi/g	1.615	Y	241.5	1	1.804	IDENTIFIED	21.8	☐ UI	
Radium-226	✓	0.7022	0.0828	pCi/g	0.1447	Y	608.9	4	1.342	IDENTIFIED	11.2	☐	
Radium-228	✓	0.6881	0.1036	pCi/g	0.2375	0.500	911	3	1.588	IDENTIFIED	14.17	☐	
Rhenium-183	LA	0.9237	0.151	pCi/g	0.4104	N	0	22	0	FAIL_ABUND	0	☐	
Technetium-99m		1.82E+19	0	pCi/g	0	N	0	22	0	SHORT_HLIF	0	☐	
Tellurium-125m	LA	92.76	13.76	pCi/g	44.32	N	0	22	0	NOT_IDENTI	0	☐	
Thallium-208	✓	0.2572	0.04089	pCi/g	0.07618	0.080	582.9	1	1.63	IDENTIFIED	15.58	☐	
Thorium-227	LA	1.706	0.38	pCi/g	1.154	Y	0	22	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thorium-228	NL	0.8324	0.05812	pCi/g	0.2159	N	0	22	0	FAIL_ABUND	0	☐	
Thorium-230	NL	0.7022	0.0828	pCi/g	0.1447	N	608.9	4	1.342	IDENTIFIED	11.2	☐	
Thorium-232	NL	0.6881	0.1036	pCi/g	0.2375	N	911	3	1.588	IDENTIFIED	14.17	☐	
Thorium-234	✓	190.6	17.7	pCi/g	6.896	2.00	63.07	2	0.9933	IDENTIFIED	1.879	☐	
Total Uranium		568.6	5.26E-05	ug/g	10.265	N		0				☐	
Tungsten-181	LA	12.26	0.8432	pCi/g	2.359	N	0	22	0	NOT_IDENTI	0	☐	
Uranium-231	LA	25.95	3.243	pCi/g	7.935	N	0	22	0	FAIL_ABUND	0	☐	
Uranium-234	NL	0.7022	0.0828	pCi/g	0.1447	N	608.9	4	1.342	IDENTIFIED	11.2	☐	
Uranium-235	✓	3.347	0.387	pCi/g	0.6841	0.500	143.6	1	1.038	IDENTIFIED	8.221	☐	

Uranium-238	✓	190.6	17.7	pCi/g	6.896	N	63.07	2	0.9933	IDENTIFIED	1.879	☐	
Xenon-127	HE	0.1471	0.04566	pCi/g	0.1458	N	0	22	0	NOT_IDENTI	0	☐	
Zirconium-97		3.39E+07	1.02E+07	pCi/g	0	N	0	22	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020007	27-JAN-10 12:00	13-FEB-10 16:27	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NL	1.888	0.1991	pCi/g	0.2043	N	911.4	3	1.899	IDENTIFIED	8.79	☐	
Americium-243	NL	0.4315	0.03775	pCi/g	0.07692	N	74.8	1	1.217	IDENTIFIED	7.768	☐	
Annihilation Rad.		0.192	0.03567	pCi/g	0.0492	N	511.2	1	1.629	IDENTIFIED	18.04	☐	
Bismuth-211	JNT	3.719	0.2891	pCi/g	0.3618	Y	352.2	4	1.226	IDENTIFIED	6.349	☑ UI	
Bismuth-212	LA	1.485	0.2599	pCi/g	0.7717	N	0	13	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.043	0.1034	pCi/g	0.1145	0.200	609.6	4	1.384	IDENTIFIED	8.462	☐	
Cadmium-109	JNT	3.825	0.512	pCi/g	1.16	Y	87.24	3	1.133	IDENTIFIED	12.55	☑ UI	
Cerium-143		1290	281.3	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.178	0.03744	pCi/g	0.1008	0.100	0	13	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.98	1.553	pCi/g	3.894	N		0				☐	
Iodine-123	HE	1.35E+07	4.02E+07	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135		5.35E+17	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Krypton-85	HE	18.95	4.456	pCi/g	15.29	N	0	13	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.939	0.1102	pCi/g	0.09812	0.100	238.8	4	1.05	IDENTIFIED	3.065	☐	
Lead-214	✓	1.294	0.1061	pCi/g	0.1261	0.100	352.2	4	1.226	IDENTIFIED	6.349	☐	
Lutetium-177	HE	3.336	1.163	pCi/g	2.654	N	0	13	0	FAIL_ABUND	0	☐	
Neptunium-237	NL	1.101	0.186	pCi/g	0.3574	N	87.24	3	1.133	IDENTIFIED	12.55	☐	
Niobium-97	HE	4.40E+05	4.05E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Polonium-212	NL	1.939	0.1102	pCi/g	0.09812	N	238.8	4	1.05	IDENTIFIED	3.065	☐	
Polonium-214	NL	1.294	0.1061	pCi/g	0.1261	N	352.2	4	1.226	IDENTIFIED	6.349	☐	
Polonium-216	NL	1.939	0.1102	pCi/g	0.09812	N	238.8	4	1.05	IDENTIFIED	3.065	☐	
Polonium-218	NL	1.294	0.1061	pCi/g	0.1261	N	352.2	4	1.226	IDENTIFIED	6.349	☐	
Potassium-40	✓	37.48	1.892	pCi/g	0.5496	1.00	1461	1	2.171	IDENTIFIED	2.655	☐	
Radium-224	JNT	4.811	0.7084	pCi/g	1.117	Y	241.7	1	1.828	IDENTIFIED	14.1	☑ UI	
Radium-226	✓	1.043	0.1034	pCi/g	0.1145	Y	609.6	4	1.384	IDENTIFIED	8.462	☐	
Radium-228	✓	1.888	0.1991	pCi/g	0.2043	0.500	911.4	3	1.899	IDENTIFIED	8.79	☐	
Sodium-24	HE	4.86E+06	3.81E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.09931	0.02335	pCi/g	0.08014	Y	0	13	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	157.9	855.7	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5916	0.05541	pCi/g	0.05941	0.080	583.3	1	1.539	IDENTIFIED	8.053	☐	
Thorium-228	NL	1.973	0.1121	pCi/g	0.09981	N	238.8	4	1.05	IDENTIFIED	3.065	☐	
Thorium-230	NL	1.043	0.1034	pCi/g	0.1145	N	609.6	4	1.384	IDENTIFIED	8.462	☐	
Thorium-232	NL	1.888	0.1991	pCi/g	0.2043	N	911.4	3	1.899	IDENTIFIED	8.79	☐	
Tin-126	NL	0.3748	0.05017	pCi/g	0.114	N	87.24	3	1.133	IDENTIFIED	12.55	☐	
Titanium-44	LA	0.4249	0.02917	pCi/g	0.07607	N	0	13	0	FAIL_ABUND	0	☐	
Total Uranium		4.126	2.23E-06	ug/g	2.5684	N		0				☐	
Uranium-234	NL	1.043	0.1034	pCi/g	0.1145	N	609.6	4	1.384	IDENTIFIED	8.462	☐	
Zirconium-97		2.84E+07	7.60E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020008	27-JAN-10 12:00	13-FEB-10 16:42	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	MU	1.204	0.1529	pCi/g	0.2216	N	911	3	1.788	IDENTIFIED	11.25	☐	
Americium-243	HE	0.201	0.06106	pCi/g	0.1995	N	0	13	0	NOT_IDENTI	0	☐	
Annihilation Rad.		0.119	0.03262	pCi/g	0.05283	N	510.8	1	1.665	IDENTIFIED	27.07	☐	
Barium-137m	HE	0.09446	0.04012	pCi/g	0.06562	N	662.5	2	3.742	IDENTIFIED	42.27	☐	
Bismuth-211	INT	2.981	0.2595	pCi/g	0.4083	Y	351.9	4	1.446	IDENTIFIED	7.145	☑ UI	
Bismuth-212	HE	1.147	0.3748	pCi/g	0.5091	N	728.2	1	2.088	IDENTIFIED	32.29	☐	
Bismuth-214	✓	1.04	0.08949	pCi/g	0.1177	0.200	609.2	4	1.625	IDENTIFIED	7.032	☐	
Cerium-141	HE	0.193	0.06521	pCi/g	0.1307	N	144	2	1.142	IDENTIFIED	33.4	☐	
Cerium-143		2218	386.9	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1176	0.03716	pCi/g	0.09419	0.100	0	13	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundence.
Cesium-137	HPW	0.09985	0.04241	pCi/g	0.06936	0.100	662.5	2	3.742	IDENTIFIED	42.27	☑ UI	Data rejected due to high peak-width.
Gadolinium-153	HE	0.3884	0.07723	pCi/g	0.2521	N	0	13	0	FAIL_ABUND	0	☐	
Gold-195	HE	1.133	0.2253	pCi/g	0.7001	N	0	13	0	FAIL_ABUND	0	☐	
Gross Gamma		12.6	1.727	pCi/g	4.938	N		0				☐	
Iodine-133	HE	29880	17320	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135		7.95E+17	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.36	0.09908	pCi/g	0.111	0.100	238.8	4	1.375	IDENTIFIED	4.2	☐	
Lead-214	✓	1.037	0.09423	pCi/g	0.1394	0.100	351.9	4	1.446	IDENTIFIED	7.145	☐	
Neptunium-237	HE	1.049	0.3442	pCi/g	0.7894	N	0	13	0	NOT_IDENTI	0	☐	
Niobium-95	INT	0.2927	0.04302	pCi/g	0.08189	N	766.7	1	1.743	IDENTIFIED	14.03	☐	
Polonium-212	MU	1.36	0.09908	pCi/g	0.111	N	238.8	4	1.375	IDENTIFIED	4.2	☐	
Polonium-214	MU	1.037	0.09423	pCi/g	0.1394	N	351.9	4	1.446	IDENTIFIED	7.145	☐	
Polonium-216	MU	1.36	0.09908	pCi/g	0.111	N	238.8	4	1.375	IDENTIFIED	4.2	☐	
Polonium-218	MU	1.037	0.09423	pCi/g	0.1394	N	351.9	4	1.446	IDENTIFIED	7.145	☐	
Potassium-40	✓	25.94	1.525	pCi/g	0.5482	1.00	1460	1	2.125	IDENTIFIED	3.229	☐	
Protactinium-234m	✓	52.56	5.141	pCi/g	8.729	N	1001	1	1.743	IDENTIFIED	8.295	☐	
Radium-224	INT	4.048	0.7096	pCi/g	1.262	Y	241.9	1	1.854	IDENTIFIED	16.64	☑ UI	
Radium-226	✓	1.04	0.08949	pCi/g	0.1177	Y	609.2	4	1.625	IDENTIFIED	7.032	☐	
Radium-228	✓	1.204	0.1529	pCi/g	0.2216	0.500	911	3	1.788	IDENTIFIED	11.25	☐	
Sodium-24	HE	4.64E+06	3.97E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.4135	0.04413	pCi/g	0.06608	0.080	583.1	1	1.364	IDENTIFIED	9.641	☐	
Thorium-228	MU	1.383	0.1008	pCi/g	0.1129	N	238.8	4	1.375	IDENTIFIED	4.2	☐	
Thorium-230	MU	1.04	0.08949	pCi/g	0.1177	N	609.2	4	1.625	IDENTIFIED	7.032	☐	
Thorium-232	MU	1.204	0.1529	pCi/g	0.2216	N	911	3	1.788	IDENTIFIED	11.25	☐	
Thorium-234	✓	39.92	4.632	pCi/g	4.737	2.00	63.41	2	1.178	IDENTIFIED	6.309	☐	
Titanium-44	HE	0.1582	0.04328	pCi/g	0.1234	N	0	13	0	FAIL_ABUND	0	☐	
Total Uranium		119.03	1.38E-05	ug/g	7.0509	N		0				☐	
Tungsten-181	LA	6.095	0.5918	pCi/g	1.795	N	0	13	0	NOT_IDENTI	0	☐	
Uranium-231	LA	11.56	2.018	pCi/g	5.039	N	0	13	0	FAIL_ABUND	0	☐	
Uranium-234	MU	1.04	0.08949	pCi/g	0.1177	N	609.2	4	1.625	IDENTIFIED	7.032	☐	
Uranium-235	✓	0.6159	0.2133	pCi/g	0.463	0.500	144	2	1.142	IDENTIFIED	33.4	☐	
Uranium-238	✓	39.92	4.632	pCi/g	4.737	N	63.41	2	1.178	IDENTIFIED	6.309	☐	
Zirconium-97		3.32E+07	8.63E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020009	27-JAN-10 12:00	13-FEB-10 16:43	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	NL	1.799	0.1639	pCi/g	0.1788	N	911	3	1.89	IDENTIFIED	6.255	☐	
Americium-243	NL	0.3854	0.04451	pCi/g	0.1071	N	74.88	1	1.102	IDENTIFIED	10.8	☐	
Annihilation Rad.		0.1635	0.03024	pCi/g	0.04249	N	511.1	1	1.92	IDENTIFIED	17.8	☐	
Barium-137m	HE	0.06632	0.01829	pCi/g	0.0528	N	661.9	2	1.14	IDENTIFIED	27.07	☐	
Bismuth-211	INT	3.854	0.3053	pCi/g	0.2983	Y	352	4	1.343	IDENTIFIED	5.381	☑ UI	
Bismuth-212	LA	1.08	0.2065	pCi/g	0.565	N	0	16	0	FAIL_ABUND	0	☐	
Bismuth-214	✓	1.199	0.09853	pCi/g	0.1013	0.200	609.2	4	1.776	IDENTIFIED	5.806	☐	
Cadmium-109	INT	4.591	0.6625	pCi/g	1.505	Y	87.18	3	1.399	IDENTIFIED	13.64	☑ UI	
Cerium-141	HE	0.2041	0.04671	pCi/g	0.1151	N	144	2	1.239	IDENTIFIED	22.44	☐	
Cerium-143		2353	372.4	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.08373	0.02128	pCi/g	0.07573	0.100	0	16	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-137	NVP	0.07011	0.01933	pCi/g	0.05581	0.100	661.9	2	1.14	IDENTIFIED	27.07	☑ UI	
Gadolinium-153	LA	0.5193	0.06422	pCi/g	0.1807	N	0	16	0	FAIL_ABUND	0	☐	
Gold-195	LA	1.515	0.1874	pCi/g	0.5365	N	0	16	0	FAIL_ABUND	0	☐	
Gross Gamma		13.59	1.477	pCi/g	3.424	N		0				☐	
Iodine-123	HE	1.83E+07	4.11E+07	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Iodine-126	HE	0.3431	0.1011	pCi/g	0.3233	N	0	16	0	NOT_IDENTI	0	☐	
Krypton-85	LA	22.7	3.904	pCi/g	12.64	N	0	16	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.692	0.1214	pCi/g	0.08737	0.100	238.7	4	1.232	IDENTIFIED	2.793	☐	
Lead-214	✓	1.341	0.1118	pCi/g	0.104	0.100	352	4	1.343	IDENTIFIED	5.381	☐	
Lutetium-177	NL	4.19	0.9544	pCi/g	2.165	N	209.5	1	1.459	IDENTIFIED	22.06	☐	
Neptunium-237	NL	1.321	0.2343	pCi/g	0.4392	N	87.18	3	1.399	IDENTIFIED	13.64	☐	
Niobium-95	INT	0.2506	0.04078	pCi/g	0.061	N	767	1	3.526	IDENTIFIED	15.33	☐	
Polonium-212	NL	1.692	0.1214	pCi/g	0.08737	N	238.7	4	1.232	IDENTIFIED	2.793	☐	
Polonium-214	NL	1.341	0.1118	pCi/g	0.104	N	352	4	1.343	IDENTIFIED	5.381	☐	
Polonium-216	NL	1.692	0.1214	pCi/g	0.08737	N	238.7	4	1.232	IDENTIFIED	2.793	☐	
Polonium-218	NL	1.341	0.1118	pCi/g	0.104	N	352	4	1.343	IDENTIFIED	5.381	☐	
Potassium-40	✓	27.42	1.424	pCi/g	0.4567	1.00	1461	1	2.849	IDENTIFIED	2.445	☐	
Protactinium-234m	✓	48.5	4.967	pCi/g	5.659	N	1001	1	1.962	IDENTIFIED	8.487	☐	
Radium-224	INT	4.97	0.5471	pCi/g	0.993	Y	241.7	1	1.76	IDENTIFIED	9.047	☑ UI	
Radium-226	✓	1.199	0.09853	pCi/g	0.1013	Y	609.2	4	1.776	IDENTIFIED	5.806	☐	
Radium-228	✓	1.799	0.1639	pCi/g	0.1788	0.500	911	3	1.89	IDENTIFIED	6.255	☐	
Sodium-24	HE	1.37E+06	3.25E+06	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.1189	0.02046	pCi/g	0.06622	Y	0	16	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		5.52E+18	0	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Thallium-200	HE	198	786.3	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5147	0.04545	pCi/g	0.05316	0.080	583.1	1	1.552	IDENTIFIED	6.968	☐	
Thorium-228	NL	1.721	0.1235	pCi/g	0.08888	N	238.7	4	1.232	IDENTIFIED	2.793	☐	
Thorium-230	NL	1.199	0.09853	pCi/g	0.1013	N	609.2	4	1.776	IDENTIFIED	5.806	☐	
Thorium-232	NL	1.799	0.1639	pCi/g	0.1788	N	911	3	1.89	IDENTIFIED	6.255	☐	
Thorium-234	✓	29.97	2.888	pCi/g	2.369	2.00	63.27	2	1.087	IDENTIFIED	4.141	☐	
Tin-126	NL	0.4498	0.06491	pCi/g	0.1481	N	87.18	3	1.399	IDENTIFIED	13.64	☐	
Titanium-44	LA	0.3741	0.03198	pCi/g	0.08289	N	0	16	0	FAIL_ABUND	0	☐	
Total Uranium		89.448	8.59E-06	ug/g	3.5267	N		0				☐	

Tungsten-181	LA	1.244	0.2285	pCi/g	0.7679	N	0	16	0	NOT_IDENTI	0		☐
Uranium-231	LA	7.061	1.603	pCi/g	3.19	N	0	16	0	FAIL_ABUND	0		☐
Uranium-234	ML	1.199	0.09853	pCi/g	0.1013	N	609.2	4	1.776	IDENTIFIED	5.806		☐
Uranium-235	V	0.6514	0.157	pCi/g	0.3832	0.500	144	2	1.239	IDENTIFIED	22.44		☐
Uranium-238	V	29.97	2.888	pCi/g	2.369	N	63.27	2	1.087	IDENTIFIED	4.141		☐
Zirconium-97		4.00E+07	7.42E+06	pCi/g	0	N	0	16	0	SHORT_HLIF	0		☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020010	27-JAN-10 12:00	13-FEB-10 16:56	17.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	ML	1.671	0.1684	pCi/g	0.1975	N	911.1	3	1.614	IDENTIFIED	8.139	☐	
Americium-243	ML	0.3534	0.03273	pCi/g	0.07982	N	74.83	1	0.8924	IDENTIFIED	8.282	☐	
Annihilation Rad.		0.1307	0.02944	pCi/g	0.04243	N	510.7	1	1.518	IDENTIFIED	22.01	☐	
Bismuth-211	INT	3.933	0.2988	pCi/g	0.274	Y	351.8	4	1.053	IDENTIFIED	5.286	☑ UI	
Bismuth-212	ML	1.069	0.2	pCi/g	0.431	N	727.2	1	1.513	IDENTIFIED	17.96	☐	
Bismuth-214	V	1.234	0.09492	pCi/g	0.08543	0.200	609.2	4	1.364	IDENTIFIED	5.588	☐	
Cadmium-109	INT	2.314	0.4309	pCi/g	1.046	Y	87.04	3	1.043	IDENTIFIED	18	☐ UI	
Cerium-143		1253	253.8	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.1313	0.03227	pCi/g	0.0873	0.100	0	9	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Gross Gamma		10.57	1.487	pCi/g	3.592	N		0				☐	
Iodine-123		6.98E+07	3.32E+07	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Iodine-133	HE	25340	14370	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Lead-212	V	1.514	0.1027	pCi/g	0.0823	0.100	238.6	4	0.9777	IDENTIFIED	3.315	☐	
Lead-214	V	1.368	0.1099	pCi/g	0.09551	0.100	351.8	4	1.053	IDENTIFIED	5.286	☐	
Lutetium-177	HE	2.882	0.9341	pCi/g	2.197	N	0	9	0	FAIL_ABUND	0	☐	
Neptunium-237	ML	0.6659	0.1417	pCi/g	0.3117	N	87.04	3	1.043	IDENTIFIED	18	☐	
Niobium-97	HE	1.46E+05	3.45E+05	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Polonium-212	ML	1.514	0.1027	pCi/g	0.0823	N	238.6	4	0.9777	IDENTIFIED	3.315	☐	
Polonium-214	ML	1.368	0.1099	pCi/g	0.09551	N	351.8	4	1.053	IDENTIFIED	5.286	☐	
Polonium-216	ML	1.514	0.1027	pCi/g	0.0823	N	238.6	4	0.9777	IDENTIFIED	3.315	☐	
Polonium-218	ML	1.368	0.1099	pCi/g	0.09551	N	351.8	4	1.053	IDENTIFIED	5.286	☐	
Potassium-40	V	38.45	1.918	pCi/g	0.4467	1.00	1461	1	1.87	IDENTIFIED	2.361	☐	
Radium-224	INT	4.655	0.6466	pCi/g	0.9366	Y	241.6	1	1.718	IDENTIFIED	12.75	☑ UI	
Radium-226	V	1.234	0.09492	pCi/g	0.08543	Y	609.2	4	1.364	IDENTIFIED	5.588	☐	
Radium-228	V	1.671	0.1684	pCi/g	0.1975	0.500	911.1	3	1.614	IDENTIFIED	8.139	☐	
Sodium-24	HE	1.21E+06	2.96E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	
Thallium-208	V	0.5292	0.04557	pCi/g	0.05286	0.080	583.3	1	1.172	IDENTIFIED	7.043	☐	
Thorium-228	ML	1.541	0.1045	pCi/g	0.08372	N	238.6	4	0.9777	IDENTIFIED	3.315	☐	
Thorium-230	ML	1.234	0.09492	pCi/g	0.08543	N	609.2	4	1.364	IDENTIFIED	5.588	☐	
Thorium-232	ML	1.671	0.1684	pCi/g	0.1975	N	911.1	3	1.614	IDENTIFIED	8.139	☐	
Thorium-234	V	3.943	0.9957	pCi/g	1.77	2.00	63.46	2	0.7006	IDENTIFIED	23.7	☐	
Tin-126	ML	0.2268	0.04222	pCi/g	0.103	N	87.04	3	1.043	IDENTIFIED	18	☐	
Titanium-44	LA	0.3438	0.02494	pCi/g	0.06607	N	0	9	0	FAIL_ABUND	0	☐	
Total Uranium		11.814	2.96E-06	ug/g	2.6349	N		0				☐	
Uranium-234	ML	1.234	0.09492	pCi/g	0.08543	N	609.2	4	1.364	IDENTIFIED	5.588	☐	
Uranium-238	V	3.943	0.9957	pCi/g	1.77	N	63.46	2	0.7006	IDENTIFIED	23.7	☐	

Zirconium-97	HE	9.49E+06	6.67E+06	pCi/g	0	N	0	9	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020011	27-JAN-10 12:00	13-FEB-10 16:56	17.2	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-227	HE	0.8377	0.2283	pCi/g	0.7253	N	0	19	0	FAIL_ABUND	0	☐	
Actinium-228	NA	1.117	0.1304	pCi/g	0.1657	N	910.7	3	1.945	IDENTIFIED	9.613	☐	
Annihilation Rad.		0.1004	0.02839	pCi/g	0.04101	N	510.8	1	1.637	IDENTIFIED	28.08	☐	
Barium-137m	NA	0.1106	0.02258	pCi/g	0.054	N	661.4	2	1.206	IDENTIFIED	20.06	☐	
Bismuth-211	INT	2.666	0.1934	pCi/g	0.3	Y	351.8	4	1.383	IDENTIFIED	6.504	☑ UI	
Bismuth-212	NA	0.8425	0.1932	pCi/g	0.4147	N	726.8	1	1.64	IDENTIFIED	22.38	☐	
Bismuth-214	✓	0.8686	0.06704	pCi/g	0.09308	0.200	609.2	4	1.461	IDENTIFIED	6.294	☐	
Cerium-141	LA	0.5292	0.05291	pCi/g	0.1758	N	0	19	0	NOT_IDENTI	0	☐	
Cerium-143		668	220.3	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	
Cesium-134	LA	0.08934	0.02066	pCi/g	0.07445	0.100	0	19	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✓	0.1169	0.02387	pCi/g	0.05708	0.100	661.4	2	1.206	IDENTIFIED	20.06	☐	
Gadolinium-153	LA	1.966	0.1285	pCi/g	0.3091	N	0	19	0	FAIL_ABUND	0	☐	
Gold-195	LA	5.736	0.375	pCi/g	0.9314	N	0	19	0	FAIL_ABUND	0	☐	
Gross Gamma		25.47	2.262	pCi/g	5.406	N		0				☐	
Iodine-123	HE	5.70E+07	5.44E+07	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	
Krypton-85	HE	14.61	3.377	pCi/g	11.17	N	0	19	0	NOT_IDENTI	0	☐	
Lead-212	✓	1.127	0.05942	pCi/g	0.09598	0.100	238.7	4	1.265	IDENTIFIED	3.879	☐	
Lead-214	✓	0.9274	0.07148	pCi/g	0.1045	0.100	351.8	4	1.383	IDENTIFIED	6.504	☐	
Lutetium-177	HE	3.031	1.041	pCi/g	2.353	N	209.5	1	1.592	IDENTIFIED	34.23	☐	
Molybdenum-99	HE	54.87	11.64	pCi/g	36.9	N	0	19	0	NOT_IDENTI	0	☐	
Niobium-95	NA	0.8078	0.06012	pCi/g	0.05934	N	766.2	1	1.944	IDENTIFIED	5.87	☐	
Niobium-97	HE	3.28E+05	3.59E+05	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	
Polonium-212	NA	1.127	0.05942	pCi/g	0.09598	N	238.7	4	1.265	IDENTIFIED	3.879	☐	
Polonium-214	NA	0.9274	0.07148	pCi/g	0.1045	N	351.8	4	1.383	IDENTIFIED	6.504	☐	
Polonium-216	NA	1.127	0.05942	pCi/g	0.09598	N	238.7	4	1.265	IDENTIFIED	3.879	☐	
Polonium-218	NA	0.9274	0.07148	pCi/g	0.1045	N	351.8	4	1.383	IDENTIFIED	6.504	☐	
Potassium-40	✓	23.82	1.059	pCi/g	0.3227	1.00	1460	1	2.239	IDENTIFIED	2.318	☐	
Protactinium-234	HE	0.5286	0.188	pCi/g	0.4808	N	0	19	0	FAIL_ABUND	0	☐	
Protactinium-234m	✓	214.5	12.98	pCi/g	5.273	N	1001	1	1.966	IDENTIFIED	2.737	☐	
Radium-224	INT	3.501	0.5594	pCi/g	1.091	Y	241.8	1	1.767	IDENTIFIED	15.73	☑ UI	
Radium-226	✓	0.8686	0.06704	pCi/g	0.09308	Y	609.2	4	1.461	IDENTIFIED	6.294	☐	
Radium-228	✓	1.117	0.1304	pCi/g	0.1657	0.500	910.7	3	1.945	IDENTIFIED	9.613	☐	
Rhenium-183	HE	0.4252	0.08093	pCi/g	0.2746	N	0	19	0	FAIL_ABUND	0	☐	
Sodium-24	HE	2.27E+06	2.74E+06	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	
Strontium-85	LA	0.07657	0.0177	pCi/g	0.05853	Y	0	19	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Tellurium-125m	HE	38.16	8.886	pCi/g	28.72	N	0	19	0	NOT_IDENTI	0	☐	
Thallium-208	✓	0.3898	0.03362	pCi/g	0.04646	0.080	583.1	1	1.508	IDENTIFIED	7.683	☐	
Thorium-227	LA	0.8377	0.2318	pCi/g	0.7253	Y	0	19	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Thorium-228	NA	1.146	0.06044	pCi/g	0.09764	N	238.7	4	1.265	IDENTIFIED	3.879	☐	
Thorium-230	NA	0.8686	0.06703	pCi/g	0.09308	N	609.2	4	1.461	IDENTIFIED	6.294	☐	
Thorium-232	NA	1.117	0.1304	pCi/g	0.1657	N	910.7	3	1.945	IDENTIFIED	9.613	☐	

Thorium-234	✓	132.9	12	pCi/g	4.501	2.00	63.48	2	0.9706	IDENTIFIED	1.951	☐	
Titanium-44	HE	0.2065	0.04516	pCi/g	0.1273	N	0	19	0	FAIL_ABUND	0	☐	
Total Uranium		396.56	3.57E-05	ug/g	6.6994	N		0				☐	
Tungsten-181	LA	8.88	0.5615	pCi/g	1.681	N	0	19	0	NOT_IDENTI	0	☐	
Uranium-231	MU	23.78	3.218	pCi/g	4.117	N	94.88	1	1.376	IDENTIFIED	12.9	☐	
Uranium-234	MU	0.8686	0.06703	pCi/g	0.09308	N	609.2	4	1.461	IDENTIFIED	6.294	☐	
Uranium-235	✓	2.541	0.2857	pCi/g	0.4461	0.500	143.9	1	1.053	IDENTIFIED	7.799	☐	
Uranium-238	✓	132.9	12	pCi/g	4.501	N	63.48	2	0.9706	IDENTIFIED	1.951	☐	
Zirconium-97		3.27E+07	6.84E+06	pCi/g	0	N	0	19	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020012	27-JAN-10 12:00	13-FEB-10 16:57	17.2	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MU	0.9298	0.1591	pCi/g	0.2152	N	910.5	3	1.739	IDENTIFIED	16.1	☐	
Americium-243	MU	0.3341	0.05616	pCi/g	0.14	N	74.63	1	1.368	IDENTIFIED	16.21	☐	
Annihilation Rad.	HE	0.09367	0.03415	pCi/g	0.04761	N	510.6	1	1.844	IDENTIFIED	36.34	☐	
Barium-137m	HE	0.09908	0.02514	pCi/g	0.05661	N	660.8	2	1.321	IDENTIFIED	25.24	☐	
Bismuth-211	INT	2.368	0.2366	pCi/g	0.3375	Y	351.5	4	1.289	IDENTIFIED	9.442	☑ UI	
Bismuth-212	HE	0.8279	0.233	pCi/g	0.3835	N	726.8	1	1.475	IDENTIFIED	27.86	☐	
Bismuth-214	LA	0.7317	0.07305	pCi/g	0.2491	0.200	0	14	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cadmium-109	INT	2.173	0.6443	pCi/g	2.018	Y	87	1	1.247	IDENTIFIED	29.25	☑ UI	
Cerium-143		1975	332.3	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Cesium-137	✓	0.1047	0.02658	pCi/g	0.05984	0.100	660.8	2	1.321	IDENTIFIED	25.24	☐	
Gadolinium-153	LA	0.3559	0.06742	pCi/g	0.209	N	0	14	0	FAIL_ABUND	0	☐	
Gold-195	LA	1.038	0.1967	pCi/g	0.6028	N	0	14	0	FAIL_ABUND	0	☐	
Gross Gamma		10.41	1.429	pCi/g	4.187	N		0				☐	
Lead-212	✓	1.149	0.06397	pCi/g	0.09581	0.100	238.4	4	1.17	IDENTIFIED	4.251	☐	
Lead-214	✓	0.8239	0.08505	pCi/g	0.1177	0.100	351.5	4	1.289	IDENTIFIED	9.442	☐	
Niobium-95	INT	0.2939	0.04645	pCi/g	0.07351	N	765.8	1	2.455	IDENTIFIED	15.44	☐	
Niobium-95m	LA	0.4911	0.08209	pCi/g	0.2738	N	0	14	0	NOT_IDENTI	0	☐	
Polonium-212	MU	1.149	0.06397	pCi/g	0.09581	N	238.4	4	1.17	IDENTIFIED	4.251	☐	
Polonium-214	MU	0.8239	0.08505	pCi/g	0.1177	N	351.5	4	1.289	IDENTIFIED	9.442	☐	
Polonium-216	MU	1.149	0.06397	pCi/g	0.09581	N	238.4	4	1.17	IDENTIFIED	4.251	☐	
Polonium-218	MU	0.8239	0.08505	pCi/g	0.1177	N	351.5	4	1.289	IDENTIFIED	9.442	☐	
Potassium-40	✓	19.34	1.067	pCi/g	0.5262	1.00	1460	1	2.492	IDENTIFIED	4.051	☐	
Protactinium-234m	✓	50.28	5.38	pCi/g	6.33	N	1000	1	1.603	IDENTIFIED	9.575	☐	
Radium-224	INT	3.008	0.4286	pCi/g	1.09	Y	241.4	1	1.635	IDENTIFIED	13.97	☑ UI	
Radium-226	✓ LA MEE 2/18/10	0.7317	0.07305	pCi/g	0.2491	Y	0	14	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Radium-228	✓	0.9298	0.1591	pCi/g	0.2152	0.500	910.5	3	1.739	IDENTIFIED	16.1	☐	
Rhenium-183	HE	0.2652	0.06506	pCi/g	0.2376	N	0	14	0	NOT_IDENTI	0	☐	
Sodium-24	HE	5.13E+05	3.88E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.3756	0.03666	pCi/g	0.057	0.080	582.5	1	1.593	IDENTIFIED	9.205	☐	
Thorium-228	MU	1.169	0.06507	pCi/g	0.09746	N	238.4	4	1.17	IDENTIFIED	4.251	☐	
Thorium-230	MU	0.7316	0.07304	pCi/g	0.2491	N	0	14	0	FAIL_ABUND	0	☐	
Thorium-232	MU	0.9298	0.1591	pCi/g	0.2152	N	910.5	3	1.739	IDENTIFIED	16.1	☐	
Thorium-234	✓	34.53	3.641	pCi/g	3.5	2.00	63.21	2	1.086	IDENTIFIED	5.477	☐	

Titanium-44	LA	0.2337	0.0302	pCi/g	0.1018	N	0	14	0	FAIL_ABUND	0	☐	
Total Uranium		102.96	1.08E-05	ug/g	5.2105	N		0				☐	
Tungsten-181	LA	3.456	0.3746	pCi/g	1.246	N	0	14	0	NOT_IDENTI	0	☐	
Uranium-231	HE	5.63	1.467	pCi/g	3.684	N	0	14	0	FAIL_ABUND	0	☐	
Uranium-234	LA	0.7316	0.07304	pCi/g	0.2491	N	0	14	0	FAIL_ABUND	0	☐	
Uranium-235	✓	0.4913	0.1965	pCi/g	0.4101	0.500	143.7	1	1.245	IDENTIFIED	39.17	☐	
Uranium-238	NL	34.53	3.641	pCi/g	3.5	N	63.21	2	1.086	IDENTIFIED	5.477	☐	
Zirconium-97		2.87E+07	8.71E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020013	27-JAN-10 12:00	13-FEB-10 19:59	17.3	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-227	HE	1.103	0.2383	pCi/g	0.7303	N	0	23	0	NOT_IDENTI	0	☐		
Actinium-228	NL	1.092	0.117	pCi/g	0.1553	N	911.3	3	1.509	IDENTIFIED	8.801	☐		
Americium-241	LA	1.098	0.1588	pCi/g	0.5033	0.200	0	23	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Americium-243	HE	0.2618	0.05776	pCi/g	0.1824	N	74.81	1	0.729	IDENTIFIED	21.69	☐		
Annihilation Rad.	HE	0.09402	0.02929	pCi/g	0.04608	N	511.2	1	1.528	IDENTIFIED	30.8	☐		
Barium-137m	NL	0.1992	0.02597	pCi/g	0.05547	N	661.7	2	1.372	IDENTIFIED	12.03	☐		
Bismuth-211	INT	2.333	0.2021	pCi/g	0.3101	Y	352	4	1.279	IDENTIFIED	7.223	☑	UJ	
Bismuth-212	HE	0.7321	0.2238	pCi/g	0.4398	N	728	1	1.57	IDENTIFIED	30.03	☐		
Bismuth-214	✓	0.8436	0.08124	pCi/g	0.09863	0.200	609.3	4	1.554	IDENTIFIED	7.86	☐		
Cadmium-109	LA	5.008	1.237	pCi/g	3.067	Y	0	23	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cerium-141	LA	0.9909	0.06802	pCi/g	0.1836	N	0	23	0	NOT_IDENTI	0	☐		
Cerium-143		1110	254.2	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Cesium-134	LA	0.172	0.03713	pCi/g	0.0793	0.100	0	23	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137	✓	0.2106	0.02745	pCi/g	0.05864	0.100	661.7	2	1.372	IDENTIFIED	12.03	☐		
Gadolinium-153	LA	4.14	0.2104	pCi/g	0.3184	N	0	23	0	FAIL_ABUND	0	☐		
Gold-195	LA	12.08	0.6138	pCi/g	0.9446	N	0	23	0	FAIL_ABUND	0	☐		
Gross Gamma		54.35	2.724	pCi/g	14.43	N		0				☐		
Iodine-135		1.76E+17	0	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Krypton-85	HE	12.33	3.573	pCi/g	11.1	N	0	23	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.01	0.06693	pCi/g	0.09849	0.100	238.6	4	1.159	IDENTIFIED	3.959	☐		
Lead-214	✓	0.8116	0.07343	pCi/g	0.1056	0.100	352	4	1.279	IDENTIFIED	7.223	☐		
Lutetium-177	HE	2.35	0.8151	pCi/g	2.337	N	209.2	1	0.6979	IDENTIFIED	34.37	☐		
Molybdenum-99	HE	57	12.14	pCi/g	37.43	N	0	23	0	NOT_IDENTI	0	☐		
Niobium-95	NL	1.777	0.1039	pCi/g	0.06478	N	766.7	1	1.51	IDENTIFIED	2.895	☐		
Polonium-212	NL	1.01	0.06693	pCi/g	0.09849	N	238.6	4	1.159	IDENTIFIED	3.959	☐		
Polonium-214	NL	0.8116	0.07343	pCi/g	0.1056	N	352	4	1.279	IDENTIFIED	7.223	☐		
Polonium-216	NL	1.01	0.06693	pCi/g	0.09849	N	238.6	4	1.159	IDENTIFIED	3.959	☐		
Polonium-218	NL	0.8116	0.07343	pCi/g	0.1056	N	352	4	1.279	IDENTIFIED	7.223	☐		
Potassium-40	✓	20.36	1.007	pCi/g	0.3294	1.00	1461	1	1.795	IDENTIFIED	2.339	☐		
Protactinium-234	LA	1.238	0.214	pCi/g	0.5193	N	0	23	0	FAIL_ABUND	0	☐		
Protactinium-234m	✓	497.2	27.52	pCi/g	5.379	N	1001	1	1.647	IDENTIFIED	1.426	☐		
Radium-224	INT	1.553	0.3441	pCi/g	1.11	Y	241.7	1	2.421	IDENTIFIED	21.62	☑	UJ	
Radium-226	✓	0.8436	0.08124	pCi/g	0.09863	Y	609.3	4	1.554	IDENTIFIED	7.86	☐		
Radium-228	✓	1.092	0.117	pCi/g	0.1553	0.500	911.3	3	1.509	IDENTIFIED	8.801	☐		

Rhenium-183	LA	1.459	0.1318	pCi/g	0.2977	N	0	23	0	FAIL_ABUND	0	☐		
Rubidium-84	HE	0.1736	0.0417	pCi/g	0.09936	N	880.8	1	1.795	IDENTIFIED	23.49	☐		
Sodium-24		4.94E+06	2.40E+06	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Strontium-85	LA	0.06475	0.01876	pCi/g	0.0583	Y	0	23	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Tellurium-125m	LA	89.81	10.27	pCi/g	30.05	N	0	23	0	NOT_IDENTI	0	☐		
Tellurium-132	HE	2.126	0.8349	pCi/g	1.828	N	226.9	1	1.356	IDENTIFIED	38.39	☐		
Terbium-160	HE	0.3377	0.08111	pCi/g	0.2219	N	0	23	0	FAIL_ABUND	0	☐		
Thallium-200	HE	327.3	895	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		
Thallium-208	✓	0.3138	0.03503	pCi/g	0.05503	0.080	583.4	1	1.276	IDENTIFIED	9.91	☐		
Thorium-227	LA	1.103	0.244	pCi/g	0.7303	Y	0	23	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Thorium-228	MM	1.027	0.0681	pCi/g	0.1002	N	238.6	4	1.159	IDENTIFIED	3.959	☐		
Thorium-230	MM	0.8436	0.08123	pCi/g	0.09863	N	609.3	4	1.554	IDENTIFIED	7.86	☐		
Thorium-232	MM	1.092	0.117	pCi/g	0.1553	N	911.3	3	1.509	IDENTIFIED	8.801	☐		
Thorium-234	✓	351.4	30.63	pCi/g	3.801	2.00	63.38	2	1.007	IDENTIFIED	0.7219	☐		
Titanium-44	HE	0.1725	0.04187	pCi/g	0.1179	N	0	23	0	FAIL_ABUND	0	☐		
Total Uranium		1047.8	9.11E-05	ug/g	5.6579	N		0				☐		
Tungsten-181	LA	24.73	0.9899	pCi/g	1.52	N	0	23	0	NOT_IDENTI	0	☐		
Uranium-231	MM	51.39	3.958	pCi/g	4.24	N	94.84	1	1.281	IDENTIFIED	6.25	☐		
Uranium-234	MM	0.8436	0.08123	pCi/g	0.09863	N	609.3	4	1.554	IDENTIFIED	7.86	☐		
Uranium-235	✓	5.485	0.5267	pCi/g	0.472	0.500	143.8	1	1.137	IDENTIFIED	4.032	☐		
Uranium-238	MM	351.4	30.63	pCi/g	3.801	N	63.38	2	1.007	IDENTIFIED	0.7219	☐		
Xenon-127	HE	0.1532	0.03075	pCi/g	0.09739	N	0	23	0	FAIL_ABUND	0	☐		
Zirconium-97		2.82E+07	8.38E+06	pCi/g	0	N	0	23	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020014	27-JAN-10 12:00	14-FEB-10 11:07	18	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	MM	1.527	0.1661	pCi/g	0.2151	N	911.5	3	1.568	IDENTIFIED	9.218	☐		
Americium-243	MM	0.4069	0.04599	pCi/g	0.09984	N	74.92	1	1.306	IDENTIFIED	10.51	☐		
Annihilation Rad.	HE	0.08126	0.03479	pCi/g	0.05136	N	511.3	1	1.541	IDENTIFIED	42.61	☐		
Bismuth-211	JNT	3.922	0.2838	pCi/g	0.3247	Y	352.3	4	1.279	IDENTIFIED	5.634	☑	UI	
Bismuth-212	HE	0.9015	0.2202	pCi/g	0.657	N	0	16	0	FAIL_ABUND	0	☐		
Bismuth-214	✓	0.9885	0.09347	pCi/g	0.1187	0.200	609.7	4	1.605	IDENTIFIED	8.068	☐		
Cadmium-109	LA	2.21	0.4545	pCi/g	1.65	Y	0	16	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Cadmium-115	HE	0.9508	12.43	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Cerium-143		1414	356.6	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Gold-195	HE	0.4721	0.1262	pCi/g	0.4366	N	0	16	0	FAIL_ABUND	0	☐		
Gross Gamma		8.212	1.476	pCi/g	2.65	N		0				☐		
Iodine-123	HE	9.62E+07	1.04E+08	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Iodine-133	HE	11490	27910	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Iodine-135		1.42E+18	0	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐		
Krypton-85	HE	20.97	4.212	pCi/g	14.69	N	0	16	0	NOT_IDENTI	0	☐		
Lead-212	✓	1.521	0.09504	pCi/g	0.08848	0.100	239	4	1.326	IDENTIFIED	3.664	☐		
Lead-214	✓	1.364	0.105	pCi/g	0.1132	0.100	352.3	4	1.279	IDENTIFIED	5.634	☐		
Neptunium-237	HE	0.5779	0.144	pCi/g	0.4759	N	0	16	0	NOT_IDENTI	0	☐		
Polonium-212	MM	1.521	0.09504	pCi/g	0.08848	N	239	4	1.326	IDENTIFIED	3.664	☐		

Polonium-214	MM	1.364	0.105	pCi/g	0.1132	N	352.3	4	1.279	IDENTIFIED	5.634	☐	
Polonium-216	MM	1.521	0.09504	pCi/g	0.08848	N	239	4	1.326	IDENTIFIED	3.664	☐	
Polonium-218	MM	1.364	0.105	pCi/g	0.1132	N	352.3	4	1.279	IDENTIFIED	5.634	☐	
Potassium-40	V	22.14	1.273	pCi/g	0.6083	1.00	1461	1	2.098	IDENTIFIED	3.646	☐	
Radium-224	INT	4.606	0.659	pCi/g	1.007	Y	242	1	1.708	IDENTIFIED	13.57	☑ UI	
Radium-226	V	0.9885	0.09347	pCi/g	0.1187	Y	609.7	4	1.605	IDENTIFIED	8.068	☐	
Radium-228	V	1.527	0.1661	pCi/g	0.2151	0.500	911.5	3	1.568	IDENTIFIED	9.218	☐	
Sodium-24	HE	5.96E+05	7.97E+06	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Strontium-85	NA	0.1108	0.02225	pCi/g	0.07762	Y	0	16	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m		4.37E+18	0	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	
Thallium-208	V	0.4391	0.04478	pCi/g	0.06228	0.080	583.5	1	1.706	IDENTIFIED	9.132	☐	
Thorium-228	MM	1.548	0.09675	pCi/g	0.09007	N	239	4	1.326	IDENTIFIED	3.664	☐	
Thorium-230	MM	0.9884	0.09347	pCi/g	0.1187	N	609.7	4	1.605	IDENTIFIED	8.068	☐	
Thorium-232	MM	1.527	0.1661	pCi/g	0.2151	N	911.5	3	1.568	IDENTIFIED	9.218	☐	
Thorium-234	V	5.266	1.248	pCi/g	2.456	2.00	63.21	2	1.109	IDENTIFIED	22	☐	
Tin-126	HE	0.2049	0.04438	pCi/g	0.161	N	0	16	0	FAIL_ABUND	0	☐	
Titanium-44	NA	0.3453	0.03035	pCi/g	0.0845	N	0	16	0	FAIL_ABUND	0	☐	
Total Uranium		15.7	3.71E-06	ug/g	3.6566	N		0				☐	
Uranium-234	MM	0.9884	0.09347	pCi/g	0.1187	N	609.7	4	1.605	IDENTIFIED	8.068	☐	
Uranium-238	V	5.266	1.248	pCi/g	2.456	N	63.21	2	1.109	IDENTIFIED	22	☐	
Zirconium-97	HE	1.10E+07	1.74E+07	pCi/g	0	N	0	16	0	SHORT_HLIF	0	☐	

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
246020015	27-JAN-10 12:00	14-FEB-10 11:08	18	SAMPLE	LOAD	1	LANL	LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	MM	1.611	0.1683	pCi/g	0.2387	N	911.1	3	2.061	IDENTIFIED	9.108	☐	
Americium-243	MM	0.4308	0.04654	pCi/g	0.1172	N	74.55	1	1.189	IDENTIFIED	9.817	☐	
Annihilation Rad.		0.1719	0.03638	pCi/g	0.05426	N	510.7	1	1.85	IDENTIFIED	20.97	☐	
Bismuth-211	INT	3.759	0.2614	pCi/g	0.3877	Y	351.7	4	1.243	IDENTIFIED	6.161	☑ UI	
Bismuth-212	HE	0.8433	0.2843	pCi/g	0.7366	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	V	1.127	0.08906	pCi/g	0.1204	0.200	609.1	4	1.39	IDENTIFIED	6.989	☐	
Cadmium-109	INT	3.493	0.5606	pCi/g	1.415	Y	87.05	3	1.181	IDENTIFIED	15.28	☑ UI	
Cadmium-115	HE	11.04	14.48	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143		4584	672.5	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Gross Gamma		10.19	1.5	pCi/g	3.76	N		0				☐	
Lead-212	V	1.682	0.08598	pCi/g	0.1071	0.100	238.5	4	1.132	IDENTIFIED	3.543	☐	
Lead-214	V	1.308	0.09714	pCi/g	0.1414	0.100	351.7	4	1.243	IDENTIFIED	6.161	☐	
Lutetium-177	HE	3.723	1.172	pCi/g	3.159	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	MM	1.004	0.1915	pCi/g	0.4633	N	87.05	3	1.181	IDENTIFIED	15.28	☐	
Niobium-95m	HE	0.3523	0.09683	pCi/g	0.3061	N	0	10	0	NOT_IDENTI	0	☐	
Niobium-97	HE	74320	9.13E+05	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Polonium-212	MM	1.682	0.08598	pCi/g	0.1071	N	238.5	4	1.132	IDENTIFIED	3.543	☐	
Polonium-214	MM	1.308	0.09714	pCi/g	0.1414	N	351.7	4	1.243	IDENTIFIED	6.161	☐	
Polonium-216	MM	1.682	0.08598	pCi/g	0.1071	N	238.5	4	1.132	IDENTIFIED	3.543	☐	
Polonium-218	MM	1.308	0.09714	pCi/g	0.1414	N	351.7	4	1.243	IDENTIFIED	6.161	☐	
Potassium-40	V	36.06	1.585	pCi/g	0.5895	1.00	1461	1	2.097	IDENTIFIED	2.894	☐	

Promethium-149	HE	196.1	124.4	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Radium-224	INT	4.911	0.7626	pCi/g	1.219	Y	241.4	1	1.801	IDENTIFIED	15.25	☑	VI
Radium-226	✓	1.127	0.08906	pCi/g	0.1204	Y	609.1	4	1.39	IDENTIFIED	6.989	☐	
Radium-228	✓	1.611	0.1683	pCi/g	0.2387	0.500	911.1	3	2.061	IDENTIFIED	9.108	☐	
Thallium-200	HE	3071	1590	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✓	0.5244	0.05161	pCi/g	0.06483	0.080	583	1	1.398	IDENTIFIED	9.321	☐	
Thorium-228	MM	1.712	0.08754	pCi/g	0.109	N	238.5	4	1.132	IDENTIFIED	3.543	☐	
Thorium-230	MM	1.127	0.08906	pCi/g	0.1204	N	609.1	4	1.39	IDENTIFIED	6.989	☐	
Thorium-232	MM	1.611	0.1683	pCi/g	0.2387	N	911.1	3	2.061	IDENTIFIED	9.108	☐	
Thorium-234	✓	7.153	1.578	pCi/g	2.729	2.00	62.91	2	1.371	IDENTIFIED	20.1	☐	
Tin-126	MM	0.3419	0.05487	pCi/g	0.1393	N	87.05	3	1.181	IDENTIFIED	15.28	☐	
Titanium-44	LA	0.3582	0.03261	pCi/g	0.09449	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		21.262	4.69E-06	ug/g	4.0624	N		0				☐	
Uranium-234	MM	1.127	0.08906	pCi/g	0.1204	N	609.1	4	1.39	IDENTIFIED	6.989	☐	
Uranium-238	MM	7.153	1.578	pCi/g	2.729	N	62.91	2	1.371	IDENTIFIED	20.1	☐	
Zirconium-97		7.97E+07	1.92E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032579		14-FEB-10 11:08	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-123	HE	798.9	755.4	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2.695	11.54	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	6.66E+08	1.16E+09	pCi/g	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032580	27-JAN-10 12:00	14-FEB-10 11:09	18	DUP	LOAD	1		LANL01004GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	MM	1.894	0.1777	pCi/g	0.2238	N	910.6	3	1.674	IDENTIFIED	7.61	☐	
Americium-243	MM	0.3317	0.03812	pCi/g	0.09386	N	74.68	1	0.9423	IDENTIFIED	10.98	☐	
Annihilation Rad.		0.1856	0.03404	pCi/g	0.04357	N	510.5	1	1.987	IDENTIFIED	18.09	☐	
Bismuth-211	INT	4.08	0.2723	pCi/g	0.316	Y	351.6	4	1.179	IDENTIFIED	5.888	☑	VI
Bismuth-214	✓	1.239	0.09755	pCi/g	0.112	0.200	608.8	4	1.501	IDENTIFIED	6.71	☐	
Cadmium-109	INT	2.996	0.5416	pCi/g	1.159	Y	87.16	3	1.002	IDENTIFIED	17.68	☑	VI
Cadmium-115	HE	8.244	13.06	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Cerium-143		3540	514.9	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Gross Gamma		9.511	1.247	pCi/g	2.636	N		0				☐	
Iodine-123	HE	2.17E+07	9.68E+07	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-133	HE	10940	29180	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-212	✓	1.601	0.07829	pCi/g	0.09398	0.100	238.4	4	1.048	IDENTIFIED	3.363	☐	
Lead-214	✓	1.419	0.1017	pCi/g	0.1102	0.100	351.6	4	1.179	IDENTIFIED	5.888	☐	
Lutetium-177	HE	4.266	0.8435	pCi/g	2.607	N	0	7	0	FAIL_ABUND	0	☐	
Neptunium-237	NR	0.861	0.1792	pCi/g	0.4117	N	87.16	3	1.002	IDENTIFIED	17.68	☐	
Polonium-212	MM	1.601	0.07829	pCi/g	0.09398	N	238.4	4	1.048	IDENTIFIED	3.363	☐	
Polonium-214	MM	1.419	0.1017	pCi/g	0.1102	N	351.6	4	1.179	IDENTIFIED	5.888	☐	
Polonium-216	MM	1.601	0.07829	pCi/g	0.09398	N	238.4	4	1.048	IDENTIFIED	3.363	☐	
Polonium-218	MM	1.419	0.1017	pCi/g	0.1102	N	351.6	4	1.179	IDENTIFIED	5.888	☐	

Potassium-40	✓	32.54	1.497	pCi/g	0.5876	1.00	1460	1	2.233	IDENTIFIED	2.907	☐
Radium-224	INT	4.163	0.4819	pCi/g	1.07	Y	241.5	1	1.59	IDENTIFIED	11.24	☑ ✓ UI
Radium-226	✓	1.239	0.09755	pCi/g	0.112	Y	608.8	4	1.501	IDENTIFIED	6.71	☐
Radium-228	✓	1.894	0.1777	pCi/g	0.2238	0.500	910.6	3	1.674	IDENTIFIED	7.61	☐
Thallium-208	✓	0.6335	0.04625	pCi/g	0.05489	0.080	582.9	1	1.262	IDENTIFIED	6.364	☐
Thorium-228	MU	1.63	0.07971	pCi/g	0.09568	N	238.4	4	1.048	IDENTIFIED	3.363	☐
Thorium-230	MU	1.239	0.09755	pCi/g	0.112	N	608.8	4	1.501	IDENTIFIED	6.71	☐
Thorium-232	MU	1.894	0.1777	pCi/g	0.2238	N	910.6	3	1.674	IDENTIFIED	7.61	☐
Tin-126	INT	0.2932	0.05301	pCi/g	0.114	N	87.16	3	1.002	IDENTIFIED	17.68	☐
Titanium-44	LA	0.3851	0.02817	pCi/g	0.07265	N	0	7	0	FAIL_ABUND	0	☐
Total Uranium		3.8119	2.30E-06	ug/g	3.2073	N		0				☐
Uranium-234	MU	1.239	0.09755	pCi/g	0.112	N	608.8	4	1.501	IDENTIFIED	6.71	☐
Zirconium-97		6.03E+07	1.68E+07	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032581		13-FEB-10 18:38	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	HE	1.301	0.2836	pCi/g	0.8149	N	0	13	0	FAIL_ABUND	0	☐	
Americium-241	✓	13.38	0.7017	pCi/g	0.6266	0.200	59.52	1	1.113	IDENTIFIED	3.247	☐	
Barium-137m		5.443	0.2641	pCi/g	0.1237	N	661.9	2	1.58	IDENTIFIED	2.602	☐	
Bismuth-211		2.086	0.2744	pCi/g	1.032	Y	0	13	0	NOT_IDENTI	0	☐	
Bismuth-214		0.6316	0.119	pCi/g	0.2147	0.200	609.4	4	1.354	IDENTIFIED	18.19	☐	
Cadmium-109		32.86	2.195	pCi/g	2.415	Y	88.03	2	1.103	IDENTIFIED	4.716	☐	
Cesium-137	✓	5.754	0.2796	pCi/g	0.1308	0.100	661.9	2	1.58	IDENTIFIED	2.602	☐	
Cobalt-57		0.2433	0.04139	pCi/g	0.07241	N	122.3	1	1.308	IDENTIFIED	16.43	☐	
Cobalt-60	✓	6.662	0.3376	pCi/g	0.09729	0.100	1333	1	1.884	IDENTIFIED	2.743	☐	
Gross Gamma		26.66	2.69	pCi/g	4.765	N		0				☐	
Iodine-123	HE	883.3	1445	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-133	HE	47.21	37.74	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135	HE	9.83E+07	3.80E+08	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Lead-212		1.018	0.1169	pCi/g	0.203	0.100	238.8	4	1.163	IDENTIFIED	10.3	☐	
Lead-214		0.6992	0.1475	pCi/g	0.2449	0.100	352.6	3	1.437	IDENTIFIED	20.43	☐	
Neptunium-237		5.743	0.7188	pCi/g	1.26	N	0	13	0	NOT_IDENTI	0	☐	
Polonium-212		1.018	0.1169	pCi/g	0.203	N	238.8	4	1.163	IDENTIFIED	10.3	☐	
Polonium-214		0.6992	0.1475	pCi/g	0.2449	N	352.6	3	1.437	IDENTIFIED	20.43	☐	
Polonium-216		1.018	0.1169	pCi/g	0.203	N	238.8	4	1.163	IDENTIFIED	10.3	☐	
Polonium-218		0.6992	0.1475	pCi/g	0.2449	N	352.6	3	1.437	IDENTIFIED	20.43	☐	
Potassium-40		0.8714	0.4225	pCi/g	0.8302	1.00	1462	1	2.43	IDENTIFIED	48.27	☐	
Radium-224		6.787	0.8697	pCi/g	3.023	Y	0	13	0	NOT_IDENTI	0	☐	
Radium-226		0.6316	0.119	pCi/g	0.2147	Y	609.4	4	1.354	IDENTIFIED	18.19	☐	
Radium-228		1.301	0.2836	pCi/g	0.8149	0.500	0	13	0	FAIL_ABUND	0	☐	
Sodium-24	HE	3.444	413.2	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-200	HE	0.9091	7.98	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Thallium-208		0.3086	0.07181	pCi/g	0.1273	0.080	583.4	1	1.444	IDENTIFIED	22.82	☐	
Thorium-228		1.027	0.1179	pCi/g	0.2048	N	238.8	4	1.163	IDENTIFIED	10.3	☐	
Thorium-230		0.6316	0.119	pCi/g	0.2147	N	609.4	4	1.354	IDENTIFIED	18.19	☐	

Thorium-232	HE	**1.301**	0.2836	pCi/g	**0.8149**	N	0	13	0	FAIL_ABUND	0	☐
Tin-126		**3.26**	0.2178	pCi/g	**0.2409**	N	88.03	2	1.103	IDENTIFIED	4.716	☐
Titanium-44	HE	**0.1364**	0.04066	pCi/g	**0.1194**	N	0	13	0	FAIL_ABUND	0	☐
Uranium-234		**0.6316**	0.119	pCi/g	**0.2147**	N	609.4	4	1.354	IDENTIFIED	18.19	☐
Zirconium-97	HE	**7105**	3958	pCi/g	**0**	N	0	13	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
948751	246020014	SAMPLE	14-FEB-10	Uranium-238	5.266	1.248	pCi/g	1.229	N
				Zirconium-97	1.10E+07	1.74E+07	pCi/g	0	N
948751	246020015	SAMPLE	14-FEB-10	Antimony-122	6.943	2.54	pCi/g	4.626	N
				Bismuth-211	3.759	0.2614	pCi/g	0.194	Y
				Bismuth-214	1.127	0.08906	pCi/g	0.06024	0.200
				Cadmium-109	3.493	0.5606	pCi/g	0.7081	Y
				Cadmium-115	11.04	14.48	pCi/g	0	N
				Cerium-143	4584	672.5	pCi/g	0	N
				Cesium-134	0.09932	0.03658	pCi/g	0.05589	0.100
				Gross Gamma	10.19	1.5	pCi/g	1.828	N
				Krypton-85	10.13	4.691	pCi/g	7.476	N
				Lead-212	1.682	0.08598	pCi/g	0.05359	0.100
				Lead-214	1.308	0.08714	pCi/g	0.07074	0.100
				Mercury-203	0.0817	0.02745	pCi/g	0.0455	0.100
				Niobium-97	74320	9.13E+05	pCi/g	0	N
				Potassium-40	36.06	1.585	pCi/g	0.2949	1.00
				Promethium-146	196.1	124.4	pCi/g	0	N
				Radium-223	0.7985	0.4144	pCi/g	0.6609	Y
				Radium-224	4.911	0.7626	pCi/g	0.6098	Y
				Radium-226	1.127	0.08906	pCi/g	0.06024	Y
				Radium-228	1.611	0.1683	pCi/g	0.1194	0.500
				Strontium-85	0.05351	0.02478	pCi/g	0.0395	Y
				Thallium-200	3071	1590	pCi/g	0	N
				Thallium-208	0.5244	0.05161	pCi/g	0.03243	0.080
				Thorium-231	0.7985	0.4144	pCi/g	0.6609	Y
				Thorium-234	7.153	1.578	pCi/g	1.365	2.00
				Uranium-238	7.153	1.578	pCi/g	1.365	N
				Yttrium-91	25.19	11.94	pCi/g	21.33	N
				Zirconium-97	7.97E+07	1.92E+07	pCi/g	0	N
948751	1202032579	MB	14-FEB-10	Bismuth-211	0.07862	0.04254	pCi/g	0.07454	Y
				Iodine-123	798.9	755.4	pCi/g	0	N
				Lead-214	0.03359	0.01503	pCi/g	0.02677	0.100
				Radium-224	0.2609	0.1293	pCi/g	0.2254	Y
				Technetium-99m	6.66E+08	1.16E+09	pCi/g	0	N
948751	1202032580	DUP	14-FEB-10	Bismuth-211	4.08	0.2723	pCi/g	0.1581	Y
				Bismuth-214	1.239	0.09755	pCi/g	0.05601	0.200
				Bromine-77	23.99	12.3	pCi/g	21.55	N

ME 2/19/10

ME 2/19/10

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:52:56.96

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020001.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:52:28
Sample ID         : G246020001           Sample quantity  : 1.35480E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.14  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.93*	106	568	1.11	126.05	122	9	1.47E-02	42.3	
2	3	74.91	439	412	0.87	150.01	145	17	6.10E-02	8.3	1.37E+00
3	3	77.14*	801	375	0.90	154.48	145	17	1.11E-01	5.1	
4	0	87.16	290	498	1.08	174.52	171	7	4.03E-02	14.0	
5	0	92.24*	388	788	3.87	184.68	178	13	5.38E-02	16.2	
6	0	128.97	116	377	1.05	258.13	255	8	1.61E-02	30.4	
7	0	186.05*	224	479	1.14	372.29	366	12	3.11E-02	21.3	
8	0	209.25	125	339	1.23	418.70	414	9	1.73E-02	28.2	
9	6	238.55*	1559	203	1.00	477.30	472	17	2.17E-01	2.9	1.21E+00
10	6	241.58	410	242	1.73	483.36	472	17	5.69E-02	11.1	
11	0	270.12*	106	289	1.17	540.44	535	11	1.47E-02	32.9	
12	0	295.13*	448	202	1.11	590.45	586	10	6.22E-02	7.7	
13	0	300.05	100	175	0.83	600.30	596	9	1.39E-02	25.9	
14	0	327.81	57	154	0.78	655.80	651	7	7.98E-03	38.3	
15	0	338.30	280	188	1.15	676.79	672	10	3.89E-02	11.0	
16	0	351.82*	766	184	1.11	703.83	698	13	1.06E-01	5.2	
17	0	408.77	51	154	1.44	817.71	814	12	7.15E-03	49.7	
18	0	462.91	125	164	1.17	925.99	919	14	1.74E-02	23.5	
19	0	510.72*	140	137	1.69	1021.60	1016	14	1.94E-02	22.7	
20	0	583.19*	401	107	1.32	1166.52	1161	11	5.57E-02	7.2	
21	0	609.41*	518	180	1.43	1218.95	1213	14	7.20E-02	7.1	
22	0	727.47	114	72	1.29	1455.03	1450	10	1.58E-02	16.9	
23	0	768.35	80	63	1.56	1536.77	1531	11	1.11E-02	22.6	
24	0	860.24	76	70	1.19	1720.52	1714	14	1.05E-02	26.1	
25	0	911.08*	355	52	1.69	1822.16	1815	14	4.93E-02	7.2	
26	1	964.85*	66	53	1.76	1929.68	1920	24	9.18E-03	24.8	2.72E+00
27	1	969.02*	212	41	1.77	1938.02	1920	24	2.95E-02	9.2	
28	0	1120.31*	128	65	1.68	2240.51	2234	14	1.77E-02	16.5	
29	0	1238.46	95	64	1.54	2476.71	2470	15	1.32E-02	21.3	
30	0	1377.97	46	28	2.17	2755.62	2748	16	6.45E-03	29.4	
31	0	1460.77*	1731	41	2.00	2921.14	2911	17	2.40E-01	2.6	
32	0	1588.28	25	9	1.48	3176.04	3172	9	3.47E-03	29.5	
33	0	1621.21	11	14	1.70	3241.86	3237	9	1.46E-03	70.2	
34	0	1661.42	24	2	1.61	3322.24	3317	11	3.27E-03	24.6	
35	0	1729.85*	34	3	1.67	3459.02	3453	14	4.67E-03	22.0	
36	0	1764.40*	84	15	1.33	3528.07	3523	13	1.17E-02	14.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 16:53:00

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:52:28
Sample ID : G246020001 Sample quantity : 135.48 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.14 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.721E+01	3.784E+00	5.171E-01	4.545E-02	71.968
CD-109	+	88.03	*	3.545E+00	1.052E+00	1.076E+00	1.037E-01	3.294
SN-126	+	64.28		8.811E-01	7.569E-01	7.037E-01	1.025E-01	1.252
	+	86.94		1.444E+00	7.245E-01	4.927E-01	2.047E-01	2.931
	+	87.57	*	3.474E-01	1.031E-01	1.059E-01	1.016E-02	3.279
TL-208		277.35		3.791E-01	3.559E-01	5.941E-01	8.831E-02	0.638
	+	510.84		6.037E-01	2.841E-01	1.970E-01	2.491E-02	3.065
	+	583.14	*	4.945E-01	8.650E-02	5.296E-02	5.249E-03	9.337
	+	860.37		8.761E-01	4.664E-01	3.593E-01	3.597E-02	2.438
BI-211		72.87		2.399E+00	2.748E+00	4.386E+00	3.566E-01	0.547
	+	351.07	*	4.163E+00	6.254E-01	2.629E-01	2.874E-02	15.839
BI-212	+	727.18	*	1.202E+00	4.243E-01	3.991E-01	4.169E-02	3.013
		785.46		1.019E+00	1.574E+00	2.780E+00	2.584E-01	0.367
	+	1620.62		9.474E-01	1.333E+00	1.589E+00	1.350E-01	0.596
PB-212	+	74.81		2.223E+00	4.618E-01	4.727E-01	5.906E-02	4.703
	+	77.11		2.297E+00	3.054E-01	2.682E-01	2.278E-02	8.565
	+	87.30		1.607E+00	5.031E-01	5.462E-01	7.554E-02	2.942
	+	238.63	*	1.854E+00	2.451E-01	7.735E-02	9.159E-03	23.966
	+	300.09		1.837E+00	9.823E-01	9.902E-01	1.297E-01	1.856
PO-212	+	74.81		2.223E+00	4.618E-01	4.727E-01	5.906E-02	4.703
	+	77.11		2.297E+00	3.054E-01	2.682E-01	2.278E-02	8.565
	+	87.30		1.607E+00	5.031E-01	5.462E-01	7.554E-02	2.942
		115.19		-9.515E-01	3.014E+00	4.999E+00	4.171E-01	-0.190
	+	238.63	*	1.854E+00	2.451E-01	7.735E-02	9.159E-03	23.966
	+	300.09		1.837E+00	9.823E-01	9.902E-01	1.297E-01	1.856
BI-214	+	609.31	*	1.205E+00	2.141E-01	1.029E-01	1.087E-02	11.712
	+	1120.29		1.545E+00	5.350E-01	4.309E-01	4.626E-02	3.585
	+	1764.49		1.400E+00	4.330E-01	3.621E-01	2.997E-02	3.868
PB-214	+	74.81		3.831E+00	7.652E-01	8.145E-01	9.055E-02	4.703
	+	77.11		3.938E+00	6.035E-01	4.598E-01	5.246E-02	8.565
	+	87.30		2.752E+00	8.439E-01	9.356E-01	1.149E-01	2.942
	+	241.98		2.925E+00	7.444E-01	4.659E-01	5.772E-02	6.278
	+	295.21		1.441E+00	2.929E-01	1.851E-01	2.470E-02	7.786
	+	351.92	*	1.448E+00	2.303E-01	9.163E-02	1.108E-02	15.806

Sample ID : G246020001 Acquisition date : 13-FEB-2010 14:52:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		3.831E+00	7.652E-01	8.145E-01	9.055E-02	4.703
	+	77.11		3.938E+00	6.035E-01	4.598E-01	5.246E-02	8.565
	+	87.30		2.752E+00	8.439E-01	9.356E-01	1.149E-01	2.942
	+	241.98		2.925E+00	7.444E-01	4.659E-01	5.772E-02	6.278
	+	295.21		1.441E+00	2.929E-01	1.851E-01	2.470E-02	7.786
	+	351.92	*	1.448E+00	2.303E-01	9.163E-02	1.108E-02	15.806
PO-216	+	74.81		2.223E+00	4.618E-01	4.727E-01	5.906E-02	4.703
	+	77.11		2.297E+00	3.054E-01	2.682E-01	2.278E-02	8.565
	+	87.30		1.607E+00	5.031E-01	5.462E-01	7.554E-02	2.942
	+	238.63	*	1.854E+00	2.451E-01	7.735E-02	9.159E-03	23.966
	+	300.09		1.837E+00	9.823E-01	9.902E-01	1.297E-01	1.856
PO-218	+	74.81		3.831E+00	7.652E-01	8.145E-01	9.055E-02	4.703
	+	77.11		3.938E+00	6.035E-01	4.598E-01	5.246E-02	8.565
	+	87.30		2.752E+00	8.439E-01	9.356E-01	1.149E-01	2.942
	+	241.98		2.925E+00	7.444E-01	4.659E-01	5.772E-02	6.278
	+	295.21		1.441E+00	2.929E-01	1.851E-01	2.470E-02	7.786
	+	351.92	*	1.448E+00	2.303E-01	9.163E-02	1.108E-02	15.806
RA-224	+	240.98	*	5.546E+00	1.377E+00	8.804E-01	9.703E-02	6.299
RA-226	+	609.31	*	1.205E+00	2.141E-01	1.029E-01	1.087E-02	11.712
	+	1120.29		1.545E+00	5.350E-01	4.309E-01	4.626E-02	3.585
	+	1764.49		1.400E+00	4.330E-01	3.621E-01	2.997E-02	3.868
AC-228	+	338.32		1.679E+00	7.923E-01	3.181E-01	1.330E-01	5.276
	+	911.07	*	1.944E+00	3.637E-01	1.854E-01	2.202E-02	10.488
	+	969.11		2.053E+00	6.131E-01	3.302E-01	7.785E-02	6.218
RA-228	+	338.32		1.679E+00	7.923E-01	3.181E-01	1.330E-01	5.276
	+	911.07	*	1.944E+00	3.637E-01	1.854E-01	2.202E-02	10.488
	+	969.11		2.053E+00	6.131E-01	3.302E-01	7.785E-02	6.218
TH-228	+	74.81		2.261E+00	4.203E-01	4.808E-01	4.023E-02	4.703
	+	77.11		2.336E+00	3.107E-01	2.728E-01	2.317E-02	8.565
	+	87.30		1.634E+00	4.850E-01	5.555E-01	5.309E-02	2.942
	+	238.63	*	1.886E+00	2.493E-01	7.868E-02	9.316E-03	23.966
	+	300.09		1.869E+00	1.479E+00	1.007E+00	6.024E-01	1.856
TH-230	+	609.31	*	1.205E+00	2.141E-01	1.029E-01	1.087E-02	11.712
	+	1120.29		1.545E+00	5.350E-01	4.309E-01	4.626E-02	3.585
	+	1764.49		1.400E+00	4.330E-01	3.621E-01	2.997E-02	3.868
TH-232	+	338.32		1.679E+00	4.110E-01	3.181E-01	3.472E-02	5.276
	+	911.07	*	1.944E+00	3.637E-01	1.854E-01	2.202E-02	10.488
	+	969.11		2.053E+00	6.131E-01	3.302E-01	7.785E-02	6.218
TH-234	+	63.29	*	2.226E+00	1.924E+00	1.733E+00	3.022E-01	1.285
	+	92.38		3.023E+00	1.126E+00	6.387E-01	1.174E-01	4.732
U-234	+	609.31	*	1.205E+00	2.141E-01	1.029E-01	1.087E-02	11.712
	+	1120.29		1.545E+00	5.350E-01	4.309E-01	4.626E-02	3.585
	+	1764.49		1.400E+00	4.330E-01	3.621E-01	2.997E-02	3.868
NP-237	+	86.50	*	1.020E+00	3.687E-01	3.496E-01	7.937E-02	2.918
		95.87		-4.684E-01	8.287E-01	1.214E+00	3.006E-01	-0.386
U-238	+	63.29	*	2.226E+00	1.924E+00	1.733E+00	3.022E-01	1.285
	+	92.38		3.023E+00	1.018E+00	6.387E-01	5.893E-02	4.732
AM-243	+	74.67	*	3.604E-01	6.686E-02	7.687E-02	6.364E-03	4.689
	+	86.72		3.825E+01	1.135E+01	1.308E+01	1.241E+00	2.924

Sample ID : G246020001 Acquisition date : 13-FEB-2010 14:52:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		-1.503E-01	3.303E+00	5.532E+00	4.603E-01	-0.027
		142.18		-6.145E+00	1.607E+01	2.607E+01	2.223E+00	-0.236
ANH-511	+	511.00	*	1.304E-01	6.041E-02	4.256E-02	4.048E-03	3.064

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.183E-02	3.117E-01	5.198E-01	5.259E-02	0.061
NA-22		1274.54	*	-2.281E-03	4.513E-02	7.281E-02	6.059E-03	-0.031
NA-24		1368.53	*	-2.840E+00	4.513E-02	Half-Life too short		
AL-26		1129.67		7.800E-01	1.571E+00	2.688E+00	2.253E-01	0.290
		1808.65	*	-3.120E-04	2.272E-02	3.723E-02	3.045E-03	-0.008
TI-44		67.85		-2.619E-02	4.289E-02	6.422E-02	4.973E-03	-0.408
	+	78.38	*	4.239E-01	5.637E-02	6.775E-02	5.834E-03	6.257
SC-46		889.25	*	3.897E-03	3.552E-02	5.993E-02	5.666E-03	0.065
	+	1120.51		2.688E-01	9.140E-02	1.314E-01	1.110E-02	2.045
V-48		944.10		-3.966E-01	1.000E+00	1.568E+00	1.465E-01	-0.253
		983.50	*	-4.428E-02	7.162E-02	1.115E-01	1.026E-02	-0.397
		1312.09		2.712E-02	8.487E-02	1.421E-01	1.193E-02	0.191
CR-51		320.08	*	1.570E-02	3.687E-01	5.852E-01	6.842E-02	0.027
MN-52		744.21		-1.398E-03	3.073E-01	4.922E-01	4.519E-02	-0.003
		848.13		-5.939E+00	7.977E+00	1.248E+01	1.175E+00	-0.476
		935.52		5.534E-01	3.315E-01	6.143E-01	5.755E-02	0.901
		1246.25		-3.959E+00	1.110E+01	1.568E+01	1.293E+00	-0.252
		1333.61		-2.334E+00	5.949E+00	9.111E+00	7.687E-01	-0.256
		1434.06	*	1.321E-01	2.646E-01	4.564E-01	3.894E-02	0.289
MN-54		834.83	*	2.092E-02	3.518E-02	6.159E-02	5.785E-03	0.340
CO-56		846.75	*	4.885E-03	3.546E-02	6.016E-02	5.661E-03	0.081
		977.42		5.203E-02	2.712E+00	4.506E+00	4.158E-01	0.012
		1037.82		2.033E-01	3.180E-01	5.524E-01	5.193E-02	0.368
		1175.09		4.290E-01	2.367E+00	3.924E+00	3.157E-01	0.109
	+	1238.25		3.296E-01	1.435E-01	1.869E-01	1.586E-02	1.764
		1360.21		-8.825E-01	9.548E-01	1.332E+00	1.128E-01	-0.663
		1771.40		-4.017E-01	2.763E-01	3.457E-01	2.856E-02	-1.162
CO-57		122.06	*	5.957E-03	2.254E-02	3.813E-02	3.168E-03	0.156
		136.48		-8.237E-03	1.799E-01	2.991E-01	2.719E-02	-0.028
CO-58		810.76	*	-3.451E-02	3.656E-02	5.634E-02	5.279E-03	-0.613
FE-59		142.65		1.500E-01	2.574E+00	4.250E+00	3.629E-01	0.035
		192.34		2.632E-02	8.398E-01	1.375E+00	1.947E-01	0.019
		1099.22	*	-1.295E-01	9.752E-02	1.394E-01	1.296E-02	-0.929
		1291.56		2.234E-02	1.135E-01	1.880E-01	1.795E-02	0.119
CO-60		1173.22		3.666E-03	4.654E-02	7.652E-02	6.152E-03	0.048
		1332.49	*	-2.264E-02	3.683E-02	5.465E-02	4.610E-03	-0.414
ZN-65		1115.52	*	3.685E-02	1.002E-01	1.486E-01	1.262E-02	0.248
GE-68		1077.35	*	7.822E-01	1.265E+00	2.188E+00	1.911E-01	0.357
AS-73		53.44	*	2.143E-01	7.544E-01	1.199E+00	9.145E-02	0.179
AS-74		595.88	*	1.078E-02	8.450E-02	1.392E-01	1.292E-02	0.077
		634.78		-2.509E-01	3.298E-01	4.957E-01	4.494E-02	-0.506

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		-4.162E+00	4.922E+00	6.656E+00	6.404E-01	-0.625
		96.73		-8.284E-01	7.135E-01	1.008E+00	1.394E-01	-0.822
		121.11		3.593E-02	1.226E-01	2.076E-01	2.279E-02	0.173
		136.00		9.961E-03	3.410E-02	5.746E-02	4.877E-03	0.173
		198.60		2.418E-01	1.633E+00	2.644E+00	2.835E-01	0.091
		264.65	*	-1.212E-02	4.450E-02	6.209E-02	7.246E-03	-0.195
		279.53		-2.840E-02	1.037E-01	1.629E-01	1.994E-02	-0.174
		303.91		-9.335E-01	2.030E+00	2.739E+00	3.807E-01	-0.341
		400.65		2.346E-02	2.252E-01	3.800E-01	4.424E-02	0.062
BR-77	+	87.88		1.369E+03	4.064E+02	5.390E+02	5.187E+01	2.541
		200.40		4.076E+01	2.535E+02	4.166E+02	4.140E+01	0.098
	+	239.00		5.339E+02	6.640E+01	6.790E+01	7.447E+00	7.863
		249.79		-4.995E+01	1.062E+02	1.661E+02	1.869E+01	-0.301
		281.68		-4.324E+01	1.490E+02	2.336E+02	2.799E+01	-0.185
		297.23		1.956E+02	1.274E+02	1.623E+02	1.909E+01	1.205
		303.76		-1.905E+02	3.119E+02	4.148E+02	4.833E+01	-0.459
		439.47		2.320E+02	2.451E+02	4.300E+02	4.058E+01	0.540
		484.57		2.631E+01	3.835E+02	6.378E+02	6.067E+01	0.041
		520.65	*	-1.307E+01	1.620E+01	2.488E+01	2.364E+00	-0.525
		574.64		-2.523E+02	3.349E+02	5.127E+02	4.804E+01	-0.492
		578.91		1.122E+02	1.503E+02	2.322E+02	2.172E+01	0.483
		585.48		1.296E+03	3.755E+02	6.563E+02	6.122E+01	1.974
		755.35		1.023E+02	2.927E+02	4.821E+02	4.442E+01	0.212
		817.79		-2.218E+02	2.136E+02	3.243E+02	3.037E+01	-0.684
SR-82		698.33		2.162E+01	3.029E+01	5.180E+01	4.674E+00	0.417
		776.49	*	-3.992E-01	3.910E-01	5.606E-01	5.197E-02	-0.712
		1395.20		-2.937E+00	1.030E+01	1.607E+01	1.366E+00	-0.183
RB-83		520.41	*	-4.101E-02	6.126E-02	9.534E-02	9.059E-03	-0.430
		529.64		3.733E-02	9.105E-02	1.545E-01	1.466E-02	0.242
		552.65		-4.830E-02	1.890E-01	3.039E-01	2.869E-02	-0.159
RB-84		881.50	*	3.363E-02	6.517E-02	1.138E-01	1.075E-02	0.296
KR-85		513.99	*	2.809E+00	6.983E+00	1.049E+01	9.971E-01	0.268
SR-85		513.99	*	1.471E-02	3.657E-02	5.491E-02	5.221E-03	0.268
RB-86		1076.63	*	1.498E-01	8.580E-01	1.433E+00	1.252E-01	0.105
Y-88		898.02		-2.298E-02	3.852E-02	6.074E-02	5.768E-03	-0.378
		1836.01	*	-3.894E-03	2.881E-02	4.599E-02	3.734E-03	-0.085
ZR-88		392.90	*	-7.180E-03	2.570E-02	4.236E-02	3.918E-03	-0.170
Y-91		1204.90	*	3.594E+00	2.058E+01	3.399E+01	2.764E+00	0.106
NB-94		702.63	*	-2.639E-03	3.032E-02	4.843E-02	4.378E-03	-0.054
		871.10		6.440E-03	3.261E-02	5.544E-02	5.233E-03	0.116
NB-95		765.79	*	2.769E-02	4.798E-02	7.281E-02	6.730E-03	0.380
NB-95M		235.69	*	3.919E-02	1.249E-01	1.833E-01	2.180E-02	0.214
ZR-95		724.18		-7.211E-02	1.064E-01	1.368E-01	1.344E-02	-0.527
		756.15	*	8.673E-03	7.063E-02	1.142E-01	1.147E-02	0.076
NB-97		657.90	*	3.357E-01	7.063E-02	Half-Life too short		
		1024.50		-1.216E+01	7.063E-02	Half-Life too short		
ZR-97		254.15		1.948E+01	7.063E-02	Half-Life too short		
		355.39		-1.446E+01	7.063E-02	Half-Life too short		
		507.63	*	1.516E+01	7.063E-02	Half-Life too short		

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		602.52		5.671E+00	7.063E-02	Half-Life too short		
		1021.30		4.046E+01	7.063E-02	Half-Life too short		
		1147.95		-3.704E+01	7.063E-02	Half-Life too short		
		1362.66		5.153E-01	7.063E-02	Half-Life too short		
		1750.46		-2.862E+01	7.063E-02	Half-Life too short		
MO-99		140.51		1.466E+01	3.889E+01	6.387E+01	1.766E+01	0.230
		181.06		-9.041E+00	2.694E+01	3.862E+01	7.216E+00	-0.234
		366.43		2.894E+01	1.216E+02	2.078E+02	2.102E+01	0.139
		739.58	*	-8.532E+00	1.883E+01	2.887E+01	4.476E+00	-0.295
		778.00		3.522E+00	5.107E+01	8.206E+01	7.612E+00	0.043
TC-99M		140.51	*	3.259E+12	5.107E+01	Half-Life too short		
RH-101		127.23		1.754E-03	2.980E-02	4.485E-02	3.735E-03	0.039
		198.01	*	6.988E-04	2.948E-02	4.748E-02	4.688E-03	0.015
		325.23		-7.547E-02	2.321E-01	3.164E-01	3.552E-02	-0.239
RH-102		418.52		-1.963E-01	2.441E-01	3.846E-01	3.603E-02	-0.510
		475.06	*	5.266E-03	2.770E-02	4.647E-02	4.417E-03	0.113
		631.29		4.332E-02	4.457E-02	7.845E-02	7.129E-03	0.552
		697.49		7.341E-02	6.676E-02	1.172E-01	1.057E-02	0.627
		766.84		1.400E-01	1.318E-01	2.059E-01	1.904E-02	0.680
		1046.59		-4.561E-02	1.059E-01	1.671E-01	1.489E-02	-0.273
		1112.84		-6.453E-02	2.436E-01	3.513E-01	2.986E-02	-0.184
RU-103		497.08	*	1.180E-02	3.847E-02	6.487E-02	9.552E-03	0.182
	+	610.33		1.347E+01	2.992E+00	3.038E+00	5.163E-01	4.436
RH-106	+	511.85		6.538E-01	3.029E-01	3.972E-01	3.777E-02	1.646
		621.84	*	9.676E-02	2.984E-01	4.970E-01	6.810E-02	0.195
		1050.47		1.717E+00	2.215E+00	3.895E+00	3.462E-01	0.441
RU-106	+	511.85		6.538E-01	3.029E-01	3.972E-01	3.777E-02	1.646
		621.84	*	9.676E-02	2.982E-01	4.970E-01	4.545E-02	0.195
		1050.47		1.717E+00	2.215E+00	3.895E+00	3.462E-01	0.441
AG-108M		433.93	*	-5.470E-03	2.901E-02	4.728E-02	4.602E-03	-0.116
		614.37		2.759E-02	3.822E-02	5.863E-02	5.573E-03	0.471
		722.95		-7.475E-03	4.654E-02	6.399E-02	6.036E-03	-0.117
AG-110M		657.75	*	2.309E-02	3.327E-02	5.668E-02	5.188E-03	0.407
		677.61		-1.658E-01	2.878E-01	4.402E-01	4.040E-02	-0.377
		706.67		1.885E-02	2.053E-01	3.327E-01	3.088E-02	0.057
		763.93		1.636E-01	1.654E-01	2.580E-01	2.442E-02	0.634
		884.67		2.564E-03	4.441E-02	7.462E-02	7.240E-03	0.034
		937.48		-1.389E-01	1.169E-01	1.741E-01	1.680E-02	-0.798
		1384.27		-1.295E-01	1.625E-01	1.828E-01	1.598E-02	-0.708
IN-111		171.28		2.764E-01	1.459E+00	2.421E+00	2.226E-01	0.114
		245.39	*	-1.577E-01	1.621E+00	2.309E+00	2.572E-01	-0.068
IN-113M		391.69	*	-2.234E-02	3.712E-02	5.977E-02	5.673E-03	-0.374
SN-113		391.69	*	-2.234E-02	3.712E-02	5.977E-02	5.673E-03	-0.374
IN-114M		190.27	*	1.301E-01	1.761E-01	2.686E-01	2.598E-02	0.484
CD-115		260.90		-4.513E+01	2.209E+02	3.502E+02	4.042E+01	-0.129
		492.35		-5.280E+01	6.238E+01	9.650E+01	9.183E+00	-0.547
		527.90	*	3.836E+00	1.690E+01	2.830E+01	2.686E+00	0.136
SN-117M		156.02		-3.425E+00	2.300E+00	3.538E+00	3.121E-01	-0.968
		158.56	*	3.726E-02	5.204E-02	8.848E-02	7.858E-03	0.421

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SB-122		563.90	*	7.431E-01	3.136E+00	5.224E+00	4.915E-01	0.142
		692.80		2.167E+01	7.014E+01	1.158E+02	1.042E+01	0.187
I-123		159.00	*	4.979E+01	7.014E+01	Half-Life too short		
		528.96		4.998E+03	7.014E+01	Half-Life too short		
TE-123M		159.00	*	1.967E-02	2.444E-02	4.169E-02	3.728E-03	0.472
I-124		602.71	*	1.093E-01	8.832E-01	1.346E+00	1.245E-01	0.081
		722.78		-3.921E+00	7.144E+00	9.383E+00	8.549E-01	-0.418
		1325.50		-2.380E+01	4.774E+01	7.245E+01	6.101E+00	-0.328
		1376.25		7.610E+01	4.999E+01	8.481E+01	7.198E+00	0.897
		1509.49		1.333E+01	1.922E+01	3.497E+01	2.990E+00	0.381
		1691.02		-1.145E+00	4.110E+00	6.401E+00	5.382E-01	-0.179
SB-124		602.71		4.664E-03	3.768E-02	5.743E-02	5.313E-03	0.081
		645.85		-6.544E-03	4.541E-01	7.349E-01	6.972E-02	-0.009
		709.31		9.184E-01	2.828E+00	4.664E+00	4.228E-01	0.197
		713.82		-3.673E-01	1.561E+00	2.456E+00	3.039E-01	-0.150
		722.78		-2.425E-01	4.419E-01	5.803E-01	5.390E-02	-0.418
	+	968.20		2.163E+01	4.441E+00	7.261E+00	6.725E-01	2.978
		1045.16		-1.620E+00	2.356E+00	3.617E+00	3.226E-01	-0.448
		1325.50		-1.572E+00	3.154E+00	4.786E+00	4.031E-01	-0.328
		1368.21		-7.476E-01	1.676E+00	2.525E+00	3.380E-01	-0.296
		1436.60		9.895E-01	3.230E+00	5.645E+00	4.818E-01	0.175
		1691.02	*	-1.671E-02	5.996E-02	9.338E-02	8.178E-03	-0.179
SB-125		427.89	*	2.630E-04	7.779E-02	1.299E-01	1.241E-02	0.002
	+	463.38		1.059E+00	5.091E-01	5.581E-01	5.641E-02	1.897
		600.56		-1.442E-01	1.565E-01	2.342E-01	2.308E-02	-0.616
		635.90		-1.416E-01	2.358E-01	3.607E-01	3.507E-02	-0.393
TE-125M		109.28	*	3.445E+00	8.121E+00	1.368E+01	1.394E+00	0.252
I-126		388.63		-7.245E-02	1.932E-01	3.168E-01	2.964E-02	-0.229
		666.33	*	8.711E-02	1.846E-01	3.096E-01	2.754E-02	0.281
		753.82		-2.728E-01	1.612E+00	2.541E+00	2.340E-01	-0.107
SB-126		223.80		1.513E-01	4.026E+00	6.536E+00	6.903E-01	0.023
		278.60		2.921E+00	2.593E+00	4.358E+00	5.227E-01	0.670
	+	296.50		1.605E+01	3.103E+00	3.716E+00	4.375E-01	4.318
		414.70		7.384E-02	7.532E-02	1.208E-01	1.130E-02	0.611
		415.30		-3.597E+00	6.869E+00	9.617E+00	8.996E-01	-0.374
		555.20		1.369E+00	4.092E+00	6.872E+00	6.483E-01	0.199
		573.80		1.163E-01	1.017E+00	1.678E+00	1.572E-01	0.069
		593.00		-2.686E-01	8.977E-01	1.426E+00	1.326E-01	-0.188
		656.30		1.115E+00	3.633E+00	6.019E+00	5.366E-01	0.185
		666.33		3.657E-02	7.748E-02	1.300E-01	1.156E-02	0.281
		675.00		9.210E-01	2.005E+00	3.363E+00	3.004E-01	0.274
		695.00		-7.364E-02	8.353E-02	1.240E-01	1.118E-02	-0.594
		697.00		1.310E-01	2.635E-01	4.423E-01	3.989E-02	0.296
		720.50	*	2.623E-01	1.604E-01	2.876E-01	2.618E-02	0.912
		856.80		-5.557E-01	5.654E-01	6.892E-01	6.494E-02	-0.806
		989.30		1.019E+00	1.341E+00	2.365E+00	2.171E-01	0.431
		1034.80		-3.491E+00	9.700E+00	1.547E+01	1.388E+00	-0.226
		1213.00		4.622E-01	5.573E+00	9.136E+00	7.450E-01	0.051
SB-127		61.10		3.859E+01	7.298E+01	1.076E+02	1.163E+01	0.358

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		8.213E-01	5.638E+00	9.124E+00	3.908E+00	0.090
		290.80		1.530E+01	2.940E+01	4.333E+01	6.205E+00	0.353
		411.60		8.692E+00	1.712E+01	2.627E+01	4.350E+00	0.331
		444.90		-5.239E+00	1.239E+01	2.000E+01	2.729E+00	-0.262
		473.00		1.003E+00	2.219E+00	3.782E+00	5.291E-01	0.265
		543.00		1.296E+01	2.145E+01	3.667E+01	5.640E+00	0.353
		603.60		5.896E+00	1.633E+01	2.418E+01	3.260E+00	0.244
		685.20	*	-8.170E-02	1.887E+00	3.032E+00	3.712E-01	-0.027
		698.50		7.204E+00	1.870E+01	3.109E+01	5.123E+00	0.232
		722.20		-2.965E+01	5.136E+01	6.721E+01	8.159E+00	-0.441
		783.80		2.105E+00	5.018E+00	8.286E+00	1.113E+00	0.254
XE-127		57.60		3.796E+00	5.655E+00	9.103E+00	6.581E-01	0.417
		145.22		1.693E-01	6.607E-01	1.093E+00	9.385E-02	0.155
		172.10		2.184E-02	1.091E-01	1.811E-01	1.669E-02	0.121
		202.84	*	-1.069E-02	4.316E-02	6.952E-02	6.953E-03	-0.154
		374.96		-5.191E-02	1.712E-01	2.828E-01	2.781E-02	-0.184
I-131		80.18		8.901E-01	4.754E+00	7.373E+00	6.528E-01	0.121
		284.30		7.238E-01	1.646E+00	2.691E+00	3.306E-01	0.269
		364.48	*	-1.624E-02	1.241E-01	2.054E-01	2.174E-02	-0.079
		636.97		8.087E-01	1.574E+00	2.665E+00	2.539E-01	0.303
		722.89		-5.391E+00	9.822E+00	1.290E+01	1.184E+00	-0.418
TE-132		49.72		1.529E+01	2.604E+01	4.207E+01	4.631E+00	0.364
		111.76		-1.235E+01	3.779E+01	6.271E+01	7.045E+00	-0.197
		116.30		-1.559E+01	3.612E+01	5.955E+01	6.663E+00	-0.262
		228.16	*	7.784E-01	9.377E-01	1.566E+00	2.707E-01	0.497
BA-133		53.15		8.922E-01	3.202E+00	5.088E+00	3.898E-01	0.175
		79.62		-2.604E-01	1.135E+00	1.728E+00	2.642E-01	-0.151
		81.00		-9.863E-02	8.982E-02	1.293E-01	2.071E-02	-0.763
		276.40		4.214E-01	3.507E-01	5.856E-01	9.746E-02	0.720
		302.84		5.179E-02	1.273E-01	1.863E-01	2.876E-02	0.278
		356.01	*	-8.803E-03	3.927E-02	5.740E-02	8.295E-03	-0.153
		383.85		1.825E-01	2.587E-01	4.516E-01	5.980E-02	0.404
I-133	+	510.53		6.583E+00	2.587E-01	Half-Life too short		
		529.87	*	6.966E-03	2.587E-01	Half-Life too short		
		706.58		1.973E-01	2.587E-01	Half-Life too short		
		856.28		-1.857E+00	2.587E-01	Half-Life too short		
		875.33		-8.898E-02	2.587E-01	Half-Life too short		
		1236.41		6.638E+00	2.587E-01	Half-Life too short		
		1298.22		3.357E-01	2.587E-01	Half-Life too short		
CS-134		475.35		5.604E-01	1.795E+00	3.035E+00	2.884E-01	0.185
		563.23		3.023E-02	3.330E-01	5.489E-01	5.206E-02	0.055
		569.32		1.329E-02	1.809E-01	2.964E-01	2.815E-02	0.045
		604.70		3.255E-03	3.586E-02	5.159E-02	4.776E-03	0.063
		795.84	*	6.697E-02	4.251E-02	7.901E-02	7.408E-03	0.848
		801.93		-1.048E-01	3.576E-01	5.877E-01	5.510E-02	-0.178
		1038.57		1.254E+00	3.905E+00	6.620E+00	5.927E-01	0.189
		1167.94		1.453E+00	2.422E+00	4.163E+00	3.365E-01	0.349
		1365.15		4.729E-01	1.108E+00	1.890E+00	1.677E-01	0.250
CS-135		268.24	*	1.990E-01	1.670E-01	2.520E-01	3.214E-02	0.789

---- Non-Identified Nuclides ----

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I-135		288.45		1.019E+12	1.670E-01	Half-Life too short		
		417.63		-1.855E+12	1.670E-01	Half-Life too short		
		546.56		-8.384E+11	1.670E-01	Half-Life too short		
		836.80		2.732E+12	1.670E-01	Half-Life too short		
		1038.76		3.983E+11	1.670E-01	Half-Life too short		
		1124.00		-5.524E+12	1.670E-01	Half-Life too short		
		1131.51		-5.529E+11	1.670E-01	Half-Life too short		
		1260.41	*	1.579E+11	1.670E-01	Half-Life too short		
		1457.56		8.111E+13	1.670E-01	Half-Life too short		
		1678.03		-1.857E+10	1.670E-01	Half-Life too short		
		1706.46		-1.610E+12	1.670E-01	Half-Life too short		
		1791.20		-6.636E+11	1.670E-01	Half-Life too short		
CS-136		66.91		-3.647E-01	8.638E-01	1.197E+00	1.787E-01	-0.305
	+	86.29		5.038E+00	1.570E+00	2.028E+00	2.720E-01	2.485
		153.22		7.526E-01	6.676E-01	1.147E+00	1.119E-01	0.656
		163.89		1.423E-01	1.021E+00	1.667E+00	1.669E-01	0.085
		176.55		-1.172E-02	3.567E-01	5.852E-01	5.727E-02	-0.020
		273.65		-3.379E-01	5.071E-01	6.821E-01	8.383E-02	-0.495
		340.57		1.286E-01	1.297E-01	2.071E-01	2.291E-02	0.621
		818.51		-4.068E-02	6.904E-02	1.095E-01	1.027E-02	-0.371
		1048.07	*	-4.809E-02	1.126E-01	1.778E-01	1.647E-02	-0.270
		1235.34		3.291E-01	7.860E-01	1.153E+00	1.332E-01	0.286
BA-137M		661.65	*	-1.003E-02	3.373E-02	5.319E-02	4.721E-03	-0.189
CS-137		661.65	*	-1.060E-02	3.565E-02	5.623E-02	4.999E-03	-0.189
CE-139		165.85	*	-1.520E-02	2.586E-02	4.146E-02	3.760E-03	-0.367
BA-140		162.64		2.298E-01	7.130E-01	1.173E+00	1.110E-01	0.196
		304.84		-1.381E+00	1.486E+00	1.845E+00	5.369E-01	-0.748
		423.70		-1.074E+00	1.874E+00	2.956E+00	9.646E-01	-0.363
		537.32	*	-9.969E-02	2.490E-01	3.921E-01	1.309E-01	-0.254
LA-140	+	328.77		4.740E-01	3.669E-01	5.610E-01	6.465E-02	0.845
		432.53		9.247E-02	2.048E+00	3.391E+00	3.324E-01	0.027
		487.03		-2.671E-02	1.441E-01	2.354E-01	2.354E-02	-0.113
		751.79		9.626E-01	1.807E+00	3.024E+00	3.046E-01	0.318
		815.85		1.874E-01	3.050E-01	5.392E-01	5.544E-02	0.348
		867.82		6.181E-01	1.465E+00	2.414E+00	2.379E-01	0.256
		919.63		9.191E-02	2.723E+00	4.552E+00	5.142E-01	0.020
		925.24		1.047E+00	1.077E+00	1.948E+00	1.927E-01	0.538
		1596.49	*	-2.651E-02	9.025E-02	1.440E-01	1.226E-02	-0.184
CE-141		145.44	*	4.422E-03	5.979E-02	9.823E-02	8.593E-03	0.045
CE-143		57.37		1.249E-03	5.979E-02	Half-Life too short		
		231.56		-8.962E-04	5.979E-02	Half-Life too short		
		293.26	*	1.197E-03	5.979E-02	Half-Life too short		
	+	350.59		9.058E-02	5.979E-02	Half-Life too short		
		490.36		2.191E-03	5.979E-02	Half-Life too short		
		664.57		1.395E-03	5.979E-02	Half-Life too short		
		721.93		-1.570E-03	5.979E-02	Half-Life too short		
CE-144		80.11		3.106E-01	1.849E+00	2.866E+00	2.516E-01	0.108
		133.54	*	-3.660E-02	1.971E-01	2.918E-01	4.506E-02	-0.125
PM-144		476.78		2.053E-02	6.255E-02	1.059E-01	1.085E-02	0.194

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		618.01		5.644E-03	2.915E-02	4.813E-02	4.520E-03	0.117
		696.49	*	-1.448E-02	3.141E-02	4.849E-02	4.374E-03	-0.299
		778.57		6.504E-01	2.110E+00	3.465E+00	3.216E-01	0.188
PR-144		696.49	*	-9.823E-01	2.131E+00	3.289E+00	2.966E-01	-0.299
		1489.15		5.548E+00	8.633E+00	1.597E+01	1.365E+00	0.347
PM-146		453.90	*	2.588E-03	3.867E-02	6.460E-02	7.377E-03	0.040
		633.02		-1.125E+00	1.264E+00	1.763E+00	6.607E-01	-0.638
		735.90		9.342E-02	1.340E-01	2.245E-01	6.460E-02	0.416
		747.13		-3.916E-02	9.131E-02	1.404E-01	2.021E-02	-0.279
ND-147	+	91.11		1.725E+00	5.844E-01	4.606E-01	4.605E-02	3.746
		319.41		-9.526E-01	3.599E+00	5.598E+00	6.356E-01	-0.170
		439.89		6.034E+00	6.197E+00	1.090E+01	1.029E+00	0.554
		531.02	*	-2.993E-01	5.449E-01	8.525E-01	1.319E-01	-0.351
PM-149		285.90	*	-2.355E+01	1.606E+02	2.539E+02	4.469E+01	-0.093
EU-152		121.78		3.151E-02	6.522E-02	1.112E-01	1.073E-02	0.283
		244.69		3.337E-02	3.012E-01	4.360E-01	4.848E-02	0.077
		344.27	*	4.884E-02	8.372E-02	1.419E-01	1.586E-02	0.344
		443.98		-6.876E-01	8.655E-01	1.360E+00	1.285E-01	-0.506
		778.89		4.151E-02	2.398E-01	3.891E-01	3.610E-02	0.107
		867.32		-1.755E-01	8.297E-01	1.234E+00	1.164E-01	-0.142
	+	964.01		7.352E-01	3.713E-01	5.795E-01	5.376E-02	1.269
		1085.78		2.289E-01	3.654E-01	6.354E-01	5.517E-02	0.360
		1112.02		-8.824E-02	3.165E-01	4.913E-01	4.180E-02	-0.180
		1407.95		8.177E-02	1.767E-01	3.008E-01	2.562E-02	0.272
GD-153		69.67		4.240E-01	1.410E+00	2.341E+00	1.845E-01	0.181
		83.37		6.463E+00	1.513E+01	2.162E+01	1.970E+00	0.299
		97.43	*	-7.916E-02	7.303E-02	1.045E-01	9.284E-03	-0.757
		103.18		-6.792E-03	8.909E-02	1.500E-01	1.292E-02	-0.045
EU-154		123.07		-4.314E-02	4.637E-02	7.438E-02	8.276E-03	-0.580
		247.94		-5.237E-02	3.146E-01	5.015E-01	6.783E-02	-0.104
		591.81		2.337E-01	5.303E-01	8.956E-01	1.091E-01	0.261
		723.30		-9.824E-02	1.905E-01	2.500E-01	2.494E-02	-0.393
		756.87		3.088E-01	7.371E-01	1.221E+00	1.516E-01	0.253
		873.19		3.782E-02	2.774E-01	4.694E-01	6.025E-02	0.081
		996.32		-2.009E-01	3.664E-01	5.745E-01	1.036E-01	-0.350
		1004.76		-2.761E-01	2.077E-01	2.926E-01	3.515E-02	-0.943
		1274.45	*	-5.156E-03	1.249E-01	2.017E-01	2.234E-02	-0.026
EU-155		48.70		-2.756E+00	2.278E+00	3.349E+00	2.752E-01	-0.823
		60.01		-2.330E+00	4.621E+00	6.421E+00	4.586E-01	-0.363
	+	86.54		4.187E-01	1.244E-01	1.706E-01	1.629E-02	2.455
		105.31	*	7.888E-02	9.282E-02	1.610E-01	1.393E-02	0.490
TB-160	+	86.79		1.139E+00	3.381E-01	4.674E-01	4.438E-02	2.438
		197.04		-3.786E-01	5.154E-01	7.989E-01	7.867E-02	-0.474
		215.65		-2.584E-01	6.808E-01	1.084E+00	1.121E-01	-0.238
	+	298.57		2.725E-01	1.448E-01	1.835E-01	2.155E-02	1.485
		879.36	*	2.182E-02	1.288E-01	2.185E-01	2.064E-02	0.100
		962.29		8.968E-01	5.158E-01	9.553E-01	8.868E-02	0.939
	+	966.15		5.145E-01	2.598E-01	4.608E-01	4.272E-02	1.117
		1177.93		1.303E-01	3.808E-01	6.391E-01	5.148E-02	0.204

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		1271.85		-2.542E-01	7.423E-01	1.162E+00	9.654E-02	-0.219
HO-166M		80.57		-5.359E-02	2.388E-01	3.636E-01	3.208E-02	-0.147
		184.41		8.904E-02	3.270E-02	5.730E-02	5.455E-03	1.554
		280.46		-7.164E-02	8.186E-02	1.235E-01	1.481E-02	-0.580
		410.95		1.509E-01	2.487E-01	3.845E-01	3.589E-02	0.392
		711.68	*	1.221E-02	5.899E-02	9.646E-02	8.751E-03	0.127
		752.31		8.850E-02	2.632E-01	4.335E-01	3.991E-02	0.204
		810.29		-6.707E-02	5.562E-02	8.358E-02	7.814E-03	-0.802
TM-171		51.35		-1.003E+01	2.790E+01	4.300E+01	3.388E+00	-0.233
		52.39		2.284E+00	1.417E+01	2.240E+01	1.737E+00	0.102
		59.40		-1.055E+01	2.538E+01	3.550E+01	2.521E+00	-0.297
		66.72	*	-1.442E+01	2.822E+01	3.895E+01	2.984E+00	-0.370
LU-176	+	88.36		8.239E-01	2.445E-01	3.044E-01	2.923E-02	2.706
		201.83		-3.154E-02	2.558E-02	3.894E-02	3.884E-03	-0.810
		306.84	*	8.894E-03	2.218E-02	3.608E-02	4.185E-03	0.247
		401.10		3.999E-01	5.734E+00	9.657E+00	8.972E-01	0.041
LU-177		112.95		2.250E-01	1.630E+00	2.755E+00	2.307E-01	0.082
	+	208.36	*	3.242E+00	1.858E+00	2.292E+00	2.326E-01	1.414
LU-177M		52.97		3.635E-01	1.461E+00	2.318E+00	1.781E-01	0.157
		54.07		2.664E-01	7.678E-01	1.223E+00	9.245E-02	0.218
		61.30		9.156E-01	1.332E+00	1.982E+00	1.438E-01	0.462
		121.62		2.357E-01	3.363E-01	5.776E-01	4.794E-02	0.408
		147.16		8.724E-03	5.916E-01	9.686E-01	8.353E-02	0.009
		171.86		4.446E-02	4.251E-01	7.027E-01	6.471E-02	0.063
		218.09		2.025E-01	7.849E-01	1.289E+00	1.342E-01	0.157
	+	268.79		1.947E+00	1.300E+00	1.379E+00	1.620E-01	1.411
		319.02		-1.531E-01	2.516E-01	3.818E-01	4.338E-02	-0.401
		367.43		-5.851E-02	7.980E-01	1.340E+00	1.351E-01	-0.044
		413.65	*	4.640E-02	1.662E-01	2.511E-01	2.347E-02	0.185
HF-181		56.28		-2.952E-01	8.790E-01	1.352E+00	9.922E-02	-0.218
		57.53		3.028E-01	4.728E-01	7.602E-01	5.500E-02	0.398
		65.20		5.732E-01	9.206E-01	1.357E+00	1.025E-01	0.422
		133.02		-2.708E-02	6.482E-02	9.471E-02	7.942E-03	-0.286
		136.25		4.980E-02	4.081E-01	6.832E-01	5.759E-02	0.073
		345.85		9.703E-02	1.745E-01	2.851E-01	3.055E-02	0.340
		482.03	*	-7.880E-04	4.084E-02	6.753E-02	6.423E-03	-0.012
W-181		56.28		-1.131E-01	3.368E-01	5.180E-01	3.802E-02	-0.218
		57.53		1.159E-01	1.813E-01	2.915E-01	2.109E-02	0.398
		65.20	*	2.181E-01	3.503E-01	5.163E-01	3.899E-02	0.422
TA-182		67.75		-6.538E-02	1.036E-01	1.549E-01	1.199E-02	-0.422
		100.10		1.373E-01	1.510E-01	2.630E-01	2.300E-02	0.522
		152.43		2.756E-01	3.041E-01	5.202E-01	4.546E-02	0.530
		222.10		-1.253E-02	3.180E-01	5.146E-01	5.412E-02	-0.024
		1001.68		1.073E+00	2.052E+00	3.507E+00	3.202E-01	0.306
	+	1121.28		7.391E-01	2.513E-01	3.530E-01	2.980E-02	2.094
		1189.05		2.577E-01	3.123E-01	5.435E-01	4.395E-02	0.474
		1221.42	*	-7.105E-04	2.010E-01	3.271E-01	2.675E-02	-0.002
		1230.97		-1.952E-01	5.589E-01	7.931E-01	6.506E-02	-0.246
RE-183		57.98		2.127E-01	1.784E-01	2.933E-01	2.112E-02	0.725

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		-4.181E-02	1.067E-01	1.495E-01	1.062E-02	-0.280
		67.20		-1.625E-01	2.065E-01	2.806E-01	2.159E-02	-0.579
		162.32	*	-3.596E-02	9.589E-02	1.528E-01	1.372E-02	-0.235
	+	208.81		2.417E+00	1.385E+00	1.720E+00	1.748E-01	1.405
		291.72		-6.978E-01	9.594E-01	1.271E+00	1.505E-01	-0.549
RE-184		57.98		7.749E-01	6.497E-01	1.068E+00	7.692E-02	0.725
		59.32		-1.521E-01	3.882E-01	5.439E-01	3.866E-02	-0.280
		67.20		-5.918E-01	7.519E-01	1.022E+00	7.863E-02	-0.579
		161.27		-4.004E-01	3.054E-01	4.709E-01	4.214E-02	-0.850
		216.55		-1.240E-01	2.422E-01	3.829E-01	3.970E-02	-0.324
		252.85	*	6.278E-02	2.136E-01	3.489E-01	3.954E-02	0.180
		318.01		2.231E-01	4.221E-01	6.898E-01	7.851E-02	0.323
		792.07		-6.130E-01	8.730E-01	1.384E+00	1.288E-01	-0.443
		903.28		1.258E+00	9.227E-01	1.644E+00	1.553E-01	0.765
		920.93		-3.156E-01	4.124E-01	6.355E-01	5.978E-02	-0.497
OS-185		59.72		-1.091E-01	2.783E-01	3.896E-01	2.773E-02	-0.280
		61.14		8.243E-02	1.469E-01	2.173E-01	1.573E-02	0.379
		69.30		1.127E-01	2.444E-01	4.253E-01	3.339E-02	0.265
		592.07		7.798E-01	2.179E+00	3.659E+00	3.403E-01	0.213
		646.12	*	-6.931E-03	3.838E-02	6.118E-02	5.499E-03	-0.113
		717.42		-8.932E-02	8.928E-01	1.422E+00	1.293E-01	-0.063
		874.81		-4.814E-02	5.584E-01	9.272E-01	8.755E-02	-0.052
		880.27		3.174E-01	7.225E-01	1.252E+00	1.183E-01	0.253
RE-188		155.03	*	8.392E-02	1.569E-01	2.649E-01	2.331E-02	0.317
		477.96		2.394E-02	2.896E+00	4.801E+00	4.565E-01	0.005
		633.10		-2.140E+00	2.440E+00	3.619E+00	3.285E-01	-0.591
W-188	+	63.58		9.127E+01	7.757E+01	8.232E+01	6.118E+00	1.109
		227.08		6.937E+00	1.187E+01	1.973E+01	2.101E+00	0.352
		290.67	*	4.055E+00	7.252E+00	1.073E+01	1.272E+00	0.378
IR-192	+	295.96		1.120E+00	2.168E-01	2.791E-01	3.301E-02	4.012
		308.46		8.110E-02	8.871E-02	1.482E-01	1.719E-02	0.547
		316.51	*	-1.021E-02	3.323E-02	5.155E-02	5.892E-03	-0.198
		468.07		-3.323E-02	6.760E-02	9.363E-02	9.422E-03	-0.355
		604.41		-1.480E-02	4.894E-01	6.954E-01	9.344E-02	-0.021
		612.46		6.473E-01	7.674E-01	1.180E+00	1.228E-01	0.549
AU-195		65.12		1.067E-01	1.619E-01	2.391E-01	1.804E-02	0.446
		66.83		-4.297E-02	9.391E-02	1.300E-01	9.973E-03	-0.330
	+	75.70		1.175E+00	2.180E-01	3.996E-01	3.344E-02	2.941
		98.88	*	3.206E-01	1.903E-01	3.381E-01	2.977E-02	0.948
	+	129.76		5.918E+00	3.634E+00	4.629E+00	3.864E-01	1.279
TL-200		367.94	*	-2.200E-04	3.634E+00	Half-Life too short		
		579.30		8.338E-03	3.634E+00	Half-Life too short		
		828.27		1.610E-02	3.634E+00	Half-Life too short		
		1205.75		2.853E-03	3.634E+00	Half-Life too short		
TL-201		68.90		4.568E+00	6.192E+00	1.085E+01	8.490E-01	0.421
		70.82		-1.870E+00	3.877E+00	5.875E+00	4.680E-01	-0.318
		80.30		1.516E+00	6.883E+00	1.069E+01	9.404E-01	0.142
		135.34		1.918E+01	3.405E+01	5.797E+01	4.879E+00	0.331
		167.43	*	4.351E-01	9.543E+00	1.576E+01	1.434E+00	0.028

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-202		68.90		2.917E-01	3.954E-01	6.931E-01	5.421E-02	0.421
		70.82		-1.191E-01	2.469E-01	3.741E-01	2.980E-02	-0.318
		80.30		9.656E-02	4.384E-01	6.809E-01	5.990E-02	0.142
		439.56	*	8.988E-02	7.327E-02	1.303E-01	1.230E-02	0.690
HG-203		70.83		-4.769E-01	9.852E-01	1.491E+00	1.968E-01	-0.320
		72.87		4.915E-01	5.651E-01	8.988E-01	1.158E-01	0.547
		82.60		-1.530E+00	1.213E+00	1.562E+00	2.188E-01	-0.979
		279.20	*	1.723E-02	3.889E-02	6.359E-02	7.750E-03	0.271
BI-207		72.80		1.324E-01	1.602E-01	2.554E-01	2.075E-02	0.519
	+	74.97		6.470E-01	1.200E-01	2.011E-01	1.670E-02	3.218
		84.90		2.374E-01	1.748E-01	2.785E-01	2.585E-02	0.853
		569.67		4.735E-04	2.789E-02	4.548E-02	4.270E-03	0.010
		1063.62	*	2.564E-02	4.895E-02	8.443E-02	7.443E-03	0.304
		1770.23		-6.766E-02	5.095E-01	6.969E-01	5.759E-02	-0.097
TL-207		81.07		-2.167E-01	1.960E-01	2.854E-01	2.533E-02	-0.759
		83.78		1.140E-01	1.172E-01	1.847E-01	1.692E-02	0.617
		94.90		2.829E-01	1.968E-01	3.185E-01	2.879E-02	0.888
		122.32		-2.130E-01	1.551E+00	2.584E+00	2.314E-01	-0.082
		144.24		-2.658E-01	6.350E-01	1.028E+00	9.867E-02	-0.258
		154.21		6.632E-01	3.599E-01	6.291E-01	6.054E-02	1.054
	+	269.46		4.519E-01	3.018E-01	3.313E-01	3.941E-02	1.364
		323.87	*	5.620E-02	6.857E-01	9.694E-01	1.854E-01	0.058
	+	338.28		7.009E+00	1.824E+00	2.361E+00	3.308E-01	2.969
		445.03		-8.136E-01	2.014E+00	3.257E+00	4.134E-01	-0.250
PO-209		260.50		4.538E+00	8.653E+00	1.427E+01	1.646E+00	0.318
		262.80		-9.097E+00	2.367E+01	3.706E+01	4.296E+00	-0.245
		896.60	*	1.105E+00	6.657E+00	1.128E+01	1.067E+00	0.098
BI-210		46.50	*	2.118E+00	3.297E+00	5.332E+00	4.972E-01	0.397
PB-210		46.50	*	2.118E+00	3.297E+00	5.332E+00	4.972E-01	0.397
PO-210		46.50	*	2.118E+00	3.296E+00	5.332E+00	4.504E-01	0.397
PB-211		404.84	*	-2.026E-01	8.849E-01	1.265E+00	7.942E-01	-0.160
		427.08		-4.305E-01	1.777E+00	2.886E+00	1.796E+00	-0.149
		831.96		-1.226E+00	1.336E+00	1.657E+00	1.040E+00	-0.740
PO-215		81.07		-2.167E-01	1.960E-01	2.854E-01	2.533E-02	-0.759
		83.78		1.140E-01	1.172E-01	1.847E-01	1.692E-02	0.617
		94.90		2.829E-01	1.968E-01	3.185E-01	2.879E-02	0.888
		122.32		-2.130E-01	1.551E+00	2.584E+00	2.314E-01	-0.082
		144.24		-2.658E-01	6.350E-01	1.028E+00	9.867E-02	-0.258
		154.21		6.632E-01	3.599E-01	6.291E-01	6.054E-02	1.054
	+	269.46		4.519E-01	3.018E-01	3.313E-01	3.941E-02	1.364
		323.87	*	5.620E-02	6.857E-01	9.694E-01	1.854E-01	0.058
	+	338.28		7.009E+00	1.824E+00	2.361E+00	3.308E-01	2.969
		445.03		-8.136E-01	2.014E+00	3.257E+00	4.134E-01	-0.250
RN-219	+	271.23		5.798E-01	3.885E-01	4.083E-01	5.346E-02	1.420
		401.81	*	7.162E-02	3.540E-01	6.006E-01	9.263E-02	0.119
RN-220		549.76	*	5.545E+00	2.475E+01	4.124E+01	3.896E+00	0.134
RA-223		81.07		-2.167E-01	1.960E-01	2.854E-01	2.533E-02	-0.759
		83.78		1.140E-01	1.172E-01	1.847E-01	1.692E-02	0.617
		94.90		2.829E-01	1.968E-01	3.185E-01	2.879E-02	0.888

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-2.130E-01	1.551E+00	2.584E+00	2.314E-01	-0.082
		144.24		-2.658E-01	6.350E-01	1.028E+00	9.867E-02	-0.258
		154.21		6.632E-01	3.599E-01	6.291E-01	6.054E-02	1.054
	+	269.46		4.519E-01	3.018E-01	3.313E-01	3.941E-02	1.364
		323.87	*	5.620E-02	6.857E-01	9.694E-01	1.854E-01	0.058
	+	338.28		7.009E+00	1.824E+00	2.361E+00	3.308E-01	2.969
		445.03		-8.136E-01	2.014E+00	3.257E+00	4.134E-01	-0.250
AC-227		79.80		-2.855E-01	1.441E+00	2.196E+00	4.733E-01	-0.130
		236.00		1.425E-01	2.270E-01	3.386E-01	4.718E-02	0.421
		256.20	*	-2.258E-01	3.604E-01	5.557E-01	9.491E-02	-0.406
		286.10		-5.408E-01	1.450E+00	2.258E+00	3.514E-01	-0.239
	+	299.80		3.405E+00	1.882E+00	2.410E+00	4.629E-01	1.413
		304.40		-2.097E+00	1.912E+00	2.364E+00	4.734E-01	-0.887
		334.20		-1.242E+00	2.219E+00	3.162E+00	6.509E-01	-0.393
TH-227		79.80		-2.855E-01	1.441E+00	2.196E+00	4.793E-01	-0.130
		94.00		5.255E+00	2.176E+00	3.215E+00	7.065E-01	1.635
		236.00		1.425E-01	2.268E-01	3.386E-01	4.374E-02	0.421
		256.20	*	-2.258E-01	3.610E-01	5.557E-01	1.087E-01	-0.406
		286.10		-5.408E-01	1.547E+00	2.258E+00	2.274E+00	-0.239
	+	299.80		3.405E+00	1.882E+00	2.410E+00	4.629E-01	1.413
		304.40		-2.097E+00	1.912E+00	2.364E+00	4.734E-01	-0.887
		334.20		-1.242E+00	2.219E+00	3.162E+00	6.509E-01	-0.393
TH-229		85.43		2.428E-01	1.729E-01	2.780E-01	2.596E-02	0.874
	+	88.47		4.743E-01	1.407E-01	1.735E-01	1.663E-02	2.734
		100.00		1.516E-01	1.554E-01	2.711E-01	2.372E-02	0.559
		193.63	*	-2.732E-01	4.363E-01	6.903E-01	6.736E-02	-0.396
		210.97		9.372E-01	7.221E-01	1.124E+00	1.149E-01	0.834
PA-231		283.67	*	-2.275E-01	1.444E+00	2.282E+00	3.947E-01	-0.100
	+	301.29		1.362E+00	7.334E-01	9.142E-01	1.332E-01	1.490
TH-231		81.07		-2.167E-01	1.960E-01	2.854E-01	2.533E-02	-0.759
		83.78		1.140E-01	1.172E-01	1.847E-01	1.692E-02	0.617
		94.90		2.829E-01	1.968E-01	3.185E-01	2.879E-02	0.888
		122.32		-2.130E-01	1.551E+00	2.584E+00	2.314E-01	-0.082
		144.24		-2.658E-01	6.350E-01	1.028E+00	9.867E-02	-0.258
		154.21		6.632E-01	3.599E-01	6.291E-01	6.054E-02	1.054
	+	269.46		4.519E-01	3.018E-01	3.313E-01	3.941E-02	1.364
		323.87	*	5.620E-02	6.857E-01	9.694E-01	1.854E-01	0.058
	+	338.28		7.009E+00	1.824E+00	2.361E+00	3.308E-01	2.969
		445.03		-8.136E-01	2.014E+00	3.257E+00	4.134E-01	-0.250
U-231		84.21		6.522E+00	6.978E+00	1.098E+01	1.011E+00	0.594
	+	92.29		1.605E+01	5.407E+00	4.800E+00	4.432E-01	3.345
		95.87	*	-7.386E-01	1.296E+00	1.914E+00	1.718E-01	-0.386
		108.00		4.621E-01	2.462E+00	4.118E+00	3.488E-01	0.112
PA-233	+	75.28		1.888E+01	4.244E+00	5.917E+00	8.986E-01	3.191
	+	86.59		6.801E+00	2.656E+00	2.774E+00	7.521E-01	2.451
	+	300.12		9.493E-01	5.174E-01	6.692E-01	1.128E-01	1.418
		311.98	*	-2.291E-02	5.539E-02	8.517E-02	9.955E-03	-0.269
		340.50		6.381E-01	5.881E-01	9.178E-01	2.270E-01	0.695
		398.62		-3.071E-01	1.804E+00	2.992E+00	8.033E-01	-0.103

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-8.650E-01	1.506E+00	2.207E+00	4.824E-01	-0.392
PA-234	+	63.00		2.595E+00	2.230E+00	2.400E+00	3.565E-01	1.081
		94.67		3.939E-01	1.483E-01	2.411E-01	3.064E-02	1.634
		98.44		8.007E-02	8.750E-02	1.323E-01	7.383E-02	0.605
		99.86		4.842E-01	3.932E-01	6.908E-01	6.050E-02	0.701
		111.00		-1.376E-01	1.526E-01	2.460E-01	2.936E-02	-0.559
		131.20		-1.299E-02	9.887E-02	1.470E-01	1.229E-02	-0.088
		152.70		3.318E-01	2.968E-01	5.040E-01	8.623E-02	0.658
	+	186.00		5.056E+00	2.678E+00	2.407E+00	7.579E-01	2.101
		226.40		-1.073E-01	3.644E-01	5.807E-01	8.476E-02	-0.185
		227.20		2.102E-01	3.921E-01	6.504E-01	6.928E-02	0.323
		248.90		2.163E-02	7.186E-01	1.159E+00	2.727E-01	0.019
	+	293.70		6.917E+00	1.693E+00	1.512E+00	2.887E-01	4.575
		369.80		1.469E-01	7.235E-01	1.233E+00	2.758E-01	0.119
		568.70		-4.156E-02	9.121E-01	1.481E+00	1.390E-01	-0.028
		569.50		5.015E-03	2.489E-01	4.060E-01	3.812E-02	0.012
		574.00		1.289E-01	1.304E+00	2.149E+00	2.014E-01	0.060
		699.00		-5.794E-02	6.226E-01	9.939E-01	1.915E-01	-0.058
		706.10		7.079E-01	1.043E+00	1.692E+00	7.557E-01	0.419
		733.00		-2.302E-01	3.821E-01	5.212E-01	1.168E-01	-0.442
		742.81		1.999E-01	1.345E+00	2.172E+00	1.461E+00	0.092
		796.30		1.328E+00	8.764E-01	1.510E+00	4.119E-01	0.880
		805.60		5.584E-01	9.591E-01	1.659E+00	5.120E-01	0.337
		819.60		1.447E-01	1.047E+00	1.779E+00	6.795E-01	0.081
		826.30		3.497E-01	7.628E-01	1.302E+00	5.846E-01	0.269
		831.60		-6.632E-01	5.930E-01	8.415E-01	2.531E-01	-0.788
		876.40		-4.066E-01	8.680E-01	1.211E+00	1.246E+00	-0.336
		880.51		1.065E-01	2.588E-01	4.475E-01	4.228E-02	0.238
		883.24		-1.273E-03	2.648E-01	4.424E-01	2.979E-01	-0.003
		899.00		-2.385E-01	7.630E-01	1.226E+00	5.380E-01	-0.195
		925.00		9.384E-01	9.993E-01	1.804E+00	1.695E-01	0.520
		926.50		1.167E-01	1.487E-01	2.613E-01	6.676E-02	0.447
		946.00	*	-1.757E-01	3.089E-01	4.739E-01	9.052E-02	-0.371
		949.00		-4.538E-02	4.217E-01	6.942E-01	6.475E-02	-0.065
		980.50		5.469E-01	6.705E-01	1.190E+00	1.097E-01	0.459
		1394.10		7.656E-01	1.050E+00	1.703E+00	1.108E+00	0.450
PA-234M		766.42		1.287E+01	1.493E+01	2.094E+01	1.065E+01	0.615
		1001.03	*	3.454E+00	4.536E+00	7.886E+00	8.210E-01	0.438
U-235		89.95		1.712E+00	1.321E+00	1.615E+00	5.022E-01	1.060
	+	93.35		3.634E+00	1.561E+00	1.094E+00	3.083E-01	3.322
		105.00		1.260E+00	9.733E-01	1.593E+00	4.750E-01	0.791
		143.76	*	-5.186E-02	1.924E-01	3.132E-01	5.474E-02	-0.166
		163.35		1.859E-01	4.029E-01	6.642E-01	1.279E-01	0.280
	+	185.71		1.873E-01	8.173E-02	8.901E-02	8.503E-03	2.104
		205.31		3.587E-01	5.256E-01	7.885E-01	1.559E-01	0.455
NP-236		94.67		3.005E-01	1.094E-01	1.831E-01	1.658E-02	1.641
		98.44		6.049E-02	5.712E-02	9.999E-02	8.827E-03	0.605
		111.00		-1.041E-01	1.151E-01	1.861E-01	1.564E-02	-0.559
		160.31	*	-3.419E-02	6.711E-02	1.082E-01	9.658E-03	-0.316

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.933E-01	1.307E-01	2.312E-01	2.028E-02	0.836
		117.00	*	-3.070E-02	1.635E-01	2.724E-01	2.268E-02	-0.113
	+	209.75		1.869E+00	1.071E+00	1.305E+00	1.329E-01	1.432
		228.18		1.661E-01	1.990E-01	3.344E-01	3.571E-02	0.497
		277.60		1.814E-01	1.704E-01	2.857E-01	3.420E-02	0.635
		334.30		-6.703E-01	1.253E+00	1.798E+00	1.981E-01	-0.373
AM-241		59.54	*	-4.541E-02	1.451E-01	2.042E-01	1.602E-02	-0.222
CM-243		99.55		1.990E-01	1.346E-01	2.379E-01	2.087E-02	0.836
		103.76	*	3.047E-02	8.196E-02	1.402E-01	1.205E-02	0.217
		117.00		-3.159E-02	1.682E-01	2.803E-01	2.333E-02	-0.113
	+	209.75		1.843E+00	1.056E+00	1.287E+00	1.311E-01	1.432
		228.18		1.678E-01	2.011E-01	3.379E-01	3.609E-02	0.497
		277.60		1.829E-01	1.718E-01	2.881E-01	3.448E-02	0.635
AM-246		798.80		-2.233E-01	1.316E-01	1.881E-01	1.753E-02	-1.188
		1036.00		-7.625E-02	2.980E-01	4.804E-01	4.308E-02	-0.159
		1062.04		2.269E-01	2.101E-01	3.789E-01	3.344E-02	0.599
		1078.86	*	-1.267E-02	1.413E-01	2.306E-01	2.012E-02	-0.055
CM-247		278.00		5.192E-01	7.173E-01	1.186E+00	1.421E-01	0.438
		287.40		-1.632E-01	1.139E+00	1.801E+00	2.144E-01	-0.091
		402.60	*	2.224E-02	3.119E-02	5.450E-02	5.067E-03	0.408
CF-249		252.85		2.337E-01	7.950E-01	1.298E+00	1.471E-01	0.180
		333.44		-8.592E-03	1.606E-01	2.397E-01	2.646E-02	-0.036
		387.95	*	-1.518E-02	3.507E-02	5.734E-02	5.379E-03	-0.265
CF-251		176.60	*	-1.907E-03	1.108E-01	1.819E-01	1.695E-02	-0.010
		227.00		2.688E-01	3.452E-01	5.784E-01	6.158E-02	0.465
		285.00		1.113E+00	1.588E+00	2.631E+00	3.141E-01	0.423

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020001      *
* Acquisition date : 13-FEB-2010 14:52:28 Detector SN#     :               *
* Detector ID        : GAM16               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:02.14     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020001           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.3548E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.721E+01	3.708E+00	5.183E-01	0.000E+00
CD-109	3.545E+00	1.031E+00	1.136E+00	0.000E+00
SN-126	3.474E-01	1.010E-01	1.118E-01	0.000E+00
TL-208	4.945E-01	8.477E-02	5.401E-02	0.000E+00
BI-211	4.163E+00	6.129E-01	2.706E-01	0.000E+00
BI-212	1.202E+00	4.158E-01	4.053E-01	0.000E+00
PB-212	1.854E+00	2.402E-01	8.020E-02	0.000E+00
PO-212	1.854E+00	2.402E-01	8.020E-02	0.000E+00
BI-214	1.205E+00	2.098E-01	1.048E-01	0.000E+00
PB-214	1.448E+00	2.257E-01	9.433E-02	0.000E+00
PO-214	1.448E+00	2.257E-01	9.433E-02	0.000E+00
PO-216	1.854E+00	2.402E-01	8.020E-02	0.000E+00
PO-218	1.448E+00	2.257E-01	9.433E-02	0.000E+00
RA-224	5.546E+00	1.349E+00	9.126E-01	0.000E+00
RA-226	1.205E+00	2.098E-01	1.048E-01	0.000E+00
AC-228	1.944E+00	3.565E-01	1.875E-01	0.000E+00
RA-228	1.944E+00	3.565E-01	1.875E-01	0.000E+00
TH-228	1.886E+00	2.443E-01	8.157E-02	0.000E+00
TH-230	1.205E+00	2.098E-01	1.048E-01	0.000E+00
TH-232	1.944E+00	3.565E-01	1.875E-01	0.000E+00
TH-234	2.226E+00	1.886E+00	1.839E+00	0.000E+00
U-234	1.205E+00	2.098E-01	1.048E-01	0.000E+00
NP-237	1.020E+00	3.613E-01	3.691E-01	0.000E+00
U-238	2.226E+00	1.886E+00	1.839E+00	0.000E+00
AM-243	3.604E-01	6.552E-02	8.134E-02	0.000E+00
ANH-511	1.304E-01	5.920E-02	4.351E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.183E-02	3.054E-01	5.322E-01	0.000E+00	NOT IDENT.

NA-22	-2.281E-03	4.422E-02	7.317E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.237E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-3.120E-04	2.226E-02	3.717E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.524E-02	7.163E-02	0.000E+00	FAIL ABUN
SC-46	3.897E-03	3.481E-02	6.065E-02	0.000E+00	FAIL ABUN
V-48	-4.428E-02	7.019E-02	1.126E-01	0.000E+00	NOT IDENT.
CR-51	1.570E-02	3.614E-01	6.035E-01	0.000E+00	NOT IDENT.
MN-52	1.321E-01	2.593E-01	4.576E-01	0.000E+00	NOT IDENT.
MN-54	2.092E-02	3.448E-02	6.240E-02	0.000E+00	NOT IDENT.
CO-56	4.885E-03	3.475E-02	6.093E-02	0.000E+00	FAIL ABUN
CO-57	5.957E-03	2.209E-02	4.000E-02	0.000E+00	NOT IDENT.
CO-58	-3.451E-02	3.583E-02	5.711E-02	0.000E+00	NOT IDENT.
FE-59	-1.295E-01	9.557E-02	1.405E-01	0.000E+00	NOT IDENT.
CO-60	-2.264E-02	3.609E-02	5.488E-02	0.000E+00	NOT IDENT.
ZN-65	3.685E-02	9.817E-02	1.497E-01	0.000E+00	NOT IDENT.
GE-68	7.822E-01	1.239E+00	2.206E+00	0.000E+00	NOT IDENT.
AS-73	2.143E-01	7.393E-01	1.276E+00	0.000E+00	NOT IDENT.
AS-74	1.078E-02	8.281E-02	1.419E-01	0.000E+00	NOT IDENT.
SE-75	-1.212E-02	4.361E-02	6.426E-02	0.000E+00	NOT IDENT.
BR-77	-1.307E+01	1.588E+01	2.543E+01	0.000E+00	FAIL ABUN
SR-82	-3.992E-01	3.831E-01	5.687E-01	0.000E+00	NOT IDENT.
RB-83	-4.101E-02	6.003E-02	9.745E-02	0.000E+00	NOT IDENT.
RB-84	3.363E-02	6.386E-02	1.151E-01	0.000E+00	NOT IDENT.
KR-85	2.809E+00	6.844E+00	1.072E+01	0.000E+00	NOT IDENT.
SR-85	1.471E-02	3.584E-02	5.614E-02	0.000E+00	NOT IDENT.
RB-86	1.498E-01	8.409E-01	1.445E+00	0.000E+00	NOT IDENT.
Y-88	-3.894E-03	2.823E-02	4.590E-02	0.000E+00	NOT IDENT.
ZR-88	-7.180E-03	2.519E-02	4.352E-02	0.000E+00	NOT IDENT.
Y-91	3.594E+00	2.017E+01	3.420E+01	0.000E+00	NOT IDENT.
NB-94	-2.639E-03	2.972E-02	4.922E-02	0.000E+00	NOT IDENT.
NB-95	2.769E-02	4.702E-02	7.389E-02	0.000E+00	NOT IDENT.
NB-95M	3.919E-02	1.224E-01	1.901E-01	0.000E+00	NOT IDENT.
ZR-95	8.673E-03	6.922E-02	1.159E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.559E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.229E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-8.532E+00	1.845E+01	2.932E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.490E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	6.988E-04	2.889E-02	4.939E-02	0.000E+00	NOT IDENT.
RH-102	5.266E-03	2.714E-02	4.758E-02	0.000E+00	NOT IDENT.
RU-103	1.180E-02	3.770E-02	6.636E-02	0.000E+00	FAIL ABUN
RH-106	9.676E-02	2.924E-01	5.063E-01	0.000E+00	FAIL ABUN
RU-106	9.676E-02	2.923E-01	5.063E-01	0.000E+00	FAIL ABUN
AG-108M	-5.470E-03	2.843E-02	4.849E-02	0.000E+00	NOT IDENT.
AG-110M	2.309E-02	3.260E-02	5.768E-02	0.000E+00	NOT IDENT.
IN-111	-1.577E-01	1.589E+00	2.393E+00	0.000E+00	NOT IDENT.
IN-113M	-2.234E-02	3.637E-02	6.141E-02	0.000E+00	NOT IDENT.
SN-113	-2.234E-02	3.637E-02	6.141E-02	0.000E+00	NOT IDENT.
IN-114M	1.301E-01	1.726E-01	2.796E-01	0.000E+00	NOT IDENT.
CD-115	3.836E+00	1.656E+01	2.892E+01	0.000E+00	NOT IDENT.
SN-117M	3.726E-02	5.100E-02	9.240E-02	0.000E+00	NOT IDENT.
SB-122	7.431E-01	3.073E+00	5.332E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.062E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.967E-02	2.395E-02	4.353E-02	0.000E+00	NOT IDENT.
I-124	1.093E-01	8.655E-01	1.372E+00	0.000E+00	NOT IDENT.
SB-124	-1.671E-02	5.876E-02	9.334E-02	0.000E+00	FAIL ABUN
SB-125	2.630E-04	7.623E-02	1.332E-01	0.000E+00	FAIL ABUN
TE-125M	3.445E+00	7.959E+00	1.438E+01	0.000E+00	NOT IDENT.
I-126	8.711E-02	1.809E-01	3.150E-01	0.000E+00	NOT IDENT.
SB-126	2.623E-01	1.572E-01	2.922E-01	0.000E+00	FAIL ABUN
SB-127	-8.170E-02	1.849E+00	3.083E+00	0.000E+00	NOT IDENT.
XE-127	-1.069E-02	4.230E-02	7.228E-02	0.000E+00	NOT IDENT.
I-131	-1.624E-02	1.216E-01	2.113E-01	0.000E+00	NOT IDENT.
TE-132	7.784E-01	9.190E-01	1.624E+00	0.000E+00	NOT IDENT.
BA-133	-8.803E-03	3.848E-02	5.908E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.468E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	6.697E-02	4.166E-02	8.012E-02	0.000E+00	NOT IDENT.
CS-135	1.990E-01	1.637E-01	2.608E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.231E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.809E-02	1.103E-01	1.794E-01	0.000E+00	FAIL ABUN
BA-137M	-1.003E-02	3.305E-02	5.412E-02	0.000E+00	NOT IDENT.
CS-137	-1.060E-02	3.494E-02	5.721E-02	0.000E+00	NOT IDENT.
CE-139	-1.520E-02	2.534E-02	4.326E-02	0.000E+00	NOT IDENT.
BA-140	-9.969E-02	2.440E-01	4.005E-01	0.000E+00	NOT IDENT.
LA-140	-2.651E-02	8.844E-02	1.440E-01	0.000E+00	FAIL ABUN
CE-141	4.422E-03	5.859E-02	1.027E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.833E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.660E-02	1.932E-01	3.057E-01	0.000E+00	NOT IDENT.
PM-144	-1.448E-02	3.078E-02	4.929E-02	0.000E+00	NOT IDENT.

PR-144	-9.823E-01	2.088E+00	3.344E+00	0.000E+00	NOT IDENT.
PM-146	2.588E-03	3.790E-02	6.619E-02	0.000E+00	NOT IDENT.
ND-147	-2.993E-01	5.340E-01	8.710E-01	0.000E+00	FAIL ABUN
PM-149	-2.355E+01	1.574E+02	2.624E+02	0.000E+00	NOT IDENT.
EU-152	4.884E-02	8.205E-02	1.462E-01	0.000E+00	FAIL ABUN
GD-153	-7.916E-02	7.157E-02	1.101E-01	0.000E+00	NOT IDENT.
EU-154	-5.156E-03	1.224E-01	2.027E-01	0.000E+00	NOT IDENT.
EU-155	7.888E-02	9.096E-02	1.694E-01	0.000E+00	FAIL ABUN
TB-160	2.182E-02	1.262E-01	2.211E-01	0.000E+00	FAIL ABUN
HO-166M	1.221E-02	5.781E-02	9.801E-02	0.000E+00	NOT IDENT.
TM-171	-1.442E+01	2.765E+01	4.130E+01	0.000E+00	NOT IDENT.
LU-176	8.894E-03	2.173E-02	3.724E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.821E+00	2.382E+00	0.000E+00	FAIL ABUN
LU-177M	4.640E-02	1.628E-01	2.577E-01	0.000E+00	FAIL ABUN
HF-181	-7.880E-04	4.002E-02	6.912E-02	0.000E+00	NOT IDENT.
W-181	2.181E-01	3.433E-01	5.476E-01	0.000E+00	NOT IDENT.
TA-182	-7.105E-04	1.970E-01	3.290E-01	0.000E+00	FAIL ABUN
RE-183	-3.596E-02	9.397E-02	1.595E-01	0.000E+00	FAIL ABUN
RE-184	6.278E-02	2.093E-01	3.613E-01	0.000E+00	NOT IDENT.
OS-185	-6.931E-03	3.762E-02	6.228E-02	0.000E+00	NOT IDENT.
RE-188	8.392E-02	1.538E-01	2.768E-01	0.000E+00	NOT IDENT.
W-188	4.055E+00	7.107E+00	1.108E+01	0.000E+00	FAIL ABUN
IR-192	-1.021E-02	3.256E-02	5.318E-02	0.000E+00	FAIL ABUN
AU-195	3.206E-01	1.865E-01	3.560E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.383E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	4.351E-01	9.352E+00	1.644E+01	0.000E+00	NOT IDENT.
TL-202	8.988E-02	7.180E-02	1.336E-01	0.000E+00	NOT IDENT.
HG-203	1.723E-02	3.811E-02	6.574E-02	0.000E+00	NOT IDENT.
BI-207	2.564E-02	4.798E-02	8.515E-02	0.000E+00	FAIL ABUN
TL-207	5.620E-02	6.719E-01	9.994E-01	0.000E+00	FAIL ABUN
PO-209	1.105E+00	6.524E+00	1.141E+01	0.000E+00	NOT IDENT.
BI-210	2.118E+00	3.231E+00	5.688E+00	0.000E+00	NOT IDENT.
PB-210	2.118E+00	3.231E+00	5.688E+00	0.000E+00	NOT IDENT.
PO-210	2.118E+00	3.230E+00	5.688E+00	0.000E+00	NOT IDENT.
PB-211	-2.026E-01	8.672E-01	1.299E+00	0.000E+00	NOT IDENT.
PO-215	5.620E-02	6.719E-01	9.994E-01	0.000E+00	FAIL ABUN
RN-219	7.162E-02	3.469E-01	6.168E-01	0.000E+00	FAIL ABUN
RN-220	5.545E+00	2.425E+01	4.211E+01	0.000E+00	NOT IDENT.
RA-223	5.620E-02	6.719E-01	9.994E-01	0.000E+00	FAIL ABUN
AC-227	-2.258E-01	3.532E-01	5.754E-01	0.000E+00	FAIL ABUN
TH-227	-2.258E-01	3.538E-01	5.754E-01	0.000E+00	FAIL ABUN
TH-229	-2.732E-01	4.276E-01	7.184E-01	0.000E+00	FAIL ABUN
PA-231	-2.275E-01	1.415E+00	2.358E+00	0.000E+00	FAIL ABUN
TH-231	5.620E-02	6.719E-01	9.994E-01	0.000E+00	FAIL ABUN
U-231	-7.386E-01	1.270E+00	2.017E+00	0.000E+00	FAIL ABUN
PA-233	-2.291E-02	5.428E-02	8.787E-02	0.000E+00	FAIL ABUN
PA-234	-1.757E-01	3.028E-01	4.789E-01	0.000E+00	FAIL ABUN
PA-234M	3.454E+00	4.446E+00	7.962E+00	0.000E+00	NOT IDENT.
U-235	-5.186E-02	1.885E-01	3.277E-01	0.000E+00	FAIL ABUN
NP-236	-3.419E-02	6.576E-02	1.130E-01	0.000E+00	NOT IDENT.
NP-239	-3.070E-02	1.602E-01	2.860E-01	0.000E+00	FAIL ABUN
AM-241	-4.541E-02	1.422E-01	2.169E-01	0.000E+00	NOT IDENT.
CM-243	3.047E-02	8.032E-02	1.475E-01	0.000E+00	FAIL ABUN
AM-246	-1.267E-02	1.385E-01	2.325E-01	0.000E+00	NOT IDENT.
CM-247	2.224E-02	3.057E-02	5.596E-02	0.000E+00	NOT IDENT.
CF-249	-1.518E-02	3.437E-02	5.892E-02	0.000E+00	NOT IDENT.
CF-251	-1.907E-03	1.085E-01	1.896E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:52:58.14

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020001.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:52:28
Sample ID         : G246020001           Sample quantity  : 1.35480E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.14  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1731	10.67*	1.208E+00	3.721E+01	3.721E+01	10.17
CD-109	88.03	290	3.72*	6.253E+00	3.455E+00	3.545E+00	29.67
SN-126	64.28	106	9.60	3.475E+00	8.811E-01	8.811E-01	85.90
	86.94	290	8.90	6.253E+00	1.444E+00	1.444E+00	50.17
	87.57	290	37.00*	6.253E+00	3.474E-01	3.474E-01	29.67
TL-208	277.35	------	6.80	4.695E+00	------ Line Not Found		------
	510.84	140	21.60	2.965E+00	6.037E-01	6.037E-01	47.07
	583.14	401	84.20*	2.668E+00	4.945E-01	4.945E-01	17.49
	860.37	76	12.46	1.920E+00	8.761E-01	8.761E-01	53.24
BI-211	72.87	------	1.27	4.872E+00	------ Line Not Found		------
	351.07	766	12.94*	3.940E+00	4.163E+00	4.163E+00	15.02
BI-212	727.18	114	11.80*	2.221E+00	1.202E+00	1.202E+00	35.29
	785.46	------	1.97	2.079E+00	------ Line Not Found		------
	1620.62	11	2.75	1.117E+00	9.474E-01	9.474E-01	140.71
PB-212	74.81	439	10.70	5.117E+00	2.223E+00	2.223E+00	20.77
	77.11	801	18.00	5.366E+00	2.297E+00	2.297E+00	13.30
	87.30	290	8.00	6.253E+00	1.607E+00	1.607E+00	31.31
	238.63	1559	44.60*	5.226E+00	1.854E+00	1.854E+00	13.22
	300.09	100	3.41	4.433E+00	1.837E+00	1.837E+00	53.47
PO-212	74.81	439	10.70	5.117E+00	2.223E+00	2.223E+00	20.77
	77.11	801	18.00	5.366E+00	2.297E+00	2.297E+00	13.30
	87.30	290	8.00	6.253E+00	1.607E+00	1.607E+00	31.31
	115.19	------	0.60	7.166E+00	------ Line Not Found		------
	238.63	1559	44.60*	5.226E+00	1.854E+00	1.854E+00	13.22
	300.09	100	3.41	4.433E+00	1.837E+00	1.837E+00	53.47
BI-214	609.31	518	46.30*	2.574E+00	1.205E+00	1.205E+00	17.78
	1120.29	128	15.10	1.516E+00	1.545E+00	1.545E+00	34.64
	1764.49	84	15.80	1.056E+00	1.400E+00	1.400E+00	30.92
PB-214	74.81	439	6.21	5.117E+00	3.831E+00	3.831E+00	19.97
	77.11	801	10.50	5.366E+00	3.938E+00	3.938E+00	15.33
	87.30	290	4.67	6.253E+00	2.752E+00	2.752E+00	30.66
	241.98	410	7.49	5.180E+00	2.925E+00	2.925E+00	25.45

Sample ID : G246020001 Acquisition date : 13-FEB-2010 14:52:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	448	19.20	4.487E+00	1.441E+00	1.441E+00	20.33
	351.92	766	37.20*	3.940E+00	1.448E+00	1.448E+00	15.90
PO-214	74.81	439	6.21	5.117E+00	3.831E+00	3.831E+00	19.97
	77.11	801	10.50	5.366E+00	3.938E+00	3.938E+00	15.33
	87.30	290	4.67	6.253E+00	2.752E+00	2.752E+00	30.66
	241.98	410	7.49	5.180E+00	2.925E+00	2.925E+00	25.45
	295.21	448	19.20	4.487E+00	1.441E+00	1.441E+00	20.33
	351.92	766	37.20*	3.940E+00	1.448E+00	1.448E+00	15.90
PO-216	74.81	439	10.70	5.117E+00	2.223E+00	2.223E+00	20.77
	77.11	801	18.00	5.366E+00	2.297E+00	2.297E+00	13.30
	87.30	290	8.00	6.253E+00	1.607E+00	1.607E+00	31.31
	238.63	1559	44.60*	5.226E+00	1.854E+00	1.854E+00	13.22
	300.09	100	3.41	4.433E+00	1.837E+00	1.837E+00	53.47
PO-218	74.81	439	6.21	5.117E+00	3.831E+00	3.831E+00	19.97
	77.11	801	10.50	5.366E+00	3.938E+00	3.938E+00	15.33
	87.30	290	4.67	6.253E+00	2.752E+00	2.752E+00	30.66
	241.98	410	7.49	5.180E+00	2.925E+00	2.925E+00	25.45
	295.21	448	19.20	4.487E+00	1.441E+00	1.441E+00	20.33
	351.92	766	37.20*	3.940E+00	1.448E+00	1.448E+00	15.90
RA-224	240.98	410	3.95*	5.180E+00	5.546E+00	5.546E+00	24.82
RA-226	609.31	518	46.30*	2.574E+00	1.205E+00	1.205E+00	17.78
	1120.29	128	15.10	1.516E+00	1.545E+00	1.545E+00	34.64
	1764.49	84	15.80	1.056E+00	1.400E+00	1.400E+00	30.92
AC-228	338.32	280	11.40	4.057E+00	1.679E+00	1.679E+00	47.20
	911.07	355	27.70*	1.824E+00	1.944E+00	1.944E+00	18.71
	969.11	212	16.60	1.727E+00	2.053E+00	2.053E+00	29.87
RA-228	338.32	280	11.40	4.057E+00	1.679E+00	1.679E+00	47.20
	911.07	355	27.70*	1.824E+00	1.944E+00	1.944E+00	18.71
	969.11	212	16.60	1.727E+00	2.053E+00	2.053E+00	29.87
TH-228	74.81	439	10.70	5.117E+00	2.223E+00	2.261E+00	18.58
	77.11	801	18.00	5.366E+00	2.297E+00	2.336E+00	13.30
	87.30	290	8.00	6.253E+00	1.607E+00	1.634E+00	29.67
	238.63	1559	44.60*	5.226E+00	1.854E+00	1.886E+00	13.22
	300.09	100	3.41	4.433E+00	1.837E+00	1.869E+00	79.15
TH-230	609.31	518	46.30*	2.574E+00	1.205E+00	1.205E+00	17.78
	1120.29	128	15.10	1.516E+00	1.545E+00	1.545E+00	34.64
	1764.49	84	15.80	1.056E+00	1.400E+00	1.400E+00	30.92
TH-232	338.32	280	11.40	4.057E+00	1.679E+00	1.679E+00	24.49
	911.07	355	27.70*	1.824E+00	1.944E+00	1.944E+00	18.71
	969.11	212	16.60	1.727E+00	2.053E+00	2.053E+00	29.87
TH-234	63.29	106	3.80*	3.475E+00	2.226E+00	2.226E+00	86.44
	92.38	388	5.41	6.567E+00	3.023E+00	3.023E+00	37.24
U-234	609.31	518	46.30*	2.574E+00	1.205E+00	1.205E+00	17.78
	1120.29	128	15.10	1.516E+00	1.545E+00	1.545E+00	34.64
	1764.49	84	15.80	1.056E+00	1.400E+00	1.400E+00	30.92
NP-237	86.50	290	12.60*	6.253E+00	1.020E+00	1.020E+00	36.14
	95.87	------	2.60	6.742E+00	------	Line Not Found	------
U-238	63.29	106	3.80*	3.475E+00	2.226E+00	2.226E+00	86.44
	92.38	388	5.41	6.567E+00	3.023E+00	3.023E+00	33.68

Sample ID : G246020001 Acquisition date : 13-FEB-2010 14:52:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	439	66.00*	5.117E+00	3.604E-01	3.604E-01	18.55
	86.72	290	0.34	6.253E+00	3.825E+01	3.825E+01	29.67
	117.66	------	0.55	7.175E+00	------ Line Not Found		------
	142.18	------	0.13	6.968E+00	------ Line Not Found		------
ANH-511	511.00	140	100.00*	2.965E+00	1.304E-01	1.304E-01	46.32

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G246020001 Acquisition date : 13-FEB-2010 14:52:28

Total number of lines in spectrum 36
Number of unidentified lines 6
Number of lines tentatively identified by NID 30 83.33%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.721E+01	3.721E+01	0.378E+01	10.17	
CD-109	464.00D	1.03	3.455E+00	3.545E+00	1.052E+00	29.67	
SN-126	1.00E+05Y	1.00	3.474E-01	3.474E-01	1.031E-01	29.67	
TL-208	1.41E+10Y	1.00	4.945E-01	4.945E-01	0.865E-01	17.49	
BI-211	7.04E+08Y	1.00	4.163E+00	4.163E+00	0.625E+00	15.02	
BI-212	1.41E+10Y	1.00	1.202E+00	1.202E+00	0.424E+00	35.29	
PB-212	1.41E+10Y	1.00	1.854E+00	1.854E+00	0.245E+00	13.22	
PO-212	1.41E+10Y	1.00	1.854E+00	1.854E+00	0.245E+00	13.22	
BI-214	1600.00Y	1.00	1.205E+00	1.205E+00	0.214E+00	17.78	
PB-214	1600.00Y	1.00	1.448E+00	1.448E+00	0.230E+00	15.90	
PO-214	1600.00Y	1.00	1.448E+00	1.448E+00	0.230E+00	15.90	
PO-216	1.41E+10Y	1.00	1.854E+00	1.854E+00	0.245E+00	13.22	
PO-218	1600.00Y	1.00	1.448E+00	1.448E+00	0.230E+00	15.90	
RA-224	1.41E+10Y	1.00	5.546E+00	5.546E+00	1.377E+00	24.82	
RA-226	1600.00Y	1.00	1.205E+00	1.205E+00	0.214E+00	17.78	
AC-228	1.41E+10Y	1.00	1.944E+00	1.944E+00	0.364E+00	18.71	
RA-228	1.41E+10Y	1.00	1.944E+00	1.944E+00	0.364E+00	18.71	
TH-228	1.91Y	1.02	1.854E+00	1.886E+00	0.249E+00	13.22	
TH-230	4.47E+09Y	1.00	1.205E+00	1.205E+00	0.214E+00	17.78	
TH-232	1.41E+10Y	1.00	1.944E+00	1.944E+00	0.364E+00	18.71	
TH-234	4.47E+09Y	1.00	2.226E+00	2.226E+00	1.924E+00	86.44	
U-234	4.47E+09Y	1.00	1.205E+00	1.205E+00	0.214E+00	17.78	
NP-237	2.14E+06Y	1.00	1.020E+00	1.020E+00	0.369E+00	36.14	
U-238	4.47E+09Y	1.00	2.226E+00	2.226E+00	1.924E+00	86.44	
AM-243	7380.00Y	1.00	3.604E-01	3.604E-01	0.669E-01	18.55	
ANH-511	1.00E+09Y	1.00	1.304E-01	1.304E-01	0.604E-01	46.32	
	Total Activity :		8.079E+01	8.092E+01			

Grand Total Activity : 8.079E+01 8.092E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020001 Acquisition date : 13-FEB-2010 14:52:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.97	116	377	1.05	258.13	255	8	1.61E-02	60.8	7.13E+00	T
0	186.05	224	479	1.14	372.29	366	12	3.11E-02	42.6	6.14E+00	T
0	209.25	125	339	1.23	418.70	414	9	1.73E-02	56.4	5.71E+00	T
0	270.12	106	289	1.17	540.44	535	11	1.47E-02	65.7	4.78E+00	T
0	327.81	57	154	0.78	655.80	651	7	7.98E-03	76.5	4.15E+00	T
0	408.77	51	154	1.44	817.71	814	12	7.15E-03	99.4	3.52E+00	
0	462.91	125	164	1.17	925.99	919	14	1.74E-02	47.0	3.20E+00	T
0	768.35	80	63	1.56	1536.77	1531	11	1.11E-02	45.2	2.12E+00	
1	964.85	66	53	1.76	1929.68	1920	24	9.18E-03	49.6	1.73E+00	T
0	1238.46	95	64	1.54	2476.71	2470	15	1.32E-02	42.7	1.39E+00	T
0	1377.97	46	28	2.17	2755.62	2748	16	6.45E-03	58.7	1.27E+00	
0	1588.28	25	9	1.48	3176.04	3172	9	3.47E-03	58.9	1.13E+00	
0	1661.42	24	2	1.61	3322.24	3317	11	3.27E-03	49.3	1.10E+00	
0	1729.85	34	3	1.67	3459.02	3453	14	4.67E-03	44.1	1.07E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:53:04.76

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020001.CNF;1 *
* Acquisition date  : 13-FEB-2010 14:52:28  Detector SN#     :             *
* Detector ID       : GAM16                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:02.14          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020001            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.35480E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.721E+01	3.784E+00	5.171E-01	4.545E-02	71.968
CD-109	3.545E+00	1.052E+00	1.076E+00	1.037E-01	3.294
SN-126	3.474E-01	1.031E-01	1.059E-01	1.016E-02	3.279
TL-208	4.945E-01	8.650E-02	5.296E-02	5.249E-03	9.337
BI-211	4.163E+00	6.254E-01	2.629E-01	2.874E-02	15.839
BI-212	1.202E+00	4.243E-01	3.991E-01	4.169E-02	3.013
PB-212	1.854E+00	2.451E-01	7.735E-02	9.159E-03	23.966
PO-212	1.854E+00	2.451E-01	7.735E-02	9.159E-03	23.966
BI-214	1.205E+00	2.141E-01	1.029E-01	1.087E-02	11.712
PB-214	1.448E+00	2.303E-01	9.163E-02	1.108E-02	15.806
PO-214	1.448E+00	2.303E-01	9.163E-02	1.108E-02	15.806
PO-216	1.854E+00	2.451E-01	7.735E-02	9.159E-03	23.966
PO-218	1.448E+00	2.303E-01	9.163E-02	1.108E-02	15.806
RA-224	5.546E+00	1.377E+00	8.804E-01	9.703E-02	6.299
RA-226	1.205E+00	2.141E-01	1.029E-01	1.087E-02	11.712
AC-228	1.944E+00	3.637E-01	1.854E-01	2.202E-02	10.488
RA-228	1.944E+00	3.637E-01	1.854E-01	2.202E-02	10.488
TH-228	1.886E+00	2.493E-01	7.868E-02	9.316E-03	23.966

Sample ID : G246020001 Acquisition date : 13-FEB-2010 14:52:28

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.205E+00	2.141E-01	1.029E-01	1.087E-02	11.712
TH-232	1.944E+00	3.637E-01	1.854E-01	2.202E-02	10.488
TH-234	2.226E+00	1.924E+00	1.733E+00	3.022E-01	1.285
U-234	1.205E+00	2.141E-01	1.029E-01	1.087E-02	11.712
NP-237	1.020E+00	3.687E-01	3.496E-01	7.937E-02	2.918
U-238	2.226E+00	1.924E+00	1.733E+00	3.022E-01	1.285
AM-243	3.604E-01	6.686E-02	7.687E-02	6.364E-03	4.689
ANH-511	1.304E-01	6.041E-02	4.256E-02	4.048E-03	3.064

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.183E-02		3.117E-01	5.198E-01	5.259E-02	0.061
NA-22	-2.281E-03		4.513E-02	7.281E-02	6.059E-03	-0.031
NA-24	-2.840E+00		3.182E+00	Half-Life too short		
AL-26	-3.120E-04		2.272E-02	3.723E-02	3.045E-03	-0.008
TI-44	4.239E-01	+	5.637E-02	6.775E-02	5.834E-03	6.257
SC-46	3.897E-03		3.552E-02	5.993E-02	5.666E-03	0.065
V-48	-4.428E-02		7.162E-02	1.115E-01	1.026E-02	-0.397
CR-51	1.570E-02		3.687E-01	5.852E-01	6.842E-02	0.027
MN-52	1.321E-01		2.646E-01	4.564E-01	3.894E-02	0.289
MN-54	2.092E-02		3.518E-02	6.159E-02	5.785E-03	0.340
CO-56	4.885E-03		3.546E-02	6.016E-02	5.661E-03	0.081
CO-57	5.957E-03		2.254E-02	3.813E-02	3.168E-03	0.156
CO-58	-3.451E-02		3.656E-02	5.634E-02	5.279E-03	-0.613
FE-59	-1.295E-01		9.752E-02	1.394E-01	1.296E-02	-0.929
CO-60	-2.264E-02		3.683E-02	5.465E-02	4.610E-03	-0.414
ZN-65	3.685E-02		1.002E-01	1.486E-01	1.262E-02	0.248
GE-68	7.822E-01		1.265E+00	2.188E+00	1.911E-01	0.357
AS-73	2.143E-01		7.544E-01	1.199E+00	9.145E-02	0.179
AS-74	1.078E-02		8.450E-02	1.392E-01	1.292E-02	0.077
SE-75	-1.212E-02		4.450E-02	6.209E-02	7.246E-03	-0.195
BR-77	-1.307E+01		1.620E+01	2.488E+01	2.364E+00	-0.525
SR-82	-3.992E-01		3.910E-01	5.606E-01	5.197E-02	-0.712
RB-83	-4.101E-02		6.126E-02	9.534E-02	9.059E-03	-0.430
RB-84	3.363E-02		6.517E-02	1.138E-01	1.075E-02	0.296
KR-85	2.809E+00		6.983E+00	1.049E+01	9.971E-01	0.268
SR-85	1.471E-02		3.657E-02	5.491E-02	5.221E-03	0.268
RB-86	1.498E-01		8.580E-01	1.433E+00	1.252E-01	0.105
Y-88	-3.894E-03		2.881E-02	4.599E-02	3.734E-03	-0.085
ZR-88	-7.180E-03		2.570E-02	4.236E-02	3.918E-03	-0.170
Y-91	3.594E+00		2.058E+01	3.399E+01	2.764E+00	0.106
NB-94	-2.639E-03		3.032E-02	4.843E-02	4.378E-03	-0.054
NB-95	2.769E-02		4.798E-02	7.281E-02	6.730E-03	0.380
NB-95M	3.919E-02		1.249E-01	1.833E-01	2.180E-02	0.214
ZR-95	8.673E-03		7.063E-02	1.142E-01	1.147E-02	0.076
NB-97	3.357E-01		3.347E-01	Half-Life too short		

Sample ID : G246020001 Acquisition date : 13-FEB-2010 14:52:28

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	1.516E+01		6.269E+00	Half-Life too short		
MO-99	-8.532E+00		1.883E+01	2.887E+01	4.476E+00	-0.295
TC-99M	3.259E+12		4.332E+12	Half-Life too short		
RH-101	6.988E-04		2.948E-02	4.748E-02	4.688E-03	0.015
RH-102	5.266E-03		2.770E-02	4.647E-02	4.417E-03	0.113
RU-103	1.180E-02		3.847E-02	6.487E-02	9.552E-03	0.182
RH-106	9.676E-02		2.984E-01	4.970E-01	6.810E-02	0.195
RU-106	9.676E-02		2.982E-01	4.970E-01	4.545E-02	0.195
AG-108M	-5.470E-03		2.901E-02	4.728E-02	4.602E-03	-0.116
AG-110M	2.309E-02		3.327E-02	5.668E-02	5.188E-03	0.407
IN-111	-1.577E-01		1.621E+00	2.309E+00	2.572E-01	-0.068
IN-113M	-2.234E-02		3.712E-02	5.977E-02	5.673E-03	-0.374
SN-113	-2.234E-02		3.712E-02	5.977E-02	5.673E-03	-0.374
IN-114M	1.301E-01		1.761E-01	2.686E-01	2.598E-02	0.484
CD-115	3.836E+00		1.690E+01	2.830E+01	2.686E+00	0.136
SN-117M	3.726E-02		5.204E-02	8.848E-02	7.858E-03	0.421
SB-122	7.431E-01		3.136E+00	5.224E+00	4.915E-01	0.142
I-123	4.979E+01		3.093E+01	Half-Life too short		
TE-123M	1.967E-02		2.444E-02	4.169E-02	3.728E-03	0.472
I-124	1.093E-01		8.832E-01	1.346E+00	1.245E-01	0.081
SB-124	-1.671E-02		5.996E-02	9.338E-02	8.178E-03	-0.179
SB-125	2.630E-04		7.779E-02	1.299E-01	1.241E-02	0.002
TE-125M	3.445E+00		8.121E+00	1.368E+01	1.394E+00	0.252
I-126	8.711E-02		1.846E-01	3.096E-01	2.754E-02	0.281
SB-126	2.623E-01		1.604E-01	2.876E-01	2.618E-02	0.912
SB-127	-8.170E-02		1.887E+00	3.032E+00	3.712E-01	-0.027
XE-127	-1.069E-02		4.316E-02	6.952E-02	6.953E-03	-0.154
I-131	-1.624E-02		1.241E-01	2.054E-01	2.174E-02	-0.079
TE-132	7.784E-01		9.377E-01	1.566E+00	2.707E-01	0.497
BA-133	-8.803E-03		3.927E-02	5.740E-02	8.295E-03	-0.153
I-133	6.966E-03		1.259E-02	Half-Life too short		
CS-134	6.697E-02		4.251E-02	7.901E-02	7.408E-03	0.848
CS-135	1.990E-01		1.670E-01	2.520E-01	3.214E-02	0.789
I-135	1.579E+11		4.199E+11	Half-Life too short		
CS-136	-4.809E-02		1.126E-01	1.778E-01	1.647E-02	-0.270
BA-137M	-1.003E-02		3.373E-02	5.319E-02	4.721E-03	-0.189
CS-137	-1.060E-02		3.565E-02	5.623E-02	4.999E-03	-0.189
CE-139	-1.520E-02		2.586E-02	4.146E-02	3.760E-03	-0.367
BA-140	-9.969E-02		2.490E-01	3.921E-01	1.309E-01	-0.254
LA-140	-2.651E-02		9.025E-02	1.440E-01	1.226E-02	-0.184
CE-141	4.422E-03		5.979E-02	9.823E-02	8.593E-03	0.045
CE-143	1.197E-03		2.466E-04	Half-Life too short		
CE-144	-3.660E-02		1.971E-01	2.918E-01	4.506E-02	-0.125
PM-144	-1.448E-02		3.141E-02	4.849E-02	4.374E-03	-0.299
PR-144	-9.823E-01		2.131E+00	3.289E+00	2.966E-01	-0.299
PM-146	2.588E-03		3.867E-02	6.460E-02	7.377E-03	0.040
ND-147	-2.993E-01		5.449E-01	8.525E-01	1.319E-01	-0.351
PM-149	-2.355E+01		1.606E+02	2.539E+02	4.469E+01	-0.093

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	4.884E-02		8.372E-02	1.419E-01	1.586E-02	0.344
GD-153	-7.916E-02		7.303E-02	1.045E-01	9.284E-03	-0.757
EU-154	-5.156E-03		1.249E-01	2.017E-01	2.234E-02	-0.026
EU-155	7.888E-02		9.282E-02	1.610E-01	1.393E-02	0.490
TB-160	2.182E-02		1.288E-01	2.185E-01	2.064E-02	0.100
HO-166M	1.221E-02		5.899E-02	9.646E-02	8.751E-03	0.127
TM-171	-1.442E+01		2.822E+01	3.895E+01	2.984E+00	-0.370
LU-176	8.894E-03		2.218E-02	3.608E-02	4.185E-03	0.247
LU-177	3.242E+00	+	1.858E+00	2.292E+00	2.326E-01	1.414
LU-177M	4.640E-02		1.662E-01	2.511E-01	2.347E-02	0.185
HF-181	-7.880E-04		4.084E-02	6.753E-02	6.423E-03	-0.012
W-181	2.181E-01		3.503E-01	5.163E-01	3.899E-02	0.422
TA-182	-7.105E-04		2.010E-01	3.271E-01	2.675E-02	-0.002
RE-183	-3.596E-02		9.589E-02	1.528E-01	1.372E-02	-0.235
RE-184	6.278E-02		2.136E-01	3.489E-01	3.954E-02	0.180
OS-185	-6.931E-03		3.838E-02	6.118E-02	5.499E-03	-0.113
RE-188	8.392E-02		1.569E-01	2.649E-01	2.331E-02	0.317
W-188	4.055E+00		7.252E+00	1.073E+01	1.272E+00	0.378
IR-192	-1.021E-02		3.323E-02	5.155E-02	5.892E-03	-0.198
AU-195	3.206E-01		1.903E-01	3.381E-01	2.977E-02	0.948
TL-200	-2.200E-04		7.058E-04	Half-Life too short		
TL-201	4.351E-01		9.543E+00	1.576E+01	1.434E+00	0.028
TL-202	8.988E-02		7.327E-02	1.303E-01	1.230E-02	0.690
HG-203	1.723E-02		3.889E-02	6.359E-02	7.750E-03	0.271
BI-207	2.564E-02		4.895E-02	8.443E-02	7.443E-03	0.304
TL-207	5.620E-02		6.857E-01	9.694E-01	1.854E-01	0.058
PO-209	1.105E+00		6.657E+00	1.128E+01	1.067E+00	0.098
BI-210	2.118E+00		3.297E+00	5.332E+00	4.972E-01	0.397
PB-210	2.118E+00		3.297E+00	5.332E+00	4.972E-01	0.397
PO-210	2.118E+00		3.296E+00	5.332E+00	4.504E-01	0.397
PB-211	-2.026E-01		8.849E-01	1.265E+00	7.942E-01	-0.160
PO-215	5.620E-02		6.857E-01	9.694E-01	1.854E-01	0.058
RN-219	7.162E-02		3.540E-01	6.006E-01	9.263E-02	0.119
RN-220	5.545E+00		2.475E+01	4.124E+01	3.896E+00	0.134
RA-223	5.620E-02		6.857E-01	9.694E-01	1.854E-01	0.058
AC-227	-2.258E-01		3.604E-01	5.557E-01	9.491E-02	-0.406
TH-227	-2.258E-01		3.610E-01	5.557E-01	1.087E-01	-0.406
TH-229	-2.732E-01		4.363E-01	6.903E-01	6.736E-02	-0.396
PA-231	-2.275E-01		1.444E+00	2.282E+00	3.947E-01	-0.100
TH-231	5.620E-02		6.857E-01	9.694E-01	1.854E-01	0.058
U-231	-7.386E-01		1.296E+00	1.914E+00	1.718E-01	-0.386
PA-233	-2.291E-02		5.539E-02	8.517E-02	9.955E-03	-0.269
PA-234	-1.757E-01		3.089E-01	4.739E-01	9.052E-02	-0.371
PA-234M	3.454E+00		4.536E+00	7.886E+00	8.210E-01	0.438
U-235	-5.186E-02		1.924E-01	3.132E-01	5.474E-02	-0.166
NP-236	-3.419E-02		6.711E-02	1.082E-01	9.658E-03	-0.316
NP-239	-3.070E-02		1.635E-01	2.724E-01	2.268E-02	-0.113
AM-241	-4.541E-02		1.451E-01	2.042E-01	1.602E-02	-0.222

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.047E-02		8.196E-02	1.402E-01	1.205E-02	0.217
AM-246	-1.267E-02		1.413E-01	2.306E-01	2.012E-02	-0.055
CM-247	2.224E-02		3.119E-02	5.450E-02	5.067E-03	0.408
CF-249	-1.518E-02		3.507E-02	5.734E-02	5.379E-03	-0.265
CF-251	-1.907E-03		1.108E-01	1.819E-01	1.695E-02	-0.010

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020001           *
* Acquisition date  : 13-FEB-2010 14:52:28 Detector SN#     :               *
* Detector ID       : GAM16                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.14      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020001           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.3548E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.721E+01	3.708E+00	2.593E-01	1.892E+00
CD-109	3.545E+00	1.031E+00	5.682E-01	5.260E-01
SN-126	3.474E-01	1.010E-01	5.593E-02	5.154E-02
TL-208	4.945E-01	8.477E-02	2.702E-02	4.325E-02
BI-211	4.163E+00	6.129E-01	1.354E-01	3.127E-01
BI-212	1.202E+00	4.158E-01	2.028E-01	2.122E-01
PB-212	1.854E+00	2.402E-01	4.012E-02	1.225E-01
PO-212	1.854E+00	2.402E-01	4.012E-02	1.225E-01
BI-214	1.205E+00	2.098E-01	5.244E-02	1.071E-01
PB-214	1.448E+00	2.257E-01	4.719E-02	1.152E-01
PO-214	1.448E+00	2.257E-01	4.719E-02	1.152E-01
PO-216	1.854E+00	2.402E-01	4.012E-02	1.225E-01
PO-218	1.448E+00	2.257E-01	4.719E-02	1.152E-01
RA-224	5.546E+00	1.349E+00	4.566E-01	6.884E-01
RA-226	1.205E+00	2.098E-01	5.244E-02	1.071E-01
AC-228	1.944E+00	3.565E-01	9.380E-02	1.819E-01
RA-228	1.944E+00	3.565E-01	9.380E-02	1.819E-01
TH-228	1.886E+00	2.443E-01	4.081E-02	1.246E-01
TH-230	1.205E+00	2.098E-01	5.244E-02	1.071E-01
TH-232	1.944E+00	3.565E-01	9.380E-02	1.819E-01
TH-234	2.226E+00	1.886E+00	9.200E-01	9.621E-01
U-234	1.205E+00	2.098E-01	5.244E-02	1.071E-01
NP-237	1.020E+00	3.613E-01	1.846E-01	1.844E-01
U-238	2.226E+00	1.886E+00	9.200E-01	9.621E-01
AM-243	3.604E-01	6.552E-02	4.070E-02	3.343E-02
ANH-511	1.304E-01	5.920E-02	2.177E-02	3.020E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	3.183E-02	3.054E-01	2.662E-01	1.558E-01 NOT IDENT.

NA-22	-2.281E-03	4.422E-02	3.661E-02	2.256E-02	NOT IDENT.
NA-24	-2.840E+06	6.237E+06	0.000E+00	3.182E+06	SHORT HLIF
AL-26	-3.120E-04	2.226E-02	1.859E-02	1.136E-02	NOT IDENT.
TI-44	4.239E-01	5.524E-02	3.584E-02	2.818E-02	FAIL ABUN
SC-46	3.897E-03	3.481E-02	3.034E-02	1.776E-02	FAIL ABUN
V-48	-4.428E-02	7.019E-02	5.634E-02	3.581E-02	NOT IDENT.
CR-51	1.570E-02	3.614E-01	3.019E-01	1.844E-01	NOT IDENT.
MN-52	1.321E-01	2.593E-01	2.290E-01	1.323E-01	NOT IDENT.
MN-54	2.092E-02	3.448E-02	3.122E-02	1.759E-02	NOT IDENT.
CO-56	4.885E-03	3.475E-02	3.048E-02	1.773E-02	FAIL ABUN
CO-57	5.957E-03	2.209E-02	2.001E-02	1.127E-02	NOT IDENT.
CO-58	-3.451E-02	3.583E-02	2.857E-02	1.828E-02	NOT IDENT.
FE-59	-1.295E-01	9.557E-02	7.030E-02	4.876E-02	NOT IDENT.
CO-60	-2.264E-02	3.609E-02	2.746E-02	1.841E-02	NOT IDENT.
ZN-65	3.685E-02	9.817E-02	7.492E-02	5.009E-02	NOT IDENT.
GE-68	7.822E-01	1.239E+00	1.104E+00	6.323E-01	NOT IDENT.
AS-73	2.143E-01	7.393E-01	6.383E-01	3.772E-01	NOT IDENT.
AS-74	1.078E-02	8.281E-02	7.102E-02	4.225E-02	NOT IDENT.
SE-75	-1.212E-02	4.361E-02	3.215E-02	2.225E-02	NOT IDENT.
BR-77	-1.307E+01	1.588E+01	1.272E+01	8.102E+00	FAIL ABUN
SR-82	-3.992E-01	3.831E-01	2.845E-01	1.955E-01	NOT IDENT.
RB-83	-4.101E-02	6.003E-02	4.875E-02	3.063E-02	NOT IDENT.
RB-84	3.363E-02	6.386E-02	5.760E-02	3.258E-02	NOT IDENT.
KR-85	2.809E+00	6.844E+00	5.364E+00	3.492E+00	NOT IDENT.
SR-85	1.471E-02	3.584E-02	2.809E-02	1.828E-02	NOT IDENT.
RB-86	1.498E-01	8.409E-01	7.228E-01	4.290E-01	NOT IDENT.
Y-88	-3.894E-03	2.823E-02	2.296E-02	1.441E-02	NOT IDENT.
ZR-88	-7.180E-03	2.519E-02	2.177E-02	1.285E-02	NOT IDENT.
Y-91	3.594E+00	2.017E+01	1.711E+01	1.029E+01	NOT IDENT.
NB-94	-2.639E-03	2.972E-02	2.463E-02	1.516E-02	NOT IDENT.
NB-95	2.769E-02	4.702E-02	3.696E-02	2.399E-02	NOT IDENT.
NB-95M	3.919E-02	1.224E-01	9.509E-02	6.243E-02	NOT IDENT.
ZR-95	8.673E-03	6.922E-02	5.800E-02	3.532E-02	NOT IDENT.
NB-97	3.357E+05	6.559E+05	0.000E+00	3.347E+05	SHORT HLIF
ZR-97	1.516E+07	1.229E+07	0.000E+00	6.269E+06	SHORT HLIF
MO-99	-8.532E+00	1.845E+01	1.467E+01	9.413E+00	NOT IDENT.
TC-99M	3.259E+18	8.490E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	6.988E-04	2.889E-02	2.471E-02	1.474E-02	NOT IDENT.
RH-102	5.266E-03	2.714E-02	2.380E-02	1.385E-02	NOT IDENT.
RU-103	1.180E-02	3.770E-02	3.320E-02	1.924E-02	FAIL ABUN
RH-106	9.676E-02	2.924E-01	2.533E-01	1.492E-01	FAIL ABUN
RU-106	9.676E-02	2.923E-01	2.533E-01	1.491E-01	FAIL ABUN
AG-108M	-5.470E-03	2.843E-02	2.426E-02	1.451E-02	NOT IDENT.
AG-110M	2.309E-02	3.260E-02	2.886E-02	1.663E-02	NOT IDENT.
IN-111	-1.577E-01	1.589E+00	1.197E+00	8.105E-01	NOT IDENT.
IN-113M	-2.234E-02	3.637E-02	3.072E-02	1.856E-02	NOT IDENT.
SN-113	-2.234E-02	3.637E-02	3.072E-02	1.856E-02	NOT IDENT.
IN-114M	1.301E-01	1.726E-01	1.399E-01	8.806E-02	NOT IDENT.
CD-115	3.836E+00	1.656E+01	1.447E+01	8.450E+00	NOT IDENT.
SN-117M	3.726E-02	5.100E-02	4.623E-02	2.602E-02	NOT IDENT.
SB-122	7.431E-01	3.073E+00	2.668E+00	1.568E+00	NOT IDENT.
I-123	4.979E+07	6.062E+07	0.000E+00	3.093E+07	SHORT HLIF
TE-123M	1.967E-02	2.395E-02	2.178E-02	1.222E-02	NOT IDENT.
I-124	1.093E-01	8.655E-01	6.864E-01	4.416E-01	NOT IDENT.
SB-124	-1.671E-02	5.876E-02	4.670E-02	2.998E-02	FAIL ABUN
SB-125	2.630E-04	7.623E-02	6.666E-02	3.889E-02	FAIL ABUN
TE-125M	3.445E+00	7.959E+00	7.197E+00	4.061E+00	NOT IDENT.
I-126	8.711E-02	1.809E-01	1.576E-01	9.228E-02	NOT IDENT.
SB-126	2.623E-01	1.572E-01	1.462E-01	8.020E-02	FAIL ABUN
SB-127	-8.170E-02	1.849E+00	1.542E+00	9.434E-01	NOT IDENT.
XE-127	-1.069E-02	4.230E-02	3.616E-02	2.158E-02	NOT IDENT.
I-131	-1.624E-02	1.216E-01	1.057E-01	6.206E-02	NOT IDENT.
TE-132	7.784E-01	9.190E-01	8.127E-01	4.689E-01	NOT IDENT.
BA-133	-8.803E-03	3.848E-02	2.956E-02	1.963E-02	NOT IDENT.
I-133	6.966E+03	2.468E+04	0.000E+00	1.259E+04	SHORT HLIF
CS-134	6.697E-02	4.166E-02	4.008E-02	2.125E-02	NOT IDENT.
CS-135	1.990E-01	1.637E-01	1.305E-01	8.351E-02	NOT IDENT.
I-135	1.579E+17	8.231E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.809E-02	1.103E-01	8.975E-02	5.628E-02	FAIL ABUN
BA-137M	-1.003E-02	3.305E-02	2.708E-02	1.686E-02	NOT IDENT.
CS-137	-1.060E-02	3.494E-02	2.862E-02	1.783E-02	NOT IDENT.
CE-139	-1.520E-02	2.534E-02	2.164E-02	1.293E-02	NOT IDENT.
BA-140	-9.969E-02	2.440E-01	2.004E-01	1.245E-01	NOT IDENT.
LA-140	-2.651E-02	8.844E-02	7.207E-02	4.512E-02	FAIL ABUN
CE-141	4.422E-03	5.859E-02	5.140E-02	2.989E-02	NOT IDENT.
CE-143	1.197E+03	4.833E+02	0.000E+00	2.466E+02	SHORT HLIF
CE-144	-3.660E-02	1.932E-01	1.529E-01	9.857E-02	NOT IDENT.
PM-144	-1.448E-02	3.078E-02	2.466E-02	1.570E-02	NOT IDENT.

PR-144	-9.823E-01	2.088E+00	1.673E+00	1.065E+00	NOT IDENT.
PM-146	2.588E-03	3.790E-02	3.311E-02	1.934E-02	NOT IDENT.
ND-147	-2.993E-01	5.340E-01	4.358E-01	2.725E-01	FAIL ABUN
PM-149	-2.355E+01	1.574E+02	1.313E+02	8.032E+01	NOT IDENT.
EU-152	4.884E-02	8.205E-02	7.313E-02	4.186E-02	FAIL ABUN
GD-153	-7.916E-02	7.157E-02	5.507E-02	3.651E-02	NOT IDENT.
EU-154	-5.156E-03	1.224E-01	1.014E-01	6.243E-02	NOT IDENT.
EU-155	7.888E-02	9.096E-02	8.473E-02	4.641E-02	FAIL ABUN
TB-160	2.182E-02	1.262E-01	1.106E-01	6.438E-02	FAIL ABUN
HO-166M	1.221E-02	5.781E-02	4.904E-02	2.949E-02	NOT IDENT.
TM-171	-1.442E+01	2.765E+01	2.066E+01	1.411E+01	NOT IDENT.
LU-176	8.894E-03	2.173E-02	1.863E-02	1.109E-02	FAIL ABUN
LU-177	3.242E+00	1.821E+00	1.192E+00	9.289E-01	FAIL ABUN
LU-177M	4.640E-02	1.628E-01	1.289E-01	8.308E-02	FAIL ABUN
HF-181	-7.880E-04	4.002E-02	3.458E-02	2.042E-02	NOT IDENT.
W-181	2.181E-01	3.433E-01	2.740E-01	1.751E-01	NOT IDENT.
TA-182	-7.105E-04	1.970E-01	1.646E-01	1.005E-01	FAIL ABUN
RE-183	-3.596E-02	9.397E-02	7.981E-02	4.794E-02	FAIL ABUN
RE-184	6.278E-02	2.093E-01	1.808E-01	1.068E-01	NOT IDENT.
OS-185	-6.931E-03	3.762E-02	3.116E-02	1.919E-02	NOT IDENT.
RE-188	8.392E-02	1.538E-01	1.385E-01	7.846E-02	NOT IDENT.
W-188	4.055E+00	7.107E+00	5.544E+00	3.626E+00	FAIL ABUN
IR-192	-1.021E-02	3.256E-02	2.660E-02	1.661E-02	FAIL ABUN
AU-195	3.206E-01	1.865E-01	1.781E-01	9.517E-02	FAIL ABUN
TL-200	-2.200E+02	1.383E+03	0.000E+00	7.058E+02	SHORT HLIF
TL-201	4.351E-01	9.352E+00	8.225E+00	4.771E+00	NOT IDENT.
TL-202	8.988E-02	7.180E-02	6.684E-02	3.663E-02	NOT IDENT.
HG-203	1.723E-02	3.811E-02	3.289E-02	1.944E-02	NOT IDENT.
BI-207	2.564E-02	4.798E-02	4.260E-02	2.448E-02	FAIL ABUN
TL-207	5.620E-02	6.719E-01	5.000E-01	3.428E-01	FAIL ABUN
PO-209	1.105E+00	6.524E+00	5.709E+00	3.329E+00	NOT IDENT.
BI-210	2.118E+00	3.231E+00	2.846E+00	1.649E+00	NOT IDENT.
PB-210	2.118E+00	3.231E+00	2.846E+00	1.649E+00	NOT IDENT.
PO-210	2.118E+00	3.230E+00	2.846E+00	1.648E+00	NOT IDENT.
PB-211	-2.026E-01	8.672E-01	6.501E-01	4.425E-01	NOT IDENT.
PO-215	5.620E-02	6.719E-01	5.000E-01	3.428E-01	FAIL ABUN
RN-219	7.162E-02	3.469E-01	3.086E-01	1.770E-01	FAIL ABUN
RN-220	5.545E+00	2.425E+01	2.107E+01	1.237E+01	NOT IDENT.
RA-223	5.620E-02	6.719E-01	5.000E-01	3.428E-01	FAIL ABUN
AC-227	-2.258E-01	3.532E-01	2.879E-01	1.802E-01	FAIL ABUN
TH-227	-2.258E-01	3.538E-01	2.879E-01	1.805E-01	FAIL ABUN
TH-229	-2.732E-01	4.276E-01	3.594E-01	2.182E-01	FAIL ABUN
PA-231	-2.275E-01	1.415E+00	1.180E+00	7.219E-01	FAIL ABUN
TH-231	5.620E-02	6.719E-01	5.000E-01	3.428E-01	FAIL ABUN
U-231	-7.386E-01	1.270E+00	1.009E+00	6.478E-01	FAIL ABUN
PA-233	-2.291E-02	5.428E-02	4.396E-02	2.770E-02	FAIL ABUN
PA-234	-1.757E-01	3.028E-01	2.396E-01	1.545E-01	FAIL ABUN
PA-234M	3.454E+00	4.446E+00	3.983E+00	2.268E+00	NOT IDENT.
U-235	-5.186E-02	1.885E-01	1.639E-01	9.619E-02	FAIL ABUN
NP-236	-3.419E-02	6.576E-02	5.653E-02	3.355E-02	NOT IDENT.
NP-239	-3.070E-02	1.602E-01	1.431E-01	8.175E-02	FAIL ABUN
AM-241	-4.541E-02	1.422E-01	1.085E-01	7.256E-02	NOT IDENT.
CM-243	3.047E-02	8.032E-02	7.379E-02	4.098E-02	FAIL ABUN
AM-246	-1.267E-02	1.385E-01	1.163E-01	7.067E-02	NOT IDENT.
CM-247	2.224E-02	3.057E-02	2.800E-02	1.560E-02	NOT IDENT.
CF-249	-1.518E-02	3.437E-02	2.948E-02	1.753E-02	NOT IDENT.
CF-251	-1.907E-03	1.085E-01	9.483E-02	5.538E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	229.2178
46.50	229.2178
46.50	229.2178
48.70	298.2570
49.72	229.1389
51.35	270.8250
52.39	256.0981
52.97	254.1345
53.15	254.2675
53.44	255.6814
54.07	256.1454
56.28	290.4227
56.28	290.4245
57.37	0.0000
57.53	275.6470
57.53	275.6483
57.60	275.7003
57.98	254.1033
57.98	254.1033
59.32	309.1278
59.32	309.1278
59.40	307.5672
59.54	297.9158
59.72	298.0596
60.01	303.1819
61.10	268.0982
61.14	268.1262
61.30	268.2392
63.00	325.2934
63.29	325.5381
63.29	325.5381
63.58	325.7819
64.28	372.5199
65.12	328.7188
65.20	328.7840
65.20	328.7840
66.05	397.3755
66.72	381.4569
66.83	381.5622
66.91	381.6394
67.20	405.1600
67.20	405.1600
67.75	395.3189
67.85	395.4180
68.90	367.6750
68.90	367.6750
69.30	369.7029
69.67	375.8835
70.82	414.6174
70.82	414.6174
70.83	414.6275
72.80	390.0644
72.87	390.1281
72.87	390.1281
74.67	401.4915
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74.81	401.6196
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74.81	401.6196
74.81	401.6196
74.97	401.7694
75.28	402.0569
75.70	402.4434
77.11	403.7384
77.11	403.7384

77.11	403.7384
77.11	403.7384
77.11	403.7384
77.11	403.7384
77.11	403.7384
78.38	404.8956
79.62	380.8009
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79.80	380.9527
80.11	364.5272
80.18	364.5835
80.30	364.6789
80.30	364.6789
80.57	385.4530
81.00	428.2568
81.07	428.3229
81.07	428.3229
81.07	428.3229
81.07	428.3229
82.60	468.0368
83.37	401.5922
83.78	381.6779
83.78	381.6779
83.78	381.6779
83.78	381.6779
84.21	382.0290
84.90	365.7295
85.43	386.9144
86.29	478.6678
86.50	450.2498
86.54	450.2868
86.59	450.3343
86.72	450.4557
86.79	450.5191
86.94	450.6643
87.30	451.0022
87.30	451.0022
87.30	451.0022
87.30	451.0022
87.30	451.0022
87.30	451.0022
87.30	451.0022
87.57	365.1779
87.88	365.4129
88.03	365.5261
88.36	365.7761
88.47	365.8594
89.95	366.9702
91.11	310.0327
92.29	310.7709
92.38	310.8267
92.38	310.8267
93.35	311.4281
94.00	262.9426
94.67	236.8262
94.67	236.8289
94.90	267.3797
94.90	267.3797
94.90	267.3797
94.90	267.3797
95.87	302.3689
95.87	302.3689
96.73	330.7753
97.43	328.5613
98.44	268.3344
98.44	268.3359
98.88	257.0011
99.55	259.1104
99.55	259.1104
99.86	269.0640
100.00	277.1552
100.10	277.2106
103.18	299.4326
103.76	288.9857
105.00	266.2582
105.31	286.2110
108.00	291.2278
109.28	277.3934

111.00	300.0629
111.00	300.0629
111.76	294.0905
112.95	270.0687
115.19	294.9325
116.30	299.1649
117.00	292.1729
117.00	292.1729
117.66	293.4194
121.11	291.4208
121.62	276.8527
121.78	284.3351
122.06	289.1008
122.32	299.4216
122.32	299.4216
122.32	299.4216
122.32	299.4216
123.07	323.9231
127.23	277.5266
129.76	263.1656
131.20	280.6909
133.02	291.3912
133.54	285.9612
135.34	260.2574
136.00	270.9442
136.25	277.6800
136.48	277.7783
140.51	277.5666
140.51	0.0000
142.18	311.7236
142.65	307.1581
143.76	309.5778
144.24	325.1405
144.24	325.1405
144.24	325.1405
144.24	325.1405
145.22	299.6760
145.44	299.7712
147.16	288.9618
152.43	270.7666
152.70	270.8687
153.22	276.8968
154.21	249.0651
154.21	249.0651
154.21	249.0651
154.21	249.0651
155.03	281.4945
156.02	337.4788
158.56	240.7849
159.00	0.0000
159.00	234.0719
160.31	260.0021
161.27	280.9727
162.32	242.0186
162.64	223.4208
163.35	219.6948
163.89	231.6843
165.85	266.8881
167.43	253.5781
171.28	256.8478
171.86	249.0718
172.10	249.1481
176.55	250.5722
176.60	250.5900
181.06	252.5029
184.41	247.9857
185.71	248.3795
186.00	248.4692
190.27	214.0781
192.34	233.0051
193.63	244.6210
197.04	242.5227
198.01	222.2227
198.60	221.3447
200.40	230.0618
201.83	271.7779
202.84	249.3329
205.31	241.2178

208.36	252.9816
208.81	253.1102
209.75	206.4554
209.75	206.4554
210.97	198.9065
215.65	236.1465
216.55	242.6835
218.09	228.3595
222.10	227.2368
223.80	216.0029
226.40	227.2183
227.00	200.8010
227.08	210.3810
227.20	210.4072
228.16	189.3459
228.18	189.3495
228.18	189.3495
231.56	0.0000
235.69	226.7476
236.00	221.9948
236.00	221.9948
238.63	195.7096
238.63	195.7096
238.63	195.7096
238.63	195.7096
239.00	195.7818
240.98	196.1762
241.98	196.3743
241.98	196.3743
241.98	196.3743
244.69	163.9092
245.39	170.5209
247.94	175.8362
248.90	173.8297
249.79	188.1189
252.40	178.7894
252.85	178.8678
252.85	178.8678
254.15	0.0000
256.20	207.8985
256.20	207.8985
260.50	164.8102
260.90	181.3583
262.80	173.9794
264.65	172.0754
268.24	169.3359
268.79	161.1180
269.46	167.3129
269.46	167.3129
269.46	167.3129
269.46	167.3129
271.23	166.4764
273.65	195.2130
276.40	167.2699
277.35	172.9938
277.60	171.9184
277.60	171.9184
278.00	185.3822
278.60	166.4882
279.20	173.2839
279.53	192.3487
280.46	207.0598
281.68	178.1536
283.67	177.3514
284.30	159.4813
285.00	147.2178
285.90	173.2061
286.10	179.9837
286.10	179.9837
287.40	168.9301
288.45	0.0000
290.67	138.9230
290.80	138.9380
291.72	172.9655
293.26	0.0000
293.70	154.5789
295.21	153.0807
295.21	153.0807

295.21	153.0807
295.96	153.1824
296.50	153.2538
297.23	153.3499
298.57	153.5257
299.80	134.9037
299.80	134.9037
300.09	134.9374
300.09	134.9374
300.09	134.9374
300.09	134.9374
300.12	134.9423
301.29	129.9478
302.84	112.9984
303.76	149.0693
303.91	142.2332
304.40	162.8638
304.40	162.8638
304.84	162.9247
306.84	135.1411
308.46	127.2982
311.98	134.5743
316.51	155.8603
318.01	137.5574
319.02	166.5938
319.41	158.5456
320.08	149.3688
323.87	146.3463
323.87	146.3463
323.87	146.3463
323.87	146.3463
325.23	156.9727
328.77	157.4176
333.44	141.8537
334.20	154.5854
334.20	154.5854
334.30	154.5989
338.28	130.4101
338.28	130.4101
338.28	130.4101
338.28	130.4101
338.32	130.4146
338.32	130.4146
338.32	130.4146
340.50	125.6929
340.57	125.6995
344.27	117.3594
345.85	113.4512
350.59	0.0000
351.07	108.5650
351.92	108.6358
351.92	108.6358
351.92	108.6358
355.39	0.0000
356.01	115.7602
364.48	124.0433
366.43	117.9212
367.43	124.3129
367.94	0.0000
369.80	112.7987
374.96	115.9395
383.85	104.8294
387.95	128.9043
388.63	119.8181
391.69	114.5763
391.69	114.5763
392.90	109.1693
398.62	116.9715
400.65	115.2897
401.10	112.5581
401.81	110.7660
402.60	98.8202
404.84	109.5149
410.95	115.9146
411.60	107.0437
413.65	98.2588
414.70	78.9604
415.30	116.2516

415.76	110.5728
417.63	0.0000
418.52	114.8208
423.70	115.2149
427.08	105.1436
427.89	98.6250
432.53	99.8651
433.93	101.8400
439.47	105.9895
439.56	98.4236
439.89	101.2840
443.98	118.6314
444.90	108.2544
445.03	108.2649
445.03	108.2649
445.03	108.2649
445.03	108.2649
453.90	101.2286
463.38	88.3754
468.07	104.8123
473.00	97.5895
475.06	107.3856
475.35	103.5338
476.78	99.7482
477.59	107.5482
477.96	103.6954
482.03	103.9469
484.57	103.1307
487.03	107.1785
490.36	0.0000
492.35	110.4464
497.08	92.1296
507.63	0.0000
510.53	0.0000
510.84	95.8233
511.00	95.8322
511.85	95.8773
511.85	95.8773
513.99	95.0039
513.99	95.0039
520.41	92.3671
520.65	92.3813
527.90	72.8062
528.96	0.0000
529.64	72.8775
529.87	0.0000
531.02	84.9222
537.32	83.2102
543.00	77.4324
546.56	0.0000
549.76	90.8377
552.65	95.0212
555.20	83.0035
563.23	90.4721
563.90	85.4176
568.70	83.5941
569.32	82.6018
569.50	82.6092
569.67	81.5967
573.80	78.7060
574.00	78.7130
574.64	93.0551
578.91	70.5091
579.30	0.0000
583.14	85.2467
585.48	72.3916
591.81	67.0551
592.07	67.0630
593.00	77.4170
595.88	72.3605
600.56	93.2547
602.52	0.0000
602.71	82.9810
602.71	82.9810
603.60	78.0365
604.41	96.3400
604.70	96.3542
609.31	90.5365

609.31	90.5365
609.31	90.5365
609.31	90.5365
610.33	90.5816
612.46	86.7166
614.37	70.1060
618.01	77.3378
621.84	77.4823
621.84	77.4823
631.29	49.4369
633.02	77.9023
633.10	75.7991
634.78	74.8070
635.90	74.8460
636.97	60.1189
645.85	69.9034
646.12	72.0321
656.30	81.9535
657.75	73.4894
657.90	0.0000
661.65	87.4929
661.65	87.4929
664.57	0.0000
666.33	72.7107
666.33	72.7107
675.00	65.4845
677.61	81.6847
685.20	80.8868
692.80	80.0793
695.00	95.3235
696.49	81.2943
696.49	81.2943
697.00	65.0500
697.49	56.3894
698.33	57.4948
698.50	64.0091
699.00	71.6195
702.63	76.0818
706.10	72.9316
706.58	0.0000
706.67	84.9269
709.31	82.8444
711.68	78.5654
713.82	76.4536
717.42	82.0427
720.50	62.4359
721.93	0.0000
722.20	105.2314
722.78	101.7492
722.78	101.7492
722.89	101.7549
722.95	87.7222
723.30	87.7344
724.18	94.7900
727.18	65.9106
733.00	77.8222
735.90	54.0274
739.58	80.6146
742.81	74.0909
744.21	79.6663
747.13	83.0864
751.79	64.3792
752.31	68.8342
753.82	78.8761
755.35	72.2562
756.15	73.3920
756.87	66.7401
763.93	55.3323
765.79	69.6649
766.42	78.6178
766.84	82.2048
776.49	84.0981
778.00	61.7105
778.57	60.6017
778.89	60.6099
783.80	69.7273
785.46	63.0222
792.07	76.7283

795.84	53.3391
796.30	49.7323
798.80	95.9409
801.93	70.6856
805.60	65.3432
810.29	83.6490
810.76	76.3895
815.85	48.2939
817.79	72.0393
818.51	59.2887
819.60	52.9264
826.30	57.6382
828.27	0.0000
831.60	78.8424
831.96	79.7698
834.83	67.9243
836.80	0.0000
846.75	58.0904
848.13	71.9596
856.28	0.0000
856.80	72.5023
860.37	44.4867
867.32	62.3891
867.82	53.4388
871.10	62.3430
873.19	59.5969
874.81	63.3599
875.33	0.0000
876.40	64.3287
879.36	55.9995
880.27	54.1513
880.51	55.0892
881.50	50.4391
883.24	59.8172
884.67	55.1728
889.25	54.3283
896.60	54.4727
898.02	65.7771
899.00	61.1010
903.28	40.0118
911.07	52.8678
911.07	52.8678
911.07	52.8678
919.63	52.0822
920.93	63.4750
925.00	38.8979
925.24	38.9010
926.50	38.9190
935.52	51.4200
937.48	90.5237
944.10	62.0801
946.00	64.0311
949.00	62.1848
962.29	53.8180
964.01	53.8494
966.15	53.8891
968.20	53.9260
969.11	53.9437
969.11	53.9437
969.11	53.9437
977.42	53.1282
980.50	45.4475
983.50	61.9484
989.30	49.4610
996.32	71.9332
1001.03	52.5735
1001.68	57.4544
1004.76	71.1590
1021.30	0.0000
1024.50	0.0000
1034.80	63.9812
1036.00	64.9913
1037.82	56.1595
1038.57	60.1154
1038.76	0.0000
1045.16	62.2187
1046.59	58.2942
1048.07	60.2971

1050.47	49.4629
1050.47	49.4629
1062.04	41.7006
1063.62	49.6680
1076.63	61.8365
1077.35	56.8636
1078.86	62.8770
1085.78	46.0090
1099.22	83.3566
1112.02	66.0933
1112.84	67.7133
1115.52	62.2388
1120.29	58.6231
1120.29	58.6231
1120.29	58.6231
1120.29	58.6231
1120.51	58.6259
1121.28	58.6400
1124.00	0.0000
1129.67	46.6244
1131.51	0.0000
1147.95	0.0000
1167.94	56.3750
1173.22	71.8594
1175.09	70.8732
1177.93	68.8746
1189.05	59.8125
1204.90	79.7634
1205.75	0.0000
1213.00	82.0242
1221.42	75.9728
1230.97	89.4392
1235.34	85.3193
1236.41	0.0000
1238.25	73.1890
1246.25	80.8380
1260.41	0.0000
1271.85	60.1450
1274.45	57.0217
1274.54	58.0776
1291.56	38.1885
1298.22	0.0000
1312.09	39.4625
1325.50	44.9531
1325.50	44.9531
1332.49	40.7442
1333.61	37.5396
1360.21	38.8758
1362.66	0.0000
1365.15	24.8687
1368.21	33.5445
1368.53	0.0000
1376.25	28.9141
1384.27	30.7834
1394.10	13.0699
1395.20	26.1469
1407.95	28.4159
1434.06	19.7991
1436.60	21.0955
1457.56	0.0000
1460.81	26.7544
1489.15	11.1455
1509.49	19.5978
1596.49	26.6533
1620.62	14.3549
1678.03	0.0000
1691.02	12.6308
1691.02	12.6308
1706.46	0.0000
1750.46	0.0000
1764.49	21.9856
1764.49	21.9856
1764.49	21.9856
1764.49	21.9856
1770.23	16.9315
1771.40	34.5770
1791.20	0.0000
1808.65	7.9629

1836.01 12.0093

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020001

Total Uranium Activity	6.5980E+00	ug/g
Total Uranium Counting Unc.	5.6105E+00	ug/g
Total Uranium Tpu	2.8625E-06	ug/g
Total Uranium Mda	2.7380E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID   : G246020001      *
*   ANALYST       : MXR1                      DETECTOR    : GAM16           *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 14:52:28.36    SAMPLE ALQT:  135.480 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.099E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.472E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.560E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.722E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:54:02.41

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020002.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:52:53
Sample ID         : G246020002           Sample quantity  : 1.33730E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:05.06  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.45*	14753	6246	0.99	126.03	120	11	2.05E+00	1.3	
2	0	77.16	336	4580	1.02	153.44	152	6	4.67E-02	32.3	
3	0	84.07*	1046	7718	1.61	167.25	163	9	1.45E-01	15.5	
4	2	92.79*	45326	5173	1.15	184.68	178	16	6.30E+00	0.5	1.07E+01
5	2	94.87	1846	3888	1.25	188.85	178	16	2.56E-01	11.3	
6	0	98.69	3005	3102	1.12	196.47	193	8	4.17E-01	3.7	
7	3	111.40	788	3523	1.40	221.88	218	11	1.09E-01	14.4	3.80E-01
8	3	112.99	2277	2556	1.03	225.08	218	11	3.16E-01	4.2	
9	0	131.44	281	2002	1.37	261.96	259	8	3.91E-02	28.2	
10	0	143.97*	1664	2433	1.16	287.02	283	11	2.31E-01	6.3	
11	0	163.41*	921	1678	1.29	325.87	321	10	1.28E-01	9.0	
12	0	185.86*	8448	2112	1.17	370.75	364	14	1.17E+00	1.6	
13	0	205.69*	552	1460	1.16	410.39	405	11	7.66E-02	14.2	
14	0	226.78	209	721	1.61	452.58	449	8	2.90E-02	23.3	
15	6	238.77*	1189	652	1.16	476.54	472	15	1.65E-01	4.7	1.18E+00
16	6	241.28	288	920	1.96	481.57	472	15	4.00E-02	22.4	
17	0	258.34	649	752	1.27	515.68	510	10	9.01E-02	8.8	
18	0	295.10*	483	701	1.51	589.17	583	12	6.71E-02	12.0	
19	0	300.18	158	541	1.12	599.33	595	10	2.20E-02	28.6	
20	0	338.26*	203	422	1.20	675.46	672	8	2.82E-02	19.1	
21	0	351.84*	732	627	1.38	702.61	695	13	1.02E-01	8.1	
22	0	463.09	92	291	1.09	925.05	921	9	1.28E-02	35.1	
23	0	510.92*	67	464	2.60	1020.67	1014	13	9.24E-03	74.6	
24	0	583.07*	546	382	1.55	1164.93	1156	17	7.58E-02	9.4	
25	0	609.36*	595	335	1.72	1217.50	1211	16	8.26E-02	8.2	
26	0	661.77	168	349	1.26	1322.29	1315	13	2.33E-02	24.2	
27	0	726.87*	109	289	1.71	1452.46	1449	12	1.51E-02	33.0	
28	0	742.28	492	387	1.69	1483.28	1475	17	6.84E-02	10.2	
29	0	766.10*	1658	315	1.65	1530.91	1524	16	2.30E-01	3.4	
30	0	786.02*	220	335	0.86	1570.73	1564	13	3.05E-02	18.6	
31	0	878.62	86	231	1.32	1755.90	1748	16	1.20E-02	40.8	
32	0	910.63*	304	92	1.83	1819.91	1812	14	4.23E-02	9.0	
33	0	925.76	129	120	2.65	1850.15	1844	13	1.79E-02	19.6	
34	0	945.62	133	123	1.80	1889.86	1884	12	1.85E-02	18.8	
35	0	968.94*	125	180	1.96	1936.51	1929	12	1.74E-02	23.6	
36	0	1000.60*	3704	133	1.89	1999.82	1991	17	5.14E-01	1.8	
37	0	1120.34*	107	157	1.82	2239.24	2229	16	1.49E-02	28.5	
38	0	1238.03	110	82	1.99	2474.60	2468	15	1.53E-02	20.6	

Sample ID : G246020002 Acquisition date : 13-FEB-2010 14:52:53

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1460.04*	1508	75	2.34	2918.56	2907	23	2.09E-01	3.0	
40	0	1509.78	70	61	1.87	3018.04	3011	18	9.76E-03	29.0	
41	0	1553.32	27	22	2.03	3105.11	3100	14	3.69E-03	41.7	
42	0	1737.20	61	24	1.57	3472.86	3468	11	8.43E-03	21.4	
43	0	1763.66*	130	38	2.48	3525.78	3515	20	1.81E-02	15.1	
44	0	1808.59	16	10	2.33	3615.63	3609	10	2.25E-03	44.0	
45	0	1830.90	65	5	0.99	3660.26	3652	19	8.99E-03	14.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 16:54:05

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:52:53
Sample ID : G246020002 Sample quantity : 133.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:05.06 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AL-26		1129.67		-5.457E-01	1.491E+00	2.370E+00	1.583E-01	-0.230
	+	1808.65	*	2.723E-02	2.402E-02	3.415E-02	1.994E-03	0.797
K-40	+	1460.81	*	2.095E+01	2.025E+00	4.311E-01	3.271E-02	48.597
NB-95	+	765.79	*	1.753E+00	2.004E-01	7.982E-02	7.301E-03	21.957
TE-132		49.72		-9.311E+01	1.054E+02	1.749E+02	1.887E+01	-0.532
	+	111.76		5.789E+02	1.760E+02	1.689E+02	1.676E+01	3.427
		116.30		5.013E+01	1.012E+02	1.465E+02	1.425E+01	0.342
	+	228.16	*	3.676E+00	1.799E+00	2.261E+00	3.318E-01	1.626
BA-137M	+	661.65	*	1.464E-01	7.177E-02	6.668E-02	5.083E-03	2.195
CS-137	+	661.65	*	1.547E-01	7.588E-02	7.049E-02	5.387E-03	2.195
CE-141	+	145.44	*	1.693E+00	2.338E-01	1.856E-01	1.059E-02	9.121
TL-208		277.35		4.784E-01	4.713E-01	7.857E-01	8.252E-02	0.609
	+	510.84		2.007E-01	3.000E-01	2.536E-01	2.696E-02	0.791
	+	583.14	*	4.625E-01	9.385E-02	6.815E-02	5.342E-03	6.786
		860.37		5.044E-01	3.004E-01	5.257E-01	5.880E-02	0.960
BI-211		72.87		-8.957E+00	8.936E+00	1.459E+01	1.204E+00	-0.614
	+	351.07	*	2.913E+00	5.054E-01	3.874E-01	2.487E-02	7.519
BI-212	+	727.18	*	7.740E-01	5.169E-01	5.185E-01	5.164E-02	1.493
	+	785.46		9.984E+00	3.833E+00	3.573E+00	3.378E-01	2.794
		1620.62		1.678E+00	9.901E-01	1.921E+00	1.299E-01	0.874
PB-212		74.81		2.750E+00	1.178E+00	1.723E+00	2.159E-01	1.597
	+	77.11		1.001E+00	6.515E-01	9.646E-01	8.176E-02	1.037
		87.30		3.399E-01	1.661E+00	1.929E+00	2.620E-01	0.176
	+	238.63	*	1.102E+00	1.297E-01	1.195E-01	8.535E-03	9.224
	+	300.09		2.180E+00	1.258E+00	1.459E+00	1.198E-01	1.495
PO-212		74.81		2.750E+00	1.178E+00	1.723E+00	2.159E-01	1.597
	+	77.11		1.001E+00	6.515E-01	9.646E-01	8.176E-02	1.037
		87.30		3.399E-01	1.661E+00	1.929E+00	2.620E-01	0.176
		115.19		4.074E+01	9.204E+00	1.387E+01	8.739E-01	2.937
	+	238.63	*	1.102E+00	1.297E-01	1.195E-01	8.535E-03	9.224
	+	300.09		2.180E+00	1.258E+00	1.459E+00	1.198E-01	1.495
BI-214	+	609.31	*	9.460E-01	1.772E-01	1.275E-01	1.139E-02	7.420
	+	1120.29		8.526E-01	4.921E-01	4.205E-01	4.026E-02	2.028
	+	1764.49		1.367E+00	4.203E-01	1.949E-01	1.185E-02	7.013

Sample ID : G246020002 Acquisition date : 13-FEB-2010 14:52:53

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-214		74.81		4.739E+00	2.011E+00	2.968E+00	3.314E-01	1.597
	+	77.11		1.715E+00	1.124E+00	1.654E+00	1.885E-01	1.037
		87.30		5.823E-01	2.846E+00	3.304E+00	3.964E-01	0.176
	+	241.98		1.600E+00	7.268E-01	7.100E-01	5.614E-02	2.253
	+	295.21		1.168E+00	2.973E-01	2.695E-01	2.286E-02	4.335
	+	351.92	*	1.013E+00	1.836E-01	1.350E-01	1.117E-02	7.505
PO-214		74.81		4.739E+00	2.011E+00	2.968E+00	3.314E-01	1.597
	+	77.11		1.715E+00	1.124E+00	1.654E+00	1.885E-01	1.037
		87.30		5.823E-01	2.846E+00	3.304E+00	3.964E-01	0.176
	+	241.98		1.600E+00	7.268E-01	7.100E-01	5.614E-02	2.253
	+	295.21		1.168E+00	2.973E-01	2.695E-01	2.286E-02	4.335
	+	351.92	*	1.013E+00	1.836E-01	1.350E-01	1.117E-02	7.505
PO-216		74.81		2.750E+00	1.178E+00	1.723E+00	2.159E-01	1.597
	+	77.11		1.001E+00	6.515E-01	9.646E-01	8.176E-02	1.037
		87.30		3.399E-01	1.661E+00	1.929E+00	2.620E-01	0.176
	+	238.63	*	1.102E+00	1.297E-01	1.195E-01	8.535E-03	9.224
	+	300.09		2.180E+00	1.258E+00	1.459E+00	1.198E-01	1.495
PO-218		74.81		4.739E+00	2.011E+00	2.968E+00	3.314E-01	1.597
	+	77.11		1.715E+00	1.124E+00	1.654E+00	1.885E-01	1.037
		87.30		5.823E-01	2.846E+00	3.304E+00	3.964E-01	0.176
	+	241.98		1.600E+00	7.268E-01	7.100E-01	5.614E-02	2.253
	+	295.21		1.168E+00	2.973E-01	2.695E-01	2.286E-02	4.335
	+	351.92	*	1.013E+00	1.836E-01	1.350E-01	1.117E-02	7.505
RA-224	+	240.98	*	3.033E+00	1.368E+00	1.358E+00	7.565E-02	2.234
RA-226	+	609.31	*	9.460E-01	1.772E-01	1.275E-01	1.139E-02	7.420
	+	1120.29		8.526E-01	4.921E-01	4.205E-01	4.026E-02	2.028
	+	1764.49		1.367E+00	4.203E-01	1.949E-01	1.185E-02	7.013
AC-228	+	338.32		8.973E-01	5.015E-01	4.416E-01	1.800E-01	2.032
	+	911.07	*	1.109E+00	2.479E-01	1.954E-01	2.589E-02	5.675
	+	969.11		8.032E-01	4.255E-01	3.209E-01	7.684E-02	2.503
RA-228	+	338.32		8.973E-01	5.015E-01	4.416E-01	1.800E-01	2.032
	+	911.07	*	1.109E+00	2.479E-01	1.954E-01	2.589E-02	5.675
	+	969.11		8.032E-01	4.255E-01	3.209E-01	7.684E-02	2.503
TH-228		74.81		2.798E+00	1.170E+00	1.752E+00	1.477E-01	1.597
	+	77.11		1.018E+00	6.627E-01	9.811E-01	8.316E-02	1.037
		87.30		3.458E-01	1.690E+00	1.962E+00	1.803E-01	0.176
	+	238.63	*	1.121E+00	1.319E-01	1.215E-01	8.682E-03	9.224
	+	300.09		2.218E+00	1.820E+00	1.484E+00	8.744E-01	1.495
TH-230	+	609.31	*	9.460E-01	1.771E-01	1.275E-01	1.139E-02	7.420
	+	1120.29		8.526E-01	4.921E-01	4.205E-01	4.026E-02	2.028
	+	1764.49		1.367E+00	4.203E-01	1.949E-01	1.185E-02	7.013
U-231	+	84.21		1.167E+02	3.754E+01	3.765E+01	3.368E+00	3.099
	+	92.29		1.798E+03	1.530E+02	1.353E+01	1.152E+00	132.947
	+	95.87	*	4.421E+01	1.065E+01	5.688E+00	4.557E-01	7.773
		108.00		-6.079E+00	7.488E+00	1.061E+01	7.212E-01	-0.573
TH-232	+	338.32		8.973E-01	3.470E-01	4.416E-01	2.554E-02	2.032
	+	911.07	*	1.109E+00	2.479E-01	1.954E-01	2.589E-02	5.675
	+	969.11		8.032E-01	4.255E-01	3.209E-01	7.684E-02	2.503
PA-234M	+	766.42		4.540E+02	2.328E+02	2.069E+01	1.052E+01	21.940

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1001.03	*	4.819E+02	5.483E+01	6.596E+00	7.115E-01	73.067
TH-234	+	63.29	*	3.507E+02	6.253E+01	6.382E+00	1.125E+00	54.955
	+	92.38		3.386E+02	6.105E+01	2.544E+00	4.587E-01	133.076
U-234	+	609.31	*	9.460E-01	1.771E-01	1.275E-01	1.139E-02	7.420
	+	1120.29		8.526E-01	4.921E-01	4.205E-01	4.026E-02	2.028
	+	1764.49		1.367E+00	4.203E-01	1.949E-01	1.185E-02	7.013
U-235		89.95		1.034E+01	5.084E+00	5.955E+00	1.842E+00	1.736
	+	93.35		4.071E+02	1.139E+02	3.028E+00	8.463E-01	134.423
		105.00		2.646E+00	2.482E+00	3.884E+00	1.143E+00	0.681
	+	143.76	*	5.411E+00	1.109E+00	5.914E-01	9.579E-02	9.149
	+	163.35		6.876E+00	1.738E+00	1.236E+00	2.202E-01	5.564
	+	185.71		5.741E+00	3.560E-01	1.042E-01	5.543E-03	55.089
	+	205.31		4.504E+00	1.510E+00	1.271E+00	2.269E-01	3.545
U-238	+	63.29	*	3.507E+02	6.253E+01	6.382E+00	1.125E+00	54.955
	+	92.38		3.386E+02	2.880E+01	2.544E+00	2.163E-01	133.076
ANH-511	+	511.00	*	4.334E-02	6.471E-02	5.479E-02	3.619E-03	0.791

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.746E-02	3.776E-01	6.217E-01	4.505E-02	-0.028
NA-22		1274.54	*	-1.290E-02	3.595E-02	5.738E-02	3.905E-03	-0.225
NA-24		1368.53	*	-3.855E+00	3.595E-02	Half-Life too short		
TI-44		67.85		-4.086E-01	1.509E-01	2.097E-01	1.686E-02	-1.949
	+	78.38	*	1.847E-01	1.202E-01	1.720E-01	1.470E-02	1.074
SC-46		889.25	*	-2.475E-02	4.209E-02	6.635E-02	7.400E-03	-0.373
	+	1120.51		1.484E-01	8.507E-02	1.063E-01	7.346E-03	1.396
V-48		944.10		4.104E+00	1.307E+00	2.133E+00	2.257E-01	1.924
		983.50	*	4.557E-02	6.904E-02	1.166E-01	1.153E-02	0.391
		1312.09		-3.868E-02	7.067E-02	1.101E-01	8.020E-03	-0.351
CR-51		320.08	*	2.329E-01	4.792E-01	7.843E-01	5.050E-02	0.297
MN-52		744.21		3.378E+00	6.028E-01	9.613E-01	8.477E-02	3.514
		848.13		1.534E+00	8.735E+00	1.448E+01	1.514E+00	0.106
		935.52		1.706E-01	3.091E-01	5.188E-01	5.565E-02	0.329
		1246.25		3.476E+00	8.786E+00	1.283E+01	8.248E-01	0.271
		1333.61		-1.867E-01	5.352E+00	8.575E+00	6.478E-01	-0.022
		1434.06	*	5.667E-01	2.970E-01	5.523E-01	4.070E-02	1.026
MN-54		834.83	*	-1.644E-02	4.068E-02	6.550E-02	6.709E-03	-0.251
CO-56		846.75	*	-3.302E-02	4.206E-02	6.589E-02	6.878E-03	-0.501
		977.42		-2.802E-01	2.825E+00	4.545E+00	4.546E-01	-0.062
		1037.82		-9.443E-02	2.654E-01	4.336E-01	4.017E-02	-0.218
		1175.09		8.427E-01	1.939E+00	3.296E+00	1.829E-01	0.256
	+	1238.25		2.504E-01	1.043E-01	1.440E-01	9.599E-03	1.739
		1360.21		-5.314E-02	8.284E-01	1.343E+00	1.010E-01	-0.040
		1771.40		-9.680E-03	1.735E-01	2.386E-01	1.442E-02	-0.041
CO-57		122.06	*	-2.826E-02	5.166E-02	8.203E-02	4.859E-03	-0.344
		136.48		-4.440E-02	4.169E-01	6.297E-01	4.122E-02	-0.071
CO-58		810.76	*	-3.237E-02	4.514E-02	7.160E-02	7.068E-03	-0.452

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
FE-59	+	142.65		7.201E+01	9.875E+00	1.091E+01	6.002E-01	6.602
		192.34		7.403E-01	1.506E+00	2.364E+00	2.741E-01	0.313
		1099.22	*	-1.096E-03	7.691E-02	1.279E-01	1.053E-02	-0.009
		1291.56		5.672E-02	1.001E-01	1.715E-01	1.442E-02	0.331
CO-60		1173.22		2.088E-03	3.865E-02	6.418E-02	3.547E-03	0.033
		1332.49	*	6.550E-03	3.138E-02	5.226E-02	3.948E-03	0.125
ZN-65		1115.52	*	8.953E-03	8.434E-02	1.212E-01	8.538E-03	0.074
GE-68		1077.35	*	-1.243E-03	9.721E-01	1.622E+00	1.288E-01	-0.001
AS-73		53.44	*	-1.776E-01	2.947E+00	4.952E+00	3.926E-01	-0.036
AS-74		595.88	*	-9.747E-02	1.158E-01	1.798E-01	1.292E-02	-0.542
		634.78		3.797E-01	4.479E-01	7.473E-01	5.563E-02	0.508
SE-75		66.05		-2.820E+01	1.520E+01	2.158E+01	2.138E+00	-1.307
		96.73		1.565E+01	3.459E+00	3.652E+00	4.816E-01	4.286
		121.11		-8.917E-02	2.804E-01	4.473E-01	4.176E-02	-0.199
		136.00		-1.614E-02	8.472E-02	1.194E-01	6.798E-03	-0.135
		198.60		-5.100E+00	2.643E+00	4.168E+00	2.828E-01	-1.224
		264.65	*	-6.338E-03	5.638E-02	9.187E-02	5.254E-03	-0.069
		279.53		2.885E-02	1.385E-01	2.268E-01	1.401E-02	0.127
		303.91		1.490E+00	2.932E+00	4.235E+00	4.029E-01	0.352
		400.65		2.888E-01	3.023E-01	5.198E-01	4.735E-02	0.556
BR-77		87.88		9.255E+02	1.414E+03	1.653E+03	1.528E+02	0.560
		200.40		3.719E-01	4.711E+02	6.917E+02	3.726E+01	0.001
	+	239.00		3.174E+02	3.453E+01	5.648E+01	3.142E+00	5.620
		249.79		6.182E+01	1.609E+02	2.667E+02	1.495E+01	0.232
		281.68		-2.219E+02	2.043E+02	3.208E+02	1.830E+01	-0.692
		297.23		4.936E+02	1.769E+02	2.145E+02	1.231E+01	2.302
		303.76		2.555E+02	4.434E+02	6.428E+02	3.698E+01	0.398
		439.47		1.065E+02	2.886E+02	4.858E+02	2.961E+01	0.219
		484.57		-2.341E+02	4.745E+02	7.660E+02	4.917E+01	-0.306
		520.65	*	9.137E+00	2.176E+01	3.623E+01	2.417E+00	0.252
		574.64		-7.313E+02	5.231E+02	7.081E+02	4.986E+01	-1.033
		578.91		2.336E+02	2.051E+02	3.057E+02	2.161E+01	0.764
		585.48		2.137E+03	4.662E+02	7.619E+02	5.421E+01	2.805
		755.35		1.360E+02	3.494E+02	5.887E+02	5.291E+01	0.231
		817.79		2.565E+01	2.622E+02	4.340E+02	4.325E+01	0.059
SR-82		698.33		2.000E+01	4.219E+01	7.170E+01	5.838E+00	0.279
		776.49	*	-6.691E-01	5.054E-01	7.618E-01	7.094E-02	-0.878
		1395.20		7.979E+00	1.009E+01	1.757E+01	1.309E+00	0.454
RB-83		520.41	*	3.501E-02	8.156E-02	1.358E-01	9.058E-03	0.258
		529.64		-7.571E-03	1.244E-01	2.028E-01	1.366E-02	-0.037
		552.65		1.874E-01	2.350E-01	3.950E-01	2.722E-02	0.475
RB-84		881.50	*	1.654E-01	1.060E-01	1.618E-01	1.783E-02	1.022
KR-85		513.99	*	1.736E+01	9.578E+00	1.475E+01	9.771E-01	1.177
SR-85		513.99	*	9.091E-02	5.015E-02	7.723E-02	5.117E-03	1.177
RB-86		1076.63	*	2.426E-01	6.551E-01	1.121E+00	8.926E-02	0.216
Y-88		898.02		1.951E-02	4.212E-02	7.052E-02	7.994E-03	0.277
		1836.01	*	2.499E-02	2.906E-02	4.777E-02	2.721E-03	0.523
ZR-88		392.90	*	-3.452E-02	3.610E-02	5.843E-02	3.360E-03	-0.591
Y-91		1204.90	*	-7.438E-01	1.524E+01	2.508E+01	1.483E+00	-0.030

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94		702.63	*	-1.602E-02	3.905E-02	6.409E-02	5.258E-03	-0.250
		871.10		1.441E-02	3.856E-02	5.585E-02	6.057E-03	0.258
NB-95M		235.69	*	5.165E-02	1.732E-01	2.534E-01	1.859E-02	0.204
ZR-95		724.18		6.903E-02	1.288E-01	1.902E-01	1.763E-02	0.363
		756.15	*	7.576E-02	8.424E-02	1.445E-01	1.422E-02	0.524
NB-97		657.90	*	2.500E-01	8.424E-02	Half-Life too short		
		1024.50		-5.055E+01	8.424E-02	Half-Life too short		
ZR-97		254.15		-4.235E+01	8.424E-02	Half-Life too short		
		355.39		-3.198E+00	8.424E-02	Half-Life too short		
		507.63	*	3.258E+01	8.424E-02	Half-Life too short		
		602.52		2.405E+00	8.424E-02	Half-Life too short		
		1021.30		1.481E+01	8.424E-02	Half-Life too short		
		1147.95		1.435E+00	8.424E-02	Half-Life too short		
		1362.66		2.874E+01	8.424E-02	Half-Life too short		
		1750.46		-9.544E+00	8.424E-02	Half-Life too short		
MO-99		140.51		-6.202E+01	9.243E+01	1.262E+02	3.393E+01	-0.492
		181.06		-2.664E+01	4.990E+01	7.255E+01	1.232E+01	-0.367
		366.43		-1.251E+02	1.620E+02	2.657E+02	1.535E+01	-0.471
		739.58	*	9.192E+01	3.460E+01	5.166E+01	7.882E+00	1.779
		778.00		-2.307E+01	7.725E+01	1.125E+02	1.050E+01	-0.205
TC-99M		140.51	*	-1.380E+13	7.725E+01	Half-Life too short		
RH-101		127.23		-5.163E-02	7.089E-02	9.907E-02	5.723E-03	-0.521
		198.01	*	-6.079E-02	4.725E-02	7.607E-02	4.089E-03	-0.799
		325.23		-2.827E-01	2.731E-01	4.230E-01	2.444E-02	-0.668
RH-102		418.52		1.137E-01	3.213E-01	5.423E-01	3.223E-02	0.210
		475.06	*	-8.144E-04	3.380E-02	5.572E-02	3.539E-03	-0.015
		631.29		-5.581E-02	6.338E-02	9.751E-02	7.237E-03	-0.572
		697.49		3.497E-02	9.106E-02	1.543E-01	1.254E-02	0.227
	+	766.84		4.321E+00	4.940E-01	5.245E-01	4.806E-02	8.238
		1046.59		-1.676E-03	9.453E-02	1.579E-01	1.363E-02	-0.011
		1112.84		2.755E-02	2.047E-01	2.953E-01	2.096E-02	0.093
RU-103		497.08	*	-2.965E-02	4.965E-02	7.943E-02	1.031E-02	-0.373
	+	610.33		1.058E+01	2.431E+00	2.388E+00	3.830E-01	4.431
RH-106	+	511.85		2.173E-01	3.244E-01	3.963E-01	2.620E-02	0.548
		621.84	*	-2.580E-01	3.730E-01	5.795E-01	7.291E-02	-0.445
		1050.47		2.898E-01	1.858E+00	3.139E+00	2.682E-01	0.092
RU-106	+	511.85		2.173E-01	3.244E-01	3.963E-01	2.620E-02	0.548
		621.84	*	-2.580E-01	3.720E-01	5.795E-01	4.265E-02	-0.445
		1050.47		2.898E-01	1.858E+00	3.139E+00	2.682E-01	0.092
AG-108M		433.93	*	-1.289E-02	3.684E-02	6.043E-02	3.948E-03	-0.213
		614.37		-8.863E-03	5.070E-02	6.973E-02	5.373E-03	-0.127
		722.95		-4.259E-02	5.521E-02	7.522E-02	6.652E-03	-0.566
CD-109		88.03	*	2.831E+00	3.659E+00	4.283E+00	3.960E-01	0.661
AG-110M		657.75	*	6.833E-03	4.790E-02	6.997E-02	5.519E-03	0.098
		677.61		3.072E-01	3.548E-01	6.134E-01	4.976E-02	0.501
		706.67		5.328E-03	2.352E-01	3.928E-01	3.343E-02	0.014
		763.93		5.310E+00	6.186E-01	7.561E-01	7.069E-02	7.023
		884.67		6.501E-02	6.401E-02	9.600E-02	1.084E-02	0.677
		937.48		-4.226E-02	1.153E-01	1.682E-01	1.841E-02	-0.251

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1384.27		-6.261E-02	1.308E-01	2.027E-01	1.572E-02	-0.309
IN-111		171.28		-1.960E+00	2.558E+00	4.247E+00	2.235E-01	-0.461
		245.39	*	-1.466E-01	2.650E+00	3.813E+00	2.131E-01	-0.038
IN-113M		391.69	*	-2.930E-02	5.236E-02	8.605E-02	5.278E-03	-0.340
SN-113		391.69	*	-2.930E-02	5.236E-02	8.605E-02	5.278E-03	-0.340
IN-114M		190.27	*	-4.818E-02	2.963E-01	4.348E-01	2.321E-02	-0.111
CD-115		260.90		2.657E+02	3.686E+02	5.428E+02	3.064E+01	0.490
		492.35		6.960E+01	8.098E+01	1.374E+02	8.891E+00	0.507
		527.90	*	5.164E+00	2.333E+01	3.850E+01	2.587E+00	0.134
SN-117M		156.02		-4.517E-01	4.075E+00	6.898E+00	3.684E-01	-0.065
		158.56	*	-1.139E-02	1.099E-01	1.641E-01	8.723E-03	-0.069
SB-122		563.90	*	-1.524E+00	4.283E+00	6.864E+00	4.783E-01	-0.222
		692.80		7.962E+01	8.680E+01	1.497E+02	1.207E+01	0.532
I-123		159.00	*	-3.837E+01	8.680E+01	Half-Life too short		
		528.96		1.706E+03	8.680E+01	Half-Life too short		
TE-123M		159.00	*	-1.516E-02	5.181E-02	7.695E-02	4.151E-03	-0.197
I-124		602.71	*	2.201E-01	1.232E+00	1.734E+00	1.254E-01	0.127
		722.78		-6.202E+00	8.037E+00	1.095E+01	9.308E-01	-0.566
		1325.50		-2.218E+00	3.908E+01	6.360E+01	4.746E+00	-0.035
		1376.25		3.977E+01	3.558E+01	6.323E+01	4.735E+00	0.629
	+	1509.49		6.308E+01	3.682E+01	4.639E+01	3.323E+00	1.360
		1691.02		-8.241E-02	4.356E+00	7.177E+00	4.629E-01	-0.011
SB-124		602.71		9.392E-03	5.255E-02	7.397E-02	5.350E-03	0.127
		645.85		4.471E-01	5.873E-01	9.756E-01	7.909E-02	0.458
		709.31		-1.842E+00	3.176E+00	5.159E+00	4.283E-01	-0.357
		713.82		1.342E-02	1.917E+00	3.196E+00	3.790E-01	0.004
		722.78		-3.836E-01	4.971E-01	6.774E-01	5.885E-02	-0.566
	+	968.20		8.461E+00	4.090E+00	5.627E+00	5.722E-01	1.504
		1045.16		-1.918E-01	2.115E+00	3.517E+00	3.046E-01	-0.055
		1325.50		-1.465E-01	2.581E+00	4.201E+00	3.135E-01	-0.035
		1368.21		-9.168E-01	1.447E+00	2.201E+00	2.815E-01	-0.417
		1436.60		2.634E+00	3.739E+00	6.427E+00	4.732E-01	0.410
		1691.02	*	-1.202E-03	6.355E-02	1.047E-01	7.224E-03	-0.011
SB-125		427.89	*	5.451E-02	1.068E-01	1.809E-01	1.130E-02	0.301
	+	463.38		5.505E-01	3.881E-01	5.620E-01	4.029E-02	0.980
		600.56		-3.305E-03	2.086E-01	3.344E-01	2.664E-02	-0.010
		635.90		3.683E-01	3.161E-01	5.332E-01	4.398E-02	0.691
TE-125M		109.28	*	6.669E+01	2.608E+01	3.844E+01	3.382E+00	1.735
I-126		388.63		3.487E-01	2.694E-01	4.690E-01	2.696E-02	0.744
		666.33	*	-7.126E-02	2.606E-01	3.709E-01	2.851E-02	-0.192
		753.82		-2.257E-01	1.929E+00	3.185E+00	2.855E-01	-0.071
SB-126		223.80		-1.283E+00	6.627E+00	9.569E+00	5.260E-01	-0.134
		278.60		1.954E+00	3.446E+00	5.701E+00	3.249E-01	0.343
	+	296.50		1.301E+01	3.209E+00	3.740E+00	2.147E-01	3.478
		414.70		-2.238E-02	9.382E-02	1.552E-01	9.177E-03	-0.144
		415.30		-7.045E-01	7.837E+00	1.303E+01	7.713E-01	-0.054
		555.20		-3.914E+00	5.327E+00	8.393E+00	5.798E-01	-0.466
		573.80		-3.284E+00	1.596E+00	2.172E+00	1.528E-01	-1.512
		593.00		-1.751E-02	1.181E+00	1.910E+00	1.369E-01	-0.009

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		656.30		5.813E-01	5.025E+00	7.332E+00	5.564E-01	0.079
		666.33		-2.991E-02	1.094E-01	1.557E-01	1.197E-02	-0.192
		675.00		-3.689E-01	2.543E+00	4.234E+00	3.306E-01	-0.087
		695.00		-1.071E-01	1.047E-01	1.673E-01	1.354E-02	-0.640
		697.00		4.631E-02	3.617E-01	6.070E-01	4.931E-02	0.076
		720.50	*	-3.947E-02	2.004E-01	3.065E-01	2.594E-02	-0.129
		856.80		-2.856E-01	5.584E-01	8.900E-01	9.439E-02	-0.321
		989.30		-1.202E+00	1.285E+00	1.932E+00	1.890E-01	-0.622
		1034.80		-3.387E+00	8.594E+00	1.343E+01	1.192E+00	-0.252
		1213.00		-1.101E+00	4.081E+00	6.608E+00	3.973E-01	-0.167
SN-126	+	64.28		1.388E+02	2.082E+01	5.306E+00	7.843E-01	26.164
		86.94		-3.151E-01	1.507E+00	1.730E+00	7.175E-01	-0.182
		87.57	*	1.649E-01	3.587E-01	4.182E-01	3.853E-02	0.394
SB-127		61.10		8.485E+02	3.205E+02	4.774E+02	5.314E+01	1.777
		252.40		-6.495E+00	9.883E+00	1.331E+01	5.551E+00	-0.488
		290.80		9.686E+00	4.301E+01	6.163E+01	6.076E+00	0.157
		411.60		4.896E+00	1.933E+01	3.253E+01	4.845E+00	0.151
		444.90		-5.601E+00	1.599E+01	2.615E+01	3.034E+00	-0.214
		473.00		-4.377E-01	2.799E+00	4.591E+00	5.539E-01	-0.095
		543.00		-3.225E+00	2.872E+01	4.663E+01	6.488E+00	-0.069
		603.60		-1.046E+01	2.255E+01	3.046E+01	3.714E+00	-0.344
		685.20	*	-1.051E+00	2.263E+00	3.709E+00	4.272E-01	-0.283
		698.50		1.137E+01	2.551E+01	4.323E+01	6.922E+00	0.263
		722.20		-3.210E+01	5.691E+01	7.863E+01	9.186E+00	-0.408
		783.80		3.109E+01	9.325E+00	1.400E+01	1.894E+00	2.220
XE-127		57.60		8.150E+00	2.260E+01	3.634E+01	2.801E+00	0.224
	+	145.22		1.858E+01	2.548E+00	2.780E+00	1.520E-01	6.683
		172.10		-8.269E-02	1.928E-01	3.222E-01	1.696E-02	-0.257
		202.84	*	4.714E-02	8.033E-02	1.198E-01	6.465E-03	0.394
		374.96		-1.226E-01	2.353E-01	3.886E-01	2.241E-02	-0.316
I-131		80.18		-8.713E+00	2.295E+01	2.651E+01	2.315E+00	-0.329
		284.30		-5.820E-01	2.213E+00	3.568E+00	2.280E-01	-0.163
		364.48	*	3.040E-02	1.536E-01	2.606E-01	1.688E-02	0.117
		636.97		3.273E+00	2.110E+00	3.610E+00	2.898E-01	0.907
		722.89		-8.526E+00	1.105E+01	1.506E+01	1.290E+00	-0.566
BA-133		53.15		4.762E+00	1.254E+01	2.120E+01	1.682E+00	0.225
		79.62		-5.552E+00	5.533E+00	6.234E+00	9.493E-01	-0.891
		81.00		4.861E-02	4.096E-01	4.780E-01	7.614E-02	0.102
		276.40		3.306E-01	4.658E-01	7.712E-01	9.962E-02	0.429
		302.84		1.480E-01	1.964E-01	2.862E-01	3.329E-02	0.517
		356.01	*	-7.451E-03	5.838E-02	8.065E-02	9.316E-03	-0.092
		383.85		-1.863E-02	3.545E-01	5.940E-01	6.444E-02	-0.031
I-133	+	510.53		2.189E+00	3.545E-01	Half-Life too short		
		529.87	*	1.171E-02	3.545E-01	Half-Life too short		
		706.58		1.572E-02	3.545E-01	Half-Life too short		
		856.28		-2.081E+00	3.545E-01	Half-Life too short		
		875.33		6.752E-01	3.545E-01	Half-Life too short		
		1236.41		5.749E+00	3.545E-01	Half-Life too short		
		1298.22		-3.466E-01	3.545E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CS-134		475.35		2.904E-01	2.198E+00	3.645E+00	2.316E-01	0.080
		563.23		-6.753E-03	4.396E-01	7.144E-01	5.048E-02	-0.009
		569.32		3.223E-01	2.540E-01	4.277E-01	3.058E-02	0.754
		604.70		-2.930E-02	4.619E-02	6.178E-02	4.492E-03	-0.474
		795.84	*	1.110E-01	5.586E-02	9.683E-02	9.365E-03	1.147
		801.93		-4.129E-01	4.610E-01	7.235E-01	7.058E-02	-0.571
		1038.57		-4.788E-01	3.302E+00	5.474E+00	4.817E-01	-0.087
		1167.94		-6.923E-01	2.104E+00	3.408E+00	1.932E-01	-0.203
		1365.15		-3.651E-01	9.787E-01	1.535E+00	1.221E-01	-0.238
CS-135		268.24	*	6.457E-02	1.996E-01	3.289E-01	2.486E-02	0.196
I-135		288.45		-3.198E+12	1.996E-01	Half-Life too short		
		417.63		-1.244E+12	1.996E-01	Half-Life too short		
		546.56		-1.464E+12	1.996E-01	Half-Life too short		
		836.80		-7.638E+11	1.996E-01	Half-Life too short		
		1038.76		9.430E+10	1.996E-01	Half-Life too short		
		1124.00		7.227E+12	1.996E-01	Half-Life too short		
		1131.51		3.302E+10	1.996E-01	Half-Life too short		
		1260.41	*	4.228E+10	1.996E-01	Half-Life too short		
		1457.56		1.297E+14	1.996E-01	Half-Life too short		
		1678.03		-1.309E+11	1.996E-01	Half-Life too short		
		1706.46		-3.145E+12	1.996E-01	Half-Life too short		
		1791.20		-3.368E+11	1.996E-01	Half-Life too short		
CS-136		66.91		-8.748E+00	3.013E+00	3.823E+00	5.773E-01	-2.289
		86.29		-1.681E+00	4.571E+00	6.073E+00	8.006E-01	-0.277
		153.22		1.275E+00	1.190E+00	2.051E+00	1.412E-01	0.622
	+	163.89		1.731E+01	3.323E+00	3.997E+00	2.731E-01	4.331
		176.55		8.345E-01	6.402E-01	1.100E+00	6.667E-02	0.759
		273.65		-6.348E-01	6.379E-01	1.009E+00	6.572E-02	-0.629
		340.57		3.041E-01	1.927E-01	2.874E-01	1.769E-02	1.058
		818.51		-1.732E-02	9.207E-02	1.502E-01	1.500E-02	-0.115
		1048.07	*	-8.436E-02	9.904E-02	1.555E-01	1.394E-02	-0.543
		1235.34		1.138E+00	6.777E-01	1.065E+00	1.096E-01	1.068
CE-139		165.85	*	6.632E-02	5.370E-02	8.241E-02	4.326E-03	0.805
BA-140	+	162.64		1.223E+01	2.315E+00	2.809E+00	1.703E-01	4.352
		304.84		6.045E-01	1.986E+00	2.835E+00	7.735E-01	0.213
		423.70		-1.260E+00	2.437E+00	3.926E+00	1.249E+00	-0.321
		537.32	*	2.629E-01	3.503E-01	5.720E-01	1.871E-01	0.460
LA-140		328.77		5.364E-01	3.963E-01	6.629E-01	4.295E-02	0.809
		432.53		-1.073E-02	2.602E+00	4.325E+00	2.867E-01	-0.002
		487.03		-9.267E-02	1.795E-01	2.894E-01	2.064E-02	-0.320
		751.79		2.701E-01	2.255E+00	3.681E+00	3.617E-01	0.073
		815.85		1.527E-02	3.922E-01	6.473E-01	6.996E-02	0.024
		867.82		-8.299E-01	1.505E+00	2.379E+00	2.654E-01	-0.349
		919.63		6.970E-01	3.618E+00	5.131E+00	6.482E-01	0.136
	+	925.24		4.722E+00	1.927E+00	2.681E+00	3.036E-01	1.762
		1596.49	*	-2.195E-02	8.426E-02	1.364E-01	9.359E-03	-0.161
CE-143		57.37		2.719E-03	8.426E-02	Half-Life too short		
		231.56		-1.910E-04	8.426E-02	Half-Life too short		
		293.26	*	1.665E-03	8.426E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	350.59		6.339E-02	8.426E-02	Half-Life too short		
		490.36		8.306E-03	8.426E-02	Half-Life too short		
		664.57		6.149E-03	8.426E-02	Half-Life too short		
		721.93		-1.889E-03	8.426E-02	Half-Life too short		
CE-144		80.11		-3.834E+00	8.935E+00	1.031E+01	8.924E-01	-0.372
		133.54	*	2.790E-01	4.449E-01	6.383E-01	9.025E-02	0.437
PM-144		476.78		-5.221E-02	7.791E-02	1.250E-01	9.274E-03	-0.418
		618.01		2.739E-02	4.027E-02	6.101E-02	4.644E-03	0.449
		696.49	*	-6.201E-03	4.211E-02	6.994E-02	5.679E-03	-0.089
		778.57		-2.962E-01	3.278E+00	4.636E+00	4.334E-01	-0.064
PR-144		696.49	*	-4.207E-01	2.856E+00	4.745E+00	3.850E-01	-0.089
		1489.15		-6.182E+00	1.014E+01	1.525E+01	1.101E+00	-0.406
PM-146		453.90	*	-1.961E-02	5.150E-02	8.405E-02	7.477E-03	-0.233
		633.02		-1.037E-01	1.615E+00	2.591E+00	9.617E-01	-0.040
		735.90		-5.478E-02	2.531E-01	3.186E-01	9.121E-02	-0.172
		747.13		4.425E-02	1.223E-01	1.786E-01	2.534E-02	0.248
ND-147		91.11		8.121E+01	7.796E+00	3.133E+00	2.947E-01	25.923
		319.41		2.488E-02	4.647E+00	7.487E+00	4.325E-01	0.003
		439.89		2.605E+00	7.486E+00	1.259E+01	7.681E-01	0.207
		531.02	*	-1.222E-01	7.342E-01	1.191E+00	1.662E-01	-0.103
PM-149		285.90	*	-2.291E+01	2.128E+02	3.447E+02	4.877E+01	-0.066
EU-152		121.78		-1.074E-01	1.494E-01	2.363E-01	1.821E-02	-0.454
		244.69		5.057E-03	4.967E-01	7.168E-01	4.004E-02	0.007
		344.27	*	-1.125E-01	1.386E-01	1.853E-01	1.209E-02	-0.607
		443.98		-3.201E-01	1.086E+00	1.782E+00	1.092E-01	-0.180
		778.89		8.548E-02	3.711E-01	5.353E-01	5.005E-02	0.160
		867.32		-5.623E-01	8.070E-01	1.263E+00	1.362E-01	-0.445
		964.01		4.041E-01	3.158E-01	4.798E-01	4.914E-02	0.842
		1085.78		-2.831E-02	3.049E-01	5.049E-01	3.912E-02	-0.056
		1112.02		-1.309E-02	2.913E-01	4.126E-01	2.937E-02	-0.032
		1407.95		1.321E-01	1.557E-01	2.722E-01	2.021E-02	0.485
GD-153		69.67		7.365E+00	4.757E+00	7.969E+00	6.468E-01	0.924
	+	83.37		2.296E+02	7.388E+01	8.090E+01	7.186E+00	2.838
	+	97.43	*	3.842E+00	4.103E-01	4.252E-01	3.324E-02	9.035
		103.18		-1.005E-01	2.662E-01	3.820E-01	2.755E-02	-0.263
EU-154		123.07		1.384E-02	1.046E-01	1.681E-01	1.590E-02	0.082
		247.94		2.800E-01	4.930E-01	8.207E-01	7.731E-02	0.341
		591.81		1.406E-01	7.271E-01	1.155E+00	1.229E-01	0.122
		723.30		-1.425E-01	2.321E-01	3.198E-01	3.015E-02	-0.445
		756.87		4.015E-01	9.280E-01	1.533E+00	1.880E-01	0.262
		873.19		3.470E-01	3.415E-01	5.155E-01	7.181E-02	0.673
		996.32		4.746E+00	1.052E+00	1.174E+00	2.147E-01	4.042
		1004.76		3.022E+00	5.081E-01	6.993E-01	8.598E-02	4.322
		1274.45	*	-2.479E-02	9.943E-02	1.601E-01	1.599E-02	-0.155
EU-155		48.70		-4.710E+00	8.652E+00	1.449E+01	1.099E+00	-0.325
		60.01		3.955E+01	1.849E+01	2.829E+01	2.158E+00	1.398
		86.54		-1.395E-01	3.784E-01	5.028E-01	4.631E-02	-0.277
		105.31	*	1.461E-01	2.417E-01	3.948E-01	2.823E-02	0.370
TB-160		86.79		-3.645E-01	1.187E+00	1.364E+00	1.248E-01	-0.267

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		-4.735E-02	8.005E-01	1.335E+00	7.171E-02	-0.035
		215.65		2.099E-01	1.017E+00	1.695E+00	9.255E-02	0.124
		298.57		2.853E-01	2.049E-01	2.306E-01	1.324E-02	1.237
	+	879.36	*	3.504E-01	2.886E-01	3.027E-01	3.325E-02	1.158
		962.29		4.795E-01	5.697E-01	8.421E-01	8.651E-02	0.569
		966.15		8.529E-01	2.682E-01	4.304E-01	4.392E-02	1.982
		1177.93		-1.568E-01	3.097E-01	4.952E-01	2.765E-02	-0.317
		1271.85		-1.420E-01	5.737E-01	9.236E-01	6.242E-02	-0.154
HO-166M		80.57		-5.391E-01	1.145E+00	1.319E+00	1.146E-01	-0.409
	+	184.41		4.306E+00	2.670E-01	2.103E-01	1.117E-02	20.475
		280.46		1.897E-03	1.061E-01	1.727E-01	9.852E-03	0.011
		410.95		5.752E-02	2.726E-01	4.584E-01	2.698E-02	0.125
		711.68	*	-7.319E-02	7.021E-02	1.115E-01	9.292E-03	-0.657
		752.31		2.304E-02	3.201E-01	5.328E-01	4.764E-02	0.043
		810.29		-5.690E-02	6.685E-02	1.052E-01	1.036E-02	-0.541
TM-171		51.35		3.478E+01	1.084E+02	1.834E+02	1.454E+01	0.190
		52.39		6.659E+01	5.549E+01	9.445E+01	7.503E+00	0.705
		59.40		1.784E+02	9.980E+01	1.526E+02	1.159E+01	1.169
		66.72	*	-2.574E+02	9.020E+01	1.246E+02	9.961E+00	-2.066
LU-176		88.36		9.705E-01	8.531E-01	1.002E+00	9.202E-02	0.968
		201.83		1.116E-02	4.690E-02	6.929E-02	3.737E-03	0.161
		306.84	*	-1.126E-03	3.203E-02	4.988E-02	2.872E-03	-0.023
		401.10		6.492E+00	7.727E+00	1.327E+01	7.715E-01	0.489
LU-177	+	112.95		7.348E+01	7.807E+00	1.109E+01	7.147E-01	6.625
		208.36	*	3.070E+00	2.002E+00	3.057E+00	1.658E-01	1.004
LU-177M		52.97		4.597E+00	5.723E+00	9.711E+00	7.709E-01	0.473
		54.07		-1.276E+00	2.999E+00	5.012E+00	3.962E-01	-0.255
		61.30		2.220E+01	5.872E+00	8.888E+00	6.868E-01	2.498
		121.62		-4.735E-01	7.734E-01	1.227E+00	7.277E-02	-0.386
		147.16		6.764E-01	1.255E+00	1.791E+00	9.747E-02	0.378
		171.86		-3.352E-01	7.569E-01	1.265E+00	6.657E-02	-0.265
		218.09		3.069E-01	1.147E+00	1.914E+00	1.047E-01	0.160
		268.79		1.240E+00	1.008E+00	1.699E+00	9.633E-02	0.730
		319.02		-5.414E-02	3.221E-01	5.159E-01	2.978E-02	-0.105
		367.43		-2.362E-01	1.067E+00	1.784E+00	1.030E-01	-0.132
		413.65	*	-1.702E-01	1.990E-01	3.215E-01	1.899E-02	-0.530
HF-181		56.28		-1.998E+00	3.361E+00	5.592E+00	4.356E-01	-0.357
		57.53		8.532E-01	1.889E+00	3.040E+00	2.344E-01	0.281
		65.20		6.252E+01	6.143E+00	6.564E+00	5.206E-01	9.525
		133.02		1.864E-01	1.463E-01	2.135E-01	1.208E-02	0.873
		136.25		-1.005E-01	1.006E+00	1.421E+00	7.958E-02	-0.071
		345.85		-1.710E-01	2.824E-01	3.817E-01	2.209E-02	-0.448
		482.03	*	1.861E-02	5.069E-02	8.471E-02	5.422E-03	0.220
W-181		56.28		-7.607E-01	1.288E+00	2.143E+00	1.669E-01	-0.355
		57.53		3.255E-01	7.244E-01	1.166E+00	8.991E-02	0.279
		65.20	*	2.379E+01	2.337E+00	2.497E+00	1.981E-01	9.525
TA-182		67.75		-1.022E+00	3.642E-01	5.042E-01	4.053E-02	-2.028
	+	100.10		9.005E+00	9.617E-01	8.730E-01	6.563E-02	10.316
		152.43		4.800E-01	5.963E-01	9.570E-01	5.148E-02	0.502

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		222.10		-8.591E-02	5.249E-01	7.594E-01	4.168E-02	-0.113
	+	1001.68		2.148E+02	2.196E+01	1.650E+01	1.575E+00	13.022
	+	1121.28		4.080E-01	2.339E-01	2.960E-01	2.039E-02	1.379
		1189.05		-3.749E-01	2.763E-01	4.158E-01	2.378E-02	-0.902
		1221.42	*	2.468E-02	1.551E-01	2.585E-01	1.581E-02	0.095
		1230.97		3.462E-02	4.720E-01	6.680E-01	4.166E-02	0.052
RE-183		57.98		1.246E+00	7.644E-01	1.171E+00	8.993E-02	1.064
		59.32		7.061E-01	4.176E-01	6.383E-01	4.849E-02	1.106
		67.20		-1.537E+00	6.446E-01	9.056E-01	7.258E-02	-1.697
	+	162.32	*	1.637E+00	3.060E-01	3.678E-01	1.941E-02	4.450
		208.81		1.861E+00	1.496E+00	2.256E+00	1.224E-01	0.825
		291.72		6.066E-01	1.369E+00	1.979E+00	1.134E-01	0.307
RE-184		57.98		4.538E+00	2.784E+00	4.264E+00	3.276E-01	1.064
		59.32		2.570E+00	1.520E+00	2.323E+00	1.765E-01	1.106
		67.20		-5.595E+00	2.347E+00	3.297E+00	2.643E-01	-1.697
		161.27		7.888E-01	6.525E-01	1.002E+00	5.299E-02	0.787
		216.55		2.742E-01	3.567E-01	6.020E-01	3.289E-02	0.456
		252.85	*	-3.555E-01	3.574E-01	4.934E-01	2.771E-02	-0.721
		318.01		-7.215E-02	5.580E-01	8.953E-01	5.167E-02	-0.081
		792.07		1.146E+00	1.372E+00	2.042E+00	1.951E-01	0.562
		903.28		-1.374E+00	1.210E+00	1.510E+00	1.696E-01	-0.910
		920.93		2.839E-01	5.387E-01	7.839E-01	8.590E-02	0.362
OS-185		59.72		2.108E+00	1.116E+00	1.707E+00	1.298E-01	1.235
		61.14		1.803E+00	6.325E-01	9.638E-01	7.437E-02	1.870
		69.30		1.045E+00	8.525E-01	1.428E+00	1.157E-01	0.732
		592.07		6.256E-01	2.926E+00	4.781E+00	3.423E-01	0.131
		646.12	*	2.278E-02	4.994E-02	8.190E-02	6.159E-03	0.278
		717.42		9.793E-01	1.060E+00	1.827E+00	1.538E-01	0.536
		874.81		3.701E-01	7.225E-01	1.054E+00	1.150E-01	0.351
		880.27		1.984E+00	1.131E+00	1.742E+00	1.917E-01	1.139
RE-188		155.03	*	1.709E-01	2.833E-01	4.854E-01	2.597E-02	0.352
		477.96		-4.082E-01	3.626E+00	5.954E+00	3.794E-01	-0.069
		633.10		5.333E-02	3.325E+00	5.355E+00	3.981E-01	0.010
W-188	+	63.58		1.438E+04	1.191E+03	5.969E+02	4.690E+01	24.090
	+	227.08		4.532E+01	2.130E+01	3.049E+01	1.681E+00	1.486
		290.67	*	2.457E+00	1.059E+01	1.519E+01	8.699E-01	0.162
IR-192	+	295.96		9.076E-01	2.241E-01	2.656E-01	1.549E-02	3.417
		308.46		-1.751E-02	1.227E-01	1.972E-01	1.149E-02	-0.089
		316.51	*	-8.669E-03	4.343E-02	6.952E-02	4.032E-03	-0.125
		468.07		8.646E-03	8.816E-02	1.270E-01	9.048E-03	0.068
		604.41		-4.254E-01	6.325E-01	8.416E-01	1.023E-01	-0.505
		612.46		1.543E+00	9.684E-01	1.459E+00	1.280E-01	1.057
AU-195		65.12		1.292E+01	1.216E+00	1.208E+00	9.576E-02	10.700
		66.83		-9.888E-01	3.053E-01	4.155E-01	3.324E-02	-2.380
	+	75.70		8.898E-01	5.794E-01	9.007E-01	7.565E-02	0.988
	+	98.88	*	1.121E+01	1.197E+00	1.272E+00	9.733E-02	8.810
		129.76		5.601E+00	6.280E+00	9.104E+00	5.209E-01	0.615
TL-200		367.94	*	-3.378E-05	6.280E+00	Half-Life too short		
		579.30		2.108E-02	6.280E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		828.27		-6.605E-04	6.280E+00	Half-Life too short		
		1205.75		1.238E-03	6.280E+00	Half-Life too short		
TL-201		68.90		1.271E+01	2.114E+01	3.530E+01	2.854E+00	0.360
		70.82		4.415E+00	1.228E+01	2.044E+01	1.669E+00	0.216
		80.30		-2.043E+01	3.344E+01	3.839E+01	3.328E+00	-0.532
		135.34		2.143E+01	8.504E+01	1.212E+02	6.807E+00	0.177
		167.43	*	1.250E+01	1.921E+01	2.910E+01	1.527E+00	0.430
TL-202		68.90		8.118E-01	1.350E+00	2.254E+00	1.822E-01	0.360
		70.82		2.811E-01	7.821E-01	1.301E+00	1.062E-01	0.216
		80.30		-1.301E+00	2.130E+00	2.445E+00	2.120E-01	-0.532
		439.56	*	3.373E-02	8.733E-02	1.471E-01	8.966E-03	0.229
HG-203		70.83		1.134E+00	3.119E+00	5.186E+00	6.909E-01	0.219
		72.87		-1.835E+00	1.840E+00	2.989E+00	3.876E-01	-0.614
	+	82.60		1.748E+01	5.929E+00	5.984E+00	8.303E-01	2.921
		279.20	*	6.118E-03	5.315E-02	8.683E-02	5.266E-03	0.070
BI-207		72.80		-5.872E-01	5.220E-01	8.502E-01	7.017E-02	-0.691
		74.97		7.870E-01	3.329E-01	4.988E-01	4.170E-02	1.578
	+	84.90		2.953E+00	9.502E-01	1.016E+00	9.140E-02	2.907
		569.67		6.164E-02	3.912E-02	6.651E-02	4.661E-03	0.927
		1063.62	*	4.431E-02	4.582E-02	7.935E-02	6.550E-03	0.558
		1770.23		1.966E-02	3.439E-01	4.867E-01	2.944E-02	0.040
TL-207		81.07		1.297E-01	9.032E-01	1.055E+00	9.198E-02	0.123
	+	83.78		1.947E+00	6.265E-01	6.883E-01	6.135E-02	2.828
	+	94.90		6.508E+00	1.567E+00	1.726E+00	1.405E-01	3.770
		122.32		-8.108E-01	3.569E+00	5.703E+00	3.873E-01	-0.142
	+	144.24		1.754E+01	2.521E+00	2.779E+00	1.939E-01	6.310
		154.21		6.005E-01	6.455E-01	1.110E+00	7.389E-02	0.541
		269.46		4.211E-01	2.360E-01	4.022E-01	2.389E-02	1.047
		323.87	*	-5.506E-01	8.199E-01	1.281E+00	2.115E-01	-0.430
	+	338.28		3.747E+00	1.486E+00	2.245E+00	2.363E-01	1.669
		445.03		-1.466E+00	2.607E+00	4.226E+00	4.422E-01	-0.347
PO-209		260.50		4.606E+01	1.521E+01	2.386E+01	1.346E+00	1.931
		262.80		9.080E+00	3.797E+01	5.495E+01	3.105E+00	0.165
		896.60	*	1.038E+01	7.348E+00	1.282E+01	1.447E+00	0.810
BI-210		46.50	*	-8.170E-01	1.266E+01	2.133E+01	1.650E+00	-0.038
PB-210		46.50	*	-8.170E-01	1.266E+01	2.133E+01	1.650E+00	-0.038
PO-210		46.50	*	-8.170E-01	1.266E+01	2.133E+01	1.419E+00	-0.038
PB-211		404.84	*	-8.632E-01	1.203E+00	1.750E+00	1.091E+00	-0.493
		427.08		1.104E+00	2.478E+00	4.030E+00	2.492E+00	0.274
		831.96		8.050E-01	1.438E+00	2.277E+00	1.432E+00	0.354
PO-215		81.07		1.297E-01	9.032E-01	1.055E+00	9.198E-02	0.123
	+	83.78		1.947E+00	6.265E-01	6.883E-01	6.135E-02	2.828
	+	94.90		6.508E+00	1.567E+00	1.726E+00	1.405E-01	3.770
		122.32		-8.108E-01	3.569E+00	5.703E+00	3.873E-01	-0.142
	+	144.24		1.754E+01	2.521E+00	2.779E+00	1.939E-01	6.310
		154.21		6.005E-01	6.455E-01	1.110E+00	7.389E-02	0.541
		269.46		4.211E-01	2.360E-01	4.022E-01	2.389E-02	1.047
		323.87	*	-5.506E-01	8.199E-01	1.281E+00	2.115E-01	-0.430
	+	338.28		3.747E+00	1.486E+00	2.245E+00	2.363E-01	1.669

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-1.466E+00	2.607E+00	4.226E+00	4.422E-01	-0.347
RN-219		271.23		2.713E-01	3.058E-01	5.101E-01	4.089E-02	0.532
		401.81	*	1.038E-01	4.775E-01	8.041E-01	1.095E-01	0.129
RN-220		549.76	*	-2.428E+00	3.105E+01	5.044E+01	3.466E+00	-0.048
RA-223		81.07		1.297E-01	9.032E-01	1.055E+00	9.198E-02	0.123
	+	83.78		1.947E+00	6.265E-01	6.883E-01	6.135E-02	2.828
	+	94.90		6.508E+00	1.567E+00	1.726E+00	1.405E-01	3.770
		122.32		-8.108E-01	3.569E+00	5.703E+00	3.873E-01	-0.142
	+	144.24		1.754E+01	2.521E+00	2.779E+00	1.939E-01	6.310
		154.21		6.005E-01	6.455E-01	1.110E+00	7.389E-02	0.541
		269.46		4.211E-01	2.360E-01	4.022E-01	2.389E-02	1.047
		323.87	*	-5.506E-01	8.199E-01	1.281E+00	2.115E-01	-0.430
	+	338.28		3.747E+00	1.486E+00	2.245E+00	2.363E-01	1.669
		445.03		-1.466E+00	2.607E+00	4.226E+00	4.422E-01	-0.347
AC-227		79.80		-4.471E+00	6.950E+00	7.909E+00	1.701E+00	-0.565
		236.00		2.690E-01	3.227E-01	4.788E-01	4.939E-02	0.562
		256.20	*	1.400E+00	6.348E-01	9.386E-01	1.304E-01	1.492
		286.10		1.179E-02	1.910E+00	3.105E+00	3.577E-01	0.004
	+	299.80		4.040E+00	2.400E+00	2.923E+00	4.754E-01	1.382
		304.40		7.813E-01	2.598E+00	3.717E+00	6.424E-01	0.210
		334.20		-6.904E-01	3.131E+00	4.333E+00	7.941E-01	-0.159
TH-227		79.80		-4.471E+00	6.951E+00	7.909E+00	1.723E+00	-0.565
	+	94.00		5.206E+01	1.630E+01	2.590E+01	5.605E+00	2.010
		236.00		2.690E-01	3.224E-01	4.788E-01	4.261E-02	0.562
		256.20	*	1.400E+00	6.487E-01	9.386E-01	1.581E-01	1.492
		286.10		1.179E-02	1.910E+00	3.105E+00	3.110E+00	0.004
	+	299.80		4.040E+00	2.400E+00	2.923E+00	4.754E-01	1.382
		304.40		7.813E-01	2.598E+00	3.717E+00	6.424E-01	0.210
		334.20		-6.904E-01	3.131E+00	4.333E+00	7.941E-01	-0.159
TH-229	+	85.43		2.914E+00	9.378E-01	9.759E-01	8.821E-02	2.986
		88.47		6.456E-01	4.919E-01	5.787E-01	5.301E-02	1.116
	+	100.00		9.231E+00	9.859E-01	9.240E-01	6.957E-02	9.991
		193.63	*	6.124E-01	7.332E-01	1.246E+00	6.670E-02	0.492
		210.97		8.685E-01	1.140E+00	1.697E+00	9.224E-02	0.512
PA-231		283.67	*	-3.995E-01	1.897E+00	3.063E+00	4.209E-01	-0.130
	+	301.29		1.616E+00	9.385E-01	1.164E+00	1.214E-01	1.388
TH-231		81.07		1.297E-01	9.032E-01	1.055E+00	9.198E-02	0.123
	+	83.78		1.947E+00	6.265E-01	6.883E-01	6.135E-02	2.828
	+	94.90		6.508E+00	1.567E+00	1.726E+00	1.405E-01	3.770
		122.32		-8.108E-01	3.569E+00	5.703E+00	3.873E-01	-0.142
	+	144.24		1.754E+01	2.521E+00	2.779E+00	1.939E-01	6.310
		154.21		6.005E-01	6.455E-01	1.110E+00	7.389E-02	0.541
		269.46		4.211E-01	2.360E-01	4.022E-01	2.389E-02	1.047
		323.87	*	-5.506E-01	8.199E-01	1.281E+00	2.115E-01	-0.430
	+	338.28		3.747E+00	1.486E+00	2.245E+00	2.363E-01	1.669
		445.03		-1.466E+00	2.607E+00	4.226E+00	4.422E-01	-0.347
PA-233		75.28		1.663E+01	9.872E+00	1.445E+01	2.198E+00	1.151
		86.59		-2.265E+00	6.168E+00	8.161E+00	2.202E+00	-0.278
	+	300.12		1.126E+00	6.610E-01	8.211E-01	1.101E-01	1.372

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		311.98	*	-2.804E-02	7.989E-02	1.274E-01	7.804E-03	-0.220
		340.50		1.478E+00	9.068E-01	1.269E+00	2.914E-01	1.164
		398.62		1.159E+00	2.456E+00	4.144E+00	1.071E+00	0.280
		415.76		1.193E-01	1.854E+00	3.100E+00	6.392E-01	0.038
PA-234	+	63.00		4.088E+02	6.262E+01	1.752E+01	2.641E+00	23.330
	+	94.67		4.642E+00	1.192E+00	1.490E+00	1.802E-01	3.117
	+	98.44		4.507E+00	2.530E+00	5.164E-01	2.874E-01	8.727
	+	99.86		2.336E+01	2.495E+00	2.434E+00	1.837E-01	9.596
	+	111.00		2.357E+00	7.229E-01	8.907E-01	9.555E-02	2.646
	+	131.20		4.689E-01	2.661E-01	3.449E-01	1.963E-02	1.360
		152.70		7.072E-01	5.728E-01	9.111E-01	1.427E-01	0.776
	+	186.00		1.550E+02	4.748E+01	8.326E+00	2.537E+00	18.617
	+	226.40		1.400E+00	6.728E-01	9.415E-01	1.075E-01	1.487
	+	227.20		1.500E+00	7.051E-01	1.009E+00	5.563E-02	1.486
		248.90		8.733E-01	1.125E+00	1.859E+00	3.984E-01	0.470
	+	293.70		5.607E+00	1.619E+00	1.630E+00	2.618E-01	3.439
		369.80		1.275E+00	1.022E+00	1.730E+00	3.600E-01	0.737
		568.70		1.148E+00	1.286E+00	2.141E+00	1.499E-01	0.536
		569.50		5.513E-01	3.473E-01	5.906E-01	4.138E-02	0.933
		574.00		-2.917E+00	1.993E+00	2.815E+00	1.981E-01	-1.036
		699.00		4.393E-01	8.415E-01	1.427E+00	2.692E-01	0.308
		706.10		-3.108E-01	1.188E+00	1.947E+00	8.670E-01	-0.160
		733.00		2.453E-01	6.191E-01	8.126E-01	1.805E-01	0.302
	+	742.81		1.754E+01	1.232E+01	4.448E+00	2.991E+00	3.943
		796.30		1.576E+00	1.147E+00	1.838E+00	5.034E-01	0.857
		805.60		1.336E+00	1.202E+00	1.962E+00	6.082E-01	0.681
		819.60		-6.061E-01	1.408E+00	2.237E+00	8.580E-01	-0.271
		826.30		3.844E-02	9.527E-01	1.570E+00	7.075E-01	0.024
		831.60		2.640E-01	7.069E-01	1.176E+00	3.566E-01	0.225
		876.40		1.133E+00	1.562E+00	1.579E+00	1.627E+00	0.717
		880.51		7.043E-01	4.072E-01	6.261E-01	6.890E-02	1.125
		883.24		3.840E-01	4.661E-01	5.813E-01	3.929E-01	0.661
		899.00		-7.532E-02	8.485E-01	1.377E+00	6.104E-01	-0.055
	+	925.00		4.403E+00	1.791E+00	2.502E+00	2.726E-01	1.760
	+	926.50		6.539E-01	3.081E-01	3.674E-01	9.600E-02	1.780
	+	946.00	*	1.156E+00	4.905E-01	6.518E-01	1.286E-01	1.774
		949.00		1.109E+00	5.149E-01	8.267E-01	8.682E-02	1.342
		980.50		2.947E-01	6.831E-01	1.137E+00	1.131E-01	0.259
		1394.10		5.586E-01	1.086E+00	1.749E+00	1.136E+00	0.319
NP-236	+	94.67		3.521E+00	8.479E-01	1.136E+00	9.282E-02	3.099
	+	98.44		3.407E+00	3.638E-01	3.904E-01	3.006E-02	8.727
	+	111.00		1.783E+00	5.255E-01	6.738E-01	4.432E-02	2.646
		160.31	*	-8.397E-02	1.435E-01	2.113E-01	1.120E-02	-0.397
NP-237		86.50	*	-3.400E-01	9.250E-01	1.226E+00	2.766E-01	-0.277
	+	95.87		2.803E+01	9.350E+00	4.688E+00	1.145E+00	5.979
NP-239	+	99.55		7.787E+00	8.316E-01	8.498E-01	6.439E-02	9.163
		117.00	*	-5.976E-01	4.556E-01	6.313E-01	3.908E-02	-0.947
		209.75		1.744E+00	1.152E+00	1.749E+00	9.500E-02	0.997
	+	228.18		7.850E-01	3.690E-01	5.247E-01	2.894E-02	1.496

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		1.943E-01	2.254E-01	3.759E-01	2.141E-02	0.517
		334.30		-4.305E-01	1.772E+00	2.451E+00	1.418E-01	-0.176
AM-241		59.54	*	1.133E+00	5.804E-01	8.862E-01	7.349E-02	1.279
AM-243		74.67	*	4.277E-01	1.872E-01	2.806E-01	2.342E-02	1.524
		86.72		-1.399E+01	3.988E+01	4.580E+01	4.188E+00	-0.305
		117.66		-2.094E+01	8.580E+00	1.235E+01	7.597E-01	-1.696
		142.18		2.049E+02	4.083E+01	6.184E+01	3.406E+00	3.313
CM-243	+	99.55		8.014E+00	8.559E-01	8.746E-01	6.627E-02	9.163
		103.76	*	6.710E-02	2.272E-01	3.526E-01	2.524E-02	0.190
		117.00		-6.149E-01	4.688E-01	6.496E-01	4.021E-02	-0.947
		209.75		1.719E+00	1.136E+00	1.725E+00	9.366E-02	0.997
	+	228.18		7.934E-01	3.729E-01	5.302E-01	2.925E-02	1.496
		277.60		1.959E-01	2.272E-01	3.790E-01	2.159E-02	0.517
AM-246		798.80		-3.771E-01	1.694E-01	2.444E-01	2.362E-02	-1.543
		1036.00		2.305E-02	2.494E-01	4.200E-01	3.718E-02	0.055
		1062.04		1.868E-01	2.029E-01	3.505E-01	2.906E-02	0.533
		1078.86	*	-1.893E-02	1.097E-01	1.807E-01	1.429E-02	-0.105
CM-247		278.00		3.600E-01	9.380E-01	1.544E+00	8.798E-02	0.233
		287.40		-1.073E+00	1.552E+00	2.466E+00	1.410E-01	-0.435
		402.60	*	1.053E-02	4.245E-02	7.158E-02	4.169E-03	0.147
CF-249		252.85		-1.323E+00	1.330E+00	1.836E+00	1.031E-01	-0.721
		333.44		-8.408E-02	2.330E-01	3.205E-01	1.853E-02	-0.262
		387.95	*	4.822E-02	4.784E-02	8.264E-02	4.751E-03	0.584
CF-251		176.60	*	2.567E-01	1.985E-01	3.411E-01	1.801E-02	0.753
	+	227.00		1.333E+00	6.268E-01	8.972E-01	4.944E-02	1.486
		285.00		5.578E-02	2.165E+00	3.523E+00	2.013E-01	0.016

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020002      *
* Acquisition date : 13-FEB-2010 14:52:53 Detector SN#     :               *
* Detector ID        : GAM18               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:05.06     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020002           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.3373E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
AL-26	2.723E-02	2.354E-02	3.408E-02	0.000E+00
K-40	2.095E+01	1.985E+00	4.319E-01	0.000E+00
NB-95	1.753E+00	1.964E-01	8.091E-02	0.000E+00
TE-132	3.676E+00	1.763E+00	2.341E+00	0.000E+00
BA-137M	1.464E-01	7.034E-02	6.778E-02	0.000E+00
CS-137	1.547E-01	7.436E-02	7.165E-02	0.000E+00
CE-141	1.693E+00	2.291E-01	1.937E-01	0.000E+00
TL-208	4.625E-01	9.197E-02	6.942E-02	0.000E+00
BI-211	2.913E+00	4.953E-01	3.982E-01	0.000E+00
BI-212	7.740E-01	5.066E-01	5.261E-01	0.000E+00
PB-212	1.102E+00	1.271E-01	1.236E-01	0.000E+00
PO-212	1.102E+00	1.271E-01	1.236E-01	0.000E+00
BI-214	9.460E-01	1.736E-01	1.298E-01	0.000E+00
PB-214	1.013E+00	1.799E-01	1.388E-01	0.000E+00
PO-214	1.013E+00	1.799E-01	1.388E-01	0.000E+00
PO-216	1.102E+00	1.271E-01	1.236E-01	0.000E+00
PO-218	1.013E+00	1.799E-01	1.388E-01	0.000E+00
RA-224	3.033E+00	1.340E+00	1.405E+00	0.000E+00
RA-226	9.460E-01	1.736E-01	1.298E-01	0.000E+00
AC-228	1.109E+00	2.430E-01	1.974E-01	0.000E+00
RA-228	1.109E+00	2.430E-01	1.974E-01	0.000E+00
TH-228	1.121E+00	1.293E-01	1.258E-01	0.000E+00
TH-230	9.460E-01	1.736E-01	1.298E-01	0.000E+00
U-231	4.421E+01	1.043E+01	5.978E+00	0.000E+00
TH-232	1.109E+00	2.430E-01	1.974E-01	0.000E+00
PA-234M	4.819E+02	5.373E+01	6.653E+00	0.000E+00
TH-234	3.507E+02	6.128E+01	6.753E+00	0.000E+00
U-234	9.460E-01	1.736E-01	1.298E-01	0.000E+00
U-235	5.411E+00	1.087E+00	6.174E-01	0.000E+00
U-238	3.507E+02	6.128E+01	6.753E+00	0.000E+00
ANH-511	4.334E-02	6.341E-02	5.595E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-1.746E-02	3.700E-01	6.355E-01	0.000E+00	NOT IDENT.
NA-22	-1.290E-02	3.523E-02	5.763E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.460E+06	0.000E+00	0.000E+00	SHORT HLIF
TI-44	0.000E+00	1.178E-01	1.813E-01	0.000E+00	FAIL ABUN
SC-46	-2.475E-02	4.125E-02	6.708E-02	0.000E+00	FAIL ABUN
V-48	4.557E-02	6.766E-02	1.176E-01	0.000E+00	NOT IDENT.
CR-51	2.329E-01	4.696E-01	8.074E-01	0.000E+00	NOT IDENT.
MN-52	0.000E+00	2.911E-01	5.535E-01	0.000E+00	NOT IDENT.
MN-54	-1.644E-02	3.986E-02	6.629E-02	0.000E+00	NOT IDENT.
CO-56	-3.302E-02	4.122E-02	6.667E-02	0.000E+00	FAIL ABUN
CO-57	-2.826E-02	5.063E-02	8.586E-02	0.000E+00	NOT IDENT.
CO-58	-3.237E-02	4.423E-02	7.251E-02	0.000E+00	NOT IDENT.
FE-59	-1.096E-03	7.537E-02	1.288E-01	0.000E+00	FAIL ABUN
CO-60	6.550E-03	3.075E-02	5.244E-02	0.000E+00	NOT IDENT.
ZN-65	8.953E-03	8.265E-02	1.220E-01	0.000E+00	NOT IDENT.
GE-68	-1.243E-03	9.527E-01	1.634E+00	0.000E+00	NOT IDENT.
AS-73	-1.776E-01	2.888E+00	5.255E+00	0.000E+00	NOT IDENT.
AS-74	-9.747E-02	1.135E-01	1.831E-01	0.000E+00	NOT IDENT.
SE-75	-6.338E-03	5.525E-02	9.490E-02	0.000E+00	NOT IDENT.
BR-77	9.137E+00	2.133E+01	3.698E+01	0.000E+00	FAIL ABUN
SR-82	-6.691E-01	4.953E-01	7.720E-01	0.000E+00	NOT IDENT.
RB-83	3.501E-02	7.993E-02	1.386E-01	0.000E+00	NOT IDENT.
RB-84	0.000E+00	1.039E-01	1.636E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	9.386E+00	1.506E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.915E-02	7.885E-02	0.000E+00	NOT IDENT.
RB-86	2.426E-01	6.420E-01	1.130E+00	0.000E+00	NOT IDENT.
Y-88	2.499E-02	2.848E-02	4.766E-02	0.000E+00	NOT IDENT.
ZR-88	-3.452E-02	3.538E-02	5.993E-02	0.000E+00	NOT IDENT.
Y-91	-7.438E-01	1.494E+01	2.521E+01	0.000E+00	NOT IDENT.
NB-94	-1.602E-02	3.827E-02	6.506E-02	0.000E+00	NOT IDENT.
NB-95M	5.165E-02	1.698E-01	2.622E-01	0.000E+00	NOT IDENT.
ZR-95	7.576E-02	8.255E-02	1.465E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.393E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.615E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	0.000E+00	3.391E+01	5.240E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.028E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-6.079E-02	4.630E-02	7.897E-02	0.000E+00	NOT IDENT.
RH-102	-8.144E-04	3.312E-02	5.697E-02	0.000E+00	FAIL ABUN
RU-103	-2.965E-02	4.865E-02	8.114E-02	0.000E+00	FAIL ABUN
RH-106	-2.580E-01	3.655E-01	5.897E-01	0.000E+00	FAIL ABUN
RU-106	-2.580E-01	3.646E-01	5.897E-01	0.000E+00	FAIL ABUN
AG-108M	-1.289E-02	3.611E-02	6.188E-02	0.000E+00	NOT IDENT.
CD-109	2.831E+00	3.586E+00	4.508E+00	0.000E+00	NOT IDENT.
AG-110M	6.833E-03	4.695E-02	7.113E-02	0.000E+00	NOT IDENT.
IN-111	-1.466E-01	2.597E+00	3.944E+00	0.000E+00	NOT IDENT.
IN-113M	-2.930E-02	5.131E-02	8.827E-02	0.000E+00	NOT IDENT.
SN-113	-2.930E-02	5.131E-02	8.827E-02	0.000E+00	NOT IDENT.
IN-114M	-4.818E-02	2.904E-01	4.516E-01	0.000E+00	NOT IDENT.
CD-115	5.164E+00	2.286E+01	3.928E+01	0.000E+00	NOT IDENT.
SN-117M	-1.139E-02	1.077E-01	1.710E-01	0.000E+00	NOT IDENT.
SB-122	-1.524E+00	4.197E+00	6.996E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.285E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.516E-02	5.077E-02	8.018E-02	0.000E+00	NOT IDENT.
I-124	2.201E-01	1.207E+00	1.765E+00	0.000E+00	FAIL ABUN
SB-124	-1.202E-03	6.227E-02	1.046E-01	0.000E+00	FAIL ABUN
SB-125	5.451E-02	1.047E-01	1.853E-01	0.000E+00	FAIL ABUN
TE-125M	0.000E+00	2.556E+01	4.031E+01	0.000E+00	NOT IDENT.
I-126	-7.126E-02	2.554E-01	3.769E-01	0.000E+00	NOT IDENT.
SB-126	-3.947E-02	1.964E-01	3.110E-01	0.000E+00	FAIL ABUN
SN-126	1.649E-01	3.516E-01	4.402E-01	0.000E+00	FAIL ABUN
SB-127	-1.051E+00	2.218E+00	3.767E+00	0.000E+00	NOT IDENT.
XE-127	4.714E-02	7.873E-02	1.243E-01	0.000E+00	FAIL ABUN
I-131	3.040E-02	1.506E-01	2.677E-01	0.000E+00	NOT IDENT.
BA-133	-7.451E-03	5.721E-02	8.287E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.374E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.474E-02	9.808E-02	0.000E+00	NOT IDENT.
CS-135	6.457E-02	1.956E-01	3.397E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.267E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.436E-02	9.706E-02	1.567E-01	0.000E+00	FAIL ABUN
CE-139	6.632E-02	5.263E-02	8.581E-02	0.000E+00	NOT IDENT.
BA-140	2.629E-01	3.433E-01	5.836E-01	0.000E+00	FAIL ABUN
LA-140	-2.195E-02	8.258E-02	1.364E-01	0.000E+00	FAIL ABUN
CE-143	0.000E+00	6.357E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.790E-01	4.360E-01	6.671E-01	0.000E+00	NOT IDENT.

PM-144	-6.201E-03	4.127E-02	7.102E-02	0.000E+00	NOT IDENT.
PR-144	-4.207E-01	2.799E+00	4.818E+00	0.000E+00	NOT IDENT.
PM-146	-1.961E-02	5.047E-02	8.600E-02	0.000E+00	NOT IDENT.
ND-147	-1.222E-01	7.195E-01	1.216E+00	0.000E+00	NOT IDENT.
PM-149	-2.291E+01	2.086E+02	3.556E+02	0.000E+00	NOT IDENT.
EU-152	-1.125E-01	1.358E-01	1.905E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	4.021E-01	4.467E-01	0.000E+00	FAIL ABUN
EU-154	-2.479E-02	9.744E-02	1.608E-01	0.000E+00	NOT IDENT.
EU-155	1.461E-01	2.369E-01	4.143E-01	0.000E+00	NOT IDENT.
TB-160	0.000E+00	2.828E-01	3.060E-01	0.000E+00	FAIL ABUN
HO-166M	-7.319E-02	6.881E-02	1.132E-01	0.000E+00	FAIL ABUN
TM-171	-2.574E+02	8.840E+01	1.317E+02	0.000E+00	NOT IDENT.
LU-176	-1.126E-03	3.139E-02	5.139E-02	0.000E+00	NOT IDENT.
LU-177	3.070E+00	1.962E+00	3.171E+00	0.000E+00	FAIL ABUN
LU-177M	-1.702E-01	1.950E-01	3.295E-01	0.000E+00	NOT IDENT.
HF-181	1.861E-02	4.967E-02	8.658E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	2.290E+00	2.641E+00	0.000E+00	NOT IDENT.
TA-182	2.468E-02	1.520E-01	2.598E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	2.999E-01	3.831E-01	0.000E+00	FAIL ABUN
RE-184	-3.555E-01	3.502E-01	5.100E-01	0.000E+00	NOT IDENT.
OS-185	2.278E-02	4.894E-02	8.328E-02	0.000E+00	NOT IDENT.
RE-188	1.709E-01	2.777E-01	5.060E-01	0.000E+00	NOT IDENT.
W-188	2.457E+00	1.038E+01	1.566E+01	0.000E+00	FAIL ABUN
IR-192	-8.669E-03	4.256E-02	7.159E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	1.173E+00	1.336E+00	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.883E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.250E+01	1.883E+01	3.029E+01	0.000E+00	NOT IDENT.
TL-202	3.373E-02	8.558E-02	1.506E-01	0.000E+00	NOT IDENT.
HG-203	6.118E-03	5.209E-02	8.961E-02	0.000E+00	FAIL ABUN
BI-207	4.431E-02	4.490E-02	7.995E-02	0.000E+00	FAIL ABUN
TL-207	-5.506E-01	8.035E-01	1.318E+00	0.000E+00	FAIL ABUN
PO-209	1.038E+01	7.201E+00	1.296E+01	0.000E+00	NOT IDENT.
BI-210	-8.170E-01	1.240E+01	2.268E+01	0.000E+00	NOT IDENT.
PB-210	-8.170E-01	1.240E+01	2.268E+01	0.000E+00	NOT IDENT.
PO-210	-8.170E-01	1.240E+01	2.268E+01	0.000E+00	NOT IDENT.
PB-211	-8.632E-01	1.179E+00	1.794E+00	0.000E+00	NOT IDENT.
PO-215	-5.506E-01	8.035E-01	1.318E+00	0.000E+00	FAIL ABUN
RN-219	1.038E-01	4.679E-01	8.245E-01	0.000E+00	NOT IDENT.
RN-220	-2.428E+00	3.043E+01	5.143E+01	0.000E+00	NOT IDENT.
RA-223	-5.506E-01	8.035E-01	1.318E+00	0.000E+00	FAIL ABUN
AC-227	0.000E+00	6.221E-01	9.701E-01	0.000E+00	FAIL ABUN
TH-227	0.000E+00	6.357E-01	9.701E-01	0.000E+00	FAIL ABUN
TH-229	6.124E-01	7.185E-01	1.294E+00	0.000E+00	FAIL ABUN
PA-231	-3.995E-01	1.859E+00	3.160E+00	0.000E+00	FAIL ABUN
TH-231	-5.506E-01	8.035E-01	1.318E+00	0.000E+00	FAIL ABUN
PA-233	-2.804E-02	7.830E-02	1.312E-01	0.000E+00	FAIL ABUN
PA-234	0.000E+00	4.807E-01	6.582E-01	0.000E+00	FAIL ABUN
NP-236	-8.397E-02	1.406E-01	2.202E-01	0.000E+00	FAIL ABUN
NP-237	-3.400E-01	9.065E-01	1.290E+00	0.000E+00	FAIL ABUN
NP-239	-5.976E-01	4.465E-01	6.613E-01	0.000E+00	FAIL ABUN
AM-241	0.000E+00	5.688E-01	9.387E-01	0.000E+00	NOT IDENT.
AM-243	0.000E+00	1.834E-01	2.962E-01	0.000E+00	NOT IDENT.
CM-243	6.710E-02	2.227E-01	3.701E-01	0.000E+00	FAIL ABUN
AM-246	-1.893E-02	1.075E-01	1.821E-01	0.000E+00	NOT IDENT.
CM-247	1.053E-02	4.160E-02	7.339E-02	0.000E+00	NOT IDENT.
CF-249	4.822E-02	4.688E-02	8.479E-02	0.000E+00	NOT IDENT.
CF-251	2.567E-01	1.945E-01	3.548E-01	0.000E+00	FAIL ABUN

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:54:03.43

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020002.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:52:53
Sample ID         : G246020002           Sample quantity  : 1.33730E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:05.06  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AL-26	1129.67	------	2.50	2.318E+00	------ Line Not Found		------
	1808.65	16	99.76*	1.677E+00	2.723E-02	2.723E-02	88.19
K-40	1460.81	1508	10.67*	1.893E+00	2.095E+01	2.095E+01	9.67
NB-95	765.79	1658	99.81*	3.203E+00	1.455E+00	1.753E+00	11.43
TE-132	49.72	------	13.10	1.029E+00	------ Line Not Found		------
	111.76	788	1.85	7.954E+00	1.503E+01	5.789E+02	30.41
	116.30	------	1.94	8.084E+00	------ Line Not Found		------
	228.16	209	88.00*	6.975E+00	9.545E-02	3.676E+00	48.94
BA-137M	661.65	168	89.98*	3.587E+00	1.462E-01	1.464E-01	49.04
CS-137	661.65	168	85.12*	3.587E+00	1.546E-01	1.547E-01	49.04
CE-141	145.44	1664	48.40*	8.220E+00	1.174E+00	1.693E+00	13.81
TL-208	277.35	------	6.80	6.258E+00	------ Line Not Found		------
	510.84	67	21.60	4.309E+00	2.007E-01	2.007E-01	149.52
	583.14	546	84.20*	3.934E+00	4.625E-01	4.625E-01	20.29
	860.37	------	12.46	2.915E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	4.622E+00	------ Line Not Found		------
	351.07	732	12.94*	5.452E+00	2.913E+00	2.913E+00	17.35
BI-212	727.18	109	11.80*	3.338E+00	7.740E-01	7.740E-01	66.78
	785.46	220	1.97	3.138E+00	9.984E+00	9.984E+00	38.39
	1620.62	------	2.75	1.770E+00	------ Line Not Found		------
PB-212	74.81	------	10.70	4.909E+00	------ Line Not Found		------
	77.11	336	18.00	5.241E+00	1.001E+00	1.001E+00	65.11
	87.30	------	8.00	6.447E+00	------ Line Not Found		------
	238.63	1189	44.60*	6.791E+00	1.102E+00	1.102E+00	11.77
	300.09	158	3.41	5.983E+00	2.180E+00	2.180E+00	57.71
PO-212	74.81	------	10.70	4.909E+00	------ Line Not Found		------
	77.11	336	18.00	5.241E+00	1.001E+00	1.001E+00	65.11
	87.30	------	8.00	6.447E+00	------ Line Not Found		------
	115.19	------	0.60	8.058E+00	------ Line Not Found		------
	238.63	1189	44.60*	6.791E+00	1.102E+00	1.102E+00	11.77
	300.09	158	3.41	5.983E+00	2.180E+00	2.180E+00	57.71
BI-214	609.31	595	46.30*	3.811E+00	9.460E-01	9.460E-01	18.73

Sample ID : G246020002 Acquisition date : 13-FEB-2010 14:52:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1120.29	107	15.10	2.334E+00	8.526E-01	8.526E-01	57.71
	1764.49	130	15.80	1.695E+00	1.367E+00	1.367E+00	30.75
PB-214	74.81	------	6.21	4.909E+00	------ Line Not Found		------
	77.11	336	10.50	5.241E+00	1.715E+00	1.715E+00	65.56
	87.30	------	4.67	6.447E+00	------ Line Not Found		------
	241.98	288	7.49	6.754E+00	1.600E+00	1.600E+00	45.43
	295.21	483	19.20	6.042E+00	1.168E+00	1.168E+00	25.45
	351.92	732	37.20*	5.452E+00	1.013E+00	1.013E+00	18.12
PO-214	74.81	------	6.21	4.909E+00	------ Line Not Found		------
	77.11	336	10.50	5.241E+00	1.715E+00	1.715E+00	65.56
	87.30	------	4.67	6.447E+00	------ Line Not Found		------
	241.98	288	7.49	6.754E+00	1.600E+00	1.600E+00	45.43
	295.21	483	19.20	6.042E+00	1.168E+00	1.168E+00	25.45
	351.92	732	37.20*	5.452E+00	1.013E+00	1.013E+00	18.12
PO-216	74.81	------	10.70	4.909E+00	------ Line Not Found		------
	77.11	336	18.00	5.241E+00	1.001E+00	1.001E+00	65.11
	87.30	------	8.00	6.447E+00	------ Line Not Found		------
	238.63	1189	44.60*	6.791E+00	1.102E+00	1.102E+00	11.77
	300.09	158	3.41	5.983E+00	2.180E+00	2.180E+00	57.71
PO-218	74.81	------	6.21	4.909E+00	------ Line Not Found		------
	77.11	336	10.50	5.241E+00	1.715E+00	1.715E+00	65.56
	87.30	------	4.67	6.447E+00	------ Line Not Found		------
	241.98	288	7.49	6.754E+00	1.600E+00	1.600E+00	45.43
	295.21	483	19.20	6.042E+00	1.168E+00	1.168E+00	25.45
	351.92	732	37.20*	5.452E+00	1.013E+00	1.013E+00	18.12
RA-224	240.98	288	3.95*	6.754E+00	3.033E+00	3.033E+00	45.08
RA-226	609.31	595	46.30*	3.811E+00	9.460E-01	9.460E-01	18.73
	1120.29	107	15.10	2.334E+00	8.526E-01	8.526E-01	57.71
	1764.49	130	15.80	1.695E+00	1.367E+00	1.367E+00	30.75
AC-228	338.32	203	11.40	5.581E+00	8.973E-01	8.973E-01	55.89
	911.07	304	27.70*	2.780E+00	1.109E+00	1.109E+00	22.36
	969.11	125	16.60	2.639E+00	8.032E-01	8.032E-01	52.98
RA-228	338.32	203	11.40	5.581E+00	8.973E-01	8.973E-01	55.89
	911.07	304	27.70*	2.780E+00	1.109E+00	1.109E+00	22.36
	969.11	125	16.60	2.639E+00	8.032E-01	8.032E-01	52.98
TH-228	74.81	------	10.70	4.909E+00	------ Line Not Found		------
	77.11	336	18.00	5.241E+00	1.001E+00	1.018E+00	65.11
	87.30	------	8.00	6.447E+00	------ Line Not Found		------
	238.63	1189	44.60*	6.791E+00	1.102E+00	1.121E+00	11.77
	300.09	158	3.41	5.983E+00	2.180E+00	2.218E+00	82.08
TH-230	609.31	595	46.30*	3.811E+00	9.460E-01	9.460E-01	18.73
	1120.29	107	15.10	2.334E+00	8.526E-01	8.526E-01	57.71
	1764.49	130	15.80	1.695E+00	1.367E+00	1.367E+00	30.75
U-231	84.21	1046	7.00	6.104E+00	6.869E+00	1.167E+02	32.18
	92.29	45326	17.30	6.945E+00	1.059E+02	1.798E+03	8.51
	95.87	1846	28.00*	7.108E+00	2.603E+00	4.421E+01	24.08
	108.00	------	13.10	7.835E+00	------ Line Not Found		------
TH-232	338.32	203	11.40	5.581E+00	8.973E-01	8.973E-01	38.66
	911.07	304	27.70*	2.780E+00	1.109E+00	1.109E+00	22.36

Sample ID : G246020002 Acquisition date : 13-FEB-2010 14:52:53

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	969.11	125	16.60	2.639E+00	8.032E-01	8.032E-01	52.98
PA-234M	766.42	1658	0.32	3.203E+00	4.540E+02	4.540E+02	51.29
	1001.03	3704	0.84*	2.568E+00	4.819E+02	4.819E+02	11.38
TH-234	63.29	14753	3.80*	3.107E+00	3.507E+02	3.507E+02	17.83
	92.38	45326	5.41	6.945E+00	3.386E+02	3.386E+02	18.03
U-234	609.31	595	46.30*	3.811E+00	9.460E-01	9.460E-01	18.73
	1120.29	107	15.10	2.334E+00	8.526E-01	8.526E-01	57.71
	1764.49	130	15.80	1.695E+00	1.367E+00	1.367E+00	30.75
U-235	89.95	------	2.70	6.701E+00	------ Line Not Found		------
	93.35	45326	4.50	6.945E+00	4.071E+02	4.071E+02	27.99
	105.00	------	2.10	7.709E+00	------ Line Not Found		------
	143.76	1664	10.50*	8.220E+00	5.411E+00	5.411E+00	20.50
	163.35	921	4.70	8.003E+00	6.876E+00	6.876E+00	25.28
	185.71	8448	54.00	7.650E+00	5.741E+00	5.741E+00	6.20
	205.31	552	4.70	7.317E+00	4.504E+00	4.504E+00	33.52
U-238	63.29	14753	3.80*	3.107E+00	3.507E+02	3.507E+02	17.83
	92.38	45326	5.41	6.945E+00	3.386E+02	3.386E+02	8.51
ANH-511	511.00	67	100.00*	4.309E+00	4.334E-02	4.334E-02	149.29

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G246020002 Acquisition date : 13-FEB-2010 14:52:53

Total number of lines in spectrum 45
Number of unidentified lines 4
Number of lines tentatively identified by NID 41 91.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
AL-26	7.20E+05Y	1.00	2.723E-02	2.723E-02	2.402E-02	88.19	
K-40	1.28E+09Y	1.00	2.095E+01	2.095E+01	0.203E+01	9.67	
NB-95	64.02D	1.20	1.455E+00	1.753E+00	0.200E+00	11.43	
TE-132	78.20H	38.5	9.545E-02	3.676E+00	1.799E+00	48.94	
BA-137M	30.17Y	1.00	1.462E-01	1.464E-01	0.718E-01	49.04	
CS-137	30.17Y	1.00	1.546E-01	1.547E-01	0.759E-01	49.04	
CE-141	32.50D	1.44	1.174E+00	1.693E+00	0.234E+00	13.81	
TL-208	1.41E+10Y	1.00	4.625E-01	4.625E-01	0.938E-01	20.29	
BI-211	7.04E+08Y	1.00	2.913E+00	2.913E+00	0.505E+00	17.35	
BI-212	1.41E+10Y	1.00	7.740E-01	7.740E-01	5.169E-01	66.78	
PB-212	1.41E+10Y	1.00	1.102E+00	1.102E+00	0.130E+00	11.77	
PO-212	1.41E+10Y	1.00	1.102E+00	1.102E+00	0.130E+00	11.77	
BI-214	1600.00Y	1.00	9.460E-01	9.460E-01	1.772E-01	18.73	
PB-214	1600.00Y	1.00	1.013E+00	1.013E+00	0.184E+00	18.12	
PO-214	1600.00Y	1.00	1.013E+00	1.013E+00	0.184E+00	18.12	
PO-216	1.41E+10Y	1.00	1.102E+00	1.102E+00	0.130E+00	11.77	
PO-218	1600.00Y	1.00	1.013E+00	1.013E+00	0.184E+00	18.12	
RA-224	1.41E+10Y	1.00	3.033E+00	3.033E+00	1.368E+00	45.08	
RA-226	1600.00Y	1.00	9.460E-01	9.460E-01	1.772E-01	18.73	
AC-228	1.41E+10Y	1.00	1.109E+00	1.109E+00	0.248E+00	22.36	
RA-228	1.41E+10Y	1.00	1.109E+00	1.109E+00	0.248E+00	22.36	
TH-228	1.91Y	1.02	1.102E+00	1.121E+00	0.132E+00	11.77	
TH-230	4.47E+09Y	1.00	9.460E-01	9.460E-01	1.771E-01	18.73	
U-231	4.20D	17.0	2.603E+00	4.421E+01	1.065E+01	24.08	
TH-232	1.41E+10Y	1.00	1.109E+00	1.109E+00	0.248E+00	22.36	
PA-234M	4.47E+09Y	1.00	4.819E+02	4.819E+02	0.548E+02	11.38	
TH-234	4.47E+09Y	1.00	3.507E+02	3.507E+02	0.625E+02	17.83	
U-234	4.47E+09Y	1.00	9.460E-01	9.460E-01	1.771E-01	18.73	
U-235	7.04E+08Y	1.00	5.411E+00	5.411E+00	1.109E+00	20.50	
U-238	4.47E+09Y	1.00	3.507E+02	3.507E+02	0.625E+02	17.83	
ANH-511	1.00E+09Y	1.00	4.334E-02	4.334E-02	6.471E-02	149.29	
	Total Activity :		1.237E+03	1.283E+03			

Grand Total Activity : 1.237E+03 1.283E+03

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020002 Acquisition date : 13-FEB-2010 14:52:53

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.69	3005	3102	1.12	196.47	193	8	4.17E-01	7.4	7.37E+00	T
3	112.99	2277	2556	1.03	225.08	218	11	3.16E-01	8.4	8.00E+00	T
0	131.44	281	2002	1.37	261.96	259	8	3.91E-02	56.5	8.25E+00	T
0	258.34	649	752	1.27	515.68	510	10	9.01E-02	17.7	6.51E+00	
0	463.09	92	291	1.09	925.05	921	9	1.28E-02	70.1	4.60E+00	T
0	742.28	492	387	1.69	1483.28	1475	17	6.84E-02	20.4	3.28E+00	T
0	878.62	86	231	1.32	1755.90	1748	16	1.20E-02	81.6	2.86E+00	T
0	925.76	129	120	2.65	1850.15	1844	13	1.79E-02	39.2	2.74E+00	T
0	945.62	133	123	1.80	1889.86	1884	12	1.85E-02	37.5	2.69E+00	T
0	1238.03	110	82	1.99	2474.60	2468	15	1.53E-02	41.1	2.15E+00	T
0	1509.78	70	61	1.87	3018.04	3011	18	9.76E-03	57.9	1.85E+00	T
0	1553.32	27	22	2.03	3105.11	3100	14	3.69E-03	83.4	1.82E+00	
0	1737.20	61	24	1.57	3472.86	3468	11	8.43E-03	42.7	1.71E+00	
0	1830.90	65	5	0.99	3660.26	3652	19	8.99E-03	29.7	1.67E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:54:09.10

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020002.CNF;1 *
* Acquisition date  : 13-FEB-2010 14:52:53  Detector SN#     :             *
* Detector ID       : GAM18                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:05.06          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020002            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.33730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AL-26	2.723E-02	2.402E-02	3.415E-02	1.994E-03	0.797
K-40	2.095E+01	2.025E+00	4.311E-01	3.271E-02	48.597
NB-95	1.753E+00	2.004E-01	7.982E-02	7.301E-03	21.957
TE-132	3.676E+00	1.799E+00	2.261E+00	3.318E-01	1.626
BA-137M	1.464E-01	7.177E-02	6.668E-02	5.083E-03	2.195
CS-137	1.547E-01	7.588E-02	7.049E-02	5.387E-03	2.195
CE-141	1.693E+00	2.338E-01	1.856E-01	1.059E-02	9.121
TL-208	4.625E-01	9.385E-02	6.815E-02	5.342E-03	6.786
BI-211	2.913E+00	5.054E-01	3.874E-01	2.487E-02	7.519
BI-212	7.740E-01	5.169E-01	5.185E-01	5.164E-02	1.493
PB-212	1.102E+00	1.297E-01	1.195E-01	8.535E-03	9.224
PO-212	1.102E+00	1.297E-01	1.195E-01	8.535E-03	9.224
BI-214	9.460E-01	1.772E-01	1.275E-01	1.139E-02	7.420
PB-214	1.013E+00	1.836E-01	1.350E-01	1.117E-02	7.505
PO-214	1.013E+00	1.836E-01	1.350E-01	1.117E-02	7.505
PO-216	1.102E+00	1.297E-01	1.195E-01	8.535E-03	9.224
PO-218	1.013E+00	1.836E-01	1.350E-01	1.117E-02	7.505
RA-224	3.033E+00	1.368E+00	1.358E+00	7.565E-02	2.234

Sample ID : G246020002 Acquisition date : 13-FEB-2010 14:52:53

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	9.460E-01	1.772E-01	1.275E-01	1.139E-02	7.420
AC-228	1.109E+00	2.479E-01	1.954E-01	2.589E-02	5.675
RA-228	1.109E+00	2.479E-01	1.954E-01	2.589E-02	5.675
TH-228	1.121E+00	1.319E-01	1.215E-01	8.682E-03	9.224
TH-230	9.460E-01	1.771E-01	1.275E-01	1.139E-02	7.420
U-231	4.421E+01	1.065E+01	5.688E+00	4.557E-01	7.773
TH-232	1.109E+00	2.479E-01	1.954E-01	2.589E-02	5.675
PA-234M	4.819E+02	5.483E+01	6.596E+00	7.115E-01	73.067
TH-234	3.507E+02	6.253E+01	6.382E+00	1.125E+00	54.955
U-234	9.460E-01	1.771E-01	1.275E-01	1.139E-02	7.420
U-235	5.411E+00	1.109E+00	5.914E-01	9.579E-02	9.149
U-238	3.507E+02	6.253E+01	6.382E+00	1.125E+00	54.955
ANH-511	4.334E-02	6.471E-02	5.479E-02	3.619E-03	0.791

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.746E-02		3.776E-01	6.217E-01	4.505E-02	-0.028
NA-22	-1.290E-02		3.595E-02	5.738E-02	3.905E-03	-0.225
NA-24	-3.855E+00		2.786E+00	Half-Life too short		
TI-44	1.847E-01	+	1.202E-01	1.720E-01	1.470E-02	1.074
SC-46	-2.475E-02		4.209E-02	6.635E-02	7.400E-03	-0.373
V-48	4.557E-02		6.904E-02	1.166E-01	1.153E-02	0.391
CR-51	2.329E-01		4.792E-01	7.843E-01	5.050E-02	0.297
MN-52	5.667E-01		2.970E-01	5.523E-01	4.070E-02	1.026
MN-54	-1.644E-02		4.068E-02	6.550E-02	6.709E-03	-0.251
CO-56	-3.302E-02		4.206E-02	6.589E-02	6.878E-03	-0.501
CO-57	-2.826E-02		5.166E-02	8.203E-02	4.859E-03	-0.344
CO-58	-3.237E-02		4.514E-02	7.160E-02	7.068E-03	-0.452
FE-59	-1.096E-03		7.691E-02	1.279E-01	1.053E-02	-0.009
CO-60	6.550E-03		3.138E-02	5.226E-02	3.948E-03	0.125
ZN-65	8.953E-03		8.434E-02	1.212E-01	8.538E-03	0.074
GE-68	-1.243E-03		9.721E-01	1.622E+00	1.288E-01	-0.001
AS-73	-1.776E-01		2.947E+00	4.952E+00	3.926E-01	-0.036
AS-74	-9.747E-02		1.158E-01	1.798E-01	1.292E-02	-0.542
SE-75	-6.338E-03		5.638E-02	9.187E-02	5.254E-03	-0.069
BR-77	9.137E+00		2.176E+01	3.623E+01	2.417E+00	0.252
SR-82	-6.691E-01		5.054E-01	7.618E-01	7.094E-02	-0.878
RB-83	3.501E-02		8.156E-02	1.358E-01	9.058E-03	0.258
RB-84	1.654E-01		1.060E-01	1.618E-01	1.783E-02	1.022
KR-85	1.736E+01		9.578E+00	1.475E+01	9.771E-01	1.177
SR-85	9.091E-02		5.015E-02	7.723E-02	5.117E-03	1.177
RB-86	2.426E-01		6.551E-01	1.121E+00	8.926E-02	0.216
Y-88	2.499E-02		2.906E-02	4.777E-02	2.721E-03	0.523
ZR-88	-3.452E-02		3.610E-02	5.843E-02	3.360E-03	-0.591
Y-91	-7.438E-01		1.524E+01	2.508E+01	1.483E+00	-0.030
NB-94	-1.602E-02		3.905E-02	6.409E-02	5.258E-03	-0.250

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	5.165E-02		1.732E-01	2.534E-01	1.859E-02	0.204
ZR-95	7.576E-02		8.424E-02	1.445E-01	1.422E-02	0.524
NB-97	2.500E-01		4.792E-01	Half-Life too short		
ZR-97	3.258E+01		8.239E+00	Half-Life too short		
MO-99	9.192E+01		3.460E+01	5.166E+01	7.882E+00	1.779
TC-99M	-1.380E+13		1.035E+13	Half-Life too short		
RH-101	-6.079E-02		4.725E-02	7.607E-02	4.089E-03	-0.799
RH-102	-8.144E-04		3.380E-02	5.572E-02	3.539E-03	-0.015
RU-103	-2.965E-02		4.965E-02	7.943E-02	1.031E-02	-0.373
RH-106	-2.580E-01		3.730E-01	5.795E-01	7.291E-02	-0.445
RU-106	-2.580E-01		3.720E-01	5.795E-01	4.265E-02	-0.445
AG-108M	-1.289E-02		3.684E-02	6.043E-02	3.948E-03	-0.213
CD-109	2.831E+00		3.659E+00	4.283E+00	3.960E-01	0.661
AG-110M	6.833E-03		4.790E-02	6.997E-02	5.519E-03	0.098
IN-111	-1.466E-01		2.650E+00	3.813E+00	2.131E-01	-0.038
IN-113M	-2.930E-02		5.236E-02	8.605E-02	5.278E-03	-0.340
SN-113	-2.930E-02		5.236E-02	8.605E-02	5.278E-03	-0.340
IN-114M	-4.818E-02		2.963E-01	4.348E-01	2.321E-02	-0.111
CD-115	5.164E+00		2.333E+01	3.850E+01	2.587E+00	0.134
SN-117M	-1.139E-02		1.099E-01	1.641E-01	8.723E-03	-0.069
SB-122	-1.524E+00		4.283E+00	6.864E+00	4.783E-01	-0.222
I-123	-3.837E+01		6.559E+01	Half-Life too short		
TE-123M	-1.516E-02		5.181E-02	7.695E-02	4.151E-03	-0.197
I-124	2.201E-01		1.232E+00	1.734E+00	1.254E-01	0.127
SB-124	-1.202E-03		6.355E-02	1.047E-01	7.224E-03	-0.011
SB-125	5.451E-02		1.068E-01	1.809E-01	1.130E-02	0.301
TE-125M	6.669E+01		2.608E+01	3.844E+01	3.382E+00	1.735
I-126	-7.126E-02		2.606E-01	3.709E-01	2.851E-02	-0.192
SB-126	-3.947E-02		2.004E-01	3.065E-01	2.594E-02	-0.129
SN-126	1.649E-01		3.587E-01	4.182E-01	3.853E-02	0.394
SB-127	-1.051E+00		2.263E+00	3.709E+00	4.272E-01	-0.283
XE-127	4.714E-02		8.033E-02	1.198E-01	6.465E-03	0.394
I-131	3.040E-02		1.536E-01	2.606E-01	1.688E-02	0.117
BA-133	-7.451E-03		5.838E-02	8.065E-02	9.316E-03	-0.092
I-133	1.171E-02		1.722E-02	Half-Life too short		
CS-134	1.110E-01		5.586E-02	9.683E-02	9.365E-03	1.147
CS-135	6.457E-02		1.996E-01	3.289E-01	2.486E-02	0.196
I-135	4.228E+10		3.197E+11	Half-Life too short		
CS-136	-8.436E-02		9.904E-02	1.555E-01	1.394E-02	-0.543
CE-139	6.632E-02		5.370E-02	8.241E-02	4.326E-03	0.805
BA-140	2.629E-01		3.503E-01	5.720E-01	1.871E-01	0.460
LA-140	-2.195E-02		8.426E-02	1.364E-01	9.359E-03	-0.161
CE-143	1.665E-03		3.243E-04	Half-Life too short		
CE-144	2.790E-01		4.449E-01	6.383E-01	9.025E-02	0.437
PM-144	-6.201E-03		4.211E-02	6.994E-02	5.679E-03	-0.089
PR-144	-4.207E-01		2.856E+00	4.745E+00	3.850E-01	-0.089
PM-146	-1.961E-02		5.150E-02	8.405E-02	7.477E-03	-0.233
ND-147	-1.222E-01		7.342E-01	1.191E+00	1.662E-01	-0.103

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-2.291E+01		2.128E+02	3.447E+02	4.877E+01	-0.066
EU-152	-1.125E-01		1.386E-01	1.853E-01	1.209E-02	-0.607
GD-153	3.842E+00	+	4.103E-01	4.252E-01	3.324E-02	9.035
EU-154	-2.479E-02		9.943E-02	1.601E-01	1.599E-02	-0.155
EU-155	1.461E-01		2.417E-01	3.948E-01	2.823E-02	0.370
TB-160	3.504E-01	+	2.886E-01	3.027E-01	3.325E-02	1.158
HO-166M	-7.319E-02		7.021E-02	1.115E-01	9.292E-03	-0.657
TM-171	-2.574E+02		9.020E+01	1.246E+02	9.961E+00	-2.066
LU-176	-1.126E-03		3.203E-02	4.988E-02	2.872E-03	-0.023
LU-177	3.070E+00		2.002E+00	3.057E+00	1.658E-01	1.004
LU-177M	-1.702E-01		1.990E-01	3.215E-01	1.899E-02	-0.530
HF-181	1.861E-02		5.069E-02	8.471E-02	5.422E-03	0.220
W-181	2.379E+01		2.337E+00	2.497E+00	1.981E-01	9.525
TA-182	2.468E-02		1.551E-01	2.585E-01	1.581E-02	0.095
RE-183	1.637E+00	+	3.060E-01	3.678E-01	1.941E-02	4.450
RE-184	-3.555E-01		3.574E-01	4.934E-01	2.771E-02	-0.721
OS-185	2.278E-02		4.994E-02	8.190E-02	6.159E-03	0.278
RE-188	1.709E-01		2.833E-01	4.854E-01	2.597E-02	0.352
W-188	2.457E+00		1.059E+01	1.519E+01	8.699E-01	0.162
IR-192	-8.669E-03		4.343E-02	6.952E-02	4.032E-03	-0.125
AU-195	1.121E+01	+	1.197E+00	1.272E+00	9.733E-02	8.810
TL-200	-3.378E-05		9.608E-04	Half-Life too short		
TL-201	1.250E+01		1.921E+01	2.910E+01	1.527E+00	0.430
TL-202	3.373E-02		8.733E-02	1.471E-01	8.966E-03	0.229
HG-203	6.118E-03		5.315E-02	8.683E-02	5.266E-03	0.070
BI-207	4.431E-02		4.582E-02	7.935E-02	6.550E-03	0.558
TL-207	-5.506E-01		8.199E-01	1.281E+00	2.115E-01	-0.430
PO-209	1.038E+01		7.348E+00	1.282E+01	1.447E+00	0.810
BI-210	-8.170E-01		1.266E+01	2.133E+01	1.650E+00	-0.038
PB-210	-8.170E-01		1.266E+01	2.133E+01	1.650E+00	-0.038
PO-210	-8.170E-01		1.266E+01	2.133E+01	1.419E+00	-0.038
PB-211	-8.632E-01		1.203E+00	1.750E+00	1.091E+00	-0.493
PO-215	-5.506E-01		8.199E-01	1.281E+00	2.115E-01	-0.430
RN-219	1.038E-01		4.775E-01	8.041E-01	1.095E-01	0.129
RN-220	-2.428E+00		3.105E+01	5.044E+01	3.466E+00	-0.048
RA-223	-5.506E-01		8.199E-01	1.281E+00	2.115E-01	-0.430
AC-227	1.400E+00		6.348E-01	9.386E-01	1.304E-01	1.492
TH-227	1.400E+00		6.487E-01	9.386E-01	1.581E-01	1.492
TH-229	6.124E-01		7.332E-01	1.246E+00	6.670E-02	0.492
PA-231	-3.995E-01		1.897E+00	3.063E+00	4.209E-01	-0.130
TH-231	-5.506E-01		8.199E-01	1.281E+00	2.115E-01	-0.430
PA-233	-2.804E-02		7.989E-02	1.274E-01	7.804E-03	-0.220
PA-234	1.156E+00	+	4.905E-01	6.518E-01	1.286E-01	1.774
NP-236	-8.397E-02		1.435E-01	2.113E-01	1.120E-02	-0.397
NP-237	-3.400E-01		9.250E-01	1.226E+00	2.766E-01	-0.277
NP-239	-5.976E-01		4.556E-01	6.313E-01	3.908E-02	-0.947
AM-241	1.133E+00		5.804E-01	8.862E-01	7.349E-02	1.279
AM-243	4.277E-01		1.872E-01	2.806E-01	2.342E-02	1.524

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	6.710E-02		2.272E-01	3.526E-01	2.524E-02	0.190
AM-246	-1.893E-02		1.097E-01	1.807E-01	1.429E-02	-0.105
CM-247	1.053E-02		4.245E-02	7.158E-02	4.169E-03	0.147
CF-249	4.822E-02		4.784E-02	8.264E-02	4.751E-03	0.584
CF-251	2.567E-01		1.985E-01	3.411E-01	1.801E-02	0.753

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020002            *
* Acquisition date : 13-FEB-2010 14:52:53 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:05.06     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G246020002           Analyst initials: MXR1            *
* Batch Number     : 948751               Sample Quantity : 1.3373E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
AL-26	2.723E-02	2.354E-02	1.705E-02	1.201E-02
K-40	2.095E+01	1.985E+00	2.161E-01	1.013E+00
NB-95	1.753E+00	1.964E-01	4.048E-02	1.002E-01
TE-132	3.676E+00	1.763E+00	1.171E+00	8.993E-01
BA-137M	1.464E-01	7.034E-02	3.391E-02	3.589E-02
CS-137	1.547E-01	7.436E-02	3.584E-02	3.794E-02
CE-141	1.693E+00	2.291E-01	9.689E-02	1.169E-01
TL-208	4.625E-01	9.197E-02	3.473E-02	4.692E-02
BI-211	2.913E+00	4.953E-01	1.992E-01	2.527E-01
BI-212	7.740E-01	5.066E-01	2.632E-01	2.585E-01
PB-212	1.102E+00	1.271E-01	6.185E-02	6.484E-02
PO-212	1.102E+00	1.271E-01	6.185E-02	6.484E-02
BI-214	9.460E-01	1.736E-01	6.493E-02	8.858E-02
PB-214	1.013E+00	1.799E-01	6.943E-02	9.180E-02
PO-214	1.013E+00	1.799E-01	6.943E-02	9.180E-02
PO-216	1.102E+00	1.271E-01	6.185E-02	6.484E-02
PO-218	1.013E+00	1.799E-01	6.943E-02	9.180E-02
RA-224	3.033E+00	1.340E+00	7.029E-01	6.838E-01
RA-226	9.460E-01	1.736E-01	6.493E-02	8.858E-02
AC-228	1.109E+00	2.430E-01	9.878E-02	1.240E-01
RA-228	1.109E+00	2.430E-01	9.878E-02	1.240E-01
TH-228	1.121E+00	1.293E-01	6.292E-02	6.595E-02
TH-230	9.460E-01	1.736E-01	6.493E-02	8.857E-02
U-231	4.421E+01	1.043E+01	2.991E+00	5.323E+00
TH-232	1.109E+00	2.430E-01	9.878E-02	1.240E-01
PA-234M	4.819E+02	5.373E+01	3.329E+00	2.741E+01
TH-234	3.507E+02	6.128E+01	3.379E+00	3.127E+01
U-234	9.460E-01	1.736E-01	6.493E-02	8.857E-02
U-235	5.411E+00	1.087E+00	3.089E-01	5.546E-01
U-238	3.507E+02	6.128E+01	3.379E+00	3.127E+01
ANH-511	4.334E-02	6.341E-02	2.799E-02	3.235E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.746E-02	3.700E-01	3.179E-01	1.888E-01	NOT IDENT.
NA-22	-1.290E-02	3.523E-02	2.883E-02	1.797E-02	NOT IDENT.
NA-24	-3.855E+06	5.460E+06	0.000E+00	2.786E+06	SHORT HLIF
TI-44	1.847E-01	1.178E-01	9.072E-02	6.012E-02	FAIL ABUN
SC-46	-2.475E-02	4.125E-02	3.356E-02	2.104E-02	FAIL ABUN
V-48	4.557E-02	6.766E-02	5.885E-02	3.452E-02	NOT IDENT.
CR-51	2.329E-01	4.696E-01	4.040E-01	2.396E-01	NOT IDENT.
MN-52	5.667E-01	2.911E-01	2.769E-01	1.485E-01	NOT IDENT.
MN-54	-1.644E-02	3.986E-02	3.317E-02	2.034E-02	NOT IDENT.
CO-56	-3.302E-02	4.122E-02	3.335E-02	2.103E-02	FAIL ABUN
CO-57	-2.826E-02	5.063E-02	4.296E-02	2.583E-02	NOT IDENT.
CO-58	-3.237E-02	4.423E-02	3.627E-02	2.257E-02	NOT IDENT.
FE-59	-1.096E-03	7.537E-02	6.446E-02	3.845E-02	FAIL ABUN
CO-60	6.550E-03	3.075E-02	2.624E-02	1.569E-02	NOT IDENT.
ZN-65	8.953E-03	8.265E-02	6.106E-02	4.217E-02	NOT IDENT.
GE-68	-1.243E-03	9.527E-01	8.173E-01	4.861E-01	NOT IDENT.
AS-73	-1.776E-01	2.888E+00	2.629E+00	1.473E+00	NOT IDENT.
AS-74	-9.747E-02	1.135E-01	9.158E-02	5.791E-02	NOT IDENT.
SE-75	-6.338E-03	5.525E-02	4.748E-02	2.819E-02	NOT IDENT.
BR-77	9.137E+00	2.133E+01	1.850E+01	1.088E+01	FAIL ABUN
SR-82	-6.691E-01	4.953E-01	3.862E-01	2.527E-01	NOT IDENT.
RB-83	3.501E-02	7.993E-02	6.936E-02	4.078E-02	NOT IDENT.
RB-84	1.654E-01	1.039E-01	8.183E-02	5.299E-02	NOT IDENT.
KR-85	1.736E+01	9.386E+00	7.533E+00	4.789E+00	NOT IDENT.
SR-85	9.091E-02	4.915E-02	3.945E-02	2.508E-02	NOT IDENT.
RB-86	2.426E-01	6.420E-01	5.651E-01	3.276E-01	NOT IDENT.
Y-88	2.499E-02	2.848E-02	2.384E-02	1.453E-02	NOT IDENT.
ZR-88	-3.452E-02	3.538E-02	2.999E-02	1.805E-02	NOT IDENT.
Y-91	-7.438E-01	1.494E+01	1.261E+01	7.620E+00	NOT IDENT.
NB-94	-1.602E-02	3.827E-02	3.255E-02	1.953E-02	NOT IDENT.
NB-95M	5.165E-02	1.698E-01	1.312E-01	8.662E-02	NOT IDENT.
ZR-95	7.576E-02	8.255E-02	7.331E-02	4.212E-02	NOT IDENT.
NB-97	2.500E+05	9.393E+05	0.000E+00	4.792E+05	SHORT HLIF
ZR-97	3.258E+07	1.615E+07	0.000E+00	8.239E+06	SHORT HLIF
MO-99	9.192E+01	3.391E+01	2.621E+01	1.730E+01	NOT IDENT.
TC-99M	-1.380E+19	2.028E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-6.079E-02	4.630E-02	3.951E-02	2.362E-02	NOT IDENT.
RH-102	-8.144E-04	3.312E-02	2.850E-02	1.690E-02	FAIL ABUN
RU-103	-2.965E-02	4.865E-02	4.059E-02	2.482E-02	FAIL ABUN
RH-106	-2.580E-01	3.655E-01	2.950E-01	1.865E-01	FAIL ABUN
RU-106	-2.580E-01	3.646E-01	2.950E-01	1.860E-01	FAIL ABUN
AG-108M	-1.289E-02	3.611E-02	3.096E-02	1.842E-02	NOT IDENT.
CD-109	2.831E+00	3.586E+00	2.255E+00	1.830E+00	NOT IDENT.
AG-110M	6.833E-03	4.695E-02	3.558E-02	2.395E-02	NOT IDENT.
IN-111	-1.466E-01	2.597E+00	1.973E+00	1.325E+00	NOT IDENT.
IN-113M	-2.930E-02	5.131E-02	4.416E-02	2.618E-02	NOT IDENT.
SN-113	-2.930E-02	5.131E-02	4.416E-02	2.618E-02	NOT IDENT.
IN-114M	-4.818E-02	2.904E-01	2.260E-01	1.481E-01	NOT IDENT.
CD-115	5.164E+00	2.286E+01	1.965E+01	1.166E+01	NOT IDENT.
SN-117M	-1.139E-02	1.077E-01	8.556E-02	5.497E-02	NOT IDENT.
SB-122	-1.524E+00	4.197E+00	3.500E+00	2.141E+00	NOT IDENT.
I-123	-3.837E+07	1.285E+08	0.000E+00	6.559E+07	SHORT HLIF
TE-123M	-1.516E-02	5.077E-02	4.011E-02	2.590E-02	NOT IDENT.
I-124	2.201E-01	1.207E+00	8.830E-01	6.158E-01	FAIL ABUN
SB-124	-1.202E-03	6.227E-02	5.234E-02	3.177E-02	FAIL ABUN
SB-125	5.451E-02	1.047E-01	9.271E-02	5.342E-02	FAIL ABUN
TE-125M	6.669E+01	2.556E+01	2.017E+01	1.304E+01	NOT IDENT.
I-126	-7.126E-02	2.554E-01	1.886E-01	1.303E-01	NOT IDENT.
SB-126	-3.947E-02	1.964E-01	1.556E-01	1.002E-01	FAIL ABUN
SN-126	1.649E-01	3.516E-01	2.202E-01	1.794E-01	FAIL ABUN
SB-127	-1.051E+00	2.218E+00	1.885E+00	1.132E+00	NOT IDENT.
XE-127	4.714E-02	7.873E-02	6.218E-02	4.017E-02	FAIL ABUN
I-131	3.040E-02	1.506E-01	1.339E-01	7.682E-02	NOT IDENT.
BA-133	-7.451E-03	5.721E-02	4.146E-02	2.919E-02	NOT IDENT.
I-133	1.171E+04	3.374E+04	0.000E+00	1.722E+04	SHORT HLIF
CS-134	1.110E-01	5.474E-02	4.907E-02	2.793E-02	NOT IDENT.
CS-135	6.457E-02	1.956E-01	1.699E-01	9.982E-02	NOT IDENT.
I-135	4.228E+16	6.267E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.436E-02	9.706E-02	7.840E-02	4.952E-02	FAIL ABUN
CE-139	6.632E-02	5.263E-02	4.293E-02	2.685E-02	NOT IDENT.
BA-140	2.629E-01	3.433E-01	2.920E-01	1.752E-01	FAIL ABUN
LA-140	-2.195E-02	8.258E-02	6.826E-02	4.213E-02	FAIL ABUN
CE-143	1.665E+03	6.357E+02	0.000E+00	3.243E+02	SHORT HLIF
CE-144	2.790E-01	4.360E-01	3.337E-01	2.224E-01	NOT IDENT.

PM-144	-6.201E-03	4.127E-02	3.553E-02	2.105E-02	NOT IDENT.
PR-144	-4.207E-01	2.799E+00	2.410E+00	1.428E+00	NOT IDENT.
PM-146	-1.961E-02	5.047E-02	4.303E-02	2.575E-02	NOT IDENT.
ND-147	-1.222E-01	7.195E-01	6.081E-01	3.671E-01	NOT IDENT.
PM-149	-2.291E+01	2.086E+02	1.779E+02	1.064E+02	NOT IDENT.
EU-152	-1.125E-01	1.358E-01	9.529E-02	6.929E-02	NOT IDENT.
GD-153	3.842E+00	4.021E-01	2.235E-01	2.051E-01	FAIL ABUN
EU-154	-2.479E-02	9.744E-02	8.043E-02	4.971E-02	NOT IDENT.
EU-155	1.461E-01	2.369E-01	2.073E-01	1.209E-01	NOT IDENT.
TB-160	3.504E-01	2.828E-01	1.531E-01	1.443E-01	FAIL ABUN
HO-166M	-7.319E-02	6.881E-02	5.661E-02	3.511E-02	FAIL ABUN
TM-171	-2.574E+02	8.840E+01	6.590E+01	4.510E+01	NOT IDENT.
LU-176	-1.126E-03	3.139E-02	2.571E-02	1.601E-02	NOT IDENT.
LU-177	3.070E+00	1.962E+00	1.586E+00	1.001E+00	FAIL ABUN
LU-177M	-1.702E-01	1.950E-01	1.648E-01	9.951E-02	NOT IDENT.
HF-181	1.861E-02	4.967E-02	4.332E-02	2.534E-02	NOT IDENT.
W-181	2.379E+01	2.290E+00	1.321E+00	1.168E+00	NOT IDENT.
TA-182	2.468E-02	1.520E-01	1.300E-01	7.756E-02	FAIL ABUN
RE-183	1.637E+00	2.999E-01	1.917E-01	1.530E-01	FAIL ABUN
RE-184	-3.555E-01	3.502E-01	2.552E-01	1.787E-01	NOT IDENT.
OS-185	2.278E-02	4.894E-02	4.166E-02	2.497E-02	NOT IDENT.
RE-188	1.709E-01	2.777E-01	2.531E-01	1.417E-01	NOT IDENT.
W-188	2.457E+00	1.038E+01	7.836E+00	5.297E+00	FAIL ABUN
IR-192	-8.669E-03	4.256E-02	3.582E-02	2.171E-02	FAIL ABUN
AU-195	1.121E+01	1.173E+00	6.685E-01	5.985E-01	FAIL ABUN
TL-200	-3.378E+01	1.883E+03	0.000E+00	9.608E+02	SHORT HLIF
TL-201	1.250E+01	1.883E+01	1.516E+01	9.605E+00	NOT IDENT.
TL-202	3.373E-02	8.558E-02	7.532E-02	4.366E-02	NOT IDENT.
HG-203	6.118E-03	5.209E-02	4.483E-02	2.658E-02	FAIL ABUN
BI-207	4.431E-02	4.490E-02	4.000E-02	2.291E-02	FAIL ABUN
TL-207	-5.506E-01	8.035E-01	6.596E-01	4.100E-01	FAIL ABUN
PO-209	1.038E+01	7.201E+00	6.485E+00	3.674E+00	NOT IDENT.
BI-210	-8.170E-01	1.240E+01	1.135E+01	6.329E+00	NOT IDENT.
PB-210	-8.170E-01	1.240E+01	1.135E+01	6.329E+00	NOT IDENT.
PO-210	-8.170E-01	1.240E+01	1.135E+01	6.328E+00	NOT IDENT.
PB-211	-8.632E-01	1.179E+00	8.975E-01	6.016E-01	NOT IDENT.
PO-215	-5.506E-01	8.035E-01	6.596E-01	4.100E-01	FAIL ABUN
RN-219	1.038E-01	4.679E-01	4.125E-01	2.387E-01	NOT IDENT.
RN-220	-2.428E+00	3.043E+01	2.573E+01	1.553E+01	NOT IDENT.
RA-223	-5.506E-01	8.035E-01	6.596E-01	4.100E-01	FAIL ABUN
AC-227	1.400E+00	6.221E-01	4.853E-01	3.174E-01	FAIL ABUN
TH-227	1.400E+00	6.357E-01	4.853E-01	3.243E-01	FAIL ABUN
TH-229	6.124E-01	7.185E-01	6.472E-01	3.666E-01	FAIL ABUN
PA-231	-3.995E-01	1.859E+00	1.581E+00	9.484E-01	FAIL ABUN
TH-231	-5.506E-01	8.035E-01	6.596E-01	4.100E-01	FAIL ABUN
PA-233	-2.804E-02	7.830E-02	6.564E-02	3.995E-02	FAIL ABUN
PA-234	1.156E+00	4.807E-01	3.293E-01	2.452E-01	FAIL ABUN
NP-236	-8.397E-02	1.406E-01	1.101E-01	7.175E-02	FAIL ABUN
NP-237	-3.400E-01	9.065E-01	6.456E-01	4.625E-01	FAIL ABUN
NP-239	-5.976E-01	4.465E-01	3.308E-01	2.278E-01	FAIL ABUN
AM-241	1.133E+00	5.688E-01	4.696E-01	2.902E-01	NOT IDENT.
AM-243	4.277E-01	1.834E-01	1.482E-01	9.358E-02	NOT IDENT.
CM-243	6.710E-02	2.227E-01	1.852E-01	1.136E-01	FAIL ABUN
AM-246	-1.893E-02	1.075E-01	9.109E-02	5.487E-02	NOT IDENT.
CM-247	1.053E-02	4.160E-02	3.672E-02	2.123E-02	NOT IDENT.
CF-249	4.822E-02	4.688E-02	4.242E-02	2.392E-02	NOT IDENT.
CF-251	2.567E-01	1.945E-01	1.775E-01	9.923E-02	FAIL ABUN

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	2005.9998
46.50	2005.9998
46.50	2005.9998
48.70	2199.4709
49.72	2315.3389
51.35	2398.9365
52.39	2411.3406
52.97	2505.8044
53.15	2568.4810
53.44	2628.7000
54.07	2728.0881
56.28	3007.3289
56.28	3007.3621
57.37	0.0000
57.53	3108.1372
57.53	3108.1543
57.60	3134.4434
57.98	2984.2356
57.98	2984.2356
59.32	3237.1733
59.32	3237.1733
59.40	3238.0845
59.54	3239.6770
59.72	3279.4636
60.01	3282.7927
61.10	3594.4255
61.14	3594.9233
61.30	3596.9050
63.00	3272.3770
63.29	3275.5735
63.29	3275.5735
63.58	3278.7610
64.28	2909.2402
65.12	2988.5313
65.20	2989.3198
65.20	2989.3198
66.05	3227.5935
66.72	3424.9666
66.83	3535.0222
66.91	3535.9263
67.20	3461.8342
67.20	3461.8342
67.75	3670.4280
67.85	3690.2915
68.90	3449.4551
68.90	3449.4551
69.30	3480.7571
69.67	3533.0022
70.82	3904.2969
70.82	3904.2969
70.83	3904.4202
72.80	4489.2881
72.87	4490.2505
72.87	4490.2505
74.67	4320.5259
74.81	4291.5132
74.81	4291.5132
74.81	4291.5132
74.81	4291.5132
74.81	4291.5132
74.81	4291.5132
74.81	4291.5132
74.97	4293.5542
75.28	4448.9087
75.70	4472.1099
77.11	4846.7788
77.11	4846.7788

77.11	4846.7788
77.11	4846.7788
77.11	4846.7788
77.11	4846.7788
77.11	4846.7788
78.38	4729.7061
79.62	4849.2676
79.80	4768.3594
79.80	4768.3594
80.11	4772.5610
80.18	4773.5137
80.30	4858.6387
80.30	4858.6387
80.57	4862.3672
81.00	4751.7070
81.07	4752.6528
81.07	4752.6528
81.07	4752.6528
81.07	4752.6528
82.60	4738.4868
83.37	5280.5171
83.78	5286.5435
83.78	5286.5435
83.78	5286.5435
83.78	5286.5435
84.21	5292.7842
84.90	5856.0825
85.43	5867.5381
86.29	5767.4692
86.50	5770.7197
86.54	5771.3291
86.59	5772.1128
86.72	5780.1870
86.79	5781.2329
86.94	5783.5859
87.30	5746.5967
87.30	5746.5967
87.30	5746.5967
87.30	5746.5967
87.30	5746.5967
87.30	5746.5967
87.30	5746.5967
87.57	5750.7207
87.88	5776.7666
88.03	5779.0825
88.36	5805.4629
88.47	5807.1479
89.95	6146.6514
91.11	5296.0698
92.29	5312.1738
92.38	5313.4102
92.38	5313.4102
93.35	5326.5410
94.00	5335.3296
94.67	5344.2500
94.67	5344.3291
94.90	5347.4077
94.90	5347.4077
94.90	5347.4077
94.90	5347.4077
95.87	2660.7629
95.87	2660.7629
96.73	2666.4709
97.43	2671.0554
98.44	2322.6238
98.44	2322.6238
98.88	2356.4309
99.55	2095.2263
99.55	2095.2263
99.86	2134.4629
100.00	2135.1892
100.10	2135.7185
103.18	2279.5752
103.76	2212.6692
105.00	2168.0347
105.31	2225.7813
108.00	2541.9248
109.28	2432.2019

111.00	2449.1328
111.00	2449.1328
111.76	2453.2747
112.95	2459.7368
115.19	1953.8278
116.30	2015.5563
117.00	2082.2324
117.00	2082.2324
117.66	2144.0117
121.11	1832.6698
121.62	1848.9049
121.78	1849.5212
122.06	1839.6040
122.32	1840.5911
122.32	1840.5911
122.32	1840.5911
122.32	1840.5911
123.07	1798.2813
127.23	1873.6091
129.76	1782.5889
131.20	1772.5532
133.02	1637.2439
133.54	1664.2061
135.34	1632.7515
136.00	1663.6405
136.25	1650.8605
136.48	1645.8167
140.51	1674.4701
140.51	0.0000
142.18	1611.0549
142.65	1650.2377
143.76	1530.2922
144.24	1531.6356
144.24	1531.6356
144.24	1531.6356
144.24	1531.6356
145.22	1534.3768
145.44	1535.0010
147.16	1347.0170
152.43	1399.3219
152.70	1353.3544
153.22	1379.9713
154.21	1390.2427
154.21	1390.2427
154.21	1390.2427
154.21	1390.2427
155.03	1391.3492
156.02	1430.6632
158.56	1348.0607
159.00	0.0000
159.00	1343.4058
160.31	1359.1414
161.27	1300.3018
162.32	1288.3735
162.64	1267.1837
163.35	1268.6840
163.89	1269.8256
165.85	1235.8617
167.43	1194.6107
171.28	1270.8004
171.86	1248.5112
172.10	1239.9550
176.55	1175.9640
176.60	1176.0527
181.06	1304.1998
184.41	1086.2640
185.71	1088.3977
186.00	1088.8749
190.27	1011.8818
192.34	1010.9916
193.63	1009.7935
197.04	1011.9741
198.01	1081.0032
198.60	1129.8555
200.40	1013.2664
201.83	1041.0023
202.84	1040.9696
205.31	1122.5737

208.36	864.5089
208.81	865.0419
209.75	840.1868
209.75	840.1868
210.97	863.0123
215.65	838.2657
216.55	805.5506
218.09	822.6579
222.10	804.4998
223.80	768.9262
226.40	768.2004
227.00	785.4016
227.08	785.4814
227.20	783.2589
228.16	757.6148
228.18	757.6326
228.18	757.6326
231.56	0.0000
235.69	733.2582
236.00	755.6741
236.00	755.6741
238.63	769.2507
238.63	769.2507
238.63	769.2507
238.63	769.2507
239.00	769.6000
240.98	771.4768
241.98	754.9052
241.98	754.9052
241.98	754.9052
244.69	755.8011
245.39	759.6405
247.94	713.8524
248.90	692.5900
249.79	703.3752
252.40	717.6548
252.85	724.4894
252.85	724.4894
254.15	0.0000
256.20	672.2701
256.20	672.2701
260.50	610.5103
260.90	646.6273
262.80	577.8514
264.65	607.2874
268.24	637.4783
268.79	595.7620
269.46	580.7855
269.46	580.7855
269.46	580.7855
269.46	580.7855
271.23	624.1700
273.65	697.1134
276.40	598.7525
277.35	583.8239
277.60	583.9785
277.60	583.9785
278.00	604.9906
278.60	588.7764
279.20	608.8996
279.53	595.6014
280.46	582.6868
281.68	623.0475
283.67	552.3439
284.30	557.9394
285.00	540.5875
285.90	547.3879
286.10	547.4997
286.10	547.4997
287.40	583.9083
288.45	0.0000
290.67	550.3755
290.80	550.4553
291.72	572.8950
293.26	0.0000
293.70	572.3936
295.21	573.3040
295.21	573.3040

295.21	573.3040
295.96	452.7385
296.50	452.9932
297.23	453.3328
298.57	453.9663
299.80	454.5410
299.80	454.5410
300.09	520.1179
300.09	520.1179
300.09	520.1179
300.09	520.1179
300.12	520.1328
301.29	547.9818
302.84	480.6737
303.76	493.0710
303.91	493.1415
304.40	498.5102
304.40	498.5102
304.84	500.4463
306.84	512.2126
308.46	515.3488
311.98	508.5674
316.51	488.1746
318.01	484.5723
319.02	487.2162
319.41	481.9860
320.08	460.6220
323.87	518.8947
323.87	518.8947
323.87	518.8947
323.87	518.8947
325.23	534.8211
328.77	455.7629
333.44	484.7991
334.20	476.3540
334.20	476.3540
334.30	476.4003
338.28	463.1818
338.28	463.1818
338.28	463.1818
338.28	463.1818
338.32	463.2010
338.32	463.2010
338.32	463.2010
340.50	459.7227
340.57	459.7544
344.27	487.9437
345.85	481.5411
350.59	0.0000
351.07	439.6488
351.92	439.9915
351.92	439.9915
351.92	439.9915
355.39	0.0000
356.01	408.8804
364.48	377.6338
366.43	428.9608
367.43	421.1849
367.94	0.0000
369.80	370.3178
374.96	412.9975
383.85	419.8018
387.95	402.8114
388.63	383.6726
391.69	419.7838
391.69	419.7838
392.90	423.9072
398.62	388.7063
400.65	375.3725
401.10	372.7197
401.81	393.4434
402.60	386.2299
404.84	423.3825
410.95	369.1043
411.60	358.0200
413.65	388.7201
414.70	362.6670
415.30	360.0135

415.76	355.4302
417.63	0.0000
418.52	340.1367
423.70	369.0277
427.08	352.8712
427.89	350.2379
432.53	340.9760
433.93	345.1666
439.47	323.5727
439.56	323.5932
439.89	328.4778
443.98	342.0082
444.90	346.0984
445.03	353.8468
445.03	353.8468
445.03	353.8468
445.03	353.8468
453.90	369.7588
463.38	352.7682
468.07	325.1969
473.00	337.4899
475.06	330.0969
475.35	322.2818
476.78	342.3363
477.59	322.7888
477.96	329.7842
482.03	311.9123
484.57	333.2930
487.03	339.8249
490.36	0.0000
492.35	314.1425
497.08	339.1697
507.63	0.0000
510.53	0.0000
510.84	327.1720
511.00	327.2056
511.85	333.4543
511.85	333.4543
513.99	325.4912
513.99	325.4912
520.41	293.6708
520.65	293.7202
527.90	289.9976
528.96	0.0000
529.64	300.5461
529.87	0.0000
531.02	296.7190
537.32	285.5948
543.00	320.6428
546.56	0.0000
549.76	307.5139
552.65	272.7983
555.20	324.1342
563.23	332.0056
563.90	351.9824
568.70	334.1634
569.32	321.7129
569.50	304.9745
569.67	305.0101
573.80	408.4817
574.00	377.0028
574.64	378.4658
578.91	272.2780
579.30	0.0000
583.14	299.0293
585.48	266.2899
591.81	265.5151
592.07	264.4956
593.00	267.8238
595.88	295.9587
600.56	286.0847
602.52	0.0000
602.71	279.6754
602.71	279.6754
603.60	311.8968
604.41	322.7450
604.70	326.3634
609.31	297.1866

609.31	297.1866
609.31	297.1866
609.31	297.1866
610.33	297.3625
612.46	277.6579
614.37	285.1338
618.01	247.9856
621.84	283.0956
621.84	283.0956
631.29	276.9950
633.02	262.0345
633.10	259.8716
634.78	239.4380
635.90	230.8709
636.97	213.5759
645.85	229.9438
646.12	240.9312
656.30	283.1585
657.75	294.3985
657.90	0.0000
661.65	271.3535
661.65	271.3535
664.57	0.0000
666.33	278.3516
666.33	278.3516
675.00	270.6252
677.61	245.0078
685.20	281.3862
692.80	277.8091
695.00	336.1827
696.49	324.2553
696.49	324.2553
697.00	311.2162
697.49	295.3574
698.33	287.9749
698.50	287.9999
699.00	287.1365
702.63	302.7070
706.10	277.8109
706.58	0.0000
706.67	265.6487
709.31	271.6582
711.68	293.7011
713.82	261.8741
717.42	245.2997
720.50	274.4464
721.93	0.0000
722.20	289.6846
722.78	293.0273
722.78	293.0273
722.89	293.0399
722.95	293.0462
723.30	293.1027
724.18	283.4540
727.18	244.7178
733.00	304.6466
735.90	325.7194
739.58	305.2925
742.81	275.2227
744.21	246.7529
747.13	238.8667
751.79	247.9530
752.31	254.3213
753.82	264.1442
755.35	249.8682
756.15	230.6609
756.87	248.5553
763.93	270.6737
765.79	263.7103
766.42	263.7878
766.84	263.8376
776.49	304.0083
778.00	279.3538
778.57	274.2047
778.89	259.1947
783.80	276.5442
785.46	286.6812
792.07	248.9964

795.84	206.4496
796.30	218.2919
798.80	310.0909
801.93	238.5683
805.60	197.4894
810.29	232.5378
810.76	228.6313
815.85	194.4289
817.79	194.6003
818.51	206.5781
819.60	214.6289
826.30	219.2525
828.27	0.0000
831.60	212.7703
831.96	204.8123
834.83	225.0732
836.80	0.0000
846.75	194.0641
848.13	160.9798
856.28	0.0000
856.80	200.9636
860.37	148.6778
867.32	159.2583
867.82	156.2496
871.10	137.5970
873.19	129.0019
874.81	157.0009
875.33	0.0000
876.40	155.3589
879.36	223.7143
880.27	188.8305
880.51	194.0951
881.50	199.4245
883.24	185.5629
884.67	164.6541
889.25	178.1312
896.60	120.1397
898.02	144.8698
899.00	158.2893
903.28	181.8055
911.07	132.8038
911.07	132.8038
911.07	132.8038
919.63	143.9225
920.93	142.2210
925.00	160.2591
925.24	181.6448
926.50	137.1938
935.52	129.3407
937.48	143.3601
944.10	118.4165
946.00	144.5389
949.00	106.0609
962.29	130.0982
964.01	141.0350
966.15	155.6290
968.20	170.0864
969.11	115.9487
969.11	115.9487
969.11	115.9487
977.42	127.2217
980.50	115.6950
983.50	102.0117
989.30	128.8604
996.32	118.9800
1001.03	118.7324
1001.68	88.0379
1004.76	106.5026
1021.30	0.0000
1024.50	0.0000
1034.80	108.3008
1036.00	101.2295
1037.82	109.6579
1038.57	109.6867
1038.76	0.0000
1045.16	106.2229
1046.59	101.6173
1048.07	113.7963

1050.47	94.2895
1050.47	94.2895
1062.04	92.8021
1063.62	89.1023
1076.63	82.9174
1077.35	89.5330
1078.86	90.5257
1085.78	87.9076
1099.22	101.6112
1112.02	98.4786
1112.84	95.1682
1115.52	106.9531
1120.29	128.8848
1120.29	128.8848
1120.29	128.8848
1120.29	128.8848
1120.51	128.8942
1121.28	122.2296
1124.00	0.0000
1129.67	121.9313
1131.51	0.0000
1147.95	0.0000
1167.94	118.5492
1173.22	118.7534
1175.09	110.0599
1177.93	122.8359
1189.05	151.6483
1204.90	108.1662
1205.75	0.0000
1213.00	110.4180
1221.42	105.7648
1230.97	128.3889
1235.34	126.8277
1236.41	0.0000
1238.25	121.2256
1246.25	97.6206
1260.41	0.0000
1271.85	84.3311
1274.45	89.4191
1274.54	92.4364
1291.56	67.6613
1298.22	0.0000
1312.09	77.2193
1325.50	66.3013
1325.50	66.3013
1332.49	60.3046
1333.61	53.1662
1360.21	58.7256
1362.66	0.0000
1365.15	56.7456
1368.21	60.9240
1368.53	0.0000
1376.25	54.8540
1384.27	60.1645
1394.10	54.0893
1395.20	52.0246
1407.95	51.1636
1434.06	47.3244
1436.60	61.0384
1457.56	0.0000
1460.81	44.4888
1489.15	51.2277
1509.49	56.7460
1596.49	54.7039
1620.62	22.2047
1678.03	0.0000
1691.02	31.4180
1691.02	31.4180
1706.46	0.0000
1750.46	0.0000
1764.49	15.9766
1764.49	15.9766
1764.49	15.9766
1764.49	15.9766
1770.23	17.7745
1771.40	17.7794
1791.20	0.0000
1808.65	19.1600

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020002

Total Uranium Activity	1.0458E+03	ug/g
Total Uranium Counting Unc.	1.8232E+02	ug/g
Total Uranium Tpu	9.3021E-05	ug/g
Total Uranium Mda	1.0053E+01	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020002       *
*   ANALYST       : MXR1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 14:52:53.90    SAMPLE ALQT:  133.730 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 5.248E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 3.355E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 9.446E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 4.677E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:54:57.93

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020003.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:53:19
Sample ID         : G246020003           Sample quantity  : 1.44560E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.18*	1960	1176	1.03	126.36	122	10	2.72E-01	4.0	
2	0	77.00	413	954	1.03	153.99	152	6	5.73E-02	12.8	
3	0	83.71	150	1128	1.57	167.43	165	7	2.08E-02	38.0	
4	0	92.44*	5827	1951	1.24	184.87	178	14	8.09E-01	2.1	
5	0	98.54	393	758	1.23	197.09	193	9	5.46E-02	13.7	
6	0	112.14	369	1056	1.08	224.28	219	11	5.13E-02	17.8	
7	0	143.59*	251	640	1.50	287.19	283	10	3.49E-02	20.1	
8	0	163.22	134	377	1.73	326.45	323	8	1.86E-02	26.7	
9	0	185.44*	1311	473	1.23	370.87	364	11	1.82E-01	4.3	
10	0	205.39	116	462	1.29	410.78	404	11	1.61E-02	37.3	
11	0	209.14	108	281	1.01	418.28	415	8	1.50E-02	28.5	
12	2	238.30*	1141	251	1.33	476.60	468	25	1.58E-01	3.8	3.14E+00
13	2	241.29	206	350	1.77	482.58	468	25	2.85E-02	22.5	
14	0	270.32	140	229	1.68	540.63	536	10	1.94E-02	22.1	
15	0	294.83*	332	268	1.23	589.66	583	11	4.61E-02	11.1	
16	0	328.07	37	228	0.91	656.13	650	10	5.09E-03	79.1	
17	0	337.75	197	229	1.02	675.50	670	12	2.74E-02	16.9	
18	0	351.51*	558	171	1.39	703.02	697	11	7.75E-02	6.3	
19	0	510.54*	171	179	2.24	1021.07	1013	18	2.38E-02	21.3	
20	0	582.41*	354	124	1.49	1164.82	1157	15	4.92E-02	8.8	
21	0	608.71*	357	119	1.71	1217.42	1212	11	4.95E-02	8.1	
22	0	726.86	119	80	2.17	1453.73	1446	15	1.65E-02	18.9	
23	0	765.99*	166	143	1.50	1531.98	1525	16	2.31E-02	17.2	
24	0	793.94	77	58	2.90	1587.88	1581	16	1.07E-02	25.3	
25	0	860.38	53	64	1.63	1720.76	1713	13	7.32E-03	34.4	
26	0	910.50*	194	96	1.78	1820.99	1815	16	2.70E-02	13.6	
27	0	969.10	61	129	1.11	1938.19	1929	12	8.53E-03	39.4	
28	0	1000.12*	306	66	2.21	2000.24	1992	20	4.25E-02	8.7	
29	0	1119.69	79	98	2.36	2239.38	2229	17	1.10E-02	30.8	
30	0	1459.45*	1225	47	2.31	2918.89	2909	18	1.70E-01	3.2	
31	0	1763.42*	57	24	1.78	3526.84	3516	19	7.88E-03	24.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 16:55:01

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:53:19
Sample ID : G246020003 Sample quantity : 144.56 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.37 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.989E+01	2.924E+00	4.870E-01	3.643E-02	61.367
NB-95	+	765.79	*	2.906E-01	1.018E-01	8.483E-02	5.701E-03	3.426
LU-177	+	112.95		1.411E+01	5.116E+00	4.576E+00	3.001E-01	3.083
	+	208.36	*	2.949E+00	1.691E+00	2.167E+00	1.172E-01	1.361
TL-208		277.35		2.378E-01	4.197E-01	6.868E-01	7.257E-02	0.346
	+	510.84		8.097E-01	3.551E-01	2.248E-01	2.284E-02	3.601
	+	583.14	*	4.790E-01	8.943E-02	6.473E-02	4.202E-03	7.400
	+	860.37		6.827E-01	4.733E-01	5.460E-01	4.935E-02	1.250
BI-211		72.87		8.745E+00	5.933E+00	8.952E+00	7.897E-01	0.977
	+	351.07	*	3.255E+00	4.595E-01	3.469E-01	2.260E-02	9.384
BI-214	+	609.31	*	9.114E-01	1.630E-01	1.153E-01	8.672E-03	7.902
	+	1120.29		1.081E+00	6.728E-01	4.859E-01	4.515E-02	2.225
	+	1764.49		1.067E+00	5.335E-01	1.972E-01	1.226E-02	5.409
PB-214		74.81		3.666E+00	1.282E+00	1.903E+00	2.202E-01	1.927
	+	77.11		2.375E+00	6.712E-01	9.646E-01	1.137E-01	2.462
		87.30		1.837E+00	1.743E+00	1.915E+00	2.374E-01	0.959
	+	241.98		1.550E+00	7.075E-01	6.157E-01	4.897E-02	2.518
	+	295.21		1.136E+00	2.703E-01	2.655E-01	2.276E-02	4.279
	+	351.92	*	1.132E+00	1.704E-01	1.209E-01	1.009E-02	9.364
PO-214		74.81		3.666E+00	1.282E+00	1.903E+00	2.202E-01	1.927
	+	77.11		2.375E+00	6.712E-01	9.646E-01	1.137E-01	2.462
		87.30		1.837E+00	1.743E+00	1.915E+00	2.374E-01	0.959
	+	241.98		1.550E+00	7.075E-01	6.157E-01	4.897E-02	2.518
	+	295.21		1.136E+00	2.703E-01	2.655E-01	2.276E-02	4.279
	+	351.92	*	1.132E+00	1.704E-01	1.209E-01	1.009E-02	9.364
PO-218		74.81		3.666E+00	1.282E+00	1.903E+00	2.202E-01	1.927
	+	77.11		2.375E+00	6.712E-01	9.646E-01	1.137E-01	2.462
		87.30		1.837E+00	1.743E+00	1.915E+00	2.374E-01	0.959
	+	241.98		1.550E+00	7.075E-01	6.157E-01	4.897E-02	2.518
	+	295.21		1.136E+00	2.703E-01	2.655E-01	2.276E-02	4.279
	+	351.92	*	1.132E+00	1.704E-01	1.209E-01	1.009E-02	9.364
RA-224	+	240.98	*	2.940E+00	1.331E+00	1.164E+00	6.556E-02	2.526
RA-226	+	609.31	*	9.114E-01	1.630E-01	1.153E-01	8.672E-03	7.902
	+	1120.29		1.081E+00	6.728E-01	4.859E-01	4.515E-02	2.225

Sample ID : G246020003 Acquisition date : 13-FEB-2010 14:53:19

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1764.49		1.067E+00	5.335E-01	1.972E-01	1.226E-02	5.409
AC-228	+	338.32		1.264E+00	6.697E-01	3.993E-01	1.628E-01	3.167
	+	911.07	*	1.193E+00	3.522E-01	2.178E-01	2.513E-02	5.478
	+	969.11		6.672E-01	5.484E-01	3.441E-01	8.012E-02	1.939
RA-228	+	338.32		1.264E+00	6.697E-01	3.993E-01	1.628E-01	3.167
	+	911.07	*	1.193E+00	3.522E-01	2.178E-01	2.513E-02	5.478
	+	969.11		6.672E-01	5.484E-01	3.441E-01	8.012E-02	1.939
TH-230	+	609.31	*	9.114E-01	1.630E-01	1.153E-01	8.671E-03	7.902
	+	1120.29		1.081E+00	6.728E-01	4.859E-01	4.515E-02	2.225
	+	1764.49		1.066E+00	5.334E-01	1.972E-01	1.226E-02	5.409
TH-232	+	338.32		1.264E+00	4.338E-01	3.993E-01	2.358E-02	3.167
	+	911.07	*	1.193E+00	3.522E-01	2.178E-01	2.513E-02	5.478
	+	969.11		6.672E-01	5.484E-01	3.441E-01	8.012E-02	1.939
PA-234M	+	766.42		7.527E+01	4.595E+01	2.199E+01	1.109E+01	3.423
	+	1001.03	*	6.760E+01	1.340E+01	7.736E+00	7.381E-01	8.738
TH-234	+	63.29	*	5.203E+01	1.026E+01	3.709E+00	6.683E-01	14.030
	+	92.38		5.019E+01	9.387E+00	1.535E+00	2.799E-01	32.693
U-234	+	609.31	*	9.114E-01	1.630E-01	1.153E-01	8.671E-03	7.902
	+	1120.29		1.081E+00	6.728E-01	4.859E-01	4.515E-02	2.225
	+	1764.49		1.066E+00	5.334E-01	1.972E-01	1.226E-02	5.409
U-235		89.95		1.046E+01	4.057E+00	3.868E+00	1.202E+00	2.705
	+	93.35		6.034E+01	1.715E+01	1.828E+00	5.133E-01	33.001
		105.00		4.205E-01	1.494E+00	2.464E+00	7.266E-01	0.171
	+	143.76	*	1.004E+00	4.341E-01	4.344E-01	7.026E-02	2.310
	+	163.35		1.257E+00	7.073E-01	9.545E-01	1.697E-01	1.317
	+	185.71		1.147E+00	1.156E-01	7.873E-02	4.122E-03	14.573
	+	205.31		1.244E+00	9.545E-01	8.705E-01	1.554E-01	1.429
U-238	+	63.29	*	5.203E+01	1.026E+01	3.709E+00	6.683E-01	14.030
	+	92.38		5.019E+01	4.946E+00	1.535E+00	1.372E-01	32.693
ANH-511	+	511.00	*	1.749E-01	7.530E-02	4.858E-02	2.822E-03	3.600

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	6.261E-02	3.653E-01	6.080E-01	4.132E-02	0.103
NA-22		1274.54	*	1.971E-02	5.065E-02	8.555E-02	5.745E-03	0.230
NA-24		1368.53	*	-6.001E+00	5.065E-02	Half-Life too short		
AL-26		1129.67		-2.053E-01	1.856E+00	3.017E+00	1.922E-01	-0.068
		1808.65	*	2.747E-02	2.481E-02	5.061E-02	3.042E-03	0.543
TI-44		67.85		-6.601E-02	8.867E-02	1.273E-01	1.108E-02	-0.519
	+	78.38	*	2.556E-01	6.958E-02	1.115E-01	1.011E-02	2.292
SC-46		889.25	*	1.424E-02	4.267E-02	7.306E-02	6.527E-03	0.195
	+	1120.51		1.882E-01	1.164E-01	1.338E-01	8.716E-03	1.406
V-48		944.10		8.251E-01	1.183E+00	2.065E+00	1.799E-01	0.400
		983.50	*	-2.172E-02	8.045E-02	1.298E-01	1.080E-02	-0.167
		1312.09		4.930E-02	1.003E-01	1.714E-01	1.219E-02	0.288
CR-51		320.08	*	1.356E-01	4.396E-01	7.294E-01	4.783E-02	0.186
MN-52		744.21		2.006E-01	4.037E-01	6.714E-01	4.274E-02	0.299

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		848.13		2.086E+00	9.635E+00	1.637E+01	1.335E+00	0.127
		935.52		3.682E-01	3.610E-01	6.459E-01	5.679E-02	0.570
		1246.25		-2.367E+00	1.113E+01	1.781E+01	1.140E+00	-0.133
		1333.61		3.572E+00	6.952E+00	1.197E+01	8.785E-01	0.298
		1434.06	*	1.430E-01	3.074E-01	5.302E-01	3.836E-02	0.270
MN-54		834.83	*	6.112E-03	4.295E-02	7.253E-02	5.743E-03	0.084
CO-56		846.75	*	-1.874E-02	4.526E-02	7.314E-02	5.950E-03	-0.256
		977.42		9.501E-01	3.005E+00	5.126E+00	4.298E-01	0.185
		1037.82		1.729E-01	3.552E-01	6.106E-01	5.005E-02	0.283
		1175.09		-3.179E-02	2.572E+00	4.209E+00	2.383E-01	-0.008
		1238.25		1.490E-01	1.162E-01	2.052E-01	1.365E-02	0.726
		1360.21		4.661E-01	1.023E+00	1.759E+00	1.288E-01	0.265
		1771.40		-2.009E-01	2.167E-01	2.841E-01	1.758E-02	-0.707
CO-57		122.06	*	1.235E-02	3.414E-02	5.672E-02	3.344E-03	0.218
		136.48		-9.907E-03	2.728E-01	4.466E-01	2.904E-02	-0.022
CO-58		810.76	*	-3.731E-02	4.530E-02	7.090E-02	5.327E-03	-0.526
FE-59	+	142.65		1.336E+01	5.407E+00	6.879E+00	3.741E-01	1.942
		192.34		-1.097E+00	1.144E+00	1.772E+00	2.049E-01	-0.619
		1099.22	*	-5.673E-02	1.025E-01	1.597E-01	1.230E-02	-0.355
		1291.56		2.520E-01	1.428E-01	2.695E-01	2.237E-02	0.935
CO-60		1173.22		4.353E-02	4.955E-02	8.719E-02	4.918E-03	0.499
		1332.49	*	5.077E-02	4.149E-02	7.662E-02	5.625E-03	0.663
ZN-65		1115.52	*	1.044E-01	1.168E-01	1.820E-01	1.202E-02	0.574
GE-68		1077.35	*	1.477E+00	1.306E+00	2.366E+00	1.693E-01	0.624
AS-73		53.44	*	9.382E-02	1.672E+00	2.813E+00	2.484E-01	0.033
AS-74		595.88	*	1.423E-01	1.116E-01	1.969E-01	1.086E-02	0.723
		634.78		3.601E-01	4.870E-01	7.969E-01	4.219E-02	0.452
SE-75		66.05		-1.048E+01	9.297E+00	1.311E+01	1.376E+00	-0.799
		96.73		3.197E+00	1.929E+00	2.171E+00	2.911E-01	1.472
		121.11		-6.165E-02	1.868E-01	3.042E-01	2.837E-02	-0.203
		136.00		-1.355E-02	5.199E-02	8.452E-02	4.773E-03	-0.160
		198.60		-1.308E-01	2.343E+00	3.490E+00	2.357E-01	-0.037
		264.65	*	1.322E-02	5.759E-02	8.149E-02	4.743E-03	0.162
		279.53		3.802E-02	1.196E-01	2.044E-01	1.285E-02	0.186
		303.91		-1.383E+00	2.487E+00	4.076E+00	3.911E-01	-0.339
		400.65		-1.286E-01	3.035E-01	4.925E-01	4.481E-02	-0.261
BR-77		87.88		1.294E+03	8.662E+02	9.675E+02	9.441E+01	1.338
		200.40		6.379E+01	4.022E+02	5.727E+02	3.064E+01	0.111
	+	239.00		4.125E+02	3.924E+01	6.513E+01	3.662E+00	6.334
		249.79		-4.630E+01	1.477E+02	2.143E+02	1.219E+01	-0.216
		281.68		-1.802E+01	1.775E+02	2.980E+02	1.737E+01	-0.060
		297.23		2.210E+02	1.348E+02	2.133E+02	1.253E+01	1.036
		303.76		-1.757E+02	3.768E+02	6.207E+02	3.653E+01	-0.283
		439.47		-1.304E+02	2.831E+02	4.549E+02	2.661E+01	-0.287
		484.57		-6.589E+01	4.518E+02	7.364E+02	4.305E+01	-0.089
		520.65	*	1.525E+01	2.112E+01	3.622E+01	2.096E+00	0.421
		574.64		-1.371E+02	4.835E+02	6.970E+02	3.912E+01	-0.197
		578.91		2.044E+02	2.155E+02	3.285E+02	1.838E+01	0.622
		585.48		9.057E+02	4.372E+02	7.134E+02	3.970E+01	1.270

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		755.35		1.027E+02	3.300E+02	5.439E+02	3.561E+01	0.189
		817.79		1.486E+02	2.831E+02	4.913E+02	3.740E+01	0.303
SR-82		698.33		-6.894E+00	4.362E+01	6.960E+01	3.931E+00	-0.099
		776.49	*	-5.285E-01	4.949E-01	7.687E-01	5.303E-02	-0.688
		1395.20		-5.515E+00	1.167E+01	1.755E+01	1.279E+00	-0.314
RB-83		520.41	*	4.965E-02	7.860E-02	1.341E-01	7.763E-03	0.370
		529.64		4.402E-02	1.147E-01	1.929E-01	1.113E-02	0.228
		552.65		2.054E-03	2.164E-01	3.540E-01	2.017E-02	0.006
RB-84		881.50	*	5.470E-03	7.644E-02	1.282E-01	1.126E-02	0.043
KR-85		513.99	*	1.004E+01	8.699E+00	1.357E+01	7.875E-01	0.740
SR-85		513.99	*	5.255E-02	4.555E-02	7.107E-02	4.124E-03	0.740
RB-86		1076.63	*	1.233E+00	9.108E-01	1.673E+00	1.199E-01	0.737
Y-88		898.02		-3.185E-02	4.501E-02	7.015E-02	6.414E-03	-0.454
		1836.01	*	8.748E-03	3.338E-02	5.798E-02	3.414E-03	0.151
ZR-88		392.90	*	-3.021E-02	3.402E-02	5.363E-02	3.096E-03	-0.563
Y-91		1204.90	*	1.707E+01	2.364E+01	4.075E+01	2.431E+00	0.419
NB-94		702.63	*	2.331E-02	3.870E-02	6.514E-02	3.722E-03	0.358
		871.10		3.554E-03	3.512E-02	5.910E-02	5.076E-03	0.060
NB-95M		235.69	*	5.725E-01	1.821E-01	2.876E-01	2.122E-02	1.990
ZR-95		724.18		2.228E-01	1.341E-01	2.144E-01	1.516E-02	1.039
		756.15	*	-2.264E-02	8.291E-02	1.301E-01	9.984E-03	-0.174
NB-97		657.90	*	-3.742E-01	8.291E-02	Half-Life too short		
		1024.50		3.833E+01	8.291E-02	Half-Life too short		
ZR-97		254.15		-5.810E+01	8.291E-02	Half-Life too short		
		355.39		-1.163E+01	8.291E-02	Half-Life too short		
		507.63	*	4.809E+01	8.291E-02	Half-Life too short		
		602.52		8.513E+00	8.291E-02	Half-Life too short		
		1021.30		2.712E+01	8.291E-02	Half-Life too short		
		1147.95		3.943E+01	8.291E-02	Half-Life too short		
		1362.66		5.467E+01	8.291E-02	Half-Life too short		
		1750.46		-4.057E+01	8.291E-02	Half-Life too short		
MO-99		140.51		1.580E+01	6.415E+01	9.232E+01	2.481E+01	0.171
		181.06		6.886E+00	3.747E+01	5.364E+01	9.090E+00	0.128
		366.43		-8.586E+01	1.543E+02	2.494E+02	1.462E+01	-0.344
		739.58	*	4.257E+01	2.530E+01	4.429E+01	6.198E+00	0.961
		778.00		-5.405E+01	6.872E+01	1.090E+02	7.550E+00	-0.496
TC-99M		140.51	*	3.517E+12	6.872E+01	Half-Life too short		
RH-101		127.23		-2.792E-02	4.272E-02	6.878E-02	3.950E-03	-0.406
		198.01	*	-3.264E-03	4.059E-02	6.314E-02	3.366E-03	-0.052
		325.23		2.093E-01	2.804E-01	4.285E-01	2.532E-02	0.488
RH-102		418.52		-5.762E-02	3.067E-01	5.026E-01	2.929E-02	-0.115
		475.06	*	-1.707E-02	3.377E-02	5.388E-02	3.154E-03	-0.317
		631.29		-4.793E-02	6.710E-02	1.033E-01	5.490E-03	-0.464
		697.49		-5.775E-02	9.325E-02	1.437E-01	8.096E-03	-0.402
	+	766.84		7.164E-01	2.509E-01	3.272E-01	2.204E-02	2.190
		1046.59		-2.005E-02	1.220E-01	1.981E-01	1.500E-02	-0.101
		1112.84		-1.873E-02	2.813E-01	3.934E-01	2.610E-02	-0.048
RU-103		497.08	*	2.374E-02	4.902E-02	8.280E-02	1.048E-02	0.287
		610.33		1.025E+01	2.131E+00	2.866E+00	4.381E-01	3.578

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-106	+	511.85		8.769E-01	3.775E-01	4.487E-01	2.606E-02	1.954
		621.84	*	-3.427E-01	3.565E-01	5.320E-01	6.135E-02	-0.644
		1050.47		1.604E+00	2.500E+00	4.355E+00	3.276E-01	0.368
RU-106	+	511.85		8.769E-01	3.775E-01	4.487E-01	2.606E-02	1.954
		621.84	*	-3.427E-01	3.548E-01	5.320E-01	2.859E-02	-0.644
		1050.47		1.604E+00	2.500E+00	4.355E+00	3.276E-01	0.368
AG-108M		433.93	*	3.450E-02	3.608E-02	6.288E-02	3.986E-03	0.549
		614.37		2.658E-02	4.844E-02	7.177E-02	4.263E-03	0.370
		722.95		3.959E-02	5.541E-02	8.261E-02	5.372E-03	0.479
CD-109		88.03	*	3.676E+00	2.247E+00	2.518E+00	2.459E-01	1.460
AG-110M		657.75	*	-2.512E-02	4.284E-02	6.644E-02	3.692E-03	-0.378
		677.61		-1.645E-01	3.378E-01	5.239E-01	2.999E-02	-0.314
		706.67		-9.977E-02	2.473E-01	3.866E-01	2.368E-02	-0.258
		763.93		1.109E+00	2.694E-01	4.822E-01	3.376E-02	2.300
		884.67		-2.580E-02	5.325E-02	8.493E-02	7.743E-03	-0.304
		937.48		-8.821E-02	1.260E-01	1.966E-01	1.785E-02	-0.449
		1384.27		8.021E-02	1.755E-01	3.007E-01	2.281E-02	0.267
IN-111		171.28		1.411E+00	2.062E+00	3.428E+00	1.759E-01	0.412
		245.39	*	1.771E+00	2.219E+00	3.256E+00	1.843E-01	0.544
IN-113M		391.69	*	-4.573E-02	4.998E-02	7.876E-02	4.852E-03	-0.581
SN-113		391.69	*	-4.573E-02	4.998E-02	7.876E-02	4.852E-03	-0.581
IN-114M		190.27	*	9.504E-02	2.388E-01	3.453E-01	1.820E-02	0.275
CD-115		260.90		-3.090E+02	2.895E+02	4.385E+02	2.518E+01	-0.705
		492.35		-2.458E+00	7.664E+01	1.258E+02	7.342E+00	-0.020
		527.90	*	-2.659E+00	2.236E+01	3.633E+01	2.097E+00	-0.073
SN-117M		156.02		-7.937E-01	3.040E+00	4.916E+00	2.572E-01	-0.161
		158.56	*	-2.700E-02	8.526E-02	1.199E-01	6.229E-03	-0.225
SB-122		563.90	*	-2.427E+00	4.002E+00	6.263E+00	3.543E-01	-0.388
		692.80		7.422E+01	8.653E+01	1.480E+02	8.238E+00	0.501
I-123		159.00	*	8.474E+00	8.653E+01	Half-Life too short		
		528.96		2.718E+02	8.653E+01	Half-Life too short		
TE-123M		159.00	*	3.346E-03	3.971E-02	5.690E-02	3.003E-03	0.059
I-124		602.71	*	2.837E-01	1.211E+00	1.740E+00	9.537E-02	0.163
		722.78		5.099E+00	8.025E+00	1.188E+01	7.160E-01	0.429
		1325.50		-8.203E+00	5.093E+01	8.114E+01	5.893E+00	-0.101
		1376.25		1.254E+01	4.677E+01	7.819E+01	5.714E+00	0.160
		1509.49		3.121E+01	2.325E+01	4.411E+01	3.128E+00	0.708
		1691.02		-3.907E+00	4.645E+00	6.245E+00	4.077E-01	-0.626
SB-124		602.71		1.210E-02	5.166E-02	7.425E-02	4.071E-03	0.163
		645.85		2.916E-01	5.933E-01	9.959E-01	6.012E-02	0.293
		709.31		-2.032E-01	3.213E+00	5.154E+00	2.998E-01	-0.039
		713.82		-5.428E-01	1.911E+00	3.010E+00	3.088E-01	-0.180
		722.78		3.154E-01	4.963E-01	7.349E-01	4.622E-02	0.429
	+	968.20		7.028E+00	5.572E+00	6.958E+00	5.900E-01	1.010
		1045.16		-1.105E+00	2.667E+00	4.225E+00	3.208E-01	-0.261
		1325.50		-5.419E-01	3.364E+00	5.360E+00	3.893E-01	-0.101
		1368.21		-1.727E+00	1.924E+00	2.705E+00	3.430E-01	-0.638
		1436.60		-3.666E+00	4.008E+00	5.526E+00	3.996E-01	-0.663
		1691.02	*	-5.700E-02	6.777E-02	9.110E-02	6.352E-03	-0.626

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		427.89	*	-6.601E-02	9.943E-02	1.578E-01	9.601E-03	-0.418
		463.38		4.257E-01	3.300E-01	5.708E-01	3.889E-02	0.746
		600.56		-2.062E-01	2.087E-01	3.159E-01	2.036E-02	-0.653
		635.90		2.899E-01	3.176E-01	5.477E-01	3.483E-02	0.529
TE-125M		109.28	*	2.000E+01	1.620E+01	2.433E+01	2.172E+00	0.822
I-126		388.63		1.600E-01	2.476E-01	4.257E-01	2.462E-02	0.376
		666.33	*	-1.932E-01	2.488E-01	3.803E-01	1.968E-02	-0.508
		753.82		7.968E-01	1.881E+00	3.124E+00	2.038E-01	0.255
SB-126		223.80		-1.052E+00	5.407E+00	8.634E+00	4.768E-01	-0.122
		278.60		3.712E+00	2.971E+00	5.251E+00	3.055E-01	0.707
		296.50		7.975E+00	2.455E+00	4.041E+00	2.373E-01	1.973
		414.70		1.160E-02	9.147E-02	1.527E-01	8.890E-03	0.076
		415.30		-4.583E-01	7.596E+00	1.255E+01	7.306E-01	-0.037
		555.20		5.075E-01	4.926E+00	8.108E+00	4.612E-01	0.063
		573.80		-1.363E-01	1.436E+00	2.190E+00	1.230E-01	-0.062
		593.00		-9.822E-01	1.244E+00	1.913E+00	1.058E-01	-0.513
		656.30		-6.933E+00	4.599E+00	6.597E+00	3.396E-01	-1.051
		666.33		-8.111E-02	1.045E-01	1.596E-01	8.261E-03	-0.508
		675.00		-1.362E+00	2.493E+00	3.853E+00	2.043E-01	-0.353
		695.00		3.998E-02	1.051E-01	1.742E-01	9.754E-03	0.229
		697.00		-1.350E-01	3.583E-01	5.623E-01	3.165E-02	-0.240
		720.50	*	7.935E-02	2.127E-01	3.074E-01	1.841E-02	0.258
		856.80		4.856E-01	6.484E-01	1.011E+00	8.411E-02	0.480
		989.30		2.035E-01	1.416E+00	2.376E+00	1.962E-01	0.086
		1034.80		3.413E+00	1.131E+01	1.915E+01	1.479E+00	0.178
		1213.00		-3.839E-01	6.439E+00	1.048E+01	6.339E-01	-0.037
SN-126	+	64.28		2.060E+01	3.543E+00	2.400E+00	3.652E-01	8.583
		86.94		8.928E-01	9.883E-01	1.009E+00	4.195E-01	0.885
		87.57	*	2.706E-01	2.194E-01	2.432E-01	2.367E-02	1.113
SB-127		61.10		1.203E+03	2.366E+02	3.242E+02	3.834E+01	3.710
		252.40		4.122E+00	7.347E+00	1.175E+01	4.900E+00	0.351
		290.80		-4.256E-01	3.796E+01	5.566E+01	5.530E+00	-0.008
		411.60		-1.205E+01	1.979E+01	3.160E+01	4.697E+00	-0.381
		444.90		1.969E+01	1.540E+01	2.710E+01	3.104E+00	0.727
		473.00		2.804E+00	2.706E+00	4.703E+00	5.558E-01	0.596
		543.00		1.403E+01	2.618E+01	4.430E+01	5.941E+00	0.317
		603.60		1.699E+01	2.110E+01	3.183E+01	3.577E+00	0.534
		685.20	*	-4.743E-01	2.131E+00	3.379E+00	3.364E-01	-0.140
		698.50		4.193E-01	2.615E+01	4.225E+01	6.295E+00	0.010
		722.20		3.585E+00	5.789E+01	8.088E+01	8.112E+00	0.044
		783.80		1.101E+01	6.584E+00	1.193E+01	1.429E+00	0.922
XE-127		57.60		1.348E+00	1.316E+01	2.045E+01	1.791E+00	0.066
		145.22		2.526E+00	1.082E+00	1.683E+00	9.080E-02	1.501
		172.10		1.527E-01	1.551E-01	2.602E-01	1.336E-02	0.587
		202.84	*	5.789E-02	6.711E-02	9.879E-02	5.303E-03	0.586
		374.96		-5.155E-02	2.241E-01	3.686E-01	2.151E-02	-0.140
I-131		80.18		-3.901E+00	1.434E+01	1.499E+01	1.385E+00	-0.260
		284.30		-1.266E+00	1.987E+00	3.254E+00	2.116E-01	-0.389
		364.48	*	-8.666E-02	1.483E-01	2.393E-01	1.568E-02	-0.362

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		636.97		1.409E+00	2.179E+00	3.694E+00	2.237E-01	0.381
		722.89		7.601E+00	1.107E+01	1.647E+01	1.009E+00	0.462
TE-132		49.72		-5.393E+01	6.050E+01	9.891E+01	1.111E+01	-0.545
	+	111.76		3.192E+02	1.182E+02	1.356E+02	1.357E+01	2.353
		116.30		3.622E+01	6.606E+01	9.737E+01	9.511E+00	0.372
		228.16	*	-2.432E-01	1.220E+00	1.944E+00	2.855E-01	-0.125
BA-133		53.15		3.372E+00	7.098E+00	1.206E+01	1.064E+00	0.280
		79.62		-4.051E-01	3.393E+00	3.577E+00	5.553E-01	-0.113
		81.00		1.463E-01	2.463E-01	2.678E-01	4.342E-02	0.546
		276.40		9.241E-02	4.409E-01	6.565E-01	8.514E-02	0.141
		302.84		-4.608E-02	1.686E-01	2.801E-01	3.277E-02	-0.164
		356.01	*	-8.774E-03	5.366E-02	7.692E-02	8.924E-03	-0.114
		383.85		-8.104E-03	3.284E-01	5.457E-01	5.934E-02	-0.015
I-133	+	510.53		8.833E+00	3.284E-01	Half-Life too short		
		529.87	*	-4.518E-03	3.284E-01	Half-Life too short		
		706.58		-1.048E+00	3.284E-01	Half-Life too short		
		856.28		5.669E-01	3.284E-01	Half-Life too short		
		875.33		-9.444E-01	3.284E-01	Half-Life too short		
		1236.41		3.881E+00	3.284E-01	Half-Life too short		
		1298.22		-1.560E+00	3.284E-01	Half-Life too short		
CS-134		475.35		-1.629E+00	2.211E+00	3.473E+00	2.033E-01	-0.469
		563.23		-2.763E-01	4.286E-01	6.697E-01	3.873E-02	-0.413
		569.32		1.530E-01	2.340E-01	3.913E-01	2.274E-02	0.391
		604.70		2.602E-02	4.392E-02	6.513E-02	3.585E-03	0.400
		795.84	*	5.770E-02	5.584E-02	8.948E-02	6.535E-03	0.645
		801.93		-1.860E-01	5.133E-01	7.132E-01	5.271E-02	-0.261
		1038.57		1.739E+00	4.215E+00	7.213E+00	5.537E-01	0.241
		1167.94		-2.485E+00	2.832E+00	4.268E+00	2.447E-01	-0.582
		1365.15		2.174E-01	1.250E+00	2.047E+00	1.592E-01	0.106
CS-135		268.24	*	3.053E-01	2.077E-01	3.142E-01	2.400E-02	0.972
I-135		288.45		1.584E+11	2.077E-01	Half-Life too short		
		417.63		3.868E+11	2.077E-01	Half-Life too short		
		546.56		-1.930E+12	2.077E-01	Half-Life too short		
		836.80		1.623E+12	2.077E-01	Half-Life too short		
		1038.76		9.270E+11	2.077E-01	Half-Life too short		
		1124.00		2.155E+12	2.077E-01	Half-Life too short		
		1131.51		-4.496E+11	2.077E-01	Half-Life too short		
		1260.41	*	2.312E+11	2.077E-01	Half-Life too short		
		1457.56		1.965E+14	2.077E-01	Half-Life too short		
		1678.03		-1.378E+12	2.077E-01	Half-Life too short		
		1706.46		-1.685E+12	2.077E-01	Half-Life too short		
		1791.20		4.655E+10	2.077E-01	Half-Life too short		
CS-136		66.91		-1.810E+00	1.677E+00	2.352E+00	3.641E-01	-0.770
		86.29		3.367E+00	3.258E+00	3.565E+00	4.828E-01	0.944
		153.22		3.501E-02	9.013E-01	1.456E+00	9.916E-02	0.024
	+	163.89		3.166E+00	1.703E+00	2.521E+00	1.695E-01	1.256
		176.55		-1.596E-01	4.961E-01	7.965E-01	4.750E-02	-0.200
		273.65		-7.446E-01	6.411E-01	8.153E-01	5.395E-02	-0.913
		340.57		1.644E-01	1.731E-01	2.671E-01	1.674E-02	0.615

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		818.51		5.299E-02	9.904E-02	1.719E-01	1.313E-02	0.308
		1048.07	*	5.373E-02	1.267E-01	2.171E-01	1.731E-02	0.247
		1235.34		1.478E+00	8.740E-01	1.560E+00	1.603E-01	0.947
BA-137M		661.65	*	8.352E-02	4.516E-02	8.132E-02	4.154E-03	1.027
CS-137		661.65	*	8.829E-02	4.774E-02	8.596E-02	4.415E-03	1.027
CE-139		165.85	*	-1.155E-02	4.197E-02	5.877E-02	2.996E-03	-0.197
BA-140	+	162.64		2.236E+00	1.201E+00	1.811E+00	1.076E-01	1.235
		304.84		2.709E-01	1.666E+00	2.817E+00	7.692E-01	0.096
		423.70		1.464E+00	2.310E+00	3.889E+00	1.236E+00	0.376
		537.32	*	6.376E-02	3.233E-01	5.353E-01	1.740E-01	0.119
LA-140	+	328.77		3.238E-01	5.126E-01	6.389E-01	4.213E-02	0.507
		432.53		3.069E+00	2.444E+00	4.331E+00	2.792E-01	0.709
		487.03		9.135E-02	1.629E-01	2.778E-01	1.834E-02	0.329
		751.79		1.010E+00	2.188E+00	3.645E+00	2.796E-01	0.277
		815.85		1.518E-01	4.166E-01	7.156E-01	6.219E-02	0.212
		867.82		-1.486E-01	1.777E+00	2.809E+00	2.525E-01	-0.053
		919.63		7.460E-02	3.853E+00	5.954E+00	6.489E-01	0.013
		925.24		-9.047E-01	1.476E+00	2.310E+00	2.174E-01	-0.392
		1596.49	*	-7.580E-02	9.271E-02	1.340E-01	9.196E-03	-0.566
CE-141		145.44	*	1.889E-01	9.741E-02	1.497E-01	8.444E-03	1.262
CE-143		57.37		-8.668E-04	9.741E-02	Half-Life too short		
		231.56		-6.229E-04	9.741E-02	Half-Life too short		
		293.26	*	2.578E-03	9.741E-02	Half-Life too short		
	+	350.59		7.085E-02	9.741E-02	Half-Life too short		
		490.36		-8.332E-03	9.741E-02	Half-Life too short		
		664.57		-3.404E-03	9.741E-02	Half-Life too short		
		721.93		-6.007E-04	9.741E-02	Half-Life too short		
CE-144		80.11		-1.515E+00	5.582E+00	5.838E+00	5.351E-01	-0.260
		133.54	*	-1.746E-01	2.749E-01	4.406E-01	6.222E-02	-0.396
PM-144		476.78		-8.261E-03	7.733E-02	1.265E-01	8.841E-03	-0.065
		618.01		9.637E-03	3.504E-02	5.809E-02	3.352E-03	0.166
		696.49	*	-5.830E-03	4.134E-02	6.604E-02	3.716E-03	-0.088
		778.57		-9.828E-01	2.787E+00	4.565E+00	3.167E-01	-0.215
PR-144		696.49	*	-3.955E-01	2.804E+00	4.480E+00	2.518E-01	-0.088
		1489.15		3.116E+00	1.085E+01	1.838E+01	1.312E+00	0.169
PM-146		453.90	*	3.127E-02	4.681E-02	8.032E-02	6.956E-03	0.389
		633.02		-1.208E+00	1.837E+00	2.639E+00	9.699E-01	-0.458
		735.90		-1.013E-01	1.832E-01	2.783E-01	7.786E-02	-0.364
		747.13		-1.687E-01	1.192E-01	1.673E-01	2.142E-02	-1.009
ND-147	+	91.11		2.865E+01	3.004E+00	1.818E+00	1.787E-01	15.764
		319.41		3.011E+00	4.084E+00	7.080E+00	4.183E-01	0.425
		439.89		-2.244E+00	7.439E+00	1.208E+01	7.072E-01	-0.186
		531.02	*	-1.615E-01	6.893E-01	1.110E+00	1.499E-01	-0.146
PM-149		285.90	*	3.792E+01	1.897E+02	3.221E+02	4.574E+01	0.118
EU-152		121.78		2.024E-02	9.812E-02	1.623E-01	1.248E-02	0.125
		244.69		3.428E-01	4.219E-01	6.194E-01	3.504E-02	0.553
		344.27	*	-1.018E-01	1.316E-01	1.689E-01	1.119E-02	-0.603
		443.98		1.675E+00	1.068E+00	1.916E+00	1.122E-01	0.874
		778.89		-7.594E-02	3.232E-01	5.339E-01	3.705E-02	-0.142

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		867.32		-1.348E-01	9.937E-01	1.517E+00	1.292E-01	-0.089
		964.01		4.755E-01	4.454E-01	6.917E-01	5.894E-02	0.687
		1085.78		2.615E-01	4.186E-01	7.285E-01	5.126E-02	0.359
		1112.02		1.247E-01	3.874E-01	5.701E-01	3.789E-02	0.219
		1407.95		7.403E-02	1.876E-01	3.198E-01	2.326E-02	0.231
GD-153		69.67		1.775E+00	2.776E+00	4.691E+00	4.098E-01	0.378
	+	83.37		3.755E+01	2.872E+01	4.309E+01	4.045E+00	0.872
	+	97.43	*	5.823E-01	1.659E-01	2.277E-01	1.860E-02	2.557
		103.18		-9.698E-02	1.689E-01	2.386E-01	1.783E-02	-0.406
EU-154		123.07		4.629E-02	6.894E-02	1.153E-01	1.089E-02	0.401
		247.94		-5.636E-01	4.975E-01	6.402E-01	6.060E-02	-0.880
		591.81		-3.608E-01	7.329E-01	1.152E+00	1.108E-01	-0.313
		723.30		2.367E-01	2.364E-01	3.608E-01	2.624E-02	0.656
		756.87		-4.639E-01	8.966E-01	1.376E+00	1.458E-01	-0.337
		873.19		-1.739E-01	2.961E-01	4.654E-01	5.701E-02	-0.374
		996.32		1.226E+00	5.396E-01	8.916E-01	1.565E-01	1.375
		1004.76		-1.782E-01	2.775E-01	3.602E-01	4.052E-02	-0.495
		1274.45	*	5.616E-02	1.415E-01	2.391E-01	2.373E-02	0.235
EU-155		48.70		-2.000E+00	5.039E+00	8.391E+00	6.768E-01	-0.238
		60.01		1.242E+01	1.044E+01	1.583E+01	1.375E+00	0.784
		86.54		2.970E-01	2.668E-01	2.940E-01	2.858E-02	1.010
		105.31	*	-1.555E-02	1.572E-01	2.502E-01	1.845E-02	-0.062
TB-160		86.79		7.936E-01	7.231E-01	7.966E-01	7.697E-02	0.996
		197.04		3.583E-01	6.686E-01	1.103E+00	5.870E-02	0.325
		215.65		-5.115E-01	8.823E-01	1.388E+00	7.583E-02	-0.369
		298.57		6.789E-02	1.465E-01	2.205E-01	1.295E-02	0.308
		879.36	*	1.586E-01	1.433E-01	2.606E-01	2.279E-02	0.609
		962.29		1.013E+00	8.027E-01	1.272E+00	1.086E-01	0.797
		966.15		5.814E-01	3.673E-01	5.807E-01	4.936E-02	1.001
		1177.93		-1.190E-01	4.227E-01	6.755E-01	3.843E-02	-0.176
		1271.85		1.597E-01	8.577E-01	1.411E+00	9.415E-02	0.113
HO-166M		80.57		-1.120E-01	7.067E-01	7.433E-01	6.835E-02	-0.151
	+	184.41		8.605E-01	8.674E-02	1.250E-01	6.532E-03	6.885
		280.46		-6.124E-02	9.422E-02	1.544E-01	8.994E-03	-0.397
		410.95		3.555E-02	2.768E-01	4.622E-01	2.687E-02	0.077
		711.68	*	5.171E-03	6.810E-02	1.104E-01	6.463E-03	0.047
		752.31		1.431E-01	3.160E-01	5.260E-01	3.418E-02	0.272
		810.29		-6.635E-02	6.715E-02	1.036E-01	7.748E-03	-0.641
TM-171		51.35		-1.042E+01	6.150E+01	1.030E+02	8.950E+00	-0.101
		52.39		1.069E+01	3.108E+01	5.268E+01	4.628E+00	0.203
		59.40		8.268E+01	5.619E+01	8.576E+01	7.451E+00	0.964
		66.72	*	-4.270E+01	5.378E+01	7.704E+01	6.700E+00	-0.554
LU-176		88.36		9.613E-01	5.238E-01	5.899E-01	5.718E-02	1.629
		201.83		-4.468E-03	3.913E-02	5.492E-02	2.944E-03	-0.081
		306.84	*	3.511E-03	2.834E-02	4.786E-02	2.820E-03	0.073
		401.10		-2.033E+00	7.819E+00	1.281E+01	7.420E-01	-0.159
LU-177M		52.97		1.481E+00	3.248E+00	5.515E+00	4.861E-01	0.269
		54.07		-5.668E-01	1.715E+00	2.857E+00	2.525E-01	-0.198
		61.30		3.190E+01	4.589E+00	6.497E+00	5.643E-01	4.911

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.62		-1.120E-01	5.134E-01	8.390E-01	4.959E-02	-0.133
		147.16		6.153E-01	9.126E-01	1.345E+00	7.216E-02	0.457
		171.86		5.974E-01	6.068E-01	1.018E+00	5.227E-02	0.587
		218.09		-9.300E-02	1.018E+00	1.634E+00	8.955E-02	-0.057
		268.79		1.939E+00	1.065E+00	1.641E+00	9.484E-02	1.182
		319.02		2.175E-01	2.848E-01	4.942E-01	2.918E-02	0.440
		367.43		-3.678E-01	9.831E-01	1.605E+00	9.400E-02	-0.229
		413.65	*	-1.338E-01	1.966E-01	3.132E-01	1.822E-02	-0.427
HF-181		56.28		-1.227E+00	1.914E+00	3.159E+00	2.782E-01	-0.388
		57.53		5.155E-02	1.102E+00	1.710E+00	1.498E-01	0.030
		65.20		1.108E+01	2.290E+00	3.481E+00	3.024E-01	3.183
		133.02		-5.399E-02	9.141E-02	1.473E-01	8.267E-03	-0.367
		136.25		-8.206E-02	6.155E-01	1.005E+00	5.576E-02	-0.082
		345.85		-5.016E-02	2.442E-01	3.497E-01	2.063E-02	-0.143
		482.03	*	-1.139E-02	4.829E-02	7.827E-02	4.578E-03	-0.145
W-181		56.28		-4.689E-01	7.334E-01	1.211E+00	1.066E-01	-0.387
		57.53		1.926E-02	4.226E-01	6.557E-01	5.745E-02	0.029
		65.20	*	4.216E+00	8.713E-01	1.325E+00	1.151E-01	3.183
TA-182		67.75		-1.765E-01	2.142E-01	3.065E-01	2.669E-02	-0.576
		100.10		9.613E-01	3.057E-01	4.785E-01	3.745E-02	2.009
		152.43		-1.289E-01	4.222E-01	6.744E-01	3.564E-02	-0.191
		222.10		-6.718E-02	4.260E-01	6.815E-01	3.755E-02	-0.099
		1001.68		2.426E+01	4.261E+00	8.040E+00	6.527E-01	3.018
		1121.28		5.230E-01	2.052E-01	3.581E-01	2.329E-02	1.461
		1189.05		-3.893E-01	3.791E-01	5.663E-01	3.286E-02	-0.687
		1221.42	*	-2.478E-01	2.330E-01	3.458E-01	2.122E-02	-0.717
		1230.97		-5.026E-01	6.539E-01	1.009E+00	6.296E-02	-0.498
RE-183		57.98		3.517E-01	4.397E-01	6.620E-01	5.789E-02	0.531
		59.32		3.454E-01	2.356E-01	3.595E-01	3.125E-02	0.961
		67.20		-4.264E-01	3.891E-01	5.508E-01	4.792E-02	-0.774
	+	162.32	*	2.993E-01	1.605E-01	2.448E-01	1.259E-02	1.223
	+	208.81		2.199E+00	1.261E+00	1.926E+00	1.043E-01	1.142
		291.72		1.913E-01	1.229E+00	1.819E+00	1.066E-01	0.105
RE-184		57.98		1.281E+00	1.602E+00	2.411E+00	2.109E-01	0.531
		59.32		1.257E+00	8.573E-01	1.308E+00	1.137E-01	0.961
		67.20		-1.552E+00	1.417E+00	2.006E+00	1.745E-01	-0.774
		161.27		5.277E-01	5.083E-01	7.581E-01	3.911E-02	0.696
		216.55		1.112E-01	3.049E-01	4.987E-01	2.728E-02	0.223
		252.85	*	2.241E-01	2.675E-01	4.447E-01	2.536E-02	0.504
		318.01		2.622E-01	4.899E-01	8.422E-01	4.973E-02	0.311
		792.07		1.054E+00	1.312E+00	2.047E+00	1.466E-01	0.515
		903.28		8.394E-01	1.188E+00	1.907E+00	1.728E-01	0.440
		920.93		2.835E-01	5.233E-01	8.904E-01	7.941E-02	0.318
OS-185		59.72		6.958E-01	6.322E-01	9.571E-01	8.312E-02	0.727
		61.14		2.539E+00	4.467E-01	6.665E-01	5.790E-02	3.810
		69.30		1.579E-01	5.204E-01	8.463E-01	7.388E-02	0.187
		592.07		-1.198E+00	3.052E+00	4.836E+00	2.676E-01	-0.248
		646.12	*	1.611E-02	5.000E-02	8.296E-02	4.330E-03	0.194
		717.42		-2.906E-01	1.057E+00	1.666E+00	9.902E-02	-0.174

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		874.81		-6.603E-01	6.113E-01	9.126E-01	7.902E-02	-0.724
		880.27		7.752E-01	8.047E-01	1.447E+00	1.268E-01	0.536
RE-188		155.03	*	1.161E-01	2.101E-01	3.490E-01	1.831E-02	0.333
		477.96		9.673E-01	3.462E+00	5.801E+00	3.394E-01	0.167
		633.10		-2.268E+00	3.689E+00	5.489E+00	2.911E-01	-0.413
W-188	+	63.58		2.134E+03	2.522E+02	2.634E+02	2.288E+01	8.099
		227.08		6.976E+00	1.521E+01	2.492E+01	1.382E+00	0.280
		290.67	*	4.526E-01	9.374E+00	1.379E+01	8.078E-01	0.033
IR-192	+	295.96		8.824E-01	2.028E-01	2.930E-01	1.747E-02	3.011
		308.46		2.540E-02	1.112E-01	1.886E-01	1.124E-02	0.135
		316.51	*	-3.546E-02	3.770E-02	6.022E-02	3.572E-03	-0.589
		468.07		-8.676E-02	7.497E-02	1.141E-01	7.685E-03	-0.760
		604.41		3.219E-01	6.027E-01	8.883E-01	9.937E-02	0.362
		612.46		9.565E-02	9.278E-01	1.316E+00	9.594E-02	0.073
AU-195		65.12		2.307E+00	4.224E-01	6.330E-01	5.498E-02	3.645
		66.83		-1.348E-01	1.786E-01	2.563E-01	2.229E-02	-0.526
	+	75.70		1.232E+00	3.353E-01	6.276E-01	5.605E-02	1.963
	+	98.88	*	1.699E+00	4.839E-01	6.472E-01	5.164E-02	2.625
		129.76		8.674E+00	3.835E+00	6.638E+00	3.773E-01	1.307
TL-200		367.94	*	-3.835E-05	3.835E+00	Half-Life too short		
		579.30		2.800E-02	3.835E+00	Half-Life too short		
		828.27		-2.356E-03	3.835E+00	Half-Life too short		
		1205.75		9.155E-03	3.835E+00	Half-Life too short		
TL-201		68.90		-7.676E-01	1.364E+01	2.112E+01	1.842E+00	-0.036
		70.82		-7.955E+00	7.392E+00	1.202E+01	1.053E+00	-0.662
		80.30		-5.445E+00	2.073E+01	2.168E+01	1.990E+00	-0.251
		135.34		-6.395E+00	5.235E+01	8.549E+01	4.760E+00	-0.075
		167.43	*	-5.589E+00	1.579E+01	2.202E+01	1.124E+00	-0.254
TL-202		68.90		-4.901E-02	8.711E-01	1.349E+00	1.176E-01	-0.036
		70.82		-5.065E-01	4.707E-01	7.653E-01	6.706E-02	-0.662
		80.30		-3.468E-01	1.320E+00	1.381E+00	1.267E-01	-0.251
		439.56	*	-3.426E-02	8.589E-02	1.386E-01	8.108E-03	-0.247
HG-203		70.83		-2.000E+00	1.888E+00	3.051E+00	4.179E-01	-0.655
		72.87		1.792E+00	1.229E+00	1.834E+00	2.446E-01	0.977
	+	82.60		2.859E+00	2.209E+00	3.281E+00	4.659E-01	0.872
		279.20	*	4.123E-02	4.517E-02	7.892E-02	4.875E-03	0.522
BI-207		72.80		-8.919E-02	3.393E-01	5.198E-01	4.584E-02	-0.172
		74.97		7.305E-01	2.154E-01	3.266E-01	2.906E-02	2.237
	+	84.90		4.829E-01	3.694E-01	5.595E-01	5.319E-02	0.863
		569.67		2.862E-02	3.704E-02	6.235E-02	3.512E-03	0.459
		1063.62	*	3.526E-02	6.385E-02	1.098E-01	8.067E-03	0.321
		1770.23		-1.799E-01	4.603E-01	5.638E-01	3.490E-02	-0.319
TL-207		81.07		3.284E-01	5.414E-01	5.909E-01	5.453E-02	0.556
	+	83.78		3.184E-01	2.435E-01	3.654E-01	3.442E-02	0.871
		94.90		4.746E+00	7.092E-01	8.409E-01	7.174E-02	5.643
		122.32		1.455E+00	2.347E+00	3.926E+00	2.656E-01	0.371
	+	144.24		3.252E+00	1.324E+00	1.671E+00	1.157E-01	1.946
		154.21		3.092E-01	4.747E-01	7.908E-01	5.198E-02	0.391
	+	269.46		6.320E-01	2.815E-01	3.893E-01	2.354E-02	1.623

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-6.884E-01	8.709E-01	1.193E+00	1.974E-01	-0.577
	+	338.28		5.280E+00	1.870E+00	2.410E+00	2.553E-01	2.190
		445.03		3.158E+00	2.494E+00	4.393E+00	4.525E-01	0.719
PO-209		260.50		-1.361E+01	1.161E+01	1.749E+01	1.004E+00	-0.778
		262.80		-1.035E+01	3.079E+01	4.841E+01	2.785E+00	-0.214
		896.60	*	-6.080E+00	7.894E+00	1.221E+01	1.108E+00	-0.498
BI-210		46.50	*	2.326E+00	7.623E+00	1.289E+01	1.004E+00	0.180
PB-210		46.50	*	2.326E+00	7.623E+00	1.289E+01	1.004E+00	0.180
PO-210		46.50	*	2.326E+00	7.622E+00	1.289E+01	8.651E-01	0.180
PB-211		404.84	*	-2.243E-01	1.112E+00	1.811E+00	1.129E+00	-0.124
		427.08		-1.381E+00	2.360E+00	3.504E+00	2.166E+00	-0.394
		831.96		1.569E-01	1.375E+00	2.313E+00	1.447E+00	0.068
BI-212	+	727.18	*	1.396E+00	5.402E-01	7.143E-01	5.670E-02	1.954
		785.46		2.327E+00	2.260E+00	3.878E+00	2.734E-01	0.600
		1620.62		8.852E-01	1.137E+00	2.129E+00	1.444E-01	0.416
PB-212		74.81		2.127E+00	7.536E-01	1.104E+00	1.425E-01	1.927
	+	77.11		1.385E+00	3.770E-01	6.354E-01	5.717E-02	2.180
		87.30		1.072E+00	1.019E+00	1.118E+00	1.558E-01	0.959
	+	238.63	*	1.432E+00	1.506E-01	2.225E-01	1.600E-02	6.436
		300.09		3.863E-01	9.642E-01	1.508E+00	1.252E-01	0.256
PO-212		74.81		2.127E+00	7.536E-01	1.104E+00	1.425E-01	1.927
	+	77.11		1.385E+00	3.770E-01	6.354E-01	5.717E-02	2.180
		87.30		1.072E+00	1.019E+00	1.118E+00	1.558E-01	0.959
		115.19		6.485E+00	5.686E+00	8.550E+00	5.454E-01	0.758
	+	238.63	*	1.432E+00	1.506E-01	2.225E-01	1.600E-02	6.436
		300.09		3.863E-01	9.642E-01	1.508E+00	1.252E-01	0.256
PO-215		81.07		3.284E-01	5.414E-01	5.909E-01	5.453E-02	0.556
	+	83.78		3.184E-01	2.435E-01	3.654E-01	3.442E-02	0.871
		94.90		4.746E+00	7.092E-01	8.409E-01	7.174E-02	5.643
		122.32		1.455E+00	2.347E+00	3.926E+00	2.656E-01	0.371
	+	144.24		3.252E+00	1.324E+00	1.671E+00	1.157E-01	1.946
		154.21		3.092E-01	4.747E-01	7.908E-01	5.198E-02	0.391
	+	269.46		6.320E-01	2.815E-01	3.893E-01	2.354E-02	1.623
		323.87	*	-6.884E-01	8.709E-01	1.193E+00	1.974E-01	-0.577
	+	338.28		5.280E+00	1.870E+00	2.410E+00	2.553E-01	2.190
		445.03		3.158E+00	2.494E+00	4.393E+00	4.525E-01	0.719
PO-216		74.81		2.127E+00	7.536E-01	1.104E+00	1.425E-01	1.927
	+	77.11		1.385E+00	3.770E-01	6.354E-01	5.717E-02	2.180
		87.30		1.072E+00	1.019E+00	1.118E+00	1.558E-01	0.959
	+	238.63	*	1.432E+00	1.506E-01	2.225E-01	1.600E-02	6.436
		300.09		3.863E-01	9.642E-01	1.508E+00	1.252E-01	0.256
RN-219	+	271.23		8.109E-01	3.637E-01	4.910E-01	3.975E-02	1.651
		401.81	*	-1.680E-01	4.815E-01	7.840E-01	1.067E-01	-0.214
RN-220		549.76	*	-4.289E+00	2.719E+01	4.394E+01	2.508E+00	-0.098
RA-223		81.07		3.284E-01	5.414E-01	5.909E-01	5.453E-02	0.556
	+	83.78		3.184E-01	2.435E-01	3.654E-01	3.442E-02	0.871
		94.90		4.746E+00	7.092E-01	8.409E-01	7.174E-02	5.643
		122.32		1.455E+00	2.347E+00	3.926E+00	2.656E-01	0.371
	+	144.24		3.252E+00	1.324E+00	1.671E+00	1.157E-01	1.946

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		3.092E-01	4.747E-01	7.908E-01	5.198E-02	0.391
	+	269.46		6.320E-01	2.815E-01	3.893E-01	2.354E-02	1.623
		323.87	*	-6.884E-01	8.709E-01	1.193E+00	1.974E-01	-0.577
	+	338.28		5.280E+00	1.870E+00	2.410E+00	2.553E-01	2.190
		445.03		3.158E+00	2.494E+00	4.393E+00	4.525E-01	0.719
AC-227		79.80		-7.635E-01	4.296E+00	4.513E+00	9.803E-01	-0.169
		236.00		2.217E+00	3.941E-01	6.214E-01	6.428E-02	3.568
		256.20	*	5.356E-01	4.584E-01	7.624E-01	1.062E-01	0.703
		286.10		4.036E-01	1.690E+00	2.875E+00	3.329E-01	0.140
		299.80		7.035E-01	1.883E+00	2.813E+00	4.589E-01	0.250
		304.40		-1.690E+00	2.236E+00	3.606E+00	6.248E-01	-0.469
		334.20		-9.531E-01	2.899E+00	3.872E+00	7.112E-01	-0.246
TH-227		79.80		-7.635E-01	4.296E+00	4.513E+00	9.925E-01	-0.169
		94.00		1.485E+02	3.291E+01	1.113E+01	2.425E+00	13.345
		236.00		2.217E+00	3.768E-01	6.214E-01	5.551E-02	3.568
		256.20	*	5.356E-01	4.613E-01	7.624E-01	1.286E-01	0.703
		286.10		4.036E-01	1.737E+00	2.875E+00	2.880E+00	0.140
		299.80		7.035E-01	1.883E+00	2.813E+00	4.589E-01	0.250
		304.40		-1.690E+00	2.236E+00	3.606E+00	6.248E-01	-0.469
		334.20		-9.531E-01	2.899E+00	3.872E+00	7.112E-01	-0.246
TH-228		74.81		2.164E+00	7.398E-01	1.123E+00	1.007E-01	1.927
	+	77.11		1.409E+00	3.835E-01	6.463E-01	5.815E-02	2.180
		87.30		1.091E+00	1.031E+00	1.137E+00	1.104E-01	0.959
	+	238.63	*	1.457E+00	1.532E-01	2.264E-01	1.627E-02	6.436
		300.09		3.930E-01	1.007E+00	1.533E+00	9.039E-01	0.256
TH-229		85.43		5.215E-01	4.397E-01	5.589E-01	5.336E-02	0.933
		88.47		5.478E-01	3.009E-01	3.389E-01	3.277E-02	1.617
	+	100.00		1.399E+00	3.986E-01	4.980E-01	3.904E-02	2.809
		193.63	*	-3.386E-01	5.915E-01	9.360E-01	4.958E-02	-0.362
		210.97		1.357E+00	9.652E-01	1.460E+00	7.925E-02	0.930
PA-231		283.67	*	-1.050E+00	1.714E+00	2.803E+00	3.867E-01	-0.375
		301.29		4.959E-01	6.689E-01	1.128E+00	1.184E-01	0.440
TH-231		81.07		3.284E-01	5.414E-01	5.909E-01	5.453E-02	0.556
	+	83.78		3.184E-01	2.435E-01	3.654E-01	3.442E-02	0.871
		94.90		4.746E+00	7.092E-01	8.409E-01	7.174E-02	5.643
		122.32		1.455E+00	2.347E+00	3.926E+00	2.656E-01	0.371
	+	144.24		3.252E+00	1.324E+00	1.671E+00	1.157E-01	1.946
		154.21		3.092E-01	4.747E-01	7.908E-01	5.198E-02	0.391
	+	269.46		6.320E-01	2.815E-01	3.893E-01	2.354E-02	1.623
		323.87	*	-6.884E-01	8.709E-01	1.193E+00	1.974E-01	-0.577
	+	338.28		5.280E+00	1.870E+00	2.410E+00	2.553E-01	2.190
		445.03		3.158E+00	2.494E+00	4.393E+00	4.525E-01	0.719
U-231	+	84.21		1.908E+01	1.460E+01	2.192E+01	2.072E+00	0.871
	+	92.29		2.666E+02	2.627E+01	1.743E+01	1.560E+00	15.291
		95.87	*	4.617E+00	3.545E+00	3.990E+00	3.347E-01	1.157
		108.00		-7.552E-01	4.714E+00	6.790E+00	4.745E-01	-0.111
PA-233		75.28		2.853E+01	7.512E+00	9.869E+00	1.531E+00	2.891
		86.59		4.757E+00	4.493E+00	4.769E+00	1.296E+00	0.997
		300.12		1.996E-01	4.987E-01	7.790E-01	1.049E-01	0.256

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		311.98	*	-2.230E-02	7.021E-02	1.161E-01	7.258E-03	-0.192
		340.50		9.164E-01	7.913E-01	1.195E+00	2.748E-01	0.767
		398.62		9.679E-01	2.394E+00	4.039E+00	1.044E+00	0.240
		415.76		1.347E-02	1.788E+00	2.965E+00	6.106E-01	0.005
PA-234	+	63.00		6.065E+01	1.060E+01	7.750E+00	1.204E+00	7.825
		94.67		5.201E+00	7.796E-01	6.891E-01	8.521E-02	7.547
	+	98.44		6.830E-01	4.238E-01	2.626E-01	1.462E-01	2.601
	+	99.86		3.541E+00	1.009E+00	1.286E+00	1.010E-01	2.754
	+	111.00		1.300E+00	4.840E-01	5.358E-01	5.795E-02	2.425
		131.20		1.137E-01	1.405E-01	2.357E-01	1.332E-02	0.483
		152.70		-7.367E-02	4.008E-01	6.426E-01	1.004E-01	-0.115
	+	186.00		3.098E+01	9.803E+00	4.527E+00	1.379E+00	6.843
		226.40		2.468E-01	4.682E-01	7.683E-01	8.783E-02	0.321
		227.20		2.059E-01	5.026E-01	8.219E-01	4.558E-02	0.250
		248.90		-3.288E-01	1.059E+00	1.446E+00	3.103E-01	-0.227
	+	293.70		5.452E+00	1.495E+00	1.800E+00	2.900E-01	3.028
		369.80		4.228E-01	9.409E-01	1.598E+00	3.330E-01	0.265
		568.70		8.560E-01	1.189E+00	1.995E+00	1.125E-01	0.429
		569.50		2.229E-01	3.266E-01	5.470E-01	3.082E-02	0.407
		574.00		-8.442E-02	1.850E+00	2.832E+00	1.590E-01	-0.030
		699.00		4.175E-02	8.397E-01	1.360E+00	2.439E-01	0.031
		706.10		-2.984E-01	1.235E+00	1.945E+00	8.583E-01	-0.153
		733.00		2.040E-01	4.739E-01	6.878E-01	1.470E-01	0.297
		742.81		3.126E+00	2.764E+00	3.239E+00	2.169E+00	0.965
		796.30		4.927E-01	1.100E+00	1.658E+00	4.417E-01	0.297
		805.60		6.939E-01	1.124E+00	1.935E+00	5.870E-01	0.359
		819.60		2.226E-01	1.496E+00	2.526E+00	9.552E-01	0.088
		826.30		-3.552E-01	9.975E-01	1.605E+00	7.154E-01	-0.221
		831.60		-1.157E-01	7.305E-01	1.206E+00	3.575E-01	-0.096
		876.40		-7.244E-01	1.134E+00	1.315E+00	1.352E+00	-0.551
		880.51		3.030E-01	2.847E-01	5.160E-01	4.524E-02	0.587
		883.24		-8.542E-02	3.128E-01	5.002E-01	3.364E-01	-0.171
		899.00		-2.640E-01	9.085E-01	1.463E+00	6.409E-01	-0.180
		925.00		-6.222E-01	1.384E+00	2.201E+00	1.955E-01	-0.283
		926.50		-1.436E-01	2.074E-01	3.175E-01	8.053E-02	-0.452
		946.00	*	7.181E-01	3.914E-01	6.956E-01	1.308E-01	1.032
		949.00		-2.331E-01	5.405E-01	8.662E-01	7.508E-02	-0.269
		980.50		2.845E-01	7.551E-01	1.294E+00	1.080E-01	0.220
		1394.10		-2.573E-01	1.220E+00	1.897E+00	1.232E+00	-0.136
NP-236		94.67		3.994E+00	4.788E-01	5.249E-01	4.497E-02	7.609
	+	98.44		5.163E-01	1.471E-01	1.985E-01	1.595E-02	2.601
	+	111.00		9.830E-01	3.565E-01	4.053E-01	2.724E-02	2.425
		160.31	*	1.450E-02	1.114E-01	1.599E-01	8.271E-03	0.091
NP-237		86.50	*	7.316E-01	6.677E-01	7.173E-01	1.634E-01	1.020
		95.87		2.927E+00	2.347E+00	2.530E+00	6.212E-01	1.157
NP-239	+	99.55		1.180E+00	3.362E-01	4.398E-01	3.472E-02	2.684
		117.00	*	4.398E-02	2.974E-01	4.322E-01	2.698E-02	0.102
	+	209.75		1.701E+00	9.751E-01	1.502E+00	8.142E-02	1.132
		228.18		-5.377E-02	2.603E-01	4.150E-01	2.304E-02	-0.130

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		1.435E-01	2.027E-01	3.342E-01	1.943E-02	0.429
		334.30		-5.115E-01	1.641E+00	2.199E+00	1.299E-01	-0.233
AM-241		59.54	*	4.963E-01	3.259E-01	4.972E-01	4.627E-02	0.998
AM-243		74.67	*	3.102E-01	1.169E-01	1.776E-01	1.578E-02	1.747
		86.72		2.637E+01	2.429E+01	2.676E+01	2.584E+00	0.986
		117.66		-4.554E+00	6.034E+00	8.446E+00	5.230E-01	-0.539
	+	142.18		8.430E+01	3.413E+01	4.304E+01	2.344E+00	1.958
CM-243	+	99.55		1.215E+00	3.460E-01	4.526E-01	3.573E-02	2.684
		103.76	*	5.211E-02	1.449E-01	2.236E-01	1.657E-02	0.233
		117.00		4.525E-02	3.060E-01	4.448E-01	2.776E-02	0.102
	+	209.75		1.677E+00	9.614E-01	1.481E+00	8.027E-02	1.132
		228.18		-5.434E-02	2.631E-01	4.194E-01	2.328E-02	-0.130
		277.60		1.447E-01	2.044E-01	3.369E-01	1.959E-02	0.429
AM-246		798.80		-5.232E-02	1.573E-01	2.180E-01	1.587E-02	-0.240
		1036.00		1.991E-01	3.399E-01	5.887E-01	4.538E-02	0.338
		1062.04		-4.974E-02	2.787E-01	4.527E-01	3.336E-02	-0.110
		1078.86	*	9.558E-02	1.494E-01	2.604E-01	1.858E-02	0.367
CM-247		278.00		1.035E+00	7.859E-01	1.394E+00	8.106E-02	0.743
		287.40		-1.337E-01	1.438E+00	2.279E+00	1.332E-01	-0.059
		402.60	*	-8.594E-03	4.302E-02	7.068E-02	4.097E-03	-0.122
CF-249		252.85		8.341E-01	9.956E-01	1.655E+00	9.438E-02	0.504
		333.44		1.100E-01	2.464E-01	2.974E-01	1.757E-02	0.370
		387.95	*	2.637E-02	4.348E-02	7.460E-02	4.317E-03	0.354
CF-251		176.60	*	-5.264E-02	1.538E-01	2.468E-01	1.275E-02	-0.213
		227.00		2.693E-01	4.454E-01	7.340E-01	4.069E-02	0.367
		285.00		-8.008E-02	1.943E+00	3.268E+00	1.908E-01	-0.025

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                        GEL Laboratories LLC                           *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
*                                                                       *
*                            DETECTOR DATA                              *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020003  *
* Acquisition date : 13-FEB-2010 14:53:19 Detector SN#     :            *
* Detector ID        : GAM23               Sensitivity     : 5.000     *
* Geometry           : CAN                 Energy tolerance: 1.500     *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000    *
* Elapsed real time:     0 02:00:02.37     Half life ratio :  8.000    *
*************************************************************************
*                                                                       *
*                             SAMPLE DATA                               *
*                                                                       *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID     *
* Sample ID          : G246020003           Analyst initials: MXR1      *
* Batch Number       : 948751               Sample Quantity : 1.4456E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000 *
*************************************************************************
*                                                                       *
*                               QC DATA                                 *
* Standard Weight  :   0.00000                                          *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.989E+01	2.865E+00	4.896E-01	0.000E+00
NB-95	2.906E-01	9.975E-02	8.655E-02	0.000E+00
LU-177	2.949E+00	1.657E+00	2.275E+00	0.000E+00
TL-208	4.790E-01	8.764E-02	6.645E-02	0.000E+00
BI-211	3.255E+00	4.503E-01	3.602E-01	0.000E+00
BI-214	9.114E-01	1.598E-01	1.183E-01	0.000E+00
PB-214	1.132E+00	1.670E-01	1.255E-01	0.000E+00
PO-214	1.132E+00	1.670E-01	1.255E-01	0.000E+00
PO-218	1.132E+00	1.670E-01	1.255E-01	0.000E+00
RA-224	2.940E+00	1.305E+00	1.218E+00	0.000E+00
RA-226	9.114E-01	1.598E-01	1.183E-01	0.000E+00
AC-228	1.193E+00	3.452E-01	2.213E-01	0.000E+00
RA-228	1.193E+00	3.452E-01	2.213E-01	0.000E+00
TH-230	9.114E-01	1.598E-01	1.183E-01	0.000E+00
TH-232	1.193E+00	3.452E-01	2.213E-01	0.000E+00
PA-234M	6.760E+01	1.313E+01	7.844E+00	0.000E+00
TH-234	5.203E+01	1.006E+01	3.992E+00	0.000E+00
U-234	9.114E-01	1.598E-01	1.183E-01	0.000E+00
U-235	1.004E+00	4.254E-01	4.597E-01	0.000E+00
U-238	5.203E+01	1.006E+01	3.992E+00	0.000E+00
ANH-511	1.749E-01	7.379E-02	5.002E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	6.261E-02	3.580E-01	6.269E-01	0.000E+00	NOT IDENT.
NA-22	1.971E-02	4.964E-02	8.627E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.106E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.747E-02	2.431E-02	5.062E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.819E-02	1.195E-01	0.000E+00	FAIL ABUN
SC-46	1.424E-02	4.182E-02	7.429E-02	0.000E+00	FAIL ABUN

V-48	-2.172E-02	7.885E-02	1.317E-01	0.000E+00	NOT IDENT.
CR-51	1.356E-01	4.308E-01	7.587E-01	0.000E+00	NOT IDENT.
MN-52	1.430E-01	3.012E-01	5.332E-01	0.000E+00	NOT IDENT.
MN-54	6.112E-03	4.209E-02	7.386E-02	0.000E+00	NOT IDENT.
CO-56	-1.874E-02	4.436E-02	7.445E-02	0.000E+00	NOT IDENT.
CO-57	1.235E-02	3.345E-02	6.023E-02	0.000E+00	NOT IDENT.
CO-58	-3.731E-02	4.439E-02	7.225E-02	0.000E+00	NOT IDENT.
FE-59	-5.673E-02	1.005E-01	1.616E-01	0.000E+00	FAIL ABUN
CO-60	5.077E-02	4.066E-02	7.719E-02	0.000E+00	NOT IDENT.
ZN-65	1.044E-01	1.144E-01	1.840E-01	0.000E+00	NOT IDENT.
GE-68	1.477E+00	1.280E+00	2.395E+00	0.000E+00	NOT IDENT.
AS-73	9.382E-02	1.639E+00	3.039E+00	0.000E+00	NOT IDENT.
AS-74	1.423E-01	1.093E-01	2.020E-01	0.000E+00	NOT IDENT.
SE-75	1.322E-02	5.644E-02	8.512E-02	0.000E+00	NOT IDENT.
BR-77	1.525E+01	2.070E+01	3.727E+01	0.000E+00	FAIL ABUN
SR-82	-5.285E-01	4.850E-01	7.840E-01	0.000E+00	NOT IDENT.
RB-83	4.965E-02	7.703E-02	1.380E-01	0.000E+00	NOT IDENT.
RB-84	5.470E-03	7.492E-02	1.304E-01	0.000E+00	NOT IDENT.
KR-85	1.004E+01	8.525E+00	1.397E+01	0.000E+00	NOT IDENT.
SR-85	5.255E-02	4.464E-02	7.316E-02	0.000E+00	NOT IDENT.
RB-86	1.233E+00	8.925E-01	1.694E+00	0.000E+00	NOT IDENT.
Y-88	8.748E-03	3.272E-02	5.797E-02	0.000E+00	NOT IDENT.
ZR-88	-3.021E-02	3.334E-02	5.554E-02	0.000E+00	NOT IDENT.
Y-91	1.707E+01	2.317E+01	4.114E+01	0.000E+00	NOT IDENT.
NB-94	2.331E-02	3.792E-02	6.659E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.785E-01	3.012E-01	0.000E+00	NOT IDENT.
ZR-95	-2.264E-02	8.126E-02	1.328E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.444E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.703E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.257E+01	2.479E+01	4.522E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.401E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.264E-03	3.978E-02	6.637E-02	0.000E+00	NOT IDENT.
RH-102	-1.707E-02	3.309E-02	5.556E-02	0.000E+00	FAIL ABUN
RU-103	2.374E-02	4.804E-02	8.530E-02	0.000E+00	NOT IDENT.
RH-106	-3.427E-01	3.494E-01	5.453E-01	0.000E+00	FAIL ABUN
RU-106	-3.427E-01	3.477E-01	5.453E-01	0.000E+00	FAIL ABUN
AG-108M	3.450E-02	3.536E-02	6.497E-02	0.000E+00	NOT IDENT.
CD-109	0.000E+00	2.202E+00	2.693E+00	0.000E+00	NOT IDENT.
AG-110M	-2.512E-02	4.199E-02	6.802E-02	0.000E+00	NOT IDENT.
IN-111	1.771E+00	2.174E+00	3.407E+00	0.000E+00	NOT IDENT.
IN-113M	-4.573E-02	4.899E-02	8.157E-02	0.000E+00	NOT IDENT.
SN-113	-4.573E-02	4.899E-02	8.157E-02	0.000E+00	NOT IDENT.
IN-114M	9.504E-02	2.341E-01	3.633E-01	0.000E+00	NOT IDENT.
CD-115	-2.659E+00	2.191E+01	3.738E+01	0.000E+00	NOT IDENT.
SN-117M	-2.700E-02	8.356E-02	1.266E-01	0.000E+00	NOT IDENT.
SB-122	-2.427E+00	3.922E+00	6.434E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	9.857E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	3.346E-03	3.892E-02	6.009E-02	0.000E+00	NOT IDENT.
I-124	2.837E-01	1.187E+00	1.785E+00	0.000E+00	NOT IDENT.
SB-124	-5.700E-02	6.641E-02	9.126E-02	0.000E+00	FAIL ABUN
SB-125	-6.601E-02	9.744E-02	1.631E-01	0.000E+00	NOT IDENT.
TE-125M	2.000E+01	1.587E+01	2.589E+01	0.000E+00	NOT IDENT.
I-126	-1.932E-01	2.438E-01	3.892E-01	0.000E+00	NOT IDENT.
SB-126	7.935E-02	2.085E-01	3.141E-01	0.000E+00	NOT IDENT.
SN-126	0.000E+00	2.150E-01	2.601E-01	0.000E+00	FAIL ABUN
SB-127	-4.743E-01	2.088E+00	3.456E+00	0.000E+00	NOT IDENT.
XE-127	5.789E-02	6.577E-02	1.038E-01	0.000E+00	NOT IDENT.
I-131	-8.666E-02	1.453E-01	2.482E-01	0.000E+00	NOT IDENT.
TE-132	-2.432E-01	1.195E+00	2.037E+00	0.000E+00	FAIL ABUN
BA-133	-8.774E-03	5.259E-02	7.983E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.246E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.770E-02	5.472E-02	9.121E-02	0.000E+00	NOT IDENT.
CS-135	3.053E-01	2.035E-01	3.281E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.270E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.373E-02	1.242E-01	2.199E-01	0.000E+00	FAIL ABUN
BA-137M	0.000E+00	4.425E-02	8.324E-02	0.000E+00	NOT IDENT.
CS-137	0.000E+00	4.678E-02	8.799E-02	0.000E+00	NOT IDENT.
CE-139	-1.155E-02	4.113E-02	6.201E-02	0.000E+00	NOT IDENT.
BA-140	6.376E-02	3.169E-01	5.505E-01	0.000E+00	FAIL ABUN
LA-140	-7.580E-02	9.086E-02	1.345E-01	0.000E+00	FAIL ABUN
CE-141	0.000E+00	9.546E-02	1.584E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.732E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.746E-01	2.695E-01	4.670E-01	0.000E+00	NOT IDENT.
PM-144	-5.830E-03	4.052E-02	6.753E-02	0.000E+00	NOT IDENT.
PR-144	-3.955E-01	2.748E+00	4.581E+00	0.000E+00	NOT IDENT.
PM-146	3.127E-02	4.588E-02	8.291E-02	0.000E+00	NOT IDENT.
ND-147	-1.615E-01	6.756E-01	1.142E+00	0.000E+00	FAIL ABUN
PM-149	3.792E+01	1.859E+02	3.359E+02	0.000E+00	NOT IDENT.

EU-152	-1.018E-01	1.290E-01	1.754E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.626E-01	2.429E-01	0.000E+00	FAIL ABUN
EU-154	5.616E-02	1.387E-01	2.411E-01	0.000E+00	NOT IDENT.
EU-155	-1.555E-02	1.541E-01	2.665E-01	0.000E+00	NOT IDENT.
TB-160	1.586E-01	1.405E-01	2.650E-01	0.000E+00	NOT IDENT.
HO-166M	5.171E-03	6.673E-02	1.129E-01	0.000E+00	FAIL ABUN
TM-171	-4.270E+01	5.270E+01	8.285E+01	0.000E+00	NOT IDENT.
LU-176	3.511E-03	2.777E-02	4.984E-02	0.000E+00	NOT IDENT.
LU-177M	-1.338E-01	1.927E-01	3.239E-01	0.000E+00	NOT IDENT.
HF-181	-1.139E-02	4.732E-02	8.069E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	8.539E-01	1.425E+00	0.000E+00	NOT IDENT.
TA-182	-2.478E-01	2.284E-01	3.491E-01	0.000E+00	NOT IDENT.
RE-183	0.000E+00	1.573E-01	2.584E-01	0.000E+00	FAIL ABUN
RE-184	2.241E-01	2.622E-01	4.650E-01	0.000E+00	NOT IDENT.
OS-185	1.611E-02	4.900E-02	8.497E-02	0.000E+00	NOT IDENT.
RE-188	1.161E-01	2.059E-01	3.687E-01	0.000E+00	NOT IDENT.
W-188	4.526E-01	9.186E+00	1.438E+01	0.000E+00	FAIL ABUN
IR-192	-3.546E-02	3.694E-02	6.265E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.742E-01	6.903E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.747E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-5.589E+00	1.547E+01	2.323E+01	0.000E+00	NOT IDENT.
TL-202	-3.426E-02	8.418E-02	1.432E-01	0.000E+00	NOT IDENT.
HG-203	4.123E-02	4.426E-02	8.234E-02	0.000E+00	FAIL ABUN
BI-207	3.526E-02	6.257E-02	1.112E-01	0.000E+00	FAIL ABUN
TL-207	-6.884E-01	8.535E-01	1.240E+00	0.000E+00	FAIL ABUN
PO-209	-6.080E+00	7.736E+00	1.241E+01	0.000E+00	NOT IDENT.
BI-210	2.326E+00	7.471E+00	1.397E+01	0.000E+00	NOT IDENT.
PB-210	2.326E+00	7.471E+00	1.397E+01	0.000E+00	NOT IDENT.
PO-210	2.326E+00	7.470E+00	1.397E+01	0.000E+00	NOT IDENT.
PB-211	-2.243E-01	1.089E+00	1.874E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.294E-01	7.296E-01	0.000E+00	FAIL ABUN
PB-212	0.000E+00	1.476E-01	2.330E-01	0.000E+00	FAIL ABUN
PO-212	0.000E+00	1.476E-01	2.330E-01	0.000E+00	FAIL ABUN
PO-215	-6.884E-01	8.535E-01	1.240E+00	0.000E+00	FAIL ABUN
PO-216	0.000E+00	1.476E-01	2.330E-01	0.000E+00	FAIL ABUN
RN-219	-1.680E-01	4.719E-01	8.115E-01	0.000E+00	FAIL ABUN
RN-220	-4.289E+00	2.665E+01	4.516E+01	0.000E+00	NOT IDENT.
RA-223	-6.884E-01	8.535E-01	1.240E+00	0.000E+00	FAIL ABUN
AC-227	5.356E-01	4.493E-01	7.969E-01	0.000E+00	NOT IDENT.
TH-227	5.356E-01	4.520E-01	7.969E-01	0.000E+00	NOT IDENT.
TH-228	0.000E+00	1.501E-01	2.370E-01	0.000E+00	FAIL ABUN
TH-229	-3.386E-01	5.797E-01	9.843E-01	0.000E+00	FAIL ABUN
PA-231	-1.050E+00	1.680E+00	2.923E+00	0.000E+00	NOT IDENT.
TH-231	-6.884E-01	8.535E-01	1.240E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	3.474E+00	4.259E+00	0.000E+00	FAIL ABUN
PA-233	-2.230E-02	6.881E-02	1.208E-01	0.000E+00	NOT IDENT.
PA-234	0.000E+00	3.836E-01	7.062E-01	0.000E+00	FAIL ABUN
NP-236	1.450E-02	1.092E-01	1.688E-01	0.000E+00	FAIL ABUN
NP-237	7.316E-01	6.543E-01	7.672E-01	0.000E+00	NOT IDENT.
NP-239	4.398E-02	2.915E-01	4.594E-01	0.000E+00	FAIL ABUN
AM-241	4.963E-01	3.194E-01	5.359E-01	0.000E+00	NOT IDENT.
AM-243	0.000E+00	1.146E-01	1.905E-01	0.000E+00	FAIL ABUN
CM-243	5.211E-02	1.421E-01	2.382E-01	0.000E+00	FAIL ABUN
AM-246	9.558E-02	1.464E-01	2.636E-01	0.000E+00	NOT IDENT.
CM-247	-8.594E-03	4.216E-02	7.315E-02	0.000E+00	NOT IDENT.
CF-249	2.637E-02	4.261E-02	7.728E-02	0.000E+00	NOT IDENT.
CF-251	-5.264E-02	1.508E-01	2.601E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:54:58.98

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020003.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 14:53:19
Sample ID         : G246020003           Sample quantity  : 1.44560E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1225	10.67*	9.974E-01	2.989E+01	2.989E+01	9.78
NB-95	765.79	166	99.81*	1.790E+00	2.413E-01	2.906E-01	35.03
LU-177	112.95	369	6.40	6.254E+00	2.396E+00	1.411E+01	36.27
	208.36	108	11.00*	5.087E+00	5.009E-01	2.949E+00	57.34
TL-208	277.35	------	6.80	4.140E+00	------ Line Not Found		------
	510.84	171	21.60	2.545E+00	8.097E-01	8.097E-01	43.85
	583.14	354	84.20*	2.278E+00	4.790E-01	4.790E-01	18.67
	860.37	53	12.46	1.609E+00	6.827E-01	6.827E-01	69.34
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	558	12.94*	3.441E+00	3.255E+00	3.255E+00	14.12
BI-214	609.31	357	46.30*	2.194E+00	9.114E-01	9.114E-01	17.89
	1120.29	79	15.10	1.258E+00	1.081E+00	1.081E+00	62.23
	1764.49	57	15.80	8.743E-01	1.066E+00	1.067E+00	50.02
PB-214	74.81	------	6.21	4.056E+00	------ Line Not Found		------
	77.11	413	10.50	4.297E+00	2.375E+00	2.375E+00	28.26
	87.30	------	4.67	5.232E+00	------ Line Not Found		------
	241.98	206	7.49	4.596E+00	1.550E+00	1.550E+00	45.64
	295.21	332	19.20	3.949E+00	1.136E+00	1.136E+00	23.80
	351.92	558	37.20*	3.441E+00	1.132E+00	1.132E+00	15.05
PO-214	74.81	------	6.21	4.056E+00	------ Line Not Found		------
	77.11	413	10.50	4.297E+00	2.375E+00	2.375E+00	28.26
	87.30	------	4.67	5.232E+00	------ Line Not Found		------
	241.98	206	7.49	4.596E+00	1.550E+00	1.550E+00	45.64
	295.21	332	19.20	3.949E+00	1.136E+00	1.136E+00	23.80
	351.92	558	37.20*	3.441E+00	1.132E+00	1.132E+00	15.05
PO-218	74.81	------	6.21	4.056E+00	------ Line Not Found		------
	77.11	413	10.50	4.297E+00	2.375E+00	2.375E+00	28.26
	87.30	------	4.67	5.232E+00	------ Line Not Found		------
	241.98	206	7.49	4.596E+00	1.550E+00	1.550E+00	45.64
	295.21	332	19.20	3.949E+00	1.136E+00	1.136E+00	23.80
	351.92	558	37.20*	3.441E+00	1.132E+00	1.132E+00	15.05
RA-224	240.98	206	3.95*	4.596E+00	2.940E+00	2.940E+00	45.29

Sample ID : G246020003 Acquisition date : 13-FEB-2010 14:53:19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-226	609.31	357	46.30*	2.194E+00	9.114E-01	9.114E-01	17.89
	1120.29	79	15.10	1.258E+00	1.081E+00	1.081E+00	62.23
	1764.49	57	15.80	8.743E-01	1.066E+00	1.067E+00	50.02
AC-228	338.32	197	11.40	3.551E+00	1.264E+00	1.264E+00	52.97
	911.07	194	27.70*	1.527E+00	1.193E+00	1.193E+00	29.52
	969.11	61	16.60	1.440E+00	6.672E-01	6.672E-01	82.19
RA-228	338.32	197	11.40	3.551E+00	1.264E+00	1.264E+00	52.97
	911.07	194	27.70*	1.527E+00	1.193E+00	1.193E+00	29.52
	969.11	61	16.60	1.440E+00	6.672E-01	6.672E-01	82.19
TH-230	609.31	357	46.30*	2.194E+00	9.114E-01	9.114E-01	17.89
	1120.29	79	15.10	1.258E+00	1.081E+00	1.081E+00	62.23
	1764.49	57	15.80	8.743E-01	1.066E+00	1.066E+00	50.02
TH-232	338.32	197	11.40	3.551E+00	1.264E+00	1.264E+00	34.31
	911.07	194	27.70*	1.527E+00	1.193E+00	1.193E+00	29.52
	969.11	61	16.60	1.440E+00	6.672E-01	6.672E-01	82.19
PA-234M	766.42	166	0.32	1.790E+00	7.527E+01	7.527E+01	61.05
	1001.03	306	0.84*	1.398E+00	6.760E+01	6.760E+01	19.83
TH-234	63.29	1960	3.80*	2.574E+00	5.203E+01	5.203E+01	19.72
	92.38	5827	5.41	5.572E+00	5.019E+01	5.019E+01	18.70
U-234	609.31	357	46.30*	2.194E+00	9.114E-01	9.114E-01	17.89
	1120.29	79	15.10	1.258E+00	1.081E+00	1.081E+00	62.23
	1764.49	57	15.80	8.743E-01	1.066E+00	1.066E+00	50.02
U-235	89.95	------	2.70	5.418E+00	------ Line Not Found		------
	93.35	5827	4.50	5.572E+00	6.034E+01	6.034E+01	28.43
	105.00	------	2.10	6.104E+00	------ Line Not Found		------
	143.76	251	10.50*	6.191E+00	1.004E+00	1.004E+00	43.26
	163.35	134	4.70	5.888E+00	1.257E+00	1.257E+00	56.25
	185.71	1311	54.00	5.495E+00	1.147E+00	1.147E+00	10.08
	205.31	116	4.70	5.149E+00	1.244E+00	1.244E+00	76.75
U-238	63.29	1960	3.80*	2.574E+00	5.203E+01	5.203E+01	19.72
	92.38	5827	5.41	5.572E+00	5.019E+01	5.019E+01	9.85
ANH-511	511.00	171	100.00*	2.545E+00	1.749E-01	1.749E-01	43.05

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G246020003 Acquisition date : 13-FEB-2010 14:53:19

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.989E+01	2.989E+01	0.292E+01	9.78	
NB-95	64.02D	1.20	2.413E-01	2.906E-01	1.018E-01	35.03	
LU-177	6.71D	5.89	5.009E-01	2.949E+00	1.691E+00	57.34	
TL-208	1.41E+10Y	1.00	4.790E-01	4.790E-01	0.894E-01	18.67	
BI-211	7.04E+08Y	1.00	3.255E+00	3.255E+00	0.460E+00	14.12	
BI-214	1600.00Y	1.00	9.114E-01	9.114E-01	1.630E-01	17.89	
PB-214	1600.00Y	1.00	1.132E+00	1.132E+00	0.170E+00	15.05	
PO-214	1600.00Y	1.00	1.132E+00	1.132E+00	0.170E+00	15.05	
PO-218	1600.00Y	1.00	1.132E+00	1.132E+00	0.170E+00	15.05	
RA-224	1.41E+10Y	1.00	2.940E+00	2.940E+00	1.331E+00	45.29	
RA-226	1600.00Y	1.00	9.114E-01	9.114E-01	1.630E-01	17.89	
AC-228	1.41E+10Y	1.00	1.193E+00	1.193E+00	0.352E+00	29.52	
RA-228	1.41E+10Y	1.00	1.193E+00	1.193E+00	0.352E+00	29.52	
TH-230	4.47E+09Y	1.00	9.114E-01	9.114E-01	1.630E-01	17.89	
TH-232	1.41E+10Y	1.00	1.193E+00	1.193E+00	0.352E+00	29.52	
PA-234M	4.47E+09Y	1.00	6.760E+01	6.760E+01	1.340E+01	19.83	
TH-234	4.47E+09Y	1.00	5.203E+01	5.203E+01	1.026E+01	19.72	
U-234	4.47E+09Y	1.00	9.114E-01	9.114E-01	1.630E-01	17.89	
U-235	7.04E+08Y	1.00	1.004E+00	1.004E+00	0.434E+00	43.26	
U-238	4.47E+09Y	1.00	5.203E+01	5.203E+01	1.026E+01	19.72	
ANH-511	1.00E+09Y	1.00	1.749E-01	1.749E-01	0.753E-01	43.05	
	Total Activity :		2.208E+02	2.233E+02			

Grand Total Activity : 2.208E+02 2.233E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G246020003 Acquisition date : 13-FEB-2010 14:53:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.71	150	1128	1.57	167.43	165	7	2.08E-02	75.9	4.95E+00	T
0	98.54	393	758	1.23	197.09	193	9	5.46E-02	27.3	5.88E+00	T
2	238.30	1141	251	1.33	476.60	468	25	1.58E-01	7.7	4.64E+00	T
0	270.32	140	229	1.68	540.63	536	10	1.94E-02	44.1	4.22E+00	T
0	328.07	37	228	0.91	656.13	650	10	5.09E-03	****	3.63E+00	T
0	726.86	119	80	2.17	1453.73	1446	15	1.65E-02	37.9	1.88E+00	T
0	793.94	77	58	2.90	1587.88	1581	16	1.07E-02	50.5	1.73E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 16:55:04.19

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020003.CNF;1 *
* Acquisition date  : 13-FEB-2010 14:53:19  Detector SN#     :             *
* Detector ID       : GAM23                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:02.37          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020003            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.44560E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.989E+01	2.924E+00	4.870E-01	3.643E-02	61.367
NB-95	2.906E-01	1.018E-01	8.483E-02	5.701E-03	3.426
LU-177	2.949E+00	1.691E+00	2.167E+00	1.172E-01	1.361
TL-208	4.790E-01	8.943E-02	6.473E-02	4.202E-03	7.400
BI-211	3.255E+00	4.595E-01	3.469E-01	2.260E-02	9.384
BI-214	9.114E-01	1.630E-01	1.153E-01	8.672E-03	7.902
PB-214	1.132E+00	1.704E-01	1.209E-01	1.009E-02	9.364
PO-214	1.132E+00	1.704E-01	1.209E-01	1.009E-02	9.364
PO-218	1.132E+00	1.704E-01	1.209E-01	1.009E-02	9.364
RA-224	2.940E+00	1.331E+00	1.164E+00	6.556E-02	2.526
RA-226	9.114E-01	1.630E-01	1.153E-01	8.672E-03	7.902
AC-228	1.193E+00	3.522E-01	2.178E-01	2.513E-02	5.478
RA-228	1.193E+00	3.522E-01	2.178E-01	2.513E-02	5.478
TH-230	9.114E-01	1.630E-01	1.153E-01	8.671E-03	7.902
TH-232	1.193E+00	3.522E-01	2.178E-01	2.513E-02	5.478
PA-234M	6.760E+01	1.340E+01	7.736E+00	7.381E-01	8.738
TH-234	5.203E+01	1.026E+01	3.709E+00	6.683E-01	14.030
U-234	9.114E-01	1.630E-01	1.153E-01	8.671E-03	7.902

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	1.004E+00	4.341E-01	4.344E-01	7.026E-02	2.310
U-238	5.203E+01	1.026E+01	3.709E+00	6.683E-01	14.030
ANH-511	1.749E-01	7.530E-02	4.858E-02	2.822E-03	3.600

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.261E-02		3.653E-01	6.080E-01	4.132E-02	0.103
NA-22	1.971E-02		5.065E-02	8.555E-02	5.745E-03	0.230
NA-24	-6.001E+00		3.626E+00	Half-Life too short		
AL-26	2.747E-02		2.481E-02	5.061E-02	3.042E-03	0.543
TI-44	2.556E-01	+	6.958E-02	1.115E-01	1.011E-02	2.292
SC-46	1.424E-02		4.267E-02	7.306E-02	6.527E-03	0.195
V-48	-2.172E-02		8.045E-02	1.298E-01	1.080E-02	-0.167
CR-51	1.356E-01		4.396E-01	7.294E-01	4.783E-02	0.186
MN-52	1.430E-01		3.074E-01	5.302E-01	3.836E-02	0.270
MN-54	6.112E-03		4.295E-02	7.253E-02	5.743E-03	0.084
CO-56	-1.874E-02		4.526E-02	7.314E-02	5.950E-03	-0.256
CO-57	1.235E-02		3.414E-02	5.672E-02	3.344E-03	0.218
CO-58	-3.731E-02		4.530E-02	7.090E-02	5.327E-03	-0.526
FE-59	-5.673E-02		1.025E-01	1.597E-01	1.230E-02	-0.355
CO-60	5.077E-02		4.149E-02	7.662E-02	5.625E-03	0.663
ZN-65	1.044E-01		1.168E-01	1.820E-01	1.202E-02	0.574
GE-68	1.477E+00		1.306E+00	2.366E+00	1.693E-01	0.624
AS-73	9.382E-02		1.672E+00	2.813E+00	2.484E-01	0.033
AS-74	1.423E-01		1.116E-01	1.969E-01	1.086E-02	0.723
SE-75	1.322E-02		5.759E-02	8.149E-02	4.743E-03	0.162
BR-77	1.525E+01		2.112E+01	3.622E+01	2.096E+00	0.421
SR-82	-5.285E-01		4.949E-01	7.687E-01	5.303E-02	-0.688
RB-83	4.965E-02		7.860E-02	1.341E-01	7.763E-03	0.370
RB-84	5.470E-03		7.644E-02	1.282E-01	1.126E-02	0.043
KR-85	1.004E+01		8.699E+00	1.357E+01	7.875E-01	0.740
SR-85	5.255E-02		4.555E-02	7.107E-02	4.124E-03	0.740
RB-86	1.233E+00		9.108E-01	1.673E+00	1.199E-01	0.737
Y-88	8.748E-03		3.338E-02	5.798E-02	3.414E-03	0.151
ZR-88	-3.021E-02		3.402E-02	5.363E-02	3.096E-03	-0.563
Y-91	1.707E+01		2.364E+01	4.075E+01	2.431E+00	0.419
NB-94	2.331E-02		3.870E-02	6.514E-02	3.722E-03	0.358
NB-95M	5.725E-01		1.821E-01	2.876E-01	2.122E-02	1.990
ZR-95	-2.264E-02		8.291E-02	1.301E-01	9.984E-03	-0.174
NB-97	-3.742E-01		4.308E-01	Half-Life too short		
ZR-97	4.809E+01		8.687E+00	Half-Life too short		
MO-99	4.257E+01		2.530E+01	4.429E+01	6.198E+00	0.961
TC-99M	3.517E+12		7.146E+12	Half-Life too short		
RH-101	-3.264E-03		4.059E-02	6.314E-02	3.366E-03	-0.052
RH-102	-1.707E-02		3.377E-02	5.388E-02	3.154E-03	-0.317
RU-103	2.374E-02		4.902E-02	8.280E-02	1.048E-02	0.287

Sample ID : G24602 0003 Acquisition date : 13-FEB-2010 14:53:19

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-106	-3.427E-01		3.565E-01	5.320E-01	6.135E-02	-0.644
RU-106	-3.427E-01		3.548E-01	5.320E-01	2.859E-02	-0.644
AG-108M	3.450E-02		3.608E-02	6.288E-02	3.986E-03	0.549
CD-109	3.676E+00		2.247E+00	2.518E+00	2.459E-01	1.460
AG-110M	-2.512E-02		4.284E-02	6.644E-02	3.692E-03	-0.378
IN-111	1.771E+00		2.219E+00	3.256E+00	1.843E-01	0.544
IN-113M	-4.573E-02		4.998E-02	7.876E-02	4.852E-03	-0.581
SN-113	-4.573E-02		4.998E-02	7.876E-02	4.852E-03	-0.581
IN-114M	9.504E-02		2.388E-01	3.453E-01	1.820E-02	0.275
CD-115	-2.659E+00		2.236E+01	3.633E+01	2.097E+00	-0.073
SN-117M	-2.700E-02		8.526E-02	1.199E-01	6.229E-03	-0.225
SB-122	-2.427E+00		4.002E+00	6.263E+00	3.543E-01	-0.388
I-123	8.474E+00		5.029E+01	Half-Life too short		
TE-123M	3.346E-03		3.971E-02	5.690E-02	3.003E-03	0.059
I-124	2.837E-01		1.211E+00	1.740E+00	9.537E-02	0.163
SB-124	-5.700E-02		6.777E-02	9.110E-02	6.352E-03	-0.626
SB-125	-6.601E-02		9.943E-02	1.578E-01	9.601E-03	-0.418
TE-125M	2.000E+01		1.620E+01	2.433E+01	2.172E+00	0.822
I-126	-1.932E-01		2.488E-01	3.803E-01	1.968E-02	-0.508
SB-126	7.935E-02		2.127E-01	3.074E-01	1.841E-02	0.258
SN-126	2.706E-01		2.194E-01	2.432E-01	2.367E-02	1.113
SB-127	-4.743E-01		2.131E+00	3.379E+00	3.364E-01	-0.140
XE-127	5.789E-02		6.711E-02	9.879E-02	5.303E-03	0.586
I-131	-8.666E-02		1.483E-01	2.393E-01	1.568E-02	-0.362
TE-132	-2.432E-01		1.220E+00	1.944E+00	2.855E-01	-0.125
BA-133	-8.774E-03		5.366E-02	7.692E-02	8.924E-03	-0.114
I-133	-4.518E-03		1.656E-02	Half-Life too short		
CS-134	5.770E-02		5.584E-02	8.948E-02	6.535E-03	0.645
CS-135	3.053E-01		2.077E-01	3.142E-01	2.400E-02	0.972
I-135	2.312E+11		4.730E+11	Half-Life too short		
CS-136	5.373E-02		1.267E-01	2.171E-01	1.731E-02	0.247
BA-137M	8.352E-02		4.516E-02	8.132E-02	4.154E-03	1.027
CS-137	8.829E-02		4.774E-02	8.596E-02	4.415E-03	1.027
CE-139	-1.155E-02		4.197E-02	5.877E-02	2.996E-03	-0.197
BA-140	6.376E-02		3.233E-01	5.353E-01	1.740E-01	0.119
LA-140	-7.580E-02		9.271E-02	1.340E-01	9.196E-03	-0.566
CE-141	1.889E-01		9.741E-02	1.497E-01	8.444E-03	1.262
CE-143	2.578E-03		3.945E-04	Half-Life too short		
CE-144	-1.746E-01		2.749E-01	4.406E-01	6.222E-02	-0.396
PM-144	-5.830E-03		4.134E-02	6.604E-02	3.716E-03	-0.088
PR-144	-3.955E-01		2.804E+00	4.480E+00	2.518E-01	-0.088
PM-146	3.127E-02		4.681E-02	8.032E-02	6.956E-03	0.389
ND-147	-1.615E-01		6.893E-01	1.110E+00	1.499E-01	-0.146
PM-149	3.792E+01		1.897E+02	3.221E+02	4.574E+01	0.118
EU-152	-1.018E-01		1.316E-01	1.689E-01	1.119E-02	-0.603
GD-153	5.823E-01	+	1.659E-01	2.277E-01	1.860E-02	2.557
EU-154	5.616E-02		1.415E-01	2.391E-01	2.373E-02	0.235
EU-155	-1.555E-02		1.572E-01	2.502E-01	1.845E-02	-0.062

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160	1.586E-01		1.433E-01	2.606E-01	2.279E-02	0.609
HO-166M	5.171E-03		6.810E-02	1.104E-01	6.463E-03	0.047
TM-171	-4.270E+01		5.378E+01	7.704E+01	6.700E+00	-0.554
LU-176	3.511E-03		2.834E-02	4.786E-02	2.820E-03	0.073
LU-177M	-1.338E-01		1.966E-01	3.132E-01	1.822E-02	-0.427
HF-181	-1.139E-02		4.829E-02	7.827E-02	4.578E-03	-0.145
W-181	4.216E+00		8.713E-01	1.325E+00	1.151E-01	3.183
TA-182	-2.478E-01		2.330E-01	3.458E-01	2.122E-02	-0.717
RE-183	2.993E-01	+	1.605E-01	2.448E-01	1.259E-02	1.223
RE-184	2.241E-01		2.675E-01	4.447E-01	2.536E-02	0.504
OS-185	1.611E-02		5.000E-02	8.296E-02	4.330E-03	0.194
RE-188	1.161E-01		2.101E-01	3.490E-01	1.831E-02	0.333
W-188	4.526E-01		9.374E+00	1.379E+01	8.078E-01	0.033
IR-192	-3.546E-02		3.770E-02	6.022E-02	3.572E-03	-0.589
AU-195	1.699E+00	+	4.839E-01	6.472E-01	5.164E-02	2.625
TL-200	-3.835E-05		8.911E-04	Half-Life too short		
TL-201	-5.589E+00		1.579E+01	2.202E+01	1.124E+00	-0.254
TL-202	-3.426E-02		8.589E-02	1.386E-01	8.108E-03	-0.247
HG-203	4.123E-02		4.517E-02	7.892E-02	4.875E-03	0.522
BI-207	3.526E-02		6.385E-02	1.098E-01	8.067E-03	0.321
TL-207	-6.884E-01		8.709E-01	1.193E+00	1.974E-01	-0.577
PO-209	-6.080E+00		7.894E+00	1.221E+01	1.108E+00	-0.498
BI-210	2.326E+00		7.623E+00	1.289E+01	1.004E+00	0.180
PB-210	2.326E+00		7.623E+00	1.289E+01	1.004E+00	0.180
PO-210	2.326E+00		7.622E+00	1.289E+01	8.651E-01	0.180
PB-211	-2.243E-01		1.112E+00	1.811E+00	1.129E+00	-0.124
BI-212	1.396E+00	+	5.402E-01	7.143E-01	5.670E-02	1.954
PB-212	1.432E+00	+	1.506E-01	2.225E-01	1.600E-02	6.436
PO-212	1.432E+00	+	1.506E-01	2.225E-01	1.600E-02	6.436
PO-215	-6.884E-01		8.709E-01	1.193E+00	1.974E-01	-0.577
PO-216	1.432E+00	+	1.506E-01	2.225E-01	1.600E-02	6.436
RN-219	-1.680E-01		4.815E-01	7.840E-01	1.067E-01	-0.214
RN-220	-4.289E+00		2.719E+01	4.394E+01	2.508E+00	-0.098
RA-223	-6.884E-01		8.709E-01	1.193E+00	1.974E-01	-0.577
AC-227	5.356E-01		4.584E-01	7.624E-01	1.062E-01	0.703
TH-227	5.356E-01		4.613E-01	7.624E-01	1.286E-01	0.703
TH-228	1.457E+00	+	1.532E-01	2.264E-01	1.627E-02	6.436
TH-229	-3.386E-01		5.915E-01	9.360E-01	4.958E-02	-0.362
PA-231	-1.050E+00		1.714E+00	2.803E+00	3.867E-01	-0.375
TH-231	-6.884E-01		8.709E-01	1.193E+00	1.974E-01	-0.577
U-231	4.617E+00		3.545E+00	3.990E+00	3.347E-01	1.157
PA-233	-2.230E-02		7.021E-02	1.161E-01	7.258E-03	-0.192
PA-234	7.181E-01		3.914E-01	6.956E-01	1.308E-01	1.032
NP-236	1.450E-02		1.114E-01	1.599E-01	8.271E-03	0.091
NP-237	7.316E-01		6.677E-01	7.173E-01	1.634E-01	1.020
NP-239	4.398E-02		2.974E-01	4.322E-01	2.698E-02	0.102
AM-241	4.963E-01		3.259E-01	4.972E-01	4.627E-02	0.998
AM-243	3.102E-01		1.169E-01	1.776E-01	1.578E-02	1.747

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	5.211E-02		1.449E-01	2.236E-01	1.657E-02	0.233
AM-246	9.558E-02		1.494E-01	2.604E-01	1.858E-02	0.367
CM-247	-8.594E-03		4.302E-02	7.068E-02	4.097E-03	-0.122
CF-249	2.637E-02		4.348E-02	7.460E-02	4.317E-03	0.354
CF-251	-5.264E-02		1.538E-01	2.468E-01	1.275E-02	-0.213

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020003           *
* Acquisition date  : 13-FEB-2010 14:53:19 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.37      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020003           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.4456E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.989E+01	2.865E+00	2.449E-01	1.462E+00
NB-95	2.906E-01	9.975E-02	4.330E-02	5.089E-02
LU-177	2.949E+00	1.657E+00	1.138E+00	8.455E-01
TL-208	4.790E-01	8.764E-02	3.324E-02	4.471E-02
BI-211	3.255E+00	4.503E-01	1.802E-01	2.298E-01
BI-214	9.114E-01	1.598E-01	5.918E-02	8.152E-02
PB-214	1.132E+00	1.670E-01	6.281E-02	8.521E-02
PO-214	1.132E+00	1.670E-01	6.281E-02	8.521E-02
PO-218	1.132E+00	1.670E-01	6.281E-02	8.521E-02
RA-224	2.940E+00	1.305E+00	6.093E-01	6.657E-01
RA-226	9.114E-01	1.598E-01	5.918E-02	8.152E-02
AC-228	1.193E+00	3.452E-01	1.107E-01	1.761E-01
RA-228	1.193E+00	3.452E-01	1.107E-01	1.761E-01
TH-230	9.114E-01	1.598E-01	5.918E-02	8.152E-02
TH-232	1.193E+00	3.452E-01	1.107E-01	1.761E-01
PA-234M	6.760E+01	1.313E+01	3.925E+00	6.701E+00
TH-234	5.203E+01	1.006E+01	1.997E+00	5.131E+00
U-234	9.114E-01	1.598E-01	5.918E-02	8.152E-02
U-235	1.004E+00	4.254E-01	2.300E-01	2.170E-01
U-238	5.203E+01	1.006E+01	1.997E+00	5.131E+00
ANH-511	1.749E-01	7.379E-02	2.502E-02	3.765E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	6.261E-02	3.580E-01	3.137E-01	1.827E-01	NOT IDENT.
NA-22	1.971E-02	4.964E-02	4.316E-02	2.533E-02	NOT IDENT.
NA-24	-6.001E+06	7.106E+06	0.000E+00	3.626E+06	SHORT HLIF
AL-26	2.747E-02	2.431E-02	2.533E-02	1.240E-02	NOT IDENT.
TI-44	2.556E-01	6.819E-02	5.980E-02	3.479E-02	FAIL ABUN
SC-46	1.424E-02	4.182E-02	3.716E-02	2.134E-02	FAIL ABUN

V-48	-2.172E-02	7.885E-02	6.590E-02	4.023E-02	NOT IDENT.
CR-51	1.356E-01	4.308E-01	3.796E-01	2.198E-01	NOT IDENT.
MN-52	1.430E-01	3.012E-01	2.667E-01	1.537E-01	NOT IDENT.
MN-54	6.112E-03	4.209E-02	3.695E-02	2.147E-02	NOT IDENT.
CO-56	-1.874E-02	4.436E-02	3.725E-02	2.263E-02	NOT IDENT.
CO-57	1.235E-02	3.345E-02	3.013E-02	1.707E-02	NOT IDENT.
CO-58	-3.731E-02	4.439E-02	3.614E-02	2.265E-02	NOT IDENT.
FE-59	-5.673E-02	1.005E-01	8.086E-02	5.125E-02	FAIL ABUN
CO-60	5.077E-02	4.066E-02	3.862E-02	2.074E-02	NOT IDENT.
ZN-65	1.044E-01	1.144E-01	9.208E-02	5.838E-02	NOT IDENT.
GE-68	1.477E+00	1.280E+00	1.198E+00	6.528E-01	NOT IDENT.
AS-73	9.382E-02	1.639E+00	1.520E+00	8.360E-01	NOT IDENT.
AS-74	1.423E-01	1.093E-01	1.011E-01	5.578E-02	NOT IDENT.
SE-75	1.322E-02	5.644E-02	4.259E-02	2.880E-02	NOT IDENT.
BR-77	1.525E+01	2.070E+01	1.865E+01	1.056E+01	FAIL ABUN
SR-82	-5.285E-01	4.850E-01	3.922E-01	2.475E-01	NOT IDENT.
RB-83	4.965E-02	7.703E-02	6.905E-02	3.930E-02	NOT IDENT.
RB-84	5.470E-03	7.492E-02	6.523E-02	3.822E-02	NOT IDENT.
KR-85	1.004E+01	8.525E+00	6.990E+00	4.349E+00	NOT IDENT.
SR-85	5.255E-02	4.464E-02	3.660E-02	2.278E-02	NOT IDENT.
RB-86	1.233E+00	8.925E-01	8.473E-01	4.554E-01	NOT IDENT.
Y-88	8.748E-03	3.272E-02	2.900E-02	1.669E-02	NOT IDENT.
ZR-88	-3.021E-02	3.334E-02	2.779E-02	1.701E-02	NOT IDENT.
Y-91	1.707E+01	2.317E+01	2.058E+01	1.182E+01	NOT IDENT.
NB-94	2.331E-02	3.792E-02	3.331E-02	1.935E-02	NOT IDENT.
NB-95M	5.725E-01	1.785E-01	1.507E-01	9.107E-02	NOT IDENT.
ZR-95	-2.264E-02	8.126E-02	6.644E-02	4.146E-02	NOT IDENT.
NB-97	-3.742E+05	8.444E+05	0.000E+00	4.308E+05	SHORT HLIF
ZR-97	4.809E+07	1.703E+07	0.000E+00	8.687E+06	SHORT HLIF
MO-99	4.257E+01	2.479E+01	2.262E+01	1.265E+01	NOT IDENT.
TC-99M	3.517E+18	1.401E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.264E-03	3.978E-02	3.320E-02	2.029E-02	NOT IDENT.
RH-102	-1.707E-02	3.309E-02	2.780E-02	1.688E-02	FAIL ABUN
RU-103	2.374E-02	4.804E-02	4.268E-02	2.451E-02	NOT IDENT.
RH-106	-3.427E-01	3.494E-01	2.728E-01	1.783E-01	FAIL ABUN
RU-106	-3.427E-01	3.477E-01	2.728E-01	1.774E-01	FAIL ABUN
AG-108M	3.450E-02	3.536E-02	3.251E-02	1.804E-02	NOT IDENT.
CD-109	3.676E+00	2.202E+00	1.347E+00	1.123E+00	NOT IDENT.
AG-110M	-2.512E-02	4.199E-02	3.403E-02	2.142E-02	NOT IDENT.
IN-111	1.771E+00	2.174E+00	1.704E+00	1.109E+00	NOT IDENT.
IN-113M	-4.573E-02	4.899E-02	4.081E-02	2.499E-02	NOT IDENT.
SN-113	-4.573E-02	4.899E-02	4.081E-02	2.499E-02	NOT IDENT.
IN-114M	9.504E-02	2.341E-01	1.818E-01	1.194E-01	NOT IDENT.
CD-115	-2.659E+00	2.191E+01	1.870E+01	1.118E+01	NOT IDENT.
SN-117M	-2.700E-02	8.356E-02	6.333E-02	4.263E-02	NOT IDENT.
SB-122	-2.427E+00	3.922E+00	3.219E+00	2.001E+00	NOT IDENT.
I-123	8.474E+06	9.857E+07	0.000E+00	5.029E+07	SHORT HLIF
TE-123M	3.346E-03	3.892E-02	3.006E-02	1.986E-02	NOT IDENT.
I-124	2.837E-01	1.187E+00	8.931E-01	6.054E-01	NOT IDENT.
SB-124	-5.700E-02	6.641E-02	4.566E-02	3.388E-02	FAIL ABUN
SB-125	-6.601E-02	9.744E-02	8.161E-02	4.971E-02	NOT IDENT.
TE-125M	2.000E+01	1.587E+01	1.295E+01	8.099E+00	NOT IDENT.
I-126	-1.932E-01	2.438E-01	1.947E-01	1.244E-01	NOT IDENT.
SB-126	7.935E-02	2.085E-01	1.571E-01	1.064E-01	NOT IDENT.
SN-126	2.706E-01	2.150E-01	1.301E-01	1.097E-01	FAIL ABUN
SB-127	-4.743E-01	2.088E+00	1.729E+00	1.065E+00	NOT IDENT.
XE-127	5.789E-02	6.577E-02	5.192E-02	3.355E-02	NOT IDENT.
I-131	-8.666E-02	1.453E-01	1.242E-01	7.415E-02	NOT IDENT.
TE-132	-2.432E-01	1.195E+00	1.019E+00	6.098E-01	FAIL ABUN
BA-133	-8.774E-03	5.259E-02	3.994E-02	2.683E-02	NOT IDENT.
I-133	-4.518E+03	3.246E+04	0.000E+00	1.656E+04	SHORT HLIF
CS-134	5.770E-02	5.472E-02	4.563E-02	2.792E-02	NOT IDENT.
CS-135	3.053E-01	2.035E-01	1.641E-01	1.038E-01	NOT IDENT.
I-135	2.312E+17	9.270E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.373E-02	1.242E-01	1.100E-01	6.336E-02	FAIL ABUN
BA-137M	8.352E-02	4.425E-02	4.164E-02	2.258E-02	NOT IDENT.
CS-137	8.829E-02	4.678E-02	4.402E-02	2.387E-02	NOT IDENT.
CE-139	-1.155E-02	4.113E-02	3.102E-02	2.099E-02	NOT IDENT.
BA-140	6.376E-02	3.169E-01	2.754E-01	1.617E-01	FAIL ABUN
LA-140	-7.580E-02	9.086E-02	6.727E-02	4.636E-02	FAIL ABUN
CE-141	1.889E-01	9.546E-02	7.925E-02	4.870E-02	NOT IDENT.
CE-143	2.578E+03	7.732E+02	0.000E+00	3.945E+02	SHORT HLIF
CE-144	-1.746E-01	2.695E-01	2.336E-01	1.375E-01	NOT IDENT.
PM-144	-5.830E-03	4.052E-02	3.378E-02	2.067E-02	NOT IDENT.
PR-144	-3.955E-01	2.748E+00	2.292E+00	1.402E+00	NOT IDENT.
PM-146	3.127E-02	4.588E-02	4.148E-02	2.341E-02	NOT IDENT.
ND-147	-1.615E-01	6.756E-01	5.712E-01	3.447E-01	FAIL ABUN
PM-149	3.792E+01	1.859E+02	1.681E+02	9.483E+01	NOT IDENT.

EU-152	-1.018E-01	1.290E-01	8.776E-02	6.579E-02	NOT IDENT.
GD-153	5.823E-01	1.626E-01	1.215E-01	8.294E-02	FAIL ABUN
EU-154	5.616E-02	1.387E-01	1.206E-01	7.075E-02	NOT IDENT.
EU-155	-1.555E-02	1.541E-01	1.333E-01	7.860E-02	NOT IDENT.
TB-160	1.586E-01	1.405E-01	1.326E-01	7.166E-02	NOT IDENT.
HO-166M	5.171E-03	6.673E-02	5.646E-02	3.405E-02	FAIL ABUN
TM-171	-4.270E+01	5.270E+01	4.145E+01	2.689E+01	NOT IDENT.
LU-176	3.511E-03	2.777E-02	2.493E-02	1.417E-02	NOT IDENT.
LU-177M	-1.338E-01	1.927E-01	1.621E-01	9.829E-02	NOT IDENT.
HF-181	-1.139E-02	4.732E-02	4.037E-02	2.415E-02	NOT IDENT.
W-181	4.216E+00	8.539E-01	7.129E-01	4.357E-01	NOT IDENT.
TA-182	-2.478E-01	2.284E-01	1.746E-01	1.165E-01	NOT IDENT.
RE-183	2.993E-01	1.573E-01	1.293E-01	8.025E-02	FAIL ABUN
RE-184	2.241E-01	2.622E-01	2.327E-01	1.338E-01	NOT IDENT.
OS-185	1.611E-02	4.900E-02	4.251E-02	2.500E-02	NOT IDENT.
RE-188	1.161E-01	2.059E-01	1.845E-01	1.051E-01	NOT IDENT.
W-188	4.526E-01	9.186E+00	7.194E+00	4.687E+00	FAIL ABUN
IR-192	-3.546E-02	3.694E-02	3.135E-02	1.885E-02	FAIL ABUN
AU-195	1.699E+00	4.742E-01	3.454E-01	2.419E-01	FAIL ABUN
TL-200	-3.835E+01	1.747E+03	0.000E+00	8.911E+02	SHORT HLIF
TL-201	-5.589E+00	1.547E+01	1.162E+01	7.895E+00	NOT IDENT.
TL-202	-3.426E-02	8.418E-02	7.162E-02	4.295E-02	NOT IDENT.
HG-203	4.123E-02	4.426E-02	4.119E-02	2.258E-02	FAIL ABUN
BI-207	3.526E-02	6.257E-02	5.563E-02	3.192E-02	FAIL ABUN
TL-207	-6.884E-01	8.535E-01	6.205E-01	4.355E-01	FAIL ABUN
PO-209	-6.080E+00	7.736E+00	6.211E+00	3.947E+00	NOT IDENT.
BI-210	2.326E+00	7.471E+00	6.988E+00	3.812E+00	NOT IDENT.
PB-210	2.326E+00	7.471E+00	6.988E+00	3.812E+00	NOT IDENT.
PO-210	2.326E+00	7.470E+00	6.988E+00	3.811E+00	NOT IDENT.
PB-211	-2.243E-01	1.089E+00	9.378E-01	5.558E-01	NOT IDENT.
BI-212	1.396E+00	5.294E-01	3.650E-01	2.701E-01	FAIL ABUN
PB-212	1.432E+00	1.476E-01	1.166E-01	7.530E-02	FAIL ABUN
PO-212	1.432E+00	1.476E-01	1.166E-01	7.530E-02	FAIL ABUN
PO-215	-6.884E-01	8.535E-01	6.205E-01	4.355E-01	FAIL ABUN
PO-216	1.432E+00	1.476E-01	1.166E-01	7.530E-02	FAIL ABUN
RN-219	-1.680E-01	4.719E-01	4.060E-01	2.407E-01	FAIL ABUN
RN-220	-4.289E+00	2.665E+01	2.260E+01	1.360E+01	NOT IDENT.
RA-223	-6.884E-01	8.535E-01	6.205E-01	4.355E-01	FAIL ABUN
AC-227	5.356E-01	4.493E-01	3.987E-01	2.292E-01	NOT IDENT.
TH-227	5.356E-01	4.520E-01	3.987E-01	2.306E-01	NOT IDENT.
TH-228	1.457E+00	1.501E-01	1.186E-01	7.660E-02	FAIL ABUN
TH-229	-3.386E-01	5.797E-01	4.924E-01	2.958E-01	FAIL ABUN
PA-231	-1.050E+00	1.680E+00	1.463E+00	8.571E-01	NOT IDENT.
TH-231	-6.884E-01	8.535E-01	6.205E-01	4.355E-01	FAIL ABUN
U-231	4.617E+00	3.474E+00	2.131E+00	1.773E+00	FAIL ABUN
PA-233	-2.230E-02	6.881E-02	6.045E-02	3.511E-02	NOT IDENT.
PA-234	7.181E-01	3.836E-01	3.533E-01	1.957E-01	FAIL ABUN
NP-236	1.450E-02	1.092E-01	8.447E-02	5.571E-02	FAIL ABUN
NP-237	7.316E-01	6.543E-01	3.838E-01	3.338E-01	NOT IDENT.
NP-239	4.398E-02	2.915E-01	2.298E-01	1.487E-01	FAIL ABUN
AM-241	4.963E-01	3.194E-01	2.681E-01	1.629E-01	NOT IDENT.
AM-243	3.102E-01	1.146E-01	9.532E-02	5.845E-02	FAIL ABUN
CM-243	5.211E-02	1.421E-01	1.192E-01	7.247E-02	FAIL ABUN
AM-246	9.558E-02	1.464E-01	1.319E-01	7.469E-02	NOT IDENT.
CM-247	-8.594E-03	4.216E-02	3.660E-02	2.151E-02	NOT IDENT.
CF-249	2.637E-02	4.261E-02	3.866E-02	2.174E-02	NOT IDENT.
CF-251	-5.264E-02	1.508E-01	1.301E-01	7.692E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	610.7180
46.50	610.7180
46.50	610.7180
48.70	647.6100
49.72	670.5861
51.35	673.4005
52.39	661.8214
52.97	688.0578
53.15	689.1816
53.44	716.9525
54.07	762.5676
56.28	837.0184
56.28	837.0219
57.37	0.0000
57.53	838.4144
57.53	838.4161
57.60	837.2805
57.98	800.4478
57.98	800.4478
59.32	799.2033
59.32	799.2033
59.40	799.3040
59.54	799.4807
59.72	844.0547
60.01	844.4398
61.10	894.7653
61.14	931.8579
61.30	932.0902
63.00	912.8029
63.29	913.2050
63.29	913.2050
63.58	913.6091
64.28	903.5979
65.12	947.9637
65.20	948.0763
65.20	948.0763
66.05	992.5645
66.72	992.0486
66.83	992.2148
66.91	1028.1997
67.20	1028.6365
67.20	1028.6365
67.75	1033.9526
67.85	1034.1044
68.90	1036.6852
68.90	1036.6852
69.30	1021.9308
69.67	1008.1447
70.82	1209.8781
70.82	1209.8781
70.83	1209.8977
72.80	1307.4661
72.87	1131.9913
72.87	1131.9913
74.67	1214.9115
74.81	1215.1471
74.81	1215.1471
74.81	1215.1471
74.81	1215.1471
74.81	1215.1471
74.81	1215.1471
74.81	1215.1471
74.97	1215.4121
75.28	1217.4446
75.70	1219.6555
77.11	1306.7107
77.11	1306.7107

77.11	1306.7107
77.11	1306.7107
77.11	1306.7107
77.11	1306.7107
77.11	1306.7107
78.38	1161.8204
79.62	1201.7701
79.80	1202.0547
79.80	1202.0547
80.11	1213.9679
80.18	1214.0798
80.30	1214.2697
80.30	1214.2697
80.57	1203.2794
81.00	1089.6593
81.07	1089.7596
81.07	1089.7596
81.07	1089.7596
81.07	1089.7596
82.60	1221.7480
83.37	1426.4670
83.78	1406.1937
83.78	1406.1937
83.78	1406.1937
83.78	1406.1937
84.21	1402.1913
84.90	1466.6102
85.43	1330.9286
86.29	1327.2661
86.50	1304.5975
86.54	1304.6598
86.59	1304.7428
86.72	1304.9607
86.79	1305.0696
86.94	1328.3536
87.30	1328.9556
87.30	1328.9556
87.30	1328.9556
87.30	1328.9556
87.30	1328.9556
87.30	1328.9556
87.30	1328.9556
87.57	1329.4043
87.88	1326.0780
88.03	1326.3254
88.36	1330.7136
88.47	1330.8984
89.95	1606.1707
91.11	1464.9030
92.29	1467.0055
92.38	1467.1677
92.38	1467.1677
93.35	1468.8879
94.00	735.7919
94.67	813.8894
94.67	813.8942
94.90	814.1185
94.90	814.1185
94.90	814.1185
94.90	814.1185
95.87	815.0574
95.87	815.0574
96.73	815.8873
97.43	816.5570
98.44	636.8857
98.44	636.8882
98.88	618.5170
99.55	604.9664
99.55	604.9664
99.86	616.1002
100.00	616.1990
100.10	616.2738
103.18	682.6364
103.76	634.5157
105.00	659.9145
105.31	686.0667
108.00	731.9663
109.28	720.3831

111.00	702.7817
111.00	702.7817
111.76	712.2482
112.95	666.2741
115.19	625.0325
116.30	611.4695
117.00	616.6865
117.00	616.6865
117.66	660.0562
121.11	604.5529
121.62	595.8864
121.78	568.0298
122.06	568.1926
122.32	558.3539
122.32	558.3539
122.32	558.3539
122.32	558.3539
123.07	550.7835
127.23	635.3990
129.76	535.3526
131.20	575.4087
133.02	626.8986
133.54	610.0459
135.34	568.6074
136.00	572.0004
136.25	560.9994
136.48	556.0577
140.51	544.9557
140.51	0.0000
142.18	550.6899
142.65	590.0485
143.76	546.5996
144.24	510.9289
144.24	510.9289
144.24	510.9289
144.24	510.9289
145.22	508.1198
145.44	508.2223
147.16	474.6484
152.43	488.2021
152.70	482.1498
153.22	473.1151
154.21	446.7612
154.21	446.7612
154.21	446.7612
154.21	446.7612
155.03	450.1761
156.02	479.4355
158.56	477.8096
159.00	0.0000
159.00	451.5264
160.31	461.9711
161.27	449.0952
162.32	456.1301
162.64	481.1409
163.35	478.3185
163.89	438.4698
165.85	450.8419
167.43	471.4271
171.28	441.8083
171.86	424.2569
172.10	424.3405
176.55	438.4676
176.60	438.4835
181.06	400.8900
184.41	401.1060
185.71	373.6200
186.00	373.7064
190.27	349.4959
192.34	406.7622
193.63	394.4055
197.04	373.0419
198.01	402.2652
198.60	402.6440
200.40	394.9248
201.83	397.0536
202.84	378.5111
205.31	304.5603

208.36	292.3411
208.81	321.6802
209.75	301.2405
209.75	301.2405
210.97	311.8428
215.65	355.4561
216.55	317.8435
218.09	351.7395
222.10	364.6674
223.80	352.0588
226.40	310.2358
227.00	307.0971
227.08	313.6487
227.20	313.6750
228.16	320.4185
228.18	320.4230
228.18	320.4230
231.56	0.0000
235.69	320.7392
236.00	305.6863
236.00	305.6863
238.63	306.2227
238.63	306.2227
238.63	306.2227
238.63	306.2227
239.00	306.2972
240.98	306.6995
241.98	306.9017
241.98	306.9017
241.98	306.9017
244.69	259.1808
245.39	252.2435
247.94	310.9670
248.90	259.8896
249.79	268.2938
252.40	245.8561
252.85	237.0650
252.85	237.0650
254.15	0.0000
256.20	248.6709
256.20	248.6709
260.50	303.8883
260.90	292.8331
262.80	257.5063
264.65	233.9194
268.24	232.6479
268.79	230.9371
269.46	245.3591
269.46	245.3591
269.46	245.3591
269.46	245.3591
271.23	202.5972
273.65	271.1254
276.40	230.8089
277.35	230.5656
277.60	228.3502
277.60	228.3502
278.00	207.0281
278.60	217.9064
279.20	220.6884
279.53	238.7491
280.46	265.9249
281.68	244.4690
283.67	254.6916
284.30	254.7880
285.00	237.7177
285.90	229.7069
286.10	227.0184
286.10	227.0184
287.40	235.3394
288.45	0.0000
290.67	232.7671
290.80	232.7827
291.72	249.5444
293.26	0.0000
293.70	239.8397
295.21	277.3259
295.21	277.3259

295.21	277.3259
295.96	292.6099
296.50	301.7997
297.23	280.6842
298.57	245.9762
299.80	259.8259
299.80	259.8259
300.09	255.3086
300.09	255.3086
300.09	255.3086
300.09	255.3086
300.12	255.3120
301.29	244.3309
302.84	265.7542
303.76	266.8065
303.91	266.8279
304.40	275.1292
304.40	275.1292
304.84	246.8529
306.84	225.1657
308.46	217.1246
311.98	209.2885
316.51	208.8915
318.01	183.2782
319.02	181.5348
319.41	179.7299
320.08	192.6026
323.87	235.6042
323.87	235.6042
323.87	235.6042
323.87	235.6042
325.23	195.7090
328.77	197.6276
333.44	164.0679
334.20	189.5293
334.20	189.5293
334.30	189.5392
338.28	178.7648
338.28	178.7648
338.28	178.7648
338.28	178.7648
338.32	178.7672
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338.32	178.7672
340.50	191.0914
340.57	191.0964
344.27	203.6086
345.85	180.7166
350.59	0.0000
351.07	164.0219
351.92	164.0924
351.92	164.0924
351.92	164.0924
355.39	0.0000
356.01	175.3965
364.48	170.7989
366.43	175.6896
367.43	164.4355
367.94	0.0000
369.80	156.1135
374.96	165.0472
383.85	159.0944
387.95	146.9993
388.63	146.0915
391.69	177.8602
391.69	177.8602
392.90	170.3081
398.62	160.2156
400.65	186.2964
401.10	182.4946
401.81	183.5157
402.60	179.7387
404.84	186.6611
410.95	164.9966
411.60	175.6638
413.65	166.1673
414.70	144.0164
415.30	145.9900

415.76	143.1203
417.63	0.0000
418.52	140.3944
423.70	124.2250
427.08	143.8538
427.89	145.8508
432.53	107.1788
433.93	120.8939
439.47	143.6695
439.56	143.6749
439.89	146.6290
443.98	109.6785
444.90	108.7426
445.03	108.7494
445.03	108.7494
445.03	108.7494
445.03	108.7494
453.90	114.0841
463.38	128.3718
468.07	149.4037
473.00	111.0457
475.06	144.8790
475.35	148.8666
476.78	135.0520
477.59	122.1847
477.96	119.2222
482.03	124.3988
484.57	122.5360
487.03	102.7158
490.36	0.0000
492.35	124.9252
497.08	122.1608
507.63	0.0000
510.53	0.0000
510.84	104.7103
511.00	104.7166
511.85	104.7528
511.85	104.7528
513.99	109.2088
513.99	109.2088
520.41	105.1045
520.65	105.1146
527.90	111.4932
528.96	0.0000
529.64	97.3688
529.87	0.0000
531.02	107.5683
537.32	107.8271
543.00	97.8656
546.56	0.0000
549.76	96.0723
552.65	99.2450
555.20	103.4362
563.23	135.5868
563.90	128.4302
568.70	107.0418
569.32	107.0672
569.50	109.1339
569.67	109.1391
573.80	118.5853
574.00	118.5938
574.64	122.3057
578.91	117.0825
579.30	0.0000
583.14	105.5361
585.48	115.6361
591.81	121.4332
592.07	121.4446
593.00	128.7529
595.88	87.3079
600.56	135.3447
602.52	0.0000
602.71	111.1354
602.71	111.1354
603.60	99.0125
604.41	109.4656
604.70	109.4758
609.31	93.9880

609.31	93.9880
609.31	93.9880
609.31	93.9880
610.33	90.5387
612.46	113.2581
614.37	94.1550
618.01	91.1312
621.84	108.0318
621.84	108.0318
631.29	123.1156
633.02	121.0813
633.10	121.0841
634.78	94.8164
635.90	88.5281
636.97	94.8867
645.85	90.9404
646.12	93.0639
656.30	134.7639
657.75	121.0276
657.90	0.0000
661.65	93.5451
661.65	93.5451
664.57	0.0000
666.33	128.8225
666.33	128.8225
675.00	97.1563
677.61	90.8271
685.20	86.7645
692.80	92.3450
695.00	104.2300
696.49	109.6550
696.49	109.6550
697.00	112.8981
697.49	120.4437
698.33	114.0199
698.50	109.7247
699.00	104.3626
702.63	91.5555
706.10	105.6730
706.58	0.0000
706.67	107.8491
709.31	92.8279
711.68	87.4962
713.82	94.0390
717.42	96.3095
720.50	86.6523
721.93	0.0000
722.20	99.3417
722.78	88.5194
722.78	88.5194
722.89	88.5234
722.95	88.5254
723.30	88.5354
724.18	88.5593
727.18	99.8568
733.00	74.3008
735.90	103.3890
739.58	80.6231
742.81	87.2461
744.21	104.7398
747.13	125.5819
751.79	78.7342
752.31	79.8402
753.82	79.8776
755.35	75.5344
756.15	87.5977
756.87	93.0933
763.93	65.8506
765.79	108.7139
766.42	108.7332
766.84	108.7477
776.49	119.3386
778.00	112.0443
778.57	104.7134
778.89	104.7227
783.80	84.6347
785.46	91.6708
792.07	82.2040

795.84	64.8847
796.30	72.8071
798.80	68.1083
801.93	82.4379
805.60	71.2820
810.29	93.6251
810.76	90.8562
815.85	77.0611
817.79	78.0322
818.51	79.9059
819.60	86.4363
826.30	92.1861
828.27	0.0000
831.60	90.4579
831.96	82.0739
834.83	87.7406
836.80	0.0000
846.75	82.4105
848.13	71.2005
856.28	0.0000
856.80	62.7833
860.37	82.1813
867.32	72.8288
867.82	70.0754
871.10	58.4479
873.19	61.3104
874.81	70.7748
875.33	0.0000
876.40	67.9717
879.36	44.4058
880.27	47.2524
880.51	45.3652
881.50	60.5026
883.24	67.1504
884.67	69.0687
889.25	59.6803
896.60	71.1868
898.02	72.1623
899.00	68.3818
903.28	57.0496
911.07	58.1183
911.07	58.1183
911.07	58.1183
919.63	71.2973
920.93	61.4802
925.00	76.4958
925.24	77.4569
926.50	78.4399
935.52	56.5693
937.48	78.6601
944.10	69.1846
946.00	54.7978
949.00	84.6646
962.29	92.6699
964.01	102.6421
966.15	135.8268
968.20	43.0888
969.11	46.4141
969.11	46.4141
969.11	46.4141
977.42	48.4477
980.50	50.4237
983.50	58.2251
989.30	49.5619
996.32	45.0578
1001.03	56.5262
1001.68	56.5344
1004.76	71.9056
1021.30	0.0000
1024.50	0.0000
1034.80	60.9177
1036.00	57.0017
1037.82	57.0277
1038.57	54.0869
1038.76	0.0000
1045.16	60.0816
1046.59	58.1309
1048.07	51.2510

1050.47	51.2806
1050.47	51.2806
1062.04	76.1415
1063.62	67.2668
1076.63	41.6719
1077.35	41.6787
1078.86	47.6484
1085.78	47.7246
1099.22	65.8228
1112.02	54.8683
1112.84	61.7394
1115.52	60.0586
1120.29	58.4067
1120.29	58.4067
1120.29	58.4067
1120.29	58.4067
1120.51	58.4090
1121.28	58.4185
1124.00	0.0000
1129.67	63.2615
1131.51	0.0000
1147.95	0.0000
1167.94	77.9713
1173.22	54.7449
1175.09	67.9515
1177.93	74.0812
1189.05	93.5872
1204.90	75.5296
1205.75	0.0000
1213.00	87.9281
1221.42	93.2069
1230.97	123.1543
1235.34	88.3411
1236.41	0.0000
1238.25	88.3936
1246.25	73.0974
1260.41	0.0000
1271.85	54.8525
1274.45	52.8096
1274.54	52.8116
1291.56	31.1719
1298.22	0.0000
1312.09	41.7334
1325.50	37.6597
1325.50	37.6597
1332.49	25.1416
1333.61	32.4809
1360.21	25.2773
1362.66	0.0000
1365.15	25.3008
1368.21	37.9746
1368.53	0.0000
1376.25	35.9202
1384.27	28.5688
1394.10	28.6216
1395.20	29.6885
1407.95	25.5078
1434.06	21.3607
1436.60	32.0557
1457.56	0.0000
1460.81	18.3998
1489.15	15.1040
1509.49	16.2415
1596.49	25.4415
1620.62	11.3538
1678.03	0.0000
1691.02	15.3164
1691.02	15.3164
1706.46	0.0000
1750.46	0.0000
1764.49	5.0854
1764.49	5.0854
1764.49	5.0854
1764.49	5.0854
1770.23	11.8766
1771.40	16.4848
1791.20	0.0000
1808.65	3.9015

1836.01	10.7744

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020003

Total Uranium Activity	1.5526E+02	ug/g
Total Uranium Counting Unc.	2.9921E+01	ug/g
Total Uranium Tpu	1.5266E-05	ug/g
Total Uranium Mda	5.9429E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM23            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 14:53:19.55    SAMPLE ALQT:  144.560 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.403E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.583E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.378E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.146E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:26:30.18

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020004.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:26:05
Sample ID         : G246020004           Sample quantity  : 1.50700E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.26  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.41*	333	515	1.19	127.55	123	9	4.63E-02	13.8	
2	3	74.83	399	657	1.44	150.37	144	17	5.54E-02	13.0	1.74E+00
3	3	77.19	643	495	1.19	155.09	144	17	8.92E-02	7.0	
4	5	87.25	192	544	1.21	175.21	172	21	2.66E-02	20.7	2.04E+00
5	5	89.91	161	590	1.40	180.52	172	21	2.23E-02	27.5	
6	5	92.67*	882	526	1.32	186.04	172	21	1.23E-01	6.0	
7	0	186.11*	373	415	1.34	372.81	368	11	5.18E-02	12.2	
8	0	209.45	106	309	1.24	419.46	415	9	1.47E-02	31.7	
9	3	239.00*	1044	246	1.18	478.52	472	18	1.45E-01	4.1	8.64E-01
10	3	241.90	222	332	1.43	484.33	472	18	3.08E-02	17.0	
11	0	270.63	128	292	0.79	541.76	536	13	1.78E-02	28.9	
12	0	295.67	374	246	1.28	591.81	587	11	5.19E-02	9.7	
13	0	300.39	107	197	1.92	601.25	597	10	1.49E-02	26.3	
14	0	338.75	268	269	1.55	677.91	670	16	3.72E-02	15.1	
15	0	352.31*	615	164	1.31	705.02	700	10	8.55E-02	5.6	
16	0	511.51*	116	150	2.15	1023.23	1016	18	1.61E-02	29.4	
17	0	583.45*	314	65	1.48	1167.02	1162	11	4.36E-02	7.7	
18	0	609.58*	480	101	1.47	1219.24	1211	15	6.67E-02	6.6	
19	0	662.52	85	111	1.81	1325.07	1318	12	1.18E-02	27.0	
20	0	860.94	49	35	1.93	1721.64	1718	9	6.81E-03	25.8	
21	0	911.46*	227	73	1.39	1822.61	1815	16	3.16E-02	10.8	
22	0	969.31*	120	55	1.34	1938.23	1934	12	1.66E-02	15.6	
23	0	1002.13*	42	60	1.21	2003.83	1997	14	5.79E-03	44.2	
24	0	1120.65*	82	57	1.33	2240.70	2234	13	1.14E-02	22.6	
25	0	1461.05*	891	7	1.97	2920.98	2915	14	1.24E-01	3.4	
26	0	1587.99	25	3	1.91	3174.67	3171	10	3.46E-03	23.5	
27	0	1764.84*	106	0	2.37	3528.09	3522	13	1.47E-02	10.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:26:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:26:05
Sample ID : G246020004 Sample quantity : 150.70 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.26 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.199E+01	2.471E+00	4.814E-01	4.279E-02	45.691
CD-109	+	88.03	*	2.535E+00	1.078E+00	1.386E+00	1.312E-01	1.829
SN-126	+	64.28		3.094E+00	9.696E-01	8.259E-01	1.215E-01	3.747
	+	86.94		1.033E+00	6.061E-01	6.444E-01	2.675E-01	1.602
	+	87.57	*	2.484E-01	1.057E-01	1.365E-01	1.286E-02	1.819
BA-137M	+	661.65	*	1.229E-01	6.709E-02	5.948E-02	4.872E-03	2.065
CS-137	+	661.65	*	1.299E-01	7.093E-02	6.287E-02	5.161E-03	2.065
TL-208		277.35		2.230E-01	4.116E-01	6.477E-01	8.232E-02	0.344
	+	510.84		5.577E-01	3.347E-01	2.210E-01	2.627E-02	2.523
	+	583.14	*	4.337E-01	7.760E-02	5.648E-02	5.130E-03	7.679
	+	860.37		6.443E-01	3.380E-01	4.216E-01	4.041E-02	1.528
BI-211		72.87		3.082E+00	3.825E+00	5.674E+00	4.653E-01	0.543
	+	351.07	*	3.673E+00	5.299E-01	3.260E-01	2.966E-02	11.267
PB-212	+	74.81		2.235E+00	6.438E-01	5.776E-01	7.229E-02	3.870
	+	77.11		2.026E+00	3.332E-01	3.259E-01	2.766E-02	6.218
	+	87.30		1.149E+00	5.020E-01	6.334E-01	8.689E-02	1.814
	+	238.63	*	1.341E+00	1.741E-01	9.264E-02	9.379E-03	14.478
	+	300.09		2.148E+00	1.153E+00	1.216E+00	1.315E-01	1.766
PO-212	+	74.81		2.235E+00	6.438E-01	5.776E-01	7.229E-02	3.870
	+	77.11		2.026E+00	3.332E-01	3.259E-01	2.766E-02	6.218
	+	87.30		1.149E+00	5.020E-01	6.334E-01	8.689E-02	1.814
		115.19		-1.698E+00	3.779E+00	5.889E+00	5.117E-01	-0.288
	+	238.63	*	1.341E+00	1.741E-01	9.264E-02	9.379E-03	14.478
	+	300.09		2.148E+00	1.153E+00	1.216E+00	1.315E-01	1.766
BI-214	+	609.31	*	1.251E+00	2.068E-01	1.097E-01	1.082E-02	11.404
	+	1120.29		1.135E+00	5.280E-01	4.497E-01	4.812E-02	2.523
	+	1764.49		2.024E+00	4.517E-01	3.126E-01	2.621E-02	6.476
PB-214	+	74.81		3.851E+00	1.087E+00	9.952E-01	1.109E-01	3.870
	+	77.11		3.474E+00	6.295E-01	5.587E-01	6.372E-02	6.218
	+	87.30		1.968E+00	8.508E-01	1.085E+00	1.318E-01	1.814
	+	241.98		1.713E+00	6.098E-01	5.580E-01	5.961E-02	3.069
	+	295.21		1.311E+00	2.921E-01	2.149E-01	2.374E-02	6.100
	+	351.92	*	1.278E+00	1.960E-01	1.139E-01	1.194E-02	11.218
PO-214	+	74.81		3.851E+00	1.087E+00	9.952E-01	1.109E-01	3.870

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.474E+00	6.295E-01	5.587E-01	6.372E-02	6.218
	+	87.30		1.968E+00	8.508E-01	1.085E+00	1.318E-01	1.814
	+	241.98		1.713E+00	6.098E-01	5.580E-01	5.961E-02	3.069
	+	295.21		1.311E+00	2.921E-01	2.149E-01	2.374E-02	6.100
	+	351.92	*	1.278E+00	1.960E-01	1.139E-01	1.194E-02	11.218
PO-216	+	74.81		2.235E+00	6.438E-01	5.776E-01	7.229E-02	3.870
	+	77.11		2.026E+00	3.332E-01	3.259E-01	2.766E-02	6.218
	+	87.30		1.149E+00	5.020E-01	6.334E-01	8.689E-02	1.814
	+	238.63	*	1.341E+00	1.741E-01	9.264E-02	9.379E-03	14.478
	+	300.09		2.148E+00	1.153E+00	1.216E+00	1.315E-01	1.766
PO-218	+	74.81		3.851E+00	1.087E+00	9.952E-01	1.109E-01	3.870
	+	77.11		3.474E+00	6.295E-01	5.587E-01	6.372E-02	6.218
	+	87.30		1.968E+00	8.508E-01	1.085E+00	1.318E-01	1.814
	+	241.98		1.713E+00	6.098E-01	5.580E-01	5.961E-02	3.069
	+	295.21		1.311E+00	2.921E-01	2.149E-01	2.374E-02	6.100
	+	351.92	*	1.278E+00	1.960E-01	1.139E-01	1.194E-02	11.218
RA-224	+	240.98	*	3.247E+00	1.142E+00	1.054E+00	9.583E-02	3.080
RA-226	+	609.31	*	1.251E+00	2.068E-01	1.097E-01	1.082E-02	11.404
	+	1120.29		1.135E+00	5.280E-01	4.497E-01	4.812E-02	2.523
	+	1764.49		2.024E+00	4.517E-01	3.126E-01	2.621E-02	6.476
AC-228	+	338.32		1.758E+00	8.987E-01	3.895E-01	1.609E-01	4.514
	+	911.07	*	1.415E+00	3.481E-01	1.904E-01	2.204E-02	7.435
	+	969.11		1.319E+00	5.140E-01	5.231E-01	1.227E-01	2.521
RA-228	+	338.32		1.758E+00	8.987E-01	3.895E-01	1.609E-01	4.514
	+	911.07	*	1.415E+00	3.481E-01	1.904E-01	2.204E-02	7.435
	+	969.11		1.319E+00	5.140E-01	5.231E-01	1.227E-01	2.521
TH-228	+	74.81		2.274E+00	6.200E-01	5.875E-01	4.936E-02	3.870
	+	77.11		2.061E+00	3.389E-01	3.315E-01	2.813E-02	6.218
	+	87.30		1.169E+00	4.971E-01	6.443E-01	6.051E-02	1.814
	+	238.63	*	1.364E+00	1.771E-01	9.424E-02	9.541E-03	14.478
	+	300.09		2.186E+00	1.733E+00	1.237E+00	7.343E-01	1.766
TH-230	+	609.31	*	1.251E+00	2.067E-01	1.097E-01	1.082E-02	11.404
	+	1120.29		1.135E+00	5.280E-01	4.497E-01	4.812E-02	2.523
	+	1764.49		2.024E+00	4.517E-01	3.126E-01	2.621E-02	6.476
TH-232	+	338.32		1.758E+00	5.517E-01	3.895E-01	3.429E-02	4.514
	+	911.07	*	1.415E+00	3.481E-01	1.904E-01	2.204E-02	7.435
	+	969.11		1.319E+00	5.140E-01	5.231E-01	1.227E-01	2.521
TH-234	+	63.29	*	7.817E+00	2.563E+00	2.203E+00	3.873E-01	3.548
	+	92.38		7.392E+00	1.616E+00	8.909E-01	1.633E-01	8.298
U-234	+	609.31	*	1.251E+00	2.067E-01	1.097E-01	1.082E-02	11.404
	+	1120.29		1.135E+00	5.280E-01	4.497E-01	4.812E-02	2.523
	+	1764.49		2.024E+00	4.517E-01	3.126E-01	2.621E-02	6.476
NP-237	+	86.50	*	7.294E-01	3.448E-01	4.483E-01	1.015E-01	1.627
		95.87		-8.391E-01	1.205E+00	1.631E+00	4.037E-01	-0.514
U-238	+	63.29	*	7.817E+00	2.563E+00	2.203E+00	3.873E-01	3.548
	+	92.38		7.392E+00	1.109E+00	8.909E-01	8.135E-02	8.298
AM-243	+	74.67	*	3.623E-01	9.873E-02	9.396E-02	7.813E-03	3.857
	+	86.72		2.735E+01	1.164E+01	1.711E+01	1.597E+00	1.598
		117.66		-5.820E-01	3.896E+00	6.147E+00	5.359E-01	-0.095

Sample ID : G246020004 Acquisition date : 13-FEB-2010 16:26:05

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		6.299E+00	1.731E+01	2.970E+01	2.540E+00	0.212
ANH-511	+	511.00	*	1.205E-01	7.159E-02	4.775E-02	4.047E-03	2.523

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.278E-01	3.574E-01	5.313E-01	4.834E-02	-0.617
NA-22		1274.54	*	5.537E-03	3.970E-02	6.731E-02	5.652E-03	0.082
NA-24		1368.53	*	-7.925E+00	3.970E-02	Half-Life too short		
AL-26		1129.67		9.477E-02	1.732E+00	2.802E+00	2.340E-01	0.034
		1808.65	*	5.004E-04	2.542E-02	4.157E-02	3.444E-03	0.012
TI-44		67.85		-2.877E-02	5.662E-02	7.968E-02	6.318E-03	-0.361
	+	78.38	*	3.740E-01	6.149E-02	8.187E-02	7.026E-03	4.568
SC-46		889.25	*	-1.434E-02	3.691E-02	5.771E-02	5.216E-03	-0.249
	+	1120.51		1.976E-01	9.100E-02	1.308E-01	1.099E-02	1.510
V-48		944.10		5.245E-01	9.175E-01	1.583E+00	1.426E-01	0.331
		983.50	*	3.822E-02	8.480E-02	1.435E-01	1.281E-02	0.266
		1312.09		3.401E-02	8.563E-02	1.490E-01	1.263E-02	0.228
CR-51		320.08	*	7.593E-02	3.890E-01	6.445E-01	6.062E-02	0.118
MN-52		744.21		3.132E-01	2.945E-01	5.293E-01	4.541E-02	0.592
		848.13		4.666E+00	8.274E+00	1.430E+01	1.278E+00	0.326
		935.52		2.443E-01	3.269E-01	5.700E-01	5.141E-02	0.429
		1246.25		1.818E+00	9.143E+00	1.557E+01	1.294E+00	0.117
		1333.61		-8.055E-01	6.656E+00	1.092E+01	9.310E-01	-0.074
		1434.06	*	-9.463E-02	2.770E-01	4.337E-01	3.744E-02	-0.218
MN-54		834.83	*	6.758E-03	3.613E-02	6.031E-02	5.368E-03	0.112
CO-56		846.75	*	2.458E-02	3.769E-02	6.564E-02	5.865E-03	0.374
		977.42		-2.295E+00	3.331E+00	4.711E+00	4.212E-01	-0.487
		1037.82		1.986E-01	3.410E-01	5.824E-01	5.369E-02	0.341
		1175.09		2.040E-01	2.270E+00	3.842E+00	3.112E-01	0.053
		1238.25		8.736E-02	9.400E-02	1.669E-01	1.427E-02	0.523
		1360.21		-2.388E-01	1.092E+00	1.767E+00	1.513E-01	-0.135
		1771.40		-9.659E-01	3.437E-01	2.359E-01	1.975E-02	-4.095
CO-57		122.06	*	3.425E-02	2.728E-02	4.526E-02	3.984E-03	0.757
		136.48		-2.552E-03	2.045E-01	3.471E-01	3.206E-02	-0.007
CO-58		810.76	*	-2.340E-02	3.933E-02	6.086E-02	5.385E-03	-0.384
FE-59		142.65		5.788E-01	2.874E+00	4.848E+00	4.146E-01	0.119
		192.34		3.738E-01	1.009E+00	1.659E+00	2.241E-01	0.225
		1099.22	*	1.949E-03	1.029E-01	1.661E-01	1.531E-02	0.012
		1291.56		5.111E-02	1.288E-01	2.235E-01	2.150E-02	0.229
CO-60		1173.22		-3.805E-02	4.557E-02	7.045E-02	5.702E-03	-0.540
		1332.49	*	-6.376E-03	3.934E-02	6.420E-02	5.472E-03	-0.099
ZN-65		1115.52	*	2.710E-02	9.560E-02	1.385E-01	1.169E-02	0.196
GE-68		1077.35	*	-1.520E-01	1.264E+00	2.013E+00	1.733E-01	-0.075
AS-73		53.44	*	-2.044E-01	1.004E+00	1.621E+00	1.312E-01	-0.126
AS-74		595.88	*	-2.774E-02	9.308E-02	1.522E-01	1.283E-02	-0.182
		634.78		-1.745E-03	3.538E-01	5.902E-01	4.903E-02	-0.003
SE-75		66.05		-3.242E+00	5.702E+00	7.987E+00	7.832E-01	-0.406

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		-5.118E-01	9.714E-01	1.342E+00	1.854E-01	-0.381
		121.11		7.137E-02	1.486E-01	2.401E-01	2.723E-02	0.297
		136.00		6.533E-03	3.875E-02	6.617E-02	5.727E-03	0.099
		198.60		-1.194E+00	1.767E+00	2.817E+00	2.741E-01	-0.424
		264.65	*	-2.119E-02	4.900E-02	6.881E-02	6.321E-03	-0.308
		279.53		7.507E-02	1.135E-01	1.929E-01	1.823E-02	0.389
		303.91		-2.902E-01	2.435E+00	3.475E+00	4.105E-01	-0.084
		400.65		-6.546E-02	2.599E-01	4.136E-01	4.432E-02	-0.158
BR-77	+	87.88		9.979E+02	4.245E+02	6.492E+02	6.136E+01	1.537
		200.40		-2.680E+02	2.932E+02	4.704E+02	4.149E+01	-0.570
	+	239.00		3.937E+02	4.795E+01	6.472E+01	5.876E+00	6.082
		249.79		3.829E+01	1.253E+02	2.105E+02	1.920E+01	0.182
		281.68		-1.003E+02	1.695E+02	2.705E+02	2.473E+01	-0.371
		297.23		6.146E+02	1.859E+02	2.455E+02	2.234E+01	2.503
		303.76		-1.010E+01	3.762E+02	5.407E+02	4.903E+01	-0.019
		439.47		7.355E+01	2.730E+02	4.481E+02	3.715E+01	0.164
		484.57		-2.661E+02	4.304E+02	6.547E+02	5.520E+01	-0.406
		520.65	*	5.036E-01	2.074E+01	3.197E+01	2.713E+00	0.016
		574.64		-7.265E+01	3.820E+02	6.324E+02	5.353E+01	-0.115
		578.91		-1.419E+01	1.644E+02	2.378E+02	2.011E+01	-0.060
		585.48		2.031E+03	4.802E+02	8.538E+02	7.211E+01	2.378
		755.35		2.526E+01	3.000E+02	4.991E+02	4.304E+01	0.051
		817.79		2.654E+01	2.357E+02	3.916E+02	3.465E+01	0.068
SR-82		698.33		-1.043E+01	3.724E+01	6.047E+01	5.064E+00	-0.172
		776.49	*	-3.997E-02	4.405E-01	7.210E-01	6.277E-02	-0.055
		1395.20		-9.786E+00	9.541E+00	1.286E+01	1.106E+00	-0.761
RB-83		520.41	*	1.850E-03	7.626E-02	1.176E-01	9.975E-03	0.016
		529.64		-5.138E-02	1.020E-01	1.655E-01	1.405E-02	-0.311
		552.65		-4.931E-04	1.968E-01	3.310E-01	2.809E-02	-0.001
RB-84		881.50	*	-3.694E-02	7.074E-02	1.092E-01	9.853E-03	-0.338
KR-85		513.99	*	1.099E+01	7.732E+00	1.344E+01	1.139E+00	0.818
SR-85		513.99	*	5.760E-02	4.052E-02	7.041E-02	5.970E-03	0.818
RB-86		1076.63	*	3.613E-01	8.398E-01	1.418E+00	1.221E-01	0.255
Y-88		898.02		1.998E-02	4.270E-02	7.281E-02	6.625E-03	0.274
		1836.01	*	-1.487E-03	3.339E-02	5.375E-02	4.421E-03	-0.028
ZR-88		392.90	*	-1.113E-02	3.237E-02	5.127E-02	4.128E-03	-0.217
Y-91		1204.90	*	3.870E-01	1.776E+01	2.981E+01	2.443E+00	0.013
NB-94		702.63	*	-8.425E-03	3.354E-02	5.452E-02	4.577E-03	-0.155
		871.10		1.989E-02	3.485E-02	6.004E-02	5.402E-03	0.331
NB-95		765.79	*	-1.972E-02	4.676E-02	7.463E-02	6.467E-03	-0.264
NB-95M		235.69	*	9.318E-02	1.352E-01	2.054E-01	2.106E-02	0.454
ZR-95		724.18		-1.717E-01	1.096E-01	1.586E-01	1.467E-02	-1.083
		756.15	*	-3.371E-04	7.188E-02	1.187E-01	1.127E-02	-0.003
NB-97		657.90	*	-3.322E-02	7.188E-02	Half-Life too short		
		1024.50		1.551E+00	7.188E-02	Half-Life too short		
ZR-97		254.15		-8.992E+00	7.188E-02	Half-Life too short		
		355.39		7.930E+00	7.188E-02	Half-Life too short		
		507.63	*	6.146E+00	7.188E-02	Half-Life too short		
		602.52		4.342E+01	7.188E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		7.389E+00	7.188E-02	Half-Life too short		
		1147.95		-5.851E+00	7.188E-02	Half-Life too short		
		1362.66		7.147E+01	7.188E-02	Half-Life too short		
		1750.46		2.139E+01	7.188E-02	Half-Life too short		
MO-99		140.51		-4.232E+01	4.501E+01	7.119E+01	1.970E+01	-0.595
		181.06		-1.114E+01	3.186E+01	4.619E+01	8.453E+00	-0.241
		366.43		2.553E+00	1.451E+02	2.364E+02	1.999E+01	0.011
		739.58	*	-1.728E+01	1.869E+01	2.791E+01	4.228E+00	-0.619
		778.00		2.696E+01	6.371E+01	1.084E+02	9.446E+00	0.249
TC-99M		140.51	*	-1.108E+13	6.371E+01	Half-Life too short		
RH-101		127.23		1.351E-02	3.391E-02	5.455E-02	4.745E-03	0.248
		198.01	*	-2.065E-02	3.192E-02	5.100E-02	4.488E-03	-0.405
		325.23		-3.531E-01	2.460E-01	3.683E-01	3.287E-02	-0.959
RH-102		418.52		-7.226E-02	3.011E-01	4.784E-01	3.920E-02	-0.151
		475.06	*	1.906E-02	3.097E-02	5.183E-02	4.359E-03	0.368
		631.29		-1.248E-02	4.961E-02	8.101E-02	6.740E-03	-0.154
		697.49		4.382E-02	7.878E-02	1.360E-01	1.139E-02	0.322
		766.84		6.758E-02	1.151E-01	1.980E-01	1.716E-02	0.341
		1046.59		-1.226E-01	1.080E-01	1.491E-01	1.302E-02	-0.822
		1112.84		-1.031E-01	2.269E-01	3.066E-01	2.588E-02	-0.336
RU-103		497.08	*	-1.809E-02	4.383E-02	6.770E-02	9.520E-03	-0.267
	+	610.33		1.401E+01	2.973E+00	3.199E+00	5.300E-01	4.378
RH-106	+	511.85		6.040E-01	3.590E-01	4.262E-01	3.612E-02	1.417
		621.84	*	-2.474E-01	3.063E-01	4.749E-01	6.262E-02	-0.521
		1050.47		-7.541E-01	2.185E+00	3.388E+00	2.954E-01	-0.223
RU-106	+	511.85		6.040E-01	3.590E-01	4.262E-01	3.612E-02	1.417
		621.84	*	-2.474E-01	3.053E-01	4.749E-01	3.967E-02	-0.521
		1050.47		-7.541E-01	2.185E+00	3.388E+00	2.954E-01	-0.223
AG-108M		433.93	*	7.474E-03	3.383E-02	5.539E-02	4.777E-03	0.135
		614.37		8.403E-03	4.156E-02	6.177E-02	5.389E-03	0.136
		722.95		-1.012E-01	4.915E-02	6.759E-02	5.968E-03	-1.497
AG-110M		657.75	*	-8.092E-04	3.742E-02	5.401E-02	4.579E-03	-0.015
		677.61		1.603E-01	2.767E-01	4.827E-01	4.115E-02	0.332
		706.67		-4.047E-03	2.040E-01	3.378E-01	2.924E-02	-0.012
		763.93		-2.049E-01	1.737E-01	2.571E-01	2.289E-02	-0.797
		884.67		-1.941E-02	4.686E-02	7.313E-02	6.798E-03	-0.265
		937.48		-1.489E-01	1.125E-01	1.555E-01	1.449E-02	-0.957
		1384.27		-1.220E-01	1.561E-01	2.296E-01	2.028E-02	-0.531
IN-111		171.28		-2.379E-01	1.615E+00	2.704E+00	2.315E-01	-0.088
		245.39	*	-3.860E-01	2.069E+00	2.981E+00	2.714E-01	-0.129
IN-113M		391.69	*	-7.149E-03	4.667E-02	7.492E-02	6.240E-03	-0.095
SN-113		391.69	*	-7.149E-03	4.667E-02	7.492E-02	6.240E-03	-0.095
IN-114M		190.27	*	-3.951E-02	2.121E-01	3.101E-01	2.707E-02	-0.127
CD-115		260.90		6.783E+01	2.480E+02	4.157E+02	3.801E+01	0.163
		492.35		-3.797E+01	7.035E+01	1.076E+02	9.086E+00	-0.353
		527.90	*	-7.793E+00	1.999E+01	3.274E+01	2.779E+00	-0.238
SN-117M		156.02		1.651E+00	2.586E+00	4.458E+00	3.796E-01	0.370
		158.56	*	-5.353E-02	6.332E-02	1.034E-01	8.806E-03	-0.518
SB-122		563.90	*	3.900E+00	3.486E+00	6.274E+00	5.319E-01	0.622

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		2.163E+01	7.394E+01	1.255E+02	1.048E+01	0.172
I-123		159.00	*	-5.664E+01	7.394E+01	Half-Life too short		
		528.96		-5.784E+03	7.394E+01	Half-Life too short		
TE-123M		159.00	*	-2.062E-02	2.965E-02	4.873E-02	4.175E-03	-0.423
I-124		602.71	*	5.656E-01	1.021E+00	1.571E+00	1.321E-01	0.360
		722.78		-7.546E+00	6.664E+00	1.002E+01	8.508E-01	-0.753
		1325.50		2.583E+01	4.907E+01	8.650E+01	7.360E+00	0.299
		1376.25		4.240E+01	4.220E+01	7.799E+01	6.693E+00	0.544
		1509.49		5.206E-01	2.444E+01	4.043E+01	3.501E+00	0.013
		1691.02		4.959E-01	4.701E+00	7.866E+00	6.701E-01	0.063
SB-124		602.71		2.389E-02	4.315E-02	6.638E-02	5.583E-03	0.360
		645.85		2.030E-01	4.975E-01	8.559E-01	7.533E-02	0.237
		709.31		7.713E-01	2.715E+00	4.606E+00	3.881E-01	0.167
		713.82		3.158E-01	1.558E+00	2.626E+00	3.129E-01	0.120
		722.78		-4.621E-01	4.081E-01	6.139E-01	5.326E-02	-0.753
	+	968.20		1.390E+01	4.503E+00	7.370E+00	6.605E-01	1.886
		1045.16		-1.262E+00	2.507E+00	3.854E+00	3.368E-01	-0.328
		1325.50		1.689E+00	3.209E+00	5.657E+00	4.814E-01	0.299
		1368.21		-1.209E+00	1.786E+00	2.680E+00	3.603E-01	-0.451
		1436.60		-9.645E-02	3.596E+00	5.929E+00	5.119E-01	-0.016
		1691.02	*	7.163E-03	6.790E-02	1.136E-01	1.007E-02	0.063
SB-125		427.89	*	9.017E-02	9.598E-02	1.643E-01	1.382E-02	0.549
		463.38		7.471E-01	3.203E-01	5.684E-01	5.155E-02	1.314
		600.56		1.096E-01	1.776E-01	3.029E-01	2.746E-02	0.362
		635.90		-7.560E-02	2.499E-01	4.061E-01	3.665E-02	-0.186
TE-125M		109.28	*	3.165E+00	1.012E+01	1.631E+01	1.692E+00	0.194
I-126		388.63		2.171E-02	2.313E-01	3.775E-01	3.058E-02	0.058
		666.33	*	-7.589E-02	2.378E-01	3.315E-01	2.723E-02	-0.229
		753.82		4.820E-01	1.678E+00	2.838E+00	2.445E-01	0.170
SB-126		223.80		4.192E-01	4.500E+00	7.525E+00	6.770E-01	0.056
		278.60		4.347E+00	2.827E+00	4.959E+00	4.535E-01	0.877
	+	296.50		1.465E+01	3.134E+00	4.264E+00	3.880E-01	3.436
		414.70		4.775E-03	8.651E-02	1.404E-01	1.148E-02	0.034
		415.30		4.330E-01	7.728E+00	1.183E+01	9.672E-01	0.037
		555.20		3.777E+00	4.258E+00	7.596E+00	6.445E-01	0.497
		573.80		-1.335E-01	1.162E+00	1.934E+00	1.637E-01	-0.069
		593.00		-1.874E-01	9.550E-01	1.574E+00	1.328E-01	-0.119
		656.30		-3.546E+00	4.238E+00	5.498E+00	4.517E-01	-0.645
		666.33		-3.186E-02	9.985E-02	1.392E-01	1.143E-02	-0.229
		675.00		-2.417E+00	2.081E+00	3.081E+00	2.544E-01	-0.784
		695.00		1.329E-02	9.052E-02	1.519E-01	1.270E-02	0.087
		697.00		1.887E-01	3.089E-01	5.354E-01	4.480E-02	0.352
		720.50	*	-7.973E-02	1.560E-01	2.467E-01	2.091E-02	-0.323
		856.80		1.006E-01	5.463E-01	7.956E-01	7.130E-02	0.126
		989.30		-8.214E-01	1.378E+00	2.083E+00	1.856E-01	-0.394
		1034.80		4.641E+00	9.907E+00	1.682E+01	1.476E+00	0.276
		1213.00		3.620E+00	5.477E+00	9.653E+00	7.932E-01	0.375
SB-127		61.10		8.016E+01	1.026E+02	1.534E+02	1.701E+01	0.522
		252.40		-2.229E+00	6.486E+00	1.045E+01	4.423E+00	-0.213

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		290.80		-1.810E+01	3.524E+01	4.883E+01	5.941E+00	-0.371
		411.60		-1.743E+00	1.885E+01	3.030E+01	4.831E+00	-0.058
		444.90		1.509E+01	1.472E+01	2.521E+01	3.252E+00	0.599
		473.00		1.520E+00	2.721E+00	4.522E+00	6.007E-01	0.336
		543.00		7.980E+00	2.354E+01	4.052E+01	6.005E+00	0.197
		603.60		-2.439E+00	1.879E+01	2.698E+01	3.492E+00	-0.090
		685.20	*	1.273E+00	1.913E+00	3.340E+00	3.938E-01	0.381
		698.50		-4.487E+00	2.262E+01	3.694E+01	5.965E+00	-0.121
		722.20		-3.138E+01	4.429E+01	6.892E+01	8.063E+00	-0.455
		783.80		2.439E-01	5.660E+00	9.358E+00	1.223E+00	0.026
XE-127		57.60		-5.750E+00	7.167E+00	1.126E+01	8.649E-01	-0.511
		145.22		1.126E+00	7.605E-01	1.325E+00	1.132E-01	0.850
		172.10		-6.833E-02	1.221E-01	2.008E-01	1.720E-02	-0.340
		202.84	*	1.434E-02	5.004E-02	8.459E-02	7.479E-03	0.170
		374.96		-4.322E-02	2.109E-01	3.381E-01	2.816E-02	-0.128
I-131		80.18		-1.373E+00	6.424E+00	9.117E+00	8.020E-01	-0.151
		284.30		4.946E-01	1.829E+00	3.054E+00	2.925E-01	0.162
		364.48	*	5.351E-02	1.348E-01	2.250E-01	2.019E-02	0.238
		636.97		-4.859E-01	1.731E+00	2.819E+00	2.485E-01	-0.172
		722.89		-2.016E+01	9.894E+00	1.366E+01	1.169E+00	-1.476
TE-132		49.72		6.195E+00	3.586E+01	5.891E+01	6.669E+00	0.105
		111.76		7.064E+01	5.116E+01	8.366E+01	9.587E+00	0.844
		116.30		-2.672E+01	4.473E+01	6.909E+01	7.935E+00	-0.387
		228.16	*	1.026E+00	1.067E+00	1.829E+00	2.987E-01	0.561
BA-133		53.15		-6.816E-01	4.284E+00	6.935E+00	5.635E-01	-0.098
		79.62		-4.720E-01	1.524E+00	2.152E+00	3.284E-01	-0.219
		81.00		-1.800E-01	1.239E-01	1.611E-01	2.574E-02	-1.117
		276.40		1.131E-01	4.260E-01	6.277E-01	9.270E-02	0.180
		302.84		2.205E-01	1.629E-01	2.542E-01	3.453E-02	0.868
		356.01	*	1.692E-02	4.509E-02	6.651E-02	8.771E-03	0.254
		383.85		6.511E-02	3.108E-01	5.111E-01	6.291E-02	0.127
I-133	+	510.53		6.406E+00	3.108E-01	Half-Life too short		
		529.87	*	-1.347E-02	3.108E-01	Half-Life too short		
		706.58		-9.709E-03	3.108E-01	Half-Life too short		
		856.28		1.811E+00	3.108E-01	Half-Life too short		
		875.33		1.519E-01	3.108E-01	Half-Life too short		
		1236.41		3.570E+00	3.108E-01	Half-Life too short		
		1298.22		-1.925E-01	3.108E-01	Half-Life too short		
CS-134		475.35		1.295E+00	2.061E+00	3.449E+00	2.901E-01	0.375
		563.23		2.664E-01	3.521E-01	6.215E-01	5.321E-02	0.429
		569.32		-2.489E-02	2.039E-01	3.395E-01	2.917E-02	-0.073
		604.70		-2.595E-02	3.808E-02	5.136E-02	4.328E-03	-0.505
		795.84	*	5.809E-02	5.123E-02	9.026E-02	7.976E-03	0.644
		801.93		-1.282E-01	3.838E-01	6.141E-01	5.431E-02	-0.209
		1038.57		2.801E+00	4.337E+00	7.432E+00	6.514E-01	0.377
		1167.94		7.352E-01	2.395E+00	4.134E+00	3.360E-01	0.178
		1365.15		2.911E-01	1.246E+00	2.131E+00	1.910E-01	0.137
CS-135		268.24	*	1.654E-01	1.715E-01	2.643E-01	2.756E-02	0.626
I-135		288.45		-1.846E+12	1.715E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		417.63		-2.571E+12	1.715E-01	Half-Life too short		
		546.56		-3.738E+11	1.715E-01	Half-Life too short		
		836.80		-2.093E+11	1.715E-01	Half-Life too short		
		1038.76		1.842E+12	1.715E-01	Half-Life too short		
		1124.00		2.864E+10	1.715E-01	Half-Life too short		
		1131.51		8.408E+11	1.715E-01	Half-Life too short		
		1260.41	*	4.756E+11	1.715E-01	Half-Life too short		
		1457.56		4.558E+13	1.715E-01	Half-Life too short		
		1678.03		-4.563E+11	1.715E-01	Half-Life too short		
		1706.46		-3.011E+12	1.715E-01	Half-Life too short		
		1791.20		2.079E+12	1.715E-01	Half-Life too short		
CS-136		66.91		-5.115E-01	1.043E+00	1.465E+00	2.204E-01	-0.349
	+	86.29		3.614E+00	1.576E+00	2.378E+00	3.165E-01	1.520
		153.22		2.879E-01	7.473E-01	1.279E+00	1.221E-01	0.225
		163.89		1.006E+00	1.241E+00	2.145E+00	2.051E-01	0.469
		176.55		4.948E-01	4.192E-01	7.313E-01	6.660E-02	0.677
		273.65		-3.702E-01	5.855E-01	8.103E-01	7.850E-02	-0.457
		340.57		4.362E-01	1.920E-01	3.073E-01	2.774E-02	1.420
		818.51		-1.372E-03	8.221E-02	1.349E-01	1.195E-02	-0.010
		1048.07	*	-5.218E-02	1.108E-01	1.687E-01	1.534E-02	-0.309
		1235.34		-9.767E-02	6.536E-01	1.080E+00	1.253E-01	-0.090
CE-139		165.85	*	-3.689E-03	3.082E-02	5.172E-02	4.405E-03	-0.071
BA-140		162.64		6.877E-01	8.733E-01	1.510E+00	1.362E-01	0.456
		304.84		-1.043E+00	1.703E+00	2.301E+00	6.482E-01	-0.453
		423.70		-1.707E+00	2.304E+00	3.418E+00	1.105E+00	-0.499
		537.32	*	-1.865E-01	2.731E-01	4.239E-01	1.403E-01	-0.440
LA-140		328.77		5.282E-01	3.691E-01	6.406E-01	5.998E-02	0.824
		432.53		6.817E-03	2.402E+00	3.875E+00	3.370E-01	0.002
		487.03		9.490E-02	1.504E-01	2.528E-01	2.270E-02	0.375
		751.79		1.874E+00	1.940E+00	3.445E+00	3.284E-01	0.544
		815.85		2.362E-01	3.581E-01	6.230E-01	6.113E-02	0.379
		867.82		-7.077E-01	1.597E+00	2.328E+00	2.195E-01	-0.304
		919.63		-2.039E+00	3.285E+00	4.641E+00	5.100E-01	-0.439
		925.24		5.253E-01	1.194E+00	2.036E+00	1.945E-01	0.258
		1596.49	*	-2.503E-02	9.528E-02	1.460E-01	1.259E-02	-0.171
CE-141		145.44	*	1.181E-01	6.726E-02	1.192E-01	1.036E-02	0.991
CE-143		57.37		-2.790E-03	6.726E-02	Half-Life too short		
		231.56		-5.400E-03	6.726E-02	Half-Life too short		
		293.26	*	1.171E-03	6.726E-02	Half-Life too short		
		350.59		6.558E-02	6.726E-02	Half-Life too short		
		490.36		-7.602E-03	6.726E-02	Half-Life too short		
		664.57		7.606E-03	6.726E-02	Half-Life too short		
		721.93		-3.646E-03	6.726E-02	Half-Life too short		
CE-144		80.11		-6.005E-01	2.486E+00	3.523E+00	3.072E-01	-0.170
		133.54	*	-1.267E-02	2.178E-01	3.434E-01	5.345E-02	-0.037
PM-144		476.78		-3.393E-02	7.257E-02	1.122E-01	1.037E-02	-0.302
		618.01		6.344E-03	3.074E-02	5.219E-02	4.494E-03	0.122
		696.49	*	9.000E-03	3.551E-02	6.005E-02	5.026E-03	0.150
		778.57		2.162E+00	2.471E+00	4.345E+00	3.788E-01	0.498

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PR-144		696.49	*	6.106E-01	2.409E+00	4.074E+00	3.408E-01	0.150
		1489.15		-2.442E+00	1.027E+01	1.622E+01	1.404E+00	-0.151
PM-146		453.90	*	3.185E-02	4.593E-02	7.729E-02	8.119E-03	0.412
		633.02		8.228E-02	1.239E+00	2.080E+00	7.758E-01	0.040
		735.90		-4.584E-02	1.453E-01	2.326E-01	6.648E-02	-0.197
		747.13		-1.084E-01	9.475E-02	1.387E-01	1.945E-02	-0.782
ND-147	+	91.11		7.924E-01	4.423E-01	7.706E-01	7.618E-02	1.028
		319.41		-2.182E+00	3.832E+00	6.062E+00	5.438E-01	-0.360
		439.89		2.590E+00	6.845E+00	1.132E+01	9.390E-01	0.229
		531.02	*	-7.904E-02	6.155E-01	1.028E+00	1.529E-01	-0.077
PM-149		285.90	*	6.191E+01	1.722E+02	2.887E+02	4.574E+01	0.214
EU-152		121.78		1.005E-01	7.899E-02	1.309E-01	1.319E-02	0.768
		244.69		1.929E-01	3.893E-01	5.843E-01	5.318E-02	0.330
		344.27	*	7.776E-02	1.108E-01	1.672E-01	1.546E-02	0.465
		443.98		8.338E-01	9.789E-01	1.668E+00	1.386E-01	0.500
		778.89		2.122E-01	2.848E-01	4.963E-01	4.326E-02	0.427
		867.32		-8.945E-01	8.989E-01	1.146E+00	1.030E-01	-0.781
		964.01		3.624E-01	3.239E-01	5.174E-01	4.642E-02	0.700
		1085.78		-9.557E-02	4.214E-01	6.633E-01	5.686E-02	-0.144
		1112.02		-1.255E-01	3.017E-01	4.467E-01	3.773E-02	-0.281
		1407.95		2.653E-01	1.922E-01	3.674E-01	3.165E-02	0.722
GD-153		69.67		1.858E+00	1.988E+00	2.968E+00	2.381E-01	0.626
		83.37		3.775E+01	1.795E+01	2.736E+01	2.464E+00	1.380
		97.43	*	2.633E-02	9.882E-02	1.415E-01	1.256E-02	0.186
		103.18		-1.268E-01	1.131E-01	1.713E-01	1.494E-02	-0.740
EU-154		123.07		3.854E-02	5.584E-02	9.080E-02	1.043E-02	0.424
		247.94		-3.910E-03	3.850E-01	6.168E-01	7.310E-02	-0.006
		591.81		2.064E-01	5.797E-01	9.972E-01	1.150E-01	0.207
		723.30		-4.526E-01	2.055E-01	2.766E-01	2.603E-02	-1.636
		756.87		2.111E-01	7.438E-01	1.258E+00	1.508E-01	0.168
		873.19		3.644E-01	3.146E-01	5.631E-01	7.048E-02	0.647
		996.32		3.192E-01	3.778E-01	5.948E-01	1.065E-01	0.537
		1004.76		2.098E-01	2.000E-01	3.282E-01	3.882E-02	0.639
		1274.45	*	5.226E-02	1.081E-01	1.900E-01	2.115E-02	0.275
EU-155		48.70		8.815E-02	2.932E+00	4.793E+00	4.101E-01	0.018
		60.01		5.520E+00	6.002E+00	9.069E+00	6.856E-01	0.609
	+	86.54		2.994E-01	1.274E-01	1.956E-01	1.838E-02	1.530
		105.31	*	7.064E-02	1.115E-01	1.822E-01	1.603E-02	0.388
TB-160	+	86.79		8.151E-01	3.467E-01	5.308E-01	4.957E-02	1.535
		197.04		-2.177E-01	5.408E-01	8.897E-01	7.822E-02	-0.245
		215.65		-6.462E-01	7.769E-01	1.247E+00	1.115E-01	-0.518
		298.57		7.782E-02	1.931E-01	2.103E-01	1.912E-02	0.370
		879.36	*	5.610E-02	1.374E-01	2.339E-01	2.109E-02	0.240
		962.29		2.805E-01	5.471E-01	9.082E-01	8.150E-02	0.309
		966.15		5.702E-01	2.549E-01	4.387E-01	3.934E-02	1.300
		1177.93		1.631E-01	3.870E-01	6.720E-01	5.449E-02	0.243
		1271.85		-7.965E-03	7.133E-01	1.190E+00	9.970E-02	-0.007
HO-166M		80.57		-2.459E-01	3.237E-01	4.468E-01	3.914E-02	-0.550
		184.41		1.587E-01	4.332E-02	7.110E-02	6.170E-03	2.232

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		280.46		-7.476E-02	8.969E-02	1.413E-01	1.292E-02	-0.529
		410.95		1.180E-01	2.608E-01	4.335E-01	3.535E-02	0.272
		711.68	*	-2.661E-03	5.779E-02	9.542E-02	8.050E-03	-0.028
		752.31		2.882E-01	2.732E-01	4.888E-01	4.210E-02	0.590
		810.29		-1.459E-02	5.725E-02	9.182E-02	8.103E-03	-0.159
TM-171		51.35		-1.841E+00	3.682E+01	5.990E+01	4.985E+00	-0.031
		52.39		-1.353E+00	1.874E+01	3.044E+01	2.499E+00	-0.044
		59.40		3.376E+00	3.321E+01	4.836E+01	3.645E+00	0.070
		66.72	*	4.785E+00	3.282E+01	4.768E+01	3.755E+00	0.100
LU-176	+	88.36		5.891E-01	2.506E-01	3.843E-01	3.624E-02	1.533
		201.83		4.660E-03	2.887E-02	4.859E-02	4.292E-03	0.096
		306.84	*	3.054E-03	2.603E-02	4.158E-02	3.763E-03	0.073
		401.10		-4.762E+00	6.823E+00	1.050E+01	8.510E-01	-0.453
LU-177		112.95		1.303E+00	2.204E+00	3.536E+00	3.066E-01	0.369
	+	208.36	*	2.983E+00	1.911E+00	2.535E+00	2.252E-01	1.177
LU-177M		52.97		-2.458E-01	1.963E+00	3.181E+00	2.591E-01	-0.077
		54.07		5.176E-01	1.010E+00	1.676E+00	1.345E-01	0.309
		61.30		2.045E+00	1.857E+00	2.817E+00	2.148E-01	0.726
		121.62		3.663E-01	4.124E-01	6.762E-01	5.940E-02	0.542
		147.16		-5.166E-01	6.689E-01	1.100E+00	9.384E-02	-0.470
		171.86		-2.476E-01	4.779E-01	7.876E-01	6.745E-02	-0.314
		218.09		5.408E-02	8.669E-01	1.449E+00	1.298E-01	0.037
		268.79		1.451E+00	9.078E-01	1.441E+00	1.319E-01	1.007
		319.02		-1.925E-01	2.658E-01	4.162E-01	3.735E-02	-0.463
		367.43		-1.621E-02	9.192E-01	1.494E+00	1.261E-01	-0.011
		413.65	*	-1.294E-01	1.878E-01	2.891E-01	2.362E-02	-0.447
HF-181		56.28		-2.310E-01	1.125E+00	1.815E+00	1.416E-01	-0.127
		57.53		-5.114E-01	5.992E-01	9.395E-01	7.220E-02	-0.544
		65.20		7.889E-01	1.195E+00	1.775E+00	1.385E-01	0.445
		133.02		-3.127E-02	7.248E-02	1.124E-01	9.691E-03	-0.278
		136.25		3.276E-02	4.626E-01	7.873E-01	6.766E-02	0.042
		345.85		-9.934E-02	2.390E-01	3.297E-01	2.875E-02	-0.301
		482.03	*	2.639E-02	4.314E-02	7.241E-02	6.102E-03	0.364
W-181		56.28		-8.890E-02	4.309E-01	6.950E-01	5.421E-02	-0.128
		57.53		-1.963E-01	2.296E-01	3.600E-01	2.767E-02	-0.545
		65.20	*	2.999E-01	4.543E-01	6.747E-01	5.267E-02	0.445
TA-182		67.75		-6.670E-02	1.369E-01	1.928E-01	1.528E-02	-0.346
		100.10		2.501E-01	1.977E-01	3.290E-01	2.892E-02	0.760
		152.43		-8.848E-02	3.472E-01	5.819E-01	4.957E-02	-0.152
		222.10		9.593E-02	3.494E-01	5.889E-01	5.291E-02	0.163
	+	1001.68		4.170E+00	3.705E+00	4.511E+00	4.006E-01	0.924
	+	1121.28		5.432E-01	2.502E-01	3.547E-01	2.979E-02	1.531
		1189.05		-9.555E-02	3.000E-01	4.880E-01	3.974E-02	-0.196
		1221.42	*	-1.294E-01	1.970E-01	3.098E-01	2.554E-02	-0.418
		1230.97		-1.026E-01	4.534E-01	7.429E-01	6.144E-02	-0.138
RE-183		57.98		-1.436E-01	2.426E-01	3.653E-01	2.794E-02	-0.393
		59.32		8.527E-03	1.391E-01	2.021E-01	1.525E-02	0.042
		67.20		-1.800E-01	2.484E-01	3.456E-01	2.730E-02	-0.521
		162.32	*	8.591E-02	1.162E-01	2.006E-01	1.708E-02	0.428

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		2.211E+00	1.417E+00	1.887E+00	1.677E-01	1.172
		291.72		2.589E-01	1.066E+00	1.566E+00	1.428E-01	0.165
RE-184		57.98		-5.229E-01	8.832E-01	1.330E+00	1.017E-01	-0.393
		59.32		3.102E-02	5.060E-01	7.354E-01	5.547E-02	0.042
		67.20		-6.552E-01	9.042E-01	1.258E+00	9.936E-02	-0.521
		161.27		-2.034E-01	3.730E-01	6.166E-01	5.249E-02	-0.330
		216.55		-9.877E-02	2.681E-01	4.400E-01	3.937E-02	-0.224
		252.85	*	-7.278E-02	2.344E-01	3.823E-01	3.489E-02	-0.190
		318.01		-3.761E-01	4.587E-01	7.135E-01	6.407E-02	-0.527
		792.07		-1.643E+00	1.089E+00	1.548E+00	1.356E-01	-1.061
		903.28		-3.676E-01	1.047E+00	1.542E+00	1.396E-01	-0.238
		920.93		1.469E-01	4.286E-01	7.241E-01	6.545E-02	0.203
OS-185		59.72		2.111E-01	3.647E-01	5.431E-01	4.097E-02	0.389
		61.14		1.730E-01	2.041E-01	3.068E-01	2.337E-02	0.564
		69.30		2.656E-01	3.613E-01	5.355E-01	4.285E-02	0.496
		592.07		4.962E-01	2.416E+00	4.111E+00	3.467E-01	0.121
		646.12	*	2.143E-02	4.151E-02	7.200E-02	5.949E-03	0.298
		717.42		8.772E-02	8.565E-01	1.432E+00	1.212E-01	0.061
		874.81		3.447E-01	6.355E-01	1.090E+00	9.815E-02	0.316
		880.27		4.322E-01	7.353E-01	1.274E+00	1.149E-01	0.339
RE-188		155.03	*	4.682E-02	1.808E-01	3.082E-01	2.625E-02	0.152
		477.96		-2.527E+00	3.334E+00	5.025E+00	4.229E-01	-0.503
		633.10		2.695E-01	2.544E+00	4.285E+00	3.562E-01	0.063
W-188	+	63.58		3.207E+02	9.216E+01	1.210E+02	9.361E+00	2.650
		227.08		-1.843E+00	1.312E+01	2.170E+01	1.956E+00	-0.085
		290.67	*	-4.773E+00	8.562E+00	1.183E+01	1.079E+00	-0.403
IR-192	+	295.96		1.019E+00	2.183E-01	2.960E-01	2.711E-02	3.444
		308.46		9.677E-02	1.008E-01	1.734E-01	1.575E-02	0.558
		316.51	*	-3.143E-02	3.630E-02	5.635E-02	5.077E-03	-0.558
		468.07		-1.049E-01	7.339E-02	1.041E-01	9.399E-03	-1.008
		604.41		-4.634E-01	5.371E-01	7.067E-01	9.101E-02	-0.656
		612.46		2.515E+00	9.505E-01	1.633E+00	1.583E-01	1.540
AU-195		65.12		1.923E-01	2.115E-01	3.172E-01	2.475E-02	0.606
		66.83		-5.584E-02	1.131E-01	1.592E-01	1.255E-02	-0.351
	+	75.70		1.182E+00	3.220E-01	4.652E-01	3.901E-02	2.540
		98.88	*	3.499E-01	2.648E-01	4.187E-01	3.697E-02	0.836
		129.76		2.681E+00	3.107E+00	5.073E+00	4.395E-01	0.528
TL-200		367.94	*	-2.490E-04	3.107E+00	Half-Life too short		
		579.30		-4.425E-03	3.107E+00	Half-Life too short		
		828.27		2.380E-03	3.107E+00	Half-Life too short		
		1205.75		-1.839E-03	3.107E+00	Half-Life too short		
TL-201		68.90		4.970E+00	9.136E+00	1.344E+01	1.073E+00	0.370
		70.82		1.487E+00	5.294E+00	7.694E+00	6.219E-01	0.193
		80.30		-6.517E+00	9.609E+00	1.333E+01	1.164E+00	-0.489
		135.34		-6.500E+00	4.275E+01	6.709E+01	5.770E+00	-0.097
		167.43	*	-1.053E+01	1.137E+01	1.843E+01	1.572E+00	-0.571
TL-202		68.90		3.139E-01	5.769E-01	8.489E-01	6.775E-02	0.370
		70.82		9.365E-02	3.334E-01	4.845E-01	3.916E-02	0.193
		80.30		-4.105E-01	6.053E-01	8.394E-01	7.333E-02	-0.489

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	2.238E-02	8.132E-02	1.335E-01	1.107E-02	0.168
HG-203		70.83		3.715E-01	1.326E+00	1.926E+00	2.556E-01	0.193
		72.87		6.322E-01	7.871E-01	1.164E+00	1.505E-01	0.543
		82.60		6.888E-01	1.404E+00	2.048E+00	2.855E-01	0.336
		279.20	*	4.472E-02	4.343E-02	7.483E-02	7.016E-03	0.598
BI-207		72.80		1.340E-01	2.220E-01	3.271E-01	2.681E-02	0.410
	+	74.97		6.505E-01	1.772E-01	2.308E-01	1.924E-02	2.818
		84.90		1.939E-01	2.389E-01	3.498E-01	3.200E-02	0.554
		569.67		3.646E-03	3.123E-02	5.285E-02	4.477E-03	0.069
		1063.62	*	1.165E-02	4.823E-02	8.006E-02	6.940E-03	0.146
		1770.23		1.986E-01	2.718E-01	5.148E-01	4.311E-02	0.386
TL-207		81.07		-3.959E-01	2.681E-01	3.555E-01	3.128E-02	-1.114
		83.78		1.667E-01	1.573E-01	2.323E-01	2.101E-02	0.718
		94.90		9.138E-01	2.981E-01	4.643E-01	4.175E-02	1.968
		122.32		1.614E+00	1.900E+00	3.109E+00	2.926E-01	0.519
		144.24		7.930E-01	7.113E-01	1.229E+00	1.176E-01	0.645
		154.21		2.928E-01	4.055E-01	7.006E-01	6.576E-02	0.418
	+	269.46		5.927E-01	3.470E-01	3.628E-01	3.381E-02	1.634
		323.87	*	-3.490E-01	6.959E-01	1.103E+00	1.970E-01	-0.316
	+	338.28		7.342E+00	2.393E+00	2.467E+00	3.069E-01	2.976
		445.03		2.704E+00	2.347E+00	4.052E+00	4.810E-01	0.667
PO-209		260.50		9.370E+00	9.800E+00	1.689E+01	1.545E+00	0.555
		262.80		-2.996E+01	2.676E+01	4.147E+01	3.793E+00	-0.723
		896.60	*	4.218E+00	7.425E+00	1.279E+01	1.158E+00	0.330
BI-210		46.50	*	-1.830E-01	4.326E+00	6.933E+00	6.545E-01	-0.026
PB-210		46.50	*	-1.830E-01	4.326E+00	6.933E+00	6.545E-01	-0.026
PO-210		46.50	*	-1.830E-01	4.326E+00	6.933E+00	5.944E-01	-0.026
PB-211		404.84	*	2.506E-01	9.965E-01	1.619E+00	1.013E+00	0.155
		427.08		-6.030E-01	2.222E+00	3.467E+00	2.153E+00	-0.174
		831.96		2.139E-01	1.170E+00	1.941E+00	1.217E+00	0.110
BI-212		727.18	*	7.402E-01	3.529E-01	6.486E-01	6.428E-02	1.141
		785.46		1.986E+00	1.846E+00	3.287E+00	2.872E-01	0.604
		1620.62		1.062E+00	1.257E+00	2.329E+00	2.005E-01	0.456
PO-215		81.07		-3.959E-01	2.681E-01	3.555E-01	3.128E-02	-1.114
		83.78		1.667E-01	1.573E-01	2.323E-01	2.101E-02	0.718
		94.90		9.138E-01	2.981E-01	4.643E-01	4.175E-02	1.968
		122.32		1.614E+00	1.900E+00	3.109E+00	2.926E-01	0.519
		144.24		7.930E-01	7.113E-01	1.229E+00	1.176E-01	0.645
		154.21		2.928E-01	4.055E-01	7.006E-01	6.576E-02	0.418
	+	269.46		5.927E-01	3.470E-01	3.628E-01	3.381E-02	1.634
		323.87	*	-3.490E-01	6.959E-01	1.103E+00	1.970E-01	-0.316
	+	338.28		7.342E+00	2.393E+00	2.467E+00	3.069E-01	2.976
		445.03		2.704E+00	2.347E+00	4.052E+00	4.810E-01	0.667
RN-219	+	271.23		7.605E-01	4.471E-01	4.804E-01	5.169E-02	1.583
		401.81	*	-1.772E-01	4.116E-01	6.453E-01	9.510E-02	-0.275
RN-220		549.76	*	1.463E+00	2.540E+01	4.291E+01	3.642E+00	0.034
RA-223		81.07		-3.959E-01	2.681E-01	3.555E-01	3.128E-02	-1.114
		83.78		1.667E-01	1.573E-01	2.323E-01	2.101E-02	0.718
		94.90		9.138E-01	2.981E-01	4.643E-01	4.175E-02	1.968

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		1.614E+00	1.900E+00	3.109E+00	2.926E-01	0.519
		144.24		7.930E-01	7.113E-01	1.229E+00	1.176E-01	0.645
		154.21		2.928E-01	4.055E-01	7.006E-01	6.576E-02	0.418
	+	269.46		5.927E-01	3.470E-01	3.628E-01	3.381E-02	1.634
		323.87	*	-3.490E-01	6.959E-01	1.103E+00	1.970E-01	-0.316
	+	338.28		7.342E+00	2.393E+00	2.467E+00	3.069E-01	2.976
		445.03		2.704E+00	2.347E+00	4.052E+00	4.810E-01	0.667
AC-227		79.80		-5.409E-01	1.918E+00	2.709E+00	5.834E-01	-0.200
		236.00		1.680E-01	2.506E-01	3.794E-01	4.766E-02	0.443
		256.20	*	-3.968E-01	3.960E-01	6.155E-01	9.629E-02	-0.645
		286.10		7.064E-02	1.521E+00	2.512E+00	3.402E-01	0.028
	+	299.80		3.982E+00	2.209E+00	2.759E+00	4.890E-01	1.443
		304.40		-1.487E+00	2.208E+00	2.990E+00	5.575E-01	-0.497
		334.20		-9.997E-01	2.869E+00	3.992E+00	7.788E-01	-0.250
TH-227		79.80		-5.409E-01	1.918E+00	2.709E+00	5.909E-01	-0.200
	+	94.00		2.857E+01	7.143E+00	5.127E+00	1.125E+00	5.572
		236.00		1.680E-01	2.504E-01	3.794E-01	4.336E-02	0.443
		256.20	*	-3.968E-01	3.978E-01	6.155E-01	1.127E-01	-0.645
		286.10		7.064E-02	1.523E+00	2.512E+00	2.523E+00	0.028
	+	299.80		3.982E+00	2.209E+00	2.759E+00	4.890E-01	1.443
		304.40		-1.487E+00	2.208E+00	2.990E+00	5.575E-01	-0.497
		334.20		-9.997E-01	2.869E+00	3.992E+00	7.788E-01	-0.250
TH-229		85.43		3.365E-01	2.376E-01	3.540E-01	3.258E-02	0.950
	+	88.47		3.391E-01	1.443E-01	2.208E-01	2.080E-02	1.536
		100.00		3.656E-01	2.010E-01	3.390E-01	2.982E-02	1.078
		193.63	*	2.753E-01	5.012E-01	8.570E-01	7.508E-02	0.321
		210.97		8.682E-01	8.873E-01	1.367E+00	1.218E-01	0.635
PA-231		283.67	*	-8.077E-02	1.553E+00	2.552E+00	3.952E-01	-0.032
	+	301.29		1.593E+00	8.609E-01	1.101E+00	1.384E-01	1.446
TH-231		81.07		-3.959E-01	2.681E-01	3.555E-01	3.128E-02	-1.114
		83.78		1.667E-01	1.573E-01	2.323E-01	2.101E-02	0.718
		94.90		9.138E-01	2.981E-01	4.643E-01	4.175E-02	1.968
		122.32		1.614E+00	1.900E+00	3.109E+00	2.926E-01	0.519
		144.24		7.930E-01	7.113E-01	1.229E+00	1.176E-01	0.645
		154.21		2.928E-01	4.055E-01	7.006E-01	6.576E-02	0.418
	+	269.46		5.927E-01	3.470E-01	3.628E-01	3.381E-02	1.634
		323.87	*	-3.490E-01	6.959E-01	1.103E+00	1.970E-01	-0.316
	+	338.28		7.342E+00	2.393E+00	2.467E+00	3.069E-01	2.976
		445.03		2.704E+00	2.347E+00	4.052E+00	4.810E-01	0.667
U-231		84.21		6.866E+00	9.570E+00	1.397E+01	1.269E+00	0.491
	+	92.29		3.968E+01	5.956E+00	8.025E+00	7.332E-01	4.945
		95.87	*	-1.337E+00	1.895E+00	2.600E+00	2.326E-01	-0.514
		108.00		-3.785E+00	3.187E+00	4.811E+00	4.170E-01	-0.787
PA-233	+	75.28		1.898E+01	5.706E+00	6.951E+00	1.057E+00	2.731
	+	86.59		4.863E+00	2.409E+00	3.176E+00	8.592E-01	1.531
	+	300.12		1.110E+00	6.073E-01	7.753E-01	1.174E-01	1.432
		311.98	*	-9.495E-04	6.687E-02	1.096E-01	1.015E-02	-0.009
		340.50		2.033E+00	9.553E-01	1.355E+00	3.236E-01	1.501
		398.62		-4.496E-01	2.137E+00	3.408E+00	9.017E-01	-0.132

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-2.750E-01	1.837E+00	2.771E+00	5.925E-01	-0.099
PA-234	+	63.00		9.112E+00	2.869E+00	3.553E+00	5.334E-01	2.565
		94.67		1.105E+00	2.514E-01	3.617E-01	4.583E-02	3.054
		98.44		7.645E-02	1.225E-01	1.676E-01	9.353E-02	0.456
		99.86		9.124E-01	5.187E-01	8.642E-01	7.605E-02	1.056
		111.00		3.204E-02	2.030E-01	3.250E-01	3.939E-02	0.099
		131.20		-5.298E-02	1.148E-01	1.780E-01	1.538E-02	-0.298
		152.70		-3.390E-02	3.284E-01	5.532E-01	9.403E-02	-0.061
	+	186.00		9.010E+00	3.567E+00	3.061E+00	9.562E-01	2.943
		226.40		-2.661E-01	4.044E-01	6.511E-01	8.765E-02	-0.409
		227.20		-4.939E-02	4.345E-01	7.196E-01	6.489E-02	-0.069
		248.90		-1.073E-01	8.509E-01	1.402E+00	3.169E-01	-0.077
		293.70		3.884E+00	1.095E+00	1.547E+00	2.715E-01	2.510
		369.80		2.170E-01	8.456E-01	1.396E+00	3.029E-01	0.155
		568.70		-1.236E-01	1.031E+00	1.717E+00	1.455E-01	-0.072
		569.50		3.585E-02	2.773E-01	4.698E-01	3.980E-02	0.076
		574.00		4.877E-02	1.480E+00	2.490E+00	2.108E-01	0.020
		699.00		-9.009E-02	7.212E-01	1.185E+00	2.248E-01	-0.076
		706.10		-2.358E-02	1.013E+00	1.676E+00	7.468E-01	-0.014
		733.00		9.737E-02	4.101E-01	6.898E-01	1.529E-01	0.141
		742.81		9.638E-01	1.453E+00	2.289E+00	1.538E+00	0.421
		796.30		1.442E+00	1.046E+00	1.778E+00	4.817E-01	0.811
		805.60		1.021E+00	9.856E-01	1.692E+00	5.195E-01	0.604
		819.60		9.172E-02	1.182E+00	1.957E+00	7.452E-01	0.047
		826.30		-2.997E-01	7.842E-01	1.219E+00	5.459E-01	-0.246
		831.60		1.846E-01	6.058E-01	1.019E+00	3.048E-01	0.181
		876.40		-2.319E-01	9.052E-01	1.392E+00	1.432E+00	-0.167
		880.51		1.010E-01	2.649E-01	4.501E-01	4.060E-02	0.224
		883.24		-2.268E-01	3.124E-01	4.051E-01	2.725E-01	-0.560
		899.00		3.355E-01	8.638E-01	1.443E+00	6.321E-01	0.233
		925.00		4.879E-01	1.109E+00	1.891E+00	1.708E-01	0.258
		926.50		-6.605E-03	1.642E-01	2.665E-01	6.775E-02	-0.025
		946.00	*	-1.453E-02	2.924E-01	4.735E-01	8.970E-02	-0.031
		949.00		-1.589E-01	4.176E-01	6.503E-01	5.852E-02	-0.244
		980.50		2.542E-01	7.900E-01	1.322E+00	1.182E-01	0.192
		1394.10		-6.093E-01	1.035E+00	1.410E+00	9.176E-01	-0.432
PA-234M		766.42		6.648E+00	1.244E+01	2.057E+01	1.044E+01	0.323
	+	1001.03	*	9.350E+00	8.319E+00	1.016E+01	1.036E+00	0.920
U-235	+	89.95		2.770E+00	1.748E+00	2.064E+00	6.409E-01	1.342
	+	93.35		8.887E+00	2.720E+00	1.759E+00	4.953E-01	5.054
		105.00		2.207E-01	1.111E+00	1.783E+00	5.326E-01	0.124
		143.76	*	1.385E-01	2.191E-01	3.725E-01	6.508E-02	0.372
		163.35		6.632E-01	5.030E-01	8.598E-01	1.636E-01	0.771
	+	185.71		3.337E-01	8.623E-02	1.132E-01	9.838E-03	2.948
		205.31		3.011E-01	6.030E-01	9.073E-01	1.741E-01	0.332
NP-236		94.67		8.435E-01	1.758E-01	2.748E-01	2.474E-02	3.069
		98.44		5.779E-02	8.694E-02	1.267E-01	1.120E-02	0.456
		111.00		2.423E-02	1.535E-01	2.458E-01	2.130E-02	0.099
		160.31	*	-4.577E-02	8.182E-02	1.352E-01	1.151E-02	-0.339

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.979E-01	1.761E-01	2.928E-01	2.579E-02	1.017
		117.00	*	-4.914E-02	1.971E-01	3.097E-01	2.697E-02	-0.159
	+	209.75		1.709E+00	1.095E+00	1.396E+00	1.242E-01	1.224
		228.18		2.170E-01	2.230E-01	3.854E-01	3.477E-02	0.563
		277.60		1.683E-01	1.910E-01	3.176E-01	2.905E-02	0.530
		334.30		-6.177E-01	1.620E+00	2.253E+00	1.992E-01	-0.274
AM-241		59.54	*	9.782E-02	1.893E-01	2.812E-01	2.317E-02	0.348
CM-243		99.55		3.066E-01	1.812E-01	3.013E-01	2.654E-02	1.017
		103.76	*	-3.711E-02	1.021E-01	1.604E-01	1.398E-02	-0.231
		117.00		-5.056E-02	2.028E-01	3.186E-01	2.775E-02	-0.159
	+	209.75		1.685E+00	1.080E+00	1.376E+00	1.224E-01	1.224
		228.18		2.193E-01	2.254E-01	3.895E-01	3.514E-02	0.563
		277.60		1.697E-01	1.926E-01	3.202E-01	2.929E-02	0.530
AM-246		798.80		-1.330E-01	1.471E-01	2.222E-01	1.953E-02	-0.599
		1036.00		1.389E-01	3.149E-01	5.318E-01	4.666E-02	0.261
		1062.04		-1.440E-01	2.123E-01	3.137E-01	2.722E-02	-0.459
		1078.86	*	-7.473E-02	1.463E-01	2.225E-01	1.914E-02	-0.336
CM-247		278.00		9.391E-01	7.720E-01	1.339E+00	1.224E-01	0.702
		287.40		-3.060E-01	1.245E+00	2.023E+00	1.847E-01	-0.151
		402.60	*	-3.418E-02	3.856E-02	5.855E-02	4.749E-03	-0.584
CF-249		252.85		-2.708E-01	8.721E-01	1.422E+00	1.298E-01	-0.190
		333.44		-1.512E-01	2.144E-01	2.902E-01	2.569E-02	-0.521
		387.95	*	2.335E-02	3.982E-02	6.701E-02	5.436E-03	0.348
CF-251		176.60	*	1.543E-01	1.296E-01	2.263E-01	1.948E-02	0.682
		227.00		-9.812E-02	3.858E-01	6.349E-01	5.724E-02	-0.155
		285.00		1.114E+00	1.766E+00	3.000E+00	2.741E-01	0.371

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020004      *
* Acquisition date : 13-FEB-2010 16:26:05 Detector SN#     :               *
* Detector ID        : GAM01               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.26     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G246020004           Analyst initials: MXR1         *
* Batch Number       : 948751               Sample Quantity : 1.5070E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.199E+01	2.422E+00	4.848E-01	0.000E+00
CD-109	2.535E+00	1.057E+00	1.495E+00	0.000E+00
SN-126	2.484E-01	1.035E-01	1.473E-01	0.000E+00
BA-137M	1.229E-01	6.575E-02	6.113E-02	0.000E+00
CS-137	1.299E-01	6.951E-02	6.462E-02	0.000E+00
TL-208	4.337E-01	7.605E-02	5.823E-02	0.000E+00
BI-211	3.673E+00	5.193E-01	3.404E-01	0.000E+00
PB-212	1.341E+00	1.706E-01	9.762E-02	0.000E+00
PO-212	1.341E+00	1.706E-01	9.762E-02	0.000E+00
BI-214	1.251E+00	2.026E-01	1.130E-01	0.000E+00
PB-214	1.278E+00	1.921E-01	1.189E-01	0.000E+00
PO-214	1.278E+00	1.921E-01	1.189E-01	0.000E+00
PO-216	1.341E+00	1.706E-01	9.762E-02	0.000E+00
PO-218	1.278E+00	1.921E-01	1.189E-01	0.000E+00
RA-224	3.247E+00	1.119E+00	1.111E+00	0.000E+00
RA-226	1.251E+00	2.026E-01	1.130E-01	0.000E+00
AC-228	1.415E+00	3.411E-01	1.941E-01	0.000E+00
RA-228	1.415E+00	3.411E-01	1.941E-01	0.000E+00
TH-228	1.364E+00	1.736E-01	9.930E-02	0.000E+00
TH-230	1.251E+00	2.026E-01	1.130E-01	0.000E+00
TH-232	1.415E+00	3.411E-01	1.941E-01	0.000E+00
TH-234	7.817E+00	2.512E+00	2.394E+00	0.000E+00
U-234	1.251E+00	2.026E-01	1.130E-01	0.000E+00
NP-237	7.294E-01	3.379E-01	4.837E-01	0.000E+00
U-238	7.817E+00	2.512E+00	2.394E+00	0.000E+00
AM-243	3.623E-01	9.675E-02	1.017E-01	0.000E+00
ANH-511	1.205E-01	7.016E-02	4.939E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-3.278E-01	3.502E-01	5.505E-01	0.000E+00	NOT IDENT.
NA-22	5.537E-03	3.891E-02	6.802E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.035E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	5.004E-04	2.491E-02	4.163E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.026E-02	8.853E-02	0.000E+00	FAIL ABUN
SC-46	-1.434E-02	3.617E-02	5.886E-02	0.000E+00	FAIL ABUN
V-48	3.822E-02	8.310E-02	1.460E-01	0.000E+00	NOT IDENT.
CR-51	7.593E-02	3.812E-01	6.743E-01	0.000E+00	NOT IDENT.
MN-52	-9.463E-02	2.715E-01	4.370E-01	0.000E+00	NOT IDENT.
MN-54	6.758E-03	3.541E-02	6.162E-02	0.000E+00	NOT IDENT.
CO-56	2.458E-02	3.694E-02	6.704E-02	0.000E+00	NOT IDENT.
CO-57	3.425E-02	2.673E-02	4.845E-02	0.000E+00	NOT IDENT.
CO-58	-2.340E-02	3.854E-02	6.223E-02	0.000E+00	NOT IDENT.
FE-59	1.949E-03	1.008E-01	1.685E-01	0.000E+00	NOT IDENT.
CO-60	-6.376E-03	3.855E-02	6.480E-02	0.000E+00	NOT IDENT.
ZN-65	2.710E-02	9.369E-02	1.405E-01	0.000E+00	NOT IDENT.
GE-68	-1.520E-01	1.239E+00	2.043E+00	0.000E+00	NOT IDENT.
AS-73	-2.044E-01	9.836E-01	1.768E+00	0.000E+00	NOT IDENT.
AS-74	-2.774E-02	9.122E-02	1.569E-01	0.000E+00	NOT IDENT.
SE-75	-2.119E-02	4.802E-02	7.232E-02	0.000E+00	NOT IDENT.
BR-77	5.036E-01	2.032E+01	3.306E+01	0.000E+00	FAIL ABUN
SR-82	-3.997E-02	4.317E-01	7.380E-01	0.000E+00	NOT IDENT.
RB-83	1.850E-03	7.473E-02	1.216E-01	0.000E+00	NOT IDENT.
RB-84	-3.694E-02	6.933E-02	1.114E-01	0.000E+00	NOT IDENT.
KR-85	1.099E+01	7.577E+00	1.390E+01	0.000E+00	NOT IDENT.
SR-85	5.760E-02	3.971E-02	7.283E-02	0.000E+00	NOT IDENT.
RB-86	3.613E-01	8.230E-01	1.439E+00	0.000E+00	NOT IDENT.
Y-88	-1.487E-03	3.272E-02	5.381E-02	0.000E+00	NOT IDENT.
ZR-88	-1.113E-02	3.172E-02	5.338E-02	0.000E+00	NOT IDENT.
Y-91	3.870E-01	1.740E+01	3.018E+01	0.000E+00	NOT IDENT.
NB-94	-8.425E-03	3.287E-02	5.595E-02	0.000E+00	NOT IDENT.
NB-95	-1.972E-02	4.582E-02	7.642E-02	0.000E+00	NOT IDENT.
NB-95M	9.318E-02	1.325E-01	2.165E-01	0.000E+00	NOT IDENT.
ZR-95	-3.371E-04	7.044E-02	1.215E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.771E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.515E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.728E+01	1.832E+01	2.860E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.170E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.065E-02	3.128E-02	5.398E-02	0.000E+00	NOT IDENT.
RH-102	1.906E-02	3.035E-02	5.371E-02	0.000E+00	NOT IDENT.
RU-103	-1.809E-02	4.296E-02	7.008E-02	0.000E+00	FAIL ABUN
RH-106	-2.474E-01	3.002E-01	4.888E-01	0.000E+00	FAIL ABUN
RU-106	-2.474E-01	2.992E-01	4.888E-01	0.000E+00	FAIL ABUN
AG-108M	7.474E-03	3.315E-02	5.753E-02	0.000E+00	NOT IDENT.
AG-110M	-8.092E-04	3.667E-02	5.551E-02	0.000E+00	NOT IDENT.
IN-111	-3.860E-01	2.028E+00	3.139E+00	0.000E+00	NOT IDENT.
IN-113M	-7.149E-03	4.574E-02	7.800E-02	0.000E+00	NOT IDENT.
SN-113	-7.149E-03	4.574E-02	7.800E-02	0.000E+00	NOT IDENT.
IN-114M	-3.951E-02	2.078E-01	3.285E-01	0.000E+00	NOT IDENT.
CD-115	-7.793E+00	1.959E+01	3.384E+01	0.000E+00	NOT IDENT.
SN-117M	-5.353E-02	6.205E-02	1.100E-01	0.000E+00	NOT IDENT.
SB-122	3.900E+00	3.416E+00	6.473E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.983E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.062E-02	2.906E-02	5.185E-02	0.000E+00	NOT IDENT.
I-124	5.656E-01	1.001E+00	1.619E+00	0.000E+00	NOT IDENT.
SB-124	7.163E-03	6.654E-02	1.140E-01	0.000E+00	FAIL ABUN
SB-125	9.017E-02	9.406E-02	1.706E-01	0.000E+00	NOT IDENT.
TE-125M	3.165E+00	9.920E+00	1.751E+01	0.000E+00	NOT IDENT.
I-126	-7.589E-02	2.331E-01	3.407E-01	0.000E+00	NOT IDENT.
SB-126	-7.973E-02	1.528E-01	2.530E-01	0.000E+00	FAIL ABUN
SB-127	1.273E+00	1.875E+00	3.430E+00	0.000E+00	NOT IDENT.
XE-127	1.434E-02	4.904E-02	8.948E-02	0.000E+00	NOT IDENT.
I-131	5.351E-02	1.321E-01	2.347E-01	0.000E+00	NOT IDENT.
TE-132	1.026E+00	1.046E+00	1.929E+00	0.000E+00	NOT IDENT.
BA-133	1.692E-02	4.418E-02	6.941E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.960E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.809E-02	5.021E-02	9.233E-02	0.000E+00	NOT IDENT.
CS-135	1.654E-01	1.681E-01	2.777E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.569E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.218E-02	1.086E-01	1.714E-01	0.000E+00	FAIL ABUN
CE-139	-3.689E-03	3.020E-02	5.497E-02	0.000E+00	NOT IDENT.
BA-140	-1.865E-01	2.677E-01	4.379E-01	0.000E+00	NOT IDENT.
LA-140	-2.503E-02	9.338E-02	1.466E-01	0.000E+00	NOT IDENT.
CE-141	1.181E-01	6.592E-02	1.270E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.078E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.267E-02	2.134E-01	3.668E-01	0.000E+00	NOT IDENT.
PM-144	9.000E-03	3.480E-02	6.164E-02	0.000E+00	NOT IDENT.
PR-144	6.106E-01	2.361E+00	4.181E+00	0.000E+00	NOT IDENT.

PM-146	3.185E-02	4.502E-02	8.018E-02	0.000E+00	NOT IDENT.
ND-147	-7.904E-02	6.032E-01	1.062E+00	0.000E+00	FAIL ABUN
PM-149	6.191E+01	1.688E+02	3.029E+02	0.000E+00	NOT IDENT.
EU-152	7.776E-02	1.085E-01	1.746E-01	0.000E+00	NOT IDENT.
GD-153	2.633E-02	9.684E-02	1.522E-01	0.000E+00	NOT IDENT.
EU-154	5.226E-02	1.059E-01	1.920E-01	0.000E+00	NOT IDENT.
EU-155	7.064E-02	1.093E-01	1.957E-01	0.000E+00	FAIL ABUN
TB-160	5.610E-02	1.347E-01	2.387E-01	0.000E+00	FAIL ABUN
HO-166M	-2.661E-03	5.663E-02	9.788E-02	0.000E+00	NOT IDENT.
TM-171	4.785E+00	3.217E+01	5.175E+01	0.000E+00	NOT IDENT.
LU-176	3.054E-03	2.551E-02	4.355E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.873E+00	2.679E+00	0.000E+00	FAIL ABUN
LU-177M	-1.294E-01	1.841E-01	3.006E-01	0.000E+00	NOT IDENT.
HF-181	2.639E-02	4.227E-02	7.501E-02	0.000E+00	NOT IDENT.
W-181	2.999E-01	4.452E-01	7.327E-01	0.000E+00	NOT IDENT.
TA-182	-1.294E-01	1.930E-01	3.135E-01	0.000E+00	FAIL ABUN
RE-183	8.591E-02	1.138E-01	2.133E-01	0.000E+00	FAIL ABUN
RE-184	-7.278E-02	2.297E-01	4.022E-01	0.000E+00	NOT IDENT.
OS-185	2.143E-02	4.068E-02	7.404E-02	0.000E+00	NOT IDENT.
RE-188	4.682E-02	1.772E-01	3.281E-01	0.000E+00	NOT IDENT.
W-188	-4.773E+00	8.391E+00	1.241E+01	0.000E+00	FAIL ABUN
IR-192	-3.143E-02	3.557E-02	5.898E-02	0.000E+00	FAIL ABUN
AU-195	3.499E-01	2.595E-01	4.504E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.702E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.053E+01	1.114E+01	1.959E+01	0.000E+00	NOT IDENT.
TL-202	2.238E-02	7.969E-02	1.386E-01	0.000E+00	NOT IDENT.
HG-203	4.472E-02	4.256E-02	7.855E-02	0.000E+00	NOT IDENT.
BI-207	1.165E-02	4.726E-02	8.130E-02	0.000E+00	FAIL ABUN
TL-207	-3.490E-01	6.820E-01	1.154E+00	0.000E+00	FAIL ABUN
PO-209	4.218E+00	7.277E+00	1.304E+01	0.000E+00	NOT IDENT.
BI-210	-1.830E-01	4.239E+00	7.586E+00	0.000E+00	NOT IDENT.
PB-210	-1.830E-01	4.239E+00	7.586E+00	0.000E+00	NOT IDENT.
PO-210	-1.830E-01	4.239E+00	7.586E+00	0.000E+00	NOT IDENT.
PB-211	2.506E-01	9.766E-01	1.684E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.459E-01	6.650E-01	0.000E+00	NOT IDENT.
PO-215	-3.490E-01	6.820E-01	1.154E+00	0.000E+00	FAIL ABUN
RN-219	-1.772E-01	4.034E-01	6.715E-01	0.000E+00	FAIL ABUN
RN-220	1.463E+00	2.489E+01	4.431E+01	0.000E+00	NOT IDENT.
RA-223	-3.490E-01	6.820E-01	1.154E+00	0.000E+00	FAIL ABUN
AC-227	-3.968E-01	3.881E-01	6.475E-01	0.000E+00	FAIL ABUN
TH-227	-3.968E-01	3.899E-01	6.475E-01	0.000E+00	FAIL ABUN
TH-229	2.753E-01	4.912E-01	9.075E-01	0.000E+00	FAIL ABUN
PA-231	-8.077E-02	1.522E+00	2.678E+00	0.000E+00	FAIL ABUN
TH-231	-3.490E-01	6.820E-01	1.154E+00	0.000E+00	FAIL ABUN
U-231	-1.337E+00	1.857E+00	2.799E+00	0.000E+00	FAIL ABUN
PA-233	-9.495E-04	6.553E-02	1.148E-01	0.000E+00	FAIL ABUN
PA-234	-1.453E-02	2.866E-01	4.823E-01	0.000E+00	FAIL ABUN
PA-234M	9.350E+00	8.153E+00	1.033E+01	0.000E+00	FAIL ABUN
U-235	1.385E-01	2.147E-01	3.972E-01	0.000E+00	FAIL ABUN
NP-236	-4.577E-02	8.018E-02	1.438E-01	0.000E+00	NOT IDENT.
NP-239	-4.914E-02	1.932E-01	3.318E-01	0.000E+00	FAIL ABUN
AM-241	9.782E-02	1.856E-01	3.059E-01	0.000E+00	NOT IDENT.
CM-243	-3.711E-02	1.001E-01	1.724E-01	0.000E+00	FAIL ABUN
AM-246	-7.473E-02	1.433E-01	2.258E-01	0.000E+00	NOT IDENT.
CM-247	-3.418E-02	3.779E-02	6.092E-02	0.000E+00	NOT IDENT.
CF-249	2.335E-02	3.902E-02	6.979E-02	0.000E+00	NOT IDENT.
CF-251	1.543E-01	1.270E-01	2.402E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:26:31.19

```
*********************************************************************
*                          GEL Laboratories LLC                     *
*                            2040 Savage Road                       *
*                          Charleston, SC 29414                     *
*********************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020004.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:26:05
Sample ID         : G246020004           Sample quantity  : 1.50700E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.26  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*********************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	891	10.67*	9.455E-01	2.199E+01	2.199E+01	11.24
CD-109	88.03	192	3.72*	5.191E+00	2.470E+00	2.535E+00	42.54
SN-126	64.28	333	9.60	2.793E+00	3.094E+00	3.094E+00	31.34
	86.94	192	8.90	5.191E+00	1.033E+00	1.033E+00	58.70
	87.57	192	37.00*	5.191E+00	2.484E-01	2.484E-01	42.54
BA-137M	661.65	85	89.98*	1.922E+00	1.227E-01	1.229E-01	54.61
CS-137	661.65	85	85.12*	1.922E+00	1.297E-01	1.299E-01	54.61
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	116	21.60	2.391E+00	5.577E-01	5.577E-01	60.01
	583.14	314	84.20*	2.143E+00	4.337E-01	4.337E-01	17.89
	860.37	49	12.46	1.521E+00	6.443E-01	6.443E-01	52.46
BI-211	72.87	------	1.27	3.944E+00	------ Line Not Found		------
	351.07	615	12.94*	3.225E+00	3.673E+00	3.673E+00	14.43
PB-212	74.81	399	10.70	4.152E+00	2.235E+00	2.235E+00	28.81
	77.11	643	18.00	4.388E+00	2.026E+00	2.026E+00	16.44
	87.30	192	8.00	5.191E+00	1.149E+00	1.149E+00	43.70
	238.63	1044	44.60*	4.345E+00	1.341E+00	1.341E+00	12.98
	300.09	107	3.41	3.653E+00	2.148E+00	2.148E+00	53.67
PO-212	74.81	399	10.70	4.152E+00	2.235E+00	2.235E+00	28.81
	77.11	643	18.00	4.388E+00	2.026E+00	2.026E+00	16.44
	87.30	192	8.00	5.191E+00	1.149E+00	1.149E+00	43.70
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	1044	44.60*	4.345E+00	1.341E+00	1.341E+00	12.98
	300.09	107	3.41	3.653E+00	2.148E+00	2.148E+00	53.67
BI-214	609.31	480	46.30*	2.064E+00	1.251E+00	1.251E+00	16.53
	1120.29	82	15.10	1.193E+00	1.135E+00	1.135E+00	46.53
	1764.49	106	15.80	8.256E-01	2.024E+00	2.024E+00	22.31
PB-214	74.81	399	6.21	4.152E+00	3.851E+00	3.851E+00	28.24
	77.11	643	10.50	4.388E+00	3.474E+00	3.474E+00	18.12
	87.30	192	4.67	5.191E+00	1.968E+00	1.968E+00	43.23
	241.98	222	7.49	4.307E+00	1.713E+00	1.713E+00	35.61
	295.21	374	19.20	3.698E+00	1.311E+00	1.311E+00	22.28

Sample ID : G246020004 Acquisition date : 13-FEB-2010 16:26:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	615	37.20*	3.225E+00	1.278E+00	1.278E+00	15.34
PO-214	74.81	399	6.21	4.152E+00	3.851E+00	3.851E+00	28.24
	77.11	643	10.50	4.388E+00	3.474E+00	3.474E+00	18.12
	87.30	192	4.67	5.191E+00	1.968E+00	1.968E+00	43.23
	241.98	222	7.49	4.307E+00	1.713E+00	1.713E+00	35.61
	295.21	374	19.20	3.698E+00	1.311E+00	1.311E+00	22.28
	351.92	615	37.20*	3.225E+00	1.278E+00	1.278E+00	15.34
PO-216	74.81	399	10.70	4.152E+00	2.235E+00	2.235E+00	28.81
	77.11	643	18.00	4.388E+00	2.026E+00	2.026E+00	16.44
	87.30	192	8.00	5.191E+00	1.149E+00	1.149E+00	43.70
	238.63	1044	44.60*	4.345E+00	1.341E+00	1.341E+00	12.98
	300.09	107	3.41	3.653E+00	2.148E+00	2.148E+00	53.67
PO-218	74.81	399	6.21	4.152E+00	3.851E+00	3.851E+00	28.24
	77.11	643	10.50	4.388E+00	3.474E+00	3.474E+00	18.12
	87.30	192	4.67	5.191E+00	1.968E+00	1.968E+00	43.23
	241.98	222	7.49	4.307E+00	1.713E+00	1.713E+00	35.61
	295.21	374	19.20	3.698E+00	1.311E+00	1.311E+00	22.28
	351.92	615	37.20*	3.225E+00	1.278E+00	1.278E+00	15.34
RA-224	240.98	222	3.95*	4.307E+00	3.247E+00	3.247E+00	35.16
RA-226	609.31	480	46.30*	2.064E+00	1.251E+00	1.251E+00	16.53
	1120.29	82	15.10	1.193E+00	1.135E+00	1.135E+00	46.53
	1764.49	106	15.80	8.256E-01	2.024E+00	2.024E+00	22.31
AC-228	338.32	268	11.40	3.326E+00	1.758E+00	1.758E+00	51.12
	911.07	227	27.70*	1.444E+00	1.415E+00	1.415E+00	24.59
	969.11	120	16.60	1.364E+00	1.319E+00	1.319E+00	38.98
RA-228	338.32	268	11.40	3.326E+00	1.758E+00	1.758E+00	51.12
	911.07	227	27.70*	1.444E+00	1.415E+00	1.415E+00	24.59
	969.11	120	16.60	1.364E+00	1.319E+00	1.319E+00	38.98
TH-228	74.81	399	10.70	4.152E+00	2.235E+00	2.274E+00	27.27
	77.11	643	18.00	4.388E+00	2.026E+00	2.061E+00	16.44
	87.30	192	8.00	5.191E+00	1.149E+00	1.169E+00	42.54
	238.63	1044	44.60*	4.345E+00	1.341E+00	1.364E+00	12.98
	300.09	107	3.41	3.653E+00	2.148E+00	2.186E+00	79.29
TH-230	609.31	480	46.30*	2.064E+00	1.251E+00	1.251E+00	16.53
	1120.29	82	15.10	1.193E+00	1.135E+00	1.135E+00	46.53
	1764.49	106	15.80	8.256E-01	2.024E+00	2.024E+00	22.31
TH-232	338.32	268	11.40	3.326E+00	1.758E+00	1.758E+00	31.38
	911.07	227	27.70*	1.444E+00	1.415E+00	1.415E+00	24.59
	969.11	120	16.60	1.364E+00	1.319E+00	1.319E+00	38.98
TH-234	63.29	333	3.80*	2.793E+00	7.817E+00	7.817E+00	32.79
	92.38	882	5.41	5.494E+00	7.392E+00	7.392E+00	21.86
U-234	609.31	480	46.30*	2.064E+00	1.251E+00	1.251E+00	16.53
	1120.29	82	15.10	1.193E+00	1.135E+00	1.135E+00	46.53
	1764.49	106	15.80	8.256E-01	2.024E+00	2.024E+00	22.31
NP-237	86.50	192	12.60*	5.191E+00	7.294E-01	7.294E-01	47.28
	95.87	------	2.60	5.636E+00	------ Line Not Found		------
U-238	63.29	333	3.80*	2.793E+00	7.817E+00	7.817E+00	32.79
	92.38	882	5.41	5.494E+00	7.392E+00	7.392E+00	15.01
AM-243	74.67	399	66.00*	4.152E+00	3.623E-01	3.623E-01	27.25

Sample ID : G246020004 Acquisition date : 13-FEB-2010 16:26:05

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	192	0.34	5.191E+00	2.735E+01	2.735E+01	42.54
	117.66	------	0.55	6.054E+00	------	Line Not Found	------
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	116	100.00*	2.391E+00	1.205E-01	1.205E-01	59.43

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G246020004 Acquisition date 13-FEB-2010 16:26:05

Total number of lines in spectrum 27
Number of unidentified lines 1
Number of lines tentatively identified by NID 26 96.30%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.199E+01	2.199E+01	0.247E+01	11.24	
CD-109	464.00D	1.03	2.470E+00	2.535E+00	1.078E+00	42.54	
SN-126	1.00E+05Y	1.00	2.484E-01	2.484E-01	1.057E-01	42.54	
BA-137M	30.17Y	1.00	1.227E-01	1.229E-01	0.671E-01	54.61	
CS-137	30.17Y	1.00	1.297E-01	1.299E-01	0.709E-01	54.61	
TL-208	1.41E+10Y	1.00	4.337E-01	4.337E-01	0.776E-01	17.89	
BI-211	7.04E+08Y	1.00	3.673E+00	3.673E+00	0.530E+00	14.43	
PB-212	1.41E+10Y	1.00	1.341E+00	1.341E+00	0.174E+00	12.98	
PO-212	1.41E+10Y	1.00	1.341E+00	1.341E+00	0.174E+00	12.98	
BI-214	1600.00Y	1.00	1.251E+00	1.251E+00	0.207E+00	16.53	
PB-214	1600.00Y	1.00	1.278E+00	1.278E+00	0.196E+00	15.34	
PO-214	1600.00Y	1.00	1.278E+00	1.278E+00	0.196E+00	15.34	
PO-216	1.41E+10Y	1.00	1.341E+00	1.341E+00	0.174E+00	12.98	
PO-218	1600.00Y	1.00	1.278E+00	1.278E+00	0.196E+00	15.34	
RA-224	1.41E+10Y	1.00	3.247E+00	3.247E+00	1.142E+00	35.16	
RA-226	1600.00Y	1.00	1.251E+00	1.251E+00	0.207E+00	16.53	
AC-228	1.41E+10Y	1.00	1.415E+00	1.415E+00	0.348E+00	24.59	
RA-228	1.41E+10Y	1.00	1.415E+00	1.415E+00	0.348E+00	24.59	
TH-228	1.91Y	1.02	1.341E+00	1.364E+00	0.177E+00	12.98	
TH-230	4.47E+09Y	1.00	1.251E+00	1.251E+00	0.207E+00	16.53	
TH-232	1.41E+10Y	1.00	1.415E+00	1.415E+00	0.348E+00	24.59	
TH-234	4.47E+09Y	1.00	7.817E+00	7.817E+00	2.563E+00	32.79	
U-234	4.47E+09Y	1.00	1.251E+00	1.251E+00	0.207E+00	16.53	
NP-237	2.14E+06Y	1.00	7.294E-01	7.294E-01	3.448E-01	47.28	
U-238	4.47E+09Y	1.00	7.817E+00	7.817E+00	2.563E+00	32.79	
AM-243	7380.00Y	1.00	3.623E-01	3.623E-01	0.987E-01	27.25	
ANH-511	1.00E+09Y	1.00	1.205E-01	1.205E-01	0.716E-01	59.43	
			---	---			
	Total Activity :		6.761E+01	6.770E+01			

Grand Total Activity : 6.761E+01 6.770E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020004 Acquisition date : 13-FEB-2010 16:26:05

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	89.91	161	590	1.40	180.52	172	21	2.23E-02	54.9	5.35E+00	T
0	186.11	373	415	1.34	372.81	368	11	5.18E-02	24.3	5.16E+00	T
0	209.45	106	309	1.24	419.46	415	9	1.47E-02	63.5	4.77E+00	T
0	270.63	128	292	0.79	541.76	536	13	1.78E-02	57.8	3.96E+00	T
0	1002.13	42	60	1.21	2003.83	1997	14	5.79E-03	88.4	1.32E+00	T
0	1587.99	25	3	1.91	3174.67	3171	10	3.46E-03	47.0	8.87E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:26:37.48

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020004.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:26:05  Detector SN#     :             *
* Detector ID       : GAM01                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.26          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020004            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.50700E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.199E+01	2.471E+00	4.814E-01	4.279E-02	45.691
CD-109	2.535E+00	1.078E+00	1.386E+00	1.312E-01	1.829
SN-126	2.484E-01	1.057E-01	1.365E-01	1.286E-02	1.819
BA-137M	1.229E-01	6.709E-02	5.948E-02	4.872E-03	2.065
CS-137	1.299E-01	7.093E-02	6.287E-02	5.161E-03	2.065
TL-208	4.337E-01	7.760E-02	5.648E-02	5.130E-03	7.679
BI-211	3.673E+00	5.299E-01	3.260E-01	2.966E-02	11.267
PB-212	1.341E+00	1.741E-01	9.264E-02	9.379E-03	14.478
PO-212	1.341E+00	1.741E-01	9.264E-02	9.379E-03	14.478
BI-214	1.251E+00	2.068E-01	1.097E-01	1.082E-02	11.404
PB-214	1.278E+00	1.960E-01	1.139E-01	1.194E-02	11.218
PO-214	1.278E+00	1.960E-01	1.139E-01	1.194E-02	11.218
PO-216	1.341E+00	1.741E-01	9.264E-02	9.379E-03	14.478
PO-218	1.278E+00	1.960E-01	1.139E-01	1.194E-02	11.218
RA-224	3.247E+00	1.142E+00	1.054E+00	9.583E-02	3.080
RA-226	1.251E+00	2.068E-01	1.097E-01	1.082E-02	11.404
AC-228	1.415E+00	3.481E-01	1.904E-01	2.204E-02	7.435
RA-228	1.415E+00	3.481E-01	1.904E-01	2.204E-02	7.435

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.364E+00	1.771E-01	9.424E-02	9.541E-03	14.478
TH-230	1.251E+00	2.067E-01	1.097E-01	1.082E-02	11.404
TH-232	1.415E+00	3.481E-01	1.904E-01	2.204E-02	7.435
TH-234	7.817E+00	2.563E+00	2.203E+00	3.873E-01	3.548
U-234	1.251E+00	2.067E-01	1.097E-01	1.082E-02	11.404
NP-237	7.294E-01	3.448E-01	4.483E-01	1.015E-01	1.627
U-238	7.817E+00	2.563E+00	2.203E+00	3.873E-01	3.548
AM-243	3.623E-01	9.873E-02	9.396E-02	7.813E-03	3.857
ANH-511	1.205E-01	7.159E-02	4.775E-02	4.047E-03	2.523

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.278E-01		3.574E-01	5.313E-01	4.834E-02	-0.617
NA-22	5.537E-03		3.970E-02	6.731E-02	5.652E-03	0.082
NA-24	-7.925E+00		3.589E+00	Half-Life too short		
AL-26	5.004E-04		2.542E-02	4.157E-02	3.444E-03	0.012
TI-44	3.740E-01	+	6.149E-02	8.187E-02	7.026E-03	4.568
SC-46	-1.434E-02		3.691E-02	5.771E-02	5.216E-03	-0.249
V-48	3.822E-02		8.480E-02	1.435E-01	1.281E-02	0.266
CR-51	7.593E-02		3.890E-01	6.445E-01	6.062E-02	0.118
MN-52	-9.463E-02		2.770E-01	4.337E-01	3.744E-02	-0.218
MN-54	6.758E-03		3.613E-02	6.031E-02	5.368E-03	0.112
CO-56	2.458E-02		3.769E-02	6.564E-02	5.865E-03	0.374
CO-57	3.425E-02		2.728E-02	4.526E-02	3.984E-03	0.757
CO-58	-2.340E-02		3.933E-02	6.086E-02	5.385E-03	-0.384
FE-59	1.949E-03		1.029E-01	1.661E-01	1.531E-02	0.012
CO-60	-6.376E-03		3.934E-02	6.420E-02	5.472E-03	-0.099
ZN-65	2.710E-02		9.560E-02	1.385E-01	1.169E-02	0.196
GE-68	-1.520E-01		1.264E+00	2.013E+00	1.733E-01	-0.075
AS-73	-2.044E-01		1.004E+00	1.621E+00	1.312E-01	-0.126
AS-74	-2.774E-02		9.308E-02	1.522E-01	1.283E-02	-0.182
SE-75	-2.119E-02		4.900E-02	6.881E-02	6.321E-03	-0.308
BR-77	5.036E-01		2.074E+01	3.197E+01	2.713E+00	0.016
SR-82	-3.997E-02		4.405E-01	7.210E-01	6.277E-02	-0.055
RB-83	1.850E-03		7.626E-02	1.176E-01	9.975E-03	0.016
RB-84	-3.694E-02		7.074E-02	1.092E-01	9.853E-03	-0.338
KR-85	1.099E+01		7.732E+00	1.344E+01	1.139E+00	0.818
SR-85	5.760E-02		4.052E-02	7.041E-02	5.970E-03	0.818
RB-86	3.613E-01		8.398E-01	1.418E+00	1.221E-01	0.255
Y-88	-1.487E-03		3.339E-02	5.375E-02	4.421E-03	-0.028
ZR-88	-1.113E-02		3.237E-02	5.127E-02	4.128E-03	-0.217
Y-91	3.870E-01		1.776E+01	2.981E+01	2.443E+00	0.013
NB-94	-8.425E-03		3.354E-02	5.452E-02	4.577E-03	-0.155
NB-95	-1.972E-02		4.676E-02	7.463E-02	6.467E-03	-0.264
NB-95M	9.318E-02		1.352E-01	2.054E-01	2.106E-02	0.454
ZR-95	-3.371E-04		7.188E-02	1.187E-01	1.127E-02	-0.003

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	-3.322E-02		3.965E-01	Half-Life too short		
ZR-97	6.146E+00		7.731E+00	Half-Life too short		
MO-99	-1.728E+01		1.869E+01	2.791E+01	4.228E+00	-0.619
TC-99M	-1.108E+13		5.969E+12	Half-Life too short		
RH-101	-2.065E-02		3.192E-02	5.100E-02	4.488E-03	-0.405
RH-102	1.906E-02		3.097E-02	5.183E-02	4.359E-03	0.368
RU-103	-1.809E-02		4.383E-02	6.770E-02	9.520E-03	-0.267
RH-106	-2.474E-01		3.063E-01	4.749E-01	6.262E-02	-0.521
RU-106	-2.474E-01		3.053E-01	4.749E-01	3.967E-02	-0.521
AG-108M	7.474E-03		3.383E-02	5.539E-02	4.777E-03	0.135
AG-110M	-8.092E-04		3.742E-02	5.401E-02	4.579E-03	-0.015
IN-111	-3.860E-01		2.069E+00	2.981E+00	2.714E-01	-0.129
IN-113M	-7.149E-03		4.667E-02	7.492E-02	6.240E-03	-0.095
SN-113	-7.149E-03		4.667E-02	7.492E-02	6.240E-03	-0.095
IN-114M	-3.951E-02		2.121E-01	3.101E-01	2.707E-02	-0.127
CD-115	-7.793E+00		1.999E+01	3.274E+01	2.779E+00	-0.238
SN-117M	-5.353E-02		6.332E-02	1.034E-01	8.806E-03	-0.518
SB-122	3.900E+00		3.486E+00	6.274E+00	5.319E-01	0.622
I-123	-5.664E+01		4.073E+01	Half-Life too short		
TE-123M	-2.062E-02		2.965E-02	4.873E-02	4.175E-03	-0.423
I-124	5.656E-01		1.021E+00	1.571E+00	1.321E-01	0.360
SB-124	7.163E-03		6.790E-02	1.136E-01	1.007E-02	0.063
SB-125	9.017E-02		9.598E-02	1.643E-01	1.382E-02	0.549
TE-125M	3.165E+00		1.012E+01	1.631E+01	1.692E+00	0.194
I-126	-7.589E-02		2.378E-01	3.315E-01	2.723E-02	-0.229
SB-126	-7.973E-02		1.560E-01	2.467E-01	2.091E-02	-0.323
SB-127	1.273E+00		1.913E+00	3.340E+00	3.938E-01	0.381
XE-127	1.434E-02		5.004E-02	8.459E-02	7.479E-03	0.170
I-131	5.351E-02		1.348E-01	2.250E-01	2.019E-02	0.238
TE-132	1.026E+00		1.067E+00	1.829E+00	2.987E-01	0.561
BA-133	1.692E-02		4.509E-02	6.651E-02	8.771E-03	0.254
I-133	-1.347E-02		1.510E-02	Half-Life too short		
CS-134	5.809E-02		5.123E-02	9.026E-02	7.976E-03	0.644
CS-135	1.654E-01		1.715E-01	2.643E-01	2.756E-02	0.626
I-135	4.756E+11		4.882E+11	Half-Life too short		
CS-136	-5.218E-02		1.108E-01	1.687E-01	1.534E-02	-0.309
CE-139	-3.689E-03		3.082E-02	5.172E-02	4.405E-03	-0.071
BA-140	-1.865E-01		2.731E-01	4.239E-01	1.403E-01	-0.440
LA-140	-2.503E-02		9.528E-02	1.460E-01	1.259E-02	-0.171
CE-141	1.181E-01		6.726E-02	1.192E-01	1.036E-02	0.991
CE-143	1.171E-03		2.591E-04	Half-Life too short		
CE-144	-1.267E-02		2.178E-01	3.434E-01	5.345E-02	-0.037
PM-144	9.000E-03		3.551E-02	6.005E-02	5.026E-03	0.150
PR-144	6.106E-01		2.409E+00	4.074E+00	3.408E-01	0.150
PM-146	3.185E-02		4.593E-02	7.729E-02	8.119E-03	0.412
ND-147	-7.904E-02		6.155E-01	1.028E+00	1.529E-01	-0.077
PM-149	6.191E+01		1.722E+02	2.887E+02	4.574E+01	0.214
EU-152	7.776E-02		1.108E-01	1.672E-01	1.546E-02	0.465

Sample ID : G246020004 Acquisition date : 13-FEB-2010 16:26:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	2.633E-02		9.882E-02	1.415E-01	1.256E-02	0.186
EU-154	5.226E-02		1.081E-01	1.900E-01	2.115E-02	0.275
EU-155	7.064E-02		1.115E-01	1.822E-01	1.603E-02	0.388
TB-160	5.610E-02		1.374E-01	2.339E-01	2.109E-02	0.240
HO-166M	-2.661E-03		5.779E-02	9.542E-02	8.050E-03	-0.028
TM-171	4.785E+00		3.282E+01	4.768E+01	3.755E+00	0.100
LU-176	3.054E-03		2.603E-02	4.158E-02	3.763E-03	0.073
LU-177	2.983E+00	+	1.911E+00	2.535E+00	2.252E-01	1.177
LU-177M	-1.294E-01		1.878E-01	2.891E-01	2.362E-02	-0.447
HF-181	2.639E-02		4.314E-02	7.241E-02	6.102E-03	0.364
W-181	2.999E-01		4.543E-01	6.747E-01	5.267E-02	0.445
TA-182	-1.294E-01		1.970E-01	3.098E-01	2.554E-02	-0.418
RE-183	8.591E-02		1.162E-01	2.006E-01	1.708E-02	0.428
RE-184	-7.278E-02		2.344E-01	3.823E-01	3.489E-02	-0.190
OS-185	2.143E-02		4.151E-02	7.200E-02	5.949E-03	0.298
RE-188	4.682E-02		1.808E-01	3.082E-01	2.625E-02	0.152
W-188	-4.773E+00		8.562E+00	1.183E+01	1.079E+00	-0.403
IR-192	-3.143E-02		3.630E-02	5.635E-02	5.077E-03	-0.558
AU-195	3.499E-01		2.648E-01	4.187E-01	3.697E-02	0.836
TL-200	-2.490E-04		8.686E-04	Half-Life too short		
TL-201	-1.053E+01		1.137E+01	1.843E+01	1.572E+00	-0.571
TL-202	2.238E-02		8.132E-02	1.335E-01	1.107E-02	0.168
HG-203	4.472E-02		4.343E-02	7.483E-02	7.016E-03	0.598
BI-207	1.165E-02		4.823E-02	8.006E-02	6.940E-03	0.146
TL-207	-3.490E-01		6.959E-01	1.103E+00	1.970E-01	-0.316
PO-209	4.218E+00		7.425E+00	1.279E+01	1.158E+00	0.330
BI-210	-1.830E-01		4.326E+00	6.933E+00	6.545E-01	-0.026
PB-210	-1.830E-01		4.326E+00	6.933E+00	6.545E-01	-0.026
PO-210	-1.830E-01		4.326E+00	6.933E+00	5.944E-01	-0.026
PB-211	2.506E-01		9.965E-01	1.619E+00	1.013E+00	0.155
BI-212	7.402E-01		3.529E-01	6.486E-01	6.428E-02	1.141
PO-215	-3.490E-01		6.959E-01	1.103E+00	1.970E-01	-0.316
RN-219	-1.772E-01		4.116E-01	6.453E-01	9.510E-02	-0.275
RN-220	1.463E+00		2.540E+01	4.291E+01	3.642E+00	0.034
RA-223	-3.490E-01		6.959E-01	1.103E+00	1.970E-01	-0.316
AC-227	-3.968E-01		3.960E-01	6.155E-01	9.629E-02	-0.645
TH-227	-3.968E-01		3.978E-01	6.155E-01	1.127E-01	-0.645
TH-229	2.753E-01		5.012E-01	8.570E-01	7.508E-02	0.321
PA-231	-8.077E-02		1.553E+00	2.552E+00	3.952E-01	-0.032
TH-231	-3.490E-01		6.959E-01	1.103E+00	1.970E-01	-0.316
U-231	-1.337E+00		1.895E+00	2.600E+00	2.326E-01	-0.514
PA-233	-9.495E-04		6.687E-02	1.096E-01	1.015E-02	-0.009
PA-234	-1.453E-02		2.924E-01	4.735E-01	8.970E-02	-0.031
PA-234M	9.350E+00	+	8.319E+00	1.016E+01	1.036E+00	0.920
U-235	1.385E-01		2.191E-01	3.725E-01	6.508E-02	0.372
NP-236	-4.577E-02		8.182E-02	1.352E-01	1.151E-02	-0.339
NP-239	-4.914E-02		1.971E-01	3.097E-01	2.697E-02	-0.159
AM-241	9.782E-02		1.893E-01	2.812E-01	2.317E-02	0.348

Sample ID : G246020004 Acquisition date : 13-FEB-2010 16:26:05

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-3.711E-02		1.021E-01	1.604E-01	1.398E-02	-0.231
AM-246	-7.473E-02		1.463E-01	2.225E-01	1.914E-02	-0.336
CM-247	-3.418E-02		3.856E-02	5.855E-02	4.749E-03	-0.584
CF-249	2.335E-02		3.982E-02	6.701E-02	5.436E-03	0.348
CF-251	1.543E-01		1.296E-01	2.263E-01	1.948E-02	0.682

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020004           *
* Acquisition date  : 13-FEB-2010 16:26:05 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.26      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020004           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.5070E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.199E+01	2.422E+00	2.425E-01	1.236E+00
CD-109	2.535E+00	1.057E+00	7.480E-01	5.392E-01
SN-126	2.484E-01	1.035E-01	7.368E-02	5.283E-02
BA-137M	1.229E-01	6.575E-02	3.058E-02	3.355E-02
CS-137	1.299E-01	6.951E-02	3.233E-02	3.546E-02
TL-208	4.337E-01	7.605E-02	2.913E-02	3.880E-02
BI-211	3.673E+00	5.193E-01	1.703E-01	2.650E-01
PB-212	1.341E+00	1.706E-01	4.884E-02	8.705E-02
PO-212	1.341E+00	1.706E-01	4.884E-02	8.705E-02
BI-214	1.251E+00	2.026E-01	5.651E-02	1.034E-01
PB-214	1.278E+00	1.921E-01	5.949E-02	9.802E-02
PO-214	1.278E+00	1.921E-01	5.949E-02	9.802E-02
PO-216	1.341E+00	1.706E-01	4.884E-02	8.705E-02
PO-218	1.278E+00	1.921E-01	5.949E-02	9.802E-02
RA-224	3.247E+00	1.119E+00	5.558E-01	5.709E-01
RA-226	1.251E+00	2.026E-01	5.651E-02	1.034E-01
AC-228	1.415E+00	3.411E-01	9.709E-02	1.740E-01
RA-228	1.415E+00	3.411E-01	9.709E-02	1.740E-01
TH-228	1.364E+00	1.736E-01	4.968E-02	8.855E-02
TH-230	1.251E+00	2.026E-01	5.651E-02	1.034E-01
TH-232	1.415E+00	3.411E-01	9.709E-02	1.740E-01
TH-234	7.817E+00	2.512E+00	1.198E+00	1.281E+00
U-234	1.251E+00	2.026E-01	5.651E-02	1.034E-01
NP-237	7.294E-01	3.379E-01	2.420E-01	1.724E-01
U-238	7.817E+00	2.512E+00	1.198E+00	1.281E+00
AM-243	3.623E-01	9.675E-02	5.089E-02	4.936E-02
ANH-511	1.205E-01	7.016E-02	2.471E-02	3.579E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-3.278E-01	3.502E-01	2.754E-01	1.787E-01	NOT IDENT.
NA-22	5.537E-03	3.891E-02	3.403E-02	1.985E-02	NOT IDENT.
NA-24	-7.925E+06	7.035E+06	0.000E+00	3.589E+06	SHORT HLIF
AL-26	5.004E-04	2.491E-02	2.083E-02	1.271E-02	NOT IDENT.
TI-44	3.740E-01	6.026E-02	4.429E-02	3.074E-02	FAIL ABUN
SC-46	-1.434E-02	3.617E-02	2.945E-02	1.845E-02	FAIL ABUN
V-48	3.822E-02	8.310E-02	7.303E-02	4.240E-02	NOT IDENT.
CR-51	7.593E-02	3.812E-01	3.374E-01	1.945E-01	NOT IDENT.
MN-52	-9.463E-02	2.715E-01	2.186E-01	1.385E-01	NOT IDENT.
MN-54	6.758E-03	3.541E-02	3.083E-02	1.807E-02	NOT IDENT.
CO-56	2.458E-02	3.694E-02	3.354E-02	1.884E-02	NOT IDENT.
CO-57	3.425E-02	2.673E-02	2.424E-02	1.364E-02	NOT IDENT.
CO-58	-2.340E-02	3.854E-02	3.113E-02	1.967E-02	NOT IDENT.
FE-59	1.949E-03	1.008E-01	8.430E-02	5.144E-02	NOT IDENT.
CO-60	-6.376E-03	3.855E-02	3.242E-02	1.967E-02	NOT IDENT.
ZN-65	2.710E-02	9.369E-02	7.028E-02	4.780E-02	NOT IDENT.
GE-68	-1.520E-01	1.239E+00	1.022E+00	6.322E-01	NOT IDENT.
AS-73	-2.044E-01	9.836E-01	8.847E-01	5.018E-01	NOT IDENT.
AS-74	-2.774E-02	9.122E-02	7.848E-02	4.654E-02	NOT IDENT.
SE-75	-2.119E-02	4.802E-02	3.618E-02	2.450E-02	NOT IDENT.
BR-77	5.036E-01	2.032E+01	1.654E+01	1.037E+01	FAIL ABUN
SR-82	-3.997E-02	4.317E-01	3.692E-01	2.203E-01	NOT IDENT.
RB-83	1.850E-03	7.473E-02	6.082E-02	3.813E-02	NOT IDENT.
RB-84	-3.694E-02	6.933E-02	5.574E-02	3.537E-02	NOT IDENT.
KR-85	1.099E+01	7.577E+00	6.953E+00	3.866E+00	NOT IDENT.
SR-85	5.760E-02	3.971E-02	3.643E-02	2.026E-02	NOT IDENT.
RB-86	3.613E-01	8.230E-01	7.199E-01	4.199E-01	NOT IDENT.
Y-88	-1.487E-03	3.272E-02	2.692E-02	1.670E-02	NOT IDENT.
ZR-88	-1.113E-02	3.172E-02	2.670E-02	1.619E-02	NOT IDENT.
Y-91	3.870E-01	1.740E+01	1.510E+01	8.878E+00	NOT IDENT.
NB-94	-8.425E-03	3.287E-02	2.799E-02	1.677E-02	NOT IDENT.
NB-95	-1.972E-02	4.582E-02	3.823E-02	2.338E-02	NOT IDENT.
NB-95M	9.318E-02	1.325E-01	1.083E-01	6.760E-02	NOT IDENT.
ZR-95	-3.371E-04	7.044E-02	6.081E-02	3.594E-02	NOT IDENT.
NB-97	-3.322E+04	7.771E+05	0.000E+00	3.965E+05	SHORT HLIF
ZR-97	6.146E+06	1.515E+07	0.000E+00	7.731E+06	SHORT HLIF
MO-99	-1.728E+01	1.832E+01	1.431E+01	9.345E+00	NOT IDENT.
TC-99M	-1.108E+19	1.170E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.065E-02	3.128E-02	2.701E-02	1.596E-02	NOT IDENT.
RH-102	1.906E-02	3.035E-02	2.687E-02	1.548E-02	NOT IDENT.
RU-103	-1.809E-02	4.296E-02	3.506E-02	2.192E-02	FAIL ABUN
RH-106	-2.474E-01	3.002E-01	2.445E-01	1.531E-01	FAIL ABUN
RU-106	-2.474E-01	2.992E-01	2.445E-01	1.526E-01	FAIL ABUN
AG-108M	7.474E-03	3.315E-02	2.878E-02	1.692E-02	NOT IDENT.
AG-110M	-8.092E-04	3.667E-02	2.777E-02	1.871E-02	NOT IDENT.
IN-111	-3.860E-01	2.028E+00	1.571E+00	1.035E+00	NOT IDENT.
IN-113M	-7.149E-03	4.574E-02	3.902E-02	2.334E-02	NOT IDENT.
SN-113	-7.149E-03	4.574E-02	3.902E-02	2.334E-02	NOT IDENT.
IN-114M	-3.951E-02	2.078E-01	1.643E-01	1.060E-01	NOT IDENT.
CD-115	-7.793E+00	1.959E+01	1.693E+01	9.994E+00	NOT IDENT.
SN-117M	-5.353E-02	6.205E-02	5.506E-02	3.166E-02	NOT IDENT.
SB-122	3.900E+00	3.416E+00	3.239E+00	1.743E+00	NOT IDENT.
I-123	-5.664E+07	7.983E+07	0.000E+00	4.073E+07	SHORT HLIF
TE-123M	-2.062E-02	2.906E-02	2.594E-02	1.483E-02	NOT IDENT.
I-124	5.656E-01	1.001E+00	8.099E-01	5.107E-01	NOT IDENT.
SB-124	7.163E-03	6.654E-02	5.702E-02	3.395E-02	FAIL ABUN
SB-125	9.017E-02	9.406E-02	8.537E-02	4.799E-02	NOT IDENT.
TE-125M	3.165E+00	9.920E+00	8.760E+00	5.061E+00	NOT IDENT.
I-126	-7.589E-02	2.331E-01	1.704E-01	1.189E-01	NOT IDENT.
SB-126	-7.973E-02	1.528E-01	1.266E-01	7.798E-02	FAIL ABUN
SB-127	1.273E+00	1.875E+00	1.716E+00	9.565E-01	NOT IDENT.
XE-127	1.434E-02	4.904E-02	4.477E-02	2.502E-02	NOT IDENT.
I-131	5.351E-02	1.321E-01	1.174E-01	6.740E-02	NOT IDENT.
TE-132	1.026E+00	1.046E+00	9.651E-01	5.337E-01	NOT IDENT.
BA-133	1.692E-02	4.418E-02	3.472E-02	2.254E-02	NOT IDENT.
I-133	-1.347E+04	2.960E+04	0.000E+00	1.510E+04	SHORT HLIF
CS-134	5.809E-02	5.021E-02	4.619E-02	2.562E-02	NOT IDENT.
CS-135	1.654E-01	1.681E-01	1.389E-01	8.577E-02	NOT IDENT.
I-135	4.756E+17	9.569E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.218E-02	1.086E-01	8.574E-02	5.540E-02	FAIL ABUN
CE-139	-3.689E-03	3.020E-02	2.750E-02	1.541E-02	NOT IDENT.
BA-140	-1.865E-01	2.677E-01	2.191E-01	1.366E-01	NOT IDENT.
LA-140	-2.503E-02	9.338E-02	7.337E-02	4.764E-02	NOT IDENT.
CE-141	1.181E-01	6.592E-02	6.356E-02	3.363E-02	NOT IDENT.
CE-143	1.171E+03	5.078E+02	0.000E+00	2.591E+02	SHORT HLIF
CE-144	-1.267E-02	2.134E-01	1.835E-01	1.089E-01	NOT IDENT.
PM-144	9.000E-03	3.480E-02	3.084E-02	1.775E-02	NOT IDENT.
PR-144	6.106E-01	2.361E+00	2.092E+00	1.204E+00	NOT IDENT.

PM-146	3.185E-02	4.502E-02	4.012E-02	2.297E-02	NOT IDENT.
ND-147	-7.904E-02	6.032E-01	5.314E-01	3.078E-01	FAIL ABUN
PM-149	6.191E+01	1.688E+02	1.515E+02	8.611E+01	NOT IDENT.
EU-152	7.776E-02	1.085E-01	8.737E-02	5.538E-02	NOT IDENT.
GD-153	2.633E-02	9.684E-02	7.617E-02	4.941E-02	NOT IDENT.
EU-154	5.226E-02	1.059E-01	9.604E-02	5.403E-02	NOT IDENT.
EU-155	7.064E-02	1.093E-01	9.791E-02	5.577E-02	FAIL ABUN
TB-160	5.610E-02	1.347E-01	1.194E-01	6.872E-02	FAIL ABUN
HO-166M	-2.661E-03	5.663E-02	4.897E-02	2.889E-02	NOT IDENT.
TM-171	4.785E+00	3.217E+01	2.589E+01	1.641E+01	NOT IDENT.
LU-176	3.054E-03	2.551E-02	2.179E-02	1.302E-02	FAIL ABUN
LU-177	2.983E+00	1.873E+00	1.341E+00	9.557E-01	FAIL ABUN
LU-177M	-1.294E-01	1.841E-01	1.504E-01	9.391E-02	NOT IDENT.
HF-181	2.639E-02	4.227E-02	3.753E-02	2.157E-02	NOT IDENT.
W-181	2.999E-01	4.452E-01	3.666E-01	2.271E-01	NOT IDENT.
TA-182	-1.294E-01	1.930E-01	1.568E-01	9.849E-02	FAIL ABUN
RE-183	8.591E-02	1.138E-01	1.067E-01	5.808E-02	FAIL ABUN
RE-184	-7.278E-02	2.297E-01	2.012E-01	1.172E-01	NOT IDENT.
OS-185	2.143E-02	4.068E-02	3.704E-02	2.075E-02	NOT IDENT.
RE-188	4.682E-02	1.772E-01	1.642E-01	9.042E-02	NOT IDENT.
W-188	-4.773E+00	8.391E+00	6.207E+00	4.281E+00	FAIL ABUN
IR-192	-3.143E-02	3.557E-02	2.951E-02	1.815E-02	FAIL ABUN
AU-195	3.499E-01	2.595E-01	2.253E-01	1.324E-01	FAIL ABUN
TL-200	-2.490E+02	1.702E+03	0.000E+00	8.686E+02	SHORT HLIF
TL-201	-1.053E+01	1.114E+01	9.799E+00	5.683E+00	NOT IDENT.
TL-202	2.238E-02	7.969E-02	6.936E-02	4.066E-02	NOT IDENT.
HG-203	4.472E-02	4.256E-02	3.930E-02	2.171E-02	NOT IDENT.
BI-207	1.165E-02	4.726E-02	4.067E-02	2.411E-02	FAIL ABUN
TL-207	-3.490E-01	6.820E-01	5.773E-01	3.479E-01	FAIL ABUN
PO-209	4.218E+00	7.277E+00	6.524E+00	3.713E+00	NOT IDENT.
BI-210	-1.830E-01	4.239E+00	3.795E+00	2.163E+00	NOT IDENT.
PB-210	-1.830E-01	4.239E+00	3.795E+00	2.163E+00	NOT IDENT.
PO-210	-1.830E-01	4.239E+00	3.795E+00	2.163E+00	NOT IDENT.
PB-211	2.506E-01	9.766E-01	8.425E-01	4.983E-01	NOT IDENT.
BI-212	7.402E-01	3.459E-01	3.327E-01	1.765E-01	NOT IDENT.
PO-215	-3.490E-01	6.820E-01	5.773E-01	3.479E-01	FAIL ABUN
RN-219	-1.772E-01	4.034E-01	3.359E-01	2.058E-01	FAIL ABUN
RN-220	1.463E+00	2.489E+01	2.217E+01	1.270E+01	NOT IDENT.
RA-223	-3.490E-01	6.820E-01	5.773E-01	3.479E-01	FAIL ABUN
AC-227	-3.968E-01	3.881E-01	3.240E-01	1.980E-01	FAIL ABUN
TH-227	-3.968E-01	3.899E-01	3.240E-01	1.989E-01	FAIL ABUN
TH-229	2.753E-01	4.912E-01	4.540E-01	2.506E-01	FAIL ABUN
PA-231	-8.077E-02	1.522E+00	1.340E+00	7.765E-01	FAIL ABUN
TH-231	-3.490E-01	6.820E-01	5.773E-01	3.479E-01	FAIL ABUN
U-231	-1.337E+00	1.857E+00	1.400E+00	9.476E-01	FAIL ABUN
PA-233	-9.495E-04	6.553E-02	5.741E-02	3.343E-02	FAIL ABUN
PA-234	-1.453E-02	2.866E-01	2.413E-01	1.462E-01	FAIL ABUN
PA-234M	9.350E+00	8.153E+00	5.169E+00	4.160E+00	FAIL ABUN
U-235	1.385E-01	2.147E-01	1.987E-01	1.095E-01	FAIL ABUN
NP-236	-4.577E-02	8.018E-02	7.194E-02	4.091E-02	NOT IDENT.
NP-239	-4.914E-02	1.932E-01	1.660E-01	9.855E-02	FAIL ABUN
AM-241	9.782E-02	1.856E-01	1.531E-01	9.467E-02	NOT IDENT.
CM-243	-3.711E-02	1.001E-01	8.623E-02	5.105E-02	FAIL ABUN
AM-246	-7.473E-02	1.433E-01	1.130E-01	7.314E-02	NOT IDENT.
CM-247	-3.418E-02	3.779E-02	3.048E-02	1.928E-02	NOT IDENT.
CF-249	2.335E-02	3.902E-02	3.491E-02	1.991E-02	NOT IDENT.
CF-251	1.543E-01	1.270E-01	1.202E-01	6.482E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	300.9467
46.50	300.9467
46.50	300.9467
48.70	314.6761
49.72	312.2430
51.35	333.9505
52.39	336.7134
52.97	351.6198
53.15	351.7430
53.44	351.9430
54.07	330.5456
56.28	364.3050
56.28	364.3067
57.37	0.0000
57.53	388.1826
57.53	388.1840
57.60	388.2331
57.98	389.5548
57.98	389.5548
59.32	384.2211
59.32	384.2211
59.40	384.2769
59.54	362.3213
59.72	362.4406
60.01	351.5952
61.10	391.7837
61.14	391.8116
61.30	391.9247
63.00	402.6232
63.29	402.8291
63.29	402.8291
63.58	403.0350
64.28	395.5857
65.12	420.0284
65.20	420.0869
65.20	420.0869
66.05	415.9210
66.72	394.0614
66.83	442.0077
66.91	442.0668
67.20	466.2349
67.20	466.2349
67.75	465.0712
67.85	485.9310
68.90	432.3457
68.90	432.3457
69.30	434.2364
69.67	426.4885
70.82	483.5217
70.82	483.5217
70.83	483.5286
72.80	539.8767
72.87	539.9380
72.87	539.9380
74.67	490.3109
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74.81	490.4219
74.81	490.4219
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74.81	490.4219
74.81	490.4219
74.97	490.5446
75.28	490.7876
75.70	491.1116
77.11	492.1993
77.11	492.1993

77.11	492.1993
77.11	492.1993
77.11	492.1993
77.11	492.1993
77.11	492.1993
78.38	468.2417
79.62	496.8257
79.80	488.8161
79.80	488.8161
80.11	489.0472
80.18	489.0976
80.30	525.0605
80.30	525.0605
80.57	525.2767
81.00	581.1183
81.07	581.1808
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81.07	581.1808
81.07	581.1808
82.60	520.3395
83.37	430.8363
83.78	514.6963
83.78	514.6963
83.78	514.6963
83.78	514.6963
84.21	539.6276
84.90	543.4585
85.43	535.6670
86.29	628.4703
86.50	628.6627
86.54	628.6976
86.59	655.0791
86.72	655.2036
86.79	655.2674
86.94	655.4101
87.30	516.2546
87.30	516.2546
87.30	516.2546
87.30	516.2546
87.30	516.2546
87.30	516.2546
87.30	516.2546
87.57	516.4554
87.88	516.6849
88.03	516.7973
88.36	517.0411
88.47	517.1224
89.95	518.2149
91.11	519.0635
92.29	519.9194
92.38	519.9863
92.38	519.9863
93.35	520.6867
94.00	521.1529
94.67	361.2572
94.67	361.2589
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94.90	401.3406
94.90	401.3406
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98.44	391.5562
98.88	360.3096
99.55	350.8000
99.55	350.8000
99.86	335.2966
100.00	335.3592
100.10	362.2374
103.18	399.6218
103.76	370.7162
105.00	354.4311
105.31	332.0596
108.00	426.9457
109.28	359.7540

111.00	386.6030
111.00	386.6030
111.76	335.8997
112.95	353.4388
115.19	366.9406
116.30	353.7404
117.00	335.7639
117.00	335.7639
117.66	324.6005
121.11	333.9615
121.62	326.1230
121.78	306.6593
122.06	306.7591
122.32	327.5395
122.32	327.5395
122.32	327.5395
122.32	327.5395
123.07	328.9754
127.23	344.4208
129.76	351.2006
131.20	380.7915
133.02	358.2931
133.54	341.0405
135.34	337.0491
136.00	324.7439
136.25	328.3353
136.48	328.4168
140.51	372.9442
140.51	0.0000
142.18	337.4773
142.65	342.0547
143.76	334.5108
144.24	321.4326
144.24	321.4326
144.24	321.4326
144.24	321.4326
145.22	312.9235
145.44	312.9937
147.16	380.8691
152.43	359.7724
152.70	351.8541
153.22	342.2344
154.21	333.6559
154.21	333.6559
154.21	333.6559
154.21	333.6559
155.03	352.6799
156.02	334.2579
158.56	370.0432
159.00	0.0000
159.00	360.3438
160.31	354.5242
161.27	362.9410
162.32	324.6417
162.64	324.7436
163.35	306.0628
163.89	323.3334
165.85	334.7724
167.43	344.3133
171.28	288.4253
171.86	304.0078
172.10	304.0768
176.55	280.7229
176.60	280.7346
181.06	304.5732
184.41	287.8654
185.71	281.2136
186.00	281.2860
190.27	299.6901
192.34	278.8910
193.63	266.5107
197.04	270.0750
198.01	261.9395
198.60	263.9294
200.40	295.0471
201.83	285.1497
202.84	291.9211
205.31	290.0930

208.36	314.8077
208.81	314.9257
209.75	282.1492
209.75	282.1492
210.97	280.9292
215.65	289.3443
216.55	267.8621
218.09	258.7480
222.10	242.5195
223.80	242.8418
226.40	261.3939
227.00	253.9079
227.08	251.0711
227.20	251.0953
228.16	214.1596
228.18	214.1630
228.18	214.1630
231.56	0.0000
235.69	226.6918
236.00	239.0026
236.00	239.0026
238.63	240.8181
238.63	240.8181
238.63	240.8181
238.63	240.8181
239.00	240.8851
240.98	241.2413
241.98	241.4213
241.98	241.4213
241.98	241.4213
244.69	234.3884
245.39	239.1375
247.94	219.7124
248.90	224.2845
249.79	211.8538
252.40	216.1316
252.85	207.4758
252.85	207.4758
254.15	0.0000
256.20	232.2716
256.20	232.2716
260.50	182.2919
260.90	189.1689
262.80	213.8304
264.65	186.1467
268.24	169.3617
268.79	170.9964
269.46	174.2153
269.46	174.2153
269.46	174.2153
269.46	174.2153
271.23	176.7838
273.65	226.6594
276.40	198.6961
277.35	194.6173
277.60	188.2623
277.60	188.2623
278.00	182.5328
278.60	168.7900
279.20	181.6949
279.53	188.6481
280.46	224.3468
281.68	205.7371
283.67	183.2301
284.30	179.3429
285.00	166.5388
285.90	162.6712
286.10	171.6220
286.10	171.6220
287.40	183.6817
288.45	0.0000
290.67	189.4500
290.80	189.4674
291.72	172.0564
293.26	0.0000
293.70	162.7094
295.21	174.0461
295.21	174.0461

295.21	174.0461
295.96	174.1286
296.50	174.1898
297.23	207.8477
298.57	208.0286
299.80	208.1904
299.80	208.1904
300.09	171.3907
300.09	171.3907
300.09	171.3907
300.09	171.3907
300.12	171.3933
301.29	177.9333
302.84	142.8085
303.76	173.3959
303.91	173.4144
304.40	187.9227
304.40	187.9227
304.84	187.9741
306.84	162.0157
308.46	147.9466
311.98	168.4448
316.51	176.0019
318.01	169.0768
319.02	169.1813
319.41	165.1688
320.08	145.9753
323.87	180.8600
323.87	180.8600
323.87	180.8600
323.87	180.8600
325.23	219.6519
328.77	172.2234
333.44	202.7503
334.20	193.0291
334.20	193.0291
334.30	193.0406
338.28	162.9546
338.28	162.9546
338.28	162.9546
338.28	162.9546
338.32	162.9570
338.32	162.9570
338.32	162.9570
340.50	175.6853
340.57	175.6932
344.27	129.9990
345.85	163.0600
350.59	0.0000
351.07	138.7702
351.92	139.4577
351.92	139.4577
351.92	139.4577
355.39	0.0000
356.01	107.6848
364.48	113.4025
366.43	129.1503
367.43	126.0958
367.94	0.0000
369.80	117.9141
374.96	132.8989
383.85	126.1835
387.95	111.7063
388.63	123.3449
391.69	130.9364
391.69	130.9364
392.90	133.1348
398.62	126.1179
400.65	123.0695
401.10	133.7116
401.81	124.2054
402.60	142.3116
404.84	128.6548
410.95	127.9944
411.60	135.5072
413.65	138.8530
414.70	117.5548
415.30	109.0380

415.76	114.4108
417.63	0.0000
418.52	124.2076
423.70	130.9746
427.08	124.7439
427.89	100.0513
432.53	112.1440
433.93	106.8250
439.47	107.1181
439.56	107.1226
439.89	102.8104
443.98	92.1724
444.90	91.1290
445.03	87.8794
445.03	87.8794
445.03	87.8794
445.03	87.8794
453.90	99.1522
463.38	86.4653
468.07	133.8228
473.00	107.7453
475.06	95.7430
475.35	99.0569
476.78	113.4405
477.59	121.1954
477.96	114.6038
482.03	79.4894
484.57	103.8997
487.03	77.4586
490.36	0.0000
492.35	98.7208
497.08	100.0429
507.63	0.0000
510.53	0.0000
510.84	97.3008
511.00	97.3075
511.85	97.3433
511.85	97.3433
513.99	97.4343
513.99	97.4343
520.41	91.1297
520.65	91.1396
527.90	91.0381
528.96	0.0000
529.64	89.3030
529.87	0.0000
531.02	85.7435
537.32	85.0705
543.00	80.7388
546.56	0.0000
549.76	82.7865
552.65	83.7973
555.20	67.4726
563.23	75.9300
563.90	73.2051
568.70	98.1025
569.32	98.1286
569.50	91.7163
569.67	91.7212
573.80	89.1188
574.00	86.3694
574.64	90.9877
578.91	76.7212
579.30	0.0000
583.14	77.4642
585.48	84.6149
591.81	68.4789
592.07	71.2626
593.00	72.2128
595.88	78.7827
600.56	76.3486
602.52	0.0000
602.71	75.8966
602.71	75.8966
603.60	89.8674
604.41	105.3950
604.70	99.2083
609.31	81.9930

609.31	81.9930
609.31	81.9930
609.31	81.9930
610.33	82.0252
612.46	79.2932
614.37	74.6836
618.01	71.9845
621.84	81.4510
621.84	81.4510
631.29	65.7703
633.02	60.1719
633.10	59.2332
634.78	63.9741
635.90	67.7672
636.97	69.6767
645.85	65.1844
646.12	62.3568
656.30	82.1895
657.75	66.4180
657.90	0.0000
661.65	78.8662
661.65	78.8662
664.57	0.0000
666.33	85.6626
666.33	85.6626
675.00	76.3828
677.61	51.6059
685.20	59.4116
692.80	72.0612
695.00	80.7721
696.49	77.9269
696.49	77.9269
697.00	73.1296
697.49	74.1050
698.33	86.6426
698.50	84.7215
699.00	80.8849
702.63	80.0233
706.10	71.4310
706.58	0.0000
706.67	71.4454
709.31	63.7796
711.68	65.7671
713.82	59.0401
717.42	61.0512
720.50	72.7570
721.93	0.0000
722.20	87.3589
722.78	103.8809
722.78	103.8809
722.89	132.0389
722.95	132.0422
723.30	133.0298
724.18	122.3855
727.18	74.8663
733.00	78.9117
735.90	66.3116
739.58	69.3221
742.81	51.8031
744.21	47.9162
747.13	82.2220
751.79	55.8798
752.31	52.9479
753.82	65.7274
755.35	63.7971
756.15	64.7947
756.87	57.9370
763.93	93.5040
765.79	92.5771
766.42	77.8196
766.84	78.8145
776.49	78.0742
778.00	73.1689
778.57	62.3032
778.89	64.2875
783.80	77.2668
785.46	59.4683
792.07	97.3349

795.84	61.6534
796.30	58.6788
798.80	81.6176
801.93	55.7949
805.60	41.8944
810.29	57.9391
810.76	62.9431
815.85	49.0335
817.79	52.0660
818.51	56.0848
819.60	51.0934
826.30	54.2109
828.27	0.0000
831.60	53.2944
831.96	54.3059
834.83	57.3729
836.80	0.0000
846.75	43.4388
848.13	44.4673
856.28	0.0000
856.80	45.5966
860.37	47.6747
867.32	60.9873
867.82	54.6423
871.10	48.8438
873.19	44.8014
874.81	53.9912
875.33	0.0000
876.40	60.1322
879.36	44.8830
880.27	39.7931
880.51	42.8572
881.50	54.0973
883.24	55.1470
884.67	50.0611
889.25	48.0821
896.60	46.1349
898.02	49.2305
899.00	50.2705
903.28	55.2119
911.07	43.2387
911.07	43.2387
911.07	43.2387
919.63	55.4704
920.93	41.2949
925.00	40.3092
925.24	40.3121
926.50	44.4624
935.52	44.5758
937.48	65.3440
944.10	38.4480
946.00	47.8250
949.00	47.8654
962.29	55.6992
964.01	48.7596
966.15	48.7881
968.20	94.1440
969.11	104.6313
969.11	104.6313
969.11	104.6313
977.42	56.3666
980.50	52.4780
983.50	52.5208
989.30	50.4984
996.32	31.6208
1001.03	52.7673
1001.68	34.8329
1004.76	24.6493
1021.30	0.0000
1024.50	0.0000
1034.80	41.5251
1036.00	46.8639
1037.82	47.9509
1038.57	51.1594
1038.76	0.0000
1045.16	46.9756
1046.59	51.2648
1048.07	43.8047

1050.47	44.9019
1050.47	44.9019
1062.04	46.1053
1063.62	37.5430
1076.63	40.8964
1077.35	48.4387
1078.86	53.8403
1085.78	53.9331
1099.22	56.2783
1112.02	45.8404
1112.84	44.9888
1115.52	41.6538
1120.29	48.9551
1120.29	48.9551
1120.29	48.9551
1120.29	48.9551
1120.51	48.9595
1121.28	38.0864
1124.00	0.0000
1129.67	50.1575
1131.51	0.0000
1147.95	0.0000
1167.94	46.7687
1173.22	65.1902
1175.09	53.2776
1177.93	56.0706
1189.05	55.2954
1204.90	49.0233
1205.75	0.0000
1213.00	56.5297
1221.42	65.9211
1230.97	57.6911
1235.34	68.9263
1236.41	0.0000
1238.25	57.7869
1246.25	48.5532
1260.41	0.0000
1271.85	42.2571
1274.45	30.0677
1274.54	34.7658
1291.56	37.7262
1298.22	0.0000
1312.09	31.2625
1325.50	29.4523
1325.50	29.4523
1332.49	34.2539
1333.61	35.2144
1360.21	35.4132
1362.66	0.0000
1365.15	26.8265
1368.21	32.5958
1368.53	0.0000
1376.25	23.0479
1384.27	31.7432
1394.10	21.2051
1395.20	24.1018
1407.95	19.3319
1434.06	22.3505
1436.60	21.3895
1457.56	0.0000
1460.81	17.5847
1489.15	16.7012
1509.49	28.6023
1596.49	20.7821
1620.62	13.0926
1678.03	0.0000
1691.02	10.1994
1691.02	10.1994
1706.46	0.0000
1750.46	0.0000
1764.49	12.3960
1764.49	12.3960
1764.49	12.3960
1764.49	12.3960
1770.23	1.7726
1771.40	47.5741
1791.20	0.0000
1808.65	8.3262

1836.01 11.5004

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020004

Total Uranium Activity	2.3320E+01	ug/g
Total Uranium Counting Unc.	7.4730E+00	ug/g
Total Uranium Tpu	3.8128E-06	ug/g
Total Uranium Mda	3.5648E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID   : G246020004      *
*   ANALYST       : MXR1                      DETECTOR    : GAM01           *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME  :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:26:05.06    SAMPLE ALQT:  150.700 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.364E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.076E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 2.821E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.369E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:27:32.41

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020005.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:26:36
Sample ID         : G246020005           Sample quantity  : 1.28140E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.34  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.34*	118	434	0.95	126.71	123	9	1.64E-02	33.4	
2	2	74.79	317	403	1.11	149.61	145	15	4.41E-02	11.9	9.41E-01
3	2	77.12	481	324	1.02	154.27	145	15	6.68E-02	7.7	
4	0	87.09	212	369	0.90	174.23	171	7	2.94E-02	16.5	
5	0	92.92*	479	502	1.38	185.89	182	10	6.66E-02	10.2	
6	0	128.84	78	409	0.72	257.74	254	9	1.08E-02	48.0	
7	0	185.87*	207	315	1.25	371.80	367	10	2.87E-02	17.9	
8	0	209.01	124	367	1.24	418.08	413	12	1.73E-02	32.1	
9	5	238.59*	1257	170	1.15	477.26	471	19	1.75E-01	3.4	1.17E+00
10	5	241.58*	297	214	1.86	483.23	471	19	4.12E-02	14.3	
11	0	270.16	109	222	1.84	540.40	535	11	1.52E-02	28.1	
12	0	294.90	341	249	1.01	589.88	584	12	4.73E-02	10.7	
13	0	300.05	83	118	1.16	600.18	597	7	1.16E-02	24.4	
14	0	327.80	103	179	1.62	655.69	650	11	1.44E-02	27.0	
15	0	338.17*	249	140	1.23	676.42	672	10	3.46E-02	11.0	
16	0	351.89*	513	176	1.15	703.87	699	11	7.12E-02	6.8	
17	0	462.79	73	86	1.09	925.67	921	9	1.02E-02	25.6	
18	0	511.10*	100	177	2.15	1022.29	1014	20	1.39E-02	36.8	
19	0	583.15*	374	83	1.17	1166.39	1161	12	5.20E-02	7.2	
20	0	609.26*	411	104	1.34	1218.62	1213	12	5.71E-02	7.1	
21	0	727.34	102	85	1.42	1454.77	1448	15	1.42E-02	21.8	
22	0	796.28	54	81	4.39	1592.64	1585	17	7.48E-03	40.6	
23	0	860.61	59	61	1.62	1721.29	1713	12	8.20E-03	29.3	
24	0	911.23*	272	65	1.53	1822.53	1814	15	3.78E-02	9.0	
25	0	965.01	56	63	1.99	1930.08	1920	14	7.78E-03	32.9	
26	0	968.87*	150	51	1.89	1937.79	1934	10	2.09E-02	12.3	
27	0	1120.16*	128	76	2.02	2240.34	2231	20	1.78E-02	17.7	
28	0	1407.67*	37	16	1.60	2815.24	2808	16	5.08E-03	30.1	
29	0	1460.62*	1437	21	1.93	2921.13	2914	14	2.00E-01	2.7	
30	0	1729.53	19	9	0.75	3458.79	3452	12	2.65E-03	38.9	
31	0	1764.28*	63	4	2.72	3528.28	3521	15	8.78E-03	15.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:27:35

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:26:36
Sample ID : G246020005 Sample quantity : 128.14 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.34 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.670E+01	3.293E+00	6.424E-01	4.565E-02	57.134
CD-109	+	88.03	*	3.423E+00	1.202E+00	1.466E+00	1.762E-01	2.335
SN-126	+	64.28		1.740E+00	1.199E+00	1.120E+00	1.930E-01	1.553
	+	86.94		1.394E+00	7.469E-01	6.263E-01	2.642E-01	2.226
	+	87.57	*	3.354E-01	1.178E-01	1.497E-01	1.795E-02	2.240
TL-208		277.35		2.690E-01	3.830E-01	6.654E-01	7.353E-02	0.404
	+	510.84		4.974E-01	3.691E-01	2.107E-01	2.114E-02	2.361
	+	583.14	*	5.303E-01	8.381E-02	6.278E-02	3.950E-03	8.447
	+	860.37		7.962E-01	4.718E-01	5.011E-01	4.180E-02	1.589
BI-211		72.87		2.736E+00	3.991E+00	6.200E+00	7.108E-01	0.441
	+	351.07	*	3.201E+00	4.834E-01	3.219E-01	2.174E-02	9.944
PB-212	+	74.81		2.389E+00	6.703E-01	6.261E-01	9.255E-02	3.816
	+	77.11		1.991E+00	3.811E-01	3.456E-01	3.965E-02	5.762
	+	87.30		1.551E+00	5.664E-01	6.925E-01	1.080E-01	2.240
	+	238.63	*	1.710E+00	1.793E-01	8.971E-02	7.205E-03	19.065
	+	300.09		1.755E+00	8.716E-01	1.275E+00	1.123E-01	1.376
PO-212	+	74.81		2.389E+00	6.703E-01	6.261E-01	9.255E-02	3.816
	+	77.11		1.991E+00	3.811E-01	3.456E-01	3.965E-02	5.762
	+	87.30		1.551E+00	5.664E-01	6.925E-01	1.080E-01	2.240
		115.19		2.347E-01	3.565E+00	5.891E+00	4.433E-01	0.040
	+	238.63	*	1.710E+00	1.793E-01	8.971E-02	7.205E-03	19.065
	+	300.09		1.755E+00	8.716E-01	1.275E+00	1.123E-01	1.376
BI-214	+	609.31	*	1.098E+00	1.759E-01	1.184E-01	8.703E-03	9.270
	+	1120.29		1.829E+00	6.700E-01	5.235E-01	4.877E-02	3.494
	+	1764.49		1.230E+00	3.767E-01	2.610E-01	1.591E-02	4.711
PB-214	+	74.81		4.117E+00	1.131E+00	1.079E+00	1.471E-01	3.816
	+	77.11		3.414E+00	7.032E-01	5.925E-01	8.159E-02	5.762
	+	87.30		2.658E+00	9.554E-01	1.186E+00	1.689E-01	2.240
	+	241.98		2.428E+00	7.267E-01	5.404E-01	4.708E-02	4.492
	+	295.21		1.258E+00	2.930E-01	2.145E-01	1.948E-02	5.864
	+	351.92	*	1.113E+00	1.779E-01	1.132E-01	9.659E-03	9.832
PO-214	+	74.81		4.117E+00	1.131E+00	1.079E+00	1.471E-01	3.816
	+	77.11		3.414E+00	7.032E-01	5.925E-01	8.159E-02	5.762
	+	87.30		2.658E+00	9.554E-01	1.186E+00	1.689E-01	2.240

Sample ID : G246020005 Acquisition date : 13-FEB-2010 16:26:36

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.428E+00	7.267E-01	5.404E-01	4.708E-02	4.492
	+	295.21		1.258E+00	2.930E-01	2.145E-01	1.948E-02	5.864
	+	351.92	*	1.113E+00	1.779E-01	1.132E-01	9.659E-03	9.832
PO-216	+	74.81		2.389E+00	6.703E-01	6.261E-01	9.255E-02	3.816
	+	77.11		1.991E+00	3.811E-01	3.456E-01	3.965E-02	5.762
	+	87.30		1.551E+00	5.664E-01	6.925E-01	1.080E-01	2.240
	+	238.63	*	1.710E+00	1.793E-01	8.971E-02	7.205E-03	19.065
	+	300.09		1.755E+00	8.716E-01	1.275E+00	1.123E-01	1.376
PO-218	+	74.81		4.117E+00	1.131E+00	1.079E+00	1.471E-01	3.816
	+	77.11		3.414E+00	7.032E-01	5.925E-01	8.159E-02	5.762
	+	87.30		2.658E+00	9.554E-01	1.186E+00	1.689E-01	2.240
	+	241.98		2.428E+00	7.267E-01	5.404E-01	4.708E-02	4.492
	+	295.21		1.258E+00	2.930E-01	2.145E-01	1.948E-02	5.864
	+	351.92	*	1.113E+00	1.779E-01	1.132E-01	9.659E-03	9.832
RA-224	+	240.98	*	4.604E+00	1.354E+00	1.021E+00	6.808E-02	4.508
RA-226	+	609.31	*	1.098E+00	1.759E-01	1.184E-01	8.703E-03	9.270
	+	1120.29		1.829E+00	6.700E-01	5.235E-01	4.877E-02	3.494
	+	1764.49		1.230E+00	3.767E-01	2.610E-01	1.591E-02	4.711
AC-228	+	338.32		1.715E+00	7.960E-01	3.663E-01	1.496E-01	4.681
	+	911.07	*	1.741E+00	3.662E-01	2.168E-01	2.363E-02	8.034
	+	969.11		1.703E+00	5.748E-01	3.885E-01	8.960E-02	4.384
RA-228	+	338.32		1.715E+00	7.960E-01	3.663E-01	1.496E-01	4.681
	+	911.07	*	1.741E+00	3.662E-01	2.168E-01	2.363E-02	8.034
	+	969.11		1.703E+00	5.748E-01	3.885E-01	8.960E-02	4.384
TH-228	+	74.81		2.431E+00	6.435E-01	6.369E-01	7.329E-02	3.816
	+	77.11		2.026E+00	3.877E-01	3.516E-01	4.033E-02	5.762
	+	87.30		1.578E+00	5.541E-01	7.044E-01	8.433E-02	2.240
	+	238.63	*	1.740E+00	1.824E-01	9.126E-02	7.329E-03	19.065
	+	300.09		1.785E+00	1.368E+00	1.297E+00	7.656E-01	1.376
TH-230	+	609.31	*	1.098E+00	1.759E-01	1.184E-01	8.703E-03	9.270
	+	1120.29		1.829E+00	6.700E-01	5.235E-01	4.877E-02	3.494
	+	1764.49		1.230E+00	3.767E-01	2.610E-01	1.591E-02	4.711
TH-232	+	338.32		1.715E+00	3.934E-01	3.663E-01	2.303E-02	4.681
	+	911.07	*	1.741E+00	3.662E-01	2.168E-01	2.363E-02	8.034
	+	969.11		1.703E+00	5.748E-01	3.885E-01	8.960E-02	4.384
TH-234	+	63.29	*	4.396E+00	3.059E+00	3.013E+00	5.961E-01	1.459
	+	92.38		4.738E+00	1.323E+00	8.948E-01	1.723E-01	5.294
U-234	+	609.31	*	1.098E+00	1.759E-01	1.184E-01	8.703E-03	9.270
	+	1120.29		1.829E+00	6.700E-01	5.235E-01	4.877E-02	3.494
	+	1764.49		1.230E+00	3.767E-01	2.610E-01	1.591E-02	4.711
NP-237	+	86.50	*	9.850E-01	4.012E-01	4.334E-01	1.032E-01	2.273
		95.87		-4.030E-01	1.086E+00	1.579E+00	3.977E-01	-0.255
U-238	+	63.29	*	4.396E+00	3.059E+00	3.013E+00	5.961E-01	1.459
	+	92.38		4.738E+00	1.088E+00	8.948E-01	9.717E-02	5.294
AM-243	+	74.67	*	3.874E-01	1.025E-01	1.020E-01	1.168E-02	3.798
	+	86.72		3.694E+01	1.297E+01	1.665E+01	1.986E+00	2.218
		117.66		-3.794E+00	3.915E+00	6.163E+00	4.499E-01	-0.616
		142.18		-1.756E+01	1.770E+01	2.757E+01	1.803E+00	-0.637
ANH-511	+	511.00	*	1.074E-01	7.922E-02	4.552E-02	2.545E-03	2.360

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.559E-01	3.212E-01	4.890E-01	3.239E-02	-0.523
NA-22		1274.54	*	1.238E-02	4.752E-02	8.148E-02	5.328E-03	0.152
NA-24		1368.53	*	-1.201E+00	4.752E-02	Half-Life too short		
AL-26		1129.67		-1.469E+00	2.152E+00	3.014E+00	1.945E-01	-0.487
		1808.65	*	1.932E-02	2.400E-02	4.671E-02	2.770E-03	0.414
TI-44		67.85		-1.979E-02	6.374E-02	9.499E-02	1.105E-02	-0.208
	+	78.38	*	3.675E-01	7.033E-02	8.256E-02	9.494E-03	4.451
SC-46		889.25	*	-3.385E-02	4.417E-02	6.739E-02	5.450E-03	-0.502
	+	1120.51		3.185E-01	1.147E-01	1.438E-01	9.421E-03	2.214
V-48		944.10		-1.131E+00	1.010E+00	1.451E+00	1.160E-01	-0.779
		983.50	*	2.814E-02	8.322E-02	1.404E-01	1.088E-02	0.200
		1312.09		3.016E-03	9.261E-02	1.552E-01	1.045E-02	0.019
CR-51		320.08	*	1.420E-01	3.929E-01	6.704E-01	4.721E-02	0.212
MN-52		744.21		-6.785E-02	3.111E-01	5.097E-01	3.025E-02	-0.133
		848.13		-1.868E+00	8.936E+00	1.448E+01	1.077E+00	-0.129
		935.52		8.464E-02	3.549E-01	5.947E-01	4.783E-02	0.142
		1246.25		5.935E-02	1.006E+01	1.687E+01	1.074E+00	0.004
		1333.61		-1.609E+00	8.007E+00	1.308E+01	8.962E-01	-0.123
		1434.06	*	-5.167E-03	3.313E-01	5.546E-01	3.785E-02	-0.009
MN-54		834.83	*	2.718E-02	3.810E-02	6.676E-02	4.831E-03	0.407
CO-56		846.75	*	-2.378E-02	4.246E-02	6.654E-02	4.937E-03	-0.357
		977.42		-7.497E-02	3.185E+00	5.194E+00	4.045E-01	-0.014
		1037.82		-8.966E-02	3.488E-01	5.525E-01	4.349E-02	-0.162
		1175.09		7.651E-01	2.731E+00	4.506E+00	2.684E-01	0.170
		1238.25		1.897E-01	1.075E-01	2.003E-01	1.333E-02	0.947
		1360.21		-4.792E-01	9.755E-01	1.510E+00	1.035E-01	-0.317
		1771.40		-4.652E-01	2.837E-01	3.039E-01	1.845E-02	-1.531
CO-57		122.06	*	-5.892E-03	2.493E-02	4.054E-02	2.815E-03	-0.145
		136.48		3.407E-02	2.117E-01	3.485E-01	2.592E-02	0.098
CO-58		810.76	*	-1.681E-02	4.217E-02	6.744E-02	4.656E-03	-0.249
FE-59		142.65		-1.148E+00	2.793E+00	4.473E+00	2.924E-01	-0.257
		192.34		6.462E-01	9.621E-01	1.590E+00	1.934E-01	0.406
		1099.22	*	-2.572E-02	1.057E-01	1.673E-01	1.279E-02	-0.154
		1291.56		-1.161E-01	1.437E-01	2.201E-01	1.779E-02	-0.527
CO-60		1173.22		-1.337E-02	5.563E-02	8.762E-02	5.211E-03	-0.153
		1332.49	*	6.131E-03	4.742E-02	8.009E-02	5.488E-03	0.077
ZN-65		1115.52	*	8.720E-02	1.120E-01	1.723E-01	1.140E-02	0.506
GE-68		1077.35	*	9.650E-02	1.488E+00	2.426E+00	1.695E-01	0.040
AS-73		53.44	*	-2.372E-01	1.598E+00	2.674E+00	3.498E-01	-0.089
AS-74		595.88	*	7.913E-02	1.071E-01	1.818E-01	9.599E-03	0.435
		634.78		-1.866E-01	4.238E-01	6.502E-01	3.289E-02	-0.287
SE-75		66.05		3.420E+00	6.737E+00	1.046E+01	1.373E+00	0.327
		96.73		-5.064E-01	8.980E-01	1.292E+00	1.874E-01	-0.392
		121.11		3.798E-02	1.368E-01	2.275E-01	2.283E-02	0.167
		136.00		1.995E-02	3.967E-02	6.622E-02	4.438E-03	0.301
		198.60		1.172E+00	1.902E+00	3.107E+00	2.398E-01	0.377
		264.65	*	1.371E-02	4.685E-02	7.150E-02	4.810E-03	0.192
		279.53		-1.304E-01	1.117E-01	1.768E-01	1.249E-02	-0.737
		303.91		2.023E+00	2.141E+00	3.395E+00	3.399E-01	0.596

Sample ID : G246020005 Acquisition date : 13-FEB-2010 16:26:36

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		-8.122E-02	2.569E-01	4.058E-01	3.654E-02	-0.200
BR-77	+	87.88		1.348E+03	4.732E+02	6.418E+02	7.712E+01	2.100
		200.40		2.083E+02	3.055E+02	5.047E+02	3.293E+01	0.413
	+	239.00		5.020E+02	4.757E+01	7.182E+01	4.786E+00	6.990
		249.79		-4.493E+01	1.156E+02	1.924E+02	1.285E+01	-0.234
		281.68		1.618E+01	1.593E+02	2.699E+02	1.793E+01	0.060
		297.23		2.048E+02	1.563E+02	1.930E+02	1.270E+01	1.061
		303.76		2.044E+02	3.355E+02	5.202E+02	3.406E+01	0.393
		439.47		2.170E+01	2.758E+02	4.547E+02	2.579E+01	0.048
		484.57		-4.908E+01	4.354E+02	7.032E+02	3.968E+01	-0.070
		520.65	*	-5.506E+00	2.026E+01	3.091E+01	1.721E+00	-0.178
		574.64		1.833E+01	4.027E+02	6.501E+02	3.498E+01	0.028
		578.91		1.529E+01	1.800E+02	2.551E+02	1.368E+01	0.060
		585.48		1.386E+03	4.464E+02	7.758E+02	4.135E+01	1.786
		755.35		6.167E+01	2.765E+02	4.703E+02	2.863E+01	0.131
		817.79		1.847E+01	2.623E+02	4.374E+02	3.053E+01	0.042
SR-82		698.33		-3.176E+01	3.716E+01	5.817E+01	3.101E+00	-0.546
		776.49	*	-2.419E-01	4.311E-01	6.835E-01	4.362E-02	-0.354
		1395.20		-7.632E-01	1.150E+01	1.893E+01	1.296E+00	-0.040
RB-83		520.41	*	-5.551E-02	7.568E-02	1.105E-01	6.152E-03	-0.503
		529.64		-6.266E-02	1.204E-01	1.871E-01	1.037E-02	-0.335
		552.65		-8.698E-03	2.120E-01	3.409E-01	1.864E-02	-0.026
RB-84		881.50	*	-3.365E-03	7.499E-02	1.230E-01	9.797E-03	-0.027
KR-85		513.99	*	8.282E+00	7.141E+00	1.251E+01	6.987E-01	0.662
SR-85		513.99	*	4.340E-02	3.742E-02	6.555E-02	3.661E-03	0.662
RB-86		1076.63	*	-5.368E-01	1.004E+00	1.542E+00	1.078E-01	-0.348
Y-88		898.02		-7.483E-03	4.310E-02	6.970E-02	5.767E-03	-0.107
		1836.01	*	-9.836E-04	3.255E-02	5.243E-02	3.059E-03	-0.019
ZR-88		392.90	*	1.383E-02	3.011E-02	5.126E-02	2.885E-03	0.270
Y-91		1204.90	*	1.581E+01	2.435E+01	4.118E+01	2.524E+00	0.384
NB-94		702.63	*	2.683E-02	3.496E-02	6.178E-02	3.328E-03	0.434
		871.10		5.664E-02	3.293E-02	6.269E-02	4.889E-03	0.903
NB-95		765.79	*	-1.183E-02	4.661E-02	7.615E-02	4.746E-03	-0.155
NB-95M		235.69	*	1.105E-01	1.411E-01	2.090E-01	1.715E-02	0.529
ZR-95		724.18		8.610E-02	9.929E-02	1.590E-01	1.073E-02	0.542
		756.15	*	2.937E-04	6.831E-02	1.139E-01	8.295E-03	0.003
NB-97		657.90	*	-1.497E-01	6.831E-02	Half-Life too short		
		1024.50		-2.698E+01	6.831E-02	Half-Life too short		
ZR-97		254.15		2.933E+01	6.831E-02	Half-Life too short		
		355.39		1.992E+00	6.831E-02	Half-Life too short		
		507.63	*	1.822E+01	6.831E-02	Half-Life too short		
		602.52		-2.395E+01	6.831E-02	Half-Life too short		
		1021.30		-3.062E+01	6.831E-02	Half-Life too short		
		1147.95		-1.768E+01	6.831E-02	Half-Life too short		
		1362.66		1.899E+01	6.831E-02	Half-Life too short		
		1750.46		9.312E+00	6.831E-02	Half-Life too short		
MO-99		140.51		4.740E+00	4.404E+01	7.144E+01	1.938E+01	0.066
		181.06		-8.333E+00	3.167E+01	4.460E+01	7.744E+00	-0.187
		366.43		1.072E+02	1.413E+02	2.453E+02	1.467E+01	0.437

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	-9.843E+00	1.805E+01	2.851E+01	3.937E+00	-0.345
		778.00		1.570E+01	6.304E+01	1.069E+02	6.847E+00	0.147
TC-99M		140.51	*	1.241E+12	6.304E+01	Half-Life too short		
RH-101		127.23		3.184E-02	3.464E-02	5.336E-02	3.624E-03	0.597
		198.01	*	2.516E-02	3.527E-02	5.787E-02	3.768E-03	0.435
		325.23		-1.162E-01	2.667E-01	3.798E-01	2.431E-02	-0.306
RH-102		418.52		-8.012E-02	2.903E-01	4.684E-01	2.652E-02	-0.171
		475.06	*	-4.170E-03	2.816E-02	4.538E-02	2.566E-03	-0.092
		631.29		2.801E-03	5.516E-02	8.851E-02	4.497E-03	0.032
		697.49		-6.555E-02	8.045E-02	1.265E-01	6.730E-03	-0.518
		766.84		1.816E-01	1.164E-01	2.141E-01	1.337E-02	0.848
		1046.59		9.202E-02	1.309E-01	2.265E-01	1.645E-02	0.406
		1112.84		1.641E-01	2.824E-01	4.252E-01	2.820E-02	0.386
RU-103		497.08	*	3.164E-03	4.577E-02	7.478E-02	9.396E-03	0.042
	+	610.33		1.230E+01	2.561E+00	3.067E+00	4.663E-01	4.009
RH-106	+	511.85		5.387E-01	3.972E-01	4.197E-01	2.346E-02	1.284
		621.84	*	2.144E-01	3.364E-01	5.658E-01	6.464E-02	0.379
		1050.47		1.018E-01	2.643E+00	4.309E+00	3.115E-01	0.024
RU-106	+	511.85		5.387E-01	3.972E-01	4.197E-01	2.346E-02	1.284
		621.84	*	2.144E-01	3.356E-01	5.658E-01	2.907E-02	0.379
		1050.47		1.018E-01	2.643E+00	4.309E+00	3.115E-01	0.024
AG-108M		433.93	*	1.405E-02	3.315E-02	5.599E-02	3.460E-03	0.251
		614.37		1.397E-03	4.385E-02	6.143E-02	3.518E-03	0.023
		722.95		-1.200E-02	4.249E-02	5.953E-02	3.664E-03	-0.202
AG-110M		657.75	*	-4.851E-03	3.319E-02	5.523E-02	2.951E-03	-0.088
		677.61		2.401E-01	3.057E-01	5.444E-01	2.980E-02	0.441
		706.67		3.243E-02	2.336E-01	3.952E-01	2.295E-02	0.082
		763.93		-1.673E-01	1.750E-01	2.687E-01	1.758E-02	-0.622
		884.67		-2.220E-03	5.266E-02	8.641E-02	7.182E-03	-0.026
		937.48		-5.216E-02	1.196E-01	1.878E-01	1.571E-02	-0.278
		1384.27		-7.165E-02	1.564E-01	2.428E-01	1.737E-02	-0.295
IN-111		171.28		-1.052E+00	1.575E+00	2.454E+00	1.564E-01	-0.429
		245.39	*	-9.650E-01	1.975E+00	2.661E+00	1.776E-01	-0.363
IN-113M		391.69	*	-3.773E-03	4.344E-02	7.136E-02	4.300E-03	-0.053
SN-113		391.69	*	-3.773E-03	4.344E-02	7.136E-02	4.300E-03	-0.053
IN-114M		190.27	*	-2.383E-02	2.036E-01	2.888E-01	1.869E-02	-0.083
CD-115		260.90		5.046E+00	2.281E+02	3.868E+02	2.583E+01	0.013
		492.35		1.652E+01	7.304E+01	1.208E+02	6.801E+00	0.137
		527.90	*	9.467E+00	2.255E+01	3.764E+01	2.089E+00	0.251
SN-117M		156.02		-1.346E+00	2.470E+00	3.906E+00	2.505E-01	-0.345
		158.56	*	1.146E-02	5.904E-02	9.662E-02	6.180E-03	0.119
SB-122		563.90	*	4.052E+00	3.758E+00	6.540E+00	3.548E-01	0.620
		692.80		2.740E+01	7.062E+01	1.221E+02	6.426E+00	0.224
I-123		159.00	*	1.569E+01	7.062E+01	Half-Life too short		
		528.96		-1.925E+02	7.062E+01	Half-Life too short		
TE-123M		159.00	*	5.710E-03	2.809E-02	4.598E-02	2.972E-03	0.124
I-124		602.71	*	-5.756E-01	1.084E+00	1.516E+00	7.950E-02	-0.380
		722.78		-1.657E+00	6.262E+00	8.797E+00	4.969E-01	-0.188
		1325.50		2.422E+01	5.504E+01	9.600E+01	6.541E+00	0.252

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1376.25		7.359E+01	4.611E+01	8.932E+01	6.120E+00	0.824
		1509.49		3.328E+01	2.310E+01	4.512E+01	3.042E+00	0.738
		1691.02		-1.043E-01	4.199E+00	6.818E+00	4.321E-01	-0.015
SB-124		602.71		-2.432E-02	4.578E-02	6.403E-02	3.360E-03	-0.380
		645.85		7.293E-02	4.814E-01	8.217E-01	4.795E-02	0.089
		709.31		-4.333E-01	3.199E+00	5.214E+00	2.854E-01	-0.083
		713.82		-4.182E-01	1.601E+00	2.619E+00	2.635E-01	-0.160
		722.78		-1.015E-01	3.834E-01	5.386E-01	3.194E-02	-0.188
	+	968.20		1.796E+01	4.643E+00	8.111E+00	6.366E-01	2.214
		1045.16		5.457E-01	2.846E+00	4.711E+00	3.427E-01	0.116
		1325.50		1.584E+00	3.599E+00	6.278E+00	4.277E-01	0.252
		1368.21		-4.037E-01	1.689E+00	2.712E+00	3.368E-01	-0.149
		1436.60		-1.485E+00	4.446E+00	7.133E+00	4.866E-01	-0.208
		1691.02	*	-1.506E-03	6.065E-02	9.846E-02	6.691E-03	-0.015
SB-125		427.89	*	-5.827E-02	9.019E-02	1.410E-01	8.347E-03	-0.413
	+	463.38		7.115E-01	3.672E-01	5.625E-01	3.740E-02	1.265
		600.56		-1.515E-01	1.972E-01	2.963E-01	1.850E-02	-0.511
		635.90		-1.268E-01	3.009E-01	4.626E-01	2.852E-02	-0.274
TE-125M		109.28	*	-3.519E-01	9.435E+00	1.556E+01	1.545E+00	-0.023
I-126		388.63		-5.608E-02	2.127E-01	3.451E-01	1.957E-02	-0.163
		666.33	*	2.651E-02	2.158E-01	3.661E-01	1.806E-02	0.072
		753.82		8.860E-01	1.511E+00	2.650E+00	1.608E-01	0.334
SB-126		223.80		-1.869E+00	4.664E+00	7.255E+00	4.805E-01	-0.258
		278.60		1.788E+00	2.749E+00	4.779E+00	3.178E-01	0.374
		296.50		1.067E+01	2.801E+00	4.005E+00	2.637E-01	2.664
		414.70		4.023E-02	8.416E-02	1.429E-01	8.088E-03	0.281
		415.30		4.226E+00	6.984E+00	1.196E+01	6.766E-01	0.353
		555.20		5.614E+00	4.336E+00	7.737E+00	4.223E-01	0.726
		573.80		-1.260E-01	1.240E+00	1.979E+00	1.065E-01	-0.064
		593.00		-2.626E-01	1.099E+00	1.728E+00	9.146E-02	-0.152
		656.30		-1.408E+00	3.485E+00	5.671E+00	2.787E-01	-0.248
		666.33		1.113E-02	9.059E-02	1.537E-01	7.583E-03	0.072
		675.00		-1.254E+00	2.210E+00	3.543E+00	1.785E-01	-0.354
		695.00		9.254E-02	8.198E-02	1.495E-01	7.906E-03	0.619
		697.00		-8.825E-02	3.078E-01	5.049E-01	2.684E-02	-0.175
		720.50	*	1.742E-01	1.577E-01	2.616E-01	1.470E-02	0.666
		856.80		4.905E-01	5.732E-01	9.136E-01	6.920E-02	0.537
		989.30		8.919E-01	1.536E+00	2.645E+00	2.039E-01	0.337
		1034.80		1.421E+00	1.063E+01	1.753E+01	1.290E+00	0.081
		1213.00		-9.084E-01	6.673E+00	1.059E+01	6.538E-01	-0.086
SB-127		61.10		1.569E+01	1.277E+02	1.957E+02	2.841E+01	0.080
		252.40		1.534E+00	6.137E+00	1.048E+01	4.387E+00	0.146
		290.80		6.426E+00	3.300E+01	4.969E+01	5.177E+00	0.129
		411.60		-7.112E+00	1.731E+01	2.766E+01	4.099E+00	-0.257
		444.90		-4.454E+00	1.431E+01	2.290E+01	2.607E+00	-0.194
		473.00		2.120E+00	2.299E+00	3.999E+00	4.695E-01	0.530
		543.00		-8.852E+00	2.260E+01	3.515E+01	4.687E+00	-0.252
		603.60		-5.145E-01	2.025E+01	2.822E+01	3.146E+00	-0.018
		685.20	*	2.161E+00	1.907E+00	3.469E+00	3.409E-01	0.623

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		-1.771E+01	2.294E+01	3.596E+01	5.321E+00	-0.492
		722.20		1.574E+01	4.300E+01	6.547E+01	6.439E+00	0.240
		783.80		1.851E+00	5.484E+00	9.362E+00	1.094E+00	0.198
XE-127		57.60		-1.303E+00	1.017E+01	1.715E+01	2.147E+00	-0.076
		145.22		8.964E-01	7.081E-01	1.213E+00	7.891E-02	0.739
		172.10		-1.307E-01	1.193E-01	1.813E-01	1.157E-02	-0.721
		202.84	*	-4.537E-02	4.956E-02	7.544E-02	4.931E-03	-0.601
		374.96		-4.837E-02	1.968E-01	3.208E-01	1.881E-02	-0.151
I-131		80.18		-1.774E+00	6.207E+00	9.187E+00	1.067E+00	-0.193
		284.30		3.422E-01	1.770E+00	3.013E+00	2.177E-01	0.114
		364.48	*	-2.131E-02	1.376E-01	2.262E-01	1.510E-02	-0.094
		636.97		1.443E+00	1.986E+00	3.365E+00	1.970E-01	0.429
		722.89		-2.457E+00	8.548E+00	1.197E+01	6.892E-01	-0.205
TE-132		49.72		-1.091E+01	6.398E+01	1.082E+02	1.561E+01	-0.101
		111.76		-2.282E+00	4.601E+01	7.578E+01	8.233E+00	-0.030
		116.30		-7.696E+00	4.284E+01	7.002E+01	7.387E+00	-0.110
		228.16	*	-1.889E-01	1.105E+00	1.738E+00	2.633E-01	-0.109
BA-133		53.15		-9.628E-01	6.876E+00	1.152E+01	1.508E+00	-0.084
		79.62		-4.554E-01	1.452E+00	2.145E+00	3.656E-01	-0.212
		81.00		-1.553E-01	1.189E-01	1.621E-01	2.863E-02	-0.958
		276.40		4.702E-01	3.899E-01	6.678E-01	8.927E-02	0.704
		302.84		2.061E-02	1.498E-01	2.241E-01	2.700E-02	0.092
		356.01	*	9.200E-03	4.724E-02	7.023E-02	8.228E-03	0.131
		383.85		1.982E-02	2.918E-01	4.851E-01	5.259E-02	0.041
I-133	+	510.53		5.714E+00	2.918E-01	Half-Life too short		
		529.87	*	-1.716E-02	2.918E-01	Half-Life too short		
		706.58		3.333E-01	2.918E-01	Half-Life too short		
		856.28		1.890E+00	2.918E-01	Half-Life too short		
		875.33		-3.220E-01	2.918E-01	Half-Life too short		
		1236.41		4.873E+00	2.918E-01	Half-Life too short		
		1298.22		8.083E-01	2.918E-01	Half-Life too short		
CS-134		475.35		-1.952E-01	1.848E+00	2.988E+00	1.689E-01	-0.065
		563.23		4.516E-01	3.885E-01	6.793E-01	3.775E-02	0.665
		569.32		5.076E-02	2.201E-01	3.573E-01	1.996E-02	0.142
		604.70		1.039E-02	3.992E-02	5.740E-02	3.025E-03	0.181
	+	795.84	*	1.113E-01	9.071E-02	9.106E-02	6.137E-03	1.222
		801.93		-3.778E-01	4.918E-01	6.393E-01	4.353E-02	-0.591
		1038.57		-1.025E+00	4.325E+00	6.866E+00	5.033E-01	-0.149
		1167.94		-2.089E-01	3.006E+00	4.809E+00	2.891E-01	-0.043
		1365.15		-2.587E-01	1.113E+00	1.787E+00	1.312E-01	-0.145
CS-135		268.24	*	1.763E-01	1.731E-01	2.750E-01	2.292E-02	0.641
I-135		288.45		2.182E+12	1.731E-01	Half-Life too short		
		417.63		1.431E+12	1.731E-01	Half-Life too short		
		546.56		1.188E+11	1.731E-01	Half-Life too short		
		836.80		4.088E+12	1.731E-01	Half-Life too short		
		1038.76		-2.366E+11	1.731E-01	Half-Life too short		
		1124.00		6.768E+12	1.731E-01	Half-Life too short		
		1131.51		-3.103E+11	1.731E-01	Half-Life too short		
		1260.41	*	2.266E+11	1.731E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1457.56		1.310E+14	1.731E-01	Half-Life too short		
		1678.03		3.722E+11	1.731E-01	Half-Life too short		
		1706.46		-6.157E+11	1.731E-01	Half-Life too short		
		1791.20		8.228E+10	1.731E-01	Half-Life too short		
CS-136		66.91		3.336E-01	1.210E+00	1.857E+00	3.220E-01	0.180
	+	86.29		4.881E+00	1.776E+00	2.388E+00	3.640E-01	2.044
		153.22		3.755E-01	7.254E-01	1.205E+00	9.331E-02	0.312
		163.89		-1.358E-01	1.186E+00	1.910E+00	1.473E-01	-0.071
		176.55		-6.367E-02	3.988E-01	6.379E-01	4.503E-02	-0.100
		273.65		-7.136E-01	5.845E-01	7.963E-01	5.880E-02	-0.896
		340.57		2.120E-01	1.427E-01	2.335E-01	1.543E-02	0.908
		818.51		-3.025E-02	8.875E-02	1.426E-01	9.988E-03	-0.212
		1048.07	*	3.446E-02	1.388E-01	2.308E-01	1.774E-02	0.149
		1235.34		2.053E-01	8.023E-01	1.369E+00	1.408E-01	0.150
BA-137M		661.65	*	-3.826E-02	3.893E-02	6.136E-02	2.992E-03	-0.624
CS-137		661.65	*	-4.045E-02	4.115E-02	6.486E-02	3.182E-03	-0.624
CE-139		165.85	*	-4.259E-05	2.957E-02	4.784E-02	3.040E-03	-0.001
BA-140		162.64		-3.813E-02	8.433E-01	1.363E+00	9.590E-02	-0.028
		304.84		5.393E-01	1.459E+00	2.321E+00	6.372E-01	0.232
		423.70		5.892E-01	2.117E+00	3.534E+00	1.122E+00	0.167
		537.32	*	1.203E-01	2.986E-01	4.942E-01	1.605E-01	0.243
LA-140	+	328.77		9.832E-01	5.359E-01	6.277E-01	4.401E-02	1.566
		432.53		9.781E-01	2.236E+00	3.786E+00	2.381E-01	0.258
		487.03		1.221E-02	1.578E-01	2.584E-01	1.660E-02	0.047
		751.79		-2.046E+00	1.850E+00	2.760E+00	2.013E-01	-0.741
		815.85		1.021E-01	3.671E-01	6.237E-01	5.084E-02	0.164
		867.82		-9.206E-01	1.558E+00	2.416E+00	1.994E-01	-0.381
		919.63		1.915E+00	2.980E+00	5.208E+00	5.339E-01	0.368
		925.24		-1.135E-01	1.218E+00	1.979E+00	1.716E-01	-0.057
		1596.49	*	-2.896E-03	1.026E-01	1.678E-01	1.105E-02	-0.017
CE-141		145.44	*	4.310E-02	6.510E-02	1.090E-01	7.316E-03	0.395
CE-143		57.37		2.199E-03	6.510E-02	Half-Life too short		
		231.56		-2.552E-03	6.510E-02	Half-Life too short		
		293.26	*	1.572E-03	6.510E-02	Half-Life too short		
	+	350.59		7.197E-02	6.510E-02	Half-Life too short		
		490.36		-4.078E-03	6.510E-02	Half-Life too short		
		664.57		3.217E-03	6.510E-02	Half-Life too short		
		721.93		7.948E-04	6.510E-02	Half-Life too short		
CE-144		80.11		-7.153E-01	2.404E+00	3.556E+00	4.108E-01	-0.201
		133.54	*	-2.242E-01	2.377E-01	3.252E-01	4.739E-02	-0.689
PM-144		476.78		-4.598E-02	6.461E-02	9.905E-02	6.756E-03	-0.464
		618.01		-2.863E-02	3.329E-02	4.892E-02	2.715E-03	-0.585
		696.49	*	1.765E-02	3.451E-02	6.010E-02	3.194E-03	0.294
		778.57		8.596E-01	2.469E+00	4.220E+00	2.708E-01	0.204
PR-144		696.49	*	1.197E+00	2.341E+00	4.077E+00	2.164E-01	0.294
		1489.15		-2.445E+00	1.096E+01	1.739E+01	1.177E+00	-0.141
PM-146		453.90	*	3.295E-02	4.381E-02	7.538E-02	6.434E-03	0.437
		633.02		6.396E-01	1.444E+00	2.367E+00	8.690E-01	0.270
		735.90		-4.277E-02	1.350E-01	2.115E-01	5.899E-02	-0.202

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		747.13		7.900E-02	8.918E-02	1.590E-01	2.001E-02	0.497
ND-147		91.11		1.276E+00	4.742E-01	6.350E-01	7.447E-02	2.009
		319.41		-2.479E+00	3.758E+00	6.046E+00	3.899E-01	-0.410
		439.89		9.344E-01	6.866E+00	1.136E+01	6.450E-01	0.082
		531.02	*	-1.568E-01	7.018E-01	1.116E+00	1.496E-01	-0.141
PM-149		285.90	*	-6.570E+01	1.777E+02	2.933E+02	4.265E+01	-0.224
EU-152		121.78		-1.077E-02	7.228E-02	1.180E-01	1.006E-02	-0.091
		244.69		-9.032E-02	3.629E-01	4.993E-01	3.331E-02	-0.181
		344.27	*	-5.004E-02	9.106E-02	1.407E-01	9.740E-03	-0.356
		443.98		-2.227E-01	9.796E-01	1.579E+00	8.957E-02	-0.141
		778.89		8.806E-02	2.753E-01	4.699E-01	3.015E-02	0.187
		867.32		-7.515E-01	8.217E-01	1.225E+00	9.477E-02	-0.614
	+	964.01		7.298E-01	4.836E-01	6.127E-01	4.825E-02	1.191
		1085.78		-8.299E-02	4.394E-01	6.981E-01	4.820E-02	-0.119
		1112.02		2.135E-01	4.107E-01	6.128E-01	4.069E-02	0.348
	+	1407.95		4.684E-01	2.841E-01	4.154E-01	2.842E-02	1.128
GD-153		69.67		-1.555E+00	2.130E+00	3.292E+00	3.802E-01	-0.472
		83.37		2.553E+01	1.719E+01	2.725E+01	3.189E+00	0.937
		97.43	*	2.829E-02	9.163E-02	1.386E-01	1.360E-02	0.204
		103.18		-8.651E-02	1.098E-01	1.756E-01	1.562E-02	-0.493
EU-154		123.07		-4.927E-02	5.124E-02	8.016E-02	8.113E-03	-0.615
		247.94		2.054E-01	3.851E-01	5.982E-01	6.040E-02	0.343
		591.81		-5.798E-01	6.621E-01	9.783E-01	9.280E-02	-0.593
		723.30		-4.468E-02	1.829E-01	2.578E-01	1.795E-02	-0.173
		756.87		1.605E-02	7.466E-01	1.247E+00	1.286E-01	0.013
		873.19		-1.912E-01	3.054E-01	4.709E-01	5.511E-02	-0.406
		996.32		-4.498E-01	4.338E-01	6.262E-01	1.085E-01	-0.718
		1004.76		-2.417E-01	2.390E-01	3.479E-01	3.794E-02	-0.695
		1274.45	*	7.549E-02	1.293E-01	2.282E-01	2.238E-02	0.331
EU-155		48.70		-3.074E+00	5.477E+00	9.086E+00	1.047E+00	-0.338
		60.01		4.487E+00	7.880E+00	1.235E+01	1.500E+00	0.363
	+	86.54		4.043E-01	1.420E-01	1.988E-01	2.381E-02	2.034
		105.31	*	1.067E-01	1.141E-01	1.950E-01	1.700E-02	0.547
TB-160	+	86.79		1.101E+00	3.865E-01	5.434E-01	6.484E-02	2.026
		197.04		-6.604E-02	6.085E-01	9.624E-01	6.263E-02	-0.069
		215.65		-7.799E-02	7.417E-01	1.175E+00	7.750E-02	-0.066
	+	298.57		2.604E-01	1.285E-01	2.142E-01	1.408E-02	1.216
		879.36	*	1.891E-03	1.438E-01	2.374E-01	1.882E-02	0.008
		962.29		4.492E-01	6.382E-01	9.814E-01	7.738E-02	0.458
	+	966.15		5.110E-01	3.386E-01	5.425E-01	4.265E-02	0.942
		1177.93		-1.334E-01	4.884E-01	7.260E-01	4.337E-02	-0.184
		1271.85		6.616E-01	7.758E-01	1.401E+00	9.121E-02	0.472
HO-166M		80.57		-1.917E-01	3.098E-01	4.496E-01	5.202E-02	-0.426
	+	184.41		1.476E-01	5.371E-02	6.292E-02	4.053E-03	2.346
		280.46		-1.316E-01	8.599E-02	1.330E-01	8.836E-03	-0.990
		410.95		6.515E-02	2.379E-01	3.991E-01	2.257E-02	0.163
		711.68	*	3.646E-02	6.048E-02	1.060E-01	5.834E-03	0.344
		752.31		-2.027E-01	2.599E-01	4.017E-01	2.429E-02	-0.505
		810.29		-3.788E-02	6.199E-02	9.711E-02	6.671E-03	-0.390

---- Non-Identified Nuclides ----

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TM-171		51.35		1.674E+00	6.213E+01	1.059E+02	1.371E+01	0.016
		52.39		2.277E+01	3.068E+01	5.309E+01	6.944E+00	0.429
		59.40		3.877E+01	4.381E+01	6.955E+01	8.481E+00	0.557
		66.72	*	1.176E+01	3.952E+01	6.079E+01	7.107E+00	0.193
LU-176	+	88.36		7.956E-01	2.793E-01	3.686E-01	4.393E-02	2.159
		201.83		-3.545E-02	3.013E-02	4.525E-02	2.956E-03	-0.783
		306.84	*	-1.693E-02	2.493E-02	4.022E-02	2.626E-03	-0.421
		401.10		-3.425E+00	6.603E+00	1.027E+01	5.795E-01	-0.333
LU-177		112.95		7.129E-01	1.999E+00	3.346E+00	2.590E-01	0.213
	+	208.36	*	3.714E+00	2.398E+00	2.480E+00	1.628E-01	1.497
LU-177M		52.97		5.989E-01	3.132E+00	5.320E+00	6.965E-01	0.113
		54.07		-9.314E-01	1.591E+00	2.605E+00	3.398E-01	-0.357
		61.30		2.985E-01	2.281E+00	3.496E+00	4.218E-01	0.085
		121.62		7.241E-02	3.709E-01	6.149E-01	4.282E-02	0.118
		147.16		-4.755E-01	6.477E-01	1.019E+00	6.609E-02	-0.467
		171.86		-4.692E-01	4.681E-01	7.157E-01	4.564E-02	-0.656
		218.09		2.472E-01	8.785E-01	1.420E+00	9.374E-02	0.174
	+	268.79		2.302E+00	1.302E+00	1.459E+00	9.728E-02	1.578
		319.02		-2.152E-01	2.628E-01	4.188E-01	2.701E-02	-0.514
		367.43		5.433E-01	9.130E-01	1.570E+00	9.363E-02	0.346
		413.65	*	-7.967E-02	1.788E-01	2.854E-01	1.615E-02	-0.279
HF-181		56.28		-6.569E-01	1.638E+00	2.730E+00	3.480E-01	-0.241
		57.53		1.760E-01	8.409E-01	1.438E+00	1.802E-01	0.122
		65.20		-5.119E-01	1.429E+00	2.129E+00	2.509E-01	-0.240
		133.02		-4.711E-02	7.598E-02	1.070E-01	7.140E-03	-0.440
		136.25		1.034E-01	4.767E-01	7.865E-01	5.208E-02	0.131
		345.85		-6.514E-02	1.976E-01	2.973E-01	1.847E-02	-0.219
		482.03	*	1.450E-02	4.542E-02	7.460E-02	4.212E-03	0.194
W-181		56.28		-2.521E-01	6.273E-01	1.045E+00	1.332E-01	-0.241
		57.53		6.747E-02	3.223E-01	5.510E-01	6.905E-02	0.122
		65.20	*	-1.946E-01	5.434E-01	8.093E-01	9.539E-02	-0.240
TA-182		67.75		-4.328E-02	1.545E-01	2.307E-01	2.684E-02	-0.188
		100.10		4.044E-02	1.860E-01	3.111E-01	2.912E-02	0.130
		152.43		9.572E-03	3.423E-01	5.570E-01	3.588E-02	0.017
		222.10		-2.585E-01	3.635E-01	5.556E-01	3.677E-02	-0.465
		1001.68		2.318E+00	2.356E+00	4.147E+00	3.159E-01	0.559
	+	1121.28		8.756E-01	3.155E-01	3.922E-01	2.566E-02	2.232
		1189.05		1.171E-01	3.850E-01	6.353E-01	3.836E-02	0.184
		1221.42	*	9.856E-02	2.382E-01	4.118E-01	2.563E-02	0.239
		1230.97		4.147E-02	5.370E-01	9.065E-01	5.691E-02	0.046
RE-183		57.98		-4.826E-02	3.238E-01	5.454E-01	6.791E-02	-0.088
		59.32		1.550E-01	1.836E-01	2.911E-01	3.554E-02	0.532
		67.20		1.366E-01	2.778E-01	4.310E-01	5.027E-02	0.317
		162.32	*	6.347E-03	1.118E-01	1.816E-01	1.157E-02	0.035
	+	208.81		2.752E+00	1.777E+00	1.861E+00	1.222E-01	1.479
		291.72		-3.566E-01	1.052E+00	1.523E+00	1.006E-01	-0.234
RE-184		57.98		-1.757E-01	1.179E+00	1.986E+00	2.473E-01	-0.088
		59.32		5.637E-01	6.679E-01	1.059E+00	1.293E-01	0.532
		67.20		4.971E-01	1.011E+00	1.569E+00	1.830E-01	0.317

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		3.026E-01	3.539E-01	5.949E-01	3.795E-02	0.509
		216.55		-1.293E-01	2.679E-01	4.156E-01	2.742E-02	-0.311
		252.85	*	8.209E-02	2.229E-01	3.849E-01	2.570E-02	0.213
		318.01		-3.481E-01	4.556E-01	7.288E-01	4.705E-02	-0.478
		792.07		-1.938E-01	1.036E+00	1.456E+00	9.613E-02	-0.133
		903.28		-3.313E-01	1.204E+00	1.649E+00	1.353E-01	-0.201
		920.93		3.104E-01	4.399E-01	7.733E-01	6.278E-02	0.401
OS-185		59.72		4.022E-01	4.811E-01	7.624E-01	9.275E-02	0.528
		61.14		3.160E-02	2.539E-01	3.891E-01	4.699E-02	0.081
		69.30		-4.374E-01	3.716E-01	5.888E-01	6.807E-02	-0.743
		592.07		-2.877E+00	2.793E+00	4.080E+00	2.162E-01	-0.705
		646.12	*	5.308E-04	4.125E-02	6.962E-02	3.470E-03	0.008
		717.42		-8.377E-01	8.392E-01	1.273E+00	7.101E-02	-0.658
		874.81		-1.616E-01	5.832E-01	9.341E-01	7.339E-02	-0.173
		880.27		-4.137E-01	8.109E-01	1.268E+00	1.007E-01	-0.326
RE-188		155.03	*	1.375E-01	1.703E-01	2.862E-01	1.838E-02	0.480
		477.96		-3.148E+00	3.099E+00	4.628E+00	2.615E-01	-0.680
		633.10		1.357E+00	2.941E+00	4.890E+00	2.479E-01	0.278
W-188	+	63.58		1.804E+02	1.222E+02	1.395E+02	1.660E+01	1.293
		227.08		-6.775E-01	1.353E+01	2.145E+01	1.423E+00	-0.032
		290.67	*	1.456E+00	8.031E+00	1.208E+01	7.987E-01	0.120
IR-192	+	295.96		9.777E-01	2.197E-01	2.907E-01	1.938E-02	3.363
		308.46		7.412E-02	9.507E-02	1.661E-01	1.093E-02	0.446
		316.51	*	-2.031E-03	3.431E-02	5.727E-02	3.718E-03	-0.035
		468.07		-7.086E-02	6.800E-02	9.125E-02	5.992E-03	-0.777
		604.41		9.071E-02	5.569E-01	7.922E-01	8.771E-02	0.115
		612.46		5.691E-01	8.262E-01	1.242E+00	8.838E-02	0.458
AU-195		65.12		-7.514E-02	2.517E-01	3.762E-01	4.436E-02	-0.200
		66.83		4.172E-02	1.312E-01	2.020E-01	2.360E-02	0.207
	+	75.70		1.263E+00	3.342E-01	5.092E-01	5.833E-02	2.481
		98.88	*	3.406E-01	2.363E-01	4.105E-01	3.925E-02	0.830
	+	129.76		4.632E+00	4.458E+00	5.249E+00	3.536E-01	0.882
TL-200		367.94	*	8.114E-04	4.458E+00	Half-Life too short		
		579.30		2.230E-03	4.458E+00	Half-Life too short		
		828.27		7.138E-03	4.458E+00	Half-Life too short		
		1205.75		1.114E-02	4.458E+00	Half-Life too short		
TL-201		68.90		-1.023E+01	9.364E+00	1.499E+01	1.736E+00	-0.682
		70.82		6.779E+00	5.522E+00	8.748E+00	1.007E+00	0.775
		80.30		-2.465E+00	9.054E+00	1.341E+01	1.550E+00	-0.184
		135.34		2.485E+01	4.022E+01	6.747E+01	4.477E+00	0.368
		167.43	*	5.766E-01	1.093E+01	1.773E+01	1.127E+00	0.033
TL-202		68.90		-6.459E-01	5.913E-01	9.468E-01	1.096E-01	-0.682
		70.82		4.269E-01	3.477E-01	5.509E-01	6.340E-02	0.775
		80.30		-1.553E-01	5.703E-01	8.447E-01	9.765E-02	-0.184
		439.56	*	4.964E-03	8.203E-02	1.351E-01	7.661E-03	0.037
HG-203		70.83		1.699E+00	1.393E+00	2.189E+00	3.415E-01	0.776
		72.87		5.612E-01	8.206E-01	1.272E+00	1.935E-01	0.441
		82.60		6.609E-01	1.319E+00	2.022E+00	3.202E-01	0.327
		279.20	*	-8.320E-03	4.190E-02	6.999E-02	4.873E-03	-0.119

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		1.351E-01	2.323E-01	3.595E-01	4.122E-02	0.376
	+	74.97		6.954E-01	1.840E-01	2.611E-01	2.990E-02	2.664
		84.90		2.228E-01	2.165E-01	3.382E-01	3.990E-02	0.659
		569.67		1.125E-02	3.392E-02	5.548E-02	2.997E-03	0.203
		1063.62	*	4.684E-02	5.651E-02	9.904E-02	7.043E-03	0.473
		1770.23		1.738E-01	3.350E-01	5.710E-01	3.469E-02	0.304
TL-207		81.07		-3.405E-01	2.582E-01	3.574E-01	4.143E-02	-0.952
		83.78		1.938E-01	1.452E-01	2.290E-01	2.686E-02	0.846
		94.90		2.806E-01	2.563E-01	4.009E-01	4.131E-02	0.700
		122.32		-1.136E+00	1.735E+00	2.764E+00	2.126E-01	-0.411
		144.24		7.350E-01	6.801E-01	1.155E+00	9.034E-02	0.636
		154.21		2.188E-01	3.957E-01	6.579E-01	4.961E-02	0.333
	+	269.46		5.342E-01	3.023E-01	3.562E-01	2.457E-02	1.500
		323.87	*	2.153E-03	7.699E-01	1.134E+00	1.899E-01	0.002
	+	338.28		7.161E+00	1.759E+00	2.522E+00	2.726E-01	2.840
		445.03		-6.931E-01	2.298E+00	3.681E+00	3.754E-01	-0.188
PO-209		260.50		-1.301E-02	8.810E+00	1.492E+01	9.964E-01	-0.001
		262.80		-1.226E+01	2.509E+01	4.139E+01	2.763E+00	-0.296
		896.60	*	-7.237E+00	7.739E+00	1.150E+01	9.436E-01	-0.629
BI-210		46.50	*	-4.794E-01	9.341E+00	1.555E+01	1.355E+00	-0.031
PB-210		46.50	*	-4.794E-01	9.341E+00	1.555E+01	1.355E+00	-0.031
PO-210		46.50	*	-4.794E-01	9.341E+00	1.555E+01	1.208E+00	-0.031
PB-211		404.84	*	7.398E-02	9.117E-01	1.510E+00	9.409E-01	0.049
		427.08		1.264E+00	2.111E+00	3.372E+00	2.084E+00	0.375
		831.96		-3.041E+00	2.281E+00	1.594E+00	9.961E-01	-1.908
BI-212	+	727.18	*	1.251E+00	5.525E-01	6.862E-01	5.245E-02	1.823
		785.46		6.015E-01	1.717E+00	2.939E+00	1.913E-01	0.205
		1620.62		9.591E-01	1.271E+00	2.333E+00	1.523E-01	0.411
PO-215		81.07		-3.405E-01	2.582E-01	3.574E-01	4.143E-02	-0.952
		83.78		1.938E-01	1.452E-01	2.290E-01	2.686E-02	0.846
		94.90		2.806E-01	2.563E-01	4.009E-01	4.131E-02	0.700
		122.32		-1.136E+00	1.735E+00	2.764E+00	2.126E-01	-0.411
		144.24		7.350E-01	6.801E-01	1.155E+00	9.034E-02	0.636
		154.21		2.188E-01	3.957E-01	6.579E-01	4.961E-02	0.333
	+	269.46		5.342E-01	3.023E-01	3.562E-01	2.457E-02	1.500
		323.87	*	2.153E-03	7.699E-01	1.134E+00	1.899E-01	0.002
	+	338.28		7.161E+00	1.759E+00	2.522E+00	2.726E-01	2.840
		445.03		-6.931E-01	2.298E+00	3.681E+00	3.754E-01	-0.188
RN-219	+	271.23		6.854E-01	3.896E-01	4.438E-01	3.881E-02	1.544
		401.81	*	-1.821E-01	4.022E-01	6.272E-01	8.492E-02	-0.290
RN-220		549.76	*	-1.176E+01	2.796E+01	4.359E+01	2.388E+00	-0.270
RA-223		81.07		-3.405E-01	2.582E-01	3.574E-01	4.143E-02	-0.952
		83.78		1.938E-01	1.452E-01	2.290E-01	2.686E-02	0.846
		94.90		2.806E-01	2.563E-01	4.009E-01	4.131E-02	0.700
		122.32		-1.136E+00	1.735E+00	2.764E+00	2.126E-01	-0.411
		144.24		7.350E-01	6.801E-01	1.155E+00	9.034E-02	0.636
		154.21		2.188E-01	3.957E-01	6.579E-01	4.961E-02	0.333
	+	269.46		5.342E-01	3.023E-01	3.562E-01	2.457E-02	1.500
		323.87	*	2.153E-03	7.699E-01	1.134E+00	1.899E-01	0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.161E+00	1.759E+00	2.522E+00	2.726E-01	2.840
		445.03		-6.931E-01	2.298E+00	3.681E+00	3.754E-01	-0.188
AC-227		79.80		-5.294E-01	1.841E+00	2.720E+00	6.210E-01	-0.195
		236.00		3.907E-01	2.606E-01	3.987E-01	4.367E-02	0.980
		256.20	*	-7.616E-02	3.651E-01	6.123E-01	8.786E-02	-0.124
		286.10		-2.774E-01	1.555E+00	2.596E+00	3.115E-01	-0.107
	+	299.80		3.252E+00	1.679E+00	2.631E+00	4.361E-01	1.236
		304.40		8.530E-01	2.004E+00	3.055E+00	5.365E-01	0.279
		334.20		8.070E-01	2.492E+00	3.744E+00	6.928E-01	0.216
TH-227		79.80		-5.294E-01	1.841E+00	2.720E+00	6.281E-01	-0.195
	+	94.00		1.831E+01	5.575E+00	4.265E+00	9.632E-01	4.293
		236.00		3.907E-01	2.598E-01	3.987E-01	3.839E-02	0.980
		256.20	*	-7.616E-02	3.651E-01	6.123E-01	1.055E-01	-0.124
		286.10		-2.774E-01	1.580E+00	2.596E+00	2.602E+00	-0.107
	+	299.80		3.252E+00	1.679E+00	2.631E+00	4.361E-01	1.236
		304.40		8.530E-01	2.004E+00	3.055E+00	5.365E-01	0.279
		334.20		8.070E-01	2.492E+00	3.744E+00	6.928E-01	0.216
TH-229		85.43		2.147E-01	2.165E-01	3.373E-01	3.992E-02	0.637
	+	88.47		4.580E-01	1.608E-01	2.089E-01	2.484E-02	2.192
		100.00		5.476E-02	1.913E-01	3.208E-01	3.008E-02	0.171
		193.63	*	-3.187E-01	5.233E-01	8.135E-01	5.280E-02	-0.392
		210.97		9.479E-01	8.340E-01	1.270E+00	8.349E-02	0.746
PA-231		283.67	*	2.128E-01	1.500E+00	2.546E+00	3.603E-01	0.084
	+	301.29		1.301E+00	6.515E-01	1.015E+00	1.106E-01	1.281
TH-231		81.07		-3.405E-01	2.582E-01	3.574E-01	4.143E-02	-0.952
		83.78		1.938E-01	1.452E-01	2.290E-01	2.686E-02	0.846
		94.90		2.806E-01	2.563E-01	4.009E-01	4.131E-02	0.700
		122.32		-1.136E+00	1.735E+00	2.764E+00	2.126E-01	-0.411
		144.24		7.350E-01	6.801E-01	1.155E+00	9.034E-02	0.636
		154.21		2.188E-01	3.957E-01	6.579E-01	4.961E-02	0.333
	+	269.46		5.342E-01	3.023E-01	3.562E-01	2.457E-02	1.500
		323.87	*	2.153E-03	7.699E-01	1.134E+00	1.899E-01	0.002
	+	338.28		7.161E+00	1.759E+00	2.522E+00	2.726E-01	2.840
		445.03		-6.931E-01	2.298E+00	3.681E+00	3.754E-01	-0.188
U-231		84.21		9.572E+00	8.701E+00	1.363E+01	1.602E+00	0.702
	+	92.29		2.543E+01	5.841E+00	6.922E+00	7.531E-01	3.675
		95.87	*	-6.424E-01	1.725E+00	2.516E+00	2.544E-01	-0.255
		108.00		-4.789E-01	2.956E+00	4.854E+00	4.018E-01	-0.099
PA-233	+	75.28		2.029E+01	5.954E+00	7.705E+00	1.318E+00	2.633
	+	86.59		6.567E+00	2.846E+00	3.230E+00	9.063E-01	2.033
	+	300.12		9.065E-01	4.605E-01	7.251E-01	9.996E-02	1.250
		311.98	*	-4.155E-02	6.456E-02	1.042E-01	7.107E-03	-0.399
		340.50		1.130E+00	6.812E-01	1.053E+00	2.432E-01	1.073
		398.62		-4.181E-01	2.021E+00	3.284E+00	8.478E-01	-0.127
		415.76		7.289E-01	1.666E+00	2.811E+00	5.775E-01	0.259
PA-234	+	63.00		5.124E+00	3.535E+00	4.095E+00	7.194E-01	1.251
		94.67		3.456E-01	1.912E-01	3.015E-01	4.120E-02	1.146
		98.44		1.214E-01	1.201E-01	1.654E-01	9.256E-02	0.734
		99.86		1.841E-01	4.866E-01	8.189E-01	7.697E-02	0.225

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-1.196E-01	1.855E-01	2.970E-01	3.450E-02	-0.403
		131.20		-1.490E-02	1.156E-01	1.680E-01	1.127E-02	-0.089
		152.70		1.491E-01	3.261E-01	5.392E-01	8.656E-02	0.277
	+	186.00		5.314E+00	2.506E+00	2.549E+00	7.821E-01	2.085
		226.40		-2.959E-02	4.119E-01	6.519E-01	7.823E-02	-0.045
		227.20		-5.450E-02	4.464E-01	7.046E-01	4.674E-02	-0.077
		248.90		-3.100E-01	8.379E-01	1.290E+00	2.803E-01	-0.240
	+	293.70		6.036E+00	1.630E+00	1.675E+00	2.744E-01	3.604
		369.80		-8.682E-01	8.574E-01	1.294E+00	2.700E-01	-0.671
		568.70		-1.330E-01	1.116E+00	1.765E+00	9.539E-02	-0.075
		569.50		1.041E-01	3.013E-01	4.932E-01	2.664E-02	0.211
		574.00		-5.377E-02	1.565E+00	2.510E+00	1.351E-01	-0.021
		699.00		-4.171E-01	7.183E-01	1.143E+00	2.039E-01	-0.365
		706.10		5.604E-02	1.152E+00	1.937E+00	8.538E-01	0.029
		733.00		-2.925E-02	3.761E-01	5.406E-01	1.149E-01	-0.054
		742.81		1.876E-01	1.345E+00	2.262E+00	1.514E+00	0.083
	+	796.30		2.159E+00	1.844E+00	1.846E+00	4.892E-01	1.169
		805.60		1.001E+00	1.085E+00	1.832E+00	5.531E-01	0.546
		819.60		-1.283E-01	1.313E+00	2.156E+00	8.128E-01	-0.059
		826.30		5.493E-01	9.021E-01	1.516E+00	6.744E-01	0.362
		831.60		-1.381E+00	7.587E-01	8.341E-01	2.457E-01	-1.656
		876.40		-4.083E-01	9.198E-01	1.280E+00	1.315E+00	-0.319
		880.51		-1.339E-01	2.900E-01	4.560E-01	3.624E-02	-0.294
		883.24		1.034E-01	3.113E-01	5.156E-01	3.462E-01	0.200
		899.00		1.324E-01	8.134E-01	1.357E+00	5.922E-01	0.098
		925.00		-6.005E-01	1.181E+00	1.834E+00	1.485E-01	-0.327
		926.50		-1.983E-02	1.699E-01	2.752E-01	6.909E-02	-0.072
		946.00	*	-3.413E-01	3.247E-01	4.643E-01	8.580E-02	-0.735
		949.00		6.645E-01	4.596E-01	8.502E-01	6.772E-02	0.782
		980.50		1.225E-01	7.864E-01	1.304E+00	1.013E-01	0.094
		1394.10		8.471E-02	1.152E+00	1.930E+00	1.252E+00	0.044
PA-234M		766.42		1.239E+01	1.357E+01	2.155E+01	1.086E+01	0.575
		1001.03	*	8.163E+00	5.322E+00	9.696E+00	8.840E-01	0.842
U-235		89.95		1.334E+00	1.571E+00	1.914E+00	6.081E-01	0.697
	+	93.35		5.696E+00	2.004E+00	1.497E+00	4.297E-01	3.806
		105.00		1.091E+00	1.153E+00	1.901E+00	5.676E-01	0.574
		143.76	*	1.771E-01	2.103E-01	3.518E-01	5.832E-02	0.503
		163.35		8.086E-02	4.727E-01	7.711E-01	1.401E-01	0.105
	+	185.71		1.968E-01	7.162E-02	9.458E-02	6.098E-03	2.081
		205.31		1.552E-01	5.601E-01	8.107E-01	1.478E-01	0.191
NP-236		94.67		2.643E-01	1.432E-01	2.290E-01	2.371E-02	1.154
		98.44		9.180E-02	7.534E-02	1.250E-01	1.205E-02	0.734
		111.00		-9.048E-02	1.401E-01	2.247E-01	1.785E-02	-0.403
		160.31	*	1.738E-02	7.874E-02	1.289E-01	8.232E-03	0.135
NP-239		99.55		1.079E-01	1.639E-01	2.785E-01	2.632E-02	0.387
		117.00	*	-9.891E-02	1.921E-01	3.091E-01	2.275E-02	-0.320
	+	209.75		2.127E+00	1.374E+00	1.425E+00	9.360E-02	1.493
		228.18		-4.045E-02	2.327E-01	3.661E-01	2.430E-02	-0.110
		277.60		1.921E-01	1.816E-01	3.207E-01	2.134E-02	0.599

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		3.731E-01	1.405E+00	2.105E+00	1.331E-01	0.177
AM-241		59.54	*	2.535E-01	2.512E-01	4.005E-01	5.056E-02	0.633
CM-243		99.55		1.110E-01	1.687E-01	2.866E-01	2.708E-02	0.387
		103.76	*	1.349E-02	1.001E-01	1.667E-01	1.470E-02	0.081
		117.00		-1.018E-01	1.977E-01	3.181E-01	2.341E-02	-0.320
	+	209.75		2.097E+00	1.354E+00	1.405E+00	9.229E-02	1.493
		228.18		-4.087E-02	2.352E-01	3.700E-01	2.456E-02	-0.110
		277.60		1.937E-01	1.831E-01	3.234E-01	2.151E-02	0.599
AM-246		798.80		5.142E-02	1.612E-01	2.414E-01	1.618E-02	0.213
		1036.00		-2.228E-02	3.300E-01	5.331E-01	3.919E-02	-0.042
		1062.04		-1.415E-01	2.651E-01	4.076E-01	2.904E-02	-0.347
		1078.86	*	1.969E-01	1.689E-01	3.014E-01	2.101E-02	0.653
CM-247		278.00		7.153E-01	7.455E-01	1.312E+00	8.729E-02	0.545
		287.40		2.930E-01	1.235E+00	2.104E+00	1.393E-01	0.139
		402.60	*	7.436E-03	3.616E-02	6.046E-02	3.412E-03	0.123
CF-249		252.85		3.054E-01	8.294E-01	1.432E+00	9.563E-02	0.213
		333.44		1.718E-01	2.124E-01	2.881E-01	1.824E-02	0.596
		387.95	*	-8.040E-03	3.748E-02	6.105E-02	3.469E-03	-0.132
CF-251		176.60	*	-1.714E-02	1.234E-01	1.977E-01	1.265E-02	-0.087
		227.00		9.917E-03	3.982E-01	6.335E-01	4.202E-02	0.016
		285.00		1.278E-01	1.739E+00	2.941E+00	1.950E-01	0.043

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020005       *
* Acquisition date : 13-FEB-2010 16:26:36 Detector SN#    :                 *
* Detector ID       : GAM04               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.34     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020005          Analyst initials: MXR1            *
* Batch Number      : 948751              Sample Quantity : 1.2814E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.670E+01	3.227E+00	6.424E-01	0.000E+00
CD-109	3.423E+00	1.178E+00	1.530E+00	0.000E+00
SN-126	3.354E-01	1.154E-01	1.563E-01	0.000E+00
TL-208	5.303E-01	8.213E-02	6.370E-02	0.000E+00
BI-211	3.201E+00	4.737E-01	3.291E-01	0.000E+00
PB-212	1.710E+00	1.757E-01	9.226E-02	0.000E+00
PO-212	1.710E+00	1.757E-01	9.226E-02	0.000E+00
BI-214	1.098E+00	1.724E-01	1.201E-01	0.000E+00
PB-214	1.113E+00	1.743E-01	1.158E-01	0.000E+00
PO-214	1.113E+00	1.743E-01	1.158E-01	0.000E+00
PO-216	1.710E+00	1.757E-01	9.226E-02	0.000E+00
PO-218	1.113E+00	1.743E-01	1.158E-01	0.000E+00
RA-224	4.604E+00	1.327E+00	1.050E+00	0.000E+00
RA-226	1.098E+00	1.724E-01	1.201E-01	0.000E+00
AC-228	1.741E+00	3.589E-01	2.184E-01	0.000E+00
RA-228	1.741E+00	3.589E-01	2.184E-01	0.000E+00
TH-228	1.740E+00	1.787E-01	9.385E-02	0.000E+00
TH-230	1.098E+00	1.724E-01	1.201E-01	0.000E+00
TH-232	1.741E+00	3.589E-01	2.184E-01	0.000E+00
TH-234	4.396E+00	2.998E+00	3.160E+00	0.000E+00
U-234	1.098E+00	1.724E-01	1.201E-01	0.000E+00
NP-237	9.850E-01	3.931E-01	4.524E-01	0.000E+00
U-238	4.396E+00	2.998E+00	3.160E+00	0.000E+00
AM-243	3.874E-01	1.004E-01	1.067E-01	0.000E+00
ANH-511	1.074E-01	7.764E-02	4.627E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.559E-01	3.148E-01	4.977E-01	0.000E+00	NOT IDENT.
NA-22	1.238E-02	4.657E-02	8.167E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	6.819E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.932E-02	2.352E-02	4.656E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.893E-02	8.631E-02	0.000E+00	FAIL ABUN
SC-46	-3.385E-02	4.329E-02	6.792E-02	0.000E+00	FAIL ABUN
V-48	2.814E-02	8.155E-02	1.413E-01	0.000E+00	NOT IDENT.
CR-51	1.420E-01	3.850E-01	6.864E-01	0.000E+00	NOT IDENT.
MN-52	-5.167E-03	3.247E-01	5.549E-01	0.000E+00	NOT IDENT.
MN-54	2.718E-02	3.734E-02	6.735E-02	0.000E+00	NOT IDENT.
CO-56	-2.378E-02	4.161E-02	6.712E-02	0.000E+00	NOT IDENT.
CO-57	-5.892E-03	2.444E-02	4.211E-02	0.000E+00	NOT IDENT.
CO-58	-1.681E-02	4.132E-02	6.808E-02	0.000E+00	NOT IDENT.
FE-59	-2.572E-02	1.036E-01	1.681E-01	0.000E+00	NOT IDENT.
CO-60	6.131E-03	4.647E-02	8.021E-02	0.000E+00	NOT IDENT.
ZN-65	8.720E-02	1.098E-01	1.731E-01	0.000E+00	NOT IDENT.
GE-68	9.650E-02	1.458E+00	2.438E+00	0.000E+00	NOT IDENT.
AS-73	-2.372E-01	1.566E+00	2.811E+00	0.000E+00	NOT IDENT.
AS-74	7.913E-02	1.050E-01	1.844E-01	0.000E+00	NOT IDENT.
SE-75	1.371E-02	4.592E-02	7.342E-02	0.000E+00	NOT IDENT.
BR-77	-5.506E+00	1.986E+01	3.142E+01	0.000E+00	FAIL ABUN
SR-82	-2.419E-01	4.224E-01	6.904E-01	0.000E+00	NOT IDENT.
RB-83	-5.551E-02	7.417E-02	1.123E-01	0.000E+00	NOT IDENT.
RB-84	-3.365E-03	7.349E-02	1.240E-01	0.000E+00	NOT IDENT.
KR-85	8.282E+00	6.998E+00	1.272E+01	0.000E+00	NOT IDENT.
SR-85	4.340E-02	3.667E-02	6.663E-02	0.000E+00	NOT IDENT.
RB-86	-5.368E-01	9.836E-01	1.549E+00	0.000E+00	NOT IDENT.
Y-88	-9.836E-04	3.190E-02	5.224E-02	0.000E+00	NOT IDENT.
ZR-88	1.383E-02	2.951E-02	5.232E-02	0.000E+00	NOT IDENT.
Y-91	1.581E+01	2.387E+01	4.131E+01	0.000E+00	NOT IDENT.
NB-94	2.683E-02	3.426E-02	6.250E-02	0.000E+00	NOT IDENT.
NB-95	-1.183E-02	4.568E-02	7.693E-02	0.000E+00	NOT IDENT.
NB-95M	1.105E-01	1.383E-01	2.150E-01	0.000E+00	NOT IDENT.
ZR-95	2.937E-04	6.694E-02	1.151E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.865E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.425E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-9.843E+00	1.769E+01	2.882E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.131E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.516E-02	3.457E-02	5.968E-02	0.000E+00	NOT IDENT.
RH-102	-4.170E-03	2.759E-02	4.619E-02	0.000E+00	NOT IDENT.
RU-103	3.164E-03	4.485E-02	7.606E-02	0.000E+00	FAIL ABUN
RH-106	2.144E-01	3.296E-01	5.735E-01	0.000E+00	FAIL ABUN
RU-106	2.144E-01	3.289E-01	5.735E-01	0.000E+00	FAIL ABUN
AG-108M	1.405E-02	3.249E-02	5.707E-02	0.000E+00	NOT IDENT.
AG-110M	-4.851E-03	3.252E-02	5.593E-02	0.000E+00	NOT IDENT.
IN-111	-9.650E-01	1.935E+00	2.736E+00	0.000E+00	NOT IDENT.
IN-113M	-3.773E-03	4.257E-02	7.284E-02	0.000E+00	NOT IDENT.
SN-113	-3.773E-03	4.257E-02	7.284E-02	0.000E+00	NOT IDENT.
IN-114M	-2.383E-02	1.995E-01	2.980E-01	0.000E+00	NOT IDENT.
CD-115	9.467E+00	2.210E+01	3.825E+01	0.000E+00	NOT IDENT.
SN-117M	1.146E-02	5.786E-02	9.997E-02	0.000E+00	NOT IDENT.
SB-122	4.052E+00	3.683E+00	6.638E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.566E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	5.710E-03	2.753E-02	4.758E-02	0.000E+00	NOT IDENT.
I-124	-5.756E-01	1.062E+00	1.537E+00	0.000E+00	NOT IDENT.
SB-124	-1.506E-03	5.944E-02	9.824E-02	0.000E+00	FAIL ABUN
SB-125	-5.827E-02	8.839E-02	1.437E-01	0.000E+00	FAIL ABUN
TE-125M	-3.519E-01	9.246E+00	1.619E+01	0.000E+00	NOT IDENT.
I-126	2.651E-02	2.114E-01	3.707E-01	0.000E+00	NOT IDENT.
SB-126	1.742E-01	1.546E-01	2.646E-01	0.000E+00	NOT IDENT.
SB-127	2.161E+00	1.869E+00	3.510E+00	0.000E+00	NOT IDENT.
XE-127	-4.537E-02	4.857E-02	7.778E-02	0.000E+00	NOT IDENT.
I-131	-2.131E-02	1.349E-01	2.312E-01	0.000E+00	NOT IDENT.
TE-132	-1.889E-01	1.083E+00	1.789E+00	0.000E+00	NOT IDENT.
BA-133	9.200E-03	4.630E-02	7.180E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.435E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.889E-02	9.194E-02	0.000E+00	FAIL ABUN
CS-135	1.763E-01	1.697E-01	2.823E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.171E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.446E-02	1.361E-01	2.321E-01	0.000E+00	FAIL ABUN
BA-137M	-3.826E-02	3.815E-02	6.213E-02	0.000E+00	NOT IDENT.
CS-137	-4.045E-02	4.033E-02	6.568E-02	0.000E+00	NOT IDENT.
CE-139	-4.259E-05	2.898E-02	4.947E-02	0.000E+00	NOT IDENT.
BA-140	1.203E-01	2.926E-01	5.021E-01	0.000E+00	NOT IDENT.
LA-140	-2.896E-03	1.006E-01	1.676E-01	0.000E+00	FAIL ABUN
CE-141	4.310E-02	6.380E-02	1.129E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.733E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.242E-01	2.329E-01	3.373E-01	0.000E+00	NOT IDENT.
PM-144	1.765E-02	3.382E-02	6.080E-02	0.000E+00	NOT IDENT.
PR-144	1.197E+00	2.294E+00	4.125E+00	0.000E+00	NOT IDENT.

PM-146	3.295E-02	4.294E-02	7.678E-02	0.000E+00	NOT IDENT.
ND-147	-1.568E-01	6.878E-01	1.133E+00	0.000E+00	NOT IDENT.
PM-149	-6.570E+01	1.741E+02	3.008E+02	0.000E+00	NOT IDENT.
EU-152	-5.004E-02	8.924E-02	1.439E-01	0.000E+00	FAIL ABUN
GD-153	2.829E-02	8.980E-02	1.444E-01	0.000E+00	NOT IDENT.
EU-154	7.549E-02	1.267E-01	2.287E-01	0.000E+00	NOT IDENT.
EU-155	1.067E-01	1.118E-01	2.030E-01	0.000E+00	FAIL ABUN
TB-160	1.891E-03	1.410E-01	2.393E-01	0.000E+00	FAIL ABUN
HO-166M	3.646E-02	5.927E-02	1.072E-01	0.000E+00	FAIL ABUN
TM-171	1.176E+01	3.873E+01	6.370E+01	0.000E+00	NOT IDENT.
LU-176	-1.693E-02	2.443E-02	4.121E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.350E+00	2.556E+00	0.000E+00	FAIL ABUN
LU-177M	-7.967E-02	1.752E-01	2.911E-01	0.000E+00	FAIL ABUN
HF-181	1.450E-02	4.451E-02	7.591E-02	0.000E+00	NOT IDENT.
W-181	-1.946E-01	5.325E-01	8.483E-01	0.000E+00	NOT IDENT.
TA-182	9.856E-02	2.334E-01	4.130E-01	0.000E+00	FAIL ABUN
RE-183	6.347E-03	1.096E-01	1.878E-01	0.000E+00	FAIL ABUN
RE-184	8.209E-02	2.185E-01	3.955E-01	0.000E+00	NOT IDENT.
OS-185	5.308E-04	4.042E-02	7.052E-02	0.000E+00	NOT IDENT.
RE-188	1.375E-01	1.669E-01	2.962E-01	0.000E+00	NOT IDENT.
W-188	1.456E+00	7.870E+00	1.239E+01	0.000E+00	FAIL ABUN
IR-192	-2.031E-03	3.363E-02	5.865E-02	0.000E+00	FAIL ABUN
AU-195	3.406E-01	2.315E-01	4.277E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.663E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.766E-01	1.071E+01	1.833E+01	0.000E+00	NOT IDENT.
TL-202	4.964E-03	8.039E-02	1.376E-01	0.000E+00	NOT IDENT.
HG-203	-8.320E-03	4.106E-02	7.181E-02	0.000E+00	NOT IDENT.
BI-207	4.684E-02	5.538E-02	9.954E-02	0.000E+00	FAIL ABUN
TL-207	2.153E-03	7.545E-01	1.161E+00	0.000E+00	FAIL ABUN
PO-209	-7.237E+00	7.584E+00	1.159E+01	0.000E+00	NOT IDENT.
BI-210	-4.794E-01	9.154E+00	1.638E+01	0.000E+00	NOT IDENT.
PB-210	-4.794E-01	9.154E+00	1.638E+01	0.000E+00	NOT IDENT.
PO-210	-4.794E-01	9.154E+00	1.638E+01	0.000E+00	NOT IDENT.
PB-211	7.398E-02	8.935E-01	1.540E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.414E-01	6.938E-01	0.000E+00	FAIL ABUN
PO-215	2.153E-03	7.545E-01	1.161E+00	0.000E+00	FAIL ABUN
RN-219	-1.821E-01	3.942E-01	6.400E-01	0.000E+00	FAIL ABUN
RN-220	-1.176E+01	2.741E+01	4.426E+01	0.000E+00	NOT IDENT.
RA-223	2.153E-03	7.545E-01	1.161E+00	0.000E+00	FAIL ABUN
AC-227	-7.616E-02	3.578E-01	6.291E-01	0.000E+00	FAIL ABUN
TH-227	-7.616E-02	3.578E-01	6.291E-01	0.000E+00	FAIL ABUN
TH-229	-3.187E-01	5.128E-01	8.393E-01	0.000E+00	FAIL ABUN
PA-231	2.128E-01	1.470E+00	2.612E+00	0.000E+00	FAIL ABUN
TH-231	2.153E-03	7.545E-01	1.161E+00	0.000E+00	FAIL ABUN
U-231	-6.424E-01	1.690E+00	2.623E+00	0.000E+00	FAIL ABUN
PA-233	-4.155E-02	6.326E-02	1.068E-01	0.000E+00	FAIL ABUN
PA-234	-3.413E-01	3.182E-01	4.675E-01	0.000E+00	FAIL ABUN
PA-234M	8.163E+00	5.216E+00	9.755E+00	0.000E+00	NOT IDENT.
U-235	1.771E-01	2.061E-01	3.646E-01	0.000E+00	FAIL ABUN
NP-236	1.738E-02	7.717E-02	1.334E-01	0.000E+00	NOT IDENT.
NP-239	-9.891E-02	1.883E-01	3.213E-01	0.000E+00	FAIL ABUN
AM-241	2.535E-01	2.461E-01	4.204E-01	0.000E+00	NOT IDENT.
CM-243	1.349E-02	9.814E-02	1.736E-01	0.000E+00	FAIL ABUN
AM-246	1.969E-01	1.655E-01	3.029E-01	0.000E+00	NOT IDENT.
CM-247	7.436E-03	3.544E-02	6.169E-02	0.000E+00	NOT IDENT.
CF-249	-8.040E-03	3.673E-02	6.233E-02	0.000E+00	NOT IDENT.
CF-251	-1.714E-02	1.210E-01	2.042E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:27:33.48

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020005.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:26:36
Sample ID         : G246020005           Sample quantity  : 1.28140E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.34  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1437	10.67*	1.075E+00	3.670E+01	3.670E+01	8.97
CD-109	88.03	212	3.72*	5.003E+00	3.336E+00	3.423E+00	35.11
SN-126	64.28	118	9.60	2.074E+00	1.740E+00	1.740E+00	68.92
	86.94	212	8.90	5.003E+00	1.394E+00	1.394E+00	53.56
	87.57	212	37.00*	5.003E+00	3.354E-01	3.354E-01	35.11
TL-208	277.35	------	6.80	4.326E+00	------ Line Not Found		------
	510.84	100	21.60	2.729E+00	4.974E-01	4.974E-01	74.21
	583.14	374	84.20*	2.455E+00	5.303E-01	5.303E-01	15.80
	860.37	59	12.46	1.744E+00	7.962E-01	7.962E-01	59.25
BI-211	72.87	------	1.27	3.384E+00	------ Line Not Found		------
	351.07	513	12.94*	3.626E+00	3.201E+00	3.201E+00	15.10
PB-212	74.81	317	10.70	3.635E+00	2.389E+00	2.389E+00	28.05
	77.11	481	18.00	3.929E+00	1.991E+00	1.991E+00	19.14
	87.30	212	8.00	5.003E+00	1.551E+00	1.551E+00	36.51
	238.63	1257	44.60*	4.826E+00	1.710E+00	1.710E+00	10.48
	300.09	83	3.41	4.082E+00	1.755E+00	1.755E+00	49.68
PO-212	74.81	317	10.70	3.635E+00	2.389E+00	2.389E+00	28.05
	77.11	481	18.00	3.929E+00	1.991E+00	1.991E+00	19.14
	87.30	212	8.00	5.003E+00	1.551E+00	1.551E+00	36.51
	115.19	------	0.60	6.408E+00	------ Line Not Found		------
	238.63	1257	44.60*	4.826E+00	1.710E+00	1.710E+00	10.48
	300.09	83	3.41	4.082E+00	1.755E+00	1.755E+00	49.68
BI-214	609.31	411	46.30*	2.368E+00	1.098E+00	1.098E+00	16.02
	1120.29	128	15.10	1.358E+00	1.829E+00	1.829E+00	36.63
	1764.49	63	15.80	9.530E-01	1.230E+00	1.230E+00	30.63
PB-214	74.81	317	6.21	3.635E+00	4.117E+00	4.117E+00	27.47
	77.11	481	10.50	3.929E+00	3.414E+00	3.414E+00	20.60
	87.30	212	4.67	5.003E+00	2.658E+00	2.658E+00	35.95
	241.98	297	7.49	4.783E+00	2.428E+00	2.428E+00	29.93
	295.21	341	19.20	4.135E+00	1.258E+00	1.258E+00	23.30
	351.92	513	37.20*	3.626E+00	1.113E+00	1.113E+00	15.98
PO-214	74.81	317	6.21	3.635E+00	4.117E+00	4.117E+00	27.47

Sample ID : G246020005 Acquisition date : 13-FEB-2010 16:26:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	481	10.50	3.929E+00	3.414E+00	3.414E+00	20.60
	87.30	212	4.67	5.003E+00	2.658E+00	2.658E+00	35.95
	241.98	297	7.49	4.783E+00	2.428E+00	2.428E+00	29.93
	295.21	341	19.20	4.135E+00	1.258E+00	1.258E+00	23.30
	351.92	513	37.20*	3.626E+00	1.113E+00	1.113E+00	15.98
PO-216	74.81	317	10.70	3.635E+00	2.389E+00	2.389E+00	28.05
	77.11	481	18.00	3.929E+00	1.991E+00	1.991E+00	19.14
	87.30	212	8.00	5.003E+00	1.551E+00	1.551E+00	36.51
	238.63	1257	44.60*	4.826E+00	1.710E+00	1.710E+00	10.48
	300.09	83	3.41	4.082E+00	1.755E+00	1.755E+00	49.68
PO-218	74.81	317	6.21	3.635E+00	4.117E+00	4.117E+00	27.47
	77.11	481	10.50	3.929E+00	3.414E+00	3.414E+00	20.60
	87.30	212	4.67	5.003E+00	2.658E+00	2.658E+00	35.95
	241.98	297	7.49	4.783E+00	2.428E+00	2.428E+00	29.93
	295.21	341	19.20	4.135E+00	1.258E+00	1.258E+00	23.30
	351.92	513	37.20*	3.626E+00	1.113E+00	1.113E+00	15.98
RA-224	240.98	297	3.95*	4.783E+00	4.604E+00	4.604E+00	29.40
RA-226	609.31	411	46.30*	2.368E+00	1.098E+00	1.098E+00	16.02
	1120.29	128	15.10	1.358E+00	1.829E+00	1.829E+00	36.63
	1764.49	63	15.80	9.530E-01	1.230E+00	1.230E+00	30.63
AC-228	338.32	249	11.40	3.735E+00	1.715E+00	1.715E+00	46.41
	911.07	272	27.70*	1.652E+00	1.741E+00	1.741E+00	21.03
	969.11	150	16.60	1.559E+00	1.703E+00	1.703E+00	33.75
RA-228	338.32	249	11.40	3.735E+00	1.715E+00	1.715E+00	46.41
	911.07	272	27.70*	1.652E+00	1.741E+00	1.741E+00	21.03
	969.11	150	16.60	1.559E+00	1.703E+00	1.703E+00	33.75
TH-228	74.81	317	10.70	3.635E+00	2.389E+00	2.431E+00	26.48
	77.11	481	18.00	3.929E+00	1.991E+00	2.026E+00	19.14
	87.30	212	8.00	5.003E+00	1.551E+00	1.578E+00	35.11
	238.63	1257	44.60*	4.826E+00	1.710E+00	1.740E+00	10.48
	300.09	83	3.41	4.082E+00	1.755E+00	1.785E+00	76.64
TH-230	609.31	411	46.30*	2.368E+00	1.098E+00	1.098E+00	16.02
	1120.29	128	15.10	1.358E+00	1.829E+00	1.829E+00	36.63
	1764.49	63	15.80	9.530E-01	1.230E+00	1.230E+00	30.63
TH-232	338.32	249	11.40	3.735E+00	1.715E+00	1.715E+00	22.94
	911.07	272	27.70*	1.652E+00	1.741E+00	1.741E+00	21.03
	969.11	150	16.60	1.559E+00	1.703E+00	1.703E+00	33.75
TH-234	63.29	118	3.80*	2.074E+00	4.396E+00	4.396E+00	69.59
	92.38	479	5.41	5.479E+00	4.738E+00	4.738E+00	27.93
U-234	609.31	411	46.30*	2.368E+00	1.098E+00	1.098E+00	16.02
	1120.29	128	15.10	1.358E+00	1.829E+00	1.829E+00	36.63
	1764.49	63	15.80	9.530E-01	1.230E+00	1.230E+00	30.63
NP-237	86.50	212	12.60*	5.003E+00	9.850E-01	9.850E-01	40.73
	95.87	------	2.60	5.678E+00	------ Line Not Found		------
U-238	63.29	118	3.80*	2.074E+00	4.396E+00	4.396E+00	69.59
	92.38	479	5.41	5.479E+00	4.738E+00	4.738E+00	22.97
AM-243	74.67	317	66.00*	3.635E+00	3.874E-01	3.874E-01	26.45
	86.72	212	0.34	5.003E+00	3.694E+01	3.694E+01	35.11
	117.66	------	0.55	6.445E+00	------ Line Not Found		------

Sample ID : G246020005 Acquisition date : 13-FEB-2010 16:26:36

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	6.417E+00	------	Line Not Found	------
ANH-511	511.00	100	100.00*	2.729E+00	1.074E-01	1.074E-01	73.74

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G246020005

Acquisition date : 13-FEB-2010 16:26:36

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.670E+01	3.670E+01	0.329E+01	8.97	
CD-109	464.00D	1.03	3.336E+00	3.423E+00	1.202E+00	35.11	
SN-126	1.00E+05Y	1.00	3.354E-01	3.354E-01	1.178E-01	35.11	
TL-208	1.41E+10Y	1.00	5.303E-01	5.303E-01	0.838E-01	15.80	
BI-211	7.04E+08Y	1.00	3.201E+00	3.201E+00	0.483E+00	15.10	
PB-212	1.41E+10Y	1.00	1.710E+00	1.710E+00	0.179E+00	10.48	
PO-212	1.41E+10Y	1.00	1.710E+00	1.710E+00	0.179E+00	10.48	
BI-214	1600.00Y	1.00	1.098E+00	1.098E+00	0.176E+00	16.02	
PB-214	1600.00Y	1.00	1.113E+00	1.113E+00	0.178E+00	15.98	
PO-214	1600.00Y	1.00	1.113E+00	1.113E+00	0.178E+00	15.98	
PO-216	1.41E+10Y	1.00	1.710E+00	1.710E+00	0.179E+00	10.48	
PO-218	1600.00Y	1.00	1.113E+00	1.113E+00	0.178E+00	15.98	
RA-224	1.41E+10Y	1.00	4.604E+00	4.604E+00	1.354E+00	29.40	
RA-226	1600.00Y	1.00	1.098E+00	1.098E+00	0.176E+00	16.02	
AC-228	1.41E+10Y	1.00	1.741E+00	1.741E+00	0.366E+00	21.03	
RA-228	1.41E+10Y	1.00	1.741E+00	1.741E+00	0.366E+00	21.03	
TH-228	1.91Y	1.02	1.710E+00	1.740E+00	0.182E+00	10.48	
TH-230	4.47E+09Y	1.00	1.098E+00	1.098E+00	0.176E+00	16.02	
TH-232	1.41E+10Y	1.00	1.741E+00	1.741E+00	0.366E+00	21.03	
TH-234	4.47E+09Y	1.00	4.396E+00	4.396E+00	3.059E+00	69.59	
U-234	4.47E+09Y	1.00	1.098E+00	1.098E+00	0.176E+00	16.02	
NP-237	2.14E+06Y	1.00	9.850E-01	9.850E-01	4.012E-01	40.73	
U-238	4.47E+09Y	1.00	4.396E+00	4.396E+00	3.059E+00	69.59	
AM-243	7380.00Y	1.00	3.874E-01	3.874E-01	1.025E-01	26.45	
ANH-511	1.00E+09Y	1.00	1.074E-01	1.074E-01	0.792E-01	73.74	
	Total Activity :		7.878E+01	7.889E+01			

Grand Total Activity : 7.878E+01 7.889E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G246020005 Acquisition date : 13-FEB-2010 16:26:36

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.84	78	409	0.72	257.74	254	9	1.08E-02	96.0	6.50E+00	T
0	185.87	207	315	1.25	371.80	367	10	2.87E-02	35.8	5.70E+00	T
0	209.01	124	367	1.24	418.08	413	12	1.73E-02	64.2	5.29E+00	T
0	270.16	109	222	1.84	540.40	535	11	1.52E-02	56.2	4.41E+00	T
0	327.80	103	179	1.62	655.69	650	11	1.44E-02	54.1	3.82E+00	T
0	462.79	73	86	1.09	925.67	921	9	1.02E-02	51.2	2.95E+00	T
0	727.34	102	85	1.42	1454.77	1448	15	1.42E-02	43.5	2.03E+00	T
0	796.28	54	81	4.39	1592.64	1585	17	7.48E-03	81.2	1.87E+00	T
0	965.01	56	63	1.99	1930.08	1920	14	7.78E-03	65.8	1.56E+00	T
0	1407.67	37	16	1.60	2815.24	2808	16	5.08E-03	60.3	1.11E+00	T
0	1729.53	19	9	0.75	3458.79	3452	12	2.65E-03	77.7	9.62E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:27:38.93

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020005.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:26:36  Detector SN#     :             *
* Detector ID       : GAM04                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.34          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020005            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.28140E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope       :              *
* MSD ID           :                      MSD Isotope      :              *
* LCS ID           : 1032-A               LCS Isotope      :              *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.670E+01	3.293E+00	6.424E-01	4.565E-02	57.134
CD-109	3.423E+00	1.202E+00	1.466E+00	1.762E-01	2.335
SN-126	3.354E-01	1.178E-01	1.497E-01	1.795E-02	2.240
TL-208	5.303E-01	8.381E-02	6.278E-02	3.950E-03	8.447
BI-211	3.201E+00	4.834E-01	3.219E-01	2.174E-02	9.944
PB-212	1.710E+00	1.793E-01	8.971E-02	7.205E-03	19.065
PO-212	1.710E+00	1.793E-01	8.971E-02	7.205E-03	19.065
BI-214	1.098E+00	1.759E-01	1.184E-01	8.703E-03	9.270
PB-214	1.113E+00	1.779E-01	1.132E-01	9.659E-03	9.832
PO-214	1.113E+00	1.779E-01	1.132E-01	9.659E-03	9.832
PO-216	1.710E+00	1.793E-01	8.971E-02	7.205E-03	19.065
PO-218	1.113E+00	1.779E-01	1.132E-01	9.659E-03	9.832
RA-224	4.604E+00	1.354E+00	1.021E+00	6.808E-02	4.508
RA-226	1.098E+00	1.759E-01	1.184E-01	8.703E-03	9.270
AC-228	1.741E+00	3.662E-01	2.168E-01	2.363E-02	8.034
RA-228	1.741E+00	3.662E-01	2.168E-01	2.363E-02	8.034
TH-228	1.740E+00	1.824E-01	9.126E-02	7.329E-03	19.065
TH-230	1.098E+00	1.759E-01	1.184E-01	8.703E-03	9.270

Sample ID : G246020005 Acquisition date : 13-FEB-2010 16:26:36

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.741E+00	3.662E-01	2.168E-01	2.363E-02	8.034
TH-234	4.396E+00	3.059E+00	3.013E+00	5.961E-01	1.459
U-234	1.098E+00	1.759E-01	1.184E-01	8.703E-03	9.270
NP-237	9.850E-01	4.012E-01	4.334E-01	1.032E-01	2.273
U-238	4.396E+00	3.059E+00	3.013E+00	5.961E-01	1.459
AM-243	3.874E-01	1.025E-01	1.020E-01	1.168E-02	3.798
ANH-511	1.074E-01	7.922E-02	4.552E-02	2.545E-03	2.360

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.559E-01		3.212E-01	4.890E-01	3.239E-02	-0.523
NA-22	1.238E-02		4.752E-02	8.148E-02	5.328E-03	0.152
NA-24	-1.201E+00		3.479E+00	Half-Life too short		
AL-26	1.932E-02		2.400E-02	4.671E-02	2.770E-03	0.414
TI-44	3.675E-01	+	7.033E-02	8.256E-02	9.494E-03	4.451
SC-46	-3.385E-02		4.417E-02	6.739E-02	5.450E-03	-0.502
V-48	2.814E-02		8.322E-02	1.404E-01	1.088E-02	0.200
CR-51	1.420E-01		3.929E-01	6.704E-01	4.721E-02	0.212
MN-52	-5.167E-03		3.313E-01	5.546E-01	3.785E-02	-0.009
MN-54	2.718E-02		3.810E-02	6.676E-02	4.831E-03	0.407
CO-56	-2.378E-02		4.246E-02	6.654E-02	4.937E-03	-0.357
CO-57	-5.892E-03		2.493E-02	4.054E-02	2.815E-03	-0.145
CO-58	-1.681E-02		4.217E-02	6.744E-02	4.656E-03	-0.249
FE-59	-2.572E-02		1.057E-01	1.673E-01	1.279E-02	-0.154
CO-60	6.131E-03		4.742E-02	8.009E-02	5.488E-03	0.077
ZN-65	8.720E-02		1.120E-01	1.723E-01	1.140E-02	0.506
GE-68	9.650E-02		1.488E+00	2.426E+00	1.695E-01	0.040
AS-73	-2.372E-01		1.598E+00	2.674E+00	3.498E-01	-0.089
AS-74	7.913E-02		1.071E-01	1.818E-01	9.599E-03	0.435
SE-75	1.371E-02		4.685E-02	7.150E-02	4.810E-03	0.192
BR-77	-5.506E+00		2.026E+01	3.091E+01	1.721E+00	-0.178
SR-82	-2.419E-01		4.311E-01	6.835E-01	4.362E-02	-0.354
RB-83	-5.551E-02		7.568E-02	1.105E-01	6.152E-03	-0.503
RB-84	-3.365E-03		7.499E-02	1.230E-01	9.797E-03	-0.027
KR-85	8.282E+00		7.141E+00	1.251E+01	6.987E-01	0.662
SR-85	4.340E-02		3.742E-02	6.555E-02	3.661E-03	0.662
RB-86	-5.368E-01		1.004E+00	1.542E+00	1.078E-01	-0.348
Y-88	-9.836E-04		3.255E-02	5.243E-02	3.059E-03	-0.019
ZR-88	1.383E-02		3.011E-02	5.126E-02	2.885E-03	0.270
Y-91	1.581E+01		2.435E+01	4.118E+01	2.524E+00	0.384
NB-94	2.683E-02		3.496E-02	6.178E-02	3.328E-03	0.434
NB-95	-1.183E-02		4.661E-02	7.615E-02	4.746E-03	-0.155
NB-95M	1.105E-01		1.411E-01	2.090E-01	1.715E-02	0.529
ZR-95	2.937E-04		6.831E-02	1.139E-01	8.295E-03	0.003
NB-97	-1.497E-01		3.503E-01	Half-Life too short		
ZR-97	1.822E+01		7.269E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-9.843E+00		1.805E+01	2.851E+01	3.937E+00	-0.345
TC-99M	1.241E+12		5.769E+12	Half-Life too short		
RH-101	2.516E-02		3.527E-02	5.787E-02	3.768E-03	0.435
RH-102	-4.170E-03		2.816E-02	4.538E-02	2.566E-03	-0.092
RU-103	3.164E-03		4.577E-02	7.478E-02	9.396E-03	0.042
RH-106	2.144E-01		3.364E-01	5.658E-01	6.464E-02	0.379
RU-106	2.144E-01		3.356E-01	5.658E-01	2.907E-02	0.379
AG-108M	1.405E-02		3.315E-02	5.599E-02	3.460E-03	0.251
AG-110M	-4.851E-03		3.319E-02	5.523E-02	2.951E-03	-0.088
IN-111	-9.650E-01		1.975E+00	2.661E+00	1.776E-01	-0.363
IN-113M	-3.773E-03		4.344E-02	7.136E-02	4.300E-03	-0.053
SN-113	-3.773E-03		4.344E-02	7.136E-02	4.300E-03	-0.053
IN-114M	-2.383E-02		2.036E-01	2.888E-01	1.869E-02	-0.083
CD-115	9.467E+00		2.255E+01	3.764E+01	2.089E+00	0.251
SN-117M	1.146E-02		5.904E-02	9.662E-02	6.180E-03	0.119
SB-122	4.052E+00		3.758E+00	6.540E+00	3.548E-01	0.620
I-123	1.569E+01		3.860E+01	Half-Life too short		
TE-123M	5.710E-03		2.809E-02	4.598E-02	2.972E-03	0.124
I-124	-5.756E-01		1.084E+00	1.516E+00	7.950E-02	-0.380
SB-124	-1.506E-03		6.065E-02	9.846E-02	6.691E-03	-0.015
SB-125	-5.827E-02		9.019E-02	1.410E-01	8.347E-03	-0.413
TE-125M	-3.519E-01		9.435E+00	1.556E+01	1.545E+00	-0.023
I-126	2.651E-02		2.158E-01	3.661E-01	1.806E-02	0.072
SB-126	1.742E-01		1.577E-01	2.616E-01	1.470E-02	0.666
SB-127	2.161E+00		1.907E+00	3.469E+00	3.409E-01	0.623
XE-127	-4.537E-02		4.956E-02	7.544E-02	4.931E-03	-0.601
I-131	-2.131E-02		1.376E-01	2.262E-01	1.510E-02	-0.094
TE-132	-1.889E-01		1.105E+00	1.738E+00	2.633E-01	-0.109
BA-133	9.200E-03		4.724E-02	7.023E-02	8.228E-03	0.131
I-133	-1.716E-02		1.752E-02	Half-Life too short		
CS-134	1.113E-01	+	9.071E-02	9.106E-02	6.137E-03	1.222
CS-135	1.763E-01		1.731E-01	2.750E-01	2.292E-02	0.641
I-135	2.266E+11		5.975E+11	Half-Life too short		
CS-136	3.446E-02		1.388E-01	2.308E-01	1.774E-02	0.149
BA-137M	-3.826E-02		3.893E-02	6.136E-02	2.992E-03	-0.624
CS-137	-4.045E-02		4.115E-02	6.486E-02	3.182E-03	-0.624
CE-139	-4.259E-05		2.957E-02	4.784E-02	3.040E-03	-0.001
BA-140	1.203E-01		2.986E-01	4.942E-01	1.605E-01	0.243
LA-140	-2.896E-03		1.026E-01	1.678E-01	1.105E-02	-0.017
CE-141	4.310E-02		6.510E-02	1.090E-01	7.316E-03	0.395
CE-143	1.572E-03		2.925E-04	Half-Life too short		
CE-144	-2.242E-01		2.377E-01	3.252E-01	4.739E-02	-0.689
PM-144	1.765E-02		3.451E-02	6.010E-02	3.194E-03	0.294
PR-144	1.197E+00		2.341E+00	4.077E+00	2.164E-01	0.294
PM-146	3.295E-02		4.381E-02	7.538E-02	6.434E-03	0.437
ND-147	-1.568E-01		7.018E-01	1.116E+00	1.496E-01	-0.141
PM-149	-6.570E+01		1.777E+02	2.933E+02	4.265E+01	-0.224
EU-152	-5.004E-02		9.106E-02	1.407E-01	9.740E-03	-0.356

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	2.829E-02		9.163E-02	1.386E-01	1.360E-02	0.204
EU-154	7.549E-02		1.293E-01	2.282E-01	2.238E-02	0.331
EU-155	1.067E-01		1.141E-01	1.950E-01	1.700E-02	0.547
TB-160	1.891E-03		1.438E-01	2.374E-01	1.882E-02	0.008
HO-166M	3.646E-02		6.048E-02	1.060E-01	5.834E-03	0.344
TM-171	1.176E+01		3.952E+01	6.079E+01	7.107E+00	0.193
LU-176	-1.693E-02		2.493E-02	4.022E-02	2.626E-03	-0.421
LU-177	3.714E+00	+	2.398E+00	2.480E+00	1.628E-01	1.497
LU-177M	-7.967E-02		1.788E-01	2.854E-01	1.615E-02	-0.279
HF-181	1.450E-02		4.542E-02	7.460E-02	4.212E-03	0.194
W-181	-1.946E-01		5.434E-01	8.093E-01	9.539E-02	-0.240
TA-182	9.856E-02		2.382E-01	4.118E-01	2.563E-02	0.239
RE-183	6.347E-03		1.118E-01	1.816E-01	1.157E-02	0.035
RE-184	8.209E-02		2.229E-01	3.849E-01	2.570E-02	0.213
OS-185	5.308E-04		4.125E-02	6.962E-02	3.470E-03	0.008
RE-188	1.375E-01		1.703E-01	2.862E-01	1.838E-02	0.480
W-188	1.456E+00		8.031E+00	1.208E+01	7.987E-01	0.120
IR-192	-2.031E-03		3.431E-02	5.727E-02	3.718E-03	-0.035
AU-195	3.406E-01		2.363E-01	4.105E-01	3.925E-02	0.830
TL-200	8.114E-04		8.485E-04	Half-Life too short		
TL-201	5.766E-01		1.093E+01	1.773E+01	1.127E+00	0.033
TL-202	4.964E-03		8.203E-02	1.351E-01	7.661E-03	0.037
HG-203	-8.320E-03		4.190E-02	6.999E-02	4.873E-03	-0.119
BI-207	4.684E-02		5.651E-02	9.904E-02	7.043E-03	0.473
TL-207	2.153E-03		7.699E-01	1.134E+00	1.899E-01	0.002
PO-209	-7.237E+00		7.739E+00	1.150E+01	9.436E-01	-0.629
BI-210	-4.794E-01		9.341E+00	1.555E+01	1.355E+00	-0.031
PB-210	-4.794E-01		9.341E+00	1.555E+01	1.355E+00	-0.031
PO-210	-4.794E-01		9.341E+00	1.555E+01	1.208E+00	-0.031
PB-211	7.398E-02		9.117E-01	1.510E+00	9.409E-01	0.049
BI-212	1.251E+00	+	5.525E-01	6.862E-01	5.245E-02	1.823
PO-215	2.153E-03		7.699E-01	1.134E+00	1.899E-01	0.002
RN-219	-1.821E-01		4.022E-01	6.272E-01	8.492E-02	-0.290
RN-220	-1.176E+01		2.796E+01	4.359E+01	2.388E+00	-0.270
RA-223	2.153E-03		7.699E-01	1.134E+00	1.899E-01	0.002
AC-227	-7.616E-02		3.651E-01	6.123E-01	8.786E-02	-0.124
TH-227	-7.616E-02		3.651E-01	6.123E-01	1.055E-01	-0.124
TH-229	-3.187E-01		5.233E-01	8.135E-01	5.280E-02	-0.392
PA-231	2.128E-01		1.500E+00	2.546E+00	3.603E-01	0.084
TH-231	2.153E-03		7.699E-01	1.134E+00	1.899E-01	0.002
U-231	-6.424E-01		1.725E+00	2.516E+00	2.544E-01	-0.255
PA-233	-4.155E-02		6.456E-02	1.042E-01	7.107E-03	-0.399
PA-234	-3.413E-01		3.247E-01	4.643E-01	8.580E-02	-0.735
PA-234M	8.163E+00		5.322E+00	9.696E+00	8.840E-01	0.842
U-235	1.771E-01		2.103E-01	3.518E-01	5.832E-02	0.503
NP-236	1.738E-02		7.874E-02	1.289E-01	8.232E-03	0.135
NP-239	-9.891E-02		1.921E-01	3.091E-01	2.275E-02	-0.320
AM-241	2.535E-01		2.512E-01	4.005E-01	5.056E-02	0.633

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.349E-02		1.001E-01	1.667E-01	1.470E-02	0.081
AM-246	1.969E-01		1.689E-01	3.014E-01	2.101E-02	0.653
CM-247	7.436E-03		3.616E-02	6.046E-02	3.412E-03	0.123
CF-249	-8.040E-03		3.748E-02	6.105E-02	3.469E-03	-0.132
CF-251	-1.714E-02		1.234E-01	1.977E-01	1.265E-02	-0.087

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020005           *
* Acquisition date  : 13-FEB-2010 16:26:36 Detector SN#     :               *
* Detector ID       : GAM04                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.34      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020005           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.2814E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.670E+01	3.227E+00	3.214E-01	1.646E+00
CD-109	3.423E+00	1.178E+00	7.657E-01	6.010E-01
SN-126	3.354E-01	1.154E-01	7.818E-02	5.889E-02
TL-208	5.303E-01	8.213E-02	3.187E-02	4.190E-02
BI-211	3.201E+00	4.737E-01	1.646E-01	2.417E-01
PB-212	1.710E+00	1.757E-01	4.616E-02	8.964E-02
PO-212	1.710E+00	1.757E-01	4.616E-02	8.964E-02
BI-214	1.098E+00	1.724E-01	6.008E-02	8.795E-02
PB-214	1.113E+00	1.743E-01	5.792E-02	8.895E-02
PO-214	1.113E+00	1.743E-01	5.792E-02	8.895E-02
PO-216	1.710E+00	1.757E-01	4.616E-02	8.964E-02
PO-218	1.113E+00	1.743E-01	5.792E-02	8.895E-02
RA-224	4.604E+00	1.327E+00	5.254E-01	6.768E-01
RA-226	1.098E+00	1.724E-01	6.008E-02	8.795E-02
AC-228	1.741E+00	3.589E-01	1.093E-01	1.831E-01
RA-228	1.741E+00	3.589E-01	1.093E-01	1.831E-01
TH-228	1.740E+00	1.787E-01	4.695E-02	9.118E-02
TH-230	1.098E+00	1.724E-01	6.007E-02	8.795E-02
TH-232	1.741E+00	3.589E-01	1.093E-01	1.831E-01
TH-234	4.396E+00	2.998E+00	1.581E+00	1.530E+00
U-234	1.098E+00	1.724E-01	6.007E-02	8.795E-02
NP-237	9.850E-01	3.931E-01	2.263E-01	2.006E-01
U-238	4.396E+00	2.998E+00	1.581E+00	1.530E+00
AM-243	3.874E-01	1.004E-01	5.339E-02	5.123E-02
ANH-511	1.074E-01	7.764E-02	2.315E-02	3.961E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.559E-01	3.148E-01	2.490E-01	1.606E-01	NOT IDENT.
NA-22	1.238E-02	4.657E-02	4.086E-02	2.376E-02	NOT IDENT.

NA-24	-1.201E+06	6.819E+06	0.000E+00	3.479E+06	SHORT HLIF
AL-26	1.932E-02	2.352E-02	2.329E-02	1.200E-02	NOT IDENT.
TI-44	3.675E-01	6.893E-02	4.318E-02	3.517E-02	FAIL ABUN
SC-46	-3.385E-02	4.329E-02	3.398E-02	2.209E-02	FAIL ABUN
V-48	2.814E-02	8.155E-02	7.068E-02	4.161E-02	NOT IDENT.
CR-51	1.420E-01	3.850E-01	3.434E-01	1.964E-01	NOT IDENT.
MN-52	-5.167E-03	3.247E-01	2.776E-01	1.656E-01	NOT IDENT.
MN-54	2.718E-02	3.734E-02	3.370E-02	1.905E-02	NOT IDENT.
CO-56	-2.378E-02	4.161E-02	3.358E-02	2.123E-02	NOT IDENT.
CO-57	-5.892E-03	2.444E-02	2.107E-02	1.247E-02	NOT IDENT.
CO-58	-1.681E-02	4.132E-02	3.406E-02	2.108E-02	NOT IDENT.
FE-59	-2.572E-02	1.036E-01	8.410E-02	5.285E-02	NOT IDENT.
CO-60	6.131E-03	4.647E-02	4.013E-02	2.371E-02	NOT IDENT.
ZN-65	8.720E-02	1.098E-01	8.660E-02	5.602E-02	NOT IDENT.
GE-68	9.650E-02	1.458E+00	1.220E+00	7.438E-01	NOT IDENT.
AS-73	-2.372E-01	1.566E+00	1.406E+00	7.988E-01	NOT IDENT.
AS-74	7.913E-02	1.050E-01	9.225E-02	5.357E-02	NOT IDENT.
SE-75	1.371E-02	4.592E-02	3.673E-02	2.343E-02	NOT IDENT.
BR-77	-5.506E+00	1.986E+01	1.572E+01	1.013E+01	FAIL ABUN
SR-82	-2.419E-01	4.224E-01	3.454E-01	2.155E-01	NOT IDENT.
RB-83	-5.551E-02	7.417E-02	5.617E-02	3.784E-02	NOT IDENT.
RB-84	-3.365E-03	7.349E-02	6.205E-02	3.749E-02	NOT IDENT.
KR-85	8.282E+00	6.998E+00	6.362E+00	3.570E+00	NOT IDENT.
SR-85	4.340E-02	3.667E-02	3.334E-02	1.871E-02	NOT IDENT.
RB-86	-5.368E-01	9.836E-01	7.751E-01	5.018E-01	NOT IDENT.
Y-88	-9.836E-04	3.190E-02	2.614E-02	1.628E-02	NOT IDENT.
ZR-88	1.383E-02	2.951E-02	2.618E-02	1.506E-02	NOT IDENT.
Y-91	1.581E+01	2.387E+01	2.067E+01	1.218E+01	NOT IDENT.
NB-94	2.683E-02	3.426E-02	3.127E-02	1.748E-02	NOT IDENT.
NB-95	-1.183E-02	4.568E-02	3.849E-02	2.331E-02	NOT IDENT.
NB-95M	1.105E-01	1.383E-01	1.076E-01	7.054E-02	NOT IDENT.
ZR-95	2.937E-04	6.694E-02	5.759E-02	3.415E-02	NOT IDENT.
NB-97	-1.497E+05	6.865E+05	0.000E+00	3.503E+05	SHORT HLIF
ZR-97	1.822E+07	1.425E+07	0.000E+00	7.269E+06	SHORT HLIF
MO-99	-9.843E+00	1.769E+01	1.442E+01	9.024E+00	NOT IDENT.
TC-99M	1.241E+18	1.131E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.516E-02	3.457E-02	2.986E-02	1.764E-02	NOT IDENT.
RH-102	-4.170E-03	2.759E-02	2.311E-02	1.408E-02	NOT IDENT.
RU-103	3.164E-03	4.485E-02	3.805E-02	2.288E-02	FAIL ABUN
RH-106	2.144E-01	3.296E-01	2.869E-01	1.682E-01	FAIL ABUN
RU-106	2.144E-01	3.289E-01	2.869E-01	1.678E-01	FAIL ABUN
AG-108M	1.405E-02	3.249E-02	2.855E-02	1.658E-02	NOT IDENT.
AG-110M	-4.851E-03	3.252E-02	2.798E-02	1.659E-02	NOT IDENT.
IN-111	-9.650E-01	1.935E+00	1.369E+00	9.873E-01	NOT IDENT.
IN-113M	-3.773E-03	4.257E-02	3.644E-02	2.172E-02	NOT IDENT.
SN-113	-3.773E-03	4.257E-02	3.644E-02	2.172E-02	NOT IDENT.
IN-114M	-2.383E-02	1.995E-01	1.491E-01	1.018E-01	NOT IDENT.
CD-115	9.467E+00	2.210E+01	1.914E+01	1.128E+01	NOT IDENT.
SN-117M	1.146E-02	5.786E-02	5.002E-02	2.952E-02	NOT IDENT.
SB-122	4.052E+00	3.683E+00	3.321E+00	1.879E+00	NOT IDENT.
I-123	1.569E+07	7.566E+07	0.000E+00	3.860E+07	SHORT HLIF
TE-123M	5.710E-03	2.753E-02	2.380E-02	1.405E-02	NOT IDENT.
I-124	-5.756E-01	1.062E+00	7.691E-01	5.419E-01	NOT IDENT.
SB-124	-1.506E-03	5.944E-02	4.915E-02	3.033E-02	FAIL ABUN
SB-125	-5.827E-02	8.839E-02	7.192E-02	4.509E-02	FAIL ABUN
TE-125M	-3.519E-01	9.246E+00	8.101E+00	4.717E+00	NOT IDENT.
I-126	2.651E-02	2.114E-01	1.855E-01	1.079E-01	NOT IDENT.
SB-126	1.742E-01	1.546E-01	1.324E-01	7.887E-02	NOT IDENT.
SB-127	2.161E+00	1.869E+00	1.756E+00	9.536E-01	NOT IDENT.
XE-127	-4.537E-02	4.857E-02	3.891E-02	2.478E-02	NOT IDENT.
I-131	-2.131E-02	1.349E-01	1.157E-01	6.881E-02	NOT IDENT.
TE-132	-1.889E-01	1.083E+00	8.950E-01	5.525E-01	NOT IDENT.
BA-133	9.200E-03	4.630E-02	3.592E-02	2.362E-02	NOT IDENT.
I-133	-1.716E+04	3.435E+04	0.000E+00	1.752E+04	SHORT HLIF
CS-134	1.113E-01	8.889E-02	4.600E-02	4.535E-02	FAIL ABUN
CS-135	1.763E-01	1.697E-01	1.412E-01	8.657E-02	NOT IDENT.
I-135	2.266E+17	1.171E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.446E-02	1.361E-01	1.161E-01	6.942E-02	FAIL ABUN
BA-137M	-3.826E-02	3.815E-02	3.108E-02	1.946E-02	NOT IDENT.
CS-137	-4.045E-02	4.033E-02	3.286E-02	2.058E-02	NOT IDENT.
CE-139	-4.259E-05	2.898E-02	2.475E-02	1.479E-02	NOT IDENT.
BA-140	1.203E-01	2.926E-01	2.512E-01	1.493E-01	NOT IDENT.
LA-140	-2.896E-03	1.006E-01	8.383E-02	5.131E-02	FAIL ABUN
CE-141	4.310E-02	6.380E-02	5.649E-02	3.255E-02	NOT IDENT.
CE-143	1.572E+03	5.733E+02	0.000E+00	2.925E+02	SHORT HLIF
CE-144	-2.242E-01	2.329E-01	1.688E-01	1.188E-01	NOT IDENT.
PM-144	1.765E-02	3.382E-02	3.042E-02	1.726E-02	NOT IDENT.
PR-144	1.197E+00	2.294E+00	2.064E+00	1.171E+00	NOT IDENT.

PM-146	3.295E-02	4.294E-02	3.841E-02	2.191E-02	NOT IDENT.
ND-147	-1.568E-01	6.878E-01	5.671E-01	3.509E-01	NOT IDENT.
PM-149	-6.570E+01	1.741E+02	1.505E+02	8.883E+01	NOT IDENT.
EU-152	-5.004E-02	8.924E-02	7.201E-02	4.553E-02	FAIL ABUN
GD-153	2.829E-02	8.980E-02	7.225E-02	4.582E-02	NOT IDENT.
EU-154	7.549E-02	1.267E-01	1.144E-01	6.466E-02	NOT IDENT.
EU-155	1.067E-01	1.118E-01	1.016E-01	5.703E-02	FAIL ABUN
TB-160	1.891E-03	1.410E-01	1.197E-01	7.192E-02	FAIL ABUN
HO-166M	3.646E-02	5.927E-02	5.364E-02	3.024E-02	FAIL ABUN
TM-171	1.176E+01	3.873E+01	3.187E+01	1.976E+01	NOT IDENT.
LU-176	-1.693E-02	2.443E-02	2.062E-02	1.246E-02	FAIL ABUN
LU-177	3.714E+00	2.350E+00	1.279E+00	1.199E+00	FAIL ABUN
LU-177M	-7.967E-02	1.752E-01	1.456E-01	8.940E-02	FAIL ABUN
HF-181	1.450E-02	4.451E-02	3.798E-02	2.271E-02	NOT IDENT.
W-181	-1.946E-01	5.325E-01	4.244E-01	2.717E-01	NOT IDENT.
TA-182	9.856E-02	2.334E-01	2.066E-01	1.191E-01	FAIL ABUN
RE-183	6.347E-03	1.096E-01	9.396E-02	5.590E-02	FAIL ABUN
RE-184	8.209E-02	2.185E-01	1.979E-01	1.115E-01	NOT IDENT.
OS-185	5.308E-04	4.042E-02	3.528E-02	2.062E-02	NOT IDENT.
RE-188	1.375E-01	1.669E-01	1.482E-01	8.514E-02	NOT IDENT.
W-188	1.456E+00	7.870E+00	6.199E+00	4.016E+00	FAIL ABUN
IR-192	-2.031E-03	3.363E-02	2.934E-02	1.716E-02	FAIL ABUN
AU-195	3.406E-01	2.315E-01	2.140E-01	1.181E-01	FAIL ABUN
TL-200	8.114E+02	1.663E+03	0.000E+00	8.485E+02	SHORT HLIF
TL-201	5.766E-01	1.071E+01	9.169E+00	5.467E+00	NOT IDENT.
TL-202	4.964E-03	8.039E-02	6.885E-02	4.101E-02	NOT IDENT.
HG-203	-8.320E-03	4.106E-02	3.593E-02	2.095E-02	NOT IDENT.
BI-207	4.684E-02	5.538E-02	4.980E-02	2.825E-02	FAIL ABUN
TL-207	2.153E-03	7.545E-01	5.809E-01	3.850E-01	FAIL ABUN
PO-209	-7.237E+00	7.584E+00	5.797E+00	3.869E+00	NOT IDENT.
BI-210	-4.794E-01	9.154E+00	8.196E+00	4.670E+00	NOT IDENT.
PB-210	-4.794E-01	9.154E+00	8.196E+00	4.670E+00	NOT IDENT.
PO-210	-4.794E-01	9.154E+00	8.196E+00	4.670E+00	NOT IDENT.
PB-211	7.398E-02	8.935E-01	7.706E-01	4.559E-01	NOT IDENT.
BI-212	1.251E+00	5.414E-01	3.471E-01	2.762E-01	FAIL ABUN
PO-215	2.153E-03	7.545E-01	5.809E-01	3.850E-01	FAIL ABUN
RN-219	-1.821E-01	3.942E-01	3.202E-01	2.011E-01	FAIL ABUN
RN-220	-1.176E+01	2.741E+01	2.214E+01	1.398E+01	NOT IDENT.
RA-223	2.153E-03	7.545E-01	5.809E-01	3.850E-01	FAIL ABUN
AC-227	-7.616E-02	3.578E-01	3.147E-01	1.825E-01	FAIL ABUN
TH-227	-7.616E-02	3.578E-01	3.147E-01	1.826E-01	FAIL ABUN
TH-229	-3.187E-01	5.128E-01	4.199E-01	2.616E-01	FAIL ABUN
PA-231	2.128E-01	1.470E+00	1.307E+00	7.499E-01	FAIL ABUN
TH-231	2.153E-03	7.545E-01	5.809E-01	3.850E-01	FAIL ABUN
U-231	-6.424E-01	1.690E+00	1.312E+00	8.623E-01	FAIL ABUN
PA-233	-4.155E-02	6.326E-02	5.341E-02	3.228E-02	FAIL ABUN
PA-234	-3.413E-01	3.182E-01	2.339E-01	1.624E-01	FAIL ABUN
PA-234M	8.163E+00	5.216E+00	4.880E+00	2.661E+00	NOT IDENT.
U-235	1.771E-01	2.061E-01	1.824E-01	1.052E-01	FAIL ABUN
NP-236	1.738E-02	7.717E-02	6.673E-02	3.937E-02	NOT IDENT.
NP-239	-9.891E-02	1.883E-01	1.608E-01	9.605E-02	FAIL ABUN
AM-241	2.535E-01	2.461E-01	2.103E-01	1.256E-01	NOT IDENT.
CM-243	1.349E-02	9.814E-02	8.686E-02	5.007E-02	FAIL ABUN
AM-246	1.969E-01	1.655E-01	1.515E-01	8.444E-02	NOT IDENT.
CM-247	7.436E-03	3.544E-02	3.086E-02	1.808E-02	NOT IDENT.
CF-249	-8.040E-03	3.673E-02	3.118E-02	1.874E-02	NOT IDENT.
CF-251	-1.714E-02	1.210E-01	1.022E-01	6.172E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	209.9536
46.50	209.9536
46.50	209.9536
48.70	216.4760
49.72	208.4999
51.35	218.1237
52.39	196.1878
52.97	216.5009
53.15	228.7873
53.44	228.9692
54.07	240.7012
56.28	249.1500
56.28	249.1522
57.37	0.0000
57.53	239.4104
57.53	239.4118
57.60	254.4206
57.98	258.1972
57.98	258.1972
59.32	232.1215
59.32	232.1215
59.40	232.1689
59.54	225.6159
59.72	231.0307
60.01	237.8450
61.10	258.4873
61.14	258.5132
61.30	258.6176
63.00	301.6583
63.29	301.8736
63.29	301.8736
63.58	302.0885
64.28	302.6043
65.12	318.9194
65.20	318.9809
65.20	318.9809
66.05	275.1258
66.72	294.4743
66.83	294.5525
66.91	297.3119
67.20	283.9915
67.20	283.9915
67.75	315.5042
67.85	315.5789
68.90	342.1491
68.90	342.1491
69.30	346.0904
69.67	337.3218
70.82	265.9306
70.82	265.9306
70.83	265.9366
72.80	342.4664
72.87	342.5198
72.87	342.5198
74.67	320.0463
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74.81	320.1457
74.81	320.1457
74.81	320.1457
74.81	320.1457
74.81	320.1457
74.81	320.1457
74.97	320.2575
75.28	320.4758
75.70	320.7705
77.11	321.7521
77.11	321.7521

77.11	321.7521
77.11	321.7521
77.11	321.7521
77.11	321.7521
77.11	321.7521
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79.80	303.2028
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80.18	310.4046
80.30	310.4820
80.30	310.4820
80.57	327.3760
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81.07	370.9474
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83.78	301.5056
84.21	308.7875
84.90	316.2483
85.43	333.4693
86.29	393.2441
86.50	393.4081
86.54	393.4400
86.59	393.4783
86.72	416.6216
86.79	416.6779
86.94	416.8041
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87.30	417.1038
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87.88	394.0159
88.03	394.1329
88.36	331.1745
88.47	331.2459
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91.11	332.9508
92.29	373.6367
92.38	373.7006
92.38	373.7006
93.35	374.3902
94.00	374.8520
94.67	275.0435
94.67	275.0464
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94.90	282.3308
94.90	282.3308
94.90	282.3308
95.87	312.9941
95.87	312.9941
96.73	312.0567
97.43	289.4206
98.44	261.9714
98.44	261.9714
98.88	255.0595
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99.55	281.3898
99.86	284.4398
100.00	284.5119
100.10	284.5659
103.18	310.3841
103.76	286.4294
105.00	275.3769
105.31	281.3681
108.00	295.3965
109.28	274.4771

111.00	294.9417
111.00	294.9417
111.76	281.5356
112.95	268.2881
115.19	275.2229
116.30	277.7071
117.00	286.9597
117.00	286.9597
117.66	307.1470
121.11	254.8755
121.62	248.0795
121.78	260.1481
122.06	260.2632
122.32	275.3916
122.32	275.3916
122.32	275.3916
122.32	275.3916
123.07	281.7318
127.23	246.7229
129.76	258.3125
131.20	274.1006
133.02	290.1141
133.54	308.6776
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136.00	260.7198
136.25	272.0666
136.48	274.2036
140.51	260.3684
140.51	0.0000
142.18	311.5358
142.65	295.2255
143.76	260.5364
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144.24	256.5750
144.24	256.5750
144.24	256.5750
145.22	241.3881
145.44	261.1516
147.16	286.7083
152.43	274.1320
152.70	263.7664
153.22	254.5241
154.21	258.0067
154.21	258.0067
154.21	258.0067
154.21	258.0067
155.03	237.2926
156.02	270.1972
158.56	239.4579
159.00	0.0000
159.00	242.7630
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161.27	232.8974
162.32	256.5342
162.64	261.9425
163.35	255.8149
163.89	258.1158
165.85	245.9850
167.43	239.0094
171.28	231.5874
171.86	245.7026
172.10	245.7748
176.55	233.0925
176.60	233.1079
181.06	247.3850
184.41	225.4945
185.71	219.2937
186.00	219.3673
190.27	227.0401
192.34	211.0898
193.63	259.8463
197.04	254.2180
198.01	237.8988
198.60	228.0891
200.40	226.3291
201.83	278.9153
202.84	255.8652
205.31	210.8235

208.36	207.0467
208.81	207.1464
209.75	207.3572
209.75	207.3572
210.97	200.3331
215.65	201.8940
216.55	219.0196
218.09	210.3285
222.10	231.6437
223.80	220.6734
226.40	209.8563
227.00	213.4072
227.08	214.5656
227.20	214.5924
228.16	212.5157
228.18	212.5195
228.18	212.5195
231.56	0.0000
235.69	202.0328
236.00	193.4570
236.00	193.4570
238.63	200.8848
238.63	200.8848
238.63	200.8848
238.63	200.8848
239.00	200.9574
240.98	201.3450
241.98	201.5415
241.98	201.5415
241.98	201.5415
244.69	179.4233
245.39	184.7722
247.94	162.1579
248.90	179.5617
249.79	181.1724
252.40	171.9666
252.85	163.2623
252.85	163.2623
254.15	0.0000
256.20	176.0994
256.20	176.0994
260.50	153.8165
260.90	153.8722
262.80	168.3142
264.65	150.4936
268.24	162.3776
268.79	171.0088
269.46	174.6761
269.46	174.6761
269.46	174.6761
269.46	174.6761
271.23	184.2344
273.65	224.7063
276.40	166.0172
277.35	179.4891
277.60	166.0641
277.60	166.0641
278.00	164.3247
278.60	168.0050
279.20	182.4757
279.53	205.9064
280.46	207.8739
281.68	159.4475
283.67	157.0131
284.30	158.9065
285.00	161.7107
285.90	176.3022
286.10	172.7149
286.10	172.7149
287.40	161.1387
288.45	0.0000
290.67	148.1515
290.80	148.1665
291.72	168.6333
293.26	0.0000
293.70	155.8109
295.21	156.0068
295.21	156.0068

295.21	156.0068
295.96	156.8356
296.50	175.1484
297.23	175.2568
298.57	175.4502
299.80	160.9932
299.80	160.9932
300.09	169.8171
300.09	169.8171
300.09	169.8171
300.09	169.8171
300.12	169.8199
301.29	139.2112
302.84	134.9857
303.76	121.8738
303.91	111.6083
304.40	133.6896
304.40	133.6896
304.84	134.7182
306.84	163.7651
308.46	126.2091
311.98	158.9011
316.51	137.2256
318.01	157.8108
319.02	158.8644
319.41	152.4087
320.08	137.6118
323.87	155.1799
323.87	155.1799
323.87	155.1799
323.87	155.1799
325.23	174.7630
328.77	148.2825
333.44	115.2433
334.20	126.3404
334.20	126.3404
334.30	126.3486
338.28	131.0676
338.28	131.0676
338.28	131.0676
338.28	131.0676
338.32	131.0718
338.32	131.0718
338.32	131.0718
340.50	102.7637
340.57	102.7687
344.27	117.9908
345.85	118.8521
350.59	0.0000
351.07	123.3727
351.92	125.7360
351.92	125.7360
351.92	125.7360
355.39	0.0000
356.01	116.1746
364.48	121.1147
366.43	104.9185
367.43	108.8463
367.94	0.0000
369.80	130.2560
374.96	111.3606
383.85	108.1512
387.95	105.5231
388.63	104.5934
391.69	107.7492
391.69	107.7492
392.90	99.0135
398.62	108.2510
400.65	109.3825
401.10	111.3861
401.81	107.4948
402.60	105.5763
404.84	107.7094
410.95	104.1717
411.60	114.1419
413.65	118.2682
414.70	100.4483
415.30	97.5020

415.76	101.5113
417.63	0.0000
418.52	111.6616
423.70	98.0284
427.08	84.2038
427.89	106.3122
432.53	87.5111
433.93	95.6407
439.47	108.0923
439.56	108.0988
439.89	103.0692
443.98	104.3406
444.90	102.3732
445.03	102.3809
445.03	102.3809
445.03	102.3809
445.03	102.3809
453.90	85.6086
463.38	83.6345
468.07	93.1860
473.00	68.0303
475.06	85.6558
475.35	85.6697
476.78	90.9058
477.59	95.0828
477.96	100.2725
482.03	82.8931
484.57	96.5037
487.03	90.4051
490.36	0.0000
492.35	92.7631
497.08	99.2806
507.63	0.0000
510.53	0.0000
510.84	83.1931
511.00	83.2010
511.85	83.2395
511.85	83.2395
513.99	83.3372
513.99	83.3372
520.41	96.7857
520.65	88.3297
527.90	89.2808
528.96	0.0000
529.64	107.4512
529.87	0.0000
531.02	97.9465
537.32	76.9109
543.00	72.8560
546.56	0.0000
549.76	93.5420
552.65	85.0682
555.20	56.0673
563.23	75.7870
563.90	75.8127
568.70	92.2813
569.32	86.8823
569.50	83.6313
569.67	83.6383
573.80	88.1661
574.00	84.9102
574.64	84.9364
578.91	78.5698
579.30	0.0000
583.14	90.7635
585.48	87.5854
591.81	93.3501
592.07	98.8522
593.00	83.5146
595.88	77.0282
600.56	105.8789
602.52	0.0000
602.71	97.1577
602.71	97.1577
603.60	90.1315
604.41	88.3984
604.70	84.8742
609.31	90.8211

609.31	90.8211
609.31	90.8211
609.31	90.8211
610.33	79.7849
612.46	74.5418
614.37	74.6095
618.01	82.3015
621.84	67.9641
621.84	67.9641
631.29	67.1466
633.02	64.9615
633.10	64.9633
634.78	85.1915
635.90	86.3571
636.97	67.3242
645.85	62.1910
646.12	65.8052
656.30	68.8268
657.75	68.8713
657.90	0.0000
661.65	85.3321
661.65	85.3321
664.57	0.0000
666.33	85.5111
666.33	85.5111
675.00	76.7095
677.61	59.4268
685.20	51.3680
692.80	62.5813
695.00	52.5079
696.49	68.2124
696.49	68.2124
697.00	82.0577
697.49	93.1414
698.33	91.3285
698.50	91.3357
699.00	83.0500
702.63	71.1648
706.10	88.8563
706.58	0.0000
706.67	88.8773
709.31	81.5633
711.68	62.1615
713.82	65.9315
717.42	68.8222
720.50	40.3531
721.93	0.0000
722.20	51.2537
722.78	60.5884
722.78	60.5884
722.89	60.5900
722.95	60.5916
723.30	63.7088
724.18	52.8511
727.18	55.0964
733.00	51.4846
735.90	53.1084
739.58	60.0719
742.81	60.1516
744.21	67.7092
747.13	49.9010
751.79	71.6916
752.31	66.0454
753.82	48.1474
755.35	51.0113
756.15	56.6982
756.87	59.5501
763.93	90.0529
765.79	87.2742
766.42	70.2151
766.84	64.5336
776.49	78.1182
778.00	71.4917
778.57	66.7410
778.89	62.9353
783.80	63.0561
785.46	57.3604
792.07	54.3134

795.84	47.0345
796.30	47.0429
798.80	59.2608
801.93	76.9707
805.60	50.3155
810.29	69.4951
810.76	67.5767
815.85	54.1666
817.79	62.9180
818.51	66.8084
819.60	62.9608
826.30	54.3799
828.27	0.0000
831.60	85.6238
831.96	91.4733
834.83	55.5277
836.80	0.0000
846.75	67.5142
848.13	58.7388
856.28	0.0000
856.80	42.5568
860.37	63.9177
867.32	60.1362
867.82	58.1746
871.10	29.6155
873.19	59.2749
874.81	51.4008
875.33	0.0000
876.40	53.4081
879.36	51.4846
880.27	58.4339
880.51	58.4397
881.50	53.5056
883.24	52.5471
884.67	56.5422
889.25	69.5505
896.60	63.7531
898.02	54.8160
899.00	45.8619
903.28	58.2450
911.07	53.0634
911.07	53.0634
911.07	53.0634
919.63	38.1577
920.93	38.1744
925.00	53.3183
925.24	45.2736
926.50	46.2999
935.52	56.5387
937.48	61.6270
944.10	61.7655
946.00	64.8438
949.00	33.4689
962.29	56.0286
964.01	56.0608
966.15	45.8998
968.20	45.9316
969.11	54.4531
969.11	54.4531
969.11	54.4531
977.42	52.2127
980.50	51.2415
983.50	49.2398
989.30	47.2769
996.32	75.1957
1001.03	43.3289
1001.68	49.5293
1004.76	69.2033
1021.30	0.0000
1024.50	0.0000
1034.80	49.0081
1036.00	54.2420
1037.82	56.3599
1038.57	57.4170
1038.76	0.0000
1045.16	54.3969
1046.59	50.2336
1048.07	56.5392

1050.47	57.6292
1050.47	57.6292
1062.04	65.1938
1063.62	43.1341
1076.63	66.5407
1077.35	61.2738
1078.86	48.6189
1085.78	55.0748
1099.22	57.4225
1112.02	53.3691
1112.84	49.8249
1115.52	49.8636
1120.29	62.0583
1120.29	62.0583
1120.29	62.0583
1120.29	62.0583
1120.51	62.0640
1121.28	62.0781
1124.00	0.0000
1129.67	72.4208
1131.51	0.0000
1147.95	0.0000
1167.94	68.3372
1173.22	74.9566
1175.09	64.1279
1177.93	72.8821
1189.05	69.8344
1204.90	71.2366
1205.75	0.0000
1213.00	83.4775
1221.42	75.2301
1230.97	71.7476
1235.34	91.1689
1236.41	0.0000
1238.25	63.5925
1246.25	57.2647
1260.41	0.0000
1271.85	38.1255
1274.45	40.0133
1274.54	45.5966
1291.56	56.0815
1298.22	0.0000
1312.09	37.5863
1325.50	35.8291
1325.50	35.8291
1332.49	43.4497
1333.61	48.1860
1360.21	28.5339
1362.66	0.0000
1365.15	22.8555
1368.21	24.7791
1368.53	0.0000
1376.25	21.0081
1384.27	27.7480
1394.10	23.0186
1395.20	24.9442
1407.95	25.9838
1434.06	22.2728
1436.60	28.0997
1457.56	0.0000
1460.81	29.2358
1489.15	17.6572
1509.49	13.7972
1596.49	22.1056
1620.62	13.1307
1678.03	0.0000
1691.02	8.2012
1691.02	8.2012
1706.46	0.0000
1750.46	0.0000
1764.49	8.3245
1764.49	8.3245
1764.49	8.3245
1764.49	8.3245
1770.23	3.5717
1771.40	28.1338
1791.20	0.0000
1808.65	4.1986

1836.01 10.5526

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020005

Total Uranium Activity	1.3159E+01	ug/g
Total Uranium Counting Unc.	8.9191E+00	ug/g
Total Uranium Tpu	4.5506E-06	ug/g
Total Uranium Mda	4.7034E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                    GEL Laboratories LLC                                   *
*                         2040 SAVAGE ROAD                                  *
*                       CHARLESTON ,SC 29417                                *
*                        GROSS GAMMA REPORT                                 *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM04            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:26:36.70    SAMPLE ALQT:  128.140 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.026E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.472E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.973E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.434E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:28:31.57

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020006.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:27:02
Sample ID         : G246020006           Sample quantity  : 1.65890E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:04.04  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.07*	8718	5123	0.99	126.14	121	10	1.21E+00	1.9	
2	0	74.53	260	4461	1.01	149.06	146	7	3.61E-02	43.2	
3	0	83.69	746	5694	2.00	167.37	164	9	1.04E-01	18.6	
4	0	92.44*	25759	7295	1.17	184.89	179	13	3.58E+00	0.9	
5	0	98.32	1898	2398	1.13	196.64	193	8	2.64E-01	5.1	
6	0	112.18	1895	3662	1.12	224.37	218	12	2.63E-01	6.8	
7	0	131.60	263	1363	2.04	263.21	259	8	3.66E-02	25.2	
8	0	143.63	911	1437	1.04	287.27	283	9	1.27E-01	8.2	
9	0	163.22	448	1365	1.02	326.44	321	10	6.22E-02	16.1	
10	0	185.52*	4504	1411	1.18	371.05	364	14	6.26E-01	2.3	
11	0	205.24	334	799	1.07	410.47	406	9	4.63E-02	16.3	
12	3	238.43*	704	390	1.08	476.86	473	15	9.78E-02	5.9	3.89E+00
13	3	241.52	208	555	1.80	483.03	473	15	2.88E-02	21.8	
14	0	258.24	317	531	1.08	516.48	512	10	4.40E-02	14.8	
15	0	294.63*	132	604	1.28	589.25	584	12	1.83E-02	38.7	
16	0	338.14	130	317	1.29	676.28	672	9	1.81E-02	26.1	
17	0	351.91*	319	468	1.24	703.83	697	14	4.43E-02	15.6	
18	0	510.83*	88	332	2.03	1021.66	1016	16	1.22E-02	50.6	
19	0	582.94*	206	188	1.63	1165.89	1159	13	2.87E-02	15.6	
20	0	608.95*	299	175	1.34	1217.90	1210	14	4.15E-02	11.2	
21	0	726.96*	50	110	1.47	1453.91	1449	9	6.92E-03	41.9	
22	0	742.82	130	192	1.23	1485.63	1480	13	1.81E-02	24.0	
23	0	766.19	668	188	1.51	1532.38	1525	15	9.28E-02	5.9	
24	0	786.55	180	189	2.36	1573.09	1564	21	2.50E-02	20.5	
25	0	910.95*	123	50	1.59	1821.90	1818	10	1.71E-02	14.2	
26	0	945.82	63	86	2.18	1891.63	1884	15	8.75E-03	34.5	
27	0	968.79*	110	45	1.44	1937.58	1933	12	1.52E-02	16.0	
28	0	1000.72	1424	72	1.85	2001.44	1993	17	1.98E-01	3.0	
29	0	1119.79	75	39	2.07	2239.58	2234	11	1.05E-02	19.7	
30	0	1460.48	933	19	2.14	2920.95	2911	19	1.30E-01	3.5	
31	0	1737.82	42	0	1.17	3475.64	3468	14	5.83E-03	15.4	
32	0	1764.83*	82	11	2.80	3529.66	3519	21	1.14E-02	15.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:28:34

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:27:02
Sample ID : G246020006 Sample quantity : 165.89 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:04.04 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.055E+01	1.968E+00	5.308E-01	3.511E-02	38.711
NB-95	+	765.79	*	1.070E+00	1.414E-01	9.160E-02	5.414E-03	11.681
TL-208		277.35		8.820E-01	5.343E-01	8.888E-01	9.466E-02	0.992
	+	510.84		3.816E-01	3.883E-01	2.964E-01	2.975E-02	1.287
	+	583.14	*	2.572E-01	8.178E-02	7.312E-02	4.621E-03	3.517
		860.37		1.532E-01	3.223E-01	5.549E-01	4.243E-02	0.276
BI-211		72.87		2.615E+01	1.002E+01	1.483E+01	1.331E+00	1.764
	+	351.07	*	1.719E+00	5.463E-01	4.171E-01	2.692E-02	4.122
BI-212	+	727.18	*	5.347E-01	4.496E-01	6.679E-01	5.023E-02	0.801
	+	785.46		1.240E+01	5.139E+00	3.870E+00	2.362E-01	3.204
		1620.62		1.260E+00	1.109E+00	2.150E+00	1.319E-01	0.586
BI-214	+	609.31	*	7.022E-01	1.656E-01	1.391E-01	1.026E-02	5.050
	+	1120.29		9.316E-01	3.766E-01	5.171E-01	4.723E-02	1.802
	+	1764.49		1.402E+00	4.367E-01	2.702E-01	1.582E-02	5.188
PB-214	+	74.81		2.312E+00	2.017E+00	2.824E+00	3.300E-01	0.819
		77.11		1.442E+00	1.084E+00	1.598E+00	1.901E-01	0.902
		87.30		-3.156E+00	3.113E+00	3.184E+00	3.974E-01	-0.991
	+	241.98		1.450E+00	6.430E-01	7.609E-01	6.174E-02	1.905
	+	295.21		4.167E-01	3.242E-01	3.097E-01	2.677E-02	1.346
	+	351.92	*	5.981E-01	1.926E-01	1.454E-01	1.206E-02	4.113
PO-214	+	74.81		2.312E+00	2.017E+00	2.824E+00	3.300E-01	0.819
		77.11		1.442E+00	1.084E+00	1.598E+00	1.901E-01	0.902
		87.30		-3.156E+00	3.113E+00	3.184E+00	3.974E-01	-0.991
	+	241.98		1.450E+00	6.430E-01	7.609E-01	6.174E-02	1.905
	+	295.21		4.167E-01	3.242E-01	3.097E-01	2.677E-02	1.346
	+	351.92	*	5.981E-01	1.926E-01	1.454E-01	1.206E-02	4.113
PO-218	+	74.81		2.312E+00	2.017E+00	2.824E+00	3.300E-01	0.819
		77.11		1.442E+00	1.084E+00	1.598E+00	1.901E-01	0.902
		87.30		-3.156E+00	3.113E+00	3.184E+00	3.974E-01	-0.991
	+	241.98		1.450E+00	6.430E-01	7.609E-01	6.174E-02	1.905
	+	295.21		4.167E-01	3.242E-01	3.097E-01	2.677E-02	1.346
	+	351.92	*	5.981E-01	1.926E-01	1.454E-01	1.206E-02	4.113
RA-224	+	240.98	*	2.749E+00	1.209E+00	1.509E+00	8.844E-02	1.822
RA-226	+	609.31	*	7.022E-01	1.656E-01	1.391E-01	1.026E-02	5.050

Sample ID : G246020006 Acquisition date : 13-FEB-2010 16:27:02

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1120.29		9.316E-01	3.766E-01	5.171E-01	4.723E-02	1.802
	+	1764.49		1.402E+00	4.367E-01	2.702E-01	1.582E-02	5.188
AC-228	+	338.32		7.742E-01	5.131E-01	5.105E-01	2.081E-01	1.517
	+	911.07	*	6.881E-01	2.073E-01	2.311E-01	2.362E-02	2.977
	+	969.11		1.081E+00	4.255E-01	4.350E-01	9.922E-02	2.484
RA-228	+	338.32		7.742E-01	5.131E-01	5.105E-01	2.081E-01	1.517
	+	911.07	*	6.881E-01	2.073E-01	2.311E-01	2.362E-02	2.977
	+	969.11		1.081E+00	4.255E-01	4.350E-01	9.922E-02	2.484
TH-230	+	609.31	*	7.022E-01	1.656E-01	1.390E-01	1.026E-02	5.050
	+	1120.29		9.316E-01	3.766E-01	5.170E-01	4.723E-02	1.802
	+	1764.49		1.402E+00	4.367E-01	2.702E-01	1.582E-02	5.188
TH-232	+	338.32		7.742E-01	4.070E-01	5.105E-01	3.003E-02	1.517
	+	911.07	*	6.881E-01	2.073E-01	2.311E-01	2.362E-02	2.977
	+	969.11		1.081E+00	4.255E-01	4.350E-01	9.922E-02	2.484
PA-234M	+	766.42		2.769E+02	1.432E+02	2.373E+01	1.195E+01	11.671
	+	1001.03	*	2.859E+02	2.980E+01	7.545E+00	6.449E-01	37.889
TH-234	+	63.29	*	1.906E+02	3.539E+01	6.204E+00	1.128E+00	30.721
	+	92.38		1.975E+02	3.634E+01	2.525E+00	4.624E-01	78.214
U-234	+	609.31	*	7.022E-01	1.656E-01	1.390E-01	1.026E-02	5.050
	+	1120.29		9.316E-01	3.766E-01	5.170E-01	4.723E-02	1.802
	+	1764.49		1.402E+00	4.367E-01	2.702E-01	1.582E-02	5.188
U-235		89.95		6.538E+01	2.083E+01	7.185E+00	2.236E+00	9.099
	+	93.35		2.374E+02	6.703E+01	3.011E+00	8.469E-01	78.843
		105.00		-5.745E-01	2.483E+00	3.939E+00	1.164E+00	-0.146
	+	143.76	*	3.347E+00	7.740E-01	6.298E-01	1.024E-01	5.314
	+	163.35		3.878E+00	1.429E+00	1.331E+00	2.379E-01	2.912
	+	185.71		3.643E+00	2.634E-01	1.117E-01	6.178E-03	32.631
	+	205.31		3.309E+00	1.230E+00	1.351E+00	2.424E-01	2.449
U-238	+	63.29	*	1.906E+02	3.539E+01	6.204E+00	1.128E+00	30.721
	+	92.38		1.975E+02	1.831E+01	2.525E+00	2.295E-01	78.214
AM-243	+	74.67	*	2.176E-01	1.891E-01	2.666E-01	2.408E-02	0.816
		86.72		-2.931E+01	4.282E+01	4.443E+01	4.339E+00	-0.660
		117.66		-7.962E+00	8.858E+00	1.249E+01	8.009E-01	-0.637
	+	142.18		2.811E+02	4.891E+01	5.302E+01	3.027E+00	5.302
ANH-511	+	511.00	*	8.242E-02	8.359E-02	6.405E-02	3.581E-03	1.287

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.403E-01	4.506E-01	7.671E-01	5.067E-02	0.444
NA-22		1274.54	*	-6.845E-02	4.281E-02	5.675E-02	3.504E-03	-1.206
NA-24		1368.53	*	-6.841E+00	4.281E-02	Half-Life too short		
AL-26		1129.67		-1.140E+00	1.677E+00	2.577E+00	1.605E-01	-0.442
		1808.65	*	6.304E-03	2.544E-02	4.422E-02	2.540E-03	0.143
TI-44		67.85		-1.681E-01	1.464E-01	2.104E-01	1.878E-02	-0.799
		78.38	*	1.427E-01	1.321E-01	1.661E-01	1.527E-02	0.859
SC-46		889.25	*	-2.087E-02	4.391E-02	7.045E-02	5.049E-03	-0.296
	+	1120.51		1.622E-01	6.469E-02	1.101E-01	6.923E-03	1.474

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
V-48		944.10		2.113E+00	1.346E+00	2.212E+00	1.579E-01	0.955
		983.50	*	-1.950E-02	7.641E-02	1.236E-01	8.657E-03	-0.158
		1312.09		1.375E-02	7.118E-02	1.188E-01	7.413E-03	0.116
CR-51		320.08	*	1.310E-01	5.298E-01	8.961E-01	5.904E-02	0.146
MN-52	+	744.21		1.582E+00	7.638E-01	9.375E-01	5.346E-02	1.688
		848.13		-5.039E-01	9.931E+00	1.653E+01	1.114E+00	-0.030
		935.52		4.643E-01	3.571E-01	6.470E-01	4.636E-02	0.718
		1246.25		-3.487E+00	8.859E+00	1.390E+01	8.474E-01	-0.251
		1333.61		6.198E+00	6.223E+00	1.126E+01	7.074E-01	0.550
		1434.06	*	1.167E-01	3.176E-01	5.377E-01	3.384E-02	0.217
MN-54		834.83	*	-2.302E-02	4.442E-02	7.178E-02	4.738E-03	-0.321
CO-56		846.75	*	-2.191E-02	4.787E-02	7.748E-02	5.209E-03	-0.283
		977.42		1.212E+00	3.021E+00	4.970E+00	3.492E-01	0.244
		1037.82		-1.953E-01	2.832E-01	4.334E-01	3.181E-02	-0.451
		1175.09		-2.134E+00	2.325E+00	3.485E+00	2.064E-01	-0.612
		1238.25		1.540E-01	8.802E-02	1.624E-01	1.044E-02	0.948
		1360.21		5.605E-01	8.905E-01	1.568E+00	9.866E-02	0.357
		1771.40		-2.627E-02	2.558E-01	3.520E-01	2.055E-02	-0.075
CO-57		122.06	*	2.158E-02	5.110E-02	8.464E-02	5.170E-03	0.255
		136.48		-1.220E-01	4.234E-01	6.376E-01	4.284E-02	-0.191
CO-58		810.76	*	-4.040E-02	4.917E-02	7.787E-02	4.972E-03	-0.519
FE-59	+	142.65		4.458E+01	7.757E+00	1.075E+01	6.130E-01	4.148
		192.34		-9.993E-01	1.650E+00	2.412E+00	2.824E-01	-0.414
		1099.22	*	-1.088E-02	8.706E-02	1.415E-01	1.038E-02	-0.077
		1291.56		6.906E-02	1.107E-01	1.932E-01	1.495E-02	0.358
CO-60		1173.22		1.334E-02	4.528E-02	7.607E-02	4.501E-03	0.175
		1332.49	*	2.246E-02	3.789E-02	6.580E-02	4.134E-03	0.341
ZN-65		1115.52	*	-7.898E-04	9.832E-02	1.386E-01	8.776E-03	-0.006
GE-68		1077.35	*	6.255E-01	1.230E+00	2.118E+00	1.388E-01	0.295
AS-73		53.44	*	1.165E+00	2.830E+00	4.774E+00	4.366E-01	0.244
AS-74		595.88	*	8.772E-02	1.334E-01	2.246E-01	1.194E-02	0.391
		634.78		-2.203E-01	4.841E-01	7.625E-01	3.897E-02	-0.289
SE-75		66.05		-3.498E+01	1.554E+01	2.138E+01	2.288E+00	-1.636
		96.73		1.994E+01	4.226E+00	4.021E+00	5.437E-01	4.959
		121.11		-5.869E-02	2.781E-01	4.557E-01	4.313E-02	-0.129
		136.00		1.542E-02	8.381E-02	1.210E-01	7.131E-03	0.127
		198.60		-3.986E+00	2.966E+00	4.554E+00	3.179E-01	-0.875
		264.65	*	3.632E-02	6.675E-02	1.050E-01	6.300E-03	0.346
		279.53		-8.033E-02	1.512E-01	2.507E-01	1.610E-02	-0.320
		303.91		-2.217E+00	2.915E+00	4.762E+00	4.593E-01	-0.466
		400.65		1.025E-01	3.351E-01	5.636E-01	5.049E-02	0.182
BR-77		87.88		-1.362E+02	1.545E+03	1.628E+03	1.607E+02	-0.084
		200.40		2.823E+01	5.415E+02	7.663E+02	4.316E+01	0.037
	+	239.00		2.402E+02	3.177E+01	5.848E+01	3.423E+00	4.107
		249.79		4.553E+01	1.764E+02	2.851E+02	1.681E+01	0.160
		281.68		-1.757E+02	2.222E+02	3.646E+02	2.176E+01	-0.482
		297.23		5.899E+01	1.574E+02	2.343E+02	1.400E+01	0.252
		303.76		-3.074E+02	4.489E+02	7.368E+02	4.398E+01	-0.417
		439.47		-3.671E+00	3.252E+02	5.375E+02	3.024E+01	-0.007

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		484.57		2.593E+02	5.235E+02	8.831E+02	4.967E+01	0.294
		520.65	*	-1.241E+01	2.634E+01	4.090E+01	2.279E+00	-0.303
		574.64		-1.467E+02	5.470E+02	8.551E+02	4.625E+01	-0.172
		578.91		-2.020E+02	2.344E+02	3.067E+02	1.654E+01	-0.659
		585.48		1.154E+03	4.824E+02	7.841E+02	4.206E+01	1.472
		755.35		1.998E+02	4.233E+02	6.992E+02	4.062E+01	0.286
		817.79		-8.047E+01	2.731E+02	4.476E+02	2.877E+01	-0.180
SR-82		698.33		-1.268E+01	4.869E+01	7.737E+01	4.079E+00	-0.164
		776.49	*	-3.831E-01	5.278E-01	8.274E-01	4.977E-02	-0.463
		1395.20		3.263E+00	1.142E+01	1.918E+01	1.208E+00	0.170
RB-83		520.41	*	-3.875E-02	9.717E-02	1.516E-01	8.446E-03	-0.256
		529.64		1.122E-02	1.464E-01	2.407E-01	1.336E-02	0.047
		552.65		-8.664E-03	2.560E-01	4.177E-01	2.292E-02	-0.021
RB-84		881.50	*	1.408E-01	9.494E-02	1.717E-01	1.217E-02	0.820
KR-85		513.99	*	5.481E+00	1.084E+01	1.590E+01	8.882E-01	0.345
SR-85		513.99	*	2.872E-02	5.679E-02	8.333E-02	4.654E-03	0.345
RB-86		1076.63	*	4.334E-01	8.387E-01	1.445E+00	9.476E-02	0.300
Y-88		898.02		8.504E-03	4.441E-02	7.505E-02	5.487E-03	0.113
		1836.01	*	-7.282E-03	2.966E-02	4.648E-02	2.642E-03	-0.157
ZR-88		392.90	*	2.722E-02	4.248E-02	7.238E-02	4.016E-03	0.376
Y-91		1204.90	*	9.289E+00	1.777E+01	3.045E+01	1.826E+00	0.305
NB-94		702.63	*	2.986E-02	4.564E-02	7.633E-02	4.054E-03	0.391
		871.10		-8.753E-03	3.877E-02	6.360E-02	4.436E-03	-0.138
NB-95M		235.69	*	4.646E-02	2.157E-01	3.048E-01	2.304E-02	0.152
ZR-95		724.18		1.920E-01	1.398E-01	2.159E-01	1.429E-02	0.889
		756.15	*	9.606E-02	1.014E-01	1.717E-01	1.210E-02	0.559
NB-97		657.90	*	-1.281E+00	1.014E-01	Half-Life too short		
		1024.50		-2.378E+01	1.014E-01	Half-Life too short		
ZR-97		254.15		-2.981E+01	1.014E-01	Half-Life too short		
		355.39		1.172E+01	1.014E-01	Half-Life too short		
		507.63	*	3.392E+01	1.014E-01	Half-Life too short		
		602.52		-1.359E+01	1.014E-01	Half-Life too short		
		1021.30		2.930E+01	1.014E-01	Half-Life too short		
		1147.95		-3.738E+01	1.014E-01	Half-Life too short		
		1362.66		-2.147E+01	1.014E-01	Half-Life too short		
		1750.46		3.069E+01	1.014E-01	Half-Life too short		
MO-99		140.51		6.924E+01	9.461E+01	1.357E+02	3.656E+01	0.510
		181.06		-1.297E+01	5.651E+01	7.954E+01	1.356E+01	-0.163
		366.43		-1.397E+01	1.919E+02	3.190E+02	1.830E+01	-0.044
		739.58	*	2.190E+01	3.578E+01	5.172E+01	7.097E+00	0.423
		778.00		-7.728E+01	8.559E+01	1.140E+02	6.875E+00	-0.678
TC-99M		140.51	*	1.815E+13	8.559E+01	Half-Life too short		
RH-101		127.23		5.493E-02	7.126E-02	1.045E-01	6.240E-03	0.526
		198.01	*	-3.533E-02	5.292E-02	8.306E-02	4.665E-03	-0.425
		325.23		-9.761E-02	2.881E-01	4.768E-01	2.826E-02	-0.205
RH-102		418.52		1.313E-02	3.574E-01	5.934E-01	3.324E-02	0.022
		475.06	*	2.095E-02	3.949E-02	6.663E-02	3.752E-03	0.314
		631.29		8.701E-03	6.654E-02	1.089E-01	5.588E-03	0.080
		697.49		-6.168E-02	1.035E-01	1.611E-01	8.478E-03	-0.383

Sample ID : G246020006 Acquisition date : 13-FEB-2010 16:27:02

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	766.84		2.636E+00	3.483E-01	5.200E-01	3.079E-02	5.069
		1046.59		-1.007E-01	1.097E-01	1.643E-01	1.104E-02	-0.613
		1112.84		2.216E-01	2.255E-01	3.616E-01	2.292E-02	0.613
RU-103		497.08	*	8.739E-03	5.607E-02	9.284E-02	1.166E-02	0.094
	+	610.33		7.864E+00	2.130E+00	2.525E+00	3.843E-01	3.114
RH-106	+	511.85		4.133E-01	4.192E-01	4.470E-01	2.498E-02	0.925
		621.84	*	-1.529E-02	4.154E-01	6.732E-01	7.705E-02	-0.023
		1050.47		1.772E+00	2.160E+00	3.829E+00	2.565E-01	0.463
RU-106	+	511.85		4.133E-01	4.192E-01	4.470E-01	2.498E-02	0.925
		621.84	*	-1.529E-02	4.153E-01	6.732E-01	3.491E-02	-0.023
		1050.47		1.772E+00	2.160E+00	3.829E+00	2.565E-01	0.463
AG-108M		433.93	*	1.827E-02	4.214E-02	7.110E-02	4.360E-03	0.257
		614.37		3.258E-02	5.398E-02	7.958E-02	4.589E-03	0.409
		722.95		-1.438E-02	6.307E-02	8.574E-02	5.159E-03	-0.168
CD-109		88.03	*	2.692E-01	3.920E+00	4.147E+00	4.095E-01	0.065
AG-110M		657.75	*	-6.536E-02	4.764E-02	7.057E-02	3.809E-03	-0.926
		677.61		7.375E-04	3.827E-01	6.188E-01	3.393E-02	0.001
		706.67		-1.438E-01	2.790E-01	4.356E-01	2.493E-02	-0.330
		763.93		3.102E+00	4.221E-01	7.340E-01	4.583E-02	4.226
		884.67		9.646E-03	6.269E-02	1.055E-01	7.863E-03	0.091
		937.48		6.948E-02	1.392E-01	2.173E-01	1.637E-02	0.320
		1384.27		-1.533E-01	1.570E-01	2.188E-01	1.449E-02	-0.701
IN-111		171.28		1.348E-02	2.967E+00	4.826E+00	2.623E-01	0.003
		245.39	*	1.835E+00	2.840E+00	4.090E+00	2.404E-01	0.449
IN-113M		391.69	*	1.720E-02	6.082E-02	1.023E-01	6.085E-03	0.168
SN-113		391.69	*	1.720E-02	6.082E-02	1.023E-01	6.085E-03	0.168
IN-114M		190.27	*	-3.632E-01	3.271E-01	4.428E-01	2.464E-02	-0.820
CD-115		260.90		2.476E+01	4.149E+02	5.800E+02	3.440E+01	0.043
		492.35		2.922E+01	8.963E+01	1.498E+02	8.413E+00	0.195
		527.90	*	-2.249E+00	2.801E+01	4.570E+01	2.539E+00	-0.049
SN-117M		156.02		-6.572E-01	4.540E+00	7.309E+00	4.038E-01	-0.090
		158.56	*	2.236E-03	1.252E-01	1.787E-01	9.818E-03	0.013
SB-122		563.90	*	-4.081E+00	4.939E+00	7.716E+00	4.205E-01	-0.529
		692.80		1.026E+02	9.733E+01	1.666E+02	8.698E+00	0.616
I-123		159.00	*	1.069E+01	9.733E+01	Half-Life too short		
		528.96		-1.487E+03	9.733E+01	Half-Life too short		
TE-123M		159.00	*	3.889E-03	5.869E-02	8.393E-02	4.675E-03	0.046
I-124		602.71	*	-2.727E-01	1.353E+00	1.870E+00	9.883E-02	-0.146
		722.78		-2.270E+00	9.275E+00	1.259E+01	6.924E-01	-0.180
		1325.50		-2.451E+01	4.586E+01	6.941E+01	4.351E+00	-0.353
		1376.25		1.243E+01	3.844E+01	6.492E+01	4.087E+00	0.192
		1509.49		4.974E+01	2.520E+01	4.929E+01	3.084E+00	1.009
		1691.02		5.335E-02	4.468E+00	7.442E+00	4.475E-01	0.007
SB-124		602.71		-1.152E-02	5.715E-02	7.899E-02	4.177E-03	-0.146
		645.85		8.053E-03	6.731E-01	1.092E+00	6.424E-02	0.007
		709.31		-8.293E-01	3.685E+00	5.857E+00	3.147E-01	-0.142
		713.82		-1.084E+00	2.232E+00	3.482E+00	3.482E-01	-0.311
		722.78		-1.390E-01	5.679E-01	7.709E-01	4.461E-02	-0.180
	+	968.20		1.140E+01	3.744E+00	6.262E+00	4.420E-01	1.820

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1045.16		-3.780E-01	2.304E+00	3.741E+00	2.516E-01	-0.101
		1325.50		-1.603E+00	2.999E+00	4.539E+00	2.845E-01	-0.353
		1368.21		-1.790E+00	1.455E+00	1.815E+00	2.200E-01	-0.986
		1436.60		1.909E+00	4.041E+00	6.964E+00	4.382E-01	0.274
		1691.02	*	7.705E-04	6.452E-02	1.075E-01	6.979E-03	0.007
SB-125		427.89	*	-4.631E-02	1.167E-01	1.895E-01	1.112E-02	-0.244
		463.38		1.912E-01	3.716E-01	6.265E-01	4.149E-02	0.305
		600.56		-9.694E-02	2.465E-01	3.679E-01	2.310E-02	-0.263
		635.90		-5.359E-02	3.391E-01	5.446E-01	3.381E-02	-0.098
TE-125M		109.28	*	9.276E+01	2.753E+01	4.048E+01	3.682E+00	2.291
I-126		388.63		-3.223E-02	3.011E-01	4.984E-01	2.777E-02	-0.065
		666.33	*	-1.370E-01	2.865E-01	4.513E-01	2.247E-02	-0.304
		753.82		1.091E+00	2.266E+00	3.747E+00	2.171E-01	0.291
SB-126		223.80		-3.952E+00	7.001E+00	1.108E+01	6.398E-01	-0.357
		278.60		3.128E+00	3.749E+00	6.473E+00	3.862E-01	0.483
		296.50		3.996E+00	2.597E+00	4.028E+00	2.406E-01	0.992
		414.70		-2.373E-02	1.046E-01	1.715E-01	9.596E-03	-0.138
		415.30		1.599E+00	8.683E+00	1.452E+01	8.124E-01	0.110
		555.20		1.691E+00	5.812E+00	9.648E+00	5.286E-01	0.175
		573.80		-8.170E-01	1.679E+00	2.671E+00	1.445E-01	-0.306
		593.00		4.142E-01	1.398E+00	2.314E+00	1.233E-01	0.179
		656.30		-6.283E+00	5.036E+00	7.522E+00	3.742E-01	-0.835
		666.33		-5.750E-02	1.203E-01	1.895E-01	9.435E-03	-0.304
		675.00		2.423E-01	2.807E+00	4.564E+00	2.309E-01	0.053
		695.00		-1.563E-01	1.190E-01	1.764E-01	9.244E-03	-0.886
		697.00		-4.552E-01	4.088E-01	6.145E-01	3.232E-02	-0.741
		720.50	*	-3.941E-02	2.347E-01	3.372E-01	1.847E-02	-0.117
		856.80		-6.531E-02	6.040E-01	1.001E+00	6.833E-02	-0.065
		989.30		-4.066E-01	1.454E+00	2.348E+00	1.639E-01	-0.173
		1034.80		-3.236E+00	9.023E+00	1.436E+01	9.731E-01	-0.225
		1213.00		-8.187E-02	5.209E+00	8.505E+00	5.119E-01	-0.010
SN-126	+	64.28		7.545E+01	1.197E+01	4.036E+00	6.212E-01	18.693
		86.94		-1.833E+00	1.796E+00	1.672E+00	6.960E-01	-1.096
		87.57	*	-1.426E-01	3.853E-01	4.032E-01	3.968E-02	-0.354
SB-127		61.10		5.258E+03	7.223E+02	5.868E+02	7.133E+01	8.960
		252.40		9.709E-01	9.987E+00	1.480E+01	6.178E+00	0.066
		290.80		2.107E+01	4.691E+01	7.020E+01	7.041E+00	0.300
		411.60		4.746E-01	2.246E+01	3.729E+01	5.517E+00	0.013
		444.90		-3.162E-02	1.775E+01	2.933E+01	3.332E+00	-0.001
		473.00		-2.799E+00	3.335E+00	5.247E+00	6.154E-01	-0.533
		543.00		2.472E+01	3.226E+01	5.460E+01	7.284E+00	0.453
		603.60		-1.111E+00	2.370E+01	3.317E+01	3.704E+00	-0.033
		685.20	*	-1.353E+00	2.497E+00	3.885E+00	3.815E-01	-0.348
		698.50		-2.844E+00	2.959E+01	4.748E+01	7.017E+00	-0.060
		722.20		-2.800E+01	6.666E+01	8.901E+01	8.679E+00	-0.315
		783.80		2.305E+01	8.533E+00	1.416E+01	1.624E+00	1.628
XE-127		57.60		9.420E+00	2.346E+01	3.487E+01	3.209E+00	0.270
		145.22		9.856E+00	1.699E+00	2.638E+00	1.495E-01	3.736
		172.10		9.335E-02	2.209E-01	3.623E-01	1.972E-02	0.258

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		202.84	*	1.471E-01	9.131E-02	1.355E-01	7.657E-03	1.085
		374.96		1.097E-01	2.708E-01	4.584E-01	2.602E-02	0.239
I-131		80.18		-3.921E+01	1.844E+01	2.565E+01	2.400E+00	-1.529
		284.30		1.407E+00	2.350E+00	4.035E+00	2.673E-01	0.349
		364.48	*	-7.969E-02	1.897E-01	3.111E-01	2.007E-02	-0.256
		636.97		8.808E-01	2.341E+00	3.885E+00	2.292E-01	0.227
		722.89		-2.969E+00	1.269E+01	1.724E+01	9.676E-01	-0.172
TE-132		49.72		-7.847E+01	1.006E+02	1.670E+02	1.915E+01	-0.470
	+	111.76		1.507E+03	2.556E+02	2.411E+02	2.453E+01	6.252
		116.30		1.105E+02	1.011E+02	1.490E+02	1.480E+01	0.741
		228.16	*	2.787E-01	1.652E+00	2.669E+00	3.949E-01	0.104
BA-133		53.15		4.185E+00	1.198E+01	2.020E+01	1.844E+00	0.207
		79.62		-1.139E+01	5.420E+00	6.055E+00	9.444E-01	-1.880
		81.00		-4.106E-01	3.283E-01	4.620E-01	7.522E-02	-0.889
		276.40		7.727E-01	5.358E-01	8.828E-01	1.151E-01	0.875
		302.84		-4.609E-02	1.962E-01	3.272E-01	3.842E-02	-0.141
		356.01	*	-2.600E-02	6.678E-02	9.471E-02	1.095E-02	-0.275
		383.85		6.699E-02	3.972E-01	6.653E-01	7.167E-02	0.101
I-133	+	510.53		4.385E+00	3.972E-01	Half-Life too short		
		529.87	*	2.925E-03	3.972E-01	Half-Life too short		
		706.58		-1.478E+00	3.972E-01	Half-Life too short		
		856.28		-3.097E+00	3.972E-01	Half-Life too short		
		875.33		-4.437E-01	3.972E-01	Half-Life too short		
		1236.41		2.725E+00	3.972E-01	Half-Life too short		
		1298.22		1.648E-01	3.972E-01	Half-Life too short		
CS-134		475.35		2.669E+00	2.555E+00	4.407E+00	2.481E-01	0.606
		563.23		-1.081E-01	4.977E-01	8.035E-01	4.484E-02	-0.135
		569.32		4.341E-01	2.858E-01	4.982E-01	2.797E-02	0.871
		604.70		-3.150E-03	4.821E-02	6.739E-02	3.579E-03	-0.047
		795.84	*	9.704E-02	6.828E-02	1.096E-01	6.897E-03	0.885
		801.93		-4.560E-01	5.135E-01	8.162E-01	5.170E-02	-0.559
		1038.57		-1.774E+00	3.533E+00	5.532E+00	3.740E-01	-0.321
		1167.94		-1.900E-01	2.465E+00	4.011E+00	2.389E-01	-0.047
		1365.15		-1.861E-01	9.241E-01	1.447E+00	9.869E-02	-0.129
CS-135		268.24	*	1.505E-01	2.216E-01	3.619E-01	2.812E-02	0.416
I-135		288.45		-1.138E+12	2.216E-01	Half-Life too short		
		417.63		-1.112E+12	2.216E-01	Half-Life too short		
		546.56		2.432E+11	2.216E-01	Half-Life too short		
		836.80		2.327E+10	2.216E-01	Half-Life too short		
		1038.76		-1.125E+12	2.216E-01	Half-Life too short		
		1124.00		3.848E+12	2.216E-01	Half-Life too short		
		1131.51		-1.275E+12	2.216E-01	Half-Life too short		
		1260.41	*	4.512E+11	2.216E-01	Half-Life too short		
		1457.56		1.030E+14	2.216E-01	Half-Life too short		
		1678.03		-5.697E+11	2.216E-01	Half-Life too short		
		1706.46		-2.059E+12	2.216E-01	Half-Life too short		
		1791.20		-9.703E+11	2.216E-01	Half-Life too short		
CS-136		66.91		-5.697E+00	2.841E+00	3.839E+00	5.994E-01	-1.484
		86.29		-1.319E+00	4.851E+00	5.946E+00	8.100E-01	-0.222

---- Non-Identified Nuclides ----

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		153.22		-1.601E-01	1.315E+00	2.141E+00	1.506E-01	-0.075
	+	163.89		9.795E+00	3.231E+00	4.077E+00	2.838E-01	2.402
		176.55		1.071E-01	7.203E-01	1.174E+00	7.312E-02	0.091
		273.65		-1.090E+00	7.336E-01	1.103E+00	7.454E-02	-0.988
		340.57		3.460E-01	2.014E-01	3.174E-01	1.980E-02	1.090
		818.51		-3.733E-02	9.362E-02	1.523E-01	9.817E-03	-0.245
		1048.07	*	-6.164E-02	1.139E-01	1.780E-01	1.278E-02	-0.346
		1235.34		3.747E-01	6.381E-01	1.090E+00	1.106E-01	0.344
BA-137M		661.65	*	3.439E-02	5.033E-02	8.443E-02	4.170E-03	0.407
CS-137		661.65	*	3.636E-02	5.321E-02	8.925E-02	4.433E-03	0.407
CE-139		165.85	*	4.124E-02	6.063E-02	8.809E-02	4.763E-03	0.468
BA-140	+	162.64		6.919E+00	2.272E+00	2.861E+00	1.776E-01	2.418
		304.84		-8.963E-01	1.957E+00	3.212E+00	8.777E-01	-0.279
		423.70		1.232E+00	2.748E+00	4.597E+00	1.460E+00	0.268
		537.32	*	2.209E-01	3.929E-01	6.510E-01	2.114E-01	0.339
LA-140		328.77		4.154E-01	4.317E-01	7.458E-01	4.923E-02	0.557
		432.53		2.044E+00	2.975E+00	5.074E+00	3.168E-01	0.403
		487.03		-2.973E-01	1.989E-01	2.998E-01	1.922E-02	-0.992
		751.79		-2.264E+00	2.664E+00	4.041E+00	2.860E-01	-0.560
		815.85		2.554E-01	4.252E-01	7.390E-01	5.684E-02	0.346
		867.82		1.359E+00	1.693E+00	2.984E+00	2.238E-01	0.456
		919.63		-2.899E+00	3.640E+00	5.675E+00	5.414E-01	-0.511
		925.24		1.851E+00	1.529E+00	2.739E+00	2.146E-01	0.676
		1596.49	*	-1.753E-02	8.229E-02	1.327E-01	8.188E-03	-0.132
CE-141		145.44	*	7.364E-01	1.502E-01	2.320E-01	1.369E-02	3.174
CE-143		57.37		-2.744E-04	1.502E-01	Half-Life too short		
		231.56		2.759E-03	1.502E-01	Half-Life too short		
	+	293.26	*	1.126E-03	1.502E-01	Half-Life too short		
	+	350.59		3.867E-02	1.502E-01	Half-Life too short		
		490.36		2.621E-03	1.502E-01	Half-Life too short		
		664.57		-1.954E-03	1.502E-01	Half-Life too short		
		721.93		-1.337E-03	1.502E-01	Half-Life too short		
CE-144		80.11		-1.807E+01	7.758E+00	9.934E+00	9.227E-01	-1.819
		133.54	*	5.201E-01	4.372E-01	6.396E-01	9.096E-02	0.813
PM-144		476.78		1.167E-01	9.101E-02	1.582E-01	1.076E-02	0.737
		618.01		-5.656E-03	4.151E-02	6.690E-02	3.742E-03	-0.085
		696.49	*	-7.855E-02	4.749E-02	6.867E-02	3.612E-03	-1.144
		778.57		-2.015E+00	3.391E+00	4.654E+00	2.812E-01	-0.433
PR-144		696.49	*	-5.329E+00	3.221E+00	4.658E+00	2.448E-01	-1.144
		1489.15		4.669E+00	1.098E+01	1.889E+01	1.185E+00	0.247
PM-146		453.90	*	2.460E-02	5.926E-02	9.961E-02	8.478E-03	0.247
		633.02		-1.099E+00	1.731E+00	2.614E+00	9.601E-01	-0.420
		735.90		-3.433E-01	2.750E-01	3.380E-01	9.413E-02	-1.016
		747.13		2.486E-02	1.412E-01	1.986E-01	2.478E-02	0.125
ND-147	+	91.11		1.132E+02	1.125E+01	3.429E+00	3.418E-01	33.011
		319.41		1.796E+00	5.121E+00	8.692E+00	5.168E-01	0.207
		439.89		-1.548E+00	8.225E+00	1.347E+01	7.585E-01	-0.115
		531.02	*	5.149E-01	8.794E-01	1.478E+00	1.983E-01	0.348
PM-149		285.90	*	-1.258E+02	2.305E+02	3.801E+02	5.418E+01	-0.331

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EU-152		121.78		4.530E-02	1.472E-01	2.434E-01	1.911E-02	0.186
		244.69		4.170E-01	5.265E-01	7.628E-01	4.482E-02	0.547
		344.27	*	-6.059E-03	1.429E-01	2.073E-01	1.366E-02	-0.029
		443.98		-1.911E-01	1.190E+00	1.951E+00	1.098E-01	-0.098
		778.89		-2.318E-01	3.900E-01	5.353E-01	3.233E-02	-0.433
		867.32		3.286E-01	9.212E-01	1.576E+00	1.093E-01	0.209
		964.01		4.732E-01	3.119E-01	5.178E-01	3.663E-02	0.914
		1085.78		9.217E-02	3.822E-01	6.434E-01	4.186E-02	0.143
		1112.02		1.772E-01	3.165E-01	5.122E-01	3.250E-02	0.346
		1407.95		9.926E-02	1.766E-01	3.064E-01	1.929E-02	0.324
GD-153		69.67		5.012E+00	4.947E+00	7.737E+00	6.907E-01	0.648
	+	83.37		1.642E+02	6.291E+01	7.664E+01	7.283E+00	2.142
	+	97.43	*	2.528E+00	3.296E-01	4.134E-01	3.455E-02	6.114
		103.18		1.147E-03	2.691E-01	3.907E-01	3.002E-02	0.003
EU-154		123.07		3.958E-02	1.044E-01	1.727E-01	1.654E-02	0.229
		247.94		-4.070E-01	5.546E-01	8.317E-01	7.980E-02	-0.489
		591.81		-4.619E-01	8.358E-01	1.317E+00	1.252E-01	-0.351
		723.30		6.300E-02	2.570E-01	3.645E-01	2.493E-02	0.173
		756.87		1.405E+00	1.072E+00	1.843E+00	1.871E-01	0.762
		873.19		-7.717E-02	3.337E-01	5.469E-01	6.104E-02	-0.141
		996.32		6.289E-01	5.125E-01	8.049E-01	1.370E-01	0.781
		1004.76		1.037E+00	3.075E-01	5.484E-01	5.725E-02	1.891
		1274.45	*	-1.931E-01	1.201E-01	1.575E-01	1.507E-02	-1.226
EU-155		48.70		1.812E+00	8.068E+00	1.362E+01	1.140E+00	0.133
		60.01		4.041E+01	1.843E+01	2.751E+01	2.520E+00	1.469
		86.54		-2.788E-01	4.697E-01	4.887E-01	4.804E-02	-0.571
		105.31	*	-8.953E-02	2.637E-01	4.009E-01	3.041E-02	-0.223
TB-160		86.79		-8.877E-01	1.275E+00	1.322E+00	1.292E-01	-0.671
		197.04		-5.660E-02	9.156E-01	1.462E+00	8.200E-02	-0.039
		215.65		-7.268E-02	1.177E+00	1.893E+00	1.085E-01	-0.038
		298.57		7.204E-02	1.747E-01	2.608E-01	1.557E-02	0.276
		879.36	*	-5.200E-02	1.800E-01	2.944E-01	2.079E-02	-0.177
		962.29		3.871E-01	5.748E-01	9.130E-01	6.464E-02	0.424
		966.15		8.659E-01	2.652E-01	4.780E-01	3.378E-02	1.812
		1177.93		2.731E-01	3.532E-01	6.177E-01	3.662E-02	0.442
		1271.85		1.437E-01	6.220E-01	1.041E+00	6.408E-02	0.138
HO-166M		80.57		-1.826E+00	9.069E-01	1.266E+00	1.180E-01	-1.442
	+	184.41		2.733E+00	1.976E-01	2.045E-01	1.130E-02	13.361
		280.46		-1.306E-01	1.157E-01	1.876E-01	1.120E-02	-0.696
		410.95		2.248E-01	3.082E-01	5.270E-01	2.945E-02	0.427
		711.68	*	9.892E-03	7.851E-02	1.276E-01	6.883E-03	0.078
		752.31		-1.665E-01	3.783E-01	5.907E-01	3.415E-02	-0.282
		810.29		-6.487E-02	7.277E-02	1.147E-01	7.284E-03	-0.566
TM-171		51.35		-8.364E+01	1.027E+02	1.706E+02	1.530E+01	-0.490
		52.39		-1.204E+01	5.277E+01	8.846E+01	8.029E+00	-0.136
		59.40		1.588E+02	9.814E+01	1.468E+02	1.349E+01	1.082
		66.72	*	-2.181E+02	9.029E+01	1.247E+02	1.114E+01	-1.749
LU-176		88.36		1.031E+00	8.975E-01	9.676E-01	9.489E-02	1.065
		201.83		-1.040E-02	5.299E-02	7.429E-02	4.192E-03	-0.140

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		306.84	*	1.727E-02	3.348E-02	5.720E-02	3.412E-03	0.302
		401.10		2.915E+00	8.681E+00	1.462E+01	8.140E-01	0.199
LU-177	+	112.95		6.615E+01	1.006E+01	1.021E+01	6.919E-01	6.480
		208.36	*	8.381E-01	2.269E+00	3.243E+00	1.844E-01	0.258
LU-177M		52.97		1.061E-01	5.470E+00	9.195E+00	8.384E-01	0.012
		54.07		2.257E+00	2.875E+00	4.859E+00	4.456E-01	0.464
		61.30		1.333E+02	1.371E+01	1.156E+01	1.051E+00	11.534
		121.62		-4.368E-02	7.654E-01	1.258E+00	7.702E-02	-0.035
		147.16		4.032E-01	1.330E+00	1.920E+00	1.083E-01	0.210
		171.86		4.223E-01	8.646E-01	1.420E+00	7.728E-02	0.297
		218.09		9.589E-01	1.321E+00	2.171E+00	1.247E-01	0.442
		268.79		4.141E-01	1.137E+00	1.839E+00	1.094E-01	0.225
		319.02		1.664E-01	3.565E-01	6.074E-01	3.610E-02	0.274
		367.43		-1.573E-02	1.238E+00	2.063E+00	1.182E-01	-0.008
		413.65	*	-1.977E-01	2.252E-01	3.579E-01	2.002E-02	-0.552
HF-181		56.28		-1.822E+00	3.267E+00	5.444E+00	5.012E-01	-0.335
		57.53		6.647E-01	1.964E+00	2.917E+00	2.684E-01	0.228
		65.20		3.225E+01	4.436E+00	5.586E+00	5.004E-01	5.773
	+	133.02		3.156E-01	1.602E-01	2.157E-01	1.264E-02	1.463
		136.25		-1.459E-01	1.006E+00	1.439E+00	8.348E-02	-0.101
		345.85		-3.781E-01	3.035E-01	4.090E-01	2.392E-02	-0.925
		482.03	*	2.609E-03	5.834E-02	9.625E-02	5.415E-03	0.027
W-181		56.28		-6.960E-01	1.251E+00	2.085E+00	1.919E-01	-0.334
		57.53		2.536E-01	7.525E-01	1.118E+00	1.029E-01	0.227
		65.20	*	1.226E+01	1.686E+00	2.124E+00	1.902E-01	5.773
TA-182		67.75		-4.517E-01	3.539E-01	5.072E-01	4.527E-02	-0.890
		100.10		3.780E+00	5.802E-01	8.187E-01	6.572E-02	4.617
		152.43		1.813E-01	6.073E-01	9.976E-01	5.557E-02	0.182
		222.10		-4.029E-01	5.413E-01	8.519E-01	4.913E-02	-0.473
	+	1001.68		1.275E+02	1.166E+01	1.589E+01	1.101E+00	8.025
	+	1121.28		4.460E-01	1.779E-01	2.962E-01	1.861E-02	1.506
		1189.05		-6.387E-02	2.711E-01	4.330E-01	2.580E-02	-0.148
		1221.42	*	-2.146E-01	2.003E-01	2.955E-01	1.784E-02	-0.726
		1230.97		-2.834E-01	4.806E-01	7.447E-01	4.514E-02	-0.381
RE-183		57.98		5.382E-01	7.513E-01	1.120E+00	1.031E-01	0.481
		59.32		6.309E-01	4.107E-01	6.142E-01	5.645E-02	1.027
		67.20		-9.776E-01	6.385E-01	9.082E-01	8.109E-02	-1.076
	+	162.32	*	9.237E-01	3.020E-01	3.791E-01	2.065E-02	2.437
		208.81		1.295E+00	1.661E+00	2.409E+00	1.370E-01	0.538
		291.72		1.234E+00	1.444E+00	2.199E+00	1.314E-01	0.561
RE-184		57.98		1.960E+00	2.735E+00	4.078E+00	3.752E-01	0.481
		59.32		2.295E+00	1.494E+00	2.234E+00	2.054E-01	1.027
		67.20		-3.558E+00	2.324E+00	3.306E+00	2.951E-01	-1.076
		161.27		1.053E+00	7.788E-01	1.149E+00	6.275E-02	0.916
		216.55		3.718E-02	4.139E-01	6.687E-01	3.835E-02	0.056
		252.85	*	-1.106E-01	3.980E-01	5.483E-01	3.239E-02	-0.202
		318.01		8.248E-01	6.205E-01	1.085E+00	6.451E-02	0.760
		792.07		-1.018E-01	1.525E+00	2.196E+00	1.355E-01	-0.046
		903.28		-4.095E-01	1.062E+00	1.671E+00	1.212E-01	-0.245

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		920.93		-6.826E-01	5.573E-01	8.404E-01	6.055E-02	-0.812
OS-185		59.72		1.900E+00	1.103E+00	1.649E+00	1.514E-01	1.152
		61.14		1.113E+01	1.220E+00	1.191E+00	1.084E-01	9.346
		69.30		4.188E-01	8.568E-01	1.391E+00	1.241E-01	0.301
		592.07		-8.755E-01	3.442E+00	5.526E+00	2.948E-01	-0.158
		646.12	*	-5.722E-03	5.703E-02	9.188E-02	4.632E-03	-0.062
		717.42		2.574E-01	1.194E+00	1.950E+00	1.063E-01	0.132
		874.81		-3.816E-01	6.957E-01	1.114E+00	7.811E-02	-0.343
		880.27		9.838E-01	1.011E+00	1.784E+00	1.262E-01	0.552
RE-188		155.03	*	-5.399E-02	3.139E-01	5.051E-01	2.797E-02	-0.107
		477.96		2.530E+00	4.284E+00	7.245E+00	4.078E-01	0.349
		633.10		-2.215E+00	3.476E+00	5.401E+00	2.766E-01	-0.410
W-188	+	63.58		7.821E+03	7.641E+02	4.487E+02	4.038E+01	17.431
		227.08		1.602E+01	1.979E+01	3.256E+01	1.887E+00	0.492
		290.67	*	4.475E+00	1.140E+01	1.703E+01	1.017E+00	0.263
IR-192	+	295.96		3.239E-01	2.512E-01	2.856E-01	1.732E-02	1.134
		308.46		-1.125E-04	1.323E-01	2.223E-01	1.340E-02	-0.001
		316.51	*	5.121E-02	4.800E-02	8.333E-02	4.981E-03	0.615
		468.07		2.450E-02	8.924E-02	1.490E-01	9.747E-03	0.164
		604.41		-6.281E-02	6.625E-01	9.237E-01	1.025E-01	-0.068
		612.46		7.472E-01	1.066E+00	1.575E+00	1.126E-01	0.474
AU-195		65.12		6.740E+00	8.520E-01	1.013E+00	9.078E-02	6.652
		66.83		-6.810E-01	2.996E-01	4.159E-01	3.715E-02	-1.637
	+	75.70		7.096E-01	6.166E-01	8.904E-01	8.076E-02	0.797
	+	98.88	*	7.374E+00	9.616E-01	1.159E+00	9.471E-02	6.364
		129.76		5.255E+00	6.528E+00	9.567E+00	5.663E-01	0.549
TL-200		367.94	*	-7.236E-04	6.528E+00	Half-Life too short		
		579.30		-1.174E-02	6.528E+00	Half-Life too short		
		828.27		4.359E-03	6.528E+00	Half-Life too short		
		1205.75		5.634E-03	6.528E+00	Half-Life too short		
TL-201		68.90		6.508E+00	2.271E+01	3.533E+01	3.152E+00	0.184
		70.82		1.746E+01	1.370E+01	2.037E+01	1.821E+00	0.857
		80.30		-5.762E+01	2.691E+01	3.742E+01	3.480E+00	-1.540
		135.34		5.989E+00	8.537E+01	1.229E+02	7.148E+00	0.049
		167.43	*	2.112E+00	2.234E+01	3.191E+01	1.727E+00	0.066
TL-202		68.90		4.109E-01	1.434E+00	2.230E+00	1.990E-01	0.184
		70.82		1.100E+00	8.623E-01	1.283E+00	1.146E-01	0.857
		80.30		-3.629E+00	1.695E+00	2.357E+00	2.192E-01	-1.540
		439.56	*	-3.270E-03	9.673E-02	1.597E-01	8.983E-03	-0.020
HG-203		70.83		4.413E+00	3.459E+00	5.099E+00	7.042E-01	0.865
		72.87		5.364E+00	2.123E+00	3.041E+00	4.087E-01	1.764
	+	82.60		1.251E+01	4.978E+00	5.787E+00	8.263E-01	2.162
		279.20	*	-6.055E-03	5.754E-02	9.672E-02	6.108E-03	-0.063
BI-207		72.80		1.432E+00	5.823E-01	8.632E-01	7.748E-02	1.660
	+	74.97		3.906E-01	3.394E-01	4.943E-01	4.469E-02	0.790
	+	84.90		2.111E+00	8.089E-01	9.670E-01	9.301E-02	2.183
		569.67		5.961E-02	4.448E-02	7.701E-02	4.180E-03	0.774
		1063.62	*	5.879E-03	4.923E-02	8.208E-02	5.442E-03	0.072
		1770.23		3.947E-01	4.533E-01	7.892E-01	4.610E-02	0.500

---- Non-Identified Nuclides ----

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TL-207		81.07		-8.294E-01	7.138E-01	1.021E+00	9.548E-02	-0.812
	+	83.78		1.392E+00	5.333E-01	6.479E-01	6.177E-02	2.148
		94.90		1.599E+01	1.706E+00	1.441E+00	1.255E-01	11.095
		122.32		7.637E-01	3.535E+00	5.835E+00	4.057E-01	0.131
	+	144.24		1.085E+01	1.944E+00	2.589E+00	1.848E-01	4.189
		154.21		-3.322E-01	7.178E-01	1.148E+00	7.814E-02	-0.289
		269.46		5.485E-02	2.647E-01	4.258E-01	2.643E-02	0.129
		323.87	*	-9.149E-01	8.878E-01	1.411E+00	2.336E-01	-0.649
	+	338.28		3.233E+00	1.723E+00	2.453E+00	2.595E-01	1.318
		445.03		-4.254E-02	2.847E+00	4.702E+00	4.784E-01	-0.009
PO-209		260.50		2.559E+01	1.649E+01	2.454E+01	1.455E+00	1.043
		262.80		-2.401E+01	4.505E+01	6.108E+01	3.625E+00	-0.393
		896.60	*	1.482E+00	7.828E+00	1.323E+01	9.584E-01	0.112
BI-210		46.50	*	-1.634E+01	1.181E+01	1.936E+01	1.594E+00	-0.844
PB-210		46.50	*	-1.634E+01	1.181E+01	1.936E+01	1.594E+00	-0.844
PO-210		46.50	*	-1.634E+01	1.179E+01	1.936E+01	1.399E+00	-0.844
PB-211		404.84	*	-2.116E-01	1.234E+00	2.022E+00	1.260E+00	-0.105
		427.08		-4.072E-01	2.616E+00	4.279E+00	2.644E+00	-0.095
		831.96		1.147E+00	1.587E+00	2.490E+00	1.554E+00	0.461
PB-212	+	74.81		1.342E+00	1.173E+00	1.702E+00	2.212E-01	0.789
		77.11		8.411E-01	6.293E-01	9.324E-01	8.513E-02	0.902
		87.30		-1.842E+00	1.821E+00	1.859E+00	2.605E-01	-0.991
	+	238.63	*	8.182E-01	1.143E-01	1.983E-01	1.462E-02	4.126
		300.09		9.472E-01	1.167E+00	1.770E+00	1.481E-01	0.535
PO-212	+	74.81		1.342E+00	1.173E+00	1.702E+00	2.212E-01	0.789
		77.11		8.411E-01	6.293E-01	9.324E-01	8.513E-02	0.902
		87.30		-1.842E+00	1.821E+00	1.859E+00	2.605E-01	-0.991
		115.19		3.203E+01	8.854E+00	1.345E+01	8.878E-01	2.381
	+	238.63	*	8.182E-01	1.143E-01	1.983E-01	1.462E-02	4.126
		300.09		9.472E-01	1.167E+00	1.770E+00	1.481E-01	0.535
PO-215		81.07		-8.294E-01	7.138E-01	1.021E+00	9.548E-02	-0.812
	+	83.78		1.392E+00	5.333E-01	6.479E-01	6.177E-02	2.148
		94.90		1.599E+01	1.706E+00	1.441E+00	1.255E-01	11.095
		122.32		7.637E-01	3.535E+00	5.835E+00	4.057E-01	0.131
	+	144.24		1.085E+01	1.944E+00	2.589E+00	1.848E-01	4.189
		154.21		-3.322E-01	7.178E-01	1.148E+00	7.814E-02	-0.289
		269.46		5.485E-02	2.647E-01	4.258E-01	2.643E-02	0.129
		323.87	*	-9.149E-01	8.878E-01	1.411E+00	2.336E-01	-0.649
	+	338.28		3.233E+00	1.723E+00	2.453E+00	2.595E-01	1.318
		445.03		-4.254E-02	2.847E+00	4.702E+00	4.784E-01	-0.009
PO-216	+	74.81		1.342E+00	1.173E+00	1.702E+00	2.212E-01	0.789
		77.11		8.411E-01	6.293E-01	9.324E-01	8.513E-02	0.902
		87.30		-1.842E+00	1.821E+00	1.859E+00	2.605E-01	-0.991
	+	238.63	*	8.182E-01	1.143E-01	1.983E-01	1.462E-02	4.126
		300.09		9.472E-01	1.167E+00	1.770E+00	1.481E-01	0.535
RN-219		271.23		1.720E-01	3.378E-01	5.485E-01	4.506E-02	0.314
		401.81	*	2.419E-01	5.378E-01	9.082E-01	1.227E-01	0.266
RN-220		549.76	*	-3.730E+01	3.381E+01	5.171E+01	2.842E+00	-0.721
RA-223		81.07		-8.294E-01	7.138E-01	1.021E+00	9.548E-02	-0.812

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	83.78		1.392E+00	5.333E-01	6.479E-01	6.177E-02	2.148
		94.90		1.599E+01	1.706E+00	1.441E+00	1.255E-01	11.095
		122.32		7.637E-01	3.535E+00	5.835E+00	4.057E-01	0.131
	+	144.24		1.085E+01	1.944E+00	2.589E+00	1.848E-01	4.189
		154.21		-3.322E-01	7.178E-01	1.148E+00	7.814E-02	-0.289
		269.46		5.485E-02	2.647E-01	4.258E-01	2.643E-02	0.129
		323.87	*	-9.149E-01	8.878E-01	1.411E+00	2.336E-01	-0.649
	+	338.28		3.233E+00	1.723E+00	2.453E+00	2.595E-01	1.318
		445.03		-4.254E-02	2.847E+00	4.702E+00	4.784E-01	-0.009
AC-227		79.80		-1.337E+01	6.522E+00	7.668E+00	1.670E+00	-1.743
		236.00		5.186E-01	4.097E-01	5.964E-01	6.247E-02	0.870
		256.20	*	1.706E+00	7.425E-01	1.080E+00	1.513E-01	1.579
		286.10		-1.438E+00	2.030E+00	3.327E+00	3.876E-01	-0.432
		299.80		9.332E-01	2.199E+00	3.276E+00	5.356E-01	0.285
		304.40		-2.263E+00	2.604E+00	4.200E+00	7.289E-01	-0.539
		334.20		-1.084E+00	3.490E+00	4.993E+00	9.169E-01	-0.217
TH-227		79.80		-1.337E+01	6.539E+00	7.668E+00	1.690E+00	-1.743
		94.00		5.739E+02	1.259E+02	2.032E+01	4.444E+00	28.238
		236.00		5.186E-01	4.088E-01	5.964E-01	5.417E-02	0.870
		256.20	*	1.706E+00	7.600E-01	1.080E+00	1.830E-01	1.579
		286.10		-1.438E+00	2.484E+00	3.327E+00	3.333E+00	-0.432
		299.80		9.332E-01	2.199E+00	3.276E+00	5.356E-01	0.285
		304.40		-2.263E+00	2.604E+00	4.200E+00	7.289E-01	-0.539
		334.20		-1.084E+00	3.490E+00	4.993E+00	9.169E-01	-0.217
TH-228	+	74.81		1.365E+00	1.186E+00	1.731E+00	1.576E-01	0.789
		77.11		8.556E-01	6.401E-01	9.485E-01	8.660E-02	0.902
		87.30		-1.874E+00	1.843E+00	1.891E+00	1.856E-01	-0.991
	+	238.63	*	8.324E-01	1.162E-01	2.017E-01	1.487E-02	4.126
		300.09		9.635E-01	1.314E+00	1.800E+00	1.061E+00	0.535
TH-229		85.43		1.735E-01	6.891E-01	9.415E-01	9.096E-02	0.184
		88.47		6.108E-01	5.163E-01	5.569E-01	5.450E-02	1.097
		100.00		4.394E+00	6.232E-01	8.603E-01	6.916E-02	5.107
		193.63	*	4.112E-01	7.885E-01	1.293E+00	7.226E-02	0.318
		210.97		6.594E-01	1.170E+00	1.852E+00	1.056E-01	0.356
PA-231		283.67	*	5.775E-01	2.013E+00	3.422E+00	4.741E-01	0.169
		301.29		4.760E-01	8.284E-01	1.297E+00	1.368E-01	0.367
TH-231		81.07		-8.294E-01	7.138E-01	1.021E+00	9.548E-02	-0.812
	+	83.78		1.392E+00	5.333E-01	6.479E-01	6.177E-02	2.148
		94.90		1.599E+01	1.706E+00	1.441E+00	1.255E-01	11.095
		122.32		7.637E-01	3.535E+00	5.835E+00	4.057E-01	0.131
	+	144.24		1.085E+01	1.944E+00	2.589E+00	1.848E-01	4.189
		154.21		-3.322E-01	7.178E-01	1.148E+00	7.814E-02	-0.289
		269.46		5.485E-02	2.647E-01	4.258E-01	2.643E-02	0.129
		323.87	*	-9.149E-01	8.878E-01	1.411E+00	2.336E-01	-0.649
	+	338.28		3.233E+00	1.723E+00	2.453E+00	2.595E-01	1.318
		445.03		-4.254E-02	2.847E+00	4.702E+00	4.784E-01	-0.009
U-231	+	84.21		8.432E+01	3.231E+01	3.909E+01	3.740E+00	2.157
	+	92.29		1.060E+03	9.829E+01	3.291E+01	2.997E+00	32.213
		95.87	*	2.595E+01	6.487E+00	7.222E+00	6.188E-01	3.594

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		9.133E-01	7.659E+00	1.113E+01	8.017E-01	0.082
PA-233	+	75.28		1.140E+01	1.001E+01	1.441E+01	2.247E+00	0.791
		86.59		-4.769E+00	7.720E+00	7.925E+00	2.156E+00	-0.602
		300.12		4.844E-01	6.051E-01	9.139E-01	1.235E-01	0.530
		311.98	*	-8.493E-02	8.719E-02	1.411E-01	8.897E-03	-0.602
		340.50		1.610E+00	9.497E-01	1.393E+00	3.201E-01	1.156
		398.62		-1.421E+00	2.765E+00	4.451E+00	1.149E+00	-0.319
		415.76		-6.945E-02	2.058E+00	3.407E+00	6.994E-01	-0.020
PA-234	+	63.00		2.222E+02	3.592E+01	1.326E+01	2.085E+00	16.759
		94.67		1.753E+01	2.313E+00	1.184E+00	1.479E-01	14.800
	+	98.44		2.965E+00	1.679E+00	4.705E-01	2.622E-01	6.301
		99.86		1.289E+01	1.681E+00	2.248E+00	1.811E-01	5.736
	+	111.00		6.053E+00	1.054E+00	9.397E-01	1.029E-01	6.441
	+	131.20		4.868E-01	2.470E-01	3.483E-01	2.052E-02	1.398
		152.70		1.102E-02	5.782E-01	9.443E-01	1.485E-01	0.012
	+	186.00		9.837E+01	3.036E+01	7.434E+00	2.268E+00	13.233
		226.40		6.525E-01	6.158E-01	1.014E+00	1.172E-01	0.644
		227.20		5.173E-01	6.546E-01	1.076E+00	6.237E-02	0.481
		248.90		-1.026E+00	1.236E+00	1.893E+00	4.071E-01	-0.542
	+	293.70		2.000E+00	1.580E+00	1.762E+00	2.845E-01	1.135
		369.80		3.014E-01	1.143E+00	1.921E+00	3.997E-01	0.157
		568.70		2.034E+00	1.437E+00	2.496E+00	1.356E-01	0.815
		569.50		5.448E-01	3.955E-01	6.856E-01	3.722E-02	0.795
		574.00		-7.990E-01	2.112E+00	3.378E+00	1.828E-01	-0.237
		699.00		5.559E-01	9.537E-01	1.583E+00	2.820E-01	0.351
		706.10		-1.024E+00	1.467E+00	2.151E+00	9.482E-01	-0.476
		733.00		9.206E-01	5.962E-01	9.452E-01	2.004E-01	0.974
	+	742.81		7.012E+00	5.771E+00	4.306E+00	2.881E+00	1.628
		796.30		1.717E+00	1.361E+00	2.120E+00	5.592E-01	0.810
		805.60		3.392E-01	1.253E+00	2.127E+00	6.399E-01	0.159
		819.60		-6.879E-01	1.452E+00	2.311E+00	8.690E-01	-0.298
		826.30		-2.020E-01	9.847E-01	1.618E+00	7.182E-01	-0.125
		831.60		2.518E-01	7.417E-01	1.261E+00	3.697E-01	0.200
		876.40		-5.749E-01	1.157E+00	1.591E+00	1.634E+00	-0.361
		880.51		4.575E-01	3.571E-01	6.406E-01	4.532E-02	0.714
		883.24		3.747E-01	4.408E-01	6.434E-01	4.313E-01	0.582
		899.00		5.226E-01	9.085E-01	1.532E+00	6.658E-01	0.341
		925.00		1.820E+00	1.420E+00	2.556E+00	1.839E-01	0.712
		926.50		2.658E-01	2.222E-01	3.824E-01	9.493E-02	0.695
	+	946.00	*	8.410E-01	6.000E-01	7.079E-01	1.283E-01	1.188
		949.00		5.610E-01	5.979E-01	9.354E-01	6.663E-02	0.600
		980.50		4.569E-01	7.225E-01	1.261E+00	8.846E-02	0.362
		1394.10		7.783E-01	1.246E+00	2.010E+00	1.303E+00	0.387
NP-236		94.67		1.349E+01	1.310E+00	9.030E-01	7.892E-02	14.944
	+	98.44		2.241E+00	2.922E-01	3.557E-01	2.927E-02	6.301
	+	111.00		4.578E+00	6.963E-01	7.108E-01	4.934E-02	6.441
		160.31	*	-6.127E-02	1.643E-01	2.317E-01	1.268E-02	-0.264
NP-237		86.50	*	-6.505E-01	1.153E+00	1.192E+00	2.721E-01	-0.546
		95.87		1.628E+01	5.538E+00	4.530E+00	1.115E+00	3.594

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		5.122E+00	6.680E-01	7.822E-01	6.330E-02	6.549
		117.00	*	-1.989E-01	4.468E-01	6.384E-01	4.124E-02	-0.312
		209.75		7.929E-01	1.308E+00	1.885E+00	1.073E-01	0.421
		228.18		5.457E-02	3.477E-01	5.618E-01	3.258E-02	0.097
		277.60		3.109E-01	2.556E-01	4.242E-01	2.530E-02	0.733
		334.30		-5.944E-01	1.976E+00	2.832E+00	1.670E-01	-0.210
AM-241		59.54	*	1.026E+00	5.715E-01	8.530E-01	8.340E-02	1.203
CM-243	+	99.55		5.272E+00	6.875E-01	8.050E-01	6.515E-02	6.549
		103.76	*	9.724E-02	2.247E-01	3.612E-01	2.753E-02	0.269
		117.00		-2.047E-01	4.598E-01	6.569E-01	4.244E-02	-0.312
		209.75		7.817E-01	1.289E+00	1.858E+00	1.058E-01	0.421
		228.18		5.514E-02	3.514E-01	5.678E-01	3.293E-02	0.097
		277.60		3.135E-01	2.577E-01	4.278E-01	2.551E-02	0.733
AM-246		798.80		-1.747E-01	1.817E-01	2.870E-01	1.789E-02	-0.609
		1036.00		-1.982E-01	2.670E-01	4.059E-01	2.749E-02	-0.488
		1062.04		-6.277E-02	2.105E-01	3.366E-01	2.235E-02	-0.186
		1078.86	*	5.953E-02	1.400E-01	2.393E-01	1.566E-02	0.249
CM-247		278.00		7.475E-01	1.004E+00	1.730E+00	1.032E-01	0.432
		287.40		-2.201E+00	1.698E+00	2.648E+00	1.582E-01	-0.831
		402.60	*	1.750E-02	4.806E-02	8.101E-02	4.514E-03	0.216
CF-249		252.85		-4.114E-01	1.481E+00	2.040E+00	1.205E-01	-0.202
		333.44		-1.225E-01	2.596E-01	3.686E-01	2.175E-02	-0.332
		387.95	*	-1.066E-02	5.352E-02	8.828E-02	4.924E-03	-0.121
CF-251		176.60	*	3.362E-02	2.228E-01	3.630E-01	1.986E-02	0.093
		227.00		4.099E-01	5.844E-01	9.586E-01	5.554E-02	0.428
		285.00		3.671E-01	2.311E+00	3.915E+00	2.338E-01	0.094

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                        GEL Laboratories LLC                           *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
*                                                                       *
*                            DETECTOR DATA                              *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020006  *
* Acquisition date : 13-FEB-2010 16:27:02 Detector SN#     :            *
* Detector ID        : GAM06               Sensitivity      : 5.000    *
* Geometry           : CAN                 Energy tolerance: 1.500     *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000    *
* Elapsed real time:     0 02:00:04.04     Half life ratio :  8.000    *
*************************************************************************
*                                                                       *
*                             SAMPLE DATA                               *
*                                                                       *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID     *
* Sample ID          : G246020006           Analyst initials: MXR1      *
* Batch Number       : 948751               Sample Quantity : 1.6589E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000 *
*************************************************************************
*                                                                       *
*                               QC DATA                                 *
* Standard Weight  :   0.00000                                          *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope      :            *
* LCS DPM          :    0.000             LCS Isotope      :            *
* LCSD DPM         :    0.000             LCSD Isotope     :            *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.055E+01	1.928E+00	5.371E-01	0.000E+00
NB-95	1.070E+00	1.386E-01	9.462E-02	0.000E+00
TL-208	2.572E-01	8.015E-02	7.618E-02	0.000E+00
BI-211	1.719E+00	5.353E-01	4.414E-01	0.000E+00
BI-212	5.347E-01	4.406E-01	6.911E-01	0.000E+00
BI-214	7.022E-01	1.623E-01	1.447E-01	0.000E+00
PB-214	5.981E-01	1.887E-01	1.539E-01	0.000E+00
PO-214	5.981E-01	1.887E-01	1.539E-01	0.000E+00
PO-218	5.981E-01	1.887E-01	1.539E-01	0.000E+00
RA-224	2.749E+00	1.185E+00	1.615E+00	0.000E+00
RA-226	7.022E-01	1.623E-01	1.447E-01	0.000E+00
AC-228	6.881E-01	2.031E-01	2.375E-01	0.000E+00
RA-228	6.881E-01	2.031E-01	2.375E-01	0.000E+00
TH-230	7.022E-01	1.623E-01	1.447E-01	0.000E+00
TH-232	6.881E-01	2.031E-01	2.375E-01	0.000E+00
PA-234M	2.859E+02	2.920E+01	7.729E+00	0.000E+00
TH-234	1.906E+02	3.468E+01	6.896E+00	0.000E+00
U-234	7.022E-01	1.623E-01	1.447E-01	0.000E+00
U-235	3.347E+00	7.586E-01	6.841E-01	0.000E+00
U-238	1.906E+02	3.468E+01	6.896E+00	0.000E+00
AM-243	2.176E-01	1.853E-01	2.950E-01	0.000E+00
ANH-511	8.242E-02	8.192E-02	6.701E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	3.403E-01	4.416E-01	8.042E-01	0.000E+00	NOT IDENT.
NA-22	-6.845E-02	4.196E-02	5.767E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.738E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	6.304E-03	2.494E-02	4.443E-02	0.000E+00	NOT IDENT.
TI-44	1.427E-01	1.294E-01	1.835E-01	0.000E+00	NOT IDENT.

SC-46	-2.087E-02	4.303E-02	7.243E-02	0.000E+00	FAIL ABUN
V-48	-1.950E-02	7.489E-02	1.267E-01	0.000E+00	NOT IDENT.
CR-51	1.310E-01	5.192E-01	9.509E-01	0.000E+00	NOT IDENT.
MN-52	1.167E-01	3.113E-01	5.443E-01	0.000E+00	FAIL ABUN
MN-54	-2.302E-02	4.353E-02	7.395E-02	0.000E+00	NOT IDENT.
CO-56	-2.191E-02	4.691E-02	7.979E-02	0.000E+00	NOT IDENT.
CO-57	2.158E-02	5.007E-02	9.237E-02	0.000E+00	NOT IDENT.
CO-58	-4.040E-02	4.818E-02	8.030E-02	0.000E+00	NOT IDENT.
FE-59	-1.088E-02	8.532E-02	1.445E-01	0.000E+00	FAIL ABUN
CO-60	2.246E-02	3.713E-02	6.677E-02	0.000E+00	NOT IDENT.
ZN-65	-7.898E-04	9.635E-02	1.414E-01	0.000E+00	NOT IDENT.
GE-68	6.255E-01	1.205E+00	2.164E+00	0.000E+00	NOT IDENT.
AS-73	1.165E+00	2.774E+00	5.331E+00	0.000E+00	NOT IDENT.
AS-74	8.772E-02	1.307E-01	2.339E-01	0.000E+00	NOT IDENT.
SE-75	3.632E-02	6.542E-02	1.121E-01	0.000E+00	NOT IDENT.
BR-77	-1.241E+01	2.581E+01	4.277E+01	0.000E+00	FAIL ABUN
SR-82	-3.831E-01	5.172E-01	8.543E-01	0.000E+00	NOT IDENT.
RB-83	-3.875E-02	9.523E-02	1.585E-01	0.000E+00	NOT IDENT.
RB-84	1.408E-01	9.304E-02	1.766E-01	0.000E+00	NOT IDENT.
KR-85	5.481E+00	1.062E+01	1.663E+01	0.000E+00	NOT IDENT.
SR-85	2.872E-02	5.565E-02	8.716E-02	0.000E+00	NOT IDENT.
RB-86	4.334E-01	8.219E-01	1.477E+00	0.000E+00	NOT IDENT.
Y-88	-7.282E-03	2.907E-02	4.667E-02	0.000E+00	NOT IDENT.
ZR-88	2.722E-02	4.163E-02	7.633E-02	0.000E+00	NOT IDENT.
Y-91	9.289E+00	1.742E+01	3.100E+01	0.000E+00	NOT IDENT.
NB-94	2.986E-02	4.473E-02	7.906E-02	0.000E+00	NOT IDENT.
NB-95M	4.646E-02	2.114E-01	3.264E-01	0.000E+00	NOT IDENT.
ZR-95	9.606E-02	9.933E-02	1.775E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.966E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.004E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.190E+01	3.506E+01	5.349E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.451E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.533E-02	5.186E-02	8.939E-02	0.000E+00	NOT IDENT.
RH-102	2.095E-02	3.870E-02	6.987E-02	0.000E+00	FAIL ABUN
RU-103	8.739E-03	5.495E-02	9.721E-02	0.000E+00	FAIL ABUN
RH-106	-1.529E-02	4.070E-01	7.000E-01	0.000E+00	FAIL ABUN
RU-106	-1.529E-02	4.070E-01	7.000E-01	0.000E+00	FAIL ABUN
AG-108M	1.827E-02	4.130E-02	7.475E-02	0.000E+00	NOT IDENT.
CD-109	2.692E-01	3.842E+00	4.568E+00	0.000E+00	NOT IDENT.
AG-110M	-6.536E-02	4.669E-02	7.325E-02	0.000E+00	NOT IDENT.
IN-111	1.835E+00	2.784E+00	4.374E+00	0.000E+00	NOT IDENT.
IN-113M	1.720E-02	5.961E-02	1.078E-01	0.000E+00	NOT IDENT.
SN-113	1.720E-02	5.961E-02	1.078E-01	0.000E+00	NOT IDENT.
IN-114M	-3.632E-01	3.205E-01	4.771E-01	0.000E+00	NOT IDENT.
CD-115	-2.249E+00	2.745E+01	4.776E+01	0.000E+00	NOT IDENT.
SN-117M	2.236E-03	1.227E-01	1.936E-01	0.000E+00	NOT IDENT.
SB-122	-4.081E+00	4.841E+00	8.048E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.581E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	3.889E-03	5.752E-02	9.090E-02	0.000E+00	NOT IDENT.
I-124	-2.727E-01	1.326E+00	1.946E+00	0.000E+00	NOT IDENT.
SB-124	7.705E-04	6.323E-02	1.082E-01	0.000E+00	FAIL ABUN
SB-125	-4.631E-02	1.144E-01	1.994E-01	0.000E+00	NOT IDENT.
TE-125M	0.000E+00	2.698E+01	4.432E+01	0.000E+00	NOT IDENT.
I-126	-1.370E-01	2.808E-01	4.682E-01	0.000E+00	NOT IDENT.
SB-126	-3.941E-02	2.300E-01	3.490E-01	0.000E+00	NOT IDENT.
SN-126	-1.426E-01	3.776E-01	4.442E-01	0.000E+00	FAIL ABUN
SB-127	-1.353E+00	2.447E+00	4.027E+00	0.000E+00	NOT IDENT.
XE-127	0.000E+00	8.948E-02	1.458E-01	0.000E+00	NOT IDENT.
I-131	-7.969E-02	1.860E-01	3.288E-01	0.000E+00	NOT IDENT.
TE-132	2.787E-01	1.619E+00	2.861E+00	0.000E+00	FAIL ABUN
BA-133	-2.600E-02	6.544E-02	1.002E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.255E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.704E-02	6.692E-02	1.131E-01	0.000E+00	NOT IDENT.
CS-135	1.505E-01	2.171E-01	3.861E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.378E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.164E-02	1.117E-01	1.820E-01	0.000E+00	FAIL ABUN
BA-137M	3.439E-02	4.932E-02	8.762E-02	0.000E+00	NOT IDENT.
CS-137	3.636E-02	5.214E-02	9.262E-02	0.000E+00	NOT IDENT.
CE-139	4.124E-02	5.942E-02	9.530E-02	0.000E+00	NOT IDENT.
BA-140	2.209E-01	3.850E-01	6.800E-01	0.000E+00	FAIL ABUN
LA-140	-1.753E-02	8.065E-02	1.339E-01	0.000E+00	NOT IDENT.
CE-141	0.000E+00	1.472E-01	2.519E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.885E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.201E-01	4.285E-01	6.962E-01	0.000E+00	NOT IDENT.
PM-144	-7.855E-02	4.654E-02	7.115E-02	0.000E+00	NOT IDENT.
PR-144	-5.329E+00	3.157E+00	4.827E+00	0.000E+00	NOT IDENT.
PM-146	2.460E-02	5.808E-02	1.046E-01	0.000E+00	NOT IDENT.
ND-147	5.149E-01	8.618E-01	1.545E+00	0.000E+00	FAIL ABUN

PM-149	-1.258E+02	2.259E+02	4.047E+02	0.000E+00	NOT IDENT.
EU-152	-6.059E-03	1.401E-01	2.195E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	3.230E-01	4.540E-01	0.000E+00	FAIL ABUN
EU-154	-1.931E-01	1.177E-01	1.600E-01	0.000E+00	NOT IDENT.
EU-155	-8.953E-02	2.584E-01	4.393E-01	0.000E+00	NOT IDENT.
TB-160	-5.200E-02	1.764E-01	3.028E-01	0.000E+00	NOT IDENT.
HO-166M	9.892E-03	7.694E-02	1.321E-01	0.000E+00	FAIL ABUN
TM-171	-2.181E+02	8.848E+01	1.384E+02	0.000E+00	NOT IDENT.
LU-176	1.727E-02	3.281E-02	6.078E-02	0.000E+00	NOT IDENT.
LU-177	8.381E-01	2.223E+00	3.485E+00	0.000E+00	FAIL ABUN
LU-177M	-1.977E-01	2.207E-01	3.769E-01	0.000E+00	NOT IDENT.
HF-181	2.609E-03	5.718E-02	1.009E-01	0.000E+00	FAIL ABUN
W-181	0.000E+00	1.653E+00	2.359E+00	0.000E+00	NOT IDENT.
TA-182	-2.146E-01	1.963E-01	3.007E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	2.960E-01	4.104E-01	0.000E+00	FAIL ABUN
RE-184	-1.106E-01	3.901E-01	5.860E-01	0.000E+00	NOT IDENT.
OS-185	-5.722E-03	5.589E-02	9.542E-02	0.000E+00	NOT IDENT.
RE-188	-5.399E-02	3.076E-01	5.475E-01	0.000E+00	NOT IDENT.
W-188	4.475E+00	1.117E+01	1.812E+01	0.000E+00	FAIL ABUN
IR-192	5.121E-02	4.704E-02	8.846E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	9.424E-01	1.272E+00	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.271E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.112E+00	2.189E+01	3.451E+01	0.000E+00	NOT IDENT.
TL-202	-3.270E-03	9.479E-02	1.678E-01	0.000E+00	NOT IDENT.
HG-203	-6.055E-03	5.639E-02	1.030E-01	0.000E+00	FAIL ABUN
BI-207	5.879E-03	4.825E-02	8.390E-02	0.000E+00	FAIL ABUN
TL-207	-9.149E-01	8.701E-01	1.496E+00	0.000E+00	FAIL ABUN
PO-209	1.482E+00	7.671E+00	1.360E+01	0.000E+00	NOT IDENT.
BI-210	-1.634E+01	1.157E+01	2.170E+01	0.000E+00	NOT IDENT.
PB-210	-1.634E+01	1.157E+01	2.170E+01	0.000E+00	NOT IDENT.
PO-210	-1.634E+01	1.155E+01	2.170E+01	0.000E+00	NOT IDENT.
PB-211	-2.116E-01	1.210E+00	2.131E+00	0.000E+00	NOT IDENT.
PB-212	0.000E+00	1.120E-01	2.123E-01	0.000E+00	FAIL ABUN
PO-212	0.000E+00	1.120E-01	2.123E-01	0.000E+00	FAIL ABUN
PO-215	-9.149E-01	8.701E-01	1.496E+00	0.000E+00	FAIL ABUN
PO-216	0.000E+00	1.120E-01	2.123E-01	0.000E+00	FAIL ABUN
RN-219	2.419E-01	5.270E-01	9.572E-01	0.000E+00	NOT IDENT.
RN-220	-3.730E+01	3.313E+01	5.398E+01	0.000E+00	NOT IDENT.
RA-223	-9.149E-01	8.701E-01	1.496E+00	0.000E+00	FAIL ABUN
AC-227	0.000E+00	7.276E-01	1.154E+00	0.000E+00	NOT IDENT.
TH-227	0.000E+00	7.448E-01	1.154E+00	0.000E+00	NOT IDENT.
TH-228	0.000E+00	1.139E-01	2.159E-01	0.000E+00	FAIL ABUN
TH-229	4.112E-01	7.727E-01	1.393E+00	0.000E+00	NOT IDENT.
PA-231	5.775E-01	1.973E+00	3.645E+00	0.000E+00	NOT IDENT.
TH-231	-9.149E-01	8.701E-01	1.496E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	6.357E+00	7.935E+00	0.000E+00	FAIL ABUN
PA-233	-8.493E-02	8.544E-02	1.498E-01	0.000E+00	FAIL ABUN
PA-234	0.000E+00	5.880E-01	7.264E-01	0.000E+00	FAIL ABUN
NP-236	-6.127E-02	1.610E-01	2.509E-01	0.000E+00	FAIL ABUN
NP-237	-6.505E-01	1.130E+00	1.314E+00	0.000E+00	NOT IDENT.
NP-239	-1.989E-01	4.379E-01	6.975E-01	0.000E+00	FAIL ABUN
AM-241	0.000E+00	5.601E-01	9.497E-01	0.000E+00	NOT IDENT.
CM-243	9.724E-02	2.202E-01	3.960E-01	0.000E+00	FAIL ABUN
AM-246	5.953E-02	1.372E-01	2.445E-01	0.000E+00	NOT IDENT.
CM-247	1.750E-02	4.710E-02	8.537E-02	0.000E+00	NOT IDENT.
CF-249	-1.066E-02	5.245E-02	9.313E-02	0.000E+00	NOT IDENT.
CF-251	3.362E-02	2.183E-01	3.920E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:28:32.57

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020006.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:27:02
Sample ID         : G246020006           Sample quantity  : 1.65890E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:04.04  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	933	10.67*	9.625E-01	2.055E+01	2.055E+01	9.58
NB-95	765.79	668	99.81*	1.707E+00	8.879E-01	1.070E+00	13.21
TL-208	277.35	------	6.80	3.899E+00	------ Line Not Found		------
	510.84	88	21.60	2.407E+00	3.816E-01	3.816E-01	101.76
	583.14	206	84.20*	2.158E+00	2.572E-01	2.572E-01	31.80
	860.37	------	12.46	1.539E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.913E+00	------ Line Not Found		------
	351.07	319	12.94*	3.241E+00	1.719E+00	1.719E+00	31.77
BI-212	727.18	50	11.80*	1.787E+00	5.347E-01	5.347E-01	84.08
	785.46	180	1.97	1.667E+00	1.240E+01	1.240E+01	41.45
	1620.62	------	2.75	8.893E-01	------ Line Not Found		------
BI-214	609.31	299	46.30*	2.080E+00	7.022E-01	7.022E-01	23.58
	1120.29	75	15.10	1.211E+00	9.316E-01	9.316E-01	40.42
	1764.49	82	15.80	8.403E-01	1.402E+00	1.402E+00	31.16
PB-214	74.81	260	6.21	4.091E+00	2.312E+00	2.312E+00	87.21
	77.11	------	10.50	4.349E+00	------ Line Not Found		------
	87.30	------	4.67	5.164E+00	------ Line Not Found		------
	241.98	208	7.49	4.326E+00	1.450E+00	1.450E+00	44.36
	295.21	132	19.20	3.722E+00	4.167E-01	4.167E-01	77.80
	351.92	319	37.20*	3.241E+00	5.981E-01	5.981E-01	32.19
PO-214	74.81	260	6.21	4.091E+00	2.312E+00	2.312E+00	87.21
	77.11	------	10.50	4.349E+00	------ Line Not Found		------
	87.30	------	4.67	5.164E+00	------ Line Not Found		------
	241.98	208	7.49	4.326E+00	1.450E+00	1.450E+00	44.36
	295.21	132	19.20	3.722E+00	4.167E-01	4.167E-01	77.80
	351.92	319	37.20*	3.241E+00	5.981E-01	5.981E-01	32.19
PO-218	74.81	260	6.21	4.091E+00	2.312E+00	2.312E+00	87.21
	77.11	------	10.50	4.349E+00	------ Line Not Found		------
	87.30	------	4.67	5.164E+00	------ Line Not Found		------
	241.98	208	7.49	4.326E+00	1.450E+00	1.450E+00	44.36
	295.21	132	19.20	3.722E+00	4.167E-01	4.167E-01	77.80
	351.92	319	37.20*	3.241E+00	5.981E-01	5.981E-01	32.19

Sample ID : G246020006 Acquisition date : 13-FEB-2010 16:27:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
RA-224	240.98	208	3.95*	4.326E+00	2.749E+00	2.749E+00	44.00
RA-226	609.31	299	46.30*	2.080E+00	7.022E-01	7.022E-01	23.58
	1120.29	75	15.10	1.211E+00	9.316E-01	9.316E-01	40.42
	1764.49	82	15.80	8.403E-01	1.402E+00	1.402E+00	31.16
AC-228	338.32	130	11.40	3.344E+00	7.742E-01	7.742E-01	66.28
	911.07	123	27.70*	1.462E+00	6.881E-01	6.881E-01	30.12
	969.11	110	16.60	1.382E+00	1.081E+00	1.081E+00	39.37
RA-228	338.32	130	11.40	3.344E+00	7.742E-01	7.742E-01	66.28
	911.07	123	27.70*	1.462E+00	6.881E-01	6.881E-01	30.12
	969.11	110	16.60	1.382E+00	1.081E+00	1.081E+00	39.37
TH-230	609.31	299	46.30*	2.080E+00	7.022E-01	7.022E-01	23.58
	1120.29	75	15.10	1.211E+00	9.316E-01	9.316E-01	40.42
	1764.49	82	15.80	8.403E-01	1.402E+00	1.402E+00	31.16
TH-232	338.32	130	11.40	3.344E+00	7.742E-01	7.742E-01	52.58
	911.07	123	27.70*	1.462E+00	6.881E-01	6.881E-01	30.12
	969.11	110	16.60	1.382E+00	1.081E+00	1.081E+00	39.37
PA-234M	766.42	668	0.32	1.707E+00	2.769E+02	2.769E+02	51.72
	1001.03	1424	0.84*	1.342E+00	2.859E+02	2.859E+02	10.42
TH-234	63.29	8718	3.80*	2.724E+00	1.906E+02	1.906E+02	18.57
	92.38	25759	5.41	5.456E+00	1.975E+02	1.975E+02	18.40
U-234	609.31	299	46.30*	2.080E+00	7.022E-01	7.022E-01	23.58
	1120.29	75	15.10	1.211E+00	9.316E-01	9.316E-01	40.42
	1764.49	82	15.80	8.403E-01	1.402E+00	1.402E+00	31.16
U-235	89.95	------	2.70	5.324E+00	------ Line Not Found		------
	93.35	25759	4.50	5.456E+00	2.374E+02	2.374E+02	28.23
	105.00	------	2.10	5.892E+00	------ Line Not Found		------
	143.76	911	10.50*	5.868E+00	3.347E+00	3.347E+00	23.13
	163.35	448	4.70	5.564E+00	3.878E+00	3.878E+00	36.86
	185.71	4504	54.00	5.180E+00	3.643E+00	3.643E+00	7.23
	205.31	334	4.70	4.854E+00	3.309E+00	3.309E+00	37.18
U-238	63.29	8718	3.80*	2.724E+00	1.906E+02	1.906E+02	18.57
	92.38	25759	5.41	5.456E+00	1.975E+02	1.975E+02	9.27
AM-243	74.67	260	66.00*	4.091E+00	2.176E-01	2.176E-01	86.89
	86.72	------	0.34	5.126E+00	------ Line Not Found		------
	117.66	------	0.55	6.042E+00	------ Line Not Found		------
	142.18	911	0.13	5.868E+00	2.811E+02	2.811E+02	17.40
ANH-511	511.00	88	100.00*	2.407E+00	8.242E-02	8.242E-02	101.42

Flag: "*" = Keyline

Sample ID : G246020006 Acquisition date : 13-FEB-2010 16:27:02

Total number of lines in spectrum 32
Number of unidentified lines 2
Number of lines tentatively identified by NID 30 93.75%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.055E+01	2.055E+01	0.197E+01	9.58	
NB-95	64.02D	1.21	8.879E-01	1.070E+00	0.141E+00	13.21	
TL-208	1.41E+10Y	1.00	2.572E-01	2.572E-01	0.818E-01	31.80	
BI-211	7.04E+08Y	1.00	1.719E+00	1.719E+00	0.546E+00	31.77	
BI-212	1.41E+10Y	1.00	5.347E-01	5.347E-01	4.496E-01	84.08	
BI-214	1600.00Y	1.00	7.022E-01	7.022E-01	1.656E-01	23.58	
PB-214	1600.00Y	1.00	5.981E-01	5.981E-01	1.926E-01	32.19	
PO-214	1600.00Y	1.00	5.981E-01	5.981E-01	1.926E-01	32.19	
PO-218	1600.00Y	1.00	5.981E-01	5.981E-01	1.926E-01	32.19	
RA-224	1.41E+10Y	1.00	2.749E+00	2.749E+00	1.209E+00	44.00	
RA-226	1600.00Y	1.00	7.022E-01	7.022E-01	1.656E-01	23.58	
AC-228	1.41E+10Y	1.00	6.881E-01	6.881E-01	2.073E-01	30.12	
RA-228	1.41E+10Y	1.00	6.881E-01	6.881E-01	2.073E-01	30.12	
TH-230	4.47E+09Y	1.00	7.022E-01	7.022E-01	1.656E-01	23.58	
TH-232	1.41E+10Y	1.00	6.881E-01	6.881E-01	2.073E-01	30.12	
PA-234M	4.47E+09Y	1.00	2.859E+02	2.859E+02	0.298E+02	10.42	
TH-234	4.47E+09Y	1.00	1.906E+02	1.906E+02	0.354E+02	18.57	
U-234	4.47E+09Y	1.00	7.022E-01	7.022E-01	1.656E-01	23.58	
U-235	7.04E+08Y	1.00	3.347E+00	3.347E+00	0.774E+00	23.13	
U-238	4.47E+09Y	1.00	1.906E+02	1.906E+02	0.354E+02	18.57	
AM-243	7380.00Y	1.00	2.176E-01	2.176E-01	1.891E-01	86.89	
ANH-511	1.00E+09Y	1.00	8.242E-02	8.242E-02	8.359E-02	101.42	
			---	---			
	Total Activity :		7.041E+02	7.043E+02			

Grand Total Activity : 7.041E+02 7.043E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020006 Acquisition date : 13-FEB-2010 16:27:02

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.69	746	5694	2.00	167.37	164	9	1.04E-01	37.1	4.91E+00	T
0	98.32	1898	2398	1.13	196.64	193	8	2.64E-01	10.1	5.70E+00	T
0	112.18	1895	3662	1.12	224.37	218	12	2.63E-01	13.6	6.01E+00	T
0	131.60	263	1363	2.04	263.21	259	8	3.66E-02	50.4	6.00E+00	T
3	238.43	704	390	1.08	476.86	473	15	9.78E-02	11.9	4.37E+00	T
0	258.24	317	531	1.08	516.48	512	10	4.40E-02	29.6	4.12E+00	
0	742.82	130	192	1.23	1485.63	1480	13	1.81E-02	47.9	1.75E+00	T
0	945.82	63	86	2.18	1891.63	1884	15	8.75E-03	69.0	1.41E+00	T
0	1737.82	42	0	1.17	3475.64	3468	14	5.83E-03	30.9	8.48E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:28:38.01

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020006.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:27:02  Detector SN#     :             *
* Detector ID       : GAM06                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:04.04          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020006            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.65890E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 4-FEB-2009 13:05:54.47MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.055E+01	1.968E+00	5.308E-01	3.511E-02	38.711
NB-95	1.070E+00	1.414E-01	9.160E-02	5.414E-03	11.681
TL-208	2.572E-01	8.178E-02	7.312E-02	4.621E-03	3.517
BI-211	1.719E+00	5.463E-01	4.171E-01	2.692E-02	4.122
BI-212	5.347E-01	4.496E-01	6.679E-01	5.023E-02	0.801
BI-214	7.022E-01	1.656E-01	1.391E-01	1.026E-02	5.050
PB-214	5.981E-01	1.926E-01	1.454E-01	1.206E-02	4.113
PO-214	5.981E-01	1.926E-01	1.454E-01	1.206E-02	4.113
PO-218	5.981E-01	1.926E-01	1.454E-01	1.206E-02	4.113
RA-224	2.749E+00	1.209E+00	1.509E+00	8.844E-02	1.822
RA-226	7.022E-01	1.656E-01	1.391E-01	1.026E-02	5.050
AC-228	6.881E-01	2.073E-01	2.311E-01	2.362E-02	2.977
RA-228	6.881E-01	2.073E-01	2.311E-01	2.362E-02	2.977
TH-230	7.022E-01	1.656E-01	1.390E-01	1.026E-02	5.050
TH-232	6.881E-01	2.073E-01	2.311E-01	2.362E-02	2.977
PA-234M	2.859E+02	2.980E+01	7.545E+00	6.449E-01	37.889
TH-234	1.906E+02	3.539E+01	6.204E+00	1.128E+00	30.721
U-234	7.022E-01	1.656E-01	1.390E-01	1.026E-02	5.050

Sample ID : G246020006 Acquisition date : 13-FEB-2010 16:27:02

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-235	3.347E+00	7.740E-01	6.298E-01	1.024E-01	5.314
U-238	1.906E+02	3.539E+01	6.204E+00	1.128E+00	30.721
AM-243	2.176E-01	1.891E-01	2.666E-01	2.408E-02	0.816
ANH-511	8.242E-02	8.359E-02	6.405E-02	3.581E-03	1.287

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.403E-01		4.506E-01	7.671E-01	5.067E-02	0.444
NA-22	-6.845E-02		4.281E-02	5.675E-02	3.504E-03	-1.206
NA-24	-6.841E+00		2.928E+00	Half-Life too short		
AL-26	6.304E-03		2.544E-02	4.422E-02	2.540E-03	0.143
TI-44	1.427E-01		1.321E-01	1.661E-01	1.527E-02	0.859
SC-46	-2.087E-02		4.391E-02	7.045E-02	5.049E-03	-0.296
V-48	-1.950E-02		7.641E-02	1.236E-01	8.657E-03	-0.158
CR-51	1.310E-01		5.298E-01	8.961E-01	5.904E-02	0.146
MN-52	1.167E-01		3.176E-01	5.377E-01	3.384E-02	0.217
MN-54	-2.302E-02		4.442E-02	7.178E-02	4.738E-03	-0.321
CO-56	-2.191E-02		4.787E-02	7.748E-02	5.209E-03	-0.283
CO-57	2.158E-02		5.110E-02	8.464E-02	5.170E-03	0.255
CO-58	-4.040E-02		4.917E-02	7.787E-02	4.972E-03	-0.519
FE-59	-1.088E-02		8.706E-02	1.415E-01	1.038E-02	-0.077
CO-60	2.246E-02		3.789E-02	6.580E-02	4.134E-03	0.341
ZN-65	-7.898E-04		9.832E-02	1.386E-01	8.776E-03	-0.006
GE-68	6.255E-01		1.230E+00	2.118E+00	1.388E-01	0.295
AS-73	1.165E+00		2.830E+00	4.774E+00	4.366E-01	0.244
AS-74	8.772E-02		1.334E-01	2.246E-01	1.194E-02	0.391
SE-75	3.632E-02		6.675E-02	1.050E-01	6.300E-03	0.346
BR-77	-1.241E+01		2.634E+01	4.090E+01	2.279E+00	-0.303
SR-82	-3.831E-01		5.278E-01	8.274E-01	4.977E-02	-0.463
RB-83	-3.875E-02		9.717E-02	1.516E-01	8.446E-03	-0.256
RB-84	1.408E-01		9.494E-02	1.717E-01	1.217E-02	0.820
KR-85	5.481E+00		1.084E+01	1.590E+01	8.882E-01	0.345
SR-85	2.872E-02		5.679E-02	8.333E-02	4.654E-03	0.345
RB-86	4.334E-01		8.387E-01	1.445E+00	9.476E-02	0.300
Y-88	-7.282E-03		2.966E-02	4.648E-02	2.642E-03	-0.157
ZR-88	2.722E-02		4.248E-02	7.238E-02	4.016E-03	0.376
Y-91	9.289E+00		1.777E+01	3.045E+01	1.826E+00	0.305
NB-94	2.986E-02		4.564E-02	7.633E-02	4.054E-03	0.391
NB-95M	4.646E-02		2.157E-01	3.048E-01	2.304E-02	0.152
ZR-95	9.606E-02		1.014E-01	1.717E-01	1.210E-02	0.559
NB-97	-1.281E+00		5.084E-01	Half-Life too short		
ZR-97	3.392E+01		1.023E+01	Half-Life too short		
MO-99	2.190E+01		3.578E+01	5.172E+01	7.097E+00	0.423
TC-99M	1.815E+13		1.250E+13	Half-Life too short		
RH-101	-3.533E-02		5.292E-02	8.306E-02	4.665E-03	-0.425
RH-102	2.095E-02		3.949E-02	6.663E-02	3.752E-03	0.314

Sample ID : G246020006 Acquisition date : 13-FEB-2010 16:27:02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-103	8.739E-03		5.607E-02	9.284E-02	1.166E-02	0.094
RH-106	-1.529E-02		4.154E-01	6.732E-01	7.705E-02	-0.023
RU-106	-1.529E-02		4.153E-01	6.732E-01	3.491E-02	-0.023
AG-108M	1.827E-02		4.214E-02	7.110E-02	4.360E-03	0.257
CD-109	2.692E-01		3.920E+00	4.147E+00	4.095E-01	0.065
AG-110M	-6.536E-02		4.764E-02	7.057E-02	3.809E-03	-0.926
IN-111	1.835E+00		2.840E+00	4.090E+00	2.404E-01	0.449
IN-113M	1.720E-02		6.082E-02	1.023E-01	6.085E-03	0.168
SN-113	1.720E-02		6.082E-02	1.023E-01	6.085E-03	0.168
IN-114M	-3.632E-01		3.271E-01	4.428E-01	2.464E-02	-0.820
CD-115	-2.249E+00		2.801E+01	4.570E+01	2.539E+00	-0.049
SN-117M	2.236E-03		1.252E-01	1.787E-01	9.818E-03	0.013
SB-122	-4.081E+00		4.939E+00	7.716E+00	4.205E-01	-0.529
I-123	1.069E+01		8.069E+01	Half-Life too short		
TE-123M	3.889E-03		5.869E-02	8.393E-02	4.675E-03	0.046
I-124	-2.727E-01		1.353E+00	1.870E+00	9.883E-02	-0.146
SB-124	7.705E-04		6.452E-02	1.075E-01	6.979E-03	0.007
SB-125	-4.631E-02		1.167E-01	1.895E-01	1.112E-02	-0.244
TE-125M	9.276E+01		2.753E+01	4.048E+01	3.682E+00	2.291
I-126	-1.370E-01		2.865E-01	4.513E-01	2.247E-02	-0.304
SB-126	-3.941E-02		2.347E-01	3.372E-01	1.847E-02	-0.117
SN-126	-1.426E-01		3.853E-01	4.032E-01	3.968E-02	-0.354
SB-127	-1.353E+00		2.497E+00	3.885E+00	3.815E-01	-0.348
XE-127	1.471E-01		9.131E-02	1.355E-01	7.657E-03	1.085
I-131	-7.969E-02		1.897E-01	3.111E-01	2.007E-02	-0.256
TE-132	2.787E-01		1.652E+00	2.669E+00	3.949E-01	0.104
BA-133	-2.600E-02		6.678E-02	9.471E-02	1.095E-02	-0.275
I-133	2.925E-03		2.171E-02	Half-Life too short		
CS-134	9.704E-02		6.828E-02	1.096E-01	6.897E-03	0.885
CS-135	1.505E-01		2.216E-01	3.619E-01	2.812E-02	0.416
I-135	4.512E+11		4.784E+11	Half-Life too short		
CS-136	-6.164E-02		1.139E-01	1.780E-01	1.278E-02	-0.346
BA-137M	3.439E-02		5.033E-02	8.443E-02	4.170E-03	0.407
CS-137	3.636E-02		5.321E-02	8.925E-02	4.433E-03	0.407
CE-139	4.124E-02		6.063E-02	8.809E-02	4.763E-03	0.468
BA-140	2.209E-01		3.929E-01	6.510E-01	2.114E-01	0.339
LA-140	-1.753E-02		8.229E-02	1.327E-01	8.188E-03	-0.132
CE-141	7.364E-01		1.502E-01	2.320E-01	1.369E-02	3.174
CE-143	1.126E-03	+	4.533E-04	Half-Life too short		
CE-144	5.201E-01		4.372E-01	6.396E-01	9.096E-02	0.813
PM-144	-7.855E-02		4.749E-02	6.867E-02	3.612E-03	-1.144
PR-144	-5.329E+00		3.221E+00	4.658E+00	2.448E-01	-1.144
PM-146	2.460E-02		5.926E-02	9.961E-02	8.478E-03	0.247
ND-147	5.149E-01		8.794E-01	1.478E+00	1.983E-01	0.348
PM-149	-1.258E+02		2.305E+02	3.801E+02	5.418E+01	-0.331
EU-152	-6.059E-03		1.429E-01	2.073E-01	1.366E-02	-0.029
GD-153	2.528E+00	+	3.296E-01	4.134E-01	3.455E-02	6.114
EU-154	-1.931E-01		1.201E-01	1.575E-01	1.507E-02	-1.226

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-155	-8.953E-02		2.637E-01	4.009E-01	3.041E-02	-0.223
TB-160	-5.200E-02		1.800E-01	2.944E-01	2.079E-02	-0.177
HO-166M	9.892E-03		7.851E-02	1.276E-01	6.883E-03	0.078
TM-171	-2.181E+02		9.029E+01	1.247E+02	1.114E+01	-1.749
LU-176	1.727E-02		3.348E-02	5.720E-02	3.412E-03	0.302
LU-177	8.381E-01		2.269E+00	3.243E+00	1.844E-01	0.258
LU-177M	-1.977E-01		2.252E-01	3.579E-01	2.002E-02	-0.552
HF-181	2.609E-03		5.834E-02	9.625E-02	5.415E-03	0.027
W-181	1.226E+01		1.686E+00	2.124E+00	1.902E-01	5.773
TA-182	-2.146E-01		2.003E-01	2.955E-01	1.784E-02	-0.726
RE-183	9.237E-01	+	3.020E-01	3.791E-01	2.065E-02	2.437
RE-184	-1.106E-01		3.980E-01	5.483E-01	3.239E-02	-0.202
OS-185	-5.722E-03		5.703E-02	9.188E-02	4.632E-03	-0.062
RE-188	-5.399E-02		3.139E-01	5.051E-01	2.797E-02	-0.107
W-188	4.475E+00		1.140E+01	1.703E+01	1.017E+00	0.263
IR-192	5.121E-02		4.800E-02	8.333E-02	4.981E-03	0.615
AU-195	7.374E+00	+	9.616E-01	1.159E+00	9.471E-02	6.364
TL-200	-7.236E-04		1.159E-03	Half-Life too short		
TL-201	2.112E+00		2.234E+01	3.191E+01	1.727E+00	0.066
TL-202	-3.270E-03		9.673E-02	1.597E-01	8.983E-03	-0.020
HG-203	-6.055E-03		5.754E-02	9.672E-02	6.108E-03	-0.063
BI-207	5.879E-03		4.923E-02	8.208E-02	5.442E-03	0.072
TL-207	-9.149E-01		8.878E-01	1.411E+00	2.336E-01	-0.649
PO-209	1.482E+00		7.828E+00	1.323E+01	9.584E-01	0.112
BI-210	-1.634E+01		1.181E+01	1.936E+01	1.594E+00	-0.844
PB-210	-1.634E+01		1.181E+01	1.936E+01	1.594E+00	-0.844
PO-210	-1.634E+01		1.179E+01	1.936E+01	1.399E+00	-0.844
PB-211	-2.116E-01		1.234E+00	2.022E+00	1.260E+00	-0.105
PB-212	8.182E-01	+	1.143E-01	1.983E-01	1.462E-02	4.126
PO-212	8.182E-01	+	1.143E-01	1.983E-01	1.462E-02	4.126
PO-215	-9.149E-01		8.878E-01	1.411E+00	2.336E-01	-0.649
PO-216	8.182E-01	+	1.143E-01	1.983E-01	1.462E-02	4.126
RN-219	2.419E-01		5.378E-01	9.082E-01	1.227E-01	0.266
RN-220	-3.730E+01		3.381E+01	5.171E+01	2.842E+00	-0.721
RA-223	-9.149E-01		8.878E-01	1.411E+00	2.336E-01	-0.649
AC-227	1.706E+00		7.425E-01	1.080E+00	1.513E-01	1.579
TH-227	1.706E+00		7.600E-01	1.080E+00	1.830E-01	1.579
TH-228	8.324E-01	+	1.162E-01	2.017E-01	1.487E-02	4.126
TH-229	4.112E-01		7.885E-01	1.293E+00	7.226E-02	0.318
PA-231	5.775E-01		2.013E+00	3.422E+00	4.741E-01	0.169
TH-231	-9.149E-01		8.878E-01	1.411E+00	2.336E-01	-0.649
U-231	2.595E+01		6.487E+00	7.222E+00	6.188E-01	3.594
PA-233	-8.493E-02		8.719E-02	1.411E-01	8.897E-03	-0.602
PA-234	8.410E-01	+	6.000E-01	7.079E-01	1.283E-01	1.188
NP-236	-6.127E-02		1.643E-01	2.317E-01	1.268E-02	-0.264
NP-237	-6.505E-01		1.153E+00	1.192E+00	2.721E-01	-0.546
NP-239	-1.989E-01		4.468E-01	6.384E-01	4.124E-02	-0.312
AM-241	1.026E+00		5.715E-01	8.530E-01	8.340E-02	1.203

Sample ID : G246020006 Acquisition date : 13-FEB-2010 16:27:02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	9.724E-02		2.247E-01	3.612E-01	2.753E-02	0.269
AM-246	5.953E-02		1.400E-01	2.393E-01	1.566E-02	0.249
CM-247	1.750E-02		4.806E-02	8.101E-02	4.514E-03	0.216
CF-249	-1.066E-02		5.352E-02	8.828E-02	4.924E-03	-0.121
CF-251	3.362E-02		2.228E-01	3.630E-01	1.986E-02	0.093

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020006           *
* Acquisition date  : 13-FEB-2010 16:27:02 Detector SN#     :               *
* Detector ID       : GAM06                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:04.04      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020006           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.6589E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.055E+01	1.928E+00	2.687E-01	9.838E-01
NB-95	1.070E+00	1.386E-01	4.734E-02	7.069E-02
TL-208	2.572E-01	8.015E-02	3.811E-02	4.089E-02
BI-211	1.719E+00	5.353E-01	2.208E-01	2.731E-01
BI-212	5.347E-01	4.406E-01	3.457E-01	2.248E-01
BI-214	7.022E-01	1.623E-01	7.238E-02	8.280E-02
PB-214	5.981E-01	1.887E-01	7.698E-02	9.628E-02
PO-214	5.981E-01	1.887E-01	7.698E-02	9.628E-02
PO-218	5.981E-01	1.887E-01	7.698E-02	9.628E-02
RA-224	2.749E+00	1.185E+00	8.079E-01	6.047E-01
RA-226	7.022E-01	1.623E-01	7.238E-02	8.280E-02
AC-228	6.881E-01	2.031E-01	1.188E-01	1.036E-01
RA-228	6.881E-01	2.031E-01	1.188E-01	1.036E-01
TH-230	7.022E-01	1.623E-01	7.238E-02	8.280E-02
TH-232	6.881E-01	2.031E-01	1.188E-01	1.036E-01
PA-234M	2.859E+02	2.920E+01	3.867E+00	1.490E+01
TH-234	1.906E+02	3.468E+01	3.450E+00	1.770E+01
U-234	7.022E-01	1.623E-01	7.238E-02	8.280E-02
U-235	3.347E+00	7.586E-01	3.423E-01	3.870E-01
U-238	1.906E+02	3.468E+01	3.450E+00	1.770E+01
AM-243	2.176E-01	1.853E-01	1.476E-01	9.453E-02
ANH-511	8.242E-02	8.192E-02	3.352E-02	4.180E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	3.403E-01	4.416E-01	4.023E-01	2.253E-01	NOT IDENT.
NA-22	-6.845E-02	4.196E-02	2.885E-02	2.141E-02	NOT IDENT.
NA-24	-6.841E+06	5.738E+06	0.000E+00	2.928E+06	SHORT HLIF
AL-26	6.304E-03	2.494E-02	2.223E-02	1.272E-02	NOT IDENT.
TI-44	1.427E-01	1.294E-01	9.181E-02	6.603E-02	NOT IDENT.

SC-46	-2.087E-02	4.303E-02	3.624E-02	2.196E-02	FAIL ABUN
V-48	-1.950E-02	7.489E-02	6.339E-02	3.821E-02	NOT IDENT.
CR-51	1.310E-01	5.192E-01	4.757E-01	2.649E-01	NOT IDENT.
MN-52	1.167E-01	3.113E-01	2.723E-01	1.588E-01	FAIL ABUN
MN-54	-2.302E-02	4.353E-02	3.700E-02	2.221E-02	NOT IDENT.
CO-56	-2.191E-02	4.691E-02	3.992E-02	2.393E-02	NOT IDENT.
CO-57	2.158E-02	5.007E-02	4.621E-02	2.555E-02	NOT IDENT.
CO-58	-4.040E-02	4.818E-02	4.017E-02	2.458E-02	NOT IDENT.
FE-59	-1.088E-02	8.532E-02	7.228E-02	4.353E-02	FAIL ABUN
CO-60	2.246E-02	3.713E-02	3.341E-02	1.895E-02	NOT IDENT.
ZN-65	-7.898E-04	9.635E-02	7.075E-02	4.916E-02	NOT IDENT.
GE-68	6.255E-01	1.205E+00	1.083E+00	6.150E-01	NOT IDENT.
AS-73	1.165E+00	2.774E+00	2.667E+00	1.415E+00	NOT IDENT.
AS-74	8.772E-02	1.307E-01	1.170E-01	6.668E-02	NOT IDENT.
SE-75	3.632E-02	6.542E-02	5.607E-02	3.338E-02	NOT IDENT.
BR-77	-1.241E+01	2.581E+01	2.140E+01	1.317E+01	FAIL ABUN
SR-82	-3.831E-01	5.172E-01	4.274E-01	2.639E-01	NOT IDENT.
RB-83	-3.875E-02	9.523E-02	7.929E-02	4.859E-02	NOT IDENT.
RB-84	1.408E-01	9.304E-02	8.836E-02	4.747E-02	NOT IDENT.
KR-85	5.481E+00	1.062E+01	8.322E+00	5.419E+00	NOT IDENT.
SR-85	2.872E-02	5.565E-02	4.361E-02	2.839E-02	NOT IDENT.
RB-86	4.334E-01	8.219E-01	7.387E-01	4.193E-01	NOT IDENT.
Y-88	-7.282E-03	2.907E-02	2.335E-02	1.483E-02	NOT IDENT.
ZR-88	2.722E-02	4.163E-02	3.819E-02	2.124E-02	NOT IDENT.
Y-91	9.289E+00	1.742E+01	1.551E+01	8.887E+00	NOT IDENT.
NB-94	2.986E-02	4.473E-02	3.955E-02	2.282E-02	NOT IDENT.
NB-95M	4.646E-02	2.114E-01	1.633E-01	1.078E-01	NOT IDENT.
ZR-95	9.606E-02	9.933E-02	8.879E-02	5.068E-02	NOT IDENT.
NB-97	-1.281E+06	9.966E+05	0.000E+00	5.084E+05	SHORT HLIF
ZR-97	3.392E+07	2.004E+07	0.000E+00	1.023E+07	SHORT HLIF
MO-99	2.190E+01	3.506E+01	2.676E+01	1.789E+01	NOT IDENT.
TC-99M	1.815E+19	2.451E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.533E-02	5.186E-02	4.472E-02	2.646E-02	NOT IDENT.
RH-102	2.095E-02	3.870E-02	3.495E-02	1.974E-02	FAIL ABUN
RU-103	8.739E-03	5.495E-02	4.863E-02	2.803E-02	FAIL ABUN
RH-106	-1.529E-02	4.070E-01	3.502E-01	2.077E-01	FAIL ABUN
RU-106	-1.529E-02	4.070E-01	3.502E-01	2.077E-01	FAIL ABUN
AG-108M	1.827E-02	4.130E-02	3.740E-02	2.107E-02	NOT IDENT.
CD-109	2.692E-01	3.842E+00	2.285E+00	1.960E+00	NOT IDENT.
AG-110M	-6.536E-02	4.669E-02	3.665E-02	2.382E-02	NOT IDENT.
IN-111	1.835E+00	2.784E+00	2.188E+00	1.420E+00	NOT IDENT.
IN-113M	1.720E-02	5.961E-02	5.395E-02	3.041E-02	NOT IDENT.
SN-113	1.720E-02	5.961E-02	5.395E-02	3.041E-02	NOT IDENT.
IN-114M	-3.632E-01	3.205E-01	2.387E-01	1.635E-01	NOT IDENT.
CD-115	-2.249E+00	2.745E+01	2.389E+01	1.400E+01	NOT IDENT.
SN-117M	2.236E-03	1.227E-01	9.686E-02	6.258E-02	NOT IDENT.
SB-122	-4.081E+00	4.841E+00	4.026E+00	2.470E+00	NOT IDENT.
I-123	1.069E+07	1.581E+08	0.000E+00	8.069E+07	SHORT HLIF
TE-123M	3.889E-03	5.752E-02	4.548E-02	2.935E-02	NOT IDENT.
I-124	-2.727E-01	1.326E+00	9.738E-01	6.765E-01	NOT IDENT.
SB-124	7.705E-04	6.323E-02	5.414E-02	3.226E-02	FAIL ABUN
SB-125	-4.631E-02	1.144E-01	9.973E-02	5.835E-02	NOT IDENT.
TE-125M	9.276E+01	2.698E+01	2.217E+01	1.376E+01	NOT IDENT.
I-126	-1.370E-01	2.808E-01	2.342E-01	1.433E-01	NOT IDENT.
SB-126	-3.941E-02	2.300E-01	1.746E-01	1.174E-01	NOT IDENT.
SN-126	-1.426E-01	3.776E-01	2.222E-01	1.926E-01	FAIL ABUN
SB-127	-1.353E+00	2.447E+00	2.015E+00	1.248E+00	NOT IDENT.
XE-127	1.471E-01	8.948E-02	7.293E-02	4.566E-02	NOT IDENT.
I-131	-7.969E-02	1.860E-01	1.645E-01	9.487E-02	NOT IDENT.
TE-132	2.787E-01	1.619E+00	1.431E+00	8.259E-01	FAIL ABUN
BA-133	-2.600E-02	6.544E-02	5.012E-02	3.339E-02	NOT IDENT.
I-133	2.925E+03	4.255E+04	0.000E+00	2.171E+04	SHORT HLIF
CS-134	9.704E-02	6.692E-02	5.657E-02	3.414E-02	NOT IDENT.
CS-135	1.505E-01	2.171E-01	1.932E-01	1.108E-01	NOT IDENT.
I-135	4.512E+17	9.378E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.164E-02	1.117E-01	9.106E-02	5.697E-02	FAIL ABUN
BA-137M	3.439E-02	4.932E-02	4.383E-02	2.517E-02	NOT IDENT.
CS-137	3.636E-02	5.214E-02	4.634E-02	2.660E-02	NOT IDENT.
CE-139	4.124E-02	5.942E-02	4.768E-02	3.031E-02	NOT IDENT.
BA-140	2.209E-01	3.850E-01	3.402E-01	1.964E-01	FAIL ABUN
LA-140	-1.753E-02	8.065E-02	6.698E-02	4.115E-02	NOT IDENT.
CE-141	7.364E-01	1.472E-01	1.260E-01	7.508E-02	NOT IDENT.
CE-143	1.126E+03	8.885E+02	0.000E+00	4.533E+02	SHORT HLIF
CE-144	5.201E-01	4.285E-01	3.483E-01	2.186E-01	NOT IDENT.
PM-144	-7.855E-02	4.654E-02	3.560E-02	2.374E-02	NOT IDENT.
PR-144	-5.329E+00	3.157E+00	2.415E+00	1.611E+00	NOT IDENT.
PM-146	2.460E-02	5.808E-02	5.232E-02	2.963E-02	NOT IDENT.
ND-147	5.149E-01	8.618E-01	7.728E-01	4.397E-01	FAIL ABUN

PM-149	-1.258E+02	2.259E+02	2.025E+02	1.153E+02	NOT IDENT.
EU-152	-6.059E-03	1.401E-01	1.098E-01	7.146E-02	NOT IDENT.
GD-153	2.528E+00	3.230E-01	2.271E-01	1.648E-01	FAIL ABUN
EU-154	-1.931E-01	1.177E-01	8.007E-02	6.004E-02	NOT IDENT.
EU-155	-8.953E-02	2.584E-01	2.198E-01	1.318E-01	NOT IDENT.
TB-160	-5.200E-02	1.764E-01	1.515E-01	9.002E-02	NOT IDENT.
HO-166M	9.892E-03	7.694E-02	6.608E-02	3.926E-02	FAIL ABUN
TM-171	-2.181E+02	8.848E+01	6.924E+01	4.515E+01	NOT IDENT.
LU-176	1.727E-02	3.281E-02	3.041E-02	1.674E-02	NOT IDENT.
LU-177	8.381E-01	2.223E+00	1.744E+00	1.134E+00	FAIL ABUN
LU-177M	-1.977E-01	2.207E-01	1.885E-01	1.126E-01	NOT IDENT.
HF-181	2.609E-03	5.718E-02	5.046E-02	2.917E-02	FAIL ABUN
W-181	1.226E+01	1.653E+00	1.180E+00	8.432E-01	NOT IDENT.
TA-182	-2.146E-01	1.963E-01	1.504E-01	1.002E-01	FAIL ABUN
RE-183	9.237E-01	2.960E-01	2.053E-01	1.510E-01	FAIL ABUN
RE-184	-1.106E-01	3.901E-01	2.932E-01	1.990E-01	NOT IDENT.
OS-185	-5.722E-03	5.589E-02	4.774E-02	2.852E-02	NOT IDENT.
RE-188	-5.399E-02	3.076E-01	2.739E-01	1.569E-01	NOT IDENT.
W-188	4.475E+00	1.117E+01	9.065E+00	5.699E+00	FAIL ABUN
IR-192	5.121E-02	4.704E-02	4.425E-02	2.400E-02	FAIL ABUN
AU-195	7.374E+00	9.424E-01	6.364E-01	4.808E-01	FAIL ABUN
TL-200	-7.236E+02	2.271E+03	0.000E+00	1.159E+03	SHORT HLIF
TL-201	2.112E+00	2.189E+01	1.726E+01	1.117E+01	NOT IDENT.
TL-202	-3.270E-03	9.479E-02	8.395E-02	4.836E-02	NOT IDENT.
HG-203	-6.055E-03	5.639E-02	5.155E-02	2.877E-02	FAIL ABUN
BI-207	5.879E-03	4.825E-02	4.198E-02	2.462E-02	FAIL ABUN
TL-207	-9.149E-01	8.701E-01	7.486E-01	4.439E-01	FAIL ABUN
PO-209	1.482E+00	7.671E+00	6.802E+00	3.914E+00	NOT IDENT.
BI-210	-1.634E+01	1.157E+01	1.086E+01	5.903E+00	NOT IDENT.
PB-210	-1.634E+01	1.157E+01	1.086E+01	5.903E+00	NOT IDENT.
PO-210	-1.634E+01	1.155E+01	1.086E+01	5.894E+00	NOT IDENT.
PB-211	-2.116E-01	1.210E+00	1.066E+00	6.172E-01	NOT IDENT.
PB-212	8.182E-01	1.120E-01	1.062E-01	5.713E-02	FAIL ABUN
PO-212	8.182E-01	1.120E-01	1.062E-01	5.713E-02	FAIL ABUN
PO-215	-9.149E-01	8.701E-01	7.486E-01	4.439E-01	FAIL ABUN
PO-216	8.182E-01	1.120E-01	1.062E-01	5.713E-02	FAIL ABUN
RN-219	2.419E-01	5.270E-01	4.789E-01	2.689E-01	NOT IDENT.
RN-220	-3.730E+01	3.313E+01	2.701E+01	1.690E+01	NOT IDENT.
RA-223	-9.149E-01	8.701E-01	7.486E-01	4.439E-01	FAIL ABUN
AC-227	1.706E+00	7.276E-01	5.773E-01	3.712E-01	NOT IDENT.
TH-227	1.706E+00	7.448E-01	5.773E-01	3.800E-01	NOT IDENT.
TH-228	8.324E-01	1.139E-01	1.080E-01	5.812E-02	FAIL ABUN
TH-229	4.112E-01	7.727E-01	6.968E-01	3.943E-01	NOT IDENT.
PA-231	5.775E-01	1.973E+00	1.823E+00	1.007E+00	NOT IDENT.
TH-231	-9.149E-01	8.701E-01	7.486E-01	4.439E-01	FAIL ABUN
U-231	2.595E+01	6.357E+00	3.970E+00	3.243E+00	FAIL ABUN
PA-233	-8.493E-02	8.544E-02	7.494E-02	4.359E-02	FAIL ABUN
PA-234	8.410E-01	5.880E-01	3.634E-01	3.000E-01	FAIL ABUN
NP-236	-6.127E-02	1.610E-01	1.255E-01	8.213E-02	FAIL ABUN
NP-237	-6.505E-01	1.130E+00	6.572E-01	5.764E-01	NOT IDENT.
NP-239	-1.989E-01	4.379E-01	3.490E-01	2.234E-01	FAIL ABUN
AM-241	1.026E+00	5.601E-01	4.751E-01	2.858E-01	NOT IDENT.
CM-243	9.724E-02	2.202E-01	1.981E-01	1.123E-01	FAIL ABUN
AM-246	5.953E-02	1.372E-01	1.223E-01	6.998E-02	NOT IDENT.
CM-247	1.750E-02	4.710E-02	4.271E-02	2.403E-02	NOT IDENT.
CF-249	-1.066E-02	5.245E-02	4.659E-02	2.676E-02	NOT IDENT.
CF-251	3.362E-02	2.183E-01	1.961E-01	1.114E-01	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	3050.8799
46.50	3050.8799
46.50	3050.8799
48.70	3013.1096
49.72	3198.4595
51.35	3332.3755
52.39	3386.6997
52.97	3430.2378
53.15	3414.8306
53.44	3456.7351
54.07	3453.0669
56.28	3878.2161
56.28	3878.2322
57.37	0.0000
57.53	3850.5684
57.53	3850.5764
57.60	3848.0530
57.98	3832.7148
57.98	3832.7148
59.32	3953.1760
59.32	3953.1760
59.40	3953.6741
59.54	3954.5479
59.72	4020.7158
60.01	4022.5503
61.10	4051.6277
61.14	4136.3232
61.30	4137.3545
63.00	3801.6428
63.29	3803.3179
63.29	3803.3179
63.58	3356.2817
64.28	3514.6536
65.12	3684.5383
65.20	3684.9758
65.20	3684.9758
66.05	3828.4629
66.72	3915.9026
66.83	3916.5586
66.91	3897.5940
67.20	3870.8425
67.20	3870.8425
67.75	3969.7195
67.85	3970.3025
68.90	3908.1785
68.90	3908.1785
69.30	3907.7605
69.67	3883.7798
70.82	4044.4495
70.82	4044.4495
70.83	4044.5154
72.80	4330.0864
72.87	4330.5073
72.87	4330.5073
74.67	4712.6934
74.81	4713.6069
74.81	4713.6069
74.81	4713.6069
74.81	4713.6069
74.81	4713.6069
74.81	4713.6069
74.81	4713.6069
74.97	4564.4092
75.28	4692.8330
75.70	4569.9253
77.11	4510.4731
77.11	4510.4731

77.11	4510.4731
77.11	4510.4731
77.11	4510.4731
77.11	4510.4731
77.11	4510.4731
78.38	4457.4419
79.62	5075.8306
79.80	5030.7510
79.80	5030.7510
80.11	5049.9541
80.18	4958.3174
80.30	4959.0928
80.30	4959.0928
80.57	4960.8618
81.00	4887.4648
81.07	4887.9150
81.07	4887.9150
81.07	4887.9150
81.07	4887.9150
82.60	4502.1416
83.37	4463.8003
83.78	4964.2173
83.78	4964.2173
83.78	4964.2173
83.78	4964.2173
84.21	4966.9712
84.90	5459.0063
85.43	5469.9634
86.29	5439.4893
86.50	5510.0059
86.54	5510.2686
86.59	5510.6191
86.72	5511.5396
86.79	5512.0000
86.94	5658.9399
87.30	5661.5039
87.30	5661.5039
87.30	5661.5039
87.30	5661.5039
87.30	5661.5039
87.30	5661.5039
87.30	5661.5039
87.57	5517.4121
87.88	5519.5591
88.03	5520.5894
88.36	5257.4727
88.47	5258.2026
89.95	5481.7129
91.11	5507.6641
92.29	5010.0791
92.38	5010.6328
92.38	5010.6328
93.35	5016.5078
94.00	2726.3027
94.67	2891.2451
94.67	2891.2622
94.90	2892.0591
94.90	2892.0591
94.90	2892.0591
94.90	2892.0591
95.87	2895.3943
95.87	2895.3943
96.73	2898.3425
97.43	2900.7217
98.44	2237.6643
98.44	2237.6731
98.88	2065.8779
99.55	2026.9495
99.55	2026.9495
99.86	2022.9922
100.00	2023.3168
100.10	2023.5621
103.18	2105.8396
103.76	2081.4800
105.00	2177.3958
105.31	2184.1284
108.00	2285.6238
109.28	2221.0496

111.00	2026.4197
111.00	2026.4197
111.76	2028.0800
112.95	1802.5802
115.19	1640.3138
116.30	1658.1146
117.00	1713.3713
117.00	1713.3713
117.66	1697.0601
121.11	1591.1912
121.62	1573.0602
121.78	1536.3757
122.06	1536.8160
122.32	1568.1853
122.32	1568.1853
122.32	1568.1853
122.32	1568.1853
123.07	1560.3867
127.23	1527.3667
129.76	1616.5233
131.20	1473.2881
133.02	1313.1559
133.54	1276.6523
135.34	1327.4250
136.00	1326.6361
136.25	1359.3602
136.48	1372.0815
140.51	1333.9214
140.51	0.0000
142.18	1375.0957
142.65	1403.4026
143.76	1359.3606
144.24	1271.6091
144.24	1271.6091
144.24	1271.6091
144.24	1271.6091
145.22	1227.0031
145.44	1227.2506
147.16	1224.2656
152.43	1206.6300
152.70	1223.3652
153.22	1243.4698
154.21	1253.8137
154.21	1253.8137
154.21	1253.8137
154.21	1253.8137
155.03	1208.3676
156.02	1210.4457
158.56	1182.1240
159.00	0.0000
159.00	1162.7219
160.31	1205.4302
161.27	1252.8263
162.32	1195.8900
162.64	1143.7465
163.35	1094.0109
163.89	1119.4266
165.85	1084.6821
167.43	1076.1199
171.28	1089.3761
171.86	1059.5972
172.10	1059.8060
176.55	1046.8676
176.60	1046.9056
181.06	1054.4417
184.41	879.2665
185.71	880.1626
186.00	880.3660
190.27	821.1458
192.34	817.0645
193.63	767.5491
197.04	814.2972
198.01	841.5571
198.60	889.9427
200.40	812.0749
201.83	852.2961
202.84	799.8401
205.31	857.9163

208.36	722.2544
208.81	688.0859
209.75	716.0918
209.75	716.0918
210.97	703.9229
215.65	709.8319
216.55	700.5531
218.09	660.1880
222.10	705.4577
223.80	694.3382
226.40	608.4976
227.00	622.9063
227.08	613.1396
227.20	613.1912
228.16	651.7357
228.18	651.7448
228.18	651.7448
231.56	0.0000
235.69	681.7900
236.00	706.4749
236.00	706.4749
238.63	601.4697
238.63	601.4697
238.63	601.4697
238.63	601.4697
239.00	601.6160
240.98	602.4062
241.98	547.3630
241.98	547.3630
241.98	547.3630
244.69	479.5727
245.39	479.7918
247.94	536.3676
248.90	542.5417
249.79	485.3611
252.40	487.2824
252.85	510.4652
252.85	510.4652
254.15	0.0000
256.20	520.4327
256.20	520.4327
260.50	452.3817
260.90	470.3145
262.80	488.7047
264.65	441.3093
268.24	441.8074
268.79	462.0980
269.46	467.8837
269.46	467.8837
269.46	467.8837
269.46	467.8837
271.23	448.2239
273.65	542.0263
276.40	417.0297
277.35	398.1474
277.60	415.0800
277.60	415.0800
278.00	429.3582
278.60	430.4101
279.20	461.1938
279.53	474.7953
280.46	475.0591
281.68	449.2456
283.67	382.0374
284.30	371.3399
285.00	386.8562
285.90	401.5349
286.10	409.7184
286.10	409.7184
287.40	438.4955
288.45	0.0000
290.67	392.9834
290.80	393.0098
291.72	384.1471
293.26	0.0000
293.70	411.8460
295.21	440.9936
295.21	440.9936

295.21	440.9936
295.96	459.3823
296.50	480.7562
297.23	480.9562
298.57	412.9971
299.80	414.8098
299.80	414.8098
300.09	390.5613
300.09	390.5613
300.09	390.5613
300.09	390.5613
300.12	390.5666
301.29	394.9557
302.84	417.3528
303.76	428.5350
303.91	428.5694
304.40	431.4317
304.40	431.4317
304.84	408.6787
306.84	356.9700
308.46	367.3712
311.98	391.0391
316.51	330.3615
318.01	325.1116
319.02	348.3257
319.41	345.6345
320.08	347.6067
323.87	377.8907
323.87	377.8907
323.87	377.8907
323.87	377.8907
325.23	350.4270
328.77	330.7174
333.44	365.2834
334.20	357.6900
334.20	357.6900
334.30	357.7088
338.28	341.7016
338.28	341.7016
338.28	341.7016
338.28	341.7016
338.32	341.7060
338.32	341.7060
338.32	341.7060
340.50	285.8604
340.57	285.8678
344.27	297.3184
345.85	345.8542
350.59	0.0000
351.07	277.4314
351.92	277.5506
351.92	277.5506
351.92	277.5506
355.39	0.0000
356.01	321.0382
364.48	314.2321
366.43	291.8715
367.43	292.9598
367.94	0.0000
369.80	279.1121
374.96	264.6447
383.85	267.6978
387.95	285.4077
388.63	274.0409
391.69	273.4840
391.69	273.4840
392.90	266.9436
398.62	272.4625
400.65	247.7549
401.10	248.7690
401.81	247.8904
402.60	248.9429
404.84	269.4077
410.95	226.7498
411.60	244.1919
413.65	256.0135
414.70	227.1399
415.30	216.5680

415.76	223.3837
417.63	0.0000
418.52	217.8534
423.70	217.3938
427.08	222.5845
427.89	226.5549
432.53	206.5629
433.93	210.5895
439.47	203.2875
439.56	203.2951
439.89	205.2806
443.98	202.7094
444.90	201.8106
445.03	201.8232
445.03	201.8232
445.03	201.8232
445.03	201.8232
453.90	226.2013
463.38	229.0943
468.07	212.7272
473.00	241.9210
475.06	208.3876
475.35	192.5341
476.78	188.6757
477.59	206.6213
477.96	209.6323
482.03	206.0044
484.57	173.3437
487.03	221.3876
490.36	0.0000
492.35	185.8887
497.08	197.2597
507.63	0.0000
510.53	0.0000
510.84	214.4547
511.00	214.4677
511.85	214.5419
511.85	214.5419
513.99	220.0977
513.99	220.0977
520.41	203.2469
520.65	203.2666
527.90	196.6334
528.96	0.0000
529.64	195.7518
529.87	0.0000
531.02	185.7075
537.32	174.9647
543.00	169.2260
546.56	0.0000
549.76	191.1226
552.65	164.7263
555.20	165.9076
563.23	204.4074
563.90	223.9822
568.70	186.2939
569.32	186.3381
569.50	190.4696
569.67	190.4786
573.80	221.7030
574.00	212.4375
574.64	204.0066
578.91	189.3982
579.30	0.0000
583.14	159.3389
585.48	160.5098
591.81	185.7824
592.07	178.5340
593.00	168.2095
595.88	166.3008
600.56	183.4962
602.52	0.0000
602.71	168.4396
602.71	168.4396
603.60	161.5466
604.41	168.5422
604.70	168.5580
609.31	161.8683

609.31	161.8683
609.31	161.8683
609.31	161.8683
610.33	168.8896
612.46	167.2734
614.37	139.4889
618.01	160.2653
621.84	155.2302
621.84	155.2302
631.29	129.4293
633.02	141.0860
633.10	141.0893
634.78	146.4387
635.90	140.1695
636.97	134.9500
645.85	149.0999
646.12	152.2863
656.30	181.4537
657.75	188.9729
657.90	0.0000
661.65	169.0190
661.65	169.0190
664.57	0.0000
666.33	192.7014
666.33	192.7014
675.00	133.4564
677.61	129.2951
685.20	142.4652
692.80	134.2224
695.00	189.1184
696.49	197.8090
696.49	197.8090
697.00	184.9378
697.49	174.2133
698.33	169.9541
698.50	165.6628
699.00	149.5506
702.63	154.0287
706.10	170.3708
706.58	0.0000
706.67	163.9307
709.31	147.8770
711.68	138.2656
713.82	154.5699
717.42	137.4304
720.50	146.9995
721.93	0.0000
722.20	160.7530
722.78	153.5541
722.78	153.5541
722.89	153.5610
722.95	153.5645
723.30	139.1270
724.18	122.8986
727.18	179.0911
733.00	133.1978
735.90	212.9970
739.58	179.7678
742.81	160.3147
744.21	138.1984
747.13	132.8620
751.79	162.9360
752.31	154.2119
753.82	138.9652
755.35	142.3113
756.15	133.5864
756.87	123.7593
763.93	144.5055
765.79	151.5406
766.42	151.5675
766.84	151.5878
776.49	147.2121
778.00	147.9930
778.57	140.1427
778.89	140.1551
783.80	108.8160
785.46	146.3420
792.07	150.1803

795.84	115.5265
796.30	119.1030
798.80	155.2236
801.93	140.5672
805.60	117.5690
810.29	127.9235
810.76	126.0861
815.85	92.8446
817.79	95.6824
818.51	98.4886
819.60	104.0954
826.30	107.0849
828.27	0.0000
831.60	103.5137
831.96	95.1311
834.83	123.2102
836.80	0.0000
846.75	110.5050
848.13	93.6849
856.28	0.0000
856.80	100.4801
860.37	89.2983
867.32	80.9907
867.82	71.5824
871.10	90.5000
873.19	87.7211
874.81	100.0284
875.33	0.0000
876.40	103.8456
879.36	112.4317
880.27	95.4499
880.51	88.8403
881.50	89.8085
883.24	91.7407
884.67	104.0761
889.25	87.1522
896.60	72.1360
898.02	73.1118
899.00	67.4321
903.28	78.8321
911.07	79.0790
911.07	79.0790
911.07	79.0790
919.63	99.3070
920.93	113.6688
925.00	75.5396
925.24	76.5006
926.50	77.4833
935.52	63.2809
937.48	77.7008
944.10	70.8318
946.00	77.8705
949.00	75.8682
962.29	66.6065
964.01	54.6321
966.15	57.9749
968.20	111.0365
969.11	89.9272
969.11	89.9272
969.11	89.9272
977.42	53.4862
980.50	53.3327
983.50	63.0772
989.30	68.0261
996.32	73.4275
1001.03	65.2975
1001.68	65.3070
1004.76	45.1500
1021.30	0.0000
1024.50	0.0000
1034.80	53.0574
1036.00	55.0361
1037.82	55.0612
1038.57	55.0703
1038.76	0.0000
1045.16	52.2021
1046.59	65.0278
1048.07	60.1213

1050.47	44.3774
1050.47	44.3774
1062.04	54.3868
1063.62	52.4285
1076.63	52.5859
1077.35	52.5946
1078.86	53.6045
1085.78	52.6959
1099.22	53.8550
1112.02	49.3434
1112.84	39.4446
1115.52	60.0586
1120.29	80.7386
1120.29	80.7386
1120.29	80.7386
1120.29	80.7386
1120.51	80.7419
1121.28	80.7550
1124.00	0.0000
1129.67	69.2864
1131.51	0.0000
1147.95	0.0000
1167.94	63.7947
1173.22	62.8552
1175.09	78.0935
1177.93	51.7554
1189.05	52.8971
1204.90	53.0749
1205.75	0.0000
1213.00	69.5246
1221.42	85.0129
1230.97	81.0766
1235.34	68.8239
1236.41	0.0000
1238.25	53.4473
1246.25	60.7429
1260.41	0.0000
1271.85	36.2234
1274.45	65.2354
1274.54	65.2379
1291.56	31.1719
1298.22	0.0000
1312.09	27.1267
1325.50	39.7519
1325.50	39.7519
1332.49	31.4270
1333.61	27.2420
1360.21	22.1177
1362.66	0.0000
1365.15	20.0298
1368.21	29.5358
1368.53	0.0000
1376.25	28.5249
1384.27	39.1499
1394.10	24.3813
1395.20	28.6282
1407.95	26.5706
1434.06	28.8369
1436.60	25.6445
1457.56	0.0000
1460.81	26.8331
1489.15	18.3406
1509.49	19.4897
1596.49	20.7301
1620.62	11.3538
1678.03	0.0000
1691.02	12.4446
1691.02	12.4446
1706.46	0.0000
1750.46	0.0000
1764.49	11.6237
1764.49	11.6237
1764.49	11.6237
1764.49	11.6237
1770.23	8.4833
1771.40	15.2726
1791.20	0.0000
1808.65	9.7538

1836.01 12.7334

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020006

Total Uranium Activity	5.6860E+02	ug/g
Total Uranium Counting Unc.	1.0318E+02	ug/g
Total Uranium Tpu	5.2644E-05	ug/g
Total Uranium Mda	1.0265E+01	ug/g

```
*****************************************************************************
*                                                                           *
*                      GEL Laboratories LLC                                 *
*                           2040 SAVAGE ROAD                                *
*                         CHARLESTON ,SC 29417                              *
*                          GROSS GAMMA REPORT                               *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020006       *
*   ANALYST       : MXR1                      DETECTOR   : GAM06            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:27:02.71    SAMPLE ALQT:  165.890 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 3.120E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.260E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 9.363E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 4.640E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:29:27.59

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020007.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:27:34
Sample ID         : G246020007           Sample quantity  : 1.27890E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.41  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.79*	85	631	1.08	125.24	122	8	1.18E-02	53.5	
2	2	74.80	589	520	1.22	149.24	142	18	8.18E-02	7.8	2.85E+00
3	2	77.20*	884	486	1.09	154.04	142	18	1.23E-01	5.5	
4	1	84.17*	76	492	1.13	167.99	163	15	1.05E-02	49.8	1.14E+00
5	1	87.24	323	475	1.13	174.13	163	15	4.49E-02	12.5	
6	6	89.91	137	255	0.93	179.46	178	18	1.90E-02	18.1	1.40E+00
7	6	92.98*	329	580	1.71	185.60	178	18	4.57E-02	15.3	
8	0	129.23	92	384	0.77	258.09	254	8	1.28E-02	38.2	
9	0	185.88*	202	426	1.49	371.37	366	13	2.80E-02	22.7	
10	0	209.30*	114	372	1.44	418.20	413	11	1.58E-02	34.6	
11	4	238.78*	1446	186	1.05	477.15	473	17	2.01E-01	3.1	2.53E+00
12	4	241.74	315	254	1.83	483.08	473	17	4.37E-02	14.1	
13	0	270.21	139	263	1.16	540.00	534	13	1.92E-02	25.6	
14	0	295.39*	442	192	1.26	590.36	584	12	6.14E-02	7.9	
15	0	300.33*	116	128	1.68	600.22	596	9	1.60E-02	20.5	
16	0	329.11	92	254	1.37	657.78	650	14	1.27E-02	38.7	
17	0	338.44	259	199	1.40	676.43	671	11	3.60E-02	12.2	
18	0	352.16*	603	210	1.23	703.88	697	12	8.38E-02	6.3	
19	0	463.46	102	125	1.58	926.45	921	14	1.42E-02	25.1	
20	0	511.16*	180	138	1.63	1021.82	1015	15	2.50E-02	18.0	
21	0	583.31*	420	131	1.54	1166.10	1158	17	5.84E-02	8.1	
22	0	609.61*	393	147	1.38	1218.70	1213	14	5.46E-02	8.5	
23	0	727.37	123	75	1.32	1454.19	1448	12	1.71E-02	16.7	
24	0	794.40	88	52	3.32	1588.22	1581	14	1.22E-02	20.5	
25	0	860.72	87	49	2.00	1720.84	1713	14	1.21E-02	20.2	
26	0	911.40*	302	72	1.90	1822.19	1814	17	4.20E-02	8.8	
27	2	964.93	77	55	2.17	1929.25	1922	24	1.07E-02	24.1	1.02E+00
28	2	969.19*	151	51	1.82	1937.76	1922	24	2.10E-02	12.8	
29	0	1120.99	82	76	2.33	2241.33	2236	12	1.13E-02	24.2	
30	0	1377.85	51	15	1.87	2755.00	2747	15	7.08E-03	21.7	
31	0	1461.24*	1539	19	2.17	2921.77	2912	19	2.14E-01	2.7	
32	0	1729.27	31	4	3.10	3457.81	3450	16	4.30E-03	23.1	
33	0	1764.91*	87	8	1.67	3529.09	3522	16	1.21E-02	13.7	
34	0	1847.47	19	4	3.59	3694.19	3686	14	2.68E-03	30.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:29:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:27:34
Sample ID : G246020007 Sample quantity : 127.89 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.41 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.748E+01	3.784E+00	5.496E-01	4.720E-02	68.197
CD-109	+	88.03	*	3.825E+00	1.024E+00	1.112E+00	1.048E-01	3.439
SN-126	+	64.28		5.475E-01	5.914E-01	6.295E-01	9.130E-02	0.870
	+	86.94		1.558E+00	7.558E-01	4.837E-01	2.008E-01	3.221
	+	87.57	*	3.748E-01	1.003E-01	1.092E-01	1.023E-02	3.432
TL-208		277.35		4.866E-01	3.924E-01	6.638E-01	8.128E-02	0.733
	+	510.84		8.888E-01	3.385E-01	2.241E-01	2.729E-02	3.967
	+	583.14	*	5.916E-01	1.108E-01	5.857E-02	5.602E-03	10.100
	+	860.37		1.148E+00	4.769E-01	4.895E-01	4.786E-02	2.346
BI-211		72.87		6.422E+00	2.637E+00	4.561E+00	3.600E-01	1.408
	+	351.07	*	3.719E+00	5.781E-01	3.539E-01	3.175E-02	10.508
PB-212	+	74.81		2.662E+00	5.280E-01	4.528E-01	5.586E-02	5.878
	+	77.11		2.302E+00	3.161E-01	2.618E-01	2.161E-02	8.793
	+	87.30		1.734E+00	4.954E-01	5.372E-01	7.350E-02	3.227
	+	238.63	*	1.939E+00	2.203E-01	9.543E-02	9.128E-03	20.322
	+	300.09		2.397E+00	1.014E+00	1.166E+00	1.210E-01	2.055
PO-212	+	74.81		2.662E+00	5.280E-01	4.528E-01	5.586E-02	5.878
	+	77.11		2.302E+00	3.161E-01	2.618E-01	2.161E-02	8.793
	+	87.30		1.734E+00	4.954E-01	5.372E-01	7.350E-02	3.227
		115.19		-3.599E-01	3.531E+00	5.669E+00	4.883E-01	-0.063
	+	238.63	*	1.939E+00	2.203E-01	9.543E-02	9.128E-03	20.322
	+	300.09		2.397E+00	1.014E+00	1.166E+00	1.210E-01	2.055
BI-214	+	609.31	*	1.043E+00	2.068E-01	1.130E-01	1.169E-02	9.226
	+	1120.29		1.123E+00	5.578E-01	5.564E-01	5.974E-02	2.019
	+	1764.49		1.642E+00	4.683E-01	3.178E-01	2.613E-02	5.168
PB-214	+	74.81		4.586E+00	8.714E-01	7.803E-01	8.536E-02	5.878
	+	77.11		3.947E+00	6.197E-01	4.489E-01	5.042E-02	8.793
	+	87.30		2.970E+00	8.273E-01	9.203E-01	1.114E-01	3.227
	+	241.98		2.537E+00	7.606E-01	5.748E-01	5.834E-02	4.414
	+	295.21		1.609E+00	3.069E-01	2.160E-01	2.286E-02	7.450
	+	351.92	*	1.294E+00	2.121E-01	1.234E-01	1.280E-02	10.485
PO-214	+	74.81		4.586E+00	8.714E-01	7.803E-01	8.536E-02	5.878
	+	77.11		3.947E+00	6.197E-01	4.489E-01	5.042E-02	8.793
	+	87.30		2.970E+00	8.273E-01	9.203E-01	1.114E-01	3.227

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.537E+00	7.606E-01	5.748E-01	5.834E-02	4.414
	+	295.21		1.609E+00	3.069E-01	2.160E-01	2.286E-02	7.450
	+	351.92	*	1.294E+00	2.121E-01	1.234E-01	1.280E-02	10.485
PO-216	+	74.81		2.662E+00	5.280E-01	4.528E-01	5.586E-02	5.878
	+	77.11		2.302E+00	3.161E-01	2.618E-01	2.161E-02	8.793
	+	87.30		1.734E+00	4.954E-01	5.372E-01	7.350E-02	3.227
	+	238.63	*	1.939E+00	2.203E-01	9.543E-02	9.128E-03	20.322
	+	300.09		2.397E+00	1.014E+00	1.166E+00	1.210E-01	2.055
PO-218	+	74.81		4.586E+00	8.714E-01	7.803E-01	8.536E-02	5.878
	+	77.11		3.947E+00	6.197E-01	4.489E-01	5.042E-02	8.793
	+	87.30		2.970E+00	8.273E-01	9.203E-01	1.114E-01	3.227
	+	241.98		2.537E+00	7.606E-01	5.748E-01	5.834E-02	4.414
	+	295.21		1.609E+00	3.069E-01	2.160E-01	2.286E-02	7.450
	+	351.92	*	1.294E+00	2.121E-01	1.234E-01	1.280E-02	10.485
RA-224	+	240.98	*	4.811E+00	1.417E+00	1.086E+00	9.186E-02	4.429
RA-226	+	609.31	*	1.043E+00	2.068E-01	1.130E-01	1.169E-02	9.226
	+	1120.29		1.123E+00	5.578E-01	5.564E-01	5.974E-02	2.019
	+	1764.49		1.642E+00	4.683E-01	3.178E-01	2.613E-02	5.168
AC-228	+	338.32		1.761E+00	8.443E-01	3.850E-01	1.588E-01	4.575
	+	911.07	*	1.888E+00	3.982E-01	2.027E-01	2.362E-02	9.313
	+	969.11		1.667E+00	5.788E-01	3.943E-01	9.263E-02	4.228
RA-228	+	338.32		1.761E+00	8.443E-01	3.850E-01	1.588E-01	4.575
	+	911.07	*	1.888E+00	3.982E-01	2.027E-01	2.362E-02	9.313
	+	969.11		1.667E+00	5.788E-01	3.943E-01	9.263E-02	4.228
TH-228	+	74.81		2.708E+00	4.747E-01	4.606E-01	3.744E-02	5.878
	+	77.11		2.342E+00	3.215E-01	2.664E-01	2.198E-02	8.793
	+	87.30		1.763E+00	4.721E-01	5.465E-01	5.103E-02	3.227
	+	238.63	*	1.973E+00	2.241E-01	9.708E-02	9.285E-03	20.322
	+	300.09		2.439E+00	1.757E+00	1.187E+00	7.033E-01	2.055
TH-230	+	609.31	*	1.043E+00	2.068E-01	1.130E-01	1.169E-02	9.226
	+	1120.29		1.123E+00	5.578E-01	5.564E-01	5.974E-02	2.019
	+	1764.49		1.642E+00	4.683E-01	3.178E-01	2.613E-02	5.168
TH-232	+	338.32		1.761E+00	4.556E-01	3.850E-01	3.295E-02	4.575
	+	911.07	*	1.888E+00	3.982E-01	2.027E-01	2.362E-02	9.313
	+	969.11		1.667E+00	5.788E-01	3.943E-01	9.263E-02	4.228
TH-234	+	63.29	*	1.383E+00	1.500E+00	1.645E+00	2.863E-01	0.841
	+	92.38		2.540E+00	9.066E-01	6.892E-01	1.265E-01	3.685
U-234	+	609.31	*	1.043E+00	2.068E-01	1.130E-01	1.169E-02	9.226
	+	1120.29		1.123E+00	5.578E-01	5.564E-01	5.974E-02	2.019
	+	1764.49		1.642E+00	4.683E-01	3.178E-01	2.613E-02	5.168
NP-237	+	86.50	*	1.101E+00	3.720E-01	3.425E-01	7.744E-02	3.214
		95.87		-1.017E-01	9.777E-01	1.410E+00	3.493E-01	-0.072
U-238	+	63.29	*	1.383E+00	1.500E+00	1.645E+00	2.863E-01	0.841
	+	92.38		2.540E+00	8.117E-01	6.892E-01	6.314E-02	3.685
AM-243	+	74.67	*	4.315E-01	7.550E-02	7.355E-02	5.912E-03	5.867
	+	86.72		4.127E+01	1.105E+01	1.283E+01	1.189E+00	3.217
		117.66		3.076E-01	3.764E+00	6.083E+00	5.232E-01	0.051
		142.18		-1.484E+00	1.735E+01	2.758E+01	2.276E+00	-0.054
ANH-511	+	511.00	*	1.920E-01	7.134E-02	4.841E-02	4.301E-03	3.966

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.594E-01	3.434E-01	5.296E-01	4.999E-02	-0.301
NA-22		1274.54	*	1.331E-03	4.782E-02	7.923E-02	6.504E-03	0.017
NA-24		1368.53	*	4.860E+00	4.782E-02	Half-Life too short		
AL-26		1129.67		-1.076E+00	1.917E+00	2.964E+00	2.490E-01	-0.363
		1808.65	*	3.197E-02	3.170E-02	6.161E-02	5.025E-03	0.519
TI-44		67.85		-3.690E-02	3.840E-02	5.800E-02	4.376E-03	-0.636
	+	78.38	*	4.249E-01	5.833E-02	7.279E-02	6.094E-03	5.837
SC-46		889.25	*	1.885E-02	4.391E-02	7.404E-02	6.785E-03	0.255
	+	1120.51		1.956E-01	9.627E-02	1.386E-01	1.171E-02	1.411
V-48		944.10		-1.449E-01	9.451E-01	1.501E+00	1.365E-01	-0.097
		983.50	*	-3.666E-03	8.601E-02	1.380E-01	1.242E-02	-0.027
		1312.09		4.044E-02	1.012E-01	1.734E-01	1.421E-02	0.233
CR-51		320.08	*	-1.273E-01	4.001E-01	6.272E-01	5.668E-02	-0.203
MN-52		744.21		3.907E-02	3.349E-01	5.561E-01	5.048E-02	0.070
		848.13		-6.410E-01	9.032E+00	1.462E+01	1.342E+00	-0.044
		935.52		3.808E-01	3.633E-01	6.399E-01	5.827E-02	0.595
		1246.25		4.364E+00	1.120E+01	1.910E+01	1.565E+00	0.228
		1333.61		-7.301E-01	7.355E+00	1.198E+01	9.814E-01	-0.061
		1434.06	*	-1.860E-02	3.262E-01	5.298E-01	4.405E-02	-0.035
MN-54		834.83	*	3.523E-02	4.641E-02	7.968E-02	7.313E-03	0.442
CO-56		846.75	*	-4.704E-03	4.027E-02	6.487E-02	5.955E-03	-0.073
		977.42		-1.009E+00	3.566E+00	5.227E+00	4.713E-01	-0.193
		1037.82		1.352E-01	3.545E-01	6.134E-01	5.691E-02	0.220
		1175.09		1.622E+00	2.767E+00	4.797E+00	3.905E-01	0.338
		1238.25		4.502E-04	1.104E-01	1.830E-01	1.546E-02	0.002
		1360.21		-2.967E-01	8.156E-01	1.258E+00	1.036E-01	-0.236
		1771.40		-1.292E-01	2.587E-01	3.130E-01	2.571E-02	-0.413
CO-57		122.06	*	-3.259E-02	2.648E-02	4.009E-02	3.449E-03	-0.813
		136.48		1.576E-01	2.053E-01	3.390E-01	3.052E-02	0.465
CO-58		810.76	*	-3.882E-02	4.460E-02	6.702E-02	6.157E-03	-0.579
FE-59		142.65		-1.744E-01	2.869E+00	4.492E+00	3.705E-01	-0.039
		192.34		-6.671E-01	1.056E+00	1.601E+00	2.102E-01	-0.417
		1099.22	*	-4.650E-02	1.112E-01	1.794E-01	1.662E-02	-0.259
		1291.56		8.287E-02	1.473E-01	2.555E-01	2.406E-02	0.324
CO-60		1173.22		2.920E-03	5.401E-02	9.020E-02	7.340E-03	0.032
		1332.49	*	-7.830E-03	4.392E-02	7.088E-02	5.806E-03	-0.110
ZN-65		1115.52	*	4.752E-02	1.105E-01	1.673E-01	1.419E-02	0.284
GE-68		1077.35	*	8.241E-01	1.497E+00	2.609E+00	2.261E-01	0.316
AS-73		53.44	*	1.645E-01	5.475E-01	9.085E-01	6.822E-02	0.181
AS-74		595.88	*	-7.183E-02	1.032E-01	1.632E-01	1.463E-02	-0.440
		634.78		-2.003E-01	3.981E-01	6.352E-01	5.663E-02	-0.315
SE-75		66.05		4.368E-01	4.259E+00	6.298E+00	5.975E-01	0.069
		96.73		-5.778E-01	8.156E-01	1.133E+00	1.569E-01	-0.510
		121.11		8.030E-03	1.384E-01	2.232E-01	2.500E-02	0.036
		136.00		8.345E-03	3.906E-02	6.309E-02	5.304E-03	0.132
		198.60		1.684E-01	1.911E+00	3.187E+00	2.929E-01	0.053
		264.65	*	-1.880E-02	5.130E-02	7.298E-02	6.232E-03	-0.258
		279.53		-1.082E-02	1.139E-01	1.879E-01	1.657E-02	-0.058
		303.91		1.151E+00	2.300E+00	3.459E+00	3.954E-01	0.333

---- Non-Identified Nuclides ----

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		400.65		6.451E-02	2.678E-01	4.412E-01	4.823E-02	0.146
BR-77	+	87.88		1.506E+03	4.033E+02	5.874E+02	5.526E+01	2.564
		200.40		9.213E+01	3.067E+02	5.233E+02	4.302E+01	0.176
	+	239.00		5.694E+02	5.944E+01	7.663E+01	6.475E+00	7.430
		249.79		1.759E+01	1.229E+02	2.063E+02	1.750E+01	0.085
		281.68		-1.112E+02	1.691E+02	2.700E+02	2.294E+01	-0.412
		297.23		7.018E+02	1.583E+02	2.337E+02	1.997E+01	3.004
		303.76		1.854E+02	3.542E+02	5.339E+02	4.571E+01	0.347
		439.47		1.260E+02	2.849E+02	4.730E+02	4.074E+01	0.266
		484.57		-4.328E+01	4.573E+02	7.271E+02	6.403E+01	-0.060
		520.65	*	1.561E+01	1.990E+01	3.517E+01	3.133E+00	0.444
		574.64		-8.607E+01	3.974E+02	6.374E+02	5.716E+01	-0.135
		578.91		1.317E+02	1.796E+02	2.803E+02	2.514E+01	0.470
		585.48		3.069E+03	5.696E+02	9.957E+02	8.930E+01	3.082
		755.35		-1.854E+01	3.292E+02	5.385E+02	4.899E+01	-0.034
		817.79		-3.382E+02	2.500E+02	3.486E+02	3.198E+01	-0.970
SR-82		698.33		2.502E+01	4.099E+01	7.050E+01	6.321E+00	0.355
		776.49	*	-1.618E-01	4.516E-01	7.186E-01	6.562E-02	-0.225
		1395.20		6.562E-01	1.158E+01	1.915E+01	1.585E+00	0.034
RB-83		520.41	*	5.610E-02	7.306E-02	1.290E-01	1.149E-02	0.435
		529.64		-1.993E-02	1.073E-01	1.782E-01	1.590E-02	-0.112
		552.65		-2.392E-01	2.180E-01	3.361E-01	3.011E-02	-0.712
RB-84		881.50	*	-2.957E-02	8.186E-02	1.284E-01	1.178E-02	-0.230
KR-85		513.99	*	1.895E+01	8.912E+00	1.505E+01	1.338E+00	1.260
SR-85		513.99	*	9.931E-02	4.670E-02	7.885E-02	7.012E-03	1.260
RB-86		1076.63	*	3.759E-01	1.010E+00	1.739E+00	1.507E-01	0.216
Y-88		898.02		5.313E-02	4.573E-02	8.153E-02	7.497E-03	0.652
		1836.01	*	-1.277E-03	3.215E-02	5.313E-02	4.312E-03	-0.024
ZR-88		392.90	*	1.615E-02	3.326E-02	5.565E-02	4.635E-03	0.290
Y-91		1204.90	*	-2.102E+01	2.398E+01	3.708E+01	3.028E+00	-0.567
NB-94		702.63	*	8.486E-03	4.012E-02	6.720E-02	6.034E-03	0.126
		871.10		1.720E-02	3.670E-02	6.222E-02	5.709E-03	0.276
NB-95		765.79	*	-1.848E-02	5.156E-02	8.244E-02	7.515E-03	-0.224
NB-95M		235.69	*	8.387E-02	1.474E-01	2.239E-01	2.173E-02	0.375
ZR-95		724.18		4.524E-03	1.227E-01	1.760E-01	1.715E-02	0.026
		756.15	*	2.096E-02	7.675E-02	1.289E-01	1.280E-02	0.163
NB-97		657.90	*	4.402E-01	7.675E-02	Half-Life too short		
		1024.50		2.348E+01	7.675E-02	Half-Life too short		
ZR-97		254.15		-2.906E+00	7.675E-02	Half-Life too short		
		355.39		6.053E+00	7.675E-02	Half-Life too short		
		507.63	*	2.836E+01	7.675E-02	Half-Life too short		
		602.52		-6.232E-01	7.675E-02	Half-Life too short		
		1021.30		-6.881E+00	7.675E-02	Half-Life too short		
		1147.95		4.437E+00	7.675E-02	Half-Life too short		
		1362.66		-6.429E+01	7.675E-02	Half-Life too short		
		1750.46		2.990E+01	7.675E-02	Half-Life too short		
MO-99		140.51		-3.169E+01	4.525E+01	6.766E+01	1.867E+01	-0.468
		181.06		8.549E+00	3.004E+01	4.566E+01	8.231E+00	0.187
		366.43		-3.802E+01	1.469E+02	2.354E+02	1.994E+01	-0.161

---- Non-Identified Nuclides ----

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		739.58	*	1.253E+01	2.197E+01	3.762E+01	5.809E+00	0.333
		778.00		-2.124E+01	6.139E+01	9.762E+01	8.917E+00	-0.218
TC-99M		140.51	*	-8.313E+12	6.139E+01	Half-Life too short		
RH-101		127.23		1.394E-03	3.704E-02	5.303E-02	4.503E-03	0.026
		198.01	*	1.041E-02	3.446E-02	5.794E-02	4.753E-03	0.180
		325.23		-7.027E-02	2.659E-01	3.751E-01	3.217E-02	-0.187
RH-102		418.52		-3.162E-01	3.217E-01	4.839E-01	4.111E-02	-0.653
		475.06	*	-4.510E-04	2.856E-02	4.574E-02	4.012E-03	-0.010
		631.29		-9.561E-03	5.665E-02	9.304E-02	8.301E-03	-0.103
		697.49		6.509E-02	8.667E-02	1.504E-01	1.348E-02	0.433
		766.84		1.347E-01	1.297E-01	2.267E-01	2.067E-02	0.594
		1046.59		4.467E-02	1.172E-01	2.032E-01	1.787E-02	0.220
		1112.84		7.458E-02	2.518E-01	4.129E-01	3.506E-02	0.181
RU-103		497.08	*	-3.175E-03	4.728E-02	7.520E-02	1.075E-02	-0.042
	+	610.33		1.168E+01	2.789E+00	3.134E+00	5.284E-01	3.725
RH-106	+	511.85		9.627E-01	3.578E-01	4.905E-01	4.359E-02	1.963
		621.84	*	-1.000E-01	3.241E-01	5.264E-01	7.141E-02	-0.190
		1050.47		-2.708E-01	2.241E+00	3.715E+00	3.262E-01	-0.073
RU-106	+	511.85		9.627E-01	3.578E-01	4.905E-01	4.359E-02	1.963
		621.84	*	-1.000E-01	3.239E-01	5.264E-01	4.705E-02	-0.190
		1050.47		-2.708E-01	2.241E+00	3.715E+00	3.262E-01	-0.073
AG-108M		433.93	*	-2.610E-02	3.542E-02	5.400E-02	4.821E-03	-0.483
		614.37		1.090E-03	4.389E-02	6.377E-02	5.914E-03	0.017
		722.95		9.863E-03	4.965E-02	7.251E-02	6.783E-03	0.136
AG-110M		657.75	*	1.548E-02	3.767E-02	6.435E-02	5.863E-03	0.241
		677.61		1.789E-01	3.247E-01	5.599E-01	5.117E-02	0.320
		706.67		1.588E-01	2.461E-01	4.235E-01	3.904E-02	0.375
		763.93		-1.519E-01	1.983E-01	3.065E-01	2.864E-02	-0.496
		884.67		-2.983E-02	5.512E-02	8.478E-02	7.993E-03	-0.352
		937.48		-6.172E-02	1.243E-01	1.911E-01	1.796E-02	-0.323
		1384.27		6.821E-02	1.768E-01	2.683E-01	2.285E-02	0.254
IN-111		171.28		6.011E-01	1.751E+00	2.813E+00	2.239E-01	0.214
		245.39	*	-4.236E-01	1.864E+00	2.693E+00	2.281E-01	-0.157
IN-113M		391.69	*	1.236E-02	4.848E-02	8.000E-02	6.877E-03	0.155
SN-113		391.69	*	1.236E-02	4.848E-02	8.000E-02	6.877E-03	0.155
IN-114M		190.27	*	-2.992E-02	2.050E-01	3.035E-01	2.469E-02	-0.099
CD-115		260.90		-9.054E+00	2.460E+02	4.085E+02	3.471E+01	-0.022
		492.35		1.541E+01	7.173E+01	1.167E+02	1.031E+01	0.132
		527.90	*	-1.233E+01	2.032E+01	3.265E+01	2.913E+00	-0.378
SN-117M		156.02		-4.960E-01	2.608E+00	4.108E+00	3.309E-01	-0.121
		158.56	*	-1.184E-02	6.250E-02	9.832E-02	7.883E-03	-0.120
SB-122		563.90	*	6.600E-01	3.510E+00	5.964E+00	5.346E-01	0.111
		692.80		3.579E+00	7.634E+01	1.267E+02	1.134E+01	0.028
I-123		159.00	*	1.351E+01	7.634E+01	Half-Life too short		
		528.96		-2.627E+03	7.634E+01	Half-Life too short		
TE-123M		159.00	*	4.910E-03	2.924E-02	4.677E-02	3.773E-03	0.105
I-124		602.71	*	-3.781E-02	1.000E+00	1.514E+00	1.356E-01	-0.025
		722.78		1.711E+00	7.326E+00	1.074E+01	9.699E-01	0.159
		1325.50		-2.642E+01	5.600E+01	8.746E+01	7.167E+00	-0.302

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		1376.25		4.467E+01	5.948E+01	9.288E+01	7.666E+00	0.481
		1509.49		1.469E+01	2.193E+01	3.914E+01	3.272E+00	0.375
		1691.02		-4.403E+00	5.609E+00	7.546E+00	6.269E-01	-0.584
SB-124		602.71		-1.597E-03	4.225E-02	6.394E-02	5.730E-03	-0.025
		645.85		8.847E-02	5.344E-01	8.991E-01	8.446E-02	0.098
		709.31		-5.708E-01	3.322E+00	5.415E+00	4.872E-01	-0.105
		713.82		1.350E-02	1.832E+00	3.024E+00	3.726E-01	0.004
		722.78		1.048E-01	4.486E-01	6.576E-01	6.056E-02	0.159
	+	968.20		1.757E+01	4.766E+00	8.137E+00	7.356E-01	2.160
		1045.16		7.795E-01	2.669E+00	4.591E+00	4.040E-01	0.170
		1325.50		-1.728E+00	3.662E+00	5.719E+00	4.686E-01	-0.302
		1368.21		1.037E+00	1.844E+00	3.125E+00	4.137E-01	0.332
		1436.60		1.316E+00	4.404E+00	7.473E+00	6.216E-01	0.176
		1691.02	*	-6.359E-02	8.101E-02	1.090E-01	9.439E-03	-0.584
SB-125		427.89	*	1.948E-02	1.012E-01	1.656E-01	1.444E-02	0.118
	+	463.38		9.844E-01	5.024E-01	5.826E-01	5.472E-02	1.690
		600.56		1.597E-02	1.789E-01	3.006E-01	2.878E-02	0.053
		635.90		-6.764E-02	2.740E-01	4.467E-01	4.282E-02	-0.151
TE-125M		109.28	*	7.035E+00	9.292E+00	1.543E+01	1.601E+00	0.456
I-126		388.63		8.866E-02	2.491E-01	4.136E-01	3.450E-02	0.214
		666.33	*	7.564E-02	2.118E-01	3.603E-01	3.194E-02	0.210
		753.82		6.054E-01	1.670E+00	2.829E+00	2.573E-01	0.214
SB-126		223.80		1.083E+00	4.617E+00	7.821E+00	6.554E-01	0.138
		278.60		3.655E+00	2.875E+00	5.028E+00	4.268E-01	0.727
	+	296.50		1.799E+01	3.240E+00	4.324E+00	3.695E-01	4.160
		414.70		-2.862E-02	8.861E-02	1.401E-01	1.187E-02	-0.204
		415.30		-2.756E+00	7.435E+00	1.172E+01	9.934E-01	-0.235
		555.20		4.404E+00	4.637E+00	8.258E+00	7.398E-01	0.533
		573.80		3.479E-01	1.206E+00	2.060E+00	1.847E-01	0.169
		593.00		2.706E-02	1.073E+00	1.797E+00	1.611E-01	0.015
		656.30		-1.027E+00	4.176E+00	6.806E+00	6.033E-01	-0.151
		666.33		3.176E-02	8.891E-02	1.513E-01	1.341E-02	0.210
		675.00		2.549E-01	2.391E+00	3.992E+00	3.551E-01	0.064
		695.00		-5.226E-02	9.604E-02	1.521E-01	1.362E-02	-0.344
		697.00		2.371E-01	3.406E-01	5.893E-01	5.281E-02	0.402
		720.50	*	-3.191E-02	1.993E-01	2.937E-01	2.651E-02	-0.109
		856.80		-2.923E-01	6.594E-01	8.723E-01	8.008E-02	-0.335
		989.30		8.643E-01	1.470E+00	2.507E+00	2.253E-01	0.345
		1034.80		-3.121E+00	1.097E+01	1.797E+01	1.588E+00	-0.174
		1213.00		1.634E+00	6.797E+00	1.146E+01	9.366E-01	0.143
SB-127		61.10		1.222E+02	6.589E+01	1.037E+02	1.122E+01	1.178
		252.40		6.149E-01	6.428E+00	1.076E+01	4.536E+00	0.057
		290.80		-9.425E+00	3.594E+01	5.117E+01	6.003E+00	-0.184
		411.60		3.342E+00	1.895E+01	3.102E+01	4.994E+00	0.108
		444.90		-4.335E+00	1.526E+01	2.405E+01	3.155E+00	-0.180
		473.00		5.359E-01	2.389E+00	3.900E+00	5.271E-01	0.137
		543.00		-5.719E+00	2.332E+01	3.845E+01	5.800E+00	-0.149
		603.60		-1.591E+01	1.989E+01	2.626E+01	3.495E+00	-0.606
		685.20	*	1.025E+00	1.993E+00	3.429E+00	4.195E-01	0.299

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		1.067E+01	2.559E+01	4.338E+01	7.142E+00	0.246
		722.20		1.708E+01	5.220E+01	7.725E+01	9.348E+00	0.221
		783.80		4.209E-01	5.363E+00	8.849E+00	1.181E+00	0.048
XE-127		57.60		-4.872E+00	4.332E+00	6.863E+00	4.975E-01	-0.710
		145.22		-1.327E-01	7.473E-01	1.163E+00	9.547E-02	-0.114
		172.10		4.186E-04	1.333E-01	2.108E-01	1.679E-02	0.002
		202.84	*	3.800E-03	5.068E-02	8.296E-02	6.837E-03	0.046
		374.96		2.468E-02	2.043E-01	3.355E-01	2.827E-02	0.074
I-131		80.18		-4.036E+00	6.650E+00	7.367E+00	6.351E-01	-0.548
		284.30		4.961E-01	1.843E+00	3.093E+00	2.777E-01	0.160
		364.48	*	-5.484E-02	1.413E-01	2.245E-01	2.014E-02	-0.244
		636.97		1.286E+00	1.931E+00	3.366E+00	3.161E-01	0.382
		722.89		2.111E+00	1.000E+01	1.463E+01	1.331E+00	0.144
TE-132		49.72		-1.523E+01	1.758E+01	2.820E+01	3.079E+00	-0.540
		111.76		-6.739E+00	4.608E+01	7.395E+01	8.459E+00	-0.091
		116.30		-2.348E+01	4.253E+01	6.680E+01	7.625E+00	-0.352
		228.16	*	8.559E-02	1.091E+00	1.834E+00	2.934E-01	0.047
BA-133		53.15		-2.225E-01	2.316E+00	3.790E+00	2.856E-01	-0.059
		79.62		5.385E-01	1.490E+00	1.772E+00	2.684E-01	0.304
		81.00		-7.625E-02	1.195E-01	1.315E-01	2.088E-02	-0.580
		276.40		3.560E-01	4.021E-01	6.465E-01	9.291E-02	0.551
		302.84		1.698E-01	1.596E-01	2.478E-01	3.283E-02	0.685
		356.01	*	-2.128E-02	5.156E-02	7.012E-02	9.208E-03	-0.303
		383.85		-1.210E-01	3.215E-01	5.095E-01	6.337E-02	-0.237
I-133	+	510.53		1.022E+01	3.215E-01	Half-Life too short		
		529.87	*	-7.358E-03	3.215E-01	Half-Life too short		
		706.58		1.713E+00	3.215E-01	Half-Life too short		
		856.28		-1.770E+00	3.215E-01	Half-Life too short		
		875.33		-1.630E-01	3.215E-01	Half-Life too short		
		1236.41		2.107E+00	3.215E-01	Half-Life too short		
		1298.22		-6.621E-01	3.215E-01	Half-Life too short		
CS-134		475.35		-9.444E-01	1.934E+00	2.975E+00	2.610E-01	-0.317
		563.23		2.059E-01	3.598E-01	6.269E-01	5.669E-02	0.329
		569.32		8.574E-02	1.964E-01	3.390E-01	3.078E-02	0.253
		604.70		-1.819E-02	3.902E-02	5.380E-02	4.830E-03	-0.338
	+	795.84	*	1.780E-01	7.489E-02	9.981E-02	9.196E-03	1.783
		801.93		1.460E-01	4.626E-01	7.350E-01	6.766E-02	0.199
		1038.57		4.463E-01	4.422E+00	7.485E+00	6.606E-01	0.060
		1167.94		-1.378E-01	2.972E+00	4.927E+00	4.026E-01	-0.028
		1365.15		-1.362E+00	1.116E+00	1.454E+00	1.258E-01	-0.936
CS-135		268.24	*	1.641E-01	1.774E-01	2.744E-01	2.706E-02	0.598
I-135		288.45		-4.626E+11	1.774E-01	Half-Life too short		
		417.63		-5.386E+12	1.774E-01	Half-Life too short		
		546.56		2.192E+12	1.774E-01	Half-Life too short		
		836.80		3.039E+12	1.774E-01	Half-Life too short		
		1038.76		-6.620E+10	1.774E-01	Half-Life too short		
		1124.00		1.741E+13	1.774E-01	Half-Life too short		
		1131.51		-1.251E+12	1.774E-01	Half-Life too short		
		1260.41	*	5.352E+11	1.774E-01	Half-Life too short		

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		1457.56		7.627E+13	1.774E-01	Half-Life too short		
		1678.03		1.023E+12	1.774E-01	Half-Life too short		
		1706.46		-2.219E+12	1.774E-01	Half-Life too short		
		1791.20		2.204E+12	1.774E-01	Half-Life too short		
CS-136		66.91		-8.462E-01	7.824E-01	1.082E+00	1.605E-01	-0.782
	+	86.29		5.454E+00	1.550E+00	2.105E+00	2.792E-01	2.591
		153.22		6.394E-01	7.751E-01	1.273E+00	1.168E-01	0.502
		163.89		-6.205E-01	1.238E+00	1.887E+00	1.709E-01	-0.329
		176.55		1.912E-03	4.037E-01	6.853E-01	5.856E-02	0.003
		273.65		-5.168E-01	5.755E-01	7.825E-01	7.099E-02	-0.660
		340.57		5.482E-01	1.840E-01	3.068E-01	2.703E-02	1.787
		818.51		-1.268E-01	8.562E-02	1.173E-01	1.077E-02	-1.081
		1048.07	*	-1.112E-01	1.267E-01	1.946E-01	1.780E-02	-0.572
		1235.34		2.241E-01	7.708E-01	1.303E+00	1.503E-01	0.172
BA-137M		661.65	*	-2.561E-02	3.866E-02	6.082E-02	5.383E-03	-0.421
CS-137		661.65	*	-2.707E-02	4.086E-02	6.430E-02	5.701E-03	-0.421
CE-139		165.85	*	-1.838E-02	3.121E-02	4.798E-02	3.795E-03	-0.383
BA-140		162.64		-1.860E-01	8.723E-01	1.351E+00	1.148E-01	-0.138
		304.84		9.962E-01	1.557E+00	2.335E+00	6.540E-01	0.427
		423.70		1.598E+00	2.388E+00	3.937E+00	1.275E+00	0.406
		537.32	*	-5.949E-02	2.831E-01	4.677E-01	1.554E-01	-0.127
LA-140	+	328.77		8.610E-01	6.702E-01	6.607E-01	5.985E-02	1.303
		432.53		-2.005E+00	2.504E+00	3.799E+00	3.418E-01	-0.528
		487.03		1.025E-01	1.568E-01	2.636E-01	2.461E-02	0.389
		751.79		-8.943E-01	1.974E+00	3.113E+00	3.103E-01	-0.287
		815.85		-6.196E-03	3.662E-01	5.974E-01	6.039E-02	-0.010
		867.82		-3.240E-02	1.721E+00	2.630E+00	2.526E-01	-0.012
		919.63		1.691E+00	3.662E+00	5.667E+00	6.271E-01	0.298
		925.24		-6.575E-01	1.350E+00	2.073E+00	1.998E-01	-0.317
		1596.49	*	5.349E-03	9.345E-02	1.530E-01	1.280E-02	0.035
CE-141		145.44	*	-1.074E-02	6.710E-02	1.062E-01	8.893E-03	-0.101
CE-143		57.37		-2.159E-03	6.710E-02	Half-Life too short		
		231.56		-6.481E-03	6.710E-02	Half-Life too short		
		293.26	*	1.290E-03	6.710E-02	Half-Life too short		
		350.59		7.062E-02	6.710E-02	Half-Life too short		
		490.36		-4.378E-03	6.710E-02	Half-Life too short		
		664.57		-9.368E-05	6.710E-02	Half-Life too short		
		721.93		1.882E-03	6.710E-02	Half-Life too short		
CE-144		80.11		-1.483E+00	2.575E+00	2.860E+00	2.443E-01	-0.519
		133.54	*	-6.682E-02	2.346E-01	3.284E-01	5.069E-02	-0.203
PM-144		476.78		-4.601E-02	7.064E-02	1.071E-01	1.026E-02	-0.429
		618.01		4.800E-03	3.263E-02	5.361E-02	4.918E-03	0.090
		696.49	*	1.206E-02	3.898E-02	6.582E-02	5.901E-03	0.183
		778.57		-1.153E+00	2.368E+00	3.709E+00	3.389E-01	-0.311
PR-144		696.49	*	8.184E-01	2.644E+00	4.465E+00	4.001E-01	0.183
		1489.15		-4.335E+00	1.201E+01	1.777E+01	1.485E+00	-0.244
PM-146		453.90	*	1.494E-03	5.000E-02	8.060E-02	8.685E-03	0.019
		633.02		-6.332E-01	1.426E+00	2.256E+00	8.446E-01	-0.281
		735.90		-1.468E-01	1.687E-01	2.488E-01	7.150E-02	-0.590

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		747.13		-2.898E-02	9.569E-02	1.531E-01	2.194E-02	-0.189
ND-147	+	91.11		6.131E-01	2.307E-01	5.068E-01	5.016E-02	1.210
		319.41		-2.518E+00	3.843E+00	5.883E+00	5.046E-01	-0.428
		439.89		2.862E+00	7.210E+00	1.194E+01	1.029E+00	0.240
		531.02	*	1.380E-01	6.527E-01	1.114E+00	1.686E-01	0.124
PM-149		285.90	*	-7.048E+00	1.820E+02	3.007E+02	4.659E+01	-0.023
EU-152		121.78		-9.063E-02	7.627E-02	1.155E-01	1.144E-02	-0.785
		244.69		2.610E-02	3.655E-01	5.397E-01	4.571E-02	0.048
		344.27	*	-9.812E-02	1.133E-01	1.602E-01	1.452E-02	-0.612
		443.98		-9.809E-02	1.041E+00	1.665E+00	1.438E-01	-0.059
		778.89		-1.554E-01	2.705E-01	4.196E-01	3.833E-02	-0.370
		867.32		-7.898E-03	9.605E-01	1.414E+00	1.297E-01	-0.006
	+	964.01		9.782E-01	4.804E-01	6.749E-01	6.108E-02	1.449
		1085.78		1.656E-01	4.464E-01	7.696E-01	6.639E-02	0.215
		1112.02		-1.221E-01	3.399E-01	5.495E-01	4.669E-02	-0.222
		1407.95		6.157E-02	1.925E-01	3.281E-01	2.720E-02	0.188
GD-153		69.67		6.547E-01	1.441E+00	2.164E+00	1.658E-01	0.303
	+	83.37		1.587E+01	1.587E+01	2.190E+01	1.946E+00	0.725
		97.43	*	-2.300E-02	8.193E-02	1.169E-01	1.045E-02	-0.197
		103.18		-8.376E-02	1.035E-01	1.619E-01	1.421E-02	-0.517
EU-154		123.07		4.914E-03	5.222E-02	8.428E-02	9.549E-03	0.058
		247.94		3.142E-02	3.804E-01	5.917E-01	6.727E-02	0.053
		591.81		2.163E-01	6.759E-01	1.095E+00	1.307E-01	0.197
		723.30		5.319E-02	2.085E-01	3.064E-01	3.034E-02	0.174
		756.87		2.004E-02	8.285E-01	1.364E+00	1.681E-01	0.015
		873.19		1.180E-02	3.389E-01	5.526E-01	6.985E-02	0.021
		996.32		-4.119E-01	3.999E-01	5.614E-01	1.007E-01	-0.734
		1004.76		-2.010E-01	2.618E-01	3.752E-01	4.457E-02	-0.536
		1274.45	*	-2.382E-02	1.357E-01	2.205E-01	2.424E-02	-0.108
EU-155		48.70		-1.620E+00	1.390E+00	2.207E+00	1.786E-01	-0.734
		60.01		2.903E+00	3.813E+00	5.842E+00	4.207E-01	0.497
	+	86.54		4.518E-01	1.211E-01	1.763E-01	1.645E-02	2.562
		105.31	*	4.982E-02	1.053E-01	1.735E-01	1.533E-02	0.287
TB-160	+	86.79		1.230E+00	3.293E-01	4.836E-01	4.485E-02	2.544
		197.04		2.901E-01	5.976E-01	1.012E+00	8.290E-02	0.287
		215.65		6.154E-01	7.713E-01	1.299E+00	1.082E-01	0.474
		298.57		2.805E-01	1.596E-01	2.049E-01	1.752E-02	1.369
		879.36	*	1.134E-01	1.574E-01	2.717E-01	2.492E-02	0.417
		962.29		8.717E-01	6.977E-01	1.103E+00	9.990E-02	0.790
	+	966.15		6.849E-01	3.364E-01	5.428E-01	4.910E-02	1.262
		1177.93		-1.120E-01	4.494E-01	7.329E-01	5.968E-02	-0.153
		1271.85		-4.813E-01	8.043E-01	1.250E+00	1.025E-01	-0.385
HO-166M		80.57		-2.273E-01	3.281E-01	3.608E-01	3.098E-02	-0.630
	+	184.41		1.414E-01	6.519E-02	6.305E-02	5.097E-03	2.242
		280.46		-1.432E-01	8.964E-02	1.348E-01	1.145E-02	-1.063
		410.95		1.729E-01	2.601E-01	4.385E-01	3.706E-02	0.394
		711.68	*	-1.706E-02	6.957E-02	1.127E-01	1.015E-02	-0.151
		752.31		-1.362E-01	2.858E-01	4.500E-01	4.092E-02	-0.303
		810.29		-5.235E-02	6.662E-02	1.011E-01	9.272E-03	-0.518

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-1.535E+00	1.868E+01	3.098E+01	2.392E+00	-0.050
		52.39		1.944E+00	1.000E+01	1.654E+01	1.259E+00	0.118
		59.40		4.748E+00	2.046E+01	3.066E+01	2.205E+00	0.155
		66.72	*	-1.246E+01	2.491E+01	3.583E+01	2.680E+00	-0.348
LU-176	+	88.36		8.890E-01	2.380E-01	3.448E-01	3.240E-02	2.578
		201.83		-5.712E-03	2.921E-02	4.887E-02	4.024E-03	-0.117
		306.84	*	-7.105E-03	2.445E-02	3.961E-02	3.393E-03	-0.179
		401.10		1.313E+00	6.891E+00	1.132E+01	9.491E-01	0.116
LU-177		112.95		1.224E+00	1.984E+00	3.278E+00	2.828E-01	0.373
	+	208.36	*	3.336E+00	2.326E+00	2.576E+00	2.134E-01	1.295
LU-177M		52.97		-5.193E-01	1.060E+00	1.710E+00	1.291E-01	-0.304
		54.07		2.685E-01	5.637E-01	9.418E-01	7.023E-02	0.285
	+	61.30		1.490E+00	1.599E+00	1.881E+00	1.362E-01	0.792
		121.62		-4.637E-01	3.939E-01	5.980E-01	5.139E-02	-0.775
		147.16		-1.637E-01	6.796E-01	1.071E+00	8.764E-02	-0.153
		171.86		-1.861E-02	5.203E-01	8.211E-01	6.539E-02	-0.023
		218.09		6.211E-04	8.611E-01	1.446E+00	1.207E-01	0.000
	+	268.79		2.871E+00	1.490E+00	1.527E+00	1.298E-01	1.880
		319.02		-1.981E-01	2.640E-01	4.011E-01	3.439E-02	-0.494
		367.43		-1.600E-01	9.292E-01	1.498E+00	1.268E-01	-0.107
		413.65	*	1.004E-01	1.850E-01	3.101E-01	2.625E-02	0.324
HF-181		56.28		-5.189E-02	6.402E-01	1.059E+00	7.739E-02	-0.049
		57.53		-4.108E-01	3.620E-01	5.734E-01	4.158E-02	-0.717
		65.20		6.213E-01	8.407E-01	1.276E+00	9.439E-02	0.487
		133.02		-1.928E-03	7.749E-02	1.103E-01	9.255E-03	-0.017
		136.25		2.345E-01	4.617E-01	7.549E-01	6.297E-02	0.311
		345.85		-3.458E-02	2.427E-01	3.441E-01	2.940E-02	-0.100
		482.03	*	7.245E-03	4.791E-02	7.762E-02	6.829E-03	0.093
W-181		56.28		-1.984E-02	2.452E-01	4.054E-01	2.964E-02	-0.049
		57.53		-1.575E-01	1.387E-01	2.197E-01	1.593E-02	-0.717
		65.20	*	2.362E-01	3.196E-01	4.850E-01	3.588E-02	0.487
TA-182		67.75		-9.635E-02	9.347E-02	1.402E-01	1.057E-02	-0.687
		100.10		5.251E-02	1.951E-01	2.846E-01	2.520E-02	0.185
		152.43		1.373E-01	3.588E-01	5.801E-01	4.703E-02	0.237
		222.10		1.078E-01	3.504E-01	5.956E-01	4.986E-02	0.181
		1001.68		1.735E+00	2.294E+00	3.937E+00	3.524E-01	0.441
	+	1121.28		5.377E-01	2.647E-01	3.777E-01	3.191E-02	1.423
		1189.05		1.552E-01	3.559E-01	6.125E-01	4.994E-02	0.253
		1221.42	*	9.065E-02	2.292E-01	3.912E-01	3.200E-02	0.232
		1230.97		3.507E-01	5.655E-01	9.782E-01	8.006E-02	0.359
RE-183		57.98		-6.085E-02	1.433E-01	2.223E-01	1.608E-02	-0.274
		59.32		5.468E-02	8.410E-02	1.284E-01	9.235E-03	0.426
		67.20		-1.441E-01	1.793E-01	2.540E-01	1.906E-02	-0.567
		162.32	*	7.531E-03	1.142E-01	1.816E-01	1.446E-02	0.041
	+	208.81		2.472E+00	1.724E+00	1.946E+00	1.612E-01	1.271
		291.72		-3.157E-01	1.098E+00	1.559E+00	1.331E-01	-0.202
RE-184		57.98		-2.216E-01	5.216E-01	8.095E-01	5.856E-02	-0.274
		59.32		1.989E-01	3.059E-01	4.671E-01	3.360E-02	0.426
		67.20		-5.244E-01	6.526E-01	9.243E-01	6.938E-02	-0.567

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		3.797E-01	3.574E-01	5.934E-01	4.734E-02	0.640
		216.55		2.537E-01	2.648E-01	4.616E-01	3.848E-02	0.550
		252.85	*	-9.686E-02	2.423E-01	3.957E-01	3.358E-02	-0.245
		318.01		-2.862E-01	4.433E-01	6.991E-01	5.996E-02	-0.409
		792.07		9.648E-03	1.250E+00	1.773E+00	1.622E-01	0.005
		903.28		-1.284E+00	1.251E+00	1.592E+00	1.457E-01	-0.806
		920.93		3.657E-01	4.711E-01	8.191E-01	7.477E-02	0.446
OS-185		59.72		1.305E-01	2.289E-01	3.481E-01	2.504E-02	0.375
		61.14		2.465E-01	1.298E-01	2.067E-01	1.495E-02	1.192
		69.30		-4.853E-02	2.636E-01	3.851E-01	2.941E-02	-0.126
		592.07		1.493E+00	2.689E+00	4.563E+00	4.092E-01	0.327
		646.12	*	-1.408E-02	4.666E-02	7.572E-02	6.732E-03	-0.186
		717.42		-5.410E-01	1.037E+00	1.640E+00	1.479E-01	-0.330
		874.81		-1.607E-01	6.814E-01	1.084E+00	9.942E-02	-0.148
		880.27		7.445E-01	8.553E-01	1.495E+00	1.371E-01	0.498
RE-188		155.03	*	1.148E-01	1.833E-01	2.991E-01	2.413E-02	0.384
		477.96		-3.257E-01	3.219E+00	5.118E+00	4.496E-01	-0.064
		633.10		-1.248E+00	2.907E+00	4.667E+00	4.162E-01	-0.267
W-188	+	63.58		5.675E+01	6.089E+01	7.480E+01	5.479E+00	0.759
		227.08		2.222E+00	1.330E+01	2.245E+01	1.885E+00	0.099
		290.67	*	-2.350E+00	8.751E+00	1.245E+01	1.062E+00	-0.189
IR-192	+	295.96		1.251E+00	2.258E-01	3.099E-01	2.667E-02	4.038
		308.46		3.120E-04	9.827E-02	1.620E-01	1.395E-02	0.002
		316.51	*	1.007E-02	3.381E-02	5.663E-02	4.867E-03	0.178
		468.07		1.685E-02	7.589E-02	1.089E-01	1.019E-02	0.155
		604.41		-2.171E-01	5.393E-01	7.486E-01	9.916E-02	-0.290
		612.46		2.408E+00	9.458E-01	1.618E+00	1.648E-01	1.489
AU-195		65.12		1.233E-01	1.479E-01	2.251E-01	1.665E-02	0.548
		66.83		-5.114E-02	8.266E-02	1.182E-01	8.848E-03	-0.433
	+	75.70		1.407E+00	2.463E-01	4.181E-01	3.398E-02	3.366
		98.88	*	8.154E-02	2.434E-01	3.565E-01	3.170E-02	0.229
	+	129.76		5.122E+00	3.935E+00	5.247E+00	4.432E-01	0.976
TL-200		367.94	*	1.579E-04	3.935E+00	Half-Life too short		
		579.30		1.401E-02	3.935E+00	Half-Life too short		
		828.27		-1.737E-03	3.935E+00	Half-Life too short		
		1205.75		-6.501E-03	3.935E+00	Half-Life too short		
TL-201		68.90		-1.175E+00	6.673E+00	9.754E+00	7.423E-01	-0.120
		70.82		2.577E+00	3.780E+00	5.721E+00	4.427E-01	0.450
		80.30		-6.405E+00	9.707E+00	1.071E+01	9.165E-01	-0.598
		135.34		-1.436E+01	4.107E+01	6.466E+01	5.403E+00	-0.222
		167.43	*	2.264E+00	1.157E+01	1.849E+01	1.465E+00	0.122
TL-202		68.90		-7.419E-02	4.213E-01	6.158E-01	4.686E-02	-0.120
		70.82		1.622E-01	2.380E-01	3.602E-01	2.788E-02	0.450
		80.30		-4.034E-01	6.114E-01	6.743E-01	5.772E-02	-0.598
		439.56	*	3.654E-02	8.475E-02	1.406E-01	1.211E-02	0.260
HG-203		70.83		6.488E-01	9.486E-01	1.432E+00	1.871E-01	0.453
		72.87		1.317E+00	5.567E-01	9.355E-01	1.192E-01	1.408
		82.60		-8.009E-02	1.208E+00	1.605E+00	2.224E-01	-0.050
		279.20	*	3.152E-02	4.278E-02	7.337E-02	6.409E-03	0.430

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		3.524E-01	1.529E-01	2.641E-01	2.083E-02	1.334
	+	74.97		7.746E-01	1.355E-01	2.042E-01	1.646E-02	3.794
	+	84.90		2.040E-01	2.040E-01	2.836E-01	2.568E-02	0.720
		569.67		1.585E-02	3.077E-02	5.338E-02	4.786E-03	0.297
		1063.62	*	-1.678E-02	5.897E-02	9.642E-02	8.413E-03	-0.174
		1770.23		-7.827E-02	5.012E-01	6.847E-01	5.624E-02	-0.114
TL-207		81.07		-1.691E-01	2.628E-01	2.900E-01	2.506E-02	-0.583
	+	83.78		1.345E-01	1.345E-01	1.848E-01	1.650E-02	0.728
		94.90		4.281E-01	2.446E-01	3.792E-01	3.428E-02	1.129
		122.32		-1.406E+00	1.781E+00	2.758E+00	2.544E-01	-0.510
		144.24		1.983E-01	6.968E-01	1.107E+00	1.028E-01	0.179
		154.21		3.956E-01	4.160E-01	6.864E-01	6.172E-02	0.576
	+	269.46		6.662E-01	3.460E-01	3.708E-01	3.218E-02	1.797
		323.87	*	3.480E-01	7.638E-01	1.137E+00	2.011E-01	0.306
	+	338.28		7.355E+00	2.010E+00	2.659E+00	3.263E-01	2.766
		445.03		-6.745E-01	2.450E+00	3.866E+00	4.679E-01	-0.174
PO-209		260.50		-3.234E+00	9.638E+00	1.576E+01	1.339E+00	-0.205
		262.80		1.886E+01	2.653E+01	4.562E+01	3.877E+00	0.413
		896.60	*	-3.784E+00	8.434E+00	1.310E+01	1.200E+00	-0.289
BI-210		46.50	*	9.923E-01	1.897E+00	3.203E+00	3.005E-01	0.310
PB-210		46.50	*	9.923E-01	1.897E+00	3.203E+00	3.005E-01	0.310
PO-210		46.50	*	9.923E-01	1.896E+00	3.203E+00	2.725E-01	0.310
PB-211		404.84	*	1.816E-01	9.823E-01	1.601E+00	1.003E+00	0.113
		427.08		1.162E-03	2.265E+00	3.659E+00	2.273E+00	0.000
		831.96		-7.033E-01	1.567E+00	2.365E+00	1.484E+00	-0.297
BI-212	+	727.18	*	1.485E+00	5.199E-01	7.633E-01	7.918E-02	1.945
		785.46		1.242E+00	1.821E+00	3.148E+00	2.878E-01	0.395
		1620.62		4.671E-01	1.574E+00	2.652E+00	2.216E-01	0.176
PO-215		81.07		-1.691E-01	2.628E-01	2.900E-01	2.506E-02	-0.583
	+	83.78		1.345E-01	1.345E-01	1.848E-01	1.650E-02	0.728
		94.90		4.281E-01	2.446E-01	3.792E-01	3.428E-02	1.129
		122.32		-1.406E+00	1.781E+00	2.758E+00	2.544E-01	-0.510
		144.24		1.983E-01	6.968E-01	1.107E+00	1.028E-01	0.179
		154.21		3.956E-01	4.160E-01	6.864E-01	6.172E-02	0.576
	+	269.46		6.662E-01	3.460E-01	3.708E-01	3.218E-02	1.797
		323.87	*	3.480E-01	7.638E-01	1.137E+00	2.011E-01	0.306
	+	338.28		7.355E+00	2.010E+00	2.659E+00	3.263E-01	2.766
		445.03		-6.745E-01	2.450E+00	3.866E+00	4.679E-01	-0.174
RN-219	+	271.23		8.548E-01	4.463E-01	4.712E-01	4.811E-02	1.814
		401.81	*	2.066E-01	4.282E-01	7.148E-01	1.065E-01	0.289
RN-220		549.76	*	2.789E-01	2.738E+01	4.601E+01	4.120E+00	0.006
RA-223		81.07		-1.691E-01	2.628E-01	2.900E-01	2.506E-02	-0.583
	+	83.78		1.345E-01	1.345E-01	1.848E-01	1.650E-02	0.728
		94.90		4.281E-01	2.446E-01	3.792E-01	3.428E-02	1.129
		122.32		-1.406E+00	1.781E+00	2.758E+00	2.544E-01	-0.510
		144.24		1.983E-01	6.968E-01	1.107E+00	1.028E-01	0.179
		154.21		3.956E-01	4.160E-01	6.864E-01	6.172E-02	0.576
	+	269.46		6.662E-01	3.460E-01	3.708E-01	3.218E-02	1.797
		323.87	*	3.480E-01	7.638E-01	1.137E+00	2.011E-01	0.306

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.355E+00	2.010E+00	2.659E+00	3.263E-01	2.766
		445.03		-6.745E-01	2.450E+00	3.866E+00	4.679E-01	-0.174
AC-227		79.80		5.451E-01	1.889E+00	2.233E+00	4.792E-01	0.244
		236.00		2.391E-01	2.730E-01	4.193E-01	5.081E-02	0.570
		256.20	*	1.178E-01	3.887E-01	6.562E-01	1.002E-01	0.180
		286.10		8.282E-02	1.603E+00	2.660E+00	3.494E-01	0.031
	+	299.80		4.443E+00	1.979E+00	2.713E+00	4.736E-01	1.638
		304.40		1.249E-01	2.089E+00	3.039E+00	5.594E-01	0.041
		334.20		-6.584E-01	3.733E+00	3.765E+00	7.300E-01	-0.175
TH-227		79.80		5.451E-01	1.889E+00	2.233E+00	4.853E-01	0.244
	+	94.00		9.815E+00	3.700E+00	3.560E+00	7.819E-01	2.757
		236.00		2.391E-01	2.727E-01	4.193E-01	4.586E-02	0.570
		256.20	*	1.178E-01	3.889E-01	6.562E-01	1.181E-01	0.180
		286.10		8.282E-02	1.605E+00	2.660E+00	2.670E+00	0.031
	+	299.80		4.443E+00	1.979E+00	2.713E+00	4.736E-01	1.638
		304.40		1.249E-01	2.089E+00	3.039E+00	5.594E-01	0.041
		334.20		-6.584E-01	3.733E+00	3.765E+00	7.300E-01	-0.175
TH-229	+	85.43		2.014E-01	2.013E-01	2.945E-01	2.685E-02	0.684
	+	88.47		5.117E-01	1.370E-01	1.978E-01	1.858E-02	2.587
		100.00		7.468E-02	1.989E-01	2.916E-01	2.584E-02	0.256
		193.63	*	-3.854E-01	5.111E-01	8.357E-01	6.824E-02	-0.461
		210.97		1.197E+00	9.024E-01	1.402E+00	1.164E-01	0.854
PA-231		283.67	*	-2.285E-01	1.566E+00	2.572E+00	3.889E-01	-0.089
	+	301.29		1.777E+00	7.600E-01	1.075E+00	1.311E-01	1.653
TH-231		81.07		-1.691E-01	2.628E-01	2.900E-01	2.506E-02	-0.583
	+	83.78		1.345E-01	1.345E-01	1.848E-01	1.650E-02	0.728
		94.90		4.281E-01	2.446E-01	3.792E-01	3.428E-02	1.129
		122.32		-1.406E+00	1.781E+00	2.758E+00	2.544E-01	-0.510
		144.24		1.983E-01	6.968E-01	1.107E+00	1.028E-01	0.179
		154.21		3.956E-01	4.160E-01	6.864E-01	6.172E-02	0.576
	+	269.46		6.662E-01	3.460E-01	3.708E-01	3.218E-02	1.797
		323.87	*	3.480E-01	7.638E-01	1.137E+00	2.011E-01	0.306
	+	338.28		7.355E+00	2.010E+00	2.659E+00	3.263E-01	2.766
		445.03		-6.745E-01	2.450E+00	3.866E+00	4.679E-01	-0.174
U-231	+	84.21		8.149E+00	8.148E+00	1.116E+01	1.002E+00	0.730
	+	92.29		1.364E+01	4.358E+00	5.135E+00	4.706E-01	2.656
		95.87	*	-1.621E-01	1.558E+00	2.248E+00	2.024E-01	-0.072
		108.00		-3.059E+00	2.889E+00	4.451E+00	3.866E-01	-0.687
PA-233	+	75.28		2.260E+01	4.887E+00	6.192E+00	9.324E-01	3.650
	+	86.59		7.338E+00	2.708E+00	2.868E+00	7.752E-01	2.559
	+	300.12		1.239E+00	5.399E-01	7.626E-01	1.131E-01	1.624
		311.98	*	1.938E-04	6.322E-02	1.042E-01	9.185E-03	0.002
		340.50		2.599E+00	9.972E-01	1.364E+00	3.249E-01	1.905
		398.62		-3.918E-01	2.088E+00	3.339E+00	8.866E-01	-0.117
		415.76		-7.992E-01	1.736E+00	2.705E+00	5.815E-01	-0.295
PA-234	+	63.00		1.612E+00	1.742E+00	2.165E+00	3.206E-01	0.745
		94.67		4.432E-01	1.853E-01	2.848E-01	3.619E-02	1.556
		98.44		5.843E-02	1.014E-01	1.428E-01	7.971E-02	0.409
		99.86		1.867E-01	5.032E-01	7.378E-01	6.539E-02	0.253

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-3.355E-02	1.848E-01	2.962E-01	3.586E-02	-0.113
		131.20		1.754E-01	1.201E-01	1.839E-01	1.549E-02	0.954
		152.70		2.621E-01	3.429E-01	5.590E-01	9.386E-02	0.469
	+	186.00		5.089E+00	2.800E+00	2.588E+00	8.042E-01	1.966
		226.40		2.183E-01	4.118E-01	7.043E-01	9.196E-02	0.310
		227.20		8.632E-02	4.389E-01	7.418E-01	6.230E-02	0.116
		248.90		4.299E-01	8.231E-01	1.398E+00	3.126E-01	0.307
		293.70		4.440E+00	1.198E+00	1.676E+00	2.892E-01	2.650
		369.80		1.763E-01	8.558E-01	1.413E+00	3.068E-01	0.125
		568.70		-3.877E-02	9.930E-01	1.659E+00	1.488E-01	-0.023
		569.50		1.298E-01	2.721E-01	4.710E-01	4.223E-02	0.276
		574.00		2.767E-01	1.538E+00	2.607E+00	2.338E-01	0.106
		699.00		2.452E-02	8.420E-01	1.394E+00	2.682E-01	0.018
		706.10		1.066E+00	1.305E+00	2.127E+00	9.498E-01	0.501
		733.00		1.645E-01	4.458E-01	6.618E-01	1.480E-01	0.249
		742.81		5.419E-01	1.535E+00	2.525E+00	1.699E+00	0.215
		796.30		1.601E+00	1.280E+00	1.940E+00	5.283E-01	0.825
		805.60		3.084E-01	1.089E+00	1.818E+00	5.600E-01	0.170
		819.60		-8.350E-01	1.269E+00	1.869E+00	7.130E-01	-0.447
		826.30		-9.103E-01	9.954E-01	1.345E+00	6.034E-01	-0.677
		831.60		-4.470E-01	7.751E-01	1.188E+00	3.565E-01	-0.376
		876.40		5.450E-01	1.103E+00	1.621E+00	1.667E+00	0.336
		880.51		2.788E-01	3.005E-01	5.282E-01	4.844E-02	0.528
		883.24		-2.288E-01	3.574E-01	4.887E-01	3.289E-01	-0.468
		899.00		3.532E-01	9.339E-01	1.546E+00	6.777E-01	0.228
		925.00		-9.960E-01	1.279E+00	1.901E+00	1.734E-01	-0.524
		926.50		2.023E-02	1.769E-01	2.895E-01	7.369E-02	0.070
		946.00	*	-3.091E-01	3.275E-01	4.684E-01	8.891E-02	-0.660
		949.00		1.419E-01	4.812E-01	7.992E-01	7.258E-02	0.178
		980.50		2.622E-01	7.777E-01	1.295E+00	1.167E-01	0.202
		1394.10		-3.923E-01	1.145E+00	1.735E+00	1.128E+00	-0.226
PA-234M		766.42		9.579E+00	1.429E+01	2.312E+01	1.175E+01	0.414
		1001.03	*	4.580E+00	5.031E+00	8.744E+00	8.966E-01	0.524
U-235	+	89.95		2.143E+00	1.023E+00	1.660E+00	5.156E-01	1.291
	+	93.35		3.054E+00	1.271E+00	1.165E+00	3.283E-01	2.621
		105.00		6.099E-01	1.045E+00	1.706E+00	5.097E-01	0.358
		143.76	*	2.435E-02	2.143E-01	3.380E-01	5.853E-02	0.072
		163.35		-3.152E-01	4.952E-01	7.452E-01	1.400E-01	-0.423
	+	185.71		1.885E-01	8.691E-02	9.610E-02	7.780E-03	1.961
		205.31		-3.330E-01	5.934E-01	8.375E-01	1.585E-01	-0.398
NP-236		94.67		3.384E-01	1.374E-01	2.163E-01	1.957E-02	1.565
		98.44		4.414E-02	7.272E-02	1.079E-01	9.613E-03	0.409
		111.00		-2.538E-02	1.398E-01	2.241E-01	1.938E-02	-0.113
		160.31	*	8.910E-03	8.173E-02	1.303E-01	1.042E-02	0.068
NP-239		99.55		8.048E-02	1.673E-01	2.466E-01	2.188E-02	0.326
		117.00	*	-1.604E-01	1.906E-01	2.952E-01	2.540E-02	-0.543
	+	209.75		1.911E+00	1.332E+00	1.505E+00	1.248E-01	1.270
		228.18		1.672E-02	2.296E-01	3.860E-01	3.244E-02	0.043
		277.60		2.782E-01	1.813E-01	3.207E-01	2.723E-02	0.868

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-2.977E-01	2.117E+00	2.148E+00	1.840E-01	-0.139
AM-241		59.54	*	5.518E-02	1.182E-01	1.789E-01	1.419E-02	0.308
CM-243		99.55		8.283E-02	1.721E-01	2.538E-01	2.252E-02	0.326
		103.76	*	-7.184E-03	9.326E-02	1.506E-01	1.320E-02	-0.048
		117.00		-1.650E-01	1.962E-01	3.038E-01	2.614E-02	-0.543
	+	209.75		1.884E+00	1.314E+00	1.484E+00	1.230E-01	1.270
		228.18		1.690E-02	2.321E-01	3.901E-01	3.278E-02	0.043
		277.60		2.806E-01	1.829E-01	3.234E-01	2.745E-02	0.868
AM-246		798.80		-4.398E-02	1.776E-01	2.438E-01	2.233E-02	-0.180
		1036.00		1.018E-01	3.235E-01	5.575E-01	4.925E-02	0.183
		1062.04		1.269E-01	2.439E-01	4.266E-01	3.725E-02	0.297
		1078.86	*	8.597E-02	1.706E-01	2.964E-01	2.567E-02	0.290
CM-247		278.00		1.269E+00	7.622E-01	1.353E+00	1.148E-01	0.938
		287.40		1.097E+00	1.290E+00	2.221E+00	1.892E-01	0.494
		402.60	*	1.624E-02	3.886E-02	6.469E-02	5.431E-03	0.251
CF-249		252.85		-3.604E-01	9.014E-01	1.472E+00	1.250E-01	-0.245
		333.44		3.054E-01	2.243E-01	2.818E-01	2.414E-02	1.084
		387.95	*	2.897E-02	4.357E-02	7.359E-02	6.143E-03	0.394
CF-251		176.60	*	3.086E-05	1.248E-01	2.118E-01	1.697E-02	0.000
		227.00		7.284E-02	3.912E-01	6.609E-01	5.550E-02	0.110
		285.00		-7.580E-01	1.836E+00	2.972E+00	2.530E-01	-0.255

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020007      *
* Acquisition date : 13-FEB-2010 16:27:34 Detector SN#     :               *
* Detector ID        : GAM07               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.41     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020007           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.2789E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.748E+01	3.709E+00	5.496E-01	0.000E+00
CD-109	3.825E+00	1.004E+00	1.160E+00	0.000E+00
SN-126	3.748E-01	9.833E-02	1.140E-01	0.000E+00
TL-208	5.916E-01	1.086E-01	5.941E-02	0.000E+00
BI-211	3.719E+00	5.666E-01	3.618E-01	0.000E+00
PB-212	1.939E+00	2.159E-01	9.812E-02	0.000E+00
PO-212	1.939E+00	2.159E-01	9.812E-02	0.000E+00
BI-214	1.043E+00	2.027E-01	1.145E-01	0.000E+00
PB-214	1.294E+00	2.079E-01	1.261E-01	0.000E+00
PO-214	1.294E+00	2.079E-01	1.261E-01	0.000E+00
PO-216	1.939E+00	2.159E-01	9.812E-02	0.000E+00
PO-218	1.294E+00	2.079E-01	1.261E-01	0.000E+00
RA-224	4.811E+00	1.388E+00	1.117E+00	0.000E+00
RA-226	1.043E+00	2.027E-01	1.145E-01	0.000E+00
AC-228	1.888E+00	3.903E-01	2.043E-01	0.000E+00
RA-228	1.888E+00	3.903E-01	2.043E-01	0.000E+00
TH-228	1.973E+00	2.197E-01	9.981E-02	0.000E+00
TH-230	1.043E+00	2.026E-01	1.145E-01	0.000E+00
TH-232	1.888E+00	3.903E-01	2.043E-01	0.000E+00
TH-234	1.383E+00	1.470E+00	1.725E+00	0.000E+00
U-234	1.043E+00	2.026E-01	1.145E-01	0.000E+00
NP-237	1.101E+00	3.646E-01	3.574E-01	0.000E+00
U-238	1.383E+00	1.470E+00	1.725E+00	0.000E+00
AM-243	4.315E-01	7.399E-02	7.692E-02	0.000E+00
ANH-511	1.920E-01	6.992E-02	4.920E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.594E-01	3.365E-01	5.389E-01	0.000E+00	NOT IDENT.
NA-22	1.331E-03	4.686E-02	7.940E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	7.465E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.197E-02	3.106E-02	6.141E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.716E-02	7.607E-02	0.000E+00	FAIL ABUN
SC-46	1.885E-02	4.303E-02	7.462E-02	0.000E+00	FAIL ABUN
V-48	-3.666E-03	8.429E-02	1.388E-01	0.000E+00	NOT IDENT.
CR-51	-1.273E-01	3.921E-01	6.421E-01	0.000E+00	NOT IDENT.
MN-52	-1.860E-02	3.197E-01	5.300E-01	0.000E+00	NOT IDENT.
MN-54	3.523E-02	4.548E-02	8.038E-02	0.000E+00	NOT IDENT.
CO-56	-4.704E-03	3.947E-02	6.542E-02	0.000E+00	NOT IDENT.
CO-57	-3.259E-02	2.596E-02	4.163E-02	0.000E+00	NOT IDENT.
CO-58	-3.882E-02	4.371E-02	6.764E-02	0.000E+00	NOT IDENT.
FE-59	-4.650E-02	1.090E-01	1.802E-01	0.000E+00	NOT IDENT.
CO-60	-7.830E-03	4.304E-02	7.098E-02	0.000E+00	NOT IDENT.
ZN-65	4.752E-02	1.083E-01	1.680E-01	0.000E+00	NOT IDENT.
GE-68	8.241E-01	1.467E+00	2.622E+00	0.000E+00	NOT IDENT.
AS-73	1.645E-01	5.365E-01	9.547E-01	0.000E+00	NOT IDENT.
AS-74	-7.183E-02	1.011E-01	1.655E-01	0.000E+00	NOT IDENT.
SE-75	-1.880E-02	5.027E-02	7.492E-02	0.000E+00	NOT IDENT.
BR-77	1.561E+01	1.950E+01	3.574E+01	0.000E+00	FAIL ABUN
SR-82	-1.618E-01	4.426E-01	7.257E-01	0.000E+00	NOT IDENT.
RB-83	5.610E-02	7.160E-02	1.311E-01	0.000E+00	NOT IDENT.
RB-84	-2.957E-02	8.023E-02	1.295E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.734E+00	1.529E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.577E-02	8.014E-02	0.000E+00	NOT IDENT.
RB-86	3.759E-01	9.896E-01	1.747E+00	0.000E+00	NOT IDENT.
Y-88	-1.277E-03	3.151E-02	5.294E-02	0.000E+00	NOT IDENT.
ZR-88	1.615E-02	3.259E-02	5.679E-02	0.000E+00	NOT IDENT.
Y-91	-2.102E+01	2.350E+01	3.719E+01	0.000E+00	NOT IDENT.
NB-94	8.486E-03	3.932E-02	6.797E-02	0.000E+00	NOT IDENT.
NB-95	-1.848E-02	5.052E-02	8.327E-02	0.000E+00	NOT IDENT.
NB-95M	8.387E-02	1.445E-01	2.303E-01	0.000E+00	NOT IDENT.
ZR-95	2.096E-02	7.521E-02	1.303E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.931E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.489E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.253E+01	2.153E+01	3.802E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.172E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.041E-02	3.377E-02	5.974E-02	0.000E+00	NOT IDENT.
RH-102	-4.510E-04	2.799E-02	4.654E-02	0.000E+00	NOT IDENT.
RU-103	-3.175E-03	4.633E-02	7.647E-02	0.000E+00	FAIL ABUN
RH-106	-1.000E-01	3.176E-01	5.335E-01	0.000E+00	FAIL ABUN
RU-106	-1.000E-01	3.175E-01	5.335E-01	0.000E+00	FAIL ABUN
AG-108M	-2.610E-02	3.471E-02	5.503E-02	0.000E+00	NOT IDENT.
AG-110M	1.548E-02	3.692E-02	6.516E-02	0.000E+00	NOT IDENT.
IN-111	-4.236E-01	1.826E+00	2.768E+00	0.000E+00	NOT IDENT.
IN-113M	1.236E-02	4.751E-02	8.164E-02	0.000E+00	NOT IDENT.
SN-113	1.236E-02	4.751E-02	8.164E-02	0.000E+00	NOT IDENT.
IN-114M	-2.992E-02	2.009E-01	3.131E-01	0.000E+00	NOT IDENT.
CD-115	-1.233E+01	1.992E+01	3.317E+01	0.000E+00	NOT IDENT.
SN-117M	-1.184E-02	6.125E-02	1.017E-01	0.000E+00	NOT IDENT.
SB-122	6.600E-01	3.440E+00	6.053E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.882E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.910E-03	2.865E-02	4.838E-02	0.000E+00	NOT IDENT.
I-124	-3.781E-02	9.803E-01	1.535E+00	0.000E+00	NOT IDENT.
SB-124	-6.359E-02	7.939E-02	1.087E-01	0.000E+00	FAIL ABUN
SB-125	1.948E-02	9.920E-02	1.687E-01	0.000E+00	FAIL ABUN
TE-125M	7.035E+00	9.106E+00	1.605E+01	0.000E+00	NOT IDENT.
I-126	7.564E-02	2.075E-01	3.647E-01	0.000E+00	NOT IDENT.
SB-126	-3.191E-02	1.954E-01	2.970E-01	0.000E+00	FAIL ABUN
SB-127	1.025E+00	1.953E+00	3.470E+00	0.000E+00	NOT IDENT.
XE-127	3.800E-03	4.967E-02	8.550E-02	0.000E+00	NOT IDENT.
I-131	-5.484E-02	1.385E-01	2.294E-01	0.000E+00	NOT IDENT.
TE-132	8.559E-02	1.069E+00	1.886E+00	0.000E+00	NOT IDENT.
BA-133	-2.128E-02	5.053E-02	7.166E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.135E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.339E-02	1.008E-01	0.000E+00	FAIL ABUN
CS-135	1.641E-01	1.739E-01	2.817E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.058E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.112E-01	1.242E-01	1.956E-01	0.000E+00	FAIL ABUN
BA-137M	-2.561E-02	3.788E-02	6.158E-02	0.000E+00	NOT IDENT.
CS-137	-2.707E-02	4.005E-02	6.510E-02	0.000E+00	NOT IDENT.
CE-139	-1.838E-02	3.059E-02	4.960E-02	0.000E+00	NOT IDENT.
BA-140	-5.949E-02	2.775E-01	4.750E-01	0.000E+00	NOT IDENT.
LA-140	5.349E-03	9.158E-02	1.528E-01	0.000E+00	FAIL ABUN
CE-141	-1.074E-02	6.576E-02	1.100E-01	0.000E+00	NOT IDENT.
GE-143	0.000E+00	5.514E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-6.682E-02	2.299E-01	3.405E-01	0.000E+00	NOT IDENT.
PM-144	1.206E-02	3.820E-02	6.658E-02	0.000E+00	NOT IDENT.
PR-144	8.184E-01	2.592E+00	4.517E+00	0.000E+00	NOT IDENT.

PM-146	1.494E-03	4.900E-02	8.208E-02	0.000E+00	NOT IDENT.
ND-147	1.380E-01	6.396E-01	1.132E+00	0.000E+00	FAIL ABUN
PM-149	-7.048E+00	1.784E+02	3.083E+02	0.000E+00	NOT IDENT.
EU-152	-9.812E-02	1.110E-01	1.638E-01	0.000E+00	FAIL ABUN
GD-153	-2.300E-02	8.029E-02	1.218E-01	0.000E+00	FAIL ABUN
EU-154	-2.382E-02	1.330E-01	2.210E-01	0.000E+00	NOT IDENT.
EU-155	4.982E-02	1.032E-01	1.805E-01	0.000E+00	FAIL ABUN
TB-160	1.134E-01	1.542E-01	2.739E-01	0.000E+00	FAIL ABUN
HO-166M	-1.706E-02	6.818E-02	1.140E-01	0.000E+00	FAIL ABUN
TM-171	-1.246E+01	2.441E+01	3.754E+01	0.000E+00	NOT IDENT.
LU-176	-7.105E-03	2.396E-02	4.058E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.280E+00	2.654E+00	0.000E+00	FAIL ABUN
LU-177M	1.004E-01	1.813E-01	3.162E-01	0.000E+00	FAIL ABUN
HF-181	7.245E-03	4.695E-02	7.897E-02	0.000E+00	NOT IDENT.
W-181	2.362E-01	3.132E-01	5.082E-01	0.000E+00	NOT IDENT.
TA-182	9.065E-02	2.246E-01	3.924E-01	0.000E+00	FAIL ABUN
RE-183	7.531E-03	1.119E-01	1.877E-01	0.000E+00	FAIL ABUN
RE-184	-9.686E-02	2.374E-01	4.065E-01	0.000E+00	NOT IDENT.
OS-185	-1.408E-02	4.572E-02	7.669E-02	0.000E+00	NOT IDENT.
RE-188	1.148E-01	1.797E-01	3.095E-01	0.000E+00	NOT IDENT.
W-188	-2.350E+00	8.576E+00	1.277E+01	0.000E+00	FAIL ABUN
IR-192	1.007E-02	3.313E-02	5.798E-02	0.000E+00	FAIL ABUN
AU-195	8.154E-02	2.386E-01	3.713E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.677E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.264E+00	1.134E+01	1.911E+01	0.000E+00	NOT IDENT.
TL-202	3.654E-02	8.306E-02	1.432E-01	0.000E+00	NOT IDENT.
HG-203	3.152E-02	4.192E-02	7.526E-02	0.000E+00	NOT IDENT.
BI-207	-1.678E-02	5.779E-02	9.690E-02	0.000E+00	FAIL ABUN
TL-207	3.480E-01	7.485E-01	1.164E+00	0.000E+00	FAIL ABUN
PO-209	-3.784E+00	8.265E+00	1.320E+01	0.000E+00	NOT IDENT.
BI-210	9.923E-01	1.859E+00	3.373E+00	0.000E+00	NOT IDENT.
PB-210	9.923E-01	1.859E+00	3.373E+00	0.000E+00	NOT IDENT.
PO-210	9.923E-01	1.858E+00	3.373E+00	0.000E+00	NOT IDENT.
PB-211	1.816E-01	9.627E-01	1.633E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.095E-01	7.717E-01	0.000E+00	FAIL ABUN
PO-215	3.480E-01	7.485E-01	1.164E+00	0.000E+00	FAIL ABUN
RN-219	2.066E-01	4.197E-01	7.292E-01	0.000E+00	FAIL ABUN
RN-220	2.789E-01	2.683E+01	4.672E+01	0.000E+00	NOT IDENT.
RA-223	3.480E-01	7.485E-01	1.164E+00	0.000E+00	FAIL ABUN
AC-227	1.178E-01	3.810E-01	6.740E-01	0.000E+00	FAIL ABUN
TH-227	1.178E-01	3.811E-01	6.740E-01	0.000E+00	FAIL ABUN
TH-229	-3.854E-01	5.009E-01	8.619E-01	0.000E+00	FAIL ABUN
PA-231	-2.285E-01	1.534E+00	2.638E+00	0.000E+00	FAIL ABUN
TH-231	3.480E-01	7.485E-01	1.164E+00	0.000E+00	FAIL ABUN
U-231	-1.621E-01	1.527E+00	2.343E+00	0.000E+00	FAIL ABUN
PA-233	1.938E-04	6.196E-02	1.067E-01	0.000E+00	FAIL ABUN
PA-234	-3.091E-01	3.209E-01	4.716E-01	0.000E+00	FAIL ABUN
PA-234M	4.580E+00	4.930E+00	8.796E+00	0.000E+00	NOT IDENT.
U-235	2.435E-02	2.100E-01	3.501E-01	0.000E+00	FAIL ABUN
NP-236	8.910E-03	8.010E-02	1.348E-01	0.000E+00	NOT IDENT.
NP-239	-1.604E-01	1.868E-01	3.068E-01	0.000E+00	FAIL ABUN
AM-241	5.518E-02	1.158E-01	1.877E-01	0.000E+00	NOT IDENT.
CM-243	-7.184E-03	9.139E-02	1.567E-01	0.000E+00	FAIL ABUN
AM-246	8.597E-02	1.672E-01	2.979E-01	0.000E+00	NOT IDENT.
CM-247	1.624E-02	3.808E-02	6.599E-02	0.000E+00	NOT IDENT.
CF-249	2.897E-02	4.270E-02	7.511E-02	0.000E+00	NOT IDENT.
CF-251	3.086E-05	1.223E-01	2.188E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:29:28.70

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020007.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:27:34
Sample ID         : G246020007           Sample quantity  : 1.27890E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.41  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1539	10.67*	1.129E+00	3.748E+01	3.748E+01	10.10
CD-109	88.03	323	3.72*	6.837E+00	3.728E+00	3.825E+00	26.77
SN-126	64.28	85	9.60	4.729E+00	5.475E-01	5.475E-01	108.02
	86.94	323	8.90	6.837E+00	1.558E+00	1.558E+00	48.51
	87.57	323	37.00*	6.837E+00	3.748E-01	3.748E-01	26.77
TL-208	277.35	------	6.80	4.401E+00	------ Line Not Found		------
	510.84	180	21.60	2.754E+00	8.888E-01	8.888E-01	38.08
	583.14	420	84.20*	2.476E+00	5.916E-01	5.916E-01	18.73
	860.37	87	12.46	1.782E+00	1.148E+00	1.148E+00	41.53
BI-211	72.87	------	1.27	5.899E+00	------ Line Not Found		------
	351.07	603	12.94*	3.679E+00	3.719E+00	3.719E+00	15.55
PB-212	74.81	589	10.70	6.071E+00	2.662E+00	2.662E+00	19.84
	77.11	884	18.00	6.264E+00	2.302E+00	2.302E+00	13.73
	87.30	323	8.00	6.837E+00	1.734E+00	1.734E+00	28.58
	238.63	1446	44.60*	4.908E+00	1.939E+00	1.939E+00	11.36
	300.09	116	3.41	4.149E+00	2.397E+00	2.397E+00	42.28
PO-212	74.81	589	10.70	6.071E+00	2.662E+00	2.662E+00	19.84
	77.11	884	18.00	6.264E+00	2.302E+00	2.302E+00	13.73
	87.30	323	8.00	6.837E+00	1.734E+00	1.734E+00	28.58
	115.19	------	0.60	7.150E+00	------ Line Not Found		------
	238.63	1446	44.60*	4.908E+00	1.939E+00	1.939E+00	11.36
	300.09	116	3.41	4.149E+00	2.397E+00	2.397E+00	42.28
BI-214	609.31	393	46.30*	2.388E+00	1.043E+00	1.043E+00	19.83
	1120.29	82	15.10	1.413E+00	1.123E+00	1.123E+00	49.67
	1764.49	87	15.80	9.832E-01	1.642E+00	1.642E+00	28.51
PB-214	74.81	589	6.21	6.071E+00	4.586E+00	4.586E+00	19.00
	77.11	884	10.50	6.264E+00	3.947E+00	3.947E+00	15.70
	87.30	323	4.67	6.837E+00	2.970E+00	2.970E+00	27.86
	241.98	315	7.49	4.865E+00	2.537E+00	2.537E+00	29.97
	295.21	442	19.20	4.200E+00	1.609E+00	1.609E+00	19.07
	351.92	603	37.20*	3.679E+00	1.294E+00	1.294E+00	16.40
PO-214	74.81	589	6.21	6.071E+00	4.586E+00	4.586E+00	19.00

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	884	10.50	6.264E+00	3.947E+00	3.947E+00	15.70
	87.30	323	4.67	6.837E+00	2.970E+00	2.970E+00	27.86
	241.98	315	7.49	4.865E+00	2.537E+00	2.537E+00	29.97
	295.21	442	19.20	4.200E+00	1.609E+00	1.609E+00	19.07
	351.92	603	37.20*	3.679E+00	1.294E+00	1.294E+00	16.40
PO-216	74.81	589	10.70	6.071E+00	2.662E+00	2.662E+00	19.84
	77.11	884	18.00	6.264E+00	2.302E+00	2.302E+00	13.73
	87.30	323	8.00	6.837E+00	1.734E+00	1.734E+00	28.58
	238.63	1446	44.60*	4.908E+00	1.939E+00	1.939E+00	11.36
	300.09	116	3.41	4.149E+00	2.397E+00	2.397E+00	42.28
PO-218	74.81	589	6.21	6.071E+00	4.586E+00	4.586E+00	19.00
	77.11	884	10.50	6.264E+00	3.947E+00	3.947E+00	15.70
	87.30	323	4.67	6.837E+00	2.970E+00	2.970E+00	27.86
	241.98	315	7.49	4.865E+00	2.537E+00	2.537E+00	29.97
	295.21	442	19.20	4.200E+00	1.609E+00	1.609E+00	19.07
	351.92	603	37.20*	3.679E+00	1.294E+00	1.294E+00	16.40
RA-224	240.98	315	3.95*	4.865E+00	4.811E+00	4.811E+00	29.45
RA-226	609.31	393	46.30*	2.388E+00	1.043E+00	1.043E+00	19.83
	1120.29	82	15.10	1.413E+00	1.123E+00	1.123E+00	49.67
	1764.49	87	15.80	9.832E-01	1.642E+00	1.642E+00	28.51
AC-228	338.32	259	11.40	3.792E+00	1.761E+00	1.761E+00	47.93
	911.07	302	27.70*	1.695E+00	1.888E+00	1.888E+00	21.09
	969.11	151	16.60	1.606E+00	1.667E+00	1.667E+00	34.73
RA-228	338.32	259	11.40	3.792E+00	1.761E+00	1.761E+00	47.93
	911.07	302	27.70*	1.695E+00	1.888E+00	1.888E+00	21.09
	969.11	151	16.60	1.606E+00	1.667E+00	1.667E+00	34.73
TH-228	74.81	589	10.70	6.071E+00	2.662E+00	2.708E+00	17.53
	77.11	884	18.00	6.264E+00	2.302E+00	2.342E+00	13.73
	87.30	323	8.00	6.837E+00	1.734E+00	1.763E+00	26.77
	238.63	1446	44.60*	4.908E+00	1.939E+00	1.973E+00	11.36
	300.09	116	3.41	4.149E+00	2.397E+00	2.439E+00	72.06
TH-230	609.31	393	46.30*	2.388E+00	1.043E+00	1.043E+00	19.83
	1120.29	82	15.10	1.413E+00	1.123E+00	1.123E+00	49.67
	1764.49	87	15.80	9.832E-01	1.642E+00	1.642E+00	28.51
TH-232	338.32	259	11.40	3.792E+00	1.761E+00	1.761E+00	25.87
	911.07	302	27.70*	1.695E+00	1.888E+00	1.888E+00	21.09
	969.11	151	16.60	1.606E+00	1.667E+00	1.667E+00	34.73
TH-234	63.29	85	3.80*	4.729E+00	1.383E+00	1.383E+00	108.45
	92.38	329	5.41	7.023E+00	2.540E+00	2.540E+00	35.69
U-234	609.31	393	46.30*	2.388E+00	1.043E+00	1.043E+00	19.83
	1120.29	82	15.10	1.413E+00	1.123E+00	1.123E+00	49.67
	1764.49	87	15.80	9.832E-01	1.642E+00	1.642E+00	28.51
NP-237	86.50	323	12.60*	6.837E+00	1.101E+00	1.101E+00	33.80
	95.87	------	2.60	7.087E+00	------ Line Not Found		------
U-238	63.29	85	3.80*	4.729E+00	1.383E+00	1.383E+00	108.45
	92.38	329	5.41	7.023E+00	2.540E+00	2.540E+00	31.96
AM-243	74.67	589	66.00*	6.071E+00	4.315E-01	4.315E-01	17.50
	86.72	323	0.34	6.837E+00	4.127E+01	4.127E+01	26.77
	117.66	------	0.55	7.126E+00	------ Line Not Found		------

Sample ID : G246020007 Acquisition date : 13-FEB-2010 16:27:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	6.723E+00	------	Line Not Found	------
ANH-511	511.00	180	100.00*	2.754E+00	1.920E-01	1.920E-01	37.16

Flag: "*" = Keyline

Sample ID : G246020007 Acquisition date : 13-FEB-2010 16:27:34

Total number of lines in spectrum 34
Number of unidentified lines 3
Number of lines tentatively identified by NID 31 91.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.748E+01	3.748E+01	0.378E+01	10.10	
CD-109	464.00D	1.03	3.728E+00	3.825E+00	1.024E+00	26.77	
SN-126	1.00E+05Y	1.00	3.748E-01	3.748E-01	1.003E-01	26.77	
TL-208	1.41E+10Y	1.00	5.916E-01	5.916E-01	1.108E-01	18.73	
BI-211	7.04E+08Y	1.00	3.719E+00	3.719E+00	0.578E+00	15.55	
PB-212	1.41E+10Y	1.00	1.939E+00	1.939E+00	0.220E+00	11.36	
PO-212	1.41E+10Y	1.00	1.939E+00	1.939E+00	0.220E+00	11.36	
BI-214	1600.00Y	1.00	1.043E+00	1.043E+00	0.207E+00	19.83	
PB-214	1600.00Y	1.00	1.294E+00	1.294E+00	0.212E+00	16.40	
PO-214	1600.00Y	1.00	1.294E+00	1.294E+00	0.212E+00	16.40	
PO-216	1.41E+10Y	1.00	1.939E+00	1.939E+00	0.220E+00	11.36	
PO-218	1600.00Y	1.00	1.294E+00	1.294E+00	0.212E+00	16.40	
RA-224	1.41E+10Y	1.00	4.811E+00	4.811E+00	1.417E+00	29.45	
RA-226	1600.00Y	1.00	1.043E+00	1.043E+00	0.207E+00	19.83	
AC-228	1.41E+10Y	1.00	1.888E+00	1.888E+00	0.398E+00	21.09	
RA-228	1.41E+10Y	1.00	1.888E+00	1.888E+00	0.398E+00	21.09	
TH-228	1.91Y	1.02	1.939E+00	1.973E+00	0.224E+00	11.36	
TH-230	4.47E+09Y	1.00	1.043E+00	1.043E+00	0.207E+00	19.83	
TH-232	1.41E+10Y	1.00	1.888E+00	1.888E+00	0.398E+00	21.09	
TH-234	4.47E+09Y	1.00	1.383E+00	1.383E+00	1.500E+00	108.45	
U-234	4.47E+09Y	1.00	1.043E+00	1.043E+00	0.207E+00	19.83	
NP-237	2.14E+06Y	1.00	1.101E+00	1.101E+00	0.372E+00	33.80	
U-238	4.47E+09Y	1.00	1.383E+00	1.383E+00	1.500E+00	108.45	
AM-243	7380.00Y	1.00	4.315E-01	4.315E-01	0.755E-01	17.50	
ANH-511	1.00E+09Y	1.00	1.920E-01	1.920E-01	0.713E-01	37.16	
	Total Activity :		7.667E+01	7.680E+01			

Grand Total Activity : 7.667E+01 7.680E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G246020007 Acquisition date : 13-FEB-2010 16:27:34

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	84.17	76	492	1.13	167.99	163	15	1.05E-02	99.6	6.70E+00	T
6	89.91	137	255	0.93	179.46	178	18	1.90E-02	36.3	6.93E+00	T
0	129.23	92	384	0.77	258.09	254	8	1.28E-02	76.3	6.97E+00	T
0	185.88	202	426	1.49	371.37	366	13	2.80E-02	45.4	5.82E+00	T
0	209.30	114	372	1.44	418.20	413	11	1.58E-02	69.2	5.38E+00	T
0	270.21	139	263	1.16	540.00	534	13	1.92E-02	51.2	4.49E+00	T
0	329.11	92	254	1.37	657.78	650	14	1.27E-02	77.3	3.87E+00	T
0	463.46	102	125	1.58	926.45	921	14	1.42E-02	50.2	2.98E+00	T
0	727.37	123	75	1.32	1454.19	1448	12	1.71E-02	33.4	2.06E+00	T
0	794.40	88	52	3.32	1588.22	1581	14	1.22E-02	41.1	1.91E+00	T
2	964.93	77	55	2.17	1929.25	1922	24	1.07E-02	48.3	1.61E+00	T
0	1377.85	51	15	1.87	2755.00	2747	15	7.08E-03	43.4	1.18E+00	
0	1729.27	31	4	3.10	3457.81	3450	16	4.30E-03	46.1	9.97E-01	
0	1847.47	19	4	3.59	3694.19	3686	14	2.68E-03	61.5	9.55E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:29:33.87

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020007.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:27:34  Detector SN#     :             *
* Detector ID       : GAM07                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.41          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020007            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.27890E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.748E+01	3.784E+00	5.496E-01	4.720E-02	68.197
CD-109	3.825E+00	1.024E+00	1.112E+00	1.048E-01	3.439
SN-126	3.748E-01	1.003E-01	1.092E-01	1.023E-02	3.432
TL-208	5.916E-01	1.108E-01	5.857E-02	5.602E-03	10.100
BI-211	3.719E+00	5.781E-01	3.539E-01	3.175E-02	10.508
PB-212	1.939E+00	2.203E-01	9.543E-02	9.128E-03	20.322
PO-212	1.939E+00	2.203E-01	9.543E-02	9.128E-03	20.322
BI-214	1.043E+00	2.068E-01	1.130E-01	1.169E-02	9.226
PB-214	1.294E+00	2.121E-01	1.234E-01	1.280E-02	10.485
PO-214	1.294E+00	2.121E-01	1.234E-01	1.280E-02	10.485
PO-216	1.939E+00	2.203E-01	9.543E-02	9.128E-03	20.322
PO-218	1.294E+00	2.121E-01	1.234E-01	1.280E-02	10.485
RA-224	4.811E+00	1.417E+00	1.086E+00	9.186E-02	4.429
RA-226	1.043E+00	2.068E-01	1.130E-01	1.169E-02	9.226
AC-228	1.888E+00	3.982E-01	2.027E-01	2.362E-02	9.313
RA-228	1.888E+00	3.982E-01	2.027E-01	2.362E-02	9.313
TH-228	1.973E+00	2.241E-01	9.708E-02	9.285E-03	20.322
TH-230	1.043E+00	2.068E-01	1.130E-01	1.169E-02	9.226

Sample ID : G246020007 Acquisition date : 13-FEB-2010 16:27:34

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.888E+00	3.982E-01	2.027E-01	2.362E-02	9.313
TH-234	1.383E+00	1.500E+00	1.645E+00	2.863E-01	0.841
U-234	1.043E+00	2.068E-01	1.130E-01	1.169E-02	9.226
NP-237	1.101E+00	3.720E-01	3.425E-01	7.744E-02	3.214
U-238	1.383E+00	1.500E+00	1.645E+00	2.863E-01	0.841
AM-243	4.315E-01	7.550E-02	7.355E-02	5.912E-03	5.867
ANH-511	1.920E-01	7.134E-02	4.841E-02	4.301E-03	3.966

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.594E-01		3.434E-01	5.296E-01	4.999E-02	-0.301
NA-22	1.331E-03		4.782E-02	7.923E-02	6.504E-03	0.017
NA-24	4.860E+00		3.809E+00	Half-Life too short		
AL-26	3.197E-02		3.170E-02	6.161E-02	5.025E-03	0.519
TI-44	4.249E-01	+	5.833E-02	7.279E-02	6.094E-03	5.837
SC-46	1.885E-02		4.391E-02	7.404E-02	6.785E-03	0.255
V-48	-3.666E-03		8.601E-02	1.380E-01	1.242E-02	-0.027
CR-51	-1.273E-01		4.001E-01	6.272E-01	5.668E-02	-0.203
MN-52	-1.860E-02		3.262E-01	5.298E-01	4.405E-02	-0.035
MN-54	3.523E-02		4.641E-02	7.968E-02	7.313E-03	0.442
CO-56	-4.704E-03		4.027E-02	6.487E-02	5.955E-03	-0.073
CO-57	-3.259E-02		2.648E-02	4.009E-02	3.449E-03	-0.813
CO-58	-3.882E-02		4.460E-02	6.702E-02	6.157E-03	-0.579
FE-59	-4.650E-02		1.112E-01	1.794E-01	1.662E-02	-0.259
CO-60	-7.830E-03		4.392E-02	7.088E-02	5.806E-03	-0.110
ZN-65	4.752E-02		1.105E-01	1.673E-01	1.419E-02	0.284
GE-68	8.241E-01		1.497E+00	2.609E+00	2.261E-01	0.316
AS-73	1.645E-01		5.475E-01	9.085E-01	6.822E-02	0.181
AS-74	-7.183E-02		1.032E-01	1.632E-01	1.463E-02	-0.440
SE-75	-1.880E-02		5.130E-02	7.298E-02	6.232E-03	-0.258
BR-77	1.561E+01		1.990E+01	3.517E+01	3.133E+00	0.444
SR-82	-1.618E-01		4.516E-01	7.186E-01	6.562E-02	-0.225
RB-83	5.610E-02		7.306E-02	1.290E-01	1.149E-02	0.435
RB-84	-2.957E-02		8.186E-02	1.284E-01	1.178E-02	-0.230
KR-85	1.895E+01		8.912E+00	1.505E+01	1.338E+00	1.260
SR-85	9.931E-02		4.670E-02	7.885E-02	7.012E-03	1.260
RB-86	3.759E-01		1.010E+00	1.739E+00	1.507E-01	0.216
Y-88	-1.277E-03		3.215E-02	5.313E-02	4.312E-03	-0.024
ZR-88	1.615E-02		3.326E-02	5.565E-02	4.635E-03	0.290
Y-91	-2.102E+01		2.398E+01	3.708E+01	3.028E+00	-0.567
NB-94	8.486E-03		4.012E-02	6.720E-02	6.034E-03	0.126
NB-95	-1.848E-02		5.156E-02	8.244E-02	7.515E-03	-0.224
NB-95M	8.387E-02		1.474E-01	2.239E-01	2.173E-02	0.375
ZR-95	2.096E-02		7.675E-02	1.289E-01	1.280E-02	0.163
NB-97	4.402E-01		4.047E-01	Half-Life too short		
ZR-97	2.836E+01		7.595E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	1.253E+01		2.197E+01	3.762E+01	5.809E+00	0.333
TC-99M	-8.313E+12		5.980E+12	Half-Life too short		
RH-101	1.041E-02		3.446E-02	5.794E-02	4.753E-03	0.180
RH-102	-4.510E-04		2.856E-02	4.574E-02	4.012E-03	-0.010
RU-103	-3.175E-03		4.728E-02	7.520E-02	1.075E-02	-0.042
RH-106	-1.000E-01		3.241E-01	5.264E-01	7.141E-02	-0.190
RU-106	-1.000E-01		3.239E-01	5.264E-01	4.705E-02	-0.190
AG-108M	-2.610E-02		3.542E-02	5.400E-02	4.821E-03	-0.483
AG-110M	1.548E-02		3.767E-02	6.435E-02	5.863E-03	0.241
IN-111	-4.236E-01		1.864E+00	2.693E+00	2.281E-01	-0.157
IN-113M	1.236E-02		4.848E-02	8.000E-02	6.877E-03	0.155
SN-113	1.236E-02		4.848E-02	8.000E-02	6.877E-03	0.155
IN-114M	-2.992E-02		2.050E-01	3.035E-01	2.469E-02	-0.099
CD-115	-1.233E+01		2.032E+01	3.265E+01	2.913E+00	-0.378
SN-117M	-1.184E-02		6.250E-02	9.832E-02	7.883E-03	-0.120
SB-122	6.600E-01		3.510E+00	5.964E+00	5.346E-01	0.111
I-123	1.351E+01		4.021E+01	Half-Life too short		
TE-123M	4.910E-03		2.924E-02	4.677E-02	3.773E-03	0.105
I-124	-3.781E-02		1.000E+00	1.514E+00	1.356E-01	-0.025
SB-124	-6.359E-02		8.101E-02	1.090E-01	9.439E-03	-0.584
SB-125	1.948E-02		1.012E-01	1.656E-01	1.444E-02	0.118
TE-125M	7.035E+00		9.292E+00	1.543E+01	1.601E+00	0.456
I-126	7.564E-02		2.118E-01	3.603E-01	3.194E-02	0.210
SB-126	-3.191E-02		1.993E-01	2.937E-01	2.651E-02	-0.109
SB-127	1.025E+00		1.993E+00	3.429E+00	4.195E-01	0.299
XE-127	3.800E-03		5.068E-02	8.296E-02	6.837E-03	0.046
I-131	-5.484E-02		1.413E-01	2.245E-01	2.014E-02	-0.244
TE-132	8.559E-02		1.091E+00	1.834E+00	2.934E-01	0.047
BA-133	-2.128E-02		5.156E-02	7.012E-02	9.208E-03	-0.303
I-133	-7.358E-03		1.600E-02	Half-Life too short		
CS-134	1.780E-01	+	7.489E-02	9.981E-02	9.196E-03	1.783
CS-135	1.641E-01		1.774E-01	2.744E-01	2.706E-02	0.598
I-135	5.352E+11		5.399E+11	Half-Life too short		
CS-136	-1.112E-01		1.267E-01	1.946E-01	1.780E-02	-0.572
BA-137M	-2.561E-02		3.866E-02	6.082E-02	5.383E-03	-0.421
CS-137	-2.707E-02		4.086E-02	6.430E-02	5.701E-03	-0.421
CE-139	-1.838E-02		3.121E-02	4.798E-02	3.795E-03	-0.383
BA-140	-5.949E-02		2.831E-01	4.677E-01	1.554E-01	-0.127
LA-140	5.349E-03		9.345E-02	1.530E-01	1.280E-02	0.035
CE-141	-1.074E-02		6.710E-02	1.062E-01	8.893E-03	-0.101
CE-143	1.290E-03		2.813E-04	Half-Life too short		
CE-144	-6.682E-02		2.346E-01	3.284E-01	5.069E-02	-0.203
PM-144	1.206E-02		3.898E-02	6.582E-02	5.901E-03	0.183
PR-144	8.184E-01		2.644E+00	4.465E+00	4.001E-01	0.183
PM-146	1.494E-03		5.000E-02	8.060E-02	8.685E-03	0.019
ND-147	1.380E-01		6.527E-01	1.114E+00	1.686E-01	0.124
PM-149	-7.048E+00		1.820E+02	3.007E+02	4.659E+01	-0.023
EU-152	-9.812E-02		1.133E-01	1.602E-01	1.452E-02	-0.612

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-2.300E-02		8.193E-02	1.169E-01	1.045E-02	-0.197
EU-154	-2.382E-02		1.357E-01	2.205E-01	2.424E-02	-0.108
EU-155	4.982E-02		1.053E-01	1.735E-01	1.533E-02	0.287
TB-160	1.134E-01		1.574E-01	2.717E-01	2.492E-02	0.417
HO-166M	-1.706E-02		6.957E-02	1.127E-01	1.015E-02	-0.151
TM-171	-1.246E+01		2.491E+01	3.583E+01	2.680E+00	-0.348
LU-176	-7.105E-03		2.445E-02	3.961E-02	3.393E-03	-0.179
LU-177	3.336E+00	+	2.326E+00	2.576E+00	2.134E-01	1.295
LU-177M	1.004E-01		1.850E-01	3.101E-01	2.625E-02	0.324
HF-181	7.245E-03		4.791E-02	7.762E-02	6.829E-03	0.093
W-181	2.362E-01		3.196E-01	4.850E-01	3.588E-02	0.487
TA-182	9.065E-02		2.292E-01	3.912E-01	3.200E-02	0.232
RE-183	7.531E-03		1.142E-01	1.816E-01	1.446E-02	0.041
RE-184	-9.686E-02		2.423E-01	3.957E-01	3.358E-02	-0.245
OS-185	-1.408E-02		4.666E-02	7.572E-02	6.732E-03	-0.186
RE-188	1.148E-01		1.833E-01	2.991E-01	2.413E-02	0.384
W-188	-2.350E+00		8.751E+00	1.245E+01	1.062E+00	-0.189
IR-192	1.007E-02		3.381E-02	5.663E-02	4.867E-03	0.178
AU-195	8.154E-02		2.434E-01	3.565E-01	3.170E-02	0.229
TL-200	1.579E-04		8.557E-04	Half-Life too short		
TL-201	2.264E+00		1.157E+01	1.849E+01	1.465E+00	0.122
TL-202	3.654E-02		8.475E-02	1.406E-01	1.211E-02	0.260
HG-203	3.152E-02		4.278E-02	7.337E-02	6.409E-03	0.430
BI-207	-1.678E-02		5.897E-02	9.642E-02	8.413E-03	-0.174
TL-207	3.480E-01		7.638E-01	1.137E+00	2.011E-01	0.306
PO-209	-3.784E+00		8.434E+00	1.310E+01	1.200E+00	-0.289
BI-210	9.923E-01		1.897E+00	3.203E+00	3.005E-01	0.310
PB-210	9.923E-01		1.897E+00	3.203E+00	3.005E-01	0.310
PO-210	9.923E-01		1.896E+00	3.203E+00	2.725E-01	0.310
PB-211	1.816E-01		9.823E-01	1.601E+00	1.003E+00	0.113
BI-212	1.485E+00	+	5.199E-01	7.633E-01	7.918E-02	1.945
PO-215	3.480E-01		7.638E-01	1.137E+00	2.011E-01	0.306
RN-219	2.066E-01		4.282E-01	7.148E-01	1.065E-01	0.289
RN-220	2.789E-01		2.738E+01	4.601E+01	4.120E+00	0.006
RA-223	3.480E-01		7.638E-01	1.137E+00	2.011E-01	0.306
AC-227	1.178E-01		3.887E-01	6.562E-01	1.002E-01	0.180
TH-227	1.178E-01		3.889E-01	6.562E-01	1.181E-01	0.180
TH-229	-3.854E-01		5.111E-01	8.357E-01	6.824E-02	-0.461
PA-231	-2.285E-01		1.566E+00	2.572E+00	3.889E-01	-0.089
TH-231	3.480E-01		7.638E-01	1.137E+00	2.011E-01	0.306
U-231	-1.621E-01		1.558E+00	2.248E+00	2.024E-01	-0.072
PA-233	1.938E-04		6.322E-02	1.042E-01	9.185E-03	0.002
PA-234	-3.091E-01		3.275E-01	4.684E-01	8.891E-02	-0.660
PA-234M	4.580E+00		5.031E+00	8.744E+00	8.966E-01	0.524
U-235	2.435E-02		2.143E-01	3.380E-01	5.853E-02	0.072
NP-236	8.910E-03		8.173E-02	1.303E-01	1.042E-02	0.068
NP-239	-1.604E-01		1.906E-01	2.952E-01	2.540E-02	-0.543
AM-241	5.518E-02		1.182E-01	1.789E-01	1.419E-02	0.308

Sample ID : G246020007 Acquisition date : 13-FEB-2010 16:27:34

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-7.184E-03		9.326E-02	1.506E-01	1.320E-02	-0.048
AM-246	8.597E-02		1.706E-01	2.964E-01	2.567E-02	0.290
CM-247	1.624E-02		3.886E-02	6.469E-02	5.431E-03	0.251
CF-249	2.897E-02		4.357E-02	7.359E-02	6.143E-03	0.394
CF-251	3.086E-05		1.248E-01	2.118E-01	1.697E-02	0.000

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020007           *
* Acquisition date  : 13-FEB-2010 16:27:34 Detector SN#     :               *
* Detector ID       : GAM07                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.41      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020007           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.2789E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.748E+01	3.709E+00	2.750E-01	1.892E+00
CD-109	3.825E+00	1.004E+00	5.806E-01	5.120E-01
SN-126	3.748E-01	9.833E-02	5.702E-02	5.017E-02
TL-208	5.916E-01	1.086E-01	2.972E-02	5.541E-02
BI-211	3.719E+00	5.666E-01	1.810E-01	2.891E-01
PB-212	1.939E+00	2.159E-01	4.909E-02	1.102E-01
PO-212	1.939E+00	2.159E-01	4.909E-02	1.102E-01
BI-214	1.043E+00	2.027E-01	5.731E-02	1.034E-01
PB-214	1.294E+00	2.079E-01	6.310E-02	1.061E-01
PO-214	1.294E+00	2.079E-01	6.310E-02	1.061E-01
PO-216	1.939E+00	2.159E-01	4.909E-02	1.102E-01
PO-218	1.294E+00	2.079E-01	6.310E-02	1.061E-01
RA-224	4.811E+00	1.388E+00	5.587E-01	7.084E-01
RA-226	1.043E+00	2.027E-01	5.731E-02	1.034E-01
AC-228	1.888E+00	3.903E-01	1.022E-01	1.991E-01
RA-228	1.888E+00	3.903E-01	1.022E-01	1.991E-01
TH-228	1.973E+00	2.197E-01	4.994E-02	1.121E-01
TH-230	1.043E+00	2.026E-01	5.731E-02	1.034E-01
TH-232	1.888E+00	3.903E-01	1.022E-01	1.991E-01
TH-234	1.383E+00	1.470E+00	8.629E-01	7.500E-01
U-234	1.043E+00	2.026E-01	5.731E-02	1.034E-01
NP-237	1.101E+00	3.646E-01	1.788E-01	1.860E-01
U-238	1.383E+00	1.470E+00	8.629E-01	7.500E-01
AM-243	4.315E-01	7.399E-02	3.848E-02	3.775E-02
ANH-511	1.920E-01	6.992E-02	2.462E-02	3.567E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-1.594E-01	3.365E-01	2.696E-01	1.717E-01 NOT IDENT.
NA-22	1.331E-03	4.686E-02	3.972E-02	2.391E-02 NOT IDENT.

NA-24	4.860E+06	7.465E+06	0.000E+00	3.809E+06	SHORT HLIF
AL-26	3.197E-02	3.106E-02	3.072E-02	1.585E-02	NOT IDENT.
TI-44	4.249E-01	5.716E-02	3.806E-02	2.917E-02	FAIL ABUN
SC-46	1.885E-02	4.303E-02	3.733E-02	2.196E-02	FAIL ABUN
V-48	-3.666E-03	8.429E-02	6.945E-02	4.301E-02	NOT IDENT.
CR-51	-1.273E-01	3.921E-01	3.212E-01	2.001E-01	NOT IDENT.
MN-52	-1.860E-02	3.197E-01	2.651E-01	1.631E-01	NOT IDENT.
MN-54	3.523E-02	4.548E-02	4.021E-02	2.321E-02	NOT IDENT.
CO-56	-4.704E-03	3.947E-02	3.273E-02	2.014E-02	NOT IDENT.
CO-57	-3.259E-02	2.596E-02	2.083E-02	1.324E-02	NOT IDENT.
CO-58	-3.882E-02	4.371E-02	3.384E-02	2.230E-02	NOT IDENT.
FE-59	-4.650E-02	1.090E-01	9.018E-02	5.560E-02	NOT IDENT.
CO-60	-7.830E-03	4.304E-02	3.551E-02	2.196E-02	NOT IDENT.
ZN-65	4.752E-02	1.083E-01	8.404E-02	5.526E-02	NOT IDENT.
GE-68	8.241E-01	1.467E+00	1.312E+00	7.484E-01	NOT IDENT.
AS-73	1.645E-01	5.365E-01	4.776E-01	2.737E-01	NOT IDENT.
AS-74	-7.183E-02	1.011E-01	8.278E-02	5.158E-02	NOT IDENT.
SE-75	-1.880E-02	5.027E-02	3.748E-02	2.565E-02	NOT IDENT.
BR-77	1.561E+01	1.950E+01	1.788E+01	9.951E+00	FAIL ABUN
SR-82	-1.618E-01	4.426E-01	3.631E-01	2.258E-01	NOT IDENT.
RB-83	5.610E-02	7.160E-02	6.559E-02	3.653E-02	NOT IDENT.
RB-84	-2.957E-02	8.023E-02	6.477E-02	4.093E-02	NOT IDENT.
KR-85	1.895E+01	8.734E+00	7.651E+00	4.456E+00	NOT IDENT.
SR-85	9.931E-02	4.577E-02	4.009E-02	2.335E-02	NOT IDENT.
RB-86	3.759E-01	9.896E-01	8.742E-01	5.049E-01	NOT IDENT.
Y-88	-1.277E-03	3.151E-02	2.649E-02	1.608E-02	NOT IDENT.
ZR-88	1.615E-02	3.259E-02	2.841E-02	1.663E-02	NOT IDENT.
Y-91	-2.102E+01	2.350E+01	1.861E+01	1.199E+01	NOT IDENT.
NB-94	8.486E-03	3.932E-02	3.401E-02	2.006E-02	NOT IDENT.
NB-95	-1.848E-02	5.052E-02	4.166E-02	2.578E-02	NOT IDENT.
NB-95M	8.387E-02	1.445E-01	1.152E-01	7.372E-02	NOT IDENT.
ZR-95	2.096E-02	7.521E-02	6.516E-02	3.837E-02	NOT IDENT.
NB-97	4.402E+05	7.931E+05	0.000E+00	4.047E+05	SHORT HLIF
ZR-97	2.836E+07	1.489E+07	0.000E+00	7.595E+06	SHORT HLIF
MO-99	1.253E+01	2.153E+01	1.902E+01	1.099E+01	NOT IDENT.
TC-99M	-8.313E+18	1.172E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.041E-02	3.377E-02	2.989E-02	1.723E-02	NOT IDENT.
RH-102	-4.510E-04	2.799E-02	2.328E-02	1.428E-02	NOT IDENT.
RU-103	-3.175E-03	4.633E-02	3.826E-02	2.364E-02	FAIL ABUN
RH-106	-1.000E-01	3.176E-01	2.669E-01	1.620E-01	FAIL ABUN
RU-106	-1.000E-01	3.175E-01	2.669E-01	1.620E-01	FAIL ABUN
AG-108M	-2.610E-02	3.471E-02	2.753E-02	1.771E-02	NOT IDENT.
AG-110M	1.548E-02	3.692E-02	3.260E-02	1.884E-02	NOT IDENT.
IN-111	-4.236E-01	1.826E+00	1.385E+00	9.318E-01	NOT IDENT.
IN-113M	1.236E-02	4.751E-02	4.084E-02	2.424E-02	NOT IDENT.
SN-113	1.236E-02	4.751E-02	4.084E-02	2.424E-02	NOT IDENT.
IN-114M	-2.992E-02	2.009E-01	1.566E-01	1.025E-01	NOT IDENT.
CD-115	-1.233E+01	1.992E+01	1.660E+01	1.016E+01	NOT IDENT.
SN-117M	-1.184E-02	6.125E-02	5.088E-02	3.125E-02	NOT IDENT.
SB-122	6.600E-01	3.440E+00	3.028E+00	1.755E+00	NOT IDENT.
I-123	1.351E+07	7.882E+07	0.000E+00	4.021E+07	SHORT HLIF
TE-123M	4.910E-03	2.865E-02	2.420E-02	1.462E-02	NOT IDENT.
I-124	-3.781E-02	9.803E-01	7.679E-01	5.001E-01	NOT IDENT.
SB-124	-6.359E-02	7.939E-02	5.439E-02	4.050E-02	FAIL ABUN
SB-125	1.948E-02	9.920E-02	8.442E-02	5.061E-02	FAIL ABUN
TE-125M	7.035E+00	9.106E+00	8.029E+00	4.646E+00	NOT IDENT.
I-126	7.564E-02	2.075E-01	1.825E-01	1.059E-01	NOT IDENT.
SB-126	-3.191E-02	1.954E-01	1.486E-01	9.967E-02	FAIL ABUN
SB-127	1.025E+00	1.953E+00	1.736E+00	9.966E-01	NOT IDENT.
XE-127	3.800E-03	4.967E-02	4.278E-02	2.534E-02	NOT IDENT.
I-131	-5.484E-02	1.385E-01	1.147E-01	7.064E-02	NOT IDENT.
TE-132	8.559E-02	1.069E+00	9.438E-01	5.453E-01	NOT IDENT.
BA-133	-2.128E-02	5.053E-02	3.585E-02	2.578E-02	NOT IDENT.
I-133	-7.358E+03	3.135E+04	0.000E+00	1.600E+04	SHORT HLIF
CS-134	1.780E-01	7.339E-02	5.041E-02	3.744E-02	FAIL ABUN
CS-135	1.641E-01	1.739E-01	1.409E-01	8.870E-02	NOT IDENT.
I-135	5.352E+17	1.058E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.112E-01	1.242E-01	9.785E-02	6.335E-02	FAIL ABUN
BA-137M	-2.561E-02	3.788E-02	3.081E-02	1.933E-02	NOT IDENT.
CS-137	-2.707E-02	4.005E-02	3.257E-02	2.043E-02	NOT IDENT.
CE-139	-1.838E-02	3.059E-02	2.481E-02	1.561E-02	NOT IDENT.
BA-140	-5.949E-02	2.775E-01	2.376E-01	1.416E-01	NOT IDENT.
LA-140	5.349E-03	9.158E-02	7.645E-02	4.672E-02	FAIL ABUN
CE-141	-1.074E-02	6.576E-02	5.504E-02	3.355E-02	NOT IDENT.
CE-143	1.290E+03	5.514E+02	0.000E+00	2.813E+02	SHORT HLIF
CE-144	-6.682E-02	2.299E-01	1.704E-01	1.173E-01	NOT IDENT.
PM-144	1.206E-02	3.820E-02	3.331E-02	1.949E-02	NOT IDENT.
PR-144	8.184E-01	2.592E+00	2.260E+00	1.322E+00	NOT IDENT.

PM-146	1.494E-03	4.900E-02	4.106E-02	2.500E-02	NOT IDENT.
ND-147	1.380E-01	6.396E-01	5.662E-01	3.263E-01	FAIL ABUN
PM-149	-7.048E+00	1.784E+02	1.543E+02	9.102E+01	NOT IDENT.
EU-152	-9.812E-02	1.110E-01	8.196E-02	5.665E-02	FAIL ABUN
GD-153	-2.300E-02	8.029E-02	6.094E-02	4.096E-02	FAIL ABUN
EU-154	-2.382E-02	1.330E-01	1.105E-01	6.786E-02	NOT IDENT.
EU-155	4.982E-02	1.032E-01	9.031E-02	5.263E-02	FAIL ABUN
TB-160	1.134E-01	1.542E-01	1.370E-01	7.870E-02	FAIL ABUN
HO-166M	-1.706E-02	6.818E-02	5.702E-02	3.478E-02	FAIL ABUN
TM-171	-1.246E+01	2.441E+01	1.878E+01	1.246E+01	NOT IDENT.
LU-176	-7.105E-03	2.396E-02	2.030E-02	1.223E-02	FAIL ABUN
LU-177	3.336E+00	2.280E+00	1.328E+00	1.163E+00	FAIL ABUN
LU-177M	1.004E-01	1.813E-01	1.582E-01	9.252E-02	FAIL ABUN
HF-181	7.245E-03	4.695E-02	3.951E-02	2.396E-02	NOT IDENT.
W-181	2.362E-01	3.132E-01	2.542E-01	1.598E-01	NOT IDENT.
TA-182	9.065E-02	2.246E-01	1.963E-01	1.146E-01	FAIL ABUN
RE-183	7.531E-03	1.119E-01	9.393E-02	5.708E-02	FAIL ABUN
RE-184	-9.686E-02	2.374E-01	2.034E-01	1.211E-01	NOT IDENT.
OS-185	-1.408E-02	4.572E-02	3.837E-02	2.333E-02	NOT IDENT.
RE-188	1.148E-01	1.797E-01	1.548E-01	9.167E-02	NOT IDENT.
W-188	-2.350E+00	8.576E+00	6.387E+00	4.375E+00	FAIL ABUN
IR-192	1.007E-02	3.313E-02	2.901E-02	1.690E-02	FAIL ABUN
AU-195	8.154E-02	2.386E-01	1.858E-01	1.217E-01	FAIL ABUN
TL-200	1.579E+02	1.677E+03	0.000E+00	8.557E+02	SHORT HLIF
TL-201	2.264E+00	1.134E+01	9.561E+00	5.787E+00	NOT IDENT.
TL-202	3.654E-02	8.306E-02	7.166E-02	4.238E-02	NOT IDENT.
HG-203	3.152E-02	4.192E-02	3.765E-02	2.139E-02	NOT IDENT.
BI-207	-1.678E-02	5.779E-02	4.848E-02	2.949E-02	FAIL ABUN
TL-207	3.480E-01	7.485E-01	5.823E-01	3.819E-01	FAIL ABUN
PO-209	-3.784E+00	8.265E+00	6.605E+00	4.217E+00	NOT IDENT.
BI-210	9.923E-01	1.859E+00	1.687E+00	9.484E-01	NOT IDENT.
PB-210	9.923E-01	1.859E+00	1.687E+00	9.484E-01	NOT IDENT.
PO-210	9.923E-01	1.858E+00	1.687E+00	9.482E-01	NOT IDENT.
PB-211	1.816E-01	9.627E-01	8.170E-01	4.912E-01	NOT IDENT.
BI-212	1.485E+00	5.095E-01	3.861E-01	2.599E-01	FAIL ABUN
PO-215	3.480E-01	7.485E-01	5.823E-01	3.819E-01	FAIL ABUN
RN-219	2.066E-01	4.197E-01	3.648E-01	2.141E-01	FAIL ABUN
RN-220	2.789E-01	2.683E+01	2.337E+01	1.369E+01	NOT IDENT.
RA-223	3.480E-01	7.485E-01	5.823E-01	3.819E-01	FAIL ABUN
AC-227	1.178E-01	3.810E-01	3.372E-01	1.944E-01	FAIL ABUN
TH-227	1.178E-01	3.811E-01	3.372E-01	1.944E-01	FAIL ABUN
TH-229	-3.854E-01	5.009E-01	4.312E-01	2.555E-01	FAIL ABUN
PA-231	-2.285E-01	1.534E+00	1.320E+00	7.828E-01	FAIL ABUN
TH-231	3.480E-01	7.485E-01	5.823E-01	3.819E-01	FAIL ABUN
U-231	-1.621E-01	1.527E+00	1.172E+00	7.791E-01	FAIL ABUN
PA-233	1.938E-04	6.196E-02	5.336E-02	3.161E-02	FAIL ABUN
PA-234	-3.091E-01	3.209E-01	2.359E-01	1.637E-01	FAIL ABUN
PA-234M	4.580E+00	4.930E+00	4.400E+00	2.515E+00	NOT IDENT.
U-235	2.435E-02	2.100E-01	1.752E-01	1.072E-01	FAIL ABUN
NP-236	8.910E-03	8.010E-02	6.744E-02	4.087E-02	NOT IDENT.
NP-239	-1.604E-01	1.868E-01	1.535E-01	9.532E-02	FAIL ABUN
AM-241	5.518E-02	1.158E-01	9.393E-02	5.909E-02	NOT IDENT.
CM-243	-7.184E-03	9.139E-02	7.842E-02	4.663E-02	FAIL ABUN
AM-246	8.597E-02	1.672E-01	1.490E-01	8.531E-02	NOT IDENT.
CM-247	1.624E-02	3.808E-02	3.302E-02	1.943E-02	NOT IDENT.
CF-249	2.897E-02	4.270E-02	3.758E-02	2.178E-02	NOT IDENT.
CF-251	3.086E-05	1.223E-01	1.095E-01	6.242E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	321.9827
46.50	321.9827
46.50	321.9827
48.70	388.3059
49.72	376.0608
51.35	357.6336
52.39	346.1562
52.97	374.4379
53.15	359.2787
53.44	347.0768
54.07	346.6643
56.28	358.2099
56.28	358.2118
57.37	0.0000
57.53	413.5281
57.53	413.5303
57.60	413.5976
57.98	379.2655
57.98	379.2655
59.32	357.4222
59.32	357.4222
59.40	382.2939
59.54	372.2025
59.72	372.3601
60.01	369.6896
61.10	354.5125
61.14	354.5448
61.30	354.6759
63.00	482.5865
63.29	482.9030
63.29	482.9030
63.58	496.4780
64.28	476.5995
65.12	446.4466
65.20	446.5255
65.20	446.5255
66.05	469.5819
66.72	485.1037
66.83	485.2235
66.91	513.5067
67.20	491.5529
67.20	491.5529
67.75	501.9518
67.85	502.0600
68.90	465.0364
68.90	465.0364
69.30	466.9258
69.67	437.4367
70.82	436.9997
70.82	436.9997
70.83	437.0086
72.80	462.8459
72.87	462.9141
72.87	462.9141
74.67	464.6201
74.81	464.7517
74.81	464.7517
74.81	464.7517
74.81	464.7517
74.81	464.7517
74.81	464.7517
74.81	464.7517
74.97	464.9021
75.28	465.1935
75.70	465.5859
77.11	466.8994
77.11	466.8994

77.11	466.8994
77.11	466.8994
77.11	466.8994
77.11	466.8994
77.11	466.8994
78.38	468.0720
79.62	408.2710
79.80	408.4142
79.80	408.4142
80.11	469.6535
80.18	469.7169
80.30	469.8250
80.30	469.8250
80.57	470.0694
81.00	470.4595
81.07	470.5229
81.07	470.5229
81.07	470.5229
81.07	470.5229
82.60	461.6857
83.37	460.3088
83.78	460.6682
83.78	460.6682
83.78	460.6682
83.78	460.6682
84.21	461.0413
84.90	461.6341
85.43	462.0895
86.29	462.8265
86.50	463.0051
86.54	463.0394
86.59	463.0829
86.72	463.1927
86.79	463.2500
86.94	463.3804
87.30	463.6848
87.30	463.6848
87.30	463.6848
87.30	463.6848
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87.30	463.6848
87.57	411.3369
87.88	411.5702
88.03	411.6819
88.36	411.9294
88.47	412.0126
89.95	692.6625
91.11	365.7263
92.29	366.4901
92.38	366.5492
92.38	366.5492
93.35	367.1732
94.00	367.5909
94.67	368.0158
94.67	368.0194
94.90	368.1664
94.90	368.1664
94.90	368.1664
94.90	368.1664
95.87	368.7832
95.87	368.7832
96.73	374.0431
97.43	346.1653
98.44	312.0836
98.44	312.0836
98.88	331.2428
99.55	320.5623
99.55	320.5623
99.86	325.4694
100.00	325.5448
100.10	331.9238
103.18	366.4494
103.76	334.9946
105.00	323.9849
105.31	327.3362
108.00	376.7807
109.28	310.1635

111.00	347.4635
111.00	347.4635
111.76	346.8001
112.95	313.0180
115.19	324.8877
116.30	329.7589
117.00	336.6019
117.00	336.6019
117.66	305.5172
121.11	303.8181
121.62	349.8170
121.78	349.8986
122.06	353.3137
122.32	329.4477
122.32	329.4477
122.32	329.4477
122.32	329.4477
123.07	304.6908
127.23	332.8850
129.76	348.9608
131.20	278.4064
133.02	309.0133
133.54	310.8972
135.34	307.7759
136.00	276.9132
136.25	264.7697
136.48	259.2879
140.51	297.6156
140.51	0.0000
142.18	292.6665
142.65	292.8497
143.76	283.1616
144.24	279.9680
144.24	279.9680
144.24	279.9680
144.24	279.9680
145.22	296.0863
145.44	309.6827
147.16	313.7567
152.43	299.9595
152.70	288.6956
153.22	290.0215
154.21	281.2696
154.21	281.2696
154.21	281.2696
154.21	281.2696
155.03	287.2555
156.02	297.8810
158.56	281.6398
159.00	0.0000
159.00	268.0441
160.31	274.2091
161.27	235.4735
162.32	270.2749
162.64	270.3777
163.35	282.1223
163.89	275.3931
165.85	288.7395
167.43	266.1364
171.28	262.6850
171.86	280.3086
172.10	280.3871
176.55	271.8768
176.60	271.8933
181.06	241.1722
184.41	251.9791
185.71	257.8309
186.00	257.9131
190.27	260.7124
192.34	283.1843
193.63	287.7443
197.04	267.2592
198.01	272.0185
198.60	280.2697
200.40	271.7959
201.83	279.4096
202.84	265.0066
205.31	272.0859

208.36	235.0033
208.81	235.1100
209.75	235.3313
209.75	235.3313
210.97	245.9907
215.65	214.1286
216.55	212.2271
218.09	238.1998
222.10	225.3323
223.80	233.9915
226.40	226.2613
227.00	232.8585
227.08	232.8777
227.20	231.0543
228.16	232.1892
228.18	232.1949
228.18	232.1949
231.56	0.0000
235.69	254.8844
236.00	259.4303
236.00	259.4303
238.63	234.4622
238.63	234.4622
238.63	234.4622
238.63	234.4622
239.00	234.5427
240.98	234.9659
241.98	235.1794
241.98	235.1794
241.98	235.1794
244.69	199.8750
245.39	181.9564
247.94	182.1203
248.90	180.0753
249.79	192.4842
252.40	192.9278
252.85	208.1416
252.85	208.1416
254.15	0.0000
256.20	187.8773
256.20	187.8773
260.50	189.5292
260.90	179.1158
262.80	163.1827
264.65	189.6298
268.24	170.2641
268.79	170.3427
269.46	163.1467
269.46	163.1467
269.46	163.1467
269.46	163.1467
271.23	163.3879
273.65	209.5582
276.40	169.8823
277.35	162.2860
277.60	153.6237
277.60	153.6237
278.00	154.6411
278.60	169.2215
279.20	170.2717
279.53	192.5748
280.46	222.7423
281.68	192.9118
283.67	175.7470
284.30	170.0066
285.00	188.5710
285.90	178.0073
286.10	178.0352
286.10	178.0352
287.40	162.6400
288.45	0.0000
290.67	181.2245
290.80	181.2443
291.72	179.8138
293.26	0.0000
293.70	173.8304
295.21	163.0611
295.21	163.0611

295.21	163.0611
295.96	163.1576
296.50	109.8638
297.23	109.9270
298.57	110.0415
299.80	110.1475
299.80	110.1475
300.09	146.3706
300.09	146.3706
300.09	146.3706
300.09	146.3706
300.12	146.3751
301.29	165.4109
302.84	134.0638
303.76	135.7377
303.91	135.7523
304.40	150.0170
304.40	150.0170
304.84	129.5324
306.84	150.2976
308.46	148.5031
311.98	140.9578
316.51	126.4962
318.01	146.5806
319.02	144.6947
319.41	144.7367
320.08	140.8128
323.87	142.6086
323.87	142.6086
323.87	142.6086
323.87	142.6086
325.23	168.4127
328.77	154.7778
333.44	88.7426
334.20	157.4020
334.20	157.4020
334.30	157.4139
338.28	148.7541
338.28	148.7541
338.28	148.7541
338.28	148.7541
338.32	148.7585
338.32	148.7585
338.32	148.7585
340.50	137.8386
340.57	137.8448
344.27	168.0150
345.85	154.6348
350.59	0.0000
351.07	153.1540
351.92	153.2455
351.92	153.2455
351.92	153.2455
355.39	0.0000
356.01	132.7759
364.48	129.8298
366.43	128.9692
367.43	123.8928
367.94	0.0000
369.80	114.7821
374.96	113.0981
383.85	136.7149
387.95	125.5664
388.63	130.8556
391.69	126.9156
391.69	126.9156
392.90	119.6656
398.62	113.7777
400.65	116.0324
401.10	116.0643
401.81	112.9495
402.60	117.2295
404.84	120.5666
410.95	116.7760
411.60	125.3192
413.65	109.5255
414.70	122.3647
415.30	124.5374

415.76	122.4437
417.63	0.0000
418.52	145.0458
423.70	112.3331
427.08	122.2087
427.89	117.9778
432.53	126.9073
433.93	124.8589
439.47	107.9880
439.56	107.9926
439.89	108.0139
443.98	113.6838
444.90	113.7447
445.03	113.7543
445.03	113.7543
445.03	113.7543
445.03	113.7543
453.90	123.0454
463.38	93.0531
468.07	86.0527
473.00	82.5462
475.06	84.8438
475.35	96.9805
476.78	104.7760
477.59	101.5122
477.96	93.8079
482.03	100.6532
484.57	104.1149
487.03	79.8541
490.36	0.0000
492.35	87.8685
497.08	105.9313
507.63	0.0000
510.53	0.0000
510.84	95.4694
511.00	95.4771
511.85	95.5193
511.85	95.5193
513.99	94.5000
513.99	94.5000
520.41	84.8800
520.65	84.8914
527.90	92.4574
528.96	0.0000
529.64	89.8178
529.87	0.0000
531.02	87.1570
537.32	84.7013
543.00	83.1130
546.56	0.0000
549.76	92.5570
552.65	112.8771
555.20	76.2644
563.23	78.4071
563.90	83.9684
568.70	86.0114
569.32	79.5626
569.50	79.5689
569.67	79.5752
573.80	86.2225
574.00	87.1565
574.64	89.6574
578.91	77.4475
579.30	0.0000
583.14	80.0854
585.48	79.2413
591.81	80.6446
592.07	75.8476
593.00	84.1970
595.88	97.4238
600.56	85.4303
602.52	0.0000
602.71	83.2325
602.71	83.2325
603.60	103.4124
604.41	97.1803
604.70	97.1929
609.31	83.8873

609.31	83.8873
609.31	83.8873
609.31	83.8873
610.33	83.9264
612.46	75.5117
614.37	81.8763
618.01	74.6498
621.84	81.5194
621.84	81.5194
631.29	80.9098
633.02	80.9720
633.10	80.9741
634.78	83.8943
635.90	77.2585
636.97	70.6162
645.85	75.6807
646.12	87.1854
656.30	94.3059
657.75	79.9199
657.90	0.0000
661.65	97.4147
661.65	97.4147
664.57	0.0000
666.33	78.2809
666.33	78.2809
675.00	79.5376
677.61	69.9135
685.20	64.2904
692.80	77.1947
695.00	96.8271
696.49	90.0347
696.49	90.0347
697.00	85.1585
697.49	84.1964
698.33	88.1433
698.50	95.0060
699.00	103.8417
702.63	103.0159
706.10	86.4574
706.58	0.0000
706.67	90.4075
709.31	99.3578
711.68	94.5305
713.82	81.8004
717.42	94.7484
720.50	88.9365
721.93	0.0000
722.20	75.8113
722.78	75.8281
722.78	75.8281
722.89	75.8319
722.95	75.8337
723.30	75.8450
724.18	92.3649
727.18	80.2545
733.00	66.2044
735.90	88.4850
739.58	72.6810
742.81	71.7768
744.21	73.8103
747.13	72.8949
751.79	73.0267
752.31	75.0421
753.82	62.0711
755.35	76.1317
756.15	68.1395
756.87	73.1693
763.93	110.5532
765.79	107.6139
766.42	93.5563
766.84	90.5515
776.49	82.8048
778.00	74.7678
778.57	70.7417
778.89	70.7502
783.80	66.8298
785.46	60.7925
792.07	76.1774

795.84	76.2836
796.30	71.2100
798.80	78.0630
801.93	68.8085
805.60	66.3489
810.29	81.7988
810.76	80.7898
815.85	57.3754
817.79	71.7688
818.51	73.8387
819.60	61.5571
826.30	79.1882
828.27	0.0000
831.60	95.8222
831.96	97.8969
834.83	84.5865
836.80	0.0000
846.75	56.9739
848.13	59.0735
856.28	0.0000
856.80	71.0343
860.37	63.4900
867.32	58.1273
867.82	57.3915
871.10	54.3226
873.19	65.8608
874.81	70.0817
875.33	0.0000
876.40	59.6538
879.36	54.4756
880.27	50.3016
880.51	48.2090
881.50	68.1453
883.24	72.3809
884.67	68.2183
889.25	56.7606
896.60	70.6003
898.02	47.4401
899.00	58.0024
903.28	76.9429
911.07	48.7054
911.07	48.7054
911.07	48.7054
919.63	51.5739
920.93	44.6147
925.00	65.9477
925.24	60.6349
926.50	48.9536
935.52	51.2320
937.48	68.3516
944.10	47.0927
946.00	66.3987
949.00	54.6706
962.29	62.7966
964.01	59.2405
966.15	59.2808
968.20	59.3184
969.11	59.3358
969.11	59.3358
969.11	59.3358
977.42	62.1943
980.50	49.8038
983.50	58.5193
989.30	44.5114
996.32	66.3688
1001.03	50.1205
1001.68	54.4897
1004.76	65.4492
1021.30	0.0000
1024.50	0.0000
1034.80	64.2122
1036.00	55.0586
1037.82	58.7604
1038.57	64.2834
1038.76	0.0000
1045.16	53.3673
1046.59	48.7882
1048.07	65.3867

1050.47	48.8443
1050.47	48.8443
1062.04	51.7845
1063.62	67.5345
1076.63	65.9327
1077.35	65.0183
1078.86	65.9760
1085.78	58.6600
1099.22	76.6448
1112.02	65.6649
1112.84	58.5482
1115.52	59.5598
1120.29	75.7587
1120.29	75.7587
1120.29	75.7587
1120.29	75.7587
1120.51	75.7619
1121.28	71.4788
1124.00	0.0000
1129.67	70.9602
1131.51	0.0000
1147.95	0.0000
1167.94	77.1669
1173.22	78.2297
1175.09	72.5426
1177.93	85.0164
1189.05	65.1501
1204.90	101.0223
1205.75	0.0000
1213.00	95.4510
1221.42	74.4058
1230.97	77.4967
1235.34	89.2223
1236.41	0.0000
1238.25	99.9615
1246.25	70.9950
1260.41	0.0000
1271.85	59.7118
1274.45	55.8334
1274.54	51.9152
1291.56	48.2025
1298.22	0.0000
1312.09	44.4928
1325.50	48.6072
1325.50	48.6072
1332.49	42.7288
1333.61	42.7393
1360.21	21.0068
1362.66	0.0000
1365.15	31.0467
1368.21	22.8510
1368.53	0.0000
1376.25	39.5922
1384.27	22.4208
1394.10	26.2179
1395.20	26.2243
1407.95	28.3258
1434.06	28.4967
1436.60	29.5310
1457.56	0.0000
1460.81	23.5503
1489.15	19.5783
1509.49	18.6313
1596.49	18.9807
1620.62	26.4954
1678.03	0.0000
1691.02	19.3506
1691.02	19.3506
1706.46	0.0000
1750.46	0.0000
1764.49	13.0874
1764.49	13.0874
1764.49	13.0874
1764.49	13.0874
1770.23	13.1016
1771.40	14.7431
1791.20	0.0000
1808.65	8.4843

1836.01 11.3705

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020007

Total Uranium Activity	4.1260E+00	ug/g
Total Uranium Counting Unc.	4.3743E+00	ug/g
Total Uranium Tpu	2.2318E-06	ug/g
Total Uranium Mda	2.5684E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020007       *
*   ANALYST       : MXR1                      DETECTOR   : GAM07            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:27:34.57    SAMPLE ALQT:  127.890 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.098E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.553E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.894E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.893E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:43:16.42

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020008.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:42:43
Sample ID         : G246020008           Sample quantity  : 1.60940E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.41*	1192	1102	1.18	125.74	119	12	1.66E-01	6.3	
2	0	77.47*	233	1162	1.06	153.86	150	8	3.24E-02	26.7	
3	0	84.22*	159	809	1.51	167.37	165	6	2.21E-02	29.7	
4	0	92.80*	4736	1858	1.32	184.52	177	15	6.58E-01	2.5	
5	0	98.61	255	700	1.40	196.14	193	8	3.54E-02	19.1	
6	0	112.11	390	1179	1.59	223.13	217	15	5.42E-02	19.8	
7	0	144.02*	153	681	1.14	286.95	282	10	2.12E-02	33.4	
8	0	163.58	116	476	1.75	326.06	322	9	1.62E-02	35.0	
9	0	186.01*	973	568	1.35	370.93	366	12	1.35E-01	6.0	
10	2	238.77*	1070	268	1.37	476.44	468	21	1.49E-01	4.2	6.36E-01
11	2	241.90	280	336	1.85	482.70	468	21	3.88E-02	16.6	
12	0	258.86	51	316	1.50	516.63	509	11	7.12E-03	68.6	
13	0	295.21*	327	325	1.29	589.31	583	13	4.54E-02	12.9	
14	0	299.87	81	151	1.57	598.65	595	8	1.13E-02	28.3	
15	0	338.82	197	280	1.20	676.54	670	14	2.74E-02	19.4	
16	0	351.94*	520	209	1.45	702.79	698	11	7.22E-02	7.1	
17	0	409.80	50	140	0.81	818.50	815	10	6.90E-03	47.0	
18	0	463.52	45	166	1.13	925.93	921	10	6.31E-03	55.2	
19	0	510.82*	123	140	1.66	1020.55	1013	17	1.71E-02	27.1	
20	0	583.12*	327	139	1.36	1165.15	1159	14	4.54E-02	9.6	
21	0	609.19*	437	90	1.63	1217.30	1208	17	6.07E-02	7.0	
22	0	662.51*	72	147	3.74	1323.94	1313	19	1.00E-02	42.3	
23	0	728.17	106	161	2.09	1455.28	1444	22	1.47E-02	32.3	
24	0	766.74	182	100	1.74	1532.43	1525	16	2.52E-02	14.0	
25	0	785.41	64	96	3.87	1569.78	1561	16	8.88E-03	36.5	
26	0	795.70	65	73	1.81	1590.35	1586	14	8.97E-03	31.3	
27	0	860.39*	47	40	2.22	1719.74	1714	10	6.54E-03	31.0	
28	0	911.03*	214	81	1.79	1821.05	1815	13	2.97E-02	11.2	
29	0	933.91	36	42	1.63	1866.82	1861	10	5.02E-03	37.6	
30	1	964.80	64	49	2.20	1928.60	1919	25	8.92E-03	25.7	1.84E+00
31	1	968.96	159	43	2.20	1936.93	1919	25	2.20E-02	12.0	
32	0	1000.93*	259	45	1.74	2000.88	1995	12	3.59E-02	8.3	
33	0	1120.37*	67	79	1.86	2239.81	2235	13	9.33E-03	31.0	
34	0	1377.22	45	14	1.89	2753.64	2746	14	6.25E-03	23.1	
35	0	1460.41*	1147	37	2.13	2920.08	2912	17	1.59E-01	3.2	
36	0	1763.92*	58	16	1.76	3527.32	3521	15	8.03E-03	21.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:43:19

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:42:43
Sample ID : G246020008 Sample quantity : 160.94 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.75 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.594E+01	3.050E+00	5.426E-01	5.332E-02	47.806
NB-95	+	765.79	*	2.927E-01	8.604E-02	7.950E-02	6.965E-03	3.682
BA-137M	+	661.65	*	9.446E-02	8.023E-02	6.343E-02	5.214E-03	1.489
CS-137	+	661.65	*	9.985E-02	8.481E-02	6.705E-02	5.524E-03	1.489
CE-141	+	145.44	*	1.930E-01	1.304E-01	1.211E-01	1.251E-02	1.594
TL-208		277.35		5.426E-01	4.272E-01	7.385E-01	1.032E-01	0.735
	+	510.84		5.510E-01	3.055E-01	2.346E-01	2.816E-02	2.349
	+	583.14	*	4.135E-01	8.827E-02	6.364E-02	5.828E-03	6.497
	+	860.37		5.591E-01	3.506E-01	4.783E-01	4.677E-02	1.169
BI-211		72.87		5.963E+00	6.360E+00	9.406E+00	1.077E+00	0.634
	+	351.07	*	2.981E+00	5.189E-01	3.876E-01	3.859E-02	7.693
BI-212	+	727.18	*	1.147E+00	7.496E-01	4.935E-01	4.918E-02	2.324
	+	785.46		4.420E+00	3.250E+00	2.914E+00	2.580E-01	1.517
		1620.62		1.131E+00	1.270E+00	2.351E+00	2.188E-01	0.481
PB-212		74.81		1.095E+00	7.616E-01	1.120E+00	1.660E-01	0.978
	+	77.11		8.571E-01	4.691E-01	5.633E-01	6.530E-02	1.522
		87.30		5.693E-01	1.034E+00	1.100E+00	1.747E-01	0.518
	+	238.63	*	1.360E+00	1.982E-01	1.042E-01	1.241E-02	13.050
	+	300.09		1.586E+00	9.194E-01	1.435E+00	1.734E-01	1.105
PO-212		74.81		1.095E+00	7.616E-01	1.120E+00	1.660E-01	0.978
	+	77.11		8.571E-01	4.691E-01	5.633E-01	6.530E-02	1.522
		87.30		5.693E-01	1.034E+00	1.100E+00	1.747E-01	0.518
		115.19		9.770E+00	5.972E+00	8.919E+00	9.028E-01	1.095
	+	238.63	*	1.360E+00	1.982E-01	1.042E-01	1.241E-02	13.050
	+	300.09		1.586E+00	9.194E-01	1.435E+00	1.734E-01	1.105
BI-214	+	609.31	*	1.040E+00	1.790E-01	1.135E-01	1.125E-02	9.165
	+	1120.29		8.465E-01	5.332E-01	4.938E-01	5.323E-02	1.714
	+	1764.49		9.981E-01	4.323E-01	3.107E-01	2.724E-02	3.213
PB-214		74.81		1.887E+00	1.308E+00	1.930E+00	2.641E-01	0.978
	+	77.11		1.469E+00	8.119E-01	9.657E-01	1.340E-01	1.522
		87.30		9.753E-01	1.770E+00	1.884E+00	2.742E-01	0.518
	+	241.98		2.135E+00	7.580E-01	6.272E-01	7.759E-02	3.404
	+	295.21		1.119E+00	3.203E-01	2.541E-01	3.132E-02	4.406
	+	351.92	*	1.037E+00	1.885E-01	1.323E-01	1.485E-02	7.836

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214		74.81		1.887E+00	1.308E+00	1.930E+00	2.641E-01	0.978
	+	77.11		1.469E+00	8.119E-01	9.657E-01	1.340E-01	1.522
		87.30		9.753E-01	1.770E+00	1.884E+00	2.742E-01	0.518
	+	241.98		2.135E+00	7.580E-01	6.272E-01	7.759E-02	3.404
	+	295.21		1.119E+00	3.203E-01	2.541E-01	3.132E-02	4.406
	+	351.92	*	1.037E+00	1.885E-01	1.323E-01	1.485E-02	7.836
PO-216		74.81		1.095E+00	7.616E-01	1.120E+00	1.660E-01	0.978
	+	77.11		8.571E-01	4.691E-01	5.633E-01	6.530E-02	1.522
		87.30		5.693E-01	1.034E+00	1.100E+00	1.747E-01	0.518
	+	238.63	*	1.360E+00	1.982E-01	1.042E-01	1.241E-02	13.050
	+	300.09		1.586E+00	9.194E-01	1.435E+00	1.734E-01	1.105
PO-218		74.81		1.887E+00	1.308E+00	1.930E+00	2.641E-01	0.978
	+	77.11		1.469E+00	8.119E-01	9.657E-01	1.340E-01	1.522
		87.30		9.753E-01	1.770E+00	1.884E+00	2.742E-01	0.518
	+	241.98		2.135E+00	7.580E-01	6.272E-01	7.759E-02	3.404
	+	295.21		1.119E+00	3.203E-01	2.541E-01	3.132E-02	4.406
	+	351.92	*	1.037E+00	1.885E-01	1.323E-01	1.485E-02	7.836
RA-224	+	240.98	*	4.048E+00	1.419E+00	1.185E+00	1.307E-01	3.415
RA-226	+	609.31	*	1.040E+00	1.790E-01	1.135E-01	1.125E-02	9.165
	+	1120.29		8.465E-01	5.332E-01	4.938E-01	5.323E-02	1.714
	+	1764.49		9.981E-01	4.323E-01	3.107E-01	2.724E-02	3.213
AC-228	+	338.32		1.252E+00	7.122E-01	4.188E-01	1.740E-01	2.990
	+	911.07	*	1.204E+00	3.058E-01	2.162E-01	2.547E-02	5.569
	+	969.11		1.582E+00	5.328E-01	3.214E-01	7.568E-02	4.923
RA-228	+	338.32		1.252E+00	7.122E-01	4.188E-01	1.740E-01	2.990
	+	911.07	*	1.204E+00	3.058E-01	2.162E-01	2.547E-02	5.569
	+	969.11		1.582E+00	5.328E-01	3.214E-01	7.568E-02	4.923
TH-228		74.81		1.114E+00	7.678E-01	1.140E+00	1.317E-01	0.978
	+	77.11		8.719E-01	4.772E-01	5.730E-01	6.642E-02	1.522
		87.30		5.792E-01	1.050E+00	1.119E+00	1.381E-01	0.518
	+	238.63	*	1.383E+00	2.016E-01	1.060E-01	1.262E-02	13.050
	+	300.09		1.614E+00	1.327E+00	1.460E+00	8.702E-01	1.105
TH-230	+	609.31	*	1.040E+00	1.790E-01	1.135E-01	1.125E-02	9.165
	+	1120.29		8.465E-01	5.332E-01	4.937E-01	5.323E-02	1.714
	+	1764.49		9.981E-01	4.323E-01	3.106E-01	2.724E-02	3.213
TH-232	+	338.32		1.252E+00	5.018E-01	4.188E-01	4.129E-02	2.990
	+	911.07	*	1.204E+00	3.058E-01	2.162E-01	2.547E-02	5.569
	+	969.11		1.582E+00	5.328E-01	3.214E-01	7.568E-02	4.923
PA-234M	+	766.42		7.576E+01	4.394E+01	2.059E+01	1.045E+01	3.679
	+	1001.03	*	5.256E+01	1.028E+01	8.542E+00	8.858E-01	6.153
TH-234	+	63.29	*	3.992E+01	9.265E+00	4.293E+00	8.363E-01	9.298
	+	92.38		4.229E+01	8.581E+00	1.545E+00	3.045E-01	27.373
U-234	+	609.31	*	1.040E+00	1.790E-01	1.135E-01	1.125E-02	9.165
	+	1120.29		8.465E-01	5.332E-01	4.937E-01	5.323E-02	1.714
	+	1764.49		9.981E-01	4.323E-01	3.106E-01	2.724E-02	3.213
U-235		89.95		7.813E+00	3.418E+00	3.629E+00	1.161E+00	2.153
	+	93.35		5.084E+01	1.500E+01	1.836E+00	5.332E-01	27.697
		105.00		4.594E-01	1.554E+00	2.462E+00	7.490E-01	0.187
	+	143.76	*	6.159E-01	4.266E-01	4.287E-01	7.856E-02	1.436

Sample ID : G246020008 Acquisition date : 13-FEB-2010 16:42:43

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	163.35		1.107E+00	8.048E-01	9.603E-01	1.926E-01	1.152
	+	185.71		8.655E-01	1.401E-01	8.687E-02	9.402E-03	9.963
		205.31		-1.243E-01	6.886E-01	1.091E+00	2.209E-01	-0.114
U-238	+	63.29	*	3.992E+01	9.265E+00	4.293E+00	8.363E-01	9.298
	+	92.38		4.229E+01	5.333E+00	1.545E+00	1.801E-01	27.373
ANH-511	+	511.00	*	1.190E-01	6.524E-02	5.068E-02	4.379E-03	2.348

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-7.176E-03	3.525E-01	5.740E-01	5.337E-02	-0.013
NA-22		1274.54	*	-2.028E-02	4.619E-02	7.120E-02	6.468E-03	-0.285
NA-24		1368.53	*	4.644E+00	4.619E-02	Half-Life too short		
AL-26		1129.67		-3.501E-01	1.803E+00	2.739E+00	2.313E-01	-0.128
		1808.65	*	-1.278E-02	2.447E-02	3.504E-02	2.998E-03	-0.365
TI-44		67.85		-6.861E-02	1.011E-01	1.423E-01	1.624E-02	-0.482
	+	78.38	*	1.582E-01	8.657E-02	1.124E-01	1.310E-02	1.407
SC-46		889.25	*	-3.481E-03	3.864E-02	6.331E-02	5.883E-03	-0.055
	+	1120.51		1.474E-01	9.234E-02	1.271E-01	1.081E-02	1.160
V-48		944.10		2.723E-01	9.299E-01	1.547E+00	1.430E-01	0.176
		983.50	*	8.539E-02	7.503E-02	1.353E-01	1.237E-02	0.631
		1312.09		-3.885E-02	8.749E-02	1.334E-01	1.257E-02	-0.291
CR-51		320.08	*	9.761E-02	4.436E-01	7.438E-01	7.898E-02	0.131
MN-52		744.21		3.539E-01	3.593E-01	6.341E-01	5.488E-02	0.558
		848.13		-2.068E+00	8.576E+00	1.391E+01	1.270E+00	-0.149
		935.52		5.220E-01	3.720E-01	6.118E-01	5.667E-02	0.853
		1246.25		-1.678E+00	9.818E+00	1.564E+01	1.378E+00	-0.107
		1333.61		1.580E+00	5.928E+00	9.889E+00	9.508E-01	0.160
		1434.06	*	-1.838E-01	3.195E-01	4.938E-01	4.753E-02	-0.372
MN-54		834.83	*	-1.068E-02	3.987E-02	6.477E-02	5.878E-03	-0.165
CO-56		846.75	*	3.289E-03	3.815E-02	6.366E-02	5.809E-03	0.052
		977.42		-3.226E+00	3.006E+00	4.092E+00	3.748E-01	-0.788
		1037.82		3.078E-02	2.941E-01	4.865E-01	4.566E-02	0.063
		1175.09		-6.564E-01	2.438E+00	3.866E+00	3.153E-01	-0.170
		1238.25		1.203E-01	1.021E-01	1.785E-01	1.604E-02	0.674
		1360.21		-5.929E-01	9.775E-01	1.510E+00	1.454E-01	-0.393
		1771.40		-1.384E-01	3.065E-01	3.812E-01	3.331E-02	-0.363
CO-57		122.06	*	1.063E-02	3.446E-02	5.651E-02	5.692E-03	0.188
		136.48		-2.802E-02	2.738E-01	4.419E-01	4.699E-02	-0.063
CO-58		810.76	*	-1.235E-02	3.947E-02	6.381E-02	5.737E-03	-0.194
FE-59	+	142.65		8.205E+00	5.544E+00	6.895E+00	7.003E-01	1.190
		192.34		3.009E-02	1.359E+00	1.898E+00	2.842E-01	0.016
		1099.22	*	3.613E-02	9.695E-02	1.634E-01	1.524E-02	0.221
		1291.56		-3.727E-02	1.323E-01	2.071E-01	2.139E-02	-0.180
CO-60		1173.22		2.406E-02	4.751E-02	8.049E-02	6.552E-03	0.299
		1332.49	*	-7.407E-04	3.563E-02	5.724E-02	5.503E-03	-0.013
ZN-65		1115.52	*	1.431E-02	1.055E-01	1.498E-01	1.280E-02	0.096
GE-68		1077.35	*	1.454E+00	1.249E+00	2.245E+00	1.965E-01	0.648

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	-1.136E+00	2.428E+00	3.969E+00	5.154E-01	-0.286
AS-74		595.88	*	2.518E-03	1.120E-01	1.808E-01	1.536E-02	0.014
		634.78		9.053E-02	4.128E-01	6.743E-01	5.630E-02	0.134
SE-75		66.05		6.715E+00	1.107E+01	1.628E+01	2.091E+00	0.412
		96.73		3.976E+00	2.061E+00	2.271E+00	3.481E-01	1.750
		121.11		7.529E-02	1.860E-01	3.057E-01	3.781E-02	0.246
		136.00		-7.080E-03	5.188E-02	8.365E-02	8.467E-03	-0.085
		198.60		-1.112E+00	2.278E+00	3.568E+00	4.165E-01	-0.312
		264.65	*	8.796E-03	5.309E-02	8.713E-02	9.553E-03	0.101
		279.53		1.403E-01	1.268E-01	2.195E-01	2.430E-02	0.639
		303.91		7.999E-01	2.702E+00	3.977E+00	5.150E-01	0.201
		400.65		2.562E-01	2.841E-01	4.877E-01	5.356E-02	0.525
BR-77		87.88		8.699E+02	8.961E+02	9.690E+02	1.202E+02	0.898
		200.40		2.337E+02	3.757E+02	6.128E+02	6.695E+01	0.381
	+	239.00		4.004E+02	5.552E+01	6.768E+01	7.466E+00	5.917
		249.79		7.222E+01	1.405E+02	2.398E+02	2.640E+01	0.301
		281.68		-1.517E+02	1.892E+02	3.036E+02	3.275E+01	-0.500
		297.23		8.000E+02	1.883E+02	2.474E+02	2.622E+01	3.234
		303.76		1.079E+02	4.163E+02	6.115E+02	6.424E+01	0.176
		439.47		-1.609E+02	2.932E+02	4.637E+02	3.974E+01	-0.347
		484.57		9.540E+01	4.547E+02	7.507E+02	6.483E+01	0.127
		520.65	*	6.472E+00	2.046E+01	3.392E+01	2.929E+00	0.191
		574.64		2.108E+02	4.274E+02	6.953E+02	5.948E+01	0.303
		578.91		-1.391E+02	2.070E+02	2.688E+02	2.296E+01	-0.518
		585.48		2.921E+03	5.649E+02	9.582E+02	8.170E+01	3.048
		755.35		3.754E+01	3.242E+02	5.447E+02	4.744E+01	0.069
		817.79		-1.170E+02	2.335E+02	3.701E+02	3.331E+01	-0.316
SR-82		698.33		8.829E+00	3.749E+01	6.369E+01	5.363E+00	0.139
		776.49	*	-4.433E-01	5.213E-01	6.777E-01	5.972E-02	-0.654
		1395.20		-3.851E+00	1.089E+01	1.735E+01	1.671E+00	-0.222
RB-83		520.41	*	3.266E-02	7.625E-02	1.241E-01	1.072E-02	0.263
		529.64		5.680E-02	1.175E-01	1.966E-01	1.697E-02	0.289
		552.65		5.555E-02	2.290E-01	3.765E-01	3.237E-02	0.148
RB-84		881.50	*	3.279E-02	7.238E-02	1.241E-01	1.150E-02	0.264
KR-85		513.99	*	1.250E+01	8.763E+00	1.369E+01	1.182E+00	0.913
SR-85		513.99	*	6.551E-02	4.593E-02	7.172E-02	6.197E-03	0.913
RB-86		1076.63	*	7.635E-01	8.736E-01	1.535E+00	1.344E-01	0.498
Y-88		898.02		-2.876E-03	4.348E-02	7.137E-02	6.684E-03	-0.040
		1836.01	*	1.245E-02	3.663E-02	6.346E-02	5.344E-03	0.196
ZR-88		392.90	*	-9.528E-03	3.294E-02	5.327E-02	4.484E-03	-0.179
Y-91		1204.90	*	-9.461E+00	2.138E+01	3.336E+01	2.812E+00	-0.284
NB-94		702.63	*	-1.728E-02	3.519E-02	5.689E-02	4.803E-03	-0.304
		871.10		-3.349E-02	3.602E-02	5.464E-02	5.040E-03	-0.613
NB-95M		235.69	*	1.835E-01	1.789E-01	2.719E-01	3.272E-02	0.675
ZR-95		724.18		1.214E-01	1.232E-01	1.920E-01	1.787E-02	0.632
		756.15	*	-1.289E-02	7.895E-02	1.301E-01	1.246E-02	-0.099
NB-97		657.90	*	-7.396E-03	7.895E-02	Half-Life too short		
		1024.50		-2.599E+01	7.895E-02	Half-Life too short		
ZR-97		254.15		-1.441E+01	7.895E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		355.39		1.286E+01	7.895E-02	Half-Life too short		
		507.63	*	3.323E+01	7.895E-02	Half-Life too short		
		602.52		-2.805E+01	7.895E-02	Half-Life too short		
		1021.30		3.293E+01	7.895E-02	Half-Life too short		
		1147.95		-1.783E+01	7.895E-02	Half-Life too short		
		1362.66		3.360E+00	7.895E-02	Half-Life too short		
		1750.46		2.757E+01	7.895E-02	Half-Life too short		
MO-99		140.51		-9.906E+00	6.738E+01	9.418E+01	2.656E+01	-0.105
		181.06		2.690E+01	4.146E+01	5.940E+01	1.153E+01	0.453
		366.43		-1.701E+01	1.622E+02	2.663E+02	2.440E+01	-0.064
		739.58	*	1.100E+01	2.278E+01	3.907E+01	5.935E+00	0.282
		778.00		-3.995E+01	7.242E+01	9.750E+01	8.600E+00	-0.410
TC-99M		140.51	*	-2.669E+12	7.242E+01	Half-Life too short		
RH-101		127.23		1.272E-02	4.294E-02	7.028E-02	7.052E-03	0.181
		198.01	*	-4.086E-02	4.141E-02	6.331E-02	6.908E-03	-0.645
		325.23		-1.601E-01	2.592E-01	4.172E-01	4.226E-02	-0.384
RH-102		418.52		-5.525E-02	3.075E-01	4.991E-01	4.249E-02	-0.111
		475.06	*	3.231E-03	2.981E-02	4.897E-02	4.225E-03	0.066
		631.29		3.080E-02	5.960E-02	9.935E-02	8.311E-03	0.310
		697.49		-7.146E-02	8.175E-02	1.285E-01	1.081E-02	-0.556
	+	766.84		7.211E-01	2.120E-01	2.891E-01	2.534E-02	2.494
		1046.59		7.216E-02	1.115E-01	1.933E-01	1.721E-02	0.373
		1112.84		-4.144E-02	2.466E-01	3.645E-01	3.117E-02	-0.114
RU-103		497.08	*	-1.968E-02	4.279E-02	6.720E-02	9.525E-03	-0.293
	+	610.33		1.165E+01	2.535E+00	2.724E+00	4.521E-01	4.277
RH-106	+	511.85		5.968E-01	3.271E-01	4.259E-01	3.680E-02	1.401
		621.84	*	-2.386E-01	3.432E-01	5.200E-01	6.874E-02	-0.459
		1050.47		2.114E+00	2.252E+00	3.993E+00	3.548E-01	0.529
RU-106	+	511.85		5.968E-01	3.271E-01	4.259E-01	3.680E-02	1.401
		621.84	*	-2.386E-01	3.423E-01	5.200E-01	4.370E-02	-0.459
		1050.47		2.114E+00	2.252E+00	3.993E+00	3.548E-01	0.529
AG-108M		433.93	*	-1.004E-02	3.754E-02	6.053E-02	5.388E-03	-0.166
		614.37		5.059E-02	4.480E-02	6.911E-02	6.067E-03	0.732
		722.95		1.371E-02	5.103E-02	7.536E-02	6.699E-03	0.182
CD-109		88.03	*	2.480E+00	2.271E+00	2.465E+00	3.060E-01	1.006
AG-110M		657.75	*	8.256E-04	4.230E-02	6.141E-02	5.226E-03	0.013
		677.61		7.109E-02	3.039E-01	5.178E-01	4.432E-02	0.137
		706.67		1.062E-01	2.169E-01	3.741E-01	3.257E-02	0.284
		763.93		6.849E-01	2.371E-01	4.046E-01	3.638E-02	1.693
		884.67		-5.566E-03	4.880E-02	7.980E-02	7.608E-03	-0.070
		937.48		3.479E-03	1.159E-01	1.646E-01	1.572E-02	0.021
		1384.27		1.574E-01	1.542E-01	2.633E-01	2.595E-02	0.598
IN-111		171.28		-2.237E+00	2.215E+00	3.413E+00	3.657E-01	-0.655
		245.39	*	-8.887E-01	2.291E+00	3.268E+00	3.602E-01	-0.272
IN-113M		391.69	*	-5.572E-02	4.906E-02	7.505E-02	6.518E-03	-0.742
SN-113		391.69	*	-5.572E-02	4.906E-02	7.505E-02	6.518E-03	-0.742
IN-114M		190.27	*	-1.700E-01	2.591E-01	3.478E-01	3.777E-02	-0.489
CD-115		260.90		-1.453E+02	3.369E+02	4.776E+02	5.233E+01	-0.304
		492.35		-2.400E+01	7.439E+01	1.185E+02	1.023E+01	-0.203

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		527.90	*	6.119E+00	2.277E+01	3.759E+01	3.244E+00	0.163
SN-117M		156.02		1.302E+00	3.220E+00	5.257E+00	5.479E-01	0.248
		158.56	*	-4.511E-02	8.973E-02	1.230E-01	1.290E-02	-0.367
SB-122		563.90	*	6.856E+00	3.825E+00	6.837E+00	5.865E-01	1.003
		692.80		2.149E+01	7.728E+01	1.317E+02	1.105E+01	0.163
I-123		159.00	*	-3.104E+01	7.728E+01	Half-Life too short		
		528.96		1.741E+03	7.728E+01	Half-Life too short		
TE-123M		159.00	*	-1.114E-02	4.163E-02	5.778E-02	6.089E-03	-0.193
I-124		602.71	*	-5.670E-01	1.158E+00	1.525E+00	1.293E-01	-0.372
		722.78		1.789E+00	7.510E+00	1.106E+01	9.454E-01	0.162
		1325.50		-3.503E+01	5.158E+01	7.610E+01	7.266E+00	-0.460
	+	1376.25		1.114E+02	5.255E+01	8.736E+01	8.417E+00	1.275
		1509.49		1.051E+01	2.364E+01	4.129E+01	3.944E+00	0.255
		1691.02		9.530E-01	5.635E+00	9.542E+00	8.659E-01	0.100
SB-124		602.71		-2.391E-02	4.883E-02	6.432E-02	5.451E-03	-0.372
		645.85		-1.444E-01	5.451E-01	8.564E-01	7.567E-02	-0.169
		709.31		2.102E+00	2.938E+00	5.138E+00	4.356E-01	0.409
		713.82		-1.143E+00	1.769E+00	2.815E+00	3.364E-01	-0.406
		722.78		1.094E-01	4.591E-01	6.761E-01	5.906E-02	0.162
	+	968.20		1.668E+01	4.297E+00	7.129E+00	6.549E-01	2.340
		1045.16		8.166E-01	2.401E+00	4.057E+00	3.614E-01	0.201
		1325.50		-2.287E+00	3.367E+00	4.968E+00	4.744E-01	-0.460
		1368.21		5.785E-01	1.921E+00	3.069E+00	4.341E-01	0.189
		1436.60		-3.841E-01	3.861E+00	6.355E+00	6.116E-01	-0.060
		1691.02	*	1.374E-02	8.124E-02	1.376E-01	1.293E-02	0.100
SB-125		427.89	*	1.271E-02	1.005E-01	1.659E-01	1.445E-02	0.077
	+	463.38		3.996E-01	4.427E-01	5.994E-01	5.569E-02	0.667
		600.56		-7.137E-02	2.252E-01	3.192E-01	2.913E-02	-0.224
		635.90		1.169E-01	2.812E-01	4.661E-01	4.225E-02	0.251
TE-125M		109.28	*	9.844E+00	1.589E+01	2.315E+01	2.720E+00	0.425
I-126		388.63		-9.141E-02	2.510E-01	4.047E-01	3.443E-02	-0.226
		666.33	*	4.504E-02	2.329E-01	3.436E-01	2.834E-02	0.131
		753.82		6.086E-01	1.709E+00	2.920E+00	2.541E-01	0.208
SB-126		223.80		7.232E-01	5.446E+00	9.205E+00	1.015E+00	0.079
		278.60		5.984E+00	3.186E+00	5.607E+00	6.066E-01	1.067
	+	296.50		1.252E+01	3.496E+00	4.185E+00	4.440E-01	2.991
		414.70		-7.304E-02	1.064E-01	1.421E-01	1.208E-02	-0.514
		415.30		-9.661E-01	8.678E+00	1.221E+01	1.038E+00	-0.079
		555.20		3.104E+00	4.836E+00	8.159E+00	7.012E-01	0.380
		573.80		5.801E-01	1.277E+00	2.125E+00	1.818E-01	0.273
		593.00		-2.056E+00	1.184E+00	1.643E+00	1.397E-01	-1.252
		656.30		3.249E+00	4.539E+00	7.010E+00	5.782E-01	0.463
		666.33		1.891E-02	9.778E-02	1.443E-01	1.190E-02	0.131
		675.00		-5.524E-01	2.229E+00	3.671E+00	3.045E-01	-0.150
		695.00		-1.453E-02	9.244E-02	1.531E-01	1.287E-02	-0.095
		697.00		-2.349E-01	3.158E-01	5.011E-01	4.216E-02	-0.469
		720.50	*	6.839E-02	1.994E-01	2.968E-01	2.533E-02	0.230
		856.80		1.478E-01	5.898E-01	8.650E-01	7.928E-02	0.171
		989.30		-6.034E-01	1.473E+00	2.326E+00	2.122E-01	-0.259

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1034.80		2.128E+00	9.379E+00	1.570E+01	1.406E+00	0.136
		1213.00		-3.279E+00	5.608E+00	8.616E+00	7.328E-01	-0.381
SN-126	+	64.28		1.580E+01	3.336E+00	2.502E+00	4.236E-01	6.314
		86.94		6.587E-01	9.738E-01	1.004E+00	4.245E-01	0.656
		87.57	*	1.548E-01	2.229E-01	2.388E-01	2.955E-02	0.648
SB-127		61.10		8.309E+02	2.481E+02	3.571E+02	4.973E+01	2.327
		252.40		-1.271E+00	8.623E+00	1.245E+01	5.321E+00	-0.102
		290.80		-1.979E+00	4.080E+01	5.890E+01	7.883E+00	-0.034
		411.60		1.736E+01	2.249E+01	3.365E+01	5.424E+00	0.516
		444.90		6.113E+00	1.574E+01	2.631E+01	3.442E+00	0.232
		473.00		-2.167E+00	2.554E+00	3.898E+00	5.235E-01	-0.556
		543.00		-6.550E+00	2.584E+01	4.109E+01	6.120E+00	-0.159
		603.60		-1.094E+01	2.023E+01	2.641E+01	3.429E+00	-0.414
		685.20	*	-4.662E-01	1.995E+00	3.286E+00	3.884E-01	-0.142
		698.50		7.177E+00	2.286E+01	3.900E+01	6.306E+00	0.184
		722.20		1.569E+01	5.211E+01	7.721E+01	9.070E+00	0.203
		783.80		7.730E+00	5.885E+00	1.048E+01	1.378E+00	0.738
XE-127		57.60		9.397E+00	1.771E+01	2.625E+01	3.086E+00	0.358
	+	145.22		2.118E+00	1.431E+00	1.758E+00	1.793E-01	1.204
		172.10		-1.385E-01	1.651E-01	2.565E-01	2.749E-02	-0.540
		202.84	*	3.442E-03	6.353E-02	1.017E-01	1.112E-02	0.034
		374.96		-1.273E-01	2.417E-01	3.873E-01	3.455E-02	-0.329
I-131		80.18		-2.313E+00	1.487E+01	1.533E+01	1.810E+00	-0.151
		284.30		-2.027E+00	2.029E+00	3.211E+00	3.576E-01	-0.631
		364.48	*	-3.095E-02	1.518E-01	2.478E-01	2.396E-02	-0.125
		636.97		-1.738E+00	2.025E+00	3.026E+00	2.679E-01	-0.574
		722.89		2.650E+00	1.027E+01	1.516E+01	1.307E+00	0.175
TE-132		49.72		6.832E+00	1.008E+02	1.679E+02	2.608E+01	0.041
	+	111.76		3.473E+02	1.444E+02	1.320E+02	1.671E+01	2.631
		116.30		7.337E+01	6.725E+01	9.915E+01	1.248E+01	0.740
		228.16	*	-9.578E-01	1.331E+00	2.166E+00	3.796E-01	-0.442
BA-133		53.15		3.227E+00	1.029E+01	1.722E+01	2.250E+00	0.187
		79.62		-5.964E-01	3.095E+00	3.727E+00	6.400E-01	-0.160
		81.00		-3.687E-02	2.627E-01	2.709E-01	4.825E-02	-0.136
		276.40		4.467E-01	4.253E-01	7.301E-01	1.159E-01	0.612
		302.84		1.513E-01	1.834E-01	2.771E-01	4.044E-02	0.546
		356.01	*	2.068E-04	5.291E-02	7.585E-02	1.043E-02	0.003
		383.85		4.812E-03	3.355E-01	5.531E-01	6.985E-02	0.009
I-133	+	510.53		6.387E+00	3.355E-01	Half-Life too short		
		529.87	*	2.988E-02	3.355E-01	Half-Life too short		
		706.58		9.165E-02	3.355E-01	Half-Life too short		
		856.28		1.300E+00	3.355E-01	Half-Life too short		
		875.33		2.060E-01	3.355E-01	Half-Life too short		
		1236.41		4.382E+00	3.355E-01	Half-Life too short		
		1298.22		-1.631E+00	3.355E-01	Half-Life too short		
CS-134		475.35		2.079E-01	1.949E+00	3.202E+00	2.763E-01	0.065
		563.23		4.479E-01	3.921E-01	6.789E-01	5.880E-02	0.660
		569.32		-2.598E-01	2.213E-01	3.273E-01	2.842E-02	-0.794
		604.70		-2.897E-02	4.111E-02	5.278E-02	4.480E-03	-0.549

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	+	795.84	*	1.176E-01	7.432E-02	9.154E-02	8.205E-03	1.285
		801.93		-5.642E-02	5.138E-01	7.263E-01	6.520E-02	-0.078
		1038.57		-1.349E+00	3.619E+00	5.693E+00	5.089E-01	-0.237
		1167.94		-9.122E-01	2.496E+00	3.913E+00	3.201E-01	-0.233
		1365.15		3.305E-01	1.220E+00	2.102E+00	2.099E-01	0.157
CS-135		268.24	*	7.292E-02	1.805E-01	3.062E-01	3.675E-02	0.238
I-135		288.45		4.161E+11	1.805E-01	Half-Life too short		
		417.63		2.338E+12	1.805E-01	Half-Life too short		
		546.56		-1.183E+12	1.805E-01	Half-Life too short		
		836.80		3.806E+12	1.805E-01	Half-Life too short		
		1038.76		-8.085E+11	1.805E-01	Half-Life too short		
		1124.00		2.975E+12	1.805E-01	Half-Life too short		
		1131.51		2.690E+11	1.805E-01	Half-Life too short		
		1260.41	*	7.945E+11	1.805E-01	Half-Life too short		
		1457.56		1.580E+14	1.805E-01	Half-Life too short		
		1678.03		-1.308E+12	1.805E-01	Half-Life too short		
		1706.46		4.058E+12	1.805E-01	Half-Life too short		
		1791.20		-8.462E+11	1.805E-01	Half-Life too short		
CS-136		66.91		-2.034E+00	1.920E+00	2.627E+00	4.506E-01	-0.775
		86.29		5.415E+00	3.299E+00	3.602E+00	5.590E-01	1.503
		153.22		7.971E-01	9.355E-01	1.545E+00	1.733E-01	0.516
	+	163.89		2.797E+00	1.981E+00	2.704E+00	3.104E-01	1.034
		176.55		-1.732E-01	5.286E-01	8.381E-01	9.351E-02	-0.207
		273.65		-1.044E+00	5.783E-01	8.723E-01	9.876E-02	-1.197
		340.57		5.653E-01	1.944E-01	3.152E-01	3.162E-02	1.793
		818.51		-2.709E-02	8.031E-02	1.294E-01	1.166E-02	-0.209
		1048.07	*	1.198E-02	1.205E-01	1.989E-01	1.841E-02	0.060
		1235.34		8.444E-01	7.344E-01	1.278E+00	1.524E-01	0.660
CE-139		165.85	*	3.455E-02	4.598E-02	6.657E-02	7.106E-03	0.519
BA-140	+	162.64		1.976E+00	1.398E+00	1.883E+00	2.072E-01	1.049
		304.84		7.095E-01	1.847E+00	2.719E+00	7.791E-01	0.261
		423.70		-1.754E-02	2.263E+00	3.710E+00	1.202E+00	-0.005
		537.32	*	-4.552E-02	3.183E-01	5.104E-01	1.692E-01	-0.089
LA-140		328.77		4.352E-01	3.966E-01	6.837E-01	7.163E-02	0.636
		432.53		9.332E-01	2.616E+00	4.370E+00	3.922E-01	0.214
		487.03		-2.823E-02	1.669E-01	2.689E-01	2.466E-02	-0.105
		751.79		-6.836E-02	2.020E+00	3.360E+00	3.228E-01	-0.020
		815.85		-1.705E-01	3.311E-01	5.231E-01	5.204E-02	-0.326
		867.82		8.310E-01	1.597E+00	2.699E+00	2.601E-01	0.308
		919.63		-2.684E+00	3.559E+00	5.168E+00	5.788E-01	-0.519
		925.24		4.351E-01	1.358E+00	2.251E+00	2.203E-01	0.193
		1596.49	*	-5.531E-03	9.431E-02	1.548E-01	1.451E-02	-0.036
CE-143		57.37		2.793E-03	9.431E-02	Half-Life too short		
		231.56		-4.104E-03	9.431E-02	Half-Life too short		
		293.26	*	2.218E-03	9.431E-02	Half-Life too short		
	+	350.59		6.742E-02	9.431E-02	Half-Life too short		
		490.36		3.259E-04	9.431E-02	Half-Life too short		
		664.57		2.457E-03	9.431E-02	Half-Life too short		
		721.93		1.373E-03	9.431E-02	Half-Life too short		

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CE-144		80.11		-7.730E-01	5.758E+00	5.943E+00	6.984E-01	-0.130
		133.54	*	-2.711E-02	2.744E-01	4.432E-01	7.270E-02	-0.061
PM-144		476.78		2.765E-03	7.003E-02	1.145E-01	1.080E-02	0.024
		618.01		1.442E-02	3.574E-02	5.763E-02	4.993E-03	0.250
		696.49	*	-2.806E-02	3.668E-02	5.814E-02	4.892E-03	-0.483
		778.57		-9.147E-01	2.839E+00	3.924E+00	3.463E-01	-0.233
PR-144		696.49	*	-1.904E+00	2.488E+00	3.944E+00	3.317E-01	-0.483
		1489.15		-2.945E+00	1.144E+01	1.831E+01	1.754E+00	-0.161
PM-146		453.90	*	-2.879E-02	4.858E-02	7.476E-02	8.006E-03	-0.385
		633.02		1.747E+00	1.594E+00	2.547E+00	9.502E-01	0.686
		735.90		-1.095E-01	1.937E-01	2.588E-01	7.402E-02	-0.423
		747.13		-1.234E-01	1.045E-01	1.575E-01	2.216E-02	-0.783
ND-147		91.11		1.644E+01	2.209E+00	1.635E+00	2.024E-01	10.053
		319.41		8.728E-01	4.299E+00	7.204E+00	7.379E-01	0.121
		439.89		-4.065E+00	7.400E+00	1.170E+01	1.003E+00	-0.347
		531.02	*	1.889E-01	7.193E-01	1.186E+00	1.773E-01	0.159
PM-149		285.90	*	5.495E+01	1.948E+02	3.286E+02	5.527E+01	0.167
EU-152		121.78		-2.683E-03	1.010E-01	1.640E-01	1.837E-02	-0.016
		244.69		3.266E-01	4.394E-01	6.648E-01	7.328E-02	0.491
		344.27	*	-8.211E-02	1.279E-01	1.747E-01	1.779E-02	-0.470
		443.98		5.656E-01	1.042E+00	1.758E+00	1.508E-01	0.322
		778.89		5.388E-02	3.095E-01	4.520E-01	3.988E-02	0.119
		867.32		8.970E-01	8.675E-01	1.494E+00	1.376E-01	0.600
	+	964.01		7.368E-01	3.850E-01	5.594E-01	5.145E-02	1.317
		1085.78		3.140E-01	3.942E-01	6.898E-01	6.006E-02	0.455
		1112.02		7.285E-02	3.217E-01	5.240E-01	4.484E-02	0.139
		1407.95		5.675E-03	1.687E-01	2.828E-01	2.724E-02	0.020
GD-153		69.67		-1.618E+00	3.206E+00	5.036E+00	5.748E-01	-0.321
	+	83.37		4.234E+01	2.569E+01	4.514E+01	5.411E+00	0.938
	+	97.43	*	3.884E-01	1.545E-01	2.311E-01	2.550E-02	1.681
		103.18		-2.098E-01	1.760E-01	2.377E-01	2.513E-02	-0.883
EU-154		123.07		6.497E-03	7.014E-02	1.143E-01	1.427E-02	0.057
		247.94		-2.981E-01	4.842E-01	6.793E-01	9.080E-02	-0.439
		591.81		-8.719E-01	7.158E-01	1.003E+00	1.162E-01	-0.870
		723.30		7.758E-02	2.196E-01	3.264E-01	3.090E-02	0.238
		756.87		-4.492E-01	8.400E-01	1.344E+00	1.619E-01	-0.334
		873.19		-8.607E-02	3.017E-01	4.863E-01	6.167E-02	-0.177
		996.32		6.986E-02	4.599E-01	6.593E-01	1.187E-01	0.106
		1004.76		5.985E-01	2.711E-01	4.627E-01	5.542E-02	1.294
		1274.45	*	-3.938E-03	1.235E-01	1.989E-01	2.319E-02	-0.020
EU-155		48.70		7.480E-03	8.586E+00	1.428E+01	1.916E+00	0.001
		60.01		1.230E+01	1.298E+01	1.940E+01	2.191E+00	0.634
		86.54		4.275E-01	2.679E-01	2.957E-01	3.646E-02	1.446
		105.31	*	7.236E-02	1.650E-01	2.526E-01	2.661E-02	0.286
TB-160		86.79		5.760E-01	7.426E-01	7.981E-01	9.813E-02	0.722
		197.04		-1.628E-01	7.056E-01	1.118E+00	1.219E-01	-0.146
		215.65		1.803E-01	8.909E-01	1.511E+00	1.663E-01	0.119
	+	298.57		2.355E-01	1.358E-01	2.290E-01	2.422E-02	1.029
		879.36	*	-2.503E-02	1.424E-01	2.317E-01	2.144E-02	-0.108

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		962.29		1.015E+00	5.887E-01	9.857E-01	9.071E-02	1.030
	+	966.15		5.160E-01	2.696E-01	5.212E-01	4.791E-02	0.990
		1177.93		-6.953E-02	4.040E-01	6.464E-01	5.290E-02	-0.108
		1271.85		1.641E-01	6.717E-01	1.115E+00	1.009E-01	0.147
HO-166M		80.57		-5.534E-01	7.524E-01	7.476E-01	8.809E-02	-0.740
		184.41		5.353E-01	8.599E-02	1.143E-01	1.236E-02	4.684
		280.46		1.913E-03	9.658E-02	1.613E-01	1.742E-02	0.012
	+	410.95		3.660E-01	3.457E-01	4.759E-01	4.039E-02	0.769
		711.68	*	-2.375E-02	6.440E-02	1.049E-01	8.908E-03	-0.226
		752.31		1.354E-01	2.850E-01	4.907E-01	4.267E-02	0.276
		810.29		-2.041E-03	5.838E-02	9.665E-02	8.667E-03	-0.021
TM-171		51.35		-3.102E+01	9.540E+01	1.568E+02	2.114E+01	-0.198
		52.39		7.120E+00	4.717E+01	7.864E+01	1.043E+01	0.091
		59.40		8.871E+01	6.991E+01	1.053E+02	1.187E+01	0.842
		66.72	*	-5.984E+01	6.203E+01	8.612E+01	9.830E+00	-0.695
LU-176		88.36		6.735E-01	5.307E-01	5.785E-01	7.143E-02	1.164
		201.83		-1.965E-02	3.783E-02	5.920E-02	6.473E-03	-0.332
		306.84	*	9.837E-03	2.824E-02	4.767E-02	4.984E-03	0.206
		401.10		4.513E+00	7.282E+00	1.236E+01	1.045E+00	0.365
LU-177	+	112.95		1.522E+01	6.226E+00	5.717E+00	5.812E-01	2.662
		208.36	*	7.015E-01	1.703E+00	2.755E+00	3.022E-01	0.255
LU-177M		52.97		1.537E+00	4.743E+00	7.939E+00	1.041E+00	0.194
		54.07		-1.629E+00	2.408E+00	3.905E+00	4.998E-01	-0.417
		61.30		1.910E+01	4.602E+00	6.733E+00	7.653E-01	2.837
		121.62		2.150E-01	5.149E-01	8.467E-01	8.522E-02	0.254
		147.16		-1.245E-01	9.531E-01	1.337E+00	1.368E-01	-0.093
		171.86		-5.822E-01	6.459E-01	1.000E+00	1.072E-01	-0.582
		218.09		-9.239E-02	1.005E+00	1.688E+00	1.858E-01	-0.055
		268.79		9.521E-01	9.118E-01	1.577E+00	1.720E-01	0.604
		319.02		2.165E-02	2.947E-01	4.909E-01	5.031E-02	0.044
		367.43		9.865E-02	1.027E+00	1.704E+00	1.556E-01	0.058
		413.65	*	-8.922E-04	2.155E-01	3.061E-01	2.601E-02	-0.003
HF-181		56.28		-1.462E+00	2.625E+00	4.127E+00	5.009E-01	-0.354
		57.53		6.981E-01	1.484E+00	2.195E+00	2.584E-01	0.318
		65.20		1.603E+01	3.114E+00	4.283E+00	4.891E-01	3.744
		133.02		3.271E-02	9.098E-02	1.490E-01	1.497E-02	0.220
		136.25		-1.138E-01	6.190E-01	9.964E-01	1.004E-01	-0.114
		345.85		1.221E-02	2.949E-01	3.714E-01	3.597E-02	0.033
		482.03	*	8.285E-03	4.798E-02	7.905E-02	6.825E-03	0.105
W-181		56.28		-5.593E-01	1.005E+00	1.580E+00	1.918E-01	-0.354
		57.53		2.665E-01	5.685E-01	8.410E-01	9.902E-02	0.317
		65.20	*	6.095E+00	1.184E+00	1.628E+00	1.859E-01	3.744
TA-182		67.75		-7.566E-02	2.405E-01	3.436E-01	3.921E-02	-0.220
	+	100.10		9.106E-01	3.621E-01	4.903E-01	5.292E-02	1.857
		152.43		5.638E-01	4.267E-01	7.124E-01	7.367E-02	0.791
		222.10		4.047E-01	4.130E-01	7.146E-01	7.875E-02	0.566
	+	1001.68		2.344E+01	4.434E+00	7.470E+00	6.785E-01	3.138
	+	1121.28		4.053E-01	2.539E-01	3.460E-01	2.941E-02	1.171
		1189.05		-5.906E-02	3.296E-01	5.265E-01	4.362E-02	-0.112

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1221.42	*	-3.179E-02	2.209E-01	3.536E-01	3.035E-02	-0.090
		1230.97		-1.231E-01	5.248E-01	8.334E-01	7.227E-02	-0.148
RE-183		57.98		6.468E-01	5.580E-01	8.399E-01	9.784E-02	0.770
		59.32		3.652E-01	2.935E-01	4.419E-01	4.991E-02	0.826
		67.20		-4.073E-01	4.432E-01	6.168E-01	7.039E-02	-0.660
	+	162.32	*	2.636E-01	1.864E-01	2.482E-01	2.625E-02	1.062
		208.81		-3.191E-01	1.280E+00	2.022E+00	2.219E-01	-0.158
		291.72		1.193E-01	1.284E+00	1.870E+00	1.995E-01	0.064
RE-184		57.98		2.355E+00	2.032E+00	3.058E+00	3.562E-01	0.770
		59.32		1.329E+00	1.068E+00	1.608E+00	1.816E-01	0.826
		67.20		-1.483E+00	1.613E+00	2.245E+00	2.562E-01	-0.660
		161.27		1.581E-01	5.222E-01	7.443E-01	7.854E-02	0.212
		216.55		-1.173E-01	3.169E-01	5.267E-01	5.796E-02	-0.223
		252.85	*	2.698E-02	3.148E-01	4.613E-01	5.073E-02	0.058
		318.01		-4.224E-01	5.274E-01	8.398E-01	8.623E-02	-0.503
		792.07		1.890E+00	1.639E+00	1.869E+00	1.660E-01	1.011
		903.28		-3.431E-01	1.119E+00	1.655E+00	1.543E-01	-0.207
		920.93		6.549E-02	4.774E-01	7.960E-01	7.396E-02	0.082
OS-185		59.72		1.072E+00	7.751E-01	1.170E+00	1.318E-01	0.917
		61.14		1.769E+00	4.818E-01	7.170E-01	8.144E-02	2.468
		69.30		-2.435E-01	5.814E-01	9.159E-01	1.045E-01	-0.266
		592.07		-3.375E+00	2.842E+00	4.158E+00	3.537E-01	-0.812
		646.12	*	-1.528E-02	4.604E-02	7.193E-02	5.970E-03	-0.212
		717.42		2.642E-03	9.925E-01	1.584E+00	1.350E-01	0.002
		874.81		1.961E-01	6.073E-01	1.030E+00	9.519E-02	0.190
		880.27		-3.747E-01	8.227E-01	1.306E+00	1.210E-01	-0.287
RE-188		155.03	*	1.934E-01	2.233E-01	3.689E-01	3.837E-02	0.524
		477.96		-4.051E-01	3.378E+00	5.464E+00	4.716E-01	-0.074
		633.10		1.789E+00	3.133E+00	5.239E+00	4.379E-01	0.341
W-188	+	63.58		1.638E+03	2.787E+02	2.750E+02	3.139E+01	5.956
		227.08		-3.214E+00	1.585E+01	2.647E+01	2.919E+00	-0.121
		290.67	*	-6.343E-01	9.914E+00	1.430E+01	1.528E+00	-0.044
IR-192	+	295.96		8.703E-01	2.432E-01	2.931E-01	3.127E-02	2.969
		308.46		-7.483E-02	1.126E-01	1.809E-01	1.894E-02	-0.414
		316.51	*	1.238E-02	4.089E-02	6.882E-02	7.096E-03	0.180
		468.07		6.709E-02	8.211E-02	1.240E-01	1.146E-02	0.541
		604.41		-4.186E-01	5.705E-01	7.282E-01	9.408E-02	-0.575
		612.46		2.173E+00	9.958E-01	1.599E+00	1.558E-01	1.359
AU-195		65.12		3.032E+00	5.651E-01	7.657E-01	8.743E-02	3.960
		66.83		-2.298E-01	2.068E-01	2.850E-01	3.253E-02	-0.806
		75.70		1.249E+00	4.234E-01	6.232E-01	7.188E-02	2.004
	+	98.88	*	1.133E+00	4.506E-01	6.419E-01	6.996E-02	1.765
		129.76		2.269E+00	3.843E+00	6.333E+00	6.354E-01	0.358
TL-200		367.94	*	-5.047E-04	3.843E+00	Half-Life too short		
		579.30		-7.016E-03	3.843E+00	Half-Life too short		
		828.27		-4.264E-03	3.843E+00	Half-Life too short		
		1205.75		3.119E-04	3.843E+00	Half-Life too short		
TL-201		68.90		-1.215E+01	1.566E+01	2.331E+01	2.660E+00	-0.521
		70.82		-9.249E+00	8.258E+00	1.316E+01	1.504E+00	-0.703

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		80.30		-1.558E+01	2.241E+01	2.233E+01	2.627E+00	-0.698
		135.34		-4.974E+01	5.466E+01	8.562E+01	8.618E+00	-0.581
		167.43	*	1.951E+01	1.635E+01	2.407E+01	2.572E+00	0.811
TL-202		68.90		-7.655E-01	9.870E-01	1.469E+00	1.676E-01	-0.521
		70.82		-5.813E-01	5.190E-01	8.273E-01	9.451E-02	-0.703
		80.30		-9.796E-01	1.409E+00	1.404E+00	1.652E-01	-0.698
		439.56	*	-4.734E-02	8.709E-02	1.378E-01	1.181E-02	-0.344
HG-203		70.83		-2.298E+00	2.076E+00	3.287E+00	5.106E-01	-0.699
		72.87		1.223E+00	1.310E+00	1.930E+00	2.934E-01	0.634
		82.60		3.764E+00	2.703E+00	3.385E+00	5.425E-01	1.112
		279.20	*	6.435E-02	4.884E-02	8.497E-02	9.354E-03	0.757
BI-207		72.80		2.374E-01	3.725E-01	5.477E-01	6.273E-02	0.433
		74.97		3.834E-01	2.210E-01	3.286E-01	3.781E-02	1.167
	+	84.90		5.444E-01	3.303E-01	5.629E-01	6.821E-02	0.967
		569.67		-4.505E-02	3.464E-02	5.067E-02	4.340E-03	-0.889
		1063.62	*	-2.573E-02	5.160E-02	8.012E-02	7.069E-03	-0.321
		1770.23		-5.915E-03	5.806E-01	8.121E-01	7.099E-02	-0.007
TL-207		81.07		-5.765E-02	5.792E-01	5.987E-01	7.074E-02	-0.096
	+	83.78		3.589E-01	2.178E-01	3.774E-01	4.537E-02	0.951
		94.90		9.361E+00	1.251E+00	1.075E+00	1.217E-01	8.705
		122.32		1.238E-01	2.377E+00	3.869E+00	4.104E-01	0.032
	+	144.24		1.996E+00	1.351E+00	1.675E+00	1.853E-01	1.191
		154.21		3.625E-01	5.119E-01	8.421E-01	9.351E-02	0.430
		269.46		2.606E-01	2.104E-01	3.656E-01	4.037E-02	0.713
		323.87	*	-3.449E-01	7.597E-01	1.230E+00	2.275E-01	-0.280
	+	338.28		5.230E+00	2.145E+00	2.400E+00	3.170E-01	2.179
		445.03		1.038E+00	2.525E+00	4.226E+00	5.097E-01	0.246
PO-209		260.50		-1.848E+00	1.311E+01	1.893E+01	2.075E+00	-0.098
		262.80		-9.661E+00	3.563E+01	5.100E+01	5.582E+00	-0.189
		896.60	*	1.431E+00	7.496E+00	1.257E+01	1.172E+00	0.114
BI-210		46.50	*	-6.385E+00	1.419E+01	2.304E+01	2.838E+00	-0.277
PB-210		46.50	*	-6.385E+00	1.419E+01	2.304E+01	2.838E+00	-0.277
PO-210		46.50	*	-6.385E+00	1.419E+01	2.304E+01	2.687E+00	-0.277
PB-211		404.84	*	3.184E-02	1.138E+00	1.623E+00	1.017E+00	0.020
		427.08		-1.272E+00	2.396E+00	3.585E+00	2.227E+00	-0.355
		831.96		-2.834E-02	1.278E+00	2.115E+00	1.327E+00	-0.013
PO-215		81.07		-5.765E-02	5.792E-01	5.987E-01	7.074E-02	-0.096
	+	83.78		3.589E-01	2.178E-01	3.774E-01	4.537E-02	0.951
		94.90		9.361E+00	1.251E+00	1.075E+00	1.217E-01	8.705
		122.32		1.238E-01	2.377E+00	3.869E+00	4.104E-01	0.032
	+	144.24		1.996E+00	1.351E+00	1.675E+00	1.853E-01	1.191
		154.21		3.625E-01	5.119E-01	8.421E-01	9.351E-02	0.430
		269.46		2.606E-01	2.104E-01	3.656E-01	4.037E-02	0.713
		323.87	*	-3.449E-01	7.597E-01	1.230E+00	2.275E-01	-0.280
	+	338.28		5.230E+00	2.145E+00	2.400E+00	3.170E-01	2.179
		445.03		1.038E+00	2.525E+00	4.226E+00	5.097E-01	0.246
RN-219		271.23		-7.803E-02	2.752E-01	4.478E-01	5.493E-02	-0.174
		401.81	*	4.791E-02	4.466E-01	7.384E-01	1.103E-01	0.065
RN-220		549.76	*	1.180E+01	2.873E+01	4.777E+01	4.110E+00	0.247

---- Non-Identified Nuclides ----

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RA-223		81.07		-5.765E-02	5.792E-01	5.987E-01	7.074E-02	-0.096
	+	83.78		3.589E-01	2.178E-01	3.774E-01	4.537E-02	0.951
		94.90		9.361E+00	1.251E+00	1.075E+00	1.217E-01	8.705
		122.32		1.238E-01	2.377E+00	3.869E+00	4.104E-01	0.032
	+	144.24		1.996E+00	1.351E+00	1.675E+00	1.853E-01	1.191
		154.21		3.625E-01	5.119E-01	8.421E-01	9.351E-02	0.430
		269.46		2.606E-01	2.104E-01	3.656E-01	4.037E-02	0.713
		323.87	*	-3.449E-01	7.597E-01	1.230E+00	2.275E-01	-0.280
	+	338.28		5.230E+00	2.145E+00	2.400E+00	3.170E-01	2.179
		445.03		1.038E+00	2.525E+00	4.226E+00	5.097E-01	0.246
AC-227		79.80		-1.790E-01	4.457E+00	4.626E+00	1.061E+00	-0.039
		236.00		8.869E-01	3.593E-01	5.475E-01	7.692E-02	1.620
		256.20	*	1.262E-01	5.124E-01	7.565E-01	1.270E-01	0.167
		286.10		9.749E-01	1.691E+00	2.882E+00	4.228E-01	0.338
	+	299.80		2.940E+00	1.753E+00	2.735E+00	5.067E-01	1.075
		304.40		1.935E+00	2.387E+00	3.589E+00	6.957E-01	0.539
		334.20		-2.531E+00	3.180E+00	4.275E+00	8.565E-01	-0.592
TH-227		79.80		-1.790E-01	4.457E+00	4.626E+00	1.073E+00	-0.039
	+	94.00		1.634E+02	3.864E+01	1.139E+01	2.624E+00	14.349
		236.00		8.869E-01	3.564E-01	5.475E-01	7.142E-02	1.620
		256.20	*	1.262E-01	5.126E-01	7.565E-01	1.460E-01	0.167
		286.10		9.749E-01	1.949E+00	2.882E+00	2.898E+00	0.338
	+	299.80		2.940E+00	1.753E+00	2.735E+00	5.067E-01	1.075
		304.40		1.935E+00	2.387E+00	3.589E+00	6.957E-01	0.539
		334.20		-2.531E+00	3.180E+00	4.275E+00	8.565E-01	-0.592
TH-229	+	85.43		5.372E-01	3.260E-01	5.618E-01	6.835E-02	0.956
		88.47		4.113E-01	3.057E-01	3.339E-01	4.116E-02	1.232
	+	100.00		9.331E-01	3.711E-01	5.079E-01	5.487E-02	1.837
		193.63	*	2.644E-01	6.180E-01	1.004E+00	1.092E-01	0.263
		210.97		5.898E-01	9.033E-01	1.551E+00	1.703E-01	0.380
PA-231		283.67	*	-2.102E+00	1.756E+00	2.714E+00	4.477E-01	-0.775
	+	301.29		1.176E+00	6.857E-01	1.112E+00	1.519E-01	1.058
TH-231		81.07		-5.765E-02	5.792E-01	5.987E-01	7.074E-02	-0.096
	+	83.78		3.589E-01	2.178E-01	3.774E-01	4.537E-02	0.951
		94.90		9.361E+00	1.251E+00	1.075E+00	1.217E-01	8.705
		122.32		1.238E-01	2.377E+00	3.869E+00	4.104E-01	0.032
	+	144.24		1.996E+00	1.351E+00	1.675E+00	1.853E-01	1.191
		154.21		3.625E-01	5.119E-01	8.421E-01	9.351E-02	0.430
		269.46		2.606E-01	2.104E-01	3.656E-01	4.037E-02	0.713
		323.87	*	-3.449E-01	7.597E-01	1.230E+00	2.275E-01	-0.280
	+	338.28		5.230E+00	2.145E+00	2.400E+00	3.170E-01	2.179
		445.03		1.038E+00	2.525E+00	4.226E+00	5.097E-01	0.246
U-231	+	84.21		2.178E+01	1.322E+01	2.258E+01	2.723E+00	0.965
	+	92.29		2.275E+02	2.868E+01	1.682E+01	1.962E+00	13.525
		95.87	*	1.156E+01	4.035E+00	4.616E+00	5.171E-01	2.504
		108.00		2.176E+00	4.711E+00	6.840E+00	7.062E-01	0.318
PA-233		75.28		1.337E+01	6.761E+00	9.722E+00	1.667E+00	1.375
		86.59		6.878E+00	4.683E+00	4.794E+00	1.352E+00	1.435
	+	300.12		8.197E-01	4.829E-01	7.658E-01	1.231E-01	1.070

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		311.98	*	1.621E-02	7.270E-02	1.220E-01	1.291E-02	0.133
		340.50		2.565E+00	1.024E+00	1.384E+00	3.362E-01	1.854
		398.62		-7.067E-01	2.310E+00	3.721E+00	9.889E-01	-0.190
		415.76		1.720E-01	2.019E+00	2.889E+00	6.214E-01	0.060
PA-234	+	63.00		4.653E+01	9.929E+00	8.181E+00	1.408E+00	5.688
		94.67		8.785E+00	1.362E+00	8.510E-01	1.228E-01	10.323
	+	98.44		4.555E-01	3.096E-01	2.610E-01	1.467E-01	1.745
	+	99.86		2.361E+00	9.390E-01	1.304E+00	1.410E-01	1.811
	+	111.00		1.391E+00	5.811E-01	5.046E-01	6.698E-02	2.757
		131.20		1.107E-01	1.408E-01	2.330E-01	2.339E-02	0.475
		152.70		3.059E-01	4.145E-01	6.791E-01	1.221E-01	0.450
	+	186.00		2.337E+01	7.966E+00	4.287E+00	1.367E+00	5.451
		226.40		1.697E-01	4.844E-01	8.235E-01	1.226E-01	0.206
		227.20		-1.364E-01	5.233E-01	8.720E-01	9.619E-02	-0.156
		248.90		7.528E-02	1.001E+00	1.590E+00	3.727E-01	0.047
		293.70		5.326E+00	1.405E+00	1.811E+00	3.331E-01	2.941
		369.80		-1.174E-01	9.795E-01	1.606E+00	3.526E-01	-0.073
		568.70		-7.904E-01	1.087E+00	1.664E+00	1.426E-01	-0.475
		569.50		-2.882E-01	3.015E-01	4.542E-01	3.890E-02	-0.635
		574.00		7.165E-01	1.623E+00	2.699E+00	2.309E-01	0.265
		699.00		4.757E-01	7.359E-01	1.274E+00	2.420E-01	0.373
		706.10		-2.490E-01	1.106E+00	1.813E+00	8.077E-01	-0.137
		733.00		6.713E-02	4.521E-01	6.600E-01	1.465E-01	0.102
		742.81		1.807E+00	2.002E+00	2.841E+00	1.910E+00	0.636
	+	796.30		2.282E+00	1.556E+00	1.797E+00	4.877E-01	1.270
		805.60		5.699E-01	1.150E+00	1.876E+00	5.766E-01	0.304
		819.60		1.489E-01	1.229E+00	2.058E+00	7.844E-01	0.072
		826.30		-2.395E-01	8.968E-01	1.446E+00	6.484E-01	-0.166
		831.60		-7.342E-02	6.572E-01	1.080E+00	3.237E-01	-0.068
		876.40		3.269E-01	9.046E-01	1.434E+00	1.475E+00	0.228
		880.51		-9.822E-02	2.877E-01	4.613E-01	4.272E-02	-0.213
		883.24		6.210E-02	2.815E-01	4.690E-01	3.156E-01	0.132
		899.00		2.960E-01	8.564E-01	1.438E+00	6.309E-01	0.206
		925.00		5.959E-01	1.248E+00	2.095E+00	1.945E-01	0.284
		926.50		-7.706E-02	2.129E-01	2.998E-01	7.649E-02	-0.257
		946.00	*	-8.051E-02	3.019E-01	4.844E-01	9.231E-02	-0.166
		949.00		2.658E-01	4.412E-01	7.632E-01	7.048E-02	0.348
		980.50		3.473E-02	7.010E-01	1.157E+00	1.059E-01	0.030
		1394.10		2.015E-01	1.106E+00	1.876E+00	1.224E+00	0.107
NP-236		94.67		6.698E+00	8.492E-01	6.468E-01	7.339E-02	10.356
	+	98.44		3.443E-01	1.369E-01	1.973E-01	2.158E-02	1.745
	+	111.00		1.052E+00	4.304E-01	3.817E-01	3.900E-02	2.757
		160.31	*	-5.724E-02	1.141E-01	1.562E-01	1.645E-02	-0.366
NP-237		86.50	*	1.049E+00	6.883E-01	7.213E-01	1.731E-01	1.455
		95.87		7.237E+00	3.029E+00	2.890E+00	7.414E-01	2.504
NP-239	+	99.55		7.871E-01	3.130E-01	4.395E-01	4.764E-02	1.791
		117.00	*	2.449E-01	2.945E-01	4.324E-01	4.366E-02	0.566
		209.75		3.410E-01	9.771E-01	1.577E+00	1.731E-01	0.216
		228.18		-2.007E-01	2.784E-01	4.553E-01	5.022E-02	-0.441

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		3.487E-01	2.034E-01	3.574E-01	3.870E-02	0.976
		334.30		-9.471E-01	1.747E+00	2.418E+00	2.405E-01	-0.392
AM-241		59.54	*	5.328E-01	4.043E-01	6.090E-01	7.149E-02	0.875
AM-243		74.67	*	2.010E-01	1.221E-01	1.816E-01	2.088E-02	1.107
		86.72		3.775E+01	2.436E+01	2.685E+01	3.299E+00	1.406
		117.66		1.883E+00	5.906E+00	8.515E+00	8.590E-01	0.221
		142.18		5.571E+01	2.841E+01	4.248E+01	4.311E+00	1.311
CM-243	+	99.55		8.100E-01	3.221E-01	4.523E-01	4.903E-02	1.791
		103.76	*	-1.505E-01	1.599E-01	2.189E-01	2.306E-02	-0.687
		117.00		2.520E-01	3.031E-01	4.450E-01	4.492E-02	0.566
		209.75		3.362E-01	9.633E-01	1.555E+00	1.707E-01	0.216
		228.18		-2.028E-01	2.814E-01	4.601E-01	5.076E-02	-0.441
		277.60		3.516E-01	2.051E-01	3.603E-01	3.902E-02	0.976
AM-246		798.80		-5.965E-02	1.701E-01	2.338E-01	2.085E-02	-0.255
		1036.00		4.125E-02	2.770E-01	4.603E-01	4.119E-02	0.090
		1062.04		-4.619E-02	2.191E-01	3.505E-01	3.095E-02	-0.132
		1078.86	*	-2.657E-02	1.464E-01	2.349E-01	2.054E-02	-0.113
CM-247		278.00		1.668E+00	8.531E-01	1.504E+00	1.628E-01	1.109
		287.40		4.977E-01	1.421E+00	2.345E+00	2.514E-01	0.212
		402.60	*	-2.068E-02	4.032E-02	6.428E-02	5.437E-03	-0.322
CF-249		252.85		1.004E-01	1.171E+00	1.716E+00	1.887E-01	0.058
		333.44		-2.230E-01	2.390E-01	3.216E-01	3.204E-02	-0.693
		387.95	*	2.364E-02	4.330E-02	7.334E-02	6.257E-03	0.322
CF-251		176.60	*	-6.981E-02	1.639E-01	2.588E-01	2.783E-02	-0.270
		227.00		5.451E-02	4.622E-01	7.806E-01	8.610E-02	0.070
		285.00		-1.799E+00	1.966E+00	3.128E+00	3.363E-01	-0.575

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020008      *
* Acquisition date : 13-FEB-2010 16:42:43 Detector SN#     :               *
* Detector ID        : GAM15                Sensitivity      : 5.000       *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:01.75      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020008           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.6094E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME :   3-FEB-2010 11:04:32 MS Isotope      :                *
* MSD DPM          :     0.000             MSD Isotope      :               *
* LCS DPM          :     0.000             LCS Isotope      :               *
* LCSD DPM         :     0.000             LCSD Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.594E+01	2.989E+00	5.482E-01	0.000E+00
NB-95	2.927E-01	8.432E-02	8.189E-02	0.000E+00
BA-137M	9.446E-02	7.863E-02	6.562E-02	0.000E+00
CS-137	9.985E-02	8.312E-02	6.936E-02	0.000E+00
CE-141	1.930E-01	1.278E-01	1.307E-01	0.000E+00
TL-208	4.135E-01	8.650E-02	6.608E-02	0.000E+00
BI-211	2.981E+00	5.086E-01	4.083E-01	0.000E+00
BI-212	1.147E+00	7.346E-01	5.091E-01	0.000E+00
PB-212	1.360E+00	1.942E-01	1.110E-01	0.000E+00
PO-212	1.360E+00	1.942E-01	1.110E-01	0.000E+00
BI-214	1.040E+00	1.754E-01	1.177E-01	0.000E+00
PB-214	1.037E+00	1.847E-01	1.394E-01	0.000E+00
PO-214	1.037E+00	1.847E-01	1.394E-01	0.000E+00
PO-216	1.360E+00	1.942E-01	1.110E-01	0.000E+00
PO-218	1.037E+00	1.847E-01	1.394E-01	0.000E+00
RA-224	4.048E+00	1.391E+00	1.262E+00	0.000E+00
RA-226	1.040E+00	1.754E-01	1.177E-01	0.000E+00
AC-228	1.204E+00	2.997E-01	2.216E-01	0.000E+00
RA-228	1.204E+00	2.997E-01	2.216E-01	0.000E+00
TH-228	1.383E+00	1.975E-01	1.129E-01	0.000E+00
TH-230	1.040E+00	1.754E-01	1.177E-01	0.000E+00
TH-232	1.204E+00	2.997E-01	2.216E-01	0.000E+00
PA-234M	5.256E+01	1.008E+01	8.729E+00	0.000E+00
TH-234	3.992E+01	9.080E+00	4.737E+00	0.000E+00
U-234	1.040E+00	1.754E-01	1.177E-01	0.000E+00
U-235	6.159E-01	4.180E-01	4.630E-01	0.000E+00
U-238	3.992E+01	9.080E+00	4.737E+00	0.000E+00
ANH-511	1.190E-01	6.393E-02	5.283E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	-7.176E-03	3.455E-01	5.995E-01	0.000E+00	NOT IDENT.
NA-22	-2.028E-02	4.527E-02	7.223E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.779E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.278E-02	2.398E-02	3.517E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	8.484E-02	1.234E-01	0.000E+00	FAIL ABUN
SC-46	-3.481E-03	3.787E-02	6.493E-02	0.000E+00	FAIL ABUN
V-48	8.539E-02	7.353E-02	1.383E-01	0.000E+00	NOT IDENT.
CR-51	9.761E-02	4.347E-01	7.857E-01	0.000E+00	NOT IDENT.
MN-52	-1.838E-01	3.131E-01	4.991E-01	0.000E+00	NOT IDENT.
MN-54	-1.068E-02	3.907E-02	6.655E-02	0.000E+00	NOT IDENT.
CO-56	3.289E-03	3.739E-02	6.538E-02	0.000E+00	NOT IDENT.
CO-57	1.063E-02	3.377E-02	6.128E-02	0.000E+00	NOT IDENT.
CO-58	-1.235E-02	3.868E-02	6.562E-02	0.000E+00	NOT IDENT.
FE-59	3.613E-02	9.501E-02	1.665E-01	0.000E+00	FAIL ABUN
CO-60	-7.407E-04	3.492E-02	5.799E-02	0.000E+00	NOT IDENT.
ZN-65	1.431E-02	1.033E-01	1.526E-01	0.000E+00	NOT IDENT.
GE-68	1.454E+00	1.224E+00	2.289E+00	0.000E+00	NOT IDENT.
AS-73	-1.136E+00	2.380E+00	4.399E+00	0.000E+00	NOT IDENT.
AS-74	2.518E-03	1.097E-01	1.876E-01	0.000E+00	NOT IDENT.
SE-75	8.796E-03	5.203E-02	9.252E-02	0.000E+00	NOT IDENT.
BR-77	6.472E+00	2.005E+01	3.534E+01	0.000E+00	FAIL ABUN
SR-82	-4.433E-01	5.109E-01	6.978E-01	0.000E+00	NOT IDENT.
RB-83	3.266E-02	7.472E-02	1.293E-01	0.000E+00	NOT IDENT.
RB-84	3.279E-02	7.093E-02	1.273E-01	0.000E+00	NOT IDENT.
KR-85	1.250E+01	8.588E+00	1.426E+01	0.000E+00	NOT IDENT.
SR-85	6.551E-02	4.501E-02	7.475E-02	0.000E+00	NOT IDENT.
RB-86	7.635E-01	8.562E-01	1.565E+00	0.000E+00	NOT IDENT.
Y-88	1.245E-02	3.589E-02	6.365E-02	0.000E+00	NOT IDENT.
ZR-88	-9.528E-03	3.228E-02	5.595E-02	0.000E+00	NOT IDENT.
Y-91	-9.461E+00	2.095E+01	3.390E+01	0.000E+00	NOT IDENT.
NB-94	-1.728E-02	3.449E-02	5.875E-02	0.000E+00	NOT IDENT.
NB-95M	1.835E-01	1.753E-01	2.897E-01	0.000E+00	NOT IDENT.
ZR-95	-1.289E-02	7.737E-02	1.340E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.884E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.691E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.100E+01	2.232E+01	4.028E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.779E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.086E-02	4.058E-02	6.778E-02	0.000E+00	NOT IDENT.
RH-102	3.231E-03	2.921E-02	5.115E-02	0.000E+00	FAIL ABUN
RU-103	-1.968E-02	4.193E-02	7.010E-02	0.000E+00	FAIL ABUN
RH-106	-2.386E-01	3.363E-01	5.389E-01	0.000E+00	FAIL ABUN
RU-106	-2.386E-01	3.354E-01	5.389E-01	0.000E+00	FAIL ABUN
AG-108M	-1.004E-02	3.679E-02	6.339E-02	0.000E+00	NOT IDENT.
CD-109	2.480E+00	2.226E+00	2.697E+00	0.000E+00	NOT IDENT.
AG-110M	8.256E-04	4.146E-02	6.355E-02	0.000E+00	NOT IDENT.
IN-111	-8.887E-01	2.245E+00	3.478E+00	0.000E+00	NOT IDENT.
IN-113M	-5.572E-02	4.808E-02	7.883E-02	0.000E+00	NOT IDENT.
SN-113	-5.572E-02	4.808E-02	7.883E-02	0.000E+00	NOT IDENT.
IN-114M	-1.700E-01	2.540E-01	3.728E-01	0.000E+00	NOT IDENT.
CD-115	6.119E+00	2.231E+01	3.915E+01	0.000E+00	NOT IDENT.
SN-117M	-4.511E-02	8.793E-02	1.325E-01	0.000E+00	NOT IDENT.
SB-122	6.856E+00	3.748E+00	7.106E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.137E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.114E-02	4.080E-02	6.222E-02	0.000E+00	NOT IDENT.
I-124	-5.670E-01	1.135E+00	1.582E+00	0.000E+00	FAIL ABUN
SB-124	1.374E-02	7.962E-02	1.384E-01	0.000E+00	FAIL ABUN
SB-125	1.271E-02	9.848E-02	1.738E-01	0.000E+00	FAIL ABUN
TE-125M	9.844E+00	1.557E+01	2.518E+01	0.000E+00	NOT IDENT.
I-126	4.504E-02	2.282E-01	3.554E-01	0.000E+00	NOT IDENT.
SB-126	6.839E-02	1.954E-01	3.062E-01	0.000E+00	FAIL ABUN
SN-126	1.548E-01	2.185E-01	2.612E-01	0.000E+00	FAIL ABUN
SB-127	-4.662E-01	1.955E+00	3.396E+00	0.000E+00	NOT IDENT.
XE-127	3.442E-03	6.226E-02	1.088E-01	0.000E+00	FAIL ABUN
I-131	-3.095E-02	1.487E-01	2.608E-01	0.000E+00	NOT IDENT.
TE-132	-9.578E-01	1.305E+00	2.310E+00	0.000E+00	FAIL ABUN
BA-133	2.068E-04	5.185E-02	7.988E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.395E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.283E-02	9.419E-02	0.000E+00	FAIL ABUN
CS-135	7.292E-02	1.769E-01	3.251E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.066E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.198E-02	1.181E-01	2.030E-01	0.000E+00	FAIL ABUN
CE-139	3.455E-02	4.506E-02	7.161E-02	0.000E+00	NOT IDENT.
BA-140	-4.552E-02	3.120E-01	5.312E-01	0.000E+00	FAIL ABUN
LA-140	-5.531E-03	9.242E-02	1.560E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.583E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.711E-02	2.689E-01	4.795E-01	0.000E+00	NOT IDENT.
PM-144	-2.806E-02	3.595E-02	6.006E-02	0.000E+00	NOT IDENT.

PR-144	-1.904E+00	2.439E+00	4.074E+00	0.000E+00	NOT IDENT.
PM-146	-2.879E-02	4.761E-02	7.820E-02	0.000E+00	NOT IDENT.
ND-147	1.889E-01	7.050E-01	1.235E+00	0.000E+00	NOT IDENT.
PM-149	5.495E+01	1.909E+02	3.482E+02	0.000E+00	NOT IDENT.
EU-152	-8.211E-02	1.253E-01	1.842E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.514E-01	2.521E-01	0.000E+00	FAIL ABUN
EU-154	-3.938E-03	1.210E-01	2.018E-01	0.000E+00	NOT IDENT.
EU-155	7.236E-02	1.617E-01	2.750E-01	0.000E+00	NOT IDENT.
TB-160	-2.503E-02	1.395E-01	2.377E-01	0.000E+00	FAIL ABUN
HO-166M	-2.375E-02	6.312E-02	1.083E-01	0.000E+00	FAIL ABUN
TM-171	-5.984E+01	6.079E+01	9.489E+01	0.000E+00	NOT IDENT.
LU-176	9.837E-03	2.767E-02	5.041E-02	0.000E+00	NOT IDENT.
LU-177	7.015E-01	1.669E+00	2.945E+00	0.000E+00	FAIL ABUN
LU-177M	-8.922E-04	2.112E-01	3.210E-01	0.000E+00	NOT IDENT.
HF-181	8.285E-03	4.702E-02	8.253E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	1.160E+00	1.795E+00	0.000E+00	NOT IDENT.
TA-182	-3.179E-02	2.164E-01	3.592E-01	0.000E+00	FAIL ABUN
RE-183	2.636E-01	1.827E-01	2.671E-01	0.000E+00	FAIL ABUN
RE-184	2.698E-02	3.086E-01	4.905E-01	0.000E+00	NOT IDENT.
OS-185	-1.528E-02	4.512E-02	7.447E-02	0.000E+00	NOT IDENT.
RE-188	1.934E-01	2.188E-01	3.975E-01	0.000E+00	NOT IDENT.
W-188	-6.343E-01	9.715E+00	1.515E+01	0.000E+00	FAIL ABUN
IR-192	1.238E-02	4.007E-02	7.272E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.416E-01	7.001E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.922E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.951E+01	1.602E+01	2.588E+01	0.000E+00	NOT IDENT.
TL-202	-4.734E-02	8.535E-02	1.442E-01	0.000E+00	NOT IDENT.
HG-203	6.435E-02	4.787E-02	9.010E-02	0.000E+00	NOT IDENT.
BI-207	-2.573E-02	5.057E-02	8.172E-02	0.000E+00	FAIL ABUN
TL-207	-3.449E-01	7.445E-01	1.298E+00	0.000E+00	FAIL ABUN
PO-209	1.431E+00	7.346E+00	1.289E+01	0.000E+00	NOT IDENT.
BI-210	-6.385E+00	1.391E+01	2.563E+01	0.000E+00	NOT IDENT.
PB-210	-6.385E+00	1.391E+01	2.563E+01	0.000E+00	NOT IDENT.
PO-210	-6.385E+00	1.391E+01	2.563E+01	0.000E+00	NOT IDENT.
PB-211	3.184E-02	1.115E+00	1.703E+00	0.000E+00	NOT IDENT.
PO-215	-3.449E-01	7.445E-01	1.298E+00	0.000E+00	FAIL ABUN
RN-219	4.791E-02	4.376E-01	7.750E-01	0.000E+00	NOT IDENT.
RN-220	1.180E+01	2.815E+01	4.969E+01	0.000E+00	NOT IDENT.
RA-223	-3.449E-01	7.445E-01	1.298E+00	0.000E+00	FAIL ABUN
AC-227	1.262E-01	5.022E-01	8.041E-01	0.000E+00	FAIL ABUN
TH-227	1.262E-01	5.023E-01	8.041E-01	0.000E+00	FAIL ABUN
TH-229	2.644E-01	6.056E-01	1.075E+00	0.000E+00	FAIL ABUN
PA-231	-2.102E+00	1.721E+00	2.876E+00	0.000E+00	FAIL ABUN
TH-231	-3.449E-01	7.445E-01	1.298E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	3.955E+00	5.039E+00	0.000E+00	FAIL ABUN
PA-233	1.621E-02	7.124E-02	1.290E-01	0.000E+00	FAIL ABUN
PA-234	-8.051E-02	2.959E-01	4.958E-01	0.000E+00	FAIL ABUN
NP-236	-5.724E-02	1.118E-01	1.682E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	6.746E-01	7.894E-01	0.000E+00	NOT IDENT.
NP-239	2.449E-01	2.886E-01	4.696E-01	0.000E+00	FAIL ABUN
AM-241	5.328E-01	3.962E-01	6.730E-01	0.000E+00	NOT IDENT.
AM-243	0.000E+00	1.197E-01	1.995E-01	0.000E+00	NOT IDENT.
CM-243	-1.505E-01	1.567E-01	2.384E-01	0.000E+00	FAIL ABUN
AM-246	-2.657E-02	1.434E-01	2.395E-01	0.000E+00	NOT IDENT.
CM-247	-2.068E-02	3.951E-02	6.746E-02	0.000E+00	NOT IDENT.
CF-249	2.364E-02	4.244E-02	7.705E-02	0.000E+00	NOT IDENT.
CF-251	-6.981E-02	1.606E-01	2.780E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:43:17.43

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020008.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:42:43
Sample ID         : G246020008           Sample quantity  : 1.60940E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1147	10.67*	9.663E-01	2.594E+01	2.594E+01	11.76
NB-95	765.79	182	99.81*	1.749E+00	2.429E-01	2.927E-01	29.39
BA-137M	661.65	72	89.98*	1.980E+00	9.436E-02	9.446E-02	84.94
CS-137	661.65	72	85.12*	1.980E+00	9.974E-02	9.985E-02	84.94
CE-141	145.44	153	48.40*	5.503E+00	1.336E-01	1.930E-01	67.59
TL-208	277.35	------	6.80	3.705E+00	------	Line Not Found	------
	510.84	123	21.60	2.419E+00	5.510E-01	5.510E-01	55.45
	583.14	327	84.20*	2.191E+00	4.135E-01	4.135E-01	21.35
	860.37	47	12.46	1.576E+00	5.591E-01	5.591E-01	62.70
BI-211	72.87	------	1.27	3.001E+00	------	Line Not Found	------
	351.07	520	12.94*	3.141E+00	2.981E+00	2.981E+00	17.41
BI-212	727.18	106	11.80*	1.829E+00	1.147E+00	1.147E+00	65.35
	785.46	64	1.97	1.712E+00	4.420E+00	4.420E+00	73.52
	1620.62	------	2.75	8.965E-01	------	Line Not Found	------
PB-212	74.81	------	10.70	3.227E+00	------	Line Not Found	------
	77.11	233	18.00	3.524E+00	8.571E-01	8.571E-01	54.73
	87.30	------	8.00	4.444E+00	------	Line Not Found	------
	238.63	1070	44.60*	4.114E+00	1.360E+00	1.360E+00	14.57
	300.09	81	3.41	3.509E+00	1.586E+00	1.586E+00	57.95
PO-212	74.81	------	10.70	3.227E+00	------	Line Not Found	------
	77.11	233	18.00	3.524E+00	8.571E-01	8.571E-01	54.73
	87.30	------	8.00	4.444E+00	------	Line Not Found	------
	115.19	------	0.60	5.586E+00	------	Line Not Found	------
	238.63	1070	44.60*	4.114E+00	1.360E+00	1.360E+00	14.57
	300.09	81	3.41	3.509E+00	1.586E+00	1.586E+00	57.95
BI-214	609.31	437	46.30*	2.117E+00	1.040E+00	1.040E+00	17.21
	1120.29	67	15.10	1.226E+00	8.465E-01	8.465E-01	62.99
	1764.49	58	15.80	8.555E-01	9.981E-01	9.981E-01	43.32
PB-214	74.81	------	6.21	3.227E+00	------	Line Not Found	------
	77.11	233	10.50	3.524E+00	1.469E+00	1.469E+00	55.26
	87.30	------	4.67	4.444E+00	------	Line Not Found	------
	241.98	280	7.49	4.077E+00	2.135E+00	2.135E+00	35.50

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	327	19.20	3.547E+00	1.119E+00	1.119E+00	28.62
	351.92	520	37.20*	3.141E+00	1.037E+00	1.037E+00	18.17
PO-214	74.81	------	6.21	3.227E+00	------ Line Not Found		------
	77.11	233	10.50	3.524E+00	1.469E+00	1.469E+00	55.26
	87.30	------	4.67	4.444E+00	------ Line Not Found		------
	241.98	280	7.49	4.077E+00	2.135E+00	2.135E+00	35.50
	295.21	327	19.20	3.547E+00	1.119E+00	1.119E+00	28.62
	351.92	520	37.20*	3.141E+00	1.037E+00	1.037E+00	18.17
PO-216	74.81	------	10.70	3.227E+00	------ Line Not Found		------
	77.11	233	18.00	3.524E+00	8.571E-01	8.571E-01	54.73
	87.30	------	8.00	4.444E+00	------ Line Not Found		------
	238.63	1070	44.60*	4.114E+00	1.360E+00	1.360E+00	14.57
	300.09	81	3.41	3.509E+00	1.586E+00	1.586E+00	57.95
PO-218	74.81	------	6.21	3.227E+00	------ Line Not Found		------
	77.11	233	10.50	3.524E+00	1.469E+00	1.469E+00	55.26
	87.30	------	4.67	4.444E+00	------ Line Not Found		------
	241.98	280	7.49	4.077E+00	2.135E+00	2.135E+00	35.50
	295.21	327	19.20	3.547E+00	1.119E+00	1.119E+00	28.62
	351.92	520	37.20*	3.141E+00	1.037E+00	1.037E+00	18.17
RA-224	240.98	280	3.95*	4.077E+00	4.048E+00	4.048E+00	35.06
RA-226	609.31	437	46.30*	2.117E+00	1.040E+00	1.040E+00	17.21
	1120.29	67	15.10	1.226E+00	8.465E-01	8.465E-01	62.99
	1764.49	58	15.80	8.555E-01	9.981E-01	9.981E-01	43.32
AC-228	338.32	197	11.40	3.224E+00	1.252E+00	1.252E+00	56.87
	911.07	214	27.70*	1.494E+00	1.204E+00	1.204E+00	25.39
	969.11	159	16.60	1.410E+00	1.582E+00	1.582E+00	33.67
RA-228	338.32	197	11.40	3.224E+00	1.252E+00	1.252E+00	56.87
	911.07	214	27.70*	1.494E+00	1.204E+00	1.204E+00	25.39
	969.11	159	16.60	1.410E+00	1.582E+00	1.582E+00	33.67
TH-228	74.81	------	10.70	3.227E+00	------ Line Not Found		------
	77.11	233	18.00	3.524E+00	8.571E-01	8.719E-01	54.73
	87.30	------	8.00	4.444E+00	------ Line Not Found		------
	238.63	1070	44.60*	4.114E+00	1.360E+00	1.383E+00	14.57
	300.09	81	3.41	3.509E+00	1.586E+00	1.614E+00	82.24
TH-230	609.31	437	46.30*	2.117E+00	1.040E+00	1.040E+00	17.21
	1120.29	67	15.10	1.226E+00	8.465E-01	8.465E-01	62.99
	1764.49	58	15.80	8.555E-01	9.981E-01	9.981E-01	43.32
TH-232	338.32	197	11.40	3.224E+00	1.252E+00	1.252E+00	40.07
	911.07	214	27.70*	1.494E+00	1.204E+00	1.204E+00	25.39
	969.11	159	16.60	1.410E+00	1.582E+00	1.582E+00	33.67
PA-234M	766.42	182	0.32	1.749E+00	7.576E+01	7.576E+01	58.00
	1001.03	259	0.84*	1.367E+00	5.256E+01	5.256E+01	19.56
TH-234	63.29	1192	3.80*	1.833E+00	3.992E+01	3.992E+01	23.21
	92.38	4736	5.41	4.829E+00	4.229E+01	4.229E+01	20.29
U-234	609.31	437	46.30*	2.117E+00	1.040E+00	1.040E+00	17.21
	1120.29	67	15.10	1.226E+00	8.465E-01	8.465E-01	62.99
	1764.49	58	15.80	8.555E-01	9.981E-01	9.981E-01	43.32
U-235	89.95	------	2.70	4.641E+00	------ Line Not Found		------
	93.35	4736	4.50	4.829E+00	5.084E+01	5.084E+01	29.50

Sample ID : G246020008 Acquisition date : 13-FEB-2010 16:42:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	105.00	------	2.10	5.378E+00	------ Line Not Found		------
	143.76	153	10.50*	5.503E+00	6.159E-01	6.159E-01	69.26
	163.35	116	4.70	5.220E+00	1.107E+00	1.107E+00	72.73
	185.71	973	54.00	4.857E+00	8.655E-01	8.655E-01	16.19
	205.31	------	4.70	4.560E+00	------ Line Not Found		------
U-238	63.29	1192	3.80*	1.833E+00	3.992E+01	3.992E+01	23.21
	92.38	4736	5.41	4.829E+00	4.229E+01	4.229E+01	12.61
ANH-511	511.00	123	100.00*	2.419E+00	1.190E-01	1.190E-01	54.82

Flag: "*" = Keyline

Sample ID : G246020008 Acquisition date : 13-FEB-2010 16:42:43

Total number of lines in spectrum 36
Number of unidentified lines 2
Number of lines tentatively identified by NID 34 94.44%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.594E+01	2.594E+01	0.305E+01	11.76	
NB-95	64.02D	1.21	2.429E-01	2.927E-01	0.860E-01	29.39	
BA-137M	30.17Y	1.00	9.436E-02	9.446E-02	8.023E-02	84.94	
CS-137	30.17Y	1.00	9.974E-02	9.985E-02	8.481E-02	84.94	
CE-141	32.50D	1.44	1.336E-01	1.930E-01	1.304E-01	67.59	
TL-208	1.41E+10Y	1.00	4.135E-01	4.135E-01	0.883E-01	21.35	
BI-211	7.04E+08Y	1.00	2.981E+00	2.981E+00	0.519E+00	17.41	
BI-212	1.41E+10Y	1.00	1.147E+00	1.147E+00	0.750E+00	65.35	
PB-212	1.41E+10Y	1.00	1.360E+00	1.360E+00	0.198E+00	14.57	
PO-212	1.41E+10Y	1.00	1.360E+00	1.360E+00	0.198E+00	14.57	
BI-214	1600.00Y	1.00	1.040E+00	1.040E+00	0.179E+00	17.21	
PB-214	1600.00Y	1.00	1.037E+00	1.037E+00	0.188E+00	18.17	
PO-214	1600.00Y	1.00	1.037E+00	1.037E+00	0.188E+00	18.17	
PO-216	1.41E+10Y	1.00	1.360E+00	1.360E+00	0.198E+00	14.57	
PO-218	1600.00Y	1.00	1.037E+00	1.037E+00	0.188E+00	18.17	
RA-224	1.41E+10Y	1.00	4.048E+00	4.048E+00	1.419E+00	35.06	
RA-226	1600.00Y	1.00	1.040E+00	1.040E+00	0.179E+00	17.21	
AC-228	1.41E+10Y	1.00	1.204E+00	1.204E+00	0.306E+00	25.39	
RA-228	1.41E+10Y	1.00	1.204E+00	1.204E+00	0.306E+00	25.39	
TH-228	1.91Y	1.02	1.360E+00	1.383E+00	0.202E+00	14.57	
TH-230	4.47E+09Y	1.00	1.040E+00	1.040E+00	0.179E+00	17.21	
TH-232	1.41E+10Y	1.00	1.204E+00	1.204E+00	0.306E+00	25.39	
PA-234M	4.47E+09Y	1.00	5.256E+01	5.256E+01	1.028E+01	19.56	
TH-234	4.47E+09Y	1.00	3.992E+01	3.992E+01	0.926E+01	23.21	
U-234	4.47E+09Y	1.00	1.040E+00	1.040E+00	0.179E+00	17.21	
U-235	7.04E+08Y	1.00	6.159E-01	6.159E-01	4.266E-01	69.26	
U-238	4.47E+09Y	1.00	3.992E+01	3.992E+01	0.926E+01	23.21	
ANH-511	1.00E+09Y	1.00	1.190E-01	1.190E-01	0.652E-01	54.82	
		Total Activity :	1.846E+02	1.847E+02			
		Grand Total Activity :	1.846E+02	1.847E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020008 Acquisition date : 13-FEB-2010 16:42:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.22	159	809	1.51	167.37	165	6	2.21E-02	59.5	4.19E+00	T
0	98.61	255	700	1.40	196.14	193	8	3.54E-02	38.2	5.14E+00	T
0	112.11	390	1179	1.59	223.13	217	15	5.42E-02	39.6	5.54E+00	T
0	258.86	51	316	1.50	516.63	509	11	7.12E-03	****	3.89E+00	
0	409.80	50	140	0.81	818.50	815	10	6.90E-03	94.1	2.83E+00	T
0	463.52	45	166	1.13	925.93	921	10	6.31E-03	****	2.59E+00	T
0	795.70	65	73	1.81	1590.35	1586	14	8.97E-03	62.5	1.69E+00	T
0	933.91	36	42	1.63	1866.82	1861	10	5.02E-03	75.2	1.46E+00	
1	964.80	64	49	2.20	1928.60	1919	25	8.92E-03	51.4	1.42E+00	T
0	1377.22	45	14	1.89	2753.64	2746	14	6.25E-03	46.2	1.01E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:43:23.32

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020008.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:42:43  Detector SN#     :             *
* Detector ID       : GAM15                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.75          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020008            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.60940E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.594E+01	3.050E+00	5.426E-01	5.332E-02	47.806
NB-95	2.927E-01	8.604E-02	7.950E-02	6.965E-03	3.682
BA-137M	9.446E-02	8.023E-02	6.343E-02	5.214E-03	1.489
CS-137	9.985E-02	8.481E-02	6.705E-02	5.524E-03	1.489
CE-141	1.930E-01	1.304E-01	1.211E-01	1.251E-02	1.594
TL-208	4.135E-01	8.827E-02	6.364E-02	5.828E-03	6.497
BI-211	2.981E+00	5.189E-01	3.876E-01	3.859E-02	7.693
BI-212	1.147E+00	7.496E-01	4.935E-01	4.918E-02	2.324
PB-212	1.360E+00	1.982E-01	1.042E-01	1.241E-02	13.050
PO-212	1.360E+00	1.982E-01	1.042E-01	1.241E-02	13.050
BI-214	1.040E+00	1.790E-01	1.135E-01	1.125E-02	9.165
PB-214	1.037E+00	1.885E-01	1.323E-01	1.485E-02	7.836
PO-214	1.037E+00	1.885E-01	1.323E-01	1.485E-02	7.836
PO-216	1.360E+00	1.982E-01	1.042E-01	1.241E-02	13.050
PO-218	1.037E+00	1.885E-01	1.323E-01	1.485E-02	7.836
RA-224	4.048E+00	1.419E+00	1.185E+00	1.307E-01	3.415
RA-226	1.040E+00	1.790E-01	1.135E-01	1.125E-02	9.165
AC-228	1.204E+00	3.058E-01	2.162E-01	2.547E-02	5.569

Sample ID : G246020008 Acquisition date : 13-FEB-2010 16:42:43

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.204E+00	3.058E-01	2.162E-01	2.547E-02	5.569
TH-228	1.383E+00	2.016E-01	1.060E-01	1.262E-02	13.050
TH-230	1.040E+00	1.790E-01	1.135E-01	1.125E-02	9.165
TH-232	1.204E+00	3.058E-01	2.162E-01	2.547E-02	5.569
PA-234M	5.256E+01	1.028E+01	8.542E+00	8.858E-01	6.153
TH-234	3.992E+01	9.265E+00	4.293E+00	8.363E-01	9.298
U-234	1.040E+00	1.790E-01	1.135E-01	1.125E-02	9.165
U-235	6.159E-01	4.266E-01	4.287E-01	7.856E-02	1.436
U-238	3.992E+01	9.265E+00	4.293E+00	8.363E-01	9.298
ANH-511	1.190E-01	6.524E-02	5.068E-02	4.379E-03	2.348

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-7.176E-03		3.525E-01	5.740E-01	5.337E-02	-0.013
NA-22	-2.028E-02		4.619E-02	7.120E-02	6.468E-03	-0.285
NA-24	4.644E+00		3.969E+00	Half-Life too short		
AL-26	-1.278E-02		2.447E-02	3.504E-02	2.998E-03	-0.365
TI-44	1.582E-01	+	8.657E-02	1.124E-01	1.310E-02	1.407
SC-46	-3.481E-03		3.864E-02	6.331E-02	5.883E-03	-0.055
V-48	8.539E-02		7.503E-02	1.353E-01	1.237E-02	0.631
CR-51	9.761E-02		4.436E-01	7.438E-01	7.898E-02	0.131
MN-52	-1.838E-01		3.195E-01	4.938E-01	4.753E-02	-0.372
MN-54	-1.068E-02		3.987E-02	6.477E-02	5.878E-03	-0.165
CO-56	3.289E-03		3.815E-02	6.366E-02	5.809E-03	0.052
CO-57	1.063E-02		3.446E-02	5.651E-02	5.692E-03	0.188
CO-58	-1.235E-02		3.947E-02	6.381E-02	5.737E-03	-0.194
FE-59	3.613E-02		9.695E-02	1.634E-01	1.524E-02	0.221
CO-60	-7.407E-04		3.563E-02	5.724E-02	5.503E-03	-0.013
ZN-65	1.431E-02		1.055E-01	1.498E-01	1.280E-02	0.096
GE-68	1.454E+00		1.249E+00	2.245E+00	1.965E-01	0.648
AS-73	-1.136E+00		2.428E+00	3.969E+00	5.154E-01	-0.286
AS-74	2.518E-03		1.120E-01	1.808E-01	1.536E-02	0.014
SE-75	8.796E-03		5.309E-02	8.713E-02	9.553E-03	0.101
BR-77	6.472E+00		2.046E+01	3.392E+01	2.929E+00	0.191
SR-82	-4.433E-01		5.213E-01	6.777E-01	5.972E-02	-0.654
RB-83	3.266E-02		7.625E-02	1.241E-01	1.072E-02	0.263
RB-84	3.279E-02		7.238E-02	1.241E-01	1.150E-02	0.264
KR-85	1.250E+01		8.763E+00	1.369E+01	1.182E+00	0.913
SR-85	6.551E-02		4.593E-02	7.172E-02	6.197E-03	0.913
RB-86	7.635E-01		8.736E-01	1.535E+00	1.344E-01	0.498
Y-88	1.245E-02		3.663E-02	6.346E-02	5.344E-03	0.196
ZR-88	-9.528E-03		3.294E-02	5.327E-02	4.484E-03	-0.179
Y-91	-9.461E+00		2.138E+01	3.336E+01	2.812E+00	-0.284
NB-94	-1.728E-02		3.519E-02	5.689E-02	4.803E-03	-0.304
NB-95M	1.835E-01		1.789E-01	2.719E-01	3.272E-02	0.675
ZR-95	-1.289E-02		7.895E-02	1.301E-01	1.246E-02	-0.099

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	-7.396E-03		4.533E-01	Half-Life too short		
ZR-97	3.323E+01		8.629E+00	Half-Life too short		
MO-99	1.100E+01		2.278E+01	3.907E+01	5.935E+00	0.282
TC-99M	-2.669E+12		9.079E+12	Half-Life too short		
RH-101	-4.086E-02		4.141E-02	6.331E-02	6.908E-03	-0.645
RH-102	3.231E-03		2.981E-02	4.897E-02	4.225E-03	0.066
RU-103	-1.968E-02		4.279E-02	6.720E-02	9.525E-03	-0.293
RH-106	-2.386E-01		3.432E-01	5.200E-01	6.874E-02	-0.459
RU-106	-2.386E-01		3.423E-01	5.200E-01	4.370E-02	-0.459
AG-108M	-1.004E-02		3.754E-02	6.053E-02	5.388E-03	-0.166
CD-109	2.480E+00		2.271E+00	2.465E+00	3.060E-01	1.006
AG-110M	8.256E-04		4.230E-02	6.141E-02	5.226E-03	0.013
IN-111	-8.887E-01		2.291E+00	3.268E+00	3.602E-01	-0.272
IN-113M	-5.572E-02		4.906E-02	7.505E-02	6.518E-03	-0.742
SN-113	-5.572E-02		4.906E-02	7.505E-02	6.518E-03	-0.742
IN-114M	-1.700E-01		2.591E-01	3.478E-01	3.777E-02	-0.489
CD-115	6.119E+00		2.277E+01	3.759E+01	3.244E+00	0.163
SN-117M	-4.511E-02		8.973E-02	1.230E-01	1.290E-02	-0.367
SB-122	6.856E+00		3.825E+00	6.837E+00	5.865E-01	1.003
I-123	-3.104E+01		5.802E+01	Half-Life too short		
TE-123M	-1.114E-02		4.163E-02	5.778E-02	6.089E-03	-0.193
I-124	-5.670E-01		1.158E+00	1.525E+00	1.293E-01	-0.372
SB-124	1.374E-02		8.124E-02	1.376E-01	1.293E-02	0.100
SB-125	1.271E-02		1.005E-01	1.659E-01	1.445E-02	0.077
TE-125M	9.844E+00		1.589E+01	2.315E+01	2.720E+00	0.425
I-126	4.504E-02		2.329E-01	3.436E-01	2.834E-02	0.131
SB-126	6.839E-02		1.994E-01	2.968E-01	2.533E-02	0.230
SN-126	1.548E-01		2.229E-01	2.388E-01	2.955E-02	0.648
SB-127	-4.662E-01		1.995E+00	3.286E+00	3.884E-01	-0.142
XE-127	3.442E-03		6.353E-02	1.017E-01	1.112E-02	0.034
I-131	-3.095E-02		1.518E-01	2.478E-01	2.396E-02	-0.125
TE-132	-9.578E-01		1.331E+00	2.166E+00	3.796E-01	-0.442
BA-133	2.068E-04		5.291E-02	7.585E-02	1.043E-02	0.003
I-133	2.988E-02		1.732E-02	Half-Life too short		
CS-134	1.176E-01	+	7.432E-02	9.154E-02	8.205E-03	1.285
CS-135	7.292E-02		1.805E-01	3.062E-01	3.675E-02	0.238
I-135	7.945E+11		5.441E+11	Half-Life too short		
CS-136	1.198E-02		1.205E-01	1.989E-01	1.841E-02	0.060
CE-139	3.455E-02		4.598E-02	6.657E-02	7.106E-03	0.519
BA-140	-4.552E-02		3.183E-01	5.104E-01	1.692E-01	-0.089
LA-140	-5.531E-03		9.431E-02	1.548E-01	1.451E-02	-0.036
CE-143	2.218E-03		3.869E-04	Half-Life too short		
CE-144	-2.711E-02		2.744E-01	4.432E-01	7.270E-02	-0.061
PM-144	-2.806E-02		3.668E-02	5.814E-02	4.892E-03	-0.483
PR-144	-1.904E+00		2.488E+00	3.944E+00	3.317E-01	-0.483
PM-146	-2.879E-02		4.858E-02	7.476E-02	8.006E-03	-0.385
ND-147	1.889E-01		7.193E-01	1.186E+00	1.773E-01	0.159
PM-149	5.495E+01		1.948E+02	3.286E+02	5.527E+01	0.167

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-8.211E-02		1.279E-01	1.747E-01	1.779E-02	-0.470
GD-153	3.884E-01	+	1.545E-01	2.311E-01	2.550E-02	1.681
EU-154	-3.938E-03		1.235E-01	1.989E-01	2.319E-02	-0.020
EU-155	7.236E-02		1.650E-01	2.526E-01	2.661E-02	0.286
TB-160	-2.503E-02		1.424E-01	2.317E-01	2.144E-02	-0.108
HO-166M	-2.375E-02		6.440E-02	1.049E-01	8.908E-03	-0.226
TM-171	-5.984E+01		6.203E+01	8.612E+01	9.830E+00	-0.695
LU-176	9.837E-03		2.824E-02	4.767E-02	4.984E-03	0.206
LU-177	7.015E-01		1.703E+00	2.755E+00	3.022E-01	0.255
LU-177M	-8.922E-04		2.155E-01	3.061E-01	2.601E-02	-0.003
HF-181	8.285E-03		4.798E-02	7.905E-02	6.825E-03	0.105
W-181	6.095E+00		1.184E+00	1.628E+00	1.859E-01	3.744
TA-182	-3.179E-02		2.209E-01	3.536E-01	3.035E-02	-0.090
RE-183	2.636E-01	+	1.864E-01	2.482E-01	2.625E-02	1.062
RE-184	2.698E-02		3.148E-01	4.613E-01	5.073E-02	0.058
OS-185	-1.528E-02		4.604E-02	7.193E-02	5.970E-03	-0.212
RE-188	1.934E-01		2.233E-01	3.689E-01	3.837E-02	0.524
W-188	-6.343E-01		9.914E+00	1.430E+01	1.528E+00	-0.044
IR-192	1.238E-02		4.089E-02	6.882E-02	7.096E-03	0.180
AU-195	1.133E+00	+	4.506E-01	6.419E-01	6.996E-02	1.765
TL-200	-5.047E-04		9.808E-04	Half-Life too short		
TL-201	1.951E+01		1.635E+01	2.407E+01	2.572E+00	0.811
TL-202	-4.734E-02		8.709E-02	1.378E-01	1.181E-02	-0.344
HG-203	6.435E-02		4.884E-02	8.497E-02	9.354E-03	0.757
BI-207	-2.573E-02		5.160E-02	8.012E-02	7.069E-03	-0.321
TL-207	-3.449E-01		7.597E-01	1.230E+00	2.275E-01	-0.280
PO-209	1.431E+00		7.496E+00	1.257E+01	1.172E+00	0.114
BI-210	-6.385E+00		1.419E+01	2.304E+01	2.838E+00	-0.277
PB-210	-6.385E+00		1.419E+01	2.304E+01	2.838E+00	-0.277
PO-210	-6.385E+00		1.419E+01	2.304E+01	2.687E+00	-0.277
PB-211	3.184E-02		1.138E+00	1.623E+00	1.017E+00	0.020
PO-215	-3.449E-01		7.597E-01	1.230E+00	2.275E-01	-0.280
RN-219	4.791E-02		4.466E-01	7.384E-01	1.103E-01	0.065
RN-220	1.180E+01		2.873E+01	4.777E+01	4.110E+00	0.247
RA-223	-3.449E-01		7.597E-01	1.230E+00	2.275E-01	-0.280
AC-227	1.262E-01		5.124E-01	7.565E-01	1.270E-01	0.167
TH-227	1.262E-01		5.126E-01	7.565E-01	1.460E-01	0.167
TH-229	2.644E-01		6.180E-01	1.004E+00	1.092E-01	0.263
PA-231	-2.102E+00		1.756E+00	2.714E+00	4.477E-01	-0.775
TH-231	-3.449E-01		7.597E-01	1.230E+00	2.275E-01	-0.280
U-231	1.156E+01		4.035E+00	4.616E+00	5.171E-01	2.504
PA-233	1.621E-02		7.270E-02	1.220E-01	1.291E-02	0.133
PA-234	-8.051E-02		3.019E-01	4.844E-01	9.231E-02	-0.166
NP-236	-5.724E-02		1.141E-01	1.562E-01	1.645E-02	-0.366
NP-237	1.049E+00		6.883E-01	7.213E-01	1.731E-01	1.455
NP-239	2.449E-01		2.945E-01	4.324E-01	4.366E-02	0.566
AM-241	5.328E-01		4.043E-01	6.090E-01	7.149E-02	0.875
AM-243	2.010E-01		1.221E-01	1.816E-01	2.088E-02	1.107

Sample ID : G246020008 Acquisition date : 13-FEB-2010 16:42:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.505E-01		1.599E-01	2.189E-01	2.306E-02	-0.687
AM-246	-2.657E-02		1.464E-01	2.349E-01	2.054E-02	-0.113
CM-247	-2.068E-02		4.032E-02	6.428E-02	5.437E-03	-0.322
CF-249	2.364E-02		4.330E-02	7.334E-02	6.257E-03	0.322
CF-251	-6.981E-02		1.639E-01	2.588E-01	2.783E-02	-0.270

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020008            *
* Acquisition date : 13-FEB-2010 16:42:43 Detector SN#     :                *
* Detector ID      : GAM15                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.75     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G246020008           Analyst initials: MXR1           *
* Batch Number     : 948751               Sample Quantity : 1.6094E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.594E+01	2.989E+00	2.742E-01	1.525E+00
NB-95	2.927E-01	8.432E-02	4.097E-02	4.302E-02
BA-137M	9.446E-02	7.863E-02	3.283E-02	4.012E-02
CS-137	9.985E-02	8.312E-02	3.470E-02	4.241E-02
CE-141	1.930E-01	1.278E-01	6.539E-02	6.521E-02
TL-208	4.135E-01	8.650E-02	3.306E-02	4.413E-02
BI-211	2.981E+00	5.086E-01	2.043E-01	2.595E-01
BI-212	1.147E+00	7.346E-01	2.547E-01	3.748E-01
PB-212	1.360E+00	1.942E-01	5.552E-02	9.908E-02
PO-212	1.360E+00	1.942E-01	5.552E-02	9.908E-02
BI-214	1.040E+00	1.754E-01	5.888E-02	8.949E-02
PB-214	1.037E+00	1.847E-01	6.975E-02	9.423E-02
PO-214	1.037E+00	1.847E-01	6.975E-02	9.423E-02
PO-216	1.360E+00	1.942E-01	5.552E-02	9.908E-02
PO-218	1.037E+00	1.847E-01	6.975E-02	9.423E-02
RA-224	4.048E+00	1.391E+00	6.314E-01	7.096E-01
RA-226	1.040E+00	1.754E-01	5.888E-02	8.949E-02
AC-228	1.204E+00	2.997E-01	1.109E-01	1.529E-01
RA-228	1.204E+00	2.997E-01	1.109E-01	1.529E-01
TH-228	1.383E+00	1.975E-01	5.647E-02	1.008E-01
TH-230	1.040E+00	1.754E-01	5.888E-02	8.949E-02
TH-232	1.204E+00	2.997E-01	1.109E-01	1.529E-01
PA-234M	5.256E+01	1.008E+01	4.367E+00	5.141E+00
TH-234	3.992E+01	9.080E+00	2.370E+00	4.632E+00
U-234	1.040E+00	1.754E-01	5.888E-02	8.949E-02
U-235	6.159E-01	4.180E-01	2.316E-01	2.133E-01
U-238	3.992E+01	9.080E+00	2.370E+00	4.632E+00
ANH-511	1.190E-01	6.393E-02	2.643E-02	3.262E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-7.176E-03	3.455E-01	2.999E-01	1.763E-01	NOT IDENT.
NA-22	-2.028E-02	4.527E-02	3.613E-02	2.310E-02	NOT IDENT.
NA-24	4.644E+06	7.779E+06	0.000E+00	3.969E+06	SHORT HLIF
AL-26	-1.278E-02	2.398E-02	1.759E-02	1.224E-02	NOT IDENT.
TI-44	1.582E-01	8.484E-02	6.173E-02	4.328E-02	FAIL ABUN
SC-46	-3.481E-03	3.787E-02	3.248E-02	1.932E-02	FAIL ABUN
V-48	8.539E-02	7.353E-02	6.919E-02	3.751E-02	NOT IDENT.
CR-51	9.761E-02	4.347E-01	3.931E-01	2.218E-01	NOT IDENT.
MN-52	-1.838E-01	3.131E-01	2.497E-01	1.597E-01	NOT IDENT.
MN-54	-1.068E-02	3.907E-02	3.330E-02	1.994E-02	NOT IDENT.
CO-56	3.289E-03	3.739E-02	3.271E-02	1.908E-02	NOT IDENT.
CO-57	1.063E-02	3.377E-02	3.066E-02	1.723E-02	NOT IDENT.
CO-58	-1.235E-02	3.868E-02	3.283E-02	1.974E-02	NOT IDENT.
FE-59	3.613E-02	9.501E-02	8.329E-02	4.847E-02	FAIL ABUN
CO-60	-7.407E-04	3.492E-02	2.901E-02	1.781E-02	NOT IDENT.
ZN-65	1.431E-02	1.033E-01	7.633E-02	5.273E-02	NOT IDENT.
GE-68	1.454E+00	1.224E+00	1.145E+00	6.244E-01	NOT IDENT.
AS-73	-1.136E+00	2.380E+00	2.201E+00	1.214E+00	NOT IDENT.
AS-74	2.518E-03	1.097E-01	9.385E-02	5.598E-02	NOT IDENT.
SE-75	8.796E-03	5.203E-02	4.629E-02	2.655E-02	NOT IDENT.
BR-77	6.472E+00	2.005E+01	1.768E+01	1.023E+01	FAIL ABUN
SR-82	-4.433E-01	5.109E-01	3.491E-01	2.607E-01	NOT IDENT.
RB-83	3.266E-02	7.472E-02	6.469E-02	3.812E-02	NOT IDENT.
RB-84	3.279E-02	7.093E-02	6.370E-02	3.619E-02	NOT IDENT.
KR-85	1.250E+01	8.588E+00	7.136E+00	4.382E+00	NOT IDENT.
SR-85	6.551E-02	4.501E-02	3.740E-02	2.296E-02	NOT IDENT.
RB-86	7.635E-01	8.562E-01	7.828E-01	4.368E-01	NOT IDENT.
Y-88	1.245E-02	3.589E-02	3.185E-02	1.831E-02	NOT IDENT.
ZR-88	-9.528E-03	3.228E-02	2.799E-02	1.647E-02	NOT IDENT.
Y-91	-9.461E+00	2.095E+01	1.696E+01	1.069E+01	NOT IDENT.
NB-94	-1.728E-02	3.449E-02	2.939E-02	1.759E-02	NOT IDENT.
NB-95M	1.835E-01	1.753E-01	1.449E-01	8.944E-02	NOT IDENT.
ZR-95	-1.289E-02	7.737E-02	6.706E-02	3.948E-02	NOT IDENT.
NB-97	-7.396E+03	8.884E+05	0.000E+00	4.533E+05	SHORT HLIF
ZR-97	3.323E+07	1.691E+07	0.000E+00	8.629E+06	SHORT HLIF
MO-99	1.100E+01	2.232E+01	2.015E+01	1.139E+01	NOT IDENT.
TC-99M	-2.669E+18	1.779E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-4.086E-02	4.058E-02	3.391E-02	2.070E-02	NOT IDENT.
RH-102	3.231E-03	2.921E-02	2.559E-02	1.490E-02	FAIL ABUN
RU-103	-1.968E-02	4.193E-02	3.507E-02	2.139E-02	FAIL ABUN
RH-106	-2.386E-01	3.363E-01	2.696E-01	1.716E-01	FAIL ABUN
RU-106	-2.386E-01	3.354E-01	2.696E-01	1.711E-01	FAIL ABUN
AG-108M	-1.004E-02	3.679E-02	3.171E-02	1.877E-02	NOT IDENT.
CD-109	2.480E+00	2.226E+00	1.349E+00	1.136E+00	NOT IDENT.
AG-110M	8.256E-04	4.146E-02	3.179E-02	2.115E-02	NOT IDENT.
IN-111	-8.887E-01	2.245E+00	1.740E+00	1.145E+00	NOT IDENT.
IN-113M	-5.572E-02	4.808E-02	3.944E-02	2.453E-02	NOT IDENT.
SN-113	-5.572E-02	4.808E-02	3.944E-02	2.453E-02	NOT IDENT.
IN-114M	-1.700E-01	2.540E-01	1.865E-01	1.296E-01	NOT IDENT.
CD-115	6.119E+00	2.231E+01	1.958E+01	1.138E+01	NOT IDENT.
SN-117M	-4.511E-02	8.793E-02	6.628E-02	4.486E-02	NOT IDENT.
SB-122	6.856E+00	3.748E+00	3.555E+00	1.912E+00	NOT IDENT.
I-123	-3.104E+07	1.137E+08	0.000E+00	5.802E+07	SHORT HLIF
TE-123M	-1.114E-02	4.080E-02	3.113E-02	2.082E-02	NOT IDENT.
I-124	-5.670E-01	1.135E+00	7.916E-01	5.790E-01	FAIL ABUN
SB-124	1.374E-02	7.962E-02	6.922E-02	4.062E-02	FAIL ABUN
SB-125	1.271E-02	9.848E-02	8.697E-02	5.024E-02	FAIL ABUN
TE-125M	9.844E+00	1.557E+01	1.260E+01	7.944E+00	NOT IDENT.
I-126	4.504E-02	2.282E-01	1.778E-01	1.164E-01	NOT IDENT.
SB-126	6.839E-02	1.954E-01	1.532E-01	9.972E-02	FAIL ABUN
SN-126	1.548E-01	2.185E-01	1.307E-01	1.115E-01	FAIL ABUN
SB-127	-4.662E-01	1.955E+00	1.699E+00	9.977E-01	NOT IDENT.
XE-127	3.442E-03	6.226E-02	5.441E-02	3.177E-02	FAIL ABUN
I-131	-3.095E-02	1.487E-01	1.305E-01	7.589E-02	NOT IDENT.
TE-132	-9.578E-01	1.305E+00	1.156E+00	6.656E-01	FAIL ABUN
BA-133	2.068E-04	5.185E-02	3.996E-02	2.646E-02	NOT IDENT.
I-133	2.988E+04	3.395E+04	0.000E+00	1.732E+04	SHORT HLIF
CS-134	1.176E-01	7.283E-02	4.712E-02	3.716E-02	FAIL ABUN
CS-135	7.292E-02	1.769E-01	1.626E-01	9.026E-02	NOT IDENT.
I-135	7.945E+17	1.066E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.198E-02	1.181E-01	1.016E-01	6.024E-02	FAIL ABUN
CE-139	3.455E-02	4.506E-02	3.583E-02	2.299E-02	NOT IDENT.
BA-140	-4.552E-02	3.120E-01	2.658E-01	1.592E-01	FAIL ABUN
LA-140	-5.531E-03	9.242E-02	7.803E-02	4.715E-02	NOT IDENT.
CE-143	2.218E+03	7.583E+02	0.000E+00	3.869E+02	SHORT HLIF
CE-144	-2.711E-02	2.689E-01	2.399E-01	1.372E-01	NOT IDENT.
PM-144	-2.806E-02	3.595E-02	3.005E-02	1.834E-02	NOT IDENT.

PR-144	-1.904E+00	2.439E+00	2.038E+00	1.244E+00	NOT IDENT.
PM-146	-2.879E-02	4.761E-02	3.912E-02	2.429E-02	NOT IDENT.
ND-147	1.889E-01	7.050E-01	6.177E-01	3.597E-01	NOT IDENT.
PM-149	5.495E+01	1.909E+02	1.742E+02	9.741E+01	NOT IDENT.
EU-152	-8.211E-02	1.253E-01	9.216E-02	6.395E-02	FAIL ABUN
GD-153	3.884E-01	1.514E-01	1.261E-01	7.723E-02	FAIL ABUN
EU-154	-3.938E-03	1.210E-01	1.009E-01	6.175E-02	NOT IDENT.
EU-155	7.236E-02	1.617E-01	1.376E-01	8.248E-02	NOT IDENT.
TB-160	-2.503E-02	1.395E-01	1.189E-01	7.118E-02	FAIL ABUN
HO-166M	-2.375E-02	6.312E-02	5.419E-02	3.220E-02	FAIL ABUN
TM-171	-5.984E+01	6.079E+01	4.748E+01	3.102E+01	NOT IDENT.
LU-176	9.837E-03	2.767E-02	2.522E-02	1.412E-02	NOT IDENT.
LU-177	7.015E-01	1.669E+00	1.474E+00	8.515E-01	FAIL ABUN
LU-177M	-8.922E-04	2.112E-01	1.606E-01	1.077E-01	NOT IDENT.
HF-181	8.285E-03	4.702E-02	4.129E-02	2.399E-02	NOT IDENT.
W-181	6.095E+00	1.160E+00	8.982E-01	5.918E-01	NOT IDENT.
TA-182	-3.179E-02	2.164E-01	1.797E-01	1.104E-01	FAIL ABUN
RE-183	2.636E-01	1.827E-01	1.336E-01	9.320E-02	FAIL ABUN
RE-184	2.698E-02	3.086E-01	2.454E-01	1.574E-01	NOT IDENT.
OS-185	-1.528E-02	4.512E-02	3.726E-02	2.302E-02	NOT IDENT.
RE-188	1.934E-01	2.188E-01	1.989E-01	1.116E-01	NOT IDENT.
W-188	-6.343E-01	9.715E+00	7.578E+00	4.957E+00	FAIL ABUN
IR-192	1.238E-02	4.007E-02	3.638E-02	2.045E-02	FAIL ABUN
AU-195	1.133E+00	4.416E-01	3.502E-01	2.253E-01	FAIL ABUN
TL-200	-5.047E+02	1.922E+03	0.000E+00	9.808E+02	SHORT HLIF
TL-201	1.951E+01	1.602E+01	1.295E+01	8.173E+00	NOT IDENT.
TL-202	-4.734E-02	8.535E-02	7.216E-02	4.355E-02	NOT IDENT.
HG-203	6.435E-02	4.787E-02	4.508E-02	2.442E-02	NOT IDENT.
BI-207	-2.573E-02	5.057E-02	4.089E-02	2.580E-02	FAIL ABUN
TL-207	-3.449E-01	7.445E-01	6.496E-01	3.799E-01	FAIL ABUN
PO-209	1.431E+00	7.346E+00	6.450E+00	3.748E+00	NOT IDENT.
BI-210	-6.385E+00	1.391E+01	1.282E+01	7.096E+00	NOT IDENT.
PB-210	-6.385E+00	1.391E+01	1.282E+01	7.096E+00	NOT IDENT.
PO-210	-6.385E+00	1.391E+01	1.282E+01	7.095E+00	NOT IDENT.
PB-211	3.184E-02	1.115E+00	8.519E-01	5.690E-01	NOT IDENT.
PO-215	-3.449E-01	7.445E-01	6.496E-01	3.799E-01	FAIL ABUN
RN-219	4.791E-02	4.376E-01	3.877E-01	2.233E-01	NOT IDENT.
RN-220	1.180E+01	2.815E+01	2.486E+01	1.436E+01	NOT IDENT.
RA-223	-3.449E-01	7.445E-01	6.496E-01	3.799E-01	FAIL ABUN
AC-227	1.262E-01	5.022E-01	4.023E-01	2.562E-01	FAIL ABUN
TH-227	1.262E-01	5.023E-01	4.023E-01	2.563E-01	FAIL ABUN
TH-229	2.644E-01	6.056E-01	5.379E-01	3.090E-01	FAIL ABUN
PA-231	-2.102E+00	1.721E+00	1.439E+00	8.780E-01	FAIL ABUN
TH-231	-3.449E-01	7.445E-01	6.496E-01	3.799E-01	FAIL ABUN
U-231	1.156E+01	3.955E+00	2.521E+00	2.018E+00	FAIL ABUN
PA-233	1.621E-02	7.124E-02	6.453E-02	3.635E-02	FAIL ABUN
PA-234	-8.051E-02	2.959E-01	2.481E-01	1.510E-01	FAIL ABUN
NP-236	-5.724E-02	1.118E-01	8.416E-02	5.705E-02	FAIL ABUN
NP-237	1.049E+00	6.746E-01	3.949E-01	3.442E-01	NOT IDENT.
NP-239	2.449E-01	2.886E-01	2.349E-01	1.473E-01	FAIL ABUN
AM-241	5.328E-01	3.962E-01	3.367E-01	2.022E-01	NOT IDENT.
AM-243	2.010E-01	1.197E-01	9.982E-02	6.106E-02	NOT IDENT.
CM-243	-1.505E-01	1.567E-01	1.193E-01	7.995E-02	FAIL ABUN
AM-246	-2.657E-02	1.434E-01	1.198E-01	7.318E-02	NOT IDENT.
CM-247	-2.068E-02	3.951E-02	3.375E-02	2.016E-02	NOT IDENT.
CF-249	2.364E-02	4.244E-02	3.855E-02	2.165E-02	NOT IDENT.
CF-251	-6.981E-02	1.606E-01	1.391E-01	8.195E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                            2040 SAVAGE ROAD                               *
*                          CHARLESTON ,SC 29417                             *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	520.2910
46.50	520.2910
46.50	520.2910
48.70	528.9506
49.72	535.6011
51.35	567.7436
52.39	571.5944
52.97	566.3629
53.15	566.5281
53.44	612.0212
54.07	623.2358
56.28	668.3589
56.28	668.3629
57.37	0.0000
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57.53	650.8449
57.60	650.9128
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57.98	617.1782
59.32	651.0714
59.32	651.0714
59.40	651.1507
59.54	651.2875
59.72	651.4652
60.01	707.7466
61.10	710.4599
61.14	710.5016
61.30	737.1658
63.00	747.9979
63.29	748.3135
63.29	748.3135
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65.20	807.1990
65.20	807.1990
66.05	830.1473
66.72	846.6419
66.83	857.7722
66.91	857.8705
67.20	858.2204
67.20	858.2204
67.75	841.5768
67.85	882.6025
68.90	926.9589
68.90	926.9589
69.30	910.9538
69.67	924.9421
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74.97	1097.6794
75.28	1123.5535
75.70	1124.1705
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77.11	1061.3236

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77.11	1061.3236
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79.80	1039.0161
79.80	1039.0161
80.11	1039.4248
80.18	1039.5160
80.30	1115.6509
80.30	1115.6509
80.57	1116.0298
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81.07	1040.6824
81.07	1040.6824
81.07	1040.6824
81.07	1040.6824
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83.78	1143.5969
83.78	1143.5969
84.21	1217.5388
84.90	1234.0797
85.43	1319.9628
86.29	1083.6633
86.50	1083.9384
86.54	1083.9875
86.59	1084.0532
86.72	1084.2257
86.79	1197.1770
86.94	1197.3990
87.30	1197.9158
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87.30	1197.9158
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87.30	1197.9158
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88.03	1186.8563
88.36	1199.4385
88.47	1199.5970
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91.11	1367.8425
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92.38	1369.8722
92.38	1369.8722
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94.67	781.1338
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94.90	797.6168
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94.90	797.6168
95.87	798.4990
95.87	798.4990
96.73	799.2796
97.43	799.9077
98.44	679.8721
98.44	679.8746
98.88	636.0592
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99.55	579.2623
99.86	618.7466
100.00	618.8435
100.10	618.9127
103.18	708.0748
103.76	692.0829
105.00	634.9243
105.31	631.2155
108.00	648.9873
109.28	674.6667

111.00	625.3519
111.00	625.3519
111.76	625.8450
112.95	626.6122
115.19	623.8884
116.30	556.3004
117.00	550.0248
117.00	550.0248
117.66	570.4036
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121.62	551.5081
121.78	584.0413
122.06	555.9352
122.32	568.6416
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122.32	568.6416
123.07	568.0100
127.23	583.9722
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131.20	552.3716
133.02	562.8309
133.54	569.4537
135.34	595.8430
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136.25	544.3463
136.48	539.1531
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140.51	0.0000
142.18	566.6817
142.65	558.3788
143.76	522.3942
144.24	480.5059
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144.24	480.5059
144.24	480.5059
145.22	421.0197
145.44	421.1008
147.16	516.0284
152.43	439.1559
152.70	478.0134
153.22	476.0726
154.21	493.7184
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154.21	493.7184
154.21	493.7184
155.03	472.4861
156.02	487.9953
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161.27	470.1777
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162.64	427.2809
163.35	472.4990
163.89	487.9217
165.85	492.8318
167.43	425.4571
171.28	514.8724
171.86	512.9222
172.10	510.8311
176.55	468.7057
176.60	474.2139
181.06	428.2608
184.41	496.4939
185.71	442.1539
186.00	442.2485
190.27	411.7151
192.34	391.0156
193.63	380.2673
197.04	415.7661
198.01	447.2916
198.60	434.0903
200.40	394.4265
201.83	472.0069
202.84	443.2431
205.31	476.5362

208.36	426.9926
208.81	458.5984
209.75	427.4043
209.75	427.4043
210.97	399.8493
215.65	363.1937
216.55	385.1135
218.09	364.7022
222.10	329.3919
223.80	367.9211
226.40	359.4563
227.00	366.8815
227.08	381.4706
227.20	381.4987
228.16	402.6964
228.18	402.7018
228.18	402.7018
231.56	0.0000
235.69	398.2677
236.00	398.3473
236.00	398.3473
238.63	310.9597
238.63	310.9597
238.63	310.9597
238.63	310.9597
239.00	311.0321
240.98	311.4252
241.98	311.6239
241.98	311.6239
241.98	311.6239
244.69	300.8009
245.39	302.4679
247.94	306.0265
248.90	285.0510
249.79	272.5077
252.40	300.7063
252.85	286.9070
252.85	286.9070
254.15	0.0000
256.20	282.8585
256.20	282.8585
260.50	292.8977
260.90	292.9669
262.80	279.3347
264.65	269.2887
268.24	274.6381
268.79	253.2355
269.46	243.0518
269.46	243.0518
269.46	243.0518
269.46	243.0518
271.23	274.1868
273.65	321.4327
276.40	246.8578
277.35	235.7231
277.60	217.9135
277.60	217.9135
278.00	214.2037
278.60	218.9779
279.20	237.8577
279.53	238.8412
280.46	256.8473
281.68	273.0326
283.67	265.8001
284.30	261.1821
285.00	254.6840
285.90	223.6716
286.10	213.3123
286.10	213.3123
287.40	228.7924
288.45	0.0000
290.67	255.5013
290.80	255.5211
291.72	266.6997
293.26	0.0000
293.70	240.1379
295.21	254.5695
295.21	254.5695

295.21	254.5695
295.96	151.8555
296.50	151.9023
297.23	151.9629
298.57	152.0762
299.80	253.6295
299.80	253.6295
300.09	250.5010
300.09	250.5010
300.09	250.5010
300.09	250.5010
300.12	250.5042
301.29	239.5595
302.84	209.5935
303.76	217.6441
303.91	217.6609
304.40	201.8275
304.40	201.8275
304.84	217.7724
306.84	215.7787
308.46	237.9482
311.98	210.6328
316.51	215.9418
318.01	239.1640
319.02	208.5393
319.41	208.5844
320.08	206.7328
323.87	233.1584
323.87	233.1584
323.87	233.1584
323.87	233.1584
325.23	248.7502
328.77	229.8914
333.44	272.7236
334.20	258.3008
334.20	258.3008
334.30	243.7836
338.28	201.8936
338.28	201.8936
338.28	201.8936
338.28	201.8936
338.32	201.8986
338.32	201.8986
338.32	201.8986
340.50	181.3893
340.57	181.3961
344.27	214.1885
345.85	197.3065
350.59	0.0000
351.07	211.6573
351.92	203.2773
351.92	203.2773
351.92	203.2773
355.39	0.0000
356.01	169.7384
364.48	173.0631
366.43	182.0823
367.43	174.2927
367.94	0.0000
369.80	186.3214
374.96	201.6019
383.85	170.6898
387.95	152.1241
388.63	173.0569
391.69	180.2731
391.69	180.2731
392.90	155.4611
398.62	168.8556
400.65	145.0089
401.10	149.0400
401.81	157.0920
402.60	170.1619
404.84	151.9648
410.95	152.3795
411.60	149.0739
413.65	145.8567
414.70	164.3741
415.30	149.3184

415.76	142.6368
417.63	0.0000
418.52	148.1861
423.70	141.4492
427.08	158.8590
427.89	143.7317
432.53	148.0763
433.93	162.3730
439.47	157.6716
439.56	157.6773
439.89	156.6807
443.98	129.4355
444.90	136.6221
445.03	136.6303
445.03	136.6303
445.03	136.6303
445.03	136.6303
453.90	143.2778
463.38	158.2241
468.07	114.9491
473.00	133.0580
475.06	113.5543
475.35	113.5677
476.78	117.7657
477.59	126.0701
477.96	129.1901
482.03	126.2950
484.57	123.3129
487.03	128.6197
490.36	0.0000
492.35	126.8118
497.08	114.5493
507.63	0.0000
510.53	0.0000
510.84	127.7240
511.00	127.7314
511.85	127.7724
511.85	127.7724
513.99	117.0462
513.99	117.0462
520.41	106.2407
520.65	110.3372
527.90	115.9055
528.96	0.0000
529.64	111.7658
529.87	0.0000
531.02	120.2622
537.32	120.5433
543.00	115.4985
546.56	0.0000
549.76	110.4721
552.65	120.1591
555.20	102.1758
563.23	99.2689
563.90	87.5474
568.70	128.3379
569.32	131.5764
569.50	125.1666
569.67	134.8009
573.80	109.2839
574.00	108.2199
574.64	107.1729
578.91	137.7453
579.30	0.0000
583.14	117.1670
585.48	112.9596
591.81	131.7768
592.07	129.3926
593.00	142.3770
595.88	119.8453
600.56	134.4052
602.52	0.0000
602.71	120.8486
602.71	120.8486
603.60	117.2756
604.41	126.3310
604.70	124.5403
609.31	105.2104

609.31	105.2104
609.31	105.2104
609.31	105.2104
610.33	124.7789
612.46	110.3912
614.37	83.2983
618.01	100.3232
621.84	110.0126
621.84	110.0126
631.29	93.9680
633.02	77.6216
633.10	94.0226
634.78	94.0751
635.90	85.3563
636.97	112.7518
645.85	97.7110
646.12	98.8154
656.30	92.8480
657.75	102.3378
657.90	0.0000
661.65	108.5076
661.65	108.5076
664.57	0.0000
666.33	93.1444
666.33	93.1444
675.00	93.2676
677.61	83.1793
685.20	93.5676
692.80	97.5018
695.00	108.7187
696.49	118.0651
696.49	118.0651
697.00	115.2939
697.49	120.8911
698.33	100.4590
698.50	98.6029
699.00	91.1752
702.63	111.7676
706.10	107.2252
706.58	0.0000
706.67	92.3231
709.31	86.7958
711.68	105.5375
713.82	106.5410
717.42	94.3072
720.50	96.3218
721.93	0.0000
722.20	96.3700
722.78	101.2061
722.78	101.2061
722.89	101.2104
722.95	101.2126
723.30	106.0415
724.18	104.4643
727.18	96.6484
733.00	90.2363
735.90	108.0548
739.58	102.6554
742.81	94.2688
744.21	95.2505
747.13	120.8177
751.79	91.6815
752.31	82.2422
753.82	84.1690
755.35	91.7762
756.15	99.3689
756.87	104.1209
763.93	82.9248
765.79	112.9304
766.42	112.9522
766.84	112.9643
776.49	109.3330
778.00	99.5845
778.57	93.0703
778.89	78.3817
783.80	82.0335
785.46	82.0720
792.07	57.3669

795.84	72.1936
796.30	84.2384
798.80	91.9590
801.93	96.9697
805.60	82.9195
810.29	72.0734
810.76	74.9658
815.85	65.4461
817.79	70.2955
818.51	70.3103
819.60	68.4042
826.30	86.8671
828.27	0.0000
831.60	85.0602
831.96	85.0674
834.83	93.8405
836.80	0.0000
846.75	63.0851
848.13	69.9038
856.28	0.0000
856.80	65.0617
860.37	75.0026
867.32	55.0380
867.82	61.7524
871.10	84.0054
873.19	70.3682
874.81	64.5323
875.33	0.0000
876.40	61.6247
879.36	67.5457
880.27	76.3734
880.51	72.4613
881.50	58.7671
883.24	58.7939
884.67	63.7172
889.25	61.8298
896.60	63.9130
898.02	70.8223
899.00	62.9688
903.28	74.8573
911.07	68.0974
911.07	68.0974
911.07	68.0974
919.63	83.0806
920.93	67.2778
925.00	61.5847
925.24	64.8300
926.50	77.2795
935.52	47.6641
937.48	51.0927
944.10	49.7553
946.00	65.7073
949.00	54.7975
962.29	49.6920
964.01	47.9990
966.15	48.0234
968.20	48.0479
969.11	48.0586
969.11	48.0586
969.11	48.0586
977.42	65.0083
980.50	54.2142
983.50	43.2012
989.30	68.4137
996.32	69.1044
1001.03	81.7202
1001.68	86.4903
1004.76	45.0076
1021.30	0.0000
1024.50	0.0000
1034.80	48.8105
1036.00	47.8070
1037.82	48.8438
1038.57	53.9424
1038.76	0.0000
1045.16	48.9277
1046.59	47.9237
1048.07	57.1188

1050.47	44.9041
1050.47	44.9041
1062.04	55.2546
1063.62	61.4160
1076.63	50.3040
1077.35	44.1513
1078.86	62.6531
1085.78	47.3196
1099.22	57.7796
1112.02	57.5652
1112.84	64.8519
1115.52	63.9040
1120.29	71.0770
1120.29	71.0770
1120.29	71.0770
1120.29	71.0770
1120.51	78.1878
1121.28	60.1335
1124.00	0.0000
1129.67	63.5657
1131.51	0.0000
1147.95	0.0000
1167.94	64.9264
1173.22	62.9004
1175.09	73.4123
1177.93	76.6060
1189.05	72.5769
1204.90	85.4791
1205.75	0.0000
1213.00	82.4497
1221.42	84.7103
1230.97	85.9340
1235.34	77.5150
1236.41	0.0000
1238.25	78.6250
1246.25	67.0452
1260.41	0.0000
1271.85	39.5775
1274.45	50.2990
1274.54	58.8627
1291.56	51.5430
1298.22	0.0000
1312.09	44.2015
1325.50	47.5592
1325.50	47.5592
1332.49	30.3060
1333.61	28.1466
1360.21	37.3047
1362.66	0.0000
1365.15	30.8051
1368.21	30.0752
1368.53	0.0000
1376.25	31.1023
1384.27	16.3940
1394.10	26.2783
1395.20	30.9778
1407.95	28.2275
1434.06	36.8699
1436.60	30.2667
1457.56	0.0000
1460.81	26.5986
1489.15	24.8230
1509.49	28.7434
1596.49	24.3103
1620.62	16.5974
1678.03	0.0000
1691.02	17.7753
1691.02	17.7753
1706.46	0.0000
1750.46	0.0000
1764.49	14.9843
1764.49	14.9843
1764.49	14.9843
1764.49	14.9843
1770.23	19.2466
1771.40	22.7500
1791.20	0.0000
1808.65	12.0682

1836.01 15.1475

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020008

Total Uranium Activity	1.1903E+02	ug/g
Total Uranium Counting Unc.	2.7012E+01	ug/g
Total Uranium Tpu	1.3782E-05	ug/g
Total Uranium Mda	7.0509E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020008       *
*   ANALYST       : MXR1                      DETECTOR   : GAM15            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:42:43.81    SAMPLE ALQT:  160.940 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.260E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.727E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.938E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.416E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:44:16.99

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020009.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:43:12
Sample ID         : G246020009           Sample quantity  : 1.48350E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.01  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.27*	1948	1364	1.09	126.78	122	9	2.71E-01	4.1	
2	6	74.88	621	1394	1.10	150.00	146	14	8.62E-02	10.8	2.13E+00
3	6	77.13	932	1330	1.13	154.48	146	14	1.29E-01	7.5	
4	3	87.18*	492	1393	1.40	174.57	163	31	6.83E-02	13.6	5.16E+00
5	3	89.75	372	1335	1.41	179.70	163	31	5.16E-02	18.0	
6	3	92.65*	5197	1010	1.25	185.49	163	31	7.22E-01	1.8	
7	3	94.69	362	1004	1.29	189.57	163	31	5.03E-02	22.3	
8	0	98.51	498	940	1.18	197.21	194	8	6.92E-02	11.6	
9	0	112.93*	254	1408	1.03	226.01	220	11	3.53E-02	29.5	
10	0	144.05*	226	751	1.24	288.18	284	8	3.14E-02	22.4	
11	0	185.87*	1225	921	1.34	371.76	366	13	1.70E-01	6.0	
12	0	205.27*	96	536	1.07	410.53	407	8	1.33E-02	44.0	
13	0	209.50	220	607	1.46	418.96	415	10	3.06E-02	22.1	
14	4	238.69*	2001	363	1.23	477.29	471	17	2.78E-01	2.8	1.61E+00
15	4	241.66	517	415	1.76	483.22	471	17	7.18E-02	9.0	
16	0	259.02	138	468	1.04	517.93	513	11	1.92E-02	31.6	
17	0	270.25*	178	457	1.01	540.36	534	11	2.47E-02	24.7	
18	3	295.26*	612	314	1.30	590.34	585	19	8.50E-02	6.5	2.01E+00
19	3	299.99*	140	331	1.53	599.79	585	19	1.94E-02	25.2	
20	0	327.62	141	342	1.06	655.01	650	11	1.96E-02	26.7	
21	0	338.71*	442	462	1.36	677.18	671	14	6.13E-02	11.6	
22	0	351.95*	1064	481	1.34	703.64	696	14	1.48E-01	5.4	
23	0	463.10	202	243	1.71	925.76	920	15	2.80E-02	18.2	
24	0	511.05*	278	298	1.92	1021.61	1013	19	3.86E-02	17.8	
25	0	583.06*	673	285	1.55	1165.54	1158	16	9.35E-02	7.0	
26	0	609.22*	836	272	1.78	1217.82	1211	17	1.16E-01	5.8	
27	0	661.86	85	135	1.14	1323.04	1319	9	1.17E-02	27.1	
28	0	727.30*	168	172	1.65	1453.85	1448	13	2.34E-02	18.2	
29	0	743.35	57	110	1.88	1485.96	1480	10	7.90E-03	37.2	
30	0	767.03	263	248	3.53	1533.28	1523	18	3.65E-02	15.3	
31	0	860.95	112	141	1.25	1721.06	1713	17	1.56E-02	26.0	
32	0	910.98*	549	116	1.89	1821.09	1813	15	7.63E-02	6.3	
33	0	935.79	76	159	2.17	1870.68	1859	22	1.05E-02	44.0	
34	3	964.78	129	121	3.10	1928.65	1919	29	1.79E-02	24.7	2.34E+00
35	3	968.97*	328	87	2.41	1937.02	1919	29	4.56E-02	8.5	
36	0	1001.03*	415	132	1.96	2001.13	1992	20	5.76E-02	8.5	
37	0	1120.87*	215	153	1.96	2240.77	2232	20	2.98E-02	16.4	
38	0	1378.10	90	66	1.98	2755.21	2747	20	1.25E-02	24.3	

Sample ID : G246020009 Acquisition date : 13-FEB-2010 16:43:12

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1460.72*	2207	100	2.85	2920.47	2908	22	3.07E-01	2.4	
40	0	1764.27*	197	11	3.32	3527.74	3516	22	2.73E-02	8.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:44:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:43:12
Sample ID : G246020009 Sample quantity : 148.35 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:03.01 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.742E+01	2.847E+00	4.538E-01	4.157E-02	60.419
NB-95	+	765.79	*	2.506E-01	8.156E-02	5.965E-02	6.523E-03	4.201
CD-109	+	88.03	*	4.591E+00	1.325E+00	1.400E+00	1.328E-01	3.280
SN-126	+	64.28		1.186E+01	1.980E+00	8.324E-01	1.209E-01	14.250
	+	86.94		1.870E+00	9.293E-01	5.758E-01	2.391E-01	3.248
	+	87.57	*	4.498E-01	1.298E-01	1.377E-01	1.300E-02	3.266
BA-137M	+	661.65	*	6.632E-02	3.658E-02	5.145E-02	5.426E-03	1.289
CS-137	+	661.65	*	7.011E-02	3.867E-02	5.439E-02	5.743E-03	1.289
CE-141	+	145.44	*	2.041E-01	9.343E-02	1.082E-01	9.853E-03	1.886
LU-177	+	112.95		6.997E+00	4.170E+00	3.636E+00	3.023E-01	1.924
	+	208.36	*	4.190E+00	1.909E+00	2.053E+00	2.318E-01	2.041
TL-208		277.35		5.516E-01	3.649E-01	5.982E-01	9.863E-02	0.922
	+	510.84		7.570E-01	2.870E-01	1.905E-01	2.482E-02	3.974
	+	583.14	*	5.147E-01	9.089E-02	5.165E-02	5.600E-03	9.966
	+	860.37		7.789E-01	4.151E-01	3.676E-01	4.284E-02	2.119
BI-211		72.87		4.589E+00	3.758E+00	5.674E+00	4.541E-01	0.809
	+	351.07	*	3.854E+00	6.106E-01	2.864E-01	3.341E-02	13.457
PB-212	+	74.81		2.377E+00	5.923E-01	6.106E-01	7.576E-02	3.893
	+	77.11		2.027E+00	3.465E-01	3.477E-01	2.907E-02	5.831
	+	87.30		2.081E+00	6.355E-01	6.385E-01	8.768E-02	3.258
	+	238.63	*	1.692E+00	2.428E-01	8.312E-02	1.098E-02	20.358
	+	300.09		1.756E+00	9.213E-01	1.120E+00	1.634E-01	1.567
PO-212	+	74.81		2.377E+00	5.923E-01	6.106E-01	7.576E-02	3.893
	+	77.11		2.027E+00	3.465E-01	3.477E-01	2.907E-02	5.831
	+	87.30		2.081E+00	6.355E-01	6.385E-01	8.768E-02	3.258
		115.19		2.959E+00	4.380E+00	6.348E+00	5.258E-01	0.466
	+	238.63	*	1.692E+00	2.428E-01	8.312E-02	1.098E-02	20.358
	+	300.09		1.756E+00	9.213E-01	1.120E+00	1.634E-01	1.567
BI-214	+	609.31	*	1.199E+00	1.971E-01	9.855E-02	1.146E-02	12.170
	+	1120.29		1.533E+00	5.293E-01	3.548E-01	3.921E-02	4.321
	+	1764.49		1.836E+00	3.621E-01	2.588E-01	2.156E-02	7.095
PB-214	+	74.81		4.096E+00	9.935E-01	1.052E+00	1.160E-01	3.893
	+	77.11		3.475E+00	6.504E-01	5.960E-01	6.743E-02	5.831
	+	87.30		3.564E+00	1.065E+00	1.094E+00	1.331E-01	3.258

Sample ID : G246020009 Acquisition date : 13-FEB-2010 16:43:12

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.621E+00	5.955E-01	4.702E-01	6.466E-02	5.575
	+	295.21		1.350E+00	2.672E-01	1.988E-01	2.960E-02	6.792
	+	351.92	*	1.341E+00	2.236E-01	9.980E-02	1.272E-02	13.433
PO-214	+	74.81		4.096E+00	9.935E-01	1.052E+00	1.160E-01	3.893
	+	77.11		3.475E+00	6.504E-01	5.960E-01	6.743E-02	5.831
	+	87.30		3.564E+00	1.065E+00	1.094E+00	1.331E-01	3.258
	+	241.98		2.621E+00	5.955E-01	4.702E-01	6.466E-02	5.575
	+	295.21		1.350E+00	2.672E-01	1.988E-01	2.960E-02	6.792
	+	351.92	*	1.341E+00	2.236E-01	9.980E-02	1.272E-02	13.433
PO-216	+	74.81		2.377E+00	5.923E-01	6.106E-01	7.576E-02	3.893
	+	77.11		2.027E+00	3.465E-01	3.477E-01	2.907E-02	5.831
	+	87.30		2.081E+00	6.355E-01	6.385E-01	8.768E-02	3.258
	+	238.63	*	1.692E+00	2.428E-01	8.312E-02	1.098E-02	20.358
	+	300.09		1.756E+00	9.213E-01	1.120E+00	1.634E-01	1.567
PO-218	+	74.81		4.096E+00	9.935E-01	1.052E+00	1.160E-01	3.893
	+	77.11		3.475E+00	6.504E-01	5.960E-01	6.743E-02	5.831
	+	87.30		3.564E+00	1.065E+00	1.094E+00	1.331E-01	3.258
	+	241.98		2.621E+00	5.955E-01	4.702E-01	6.466E-02	5.575
	+	295.21		1.350E+00	2.672E-01	1.988E-01	2.960E-02	6.792
	+	351.92	*	1.341E+00	2.236E-01	9.980E-02	1.272E-02	13.433
RA-224	+	240.98	*	4.970E+00	1.094E+00	9.449E-01	1.183E-01	5.260
RA-226	+	609.31	*	1.199E+00	1.971E-01	9.855E-02	1.146E-02	12.170
	+	1120.29		1.533E+00	5.293E-01	3.548E-01	3.921E-02	4.321
	+	1764.49		1.836E+00	3.621E-01	2.588E-01	2.156E-02	7.095
AC-228	+	338.32		1.775E+00	8.524E-01	3.270E-01	1.376E-01	5.429
	+	911.07	*	1.799E+00	3.277E-01	1.756E-01	2.327E-02	10.241
	+	969.11		1.887E+00	5.570E-01	2.841E-01	6.862E-02	6.642
RA-228	+	338.32		1.775E+00	8.524E-01	3.270E-01	1.376E-01	5.429
	+	911.07	*	1.799E+00	3.277E-01	1.756E-01	2.327E-02	10.241
	+	969.11		1.887E+00	5.570E-01	2.841E-01	6.862E-02	6.642
TH-228	+	74.81		2.418E+00	5.592E-01	6.211E-01	5.118E-02	3.893
	+	77.11		2.062E+00	3.525E-01	3.537E-01	2.958E-02	5.831
	+	87.30		2.116E+00	6.108E-01	6.495E-01	6.113E-02	3.258
	+	238.63	*	1.721E+00	2.470E-01	8.455E-02	1.117E-02	20.358
	+	300.09		1.786E+00	1.402E+00	1.140E+00	6.856E-01	1.567
TH-230	+	609.31	*	1.199E+00	1.971E-01	9.855E-02	1.146E-02	12.170
	+	1120.29		1.533E+00	5.293E-01	3.548E-01	3.921E-02	4.321
	+	1764.49		1.836E+00	3.621E-01	2.588E-01	2.156E-02	7.095
TH-232	+	338.32		1.775E+00	4.622E-01	3.270E-01	3.889E-02	5.429
	+	911.07	*	1.799E+00	3.277E-01	1.756E-01	2.327E-02	10.241
	+	969.11		1.887E+00	5.570E-01	2.841E-01	6.862E-02	6.642
PA-234M	+	766.42		6.486E+01	3.870E+01	1.545E+01	7.908E+00	4.198
	+	1001.03	*	4.850E+01	9.933E+00	5.571E+00	6.384E-01	8.706
TH-234	+	63.29	*	2.997E+01	5.776E+00	2.188E+00	3.808E-01	13.697
	+	92.38		3.094E+01	5.770E+00	9.083E-01	1.664E-01	34.061
U-234	+	609.31	*	1.199E+00	1.971E-01	9.855E-02	1.146E-02	12.170
	+	1120.29		1.533E+00	5.293E-01	3.548E-01	3.921E-02	4.321
	+	1764.49		1.836E+00	3.621E-01	2.588E-01	2.156E-02	7.095
U-235	+	89.95		4.544E+00	2.163E+00	1.851E+00	5.748E-01	2.455

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	93.35		3.719E+01	1.056E+01	1.086E+00	3.057E-01	34.263
		105.00		1.276E+00	1.236E+00	1.939E+00	5.780E-01	0.658
	+	143.76	*	6.514E-01	3.141E-01	3.604E-01	6.358E-02	1.807
		163.35		2.519E-01	4.876E-01	8.208E-01	1.608E-01	0.307
	+	185.71		7.547E-01	1.200E-01	6.896E-02	7.221E-03	10.943
	+	205.31		7.088E-01	6.396E-01	8.291E-01	1.688E-01	0.855
NP-237	+	86.50	*	1.321E+00	4.687E-01	4.084E-01	9.248E-02	3.234
	+	95.87		4.421E+00	2.252E+00	1.579E+00	3.904E-01	2.800
U-238	+	63.29	*	2.997E+01	5.776E+00	2.188E+00	3.808E-01	13.697
	+	92.38		3.094E+01	3.019E+00	9.083E-01	8.276E-02	34.061
AM-243	+	74.67	*	3.854E-01	8.901E-02	9.927E-02	8.091E-03	3.882
	+	86.72		4.954E+01	1.430E+01	1.528E+01	1.428E+00	3.241
		117.66		-3.172E+00	4.577E+00	6.273E+00	5.182E-01	-0.506
		142.18		4.153E+01	2.093E+01	3.267E+01	2.885E+00	1.271
ANH-511	+	511.00	*	1.635E-01	6.048E-02	4.115E-02	4.124E-03	3.973

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.995E-01	2.921E-01	4.866E-01	5.078E-02	0.410
NA-22		1274.54	*	1.177E-02	3.794E-02	6.398E-02	5.513E-03	0.184
NA-24		1368.53	*	1.374E+00	3.794E-02	Half-Life too short		
AL-26		1129.67		-6.062E-01	1.630E+00	2.158E+00	1.879E-01	-0.281
		1808.65	*	1.628E-02	2.213E-02	3.979E-02	3.254E-03	0.409
TI-44		67.85		3.415E-03	4.981E-02	7.851E-02	5.993E-03	0.043
	+	78.38	*	3.741E-01	6.396E-02	7.691E-02	6.521E-03	4.864
SC-46		889.25	*	-1.601E-02	3.438E-02	5.540E-02	6.201E-03	-0.289
	+	1120.51		2.670E-01	9.047E-02	1.080E-01	9.550E-03	2.472
V-48		944.10		-2.173E-01	9.523E-01	1.312E+00	1.423E-01	-0.166
		983.50	*	2.391E-03	6.204E-02	1.022E-01	1.072E-02	0.023
		1312.09		-3.917E-02	6.587E-02	1.033E-01	9.100E-03	-0.379
CR-51		320.08	*	-2.025E-01	3.560E-01	5.651E-01	7.318E-02	-0.358
MN-52	+	744.21		4.124E-01	3.103E-01	4.921E-01	5.347E-02	0.838
		848.13		-1.540E+00	7.319E+00	1.205E+01	1.341E+00	-0.128
	+	935.52		6.310E-01	5.593E-01	5.058E-01	5.522E-02	1.248
		1246.25		-4.669E+00	7.465E+00	1.188E+01	1.004E+00	-0.393
		1333.61		3.823E-01	4.909E+00	8.141E+00	7.260E-01	0.047
		1434.06	*	1.034E-01	2.460E-01	4.173E-01	3.730E-02	0.248
MN-54		834.83	*	-1.029E-04	3.322E-02	5.542E-02	6.157E-03	-0.002
CO-56		846.75	*	-2.040E-02	3.411E-02	5.481E-02	6.101E-03	-0.372
		977.42		-1.309E+00	2.828E+00	3.776E+00	3.982E-01	-0.347
		1037.82		-4.348E-02	2.577E-01	4.162E-01	4.292E-02	-0.104
		1175.09		-2.137E-01	1.859E+00	3.081E+00	2.481E-01	-0.069
		1238.25		6.993E-02	7.856E-02	1.360E-01	1.178E-02	0.514
		1360.21		-3.753E-01	7.704E-01	1.210E+00	1.080E-01	-0.310
		1771.40		4.172E-03	2.039E-01	2.853E-01	2.371E-02	0.015
CO-57		122.06	*	3.876E-03	2.742E-02	4.365E-02	3.600E-03	0.089
		136.48		-1.210E-01	2.078E-01	3.456E-01	3.206E-02	-0.350

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-1.219E-02	3.325E-02	5.445E-02	6.030E-03	-0.224
FE-59	+	142.65		8.679E+00	3.970E+00	5.374E+00	4.756E-01	1.615
		192.34		5.060E-01	1.026E+00	1.591E+00	2.363E-01	0.318
		1099.22	*	-5.419E-02	8.122E-02	1.259E-01	1.234E-02	-0.430
		1291.56		-2.820E-02	9.065E-02	1.460E-01	1.439E-02	-0.193
CO-60		1173.22		1.464E-02	3.662E-02	6.248E-02	5.025E-03	0.234
		1332.49	*	-5.370E-03	3.012E-02	4.889E-02	4.360E-03	-0.110
ZN-65		1115.52	*	4.046E-02	9.095E-02	1.302E-01	1.161E-02	0.311
GE-68		1077.35	*	6.843E-02	1.020E+00	1.668E+00	1.572E-01	0.041
AS-73		53.44	*	-7.206E-01	8.877E-01	1.432E+00	1.082E-01	-0.503
AS-74		595.88	*	-1.121E-02	8.710E-02	1.435E-01	1.487E-02	-0.078
		634.78		1.491E-01	3.185E-01	5.374E-01	5.632E-02	0.277
SE-75		66.05		-4.336E+00	5.542E+00	7.927E+00	7.563E-01	-0.547
		96.73		2.603E+00	1.269E+00	1.525E+00	2.100E-01	1.707
		121.11		-2.714E-02	1.495E-01	2.357E-01	2.577E-02	-0.115
		136.00		-1.251E-02	3.919E-02	6.571E-02	5.702E-03	-0.190
		198.60		-1.494E-01	1.839E+00	2.962E+00	3.462E-01	-0.050
		264.65	*	3.859E-02	6.535E-02	6.908E-02	9.298E-03	0.559
		279.53		1.505E-02	1.052E-01	1.692E-01	2.402E-02	0.089
		303.91		1.131E+00	2.168E+00	3.245E+00	4.945E-01	0.349
		400.65		-9.734E-02	2.346E-01	3.778E-01	4.422E-02	-0.258
BR-77	+	87.88		1.814E+03	5.234E+02	6.942E+02	6.580E+01	2.613
		200.40		1.188E+01	3.390E+02	4.895E+02	5.382E+01	0.024
	+	239.00		4.984E+02	6.792E+01	5.935E+01	7.385E+00	8.397
		249.79		1.007E+02	1.167E+02	1.932E+02	2.485E+01	0.521
		281.68		-1.154E+02	1.580E+02	2.440E+02	3.399E+01	-0.473
		297.23		6.348E+02	1.350E+02	2.030E+02	2.730E+01	3.127
		303.76		1.731E+02	3.344E+02	5.008E+02	6.624E+01	0.346
		439.47		1.574E+02	2.244E+02	3.768E+02	3.627E+01	0.418
		484.57		-1.589E+02	3.716E+02	5.860E+02	5.793E+01	-0.271
		520.65	*	5.494E+00	1.666E+01	2.645E+01	2.662E+00	0.208
		574.64		-2.685E+02	3.671E+02	5.405E+02	5.562E+01	-0.497
		578.91		1.831E+02	1.522E+02	2.341E+02	2.413E+01	0.782
		585.48		3.353E+03	5.466E+02	8.050E+02	8.315E+01	4.165
		755.35		6.526E+01	2.584E+02	4.248E+02	4.632E+01	0.154
		817.79		1.802E+02	2.024E+02	3.534E+02	3.913E+01	0.510
SR-82		698.33		-2.415E+01	3.239E+01	5.071E+01	5.426E+00	-0.476
		776.49	*	-4.205E-01	3.763E-01	5.492E-01	6.023E-02	-0.766
		1395.20		-8.267E-01	9.533E+00	1.552E+01	1.387E+00	-0.053
RB-83		520.41	*	1.871E-02	6.100E-02	9.672E-02	9.734E-03	0.193
		529.64		-1.096E-03	8.967E-02	1.501E-01	1.517E-02	-0.007
		552.65		-4.751E-02	1.645E-01	2.704E-01	2.759E-02	-0.176
RB-84		881.50	*	2.265E-02	5.977E-02	1.014E-01	1.134E-02	0.223
KR-85		513.99	*	2.270E+01	7.808E+00	1.224E+01	1.228E+00	1.854
SR-85		513.99	*	1.189E-01	4.092E-02	6.415E-02	6.436E-03	1.854
RB-86		1076.63	*	-1.524E-01	7.008E-01	1.124E+00	1.061E-01	-0.136
Y-88		898.02		-3.283E-02	3.452E-02	5.347E-02	6.008E-03	-0.614
		1836.01	*	1.509E-02	2.684E-02	4.705E-02	3.804E-03	0.321
ZR-88		392.90	*	-8.915E-03	2.736E-02	4.433E-02	4.127E-03	-0.201

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91		1204.90	*	-4.069E-01	1.571E+01	2.611E+01	2.147E+00	-0.016
NB-94		702.63	*	3.536E-02	2.929E-02	5.034E-02	5.395E-03	0.702
		871.10		1.555E-02	2.857E-02	4.724E-02	5.278E-03	0.329
NB-95M		235.69	*	8.784E-02	1.403E-01	2.038E-01	2.694E-02	0.431
ZR-95		724.18		1.815E-01	1.051E-01	1.608E-01	1.834E-02	1.129
		756.15	*	1.559E-02	6.511E-02	1.020E-01	1.185E-02	0.153
NB-97		657.90	*	-9.487E-01	6.511E-02	Half-Life too short		
		1024.50		1.753E+01	6.511E-02	Half-Life too short		
ZR-97		254.15		-3.674E+01	6.511E-02	Half-Life too short		
		355.39		1.099E+01	6.511E-02	Half-Life too short		
		507.63	*	4.000E+01	6.511E-02	Half-Life too short		
		602.52		2.719E+01	6.511E-02	Half-Life too short		
		1021.30		-5.040E+01	6.511E-02	Half-Life too short		
		1147.95		-2.558E+00	6.511E-02	Half-Life too short		
		1362.66		-1.649E+01	6.511E-02	Half-Life too short		
		1750.46		-3.659E+01	6.511E-02	Half-Life too short		
MO-99		140.51		2.046E+01	5.068E+01	7.516E+01	2.085E+01	0.272
		181.06		2.217E-01	3.256E+01	4.741E+01	9.076E+00	0.005
		366.43		9.317E+01	1.302E+02	2.209E+02	2.343E+01	0.422
		739.58	*	5.670E+00	2.086E+01	2.959E+01	4.898E+00	0.192
		778.00		-6.548E+01	5.240E+01	7.771E+01	8.526E+00	-0.843
TC-99M		140.51	*	5.517E+12	5.240E+01	Half-Life too short		
RH-101		127.23		-2.856E-02	3.535E-02	5.441E-02	4.548E-03	-0.525
		198.01	*	-8.017E-03	3.334E-02	5.344E-02	5.830E-03	-0.150
		325.23		2.042E-01	2.188E-01	3.317E-01	4.124E-02	0.616
RH-102		418.52		8.196E-03	2.557E-01	4.187E-01	3.974E-02	0.020
		475.06	*	-1.924E-02	2.694E-02	4.193E-02	4.124E-03	-0.459
		631.29		-4.358E-03	4.615E-02	7.572E-02	7.929E-03	-0.058
		697.49		7.470E-03	6.735E-02	1.106E-01	1.183E-02	0.068
	+	766.84		6.174E-01	2.009E-01	2.276E-01	2.489E-02	2.713
		1046.59		1.257E-02	8.929E-02	1.472E-01	1.443E-02	0.085
		1112.84		3.416E-03	2.190E-01	3.024E-01	2.706E-02	0.011
RU-103		497.08	*	2.652E-02	3.600E-02	5.983E-02	8.980E-03	0.443
	+	610.33		1.343E+01	2.841E+00	2.426E+00	4.288E-01	5.538
RH-106	+	511.85		8.199E-01	3.033E-01	3.589E-01	3.597E-02	2.284
		621.84	*	-7.707E-02	2.723E-01	4.427E-01	6.464E-02	-0.174
		1050.47		4.600E-01	1.848E+00	3.066E+00	2.993E-01	0.150
RU-106	+	511.85		8.199E-01	3.033E-01	3.589E-01	3.597E-02	2.284
		621.84	*	-7.707E-02	2.722E-01	4.427E-01	4.624E-02	-0.174
		1050.47		4.600E-01	1.848E+00	3.066E+00	2.993E-01	0.150
AG-108M		433.93	*	-1.224E-02	2.966E-02	4.739E-02	4.691E-03	-0.258
		614.37		-8.773E-03	3.713E-02	5.182E-02	5.547E-03	-0.169
		722.95		-4.484E-03	4.405E-02	6.094E-02	6.742E-03	-0.074
AG-110M		657.75	*	-4.652E-02	3.733E-02	4.715E-02	5.068E-03	-0.987
		677.61		-2.563E-01	2.681E-01	4.137E-01	4.474E-02	-0.619
		706.67		-9.134E-02	1.814E-01	2.875E-01	3.140E-02	-0.318
		763.93		6.479E-01	1.946E-01	3.101E-01	3.449E-02	2.089
		884.67		1.708E-02	4.183E-02	7.099E-02	8.096E-03	0.241
		937.48		1.299E-01	1.077E-01	1.664E-01	1.855E-02	0.781

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1384.27		8.391E-02	1.562E-01	2.315E-01	2.123E-02	0.363
IN-111		171.28		2.500E-01	1.661E+00	2.775E+00	2.770E-01	0.090
		245.39	*	-1.657E+00	1.902E+00	2.552E+00	3.238E-01	-0.649
IN-113M		391.69	*	-1.598E-02	3.994E-02	6.451E-02	6.161E-03	-0.248
SN-113		391.69	*	-1.598E-02	3.994E-02	6.451E-02	6.161E-03	-0.248
IN-114M		190.27	*	-6.040E-02	2.047E-01	2.929E-01	3.114E-02	-0.206
CD-115		260.90		1.840E+02	2.725E+02	3.946E+02	5.244E+01	0.466
		492.35		-6.387E+01	6.125E+01	9.273E+01	9.204E+00	-0.689
		527.90	*	-3.932E+00	1.744E+01	2.891E+01	2.920E+00	-0.136
SN-117M		156.02		1.071E+00	2.571E+00	4.349E+00	4.077E-01	0.246
		158.56	*	9.731E-03	6.273E-02	1.054E-01	9.992E-03	0.092
SB-122		563.90	*	1.179E+00	3.197E+00	5.409E+00	5.544E-01	0.218
		692.80		9.305E+00	6.390E+01	1.052E+02	1.124E+01	0.088
I-123		159.00	*	1.827E+01	6.390E+01	Half-Life too short		
		528.96		8.259E+02	6.390E+01	Half-Life too short		
TE-123M		159.00	*	6.552E-03	2.946E-02	4.955E-02	4.732E-03	0.132
I-124		602.71	*	2.114E-01	9.583E-01	1.385E+00	1.438E-01	0.153
		722.78		-1.444E+00	6.465E+00	8.858E+00	9.560E-01	-0.163
		1325.50		6.301E+00	4.127E+01	6.491E+01	5.764E+00	0.097
		1376.25		8.521E+01	4.358E+01	7.204E+01	6.438E+00	1.183
		1509.49		2.927E+01	1.743E+01	3.238E+01	2.878E+00	0.904
		1691.02		-8.540E-01	3.921E+00	6.316E+00	5.401E-01	-0.135
SB-124		602.71		8.912E-03	4.041E-02	5.839E-02	6.066E-03	0.153
		645.85		6.720E-02	4.277E-01	7.097E-01	7.762E-02	0.095
		709.31		-1.600E+00	2.429E+00	3.808E+00	4.090E-01	-0.420
		713.82		2.309E-01	1.425E+00	2.343E+00	3.199E-01	0.099
		722.78		-8.825E-02	3.952E-01	5.414E-01	5.924E-02	-0.163
	+	968.20		1.990E+01	3.984E+00	6.103E+00	6.490E-01	3.260
		1045.16		-1.300E+00	2.040E+00	3.178E+00	3.122E-01	-0.409
		1325.50		4.113E-01	2.694E+00	4.237E+00	3.763E-01	0.097
		1368.21		6.638E-01	1.528E+00	2.375E+00	3.249E-01	0.279
		1436.60		2.458E+00	3.063E+00	5.359E+00	4.789E-01	0.459
		1691.02	*	-1.231E-02	5.654E-02	9.105E-02	8.099E-03	-0.135
SB-125		427.89	*	4.003E-02	8.283E-02	1.380E-01	1.339E-02	0.290
	+	463.38		1.089E+00	4.121E-01	4.803E-01	4.980E-02	2.267
		600.56		-7.664E-02	1.661E-01	2.558E-01	2.792E-02	-0.300
		635.90		-4.363E-02	2.283E-01	3.658E-01	4.047E-02	-0.119
TE-125M		109.28	*	4.869E+00	1.243E+01	1.791E+01	1.814E+00	0.272
I-126		388.63		4.515E-02	1.989E-01	3.305E-01	3.129E-02	0.137
		666.33	*	3.431E-01	2.022E-01	3.151E-01	3.329E-02	1.089
		753.82		1.038E+00	1.372E+00	2.314E+00	2.522E-01	0.448
SB-126		223.80		-2.916E+00	4.394E+00	6.983E+00	8.285E-01	-0.418
		278.60		2.513E+00	2.657E+00	4.363E+00	6.099E-01	0.576
	+	296.50		1.510E+01	2.835E+00	3.531E+00	4.757E-01	4.277
		414.70		-6.598E-02	7.752E-02	1.217E-01	1.152E-02	-0.542
		415.30		-4.066E-01	6.282E+00	1.025E+01	9.706E-01	-0.040
		555.20		-2.568E+00	3.752E+00	6.033E+00	6.163E-01	-0.426
		573.80		-6.814E-01	1.105E+00	1.694E+00	1.743E-01	-0.402
		593.00		-9.468E-01	9.206E-01	1.441E+00	1.492E-01	-0.657

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		656.30		-9.534E-01	3.726E+00	5.147E+00	5.421E-01	-0.185
		666.33		1.441E-01	8.490E-02	1.323E-01	1.398E-02	1.089
		675.00		9.065E-01	1.849E+00	3.108E+00	3.295E-01	0.292
		695.00		2.184E-02	7.510E-02	1.245E-01	1.331E-02	0.175
		697.00		-4.117E-02	2.666E-01	4.321E-01	4.621E-02	-0.095
		720.50	*	4.321E-02	1.665E-01	2.368E-01	2.553E-02	0.182
		856.80		1.605E-01	4.926E-01	7.209E-01	8.037E-02	0.223
		989.30		-9.819E-02	1.169E+00	1.872E+00	1.952E-01	-0.052
		1034.80		3.324E+00	7.961E+00	1.336E+01	1.329E+00	0.249
		1213.00		-2.554E+00	4.274E+00	6.856E+00	5.668E-01	-0.373
SB-127		61.10		1.572E+02	1.021E+02	1.563E+02	1.688E+01	1.005
		252.40		-5.199E+00	6.732E+00	9.549E+00	4.135E+00	-0.544
		290.80		-1.863E+00	3.098E+01	4.539E+01	7.197E+00	-0.041
		411.60		8.981E+00	1.628E+01	2.716E+01	4.519E+00	0.331
		444.90		-1.152E+01	1.274E+01	1.965E+01	2.714E+00	-0.586
		473.00		-2.954E-01	2.206E+00	3.543E+00	5.041E-01	-0.083
		543.00		1.011E+00	2.026E+01	3.394E+01	5.377E+00	0.030
		603.60		7.070E+00	1.655E+01	2.422E+01	3.466E+00	0.292
		685.20	*	1.687E+00	1.709E+00	2.918E+00	3.951E-01	0.578
		698.50		-1.493E+01	1.990E+01	3.098E+01	5.411E+00	-0.482
		722.20		2.929E+00	4.448E+01	6.231E+01	8.393E+00	0.047
		783.80		1.016E+01	4.939E+00	8.466E+00	1.242E+00	1.200
XE-127		57.60		3.428E+00	6.907E+00	1.163E+01	8.350E-01	0.295
	+	145.22		2.240E+00	1.025E+00	1.393E+00	1.246E-01	1.608
		172.10		1.789E-02	1.237E-01	2.065E-01	2.067E-02	0.087
		202.84	*	-1.123E-02	5.514E-02	7.873E-02	8.727E-03	-0.143
		374.96		5.275E-02	1.813E-01	3.029E-01	3.084E-02	0.174
I-131		80.18		-4.528E+00	8.643E+00	9.696E+00	8.456E-01	-0.467
		284.30		5.621E-02	1.667E+00	2.666E+00	3.772E-01	0.021
		364.48	*	1.748E-02	1.255E-01	2.088E-01	2.317E-02	0.084
		636.97		2.764E-01	1.548E+00	2.531E+00	2.759E-01	0.109
		722.89		-1.281E+00	8.861E+00	1.222E+01	1.325E+00	-0.105
TE-132		49.72		-3.571E+01	3.012E+01	4.859E+01	5.333E+00	-0.735
	+	111.76		1.597E+02	9.589E+01	9.800E+01	1.099E+01	1.629
		116.30		-1.158E+01	5.174E+01	7.249E+01	8.096E+00	-0.160
		228.16	*	3.771E-01	1.040E+00	1.708E+00	3.104E-01	0.221
BA-133		53.15		-2.876E+00	3.773E+00	6.097E+00	4.627E-01	-0.472
		79.62		-5.773E-01	2.037E+00	2.313E+00	3.519E-01	-0.250
		81.00		-8.542E-02	1.545E-01	1.724E-01	2.747E-02	-0.496
		276.40		5.222E-01	3.748E-01	5.925E-01	1.072E-01	0.881
		302.84		7.642E-02	1.484E-01	2.219E-01	3.701E-02	0.344
		356.01	*	-8.401E-03	4.343E-02	6.177E-02	9.230E-03	-0.136
		383.85		-7.987E-02	2.571E-01	4.175E-01	5.587E-02	-0.191
I-133	+	510.53		8.778E+00	2.571E-01	Half-Life too short		
		529.87	*	-4.575E-03	2.571E-01	Half-Life too short		
		706.58		-9.384E-01	2.571E-01	Half-Life too short		
		856.28		4.202E-01	2.571E-01	Half-Life too short		
		875.33		-6.589E-02	2.571E-01	Half-Life too short		
		1236.41		5.034E+00	2.571E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1298.22		-4.662E-01	2.571E-01	Half-Life too short		
CS-134		475.35		-1.044E+00	1.751E+00	2.743E+00	2.698E-01	-0.381
		563.23		2.130E-01	3.281E-01	5.608E-01	5.785E-02	0.380
		569.32		1.590E-01	1.776E-01	3.060E-01	3.173E-02	0.520
		604.70		3.449E-03	3.419E-02	4.901E-02	5.102E-03	0.070
		795.84	*	8.373E-02	4.256E-02	7.413E-02	8.206E-03	1.129
		801.93		-2.596E-01	3.588E-01	5.290E-01	5.857E-02	-0.491
		1038.57		-8.430E-01	3.125E+00	5.010E+00	4.960E-01	-0.168
		1167.94		-6.892E-01	2.057E+00	3.366E+00	2.735E-01	-0.205
		1365.15		-3.364E-01	1.006E+00	1.551E+00	1.444E-01	-0.217
CS-135		268.24	*	1.439E-01	1.756E-01	2.508E-01	3.628E-02	0.574
I-135		288.45		-9.639E+11	1.756E-01	Half-Life too short		
		417.63		-2.026E+12	1.756E-01	Half-Life too short		
		546.56		1.108E+12	1.756E-01	Half-Life too short		
		836.80		1.525E+12	1.756E-01	Half-Life too short		
		1038.76		-5.899E+11	1.756E-01	Half-Life too short		
		1124.00		2.886E+13	1.756E-01	Half-Life too short		
		1131.51		-1.384E+10	1.756E-01	Half-Life too short		
		1260.41	*	-2.979E+10	1.756E-01	Half-Life too short		
		1457.56		1.883E+14	1.756E-01	Half-Life too short		
		1678.03		5.200E+11	1.756E-01	Half-Life too short		
		1706.46		3.330E+11	1.756E-01	Half-Life too short		
		1791.20		-3.924E+11	1.756E-01	Half-Life too short		
CS-136		66.91		-6.089E-01	9.966E-01	1.430E+00	2.128E-01	-0.426
	+	86.29		6.550E+00	1.991E+00	2.493E+00	3.319E-01	2.627
		153.22		8.300E-01	7.442E-01	1.275E+00	1.302E-01	0.651
		163.89		1.440E+00	1.224E+00	2.090E+00	2.226E-01	0.689
		176.55		1.321E-01	4.133E-01	6.917E-01	7.321E-02	0.191
		273.65		-8.274E-01	5.866E-01	7.446E-01	1.053E-01	-1.111
		340.57		6.891E-01	1.811E-01	2.718E-01	3.256E-02	2.536
		818.51		4.466E-02	6.800E-02	1.175E-01	1.303E-02	0.380
		1048.07	*	-2.610E-03	9.347E-02	1.523E-01	1.540E-02	-0.017
		1235.34		9.317E-01	5.624E-01	9.921E-01	1.159E-01	0.939
CE-139		165.85	*	-2.525E-03	3.047E-02	5.070E-02	4.973E-03	-0.050
BA-140		162.64		2.538E-01	8.644E-01	1.454E+00	1.470E-01	0.175
		304.84		1.031E+00	1.483E+00	2.198E+00	6.539E-01	0.469
		423.70		-3.104E-01	1.946E+00	3.152E+00	1.030E+00	-0.098
		537.32	*	4.233E-02	2.462E-01	4.146E-01	1.392E-01	0.102
LA-140	+	328.77		7.875E-01	4.325E-01	5.308E-01	6.706E-02	1.484
		432.53		-1.231E-01	2.116E+00	3.416E+00	3.403E-01	-0.036
		487.03		7.520E-02	1.339E-01	2.217E-01	2.298E-02	0.339
		751.79		-1.388E+00	1.670E+00	2.564E+00	2.983E-01	-0.541
		815.85		9.743E-02	2.946E-01	5.015E-01	5.947E-02	0.194
		867.82		-6.674E-01	1.531E+00	2.091E+00	2.409E-01	-0.319
		919.63		-3.589E+00	2.844E+00	3.938E+00	4.998E-01	-0.911
		925.24		1.880E+00	1.162E+00	1.898E+00	2.169E-01	0.991
		1596.49	*	-8.938E-02	8.358E-02	1.253E-01	1.098E-02	-0.713
CE-143		57.37		2.367E-03	8.358E-02	Half-Life too short		
		231.56		9.453E-04	8.358E-02	Half-Life too short		

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		293.26	*	2.353E-03	8.358E-02	Half-Life too short		
	+	350.59		8.716E-02	8.358E-02	Half-Life too short		
		490.36		-4.353E-04	8.358E-02	Half-Life too short		
		664.57		8.104E-03	8.358E-02	Half-Life too short		
		721.93		-2.682E-05	8.358E-02	Half-Life too short		
CE-144		80.11		-1.656E+00	3.343E+00	3.757E+00	3.247E-01	-0.441
		133.54	*	-7.382E-02	2.081E-01	3.487E-01	5.413E-02	-0.212
PM-144		476.78		2.560E-03	6.113E-02	9.899E-02	1.045E-02	0.026
		618.01		5.704E-03	2.999E-02	4.493E-02	4.778E-03	0.127
		696.49	*	-2.796E-03	3.008E-02	4.891E-02	5.230E-03	-0.057
		778.57		-2.442E+00	2.104E+00	3.145E+00	3.452E-01	-0.776
PR-144		696.49	*	-1.897E-01	2.041E+00	3.318E+00	3.547E-01	-0.057
		1489.15		-9.568E+00	1.003E+01	1.470E+01	1.309E+00	-0.651
PM-146		453.90	*	2.159E-02	3.962E-02	6.580E-02	7.647E-03	0.328
		633.02		1.485E-01	1.183E+00	1.962E+00	7.423E-01	0.076
		735.90		-2.981E-02	1.638E-01	2.127E-01	6.243E-02	-0.140
		747.13		3.145E-02	8.890E-02	1.270E-01	1.972E-02	0.248
ND-147	+	91.11		1.301E+00	4.868E-01	1.040E+00	1.028E-01	1.250
		319.41		-1.820E+00	3.320E+00	5.427E+00	6.869E-01	-0.335
		439.89		2.309E+00	5.727E+00	9.496E+00	9.145E-01	0.243
		531.02	*	1.019E-01	5.444E-01	9.192E-01	1.458E-01	0.111
PM-149		285.90	*	-6.578E+01	1.646E+02	2.577E+02	4.876E+01	-0.255
EU-152		121.78		-3.173E-02	8.064E-02	1.263E-01	1.212E-02	-0.251
		244.69		5.973E-02	3.491E-01	4.976E-01	6.301E-02	0.120
		344.27	*	2.202E-02	1.231E-01	1.422E-01	1.709E-02	0.155
		443.98		-5.221E-01	8.466E-01	1.334E+00	1.288E-01	-0.391
		778.89		-1.537E-01	2.378E-01	3.691E-01	4.050E-02	-0.416
		867.32		-2.756E-01	8.191E-01	1.130E+00	1.262E-01	-0.244
	+	964.01		8.560E-01	4.321E-01	4.955E-01	5.287E-02	1.728
		1085.78		-2.214E-01	3.191E-01	4.925E-01	4.589E-02	-0.449
		1112.02		-1.300E-01	3.140E-01	4.153E-01	3.722E-02	-0.313
		1407.95		1.474E-01	1.528E-01	2.688E-01	2.403E-02	0.549
GD-153		69.67		-6.140E-01	1.864E+00	2.893E+00	2.246E-01	-0.212
		83.37		5.592E+01	1.920E+01	2.916E+01	2.617E+00	1.918
	+	97.43	*	5.193E-01	1.284E-01	1.685E-01	1.481E-02	3.082
		103.18		-8.914E-02	1.344E-01	1.872E-01	1.599E-02	-0.476
EU-154		123.07		2.053E-02	5.560E-02	8.900E-02	9.873E-03	0.231
		247.94		1.532E-01	3.443E-01	5.641E-01	8.384E-02	0.272
		591.81		-3.722E-01	5.949E-01	8.776E-01	1.141E-01	-0.424
		723.30		6.877E-02	1.825E-01	2.613E-01	3.013E-02	0.263
		756.87		2.539E-01	7.077E-01	1.086E+00	1.489E-01	0.234
		873.19		1.549E-01	2.378E-01	4.090E-01	5.791E-02	0.379
		996.32		3.350E-01	3.704E-01	5.520E-01	1.031E-01	0.607
		1004.76		8.727E-01	2.707E-01	4.298E-01	5.550E-02	2.030
		1274.45	*	2.858E-02	1.056E-01	1.776E-01	2.008E-02	0.161
EU-155		48.70		-4.840E+00	2.430E+00	3.817E+00	3.108E-01	-1.268
		60.01		1.760E+00	5.949E+00	8.937E+00	6.347E-01	0.197
	+	86.54		5.422E-01	1.566E-01	2.076E-01	1.952E-02	2.612
		105.31	*	7.265E-02	1.210E-01	1.967E-01	1.688E-02	0.369

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TB-160	+	86.79		1.476E+00	4.261E-01	5.646E-01	5.280E-02	2.615
		197.04		-1.568E-01	5.791E-01	9.277E-01	1.009E-01	-0.169
		215.65		2.141E-01	7.932E-01	1.211E+00	1.400E-01	0.177
	+	298.57		2.606E-01	1.359E-01	1.855E-01	2.486E-02	1.405
		879.36	*	-8.493E-02	1.183E-01	1.872E-01	2.093E-02	-0.454
		962.29		1.711E+00	5.248E-01	8.774E-01	9.376E-02	1.950
	+	966.15		5.995E-01	3.026E-01	4.567E-01	4.864E-02	1.313
		1177.93		-2.147E-01	3.011E-01	4.802E-01	3.875E-02	-0.447
		1271.85		3.262E-01	6.285E-01	1.073E+00	9.218E-02	0.304
HO-166M		80.57		-2.357E-01	4.257E-01	4.766E-01	4.141E-02	-0.494
	+	184.41		5.660E-01	9.003E-02	8.728E-02	9.099E-03	6.485
		280.46		-1.129E-01	8.416E-02	1.252E-01	1.748E-02	-0.901
		410.95		1.818E-01	2.260E-01	3.812E-01	3.598E-02	0.477
		711.68	*	-2.677E-02	5.191E-02	8.208E-02	8.825E-03	-0.326
		752.31		-6.400E-02	2.345E-01	3.740E-01	4.074E-02	-0.171
		810.29		-6.881E-03	4.889E-02	8.115E-02	8.972E-03	-0.085
TM-171		51.35		4.838E+01	3.110E+01	5.375E+01	4.193E+00	0.900
		52.39		1.144E+01	1.642E+01	2.754E+01	2.114E+00	0.415
		59.40		2.105E+01	3.192E+01	4.846E+01	3.426E+00	0.434
		66.72	*	-2.356E+01	3.238E+01	4.644E+01	3.509E+00	-0.507
LU-176	+	88.36		1.067E+00	3.079E-01	4.085E-01	3.864E-02	2.612
		201.83		-2.562E-03	3.213E-02	4.614E-02	5.098E-03	-0.056
		306.84	*	-4.992E-03	2.255E-02	3.754E-02	4.925E-03	-0.133
		401.10		-2.994E+00	6.089E+00	9.776E+00	9.160E-01	-0.306
LU-177M		52.97		-3.527E-01	1.709E+00	2.805E+00	2.134E-01	-0.126
		54.07		-1.406E+00	9.214E-01	1.452E+00	1.088E-01	-0.968
		61.30		5.087E+00	1.884E+00	2.954E+00	2.125E-01	1.722
		121.62		-1.742E-01	4.168E-01	6.522E-01	5.373E-02	-0.267
		147.16		6.847E-01	7.300E-01	1.115E+00	1.006E-01	0.614
		171.86		1.005E-01	4.844E-01	8.102E-01	8.102E-02	0.124
		218.09		1.573E-01	8.343E-01	1.370E+00	1.596E-01	0.115
	+	268.79		2.276E+00	1.168E+00	1.354E+00	1.841E-01	1.681
		319.02		-6.167E-02	2.272E-01	3.760E-01	4.765E-02	-0.164
		367.43		1.603E-01	8.300E-01	1.383E+00	1.460E-01	0.116
		413.65	*	-2.256E-01	1.659E-01	2.534E-01	2.397E-02	-0.890
HF-181		56.28		3.980E-01	1.040E+00	1.750E+00	1.275E-01	0.227
		57.53		4.424E-01	5.747E-01	9.725E-01	6.990E-02	0.455
		65.20		3.272E+00	1.202E+00	1.867E+00	1.392E-01	1.753
		133.02		-8.684E-03	6.934E-02	1.171E-01	9.979E-03	-0.074
		136.25		-1.691E-01	4.668E-01	7.817E-01	6.743E-02	-0.216
		345.85		2.241E-01	2.445E-01	2.992E-01	3.460E-02	0.749
		482.03	*	-2.045E-02	3.958E-02	6.217E-02	6.137E-03	-0.329
W-181		56.28		1.532E-01	3.984E-01	6.701E-01	4.881E-02	0.229
		57.53		1.694E-01	2.202E-01	3.726E-01	2.678E-02	0.455
		65.20	*	1.244E+00	4.571E-01	7.097E-01	5.290E-02	1.753
TA-182		67.75		6.415E-03	1.204E-01	1.896E-01	1.446E-02	0.034
		100.10		6.679E-01	2.383E-01	3.625E-01	3.141E-02	1.843
		152.43		1.190E-01	3.404E-01	5.759E-01	5.313E-02	0.207
		222.10		-1.191E-01	3.401E-01	5.479E-01	6.465E-02	-0.217

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1001.68		2.163E+01	4.296E+00	5.490E+00	5.658E-01	3.940
	+	1121.28		7.340E-01	2.487E-01	2.968E-01	2.621E-02	2.473
		1189.05		-9.624E-02	2.481E-01	4.037E-01	3.283E-02	-0.238
		1221.42	*	1.153E-01	1.592E-01	2.749E-01	2.286E-02	0.419
		1230.97		-7.211E-01	4.316E-01	6.464E-01	5.410E-02	-1.116
RE-183		57.98		2.040E-01	2.317E-01	3.758E-01	2.689E-02	0.543
		59.32		8.909E-02	1.338E-01	2.032E-01	1.437E-02	0.438
		67.20		-1.369E-01	2.348E-01	3.384E-01	2.568E-02	-0.405
		162.32	*	1.534E-02	1.155E-01	1.936E-01	1.868E-02	0.079
	+	208.81		3.102E+00	1.413E+00	1.765E+00	1.995E-01	1.757
		291.72		-2.280E-01	9.619E-01	1.396E+00	1.902E-01	-0.163
RE-184		57.98		7.427E-01	8.434E-01	1.368E+00	9.791E-02	0.543
		59.32		3.241E-01	4.867E-01	7.392E-01	5.228E-02	0.438
		67.20		-4.982E-01	8.545E-01	1.231E+00	9.345E-02	-0.405
		161.27		-1.108E-01	3.685E-01	6.107E-01	5.863E-02	-0.181
		216.55		1.577E-01	2.600E-01	4.318E-01	5.006E-02	0.365
		252.85	*	-1.808E-01	2.478E-01	3.553E-01	4.610E-02	-0.509
		318.01		7.664E-02	3.949E-01	6.657E-01	8.462E-02	0.115
		792.07		5.483E-01	9.332E-01	1.549E+00	1.705E-01	0.354
		903.28		1.044E+00	9.078E-01	1.408E+00	1.572E-01	0.741
		920.93		-3.613E-01	3.927E-01	5.953E-01	6.568E-02	-0.607
OS-185		59.72		8.890E-02	3.595E-01	5.395E-01	3.819E-02	0.165
		61.14		3.274E-01	2.016E-01	3.115E-01	2.238E-02	1.051
		69.30		-2.877E-01	3.213E-01	5.155E-01	3.988E-02	-0.558
		592.07		-1.963E+00	2.383E+00	3.585E+00	3.711E-01	-0.548
		646.12	*	3.264E-03	3.638E-02	6.014E-02	6.321E-03	0.054
		717.42		-4.757E-02	8.087E-01	1.313E+00	1.415E-01	-0.036
		874.81		8.525E-02	4.763E-01	7.998E-01	8.939E-02	0.107
		880.27		-4.757E-01	6.492E-01	1.026E+00	1.147E-01	-0.464
RE-188		155.03	*	2.425E-01	1.788E-01	3.075E-01	2.870E-02	0.789
		477.96		2.526E+00	2.802E+00	4.706E+00	4.636E-01	0.537
		633.10		5.361E-01	2.424E+00	4.041E+00	4.233E-01	0.133
W-188	+	63.58		1.230E+03	1.360E+02	1.539E+02	1.131E+01	7.991
		227.08		1.420E+01	1.270E+01	2.124E+01	2.546E+00	0.669
		290.67	*	-2.561E-01	7.538E+00	1.106E+01	1.511E+00	-0.023
IR-192	+	295.96		1.050E+00	1.974E-01	2.474E-01	3.347E-02	4.244
		308.46		-4.217E-02	8.847E-02	1.456E-01	1.906E-02	-0.290
		316.51	*	2.052E-03	3.078E-02	5.168E-02	6.605E-03	0.040
		468.07		-1.193E-02	7.083E-02	9.777E-02	1.011E-02	-0.122
		604.41		1.099E-01	4.613E-01	6.671E-01	9.509E-02	0.165
		612.46		4.635E+00	1.001E+00	1.540E+00	1.771E-01	3.009
AU-195		65.12		7.382E-01	2.155E-01	3.363E-01	2.505E-02	2.195
		66.83		-7.120E-02	1.078E-01	1.549E-01	1.172E-02	-0.460
	+	75.70		1.257E+00	2.903E-01	4.424E-01	3.644E-02	2.842
	+	98.88	*	1.515E+00	3.747E-01	5.004E-01	4.364E-02	3.027
		129.76		3.719E+00	2.956E+00	5.132E+00	4.325E-01	0.725
TL-200		367.94	*	1.980E-04	2.956E+00	Half-Life too short		
		579.30		2.518E-02	2.956E+00	Half-Life too short		
		828.27		-5.653E-03	2.956E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1205.75		-5.482E-04	2.956E+00	Half-Life too short		
TL-201		68.90		-3.760E+00	8.009E+00	1.300E+01	1.002E+00	-0.289
		70.82		4.200E+00	5.098E+00	7.645E+00	5.999E-01	0.549
		80.30		-6.745E+00	1.264E+01	1.417E+01	1.227E+00	-0.476
		135.34		-2.338E+01	4.037E+01	6.720E+01	5.777E+00	-0.348
		167.43	*	-1.163E+01	1.129E+01	1.818E+01	1.791E+00	-0.640
TL-202		68.90		-2.370E-01	5.047E-01	8.190E-01	6.312E-02	-0.289
		70.82		2.639E-01	3.204E-01	4.805E-01	3.770E-02	0.549
		80.30		-4.240E-01	7.945E-01	8.908E-01	7.716E-02	-0.476
		439.56	*	5.239E-02	6.649E-02	1.120E-01	1.078E-02	0.468
HG-203		70.83		1.064E+00	1.278E+00	1.910E+00	2.507E-01	0.557
		72.87		9.414E-01	7.767E-01	1.164E+00	1.491E-01	0.809
		82.60		2.022E+00	1.597E+00	2.175E+00	3.027E-01	0.929
		279.20	*	2.012E-02	4.067E-02	6.611E-02	9.357E-03	0.304
BI-207		72.80		2.143E-01	2.181E-01	3.279E-01	2.623E-02	0.653
	+	74.97		6.919E-01	1.598E-01	2.253E-01	1.842E-02	3.071
		84.90		7.840E-01	2.465E-01	3.733E-01	3.412E-02	2.100
		569.67		4.205E-02	2.749E-02	4.827E-02	4.958E-03	0.871
		1063.62	*	1.994E-02	4.409E-02	7.387E-02	7.092E-03	0.270
		1770.23		8.320E-01	4.332E-01	7.774E-01	6.462E-02	1.070
TL-207		81.07		-1.884E-01	3.398E-01	3.802E-01	3.323E-02	-0.496
		83.78		5.140E-01	1.639E-01	2.486E-01	2.242E-02	2.067
	+	94.90		1.026E+00	4.661E-01	5.570E-01	4.979E-02	1.843
		122.32		1.386E-01	1.883E+00	2.991E+00	2.662E-01	0.046
	+	144.24		2.111E+00	9.699E-01	1.325E+00	1.312E-01	1.593
		154.21		6.050E-01	4.068E-01	6.995E-01	7.066E-02	0.865
	+	269.46		5.281E-01	2.712E-01	3.241E-01	4.452E-02	1.629
		323.87	*	2.846E-01	6.446E-01	9.563E-01	1.901E-01	0.298
	+	338.28		7.413E+00	2.037E+00	2.145E+00	3.173E-01	3.455
		445.03		-1.857E+00	2.038E+00	3.146E+00	4.043E-01	-0.590
PO-209	+	260.50		2.181E+01	1.407E+01	1.570E+01	2.084E+00	1.389
		262.80		1.529E+01	3.083E+01	4.134E+01	5.524E+00	0.370
		896.60	*	1.302E-01	5.983E+00	9.929E+00	1.112E+00	0.013
BI-210		46.50	*	3.961E+00	3.421E+00	5.833E+00	5.419E-01	0.679
PB-210		46.50	*	3.961E+00	3.421E+00	5.833E+00	5.419E-01	0.679
PO-210		46.50	*	3.961E+00	3.417E+00	5.833E+00	4.905E-01	0.679
PB-211		404.84	*	-6.021E-01	9.605E-01	1.408E+00	8.839E-01	-0.428
		427.08		1.461E+00	2.070E+00	3.140E+00	1.955E+00	0.465
		831.96		-2.476E-01	1.050E+00	1.712E+00	1.079E+00	-0.145
BI-212	+	727.18	*	1.080E+00	4.129E-01	5.518E-01	6.591E-02	1.958
		785.46		3.002E+00	1.617E+00	2.812E+00	3.091E-01	1.068
		1620.62		1.636E+00	1.014E+00	1.917E+00	1.671E-01	0.853
PO-215		81.07		-1.884E-01	3.398E-01	3.802E-01	3.323E-02	-0.496
		83.78		5.140E-01	1.639E-01	2.486E-01	2.242E-02	2.067
	+	94.90		1.026E+00	4.661E-01	5.570E-01	4.979E-02	1.843
		122.32		1.386E-01	1.883E+00	2.991E+00	2.662E-01	0.046
	+	144.24		2.111E+00	9.699E-01	1.325E+00	1.312E-01	1.593
		154.21		6.050E-01	4.068E-01	6.995E-01	7.066E-02	0.865
	+	269.46		5.281E-01	2.712E-01	3.241E-01	4.452E-02	1.629

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	2.846E-01	6.446E-01	9.563E-01	1.901E-01	0.298
	+	338.28		7.413E+00	2.037E+00	2.145E+00	3.173E-01	3.455
		445.03		-1.857E+00	2.038E+00	3.146E+00	4.043E-01	-0.590
RN-219	+	271.23		6.776E-01	3.499E-01	4.135E-01	6.125E-02	1.639
		401.81	*	3.909E-02	3.731E-01	6.149E-01	9.514E-02	0.064
RN-220		549.76	*	-1.427E+00	2.148E+01	3.574E+01	3.643E+00	-0.040
RA-223		81.07		-1.884E-01	3.398E-01	3.802E-01	3.323E-02	-0.496
		83.78		5.140E-01	1.639E-01	2.486E-01	2.242E-02	2.067
	+	94.90		1.026E+00	4.661E-01	5.570E-01	4.979E-02	1.843
		122.32		1.386E-01	1.883E+00	2.991E+00	2.662E-01	0.046
	+	144.24		2.111E+00	9.699E-01	1.325E+00	1.312E-01	1.593
		154.21		6.050E-01	4.068E-01	6.995E-01	7.066E-02	0.865
	+	269.46		5.281E-01	2.712E-01	3.241E-01	4.452E-02	1.629
		323.87	*	2.846E-01	6.446E-01	9.563E-01	1.901E-01	0.298
	+	338.28		7.413E+00	2.037E+00	2.145E+00	3.173E-01	3.455
		445.03		-1.857E+00	2.038E+00	3.146E+00	4.043E-01	-0.590
AC-227		79.80		-1.053E+00	2.586E+00	2.910E+00	6.257E-01	-0.362
		236.00		8.197E-01	2.987E-01	4.303E-01	6.491E-02	1.905
		256.20	*	4.326E-01	4.242E-01	6.171E-01	1.126E-01	0.701
		286.10		-4.844E-01	1.436E+00	2.258E+00	3.847E-01	-0.215
	+	299.80		3.254E+00	1.767E+00	2.288E+00	4.634E-01	1.422
		304.40		2.242E+00	1.915E+00	2.883E+00	6.048E-01	0.778
		334.20		-1.185E-01	2.856E+00	3.247E+00	6.874E-01	-0.037
TH-227		79.80		-1.053E+00	2.586E+00	2.910E+00	6.337E-01	-0.362
	+	94.00		8.211E+00	4.074E+00	7.335E+00	1.609E+00	1.119
		236.00		8.197E-01	2.956E-01	4.303E-01	6.090E-02	1.905
		256.20	*	4.326E-01	4.262E-01	6.171E-01	1.270E-01	0.701
		286.10		-4.844E-01	1.515E+00	2.258E+00	2.279E+00	-0.215
	+	299.80		3.254E+00	1.767E+00	2.288E+00	4.634E-01	1.422
		304.40		2.242E+00	1.915E+00	2.883E+00	6.048E-01	0.778
		334.20		-1.185E-01	2.856E+00	3.247E+00	6.874E-01	-0.037
TH-229		85.43		8.995E-01	2.482E-01	3.742E-01	3.443E-02	2.404
	+	88.47		4.527E-01	1.686E-01	2.345E-01	2.215E-02	1.931
	+	100.00		1.247E+00	3.086E-01	3.788E-01	3.284E-02	3.293
		193.63	*	3.375E-01	5.001E-01	8.383E-01	9.013E-02	0.403
	+	210.97		2.379E+00	1.084E+00	1.287E+00	1.465E-01	1.849
PA-231		283.67	*	-3.557E-02	1.429E+00	2.281E+00	4.259E-01	-0.016
	+	301.29		1.302E+00	6.881E-01	9.393E-01	1.494E-01	1.386
TH-231		81.07		-1.884E-01	3.398E-01	3.802E-01	3.323E-02	-0.496
		83.78		5.140E-01	1.639E-01	2.486E-01	2.242E-02	2.067
	+	94.90		1.026E+00	4.661E-01	5.570E-01	4.979E-02	1.843
		122.32		1.386E-01	1.883E+00	2.991E+00	2.662E-01	0.046
	+	144.24		2.111E+00	9.699E-01	1.325E+00	1.312E-01	1.593
		154.21		6.050E-01	4.068E-01	6.995E-01	7.066E-02	0.865
	+	269.46		5.281E-01	2.712E-01	3.241E-01	4.452E-02	1.629
		323.87	*	2.846E-01	6.446E-01	9.563E-01	1.901E-01	0.298
	+	338.28		7.413E+00	2.037E+00	2.145E+00	3.173E-01	3.455
		445.03		-1.857E+00	2.038E+00	3.146E+00	4.043E-01	-0.590
U-231		84.21		3.188E+01	9.940E+00	1.507E+01	1.366E+00	2.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		1.664E+02	1.624E+01	1.184E+01	1.080E+00	14.052
	+	95.87	*	7.061E+00	3.207E+00	2.973E+00	2.640E-01	2.375
		108.00		-3.132E+00	3.832E+00	5.285E+00	4.442E-01	-0.593
PA-233	+	75.28		2.019E+01	5.321E+00	6.769E+00	1.023E+00	2.983
	+	86.59		8.806E+00	3.386E+00	3.373E+00	9.126E-01	2.611
	+	300.12		9.071E-01	4.856E-01	6.433E-01	1.160E-01	1.410
		311.98	*	1.048E-03	5.643E-02	9.468E-02	1.240E-02	0.011
		340.50		3.156E+00	1.062E+00	1.196E+00	3.010E-01	2.639
		398.62		1.882E-01	1.846E+00	3.043E+00	8.179E-01	0.062
		415.76		7.783E-02	1.471E+00	2.413E+00	5.286E-01	0.032
PA-234	+	63.00		3.493E+01	5.930E+00	4.512E+00	6.683E-01	7.742
	+	94.67		7.322E-01	3.388E-01	4.544E-01	5.742E-02	1.611
	+	98.44		6.090E-01	3.679E-01	2.029E-01	1.132E-01	3.001
	+	99.86		3.157E+00	7.809E-01	9.836E-01	8.533E-02	3.210
		111.00		2.535E-01	2.534E-01	3.692E-01	4.391E-02	0.687
		131.20		7.426E-02	1.088E-01	1.870E-01	1.584E-02	0.397
		152.70		2.205E-01	3.276E-01	5.553E-01	9.643E-02	0.397
	+	186.00		2.038E+01	6.919E+00	3.330E+00	1.058E+00	6.119
		226.40		2.763E-01	3.907E-01	6.468E-01	1.009E-01	0.427
		227.20		3.911E-01	4.219E-01	7.029E-01	8.430E-02	0.556
		248.90		6.429E-01	7.878E-01	1.285E+00	3.128E-01	0.500
		293.70		5.674E+00	1.403E+00	1.479E+00	2.991E-01	3.836
		369.80		2.763E-02	7.693E-01	1.273E+00	2.873E-01	0.022
		568.70		1.350E-01	8.888E-01	1.490E+00	1.529E-01	0.091
		569.50		3.555E-01	2.428E-01	4.257E-01	4.373E-02	0.835
		574.00		-7.213E-01	1.401E+00	2.161E+00	2.223E-01	-0.334
		699.00		-1.748E-01	6.378E-01	1.026E+00	2.062E-01	-0.170
		706.10		-3.312E-01	9.177E-01	1.449E+00	6.526E-01	-0.229
		733.00		-1.345E-01	3.843E-01	5.176E-01	1.198E-01	-0.260
	+	742.81		1.825E+00	1.834E+00	2.130E+00	1.439E+00	0.857
		796.30		1.512E+00	9.069E-01	1.425E+00	3.976E-01	1.062
		805.60		1.594E-01	8.204E-01	1.385E+00	4.353E-01	0.115
		819.60		5.148E-02	9.980E-01	1.673E+00	6.467E-01	0.031
		826.30		-2.172E-01	6.775E-01	1.099E+00	4.975E-01	-0.198
		831.60		-1.898E-01	5.505E-01	8.764E-01	2.687E-01	-0.217
		876.40		-5.515E-01	8.851E-01	1.070E+00	1.103E+00	-0.515
		880.51		-8.411E-02	2.291E-01	3.715E-01	4.154E-02	-0.226
		883.24		1.404E-01	2.554E-01	4.073E-01	2.753E-01	0.345
		899.00		-1.247E+00	8.950E-01	1.039E+00	4.600E-01	-1.200
		925.00		1.751E+00	1.077E+00	1.763E+00	1.940E-01	0.994
		926.50		1.846E-01	1.722E-01	2.567E-01	6.721E-02	0.719
		946.00	*	3.260E-02	2.752E-01	4.182E-01	8.312E-02	0.078
		949.00		1.146E-01	3.641E-01	6.115E-01	6.607E-02	0.187
		980.50		4.493E-01	6.015E-01	9.985E-01	1.050E-01	0.450
		1394.10		-4.155E-01	1.023E+00	1.559E+00	1.015E+00	-0.267
NP-236	+	94.67		5.553E-01	2.522E-01	3.460E-01	3.098E-02	1.605
	+	98.44		4.604E-01	1.139E-01	1.534E-01	1.341E-02	3.001
		111.00		1.918E-01	1.910E-01	2.793E-01	2.330E-02	0.687
		160.31	*	-4.017E-02	8.207E-02	1.353E-01	1.293E-02	-0.297

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		1.052E+00	2.603E-01	3.383E-01	2.939E-02	3.111
		117.00	*	-1.917E-02	2.268E-01	3.194E-01	2.640E-02	-0.060
	+	209.75		2.397E+00	1.092E+00	1.354E+00	1.535E-01	1.770
		228.18		7.760E-02	2.182E-01	3.588E-01	4.317E-02	0.216
		277.60		2.075E-01	1.744E-01	2.875E-01	4.008E-02	0.722
		334.30		-6.010E-02	1.455E+00	1.839E+00	2.218E-01	-0.033
AM-241		59.54	*	1.198E-01	1.849E-01	2.806E-01	2.193E-02	0.427
CM-243	+	99.55		1.083E+00	2.679E-01	3.481E-01	3.025E-02	3.111
		103.76	*	2.344E-02	1.129E-01	1.734E-01	1.479E-02	0.135
		117.00		-1.973E-02	2.333E-01	3.287E-01	2.717E-02	-0.060
	+	209.75		2.363E+00	1.077E+00	1.335E+00	1.514E-01	1.770
		228.18		7.842E-02	2.205E-01	3.626E-01	4.362E-02	0.216
		277.60		2.092E-01	1.759E-01	2.899E-01	4.041E-02	0.722
AM-246		798.80		-2.178E-01	1.301E-01	1.856E-01	2.047E-02	-1.173
		1036.00		8.043E-02	2.403E-01	4.013E-01	3.985E-02	0.200
		1062.04		4.949E-02	1.933E-01	3.202E-01	3.080E-02	0.155
		1078.86	*	1.069E-02	1.162E-01	1.902E-01	1.790E-02	0.056
CM-247		278.00		7.869E-01	7.220E-01	1.188E+00	1.658E-01	0.662
		287.40		-5.847E-01	1.163E+00	1.814E+00	2.496E-01	-0.322
		402.60	*	1.233E-02	3.331E-02	5.548E-02	5.204E-03	0.222
CF-249		252.85		-6.726E-01	9.218E-01	1.322E+00	1.715E-01	-0.509
		333.44		-8.823E-02	2.584E-01	2.416E-01	2.923E-02	-0.365
		387.95	*	9.538E-03	3.477E-02	5.788E-02	5.502E-03	0.165
CF-251		176.60	*	4.065E-02	1.277E-01	2.138E-01	2.171E-02	0.190
		227.00		4.154E-01	3.733E-01	6.240E-01	7.479E-02	0.666
		285.00		1.087E-01	1.637E+00	2.622E+00	3.627E-01	0.041

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020009      *
* Acquisition date : 13-FEB-2010 16:43:12 Detector SN#     :               *
* Detector ID        : GAM22               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:03.01     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G246020009           Analyst initials: MXR1         *
* Batch Number       : 948751               Sample Quantity : 1.4835E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.742E+01	2.790E+00	4.567E-01	0.000E+00
NB-95	2.506E-01	7.993E-02	6.100E-02	0.000E+00
CD-109	4.591E+00	1.298E+00	1.505E+00	0.000E+00
SN-126	4.498E-01	1.272E-01	1.481E-01	0.000E+00
BA-137M	6.632E-02	3.585E-02	5.280E-02	0.000E+00
CS-137	7.011E-02	3.789E-02	5.581E-02	0.000E+00
CE-141	2.041E-01	9.156E-02	1.151E-01	0.000E+00
LU-177	4.190E+00	1.871E+00	2.165E+00	0.000E+00
TL-208	5.147E-01	8.907E-02	5.316E-02	0.000E+00
BI-211	3.854E+00	5.984E-01	2.983E-01	0.000E+00
PB-212	1.692E+00	2.379E-01	8.737E-02	0.000E+00
PO-212	1.692E+00	2.379E-01	8.737E-02	0.000E+00
BI-214	1.199E+00	1.931E-01	1.013E-01	0.000E+00
PB-214	1.341E+00	2.192E-01	1.040E-01	0.000E+00
PO-214	1.341E+00	2.192E-01	1.040E-01	0.000E+00
PO-216	1.692E+00	2.379E-01	8.737E-02	0.000E+00
PO-218	1.341E+00	2.192E-01	1.040E-01	0.000E+00
RA-224	4.970E+00	1.072E+00	9.930E-01	0.000E+00
RA-226	1.199E+00	1.931E-01	1.013E-01	0.000E+00
AC-228	1.799E+00	3.212E-01	1.788E-01	0.000E+00
RA-228	1.799E+00	3.212E-01	1.788E-01	0.000E+00
TH-228	1.721E+00	2.420E-01	8.888E-02	0.000E+00
TH-230	1.199E+00	1.931E-01	1.013E-01	0.000E+00
TH-232	1.799E+00	3.212E-01	1.788E-01	0.000E+00
PA-234M	4.850E+01	9.734E+00	5.659E+00	0.000E+00
TH-234	2.997E+01	5.661E+00	2.369E+00	0.000E+00
U-234	1.199E+00	1.931E-01	1.013E-01	0.000E+00
U-235	6.514E-01	3.078E-01	3.832E-01	0.000E+00
NP-237	1.321E+00	4.593E-01	4.392E-01	0.000E+00
U-238	2.997E+01	5.661E+00	2.369E+00	0.000E+00
AM-243	3.854E-01	8.723E-02	1.071E-01	0.000E+00
ANH-511	1.635E-01	5.927E-02	4.249E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	1.995E-01	2.863E-01	5.032E-01	0.000E+00	NOT IDENT.
NA-22	1.177E-02	3.718E-02	6.460E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.377E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.628E-02	2.169E-02	3.982E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.268E-02	8.289E-02	0.000E+00	FAIL ABUN
SC-46	-1.601E-02	3.369E-02	5.644E-02	0.000E+00	FAIL ABUN
V-48	2.391E-03	6.080E-02	1.038E-01	0.000E+00	NOT IDENT.
CR-51	-2.025E-01	3.489E-01	5.900E-01	0.000E+00	NOT IDENT.
MN-52	1.034E-01	2.411E-01	4.202E-01	0.000E+00	FAIL ABUN
MN-54	-1.029E-04	3.255E-02	5.655E-02	0.000E+00	NOT IDENT.
CO-56	-2.040E-02	3.343E-02	5.590E-02	0.000E+00	NOT IDENT.
CO-57	3.876E-03	2.687E-02	4.658E-02	0.000E+00	NOT IDENT.
CO-58	-1.219E-02	3.259E-02	5.560E-02	0.000E+00	NOT IDENT.
FE-59	-5.419E-02	7.960E-02	1.276E-01	0.000E+00	FAIL ABUN
CO-60	-5.370E-03	2.952E-02	4.932E-02	0.000E+00	NOT IDENT.
ZN-65	4.046E-02	8.913E-02	1.319E-01	0.000E+00	NOT IDENT.
GE-68	6.843E-02	9.995E-01	1.691E+00	0.000E+00	NOT IDENT.
AS-73	-7.206E-01	8.699E-01	1.556E+00	0.000E+00	NOT IDENT.
AS-74	-1.121E-02	8.536E-02	1.476E-01	0.000E+00	NOT IDENT.
SE-75	3.859E-02	6.405E-02	7.244E-02	0.000E+00	NOT IDENT.
BR-77	5.494E+00	1.633E+01	2.730E+01	0.000E+00	FAIL ABUN
SR-82	-4.205E-01	3.688E-01	5.614E-01	0.000E+00	NOT IDENT.
RB-83	1.871E-02	5.978E-02	9.982E-02	0.000E+00	NOT IDENT.
RB-84	2.265E-02	5.857E-02	1.033E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.652E+00	1.264E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.010E-02	6.622E-02	0.000E+00	NOT IDENT.
RB-86	-1.524E-01	6.868E-01	1.140E+00	0.000E+00	NOT IDENT.
Y-88	1.509E-02	2.630E-02	4.707E-02	0.000E+00	NOT IDENT.
ZR-88	-8.915E-03	2.681E-02	4.605E-02	0.000E+00	NOT IDENT.
Y-91	-4.069E-01	1.540E+01	2.640E+01	0.000E+00	NOT IDENT.
NB-94	3.536E-02	2.871E-02	5.159E-02	0.000E+00	NOT IDENT.
NB-95M	8.784E-02	1.375E-01	2.143E-01	0.000E+00	NOT IDENT.
ZR-95	1.559E-02	6.381E-02	1.044E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.867E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.455E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	5.670E+00	2.044E+01	3.028E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.343E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.017E-03	3.267E-02	5.641E-02	0.000E+00	NOT IDENT.
RH-102	-1.924E-02	2.640E-02	4.337E-02	0.000E+00	FAIL ABUN
RU-103	2.652E-02	3.528E-02	6.182E-02	0.000E+00	FAIL ABUN
RH-106	-7.707E-02	2.669E-01	4.550E-01	0.000E+00	FAIL ABUN
RU-106	-7.707E-02	2.667E-01	4.550E-01	0.000E+00	FAIL ABUN
AG-108M	-1.224E-02	2.907E-02	4.912E-02	0.000E+00	NOT IDENT.
AG-110M	-4.652E-02	3.658E-02	4.839E-02	0.000E+00	NOT IDENT.
IN-111	-1.657E+00	1.864E+00	2.681E+00	0.000E+00	NOT IDENT.
IN-113M	-1.598E-02	3.914E-02	6.703E-02	0.000E+00	NOT IDENT.
SN-113	-1.598E-02	3.914E-02	6.703E-02	0.000E+00	NOT IDENT.
IN-114M	-6.040E-02	2.006E-01	3.095E-01	0.000E+00	NOT IDENT.
CD-115	-3.932E+00	1.710E+01	2.983E+01	0.000E+00	NOT IDENT.
SN-117M	9.731E-03	6.148E-02	1.118E-01	0.000E+00	NOT IDENT.
SB-122	1.179E+00	3.133E+00	5.572E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.051E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	6.552E-03	2.887E-02	5.257E-02	0.000E+00	NOT IDENT.
I-124	2.114E-01	9.391E-01	1.424E+00	0.000E+00	NOT IDENT.
SB-124	-1.231E-02	5.541E-02	9.129E-02	0.000E+00	FAIL ABUN
SB-125	4.003E-02	8.117E-02	1.430E-01	0.000E+00	FAIL ABUN
TE-125M	4.869E+00	1.219E+01	1.916E+01	0.000E+00	NOT IDENT.
I-126	0.000E+00	1.982E-01	3.233E-01	0.000E+00	NOT IDENT.
SB-126	4.321E-02	1.632E-01	2.425E-01	0.000E+00	FAIL ABUN
SB-127	1.687E+00	1.675E+00	2.992E+00	0.000E+00	NOT IDENT.
XE-127	-1.123E-02	5.404E-02	8.306E-02	0.000E+00	FAIL ABUN
I-131	1.748E-02	1.230E-01	2.174E-01	0.000E+00	NOT IDENT.
TE-132	3.771E-01	1.019E+00	1.797E+00	0.000E+00	FAIL ABUN
BA-133	-8.401E-03	4.256E-02	6.433E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.627E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.170E-02	7.573E-02	0.000E+00	NOT IDENT.
CS-135	1.439E-01	1.721E-01	2.629E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.187E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.610E-03	9.160E-02	1.545E-01	0.000E+00	FAIL ABUN
CE-139	-2.525E-03	2.986E-02	5.374E-02	0.000E+00	NOT IDENT.
BA-140	4.233E-02	2.413E-01	4.276E-01	0.000E+00	NOT IDENT.
LA-140	-8.938E-02	8.191E-02	1.258E-01	0.000E+00	FAIL ABUN
CE-143	0.000E+00	7.300E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-7.382E-02	2.039E-01	3.714E-01	0.000E+00	NOT IDENT.
PM-144	-2.796E-03	2.948E-02	5.012E-02	0.000E+00	NOT IDENT.
PR-144	-1.897E-01	2.000E+00	3.400E+00	0.000E+00	NOT IDENT.
PM-146	2.159E-02	3.883E-02	6.813E-02	0.000E+00	NOT IDENT.
ND-147	1.019E-01	5.335E-01	9.483E-01	0.000E+00	FAIL ABUN
PM-149	-6.578E+01	1.613E+02	2.697E+02	0.000E+00	NOT IDENT.
EU-152	2.202E-02	1.206E-01	1.482E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.259E-01	1.807E-01	0.000E+00	FAIL ABUN
EU-154	2.858E-02	1.035E-01	1.794E-01	0.000E+00	NOT IDENT.
EU-155	7.265E-02	1.185E-01	2.106E-01	0.000E+00	FAIL ABUN
TB-160	-8.493E-02	1.159E-01	1.907E-01	0.000E+00	FAIL ABUN
HO-166M	-2.677E-02	5.088E-02	8.408E-02	0.000E+00	FAIL ABUN
TM-171	-2.356E+01	3.173E+01	5.022E+01	0.000E+00	NOT IDENT.
LU-176	-4.992E-03	2.210E-02	3.923E-02	0.000E+00	FAIL ABUN
LU-177M	-2.256E-01	1.626E-01	2.630E-01	0.000E+00	FAIL ABUN
HF-181	-2.045E-02	3.879E-02	6.428E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	4.480E-01	7.679E-01	0.000E+00	NOT IDENT.
TA-182	1.153E-01	1.560E-01	2.779E-01	0.000E+00	FAIL ABUN
RE-183	1.534E-02	1.132E-01	2.053E-01	0.000E+00	FAIL ABUN
RE-184	-1.808E-01	2.428E-01	3.729E-01	0.000E+00	NOT IDENT.
OS-185	3.264E-03	3.565E-02	6.175E-02	0.000E+00	NOT IDENT.
RE-188	2.425E-01	1.753E-01	3.264E-01	0.000E+00	NOT IDENT.
W-188	-2.561E-01	7.388E+00	1.157E+01	0.000E+00	FAIL ABUN
IR-192	2.052E-03	3.017E-02	5.396E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.672E-01	5.365E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.541E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.163E+01	1.106E+01	1.926E+01	0.000E+00	NOT IDENT.
TL-202	5.239E-02	6.516E-02	1.161E-01	0.000E+00	NOT IDENT.
HG-203	2.012E-02	3.986E-02	6.924E-02	0.000E+00	NOT IDENT.
BI-207	1.994E-02	4.321E-02	7.493E-02	0.000E+00	FAIL ABUN
TL-207	2.846E-01	6.318E-01	9.981E-01	0.000E+00	FAIL ABUN
PO-209	1.302E-01	5.863E+00	1.011E+01	0.000E+00	FAIL ABUN
BI-210	3.961E+00	3.352E+00	6.357E+00	0.000E+00	NOT IDENT.
PB-210	3.961E+00	3.352E+00	6.357E+00	0.000E+00	NOT IDENT.
PO-210	3.961E+00	3.349E+00	6.357E+00	0.000E+00	NOT IDENT.
PB-211	-6.021E-01	9.413E-01	1.462E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.047E-01	5.650E-01	0.000E+00	FAIL ABUN
PO-215	2.846E-01	6.318E-01	9.981E-01	0.000E+00	FAIL ABUN
RN-219	3.909E-02	3.656E-01	6.386E-01	0.000E+00	FAIL ABUN
RN-220	-1.427E+00	2.105E+01	3.684E+01	0.000E+00	NOT IDENT.
RA-223	2.846E-01	6.318E-01	9.981E-01	0.000E+00	FAIL ABUN
AC-227	4.326E-01	4.157E-01	6.476E-01	0.000E+00	FAIL ABUN
TH-227	4.326E-01	4.177E-01	6.476E-01	0.000E+00	FAIL ABUN
TH-229	3.375E-01	4.901E-01	8.854E-01	0.000E+00	FAIL ABUN
PA-231	-3.557E-02	1.401E+00	2.388E+00	0.000E+00	FAIL ABUN
TH-231	2.846E-01	6.318E-01	9.981E-01	0.000E+00	FAIL ABUN
U-231	0.000E+00	3.143E+00	3.190E+00	0.000E+00	FAIL ABUN
PA-233	1.048E-03	5.530E-02	9.890E-02	0.000E+00	FAIL ABUN
PA-234	3.260E-02	2.697E-01	4.254E-01	0.000E+00	FAIL ABUN
NP-236	-4.017E-02	8.042E-02	1.435E-01	0.000E+00	FAIL ABUN
NP-239	-1.917E-02	2.222E-01	3.412E-01	0.000E+00	FAIL ABUN
AM-241	1.198E-01	1.812E-01	3.042E-01	0.000E+00	NOT IDENT.
CM-243	2.344E-02	1.107E-01	1.858E-01	0.000E+00	FAIL ABUN
AM-246	1.069E-02	1.138E-01	1.929E-01	0.000E+00	NOT IDENT.
CM-247	1.233E-02	3.265E-02	5.761E-02	0.000E+00	NOT IDENT.
CF-249	9.538E-03	3.407E-02	6.016E-02	0.000E+00	NOT IDENT.
CF-251	4.065E-02	1.252E-01	2.262E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:44:18.08

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020009.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:43:12
Sample ID         : G246020009           Sample quantity  : 1.48350E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.01  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2207	10.67*	1.909E+00	2.742E+01	2.742E+01	10.38
NB-95	765.79	263	99.81*	3.206E+00	2.080E-01	2.506E-01	32.54
CD-109	88.03	492	3.72*	7.477E+00	4.474E+00	4.591E+00	28.86
SN-126	64.28	1948	9.60	4.330E+00	1.186E+01	1.186E+01	16.69
	86.94	492	8.90	7.477E+00	1.870E+00	1.870E+00	49.69
	87.57	492	37.00*	7.477E+00	4.498E-01	4.498E-01	28.86
BA-137M	661.65	85	89.98*	3.589E+00	6.625E-02	6.632E-02	55.15
CS-137	661.65	85	85.12*	3.589E+00	7.003E-02	7.011E-02	55.16
CE-141	145.44	226	48.40*	8.360E+00	1.413E-01	2.041E-01	45.78
LU-177	112.95	254	6.40	8.514E+00	1.179E+00	6.997E+00	59.59
	208.36	220	11.00*	7.180E+00	7.060E-01	4.190E+00	45.56
TL-208	277.35	------	6.80	6.182E+00	------ Line Not Found		------
	510.84	278	21.60	4.297E+00	7.570E-01	7.570E-01	37.92
	583.14	673	84.20*	3.931E+00	5.147E-01	5.147E-01	17.66
	860.37	112	12.46	2.922E+00	7.789E-01	7.789E-01	53.29
BI-211	72.87	------	1.27	5.897E+00	------ Line Not Found		------
	351.07	1064	12.94*	5.401E+00	3.854E+00	3.854E+00	15.84
PB-212	74.81	621	10.70	6.175E+00	2.377E+00	2.377E+00	24.92
	77.11	932	18.00	6.463E+00	2.027E+00	2.027E+00	17.10
	87.30	492	8.00	7.477E+00	2.081E+00	2.081E+00	30.54
	238.63	2001	44.60*	6.709E+00	1.692E+00	1.692E+00	14.35
	300.09	140	3.41	5.917E+00	1.756E+00	1.756E+00	52.48
PO-212	74.81	621	10.70	6.175E+00	2.377E+00	2.377E+00	24.92
	77.11	932	18.00	6.463E+00	2.027E+00	2.027E+00	17.10
	87.30	492	8.00	7.477E+00	2.081E+00	2.081E+00	30.54
	115.19	------	0.60	8.535E+00	------ Line Not Found		------
	238.63	2001	44.60*	6.709E+00	1.692E+00	1.692E+00	14.35
	300.09	140	3.41	5.917E+00	1.756E+00	1.756E+00	52.48
BI-214	609.31	836	46.30*	3.811E+00	1.199E+00	1.199E+00	16.43
	1120.29	215	15.10	2.345E+00	1.533E+00	1.533E+00	34.52
	1764.49	197	15.80	1.716E+00	1.836E+00	1.836E+00	19.72
PB-214	74.81	621	6.21	6.175E+00	4.096E+00	4.096E+00	24.25

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	932	10.50	6.463E+00	3.475E+00	3.475E+00	18.72
	87.30	492	4.67	7.477E+00	3.564E+00	3.564E+00	29.87
	241.98	517	7.49	6.665E+00	2.621E+00	2.621E+00	22.72
	295.21	612	19.20	5.970E+00	1.350E+00	1.350E+00	19.78
	351.92	1064	37.20*	5.401E+00	1.341E+00	1.341E+00	16.68
PO-214	74.81	621	6.21	6.175E+00	4.096E+00	4.096E+00	24.25
	77.11	932	10.50	6.463E+00	3.475E+00	3.475E+00	18.72
	87.30	492	4.67	7.477E+00	3.564E+00	3.564E+00	29.87
	241.98	517	7.49	6.665E+00	2.621E+00	2.621E+00	22.72
	295.21	612	19.20	5.970E+00	1.350E+00	1.350E+00	19.78
	351.92	1064	37.20*	5.401E+00	1.341E+00	1.341E+00	16.68
PO-216	74.81	621	10.70	6.175E+00	2.377E+00	2.377E+00	24.92
	77.11	932	18.00	6.463E+00	2.027E+00	2.027E+00	17.10
	87.30	492	8.00	7.477E+00	2.081E+00	2.081E+00	30.54
	238.63	2001	44.60*	6.709E+00	1.692E+00	1.692E+00	14.35
	300.09	140	3.41	5.917E+00	1.756E+00	1.756E+00	52.48
PO-218	74.81	621	6.21	6.175E+00	4.096E+00	4.096E+00	24.25
	77.11	932	10.50	6.463E+00	3.475E+00	3.475E+00	18.72
	87.30	492	4.67	7.477E+00	3.564E+00	3.564E+00	29.87
	241.98	517	7.49	6.665E+00	2.621E+00	2.621E+00	22.72
	295.21	612	19.20	5.970E+00	1.350E+00	1.350E+00	19.78
	351.92	1064	37.20*	5.401E+00	1.341E+00	1.341E+00	16.68
RA-224	240.98	517	3.95*	6.665E+00	4.970E+00	4.970E+00	22.02
RA-226	609.31	836	46.30*	3.811E+00	1.199E+00	1.199E+00	16.43
	1120.29	215	15.10	2.345E+00	1.533E+00	1.533E+00	34.52
	1764.49	197	15.80	1.716E+00	1.836E+00	1.836E+00	19.72
AC-228	338.32	442	11.40	5.522E+00	1.775E+00	1.775E+00	48.02
	911.07	549	27.70*	2.789E+00	1.799E+00	1.799E+00	18.22
	969.11	328	16.60	2.649E+00	1.887E+00	1.887E+00	29.51
RA-228	338.32	442	11.40	5.522E+00	1.775E+00	1.775E+00	48.02
	911.07	549	27.70*	2.789E+00	1.799E+00	1.799E+00	18.22
	969.11	328	16.60	2.649E+00	1.887E+00	1.887E+00	29.51
TH-228	74.81	621	10.70	6.175E+00	2.377E+00	2.418E+00	23.12
	77.11	932	18.00	6.463E+00	2.027E+00	2.062E+00	17.10
	87.30	492	8.00	7.477E+00	2.081E+00	2.116E+00	28.86
	238.63	2001	44.60*	6.709E+00	1.692E+00	1.721E+00	14.35
	300.09	140	3.41	5.917E+00	1.756E+00	1.786E+00	78.48
TH-230	609.31	836	46.30*	3.811E+00	1.199E+00	1.199E+00	16.43
	1120.29	215	15.10	2.345E+00	1.533E+00	1.533E+00	34.52
	1764.49	197	15.80	1.716E+00	1.836E+00	1.836E+00	19.72
TH-232	338.32	442	11.40	5.522E+00	1.775E+00	1.775E+00	26.04
	911.07	549	27.70*	2.789E+00	1.799E+00	1.799E+00	18.22
	969.11	328	16.60	2.649E+00	1.887E+00	1.887E+00	29.51
PA-234M	766.42	263	0.32	3.206E+00	6.486E+01	6.486E+01	59.66
	1001.03	415	0.84*	2.578E+00	4.850E+01	4.850E+01	20.48
TH-234	63.29	1948	3.80*	4.330E+00	2.997E+01	2.997E+01	19.28
	92.38	5197	5.41	7.857E+00	3.094E+01	3.094E+01	18.65
U-234	609.31	836	46.30*	3.811E+00	1.199E+00	1.199E+00	16.43
	1120.29	215	15.10	2.345E+00	1.533E+00	1.533E+00	34.52

Sample ID : G246020009 Acquisition date : 13-FEB-2010 16:43:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	197	15.80	1.716E+00	1.836E+00	1.836E+00	19.72
U-235	89.95	372	2.70	7.669E+00	4.544E+00	4.544E+00	47.60
	93.35	5197	4.50	7.857E+00	3.719E+01	3.719E+01	28.40
	105.00	------	2.10	8.370E+00	------ Line Not Found		------
	143.76	226	10.50*	8.360E+00	6.514E-01	6.514E-01	48.22
	163.35	------	4.70	8.031E+00	------ Line Not Found		------
	185.71	1225	54.00	7.607E+00	7.547E-01	7.547E-01	15.91
	205.31	96	4.70	7.254E+00	7.088E-01	7.088E-01	90.23
NP-237	86.50	492	12.60*	7.477E+00	1.321E+00	1.321E+00	35.48
	95.87	362	2.60	7.972E+00	4.421E+00	4.421E+00	50.94
U-238	63.29	1948	3.80*	4.330E+00	2.997E+01	2.997E+01	19.28
	92.38	5197	5.41	7.857E+00	3.094E+01	3.094E+01	9.76
AM-243	74.67	621	66.00*	6.175E+00	3.854E-01	3.854E-01	23.10
	86.72	492	0.34	7.477E+00	4.954E+01	4.954E+01	28.86
	117.66	------	0.55	8.550E+00	------ Line Not Found		------
	142.18	------	0.13	8.387E+00	------ Line Not Found		------
ANH-511	511.00	278	100.00*	4.297E+00	1.635E-01	1.635E-01	36.99

Flag: "*" = Keyline

Sample ID : G246020009 Acquisition date : 13-FEB-2010 16:43:12

Total number of lines in spectrum 40
Number of unidentified lines 1
Number of lines tentatively identified by NID 39 97.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.742E+01	2.742E+01	0.285E+01	10.38	
NB-95	64.02D	1.21	2.080E-01	2.506E-01	0.816E-01	32.54	
CD-109	464.00D	1.03	4.474E+00	4.591E+00	1.325E+00	28.86	
SN-126	1.00E+05Y	1.00	4.498E-01	4.498E-01	1.298E-01	28.86	
BA-137M	30.17Y	1.00	6.625E-02	6.632E-02	3.658E-02	55.15	
CS-137	30.17Y	1.00	7.003E-02	7.011E-02	3.867E-02	55.16	
CE-141	32.50D	1.44	1.413E-01	2.041E-01	0.934E-01	45.78	
LU-177	6.71D	5.93	7.060E-01	4.190E+00	1.909E+00	45.56	
TL-208	1.41E+10Y	1.00	5.147E-01	5.147E-01	0.909E-01	17.66	
BI-211	7.04E+08Y	1.00	3.854E+00	3.854E+00	0.611E+00	15.84	
PB-212	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.243E+00	14.35	
PO-212	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.243E+00	14.35	
BI-214	1600.00Y	1.00	1.199E+00	1.199E+00	0.197E+00	16.43	
PB-214	1600.00Y	1.00	1.341E+00	1.341E+00	0.224E+00	16.68	
PO-214	1600.00Y	1.00	1.341E+00	1.341E+00	0.224E+00	16.68	
PO-216	1.41E+10Y	1.00	1.692E+00	1.692E+00	0.243E+00	14.35	
PO-218	1600.00Y	1.00	1.341E+00	1.341E+00	0.224E+00	16.68	
RA-224	1.41E+10Y	1.00	4.970E+00	4.970E+00	1.094E+00	22.02	
RA-226	1600.00Y	1.00	1.199E+00	1.199E+00	0.197E+00	16.43	
AC-228	1.41E+10Y	1.00	1.799E+00	1.799E+00	0.328E+00	18.22	
RA-228	1.41E+10Y	1.00	1.799E+00	1.799E+00	0.328E+00	18.22	
TH-228	1.91Y	1.02	1.692E+00	1.721E+00	0.247E+00	14.35	
TH-230	4.47E+09Y	1.00	1.199E+00	1.199E+00	0.197E+00	16.43	
TH-232	1.41E+10Y	1.00	1.799E+00	1.799E+00	0.328E+00	18.22	
PA-234M	4.47E+09Y	1.00	4.850E+01	4.850E+01	0.993E+01	20.48	
TH-234	4.47E+09Y	1.00	2.997E+01	2.997E+01	0.578E+01	19.28	
U-234	4.47E+09Y	1.00	1.199E+00	1.199E+00	0.197E+00	16.43	
U-235	7.04E+08Y	1.00	6.514E-01	6.514E-01	3.141E-01	48.22	
NP-237	2.14E+06Y	1.00	1.321E+00	1.321E+00	0.469E+00	35.48	
U-238	4.47E+09Y	1.00	2.997E+01	2.997E+01	0.578E+01	19.28	
AM-243	7380.00Y	1.00	3.854E-01	3.854E-01	0.890E-01	23.10	
ANH-511	1.00E+09Y	1.00	1.635E-01	1.635E-01	0.605E-01	36.99	
	Total Activity :		1.748E+02	1.785E+02			

Grand Total Activity : 1.748E+02 1.785E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020009 Acquisition date : 13-FEB-2010 16:43:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.51	498	940	1.18	197.21	194	8	6.92E-02	23.1	8.15E+00	T
0	259.02	138	468	1.04	517.93	513	11	1.92E-02	63.2	6.42E+00	T
0	270.25	178	457	1.01	540.36	534	11	2.47E-02	49.5	6.27E+00	T
0	327.62	141	342	1.06	655.01	650	11	1.96E-02	53.4	5.63E+00	T
0	463.10	202	243	1.71	925.76	920	15	2.80E-02	36.4	4.58E+00	T
0	727.30	168	172	1.65	1453.85	1448	13	2.34E-02	36.3	3.34E+00	T
0	743.35	57	110	1.88	1485.96	1480	10	7.90E-03	74.5	3.29E+00	T
0	935.79	76	159	2.17	1870.68	1859	22	1.05E-02	88.0	2.73E+00	T
3	964.78	129	121	3.10	1928.65	1919	29	1.79E-02	49.3	2.66E+00	T
0	1378.10	90	66	1.98	2755.21	2747	20	1.25E-02	48.6	1.99E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:44:25.70

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020009.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:43:12  Detector SN#     :             *
* Detector ID       : GAM22                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:03.01          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020009            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.48350E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.742E+01	2.847E+00	4.538E-01	4.157E-02	60.419
NB-95	2.506E-01	8.156E-02	5.965E-02	6.523E-03	4.201
CD-109	4.591E+00	1.325E+00	1.400E+00	1.328E-01	3.280
SN-126	4.498E-01	1.298E-01	1.377E-01	1.300E-02	3.266
BA-137M	6.632E-02	3.658E-02	5.145E-02	5.426E-03	1.289
CS-137	7.011E-02	3.867E-02	5.439E-02	5.743E-03	1.289
CE-141	2.041E-01	9.343E-02	1.082E-01	9.853E-03	1.886
LU-177	4.190E+00	1.909E+00	2.053E+00	2.318E-01	2.041
TL-208	5.147E-01	9.089E-02	5.165E-02	5.600E-03	9.966
BI-211	3.854E+00	6.106E-01	2.864E-01	3.341E-02	13.457
PB-212	1.692E+00	2.428E-01	8.312E-02	1.098E-02	20.358
PO-212	1.692E+00	2.428E-01	8.312E-02	1.098E-02	20.358
BI-214	1.199E+00	1.971E-01	9.855E-02	1.146E-02	12.170
PB-214	1.341E+00	2.236E-01	9.980E-02	1.272E-02	13.433
PO-214	1.341E+00	2.236E-01	9.980E-02	1.272E-02	13.433
PO-216	1.692E+00	2.428E-01	8.312E-02	1.098E-02	20.358
PO-218	1.341E+00	2.236E-01	9.980E-02	1.272E-02	13.433
RA-224	4.970E+00	1.094E+00	9.449E-01	1.183E-01	5.260

Sample ID : G246020009 Acquisition date : 13-FEB-2010 16:43:12

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	1.199E+00	1.971E-01	9.855E-02	1.146E-02	12.170
AC-228	1.799E+00	3.277E-01	1.756E-01	2.327E-02	10.241
RA-228	1.799E+00	3.277E-01	1.756E-01	2.327E-02	10.241
TH-228	1.721E+00	2.470E-01	8.455E-02	1.117E-02	20.358
TH-230	1.199E+00	1.971E-01	9.855E-02	1.146E-02	12.170
TH-232	1.799E+00	3.277E-01	1.756E-01	2.327E-02	10.241
PA-234M	4.850E+01	9.933E+00	5.571E+00	6.384E-01	8.706
TH-234	2.997E+01	5.776E+00	2.188E+00	3.808E-01	13.697
U-234	1.199E+00	1.971E-01	9.855E-02	1.146E-02	12.170
U-235	6.514E-01	3.141E-01	3.604E-01	6.358E-02	1.807
NP-237	1.321E+00	4.687E-01	4.084E-01	9.248E-02	3.234
U-238	2.997E+01	5.776E+00	2.188E+00	3.808E-01	13.697
AM-243	3.854E-01	8.901E-02	9.927E-02	8.091E-03	3.882
ANH-511	1.635E-01	6.048E-02	4.115E-02	4.124E-03	3.973

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.995E-01		2.921E-01	4.866E-01	5.078E-02	0.410
NA-22	1.177E-02		3.794E-02	6.398E-02	5.513E-03	0.184
NA-24	1.374E+00		3.253E+00	Half-Life too short		
AL-26	1.628E-02		2.213E-02	3.979E-02	3.254E-03	0.409
TI-44	3.741E-01	+	6.396E-02	7.691E-02	6.521E-03	4.864
SC-46	-1.601E-02		3.438E-02	5.540E-02	6.201E-03	-0.289
V-48	2.391E-03		6.204E-02	1.022E-01	1.072E-02	0.023
CR-51	-2.025E-01		3.560E-01	5.651E-01	7.318E-02	-0.358
MN-52	1.034E-01		2.460E-01	4.173E-01	3.730E-02	0.248
MN-54	-1.029E-04		3.322E-02	5.542E-02	6.157E-03	-0.002
CO-56	-2.040E-02		3.411E-02	5.481E-02	6.101E-03	-0.372
CO-57	3.876E-03		2.742E-02	4.365E-02	3.600E-03	0.089
CO-58	-1.219E-02		3.325E-02	5.445E-02	6.030E-03	-0.224
FE-59	-5.419E-02		8.122E-02	1.259E-01	1.234E-02	-0.430
CO-60	-5.370E-03		3.012E-02	4.889E-02	4.360E-03	-0.110
ZN-65	4.046E-02		9.095E-02	1.302E-01	1.161E-02	0.311
GE-68	6.843E-02		1.020E+00	1.668E+00	1.572E-01	0.041
AS-73	-7.206E-01		8.877E-01	1.432E+00	1.082E-01	-0.503
AS-74	-1.121E-02		8.710E-02	1.435E-01	1.487E-02	-0.078
SE-75	3.859E-02		6.535E-02	6.908E-02	9.298E-03	0.559
BR-77	5.494E+00		1.666E+01	2.645E+01	2.662E+00	0.208
SR-82	-4.205E-01		3.763E-01	5.492E-01	6.023E-02	-0.766
RB-83	1.871E-02		6.100E-02	9.672E-02	9.734E-03	0.193
RB-84	2.265E-02		5.977E-02	1.014E-01	1.134E-02	0.223
KR-85	2.270E+01		7.808E+00	1.224E+01	1.228E+00	1.854
SR-85	1.189E-01		4.092E-02	6.415E-02	6.436E-03	1.854
RB-86	-1.524E-01		7.008E-01	1.124E+00	1.061E-01	-0.136
Y-88	1.509E-02		2.684E-02	4.705E-02	3.804E-03	0.321
ZR-88	-8.915E-03		2.736E-02	4.433E-02	4.127E-03	-0.201

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91	-4.069E-01		1.571E+01	2.611E+01	2.147E+00	-0.016
NB-94	3.536E-02		2.929E-02	5.034E-02	5.395E-03	0.702
NB-95M	8.784E-02		1.403E-01	2.038E-01	2.694E-02	0.431
ZR-95	1.559E-02		6.511E-02	1.020E-01	1.185E-02	0.153
NB-97	-9.487E-01		4.014E-01	Half-Life too short		
ZR-97	4.000E+01		7.421E+00	Half-Life too short		
MO-99	5.670E+00		2.086E+01	2.959E+01	4.898E+00	0.192
TC-99M	5.517E+12		6.850E+12	Half-Life too short		
RH-101	-8.017E-03		3.334E-02	5.344E-02	5.830E-03	-0.150
RH-102	-1.924E-02		2.694E-02	4.193E-02	4.124E-03	-0.459
RU-103	2.652E-02		3.600E-02	5.983E-02	8.980E-03	0.443
RH-106	-7.707E-02		2.723E-01	4.427E-01	6.464E-02	-0.174
RU-106	-7.707E-02		2.722E-01	4.427E-01	4.624E-02	-0.174
AG-108M	-1.224E-02		2.966E-02	4.739E-02	4.691E-03	-0.258
AG-110M	-4.652E-02		3.733E-02	4.715E-02	5.068E-03	-0.987
IN-111	-1.657E+00		1.902E+00	2.552E+00	3.238E-01	-0.649
IN-113M	-1.598E-02		3.994E-02	6.451E-02	6.161E-03	-0.248
SN-113	-1.598E-02		3.994E-02	6.451E-02	6.161E-03	-0.248
IN-114M	-6.040E-02		2.047E-01	2.929E-01	3.114E-02	-0.206
CD-115	-3.932E+00		1.744E+01	2.891E+01	2.920E+00	-0.136
SN-117M	9.731E-03		6.273E-02	1.054E-01	9.992E-03	0.092
SB-122	1.179E+00		3.197E+00	5.409E+00	5.544E-01	0.218
I-123	1.827E+01		4.108E+01	Half-Life too short		
TE-123M	6.552E-03		2.946E-02	4.955E-02	4.732E-03	0.132
I-124	2.114E-01		9.583E-01	1.385E+00	1.438E-01	0.153
SB-124	-1.231E-02		5.654E-02	9.105E-02	8.099E-03	-0.135
SB-125	4.003E-02		8.283E-02	1.380E-01	1.339E-02	0.290
TE-125M	4.869E+00		1.243E+01	1.791E+01	1.814E+00	0.272
I-126	3.431E-01		2.022E-01	3.151E-01	3.329E-02	1.089
SB-126	4.321E-02		1.665E-01	2.368E-01	2.553E-02	0.182
SB-127	1.687E+00		1.709E+00	2.918E+00	3.951E-01	0.578
XE-127	-1.123E-02		5.514E-02	7.873E-02	8.727E-03	-0.143
I-131	1.748E-02		1.255E-01	2.088E-01	2.317E-02	0.084
TE-132	3.771E-01		1.040E+00	1.708E+00	3.104E-01	0.221
BA-133	-8.401E-03		4.343E-02	6.177E-02	9.230E-03	-0.136
I-133	-4.575E-03		1.340E-02	Half-Life too short		
CS-134	8.373E-02		4.256E-02	7.413E-02	8.206E-03	1.129
CS-135	1.439E-01		1.756E-01	2.508E-01	3.628E-02	0.574
I-135	-2.979E+10		4.177E+11	Half-Life too short		
CS-136	-2.610E-03		9.347E-02	1.523E-01	1.540E-02	-0.017
CE-139	-2.525E-03		3.047E-02	5.070E-02	4.973E-03	-0.050
BA-140	4.233E-02		2.462E-01	4.146E-01	1.392E-01	0.102
LA-140	-8.938E-02		8.358E-02	1.253E-01	1.098E-02	-0.713
CE-143	2.353E-03		3.724E-04	Half-Life too short		
CE-144	-7.382E-02		2.081E-01	3.487E-01	5.413E-02	-0.212
PM-144	-2.796E-03		3.008E-02	4.891E-02	5.230E-03	-0.057
PR-144	-1.897E-01		2.041E+00	3.318E+00	3.547E-01	-0.057
PM-146	2.159E-02		3.962E-02	6.580E-02	7.647E-03	0.328

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	1.019E-01		5.444E-01	9.192E-01	1.458E-01	0.111
PM-149	-6.578E+01		1.646E+02	2.577E+02	4.876E+01	-0.255
EU-152	2.202E-02		1.231E-01	1.422E-01	1.709E-02	0.155
GD-153	5.193E-01	+	1.284E-01	1.685E-01	1.481E-02	3.082
EU-154	2.858E-02		1.056E-01	1.776E-01	2.008E-02	0.161
EU-155	7.265E-02		1.210E-01	1.967E-01	1.688E-02	0.369
TB-160	-8.493E-02		1.183E-01	1.872E-01	2.093E-02	-0.454
HO-166M	-2.677E-02		5.191E-02	8.208E-02	8.825E-03	-0.326
TM-171	-2.356E+01		3.238E+01	4.644E+01	3.509E+00	-0.507
LU-176	-4.992E-03		2.255E-02	3.754E-02	4.925E-03	-0.133
LU-177M	-2.256E-01		1.659E-01	2.534E-01	2.397E-02	-0.890
HF-181	-2.045E-02		3.958E-02	6.217E-02	6.137E-03	-0.329
W-181	1.244E+00		4.571E-01	7.097E-01	5.290E-02	1.753
TA-182	1.153E-01		1.592E-01	2.749E-01	2.286E-02	0.419
RE-183	1.534E-02		1.155E-01	1.936E-01	1.868E-02	0.079
RE-184	-1.808E-01		2.478E-01	3.553E-01	4.610E-02	-0.509
OS-185	3.264E-03		3.638E-02	6.014E-02	6.321E-03	0.054
RE-188	2.425E-01		1.788E-01	3.075E-01	2.870E-02	0.789
W-188	-2.561E-01		7.538E+00	1.106E+01	1.511E+00	-0.023
IR-192	2.052E-03		3.078E-02	5.168E-02	6.605E-03	0.040
AU-195	1.515E+00	+	3.747E-01	5.004E-01	4.364E-02	3.027
TL-200	1.980E-04		7.863E-04	Half-Life too short		
TL-201	-1.163E+01		1.129E+01	1.818E+01	1.791E+00	-0.640
TL-202	5.239E-02		6.649E-02	1.120E-01	1.078E-02	0.468
HG-203	2.012E-02		4.067E-02	6.611E-02	9.357E-03	0.304
BI-207	1.994E-02		4.409E-02	7.387E-02	7.092E-03	0.270
TL-207	2.846E-01		6.446E-01	9.563E-01	1.901E-01	0.298
PO-209	1.302E-01		5.983E+00	9.929E+00	1.112E+00	0.013
BI-210	3.961E+00		3.421E+00	5.833E+00	5.419E-01	0.679
PB-210	3.961E+00		3.421E+00	5.833E+00	5.419E-01	0.679
PO-210	3.961E+00		3.417E+00	5.833E+00	4.905E-01	0.679
PB-211	-6.021E-01		9.605E-01	1.408E+00	8.839E-01	-0.428
BI-212	1.080E+00	+	4.129E-01	5.518E-01	6.591E-02	1.958
PO-215	2.846E-01		6.446E-01	9.563E-01	1.901E-01	0.298
RN-219	3.909E-02		3.731E-01	6.149E-01	9.514E-02	0.064
RN-220	-1.427E+00		2.148E+01	3.574E+01	3.643E+00	-0.040
RA-223	2.846E-01		6.446E-01	9.563E-01	1.901E-01	0.298
AC-227	4.326E-01		4.242E-01	6.171E-01	1.126E-01	0.701
TH-227	4.326E-01		4.262E-01	6.171E-01	1.270E-01	0.701
TH-229	3.375E-01		5.001E-01	8.383E-01	9.013E-02	0.403
PA-231	-3.557E-02		1.429E+00	2.281E+00	4.259E-01	-0.016
TH-231	2.846E-01		6.446E-01	9.563E-01	1.901E-01	0.298
U-231	7.061E+00	+	3.207E+00	2.973E+00	2.640E-01	2.375
PA-233	1.048E-03		5.643E-02	9.468E-02	1.240E-02	0.011
PA-234	3.260E-02		2.752E-01	4.182E-01	8.312E-02	0.078
NP-236	-4.017E-02		8.207E-02	1.353E-01	1.293E-02	-0.297
NP-239	-1.917E-02		2.268E-01	3.194E-01	2.640E-02	-0.060
AM-241	1.198E-01		1.849E-01	2.806E-01	2.193E-02	0.427

Sample ID : G246020009 Acquisition date : 13-FEB-2010 16:43:12

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.344E-02		1.129E-01	1.734E-01	1.479E-02	0.135
AM-246	1.069E-02		1.162E-01	1.902E-01	1.790E-02	0.056
CM-247	1.233E-02		3.331E-02	5.548E-02	5.204E-03	0.222
CF-249	9.538E-03		3.477E-02	5.788E-02	5.502E-03	0.165
CF-251	4.065E-02		1.277E-01	2.138E-01	2.171E-02	0.190

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020009           *
* Acquisition date  : 13-FEB-2010 16:43:12 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:03.01      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020009           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.4835E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.742E+01	2.790E+00	2.285E-01	1.424E+00
NB-95	2.506E-01	7.993E-02	3.052E-02	4.078E-02
CD-109	4.591E+00	1.298E+00	7.529E-01	6.625E-01
SN-126	4.498E-01	1.272E-01	7.408E-02	6.491E-02
BA-137M	6.632E-02	3.585E-02	2.641E-02	1.829E-02
CS-137	7.011E-02	3.789E-02	2.792E-02	1.933E-02
CE-141	2.041E-01	9.156E-02	5.757E-02	4.671E-02
LU-177	4.190E+00	1.871E+00	1.083E+00	9.544E-01
TL-208	5.147E-01	8.907E-02	2.660E-02	4.545E-02
BI-211	3.854E+00	5.984E-01	1.493E-01	3.053E-01
PB-212	1.692E+00	2.379E-01	4.371E-02	1.214E-01
PO-212	1.692E+00	2.379E-01	4.371E-02	1.214E-01
BI-214	1.199E+00	1.931E-01	5.069E-02	9.853E-02
PB-214	1.341E+00	2.192E-01	5.201E-02	1.118E-01
PO-214	1.341E+00	2.192E-01	5.201E-02	1.118E-01
PO-216	1.692E+00	2.379E-01	4.371E-02	1.214E-01
PO-218	1.341E+00	2.192E-01	5.201E-02	1.118E-01
RA-224	4.970E+00	1.072E+00	4.968E-01	5.471E-01
RA-226	1.199E+00	1.931E-01	5.069E-02	9.853E-02
AC-228	1.799E+00	3.212E-01	8.946E-02	1.639E-01
RA-228	1.799E+00	3.212E-01	8.946E-02	1.639E-01
TH-228	1.721E+00	2.420E-01	4.446E-02	1.235E-01
TH-230	1.199E+00	1.931E-01	5.069E-02	9.853E-02
TH-232	1.799E+00	3.212E-01	8.946E-02	1.639E-01
PA-234M	4.850E+01	9.734E+00	2.831E+00	4.967E+00
TH-234	2.997E+01	5.661E+00	1.185E+00	2.888E+00
U-234	1.199E+00	1.931E-01	5.069E-02	9.853E-02
U-235	6.514E-01	3.078E-01	1.917E-01	1.570E-01
NP-237	1.321E+00	4.593E-01	2.197E-01	2.343E-01
U-238	2.997E+01	5.661E+00	1.185E+00	2.888E+00
AM-243	3.854E-01	8.723E-02	5.358E-02	4.451E-02
ANH-511	1.635E-01	5.927E-02	2.126E-02	3.024E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.995E-01	2.863E-01	2.517E-01	1.461E-01	NOT IDENT.
NA-22	1.177E-02	3.718E-02	3.232E-02	1.897E-02	NOT IDENT.
NA-24	1.374E+06	6.377E+06	0.000E+00	3.253E+06	SHORT HLIF
AL-26	1.628E-02	2.169E-02	1.992E-02	1.107E-02	NOT IDENT.
TI-44	3.741E-01	6.268E-02	4.147E-02	3.198E-02	FAIL ABUN
SC-46	-1.601E-02	3.369E-02	2.824E-02	1.719E-02	FAIL ABUN
V-48	2.391E-03	6.080E-02	5.195E-02	3.102E-02	NOT IDENT.
CR-51	-2.025E-01	3.489E-01	2.952E-01	1.780E-01	NOT IDENT.
MN-52	1.034E-01	2.411E-01	2.102E-01	1.230E-01	FAIL ABUN
MN-54	-1.029E-04	3.255E-02	2.829E-02	1.661E-02	NOT IDENT.
CO-56	-2.040E-02	3.343E-02	2.797E-02	1.706E-02	NOT IDENT.
CO-57	3.876E-03	2.687E-02	2.331E-02	1.371E-02	NOT IDENT.
CO-58	-1.219E-02	3.259E-02	2.782E-02	1.663E-02	NOT IDENT.
FE-59	-5.419E-02	7.960E-02	6.386E-02	4.061E-02	FAIL ABUN
CO-60	-5.370E-03	2.952E-02	2.467E-02	1.506E-02	NOT IDENT.
ZN-65	4.046E-02	8.913E-02	6.599E-02	4.547E-02	NOT IDENT.
GE-68	6.843E-02	9.995E-01	8.460E-01	5.099E-01	NOT IDENT.
AS-73	-7.206E-01	8.699E-01	7.785E-01	4.438E-01	NOT IDENT.
AS-74	-1.121E-02	8.536E-02	7.386E-02	4.355E-02	NOT IDENT.
SE-75	3.859E-02	6.405E-02	3.624E-02	3.268E-02	NOT IDENT.
BR-77	5.494E+00	1.633E+01	1.366E+01	8.331E+00	FAIL ABUN
SR-82	-4.205E-01	3.688E-01	2.809E-01	1.882E-01	NOT IDENT.
RB-83	1.871E-02	5.978E-02	4.994E-02	3.050E-02	NOT IDENT.
RB-84	2.265E-02	5.857E-02	5.168E-02	2.988E-02	NOT IDENT.
KR-85	2.270E+01	7.652E+00	6.322E+00	3.904E+00	NOT IDENT.
SR-85	1.189E-01	4.010E-02	3.313E-02	2.046E-02	NOT IDENT.
RB-86	-1.524E-01	6.868E-01	5.702E-01	3.504E-01	NOT IDENT.
Y-88	1.509E-02	2.630E-02	2.355E-02	1.342E-02	NOT IDENT.
ZR-88	-8.915E-03	2.681E-02	2.304E-02	1.368E-02	NOT IDENT.
Y-91	-4.069E-01	1.540E+01	1.321E+01	7.856E+00	NOT IDENT.
NB-94	3.536E-02	2.871E-02	2.581E-02	1.465E-02	NOT IDENT.
NB-95M	8.784E-02	1.375E-01	1.072E-01	7.017E-02	NOT IDENT.
ZR-95	1.559E-02	6.381E-02	5.222E-02	3.256E-02	NOT IDENT.
NB-97	-9.487E+05	7.867E+05	0.000E+00	4.014E+05	SHORT HLIF
ZR-97	4.000E+07	1.455E+07	0.000E+00	7.421E+06	SHORT HLIF
MO-99	5.670E+00	2.044E+01	1.515E+01	1.043E+01	NOT IDENT.
TC-99M	5.517E+18	1.343E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.017E-03	3.267E-02	2.822E-02	1.667E-02	NOT IDENT.
RH-102	-1.924E-02	2.640E-02	2.170E-02	1.347E-02	FAIL ABUN
RU-103	2.652E-02	3.528E-02	3.093E-02	1.800E-02	FAIL ABUN
RH-106	-7.707E-02	2.669E-01	2.276E-01	1.362E-01	FAIL ABUN
RU-106	-7.707E-02	2.667E-01	2.276E-01	1.361E-01	FAIL ABUN
AG-108M	-1.224E-02	2.907E-02	2.458E-02	1.483E-02	NOT IDENT.
AG-110M	-4.652E-02	3.658E-02	2.421E-02	1.866E-02	NOT IDENT.
IN-111	-1.657E+00	1.864E+00	1.341E+00	9.510E-01	NOT IDENT.
IN-113M	-1.598E-02	3.914E-02	3.354E-02	1.997E-02	NOT IDENT.
SN-113	-1.598E-02	3.914E-02	3.354E-02	1.997E-02	NOT IDENT.
IN-114M	-6.040E-02	2.006E-01	1.548E-01	1.024E-01	NOT IDENT.
CD-115	-3.932E+00	1.710E+01	1.492E+01	8.722E+00	NOT IDENT.
SN-117M	9.731E-03	6.148E-02	5.593E-02	3.137E-02	NOT IDENT.
SB-122	1.179E+00	3.133E+00	2.787E+00	1.599E+00	NOT IDENT.
I-123	1.827E+07	8.051E+07	0.000E+00	4.108E+07	SHORT HLIF
TE-123M	6.552E-03	2.887E-02	2.630E-02	1.473E-02	NOT IDENT.
I-124	2.114E-01	9.391E-01	7.125E-01	4.792E-01	NOT IDENT.
SB-124	-1.231E-02	5.541E-02	4.567E-02	2.827E-02	FAIL ABUN
SB-125	4.003E-02	8.117E-02	7.156E-02	4.141E-02	FAIL ABUN
TE-125M	4.869E+00	1.219E+01	9.584E+00	6.217E+00	NOT IDENT.
I-126	3.431E-01	1.982E-01	1.617E-01	1.011E-01	NOT IDENT.
SB-126	4.321E-02	1.632E-01	1.213E-01	8.326E-02	FAIL ABUN
SB-127	1.687E+00	1.675E+00	1.497E+00	8.547E-01	NOT IDENT.
XE-127	-1.123E-02	5.404E-02	4.155E-02	2.757E-02	FAIL ABUN
I-131	1.748E-02	1.230E-01	1.087E-01	6.275E-02	NOT IDENT.
TE-132	3.771E-01	1.019E+00	8.993E-01	5.199E-01	FAIL ABUN
BA-133	-8.401E-03	4.256E-02	3.218E-02	2.171E-02	NOT IDENT.
I-133	-4.575E+03	2.627E+04	0.000E+00	1.340E+04	SHORT HLIF
CS-134	8.373E-02	4.170E-02	3.789E-02	2.128E-02	NOT IDENT.
CS-135	1.439E-01	1.721E-01	1.315E-01	8.782E-02	NOT IDENT.
I-135	-2.979E+16	8.187E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.610E-03	9.160E-02	7.730E-02	4.673E-02	FAIL ABUN
CE-139	-2.525E-03	2.986E-02	2.689E-02	1.524E-02	NOT IDENT.
BA-140	4.233E-02	2.413E-01	2.139E-01	1.231E-01	NOT IDENT.
LA-140	-8.938E-02	8.191E-02	6.293E-02	4.179E-02	FAIL ABUN
CE-143	2.353E+03	7.300E+02	0.000E+00	3.724E+02	SHORT HLIF

CE-144	-7.382E-02	2.039E-01	1.858E-01	1.040E-01	NOT IDENT.
PM-144	-2.796E-03	2.948E-02	2.508E-02	1.504E-02	NOT IDENT.
PR-144	-1.897E-01	2.000E+00	1.701E+00	1.020E+00	NOT IDENT.
PM-146	2.159E-02	3.883E-02	3.409E-02	1.981E-02	NOT IDENT.
ND-147	1.019E-01	5.335E-01	4.744E-01	2.722E-01	FAIL ABUN
PM-149	-6.578E+01	1.613E+02	1.349E+02	8.228E+01	NOT IDENT.
EU-152	2.202E-02	1.206E-01	7.412E-02	6.154E-02	FAIL ABUN
GD-153	5.193E-01	1.259E-01	9.040E-02	6.422E-02	FAIL ABUN
EU-154	2.858E-02	1.035E-01	8.974E-02	5.280E-02	NOT IDENT.
EU-155	7.265E-02	1.185E-01	1.054E-01	6.048E-02	FAIL ABUN
TB-160	-8.493E-02	1.159E-01	9.542E-02	5.913E-02	FAIL ABUN
HO-166M	-2.677E-02	5.088E-02	4.207E-02	2.596E-02	FAIL ABUN
TM-171	-2.356E+01	3.173E+01	2.513E+01	1.619E+01	NOT IDENT.
LU-176	-4.992E-03	2.210E-02	1.963E-02	1.127E-02	FAIL ABUN
LU-177M	-2.256E-01	1.626E-01	1.316E-01	8.295E-02	FAIL ABUN
HF-181	-2.045E-02	3.879E-02	3.216E-02	1.979E-02	NOT IDENT.
W-181	1.244E+00	4.480E-01	3.842E-01	2.285E-01	NOT IDENT.
TA-182	1.153E-01	1.560E-01	1.390E-01	7.962E-02	FAIL ABUN
RE-183	1.534E-02	1.132E-01	1.027E-01	5.776E-02	FAIL ABUN
RE-184	-1.808E-01	2.428E-01	1.866E-01	1.239E-01	NOT IDENT.
OS-185	3.264E-03	3.565E-02	3.089E-02	1.819E-02	NOT IDENT.
RE-188	2.425E-01	1.753E-01	1.633E-01	8.942E-02	NOT IDENT.
W-188	-2.561E-01	7.388E+00	5.790E+00	3.769E+00	FAIL ABUN
IR-192	2.052E-03	3.017E-02	2.700E-02	1.539E-02	FAIL ABUN
AU-195	1.515E+00	3.672E-01	2.684E-01	1.874E-01	FAIL ABUN
TL-200	1.980E+02	1.541E+03	0.000E+00	7.863E+02	SHORT HLIF
TL-201	-1.163E+01	1.106E+01	9.636E+00	5.643E+00	NOT IDENT.
TL-202	5.239E-02	6.516E-02	5.807E-02	3.324E-02	NOT IDENT.
HG-203	2.012E-02	3.986E-02	3.464E-02	2.034E-02	NOT IDENT.
BI-207	1.994E-02	4.321E-02	3.749E-02	2.204E-02	FAIL ABUN
TL-207	2.846E-01	6.318E-01	4.994E-01	3.223E-01	FAIL ABUN
PO-209	1.302E-01	5.863E+00	5.060E+00	2.991E+00	FAIL ABUN
BI-210	3.961E+00	3.352E+00	3.181E+00	1.710E+00	NOT IDENT.
PB-210	3.961E+00	3.352E+00	3.181E+00	1.710E+00	NOT IDENT.
PO-210	3.961E+00	3.349E+00	3.181E+00	1.709E+00	NOT IDENT.
PB-211	-6.021E-01	9.413E-01	7.314E-01	4.803E-01	NOT IDENT.
BI-212	1.080E+00	4.047E-01	2.826E-01	2.065E-01	FAIL ABUN
PO-215	2.846E-01	6.318E-01	4.994E-01	3.223E-01	FAIL ABUN
RN-219	3.909E-02	3.656E-01	3.195E-01	1.865E-01	FAIL ABUN
RN-220	-1.427E+00	2.105E+01	1.843E+01	1.074E+01	NOT IDENT.
RA-223	2.846E-01	6.318E-01	4.994E-01	3.223E-01	FAIL ABUN
AC-227	4.326E-01	4.157E-01	3.240E-01	2.121E-01	FAIL ABUN
TH-227	4.326E-01	4.177E-01	3.240E-01	2.131E-01	FAIL ABUN
TH-229	3.375E-01	4.901E-01	4.430E-01	2.500E-01	FAIL ABUN
PA-231	-3.557E-02	1.401E+00	1.195E+00	7.146E-01	FAIL ABUN
TH-231	2.846E-01	6.318E-01	4.994E-01	3.223E-01	FAIL ABUN
U-231	7.061E+00	3.143E+00	1.596E+00	1.603E+00	FAIL ABUN
PA-233	1.048E-03	5.530E-02	4.948E-02	2.822E-02	FAIL ABUN
PA-234	3.260E-02	2.697E-01	2.128E-01	1.376E-01	FAIL ABUN
NP-236	-4.017E-02	8.042E-02	7.180E-02	4.103E-02	FAIL ABUN
NP-239	-1.917E-02	2.222E-01	1.707E-01	1.134E-01	FAIL ABUN
AM-241	1.198E-01	1.812E-01	1.522E-01	9.246E-02	NOT IDENT.
CM-243	2.344E-02	1.107E-01	9.293E-02	5.646E-02	FAIL ABUN
AM-246	1.069E-02	1.138E-01	9.650E-02	5.809E-02	NOT IDENT.
CM-247	1.233E-02	3.265E-02	2.882E-02	1.666E-02	NOT IDENT.
CF-249	9.538E-03	3.407E-02	3.010E-02	1.738E-02	NOT IDENT.
CF-251	4.065E-02	1.252E-01	1.132E-01	6.386E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	583.4496
46.50	583.4496
46.50	583.4496
48.70	740.9632
49.72	718.7544
51.35	637.2133
52.39	681.8792
52.97	731.0342
53.15	764.1816
53.44	766.0678
54.07	823.2713
56.28	818.6815
56.28	818.6902
57.37	0.0000
57.53	864.6183
57.53	864.6252
57.60	888.5745
57.98	870.7614
57.98	870.7614
59.32	908.1197
59.32	908.1197
59.40	908.4075
59.54	908.9130
59.72	945.4296
60.01	946.5156
61.10	953.4579
61.14	953.6054
61.30	954.1992
63.00	936.7309
63.29	937.7662
63.29	937.7662
63.58	938.7966
64.28	938.8432
65.12	913.9661
65.20	928.8899
65.20	928.8899
66.05	949.4483
66.72	960.6196
66.83	961.0076
66.91	961.2911
67.20	978.5411
67.20	978.5411
67.75	979.6013
67.85	979.9575
68.90	1034.5398
68.90	1034.5398
69.30	1100.4530
69.67	1085.2266
70.82	1019.6439
70.82	1019.6439
70.83	1019.6804
72.80	1168.1503
72.87	1168.4344
72.87	1168.4344
74.67	1171.5405
74.81	1172.0892
74.81	1172.0892
74.81	1172.0892
74.81	1172.0892
74.81	1172.0892
74.81	1172.0892
74.81	1172.0892
74.97	1172.7205
75.28	1173.9359
75.70	1175.5762
77.11	1181.0573
77.11	1181.0573

77.11	1181.0573
77.11	1181.0573
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78.38	1118.4777
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79.80	1180.0848
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80.30	1181.9667
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81.07	1184.8536
81.07	1184.8536
81.07	1184.8536
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83.37	1043.8182
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83.78	1045.1472
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83.78	1045.1472
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84.90	1048.7407
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86.72	1054.5272
86.79	1054.7419
86.94	1055.2224
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87.30	1056.3572
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87.30	1056.3572
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87.88	1058.1821
88.03	1058.6523
88.36	1059.6849
88.47	1060.0325
89.95	1064.6433
91.11	1068.2368
92.29	1071.8661
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92.38	1072.1421
93.35	1075.1018
94.00	1077.0800
94.67	1079.0991
94.67	1079.1145
94.90	1079.8097
94.90	1079.8097
94.90	1079.8097
94.90	1079.8097
95.87	785.3858
95.87	785.3858
96.73	787.2620
97.43	788.7748
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98.88	775.6063
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99.86	749.8882
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103.18	843.8906
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117.00	670.5155
117.00	670.5155
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121.11	685.6354
121.62	707.1430
121.78	707.4026
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122.32	664.5179
122.32	664.5179
122.32	664.5179
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127.23	772.1022
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136.25	664.4575
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144.24	702.6816
144.24	702.6816
144.24	702.6816
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147.16	617.9106
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152.70	647.3058
153.22	635.9727
154.21	629.7958
154.21	629.7958
154.21	629.7958
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156.02	669.0421
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163.35	655.7010
163.89	616.8518
165.85	648.3080
167.43	660.5684
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171.86	593.2899
172.10	593.5413
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176.60	603.9719
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184.41	633.0418
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186.00	580.3863
190.27	569.8849
192.34	544.9374
193.63	550.0231
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198.60	573.2979
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201.83	577.1909
202.84	589.3280
205.31	577.0521

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208.81	542.8456
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209.75	511.1559
210.97	516.9635
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216.55	497.8727
218.09	508.2292
222.10	516.3345
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227.08	458.6270
227.20	471.1861
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228.18	480.1649
228.18	480.1649
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236.00	554.2236
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238.63	446.9428
238.63	446.9428
238.63	446.9428
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241.98	397.3715
241.98	397.3715
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248.90	383.4395
249.79	390.3158
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252.85	444.9691
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256.20	385.7570
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262.80	370.6558
264.65	354.0240
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268.79	384.8219
269.46	385.7969
269.46	385.7969
269.46	385.7969
269.46	385.7969
271.23	419.4518
273.65	509.0555
276.40	372.4116
277.35	365.0647
277.60	381.8192
277.60	381.8192
278.00	384.2239
278.60	382.2759
279.20	399.2297
279.53	399.3831
280.46	448.8245
281.68	405.9731
283.67	359.9653
284.30	355.7557
285.00	357.1665
285.90	367.6287
286.10	366.5927
286.10	366.5927
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290.80	363.6942
291.72	377.6183
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295.21	375.1875

295.21	375.1875
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299.80	376.5158
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300.09	369.0483
300.09	369.0483
300.09	369.0483
300.12	369.0582
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302.84	356.4653
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304.40	306.7221
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308.46	355.9106
311.98	322.1860
316.51	312.6218
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319.02	318.1076
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323.87	294.4935
323.87	294.4935
323.87	294.4935
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334.30	314.2149
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338.28	306.4675
338.28	306.4675
338.28	306.4675
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338.32	306.4833
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340.57	309.0753
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351.92	290.4427
351.92	290.4427
355.39	0.0000
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369.80	288.5901
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383.85	263.6069
387.95	261.5970
388.63	262.7528
391.69	283.4314
391.69	283.4314
392.90	273.7458
398.62	267.0975
400.65	294.7311
401.10	299.8807
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402.60	274.0752
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411.60	279.2532
413.65	325.5156
414.70	300.3548
415.30	267.9088

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433.93	263.8123
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439.56	206.8196
439.89	220.3900
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444.90	259.8968
445.03	259.9241
445.03	259.9241
445.03	259.9241
445.03	259.9241
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475.06	259.6410
475.35	254.3567
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511.85	226.1059
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602.71	223.0778
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604.70	230.0160
609.31	218.4082

609.31	218.4082
609.31	218.4082
609.31	218.4082
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614.37	197.8410
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621.84	190.5938
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661.65	199.0796
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666.33	155.5381
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722.78	208.4960
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752.31	166.7596
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766.84	181.7988
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792.07	185.1400

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911.07	132.9318
911.07	132.9318
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949.00	120.7171
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968.20	112.6906
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969.11	112.7340
969.11	112.7340
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1048.07	107.0033

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1050.47	109.1572
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1076.63	121.6642
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1085.78	122.0722
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1120.29	114.0908
1120.29	114.0908
1120.29	114.0908
1120.51	114.1021
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1147.95	0.0000
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1175.09	137.5522
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1325.50	73.1780
1332.49	75.3158
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1365.15	65.0496
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1368.53	0.0000
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1384.27	66.2013
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1457.56	0.0000
1460.81	61.7249
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1596.49	75.8659
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1691.02	33.0177
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1750.46	0.0000
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1764.49	35.5811
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1791.20	0.0000
1808.65	21.9684

1836.01 27.1304

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020009

Total Uranium Activity	8.9448E+01	ug/g
Total Uranium Counting Unc.	1.6841E+01	ug/g
Total Uranium Tpu	8.5925E-06	ug/g
Total Uranium Mda	3.5267E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020009       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:43:12.75    SAMPLE ALQT:  148.350 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.359E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.477E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.424E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.679E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:56:47.39

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020010.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:56:10
Sample ID         : G246020010           Sample quantity  : 1.43350E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.46*	203	632	0.70	127.10	123	9	2.83E-02	23.7	
2	3	74.83	455	434	0.89	149.85	144	16	6.32E-02	8.3	1.24E+00
3	3	77.13*	687	390	0.85	154.46	144	16	9.54E-02	5.9	
4	0	84.21*	103	411	1.17	168.62	166	6	1.43E-02	33.3	
5	0	87.04	200	442	1.04	174.28	172	6	2.78E-02	18.0	
6	3	89.87	196	384	1.16	179.93	177	13	2.73E-02	16.4	1.25E+00
7	3	92.68*	456	458	1.05	185.56	177	13	6.34E-02	9.2	
8	0	185.79*	246	376	1.27	371.77	367	10	3.42E-02	16.7	
9	0	209.25	116	365	0.85	418.70	414	10	1.62E-02	32.0	
10	7	238.56*	1348	258	0.98	477.32	473	17	1.87E-01	3.3	2.58E+00
11	7	241.61	364	274	1.72	483.41	473	17	5.05E-02	12.7	
12	0	270.52	149	253	1.28	541.23	535	12	2.07E-02	22.9	
13	0	277.25	56	211	1.12	554.70	551	8	7.78E-03	46.9	
14	0	295.11*	439	185	1.12	590.40	586	10	6.10E-02	7.6	
15	0	299.92	97	176	1.01	600.04	596	9	1.34E-02	26.7	
16	0	338.28	328	217	1.22	676.75	671	11	4.55E-02	10.3	
17	0	351.82*	766	211	1.05	703.83	698	12	1.06E-01	5.3	
18	0	408.67	56	138	1.08	817.53	813	9	7.79E-03	40.0	
19	0	462.96	120	59	1.07	926.08	922	8	1.66E-02	14.4	
20	0	510.72*	148	153	1.52	1021.60	1016	14	2.06E-02	22.0	
21	0	583.26*	454	124	1.17	1166.66	1161	13	6.30E-02	7.0	
22	0	609.21*	562	103	1.36	1218.56	1211	12	7.80E-02	5.6	
23	0	727.24	107	75	1.51	1454.56	1449	10	1.49E-02	18.0	
24	0	795.14	78	65	1.56	1590.35	1584	13	1.08E-02	24.1	
25	0	861.17	31	87	0.92	1722.38	1720	12	4.28E-03	68.2	
26	0	911.13*	323	60	1.61	1822.26	1815	16	4.48E-02	8.1	
27	0	934.62	34	56	0.73	1869.23	1866	11	4.78E-03	45.8	
28	0	964.65*	77	52	2.64	1929.27	1923	11	1.07E-02	22.0	
29	0	969.01*	190	48	1.60	1937.99	1934	9	2.64E-02	10.0	
30	0	1002.38*	17	80	1.57	2004.71	1999	14	2.35E-03	116.4	
31	0	1120.22*	125	68	0.87	2240.33	2234	12	1.73E-02	16.4	
32	0	1377.20	45	23	1.51	2754.07	2748	13	6.25E-03	26.5	
33	0	1460.77*	1893	16	1.87	2921.14	2914	16	2.63E-01	2.4	
34	0	1509.26	24	4	2.42	3018.07	3013	9	3.27E-03	26.2	
35	0	1621.71	12	15	1.56	3242.86	3237	10	1.72E-03	68.0	
36	0	1629.66	29	0	1.82	3258.76	3250	15	4.03E-03	18.6	
37	0	1764.53*	88	7	1.12	3528.35	3521	14	1.23E-02	13.2	
38	0	1888.98	7	7	1.30	3777.09	3771	10	9.62E-04	82.6	

Sample ID : G246020010 Acquisition date : 13-FEB-2010 16:56:10

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:56:50

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020010.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:56:10
Sample ID : G246020010 Sample quantity : 143.35 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.21 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.845E+01	3.837E+00	4.446E-01	3.908E-02	86.495
CD-109	+	88.03	*	2.314E+00	8.618E-01	9.803E-01	9.446E-02	2.361
SN-126	+	64.28		1.561E+00	7.738E-01	6.260E-01	9.121E-02	2.493
	+	86.94		9.428E-01	5.183E-01	4.464E-01	1.855E-01	2.112
	+	87.57	*	2.268E-01	8.444E-02	9.648E-02	9.251E-03	2.350
TL-208	+	277.35		4.593E-01	4.365E-01	5.269E-01	7.833E-02	0.872
	+	510.84		6.051E-01	2.772E-01	1.909E-01	2.414E-02	3.170
	+	583.14	*	5.292E-01	9.114E-02	5.153E-02	5.108E-03	10.268
	+	860.37		3.376E-01	4.620E-01	3.951E-01	3.956E-02	0.854
BI-211		72.87		2.100E+00	2.691E+00	4.278E+00	3.478E-01	0.491
	+	351.07	*	3.933E+00	5.975E-01	2.642E-01	2.889E-02	14.885
BI-212	+	727.18	*	1.069E+00	4.000E-01	4.222E-01	4.411E-02	2.532
		785.46		1.148E+00	1.672E+00	2.945E+00	2.737E-01	0.390
	+	1620.62		1.055E+00	1.438E+00	1.267E+00	1.076E-01	0.833
PB-212	+	74.81		2.180E+00	4.523E-01	4.584E-01	5.726E-02	4.756
	+	77.11		1.863E+00	2.703E-01	2.600E-01	2.209E-02	7.164
	+	87.30		1.049E+00	4.044E-01	4.933E-01	6.823E-02	2.126
	+	238.63	*	1.514E+00	2.055E-01	7.872E-02	9.320E-03	19.240
	+	300.09		1.674E+00	9.216E-01	9.877E-01	1.294E-01	1.694
PO-212	+	74.81		2.180E+00	4.523E-01	4.584E-01	5.726E-02	4.756
	+	77.11		1.863E+00	2.703E-01	2.600E-01	2.209E-02	7.164
	+	87.30		1.049E+00	4.044E-01	4.933E-01	6.823E-02	2.126
		115.19		1.831E+00	2.926E+00	5.024E+00	4.192E-01	0.364
	+	238.63	*	1.514E+00	2.055E-01	7.872E-02	9.320E-03	19.240
	+	300.09		1.674E+00	9.216E-01	9.877E-01	1.294E-01	1.694
BI-214	+	609.31	*	1.234E+00	1.898E-01	8.337E-02	8.815E-03	14.801
	+	1120.29		1.425E+00	4.910E-01	4.527E-01	4.860E-02	3.149
	+	1764.49		1.388E+00	3.837E-01	2.614E-01	2.163E-02	5.312
PB-214	+	74.81		3.756E+00	7.494E-01	7.898E-01	8.781E-02	4.756
	+	77.11		3.194E+00	5.233E-01	4.458E-01	5.087E-02	7.164
	+	87.30		1.797E+00	6.832E-01	8.450E-01	1.038E-01	2.126
	+	241.98		2.455E+00	6.958E-01	4.741E-01	5.873E-02	5.178
	+	295.21		1.335E+00	2.702E-01	1.710E-01	2.282E-02	7.810
	+	351.92	*	1.368E+00	2.198E-01	9.210E-02	1.114E-02	14.853

Sample ID : G246020010 Acquisition date : 13-FEB-2010 16:56:10

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		3.756E+00	7.494E-01	7.898E-01	8.781E-02	4.756
	+	77.11		3.194E+00	5.233E-01	4.458E-01	5.087E-02	7.164
	+	87.30		1.797E+00	6.832E-01	8.450E-01	1.038E-01	2.126
	+	241.98		2.455E+00	6.958E-01	4.741E-01	5.873E-02	5.178
	+	295.21		1.335E+00	2.702E-01	1.710E-01	2.282E-02	7.810
	+	351.92	*	1.368E+00	2.198E-01	9.210E-02	1.114E-02	14.853
PO-216	+	74.81		2.180E+00	4.523E-01	4.584E-01	5.726E-02	4.756
	+	77.11		1.863E+00	2.703E-01	2.600E-01	2.209E-02	7.164
	+	87.30		1.049E+00	4.044E-01	4.933E-01	6.823E-02	2.126
	+	238.63	*	1.514E+00	2.055E-01	7.872E-02	9.320E-03	19.240
	+	300.09		1.674E+00	9.216E-01	9.877E-01	1.294E-01	1.694
PO-218	+	74.81		3.756E+00	7.494E-01	7.898E-01	8.781E-02	4.756
	+	77.11		3.194E+00	5.233E-01	4.458E-01	5.087E-02	7.164
	+	87.30		1.797E+00	6.832E-01	8.450E-01	1.038E-01	2.126
	+	241.98		2.455E+00	6.958E-01	4.741E-01	5.873E-02	5.178
	+	295.21		1.335E+00	2.702E-01	1.710E-01	2.282E-02	7.810
	+	351.92	*	1.368E+00	2.198E-01	9.210E-02	1.114E-02	14.853
RA-224	+	240.98	*	4.655E+00	1.293E+00	8.959E-01	9.873E-02	5.196
RA-226	+	609.31	*	1.234E+00	1.898E-01	8.337E-02	8.815E-03	14.801
	+	1120.29		1.425E+00	4.910E-01	4.527E-01	4.860E-02	3.149
	+	1764.49		1.388E+00	3.837E-01	2.614E-01	2.163E-02	5.312
AC-228	+	338.32		1.856E+00	8.650E-01	3.165E-01	1.323E-01	5.863
	+	911.07	*	1.671E+00	3.368E-01	1.945E-01	2.310E-02	8.595
	+	969.11		1.736E+00	5.360E-01	3.690E-01	8.702E-02	4.704
RA-228	+	338.32		1.856E+00	8.650E-01	3.165E-01	1.323E-01	5.863
	+	911.07	*	1.671E+00	3.368E-01	1.945E-01	2.310E-02	8.595
	+	969.11		1.736E+00	5.360E-01	3.690E-01	8.702E-02	4.704
TH-228	+	74.81		2.218E+00	4.116E-01	4.663E-01	3.901E-02	4.756
	+	77.11		1.895E+00	2.749E-01	2.645E-01	2.247E-02	7.164
	+	87.30		1.067E+00	3.973E-01	5.018E-01	4.795E-02	2.126
	+	238.63	*	1.541E+00	2.090E-01	8.008E-02	9.481E-03	19.240
	+	300.09		1.702E+00	1.366E+00	1.005E+00	6.009E-01	1.694
TH-230	+	609.31	*	1.234E+00	1.898E-01	8.337E-02	8.815E-03	14.801
	+	1120.29		1.425E+00	4.910E-01	4.527E-01	4.860E-02	3.149
	+	1764.49		1.388E+00	3.837E-01	2.614E-01	2.163E-02	5.312
TH-232	+	338.32		1.856E+00	4.330E-01	3.165E-01	3.455E-02	5.863
	+	911.07	*	1.671E+00	3.368E-01	1.945E-01	2.310E-02	8.595
	+	969.11		1.736E+00	5.360E-01	3.690E-01	8.702E-02	4.704
TH-234	+	63.29	*	3.943E+00	1.991E+00	1.647E+00	2.873E-01	2.394
	+	92.38		3.352E+00	8.724E-01	6.598E-01	1.213E-01	5.081
U-234	+	609.31	*	1.234E+00	1.898E-01	8.337E-02	8.815E-03	14.801
	+	1120.29		1.425E+00	4.910E-01	4.527E-01	4.860E-02	3.149
	+	1764.49		1.388E+00	3.837E-01	2.614E-01	2.163E-02	5.312
NP-237	+	86.50	*	6.659E-01	2.835E-01	2.919E-01	6.627E-02	2.281
		95.87		-9.326E-01	8.907E-01	1.244E+00	3.081E-01	-0.750
U-238	+	63.29	*	3.943E+00	1.991E+00	1.647E+00	2.873E-01	2.394
	+	92.38		3.352E+00	6.907E-01	6.598E-01	6.088E-02	5.081
AM-243	+	74.67	*	3.534E-01	6.547E-02	7.454E-02	6.171E-03	4.742
	+	86.72		2.497E+01	9.298E+00	1.092E+01	1.036E+00	2.287

Sample ID : G246020010 Acquisition date : 13-FEB-2010 16:56:10

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		-3.178E+00	3.127E+00	5.017E+00	4.174E-01	-0.633
		142.18		-1.304E+01	1.596E+01	2.545E+01	2.170E+00	-0.512
ANH-511	+	511.00	*	1.307E-01	5.887E-02	4.125E-02	3.923E-03	3.169

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.565E-01	2.864E-01	4.557E-01	4.610E-02	-0.343
NA-22		1274.54	*	4.874E-03	3.615E-02	5.951E-02	4.952E-03	0.082
NA-24		1368.53	*	1.211E+00	3.615E-02	Half-Life too short		
AL-26		1129.67		-4.231E-01	1.658E+00	2.654E+00	2.224E-01	-0.159
		1808.65	*	2.227E-02	2.725E-02	5.105E-02	4.174E-03	0.436
TI-44		67.85		-2.436E-02	4.312E-02	5.926E-02	4.589E-03	-0.411
	+	78.38	*	3.438E-01	4.988E-02	6.175E-02	5.318E-03	5.568
SC-46		889.25	*	-9.105E-03	3.463E-02	5.648E-02	5.339E-03	-0.161
	+	1120.51		2.482E-01	8.391E-02	1.258E-01	1.062E-02	1.974
V-48		944.10		-7.128E-01	9.147E-01	1.373E+00	1.282E-01	-0.519
		983.50	*	-2.478E-02	7.398E-02	1.190E-01	1.095E-02	-0.208
		1312.09		2.945E-02	8.769E-02	1.467E-01	1.231E-02	0.201
CR-51		320.08	*	4.293E-02	3.522E-01	5.616E-01	6.566E-02	0.076
MN-52		744.21		-4.143E-02	2.800E-01	4.425E-01	4.063E-02	-0.094
		848.13		-2.420E+00	7.567E+00	1.234E+01	1.161E+00	-0.196
	+	935.52		4.539E-01	4.180E-01	5.522E-01	5.172E-02	0.822
		1246.25		-8.153E+00	9.201E+00	1.370E+01	1.129E+00	-0.595
		1333.61		-1.220E+00	5.712E+00	8.970E+00	7.568E-01	-0.136
		1434.06	*	3.819E-02	2.128E-01	3.526E-01	3.009E-02	0.108
MN-54		834.83	*	5.826E-03	3.346E-02	5.691E-02	5.345E-03	0.102
CO-56		846.75	*	-1.153E-02	3.411E-02	5.552E-02	5.224E-03	-0.208
		977.42		-1.207E+00	2.675E+00	4.247E+00	3.919E-01	-0.284
		1037.82		9.699E-02	2.666E-01	4.553E-01	4.280E-02	0.213
		1175.09		1.220E+00	2.322E+00	3.948E+00	3.176E-01	0.309
		1238.25		9.696E-02	1.008E-01	1.738E-01	1.474E-02	0.558
		1360.21		3.433E-01	8.767E-01	1.486E+00	1.259E-01	0.231
		1771.40		-2.993E-03	1.946E-01	2.743E-01	2.266E-02	-0.011
CO-57		122.06	*	-9.794E-03	2.097E-02	3.444E-02	2.862E-03	-0.284
		136.48		1.494E-02	1.722E-01	2.878E-01	2.617E-02	0.052
CO-58		810.76	*	-7.999E-03	3.303E-02	5.441E-02	5.098E-03	-0.147
FE-59		142.65		4.800E-01	2.518E+00	4.180E+00	3.568E-01	0.115
		192.34		-1.584E-01	8.260E-01	1.338E+00	1.895E-01	-0.118
		1099.22	*	-6.156E-03	8.579E-02	1.399E-01	1.301E-02	-0.044
		1291.56		-5.614E-02	1.185E-01	1.818E-01	1.735E-02	-0.309
CO-60		1173.22		5.854E-03	4.630E-02	7.637E-02	6.141E-03	0.077
		1332.49	*	1.399E-03	3.427E-02	5.564E-02	4.693E-03	0.025
ZN-65		1115.52	*	-7.954E-03	1.009E-01	1.419E-01	1.205E-02	-0.056
GE-68		1077.35	*	1.357E+00	1.339E+00	2.363E+00	2.064E-01	0.574
AS-73		53.44	*	5.038E-01	7.300E-01	1.181E+00	9.006E-02	0.427
AS-74		595.88	*	-1.330E-02	9.192E-02	1.482E-01	1.376E-02	-0.090
		634.78		-1.921E-01	3.284E-01	5.046E-01	4.574E-02	-0.381

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		1.716E+00	4.378E+00	6.344E+00	6.104E-01	0.270
		96.73		-1.461E+00	7.579E-01	1.007E+00	1.392E-01	-1.451
		121.11		5.337E-02	1.121E-01	1.911E-01	2.098E-02	0.279
		136.00		1.458E-03	3.244E-02	5.414E-02	4.595E-03	0.027
		198.60		4.226E-01	1.610E+00	2.622E+00	2.811E-01	0.161
		264.65	*	-1.642E-02	4.309E-02	5.961E-02	6.956E-03	-0.275
		279.53		-3.588E-02	1.132E-01	1.570E-01	1.921E-02	-0.229
		303.91		2.392E-01	2.031E+00	2.895E+00	4.023E-01	0.083
		400.65		1.064E-01	2.164E-01	3.729E-01	4.341E-02	0.285
BR-77	+	87.88		9.167E+02	3.413E+02	5.133E+02	4.940E+01	1.786
		200.40		-5.311E+01	2.636E+02	4.261E+02	4.233E+01	-0.125
	+	239.00		4.472E+02	5.727E+01	6.276E+01	6.883E+00	7.126
		249.79		1.820E-02	1.041E+02	1.674E+02	1.884E+01	0.000
		281.68		6.766E+01	1.687E+02	2.464E+02	2.952E+01	0.275
		297.23		2.038E+02	1.149E+02	1.505E+02	1.771E+01	1.354
		303.76		-3.985E+01	3.194E+02	4.461E+02	5.199E+01	-0.089
		439.47		-1.167E+02	2.185E+02	3.504E+02	3.307E+01	-0.333
		484.57		-4.204E+02	3.791E+02	5.755E+02	5.475E+01	-0.730
		520.65	*	7.519E+00	1.601E+01	2.727E+01	2.591E+00	0.276
		574.64		1.469E+01	3.117E+02	5.116E+02	4.794E+01	0.029
		578.91		7.337E+01	1.563E+02	2.343E+02	2.191E+01	0.313
		585.48		1.479E+03	3.783E+02	6.666E+02	6.218E+01	2.219
		755.35		1.685E+02	2.852E+02	4.786E+02	4.410E+01	0.352
		817.79		1.312E+02	1.996E+02	3.539E+02	3.313E+01	0.371
SR-82		698.33		-1.570E+01	3.137E+01	4.827E+01	4.355E+00	-0.325
		776.49	*	-7.203E-01	3.895E-01	5.025E-01	4.659E-02	-1.433
		1395.20		-7.196E-01	1.003E+01	1.616E+01	1.374E+00	-0.045
RB-83		520.41	*	3.501E-02	5.915E-02	1.015E-01	9.645E-03	0.345
		529.64		1.207E-01	9.334E-02	1.665E-01	1.580E-02	0.725
		552.65		-6.899E-02	1.820E-01	2.899E-01	2.736E-02	-0.238
RB-84		881.50	*	6.603E-02	6.365E-02	1.151E-01	1.088E-02	0.573
KR-85		513.99	*	7.605E+00	6.418E+00	1.029E+01	9.779E-01	0.739
SR-85		513.99	*	3.986E-02	3.364E-02	5.390E-02	5.126E-03	0.739
RB-86		1076.63	*	1.029E+00	8.988E-01	1.601E+00	1.399E-01	0.642
Y-88		898.02		-2.858E-02	3.582E-02	5.521E-02	5.243E-03	-0.518
		1836.01	*	4.892E-03	2.664E-02	4.547E-02	3.692E-03	0.108
ZR-88		392.90	*	-1.398E-02	2.678E-02	4.351E-02	4.025E-03	-0.321
Y-91		1204.90	*	-2.175E+01	1.969E+01	2.899E+01	2.358E+00	-0.750
NB-94		702.63	*	3.207E-02	2.907E-02	5.080E-02	4.593E-03	0.631
		871.10		-1.440E-02	3.056E-02	4.902E-02	4.627E-03	-0.294
NB-95		765.79	*	-1.978E-02	4.438E-02	6.924E-02	6.400E-03	-0.286
NB-95M		235.69	*	1.014E-01	1.240E-01	1.865E-01	2.218E-02	0.544
ZR-95		724.18		5.376E-03	1.021E-01	1.439E-01	1.413E-02	0.037
		756.15	*	3.343E-02	6.592E-02	1.100E-01	1.104E-02	0.304
NB-97		657.90	*	1.460E-01	6.592E-02	Half-Life too short		
		1024.50		-3.957E+01	6.592E-02	Half-Life too short		
ZR-97		254.15		6.027E+00	6.592E-02	Half-Life too short		
		355.39		1.414E+01	6.592E-02	Half-Life too short		
		507.63	*	9.493E+00	6.592E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		602.52		1.072E+01	6.592E-02	Half-Life too short		
		1021.30		5.455E+01	6.592E-02	Half-Life too short		
		1147.95		1.796E+01	6.592E-02	Half-Life too short		
		1362.66		-2.483E+01	6.592E-02	Half-Life too short		
		1750.46		1.013E+01	6.592E-02	Half-Life too short		
MO-99		140.51		-8.151E+00	3.913E+01	6.314E+01	1.746E+01	-0.129
		181.06		-3.930E+00	2.664E+01	3.872E+01	7.234E+00	-0.102
		366.43		-6.740E+01	1.143E+02	1.854E+02	1.875E+01	-0.364
		739.58	*	9.732E+00	1.843E+01	3.076E+01	4.768E+00	0.316
		778.00		-5.177E+01	5.345E+01	7.715E+01	7.156E+00	-0.671
TC-99M		140.51	*	-2.248E+12	5.345E+01	Half-Life too short		
RH-101		127.23		-2.238E-02	2.803E-02	4.538E-02	3.778E-03	-0.493
		198.01	*	1.204E-02	2.920E-02	4.786E-02	4.725E-03	0.252
		325.23		-2.463E-01	2.202E-01	3.223E-01	3.618E-02	-0.764
RH-102		418.52		-1.255E-01	2.396E-01	3.866E-01	3.621E-02	-0.325
		475.06	*	1.187E-02	2.467E-02	4.220E-02	4.011E-03	0.281
		631.29		3.289E-02	4.594E-02	7.890E-02	7.170E-03	0.417
		697.49		-6.743E-03	6.383E-02	1.018E-01	9.184E-03	-0.066
		766.84		8.816E-02	1.113E-01	1.892E-01	1.750E-02	0.466
		1046.59		-3.016E-02	1.108E-01	1.783E-01	1.589E-02	-0.169
		1112.84		-5.124E-02	2.409E-01	3.501E-01	2.976E-02	-0.146
RU-103		497.08	*	-1.615E-02	3.633E-02	5.797E-02	8.535E-03	-0.279
	+	610.33		1.382E+01	2.813E+00	2.824E+00	4.800E-01	4.895
RH-106	+	511.85		6.554E-01	2.952E-01	3.930E-01	3.738E-02	1.668
		621.84	*	2.245E-01	2.774E-01	4.773E-01	6.540E-02	0.470
		1050.47		5.348E-01	2.282E+00	3.835E+00	3.409E-01	0.139
RU-106	+	511.85		6.554E-01	2.952E-01	3.930E-01	3.738E-02	1.668
		621.84	*	2.245E-01	2.765E-01	4.773E-01	4.365E-02	0.470
		1050.47		5.348E-01	2.282E+00	3.835E+00	3.409E-01	0.139
AG-108M		433.93	*	-1.080E-02	2.741E-02	4.400E-02	4.283E-03	-0.245
		614.37		-2.813E-03	3.389E-02	5.053E-02	4.803E-03	-0.056
		722.95		-8.628E-03	4.298E-02	5.877E-02	5.544E-03	-0.147
AG-110M		657.75	*	6.783E-03	3.125E-02	5.144E-02	4.709E-03	0.132
		677.61		3.176E-01	2.930E-01	5.101E-01	4.681E-02	0.623
		706.67		-2.674E-01	1.865E-01	2.581E-01	2.396E-02	-1.036
		763.93		-1.583E-01	1.641E-01	2.404E-01	2.276E-02	-0.658
		884.67		-2.725E-02	4.508E-02	7.129E-02	6.918E-03	-0.382
		937.48		-3.834E-02	1.083E-01	1.489E-01	1.437E-02	-0.258
		1384.27		-2.071E-02	1.614E-01	2.296E-01	2.007E-02	-0.090
IN-111		171.28		-1.330E+00	1.448E+00	2.279E+00	2.095E-01	-0.584
		245.39	*	-2.072E-01	1.547E+00	2.197E+00	2.447E-01	-0.094
IN-113M		391.69	*	6.641E-03	3.850E-02	6.530E-02	6.198E-03	0.102
SN-113		391.69	*	6.641E-03	3.850E-02	6.530E-02	6.198E-03	0.102
IN-114M		190.27	*	1.294E-01	1.735E-01	2.643E-01	2.556E-02	0.490
CD-115		260.90		-1.982E+02	2.201E+02	3.331E+02	3.844E+01	-0.595
		492.35		2.574E+01	5.715E+01	9.751E+01	9.279E+00	0.264
		527.90	*	1.599E+01	1.843E+01	3.206E+01	3.043E+00	0.499
SN-117M		156.02		-7.604E-01	2.106E+00	3.429E+00	3.025E-01	-0.222
		158.56	*	4.043E-02	5.049E-02	8.603E-02	7.641E-03	0.470

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-122		563.90	*	1.356E+00	3.045E+00	5.146E+00	4.841E-01	0.264
		692.80		-2.220E+01	6.533E+01	1.021E+02	9.195E+00	-0.217
I-123		159.00	*	6.984E+01	6.533E+01	Half-Life too short		
		528.96		7.148E+03	6.533E+01	Half-Life too short		
TE-123M		159.00	*	2.476E-02	2.356E-02	4.049E-02	3.621E-03	0.612
I-124		602.71	*	3.978E-01	9.392E-01	1.396E+00	1.292E-01	0.285
		722.78		-7.559E-01	6.313E+00	8.719E+00	7.944E-01	-0.087
		1325.50		-3.863E+01	4.712E+01	6.849E+01	5.768E+00	-0.564
	+	1376.25		1.002E+02	5.375E+01	8.277E+01	7.025E+00	1.211
	+	1509.49		3.141E+01	1.670E+01	3.390E+01	2.899E+00	0.927
		1691.02		7.551E-01	4.157E+00	7.121E+00	5.988E-01	0.106
SB-124		602.71		1.675E-02	3.954E-02	5.880E-02	5.439E-03	0.285
		645.85		2.621E-01	4.822E-01	8.130E-01	7.713E-02	0.322
		709.31		7.754E-01	2.403E+00	3.974E+00	3.602E-01	0.195
		713.82		-5.472E-01	1.537E+00	2.393E+00	2.961E-01	-0.229
		722.78		-4.614E-02	3.853E-01	5.322E-01	4.943E-02	-0.087
	+	968.20		1.831E+01	4.023E+00	7.135E+00	6.609E-01	2.566
		1045.16		3.514E-02	2.351E+00	3.883E+00	3.463E-01	0.009
		1325.50		-2.518E+00	3.072E+00	4.465E+00	3.760E-01	-0.564
		1368.21		3.539E-01	1.425E+00	2.380E+00	3.186E-01	0.149
		1436.60		-2.144E+00	2.766E+00	4.050E+00	3.456E-01	-0.529
		1691.02	*	1.087E-02	5.984E-02	1.025E-01	8.979E-03	0.106
SB-125		427.89	*	2.117E-02	7.401E-02	1.259E-01	1.203E-02	0.168
	+	463.38		9.573E-01	2.931E-01	4.870E-01	4.922E-02	1.966
		600.56		-1.633E-02	1.607E-01	2.598E-01	2.560E-02	-0.063
		635.90		-4.978E-02	2.278E-01	3.624E-01	3.524E-02	-0.137
TE-125M		109.28	*	4.234E+00	7.854E+00	1.328E+01	1.353E+00	0.319
I-126		388.63		1.034E-01	1.969E-01	3.403E-01	3.184E-02	0.304
		666.33	*	4.043E-02	1.766E-01	2.907E-01	2.586E-02	0.139
		753.82		1.749E-01	1.532E+00	2.475E+00	2.279E-01	0.071
SB-126		223.80		-1.544E+00	3.995E+00	6.347E+00	6.704E-01	-0.243
	+	278.60		3.413E+00	3.229E+00	4.208E+00	5.047E-01	0.811
	+	296.50		1.494E+01	2.875E+00	3.345E+00	3.938E-01	4.466
		414.70		7.467E-03	7.317E-02	1.232E-01	1.152E-02	0.061
		415.30		-3.231E-01	6.065E+00	1.011E+01	9.460E-01	-0.032
		555.20		1.262E-01	3.817E+00	6.273E+00	5.917E-01	0.020
		573.80		-6.125E-01	9.472E-01	1.461E+00	1.370E-01	-0.419
		593.00		4.542E-01	9.313E-01	1.573E+00	1.463E-01	0.289
		656.30		-2.159E+00	3.469E+00	5.320E+00	4.743E-01	-0.406
		666.33		1.698E-02	7.414E-02	1.221E-01	1.086E-02	0.139
		675.00		-7.754E-01	2.229E+00	3.501E+00	3.127E-01	-0.221
		695.00		1.327E-02	7.290E-02	1.193E-01	1.075E-02	0.111
		697.00		-1.834E-02	2.516E-01	4.025E-01	3.630E-02	-0.046
		720.50	*	9.633E-02	1.534E-01	2.508E-01	2.283E-02	0.384
		856.80		1.009E-01	5.158E-01	7.437E-01	7.008E-02	0.136
		989.30		-7.048E-01	1.243E+00	1.945E+00	1.786E-01	-0.362
		1034.80		-2.479E+00	8.505E+00	1.363E+01	1.223E+00	-0.182
		1213.00		1.072E-03	5.390E+00	8.778E+00	7.158E-01	0.000
SB-127		61.10		9.793E+00	7.643E+01	1.102E+02	1.195E+01	0.089

---- Non-Identified Nuclides ----

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		252.40		9.722E-01	5.507E+00	8.916E+00	3.820E+00	0.109
		290.80		1.553E+01	2.794E+01	4.130E+01	5.924E+00	0.376
		411.60		-3.126E+00	1.817E+01	2.641E+01	4.380E+00	-0.118
		444.90		-5.122E+00	1.160E+01	1.869E+01	2.555E+00	-0.274
		473.00		-1.575E+00	2.137E+00	3.343E+00	4.684E-01	-0.471
		543.00		-5.378E+00	2.073E+01	3.332E+01	5.132E+00	-0.161
		603.60		5.506E+00	1.674E+01	2.465E+01	3.329E+00	0.223
		685.20	*	-2.193E-01	1.687E+00	2.688E+00	3.298E-01	-0.082
		698.50		-6.520E+00	1.892E+01	2.950E+01	4.867E+00	-0.221
		722.20		6.777E+00	4.501E+01	6.414E+01	7.804E+00	0.106
		783.80		6.568E-01	5.293E+00	8.526E+00	1.147E+00	0.077
XE-127		57.60		-4.013E+00	5.433E+00	8.176E+00	5.910E-01	-0.491
		145.22		-1.969E-01	6.497E-01	1.053E+00	9.041E-02	-0.187
		172.10		-8.430E-02	1.072E-01	1.698E-01	1.565E-02	-0.496
		202.84	*	2.292E-02	4.203E-02	7.007E-02	7.008E-03	0.327
		374.96		-7.465E-02	1.720E-01	2.820E-01	2.773E-02	-0.265
I-131		80.18		8.285E-01	4.960E+00	7.065E+00	6.256E-01	0.117
		284.30		3.900E-01	1.581E+00	2.559E+00	3.144E-01	0.152
		364.48	*	-6.034E-02	1.167E-01	1.882E-01	1.993E-02	-0.321
		636.97		-8.776E-02	1.565E+00	2.526E+00	2.406E-01	-0.035
		722.89		-1.222E+00	8.607E+00	1.185E+01	1.088E+00	-0.103
TE-132		49.72		1.581E+01	2.560E+01	4.139E+01	4.567E+00	0.382
		111.76		-2.118E+01	3.796E+01	6.238E+01	7.024E+00	-0.339
		116.30		-1.062E+01	3.537E+01	5.866E+01	6.579E+00	-0.181
		228.16	*	6.630E-01	9.456E-01	1.571E+00	2.719E-01	0.422
BA-133		53.15		-1.883E-01	3.180E+00	4.972E+00	3.809E-01	-0.038
		79.62		5.153E-01	1.074E+00	1.682E+00	2.572E-01	0.306
		81.00		5.433E-02	9.903E-02	1.261E-01	2.019E-02	0.431
	+	276.40		4.540E-01	4.329E-01	5.752E-01	9.573E-02	0.789
		302.84		-5.869E-02	1.383E-01	1.878E-01	2.899E-02	-0.313
		356.01	*	1.266E-02	3.580E-02	5.500E-02	7.947E-03	0.230
		383.85		-1.656E-01	2.457E-01	3.941E-01	5.219E-02	-0.420
I-133	+	510.53		7.067E+00	2.457E-01	Half-Life too short		
		529.87	*	2.534E-02	2.457E-01	Half-Life too short		
		706.58		-2.834E+00	2.457E-01	Half-Life too short		
		856.28		-1.983E+00	2.457E-01	Half-Life too short		
		875.33		2.434E-01	2.457E-01	Half-Life too short		
		1236.41		3.681E+00	2.457E-01	Half-Life too short		
		1298.22		3.054E-01	2.457E-01	Half-Life too short		
CS-134		475.35		7.394E-01	1.619E+00	2.764E+00	2.628E-01	0.267
		563.23		1.525E-01	3.137E-01	5.315E-01	5.041E-02	0.287
		569.32		-1.898E-02	1.543E-01	2.485E-01	2.360E-02	-0.076
		604.70		1.303E-02	3.337E-02	4.944E-02	4.578E-03	0.264
	+	795.84	*	1.313E-01	6.454E-02	8.571E-02	8.036E-03	1.532
		801.93		-4.060E-01	3.965E-01	5.414E-01	5.076E-02	-0.750
		1038.57		1.478E-01	3.354E+00	5.558E+00	4.976E-01	0.027
		1167.94		2.887E-01	2.630E+00	4.333E+00	3.503E-01	0.067
		1365.15		-3.929E-01	1.038E+00	1.579E+00	1.402E-01	-0.249
CS-135		268.24	*	8.271E-02	1.537E-01	2.241E-01	2.858E-02	0.369

---- Non-Identified Nuclides ----

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I-135		288.45		-9.853E+11	1.537E-01	Half-Life too short		
		417.63		-1.505E+12	1.537E-01	Half-Life too short		
		546.56		-1.734E+11	1.537E-01	Half-Life too short		
		836.80		-1.623E+11	1.537E-01	Half-Life too short		
		1038.76		-3.857E+11	1.537E-01	Half-Life too short		
		1124.00		1.553E+12	1.537E-01	Half-Life too short		
		1131.51		-1.255E+12	1.537E-01	Half-Life too short		
		1260.41	*	-6.330E+11	1.537E-01	Half-Life too short		
		1457.56		9.964E+13	1.537E-01	Half-Life too short		
		1678.03		8.573E+11	1.537E-01	Half-Life too short		
		1706.46		-1.006E+12	1.537E-01	Half-Life too short		
		1791.20		-1.333E+12	1.537E-01	Half-Life too short		
CS-136		66.91		-5.370E-01	8.093E-01	1.102E+00	1.645E-01	-0.487
	+	86.29		3.304E+00	1.270E+00	1.836E+00	2.463E-01	1.800
		153.22		5.574E-01	6.147E-01	1.051E+00	1.025E-01	0.530
		163.89		3.074E-01	1.023E+00	1.682E+00	1.684E-01	0.183
		176.55		-1.768E-01	3.511E-01	5.635E-01	5.515E-02	-0.314
		273.65		1.558E-01	5.708E-01	6.586E-01	8.094E-02	0.237
		340.57		2.413E-01	1.308E-01	2.165E-01	2.395E-02	1.114
		818.51		2.435E-02	6.611E-02	1.147E-01	1.075E-02	0.212
		1048.07	*	1.623E-02	1.169E-01	1.950E-01	1.806E-02	0.083
		1235.34		8.401E-01	7.254E-01	1.260E+00	1.456E-01	0.667
BA-137M		661.65	*	-1.076E-03	3.289E-02	5.306E-02	4.709E-03	-0.020
CS-137		661.65	*	-1.137E-03	3.477E-02	5.609E-02	4.986E-03	-0.020
CE-139		165.85	*	1.905E-03	2.599E-02	4.299E-02	3.899E-03	0.044
BA-140		162.64		-3.217E-01	7.164E-01	1.140E+00	1.080E-01	-0.282
		304.84		-1.079E-01	1.380E+00	1.933E+00	5.625E-01	-0.056
		423.70		-4.589E-01	1.740E+00	2.845E+00	9.282E-01	-0.161
		537.32	*	1.181E-01	2.647E-01	4.437E-01	1.481E-01	0.266
LA-140		328.77		6.024E-01	3.167E-01	5.416E-01	6.241E-02	1.112
		432.53		5.390E-01	1.908E+00	3.208E+00	3.144E-01	0.168
		487.03		1.241E-01	1.311E-01	2.301E-01	2.300E-02	0.540
		751.79		2.500E-01	1.739E+00	2.819E+00	2.840E-01	0.089
		815.85		1.929E-01	2.935E-01	5.202E-01	5.348E-02	0.371
		867.82		2.905E-01	1.507E+00	2.248E+00	2.215E-01	0.129
		919.63		-3.466E-02	2.575E+00	4.173E+00	4.714E-01	-0.008
		925.24		-9.358E-01	1.052E+00	1.590E+00	1.573E-01	-0.589
		1596.49	*	-5.795E-02	8.438E-02	1.260E-01	1.073E-02	-0.460
CE-141		145.44	*	-2.839E-02	5.889E-02	9.470E-02	8.284E-03	-0.300
CE-143		57.37		-2.442E-03	5.889E-02	Half-Life too short		
		231.56		-6.163E-03	5.889E-02	Half-Life too short		
		293.26	*	1.253E-03	5.889E-02	Half-Life too short		
	+	350.59		8.935E-02	5.889E-02	Half-Life too short		
		490.36		-8.960E-03	5.889E-02	Half-Life too short		
		664.57		7.492E-04	5.889E-02	Half-Life too short		
		721.93		2.741E-03	5.889E-02	Half-Life too short		
CE-144		80.11		3.078E-01	1.917E+00	2.729E+00	2.396E-01	0.113
		133.54	*	-7.530E-02	1.680E-01	2.744E-01	4.237E-02	-0.274
PM-144		476.78		-7.134E-03	5.998E-02	9.860E-02	1.010E-02	-0.072

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		618.01		-7.831E-03	2.797E-02	4.442E-02	4.172E-03	-0.176
		696.49	*	-7.888E-03	2.907E-02	4.567E-02	4.119E-03	-0.173
		778.57		-8.940E-01	2.091E+00	3.201E+00	2.971E-01	-0.279
PR-144		696.49	*	-5.351E-01	1.972E+00	3.098E+00	2.793E-01	-0.173
		1489.15		1.201E+00	9.359E+00	1.597E+01	1.366E+00	0.075
PM-146		453.90	*	1.978E-02	3.699E-02	6.356E-02	7.258E-03	0.311
		633.02		-2.113E-01	1.200E+00	1.913E+00	7.170E-01	-0.110
		735.90		3.556E-02	1.428E-01	2.332E-01	6.709E-02	0.152
		747.13		-3.684E-04	8.152E-02	1.305E-01	1.879E-02	-0.003
ND-147	+	91.11		8.486E-01	2.918E-01	5.161E-01	5.159E-02	1.644
		319.41		1.527E+00	3.376E+00	5.490E+00	6.234E-01	0.278
		439.89		-4.598E-01	5.437E+00	9.007E+00	8.503E-01	-0.051
		531.02	*	-2.120E-01	5.755E-01	9.194E-01	1.422E-01	-0.231
PM-149		285.90	*	-2.935E+01	1.551E+02	2.445E+02	4.303E+01	-0.120
EU-152		121.78		9.613E-03	6.004E-02	1.012E-01	9.770E-03	0.095
		244.69		3.758E-02	2.793E-01	4.052E-01	4.505E-02	0.093
		344.27	*	-4.167E-02	8.325E-02	1.321E-01	1.476E-02	-0.315
		443.98		4.157E-01	7.580E-01	1.309E+00	1.237E-01	0.318
		778.89		-4.616E-02	2.450E-01	3.842E-01	3.564E-02	-0.120
		867.32		7.618E-02	7.847E-01	1.157E+00	1.092E-01	0.066
	+	964.01		8.119E-01	3.648E-01	5.560E-01	5.158E-02	1.460
		1085.78		1.994E-01	3.870E-01	6.636E-01	5.761E-02	0.301
		1112.02		-3.539E-02	3.160E-01	4.993E-01	4.248E-02	-0.071
		1407.95		1.055E-01	1.760E-01	3.033E-01	2.582E-02	0.348
GD-153		69.67		-4.913E-01	1.439E+00	2.197E+00	1.731E-01	-0.224
	+	83.37		2.130E+01	1.432E+01	2.068E+01	1.885E+00	1.030
		97.43	*	-5.952E-02	6.922E-02	1.078E-01	9.575E-03	-0.552
		103.18		-5.068E-02	8.374E-02	1.379E-01	1.188E-02	-0.368
EU-154		123.07		-7.334E-02	4.360E-02	6.672E-02	7.424E-03	-1.099
		247.94		1.127E-01	2.987E-01	4.906E-01	6.635E-02	0.230
		591.81		2.284E-01	5.462E-01	9.183E-01	1.119E-01	0.249
		723.30		-3.264E-02	1.800E-01	2.467E-01	2.462E-02	-0.132
		756.87		-1.924E-01	7.314E-01	1.143E+00	1.419E-01	-0.168
		873.19		1.522E-01	2.616E-01	4.579E-01	5.877E-02	0.332
		996.32		9.319E-02	3.615E-01	5.365E-01	9.673E-02	0.174
		1004.76		-1.471E-01	2.232E-01	2.917E-01	3.503E-02	-0.504
		1274.45	*	-1.217E-02	1.032E-01	1.651E-01	1.829E-02	-0.074
EU-155		48.70		-2.233E+00	2.229E+00	3.327E+00	2.733E-01	-0.671
		60.01		1.287E+00	4.583E+00	6.671E+00	4.765E-01	0.193
	+	86.54		2.733E-01	1.018E-01	1.535E-01	1.465E-02	1.781
		105.31	*	2.443E-02	8.607E-02	1.467E-01	1.269E-02	0.167
TB-160	+	86.79		7.443E-01	2.771E-01	4.207E-01	3.995E-02	1.769
		197.04		-3.591E-01	5.037E-01	7.832E-01	7.713E-02	-0.459
		215.65		-2.461E-01	6.349E-01	1.010E+00	1.045E-01	-0.244
	+	298.57		2.484E-01	1.360E-01	1.692E-01	1.986E-02	1.469
		879.36	*	-4.528E-02	1.273E-01	2.062E-01	1.948E-02	-0.220
		962.29		2.964E-01	5.744E-01	8.729E-01	8.103E-02	0.340
		966.15		8.425E-01	3.029E-01	4.369E-01	4.050E-02	1.928
		1177.93		1.170E-01	3.672E-01	6.149E-01	4.952E-02	0.190

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		-5.381E-01	6.544E-01	9.627E-01	7.995E-02	-0.559
HO-166M		80.57		-1.048E-02	2.839E-01	3.484E-01	3.074E-02	-0.030
	+	184.41		1.456E-01	5.066E-02	5.540E-02	5.274E-03	2.629
		280.46		-1.950E-02	8.705E-02	1.215E-01	1.458E-02	-0.160
		410.95		9.390E-02	2.601E-01	3.937E-01	3.676E-02	0.238
		711.68	*	2.723E-02	5.240E-02	8.798E-02	7.982E-03	0.310
		752.31		-2.784E-02	2.547E-01	4.038E-01	3.717E-02	-0.069
		810.29		-3.175E-02	4.986E-02	7.919E-02	7.403E-03	-0.401
TM-171		51.35		-2.631E+01	2.734E+01	4.077E+01	3.212E+00	-0.645
		52.39		-1.858E+00	1.371E+01	2.137E+01	1.656E+00	-0.087
		59.40		1.789E+01	2.441E+01	3.641E+01	2.586E+00	0.491
		66.72	*	3.835E-01	2.557E+01	3.633E+01	2.783E+00	0.011
LU-176	+	88.36		5.379E-01	2.003E-01	2.969E-01	2.850E-02	1.812
		201.83		-9.428E-03	2.530E-02	4.053E-02	4.043E-03	-0.233
		306.84	*	-3.747E-03	2.216E-02	3.479E-02	4.035E-03	-0.108
		401.10		2.882E-01	5.608E+00	9.433E+00	8.764E-01	0.031
LU-177		112.95		2.855E-01	1.667E+00	2.821E+00	2.362E-01	0.101
	+	208.36	*	2.882E+00	1.868E+00	2.095E+00	2.126E-01	1.376
LU-177M		52.97		-2.415E-01	1.447E+00	2.251E+00	1.729E-01	-0.107
		54.07		3.392E-01	7.508E-01	1.201E+00	9.078E-02	0.282
		61.30		2.304E-01	1.368E+00	1.977E+00	1.434E-01	0.117
		121.62		2.204E-01	3.066E-01	5.275E-01	4.379E-02	0.418
		147.16		-2.543E-02	5.701E-01	9.317E-01	8.035E-02	-0.027
		171.86		-3.638E-01	4.175E-01	6.586E-01	6.064E-02	-0.552
		218.09		-2.300E-01	7.380E-01	1.179E+00	1.227E-01	-0.195
		268.79		1.002E+00	8.131E-01	1.230E+00	1.445E-01	0.815
		319.02		3.881E-02	2.333E-01	3.732E-01	4.240E-02	0.104
		367.43		-4.654E-01	7.484E-01	1.212E+00	1.222E-01	-0.384
		413.65	*	3.211E-02	1.648E-01	2.596E-01	2.426E-02	0.124
HF-181		56.28		-3.840E-01	8.350E-01	1.276E+00	9.365E-02	-0.301
		57.53		-3.515E-01	4.543E-01	6.822E-01	4.935E-02	-0.515
		65.20		5.642E-01	8.969E-01	1.321E+00	9.977E-02	0.427
		133.02		-1.623E-02	5.602E-02	9.233E-02	7.743E-03	-0.176
		136.25		1.852E-02	3.876E-01	6.469E-01	5.454E-02	0.029
		345.85		2.196E-02	1.777E-01	2.820E-01	3.023E-02	0.078
		482.03	*	1.543E-02	3.725E-02	6.341E-02	6.031E-03	0.243
W-181		56.28		-1.475E-01	3.197E-01	4.884E-01	3.585E-02	-0.302
		57.53		-1.349E-01	1.740E-01	2.614E-01	1.891E-02	-0.516
		65.20	*	2.145E-01	3.409E-01	5.022E-01	3.792E-02	0.427
TA-182		67.75		-6.189E-02	1.042E-01	1.429E-01	1.106E-02	-0.433
		100.10		1.322E-01	1.513E-01	2.627E-01	2.298E-02	0.503
		152.43		-5.807E-02	2.872E-01	4.718E-01	4.122E-02	-0.123
		222.10		7.353E-02	3.075E-01	5.041E-01	5.301E-02	0.146
	+	1001.68		1.407E+00	3.278E+00	3.428E+00	3.129E-01	0.410
	+	1121.28		6.824E-01	2.307E-01	3.456E-01	2.918E-02	1.975
		1189.05		-1.208E-01	2.969E-01	4.667E-01	3.774E-02	-0.259
		1221.42	*	-1.825E-02	2.074E-01	3.353E-01	2.742E-02	-0.054
		1230.97		3.052E-02	5.097E-01	8.326E-01	6.830E-02	0.037
RE-183		57.98		-8.475E-02	1.755E-01	2.677E-01	1.927E-02	-0.317

---- Non-Identified Nuclides ----

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		59.32		1.459E-01	9.842E-02	1.524E-01	1.083E-02	0.958
		67.20		-2.298E-01	1.947E-01	2.578E-01	1.985E-02	-0.891
		162.32	*	-6.725E-02	9.517E-02	1.496E-01	1.342E-02	-0.450
	+	208.81		2.132E+00	1.382E+00	1.573E+00	1.598E-01	1.356
		291.72		-9.038E-02	8.838E-01	1.241E+00	1.470E-01	-0.073
RE-184		57.98		-3.085E-01	6.389E-01	9.745E-01	7.016E-02	-0.317
		59.32		5.308E-01	3.580E-01	5.543E-01	3.939E-02	0.958
		67.20		-8.363E-01	7.085E-01	9.383E-01	7.222E-02	-0.891
		161.27		-2.192E-01	2.945E-01	4.694E-01	4.201E-02	-0.467
		216.55		4.364E-02	2.220E-01	3.639E-01	3.773E-02	0.120
		252.85	*	9.798E-02	2.023E-01	3.335E-01	3.779E-02	0.294
		318.01		-1.201E-01	4.020E-01	6.237E-01	7.100E-02	-0.192
		792.07		1.712E-01	8.788E-01	1.322E+00	1.230E-01	0.130
		903.28		5.884E-01	9.580E-01	1.596E+00	1.508E-01	0.369
		920.93		-1.286E-01	3.821E-01	6.160E-01	5.794E-02	-0.209
OS-185		59.72		1.585E-01	2.741E-01	4.054E-01	2.885E-02	0.391
		61.14		2.064E-02	1.516E-01	2.187E-01	1.584E-02	0.094
		69.30		-2.263E-02	2.422E-01	3.967E-01	3.114E-02	-0.057
		592.07		9.463E-01	2.262E+00	3.805E+00	3.539E-01	0.249
		646.12	*	1.413E-02	4.103E-02	6.821E-02	6.131E-03	0.207
		717.42		-5.129E-01	8.238E-01	1.248E+00	1.135E-01	-0.411
		874.81		1.987E-01	5.150E-01	8.894E-01	8.398E-02	0.223
		880.27		3.885E-01	6.972E-01	1.218E+00	1.151E-01	0.319
RE-188		155.03	*	7.825E-02	1.471E-01	2.485E-01	2.186E-02	0.315
		477.96		-2.780E+00	2.773E+00	4.253E+00	4.044E-01	-0.654
		633.10		-7.676E-01	2.494E+00	3.940E+00	3.576E-01	-0.195
W-188	+	63.58		1.618E+02	7.763E+01	8.770E+01	6.519E+00	1.845
		227.08		5.283E+00	1.122E+01	1.855E+01	1.976E+00	0.285
		290.67	*	3.950E+00	6.787E+00	1.006E+01	1.193E+00	0.393
IR-192	+	295.96		1.038E+00	2.001E-01	2.558E-01	3.026E-02	4.059
		308.46		5.015E-02	8.772E-02	1.438E-01	1.668E-02	0.349
		316.51	*	-1.559E-03	3.138E-02	4.954E-02	5.662E-03	-0.031
		468.07		3.674E-02	5.882E-02	9.515E-02	9.575E-03	0.386
		604.41		1.840E-01	4.599E-01	6.815E-01	9.158E-02	0.270
		612.46		-1.339E-01	6.480E-01	8.998E-01	9.365E-02	-0.149
AU-195		65.12		1.152E-01	1.579E-01	2.337E-01	1.763E-02	0.493
		66.83		-4.297E-03	8.481E-02	1.200E-01	9.207E-03	-0.036
	+	75.70		1.153E+00	2.135E-01	3.735E-01	3.126E-02	3.086
		98.88	*	3.162E-01	1.908E-01	3.376E-01	2.973E-02	0.937
		129.76		3.546E+00	2.477E+00	4.320E+00	3.606E-01	0.821
TL-200		367.94	*	-6.201E-04	2.477E+00	Half-Life too short		
		579.30		3.678E-03	2.477E+00	Half-Life too short		
		828.27		-9.550E-03	2.477E+00	Half-Life too short		
		1205.75		2.666E-03	2.477E+00	Half-Life too short		
TL-201		68.90		-1.001E+00	5.850E+00	9.989E+00	7.813E-01	-0.100
		70.82		9.346E-01	3.756E+00	5.871E+00	4.678E-01	0.159
		80.30		1.294E+00	7.264E+00	1.035E+01	9.107E-01	0.125
		135.34		-4.519E+00	3.303E+01	5.473E+01	4.606E+00	-0.083
		167.43	*	1.306E+00	9.586E+00	1.589E+01	1.446E+00	0.082

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TL-202		68.90		-6.302E-02	3.681E-01	6.285E-01	4.916E-02	-0.100
		70.82		5.865E-02	2.357E-01	3.684E-01	2.935E-02	0.159
		80.30		8.120E-02	4.560E-01	6.498E-01	5.716E-02	0.125
		439.56	*	-2.018E-02	6.422E-02	1.047E-01	9.879E-03	-0.193
HG-203		70.83		2.301E-01	9.361E-01	1.463E+00	1.931E-01	0.157
		72.87		4.309E-01	5.538E-01	8.778E-01	1.131E-01	0.491
		82.60		-4.817E-01	9.899E-01	1.470E+00	2.059E-01	-0.328
		279.20	*	-8.762E-03	4.368E-02	6.115E-02	7.452E-03	-0.143
BI-207		72.80		1.230E-01	1.572E-01	2.499E-01	2.030E-02	0.492
	+	74.97		6.345E-01	1.175E-01	1.940E-01	1.611E-02	3.270
	+	84.90		2.739E-01	1.841E-01	2.618E-01	2.430E-02	1.046
		569.67		-7.234E-03	2.467E-02	3.916E-02	3.676E-03	-0.185
		1063.62	*	3.257E-02	4.870E-02	8.475E-02	7.471E-03	0.384
		1770.23		-1.653E-01	4.112E-01	5.072E-01	4.192E-02	-0.326
TL-207		81.07		1.156E-01	2.177E-01	2.776E-01	2.463E-02	0.416
	+	83.78		1.806E-01	1.214E-01	1.772E-01	1.623E-02	1.019
		94.90		1.674E-01	2.016E-01	3.181E-01	2.876E-02	0.526
		122.32		-1.402E+00	1.457E+00	2.338E+00	2.094E-01	-0.599
		144.24		5.601E-01	6.097E-01	1.035E+00	9.926E-02	0.541
		154.21		2.613E-01	3.322E-01	5.656E-01	5.443E-02	0.462
	+	269.46		6.013E-01	2.844E-01	3.057E-01	3.636E-02	1.967
		323.87	*	-2.785E-01	6.150E-01	9.416E-01	1.801E-01	-0.296
	+	338.28		7.749E+00	1.932E+00	2.383E+00	3.340E-01	3.252
		445.03		-9.250E-01	1.849E+00	2.964E+00	3.762E-01	-0.312
PO-209		260.50		1.261E-01	8.254E+00	1.326E+01	1.529E+00	0.010
		262.80		3.564E+00	2.241E+01	3.628E+01	4.205E+00	0.098
		896.60	*	-1.419E+00	6.052E+00	9.878E+00	9.343E-01	-0.144
BI-210		46.50	*	5.145E-01	3.246E+00	5.140E+00	4.794E-01	0.100
PB-210		46.50	*	5.145E-01	3.246E+00	5.140E+00	4.794E-01	0.100
PO-210		46.50	*	5.145E-01	3.246E+00	5.140E+00	4.342E-01	0.100
PB-211		404.84	*	-6.825E-01	9.804E-01	1.213E+00	7.613E-01	-0.563
		427.08		6.668E-01	1.712E+00	2.846E+00	1.772E+00	0.234
		831.96		1.325E-01	1.097E+00	1.854E+00	1.164E+00	0.071
PO-215		81.07		1.156E-01	2.177E-01	2.776E-01	2.463E-02	0.416
	+	83.78		1.806E-01	1.214E-01	1.772E-01	1.623E-02	1.019
		94.90		1.674E-01	2.016E-01	3.181E-01	2.876E-02	0.526
		122.32		-1.402E+00	1.457E+00	2.338E+00	2.094E-01	-0.599
		144.24		5.601E-01	6.097E-01	1.035E+00	9.926E-02	0.541
		154.21		2.613E-01	3.322E-01	5.656E-01	5.443E-02	0.462
	+	269.46		6.013E-01	2.844E-01	3.057E-01	3.636E-02	1.967
		323.87	*	-2.785E-01	6.150E-01	9.416E-01	1.801E-01	-0.296
	+	338.28		7.749E+00	1.932E+00	2.383E+00	3.340E-01	3.252
		445.03		-9.250E-01	1.849E+00	2.964E+00	3.762E-01	-0.312
RN-219	+	271.23		7.715E-01	3.672E-01	3.905E-01	5.114E-02	1.976
		401.81	*	1.082E-01	3.441E-01	5.872E-01	9.056E-02	0.184
RN-220		549.76	*	1.670E+01	2.314E+01	3.985E+01	3.765E+00	0.419
RA-223		81.07		1.156E-01	2.177E-01	2.776E-01	2.463E-02	0.416
	+	83.78		1.806E-01	1.214E-01	1.772E-01	1.623E-02	1.019
		94.90		1.674E-01	2.016E-01	3.181E-01	2.876E-02	0.526

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-1.402E+00	1.457E+00	2.338E+00	2.094E-01	-0.599
		144.24		5.601E-01	6.097E-01	1.035E+00	9.926E-02	0.541
		154.21		2.613E-01	3.322E-01	5.656E-01	5.443E-02	0.462
	+	269.46		6.013E-01	2.844E-01	3.057E-01	3.636E-02	1.967
		323.87	*	-2.785E-01	6.150E-01	9.416E-01	1.801E-01	-0.296
	+	338.28		7.749E+00	1.932E+00	2.383E+00	3.340E-01	3.252
		445.03		-9.250E-01	1.849E+00	2.964E+00	3.762E-01	-0.312
AC-227		79.80		5.196E-01	1.357E+00	2.116E+00	4.562E-01	0.246
		236.00		2.429E-01	2.242E-01	3.402E-01	4.741E-02	0.714
		256.20	*	-1.449E-01	3.392E-01	5.307E-01	9.063E-02	-0.273
		286.10		-1.076E-01	1.336E+00	2.120E+00	3.299E-01	-0.051
	+	299.80		3.102E+00	1.763E+00	2.282E+00	4.383E-01	1.359
		304.40		-2.131E-01	1.830E+00	2.557E+00	5.121E-01	-0.083
		334.20		3.704E-01	2.005E+00	3.047E+00	6.272E-01	0.122
TH-227		79.80		5.196E-01	1.357E+00	2.116E+00	4.620E-01	0.246
	+	94.00		1.295E+01	3.720E+00	3.390E+00	7.448E-01	3.822
		236.00		2.429E-01	2.238E-01	3.402E-01	4.396E-02	0.714
		256.20	*	-1.449E-01	3.394E-01	5.307E-01	1.038E-01	-0.273
		286.10		-1.076E-01	1.340E+00	2.120E+00	2.135E+00	-0.051
	+	299.80		3.102E+00	1.763E+00	2.282E+00	4.383E-01	1.359
		304.40		-2.131E-01	1.830E+00	2.557E+00	5.121E-01	-0.083
		334.20		3.704E-01	2.005E+00	3.047E+00	6.272E-01	0.122
TH-229	+	85.43		2.703E-01	1.817E-01	2.584E-01	2.414E-02	1.046
	+	88.47		2.951E-01	1.009E-01	1.708E-01	1.638E-02	1.728
		100.00		1.533E-01	1.559E-01	2.715E-01	2.376E-02	0.565
		193.63	*	-1.960E-01	4.203E-01	6.712E-01	6.550E-02	-0.292
		210.97		7.385E-01	7.272E-01	1.113E+00	1.138E-01	0.663
PA-231		283.67	*	1.546E-01	1.409E+00	2.262E+00	3.913E-01	0.068
	+	301.29		1.241E+00	6.878E-01	8.961E-01	1.306E-01	1.385
TH-231		81.07		1.156E-01	2.177E-01	2.776E-01	2.463E-02	0.416
	+	83.78		1.806E-01	1.214E-01	1.772E-01	1.623E-02	1.019
		94.90		1.674E-01	2.016E-01	3.181E-01	2.876E-02	0.526
		122.32		-1.402E+00	1.457E+00	2.338E+00	2.094E-01	-0.599
		144.24		5.601E-01	6.097E-01	1.035E+00	9.926E-02	0.541
		154.21		2.613E-01	3.322E-01	5.656E-01	5.443E-02	0.462
	+	269.46		6.013E-01	2.844E-01	3.057E-01	3.636E-02	1.967
		323.87	*	-2.785E-01	6.150E-01	9.416E-01	1.801E-01	-0.296
	+	338.28		7.749E+00	1.932E+00	2.383E+00	3.340E-01	3.252
		445.03		-9.250E-01	1.849E+00	2.964E+00	3.762E-01	-0.312
U-231	+	84.21		1.098E+01	7.379E+00	1.072E+01	9.869E-01	1.024
	+	92.29		1.806E+01	3.721E+00	5.657E+00	5.224E-01	3.192
		95.87	*	-1.492E+00	1.383E+00	1.990E+00	1.787E-01	-0.750
		108.00		3.858E-01	2.392E+00	3.998E+00	3.386E-01	0.096
PA-233	+	75.28		1.851E+01	4.158E+00	5.654E+00	8.587E-01	3.274
	+	86.59		4.440E+00	2.001E+00	2.496E+00	6.766E-01	1.779
	+	300.12		8.647E-01	4.849E-01	6.318E-01	1.065E-01	1.369
		311.98	*	-1.551E-02	5.801E-02	9.038E-02	1.056E-02	-0.172
		340.50		1.139E+00	6.278E-01	9.556E-01	2.363E-01	1.192
		398.62		-8.467E-01	1.769E+00	2.856E+00	7.669E-01	-0.296

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.015E-02	1.396E+00	2.337E+00	5.107E-01	0.004
PA-234	+	63.00		4.596E+00	2.283E+00	2.535E+00	3.765E-01	1.813
		94.67		2.732E-01	1.498E-01	2.404E-01	3.055E-02	1.137
		98.44		1.087E-01	9.747E-02	1.353E-01	7.555E-02	0.803
		99.86		5.844E-01	3.944E-01	6.953E-01	6.089E-02	0.840
		111.00		-8.402E-02	1.523E-01	2.504E-01	2.988E-02	-0.336
		131.20		-1.000E-01	9.105E-02	1.449E-01	1.212E-02	-0.690
		152.70		5.868E-02	2.699E-01	4.506E-01	7.710E-02	0.130
	+	186.00		5.243E+00	2.408E+00	2.314E+00	7.286E-01	2.266
		226.40		-1.838E-01	3.583E-01	5.641E-01	8.233E-02	-0.326
		227.20		1.891E-01	3.718E-01	6.160E-01	6.562E-02	0.307
		248.90		2.182E-01	6.892E-01	1.126E+00	2.650E-01	0.194
	+	293.70		6.409E+00	1.564E+00	1.432E+00	2.734E-01	4.476
		369.80		5.256E-01	6.899E-01	1.199E+00	2.681E-01	0.438
		568.70		-6.937E-03	7.929E-01	1.290E+00	1.211E-01	-0.005
		569.50		-1.676E-02	2.139E-01	3.457E-01	3.246E-02	-0.048
		574.00		-6.083E-01	1.223E+00	1.916E+00	1.796E-01	-0.318
		699.00		-5.131E-01	6.298E-01	9.289E-01	1.790E-01	-0.552
		706.10		-1.405E+00	1.133E+00	1.317E+00	5.884E-01	-1.067
		733.00		8.287E-02	3.619E-01	5.711E-01	1.280E-01	0.145
		742.81		-3.047E-01	1.279E+00	1.979E+00	1.332E+00	-0.154
	+	796.30		2.546E+00	1.412E+00	1.637E+00	4.466E-01	1.555
		805.60		6.731E-01	9.167E-01	1.588E+00	4.900E-01	0.424
		819.60		-3.911E-01	1.021E+00	1.640E+00	6.265E-01	-0.238
		826.30		5.062E-01	7.270E-01	1.231E+00	5.524E-01	0.411
		831.60		1.172E-02	5.686E-01	9.563E-01	2.876E-01	0.012
		876.40		-3.478E-01	8.162E-01	1.176E+00	1.210E+00	-0.296
		880.51		1.471E-01	2.528E-01	4.422E-01	4.177E-02	0.333
		883.24		3.946E-02	2.592E-01	4.365E-01	2.939E-01	0.090
		899.00		-4.915E-01	7.331E-01	1.093E+00	4.796E-01	-0.450
		925.00		-8.338E-01	9.605E-01	1.455E+00	1.367E-01	-0.573
		926.50		-7.293E-02	1.500E-01	2.364E-01	6.040E-02	-0.308
		946.00	*	-1.737E-01	2.915E-01	4.455E-01	8.511E-02	-0.390
		949.00		1.708E-01	4.238E-01	7.270E-01	6.781E-02	0.235
		980.50		-1.900E-01	6.699E-01	1.082E+00	9.972E-02	-0.176
		1394.10		3.561E-01	1.003E+00	1.674E+00	1.089E+00	0.213
PA-234M		766.42		5.882E+00	1.193E+01	1.933E+01	9.831E+00	0.304
	+	1001.03	*	3.154E+00	7.352E+00	7.738E+00	8.056E-01	0.408
U-235	+	89.95		2.962E+00	1.341E+00	1.715E+00	5.333E-01	1.727
	+	93.35		4.030E+00	1.358E+00	1.240E+00	3.495E-01	3.251
		105.00		1.246E-01	8.403E-01	1.424E+00	4.247E-01	0.087
		143.76	*	1.833E-01	1.910E-01	3.213E-01	5.616E-02	0.570
		163.35		-8.433E-02	4.041E-01	6.502E-01	1.252E-01	-0.130
	+	185.71		1.942E-01	6.754E-02	8.498E-02	8.117E-03	2.285
		205.31		-1.555E-01	5.052E-01	7.197E-01	1.423E-01	-0.216
NP-236		94.67		2.091E-01	1.122E-01	1.825E-01	1.653E-02	1.146
		98.44		8.218E-02	5.811E-02	1.023E-01	9.032E-03	0.803
		111.00		-6.355E-02	1.151E-01	1.894E-01	1.592E-02	-0.336
		160.31	*	-5.112E-02	6.635E-02	1.057E-01	9.435E-03	-0.484

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.254E-01	1.318E-01	2.335E-01	2.048E-02	0.965
		117.00	*	-6.724E-02	1.540E-01	2.538E-01	2.113E-02	-0.265
	+	209.75		1.648E+00	1.068E+00	1.224E+00	1.247E-01	1.346
		228.18		1.358E-01	1.973E-01	3.290E-01	3.513E-02	0.413
	+	277.60		2.215E-01	2.096E-01	2.824E-01	3.380E-02	0.784
		334.30		1.470E-01	1.132E+00	1.714E+00	1.888E-01	0.086
AM-241		59.54	*	8.418E-02	1.425E-01	2.109E-01	1.655E-02	0.399
CM-243		99.55		2.320E-01	1.357E-01	2.403E-01	2.108E-02	0.965
		103.76	*	-1.551E-02	7.661E-02	1.283E-01	1.103E-02	-0.121
		117.00		-6.919E-02	1.584E-01	2.611E-01	2.174E-02	-0.265
	+	209.75		1.624E+00	1.053E+00	1.207E+00	1.229E-01	1.346
		228.18		1.372E-01	1.993E-01	3.325E-01	3.551E-02	0.413
	+	277.60		2.233E-01	2.113E-01	2.847E-01	3.408E-02	0.784
AM-246		798.80		8.858E-02	1.264E-01	2.005E-01	1.869E-02	0.442
		1036.00		8.157E-02	2.465E-01	4.200E-01	3.766E-02	0.194
		1062.04		-5.468E-02	2.084E-01	3.347E-01	2.953E-02	-0.163
		1078.86	*	9.604E-02	1.491E-01	2.573E-01	2.245E-02	0.373
CM-247	+	278.00		9.186E-01	8.693E-01	1.172E+00	1.404E-01	0.784
		287.40		4.048E-02	1.061E+00	1.696E+00	2.020E-01	0.024
		402.60	*	1.816E-02	3.124E-02	5.256E-02	4.887E-03	0.345
CF-249		252.85		3.645E-01	7.527E-01	1.241E+00	1.406E-01	0.294
		333.44		-2.828E-02	1.552E-01	2.294E-01	2.532E-02	-0.123
		387.95	*	2.199E-02	3.369E-02	5.865E-02	5.502E-03	0.375
CF-251		176.60	*	-5.532E-02	1.084E-01	1.740E-01	1.622E-02	-0.318
		227.00		4.931E-02	3.337E-01	5.440E-01	5.793E-02	0.091
		285.00		-1.649E-01	1.570E+00	2.489E+00	2.972E-01	-0.066

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020010      *
* Acquisition date : 13-FEB-2010 16:56:10 Detector SN#    :                 *
* Detector ID        : GAM16                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:02.21      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020010           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.4335E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.845E+01	3.760E+00	4.467E-01	0.000E+00
CD-109	2.314E+00	8.445E-01	1.046E+00	0.000E+00
SN-126	2.268E-01	8.275E-02	1.030E-01	0.000E+00
TL-208	5.292E-01	8.932E-02	5.286E-02	0.000E+00
BI-211	3.933E+00	5.856E-01	2.740E-01	0.000E+00
BI-212	1.069E+00	3.920E-01	4.310E-01	0.000E+00
PB-212	1.514E+00	2.014E-01	8.230E-02	0.000E+00
PO-212	1.514E+00	2.014E-01	8.230E-02	0.000E+00
BI-214	1.234E+00	1.861E-01	8.543E-02	0.000E+00
PB-214	1.368E+00	2.154E-01	9.551E-02	0.000E+00
PO-214	1.368E+00	2.154E-01	9.551E-02	0.000E+00
PO-216	1.514E+00	2.014E-01	8.230E-02	0.000E+00
PO-218	1.368E+00	2.154E-01	9.551E-02	0.000E+00
RA-224	4.655E+00	1.267E+00	9.366E-01	0.000E+00
RA-226	1.234E+00	1.861E-01	8.543E-02	0.000E+00
AC-228	1.671E+00	3.300E-01	1.975E-01	0.000E+00
RA-228	1.671E+00	3.300E-01	1.975E-01	0.000E+00
TH-228	1.541E+00	2.049E-01	8.372E-02	0.000E+00
TH-230	1.234E+00	1.860E-01	8.543E-02	0.000E+00
TH-232	1.671E+00	3.300E-01	1.975E-01	0.000E+00
TH-234	3.943E+00	1.952E+00	1.770E+00	0.000E+00
U-234	1.234E+00	1.860E-01	8.543E-02	0.000E+00
NP-237	6.659E-01	2.778E-01	3.117E-01	0.000E+00
U-238	3.943E+00	1.952E+00	1.770E+00	0.000E+00
AM-243	3.534E-01	6.416E-02	7.982E-02	0.000E+00
ANH-511	1.307E-01	5.769E-02	4.243E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-1.565E-01	2.806E-01	4.695E-01	0.000E+00	NOT IDENT.

NA-22	4.874E-03	3.543E-02	5.999E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.792E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.227E-02	2.671E-02	5.104E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.888E-02	6.607E-02	0.000E+00	FAIL ABUN
SC-46	-9.105E-03	3.393E-02	5.739E-02	0.000E+00	FAIL ABUN
V-48	-2.478E-02	7.250E-02	1.207E-01	0.000E+00	NOT IDENT.
CR-51	4.293E-02	3.451E-01	5.836E-01	0.000E+00	NOT IDENT.
MN-52	3.819E-02	2.085E-01	3.545E-01	0.000E+00	FAIL ABUN
MN-54	5.826E-03	3.279E-02	5.791E-02	0.000E+00	NOT IDENT.
CO-56	-1.153E-02	3.343E-02	5.647E-02	0.000E+00	NOT IDENT.
CO-57	-9.794E-03	2.055E-02	3.651E-02	0.000E+00	NOT IDENT.
CO-58	-7.999E-03	3.237E-02	5.540E-02	0.000E+00	NOT IDENT.
FE-59	-6.156E-03	8.407E-02	1.415E-01	0.000E+00	NOT IDENT.
CO-60	1.399E-03	3.359E-02	5.603E-02	0.000E+00	NOT IDENT.
ZN-65	-7.954E-03	9.888E-02	1.434E-01	0.000E+00	NOT IDENT.
GE-68	1.357E+00	1.312E+00	2.391E+00	0.000E+00	NOT IDENT.
AS-73	5.038E-01	7.154E-01	1.273E+00	0.000E+00	NOT IDENT.
AS-74	-1.330E-02	9.008E-02	1.520E-01	0.000E+00	NOT IDENT.
SE-75	-1.642E-02	4.223E-02	6.219E-02	0.000E+00	NOT IDENT.
BR-77	7.519E+00	1.569E+01	2.804E+01	0.000E+00	FAIL ABUN
SR-82	-7.203E-01	3.817E-01	5.122E-01	0.000E+00	NOT IDENT.
RB-83	3.501E-02	5.797E-02	1.044E-01	0.000E+00	NOT IDENT.
RB-84	6.603E-02	6.238E-02	1.170E-01	0.000E+00	NOT IDENT.
KR-85	7.605E+00	6.290E+00	1.058E+01	0.000E+00	NOT IDENT.
SR-85	3.986E-02	3.297E-02	5.544E-02	0.000E+00	NOT IDENT.
RB-86	1.029E+00	8.808E-01	1.620E+00	0.000E+00	NOT IDENT.
Y-88	4.892E-03	2.611E-02	4.545E-02	0.000E+00	NOT IDENT.
ZR-88	-1.398E-02	2.624E-02	4.501E-02	0.000E+00	NOT IDENT.
Y-91	-2.175E+01	1.929E+01	2.926E+01	0.000E+00	NOT IDENT.
NB-94	3.207E-02	2.849E-02	5.189E-02	0.000E+00	NOT IDENT.
NB-95	-1.978E-02	4.349E-02	7.059E-02	0.000E+00	NOT IDENT.
NB-95M	1.014E-01	1.215E-01	1.951E-01	0.000E+00	NOT IDENT.
ZR-95	3.343E-02	6.460E-02	1.122E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.763E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.307E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	9.732E+00	1.806E+01	3.138E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.058E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.204E-02	2.862E-02	5.023E-02	0.000E+00	NOT IDENT.
RH-102	1.187E-02	2.418E-02	4.348E-02	0.000E+00	NOT IDENT.
RU-103	-1.615E-02	3.560E-02	5.966E-02	0.000E+00	FAIL ABUN
RH-106	2.245E-01	2.719E-01	4.889E-01	0.000E+00	FAIL ABUN
RU-106	2.245E-01	2.710E-01	4.889E-01	0.000E+00	FAIL ABUN
AG-108M	-1.080E-02	2.686E-02	4.542E-02	0.000E+00	NOT IDENT.
AG-110M	6.783E-03	3.063E-02	5.262E-02	0.000E+00	NOT IDENT.
IN-111	-2.072E-01	1.516E+00	2.296E+00	0.000E+00	NOT IDENT.
IN-113M	6.641E-03	3.773E-02	6.755E-02	0.000E+00	NOT IDENT.
SN-113	6.641E-03	3.773E-02	6.755E-02	0.000E+00	NOT IDENT.
IN-114M	1.294E-01	1.700E-01	2.776E-01	0.000E+00	NOT IDENT.
CD-115	1.599E+01	1.806E+01	3.295E+01	0.000E+00	NOT IDENT.
SN-117M	4.043E-02	4.948E-02	9.072E-02	0.000E+00	NOT IDENT.
SB-122	1.356E+00	2.984E+00	5.282E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.512E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.476E-02	2.309E-02	4.269E-02	0.000E+00	NOT IDENT.
I-124	3.978E-01	9.204E-01	1.431E+00	0.000E+00	FAIL ABUN
SB-124	1.087E-02	5.865E-02	1.027E-01	0.000E+00	FAIL ABUN
SB-125	2.117E-02	7.253E-02	1.300E-01	0.000E+00	FAIL ABUN
TE-125M	4.234E+00	7.696E+00	1.412E+01	0.000E+00	NOT IDENT.
I-126	4.043E-02	1.730E-01	2.973E-01	0.000E+00	NOT IDENT.
SB-126	9.633E-02	1.503E-01	2.561E-01	0.000E+00	FAIL ABUN
SB-127	-2.193E-01	1.653E+00	2.747E+00	0.000E+00	NOT IDENT.
XE-127	2.292E-02	4.119E-02	7.352E-02	0.000E+00	NOT IDENT.
I-131	-6.034E-02	1.144E-01	1.950E-01	0.000E+00	NOT IDENT.
TE-132	6.630E-01	9.267E-01	1.644E+00	0.000E+00	NOT IDENT.
BA-133	1.266E-02	3.508E-02	5.701E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	2.817E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.324E-02	8.730E-02	0.000E+00	FAIL ABUN
CS-135	8.271E-02	1.506E-01	2.338E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.989E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.623E-02	1.146E-01	1.975E-01	0.000E+00	FAIL ABUN
BA-137M	-1.076E-03	3.224E-02	5.427E-02	0.000E+00	NOT IDENT.
CS-137	-1.137E-03	3.408E-02	5.737E-02	0.000E+00	NOT IDENT.
CE-139	1.905E-03	2.547E-02	4.529E-02	0.000E+00	NOT IDENT.
BA-140	1.181E-01	2.594E-01	4.559E-01	0.000E+00	NOT IDENT.
LA-140	-5.795E-02	8.270E-02	1.263E-01	0.000E+00	NOT IDENT.
CE-141	-2.839E-02	5.771E-02	1.000E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.975E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-7.530E-02	1.646E-01	2.904E-01	0.000E+00	NOT IDENT.
PM-144	-7.888E-03	2.848E-02	4.666E-02	0.000E+00	NOT IDENT.

PR-144	-5.351E-01	1.932E+00	3.165E+00	0.000E+00	NOT IDENT.
PM-146	1.978E-02	3.625E-02	6.554E-02	0.000E+00	NOT IDENT.
ND-147	-2.120E-01	5.640E-01	9.449E-01	0.000E+00	FAIL ABUN
PM-149	-2.935E+01	1.520E+02	2.547E+02	0.000E+00	NOT IDENT.
EU-152	-4.167E-02	8.159E-02	1.370E-01	0.000E+00	FAIL ABUN
GD-153	-5.952E-02	6.783E-02	1.148E-01	0.000E+00	FAIL ABUN
EU-154	-1.217E-02	1.011E-01	1.664E-01	0.000E+00	NOT IDENT.
EU-155	2.443E-02	8.435E-02	1.560E-01	0.000E+00	FAIL ABUN
TB-160	-4.528E-02	1.247E-01	2.096E-01	0.000E+00	FAIL ABUN
HO-166M	2.723E-02	5.136E-02	8.984E-02	0.000E+00	FAIL ABUN
TM-171	3.835E-01	2.506E+01	3.899E+01	0.000E+00	NOT IDENT.
LU-176	-3.747E-03	2.171E-02	3.618E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.831E+00	2.197E+00	0.000E+00	FAIL ABUN
LU-177M	3.211E-02	1.615E-01	2.682E-01	0.000E+00	NOT IDENT.
HF-181	1.543E-02	3.650E-02	6.531E-02	0.000E+00	NOT IDENT.
W-181	2.145E-01	3.341E-01	5.392E-01	0.000E+00	NOT IDENT.
TA-182	-1.825E-02	2.033E-01	3.383E-01	0.000E+00	FAIL ABUN
RE-183	-6.725E-02	9.327E-02	1.576E-01	0.000E+00	FAIL ABUN
RE-184	9.798E-02	1.983E-01	3.482E-01	0.000E+00	NOT IDENT.
OS-185	1.413E-02	4.021E-02	6.980E-02	0.000E+00	NOT IDENT.
RE-188	7.825E-02	1.442E-01	2.621E-01	0.000E+00	NOT IDENT.
W-188	3.950E+00	6.651E+00	1.048E+01	0.000E+00	FAIL ABUN
IR-192	-1.559E-03	3.075E-02	5.149E-02	0.000E+00	FAIL ABUN
AU-195	3.162E-01	1.870E-01	3.595E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.393E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.306E+00	9.395E+00	1.673E+01	0.000E+00	NOT IDENT.
TL-202	-2.018E-02	6.293E-02	1.080E-01	0.000E+00	NOT IDENT.
HG-203	-8.762E-03	4.281E-02	6.372E-02	0.000E+00	NOT IDENT.
BI-207	3.257E-02	4.773E-02	8.577E-02	0.000E+00	FAIL ABUN
TL-207	-2.785E-01	6.027E-01	9.782E-01	0.000E+00	FAIL ABUN
PO-209	-1.419E+00	5.931E+00	1.004E+01	0.000E+00	NOT IDENT.
BI-210	5.145E-01	3.181E+00	5.557E+00	0.000E+00	NOT IDENT.
PB-210	5.145E-01	3.181E+00	5.557E+00	0.000E+00	NOT IDENT.
PO-210	5.145E-01	3.181E+00	5.557E+00	0.000E+00	NOT IDENT.
PB-211	-6.825E-01	9.608E-01	1.254E+00	0.000E+00	NOT IDENT.
PO-215	-2.785E-01	6.027E-01	9.782E-01	0.000E+00	FAIL ABUN
RN-219	1.082E-01	3.373E-01	6.072E-01	0.000E+00	FAIL ABUN
RN-220	1.670E+01	2.267E+01	4.092E+01	0.000E+00	NOT IDENT.
RA-223	-2.785E-01	6.027E-01	9.782E-01	0.000E+00	FAIL ABUN
AC-227	-1.449E-01	3.324E-01	5.540E-01	0.000E+00	FAIL ABUN
TH-227	-1.449E-01	3.326E-01	5.540E-01	0.000E+00	FAIL ABUN
TH-229	-1.960E-01	4.119E-01	7.049E-01	0.000E+00	FAIL ABUN
PA-231	1.546E-01	1.381E+00	2.356E+00	0.000E+00	FAIL ABUN
TH-231	-2.785E-01	6.027E-01	9.782E-01	0.000E+00	FAIL ABUN
U-231	-1.492E+00	1.355E+00	2.120E+00	0.000E+00	FAIL ABUN
PA-233	-1.551E-02	5.685E-02	9.396E-02	0.000E+00	FAIL ABUN
PA-234	-1.737E-01	2.857E-01	4.521E-01	0.000E+00	FAIL ABUN
PA-234M	3.154E+00	7.205E+00	7.842E+00	0.000E+00	FAIL ABUN
U-235	1.833E-01	1.872E-01	3.395E-01	0.000E+00	FAIL ABUN
NP-236	-5.112E-02	6.503E-02	1.115E-01	0.000E+00	NOT IDENT.
NP-239	-6.724E-02	1.509E-01	2.693E-01	0.000E+00	FAIL ABUN
AM-241	8.418E-02	1.397E-01	2.269E-01	0.000E+00	NOT IDENT.
CM-243	-1.551E-02	7.508E-02	1.365E-01	0.000E+00	FAIL ABUN
AM-246	9.604E-02	1.461E-01	2.603E-01	0.000E+00	NOT IDENT.
CM-247	1.816E-02	3.061E-02	5.435E-02	0.000E+00	FAIL ABUN
CF-249	2.199E-02	3.302E-02	6.069E-02	0.000E+00	NOT IDENT.
CF-251	-5.532E-02	1.063E-01	1.831E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:56:48.66

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020010.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:56:10
Sample ID         : G246020010           Sample quantity  : 1.43350E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.21  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1893	10.67*	1.208E+00	3.845E+01	3.845E+01	9.98
CD-109	88.03	200	3.72*	6.244E+00	2.256E+00	2.314E+00	37.23
SN-126	64.28	203	9.60	3.556E+00	1.561E+00	1.561E+00	49.58
	86.94	200	8.90	6.244E+00	9.428E-01	9.428E-01	54.98
	87.57	200	37.00*	6.244E+00	2.268E-01	2.268E-01	37.23
TL-208	277.35	56	6.80	4.696E+00	4.593E-01	4.593E-01	95.04
	510.84	148	21.60	2.965E+00	6.051E-01	6.051E-01	45.81
	583.14	454	84.20*	2.667E+00	5.292E-01	5.292E-01	17.22
	860.37	31	12.46	1.918E+00	3.376E-01	3.376E-01	136.82
BI-211	72.87	------	1.27	4.872E+00	------ Line Not Found		------
	351.07	766	12.94*	3.940E+00	3.933E+00	3.933E+00	15.19
BI-212	727.18	107	11.80*	2.221E+00	1.069E+00	1.069E+00	37.42
	785.46	------	1.97	2.079E+00	------ Line Not Found		------
	1620.62	12	2.75	1.116E+00	1.055E+00	1.055E+00	136.26
PB-212	74.81	455	10.70	5.107E+00	2.180E+00	2.180E+00	20.75
	77.11	687	18.00	5.365E+00	1.863E+00	1.863E+00	14.51
	87.30	200	8.00	6.244E+00	1.049E+00	1.049E+00	38.55
	238.63	1348	44.60*	5.225E+00	1.514E+00	1.514E+00	13.57
	300.09	97	3.41	4.434E+00	1.674E+00	1.674E+00	55.07
PO-212	74.81	455	10.70	5.107E+00	2.180E+00	2.180E+00	20.75
	77.11	687	18.00	5.365E+00	1.863E+00	1.863E+00	14.51
	87.30	200	8.00	6.244E+00	1.049E+00	1.049E+00	38.55
	115.19	------	0.60	7.166E+00	------ Line Not Found		------
	238.63	1348	44.60*	5.225E+00	1.514E+00	1.514E+00	13.57
	300.09	97	3.41	4.434E+00	1.674E+00	1.674E+00	55.07
BI-214	609.31	562	46.30*	2.575E+00	1.234E+00	1.234E+00	15.38
	1120.29	125	15.10	1.516E+00	1.425E+00	1.425E+00	34.45
	1764.49	88	15.80	1.056E+00	1.388E+00	1.388E+00	27.64
PB-214	74.81	455	6.21	5.107E+00	3.756E+00	3.756E+00	19.95
	77.11	687	10.50	5.365E+00	3.194E+00	3.194E+00	16.39
	87.30	200	4.67	6.244E+00	1.797E+00	1.797E+00	38.02
	241.98	364	7.49	5.179E+00	2.455E+00	2.455E+00	28.34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	439	19.20	4.487E+00	1.335E+00	1.335E+00	20.23
	351.92	766	37.20*	3.940E+00	1.368E+00	1.368E+00	16.07
PO-214	74.81	455	6.21	5.107E+00	3.756E+00	3.756E+00	19.95
	77.11	687	10.50	5.365E+00	3.194E+00	3.194E+00	16.39
	87.30	200	4.67	6.244E+00	1.797E+00	1.797E+00	38.02
	241.98	364	7.49	5.179E+00	2.455E+00	2.455E+00	28.34
	295.21	439	19.20	4.487E+00	1.335E+00	1.335E+00	20.23
	351.92	766	37.20*	3.940E+00	1.368E+00	1.368E+00	16.07
PO-216	74.81	455	10.70	5.107E+00	2.180E+00	2.180E+00	20.75
	77.11	687	18.00	5.365E+00	1.863E+00	1.863E+00	14.51
	87.30	200	8.00	6.244E+00	1.049E+00	1.049E+00	38.55
	238.63	1348	44.60*	5.225E+00	1.514E+00	1.514E+00	13.57
	300.09	97	3.41	4.434E+00	1.674E+00	1.674E+00	55.07
PO-218	74.81	455	6.21	5.107E+00	3.756E+00	3.756E+00	19.95
	77.11	687	10.50	5.365E+00	3.194E+00	3.194E+00	16.39
	87.30	200	4.67	6.244E+00	1.797E+00	1.797E+00	38.02
	241.98	364	7.49	5.179E+00	2.455E+00	2.455E+00	28.34
	295.21	439	19.20	4.487E+00	1.335E+00	1.335E+00	20.23
	351.92	766	37.20*	3.940E+00	1.368E+00	1.368E+00	16.07
RA-224	240.98	364	3.95*	5.179E+00	4.655E+00	4.655E+00	27.78
RA-226	609.31	562	46.30*	2.575E+00	1.234E+00	1.234E+00	15.38
	1120.29	125	15.10	1.516E+00	1.425E+00	1.425E+00	34.45
	1764.49	88	15.80	1.056E+00	1.388E+00	1.388E+00	27.64
AC-228	338.32	328	11.40	4.057E+00	1.856E+00	1.856E+00	46.61
	911.07	323	27.70*	1.824E+00	1.671E+00	1.671E+00	20.15
	969.11	190	16.60	1.727E+00	1.736E+00	1.736E+00	30.87
RA-228	338.32	328	11.40	4.057E+00	1.856E+00	1.856E+00	46.61
	911.07	323	27.70*	1.824E+00	1.671E+00	1.671E+00	20.15
	969.11	190	16.60	1.727E+00	1.736E+00	1.736E+00	30.87
TH-228	74.81	455	10.70	5.107E+00	2.180E+00	2.218E+00	18.56
	77.11	687	18.00	5.365E+00	1.863E+00	1.895E+00	14.51
	87.30	200	8.00	6.244E+00	1.049E+00	1.067E+00	37.23
	238.63	1348	44.60*	5.225E+00	1.514E+00	1.541E+00	13.57
	300.09	97	3.41	4.434E+00	1.674E+00	1.702E+00	80.24
TH-230	609.31	562	46.30*	2.575E+00	1.234E+00	1.234E+00	15.38
	1120.29	125	15.10	1.516E+00	1.425E+00	1.425E+00	34.45
	1764.49	88	15.80	1.056E+00	1.388E+00	1.388E+00	27.64
TH-232	338.32	328	11.40	4.057E+00	1.856E+00	1.856E+00	23.33
	911.07	323	27.70*	1.824E+00	1.671E+00	1.671E+00	20.15
	969.11	190	16.60	1.727E+00	1.736E+00	1.736E+00	30.87
TH-234	63.29	203	3.80*	3.556E+00	3.943E+00	3.943E+00	50.51
	92.38	456	5.41	6.590E+00	3.352E+00	3.352E+00	26.02
U-234	609.31	562	46.30*	2.575E+00	1.234E+00	1.234E+00	15.38
	1120.29	125	15.10	1.516E+00	1.425E+00	1.425E+00	34.45
	1764.49	88	15.80	1.056E+00	1.388E+00	1.388E+00	27.64
NP-237	86.50	200	12.60*	6.244E+00	6.659E-01	6.659E-01	42.57
	95.87	------	2.60	6.742E+00	------ Line Not Found		------
U-238	63.29	203	3.80*	3.556E+00	3.943E+00	3.943E+00	50.51
	92.38	456	5.41	6.590E+00	3.352E+00	3.352E+00	20.60

Sample ID : G246020010 Acquisition date : 13-FEB-2010 16:56:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	455	66.00*	5.107E+00	3.534E-01	3.534E-01	18.52
	86.72	200	0.34	6.244E+00	2.497E+01	2.497E+01	37.23
	117.66	------	0.55	7.175E+00	------ Line Not Found		------
	142.18	------	0.13	6.968E+00	------ Line Not Found		------
ANH-511	511.00	148	100.00*	2.965E+00	1.307E-01	1.307E-01	45.04

Flag: "*" = Keyline

Sample ID : G246020010 Acquisition date : 13-FEB-2010 16:56:10

Total number of lines in spectrum 38
Number of unidentified lines 3
Number of lines tentatively identified by NID 35 92.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.845E+01	3.845E+01	0.384E+01	9.98	
CD-109	464.00D	1.03	2.256E+00	2.314E+00	0.862E+00	37.23	
SN-126	1.00E+05Y	1.00	2.268E-01	2.268E-01	0.844E-01	37.23	
TL-208	1.41E+10Y	1.00	5.292E-01	5.292E-01	0.911E-01	17.22	
BI-211	7.04E+08Y	1.00	3.933E+00	3.933E+00	0.598E+00	15.19	
BI-212	1.41E+10Y	1.00	1.069E+00	1.069E+00	0.400E+00	37.42	
PB-212	1.41E+10Y	1.00	1.514E+00	1.514E+00	0.205E+00	13.57	
PO-212	1.41E+10Y	1.00	1.514E+00	1.514E+00	0.205E+00	13.57	
BI-214	1600.00Y	1.00	1.234E+00	1.234E+00	0.190E+00	15.38	
PB-214	1600.00Y	1.00	1.368E+00	1.368E+00	0.220E+00	16.07	
PO-214	1600.00Y	1.00	1.368E+00	1.368E+00	0.220E+00	16.07	
PO-216	1.41E+10Y	1.00	1.514E+00	1.514E+00	0.205E+00	13.57	
PO-218	1600.00Y	1.00	1.368E+00	1.368E+00	0.220E+00	16.07	
RA-224	1.41E+10Y	1.00	4.655E+00	4.655E+00	1.293E+00	27.78	
RA-226	1600.00Y	1.00	1.234E+00	1.234E+00	0.190E+00	15.38	
AC-228	1.41E+10Y	1.00	1.671E+00	1.671E+00	0.337E+00	20.15	
RA-228	1.41E+10Y	1.00	1.671E+00	1.671E+00	0.337E+00	20.15	
TH-228	1.91Y	1.02	1.514E+00	1.541E+00	0.209E+00	13.57	
TH-230	4.47E+09Y	1.00	1.234E+00	1.234E+00	0.190E+00	15.38	
TH-232	1.41E+10Y	1.00	1.671E+00	1.671E+00	0.337E+00	20.15	
TH-234	4.47E+09Y	1.00	3.943E+00	3.943E+00	1.991E+00	50.51	
U-234	4.47E+09Y	1.00	1.234E+00	1.234E+00	0.190E+00	15.38	
NP-237	2.14E+06Y	1.00	6.659E-01	6.659E-01	2.835E-01	42.57	
U-238	4.47E+09Y	1.00	3.943E+00	3.943E+00	1.991E+00	50.51	
AM-243	7380.00Y	1.00	3.534E-01	3.534E-01	0.655E-01	18.52	
ANH-511	1.00E+09Y	1.00	1.307E-01	1.307E-01	0.589E-01	45.04	
	Total Activity :		8.027E+01	8.035E+01			

Grand Total Activity : 8.027E+01 8.035E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020010 Acquisition date : 13-FEB-2010 16:56:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.21	103	411	1.17	168.62	166	6	1.43E-02	66.6	6.03E+00	T
3	89.87	196	384	1.16	179.93	177	13	2.73E-02	32.9	6.43E+00	T
0	185.79	246	376	1.27	371.77	367	10	3.42E-02	33.4	6.15E+00	T
0	209.25	116	365	0.85	418.70	414	10	1.62E-02	64.0	5.71E+00	T
0	270.52	149	253	1.28	541.23	535	12	2.07E-02	45.8	4.78E+00	T
0	408.67	56	138	1.08	817.53	813	9	7.79E-03	79.9	3.52E+00	
0	462.96	120	59	1.07	926.08	922	8	1.66E-02	28.9	3.20E+00	T
0	795.14	78	65	1.56	1590.35	1584	13	1.08E-02	48.3	2.06E+00	T
0	934.62	34	56	0.73	1869.23	1866	11	4.78E-03	91.6	1.78E+00	T
0	964.65	77	52	2.64	1929.27	1923	11	1.07E-02	44.0	1.73E+00	T
0	1002.38	17	80	1.57	2004.71	1999	14	2.35E-03	****	1.68E+00	T
0	1377.20	45	23	1.51	2754.07	2748	13	6.25E-03	53.0	1.27E+00	T
0	1509.26	24	4	2.42	3018.07	3013	9	3.27E-03	52.5	1.18E+00	T
0	1629.66	29	0	1.82	3258.76	3250	15	4.03E-03	37.1	1.11E+00	
0	1888.98	7	7	1.30	3777.09	3771	10	9.62E-04	****	1.02E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:56:54.01

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020010.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:56:10  Detector SN#     :             *
* Detector ID       : GAM16                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:02.21          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020010            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.43350E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.845E+01	3.837E+00	4.446E-01	3.908E-02	86.495
CD-109	2.314E+00	8.618E-01	9.803E-01	9.446E-02	2.361
SN-126	2.268E-01	8.444E-02	9.648E-02	9.251E-03	2.350
TL-208	5.292E-01	9.114E-02	5.153E-02	5.108E-03	10.268
BI-211	3.933E+00	5.975E-01	2.642E-01	2.889E-02	14.885
BI-212	1.069E+00	4.000E-01	4.222E-01	4.411E-02	2.532
PB-212	1.514E+00	2.055E-01	7.872E-02	9.320E-03	19.240
PO-212	1.514E+00	2.055E-01	7.872E-02	9.320E-03	19.240
BI-214	1.234E+00	1.898E-01	8.337E-02	8.815E-03	14.801
PB-214	1.368E+00	2.198E-01	9.210E-02	1.114E-02	14.853
PO-214	1.368E+00	2.198E-01	9.210E-02	1.114E-02	14.853
PO-216	1.514E+00	2.055E-01	7.872E-02	9.320E-03	19.240
PO-218	1.368E+00	2.198E-01	9.210E-02	1.114E-02	14.853
RA-224	4.655E+00	1.293E+00	8.959E-01	9.873E-02	5.196
RA-226	1.234E+00	1.898E-01	8.337E-02	8.815E-03	14.801
AC-228	1.671E+00	3.368E-01	1.945E-01	2.310E-02	8.595
RA-228	1.671E+00	3.368E-01	1.945E-01	2.310E-02	8.595
TH-228	1.541E+00	2.090E-01	8.008E-02	9.481E-03	19.240

Sample ID : G246020010 Acquisition date : 13-FEB-2010 16:56:10

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.234E+00	1.898E-01	8.337E-02	8.815E-03	14.801
TH-232	1.671E+00	3.368E-01	1.945E-01	2.310E-02	8.595
TH-234	3.943E+00	1.991E+00	1.647E+00	2.873E-01	2.394
U-234	1.234E+00	1.898E-01	8.337E-02	8.815E-03	14.801
NP-237	6.659E-01	2.835E-01	2.919E-01	6.627E-02	2.281
U-238	3.943E+00	1.991E+00	1.647E+00	2.873E-01	2.394
AM-243	3.534E-01	6.547E-02	7.454E-02	6.171E-03	4.742
ANH-511	1.307E-01	5.887E-02	4.125E-02	3.923E-03	3.169

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.565E-01		2.864E-01	4.557E-01	4.610E-02	-0.343
NA-22	4.874E-03		3.615E-02	5.951E-02	4.952E-03	0.082
NA-24	1.211E+00		2.955E+00	Half-Life too short		
AL-26	2.227E-02		2.725E-02	5.105E-02	4.174E-03	0.436
TI-44	3.438E-01	+	4.988E-02	6.175E-02	5.318E-03	5.568
SC-46	-9.105E-03		3.463E-02	5.648E-02	5.339E-03	-0.161
V-48	-2.478E-02		7.398E-02	1.190E-01	1.095E-02	-0.208
CR-51	4.293E-02		3.522E-01	5.616E-01	6.566E-02	0.076
MN-52	3.819E-02		2.128E-01	3.526E-01	3.009E-02	0.108
MN-54	5.826E-03		3.346E-02	5.691E-02	5.345E-03	0.102
CO-56	-1.153E-02		3.411E-02	5.552E-02	5.224E-03	-0.208
CO-57	-9.794E-03		2.097E-02	3.444E-02	2.862E-03	-0.284
CO-58	-7.999E-03		3.303E-02	5.441E-02	5.098E-03	-0.147
FE-59	-6.156E-03		8.579E-02	1.399E-01	1.301E-02	-0.044
CO-60	1.399E-03		3.427E-02	5.564E-02	4.693E-03	0.025
ZN-65	-7.954E-03		1.009E-01	1.419E-01	1.205E-02	-0.056
GE-68	1.357E+00		1.339E+00	2.363E+00	2.064E-01	0.574
AS-73	5.038E-01		7.300E-01	1.181E+00	9.006E-02	0.427
AS-74	-1.330E-02		9.192E-02	1.482E-01	1.376E-02	-0.090
SE-75	-1.642E-02		4.309E-02	5.961E-02	6.956E-03	-0.275
BR-77	7.519E+00		1.601E+01	2.727E+01	2.591E+00	0.276
SR-82	-7.203E-01		3.895E-01	5.025E-01	4.659E-02	-1.433
RB-83	3.501E-02		5.915E-02	1.015E-01	9.645E-03	0.345
RB-84	6.603E-02		6.365E-02	1.151E-01	1.088E-02	0.573
KR-85	7.605E+00		6.418E+00	1.029E+01	9.779E-01	0.739
SR-85	3.986E-02		3.364E-02	5.390E-02	5.126E-03	0.739
RB-86	1.029E+00		8.988E-01	1.601E+00	1.399E-01	0.642
Y-88	4.892E-03		2.664E-02	4.547E-02	3.692E-03	0.108
ZR-88	-1.398E-02		2.678E-02	4.351E-02	4.025E-03	-0.321
Y-91	-2.175E+01		1.969E+01	2.899E+01	2.358E+00	-0.750
NB-94	3.207E-02		2.907E-02	5.080E-02	4.593E-03	0.631
NB-95	-1.978E-02		4.438E-02	6.924E-02	6.400E-03	-0.286
NB-95M	1.014E-01		1.240E-01	1.865E-01	2.218E-02	0.544
ZR-95	3.343E-02		6.592E-02	1.100E-01	1.104E-02	0.304
NB-97	1.460E-01		3.450E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	9.493E+00		6.667E+00	Half-Life too short		
MO-99	9.732E+00		1.843E+01	3.076E+01	4.768E+00	0.316
TC-99M	-2.248E+12		5.399E+12	Half-Life too short		
RH-101	1.204E-02		2.920E-02	4.786E-02	4.725E-03	0.252
RH-102	1.187E-02		2.467E-02	4.220E-02	4.011E-03	0.281
RU-103	-1.615E-02		3.633E-02	5.797E-02	8.535E-03	-0.279
RH-106	2.245E-01		2.774E-01	4.773E-01	6.540E-02	0.470
RU-106	2.245E-01		2.765E-01	4.773E-01	4.365E-02	0.470
AG-108M	-1.080E-02		2.741E-02	4.400E-02	4.283E-03	-0.245
AG-110M	6.783E-03		3.125E-02	5.144E-02	4.709E-03	0.132
IN-111	-2.072E-01		1.547E+00	2.197E+00	2.447E-01	-0.094
IN-113M	6.641E-03		3.850E-02	6.530E-02	6.198E-03	0.102
SN-113	6.641E-03		3.850E-02	6.530E-02	6.198E-03	0.102
IN-114M	1.294E-01		1.735E-01	2.643E-01	2.556E-02	0.490
CD-115	1.599E+01		1.843E+01	3.206E+01	3.043E+00	0.499
SN-117M	4.043E-02		5.049E-02	8.603E-02	7.641E-03	0.470
SB-122	1.356E+00		3.045E+00	5.146E+00	4.841E-01	0.264
I-123	6.984E+01		3.323E+01	Half-Life too short		
TE-123M	2.476E-02		2.356E-02	4.049E-02	3.621E-03	0.612
I-124	3.978E-01		9.392E-01	1.396E+00	1.292E-01	0.285
SB-124	1.087E-02		5.984E-02	1.025E-01	8.979E-03	0.106
SB-125	2.117E-02		7.401E-02	1.259E-01	1.203E-02	0.168
TE-125M	4.234E+00		7.854E+00	1.328E+01	1.353E+00	0.319
I-126	4.043E-02		1.766E-01	2.907E-01	2.586E-02	0.139
SB-126	9.633E-02		1.534E-01	2.508E-01	2.283E-02	0.384
SB-127	-2.193E-01		1.687E+00	2.688E+00	3.298E-01	-0.082
XE-127	2.292E-02		4.203E-02	7.007E-02	7.008E-03	0.327
I-131	-6.034E-02		1.167E-01	1.882E-01	1.993E-02	-0.321
TE-132	6.630E-01		9.456E-01	1.571E+00	2.719E-01	0.422
BA-133	1.266E-02		3.580E-02	5.500E-02	7.947E-03	0.230
I-133	2.534E-02		1.437E-02	Half-Life too short		
CS-134	1.313E-01	+	6.454E-02	8.571E-02	8.036E-03	1.532
CS-135	8.271E-02		1.537E-01	2.241E-01	2.858E-02	0.369
I-135	-6.330E+11		5.096E+11	Half-Life too short		
CS-136	1.623E-02		1.169E-01	1.950E-01	1.806E-02	0.083
BA-137M	-1.076E-03		3.289E-02	5.306E-02	4.709E-03	-0.020
CS-137	-1.137E-03		3.477E-02	5.609E-02	4.986E-03	-0.020
CE-139	1.905E-03		2.599E-02	4.299E-02	3.899E-03	0.044
BA-140	1.181E-01		2.647E-01	4.437E-01	1.481E-01	0.266
LA-140	-5.795E-02		8.438E-02	1.260E-01	1.073E-02	-0.460
CE-141	-2.839E-02		5.889E-02	9.470E-02	8.284E-03	-0.300
CE-143	1.253E-03		2.538E-04	Half-Life too short		
CE-144	-7.530E-02		1.680E-01	2.744E-01	4.237E-02	-0.274
PM-144	-7.888E-03		2.907E-02	4.567E-02	4.119E-03	-0.173
PR-144	-5.351E-01		1.972E+00	3.098E+00	2.793E-01	-0.173
PM-146	1.978E-02		3.699E-02	6.356E-02	7.258E-03	0.311
ND-147	-2.120E-01		5.755E-01	9.194E-01	1.422E-01	-0.231
PM-149	-2.935E+01		1.551E+02	2.445E+02	4.303E+01	-0.120

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-4.167E-02		8.325E-02	1.321E-01	1.476E-02	-0.315
GD-153	-5.952E-02		6.922E-02	1.078E-01	9.575E-03	-0.552
EU-154	-1.217E-02		1.032E-01	1.651E-01	1.829E-02	-0.074
EU-155	2.443E-02		8.607E-02	1.467E-01	1.269E-02	0.167
TB-160	-4.528E-02		1.273E-01	2.062E-01	1.948E-02	-0.220
HO-166M	2.723E-02		5.240E-02	8.798E-02	7.982E-03	0.310
TM-171	3.835E-01		2.557E+01	3.633E+01	2.783E+00	0.011
LU-176	-3.747E-03		2.216E-02	3.479E-02	4.035E-03	-0.108
LU-177	2.882E+00	+	1.868E+00	2.095E+00	2.126E-01	1.376
LU-177M	3.211E-02		1.648E-01	2.596E-01	2.426E-02	0.124
HF-181	1.543E-02		3.725E-02	6.341E-02	6.031E-03	0.243
W-181	2.145E-01		3.409E-01	5.022E-01	3.792E-02	0.427
TA-182	-1.825E-02		2.074E-01	3.353E-01	2.742E-02	-0.054
RE-183	-6.725E-02		9.517E-02	1.496E-01	1.342E-02	-0.450
RE-184	9.798E-02		2.023E-01	3.335E-01	3.779E-02	0.294
OS-185	1.413E-02		4.103E-02	6.821E-02	6.131E-03	0.207
RE-188	7.825E-02		1.471E-01	2.485E-01	2.186E-02	0.315
W-188	3.950E+00		6.787E+00	1.006E+01	1.193E+00	0.393
IR-192	-1.559E-03		3.138E-02	4.954E-02	5.662E-03	-0.031
AU-195	3.162E-01		1.908E-01	3.376E-01	2.973E-02	0.937
TL-200	-6.201E-04		7.105E-04	Half-Life too short		
TL-201	1.306E+00		9.586E+00	1.589E+01	1.446E+00	0.082
TL-202	-2.018E-02		6.422E-02	1.047E-01	9.879E-03	-0.193
HG-203	-8.762E-03		4.368E-02	6.115E-02	7.452E-03	-0.143
BI-207	3.257E-02		4.870E-02	8.475E-02	7.471E-03	0.384
TL-207	-2.785E-01		6.150E-01	9.416E-01	1.801E-01	-0.296
PO-209	-1.419E+00		6.052E+00	9.878E+00	9.343E-01	-0.144
BI-210	5.145E-01		3.246E+00	5.140E+00	4.794E-01	0.100
PB-210	5.145E-01		3.246E+00	5.140E+00	4.794E-01	0.100
PO-210	5.145E-01		3.246E+00	5.140E+00	4.342E-01	0.100
PB-211	-6.825E-01		9.804E-01	1.213E+00	7.613E-01	-0.563
PO-215	-2.785E-01		6.150E-01	9.416E-01	1.801E-01	-0.296
RN-219	1.082E-01		3.441E-01	5.872E-01	9.056E-02	0.184
RN-220	1.670E+01		2.314E+01	3.985E+01	3.765E+00	0.419
RA-223	-2.785E-01		6.150E-01	9.416E-01	1.801E-01	-0.296
AC-227	-1.449E-01		3.392E-01	5.307E-01	9.063E-02	-0.273
TH-227	-1.449E-01		3.394E-01	5.307E-01	1.038E-01	-0.273
TH-229	-1.960E-01		4.203E-01	6.712E-01	6.550E-02	-0.292
PA-231	1.546E-01		1.409E+00	2.262E+00	3.913E-01	0.068
TH-231	-2.785E-01		6.150E-01	9.416E-01	1.801E-01	-0.296
U-231	-1.492E+00		1.383E+00	1.990E+00	1.787E-01	-0.750
PA-233	-1.551E-02		5.801E-02	9.038E-02	1.056E-02	-0.172
PA-234	-1.737E-01		2.915E-01	4.455E-01	8.511E-02	-0.390
PA-234M	3.154E+00	+	7.352E+00	7.738E+00	8.056E-01	0.408
U-235	1.833E-01		1.910E-01	3.213E-01	5.616E-02	0.570
NP-236	-5.112E-02		6.635E-02	1.057E-01	9.435E-03	-0.484
NP-239	-6.724E-02		1.540E-01	2.538E-01	2.113E-02	-0.265
AM-241	8.418E-02		1.425E-01	2.109E-01	1.655E-02	0.399

Sample ID : G246020010 Acquisition date : 13-FEB-2010 16:56:10

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.551E-02		7.661E-02	1.283E-01	1.103E-02	-0.121
AM-246	9.604E-02		1.491E-01	2.573E-01	2.245E-02	0.373
CM-247	1.816E-02		3.124E-02	5.256E-02	4.887E-03	0.345
CF-249	2.199E-02		3.369E-02	5.865E-02	5.502E-03	0.375
CF-251	-5.532E-02		1.084E-01	1.740E-01	1.622E-02	-0.318

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020010            *
* Acquisition date : 13-FEB-2010 16:56:10 Detector SN#     :                *
* Detector ID      : GAM16                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.21     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G246020010           Analyst initials: MXR1           *
* Batch Number     : 948751               Sample Quantity : 1.4335E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.845E+01	3.760E+00	2.235E-01	1.918E+00
CD-109	2.314E+00	8.445E-01	5.235E-01	4.309E-01
SN-126	2.268E-01	8.275E-02	5.153E-02	4.222E-02
TL-208	5.292E-01	8.932E-02	2.644E-02	4.557E-02
BI-211	3.933E+00	5.856E-01	1.371E-01	2.988E-01
BI-212	1.069E+00	3.920E-01	2.156E-01	2.000E-01
PB-212	1.514E+00	2.014E-01	4.118E-02	1.027E-01
PO-212	1.514E+00	2.014E-01	4.118E-02	1.027E-01
BI-214	1.234E+00	1.861E-01	4.274E-02	9.492E-02
PB-214	1.368E+00	2.154E-01	4.778E-02	1.099E-01
PO-214	1.368E+00	2.154E-01	4.778E-02	1.099E-01
PO-216	1.514E+00	2.014E-01	4.118E-02	1.027E-01
PO-218	1.368E+00	2.154E-01	4.778E-02	1.099E-01
RA-224	4.655E+00	1.267E+00	4.686E-01	6.466E-01
RA-226	1.234E+00	1.861E-01	4.274E-02	9.492E-02
AC-228	1.671E+00	3.300E-01	9.880E-02	1.684E-01
RA-228	1.671E+00	3.300E-01	9.880E-02	1.684E-01
TH-228	1.541E+00	2.049E-01	4.189E-02	1.045E-01
TH-230	1.234E+00	1.860E-01	4.274E-02	9.492E-02
TH-232	1.671E+00	3.300E-01	9.880E-02	1.684E-01
TH-234	3.943E+00	1.952E+00	8.853E-01	9.957E-01
U-234	1.234E+00	1.860E-01	4.274E-02	9.492E-02
NP-237	6.659E-01	2.778E-01	1.559E-01	1.417E-01
U-238	3.943E+00	1.952E+00	8.853E-01	9.957E-01
AM-243	3.534E-01	6.416E-02	3.993E-02	3.273E-02
ANH-511	1.307E-01	5.769E-02	2.123E-02	2.944E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-1.565E-01	2.806E-01	2.349E-01	1.432E-01 NOT IDENT.

NA-22	4.874E-03	3.543E-02	3.001E-02	1.808E-02	NOT IDENT.
NA-24	1.211E+06	5.792E+06	0.000E+00	2.955E+06	SHORT HLIF
AL-26	2.227E-02	2.671E-02	2.554E-02	1.363E-02	NOT IDENT.
TI-44	3.438E-01	4.888E-02	3.305E-02	2.494E-02	FAIL ABUN
SC-46	-9.105E-03	3.393E-02	2.871E-02	1.731E-02	FAIL ABUN
V-48	-2.478E-02	7.250E-02	6.037E-02	3.699E-02	NOT IDENT.
CR-51	4.293E-02	3.451E-01	2.920E-01	1.761E-01	NOT IDENT.
MN-52	3.819E-02	2.085E-01	1.773E-01	1.064E-01	FAIL ABUN
MN-54	5.826E-03	3.279E-02	2.897E-02	1.673E-02	NOT IDENT.
CO-56	-1.153E-02	3.343E-02	2.825E-02	1.706E-02	NOT IDENT.
CO-57	-9.794E-03	2.055E-02	1.827E-02	1.048E-02	NOT IDENT.
CO-58	-7.999E-03	3.237E-02	2.772E-02	1.652E-02	NOT IDENT.
FE-59	-6.156E-03	8.407E-02	7.081E-02	4.289E-02	NOT IDENT.
CO-60	1.399E-03	3.359E-02	2.803E-02	1.714E-02	NOT IDENT.
ZN-65	-7.954E-03	9.888E-02	7.177E-02	5.045E-02	NOT IDENT.
GE-68	1.357E+00	1.312E+00	1.196E+00	6.693E-01	NOT IDENT.
AS-73	5.038E-01	7.154E-01	6.367E-01	3.650E-01	NOT IDENT.
AS-74	-1.330E-02	9.008E-02	7.603E-02	4.596E-02	NOT IDENT.
SE-75	-1.642E-02	4.223E-02	3.111E-02	2.155E-02	NOT IDENT.
BR-77	7.519E+00	1.569E+01	1.403E+01	8.007E+00	FAIL ABUN
SR-82	-7.203E-01	3.817E-01	2.562E-01	1.947E-01	NOT IDENT.
RB-83	3.501E-02	5.797E-02	5.222E-02	2.958E-02	NOT IDENT.
RB-84	6.603E-02	6.238E-02	5.854E-02	3.183E-02	NOT IDENT.
KR-85	7.605E+00	6.290E+00	5.292E+00	3.209E+00	NOT IDENT.
SR-85	3.986E-02	3.297E-02	2.774E-02	1.682E-02	NOT IDENT.
RB-86	1.029E+00	8.808E-01	8.106E-01	4.494E-01	NOT IDENT.
Y-88	4.892E-03	2.611E-02	2.274E-02	1.332E-02	NOT IDENT.
ZR-88	-1.398E-02	2.624E-02	2.252E-02	1.339E-02	NOT IDENT.
Y-91	-2.175E+01	1.929E+01	1.464E+01	9.844E+00	NOT IDENT.
NB-94	3.207E-02	2.849E-02	2.596E-02	1.454E-02	NOT IDENT.
NB-95	-1.978E-02	4.349E-02	3.532E-02	2.219E-02	NOT IDENT.
NB-95M	1.014E-01	1.215E-01	9.760E-02	6.199E-02	NOT IDENT.
ZR-95	3.343E-02	6.460E-02	5.613E-02	3.296E-02	NOT IDENT.
NB-97	1.460E+05	6.763E+05	0.000E+00	3.450E+05	SHORT HLIF
ZR-97	9.493E+06	1.307E+07	0.000E+00	6.667E+06	SHORT HLIF
MO-99	9.732E+00	1.806E+01	1.570E+01	9.214E+00	NOT IDENT.
TC-99M	-2.248E+18	1.058E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.204E-02	2.862E-02	2.513E-02	1.460E-02	NOT IDENT.
RH-102	1.187E-02	2.418E-02	2.175E-02	1.234E-02	NOT IDENT.
RU-103	-1.615E-02	3.560E-02	2.985E-02	1.816E-02	FAIL ABUN
RH-106	2.245E-01	2.719E-01	2.446E-01	1.387E-01	FAIL ABUN
RU-106	2.245E-01	2.710E-01	2.446E-01	1.382E-01	FAIL ABUN
AG-108M	-1.080E-02	2.686E-02	2.273E-02	1.371E-02	NOT IDENT.
AG-110M	6.783E-03	3.063E-02	2.633E-02	1.563E-02	NOT IDENT.
IN-111	-2.072E-01	1.516E+00	1.148E+00	7.735E-01	NOT IDENT.
IN-113M	6.641E-03	3.773E-02	3.380E-02	1.925E-02	NOT IDENT.
SN-113	6.641E-03	3.773E-02	3.380E-02	1.925E-02	NOT IDENT.
IN-114M	1.294E-01	1.700E-01	1.389E-01	8.674E-02	NOT IDENT.
CD-115	1.599E+01	1.806E+01	1.649E+01	9.213E+00	NOT IDENT.
SN-117M	4.043E-02	4.948E-02	4.539E-02	2.524E-02	NOT IDENT.
SB-122	1.356E+00	2.984E+00	2.642E+00	1.522E+00	NOT IDENT.
I-123	6.984E+07	6.512E+07	0.000E+00	3.323E+07	SHORT HLIF
TE-123M	2.476E-02	2.309E-02	2.136E-02	1.178E-02	NOT IDENT.
I-124	3.978E-01	9.204E-01	7.161E-01	4.696E-01	FAIL ABUN
SB-124	1.087E-02	5.865E-02	5.137E-02	2.992E-02	FAIL ABUN
SB-125	2.117E-02	7.253E-02	6.503E-02	3.700E-02	FAIL ABUN
TE-125M	4.234E+00	7.696E+00	7.063E+00	3.927E+00	NOT IDENT.
I-126	4.043E-02	1.730E-01	1.487E-01	8.828E-02	NOT IDENT.
SB-126	9.633E-02	1.503E-01	1.281E-01	7.670E-02	FAIL ABUN
SB-127	-2.193E-01	1.653E+00	1.374E+00	8.433E-01	NOT IDENT.
XE-127	2.292E-02	4.119E-02	3.678E-02	2.101E-02	NOT IDENT.
I-131	-6.034E-02	1.144E-01	9.757E-02	5.835E-02	NOT IDENT.
TE-132	6.630E-01	9.267E-01	8.225E-01	4.728E-01	NOT IDENT.
BA-133	1.266E-02	3.508E-02	2.852E-02	1.790E-02	FAIL ABUN
I-133	2.534E+04	2.817E+04	0.000E+00	1.437E+04	SHORT HLIF
CS-134	1.313E-01	6.324E-02	4.368E-02	3.227E-02	FAIL ABUN
CS-135	8.271E-02	1.506E-01	1.170E-01	7.686E-02	NOT IDENT.
I-135	-6.330E+17	9.989E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.623E-02	1.146E-01	9.879E-02	5.846E-02	FAIL ABUN
BA-137M	-1.076E-03	3.224E-02	2.715E-02	1.645E-02	NOT IDENT.
CS-137	-1.137E-03	3.408E-02	2.870E-02	1.739E-02	NOT IDENT.
CE-139	1.905E-03	2.547E-02	2.266E-02	1.300E-02	NOT IDENT.
BA-140	1.181E-01	2.594E-01	2.281E-01	1.323E-01	NOT IDENT.
LA-140	-5.795E-02	8.270E-02	6.320E-02	4.219E-02	NOT IDENT.
CE-141	-2.839E-02	5.771E-02	5.005E-02	2.944E-02	NOT IDENT.
CE-143	1.253E+03	4.975E+02	0.000E+00	2.538E+02	SHORT HLIF
CE-144	-7.530E-02	1.646E-01	1.453E-01	8.400E-02	NOT IDENT.
PM-144	-7.888E-03	2.848E-02	2.334E-02	1.453E-02	NOT IDENT.

PR-144	-5.351E-01	1.932E+00	1.583E+00	9.859E-01	NOT IDENT.
PM-146	1.978E-02	3.625E-02	3.279E-02	1.849E-02	NOT IDENT.
ND-147	-2.120E-01	5.640E-01	4.727E-01	2.877E-01	FAIL ABUN
PM-149	-2.935E+01	1.520E+02	1.274E+02	7.757E+01	NOT IDENT.
EU-152	-4.167E-02	8.159E-02	6.855E-02	4.163E-02	FAIL ABUN
GD-153	-5.952E-02	6.783E-02	5.744E-02	3.461E-02	FAIL ABUN
EU-154	-1.217E-02	1.011E-01	8.326E-02	5.160E-02	NOT IDENT.
EU-155	2.443E-02	8.435E-02	7.804E-02	4.303E-02	FAIL ABUN
TB-160	-4.528E-02	1.247E-01	1.049E-01	6.364E-02	FAIL ABUN
HO-166M	2.723E-02	5.136E-02	4.495E-02	2.620E-02	FAIL ABUN
TM-171	3.835E-01	2.506E+01	1.951E+01	1.279E+01	NOT IDENT.
LU-176	-3.747E-03	2.171E-02	1.810E-02	1.108E-02	FAIL ABUN
LU-177	2.882E+00	1.831E+00	1.099E+00	9.341E-01	FAIL ABUN
LU-177M	3.211E-02	1.615E-01	1.342E-01	8.239E-02	NOT IDENT.
HF-181	1.543E-02	3.650E-02	3.267E-02	1.862E-02	NOT IDENT.
W-181	2.145E-01	3.341E-01	2.698E-01	1.705E-01	NOT IDENT.
TA-182	-1.B25E-02	2.033E-01	1.693E-01	1.037E-01	FAIL ABUN
RE-183	-6.725E-02	9.327E-02	7.887E-02	4.759E-02	FAIL ABUN
RE-184	9.798E-02	1.983E-01	1.742E-01	1.012E-01	NOT IDENT.
OS-185	1.413E-02	4.021E-02	3.492E-02	2.052E-02	NOT IDENT.
RE-188	7.825E-02	1.442E-01	1.311E-01	7.357E-02	NOT IDENT.
W-188	3.950E+00	6.651E+00	5.241E+00	3.394E+00	FAIL ABUN
IR-192	-1.559E-03	3.075E-02	2.576E-02	1.569E-02	FAIL ABUN
AU-195	3.162E-01	1.870E-01	1.798E-01	9.539E-02	FAIL ABUN
TL-200	-6.201E+02	1.393E+03	0.000E+00	7.105E+02	SHORT HLIF
TL-201	1.306E+00	9.395E+00	8.372E+00	4.793E+00	NOT IDENT.
TL-202	-2.018E-02	6.293E-02	5.405E-02	3.211E-02	NOT IDENT.
HG-203	-8.762E-03	4.281E-02	3.188E-02	2.184E-02	NOT IDENT.
BI-207	3.257E-02	4.773E-02	4.291E-02	2.435E-02	FAIL ABUN
TL-207	-2.785E-01	6.027E-01	4.894E-01	3.075E-01	FAIL ABUN
PO-209	-1.419E+00	5.931E+00	5.021E+00	3.026E+00	NOT IDENT.
BI-210	5.145E-01	3.181E+00	2.780E+00	1.623E+00	NOT IDENT.
PB-210	5.145E-01	3.181E+00	2.780E+00	1.623E+00	NOT IDENT.
PO-210	5.145E-01	3.181E+00	2.780E+00	1.623E+00	NOT IDENT.
PB-211	-6.825E-01	9.608E-01	6.273E-01	4.902E-01	NOT IDENT.
PO-215	-2.785E-01	6.027E-01	4.894E-01	3.075E-01	FAIL ABUN
RN-219	1.082E-01	3.373E-01	3.038E-01	1.721E-01	FAIL ABUN
RN-220	1.670E+01	2.267E+01	2.047E+01	1.157E+01	NOT IDENT.
RA-223	-2.785E-01	6.027E-01	4.894E-01	3.075E-01	FAIL ABUN
AC-227	-1.449E-01	3.324E-01	2.772E-01	1.696E-01	FAIL ABUN
TH-227	-1.449E-01	3.326E-01	2.772E-01	1.697E-01	FAIL ABUN
TH-229	-1.960E-01	4.119E-01	3.526E-01	2.101E-01	FAIL ABUN
PA-231	1.546E-01	1.381E+00	1.179E+00	7.045E-01	FAIL ABUN
TH-231	-2.785E-01	6.027E-01	4.894E-01	3.075E-01	FAIL ABUN
U-231	-1.492E+00	1.355E+00	1.061E+00	6.913E-01	FAIL ABUN
PA-233	-1.551E-02	5.685E-02	4.701E-02	2.900E-02	FAIL ABUN
PA-234	-1.737E-01	2.857E-01	2.262E-01	1.457E-01	FAIL ABUN
PA-234M	3.154E+00	7.205E+00	3.923E+00	3.676E+00	FAIL ABUN
U-235	1.833E-01	1.872E-01	1.699E-01	9.550E-02	FAIL ABUN
NP-236	-5.112E-02	6.503E-02	5.576E-02	3.318E-02	NOT IDENT.
NP-239	-6.724E-02	1.509E-01	1.347E-01	7.699E-02	FAIL ABUN
AM-241	8.418E-02	1.397E-01	1.135E-01	7.126E-02	NOT IDENT.
CM-243	-1.551E-02	7.508E-02	6.827E-02	3.831E-02	FAIL ABUN
AM-246	9.604E-02	1.461E-01	1.302E-01	7.456E-02	NOT IDENT.
CM-247	1.816E-02	3.061E-02	2.719E-02	1.562E-02	FAIL ABUN
CF-249	2.199E-02	3.302E-02	3.036E-02	1.685E-02	NOT IDENT.
CF-251	-5.532E-02	1.063E-01	9.158E-02	5.422E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	264.4821
46.50	264.4821
46.50	264.4821
48.70	314.8268
49.72	238.6369
51.35	303.0377
52.39	275.2456
52.97	288.8982
53.15	289.0494
53.44	258.0822
54.07	271.7787
56.28	295.2631
56.28	295.2649
57.37	0.0000
57.53	316.9333
57.53	316.9348
57.60	316.9946
57.98	317.3251
57.98	317.3251
59.32	252.1833
59.32	252.1833
59.40	292.9211
59.54	301.1717
59.72	301.3171
60.01	316.2219
61.10	330.2186
61.14	330.2530
61.30	330.3922
63.00	328.9899
63.29	329.2374
63.29	329.2374
63.58	329.4839
64.28	330.0757
65.12	348.5410
65.20	348.6102
65.20	348.6102
66.05	324.5233
66.72	338.3357
66.83	338.4291
66.91	375.0022
67.20	410.1415
67.20	410.1415
67.75	377.4443
67.85	377.5390
68.90	380.1809
68.90	380.1809
69.30	388.5636
69.67	407.2071
70.82	399.5404
70.82	399.5404
70.83	399.5501
72.80	422.8854
72.87	422.9544
72.87	422.9544
74.67	422.6227
74.81	422.7575
74.81	422.7575
74.81	422.7575
74.81	422.7575
74.81	422.7575
74.81	422.7575
74.81	422.7575
74.97	422.9152
75.28	423.2178
75.70	423.6247
77.11	424.9878
77.11	424.9878

77.11	424.9878
77.11	424.9878
77.11	424.9878
77.11	424.9878
77.11	424.9878
78.38	395.0929
79.62	361.5685
79.80	361.7127
79.80	361.7127
80.11	369.6614
80.18	369.7185
80.30	369.8152
80.30	369.8152
80.57	385.4530
81.00	344.6631
81.07	344.7163
81.07	344.7163
81.07	344.7163
81.07	344.7163
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83.37	386.5110
83.78	357.0952
83.78	357.0952
83.78	357.0952
83.78	357.0952
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84.90	350.1666
85.43	350.5600
86.29	351.1965
86.50	351.3510
86.54	351.3799
86.59	351.4169
86.72	351.5117
86.79	351.5611
86.94	414.1943
87.30	411.8979
87.30	411.8979
87.30	411.8979
87.30	411.8979
87.30	411.8979
87.30	411.8979
87.30	411.8979
87.57	339.0938
87.88	339.3120
88.03	339.4171
88.36	339.6492
88.47	339.7266
89.95	369.5914
91.11	370.4628
92.29	371.3449
92.38	371.4116
92.38	371.4116
93.35	323.3046
94.00	317.1167
94.67	320.1785
94.67	320.1822
94.90	336.2101
94.90	336.2101
94.90	336.2101
94.90	336.2101
95.87	383.2659
95.87	383.2659
96.73	415.7939
97.43	368.2015
98.44	301.2098
98.44	301.2115
98.88	292.5722
99.55	289.3845
99.55	289.3845
99.86	296.6831
100.00	313.6934
100.10	313.7560
103.18	308.3976
103.76	297.0630
105.00	291.4448
105.31	290.7112
108.00	300.2722
109.28	287.3651

111.00	326.4320
111.00	326.4320
111.76	325.0475
112.95	310.2141
115.19	286.6890
116.30	306.5064
117.00	295.8480
117.00	295.8480
117.66	316.4146
121.11	267.3670
121.62	256.4823
121.78	277.8519
122.06	297.4403
122.32	314.2537
122.32	314.2537
122.32	314.2537
122.32	314.2537
123.07	332.2764
127.23	362.5600
129.76	294.5954
131.20	353.5671
133.02	299.8783
133.54	294.4551
135.34	281.0781
136.00	280.4177
136.25	281.4708
136.48	281.5705
140.51	321.4431
140.51	0.0000
142.18	356.6653
142.65	326.2956
143.76	300.9518
144.24	298.2852
144.24	298.2852
144.24	298.2852
144.24	298.2852
145.22	340.0170
145.44	340.1251
147.16	302.4467
152.43	298.9108
152.70	281.5482
153.22	266.2096
154.21	269.4962
154.21	269.4962
154.21	269.4962
154.21	269.4962
155.03	276.6244
156.02	292.6117
158.56	249.5941
159.00	0.0000
159.00	237.0100
160.31	289.4363
161.27	280.9727
162.32	275.4684
162.64	271.6482
163.35	268.9538
163.89	256.3316
165.85	285.6692
167.43	273.3889
171.28	295.6737
171.86	289.9195
172.10	290.0083
176.55	279.6386
176.60	279.6584
181.06	261.5749
184.41	230.7786
185.71	247.3657
186.00	247.4551
190.27	232.4276
192.34	256.5100
193.63	250.7621
197.04	259.9926
198.01	237.6548
198.60	240.9055
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201.83	280.0449
202.84	245.1946
205.31	273.8989

208.36	258.1870
208.81	258.3182
209.75	258.5906
209.75	258.5906
210.97	234.9289
215.65	229.8493
216.55	214.3179
218.09	237.8306
222.10	231.4644
223.80	244.5916
226.40	249.5154
227.00	225.2370
227.08	212.5061
227.20	212.5325
228.16	212.7482
228.18	212.7523
228.18	212.7523
231.56	0.0000
235.69	238.0046
236.00	230.0381
236.00	230.0381
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238.63	226.8941
238.63	226.8941
238.63	226.8941
239.00	226.9778
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241.98	227.6647
241.98	227.6647
241.98	227.6647
244.69	157.4178
245.39	167.2728
247.94	167.1529
248.90	172.7433
249.79	183.7693
252.40	184.2403
252.85	175.5959
252.85	175.5959
254.15	0.0000
256.20	203.5217
256.20	203.5217
260.50	177.9950
260.90	202.2420
262.80	165.1703
264.65	182.0029
268.24	174.3164
268.79	174.4061
269.46	171.7450
269.46	171.7450
269.46	171.7450
269.46	171.7450
271.23	172.0257
273.65	156.8378
276.40	170.6153
277.35	190.8512
277.60	192.5710
277.60	192.5710
278.00	190.9660
278.60	184.3661
279.20	206.2637
279.53	202.9726
280.46	196.4270
281.68	179.8343
283.67	184.0863
284.30	166.2200
285.00	177.5603
285.90	172.0814
286.10	166.4849
286.10	166.4849
287.40	161.0467
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290.67	135.5347
290.80	135.5493
291.72	156.0081
293.26	0.0000
293.70	159.6749
295.21	146.2772
295.21	146.2772

295.21	146.2772
295.96	125.9500
296.50	126.0087
297.23	126.0877
298.57	126.2322
299.80	150.2725
299.80	150.2725
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300.09	150.3101
300.09	150.3101
300.09	150.3101
300.12	150.3154
301.29	141.9166
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303.76	159.3499
303.91	150.8015
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304.40	159.4351
304.84	154.3497
306.84	161.4822
308.46	146.7943
311.98	162.1793
316.51	151.2422
318.01	153.7407
319.02	148.0833
319.41	142.3439
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323.87	175.3833
323.87	175.3833
323.87	175.3833
323.87	175.3833
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334.20	132.1003
334.30	132.1118
338.28	144.5085
338.28	144.5085
338.28	144.5085
338.28	144.5085
338.32	144.5135
338.32	144.5135
338.32	144.5135
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340.57	124.2871
344.27	148.7227
345.85	139.4504
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351.07	122.8031
351.92	122.8831
351.92	122.8831
351.92	122.8831
355.39	0.0000
356.01	100.0397
364.48	126.7399
366.43	124.2223
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367.94	0.0000
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374.96	132.2434
383.85	127.6184
387.95	115.1911
388.63	122.5621
391.69	124.6591
391.69	124.6591
392.90	135.7736
398.62	128.9450
400.65	112.5227
401.10	120.8616
401.81	115.3812
402.60	106.6045
404.84	131.7139
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411.60	142.7250
413.65	121.5828
414.70	121.9790
415.30	122.9584

415.76	116.4742
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423.70	108.6580
427.08	95.7557
427.89	95.8071
432.53	92.3281
433.93	104.6689
439.47	110.7212
439.56	105.9946
439.89	101.2840
443.98	84.4655
444.90	103.5064
445.03	103.5164
445.03	103.5164
445.03	103.5164
445.03	103.5164
453.90	96.4536
463.38	98.3656
468.07	84.7747
473.00	114.9816
475.06	90.9391
475.35	91.9225
476.78	109.4325
477.59	110.4549
477.96	120.1704
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511.85	100.8195
511.85	100.8195
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513.99	79.1699
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520.65	79.4678
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529.64	72.8775
529.87	0.0000
531.02	101.9066
537.32	91.2305
543.00	90.5054
546.56	0.0000
549.76	81.7539
552.65	100.0756
555.20	84.0157
563.23	84.3729
563.90	83.3839
568.70	69.3219
569.32	68.3250
569.50	68.3311
569.67	74.4570
573.80	84.8389
574.00	84.8465
574.64	76.6937
578.91	85.2668
579.30	0.0000
583.14	90.3821
585.48	69.1011
591.81	80.4661
592.07	80.4756
593.00	81.5459
595.88	99.2373
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602.52	0.0000
602.71	87.9598
602.71	87.9598
603.60	89.6590
604.41	89.6959
604.70	89.7091
609.31	66.6016

609.31	66.6016
609.31	66.6016
609.31	66.6016
610.33	78.2958
612.46	80.0461
614.37	77.8955
618.01	85.6986
621.84	68.0588
621.84	68.0588
631.29	63.1110
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661.65	89.6268
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666.33	76.9878
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677.61	72.0115
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696.49	75.8746
696.49	75.8746
697.00	72.6392
697.49	72.6556
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698.50	80.2826
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717.42	84.2305
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722.78	82.4520
722.78	82.4520
722.89	82.4565
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723.30	84.2250
724.18	89.5239
727.18	82.6080
733.00	76.7734
735.90	78.2846
739.58	70.6758
742.81	78.5143
744.21	74.1339
747.13	69.7926
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755.35	70.0329
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756.87	82.3128
763.93	107.0947
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766.42	89.3384
766.84	87.1192
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778.89	75.2012
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792.07	57.1701

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798.80	52.7976
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805.60	63.5281
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810.76	62.7486
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828.27	0.0000
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836.80	0.0000
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860.37	60.2424
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875.33	0.0000
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880.51	56.9567
881.50	47.6369
883.24	61.6865
884.67	71.0700
889.25	61.8218
896.60	54.4727
898.02	65.7771
899.00	62.9810
903.28	58.8409
911.07	65.1406
911.07	65.1406
911.07	65.1406
919.63	49.4517
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925.00	58.8213
925.24	60.7234
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937.48	58.7610
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949.00	64.0982
962.29	75.2811
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968.20	48.1482
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969.11	75.4570
969.11	75.4570
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983.50	69.6920
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1001.03	73.0188
1001.68	69.7893
1004.76	63.3607
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1024.50	0.0000
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1037.82	46.3069
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1038.76	0.0000
1045.16	61.2311
1046.59	69.1626
1048.07	65.2394

1050.47	66.2803
1050.47	66.2803
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1076.63	62.8339
1077.35	66.8397
1078.86	68.8652
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1099.22	60.2578
1112.02	71.6944
1112.84	73.4761
1115.52	75.6958
1120.29	72.4365
1120.29	72.4365
1120.29	72.4365
1120.29	72.4365
1120.51	72.4400
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1124.00	0.0000
1129.67	68.9230
1131.51	0.0000
1147.95	0.0000
1167.94	82.0000
1173.22	79.0453
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1177.93	71.9585
1189.05	75.2813
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1205.75	0.0000
1213.00	86.1773
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1235.34	95.0701
1236.41	0.0000
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1260.41	0.0000
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1274.54	40.1264
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1298.22	0.0000
1312.09	46.9283
1325.50	50.3047
1325.50	50.3047
1332.49	34.3109
1333.61	36.4670
1360.21	26.9971
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1365.15	30.2750
1368.21	22.7237
1368.53	0.0000
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1384.27	32.5942
1394.10	20.6940
1395.20	26.1469
1407.95	30.6018
1434.06	15.3993
1436.60	23.8471
1457.56	0.0000
1460.81	22.1416
1489.15	18.5758
1509.49	20.5310
1596.49	28.5571
1620.62	10.2079
1678.03	0.0000
1691.02	11.6592
1691.02	11.6592
1706.46	0.0000
1750.46	0.0000
1764.49	12.8249
1764.49	12.8249
1764.49	12.8249
1764.49	12.8249
1770.23	13.5452
1771.40	10.1614
1791.20	0.0000
1808.65	8.9583

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020010

Total Uranium Activity	1.1814E+01	ug/g
Total Uranium Counting Unc.	5.8067E+00	ug/g
Total Uranium Tpu	2.9626E-06	ug/g
Total Uranium Mda	2.6349E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020010       *
*   ANALYST       : MXR1                      DETECTOR   : GAM16            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:56:10.20    SAMPLE ALQT:  143.350 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.057E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.487E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.592E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.739E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:57:47.73

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020011.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:56:34
Sample ID         : G246020011           Sample quantity  : 1.60570E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.65  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.48*	6722	3214	0.97	126.08	121	9	9.34E-01	2.0	
2	0	74.03	132	3082	0.95	147.17	147	6	1.84E-02	66.7	
3	0	77.37	454	3280	1.02	153.85	152	7	6.31E-02	21.5	
4	0	83.83*	708	5016	1.79	166.76	162	10	9.84E-02	19.1	
5	3	92.78*	21761	3030	1.14	184.67	178	16	3.02E+00	0.8	5.95E+00
6	3	94.88	1175	2392	1.38	188.87	178	16	1.63E-01	12.9	
7	0	98.68	1846	2335	1.11	196.46	193	9	2.56E-01	5.3	
8	6	111.17	479	1695	1.32	221.42	218	12	6.65E-02	14.4	1.55E+00
9	6	112.96	1331	1695	1.05	225.00	218	12	1.85E-01	5.7	
10	0	132.28	142	1483	0.92	263.63	259	8	1.98E-02	47.8	
11	0	143.93*	938	1342	1.05	286.93	283	9	1.30E-01	7.8	
12	0	163.86*	375	1430	1.13	326.78	321	10	5.21E-02	19.7	
13	0	185.94*	4185	1295	1.15	370.91	366	11	5.81E-01	2.3	
14	4	205.54*	351	621	0.94	410.10	404	19	4.87E-02	12.4	1.66E+00
15	4	209.51*	174	889	1.59	418.04	404	19	2.42E-02	34.2	
16	3	238.74*	1460	549	1.26	476.49	469	19	2.03E-01	3.9	1.67E+00
17	3	241.81	399	743	1.77	482.62	469	19	5.54E-02	15.7	
18	0	258.15	344	707	1.17	515.29	509	11	4.78E-02	15.9	
19	0	295.41*	501	486	1.22	589.78	584	12	6.95E-02	10.0	
20	0	299.90	87	325	1.46	598.77	596	7	1.21E-02	35.7	
21	0	328.62	190	529	1.61	656.17	649	14	2.65E-02	26.7	
22	0	338.77*	355	475	1.48	676.47	671	12	4.93E-02	13.6	
23	0	351.82*	805	464	1.38	702.57	697	12	1.12E-01	6.5	
24	0	463.14	68	287	1.42	925.15	920	10	9.46E-03	48.2	
25	0	510.78*	185	397	1.64	1020.39	1012	17	2.57E-02	28.1	
26	0	583.06*	552	251	1.51	1164.91	1157	15	7.67E-02	7.7	
27	0	609.18*	656	214	1.46	1217.15	1211	14	9.11E-02	6.3	
28	0	661.43	153	209	1.21	1321.62	1316	11	2.12E-02	20.1	
29	0	720.67	41	200	0.49	1440.07	1432	13	5.64E-03	74.6	
30	0	726.79*	142	185	1.64	1452.31	1445	14	1.97E-02	22.4	
31	0	742.06	283	218	2.18	1482.83	1474	15	3.93E-02	12.8	
32	0	766.18*	916	356	1.94	1531.06	1522	18	1.27E-01	5.9	
33	0	786.37*	108	240	1.42	1571.43	1564	12	1.51E-02	30.4	
34	0	910.75*	368	159	1.95	1820.14	1813	18	5.11E-02	9.6	
35	0	945.80	73	128	1.64	1890.23	1884	13	1.02E-02	34.2	
36	2	964.42	120	113	2.55	1927.46	1920	21	1.66E-02	21.9	1.05E+00
37	2	968.71*	178	75	1.73	1936.05	1920	21	2.48E-02	12.2	
38	0	1000.64*	1980	153	1.97	1999.89	1990	20	2.75E-01	2.7	

Sample ID : G246020011 Acquisition date : 13-FEB-2010 16:56:34

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1119.61*	159	93	1.51	2237.80	2229	15	2.21E-02	15.7	
40	0	1237.62	94	97	2.32	2473.77	2465	15	1.30E-02	25.2	
41	0	1376.23	72	34	2.87	2750.95	2741	18	9.97E-03	22.8	
42	0	1460.04*	2058	36	2.24	2918.57	2907	19	2.86E-01	2.3	
43	0	1736.84	45	8	2.45	3472.13	3463	16	6.20E-03	20.7	
44	0	1763.44*	138	27	2.07	3525.33	3514	22	1.92E-02	13.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:57:51

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020011.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:56:34
Sample ID : G246020011 Sample quantity : 160.57 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:03.65 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.382E+01	2.118E+00	3.194E-01	2.424E-02	74.557
NB-95	+	765.79	*	8.078E-01	1.202E-01	5.762E-02	5.271E-03	14.018
BA-137M	+	661.65	*	1.106E-01	4.517E-02	5.221E-02	3.980E-03	2.118
CS-137	+	661.65	*	1.169E-01	4.775E-02	5.519E-02	4.217E-03	2.118
CE-144		80.11		-3.095E-01	5.708E+00	6.641E+00	5.750E-01	-0.047
	+	133.54	*	3.891E-01	3.756E-01	4.194E-01	5.931E-02	0.928
LU-177	+	112.95		3.609E+01	4.751E+00	5.169E+00	3.331E-01	6.981
	+	208.36	*	3.031E+00	2.082E+00	2.202E+00	1.194E-01	1.376
TL-208		277.35		6.453E-01	3.453E-01	5.859E-01	6.153E-02	1.102
	+	510.84		4.647E-01	2.657E-01	1.822E-01	1.937E-02	2.551
	+	583.14	*	3.898E-01	6.725E-02	4.476E-02	3.509E-03	8.710
		860.37		5.317E-01	2.409E-01	4.285E-01	4.793E-02	1.241
BI-211	+	72.87		5.074E+00	6.783E+00	9.323E+00	7.698E-01	0.544
	+	351.07	*	2.666E+00	3.867E-01	2.848E-01	1.828E-02	9.360
BI-212	+	727.18	*	8.425E-01	3.863E-01	4.020E-01	4.004E-02	2.096
	+	785.46		4.100E+00	2.525E+00	2.489E+00	2.353E-01	1.647
		1620.62		5.601E-01	8.391E-01	1.489E+00	1.007E-01	0.376
PB-212	+	74.81		6.022E-01	8.070E-01	1.099E+00	1.377E-01	0.548
	+	77.11		1.119E+00	4.894E-01	6.036E-01	5.116E-02	1.854
		87.30		2.747E-01	1.069E+00	1.244E+00	1.690E-01	0.221
	+	238.63	*	1.127E+00	1.188E-01	9.016E-02	6.441E-03	12.497
	+	300.09		9.994E-01	7.178E-01	1.091E+00	8.962E-02	0.916
PO-212	+	74.81		6.022E-01	8.070E-01	1.099E+00	1.377E-01	0.548
	+	77.11		1.119E+00	4.894E-01	6.036E-01	5.116E-02	1.854
		87.30		2.747E-01	1.069E+00	1.244E+00	1.690E-01	0.221
		115.19		2.027E+01	6.333E+00	9.607E+00	6.052E-01	2.110
	+	238.63	*	1.127E+00	1.188E-01	9.016E-02	6.441E-03	12.497
	+	300.09		9.994E-01	7.178E-01	1.091E+00	8.962E-02	0.916
BI-214	+	609.31	*	8.686E-01	1.341E-01	8.978E-02	8.020E-03	9.675
	+	1120.29		1.055E+00	3.472E-01	3.339E-01	3.197E-02	3.159
	+	1764.49		1.206E+00	3.276E-01	1.859E-01	1.131E-02	6.487
PB-214	+	74.81		1.038E+00	1.389E+00	1.893E+00	2.113E-01	0.548
	+	77.11		1.918E+00	8.517E-01	1.035E+00	1.179E-01	1.854
		87.30		4.705E-01	1.831E+00	2.131E+00	2.557E-01	0.221

Sample ID : G246020011 Acquisition date : 13-FEB-2010 16:56:34

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		1.847E+00	5.990E-01	5.419E-01	4.285E-02	3.407
	+	295.21		1.010E+00	2.194E-01	1.872E-01	1.589E-02	5.391
	+	351.92	*	9.274E-01	1.430E-01	9.926E-02	8.211E-03	9.343
PO-214	+	74.81		1.038E+00	1.389E+00	1.893E+00	2.113E-01	0.548
	+	77.11		1.918E+00	8.517E-01	1.035E+00	1.179E-01	1.854
		87.30		4.705E-01	1.831E+00	2.131E+00	2.557E-01	0.221
	+	241.98		1.847E+00	5.990E-01	5.419E-01	4.285E-02	3.407
	+	295.21		1.010E+00	2.194E-01	1.872E-01	1.589E-02	5.391
	+	351.92	*	9.274E-01	1.430E-01	9.926E-02	8.211E-03	9.343
PO-216	+	74.81		6.022E-01	8.070E-01	1.099E+00	1.377E-01	0.548
	+	77.11		1.119E+00	4.894E-01	6.036E-01	5.116E-02	1.854
		87.30		2.747E-01	1.069E+00	1.244E+00	1.690E-01	0.221
	+	238.63	*	1.127E+00	1.188E-01	9.016E-02	6.441E-03	12.497
	+	300.09		9.994E-01	7.178E-01	1.091E+00	8.962E-02	0.916
PO-218	+	74.81		1.038E+00	1.389E+00	1.893E+00	2.113E-01	0.548
	+	77.11		1.918E+00	8.517E-01	1.035E+00	1.179E-01	1.854
		87.30		4.705E-01	1.831E+00	2.131E+00	2.557E-01	0.221
	+	241.98		1.847E+00	5.990E-01	5.419E-01	4.285E-02	3.407
	+	295.21		1.010E+00	2.194E-01	1.872E-01	1.589E-02	5.391
	+	351.92	*	9.274E-01	1.430E-01	9.926E-02	8.211E-03	9.343
RA-224	+	240.98	*	3.501E+00	1.119E+00	1.025E+00	5.708E-02	3.417
RA-226	+	609.31	*	8.686E-01	1.341E-01	8.978E-02	8.020E-03	9.675
	+	1120.29		1.055E+00	3.472E-01	3.339E-01	3.197E-02	3.159
	+	1764.49		1.206E+00	3.276E-01	1.859E-01	1.131E-02	6.487
AC-228	+	338.32		1.305E+00	6.390E-01	3.175E-01	1.294E-01	4.109
	+	911.07	*	1.117E+00	2.609E-01	1.617E-01	2.143E-02	6.907
	+	969.11		9.520E-01	3.256E-01	2.477E-01	5.932E-02	3.842
RA-228	+	338.32		1.305E+00	6.390E-01	3.175E-01	1.294E-01	4.109
	+	911.07	*	1.117E+00	2.609E-01	1.617E-01	2.143E-02	6.907
	+	969.11		9.520E-01	3.256E-01	2.477E-01	5.932E-02	3.842
TH-228	+	74.81		6.127E-01	8.190E-01	1.118E+00	9.418E-02	0.548
	+	77.11		1.138E+00	4.979E-01	6.141E-01	5.205E-02	1.854
		87.30		2.794E-01	1.087E+00	1.266E+00	1.163E-01	0.221
	+	238.63	*	1.146E+00	1.209E-01	9.171E-02	6.552E-03	12.497
	+	300.09		1.017E+00	9.408E-01	1.110E+00	6.543E-01	0.916
TH-230	+	609.31	*	8.686E-01	1.341E-01	8.978E-02	8.020E-03	9.675
	+	1120.29		1.055E+00	3.472E-01	3.339E-01	3.197E-02	3.159
	+	1764.49		1.206E+00	3.276E-01	1.859E-01	1.131E-02	6.487
U-231	+	84.21		6.707E+01	2.627E+01	2.483E+01	2.221E+00	2.701
	+	92.29		7.294E+02	6.265E+01	8.664E+00	7.376E-01	84.185
	+	95.87	*	2.378E+01	6.436E+00	3.773E+00	3.023E-01	6.303
		108.00		-2.889E+00	5.256E+00	7.474E+00	5.082E-01	-0.387
TH-232	+	338.32		1.305E+00	3.623E-01	3.175E-01	1.837E-02	4.109
	+	911.07	*	1.117E+00	2.609E-01	1.617E-01	2.143E-02	6.907
	+	969.11		9.520E-01	3.256E-01	2.477E-01	5.932E-02	3.842
PA-234M	+	766.42		2.090E+02	1.090E+02	1.492E+01	7.586E+00	14.007
	+	1001.03	*	2.145E+02	2.596E+01	5.161E+00	5.568E-01	41.565
TH-234	+	63.29	*	1.329E+02	2.400E+01	4.081E+00	7.195E-01	32.566
	+	92.38		1.354E+02	2.447E+01	1.607E+00	2.896E-01	84.266

Sample ID : G246020011 Acquisition date : 13-FEB-2010 16:56:34

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-234	+	609.31	*	8.686E-01	1.341E-01	8.978E-02	8.020E-03	9.675
	+	1120.29		1.055E+00	3.472E-01	3.339E-01	3.197E-02	3.159
	+	1764.49		1.206E+00	3.276E-01	1.859E-01	1.131E-02	6.487
U-235		89.95		1.809E+00	2.586E+00	3.731E+00	1.154E+00	0.485
	+	93.35		1.628E+02	4.560E+01	1.912E+00	5.344E-01	85.119
		105.00		1.795E+00	1.730E+00	2.723E+00	8.012E-01	0.659
	+	143.76	*	2.541E+00	5.713E-01	4.133E-01	6.693E-02	6.149
	+	163.35		2.333E+00	1.009E+00	9.286E-01	1.655E-01	2.513
	+	185.71		2.369E+00	1.666E-01	7.982E-02	4.245E-03	29.677
	+	205.31		2.382E+00	7.263E-01	8.598E-01	1.536E-01	2.770
U-238	+	63.29	*	1.329E+02	2.400E+01	4.081E+00	7.195E-01	32.566
	+	92.38		1.354E+02	1.163E+01	1.607E+00	1.366E-01	84.266
AM-243	+	74.67	*	9.764E-02	1.305E-01	1.792E-01	1.496E-02	0.545
		86.72		5.390E+00	2.567E+01	2.986E+01	2.730E+00	0.181
		117.66		-7.167E+00	6.290E+00	8.706E+00	5.355E-01	-0.823
		142.18		7.614E+01	2.713E+01	4.079E+01	2.246E+00	1.867
ANH-511	+	511.00	*	1.004E-01	5.677E-02	3.936E-02	2.599E-03	2.551

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.464E-02	2.822E-01	4.685E-01	3.395E-02	0.095
NA-22		1274.54	*	-4.605E-02	3.135E-02	4.538E-02	3.088E-03	-1.015
NA-24		1368.53	*	2.268E+00	3.135E-02	Half-Life too short		
AL-26		1129.67		-9.521E-01	1.201E+00	1.887E+00	1.260E-01	-0.505
		1808.65	*	2.516E-03	1.729E-02	2.902E-02	1.695E-03	0.087
TI-44		67.85		-6.187E-02	8.950E-02	1.399E-01	1.125E-02	-0.442
	+	78.38	*	2.065E-01	9.033E-02	1.161E-01	9.924E-03	1.779
SC-46		889.25	*	-1.707E-02	3.143E-02	4.950E-02	5.521E-03	-0.345
	+	1120.51		1.837E-01	5.923E-02	8.461E-02	5.846E-03	2.171
V-48		944.10		1.573E+00	9.962E-01	1.543E+00	1.633E-01	1.019
		983.50	*	2.208E-02	5.712E-02	9.489E-02	9.386E-03	0.233
		1312.09		-1.946E-02	5.397E-02	8.533E-02	6.216E-03	-0.228
CR-51		320.08	*	1.506E-01	3.715E-01	6.071E-01	3.909E-02	0.248
MN-52		744.21		1.368E+00	3.767E-01	6.197E-01	5.464E-02	2.208
		848.13		-3.979E+00	6.973E+00	1.104E+01	1.155E+00	-0.361
		935.52		1.174E-01	2.443E-01	4.093E-01	4.390E-02	0.287
		1246.25		1.234E+00	6.728E+00	1.054E+01	6.780E-01	0.117
		1333.61		-3.916E+00	4.569E+00	6.744E+00	5.095E-01	-0.581
		1434.06	*	2.317E-01	2.142E-01	3.830E-01	2.822E-02	0.605
MN-54		834.83	*	2.995E-02	3.071E-02	5.278E-02	5.407E-03	0.567
CO-56		846.75	*	-4.133E-02	3.264E-02	4.907E-02	5.123E-03	-0.842
		977.42		-1.394E+00	2.244E+00	3.468E+00	3.469E-01	-0.402
		1037.82		-8.867E-02	2.186E-01	3.557E-01	3.295E-02	-0.249
		1175.09		1.660E+00	1.607E+00	2.827E+00	1.569E-01	0.587
	+	1238.25		1.770E-01	8.995E-02	1.195E-01	7.962E-03	1.481
		1360.21		3.943E-02	6.734E-01	1.105E+00	8.305E-02	0.036
		1771.40		4.318E-02	1.652E-01	2.435E-01	1.472E-02	0.177

Sample ID : G246020011 Acquisition date : 13-FEB-2010 16:56:34

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	3.599E-03	3.522E-02	5.664E-02	3.355E-03	0.064
		136.48		-3.463E-02	2.908E-01	4.390E-01	2.873E-02	-0.079
CO-58		810.76	*	-2.719E-02	3.435E-02	5.404E-02	5.335E-03	-0.503
FE-59	+	142.65		3.386E+01	5.598E+00	7.100E+00	3.906E-01	4.769
		192.34		4.016E-02	1.058E+00	1.714E+00	1.988E-01	0.023
		1099.22	*	-7.514E-02	6.486E-02	9.875E-02	8.129E-03	-0.761
		1291.56		1.477E-02	8.690E-02	1.444E-01	1.214E-02	0.102
CO-60		1173.22		1.571E-02	3.058E-02	5.230E-02	2.890E-03	0.300
		1332.49	*	-1.361E-02	2.658E-02	4.139E-02	3.128E-03	-0.329
ZN-65		1115.52	*	8.050E-02	6.712E-02	1.063E-01	7.488E-03	0.757
GE-68		1077.35	*	-1.894E-01	8.460E-01	1.389E+00	1.104E-01	-0.136
AS-73		53.44	*	3.959E-01	1.866E+00	3.150E+00	2.497E-01	0.126
AS-74		595.88	*	6.155E-03	8.371E-02	1.357E-01	9.749E-03	0.045
		634.78		-1.651E-01	3.264E-01	5.103E-01	3.799E-02	-0.324
SE-75		66.05		-2.232E+01	1.019E+01	1.414E+01	1.400E+00	-1.579
		96.73		8.965E+00	2.176E+00	2.433E+00	3.209E-01	3.684
		121.11		-8.539E-02	1.919E-01	3.048E-01	2.845E-02	-0.280
		136.00		-5.895E-02	5.970E-02	8.186E-02	4.661E-03	-0.720
		198.60		-2.774E+00	1.976E+00	3.034E+00	2.059E-01	-0.915
		264.65	*	-2.895E-03	4.332E-02	7.068E-02	4.042E-03	-0.041
		279.53		-6.364E-03	1.014E-01	1.648E-01	1.018E-02	-0.039
		303.91		1.289E+00	2.212E+00	3.213E+00	3.057E-01	0.401
		400.65		-5.692E-02	2.155E-01	3.567E-01	3.250E-02	-0.160
BR-77		87.88		8.286E+02	9.236E+02	1.089E+03	1.006E+02	0.761
		200.40		8.298E+01	3.510E+02	5.195E+02	2.798E+01	0.160
	+	239.00		3.328E+02	3.176E+01	4.843E+01	2.694E+00	6.871
		249.79		-4.330E+00	1.178E+02	1.932E+02	1.083E+01	-0.022
		281.68		-2.385E+02	1.542E+02	2.362E+02	1.348E+01	-1.010
		297.23		5.173E+02	1.330E+02	1.742E+02	9.999E+00	2.970
		303.76		1.427E+02	3.459E+02	4.988E+02	2.870E+01	0.286
		439.47		6.892E+01	2.271E+02	3.817E+02	2.327E+01	0.181
		484.57		2.785E+02	3.512E+02	5.983E+02	3.840E+01	0.465
		520.65	*	-7.650E+00	1.637E+01	2.620E+01	1.748E+00	-0.292
		574.64		-9.801E+01	3.565E+02	5.364E+02	3.777E+01	-0.183
		578.91		-5.650E+01	1.564E+02	2.134E+02	1.509E+01	-0.265
		585.48		1.939E+03	3.763E+02	6.286E+02	4.472E+01	3.084
		755.35		1.949E+02	2.616E+02	4.484E+02	4.030E+01	0.435
		817.79		5.881E+01	2.059E+02	3.442E+02	3.431E+01	0.171
SR-82		698.33		6.133E+00	3.080E+01	5.188E+01	4.224E+00	0.118
		776.49	*	-3.249E-01	3.716E-01	5.723E-01	5.329E-02	-0.568
		1395.20		-3.965E+00	7.233E+00	1.104E+01	8.226E-01	-0.359
RB-83		520.41	*	-2.994E-02	5.976E-02	9.548E-02	6.368E-03	-0.314
		529.64		-4.501E-02	9.249E-02	1.477E-01	9.943E-03	-0.305
		552.65		-1.015E-01	1.781E-01	2.820E-01	1.943E-02	-0.360
RB-84		881.50	*	9.294E-02	6.884E-02	1.190E-01	1.312E-02	0.781
KR-85		513.99	*	1.461E+01	6.755E+00	1.072E+01	7.101E-01	1.363
SR-85		513.99	*	7.657E-02	3.540E-02	5.618E-02	3.722E-03	1.363
RB-86		1076.63	*	-2.878E-01	5.739E-01	9.231E-01	7.348E-02	-0.312
Y-88		898.02		8.139E-03	3.289E-02	5.450E-02	6.178E-03	0.149

---- Non-Identified Nuclides ----

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		1836.01	*	-3.301E-02	2.629E-02	3.574E-02	2.036E-03	-0.924
ZR-88		392.90	*	-1.052E-02	2.682E-02	4.426E-02	2.545E-03	-0.238
Y-91		1204.90	*	-1.038E+00	1.369E+01	2.249E+01	1.330E+00	-0.046
NB-94		702.63	*	-3.118E-03	2.863E-02	4.756E-02	3.902E-03	-0.066
		871.10		-2.669E-03	2.806E-02	4.569E-02	4.956E-03	-0.058
NB-95M		235.69	*	5.802E-04	1.341E-01	1.942E-01	1.425E-02	0.003
ZR-95		724.18		1.929E-01	1.195E-01	1.345E-01	1.247E-02	1.434
		756.15	*	1.490E-02	6.546E-02	1.049E-01	1.032E-02	0.142
NB-97		657.90	*	3.280E-01	6.546E-02	Half-Life too short		
		1024.50		-1.695E+01	6.546E-02	Half-Life too short		
ZR-97		254.15		-8.382E+00	6.546E-02	Half-Life too short		
		355.39		-6.588E+00	6.546E-02	Half-Life too short		
		507.63	*	3.266E+01	6.546E-02	Half-Life too short		
		602.52		-2.523E+00	6.546E-02	Half-Life too short		
		1021.30		1.839E+01	6.546E-02	Half-Life too short		
		1147.95		1.289E+01	6.546E-02	Half-Life too short		
		1362.66		-1.867E+01	6.546E-02	Half-Life too short		
		1750.46		7.328E+00	6.546E-02	Half-Life too short		
MO-99		140.51		-2.685E+01	6.516E+01	9.033E+01	2.429E+01	-0.297
		181.06		1.841E+01	3.652E+01	5.470E+01	9.287E+00	0.337
		366.43		-1.335E+02	1.200E+02	1.932E+02	1.116E+01	-0.691
		739.58	*	5.487E+01	2.328E+01	3.579E+01	5.462E+00	1.533
		778.00		-5.865E+01	5.840E+01	8.042E+01	7.509E+00	-0.729
TC-99M		140.51	*	-7.411E+12	5.840E+01	Half-Life too short		
RH-101		127.23		-3.394E-02	4.885E-02	6.809E-02	3.933E-03	-0.499
		198.01	*	-3.782E-02	3.457E-02	5.564E-02	2.991E-03	-0.680
		325.23		2.190E-02	2.253E-01	3.180E-01	1.837E-02	0.069
RH-102		418.52		-1.219E-01	2.434E-01	3.974E-01	2.362E-02	-0.307
		475.06	*	1.689E-02	2.516E-02	4.267E-02	2.710E-03	0.396
		631.29		-8.704E-03	4.663E-02	7.430E-02	5.515E-03	-0.117
		697.49		-1.406E-02	6.660E-02	1.102E-01	8.958E-03	-0.128
	+	766.84		1.990E+00	2.962E-01	3.446E-01	3.157E-02	5.775
		1046.59		8.065E-04	7.853E-02	1.314E-01	1.134E-02	0.006
		1112.84		-2.706E-02	1.718E-01	2.404E-01	1.707E-02	-0.113
RU-103		497.08	*	1.537E-02	3.751E-02	6.266E-02	8.135E-03	0.245
	+	610.33		9.731E+00	1.983E+00	1.982E+00	3.178E-01	4.910
RH-106	+	511.85		5.034E-01	2.847E-01	3.198E-01	2.114E-02	1.574
		621.84	*	2.090E-02	2.643E-01	4.278E-01	5.382E-02	0.049
		1050.47		6.508E-01	1.643E+00	2.815E+00	2.405E-01	0.231
RU-106	+	511.85		5.034E-01	2.847E-01	3.198E-01	2.114E-02	1.574
		621.84	*	2.090E-02	2.643E-01	4.278E-01	3.148E-02	0.049
		1050.47		6.508E-01	1.643E+00	2.815E+00	2.405E-01	0.231
AG-108M		433.93	*	-2.105E-02	2.796E-02	4.497E-02	2.938E-03	-0.468
		614.37		3.020E-02	3.327E-02	4.947E-02	3.811E-03	0.610
		722.95		4.957E-02	5.112E-02	5.356E-02	4.736E-03	0.926
CD-109		88.03	*	2.183E+00	2.329E+00	2.746E+00	2.539E-01	0.795
AG-110M		657.75	*	1.037E-02	3.292E-02	4.872E-02	3.843E-03	0.213
		677.61		-8.215E-02	2.479E-01	4.081E-01	3.311E-02	-0.201
		706.67		-1.185E-01	1.751E-01	2.824E-01	2.403E-02	-0.420

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		763.93		2.647E+00	3.473E-01	4.931E-01	4.610E-02	5.368
		884.67		1.163E-02	4.391E-02	7.281E-02	8.222E-03	0.160
		937.48		-9.545E-02	9.611E-02	1.321E-01	1.446E-02	-0.722
		1384.27		7.894E-02	1.252E-01	1.889E-01	1.464E-02	0.418
IN-111		171.28		1.208E+00	1.912E+00	3.265E+00	1.718E-01	0.370
		245.39	*	1.122E+00	1.937E+00	2.859E+00	1.598E-01	0.393
IN-113M		391.69	*	7.517E-03	3.890E-02	6.566E-02	4.028E-03	0.114
SN-113		391.69	*	7.517E-03	3.890E-02	6.566E-02	4.028E-03	0.114
IN-114M		190.27	*	8.638E-02	2.153E-01	3.217E-01	1.717E-02	0.269
CD-115		260.90		1.508E+02	2.847E+02	4.173E+02	2.356E+01	0.362
		492.35		1.728E+01	6.228E+01	1.036E+02	6.710E+00	0.167
		527.90	*	-5.301E+00	1.798E+01	2.899E+01	1.948E+00	-0.183
SN-117M		156.02		3.791E-02	2.936E+00	4.980E+00	2.660E-01	0.008
		158.56	*	8.416E-03	8.169E-02	1.226E-01	6.517E-03	0.069
SB-122		563.90	*	-1.552E+00	3.154E+00	5.010E+00	3.491E-01	-0.310
		692.80		3.310E+01	6.359E+01	1.086E+02	8.759E+00	0.305
I-123		159.00	*	5.700E+01	6.359E+01	Half-Life too short		
		528.96		-5.459E+02	6.359E+01	Half-Life too short		
TE-123M		159.00	*	2.020E-02	3.853E-02	5.847E-02	3.155E-03	0.346
I-124		602.71	*	-8.180E-02	9.225E-01	1.276E+00	9.227E-02	-0.064
		722.78		7.363E+00	7.550E+00	7.917E+00	6.729E-01	0.930
		1325.50		-3.279E+00	3.489E+01	5.662E+01	4.225E+00	-0.058
	+	1376.25		9.152E+01	4.230E+01	5.753E+01	4.308E+00	1.591
		1509.49		3.510E+01	1.711E+01	3.282E+01	2.351E+00	1.070
		1691.02		1.644E+00	3.550E+00	6.202E+00	4.000E-01	0.265
SB-124		602.71		-3.444E-03	3.884E-02	5.373E-02	3.886E-03	-0.064
		645.85		-1.022E-01	4.489E-01	7.123E-01	5.774E-02	-0.143
		709.31		-8.323E-01	2.319E+00	3.798E+00	3.153E-01	-0.219
		713.82		4.597E-01	1.625E+00	2.379E+00	2.821E-01	0.193
		722.78		4.494E-01	4.609E-01	4.832E-01	4.198E-02	0.930
	+	968.20		1.004E+01	2.655E+00	4.713E+00	4.792E-01	2.130
		1045.16		-1.546E-02	1.734E+00	2.899E+00	2.510E-01	-0.005
		1325.50		-2.137E-01	2.274E+00	3.691E+00	2.754E-01	-0.058
		1368.21		6.132E-01	1.319E+00	1.957E+00	2.502E-01	0.313
		1436.60		7.874E-01	2.682E+00	4.480E+00	3.299E-01	0.176
		1691.02	*	2.367E-02	5.111E-02	8.928E-02	6.160E-03	0.265
SB-125		427.89	*	-3.649E-02	7.641E-02	1.246E-01	7.783E-03	-0.293
	+	463.38		3.388E-01	3.277E-01	4.265E-01	3.057E-02	0.794
		600.56		-4.340E-02	1.541E-01	2.432E-01	1.937E-02	-0.178
		635.90		-2.738E-01	2.342E-01	3.510E-01	2.895E-02	-0.780
TE-125M		109.28	*	3.816E+01	1.777E+01	2.641E+01	2.324E+00	1.445
I-126		388.63		4.461E-02	1.983E-01	3.353E-01	1.927E-02	0.133
		666.33	*	-8.893E-03	2.030E-01	2.929E-01	2.252E-02	-0.030
		753.82		1.154E+00	1.397E+00	2.404E+00	2.155E-01	0.480
SB-126		223.80		-4.206E+00	4.663E+00	7.524E+00	4.135E-01	-0.559
		278.60		2.660E+00	2.530E+00	4.255E+00	2.425E-01	0.625
	+	296.50		1.130E+01	2.351E+00	2.983E+00	1.712E-01	3.786
		414.70		6.637E-02	7.100E-02	1.226E-01	7.250E-03	0.541
		415.30		7.004E+00	5.921E+00	1.031E+01	6.101E-01	0.680

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		555.20		-7.988E-01	3.923E+00	6.326E+00	4.370E-01	-0.126
		573.80		-4.010E-01	1.071E+00	1.659E+00	1.167E-01	-0.242
		593.00		2.866E-02	8.733E-01	1.416E+00	1.015E-01	0.020
		656.30		3.095E-01	3.489E+00	5.089E+00	3.861E-01	0.061
		666.33		-3.734E-03	8.523E-02	1.230E-01	9.455E-03	-0.030
		675.00		-8.338E-01	1.826E+00	2.989E+00	2.335E-01	-0.279
		695.00		-5.986E-02	7.546E-02	1.213E-01	9.819E-03	-0.493
		697.00		-7.488E-02	2.630E-01	4.338E-01	3.523E-02	-0.173
	+	720.50	*	1.376E-01	2.057E-01	2.236E-01	1.892E-02	0.615
		856.80		-4.635E-01	4.462E-01	6.849E-01	7.264E-02	-0.677
		989.30		-5.272E-01	1.114E+00	1.698E+00	1.661E-01	-0.310
		1034.80		9.501E-01	6.989E+00	1.137E+01	1.010E+00	0.084
		1213.00		1.495E+00	3.623E+00	6.132E+00	3.687E-01	0.244
SN-126	+	64.28		5.261E+01	8.032E+00	3.103E+00	4.587E-01	16.952
		86.94		1.770E-01	9.686E-01	1.123E+00	4.656E-01	0.158
		87.57	*	9.385E-02	2.307E-01	2.693E-01	2.482E-02	0.348
SB-127		61.10		5.652E+02	2.048E+02	3.083E+02	3.441E+01	1.833
		252.40		-7.151E-01	6.945E+00	9.936E+00	4.143E+00	-0.072
		290.80		-3.850E+00	3.293E+01	4.647E+01	4.597E+00	-0.083
		411.60		2.469E+00	1.463E+01	2.458E+01	3.666E+00	0.100
		444.90		-1.830E+00	1.210E+01	1.995E+01	2.320E+00	-0.092
		473.00		8.860E-01	2.107E+00	3.536E+00	4.275E-01	0.251
		543.00		1.487E+01	2.116E+01	3.548E+01	4.945E+00	0.419
		603.60		-9.676E+00	1.666E+01	2.219E+01	2.711E+00	-0.436
		685.20	*	-4.147E-01	1.637E+00	2.703E+00	3.122E-01	-0.153
		698.50		3.296E+00	1.884E+01	3.169E+01	5.081E+00	0.104
		722.20		5.653E+01	5.380E+01	5.679E+01	6.650E+00	0.995
		783.80		1.717E+01	6.279E+00	9.745E+00	1.320E+00	1.762
XE-127		57.60		9.756E-01	1.385E+01	2.323E+01	1.791E+00	0.042
	+	145.22		8.739E+00	1.445E+00	1.837E+00	1.004E-01	4.758
		172.10		5.646E-02	1.423E-01	2.418E-01	1.273E-02	0.233
		202.84	*	-2.504E-03	5.734E-02	8.398E-02	4.533E-03	-0.030
		374.96		-4.568E-03	1.772E-01	2.977E-01	1.717E-02	-0.015
I-131		80.18		-8.698E-01	1.476E+01	1.717E+01	1.500E+00	-0.051
		284.30		5.053E-01	1.641E+00	2.696E+00	1.724E-01	0.187
		364.48	*	-5.396E-02	1.163E-01	1.924E-01	1.246E-02	-0.280
		636.97		-1.136E+00	1.587E+00	2.450E+00	1.967E-01	-0.464
		722.89		1.002E+01	1.031E+01	1.080E+01	9.261E-01	0.927
TE-132		49.72		-4.190E+01	6.795E+01	1.131E+02	1.223E+01	-0.370
	+	111.76		2.984E+02	9.100E+01	1.681E+02	1.672E+01	1.776
		116.30		6.048E+01	7.196E+01	1.051E+02	1.025E+01	0.575
		228.16	*	2.293E-01	1.105E+00	1.836E+00	2.697E-01	0.125
BA-133		53.15		2.211E+00	7.924E+00	1.339E+01	1.063E+00	0.165
		79.62		1.218E+00	3.453E+00	4.060E+00	6.183E-01	0.300
		81.00		9.185E-02	2.630E-01	3.087E-01	4.918E-02	0.298
		276.40		1.921E-01	3.457E-01	5.720E-01	7.388E-02	0.336
		302.84		1.383E-01	1.492E-01	2.194E-01	2.552E-02	0.630
		356.01	*	-3.081E-03	4.480E-02	6.207E-02	7.170E-03	-0.050
		383.85		2.195E-01	2.599E-01	4.478E-01	4.858E-02	0.490

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-133	+	510.53		5.429E+00	2.599E-01	Half-Life too short		
		529.87	*	-1.575E-02	2.599E-01	Half-Life too short		
		706.58		-1.173E+00	2.599E-01	Half-Life too short		
		856.28		-4.110E+00	2.599E-01	Half-Life too short		
		875.33		-4.013E-01	2.599E-01	Half-Life too short		
	+	1236.41		6.693E+00	2.599E-01	Half-Life too short		
		1298.22		1.107E+00	2.599E-01	Half-Life too short		
CS-134		475.35		4.612E-01	1.660E+00	2.770E+00	1.760E-01	0.166
		563.23		-9.722E-02	3.147E-01	5.042E-01	3.562E-02	-0.193
		569.32		2.189E-01	1.783E-01	3.015E-01	2.156E-02	0.726
		604.70		5.750E-03	3.240E-02	4.564E-02	3.318E-03	0.126
		795.84	*	8.934E-02	4.131E-02	7.237E-02	7.000E-03	1.235
		801.93		-4.073E-01	3.578E-01	5.505E-01	5.371E-02	-0.740
		1038.57		-2.029E+00	2.714E+00	4.304E+00	3.787E-01	-0.471
		1167.94		4.502E-02	1.749E+00	2.900E+00	1.644E-01	0.016
		1365.15		3.304E-01	8.639E-01	1.379E+00	1.097E-01	0.240
CS-135		268.24	*	-2.913E-02	1.516E-01	2.461E-01	1.860E-02	-0.118
I-135		288.45		5.242E+12	1.516E-01	Half-Life too short		
		417.63		-3.462E+11	1.516E-01	Half-Life too short		
		546.56		4.457E+11	1.516E-01	Half-Life too short		
		836.80		1.585E+12	1.516E-01	Half-Life too short		
		1038.76		-1.214E+12	1.516E-01	Half-Life too short		
		1124.00		5.990E+12	1.516E-01	Half-Life too short		
		1131.51		1.114E+11	1.516E-01	Half-Life too short		
		1260.41	*	-5.189E+11	1.516E-01	Half-Life too short		
		1457.56		1.820E+14	1.516E-01	Half-Life too short		
		1678.03		-3.635E+11	1.516E-01	Half-Life too short		
		1706.46		2.773E+12	1.516E-01	Half-Life too short		
		1791.20		6.081E+11	1.516E-01	Half-Life too short		
CS-136		66.91		-3.890E+00	1.884E+00	2.549E+00	3.849E-01	-1.526
		86.29		2.190E+00	2.946E+00	3.980E+00	5.248E-01	0.550
		153.22		6.583E-01	8.608E-01	1.481E+00	1.020E-01	0.444
	+	163.89		5.901E+00	2.361E+00	2.728E+00	1.864E-01	2.163
		176.55		1.991E-01	4.619E-01	7.841E-01	4.754E-02	0.254
		273.65		-6.886E-01	4.875E-01	7.561E-01	4.928E-02	-0.911
		340.57		4.577E-01	1.491E-01	2.354E-01	1.449E-02	1.944
		818.51		3.189E-02	7.186E-02	1.210E-01	1.208E-02	0.264
		1048.07	*	-5.486E-02	8.425E-02	1.345E-01	1.206E-02	-0.408
		1235.34		6.092E-01	5.705E-01	8.657E-01	8.901E-02	0.704
CE-139		165.85	*	6.224E-02	3.844E-02	5.981E-02	3.140E-03	1.041
BA-140	+	162.64		4.168E+00	1.662E+00	1.928E+00	1.169E-01	2.162
		304.84		1.052E-01	1.505E+00	2.134E+00	5.821E-01	0.049
		423.70		2.335E+00	1.937E+00	3.133E+00	9.969E-01	0.745
		537.32	*	3.086E-02	2.492E-01	4.089E-01	1.338E-01	0.075
LA-140	+	328.77		9.743E-01	5.236E-01	5.355E-01	3.469E-02	1.820
		432.53		-2.193E+00	1.920E+00	3.027E+00	2.007E-01	-0.724
		487.03		-5.673E-02	1.346E-01	2.175E-01	1.552E-02	-0.261
		751.79		5.899E-01	1.638E+00	2.763E+00	2.715E-01	0.213
		815.85		-1.323E-01	3.071E-01	4.934E-01	5.333E-02	-0.268

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		867.82		8.571E-02	1.223E+00	2.013E+00	2.246E-01	0.043
		919.63		-1.269E+00	3.276E+00	4.419E+00	5.583E-01	-0.287
		925.24		3.127E-01	1.123E+00	1.857E+00	2.102E-01	0.168
		1596.49	*	4.178E-02	6.312E-02	1.118E-01	7.674E-03	0.374
CE-141		145.44	*	5.292E-01	1.058E-01	1.629E-01	9.302E-03	3.248
CE-143		57.37		3.588E-03	1.058E-01	Half-Life too short		
		231.56		-1.057E-03	1.058E-01	Half-Life too short		
		293.26	*	6.680E-04	1.058E-01	Half-Life too short		
	+	350.59		6.058E-02	1.058E-01	Half-Life too short		
		490.36		-1.301E-04	1.058E-01	Half-Life too short		
		664.57		5.972E-03	1.058E-01	Half-Life too short		
	+	721.93		3.304E-03	1.058E-01	Half-Life too short		
PM-144		476.78		4.581E-02	5.748E-02	9.791E-02	7.266E-03	0.468
		618.01		-9.637E-04	2.645E-02	4.139E-02	3.151E-03	-0.023
		696.49	*	-1.743E-02	3.022E-02	4.914E-02	3.990E-03	-0.355
		778.57		-1.941E+00	2.422E+00	3.235E+00	3.024E-01	-0.600
PR-144		696.49	*	-1.183E+00	2.050E+00	3.334E+00	2.705E-01	-0.355
		1489.15		3.783E+00	7.311E+00	1.257E+01	9.080E-01	0.301
PM-146		453.90	*	-1.738E-02	3.801E-02	6.170E-02	5.489E-03	-0.282
		633.02		4.044E-01	1.153E+00	1.875E+00	6.960E-01	0.216
		735.90		6.772E-04	1.491E-01	2.135E-01	6.112E-02	0.003
		747.13		-4.745E-02	9.206E-02	1.263E-01	1.791E-02	-0.376
ND-147		91.11		3.336E+01	3.278E+00	1.872E+00	1.761E-01	17.820
		319.41		3.368E+00	3.621E+00	6.020E+00	3.478E-01	0.559
		439.89		1.129E+00	5.818E+00	9.736E+00	5.941E-01	0.116
		531.02	*	9.714E-02	5.424E-01	8.939E-01	1.247E-01	0.109
PM-149		285.90	*	-4.663E+01	1.679E+02	2.700E+02	3.821E+01	-0.173
EU-152		121.78		-1.625E-02	1.023E-01	1.635E-01	1.260E-02	-0.099
		244.69		4.829E-01	3.593E-01	5.450E-01	3.044E-02	0.886
		344.27	*	1.259E-02	1.004E-01	1.411E-01	9.208E-03	0.089
		443.98		1.216E-01	8.135E-01	1.358E+00	8.324E-02	0.090
		778.89		-6.544E-02	2.712E-01	3.790E-01	3.543E-02	-0.173
		867.32		-3.818E-01	6.603E-01	1.041E+00	1.123E-01	-0.367
	+	964.01		7.344E-01	3.302E-01	4.295E-01	4.400E-02	1.710
		1085.78		-8.140E-02	2.685E-01	4.381E-01	3.395E-02	-0.186
		1112.02		-1.402E-01	2.492E-01	3.337E-01	2.375E-02	-0.420
		1407.95		9.381E-03	1.370E-01	2.241E-01	1.664E-02	0.042
GD-153		69.67		1.287E-01	3.132E+00	5.200E+00	4.221E-01	0.025
	+	83.37		1.302E+02	5.098E+01	5.218E+01	4.635E+00	2.495
	+	97.43	*	1.966E+00	2.571E-01	2.835E-01	2.216E-02	6.937
		103.18		-4.193E-02	1.839E-01	2.645E-01	1.908E-02	-0.158
EU-154		123.07		-3.698E-02	7.187E-02	1.138E-01	1.076E-02	-0.325
		247.94		-1.968E-01	3.678E-01	5.726E-01	5.393E-02	-0.344
		591.81		4.362E-02	5.127E-01	8.337E-01	8.867E-02	0.052
		723.30		2.136E-01	2.142E-01	2.251E-01	2.122E-02	0.949
		756.87		1.728E-01	7.105E-01	1.108E+00	1.358E-01	0.156
		873.19		4.768E-02	2.481E-01	4.105E-01	5.718E-02	0.116
		996.32		2.137E+00	5.803E-01	7.846E-01	1.435E-01	2.724
		1004.76		1.498E+00	2.968E-01	4.590E-01	5.644E-02	3.263

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.45	*	-1.454E-01	8.927E-02	1.263E-01	1.262E-02	-1.151
EU-155		48.70		-5.742E-01	5.546E+00	9.351E+00	7.093E-01	-0.061
		60.01		7.239E+00	1.172E+01	1.779E+01	1.357E+00	0.407
		86.54		1.795E-01	2.423E-01	3.281E-01	3.022E-02	0.547
		105.31	*	8.206E-02	1.696E-01	2.769E-01	1.980E-02	0.296
TB-160		86.79		1.542E-01	7.643E-01	8.889E-01	8.133E-02	0.173
		197.04		3.356E-02	5.851E-01	9.785E-01	5.255E-02	0.034
		215.65		7.014E-01	7.908E-01	1.299E+00	7.093E-02	0.540
	+	298.57		1.484E-01	1.062E-01	1.713E-01	9.839E-03	0.866
		879.36	*	1.726E-01	1.297E-01	2.245E-01	2.466E-02	0.769
		962.29		9.923E-01	4.701E-01	7.500E-01	7.705E-02	1.323
		966.15		1.049E+00	2.182E-01	3.811E-01	3.889E-02	2.754
		1177.93		-1.539E-01	2.534E-01	4.018E-01	2.243E-02	-0.383
		1271.85		-1.065E-01	4.965E-01	8.020E-01	5.420E-02	-0.133
HO-166M		80.57		1.363E-01	7.267E-01	8.508E-01	7.392E-02	0.160
		184.41		1.386E+00	9.805E-02	1.293E-01	6.869E-03	10.719
		280.46		-1.063E-01	7.928E-02	1.227E-01	6.998E-03	-0.866
		410.95		6.986E-02	2.001E-01	3.386E-01	1.993E-02	0.206
		711.68	*	-1.971E-02	5.513E-02	8.344E-02	6.955E-03	-0.236
		752.31		1.319E-01	2.366E-01	4.025E-01	3.599E-02	0.328
		810.29		-3.778E-02	5.062E-02	7.987E-02	7.864E-03	-0.473
TM-171		51.35		-2.087E+01	6.803E+01	1.140E+02	9.034E+00	-0.183
		52.39		7.254E+00	3.511E+01	5.931E+01	4.712E+00	0.122
		59.40		1.141E+01	6.313E+01	9.515E+01	7.224E+00	0.120
		66.72	*	-9.829E+01	5.828E+01	8.303E+01	6.639E+00	-1.184
LU-176		88.36		3.567E-01	5.441E-01	6.380E-01	5.858E-02	0.559
		201.83		-1.397E-02	3.399E-02	4.916E-02	2.651E-03	-0.284
		306.84	*	2.394E-03	2.285E-02	3.708E-02	2.135E-03	0.065
		401.10		-2.874E+00	5.577E+00	9.136E+00	5.311E-01	-0.315
LU-177M		52.97		3.116E-01	3.640E+00	6.133E+00	4.869E-01	0.051
		54.07		-1.123E+00	1.920E+00	3.193E+00	2.525E-01	-0.352
		61.30		1.273E+01	3.648E+00	5.622E+00	4.344E-01	2.264
		121.62		-1.093E-01	5.286E-01	8.446E-01	5.010E-02	-0.129
		147.16		-4.762E-01	9.311E-01	1.288E+00	7.008E-02	-0.370
		171.86		4.503E-01	5.536E-01	9.482E-01	4.991E-02	0.475
		218.09		-3.617E-01	8.704E-01	1.427E+00	7.807E-02	-0.253
		268.79		2.350E-01	7.894E-01	1.300E+00	7.374E-02	0.181
		319.02		1.875E-01	2.506E-01	4.143E-01	2.391E-02	0.453
		367.43		-2.411E-01	7.719E-01	1.285E+00	7.418E-02	-0.188
		413.65	*	1.241E-02	1.502E-01	2.514E-01	1.485E-02	0.049
HF-181		56.28		8.952E-01	2.152E+00	3.632E+00	2.829E-01	0.246
		57.53		6.445E-01	1.152E+00	1.946E+00	1.501E-01	0.331
		65.20		2.336E+01	2.954E+00	4.012E+00	3.182E-01	5.823
	+	133.02		1.281E-01	1.226E-01	1.533E-01	8.674E-03	0.835
		136.25		-2.258E-01	7.014E-01	9.830E-01	5.505E-02	-0.230
		345.85		8.886E-02	2.199E-01	2.923E-01	1.691E-02	0.304
		482.03	*	-1.297E-02	3.719E-02	6.032E-02	3.861E-03	-0.215
W-181		56.28		3.442E-01	8.238E-01	1.391E+00	1.083E-01	0.248
		57.53		2.468E-01	4.416E-01	7.457E-01	5.750E-02	0.331

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		65.20	*	8.880E+00	1.123E+00	1.525E+00	1.210E-01	5.823
TA-182		67.75		-2.075E-01	2.170E-01	3.372E-01	2.710E-02	-0.615
	+	100.10		4.610E+00	6.028E-01	5.881E-01	4.421E-02	7.840
		152.43		3.011E-02	4.278E-01	6.772E-01	3.643E-02	0.044
		222.10		6.520E-02	3.537E-01	5.886E-01	3.231E-02	0.111
	+	1001.68		9.569E+01	1.055E+01	1.012E+01	9.665E-01	9.452
		1121.28		4.241E-01	1.370E-01	2.337E-01	1.610E-02	1.814
		1189.05		-3.084E-01	2.199E-01	3.281E-01	1.876E-02	-0.940
		1221.42	*	-4.244E-02	1.355E-01	2.188E-01	1.338E-02	-0.194
		1230.97		2.450E-04	3.970E-01	5.582E-01	3.481E-02	0.000
RE-183		57.98		9.176E-02	4.619E-01	7.415E-01	5.697E-02	0.124
		59.32		2.905E-02	2.646E-01	3.983E-01	3.026E-02	0.073
		67.20		-9.548E-01	4.281E-01	5.984E-01	4.797E-02	-1.596
		162.32	*	4.252E-01	1.619E-01	2.552E-01	1.347E-02	1.666
	+	208.81		2.242E+00	1.540E+00	1.745E+00	9.470E-02	1.285
		291.72		-5.120E-01	1.006E+00	1.391E+00	7.973E-02	-0.368
RE-184		57.98		3.340E-01	1.681E+00	2.699E+00	2.074E-01	0.124
		59.32		1.057E-01	9.625E-01	1.449E+00	1.101E-01	0.073
		67.20		-3.475E+00	1.558E+00	2.178E+00	1.746E-01	-1.596
		161.27		1.620E-01	4.903E-01	7.393E-01	3.910E-02	0.219
		216.55		4.087E-01	2.712E-01	4.658E-01	2.545E-02	0.877
		252.85	*	-1.351E-01	2.596E-01	3.647E-01	2.048E-02	-0.370
		318.01		4.512E-01	4.342E-01	7.247E-01	4.183E-02	0.623
		792.07		-9.978E-02	1.014E+00	1.429E+00	1.366E-01	-0.070
		903.28		3.300E-01	8.919E-01	1.288E+00	1.446E-01	0.256
		920.93		-2.432E-01	4.538E-01	6.573E-01	7.203E-02	-0.370
OS-185		59.72		1.830E-01	7.076E-01	1.068E+00	8.122E-02	0.171
		61.14		1.159E+00	3.970E-01	6.128E-01	4.728E-02	1.891
		69.30		2.420E-01	5.658E-01	9.443E-01	7.649E-02	0.256
		592.07		-4.894E-01	2.142E+00	3.426E+00	2.453E-01	-0.143
		646.12	*	7.996E-03	3.747E-02	6.085E-02	4.576E-03	0.131
		717.42		3.508E-01	9.204E-01	1.354E+00	1.140E-01	0.259
		874.81		-5.548E-01	5.388E-01	8.261E-01	9.011E-02	-0.672
		880.27		8.933E-01	7.314E-01	1.261E+00	1.387E-01	0.709
RE-188		155.03	*	-3.312E-02	2.048E-01	3.463E-01	1.853E-02	-0.096
		477.96		7.057E-01	2.653E+00	4.426E+00	2.820E-01	0.159
		633.10		6.686E-01	2.364E+00	3.861E+00	2.870E-01	0.173
W-188	+	63.58		5.454E+03	4.782E+02	3.473E+02	2.729E+01	15.703
		227.08		9.433E+00	1.341E+01	2.257E+01	1.244E+00	0.418
		290.67	*	-8.749E-01	7.995E+00	1.129E+01	6.466E-01	-0.078
IR-192	+	295.96		7.850E-01	1.636E-01	2.102E-01	1.226E-02	3.734
		308.46		-7.915E-02	9.059E-02	1.413E-01	8.234E-03	-0.560
		316.51	*	2.563E-02	3.373E-02	5.582E-02	3.237E-03	0.459
		468.07		-7.224E-03	6.682E-02	9.508E-02	6.776E-03	-0.076
		604.41		1.370E-01	4.364E-01	6.203E-01	7.537E-02	0.221
		612.46		1.574E+00	7.078E-01	1.109E+00	9.725E-02	1.420
AU-195		65.12		4.857E+00	5.650E-01	7.334E-01	5.814E-02	6.624
		66.83		-4.297E-01	1.974E-01	2.765E-01	2.212E-02	-1.554
		75.70		1.424E+00	5.035E-01	6.170E-01	5.182E-02	2.308

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	98.88	*	5.736E+00	7.500E-01	8.544E-01	6.537E-02	6.714
		129.76		2.836E+00	4.374E+00	6.327E+00	3.620E-01	0.448
TL-200		367.94	*	-4.106E-04	4.374E+00	Half-Life too short		
		579.30		9.770E-04	4.374E+00	Half-Life too short		
		828.27		-2.314E-02	4.374E+00	Half-Life too short		
		1205.75		7.487E-04	4.374E+00	Half-Life too short		
TL-201		68.90		1.245E+01	1.424E+01	2.389E+01	1.931E+00	0.521
		70.82		4.299E-01	8.668E+00	1.372E+01	1.120E+00	0.031
		80.30		1.282E-01	2.162E+01	2.519E+01	2.184E+00	0.005
		135.34		-3.110E+01	6.095E+01	8.497E+01	4.771E+00	-0.366
		167.43	*	2.417E+00	1.422E+01	2.129E+01	1.118E+00	0.114
TL-202		68.90		7.831E-01	8.961E-01	1.503E+00	1.215E-01	0.521
		70.82		2.698E-02	5.439E-01	8.611E-01	7.031E-02	0.031
		80.30		8.047E-03	1.357E+00	1.581E+00	1.371E-01	0.005
		439.56	*	2.222E-02	6.736E-02	1.133E-01	6.909E-03	0.196
HG-203		70.83		1.296E-01	2.160E+00	3.420E+00	4.556E-01	0.038
	+	72.87		1.041E+00	1.396E+00	1.996E+00	2.589E-01	0.521
	+	82.60		9.923E+00	4.029E+00	3.858E+00	5.353E-01	2.572
		279.20	*	1.512E-02	3.883E-02	6.402E-02	3.883E-03	0.236
BI-207	+	72.80		2.959E-01	3.955E-01	5.670E-01	4.680E-02	0.522
	+	74.97		1.753E-01	2.343E-01	3.374E-01	2.821E-02	0.519
	+	84.90		1.674E+00	6.555E-01	6.522E-01	5.869E-02	2.566
		569.67		3.198E-02	2.764E-02	4.664E-02	3.269E-03	0.686
		1063.62	*	4.024E-03	3.576E-02	5.879E-02	4.853E-03	0.068
		1770.23		1.065E-01	3.122E-01	4.684E-01	2.833E-02	0.227
TL-207		81.07		2.128E-01	5.794E-01	6.811E-01	5.940E-02	0.312
	+	83.78		1.103E+00	4.322E-01	4.422E-01	3.941E-02	2.496
	+	94.90		3.451E+00	9.340E-01	1.054E+00	8.582E-02	3.273
		122.32		1.251E-02	2.417E+00	3.878E+00	2.634E-01	0.003
	+	144.24		8.235E+00	1.407E+00	1.808E+00	1.262E-01	4.555
		154.21		1.047E-03	4.648E-01	7.888E-01	5.249E-02	0.001
		269.46		1.991E-01	1.816E-01	3.057E-01	1.816E-02	0.651
		323.87	*	-5.243E-01	6.866E-01	9.161E-01	1.512E-01	-0.572
	+	338.28		5.448E+00	1.587E+00	1.899E+00	1.999E-01	2.869
		445.03		-5.825E-01	1.941E+00	3.178E+00	3.325E-01	-0.183
PO-209		260.50		1.975E+01	1.132E+01	1.730E+01	9.764E-01	1.141
		262.80		-1.375E-02	2.960E+01	4.241E+01	2.397E+00	0.000
		896.60	*	7.369E-02	5.793E+00	9.468E+00	1.068E+00	0.008
BI-210		46.50	*	6.981E+00	8.234E+00	1.404E+01	1.086E+00	0.497
PB-210		46.50	*	6.981E+00	8.234E+00	1.404E+01	1.086E+00	0.497
PO-210		46.50	*	6.981E+00	8.230E+00	1.404E+01	9.339E-01	0.497
PB-211		404.84	*	-5.581E-01	8.435E-01	1.247E+00	7.777E-01	-0.447
		427.08		9.487E-02	1.705E+00	2.842E+00	1.757E+00	0.033
		831.96		2.603E-01	1.010E+00	1.662E+00	1.045E+00	0.157
PO-215		81.07		2.128E-01	5.794E-01	6.811E-01	5.940E-02	0.312
	+	83.78		1.103E+00	4.322E-01	4.422E-01	3.941E-02	2.496
	+	94.90		3.451E+00	9.340E-01	1.054E+00	8.582E-02	3.273
		122.32		1.251E-02	2.417E+00	3.878E+00	2.634E-01	0.003
	+	144.24		8.235E+00	1.407E+00	1.808E+00	1.262E-01	4.555

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		1.047E-03	4.648E-01	7.888E-01	5.249E-02	0.001
		269.46		1.991E-01	1.816E-01	3.057E-01	1.816E-02	0.651
		323.87	*	-5.243E-01	6.866E-01	9.161E-01	1.512E-01	-0.572
	+	338.28		5.448E+00	1.587E+00	1.899E+00	1.999E-01	2.869
		445.03		-5.825E-01	1.941E+00	3.178E+00	3.325E-01	-0.183
RN-219		271.23		4.813E-01	2.336E-01	3.997E-01	3.204E-02	1.204
		401.81	*	-1.900E-01	3.402E-01	5.548E-01	7.552E-02	-0.343
RN-220		549.76	*	1.057E+01	2.322E+01	3.861E+01	2.653E+00	0.274
RA-223		81.07		2.128E-01	5.794E-01	6.811E-01	5.940E-02	0.312
	+	83.78		1.103E+00	4.322E-01	4.422E-01	3.941E-02	2.496
	+	94.90		3.451E+00	9.340E-01	1.054E+00	8.582E-02	3.273
		122.32		1.251E-02	2.417E+00	3.878E+00	2.634E-01	0.003
	+	144.24		8.235E+00	1.407E+00	1.808E+00	1.262E-01	4.555
		154.21		1.047E-03	4.648E-01	7.888E-01	5.249E-02	0.001
		269.46		1.991E-01	1.816E-01	3.057E-01	1.816E-02	0.651
		323.87	*	-5.243E-01	6.866E-01	9.161E-01	1.512E-01	-0.572
	+	338.28		5.448E+00	1.587E+00	1.899E+00	1.999E-01	2.869
		445.03		-5.825E-01	1.941E+00	3.178E+00	3.325E-01	-0.183
AC-227		79.80		-1.472E-01	4.407E+00	5.132E+00	1.104E+00	-0.029
		236.00		3.671E-01	2.493E-01	3.763E-01	3.882E-02	0.976
		256.20	*	8.377E-01	4.567E-01	6.826E-01	9.481E-02	1.227
		286.10		-2.255E-01	1.467E+00	2.371E+00	2.731E-01	-0.095
	+	299.80		1.852E+00	1.355E+00	2.147E+00	3.492E-01	0.863
		304.40		8.077E-01	1.952E+00	2.810E+00	4.855E-01	0.287
		334.20		5.977E-01	3.166E+00	3.226E+00	5.913E-01	0.185
TH-227		79.80		-1.472E-01	4.407E+00	5.132E+00	1.118E+00	-0.029
	+	94.00		2.761E+01	9.291E+00	1.522E+01	3.293E+00	1.814
		236.00		3.671E-01	2.485E-01	3.763E-01	3.349E-02	0.976
		256.20	*	8.377E-01	4.636E-01	6.826E-01	1.150E-01	1.227
		286.10		-2.255E-01	1.484E+00	2.371E+00	2.375E+00	-0.095
	+	299.80		1.852E+00	1.355E+00	2.147E+00	3.492E-01	0.863
		304.40		8.077E-01	1.952E+00	2.810E+00	4.855E-01	0.287
		334.20		5.977E-01	3.166E+00	3.226E+00	5.913E-01	0.185
TH-229		85.43		1.894E-01	4.272E-01	6.301E-01	5.695E-02	0.301
		88.47		2.164E-01	3.129E-01	3.672E-01	3.364E-02	0.589
	+	100.00		4.724E+00	6.176E-01	6.219E-01	4.682E-02	7.595
		193.63	*	2.883E-02	5.328E-01	8.921E-01	4.777E-02	0.032
	+	210.97		1.720E+00	1.181E+00	1.294E+00	7.032E-02	1.329
PA-231		283.67	*	-3.026E-02	1.406E+00	2.285E+00	3.141E-01	-0.013
	+	301.29		7.408E-01	5.342E-01	8.988E-01	9.369E-02	0.824
TH-231		81.07		2.128E-01	5.794E-01	6.811E-01	5.940E-02	0.312
	+	83.78		1.103E+00	4.322E-01	4.422E-01	3.941E-02	2.496
	+	94.90		3.451E+00	9.340E-01	1.054E+00	8.582E-02	3.273
		122.32		1.251E-02	2.417E+00	3.878E+00	2.634E-01	0.003
	+	144.24		8.235E+00	1.407E+00	1.808E+00	1.262E-01	4.555
		154.21		1.047E-03	4.648E-01	7.888E-01	5.249E-02	0.001
		269.46		1.991E-01	1.816E-01	3.057E-01	1.816E-02	0.651
		323.87	*	-5.243E-01	6.866E-01	9.161E-01	1.512E-01	-0.572
	+	338.28		5.448E+00	1.587E+00	1.899E+00	1.999E-01	2.869

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		-5.825E-01	1.941E+00	3.178E+00	3.325E-01	-0.183
PA-233	+	75.28		5.114E+00	6.867E+00	9.783E+00	1.488E+00	0.523
		86.59		2.910E+00	4.002E+00	5.324E+00	1.437E+00	0.547
	+	300.12		5.163E-01	3.749E-01	6.070E-01	8.142E-02	0.851
		311.98	*	1.261E-02	5.863E-02	9.538E-02	5.843E-03	0.132
		340.50		2.150E+00	8.088E-01	1.039E+00	2.385E-01	2.070
		398.62		-2.549E-01	1.736E+00	2.887E+00	7.464E-01	-0.088
		415.76		1.093E+00	1.409E+00	2.391E+00	4.931E-01	0.457
PA-234	+	63.00		1.549E+02	2.414E+01	1.020E+01	1.538E+00	15.182
	+	94.67		2.462E+00	7.015E-01	8.930E-01	1.080E-01	2.757
	+	98.44		2.306E+00	1.306E+00	3.455E-01	1.923E-01	6.674
	+	99.86		1.195E+01	1.563E+00	1.638E+00	1.236E-01	7.299
	+	111.00		1.193E+00	3.668E-01	5.921E-01	6.351E-02	2.015
	+	131.20		1.975E-01	1.890E-01	2.411E-01	1.372E-02	0.819
		152.70		-2.548E-02	4.105E-01	6.476E-01	1.014E-01	-0.039
	+	186.00		6.396E+01	1.971E+01	5.097E+00	1.553E+00	12.547
		226.40		5.625E-01	4.132E-01	6.995E-01	7.986E-02	0.804
		227.20		4.059E-01	4.412E-01	7.462E-01	4.113E-02	0.544
		248.90		-4.785E-01	8.111E-01	1.298E+00	2.781E-01	-0.369
		293.70		2.732E+00	8.742E-01	1.228E+00	1.972E-01	2.225
		369.80		2.441E-01	7.244E-01	1.231E+00	2.564E-01	0.198
		568.70		1.174E+00	9.083E-01	1.540E+00	1.078E-01	0.762
		569.50		2.927E-01	2.457E-01	4.151E-01	2.908E-02	0.705
		574.00		-5.250E-01	1.355E+00	2.097E+00	1.476E-01	-0.250
		699.00		5.245E-01	6.182E-01	1.057E+00	1.995E-01	0.496
		706.10		-2.580E-01	8.668E-01	1.413E+00	6.292E-01	-0.183
		733.00		3.195E-01	4.275E-01	5.382E-01	1.195E-01	0.594
	+	742.81		8.393E+00	6.040E+00	2.847E+00	1.915E+00	2.948
		796.30		1.722E+00	9.145E-01	1.403E+00	3.842E-01	1.228
		805.60		1.295E+00	9.571E-01	1.538E+00	4.766E-01	0.842
		819.60		4.733E-01	1.082E+00	1.798E+00	6.898E-01	0.263
		826.30		-3.065E-01	7.093E-01	1.117E+00	5.033E-01	-0.274
		831.60		5.028E-02	5.131E-01	8.479E-01	2.572E-01	0.059
		876.40		-3.706E-01	8.386E-01	1.189E+00	1.225E+00	-0.312
		880.51		3.780E-01	2.609E-01	4.529E-01	4.984E-02	0.835
		883.24		1.515E-01	2.775E-01	4.350E-01	2.940E-01	0.348
		899.00		-1.114E-01	6.621E-01	1.067E+00	4.727E-01	-0.104
		925.00		5.739E-01	1.026E+00	1.721E+00	1.874E-01	0.334
		926.50		5.698E-02	1.555E-01	2.571E-01	6.719E-02	0.222
	+	946.00	*	5.286E-01	3.760E-01	4.698E-01	9.267E-02	1.125
		949.00		5.776E-01	3.898E-01	6.100E-01	6.406E-02	0.947
		980.50		3.112E-01	5.328E-01	8.967E-01	8.919E-02	0.347
		1394.10		-3.944E-01	7.886E-01	1.143E+00	7.423E-01	-0.345
NP-236	+	94.67		1.867E+00	5.054E-01	6.808E-01	5.562E-02	2.743
	+	98.44		1.743E+00	2.279E-01	2.612E-01	2.012E-02	6.674
	+	111.00		9.024E-01	2.667E-01	4.478E-01	2.946E-02	2.015
		160.31	*	-8.559E-03	1.074E-01	1.603E-01	8.490E-03	-0.053
NP-237		86.50	*	4.379E-01	5.975E-01	7.997E-01	1.804E-01	0.548
	+	95.87		1.487E+01	5.288E+00	3.071E+00	7.502E-01	4.841

Sample ID : G246020011 Acquisition date : 13-FEB-2010 16:56:34

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		3.985E+00	5.210E-01	5.718E-01	4.333E-02	6.969
		117.00	*	1.392E-01	3.102E-01	4.498E-01	2.784E-02	0.310
	+	209.75		1.732E+00	1.190E+00	1.337E+00	7.263E-02	1.295
		228.18		4.646E-02	2.316E-01	3.848E-01	2.123E-02	0.121
		277.60		3.114E-01	1.644E-01	2.827E-01	1.610E-02	1.102
		334.30		3.017E-01	1.792E+00	1.824E+00	1.055E-01	0.165
AM-241		59.54	*	1.114E-01	3.657E-01	5.524E-01	4.581E-02	0.202
CM-243	+	99.55		4.101E+00	5.361E-01	5.884E-01	4.459E-02	6.969
		103.76	*	3.194E-02	1.692E-01	2.458E-01	1.760E-02	0.130
		117.00		1.433E-01	3.191E-01	4.628E-01	2.865E-02	0.310
	+	209.75		1.708E+00	1.173E+00	1.319E+00	7.161E-02	1.295
		228.18		4.695E-02	2.340E-01	3.889E-01	2.145E-02	0.121
		277.60		3.140E-01	1.657E-01	2.851E-01	1.624E-02	1.102
AM-246		798.80		-2.256E-01	1.255E-01	1.851E-01	1.788E-02	-1.219
		1036.00		1.317E-01	1.979E-01	3.457E-01	3.061E-02	0.381
		1062.04		-3.627E-03	1.561E-01	2.543E-01	2.108E-02	-0.014
		1078.86	*	-5.444E-02	9.622E-02	1.540E-01	1.218E-02	-0.354
CM-247		278.00		1.095E+00	6.838E-01	1.167E+00	6.651E-02	0.938
		287.40		5.751E-01	1.173E+00	1.937E+00	1.108E-01	0.297
		402.60	*	1.201E-02	3.029E-02	5.143E-02	2.995E-03	0.233
CF-249		252.85		-5.026E-01	9.659E-01	1.357E+00	7.620E-02	-0.370
		333.44		-1.595E-04	2.347E-01	2.350E-01	1.359E-02	-0.001
		387.95	*	-6.288E-03	3.442E-02	5.733E-02	3.296E-03	-0.110
CF-251		176.60	*	5.862E-02	1.426E-01	2.420E-01	1.278E-02	0.242
		227.00		2.808E-01	3.943E-01	6.636E-01	3.657E-02	0.423
		285.00		-6.831E-02	1.641E+00	2.664E+00	1.522E-01	-0.026

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020011      *
* Acquisition date : 13-FEB-2010 16:56:34 Detector SN#     :               *
* Detector ID        : GAM18               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:03.65     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID        *
* Sample ID          : G246020011           Analyst initials: MXR1         *
* Batch Number       : 948751               Sample Quantity : 1.6057E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :     0.000            MSD Isotope     :                *
* LCS DPM          :     0.000            LCS Isotope     :                *
* LCSD DPM         :     0.000            LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.382E+01	2.076E+00	3.227E-01	0.000E+00
NB-95	8.078E-01	1.178E-01	5.934E-02	0.000E+00
BA-137M	1.106E-01	4.426E-02	5.400E-02	0.000E+00
CS-137	1.169E-01	4.679E-02	5.708E-02	0.000E+00
CE-144	3.891E-01	3.681E-01	4.536E-01	0.000E+00
LU-177	3.031E+00	2.040E+00	2.353E+00	0.000E+00
TL-208	3.898E-01	6.590E-02	4.646E-02	0.000E+00
BI-211	2.666E+00	3.790E-01	3.000E-01	0.000E+00
BI-212	8.425E-01	3.786E-01	4.147E-01	0.000E+00
PB-212	1.127E+00	1.165E-01	9.598E-02	0.000E+00
PO-212	1.127E+00	1.165E-01	9.598E-02	0.000E+00
BI-214	8.686E-01	1.314E-01	9.308E-02	0.000E+00
PB-214	9.274E-01	1.401E-01	1.045E-01	0.000E+00
PO-214	9.274E-01	1.401E-01	1.045E-01	0.000E+00
PO-216	1.127E+00	1.165E-01	9.598E-02	0.000E+00
PO-218	9.274E-01	1.401E-01	1.045E-01	0.000E+00
RA-224	3.501E+00	1.096E+00	1.091E+00	0.000E+00
RA-226	8.686E-01	1.314E-01	9.308E-02	0.000E+00
AC-228	1.117E+00	2.556E-01	1.657E-01	0.000E+00
RA-228	1.117E+00	2.556E-01	1.657E-01	0.000E+00
TH-228	1.146E+00	1.185E-01	9.764E-02	0.000E+00
TH-230	8.686E-01	1.314E-01	9.308E-02	0.000E+00
U-231	2.378E+01	6.307E+00	4.117E+00	0.000E+00
TH-232	1.117E+00	2.556E-01	1.657E-01	0.000E+00
PA-234M	2.145E+02	2.544E+01	5.273E+00	0.000E+00
TH-234	1.329E+02	2.352E+01	4.501E+00	0.000E+00
U-234	8.686E-01	1.314E-01	9.308E-02	0.000E+00
U-235	2.541E+00	5.599E-01	4.461E-01	0.000E+00
U-238	1.329E+02	2.352E+01	4.501E+00	0.000E+00
AM-243	9.764E-02	1.279E-01	1.968E-01	0.000E+00
ANH-511	1.004E-01	5.564E-02	4.101E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	4.464E-02	2.765E-01	4.892E-01	0.000E+00	NOT IDENT.
NA-22	-4.605E-02	3.072E-02	4.603E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.371E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.516E-03	1.694E-02	2.913E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	8.852E-02	1.273E-01	0.000E+00	FAIL ABUN
SC-46	-1.707E-02	3.080E-02	5.076E-02	0.000E+00	FAIL ABUN
V-48	2.208E-02	5.598E-02	9.701E-02	0.000E+00	NOT IDENT.
CR-51	1.506E-01	3.641E-01	6.411E-01	0.000E+00	NOT IDENT.
MN-52	2.317E-01	2.099E-01	3.871E-01	0.000E+00	NOT IDENT.
MN-54	2.995E-02	3.009E-02	5.422E-02	0.000E+00	NOT IDENT.
CO-56	-4.133E-02	3.199E-02	5.039E-02	0.000E+00	FAIL ABUN
CO-57	3.599E-03	3.452E-02	6.141E-02	0.000E+00	NOT IDENT.
CO-58	-2.719E-02	3.366E-02	5.556E-02	0.000E+00	NOT IDENT.
FE-59	-7.514E-02	6.356E-02	1.006E-01	0.000E+00	FAIL ABUN
CO-60	-1.361E-02	2.605E-02	4.193E-02	0.000E+00	NOT IDENT.
ZN-65	8.050E-02	6.578E-02	1.083E-01	0.000E+00	NOT IDENT.
GE-68	-1.894E-01	8.291E-01	1.416E+00	0.000E+00	NOT IDENT.
AS-73	3.959E-01	1.829E+00	3.489E+00	0.000E+00	NOT IDENT.
AS-74	6.155E-03	8.204E-02	1.408E-01	0.000E+00	NOT IDENT.
SE-75	-2.895E-03	4.246E-02	7.503E-02	0.000E+00	NOT IDENT.
BR-77	-7.650E+00	1.604E+01	2.729E+01	0.000E+00	FAIL ABUN
SR-82	-3.249E-01	3.642E-01	5.891E-01	0.000E+00	NOT IDENT.
RB-83	-2.994E-02	5.856E-02	9.944E-02	0.000E+00	NOT IDENT.
RB-84	9.294E-02	6.746E-02	1.220E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.620E+00	1.117E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.470E-02	5.853E-02	0.000E+00	NOT IDENT.
RB-86	-2.878E-01	5.624E-01	9.411E-01	0.000E+00	NOT IDENT.
Y-88	-3.301E-02	2.576E-02	3.585E-02	0.000E+00	NOT IDENT.
ZR-88	-1.052E-02	2.628E-02	4.646E-02	0.000E+00	NOT IDENT.
Y-91	-1.038E+00	1.341E+01	2.285E+01	0.000E+00	NOT IDENT.
NB-94	-3.118E-03	2.806E-02	4.910E-02	0.000E+00	NOT IDENT.
NB-95M	5.802E-04	1.315E-01	2.068E-01	0.000E+00	NOT IDENT.
ZR-95	1.490E-02	6.415E-02	1.080E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.039E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.341E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	0.000E+00	2.281E+01	3.690E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.767E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.782E-02	3.388E-02	5.954E-02	0.000E+00	NOT IDENT.
RH-102	1.689E-02	2.466E-02	4.456E-02	0.000E+00	FAIL ABUN
RU-103	1.537E-02	3.676E-02	6.534E-02	0.000E+00	FAIL ABUN
RH-106	2.090E-02	2.590E-01	4.432E-01	0.000E+00	FAIL ABUN
RU-106	2.090E-02	2.590E-01	4.432E-01	0.000E+00	FAIL ABUN
AG-108M	-2.105E-02	2.740E-02	4.708E-02	0.000E+00	NOT IDENT.
CD-109	2.183E+00	2.282E+00	3.003E+00	0.000E+00	NOT IDENT.
AG-110M	1.037E-02	3.227E-02	5.040E-02	0.000E+00	NOT IDENT.
IN-111	1.122E+00	1.898E+00	3.041E+00	0.000E+00	NOT IDENT.
IN-113M	7.517E-03	3.812E-02	6.894E-02	0.000E+00	NOT IDENT.
SN-113	7.517E-03	3.812E-02	6.894E-02	0.000E+00	NOT IDENT.
IN-114M	8.638E-02	2.110E-01	3.446E-01	0.000E+00	NOT IDENT.
CD-115	-5.301E+00	1.762E+01	3.018E+01	0.000E+00	NOT IDENT.
SN-117M	8.416E-03	8.005E-02	1.320E-01	0.000E+00	NOT IDENT.
SB-122	-1.552E+00	3.091E+00	5.206E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.065E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.020E-02	3.776E-02	6.294E-02	0.000E+00	NOT IDENT.
I-124	-8.180E-02	9.040E-01	1.323E+00	0.000E+00	FAIL ABUN
SB-124	2.367E-02	5.009E-02	8.978E-02	0.000E+00	FAIL ABUN
SB-125	-3.649E-02	7.488E-02	1.305E-01	0.000E+00	FAIL ABUN
TE-125M	0.000E+00	1.742E+01	2.872E+01	0.000E+00	NOT IDENT.
I-126	-8.893E-03	1.989E-01	3.029E-01	0.000E+00	NOT IDENT.
SB-126	1.376E-01	2.016E-01	2.306E-01	0.000E+00	FAIL ABUN
SN-126	9.385E-02	2.261E-01	2.945E-01	0.000E+00	FAIL ABUN
SB-127	-4.147E-01	1.604E+00	2.793E+00	0.000E+00	NOT IDENT.
XE-127	-2.504E-03	5.620E-02	8.980E-02	0.000E+00	FAIL ABUN
I-131	-5.396E-02	1.139E-01	2.025E-01	0.000E+00	NOT IDENT.
TE-132	2.293E-01	1.083E+00	1.957E+00	0.000E+00	FAIL ABUN
BA-133	-3.081E-03	4.390E-02	6.535E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.717E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	4.048E-02	7.445E-02	0.000E+00	NOT IDENT.
CS-135	-2.913E-02	1.486E-01	2.611E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.940E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.486E-02	8.256E-02	1.372E-01	0.000E+00	FAIL ABUN
CE-139	6.224E-02	3.767E-02	6.431E-02	0.000E+00	NOT IDENT.
BA-140	3.086E-02	2.442E-01	4.255E-01	0.000E+00	FAIL ABUN
LA-140	4.178E-02	6.185E-02	1.127E-01	0.000E+00	FAIL ABUN

CE-141	0.000E+00	1.037E-01	1.758E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.319E+02	0.000E+00	0.000E+00	SHORT HLIF
PM-144	-1.743E-02	2.962E-02	5.075E-02	0.000E+00	NOT IDENT.
PR-144	-1.183E+00	2.009E+00	3.443E+00	0.000E+00	NOT IDENT.
PM-146	-1.738E-02	3.725E-02	6.451E-02	0.000E+00	NOT IDENT.
ND-147	9.714E-02	5.316E-01	9.305E-01	0.000E+00	NOT IDENT.
PM-149	-4.663E+01	1.645E+02	2.860E+02	0.000E+00	NOT IDENT.
EU-152	1.259E-02	9.838E-02	1.487E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	2.519E-01	3.091E-01	0.000E+00	FAIL ABUN
EU-154	-1.454E-01	8.749E-02	1.281E-01	0.000E+00	NOT IDENT.
EU-155	8.206E-02	1.662E-01	3.014E-01	0.000E+00	NOT IDENT.
TB-160	1.726E-01	1.271E-01	2.303E-01	0.000E+00	FAIL ABUN
HO-166M	-1.971E-02	5.403E-02	8.612E-02	0.000E+00	NOT IDENT.
TM-171	-9.829E+01	5.711E+01	9.144E+01	0.000E+00	NOT IDENT.
LU-176	2.394E-03	2.240E-02	3.920E-02	0.000E+00	NOT IDENT.
LU-177M	1.241E-02	1.472E-01	2.636E-01	0.000E+00	NOT IDENT.
HF-181	-1.297E-02	3.645E-02	6.296E-02	0.000E+00	FAIL ABUN
W-181	0.000E+00	1.100E+00	1.681E+00	0.000E+00	NOT IDENT.
TA-182	-4.244E-02	1.328E-01	2.222E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.586E-01	2.746E-01	0.000E+00	FAIL ABUN
RE-184	-1.351E-01	2.544E-01	3.876E-01	0.000E+00	NOT IDENT.
OS-185	7.996E-03	3.672E-02	6.298E-02	0.000E+00	NOT IDENT.
RE-188	-3.312E-02	2.007E-01	3.731E-01	0.000E+00	NOT IDENT.
W-188	-8.749E-01	7.835E+00	1.195E+01	0.000E+00	FAIL ABUN
IR-192	2.563E-02	3.306E-02	5.896E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	7.350E-01	9.314E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.428E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.417E+00	1.393E+01	2.289E+01	0.000E+00	NOT IDENT.
TL-202	2.222E-02	6.602E-02	1.186E-01	0.000E+00	NOT IDENT.
HG-203	1.512E-02	3.805E-02	6.786E-02	0.000E+00	FAIL ABUN
BI-207	4.024E-03	3.504E-02	5.996E-02	0.000E+00	FAIL ABUN
TL-207	-5.243E-01	6.729E-01	9.671E-01	0.000E+00	FAIL ABUN
PO-209	7.369E-02	5.677E+00	9.706E+00	0.000E+00	NOT IDENT.
BI-210	6.981E+00	8.070E+00	1.561E+01	0.000E+00	NOT IDENT.
PB-210	6.981E+00	8.070E+00	1.561E+01	0.000E+00	NOT IDENT.
PO-210	6.981E+00	8.065E+00	1.561E+01	0.000E+00	NOT IDENT.
PB-211	-5.581E-01	8.267E-01	1.309E+00	0.000E+00	NOT IDENT.
PO-215	-5.243E-01	6.729E-01	9.671E-01	0.000E+00	FAIL ABUN
RN-219	-1.900E-01	3.334E-01	5.821E-01	0.000E+00	NOT IDENT.
RN-220	1.057E+01	2.275E+01	4.015E+01	0.000E+00	NOT IDENT.
RA-223	-5.243E-01	6.729E-01	9.671E-01	0.000E+00	FAIL ABUN
AC-227	0.000E+00	4.475E-01	7.253E-01	0.000E+00	FAIL ABUN
TH-227	0.000E+00	4.543E-01	7.253E-01	0.000E+00	FAIL ABUN
TH-229	2.883E-02	5.222E-01	9.552E-01	0.000E+00	FAIL ABUN
PA-231	-3.026E-02	1.378E+00	2.421E+00	0.000E+00	FAIL ABUN
TH-231	-5.243E-01	6.729E-01	9.671E-01	0.000E+00	FAIL ABUN
PA-233	1.261E-02	5.745E-02	1.008E-01	0.000E+00	FAIL ABUN
PA-234	0.000E+00	3.685E-01	4.808E-01	0.000E+00	FAIL ABUN
NP-236	-8.559E-03	1.053E-01	1.725E-01	0.000E+00	FAIL ABUN
NP-237	4.379E-01	5.856E-01	8.748E-01	0.000E+00	FAIL ABUN
NP-239	1.392E-01	3.040E-01	4.881E-01	0.000E+00	FAIL ABUN
AM-241	1.114E-01	3.584E-01	6.101E-01	0.000E+00	NOT IDENT.
CM-243	3.194E-02	1.658E-01	2.676E-01	0.000E+00	FAIL ABUN
AM-246	-5.444E-02	9.430E-02	1.570E-01	0.000E+00	NOT IDENT.
CM-247	1.201E-02	2.969E-02	5.396E-02	0.000E+00	NOT IDENT.
CF-249	-6.288E-03	3.373E-02	6.022E-02	0.000E+00	NOT IDENT.
CF-251	5.862E-02	1.398E-01	2.598E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:57:48.83

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020011.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:56:34
Sample ID         : G246020011           Sample quantity  : 1.60570E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.65  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2058	10.67*	1.893E+00	2.382E+01	2.382E+01	8.89
NB-95	765.79	916	99.81*	3.203E+00	6.702E-01	8.078E-01	14.89
BA-137M	661.65	153	89.98*	3.588E+00	1.105E-01	1.106E-01	40.84
CS-137	661.65	153	85.12*	3.588E+00	1.168E-01	1.169E-01	40.84
CE-144	80.11	------	1.60	5.630E+00	------ Line Not Found		------
	133.54	142	10.80*	8.256E+00	3.730E-01	3.891E-01	96.55
LU-177	112.95	1331	6.40	8.000E+00	6.075E+00	3.609E+01	13.17
	208.36	174	11.00*	7.254E+00	5.103E-01	3.031E+00	68.68
TL-208	277.35	------	6.80	6.258E+00	------ Line Not Found		------
	510.84	185	21.60	4.310E+00	4.647E-01	4.647E-01	57.17
	583.14	552	84.20*	3.934E+00	3.898E-01	3.898E-01	17.25
	860.37	------	12.46	2.915E+00	------ Line Not Found		------
BI-211	72.87	132	1.27	4.794E+00	5.074E+00	5.074E+00	133.68
	351.07	805	12.94*	5.452E+00	2.666E+00	2.666E+00	14.50
BI-212	727.18	142	11.80*	3.339E+00	8.425E-01	8.425E-01	45.86
	785.46	108	1.97	3.137E+00	4.100E+00	4.100E+00	61.59
	1620.62	------	2.75	1.770E+00	------ Line Not Found		------
PB-212	74.81	132	10.70	4.794E+00	6.022E-01	6.022E-01	134.00
	77.11	454	18.00	5.269E+00	1.119E+00	1.119E+00	43.74
	87.30	------	8.00	6.447E+00	------ Line Not Found		------
	238.63	1460	44.60*	6.792E+00	1.127E+00	1.127E+00	10.55
	300.09	87	3.41	5.987E+00	9.994E-01	9.994E-01	71.82
PO-212	74.81	132	10.70	4.794E+00	6.022E-01	6.022E-01	134.00
	77.11	454	18.00	5.269E+00	1.119E+00	1.119E+00	43.74
	87.30	------	8.00	6.447E+00	------ Line Not Found		------
	115.19	------	0.60	8.058E+00	------ Line Not Found		------
	238.63	1460	44.60*	6.792E+00	1.127E+00	1.127E+00	10.55
	300.09	87	3.41	5.987E+00	9.994E-01	9.994E-01	71.82
BI-214	609.31	656	46.30*	3.812E+00	8.686E-01	8.686E-01	15.43
	1120.29	159	15.10	2.335E+00	1.055E+00	1.055E+00	32.91
	1764.49	138	15.80	1.695E+00	1.206E+00	1.206E+00	27.16
PB-214	74.81	132	6.21	4.794E+00	1.038E+00	1.038E+00	133.88

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	454	10.50	5.269E+00	1.918E+00	1.918E+00	44.39
	87.30	------	4.67	6.447E+00	------ Line Not Found		------
	241.98	399	7.49	6.746E+00	1.847E+00	1.847E+00	32.44
	295.21	501	19.20	6.039E+00	1.009E+00	1.010E+00	21.73
	351.92	805	37.20*	5.452E+00	9.274E-01	9.274E-01	15.42
PO-214	74.81	132	6.21	4.794E+00	1.038E+00	1.038E+00	133.88
	77.11	454	10.50	5.269E+00	1.918E+00	1.918E+00	44.39
	87.30	------	4.67	6.447E+00	------ Line Not Found		------
	241.98	399	7.49	6.746E+00	1.847E+00	1.847E+00	32.44
	295.21	501	19.20	6.039E+00	1.009E+00	1.010E+00	21.73
	351.92	805	37.20*	5.452E+00	9.274E-01	9.274E-01	15.42
PO-216	74.81	132	10.70	4.794E+00	6.022E-01	6.022E-01	134.00
	77.11	454	18.00	5.269E+00	1.119E+00	1.119E+00	43.74
	87.30	------	8.00	6.447E+00	------ Line Not Found		------
	238.63	1460	44.60*	6.792E+00	1.127E+00	1.127E+00	10.55
	300.09	87	3.41	5.987E+00	9.994E-01	9.994E-01	71.82
PO-218	74.81	132	6.21	4.794E+00	1.038E+00	1.038E+00	133.88
	77.11	454	10.50	5.269E+00	1.918E+00	1.918E+00	44.39
	87.30	------	4.67	6.447E+00	------ Line Not Found		------
	241.98	399	7.49	6.746E+00	1.847E+00	1.847E+00	32.44
	295.21	501	19.20	6.039E+00	1.009E+00	1.010E+00	21.73
	351.92	805	37.20*	5.452E+00	9.274E-01	9.274E-01	15.42
RA-224	240.98	399	3.95*	6.746E+00	3.501E+00	3.501E+00	31.95
RA-226	609.31	656	46.30*	3.812E+00	8.686E-01	8.686E-01	15.43
	1120.29	159	15.10	2.335E+00	1.055E+00	1.055E+00	32.91
	1764.49	138	15.80	1.695E+00	1.206E+00	1.206E+00	27.16
AC-228	338.32	355	11.40	5.576E+00	1.305E+00	1.305E+00	48.98
	911.07	368	27.70*	2.780E+00	1.117E+00	1.117E+00	23.35
	969.11	178	16.60	2.639E+00	9.520E-01	9.520E-01	34.21
RA-228	338.32	355	11.40	5.576E+00	1.305E+00	1.305E+00	48.98
	911.07	368	27.70*	2.780E+00	1.117E+00	1.117E+00	23.35
	969.11	178	16.60	2.639E+00	9.520E-01	9.520E-01	34.21
TH-228	74.81	132	10.70	4.794E+00	6.022E-01	6.127E-01	133.68
	77.11	454	18.00	5.269E+00	1.119E+00	1.138E+00	43.74
	87.30	------	8.00	6.447E+00	------ Line Not Found		------
	238.63	1460	44.60*	6.792E+00	1.127E+00	1.146E+00	10.55
	300.09	87	3.41	5.987E+00	9.994E-01	1.017E+00	92.54
TH-230	609.31	656	46.30*	3.812E+00	8.686E-01	8.686E-01	15.43
	1120.29	159	15.10	2.335E+00	1.055E+00	1.055E+00	32.91
	1764.49	138	15.80	1.695E+00	1.206E+00	1.206E+00	27.16
U-231	84.21	708	7.00	6.076E+00	3.894E+00	6.707E+01	39.16
	92.29	21761	17.30	6.945E+00	4.234E+01	7.294E+02	8.59
	95.87	1175	28.00*	7.108E+00	1.381E+00	2.378E+01	27.06
	108.00	------	13.10	7.835E+00	------ Line Not Found		------
TH-232	338.32	355	11.40	5.576E+00	1.305E+00	1.305E+00	27.77
	911.07	368	27.70*	2.780E+00	1.117E+00	1.117E+00	23.35
	969.11	178	16.60	2.639E+00	9.520E-01	9.520E-01	34.21
PA-234M	766.42	916	0.32	3.203E+00	2.090E+02	2.090E+02	52.17
	1001.03	1980	0.84*	2.568E+00	2.145E+02	2.145E+02	12.10

Sample ID : G246020011 Acquisition date : 13-FEB-2010 16:56:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
TH-234	63.29	6722	3.80*	3.112E+00	1.329E+02	1.329E+02	18.06
	92.38	21761	5.41	6.945E+00	1.354E+02	1.354E+02	18.07
U-234	609.31	656	46.30*	3.812E+00	8.686E-01	8.686E-01	15.43
	1120.29	159	15.10	2.335E+00	1.055E+00	1.055E+00	32.91
	1764.49	138	15.80	1.695E+00	1.206E+00	1.206E+00	27.16
U-235	89.95	------	2.70	6.701E+00	------ Line Not Found		------
	93.35	21761	4.50	6.945E+00	1.628E+02	1.628E+02	28.02
	105.00	------	2.10	7.709E+00	------ Line Not Found		------
	143.76	938	10.50*	8.221E+00	2.541E+00	2.541E+00	22.48
	163.35	375	4.70	7.997E+00	2.333E+00	2.333E+00	43.25
	185.71	4185	54.00	7.648E+00	2.369E+00	2.369E+00	7.03
	205.31	351	4.70	7.320E+00	2.382E+00	2.382E+00	30.49
U-238	63.29	6722	3.80*	3.112E+00	1.329E+02	1.329E+02	18.06
	92.38	21761	5.41	6.945E+00	1.354E+02	1.354E+02	8.59
AM-243	74.67	132	66.00*	4.794E+00	9.764E-02	9.764E-02	133.68
	86.72	------	0.34	6.388E+00	------ Line Not Found		------
	117.66	------	0.55	8.112E+00	------ Line Not Found		------
	142.18	------	0.13	8.232E+00	------ Line Not Found		------
ANH-511	511.00	185	100.00*	4.310E+00	1.004E-01	1.004E-01	56.56

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G246020011

Acquisition date : 13-FEB-2010 16:56:34

Total number of lines in spectrum 44
Number of unidentified lines 2
Number of lines tentatively identified by NID 42 95.45%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.382E+01	2.382E+01	0.212E+01	8.89	
NB-95	64.02D	1.21	6.702E-01	8.078E-01	1.202E-01	14.89	
BA-137M	30.17Y	1.00	1.105E-01	1.106E-01	0.452E-01	40.84	
CS-137	30.17Y	1.00	1.168E-01	1.169E-01	0.477E-01	40.84	
CE-144	284.30D	1.04	3.730E-01	3.891E-01	3.756E-01	96.55	
LU-177	6.71D	5.94	5.103E-01	3.031E+00	2.082E+00	68.68	
TL-208	1.41E+10Y	1.00	3.898E-01	3.898E-01	0.672E-01	17.25	
BI-211	7.04E+08Y	1.00	2.666E+00	2.666E+00	0.387E+00	14.50	
BI-212	1.41E+10Y	1.00	8.425E-01	8.425E-01	3.863E-01	45.86	
PB-212	1.41E+10Y	1.00	1.127E+00	1.127E+00	0.119E+00	10.55	
PO-212	1.41E+10Y	1.00	1.127E+00	1.127E+00	0.119E+00	10.55	
BI-214	1600.00Y	1.00	8.686E-01	8.686E-01	1.341E-01	15.43	
PB-214	1600.00Y	1.00	9.274E-01	9.274E-01	1.430E-01	15.42	
PO-214	1600.00Y	1.00	9.274E-01	9.274E-01	1.430E-01	15.42	
PO-216	1.41E+10Y	1.00	1.127E+00	1.127E+00	0.119E+00	10.55	
PO-218	1600.00Y	1.00	9.274E-01	9.274E-01	1.430E-01	15.42	
RA-224	1.41E+10Y	1.00	3.501E+00	3.501E+00	1.119E+00	31.95	
RA-226	1600.00Y	1.00	8.686E-01	8.686E-01	1.341E-01	15.43	
AC-228	1.41E+10Y	1.00	1.117E+00	1.117E+00	0.261E+00	23.35	
RA-228	1.41E+10Y	1.00	1.117E+00	1.117E+00	0.261E+00	23.35	
TH-228	1.91Y	1.02	1.127E+00	1.146E+00	0.121E+00	10.55	
TH-230	4.47E+09Y	1.00	8.686E-01	8.686E-01	1.341E-01	15.43	
U-231	4.20D	17.2	1.381E+00	2.378E+01	0.644E+01	27.06	
TH-232	1.41E+10Y	1.00	1.117E+00	1.117E+00	0.261E+00	23.35	
PA-234M	4.47E+09Y	1.00	2.145E+02	2.145E+02	0.260E+02	12.10	
TH-234	4.47E+09Y	1.00	1.329E+02	1.329E+02	0.240E+02	18.06	
U-234	4.47E+09Y	1.00	8.686E-01	8.686E-01	1.341E-01	15.43	
U-235	7.04E+08Y	1.00	2.541E+00	2.541E+00	0.571E+00	22.48	
U-238	4.47E+09Y	1.00	1.329E+02	1.329E+02	0.240E+02	18.06	
AM-243	7380.00Y	1.00	9.764E-02	9.764E-02	13.05E-02	133.68	
ANH-511	1.00E+09Y	1.00	1.004E-01	1.004E-01	0.568E-01	56.56	
	Total Activity :		5.316E+02	5.567E+02			

Grand Total Activity : 5.316E+02 5.567E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G246020011

Acquisition date : 13-FEB-2010 16:56:34

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.68	1846	2335	1.11	196.46	193	9	2.56E-01	10.6	7.37E+00	T
6	111.17	479	1695	1.32	221.42	218	12	6.65E-02	28.8	7.95E+00	T
0	258.15	344	707	1.17	515.29	509	11	4.78E-02	31.8	6.51E+00	
0	328.62	190	529	1.61	656.17	649	14	2.65E-02	53.3	5.68E+00	T
0	463.14	68	287	1.42	925.15	920	10	9.46E-03	96.5	4.60E+00	T
0	720.67	41	200	0.49	1440.07	1432	13	5.64E-03	****	3.36E+00	T
0	742.06	283	218	2.18	1482.83	1474	15	3.93E-02	25.6	3.28E+00	T
0	945.80	73	128	1.64	1890.23	1884	13	1.02E-02	68.3	2.69E+00	T
2	964.42	120	113	2.55	1927.46	1920	21	1.66E-02	43.8	2.65E+00	T
0	1237.62	94	97	2.32	2473.77	2465	15	1.30E-02	50.4	2.15E+00	T
0	1376.23	72	34	2.87	2750.95	2741	18	9.97E-03	45.6	1.98E+00	T
0	1736.84	45	8	2.45	3472.13	3463	16	6.20E-03	41.3	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:57:54.31

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020011.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:56:34  Detector SN#     :             *
* Detector ID       : GAM18                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:03.65          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020011            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.60570E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.382E+01	2.118E+00	3.194E-01	2.424E-02	74.557
NB-95	8.078E-01	1.202E-01	5.762E-02	5.271E-03	14.018
BA-137M	1.106E-01	4.517E-02	5.221E-02	3.980E-03	2.118
CS-137	1.169E-01	4.775E-02	5.519E-02	4.217E-03	2.118
CE-144	3.891E-01	3.756E-01	4.194E-01	5.931E-02	0.928
LU-177	3.031E+00	2.082E+00	2.202E+00	1.194E-01	1.376
TL-208	3.898E-01	6.725E-02	4.476E-02	3.509E-03	8.710
BI-211	2.666E+00	3.867E-01	2.848E-01	1.828E-02	9.360
BI-212	8.425E-01	3.863E-01	4.020E-01	4.004E-02	2.096
PB-212	1.127E+00	1.188E-01	9.016E-02	6.441E-03	12.497
PO-212	1.127E+00	1.188E-01	9.016E-02	6.441E-03	12.497
BI-214	8.686E-01	1.341E-01	8.978E-02	8.020E-03	9.675
PB-214	9.274E-01	1.430E-01	9.926E-02	8.211E-03	9.343
PO-214	9.274E-01	1.430E-01	9.926E-02	8.211E-03	9.343
PO-216	1.127E+00	1.188E-01	9.016E-02	6.441E-03	12.497
PO-218	9.274E-01	1.430E-01	9.926E-02	8.211E-03	9.343
RA-224	3.501E+00	1.119E+00	1.025E+00	5.708E-02	3.417
RA-226	8.686E-01	1.341E-01	8.978E-02	8.020E-03	9.675

Sample ID : G246020011 Acquisition date : 13-FEB-2010 16:56:34

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AC-228	1.117E+00	2.609E-01	1.617E-01	2.143E-02	6.907
RA-228	1.117E+00	2.609E-01	1.617E-01	2.143E-02	6.907
TH-228	1.146E+00	1.209E-01	9.171E-02	6.552E-03	12.497
TH-230	8.686E-01	1.341E-01	8.978E-02	8.020E-03	9.675
U-231	2.378E+01	6.436E+00	3.773E+00	3.023E-01	6.303
TH-232	1.117E+00	2.609E-01	1.617E-01	2.143E-02	6.907
PA-234M	2.145E+02	2.596E+01	5.161E+00	5.568E-01	41.565
TH-234	1.329E+02	2.400E+01	4.081E+00	7.195E-01	32.566
U-234	8.686E-01	1.341E-01	8.978E-02	8.020E-03	9.675
U-235	2.541E+00	5.713E-01	4.133E-01	6.693E-02	6.149
U-238	1.329E+02	2.400E+01	4.081E+00	7.195E-01	32.566
AM-243	9.764E-02	1.305E-01	1.792E-01	1.496E-02	0.545
ANH-511	1.004E-01	5.677E-02	3.936E-02	2.599E-03	2.551

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.464E-02		2.822E-01	4.685E-01	3.395E-02	0.095
NA-22	-4.605E-02		3.135E-02	4.538E-02	3.088E-03	-1.015
NA-24	2.268E+00		2.740E+00	Half-Life too short		
AL-26	2.516E-03		1.729E-02	2.902E-02	1.695E-03	0.087
TI-44	2.065E-01	+	9.033E-02	1.161E-01	9.924E-03	1.779
SC-46	-1.707E-02		3.143E-02	4.950E-02	5.521E-03	-0.345
V-48	2.208E-02		5.712E-02	9.489E-02	9.386E-03	0.233
CR-51	1.506E-01		3.715E-01	6.071E-01	3.909E-02	0.248
MN-52	2.317E-01		2.142E-01	3.830E-01	2.822E-02	0.605
MN-54	2.995E-02		3.071E-02	5.278E-02	5.407E-03	0.567
CO-56	-4.133E-02		3.264E-02	4.907E-02	5.123E-03	-0.842
CO-57	3.599E-03		3.522E-02	5.664E-02	3.355E-03	0.064
CO-58	-2.719E-02		3.435E-02	5.404E-02	5.335E-03	-0.503
FE-59	-7.514E-02		6.486E-02	9.875E-02	8.129E-03	-0.761
CO-60	-1.361E-02		2.658E-02	4.139E-02	3.128E-03	-0.329
ZN-65	8.050E-02		6.712E-02	1.063E-01	7.488E-03	0.757
GE-68	-1.894E-01		8.460E-01	1.389E+00	1.104E-01	-0.136
AS-73	3.959E-01		1.866E+00	3.150E+00	2.497E-01	0.126
AS-74	6.155E-03		8.371E-02	1.357E-01	9.749E-03	0.045
SE-75	-2.895E-03		4.332E-02	7.068E-02	4.042E-03	-0.041
BR-77	-7.650E+00		1.637E+01	2.620E+01	1.748E+00	-0.292
SR-82	-3.249E-01		3.716E-01	5.723E-01	5.329E-02	-0.568
RB-83	-2.994E-02		5.976E-02	9.548E-02	6.368E-03	-0.314
RB-84	9.294E-02		6.884E-02	1.190E-01	1.312E-02	0.781
KR-85	1.461E+01		6.755E+00	1.072E+01	7.101E-01	1.363
SR-85	7.657E-02		3.540E-02	5.618E-02	3.722E-03	1.363
RB-86	-2.878E-01		5.739E-01	9.231E-01	7.348E-02	-0.312
Y-88	-3.301E-02		2.629E-02	3.574E-02	2.036E-03	-0.924
ZR-88	-1.052E-02		2.682E-02	4.426E-02	2.545E-03	-0.238
Y-91	-1.038E+00		1.369E+01	2.249E+01	1.330E+00	-0.046

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	-3.118E-03		2.863E-02	4.756E-02	3.902E-03	-0.066
NB-95M	5.802E-04		1.341E-01	1.942E-01	1.425E-02	0.003
ZR-95	1.490E-02		6.546E-02	1.049E-01	1.032E-02	0.142
NB-97	3.280E-01		3.591E-01	Half-Life too short		
ZR-97	3.266E+01		6.842E+00	Half-Life too short		
MO-99	5.487E+01		2.328E+01	3.579E+01	5.462E+00	1.533
TC-99M	-7.411E+12		9.015E+12	Half-Life too short		
RH-101	-3.782E-02		3.457E-02	5.564E-02	2.991E-03	-0.680
RH-102	1.689E-02		2.516E-02	4.267E-02	2.710E-03	0.396
RU-103	1.537E-02		3.751E-02	6.266E-02	8.135E-03	0.245
RH-106	2.090E-02		2.643E-01	4.278E-01	5.382E-02	0.049
RU-106	2.090E-02		2.643E-01	4.278E-01	3.148E-02	0.049
AG-108M	-2.105E-02		2.796E-02	4.497E-02	2.938E-03	-0.468
CD-109	2.183E+00		2.329E+00	2.746E+00	2.539E-01	0.795
AG-110M	1.037E-02		3.292E-02	4.872E-02	3.843E-03	0.213
IN-111	1.122E+00		1.937E+00	2.859E+00	1.598E-01	0.393
IN-113M	7.517E-03		3.890E-02	6.566E-02	4.028E-03	0.114
SN-113	7.517E-03		3.890E-02	6.566E-02	4.028E-03	0.114
IN-114M	8.638E-02		2.153E-01	3.217E-01	1.717E-02	0.269
CD-115	-5.301E+00		1.798E+01	2.899E+01	1.948E+00	-0.183
SN-117M	8.416E-03		8.169E-02	1.226E-01	6.517E-03	0.069
SB-122	-1.552E+00		3.154E+00	5.010E+00	3.491E-01	-0.310
I-123	5.700E+01		5.435E+01	Half-Life too short		
TE-123M	2.020E-02		3.853E-02	5.847E-02	3.155E-03	0.346
I-124	-8.180E-02		9.225E-01	1.276E+00	9.227E-02	-0.064
SB-124	2.367E-02		5.111E-02	8.928E-02	6.160E-03	0.265
SB-125	-3.649E-02		7.641E-02	1.246E-01	7.783E-03	-0.293
TE-125M	3.816E+01		1.777E+01	2.641E+01	2.324E+00	1.445
I-126	-8.893E-03		2.030E-01	2.929E-01	2.252E-02	-0.030
SB-126	1.376E-01	+	2.057E-01	2.236E-01	1.892E-02	0.615
SN-126	9.385E-02		2.307E-01	2.693E-01	2.482E-02	0.348
SB-127	-4.147E-01		1.637E+00	2.703E+00	3.122E-01	-0.153
XE-127	-2.504E-03		5.734E-02	8.398E-02	4.533E-03	-0.030
I-131	-5.396E-02		1.163E-01	1.924E-01	1.246E-02	-0.280
TE-132	2.293E-01		1.105E+00	1.836E+00	2.697E-01	0.125
BA-133	-3.081E-03		4.480E-02	6.207E-02	7.170E-03	-0.050
I-133	-1.575E-02		1.386E-02	Half-Life too short		
CS-134	8.934E-02		4.131E-02	7.237E-02	7.000E-03	1.235
CS-135	-2.913E-02		1.516E-01	2.461E-01	1.860E-02	-0.118
I-135	-5.189E+11		3.541E+11	Half-Life too short		
CS-136	-5.486E-02		8.425E-02	1.345E-01	1.206E-02	-0.408
CE-139	6.224E-02		3.844E-02	5.981E-02	3.140E-03	1.041
BA-140	3.086E-02		2.492E-01	4.089E-01	1.338E-01	0.075
LA-140	4.178E-02		6.312E-02	1.118E-01	7.674E-03	0.374
CE-141	5.292E-01		1.058E-01	1.629E-01	9.302E-03	3.248
CE-143	6.680E-04		2.203E-04	Half-Life too short		
PM-144	-1.743E-02		3.022E-02	4.914E-02	3.990E-03	-0.355
PR-144	-1.183E+00		2.050E+00	3.334E+00	2.705E-01	-0.355

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-1.738E-02		3.801E-02	6.170E-02	5.489E-03	-0.282
ND-147	9.714E-02		5.424E-01	8.939E-01	1.247E-01	0.109
PM-149	-4.663E+01		1.679E+02	2.700E+02	3.821E+01	-0.173
EU-152	1.259E-02		1.004E-01	1.411E-01	9.208E-03	0.089
GD-153	1.966E+00	+	2.571E-01	2.835E-01	2.216E-02	6.937
EU-154	-1.454E-01		8.927E-02	1.263E-01	1.262E-02	-1.151
EU-155	8.206E-02		1.696E-01	2.769E-01	1.980E-02	0.296
TB-160	1.726E-01		1.297E-01	2.245E-01	2.466E-02	0.769
HO-166M	-1.971E-02		5.513E-02	8.344E-02	6.955E-03	-0.236
TM-171	-9.829E+01		5.828E+01	8.303E+01	6.639E+00	-1.184
LU-176	2.394E-03		2.285E-02	3.708E-02	2.135E-03	0.065
LU-177M	1.241E-02		1.502E-01	2.514E-01	1.485E-02	0.049
HF-181	-1.297E-02		3.719E-02	6.032E-02	3.861E-03	-0.215
W-181	8.880E+00		1.123E+00	1.525E+00	1.210E-01	5.823
TA-182	-4.244E-02		1.355E-01	2.188E-01	1.338E-02	-0.194
RE-183	4.252E-01		1.619E-01	2.552E-01	1.347E-02	1.666
RE-184	-1.351E-01		2.596E-01	3.647E-01	2.048E-02	-0.370
OS-185	7.996E-03		3.747E-02	6.085E-02	4.576E-03	0.131
RE-188	-3.312E-02		2.048E-01	3.463E-01	1.853E-02	-0.096
W-188	-8.749E-01		7.995E+00	1.129E+01	6.466E-01	-0.078
IR-192	2.563E-02		3.373E-02	5.582E-02	3.237E-03	0.459
AU-195	5.736E+00	+	7.500E-01	8.544E-01	6.537E-02	6.714
TL-200	-4.106E-04		7.284E-04	Half-Life too short		
TL-201	2.417E+00		1.422E+01	2.129E+01	1.118E+00	0.114
TL-202	2.222E-02		6.736E-02	1.133E-01	6.909E-03	0.196
HG-203	1.512E-02		3.883E-02	6.402E-02	3.883E-03	0.236
BI-207	4.024E-03		3.576E-02	5.879E-02	4.853E-03	0.068
TL-207	-5.243E-01		6.866E-01	9.161E-01	1.512E-01	-0.572
PO-209	7.369E-02		5.793E+00	9.468E+00	1.068E+00	0.008
BI-210	6.981E+00		8.234E+00	1.404E+01	1.086E+00	0.497
PB-210	6.981E+00		8.234E+00	1.404E+01	1.086E+00	0.497
PO-210	6.981E+00		8.230E+00	1.404E+01	9.339E-01	0.497
PB-211	-5.581E-01		8.435E-01	1.247E+00	7.777E-01	-0.447
PO-215	-5.243E-01		6.866E-01	9.161E-01	1.512E-01	-0.572
RN-219	-1.900E-01		3.402E-01	5.548E-01	7.552E-02	-0.343
RN-220	1.057E+01		2.322E+01	3.861E+01	2.653E+00	0.274
RA-223	-5.243E-01		6.866E-01	9.161E-01	1.512E-01	-0.572
AC-227	8.377E-01		4.567E-01	6.826E-01	9.481E-02	1.227
TH-227	8.377E-01		4.636E-01	6.826E-01	1.150E-01	1.227
TH-229	2.883E-02		5.328E-01	8.921E-01	4.777E-02	0.032
PA-231	-3.026E-02		1.406E+00	2.285E+00	3.141E-01	-0.013
TH-231	-5.243E-01		6.866E-01	9.161E-01	1.512E-01	-0.572
PA-233	1.261E-02		5.863E-02	9.538E-02	5.843E-03	0.132
PA-234	5.286E-01	+	3.760E-01	4.698E-01	9.267E-02	1.125
NP-236	-8.559E-03		1.074E-01	1.603E-01	8.490E-03	-0.053
NP-237	4.379E-01		5.975E-01	7.997E-01	1.804E-01	0.548
NP-239	1.392E-01		3.102E-01	4.498E-01	2.784E-02	0.310
AM-241	1.114E-01		3.657E-01	5.524E-01	4.581E-02	0.202

Sample ID : G246020011 Acquisition date : 13-FEB-2010 16:56:34

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.194E-02		1.692E-01	2.458E-01	1.760E-02	0.130
AM-246	-5.444E-02		9.622E-02	1.540E-01	1.218E-02	-0.354
CM-247	1.201E-02		3.029E-02	5.143E-02	2.995E-03	0.233
CF-249	-6.288E-03		3.442E-02	5.733E-02	3.296E-03	-0.110
CF-251	5.862E-02		1.426E-01	2.420E-01	1.278E-02	0.242

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020011       *
* Acquisition date  : 13-FEB-2010 16:56:34 Detector SN#     :           *
* Detector ID       : GAM18                Sensitivity      : 5.000     *
* Geometry          : CAN                  Energy tolerance: 1.500      *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000     *
* Elapsed real time:    0 02:00:03.65      Half life ratio : 8.000      *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID      *
* Sample ID         : G246020011           Analyst initials: MXR1       *
* Batch Number      : 948751               Sample Quantity : 1.6057E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000  *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
*                                                                       *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.382E+01	2.076E+00	1.614E-01	1.059E+00
NB-95	8.078E-01	1.178E-01	2.969E-02	6.012E-02
BA-137M	1.106E-01	4.426E-02	2.702E-02	2.258E-02
CS-137	1.169E-01	4.679E-02	2.856E-02	2.387E-02
CE-144	3.891E-01	3.681E-01	2.269E-01	1.878E-01
LU-177	3.031E+00	2.040E+00	1.177E+00	1.041E+00
TL-208	3.898E-01	6.590E-02	2.325E-02	3.362E-02
BI-211	2.666E+00	3.790E-01	1.501E-01	1.934E-01
BI-212	8.425E-01	3.786E-01	2.075E-01	1.932E-01
PB-212	1.127E+00	1.165E-01	4.802E-02	5.942E-02
PO-212	1.127E+00	1.165E-01	4.802E-02	5.942E-02
BI-214	8.686E-01	1.314E-01	4.657E-02	6.704E-02
PB-214	9.274E-01	1.401E-01	5.230E-02	7.148E-02
PO-214	9.274E-01	1.401E-01	5.230E-02	7.148E-02
PO-216	1.127E+00	1.165E-01	4.802E-02	5.942E-02
PO-218	9.274E-01	1.401E-01	5.230E-02	7.148E-02
RA-224	3.501E+00	1.096E+00	5.456E-01	5.594E-01
RA-226	8.686E-01	1.314E-01	4.657E-02	6.704E-02
AC-228	1.117E+00	2.556E-01	8.290E-02	1.304E-01
RA-228	1.117E+00	2.556E-01	8.290E-02	1.304E-01
TH-228	1.146E+00	1.185E-01	4.885E-02	6.044E-02
TH-230	8.686E-01	1.314E-01	4.657E-02	6.703E-02
U-231	2.378E+01	6.307E+00	2.060E+00	3.218E+00
TH-232	1.117E+00	2.556E-01	8.290E-02	1.304E-01
PA-234M	2.145E+02	2.544E+01	2.638E+00	1.298E+01
TH-234	1.329E+02	2.352E+01	2.252E+00	1.200E+01
U-234	8.686E-01	1.314E-01	4.657E-02	6.703E-02
U-235	2.541E+00	5.599E-01	2.232E-01	2.857E-01
U-238	1.329E+02	2.352E+01	2.252E+00	1.200E+01
AM-243	9.764E-02	1.279E-01	9.847E-02	6.526E-02
ANH-511	1.004E-01	5.564E-02	2.052E-02	2.839E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	4.464E-02	2.765E-01	2.447E-01	1.411E-01	NOT IDENT.
NA-22	-4.605E-02	3.072E-02	2.303E-02	1.567E-02	NOT IDENT.
NA-24	2.268E+06	5.371E+06	0.000E+00	2.740E+06	SHORT HLIF
AL-26	2.516E-03	1.694E-02	1.457E-02	8.643E-03	NOT IDENT.
TI-44	2.065E-01	8.852E-02	6.369E-02	4.516E-02	FAIL ABUN
SC-46	-1.707E-02	3.080E-02	2.539E-02	1.571E-02	FAIL ABUN
V-48	2.208E-02	5.598E-02	4.853E-02	2.856E-02	NOT IDENT.
CR-51	1.506E-01	3.641E-01	3.207E-01	1.858E-01	NOT IDENT.
MN-52	2.317E-01	2.099E-01	1.937E-01	1.071E-01	NOT IDENT.
MN-54	2.995E-02	3.009E-02	2.713E-02	1.535E-02	NOT IDENT.
CO-56	-4.133E-02	3.199E-02	2.521E-02	1.632E-02	FAIL ABUN
CO-57	3.599E-03	3.452E-02	3.072E-02	1.761E-02	NOT IDENT.
CO-58	-2.719E-02	3.366E-02	2.780E-02	1.718E-02	NOT IDENT.
FE-59	-7.514E-02	6.356E-02	5.034E-02	3.243E-02	FAIL ABUN
CO-60	-1.361E-02	2.605E-02	2.098E-02	1.329E-02	NOT IDENT.
ZN-65	8.050E-02	6.578E-02	5.416E-02	3.356E-02	NOT IDENT.
GE-68	-1.894E-01	8.291E-01	7.086E-01	4.230E-01	NOT IDENT.
AS-73	3.959E-01	1.829E+00	1.745E+00	9.331E-01	NOT IDENT.
AS-74	6.155E-03	8.204E-02	7.042E-02	4.186E-02	NOT IDENT.
SE-75	-2.895E-03	4.246E-02	3.754E-02	2.166E-02	NOT IDENT.
BR-77	-7.650E+00	1.604E+01	1.365E+01	8.186E+00	FAIL ABUN
SR-82	-3.249E-01	3.642E-01	2.947E-01	1.858E-01	NOT IDENT.
RB-83	-2.994E-02	5.856E-02	4.975E-02	2.988E-02	NOT IDENT.
RB-84	9.294E-02	6.746E-02	6.106E-02	3.442E-02	NOT IDENT.
KR-85	1.461E+01	6.620E+00	5.587E+00	3.377E+00	NOT IDENT.
SR-85	7.657E-02	3.470E-02	2.928E-02	1.770E-02	NOT IDENT.
RB-86	-2.878E-01	5.624E-01	4.708E-01	2.870E-01	NOT IDENT.
Y-88	-3.301E-02	2.576E-02	1.794E-02	1.314E-02	NOT IDENT.
ZR-88	-1.052E-02	2.628E-02	2.325E-02	1.341E-02	NOT IDENT.
Y-91	-1.038E+00	1.341E+01	1.143E+01	6.843E+00	NOT IDENT.
NB-94	-3.118E-03	2.806E-02	2.457E-02	1.432E-02	NOT IDENT.
NB-95M	5.802E-04	1.315E-01	1.035E-01	6.707E-02	NOT IDENT.
ZR-95	1.490E-02	6.415E-02	5.405E-02	3.273E-02	NOT IDENT.
NB-97	3.280E+05	7.039E+05	0.000E+00	3.591E+05	SHORT HLIF
ZR-97	3.266E+07	1.341E+07	0.000E+00	6.842E+06	SHORT HLIF
MO-99	5.487E+01	2.281E+01	1.846E+01	1.164E+01	NOT IDENT.
TC-99M	-7.411E+18	1.767E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.782E-02	3.388E-02	2.979E-02	1.728E-02	NOT IDENT.
RH-102	1.689E-02	2.466E-02	2.229E-02	1.258E-02	FAIL ABUN
RU-103	1.537E-02	3.676E-02	3.269E-02	1.875E-02	FAIL ABUN
RH-106	2.090E-02	2.590E-01	2.218E-01	1.321E-01	FAIL ABUN
RU-106	2.090E-02	2.590E-01	2.218E-01	1.321E-01	FAIL ABUN
AG-108M	-2.105E-02	2.740E-02	2.355E-02	1.398E-02	NOT IDENT.
CD-109	2.183E+00	2.282E+00	1.502E+00	1.164E+00	NOT IDENT.
AG-110M	1.037E-02	3.227E-02	2.521E-02	1.646E-02	NOT IDENT.
IN-111	1.122E+00	1.898E+00	1.521E+00	9.684E-01	NOT IDENT.
IN-113M	7.517E-03	3.812E-02	3.449E-02	1.945E-02	NOT IDENT.
SN-113	7.517E-03	3.812E-02	3.449E-02	1.945E-02	NOT IDENT.
IN-114M	8.638E-02	2.110E-01	1.724E-01	1.076E-01	NOT IDENT.
CD-115	-5.301E+00	1.762E+01	1.510E+01	8.988E+00	NOT IDENT.
SN-117M	8.416E-03	8.005E-02	6.604E-02	4.084E-02	NOT IDENT.
SB-122	-1.552E+00	3.091E+00	2.604E+00	1.577E+00	NOT IDENT.
I-123	5.700E+07	1.065E+08	0.000E+00	5.435E+07	SHORT HLIF
TE-123M	2.020E-02	3.776E-02	3.149E-02	1.926E-02	NOT IDENT.
I-124	-8.180E-02	9.040E-01	6.621E-01	4.612E-01	FAIL ABUN
SB-124	2.367E-02	5.009E-02	4.492E-02	2.556E-02	FAIL ABUN
SB-125	-3.649E-02	7.488E-02	6.527E-02	3.821E-02	FAIL ABUN
TE-125M	3.816E+01	1.742E+01	1.437E+01	8.886E+00	NOT IDENT.
I-126	-8.893E-03	1.989E-01	1.515E-01	1.015E-01	NOT IDENT.
SB-126	1.376E-01	2.016E-01	1.154E-01	1.028E-01	FAIL ABUN
SN-126	9.385E-02	2.261E-01	1.474E-01	1.153E-01	FAIL ABUN
SB-127	-4.147E-01	1.604E+00	1.397E+00	8.183E-01	NOT IDENT.
XE-127	-2.504E-03	5.620E-02	4.493E-02	2.867E-02	FAIL ABUN
I-131	-5.396E-02	1.139E-01	1.013E-01	5.813E-02	NOT IDENT.
TE-132	2.293E-01	1.083E+00	9.789E-01	5.525E-01	FAIL ABUN
BA-133	-3.081E-03	4.390E-02	3.269E-02	2.240E-02	NOT IDENT.
I-133	-1.575E+04	2.717E+04	0.000E+00	1.386E+04	SHORT HLIF
CS-134	8.934E-02	4.048E-02	3.725E-02	2.066E-02	NOT IDENT.
CS-135	-2.913E-02	1.486E-01	1.306E-01	7.580E-02	NOT IDENT.
I-135	-5.189E+17	6.940E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.486E-02	8.256E-02	6.867E-02	4.212E-02	FAIL ABUN
CE-139	6.224E-02	3.767E-02	3.217E-02	1.922E-02	NOT IDENT.
BA-140	3.086E-02	2.442E-01	2.129E-01	1.246E-01	FAIL ABUN
LA-140	4.178E-02	6.185E-02	5.637E-02	3.156E-02	FAIL ABUN

CE-141	5.292E-01	1.037E-01	8.796E-02	5.291E-02	NOT IDENT.
CE-143	6.680E+02	4.319E+02	0.000E+00	2.203E+02	SHORT HLIF
PM-144	-1.743E-02	2.962E-02	2.539E-02	1.511E-02	NOT IDENT.
PR-144	-1.183E+00	2.009E+00	1.722E+00	1.025E+00	NOT IDENT.
PM-146	-1.738E-02	3.725E-02	3.228E-02	1.900E-02	NOT IDENT.
ND-147	9.714E-02	5.316E-01	4.655E-01	2.712E-01	NOT IDENT.
PM-149	-4.663E+01	1.645E+02	1.431E+02	8.394E+01	NOT IDENT.
EU-152	1.259E-02	9.838E-02	7.439E-02	5.019E-02	FAIL ABUN
GD-153	1.966E+00	2.519E-01	1.547E-01	1.285E-01	FAIL ABUN
EU-154	-1.454E-01	8.749E-02	6.410E-02	4.464E-02	NOT IDENT.
EU-155	8.206E-02	1.662E-01	1.508E-01	8.478E-02	NOT IDENT.
TB-160	1.726E-01	1.271E-01	1.152E-01	6.483E-02	FAIL ABUN
HO-166M	-1.971E-02	5.403E-02	4.309E-02	2.756E-02	NOT IDENT.
TM-171	-9.829E+01	5.711E+01	4.575E+01	2.914E+01	NOT IDENT.
LU-176	2.394E-03	2.240E-02	1.961E-02	1.143E-02	NOT IDENT.
LU-177M	1.241E-02	1.472E-01	1.319E-01	7.510E-02	NOT IDENT.
HF-181	-1.297E-02	3.645E-02	3.150E-02	1.860E-02	FAIL ABUN
W-181	8.880E+00	1.100E+00	8.408E-01	5.615E-01	NOT IDENT.
TA-182	-4.244E-02	1.328E-01	1.112E-01	6.773E-02	FAIL ABUN
RE-183	4.252E-01	1.586E-01	1.374E-01	8.093E-02	FAIL ABUN
RE-184	-1.351E-01	2.544E-01	1.939E-01	1.298E-01	NOT IDENT.
OS-185	7.996E-03	3.672E-02	3.151E-02	1.873E-02	NOT IDENT.
RE-188	-3.312E-02	2.007E-01	1.866E-01	1.024E-01	NOT IDENT.
W-188	-8.749E-01	7.835E+00	5.980E+00	3.998E+00	FAIL ABUN
IR-192	2.563E-02	3.306E-02	2.950E-02	1.687E-02	FAIL ABUN
AU-195	5.736E+00	7.350E-01	4.660E-01	3.750E-01	FAIL ABUN
TL-200	-4.106E+02	1.428E+03	0.000E+00	7.284E+02	SHORT HLIF
TL-201	2.417E+00	1.393E+01	1.145E+01	7.108E+00	NOT IDENT.
TL-202	2.222E-02	6.602E-02	5.934E-02	3.368E-02	NOT IDENT.
HG-203	1.512E-02	3.805E-02	3.395E-02	1.941E-02	FAIL ABUN
BI-207	4.024E-03	3.504E-02	3.000E-02	1.788E-02	FAIL ABUN
TL-207	-5.243E-01	6.729E-01	4.838E-01	3.433E-01	FAIL ABUN
PO-209	7.369E-02	5.677E+00	4.856E+00	2.897E+00	NOT IDENT.
BI-210	6.981E+00	8.070E+00	7.808E+00	4.117E+00	NOT IDENT.
PB-210	6.981E+00	8.070E+00	7.808E+00	4.117E+00	NOT IDENT.
PO-210	6.981E+00	8.065E+00	7.808E+00	4.115E+00	NOT IDENT.
PB-211	-5.581E-01	8.267E-01	6.547E-01	4.218E-01	NOT IDENT.
PO-215	-5.243E-01	6.729E-01	4.838E-01	3.433E-01	FAIL ABUN
RN-219	-1.900E-01	3.334E-01	2.912E-01	1.701E-01	NOT IDENT.
RN-220	1.057E+01	2.275E+01	2.008E+01	1.161E+01	NOT IDENT.
RA-223	-5.243E-01	6.729E-01	4.838E-01	3.433E-01	FAIL ABUN
AC-227	8.377E-01	4.475E-01	3.628E-01	2.283E-01	FAIL ABUN
TH-227	8.377E-01	4.543E-01	3.628E-01	2.318E-01	FAIL ABUN
TH-229	2.883E-02	5.222E-01	4.779E-01	2.664E-01	FAIL ABUN
PA-231	-3.026E-02	1.378E+00	1.211E+00	7.032E-01	FAIL ABUN
TH-231	-5.243E-01	6.729E-01	4.838E-01	3.433E-01	FAIL ABUN
PA-233	1.261E-02	5.745E-02	5.043E-02	2.931E-02	FAIL ABUN
PA-234	5.286E-01	3.685E-01	2.405E-01	1.880E-01	FAIL ABUN
NP-236	-8.559E-03	1.053E-01	8.628E-02	5.370E-02	FAIL ABUN
NP-237	4.379E-01	5.856E-01	4.377E-01	2.988E-01	FAIL ABUN
NP-239	1.392E-01	3.040E-01	2.442E-01	1.551E-01	FAIL ABUN
AM-241	1.114E-01	3.584E-01	3.053E-01	1.829E-01	NOT IDENT.
CM-243	3.194E-02	1.658E-01	1.339E-01	8.459E-02	FAIL ABUN
AM-246	-5.444E-02	9.430E-02	7.854E-02	4.811E-02	NOT IDENT.
CM-247	1.201E-02	2.969E-02	2.700E-02	1.515E-02	NOT IDENT.
CF-249	-6.288E-03	3.373E-02	3.013E-02	1.721E-02	NOT IDENT.
CF-251	5.862E-02	1.398E-01	1.300E-01	7.131E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	1162.4875
46.50	1162.4875
46.50	1162.4875
48.70	1288.3893
49.72	1340.3647
51.35	1390.5701
52.39	1443.3569
52.97	1495.6633
53.15	1478.4916
53.44	1502.8950
54.07	1624.2532
56.28	1721.3667
56.28	1721.3857
57.37	0.0000
57.53	1807.8092
57.53	1807.8192
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57.98	1861.6740
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59.32	1971.0603
59.40	1971.6151
59.54	1972.5846
59.72	2007.3784
60.01	2009.4161
61.10	1986.1343
61.14	1986.4094
61.30	1987.5044
63.00	1929.3075
63.29	1931.1919
63.29	1931.1919
63.58	1933.0712
64.28	1825.9067
65.12	1916.4187
65.20	1916.9246
65.20	1916.9246
66.05	2095.0796
66.72	2091.0474
66.83	2177.7112
66.91	2178.2681
67.20	2219.0142
67.20	2219.0142
67.75	2144.8164
67.85	2125.9756
68.90	2138.8545
68.90	2138.8545
69.30	2264.7048
69.67	2325.1548
70.82	2473.0757
70.82	2473.0757
70.83	2473.1538
72.80	2533.9775
72.87	2534.5210
72.87	2534.5210
74.67	2829.9810
74.81	2817.9565
74.81	2817.9565
74.81	2817.9565
74.81	2817.9565
74.81	2817.9565
74.81	2817.9565
74.81	2817.9565
74.97	2819.2969
75.28	2868.9360
75.70	2725.3530
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77.11	2736.6567

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77.11	2736.6567
78.38	2802.1296
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79.80	2793.7046
79.80	2793.7046
80.11	2796.1663
80.18	2796.7246
80.30	2797.6692
80.30	2797.6692
80.57	2799.8162
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81.07	2803.7664
81.07	2803.7664
81.07	2803.7664
81.07	2803.7664
82.60	2835.7874
83.37	3218.8491
83.78	3222.5227
83.78	3222.5227
83.78	3222.5227
83.78	3222.5227
84.21	3226.3269
84.90	3613.0383
85.43	3482.1016
86.29	3329.4854
86.50	3331.3618
86.54	3331.7136
86.59	3332.1660
86.72	3427.4321
86.79	3428.0522
86.94	3429.4478
87.30	3423.6338
87.30	3423.6338
87.30	3423.6338
87.30	3423.6338
87.30	3423.6338
87.30	3423.6338
87.30	3423.6338
87.57	3426.0908
87.88	3343.6426
88.03	3344.9829
88.36	3442.4199
88.47	3443.4189
89.95	3715.5476
91.11	3044.9712
92.29	3054.2302
92.38	3054.9414
92.38	3054.9414
93.35	3062.4907
94.00	3067.5439
94.67	3072.6726
94.67	3072.7180
94.90	3074.4880
94.90	3074.4880
94.90	3074.4880
94.90	3074.4880
95.87	1641.2183
95.87	1641.2183
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97.43	1647.5669
98.44	1548.4159
98.44	1548.4159
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99.55	1616.8999
99.86	1462.7349
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100.10	1463.5952
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103.76	1555.5851
105.00	1519.8484
105.31	1581.3646
108.00	1751.6725
109.28	1649.2769

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111.00	1672.8403
111.76	1675.6693
112.95	1680.0833
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117.00	1329.9525
117.66	1433.1542
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121.78	1231.9152
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122.32	1207.9910
122.32	1207.9910
122.32	1207.9910
122.32	1207.9910
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129.76	1251.4980
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142.65	1152.2472
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144.24	1078.1154
144.24	1078.1154
144.24	1078.1154
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145.44	1077.0322
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152.70	1093.4077
153.22	1042.1978
154.21	1081.6895
154.21	1081.6895
154.21	1081.6895
154.21	1081.6895
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163.89	1033.6826
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171.28	923.5625
171.86	907.2695
172.10	936.5137
176.55	910.3943
176.60	910.4631
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184.41	1042.8135
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186.00	920.9297
190.27	748.8818
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193.63	797.9421
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205.31	741.1075

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208.81	744.7064
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209.75	745.6658
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227.08	666.2914
227.20	649.7844
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228.18	678.9734
228.18	678.9734
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236.00	616.5542
236.00	616.5542
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238.63	631.4597
238.63	631.4597
238.63	631.4597
239.00	631.7464
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241.98	634.0646
241.98	634.0646
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248.90	568.1246
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252.85	542.1568
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256.20	521.6168
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268.79	557.7565
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269.46	518.0812
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300.09	419.8337
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351.92	342.8360
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391.69	316.2248
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439.56	275.5824
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445.03	278.6423
445.03	278.6423
445.03	278.6423
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477.59	254.6774
477.96	245.8571
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487.03	272.2574
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511.85	243.5227
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513.99	219.2428
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569.32	222.1601
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602.71	220.8901
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609.31	212.4294
609.31	212.4294
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666.33	237.2314
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696.49	250.2202
697.00	243.7235
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698.50	225.1465
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713.82	196.1017
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747.13	209.2142
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756.15	195.7240
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766.84	197.8782
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831.96	166.8471
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867.32	152.1576
867.82	137.9866
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884.67	164.5081
889.25	143.3240
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898.02	130.4856
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911.07	131.1806
911.07	131.1806
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925.24	159.9780
926.50	157.9808
935.52	114.7378
937.48	151.7112
944.10	130.9758
946.00	123.5913
949.00	97.0727
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964.01	118.1318
966.15	118.2298
968.20	112.2842
969.11	99.6434
969.11	99.6434
969.11	99.6434
977.42	122.9810
980.50	98.7122
983.50	104.1370
989.30	125.4719
996.32	122.6409
1001.03	104.8268
1001.68	104.8508
1004.76	78.9588
1021.30	0.0000
1024.50	0.0000
1034.80	95.3047
1036.00	83.5840
1037.82	107.7992
1038.57	115.2639
1038.76	0.0000
1045.16	101.5640
1046.59	100.6850
1048.07	114.7291

1050.47	102.6915
1050.47	102.6915
1062.04	90.9273
1063.62	89.1023
1076.63	103.6468
1077.35	100.8424
1078.86	105.6133
1085.78	101.1410
1099.22	119.6543
1112.02	110.1625
1112.84	100.1770
1115.52	83.5571
1120.29	117.1680
1120.29	117.1680
1120.29	117.1680
1120.29	117.1680
1120.51	117.1765
1121.28	107.1602
1124.00	0.0000
1129.67	124.7360
1131.51	0.0000
1147.95	0.0000
1167.94	112.7189
1173.22	100.2590
1175.09	99.3461
1177.93	119.9113
1189.05	139.9078
1204.90	125.8661
1205.75	0.0000
1213.00	113.3756
1221.42	123.5570
1230.97	131.8589
1235.34	140.7266
1236.41	0.0000
1238.25	100.8557
1246.25	100.1562
1260.41	0.0000
1271.85	90.3547
1274.45	120.5650
1274.54	115.5455
1291.56	78.7699
1298.22	0.0000
1312.09	62.9947
1325.50	74.4614
1325.50	74.4614
1332.49	70.5257
1333.61	64.4128
1360.21	54.6045
1362.66	0.0000
1365.15	48.5855
1368.21	43.3696
1368.53	0.0000
1376.25	58.9940
1384.27	47.1980
1394.10	50.9688
1395.20	49.9436
1407.95	66.8259
1434.06	41.0145
1436.60	48.4097
1457.56	0.0000
1460.81	35.2203
1489.15	29.8828
1509.49	40.3689
1596.49	35.5095
1620.62	32.8244
1678.03	0.0000
1691.02	25.5271
1691.02	25.5271
1706.46	0.0000
1750.46	0.0000
1764.49	20.9692
1764.49	20.9692
1764.49	20.9692
1764.49	20.9692
1770.23	19.5520
1771.40	21.3353
1791.20	0.0000
1808.65	18.1516

1836.01 44.6378

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020011

Total Uranium Activity	3.9656E+02	ug/g
Total Uranium Counting Unc.	6.9981E+01	ug/g
Total Uranium Tpu	3.5705E-05	ug/g
Total Uranium Mda	6.6994E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020011       *
*   ANALYST       : MXR1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:56:34.47    SAMPLE ALQT:  160.570 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.547E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.262E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 5.406E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.668E+00
```

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:58:41.90

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020012.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:57:02
Sample ID         : G246020012           Sample quantity  : 1.40890E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.90  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.21*	1270	984	1.09	126.41	122	10	1.76E-01	5.5	
2	4	74.63*	334	862	1.37	149.26	143	16	4.64E-02	16.2	2.12E+00
3	4	77.06	368	639	0.98	154.13	143	16	5.11E-02	12.1	
4	0	83.98	194	717	1.60	167.96	165	7	2.69E-02	24.0	
5	0	87.00*	154	723	1.25	174.00	172	6	2.14E-02	29.2	
6	0	92.46*	4082	1406	1.23	184.93	178	14	5.67E-01	2.5	
7	0	98.37	234	545	1.03	196.75	193	8	3.25E-02	18.5	
8	0	112.53	363	767	1.13	225.06	219	13	5.04E-02	16.6	
9	0	143.66*	120	543	1.25	287.32	282	11	1.66E-02	39.2	
10	0	185.58*	737	405	1.08	371.16	366	10	1.02E-01	6.5	
11	0	204.62	45	245	0.98	409.25	407	8	6.30E-03	61.5	
12	3	238.36*	892	185	1.17	476.71	471	16	1.24E-01	4.3	9.82E-01
13	3	241.38	205	176	1.63	482.76	471	16	2.85E-02	14.0	
14	0	257.96	36	190	1.03	515.92	513	8	5.04E-03	67.8	
15	0	269.87	106	182	1.32	539.74	535	11	1.47E-02	26.5	
16	0	294.79*	226	193	1.24	589.57	585	10	3.14E-02	13.4	
17	0	299.83	52	103	0.73	599.66	597	6	7.25E-03	33.7	
18	0	327.70	64	195	1.46	655.41	650	12	8.93E-03	45.2	
19	0	337.97	193	154	1.14	675.94	671	12	2.68E-02	14.7	
20	0	351.55*	396	227	1.29	703.09	697	13	5.50E-02	9.4	
21	0	408.85	47	105	0.83	817.69	813	9	6.57E-03	41.8	
22	0	510.57*	89	143	1.84	1021.13	1013	18	1.24E-02	36.3	
23	0	582.49*	270	78	1.59	1164.99	1158	13	3.76E-02	9.2	
24	0	608.65*	279	102	1.72	1217.30	1212	10	3.87E-02	9.2	
25	0	660.82	68	58	1.32	1321.63	1314	12	9.48E-03	25.2	
26	0	726.79	69	66	1.47	1453.57	1446	14	9.56E-03	27.9	
27	0	765.80*	164	81	2.46	1531.60	1523	19	2.27E-02	15.4	
28	0	785.58	59	75	1.56	1571.15	1562	18	8.14E-03	37.3	
29	0	910.47*	148	71	1.74	1820.93	1813	18	2.05E-02	16.1	
30	0	968.24	70	92	1.49	1936.47	1930	11	9.72E-03	29.3	
31	0	1000.01*	222	44	1.60	2000.01	1992	16	3.08E-02	9.6	
32	0	1377.21	15	28	3.28	2754.42	2741	16	2.11E-03	81.9	
33	0	1459.53*	773	34	2.49	2919.05	2908	19	1.07E-01	4.1	
34	0	1762.72*	64	8	2.25	3525.43	3517	16	8.93E-03	16.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 18:58:45

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020012.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:57:02
Sample ID : G246020012 Sample quantity : 140.89 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA23 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.90 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	1.934E+01	2.133E+00	5.241E-01	3.921E-02	36.902
NB-95	+	765.79	*	2.939E-01	9.290E-02	7.220E-02	4.852E-03	4.071
CD-109	+	88.03	*	2.173E+00	1.289E+00	1.897E+00	1.852E-01	1.145
SN-126	+	64.28		1.367E+01	2.563E+00	1.204E+00	1.833E-01	11.349
	+	86.94		8.853E-01	6.354E-01	8.831E-01	3.673E-01	1.002
	+	87.57	*	2.129E-01	1.263E-01	2.003E-01	1.949E-02	1.063
BA-137M	+	661.65	*	9.908E-02	5.028E-02	5.543E-02	2.832E-03	1.787
CS-137	+	661.65	*	1.047E-01	5.315E-02	5.860E-02	3.010E-03	1.787
TL-208		277.35		1.019E-01	3.987E-01	6.444E-01	6.808E-02	0.158
	+	510.84		4.337E-01	3.182E-01	2.146E-01	2.180E-02	2.021
	+	583.14	*	3.756E-01	7.332E-02	5.567E-02	3.614E-03	6.747
		860.37		3.019E-01	3.109E-01	5.561E-01	5.027E-02	0.543
BI-211		72.87		1.248E+01	5.224E+00	8.035E+00	7.087E-01	1.553
	+	351.07	*	2.368E+00	4.731E-01	3.262E-01	2.126E-02	7.260
BI-212	+	727.18	*	8.279E-01	4.660E-01	3.763E-01	2.987E-02	2.200
	+	785.46		4.530E+00	3.396E+00	2.801E+00	1.975E-01	1.617
		1620.62		7.509E-01	1.063E+00	1.991E+00	1.350E-01	0.377
PB-212	+	74.81		2.061E+00	7.191E-01	8.061E-01	1.040E-01	2.556
	+	77.11		1.266E+00	3.273E-01	4.517E-01	4.064E-02	2.804
	+	87.30		9.848E-01	5.922E-01	9.300E-01	1.296E-01	1.059
	+	238.63	*	1.149E+00	1.279E-01	9.187E-02	6.605E-03	12.507
	+	300.09		1.047E+00	7.114E-01	1.206E+00	1.001E-01	0.868
PO-212	+	74.81		2.061E+00	7.191E-01	8.061E-01	1.040E-01	2.556
	+	77.11		1.266E+00	3.273E-01	4.517E-01	4.064E-02	2.804
	+	87.30		9.848E-01	5.922E-01	9.300E-01	1.296E-01	1.059
		115.19		5.393E+00	4.903E+00	7.418E+00	4.732E-01	0.727
	+	238.63	*	1.149E+00	1.279E-01	9.187E-02	6.605E-03	12.507
	+	300.09		1.047E+00	7.114E-01	1.206E+00	1.001E-01	0.868
PB-214	+	74.81		3.551E+00	1.222E+00	1.389E+00	1.608E-01	2.556
	+	77.11		2.171E+00	5.849E-01	7.743E-01	9.129E-02	2.804
	+	87.30		1.687E+00	1.009E+00	1.593E+00	1.975E-01	1.059
	+	241.98		1.586E+00	4.607E-01	5.370E-01	4.271E-02	2.954
	+	295.21		7.955E-01	2.240E-01	2.260E-01	1.937E-02	3.520
	+	351.92	*	8.239E-01	1.701E-01	1.137E-01	9.493E-03	7.245

Sample ID : G246020012 Acquisition date : 13-FEB-2010 16:57:02

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		3.551E+00	1.222E+00	1.389E+00	1.608E-01	2.556
	+	77.11		2.171E+00	5.849E-01	7.743E-01	9.129E-02	2.804
	+	87.30		1.687E+00	1.009E+00	1.593E+00	1.975E-01	1.059
	+	241.98		1.586E+00	4.607E-01	5.370E-01	4.271E-02	2.954
	+	295.21		7.955E-01	2.240E-01	2.260E-01	1.937E-02	3.520
	+	351.92	*	8.239E-01	1.701E-01	1.137E-01	9.493E-03	7.245
PO-216	+	74.81		2.061E+00	7.191E-01	8.061E-01	1.040E-01	2.556
	+	77.11		1.266E+00	3.273E-01	4.517E-01	4.064E-02	2.804
	+	87.30		9.848E-01	5.922E-01	9.300E-01	1.296E-01	1.059
	+	238.63	*	1.149E+00	1.279E-01	9.187E-02	6.605E-03	12.507
	+	300.09		1.047E+00	7.114E-01	1.206E+00	1.001E-01	0.868
PO-218	+	74.81		3.551E+00	1.222E+00	1.389E+00	1.608E-01	2.556
	+	77.11		2.171E+00	5.849E-01	7.743E-01	9.129E-02	2.804
	+	87.30		1.687E+00	1.009E+00	1.593E+00	1.975E-01	1.059
	+	241.98		1.586E+00	4.607E-01	5.370E-01	4.271E-02	2.954
	+	295.21		7.955E-01	2.240E-01	2.260E-01	1.937E-02	3.520
	+	351.92	*	8.239E-01	1.701E-01	1.137E-01	9.493E-03	7.245
RA-224	+	240.98	*	3.008E+00	8.571E-01	1.046E+00	5.891E-02	2.876
AC-228	+	338.32		1.270E+00	6.387E-01	3.728E-01	1.520E-01	3.406
	+	911.07	*	9.298E-01	3.181E-01	2.122E-01	2.449E-02	4.381
	+	969.11		7.793E-01	4.907E-01	3.467E-01	8.072E-02	2.248
RA-228	+	338.32		1.270E+00	6.387E-01	3.728E-01	1.520E-01	3.406
	+	911.07	*	9.298E-01	3.181E-01	2.122E-01	2.449E-02	4.381
	+	969.11		7.793E-01	4.907E-01	3.467E-01	8.072E-02	2.248
TH-228	+	74.81		2.096E+00	7.052E-01	8.201E-01	7.350E-02	2.556
	+	77.11		1.288E+00	3.329E-01	4.595E-01	4.134E-02	2.804
	+	87.30		1.002E+00	5.940E-01	9.460E-01	9.183E-02	1.059
	+	238.63	*	1.169E+00	1.301E-01	9.346E-02	6.720E-03	12.507
	+	300.09		1.065E+00	9.538E-01	1.227E+00	7.231E-01	0.868
TH-232	+	338.32		1.270E+00	3.813E-01	3.728E-01	2.202E-02	3.406
	+	911.07	*	9.298E-01	3.181E-01	2.122E-01	2.449E-02	4.381
	+	969.11		7.793E-01	4.907E-01	3.467E-01	8.072E-02	2.248
PA-234M	+	766.42		7.606E+01	4.499E+01	1.870E+01	9.434E+00	4.067
	+	1001.03	*	5.028E+01	1.076E+01	6.253E+00	5.967E-01	8.040
TH-234	+	63.29	*	3.453E+01	7.282E+00	3.270E+00	5.893E-01	10.560
	+	92.38		3.607E+01	6.821E+00	1.100E+00	2.005E-01	32.799
U-235		89.95		1.062E+01	4.256E+00	3.372E+00	1.048E+00	3.148
	+	93.35		4.336E+01	1.239E+01	1.310E+00	3.676E-01	33.108
		105.00		6.466E-01	1.343E+00	2.213E+00	6.524E-01	0.292
	+	143.76	*	4.913E-01	3.930E-01	3.893E-01	6.297E-02	1.262
		163.35		1.010E+00	5.738E-01	9.460E-01	1.682E-01	1.068
	+	185.71		6.621E-01	9.226E-02	7.188E-02	3.764E-03	9.211
	+	205.31		4.977E-01	6.190E-01	1.000E+00	1.785E-01	0.498
NP-237	+	86.50	*	6.253E-01	3.926E-01	5.889E-01	1.341E-01	1.062
		95.87		3.519E+00	2.006E+00	2.169E+00	5.326E-01	1.623
U-238	+	63.29	*	3.453E+01	7.282E+00	3.270E+00	5.893E-01	10.560
	+	92.38		3.607E+01	3.697E+00	1.100E+00	9.825E-02	32.799
AM-243	+	74.67	*	3.341E-01	1.123E-01	1.312E-01	1.166E-02	2.547
	+	86.72		2.345E+01	1.390E+01	2.201E+01	2.126E+00	1.065

Sample ID : G246020012 Acquisition date : 13-FEB-2010 16:57:02

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		4.634E-01	5.132E+00	7.445E+00	4.610E-01	0.062
	+	142.18		4.127E+01	3.241E+01	3.273E+01	1.782E+00	1.261
ANH-511	+	511.00	*	9.367E-02	6.829E-02	4.637E-02	2.693E-03	2.020

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	4.788E-01	3.466E-01	6.199E-01	4.213E-02	0.772
NA-22		1274.54	*	-9.445E-04	4.309E-02	7.005E-02	4.704E-03	-0.013
NA-24		1368.53	*	5.126E-01	4.309E-02	Half-Life too short		
AL-26		1129.67		-3.593E-01	1.587E+00	2.542E+00	1.619E-01	-0.141
		1808.65	*	-2.326E-03	2.523E-02	4.081E-02	2.453E-03	-0.057
TI-44		67.85		-9.541E-02	8.396E-02	1.092E-01	9.510E-03	-0.874
	+	78.38	*	2.337E-01	6.040E-02	9.548E-02	8.655E-03	2.448
SC-46		889.25	*	6.203E-04	3.901E-02	6.509E-02	5.816E-03	0.010
		1120.51		1.195E-01	6.294E-02	1.170E-01	7.624E-03	1.022
V-48		944.10		2.586E-01	1.009E+00	1.714E+00	1.494E-01	0.151
		983.50	*	-8.508E-02	8.074E-02	1.190E-01	9.898E-03	-0.715
		1312.09		-4.123E-02	8.096E-02	1.221E-01	8.686E-03	-0.338
CR-51		320.08	*	1.922E-02	4.063E-01	6.657E-01	4.365E-02	0.029
MN-52		744.21		1.589E-01	3.308E-01	5.542E-01	3.528E-02	0.287
		848.13		3.373E+00	8.532E+00	1.475E+01	1.204E+00	0.229
		935.52		-7.614E-02	3.282E-01	5.331E-01	4.687E-02	-0.143
		1246.25		2.974E+00	9.568E+00	1.607E+01	1.029E+00	0.185
		1333.61		3.922E-01	6.128E+00	1.005E+01	7.375E-01	0.039
		1434.06	*	-2.290E-01	3.541E-01	5.196E-01	3.759E-02	-0.441
MN-54		834.83	*	-2.995E-02	3.663E-02	5.668E-02	4.488E-03	-0.528
CO-56		846.75	*	1.454E-02	3.972E-02	6.848E-02	5.571E-03	0.212
		977.42		9.841E-01	3.028E+00	5.172E+00	4.336E-01	0.190
		1037.82		1.244E-01	3.064E-01	5.268E-01	4.318E-02	0.236
		1175.09		-7.369E-01	2.392E+00	3.800E+00	2.151E-01	-0.194
		1238.25		8.121E-02	8.934E-02	1.574E-01	1.047E-02	0.516
		1360.21		7.540E-01	9.888E-01	1.771E+00	1.297E-01	0.426
		1771.40		-4.787E-02	2.277E-01	3.613E-01	2.235E-02	-0.132
CO-57		122.06	*	7.875E-04	2.973E-02	4.893E-02	2.885E-03	0.016
		136.48		1.305E-01	2.392E-01	3.993E-01	2.596E-02	0.327
CO-58		810.76	*	-3.012E-02	3.999E-02	6.233E-02	4.683E-03	-0.483
FE-59	+	142.65		6.547E+00	5.141E+00	5.861E+00	3.187E-01	1.117
		192.34		-1.878E-01	1.052E+00	1.691E+00	1.956E-01	-0.111
		1099.22	*	2.847E-03	8.840E-02	1.459E-01	1.124E-02	0.020
		1291.56		-6.684E-02	1.338E-01	2.050E-01	1.702E-02	-0.326
CO-60		1173.22		-5.831E-03	4.952E-02	8.026E-02	4.528E-03	-0.073
		1332.49	*	1.492E-02	3.562E-02	6.129E-02	4.500E-03	0.243
ZN-65		1115.52	*	-1.344E-01	1.071E-01	1.563E-01	1.033E-02	-0.860
GE-68		1077.35	*	2.534E-01	1.325E+00	2.222E+00	1.590E-01	0.114
AS-73		53.44	*	-5.411E-01	1.494E+00	2.483E+00	2.192E-01	-0.218
AS-74		595.88	*	8.420E-02	1.056E-01	1.819E-01	1.003E-02	0.463
		634.78		1.458E-01	4.096E-01	6.433E-01	3.405E-02	0.227

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		2.697E-01	7.893E+00	1.164E+01	1.221E+00	0.023
		96.73		4.015E+00	1.628E+00	1.908E+00	2.558E-01	2.105
		121.11		-7.705E-02	1.632E-01	2.638E-01	2.461E-02	-0.292
		136.00		7.777E-03	4.591E-02	7.569E-02	4.274E-03	0.103
		198.60		-8.801E-02	1.964E+00	3.170E+00	2.141E-01	-0.028
		264.65	*	-2.903E-02	5.394E-02	7.196E-02	4.189E-03	-0.403
		279.53		-1.455E-02	1.144E-01	1.918E-01	1.206E-02	-0.076
		303.91		1.371E+00	2.361E+00	3.598E+00	3.451E-01	0.381
		400.65		1.580E-01	2.660E-01	4.566E-01	4.154E-02	0.346
BR-77	+	87.88		8.609E+02	5.105E+02	8.770E+02	8.558E+01	0.982
		200.40		5.772E+01	3.768E+02	5.369E+02	2.872E+01	0.107
	+	239.00		3.394E+02	3.458E+01	6.163E+01	3.465E+00	5.506
		249.79		9.780E+01	1.315E+02	2.183E+02	1.241E+01	0.448
		281.68		1.021E+02	1.784E+02	3.081E+02	1.796E+01	0.332
		297.23		2.050E+02	1.693E+02	1.919E+02	1.127E+01	1.068
		303.76		1.989E+02	3.645E+02	5.546E+02	3.264E+01	0.359
		439.47		1.991E+02	2.736E+02	4.729E+02	2.767E+01	0.421
		484.57		3.537E+01	4.329E+02	7.165E+02	4.189E+01	0.049
		520.65	*	-1.447E+01	1.958E+01	3.025E+01	1.751E+00	-0.478
		574.64		-2.689E+02	4.362E+02	6.325E+02	3.550E+01	-0.425
		578.91		1.147E+02	1.950E+02	2.914E+02	1.630E+01	0.394
		585.48		1.049E+03	3.874E+02	6.747E+02	3.755E+01	1.555
		755.35		-1.037E+02	3.379E+02	5.279E+02	3.456E+01	-0.196
		817.79		1.595E+02	2.636E+02	4.622E+02	3.519E+01	0.345
SR-82		698.33		4.876E+00	4.046E+01	6.591E+01	3.723E+00	0.074
		776.49	*	-2.994E-01	4.608E-01	6.437E-01	4.441E-02	-0.465
		1395.20		9.823E-02	1.131E+01	1.834E+01	1.336E+00	0.005
RB-83		520.41	*	-5.032E-02	7.176E-02	1.112E-01	6.439E-03	-0.452
		529.64		-1.173E-01	1.124E-01	1.690E-01	9.743E-03	-0.694
		552.65		-1.621E-01	2.141E-01	3.291E-01	1.875E-02	-0.493
RB-84		881.50	*	2.237E-02	7.264E-02	1.245E-01	1.094E-02	0.180
KR-85		513.99	*	6.327E+00	7.788E+00	1.196E+01	6.937E-01	0.529
SR-85		513.99	*	3.316E-02	4.082E-02	6.266E-02	3.636E-03	0.529
RB-86		1076.63	*	1.047E-01	9.219E-01	1.535E+00	1.100E-01	0.068
Y-88		898.02		3.085E-02	4.177E-02	7.407E-02	6.773E-03	0.417
		1836.01	*	-1.681E-02	2.680E-02	3.645E-02	2.146E-03	-0.461
ZR-88		392.90	*	-2.117E-02	2.968E-02	4.696E-02	2.711E-03	-0.451
Y-91		1204.90	*	4.717E+00	1.963E+01	3.284E+01	1.959E+00	0.144
NB-94		702.63	*	2.063E-02	3.904E-02	6.543E-02	3.739E-03	0.315
		871.10		-2.300E-02	3.353E-02	5.208E-02	4.473E-03	-0.442
NB-95M		235.69	*	4.911E-01	1.642E-01	2.625E-01	1.937E-02	1.871
ZR-95		724.18		5.423E-02	1.203E-01	1.754E-01	1.240E-02	0.309
		756.15	*	1.819E-03	8.103E-02	1.268E-01	9.730E-03	0.014
NB-97		657.90	*	-6.092E-01	8.103E-02	Half-Life too short		
		1024.50		3.420E+01	8.103E-02	Half-Life too short		
ZR-97		254.15		-6.126E+01	8.103E-02	Half-Life too short		
		355.39		-1.080E+01	8.103E-02	Half-Life too short		
		507.63	*	2.872E+01	8.103E-02	Half-Life too short		
		602.52		-6.329E+01	8.103E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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		1021.30		-7.927E+01	8.103E-02	Half-Life too short		
		1147.95		-1.016E+01	8.103E-02	Half-Life too short		
		1362.66		6.481E-01	8.103E-02	Half-Life too short		
		1750.46		-1.763E+01	8.103E-02	Half-Life too short		
MO-99		140.51		-2.591E+01	5.841E+01	8.079E+01	2.172E+01	-0.321
		181.06		1.828E+01	3.546E+01	5.158E+01	8.741E+00	0.354
		366.43		-4.882E+01	1.367E+02	2.227E+02	1.305E+01	-0.219
		739.58	*	1.109E+01	2.130E+01	3.573E+01	5.000E+00	0.310
		778.00		2.809E+01	6.569E+01	1.001E+02	6.930E+00	0.281
TC-99M		140.51	*	-7.157E+12	6.569E+01	Half-Life too short		
RH-101		127.23		1.521E-02	3.771E-02	6.275E-02	3.603E-03	0.242
		198.01	*	1.038E-02	3.581E-02	5.861E-02	3.124E-03	0.177
		325.23		1.966E-01	2.507E-01	3.866E-01	2.284E-02	0.508
RH-102		418.52		-1.462E-01	2.848E-01	4.557E-01	2.655E-02	-0.321
		475.06	*	8.366E-03	3.195E-02	5.351E-02	3.132E-03	0.156
		631.29		-5.283E-02	5.660E-02	8.421E-02	4.476E-03	-0.627
		697.49		-1.239E-03	8.342E-02	1.345E-01	7.579E-03	-0.009
	+	766.84		7.239E-01	2.288E-01	2.877E-01	1.939E-02	2.516
		1046.59		8.419E-03	1.081E-01	1.799E-01	1.363E-02	0.047
		1112.84		-2.803E-01	2.533E-01	3.722E-01	2.469E-02	-0.753
RU-103		497.08	*	3.682E-02	4.367E-02	7.558E-02	9.568E-03	0.487
		610.33		7.867E+00	1.803E+00	2.610E+00	3.989E-01	3.015
RH-106	+	511.85		4.697E-01	3.425E-01	3.947E-01	2.292E-02	1.190
		621.84	*	-2.588E-01	3.574E-01	5.452E-01	6.287E-02	-0.475
		1050.47		4.186E-01	2.207E+00	3.713E+00	2.793E-01	0.113
RU-106	+	511.85		4.697E-01	3.425E-01	3.947E-01	2.292E-02	1.190
		621.84	*	-2.588E-01	3.564E-01	5.452E-01	2.930E-02	-0.475
		1050.47		4.186E-01	2.207E+00	3.713E+00	2.793E-01	0.113
AG-108M		433.93	*	-2.007E-02	3.415E-02	5.429E-02	3.442E-03	-0.370
		614.37		2.976E-05	4.505E-02	6.632E-02	3.940E-03	0.000
		722.95		-1.061E-02	4.952E-02	6.684E-02	4.346E-03	-0.159
AG-110M		657.75	*	-3.331E-02	4.536E-02	5.784E-02	3.214E-03	-0.576
		677.61		-2.765E-01	3.431E-01	5.163E-01	2.955E-02	-0.536
		706.67		-6.621E-02	2.398E-01	3.782E-01	2.317E-02	-0.175
		763.93		7.228E-01	2.532E-01	4.335E-01	3.035E-02	1.667
		884.67		4.714E-02	4.934E-02	8.904E-02	8.118E-03	0.529
		937.48		-1.675E-01	1.127E-01	1.570E-01	1.425E-02	-1.067
		1384.27		1.188E-02	1.538E-01	2.467E-01	1.871E-02	0.048
IN-111		171.28		6.545E-01	1.847E+00	3.045E+00	1.562E-01	0.215
		245.39	*	-7.468E-01	2.127E+00	2.900E+00	1.641E-01	-0.258
IN-113M		391.69	*	1.413E-02	4.200E-02	7.132E-02	4.394E-03	0.198
SN-113		391.69	*	1.413E-02	4.200E-02	7.132E-02	4.394E-03	0.198
IN-114M		190.27	*	3.237E-02	2.224E-01	3.176E-01	1.674E-02	0.102
CD-115		260.90		1.734E+02	2.951E+02	4.294E+02	2.466E+01	0.404
		492.35		-1.300E+02	7.118E+01	9.972E+01	5.822E+00	-1.303
		527.90	*	2.415E+00	2.130E+01	3.519E+01	2.031E+00	0.069
SN-117M		156.02		-2.204E+00	2.708E+00	4.274E+00	2.236E-01	-0.516
		158.56	*	-5.155E-02	6.701E-02	1.059E-01	5.503E-03	-0.487
SB-122		563.90	*	2.900E+00	3.767E+00	6.485E+00	3.668E-01	0.447

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		692.80		-8.016E+01	7.717E+01	1.127E+02	6.274E+00	-0.711
I-123		159.00	*	-7.363E+01	7.717E+01	Half-Life too short		
		528.96		-5.273E+03	7.717E+01	Half-Life too short		
TE-123M		159.00	*	-2.609E-02	3.207E-02	5.060E-02	2.670E-03	-0.516
I-124		602.71	*	-8.464E-01	1.205E+00	1.565E+00	8.575E-02	-0.541
		722.78		-1.567E+00	7.314E+00	9.873E+00	5.949E-01	-0.159
		1325.50		7.524E+00	4.512E+01	7.505E+01	5.451E+00	0.100
	+	1376.25		4.176E+01	6.843E+01	8.039E+01	5.875E+00	0.519
		1509.49		1.992E+01	2.005E+01	3.750E+01	2.660E+00	0.531
		1691.02		-7.062E-01	4.044E+00	6.429E+00	4.197E-01	-0.110
SB-124		602.71		-3.564E-02	5.072E-02	6.588E-02	3.612E-03	-0.541
		645.85		-2.242E-01	5.311E-01	8.289E-01	5.003E-02	-0.270
		709.31		6.102E-01	3.081E+00	5.048E+00	2.936E-01	0.121
		713.82		6.684E-01	1.721E+00	2.867E+00	2.941E-01	0.233
		722.78		-9.562E-02	4.464E-01	6.026E-01	3.790E-02	-0.159
	+	968.20		8.218E+00	4.858E+00	6.924E+00	5.871E-01	1.187
		1045.16		-4.727E-01	2.474E+00	4.000E+00	3.037E-01	-0.118
		1325.50		4.904E-01	2.941E+00	4.892E+00	3.553E-01	0.100
		1368.21		1.951E-01	1.866E+00	2.652E+00	3.363E-01	0.074
		1436.60		-1.607E+00	4.232E+00	6.458E+00	4.670E-01	-0.249
		1691.02	*	-1.017E-02	5.822E-02	9.255E-02	6.452E-03	-0.110
SB-125		427.89	*	5.350E-02	9.163E-02	1.574E-01	9.574E-03	0.340
		463.38		5.346E-01	3.115E-01	5.513E-01	3.756E-02	0.970
		600.56		5.403E-02	1.947E-01	3.232E-01	2.082E-02	0.167
		635.90		5.854E-02	2.764E-01	4.565E-01	2.903E-02	0.128
TE-125M		109.28	*	8.224E-01	1.422E+01	2.065E+01	1.843E+00	0.040
I-126		388.63		1.941E-02	2.249E-01	3.760E-01	2.175E-02	0.052
		666.33	*	-4.920E-02	2.501E-01	3.410E-01	1.765E-02	-0.144
		753.82		1.311E+00	1.743E+00	2.983E+00	1.946E-01	0.440
SB-126		223.80		-2.628E-01	4.871E+00	7.821E+00	4.319E-01	-0.034
		278.60		-6.362E-01	2.877E+00	4.804E+00	2.795E-01	-0.132
		296.50		7.587E+00	2.854E+00	3.617E+00	2.124E-01	2.097
		414.70		-5.172E-02	8.577E-02	1.276E-01	7.427E-03	-0.405
		415.30		-3.816E+00	6.879E+00	1.064E+01	6.196E-01	-0.359
		555.20		9.301E-01	4.448E+00	7.389E+00	4.203E-01	0.126
		573.80		-9.606E-01	1.272E+00	1.888E+00	1.060E-01	-0.509
		593.00		-4.422E-01	1.081E+00	1.701E+00	9.406E-02	-0.260
		656.30		-2.053E+00	4.575E+00	6.036E+00	3.107E-01	-0.340
		666.33		-2.066E-02	1.050E-01	1.432E-01	7.409E-03	-0.144
		675.00		5.552E-01	2.419E+00	3.985E+00	2.113E-01	0.139
		695.00		-4.057E-02	8.906E-02	1.379E-01	7.721E-03	-0.294
		697.00		-1.040E-01	3.268E-01	5.135E-01	2.890E-02	-0.202
		720.50	*	-2.211E-02	1.939E-01	2.652E-01	1.588E-02	-0.083
		856.80		-1.329E-01	5.552E-01	9.082E-01	7.556E-02	-0.146
		989.30		7.237E-02	1.431E+00	2.382E+00	1.967E-01	0.030
		1034.80		-1.362E+00	9.623E+00	1.565E+01	1.209E+00	-0.087
		1213.00		-2.972E+00	5.049E+00	7.742E+00	4.684E-01	-0.384
SB-127		61.10		9.574E+02	2.051E+02	2.935E+02	3.480E+01	3.262
		252.40		-5.454E+00	7.497E+00	1.055E+01	4.399E+00	-0.517

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		290.80		-6.950E+00	3.506E+01	5.069E+01	5.053E+00	-0.137
		411.60		2.765E+00	1.961E+01	2.859E+01	4.256E+00	0.097
		444.90		-7.046E+00	1.461E+01	2.331E+01	2.677E+00	-0.302
		473.00		-1.383E+00	2.695E+00	4.281E+00	5.071E-01	-0.323
		543.00		-6.285E+00	2.589E+01	4.158E+01	5.586E+00	-0.151
		603.60		-1.535E+01	2.248E+01	2.930E+01	3.301E+00	-0.524
		685.20	*	-1.397E-01	2.026E+00	3.253E+00	3.249E-01	-0.043
		698.50		8.978E+00	2.436E+01	4.039E+01	6.027E+00	0.222
		722.20		1.721E+01	4.925E+01	7.140E+01	7.184E+00	0.241
		783.80		8.329E+00	5.788E+00	1.056E+01	1.267E+00	0.789
XE-127		57.60		1.578E+00	1.151E+01	1.788E+01	1.566E+00	0.088
		145.22		1.226E+00	9.685E-01	1.466E+00	7.908E-02	0.837
		172.10		9.080E-02	1.391E-01	2.318E-01	1.190E-02	0.392
		202.84	*	8.478E-03	6.132E-02	8.725E-02	4.684E-03	0.097
		374.96		6.816E-02	2.006E-01	3.410E-01	1.990E-02	0.200
I-131		80.18		5.648E+00	1.191E+01	1.298E+01	1.199E+00	0.435
		284.30		7.462E-01	1.905E+00	3.265E+00	2.124E-01	0.229
		364.48	*	-9.887E-02	1.381E-01	2.200E-01	1.442E-02	-0.449
		636.97		-7.499E-01	1.956E+00	3.069E+00	1.859E-01	-0.244
		722.89		-2.139E+00	9.986E+00	1.348E+01	8.261E-01	-0.159
TE-132		49.72		-6.157E+01	5.554E+01	8.960E+01	1.009E+01	-0.687
	+	111.76		3.276E+02	1.139E+02	1.207E+02	1.211E+01	2.715
		116.30		5.816E+01	5.769E+01	8.685E+01	8.509E+00	0.670
		228.16	*	1.725E-01	1.158E+00	1.875E+00	2.757E-01	0.092
BA-133		53.15		2.241E-01	6.240E+00	1.050E+01	9.260E-01	0.021
		79.62		2.242E+00	2.805E+00	3.098E+00	4.809E-01	0.724
		81.00		1.264E-01	2.096E-01	2.294E-01	3.719E-02	0.551
		276.40		-1.827E-02	4.296E-01	6.302E-01	8.172E-02	-0.029
		302.84		1.642E-02	1.625E-01	2.396E-01	2.803E-02	0.069
		356.01	*	-3.494E-02	5.135E-02	7.012E-02	8.135E-03	-0.498
		383.85		-3.677E-02	3.045E-01	5.029E-01	5.468E-02	-0.073
I-133	+	510.53		5.068E+00	3.045E-01	Half-Life too short		
		529.87	*	-2.337E-02	3.045E-01	Half-Life too short		
		706.58		-7.736E-01	3.045E-01	Half-Life too short		
		856.28		-2.192E+00	3.045E-01	Half-Life too short		
		875.33		4.166E-01	3.045E-01	Half-Life too short		
		1236.41		4.133E+00	3.045E-01	Half-Life too short		
		1298.22		1.492E+00	3.045E-01	Half-Life too short		
CS-134		475.35		1.645E+00	2.065E+00	3.573E+00	2.091E-01	0.460
		563.23		1.910E-01	3.871E-01	6.543E-01	3.784E-02	0.292
		569.32		2.862E-02	2.201E-01	3.553E-01	2.065E-02	0.081
		604.70		7.928E-03	4.260E-02	6.098E-02	3.357E-03	0.130
		795.84	*	7.814E-02	4.997E-02	9.262E-02	6.764E-03	0.844
		801.93		-1.725E-01	4.126E-01	6.614E-01	4.889E-02	-0.261
		1038.57		1.933E+00	3.841E+00	6.656E+00	5.109E-01	0.290
		1167.94		2.848E-01	2.634E+00	4.361E+00	2.500E-01	0.065
		1365.15		-6.296E-01	1.379E+00	1.872E+00	1.456E-01	-0.336
CS-135		268.24	*	2.209E-01	1.831E-01	2.765E-01	2.112E-02	0.799
I-135		288.45		-2.487E+12	1.831E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		417.63		-3.630E+12	1.831E-01	Half-Life too short		
		546.56		1.058E+12	1.831E-01	Half-Life too short		
		836.80		1.168E+12	1.831E-01	Half-Life too short		
		1038.76		1.867E+12	1.831E-01	Half-Life too short		
		1124.00		-1.532E+13	1.831E-01	Half-Life too short		
		1131.51		4.783E+11	1.831E-01	Half-Life too short		
		1260.41	*	-3.366E+10	1.831E-01	Half-Life too short		
		1457.56		1.526E+14	1.831E-01	Half-Life too short		
		1678.03		2.048E+12	1.831E-01	Half-Life too short		
		1706.46		2.892E+11	1.831E-01	Half-Life too short		
		1791.20		7.807E+11	1.831E-01	Half-Life too short		
CS-136		66.91		-1.307E+00	1.457E+00	2.055E+00	3.181E-01	-0.636
	+	86.29		3.102E+00	1.863E+00	3.141E+00	4.254E-01	0.988
		153.22		-9.626E-02	8.203E-01	1.313E+00	8.944E-02	-0.073
		163.89		1.996E+00	1.393E+00	2.374E+00	1.596E-01	0.841
		176.55		-2.252E-01	4.515E-01	7.183E-01	4.284E-02	-0.313
		273.65		-4.041E-01	6.095E-01	8.044E-01	5.322E-02	-0.502
		340.57		1.666E-01	1.594E-01	2.490E-01	1.561E-02	0.669
		818.51		6.756E-02	8.990E-02	1.592E-01	1.216E-02	0.424
		1048.07	*	-5.592E-02	1.131E-01	1.762E-01	1.405E-02	-0.317
		1235.34		9.252E-01	6.602E-01	1.197E+00	1.231E-01	0.773
CE-139		165.85	*	-4.009E-02	3.494E-02	5.380E-02	2.743E-03	-0.745
BA-140		162.64		1.799E+00	9.794E-01	1.690E+00	1.004E-01	1.065
		304.84		-5.724E-01	1.577E+00	2.345E+00	6.403E-01	-0.244
		423.70		9.240E-01	2.202E+00	3.711E+00	1.180E+00	0.249
		537.32	*	1.186E-01	3.134E-01	5.231E-01	1.701E-01	0.227
LA-140	+	328.77		5.849E-01	5.302E-01	6.101E-01	4.023E-02	0.959
		432.53		-1.254E+00	2.354E+00	3.754E+00	2.420E-01	-0.334
		487.03		1.373E-01	1.587E-01	2.762E-01	1.824E-02	0.497
		751.79		1.427E-01	2.046E+00	3.309E+00	2.538E-01	0.043
		815.85		2.913E-01	3.821E-01	6.776E-01	5.890E-02	0.430
		867.82		6.530E-01	1.539E+00	2.665E+00	2.395E-01	0.245
		919.63		-1.092E+00	3.460E+00	5.136E+00	5.598E-01	-0.213
		925.24		3.269E-01	1.390E+00	2.341E+00	2.202E-01	0.140
		1596.49	*	-5.703E-02	8.492E-02	1.244E-01	8.532E-03	-0.459
CE-141		145.44	*	9.067E-02	8.764E-02	1.314E-01	7.413E-03	0.690
CE-143		57.37		-2.931E-03	8.764E-02	Half-Life too short		
		231.56		2.076E-04	8.764E-02	Half-Life too short		
		293.26	*	1.975E-03	8.764E-02	Half-Life too short		
	+	350.59		5.383E-02	8.764E-02	Half-Life too short		
		490.36		-5.474E-03	8.764E-02	Half-Life too short		
		664.57		1.005E-04	8.764E-02	Half-Life too short		
		721.93		9.628E-04	8.764E-02	Half-Life too short		
CE-144		80.11		2.299E+00	4.605E+00	5.028E+00	4.609E-01	0.457
		133.54	*	-8.618E-02	2.442E-01	3.951E-01	5.580E-02	-0.218
PM-144		476.78		8.541E-02	7.296E-02	1.288E-01	8.998E-03	0.663
		618.01		1.142E-02	3.527E-02	5.870E-02	3.387E-03	0.195
		696.49	*	-1.239E-02	3.747E-02	5.882E-02	3.310E-03	-0.211
		778.57		2.651E+00	2.481E+00	4.060E+00	2.817E-01	0.653

---- Non-Identified Nuclides ----

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PR-144		696.49	*	-8.408E-01	2.542E+00	3.990E+00	2.243E-01	-0.211
		1489.15		-4.729E+00	1.192E+01	1.786E+01	1.274E+00	-0.265
PM-146		453.90	*	2.101E-02	4.390E-02	7.474E-02	6.473E-03	0.281
		633.02		-6.981E-01	1.520E+00	2.185E+00	8.030E-01	-0.319
		735.90		4.022E-02	1.520E-01	2.499E-01	6.993E-02	0.161
		747.13		-8.737E-02	9.913E-02	1.451E-01	1.858E-02	-0.602
ND-147	+	91.11		2.070E+01	2.247E+00	1.569E+00	1.543E-01	13.191
		319.41		2.065E+00	3.831E+00	6.601E+00	3.900E-01	0.313
		439.89		2.801E+00	6.939E+00	1.176E+01	6.887E-01	0.238
		531.02	*	-3.656E-01	6.588E-01	1.030E+00	1.391E-01	-0.355
PM-149		285.90	*	-9.946E+01	1.838E+02	3.009E+02	4.272E+01	-0.331
EU-152		121.78		-5.224E-03	8.558E-02	1.404E-01	1.080E-02	-0.037
		244.69		3.843E-02	3.884E-01	5.471E-01	3.094E-02	0.070
		344.27	*	-4.695E-03	1.304E-01	1.654E-01	1.096E-02	-0.028
		443.98		-3.774E-01	9.951E-01	1.603E+00	9.382E-02	-0.235
		778.89		3.126E-01	2.861E-01	4.690E-01	3.254E-02	0.666
		867.32		6.795E-01	8.101E-01	1.451E+00	1.235E-01	0.468
		964.01		7.405E-01	3.668E-01	6.256E-01	5.331E-02	1.184
		1085.78		-2.422E-03	3.850E-01	6.335E-01	4.458E-02	-0.004
		1112.02		-2.684E-01	3.317E-01	5.005E-01	3.327E-02	-0.536
		1407.95		9.326E-02	1.948E-01	3.352E-01	2.438E-02	0.278
GD-153		69.67		1.658E+00	2.682E+00	4.023E+00	3.515E-01	0.412
	+	83.37		4.967E+01	2.425E+01	3.776E+01	3.545E+00	1.315
	+	97.43	*	3.559E-01	1.348E-01	1.969E-01	1.608E-02	1.808
		103.18		-1.591E-01	1.537E-01	2.113E-01	1.579E-02	-0.753
EU-154		123.07		1.407E-02	5.960E-02	9.877E-02	9.323E-03	0.142
		247.94		3.510E-02	3.914E-01	6.301E-01	5.964E-02	0.056
		591.81		-2.377E-01	6.145E-01	9.673E-01	9.305E-02	-0.246
		723.30		-6.561E-03	2.072E-01	2.864E-01	2.083E-02	-0.023
		756.87		2.491E-01	8.804E-01	1.369E+00	1.451E-01	0.182
		873.19		-8.977E-02	2.908E-01	4.702E-01	5.760E-02	-0.191
		996.32		8.272E-01	4.520E-01	7.603E-01	1.335E-01	1.088
		1004.76		-1.241E-01	2.465E-01	3.232E-01	3.635E-02	-0.384
		1274.45	*	2.218E-03	1.208E-01	1.972E-01	1.958E-02	0.011
EU-155		48.70		6.241E-01	4.469E+00	7.555E+00	6.093E-01	0.083
		60.01		7.557E+00	9.460E+00	1.425E+01	1.238E+00	0.530
	+	86.54		2.567E-01	1.522E-01	2.576E-01	2.503E-02	0.996
		105.31	*	7.828E-02	1.393E-01	2.265E-01	1.670E-02	0.346
TB-160	+	86.79		6.989E-01	4.144E-01	6.959E-01	6.724E-02	1.004
		197.04		1.976E-01	6.164E-01	1.010E+00	5.378E-02	0.196
		215.65		3.421E-01	7.804E-01	1.283E+00	7.012E-02	0.267
	+	298.57		1.554E-01	1.052E-01	2.041E-01	1.199E-02	0.761
		879.36	*	-7.525E-02	1.422E-01	2.249E-01	1.967E-02	-0.335
		962.29		4.413E-01	6.873E-01	1.050E+00	8.964E-02	0.420
		966.15		9.233E-01	3.326E-01	5.688E-01	4.834E-02	1.623
		1177.93		-2.598E-01	4.063E-01	6.252E-01	3.557E-02	-0.416
		1271.85		3.737E-02	7.700E-01	1.248E+00	8.329E-02	0.030
HO-166M		80.57		3.453E-01	5.788E-01	6.354E-01	5.843E-02	0.543
	+	184.41		4.966E-01	6.920E-02	1.045E-01	5.459E-03	4.754

---- Non-Identified Nuclides ----

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		280.46		-1.953E-02	9.004E-02	1.503E-01	8.756E-03	-0.130
		410.95		3.138E-01	2.756E-01	4.354E-01	2.531E-02	0.721
		711.68	*	-1.354E-02	6.489E-02	1.027E-01	6.012E-03	-0.132
		752.31		1.487E-01	2.894E-01	4.861E-01	3.159E-02	0.306
		810.29		-3.300E-02	5.861E-02	9.313E-02	6.966E-03	-0.354
TM-171		51.35		1.310E+01	5.453E+01	9.234E+01	8.026E+00	0.142
		52.39		-5.964E-01	2.760E+01	4.638E+01	4.074E+00	-0.013
		59.40		6.238E+01	5.025E+01	7.665E+01	6.659E+00	0.814
		66.72	*	-1.675E+01	4.618E+01	6.705E+01	5.831E+00	-0.250
LU-176	+	88.36		5.050E-01	2.995E-01	5.187E-01	5.028E-02	0.974
		201.83		-3.756E-04	3.518E-02	4.964E-02	2.661E-03	-0.008
		306.84	*	-1.374E-02	2.533E-02	4.135E-02	2.436E-03	-0.332
		401.10		4.689E+00	6.901E+00	1.191E+01	6.898E-01	0.394
LU-177	+	112.95		1.434E+01	4.869E+00	5.133E+00	3.366E-01	2.795
		208.36	*	1.906E+00	1.606E+00	2.416E+00	1.307E-01	0.789
LU-177M		52.97		4.583E-01	2.824E+00	4.768E+00	4.202E-01	0.096
		54.07		-6.719E-01	1.489E+00	2.468E+00	2.181E-01	-0.272
		61.30		2.395E+01	3.827E+00	5.706E+00	4.956E-01	4.197
		121.62		-2.001E-01	4.486E-01	7.262E-01	4.292E-02	-0.276
		147.16		1.654E-01	8.493E-01	1.228E+00	6.586E-02	0.135
		171.86		2.862E-01	5.410E-01	8.975E-01	4.608E-02	0.319
		218.09		-8.973E-01	9.213E-01	1.415E+00	7.756E-02	-0.634
	+	268.79		2.116E+00	1.128E+00	1.429E+00	8.260E-02	1.481
		319.02		1.488E-01	2.667E-01	4.599E-01	2.716E-02	0.324
		367.43		2.298E-01	8.744E-01	1.481E+00	8.675E-02	0.155
		413.65	*	5.595E-02	1.875E-01	2.776E-01	1.615E-02	0.202
HF-181		56.28		3.508E-02	1.667E+00	2.799E+00	2.465E-01	0.013
		57.53		-3.036E-01	9.760E-01	1.493E+00	1.308E-01	-0.203
		65.20		9.092E+00	1.971E+00	3.065E+00	2.663E-01	2.966
		133.02		-2.140E-02	8.109E-02	1.318E-01	7.399E-03	-0.162
		136.25		5.490E-02	5.488E-01	9.025E-01	5.009E-02	0.061
		345.85		-7.053E-02	2.513E-01	3.363E-01	1.984E-02	-0.210
		482.03	*	-5.178E-02	4.684E-02	7.090E-02	4.147E-03	-0.730
W-181		56.28		1.474E-02	6.382E-01	1.072E+00	9.437E-02	0.014
		57.53		-1.170E-01	3.740E-01	5.720E-01	5.012E-02	-0.205
		65.20	*	3.456E+00	7.492E-01	1.165E+00	1.012E-01	2.966
TA-182		67.75		-2.393E-01	2.031E-01	2.635E-01	2.294E-02	-0.908
		100.10		6.377E-01	2.694E-01	4.215E-01	3.299E-02	1.513
		152.43		2.185E-02	3.863E-01	6.228E-01	3.292E-02	0.035
		222.10		4.406E-02	3.774E-01	6.109E-01	3.366E-02	0.072
		1001.68		2.092E+01	3.877E+00	7.315E+00	5.939E-01	2.860
		1121.28		3.169E-01	1.700E-01	3.161E-01	2.056E-02	1.002
		1189.05		-2.771E-01	3.274E-01	4.905E-01	2.846E-02	-0.565
		1221.42	*	-2.048E-02	2.023E-01	3.273E-01	2.009E-02	-0.063
		1230.97		-4.191E-01	4.941E-01	7.398E-01	4.615E-02	-0.566
RE-183		57.98		2.015E-01	3.817E-01	5.712E-01	4.995E-02	0.353
		59.32		2.518E-01	2.105E-01	3.208E-01	2.788E-02	0.785
		67.20		-3.038E-01	3.379E-01	4.797E-01	4.174E-02	-0.633
		162.32	*	2.652E-01	1.301E-01	2.261E-01	1.163E-02	1.173

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		208.81		1.429E+00	1.177E+00	1.774E+00	9.604E-02	0.806
		291.72		3.079E-01	1.066E+00	1.595E+00	9.347E-02	0.193
RE-184		57.98		7.336E-01	1.390E+00	2.079E+00	1.819E-01	0.353
		59.32		9.159E-01	7.657E-01	1.167E+00	1.014E-01	0.785
		67.20		-1.106E+00	1.230E+00	1.746E+00	1.519E-01	-0.633
		161.27		5.091E-01	4.096E-01	6.961E-01	3.591E-02	0.731
		216.55		1.319E-02	2.770E-01	4.474E-01	2.447E-02	0.029
		252.85	*	-3.314E-01	2.800E-01	3.808E-01	2.171E-02	-0.870
		318.01		2.662E-01	4.565E-01	7.884E-01	4.655E-02	0.338
		792.07		1.248E-02	1.224E+00	1.773E+00	1.270E-01	0.007
		903.28		-3.320E-01	1.112E+00	1.524E+00	1.381E-01	-0.218
		920.93		-3.430E-01	4.942E-01	7.468E-01	6.661E-02	-0.459
OS-185		59.72		3.638E-01	5.719E-01	8.575E-01	7.447E-02	0.424
		61.14		2.011E+00	3.854E-01	5.925E-01	5.147E-02	3.395
		69.30		4.884E-01	5.117E-01	7.270E-01	6.347E-02	0.672
		592.07		-1.253E+00	2.610E+00	4.080E+00	2.258E-01	-0.307
		646.12	*	-1.772E-02	4.458E-02	6.973E-02	3.639E-03	-0.254
		717.42		-1.150E-01	9.580E-01	1.527E+00	9.074E-02	-0.075
		874.81		1.216E-01	5.555E-01	9.462E-01	8.193E-02	0.128
		880.27		1.394E-01	7.733E-01	1.311E+00	1.149E-01	0.106
RE-188		155.03	*	7.500E-02	1.866E-01	3.092E-01	1.622E-02	0.243
		477.96		1.588E+00	3.435E+00	5.823E+00	3.408E-01	0.273
		633.10		-1.421E+00	3.091E+00	4.512E+00	2.393E-01	-0.315
W-188	+	63.58		1.417E+03	1.981E+02	2.272E+02	1.973E+01	6.237
		227.08		-2.458E+00	1.421E+01	2.268E+01	1.258E+00	-0.108
		290.67	*	-1.323E+00	8.525E+00	1.237E+01	7.243E-01	-0.107
IR-192	+	295.96		6.185E-01	1.700E-01	2.578E-01	1.536E-02	2.400
		308.46		5.314E-02	9.563E-02	1.652E-01	9.845E-03	0.322
		316.51	*	5.833E-03	3.550E-02	6.006E-02	3.563E-03	0.097
		468.07		-7.105E-02	7.329E-02	1.128E-01	7.596E-03	-0.630
		604.41		-1.402E-02	5.788E-01	8.113E-01	9.075E-02	-0.017
		612.46		-1.421E-01	8.705E-01	1.200E+00	8.753E-02	-0.118
AU-195		65.12		1.860E+00	3.609E-01	5.562E-01	4.831E-02	3.344
		66.83		-5.184E-02	1.534E-01	2.230E-01	1.939E-02	-0.233
	+	75.70		1.090E+00	3.664E-01	5.506E-01	4.918E-02	1.979
	+	98.88	*	1.038E+00	3.934E-01	5.681E-01	4.533E-02	1.828
		129.76		6.243E+00	3.344E+00	5.793E+00	3.293E-01	1.078
TL-200		367.94	*	-4.772E-05	3.344E+00	Half-Life too short		
		579.30		1.842E-02	3.344E+00	Half-Life too short		
		828.27		8.306E-04	3.344E+00	Half-Life too short		
		1205.75		4.015E-03	3.344E+00	Half-Life too short		
TL-201		68.90		8.746E+00	1.431E+01	1.832E+01	1.598E+00	0.477
		70.82		5.231E+00	7.093E+00	1.066E+01	9.345E-01	0.490
		80.30		7.955E+00	1.741E+01	1.897E+01	1.741E+00	0.419
		135.34		-2.080E+01	4.761E+01	7.684E+01	4.278E+00	-0.271
		167.43	*	-2.233E+01	1.293E+01	1.934E+01	9.871E-01	-1.154
TL-202		68.90		5.503E-01	9.004E-01	1.153E+00	1.005E-01	0.477
		70.82		3.282E-01	4.451E-01	6.691E-01	5.863E-02	0.490
		80.30		4.993E-01	1.093E+00	1.191E+00	1.093E-01	0.419

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	5.512E-02	8.081E-02	1.393E-01	8.151E-03	0.396
HG-203		70.83		1.319E+00	1.773E+00	2.658E+00	3.641E-01	0.496
		72.87		2.560E+00	1.102E+00	1.649E+00	2.198E-01	1.553
	+	82.60		3.786E+00	1.892E+00	2.866E+00	4.070E-01	1.321
		279.20	*	-2.762E-03	4.372E-02	7.351E-02	4.541E-03	-0.038
BI-207		72.80		6.836E-01	3.035E-01	4.662E-01	4.111E-02	1.466
	+	74.97		5.998E-01	2.016E-01	2.880E-01	2.563E-02	2.082
	+	84.90		6.386E-01	3.118E-01	4.867E-01	4.627E-02	1.312
		569.67		3.602E-03	3.387E-02	5.455E-02	3.073E-03	0.066
		1063.62	*	1.588E-02	5.352E-02	9.078E-02	6.669E-03	0.175
		1770.23		-7.203E-01	5.619E-01	7.199E-01	4.457E-02	-1.000
TL-207		81.07		2.884E-01	4.609E-01	5.066E-01	4.675E-02	0.569
	+	83.78		4.210E-01	2.056E-01	3.157E-01	2.973E-02	1.334
		94.90		3.931E+00	5.861E-01	7.333E-01	6.256E-02	5.361
		122.32		5.491E-01	2.035E+00	3.377E+00	2.285E-01	0.163
	+	144.24		1.592E+00	1.252E+00	1.422E+00	9.845E-02	1.120
		154.21		3.267E-01	4.244E-01	7.119E-01	4.679E-02	0.459
	+	269.46		4.910E-01	2.618E-01	3.410E-01	2.061E-02	1.440
		323.87	*	-4.108E-01	7.662E-01	1.067E+00	1.767E-01	-0.385
	+	338.28		5.303E+00	1.659E+00	2.269E+00	2.403E-01	2.337
		445.03		-1.148E+00	2.334E+00	3.724E+00	3.835E-01	-0.308
PO-209		260.50		7.047E+00	1.156E+01	1.684E+01	9.667E-01	0.418
		262.80		7.158E+00	3.152E+01	4.469E+01	2.571E+00	0.160
		896.60	*	5.818E+00	7.379E+00	1.314E+01	1.193E+00	0.443
BI-210		46.50	*	1.611E+00	6.662E+00	1.125E+01	8.757E-01	0.143
PB-210		46.50	*	1.611E+00	6.662E+00	1.125E+01	8.757E-01	0.143
PO-210		46.50	*	1.611E+00	6.661E+00	1.125E+01	7.546E-01	0.143
PB-211		404.84	*	-3.459E-01	1.134E+00	1.561E+00	9.734E-01	-0.222
		427.08		3.649E-01	2.111E+00	3.514E+00	2.172E+00	0.104
		831.96		1.179E+00	1.374E+00	2.107E+00	1.318E+00	0.559
BI-214	+	609.31	*	7.317E-01	1.461E-01	2.435E-01	1.830E-02	3.005
		1120.29		6.986E-01	3.653E-01	6.745E-01	6.268E-02	1.036
		1764.49		9.190E-01	3.781E-01	7.320E-01	4.551E-02	1.255
PO-215		81.07		2.884E-01	4.609E-01	5.066E-01	4.675E-02	0.569
	+	83.78		4.210E-01	2.056E-01	3.157E-01	2.973E-02	1.334
		94.90		3.931E+00	5.861E-01	7.333E-01	6.256E-02	5.361
		122.32		5.491E-01	2.035E+00	3.377E+00	2.285E-01	0.163
	+	144.24		1.592E+00	1.252E+00	1.422E+00	9.845E-02	1.120
		154.21		3.267E-01	4.244E-01	7.119E-01	4.679E-02	0.459
	+	269.46		4.910E-01	2.618E-01	3.410E-01	2.061E-02	1.440
		323.87	*	-4.108E-01	7.662E-01	1.067E+00	1.767E-01	-0.385
	+	338.28		5.303E+00	1.659E+00	2.269E+00	2.403E-01	2.337
		445.03		-1.148E+00	2.334E+00	3.724E+00	3.835E-01	-0.308
RN-219	+	271.23		6.300E-01	3.375E-01	4.409E-01	3.570E-02	1.429
		401.81	*	3.735E-02	4.407E-01	7.163E-01	9.745E-02	0.052
RN-220		549.76	*	1.640E+01	2.745E+01	4.683E+01	2.673E+00	0.350
RA-223		81.07		2.884E-01	4.609E-01	5.066E-01	4.675E-02	0.569
	+	83.78		4.210E-01	2.056E-01	3.157E-01	2.973E-02	1.334
		94.90		3.931E+00	5.861E-01	7.333E-01	6.256E-02	5.361

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		5.491E-01	2.035E+00	3.377E+00	2.285E-01	0.163
	+	144.24		1.592E+00	1.252E+00	1.422E+00	9.845E-02	1.120
		154.21		3.267E-01	4.244E-01	7.119E-01	4.679E-02	0.459
	+	269.46		4.910E-01	2.618E-01	3.410E-01	2.061E-02	1.440
		323.87	*	-4.108E-01	7.662E-01	1.067E+00	1.767E-01	-0.385
	+	338.28		5.303E+00	1.659E+00	2.269E+00	2.403E-01	2.337
		445.03		-1.148E+00	2.334E+00	3.724E+00	3.835E-01	-0.308
RA-226	+	609.31	*	7.317E-01	1.461E-01	2.435E-01	1.830E-02	3.005
		1120.29		6.986E-01	3.653E-01	6.745E-01	6.268E-02	1.036
		1764.49		9.190E-01	3.781E-01	7.320E-01	4.551E-02	1.255
AC-227		79.80		2.772E+00	3.574E+00	3.917E+00	8.509E-01	0.708
		236.00		1.855E+00	3.698E-01	5.682E-01	5.878E-02	3.264
		256.20	*	3.324E-01	4.780E-01	6.964E-01	9.699E-02	0.477
		286.10		-1.057E+00	1.605E+00	2.612E+00	3.026E-01	-0.405
	+	299.80		1.940E+00	1.346E+00	2.573E+00	4.198E-01	0.754
		304.40		4.382E-03	2.136E+00	3.126E+00	5.417E-01	0.001
		334.20		-6.302E-01	3.136E+00	3.506E+00	6.439E-01	-0.180
TH-227		79.80		2.772E+00	3.576E+00	3.917E+00	8.616E-01	0.708
		94.00		1.062E+02	2.372E+01	9.585E+00	2.089E+00	11.081
		236.00		1.855E+00	3.569E-01	5.682E-01	5.076E-02	3.264
		256.20	*	3.324E-01	4.791E-01	6.964E-01	1.175E-01	0.477
		286.10		-1.057E+00	1.919E+00	2.612E+00	2.617E+00	-0.405
	+	299.80		1.940E+00	1.346E+00	2.573E+00	4.198E-01	0.754
		304.40		4.382E-03	2.136E+00	3.126E+00	5.417E-01	0.001
		334.20		-6.302E-01	3.136E+00	3.506E+00	6.439E-01	-0.180
TH-229	+	85.43		6.303E-01	3.077E-01	4.898E-01	4.677E-02	1.287
	+	88.47		2.907E-01	1.724E-01	2.980E-01	2.882E-02	0.975
		100.00		7.326E-01	2.795E-01	4.392E-01	3.443E-02	1.668
		193.63	*	-4.253E-01	5.487E-01	8.580E-01	4.545E-02	-0.496
		210.97		-6.607E-01	8.517E-01	1.276E+00	6.927E-02	-0.518
TH-230	+	609.31	*	7.316E-01	1.461E-01	2.435E-01	1.830E-02	3.005
		1120.29		6.986E-01	3.653E-01	6.745E-01	6.268E-02	1.036
		1764.49		9.189E-01	3.781E-01	7.320E-01	4.551E-02	1.255
PA-231		283.67	*	6.835E-01	1.640E+00	2.811E+00	3.877E-01	0.243
	+	301.29		7.758E-01	5.297E-01	1.054E+00	1.106E-01	0.736
TH-231		81.07		2.884E-01	4.609E-01	5.066E-01	4.675E-02	0.569
	+	83.78		4.210E-01	2.056E-01	3.157E-01	2.973E-02	1.334
		94.90		3.931E+00	5.861E-01	7.333E-01	6.256E-02	5.361
		122.32		5.491E-01	2.035E+00	3.377E+00	2.285E-01	0.163
	+	144.24		1.592E+00	1.252E+00	1.422E+00	9.845E-02	1.120
		154.21		3.267E-01	4.244E-01	7.119E-01	4.679E-02	0.459
	+	269.46		4.910E-01	2.618E-01	3.410E-01	2.061E-02	1.440
		323.87	*	-4.108E-01	7.662E-01	1.067E+00	1.767E-01	-0.385
	+	338.28		5.303E+00	1.659E+00	2.269E+00	2.403E-01	2.337
		445.03		-1.148E+00	2.334E+00	3.724E+00	3.835E-01	-0.308
U-231	+	84.21		2.559E+01	1.250E+01	1.919E+01	1.814E+00	1.334
	+	92.29		1.943E+02	1.991E+01	1.523E+01	1.363E+00	12.757
		95.87	*	5.630E+00	2.933E+00	3.470E+00	2.910E-01	1.623
		108.00		-3.978E+00	4.272E+00	5.932E+00	4.145E-01	-0.671

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PA-233	+	75.28		1.750E+01	6.289E+00	8.708E+00	1.351E+00	2.010
	+	86.59		4.169E+00	2.689E+00	4.176E+00	1.134E+00	0.998
	+	300.12		5.407E-01	3.720E-01	7.215E-01	9.720E-02	0.749
		311.98	*	-9.893E-03	6.465E-02	1.077E-01	6.731E-03	-0.092
		340.50		8.881E-01	7.281E-01	1.109E+00	2.550E-01	0.801
		398.62		2.414E+00	2.174E+00	3.700E+00	9.565E-01	0.653
		415.76		-9.212E-01	1.579E+00	2.493E+00	5.134E-01	-0.370
PA-234	+	63.00		4.025E+01	7.652E+00	6.700E+00	1.041E+00	6.008
		94.67		4.092E+00	6.240E-01	5.978E-01	7.392E-02	6.846
	+	98.44		4.174E-01	2.792E-01	2.291E-01	1.276E-01	1.822
	+	99.86		2.164E+00	8.197E-01	1.136E+00	8.925E-02	1.904
		111.00		8.346E-01	3.012E-01	4.616E-01	4.992E-02	1.808
		131.20		1.079E-01	1.254E-01	2.113E-01	1.194E-02	0.510
		152.70		-6.979E-03	3.673E-01	5.905E-01	9.227E-02	-0.012
	+	186.00		1.788E+01	5.913E+00	3.766E+00	1.147E+00	4.747
		226.40		1.403E-01	4.346E-01	7.090E-01	8.106E-02	0.198
		227.20		-7.430E-02	4.705E-01	7.513E-01	4.167E-02	-0.099
		248.90		-1.929E-01	8.875E-01	1.405E+00	3.014E-01	-0.137
	+	293.70		3.818E+00	1.195E+00	1.582E+00	2.548E-01	2.413
		369.80		-2.252E-02	8.331E-01	1.386E+00	2.888E-01	-0.016
		568.70		4.385E-01	1.117E+00	1.837E+00	1.036E-01	0.239
		569.50		4.614E-02	3.015E-01	4.873E-01	2.746E-02	0.095
		574.00		-9.168E-01	1.626E+00	2.458E+00	1.381E-01	-0.373
		699.00		8.511E-01	7.949E-01	1.365E+00	2.448E-01	0.624
		706.10		4.849E-02	1.169E+00	1.891E+00	8.343E-01	0.026
		733.00		-4.774E-01	4.651E-01	5.364E-01	1.146E-01	-0.890
		742.81		1.606E+00	1.817E+00	2.577E+00	1.726E+00	0.623
		796.30		1.206E+00	1.008E+00	1.749E+00	4.660E-01	0.689
		805.60		3.856E-01	9.609E-01	1.654E+00	5.017E-01	0.233
		819.60		4.588E-01	1.329E+00	2.268E+00	8.576E-01	0.202
		826.30		-1.342E+00	1.021E+00	1.171E+00	5.219E-01	-1.146
		831.60		5.491E-01	6.302E-01	1.096E+00	3.248E-01	0.501
		876.40		2.883E-01	8.397E-01	1.357E+00	1.395E+00	0.212
		880.51		7.194E-02	2.751E-01	4.697E-01	4.118E-02	0.153
		883.24		5.641E-02	2.925E-01	4.920E-01	3.309E-01	0.115
		899.00		1.847E-01	8.133E-01	1.377E+00	6.032E-01	0.134
		925.00		4.297E-01	1.271E+00	2.159E+00	1.918E-01	0.199
		926.50		-3.017E-02	1.970E-01	3.207E-01	8.134E-02	-0.094
		946.00	*	-7.472E-02	3.220E-01	5.227E-01	9.826E-02	-0.143
		949.00		-1.685E-03	4.651E-01	7.717E-01	6.689E-02	-0.002
		980.50		1.610E-01	7.184E-01	1.217E+00	1.016E-01	0.132
		1394.10		-6.805E-02	1.115E+00	1.787E+00	1.160E+00	-0.038
U-234	+	609.31	*	7.316E-01	1.461E-01	2.435E-01	1.830E-02	3.005
		1120.29		6.986E-01	3.653E-01	6.745E-01	6.268E-02	1.036
		1764.49		9.189E-01	3.781E-01	7.320E-01	4.551E-02	1.255
NP-236		94.67		3.139E+00	3.864E-01	4.553E-01	3.901E-02	6.895
	+	98.44		3.155E-01	1.195E-01	1.732E-01	1.392E-02	1.822
		111.00		6.313E-01	2.215E-01	3.491E-01	2.346E-02	1.808
		160.31	*	-5.170E-02	9.164E-02	1.462E-01	7.560E-03	-0.354

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		7.212E-01	2.733E-01	3.901E-01	3.079E-02	1.849
		117.00	*	1.132E-01	2.566E-01	3.783E-01	2.361E-02	0.299
		209.75		1.360E+00	8.980E-01	1.376E+00	7.456E-02	0.988
		228.18		3.535E-02	2.427E-01	3.930E-01	2.182E-02	0.090
		277.60		3.415E-02	1.937E-01	3.119E-01	1.813E-02	0.109
		334.30		-3.570E-01	1.776E+00	1.987E+00	1.174E-01	-0.180
AM-241		59.54	*	3.740E-01	2.912E-01	4.443E-01	4.134E-02	0.842
CM-243	+	99.55		7.422E-01	2.812E-01	4.014E-01	3.169E-02	1.849
		103.76	*	4.514E-02	1.251E-01	2.008E-01	1.488E-02	0.225
		117.00		1.164E-01	2.641E-01	3.892E-01	2.429E-02	0.299
		209.75		1.341E+00	8.854E-01	1.356E+00	7.351E-02	0.988
		228.18		3.573E-02	2.453E-01	3.972E-01	2.205E-02	0.090
		277.60		3.443E-02	1.953E-01	3.145E-01	1.828E-02	0.109
AM-246		798.80		-1.104E-01	1.526E-01	2.411E-01	1.755E-02	-0.458
		1036.00		-1.393E-01	2.887E-01	4.513E-01	3.479E-02	-0.309
		1062.04		-4.606E-02	2.315E-01	3.739E-01	2.755E-02	-0.123
		1078.86	*	7.282E-02	1.479E-01	2.550E-01	1.820E-02	0.286
CM-247		278.00		7.203E-02	7.688E-01	1.302E+00	7.572E-02	0.055
		287.40		3.241E-01	1.267E+00	2.159E+00	1.263E-01	0.150
		402.60	*	-1.332E-02	4.237E-02	6.237E-02	3.615E-03	-0.214
CF-249		252.85		-1.233E+00	1.042E+00	1.417E+00	8.078E-02	-0.870
		333.44		3.265E-02	2.654E-01	2.650E-01	1.566E-02	0.123
		387.95	*	2.195E-02	3.973E-02	6.823E-02	3.948E-03	0.322
CF-251		176.60	*	-6.716E-02	1.396E-01	2.222E-01	1.148E-02	-0.302
		227.00		-2.880E-02	4.170E-01	6.686E-01	3.707E-02	-0.043
		285.00		2.916E-01	1.850E+00	3.140E+00	1.833E-01	0.093

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020012      *
* Acquisition date : 13-FEB-2010 16:57:02 Detector SN#     :               *
* Detector ID        : GAM23                Sensitivity      : 5.000       *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:01.90      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020012           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.4089E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :     0.000             MSD Isotope      :              *
* LCS DPM          :     0.000             LCS Isotope      :              *
* LCSD DPM         :     0.000             LCSD Isotope     :              *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	1.934E+01	2.090E+00	5.262E-01	0.000E+00
NB-95	2.939E-01	9.104E-02	7.351E-02	0.000E+00
CD-109	2.173E+00	1.263E+00	2.018E+00	0.000E+00
SN-126	2.129E-01	1.237E-01	2.131E-01	0.000E+00
BA-137M	9.908E-02	4.927E-02	5.661E-02	0.000E+00
CS-137	1.047E-01	5.209E-02	5.984E-02	0.000E+00
TL-208	3.756E-01	7.186E-02	5.700E-02	0.000E+00
BI-211	2.368E+00	4.637E-01	3.375E-01	0.000E+00
BI-212	8.279E-01	4.567E-01	3.835E-01	0.000E+00
PB-212	1.149E+00	1.254E-01	9.581E-02	0.000E+00
PO-212	1.149E+00	1.254E-01	9.581E-02	0.000E+00
PB-214	8.239E-01	1.667E-01	1.177E-01	0.000E+00
PO-214	8.239E-01	1.667E-01	1.177E-01	0.000E+00
PO-216	1.149E+00	1.254E-01	9.581E-02	0.000E+00
PO-218	8.239E-01	1.667E-01	1.177E-01	0.000E+00
RA-224	3.008E+00	8.400E-01	1.090E+00	0.000E+00
AC-228	9.298E-01	3.118E-01	2.152E-01	0.000E+00
RA-228	9.298E-01	3.118E-01	2.152E-01	0.000E+00
TH-228	1.169E+00	1.275E-01	9.746E-02	0.000E+00
TH-232	9.298E-01	3.118E-01	2.152E-01	0.000E+00
PA-234M	5.028E+01	1.054E+01	6.330E+00	0.000E+00
TH-234	3.453E+01	7.137E+00	3.500E+00	0.000E+00
U-235	4.913E-01	3.852E-01	4.101E-01	0.000E+00
NP-237	6.253E-01	3.847E-01	6.265E-01	0.000E+00
U-238	3.453E+01	7.137E+00	3.500E+00	0.000E+00
AM-243	3.341E-01	1.101E-01	1.400E-01	0.000E+00
ANH-511	9.367E-02	6.693E-02	4.761E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	4.788E-01	3.397E-01	6.373E-01	0.000E+00	NOT IDENT.
NA-22	-9.445E-04	4.223E-02	7.054E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.598E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.326E-03	2.473E-02	4.078E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.919E-02	1.018E-01	0.000E+00	FAIL ABUN
SC-46	6.203E-04	3.823E-02	6.606E-02	0.000E+00	NOT IDENT.
V-48	-8.508E-02	7.912E-02	1.205E-01	0.000E+00	NOT IDENT.
CR-51	1.922E-02	3.982E-01	6.901E-01	0.000E+00	NOT IDENT.
MN-52	-2.290E-01	3.471E-01	5.219E-01	0.000E+00	NOT IDENT.
MN-54	-2.995E-02	3.590E-02	5.759E-02	0.000E+00	NOT IDENT.
CO-56	1.454E-02	3.893E-02	6.957E-02	0.000E+00	NOT IDENT.
CO-57	7.875E-04	2.913E-02	5.171E-02	0.000E+00	NOT IDENT.
CO-58	-3.012E-02	3.919E-02	6.338E-02	0.000E+00	NOT IDENT.
FE-59	2.847E-03	8.663E-02	1.474E-01	0.000E+00	FAIL ABUN
CO-60	1.492E-02	3.490E-02	6.167E-02	0.000E+00	NOT IDENT.
ZN-65	-1.344E-01	1.050E-01	1.579E-01	0.000E+00	NOT IDENT.
GE-68	2.534E-01	1.298E+00	2.246E+00	0.000E+00	NOT IDENT.
AS-73	-5.411E-01	1.464E+00	2.666E+00	0.000E+00	NOT IDENT.
AS-74	8.420E-02	1.034E-01	1.862E-01	0.000E+00	NOT IDENT.
SE-75	-2.903E-02	5.286E-02	7.488E-02	0.000E+00	NOT IDENT.
BR-77	-1.447E+01	1.919E+01	3.104E+01	0.000E+00	FAIL ABUN
SR-82	-2.994E-01	4.516E-01	6.551E-01	0.000E+00	NOT IDENT.
RB-83	-5.032E-02	7.033E-02	1.141E-01	0.000E+00	NOT IDENT.
RB-84	2.237E-02	7.119E-02	1.264E-01	0.000E+00	NOT IDENT.
KR-85	6.327E+00	7.632E+00	1.227E+01	0.000E+00	NOT IDENT.
SR-85	3.316E-02	4.000E-02	6.432E-02	0.000E+00	NOT IDENT.
RB-86	1.047E-01	9.034E-01	1.551E+00	0.000E+00	NOT IDENT.
Y-88	-1.681E-02	2.627E-02	3.641E-02	0.000E+00	NOT IDENT.
ZR-88	-2.117E-02	2.909E-02	4.848E-02	0.000E+00	NOT IDENT.
Y-91	4.717E+00	1.924E+01	3.311E+01	0.000E+00	NOT IDENT.
NB-94	2.063E-02	3.826E-02	6.673E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.609E-01	2.738E-01	0.000E+00	NOT IDENT.
ZR-95	1.819E-03	7.941E-02	1.291E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.704E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.708E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.109E+01	2.088E+01	3.640E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.586E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.038E-02	3.510E-02	6.134E-02	0.000E+00	NOT IDENT.
RH-102	8.366E-03	3.131E-02	5.502E-02	0.000E+00	FAIL ABUN
RU-103	3.682E-02	4.279E-02	7.764E-02	0.000E+00	NOT IDENT.
RH-106	-2.588E-01	3.502E-01	5.575E-01	0.000E+00	FAIL ABUN
RU-106	-2.588E-01	3.493E-01	5.575E-01	0.000E+00	FAIL ABUN
AG-108M	-2.007E-02	3.347E-02	5.593E-02	0.000E+00	NOT IDENT.
AG-110M	-3.331E-02	4.446E-02	5.907E-02	0.000E+00	NOT IDENT.
IN-111	-7.468E-01	2.085E+00	3.022E+00	0.000E+00	NOT IDENT.
IN-113M	1.413E-02	4.116E-02	7.363E-02	0.000E+00	NOT IDENT.
SN-113	1.413E-02	4.116E-02	7.363E-02	0.000E+00	NOT IDENT.
IN-114M	3.237E-02	2.180E-01	3.328E-01	0.000E+00	NOT IDENT.
CD-115	2.415E+00	2.087E+01	3.611E+01	0.000E+00	NOT IDENT.
SN-117M	-5.155E-02	6.567E-02	1.113E-01	0.000E+00	NOT IDENT.
SB-122	2.900E+00	3.692E+00	6.644E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	8.871E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.609E-02	3.143E-02	5.320E-02	0.000E+00	NOT IDENT.
I-124	-8.464E-01	1.181E+00	1.601E+00	0.000E+00	FAIL ABUN
SB-124	-1.017E-02	5.706E-02	9.263E-02	0.000E+00	FAIL ABUN
SB-125	5.350E-02	8.980E-02	1.622E-01	0.000E+00	NOT IDENT.
TE-125M	8.224E-01	1.394E+01	2.187E+01	0.000E+00	NOT IDENT.
I-126	-4.920E-02	2.451E-01	3.482E-01	0.000E+00	NOT IDENT.
SB-126	-2.211E-02	1.900E-01	2.703E-01	0.000E+00	NOT IDENT.
SB-127	-1.397E-01	1.985E+00	3.319E+00	0.000E+00	NOT IDENT.
XE-127	8.478E-03	6.009E-02	9.129E-02	0.000E+00	NOT IDENT.
I-131	-9.887E-02	1.353E-01	2.274E-01	0.000E+00	NOT IDENT.
TE-132	1.725E-01	1.135E+00	1.957E+00	0.000E+00	FAIL ABUN
BA-133	-3.494E-02	5.032E-02	7.253E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.230E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.814E-02	4.897E-02	9.421E-02	0.000E+00	NOT IDENT.
CS-135	2.209E-01	1.795E-01	2.877E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.124E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.592E-02	1.108E-01	1.782E-01	0.000E+00	FAIL ABUN
CE-139	-4.009E-02	3.424E-02	5.652E-02	0.000E+00	NOT IDENT.
BA-140	1.186E-01	3.071E-01	5.365E-01	0.000E+00	NOT IDENT.
LA-140	-5.703E-02	8.322E-02	1.246E-01	0.000E+00	FAIL ABUN
CE-141	9.067E-02	8.588E-02	1.384E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.513E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-8.618E-02	2.393E-01	4.168E-01	0.000E+00	NOT IDENT.
PM-144	-1.239E-02	3.673E-02	6.000E-02	0.000E+00	NOT IDENT.
PR-144	-8.408E-01	2.491E+00	4.071E+00	0.000E+00	NOT IDENT.
PM-146	2.101E-02	4.302E-02	7.693E-02	0.000E+00	NOT IDENT.

ND-147	-3.656E-01	6.456E-01	1.056E+00	0.000E+00	FAIL ABUN
PM-149	-9.946E+01	1.801E+02	3.126E+02	0.000E+00	NOT IDENT.
EU-152	-4.695E-03	1.278E-01	1.712E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.321E-01	2.090E-01	0.000E+00	FAIL ABUN
EU-154	2.218E-03	1.184E-01	1.986E-01	0.000E+00	NOT IDENT.
EU-155	7.828E-02	1.365E-01	2.400E-01	0.000E+00	FAIL ABUN
TB-160	-7.525E-02	1.394E-01	2.283E-01	0.000E+00	FAIL ABUN
HO-166M	-1.354E-02	6.360E-02	1.047E-01	0.000E+00	FAIL ABUN
TM-171	-1.675E+01	4.526E+01	7.169E+01	0.000E+00	NOT IDENT.
LU-176	-1.374E-02	2.482E-02	4.290E-02	0.000E+00	FAIL ABUN
LU-177	1.906E+00	1.574E+00	2.527E+00	0.000E+00	FAIL ABUN
LU-177M	5.595E-02	1.837E-01	2.863E-01	0.000E+00	FAIL ABUN
HF-181	-5.178E-02	4.590E-02	7.288E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	7.342E-01	1.246E+00	0.000E+00	NOT IDENT.
TA-182	-2.048E-02	1.982E-01	3.299E-01	0.000E+00	NOT IDENT.
RE-183	0.000E+00	1.275E-01	2.376E-01	0.000E+00	NOT IDENT.
RE-184	-3.314E-01	2.744E-01	3.966E-01	0.000E+00	NOT IDENT.
OS-185	-1.772E-02	4.369E-02	7.124E-02	0.000E+00	NOT IDENT.
RE-188	7.500E-02	1.829E-01	3.252E-01	0.000E+00	NOT IDENT.
W-188	-1.323E+00	8.354E+00	1.285E+01	0.000E+00	FAIL ABUN
IR-192	5.833E-03	3.479E-02	6.228E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.855E-01	6.028E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.629E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.233E+01	1.267E+01	2.031E+01	0.000E+00	NOT IDENT.
TL-202	5.512E-02	7.919E-02	1.435E-01	0.000E+00	NOT IDENT.
HG-203	-2.762E-03	4.284E-02	7.642E-02	0.000E+00	FAIL ABUN
BI-207	1.588E-02	5.245E-02	9.177E-02	0.000E+00	FAIL ABUN
TL-207	-4.108E-01	7.509E-01	1.106E+00	0.000E+00	FAIL ABUN
PO-209	5.818E+00	7.231E+00	1.333E+01	0.000E+00	NOT IDENT.
BI-210	1.611E+00	6.528E+00	1.211E+01	0.000E+00	NOT IDENT.
PB-210	1.611E+00	6.528E+00	1.211E+01	0.000E+00	NOT IDENT.
PO-210	1.611E+00	6.528E+00	1.211E+01	0.000E+00	NOT IDENT.
PB-211	-3.459E-01	1.112E+00	1.611E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	1.432E-01	2.491E-01	0.000E+00	FAIL ABUN
PO-215	-4.108E-01	7.509E-01	1.106E+00	0.000E+00	FAIL ABUN
RN-219	3.735E-02	4.318E-01	7.391E-01	0.000E+00	FAIL ABUN
RN-220	1.640E+01	2.690E+01	4.801E+01	0.000E+00	NOT IDENT.
RA-223	-4.108E-01	7.509E-01	1.106E+00	0.000E+00	FAIL ABUN
RA-226	0.000E+00	1.432E-01	2.491E-01	0.000E+00	FAIL ABUN
AC-227	3.324E-01	4.685E-01	7.252E-01	0.000E+00	FAIL ABUN
TH-227	3.324E-01	4.695E-01	7.252E-01	0.000E+00	FAIL ABUN
TH-229	-4.253E-01	5.378E-01	8.985E-01	0.000E+00	FAIL ABUN
TH-230	0.000E+00	1.432E-01	2.491E-01	0.000E+00	FAIL ABUN
PA-231	6.835E-01	1.607E+00	2.921E+00	0.000E+00	FAIL ABUN
TH-231	-4.108E-01	7.509E-01	1.106E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	2.875E+00	3.684E+00	0.000E+00	FAIL ABUN
PA-233	-9.893E-03	6.335E-02	1.117E-01	0.000E+00	FAIL ABUN
PA-234	-7.472E-02	3.155E-01	5.297E-01	0.000E+00	FAIL ABUN
U-234	0.000E+00	1.432E-01	2.491E-01	0.000E+00	FAIL ABUN
NP-236	-5.170E-02	8.981E-02	1.536E-01	0.000E+00	FAIL ABUN
NP-239	1.132E-01	2.515E-01	4.001E-01	0.000E+00	FAIL ABUN
AM-241	3.740E-01	2.854E-01	4.761E-01	0.000E+00	NOT IDENT.
CM-243	4.514E-02	1.226E-01	2.129E-01	0.000E+00	FAIL ABUN
AM-246	7.282E-02	1.449E-01	2.577E-01	0.000E+00	NOT IDENT.
CM-247	-1.332E-02	4.152E-02	6.435E-02	0.000E+00	NOT IDENT.
CF-249	2.195E-02	3.894E-02	7.045E-02	0.000E+00	NOT IDENT.
CF-251	-6.716E-02	1.368E-01	2.331E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:58:43.02

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020012.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 16:57:02
Sample ID         : G246020012           Sample quantity  : 1.40890E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.90  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	773	10.67*	9.974E-01	1.934E+01	1.934E+01	11.03
NB-95	765.79	164	99.81*	1.791E+00	2.438E-01	2.939E-01	31.61
CD-109	88.03	154	3.72*	5.210E+00	2.118E+00	2.173E+00	59.29
SN-126	64.28	1270	9.60	2.578E+00	1.367E+01	1.367E+01	18.75
	86.94	154	8.90	5.210E+00	8.853E-01	8.853E-01	71.78
	87.57	154	37.00*	5.210E+00	2.129E-01	2.129E-01	59.29
BA-137M	661.65	68	89.98*	2.043E+00	9.898E-02	9.908E-02	50.74
CS-137	661.65	68	85.12*	2.043E+00	1.046E-01	1.047E-01	50.75
TL-208	277.35	------	6.80	4.140E+00	------ Line Not Found		------
	510.84	89	21.60	2.545E+00	4.337E-01	4.337E-01	73.38
	583.14	270	84.20*	2.278E+00	3.756E-01	3.756E-01	19.52
	860.37	------	12.46	1.609E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.829E+00	------ Line Not Found		------
	351.07	396	12.94*	3.441E+00	2.368E+00	2.368E+00	19.98
BI-212	727.18	69	11.80*	1.877E+00	8.279E-01	8.279E-01	56.29
	785.46	59	1.97	1.749E+00	4.530E+00	4.530E+00	74.97
	1620.62	------	2.75	9.223E-01	------ Line Not Found		------
PB-212	74.81	334	10.70	4.035E+00	2.061E+00	2.061E+00	34.89
	77.11	368	18.00	4.305E+00	1.266E+00	1.266E+00	25.84
	87.30	154	8.00	5.210E+00	9.848E-01	9.848E-01	60.13
	238.63	892	44.60*	4.638E+00	1.149E+00	1.149E+00	11.13
	300.09	52	3.41	3.898E+00	1.047E+00	1.047E+00	67.97
PO-212	74.81	334	10.70	4.035E+00	2.061E+00	2.061E+00	34.89
	77.11	368	18.00	4.305E+00	1.266E+00	1.266E+00	25.84
	87.30	154	8.00	5.210E+00	9.848E-01	9.848E-01	60.13
	115.19	------	0.60	6.293E+00	------ Line Not Found		------
	238.63	892	44.60*	4.638E+00	1.149E+00	1.149E+00	11.13
	300.09	52	3.41	3.898E+00	1.047E+00	1.047E+00	67.97
PB-214	74.81	334	6.21	4.035E+00	3.551E+00	3.551E+00	34.43
	77.11	368	10.50	4.305E+00	2.171E+00	2.171E+00	26.94
	87.30	154	4.67	5.210E+00	1.687E+00	1.687E+00	59.79
	241.98	205	7.49	4.595E+00	1.586E+00	1.586E+00	29.04

Sample ID : G246020012 Acquisition date : 13-FEB-2010 16:57:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	226	19.20	3.950E+00	7.954E-01	7.955E-01	28.16
	351.92	396	37.20*	3.441E+00	8.239E-01	8.239E-01	20.65
PO-214	74.81	334	6.21	4.035E+00	3.551E+00	3.551E+00	34.43
	77.11	368	10.50	4.305E+00	2.171E+00	2.171E+00	26.94
	87.30	154	4.67	5.210E+00	1.687E+00	1.687E+00	59.79
	241.98	205	7.49	4.595E+00	1.586E+00	1.586E+00	29.04
	295.21	226	19.20	3.950E+00	7.954E-01	7.955E-01	28.16
	351.92	396	37.20*	3.441E+00	8.239E-01	8.239E-01	20.65
PO-216	74.81	334	10.70	4.035E+00	2.061E+00	2.061E+00	34.89
	77.11	368	18.00	4.305E+00	1.266E+00	1.266E+00	25.84
	87.30	154	8.00	5.210E+00	9.848E-01	9.848E-01	60.13
	238.63	892	44.60*	4.638E+00	1.149E+00	1.149E+00	11.13
	300.09	52	3.41	3.898E+00	1.047E+00	1.047E+00	67.97
PO-218	74.81	334	6.21	4.035E+00	3.551E+00	3.551E+00	34.43
	77.11	368	10.50	4.305E+00	2.171E+00	2.171E+00	26.94
	87.30	154	4.67	5.210E+00	1.687E+00	1.687E+00	59.79
	241.98	205	7.49	4.595E+00	1.586E+00	1.586E+00	29.04
	295.21	226	19.20	3.950E+00	7.954E-01	7.955E-01	28.16
	351.92	396	37.20*	3.441E+00	8.239E-01	8.239E-01	20.65
RA-224	240.98	205	3.95*	4.595E+00	3.008E+00	3.008E+00	28.50
AC-228	338.32	193	11.40	3.550E+00	1.270E+00	1.270E+00	50.30
	911.07	148	27.70*	1.527E+00	9.298E-01	9.298E-01	34.22
	969.11	70	16.60	1.441E+00	7.793E-01	7.793E-01	62.97
RA-228	338.32	193	11.40	3.550E+00	1.270E+00	1.270E+00	50.30
	911.07	148	27.70*	1.527E+00	9.298E-01	9.298E-01	34.22
	969.11	70	16.60	1.441E+00	7.793E-01	7.793E-01	62.97
TH-228	74.81	334	10.70	4.035E+00	2.061E+00	2.096E+00	33.64
	77.11	368	18.00	4.305E+00	1.266E+00	1.288E+00	25.84
	87.30	154	8.00	5.210E+00	9.848E-01	1.002E+00	59.29
	238.63	892	44.60*	4.638E+00	1.149E+00	1.169E+00	11.13
	300.09	52	3.41	3.898E+00	1.047E+00	1.065E+00	89.59
TH-232	338.32	193	11.40	3.550E+00	1.270E+00	1.270E+00	30.02
	911.07	148	27.70*	1.527E+00	9.298E-01	9.298E-01	34.22
	969.11	70	16.60	1.441E+00	7.793E-01	7.793E-01	62.97
PA-234M	766.42	164	0.32	1.791E+00	7.606E+01	7.606E+01	59.15
	1001.03	222	0.84*	1.398E+00	5.028E+01	5.028E+01	21.40
TH-234	63.29	1270	3.80*	2.578E+00	3.453E+01	3.453E+01	21.09
	92.38	4082	5.41	5.574E+00	3.607E+01	3.607E+01	18.91
U-235	89.95	------	2.70	5.418E+00	------ Line Not Found		------
	93.35	4082	4.50	5.574E+00	4.336E+01	4.336E+01	28.57
	105.00	------	2.10	6.104E+00	------ Line Not Found		------
	143.76	120	10.50*	6.190E+00	4.913E-01	4.913E-01	80.00
	163.35	------	4.70	5.886E+00	------ Line Not Found		------
	185.71	737	54.00	5.492E+00	6.621E-01	6.621E-01	13.93
	205.31	45	4.70	5.162E+00	4.977E-01	4.977E-01	124.37
NP-237	86.50	154	12.60*	5.210E+00	6.253E-01	6.253E-01	62.78
	95.87	------	2.60	5.757E+00	------ Line Not Found		------
U-238	63.29	1270	3.80*	2.578E+00	3.453E+01	3.453E+01	21.09
	92.38	4082	5.41	5.574E+00	3.607E+01	3.607E+01	10.25

Sample ID : G246020012 Acquisition date : 13-FEB-2010 16:57:02

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	334	66.00*	4.035E+00	3.341E-01	3.341E-01	33.62
	86.72	154	0.34	5.210E+00	2.345E+01	2.345E+01	59.29
	117.66	------	0.55	6.314E+00	------ Line Not Found		------
	142.18	120	0.13	6.190E+00	4.127E+01	4.127E+01	78.53
ANH-511	511.00	89	100.00*	2.545E+00	9.367E-02	9.367E-02	72.90

Flag: "*" = Keyline

Sample ID : G246020012 Acquisition date : 13-FEB-2010 16:57:02

Total number of lines in spectrum 34
Number of unidentified lines 3
Number of lines tentatively identified by NID 31 91.18%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.934E+01	1.934E+01	0.213E+01	11.03	
NB-95	64.02D	1.21	2.438E-01	2.939E-01	0.929E-01	31.61	
CD-109	464.00D	1.03	2.118E+00	2.173E+00	1.289E+00	59.29	
SN-126	1.00E+05Y	1.00	2.129E-01	2.129E-01	1.263E-01	59.29	
BA-137M	30.17Y	1.00	9.898E-02	9.908E-02	5.028E-02	50.74	
CS-137	30.17Y	1.00	1.046E-01	1.047E-01	0.532E-01	50.75	
TL-208	1.41E+10Y	1.00	3.756E-01	3.756E-01	0.733E-01	19.52	
BI-211	7.04E+08Y	1.00	2.368E+00	2.368E+00	0.473E+00	19.98	
BI-212	1.41E+10Y	1.00	8.279E-01	8.279E-01	4.660E-01	56.29	
PB-212	1.41E+10Y	1.00	1.149E+00	1.149E+00	0.128E+00	11.13	
PO-212	1.41E+10Y	1.00	1.149E+00	1.149E+00	0.128E+00	11.13	
PB-214	1600.00Y	1.00	8.239E-01	8.239E-01	1.701E-01	20.65	
PO-214	1600.00Y	1.00	8.239E-01	8.239E-01	1.701E-01	20.65	
PO-216	1.41E+10Y	1.00	1.149E+00	1.149E+00	0.128E+00	11.13	
PO-218	1600.00Y	1.00	8.239E-01	8.239E-01	1.701E-01	20.65	
RA-224	1.41E+10Y	1.00	3.008E+00	3.008E+00	0.857E+00	28.50	
AC-228	1.41E+10Y	1.00	9.298E-01	9.298E-01	3.181E-01	34.22	
RA-228	1.41E+10Y	1.00	9.298E-01	9.298E-01	3.181E-01	34.22	
TH-228	1.91Y	1.02	1.149E+00	1.169E+00	0.130E+00	11.13	
TH-232	1.41E+10Y	1.00	9.298E-01	9.298E-01	3.181E-01	34.22	
PA-234M	4.47E+09Y	1.00	5.028E+01	5.028E+01	1.076E+01	21.40	
TH-234	4.47E+09Y	1.00	3.453E+01	3.453E+01	0.728E+01	21.09	
U-235	7.04E+08Y	1.00	4.913E-01	4.913E-01	3.930E-01	80.00	
NP-237	2.14E+06Y	1.00	6.253E-01	6.253E-01	3.926E-01	62.78	
U-238	4.47E+09Y	1.00	3.453E+01	3.453E+01	0.728E+01	21.09	
AM-243	7380.00Y	1.00	3.341E-01	3.341E-01	1.123E-01	33.62	
ANH-511	1.00E+09Y	1.00	9.367E-02	9.367E-02	6.829E-02	72.90	
			---	---			
	Total Activity :		1.594E+02	1.596E+02			

Grand Total Activity : 1.594E+02 1.596E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G246020012

Acquisition date : 13-FEB-2010 16:57:02

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.98	194	717	1.60	167.96	165	7	2.69E-02	47.9	4.97E+00	T
0	98.37	234	545	1.03	196.75	193	8	3.25E-02	37.0	5.87E+00	T
0	112.53	363	767	1.13	225.06	219	13	5.04E-02	33.3	6.26E+00	T
0	257.96	36	190	1.03	515.92	513	8	5.04E-03	****	4.37E+00	
0	269.87	106	182	1.32	539.74	535	11	1.47E-02	53.0	4.23E+00	T
0	327.70	64	195	1.46	655.41	650	12	8.93E-03	90.4	3.64E+00	T
0	408.85	47	105	0.83	817.69	813	9	6.57E-03	83.5	3.05E+00	
0	608.65	279	102	1.72	1217.30	1212	10	3.87E-02	18.5	2.19E+00	T
0	1377.21	15	28	3.28	2754.42	2741	16	2.11E-03	****	1.05E+00	T
0	1762.72	64	8	2.25	3525.43	3517	16	8.93E-03	32.5	8.74E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 18:58:48.59

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020012.CNF;1 *
* Acquisition date  : 13-FEB-2010 16:57:02  Detector SN#     :             *
* Detector ID       : GAM23                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.90          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020012            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.40890E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	1.934E+01	2.133E+00	5.241E-01	3.921E-02	36.902
NB-95	2.939E-01	9.290E-02	7.220E-02	4.852E-03	4.071
CD-109	2.173E+00	1.289E+00	1.897E+00	1.852E-01	1.145
SN-126	2.129E-01	1.263E-01	2.003E-01	1.949E-02	1.063
BA-137M	9.908E-02	5.028E-02	5.543E-02	2.832E-03	1.787
CS-137	1.047E-01	5.315E-02	5.860E-02	3.010E-03	1.787
TL-208	3.756E-01	7.332E-02	5.567E-02	3.614E-03	6.747
BI-211	2.368E+00	4.731E-01	3.262E-01	2.126E-02	7.260
BI-212	8.279E-01	4.660E-01	3.763E-01	2.987E-02	2.200
PB-212	1.149E+00	1.279E-01	9.187E-02	6.605E-03	12.507
PO-212	1.149E+00	1.279E-01	9.187E-02	6.605E-03	12.507
PB-214	8.239E-01	1.701E-01	1.137E-01	9.493E-03	7.245
PO-214	8.239E-01	1.701E-01	1.137E-01	9.493E-03	7.245
PO-216	1.149E+00	1.279E-01	9.187E-02	6.605E-03	12.507
PO-218	8.239E-01	1.701E-01	1.137E-01	9.493E-03	7.245
RA-224	3.008E+00	8.571E-01	1.046E+00	5.891E-02	2.876
AC-228	9.298E-01	3.181E-01	2.122E-01	2.449E-02	4.381
RA-228	9.298E-01	3.181E-01	2.122E-01	2.449E-02	4.381

Sample ID : G246020012 Acquisition date : 13-FEB-2010 16:57:02

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.169E+00	1.301E-01	9.346E-02	6.720E-03	12.507
TH-232	9.298E-01	3.181E-01	2.122E-01	2.449E-02	4.381
PA-234M	5.028E+01	1.076E+01	6.253E+00	5.967E-01	8.040
TH-234	3.453E+01	7.282E+00	3.270E+00	5.893E-01	10.560
U-235	4.913E-01	3.930E-01	3.893E-01	6.297E-02	1.262
NP-237	6.253E-01	3.926E-01	5.889E-01	1.341E-01	1.062
U-238	3.453E+01	7.282E+00	3.270E+00	5.893E-01	10.560
AM-243	3.341E-01	1.123E-01	1.312E-01	1.166E-02	2.547
ANH-511	9.367E-02	6.829E-02	4.637E-02	2.693E-03	2.020

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	4.788E-01		3.466E-01	6.199E-01	4.213E-02	0.772
NA-22	-9.445E-04		4.309E-02	7.005E-02	4.704E-03	-0.013
NA-24	5.126E-01		3.876E+00	Half-Life too short		
AL-26	-2.326E-03		2.523E-02	4.081E-02	2.453E-03	-0.057
TI-44	2.337E-01	+	6.040E-02	9.548E-02	8.655E-03	2.448
SC-46	6.203E-04		3.901E-02	6.509E-02	5.816E-03	0.010
V-48	-8.508E-02		8.074E-02	1.190E-01	9.898E-03	-0.715
CR-51	1.922E-02		4.063E-01	6.657E-01	4.365E-02	0.029
MN-52	-2.290E-01		3.541E-01	5.196E-01	3.759E-02	-0.441
MN-54	-2.995E-02		3.663E-02	5.668E-02	4.488E-03	-0.528
CO-56	1.454E-02		3.972E-02	6.848E-02	5.571E-03	0.212
CO-57	7.875E-04		2.973E-02	4.893E-02	2.885E-03	0.016
CO-58	-3.012E-02		3.999E-02	6.233E-02	4.683E-03	-0.483
FE-59	2.847E-03		8.840E-02	1.459E-01	1.124E-02	0.020
CO-60	1.492E-02		3.562E-02	6.129E-02	4.500E-03	0.243
ZN-65	-1.344E-01		1.071E-01	1.563E-01	1.033E-02	-0.860
GE-68	2.534E-01		1.325E+00	2.222E+00	1.590E-01	0.114
AS-73	-5.411E-01		1.494E+00	2.483E+00	2.192E-01	-0.218
AS-74	8.420E-02		1.056E-01	1.819E-01	1.003E-02	0.463
SE-75	-2.903E-02		5.394E-02	7.196E-02	4.189E-03	-0.403
BR-77	-1.447E+01		1.958E+01	3.025E+01	1.751E+00	-0.478
SR-82	-2.994E-01		4.608E-01	6.437E-01	4.441E-02	-0.465
RB-83	-5.032E-02		7.176E-02	1.112E-01	6.439E-03	-0.452
RB-84	2.237E-02		7.264E-02	1.245E-01	1.094E-02	0.180
KR-85	6.327E+00		7.788E+00	1.196E+01	6.937E-01	0.529
SR-85	3.316E-02		4.082E-02	6.266E-02	3.636E-03	0.529
RB-86	1.047E-01		9.219E-01	1.535E+00	1.100E-01	0.068
Y-88	-1.681E-02		2.680E-02	3.645E-02	2.146E-03	-0.461
ZR-88	-2.117E-02		2.968E-02	4.696E-02	2.711E-03	-0.451
Y-91	4.717E+00		1.963E+01	3.284E+01	1.959E+00	0.144
NB-94	2.063E-02		3.904E-02	6.543E-02	3.739E-03	0.315
NB-95M	4.911E-01		1.642E-01	2.625E-01	1.937E-02	1.871
ZR-95	1.819E-03		8.103E-02	1.268E-01	9.730E-03	0.014
NB-97	-6.092E-01		4.951E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	2.872E+01		8.713E+00	Half-Life too short		
MO-99	1.109E+01		2.130E+01	3.573E+01	5.000E+00	0.310
TC-99M	-7.157E+12		8.091E+12	Half-Life too short		
RH-101	1.038E-02		3.581E-02	5.861E-02	3.124E-03	0.177
RH-102	8.366E-03		3.195E-02	5.351E-02	3.132E-03	0.156
RU-103	3.682E-02		4.367E-02	7.558E-02	9.568E-03	0.487
RH-106	-2.588E-01		3.574E-01	5.452E-01	6.287E-02	-0.475
RU-106	-2.588E-01		3.564E-01	5.452E-01	2.930E-02	-0.475
AG-108M	-2.007E-02		3.415E-02	5.429E-02	3.442E-03	-0.370
AG-110M	-3.331E-02		4.536E-02	5.784E-02	3.214E-03	-0.576
IN-111	-7.468E-01		2.127E+00	2.900E+00	1.641E-01	-0.258
IN-113M	1.413E-02		4.200E-02	7.132E-02	4.394E-03	0.198
SN-113	1.413E-02		4.200E-02	7.132E-02	4.394E-03	0.198
IN-114M	3.237E-02		2.224E-01	3.176E-01	1.674E-02	0.102
CD-115	2.415E+00		2.130E+01	3.519E+01	2.031E+00	0.069
SN-117M	-5.155E-02		6.701E-02	1.059E-01	5.503E-03	-0.487
SB-122	2.900E+00		3.767E+00	6.485E+00	3.668E-01	0.447
I-123	-7.363E+01		4.526E+01	Half-Life too short		
TE-123M	-2.609E-02		3.207E-02	5.060E-02	2.670E-03	-0.516
I-124	-8.464E-01		1.205E+00	1.565E+00	8.575E-02	-0.541
SB-124	-1.017E-02		5.822E-02	9.255E-02	6.452E-03	-0.110
SB-125	5.350E-02		9.163E-02	1.574E-01	9.574E-03	0.340
TE-125M	8.224E-01		1.422E+01	2.065E+01	1.843E+00	0.040
I-126	-4.920E-02		2.501E-01	3.410E-01	1.765E-02	-0.144
SB-126	-2.211E-02		1.939E-01	2.652E-01	1.588E-02	-0.083
SB-127	-1.397E-01		2.026E+00	3.253E+00	3.249E-01	-0.043
XE-127	8.478E-03		6.132E-02	8.725E-02	4.684E-03	0.097
I-131	-9.887E-02		1.381E-01	2.200E-01	1.442E-02	-0.449
TE-132	1.725E-01		1.158E+00	1.875E+00	2.757E-01	0.092
BA-133	-3.494E-02		5.135E-02	7.012E-02	8.135E-03	-0.498
I-133	-2.337E-02		1.648E-02	Half-Life too short		
CS-134	7.814E-02		4.997E-02	9.262E-02	6.764E-03	0.844
CS-135	2.209E-01		1.831E-01	2.765E-01	2.112E-02	0.799
I-135	-3.366E+10		5.734E+11	Half-Life too short		
CS-136	-5.592E-02		1.131E-01	1.762E-01	1.405E-02	-0.317
CE-139	-4.009E-02		3.494E-02	5.380E-02	2.743E-03	-0.745
BA-140	1.186E-01		3.134E-01	5.231E-01	1.701E-01	0.227
LA-140	-5.703E-02		8.492E-02	1.244E-01	8.532E-03	-0.459
CE-141	9.067E-02		8.764E-02	1.314E-01	7.413E-03	0.690
CE-143	1.975E-03		3.323E-04	Half-Life too short		
CE-144	-8.618E-02		2.442E-01	3.951E-01	5.580E-02	-0.218
PM-144	-1.239E-02		3.747E-02	5.882E-02	3.310E-03	-0.211
PR-144	-8.408E-01		2.542E+00	3.990E+00	2.243E-01	-0.211
PM-146	2.101E-02		4.390E-02	7.474E-02	6.473E-03	0.281
ND-147	-3.656E-01		6.588E-01	1.030E+00	1.391E-01	-0.355
PM-149	-9.946E+01		1.838E+02	3.009E+02	4.272E+01	-0.331
EU-152	-4.695E-03		1.304E-01	1.654E-01	1.096E-02	-0.028
GD-153	3.559E-01	+	1.348E-01	1.969E-01	1.608E-02	1.808

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154	2.218E-03		1.208E-01	1.972E-01	1.958E-02	0.011
EU-155	7.828E-02		1.393E-01	2.265E-01	1.670E-02	0.346
TB-160	-7.525E-02		1.422E-01	2.249E-01	1.967E-02	-0.335
HO-166M	-1.354E-02		6.489E-02	1.027E-01	6.012E-03	-0.132
TM-171	-1.675E+01		4.618E+01	6.705E+01	5.831E+00	-0.250
LU-176	-1.374E-02		2.533E-02	4.135E-02	2.436E-03	-0.332
LU-177	1.906E+00		1.606E+00	2.416E+00	1.307E-01	0.789
LU-177M	5.595E-02		1.875E-01	2.776E-01	1.615E-02	0.202
HF-181	-5.178E-02		4.684E-02	7.090E-02	4.147E-03	-0.730
W-181	3.456E+00		7.492E-01	1.165E+00	1.012E-01	2.966
TA-182	-2.048E-02		2.023E-01	3.273E-01	2.009E-02	-0.063
RE-183	2.652E-01		1.301E-01	2.261E-01	1.163E-02	1.173
RE-184	-3.314E-01		2.800E-01	3.808E-01	2.171E-02	-0.870
OS-185	-1.772E-02		4.458E-02	6.973E-02	3.639E-03	-0.254
RE-188	7.500E-02		1.866E-01	3.092E-01	1.622E-02	0.243
W-188	-1.323E+00		8.525E+00	1.237E+01	7.243E-01	-0.107
IR-192	5.833E-03		3.550E-02	6.006E-02	3.563E-03	0.097
AU-195	1.038E+00	+	3.934E-01	5.681E-01	4.533E-02	1.828
TL-200	-4.772E-05		8.309E-04	Half-Life too short		
TL-201	-2.233E+01		1.293E+01	1.934E+01	9.871E-01	-1.154
TL-202	5.512E-02		8.081E-02	1.393E-01	8.151E-03	0.396
HG-203	-2.762E-03		4.372E-02	7.351E-02	4.541E-03	-0.038
BI-207	1.588E-02		5.352E-02	9.078E-02	6.669E-03	0.175
TL-207	-4.108E-01		7.662E-01	1.067E+00	1.767E-01	-0.385
PO-209	5.818E+00		7.379E+00	1.314E+01	1.193E+00	0.443
BI-210	1.611E+00		6.662E+00	1.125E+01	8.757E-01	0.143
PB-210	1.611E+00		6.662E+00	1.125E+01	8.757E-01	0.143
PO-210	1.611E+00		6.661E+00	1.125E+01	7.546E-01	0.143
PB-211	-3.459E-01		1.134E+00	1.561E+00	9.734E-01	-0.222
BI-214	7.317E-01	+	1.461E-01	2.435E-01	1.830E-02	3.005
PO-215	-4.108E-01		7.662E-01	1.067E+00	1.767E-01	-0.385
RN-219	3.735E-02		4.407E-01	7.163E-01	9.745E-02	0.052
RN-220	1.640E+01		2.745E+01	4.683E+01	2.673E+00	0.350
RA-223	-4.108E-01		7.662E-01	1.067E+00	1.767E-01	-0.385
RA-226	7.317E-01	+	1.461E-01	2.435E-01	1.830E-02	3.005
AC-227	3.324E-01		4.780E-01	6.964E-01	9.699E-02	0.477
TH-227	3.324E-01		4.791E-01	6.964E-01	1.175E-01	0.477
TH-229	-4.253E-01		5.487E-01	8.580E-01	4.545E-02	-0.496
TH-230	7.316E-01	+	1.461E-01	2.435E-01	1.830E-02	3.005
PA-231	6.835E-01		1.640E+00	2.811E+00	3.877E-01	0.243
TH-231	-4.108E-01		7.662E-01	1.067E+00	1.767E-01	-0.385
U-231	5.630E+00		2.933E+00	3.470E+00	2.910E-01	1.623
PA-233	-9.893E-03		6.465E-02	1.077E-01	6.731E-03	-0.092
PA-234	-7.472E-02		3.220E-01	5.227E-01	9.826E-02	-0.143
U-234	7.316E-01	+	1.461E-01	2.435E-01	1.830E-02	3.005
NP-236	-5.170E-02		9.164E-02	1.462E-01	7.560E-03	-0.354
NP-239	1.132E-01		2.566E-01	3.783E-01	2.361E-02	0.299
AM-241	3.740E-01		2.912E-01	4.443E-01	4.134E-02	0.842

Sample ID : G246020012 Acquisition date : 13-FEB-2010 16:57:02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	4.514E-02		1.251E-01	2.008E-01	1.488E-02	0.225
AM-246	7.282E-02		1.479E-01	2.550E-01	1.820E-02	0.286
CM-247	-1.332E-02		4.237E-02	6.237E-02	3.615E-03	-0.214
CF-249	2.195E-02		3.973E-02	6.823E-02	3.948E-03	0.322
CF-251	-6.716E-02		1.396E-01	2.222E-01	1.148E-02	-0.302

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020012           *
* Acquisition date  : 13-FEB-2010 16:57:02 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:     0 02:00:01.90     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020012           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.4089E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	1.934E+01	2.090E+00	2.633E-01	1.067E+00
NB-95	2.939E-01	9.104E-02	3.677E-02	4.645E-02
CD-109	2.173E+00	1.263E+00	1.010E+00	6.443E-01
SN-126	2.129E-01	1.237E-01	1.066E-01	6.313E-02
BA-137M	9.908E-02	4.927E-02	2.832E-02	2.514E-02
CS-137	1.047E-01	5.209E-02	2.994E-02	2.658E-02
TL-208	3.756E-01	7.186E-02	2.852E-02	3.666E-02
BI-211	2.368E+00	4.637E-01	1.689E-01	2.366E-01
BI-212	8.279E-01	4.567E-01	1.919E-01	2.330E-01
PB-212	1.149E+00	1.254E-01	4.793E-02	6.397E-02
PO-212	1.149E+00	1.254E-01	4.793E-02	6.397E-02
PB-214	8.239E-01	1.667E-01	5.887E-02	8.505E-02
PO-214	8.239E-01	1.667E-01	5.887E-02	8.505E-02
PO-216	1.149E+00	1.254E-01	4.793E-02	6.397E-02
PO-218	8.239E-01	1.667E-01	5.887E-02	8.505E-02
RA-224	3.008E+00	8.400E-01	5.454E-01	4.286E-01
AC-228	9.298E-01	3.118E-01	1.077E-01	1.591E-01
RA-228	9.298E-01	3.118E-01	1.077E-01	1.591E-01
TH-228	1.169E+00	1.275E-01	4.876E-02	6.507E-02
TH-232	9.298E-01	3.118E-01	1.077E-01	1.591E-01
PA-234M	5.028E+01	1.054E+01	3.167E+00	5.380E+00
TH-234	3.453E+01	7.137E+00	1.751E+00	3.641E+00
U-235	4.913E-01	3.852E-01	2.052E-01	1.965E-01
NP-237	6.253E-01	3.847E-01	3.134E-01	1.963E-01
U-238	3.453E+01	7.137E+00	1.751E+00	3.641E+00
AM-243	3.341E-01	1.101E-01	7.003E-02	5.616E-02
ANH-511	9.367E-02	6.693E-02	2.382E-02	3.415E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	4.788E-01	3.397E-01	3.189E-01	1.733E-01	NOT IDENT.
NA-22	-9.445E-04	4.223E-02	3.529E-02	2.155E-02	NOT IDENT.
NA-24	5.126E+05	7.598E+06	0.000E+00	3.876E+06	SHORT HLIF
AL-26	-2.326E-03	2.473E-02	2.040E-02	1.262E-02	NOT IDENT.
TI-44	2.337E-01	5.919E-02	5.092E-02	3.020E-02	FAIL ABUN
SC-46	6.203E-04	3.823E-02	3.305E-02	1.950E-02	NOT IDENT.
V-48	-8.508E-02	7.912E-02	6.027E-02	4.037E-02	NOT IDENT.
CR-51	1.922E-02	3.982E-01	3.453E-01	2.032E-01	NOT IDENT.
MN-52	-2.290E-01	3.471E-01	2.611E-01	1.771E-01	NOT IDENT.
MN-54	-2.995E-02	3.590E-02	2.881E-02	1.831E-02	NOT IDENT.
CO-56	1.454E-02	3.893E-02	3.480E-02	1.986E-02	NOT IDENT.
CO-57	7.875E-04	2.913E-02	2.587E-02	1.486E-02	NOT IDENT.
CO-58	-3.012E-02	3.919E-02	3.171E-02	1.999E-02	NOT IDENT.
FE-59	2.847E-03	8.663E-02	7.376E-02	4.420E-02	FAIL ABUN
CO-60	1.492E-02	3.490E-02	3.085E-02	1.781E-02	NOT IDENT.
ZN-65	-1.344E-01	1.050E-01	7.899E-02	5.356E-02	NOT IDENT.
GE-68	2.534E-01	1.298E+00	1.124E+00	6.625E-01	NOT IDENT.
AS-73	-5.411E-01	1.464E+00	1.334E+00	7.468E-01	NOT IDENT.
AS-74	8.420E-02	1.034E-01	9.315E-02	5.278E-02	NOT IDENT.
SE-75	-2.903E-02	5.286E-02	3.746E-02	2.697E-02	NOT IDENT.
BR-77	-1.447E+01	1.919E+01	1.553E+01	9.792E+00	FAIL ABUN
SR-82	-2.994E-01	4.516E-01	3.278E-01	2.304E-01	NOT IDENT.
RB-83	-5.032E-02	7.033E-02	5.711E-02	3.588E-02	NOT IDENT.
RB-84	2.237E-02	7.119E-02	6.322E-02	3.632E-02	NOT IDENT.
KR-85	6.327E+00	7.632E+00	6.140E+00	3.894E+00	NOT IDENT.
SR-85	3.316E-02	4.000E-02	3.218E-02	2.041E-02	NOT IDENT.
RB-86	1.047E-01	9.034E-01	7.761E-01	4.609E-01	NOT IDENT.
Y-88	-1.681E-02	2.627E-02	1.822E-02	1.340E-02	NOT IDENT.
ZR-88	-2.117E-02	2.909E-02	2.425E-02	1.484E-02	NOT IDENT.
Y-91	4.717E+00	1.924E+01	1.657E+01	9.816E+00	NOT IDENT.
NB-94	2.063E-02	3.826E-02	3.338E-02	1.952E-02	NOT IDENT.
NB-95M	4.911E-01	1.609E-01	1.370E-01	8.209E-02	NOT IDENT.
ZR-95	1.819E-03	7.941E-02	6.461E-02	4.052E-02	NOT IDENT.
NB-97	-6.092E+05	9.704E+05	0.000E+00	4.951E+05	SHORT HLIF
ZR-97	2.872E+07	1.708E+07	0.000E+00	8.713E+06	SHORT HLIF
MO-99	1.109E+01	2.088E+01	1.821E+01	1.065E+01	NOT IDENT.
TC-99M	-7.157E+18	1.586E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.038E-02	3.510E-02	3.069E-02	1.791E-02	NOT IDENT.
RH-102	8.366E-03	3.131E-02	2.753E-02	1.597E-02	FAIL ABUN
RU-103	3.682E-02	4.279E-02	3.884E-02	2.183E-02	NOT IDENT.
RH-106	-2.588E-01	3.502E-01	2.789E-01	1.787E-01	FAIL ABUN
RU-106	-2.588E-01	3.493E-01	2.789E-01	1.782E-01	FAIL ABUN
AG-108M	-2.007E-02	3.347E-02	2.798E-02	1.708E-02	NOT IDENT.
AG-110M	-3.331E-02	4.446E-02	2.955E-02	2.268E-02	NOT IDENT.
IN-111	-7.468E-01	2.085E+00	1.512E+00	1.064E+00	NOT IDENT.
IN-113M	1.413E-02	4.116E-02	3.684E-02	2.100E-02	NOT IDENT.
SN-113	1.413E-02	4.116E-02	3.684E-02	2.100E-02	NOT IDENT.
IN-114M	3.237E-02	2.180E-01	1.665E-01	1.112E-01	NOT IDENT.
CD-115	2.415E+00	2.087E+01	1.807E+01	1.065E+01	NOT IDENT.
SN-117M	-5.155E-02	6.567E-02	5.570E-02	3.350E-02	NOT IDENT.
SB-122	2.900E+00	3.692E+00	3.324E+00	1.884E+00	NOT IDENT.
I-123	-7.363E+07	8.871E+07	0.000E+00	4.526E+07	SHORT HLIF
TE-123M	-2.609E-02	3.143E-02	2.661E-02	1.604E-02	NOT IDENT.
I-124	-8.464E-01	1.181E+00	8.010E-01	6.023E-01	FAIL ABUN
SB-124	-1.017E-02	5.706E-02	4.634E-02	2.911E-02	FAIL ABUN
SB-125	5.350E-02	8.980E-02	8.113E-02	4.582E-02	NOT IDENT.
TE-125M	8.224E-01	1.394E+01	1.094E+01	7.110E+00	NOT IDENT.
I-126	-4.920E-02	2.451E-01	1.742E-01	1.251E-01	NOT IDENT.
SB-126	-2.211E-02	1.900E-01	1.352E-01	9.694E-02	NOT IDENT.
SB-127	-1.397E-01	1.985E+00	1.661E+00	1.013E+00	NOT IDENT.
XE-127	8.478E-03	6.009E-02	4.567E-02	3.066E-02	NOT IDENT.
I-131	-9.887E-02	1.353E-01	1.138E-01	6.903E-02	NOT IDENT.
TE-132	1.725E-01	1.135E+00	9.789E-01	5.790E-01	FAIL ABUN
BA-133	-3.494E-02	5.032E-02	3.629E-02	2.567E-02	NOT IDENT.
I-133	-2.337E+04	3.230E+04	0.000E+00	1.648E+04	SHORT HLIF
CS-134	7.814E-02	4.897E-02	4.713E-02	2.498E-02	NOT IDENT.
CS-135	2.209E-01	1.795E-01	1.439E-01	9.157E-02	NOT IDENT.
I-135	-3.366E+16	1.124E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.592E-02	1.108E-01	8.915E-02	5.655E-02	FAIL ABUN
CE-139	-4.009E-02	3.424E-02	2.827E-02	1.747E-02	NOT IDENT.
BA-140	1.186E-01	3.071E-01	2.684E-01	1.567E-01	NOT IDENT.
LA-140	-5.703E-02	8.322E-02	6.235E-02	4.246E-02	FAIL ABUN
CE-141	9.067E-02	8.588E-02	6.925E-02	4.382E-02	NOT IDENT.
CE-143	1.975E+03	6.513E+02	0.000E+00	3.323E+02	SHORT HLIF
CE-144	-8.618E-02	2.393E-01	2.085E-01	1.221E-01	NOT IDENT.
PM-144	-1.239E-02	3.673E-02	3.002E-02	1.874E-02	NOT IDENT.
PR-144	-8.408E-01	2.491E+00	2.036E+00	1.271E+00	NOT IDENT.
PM-146	2.101E-02	4.302E-02	3.849E-02	2.195E-02	NOT IDENT.

ND-147	-3.656E-01	6.456E-01	5.285E-01	3.294E-01	FAIL ABUN
PM-149	-9.946E+01	1.801E+02	1.564E+02	9.191E+01	NOT IDENT.
EU-152	-4.695E-03	1.278E-01	8.566E-02	6.521E-02	NOT IDENT.
GD-153	3.559E-01	1.321E-01	1.045E-01	6.742E-02	FAIL ABUN
EU-154	2.218E-03	1.184E-01	9.937E-02	6.039E-02	NOT IDENT.
EU-155	7.828E-02	1.365E-01	1.201E-01	6.967E-02	FAIL ABUN
TB-160	-7.525E-02	1.394E-01	1.142E-01	7.112E-02	FAIL ABUN
HO-166M	-1.354E-02	6.360E-02	5.240E-02	3.245E-02	FAIL ABUN
TM-171	-1.675E+01	4.526E+01	3.587E+01	2.309E+01	NOT IDENT.
LU-176	-1.374E-02	2.482E-02	2.146E-02	1.266E-02	FAIL ABUN
LU-177	1.906E+00	1.574E+00	1.264E+00	8.029E-01	FAIL ABUN
LU-177M	5.595E-02	1.837E-01	1.432E-01	9.373E-02	FAIL ABUN
HF-181	-5.178E-02	4.590E-02	3.646E-02	2.342E-02	NOT IDENT.
W-181	3.456E+00	7.342E-01	6.235E-01	3.746E-01	NOT IDENT.
TA-182	-2.048E-02	1.982E-01	1.651E-01	1.011E-01	NOT IDENT.
RE-183	2.652E-01	1.275E-01	1.189E-01	6.506E-02	NOT IDENT.
RE-184	-3.314E-01	2.744E-01	1.984E-01	1.400E-01	NOT IDENT.
OS-185	-1.772E-02	4.369E-02	3.564E-02	2.229E-02	NOT IDENT.
RE-188	7.500E-02	1.829E-01	1.627E-01	9.331E-02	NOT IDENT.
W-188	-1.323E+00	8.354E+00	6.427E+00	4.262E+00	FAIL ABUN
IR-192	5.833E-03	3.479E-02	3.116E-02	1.775E-02	FAIL ABUN
AU-195	1.038E+00	3.855E-01	3.016E-01	1.967E-01	FAIL ABUN
TL-200	-4.772E+01	1.629E+03	0.000E+00	8.309E+02	SHORT HLIF
TL-201	-2.233E+01	1.267E+01	1.016E+01	6.464E+00	NOT IDENT.
TL-202	5.512E-02	7.919E-02	7.178E-02	4.040E-02	NOT IDENT.
HG-203	-2.762E-03	4.284E-02	3.823E-02	2.186E-02	FAIL ABUN
BI-207	1.588E-02	5.245E-02	4.591E-02	2.676E-02	FAIL ABUN
TL-207	-4.108E-01	7.509E-01	5.534E-01	3.831E-01	FAIL ABUN
PO-209	5.818E+00	7.231E+00	6.670E+00	3.689E+00	NOT IDENT.
BI-210	1.611E+00	6.528E+00	6.058E+00	3.331E+00	NOT IDENT.
PB-210	1.611E+00	6.528E+00	6.058E+00	3.331E+00	NOT IDENT.
PO-210	1.611E+00	6.528E+00	6.058E+00	3.331E+00	NOT IDENT.
PB-211	-3.459E-01	1.112E+00	8.059E-01	5.672E-01	NOT IDENT.
BI-214	7.317E-01	1.432E-01	1.246E-01	7.305E-02	FAIL ABUN
PO-215	-4.108E-01	7.509E-01	5.534E-01	3.831E-01	FAIL ABUN
RN-219	3.735E-02	4.318E-01	3.698E-01	2.203E-01	FAIL ABUN
RN-220	1.640E+01	2.690E+01	2.402E+01	1.372E+01	NOT IDENT.
RA-223	-4.108E-01	7.509E-01	5.534E-01	3.831E-01	FAIL ABUN
RA-226	7.317E-01	1.432E-01	1.246E-01	7.305E-02	FAIL ABUN
AC-227	3.324E-01	4.685E-01	3.628E-01	2.390E-01	FAIL ABUN
TH-227	3.324E-01	4.695E-01	3.628E-01	2.395E-01	FAIL ABUN
TH-229	-4.253E-01	5.378E-01	4.495E-01	2.744E-01	FAIL ABUN
TH-230	7.316E-01	1.432E-01	1.246E-01	7.304E-02	FAIL ABUN
PA-231	6.835E-01	1.607E+00	1.461E+00	8.199E-01	FAIL ABUN
TH-231	-4.108E-01	7.509E-01	5.534E-01	3.831E-01	FAIL ABUN
U-231	5.630E+00	2.875E+00	1.843E+00	1.467E+00	FAIL ABUN
PA-233	-9.893E-03	6.335E-02	5.586E-02	3.232E-02	FAIL ABUN
PA-234	-7.472E-02	3.155E-01	2.650E-01	1.610E-01	FAIL ABUN
U-234	7.316E-01	1.432E-01	1.246E-01	7.304E-02	FAIL ABUN
NP-236	-5.170E-02	8.981E-02	7.687E-02	4.582E-02	FAIL ABUN
NP-239	1.132E-01	2.515E-01	2.002E-01	1.283E-01	FAIL ABUN
AM-241	3.740E-01	2.854E-01	2.382E-01	1.456E-01	NOT IDENT.
CM-243	4.514E-02	1.226E-01	1.065E-01	6.254E-02	FAIL ABUN
AM-246	7.282E-02	1.449E-01	1.289E-01	7.395E-02	NOT IDENT.
CM-247	-1.332E-02	4.152E-02	3.220E-02	2.119E-02	NOT IDENT.
CF-249	2.195E-02	3.894E-02	3.525E-02	1.987E-02	NOT IDENT.
CF-251	-6.716E-02	1.368E-01	1.166E-01	6.978E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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46.50	439.0665
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57.98	574.9072
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61.30	683.1376
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66.05	656.7344
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66.83	687.3777
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67.75	776.2126
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70.83	731.9506
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77.11	799.7562

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81.07	746.8283
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154.21	333.5268
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162.64	343.2277
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163.89	356.0491
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209.75	249.5993
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238.63	234.8805
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815.85	55.7068
817.79	59.4531
818.51	58.5357
819.60	61.3419
826.30	76.3562
828.27	0.0000
831.60	48.4929
831.96	45.7002
834.83	70.9392
836.80	0.0000
846.75	52.4430
848.13	49.6530
856.28	0.0000
856.80	68.5519
860.37	58.2789
867.32	43.3206
867.82	48.9775
871.10	58.4479
873.19	53.7645
874.81	44.3522
875.33	0.0000
876.40	43.4263
879.36	58.5778
880.27	49.1425
880.51	48.2006
881.50	49.1584
883.24	52.0179
884.67	41.6305
889.25	50.2072
896.60	43.6613
898.02	44.6267
899.00	47.4874
903.28	52.1596
911.07	52.4017
911.07	52.4017
911.07	52.4017
919.63	57.2925
920.93	64.6063
925.00	52.5908
925.24	55.4630
926.50	63.1345
935.52	55.6105
937.48	68.1081
944.10	50.9275
946.00	60.5660
949.00	55.8016
962.29	69.5024
964.01	51.3210
966.15	81.1648
968.20	62.9759
969.11	44.7564
969.11	44.7564
969.11	44.7564
977.42	46.5098
980.50	44.6055
983.50	63.0772
989.30	48.5901
996.32	33.3761
1001.03	35.0852
1001.68	30.0774
1004.76	53.5112
1021.30	0.0000
1024.50	0.0000
1034.80	45.1970
1036.00	48.1566
1037.82	40.3127
1038.57	41.3027
1038.76	0.0000
1045.16	47.2773
1046.59	41.3813
1048.07	46.3230

1050.47	41.4189
1050.47	41.4189
1062.04	50.4314
1063.62	46.4932
1076.63	53.5781
1077.35	50.6099
1078.86	45.6631
1085.78	43.7476
1099.22	41.8872
1112.02	63.0128
1112.84	76.0309
1115.52	90.0879
1120.29	57.1183
1120.29	57.1183
1120.29	57.1183
1120.29	57.1183
1120.51	57.1206
1121.28	55.1253
1124.00	0.0000
1129.67	45.1868
1131.51	0.0000
1147.95	0.0000
1167.94	54.6812
1173.22	62.8552
1175.09	58.8237
1177.93	69.0072
1189.05	66.1214
1204.90	53.0749
1205.75	0.0000
1213.00	56.2331
1221.42	58.3823
1230.97	69.7874
1235.34	46.2250
1236.41	0.0000
1238.25	50.3638
1246.25	44.2703
1260.41	0.0000
1271.85	42.4331
1274.45	39.3483
1274.54	39.3499
1291.56	45.7188
1298.22	0.0000
1312.09	32.3434
1325.50	25.1064
1325.50	25.1064
1332.49	21.9989
1333.61	26.1943
1360.21	20.0112
1362.66	0.0000
1365.15	29.5176
1368.21	19.8915
1368.53	0.0000
1376.25	25.3555
1384.27	21.9316
1394.10	22.2612
1395.20	23.3267
1407.95	25.5078
1434.06	35.2451
1436.60	29.9186
1457.56	0.0000
1460.81	20.2398
1489.15	21.5771
1509.49	11.9104
1596.49	19.7878
1620.62	9.4615
1678.03	0.0000
1691.02	8.6155
1691.02	8.6155
1706.46	0.0000
1750.46	0.0000
1764.49	15.2562
1764.49	15.2562
1764.49	15.2562
1764.49	15.2562
1770.23	28.1160
1771.40	13.5757
1791.20	0.0000
1808.65	8.7784

1836.01 9.7949

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020012

Total Uranium Activity	1.0296E+02	ug/g
Total Uranium Counting Unc.	2.1233E+01	ug/g
Total Uranium Tpu	1.0833E-05	ug/g
Total Uranium Mda	5.2105E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020012       *
*   ANALYST       : MXR1                      DETECTOR   : GAM23            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 16:57:02.70    SAMPLE ALQT:  140.890 GRAM    *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.041E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.429E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 4.187E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 2.046E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 00:01:17.33

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020013.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 19:59:19
Sample ID         : G246020013           Sample quantity  : 1.49620E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:31.09  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.38*	49481	20663	1.01	126.75	121	11	3.44E+00	0.7	
2	0	74.81	832	12671	0.73	149.57	147	6	5.78E-02	21.7	
3	0	77.47*	843	14385	1.10	154.88	152	7	5.85E-02	23.9	
4	0	83.95*	2796	19570	1.61	167.82	164	9	1.94E-01	9.2	
5	4	90.28	1112	7453	1.14	180.46	179	16	7.72E-02	10.1	1.34E+01
6	4	92.69*	106642	12320	1.13	185.27	179	16	7.41E+00	0.4	
7	4	94.84	4683	9216	1.28	189.56	179	16	3.25E-01	6.2	
8	0	98.63*	7197	7731	1.13	197.13	194	9	5.00E-01	2.5	
9	1	111.19	1782	6649	1.18	222.22	219	12	1.24E-01	8.3	3.66E+01
10	1	112.98*	5556	6160	1.19	225.78	219	12	3.86E-01	2.8	
11	0	131.40	491	4103	1.12	262.58	259	8	3.41E-02	23.2	
12	0	143.78*	3231	4180	1.14	287.30	283	9	2.24E-01	4.0	
13	0	163.38	1521	3695	1.19	326.45	322	10	1.06E-01	7.9	
14	0	185.73*	16026	3322	1.10	371.09	366	11	1.11E+00	1.1	
15	0	194.12	214	2216	1.78	387.84	385	9	1.49E-02	40.1	
16	3	202.13	350	1588	1.46	403.84	400	15	2.43E-02	19.5	5.57E-01
17	3	205.34	1293	1560	1.17	410.26	400	15	8.98E-02	5.8	
18	0	209.16	196	1573	0.70	417.88	415	7	1.36E-02	34.4	
19	0	226.91	199	1734	1.36	453.34	449	9	1.38E-02	38.4	
20	0	238.64*	1884	1281	1.16	476.78	473	7	1.31E-01	4.0	
21	0	241.71	254	1081	2.42	482.90	481	6	1.77E-02	21.6	
22	0	258.30	1169	1502	1.16	516.05	511	11	8.12E-02	7.1	
23	0	295.12	708	1201	1.21	589.60	584	11	4.92E-02	10.2	
24	0	338.29	362	808	1.43	675.84	672	9	2.51E-02	15.1	
25	0	351.95*	955	986	1.28	703.14	698	11	6.63E-02	7.2	
26	0	462.85	141	516	1.82	924.74	921	9	9.81E-03	30.2	
27	0	511.17*	224	824	1.53	1021.29	1015	15	1.56E-02	30.8	
28	2	569.48	204	526	1.77	1137.83	1132	16	1.42E-02	22.9	1.87E+00
29	2	572.46	68	359	1.35	1143.79	1132	16	4.74E-03	50.3	
30	0	583.40*	568	593	1.28	1165.66	1159	13	3.94E-02	9.9	
31	0	609.33*	811	635	1.55	1217.48	1209	16	5.63E-02	7.9	
32	0	661.71	348	400	1.37	1322.19	1317	10	2.41E-02	12.0	
33	0	728.04	155	469	1.57	1454.81	1448	13	1.08E-02	30.0	
34	0	742.89	787	609	1.40	1484.50	1477	15	5.47E-02	7.7	
35	0	766.75	2524	576	1.51	1532.20	1526	15	1.75E-01	2.9	
36	0	786.48	391	443	1.31	1571.65	1566	11	2.72E-02	11.6	
37	0	796.18	217	382	3.56	1591.06	1585	15	1.50E-02	21.0	
38	0	861.08	93	276	1.41	1720.84	1714	13	6.43E-03	38.4	

Sample ID : G246020013 Acquisition date : 13-FEB-2010 19:59:19

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	1	880.83	124	179	1.80	1760.33	1755	15	8.64E-03	23.5	1.31E+00
40	1	883.50*	156	134	1.47	1765.67	1755	15	1.08E-02	16.6	
41	0	911.31*	448	233	1.51	1821.29	1813	14	3.11E-02	8.8	
42	0	925.43	303	369	5.64	1849.53	1837	27	2.11E-02	18.6	
43	0	946.33	213	182	1.11	1891.33	1886	12	1.48E-02	14.3	
44	0	969.38*	233	242	1.85	1937.44	1930	13	1.62E-02	15.5	
45	0	1001.36*	5710	165	1.65	2001.41	1994	16	3.97E-01	1.4	
46	0	1120.70	154	124	2.05	2240.17	2235	12	1.07E-02	16.6	
47	0	1193.45	83	224	1.62	2385.74	2381	16	5.76E-03	41.5	
48	0	1239.40	122	209	0.83	2477.70	2469	19	8.47E-03	30.4	
49	1	1378.13	77	17	2.03	2755.37	2751	23	5.36E-03	13.9	2.13E+00
50	1	1385.34	38	9	2.03	2769.79	2751	23	2.65E-03	21.7	
51	0	1461.09	2170	79	1.80	2921.46	2914	17	1.51E-01	2.3	
52	0	1511.32	82	68	2.46	3022.02	3012	16	5.66E-03	25.2	
53	0	1554.38	39	24	1.93	3108.24	3104	10	2.71E-03	28.7	
54	0	1737.99	103	27	2.38	3475.99	3471	16	7.17E-03	14.6	
55	0	1765.17*	167	29	2.43	3530.42	3524	17	1.16E-02	11.2	
56	0	1831.82	106	12	1.46	3663.96	3656	16	7.37E-03	12.1	
57	0	1911.68	21	12	2.35	3823.96	3818	10	1.46E-03	38.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 00:01:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020013.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 19:59:19
Sample ID : G246020013 Sample quantity : 149.62 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:01:31.09 0.6%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.036E+01	2.014E+00	3.272E-01	2.853E-02	62.222
RB-84	+	881.50	*	1.736E-01	8.341E-02	9.743E-02	9.736E-03	1.782
NB-95	+	765.79	*	1.777E+00	2.079E-01	6.330E-02	6.434E-03	28.078
TE-132		49.72		-1.800E+01	4.177E+01	6.873E+01	7.501E+00	-0.262
	+	111.76		6.604E+02	1.329E+02	1.256E+02	1.425E+01	5.259
		116.30		1.948E+02	7.766E+01	1.110E+02	1.255E+01	1.755
	+	228.16	*	2.126E+00	1.670E+00	1.735E+00	2.890E-01	1.225
BA-137M	+	661.65	*	1.992E-01	5.193E-02	5.401E-02	5.421E-03	3.688
CS-137	+	661.65	*	2.106E-01	5.491E-02	5.710E-02	5.738E-03	3.688
LU-177	+	112.95		8.850E+01	8.955E+00	5.403E+00	4.554E-01	16.382
	+	208.36	*	2.350E+00	1.630E+00	2.213E+00	2.058E-01	1.062
TL-208		277.35		3.006E-01	3.458E-01	5.837E-01	7.761E-02	0.515
	+	510.84		4.353E-01	2.736E-01	2.063E-01	2.579E-02	2.110
	+	583.14	*	3.138E-01	7.006E-02	5.342E-02	5.492E-03	5.874
	+	860.37		4.775E-01	3.705E-01	3.558E-01	3.771E-02	1.342
BI-211		72.87		9.742E+00	6.175E+00	9.070E+00	7.162E-01	1.074
	+	351.07	*	2.333E+00	4.042E-01	2.973E-01	2.849E-02	7.846
BI-212	+	727.18	*	7.321E-01	4.475E-01	4.293E-01	4.872E-02	1.705
	+	785.46		1.181E+01	2.986E+00	2.903E+00	2.949E-01	4.067
		1620.62		3.648E-01	7.178E-01	1.251E+00	1.054E-01	0.292
PB-212	+	74.81		1.615E+00	7.284E-01	1.055E+00	1.302E-01	1.531
	+	77.11		9.345E-01	4.538E-01	5.728E-01	4.737E-02	1.632
		87.30		-1.740E+00	1.160E+00	1.273E+00	1.744E-01	-1.368
	+	238.63	*	1.010E+00	1.339E-01	9.358E-02	9.951E-03	10.790
		300.09		9.019E-01	7.934E-01	1.192E+00	1.363E-01	0.757
PO-212	+	74.81		1.615E+00	7.284E-01	1.055E+00	1.302E-01	1.531
	+	77.11		9.345E-01	4.538E-01	5.728E-01	4.737E-02	1.632
		87.30		-1.740E+00	1.160E+00	1.273E+00	1.744E-01	-1.368
		115.19		4.166E+01	7.114E+00	9.725E+00	8.168E-01	4.285
	+	238.63	*	1.010E+00	1.339E-01	9.358E-02	9.951E-03	10.790
		300.09		9.019E-01	7.934E-01	1.192E+00	1.363E-01	0.757
BI-214	+	609.31	*	8.436E-01	1.625E-01	9.585E-02	1.067E-02	8.802
	+	1120.29		8.197E-01	2.856E-01	2.533E-01	2.741E-02	3.236
	+	1764.49		1.208E+00	2.879E-01	2.005E-01	1.647E-02	6.022

Sample ID : G246020013 Acquisition date : 13-FEB-2010 19:59:19

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PB-214	+	74.81		2.782E+00	1.245E+00	1.818E+00	1.990E-01	1.531
	+	77.11		1.602E+00	7.875E-01	9.820E-01	1.104E-01	1.632
		87.30		-2.981E+00	1.978E+00	2.180E+00	2.646E-01	-1.368
	+	241.98		8.191E-01	3.659E-01	5.102E-01	5.706E-02	1.605
	+	295.21		1.024E+00	2.408E-01	2.035E-01	2.375E-02	5.033
	+	351.92	*	8.116E-01	1.469E-01	1.013E-01	1.104E-02	8.014
PO-214	+	74.81		2.782E+00	1.245E+00	1.818E+00	1.990E-01	1.531
	+	77.11		1.602E+00	7.875E-01	9.820E-01	1.104E-01	1.632
		87.30		-2.981E+00	1.978E+00	2.180E+00	2.646E-01	-1.368
	+	241.98		8.191E-01	3.659E-01	5.102E-01	5.706E-02	1.605
	+	295.21		1.024E+00	2.408E-01	2.035E-01	2.375E-02	5.033
	+	351.92	*	8.116E-01	1.469E-01	1.013E-01	1.104E-02	8.014
PO-216	+	74.81		1.615E+00	7.284E-01	1.055E+00	1.302E-01	1.531
	+	77.11		9.345E-01	4.538E-01	5.728E-01	4.737E-02	1.632
		87.30		-1.740E+00	1.160E+00	1.273E+00	1.744E-01	-1.368
	+	238.63	*	1.010E+00	1.339E-01	9.358E-02	9.951E-03	10.790
		300.09		9.019E-01	7.934E-01	1.192E+00	1.363E-01	0.757
PO-218	+	74.81		2.782E+00	1.245E+00	1.818E+00	1.990E-01	1.531
	+	77.11		1.602E+00	7.875E-01	9.820E-01	1.104E-01	1.632
		87.30		-2.981E+00	1.978E+00	2.180E+00	2.646E-01	-1.368
	+	241.98		8.191E-01	3.659E-01	5.102E-01	5.706E-02	1.605
	+	295.21		1.024E+00	2.408E-01	2.035E-01	2.375E-02	5.033
	+	351.92	*	8.116E-01	1.469E-01	1.013E-01	1.104E-02	8.014
RA-224	+	240.98	*	1.553E+00	6.883E-01	1.055E+00	1.019E-01	1.473
RA-226	+	609.31	*	8.436E-01	1.625E-01	9.585E-02	1.067E-02	8.802
	+	1120.29		8.197E-01	2.856E-01	2.533E-01	2.741E-02	3.236
	+	1764.49		1.208E+00	2.879E-01	2.005E-01	1.647E-02	6.022
AC-228	+	338.32		9.750E-01	4.995E-01	3.345E-01	1.386E-01	2.915
	+	911.07	*	1.092E+00	2.341E-01	1.525E-01	1.868E-02	7.159
	+	969.11		9.999E-01	3.897E-01	2.785E-01	6.609E-02	3.590
RA-228	+	338.32		9.750E-01	4.995E-01	3.345E-01	1.386E-01	2.915
	+	911.07	*	1.092E+00	2.341E-01	1.525E-01	1.868E-02	7.159
	+	969.11		9.999E-01	3.897E-01	2.785E-01	6.609E-02	3.590
TH-228	+	74.81		1.643E+00	7.252E-01	1.073E+00	8.737E-02	1.531
	+	77.11		9.508E-01	4.617E-01	5.828E-01	4.820E-02	1.632
		87.30		-1.771E+00	1.167E+00	1.295E+00	1.214E-01	-1.368
	+	238.63	*	1.027E+00	1.362E-01	9.521E-02	1.013E-02	10.790
		300.09		9.176E-01	9.687E-01	1.212E+00	7.210E-01	0.757
TH-230	+	609.31	*	8.436E-01	1.625E-01	9.584E-02	1.067E-02	8.802
	+	1120.29		8.196E-01	2.856E-01	2.533E-01	2.741E-02	3.236
	+	1764.49		1.208E+00	2.879E-01	2.005E-01	1.647E-02	6.022
U-231	+	84.21		1.314E+02	2.696E+01	2.588E+01	2.331E+00	5.078
	+	92.29		1.912E+03	1.749E+02	9.605E+00	8.785E-01	199.049
	+	95.87	*	5.139E+01	7.915E+00	3.945E+00	3.528E-01	13.028
		108.00		-4.045E+00	5.644E+00	8.027E+00	6.840E-01	-0.504
TH-232	+	338.32		9.750E-01	3.077E-01	3.345E-01	3.134E-02	2.915
	+	911.07	*	1.092E+00	2.341E-01	1.525E-01	1.868E-02	7.159
	+	969.11		9.999E-01	3.897E-01	2.785E-01	6.609E-02	3.590
PA-234M	+	766.42		4.591E+02	2.357E+02	1.636E+01	8.349E+00	28.055

Sample ID : G246020013 Acquisition date : 13-FEB-2010 19:59:19

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1001.03	*	4.972E+02	5.503E+01	5.292E+00	5.661E-01	93.949
TH-234	+	63.29	*	3.514E+02	6.127E+01	3.503E+00	6.087E-01	100.289
	+	92.38		3.452E+02	6.331E+01	1.733E+00	3.178E-01	199.124
U-234	+	609.31	*	8.436E-01	1.625E-01	9.584E-02	1.067E-02	8.802
	+	1120.29		8.196E-01	2.856E-01	2.533E-01	2.741E-02	3.236
	+	1764.49		1.208E+00	2.879E-01	2.005E-01	1.647E-02	6.022
U-235	+	89.95		7.302E+00	2.701E+00	3.795E+00	1.179E+00	1.924
	+	93.35		4.150E+02	1.170E+02	2.076E+00	5.848E-01	199.897
		105.00		1.755E+00	1.753E+00	2.732E+00	8.151E-01	0.643
	+	143.76	*	5.485E+00	1.053E+00	4.432E-01	7.723E-02	12.377
	+	163.35		6.115E+00	1.518E+00	9.450E-01	1.806E-01	6.471
	+	185.71		6.026E+00	5.572E-01	8.014E-02	7.212E-03	75.196
	+	205.31		5.947E+00	1.343E+00	8.823E-01	1.710E-01	6.740
U-238	+	63.29	*	3.514E+02	6.127E+01	3.503E+00	6.087E-01	100.289
	+	92.38		3.452E+02	3.158E+01	1.733E+00	1.584E-01	199.124
AM-243	+	74.67	*	2.618E-01	1.155E-01	1.688E-01	1.359E-02	1.551
		86.72		-1.100E+01	2.301E+01	3.027E+01	2.816E+00	-0.363
		117.66		-5.883E+00	6.321E+00	8.895E+00	7.447E-01	-0.661
		142.18		2.614E+02	3.649E+01	4.699E+01	3.966E+00	5.563
ANH-511	+	511.00	*	9.402E-02	5.858E-02	4.458E-02	4.154E-03	2.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.278E-01	3.130E-01	5.184E-01	5.039E-02	0.439
NA-22		1274.54	*	-6.732E-03	2.601E-02	4.108E-02	3.403E-03	-0.164
NA-24		1368.53	*	4.941E+00	2.601E-02	Half-Life too short		
AL-26		1129.67		-1.369E+00	1.130E+00	1.688E+00	1.429E-01	-0.811
		1808.65	*	1.972E-02	1.758E-02	3.280E-02	2.664E-03	0.601
TI-44		67.85		-2.877E-01	8.918E-02	1.228E-01	9.239E-03	-2.343
	+	78.38	*	1.725E-01	8.375E-02	1.092E-01	9.161E-03	1.580
SC-46		889.25	*	-3.393E-02	3.252E-02	4.505E-02	4.491E-03	-0.753
	+	1120.51		1.430E-01	4.890E-02	6.949E-02	5.944E-03	2.057
V-48		944.10		2.716E+00	9.320E-01	1.524E+00	1.487E-01	1.782
		983.50	*	1.717E-02	5.594E-02	9.332E-02	8.919E-03	0.184
		1312.09		2.365E-02	5.011E-02	8.378E-02	6.990E-03	0.282
CR-51		320.08	*	1.007E-01	3.493E-01	5.829E-01	5.844E-02	0.173
MN-52	+	744.21		4.297E+00	7.937E-01	8.332E-01	8.463E-02	5.158
		848.13		-1.264E+00	7.224E+00	1.188E+01	1.197E+00	-0.106
		935.52		2.008E-01	2.609E-01	3.935E-01	3.855E-02	0.510
		1246.25		4.815E+00	6.153E+00	9.227E+00	7.580E-01	0.522
		1333.61		3.132E+00	3.542E+00	6.149E+00	5.152E-01	0.509
		1434.06	*	3.491E-01	1.966E-01	3.698E-01	3.130E-02	0.944
MN-54		834.83	*	-6.288E-03	3.085E-02	5.074E-02	5.126E-03	-0.124
CO-56		846.75	*	-3.063E-02	3.264E-02	5.157E-02	5.198E-03	-0.594
		977.42		-1.333E+00	2.107E+00	3.328E+00	3.192E-01	-0.400
		1037.82		-4.909E-02	1.999E-01	3.217E-01	3.104E-02	-0.153
		1175.09		7.291E-01	1.409E+00	2.356E+00	1.896E-01	0.309

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1238.25		1.861E-01	1.140E-01	1.071E-01	9.063E-03	1.737
		1360.21		-3.916E-01	5.574E-01	8.470E-01	7.122E-02	-0.462
		1771.40		8.383E-02	1.336E-01	2.132E-01	1.748E-02	0.393
CO-57		122.06	*	2.915E-02	3.699E-02	5.987E-02	4.997E-03	0.487
		136.48		-9.628E-03	3.027E-01	4.604E-01	4.168E-02	-0.021
CO-58		810.76	*	-4.458E-02	3.522E-02	5.502E-02	5.587E-03	-0.810
FE-59	+	142.65		7.329E+01	8.564E+00	8.222E+00	6.945E-01	8.913
		192.34		-1.260E-01	1.145E+00	1.710E+00	2.348E-01	-0.074
		1099.22	*	-7.861E-02	5.824E-02	8.521E-02	8.037E-03	-0.923
		1291.56		1.535E-02	7.752E-02	1.267E-01	1.205E-02	0.121
CO-60		1173.22		-2.006E-03	2.800E-02	4.518E-02	3.633E-03	-0.044
		1332.49	*	1.483E-02	2.164E-02	3.689E-02	3.090E-03	0.402
ZN-65		1115.52	*	-4.832E-03	5.946E-02	8.291E-02	7.136E-03	-0.058
GE-68		1077.35	*	-2.108E-01	7.150E-01	1.141E+00	1.018E-01	-0.185
AS-73		53.44	*	1.641E+00	1.317E+00	2.181E+00	1.619E-01	0.753
AS-74		595.88	*	-6.243E-02	9.186E-02	1.429E-01	1.399E-02	-0.437
		634.78		4.113E-01	3.403E-01	5.929E-01	5.897E-02	0.694
SE-75		66.05		-3.393E+01	9.193E+00	1.213E+01	1.147E+00	-2.798
		96.73		2.086E+01	3.451E+00	2.567E+00	3.545E-01	8.124
		121.11		1.838E-01	2.015E-01	3.258E-01	3.587E-02	0.564
		136.00		2.487E-02	6.109E-02	8.754E-02	7.397E-03	0.284
		198.60		-9.823E-01	2.914E+00	3.133E+00	3.153E-01	-0.313
		264.65	*	1.276E-02	4.256E-02	6.930E-02	6.861E-03	0.184
		279.53		4.354E-02	1.030E-01	1.731E-01	1.772E-02	0.251
		303.91		-2.645E+00	2.022E+00	3.214E+00	3.977E-01	-0.823
		400.65		2.747E-02	2.321E-01	3.815E-01	4.187E-02	0.072
BR-77		87.88		1.853E+03	1.025E+03	1.182E+03	1.116E+02	1.568
		200.40		1.779E+02	3.987E+02	5.623E+02	5.171E+01	0.316
	+	239.00		3.132E+02	3.908E+01	4.472E+01	4.314E+00	7.005
		249.79		8.028E+01	1.261E+02	2.136E+02	2.082E+01	0.376
		281.68		-9.451E+01	1.621E+02	2.663E+02	2.648E+01	-0.355
		297.23		1.678E+02	1.124E+02	1.698E+02	1.671E+01	0.988
		303.76		-4.308E+02	3.269E+02	5.221E+02	5.107E+01	-0.825
		439.47		1.660E+02	2.525E+02	4.193E+02	3.683E+01	0.396
		484.57		-1.393E+02	4.082E+02	6.538E+02	5.973E+01	-0.213
		520.65	*	1.594E+00	1.859E+01	3.010E+01	2.823E+00	0.053
		574.64		3.037E+01	4.289E+02	6.026E+02	5.837E+01	0.050
		578.91		-1.752E+01	1.753E+02	2.440E+02	2.369E+01	-0.072
		585.48		1.291E+03	3.932E+02	5.969E+02	5.814E+01	2.162
		755.35		4.743E+02	2.944E+02	5.124E+02	5.207E+01	0.926
		817.79		-7.789E+01	2.138E+02	3.493E+02	3.537E+01	-0.223
SR-82		698.33		2.558E+01	3.258E+01	5.587E+01	5.649E+00	0.458
		776.49	*	-1.435E-01	3.760E-01	6.176E-01	6.275E-02	-0.232
		1395.20		6.050E+00	6.877E+00	1.230E+01	1.038E+00	0.492
RB-83		520.41	*	-1.833E-03	6.476E-02	1.044E-01	9.796E-03	-0.018
		529.64		-2.409E-02	1.005E-01	1.607E-01	1.516E-02	-0.150
		552.65		2.410E-02	1.925E-01	3.110E-01	2.976E-02	0.078
KR-85		513.99	*	1.233E+01	7.146E+00	1.075E+01	1.003E+00	1.148
SR-85		513.99	*	6.475E-02	3.752E-02	5.642E-02	5.268E-03	1.148

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-86		1076.63	*	-3.188E-01	5.008E-01	7.784E-01	6.950E-02	-0.410
Y-88		898.02		6.823E-03	3.078E-02	5.079E-02	5.068E-03	0.134
		1836.01	*	1.600E-02	2.102E-02	3.410E-02	2.751E-03	0.469
ZR-88		392.90	*	-9.866E-03	2.830E-02	4.592E-02	3.841E-03	-0.215
Y-91		1204.90	*	-1.046E+01	1.159E+01	1.758E+01	1.428E+00	-0.595
NB-94		702.63	*	-1.945E-02	3.122E-02	5.118E-02	5.178E-03	-0.380
		871.10		-3.427E-02	2.749E-02	4.242E-02	4.251E-03	-0.808
NB-95M		235.69	*	5.822E-02	1.300E-01	1.947E-01	2.092E-02	0.299
ZR-95		724.18		-1.073E-02	9.372E-02	1.357E-01	1.463E-02	-0.079
		756.15	*	1.155E-01	6.678E-02	1.162E-01	1.268E-02	0.994
NB-97		657.90	*	-4.217E-01	6.678E-02	Half-Life too short		
		1024.50		-3.059E+01	6.678E-02	Half-Life too short		
ZR-97		254.15		2.913E+00	6.678E-02	Half-Life too short		
		355.39		-8.844E-01	6.678E-02	Half-Life too short		
		507.63	*	2.818E+01	6.678E-02	Half-Life too short		
		602.52		5.804E+00	6.678E-02	Half-Life too short		
		1021.30		1.752E+01	6.678E-02	Half-Life too short		
		1147.95		6.215E+00	6.678E-02	Half-Life too short		
		1362.66		-2.797E+01	6.678E-02	Half-Life too short		
		1750.46		1.524E+00	6.678E-02	Half-Life too short		
MO-99		140.51		-1.144E+01	7.012E+01	9.903E+01	2.736E+01	-0.116
		181.06		-2.607E+00	4.210E+01	5.900E+01	1.088E+01	-0.044
		366.43		-5.464E+01	1.375E+02	2.238E+02	1.989E+01	-0.244
		739.58	*	5.700E+01	2.429E+01	3.654E+01	5.886E+00	1.560
		778.00		-3.718E+01	5.659E+01	9.188E+01	9.336E+00	-0.405
TC-99M		140.51	*	-4.795E+12	5.659E+01	Half-Life too short		
RH-101		127.23		-9.005E-03	4.945E-02	7.039E-02	5.872E-03	-0.128
		198.01	*	-1.172E-02	5.262E-02	5.688E-02	5.214E-03	-0.206
		325.23		-1.819E-01	2.002E-01	3.228E-01	3.082E-02	-0.564
RH-102		418.52		-2.070E-01	2.588E-01	4.115E-01	3.540E-02	-0.503
		475.06	*	9.707E-03	2.748E-02	4.508E-02	4.087E-03	0.215
		631.29		-4.000E-02	5.060E-02	7.789E-02	7.737E-03	-0.514
		697.49		3.867E-02	6.824E-02	1.164E-01	1.177E-02	0.332
	+	766.84		4.371E+00	5.112E-01	4.310E-01	4.381E-02	10.139
		1046.59		1.833E-02	7.360E-02	1.221E-01	1.118E-02	0.150
		1112.84		5.119E-02	1.360E-01	2.210E-01	1.905E-02	0.232
RU-103		497.08	*	3.061E-02	3.821E-02	6.315E-02	9.180E-03	0.485
	+	610.33		9.479E+00	2.219E+00	1.836E+00	3.186E-01	5.163
RH-106	+	511.85		4.716E-01	2.939E-01	3.030E-01	2.826E-02	1.556
		621.84	*	5.080E-02	2.879E-01	4.629E-01	6.581E-02	0.110
		1050.47		8.666E-01	1.347E+00	2.294E+00	2.094E-01	0.378
RU-106	+	511.85		4.716E-01	2.939E-01	3.030E-01	2.826E-02	1.556
		621.84	*	5.080E-02	2.879E-01	4.629E-01	4.582E-02	0.110
		1050.47		8.666E-01	1.347E+00	2.294E+00	2.094E-01	0.378
AG-108M		433.93	*	1.738E-02	2.920E-02	4.847E-02	4.399E-03	0.359
		614.37		1.120E-02	3.772E-02	5.337E-02	5.425E-03	0.210
		722.95		-3.719E-04	4.025E-02	5.859E-02	6.111E-03	-0.006
CD-109		88.03	*	5.008E+00	2.475E+00	2.848E+00	2.693E-01	1.758
AG-110M		657.75	*	-1.889E-02	3.681E-02	5.259E-02	5.388E-03	-0.359

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		677.61		-1.186E-01	2.606E-01	4.301E-01	4.421E-02	-0.276
		706.67		8.054E-02	1.910E-01	3.243E-01	3.349E-02	0.248
		763.93		2.276E+00	3.237E-01	4.305E-01	4.465E-02	5.288
	+	884.67		1.482E-01	5.152E-02	7.780E-02	7.954E-03	1.905
		937.48		-1.051E-01	7.900E-02	1.192E-01	1.200E-02	-0.882
	+	1384.27		1.589E-01	7.040E-02	1.535E-01	1.332E-02	1.035
IN-111		171.28		-2.877E-01	2.215E+00	3.502E+00	3.082E-01	-0.082
		245.39	*	-7.087E-01	1.988E+00	2.909E+00	2.824E-01	-0.244
IN-113M		391.69	*	-2.176E-02	4.088E-02	6.595E-02	5.689E-03	-0.330
SN-113		391.69	*	-2.176E-02	4.088E-02	6.595E-02	5.689E-03	-0.330
IN-114M		190.27	*	2.976E-01	2.845E-01	3.229E-01	2.926E-02	0.922
CD-115		260.90		3.198E+01	2.818E+02	4.166E+02	4.099E+01	0.077
		492.35		-5.764E+01	6.758E+01	1.059E+02	9.734E+00	-0.544
		527.90	*	9.098E+00	2.009E+01	3.290E+01	3.101E+00	0.277
SN-117M		156.02		-8.554E-01	3.293E+00	5.219E+00	4.487E-01	-0.164
		158.56	*	-7.990E-02	9.099E-02	1.255E-01	1.083E-02	-0.637
SB-122		563.90	*	4.515E+00	3.946E+00	5.807E+00	5.593E-01	0.778
		692.80		4.504E+01	6.637E+01	1.137E+02	1.149E+01	0.396
I-123		159.00	*	-1.123E+02	6.637E+01	Half-Life too short		
		528.96		-9.594E+02	6.637E+01	Half-Life too short		
TE-123M		159.00	*	-3.219E-02	4.236E-02	5.857E-02	5.089E-03	-0.550
I-124		602.71	*	-2.751E-01	1.012E+00	1.392E+00	1.367E-01	-0.198
		722.78		5.012E-01	6.133E+00	8.968E+00	9.096E-01	0.056
		1325.50		-2.975E+01	3.023E+01	4.410E+01	3.689E+00	-0.675
		1376.25		5.382E+01	2.758E+01	4.802E+01	4.045E+00	1.121
		1509.49		5.014E+01	1.737E+01	3.349E+01	2.839E+00	1.497
		1691.02		-2.067E-01	3.034E+00	4.970E+00	4.145E-01	-0.042
SB-124		602.71		-1.129E-02	4.153E-02	5.710E-02	5.607E-03	-0.198
		645.85		1.007E-01	4.490E-01	7.622E-01	7.953E-02	0.132
		709.31		-1.732E+00	2.553E+00	4.168E+00	4.221E-01	-0.415
		713.82		-2.504E-02	1.470E+00	2.460E+00	3.239E-01	-0.010
		722.78		2.980E-02	3.647E-01	5.333E-01	5.494E-02	0.056
	+	968.20		1.056E+01	3.421E+00	4.383E+00	4.225E-01	2.410
		1045.16		8.280E-01	1.638E+00	2.757E+00	2.527E-01	0.300
		1325.50		-1.889E+00	1.920E+00	2.801E+00	2.343E-01	-0.675
		1368.21		9.546E-01	9.671E-01	1.745E+00	2.329E-01	0.547
		1436.60		2.141E+00	2.504E+00	4.380E+00	3.708E-01	0.489
		1691.02	*	-2.900E-03	4.255E-02	6.972E-02	6.059E-03	-0.042
SB-125		427.89	*	-3.922E-02	8.086E-02	1.298E-01	1.149E-02	-0.302
	+	463.38		5.367E-01	3.287E-01	4.420E-01	4.256E-02	1.214
		600.56		1.739E-01	1.627E-01	2.689E-01	2.789E-02	0.646
		635.90		1.876E-01	2.373E-01	4.093E-01	4.322E-02	0.458
TE-125M		109.28	*	8.981E+01	2.055E+01	2.804E+01	2.868E+00	3.203
I-126		388.63		1.375E-01	2.111E-01	3.522E-01	2.967E-02	0.390
		666.33	*	1.374E-01	1.962E-01	2.968E-01	2.982E-02	0.463
		753.82		1.455E+00	1.521E+00	2.613E+00	2.655E-01	0.557
SB-126		223.80		-1.114E+00	5.125E+00	7.574E+00	7.184E-01	-0.147
		278.60		3.295E+00	2.603E+00	4.425E+00	4.404E-01	0.745
	+	296.50		1.157E+01	2.621E+00	2.867E+00	2.822E-01	4.036

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		414.70		-3.132E-03	7.530E-02	1.230E-01	1.054E-02	-0.025
		415.30		6.180E-01	6.189E+00	1.015E+01	8.704E-01	0.061
		555.20		8.650E-01	4.287E+00	6.943E+00	6.654E-01	0.125
	+	573.80		1.238E+00	1.250E+00	1.768E+00	1.712E-01	0.700
		593.00		1.509E-01	9.699E-01	1.562E+00	1.527E-01	0.097
		656.30		7.527E-01	3.944E+00	5.835E+00	5.847E-01	0.129
		666.33		5.771E-02	8.241E-02	1.247E-01	1.253E-02	0.463
		675.00		4.618E-01	1.897E+00	3.214E+00	3.236E-01	0.144
		695.00		-1.631E-01	7.945E-02	1.208E-01	1.221E-02	-1.350
		697.00		-4.647E-02	2.685E-01	4.477E-01	4.526E-02	-0.104
		720.50	*	-4.183E-03	1.513E-01	2.390E-01	2.423E-02	-0.018
		856.80		-7.183E-01	5.004E-01	6.434E-01	6.471E-02	-1.116
		989.30		-3.776E-01	1.016E+00	1.631E+00	1.554E-01	-0.231
		1034.80		-2.413E+00	6.142E+00	9.775E+00	9.030E-01	-0.247
		1213.00		-1.358E+00	3.227E+00	5.076E+00	4.132E-01	-0.267
SN-126	+	64.28		1.391E+02	2.020E+01	2.994E+00	4.335E-01	46.452
		86.94		-4.749E-01	1.024E+00	1.142E+00	4.739E-01	-0.416
		87.57	*	-2.911E-01	2.469E-01	2.763E-01	2.599E-02	-1.054
SB-127		61.10		1.594E+03	2.482E+02	2.800E+02	3.034E+01	5.693
		252.40		-3.413E+00	7.121E+00	1.072E+01	4.553E+00	-0.318
		290.80		-2.267E+01	3.371E+01	4.813E+01	6.166E+00	-0.471
		411.60		8.489E+00	1.600E+01	2.649E+01	4.289E+00	0.320
		444.90		3.740E+00	1.296E+01	2.130E+01	2.833E+00	0.176
		473.00		-2.720E+00	2.413E+00	3.726E+00	5.126E-01	-0.730
		543.00		1.356E+01	2.369E+01	3.876E+01	5.999E+00	0.350
		603.60		-1.724E+01	1.830E+01	2.406E+01	3.357E+00	-0.717
		685.20	*	3.750E-01	1.784E+00	3.016E+00	3.968E-01	0.124
		698.50		1.544E+01	2.055E+01	3.503E+01	6.008E+00	0.441
		722.20		-5.946E+00	4.405E+01	6.370E+01	8.286E+00	-0.093
		783.80		1.328E+01	6.495E+00	9.865E+00	1.392E+00	1.346
XE-127		57.60		8.843E+00	1.147E+01	1.808E+01	1.292E+00	0.489
	+	145.22		1.892E+01	2.212E+00	2.008E+00	1.701E-01	9.427
		172.10		-1.115E-02	1.579E-01	2.499E-01	2.202E-02	-0.045
	+	202.84	*	1.532E-01	6.150E-02	9.218E-02	8.507E-03	1.662
		374.96		2.807E-02	1.853E-01	3.060E-01	2.668E-02	0.092
I-131		80.18		-5.209E+00	1.525E+01	1.742E+01	1.506E+00	-0.299
		284.30		1.959E-02	1.697E+00	2.829E+00	2.924E-01	0.007
		364.48	*	4.919E-02	1.281E-01	2.130E-01	2.001E-02	0.231
		636.97		2.172E-01	1.649E+00	2.793E+00	2.901E-01	0.078
		722.89		1.888E-01	8.245E+00	1.202E+01	1.227E+00	0.016
BA-133		53.15		8.961E+00	5.542E+00	9.176E+00	6.836E-01	0.977
		79.62		-2.137E+00	3.541E+00	4.016E+00	6.091E-01	-0.532
		81.00		5.097E-02	2.688E-01	3.091E-01	4.913E-02	0.165
		276.40		-7.229E-02	3.431E-01	5.698E-01	8.702E-02	-0.127
		302.84		-9.321E-02	1.345E-01	2.188E-01	3.080E-02	-0.426
		356.01	*	1.573E-02	4.240E-02	6.216E-02	8.397E-03	0.253
		383.85		-9.510E-02	2.734E-01	4.440E-01	5.569E-02	-0.214
I-133	+	510.53		5.818E+00	2.734E-01	Half-Life too short		
		529.87	*	-1.082E-02	2.734E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		706.58		9.548E-01	2.734E-01	Half-Life too short		
		856.28		-4.688E+00	2.734E-01	Half-Life too short		
		875.33		6.871E-01	2.734E-01	Half-Life too short		
		1236.41		5.762E+00	2.734E-01	Half-Life too short		
		1298.22		9.565E-01	2.734E-01	Half-Life too short		
CS-134		475.35		7.606E-01	1.790E+00	2.943E+00	2.669E-01	0.258
		563.23		1.615E-01	3.938E-01	5.626E-01	5.458E-02	0.287
	+	569.32		6.138E-01	2.872E-01	3.478E-01	3.396E-02	1.765
		604.70		-7.138E-03	3.431E-02	4.731E-02	4.658E-03	-0.151
	+	795.84	*	1.720E-01	7.425E-02	7.757E-02	7.915E-03	2.218
		801.93		-5.504E-01	4.049E-01	5.330E-01	5.430E-02	-1.033
		1038.57		7.603E-01	2.464E+00	4.105E+00	3.782E-01	0.185
		1167.94		-1.348E-01	1.531E+00	2.468E+00	1.998E-01	-0.055
		1365.15		-1.274E-01	6.624E-01	1.093E+00	9.631E-02	-0.117
CS-135		268.24	*	-3.102E-02	1.450E-01	2.411E-01	2.672E-02	-0.129
I-135		288.45		6.846E+11	1.450E-01	Half-Life too short		
		417.63		9.137E+10	1.450E-01	Half-Life too short		
		546.56		-1.933E+12	1.450E-01	Half-Life too short		
		836.80		6.679E+11	1.450E-01	Half-Life too short		
		1038.76		1.101E+12	1.450E-01	Half-Life too short		
		1124.00		1.126E+13	1.450E-01	Half-Life too short		
		1131.51		-2.263E+11	1.450E-01	Half-Life too short		
		1260.41	*	1.761E+11	1.450E-01	Half-Life too short		
		1457.56		4.748E+13	1.450E-01	Half-Life too short		
		1678.03		-1.766E+11	1.450E-01	Half-Life too short		
		1706.46		1.628E+12	1.450E-01	Half-Life too short		
		1791.20		-6.383E+11	1.450E-01	Half-Life too short		
CS-136		66.91		-8.789E+00	2.059E+00	2.211E+00	3.277E-01	-3.976
		86.29		-1.158E+00	3.082E+00	4.058E+00	5.390E-01	-0.285
		153.22		7.405E-01	9.613E-01	1.543E+00	1.480E-01	0.480
	+	163.89		1.560E+01	2.900E+00	3.030E+00	2.949E-01	5.149
		176.55		-2.316E-01	5.157E-01	8.094E-01	7.576E-02	-0.286
		273.65		-4.885E-01	4.759E-01	7.731E-01	8.059E-02	-0.632
		340.57		1.631E-01	1.448E-01	2.137E-01	2.045E-02	0.763
		818.51		-4.056E-02	7.021E-02	1.135E-01	1.151E-02	-0.357
		1048.07	*	-8.664E-02	7.790E-02	1.173E-01	1.113E-02	-0.739
		1235.34		3.696E-01	4.475E-01	6.648E-01	7.674E-02	0.556
CE-139		165.85	*	2.233E-02	4.274E-02	6.084E-02	5.312E-03	0.367
BA-140	+	162.64		1.102E+01	2.019E+00	2.145E+00	1.970E-01	5.139
		304.84		-6.324E-01	1.348E+00	2.196E+00	6.236E-01	-0.288
		423.70		2.681E-01	1.928E+00	3.159E+00	1.024E+00	0.085
		537.32	*	-2.516E-02	2.760E-01	4.431E-01	1.479E-01	-0.057
LA-140		328.77		5.456E-01	3.047E-01	5.179E-01	5.150E-02	1.053
		432.53		7.787E-01	2.069E+00	3.415E+00	3.121E-01	0.228
		487.03		1.010E-01	1.437E-01	2.378E-01	2.296E-02	0.425
		751.79		-1.852E+00	1.783E+00	2.847E+00	3.119E-01	-0.650
		815.85		2.529E-01	3.017E-01	5.168E-01	5.678E-02	0.489
		867.82		3.346E-01	1.330E+00	2.030E+00	2.116E-01	0.165
		919.63		-2.229E-01	2.719E+00	3.862E+00	4.509E-01	-0.058

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	925.24		7.510E+00	2.898E+00	2.082E+00	2.148E-01	3.607
		1596.49	*	-3.338E-02	5.752E-02	8.985E-02	7.586E-03	-0.372
CE-141		145.44	*	9.909E-01	1.360E-01	1.724E-01	1.489E-02	5.746
CE-143		57.37		2.013E-03	1.360E-01	Half-Life too short		
		231.56		-2.802E-03	1.360E-01	Half-Life too short		
		293.26	*	1.110E-03	1.360E-01	Half-Life too short		
	+	350.59		5.772E-02	1.360E-01	Half-Life too short		
		490.36		6.405E-03	1.360E-01	Half-Life too short		
		664.57		7.501E-03	1.360E-01	Half-Life too short		
		721.93		-7.814E-04	1.360E-01	Half-Life too short		
CE-144		80.11		-2.131E+00	5.810E+00	6.634E+00	5.683E-01	-0.321
		133.54	*	1.752E-01	3.174E-01	4.550E-01	7.020E-02	0.385
PM-144		476.78		4.184E-02	6.513E-02	1.076E-01	1.060E-02	0.389
		618.01		1.630E-02	2.851E-02	4.650E-02	4.693E-03	0.351
		696.49	*	-2.479E-02	3.054E-02	4.963E-02	5.018E-03	-0.499
		778.57		-1.010E+00	2.204E+00	3.510E+00	3.568E-01	-0.288
PR-144		696.49	*	-1.682E+00	2.072E+00	3.367E+00	3.404E-01	-0.499
		1489.15		-1.054E+00	6.000E+00	9.810E+00	8.317E-01	-0.107
PM-146		453.90	*	-4.585E-02	4.156E-02	6.477E-02	7.094E-03	-0.708
		633.02		-5.051E-01	1.303E+00	2.024E+00	7.630E-01	-0.250
		735.90		-2.377E-02	1.639E-01	2.364E-01	6.879E-02	-0.101
		747.13		8.183E-02	9.261E-02	1.396E-01	2.099E-02	0.586
ND-147	+	91.11		2.114E+00	4.743E-01	2.325E+00	2.301E-01	0.909
		319.41		-3.300E-01	3.392E+00	5.607E+00	5.395E-01	-0.059
		439.89		2.475E+00	6.150E+00	1.014E+01	8.918E-01	0.244
		531.02	*	3.231E-01	5.950E-01	9.746E-01	1.505E-01	0.332
PM-149		285.90	*	-2.008E+01	1.721E+02	2.859E+02	4.663E+01	-0.070
EU-152		121.78		1.026E-01	1.068E-01	1.730E-01	1.675E-02	0.593
		244.69		-7.205E-02	3.489E-01	5.130E-01	4.977E-02	-0.140
		344.27	*	-5.065E-03	8.948E-02	1.426E-01	1.391E-02	-0.036
		443.98		4.282E-01	8.536E-01	1.412E+00	1.246E-01	0.303
		778.89		-1.060E-01	2.556E-01	4.078E-01	4.144E-02	-0.260
		867.32		4.599E-01	7.255E-01	1.085E+00	1.088E-01	0.424
		964.01		1.560E-01	2.227E-01	3.322E-01	3.209E-02	0.470
		1085.78		1.285E-01	2.381E-01	4.017E-01	3.557E-02	0.320
		1112.02		1.147E-01	1.880E-01	3.177E-01	2.742E-02	0.361
		1407.95		9.792E-02	1.047E-01	1.880E-01	1.588E-02	0.521
GD-153		69.67		5.930E+00	2.896E+00	4.747E+00	3.631E-01	1.249
	+	83.37		2.481E+02	5.091E+01	5.299E+01	4.724E+00	4.683
	+	97.43	*	4.140E+00	4.207E-01	2.963E-01	2.628E-02	13.972
		103.18		-3.268E-01	1.904E-01	2.649E-01	2.291E-02	-1.234
EU-154		123.07		-2.935E-02	7.466E-02	1.192E-01	1.329E-02	-0.246
		247.94		2.850E-01	3.546E-01	6.010E-01	7.412E-02	0.474
		591.81		-2.012E-01	5.784E-01	9.135E-01	1.146E-01	-0.220
		723.30		-9.111E-02	1.709E-01	2.415E-01	2.639E-02	-0.377
		756.87		5.704E-01	7.082E-01	1.209E+00	1.587E-01	0.472
		873.19		-2.991E-02	2.386E-01	3.817E-01	5.063E-02	-0.078
		996.32		2.604E-01	2.995E-01	4.487E-01	8.166E-02	0.580
		1004.76		2.778E+00	4.261E-01	5.359E-01	6.568E-02	5.184

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1274.45	*	-3.325E-02	7.402E-02	1.151E-01	1.272E-02	-0.289
EU-155		48.70		9.655E-01	3.073E+00	5.092E+00	4.075E-01	0.190
		60.01		3.628E+01	1.026E+01	1.504E+01	1.067E+00	2.412
		86.54		-1.332E-01	2.521E-01	3.315E-01	3.103E-02	-0.402
		105.31	*	-1.003E-01	1.734E-01	2.780E-01	2.417E-02	-0.361
TB-160		86.79		-4.076E-01	7.957E-01	9.031E-01	8.409E-02	-0.451
		197.04		2.087E-01	7.834E-01	1.001E+00	9.167E-02	0.208
		215.65		5.376E-02	7.519E-01	1.270E+00	1.193E-01	0.042
		298.57		1.536E-02	1.170E-01	1.717E-01	1.688E-02	0.089
	+	879.36	*	3.377E-01	1.622E-01	2.176E-01	2.176E-02	1.552
		962.29		-1.309E-01	3.953E-01	5.475E-01	5.295E-02	-0.239
		966.15		4.620E-01	1.675E-01	2.728E-01	2.633E-02	1.694
		1177.93		3.402E-02	2.251E-01	3.683E-01	2.966E-02	0.092
		1271.85		2.314E-01	4.353E-01	7.284E-01	6.023E-02	0.318
HO-166M		80.57		-2.180E-01	7.429E-01	8.490E-01	7.313E-02	-0.257
	+	184.41		4.520E+00	4.179E-01	1.621E-01	1.456E-02	27.874
		280.46		-5.228E-02	8.024E-02	1.317E-01	1.310E-02	-0.397
		410.95		2.519E-01	2.142E-01	3.610E-01	3.080E-02	0.698
		711.68	*	-2.191E-02	5.323E-02	8.780E-02	8.894E-03	-0.250
		752.31		-1.592E-01	2.494E-01	4.060E-01	4.126E-02	-0.392
		810.29		-5.462E-02	5.234E-02	8.285E-02	8.398E-03	-0.659
TM-171		51.35		1.388E+00	4.421E+01	7.302E+01	5.579E+00	0.019
		52.39		2.351E+01	2.379E+01	3.941E+01	2.965E+00	0.597
		59.40		1.751E+02	5.408E+01	7.959E+01	5.632E+00	2.200
		66.72	*	-2.405E+02	5.384E+01	7.090E+01	5.282E+00	-3.392
LU-176		88.36		1.540E+00	5.832E-01	6.676E-01	6.294E-02	2.306
	+	201.83		8.988E-02	3.609E-02	5.269E-02	4.856E-03	1.706
		306.84	*	1.395E-02	2.306E-02	3.877E-02	3.782E-03	0.360
		401.10		-5.995E-01	6.045E+00	9.875E+00	8.336E-01	-0.061
LU-177M		52.97		3.512E+00	2.517E+00	4.169E+00	3.113E-01	0.843
		54.07		4.179E-01	1.363E+00	2.251E+00	1.659E-01	0.186
		61.30		4.203E+01	4.390E+00	5.156E+00	3.688E-01	8.151
		121.62		3.797E-01	5.536E-01	8.956E-01	7.469E-02	0.424
		147.16		-1.596E-01	9.611E-01	1.359E+00	1.154E-01	-0.118
		171.86		-5.989E-02	6.153E-01	9.734E-01	8.574E-02	-0.062
		218.09		-2.511E-01	8.470E-01	1.421E+00	1.338E-01	-0.177
		268.79		2.721E-01	7.415E-01	1.248E+00	1.234E-01	0.218
		319.02		-2.329E-01	2.345E-01	3.769E-01	3.627E-02	-0.618
		367.43		-3.582E-02	8.478E-01	1.394E+00	1.236E-01	-0.026
		413.65	*	-1.908E-01	1.606E-01	2.517E-01	2.154E-02	-0.758
HF-181		56.28		-2.976E+00	1.665E+00	2.687E+00	1.939E-01	-1.107
		57.53		6.157E-01	9.575E-01	1.509E+00	1.078E-01	0.408
		65.20		6.517E+01	5.218E+00	3.696E+00	2.720E-01	17.633
		133.02		1.409E-01	1.066E-01	1.544E-01	1.292E-02	0.913
		136.25		5.526E-02	6.849E-01	1.044E+00	8.755E-02	0.053
		345.85		-3.102E-02	1.918E-01	2.917E-01	2.699E-02	-0.106
		482.03	*	-1.813E-02	4.091E-02	6.530E-02	5.954E-03	-0.278
W-181		56.28		-1.132E+00	6.363E-01	1.027E+00	7.410E-02	-1.103
		57.53		2.341E-01	3.662E-01	5.770E-01	4.124E-02	0.406

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		65.20	*	2.473E+01	1.980E+00	1.402E+00	1.032E-01	17.633
TA-182		67.75		-7.799E-01	2.174E-01	2.956E-01	2.222E-02	-2.638
	+	100.10		9.713E+00	9.871E-01	5.972E-01	5.230E-02	16.262
		152.43		-2.191E-02	4.438E-01	7.063E-01	6.041E-02	-0.031
		222.10		-1.240E-01	3.920E-01	5.779E-01	5.470E-02	-0.215
	+	1001.68		2.220E+02	2.192E+01	1.376E+01	1.300E+00	16.137
	+	1121.28		3.928E-01	1.344E-01	1.939E-01	1.657E-02	2.026
		1189.05		-2.210E-02	2.171E-01	3.005E-01	2.428E-02	-0.074
		1221.42	*	1.748E-04	1.186E-01	1.917E-01	1.564E-02	0.001
		1230.97		-3.186E-01	3.143E-01	4.177E-01	3.418E-02	-0.763
RE-183		57.98		9.207E-01	3.966E-01	5.876E-01	4.189E-02	1.567
		59.32		7.002E-01	2.261E-01	3.331E-01	2.358E-02	2.102
		67.20		-1.787E+00	3.963E-01	5.211E-01	3.899E-02	-3.428
	+	162.32	*	1.459E+00	2.637E-01	2.804E-01	2.433E-02	5.205
	+	208.81		1.711E+00	1.187E+00	1.716E+00	1.597E-01	0.997
		291.72		4.131E-01	9.918E-01	1.470E+00	1.453E-01	0.281
RE-184		57.98		3.349E+00	1.442E+00	2.137E+00	1.523E-01	1.567
		59.32		2.545E+00	8.215E-01	1.211E+00	8.570E-02	2.102
		67.20		-6.495E+00	1.441E+00	1.895E+00	1.417E-01	-3.428
		161.27		8.653E-01	5.343E-01	7.707E-01	6.679E-02	1.123
		216.55		6.175E-02	2.634E-01	4.460E-01	4.193E-02	0.138
		252.85	*	-1.497E-01	2.669E-01	3.873E-01	3.785E-02	-0.387
		318.01		-3.827E-01	4.075E-01	6.564E-01	6.325E-02	-0.583
		792.07		-3.711E-01	1.537E+00	1.451E+00	1.473E-01	-0.256
		903.28		-5.261E-01	7.716E-01	1.098E+00	1.090E-01	-0.479
		920.93		5.616E-01	3.961E-01	6.169E-01	6.080E-02	0.910
OS-185		59.72		2.324E+00	6.143E-01	8.990E-01	6.367E-02	2.586
		61.14		3.237E+00	4.148E-01	5.426E-01	3.877E-02	5.966
		69.30		6.233E-01	5.164E-01	8.489E-01	6.471E-02	0.734
		592.07		-1.662E+00	2.413E+00	3.756E+00	3.670E-01	-0.443
		646.12	*	1.202E-02	3.814E-02	6.491E-02	6.482E-03	0.185
		717.42		-7.604E-02	8.082E-01	1.349E+00	1.367E-01	-0.056
		874.81		5.690E-01	5.240E-01	8.029E-01	8.038E-02	0.709
	+	880.27		1.872E+00	8.992E-01	1.220E+00	1.220E-01	1.534
RE-188		155.03	*	1.263E-04	2.273E-01	3.617E-01	3.105E-02	0.000
		477.96		2.650E+00	2.960E+00	4.925E+00	4.476E-01	0.538
		633.10		-3.037E-01	2.633E+00	4.181E+00	4.156E-01	-0.073
W-188	+	63.58		1.444E+04	1.069E+03	3.284E+02	2.387E+01	43.980
	+	227.08		2.489E+01	1.925E+01	2.315E+01	2.204E+00	1.075
		290.67	*	-5.603E+00	7.936E+00	1.133E+01	1.121E+00	-0.494
IR-192	+	295.96		7.979E-01	1.809E-01	2.005E-01	1.986E-02	3.979
		308.46		6.608E-02	9.043E-02	1.524E-01	1.490E-02	0.434
		316.51	*	8.767E-03	3.146E-02	5.253E-02	5.080E-03	0.167
		468.07		1.530E-02	7.012E-02	1.006E-01	9.666E-03	0.152
		604.41		-2.419E-01	4.805E-01	6.510E-01	9.014E-02	-0.372
		612.46		9.234E-01	7.338E-01	1.078E+00	1.185E-01	0.857
AU-195		65.12		1.487E+01	1.157E+00	6.991E-01	5.141E-02	21.267
		66.83		-9.786E-01	1.862E-01	2.370E-01	1.767E-02	-4.129
	+	75.70		8.545E-01	3.771E-01	5.596E-01	4.556E-02	1.527

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	98.88	*	1.208E+01	1.228E+00	8.794E-01	7.744E-02	13.737
		129.76		5.916E+00	4.523E+00	6.553E+00	5.473E-01	0.903
TL-200		367.94	*	3.273E-04	4.523E+00	Half-Life too short		
		579.30		-2.542E-03	4.523E+00	Half-Life too short		
		828.27		-1.419E-02	4.523E+00	Half-Life too short		
		1205.75		1.081E-04	4.523E+00	Half-Life too short		
TL-201		68.90		2.379E+01	1.352E+01	2.222E+01	1.687E+00	1.071
		70.82		1.750E+01	8.934E+00	1.314E+01	1.016E+00	1.332
		80.30		-1.019E+01	2.294E+01	2.616E+01	2.246E+00	-0.390
		135.34		8.603E+01	6.458E+01	9.357E+01	7.844E+00	0.919
		167.43	*	2.362E+00	1.650E+01	2.331E+01	2.040E+00	0.101
TL-202		68.90		1.454E+00	8.267E-01	1.358E+00	1.031E-01	1.071
		70.82		1.067E+00	5.446E-01	8.009E-01	6.195E-02	1.332
		80.30		-6.216E-01	1.399E+00	1.595E+00	1.369E-01	-0.390
		439.56	*	4.885E-02	7.195E-02	1.196E-01	1.050E-02	0.409
HG-203		70.83		4.253E+00	2.195E+00	3.159E+00	4.127E-01	1.346
		72.87		2.004E+00	1.286E+00	1.866E+00	2.377E-01	1.074
	+	82.60		1.895E+01	4.386E+00	3.926E+00	5.448E-01	4.828
		279.20	*	3.687E-02	3.942E-02	6.676E-02	6.790E-03	0.552
BI-207		72.80		7.844E-01	3.608E-01	5.289E-01	4.174E-02	1.483
	+	74.97		4.700E-01	2.074E-01	3.083E-01	2.490E-02	1.524
	+	84.90		3.189E+00	6.543E-01	6.674E-01	6.065E-02	4.779
	+	569.67		9.547E-02	4.466E-02	5.392E-02	5.210E-03	1.770
		1063.62	*	3.140E-02	3.224E-02	5.570E-02	5.030E-03	0.564
		1770.23		1.543E-01	2.589E-01	4.111E-01	3.372E-02	0.375
TL-207		81.07		1.377E-01	5.930E-01	6.824E-01	5.913E-02	0.202
	+	83.78		2.102E+00	4.313E-01	4.495E-01	4.028E-02	4.677
	+	94.90		7.253E+00	1.117E+00	1.051E+00	9.449E-02	6.904
		122.32		1.744E+00	2.535E+00	4.100E+00	3.685E-01	0.425
	+	144.24		1.778E+01	2.215E+00	2.044E+00	1.942E-01	8.696
		154.21		6.174E-01	5.120E-01	8.240E-01	7.777E-02	0.749
		269.46		1.704E-01	1.739E-01	2.950E-01	2.966E-02	0.578
		323.87	*	-3.035E-01	5.925E-01	9.644E-01	1.754E-01	-0.315
	+	338.28		4.071E+00	1.334E+00	1.710E+00	2.197E-01	2.381
		445.03		4.882E-01	2.008E+00	3.296E+00	4.034E-01	0.148
PO-209		260.50		2.473E+01	1.099E+01	1.680E+01	1.652E+00	1.472
		262.80		1.147E+00	2.801E+01	4.132E+01	4.070E+00	0.028
		896.60	*	1.420E-01	5.409E+00	8.944E+00	8.895E-01	0.016
BI-210		46.50	*	-4.922E+00	3.994E+00	6.477E+00	6.006E-01	-0.760
PB-210		46.50	*	-4.922E+00	3.994E+00	6.477E+00	6.006E-01	-0.760
PO-210		46.50	*	-4.922E+00	3.989E+00	6.477E+00	5.434E-01	-0.760
PB-211		404.84	*	-1.812E-01	8.357E-01	1.347E+00	8.438E-01	-0.135
		427.08		4.675E-01	1.801E+00	2.927E+00	1.819E+00	0.160
		831.96		4.709E-01	1.080E+00	1.704E+00	1.071E+00	0.276
PO-215		81.07		1.377E-01	5.930E-01	6.824E-01	5.913E-02	0.202
	+	83.78		2.102E+00	4.313E-01	4.495E-01	4.028E-02	4.677
	+	94.90		7.253E+00	1.117E+00	1.051E+00	9.449E-02	6.904
		122.32		1.744E+00	2.535E+00	4.100E+00	3.685E-01	0.425
	+	144.24		1.778E+01	2.215E+00	2.044E+00	1.942E-01	8.696

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		154.21		6.174E-01	5.120E-01	8.240E-01	7.777E-02	0.749
		269.46		1.704E-01	1.739E-01	2.950E-01	2.966E-02	0.578
		323.87	*	-3.035E-01	5.925E-01	9.644E-01	1.754E-01	-0.315
	+	338.28		4.071E+00	1.334E+00	1.710E+00	2.197E-01	2.381
		445.03		4.882E-01	2.008E+00	3.296E+00	4.034E-01	0.148
RN-219		271.23		4.781E-01	2.309E-01	3.909E-01	4.461E-02	1.223
		401.81	*	7.103E-02	3.689E-01	6.075E-01	9.069E-02	0.117
RN-220		549.76	*	2.272E+01	2.457E+01	4.067E+01	3.885E+00	0.559
RA-223		81.07		1.377E-01	5.930E-01	6.824E-01	5.913E-02	0.202
	+	83.78		2.102E+00	4.313E-01	4.495E-01	4.028E-02	4.677
	+	94.90		7.253E+00	1.117E+00	1.051E+00	9.449E-02	6.904
		122.32		1.744E+00	2.535E+00	4.100E+00	3.685E-01	0.425
	+	144.24		1.778E+01	2.215E+00	2.044E+00	1.942E-01	8.696
		154.21		6.174E-01	5.120E-01	8.240E-01	7.777E-02	0.749
		269.46		1.704E-01	1.739E-01	2.950E-01	2.966E-02	0.578
		323.87	*	-3.035E-01	5.925E-01	9.644E-01	1.754E-01	-0.315
	+	338.28		4.071E+00	1.334E+00	1.710E+00	2.197E-01	2.381
		445.03		4.882E-01	2.008E+00	3.296E+00	4.034E-01	0.148
AC-227		79.80		-2.109E+00	4.488E+00	5.094E+00	1.094E+00	-0.414
		236.00		2.753E-01	2.388E-01	3.602E-01	4.670E-02	0.764
		256.20	*	1.103E+00	4.766E-01	6.950E-01	1.115E-01	1.588
		286.10		-6.596E-01	1.431E+00	2.354E+00	3.316E-01	-0.280
		299.80		1.622E+00	1.490E+00	2.210E+00	4.002E-01	0.734
		304.40		-1.869E+00	1.785E+00	2.833E+00	5.384E-01	-0.660
		334.20		-1.775E+00	2.339E+00	3.265E+00	6.460E-01	-0.544
TH-227		79.80		-2.109E+00	4.488E+00	5.094E+00	1.108E+00	-0.414
	+	94.00		5.803E+01	1.465E+01	1.719E+01	3.774E+00	3.375
		236.00		2.753E-01	2.384E-01	3.602E-01	4.276E-02	0.764
		256.20	*	1.103E+00	4.881E-01	6.950E-01	1.297E-01	1.588
		286.10		-6.596E-01	1.574E+00	2.354E+00	2.366E+00	-0.280
		299.80		1.622E+00	1.490E+00	2.210E+00	4.002E-01	0.734
		304.40		-1.869E+00	1.785E+00	2.833E+00	5.384E-01	-0.660
		334.20		-1.775E+00	2.339E+00	3.265E+00	6.460E-01	-0.544
TH-229	+	85.43		3.147E+00	6.457E-01	6.428E-01	5.882E-02	4.896
		88.47		5.926E-01	3.347E-01	3.855E-01	3.631E-02	1.537
	+	100.00		9.941E+00	1.010E+00	6.335E-01	5.550E-02	15.692
	+	193.63	*	9.735E-01	7.862E-01	9.304E-01	8.474E-02	1.046
		210.97		7.751E-01	8.339E-01	1.265E+00	1.181E-01	0.613
PA-231		283.67	*	-1.327E-01	1.426E+00	2.372E+00	3.787E-01	-0.056
		301.29		6.286E-01	5.368E-01	8.775E-01	1.150E-01	0.716
TH-231		81.07		1.377E-01	5.930E-01	6.824E-01	5.913E-02	0.202
	+	83.78		2.102E+00	4.313E-01	4.495E-01	4.028E-02	4.677
	+	94.90		7.253E+00	1.117E+00	1.051E+00	9.449E-02	6.904
		122.32		1.744E+00	2.535E+00	4.100E+00	3.685E-01	0.425
	+	144.24		1.778E+01	2.215E+00	2.044E+00	1.942E-01	8.696
		154.21		6.174E-01	5.120E-01	8.240E-01	7.777E-02	0.749
		269.46		1.704E-01	1.739E-01	2.950E-01	2.966E-02	0.578
		323.87	*	-3.035E-01	5.925E-01	9.644E-01	1.754E-01	-0.315
	+	338.28		4.071E+00	1.334E+00	1.710E+00	2.197E-01	2.381

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		4.882E-01	2.008E+00	3.296E+00	4.034E-01	0.148
PA-233	+	75.28		1.371E+01	6.297E+00	8.973E+00	1.352E+00	1.528
		86.59		-2.105E+00	4.128E+00	5.382E+00	1.456E+00	-0.391
		300.12		4.637E-01	4.128E-01	6.156E-01	9.601E-02	0.753
		311.98	*	-6.047E-02	5.875E-02	9.447E-02	9.373E-03	-0.640
		340.50		8.276E-01	6.536E-01	9.301E-01	2.242E-01	0.890
		398.62		-1.389E+00	1.915E+00	3.012E+00	8.002E-01	-0.461
		415.76		8.576E-01	1.460E+00	2.411E+00	5.193E-01	0.356
PA-234	+	63.00		4.096E+02	6.085E+01	9.568E+00	1.414E+00	42.804
	+	94.67		5.174E+00	9.209E-01	9.790E-01	1.241E-01	5.285
	+	98.44		4.853E+00	2.720E+00	3.548E-01	1.981E-01	13.678
	+	99.86		2.516E+01	2.557E+00	1.666E+00	1.461E-01	15.099
	+	111.00		2.547E+00	5.217E-01	6.494E-01	7.777E-02	3.922
	+	131.20		4.157E-01	1.957E-01	2.480E-01	2.073E-02	1.676
		152.70		3.677E-02	4.205E-01	6.704E-01	1.141E-01	0.055
	+	186.00		1.627E+02	5.108E+01	6.377E+00	1.997E+00	25.514
	+	226.40		7.669E-01	5.982E-01	7.163E-01	9.887E-02	1.071
	+	227.20		8.217E-01	6.357E-01	7.639E-01	7.275E-02	1.076
		248.90		6.517E-01	8.138E-01	1.363E+00	3.116E-01	0.478
	+	293.70		4.917E+00	1.336E+00	1.196E+00	2.148E-01	4.111
		369.80		3.868E-01	7.876E-01	1.306E+00	2.855E-01	0.296
	+	568.70		3.107E+00	1.453E+00	1.776E+00	1.715E-01	1.750
	+	569.50		8.473E-01	3.963E-01	4.787E-01	4.624E-02	1.770
		574.00		-1.207E-01	1.615E+00	2.253E+00	2.181E-01	-0.054
		699.00		5.579E-01	6.551E-01	1.113E+00	2.204E-01	0.501
		706.10		3.324E-01	9.585E-01	1.605E+00	7.209E-01	0.207
		733.00		3.911E-01	4.037E-01	6.007E-01	1.372E-01	0.651
	+	742.81		1.860E+01	1.287E+01	3.675E+00	2.478E+00	5.061
	+	796.30		3.337E+00	1.675E+00	1.499E+00	4.134E-01	2.226
		805.60		1.340E+00	9.688E-01	1.539E+00	4.787E-01	0.871
		819.60		-4.076E-01	1.050E+00	1.696E+00	6.511E-01	-0.240
		826.30		7.996E-02	7.021E-01	1.169E+00	5.269E-01	0.068
		831.60		1.590E-01	5.449E-01	8.850E-01	2.682E-01	0.180
		876.40		3.949E-01	8.525E-01	1.113E+00	1.146E+00	0.355
	+	880.51		6.654E-01	3.196E-01	4.428E-01	4.426E-02	1.503
	+	883.24		8.546E-01	6.422E-01	4.801E-01	3.236E-01	1.780
		899.00		-9.256E-02	6.267E-01	1.013E+00	4.458E-01	-0.091
	+	925.00		6.906E+00	2.657E+00	1.901E+00	1.871E-01	3.632
	+	926.50		1.026E+00	4.637E-01	2.918E-01	7.503E-02	3.515
	+	946.00	*	1.238E+00	4.279E-01	5.102E-01	9.851E-02	2.426
		949.00		7.222E-01	3.925E-01	6.215E-01	6.050E-02	1.162
		980.50		8.257E-02	5.287E-01	8.753E-01	8.380E-02	0.094
		1394.10		7.696E-01	8.723E-01	1.297E+00	8.438E-01	0.593
NP-236	+	94.67		3.925E+00	6.044E-01	7.459E-01	6.719E-02	5.261
	+	98.44		3.669E+00	3.728E-01	2.682E-01	2.367E-02	13.678
	+	111.00		1.926E+00	3.593E-01	4.912E-01	4.157E-02	3.922
		160.31	*	-6.783E-02	1.165E-01	1.617E-01	1.399E-02	-0.420
NP-237		86.50	*	-3.314E-01	6.182E-01	8.076E-01	1.827E-01	-0.410
	+	95.87		3.125E+01	8.669E+00	3.224E+00	7.979E-01	9.691

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		8.386E+00	8.522E-01	5.868E-01	5.152E-02	14.290
		117.00	*	-3.535E-01	3.225E-01	4.524E-01	3.790E-02	-0.781
	+	209.75		1.320E+00	9.157E-01	1.330E+00	1.239E-01	0.992
	+	228.18		4.300E-01	3.327E-01	3.961E-01	3.777E-02	1.086
		277.60		1.648E-01	1.675E-01	2.839E-01	2.824E-02	0.581
		334.30		-1.066E+00	1.313E+00	1.845E+00	1.739E-01	-0.578
AM-241		59.54	*	1.098E+00	3.177E-01	4.633E-01	3.626E-02	2.369
CM-243	+	99.55		8.630E+00	8.771E-01	6.040E-01	5.302E-02	14.290
		103.76	*	1.343E-01	1.694E-01	2.461E-01	2.125E-02	0.546
		117.00		-3.638E-01	3.318E-01	4.655E-01	3.900E-02	-0.781
	+	209.75		1.301E+00	9.028E-01	1.312E+00	1.222E-01	0.992
	+	228.18		4.346E-01	3.362E-01	4.003E-01	3.817E-02	1.086
		277.60		1.662E-01	1.689E-01	2.863E-01	2.848E-02	0.581
AM-246		798.80		1.115E-01	1.346E-01	2.029E-01	2.059E-02	0.549
		1036.00		4.385E-02	1.800E-01	2.991E-01	2.761E-02	0.147
		1062.04		4.252E-02	1.439E-01	2.392E-01	2.163E-02	0.178
		1078.86	*	2.174E-02	8.396E-02	1.393E-01	1.241E-02	0.156
CM-247		278.00		1.134E+00	6.981E-01	1.189E+00	1.183E-01	0.953
		287.40		-3.098E-01	1.154E+00	1.910E+00	1.893E-01	-0.162
		402.60	*	2.402E-02	3.319E-02	5.541E-02	4.686E-03	0.433
CF-249		252.85		-5.567E-01	9.921E-01	1.440E+00	1.407E-01	-0.387
		333.44		-2.510E-01	1.782E-01	2.437E-01	2.300E-02	-1.030
		387.95	*	2.241E-02	3.675E-02	6.126E-02	5.169E-03	0.366
CF-251		176.60	*	-7.102E-02	1.579E-01	2.478E-01	2.199E-02	-0.287
	+	227.00		7.304E-01	5.650E-01	6.794E-01	6.469E-02	1.075
		285.00		-1.388E-01	1.626E+00	2.704E+00	2.684E-01	-0.051

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020013      *
* Acquisition date : 13-FEB-2010 19:59:19 Detector SN#     :               *
* Detector ID        : GAM20                Sensitivity      : 5.000       *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 04:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 04:01:31.09      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020013           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.4962E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope       :                *
* MSD DPM            :     0.000           MSD Isotope      :              *
* LCS DPM            :     0.000           LCS Isotope      :              *
* LCSD DPM           :     0.000           LCSD Isotope     :              *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.036E+01	1.974E+00	3.294E-01	0.000E+00
RB-84	1.736E-01	8.174E-02	9.936E-02	0.000E+00
NB-95	1.777E+00	2.037E-01	6.478E-02	0.000E+00
TE-132	2.126E+00	1.636E+00	1.828E+00	0.000E+00
BA-137M	1.992E-01	5.089E-02	5.547E-02	0.000E+00
CS-137	2.106E-01	5.381E-02	5.864E-02	0.000E+00
LU-177	2.350E+00	1.598E+00	2.337E+00	0.000E+00
TL-208	3.138E-01	6.866E-02	5.503E-02	0.000E+00
BI-211	2.333E+00	3.961E-01	3.101E-01	0.000E+00
BI-212	7.321E-01	4.386E-01	4.398E-01	0.000E+00
PB-212	1.010E+00	1.312E-01	9.849E-02	0.000E+00
PO-212	1.010E+00	1.312E-01	9.849E-02	0.000E+00
BI-214	8.436E-01	1.592E-01	9.863E-02	0.000E+00
PB-214	8.116E-01	1.439E-01	1.056E-01	0.000E+00
PO-214	8.116E-01	1.439E-01	1.056E-01	0.000E+00
PO-216	1.010E+00	1.312E-01	9.849E-02	0.000E+00
PO-218	8.116E-01	1.439E-01	1.056E-01	0.000E+00
RA-224	1.553E+00	6.745E-01	1.110E+00	0.000E+00
RA-226	8.436E-01	1.592E-01	9.863E-02	0.000E+00
AC-228	1.092E+00	2.294E-01	1.553E-01	0.000E+00
RA-228	1.092E+00	2.294E-01	1.553E-01	0.000E+00
TH-228	1.027E+00	1.335E-01	1.002E-01	0.000E+00
TH-230	8.436E-01	1.592E-01	9.863E-02	0.000E+00
U-231	5.139E+01	7.757E+00	4.240E+00	0.000E+00
TH-232	1.092E+00	2.294E-01	1.553E-01	0.000E+00
PA-234M	4.972E+02	5.393E+01	5.379E+00	0.000E+00
TH-234	3.514E+02	6.004E+01	3.801E+00	0.000E+00
U-234	8.436E-01	1.592E-01	9.863E-02	0.000E+00
U-235	5.485E+00	1.032E+00	4.720E-01	0.000E+00
U-238	3.514E+02	6.004E+01	3.801E+00	0.000E+00
AM-243	2.618E-01	1.132E-01	1.824E-01	0.000E+00
ANH-511	9.402E-02	5.741E-02	4.608E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error)	Ided	MDA (pCi/GRAM	)	
BE-7	2.278E-01	3.068E-01		5.367E-01	0.000E+00	NOT IDENT.
NA-22	-6.732E-03	2.549E-02		4.150E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	4.697E+06		0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.972E-02	1.723E-02		3.284E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	8.207E-02		1.179E-01	0.000E+00	FAIL ABUN
SC-46	-3.393E-02	3.187E-02		4.593E-02	0.000E+00	FAIL ABUN
V-48	1.717E-02	5.482E-02		9.490E-02	0.000E+00	NOT IDENT.
CR-51	1.007E-01	3.423E-01		6.093E-01	0.000E+00	NOT IDENT.
MN-52	3.491E-01	1.926E-01		3.725E-01	0.000E+00	FAIL ABUN
MN-54	-6.288E-03	3.023E-02		5.181E-02	0.000E+00	NOT IDENT.
CO-56	-3.063E-02	3.198E-02		5.264E-02	0.000E+00	FAIL ABUN
CO-57	2.915E-02	3.625E-02		6.400E-02	0.000E+00	NOT IDENT.
CO-58	-4.458E-02	3.452E-02		5.622E-02	0.000E+00	NOT IDENT.
FE-59	-7.861E-02	5.707E-02		8.641E-02	0.000E+00	FAIL ABUN
CO-60	1.483E-02	2.120E-02		3.723E-02	0.000E+00	NOT IDENT.
ZN-65	-4.832E-03	5.827E-02		8.404E-02	0.000E+00	NOT IDENT.
GE-68	-2.108E-01	7.007E-01		1.158E+00	0.000E+00	NOT IDENT.
AS-73	1.641E+00	1.290E+00		2.374E+00	0.000E+00	NOT IDENT.
AS-74	-6.243E-02	9.002E-02		1.472E-01	0.000E+00	NOT IDENT.
SE-75	1.276E-02	4.171E-02		7.276E-02	0.000E+00	NOT IDENT.
BR-77	1.594E+00	1.822E+01		3.109E+01	0.000E+00	FAIL ABUN
SR-82	-1.435E-01	3.685E-01		6.317E-01	0.000E+00	NOT IDENT.
RB-83	-1.833E-03	6.346E-02		1.079E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.003E+00		1.110E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.677E-02		5.830E-02	0.000E+00	NOT IDENT.
RB-86	-3.188E-01	4.908E-01		7.898E-01	0.000E+00	NOT IDENT.
Y-88	1.600E-02	2.060E-02		3.412E-02	0.000E+00	NOT IDENT.
ZR-88	-9.866E-03	2.773E-02		4.776E-02	0.000E+00	NOT IDENT.
Y-91	-1.046E+01	1.136E+01		1.779E+01	0.000E+00	NOT IDENT.
NB-94	-1.945E-02	3.059E-02		5.249E-02	0.000E+00	NOT IDENT.
NB-95M	5.822E-02	1.274E-01		2.050E-01	0.000E+00	NOT IDENT.
ZR-95	1.155E-01	6.544E-02		1.189E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.235E+05		0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.643E+07		0.000E+00	0.000E+00	SHORT HLIF
MO-99	0.000E+00	2.380E+01		3.743E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.882E+19		0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.172E-02	5.157E-02		6.013E-02	0.000E+00	NOT IDENT.
RH-102	9.707E-03	2.693E-02		4.667E-02	0.000E+00	FAIL ABUN
RU-103	3.061E-02	3.745E-02		6.531E-02	0.000E+00	FAIL ABUN
RH-106	5.080E-02	2.822E-01		4.761E-01	0.000E+00	FAIL ABUN
RU-106	5.080E-02	2.821E-01		4.761E-01	0.000E+00	FAIL ABUN
AG-108M	1.738E-02	2.862E-02		5.030E-02	0.000E+00	NOT IDENT.
CD-109	0.000E+00	2.425E+00		3.067E+00	0.000E+00	NOT IDENT.
AG-110M	-1.889E-02	3.607E-02		5.401E-02	0.000E+00	FAIL ABUN
IN-111	-7.087E-01	1.948E+00		3.059E+00	0.000E+00	NOT IDENT.
IN-113M	-2.176E-02	4.006E-02		6.860E-02	0.000E+00	NOT IDENT.
SN-113	-2.176E-02	4.006E-02		6.860E-02	0.000E+00	NOT IDENT.
IN-114M	2.976E-01	2.788E-01		3.417E-01	0.000E+00	NOT IDENT.
CD-115	9.098E+00	1.969E+01		3.397E+01	0.000E+00	NOT IDENT.
SN-117M	-7.990E-02	8.917E-02		1.333E-01	0.000E+00	NOT IDENT.
SB-122	4.515E+00	3.868E+00		5.987E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.448E+08		0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.219E-02	4.152E-02		6.224E-02	0.000E+00	NOT IDENT.
I-124	-2.751E-01	9.922E-01		1.433E+00	0.000E+00	NOT IDENT.
SB-124	-2.900E-03	4.170E-02		6.992E-02	0.000E+00	FAIL ABUN
SB-125	-3.922E-02	7.925E-02		1.348E-01	0.000E+00	FAIL ABUN
TE-125M	0.000E+00	2.014E+01		3.005E+01	0.000E+00	NOT IDENT.
I-126	1.374E-01	1.923E-01		3.048E-01	0.000E+00	NOT IDENT.
SB-126	-4.183E-03	1.483E-01		2.449E-01	0.000E+00	FAIL ABUN
SN-126	-2.911E-01	2.419E-01		2.976E-01	0.000E+00	FAIL ABUN
SB-127	3.750E-01	1.748E+00		3.095E+00	0.000E+00	NOT IDENT.
XE-127	0.000E+00	6.027E-02		9.739E-02	0.000E+00	FAIL ABUN
I-131	4.919E-02	1.255E-01		2.219E-01	0.000E+00	NOT IDENT.
BA-133	1.573E-02	4.155E-02		6.481E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.364E+04		0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.277E-02		7.930E-02	0.000E+00	FAIL ABUN
CS-135	-3.102E-02	1.421E-01		2.531E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.263E+17		0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.664E-02	7.634E-02		1.191E-01	0.000E+00	FAIL ABUN
CE-139	2.233E-02	4.188E-02		6.458E-02	0.000E+00	NOT IDENT.
BA-140	-2.516E-02	2.705E-01		4.574E-01	0.000E+00	FAIL ABUN
LA-140	-3.338E-02	5.637E-02		9.025E-02	0.000E+00	FAIL ABUN
CE-141	0.000E+00	1.333E-01		1.836E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	4.982E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.752E-01	3.110E-01	4.853E-01	0.000E+00	NOT IDENT.
PM-144	-2.479E-02	2.993E-02	5.091E-02	0.000E+00	NOT IDENT.
PR-144	-1.682E+00	2.031E+00	3.454E+00	0.000E+00	NOT IDENT.
PM-146	-4.585E-02	4.072E-02	6.714E-02	0.000E+00	NOT IDENT.
ND-147	3.231E-01	5.831E-01	1.006E+00	0.000E+00	FAIL ABUN
PM-149	-2.008E+01	1.686E+02	2.996E+02	0.000E+00	NOT IDENT.
EU-152	-5.065E-03	8.769E-02	1.487E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	4.123E-01	3.184E-01	0.000E+00	FAIL ABUN
EU-154	-3.325E-02	7.254E-02	1.163E-01	0.000E+00	NOT IDENT.
EU-155	-1.003E-01	1.699E-01	2.982E-01	0.000E+00	NOT IDENT.
TB-160	0.000E+00	1.590E-01	2.219E-01	0.000E+00	FAIL ABUN
HO-166M	-2.191E-02	5.216E-02	9.001E-02	0.000E+00	FAIL ABUN
TM-171	-2.405E+02	5.277E+01	7.683E+01	0.000E+00	NOT IDENT.
LU-176	1.395E-02	2.260E-02	4.057E-02	0.000E+00	FAIL ABUN
LU-177M	-1.908E-01	1.573E-01	2.615E-01	0.000E+00	NOT IDENT.
HF-181	-1.813E-02	4.009E-02	6.758E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	1.940E+00	1.520E+00	0.000E+00	NOT IDENT.
TA-182	1.748E-04	1.162E-01	1.939E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	2.584E-01	2.977E-01	0.000E+00	FAIL ABUN
RE-184	-1.497E-01	2.615E-01	4.071E-01	0.000E+00	NOT IDENT.
OS-185	1.202E-02	3.738E-02	6.670E-02	0.000E+00	FAIL ABUN
RE-188	1.263E-04	2.227E-01	3.845E-01	0.000E+00	NOT IDENT.
W-188	-5.603E+00	7.777E+00	1.187E+01	0.000E+00	FAIL ABUN
IR-192	8.767E-03	3.084E-02	5.492E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	1.203E+00	9.446E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.754E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.362E+00	1.617E+01	2.474E+01	0.000E+00	NOT IDENT.
TL-202	4.885E-02	7.051E-02	1.240E-01	0.000E+00	NOT IDENT.
HG-203	3.687E-02	3.863E-02	7.001E-02	0.000E+00	FAIL ABUN
BI-207	3.140E-02	3.159E-02	5.653E-02	0.000E+00	FAIL ABUN
TL-207	-3.035E-01	5.807E-01	1.008E+00	0.000E+00	FAIL ABUN
PO-209	1.420E-01	5.300E+00	9.116E+00	0.000E+00	NOT IDENT.
BI-210	-4.922E+00	3.914E+00	7.074E+00	0.000E+00	NOT IDENT.
PB-210	-4.922E+00	3.914E+00	7.074E+00	0.000E+00	NOT IDENT.
PO-210	-4.922E+00	3.910E+00	7.074E+00	0.000E+00	NOT IDENT.
PB-211	-1.812E-01	8.190E-01	1.400E+00	0.000E+00	NOT IDENT.
PO-215	-3.035E-01	5.807E-01	1.008E+00	0.000E+00	FAIL ABUN
RN-219	7.103E-02	3.615E-01	6.315E-01	0.000E+00	NOT IDENT.
RN-220	2.272E+01	2.408E+01	4.196E+01	0.000E+00	NOT IDENT.
RA-223	-3.035E-01	5.807E-01	1.008E+00	0.000E+00	FAIL ABUN
AC-227	0.000E+00	4.671E-01	7.303E-01	0.000E+00	NOT IDENT.
TH-227	0.000E+00	4.783E-01	7.303E-01	0.000E+00	FAIL ABUN
TH-229	9.735E-01	7.704E-01	9.841E-01	0.000E+00	FAIL ABUN
PA-231	-1.327E-01	1.398E+00	2.487E+00	0.000E+00	NOT IDENT.
TH-231	-3.035E-01	5.807E-01	1.008E+00	0.000E+00	FAIL ABUN
PA-233	-6.047E-02	5.758E-02	9.881E-02	0.000E+00	FAIL ABUN
PA-234	0.000E+00	4.194E-01	5.193E-01	0.000E+00	FAIL ABUN
NP-236	-6.783E-02	1.141E-01	1.717E-01	0.000E+00	FAIL ABUN
NP-237	-3.314E-01	6.058E-01	8.700E-01	0.000E+00	FAIL ABUN
NP-239	-3.535E-01	3.160E-01	4.840E-01	0.000E+00	FAIL ABUN
AM-241	0.000E+00	3.113E-01	5.033E-01	0.000E+00	NOT IDENT.
CM-243	1.343E-01	1.660E-01	2.641E-01	0.000E+00	FAIL ABUN
AM-246	2.174E-02	8.228E-02	1.413E-01	0.000E+00	NOT IDENT.
CM-247	2.402E-02	3.253E-02	5.760E-02	0.000E+00	NOT IDENT.
CF-249	2.241E-02	3.601E-02	6.374E-02	0.000E+00	NOT IDENT.
CF-251	-7.102E-02	1.547E-01	2.627E-01	0.000E+00	FAIL ABUN

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 00:01:18.43

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020013.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 13-FEB-2010 19:59:19
Sample ID         : G246020013           Sample quantity  : 1.49620E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:31.09  0.6%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2170	10.67*	1.253E+00	2.036E+01	2.036E+01	9.90
RB-84	881.50	124	67.70*	1.915E+00	1.203E-01	1.736E-01	48.03
NB-95	765.79	2524	99.81*	2.155E+00	1.472E+00	1.777E+00	11.70
TE-132	49.72	------	13.10	2.385E+00	------ Line Not Found		------
	111.76	1782	1.85	7.440E+00	1.624E+01	6.604E+02	20.13
	116.30	------	1.94	7.425E+00	------ Line Not Found		------
	228.16	199	88.00*	5.433E+00	5.229E-02	2.126E+00	78.56
BA-137M	661.65	348	89.98*	2.435E+00	1.990E-01	1.992E-01	26.07
CS-137	661.65	348	85.12*	2.435E+00	2.104E-01	2.106E-01	26.07
LU-177	112.95	5556	6.40	7.438E+00	1.464E+01	8.850E+01	10.12
	208.36	196	11.00*	5.735E+00	3.888E-01	2.350E+00	69.37
TL-208	277.35	------	6.80	4.722E+00	------ Line Not Found		------
	510.84	224	21.60	2.991E+00	4.353E-01	4.353E-01	62.86
	583.14	568	84.20*	2.696E+00	3.138E-01	3.138E-01	22.33
	860.37	93	12.46	1.953E+00	4.775E-01	4.775E-01	77.59
BI-211	72.87	------	1.27	5.845E+00	------ Line Not Found		------
	351.07	955	12.94*	3.969E+00	2.333E+00	2.333E+00	17.33
BI-212	727.18	155	11.80*	2.250E+00	7.321E-01	7.321E-01	61.13
	785.46	391	1.97	2.109E+00	1.181E+01	1.181E+01	25.29
	1620.62	------	2.75	1.162E+00	------ Line Not Found		------
PB-212	74.81	832	10.70	6.041E+00	1.615E+00	1.615E+00	45.11
	77.11	843	18.00	6.283E+00	9.345E-01	9.345E-01	48.56
	87.30	------	8.00	6.939E+00	------ Line Not Found		------
	238.63	1884	44.60*	5.249E+00	1.010E+00	1.010E+00	13.26
	300.09	------	3.41	4.461E+00	------ Line Not Found		------
PO-212	74.81	832	10.70	6.041E+00	1.615E+00	1.615E+00	45.11
	77.11	843	18.00	6.283E+00	9.345E-01	9.345E-01	48.56
	87.30	------	8.00	6.939E+00	------ Line Not Found		------
	115.19	------	0.60	7.430E+00	------ Line Not Found		------
	238.63	1884	44.60*	5.249E+00	1.010E+00	1.010E+00	13.26
	300.09	------	3.41	4.461E+00	------ Line Not Found		------
BI-214	609.31	811	46.30*	2.603E+00	8.436E-01	8.436E-01	19.26

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1120.29	154	15.10	1.557E+00	8.196E-01	8.197E-01	34.84
	1764.49	167	15.80	1.100E+00	1.208E+00	1.208E+00	23.85
PB-214	74.81	832	6.21	6.041E+00	2.782E+00	2.782E+00	44.74
	77.11	843	10.50	6.283E+00	1.602E+00	1.602E+00	49.15
	87.30	------	4.67	6.939E+00	------ Line Not Found		------
	241.98	254	7.49	5.203E+00	8.191E-01	8.191E-01	44.67
	295.21	708	19.20	4.515E+00	1.024E+00	1.024E+00	23.50
	351.92	955	37.20*	3.969E+00	8.115E-01	8.116E-01	18.10
PO-214	74.81	832	6.21	6.041E+00	2.782E+00	2.782E+00	44.74
	77.11	843	10.50	6.283E+00	1.602E+00	1.602E+00	49.15
	87.30	------	4.67	6.939E+00	------ Line Not Found		------
	241.98	254	7.49	5.203E+00	8.191E-01	8.191E-01	44.67
	295.21	708	19.20	4.515E+00	1.024E+00	1.024E+00	23.50
	351.92	955	37.20*	3.969E+00	8.115E-01	8.116E-01	18.10
PO-216	74.81	832	10.70	6.041E+00	1.615E+00	1.615E+00	45.11
	77.11	843	18.00	6.283E+00	9.345E-01	9.345E-01	48.56
	87.30	------	8.00	6.939E+00	------ Line Not Found		------
	238.63	1884	44.60*	5.249E+00	1.010E+00	1.010E+00	13.26
	300.09	------	3.41	4.461E+00	------ Line Not Found		------
PO-218	74.81	832	6.21	6.041E+00	2.782E+00	2.782E+00	44.74
	77.11	843	10.50	6.283E+00	1.602E+00	1.602E+00	49.15
	87.30	------	4.67	6.939E+00	------ Line Not Found		------
	241.98	254	7.49	5.203E+00	8.191E-01	8.191E-01	44.67
	295.21	708	19.20	4.515E+00	1.024E+00	1.024E+00	23.50
	351.92	955	37.20*	3.969E+00	8.115E-01	8.116E-01	18.10
RA-224	240.98	254	3.95*	5.203E+00	1.553E+00	1.553E+00	44.32
RA-226	609.31	811	46.30*	2.603E+00	8.436E-01	8.436E-01	19.26
	1120.29	154	15.10	1.557E+00	8.196E-01	8.197E-01	34.84
	1764.49	167	15.80	1.100E+00	1.208E+00	1.208E+00	23.85
AC-228	338.32	362	11.40	4.087E+00	9.750E-01	9.750E-01	51.23
	911.07	448	27.70*	1.860E+00	1.092E+00	1.092E+00	21.44
	969.11	233	16.60	1.764E+00	9.999E-01	9.999E-01	38.97
RA-228	338.32	362	11.40	4.087E+00	9.750E-01	9.750E-01	51.23
	911.07	448	27.70*	1.860E+00	1.092E+00	1.092E+00	21.44
	969.11	233	16.60	1.764E+00	9.999E-01	9.999E-01	38.97
TH-228	74.81	832	10.70	6.041E+00	1.615E+00	1.643E+00	44.14
	77.11	843	18.00	6.283E+00	9.345E-01	9.508E-01	48.56
	87.30	------	8.00	6.939E+00	------ Line Not Found		------
	238.63	1884	44.60*	5.249E+00	1.010E+00	1.027E+00	13.26
	300.09	------	3.41	4.461E+00	------ Line Not Found		------
TH-230	609.31	811	46.30*	2.603E+00	8.436E-01	8.436E-01	19.26
	1120.29	154	15.10	1.557E+00	8.196E-01	8.196E-01	34.84
	1764.49	167	15.80	1.100E+00	1.208E+00	1.208E+00	23.85
U-231	84.21	2796	7.00	6.755E+00	7.418E+00	1.314E+02	20.52
	92.29	106642	17.30	7.164E+00	1.079E+02	1.912E+03	9.15
	95.87	4683	28.00*	7.232E+00	2.901E+00	5.139E+01	15.40
	108.00	------	13.10	7.433E+00	------ Line Not Found		------
TH-232	338.32	362	11.40	4.087E+00	9.750E-01	9.750E-01	31.56
	911.07	448	27.70*	1.860E+00	1.092E+00	1.092E+00	21.44

Sample ID : G246020013 Acquisition date : 13-FEB-2010 19:59:19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	969.11	233	16.60	1.764E+00	9.999E-01	9.999E-01	38.97
PA-234M	766.42	2524	0.32	2.155E+00	4.591E+02	4.591E+02	51.35
	1001.03	5710	0.84*	1.715E+00	4.972E+02	4.972E+02	11.07
TH-234	63.29	49481	3.80*	4.649E+00	3.514E+02	3.514E+02	17.44
	92.38	106642	5.41	7.164E+00	3.452E+02	3.452E+02	18.34
U-234	609.31	811	46.30*	2.603E+00	8.436E-01	8.436E-01	19.26
	1120.29	154	15.10	1.557E+00	8.196E-01	8.196E-01	34.84
	1764.49	167	15.80	1.100E+00	1.208E+00	1.208E+00	23.85
U-235	89.95	1112	2.70	7.074E+00	7.302E+00	7.302E+00	36.99
	93.35	106642	4.50	7.164E+00	4.150E+02	4.150E+02	28.19
	105.00	------	2.10	7.414E+00	------ Line Not Found		------
	143.76	3231	10.50*	7.037E+00	5.485E+00	5.485E+00	19.20
	163.35	1521	4.70	6.637E+00	6.115E+00	6.115E+00	24.82
	185.71	16026	54.00	6.178E+00	6.026E+00	6.026E+00	9.25
	205.31	1293	4.70	5.804E+00	5.947E+00	5.947E+00	22.58
U-238	63.29	49481	3.80*	4.649E+00	3.514E+02	3.514E+02	17.44
	92.38	106642	5.41	7.164E+00	3.452E+02	3.452E+02	9.15
AM-243	74.67	832	66.00*	6.041E+00	2.618E-01	2.618E-01	44.13
	86.72	------	0.34	6.910E+00	------ Line Not Found		------
	117.66	------	0.55	7.416E+00	------ Line Not Found		------
	142.18	------	0.13	7.067E+00	------ Line Not Found		------
ANH-511	511.00	224	100.00*	2.991E+00	9.402E-02	9.402E-02	62.31

Flag: "*" = Keyline

Sample ID : G246020013 Acquisition date : 13-FEB-2010 19:59:19

Total number of lines in spectrum 57
Number of unidentified lines 8
Number of lines tentatively identified by NID 49 85.96%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.036E+01	2.036E+01	0.201E+01	9.90	
RB-84	32.90D	1.44	1.203E-01	1.736E-01	0.834E-01	48.03	
NB-95	64.02D	1.21	1.472E+00	1.777E+00	0.208E+00	11.70	
TE-132	78.20H	40.7	5.229E-02	2.126E+00	1.670E+00	78.56	
BA-137M	30.17Y	1.00	1.990E-01	1.992E-01	0.519E-01	26.07	
CS-137	30.17Y	1.00	2.104E-01	2.106E-01	0.549E-01	26.07	
LU-177	6.71D	6.04	3.888E-01	2.350E+00	1.630E+00	69.37	
TL-208	1.41E+10Y	1.00	3.138E-01	3.138E-01	0.701E-01	22.33	
BI-211	7.04E+08Y	1.00	2.333E+00	2.333E+00	0.404E+00	17.33	
BI-212	1.41E+10Y	1.00	7.321E-01	7.321E-01	4.475E-01	61.13	
PB-212	1.41E+10Y	1.00	1.010E+00	1.010E+00	0.134E+00	13.26	
PO-212	1.41E+10Y	1.00	1.010E+00	1.010E+00	0.134E+00	13.26	
BI-214	1600.00Y	1.00	8.436E-01	8.436E-01	1.625E-01	19.26	
PB-214	1600.00Y	1.00	8.115E-01	8.116E-01	1.469E-01	18.10	
PO-214	1600.00Y	1.00	8.115E-01	8.116E-01	1.469E-01	18.10	
PO-216	1.41E+10Y	1.00	1.010E+00	1.010E+00	0.134E+00	13.26	
PO-218	1600.00Y	1.00	8.115E-01	8.116E-01	1.469E-01	18.10	
RA-224	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.688E+00	44.32	
RA-226	1600.00Y	1.00	8.436E-01	8.436E-01	1.625E-01	19.26	
AC-228	1.41E+10Y	1.00	1.092E+00	1.092E+00	0.234E+00	21.44	
RA-228	1.41E+10Y	1.00	1.092E+00	1.092E+00	0.234E+00	21.44	
TH-228	1.91Y	1.02	1.010E+00	1.027E+00	0.136E+00	13.26	
TH-230	4.47E+09Y	1.00	8.436E-01	8.436E-01	1.625E-01	19.26	
U-231	4.20D	17.7	2.901E+00	5.139E+01	0.792E+01	15.40	
TH-232	1.41E+10Y	1.00	1.092E+00	1.092E+00	0.234E+00	21.44	
PA-234M	4.47E+09Y	1.00	4.972E+02	4.972E+02	0.550E+02	11.07	
TH-234	4.47E+09Y	1.00	3.514E+02	3.514E+02	0.613E+02	17.44	
U-234	4.47E+09Y	1.00	8.436E-01	8.436E-01	1.625E-01	19.26	
U-235	7.04E+08Y	1.00	5.485E+00	5.485E+00	1.053E+00	19.20	
U-238	4.47E+09Y	1.00	3.514E+02	3.514E+02	0.613E+02	17.44	
AM-243	7380.00Y	1.00	2.618E-01	2.618E-01	1.155E-01	44.13	
ANH-511	1.00E+09Y	1.00	9.402E-02	9.402E-02	5.858E-02	62.31	
	Total Activity :		1.249E+03	1.302E+03			

Grand Total Activity : 1.249E+03 1.302E+03

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020013 Acquisition date : 13-FEB-2010 19:59:19

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.63	7197	7731	1.13	197.13	194	9	5.00E-01	5.1	7.32E+00	T
0	131.40	491	4103	1.12	262.58	259	8	3.41E-02	46.3	7.26E+00	T
0	194.12	214	2216	1.78	387.84	385	9	1.49E-02	80.2	6.01E+00	T
3	202.13	350	1588	1.46	403.84	400	15	2.43E-02	39.1	5.86E+00	T
0	258.30	1169	1502	1.16	516.05	511	11	8.12E-02	14.1	4.97E+00	
0	462.85	141	516	1.82	924.74	921	9	9.81E-03	60.5	3.23E+00	T
2	569.48	204	526	1.77	1137.83	1132	16	1.42E-02	45.8	2.75E+00	T
2	572.46	68	359	1.35	1143.79	1132	16	4.74E-03	****	2.74E+00	T
0	742.89	787	609	1.40	1484.50	1477	15	5.47E-02	15.4	2.21E+00	T
0	796.18	217	382	3.56	1591.06	1585	15	1.50E-02	41.9	2.09E+00	T
1	883.50	156	134	1.47	1765.67	1755	15	1.08E-02	33.2	1.91E+00	T
0	925.43	303	369	5.64	1849.53	1837	27	2.11E-02	37.2	1.84E+00	T
0	946.33	213	182	1.11	1891.33	1886	12	1.48E-02	28.7	1.80E+00	T
0	1193.45	83	224	1.62	2385.74	2381	16	5.76E-03	83.1	1.48E+00	
0	1239.40	122	209	0.83	2477.70	2469	19	8.47E-03	60.7	1.43E+00	T
1	1378.13	77	17	2.03	2755.37	2751	23	5.36E-03	27.8	1.31E+00	
1	1385.34	38	9	2.03	2769.79	2751	23	2.65E-03	43.5	1.31E+00	T
0	1511.32	82	68	2.46	3022.02	3012	16	5.66E-03	50.4	1.22E+00	
0	1554.38	39	24	1.93	3108.24	3104	10	2.71E-03	57.5	1.20E+00	
0	1737.99	103	27	2.38	3475.99	3471	16	7.17E-03	29.1	1.11E+00	
0	1831.82	106	12	1.46	3663.96	3656	16	7.37E-03	24.3	1.08E+00	
0	1911.68	21	12	2.35	3823.96	3818	10	1.46E-03	76.5	1.05E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 00:01:23.86

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020013.CNF;1 *
* Acquisition date  : 13-FEB-2010 19:59:19  Detector SN#     :             *
* Detector ID       : GAM20                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 04:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 04:01:31.09          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020013            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.49620E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.036E+01	2.014E+00	3.272E-01	2.853E-02	62.222
RB-84	1.736E-01	8.341E-02	9.743E-02	9.736E-03	1.782
NB-95	1.777E+00	2.079E-01	6.330E-02	6.434E-03	28.078
TE-132	2.126E+00	1.670E+00	1.735E+00	2.890E-01	1.225
BA-137M	1.992E-01	5.193E-02	5.401E-02	5.421E-03	3.688
CS-137	2.106E-01	5.491E-02	5.710E-02	5.738E-03	3.688
LU-177	2.350E+00	1.630E+00	2.213E+00	2.058E-01	1.062
TL-208	3.138E-01	7.006E-02	5.342E-02	5.492E-03	5.874
BI-211	2.333E+00	4.042E-01	2.973E-01	2.849E-02	7.846
BI-212	7.321E-01	4.475E-01	4.293E-01	4.872E-02	1.705
PB-212	1.010E+00	1.339E-01	9.358E-02	9.951E-03	10.790
PO-212	1.010E+00	1.339E-01	9.358E-02	9.951E-03	10.790
BI-214	8.436E-01	1.625E-01	9.585E-02	1.067E-02	8.802
PB-214	8.116E-01	1.469E-01	1.013E-01	1.104E-02	8.014
PO-214	8.116E-01	1.469E-01	1.013E-01	1.104E-02	8.014
PO-216	1.010E+00	1.339E-01	9.358E-02	9.951E-03	10.790
PO-218	8.116E-01	1.469E-01	1.013E-01	1.104E-02	8.014
RA-224	1.553E+00	6.883E-01	1.055E+00	1.019E-01	1.473

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-226	8.436E-01	1.625E-01	9.585E-02	1.067E-02	8.802
AC-228	1.092E+00	2.341E-01	1.525E-01	1.868E-02	7.159
RA-228	1.092E+00	2.341E-01	1.525E-01	1.868E-02	7.159
TH-228	1.027E+00	1.362E-01	9.521E-02	1.013E-02	10.790
TH-230	8.436E-01	1.625E-01	9.584E-02	1.067E-02	8.802
U-231	5.139E+01	7.915E+00	3.945E+00	3.528E-01	13.028
TH-232	1.092E+00	2.341E-01	1.525E-01	1.868E-02	7.159
PA-234M	4.972E+02	5.503E+01	5.292E+00	5.661E-01	93.949
TH-234	3.514E+02	6.127E+01	3.503E+00	6.087E-01	100.289
U-234	8.436E-01	1.625E-01	9.584E-02	1.067E-02	8.802
U-235	5.485E+00	1.053E+00	4.432E-01	7.723E-02	12.377
U-238	3.514E+02	6.127E+01	3.503E+00	6.087E-01	100.289
AM-243	2.618E-01	1.155E-01	1.688E-01	1.359E-02	1.551
ANH-511	9.402E-02	5.858E-02	4.458E-02	4.154E-03	2.109

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.278E-01		3.130E-01	5.184E-01	5.039E-02	0.439
NA-22	-6.732E-03		2.601E-02	4.108E-02	3.403E-03	-0.164
NA-24	4.941E+00		2.397E+00	Half-Life too short		
AL-26	1.972E-02		1.758E-02	3.280E-02	2.664E-03	0.601
TI-44	1.725E-01	+	8.375E-02	1.092E-01	9.161E-03	1.580
SC-46	-3.393E-02		3.252E-02	4.505E-02	4.491E-03	-0.753
V-48	1.717E-02		5.594E-02	9.332E-02	8.919E-03	0.184
CR-51	1.007E-01		3.493E-01	5.829E-01	5.844E-02	0.173
MN-52	3.491E-01		1.966E-01	3.698E-01	3.130E-02	0.944
MN-54	-6.288E-03		3.085E-02	5.074E-02	5.126E-03	-0.124
CO-56	-3.063E-02		3.264E-02	5.157E-02	5.198E-03	-0.594
CO-57	2.915E-02		3.699E-02	5.987E-02	4.997E-03	0.487
CO-58	-4.458E-02		3.522E-02	5.502E-02	5.587E-03	-0.810
FE-59	-7.861E-02		5.824E-02	8.521E-02	8.037E-03	-0.923
CO-60	1.483E-02		2.164E-02	3.689E-02	3.090E-03	0.402
ZN-65	-4.832E-03		5.946E-02	8.291E-02	7.136E-03	-0.058
GE-68	-2.108E-01		7.150E-01	1.141E+00	1.018E-01	-0.185
AS-73	1.641E+00		1.317E+00	2.181E+00	1.619E-01	0.753
AS-74	-6.243E-02		9.186E-02	1.429E-01	1.399E-02	-0.437
SE-75	1.276E-02		4.256E-02	6.930E-02	6.861E-03	0.184
BR-77	1.594E+00		1.859E+01	3.010E+01	2.823E+00	0.053
SR-82	-1.435E-01		3.760E-01	6.176E-01	6.275E-02	-0.232
RB-83	-1.833E-03		6.476E-02	1.044E-01	9.796E-03	-0.018
KR-85	1.233E+01		7.146E+00	1.075E+01	1.003E+00	1.148
SR-85	6.475E-02		3.752E-02	5.642E-02	5.268E-03	1.148
RB-86	-3.188E-01		5.008E-01	7.784E-01	6.950E-02	-0.410
Y-88	1.600E-02		2.102E-02	3.410E-02	2.751E-03	0.469
ZR-88	-9.866E-03		2.830E-02	4.592E-02	3.841E-03	-0.215
Y-91	-1.046E+01		1.159E+01	1.758E+01	1.428E+00	-0.595

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-94	-1.945E-02		3.122E-02	5.118E-02	5.178E-03	-0.380
NB-95M	5.822E-02		1.300E-01	1.947E-01	2.092E-02	0.299
ZR-95	1.155E-01		6.678E-02	1.162E-01	1.268E-02	0.994
NB-97	-4.217E-01		4.712E-01	Half-Life too short		
ZR-97	2.818E+01		8.380E+00	Half-Life too short		
MO-99	5.700E+01		2.429E+01	3.654E+01	5.886E+00	1.560
TC-99M	-4.795E+12		1.470E+13	Half-Life too short		
RH-101	-1.172E-02		5.262E-02	5.688E-02	5.214E-03	-0.206
RH-102	9.707E-03		2.748E-02	4.508E-02	4.087E-03	0.215
RU-103	3.061E-02		3.821E-02	6.315E-02	9.180E-03	0.485
RH-106	5.080E-02		2.879E-01	4.629E-01	6.581E-02	0.110
RU-106	5.080E-02		2.879E-01	4.629E-01	4.582E-02	0.110
AG-108M	1.738E-02		2.920E-02	4.847E-02	4.399E-03	0.359
CD-109	5.008E+00		2.475E+00	2.848E+00	2.693E-01	1.758
AG-110M	-1.889E-02		3.681E-02	5.259E-02	5.388E-03	-0.359
IN-111	-7.087E-01		1.988E+00	2.909E+00	2.824E-01	-0.244
IN-113M	-2.176E-02		4.088E-02	6.595E-02	5.689E-03	-0.330
SN-113	-2.176E-02		4.088E-02	6.595E-02	5.689E-03	-0.330
IN-114M	2.976E-01		2.845E-01	3.229E-01	2.926E-02	0.922
CD-115	9.098E+00		2.009E+01	3.290E+01	3.101E+00	0.277
SN-117M	-7.990E-02		9.099E-02	1.255E-01	1.083E-02	-0.637
SB-122	4.515E+00		3.946E+00	5.807E+00	5.593E-01	0.778
I-123	-1.123E+02		7.386E+01	Half-Life too short		
TE-123M	-3.219E-02		4.236E-02	5.857E-02	5.089E-03	-0.550
I-124	-2.751E-01		1.012E+00	1.392E+00	1.367E-01	-0.198
SB-124	-2.900E-03		4.255E-02	6.972E-02	6.059E-03	-0.042
SB-125	-3.922E-02		8.086E-02	1.298E-01	1.149E-02	-0.302
TE-125M	8.981E+01		2.055E+01	2.804E+01	2.868E+00	3.203
I-126	1.374E-01		1.962E-01	2.968E-01	2.982E-02	0.463
SB-126	-4.183E-03		1.513E-01	2.390E-01	2.423E-02	-0.018
SN-126	-2.911E-01		2.469E-01	2.763E-01	2.599E-02	-1.054
SB-127	3.750E-01		1.784E+00	3.016E+00	3.968E-01	0.124
XE-127	1.532E-01	+	6.150E-02	9.218E-02	8.507E-03	1.662
I-131	4.919E-02		1.281E-01	2.130E-01	2.001E-02	0.231
BA-133	1.573E-02		4.240E-02	6.216E-02	8.397E-03	0.253
I-133	-1.082E-02		1.716E-02	Half-Life too short		
CS-134	1.720E-01	+	7.425E-02	7.757E-02	7.915E-03	2.218
CS-135	-3.102E-02		1.450E-01	2.411E-01	2.672E-02	-0.129
I-135	1.761E+11		4.726E+11	Half-Life too short		
CS-136	-8.664E-02		7.790E-02	1.173E-01	1.113E-02	-0.739
CE-139	2.233E-02		4.274E-02	6.084E-02	5.312E-03	0.367
BA-140	-2.516E-02		2.760E-01	4.431E-01	1.479E-01	-0.057
LA-140	-3.338E-02		5.752E-02	8.985E-02	7.586E-03	-0.372
CE-141	9.909E-01		1.360E-01	1.724E-01	1.489E-02	5.746
CE-143	1.110E-03		2.542E-04	Half-Life too short		
CE-144	1.752E-01		3.174E-01	4.550E-01	7.020E-02	0.385
PM-144	-2.479E-02		3.054E-02	4.963E-02	5.018E-03	-0.499
PR-144	-1.682E+00		2.072E+00	3.367E+00	3.404E-01	-0.499

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-4.585E-02		4.156E-02	6.477E-02	7.094E-03	-0.708
ND-147	3.231E-01		5.950E-01	9.746E-01	1.505E-01	0.332
PM-149	-2.008E+01		1.721E+02	2.859E+02	4.663E+01	-0.070
EU-152	-5.065E-03		8.948E-02	1.426E-01	1.391E-02	-0.036
GD-153	4.140E+00	+	4.207E-01	2.963E-01	2.628E-02	13.972
EU-154	-3.325E-02		7.402E-02	1.151E-01	1.272E-02	-0.289
EU-155	-1.003E-01		1.734E-01	2.780E-01	2.417E-02	-0.361
TB-160	3.377E-01	+	1.622E-01	2.176E-01	2.176E-02	1.552
HO-166M	-2.191E-02		5.323E-02	8.780E-02	8.894E-03	-0.250
TM-171	-2.405E+02		5.384E+01	7.090E+01	5.282E+00	-3.392
LU-176	1.395E-02		2.306E-02	3.877E-02	3.782E-03	0.360
LU-177M	-1.908E-01		1.606E-01	2.517E-01	2.154E-02	-0.758
HF-181	-1.813E-02		4.091E-02	6.530E-02	5.954E-03	-0.278
W-181	2.473E+01		1.980E+00	1.402E+00	1.032E-01	17.633
TA-182	1.748E-04		1.186E-01	1.917E-01	1.564E-02	0.001
RE-183	1.459E+00	+	2.637E-01	2.804E-01	2.433E-02	5.205
RE-184	-1.497E-01		2.669E-01	3.873E-01	3.785E-02	-0.387
OS-185	1.202E-02		3.814E-02	6.491E-02	6.482E-03	0.185
RE-188	1.263E-04		2.273E-01	3.617E-01	3.105E-02	0.000
W-188	-5.603E+00		7.936E+00	1.133E+01	1.121E+00	-0.494
IR-192	8.767E-03		3.146E-02	5.253E-02	5.080E-03	0.167
AU-195	1.208E+01	+	1.228E+00	8.794E-01	7.744E-02	13.737
TL-200	3.273E-04		8.950E-04	Half-Life too short		
TL-201	2.362E+00		1.650E+01	2.331E+01	2.040E+00	0.101
TL-202	4.885E-02		7.195E-02	1.196E-01	1.050E-02	0.409
HG-203	3.687E-02		3.942E-02	6.676E-02	6.790E-03	0.552
BI-207	3.140E-02		3.224E-02	5.570E-02	5.030E-03	0.564
TL-207	-3.035E-01		5.925E-01	9.644E-01	1.754E-01	-0.315
PO-209	1.420E-01		5.409E+00	8.944E+00	8.895E-01	0.016
BI-210	-4.922E+00		3.994E+00	6.477E+00	6.006E-01	-0.760
PB-210	-4.922E+00		3.994E+00	6.477E+00	6.006E-01	-0.760
PO-210	-4.922E+00		3.989E+00	6.477E+00	5.434E-01	-0.760
PB-211	-1.812E-01		8.357E-01	1.347E+00	8.438E-01	-0.135
PO-215	-3.035E-01		5.925E-01	9.644E-01	1.754E-01	-0.315
RN-219	7.103E-02		3.689E-01	6.075E-01	9.069E-02	0.117
RN-220	2.272E+01		2.457E+01	4.067E+01	3.885E+00	0.559
RA-223	-3.035E-01		5.925E-01	9.644E-01	1.754E-01	-0.315
AC-227	1.103E+00		4.766E-01	6.950E-01	1.115E-01	1.588
TH-227	1.103E+00		4.881E-01	6.950E-01	1.297E-01	1.588
TH-229	9.735E-01	+	7.862E-01	9.304E-01	8.474E-02	1.046
PA-231	-1.327E-01		1.426E+00	2.372E+00	3.787E-01	-0.056
TH-231	-3.035E-01		5.925E-01	9.644E-01	1.754E-01	-0.315
PA-233	-6.047E-02		5.875E-02	9.447E-02	9.373E-03	-0.640
PA-234	1.238E+00	+	4.279E-01	5.102E-01	9.851E-02	2.426
NP-236	-6.783E-02		1.165E-01	1.617E-01	1.399E-02	-0.420
NP-237	-3.314E-01		6.182E-01	8.076E-01	1.827E-01	-0.410
NP-239	-3.535E-01		3.225E-01	4.524E-01	3.790E-02	-0.781
AM-241	1.098E+00		3.177E-01	4.633E-01	3.626E-02	2.369

Sample ID : G246020013 Acquisition date : 13-FEB-2010 19:59:19

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.343E-01		1.694E-01	2.461E-01	2.125E-02	0.546
AM-246	2.174E-02		8.396E-02	1.393E-01	1.241E-02	0.156
CM-247	2.402E-02		3.319E-02	5.541E-02	4.686E-03	0.433
CF-249	2.241E-02		3.675E-02	6.126E-02	5.169E-03	0.366
CF-251	-7.102E-02		1.579E-01	2.478E-01	2.199E-02	-0.287

VAX/VMS Nuclide Identification Report Generated

```
*************************************************************************
*                        GEL Laboratories LLC                           *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
*                                                                       *
*                            DETECTOR DATA                              *
*                                                                       *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020013       *
* Acquisition date  : 13-FEB-2010 19:59:19 Detector SN#     :           *
* Detector ID       : GAM20                Sensitivity      : 5.000     *
* Geometry          : CAN                  Energy tolerance: 1.500      *
* Elapsed live time:    0 04:00:00.00      Abundance limit : 75.000     *
* Elapsed real time:    0 04:01:31.09      Half life ratio : 8.000      *
*************************************************************************
*                                                                       *
*                             SAMPLE DATA                               *
*                                                                       *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID      *
* Sample ID         : G246020013           Analyst initials: MXR1       *
* Batch Number      : 948751               Sample Quantity : 1.4962E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000  *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
*                                                                       *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.036E+01	1.974E+00	1.648E-01	1.007E+00
RB-84	1.736E-01	8.174E-02	4.971E-02	4.170E-02
NB-95	1.777E+00	2.037E-01	3.241E-02	1.039E-01
TE-132	2.126E+00	1.636E+00	9.145E-01	8.349E-01
BA-137M	1.992E-01	5.089E-02	2.775E-02	2.597E-02
CS-137	2.106E-01	5.381E-02	2.934E-02	2.745E-02
LU-177	2.350E+00	1.598E+00	1.169E+00	8.151E-01
TL-208	3.138E-01	6.866E-02	2.753E-02	3.503E-02
BI-211	2.333E+00	3.961E-01	1.551E-01	2.021E-01
BI-212	7.321E-01	4.386E-01	2.200E-01	2.238E-01
PB-212	1.010E+00	1.312E-01	4.927E-02	6.693E-02
PO-212	1.010E+00	1.312E-01	4.927E-02	6.693E-02
BI-214	8.436E-01	1.592E-01	4.935E-02	8.124E-02
PB-214	8.116E-01	1.439E-01	5.284E-02	7.343E-02
PO-214	8.116E-01	1.439E-01	5.284E-02	7.343E-02
PO-216	1.010E+00	1.312E-01	4.927E-02	6.693E-02
PO-218	8.116E-01	1.439E-01	5.284E-02	7.343E-02
RA-224	1.553E+00	6.745E-01	5.553E-01	3.441E-01
RA-226	8.436E-01	1.592E-01	4.935E-02	8.124E-02
AC-228	1.092E+00	2.294E-01	7.772E-02	1.170E-01
RA-228	1.092E+00	2.294E-01	7.772E-02	1.170E-01
TH-228	1.027E+00	1.335E-01	5.014E-02	6.810E-02
TH-230	8.436E-01	1.592E-01	4.935E-02	8.123E-02
U-231	5.139E+01	7.757E+00	2.121E+00	3.958E+00
TH-232	1.092E+00	2.294E-01	7.772E-02	1.170E-01
PA-234M	4.972E+02	5.393E+01	2.691E+00	2.752E+01
TH-234	3.514E+02	6.004E+01	1.901E+00	3.063E+01
U-234	8.436E-01	1.592E-01	4.935E-02	8.123E-02
U-235	5.485E+00	1.032E+00	2.361E-01	5.267E-01
U-238	3.514E+02	6.004E+01	1.901E+00	3.063E+01
AM-243	2.618E-01	1.132E-01	9.128E-02	5.776E-02
ANH-511	9.402E-02	5.741E-02	2.305E-02	2.929E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	2.278E-01	3.068E-01	2.685E-01	1.565E-01	NOT IDENT.
NA-22	-6.732E-03	2.549E-02	2.076E-02	1.301E-02	NOT IDENT.
NA-24	4.941E+06	4.697E+06	0.000E+00	2.397E+06	SHORT HLIF
AL-26	1.972E-02	1.723E-02	1.643E-02	8.789E-03	NOT IDENT.
TI-44	1.725E-01	8.207E-02	5.897E-02	4.187E-02	FAIL ABUN
SC-46	-3.393E-02	3.187E-02	2.298E-02	1.626E-02	FAIL ABUN
V-48	1.717E-02	5.482E-02	4.748E-02	2.797E-02	NOT IDENT.
CR-51	1.007E-01	3.423E-01	3.048E-01	1.747E-01	NOT IDENT.
MN-52	3.491E-01	1.926E-01	1.864E-01	9.828E-02	FAIL ABUN
MN-54	-6.288E-03	3.023E-02	2.592E-02	1.543E-02	NOT IDENT.
CO-56	-3.063E-02	3.198E-02	2.634E-02	1.632E-02	FAIL ABUN
CO-57	2.915E-02	3.625E-02	3.202E-02	1.849E-02	NOT IDENT.
CO-58	-4.458E-02	3.452E-02	2.813E-02	1.761E-02	NOT IDENT.
FE-59	-7.861E-02	5.707E-02	4.323E-02	2.912E-02	FAIL ABUN
CO-60	1.483E-02	2.120E-02	1.862E-02	1.082E-02	NOT IDENT.
ZN-65	-4.832E-03	5.827E-02	4.205E-02	2.973E-02	NOT IDENT.
GE-68	-2.108E-01	7.007E-01	5.792E-01	3.575E-01	NOT IDENT.
AS-73	1.641E+00	1.290E+00	1.188E+00	6.584E-01	NOT IDENT.
AS-74	-6.243E-02	9.002E-02	7.363E-02	4.593E-02	NOT IDENT.
SE-75	1.276E-02	4.171E-02	3.640E-02	2.128E-02	NOT IDENT.
BR-77	1.594E+00	1.822E+01	1.556E+01	9.294E+00	FAIL ABUN
SR-82	-1.435E-01	3.685E-01	3.161E-01	1.880E-01	NOT IDENT.
RB-83	-1.833E-03	6.346E-02	5.398E-02	3.238E-02	NOT IDENT.
KR-85	1.233E+01	7.003E+00	5.555E+00	3.573E+00	NOT IDENT.
SR-85	6.475E-02	3.677E-02	2.917E-02	1.876E-02	NOT IDENT.
RB-86	-3.188E-01	4.908E-01	3.951E-01	2.504E-01	NOT IDENT.
Y-88	1.600E-02	2.060E-02	1.707E-02	1.051E-02	NOT IDENT.
ZR-88	-9.866E-03	2.773E-02	2.390E-02	1.415E-02	NOT IDENT.
Y-91	-1.046E+01	1.136E+01	8.900E+00	5.797E+00	NOT IDENT.
NB-94	-1.945E-02	3.059E-02	2.626E-02	1.561E-02	NOT IDENT.
NB-95M	5.822E-02	1.274E-01	1.026E-01	6.502E-02	NOT IDENT.
ZR-95	1.155E-01	6.544E-02	5.951E-02	3.339E-02	NOT IDENT.
NB-97	-4.217E+05	9.235E+05	0.000E+00	4.712E+05	SHORT HLIF
ZR-97	2.818E+07	1.643E+07	0.000E+00	8.380E+06	SHORT HLIF
MO-99	5.700E+01	2.380E+01	1.872E+01	1.214E+01	NOT IDENT.
TC-99M	-4.795E+18	2.882E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.172E-02	5.157E-02	3.008E-02	2.631E-02	NOT IDENT.
RH-102	9.707E-03	2.693E-02	2.335E-02	1.374E-02	FAIL ABUN
RU-103	3.061E-02	3.745E-02	3.267E-02	1.911E-02	FAIL ABUN
RH-106	5.080E-02	2.822E-01	2.382E-01	1.440E-01	FAIL ABUN
RU-106	5.080E-02	2.821E-01	2.382E-01	1.439E-01	FAIL ABUN
AG-108M	1.738E-02	2.862E-02	2.516E-02	1.460E-02	NOT IDENT.
CD-109	5.008E+00	2.425E+00	1.535E+00	1.237E+00	NOT IDENT.
AG-110M	-1.889E-02	3.607E-02	2.702E-02	1.840E-02	FAIL ABUN
IN-111	-7.087E-01	1.948E+00	1.531E+00	9.938E-01	NOT IDENT.
IN-113M	-2.176E-02	4.006E-02	3.432E-02	2.044E-02	NOT IDENT.
SN-113	-2.176E-02	4.006E-02	3.432E-02	2.044E-02	NOT IDENT.
IN-114M	2.976E-01	2.788E-01	1.709E-01	1.423E-01	NOT IDENT.
CD-115	9.098E+00	1.969E+01	1.700E+01	1.005E+01	NOT IDENT.
SN-117M	-7.990E-02	8.917E-02	6.669E-02	4.550E-02	NOT IDENT.
SB-122	4.515E+00	3.868E+00	2.996E+00	1.973E+00	NOT IDENT.
I-123	-1.123E+08	1.448E+08	0.000E+00	7.386E+07	SHORT HLIF
TE-123M	-3.219E-02	4.152E-02	3.114E-02	2.118E-02	NOT IDENT.
I-124	-2.751E-01	9.922E-01	7.168E-01	5.062E-01	NOT IDENT.
SB-124	-2.900E-03	4.170E-02	3.498E-02	2.128E-02	FAIL ABUN
SB-125	-3.922E-02	7.925E-02	6.742E-02	4.043E-02	FAIL ABUN
TE-125M	8.981E+01	2.014E+01	1.503E+01	1.027E+01	NOT IDENT.
I-126	1.374E-01	1.923E-01	1.525E-01	9.810E-02	NOT IDENT.
SB-126	-4.183E-03	1.483E-01	1.225E-01	7.564E-02	FAIL ABUN
SN-126	-2.911E-01	2.419E-01	1.489E-01	1.234E-01	FAIL ABUN
SB-127	3.750E-01	1.748E+00	1.548E+00	8.918E-01	NOT IDENT.
XE-127	1.532E-01	6.027E-02	4.872E-02	3.075E-02	FAIL ABUN
I-131	4.919E-02	1.255E-01	1.110E-01	6.403E-02	NOT IDENT.
BA-133	1.573E-02	4.155E-02	3.242E-02	2.120E-02	NOT IDENT.
I-133	-1.082E+04	3.364E+04	0.000E+00	1.716E+04	SHORT HLIF
CS-134	1.720E-01	7.277E-02	3.967E-02	3.713E-02	FAIL ABUN
CS-135	-3.102E-02	1.421E-01	1.266E-01	7.249E-02	NOT IDENT.
I-135	1.761E+17	9.263E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.664E-02	7.634E-02	5.958E-02	3.895E-02	FAIL ABUN
CE-139	2.233E-02	4.188E-02	3.231E-02	2.137E-02	NOT IDENT.
BA-140	-2.516E-02	2.705E-01	2.289E-01	1.380E-01	FAIL ABUN
LA-140	-3.338E-02	5.637E-02	4.515E-02	2.876E-02	FAIL ABUN
CE-141	9.909E-01	1.333E-01	9.186E-02	6.802E-02	NOT IDENT.

CE-143	1.110E+03	4.982E+02	0.000E+00	2.542E+02	SHORT HLIF
CE-144	1.752E-01	3.110E-01	2.428E-01	1.587E-01	NOT IDENT.
PM-144	-2.479E-02	2.993E-02	2.547E-02	1.527E-02	NOT IDENT.
PR-144	-1.682E+00	2.031E+00	1.728E+00	1.036E+00	NOT IDENT.
PM-146	-4.585E-02	4.072E-02	3.359E-02	2.078E-02	NOT IDENT.
ND-147	3.231E-01	5.831E-01	5.035E-01	2.975E-01	FAIL ABUN
PM-149	-2.008E+01	1.686E+02	1.499E+02	8.603E+01	NOT IDENT.
EU-152	-5.065E-03	8.769E-02	7.442E-02	4.474E-02	NOT IDENT.
GD-153	4.140E+00	4.123E-01	1.593E-01	2.104E-01	FAIL ABUN
EU-154	-3.325E-02	7.254E-02	5.817E-02	3.701E-02	NOT IDENT.
EU-155	-1.003E-01	1.699E-01	1.492E-01	8.668E-02	NOT IDENT.
TB-160	3.377E-01	1.590E-01	1.110E-01	8.111E-02	FAIL ABUN
HO-166M	-2.191E-02	5.216E-02	4.503E-02	2.661E-02	FAIL ABUN
TM-171	-2.405E+02	5.277E+01	3.844E+01	2.692E+01	NOT IDENT.
LU-176	1.395E-02	2.260E-02	2.030E-02	1.153E-02	FAIL ABUN
LU-177M	-1.908E-01	1.573E-01	1.308E-01	8.028E-02	NOT IDENT.
HF-181	-1.813E-02	4.009E-02	3.381E-02	2.045E-02	NOT IDENT.
W-181	2.473E+01	1.940E+00	7.606E-01	9.899E-01	NOT IDENT.
TA-182	1.748E-04	1.162E-01	9.701E-02	5.929E-02	FAIL ABUN
RE-183	1.459E+00	2.584E-01	1.490E-01	1.318E-01	FAIL ABUN
RE-184	-1.497E-01	2.615E-01	2.037E-01	1.334E-01	NOT IDENT.
OS-185	1.202E-02	3.738E-02	3.337E-02	1.907E-02	FAIL ABUN
RE-188	1.263E-04	2.227E-01	1.924E-01	1.136E-01	NOT IDENT.
W-188	-5.603E+00	7.777E+00	5.940E+00	3.968E+00	FAIL ABUN
IR-192	8.767E-03	3.084E-02	2.748E-02	1.573E-02	FAIL ABUN
AU-195	1.208E+01	1.203E+00	4.726E-01	6.138E-01	FAIL ABUN
TL-200	3.273E+02	1.754E+03	0.000E+00	8.950E+02	SHORT HLIF
TL-201	2.362E+00	1.617E+01	1.238E+01	8.248E+00	NOT IDENT.
TL-202	4.885E-02	7.051E-02	6.205E-02	3.597E-02	NOT IDENT.
HG-203	3.687E-02	3.863E-02	3.503E-02	1.971E-02	FAIL ABUN
BI-207	3.140E-02	3.159E-02	2.828E-02	1.612E-02	FAIL ABUN
TL-207	-3.035E-01	5.807E-01	5.042E-01	2.963E-01	FAIL ABUN
PO-209	1.420E-01	5.300E+00	4.561E+00	2.704E+00	NOT IDENT.
BI-210	-4.922E+00	3.914E+00	3.539E+00	1.997E+00	NOT IDENT.
PB-210	-4.922E+00	3.914E+00	3.539E+00	1.997E+00	NOT IDENT.
PO-210	-4.922E+00	3.910E+00	3.539E+00	1.995E+00	NOT IDENT.
PB-211	-1.812E-01	8.190E-01	7.004E-01	4.179E-01	NOT IDENT.
PO-215	-3.035E-01	5.807E-01	5.042E-01	2.963E-01	FAIL ABUN
RN-219	7.103E-02	3.615E-01	3.159E-01	1.844E-01	NOT IDENT.
RN-220	2.272E+01	2.408E+01	2.099E+01	1.228E+01	NOT IDENT.
RA-223	-3.035E-01	5.807E-01	5.042E-01	2.963E-01	FAIL ABUN
AC-227	1.103E+00	4.671E-01	3.654E-01	2.383E-01	NOT IDENT.
TH-227	1.103E+00	4.783E-01	3.654E-01	2.440E-01	FAIL ABUN
TH-229	9.735E-01	7.704E-01	4.923E-01	3.931E-01	FAIL ABUN
PA-231	-1.327E-01	1.398E+00	1.244E+00	7.131E-01	NOT IDENT.
TH-231	-3.035E-01	5.807E-01	5.042E-01	2.963E-01	FAIL ABUN
PA-233	-6.047E-02	5.758E-02	4.943E-02	2.938E-02	FAIL ABUN
PA-234	1.238E+00	4.194E-01	2.598E-01	2.140E-01	FAIL ABUN
NP-236	-6.783E-02	1.141E-01	8.592E-02	5.823E-02	FAIL ABUN
NP-237	-3.314E-01	6.058E-01	4.353E-01	3.091E-01	FAIL ABUN
NP-239	-3.535E-01	3.160E-01	2.422E-01	1.612E-01	FAIL ABUN
AM-241	1.098E+00	3.113E-01	2.518E-01	1.588E-01	NOT IDENT.
CM-243	1.343E-01	1.660E-01	1.321E-01	8.468E-02	FAIL ABUN
AM-246	2.174E-02	8.228E-02	7.072E-02	4.198E-02	NOT IDENT.
CM-247	2.402E-02	3.253E-02	2.882E-02	1.660E-02	NOT IDENT.
CF-249	2.241E-02	3.601E-02	3.189E-02	1.837E-02	NOT IDENT.
CF-251	-7.102E-02	1.547E-01	1.314E-01	7.894E-02	FAIL ABUN

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*************************************************************************
*                    GEL Laboratories LLC                               *
*                       2040 SAVAGE ROAD                                *
*                    CHARLESTON ,SC 29417                               *
*              GAMMA SPECTROSCOPY BACKGROUND REPORT                     *
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ENERGY	MDA COUNTS
46.50	7051.7529
46.50	7051.7529
46.50	7051.7529
48.70	7692.7212
49.72	8310.3818
51.35	9050.6563
52.39	9384.8076
52.97	9531.7920
53.15	9535.2109
53.44	9716.3652
54.07	10125.6338
56.28	11532.5967
56.28	11532.6553
57.37	0.0000
57.53	11635.9082
57.53	11635.9385
57.60	11637.4561
57.98	11359.1797
57.98	11359.1797
59.32	12107.8574
59.32	12107.8574
59.40	12109.6475
59.54	12112.8262
59.72	12116.8984
60.01	12493.6016
61.10	12895.7314
61.14	12896.6494
61.30	13116.7832
63.00	11185.7461
63.29	11191.5645
63.29	11191.5645
63.58	11197.3838
64.28	9186.4316
65.12	9582.8164
65.20	9584.1689
65.20	9584.1689
66.05	10486.3672
66.72	10792.9004
66.83	11213.7129
66.91	11215.2920
67.20	11220.9307
67.20	11220.9307
67.75	11448.8955
67.85	11459.9697
68.90	10847.2070
68.90	10847.2070
69.30	11271.0684
69.67	11278.1797
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70.83	11756.4336
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72.87	12745.1582
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74.81	13666.7109
74.81	13666.7109
74.81	13666.7109
74.81	13666.7109
74.81	13666.7109
74.81	13666.7109
74.81	13666.7109
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77.11	12210.9268

77.11	12210.9268
77.11	12210.9268
77.11	12210.9268
77.11	12210.9268
77.11	12210.9268
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79.80	12991.1660
79.80	12991.1660
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80.18	12998.8398
80.30	13066.4160
80.30	13066.4160
80.57	13071.8789
81.00	12984.2842
81.07	12985.6875
81.07	12985.6875
81.07	12985.6875
81.07	12985.6875
82.60	12950.8057
83.37	14070.2334
83.78	14079.0498
83.78	14079.0498
83.78	14079.0498
83.78	14079.0498
84.21	14088.1426
84.90	15012.3477
85.43	14877.3555
86.29	14706.9854
86.50	14711.5732
86.54	14712.4336
86.59	14713.5088
86.72	14716.3047
86.79	14764.8018
86.94	14768.1094
87.30	15437.4639
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87.30	15437.4639
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87.30	15437.4639
87.30	15437.4639
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87.57	15443.5498
87.88	14226.8643
88.03	14229.9775
88.36	14236.8262
88.47	14801.2627
89.95	15380.7471
91.11	13201.2061
92.29	13223.4424
92.38	13225.1670
92.38	13225.1670
93.35	13243.3135
94.00	13255.4541
94.67	13267.7861
94.67	13267.9141
94.90	13272.1309
94.90	13272.1309
94.90	13272.1309
94.90	13272.1309
95.87	6023.7808
95.87	6023.7808
96.73	6030.9634
97.43	6036.7554
98.44	5637.4185
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98.88	5506.9453
99.55	5511.9551
99.55	5511.9551
99.86	4925.5117
100.00	4926.4536
100.10	4927.1367
103.18	5437.8550
103.76	4967.2695
105.00	5100.1465
105.31	5406.4946
108.00	5899.5410
109.28	5527.9849

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111.00	5306.9302
111.76	5312.0195
112.95	5319.9478
115.19	4075.1133
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117.00	4312.5366
117.00	4312.5366
117.66	4118.4888
121.11	3717.6672
121.62	3724.2905
121.78	3673.5986
122.06	3695.6152
122.32	3683.6169
122.32	3683.6169
122.32	3683.6169
122.32	3683.6169
123.07	3760.2917
127.23	3567.8462
129.76	3586.5122
131.20	3560.3301
133.02	3348.8430
133.54	3294.2407
135.34	3109.2693
136.00	3249.9492
136.25	3297.2104
136.48	3298.0552
140.51	3247.6050
140.51	0.0000
142.18	3223.2715
142.65	3285.3494
143.76	3151.3660
144.24	2925.8591
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144.24	2925.8591
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145.22	2930.5947
145.44	2931.2852
147.16	2967.0005
152.43	2884.8848
152.70	2859.6482
153.22	2796.6396
154.21	2708.8079
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154.21	2708.8079
154.21	2708.8079
155.03	2833.5774
156.02	2823.9331
158.56	2803.8474
159.00	0.0000
159.00	2765.7834
160.31	2723.2295
161.27	2659.0527
162.32	2620.6663
162.64	2552.3538
163.35	2554.1255
163.89	2555.4883
165.85	2469.7903
167.43	2440.8525
171.28	2441.2458
171.86	2413.7505
172.10	2414.3040
176.55	2352.6204
176.60	2352.7444
181.06	2395.6270
184.41	2419.4109
185.71	2100.9028
186.00	2101.4517
190.27	1583.4320
192.34	1785.1650
193.63	1766.0143
197.04	1758.0526
198.01	1792.6033
198.60	1804.1322
200.40	1767.8939
201.83	1697.5438
202.84	1699.0160
205.31	1702.5723

208.36	1576.1228
208.81	1485.9020
209.75	1512.8312
209.75	1512.8312
210.97	1514.3667
215.65	1468.7823
216.55	1442.8805
218.09	1459.9908
222.10	1432.7280
223.80	1423.0941
226.40	1340.0802
227.00	1340.7117
227.08	1340.7906
227.20	1274.5148
228.16	1214.4553
228.18	1237.7192
228.18	1237.7192
231.56	0.0000
235.69	1287.3440
236.00	1277.4142
236.00	1277.4142
238.63	1410.3271
238.63	1410.3271
238.63	1410.3271
238.63	1410.3271
239.00	1384.3582
240.98	1386.4460
241.98	1159.9075
241.98	1159.9075
241.98	1159.9075
244.69	1171.1072
245.39	1186.4395
247.94	1122.6951
248.90	1116.1150
249.79	1132.5448
252.40	1194.8280
252.85	1215.2042
252.85	1215.2042
254.15	0.0000
256.20	1129.1495
256.20	1129.1495
260.50	1019.5396
260.90	1021.3293
262.80	973.5217
264.65	956.4568
268.24	1042.0122
268.79	1027.4315
269.46	1010.1301
269.46	1010.1301
269.46	1010.1301
269.46	1010.1301
271.23	967.3268
273.65	1115.4359
276.40	1030.0713
277.35	955.4344
277.60	961.2537
277.60	961.2537
278.00	922.9071
278.60	935.5286
279.20	947.2174
279.53	971.0001
280.46	1020.6736
281.68	973.3744
283.67	921.7392
284.30	918.3577
285.00	910.2714
285.90	904.2015
286.10	927.9913
286.10	927.9913
287.40	931.6421
288.45	0.0000
290.67	952.8686
290.80	952.9604
291.72	897.2725
293.26	0.0000
293.70	930.4175
295.21	914.5752
295.21	914.5752

295.21	914.5752
295.96	922.6545
296.50	959.5936
297.23	990.5806
298.57	901.3201
299.80	862.2894
299.80	862.2894
300.09	856.3379
300.09	856.3379
300.09	856.3379
300.09	856.3379
300.12	856.3516
301.29	844.9835
302.84	928.7200
303.76	956.0918
303.91	956.1832
304.40	926.7772
304.40	926.7772
304.84	883.9022
306.84	802.4891
308.46	771.6083
311.98	815.7105
316.51	718.5703
318.01	770.4763
319.02	769.0281
319.41	722.7672
320.08	709.5233
323.87	772.3153
323.87	772.3153
323.87	772.3153
323.87	772.3153
325.23	810.8301
328.77	728.9081
333.44	843.2095
334.20	771.7303
334.20	771.7303
334.30	771.7786
338.28	713.5270
338.28	713.5270
338.28	713.5270
338.28	713.5270
338.32	713.5493
338.32	713.5493
338.32	713.5493
340.50	702.5156
340.57	702.5484
344.27	683.6594
345.85	689.5403
350.59	0.0000
351.07	687.9773
351.92	657.1384
351.92	657.1384
351.92	657.1384
355.39	0.0000
356.01	599.7472
364.48	625.1225
366.43	660.6362
367.43	656.0336
367.94	0.0000
369.80	625.0100
374.96	604.8246
383.85	627.8896
387.95	611.1772
388.63	602.3343
391.69	623.5165
391.69	623.5165
392.90	611.8070
398.62	613.6841
400.65	581.9002
401.10	601.3065
401.81	579.2161
402.60	563.2230
404.84	588.2766
410.95	520.8479
411.60	536.3216
413.65	614.4651
414.70	545.3586
415.30	525.0979

415.76	511.9395
417.63	0.0000
418.52	576.1094
423.70	533.5205
427.08	485.1079
427.89	520.2683
432.53	494.6924
433.93	489.8800
439.47	506.7480
439.56	506.7705
439.89	518.2311
443.98	479.8990
444.90	477.0071
445.03	477.0352
445.03	477.0352
445.03	477.0352
445.03	477.0352
453.90	589.5085
463.38	458.7025
468.07	493.2826
473.00	561.2883
475.06	505.0195
475.35	498.7719
476.78	517.0049
477.59	495.0792
477.96	482.5227
482.03	504.5564
484.57	494.5792
487.03	458.1134
490.36	0.0000
492.35	496.3574
497.08	420.9011
507.63	0.0000
510.53	0.0000
510.84	522.9799
511.00	523.0135
511.85	523.2149
511.85	523.2149
513.99	436.9614
513.99	436.9614
520.41	447.8729
520.65	444.6887
527.90	422.3977
528.96	0.0000
529.64	460.4636
529.87	0.0000
531.02	415.4189
537.32	457.6605
543.00	438.1763
546.56	0.0000
549.76	413.3289
552.65	449.7652
555.20	441.5227
563.23	456.7882
563.90	414.9005
568.70	462.6443
569.32	462.7731
569.50	462.7988
569.67	462.8375
573.80	450.0000
574.00	450.0375
574.64	430.8076
578.91	443.8916
579.30	0.0000
583.14	432.3030
585.48	452.1375
591.81	423.8504
592.07	437.1785
593.00	398.5840
595.88	428.9738
600.56	392.0187
602.52	0.0000
602.71	442.8139
602.71	442.8139
603.60	466.0862
604.41	450.2239
604.70	430.6962
609.31	392.2510

609.31	392.2510
609.31	392.2510
609.31	392.2510
610.33	392.4121
612.46	385.5938
614.37	357.3047
618.01	351.0939
621.84	361.6993
621.84	361.6993
631.29	394.4787
633.02	389.1127
633.10	373.3784
634.78	334.9090
635.90	347.6638
636.97	371.2325
645.85	359.8130
646.12	362.5643
656.30	399.3408
657.75	426.7981
657.90	0.0000
661.65	410.7344
661.65	410.7344
664.57	0.0000
666.33	337.0559
666.33	337.0559
675.00	328.0696
677.61	343.9261
685.20	349.4577
692.80	338.4504
695.00	446.4108
696.49	409.8107
696.49	409.8107
697.00	394.2177
697.49	378.6297
698.33	382.4261
698.50	382.4464
699.00	387.1260
702.63	449.4525
706.10	393.6444
706.58	0.0000
706.67	391.8688
709.31	401.4818
711.68	370.3418
713.82	353.9376
717.42	361.7974
720.50	358.7052
721.93	0.0000
722.20	362.3972
722.78	348.5321
722.78	348.5321
722.89	348.5413
722.95	348.5504
723.30	370.2866
724.18	368.8438
727.18	382.5732
733.00	349.7589
735.90	399.8893
739.58	328.7259
742.81	374.3164
744.21	344.8449
747.13	306.1384
751.79	390.4672
752.31	373.6400
753.82	334.3758
755.35	311.0559
756.15	303.6169
756.87	336.5952
763.93	314.1439
765.79	374.3780
766.42	374.4555
766.84	374.5040
776.49	373.8035
778.00	386.2951
778.57	374.5803
778.89	379.8804
783.80	379.4336
785.46	428.6754
792.07	356.6711

795.84	299.0129
796.30	299.0589
798.80	276.4204
801.93	343.4854
805.60	268.4250
810.29	327.1794
810.76	325.3159
815.85	236.7124
817.79	266.5841
818.51	276.2367
819.60	273.4497
826.30	271.1427
828.27	0.0000
831.60	275.4426
831.96	265.8387
834.83	291.1395
836.80	0.0000
846.75	267.0583
848.13	245.8703
856.28	0.0000
856.80	281.4614
860.37	220.5547
867.32	194.7314
867.82	207.2811
871.10	250.5123
873.19	214.5806
874.81	182.1549
875.33	0.0000
876.40	201.7674
879.36	247.5505
880.27	252.4994
880.51	224.8228
881.50	224.8901
883.24	192.3982
884.67	156.5938
889.25	205.8062
896.60	183.6627
898.02	167.0325
899.00	182.8077
903.28	185.5652
911.07	181.4799
911.07	181.4799
911.07	181.4799
919.63	191.1574
920.93	163.2034
925.00	181.2173
925.24	181.2308
926.50	181.2933
935.52	147.3302
937.48	195.7736
944.10	152.6670
946.00	167.3560
949.00	159.5234
962.29	175.1282
964.01	178.5467
966.15	153.6066
968.20	195.4618
969.11	195.5094
969.11	195.5094
969.11	195.5094
977.42	170.8342
980.50	165.9507
983.50	160.0481
989.30	168.3659
996.32	148.1491
1001.03	170.9227
1001.68	170.9516
1004.76	109.6769
1021.30	0.0000
1024.50	0.0000
1034.80	123.4815
1036.00	110.2491
1037.82	129.7037
1038.57	122.5840
1038.76	0.0000
1045.16	124.8415
1046.59	126.9305
1048.07	147.4664

1050.47	98.3719
1050.47	98.3719
1062.04	121.2727
1063.62	104.8737
1076.63	116.5699
1077.35	107.3059
1078.86	106.3143
1085.78	104.4324
1099.22	142.1375
1112.02	109.2861
1112.84	112.1983
1115.52	118.0648
1120.29	104.2969
1120.29	104.2969
1120.29	104.2969
1120.29	104.2969
1120.51	142.8934
1121.28	187.7783
1124.00	0.0000
1129.67	167.2578
1131.51	0.0000
1147.95	0.0000
1167.94	129.7746
1173.22	135.2250
1175.09	122.5986
1177.93	126.9141
1189.05	129.0154
1204.90	145.8167
1205.75	0.0000
1213.00	145.0246
1221.42	134.6256
1230.97	151.4418
1235.34	132.1979
1236.41	0.0000
1238.25	121.1991
1246.25	93.1244
1260.41	0.0000
1271.85	91.8647
1274.45	108.1396
1274.54	101.6513
1291.56	92.2673
1298.22	0.0000
1312.09	68.6940
1325.50	88.5819
1325.50	88.5819
1332.49	55.8560
1333.61	49.2979
1360.21	59.6785
1362.66	0.0000
1365.15	58.8203
1368.21	45.0642
1368.53	0.0000
1376.25	44.2188
1384.27	51.6751
1394.10	55.4810
1395.20	54.5683
1407.95	52.8577
1434.06	45.6843
1436.60	52.2357
1457.56	0.0000
1460.81	56.2427
1489.15	38.6494
1509.49	50.1619
1596.49	56.7745
1620.62	37.6987
1678.03	0.0000
1691.02	30.3504
1691.02	30.3504
1706.46	0.0000
1750.46	0.0000
1764.49	35.7026
1764.49	35.7026
1764.49	35.7026
1764.49	35.7026
1770.23	18.7198
1771.40	18.7236
1791.20	0.0000
1808.65	19.9854

1836.01 18.9300

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020013

Total Uranium Activity	1.0478E+03	ug/g
Total Uranium Counting Unc.	1.7862E+02	ug/g
Total Uranium Tpu	9.1134E-05	ug/g
Total Uranium Mda	5.6579E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID   : G246020013      *
*   ANALYST       : MXR1                      DETECTOR    : GAM20           *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 04:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 19:59:19.24    SAMPLE ALQT:  149.620 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 5.435E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.724E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 1.443E+01
        GROSS GAMMA DLC     (pCi/GRAM  )  : 7.182E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:08:13.08

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020014.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:07:43
Sample ID         : G246020014           Sample quantity  : 1.49740E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.25  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.21*	221	581	1.11	127.15	122	10	3.07E-02	22.0	
2	2	74.92	446	508	1.31	150.55	146	14	6.19E-02	10.5	1.03E+00
3	2	77.12	589	455	1.17	154.96	146	14	8.18E-02	7.7	
4	2	89.94	101	486	1.00	180.58	170	23	1.41E-02	34.6	2.87E+00
5	2	92.76*	773	561	1.27	186.22	170	23	1.07E-01	6.8	
6	0	143.79*	17	483	1.41	288.22	285	10	2.42E-03	240.5	
7	0	186.25*	274	326	1.24	373.09	369	9	3.81E-02	14.0	
8	0	210.02	109	349	1.09	420.61	415	11	1.51E-02	34.8	
9	3	238.98*	1176	192	1.33	478.50	472	19	1.63E-01	3.7	1.69E+00
10	3	242.04	312	267	1.71	484.61	472	19	4.34E-02	13.6	
11	0	270.83	134	221	1.25	542.16	537	11	1.85E-02	23.3	
12	0	295.49	374	184	1.26	591.45	586	10	5.19E-02	8.5	
13	0	300.87	78	253	1.37	602.20	597	13	1.08E-02	43.9	
14	0	329.23	36	188	0.97	658.88	653	9	5.04E-03	70.2	
15	0	338.64	286	160	1.58	677.71	673	11	3.97E-02	10.5	
16	0	352.28*	653	164	1.28	704.96	698	12	9.07E-02	5.6	
17	0	463.76*	116	139	3.11	927.78	918	15	1.62E-02	24.2	
18	0	511.33*	78	174	1.54	1022.88	1018	14	1.08E-02	42.6	
19	0	583.53*	316	112	1.71	1167.18	1160	14	4.39E-02	9.1	
20	0	609.67*	377	102	1.60	1219.43	1213	15	5.23E-02	8.1	
21	0	727.99	75	66	1.61	1455.91	1449	11	1.04E-02	23.9	
22	0	795.30*	42	49	1.49	1590.44	1584	11	5.87E-03	36.3	
23	0	860.39	74	26	2.49	1720.53	1714	13	1.03E-02	18.4	
24	0	911.46*	244	60	1.57	1822.62	1816	12	3.38E-02	9.2	
25	0	969.60*	111	105	1.49	1938.82	1932	15	1.54E-02	23.0	
26	0	1120.60*	130	55	1.87	2240.59	2233	18	1.80E-02	16.2	
27	0	1461.02*	891	25	2.10	2920.92	2911	20	1.24E-01	3.6	
28	0	1764.87*	77	2	1.89	3528.15	3521	12	1.06E-02	13.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:08:16

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020014.CNF;1		
Analyses by	: PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8		
Sample title	: MXR1		
Sample date	: 27-JAN-2010 12:00:00	Acquisition date	: 14-FEB-2010 11:07:43
Sample ID	: G246020014	Sample quantity	: 149.74 GRAM
Sample type	: SOLID	Sample geometry	:
Detector name	: GAMMA1	Detector geometry	: CAN
Elapsed live time	: 0 02:00:00.00	Elapsed real time	: 0 02:00:01.25 0.0%
Peak Width (FWHM)	: 3.00	Confidence level	: 5.00 %
Energy tolerance	: 1.50 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 0.00 %
Efficiency type	: Empirical	Efficiencies at	: Peak Energy
Abundance limit	: 75.00	WTM error limit	: 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.214E+01	2.545E+00	6.042E-01	5.371E-02	36.637
TL-208		277.35		2.978E-01	3.951E-01	6.522E-01	8.289E-02	0.457
	+	510.84		3.762E-01	3.237E-01	2.336E-01	2.777E-02	1.610
	+	583.14	*	4.391E-01	8.956E-02	6.045E-02	5.490E-03	7.264
	+	860.37		9.780E-01	3.711E-01	3.816E-01	3.657E-02	2.563
BI-211		72.87		2.035E+00	3.670E+00	5.402E+00	4.430E-01	0.377
	+	351.07	*	3.922E+00	5.677E-01	3.113E-01	2.832E-02	12.598
PB-212	+	74.81		2.510E+00	6.139E-01	5.677E-01	7.105E-02	4.420
	+	77.11		1.871E+00	3.289E-01	3.203E-01	2.718E-02	5.841
		87.30		9.075E-01	4.195E-01	6.895E-01	9.459E-02	1.316
	+	238.63	*	1.521E+00	1.901E-01	8.405E-02	8.510E-03	18.093
	+	300.09		1.572E+00	1.392E+00	1.135E+00	1.227E-01	1.385
PO-212	+	74.81		2.510E+00	6.139E-01	5.677E-01	7.105E-02	4.420
	+	77.11		1.871E+00	3.289E-01	3.203E-01	2.718E-02	5.841
		87.30		9.075E-01	4.195E-01	6.895E-01	9.459E-02	1.316
		115.19		-3.132E+00	3.813E+00	5.836E+00	5.071E-01	-0.537
	+	238.63	*	1.521E+00	1.901E-01	8.405E-02	8.510E-03	18.093
	+	300.09		1.572E+00	1.392E+00	1.135E+00	1.227E-01	1.385
BI-214	+	609.31	*	9.885E-01	1.869E-01	1.153E-01	1.137E-02	8.573
	+	1120.29		1.805E+00	6.175E-01	4.267E-01	4.566E-02	4.230
	+	1764.49		1.472E+00	4.076E-01	2.403E-01	2.015E-02	6.125
PB-214	+	74.81		4.324E+00	1.029E+00	9.782E-01	1.090E-01	4.420
	+	77.11		3.208E+00	6.146E-01	5.492E-01	6.263E-02	5.841
		87.30		1.555E+00	7.119E-01	1.181E+00	1.435E-01	1.316
	+	241.98		2.429E+00	7.083E-01	5.063E-01	5.408E-02	4.797
	+	295.21		1.319E+00	2.684E-01	2.030E-01	2.242E-02	6.499
	+	351.92	*	1.364E+00	2.099E-01	1.085E-01	1.137E-02	12.571
PO-214	+	74.81		4.324E+00	1.029E+00	9.782E-01	1.090E-01	4.420
	+	77.11		3.208E+00	6.146E-01	5.492E-01	6.263E-02	5.841
		87.30		1.555E+00	7.119E-01	1.181E+00	1.435E-01	1.316
	+	241.98		2.429E+00	7.083E-01	5.063E-01	5.408E-02	4.797
	+	295.21		1.319E+00	2.684E-01	2.030E-01	2.242E-02	6.499
	+	351.92	*	1.364E+00	2.099E-01	1.085E-01	1.137E-02	12.571
PO-216	+	74.81		2.510E+00	6.139E-01	5.677E-01	7.105E-02	4.420

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		1.871E+00	3.289E-01	3.203E-01	2.718E-02	5.841
		87.30		9.075E-01	4.195E-01	6.895E-01	9.459E-02	1.316
	+	238.63	*	1.521E+00	1.901E-01	8.405E-02	8.510E-03	18.093
	+	300.09		1.572E+00	1.392E+00	1.135E+00	1.227E-01	1.385
PO-218	+	74.81		4.324E+00	1.029E+00	9.782E-01	1.090E-01	4.420
	+	77.11		3.208E+00	6.146E-01	5.492E-01	6.263E-02	5.841
		87.30		1.555E+00	7.119E-01	1.181E+00	1.435E-01	1.316
	+	241.98		2.429E+00	7.083E-01	5.063E-01	5.408E-02	4.797
	+	295.21		1.319E+00	2.684E-01	2.030E-01	2.242E-02	6.499
	+	351.92	*	1.364E+00	2.099E-01	1.085E-01	1.137E-02	12.571
RA-224	+	240.98	*	4.606E+00	1.318E+00	9.567E-01	8.694E-02	4.814
RA-226	+	609.31	*	9.885E-01	1.869E-01	1.153E-01	1.137E-02	8.573
	+	1120.29		1.805E+00	6.175E-01	4.267E-01	4.566E-02	4.230
	+	1764.49		1.472E+00	4.076E-01	2.403E-01	2.015E-02	6.125
AC-228	+	338.32		1.888E+00	8.740E-01	3.795E-01	1.567E-01	4.975
	+	911.07	*	1.527E+00	3.323E-01	2.111E-01	2.444E-02	7.231
	+	969.11		1.226E+00	6.333E-01	4.967E-01	1.165E-01	2.469
RA-228	+	338.32		1.888E+00	8.740E-01	3.795E-01	1.567E-01	4.975
	+	911.07	*	1.527E+00	3.323E-01	2.111E-01	2.444E-02	7.231
	+	969.11		1.226E+00	6.333E-01	4.967E-01	1.165E-01	2.469
TH-228	+	74.81		2.555E+00	5.783E-01	5.780E-01	4.855E-02	4.420
	+	77.11		1.905E+00	3.349E-01	3.261E-01	2.767E-02	5.841
		87.30		9.239E-01	4.170E-01	7.020E-01	6.592E-02	1.316
	+	238.63	*	1.548E+00	1.935E-01	8.557E-02	8.663E-03	18.093
	+	300.09		1.601E+00	1.697E+00	1.155E+00	6.858E-01	1.385
TH-230	+	609.31	*	9.884E-01	1.869E-01	1.153E-01	1.137E-02	8.573
	+	1120.29		1.805E+00	6.175E-01	4.267E-01	4.566E-02	4.230
	+	1764.49		1.472E+00	4.076E-01	2.403E-01	2.015E-02	6.125
TH-232	+	338.32		1.888E+00	4.284E-01	3.795E-01	3.341E-02	4.975
	+	911.07	*	1.527E+00	3.323E-01	2.111E-01	2.444E-02	7.231
	+	969.11		1.226E+00	6.333E-01	4.967E-01	1.165E-01	2.469
TH-234	+	63.29	*	5.266E+00	2.495E+00	2.264E+00	3.979E-01	2.326
	+	92.38		6.512E+00	1.483E+00	8.404E-01	1.541E-01	7.748
U-234	+	609.31	*	9.884E-01	1.869E-01	1.153E-01	1.137E-02	8.573
	+	1120.29		1.805E+00	6.175E-01	4.267E-01	4.566E-02	4.230
	+	1764.49		1.472E+00	4.076E-01	2.403E-01	2.015E-02	6.125
U-235	+	89.95		1.759E+00	1.333E+00	1.721E+00	5.346E-01	1.022
	+	93.35		7.829E+00	2.447E+00	1.003E+00	2.824E-01	7.809
		105.00		1.123E+00	1.121E+00	1.780E+00	5.316E-01	0.631
	+	143.76	*	7.103E-02	3.419E-01	3.374E-01	5.894E-02	0.211
		163.35		1.853E-01	4.721E-01	8.054E-01	1.533E-01	0.230
	+	185.71		2.467E-01	7.249E-02	7.583E-02	6.589E-03	3.253
		205.31		1.302E-01	5.608E-01	8.357E-01	1.604E-01	0.156
U-238	+	63.29	*	5.266E+00	2.495E+00	2.264E+00	3.979E-01	2.326
	+	92.38		6.512E+00	1.062E+00	8.404E-01	7.675E-02	7.748
AM-243	+	74.67	*	4.069E-01	9.198E-02	9.235E-02	7.680E-03	4.406
		86.72		2.169E+01	9.812E+00	1.652E+01	1.542E+00	1.312
		117.66		-2.023E+00	3.876E+00	6.007E+00	5.237E-01	-0.337
		142.18		7.725E+00	1.913E+01	2.920E+01	2.498E+00	0.265

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	8.126E-02	6.958E-02	4.969E-02	4.211E-03	1.635

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.104E-01	3.483E-01	5.314E-01	4.835E-02	-0.396
NA-22		1274.54	*	1.354E-02	3.938E-02	6.824E-02	5.730E-03	0.198
NA-24		1368.53	*	5.964E-01	3.938E-02	Half-Life too short		
AL-26		1129.67		-1.539E+00	2.016E+00	2.616E+00	2.185E-01	-0.588
		1808.65	*	2.701E-03	2.279E-02	3.831E-02	3.174E-03	0.071
TI-44		67.85		-5.586E-02	5.711E-02	7.836E-02	6.214E-03	-0.713
	+	78.38	*	3.453E-01	6.071E-02	7.825E-02	6.715E-03	4.414
SC-46		889.25	*	1.475E-02	3.789E-02	6.441E-02	5.822E-03	0.229
	+	1120.51		3.164E-01	1.062E-01	1.472E-01	1.237E-02	2.149
V-48		944.10		-3.888E-01	1.044E+00	1.634E+00	1.471E-01	-0.238
		983.50	*	-1.982E-02	8.919E-02	1.417E-01	1.265E-02	-0.140
		1312.09		2.291E-03	8.237E-02	1.377E-01	1.168E-02	0.017
CR-51		320.08	*	2.863E-01	4.197E-01	7.118E-01	6.696E-02	0.402
MN-52		744.21		2.548E-01	3.305E-01	5.814E-01	4.988E-02	0.438
		848.13		-2.405E-01	9.267E+00	1.516E+01	1.355E+00	-0.016
		935.52		3.297E-01	3.649E-01	6.440E-01	5.808E-02	0.512
		1246.25		4.014E+00	1.105E+01	1.904E+01	1.582E+00	0.211
		1333.61		-1.271E+00	7.228E+00	1.177E+01	1.004E+00	-0.108
		1434.06	*	7.202E-02	3.406E-01	5.802E-01	5.009E-02	0.124
MN-54		834.83	*	1.005E-03	4.059E-02	6.675E-02	5.942E-03	0.015
CO-56		846.75	*	-7.889E-03	3.794E-02	6.089E-02	5.440E-03	-0.130
		977.42		-1.450E+00	3.460E+00	4.868E+00	4.353E-01	-0.298
		1037.82		1.201E-02	3.193E-01	5.187E-01	4.782E-02	0.023
		1175.09		1.350E+00	2.557E+00	4.468E+00	3.619E-01	0.302
		1238.25		1.686E-01	1.002E-01	1.851E-01	1.583E-02	0.911
		1360.21		-5.874E-01	9.049E-01	1.353E+00	1.159E-01	-0.434
		1771.40		-1.006E+00	3.761E-01	3.207E-01	2.685E-02	-3.136
CO-57		122.06	*	1.926E-02	2.625E-02	4.288E-02	3.775E-03	0.449
		136.48		-1.685E-02	2.007E-01	3.396E-01	3.137E-02	-0.050
CO-58		810.76	*	-1.098E-02	4.203E-02	6.748E-02	5.969E-03	-0.163
FE-59	+	142.65		9.577E-01	4.607E+00	4.847E+00	4.145E-01	0.198
		192.34		3.546E-01	9.685E-01	1.645E+00	2.222E-01	0.216
		1099.22	*	3.665E-02	1.030E-01	1.718E-01	1.584E-02	0.213
		1291.56		-3.756E-02	1.208E-01	1.941E-01	1.867E-02	-0.194
CO-60		1173.22		4.413E-02	4.853E-02	8.723E-02	7.060E-03	0.506
		1332.49	*	-1.044E-02	3.968E-02	6.393E-02	5.450E-03	-0.163
ZN-65		1115.52	*	4.434E-03	9.226E-02	1.290E-01	1.088E-02	0.034
GE-68		1077.35	*	7.639E-01	1.267E+00	2.173E+00	1.871E-01	0.352
AS-73		53.44	*	4.117E-01	9.320E-01	1.545E+00	1.251E-01	0.266
AS-74		595.88	*	8.653E-02	9.979E-02	1.772E-01	1.493E-02	0.488
		634.78		4.672E-02	3.633E-01	6.129E-01	5.091E-02	0.076
SE-75		66.05		-5.813E+00	5.859E+00	8.005E+00	7.850E-01	-0.726
		96.73		-4.841E-01	9.541E-01	1.319E+00	1.822E-01	-0.367

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.11		-6.981E-02	1.457E-01	2.259E-01	2.562E-02	-0.309
		136.00		1.046E-02	3.764E-02	6.453E-02	5.585E-03	0.162
		198.60		1.045E+00	1.831E+00	3.080E+00	2.997E-01	0.339
		264.65	*	2.057E-02	4.825E-02	7.579E-02	6.962E-03	0.271
		279.53		-4.719E-03	1.147E-01	1.888E-01	1.784E-02	-0.025
		303.91		-2.104E-01	2.323E+00	3.321E+00	3.924E-01	-0.063
		400.65		-3.224E-02	2.625E-01	4.216E-01	4.518E-02	-0.076
BR-77		87.88		1.065E+03	4.479E+02	7.545E+02	7.132E+01	1.412
		200.40		-3.021E+02	3.747E+02	6.048E+02	5.335E+01	-0.499
	+	239.00		5.602E+02	6.536E+01	8.313E+01	7.547E+00	6.739
		249.79		-8.571E+01	1.435E+02	2.301E+02	2.098E+01	-0.372
		281.68		2.225E+00	2.121E+02	3.499E+02	3.198E+01	0.006
		297.23		8.024E+02	2.192E+02	2.992E+02	2.722E+01	2.682
		303.76		-4.387E+01	4.464E+02	6.378E+02	5.783E+01	-0.069
		439.47		5.557E+01	3.354E+02	5.469E+02	4.534E+01	0.102
		484.57		-8.285E+02	5.346E+02	7.357E+02	6.203E+01	-1.126
		520.65	*	2.829E+01	2.437E+01	4.232E+01	3.590E+00	0.668
		574.64		-7.980E+01	4.733E+02	7.846E+02	6.641E+01	-0.102
		578.91		-1.456E+02	2.254E+02	3.062E+02	2.590E+01	-0.476
		585.48		3.030E+03	6.327E+02	1.131E+03	9.553E+01	2.679
		755.35		7.014E+02	3.882E+02	7.258E+02	6.259E+01	0.966
		817.79		-8.709E+01	3.084E+02	4.930E+02	4.363E+01	-0.177
SR-82		698.33		4.086E+00	3.582E+01	5.998E+01	5.023E+00	0.068
		776.49	*	-1.538E-01	4.350E-01	6.955E-01	6.055E-02	-0.221
		1395.20		-5.176E+00	1.008E+01	1.529E+01	1.315E+00	-0.339
RB-83		520.41	*	7.828E-02	7.144E-02	1.236E-01	1.049E-02	0.633
		529.64		3.242E-02	1.032E-01	1.779E-01	1.510E-02	0.182
		552.65		4.201E-03	1.965E-01	3.309E-01	2.809E-02	0.013
RB-84		881.50	*	-1.849E-02	7.046E-02	1.120E-01	1.010E-02	-0.165
KR-85		513.99	*	2.097E+01	8.424E+00	1.422E+01	1.205E+00	1.475
SR-85		513.99	*	1.108E-01	4.451E-02	7.511E-02	6.368E-03	1.475
RB-86		1076.63	*	4.838E-01	8.609E-01	1.473E+00	1.269E-01	0.328
Y-88		898.02		-1.487E-02	4.184E-02	6.582E-02	5.988E-03	-0.226
		1836.01	*	6.163E-03	2.875E-02	4.922E-02	4.048E-03	0.125
ZR-88		392.90	*	-2.403E-02	3.340E-02	5.150E-02	4.147E-03	-0.467
Y-91		1204.90	*	-4.237E+00	1.969E+01	3.236E+01	2.652E+00	-0.131
NB-94		702.63	*	7.182E-03	3.354E-02	5.657E-02	4.749E-03	0.127
		871.10		-4.401E-03	3.331E-02	5.379E-02	4.840E-03	-0.082
NB-95		765.79	*	2.699E-02	4.730E-02	8.124E-02	7.040E-03	0.332
NB-95M		235.69	*	-1.264E-02	1.293E-01	1.877E-01	1.925E-02	-0.067
ZR-95		724.18		6.149E-02	1.044E-01	1.602E-01	1.482E-02	0.384
		756.15	*	1.428E-01	7.520E-02	1.409E-01	1.338E-02	1.013
NB-97		657.90	*	-1.363E+00	7.520E-02	Half-Life too short		
		1024.50		-1.209E+02	7.520E-02	Half-Life too short		
ZR-97		254.15		3.074E+01	7.520E-02	Half-Life too short		
		355.39		7.906E+01	7.520E-02	Half-Life too short		
		507.63	*	1.104E+01	7.520E-02	Half-Life too short		
		602.52		-1.379E+01	7.520E-02	Half-Life too short		
		1021.30		1.478E+01	7.520E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1147.95		-3.752E+01	7.520E-02	Half-Life too short		
		1362.66		6.717E+01	7.520E-02	Half-Life too short		
		1750.46		-5.965E+01	7.520E-02	Half-Life too short		
MO-99		140.51		2.360E+00	5.767E+01	8.660E+01	2.397E+01	0.027
		181.06		-1.938E+00	3.762E+01	5.855E+01	1.072E+01	-0.033
		366.43		-8.277E+01	1.740E+02	2.739E+02	2.316E+01	-0.302
		739.58	*	-1.526E+01	2.473E+01	3.857E+01	5.843E+00	-0.396
		778.00		2.755E+01	7.031E+01	1.198E+02	1.044E+01	0.230
TC-99M		140.51	*	4.367E+12	7.031E+01	Half-Life too short		
RH-101		127.23		2.602E-02	3.370E-02	5.496E-02	4.781E-03	0.473
		198.01	*	2.303E-02	3.312E-02	5.597E-02	4.925E-03	0.411
		325.23		-1.563E-01	2.590E-01	3.529E-01	3.150E-02	-0.443
RH-102		418.52		2.322E-01	2.946E-01	5.006E-01	4.102E-02	0.464
		475.06	*	5.098E-03	3.018E-02	4.903E-02	4.123E-03	0.104
		631.29		-1.130E-02	5.080E-02	8.321E-02	6.923E-03	-0.136
		697.49		-3.227E-03	7.391E-02	1.222E-01	1.023E-02	-0.026
		766.84		2.007E-01	1.186E-01	2.168E-01	1.880E-02	0.926
		1046.59		-4.164E-02	1.232E-01	1.921E-01	1.678E-02	-0.217
		1112.84		-1.611E-01	2.568E-01	3.187E-01	2.691E-02	-0.505
RU-103		497.08	*	-7.386E-03	4.332E-02	6.833E-02	9.609E-03	-0.108
	+	610.33		1.122E+01	2.595E+00	2.928E+00	4.851E-01	3.833
RH-106	+	511.85		4.081E-01	3.494E-01	4.404E-01	3.733E-02	0.927
		621.84	*	-4.609E-02	3.181E-01	5.254E-01	6.928E-02	-0.088
		1050.47		1.089E+00	2.394E+00	4.049E+00	3.531E-01	0.269
RU-106	+	511.85		4.081E-01	3.494E-01	4.404E-01	3.733E-02	0.927
		621.84	*	-4.609E-02	3.180E-01	5.254E-01	4.389E-02	-0.088
		1050.47		1.089E+00	2.394E+00	4.049E+00	3.531E-01	0.269
AG-108M		433.93	*	-6.131E-03	3.347E-02	5.324E-02	4.591E-03	-0.115
		614.37		3.428E-03	4.146E-02	6.084E-02	5.308E-03	0.056
		722.95		-3.832E-03	4.604E-02	6.548E-02	5.782E-03	-0.059
CD-109		88.03	*	2.210E+00	9.090E-01	1.532E+00	1.449E-01	1.443
AG-110M		657.75	*	-3.864E-02	3.831E-02	5.877E-02	4.983E-03	-0.658
		677.61		-2.560E-01	2.993E-01	4.592E-01	3.915E-02	-0.558
		706.67		4.130E-02	2.055E-01	3.462E-01	2.997E-02	0.119
		763.93		-1.586E-01	1.699E-01	2.573E-01	2.290E-02	-0.616
		884.67		-1.835E-02	4.633E-02	7.240E-02	6.729E-03	-0.253
		937.48		-6.245E-02	1.100E-01	1.681E-01	1.566E-02	-0.371
		1384.27		-6.157E-02	1.627E-01	2.563E-01	2.265E-02	-0.240
IN-111		171.28		6.055E-01	1.909E+00	3.253E+00	2.784E-01	0.186
		245.39	*	1.165E+00	2.262E+00	3.412E+00	3.107E-01	0.341
IN-113M		391.69	*	1.564E-02	4.726E-02	7.823E-02	6.516E-03	0.200
SN-113		391.69	*	1.564E-02	4.726E-02	7.823E-02	6.516E-03	0.200
IN-114M		190.27	*	-1.586E-01	2.112E-01	2.980E-01	2.602E-02	-0.532
CD-115		260.90		-1.612E-04	2.112E-01	Half-Life too short		
		492.35		3.950E-06	2.112E-01	Half-Life too short		
		527.90	*	9.508E-07	2.112E-01	Half-Life too short		
SN-117M		156.02		-5.675E-01	2.621E+00	4.393E+00	3.741E-01	-0.129
		158.56	*	6.132E-02	6.281E-02	1.094E-01	9.317E-03	0.560
SB-122		563.90	*	4.946E+00	4.363E+00	7.848E+00	6.654E-01	0.630

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		-2.963E+01	8.306E+01	1.335E+02	1.115E+01	-0.222
I-123		159.00	*	9.618E+01	8.306E+01	Half-Life too short		
		528.96		8.991E+03	8.306E+01	Half-Life too short		
TE-123M		159.00	*	1.311E-02	2.841E-02	4.875E-02	4.176E-03	0.269
I-124		602.71	*	-3.560E-01	1.146E+00	1.694E+00	1.424E-01	-0.210
		722.78		-5.027E-01	7.720E+00	1.101E+01	9.340E-01	-0.046
		1325.50		3.555E+01	5.292E+01	9.504E+01	8.087E+00	0.374
		1376.25		8.386E+01	5.363E+01	1.026E+02	8.806E+00	0.817
		1509.49		3.987E+01	2.614E+01	5.118E+01	4.431E+00	0.779
		1691.02		1.378E+00	5.799E+00	9.934E+00	8.464E-01	0.139
SB-124		602.71		-1.334E-02	4.292E-02	6.345E-02	5.337E-03	-0.210
		645.85		2.020E-01	5.083E-01	8.735E-01	7.688E-02	0.231
		709.31		-1.874E+00	2.864E+00	4.483E+00	3.777E-01	-0.418
		713.82		9.648E-01	1.792E+00	3.086E+00	3.677E-01	0.313
		722.78		-2.730E-02	4.192E-01	5.976E-01	5.184E-02	-0.046
	+	968.20		1.304E+01	6.114E+00	7.819E+00	7.007E-01	1.668
		1045.16		-1.624E+00	2.657E+00	4.039E+00	3.530E-01	-0.402
		1325.50		2.062E+00	3.069E+00	5.512E+00	4.690E-01	0.374
		1368.21		-1.739E-01	1.695E+00	2.775E+00	3.731E-01	-0.063
		1436.60		1.697E+00	3.763E+00	6.622E+00	5.718E-01	0.256
		1691.02	*	1.765E-02	7.428E-02	1.272E-01	1.128E-02	0.139
SB-125		427.89	*	-7.924E-03	9.764E-02	1.567E-01	1.318E-02	-0.051
	+	463.38		1.101E+00	5.425E-01	6.266E-01	5.683E-02	1.758
		600.56		-1.013E-01	1.741E-01	2.784E-01	2.524E-02	-0.364
		635.90		-7.486E-02	2.536E-01	4.125E-01	3.722E-02	-0.181
TE-125M		109.28	*	2.787E+00	1.041E+01	1.674E+01	1.737E+00	0.166
I-126		388.63		-2.817E-02	2.546E-01	4.101E-01	3.322E-02	-0.069
		666.33	*	-4.951E-02	2.201E-01	3.600E-01	2.958E-02	-0.138
		753.82		9.100E-01	1.809E+00	3.105E+00	2.676E-01	0.293
SB-126		223.80		-2.547E-01	4.689E+00	7.791E+00	7.010E-01	-0.033
		278.60		1.402E+00	2.989E+00	5.038E+00	4.607E-01	0.278
	+	296.50		1.540E+01	2.982E+00	4.378E+00	3.984E-01	3.518
		414.70		-1.118E-01	9.454E-02	1.397E-01	1.142E-02	-0.800
		415.30		-1.354E+01	8.567E+00	1.152E+01	9.425E-01	-1.175
		555.20		3.231E-01	4.527E+00	7.651E+00	6.492E-01	0.042
		573.80		7.635E-01	1.196E+00	2.096E+00	1.774E-01	0.364
		593.00		-5.130E-01	1.050E+00	1.690E+00	1.425E-01	-0.304
		656.30		-4.657E+00	4.126E+00	6.237E+00	5.125E-01	-0.747
		666.33		-2.082E-02	9.256E-02	1.514E-01	1.244E-02	-0.138
		675.00		1.734E+00	2.156E+00	3.819E+00	3.154E-01	0.454
		695.00		-9.160E-03	8.444E-02	1.389E-01	1.161E-02	-0.066
		697.00		7.996E-02	2.986E-01	5.063E-01	4.236E-02	0.158
		720.50	*	-7.113E-02	1.944E-01	2.813E-01	2.384E-02	-0.253
		856.80		1.598E-02	5.228E-01	7.450E-01	6.677E-02	0.021
		989.30		-5.107E-01	1.656E+00	2.605E+00	2.322E-01	-0.196
		1034.80		1.572E+00	1.019E+01	1.676E+01	1.471E+00	0.094
		1213.00		5.620E-01	5.272E+00	8.915E+00	7.326E-01	0.063
SN-126	+	64.28		2.085E+00	9.670E-01	1.033E+00	1.520E-01	2.019
		86.94		8.186E-01	4.963E-01	6.224E-01	2.584E-01	1.315

Sample ID : G246020014 Acquisition date : 14-FEB-2010 11:07:43

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		87.57	*	2.049E-01	8.877E-02	1.495E-01	1.408E-02	1.371
SB-127		61.10		-3.071E+00	1.199E+02	1.734E+02	1.968E+01	-0.018
		252.40		-1.461E+00	6.980E+00	1.140E+01	4.830E+00	-0.128
		290.80		-1.052E+01	3.848E+01	5.433E+01	6.744E+00	-0.194
		411.60		3.492E+01	2.216E+01	3.817E+01	6.158E+00	0.915
		444.90		-2.143E+00	1.653E+01	2.635E+01	3.460E+00	-0.081
		473.00		9.381E-01	2.904E+00	4.769E+00	6.441E-01	0.197
		543.00		-1.235E+01	2.523E+01	4.073E+01	6.118E+00	-0.303
		603.60		5.675E+00	2.098E+01	3.140E+01	4.136E+00	0.181
		685.20	*	-1.004E+00	2.200E+00	3.507E+00	4.223E-01	-0.286
		698.50		3.158E+00	2.464E+01	4.131E+01	6.746E+00	0.076
		722.20		-1.101E+01	5.724E+01	8.037E+01	9.607E+00	-0.137
		783.80		3.369E-01	6.171E+00	1.022E+01	1.358E+00	0.033
XE-127		57.60		3.057E+00	7.463E+00	1.176E+01	9.029E-01	0.260
	+	145.22		2.478E-01	1.192E+00	1.315E+00	1.123E-01	0.188
		172.10		5.953E-02	1.208E-01	2.070E-01	1.774E-02	0.288
		202.84	*	-2.955E-03	4.830E-02	8.057E-02	7.123E-03	-0.037
		374.96		-1.172E-01	2.223E-01	3.489E-01	2.905E-02	-0.336
I-131		80.18		-1.265E+00	6.731E+00	9.563E+00	8.417E-01	-0.132
		284.30		1.408E-02	1.946E+00	3.208E+00	3.073E-01	0.004
		364.48	*	4.672E-03	1.509E-01	2.462E-01	2.211E-02	0.019
		636.97		-4.122E-01	1.819E+00	2.976E+00	2.625E-01	-0.139
		722.89		-7.803E-01	9.913E+00	1.411E+01	1.208E+00	-0.055
TE-132		49.72		-4.744E+01	4.195E+01	6.456E+01	7.456E+00	-0.735
		111.76		2.747E+01	6.219E+01	9.925E+01	1.160E+01	0.277
		116.30		-8.135E+00	5.201E+01	8.207E+01	9.610E+00	-0.099
		228.16	*	-4.799E-01	1.254E+00	2.047E+00	3.375E-01	-0.234
BA-133		53.15		1.145E+00	3.969E+00	6.542E+00	5.316E-01	0.175
		79.62		3.077E-01	1.480E+00	2.142E+00	3.269E-01	0.144
		81.00		-1.010E-01	1.178E-01	1.606E-01	2.566E-02	-0.629
		276.40		5.559E-01	4.274E-01	6.617E-01	9.773E-02	0.840
		302.84		1.427E-01	1.553E-01	2.381E-01	3.234E-02	0.599
		356.01	*	-3.227E-03	4.712E-02	6.679E-02	8.808E-03	-0.048
		383.85		2.017E-02	3.125E-01	5.093E-01	6.269E-02	0.040
I-133	+	510.53		8.056E+00	3.125E-01	Half-Life too short		
		529.87	*	1.149E-02	3.125E-01	Half-Life too short		
		706.58		8.191E-01	3.125E-01	Half-Life too short		
		856.28		-2.547E+00	3.125E-01	Half-Life too short		
		875.33		-6.184E-01	3.125E-01	Half-Life too short		
		1236.41		9.710E+00	3.125E-01	Half-Life too short		
		1298.22		2.902E-01	3.125E-01	Half-Life too short		
CS-134		475.35		3.662E-02	1.964E+00	3.156E+00	2.654E-01	0.012
		563.23		2.009E-01	3.658E-01	6.368E-01	5.452E-02	0.315
		569.32		-3.774E-02	1.944E-01	3.218E-01	2.764E-02	-0.117
		604.70		3.062E-04	3.741E-02	5.451E-02	4.593E-03	0.006
	+	795.84	*	8.575E-02	6.278E-02	9.185E-02	8.117E-03	0.934
		801.93		-2.011E-01	4.294E-01	6.608E-01	5.844E-02	-0.304
		1038.57		-1.663E+00	3.933E+00	6.059E+00	5.311E-01	-0.275
		1167.94		-1.509E+00	2.406E+00	3.789E+00	3.079E-01	-0.398

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1365.15		4.088E-01	1.162E+00	2.022E+00	1.812E-01	0.202
CS-135		268.24	*	1.194E-01	1.737E-01	2.634E-01	2.746E-02	0.454
I-135		288.45		1.423E+13	1.737E-01	Half-Life too short		
		417.63		5.143E+11	1.737E-01	Half-Life too short		
		546.56		1.867E+12	1.737E-01	Half-Life too short		
		836.80		1.782E+13	1.737E-01	Half-Life too short		
		1038.76		-7.091E+12	1.737E-01	Half-Life too short		
		1124.00		5.490E+13	1.737E-01	Half-Life too short		
		1131.51		-6.303E+12	1.737E-01	Half-Life too short		
		1260.41	*	1.415E+12	1.737E-01	Half-Life too short		
		1457.56		3.572E+14	1.737E-01	Half-Life too short		
		1678.03		-1.803E+12	1.737E-01	Half-Life too short		
		1706.46		8.440E+12	1.737E-01	Half-Life too short		
		1791.20		-6.738E+12	1.737E-01	Half-Life too short		
CS-136		66.91		-1.107E+00	1.113E+00	1.512E+00	2.275E-01	-0.732
		86.29		3.143E+00	1.397E+00	2.300E+00	3.062E-01	1.366
		153.22		9.692E-01	7.757E-01	1.358E+00	1.297E-01	0.714
		163.89		3.130E-01	1.233E+00	2.098E+00	2.007E-01	0.149
		176.55		-3.057E-01	4.296E-01	7.011E-01	6.386E-02	-0.436
		273.65		-2.592E-01	6.098E-01	8.574E-01	8.307E-02	-0.302
		340.57		5.093E-01	1.915E-01	3.130E-01	2.826E-02	1.627
		818.51		-2.582E-03	8.375E-02	1.372E-01	1.216E-02	-0.019
		1048.07	*	-5.391E-02	1.281E-01	1.975E-01	1.796E-02	-0.273
		1235.34		-2.740E-01	7.356E-01	1.194E+00	1.386E-01	-0.230
BA-137M		661.65	*	4.266E-02	3.940E-02	7.015E-02	5.746E-03	0.608
CS-137		661.65	*	4.510E-02	4.165E-02	7.415E-02	6.087E-03	0.608
CE-139		165.85	*	2.618E-02	2.966E-02	5.150E-02	4.386E-03	0.508
BA-140		162.64		2.121E-01	8.749E-01	1.489E+00	1.343E-01	0.142
		304.84		-9.469E-01	1.667E+00	2.257E+00	6.358E-01	-0.419
		423.70		-1.143E-01	2.296E+00	3.694E+00	1.194E+00	-0.031
		537.32	*	4.441E-01	3.258E-01	5.410E-01	1.791E-01	0.821
LA-140	+	328.77		3.463E-01	4.872E-01	6.326E-01	5.923E-02	0.547
		432.53		1.896E-01	2.509E+00	4.069E+00	3.539E-01	0.047
		487.03		5.638E-02	1.576E-01	2.596E-01	2.332E-02	0.217
		751.79		-1.745E+00	2.038E+00	3.102E+00	2.957E-01	-0.563
		815.85		2.146E-01	3.657E-01	6.335E-01	6.217E-02	0.339
		867.82		-8.508E-01	1.624E+00	2.335E+00	2.202E-01	-0.364
		919.63		-5.911E-01	3.143E+00	5.022E+00	5.519E-01	-0.118
		925.24		5.337E-01	1.363E+00	2.306E+00	2.203E-01	0.231
		1596.49	*	-4.602E-02	1.052E-01	1.609E-01	1.388E-02	-0.286
CE-141		145.44	*	1.097E-01	7.525E-02	1.195E-01	1.039E-02	0.918
CE-143		57.37		3.711E-04	7.525E-02	Half-Life too short		
		231.56		2.788E-03	7.525E-02	Half-Life too short		
		293.26	*	1.414E-03	7.525E-02	Half-Life too short		
		350.59		1.030E-01	7.525E-02	Half-Life too short		
		490.36		2.402E-03	7.525E-02	Half-Life too short		
		664.57		-2.328E-03	7.525E-02	Half-Life too short		
		721.93		-9.012E-04	7.525E-02	Half-Life too short		
CE-144		80.11		-4.982E-01	2.441E+00	3.465E+00	3.021E-01	-0.144

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		133.54	*	-1.230E-01	2.121E-01	3.251E-01	5.060E-02	-0.378
PM-144		476.78		-3.252E-02	6.978E-02	1.077E-01	9.954E-03	-0.302
		618.01		1.854E-02	3.431E-02	5.663E-02	4.877E-03	0.327
		696.49	*	1.307E-02	3.234E-02	5.546E-02	4.641E-03	0.236
		778.57		1.802E+00	2.280E+00	4.008E+00	3.494E-01	0.450
PR-144		696.49	*	8.870E-01	2.195E+00	3.764E+00	3.148E-01	0.236
		1489.15		-3.148E+00	1.056E+01	1.650E+01	1.428E+00	-0.191
PM-146		453.90	*	2.639E-02	4.651E-02	7.766E-02	8.158E-03	0.340
		633.02		-3.809E-01	1.280E+00	2.068E+00	7.714E-01	-0.184
		735.90		7.754E-02	1.493E-01	2.552E-01	7.293E-02	0.304
		747.13		-2.687E-02	8.905E-02	1.430E-01	2.006E-02	-0.188
ND-147	+	91.11		5.285E-01	3.691E-01	7.656E-01	7.568E-02	0.690
		319.41		1.290E+00	4.207E+00	7.007E+00	6.287E-01	0.184
		439.89		1.705E+00	7.165E+00	1.174E+01	9.738E-01	0.145
		531.02	*	-3.468E-01	6.458E-01	1.042E+00	1.550E-01	-0.333
PM-149		285.90	*	-1.779E-04	6.458E-01	Half-Life too short		
EU-152		121.78		4.242E-02	7.509E-02	1.219E-01	1.228E-02	0.348
		244.69		5.197E-01	3.762E-01	5.913E-01	5.383E-02	0.879
		344.27	*	3.443E-02	1.063E-01	1.562E-01	1.444E-02	0.220
		443.98		-4.357E-02	9.532E-01	1.530E+00	1.271E-01	-0.028
		778.89		7.616E-02	2.705E-01	4.565E-01	3.979E-02	0.167
		867.32		-6.983E-01	8.702E-01	1.142E+00	1.026E-01	-0.612
		964.01		2.998E-01	3.820E-01	5.820E-01	5.221E-02	0.515
		1085.78		-2.576E-01	3.600E-01	5.260E-01	4.509E-02	-0.490
		1112.02		-3.647E-01	3.515E-01	4.581E-01	3.869E-02	-0.796
		1407.95		1.915E-02	1.906E-01	3.201E-01	2.757E-02	0.060
GD-153		69.67		1.460E+00	1.876E+00	2.953E+00	2.368E-01	0.494
		83.37		5.249E+00	1.827E+01	2.626E+01	2.365E+00	0.200
		97.43	*	6.684E-02	9.399E-02	1.374E-01	1.220E-02	0.486
		103.18		-2.510E-02	1.086E-01	1.717E-01	1.497E-02	-0.146
EU-154		123.07		1.634E-02	5.429E-02	8.714E-02	1.001E-02	0.188
		247.94		-1.746E-01	3.675E-01	5.467E-01	6.478E-02	-0.319
		591.81		-5.762E-01	6.054E-01	9.322E-01	1.075E-01	-0.618
		723.30		-1.839E-02	1.924E-01	2.733E-01	2.572E-02	-0.067
		756.87		1.114E+00	7.870E-01	1.431E+00	1.714E-01	0.779
		873.19		1.274E-01	2.936E-01	5.005E-01	6.264E-02	0.254
		996.32		-5.605E-01	4.165E-01	5.620E-01	1.006E-01	-0.997
		1004.76		-2.190E-01	2.396E-01	3.511E-01	4.153E-02	-0.624
		1274.45	*	4.879E-02	1.083E-01	1.898E-01	2.113E-02	0.257
EU-155		48.70		-1.504E+00	2.846E+00	4.537E+00	3.883E-01	-0.331
		60.01		5.435E+00	6.113E+00	9.221E+00	6.970E-01	0.589
		86.54		2.349E-01	1.075E-01	1.810E-01	1.701E-02	1.298
		105.31	*	5.144E-02	1.104E-01	1.793E-01	1.577E-02	0.287
TB-160		86.79		6.523E-01	2.944E-01	4.959E-01	4.631E-02	1.315
		197.04		8.243E-02	5.727E-01	9.643E-01	8.478E-02	0.085
		215.65		8.060E-01	7.928E-01	1.288E+00	1.152E-01	0.626
		298.57		1.431E-01	1.790E-01	2.046E-01	1.860E-02	0.700
		879.36	*	5.600E-03	1.428E-01	2.345E-01	2.114E-02	0.024
		962.29		3.257E-01	6.621E-01	1.025E+00	9.199E-02	0.318

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		966.15		5.145E-01	2.979E-01	4.840E-01	4.340E-02	1.063
		1177.93		6.783E-02	4.038E-01	6.869E-01	5.570E-02	0.099
		1271.85		1.886E-01	7.047E-01	1.209E+00	1.014E-01	0.156
HO-166M		80.57		-9.310E-02	3.145E-01	4.444E-01	3.892E-02	-0.210
		184.41		1.274E-01	4.223E-02	6.883E-02	5.973E-03	1.851
		280.46		-7.847E-02	8.927E-02	1.402E-01	1.282E-02	-0.560
		410.95		4.255E-01	2.643E-01	4.656E-01	3.798E-02	0.914
		711.68	*	-1.457E-02	6.256E-02	1.017E-01	8.584E-03	-0.143
		752.31		-1.580E-01	2.799E-01	4.393E-01	3.784E-02	-0.360
		810.29		-2.335E-02	6.283E-02	9.986E-02	8.812E-03	-0.234
TM-171		51.35		2.448E+01	3.455E+01	5.791E+01	4.819E+00	0.423
		52.39		2.105E+00	1.784E+01	2.921E+01	2.398E+00	0.072
		59.40		3.336E+01	3.258E+01	4.948E+01	3.729E+00	0.674
		66.72	*	-3.028E+01	3.414E+01	4.703E+01	3.704E+00	-0.644
LU-176		88.36		5.253E-01	2.110E-01	3.555E-01	3.354E-02	1.477
		201.83		-7.591E-03	2.815E-02	4.655E-02	4.112E-03	-0.163
		306.84	*	1.475E-02	2.685E-02	4.034E-02	3.651E-03	0.366
		401.10		-1.286E+00	6.690E+00	1.069E+01	8.659E-01	-0.120
LU-177		112.95		1.257E+00	2.436E+00	3.898E+00	3.380E-01	0.323
		208.36	*	2.604E+00	1.666E+00	2.631E+00	2.338E-01	0.990
LU-177M		52.97		5.657E-01	1.824E+00	3.009E+00	2.451E-01	0.188
		54.07		-3.333E-01	9.591E-01	1.538E+00	1.234E-01	-0.217
		61.30		4.635E-01	1.890E+00	2.767E+00	2.111E-01	0.167
		121.62		4.536E-02	3.947E-01	6.292E-01	5.527E-02	0.072
		147.16		9.867E-03	7.206E-01	1.078E+00	9.201E-02	0.009
		171.86		2.349E-01	4.668E-01	8.008E-01	6.858E-02	0.293
		218.09		-1.117E-01	8.680E-01	1.439E+00	1.289E-01	-0.078
		268.79		1.458E+00	9.092E-01	1.445E+00	1.322E-01	1.009
		319.02		7.112E-02	2.741E-01	4.555E-01	4.087E-02	0.156
		367.43		-1.118E+00	9.258E-01	1.374E+00	1.160E-01	-0.814
		413.65	*	-1.158E-01	1.936E-01	3.004E-01	2.454E-02	-0.386
HF-181		56.28		-7.269E-01	1.104E+00	1.745E+00	1.361E-01	-0.416
		57.53		1.963E-01	6.214E-01	9.753E-01	7.495E-02	0.201
		65.20		1.472E-01	1.201E+00	1.744E+00	1.362E-01	0.084
		133.02		-1.534E-02	7.067E-02	1.106E-01	9.538E-03	-0.139
		136.25		-1.218E-02	4.583E-01	7.773E-01	6.679E-02	-0.016
		345.85		-9.301E-02	2.268E-01	3.122E-01	2.723E-02	-0.298
		482.03	*	1.898E-02	4.335E-02	7.191E-02	6.059E-03	0.264
W-181		56.28		-2.759E-01	4.194E-01	6.629E-01	5.170E-02	-0.416
		57.53		7.395E-02	2.362E-01	3.706E-01	2.848E-02	0.200
		65.20	*	5.549E-02	4.530E-01	6.577E-01	5.135E-02	0.084
TA-182		67.75		-1.603E-01	1.400E-01	1.902E-01	1.507E-02	-0.843
		100.10		-7.472E-02	1.919E-01	3.015E-01	2.651E-02	-0.248
		152.43		3.820E-01	3.378E-01	5.913E-01	5.038E-02	0.646
		222.10		2.441E-01	3.457E-01	5.925E-01	5.324E-02	0.412
		1001.68		3.654E+00	2.362E+00	4.268E+00	3.790E-01	0.856
	+	1121.28		8.683E-01	2.914E-01	4.036E-01	3.390E-02	2.151
		1189.05		-1.808E-01	3.164E-01	5.026E-01	4.093E-02	-0.360
		1221.42	*	-9.466E-02	1.929E-01	3.081E-01	2.539E-02	-0.307

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1230.97		-9.345E-02	4.892E-01	8.052E-01	6.659E-02	-0.116
RE-183		57.98		2.352E-01	2.531E-01	3.837E-01	2.934E-02	0.613
		59.32		1.359E-01	1.374E-01	2.084E-01	1.572E-02	0.652
		67.20		-1.351E-01	2.462E-01	3.455E-01	2.729E-02	-0.391
		162.32	*	8.826E-04	1.116E-01	1.883E-01	1.603E-02	0.005
	+	208.81		2.304E+00	1.616E+00	1.837E+00	1.633E-01	1.254
		291.72		-1.152E+00	1.083E+00	1.427E+00	1.301E-01	-0.807
RE-184		57.98		8.523E-01	9.175E-01	1.391E+00	1.063E-01	0.613
		59.32		4.920E-01	4.974E-01	7.546E-01	5.692E-02	0.652
		67.20		-4.893E-01	8.921E-01	1.252E+00	9.888E-02	-0.391
		161.27		-2.061E-01	3.540E-01	5.836E-01	4.969E-02	-0.353
		216.55		1.559E-01	2.620E-01	4.475E-01	4.004E-02	0.348
		252.85	*	-3.111E-02	2.265E-01	3.726E-01	3.401E-02	-0.083
		318.01		8.176E-02	4.699E-01	7.775E-01	6.982E-02	0.105
		792.07		-1.421E-01	1.071E+00	1.500E+00	1.314E-01	-0.095
		903.28		-4.205E-01	1.046E+00	1.588E+00	1.438E-01	-0.265
		920.93		1.138E-01	4.239E-01	7.113E-01	6.429E-02	0.160
OS-185		59.72		3.762E-01	3.682E-01	5.588E-01	4.215E-02	0.673
		61.14		6.043E-03	2.089E-01	3.028E-01	2.307E-02	0.020
		69.30		2.879E-01	3.390E-01	5.351E-01	4.282E-02	0.538
		592.07		-1.938E+00	2.490E+00	3.908E+00	3.296E-01	-0.496
		646.12	*	1.480E-03	4.311E-02	7.206E-02	5.954E-03	0.021
		717.42		-1.124E-01	9.888E-01	1.624E+00	1.374E-01	-0.069
		874.81		-8.090E-02	6.138E-01	9.914E-01	8.929E-02	-0.082
		880.27		1.172E-01	7.919E-01	1.314E+00	1.185E-01	0.089
RE-188		155.03	*	-9.010E-02	1.775E-01	2.942E-01	2.506E-02	-0.306
		477.96		-2.070E+00	3.286E+00	5.002E+00	4.210E-01	-0.414
		633.10		-6.602E-01	2.634E+00	4.302E+00	3.576E-01	-0.153
W-188	+	63.58		2.178E+02	9.728E+01	1.144E+02	8.847E+00	1.904
		227.08		-5.180E+00	1.290E+01	2.107E+01	1.900E+00	-0.246
		290.67	*	-1.720E+00	8.233E+00	1.169E+01	1.066E+00	-0.147
IR-192	+	295.96		1.033E+00	2.003E-01	2.925E-01	2.680E-02	3.532
		308.46		1.676E-02	9.880E-02	1.584E-01	1.439E-02	0.106
		316.51	*	-9.207E-03	3.760E-02	6.079E-02	5.477E-03	-0.151
		468.07		9.468E-03	7.814E-02	1.109E-01	1.001E-02	0.085
		604.41		1.601E-01	5.009E-01	7.534E-01	9.702E-02	0.212
		612.46		1.609E+00	8.954E-01	1.489E+00	1.443E-01	1.081
AU-195		65.12		6.379E-02	2.100E-01	3.074E-01	2.399E-02	0.208
		66.83		-1.225E-01	1.154E-01	1.575E-01	1.241E-02	-0.778
	+	75.70		1.331E+00	3.009E-01	4.731E-01	3.967E-02	2.813
		98.88	*	4.721E-01	2.523E-01	4.064E-01	3.589E-02	1.162
		129.76		2.664E+00	3.071E+00	5.019E+00	4.347E-01	0.531
TL-200		367.94	*	-3.029E-03	3.071E+00	Half-Life too short		
		579.30		-8.278E-03	3.071E+00	Half-Life too short		
		828.27		-8.188E-04	3.071E+00	Half-Life too short		
		1205.75		-7.955E-03	3.071E+00	Half-Life too short		
TL-201		68.90		4.352E+00	9.822E+00	1.600E+01	1.277E+00	0.272
		70.82		2.374E+00	6.175E+00	9.015E+00	7.287E-01	0.263
		80.30		-4.278E+00	1.110E+01	1.562E+01	1.364E+00	-0.274

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		135.34		1.100E+01	4.878E+01	7.784E+01	6.695E+00	0.141
		167.43	*	-1.413E+00	1.304E+01	2.189E+01	1.866E+00	-0.065
TL-202		68.90		2.405E-01	5.429E-01	8.843E-01	7.058E-02	0.272
		70.82		1.308E-01	3.403E-01	4.969E-01	4.016E-02	0.263
		80.30		-2.359E-01	6.122E-01	8.612E-01	7.523E-02	-0.274
		439.56	*	1.479E-02	8.325E-02	1.359E-01	1.126E-02	0.109
HG-203		70.83		4.989E-01	1.310E+00	1.911E+00	2.537E-01	0.261
		72.87		4.223E-01	7.627E-01	1.121E+00	1.450E-01	0.377
		82.60		-2.594E-01	1.385E+00	1.965E+00	2.740E-01	-0.132
		279.20	*	1.975E-03	4.441E-02	7.340E-02	6.882E-03	0.027
BI-207		72.80		6.393E-02	2.128E-01	3.101E-01	2.542E-02	0.206
	+	74.97		7.304E-01	1.651E-01	2.362E-01	1.969E-02	3.092
		84.90		1.292E-01	2.307E-01	3.350E-01	3.065E-02	0.386
		569.67		-4.321E-04	3.017E-02	5.061E-02	4.287E-03	-0.009
		1063.62	*	-2.526E-03	5.084E-02	8.164E-02	7.077E-03	-0.031
		1770.23		-3.106E+00	8.936E-01	6.499E-01	5.442E-02	-4.779
TL-207		81.07		-2.733E-01	2.609E-01	3.544E-01	3.119E-02	-0.771
		83.78		9.144E-02	1.515E-01	2.205E-01	1.994E-02	0.415
		94.90		7.337E-01	2.961E-01	4.567E-01	4.107E-02	1.606
		122.32		2.299E+00	1.775E+00	2.956E+00	2.781E-01	0.778
	+	144.24		2.302E-01	1.107E+00	1.220E+00	1.168E-01	0.189
		154.21		-6.639E-02	3.946E-01	6.628E-01	6.221E-02	-0.100
	+	269.46		6.222E-01	2.956E-01	3.498E-01	3.260E-02	1.779
		323.87	*	-6.363E-01	8.023E-01	1.067E+00	1.906E-01	-0.596
	+	338.28		7.884E+00	1.918E+00	2.558E+00	3.183E-01	3.082
		445.03		3.356E-01	2.275E+00	3.704E+00	4.397E-01	0.091
PO-209		260.50		-7.392E+00	9.861E+00	1.567E+01	1.433E+00	-0.472
		262.80		1.907E+01	2.719E+01	4.642E+01	4.245E+00	0.411
		896.60	*	1.532E+00	7.040E+00	1.176E+01	1.065E+00	0.130
BI-210		46.50	*	2.585E+00	4.280E+00	7.031E+00	6.637E-01	0.368
PB-210		46.50	*	2.585E+00	4.280E+00	7.031E+00	6.637E-01	0.368
PO-210		46.50	*	2.585E+00	4.279E+00	7.031E+00	6.027E-01	0.368
PB-211		404.84	*	8.382E-02	9.323E-01	1.516E+00	9.490E-01	0.055
		427.08		2.910E-01	2.179E+00	3.538E+00	2.196E+00	0.082
		831.96		4.725E-01	1.240E+00	2.047E+00	1.284E+00	0.231
BI-212	+	727.18	*	9.015E-01	4.404E-01	6.412E-01	6.354E-02	1.406
		785.46		1.582E+00	1.820E+00	3.201E+00	2.798E-01	0.494
		1620.62		1.478E+00	1.300E+00	2.486E+00	2.140E-01	0.595
PO-215		81.07		-2.733E-01	2.609E-01	3.544E-01	3.119E-02	-0.771
		83.78		9.144E-02	1.515E-01	2.205E-01	1.994E-02	0.415
		94.90		7.337E-01	2.961E-01	4.567E-01	4.107E-02	1.606
		122.32		2.299E+00	1.775E+00	2.956E+00	2.781E-01	0.778
	+	144.24		2.302E-01	1.107E+00	1.220E+00	1.168E-01	0.189
		154.21		-6.639E-02	3.946E-01	6.628E-01	6.221E-02	-0.100
	+	269.46		6.222E-01	2.956E-01	3.498E-01	3.260E-02	1.779
		323.87	*	-6.363E-01	8.023E-01	1.067E+00	1.906E-01	-0.596
	+	338.28		7.884E+00	1.918E+00	2.558E+00	3.183E-01	3.082
		445.03		3.356E-01	2.275E+00	3.704E+00	4.397E-01	0.091
RN-219	+	271.23		7.983E-01	3.817E-01	4.698E-01	5.055E-02	1.699

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		401.81	*	-7.509E-03	4.076E-01	6.591E-01	9.713E-02	-0.011
RN-220		549.76	*	1.575E+01	2.462E+01	4.331E+01	3.676E+00	0.364
RA-223		81.07		-2.733E-01	2.609E-01	3.544E-01	3.119E-02	-0.771
		83.78		9.144E-02	1.515E-01	2.205E-01	1.994E-02	0.415
		94.90		7.337E-01	2.961E-01	4.567E-01	4.107E-02	1.606
		122.32		2.299E+00	1.775E+00	2.956E+00	2.781E-01	0.778
	+	144.24		2.302E-01	1.107E+00	1.220E+00	1.168E-01	0.189
		154.21		-6.639E-02	3.946E-01	6.628E-01	6.221E-02	-0.100
	+	269.46		6.222E-01	2.956E-01	3.498E-01	3.260E-02	1.779
		323.87	*	-6.363E-01	8.023E-01	1.067E+00	1.906E-01	-0.596
	+	338.28		7.884E+00	1.918E+00	2.558E+00	3.183E-01	3.082
		445.03		3.356E-01	2.275E+00	3.704E+00	4.397E-01	0.091
AC-227		79.80		-2.016E-01	1.884E+00	2.688E+00	5.787E-01	-0.075
		236.00		1.176E-01	2.330E-01	3.509E-01	4.408E-02	0.335
		256.20	*	1.489E-02	3.793E-01	6.292E-01	9.843E-02	0.024
		286.10		-7.331E-01	1.539E+00	2.465E+00	3.339E-01	-0.297
	+	299.80		2.914E+00	2.612E+00	2.637E+00	4.674E-01	1.105
		304.40		-4.981E-01	2.047E+00	2.886E+00	5.382E-01	-0.173
		334.20		1.932E-01	2.885E+00	3.867E+00	7.546E-01	0.050
TH-227		79.80		-2.016E-01	1.884E+00	2.688E+00	5.861E-01	-0.075
	+	94.00		2.516E+01	6.493E+00	5.058E+00	1.110E+00	4.975
		236.00		1.176E-01	2.330E-01	3.509E-01	4.009E-02	0.335
		256.20	*	1.489E-02	3.793E-01	6.292E-01	1.152E-01	0.024
		286.10		-7.331E-01	1.703E+00	2.465E+00	2.476E+00	-0.297
	+	299.80		2.914E+00	2.612E+00	2.637E+00	4.674E-01	1.105
		304.40		-4.981E-01	2.047E+00	2.886E+00	5.382E-01	-0.173
		334.20		1.932E-01	2.885E+00	3.867E+00	7.546E-01	0.050
TH-229		85.43		1.693E-01	2.303E-01	3.363E-01	3.095E-02	0.503
	+	88.47		1.752E-01	1.222E-01	2.055E-01	1.936E-02	0.853
		100.00		7.800E-02	1.912E-01	3.103E-01	2.729E-02	0.251
		193.63	*	3.205E-02	5.049E-01	8.482E-01	7.431E-02	0.038
	+	210.97		1.754E+00	1.230E+00	1.390E+00	1.238E-01	1.261
PA-231		283.67	*	2.826E-01	1.553E+00	2.582E+00	3.998E-01	0.109
	+	301.29		1.165E+00	1.035E+00	1.071E+00	1.346E-01	1.088
TH-231		81.07		-2.733E-01	2.609E-01	3.544E-01	3.119E-02	-0.771
		83.78		9.144E-02	1.515E-01	2.205E-01	1.994E-02	0.415
		94.90		7.337E-01	2.961E-01	4.567E-01	4.107E-02	1.606
		122.32		2.299E+00	1.775E+00	2.956E+00	2.781E-01	0.778
	+	144.24		2.302E-01	1.107E+00	1.220E+00	1.168E-01	0.189
		154.21		-6.639E-02	3.946E-01	6.628E-01	6.221E-02	-0.100
	+	269.46		6.222E-01	2.956E-01	3.498E-01	3.260E-02	1.779
		323.87	*	-6.363E-01	8.023E-01	1.067E+00	1.906E-01	-0.596
	+	338.28		7.884E+00	1.918E+00	2.558E+00	3.183E-01	3.082
		445.03		3.356E-01	2.275E+00	3.704E+00	4.397E-01	0.091
U-231		84.21		5.048E+00	1.043E+01	1.511E+01	1.373E+00	0.334
	+	92.29		3.975E+01	6.482E+00	8.788E+00	8.030E-01	4.524
		95.87	*	-1.016E+00	2.085E+00	2.893E+00	2.588E-01	-0.351
		108.00		-1.890E+00	3.469E+00	5.396E+00	4.678E-01	-0.350
PA-233	+	75.28		2.131E+01	5.526E+00	7.137E+00	1.085E+00	2.986

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		86.59		3.822E+00	1.997E+00	2.939E+00	7.949E-01	1.300
	+	300.12		8.123E-01	7.245E-01	7.387E-01	1.119E-01	1.100
		311.98	*	5.258E-02	6.405E-02	1.096E-01	1.015E-02	0.480
		340.50		2.297E+00	9.567E-01	1.330E+00	3.178E-01	1.727
		398.62		3.950E-01	2.072E+00	3.397E+00	8.988E-01	0.116
		415.76		-2.865E+00	1.992E+00	2.580E+00	5.515E-01	-1.111
PA-234	+	63.00		6.139E+00	2.854E+00	3.334E+00	5.005E-01	1.841
		94.67		1.026E+00	2.454E-01	3.571E-01	4.525E-02	2.873
		98.44		1.970E-01	1.528E-01	1.643E-01	9.173E-02	1.199
		99.86		2.040E-01	4.954E-01	7.944E-01	6.991E-02	0.257
		111.00		2.346E-01	2.046E-01	3.370E-01	4.084E-02	0.696
		131.20		-3.064E-02	1.117E-01	1.745E-01	1.509E-02	-0.176
		152.70		4.589E-01	3.302E-01	5.696E-01	9.680E-02	0.806
	+	186.00		6.660E+00	2.797E+00	2.827E+00	8.830E-01	2.356
		226.40		-8.618E-02	3.925E-01	6.467E-01	8.706E-02	-0.133
		227.20		-1.747E-01	4.233E-01	6.910E-01	6.231E-02	-0.253
		248.90		-4.155E-02	7.986E-01	1.276E+00	2.885E-01	-0.033
		293.70		3.858E+00	1.058E+00	1.497E+00	2.626E-01	2.578
		369.80		4.943E-01	8.593E-01	1.439E+00	3.121E-01	0.344
		568.70		-2.972E-01	9.845E-01	1.617E+00	1.370E-01	-0.184
		569.50		-1.093E-02	2.671E-01	4.472E-01	3.789E-02	-0.024
		574.00		6.192E-01	1.479E+00	2.555E+00	2.163E-01	0.242
		699.00		1.846E-01	6.996E-01	1.184E+00	2.246E-01	0.156
		706.10		1.500E-01	1.036E+00	1.734E+00	7.727E-01	0.086
		733.00		-6.912E-02	4.336E-01	6.098E-01	1.351E-01	-0.113
		742.81		4.348E-01	1.435E+00	2.383E+00	1.602E+00	0.182
	+	796.30		1.662E+00	1.289E+00	1.790E+00	4.851E-01	0.929
		805.60		1.008E+00	1.114E+00	1.897E+00	5.824E-01	0.532
		819.60		4.704E-01	1.194E+00	2.015E+00	7.673E-01	0.233
		826.30		-5.549E-01	8.218E-01	1.193E+00	5.342E-01	-0.465
		831.60		1.009E-01	6.214E-01	1.034E+00	3.094E-01	0.098
		876.40		3.755E-01	9.252E-01	1.435E+00	1.476E+00	0.262
		880.51		3.260E-02	2.767E-01	4.579E-01	4.130E-02	0.071
		883.24		-1.612E-01	2.959E-01	4.218E-01	2.837E-01	-0.382
		899.00		-2.073E-01	8.167E-01	1.290E+00	5.652E-01	-0.161
		925.00		4.752E-01	1.214E+00	2.054E+00	1.855E-01	0.231
		926.50		1.247E-01	1.796E-01	3.083E-01	7.836E-02	0.405
		946.00	*	-2.449E-01	3.157E-01	4.670E-01	8.846E-02	-0.524
		949.00		3.369E-01	4.431E-01	7.745E-01	6.969E-02	0.435
		980.50		-9.270E-02	7.615E-01	1.221E+00	1.091E-01	-0.076
		1394.10		-1.914E-01	9.625E-01	1.530E+00	9.957E-01	-0.125
PA-234M		766.42		1.984E+01	1.568E+01	2.217E+01	1.125E+01	0.895
		1001.03	*	6.043E+00	5.365E+00	9.404E+00	9.586E-01	0.643
NP-236		94.67		7.832E-01	1.730E-01	2.713E-01	2.442E-02	2.887
		98.44		1.489E-01	8.129E-02	1.242E-01	1.099E-02	1.198
		111.00		1.775E-01	1.541E-01	2.549E-01	2.209E-02	0.696
		160.31	*	-7.680E-02	8.041E-02	1.305E-01	1.111E-02	-0.589
NP-237		86.50	*	5.779E-01	2.881E-01	4.417E-01	9.998E-02	1.309
		95.87		-5.605E-01	1.157E+00	1.596E+00	3.949E-01	-0.351

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.636E-01	1.653E-01	2.703E-01	2.381E-02	0.605
		117.00	*	4.659E-02	1.905E-01	3.058E-01	2.663E-02	0.152
	+	209.75		1.767E+00	1.239E+00	1.408E+00	1.253E-01	1.254
		228.18		-8.213E-02	2.237E-01	3.659E-01	3.302E-02	-0.224
		277.60		1.054E-01	1.846E-01	3.125E-01	2.858E-02	0.337
		334.30		7.273E-02	1.633E+00	2.185E+00	1.932E-01	0.033
AM-241		59.54	*	1.803E-01	1.900E-01	2.874E-01	2.369E-02	0.627
CM-243		99.55		1.683E-01	1.701E-01	2.782E-01	2.450E-02	0.605
		103.76	*	9.288E-02	9.687E-02	1.603E-01	1.397E-02	0.579
		117.00		4.794E-02	1.960E-01	3.147E-01	2.741E-02	0.152
	+	209.75		1.742E+00	1.222E+00	1.389E+00	1.236E-01	1.254
		228.18		-8.300E-02	2.261E-01	3.698E-01	3.337E-02	-0.224
		277.60		1.063E-01	1.861E-01	3.151E-01	2.882E-02	0.337
AM-246		798.80		-5.254E-02	1.545E-01	2.100E-01	1.845E-02	-0.250
		1036.00		-1.912E-02	2.974E-01	4.777E-01	4.191E-02	-0.040
		1062.04		-2.201E-01	2.334E-01	3.353E-01	2.908E-02	-0.656
		1078.86	*	1.186E-01	1.439E-01	2.517E-01	2.166E-02	0.471
CM-247		278.00		4.388E-01	7.721E-01	1.307E+00	1.195E-01	0.336
		287.40		7.346E-01	1.222E+00	2.074E+00	1.894E-01	0.354
		402.60	*	-7.191E-03	3.682E-02	5.880E-02	4.768E-03	-0.122
CF-249		252.85		-1.154E-01	8.401E-01	1.382E+00	1.261E-01	-0.083
		333.44		2.037E-01	2.562E-01	2.939E-01	2.602E-02	0.693
		387.95	*	-7.969E-03	4.266E-02	6.839E-02	5.548E-03	-0.117
CF-251		176.60	*	-9.022E-02	1.275E-01	2.082E-01	1.792E-02	-0.433
		227.00		-1.367E-01	3.753E-01	6.140E-01	5.536E-02	-0.223
		285.00		-3.276E-01	1.782E+00	2.907E+00	2.655E-01	-0.113

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020014      *
* Acquisition date : 14-FEB-2010 11:07:43 Detector SN#    :                 *
* Detector ID        : GAM01                Sensitivity     : 5.000        *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:    0 02:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 02:00:01.25       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020014           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.4974E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM            :    0.000             MSD Isotope     :              *
* LCS DPM            :    0.000             LCS Isotope     :              *
* LCSD DPM           :    0.000             LCSD Isotope    :              *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.214E+01	2.494E+00	6.083E-01	0.000E+00
TL-208	4.391E-01	8.777E-02	6.228E-02	0.000E+00
BI-211	3.922E+00	5.563E-01	3.247E-01	0.000E+00
PB-212	1.521E+00	1.863E-01	8.848E-02	0.000E+00
PO-212	1.521E+00	1.863E-01	8.848E-02	0.000E+00
BI-214	9.885E-01	1.832E-01	1.187E-01	0.000E+00
PB-214	1.364E+00	2.057E-01	1.132E-01	0.000E+00
PO-214	1.364E+00	2.057E-01	1.132E-01	0.000E+00
PO-216	1.521E+00	1.863E-01	8.848E-02	0.000E+00
PO-218	1.364E+00	2.057E-01	1.132E-01	0.000E+00
RA-224	4.606E+00	1.292E+00	1.007E+00	0.000E+00
RA-226	9.885E-01	1.832E-01	1.187E-01	0.000E+00
AC-228	1.527E+00	3.257E-01	2.151E-01	0.000E+00
RA-228	1.527E+00	3.257E-01	2.151E-01	0.000E+00
TH-228	1.548E+00	1.896E-01	9.007E-02	0.000E+00
TH-230	9.884E-01	1.832E-01	1.187E-01	0.000E+00
TH-232	1.527E+00	3.257E-01	2.151E-01	0.000E+00
TH-234	5.266E+00	2.445E+00	2.456E+00	0.000E+00
U-234	9.884E-01	1.832E-01	1.187E-01	0.000E+00
U-235	7.103E-02	3.350E-01	3.594E-01	0.000E+00
U-238	5.266E+00	2.445E+00	2.456E+00	0.000E+00
AM-243	4.069E-01	9.014E-02	9.984E-02	0.000E+00
ANH-511	8.126E-02	6.819E-02	5.136E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.104E-01	3.413E-01	5.502E-01	0.000E+00	NOT IDENT.
NA-22	1.354E-02	3.859E-02	6.894E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.562E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.701E-03	2.234E-02	3.836E-02	0.000E+00	NOT IDENT.

TI-44	0.000E+00	5.949E-02	8.450E-02	0.000E+00	FAIL ABUN
SC-46	1.475E-02	3.713E-02	6.567E-02	0.000E+00	FAIL ABUN
V-48	1.982E-02	8.740E-02	1.441E-01	0.000E+00	NOT IDENT.
CR-51	2.863E-01	4.113E-01	7.441E-01	0.000E+00	NOT IDENT.
MN-52	7.202E-02	3.338E-01	5.844E-01	0.000E+00	NOT IDENT.
MN-54	1.005E-03	3.977E-02	6.817E-02	0.000E+00	NOT IDENT.
CO-56	-7.889E-03	3.718E-02	6.215E-02	0.000E+00	NOT IDENT.
CO-57	1.926E-02	2.572E-02	4.584E-02	0.000E+00	NOT IDENT.
CO-58	-1.098E-02	4.119E-02	6.895E-02	0.000E+00	NOT IDENT.
FE-59	3.665E-02	1.010E-01	1.742E-01	0.000E+00	FAIL ABUN
CO-60	-1.044E-02	3.889E-02	6.452E-02	0.000E+00	NOT IDENT.
ZN-65	4.434E-03	9.041E-02	1.307E-01	0.000E+00	NOT IDENT.
GE-68	7.639E-01	1.242E+00	2.205E+00	0.000E+00	NOT IDENT.
AS-73	4.117E-01	9.134E-01	1.683E+00	0.000E+00	NOT IDENT.
AS-74	8.653E-02	9.779E-02	1.825E-01	0.000E+00	NOT IDENT.
SE-75	2.057E-02	4.728E-02	7.959E-02	0.000E+00	NOT IDENT.
BR-77	2.829E+01	2.388E+01	4.372E+01	0.000E+00	FAIL ABUN
SR-82	-1.538E-01	4.263E-01	7.115E-01	0.000E+00	NOT IDENT.
RB-83	7.828E-02	7.001E-02	1.277E-01	0.000E+00	NOT IDENT.
RB-84	-1.849E-02	6.905E-02	1.142E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.256E+00	1.469E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.362E-02	7.762E-02	0.000E+00	NOT IDENT.
RB-86	4.838E-01	8.436E-01	1.494E+00	0.000E+00	NOT IDENT.
Y-88	6.163E-03	2.817E-02	4.926E-02	0.000E+00	NOT IDENT.
ZR-88	-2.403E-02	3.273E-02	5.357E-02	0.000E+00	NOT IDENT.
Y-91	-4.237E+00	1.929E+01	3.274E+01	0.000E+00	NOT IDENT.
NB-94	7.182E-03	3.287E-02	5.802E-02	0.000E+00	NOT IDENT.
NB-95	2.699E-02	4.635E-02	8.314E-02	0.000E+00	NOT IDENT.
NB-95M	-1.264E-02	1.267E-01	1.976E-01	0.000E+00	NOT IDENT.
ZR-95	1.428E-01	7.369E-02	1.442E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.684E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.407E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.526E+01	2.424E+01	3.950E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.046E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.303E-02	3.246E-02	5.918E-02	0.000E+00	NOT IDENT.
RH-102	5.098E-03	2.957E-02	5.077E-02	0.000E+00	NOT IDENT.
RU-103	-7.386E-03	4.246E-02	7.068E-02	0.000E+00	FAIL ABUN
RH-106	-4.609E-02	3.117E-01	5.405E-01	0.000E+00	FAIL ABUN
RU-106	-4.609E-02	3.117E-01	5.405E-01	0.000E+00	FAIL ABUN
AG-108M	-6.131E-03	3.280E-02	5.525E-02	0.000E+00	NOT IDENT.
CD-109	0.000E+00	8.909E-01	1.650E+00	0.000E+00	NOT IDENT.
AG-110M	-3.864E-02	3.754E-02	6.037E-02	0.000E+00	NOT IDENT.
IN-111	1.165E+00	2.217E+00	3.589E+00	0.000E+00	NOT IDENT.
IN-113M	1.564E-02	4.631E-02	8.138E-02	0.000E+00	NOT IDENT.
SN-113	1.564E-02	4.631E-02	8.138E-02	0.000E+00	NOT IDENT.
IN-114M	-1.586E-01	2.070E-01	3.154E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.435E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	6.132E-02	6.155E-02	1.163E-01	0.000E+00	NOT IDENT.
SB-122	4.946E+00	4.275E+00	8.093E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.043E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.311E-02	2.785E-02	5.181E-02	0.000E+00	NOT IDENT.
I-124	-3.560E-01	1.123E+00	1.744E+00	0.000E+00	NOT IDENT.
SB-124	1.765E-02	7.279E-02	1.276E-01	0.000E+00	FAIL ABUN
SB-125	-7.924E-03	9.569E-02	1.627E-01	0.000E+00	FAIL ABUN
TE-125M	2.787E+00	1.020E+01	1.795E+01	0.000E+00	NOT IDENT.
I-126	-4.951E-02	2.157E-01	3.697E-01	0.000E+00	NOT IDENT.
SB-126	-7.113E-02	1.905E-01	2.883E-01	0.000E+00	FAIL ABUN
SN-126	0.000E+00	8.699E-02	1.610E-01	0.000E+00	FAIL ABUN
SB-127	-1.004E+00	2.156E+00	3.599E+00	0.000E+00	NOT IDENT.
XE-127	-2.955E-03	4.733E-02	8.514E-02	0.000E+00	FAIL ABUN
I-131	4.672E-03	1.479E-01	2.565E-01	0.000E+00	NOT IDENT.
TE-132	-4.799E-01	1.229E+00	2.157E+00	0.000E+00	NOT IDENT.
BA-133	-3.227E-03	4.618E-02	6.964E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.470E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.575E-02	6.152E-02	9.390E-02	0.000E+00	FAIL ABUN
CS-135	1.194E-01	1.702E-01	2.765E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.915E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.391E-02	1.256E-01	2.005E-01	0.000E+00	NOT IDENT.
BA-137M	4.266E-02	3.861E-02	7.205E-02	0.000E+00	NOT IDENT.
CS-137	4.510E-02	4.082E-02	7.616E-02	0.000E+00	NOT IDENT.
CE-139	2.618E-02	2.907E-02	5.467E-02	0.000E+00	NOT IDENT.
BA-140	4.441E-01	3.193E-01	5.585E-01	0.000E+00	NOT IDENT.
LA-140	-4.602E-02	1.031E-01	1.616E-01	0.000E+00	FAIL ABUN
CE-141	1.097E-01	7.375E-02	1.273E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.989E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.230E-01	2.079E-01	3.468E-01	0.000E+00	NOT IDENT.
PM-144	1.307E-02	3.170E-02	5.689E-02	0.000E+00	NOT IDENT.
PR-144	8.870E-01	2.151E+00	3.861E+00	0.000E+00	NOT IDENT.

PM-146	2.639E-02	4.558E-02	8.051E-02	0.000E+00	NOT IDENT.
ND-147	-3.468E-01	6.329E-01	1.076E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.246E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	3.443E-02	1.042E-01	1.630E-01	0.000E+00	NOT IDENT.
GD-153	6.684E-02	9.211E-02	1.477E-01	0.000E+00	NOT IDENT.
EU-154	4.879E-02	1.061E-01	1.917E-01	0.000E+00	NOT IDENT.
EU-155	5.144E-02	1.082E-01	1.923E-01	0.000E+00	NOT IDENT.
TB-160	5.600E-03	1.399E-01	2.391E-01	0.000E+00	NOT IDENT.
HO-166M	-1.457E-02	6.131E-02	1.043E-01	0.000E+00	NOT IDENT.
TM-171	-3.028E+01	3.346E+01	5.097E+01	0.000E+00	NOT IDENT.
LU-176	1.475E-02	2.631E-02	4.221E-02	0.000E+00	NOT IDENT.
LU-177	2.604E+00	1.633E+00	2.779E+00	0.000E+00	NOT IDENT.
LU-177M	-1.158E-01	1.898E-01	3.121E-01	0.000E+00	NOT IDENT.
HF-181	1.898E-02	4.249E-02	7.443E-02	0.000E+00	NOT IDENT.
W-181	5.549E-02	4.439E-01	7.132E-01	0.000E+00	NOT IDENT.
TA-182	-9.466E-02	1.890E-01	3.116E-01	0.000E+00	FAIL ABUN
RE-183	8.826E-04	1.094E-01	2.000E-01	0.000E+00	FAIL ABUN
RE-184	-3.111E-02	2.220E-01	3.917E-01	0.000E+00	NOT IDENT.
OS-185	1.480E-03	4.224E-02	7.406E-02	0.000E+00	NOT IDENT.
RE-188	-9.010E-02	1.739E-01	3.129E-01	0.000E+00	NOT IDENT.
W-188	-1.720E+00	8.068E+00	1.225E+01	0.000E+00	FAIL ABUN
IR-192	-9.207E-03	3.685E-02	6.357E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.473E-01	4.366E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.793E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.413E+00	1.278E+01	2.323E+01	0.000E+00	NOT IDENT.
TL-202	1.479E-02	8.158E-02	1.409E-01	0.000E+00	NOT IDENT.
HG-203	1.975E-03	4.352E-02	7.698E-02	0.000E+00	NOT IDENT.
BI-207	-2.526E-03	4.982E-02	8.286E-02	0.000E+00	FAIL ABUN
TL-207	-6.363E-01	7.862E-01	1.115E+00	0.000E+00	FAIL ABUN
PO-209	1.532E+00	6.900E+00	1.199E+01	0.000E+00	NOT IDENT.
BI-210	2.585E+00	4.195E+00	7.681E+00	0.000E+00	NOT IDENT.
PB-210	2.585E+00	4.195E+00	7.681E+00	0.000E+00	NOT IDENT.
PO-210	2.585E+00	4.193E+00	7.681E+00	0.000E+00	NOT IDENT.
PB-211	8.382E-02	9.137E-01	1.576E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.316E-01	6.570E-01	0.000E+00	FAIL ABUN
PO-215	-6.363E-01	7.862E-01	1.115E+00	0.000E+00	FAIL ABUN
RN-219	-7.509E-03	3.994E-01	6.853E-01	0.000E+00	FAIL ABUN
RN-220	1.575E+01	2.413E+01	4.468E+01	0.000E+00	NOT IDENT.
RA-223	-6.363E-01	7.862E-01	1.115E+00	0.000E+00	FAIL ABUN
AC-227	1.489E-02	3.717E-01	6.612E-01	0.000E+00	FAIL ABUN
TH-227	1.489E-02	3.717E-01	6.612E-01	0.000E+00	FAIL ABUN
TH-229	3.205E-02	4.948E-01	8.972E-01	0.000E+00	FAIL ABUN
PA-231	2.826E-01	1.522E+00	2.707E+00	0.000E+00	FAIL ABUN
TH-231	-6.363E-01	7.862E-01	1.115E+00	0.000E+00	FAIL ABUN
U-231	-1.016E+00	2.043E+00	3.110E+00	0.000E+00	FAIL ABUN
PA-233	5.258E-02	6.277E-02	1.147E-01	0.000E+00	FAIL ABUN
PA-234	-2.449E-01	3.094E-01	4.754E-01	0.000E+00	FAIL ABUN
PA-234M	6.043E+00	5.258E+00	9.559E+00	0.000E+00	NOT IDENT.
NP-236	-7.680E-02	7.880E-02	1.386E-01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	2.823E-01	4.759E-01	0.000E+00	NOT IDENT.
NP-239	4.659E-02	1.867E-01	3.273E-01	0.000E+00	FAIL ABUN
AM-241	1.803E-01	1.862E-01	3.123E-01	0.000E+00	NOT IDENT.
CM-243	9.288E-02	9.493E-02	1.720E-01	0.000E+00	FAIL ABUN
AM-246	1.186E-01	1.411E-01	2.554E-01	0.000E+00	NOT IDENT.
CM-247	-7.191E-03	3.608E-02	6.113E-02	0.000E+00	NOT IDENT.
CF-249	-7.969E-03	4.181E-02	7.117E-02	0.000E+00	NOT IDENT.
CF-251	-9.022E-02	1.250E-01	2.207E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:08:14.03

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020014.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:07:43
Sample ID         : G246020014           Sample quantity  : 1.49740E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.25  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	891	10.67*	9.455E-01	2.214E+01	2.214E+01	11.50
TL-208	277.35	------	6.80	3.885E+00	------	Line Not Found	------
	510.84	78	21.60	2.391E+00	3.762E-01	3.762E-01	86.04
	583.14	316	84.20*	2.142E+00	4.391E-01	4.391E-01	20.40
	860.37	74	12.46	1.522E+00	9.780E-01	9.780E-01	37.94
BI-211	72.87	------	1.27	3.944E+00	------	Line Not Found	------
	351.07	653	12.94*	3.225E+00	3.922E+00	3.922E+00	14.47
PB-212	74.81	446	10.70	4.161E+00	2.510E+00	2.510E+00	24.46
	77.11	589	18.00	4.382E+00	1.871E+00	1.871E+00	17.58
	87.30	------	8.00	5.194E+00	------	Line Not Found	------
	238.63	1176	44.60*	4.346E+00	1.521E+00	1.521E+00	12.50
	300.09	78	3.41	3.649E+00	1.572E+00	1.572E+00	88.56
PO-212	74.81	446	10.70	4.161E+00	2.510E+00	2.510E+00	24.46
	77.11	589	18.00	4.382E+00	1.871E+00	1.871E+00	17.58
	87.30	------	8.00	5.194E+00	------	Line Not Found	------
	115.19	------	0.60	6.043E+00	------	Line Not Found	------
	238.63	1176	44.60*	4.346E+00	1.521E+00	1.521E+00	12.50
	300.09	78	3.41	3.649E+00	1.572E+00	1.572E+00	88.56
BI-214	609.31	377	46.30*	2.064E+00	9.884E-01	9.885E-01	18.91
	1120.29	130	15.10	1.193E+00	1.805E+00	1.805E+00	34.20
	1764.49	77	15.80	8.256E-01	1.472E+00	1.472E+00	27.70
PB-214	74.81	446	6.21	4.161E+00	4.324E+00	4.324E+00	23.79
	77.11	589	10.50	4.382E+00	3.208E+00	3.208E+00	19.16
	87.30	------	4.67	5.194E+00	------	Line Not Found	------
	241.98	312	7.49	4.305E+00	2.429E+00	2.429E+00	29.16
	295.21	374	19.20	3.700E+00	1.319E+00	1.319E+00	20.35
	351.92	653	37.20*	3.225E+00	1.364E+00	1.364E+00	15.39
PO-214	74.81	446	6.21	4.161E+00	4.324E+00	4.324E+00	23.79
	77.11	589	10.50	4.382E+00	3.208E+00	3.208E+00	19.16
	87.30	------	4.67	5.194E+00	------	Line Not Found	------
	241.98	312	7.49	4.305E+00	2.429E+00	2.429E+00	29.16
	295.21	374	19.20	3.700E+00	1.319E+00	1.319E+00	20.35

Sample ID : G246020014 Acquisition date : 14-FEB-2010 11:07:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	653	37.20*	3.225E+00	1.364E+00	1.364E+00	15.39
PO-216	74.81	446	10.70	4.161E+00	2.510E+00	2.510E+00	24.46
	77.11	589	18.00	4.382E+00	1.871E+00	1.871E+00	17.58
	87.30	------	8.00	5.194E+00	------ Line Not Found		------
	238.63	1176	44.60*	4.346E+00	1.521E+00	1.521E+00	12.50
	300.09	78	3.41	3.649E+00	1.572E+00	1.572E+00	88.56
PO-218	74.81	446	6.21	4.161E+00	4.324E+00	4.324E+00	23.79
	77.11	589	10.50	4.382E+00	3.208E+00	3.208E+00	19.16
	87.30	------	4.67	5.194E+00	------ Line Not Found		------
	241.98	312	7.49	4.305E+00	2.429E+00	2.429E+00	29.16
	295.21	374	19.20	3.700E+00	1.319E+00	1.319E+00	20.35
	351.92	653	37.20*	3.225E+00	1.364E+00	1.364E+00	15.39
RA-224	240.98	312	3.95*	4.305E+00	4.606E+00	4.606E+00	28.62
RA-226	609.31	377	46.30*	2.064E+00	9.884E-01	9.885E-01	18.91
	1120.29	130	15.10	1.193E+00	1.805E+00	1.805E+00	34.20
	1764.49	77	15.80	8.256E-01	1.472E+00	1.472E+00	27.70
AC-228	338.32	286	11.40	3.327E+00	1.888E+00	1.888E+00	46.29
	911.07	244	27.70*	1.444E+00	1.527E+00	1.527E+00	21.77
	969.11	111	16.60	1.364E+00	1.226E+00	1.226E+00	51.65
RA-228	338.32	286	11.40	3.327E+00	1.888E+00	1.888E+00	46.29
	911.07	244	27.70*	1.444E+00	1.527E+00	1.527E+00	21.77
	969.11	111	16.60	1.364E+00	1.226E+00	1.226E+00	51.65
TH-228	74.81	446	10.70	4.161E+00	2.510E+00	2.555E+00	22.64
	77.11	589	18.00	4.382E+00	1.871E+00	1.905E+00	17.58
	87.30	------	8.00	5.194E+00	------ Line Not Found		------
	238.63	1176	44.60*	4.346E+00	1.521E+00	1.548E+00	12.50
	300.09	78	3.41	3.649E+00	1.572E+00	1.601E+00	106.06
TH-230	609.31	377	46.30*	2.064E+00	9.884E-01	9.884E-01	18.91
	1120.29	130	15.10	1.193E+00	1.805E+00	1.805E+00	34.20
	1764.49	77	15.80	8.256E-01	1.472E+00	1.472E+00	27.70
TH-232	338.32	286	11.40	3.327E+00	1.888E+00	1.888E+00	22.69
	911.07	244	27.70*	1.444E+00	1.527E+00	1.527E+00	21.77
	969.11	111	16.60	1.364E+00	1.226E+00	1.226E+00	51.65
TH-234	63.29	221	3.80*	2.766E+00	5.266E+00	5.266E+00	47.38
	92.38	773	5.41	5.499E+00	6.512E+00	6.512E+00	22.77
U-234	609.31	377	46.30*	2.064E+00	9.884E-01	9.884E-01	18.91
	1120.29	130	15.10	1.193E+00	1.805E+00	1.805E+00	34.20
	1764.49	77	15.80	8.256E-01	1.472E+00	1.472E+00	27.70
U-235	89.95	101	2.70	5.352E+00	1.759E+00	1.759E+00	75.78
	93.35	773	4.50	5.499E+00	7.829E+00	7.829E+00	31.26
	105.00	------	2.10	5.912E+00	------ Line Not Found		------
	143.76	17	10.50*	5.865E+00	7.103E-02	7.103E-02	481.30
	163.35	------	4.70	5.554E+00	------ Line Not Found		------
	185.71	274	54.00	5.157E+00	2.467E-01	2.467E-01	29.39
	205.31	------	4.70	4.840E+00	------ Line Not Found		------
U-238	63.29	221	3.80*	2.766E+00	5.266E+00	5.266E+00	47.38
	92.38	773	5.41	5.499E+00	6.512E+00	6.512E+00	16.30
AM-243	74.67	446	66.00*	4.161E+00	4.068E-01	4.069E-01	22.61
	86.72	------	0.34	5.156E+00	------ Line Not Found		------

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	117.66	------	0.55	6.054E+00	------	Line Not Found	------
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	78	100.00*	2.391E+00	8.126E-02	8.126E-02	85.63

Flag: "*" = Keyline

Sample ID : G246020014 Acquisition date : 14-FEB-2010 11:07:43

Total number of lines in spectrum 28
Number of unidentified lines 0
Number of lines tentatively identified by NID 28 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.214E+01	2.214E+01	0.255E+01	11.50	
TL-208	1.41E+10Y	1.00	4.391E-01	4.391E-01	0.896E-01	20.40	
BI-211	7.04E+08Y	1.00	3.922E+00	3.922E+00	0.568E+00	14.47	
PB-212	1.41E+10Y	1.00	1.521E+00	1.521E+00	0.190E+00	12.50	
PO-212	1.41E+10Y	1.00	1.521E+00	1.521E+00	0.190E+00	12.50	
BI-214	1600.00Y	1.00	9.884E-01	9.885E-01	1.869E-01	18.91	
PB-214	1600.00Y	1.00	1.364E+00	1.364E+00	0.210E+00	15.39	
PO-214	1600.00Y	1.00	1.364E+00	1.364E+00	0.210E+00	15.39	
PO-216	1.41E+10Y	1.00	1.521E+00	1.521E+00	0.190E+00	12.50	
PO-218	1600.00Y	1.00	1.364E+00	1.364E+00	0.210E+00	15.39	
RA-224	1.41E+10Y	1.00	4.606E+00	4.606E+00	1.318E+00	28.62	
RA-226	1600.00Y	1.00	9.884E-01	9.885E-01	1.869E-01	18.91	
AC-228	1.41E+10Y	1.00	1.527E+00	1.527E+00	0.332E+00	21.77	
RA-228	1.41E+10Y	1.00	1.527E+00	1.527E+00	0.332E+00	21.77	
TH-228	1.91Y	1.02	1.521E+00	1.548E+00	0.194E+00	12.50	
TH-230	4.47E+09Y	1.00	9.884E-01	9.884E-01	1.869E-01	18.91	
TH-232	1.41E+10Y	1.00	1.527E+00	1.527E+00	0.332E+00	21.77	
TH-234	4.47E+09Y	1.00	5.266E+00	5.266E+00	2.495E+00	47.38	
U-234	4.47E+09Y	1.00	9.884E-01	9.884E-01	1.869E-01	18.91	
U-235	7.04E+08Y	1.00	7.103E-02	7.103E-02	34.19E-02	481.30	
U-238	4.47E+09Y	1.00	5.266E+00	5.266E+00	2.495E+00	47.38	
AM-243	7380.00Y	1.00	4.068E-01	4.069E-01	0.920E-01	22.61	
ANH-511	1.00E+09Y	1.00	8.126E-02	8.126E-02	6.958E-02	85.63	
		Total Activity :	6.090E+01	6.093E+01			

Grand Total Activity : 6.090E+01 6.093E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020014 Acquisition date : 14-FEB-2010 11:07:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	210.02	109	349	1.09	420.61	415	11	1.51E-02	69.6	4.77E+00	T
0	270.83	134	221	1.25	542.16	537	11	1.85E-02	46.6	3.96E+00	T
0	329.23	36	188	0.97	658.88	653	9	5.04E-03	****	3.40E+00	T
0	463.76	116	139	3.11	927.78	918	15	1.62E-02	48.4	2.59E+00	T
0	727.99	75	66	1.61	1455.91	1449	11	1.04E-02	47.8	1.77E+00	T
0	795.30	42	49	1.49	1590.44	1584	11	5.87E-03	72.7	1.63E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:08:19.45

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020014.CNF;1 *
* Acquisition date  : 14-FEB-2010 11:07:43  Detector SN#     :             *
* Detector ID       : GAM01                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.25          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020014            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.49740E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.214E+01	2.545E+00	6.042E-01	5.371E-02	36.637
TL-208	4.391E-01	8.956E-02	6.045E-02	5.490E-03	7.264
BI-211	3.922E+00	5.677E-01	3.113E-01	2.832E-02	12.598
PB-212	1.521E+00	1.901E-01	8.405E-02	8.510E-03	18.093
PO-212	1.521E+00	1.901E-01	8.405E-02	8.510E-03	18.093
BI-214	9.885E-01	1.869E-01	1.153E-01	1.137E-02	8.573
PB-214	1.364E+00	2.099E-01	1.085E-01	1.137E-02	12.571
PO-214	1.364E+00	2.099E-01	1.085E-01	1.137E-02	12.571
PO-216	1.521E+00	1.901E-01	8.405E-02	8.510E-03	18.093
PO-218	1.364E+00	2.099E-01	1.085E-01	1.137E-02	12.571
RA-224	4.606E+00	1.318E+00	9.567E-01	8.694E-02	4.814
RA-226	9.885E-01	1.869E-01	1.153E-01	1.137E-02	8.573
AC-228	1.527E+00	3.323E-01	2.111E-01	2.444E-02	7.231
RA-228	1.527E+00	3.323E-01	2.111E-01	2.444E-02	7.231
TH-228	1.548E+00	1.935E-01	8.557E-02	8.663E-03	18.093
TH-230	9.884E-01	1.869E-01	1.153E-01	1.137E-02	8.573
TH-232	1.527E+00	3.323E-01	2.111E-01	2.444E-02	7.231
TH-234	5.266E+00	2.495E+00	2.264E+00	3.979E-01	2.326

Sample ID : G246020014 Acquisition date : 14-FEB-2010 11:07:43

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-234	9.884E-01	1.869E-01	1.153E-01	1.137E-02	8.573
U-235	7.103E-02	3.419E-01	3.374E-01	5.894E-02	0.211
U-238	5.266E+00	2.495E+00	2.264E+00	3.979E-01	2.326
AM-243	4.069E-01	9.198E-02	9.235E-02	7.680E-03	4.406
ANH-511	8.126E-02	6.958E-02	4.969E-02	4.211E-03	1.635

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.104E-01		3.483E-01	5.314E-01	4.835E-02	-0.396
NA-22	1.354E-02		3.938E-02	6.824E-02	5.730E-03	0.198
NA-24	5.964E-01		7.968E+00	Half-Life too short		
AL-26	2.701E-03		2.279E-02	3.831E-02	3.174E-03	0.071
TI-44	3.453E-01	+	6.071E-02	7.825E-02	6.715E-03	4.414
SC-46	1.475E-02		3.789E-02	6.441E-02	5.822E-03	0.229
V-48	-1.982E-02		8.919E-02	1.417E-01	1.265E-02	-0.140
CR-51	2.863E-01		4.197E-01	7.118E-01	6.696E-02	0.402
MN-52	7.202E-02		3.406E-01	5.802E-01	5.009E-02	0.124
MN-54	1.005E-03		4.059E-02	6.675E-02	5.942E-03	0.015
CO-56	-7.889E-03		3.794E-02	6.089E-02	5.440E-03	-0.130
CO-57	1.926E-02		2.625E-02	4.288E-02	3.775E-03	0.449
CO-58	-1.098E-02		4.203E-02	6.748E-02	5.969E-03	-0.163
FE-59	3.665E-02		1.030E-01	1.718E-01	1.584E-02	0.213
CO-60	-1.044E-02		3.968E-02	6.393E-02	5.450E-03	-0.163
ZN-65	4.434E-03		9.226E-02	1.290E-01	1.088E-02	0.034
GE-68	7.639E-01		1.267E+00	2.173E+00	1.871E-01	0.352
AS-73	4.117E-01		9.320E-01	1.545E+00	1.251E-01	0.266
AS-74	8.653E-02		9.979E-02	1.772E-01	1.493E-02	0.488
SE-75	2.057E-02		4.825E-02	7.579E-02	6.962E-03	0.271
BR-77	2.829E+01		2.437E+01	4.232E+01	3.590E+00	0.668
SR-82	-1.538E-01		4.350E-01	6.955E-01	6.055E-02	-0.221
RB-83	7.828E-02		7.144E-02	1.236E-01	1.049E-02	0.633
RB-84	-1.849E-02		7.046E-02	1.120E-01	1.010E-02	-0.165
KR-85	2.097E+01		8.424E+00	1.422E+01	1.205E+00	1.475
SR-85	1.108E-01		4.451E-02	7.511E-02	6.368E-03	1.475
RB-86	4.838E-01		8.609E-01	1.473E+00	1.269E-01	0.328
Y-88	6.163E-03		2.875E-02	4.922E-02	4.048E-03	0.125
ZR-88	-2.403E-02		3.340E-02	5.150E-02	4.147E-03	-0.467
Y-91	-4.237E+00		1.969E+01	3.236E+01	2.652E+00	-0.131
NB-94	7.182E-03		3.354E-02	5.657E-02	4.749E-03	0.127
NB-95	2.699E-02		4.730E-02	8.124E-02	7.040E-03	0.332
NB-95M	-1.264E-02		1.293E-01	1.877E-01	1.925E-02	-0.067
ZR-95	1.428E-01		7.520E-02	1.409E-01	1.338E-02	1.013
NB-97	-1.363E+00		8.593E-01	Half-Life too short		
ZR-97	1.104E+01		1.738E+01	Half-Life too short		
MO-99	-1.526E+01		2.473E+01	3.857E+01	5.843E+00	-0.396
TC-99M	4.367E+12		5.337E+13	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-101	2.303E-02		3.312E-02	5.597E-02	4.925E-03	0.411
RH-102	5.098E-03		3.018E-02	4.903E-02	4.123E-03	0.104
RU-103	-7.386E-03		4.332E-02	6.833E-02	9.609E-03	-0.108
RH-106	-4.609E-02		3.181E-01	5.254E-01	6.928E-02	-0.088
RU-106	-4.609E-02		3.180E-01	5.254E-01	4.389E-02	-0.088
AG-108M	-6.131E-03		3.347E-02	5.324E-02	4.591E-03	-0.115
CD-109	2.210E+00		9.090E-01	1.532E+00	1.449E-01	1.443
AG-110M	-3.864E-02		3.831E-02	5.877E-02	4.983E-03	-0.658
IN-111	1.165E+00		2.262E+00	3.412E+00	3.107E-01	0.341
IN-113M	1.564E-02		4.726E-02	7.823E-02	6.516E-03	0.200
SN-113	1.564E-02		4.726E-02	7.823E-02	6.516E-03	0.200
IN-114M	-1.586E-01		2.112E-01	2.980E-01	2.602E-02	-0.532
CD-115	9.508E-07		1.243E-05	Half-Life too short		
SN-117M	6.132E-02		6.281E-02	1.094E-01	9.317E-03	0.560
SB-122	4.946E+00		4.363E+00	7.848E+00	6.654E-01	0.630
I-123	9.618E+01		1.042E+02	Half-Life too short		
TE-123M	1.311E-02		2.841E-02	4.875E-02	4.176E-03	0.269
I-124	-3.560E-01		1.146E+00	1.694E+00	1.424E-01	-0.210
SB-124	1.765E-02		7.428E-02	1.272E-01	1.128E-02	0.139
SB-125	-7.924E-03		9.764E-02	1.567E-01	1.318E-02	-0.051
TE-125M	2.787E+00		1.041E+01	1.674E+01	1.737E+00	0.166
I-126	-4.951E-02		2.201E-01	3.600E-01	2.958E-02	-0.138
SB-126	-7.113E-02		1.944E-01	2.813E-01	2.384E-02	-0.253
SN-126	2.049E-01		8.877E-02	1.495E-01	1.408E-02	1.371
SB-127	-1.004E+00		2.200E+00	3.507E+00	4.223E-01	-0.286
XE-127	-2.955E-03		4.830E-02	8.057E-02	7.123E-03	-0.037
I-131	4.672E-03		1.509E-01	2.462E-01	2.211E-02	0.019
TE-132	-4.799E-01		1.254E+00	2.047E+00	3.375E-01	-0.234
BA-133	-3.227E-03		4.712E-02	6.679E-02	8.808E-03	-0.048
I-133	1.149E-02		2.791E-02	Half-Life too short		
CS-134	8.575E-02	+	6.278E-02	9.185E-02	8.117E-03	0.934
CS-135	1.194E-01		1.737E-01	2.634E-01	2.746E-02	0.454
I-135	1.415E+12		3.528E+12	Half-Life too short		
CS-136	-5.391E-02		1.281E-01	1.975E-01	1.796E-02	-0.273
BA-137M	4.266E-02		3.940E-02	7.015E-02	5.746E-03	0.608
CS-137	4.510E-02		4.165E-02	7.415E-02	6.087E-03	0.608
CE-139	2.618E-02		2.966E-02	5.150E-02	4.386E-03	0.508
BA-140	4.441E-01		3.258E-01	5.410E-01	1.791E-01	0.821
LA-140	-4.602E-02		1.052E-01	1.609E-01	1.388E-02	-0.286
CE-141	1.097E-01		7.525E-02	1.195E-01	1.039E-02	0.918
CE-143	1.414E-03		3.566E-04	Half-Life too short		
CE-144	-1.230E-01		2.121E-01	3.251E-01	5.060E-02	-0.378
PM-144	1.307E-02		3.234E-02	5.546E-02	4.641E-03	0.236
PR-144	8.870E-01		2.195E+00	3.764E+00	3.148E-01	0.236
PM-146	2.639E-02		4.651E-02	7.766E-02	8.158E-03	0.340
ND-147	-3.468E-01		6.458E-01	1.042E+00	1.550E-01	-0.333
PM-149	-1.779E-04		1.146E-04	Half-Life too short		
EU-152	3.443E-02		1.063E-01	1.562E-01	1.444E-02	0.220

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	6.684E-02		9.399E-02	1.374E-01	1.220E-02	0.486
EU-154	4.879E-02		1.083E-01	1.898E-01	2.113E-02	0.257
EU-155	5.144E-02		1.104E-01	1.793E-01	1.577E-02	0.287
TB-160	5.600E-03		1.428E-01	2.345E-01	2.114E-02	0.024
HO-166M	-1.457E-02		6.256E-02	1.017E-01	8.584E-03	-0.143
TM-171	-3.028E+01		3.414E+01	4.703E+01	3.704E+00	-0.644
LU-176	1.475E-02		2.685E-02	4.034E-02	3.651E-03	0.366
LU-177	2.604E+00		1.666E+00	2.631E+00	2.338E-01	0.990
LU-177M	-1.158E-01		1.936E-01	3.004E-01	2.454E-02	-0.386
HF-181	1.898E-02		4.335E-02	7.191E-02	6.059E-03	0.264
W-181	5.549E-02		4.530E-01	6.577E-01	5.135E-02	0.084
TA-182	-9.466E-02		1.929E-01	3.081E-01	2.539E-02	-0.307
RE-183	8.826E-04		1.116E-01	1.883E-01	1.603E-02	0.005
RE-184	-3.111E-02		2.265E-01	3.726E-01	3.401E-02	-0.083
OS-185	1.480E-03		4.311E-02	7.206E-02	5.954E-03	0.021
RE-188	-9.010E-02		1.775E-01	2.942E-01	2.506E-02	-0.306
W-188	-1.720E+00		8.233E+00	1.169E+01	1.066E+00	-0.147
IR-192	-9.207E-03		3.760E-02	6.079E-02	5.477E-03	-0.151
AU-195	4.721E-01		2.523E-01	4.064E-01	3.589E-02	1.162
TL-200	-3.029E-03		1.425E-03	Half-Life too short		
TL-201	-1.413E+00		1.304E+01	2.189E+01	1.866E+00	-0.065
TL-202	1.479E-02		8.325E-02	1.359E-01	1.126E-02	0.109
HG-203	1.975E-03		4.441E-02	7.340E-02	6.882E-03	0.027
BI-207	-2.526E-03		5.084E-02	8.164E-02	7.077E-03	-0.031
TL-207	-6.363E-01		8.023E-01	1.067E+00	1.906E-01	-0.596
PO-209	1.532E+00		7.040E+00	1.176E+01	1.065E+00	0.130
BI-210	2.585E+00		4.280E+00	7.031E+00	6.637E-01	0.368
PB-210	2.585E+00		4.280E+00	7.031E+00	6.637E-01	0.368
PO-210	2.585E+00		4.279E+00	7.031E+00	6.027E-01	0.368
PB-211	8.382E-02		9.323E-01	1.516E+00	9.490E-01	0.055
BI-212	9.015E-01	+	4.404E-01	6.412E-01	6.354E-02	1.406
PO-215	-6.363E-01		8.023E-01	1.067E+00	1.906E-01	-0.596
RN-219	-7.509E-03		4.076E-01	6.591E-01	9.713E-02	-0.011
RN-220	1.575E+01		2.462E+01	4.331E+01	3.676E+00	0.364
RA-223	-6.363E-01		8.023E-01	1.067E+00	1.906E-01	-0.596
AC-227	1.489E-02		3.793E-01	6.292E-01	9.843E-02	0.024
TH-227	1.489E-02		3.793E-01	6.292E-01	1.152E-01	0.024
TH-229	3.205E-02		5.049E-01	8.482E-01	7.431E-02	0.038
PA-231	2.826E-01		1.553E+00	2.582E+00	3.998E-01	0.109
TH-231	-6.363E-01		8.023E-01	1.067E+00	1.906E-01	-0.596
U-231	-1.016E+00		2.085E+00	2.893E+00	2.588E-01	-0.351
PA-233	5.258E-02		6.405E-02	1.096E-01	1.015E-02	0.480
PA-234	-2.449E-01		3.157E-01	4.670E-01	8.846E-02	-0.524
PA-234M	6.043E+00		5.365E+00	9.404E+00	9.586E-01	0.643
NP-236	-7.680E-02		8.041E-02	1.305E-01	1.111E-02	-0.589
NP-237	5.779E-01		2.881E-01	4.417E-01	9.998E-02	1.309
NP-239	4.659E-02		1.905E-01	3.058E-01	2.663E-02	0.152
AM-241	1.803E-01		1.900E-01	2.874E-01	2.369E-02	0.627

Sample ID : G246020014 Acquisition date : 14-FEB-2010 11:07:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	9.288E-02		9.687E-02	1.603E-01	1.397E-02	0.579
AM-246	1.186E-01		1.439E-01	2.517E-01	2.166E-02	0.471
CM-247	-7.191E-03		3.682E-02	5.880E-02	4.768E-03	-0.122
CF-249	-7.969E-03		4.266E-02	6.839E-02	5.548E-03	-0.117
CF-251	-9.022E-02		1.275E-01	2.082E-01	1.792E-02	-0.433

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020014           *
* Acquisition date  : 14-FEB-2010 11:07:43 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.25      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G246020014           Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.4974E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.214E+01	2.494E+00	3.043E-01	1.273E+00
TL-208	4.391E-01	8.777E-02	3.116E-02	4.478E-02
BI-211	3.922E+00	5.563E-01	1.625E-01	2.838E-01
PB-212	1.521E+00	1.863E-01	4.426E-02	9.504E-02
PO-212	1.521E+00	1.863E-01	4.426E-02	9.504E-02
BI-214	9.885E-01	1.832E-01	5.937E-02	9.347E-02
PB-214	1.364E+00	2.057E-01	5.663E-02	1.050E-01
PO-214	1.364E+00	2.057E-01	5.663E-02	1.050E-01
PO-216	1.521E+00	1.863E-01	4.426E-02	9.504E-02
PO-218	1.364E+00	2.057E-01	5.663E-02	1.050E-01
RA-224	4.606E+00	1.292E+00	5.037E-01	6.590E-01
RA-226	9.885E-01	1.832E-01	5.937E-02	9.347E-02
AC-228	1.527E+00	3.257E-01	1.076E-01	1.661E-01
RA-228	1.527E+00	3.257E-01	1.076E-01	1.661E-01
TH-228	1.548E+00	1.896E-01	4.506E-02	9.675E-02
TH-230	9.884E-01	1.832E-01	5.936E-02	9.347E-02
TH-232	1.527E+00	3.257E-01	1.076E-01	1.661E-01
TH-234	5.266E+00	2.445E+00	1.229E+00	1.248E+00
U-234	9.884E-01	1.832E-01	5.936E-02	9.347E-02
U-235	7.103E-02	3.350E-01	1.798E-01	1.709E-01
U-238	5.266E+00	2.445E+00	1.229E+00	1.248E+00
AM-243	4.069E-01	9.014E-02	4.995E-02	4.599E-02
ANH-511	8.126E-02	6.819E-02	2.569E-02	3.479E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.104E-01	3.413E-01	2.753E-01	1.742E-01	NOT IDENT.
NA-22	1.354E-02	3.859E-02	3.449E-02	1.969E-02	NOT IDENT.
NA-24	5.964E+05	1.562E+07	0.000E+00	7.968E+06	SHORT HLIF
AL-26	2.701E-03	2.234E-02	1.919E-02	1.140E-02	NOT IDENT.

TI-44	3.453E-01	5.949E-02	4.227E-02	3.035E-02	FAIL ABUN
SC-46	1.475E-02	3.713E-02	3.285E-02	1.894E-02	FAIL ABUN
V-48	-1.982E-02	8.740E-02	7.208E-02	4.459E-02	NOT IDENT.
CR-51	2.863E-01	4.113E-01	3.723E-01	2.098E-01	NOT IDENT.
MN-52	7.202E-02	3.338E-01	2.924E-01	1.703E-01	NOT IDENT.
MN-54	1.005E-03	3.977E-02	3.410E-02	2.029E-02	NOT IDENT.
CO-56	-7.889E-03	3.718E-02	3.110E-02	1.897E-02	NOT IDENT.
CO-57	1.926E-02	2.572E-02	2.294E-02	1.312E-02	NOT IDENT.
CO-58	-1.098E-02	4.119E-02	3.450E-02	2.102E-02	NOT IDENT.
FE-59	3.665E-02	1.010E-01	8.716E-02	5.151E-02	FAIL ABUN
CO-60	-1.044E-02	3.889E-02	3.228E-02	1.984E-02	NOT IDENT.
ZN-65	4.434E-03	9.041E-02	6.541E-02	4.613E-02	NOT IDENT.
GE-68	7.639E-01	1.242E+00	1.103E+00	6.337E-01	NOT IDENT.
AS-73	4.117E-01	9.134E-01	8.419E-01	4.660E-01	NOT IDENT.
AS-74	8.653E-02	9.779E-02	9.129E-02	4.989E-02	NOT IDENT.
SE-75	2.057E-02	4.728E-02	3.982E-02	2.412E-02	NOT IDENT.
BR-77	2.829E+01	2.388E+01	2.187E+01	1.219E+01	FAIL ABUN
SR-82	-1.538E-01	4.263E-01	3.560E-01	2.175E-01	NOT IDENT.
RB-83	7.828E-02	7.001E-02	6.388E-02	3.572E-02	NOT IDENT.
RB-84	-1.849E-02	6.905E-02	5.713E-02	3.523E-02	NOT IDENT.
KR-85	2.097E+01	8.256E+00	7.351E+00	4.212E+00	NOT IDENT.
SR-85	1.108E-01	4.362E-02	3.883E-02	2.225E-02	NOT IDENT.
RB-86	4.838E-01	8.436E-01	7.476E-01	4.304E-01	NOT IDENT.
Y-88	6.163E-03	2.817E-02	2.464E-02	1.437E-02	NOT IDENT.
ZR-88	-2.403E-02	3.273E-02	2.680E-02	1.670E-02	NOT IDENT.
Y-91	-4.237E+00	1.929E+01	1.638E+01	9.844E+00	NOT IDENT.
NB-94	7.182E-03	3.287E-02	2.903E-02	1.677E-02	NOT IDENT.
NB-95	2.699E-02	4.635E-02	4.160E-02	2.365E-02	NOT IDENT.
NB-95M	-1.264E-02	1.267E-01	9.886E-02	6.464E-02	NOT IDENT.
ZR-95	1.428E-01	7.369E-02	7.215E-02	3.760E-02	NOT IDENT.
NB-97	-1.363E+06	1.684E+06	0.000E+00	8.593E+05	SHORT HLIF
ZR-97	1.104E+07	3.407E+07	0.000E+00	1.738E+07	SHORT HLIF
MO-99	-1.526E+01	2.424E+01	1.976E+01	1.237E+01	NOT IDENT.
TC-99M	4.367E+18	1.046E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.303E-02	3.246E-02	2.961E-02	1.656E-02	NOT IDENT.
RH-102	5.098E-03	2.957E-02	2.540E-02	1.509E-02	NOT IDENT.
RU-103	-7.386E-03	4.246E-02	3.536E-02	2.166E-02	FAIL ABUN
RH-106	-4.609E-02	3.117E-01	2.704E-01	1.590E-01	FAIL ABUN
RU-106	-4.609E-02	3.117E-01	2.704E-01	1.590E-01	FAIL ABUN
AG-108M	-6.131E-03	3.280E-02	2.764E-02	1.674E-02	NOT IDENT.
CD-109	2.210E+00	8.909E-01	8.253E-01	4.545E-01	NOT IDENT.
AG-110M	-3.864E-02	3.754E-02	3.020E-02	1.915E-02	NOT IDENT.
IN-111	1.165E+00	2.217E+00	1.796E+00	1.131E+00	NOT IDENT.
IN-113M	1.564E-02	4.631E-02	4.072E-02	2.363E-02	NOT IDENT.
SN-113	1.564E-02	4.631E-02	4.072E-02	2.363E-02	NOT IDENT.
IN-114M	-1.586E-01	2.070E-01	1.578E-01	1.056E-01	NOT IDENT.
CD-115	9.508E-01	2.435E+01	0.000E+00	1.243E+01	SHORT HLIF
SN-117M	6.132E-02	6.155E-02	5.819E-02	3.140E-02	NOT IDENT.
SB-122	4.946E+00	4.275E+00	4.049E+00	2.181E+00	NOT IDENT.
I-123	9.618E+07	2.043E+08	0.000E+00	1.042E+08	SHORT HLIF
TE-123M	1.311E-02	2.785E-02	2.592E-02	1.421E-02	NOT IDENT.
I-124	-3.560E-01	1.123E+00	8.724E-01	5.729E-01	NOT IDENT.
SB-124	1.765E-02	7.279E-02	6.385E-02	3.714E-02	FAIL ABUN
SB-125	-7.924E-03	9.569E-02	8.137E-02	4.882E-02	FAIL ABUN
TE-125M	2.787E+00	1.020E+01	8.979E+00	5.204E+00	NOT IDENT.
I-126	-4.951E-02	2.157E-01	1.850E-01	1.100E-01	NOT IDENT.
SB-126	-7.113E-02	1.905E-01	1.442E-01	9.718E-02	FAIL ABUN
SN-126	2.049E-01	8.699E-02	8.057E-02	4.438E-02	FAIL ABUN
SB-127	-1.004E+00	2.156E+00	1.801E+00	1.100E+00	NOT IDENT.
XE-127	-2.955E-03	4.733E-02	4.259E-02	2.415E-02	FAIL ABUN
I-131	4.672E-03	1.479E-01	1.284E-01	7.547E-02	NOT IDENT.
TE-132	-4.799E-01	1.229E+00	1.079E+00	6.269E-01	NOT IDENT.
BA-133	-3.227E-03	4.618E-02	3.484E-02	2.356E-02	NOT IDENT.
I-133	1.149E+04	5.470E+04	0.000E+00	2.791E+04	SHORT HLIF
CS-134	8.575E-02	6.152E-02	4.698E-02	3.139E-02	FAIL ABUN
CS-135	1.194E-01	1.702E-01	1.383E-01	8.684E-02	NOT IDENT.
I-135	1.415E+18	6.915E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-5.391E-02	1.256E-01	1.003E-01	6.407E-02	NOT IDENT.
BA-137M	4.266E-02	3.861E-02	3.605E-02	1.970E-02	NOT IDENT.
CS-137	4.510E-02	4.082E-02	3.810E-02	2.083E-02	NOT IDENT.
CE-139	2.618E-02	2.907E-02	2.735E-02	1.483E-02	NOT IDENT.
BA-140	4.441E-01	3.193E-01	2.794E-01	1.629E-01	NOT IDENT.
LA-140	-4.602E-02	1.031E-01	8.084E-02	5.258E-02	FAIL ABUN
CE-141	1.097E-01	7.375E-02	6.367E-02	3.763E-02	NOT IDENT.
CE-143	1.414E+03	6.989E+02	0.000E+00	3.566E+02	SHORT HLIF
CE-144	-1.230E-01	2.079E-01	1.735E-01	1.061E-01	NOT IDENT.
PM-144	1.307E-02	3.170E-02	2.846E-02	1.617E-02	NOT IDENT.
PR-144	8.870E-01	2.151E+00	1.931E+00	1.098E+00	NOT IDENT.

PM-146	2.639E-02	4.558E-02	4.028E-02	2.326E-02	NOT IDENT.
ND-147	-3.468E-01	6.329E-01	5.383E-01	3.229E-01	FAIL ABUN
PM-149	-1.779E+02	2.246E+02	0.000E+00	1.146E+02	SHORT HLIF
EU-152	3.443E-02	1.042E-01	8.155E-02	5.315E-02	NOT IDENT.
GD-153	6.684E-02	9.211E-02	7.388E-02	4.700E-02	NOT IDENT.
EU-154	4.879E-02	1.061E-01	9.591E-02	5.414E-02	NOT IDENT.
EU-155	5.144E-02	1.082E-01	9.623E-02	5.519E-02	NOT IDENT.
TB-160	5.600E-03	1.399E-01	1.196E-01	7.138E-02	NOT IDENT.
HO-166M	-1.457E-02	6.131E-02	5.219E-02	3.128E-02	NOT IDENT.
TM-171	-3.028E+01	3.346E+01	2.550E+01	1.707E+01	NOT IDENT.
LU-176	1.475E-02	2.631E-02	2.112E-02	1.343E-02	NOT IDENT.
LU-177	2.604E+00	1.633E+00	1.390E+00	8.332E-01	NOT IDENT.
LU-177M	-1.158E-01	1.898E-01	1.561E-01	9.681E-02	NOT IDENT.
HF-181	1.898E-02	4.249E-02	3.724E-02	2.168E-02	NOT IDENT.
W-181	5.549E-02	4.439E-01	3.568E-01	2.265E-01	NOT IDENT.
TA-182	-9.466E-02	1.890E-01	1.559E-01	9.645E-02	FAIL ABUN
RE-183	8.826E-04	1.094E-01	1.001E-01	5.580E-02	FAIL ABUN
RE-184	-3.111E-02	2.220E-01	1.960E-01	1.133E-01	NOT IDENT.
OS-185	1.480E-03	4.224E-02	3.705E-02	2.155E-02	NOT IDENT.
RE-188	-9.010E-02	1.739E-01	1.565E-01	8.875E-02	NOT IDENT.
W-188	-1.720E+00	8.068E+00	6.129E+00	4.116E+00	FAIL ABUN
IR-192	-9.207E-03	3.685E-02	3.180E-02	1.880E-02	FAIL ABUN
AU-195	4.721E-01	2.473E-01	2.184E-01	1.262E-01	FAIL ABUN
TL-200	-3.029E+03	2.793E+03	0.000E+00	1.425E+03	SHORT HLIF
TL-201	-1.413E+00	1.278E+01	1.162E+01	6.521E+00	NOT IDENT.
TL-202	1.479E-02	8.158E-02	7.051E-02	4.162E-02	NOT IDENT.
HG-203	1.975E-03	4.352E-02	3.851E-02	2.221E-02	NOT IDENT.
BI-207	-2.526E-03	4.982E-02	4.146E-02	2.542E-02	FAIL ABUN
TL-207	-6.363E-01	7.862E-01	5.580E-01	4.011E-01	FAIL ABUN
PO-209	1.532E+00	6.900E+00	5.998E+00	3.520E+00	NOT IDENT.
BI-210	2.585E+00	4.195E+00	3.843E+00	2.140E+00	NOT IDENT.
PB-210	2.585E+00	4.195E+00	3.843E+00	2.140E+00	NOT IDENT.
PO-210	2.585E+00	4.193E+00	3.843E+00	2.140E+00	NOT IDENT.
PB-211	8.382E-02	9.137E-01	7.884E-01	4.662E-01	NOT IDENT.
BI-212	9.015E-01	4.316E-01	3.287E-01	2.202E-01	FAIL ABUN
PO-215	-6.363E-01	7.862E-01	5.580E-01	4.011E-01	FAIL ABUN
RN-219	-7.509E-03	3.994E-01	3.428E-01	2.038E-01	FAIL ABUN
RN-220	1.575E+01	2.413E+01	2.235E+01	1.231E+01	NOT IDENT.
RA-223	-6.363E-01	7.862E-01	5.580E-01	4.011E-01	FAIL ABUN
AC-227	1.489E-02	3.717E-01	3.308E-01	1.896E-01	FAIL ABUN
TH-227	1.489E-02	3.717E-01	3.308E-01	1.896E-01	FAIL ABUN
TH-229	3.205E-02	4.948E-01	4.489E-01	2.525E-01	FAIL ABUN
PA-231	2.826E-01	1.522E+00	1.354E+00	7.764E-01	FAIL ABUN
TH-231	-6.363E-01	7.862E-01	5.580E-01	4.011E-01	FAIL ABUN
U-231	-1.016E+00	2.043E+00	1.556E+00	1.043E+00	FAIL ABUN
PA-233	5.258E-02	6.277E-02	5.738E-02	3.203E-02	FAIL ABUN
PA-234	-2.449E-01	3.094E-01	2.378E-01	1.579E-01	FAIL ABUN
PA-234M	6.043E+00	5.258E+00	4.783E+00	2.683E+00	NOT IDENT.
NP-236	-7.680E-02	7.880E-02	6.936E-02	4.020E-02	NOT IDENT.
NP-237	5.779E-01	2.823E-01	2.381E-01	1.440E-01	NOT IDENT.
NP-239	4.659E-02	1.867E-01	1.637E-01	9.524E-02	FAIL ABUN
AM-241	1.803E-01	1.862E-01	1.562E-01	9.500E-02	NOT IDENT.
CM-243	9.288E-02	9.493E-02	8.605E-02	4.843E-02	FAIL ABUN
AM-246	1.186E-01	1.411E-01	1.278E-01	7.197E-02	NOT IDENT.
CM-247	-7.191E-03	3.608E-02	3.058E-02	1.841E-02	NOT IDENT.
CF-249	-7.969E-03	4.181E-02	3.560E-02	2.133E-02	NOT IDENT.
CF-251	-9.022E-02	1.250E-01	1.104E-01	6.376E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	273.3087
46.50	273.3087
46.50	273.3087
48.70	305.4210
49.72	329.7615
51.35	270.8824
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52.97	287.3117
53.15	287.4124
53.44	280.3086
54.07	312.8749
56.28	348.6472
56.28	348.6489
57.37	0.0000
57.53	336.4947
57.53	336.4959
57.60	336.5384
57.98	325.1526
57.98	325.1526
59.32	340.1301
59.32	340.1301
59.40	340.1796
59.54	348.1435
59.72	348.2581
60.01	361.0552
61.10	423.3792
61.14	423.4093
61.30	423.5315
63.00	419.5313
63.29	419.7458
63.29	419.7458
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65.12	423.2104
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65.20	423.2693
66.05	438.2309
66.72	446.7093
66.83	464.3474
66.91	464.4095
67.20	440.6878
67.20	440.6878
67.75	490.6421
67.85	498.7187
68.90	433.4131
68.90	433.4131
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69.67	427.1298
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70.82	451.3940
70.83	451.4004
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72.87	498.0324
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75.70	468.4449
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77.11	469.4824

77.11	469.4824
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81.07	537.1024
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83.78	485.1914
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84.90	507.3374
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86.50	453.1199
86.54	453.1451
86.59	453.1787
86.72	453.2648
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88.47	454.4076
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92.38	456.9241
92.38	456.9241
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94.67	362.9236
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94.90	419.6591
94.90	419.6591
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98.44	299.5237
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99.55	323.9873
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100.10	380.1256
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103.76	295.4496
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105.31	325.3058
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109.28	369.9357

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111.00	353.7247
111.76	389.2351
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117.00	298.0762
117.66	325.7435
121.11	337.4044
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121.78	292.8769
122.06	292.9722
122.32	267.7779
122.32	267.7779
122.32	267.7779
122.32	267.7779
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133.02	323.3944
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136.48	312.6528
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144.24	317.9004
144.24	317.9004
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152.70	291.2818
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154.21	336.3322
154.21	336.3322
155.03	350.0013
156.02	336.0454
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162.64	310.3505
163.35	306.0628
163.89	305.3204
165.85	277.0219
167.43	296.4167
171.28	260.3083
171.86	260.4485
172.10	260.5076
176.55	317.1804
176.60	317.1937
181.06	308.7221
184.41	296.6776
185.71	329.3691
186.00	303.3476
190.27	298.2139
192.34	264.3654
193.63	279.4661
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198.01	246.1488
198.60	248.1308
200.40	299.7009
201.83	277.6949
202.84	268.6047
205.31	254.2052

208.36	257.8425
208.81	257.9301
209.75	241.0650
209.75	241.0650
210.97	226.8465
215.65	213.6310
216.55	229.1918
218.09	258.7480
222.10	221.6780
223.80	241.8932
226.40	235.7298
227.00	239.6434
227.08	241.5608
227.20	241.5841
228.16	243.6660
228.18	243.6699
228.18	243.6699
231.56	0.0000
235.69	215.9699
236.00	206.8292
236.00	206.8292
238.63	195.7246
238.63	195.7246
238.63	195.7246
238.63	195.7246
239.00	195.7791
240.98	196.0686
241.98	196.2149
241.98	196.2149
241.98	196.2149
244.69	195.8377
245.39	180.5102
247.94	189.3501
248.90	181.1953
249.79	190.5717
252.40	187.0556
252.85	187.1160
252.85	187.1160
254.15	0.0000
256.20	195.3414
256.20	195.3414
260.50	217.3855
260.90	0.0000
262.80	182.5858
264.65	181.1932
268.24	177.2025
268.79	167.8589
269.46	166.3677
269.46	166.3677
269.46	166.3677
269.46	166.3677
271.23	193.4800
273.65	220.3633
276.40	171.8879
277.35	187.1032
277.60	192.3489
277.60	192.3489
278.00	195.3594
278.60	196.4281
279.20	205.3943
279.53	203.4633
280.46	220.3935
281.68	190.9003
283.67	176.2970
284.30	180.3337
285.00	183.3910
285.90	0.0000
286.10	182.5344
286.10	182.5344
287.40	158.8599
288.45	0.0000
290.67	165.5697
290.80	165.5850
291.72	192.7670
293.26	0.0000
293.70	135.5912
295.21	153.2883
295.21	153.2883

295.21	153.2883
295.96	187.7074
296.50	167.7975
297.23	167.8770
298.57	168.0231
299.80	164.1501
299.80	164.1501
300.09	147.3640
300.09	147.3640
300.09	147.3640
300.09	147.3640
300.12	147.3662
301.29	147.4763
302.84	136.3901
303.76	154.1297
303.91	154.1461
304.40	155.7991
304.40	155.7991
304.84	163.8748
306.84	133.5194
308.46	142.6268
311.98	137.1766
316.51	172.9674
318.01	156.9276
319.02	159.0507
319.41	162.1289
320.08	152.0576
323.87	183.7050
323.87	183.7050
323.87	183.7050
323.87	183.7050
325.23	172.4674
328.77	163.0518
333.44	130.8066
334.20	161.5392
334.20	161.5392
334.30	161.5488
338.28	152.7059
338.28	152.7059
338.28	152.7059
338.28	152.7059
338.32	152.7082
338.32	152.7082
338.32	152.7082
340.50	146.1308
340.57	146.1373
344.27	123.4167
345.85	141.6481
350.59	0.0000
351.07	124.9345
351.92	124.9954
351.92	124.9954
351.92	124.9954
355.39	0.0000
356.01	122.5950
364.48	129.0084
366.43	131.2333
367.43	142.7697
367.94	0.0000
369.80	113.7401
374.96	146.5027
383.85	128.2865
387.95	140.1598
388.63	139.1583
391.69	123.5448
391.69	123.5448
392.90	143.7010
398.62	111.2805
400.65	120.9476
401.10	119.9159
401.81	114.6511
402.60	118.9470
404.84	115.8957
410.95	108.7952
411.60	103.4977
413.65	143.1254
414.70	145.3405
415.30	149.6600

415.76	144.3501
417.63	0.0000
418.52	101.7217
423.70	114.8712
427.08	115.0655
427.89	118.3403
432.53	109.9874
433.93	108.9831
439.47	102.7901
439.56	102.7944
439.89	102.8104
443.98	98.6787
444.90	103.0626
445.03	96.5588
445.03	96.5588
445.03	96.5588
445.03	96.5588
453.90	102.4209
463.38	100.6938
468.07	94.7729
473.00	94.5520
475.06	95.7430
475.35	96.8556
476.78	103.5282
477.59	107.9741
477.96	106.8900
482.03	79.4894
484.57	111.6369
487.03	80.7783
490.36	0.0000
492.35	0.0000
497.08	91.1502
507.63	0.0000
510.53	0.0000
510.84	107.3665
511.00	104.0183
511.85	104.0567
511.85	104.0567
513.99	71.6758
513.99	71.6758
520.41	69.6308
520.65	69.6384
527.90	0.0000
528.96	0.0000
529.64	78.4784
529.87	0.0000
531.02	89.3538
537.32	62.4453
543.00	78.9245
546.56	0.0000
549.76	69.1403
552.65	81.0647
555.20	80.2377
563.23	84.1634
563.90	75.9503
568.70	90.7677
569.32	88.9577
569.50	86.2133
569.67	86.2179
573.80	75.3375
574.00	79.9376
574.64	87.3114
578.91	96.6687
579.30	0.0000
583.14	87.6083
585.48	78.4611
591.81	89.7629
592.07	86.0704
593.00	82.3967
595.88	68.5873
600.56	91.9279
602.52	0.0000
602.71	90.2793
602.71	90.2793
603.60	79.0214
604.41	77.4963
604.70	86.8073
609.31	89.4469

609.31	89.4469
609.31	89.4469
609.31	89.4469
610.33	89.4820
612.46	80.8480
614.37	74.6836
618.01	74.7891
621.84	78.6423
621.84	78.6423
631.29	67.6494
633.02	66.7532
633.10	65.8147
634.78	61.1517
635.90	68.7084
636.97	65.9104
645.85	66.1292
646.12	71.8048
656.30	97.6790
657.75	103.4223
657.90	0.0000
661.65	78.8662
661.65	78.8662
664.57	0.0000
666.33	87.5662
666.33	87.5662
675.00	52.5132
677.61	76.4531
685.20	71.8689
692.80	67.2571
695.00	66.3485
696.49	61.5719
696.49	61.5719
697.00	65.4317
697.49	71.2178
698.33	71.2395
698.50	71.2431
699.00	70.2928
702.63	73.2743
706.10	71.4310
706.58	0.0000
706.67	68.5490
709.31	80.2077
711.68	78.3402
713.82	71.6225
717.42	82.3707
720.50	81.7650
721.93	0.0000
722.20	76.0346
722.78	69.5776
722.78	69.5776
722.89	69.5793
722.95	69.5811
723.30	69.5898
724.18	61.5165
727.18	72.9218
733.00	69.8190
735.90	58.5103
739.58	77.1330
742.81	65.4869
744.21	52.8056
747.13	64.6030
751.79	77.4474
752.31	74.5193
753.82	66.7084
755.35	45.1487
756.15	44.1782
756.87	49.0991
763.93	85.6300
765.79	78.7891
766.42	63.0438
766.84	66.0071
776.49	75.1094
778.00	59.3262
778.57	52.4138
778.89	62.3094
783.80	68.3514
785.46	59.4683
792.07	57.9374

795.84	54.6925
796.30	51.3854
798.80	61.3791
801.93	67.5296
805.60	57.8542
810.29	69.9265
810.76	65.9404
815.85	47.0321
817.79	60.0762
818.51	53.0802
819.60	47.0861
826.30	58.2266
828.27	0.0000
831.60	57.3166
831.96	55.3115
834.83	73.4776
836.80	0.0000
846.75	51.5205
848.13	51.5416
856.28	0.0000
856.80	38.8415
860.37	38.5455
867.32	55.1790
867.82	52.1008
871.10	50.8789
873.19	45.8196
874.81	56.0286
875.33	0.0000
876.40	47.9019
879.36	51.0034
880.27	49.9965
880.51	48.9797
881.50	48.9938
883.24	53.1045
884.67	48.0178
889.25	41.9439
896.60	44.0844
898.02	54.3586
899.00	51.2964
903.28	58.2078
911.07	52.5041
911.07	52.5041
911.07	52.5041
919.63	48.5043
920.93	40.2626
925.00	48.5778
925.24	48.5812
926.50	43.4284
935.52	43.5391
937.48	54.9720
944.10	56.1133
946.00	61.3407
949.00	41.6221
962.29	70.1213
964.01	73.1394
966.15	76.6670
968.20	115.0649
969.11	93.1219
969.11	93.1219
969.11	93.1219
977.42	52.4341
980.50	52.4780
983.50	60.9241
989.30	62.0710
996.32	73.7820
1001.03	46.4353
1001.68	39.0551
1004.76	70.7786
1021.30	0.0000
1024.50	0.0000
1034.80	42.5898
1036.00	45.7988
1037.82	45.8198
1038.57	51.1594
1038.76	0.0000
1045.16	52.3137
1046.59	56.6049
1048.07	52.3520

1050.47	44.9019
1050.47	44.9019
1062.04	56.8275
1063.62	43.9789
1076.63	38.7439
1077.35	40.9038
1078.86	38.7650
1085.78	43.1465
1099.22	50.8669
1112.02	62.4274
1112.84	52.4870
1115.52	39.8428
1120.29	43.5156
1120.29	43.5156
1120.29	43.5156
1120.29	43.5156
1120.51	43.5195
1121.28	43.5273
1124.00	0.0000
1129.67	62.3075
1131.51	0.0000
1147.95	0.0000
1167.94	55.9390
1173.22	52.3358
1175.09	60.6262
1177.93	62.5049
1189.05	62.6681
1204.90	61.0479
1205.75	0.0000
1213.00	52.8229
1221.42	60.3503
1230.97	65.1351
1235.34	81.9665
1236.41	0.0000
1238.25	54.0588
1246.25	56.0229
1260.41	0.0000
1271.85	37.5618
1274.45	30.0677
1274.54	31.9469
1291.56	37.7262
1298.22	0.0000
1312.09	29.3678
1325.50	24.7019
1325.50	24.7019
1332.49	35.2054
1333.61	34.2627
1360.21	26.7992
1362.66	0.0000
1365.15	22.0361
1368.21	24.9262
1368.53	0.0000
1376.25	24.0082
1384.27	30.7813
1394.10	18.3135
1395.20	22.1736
1407.95	28.9978
1434.06	23.3223
1436.60	19.4450
1457.56	0.0000
1460.81	27.3540
1489.15	17.6836
1509.49	13.8080
1596.49	25.0661
1620.62	12.0854
1678.03	0.0000
1691.02	11.2193
1691.02	11.2193
1706.46	0.0000
1750.46	0.0000
1764.49	7.2310
1764.49	7.2310
1764.49	7.2310
1764.49	7.2310
1770.23	79.6193
1771.40	52.7452
1791.20	0.0000
1808.65	6.2446

1836.01 7.3184

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020014

Total Uranium Activity	1.5700E+01	ug/g
Total Uranium Counting Unc.	7.2765E+00	ug/g
Total Uranium Tpu	3.7125E-06	ug/g
Total Uranium Mda	3.6566E+00	ug/g

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GROSS GAMMA REPORT

BATCH ID	: 948751	SAMPLE ID	: G246020014
ANALYST	: MXR1	DETECTOR	: GAM01
SAMPLE DATE	: 27-JAN-2010 12:00:00.00	COUNT TIME	: 0 02:00:00.00
ANALYSIS DATE	: 14-FEB-2010 11:07:43.37	SAMPLE ALQT	: 149.740 GRAM

GROSS GAMMA ACTIVITY (pCi/GRAM)	: 8.212E+00
GROSS GAMMA ERROR (pCi/GRAM)	: 1.476E+00
GROSS GAMMA MDA (pCi/GRAM)	: 2.650E+00
GROSS GAMMA DLC (pCi/GRAM)	: 1.285E+00

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:09:14.83

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020015.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:08:12
Sample ID         : G246020015           Sample quantity  : 1.35850E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.39  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.91*	266	640	1.37	125.82	121	12	3.69E-02	20.1	
2	2	74.55	421	468	1.19	149.09	144	15	5.85E-02	9.8	2.43E+00
3	2	76.89*	547	453	1.09	153.78	144	15	7.60E-02	7.9	
4	0	83.93	93	395	1.32	167.87	166	6	1.29E-02	35.5	
5	2	87.05	236	417	1.18	174.10	171	20	3.27E-02	15.3	1.99E+00
6	2	89.62	147	383	1.13	179.24	171	20	2.05E-02	23.4	
7	2	92.47*	501	384	1.31	184.93	171	20	6.96E-02	8.7	
8	0	185.69*	138	378	1.08	371.39	367	9	1.92E-02	27.7	
9	0	209.51	110	308	1.29	419.03	415	10	1.53E-02	31.4	
10	4	238.45*	1185	183	1.13	476.91	469	21	1.65E-01	3.5	1.18E+00
11	4	241.36	304	268	1.80	482.72	469	21	4.22E-02	15.2	
12	0	277.07	92	228	1.21	554.15	549	11	1.28E-02	33.5	
13	0	295.10*	340	223	1.25	590.21	585	12	4.73E-02	10.6	
14	0	300.16	77	144	1.29	600.32	596	8	1.07E-02	29.2	
15	0	327.35	84	176	1.32	654.71	650	10	1.16E-02	31.5	
16	0	338.40	181	272	1.13	676.80	670	14	2.51E-02	20.7	
17	0	351.66*	571	161	1.24	703.32	698	12	7.93E-02	6.2	
18	0	462.19	86	156	1.37	924.39	919	14	1.19E-02	32.5	
19	0	510.73*	150	123	1.85	1021.45	1014	17	2.08E-02	21.0	
20	0	582.96*	345	132	1.40	1165.92	1158	16	4.79E-02	9.3	
21	0	609.11*	393	94	1.39	1218.23	1210	13	5.45E-02	7.0	
22	0	727.57	64	94	1.55	1455.15	1448	13	8.93E-03	33.5	
23	0	794.82	45	60	1.44	1589.64	1583	11	6.23E-03	36.7	
24	0	860.43	76	72	1.71	1720.86	1712	17	1.05E-02	28.2	
25	0	911.07*	236	49	2.06	1822.15	1816	13	3.28E-02	9.1	
26	0	964.63	47	68	1.34	1929.26	1924	11	6.48E-03	37.4	
27	0	968.95*	87	54	1.79	1937.91	1934	12	1.21E-02	20.4	
28	0	1121.03	59	104	1.23	2242.07	2234	13	8.22E-03	37.8	
29	0	1460.70	1340	36	2.10	2921.40	2912	16	1.86E-01	2.9	
30	0	1729.36	28	4	1.06	3458.73	3451	15	3.95E-03	23.9	
31	0	1765.06*	87	4	2.13	3530.12	3522	17	1.21E-02	12.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:09:18

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020015.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:08:12
Sample ID : G246020015 Sample quantity : 135.85 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.39 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.606E+01	3.170E+00	5.880E-01	3.889E-02	61.331
CD-109	+	88.03	*	3.493E+00	1.121E+00	1.341E+00	1.324E-01	2.605
SN-126	+	64.28		2.831E+00	1.219E+00	9.726E-01	1.497E-01	2.911
	+	86.94		1.421E+00	7.339E-01	6.177E-01	2.571E-01	2.301
	+	87.57	*	3.419E-01	1.097E-01	1.319E-01	1.298E-02	2.592
TL-208	+	277.35		9.580E-01	6.493E-01	6.702E-01	7.137E-02	1.430
	+	510.84		7.960E-01	3.433E-01	2.455E-01	2.464E-02	3.242
	+	583.14	*	5.244E-01	1.032E-01	6.354E-02	4.016E-03	8.252
	+	860.37		1.090E+00	6.205E-01	5.663E-01	4.331E-02	1.924
BI-211		72.87		1.189E+01	4.601E+00	7.196E+00	6.460E-01	1.653
	+	351.07	*	3.759E+00	5.229E-01	3.764E-01	2.430E-02	9.986
PB-212	+	74.81		2.657E+00	6.256E-01	6.805E-01	8.847E-02	3.904
	+	77.11		1.941E+00	3.534E-01	3.838E-01	3.504E-02	5.058
	+	87.30		1.581E+00	5.316E-01	6.120E-01	8.576E-02	2.584
	+	238.63	*	1.682E+00	1.720E-01	1.033E-01	7.613E-03	16.287
	+	300.09		1.706E+00	1.007E+00	1.363E+00	1.141E-01	1.251
PO-212	+	74.81		2.657E+00	6.256E-01	6.805E-01	8.847E-02	3.904
	+	77.11		1.941E+00	3.534E-01	3.838E-01	3.504E-02	5.058
	+	87.30		1.581E+00	5.316E-01	6.120E-01	8.576E-02	2.584
		115.19		1.843E+00	4.096E+00	6.856E+00	4.525E-01	0.269
	+	238.63	*	1.682E+00	1.720E-01	1.033E-01	7.613E-03	16.287
	+	300.09		1.706E+00	1.007E+00	1.363E+00	1.141E-01	1.251
BI-214	+	609.31	*	1.127E+00	1.781E-01	1.181E-01	8.716E-03	9.541
	+	1120.29		8.951E-01	6.818E-01	5.751E-01	5.253E-02	1.556
	+	1764.49		1.806E+00	4.668E-01	2.520E-01	1.475E-02	7.167
PB-214	+	74.81		4.578E+00	1.046E+00	1.173E+00	1.370E-01	3.904
	+	77.11		3.328E+00	6.568E-01	6.580E-01	7.824E-02	5.058
	+	87.30		2.709E+00	8.942E-01	1.048E+00	1.309E-01	2.584
	+	241.98		2.590E+00	8.174E-01	6.220E-01	5.047E-02	4.164
	+	295.21		1.318E+00	3.016E-01	2.304E-01	1.992E-02	5.722
	+	351.92	*	1.308E+00	1.943E-01	1.373E-01	1.139E-02	9.524
PO-214	+	74.81		4.578E+00	1.046E+00	1.173E+00	1.370E-01	3.904
	+	77.11		3.328E+00	6.568E-01	6.580E-01	7.824E-02	5.058
	+	87.30		2.709E+00	8.942E-01	1.048E+00	1.309E-01	2.584

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.590E+00	8.174E-01	6.220E-01	5.047E-02	4.164
	+	295.21		1.318E+00	3.016E-01	2.304E-01	1.992E-02	5.722
	+	351.92	*	1.308E+00	1.943E-01	1.373E-01	1.139E-02	9.524
PO-216	+	74.81		2.657E+00	6.256E-01	6.805E-01	8.847E-02	3.904
	+	77.11		1.941E+00	3.534E-01	3.838E-01	3.504E-02	5.058
	+	87.30		1.581E+00	5.316E-01	6.120E-01	8.576E-02	2.584
	+	238.63	*	1.682E+00	1.720E-01	1.033E-01	7.613E-03	16.287
	+	300.09		1.706E+00	1.007E+00	1.363E+00	1.141E-01	1.251
PO-218	+	74.81		4.578E+00	1.046E+00	1.173E+00	1.370E-01	3.904
	+	77.11		3.328E+00	6.568E-01	6.580E-01	7.824E-02	5.058
	+	87.30		2.709E+00	8.942E-01	1.048E+00	1.309E-01	2.584
	+	241.98		2.590E+00	8.174E-01	6.220E-01	5.047E-02	4.164
	+	295.21		1.318E+00	3.016E-01	2.304E-01	1.992E-02	5.722
	+	351.92	*	1.308E+00	1.943E-01	1.373E-01	1.139E-02	9.524
RA-224	+	240.98	*	4.911E+00	1.525E+00	1.175E+00	6.889E-02	4.178
RA-226	+	609.31	*	1.127E+00	1.781E-01	1.181E-01	8.716E-03	9.541
	+	1120.29		8.951E-01	6.818E-01	5.751E-01	5.253E-02	1.556
	+	1764.49		1.806E+00	4.668E-01	2.520E-01	1.475E-02	7.167
AC-228	+	338.32		1.312E+00	7.634E-01	4.509E-01	1.838E-01	2.911
	+	911.07	*	1.611E+00	3.365E-01	2.359E-01	2.411E-02	6.828
	+	969.11		1.047E+00	4.886E-01	4.865E-01	1.110E-01	2.152
RA-228	+	338.32		1.312E+00	7.634E-01	4.509E-01	1.838E-01	2.911
	+	911.07	*	1.611E+00	3.365E-01	2.359E-01	2.411E-02	6.828
	+	969.11		1.047E+00	4.886E-01	4.865E-01	1.110E-01	2.152
TH-228	+	74.81		2.705E+00	5.854E-01	6.928E-01	6.309E-02	3.904
	+	77.11		1.976E+00	3.598E-01	3.907E-01	3.567E-02	5.058
	+	87.30		1.610E+00	5.167E-01	6.230E-01	6.117E-02	2.584
	+	238.63	*	1.712E+00	1.751E-01	1.051E-01	7.750E-03	16.287
	+	300.09		1.737E+00	1.441E+00	1.388E+00	8.183E-01	1.251
TH-230	+	609.31	*	1.127E+00	1.781E-01	1.181E-01	8.716E-03	9.541
	+	1120.29		8.951E-01	6.818E-01	5.751E-01	5.253E-02	1.556
	+	1764.49		1.806E+00	4.668E-01	2.520E-01	1.475E-02	7.167
TH-232	+	338.32		1.312E+00	5.499E-01	4.509E-01	2.652E-02	2.911
	+	911.07	*	1.611E+00	3.365E-01	2.359E-01	2.411E-02	6.828
	+	969.11		1.047E+00	4.886E-01	4.865E-01	1.110E-01	2.152
TH-234	+	63.29	*	7.153E+00	3.156E+00	2.570E+00	4.672E-01	2.784
	+	92.38		4.691E+00	1.185E+00	8.597E-01	1.574E-01	5.456
U-234	+	609.31	*	1.127E+00	1.781E-01	1.181E-01	8.716E-03	9.541
	+	1120.29		8.951E-01	6.818E-01	5.751E-01	5.253E-02	1.556
	+	1764.49		1.806E+00	4.668E-01	2.520E-01	1.475E-02	7.167
NP-237	+	86.50	*	1.004E+00	3.831E-01	4.387E-01	1.001E-01	2.289
		95.87		3.394E-01	1.172E+00	1.727E+00	4.250E-01	0.197
U-238	+	63.29	*	7.153E+00	3.156E+00	2.570E+00	4.672E-01	2.784
	+	92.38		4.691E+00	9.209E-01	8.597E-01	7.816E-02	5.456
AM-243	+	74.67	*	4.308E-01	9.309E-02	1.107E-01	9.999E-03	3.891
	+	86.72		3.765E+01	1.208E+01	1.641E+01	1.602E+00	2.295
		117.66		-5.500E+00	4.365E+00	6.814E+00	4.368E-01	-0.807
		142.18		1.400E+01	2.025E+01	3.396E+01	1.939E+00	0.412
ANH-511	+	511.00	*	1.719E-01	7.276E-02	5.305E-02	2.966E-03	3.241

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	8.927E-02	3.698E-01	6.193E-01	4.091E-02	0.144
NA-22		1274.54	*	1.530E-02	5.779E-02	9.646E-02	5.956E-03	0.159
NA-24		1368.53	*	-8.322E+00	5.779E-02	Half-Life too short		
AL-26		1129.67		-4.462E-01	2.145E+00	3.459E+00	2.155E-01	-0.129
		1808.65	*	-6.937E-03	2.925E-02	4.576E-02	2.628E-03	-0.152
TI-44		67.85		-4.885E-02	6.552E-02	9.318E-02	8.315E-03	-0.524
	+	78.38	*	3.582E-01	6.523E-02	8.932E-02	8.211E-03	4.011
SC-46		889.25	*	-3.379E-02	4.797E-02	7.488E-02	5.367E-03	-0.451
	+	1120.51		1.569E-01	1.190E-01	1.557E-01	9.792E-03	1.008
V-48		944.10		-6.453E-01	1.087E+00	1.696E+00	1.211E-01	-0.381
		983.50	*	3.102E-02	1.000E-01	1.700E-01	1.190E-02	0.182
		1312.09		-2.408E-03	1.124E-01	1.824E-01	1.138E-02	-0.013
CR-51		320.08	*	-4.577E-02	4.764E-01	7.743E-01	5.101E-02	-0.059
MN-52		744.21		1.682E-01	3.874E-01	6.471E-01	3.690E-02	0.260
		848.13		4.976E-01	1.142E+01	1.915E+01	1.290E+00	0.026
		935.52		4.128E-01	4.248E-01	7.610E-01	5.452E-02	0.542
		1246.25		8.826E+00	1.302E+01	2.247E+01	1.370E+00	0.393
		1333.61		-9.885E-01	8.490E+00	1.360E+01	8.543E-01	-0.073
		1434.06	*	1.908E-02	3.619E-01	5.899E-01	3.713E-02	0.032
MN-54		834.83	*	6.890E-03	4.562E-02	7.713E-02	5.091E-03	0.089
CO-56		846.75	*	1.755E-02	4.765E-02	8.194E-02	5.508E-03	0.214
		977.42		-1.128E+00	3.954E+00	5.880E+00	4.131E-01	-0.192
		1037.82		4.669E-02	4.014E-01	6.693E-01	4.913E-02	0.070
		1175.09		-9.902E-02	2.834E+00	4.629E+00	2.741E-01	-0.021
		1238.25		2.025E-01	1.094E-01	2.028E-01	1.304E-02	0.998
		1360.21		-3.953E-01	1.241E+00	1.930E+00	1.215E-01	-0.205
		1771.40		-1.569E-01	2.528E-01	2.734E-01	1.596E-02	-0.574
CO-57		122.06	*	7.962E-04	2.994E-02	4.929E-02	3.011E-03	0.016
		136.48		-1.484E-01	2.441E-01	3.903E-01	2.623E-02	-0.380
CO-58		810.76	*	1.517E-02	4.608E-02	7.922E-02	5.058E-03	0.191
FE-59		142.65		1.329E+00	3.278E+00	5.444E+00	3.105E-01	0.244
		192.34		1.868E-01	1.195E+00	1.947E+00	2.279E-01	0.096
		1099.22	*	-9.013E-02	1.105E-01	1.668E-01	1.224E-02	-0.540
		1291.56		-1.248E-01	1.660E-01	2.489E-01	1.926E-02	-0.502
CO-60		1173.22		6.178E-04	5.393E-02	8.844E-02	5.233E-03	0.007
		1332.49	*	-9.413E-03	4.462E-02	7.054E-02	4.431E-03	-0.133
ZN-65		1115.52	*	-1.141E-01	1.438E-01	1.836E-01	1.163E-02	-0.622
GE-68		1077.35	*	7.776E-01	1.544E+00	2.655E+00	1.740E-01	0.293
AS-73		53.44	*	-1.655E+00	1.191E+00	1.891E+00	1.729E-01	-0.875
AS-74		595.88	*	1.118E-02	1.110E-01	1.822E-01	9.687E-03	0.061
		634.78		-1.119E-01	4.628E-01	7.358E-01	3.761E-02	-0.152
SE-75		66.05		-4.718E+00	6.967E+00	9.919E+00	1.062E+00	-0.476
		96.73		7.329E-01	9.606E-01	1.444E+00	1.953E-01	0.508
		121.11		6.941E-03	1.611E-01	2.654E-01	2.512E-02	0.026
		136.00		-1.489E-02	4.620E-02	7.477E-02	4.407E-03	-0.199
		198.60		-4.965E-01	2.211E+00	3.432E+00	2.395E-01	-0.145
		264.65	*	-9.221E-03	5.305E-02	8.400E-02	5.039E-03	-0.110
		279.53		1.988E-01	1.398E-01	2.236E-01	1.436E-02	0.889
		303.91		-1.102E+00	2.754E+00	3.912E+00	3.773E-01	-0.282

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		2.189E-01	3.093E-01	5.330E-01	4.774E-02	0.411
BR-77	+	87.88		1.724E+03	5.534E+02	9.319E+02	9.196E+01	1.850
		200.40		6.765E+01	4.320E+02	7.031E+02	3.961E+01	0.096
	+	239.00		6.197E+02	5.694E+01	9.589E+01	5.611E+00	6.462
		249.79		6.314E+01	1.821E+02	2.969E+02	1.750E+01	0.213
		281.68		-2.154E+02	2.702E+02	3.749E+02	2.237E+01	-0.574
		297.23		8.521E+02	2.125E+02	3.054E+02	1.824E+01	2.790
		303.76		-1.749E+02	5.308E+02	7.586E+02	4.527E+01	-0.231
		439.47		7.970E+01	3.729E+02	6.251E+02	3.517E+01	0.127
		484.57		3.012E+00	6.211E+02	1.022E+03	5.750E+01	0.003
		520.65	*	1.736E+01	2.742E+01	4.697E+01	2.617E+00	0.370
		574.64		1.998E+02	5.679E+02	9.003E+02	4.870E+01	0.222
		578.91		8.704E+01	2.618E+02	3.819E+02	2.059E+01	0.228
		585.48		3.077E+03	6.527E+02	1.204E+03	6.457E+01	2.557
		755.35		6.129E+02	4.631E+02	8.226E+02	4.779E+01	0.745
		817.79		-1.360E+02	3.455E+02	5.585E+02	3.589E+01	-0.244
SR-82		698.33		-2.453E+01	4.607E+01	7.122E+01	3.754E+00	-0.344
		776.49	*	-6.422E-01	4.634E-01	6.843E-01	4.116E-02	-0.938
		1395.20		2.453E+00	1.128E+01	1.893E+01	1.192E+00	0.130
RB-83		520.41	*	4.980E-02	8.074E-02	1.382E-01	7.699E-03	0.360
		529.64		-6.781E-03	1.232E-01	2.010E-01	1.116E-02	-0.034
		552.65		-3.447E-02	2.291E-01	3.701E-01	2.031E-02	-0.093
RB-84		881.50	*	3.860E-02	8.752E-02	1.512E-01	1.072E-02	0.255
KR-85		513.99	*	1.013E+01	9.382E+00	1.461E+01	8.161E-01	0.693
SR-85		513.99	*	5.351E-02	4.957E-02	7.720E-02	4.312E-03	0.693
RB-86		1076.63	*	3.566E-01	1.098E+00	1.860E+00	1.220E-01	0.192
Y-88		898.02		-2.484E-02	5.155E-02	8.228E-02	6.015E-03	-0.302
		1836.01	*	7.227E-03	3.670E-02	6.302E-02	3.581E-03	0.115
ZR-88		392.90	*	-1.042E-02	3.607E-02	5.891E-02	3.269E-03	-0.177
Y-91		1204.90	*	2.519E+01	2.388E+01	4.238E+01	2.542E+00	0.594
NB-94		702.63	*	2.054E-02	4.070E-02	6.822E-02	3.624E-03	0.301
		871.10		-2.964E-02	3.719E-02	5.720E-02	3.990E-03	-0.518
NB-95		765.79	*	6.147E-02	5.314E-02	9.280E-02	5.486E-03	0.662
NB-95M		235.69	*	3.523E-01	1.937E-01	2.950E-01	2.230E-02	1.194
ZR-95		724.18		1.477E-01	1.310E-01	2.041E-01	1.351E-02	0.724
		756.15	*	1.172E-01	8.729E-02	1.554E-01	1.095E-02	0.754
NB-97		657.90	*	7.432E-02	8.729E-02	Half-Life too short		
		1024.50		-7.553E+00	8.729E-02	Half-Life too short		
ZR-97		254.15		-5.403E+01	8.729E-02	Half-Life too short		
		355.39		1.924E+01	8.729E-02	Half-Life too short		
		507.63	*	7.972E+01	8.729E-02	Half-Life too short		
		602.52		-1.298E+02	8.729E-02	Half-Life too short		
		1021.30		1.081E+02	8.729E-02	Half-Life too short		
		1147.95		-6.487E+01	8.729E-02	Half-Life too short		
		1362.66		8.887E+01	8.729E-02	Half-Life too short		
		1750.46		-3.855E+01	8.729E-02	Half-Life too short		
MO-99		140.51		-3.013E+01	6.301E+01	1.004E+02	2.705E+01	-0.300
		181.06		3.410E+00	4.810E+01	6.852E+01	1.168E+01	0.050
		366.43		6.197E+01	1.936E+02	3.288E+02	1.886E+01	0.189

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	-1.033E+01	2.704E+01	4.187E+01	5.745E+00	-0.247
		778.00		-3.229E+01	7.709E+01	1.249E+02	7.533E+00	-0.259
TC-99M		140.51	*	-5.580E+13	7.709E+01	Half-Life too short		
RH-101		127.23		4.120E-02	3.822E-02	6.502E-02	3.883E-03	0.634
		198.01	*	-5.995E-04	4.008E-02	6.282E-02	3.529E-03	-0.010
		325.23		3.033E-01	2.985E-01	4.649E-01	2.756E-02	0.652
RH-102		418.52		6.783E-02	2.969E-01	4.997E-01	2.799E-02	0.136
		475.06	*	-1.144E-02	3.291E-02	5.287E-02	2.977E-03	-0.216
		631.29		-2.848E-02	6.492E-02	1.016E-01	5.212E-03	-0.280
		697.49		-1.072E-01	9.738E-02	1.432E-01	7.536E-03	-0.749
		766.84		1.336E-01	1.360E-01	2.341E-01	1.386E-02	0.571
		1046.59		4.443E-02	1.435E-01	2.431E-01	1.634E-02	0.183
		1112.84		-3.324E-02	3.513E-01	4.901E-01	3.107E-02	-0.068
RU-103		497.08	*	-2.256E-02	5.118E-02	8.142E-02	1.023E-02	-0.277
	+	610.33		1.279E+01	2.644E+00	3.299E+00	5.020E-01	3.879
RH-106	+	511.85		8.635E-01	3.654E-01	4.820E-01	2.694E-02	1.791
		621.84	*	2.275E-01	3.667E-01	6.236E-01	7.138E-02	0.365
		1050.47		3.742E-01	2.870E+00	4.789E+00	3.209E-01	0.078
RU-106	+	511.85		8.635E-01	3.654E-01	4.820E-01	2.694E-02	1.791
		621.84	*	2.275E-01	3.659E-01	6.236E-01	3.234E-02	0.365
		1050.47		3.742E-01	2.870E+00	4.789E+00	3.209E-01	0.078
AG-108M		433.93	*	-2.828E-02	3.680E-02	5.767E-02	3.537E-03	-0.490
		614.37		-4.407E-03	4.866E-02	6.758E-02	3.897E-03	-0.065
		722.95		4.612E-03	5.504E-02	7.717E-02	4.643E-03	0.060
AG-110M		657.75	*	6.814E-04	3.997E-02	6.482E-02	3.499E-03	0.011
		677.61		3.259E-01	3.256E-01	5.729E-01	3.142E-02	0.569
		706.67		2.644E-02	2.550E-01	4.147E-01	2.373E-02	0.064
		763.93		-1.641E-01	2.117E-01	3.180E-01	1.985E-02	-0.516
		884.67		2.152E-02	6.029E-02	1.034E-01	7.705E-03	0.208
		937.48		3.119E-02	1.265E-01	2.147E-01	1.617E-02	0.145
		1384.27		-3.557E-02	1.847E-01	2.913E-01	1.930E-02	-0.122
IN-111		171.28		-1.673E+00	2.254E+00	3.543E+00	1.926E-01	-0.472
		245.39	*	-1.998E+00	2.870E+00	3.811E+00	2.240E-01	-0.524
IN-113M		391.69	*	-5.560E-02	5.336E-02	8.308E-02	4.944E-03	-0.669
SN-113		391.69	*	-5.560E-02	5.336E-02	8.308E-02	4.944E-03	-0.669
IN-114M		190.27	*	1.094E-02	2.569E-01	3.646E-01	2.029E-02	0.030
CD-115		260.90		-1.349E-04	2.569E-01	Half-Life too short		
		492.35		-5.609E-05	2.569E-01	Half-Life too short		
		527.90	*	1.104E-05	2.569E-01	Half-Life too short		
SN-117M		156.02		-4.068E-01	3.199E+00	5.019E+00	2.773E-01	-0.081
		158.56	*	-1.512E-02	7.371E-02	1.192E-01	6.548E-03	-0.127
SB-122		563.90	*	6.943E+00	5.079E+00	9.058E+00	4.936E-01	0.766
		692.80		3.456E+01	1.094E+02	1.810E+02	9.450E+00	0.191
I-123		159.00	*	-2.701E+01	1.094E+02	Half-Life too short		
		528.96		-3.862E+03	1.094E+02	Half-Life too short		
TE-123M		159.00	*	-3.680E-03	3.354E-02	5.444E-02	3.032E-03	-0.068
I-124		602.71	*	-1.272E+00	1.390E+00	1.743E+00	9.211E-02	-0.730
		722.78		1.519E+00	9.269E+00	1.312E+01	7.215E-01	0.116
		1325.50		9.675E+01	6.041E+01	1.164E+02	7.296E+00	0.831

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1376.25		5.606E+01	5.383E+01	9.831E+01	6.189E+00	0.570
		1509.49		3.222E+01	2.572E+01	4.932E+01	3.086E+00	0.653
		1691.02		1.849E+00	5.586E+00	9.919E+00	5.965E-01	0.186
SB-124		602.71		-4.765E-02	5.207E-02	6.528E-02	3.452E-03	-0.730
		645.85		6.298E-02	5.890E-01	9.634E-01	5.668E-02	0.065
		709.31		1.344E+00	3.439E+00	5.719E+00	3.073E-01	0.235
		713.82		-1.262E+00	2.086E+00	3.186E+00	3.185E-01	-0.396
		722.78		8.250E-02	5.033E-01	7.124E-01	4.122E-02	0.116
	+	968.20		1.114E+01	4.603E+00	7.334E+00	5.177E-01	1.518
		1045.16		-1.003E+00	3.156E+00	5.058E+00	3.403E-01	-0.198
		1325.50		5.611E+00	3.503E+00	6.750E+00	4.231E-01	0.831
		1368.21		-5.560E-01	2.082E+00	3.251E+00	3.940E-01	-0.171
		1436.60		-6.386E-02	4.106E+00	6.685E+00	4.207E-01	-0.010
		1691.02	*	2.368E-02	7.154E-02	1.270E-01	8.249E-03	0.186
SB-125		427.89	*	1.287E-01	1.017E-01	1.813E-01	1.064E-02	0.710
	+	463.38		8.906E-01	5.819E-01	6.566E-01	4.348E-02	1.356
		600.56		-2.606E-02	2.097E-01	3.177E-01	1.994E-02	-0.082
		635.90		-1.884E-01	3.264E-01	5.043E-01	3.131E-02	-0.374
TE-125M		109.28	*	5.100E-01	1.167E+01	1.899E+01	1.728E+00	0.027
I-126		388.63		2.709E-01	2.764E-01	4.842E-01	2.698E-02	0.559
		666.33	*	7.742E-02	2.417E-01	4.013E-01	1.998E-02	0.193
		753.82		6.276E-01	2.101E+00	3.461E+00	2.006E-01	0.181
SB-126		223.80		7.947E-01	5.527E+00	8.956E+00	5.173E-01	0.089
		278.60		6.643E+00	3.775E+00	6.120E+00	3.651E-01	1.086
	+	296.50		1.539E+01	3.386E+00	4.703E+00	2.809E-01	3.272
		414.70		-6.195E-02	9.507E-02	1.507E-01	8.432E-03	-0.411
		415.30		-4.069E+00	7.728E+00	1.235E+01	6.911E-01	-0.330
		555.20		1.554E+00	5.371E+00	8.966E+00	4.913E-01	0.173
		573.80		4.959E-01	1.401E+00	2.288E+00	1.239E-01	0.217
		593.00		-6.779E-01	1.164E+00	1.799E+00	9.592E-02	-0.377
		656.30		-3.675E+00	4.578E+00	6.902E+00	3.434E-01	-0.532
		666.33		3.256E-02	1.017E-01	1.688E-01	8.405E-03	0.193
		675.00		-1.898E+00	2.469E+00	3.694E+00	1.868E-01	-0.514
		695.00		-1.569E-02	1.100E-01	1.755E-01	9.195E-03	-0.089
		697.00		-3.062E-01	3.927E-01	5.940E-01	3.124E-02	-0.515
		720.50	*	1.018E-02	2.336E-01	3.260E-01	1.786E-02	0.031
		856.80		-2.874E-02	7.795E-01	1.117E+00	7.625E-02	-0.026
		989.30		2.599E-01	1.908E+00	3.195E+00	2.230E-01	0.081
		1034.80		6.561E+00	1.265E+01	2.183E+01	1.480E+00	0.301
		1213.00		2.604E+00	6.871E+00	1.158E+01	6.969E-01	0.225
SB-127		61.10		1.707E+02	1.405E+02	2.156E+02	2.674E+01	0.791
		252.40		-1.814E+00	8.838E+00	1.395E+01	5.834E+00	-0.130
		290.80		-2.530E+01	4.553E+01	6.409E+01	6.617E+00	-0.395
		411.60		-8.952E+00	2.250E+01	3.633E+01	5.447E+00	-0.246
		444.90		-1.469E+00	1.829E+01	3.006E+01	3.494E+00	-0.049
		473.00		-3.844E-01	3.182E+00	5.198E+00	6.229E-01	-0.074
		543.00		3.117E+01	3.193E+01	5.550E+01	7.527E+00	0.562
		603.60		-2.260E+01	2.509E+01	3.136E+01	3.585E+00	-0.721
		685.20	*	2.346E+00	2.653E+00	4.581E+00	4.636E-01	0.512

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		-1.198E+01	3.150E+01	4.924E+01	7.375E+00	-0.243
		722.20		-3.200E+00	6.915E+01	9.545E+01	9.597E+00	-0.034
		783.80		4.197E+00	7.276E+00	1.268E+01	1.488E+00	0.331
XE-127		57.60		1.416E+01	9.516E+00	1.487E+01	1.369E+00	0.952
		145.22		3.625E-01	8.661E-01	1.438E+00	8.147E-02	0.252
		172.10		-1.142E-01	1.413E-01	2.213E-01	1.204E-02	-0.516
		202.84	*	-4.239E-02	5.812E-02	9.083E-02	5.131E-03	-0.467
		374.96		7.618E-02	2.357E-01	3.999E-01	2.271E-02	0.190
I-131		80.18		4.702E+00	1.023E+01	1.123E+01	1.052E+00	0.419
		284.30		7.911E-01	2.182E+00	3.649E+00	2.420E-01	0.217
		364.48	*	-7.732E-02	1.662E-01	2.694E-01	1.740E-02	-0.287
		636.97		-8.440E-03	2.332E+00	3.782E+00	2.235E-01	-0.002
		722.89		1.332E+00	1.187E+01	1.670E+01	9.388E-01	0.080
TE-132		49.72		6.951E-01	5.099E+01	8.584E+01	1.003E+01	0.008
		111.76		-1.672E+01	6.460E+01	1.055E+02	1.100E+01	-0.158
		116.30		-3.625E+01	5.895E+01	9.469E+01	9.650E+00	-0.383
		228.16	*	-1.127E+00	1.585E+00	2.452E+00	3.672E-01	-0.460
BA-133		53.15		-5.978E+00	5.050E+00	8.101E+00	7.395E-01	-0.738
		79.62		2.124E+00	1.951E+00	2.536E+00	3.956E-01	0.838
		81.00		6.642E-02	1.701E-01	1.855E-01	3.021E-02	0.358
	+	276.40		9.472E-01	6.459E-01	7.961E-01	1.038E-01	1.190
		302.84		-6.696E-03	1.832E-01	2.675E-01	3.141E-02	-0.025
		356.01	*	6.169E-03	5.683E-02	8.319E-02	9.616E-03	0.074
		383.85		-2.838E-01	3.490E-01	5.505E-01	5.930E-02	-0.516
I-133	+	510.53		1.705E+01	3.490E-01	Half-Life too short		
		529.87	*	-9.736E-03	3.490E-01	Half-Life too short		
		706.58		2.765E-01	3.490E-01	Half-Life too short		
		856.28		-3.463E+00	3.490E-01	Half-Life too short		
		875.33		-4.075E-01	3.490E-01	Half-Life too short		
		1236.41		8.315E+00	3.490E-01	Half-Life too short		
		1298.22		2.188E-01	3.490E-01	Half-Life too short		
CS-134		475.35		-6.759E-01	2.126E+00	3.423E+00	1.927E-01	-0.197
		563.23		5.468E-01	4.266E-01	7.572E-01	4.226E-02	0.722
		569.32		-2.980E-01	2.247E-01	3.266E-01	1.833E-02	-0.912
		604.70		9.514E-03	4.046E-02	5.840E-02	3.102E-03	0.163
	+	795.84	*	9.932E-02	7.316E-02	1.101E-01	6.932E-03	0.902
		801.93		-3.058E-01	4.909E-01	7.475E-01	4.735E-02	-0.409
		1038.57		1.983E+00	4.905E+00	8.374E+00	5.661E-01	0.237
		1167.94		-1.465E+00	3.189E+00	5.017E+00	2.988E-01	-0.292
		1365.15		7.330E-01	1.434E+00	2.478E+00	1.690E-01	0.296
CS-135		268.24	*	2.554E-01	1.872E-01	3.178E-01	2.469E-02	0.804
I-135		288.45		-2.313E+13	1.872E-01	Half-Life too short		
		417.63		3.986E+12	1.872E-01	Half-Life too short		
		546.56		2.270E+12	1.872E-01	Half-Life too short		
		836.80		2.751E+13	1.872E-01	Half-Life too short		
		1038.76		1.134E+13	1.872E-01	Half-Life too short		
		1124.00		2.465E+13	1.872E-01	Half-Life too short		
		1131.51		1.497E+13	1.872E-01	Half-Life too short		
		1260.41	*	-3.839E+11	1.872E-01	Half-Life too short		

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		1457.56		1.142E+15	1.872E-01	Half-Life too short		
		1678.03		4.266E+12	1.872E-01	Half-Life too short		
		1706.46		-8.228E+12	1.872E-01	Half-Life too short		
		1791.20		9.867E+12	1.872E-01	Half-Life too short		
CS-136		66.91		-1.230E+00	1.298E+00	1.810E+00	2.826E-01	-0.680
	+	86.29		5.183E+00	1.736E+00	2.795E+00	3.807E-01	1.855
		153.22		1.260E+00	9.043E-01	1.546E+00	1.087E-01	0.815
		163.89		2.086E-01	1.401E+00	2.295E+00	1.598E-01	0.091
		176.55		8.879E-02	5.010E-01	8.196E-01	5.107E-02	0.108
		273.65		-1.711E+00	7.783E-01	8.975E-01	6.066E-02	-1.906
		340.57		2.944E-01	2.016E-01	3.200E-01	1.997E-02	0.920
		818.51		2.742E-02	9.631E-02	1.651E-01	1.065E-02	0.166
		1048.07	*	-2.505E-02	1.512E-01	2.456E-01	1.764E-02	-0.102
		1235.34		-7.232E-01	8.934E-01	1.362E+00	1.383E-01	-0.531
BA-137M		661.65	*	-3.202E-03	4.255E-02	6.846E-02	3.381E-03	-0.047
CS-137		661.65	*	-3.385E-03	4.498E-02	7.237E-02	3.595E-03	-0.047
CE-139		165.85	*	-2.901E-02	3.434E-02	5.385E-02	2.912E-03	-0.539
BA-140		162.64		7.231E-01	9.852E-01	1.651E+00	1.025E-01	0.438
		304.84		9.381E-01	1.903E+00	2.858E+00	7.809E-01	0.328
		423.70		-1.823E+00	2.510E+00	3.845E+00	1.221E+00	-0.474
		537.32	*	-2.002E-01	3.575E-01	5.508E-01	1.789E-01	-0.363
LA-140	+	328.77		8.743E-01	5.538E-01	7.577E-01	5.002E-02	1.154
		432.53		-2.276E+00	2.722E+00	4.245E+00	2.651E-01	-0.536
		487.03		9.153E-02	1.909E-01	3.239E-01	2.076E-02	0.283
		751.79		-2.570E+00	2.443E+00	3.541E+00	2.506E-01	-0.726
		815.85		-5.632E-01	4.402E-01	6.517E-01	5.012E-02	-0.864
		867.82		-6.079E-03	2.073E+00	2.979E+00	2.235E-01	-0.002
		919.63		-2.242E+00	3.771E+00	5.761E+00	5.497E-01	-0.389
		925.24		4.573E-01	1.563E+00	2.664E+00	2.087E-01	0.172
		1596.49	*	-1.940E-01	1.105E-01	1.273E-01	7.851E-03	-1.524
CE-141		145.44	*	1.670E-02	7.893E-02	1.301E-01	7.675E-03	0.128
CE-143		57.37		8.182E-03	7.893E-02	Half-Life too short		
		231.56		1.410E-04	7.893E-02	Half-Life too short		
		293.26	*	4.584E-03	7.893E-02	Half-Life too short		
	+	350.59		1.252E-01	7.893E-02	Half-Life too short		
		490.36		-1.326E-02	7.893E-02	Half-Life too short		
		664.57		-8.393E-04	7.893E-02	Half-Life too short		
		721.93		-1.871E-03	7.893E-02	Half-Life too short		
CE-144		80.11		1.823E+00	3.715E+00	4.088E+00	3.797E-01	0.446
		133.54	*	1.079E-01	2.400E-01	3.993E-01	5.679E-02	0.270
PM-144		476.78		5.142E-03	7.489E-02	1.239E-01	8.431E-03	0.041
		618.01		6.804E-03	3.681E-02	6.069E-02	3.395E-03	0.112
		696.49	*	-2.169E-02	4.262E-02	6.598E-02	3.471E-03	-0.329
		778.57		2.273E-01	2.503E+00	4.233E+00	2.557E-01	0.054
PR-144		696.49	*	-1.472E+00	2.893E+00	4.478E+00	2.353E-01	-0.329
		1489.15		-5.423E+00	1.163E+01	1.703E+01	1.068E+00	-0.319
PM-146		453.90	*	1.865E-02	4.924E-02	8.328E-02	7.088E-03	0.224
		633.02		4.305E-01	1.608E+00	2.654E+00	9.746E-01	0.162
		735.90		5.377E-02	1.708E-01	2.815E-01	7.838E-02	0.191

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		747.13		5.064E-02	1.027E-01	1.723E-01	2.149E-02	0.294
ND-147	+	91.11		2.824E+00	5.636E-01	8.318E-01	8.290E-02	3.396
		319.41		-6.623E-01	4.599E+00	7.657E+00	4.553E-01	-0.086
		439.89		-9.386E-02	7.942E+00	1.312E+01	7.387E-01	-0.007
		531.02	*	1.259E-01	7.744E-01	1.283E+00	1.722E-01	0.098
PM-149		285.90	*	1.961E-04	7.744E-01	Half-Life too short		
EU-152		121.78		1.042E-02	8.660E-02	1.431E-01	1.124E-02	0.073
		244.69		-5.477E-02	4.306E-01	5.969E-01	3.507E-02	-0.092
		344.27	*	-2.302E-02	1.374E-01	1.859E-01	1.225E-02	-0.124
		443.98		-1.726E-01	1.066E+00	1.742E+00	9.808E-02	-0.099
		778.89		3.445E-02	2.882E-01	4.886E-01	2.950E-02	0.071
		867.32		5.995E-01	1.018E+00	1.577E+00	1.094E-01	0.380
	+	964.01		6.466E-01	4.857E-01	7.002E-01	4.952E-02	0.924
		1085.78		7.104E-02	4.835E-01	8.066E-01	5.247E-02	0.088
		1112.02		1.880E-01	4.453E-01	7.062E-01	4.480E-02	0.266
		1407.95		2.130E-01	2.088E-01	3.819E-01	2.405E-02	0.558
GD-153		69.67		1.150E+00	2.453E+00	3.437E+00	3.068E-01	0.335
	+	83.37		2.483E+01	1.779E+01	3.040E+01	2.889E+00	0.817
		97.43	*	8.079E-02	1.001E-01	1.511E-01	1.263E-02	0.535
		103.18		-1.223E-02	1.203E-01	1.981E-01	1.522E-02	-0.062
EU-154		123.07		1.077E-03	6.090E-02	1.002E-01	9.594E-03	0.011
		247.94		-8.660E-04	4.975E-01	6.953E-01	6.672E-02	-0.001
		591.81		-1.081E-01	6.816E-01	1.064E+00	1.012E-01	-0.102
		723.30		-2.343E-02	2.381E-01	3.265E-01	2.233E-02	-0.072
		756.87		9.691E-01	9.423E-01	1.635E+00	1.659E-01	0.593
		873.19		3.191E-02	3.105E-01	5.229E-01	5.836E-02	0.061
		996.32		-6.231E-01	4.845E-01	6.923E-01	1.178E-01	-0.900
		1004.76		-2.220E-01	2.723E-01	4.170E-01	4.354E-02	-0.532
		1274.45	*	4.656E-02	1.616E-01	2.702E-01	2.586E-02	0.172
EU-155		48.70		-2.147E+00	3.575E+00	5.891E+00	4.933E-01	-0.364
		60.01		-1.892E+00	7.203E+00	1.051E+01	9.626E-01	-0.180
	+	86.54		4.122E-01	1.324E-01	2.180E-01	2.143E-02	1.890
		105.31	*	9.320E-03	1.248E-01	2.067E-01	1.568E-02	0.045
TB-160	+	86.79		1.130E+00	3.628E-01	5.899E-01	5.766E-02	1.916
		197.04		-2.027E-01	7.072E-01	1.096E+00	6.150E-02	-0.185
		215.65		-1.044E-02	9.591E-01	1.427E+00	8.174E-02	-0.007
		298.57		4.292E-01	1.865E-01	2.413E-01	1.441E-02	1.779
		879.36	*	-4.239E-02	1.694E-01	2.764E-01	1.952E-02	-0.153
		962.29		1.203E+00	7.624E-01	1.263E+00	8.938E-02	0.953
		966.15		1.187E+00	4.177E-01	5.895E-01	4.165E-02	2.013
		1177.93		4.960E-05	4.612E-01	7.554E-01	4.479E-02	0.000
		1271.85		4.032E-01	9.376E-01	1.589E+00	9.784E-02	0.254
HO-166M		80.57		-3.687E-02	4.879E-01	5.143E-01	4.791E-02	-0.072
	+	184.41		1.027E-01	5.717E-02	8.018E-02	4.429E-03	1.280
		280.46		1.312E-02	1.062E-01	1.574E-01	9.391E-03	0.083
		410.95		2.141E-02	2.777E-01	4.627E-01	2.586E-02	0.046
		711.68	*	-8.014E-03	7.320E-02	1.169E-01	6.308E-03	-0.069
		752.31		-3.338E-01	3.314E-01	4.827E-01	2.790E-02	-0.691
		810.29		1.644E-02	6.787E-02	1.159E-01	7.361E-03	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		3.063E+01	4.243E+01	7.295E+01	6.541E+00	0.420
		52.39		-5.611E+00	2.171E+01	3.616E+01	3.282E+00	-0.155
		59.40		-8.760E+00	3.913E+01	5.721E+01	5.258E+00	-0.153
		66.72	*	-3.671E+01	4.048E+01	5.701E+01	5.092E+00	-0.644
LU-176	+	88.36		4.919E-01	2.351E-01	4.377E-01	4.292E-02	1.124
		201.83		-1.895E-02	3.326E-02	5.238E-02	2.955E-03	-0.362
		306.84	*	2.113E-02	2.848E-02	4.952E-02	2.954E-03	0.427
		401.10		8.762E+00	8.004E+00	1.407E+01	7.834E-01	0.623
LU-177		112.95		1.744E-01	2.539E+00	4.195E+00	2.844E-01	0.042
	+	208.36	*	3.723E+00	2.344E+00	3.038E+00	1.727E-01	1.225
LU-177M		52.97		-2.572E+00	2.328E+00	3.748E+00	3.418E-01	-0.686
		54.07		-1.856E+00	1.213E+00	1.913E+00	1.755E-01	-0.970
		61.30		4.236E+00	2.194E+00	3.448E+00	3.135E-01	1.229
		121.62		9.522E-03	4.490E-01	7.391E-01	4.527E-02	0.013
		147.16		-1.627E-01	7.918E-01	1.284E+00	7.244E-02	-0.127
		171.86		-4.199E-01	5.468E-01	8.583E-01	4.669E-02	-0.489
		218.09		4.543E-01	9.898E-01	1.628E+00	9.352E-02	0.279
		268.79		1.919E+00	9.622E-01	1.677E+00	9.975E-02	1.145
		319.02		-1.658E-01	3.031E-01	4.940E-01	2.936E-02	-0.336
		367.43		8.444E-01	1.033E+00	1.801E+00	1.032E-01	0.469
		413.65	*	-1.758E-01	1.975E-01	3.082E-01	1.724E-02	-0.570
HF-181		56.28		1.653E+00	1.341E+00	2.324E+00	2.139E-01	0.711
		57.53		1.377E+00	7.870E-01	1.240E+00	1.142E-01	1.110
		65.20		2.423E-01	1.407E+00	2.084E+00	1.866E-01	0.116
		133.02		-1.966E-02	8.231E-02	1.338E-01	7.838E-03	-0.147
		136.25		-2.672E-01	5.578E-01	8.970E-01	5.204E-02	-0.298
		345.85		2.830E-01	2.880E-01	4.026E-01	2.355E-02	0.703
		482.03	*	-3.622E-03	5.103E-02	8.358E-02	4.703E-03	-0.043
W-181		56.28		6.284E-01	5.091E-01	8.826E-01	8.125E-02	0.712
		57.53		5.231E-01	2.991E-01	4.714E-01	4.339E-02	1.110
		65.20	*	9.134E-02	5.306E-01	7.856E-01	7.037E-02	0.116
TA-182		67.75		-1.209E-01	1.592E-01	2.262E-01	2.019E-02	-0.535
		100.10		1.008E-02	2.058E-01	3.410E-01	2.737E-02	0.030
		152.43		3.112E-01	4.133E-01	6.928E-01	3.859E-02	0.449
		222.10		-5.359E-02	4.105E-01	6.569E-01	3.788E-02	-0.082
		1001.68		2.216E+00	2.566E+00	4.534E+00	3.141E-01	0.489
	+	1121.28		4.305E-01	3.267E-01	4.330E-01	2.721E-02	0.994
		1189.05		7.171E-02	3.979E-01	6.611E-01	3.939E-02	0.108
		1221.42	*	-2.317E-01	2.448E-01	3.658E-01	2.209E-02	-0.633
		1230.97		7.293E-02	6.266E-01	1.033E+00	6.260E-02	0.071
RE-183		57.98		4.857E-01	3.035E-01	4.757E-01	4.377E-02	1.021
		59.32		-4.258E-02	1.651E-01	2.409E-01	2.215E-02	-0.177
		67.20		-2.715E-01	2.918E-01	4.103E-01	3.663E-02	-0.662
		162.32	*	9.292E-02	1.279E-01	2.144E-01	1.168E-02	0.433
	+	208.81		2.566E+00	1.616E+00	2.081E+00	1.183E-01	1.233
		291.72		5.782E-01	1.164E+00	1.767E+00	1.056E-01	0.327
RE-184		57.98		1.760E+00	1.100E+00	1.724E+00	1.586E-01	1.021
		59.32		-1.542E-01	5.978E-01	8.726E-01	8.021E-02	-0.177
		67.20		-9.836E-01	1.057E+00	1.487E+00	1.327E-01	-0.662

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		8.795E-02	4.113E-01	6.760E-01	3.691E-02	0.130
		216.55		-1.118E-01	3.114E-01	4.934E-01	2.830E-02	-0.227
		252.85	*	-1.017E-01	2.880E-01	4.529E-01	2.675E-02	-0.224
		318.01		-2.169E-01	5.195E-01	8.524E-01	5.068E-02	-0.254
		792.07		6.566E-01	1.380E+00	2.097E+00	1.294E-01	0.313
		903.28		2.783E-01	1.214E+00	1.921E+00	1.393E-01	0.145
		920.93		-5.448E-01	5.180E-01	7.714E-01	5.558E-02	-0.706
OS-185		59.72		-9.372E-02	4.397E-01	6.431E-01	5.902E-02	-0.146
		61.14		4.026E-01	2.411E-01	3.767E-01	3.429E-02	1.069
		69.30		3.628E-01	4.849E-01	6.278E-01	5.603E-02	0.578
		592.07		-6.526E-01	2.757E+00	4.400E+00	2.347E-01	-0.148
		646.12	*	-4.442E-03	5.049E-02	8.123E-02	4.095E-03	-0.055
		717.42		-6.744E-02	1.100E+00	1.764E+00	9.610E-02	-0.038
		874.81		-2.893E-01	6.403E-01	1.021E+00	7.161E-02	-0.283
		880.27		-1.728E-01	9.376E-01	1.538E+00	1.088E-01	-0.112
RE-188		155.03	*	1.388E-01	2.176E-01	3.518E-01	1.948E-02	0.394
		477.96		1.764E-01	3.519E+00	5.815E+00	3.274E-01	0.030
		633.10		9.987E-01	3.333E+00	5.540E+00	2.837E-01	0.180
W-188	+	63.58		2.958E+02	1.218E+02	1.273E+02	1.146E+01	2.323
		227.08		-2.288E-01	1.591E+01	2.557E+01	1.481E+00	-0.009
		290.67	*	-5.167E+00	9.716E+00	1.372E+01	8.194E-01	-0.377
IR-192	+	295.96		1.032E+00	2.274E-01	3.225E-01	1.955E-02	3.201
		308.46		6.402E-02	1.121E-01	1.935E-01	1.166E-02	0.331
		316.51	*	2.952E-02	4.035E-02	7.013E-02	4.192E-03	0.421
		468.07		5.431E-02	8.994E-02	1.357E-01	8.877E-03	0.400
		604.41		7.249E-02	5.563E-01	7.936E-01	8.803E-02	0.091
		612.46		1.009E+00	9.544E-01	1.482E+00	1.059E-01	0.681
AU-195		65.12		7.262E-02	2.455E-01	3.653E-01	3.273E-02	0.199
		66.83		-1.247E-01	1.347E-01	1.895E-01	1.693E-02	-0.658
	+	75.70		1.409E+00	3.045E-01	5.592E-01	5.072E-02	2.520
		98.88	*	1.574E-01	2.629E-01	4.300E-01	3.515E-02	0.366
		129.76		5.581E+00	3.465E+00	5.977E+00	3.538E-01	0.934
TL-200		367.94	*	3.071E-03	3.465E+00	Half-Life too short		
		579.30		2.181E-02	3.465E+00	Half-Life too short		
		828.27		8.772E-03	3.465E+00	Half-Life too short		
		1205.75		9.140E-03	3.465E+00	Half-Life too short		
TL-201		68.90		9.699E+00	1.702E+01	1.892E+01	1.688E+00	0.513
		70.82		4.588E+00	7.040E+00	1.061E+01	9.480E-01	0.433
		80.30		7.197E+00	1.666E+01	1.825E+01	1.698E+00	0.394
		135.34		-6.644E+00	5.627E+01	9.182E+01	5.342E+00	-0.072
		167.43	*	-3.928E+00	1.502E+01	2.417E+01	1.308E+00	-0.163
TL-202		68.90		5.360E-01	9.405E-01	1.046E+00	9.331E-02	0.513
		70.82		2.529E-01	3.880E-01	5.846E-01	5.225E-02	0.433
		80.30		3.968E-01	9.185E-01	1.006E+00	9.360E-02	0.394
		439.56	*	1.810E-02	9.236E-02	1.546E-01	8.700E-03	0.117
HG-203		70.83		9.707E-01	1.496E+00	2.249E+00	3.105E-01	0.432
		72.87		2.467E+00	9.861E-01	1.493E+00	2.007E-01	1.653
	+	82.60		1.910E+00	1.383E+00	2.358E+00	3.366E-01	0.810
		279.20	*	8.170E-02	5.490E-02	8.794E-02	5.554E-03	0.929

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		6.175E-01	2.654E-01	4.139E-01	3.716E-02	1.492
	+	74.97		7.734E-01	1.671E-01	2.854E-01	2.581E-02	2.709
	+	84.90		3.186E-01	2.282E-01	4.047E-01	3.893E-02	0.787
		569.67		-4.242E-02	3.422E-02	5.006E-02	2.717E-03	-0.847
		1063.62	*	8.850E-02	6.972E-02	1.260E-01	8.357E-03	0.702
		1770.23		6.477E-02	4.746E-01	7.028E-01	4.105E-02	0.092
TL-207		81.07		1.498E-01	3.747E-01	4.095E-01	3.827E-02	0.366
	+	83.78		2.101E-01	1.504E-01	2.545E-01	2.427E-02	0.825
		94.90		5.841E-01	3.009E-01	4.695E-01	4.087E-02	1.244
		122.32		-4.417E-01	2.063E+00	3.365E+00	2.339E-01	-0.131
		144.24		9.868E-03	7.987E-01	1.307E+00	9.328E-02	0.008
		154.21		4.876E-01	4.874E-01	7.974E-01	5.427E-02	0.611
		269.46		4.621E-01	2.241E-01	3.910E-01	2.427E-02	1.182
		323.87	*	7.985E-01	8.288E-01	1.281E+00	2.121E-01	0.623
	+	338.28		5.480E+00	2.346E+00	2.668E+00	2.822E-01	2.054
		445.03		-1.822E-01	2.553E+00	4.199E+00	4.272E-01	-0.043
PO-209		260.50		-8.831E+00	1.186E+01	1.822E+01	1.081E+00	-0.485
		262.80		-1.035E+01	3.194E+01	5.018E+01	2.979E+00	-0.206
		896.60	*	-2.215E+00	8.963E+00	1.461E+01	1.059E+00	-0.152
BI-210		46.50	*	-1.740E+00	5.514E+00	8.968E+00	7.384E-01	-0.194
PB-210		46.50	*	-1.740E+00	5.514E+00	8.968E+00	7.384E-01	-0.194
PO-210		46.50	*	-1.740E+00	5.514E+00	8.968E+00	6.478E-01	-0.194
PB-211		404.84	*	-6.613E-01	1.221E+00	1.847E+00	1.151E+00	-0.358
		427.08		2.135E+00	2.622E+00	3.976E+00	2.457E+00	0.537
		831.96		-5.699E-01	1.457E+00	2.286E+00	1.427E+00	-0.249
BI-212	+	727.18	*	8.433E-01	5.686E-01	7.251E-01	5.453E-02	1.163
		785.46		2.849E+00	2.164E+00	3.946E+00	2.409E-01	0.722
		1620.62		5.173E-01	1.388E+00	2.442E+00	1.498E-01	0.212
PO-215		81.07		1.498E-01	3.747E-01	4.095E-01	3.827E-02	0.366
	+	83.78		2.101E-01	1.504E-01	2.545E-01	2.427E-02	0.825
		94.90		5.841E-01	3.009E-01	4.695E-01	4.087E-02	1.244
		122.32		-4.417E-01	2.063E+00	3.365E+00	2.339E-01	-0.131
		144.24		9.868E-03	7.987E-01	1.307E+00	9.328E-02	0.008
		154.21		4.876E-01	4.874E-01	7.974E-01	5.427E-02	0.611
		269.46		4.621E-01	2.241E-01	3.910E-01	2.427E-02	1.182
		323.87	*	7.985E-01	8.288E-01	1.281E+00	2.121E-01	0.623
	+	338.28		5.480E+00	2.346E+00	2.668E+00	2.822E-01	2.054
		445.03		-1.822E-01	2.553E+00	4.199E+00	4.272E-01	-0.043
RN-219		271.23		4.284E-01	3.242E-01	4.900E-01	4.026E-02	0.874
		401.81	*	6.524E-01	4.940E-01	8.671E-01	1.171E-01	0.752
RN-220		549.76	*	-1.373E+01	2.888E+01	4.540E+01	2.495E+00	-0.302
RA-223		81.07		1.498E-01	3.747E-01	4.095E-01	3.827E-02	0.366
	+	83.78		2.101E-01	1.504E-01	2.545E-01	2.427E-02	0.825
		94.90		5.841E-01	3.009E-01	4.695E-01	4.087E-02	1.244
		122.32		-4.417E-01	2.063E+00	3.365E+00	2.339E-01	-0.131
		144.24		9.868E-03	7.987E-01	1.307E+00	9.328E-02	0.008
		154.21		4.876E-01	4.874E-01	7.974E-01	5.427E-02	0.611
		269.46		4.621E-01	2.241E-01	3.910E-01	2.427E-02	1.182
		323.87	*	7.985E-01	8.288E-01	1.281E+00	2.121E-01	0.623

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		5.480E+00	2.346E+00	2.668E+00	2.822E-01	2.054
		445.03		-1.822E-01	2.553E+00	4.199E+00	4.272E-01	-0.043
AC-227		79.80		2.507E+00	2.491E+00	3.194E+00	6.954E-01	0.785
		236.00		1.844E+00	4.189E-01	6.403E-01	6.706E-02	2.880
		256.20	*	-4.414E-02	4.680E-01	7.454E-01	1.044E-01	-0.059
		286.10		1.331E+00	1.700E+00	2.958E+00	3.446E-01	0.450
	+	299.80		3.162E+00	1.918E+00	2.949E+00	4.821E-01	1.072
		304.40		-7.252E-01	2.472E+00	3.539E+00	6.142E-01	-0.205
		334.20		-5.693E-01	3.242E+00	4.392E+00	8.065E-01	-0.130
TH-227		79.80		2.507E+00	2.493E+00	3.194E+00	7.041E-01	0.785
		94.00		1.600E+01	4.410E+00	4.775E+00	1.044E+00	3.350
		236.00		1.844E+00	4.077E-01	6.403E-01	5.815E-02	2.880
		256.20	*	-4.414E-02	4.680E-01	7.454E-01	1.263E-01	-0.059
		286.10		1.331E+00	2.155E+00	2.958E+00	2.963E+00	0.450
	+	299.80		3.162E+00	1.918E+00	2.949E+00	4.821E-01	1.072
		304.40		-7.252E-01	2.472E+00	3.539E+00	6.142E-01	-0.205
		334.20		-5.693E-01	3.242E+00	4.392E+00	8.065E-01	-0.130
TH-229	+	85.43		3.145E-01	2.252E-01	4.166E-01	4.024E-02	0.755
	+	88.47		2.832E-01	1.354E-01	2.497E-01	2.444E-02	1.134
		100.00		1.673E-02	2.102E-01	3.487E-01	2.803E-02	0.048
		193.63	*	1.513E-02	6.047E-01	9.799E-01	5.475E-02	0.015
	+	210.97		1.953E+00	1.230E+00	1.517E+00	8.646E-02	1.288
PA-231		283.67	*	-2.878E-01	1.797E+00	2.837E+00	3.930E-01	-0.101
	+	301.29		1.265E+00	7.507E-01	1.207E+00	1.273E-01	1.048
TH-231		81.07		1.498E-01	3.747E-01	4.095E-01	3.827E-02	0.366
	+	83.78		2.101E-01	1.504E-01	2.545E-01	2.427E-02	0.825
		94.90		5.841E-01	3.009E-01	4.695E-01	4.087E-02	1.244
		122.32		-4.417E-01	2.063E+00	3.365E+00	2.339E-01	-0.131
		144.24		9.868E-03	7.987E-01	1.307E+00	9.328E-02	0.008
		154.21		4.876E-01	4.874E-01	7.974E-01	5.427E-02	0.611
		269.46		4.621E-01	2.241E-01	3.910E-01	2.427E-02	1.182
		323.87	*	7.985E-01	8.288E-01	1.281E+00	2.121E-01	0.623
	+	338.28		5.480E+00	2.346E+00	2.668E+00	2.822E-01	2.054
		445.03		-1.822E-01	2.553E+00	4.199E+00	4.272E-01	-0.043
U-231	+	84.21		1.447E+01	1.036E+01	1.763E+01	1.687E+00	0.821
	+	92.29		2.864E+01	5.622E+00	8.391E+00	7.640E-01	3.413
		95.87	*	6.152E-01	2.121E+00	3.130E+00	2.682E-01	0.197
		108.00		-8.874E-01	3.851E+00	6.304E+00	4.543E-01	-0.141
PA-233	+	75.28		2.256E+01	5.656E+00	8.779E+00	1.369E+00	2.570
	+	86.59		6.693E+00	2.739E+00	3.526E+00	9.593E-01	1.898
	+	300.12		8.814E-01	5.285E-01	8.174E-01	1.104E-01	1.078
		311.98	*	-3.841E-02	7.361E-02	1.202E-01	7.584E-03	-0.319
		340.50		1.433E+00	9.086E-01	1.366E+00	3.140E-01	1.049
		398.62		-5.895E-01	2.423E+00	3.959E+00	1.022E+00	-0.149
		415.76		-9.266E-02	1.723E+00	2.846E+00	5.842E-01	-0.033
PA-234	+	63.00		8.338E+00	3.599E+00	3.693E+00	5.808E-01	2.258
		94.67		5.659E-01	2.296E-01	3.531E-01	4.409E-02	1.602
		98.44		5.946E-02	1.162E-01	1.749E-01	9.745E-02	0.340
		99.86		6.434E-02	5.331E-01	8.857E-01	7.135E-02	0.073

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-3.225E-02	2.224E-01	3.591E-01	3.934E-02	-0.090
		131.20		-2.362E-02	1.247E-01	2.033E-01	1.197E-02	-0.116
		152.70		4.052E-01	3.947E-01	6.602E-01	1.038E-01	0.614
	+	186.00		3.696E+00	2.338E+00	2.918E+00	8.903E-01	1.266
		226.40		7.208E-02	4.738E-01	7.675E-01	8.868E-02	0.094
		227.20		-3.069E-02	5.213E-01	8.362E-01	4.846E-02	-0.037
		248.90		-2.827E-01	1.031E+00	1.566E+00	3.369E-01	-0.181
	+	293.70		6.327E+00	1.685E+00	1.962E+00	3.168E-01	3.225
		369.80		-2.816E-01	9.899E-01	1.620E+00	3.370E-01	-0.174
		568.70		-1.590E+00	1.148E+00	1.663E+00	9.030E-02	-0.957
		569.50		-3.647E-01	3.044E-01	4.473E-01	2.428E-02	-0.815
		574.00		5.780E-01	1.714E+00	2.796E+00	1.513E-01	0.207
		699.00		1.248E-01	8.648E-01	1.411E+00	2.514E-01	0.088
		706.10		-5.739E-01	1.299E+00	1.979E+00	8.723E-01	-0.290
		733.00		-1.109E-02	4.982E-01	6.887E-01	1.461E-01	-0.016
		742.81		4.974E-02	1.527E+00	2.463E+00	1.648E+00	0.020
	+	796.30		1.925E+00	1.502E+00	2.126E+00	5.609E-01	0.906
		805.60		-3.415E-02	1.148E+00	1.920E+00	5.774E-01	-0.018
		819.60		4.483E-01	1.405E+00	2.398E+00	9.014E-01	0.187
		826.30		-6.921E-02	9.143E-01	1.519E+00	6.741E-01	-0.046
		831.60		-3.539E-01	7.432E-01	1.183E+00	3.469E-01	-0.299
		876.40		-2.339E-01	9.583E-01	1.511E+00	1.552E+00	-0.155
		880.51		-1.091E-01	3.376E-01	5.471E-01	3.871E-02	-0.199
		883.24		-5.259E-03	3.547E-01	5.905E-01	3.959E-01	-0.009
		899.00		-7.409E-01	1.035E+00	1.528E+00	6.641E-01	-0.485
		925.00		4.231E-01	1.404E+00	2.395E+00	1.723E-01	0.177
		926.50		2.500E-01	2.093E-01	3.680E-01	9.137E-02	0.679
		946.00	*	-9.845E-02	3.349E-01	5.397E-01	9.785E-02	-0.182
		949.00		5.938E-01	4.833E-01	8.887E-01	6.331E-02	0.668
		980.50		-2.205E-01	9.089E-01	1.474E+00	1.034E-01	-0.150
		1394.10		-7.418E-01	1.278E+00	1.715E+00	1.112E+00	-0.432
PA-234M		766.42		1.906E+01	1.672E+01	2.433E+01	1.225E+01	0.783
		1001.03	*	3.636E+00	5.849E+00	1.014E+01	8.670E-01	0.358
U-235	+	89.95		2.842E+00	1.598E+00	2.280E+00	7.094E-01	1.247
	+	93.35		5.639E+00	1.867E+00	1.606E+00	4.518E-01	3.511
		105.00		-3.542E-01	1.246E+00	2.030E+00	5.996E-01	-0.174
		143.76	*	-4.139E-02	2.442E-01	3.968E-01	6.455E-02	-0.104
		163.35		2.446E-01	5.324E-01	8.806E-01	1.573E-01	0.278
	+	185.71		1.369E-01	7.623E-02	1.077E-01	5.960E-03	1.271
		205.31		8.771E-02	6.852E-01	9.739E-01	1.747E-01	0.090
NP-236		94.67		4.341E-01	1.701E-01	2.683E-01	2.345E-02	1.618
		98.44		4.498E-02	8.429E-02	1.322E-01	1.088E-02	0.340
		111.00		-2.440E-02	1.682E-01	2.716E-01	1.885E-02	-0.090
		160.31	*	1.758E-02	9.052E-02	1.487E-01	8.136E-03	0.118
NP-239		99.55		7.693E-02	1.764E-01	2.962E-01	2.397E-02	0.260
		117.00	*	-1.311E-01	2.196E-01	3.533E-01	2.282E-02	-0.371
	+	209.75		1.968E+00	1.239E+00	1.598E+00	9.096E-02	1.232
		228.18		-2.019E-01	2.815E-01	4.376E-01	2.538E-02	-0.461
	+	277.60		4.620E-01	3.105E-01	3.877E-01	2.313E-02	1.192

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-3.711E-01	1.834E+00	2.480E+00	1.463E-01	-0.150
AM-241		59.54	*	-3.726E-02	2.266E-01	3.323E-01	3.248E-02	-0.112
CM-243		99.55		7.918E-02	1.815E-01	3.049E-01	2.467E-02	0.260
		103.76	*	3.347E-02	1.107E-01	1.849E-01	1.409E-02	0.181
		117.00		-1.349E-01	2.260E-01	3.635E-01	2.348E-02	-0.371
	+	209.75		1.940E+00	1.222E+00	1.575E+00	8.969E-02	1.232
		228.18		-2.041E-01	2.844E-01	4.423E-01	2.565E-02	-0.461
	+	277.60		4.659E-01	3.131E-01	3.910E-01	2.332E-02	1.192
AM-246		798.80		2.143E-02	1.834E-01	2.689E-01	1.677E-02	0.080
		1036.00		-1.501E-02	3.782E-01	6.224E-01	4.215E-02	-0.024
		1062.04		2.373E-01	3.040E-01	5.319E-01	3.531E-02	0.446
		1078.86	*	4.056E-02	1.751E-01	2.943E-01	1.927E-02	0.138
CM-247	+	278.00		1.916E+00	1.288E+00	1.631E+00	9.727E-02	1.175
		287.40		1.039E+00	1.349E+00	2.354E+00	1.406E-01	0.441
		402.60	*	2.776E-02	4.384E-02	7.534E-02	4.198E-03	0.368
CF-249		252.85		-3.770E-01	1.068E+00	1.680E+00	9.921E-02	-0.224
		333.44		7.976E-02	2.791E-01	3.311E-01	1.954E-02	0.241
		387.95	*	3.581E-02	4.715E-02	8.164E-02	4.553E-03	0.439
CF-251		176.60	*	2.548E-02	1.487E-01	2.432E-01	1.330E-02	0.105
		227.00		1.661E-01	4.555E-01	7.448E-01	4.315E-02	0.223
		285.00		4.811E-01	1.963E+00	3.345E+00	1.998E-01	0.144

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020015      *
* Acquisition date : 14-FEB-2010 11:08:12 Detector SN#     :               *
* Detector ID        : GAM06               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.39     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G246020015           Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.3585E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope      :                *
* LCS DPM          :    0.000             LCS Isotope      :                *
* LCSD DPM         :    0.000             LCSD Isotope     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.606E+01	3.106E+00	5.895E-01	0.000E+00
CD-109	3.493E+00	1.099E+00	1.415E+00	0.000E+00
SN-126	3.419E-01	1.075E-01	1.393E-01	0.000E+00
TL-208	5.244E-01	1.012E-01	6.483E-02	0.000E+00
BI-211	3.759E+00	5.124E-01	3.877E-01	0.000E+00
PB-212	1.682E+00	1.685E-01	1.071E-01	0.000E+00
PO-212	1.682E+00	1.685E-01	1.071E-01	0.000E+00
BI-214	1.127E+00	1.746E-01	1.204E-01	0.000E+00
PB-214	1.308E+00	1.904E-01	1.414E-01	0.000E+00
PO-214	1.308E+00	1.904E-01	1.414E-01	0.000E+00
PO-216	1.682E+00	1.685E-01	1.071E-01	0.000E+00
PO-218	1.308E+00	1.904E-01	1.414E-01	0.000E+00
RA-224	4.911E+00	1.495E+00	1.219E+00	0.000E+00
RA-226	1.127E+00	1.746E-01	1.204E-01	0.000E+00
AC-228	1.611E+00	3.298E-01	2.387E-01	0.000E+00
RA-228	1.611E+00	3.298E-01	2.387E-01	0.000E+00
TH-228	1.712E+00	1.716E-01	1.090E-01	0.000E+00
TH-230	1.127E+00	1.746E-01	1.204E-01	0.000E+00
TH-232	1.611E+00	3.298E-01	2.387E-01	0.000E+00
TH-234	7.153E+00	3.092E+00	2.729E+00	0.000E+00
U-234	1.127E+00	1.746E-01	1.204E-01	0.000E+00
NP-237	1.004E+00	3.754E-01	4.633E-01	0.000E+00
U-238	7.153E+00	3.092E+00	2.729E+00	0.000E+00
AM-243	4.308E-01	9.123E-02	1.172E-01	0.000E+00
ANH-511	1.719E-01	7.130E-02	5.426E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	8.927E-02	3.624E-01	6.342E-01	0.000E+00	NOT IDENT.
NA-22	1.530E-02	5.664E-02	9.695E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	1.956E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-6.937E-03	2.867E-02	4.568E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.392E-02	9.449E-02	0.000E+00	FAIL ABUN
SC-46	-3.379E-02	4.701E-02	7.579E-02	0.000E+00	FAIL ABUN
V-48	3.102E-02	9.802E-02	1.717E-01	0.000E+00	NOT IDENT.
CR-51	-4.577E-02	4.668E-01	7.988E-01	0.000E+00	NOT IDENT.
MN-52	1.908E-02	3.547E-01	5.916E-01	0.000E+00	NOT IDENT.
MN-54	6.890E-03	4.471E-02	7.816E-02	0.000E+00	NOT IDENT.
CO-56	1.755E-02	4.669E-02	8.301E-02	0.000E+00	NOT IDENT.
CO-57	7.962E-04	2.934E-02	5.174E-02	0.000E+00	NOT IDENT.
CO-58	1.517E-02	4.516E-02	8.032E-02	0.000E+00	NOT IDENT.
FE-59	-9.013E-02	1.083E-01	1.681E-01	0.000E+00	NOT IDENT.
CO-60	-9.413E-03	4.373E-02	7.084E-02	0.000E+00	NOT IDENT.
ZN-65	-1.141E-01	1.409E-01	1.850E-01	0.000E+00	NOT IDENT.
GE-68	7.776E-01	1.513E+00	2.677E+00	0.000E+00	NOT IDENT.
AS-73	-1.655E+00	1.167E+00	2.014E+00	0.000E+00	NOT IDENT.
AS-74	1.118E-02	1.088E-01	1.858E-01	0.000E+00	NOT IDENT.
SE-75	-9.221E-03	5.199E-02	8.696E-02	0.000E+00	NOT IDENT.
BR-77	1.736E+01	2.687E+01	4.802E+01	0.000E+00	FAIL ABUN
SR-82	-6.422E-01	4.542E-01	6.943E-01	0.000E+00	NOT IDENT.
RB-83	4.980E-02	7.912E-02	1.413E-01	0.000E+00	NOT IDENT.
RB-84	3.860E-02	8.577E-02	1.531E-01	0.000E+00	NOT IDENT.
KR-85	1.013E+01	9.195E+00	1.494E+01	0.000E+00	NOT IDENT.
SR-85	5.351E-02	4.858E-02	7.894E-02	0.000E+00	NOT IDENT.
RB-86	3.566E-01	1.076E+00	1.876E+00	0.000E+00	NOT IDENT.
Y-88	7.227E-03	3.596E-02	6.289E-02	0.000E+00	NOT IDENT.
ZR-88	-1.042E-02	3.535E-02	6.055E-02	0.000E+00	NOT IDENT.
Y-91	2.519E+01	2.340E+01	4.264E+01	0.000E+00	NOT IDENT.
NB-94	2.054E-02	3.989E-02	6.936E-02	0.000E+00	NOT IDENT.
NB-95	6.147E-02	5.208E-02	9.419E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.898E-01	3.061E-01	0.000E+00	NOT IDENT.
ZR-95	1.172E-01	8.554E-02	1.578E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.790E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.768E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.033E+01	2.650E+01	4.253E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.149E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.995E-04	3.928E-02	6.538E-02	0.000E+00	NOT IDENT.
RH-102	-1.144E-02	3.225E-02	5.414E-02	0.000E+00	NOT IDENT.
RU-103	-2.256E-02	5.015E-02	8.332E-02	0.000E+00	FAIL ABUN
RH-106	2.275E-01	3.593E-01	6.354E-01	0.000E+00	FAIL ABUN
RU-106	2.275E-01	3.586E-01	6.354E-01	0.000E+00	FAIL ABUN
AG-108M	-2.828E-02	3.607E-02	5.916E-02	0.000E+00	NOT IDENT.
AG-110M	6.814E-04	3.917E-02	6.598E-02	0.000E+00	NOT IDENT.
IN-111	-1.998E+00	2.813E+00	3.950E+00	0.000E+00	NOT IDENT.
IN-113M	-5.560E-02	5.229E-02	8.539E-02	0.000E+00	NOT IDENT.
SN-113	-5.560E-02	5.229E-02	8.539E-02	0.000E+00	NOT IDENT.
IN-114M	1.094E-02	2.517E-01	3.797E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.837E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.512E-02	7.224E-02	1.245E-01	0.000E+00	NOT IDENT.
SB-122	6.943E+00	4.978E+00	9.247E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.412E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.680E-03	3.287E-02	5.687E-02	0.000E+00	NOT IDENT.
I-124	-1.272E+00	1.362E+00	1.777E+00	0.000E+00	NOT IDENT.
SB-124	2.368E-02	7.011E-02	1.270E-01	0.000E+00	FAIL ABUN
SB-125	1.287E-01	9.963E-02	1.861E-01	0.000E+00	FAIL ABUN
TE-125M	5.100E-01	1.144E+01	1.998E+01	0.000E+00	NOT IDENT.
I-126	7.742E-02	2.369E-01	4.084E-01	0.000E+00	NOT IDENT.
SB-126	1.018E-02	2.289E-01	3.312E-01	0.000E+00	FAIL ABUN
SB-127	2.346E+00	2.600E+00	4.659E+00	0.000E+00	NOT IDENT.
XE-127	-4.239E-02	5.696E-02	9.449E-02	0.000E+00	NOT IDENT.
I-131	-7.732E-02	1.628E-01	2.773E-01	0.000E+00	NOT IDENT.
TE-132	-1.127E+00	1.553E+00	2.545E+00	0.000E+00	NOT IDENT.
BA-133	6.169E-03	5.570E-02	8.565E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.653E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.932E-02	7.170E-02	1.117E-01	0.000E+00	FAIL ABUN
CS-135	2.554E-01	1.834E-01	3.289E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.285E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.505E-02	1.481E-01	2.478E-01	0.000E+00	FAIL ABUN
BA-137M	-3.202E-03	4.170E-02	6.968E-02	0.000E+00	NOT IDENT.
CS-137	-3.385E-03	4.408E-02	7.366E-02	0.000E+00	NOT IDENT.
CE-139	-2.901E-02	3.365E-02	5.622E-02	0.000E+00	NOT IDENT.
BA-140	-2.002E-01	3.503E-01	5.628E-01	0.000E+00	NOT IDENT.
LA-140	-1.940E-01	1.083E-01	1.274E-01	0.000E+00	FAIL ABUN
CE-141	1.670E-02	7.735E-02	1.361E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.318E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.079E-01	2.352E-01	4.185E-01	0.000E+00	NOT IDENT.
PM-144	-2.169E-02	4.177E-02	6.708E-02	0.000E+00	NOT IDENT.
PR-144	-1.472E+00	2.835E+00	4.553E+00	0.000E+00	NOT IDENT.

PM-146	1.865E-02	4.826E-02	8.536E-02	0.000E+00	NOT IDENT.
ND-147	1.259E-01	7.589E-01	1.311E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.438E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-2.302E-02	1.347E-01	1.915E-01	0.000E+00	FAIL ABUN
GD-153	8.079E-02	9.806E-02	1.592E-01	0.000E+00	FAIL ABUN
EU-154	4.656E-02	1.583E-01	2.715E-01	0.000E+00	NOT IDENT.
EU-155	9.320E-03	1.223E-01	2.176E-01	0.000E+00	FAIL ABUN
TB-160	-4.239E-02	1.661E-01	2.798E-01	0.000E+00	FAIL ABUN
HO-166M	-8.014E-03	7.173E-02	1.188E-01	0.000E+00	FAIL ABUN
TM-171	-3.671E+01	3.967E+01	6.048E+01	0.000E+00	NOT IDENT.
LU-176	2.113E-02	2.791E-02	5.113E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.298E+00	3.159E+00	0.000E+00	FAIL ABUN
LU-177M	-1.758E-01	1.935E-01	3.165E-01	0.000E+00	NOT IDENT.
HF-181	-3.622E-03	5.001E-02	8.557E-02	0.000E+00	NOT IDENT.
W-181	9.134E-02	5.200E-01	8.338E-01	0.000E+00	NOT IDENT.
TA-182	-2.317E-01	2.399E-01	3.679E-01	0.000E+00	FAIL ABUN
RE-183	9.292E-02	1.254E-01	2.239E-01	0.000E+00	FAIL ABUN
RE-184	-1.017E-01	2.823E-01	4.692E-01	0.000E+00	NOT IDENT.
OS-185	-4.442E-03	4.948E-02	8.271E-02	0.000E+00	NOT IDENT.
RE-188	1.388E-01	2.133E-01	3.678E-01	0.000E+00	NOT IDENT.
W-188	-5.167E+00	9.521E+00	1.418E+01	0.000E+00	FAIL ABUN
IR-192	2.952E-02	3.954E-02	7.236E-02	0.000E+00	FAIL ABUN
AU-195	1.574E-01	2.577E-01	4.531E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.116E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.928E+00	1.472E+01	2.522E+01	0.000E+00	NOT IDENT.
TL-202	1.810E-02	9.052E-02	1.586E-01	0.000E+00	NOT IDENT.
HG-203	8.170E-02	5.380E-02	9.095E-02	0.000E+00	FAIL ABUN
BI-207	8.850E-02	6.833E-02	1.271E-01	0.000E+00	FAIL ABUN
TL-207	7.985E-01	8.122E-01	1.321E+00	0.000E+00	FAIL ABUN
PO-209	-2.215E+00	8.784E+00	1.479E+01	0.000E+00	NOT IDENT.
BI-210	-1.740E+00	5.404E+00	9.573E+00	0.000E+00	NOT IDENT.
PB-210	-1.740E+00	5.404E+00	9.573E+00	0.000E+00	NOT IDENT.
PO-210	-1.740E+00	5.403E+00	9.573E+00	0.000E+00	NOT IDENT.
PB-211	-6.613E-01	1.197E+00	1.897E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.573E-01	7.366E-01	0.000E+00	FAIL ABUN
PO-215	7.985E-01	8.122E-01	1.321E+00	0.000E+00	FAIL ABUN
RN-219	6.524E-01	4.841E-01	8.908E-01	0.000E+00	NOT IDENT.
RN-220	-1.373E+01	2.830E+01	4.637E+01	0.000E+00	NOT IDENT.
RA-223	7.985E-01	8.122E-01	1.321E+00	0.000E+00	FAIL ABUN
AC-227	-4.414E-02	4.586E-01	7.721E-01	0.000E+00	FAIL ABUN
TH-227	-4.414E-02	4.587E-01	7.721E-01	0.000E+00	FAIL ABUN
TH-229	1.513E-02	5.926E-01	1.020E+00	0.000E+00	FAIL ABUN
PA-231	-2.878E-01	1.761E+00	2.933E+00	0.000E+00	FAIL ABUN
TH-231	7.985E-01	8.122E-01	1.321E+00	0.000E+00	FAIL ABUN
U-231	6.152E-01	2.078E+00	3.300E+00	0.000E+00	FAIL ABUN
PA-233	-3.841E-02	7.214E-02	1.241E-01	0.000E+00	FAIL ABUN
PA-234	-9.845E-02	3.282E-01	5.456E-01	0.000E+00	FAIL ABUN
PA-234M	3.636E+00	5.732E+00	1.024E+01	0.000E+00	NOT IDENT.
U-235	-4.139E-02	2.393E-01	4.154E-01	0.000E+00	FAIL ABUN
NP-236	1.758E-02	8.871E-02	1.553E-01	0.000E+00	NOT IDENT.
NP-239	-1.311E-01	2.152E-01	3.711E-01	0.000E+00	FAIL ABUN
AM-241	-3.726E-02	2.221E-01	3.532E-01	0.000E+00	NOT IDENT.
CM-243	3.347E-02	1.085E-01	1.946E-01	0.000E+00	FAIL ABUN
AM-246	4.056E-02	1.716E-01	2.968E-01	0.000E+00	NOT IDENT.
CM-247	2.776E-02	4.297E-02	7.739E-02	0.000E+00	FAIL ABUN
CF-249	3.581E-02	4.621E-02	8.392E-02	0.000E+00	NOT IDENT.
CF-251	2.548E-02	1.457E-01	2.536E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:09:15.92

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020015.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:08:12
Sample ID         : G246020015           Sample quantity  : 1.35850E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.39  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1340	10.67*	9.624E-01	3.606E+01	3.606E+01	8.79
CD-109	88.03	236	3.72*	5.148E+00	3.400E+00	3.493E+00	32.10
SN-126	64.28	266	9.60	2.703E+00	2.831E+00	2.831E+00	43.05
	86.94	236	8.90	5.148E+00	1.421E+00	1.421E+00	51.64
	87.57	236	37.00*	5.148E+00	3.419E-01	3.419E-01	32.10
TL-208	277.35	92	6.80	3.902E+00	9.580E-01	9.580E-01	67.77
	510.84	150	21.60	2.407E+00	7.960E-01	7.960E-01	43.13
	583.14	345	84.20*	2.158E+00	5.244E-01	5.244E-01	19.68
	860.37	76	12.46	1.539E+00	1.090E+00	1.090E+00	56.94
BI-211	72.87	------	1.27	3.913E+00	------ Line Not Found		------
	351.07	571	12.94*	3.243E+00	3.759E+00	3.759E+00	13.91
PB-212	74.81	421	10.70	4.092E+00	2.657E+00	2.657E+00	23.54
	77.11	547	18.00	4.328E+00	1.941E+00	1.941E+00	18.21
	87.30	236	8.00	5.148E+00	1.581E+00	1.581E+00	33.62
	238.63	1185	44.60*	4.366E+00	1.682E+00	1.682E+00	10.22
	300.09	77	3.41	3.669E+00	1.706E+00	1.706E+00	59.01
PO-212	74.81	421	10.70	4.092E+00	2.657E+00	2.657E+00	23.54
	77.11	547	18.00	4.328E+00	1.941E+00	1.941E+00	18.21
	87.30	236	8.00	5.148E+00	1.581E+00	1.581E+00	33.62
	115.19	------	0.60	6.030E+00	------ Line Not Found		------
	238.63	1185	44.60*	4.366E+00	1.682E+00	1.682E+00	10.22
	300.09	77	3.41	3.669E+00	1.706E+00	1.706E+00	59.01
BI-214	609.31	393	46.30*	2.080E+00	1.127E+00	1.127E+00	15.81
	1120.29	59	15.10	1.210E+00	8.951E-01	8.951E-01	76.17
	1764.49	87	15.80	8.402E-01	1.806E+00	1.806E+00	25.84
PB-214	74.81	421	6.21	4.092E+00	4.578E+00	4.578E+00	22.84
	77.11	547	10.50	4.328E+00	3.328E+00	3.328E+00	19.74
	87.30	236	4.67	5.148E+00	2.709E+00	2.709E+00	33.01
	241.98	304	7.49	4.328E+00	2.590E+00	2.590E+00	31.56
	295.21	340	19.20	3.717E+00	1.318E+00	1.318E+00	22.88
	351.92	571	37.20*	3.243E+00	1.308E+00	1.308E+00	14.86
PO-214	74.81	421	6.21	4.092E+00	4.578E+00	4.578E+00	22.84

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	547	10.50	4.328E+00	3.328E+00	3.328E+00	19.74
	87.30	236	4.67	5.148E+00	2.709E+00	2.709E+00	33.01
	241.98	304	7.49	4.328E+00	2.590E+00	2.590E+00	31.56
	295.21	340	19.20	3.717E+00	1.318E+00	1.318E+00	22.88
	351.92	571	37.20*	3.243E+00	1.308E+00	1.308E+00	14.86
PO-216	74.81	421	10.70	4.092E+00	2.657E+00	2.657E+00	23.54
	77.11	547	18.00	4.328E+00	1.941E+00	1.941E+00	18.21
	87.30	236	8.00	5.148E+00	1.581E+00	1.581E+00	33.62
	238.63	1185	44.60*	4.366E+00	1.682E+00	1.682E+00	10.22
	300.09	77	3.41	3.669E+00	1.706E+00	1.706E+00	59.01
PO-218	74.81	421	6.21	4.092E+00	4.578E+00	4.578E+00	22.84
	77.11	547	10.50	4.328E+00	3.328E+00	3.328E+00	19.74
	87.30	236	4.67	5.148E+00	2.709E+00	2.709E+00	33.01
	241.98	304	7.49	4.328E+00	2.590E+00	2.590E+00	31.56
	295.21	340	19.20	3.717E+00	1.318E+00	1.318E+00	22.88
	351.92	571	37.20*	3.243E+00	1.308E+00	1.308E+00	14.86
RA-224	240.98	304	3.95*	4.328E+00	4.911E+00	4.911E+00	31.05
RA-226	609.31	393	46.30*	2.080E+00	1.127E+00	1.127E+00	15.81
	1120.29	59	15.10	1.210E+00	8.951E-01	8.951E-01	76.17
	1764.49	87	15.80	8.402E-01	1.806E+00	1.806E+00	25.84
AC-228	338.32	181	11.40	3.342E+00	1.312E+00	1.312E+00	58.17
	911.07	236	27.70*	1.461E+00	1.611E+00	1.611E+00	20.89
	969.11	87	16.60	1.382E+00	1.047E+00	1.047E+00	46.68
RA-228	338.32	181	11.40	3.342E+00	1.312E+00	1.312E+00	58.17
	911.07	236	27.70*	1.461E+00	1.611E+00	1.611E+00	20.89
	969.11	87	16.60	1.382E+00	1.047E+00	1.047E+00	46.68
TH-228	74.81	421	10.70	4.092E+00	2.657E+00	2.705E+00	21.64
	77.11	547	18.00	4.328E+00	1.941E+00	1.976E+00	18.21
	87.30	236	8.00	5.148E+00	1.581E+00	1.610E+00	32.10
	238.63	1185	44.60*	4.366E+00	1.682E+00	1.712E+00	10.22
	300.09	77	3.41	3.669E+00	1.706E+00	1.737E+00	83.00
TH-230	609.31	393	46.30*	2.080E+00	1.127E+00	1.127E+00	15.81
	1120.29	59	15.10	1.210E+00	8.951E-01	8.951E-01	76.17
	1764.49	87	15.80	8.402E-01	1.806E+00	1.806E+00	25.84
TH-232	338.32	181	11.40	3.342E+00	1.312E+00	1.312E+00	41.90
	911.07	236	27.70*	1.461E+00	1.611E+00	1.611E+00	20.89
	969.11	87	16.60	1.382E+00	1.047E+00	1.047E+00	46.68
TH-234	63.29	266	3.80*	2.703E+00	7.153E+00	7.153E+00	44.11
	92.38	501	5.41	5.457E+00	4.691E+00	4.691E+00	25.26
U-234	609.31	393	46.30*	2.080E+00	1.127E+00	1.127E+00	15.81
	1120.29	59	15.10	1.210E+00	8.951E-01	8.951E-01	76.17
	1764.49	87	15.80	8.402E-01	1.806E+00	1.806E+00	25.84
NP-237	86.50	236	12.60*	5.148E+00	1.004E+00	1.004E+00	38.16
	95.87	------	2.60	5.611E+00	------ Line Not Found		------
U-238	63.29	266	3.80*	2.703E+00	7.153E+00	7.153E+00	44.11
	92.38	501	5.41	5.457E+00	4.691E+00	4.691E+00	19.63
AM-243	74.67	421	66.00*	4.092E+00	4.308E-01	4.308E-01	21.61
	86.72	236	0.34	5.148E+00	3.765E+01	3.765E+01	32.10
	117.66	------	0.55	6.042E+00	------ Line Not Found		------

Sample ID : G246020015 Acquisition date : 14-FEB-2010 11:08:12

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	150	100.00*	2.407E+00	1.719E-01	1.719E-01	42.31

Flag: "*" = Keyline

Sample ID : G246020015 Acquisition date : 14-FEB-2010 11:08:12

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.606E+01	3.606E+01	0.317E+01	8.79	
CD-109	464.00D	1.03	3.400E+00	3.493E+00	1.121E+00	32.10	
SN-126	1.00E+05Y	1.00	3.419E-01	3.419E-01	1.097E-01	32.10	
TL-208	1.41E+10Y	1.00	5.244E-01	5.244E-01	1.032E-01	19.68	
BI-211	7.04E+08Y	1.00	3.759E+00	3.759E+00	0.523E+00	13.91	
PB-212	1.41E+10Y	1.00	1.682E+00	1.682E+00	0.172E+00	10.22	
PO-212	1.41E+10Y	1.00	1.682E+00	1.682E+00	0.172E+00	10.22	
BI-214	1600.00Y	1.00	1.127E+00	1.127E+00	0.178E+00	15.81	
PB-214	1600.00Y	1.00	1.308E+00	1.308E+00	0.194E+00	14.86	
PO-214	1600.00Y	1.00	1.308E+00	1.308E+00	0.194E+00	14.86	
PO-216	1.41E+10Y	1.00	1.682E+00	1.682E+00	0.172E+00	10.22	
PO-218	1600.00Y	1.00	1.308E+00	1.308E+00	0.194E+00	14.86	
RA-224	1.41E+10Y	1.00	4.911E+00	4.911E+00	1.525E+00	31.05	
RA-226	1600.00Y	1.00	1.127E+00	1.127E+00	0.178E+00	15.81	
AC-228	1.41E+10Y	1.00	1.611E+00	1.611E+00	0.337E+00	20.89	
RA-228	1.41E+10Y	1.00	1.611E+00	1.611E+00	0.337E+00	20.89	
TH-228	1.91Y	1.02	1.682E+00	1.712E+00	0.175E+00	10.22	
TH-230	4.47E+09Y	1.00	1.127E+00	1.127E+00	0.178E+00	15.81	
TH-232	1.41E+10Y	1.00	1.611E+00	1.611E+00	0.337E+00	20.89	
TH-234	4.47E+09Y	1.00	7.153E+00	7.153E+00	3.156E+00	44.11	
U-234	4.47E+09Y	1.00	1.127E+00	1.127E+00	0.178E+00	15.81	
NP-237	2.14E+06Y	1.00	1.004E+00	1.004E+00	0.383E+00	38.16	
U-238	4.47E+09Y	1.00	7.153E+00	7.153E+00	3.156E+00	44.11	
AM-243	7380.00Y	1.00	4.308E-01	4.308E-01	0.931E-01	21.61	
ANH-511	1.00E+09Y	1.00	1.719E-01	1.719E-01	0.728E-01	42.31	
	Total Activity :		8.490E+01	8.503E+01			

Grand Total Activity : 8.490E+01 8.503E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G246020015 Acquisition date : 14-FEB-2010 11:08:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	83.93	93	395	1.32	167.87	166	6	1.29E-02	71.0	4.93E+00	T
2	89.62	147	383	1.13	179.24	171	20	2.05E-02	46.8	5.30E+00	T
0	185.69	138	378	1.08	371.39	367	9	1.92E-02	55.4	5.18E+00	T
0	209.51	110	308	1.29	419.03	415	10	1.53E-02	62.7	4.79E+00	T
0	327.35	84	176	1.32	654.71	650	10	1.16E-02	63.0	3.43E+00	T
0	462.19	86	156	1.37	924.39	919	14	1.19E-02	65.0	2.61E+00	T
0	727.57	64	94	1.55	1455.15	1448	13	8.93E-03	67.0	1.79E+00	T
0	794.82	45	60	1.44	1589.64	1583	11	6.23E-03	73.4	1.65E+00	T
0	964.63	47	68	1.34	1929.26	1924	11	6.48E-03	74.8	1.39E+00	T
0	1729.36	28	4	1.06	3458.73	3451	15	3.95E-03	47.8	8.51E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:09:24.57

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G246020015.CNF;1 *
* Acquisition date  : 14-FEB-2010 11:08:12  Detector SN#     :             *
* Detector ID       : GAM06                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.39          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G246020015            Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.35850E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 4-FEB-2009 13:05:54.47MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.606E+01	3.170E+00	5.880E-01	3.889E-02	61.331
CD-109	3.493E+00	1.121E+00	1.341E+00	1.324E-01	2.605
SN-126	3.419E-01	1.097E-01	1.319E-01	1.298E-02	2.592
TL-208	5.244E-01	1.032E-01	6.354E-02	4.016E-03	8.252
BI-211	3.759E+00	5.229E-01	3.764E-01	2.430E-02	9.986
PB-212	1.682E+00	1.720E-01	1.033E-01	7.613E-03	16.287
PO-212	1.682E+00	1.720E-01	1.033E-01	7.613E-03	16.287
BI-214	1.127E+00	1.781E-01	1.181E-01	8.716E-03	9.541
PB-214	1.308E+00	1.943E-01	1.373E-01	1.139E-02	9.524
PO-214	1.308E+00	1.943E-01	1.373E-01	1.139E-02	9.524
PO-216	1.682E+00	1.720E-01	1.033E-01	7.613E-03	16.287
PO-218	1.308E+00	1.943E-01	1.373E-01	1.139E-02	9.524
RA-224	4.911E+00	1.525E+00	1.175E+00	6.889E-02	4.178
RA-226	1.127E+00	1.781E-01	1.181E-01	8.716E-03	9.541
AC-228	1.611E+00	3.365E-01	2.359E-01	2.411E-02	6.828
RA-228	1.611E+00	3.365E-01	2.359E-01	2.411E-02	6.828
TH-228	1.712E+00	1.751E-01	1.051E-01	7.750E-03	16.287
TH-230	1.127E+00	1.781E-01	1.181E-01	8.716E-03	9.541

Sample ID : G246020015 Acquisition date : 14-FEB-2010 11:08:12

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.611E+00	3.365E-01	2.359E-01	2.411E-02	6.828
TH-234	7.153E+00	3.156E+00	2.570E+00	4.672E-01	2.784
U-234	1.127E+00	1.781E-01	1.181E-01	8.716E-03	9.541
NP-237	1.004E+00	3.831E-01	4.387E-01	1.001E-01	2.289
U-238	7.153E+00	3.156E+00	2.570E+00	4.672E-01	2.784
AM-243	4.308E-01	9.309E-02	1.107E-01	9.999E-03	3.891
ANH-511	1.719E-01	7.276E-02	5.305E-02	2.966E-03	3.241

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.927E-02		3.698E-01	6.193E-01	4.091E-02	0.144
NA-22	1.530E-02		5.779E-02	9.646E-02	5.956E-03	0.159
NA-24	-8.322E+00		9.981E+00	Half-Life too short		
AL-26	-6.937E-03		2.925E-02	4.576E-02	2.628E-03	-0.152
TI-44	3.582E-01	+	6.523E-02	8.932E-02	8.211E-03	4.011
SC-46	-3.379E-02		4.797E-02	7.488E-02	5.367E-03	-0.451
V-48	3.102E-02		1.000E-01	1.700E-01	1.190E-02	0.182
CR-51	-4.577E-02		4.764E-01	7.743E-01	5.101E-02	-0.059
MN-52	1.908E-02		3.619E-01	5.899E-01	3.713E-02	0.032
MN-54	6.890E-03		4.562E-02	7.713E-02	5.091E-03	0.089
CO-56	1.755E-02		4.765E-02	8.194E-02	5.508E-03	0.214
CO-57	7.962E-04		2.994E-02	4.929E-02	3.011E-03	0.016
CO-58	1.517E-02		4.608E-02	7.922E-02	5.058E-03	0.191
FE-59	-9.013E-02		1.105E-01	1.668E-01	1.224E-02	-0.540
CO-60	-9.413E-03		4.462E-02	7.054E-02	4.431E-03	-0.133
ZN-65	-1.141E-01		1.438E-01	1.836E-01	1.163E-02	-0.622
GE-68	7.776E-01		1.544E+00	2.655E+00	1.740E-01	0.293
AS-73	-1.655E+00		1.191E+00	1.891E+00	1.729E-01	-0.875
AS-74	1.118E-02		1.110E-01	1.822E-01	9.687E-03	0.061
SE-75	-9.221E-03		5.305E-02	8.400E-02	5.039E-03	-0.110
BR-77	1.736E+01		2.742E+01	4.697E+01	2.617E+00	0.370
SR-82	-6.422E-01		4.634E-01	6.843E-01	4.116E-02	-0.938
RB-83	4.980E-02		8.074E-02	1.382E-01	7.699E-03	0.360
RB-84	3.860E-02		8.752E-02	1.512E-01	1.072E-02	0.255
KR-85	1.013E+01		9.382E+00	1.461E+01	8.161E-01	0.693
SR-85	5.351E-02		4.957E-02	7.720E-02	4.312E-03	0.693
RB-86	3.566E-01		1.098E+00	1.860E+00	1.220E-01	0.192
Y-88	7.227E-03		3.670E-02	6.302E-02	3.581E-03	0.115
ZR-88	-1.042E-02		3.607E-02	5.891E-02	3.269E-03	-0.177
Y-91	2.519E+01		2.388E+01	4.238E+01	2.542E+00	0.594
NB-94	2.054E-02		4.070E-02	6.822E-02	3.624E-03	0.301
NB-95	6.147E-02		5.314E-02	9.280E-02	5.486E-03	0.662
NB-95M	3.523E-01		1.937E-01	2.950E-01	2.230E-02	1.194
ZR-95	1.172E-01		8.729E-02	1.554E-01	1.095E-02	0.754
NB-97	7.432E-02		9.133E-01	Half-Life too short		
ZR-97	7.972E+01		1.923E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-1.033E+01		2.704E+01	4.187E+01	5.745E+00	-0.247
TC-99M	-5.580E+13		5.862E+13	Half-Life too short		
RH-101	-5.995E-04		4.008E-02	6.282E-02	3.529E-03	-0.010
RH-102	-1.144E-02		3.291E-02	5.287E-02	2.977E-03	-0.216
RU-103	-2.256E-02		5.118E-02	8.142E-02	1.023E-02	-0.277
RH-106	2.275E-01		3.667E-01	6.236E-01	7.138E-02	0.365
RU-106	2.275E-01		3.659E-01	6.236E-01	3.234E-02	0.365
AG-108M	-2.828E-02		3.680E-02	5.767E-02	3.537E-03	-0.490
AG-110M	6.814E-04		3.997E-02	6.482E-02	3.499E-03	0.011
IN-111	-1.998E+00		2.870E+00	3.811E+00	2.240E-01	-0.524
IN-113M	-5.560E-02		5.336E-02	8.308E-02	4.944E-03	-0.669
SN-113	-5.560E-02		5.336E-02	8.308E-02	4.944E-03	-0.669
IN-114M	1.094E-02		2.569E-01	3.646E-01	2.029E-02	0.030
CD-115	1.104E-05		1.448E-05	Half-Life too short		
SN-117M	-1.512E-02		7.371E-02	1.192E-01	6.548E-03	-0.127
SB-122	6.943E+00		5.079E+00	9.058E+00	4.936E-01	0.766
I-123	-2.701E+01		1.231E+02	Half-Life too short		
TE-123M	-3.680E-03		3.354E-02	5.444E-02	3.032E-03	-0.068
I-124	-1.272E+00		1.390E+00	1.743E+00	9.211E-02	-0.730
SB-124	2.368E-02		7.154E-02	1.270E-01	8.249E-03	0.186
SB-125	1.287E-01		1.017E-01	1.813E-01	1.064E-02	0.710
TE-125M	5.100E-01		1.167E+01	1.899E+01	1.728E+00	0.027
I-126	7.742E-02		2.417E-01	4.013E-01	1.998E-02	0.193
SB-126	1.018E-02		2.336E-01	3.260E-01	1.786E-02	0.031
SB-127	2.346E+00		2.653E+00	4.581E+00	4.636E-01	0.512
XE-127	-4.239E-02		5.812E-02	9.083E-02	5.131E-03	-0.467
I-131	-7.732E-02		1.662E-01	2.694E-01	1.740E-02	-0.287
TE-132	-1.127E+00		1.585E+00	2.452E+00	3.672E-01	-0.460
BA-133	6.169E-03		5.683E-02	8.319E-02	9.616E-03	0.074
I-133	-9.736E-03		3.394E-02	Half-Life too short		
CS-134	9.932E-02	+	7.316E-02	1.101E-01	6.932E-03	0.902
CS-135	2.554E-01		1.872E-01	3.178E-01	2.469E-02	0.804
I-135	-3.839E+11		4.737E+12	Half-Life too short		
CS-136	-2.505E-02		1.512E-01	2.456E-01	1.764E-02	-0.102
BA-137M	-3.202E-03		4.255E-02	6.846E-02	3.381E-03	-0.047
CS-137	-3.385E-03		4.498E-02	7.237E-02	3.595E-03	-0.047
CE-139	-2.901E-02		3.434E-02	5.385E-02	2.912E-03	-0.539
BA-140	-2.002E-01		3.575E-01	5.508E-01	1.789E-01	-0.363
LA-140	-1.940E-01		1.105E-01	1.273E-01	7.851E-03	-1.524
CE-141	1.670E-02		7.893E-02	1.301E-01	7.675E-03	0.128
CE-143	4.584E-03		6.725E-04	Half-Life too short		
CE-144	1.079E-01		2.400E-01	3.993E-01	5.679E-02	0.270
PM-144	-2.169E-02		4.262E-02	6.598E-02	3.471E-03	-0.329
PR-144	-1.472E+00		2.893E+00	4.478E+00	2.353E-01	-0.329
PM-146	1.865E-02		4.924E-02	8.328E-02	7.088E-03	0.224
ND-147	1.259E-01		7.744E-01	1.283E+00	1.722E-01	0.098
PM-149	1.961E-04		1.244E-04	Half-Life too short		
EU-152	-2.302E-02		1.374E-01	1.859E-01	1.225E-02	-0.124

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	8.079E-02		1.001E-01	1.511E-01	1.263E-02	0.535
EU-154	4.656E-02		1.616E-01	2.702E-01	2.586E-02	0.172
EU-155	9.320E-03		1.248E-01	2.067E-01	1.568E-02	0.045
TB-160	-4.239E-02		1.694E-01	2.764E-01	1.952E-02	-0.153
HO-166M	-8.014E-03		7.320E-02	1.169E-01	6.308E-03	-0.069
TM-171	-3.671E+01		4.048E+01	5.701E+01	5.092E+00	-0.644
LU-176	2.113E-02		2.848E-02	4.952E-02	2.954E-03	0.427
LU-177	3.723E+00	+	2.344E+00	3.038E+00	1.727E-01	1.225
LU-177M	-1.758E-01		1.975E-01	3.082E-01	1.724E-02	-0.570
HF-181	-3.622E-03		5.103E-02	8.358E-02	4.703E-03	-0.043
W-181	9.134E-02		5.306E-01	7.856E-01	7.037E-02	0.116
TA-182	-2.317E-01		2.448E-01	3.658E-01	2.209E-02	-0.633
RE-183	9.292E-02		1.279E-01	2.144E-01	1.168E-02	0.433
RE-184	-1.017E-01		2.880E-01	4.529E-01	2.675E-02	-0.224
OS-185	-4.442E-03		5.049E-02	8.123E-02	4.095E-03	-0.055
RE-188	1.388E-01		2.176E-01	3.518E-01	1.948E-02	0.394
W-188	-5.167E+00		9.716E+00	1.372E+01	8.194E-01	-0.377
IR-192	2.952E-02		4.035E-02	7.013E-02	4.192E-03	0.421
AU-195	1.574E-01		2.629E-01	4.300E-01	3.515E-02	0.366
TL-200	3.071E-03		1.590E-03	Half-Life too short		
TL-201	-3.928E+00		1.502E+01	2.417E+01	1.308E+00	-0.163
TL-202	1.810E-02		9.236E-02	1.546E-01	8.700E-03	0.117
HG-203	8.170E-02		5.490E-02	8.794E-02	5.554E-03	0.929
BI-207	8.850E-02		6.972E-02	1.260E-01	8.357E-03	0.702
TL-207	7.985E-01		8.288E-01	1.281E+00	2.121E-01	0.623
PO-209	-2.215E+00		8.963E+00	1.461E+01	1.059E+00	-0.152
BI-210	-1.740E+00		5.514E+00	8.968E+00	7.384E-01	-0.194
PB-210	-1.740E+00		5.514E+00	8.968E+00	7.384E-01	-0.194
PO-210	-1.740E+00		5.514E+00	8.968E+00	6.478E-01	-0.194
PB-211	-6.613E-01		1.221E+00	1.847E+00	1.151E+00	-0.358
BI-212	8.433E-01	+	5.686E-01	7.251E-01	5.453E-02	1.163
PO-215	7.985E-01		8.288E-01	1.281E+00	2.121E-01	0.623
RN-219	6.524E-01		4.940E-01	8.671E-01	1.171E-01	0.752
RN-220	-1.373E+01		2.888E+01	4.540E+01	2.495E+00	-0.302
RA-223	7.985E-01		8.288E-01	1.281E+00	2.121E-01	0.623
AC-227	-4.414E-02		4.680E-01	7.454E-01	1.044E-01	-0.059
TH-227	-4.414E-02		4.680E-01	7.454E-01	1.263E-01	-0.059
TH-229	1.513E-02		6.047E-01	9.799E-01	5.475E-02	0.015
PA-231	-2.878E-01		1.797E+00	2.837E+00	3.930E-01	-0.101
TH-231	7.985E-01		8.288E-01	1.281E+00	2.121E-01	0.623
U-231	6.152E-01		2.121E+00	3.130E+00	2.682E-01	0.197
PA-233	-3.841E-02		7.361E-02	1.202E-01	7.584E-03	-0.319
PA-234	-9.845E-02		3.349E-01	5.397E-01	9.785E-02	-0.182
PA-234M	3.636E+00		5.849E+00	1.014E+01	8.670E-01	0.358
U-235	-4.139E-02		2.442E-01	3.968E-01	6.455E-02	-0.104
NP-236	1.758E-02		9.052E-02	1.487E-01	8.136E-03	0.118
NP-239	-1.311E-01		2.196E-01	3.533E-01	2.282E-02	-0.371
AM-241	-3.726E-02		2.266E-01	3.323E-01	3.248E-02	-0.112

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.347E-02		1.107E-01	1.849E-01	1.409E-02	0.181
AM-246	4.056E-02		1.751E-01	2.943E-01	1.927E-02	0.138
CM-247	2.776E-02		4.384E-02	7.534E-02	4.198E-03	0.368
CF-249	3.581E-02		4.715E-02	8.164E-02	4.553E-03	0.439
CF-251	2.548E-02		1.487E-01	2.432E-01	1.330E-02	0.105

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G246020015            *
* Acquisition date : 14-FEB-2010 11:08:12 Detector SN#     :                *
* Detector ID      : GAM06                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.39     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G246020015           Analyst initials: MXR1           *
* Batch Number     : 948751               Sample Quantity : 1.3585E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.606E+01	3.106E+00	2.949E-01	1.585E+00
CD-109	3.493E+00	1.099E+00	7.081E-01	5.606E-01
SN-126	3.419E-01	1.075E-01	6.968E-02	5.487E-02
TL-208	5.244E-01	1.012E-01	3.243E-02	5.161E-02
BI-211	3.759E+00	5.124E-01	1.940E-01	2.614E-01
PB-212	1.682E+00	1.685E-01	5.359E-02	8.598E-02
PO-212	1.682E+00	1.685E-01	5.359E-02	8.598E-02
BI-214	1.127E+00	1.746E-01	6.024E-02	8.906E-02
PB-214	1.308E+00	1.904E-01	7.074E-02	9.714E-02
PO-214	1.308E+00	1.904E-01	7.074E-02	9.714E-02
PO-216	1.682E+00	1.685E-01	5.359E-02	8.598E-02
PO-218	1.308E+00	1.904E-01	7.074E-02	9.714E-02
RA-224	4.911E+00	1.495E+00	6.098E-01	7.626E-01
RA-226	1.127E+00	1.746E-01	6.024E-02	8.906E-02
AC-228	1.611E+00	3.298E-01	1.194E-01	1.683E-01
RA-228	1.611E+00	3.298E-01	1.194E-01	1.683E-01
TH-228	1.712E+00	1.716E-01	5.456E-02	8.754E-02
TH-230	1.127E+00	1.746E-01	6.023E-02	8.906E-02
TH-232	1.611E+00	3.298E-01	1.194E-01	1.683E-01
TH-234	7.153E+00	3.092E+00	1.365E+00	1.578E+00
U-234	1.127E+00	1.746E-01	6.023E-02	8.906E-02
NP-237	1.004E+00	3.754E-01	2.318E-01	1.915E-01
U-238	7.153E+00	3.092E+00	1.365E+00	1.578E+00
AM-243	4.308E-01	9.123E-02	5.864E-02	4.654E-02
ANH-511	1.719E-01	7.130E-02	2.714E-02	3.638E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	8.927E-02	3.624E-01	3.173E-01	1.849E-01 NOT IDENT.
NA-22	1.530E-02	5.664E-02	4.850E-02	2.890E-02 NOT IDENT.

NA-24	-8.322E+06	1.956E+07	0.000E+00	9.981E+06	SHORT HLIF
AL-26	-6.937E-03	2.867E-02	2.285E-02	1.463E-02	NOT IDENT.
TI-44	3.582E-01	6.392E-02	4.727E-02	3.261E-02	FAIL ABUN
SC-46	-3.379E-02	4.701E-02	3.792E-02	2.398E-02	FAIL ABUN
V-48	3.102E-02	9.802E-02	8.590E-02	5.001E-02	NOT IDENT.
CR-51	-4.577E-02	4.668E-01	3.996E-01	2.382E-01	NOT IDENT.
MN-52	1.908E-02	3.547E-01	2.960E-01	1.810E-01	NOT IDENT.
MN-54	6.890E-03	4.471E-02	3.910E-02	2.281E-02	NOT IDENT.
CO-56	1.755E-02	4.669E-02	4.153E-02	2.382E-02	NOT IDENT.
CO-57	7.962E-04	2.934E-02	2.589E-02	1.497E-02	NOT IDENT.
CO-58	1.517E-02	4.516E-02	4.018E-02	2.304E-02	NOT IDENT.
FE-59	-9.013E-02	1.083E-01	8.411E-02	5.525E-02	NOT IDENT.
CO-60	-9.413E-03	4.373E-02	3.544E-02	2.231E-02	NOT IDENT.
ZN-65	-1.141E-01	1.409E-01	9.256E-02	7.190E-02	NOT IDENT.
GE-68	7.776E-01	1.513E+00	1.339E+00	7.720E-01	NOT IDENT.
AS-73	-1.655E+00	1.167E+00	1.007E+00	5.953E-01	NOT IDENT.
AS-74	1.118E-02	1.088E-01	9.294E-02	5.549E-02	NOT IDENT.
SE-75	-9.221E-03	5.199E-02	4.351E-02	2.653E-02	NOT IDENT.
BR-77	1.736E+01	2.687E+01	2.402E+01	1.371E+01	FAIL ABUN
SR-82	-6.422E-01	4.542E-01	3.474E-01	2.317E-01	NOT IDENT.
RB-83	4.980E-02	7.912E-02	7.067E-02	4.037E-02	NOT IDENT.
RB-84	3.860E-02	8.577E-02	7.659E-02	4.376E-02	NOT IDENT.
KR-85	1.013E+01	9.195E+00	7.476E+00	4.691E+00	NOT IDENT.
SR-85	5.351E-02	4.858E-02	3.950E-02	2.478E-02	NOT IDENT.
RB-86	3.566E-01	1.076E+00	9.383E-01	5.491E-01	NOT IDENT.
Y-88	7.227E-03	3.596E-02	3.146E-02	1.835E-02	NOT IDENT.
ZR-88	-1.042E-02	3.535E-02	3.029E-02	1.803E-02	NOT IDENT.
Y-91	2.519E+01	2.340E+01	2.133E+01	1.194E+01	NOT IDENT.
NB-94	2.054E-02	3.989E-02	3.470E-02	2.035E-02	NOT IDENT.
NB-95	6.147E-02	5.208E-02	4.712E-02	2.657E-02	NOT IDENT.
NB-95M	3.523E-01	1.898E-01	1.531E-01	9.683E-02	NOT IDENT.
ZR-95	1.172E-01	8.554E-02	7.892E-02	4.365E-02	NOT IDENT.
NB-97	7.432E+04	1.790E+06	0.000E+00	9.133E+05	SHORT HLIF
ZR-97	7.972E+07	3.768E+07	0.000E+00	1.923E+07	SHORT HLIF
MO-99	-1.033E+01	2.650E+01	2.128E+01	1.352E+01	NOT IDENT.
TC-99M	-5.580E+19	1.149E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-5.995E-04	3.928E-02	3.271E-02	2.004E-02	NOT IDENT.
RH-102	-1.144E-02	3.225E-02	2.709E-02	1.645E-02	NOT IDENT.
RU-103	-2.256E-02	5.015E-02	4.168E-02	2.559E-02	FAIL ABUN
RH-106	2.275E-01	3.593E-01	3.179E-01	1.833E-01	FAIL ABUN
RU-106	2.275E-01	3.586E-01	3.179E-01	1.830E-01	FAIL ABUN
AG-108M	-2.828E-02	3.607E-02	2.960E-02	1.840E-02	NOT IDENT.
AG-110M	6.814E-04	3.917E-02	3.301E-02	1.999E-02	NOT IDENT.
IN-111	-1.998E+00	2.813E+00	1.976E+00	1.435E+00	NOT IDENT.
IN-113M	-5.560E-02	5.229E-02	4.272E-02	2.668E-02	NOT IDENT.
SN-113	-5.560E-02	5.229E-02	4.272E-02	2.668E-02	NOT IDENT.
IN-114M	1.094E-02	2.517E-01	1.899E-01	1.284E-01	NOT IDENT.
CD-115	1.104E+01	2.837E+01	0.000E+00	1.448E+01	SHORT HLIF
SN-117M	-1.512E-02	7.224E-02	6.230E-02	3.686E-02	NOT IDENT.
SB-122	6.943E+00	4.978E+00	4.626E+00	2.540E+00	NOT IDENT.
I-123	-2.701E+07	2.412E+08	0.000E+00	1.231E+08	SHORT HLIF
TE-123M	-3.680E-03	3.287E-02	2.845E-02	1.677E-02	NOT IDENT.
I-124	-1.272E+00	1.362E+00	8.890E-01	6.951E-01	NOT IDENT.
SB-124	2.368E-02	7.011E-02	6.353E-02	3.577E-02	FAIL ABUN
SB-125	1.287E-01	9.963E-02	9.309E-02	5.083E-02	FAIL ABUN
TE-125M	5.100E-01	1.144E+01	9.993E+00	5.836E+00	NOT IDENT.
I-126	7.742E-02	2.369E-01	2.043E-01	1.209E-01	NOT IDENT.
SB-126	1.018E-02	2.289E-01	1.657E-01	1.168E-01	FAIL ABUN
SB-127	2.346E+00	2.600E+00	2.331E+00	1.326E+00	NOT IDENT.
XE-127	-4.239E-02	5.696E-02	4.727E-02	2.906E-02	NOT IDENT.
I-131	-7.732E-02	1.628E-01	1.387E-01	8.309E-02	NOT IDENT.
TE-132	-1.127E+00	1.553E+00	1.273E+00	7.923E-01	NOT IDENT.
BA-133	6.169E-03	5.570E-02	4.285E-02	2.842E-02	FAIL ABUN
I-133	-9.736E+03	6.653E+04	0.000E+00	3.394E+04	SHORT HLIF
CS-134	9.932E-02	7.170E-02	5.589E-02	3.658E-02	FAIL ABUN
CS-135	2.554E-01	1.834E-01	1.645E-01	9.358E-02	NOT IDENT.
I-135	-3.839E+17	9.285E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.505E-02	1.481E-01	1.240E-01	7.559E-02	FAIL ABUN
BA-137M	-3.202E-03	4.170E-02	3.486E-02	2.127E-02	NOT IDENT.
CS-137	-3.385E-03	4.408E-02	3.685E-02	2.249E-02	NOT IDENT.
CE-139	-2.901E-02	3.365E-02	2.813E-02	1.717E-02	NOT IDENT.
BA-140	-2.002E-01	3.503E-01	2.816E-01	1.787E-01	NOT IDENT.
LA-140	-1.940E-01	1.083E-01	6.372E-02	5.524E-02	FAIL ABUN
CE-141	1.670E-02	7.735E-02	6.810E-02	3.947E-02	NOT IDENT.
CE-143	4.584E+03	1.318E+03	0.000E+00	6.725E+02	SHORT HLIF
CE-144	1.079E-01	2.352E-01	2.094E-01	1.200E-01	NOT IDENT.
PM-144	-2.169E-02	4.177E-02	3.356E-02	2.131E-02	NOT IDENT.
PR-144	-1.472E+00	2.835E+00	2.278E+00	1.446E+00	NOT IDENT.

PM-146	1.865E-02	4.826E-02	4.271E-02	2.462E-02	NOT IDENT.
ND-147	1.259E-01	7.589E-01	6.561E-01	3.872E-01	FAIL ABUN
PM-149	1.961E+02	2.438E+02	0.000E+00	1.244E+02	SHORT HLIF
EU-152	-2.302E-02	1.347E-01	9.581E-02	6.870E-02	FAIL ABUN
GD-153	8.079E-02	9.806E-02	7.966E-02	5.003E-02	FAIL ABUN
EU-154	4.656E-02	1.583E-01	1.359E-01	8.079E-02	NOT IDENT.
EU-155	9.320E-03	1.223E-01	1.089E-01	6.241E-02	FAIL ABUN
TB-160	-4.239E-02	1.661E-01	1.400E-01	8.472E-02	FAIL ABUN
HO-166M	-8.014E-03	7.173E-02	5.945E-02	3.660E-02	FAIL ABUN
TM-171	-3.671E+01	3.967E+01	3.026E+01	2.024E+01	NOT IDENT.
LU-176	2.113E-02	2.791E-02	2.558E-02	1.424E-02	FAIL ABUN
LU-177	3.723E+00	2.298E+00	1.581E+00	1.172E+00	FAIL ABUN
LU-177M	-1.758E-01	1.935E-01	1.583E-01	9.873E-02	NOT IDENT.
HF-181	-3.622E-03	5.001E-02	4.281E-02	2.551E-02	NOT IDENT.
W-181	9.134E-02	5.200E-01	4.171E-01	2.653E-01	NOT IDENT.
TA-182	-2.317E-01	2.399E-01	1.841E-01	1.224E-01	FAIL ABUN
RE-183	9.292E-02	1.254E-01	1.120E-01	6.397E-02	FAIL ABUN
RE-184	-1.017E-01	2.823E-01	2.347E-01	1.440E-01	NOT IDENT.
OS-185	-4.442E-03	4.948E-02	4.138E-02	2.524E-02	NOT IDENT.
RE-188	1.388E-01	2.133E-01	1.840E-01	1.088E-01	NOT IDENT.
W-188	-5.167E+00	9.521E+00	7.092E+00	4.858E+00	FAIL ABUN
IR-192	2.952E-02	3.954E-02	3.620E-02	2.018E-02	FAIL ABUN
AU-195	1.574E-01	2.577E-01	2.267E-01	1.315E-01	FAIL ABUN
TL-200	3.071E+03	3.116E+03	0.000E+00	1.590E+03	SHORT HLIF
TL-201	-3.928E+00	1.472E+01	1.262E+01	7.509E+00	NOT IDENT.
TL-202	1.810E-02	9.052E-02	7.935E-02	4.618E-02	NOT IDENT.
HG-203	8.170E-02	5.380E-02	4.550E-02	2.745E-02	FAIL ABUN
BI-207	8.850E-02	6.833E-02	6.360E-02	3.486E-02	FAIL ABUN
TL-207	7.985E-01	8.122E-01	6.609E-01	4.144E-01	FAIL ABUN
PO-209	-2.215E+00	8.784E+00	7.397E+00	4.481E+00	NOT IDENT.
BI-210	-1.740E+00	5.404E+00	4.790E+00	2.757E+00	NOT IDENT.
PB-210	-1.740E+00	5.404E+00	4.790E+00	2.757E+00	NOT IDENT.
PO-210	-1.740E+00	5.403E+00	4.790E+00	2.757E+00	NOT IDENT.
PB-211	-6.613E-01	1.197E+00	9.492E-01	6.107E-01	NOT IDENT.
BI-212	8.433E-01	5.573E-01	3.685E-01	2.843E-01	FAIL ABUN
PO-215	7.985E-01	8.122E-01	6.609E-01	4.144E-01	FAIL ABUN
RN-219	6.524E-01	4.841E-01	4.457E-01	2.470E-01	NOT IDENT.
RN-220	-1.373E+01	2.830E+01	2.320E+01	1.444E+01	NOT IDENT.
RA-223	7.985E-01	8.122E-01	6.609E-01	4.144E-01	FAIL ABUN
AC-227	-4.414E-02	4.586E-01	3.863E-01	2.340E-01	FAIL ABUN
TH-227	-4.414E-02	4.587E-01	3.863E-01	2.340E-01	FAIL ABUN
TH-229	1.513E-02	5.926E-01	5.104E-01	3.024E-01	FAIL ABUN
PA-231	-2.878E-01	1.761E+00	1.468E+00	8.986E-01	FAIL ABUN
TH-231	7.985E-01	8.122E-01	6.609E-01	4.144E-01	FAIL ABUN
U-231	6.152E-01	2.078E+00	1.651E+00	1.060E+00	FAIL ABUN
PA-233	-3.841E-02	7.214E-02	6.208E-02	3.680E-02	FAIL ABUN
PA-234	-9.845E-02	3.282E-01	2.730E-01	1.675E-01	FAIL ABUN
PA-234M	3.636E+00	5.732E+00	5.125E+00	2.925E+00	NOT IDENT.
U-235	-4.139E-02	2.393E-01	2.078E-01	1.221E-01	FAIL ABUN
NP-236	1.758E-02	8.871E-02	7.771E-02	4.526E-02	NOT IDENT.
NP-239	-1.311E-01	2.152E-01	1.857E-01	1.098E-01	FAIL ABUN
AM-241	-3.726E-02	2.221E-01	1.767E-01	1.133E-01	NOT IDENT.
CM-243	3.347E-02	1.085E-01	9.736E-02	5.534E-02	FAIL ABUN
AM-246	4.056E-02	1.716E-01	1.485E-01	8.756E-02	NOT IDENT.
CM-247	2.776E-02	4.297E-02	3.872E-02	2.192E-02	FAIL ABUN
CF-249	3.581E-02	4.621E-02	4.199E-02	2.357E-02	NOT IDENT.
CF-251	2.548E-02	1.457E-01	1.269E-01	7.433E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	412.8671
46.50	412.8671
46.50	412.8671
48.70	415.4137
49.72	390.7209
51.35	353.5580
52.39	388.8771
52.97	442.2576
53.15	440.5643
53.44	443.5229
54.07	456.8082
56.28	380.3794
56.28	380.3810
57.37	0.0000
57.53	352.0604
57.53	352.0611
57.60	369.7784
57.98	370.0044
57.98	370.0044
59.32	450.5675
59.32	450.5675
59.40	450.6243
59.54	450.7239
59.72	455.2869
60.01	455.4947
61.10	442.9384
61.14	417.7805
61.30	417.8846
63.00	437.3654
63.29	437.5580
63.29	437.5580
63.58	437.7516
64.28	438.2152
65.12	497.8300
65.20	497.8892
65.20	497.8892
66.05	523.8949
66.72	537.8577
66.83	537.9478
66.91	539.5059
67.20	539.7351
67.20	539.7351
67.75	546.1544
67.85	546.2346
68.90	479.6230
68.90	479.6230
69.30	477.4009
69.67	500.7900
70.82	501.9867
70.82	501.9867
70.83	501.9948
72.80	560.6656
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72.87	560.7201
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74.81	545.0403
74.81	545.0403
74.81	545.0403
74.81	545.0403
74.81	545.0403
74.81	545.0403
74.97	545.1592
75.28	545.3925
75.70	545.7050
77.11	546.7527
77.11	546.7527

77.11	546.7527
77.11	546.7527
77.11	546.7527
77.11	546.7527
77.11	546.7527
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79.62	438.6208
79.80	438.7246
79.80	438.7246
80.11	460.4706
80.18	460.5131
80.30	460.5851
80.30	460.5851
80.57	506.4435
81.00	461.0097
81.07	461.0522
81.07	461.0522
81.07	461.0522
81.07	461.0522
82.60	463.2462
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83.78	539.9172
83.78	539.9172
83.78	539.9172
84.21	517.2613
84.90	496.2733
85.43	482.8129
86.29	483.3397
86.50	483.4685
86.54	483.4915
86.59	483.5223
86.72	483.6031
86.79	483.6434
86.94	483.7357
87.30	387.1639
87.30	387.1639
87.30	387.1639
87.30	387.1639
87.30	387.1639
87.30	387.1639
87.30	387.1639
87.57	387.2947
87.88	387.4454
88.03	387.5177
88.36	387.6761
88.47	387.7299
89.95	388.4406
91.11	388.9943
92.29	389.5526
92.38	389.5956
92.38	389.5956
93.35	365.2872
94.00	379.5137
94.67	396.8680
94.67	396.8703
94.90	387.6755
94.90	387.6755
94.90	387.6755
94.90	387.6755
95.87	366.3877
95.87	366.3877
96.73	334.1253
97.43	343.7316
98.44	358.1509
98.44	358.1523
98.88	347.2064
99.55	355.6906
99.55	355.6906
99.86	371.4148
100.00	371.4744
100.10	371.5195
103.18	366.9562
103.76	359.3630
105.00	398.1059
105.31	376.6641
108.00	396.4818
109.28	389.1566

111.00	384.9507
111.00	384.9507
111.76	406.0111
112.95	378.8346
115.19	350.9859
116.30	384.1537
117.00	371.5218
117.00	371.5218
117.66	381.7192
121.11	351.1594
121.62	359.3285
121.78	357.3896
122.06	357.4920
122.32	366.5758
122.32	366.5758
122.32	366.5758
122.32	366.5758
123.07	360.8582
127.23	361.3644
129.76	356.2309
131.20	385.9571
133.02	388.6570
133.54	345.4233
135.34	357.1502
136.00	359.3985
136.25	366.5736
136.48	367.6666
140.51	379.2322
140.51	0.0000
142.18	341.1264
142.65	354.5181
143.76	371.1982
144.24	372.3823
144.24	372.3823
144.24	372.3823
144.24	372.3823
145.22	364.5474
145.44	368.7063
147.16	386.6748
152.43	354.5889
152.70	344.3927
153.22	320.8954
154.21	332.4974
154.21	332.4974
154.21	332.4974
154.21	332.4974
155.03	344.0706
156.02	354.6791
158.56	336.8640
159.00	0.0000
159.00	332.8560
160.31	311.4994
161.27	314.8638
162.32	295.4479
162.64	290.3436
163.35	297.7818
163.89	306.2230
165.85	330.6451
167.43	306.0945
171.28	304.9835
171.86	306.1755
172.10	306.2359
176.55	310.4938
176.60	310.5051
181.06	341.9355
184.41	305.6850
185.71	321.2118
186.00	316.2131
190.27	317.2609
192.34	317.5506
193.63	310.4215
197.04	303.7627
198.01	290.1185
198.60	292.3793
200.40	285.2947
201.83	305.9196
202.84	315.7827
205.31	291.6915

208.36	294.0607
208.81	309.6387
209.75	304.4681
209.75	304.4681
210.97	260.1561
215.65	265.0615
216.55	273.5184
218.09	246.7588
222.10	262.6473
223.80	255.3513
226.40	256.8970
227.00	255.9143
227.08	274.4426
227.20	274.4657
228.16	305.1605
228.18	305.1648
228.18	305.1648
231.56	0.0000
235.69	317.2339
236.00	298.0167
236.00	298.0167
238.63	244.7586
238.63	244.7586
238.63	244.7586
238.63	244.7586
239.00	244.8182
240.98	245.1397
241.98	245.3014
241.98	245.3014
241.98	245.3014
244.69	227.4444
245.39	245.1877
247.94	227.9247
248.90	236.1485
249.79	216.6988
252.40	231.4592
252.85	238.1728
252.85	238.1728
254.15	0.0000
256.20	233.1290
256.20	233.1290
260.50	242.6654
260.90	0.0000
262.80	217.3755
264.65	209.8132
268.24	191.2635
268.79	181.2588
269.46	181.3329
269.46	181.3329
269.46	181.3329
269.46	181.3329
271.23	191.8398
273.65	301.6494
276.40	170.8585
277.35	191.2007
277.60	197.9785
277.60	197.9785
278.00	181.5246
278.60	181.5886
279.20	178.6525
279.53	171.1786
280.46	187.8001
281.68	218.0074
283.67	189.6639
284.30	179.6968
285.00	184.3894
285.90	0.0000
286.10	167.3243
286.10	167.3243
287.40	164.7375
288.45	0.0000
290.67	202.5376
290.80	202.5512
291.72	166.3629
293.26	0.0000
293.70	163.5271
295.21	163.6677
295.21	163.6677

295.21	163.6677
295.96	163.7402
296.50	118.2933
297.23	118.3425
298.57	118.4330
299.80	176.2562
299.80	176.2562
300.09	176.2845
300.09	176.2845
300.09	176.2845
300.09	176.2845
300.12	176.2869
301.29	164.2390
302.84	182.6489
303.76	190.3585
303.91	190.3737
304.40	194.9974
304.40	194.9974
304.84	166.0924
306.84	165.6707
308.46	163.0725
311.98	184.5044
316.51	154.5981
318.01	177.7522
319.02	184.2993
319.41	176.9648
320.08	177.2354
323.87	140.1306
323.87	140.1306
323.87	140.1306
323.87	140.1306
325.23	167.9707
328.77	197.6276
333.44	167.1636
334.20	183.9548
334.20	183.9548
334.30	183.9645
338.28	178.7648
338.28	178.7648
338.28	178.7648
338.28	178.7648
338.32	178.7672
338.32	178.7672
338.32	178.7672
340.50	175.5555
340.57	175.5602
344.27	166.2492
345.85	130.8638
350.59	0.0000
351.07	151.5250
351.92	165.9678
351.92	165.9678
351.92	165.9678
355.39	0.0000
356.01	150.3398
364.48	144.3769
366.43	128.4612
367.43	121.9091
367.94	0.0000
369.80	148.5444
374.96	129.9510
383.85	153.3784
387.95	132.6812
388.63	124.1300
391.69	160.6479
391.69	160.6479
392.90	139.6909
398.62	140.0688
400.65	131.5598
401.10	126.7857
401.81	119.1411
402.60	132.6414
404.84	166.4555
410.95	131.2254
411.60	130.3000
413.65	135.2524
414.70	122.7522
415.30	115.0517

415.76	105.4061
417.63	0.0000
418.52	97.7920
423.70	124.2250
427.08	97.1985
427.89	91.3998
432.53	126.6659
433.93	123.8188
439.47	110.4398
439.56	110.4440
439.89	114.3706
443.98	109.6785
444.90	109.7223
445.03	109.7291
445.03	109.7291
445.03	109.7291
445.03	109.7291
453.90	103.2658
463.38	97.7601
468.07	102.2410
473.00	106.0883
475.06	107.1708
475.35	104.2066
476.78	97.3169
477.59	95.3637
477.96	98.3583
482.03	104.4950
484.57	109.5851
487.03	102.7158
490.36	0.0000
492.35	0.0000
497.08	115.1516
507.63	0.0000
510.53	0.0000
510.84	98.6693
511.00	98.6753
511.85	98.7094
511.85	98.7094
513.99	100.8081
513.99	100.8081
520.41	85.9027
520.65	85.9110
527.90	0.0000
528.96	0.0000
529.64	93.3117
529.87	0.0000
531.02	91.3315
537.32	102.7409
543.00	77.4770
546.56	0.0000
549.76	89.9400
552.65	89.0136
555.20	86.0262
563.23	80.1195
563.90	79.1130
568.70	111.1588
569.32	108.0967
569.50	102.9565
569.67	102.9614
573.80	81.3484
574.00	81.3542
574.64	81.2302
578.91	89.5337
579.30	0.0000
583.14	80.7041
585.48	77.6660
591.81	76.1120
592.07	76.8111
593.00	80.9897
595.88	76.9141
600.56	87.1932
602.52	0.0000
602.71	100.7165
602.71	100.7165
603.60	100.7495
604.41	76.4521
604.70	76.4593
609.31	78.3234

609.31	78.3234
609.31	78.3234
609.31	78.3234
610.33	74.8686
612.46	81.8943
614.37	81.9498
618.01	80.6564
621.84	72.3708
621.84	72.3708
631.29	89.4430
633.02	75.8074
633.10	75.8092
634.78	83.2277
635.90	92.7438
636.97	82.2352
645.85	74.0212
646.12	79.3158
656.30	91.2574
657.75	77.5001
657.90	0.0000
661.65	88.2301
661.65	88.2301
664.57	0.0000
666.33	76.6547
666.33	76.6547
675.00	72.6003
677.61	51.2906
685.20	65.3412
692.80	82.6810
695.00	89.1865
696.49	97.8294
696.49	97.8294
697.00	104.2963
697.49	111.8406
698.33	102.1876
698.50	98.9674
699.00	87.1482
702.63	81.8614
706.10	93.8117
706.58	0.0000
706.67	85.2008
709.31	77.7164
711.68	83.1754
713.82	91.8772
717.42	80.0775
720.50	79.4313
721.93	0.0000
722.20	84.8920
722.78	75.8738
722.78	75.8738
722.89	75.8772
722.95	75.8789
723.30	83.1148
724.18	70.4860
727.18	79.2342
733.00	70.6764
735.90	64.2100
739.58	70.8176
742.81	64.3440
744.21	62.1893
747.13	58.9689
751.79	89.6695
752.31	87.4961
753.82	74.4065
755.35	60.2086
756.15	56.9385
756.87	63.5225
763.93	102.0684
765.79	71.3778
766.42	69.1939
766.84	81.2862
776.49	86.2910
778.00	71.6349
778.57	63.3792
778.89	63.3848
783.80	75.4353
785.46	68.1088
792.07	75.8806

795.84	72.7975
796.30	68.0588
798.80	69.6922
801.93	75.4624
805.60	69.4305
810.29	63.9617
810.76	62.1159
815.85	81.7033
817.79	66.8848
818.51	57.6066
819.60	58.5536
826.30	61.4574
828.27	0.0000
831.60	78.3347
831.96	76.4780
834.83	79.3399
836.80	0.0000
846.75	63.6808
848.13	67.4531
856.28	0.0000
856.80	75.6619
860.37	71.4386
867.32	46.8185
867.82	56.5125
871.10	62.2188
873.19	48.1051
874.81	56.6199
875.33	0.0000
876.40	58.5312
879.36	66.1363
880.27	65.2083
880.51	68.9930
881.50	57.6665
883.24	69.0420
884.67	61.4995
889.25	71.9953
896.60	68.3394
898.02	73.1118
899.00	71.2311
903.28	55.7818
911.07	55.2600
911.07	55.2600
911.07	55.2600
919.63	62.5009
920.93	66.8640
925.00	58.3280
925.24	57.3755
926.50	43.0463
935.52	51.7753
937.48	54.6783
944.10	55.7320
946.00	56.7205
949.00	38.4839
962.29	61.2283
964.01	57.9431
966.15	46.3799
968.20	46.4033
969.11	75.4229
969.11	75.4229
969.11	75.4229
977.42	64.5969
980.50	66.9083
983.50	61.1364
989.30	67.0543
996.32	86.6388
1001.03	64.3229
1001.68	58.4839
1004.76	79.0126
1021.30	0.0000
1024.50	0.0000
1034.80	54.0399
1036.00	64.8640
1037.82	62.9271
1038.57	59.9873
1038.76	0.0000
1045.16	65.9913
1046.59	60.1015
1048.07	61.1069

1050.47	61.1423
1050.47	61.1423
1062.04	62.2976
1063.62	56.3854
1076.63	59.5313
1077.35	55.5716
1078.86	58.5679
1085.78	57.6672
1099.22	63.8281
1112.02	68.0138
1112.84	78.8892
1115.52	94.3778
1120.29	66.9959
1120.29	66.9959
1120.29	66.9959
1120.29	66.9959
1120.51	66.9986
1121.28	58.4185
1124.00	0.0000
1129.67	70.2905
1131.51	0.0000
1147.95	0.0000
1167.94	75.9460
1173.22	62.8552
1175.09	66.9373
1177.93	67.9924
1189.05	70.1904
1204.90	57.1576
1205.75	0.0000
1213.00	69.5246
1221.42	82.9644
1230.97	82.1029
1235.34	102.7222
1236.41	0.0000
1238.25	53.4473
1246.25	59.7134
1260.41	0.0000
1271.85	52.7826
1274.45	57.9870
1274.54	57.9893
1291.56	61.3047
1298.22	0.0000
1312.09	44.8634
1325.50	18.8298
1325.50	18.8298
1332.49	35.6173
1333.61	37.7197
1360.21	36.8628
1362.66	0.0000
1365.15	26.3550
1368.21	31.6455
1368.53	0.0000
1376.25	23.2425
1384.27	30.6851
1394.10	25.4414
1395.20	18.0251
1407.95	21.2565
1434.06	22.4287
1436.60	19.2334
1457.56	0.0000
1460.81	22.0798
1489.15	18.3406
1509.49	11.9104
1596.49	32.9797
1620.62	17.0307
1678.03	0.0000
1691.02	8.6155
1691.02	8.6155
1706.46	0.0000
1750.46	0.0000
1764.49	6.7805
1764.49	6.7805
1764.49	6.7805
1764.49	6.7805
1770.23	8.4833
1771.40	11.8787
1791.20	0.0000
1808.65	10.7291

1836.01 10.7744

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G246020015

Total Uranium Activity	2.1262E+01	ug/g
Total Uranium Counting Unc.	9.2007E+00	ug/g
Total Uranium Tpu	4.6942E-06	ug/g
Total Uranium Mda	4.0624E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G246020015       *
*   ANALYST       : MXR1                      DETECTOR   : GAM06            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 11:08:12.38    SAMPLE ALQT:  135.850 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.019E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.500E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.760E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.828E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:10:13.67

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032579.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 14-FEB-2010 11:08:41
Sample ID         : G1202032579          Sample quantity  : 1.65890E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.55*	3	80	0.69	91.95	89	7	4.02E-04	574.3	
2	0	92.60*	19	97	0.94	184.12	181	9	2.67E-03	116.3	
3	0	239.09*	17	93	0.73	477.32	472	10	2.30E-03	120.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:10:16

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032579.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 14-FEB-2010 11:08:41
Sample ID : G1202032579 Sample quantity : 165.89 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.60 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-210	+	46.50	*	1.066E-01	1.224E+00	1.308E+00	1.217E-01	0.082
PB-210	+	46.50	*	1.066E-01	1.224E+00	1.308E+00	1.217E-01	0.082
PO-210	+	46.50	*	1.066E-01	1.224E+00	1.308E+00	1.102E-01	0.082

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-5.599E-02	1.191E-01	1.865E-01	2.111E-02	-0.300
NA-22		1274.54	*	1.063E-02	9.753E-03	2.109E-02	1.732E-03	0.504
NA-24		1368.53	*	-1.603E-04	9.753E-03	Half-Life too short		
AL-26		1129.67		4.126E-03	5.843E-01	9.620E-01	8.126E-02	0.004
		1808.65	*	2.555E-03	1.429E-02	2.478E-02	2.022E-03	0.103
K-40		1460.81	*	9.584E-03	1.945E-01	3.308E-01	2.860E-02	0.029
TI-44		67.85		-1.536E-02	1.205E-02	1.587E-02	1.202E-03	-0.968
		78.38	*	3.467E-03	8.256E-03	1.353E-02	1.141E-03	0.256
SC-46		889.25	*	5.333E-03	1.269E-02	2.291E-02	2.256E-03	0.233
		1120.51		-7.922E-03	1.721E-02	2.576E-02	2.197E-03	-0.308
V-48		944.10		1.196E-02	2.036E-01	3.444E-01	3.332E-02	0.035
		983.50	*	-5.790E-04	1.616E-02	2.667E-02	2.529E-03	-0.022
		1312.09		-3.185E-03	2.495E-02	3.931E-02	3.241E-03	-0.081
CR-51		320.08	*	-2.942E-02	1.265E-01	1.962E-01	2.848E-02	-0.150
MN-52		744.21		3.494E-02	4.535E-02	8.233E-02	7.999E-03	0.424
		848.13		-3.397E-01	1.343E+00	2.172E+00	2.140E-01	-0.156
		935.52		4.204E-02	3.782E-02	7.652E-02	7.429E-03	0.549
		1246.25		2.322E-01	8.026E-01	1.424E+00	1.163E-01	0.163
		1333.61		2.878E-01	7.418E-01	1.339E+00	1.107E-01	0.215
		1434.06	*	-1.871E-02	4.593E-02	6.482E-02	5.431E-03	-0.289
MN-54		834.83	*	-7.615E-03	1.410E-02	2.174E-02	2.141E-03	-0.350
CO-56		846.75	*	-1.104E-02	1.553E-02	2.319E-02	2.285E-03	-0.476
		977.42		-8.022E-01	8.551E-01	1.077E+00	1.025E-01	-0.745
		1037.82		2.111E-02	9.387E-02	1.630E-01	1.564E-02	0.130
		1175.09		-7.081E-01	7.552E-01	8.279E-01	6.654E-02	-0.855
		1238.25		1.256E-02	2.185E-02	4.034E-02	3.394E-03	0.311

Sample ID : G1202032579 Acquisition date : 14-FEB-2010 11:08:41

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1360.21		1.203E-01	3.008E-01	5.436E-01	4.513E-02	0.221
		1771.40		-2.840E-02	8.312E-02	1.196E-01	9.841E-03	-0.237
CO-57		122.06	*	2.183E-03	7.805E-03	1.356E-02	1.147E-03	0.161
		136.48		-6.038E-02	6.552E-02	1.013E-01	9.518E-03	-0.596
CO-58		810.76	*	-8.568E-03	1.316E-02	1.791E-02	1.763E-03	-0.478
FE-59		142.65		-3.344E-01	9.127E-01	1.416E+00	1.264E-01	-0.236
		192.34		-1.614E-02	2.989E-01	4.922E-01	7.385E-02	-0.033
		1099.22	*	-2.678E-02	2.586E-02	3.066E-02	2.882E-03	-0.873
		1291.56		1.404E-02	3.591E-02	6.398E-02	6.037E-03	0.219
CO-60		1173.22		-3.520E-03	1.427E-02	1.918E-02	1.541E-03	-0.183
		1332.49	*	9.943E-04	1.371E-02	2.263E-02	1.870E-03	0.044
ZN-65		1115.52	*	-1.340E-02	3.228E-02	4.886E-02	4.193E-03	-0.274
GE-68		1077.35	*	-3.655E-03	2.763E-01	4.542E-01	4.034E-02	-0.008
AS-73		53.44	*	5.331E-02	1.905E-01	3.134E-01	2.353E-02	0.170
AS-74		595.88	*	7.164E-03	2.898E-02	4.922E-02	5.005E-03	0.146
		634.78		3.286E-02	1.074E-01	1.839E-01	1.799E-02	0.179
SE-75		66.05		2.057E-01	1.229E+00	1.927E+00	1.831E-01	0.107
		96.73		-1.761E-01	2.601E-01	3.362E-01	4.645E-02	-0.524
		121.11		-7.025E-03	3.963E-02	6.630E-02	7.354E-03	-0.106
		136.00		2.051E-03	1.108E-02	1.903E-02	1.675E-03	0.108
		198.60		-9.328E-02	6.815E-01	1.032E+00	1.234E-01	-0.090
		264.65	*	-4.873E-03	1.624E-02	2.543E-02	3.737E-03	-0.192
		279.53		-4.177E-02	4.126E-02	5.809E-02	9.094E-03	-0.719
		303.91		-2.481E-01	8.101E-01	1.253E+00	2.083E-01	-0.198
		400.65		-1.268E-02	7.917E-02	1.309E-01	1.675E-02	-0.097
BR-77		87.88		-5.808E+00	9.387E+00	1.369E+01	1.297E+00	-0.424
		200.40		2.621E+00	1.136E+01	1.912E+01	2.163E+00	0.137
	+	239.00		4.981E-01	1.200E+00	1.378E+00	1.831E-01	0.361
		249.79		1.299E+00	4.689E+00	7.848E+00	1.088E+00	0.166
		281.68		4.808E+00	6.527E+00	1.131E+01	1.744E+00	0.425
		297.23		-1.403E+00	3.923E+00	6.047E+00	9.072E-01	-0.232
		303.76		-4.958E+00	1.397E+01	2.149E+01	3.181E+00	-0.231
		439.47		2.157E+00	9.596E+00	1.659E+01	1.789E+00	0.130
		484.57		-1.828E+01	1.910E+01	2.789E+01	3.003E+00	-0.655
		520.65	*	2.392E-01	7.224E-01	1.255E+00	1.337E-01	0.191
		574.64		-2.296E+01	1.603E+01	2.003E+01	2.071E+00	-1.146
		578.91		1.373E+00	6.891E+00	1.163E+01	1.199E+00	0.118
		585.48		-1.062E+01	1.519E+01	2.281E+01	2.340E+00	-0.465
		755.35		5.659E+00	1.195E+01	2.082E+01	2.028E+00	0.272
		817.79		3.699E+00	9.529E+00	1.637E+01	1.610E+00	0.226
SR-82		698.33		1.613E+00	1.259E+01	2.077E+01	1.992E+00	0.078
		776.49	*	-3.242E-02	1.206E-01	1.833E-01	1.793E-02	-0.177
		1395.20		-3.326E+00	3.796E+00	4.506E+00	3.759E-01	-0.738
RB-83		520.41	*	-6.600E-03	2.567E-02	4.103E-02	4.373E-03	-0.161
		529.64		5.430E-03	3.560E-02	6.031E-02	6.402E-03	0.090
		552.65		-2.642E-02	7.859E-02	1.236E-01	1.297E-02	-0.214
RB-84		881.50	*	2.806E-03	2.349E-02	4.022E-02	3.963E-03	0.070
KR-85		513.99	*	-1.185E+01	4.865E+00	6.203E+00	6.626E-01	-1.911
SR-85		513.99	*	-5.727E-02	2.350E-02	2.997E-02	3.201E-03	-1.911

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RB-86	1076.63	*	-2.082E-02	1.521E-01	2.406E-01	2.138E-02	-0.087
Y-88	898.02		3.158E-03	1.493E-02	2.591E-02	2.561E-03	0.122
	1836.01	*	-1.393E-02	1.601E-02	1.850E-02	1.502E-03	-0.753
ZR-88	392.90	*	-2.414E-03	1.125E-02	1.858E-02	1.982E-03	-0.130
Y-91	1204.90	*	1.433E+00	5.652E+00	9.721E+00	7.869E-01	0.147
NB-94	702.63	*	-4.096E-03	1.281E-02	1.961E-02	1.884E-03	-0.209
	871.10		1.760E-03	1.210E-02	2.085E-02	2.055E-03	0.084
NB-95	765.79	*	1.398E-03	1.213E-02	1.996E-02	1.948E-03	0.070
NB-95M	235.69	*	-2.183E-02	4.412E-02	5.984E-02	8.355E-03	-0.365
ZR-95	724.18		-1.287E-02	2.851E-02	4.175E-02	4.316E-03	-0.308
	756.15	*	-2.814E-02	2.724E-02	3.506E-02	3.689E-03	-0.803
NB-97	657.90	*	-1.417E-04	2.724E-02	Half-Life too short		
	1024.50		1.227E-02	2.724E-02	Half-Life too short		
ZR-97	254.15		-8.519E-04	2.724E-02	Half-Life too short		
	355.39		-3.016E-03	2.724E-02	Half-Life too short		
	507.63	*	-1.318E-02	2.724E-02	Half-Life too short		
	602.52		4.074E-03	2.724E-02	Half-Life too short		
	1021.30		-8.639E-03	2.724E-02	Half-Life too short		
	1147.95		-3.367E-03	2.724E-02	Half-Life too short		
	1362.66		-6.275E-04	2.724E-02	Half-Life too short		
	1750.46		4.941E-03	2.724E-02	Half-Life too short		
MO-99	140.51		6.702E-01	2.346E+00	3.768E+00	1.046E+00	0.178
	181.06		1.332E+00	1.303E+00	2.326E+00	4.462E-01	0.573
	366.43		-2.869E+00	8.337E+00	1.257E+01	1.523E+00	-0.228
	739.58	*	-8.669E-01	1.059E+00	1.415E+00	2.239E-01	-0.613
	778.00		-3.730E-01	3.131E+00	4.912E+00	4.806E-01	-0.076
TC-99M	140.51	*	6.660E+02	3.131E+00	Half-Life too short		
RH-101	127.23		-7.080E-03	9.055E-03	1.420E-02	1.213E-03	-0.499
	198.01	*	-7.111E-04	1.277E-02	1.947E-02	2.179E-03	-0.037
	325.23		6.427E-02	8.598E-02	1.485E-01	2.084E-02	0.433
RH-102	418.52		3.869E-02	1.185E-01	2.065E-01	2.220E-02	0.187
	475.06	*	5.713E-03	1.079E-02	1.922E-02	2.072E-03	0.297
	631.29		8.070E-04	2.113E-02	3.472E-02	3.409E-03	0.023
	697.49		2.567E-02	3.213E-02	5.775E-02	5.537E-03	0.445
	766.84		1.438E-02	3.306E-02	5.768E-02	5.632E-03	0.249
	1046.59		-2.331E-02	4.289E-02	6.326E-02	5.759E-03	-0.368
	1112.84		6.375E-02	7.963E-02	1.498E-01	1.288E-02	0.425
RU-103	497.08	*	6.399E-03	1.526E-02	2.664E-02	4.140E-03	0.240
	610.33		-1.707E-01	3.085E-01	4.848E-01	8.464E-02	-0.352
RH-106	511.85		-2.424E-01	1.287E-01	2.240E-01	2.394E-02	-1.082
	621.84	*	-4.488E-02	1.505E-01	2.365E-01	3.365E-02	-0.190
	1050.47		4.416E-01	8.482E-01	1.534E+00	1.392E-01	0.288
RU-106	511.85		-2.424E-01	1.287E-01	2.240E-01	2.394E-02	-1.082
	621.84	*	-4.488E-02	1.505E-01	2.365E-01	2.346E-02	-0.190
	1050.47		4.416E-01	8.482E-01	1.534E+00	1.392E-01	0.288
AG-108M	433.93	*	-4.695E-03	1.113E-02	1.758E-02	1.944E-03	-0.267
	614.37		1.060E-02	1.637E-02	2.897E-02	2.981E-03	0.366
	722.95		-1.034E-02	1.441E-02	1.989E-02	1.982E-03	-0.520
CD-109	88.03	*	-1.079E-01	2.181E-01	3.223E-01	3.056E-02	-0.335

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-110M		657.75	*	-1.181E-02	1.383E-02	1.925E-02	1.875E-03	-0.614
		677.61		-3.865E-02	1.016E-01	1.525E-01	1.485E-02	-0.253
		706.67		5.308E-02	8.321E-02	1.472E-01	1.447E-02	0.361
		763.93		-6.701E-02	6.311E-02	8.045E-02	8.024E-03	-0.833
		884.67		-6.884E-03	1.902E-02	2.994E-02	3.022E-03	-0.230
		937.48		2.278E-02	3.739E-02	6.923E-02	6.908E-03	0.329
		1384.27		-1.884E-02	5.868E-02	8.591E-02	7.373E-03	-0.219
IN-111		171.28		-4.109E-02	8.748E-02	1.396E-01	1.389E-02	-0.294
		245.39	*	-1.776E-02	9.133E-02	1.456E-01	1.984E-02	-0.122
IN-113M		391.69	*	-9.415E-03	1.552E-02	2.428E-02	2.641E-03	-0.388
SN-113		391.69	*	-9.415E-03	1.552E-02	2.428E-02	2.641E-03	-0.388
IN-114M		190.27	*	-2.442E-02	5.756E-02	9.151E-02	9.901E-03	-0.267
CD-115		260.90		2.511E+00	8.026E+00	1.347E+01	1.948E+00	0.187
		492.35		-1.334E+00	2.547E+00	3.946E+00	4.241E-01	-0.338
		527.90	*	1.482E-01	6.511E-01	1.116E+00	1.185E-01	0.133
SN-117M		156.02		-1.318E-01	5.396E-01	8.844E-01	8.280E-02	-0.149
		158.56	*	7.233E-03	1.358E-02	2.373E-02	2.243E-03	0.305
SB-122		563.90	*	2.907E-02	2.107E-01	3.532E-01	3.680E-02	0.082
		692.80		-8.143E-01	4.718E+00	7.463E+00	7.144E-01	-0.109
I-123		159.00	*	7.989E-04	4.718E+00	Half-Life too short		
		528.96		9.321E-03	4.718E+00	Half-Life too short		
TE-123M		159.00	*	4.924E-03	9.312E-03	1.625E-02	1.546E-03	0.303
I-124		602.71	*	2.923E-02	1.041E-01	1.772E-01	1.791E-02	0.165
		722.78		-4.402E-01	5.865E-01	8.023E-01	7.752E-02	-0.549
		1325.50		1.462E+00	5.546E+00	9.503E+00	7.847E-01	0.154
		1376.25		-3.875E-02	5.195E+00	8.373E+00	6.968E-01	-0.005
		1509.49		-1.678E+00	2.066E+00	2.536E+00	2.134E-01	-0.662
		1691.02		-7.946E-02	7.943E-01	1.285E+00	1.072E-01	-0.062
SB-124		602.71		4.064E-03	1.448E-02	2.464E-02	2.491E-03	0.165
		645.85		-6.174E-02	1.643E-01	2.491E-01	2.521E-02	-0.248
		709.31		3.756E-01	1.096E+00	1.862E+00	1.792E-01	0.202
		713.82		1.129E-01	6.105E-01	1.016E+00	1.299E-01	0.111
		722.78		-8.873E-02	1.182E-01	1.617E-01	1.589E-02	-0.549
		968.20		9.299E-01	9.151E-01	1.744E+00	1.668E-01	0.533
		1045.16		-5.676E-01	8.807E-01	1.270E+00	1.157E-01	-0.447
		1325.50		3.148E-01	1.194E+00	2.046E+00	1.689E-01	0.154
		1368.21		-3.213E-01	6.215E-01	8.505E-01	1.130E-01	-0.378
		1436.60		5.138E-01	1.349E+00	2.394E+00	2.006E-01	0.215
		1691.02	*	-3.778E-03	3.776E-02	6.111E-02	5.310E-03	-0.062
SB-125		427.89	*	-1.977E-02	3.321E-02	5.140E-02	5.604E-03	-0.385
		463.38		4.892E-02	1.097E-01	1.926E-01	2.184E-02	0.254
		600.56		-3.973E-02	7.304E-02	1.103E-01	1.178E-02	-0.360
		635.90		1.833E-02	1.050E-01	1.760E-01	1.829E-02	0.104
TE-125M		109.28	*	-2.769E-01	2.714E+00	4.600E+00	4.715E-01	-0.060
I-126		388.63		2.140E-02	5.403E-02	9.558E-02	1.037E-02	0.224
		666.33	*	-1.908E-02	5.867E-02	8.560E-02	8.115E-03	-0.223
		753.82		4.774E-01	3.626E-01	7.204E-01	7.015E-02	0.663
SB-126		223.80		6.659E-02	1.032E+00	1.702E+00	2.126E-01	0.039
		278.60		2.466E-01	6.436E-01	1.083E+00	1.672E-01	0.228

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		296.50		-2.980E-01	4.053E-01	5.958E-01	8.951E-02	-0.500
		414.70		4.118E-03	2.029E-02	3.503E-02	3.762E-03	0.118
		415.30		2.522E-01	1.779E+00	3.046E+00	3.272E-01	0.083
		555.20		3.905E-01	1.268E+00	2.115E+00	2.216E-01	0.185
		573.80		-3.131E-01	2.875E-01	3.860E-01	3.994E-02	-0.811
		593.00		1.348E-01	2.803E-01	4.897E-01	4.991E-02	0.275
		656.30		6.758E-01	9.338E-01	1.686E+00	1.606E-01	0.401
		666.33		-7.869E-03	2.420E-02	3.531E-02	3.347E-03	-0.223
		675.00		2.137E-02	5.658E-01	9.246E-01	8.794E-02	0.023
		695.00		7.436E-03	2.620E-02	4.403E-02	4.218E-03	0.169
		697.00		5.293E-02	8.569E-02	1.503E-01	1.441E-02	0.352
		720.50	*	2.060E-02	3.425E-02	6.154E-02	5.942E-03	0.335
		856.80		1.843E-02	1.189E-01	2.054E-01	2.025E-02	0.090
		989.30		4.252E-01	3.276E-01	6.642E-01	6.280E-02	0.640
		1034.80		-1.197E-01	2.023E+00	3.306E+00	3.036E-01	-0.036
		1213.00		-1.727E-01	1.090E+00	1.720E+00	1.395E-01	-0.100
SN-126		64.28		-7.385E-02	1.525E-01	2.361E-01	3.425E-02	-0.313
		86.94		-6.272E-02	9.901E-02	1.394E-01	5.787E-02	-0.450
		87.57	*	-1.097E-02	2.246E-02	3.328E-02	3.139E-03	-0.330
SB-127		61.10		-7.630E+00	5.372E+00	7.221E+00	6.104E-01	-1.057
		252.40		-2.051E-01	5.833E-01	9.009E-01	3.883E-01	-0.228
		290.80		1.168E+00	2.919E+00	4.900E+00	7.753E-01	0.238
		411.60		-9.937E-01	1.591E+00	2.464E+00	3.955E-01	-0.403
		444.90		9.293E-01	1.363E+00	2.462E+00	3.198E-01	0.377
		473.00		1.201E-02	2.297E-01	3.862E-01	5.138E-02	0.031
		543.00		-2.956E-02	2.244E+00	3.703E+00	5.412E-01	-0.008
		603.60		6.385E-01	1.585E+00	2.744E+00	3.401E-01	0.233
		685.20	*	-7.353E-02	1.916E-01	2.902E-01	3.125E-02	-0.253
		698.50		2.489E-01	2.364E+00	3.886E+00	5.987E-01	0.064
		722.20		-3.037E+00	3.680E+00	4.915E+00	5.227E-01	-0.618
		783.80		2.084E-01	5.163E-01	8.833E-01	1.065E-01	0.236
XE-127		57.60		-3.895E-01	1.301E+00	2.005E+00	1.443E-01	-0.194
		145.22		-3.696E-02	2.036E-01	3.375E-01	3.040E-02	-0.110
		172.10		1.941E-03	3.689E-02	6.177E-02	6.168E-03	0.031
		202.84	*	-1.192E-02	1.550E-02	2.370E-02	2.708E-03	-0.503
		374.96		2.373E-02	7.758E-02	1.271E-01	1.480E-02	0.187
I-131		80.18		-1.609E-01	7.012E-01	1.072E+00	9.248E-02	-0.150
		284.30		-3.286E-01	3.708E-01	5.318E-01	8.293E-02	-0.618
		364.48	*	1.844E-02	2.942E-02	5.011E-02	6.278E-03	0.368
		636.97		-3.500E-01	4.479E-01	6.027E-01	6.122E-02	-0.581
		722.89		-1.085E+00	1.488E+00	2.048E+00	1.983E-01	-0.530
TE-132		49.72		-3.483E-01	1.443E+00	2.068E+00	1.852E-01	-0.168
		111.76		-1.786E+00	2.922E+00	4.344E+00	4.109E-01	-0.411
		116.30		-2.308E-01	2.507E+00	4.236E+00	3.991E-01	-0.054
		228.16	*	1.885E-03	7.478E-02	1.227E-01	2.154E-02	0.015
BA-133		53.15		-3.459E-01	8.785E-01	1.346E+00	1.015E-01	-0.257
		79.62		-3.698E-01	3.349E-01	4.539E-01	6.892E-02	-0.815
		81.00		-4.502E-03	2.495E-02	3.834E-02	6.101E-03	-0.117
		276.40		-2.143E-02	1.362E-01	2.162E-01	4.154E-02	-0.099

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		302.84		-2.485E-02	5.610E-02	8.512E-02	1.528E-02	-0.292
		356.01	*	-1.472E-02	1.657E-02	2.262E-02	3.647E-03	-0.651
		383.85		9.530E-04	1.184E-01	2.009E-01	2.901E-02	0.005
I-133		510.53		-5.767E-03	1.184E-01	Half-Life too short		
		529.87	*	2.695E-06	1.184E-01	Half-Life too short		
		706.58		1.183E-03	1.184E-01	Half-Life too short		
		856.28		-1.698E-04	1.184E-01	Half-Life too short		
		875.33		-1.979E-04	1.184E-01	Half-Life too short		
		1236.41		9.487E-04	1.184E-01	Half-Life too short		
		1298.22		-8.708E-04	1.184E-01	Half-Life too short		
CS-134		475.35		2.175E-01	7.073E-01	1.228E+00	1.323E-01	0.177
		563.23		1.105E-02	1.570E-01	2.610E-01	2.738E-02	0.042
		569.32		-1.509E-02	9.062E-02	1.419E-01	1.487E-02	-0.106
		604.70		7.248E-03	1.342E-02	2.353E-02	2.379E-03	0.308
		795.84	*	-1.553E-03	1.799E-02	2.856E-02	2.817E-03	-0.054
		801.93		-4.903E-02	1.727E-01	2.616E-01	2.579E-02	-0.187
		1038.57		1.395E-01	1.252E+00	2.123E+00	1.945E-01	0.066
		1167.94		-3.815E-01	6.860E-01	9.516E-01	7.695E-02	-0.401
		1365.15		-3.756E-02	3.749E-01	5.853E-01	5.101E-02	-0.064
CS-135		268.24	*	3.006E-02	5.788E-02	9.856E-02	1.547E-02	0.305
I-135		288.45		-5.837E+01	5.788E-02	Half-Life too short		
		417.63		7.322E+02	5.788E-02	Half-Life too short		
		546.56		-1.004E+03	5.788E-02	Half-Life too short		
		836.80		-3.722E+03	5.788E-02	Half-Life too short		
		1038.76		-6.805E+01	5.788E-02	Half-Life too short		
		1124.00		-7.692E+02	5.788E-02	Half-Life too short		
		1131.51		-5.238E+02	5.788E-02	Half-Life too short		
		1260.41	*	-9.140E+02	5.788E-02	Half-Life too short		
		1457.56		-4.624E+03	5.788E-02	Half-Life too short		
		1678.03		-5.267E+02	5.788E-02	Half-Life too short		
		1706.46		1.471E+03	5.788E-02	Half-Life too short		
		1791.20		3.439E+03	5.788E-02	Half-Life too short		
CS-136		66.91		-2.768E-02	1.473E-01	2.220E-01	3.296E-02	-0.125
		86.29		-1.901E-02	2.206E-01	3.415E-01	4.542E-02	-0.056
		153.22		-3.478E-02	1.608E-01	2.647E-01	2.703E-02	-0.131
		163.89		9.204E-03	2.643E-01	4.430E-01	4.686E-02	0.021
		176.55		3.152E-02	8.527E-02	1.468E-01	1.557E-02	0.215
		273.65		4.358E-02	1.163E-01	1.956E-01	3.032E-02	0.223
		340.57		1.967E-02	3.598E-02	6.078E-02	8.232E-03	0.324
		818.51		6.457E-03	2.024E-02	3.438E-02	3.382E-03	0.188
		1048.07	*	8.315E-03	3.053E-02	5.298E-02	4.999E-03	0.157
		1235.34		2.013E-02	1.277E-01	2.153E-01	2.477E-02	0.093
BA-137M		661.65	*	-4.070E-03	1.267E-02	1.942E-02	1.838E-03	-0.210
CS-137		661.65	*	-4.302E-03	1.339E-02	2.053E-02	1.946E-03	-0.210
CE-139		165.85	*	-4.342E-03	9.677E-03	1.550E-02	1.506E-03	-0.280
BA-140		162.64		2.861E-02	1.856E-01	3.143E-01	3.159E-02	0.091
		304.84		-1.217E-02	3.694E-01	5.906E-01	1.800E-01	-0.021
		423.70		-1.691E-01	5.366E-01	8.643E-01	2.857E-01	-0.196
		537.32	*	4.585E-02	8.186E-02	1.425E-01	4.802E-02	0.322

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LA-140		328.77		-2.578E-02	8.022E-02	1.226E-01	1.740E-02	-0.210
		432.53		-1.744E-01	5.406E-01	8.694E-01	9.664E-02	-0.201
		487.03		1.711E-02	3.933E-02	6.910E-02	7.734E-03	0.248
		751.79		-2.244E-01	5.167E-01	7.678E-01	8.106E-02	-0.292
		815.85		-6.555E-03	9.083E-02	1.431E-01	1.533E-02	-0.046
		867.82		1.217E-01	3.082E-01	5.588E-01	5.732E-02	0.218
		919.63		-2.505E-01	6.384E-01	1.008E+00	1.169E-01	-0.249
		925.24		-2.703E-02	2.913E-01	4.784E-01	4.895E-02	-0.056
		1596.49	*	2.794E-02	2.729E-02	5.541E-02	4.660E-03	0.504
CE-141		145.44	*	-6.184E-03	1.799E-02	2.939E-02	2.694E-03	-0.210
CE-143		57.37		-6.004E+00	1.501E+01	2.289E+01	2.119E+00	-0.262
		231.56		-3.535E+00	5.064E+01	8.221E+01	2.727E+01	-0.043
		293.26	*	-1.319E+00	2.942E+00	4.471E+00	1.118E+00	-0.295
		350.59		1.944E+01	3.718E+01	6.198E+01	2.023E+01	0.314
		490.36		1.872E+01	6.376E+01	1.098E+02	3.557E+01	0.170
		664.57		1.903E+00	2.819E+01	4.634E+01	1.516E+01	0.041
		721.93		-1.753E+01	2.783E+01	3.848E+01	1.142E+01	-0.456
CE-144		80.11		-1.350E-01	5.168E-01	7.870E-01	6.769E-02	-0.172
		133.54	*	-4.199E-02	6.332E-02	1.003E-01	1.565E-02	-0.418
PM-144		476.78		-2.007E-02	2.688E-02	4.037E-02	4.615E-03	-0.497
		618.01		7.016E-03	1.465E-02	2.536E-02	2.578E-03	0.277
		696.49	*	5.402E-03	1.529E-02	2.595E-02	2.487E-03	0.208
		778.57		-7.467E-03	8.546E-01	1.369E+00	1.339E-01	-0.005
PR-144		696.49	*	3.649E-01	1.033E+00	1.753E+00	1.680E-01	0.208
		1489.15		-3.281E+00	4.849E+00	6.649E+00	5.592E-01	-0.493
PM-146		453.90	*	6.168E-03	1.407E-02	2.501E-02	3.135E-03	0.247
		633.02		-1.044E-01	5.465E-01	8.630E-01	3.250E-01	-0.121
		735.90		3.713E-02	5.087E-02	9.155E-02	2.650E-02	0.406
		747.13		1.189E-02	3.643E-02	6.276E-02	9.251E-03	0.189
ND-147	+	91.11		4.021E-02	9.362E-02	9.381E-02	9.295E-03	0.429
		319.41		-4.985E-01	9.438E-01	1.408E+00	2.007E-01	-0.354
		439.89		-1.186E-01	1.489E+00	2.475E+00	2.670E-01	-0.048
		531.02	*	6.045E-02	1.359E-01	2.397E-01	3.877E-02	0.252
PM-149		285.90	*	-1.081E-01	5.789E+00	9.312E+00	1.866E+00	-0.012
EU-152		121.78		-4.305E-04	2.280E-02	3.867E-02	3.782E-03	-0.011
		244.69		-8.483E-02	1.159E-01	1.727E-01	2.347E-02	-0.491
		344.27	*	-7.408E-03	3.761E-02	5.823E-02	7.895E-03	-0.127
		443.98		-1.356E-01	3.735E-01	5.982E-01	6.454E-02	-0.227
		778.89		-1.816E-02	1.000E-01	1.550E-01	1.516E-02	-0.117
		867.32		3.186E-02	2.566E-01	4.420E-01	4.356E-02	0.072
		964.01		-3.702E-03	1.002E-01	1.659E-01	1.590E-02	-0.022
		1085.78		-5.410E-02	1.402E-01	2.123E-01	1.871E-02	-0.255
		1112.02		5.082E-02	1.137E-01	2.026E-01	1.743E-02	0.251
		1407.95		-3.187E-02	7.549E-02	1.128E-01	9.429E-03	-0.282
GD-153		69.67		2.785E-01	3.784E-01	6.422E-01	4.946E-02	0.434
		83.37		-3.074E+00	4.468E+00	6.058E+00	5.419E-01	-0.507
		97.43	*	1.806E-03	2.687E-02	3.860E-02	3.429E-03	0.047
		103.18		-1.917E-02	2.879E-02	4.641E-02	4.027E-03	-0.413
EU-154		123.07		1.848E-02	1.595E-02	2.938E-02	3.305E-03	0.629

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		247.94		-1.908E-02	1.304E-01	2.088E-01	3.281E-02	-0.091
		591.81		-4.589E-02	2.521E-01	4.029E-01	5.191E-02	-0.114
		723.30		-3.743E-02	6.113E-02	8.685E-02	9.104E-03	-0.431
		756.87		-4.551E-01	3.481E-01	4.239E-01	5.429E-02	-1.074
		873.19		4.757E-02	1.086E-01	1.956E-01	2.571E-02	0.243
		996.32		8.973E-02	1.118E-01	2.147E-01	3.900E-02	0.418
		1004.76		2.525E-03	8.039E-02	1.343E-01	1.639E-02	0.019
		1274.45	*	2.893E-02	2.711E-02	5.836E-02	6.417E-03	0.496
EU-155		48.70		3.978E-01	5.911E-01	9.492E-01	7.676E-02	0.419
		60.01		-9.473E-02	1.153E+00	1.818E+00	1.297E-01	-0.052
		86.54		-1.524E-02	2.841E-02	4.201E-02	3.945E-03	-0.363
		105.31	*	3.955E-03	3.196E-02	5.521E-02	4.817E-03	0.072
TB-160		86.79		-4.016E-02	7.065E-02	1.040E-01	9.710E-03	-0.386
		197.04		-1.507E-01	2.119E-01	3.032E-01	3.379E-02	-0.497
		215.65		7.523E-02	2.374E-01	4.022E-01	4.856E-02	0.187
		298.57		7.066E-03	4.167E-02	6.816E-02	1.020E-02	0.104
		879.36	*	-3.921E-03	5.557E-02	8.739E-02	8.611E-03	-0.045
		962.29		-8.428E-02	1.548E-01	2.290E-01	2.197E-02	-0.368
		966.15		2.500E-02	6.833E-02	1.204E-01	1.153E-02	0.208
		1177.93		3.416E-02	9.155E-02	1.638E-01	1.318E-02	0.209
		1271.85		-1.121E-01	1.842E-01	2.399E-01	1.967E-02	-0.467
HO-166M		80.57		1.961E-02	6.552E-02	1.060E-01	9.163E-03	0.185
		184.41		1.484E-02	1.215E-02	2.191E-02	2.310E-03	0.677
		280.46		-2.641E-02	3.384E-02	4.949E-02	7.648E-03	-0.534
		410.95		-8.820E-02	9.004E-02	1.327E-01	1.424E-02	-0.665
		711.68	*	5.918E-03	2.602E-02	4.350E-02	4.189E-03	0.136
		752.31		-3.704E-02	1.111E-01	1.682E-01	1.637E-02	-0.220
		810.29		-1.263E-02	2.112E-02	2.922E-02	2.872E-03	-0.432
TM-171		51.35		-6.624E+00	7.185E+00	1.030E+01	7.963E-01	-0.643
		52.39		-2.699E-01	3.543E+00	5.623E+00	4.282E-01	-0.048
		59.40		-1.389E+00	6.187E+00	9.605E+00	6.832E-01	-0.145
		66.72	*	-4.213E-01	7.241E+00	1.108E+01	8.316E-01	-0.038
LU-176		88.36		-8.102E-03	4.967E-02	7.611E-02	7.195E-03	-0.106
		201.83		1.210E-03	1.027E-02	1.712E-02	1.948E-03	0.071
		306.84	*	-4.209E-03	9.985E-03	1.519E-02	2.232E-03	-0.277
		401.10		-7.129E-01	2.203E+00	3.562E+00	3.811E-01	-0.200
LU-177		112.95		2.514E-02	2.970E-01	4.705E-01	3.996E-02	0.053
		208.36	*	-1.019E-02	2.202E-01	3.612E-01	4.227E-02	-0.028
LU-177M		52.97		-2.305E-01	3.808E-01	5.685E-01	4.295E-02	-0.405
		54.07		2.702E-01	1.927E-01	3.508E-01	2.614E-02	0.770
		61.30		-9.810E-01	4.185E-01	5.030E-01	3.621E-02	-1.950
		121.62		-1.430E-02	1.130E-01	1.899E-01	1.605E-02	-0.075
		147.16		-5.553E-02	1.965E-01	3.220E-01	2.920E-02	-0.172
		171.86		-5.832E-03	1.602E-01	2.662E-01	2.655E-02	-0.022
		218.09		-1.275E-01	2.501E-01	3.853E-01	4.699E-02	-0.331
		268.79		2.436E-02	3.051E-01	4.736E-01	7.059E-02	0.051
		319.02		-4.299E-02	1.023E-01	1.550E-01	2.211E-02	-0.277
		367.43		-6.775E-02	3.321E-01	5.095E-01	6.146E-02	-0.133
		413.65	*	-3.227E-03	6.272E-02	1.051E-01	1.129E-02	-0.031

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HF-181		56.28		-1.581E-01	2.063E-01	3.005E-01	2.187E-02	-0.526
		57.53		-3.182E-02	1.112E-01	1.717E-01	1.237E-02	-0.185
		65.20		-4.195E-01	2.651E-01	3.505E-01	2.598E-02	-1.197
		133.02		-9.287E-03	1.776E-02	2.858E-02	2.478E-03	-0.325
		136.25		-5.856E-02	1.274E-01	2.062E-01	1.805E-02	-0.284
		345.85		1.565E-02	6.001E-02	9.893E-02	1.300E-02	0.158
		482.03	*	1.783E-02	1.699E-02	3.140E-02	3.382E-03	0.568
W-181		56.28		-6.572E-02	8.576E-02	1.249E-01	9.090E-03	-0.526
		57.53		-1.322E-02	4.627E-02	7.144E-02	5.145E-03	-0.185
		65.20	*	-1.731E-01	1.094E-01	1.446E-01	1.072E-02	-1.197
TA-182		67.75		-3.427E-02	2.788E-02	3.700E-02	2.801E-03	-0.926
		100.10		9.996E-03	4.973E-02	8.663E-02	7.603E-03	0.115
		152.43		8.840E-02	1.088E-01	1.940E-01	1.792E-02	0.456
		222.10		1.028E-01	1.105E-01	1.970E-01	2.444E-02	0.522
		1001.68		8.200E-02	7.983E-01	1.327E+00	1.245E-01	0.062
		1121.28		-7.619E-03	4.404E-02	6.985E-02	5.952E-03	-0.109
		1189.05		2.913E-02	8.408E-02	1.488E-01	1.200E-02	0.196
		1221.42	*	-7.636E-03	4.895E-02	7.657E-02	6.220E-03	-0.100
		1230.97		-9.505E-02	1.415E-01	1.942E-01	1.581E-02	-0.489
RE-183		57.98		-4.176E-03	4.427E-02	6.981E-02	5.011E-03	-0.060
		59.32		-3.598E-03	2.436E-02	3.816E-02	2.715E-03	-0.094
		67.20		-3.082E-02	4.883E-02	7.010E-02	5.282E-03	-0.440
		162.32	*	-7.705E-03	3.522E-02	5.777E-02	5.538E-03	-0.133
		208.81		-5.225E-02	3.200E-01	5.191E-01	6.087E-02	-0.101
		291.72		-1.950E-01	3.450E-01	5.176E-01	7.847E-02	-0.377
RE-184		57.98		-1.590E-02	1.686E-01	2.658E-01	1.908E-02	-0.060
		59.32		-1.369E-02	9.269E-02	1.452E-01	1.033E-02	-0.094
		67.20		-1.173E-01	1.859E-01	2.668E-01	2.011E-02	-0.440
		161.27		-6.210E-03	1.185E-01	1.973E-01	1.884E-02	-0.031
		216.55		1.434E-02	8.419E-02	1.407E-01	1.705E-02	0.102
		252.85	*	-2.451E-02	8.216E-02	1.290E-01	1.810E-02	-0.190
		318.01		6.467E-02	1.711E-01	2.857E-01	4.088E-02	0.226
		792.07		6.397E-02	3.557E-01	5.887E-01	5.772E-02	0.109
		903.28		7.665E-02	3.480E-01	6.054E-01	5.949E-02	0.127
		920.93		4.192E-02	1.419E-01	2.513E-01	2.454E-02	0.167
OS-185		59.72		-3.412E-02	6.756E-02	1.016E-01	7.233E-03	-0.336
		61.14		-5.800E-02	4.043E-02	5.436E-02	3.910E-03	-1.067
		69.30		8.804E-03	6.513E-02	1.044E-01	8.011E-03	0.084
		592.07		-2.833E-01	1.013E+00	1.597E+00	1.629E-01	-0.177
		646.12	*	-3.770E-03	1.414E-02	2.190E-02	2.114E-03	-0.172
		717.42		2.421E-02	2.992E-01	4.908E-01	4.735E-02	0.049
		874.81		-1.336E-03	2.067E-01	3.469E-01	3.419E-02	-0.004
		880.27		8.005E-02	3.003E-01	4.973E-01	4.900E-02	0.161
RE-188		155.03	*	-6.290E-02	5.287E-02	7.855E-02	7.327E-03	-0.801
		477.96		-7.607E-01	1.189E+00	1.819E+00	1.960E-01	-0.418
		633.10		-2.251E-01	1.040E+00	1.639E+00	1.606E-01	-0.137
W-188		63.58		-1.548E+00	1.543E+01	2.469E+01	1.808E+00	-0.063
		227.08		-1.478E+00	4.268E+00	6.738E+00	8.530E-01	-0.219
		290.67	*	6.412E-01	2.693E+00	4.448E+00	6.756E-01	0.144

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IR-192		295.96		-1.779E-03	3.939E-02	6.304E-02	9.504E-03	-0.028
		308.46		-2.336E-03	3.446E-02	5.478E-02	8.038E-03	-0.043
		316.51	*	-8.075E-04	1.320E-02	2.096E-02	3.014E-03	-0.039
		468.07		-1.014E-02	2.381E-02	3.753E-02	4.237E-03	-0.270
		604.41		1.156E-01	1.701E-01	3.028E-01	4.250E-02	0.382
		612.46		-3.087E-01	2.891E-01	4.000E-01	4.455E-02	-0.772
AU-195		65.12		-7.940E-02	5.006E-02	6.761E-02	5.008E-03	-1.174
		66.83		-3.129E-03	2.342E-02	3.554E-02	2.670E-03	-0.088
		75.70		-1.723E-02	4.548E-02	6.881E-02	5.630E-03	-0.250
		98.88	*	2.694E-02	6.487E-02	1.148E-01	1.012E-02	0.235
		129.76		2.855E-01	8.692E-01	1.510E+00	1.298E-01	0.189
TL-200		367.94	*	-4.607E-06	8.692E-01	Half-Life too short		
		579.30		-2.005E-05	8.692E-01	Half-Life too short		
		828.27		1.270E-05	8.692E-01	Half-Life too short		
		1205.75		6.451E-07	8.692E-01	Half-Life too short		
TL-201		68.90		-4.129E-01	3.361E-01	4.598E-01	3.517E-02	-0.898
		70.82		7.613E-03	1.921E-01	3.043E-01	2.369E-02	0.025
		80.30		-6.047E-02	3.451E-01	5.306E-01	4.574E-02	-0.114
		135.34		1.971E+00	2.080E+00	3.788E+00	3.306E-01	0.520
		167.43	*	2.584E-01	6.550E-01	1.129E+00	1.105E-01	0.229
TL-202		68.90		-9.763E-02	7.947E-02	1.087E-01	8.316E-03	-0.898
		70.82		1.795E-03	4.530E-02	7.175E-02	5.586E-03	0.025
		80.30		-1.427E-02	8.140E-02	1.252E-01	1.079E-02	-0.114
		439.56	*	3.941E-03	1.753E-02	3.031E-02	3.269E-03	0.130
HG-203		70.83		1.088E-02	2.488E-01	3.941E-01	5.160E-02	0.028
		72.87		-1.281E-01	1.707E-01	2.368E-01	3.024E-02	-0.541
		82.60		-3.266E-01	3.203E-01	4.154E-01	5.772E-02	-0.786
		279.20	*	-8.353E-03	1.452E-02	2.186E-02	3.415E-03	-0.382
BI-207		72.80		-4.245E-02	5.423E-02	7.516E-02	5.966E-03	-0.565
		74.97		-1.107E-02	2.889E-02	4.126E-02	3.350E-03	-0.268
		84.90		2.248E-02	5.790E-02	8.785E-02	8.009E-03	0.256
		569.67		3.747E-04	1.391E-02	2.231E-02	2.316E-03	0.017
		1063.62	*	3.480E-03	1.572E-02	2.729E-02	2.452E-03	0.128
		1770.23		-1.331E-01	2.256E-01	3.070E-01	2.527E-02	-0.434
TL-207		81.07		-7.613E-03	5.531E-02	8.540E-02	7.429E-03	-0.089
		83.78		-1.613E-03	3.815E-02	5.549E-02	4.989E-03	-0.029
		94.90		-5.042E-03	7.374E-02	1.043E-01	9.395E-03	-0.048
		122.32		3.060E-01	5.387E-01	9.563E-01	8.699E-02	0.320
		144.24		4.010E-02	2.471E-01	3.994E-01	3.980E-02	0.100
		154.21		-8.317E-02	1.260E-01	1.983E-01	2.003E-02	-0.420
		269.46		-9.206E-03	7.339E-02	1.113E-01	1.675E-02	-0.083
		323.87	*	1.201E-01	2.616E-01	4.384E-01	9.171E-02	0.274
		338.28		-2.922E-02	4.207E-01	6.461E-01	1.040E-01	-0.045
		445.03		5.224E-01	8.679E-01	1.556E+00	2.135E-01	0.336
TL-208		277.35		2.424E-02	1.333E-01	2.197E-01	3.896E-02	0.110
		510.84		-1.998E-01	1.222E-01	2.137E-01	2.898E-02	-0.935
		583.14	*	9.360E-03	1.854E-02	3.156E-02	3.409E-03	0.297
		860.37		8.293E-02	9.022E-02	1.757E-01	1.830E-02	0.472
PO-209		260.50		-1.597E+00	3.615E+00	5.568E+00	8.044E-01	-0.287

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		262.80		2.660E+00	9.804E+00	1.636E+01	2.384E+00	0.163
		896.60	*	1.096E+00	2.708E+00	4.851E+00	4.776E-01	0.226
BI-211		72.87		-7.006E-01	9.309E-01	1.295E+00	1.029E-01	-0.541
		351.07	*	7.862E-02	8.508E-02	1.408E-01	1.858E-02	0.558
PB-211		404.84	*	-1.115E-01	3.332E-01	5.268E-01	3.318E-01	-0.212
		427.08		2.664E-04	7.158E-01	1.205E+00	7.526E-01	0.000
		831.96		1.931E-01	4.558E-01	7.604E-01	4.779E-01	0.254
BI-212		727.18	*	-1.825E-02	9.278E-02	1.517E-01	1.658E-02	-0.120
		785.46		1.511E-01	6.963E-01	1.158E+00	1.134E-01	0.131
		1620.62		1.632E-01	4.928E-01	8.930E-01	7.499E-02	0.183
PB-212		74.81		-3.582E-02	9.979E-02	1.429E-01	1.767E-02	-0.251
		77.11		1.853E-02	4.931E-02	8.029E-02	6.672E-03	0.231
		87.30		-3.684E-02	1.025E-01	1.538E-01	2.111E-02	-0.239
	+	238.63	*	1.613E-02	3.886E-02	4.387E-02	6.145E-03	0.368
		300.09		1.951E-01	2.920E-01	5.006E-01	8.024E-02	0.390
PO-212		74.81		-3.582E-02	9.979E-02	1.429E-01	1.767E-02	-0.251
		77.11		1.853E-02	4.931E-02	8.029E-02	6.672E-03	0.231
		87.30		-3.684E-02	1.025E-01	1.538E-01	2.111E-02	-0.239
		115.19		-9.030E-01	1.071E+00	1.689E+00	1.431E-01	-0.535
	+	238.63	*	1.613E-02	3.886E-02	4.387E-02	6.145E-03	0.368
		300.09		1.951E-01	2.920E-01	5.006E-01	8.024E-02	0.390
BI-214		609.31	*	-2.646E-02	3.182E-02	4.816E-02	5.444E-03	-0.549
		1120.29		-4.847E-02	1.054E-01	1.577E-01	1.703E-02	-0.307
		1764.49		3.067E-02	1.030E-01	1.840E-01	1.516E-02	0.167
PB-214		74.81		-6.173E-02	1.719E-01	2.461E-01	2.703E-02	-0.251
		77.11		3.177E-02	8.456E-02	1.376E-01	1.552E-02	0.231
		87.30		-6.311E-02	1.755E-01	2.635E-01	3.204E-02	-0.239
		241.98		7.135E-02	1.342E-01	2.085E-01	3.038E-02	0.342
		295.21		3.094E-02	5.253E-02	8.942E-02	1.458E-02	0.346
		351.92	*	3.359E-02	3.006E-02	5.056E-02	7.155E-03	0.664
PO-214		74.81		-6.173E-02	1.719E-01	2.461E-01	2.703E-02	-0.251
		77.11		3.177E-02	8.456E-02	1.376E-01	1.552E-02	0.231
		87.30		-6.311E-02	1.755E-01	2.635E-01	3.204E-02	-0.239
		241.98		7.135E-02	1.342E-01	2.085E-01	3.038E-02	0.342
		295.21		3.094E-02	5.253E-02	8.942E-02	1.458E-02	0.346
		351.92	*	3.359E-02	3.006E-02	5.056E-02	7.155E-03	0.664
PO-215		81.07		-7.613E-03	5.531E-02	8.540E-02	7.429E-03	-0.089
		83.78		-1.613E-03	3.815E-02	5.549E-02	4.989E-03	-0.029
		94.90		-5.042E-03	7.374E-02	1.043E-01	9.395E-03	-0.048
		122.32		3.060E-01	5.387E-01	9.563E-01	8.699E-02	0.320
		144.24		4.010E-02	2.471E-01	3.994E-01	3.980E-02	0.100
		154.21		-8.317E-02	1.260E-01	1.983E-01	2.003E-02	-0.420
		269.46		-9.206E-03	7.339E-02	1.113E-01	1.675E-02	-0.083
		323.87	*	1.201E-01	2.616E-01	4.384E-01	9.171E-02	0.274
		338.28		-2.922E-02	4.207E-01	6.461E-01	1.040E-01	-0.045
		445.03		5.224E-01	8.679E-01	1.556E+00	2.135E-01	0.336
PO-216		74.81		-3.582E-02	9.979E-02	1.429E-01	1.767E-02	-0.251
		77.11		1.853E-02	4.931E-02	8.029E-02	6.672E-03	0.231
		87.30		-3.684E-02	1.025E-01	1.538E-01	2.111E-02	-0.239

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	238.63	*	1.613E-02	3.886E-02	4.387E-02	6.145E-03	0.368
		300.09		1.951E-01	2.920E-01	5.006E-01	8.024E-02	0.390
PO-218		74.81		-6.173E-02	1.719E-01	2.461E-01	2.703E-02	-0.251
		77.11		3.177E-02	8.456E-02	1.376E-01	1.552E-02	0.231
		87.30		-6.311E-02	1.755E-01	2.635E-01	3.204E-02	-0.239
		241.98		7.135E-02	1.342E-01	2.085E-01	3.038E-02	0.342
		295.21		3.094E-02	5.253E-02	8.942E-02	1.458E-02	0.346
		351.92	*	3.359E-02	3.006E-02	5.056E-02	7.155E-03	0.664
RN-219		271.23		-7.928E-02	9.662E-02	1.334E-01	2.143E-02	-0.594
		401.81	*	5.032E-02	1.399E-01	2.465E-01	4.021E-02	0.204
RN-220		549.76	*	-6.720E-01	9.327E+00	1.523E+01	1.600E+00	-0.044
RA-223		81.07		-7.613E-03	5.531E-02	8.540E-02	7.429E-03	-0.089
		83.78		-1.613E-03	3.815E-02	5.549E-02	4.989E-03	-0.029
		94.90		-5.042E-03	7.374E-02	1.043E-01	9.395E-03	-0.048
		122.32		3.060E-01	5.387E-01	9.563E-01	8.699E-02	0.320
		144.24		4.010E-02	2.471E-01	3.994E-01	3.980E-02	0.100
		154.21		-8.317E-02	1.260E-01	1.983E-01	2.003E-02	-0.420
		269.46		-9.206E-03	7.339E-02	1.113E-01	1.675E-02	-0.083
		323.87	*	1.201E-01	2.616E-01	4.384E-01	9.171E-02	0.274
		338.28		-2.922E-02	4.207E-01	6.461E-01	1.040E-01	-0.045
		445.03		5.224E-01	8.679E-01	1.556E+00	2.135E-01	0.336
RA-224		240.98	*	2.609E-01	2.585E-01	4.210E-01	5.638E-02	0.620
RA-226		609.31	*	-2.646E-02	3.182E-02	4.816E-02	5.444E-03	-0.549
		1120.29		-4.847E-02	1.054E-01	1.577E-01	1.703E-02	-0.307
		1764.49		3.067E-02	1.030E-01	1.840E-01	1.516E-02	0.167
AC-227		79.80		-4.177E-01	4.332E-01	5.937E-01	1.276E-01	-0.704
		236.00		-5.207E-03	7.925E-02	1.145E-01	1.804E-02	-0.045
		256.20	*	-5.386E-03	1.355E-01	2.191E-01	4.176E-02	-0.025
		286.10		-2.015E-02	5.844E-01	9.384E-01	1.716E-01	-0.021
		299.80		3.616E-01	5.623E-01	9.563E-01	2.038E-01	0.378
		304.40		5.397E-02	7.243E-01	1.172E+00	2.579E-01	0.046
		334.20		2.566E-01	7.383E-01	1.232E+00	2.725E-01	0.208
TH-227		79.80		-4.177E-01	4.334E-01	5.937E-01	1.292E-01	-0.704
	+	94.00		4.413E-01	1.031E+00	1.049E+00	2.302E-01	0.421
		236.00		-5.207E-03	7.925E-02	1.145E-01	1.702E-02	-0.045
		256.20	*	-5.386E-03	1.355E-01	2.191E-01	4.669E-02	-0.025
		286.10		-2.015E-02	5.847E-01	9.384E-01	9.493E-01	-0.021
		299.80		3.616E-01	5.623E-01	9.563E-01	2.038E-01	0.378
		304.40		5.397E-02	7.243E-01	1.172E+00	2.579E-01	0.046
		334.20		2.566E-01	7.383E-01	1.232E+00	2.725E-01	0.208
AC-228		338.32		4.806E-03	9.960E-02	1.550E-01	6.593E-02	0.031
		911.07	*	2.262E-02	5.791E-02	1.001E-01	1.219E-02	0.226
		969.11		2.763E-02	9.769E-02	1.692E-01	4.011E-02	0.163
RA-228		338.32		4.806E-03	9.960E-02	1.550E-01	6.593E-02	0.031
		911.07	*	2.262E-02	5.791E-02	1.001E-01	1.219E-02	0.226
		969.11		2.763E-02	9.769E-02	1.692E-01	4.011E-02	0.163
TH-228		74.81		-3.616E-02	1.007E-01	1.442E-01	1.180E-02	-0.251
		77.11		1.871E-02	4.978E-02	8.106E-02	6.736E-03	0.231
		87.30		-3.719E-02	1.034E-01	1.553E-01	1.460E-02	-0.239

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	+	238.63	*	1.628E-02	3.923E-02	4.429E-02	6.203E-03	0.368
		300.09		1.970E-01	3.164E-01	5.054E-01	3.059E-01	0.390
TH-229		85.43		4.169E-02	5.254E-02	8.784E-02	8.063E-03	0.475
		88.47		-4.122E-03	2.862E-02	4.394E-02	4.150E-03	-0.094
		100.00		9.185E-03	5.362E-02	9.319E-02	8.182E-03	0.099
		193.63	*	1.098E-01	1.798E-01	3.126E-01	3.433E-02	0.351
		210.97		-1.312E-02	2.566E-01	4.203E-01	4.974E-02	-0.031
TH-230		609.31	*	-2.646E-02	3.182E-02	4.816E-02	5.444E-03	-0.549
		1120.29		-4.847E-02	1.054E-01	1.577E-01	1.702E-02	-0.307
		1764.49		3.067E-02	1.030E-01	1.840E-01	1.516E-02	0.167
PA-231		283.67	*	2.469E-01	5.809E-01	9.782E-01	1.938E-01	0.252
		301.29		-5.758E-02	2.243E-01	3.496E-01	6.025E-02	-0.165
TH-231		81.07		-7.613E-03	5.531E-02	8.540E-02	7.429E-03	-0.089
		83.78		-1.613E-03	3.815E-02	5.549E-02	4.989E-03	-0.029
		94.90		-5.042E-03	7.374E-02	1.043E-01	9.395E-03	-0.048
		122.32		3.060E-01	5.387E-01	9.563E-01	8.699E-02	0.320
		144.24		4.010E-02	2.471E-01	3.994E-01	3.980E-02	0.100
		154.21		-8.317E-02	1.260E-01	1.983E-01	2.003E-02	-0.420
		269.46		-9.206E-03	7.339E-02	1.113E-01	1.675E-02	-0.083
		323.87	*	1.201E-01	2.616E-01	4.384E-01	9.171E-02	0.274
		338.28		-2.922E-02	4.207E-01	6.461E-01	1.040E-01	-0.045
		445.03		5.224E-01	8.679E-01	1.556E+00	2.135E-01	0.336
U-231		84.21		2.340E-01	6.355E-01	9.605E-01	8.682E-02	0.244
	+	92.29		1.714E-01	3.992E-01	5.399E-01	4.947E-02	0.318
		95.87	*	3.013E-02	1.311E-01	1.927E-01	1.726E-02	0.156
		108.00		1.532E-01	2.484E-01	4.437E-01	3.800E-02	0.345
TH-232		338.32		4.806E-03	9.958E-02	1.550E-01	2.090E-02	0.031
		911.07	*	2.262E-02	5.791E-02	1.001E-01	1.219E-02	0.226
		969.11		2.763E-02	9.769E-02	1.692E-01	4.011E-02	0.163
PA-233		75.28		-4.573E-01	8.490E-01	1.191E+00	1.796E-01	-0.384
		86.59		-2.091E-01	4.612E-01	6.829E-01	1.847E-01	-0.306
		300.12		9.850E-02	1.509E-01	2.579E-01	4.957E-02	0.382
		311.98	*	2.850E-03	2.500E-02	4.060E-02	5.957E-03	0.070
		340.50		1.354E-01	2.377E-01	3.993E-01	1.036E-01	0.339
		398.62		-3.804E-01	7.221E-01	1.126E+00	3.081E-01	-0.338
		415.76		-1.176E-01	6.634E-01	1.096E+00	2.463E-01	-0.107
PA-234		63.00		-1.569E-01	4.762E-01	7.481E-01	1.107E-01	-0.210
		94.67		1.415E-04	5.293E-02	7.555E-02	9.583E-03	0.002
		98.44		1.022E-02	2.703E-02	4.671E-02	2.607E-02	0.219
		99.86		3.922E-02	1.372E-01	2.405E-01	2.113E-02	0.163
		111.00		-1.516E-02	5.703E-02	9.525E-02	1.144E-02	-0.159
		131.20		1.819E-02	3.295E-02	5.818E-02	5.019E-03	0.313
		152.70		4.072E-02	1.080E-01	1.864E-01	3.238E-02	0.218
		186.00		-2.435E-01	5.441E-01	9.025E-01	2.872E-01	-0.270
		226.40		-1.641E-02	1.422E-01	2.303E-01	3.709E-02	-0.071
		227.20		-2.059E-02	1.480E-01	2.389E-01	3.026E-02	-0.086
		248.90		-2.620E-03	2.979E-01	4.845E-01	1.205E-01	-0.005
		293.70		1.219E-01	2.426E-01	4.099E-01	8.726E-02	0.297
		369.80		1.642E-01	3.075E-01	5.206E-01	1.212E-01	0.315

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		568.70		-2.532E-02	4.676E-01	7.438E-01	7.724E-02	-0.034
		569.50		-1.845E-03	1.229E-01	1.959E-01	2.033E-02	-0.009
		574.00		-8.744E-01	5.929E-01	7.309E-01	7.561E-02	-1.196
		699.00		-9.170E-02	2.978E-01	4.587E-01	8.962E-02	-0.200
		706.10		1.110E-01	4.309E-01	7.198E-01	3.224E-01	0.154
		733.00		-5.118E-02	1.433E-01	1.957E-01	4.430E-02	-0.261
		742.81		1.994E-01	4.873E-01	8.162E-01	5.499E-01	0.244
		796.30		-1.534E-02	3.434E-01	5.493E-01	1.508E-01	-0.028
		805.60		1.335E-01	3.992E-01	6.731E-01	2.087E-01	0.198
		819.60		1.172E-02	4.827E-01	7.746E-01	2.968E-01	0.015
		826.30		2.671E-02	3.128E-01	5.073E-01	2.282E-01	0.053
		831.60		5.592E-02	2.201E-01	3.681E-01	1.113E-01	0.152
		876.40		-1.119E-01	3.363E-01	4.981E-01	5.126E-01	-0.225
		880.51		1.608E-02	1.107E-01	1.794E-01	1.767E-02	0.090
		883.24		1.331E-03	1.065E-01	1.792E-01	1.208E-01	0.007
		899.00		-1.905E-02	3.158E-01	5.238E-01	2.303E-01	-0.036
		925.00		-1.963E-02	3.994E-01	6.616E-01	6.451E-02	-0.030
		926.50		1.193E-02	5.792E-02	1.006E-01	2.584E-02	0.119
		946.00	*	-8.370E-02	9.938E-02	1.322E-01	2.547E-02	-0.633
		949.00		-8.878E-03	1.509E-01	2.488E-01	2.402E-02	-0.036
		980.50		1.993E-02	1.815E-01	3.111E-01	2.956E-02	0.064
		1394.10		-3.479E-02	3.744E-01	5.838E-01	3.798E-01	-0.060
PA-234M		766.42		7.870E-01	3.655E+00	6.086E+00	3.100E+00	0.129
		1001.03	*	-5.291E-01	1.854E+00	2.875E+00	3.058E-01	-0.184
TH-234		63.29	*	-1.556E-01	4.149E-01	6.486E-01	1.128E-01	-0.240
	+	92.38		1.142E-01	2.665E-01	3.598E-01	6.601E-02	0.317
U-234		609.31	*	-2.646E-02	3.182E-02	4.816E-02	5.444E-03	-0.549
		1120.29		-4.847E-02	1.054E-01	1.577E-01	1.702E-02	-0.307
		1764.49		3.067E-02	1.030E-01	1.840E-01	1.516E-02	0.167
U-235		89.95		8.072E-03	3.020E-01	4.339E-01	1.348E-01	0.019
	+	93.35		1.373E-01	3.217E-01	4.116E-01	1.160E-01	0.334
		105.00		-2.783E-02	3.141E-01	5.337E-01	1.593E-01	-0.052
		143.76	*	1.220E-02	7.656E-02	1.237E-01	2.188E-02	0.099
		163.35		1.151E-01	1.588E-01	2.789E-01	5.453E-02	0.413
		185.71		-1.143E-02	2.006E-02	3.329E-02	3.530E-03	-0.343
		205.31		-1.057E-02	1.905E-01	3.124E-01	6.427E-02	-0.034
NP-236		94.67		1.691E-04	4.015E-02	5.732E-02	5.171E-03	0.003
		98.44		7.719E-03	1.999E-02	3.531E-02	3.121E-03	0.219
		111.00		-1.146E-02	4.312E-02	7.205E-02	6.135E-03	-0.159
		160.31	*	-6.461E-03	2.709E-02	4.440E-02	4.224E-03	-0.146
NP-237		86.50	*	-7.967E-03	6.660E-02	1.027E-01	2.325E-02	-0.078
		95.87		6.758E-02	2.946E-01	4.323E-01	1.070E-01	0.156
U-238		63.29	*	-1.556E-01	4.149E-01	6.486E-01	1.128E-01	-0.240
	+	92.38		1.142E-01	2.659E-01	3.598E-01	3.295E-02	0.317
NP-239		99.55		2.488E-02	4.688E-02	8.352E-02	7.346E-03	0.298
		117.00	*	2.261E-02	5.864E-02	1.028E-01	8.702E-03	0.220
		209.75		-3.073E-01	2.664E-01	3.848E-01	4.531E-02	-0.799
		228.18		1.095E-02	8.072E-02	1.339E-01	1.703E-02	0.082
		277.60		4.445E-02	6.246E-02	1.085E-01	1.670E-02	0.410

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		1.181E-01	4.139E-01	6.866E-01	9.379E-02	0.172
AM-241		59.54	*	-2.917E-02	3.810E-02	5.557E-02	4.367E-03	-0.525
AM-243		74.67	*	-5.491E-03	1.623E-02	2.331E-02	1.886E-03	-0.236
		86.72		-1.357E+00	2.561E+00	3.786E+00	3.533E-01	-0.358
		117.66		9.967E-01	1.171E+00	2.122E+00	1.795E-01	0.470
		142.18		-5.977E+00	6.593E+00	9.752E+00	8.696E-01	-0.613
CM-243		99.55		2.559E-02	4.822E-02	8.591E-02	7.557E-03	0.298
		103.76	*	-4.738E-03	2.709E-02	4.570E-02	3.958E-03	-0.104
		117.00		2.325E-02	6.030E-02	1.058E-01	8.949E-03	0.220
		209.75		-3.029E-01	2.625E-01	3.792E-01	4.465E-02	-0.799
		228.18		1.106E-02	8.153E-02	1.353E-01	1.720E-02	0.082
		277.60		4.479E-02	6.295E-02	1.093E-01	1.683E-02	0.410
AM-246		798.80		-1.620E-03	5.237E-02	8.335E-02	8.179E-03	-0.019
		1036.00		-3.151E-02	9.734E-02	1.494E-01	1.371E-02	-0.211
		1062.04		3.458E-02	7.677E-02	1.383E-01	1.244E-02	0.250
		1078.86	*	8.059E-03	3.464E-02	6.092E-02	5.403E-03	0.132
CM-247		278.00		3.385E-01	2.626E-01	4.762E-01	7.341E-02	0.711
		287.40		-1.098E-01	4.834E-01	7.586E-01	1.159E-01	-0.145
		402.60	*	-1.533E-03	1.231E-02	2.046E-02	2.190E-03	-0.075
CF-249		252.85		-9.413E-02	3.155E-01	4.955E-01	6.952E-02	-0.190
		333.44		2.441E-02	5.531E-02	9.352E-02	1.281E-02	0.261
		387.95	*	1.246E-02	1.400E-02	2.600E-02	2.831E-03	0.479
CF-251		176.60	*	1.423E-02	3.956E-02	6.804E-02	6.931E-03	0.209
		227.00		-4.365E-02	1.358E-01	2.150E-01	2.721E-02	-0.203
		285.00		-6.057E-01	7.014E-01	1.009E+00	1.547E-01	-0.601
ANH-511		511.00	*	-4.758E-02	2.649E-02	4.618E-02	4.938E-03	-1.030

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032579    *
* Acquisition date : 14-FEB-2010 11:08:41 Detector SN#     :               *
* Detector ID        : GAM11                Sensitivity      : 5.000       *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:00.60      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  5-FEB-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202032579          Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.6589E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope       :                *
* MSD DPM          :    0.000             MSD Isotope      :               *
* LCS DPM          :    0.000             LCS Isotope      :               *
* LCSD DPM         :    0.000             LCSD Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
BI-210	1.066E-01	1.200E+00	1.465E+00	0.000E+00
PB-210	1.066E-01	1.200E+00	1.465E+00	0.000E+00
PO-210	1.066E-01	1.200E+00	1.465E+00	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	-5.599E-02	1.167E-01	1.955E-01	0.000E+00	NOT IDENT.
NA-22	1.063E-02	9.558E-03	2.143E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.098E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.555E-03	1.401E-02	2.489E-02	0.000E+00	NOT IDENT.
K-40	9.584E-03	1.906E-01	3.346E-01	0.000E+00	NOT IDENT.
TI-44	3.467E-03	8.091E-03	1.495E-02	0.000E+00	NOT IDENT.
SC-46	5.333E-03	1.244E-02	2.355E-02	0.000E+00	NOT IDENT.
V-48	-5.790E-04	1.584E-02	2.733E-02	0.000E+00	NOT IDENT.
CR-51	-2.942E-02	1.239E-01	2.082E-01	0.000E+00	NOT IDENT.
MN-52	-1.871E-02	4.501E-02	6.562E-02	0.000E+00	NOT IDENT.
MN-54	-7.615E-03	1.382E-02	2.240E-02	0.000E+00	NOT IDENT.
CO-56	-1.104E-02	1.521E-02	2.388E-02	0.000E+00	NOT IDENT.
CO-57	2.183E-03	7.649E-03	1.479E-02	0.000E+00	NOT IDENT.
CO-58	-8.568E-03	1.290E-02	1.847E-02	0.000E+00	NOT IDENT.
FE-59	-2.678E-02	2.534E-02	3.131E-02	0.000E+00	NOT IDENT.
CO-60	9.943E-04	1.344E-02	2.297E-02	0.000E+00	NOT IDENT.
ZN-65	-1.340E-02	3.163E-02	4.988E-02	0.000E+00	NOT IDENT.
GE-68	-3.655E-03	2.708E-01	4.641E-01	0.000E+00	NOT IDENT.
AS-73	5.331E-02	1.867E-01	3.499E-01	0.000E+00	NOT IDENT.
AS-74	7.164E-03	2.840E-02	5.124E-02	0.000E+00	NOT IDENT.
SE-75	-4.873E-03	1.591E-02	2.714E-02	0.000E+00	NOT IDENT.
BR-77	2.392E-01	7.079E-01	1.312E+00	0.000E+00	FAIL ABUN
SR-82	-3.242E-02	1.182E-01	1.893E-01	0.000E+00	NOT IDENT.
RB-83	-6.600E-03	2.516E-02	4.290E-02	0.000E+00	NOT IDENT.

RB-84	2.806E-03	2.302E-02	4.136E-02	0.000E+00	NOT IDENT.
KR-85	-1.185E+01	4.767E+00	6.488E+00	0.000E+00	NOT IDENT.
SR-85	-5.727E-02	2.303E-02	3.135E-02	0.000E+00	NOT IDENT.
RB-86	-2.082E-02	1.491E-01	2.459E-01	0.000E+00	NOT IDENT.
Y-88	-1.393E-02	1.569E-02	1.858E-02	0.000E+00	NOT IDENT.
ZR-88	-2.414E-03	1.103E-02	1.960E-02	0.000E+00	NOT IDENT.
Y-91	1.433E+00	5.539E+00	9.897E+00	0.000E+00	NOT IDENT.
NB-94	-4.096E-03	1.256E-02	2.032E-02	0.000E+00	NOT IDENT.
NB-95	1.398E-03	1.188E-02	2.062E-02	0.000E+00	NOT IDENT.
NB-95M	-2.183E-02	4.324E-02	6.408E-02	0.000E+00	NOT IDENT.
ZR-95	-2.814E-02	2.670E-02	3.623E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.486E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.568E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-8.669E-01	1.038E+00	1.463E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.281E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-7.111E-04	1.251E-02	2.096E-02	0.000E+00	NOT IDENT.
RH-102	5.713E-03	1.057E-02	2.015E-02	0.000E+00	NOT IDENT.
RU-103	6.399E-03	1.496E-02	2.789E-02	0.000E+00	NOT IDENT.
RH-106	-4.488E-02	1.475E-01	2.459E-01	0.000E+00	NOT IDENT.
RU-106	-4.488E-02	1.474E-01	2.459E-01	0.000E+00	NOT IDENT.
AG-108M	-4.695E-03	1.091E-02	1.849E-02	0.000E+00	NOT IDENT.
CD-109	-1.079E-01	2.137E-01	3.549E-01	0.000E+00	NOT IDENT.
AG-110M	-1.181E-02	1.355E-02	1.998E-02	0.000E+00	NOT IDENT.
IN-111	-1.776E-02	8.951E-02	1.557E-01	0.000E+00	NOT IDENT.
IN-113M	-9.415E-03	1.521E-02	2.561E-02	0.000E+00	NOT IDENT.
SN-113	-9.415E-03	1.521E-02	2.561E-02	0.000E+00	NOT IDENT.
IN-114M	-2.442E-02	5.641E-02	9.861E-02	0.000E+00	NOT IDENT.
CD-115	1.482E-01	6.380E-01	1.166E+00	0.000E+00	NOT IDENT.
SN-117M	7.233E-03	1.331E-02	2.570E-02	0.000E+00	NOT IDENT.
SB-122	2.907E-02	2.065E-01	3.684E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.481E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.924E-03	9.125E-03	1.760E-02	0.000E+00	NOT IDENT.
I-124	2.923E-02	1.021E-01	1.844E-01	0.000E+00	NOT IDENT.
SB-124	-3.778E-03	3.701E-02	6.152E-02	0.000E+00	NOT IDENT.
SB-125	-1.977E-02	3.254E-02	5.406E-02	0.000E+00	NOT IDENT.
TE-125M	-2.769E-01	2.660E+00	5.036E+00	0.000E+00	NOT IDENT.
I-126	-1.908E-02	5.749E-02	8.882E-02	0.000E+00	NOT IDENT.
SB-126	2.060E-02	3.357E-02	6.370E-02	0.000E+00	NOT IDENT.
SN-126	-1.097E-02	2.201E-02	3.666E-02	0.000E+00	NOT IDENT.
SB-127	-7.353E-02	1.878E-01	3.008E-01	0.000E+00	NOT IDENT.
XE-127	-1.192E-02	1.519E-02	2.549E-02	0.000E+00	NOT IDENT.
I-131	1.844E-02	2.883E-02	5.296E-02	0.000E+00	NOT IDENT.
TE-132	1.885E-03	7.328E-02	1.316E-01	0.000E+00	NOT IDENT.
BA-133	-1.472E-02	1.624E-02	2.392E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.261E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.553E-03	1.763E-02	2.946E-02	0.000E+00	NOT IDENT.
CS-135	3.006E-02	5.672E-02	1.051E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.265E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.315E-03	2.992E-02	5.418E-02	0.000E+00	NOT IDENT.
BA-137M	-4.070E-03	1.241E-02	2.016E-02	0.000E+00	NOT IDENT.
CS-137	-4.302E-03	1.312E-02	2.131E-02	0.000E+00	NOT IDENT.
CE-139	-4.342E-03	9.483E-03	1.677E-02	0.000E+00	NOT IDENT.
BA-140	4.585E-02	8.022E-02	1.488E-01	0.000E+00	NOT IDENT.
LA-140	2.794E-02	2.675E-02	5.590E-02	0.000E+00	NOT IDENT.
CE-141	-6.184E-03	1.763E-02	3.191E-02	0.000E+00	NOT IDENT.
CE-143	-1.319E+00	2.883E+00	4.756E+00	0.000E+00	NOT IDENT.
CE-144	-4.199E-02	6.206E-02	1.092E-01	0.000E+00	NOT IDENT.
PM-144	5.402E-03	1.498E-02	2.688E-02	0.000E+00	NOT IDENT.
PR-144	3.649E-01	1.012E+00	1.816E+00	0.000E+00	NOT IDENT.
PM-146	6.168E-03	1.378E-02	2.626E-02	0.000E+00	NOT IDENT.
ND-147	6.045E-02	1.332E-01	2.504E-01	0.000E+00	FAIL ABUN
PM-149	-1.081E-01	5.673E+00	9.915E+00	0.000E+00	NOT IDENT.
EU-152	-7.408E-03	3.685E-02	6.166E-02	0.000E+00	NOT IDENT.
GD-153	1.806E-03	2.633E-02	4.239E-02	0.000E+00	NOT IDENT.
EU-154	2.893E-02	2.657E-02	5.931E-02	0.000E+00	NOT IDENT.
EU-155	3.955E-03	3.132E-02	6.050E-02	0.000E+00	NOT IDENT.
TB-160	-3.921E-03	5.446E-02	8.988E-02	0.000E+00	NOT IDENT.
HO-166M	5.918E-03	2.550E-02	4.504E-02	0.000E+00	NOT IDENT.
TM-171	-4.213E-01	7.096E+00	1.230E+01	0.000E+00	NOT IDENT.
LU-176	-4.209E-03	9.785E-03	1.614E-02	0.000E+00	NOT IDENT.
LU-177	-1.019E-02	2.158E-01	3.881E-01	0.000E+00	NOT IDENT.
LU-177M	-3.227E-03	6.147E-02	1.107E-01	0.000E+00	NOT IDENT.
HF-181	1.783E-02	1.665E-02	3.291E-02	0.000E+00	NOT IDENT.
W-181	-1.731E-01	1.072E-01	1.606E-01	0.000E+00	NOT IDENT.
TA-182	-7.636E-03	4.797E-02	7.793E-02	0.000E+00	NOT IDENT.
RE-183	-7.705E-03	3.451E-02	6.254E-02	0.000E+00	NOT IDENT.
RE-184	-2.451E-02	8.052E-02	1.379E-01	0.000E+00	NOT IDENT.
OS-185	-3.770E-03	1.385E-02	2.274E-02	0.000E+00	NOT IDENT.

RE-188	-6.290E-02	5.181E-02	8.514E-02	0.000E+00	NOT IDENT.
W-188	6.412E-01	2.640E+00	4.733E+00	0.000E+00	NOT IDENT.
IR-192	-8.075E-04	1.293E-02	2.225E-02	0.000E+00	NOT IDENT.
AU-195	2.694E-02	6.358E-02	1.260E-01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	4.890E+00	0.000E+00	0.000E+00	SHORT HLIF
TL-201	2.584E-01	6.419E-01	1.221E+00	0.000E+00	NOT IDENT.
TL-202	3.941E-03	1.718E-02	3.185E-02	0.000E+00	NOT IDENT.
HG-203	-8.353E-03	1.423E-02	2.330E-02	0.000E+00	NOT IDENT.
BI-207	3.480E-03	1.540E-02	2.790E-02	0.000E+00	NOT IDENT.
TL-207	1.201E-01	2.564E-01	4.651E-01	0.000E+00	NOT IDENT.
TL-208	9.360E-03	1.817E-02	3.289E-02	0.000E+00	NOT IDENT.
PO-209	1.096E+00	2.654E+00	4.986E+00	0.000E+00	NOT IDENT.
BI-211	7.862E-02	8.338E-02	1.490E-01	0.000E+00	NOT IDENT.
PB-211	-1.115E-01	3.265E-01	5.550E-01	0.000E+00	NOT IDENT.
BI-212	-1.825E-02	9.093E-02	1.570E-01	0.000E+00	NOT IDENT.
PB-212	1.613E-02	3.809E-02	4.696E-02	0.000E+00	FAIL ABUN
PO-212	1.613E-02	3.809E-02	4.696E-02	0.000E+00	FAIL ABUN
BI-214	-2.646E-02	3.118E-02	5.011E-02	0.000E+00	NOT IDENT.
PB-214	3.359E-02	2.946E-02	5.350E-02	0.000E+00	NOT IDENT.
PO-214	3.359E-02	2.946E-02	5.350E-02	0.000E+00	NOT IDENT.
PO-215	1.201E-01	2.564E-01	4.651E-01	0.000E+00	NOT IDENT.
PO-216	1.613E-02	3.809E-02	4.696E-02	0.000E+00	FAIL ABUN
PO-218	3.359E-02	2.946E-02	5.350E-02	0.000E+00	NOT IDENT.
RN-219	5.032E-02	1.371E-01	2.598E-01	0.000E+00	NOT IDENT.
RN-220	-6.720E-01	9.141E+00	1.590E+01	0.000E+00	NOT IDENT.
RA-223	1.201E-01	2.564E-01	4.651E-01	0.000E+00	NOT IDENT.
RA-224	2.609E-01	2.534E-01	4.505E-01	0.000E+00	NOT IDENT.
RA-226	-2.646E-02	3.118E-02	5.011E-02	0.000E+00	NOT IDENT.
AC-227	-5.386E-03	1.328E-01	2.341E-01	0.000E+00	NOT IDENT.
TH-227	-5.386E-03	1.328E-01	2.341E-01	0.000E+00	FAIL ABUN
AC-228	2.262E-02	5.676E-02	1.029E-01	0.000E+00	NOT IDENT.
RA-228	2.262E-02	5.676E-02	1.029E-01	0.000E+00	NOT IDENT.
TH-228	1.628E-02	3.845E-02	4.741E-02	0.000E+00	FAIL ABUN
TH-229	1.098E-01	1.762E-01	3.367E-01	0.000E+00	NOT IDENT.
TH-230	-2.646E-02	3.118E-02	5.011E-02	0.000E+00	NOT IDENT.
PA-231	2.469E-01	5.693E-01	1.042E+00	0.000E+00	NOT IDENT.
TH-231	1.201E-01	2.564E-01	4.651E-01	0.000E+00	NOT IDENT.
U-231	3.013E-02	1.285E-01	2.118E-01	0.000E+00	FAIL ABUN
TH-232	2.262E-02	5.676E-02	1.029E-01	0.000E+00	NOT IDENT.
PA-233	2.850E-03	2.450E-02	4.312E-02	0.000E+00	NOT IDENT.
PA-234	-8.370E-02	9.739E-02	1.357E-01	0.000E+00	NOT IDENT.
PA-234M	-5.291E-01	1.817E+00	2.945E+00	0.000E+00	NOT IDENT.
TH-234	-1.556E-01	4.066E-01	7.209E-01	0.000E+00	FAIL ABUN
U-234	-2.646E-02	3.118E-02	5.011E-02	0.000E+00	NOT IDENT.
U-235	1.220E-02	7.503E-02	1.344E-01	0.000E+00	FAIL ABUN
NP-236	-6.461E-03	2.655E-02	4.808E-02	0.000E+00	NOT IDENT.
NP-237	-7.967E-03	6.527E-02	1.132E-01	0.000E+00	NOT IDENT.
U-238	-1.556E-01	4.066E-01	7.209E-01	0.000E+00	FAIL ABUN
NP-239	2.261E-02	5.746E-02	1.124E-01	0.000E+00	NOT IDENT.
AM-241	-2.917E-02	3.734E-02	6.187E-02	0.000E+00	NOT IDENT.
AM-243	-5.491E-03	1.591E-02	2.579E-02	0.000E+00	NOT IDENT.
CM-243	-4.738E-03	2.655E-02	5.011E-02	0.000E+00	NOT IDENT.
AM-246	8.059E-03	3.394E-02	6.225E-02	0.000E+00	NOT IDENT.
CM-247	-1.533E-03	1.206E-02	2.156E-02	0.000E+00	NOT IDENT.
CF-249	1.246E-02	1.372E-02	2.743E-02	0.000E+00	NOT IDENT.
CF-251	1.423E-02	3.877E-02	7.347E-02	0.000E+00	NOT IDENT.
ANH-511	-4.758E-02	2.596E-02	4.831E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:10:14.76

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032579.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 14-FEB-2010 11:08:41
Sample ID         : G1202032579          Sample quantity  : 1.65890E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
BI-210	46.50	3	4.05*	1.517E+00	1.065E-01	1.066E-01	1148.58
PB-210	46.50	3	4.05*	1.517E+00	1.065E-01	1.066E-01	1148.58
PO-210	46.50	3	4.05*	1.517E+00	1.065E-01	1.066E-01	1148.58

Flag: "*" = Keyline

Sample ID : G1202032579
Acquisition date : 14-FEB-2010 11:08:41

Total number of lines in spectrum 3
Number of unidentified lines 0
Number of lines tentatively identified by NID 3 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-210	22.26Y	1.00	1.065E-01	1.066E-01	12.24E-01	1148.58	
PB-210	22.26Y	1.00	1.065E-01	1.066E-01	12.24E-01	1148.58	
PO-210	22.26Y	1.00	1.065E-01	1.066E-01	12.24E-01	1148.58	
		Total Activity :	3.195E-01	3.197E-01			
		Grand Total Activity :	3.195E-01	3.197E-01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202032579

Acquisition date : 14-FEB-2010 11:08:41

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.60	19	97	0.94	184.12	181	9	2.67E-03	****	7.05E+00	T
0	239.09	17	93	0.73	477.32	472	10	2.30E-03	****	5.20E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:10:20.32

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032579.CNF;1  *
* Acquisition date  : 14-FEB-2010 11:08:41  Detector SN#     :             *
* Detector ID       : GAM11                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.60          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 5-FEB-2010 00:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G1202032579           Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.65890E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-210	1.066E-01	1.224E+00	1.308E+00	1.217E-01	0.082
PB-210	1.066E-01	1.224E+00	1.308E+00	1.217E-01	0.082
PO-210	1.066E-01	1.224E+00	1.308E+00	1.102E-01	0.082

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-5.599E-02		1.191E-01	1.865E-01	2.111E-02	-0.300
NA-22	1.063E-02		9.753E-03	2.109E-02	1.732E-03	0.504
NA-24	-1.603E-04		2.601E-04	Half-Life too short		
AL-26	2.555E-03		1.429E-02	2.478E-02	2.022E-03	0.103
K-40	9.584E-03		1.945E-01	3.308E-01	2.860E-02	0.029
TI-44	3.467E-03		8.256E-03	1.353E-02	1.141E-03	0.256
SC-46	5.333E-03		1.269E-02	2.291E-02	2.256E-03	0.233
V-48	-5.790E-04		1.616E-02	2.667E-02	2.529E-03	-0.022
CR-51	-2.942E-02		1.265E-01	1.962E-01	2.848E-02	-0.150

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MN-52	-1.871E-02		4.593E-02	6.482E-02	5.431E-03	-0.289
MN-54	-7.615E-03		1.410E-02	2.174E-02	2.141E-03	-0.350
CO-56	-1.104E-02		1.553E-02	2.319E-02	2.285E-03	-0.476
CO-57	2.183E-03		7.805E-03	1.356E-02	1.147E-03	0.161
CO-58	-8.568E-03		1.316E-02	1.791E-02	1.763E-03	-0.478
FE-59	-2.678E-02		2.586E-02	3.066E-02	2.882E-03	-0.873
CO-60	9.943E-04		1.371E-02	2.263E-02	1.870E-03	0.044
ZN-65	-1.340E-02		3.228E-02	4.886E-02	4.193E-03	-0.274
GE-68	-3.655E-03		2.763E-01	4.542E-01	4.034E-02	-0.008
AS-73	5.331E-02		1.905E-01	3.134E-01	2.353E-02	0.170
AS-74	7.164E-03		2.898E-02	4.922E-02	5.005E-03	0.146
SE-75	-4.873E-03		1.624E-02	2.543E-02	3.737E-03	-0.192
BR-77	2.392E-01		7.224E-01	1.255E+00	1.337E-01	0.191
SR-82	-3.242E-02		1.206E-01	1.833E-01	1.793E-02	-0.177
RB-83	-6.600E-03		2.567E-02	4.103E-02	4.373E-03	-0.161
RB-84	2.806E-03		2.349E-02	4.022E-02	3.963E-03	0.070
KR-85	-1.185E+01		4.865E+00	6.203E+00	6.626E-01	-1.911
SR-85	-5.727E-02		2.350E-02	2.997E-02	3.201E-03	-1.911
RB-86	-2.082E-02		1.521E-01	2.406E-01	2.138E-02	-0.087
Y-88	-1.393E-02		1.601E-02	1.850E-02	1.502E-03	-0.753
ZR-88	-2.414E-03		1.125E-02	1.858E-02	1.982E-03	-0.130
Y-91	1.433E+00		5.652E+00	9.721E+00	7.869E-01	0.147
NB-94	-4.096E-03		1.281E-02	1.961E-02	1.884E-03	-0.209
NB-95	1.398E-03		1.213E-02	1.996E-02	1.948E-03	0.070
NB-95M	-2.183E-02		4.412E-02	5.984E-02	8.355E-03	-0.365
ZR-95	-2.814E-02		2.724E-02	3.506E-02	3.689E-03	-0.803
NB-97	-1.417E-04		7.584E-05	Half-Life too short		
ZR-97	-1.318E-02		2.330E-03	Half-Life too short		
MO-99	-8.669E-01		1.059E+00	1.415E+00	2.239E-01	-0.613
TC-99M	6.660E+02		1.164E+03	Half-Life too short		
RH-101	-7.111E-04		1.277E-02	1.947E-02	2.179E-03	-0.037
RH-102	5.713E-03		1.079E-02	1.922E-02	2.072E-03	0.297
RU-103	6.399E-03		1.526E-02	2.664E-02	4.140E-03	0.240
RH-106	-4.488E-02		1.505E-01	2.365E-01	3.365E-02	-0.190
RU-106	-4.488E-02		1.505E-01	2.365E-01	2.346E-02	-0.190
AG-108M	-4.695E-03		1.113E-02	1.758E-02	1.944E-03	-0.267
CD-109	-1.079E-01		2.181E-01	3.223E-01	3.056E-02	-0.335
AG-110M	-1.181E-02		1.383E-02	1.925E-02	1.875E-03	-0.614
IN-111	-1.776E-02		9.133E-02	1.456E-01	1.984E-02	-0.122
IN-113M	-9.415E-03		1.552E-02	2.428E-02	2.641E-03	-0.388
SN-113	-9.415E-03		1.552E-02	2.428E-02	2.641E-03	-0.388
IN-114M	-2.442E-02		5.756E-02	9.151E-02	9.901E-03	-0.267
CD-115	1.482E-01		6.511E-01	1.116E+00	1.185E-01	0.133
SN-117M	7.233E-03		1.358E-02	2.373E-02	2.243E-03	0.305
SB-122	2.907E-02		2.107E-01	3.532E-01	3.680E-02	0.082
I-123	7.989E-04		7.554E-04	Half-Life too short		
TE-123M	4.924E-03		9.312E-03	1.625E-02	1.546E-03	0.303
I-124	2.923E-02		1.041E-01	1.772E-01	1.791E-02	0.165

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-124	-3.778E-03		3.776E-02	6.111E-02	5.310E-03	-0.062
SB-125	-1.977E-02		3.321E-02	5.140E-02	5.604E-03	-0.385
TE-125M	-2.769E-01		2.714E+00	4.600E+00	4.715E-01	-0.060
I-126	-1.908E-02		5.867E-02	8.560E-02	8.115E-03	-0.223
SB-126	2.060E-02		3.425E-02	6.154E-02	5.942E-03	0.335
SN-126	-1.097E-02		2.246E-02	3.328E-02	3.139E-03	-0.330
SB-127	-7.353E-02		1.916E-01	2.902E-01	3.125E-02	-0.253
XE-127	-1.192E-02		1.550E-02	2.370E-02	2.708E-03	-0.503
I-131	1.844E-02		2.942E-02	5.011E-02	6.278E-03	0.368
TE-132	1.885E-03		7.478E-02	1.227E-01	2.154E-02	0.015
BA-133	-1.472E-02		1.657E-02	2.262E-02	3.647E-03	-0.651
I-133	2.695E-06		1.154E-05	Half-Life too short		
CS-134	-1.553E-03		1.799E-02	2.856E-02	2.817E-03	-0.054
CS-135	3.006E-02		5.788E-02	9.856E-02	1.547E-02	0.305
I-135	-9.140E+02		6.454E+02	Half-Life too short		
CS-136	8.315E-03		3.053E-02	5.298E-02	4.999E-03	0.157
BA-137M	-4.070E-03		1.267E-02	1.942E-02	1.838E-03	-0.210
CS-137	-4.302E-03		1.339E-02	2.053E-02	1.946E-03	-0.210
CE-139	-4.342E-03		9.677E-03	1.550E-02	1.506E-03	-0.280
BA-140	4.585E-02		8.186E-02	1.425E-01	4.802E-02	0.322
LA-140	2.794E-02		2.729E-02	5.541E-02	4.660E-03	0.504
CE-141	-6.184E-03		1.799E-02	2.939E-02	2.694E-03	-0.210
CE-143	-1.319E+00		2.942E+00	4.471E+00	1.118E+00	-0.295
CE-144	-4.199E-02		6.332E-02	1.003E-01	1.565E-02	-0.418
PM-144	5.402E-03		1.529E-02	2.595E-02	2.487E-03	0.208
PR-144	3.649E-01		1.033E+00	1.753E+00	1.680E-01	0.208
PM-146	6.168E-03		1.407E-02	2.501E-02	3.135E-03	0.247
ND-147	6.045E-02		1.359E-01	2.397E-01	3.877E-02	0.252
PM-149	-1.081E-01		5.789E+00	9.312E+00	1.866E+00	-0.012
EU-152	-7.408E-03		3.761E-02	5.823E-02	7.895E-03	-0.127
GD-153	1.806E-03		2.687E-02	3.860E-02	3.429E-03	0.047
EU-154	2.893E-02		2.711E-02	5.836E-02	6.417E-03	0.496
EU-155	3.955E-03		3.196E-02	5.521E-02	4.817E-03	0.072
TB-160	-3.921E-03		5.557E-02	8.739E-02	8.611E-03	-0.045
HO-166M	5.918E-03		2.602E-02	4.350E-02	4.189E-03	0.136
TM-171	-4.213E-01		7.241E+00	1.108E+01	8.316E-01	-0.038
LU-176	-4.209E-03		9.985E-03	1.519E-02	2.232E-03	-0.277
LU-177	-1.019E-02		2.202E-01	3.612E-01	4.227E-02	-0.028
LU-177M	-3.227E-03		6.272E-02	1.051E-01	1.129E-02	-0.031
HF-181	1.783E-02		1.699E-02	3.140E-02	3.382E-03	0.568
W-181	-1.731E-01		1.094E-01	1.446E-01	1.072E-02	-1.197
TA-182	-7.636E-03		4.895E-02	7.657E-02	6.220E-03	-0.100
RE-183	-7.705E-03		3.522E-02	5.777E-02	5.538E-03	-0.133
RE-184	-2.451E-02		8.216E-02	1.290E-01	1.810E-02	-0.190
OS-185	-3.770E-03		1.414E-02	2.190E-02	2.114E-03	-0.172
RE-188	-6.290E-02		5.287E-02	7.855E-02	7.327E-03	-0.801
W-188	6.412E-01		2.693E+00	4.448E+00	6.756E-01	0.144
IR-192	-8.075E-04		1.320E-02	2.096E-02	3.014E-03	-0.039

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AU-195	2.694E-02		6.487E-02	1.148E-01	1.012E-02	0.235
TL-200	-4.607E-06		2.495E-06	Half-Life too short		
TL-201	2.584E-01		6.550E-01	1.129E+00	1.105E-01	0.229
TL-202	3.941E-03		1.753E-02	3.031E-02	3.269E-03	0.130
HG-203	-8.353E-03		1.452E-02	2.186E-02	3.415E-03	-0.382
BI-207	3.480E-03		1.572E-02	2.729E-02	2.452E-03	0.128
TL-207	1.201E-01		2.616E-01	4.384E-01	9.171E-02	0.274
TL-208	9.360E-03		1.854E-02	3.156E-02	3.409E-03	0.297
PO-209	1.096E+00		2.708E+00	4.851E+00	4.776E-01	0.226
BI-211	7.862E-02		8.508E-02	1.408E-01	1.858E-02	0.558
PB-211	-1.115E-01		3.332E-01	5.268E-01	3.318E-01	-0.212
BI-212	-1.825E-02		9.278E-02	1.517E-01	1.658E-02	-0.120
PB-212	1.613E-02	+	3.886E-02	4.387E-02	6.145E-03	0.368
PO-212	1.613E-02	+	3.886E-02	4.387E-02	6.145E-03	0.368
BI-214	-2.646E-02		3.182E-02	4.816E-02	5.444E-03	-0.549
PB-214	3.359E-02		3.006E-02	5.056E-02	7.155E-03	0.664
PO-214	3.359E-02		3.006E-02	5.056E-02	7.155E-03	0.664
PO-215	1.201E-01		2.616E-01	4.384E-01	9.171E-02	0.274
PO-216	1.613E-02	+	3.886E-02	4.387E-02	6.145E-03	0.368
PO-218	3.359E-02		3.006E-02	5.056E-02	7.155E-03	0.664
RN-219	5.032E-02		1.399E-01	2.465E-01	4.021E-02	0.204
RN-220	-6.720E-01		9.327E+00	1.523E+01	1.600E+00	-0.044
RA-223	1.201E-01		2.616E-01	4.384E-01	9.171E-02	0.274
RA-224	2.609E-01		2.585E-01	4.210E-01	5.638E-02	0.620
RA-226	-2.646E-02		3.182E-02	4.816E-02	5.444E-03	-0.549
AC-227	-5.386E-03		1.355E-01	2.191E-01	4.176E-02	-0.025
TH-227	-5.386E-03		1.355E-01	2.191E-01	4.669E-02	-0.025
AC-228	2.262E-02		5.791E-02	1.001E-01	1.219E-02	0.226
RA-228	2.262E-02		5.791E-02	1.001E-01	1.219E-02	0.226
TH-228	1.628E-02	+	3.923E-02	4.429E-02	6.203E-03	0.368
TH-229	1.098E-01		1.798E-01	3.126E-01	3.433E-02	0.351
TH-230	-2.646E-02		3.182E-02	4.816E-02	5.444E-03	-0.549
PA-231	2.469E-01		5.809E-01	9.782E-01	1.938E-01	0.252
TH-231	1.201E-01		2.616E-01	4.384E-01	9.171E-02	0.274
U-231	3.013E-02		1.311E-01	1.927E-01	1.726E-02	0.156
TH-232	2.262E-02		5.791E-02	1.001E-01	1.219E-02	0.226
PA-233	2.850E-03		2.500E-02	4.060E-02	5.957E-03	0.070
PA-234	-8.370E-02		9.938E-02	1.322E-01	2.547E-02	-0.633
PA-234M	-5.291E-01		1.854E+00	2.875E+00	3.058E-01	-0.184
TH-234	-1.556E-01		4.149E-01	6.486E-01	1.128E-01	-0.240
U-234	-2.646E-02		3.182E-02	4.816E-02	5.444E-03	-0.549
U-235	1.220E-02		7.656E-02	1.237E-01	2.188E-02	0.099
NP-236	-6.461E-03		2.709E-02	4.440E-02	4.224E-03	-0.146
NP-237	-7.967E-03		6.660E-02	1.027E-01	2.325E-02	-0.078
U-238	-1.556E-01		4.149E-01	6.486E-01	1.128E-01	-0.240
NP-239	2.261E-02		5.864E-02	1.028E-01	8.702E-03	0.220
AM-241	-2.917E-02		3.810E-02	5.557E-02	4.367E-03	-0.525
AM-243	-5.491E-03		1.623E-02	2.331E-02	1.886E-03	-0.236

Sample ID : G1202032579 Acquisition date : 14-FEB-2010 11:08:41

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.738E-03		2.709E-02	4.570E-02	3.958E-03	-0.104
AM-246	8.059E-03		3.464E-02	6.092E-02	5.403E-03	0.132
CM-247	-1.533E-03		1.231E-02	2.046E-02	2.190E-03	-0.075
CF-249	1.246E-02		1.400E-02	2.600E-02	2.831E-03	0.479
CF-251	1.423E-02		3.956E-02	6.804E-02	6.931E-03	0.209
ANH-511	-4.758E-02		2.649E-02	4.618E-02	4.938E-03	-1.030

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032579      *
* Acquisition date  : 14-FEB-2010 11:08:41 Detector SN#     :           *
* Detector ID       : GAM11                Sensitivity      : 5.000     *
* Geometry          : CAN                  Energy tolerance: 1.500      *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000     *
* Elapsed real time:    0 02:00:00.60      Half life ratio : 8.000      *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID      *
* Sample ID         : G1202032579          Analyst initials: MXR1       *
* Batch Number      : 948751               Sample Quantity : 1.6589E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000  *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
*                                                                       *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
BI-210	1.066E-01	1.200E+00	7.332E-01	6.120E-01
PB-210	1.066E-01	1.200E+00	7.332E-01	6.120E-01
PO-210	1.066E-01	1.200E+00	7.332E-01	6.120E-01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-5.599E-02	1.167E-01	9.781E-02	5.955E-02	NOT IDENT.
NA-22	1.063E-02	9.558E-03	1.072E-02	4.876E-03	NOT IDENT.
NA-24	-1.603E+02	5.098E+02	0.000E+00	2.601E+02	SHORT HLIF
AL-26	2.555E-03	1.401E-02	1.245E-02	7.146E-03	NOT IDENT.
K-40	9.584E-03	1.906E-01	1.674E-01	9.726E-02	NOT IDENT.
TI-44	3.467E-03	8.091E-03	7.480E-03	4.128E-03	NOT IDENT.
SC-46	5.333E-03	1.244E-02	1.178E-02	6.345E-03	NOT IDENT.
V-48	-5.790E-04	1.584E-02	1.367E-02	8.082E-03	NOT IDENT.
CR-51	-2.942E-02	1.239E-01	1.042E-01	6.323E-02	NOT IDENT.
MN-52	-1.871E-02	4.501E-02	3.283E-02	2.296E-02	NOT IDENT.
MN-54	-7.615E-03	1.382E-02	1.121E-02	7.051E-03	NOT IDENT.
CO-56	-1.104E-02	1.521E-02	1.195E-02	7.763E-03	NOT IDENT.
CO-57	2.183E-03	7.649E-03	7.401E-03	3.903E-03	NOT IDENT.
CO-58	-8.568E-03	1.290E-02	9.238E-03	6.581E-03	NOT IDENT.
FE-59	-2.678E-02	2.534E-02	1.566E-02	1.293E-02	NOT IDENT.
CO-60	9.943E-04	1.344E-02	1.149E-02	6.856E-03	NOT IDENT.
ZN-65	-1.340E-02	3.163E-02	2.495E-02	1.614E-02	NOT IDENT.
GE-68	-3.655E-03	2.708E-01	2.322E-01	1.381E-01	NOT IDENT.
AS-73	5.331E-02	1.867E-01	1.751E-01	9.523E-02	NOT IDENT.
AS-74	7.164E-03	2.840E-02	2.564E-02	1.449E-02	NOT IDENT.
SE-75	-4.873E-03	1.591E-02	1.358E-02	8.118E-03	NOT IDENT.
BR-77	2.392E-01	7.079E-01	6.563E-01	3.612E-01	FAIL ABUN
SR-82	-3.242E-02	1.182E-01	9.472E-02	6.029E-02	NOT IDENT.
RB-83	-6.600E-03	2.516E-02	2.146E-02	1.284E-02	NOT IDENT.

RB-84	2.806E-03	2.302E-02	2.069E-02	1.174E-02	NOT IDENT.
KR-85	-1.185E+01	4.767E+00	3.246E+00	2.432E+00	NOT IDENT.
SR-85	-5.727E-02	2.303E-02	1.568E-02	1.175E-02	NOT IDENT.
RB-86	-2.082E-02	1.491E-01	1.230E-01	7.607E-02	NOT IDENT.
Y-88	-1.393E-02	1.569E-02	9.294E-03	8.003E-03	NOT IDENT.
ZR-88	-2.414E-03	1.103E-02	9.805E-03	5.625E-03	NOT IDENT.
Y-91	1.433E+00	5.539E+00	4.952E+00	2.826E+00	NOT IDENT.
NB-94	-4.096E-03	1.256E-02	1.017E-02	6.407E-03	NOT IDENT.
NB-95	1.398E-03	1.188E-02	1.031E-02	6.063E-03	NOT IDENT.
NB-95M	-2.183E-02	4.324E-02	3.206E-02	2.206E-02	NOT IDENT.
ZR-95	-2.814E-02	2.670E-02	1.813E-02	1.362E-02	NOT IDENT.
NB-97	-1.417E+02	1.486E+02	0.000E+00	7.584E+01	SHORT HLIF
ZR-97	-1.318E+04	4.568E+03	0.000E+00	2.330E+03	SHORT HLIF
MO-99	-8.669E-01	1.038E+00	7.322E-01	5.295E-01	NOT IDENT.
TC-99M	6.660E+08	2.281E+09	0.000E+00	1.164E+09	SHORT HLIF
RH-101	-7.111E-04	1.251E-02	1.048E-02	6.384E-03	NOT IDENT.
RH-102	5.713E-03	1.057E-02	1.008E-02	5.394E-03	NOT IDENT.
RU-103	6.399E-03	1.496E-02	1.396E-02	7.632E-03	NOT IDENT.
RH-106	-4.488E-02	1.475E-01	1.230E-01	7.526E-02	NOT IDENT.
RU-106	-4.488E-02	1.474E-01	1.230E-01	7.523E-02	NOT IDENT.
AG-108M	-4.695E-03	1.091E-02	9.249E-03	5.566E-03	NOT IDENT.
CD-109	-1.079E-01	2.137E-01	1.776E-01	1.091E-01	NOT IDENT.
AG-110M	-1.181E-02	1.355E-02	9.995E-03	6.914E-03	NOT IDENT.
IN-111	-1.776E-02	8.951E-02	7.789E-02	4.567E-02	NOT IDENT.
IN-113M	-9.415E-03	1.521E-02	1.281E-02	7.759E-03	NOT IDENT.
SN-113	-9.415E-03	1.521E-02	1.281E-02	7.759E-03	NOT IDENT.
IN-114M	-2.442E-02	5.641E-02	4.933E-02	2.878E-02	NOT IDENT.
CD-115	1.482E-01	6.380E-01	5.833E-01	3.255E-01	NOT IDENT.
SN-117M	7.233E-03	1.331E-02	1.286E-02	6.788E-03	NOT IDENT.
SB-122	2.907E-02	2.065E-01	1.843E-01	1.054E-01	NOT IDENT.
I-123	7.989E+02	1.481E+03	0.000E+00	7.554E+02	SHORT HLIF
TE-123M	4.924E-03	9.125E-03	8.806E-03	4.656E-03	NOT IDENT.
I-124	2.923E-02	1.021E-01	9.228E-02	5.207E-02	NOT IDENT.
SB-124	-3.778E-03	3.701E-02	3.078E-02	1.888E-02	NOT IDENT.
SB-125	-1.977E-02	3.254E-02	2.705E-02	1.660E-02	NOT IDENT.
TE-125M	-2.769E-01	2.660E+00	2.519E+00	1.357E+00	NOT IDENT.
I-126	-1.908E-02	5.749E-02	4.444E-02	2.933E-02	NOT IDENT.
SB-126	2.060E-02	3.357E-02	3.187E-02	1.713E-02	NOT IDENT.
SN-126	-1.097E-02	2.201E-02	1.834E-02	1.123E-02	NOT IDENT.
SB-127	-7.353E-02	1.878E-01	1.505E-01	9.582E-02	NOT IDENT.
XE-127	-1.192E-02	1.519E-02	1.275E-02	7.751E-03	NOT IDENT.
I-131	1.844E-02	2.883E-02	2.650E-02	1.471E-02	NOT IDENT.
TE-132	1.885E-03	7.328E-02	6.582E-02	3.739E-02	NOT IDENT.
BA-133	-1.472E-02	1.624E-02	1.197E-02	8.286E-03	NOT IDENT.
I-133	2.695E+00	2.261E+01	0.000E+00	1.154E+01	SHORT HLIF
CS-134	-1.553E-03	1.763E-02	1.474E-02	8.993E-03	NOT IDENT.
CS-135	3.006E-02	5.672E-02	5.260E-02	2.894E-02	NOT IDENT.
I-135	-9.140E+08	1.265E+09	0.000E+00	6.454E+08	SHORT HLIF
CS-136	8.315E-03	2.992E-02	2.711E-02	1.526E-02	NOT IDENT.
BA-137M	-4.070E-03	1.241E-02	1.008E-02	6.333E-03	NOT IDENT.
CS-137	-4.302E-03	1.312E-02	1.066E-02	6.694E-03	NOT IDENT.
CE-139	-4.342E-03	9.483E-03	8.389E-03	4.838E-03	NOT IDENT.
BA-140	4.585E-02	8.022E-02	7.445E-02	4.093E-02	NOT IDENT.
LA-140	2.794E-02	2.675E-02	2.797E-02	1.365E-02	NOT IDENT.
CE-141	-6.184E-03	1.763E-02	1.597E-02	8.997E-03	NOT IDENT.
CE-143	-1.319E+00	2.883E+00	2.380E+00	1.471E+00	NOT IDENT.
CE-144	-4.199E-02	6.206E-02	5.464E-02	3.166E-02	NOT IDENT.
PM-144	5.402E-03	1.498E-02	1.345E-02	7.645E-03	NOT IDENT.
PR-144	3.649E-01	1.012E+00	9.087E-01	5.165E-01	NOT IDENT.
PM-146	6.168E-03	1.378E-02	1.314E-02	7.033E-03	NOT IDENT.
ND-147	6.045E-02	1.332E-01	1.253E-01	6.794E-02	FAIL ABUN
PM-149	-1.081E-01	5.673E+00	4.960E+00	2.894E+00	NOT IDENT.
EU-152	-7.408E-03	3.685E-02	3.085E-02	1.880E-02	NOT IDENT.
GD-153	1.806E-03	2.633E-02	2.121E-02	1.344E-02	NOT IDENT.
EU-154	2.893E-02	2.657E-02	2.967E-02	1.355E-02	NOT IDENT.
EU-155	3.955E-03	3.132E-02	3.027E-02	1.598E-02	NOT IDENT.
TB-160	-3.921E-03	5.446E-02	4.497E-02	2.779E-02	NOT IDENT.
HO-166M	5.918E-03	2.550E-02	2.253E-02	1.301E-02	NOT IDENT.
TM-171	-4.213E-01	7.096E+00	6.153E+00	3.620E+00	NOT IDENT.
LU-176	-4.209E-03	9.785E-03	8.073E-03	4.992E-03	NOT IDENT.
LU-177	-1.019E-02	2.158E-01	1.942E-01	1.101E-01	NOT IDENT.
LU-177M	-3.227E-03	6.147E-02	5.538E-02	3.136E-02	NOT IDENT.
HF-181	1.783E-02	1.665E-02	1.646E-02	8.494E-03	NOT IDENT.
W-181	-1.731E-01	1.072E-01	8.036E-02	5.471E-02	NOT IDENT.
TA-182	-7.636E-03	4.797E-02	3.899E-02	2.447E-02	NOT IDENT.
RE-183	-7.705E-03	3.451E-02	3.129E-02	1.761E-02	NOT IDENT.
RE-184	-2.451E-02	8.052E-02	6.898E-02	4.108E-02	NOT IDENT.
OS-185	-3.770E-03	1.385E-02	1.138E-02	7.068E-03	NOT IDENT.

RE-188	-6.290E-02	5.181E-02	4.260E-02	2.644E-02	NOT IDENT.
W-188	6.412E-01	2.640E+00	2.368E+00	1.347E+00	NOT IDENT.
IR-192	-8.075E-04	1.293E-02	1.113E-02	6.598E-03	NOT IDENT.
AU-195	2.694E-02	6.358E-02	6.303E-02	3.244E-02	NOT IDENT.
TL-200	-4.607E+00	4.890E+00	0.000E+00	2.495E+00	SHORT HLIF
TL-201	2.584E-01	6.419E-01	6.110E-01	3.275E-01	NOT IDENT.
TL-202	3.941E-03	1.718E-02	1.593E-02	8.766E-03	NOT IDENT.
HG-203	-8.353E-03	1.423E-02	1.165E-02	7.262E-03	NOT IDENT.
BI-207	3.480E-03	1.540E-02	1.396E-02	7.860E-03	NOT IDENT.
TL-207	1.201E-01	2.564E-01	2.327E-01	1.308E-01	NOT IDENT.
TL-208	9.360E-03	1.817E-02	1.645E-02	9.272E-03	NOT IDENT.
PO-209	1.096E+00	2.654E+00	2.494E+00	1.354E+00	NOT IDENT.
BI-211	7.862E-02	8.338E-02	7.454E-02	4.254E-02	NOT IDENT.
PB-211	-1.115E-01	3.265E-01	2.777E-01	1.666E-01	NOT IDENT.
BI-212	-1.825E-02	9.093E-02	7.853E-02	4.639E-02	NOT IDENT.
PB-212	1.613E-02	3.809E-02	2.350E-02	1.943E-02	FAIL ABUN
PO-212	1.613E-02	3.809E-02	2.350E-02	1.943E-02	FAIL ABUN
BI-214	-2.646E-02	3.118E-02	2.507E-02	1.591E-02	NOT IDENT.
PB-214	3.359E-02	2.946E-02	2.677E-02	1.503E-02	NOT IDENT.
PO-214	3.359E-02	2.946E-02	2.677E-02	1.503E-02	NOT IDENT.
PO-215	1.201E-01	2.564E-01	2.327E-01	1.308E-01	NOT IDENT.
PO-216	1.613E-02	3.809E-02	2.350E-02	1.943E-02	FAIL ABUN
PO-218	3.359E-02	2.946E-02	2.677E-02	1.503E-02	NOT IDENT.
RN-219	5.032E-02	1.371E-01	1.300E-01	6.997E-02	NOT IDENT.
RN-220	-6.720E-01	9.141E+00	7.953E+00	4.664E+00	NOT IDENT.
RA-223	1.201E-01	2.564E-01	2.327E-01	1.308E-01	NOT IDENT.
RA-224	2.609E-01	2.534E-01	2.254E-01	1.293E-01	NOT IDENT.
RA-226	-2.646E-02	3.118E-02	2.507E-02	1.591E-02	NOT IDENT.
AC-227	-5.386E-03	1.328E-01	1.171E-01	6.774E-02	NOT IDENT.
TH-227	-5.386E-03	1.328E-01	1.171E-01	6.774E-02	FAIL ABUN
AC-228	2.262E-02	5.676E-02	5.146E-02	2.896E-02	NOT IDENT.
RA-228	2.262E-02	5.676E-02	5.146E-02	2.896E-02	NOT IDENT.
TH-228	1.628E-02	3.845E-02	2.372E-02	1.962E-02	FAIL ABUN
TH-229	1.098E-01	1.762E-01	1.684E-01	8.990E-02	NOT IDENT.
TH-230	-2.646E-02	3.118E-02	2.507E-02	1.591E-02	NOT IDENT.
PA-231	2.469E-01	5.693E-01	5.212E-01	2.904E-01	NOT IDENT.
TH-231	1.201E-01	2.564E-01	2.327E-01	1.308E-01	NOT IDENT.
U-231	3.013E-02	1.285E-01	1.059E-01	6.557E-02	FAIL ABUN
TH-232	2.262E-02	5.676E-02	5.146E-02	2.896E-02	NOT IDENT.
PA-233	2.850E-03	2.450E-02	2.157E-02	1.250E-02	NOT IDENT.
PA-234	-8.370E-02	9.739E-02	6.787E-02	4.969E-02	NOT IDENT.
PA-234M	-5.291E-01	1.817E+00	1.473E+00	9.270E-01	NOT IDENT.
TH-234	-1.556E-01	4.066E-01	3.607E-01	2.075E-01	FAIL ABUN
U-234	-2.646E-02	3.118E-02	2.507E-02	1.591E-02	NOT IDENT.
U-235	1.220E-02	7.503E-02	6.725E-02	3.828E-02	FAIL ABUN
NP-236	-6.461E-03	2.655E-02	2.405E-02	1.354E-02	NOT IDENT.
NP-237	-7.967E-03	6.527E-02	5.662E-02	3.330E-02	NOT IDENT.
U-238	-1.556E-01	4.066E-01	3.607E-01	2.075E-01	FAIL ABUN
NP-239	2.261E-02	5.746E-02	5.622E-02	2.932E-02	NOT IDENT.
AM-241	-2.917E-02	3.734E-02	3.095E-02	1.905E-02	NOT IDENT.
AM-243	-5.491E-03	1.591E-02	1.290E-02	8.116E-03	NOT IDENT.
CM-243	-4.738E-03	2.655E-02	2.507E-02	1.355E-02	NOT IDENT.
AM-246	8.059E-03	3.394E-02	3.114E-02	1.732E-02	NOT IDENT.
CM-247	-1.533E-03	1.206E-02	1.079E-02	6.154E-03	NOT IDENT.
CF-249	1.246E-02	1.372E-02	1.372E-02	6.998E-03	NOT IDENT.
CF-251	1.423E-02	3.877E-02	3.676E-02	1.978E-02	NOT IDENT.
ANH-511	-4.758E-02	2.596E-02	2.417E-02	1.324E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417

GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	57.6366
46.50	57.6366
46.50	57.6366
48.70	43.8356
49.72	52.7867
51.35	60.8174
52.39	47.7118
52.97	58.9194
53.15	58.9540
53.44	50.1023
54.07	34.5852
56.28	59.5447
56.28	59.5453
57.37	58.6200
57.53	55.2654
57.53	55.2658
57.60	55.2773
57.98	51.9537
57.98	51.9537
59.32	54.4340
59.32	54.4340
59.40	54.4471
59.54	65.8180
59.72	60.1765
60.01	53.4106
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61.14	82.0962
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63.00	59.6154
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63.29	65.4025
63.58	59.7154
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67.20	59.1691
67.75	66.2307
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68.90	78.0960
68.90	78.0960
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69.67	46.7224
70.82	66.7851
70.82	66.7851
70.83	66.7869
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72.87	89.5316
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74.67	72.1978
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74.81	72.2239
74.81	72.2239
74.81	72.2239
74.81	72.2239
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74.81	72.2239
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75.70	73.5758
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77.11	59.5478

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77.11	59.5478
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79.62	73.1044
79.80	73.1370
79.80	73.1370
80.11	59.9941
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80.30	60.0220
80.57	51.6530
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81.07	62.5407
81.07	62.5407
81.07	62.5407
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83.37	78.6098
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83.78	69.0026
83.78	69.0026
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84.90	65.5447
85.43	64.4110
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86.54	82.8553
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86.72	80.4521
86.79	80.4647
86.94	80.4929
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87.30	72.0161
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87.30	72.0161
87.30	72.0161
87.30	72.0161
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87.88	75.7791
88.03	70.9145
88.36	63.6269
88.47	63.6428
89.95	58.9457
91.11	52.5332
92.29	58.0214
92.38	58.0328
92.38	58.0328
93.35	58.1576
94.00	58.2408
94.67	64.5307
94.67	64.5315
94.90	64.5636
94.90	64.5636
94.90	64.5636
94.90	64.5636
95.87	53.0872
95.87	53.0872
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97.43	63.2529
98.44	58.3846
98.44	58.3850
98.88	60.1091
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99.55	60.1941
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100.10	59.4274
103.18	62.3351
103.76	57.3494
105.00	63.4129
105.31	60.9148
108.00	58.6925
109.28	69.0746

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111.00	68.4526
111.76	63.4123
112.95	54.1105
115.19	69.0063
116.30	60.5077
117.00	56.2597
117.00	56.2597
117.66	50.2632
121.11	57.5623
121.62	59.3620
121.78	59.3793
122.06	56.7887
122.32	51.5710
122.32	51.5710
122.32	51.5710
122.32	51.5710
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133.02	59.6794
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136.48	70.7821
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144.24	58.0794
144.24	58.0794
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147.16	60.1750
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152.70	59.7804
153.22	65.3513
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154.21	65.4502
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163.35	52.3371
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165.85	64.7233
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172.10	59.6277
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176.60	45.7183
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184.41	56.7979
185.71	54.9688
186.00	52.0955
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209.75	70.6042
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227.00	54.8075
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227.20	49.7442
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228.18	50.8163
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236.00	44.6027
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238.63	52.4459
238.63	52.4459
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241.98	46.4470
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269.46	44.6199
269.46	44.6199
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284.30	56.0583
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286.10	43.1966
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295.21	41.3940

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295.96	51.2341
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300.09	38.3005
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303.76	50.5081
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323.87	36.8927
323.87	36.8927
323.87	36.8927
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334.30	24.8176
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338.28	38.4838
338.28	38.4838
338.28	38.4838
338.32	36.2214
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338.32	36.2214
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340.57	36.2904
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351.92	22.8959
351.92	22.8959
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388.63	27.3965
391.69	35.4321
391.69	35.4321
392.90	36.3505
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404.84	31.3070
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413.65	30.6076
414.70	28.8291
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433.93	26.4830
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439.56	22.9191
439.89	27.5093
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444.90	23.9231
445.03	23.9251
445.03	23.9251
445.03	23.9251
445.03	23.9251
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475.35	23.4707
476.78	35.7085
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477.96	35.7357
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513.99	123.1025
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555.20	21.6757
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568.70	28.7903
569.32	28.8000
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593.00	22.1329
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602.71	24.2710
603.60	21.2467
604.41	21.2563
604.70	23.2843
609.31	27.4005

609.31	27.4005
609.31	27.4005
609.31	27.4005
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614.37	23.4029
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621.84	34.7305
631.29	20.5292
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635.90	19.5485
636.97	27.7943
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661.65	19.8019
664.57	19.8303
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666.33	24.0255
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677.61	16.8052
685.20	22.1375
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696.49	25.4355
697.00	22.2619
697.49	19.0860
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698.50	25.4597
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717.42	14.9831
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722.20	20.3788
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722.78	20.3841
722.89	20.3852
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723.30	20.3887
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742.81	11.9087
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778.57	16.4955
778.89	17.5977
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785.46	17.6470
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911.07	12.9903
911.07	12.9903
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964.01	16.0840
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969.11	18.0092
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1048.07	12.6629

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1120.29	16.9527
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1120.29	16.9527
1120.51	16.9535
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1147.95	0.0000
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1173.22	7.0957
1175.09	13.1854
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1189.05	7.1299
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1325.50	9.5326
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1362.66	0.0000
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1368.53	0.0000
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1394.10	5.3938
1395.20	11.8701
1407.95	7.5787
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1436.60	5.4534
1457.56	0.0000
1460.81	8.7793
1489.15	10.1308
1509.49	8.3306
1596.49	3.7801
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1691.02	8.6895
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1764.49	1.9621
1764.49	1.9621
1764.49	1.9621
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1791.20	0.0000
1808.65	4.9512

1836.01 8.9626

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032579

Total Uranium Activity	-4.5736E-01	ug/g
Total Uranium Counting Unc.	1.2102E+00	ug/g
Total Uranium Tpu	6.1745E-07	ug/g
Total Uranium Mda	1.0735E+00	ug/g

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*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID   : G1202032579     *
*   ANALYST       : MXR1                      DETECTOR    : GAM11           *
*   SAMPLE DATE   :  5-FEB-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 11:08:41.93    SAMPLE ALQT:  165.890 GRAM    *
*                                                                           *
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        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.768E-02
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 3.428E-02
        GROSS GAMMA MDA     (pCi/GRAM  )  : 8.543E-02
        GROSS GAMMA DLC     (pCi/GRAM  )  : 3.969E-02
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VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:11:08.48

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032580.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:09:10
Sample ID         : G1202032580          Sample quantity  : 1.35480E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.11*	55	396	0.92	125.70	123	6	7.70E-03	60.3	
2	4	74.68*	362	503	0.94	148.85	145	12	5.03E-02	11.0	2.96E+00
3	4	76.95	652	414	0.92	153.39	145	12	9.06E-02	6.4	
4	0	87.16*	221	455	1.00	173.83	170	7	3.07E-02	17.7	
5	5	89.83	199	209	1.05	179.17	177	15	2.76E-02	12.1	2.52E+00
6	5	92.70*	270	418	1.54	184.90	177	15	3.75E-02	16.2	
7	0	185.51*	237	387	1.17	370.62	364	12	3.30E-02	18.5	
8	0	209.04	144	218	1.40	417.71	414	8	2.00E-02	19.6	
9	3	238.44*	1293	232	1.05	476.53	472	15	1.80E-01	3.4	1.86E+00
10	3	241.48	295	228	1.59	482.62	472	15	4.10E-02	11.2	
11	0	269.84	108	240	1.08	539.36	534	10	1.50E-02	28.6	
12	2	294.98*	415	115	1.24	589.66	584	23	5.76E-02	6.7	1.22E+00
13	2	299.83	103	155	1.53	599.36	584	23	1.43E-02	24.1	
14	0	328.12	86	168	1.52	655.98	651	10	1.20E-02	30.0	
15	0	338.19*	233	177	1.22	676.12	672	9	3.24E-02	12.4	
16	0	351.64*	717	231	1.18	703.02	696	14	9.96E-02	5.9	
17	0	462.42	68	117	1.03	924.66	921	10	9.43E-03	32.2	
18	0	510.47*	187	140	1.99	1020.80	1012	17	2.60E-02	18.1	
19	0	582.86*	482	105	1.26	1165.61	1160	13	6.70E-02	6.4	
20	0	608.77*	500	136	1.50	1217.45	1211	13	6.95E-02	6.7	
21	0	727.53	57	107	1.65	1455.03	1447	13	7.89E-03	39.9	
22	0	768.96	92	102	1.78	1537.92	1530	18	1.28E-02	28.3	
23	0	910.61*	323	67	1.67	1821.26	1815	12	4.49E-02	7.6	
24	0	968.44*	165	142	1.38	1936.92	1929	16	2.29E-02	18.6	
25	0	1119.95	95	68	2.14	2239.97	2235	11	1.31E-02	19.8	
26	0	1407.70*	22	25	1.15	2815.43	2807	14	3.06E-03	54.0	
27	0	1460.05*	1426	47	2.23	2920.12	2911	19	1.98E-01	2.9	
28	0	1728.78	22	11	3.27	3457.46	3450	12	2.99E-03	38.6	
29	0	1764.27*	67	31	2.25	3528.42	3517	17	9.30E-03	23.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:11:12

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032580.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:09:10
Sample ID : G1202032580 Sample quantity : 135.48 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.65 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.254E+01	2.994E+00	5.862E-01	4.180E-02	55.508
CD-109	+	88.03	*	2.996E+00	1.083E+00	1.099E+00	8.408E-02	2.726
SN-126	+	64.28		5.028E-01	6.104E-01	7.766E-01	1.091E-01	0.647
	+	86.94		1.219E+00	6.613E-01	5.496E-01	2.262E-01	2.218
	+	87.57	*	2.932E-01	1.060E-01	1.081E-01	8.235E-03	2.713
TL-208		277.35		3.663E-01	3.708E-01	6.446E-01	6.751E-02	0.568
	+	510.84		8.590E-01	3.232E-01	1.972E-01	2.036E-02	4.356
	+	583.14	*	6.335E-01	9.250E-02	5.382E-02	3.850E-03	11.772
		860.37		6.357E-01	3.391E-01	6.185E-01	5.405E-02	1.028
BI-211		72.87		7.360E+00	3.262E+00	5.316E+00	3.566E-01	1.385
	+	351.07	*	4.080E+00	5.447E-01	3.070E-01	1.930E-02	13.293
PB-212	+	74.81		2.046E+00	5.076E-01	5.455E-01	6.305E-02	3.751
	+	77.11		2.087E+00	3.053E-01	3.095E-01	2.143E-02	6.741
	+	87.30		1.356E+00	5.088E-01	5.012E-01	6.295E-02	2.706
	+	238.63	*	1.601E+00	1.566E-01	9.065E-02	6.437E-03	17.662
	+	300.09		1.971E+00	9.624E-01	1.044E+00	8.521E-02	1.888
PO-212	+	74.81		2.046E+00	5.076E-01	5.455E-01	6.305E-02	3.751
	+	77.11		2.087E+00	3.053E-01	3.095E-01	2.143E-02	6.741
	+	87.30		1.356E+00	5.088E-01	5.012E-01	6.295E-02	2.706
		115.19		5.227E-01	3.334E+00	5.513E+00	3.497E-01	0.095
	+	238.63	*	1.601E+00	1.566E-01	9.065E-02	6.437E-03	17.662
	+	300.09		1.971E+00	9.624E-01	1.044E+00	8.521E-02	1.888
BI-214	+	609.31	*	1.239E+00	1.951E-01	1.099E-01	9.044E-03	11.280
	+	1120.29		1.219E+00	4.964E-01	5.245E-01	4.764E-02	2.324
	+	1764.49		1.186E+00	5.584E-01	3.386E-01	2.006E-02	3.503
PB-214	+	74.81		3.525E+00	8.513E-01	9.398E-01	9.451E-02	3.751
	+	77.11		3.577E+00	5.900E-01	5.307E-01	5.463E-02	6.742
	+	87.30		2.323E+00	8.589E-01	8.585E-01	9.294E-02	2.706
	+	241.98		2.195E+00	5.230E-01	4.892E-01	3.850E-02	4.488
	+	295.21		1.392E+00	2.195E-01	1.827E-01	1.542E-02	7.617
	+	351.92	*	1.419E+00	2.034E-01	1.070E-01	8.742E-03	13.263
PO-214	+	74.81		3.525E+00	8.513E-01	9.398E-01	9.451E-02	3.751
	+	77.11		3.577E+00	5.900E-01	5.307E-01	5.463E-02	6.742
	+	87.30		2.323E+00	8.589E-01	8.585E-01	9.294E-02	2.706

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.195E+00	5.230E-01	4.892E-01	3.850E-02	4.488
	+	295.21		1.392E+00	2.195E-01	1.827E-01	1.542E-02	7.617
	+	351.92	*	1.419E+00	2.034E-01	1.070E-01	8.742E-03	13.263
PO-216	+	74.81		2.046E+00	5.076E-01	5.455E-01	6.305E-02	3.751
	+	77.11		2.087E+00	3.053E-01	3.095E-01	2.143E-02	6.741
	+	87.30		1.356E+00	5.088E-01	5.012E-01	6.295E-02	2.706
	+	238.63	*	1.601E+00	1.566E-01	9.065E-02	6.437E-03	17.662
	+	300.09		1.971E+00	9.624E-01	1.044E+00	8.521E-02	1.888
PO-218	+	74.81		3.525E+00	8.513E-01	9.398E-01	9.451E-02	3.751
	+	77.11		3.577E+00	5.900E-01	5.307E-01	5.463E-02	6.742
	+	87.30		2.323E+00	8.589E-01	8.585E-01	9.294E-02	2.706
	+	241.98		2.195E+00	5.230E-01	4.892E-01	3.850E-02	4.488
	+	295.21		1.392E+00	2.195E-01	1.827E-01	1.542E-02	7.617
	+	351.92	*	1.419E+00	2.034E-01	1.070E-01	8.742E-03	13.263
RA-224	+	240.98	*	4.163E+00	9.638E-01	1.032E+00	5.692E-02	4.035
RA-226	+	609.31	*	1.239E+00	1.951E-01	1.099E-01	9.044E-03	11.280
	+	1120.29		1.219E+00	4.964E-01	5.245E-01	4.764E-02	2.324
	+	1764.49		1.186E+00	5.584E-01	3.386E-01	2.006E-02	3.503
AC-228	+	338.32		1.462E+00	6.975E-01	3.688E-01	1.503E-01	3.966
	+	911.07	*	1.894E+00	3.554E-01	2.212E-01	2.429E-02	8.559
	+	969.11		1.700E+00	7.449E-01	4.256E-01	9.814E-02	3.994
RA-228	+	338.32		1.462E+00	6.975E-01	3.688E-01	1.503E-01	3.966
	+	911.07	*	1.894E+00	3.554E-01	2.212E-01	2.429E-02	8.559
	+	969.11		1.700E+00	7.449E-01	4.256E-01	9.814E-02	3.994
TH-228	+	74.81		2.083E+00	4.793E-01	5.553E-01	3.828E-02	3.751
	+	77.11		2.124E+00	3.108E-01	3.151E-01	2.181E-02	6.742
	+	87.30		1.380E+00	4.992E-01	5.102E-01	3.878E-02	2.706
	+	238.63	*	1.630E+00	1.594E-01	9.229E-02	6.553E-03	17.662
	+	300.09		2.007E+00	1.527E+00	1.063E+00	6.261E-01	1.888
TH-230	+	609.31	*	1.239E+00	1.951E-01	1.099E-01	9.044E-03	11.280
	+	1120.29		1.219E+00	4.964E-01	5.245E-01	4.764E-02	2.324
	+	1764.49		1.186E+00	5.584E-01	3.386E-01	2.006E-02	3.503
TH-232	+	338.32		1.462E+00	3.720E-01	3.688E-01	2.089E-02	3.966
	+	911.07	*	1.894E+00	3.554E-01	2.212E-01	2.429E-02	8.559
	+	969.11		1.700E+00	7.449E-01	4.256E-01	9.814E-02	3.994
TH-234	+	63.29	*	1.270E+00	1.547E+00	2.030E+00	3.456E-01	0.626
	+	92.38		2.313E+00	8.517E-01	6.846E-01	1.197E-01	3.379
U-234	+	609.31	*	1.239E+00	1.951E-01	1.099E-01	9.044E-03	11.280
	+	1120.29		1.219E+00	4.964E-01	5.245E-01	4.764E-02	2.324
	+	1764.49		1.186E+00	5.584E-01	3.386E-01	2.006E-02	3.503
NP-237	+	86.50	*	8.610E-01	3.585E-01	3.901E-01	8.570E-02	2.207
		95.87		-3.050E-01	9.902E-01	1.444E+00	3.484E-01	-0.211
U-238	+	63.29	*	1.270E+00	1.547E+00	2.030E+00	3.456E-01	0.626
	+	92.38		2.313E+00	7.682E-01	6.846E-01	4.984E-02	3.379
AM-243	+	74.67	*	3.317E-01	7.624E-02	8.870E-02	6.027E-03	3.740
	+	86.72		3.229E+01	1.168E+01	1.459E+01	1.103E+00	2.213
		117.66		-5.904E-01	3.570E+00	5.815E+00	3.663E-01	-0.102
		142.18		7.479E+00	1.692E+01	2.769E+01	1.567E+00	0.270
ANH-511	+	511.00	*	1.856E-01	6.809E-02	4.261E-02	2.597E-03	4.354

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-3.379E-01	3.183E-01	4.668E-01	3.212E-02	-0.724
NA-22		1274.54	*	-5.440E-02	4.757E-02	6.915E-02	4.453E-03	-0.787
NA-24		1368.53	*	-3.447E+00	4.757E-02	Half-Life too short		
AL-26		1129.67		2.404E-01	1.795E+00	3.015E+00	1.838E-01	0.080
		1808.65	*	1.137E-03	2.399E-02	4.013E-02	2.303E-03	0.028
TI-44		67.85		7.707E-03	4.332E-02	7.281E-02	4.739E-03	0.106
	+	78.38	*	3.851E-01	5.634E-02	6.871E-02	4.806E-03	5.605
SC-46		889.25	*	2.953E-02	4.345E-02	7.446E-02	6.172E-03	0.397
	+	1120.51		2.136E-01	8.584E-02	1.361E-01	8.458E-03	1.569
V-48		944.10		-4.874E-01	9.956E-01	1.521E+00	1.221E-01	-0.321
		983.50	*	-2.296E-02	9.170E-02	1.285E-01	9.899E-03	-0.179
		1312.09		1.939E-02	9.231E-02	1.548E-01	1.050E-02	0.125
CR-51		320.08	*	8.193E-02	3.668E-01	6.158E-01	3.915E-02	0.133
MN-52		744.21		-2.382E-01	3.301E-01	5.077E-01	3.626E-02	-0.469
		848.13		-9.616E+00	9.747E+00	1.430E+01	1.139E+00	-0.673
		935.52		-9.156E-02	4.062E-01	6.421E-01	5.199E-02	-0.143
		1246.25		-6.614E+00	1.089E+01	1.696E+01	1.045E+00	-0.390
		1333.61		-5.213E-01	6.985E+00	1.133E+01	7.914E-01	-0.046
		1434.06	*	-1.107E-01	3.249E-01	5.017E-01	3.446E-02	-0.221
MN-54		834.83	*	2.413E-02	4.032E-02	6.870E-02	5.400E-03	0.351
CO-56		846.75	*	-5.136E-02	4.202E-02	6.014E-02	4.784E-03	-0.854
		977.42		3.083E+00	3.149E+00	5.409E+00	4.196E-01	0.570
		1037.82		8.407E-02	2.972E-01	5.103E-01	3.942E-02	0.165
		1175.09		9.802E-02	2.460E+00	4.086E+00	2.253E-01	0.024
		1238.25		8.081E-02	1.013E-01	1.761E-01	1.134E-02	0.459
		1360.21		5.992E-01	1.080E+00	1.876E+00	1.306E-01	0.319
		1771.40		-5.126E-01	2.897E-01	3.356E-01	1.979E-02	-1.528
CO-57		122.06	*	4.830E-03	2.369E-02	3.914E-02	2.447E-03	0.123
		136.48		-6.119E-02	1.976E-01	3.171E-01	2.132E-02	-0.193
CO-58		810.76	*	-2.286E-02	3.862E-02	5.940E-02	4.571E-03	-0.385
FE-59		142.65		2.716E+00	2.708E+00	4.529E+00	2.559E-01	0.600
		192.34		-4.939E-01	9.505E-01	1.473E+00	1.702E-01	-0.335
		1099.22	*	-4.733E-02	1.016E-01	1.624E-01	1.200E-02	-0.291
		1291.56		-7.008E-02	1.210E-01	1.850E-01	1.490E-02	-0.379
CO-60		1173.22		7.158E-03	4.854E-02	8.134E-02	4.471E-03	0.088
		1332.49	*	-7.167E-04	4.008E-02	6.548E-02	4.574E-03	-0.011
ZN-65		1115.52	*	-4.468E-02	1.127E-01	1.537E-01	9.665E-03	-0.291
GE-68		1077.35	*	9.028E-01	1.357E+00	2.383E+00	1.606E-01	0.379
AS-73		53.44	*	-1.750E-02	7.757E-01	1.297E+00	8.376E-02	-0.013
AS-74		595.88	*	-4.619E-02	1.039E-01	1.684E-01	1.072E-02	-0.274
		634.78		-4.014E-02	3.941E-01	6.513E-01	4.197E-02	-0.062
SE-75		66.05		1.120E+00	5.052E+00	7.709E+00	6.730E-01	0.145
		96.73		-6.458E-01	8.386E-01	1.190E+00	1.507E-01	-0.543
		121.11		-3.151E-02	1.294E-01	2.097E-01	1.997E-02	-0.150
		136.00		-3.214E-03	3.730E-02	6.049E-02	3.572E-03	-0.053
		198.60		-1.448E-01	1.747E+00	2.730E+00	1.834E-01	-0.053
		264.65	*	-9.480E-03	4.984E-02	7.282E-02	4.128E-03	-0.130
		279.53		-7.043E-02	1.077E-01	1.744E-01	1.068E-02	-0.404
		303.91		5.608E-01	2.081E+00	3.109E+00	2.944E-01	0.180

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		-1.001E-01	2.465E-01	3.909E-01	3.493E-02	-0.256
BR-77	+	87.88		1.479E+03	5.348E+02	7.504E+02	5.737E+01	1.971
		200.40		1.562E+02	3.502E+02	5.689E+02	3.018E+01	0.274
	+	239.00		5.900E+02	5.128E+01	8.555E+01	4.712E+00	6.896
		249.79		-9.404E+01	1.340E+02	2.177E+02	1.209E+01	-0.432
		281.68		-1.246E+02	1.960E+02	3.171E+02	1.792E+01	-0.393
		297.23		3.530E+02	1.185E+02	2.211E+02	1.255E+01	1.596
		303.76		1.174E+02	4.005E+02	5.996E+02	3.407E+01	0.196
		439.47		3.725E+02	3.065E+02	5.384E+02	3.101E+01	0.692
		484.57		-1.988E+02	4.965E+02	7.723E+02	4.620E+01	-0.257
		520.65	*	2.399E+01	2.460E+01	4.215E+01	2.585E+00	0.569
		574.64		6.200E+01	4.791E+02	8.047E+02	5.078E+01	0.077
		578.91		-1.803E+02	2.161E+02	2.873E+02	1.816E+01	-0.628
		585.48		1.983E+03	5.234E+02	9.487E+02	6.014E+01	2.090
		755.35		2.836E+02	4.011E+02	6.868E+02	4.966E+01	0.413
		817.79		-1.026E+02	2.970E+02	4.685E+02	3.620E+01	-0.219
SR-82		698.33		2.636E+01	4.005E+01	6.665E+01	4.516E+00	0.396
		776.49	*	1.786E-02	4.825E-01	6.873E-01	5.086E-02	0.026
		1395.20		-2.098E+00	1.238E+01	1.974E+01	1.367E+00	-0.106
RB-83		520.41	*	6.205E-02	7.231E-02	1.230E-01	7.539E-03	0.505
		529.64		1.466E-02	1.065E-01	1.719E-01	1.060E-02	0.085
		552.65		4.494E-03	2.006E-01	3.381E-01	2.111E-02	0.013
RB-84		881.50	*	-2.519E-02	6.705E-02	1.042E-01	8.572E-03	-0.242
KR-85		513.99	*	2.811E+00	7.760E+00	1.123E+01	6.859E-01	0.250
SR-85		513.99	*	1.485E-02	4.100E-02	5.934E-02	3.624E-03	0.250
RB-86		1076.63	*	8.292E-01	9.339E-01	1.668E+00	1.126E-01	0.497
Y-88		898.02		-2.606E-02	4.378E-02	6.470E-02	5.435E-03	-0.403
		1836.01	*	8.790E-03	3.550E-02	6.119E-02	3.445E-03	0.144
ZR-88		392.90	*	8.576E-03	3.067E-02	5.099E-02	2.797E-03	0.168
Y-91		1204.90	*	-1.182E+01	2.107E+01	3.320E+01	1.919E+00	-0.356
NB-94		702.63	*	-2.082E-02	3.363E-02	5.286E-02	3.600E-03	-0.394
		871.10		-5.277E-04	3.072E-02	4.976E-02	4.054E-03	-0.011
NB-95		765.79	*	6.404E-02	5.384E-02	8.530E-02	6.239E-03	0.751
NB-95M		235.69	*	7.810E-02	1.407E-01	2.161E-01	1.576E-02	0.361
ZR-95		724.18		4.427E-02	1.134E-01	1.685E-01	1.329E-02	0.263
		756.15	*	-4.863E-03	7.676E-02	1.240E-01	1.024E-02	-0.039
NB-97		657.90	*	-3.347E-02	7.676E-02	Half-Life too short		
		1024.50		1.139E+01	7.676E-02	Half-Life too short		
ZR-97		254.15		6.426E+00	7.676E-02	Half-Life too short		
		355.39		3.256E+01	7.676E-02	Half-Life too short		
		507.63	*	6.026E+01	7.676E-02	Half-Life too short		
		602.52		2.511E+01	7.676E-02	Half-Life too short		
		1021.30		-1.063E+02	7.676E-02	Half-Life too short		
		1147.95		-1.879E+01	7.676E-02	Half-Life too short		
		1362.66		1.135E+02	7.676E-02	Half-Life too short		
		1750.46		-3.070E+01	7.676E-02	Half-Life too short		
MO-99		140.51		-5.116E+01	5.461E+01	8.041E+01	2.165E+01	-0.636
		181.06		1.052E+01	3.579E+01	5.186E+01	8.787E+00	0.203
		366.43		-4.519E+01	1.663E+02	2.683E+02	1.500E+01	-0.168

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	6.005E+00	2.448E+01	4.104E+01	5.902E+00	0.146
		778.00		-5.239E+01	7.956E+01	1.149E+02	8.517E+00	-0.456
TC-99M		140.51	*	-9.492E+13	7.956E+01	Half-Life too short		
RH-101		127.23		3.149E-03	3.013E-02	4.944E-02	3.000E-03	0.064
		198.01	*	-2.142E-02	3.270E-02	4.968E-02	2.628E-03	-0.431
		325.23		-1.042E-01	2.349E-01	3.295E-01	1.872E-02	-0.316
RH-102		418.52		2.910E-02	2.779E-01	4.551E-01	2.567E-02	0.064
		475.06	*	3.833E-03	2.738E-02	4.459E-02	2.648E-03	0.086
		631.29		-2.755E-02	5.538E-02	8.881E-02	5.718E-03	-0.310
		697.49		4.518E-02	8.233E-02	1.412E-01	9.557E-03	0.320
		766.84		2.064E-01	1.375E-01	2.220E-01	1.626E-02	0.929
		1046.59		-4.150E-03	1.215E-01	2.026E-01	1.435E-02	-0.020
		1112.84		-1.442E-01	2.557E-01	3.707E-01	2.340E-02	-0.389
RU-103		497.08	*	1.565E-02	4.470E-02	7.321E-02	9.338E-03	0.214
		610.33		1.344E+01	2.598E+00	3.147E+00	4.926E-01	4.270
RH-106	+	511.85		9.318E-01	3.419E-01	4.376E-01	2.668E-02	2.129
		621.84	*	-1.820E-01	3.291E-01	5.258E-01	6.340E-02	-0.346
		1050.47		3.711E+00	2.537E+00	4.696E+00	3.308E-01	0.790
RU-106	+	511.85		9.318E-01	3.419E-01	4.376E-01	2.668E-02	2.129
		621.84	*	-1.820E-01	3.286E-01	5.258E-01	3.377E-02	-0.346
		1050.47		3.711E+00	2.537E+00	4.696E+00	3.308E-01	0.790
AG-108M		433.93	*	-1.158E-02	3.191E-02	4.937E-02	3.076E-03	-0.234
		614.37		-4.588E-02	4.527E-02	5.869E-02	4.023E-03	-0.782
		722.95		-9.272E-03	4.570E-02	6.371E-02	4.706E-03	-0.146
AG-110M		657.75	*	1.148E-03	3.415E-02	5.687E-02	3.876E-03	0.020
		677.61		2.043E-01	2.953E-01	5.155E-01	3.569E-02	0.396
		706.67		-1.846E-02	2.032E-01	3.332E-01	2.379E-02	-0.055
		763.93		8.791E-02	1.890E-01	2.825E-01	2.143E-02	0.311
		884.67		-1.623E-02	4.865E-02	7.614E-02	6.504E-03	-0.213
		937.48		-4.213E-02	1.220E-01	1.904E-01	1.602E-02	-0.221
		1384.27		9.113E-02	1.764E-01	3.046E-01	2.204E-02	0.299
IN-111		171.28		-3.171E-01	1.899E+00	3.024E+00	1.556E-01	-0.105
		245.39	*	1.779E+00	2.039E+00	3.210E+00	1.777E-01	0.554
IN-113M		391.69	*	-3.518E-02	4.427E-02	6.852E-02	4.034E-03	-0.513
SN-113		391.69	*	-3.518E-02	4.427E-02	6.852E-02	4.034E-03	-0.513
IN-114M		190.27	*	8.526E-03	1.958E-01	2.784E-01	1.461E-02	0.031
CD-115		260.90		-1.087E-04	1.958E-01	Half-Life too short		
		492.35		-5.853E-06	1.958E-01	Half-Life too short		
		527.90	*	8.244E-06	1.958E-01	Half-Life too short		
SN-117M		156.02		1.022E+00	2.505E+00	4.116E+00	2.197E-01	0.248
		158.56	*	1.826E-02	5.840E-02	9.556E-02	5.048E-03	0.191
SB-122		563.90	*	1.151E+00	4.288E+00	7.332E+00	4.604E-01	0.157
		692.80		-2.933E+01	9.561E+01	1.546E+02	1.041E+01	-0.190
I-123		159.00	*	2.166E+01	9.561E+01	Half-Life too short		
		528.96		1.481E+04	9.561E+01	Half-Life too short		
TE-123M		159.00	*	2.949E-03	2.634E-02	4.271E-02	2.288E-03	0.069
I-124		602.71	*	1.673E-01	1.150E+00	1.698E+00	1.083E-01	0.099
		722.78		-1.289E+00	7.673E+00	1.074E+01	7.490E-01	-0.120
		1325.50		-3.751E-01	6.034E+01	9.878E+01	6.832E+00	-0.004

---- Non-Identified Nuclides ----

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		1376.25		1.096E+02	5.522E+01	1.067E+02	7.410E+00	1.027
		1509.49		3.277E+00	2.464E+01	4.064E+01	2.735E+00	0.081
		1691.02		4.038E-01	5.317E+00	8.978E+00	5.573E-01	0.045
SB-124		602.71		6.266E-03	4.308E-02	6.359E-02	4.059E-03	0.099
		645.85		-3.434E-01	4.901E-01	7.672E-01	5.476E-02	-0.448
		709.31		-2.827E-01	2.803E+00	4.591E+00	3.151E-01	-0.062
		713.82		1.075E+00	1.660E+00	2.872E+00	3.123E-01	0.374
		722.78		-6.998E-02	4.166E-01	5.833E-01	4.200E-02	-0.120
	+	968.20		1.809E+01	6.885E+00	8.101E+00	6.349E-01	2.232
		1045.16		-2.582E+00	2.675E+00	4.081E+00	2.898E-01	-0.633
		1325.50		-2.175E-02	3.499E+00	5.728E+00	3.962E-01	-0.004
		1368.21		-4.590E-01	1.603E+00	2.505E+00	3.126E-01	-0.183
		1436.60		-1.316E+00	3.609E+00	5.535E+00	3.800E-01	-0.238
		1691.02	*	5.171E-03	6.808E-02	1.150E-01	7.672E-03	0.045
SB-125		427.89	*	3.051E-02	8.831E-02	1.468E-01	8.727E-03	0.208
	+	463.38		6.076E-01	3.937E-01	5.358E-01	3.661E-02	1.134
		600.56		-7.791E-02	1.832E-01	2.865E-01	2.066E-02	-0.272
		635.90		-1.329E-01	2.675E-01	4.280E-01	3.147E-02	-0.310
TE-125M		109.28	*	3.132E+00	8.937E+00	1.493E+01	1.288E+00	0.210
I-126		388.63		4.026E-02	2.287E-01	3.782E-01	2.078E-02	0.106
		666.33	*	1.579E-01	2.196E-01	3.822E-01	2.492E-02	0.413
		753.82		7.680E-01	1.773E+00	2.977E+00	2.149E-01	0.258
SB-126		223.80		1.652E+00	4.274E+00	7.366E+00	4.002E-01	0.224
		278.60		2.696E+00	2.817E+00	4.912E+00	2.773E-01	0.549
		296.50		1.268E+01	2.040E+00	3.919E+00	2.224E-01	3.236
		414.70		-3.631E-02	8.861E-02	1.403E-01	7.882E-03	-0.259
		415.30		5.323E+00	7.184E+00	1.224E+01	6.884E-01	0.435
		555.20		-1.901E-01	4.563E+00	7.656E+00	4.787E-01	-0.025
		573.80		3.536E-01	1.205E+00	2.061E+00	1.300E-01	0.172
		593.00		1.358E-01	1.089E+00	1.839E+00	1.169E-01	0.074
		656.30		1.066E-01	3.911E+00	6.511E+00	4.216E-01	0.016
		666.33		6.639E-02	9.238E-02	1.607E-01	1.048E-02	0.413
		675.00		-8.690E-01	2.257E+00	3.624E+00	2.388E-01	-0.240
		695.00		5.972E-02	9.644E-02	1.663E-01	1.122E-02	0.359
		697.00		2.113E-01	3.361E-01	5.793E-01	3.919E-02	0.365
		720.50	*	3.171E-03	1.867E-01	2.673E-01	1.858E-02	0.012
		856.80		-4.692E-01	6.682E-01	1.025E+00	8.238E-02	-0.458
		989.30		6.382E-01	1.509E+00	2.522E+00	1.930E-01	0.253
		1034.80		-2.090E+00	9.290E+00	1.519E+01	1.095E+00	-0.138
		1213.00		4.610E+00	6.296E+00	1.094E+01	6.405E-01	0.421
SB-127		61.10		5.561E+01	9.455E+01	1.484E+02	1.562E+01	0.375
		252.40		-1.670E+00	6.610E+00	1.093E+01	4.565E+00	-0.153
		290.80		-4.935E+01	3.625E+01	4.696E+01	4.766E+00	-1.051
		411.60		-6.868E+00	2.071E+01	3.297E+01	4.946E+00	-0.208
		444.90		5.869E-01	1.567E+01	2.544E+01	2.977E+00	0.023
		473.00		7.069E-01	2.721E+00	4.468E+00	5.417E-01	0.158
		543.00		2.765E+01	2.715E+01	4.836E+01	6.704E+00	0.572
		603.60		-2.933E+00	2.063E+01	2.955E+01	3.540E+00	-0.099
		685.20	*	3.232E-01	2.206E+00	3.693E+00	4.053E-01	0.088

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		698.50		1.812E+01	2.764E+01	4.580E+01	7.132E+00	0.396
		722.20		7.998E+00	5.246E+01	7.632E+01	8.341E+00	0.105
		783.80		4.812E+00	6.505E+00	1.120E+01	1.400E+00	0.430
XE-127		57.60		-2.787E+00	5.859E+00	9.762E+00	6.169E-01	-0.286
		145.22		-4.294E-01	7.052E-01	1.113E+00	6.218E-02	-0.386
		172.10		1.300E-03	1.187E-01	1.906E-01	9.814E-03	0.007
		202.84	*	-1.878E-02	4.642E-02	7.217E-02	3.838E-03	-0.260
		374.96		-5.544E-02	1.988E-01	3.200E-01	1.778E-02	-0.173
I-131		80.18		-7.658E-03	5.748E+00	8.629E+00	6.210E-01	-0.001
		284.30		1.227E+00	1.830E+00	3.156E+00	2.004E-01	0.389
		364.48	*	7.769E-02	1.406E-01	2.388E-01	1.510E-02	0.325
		636.97		3.873E-01	1.941E+00	3.281E+00	2.332E-01	0.118
		722.89		-1.871E+00	9.847E+00	1.375E+01	9.719E-01	-0.136
TE-132		49.72		-1.888E+01	3.102E+01	5.155E+01	5.262E+00	-0.366
		111.76		-3.417E+01	5.218E+01	8.252E+01	8.358E+00	-0.414
		116.30		3.492E+00	4.667E+01	7.687E+01	7.740E+00	0.045
		228.16	*	-1.690E-01	1.164E+00	1.960E+00	2.909E-01	-0.086
BA-133		53.15		-9.069E-01	3.257E+00	5.392E+00	3.486E-01	-0.168
		79.62		6.411E-01	1.242E+00	1.906E+00	2.745E-01	0.336
		81.00		-7.753E-02	9.193E-02	1.405E-01	2.127E-02	-0.552
		276.40		4.552E-01	3.712E-01	6.471E-01	8.343E-02	0.704
		302.84		1.944E-02	1.447E-01	2.140E-01	2.482E-02	0.091
		356.01	*	3.281E-02	4.136E-02	6.385E-02	7.325E-03	0.514
		383.85		4.215E-02	2.940E-01	4.855E-01	5.207E-02	0.087
I-133	+	510.53		1.841E+01	2.940E-01	Half-Life too short		
		529.87	*	1.094E-02	2.940E-01	Half-Life too short		
		706.58		-2.964E-01	2.940E-01	Half-Life too short		
		856.28		-6.683E+00	2.940E-01	Half-Life too short		
		875.33		1.662E-01	2.940E-01	Half-Life too short		
		1236.41		9.947E+00	2.940E-01	Half-Life too short		
		1298.22		5.319E+00	2.940E-01	Half-Life too short		
CS-134		475.35		1.385E-01	1.762E+00	2.855E+00	1.696E-01	0.048
		563.23		2.040E-01	3.535E-01	6.165E-01	3.939E-02	0.331
		569.32		7.848E-02	1.997E-01	3.408E-01	2.200E-02	0.230
		604.70		4.301E-04	3.582E-02	5.215E-02	3.345E-03	0.008
		795.84	*	8.678E-02	5.300E-02	9.594E-02	7.315E-03	0.905
		801.93		2.020E-01	4.211E-01	7.145E-01	5.470E-02	0.283
		1038.57		9.796E-01	3.582E+00	6.147E+00	4.408E-01	0.159
		1167.94		-4.851E-01	2.654E+00	4.328E+00	2.411E-01	-0.112
		1365.15		-2.486E-01	1.247E+00	1.985E+00	1.476E-01	-0.125
CS-135		268.24	*	2.490E-01	1.767E-01	2.818E-01	2.120E-02	0.884
I-135		288.45		-1.117E+13	1.767E-01	Half-Life too short		
		417.63		1.802E+12	1.767E-01	Half-Life too short		
		546.56		-1.345E+13	1.767E-01	Half-Life too short		
		836.80		1.195E+13	1.767E-01	Half-Life too short		
		1038.76		6.679E+12	1.767E-01	Half-Life too short		
		1124.00		8.476E+12	1.767E-01	Half-Life too short		
		1131.51		-5.478E+12	1.767E-01	Half-Life too short		
		1260.41	*	-6.517E+11	1.767E-01	Half-Life too short		

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		1457.56		1.495E+15	1.767E-01	Half-Life too short		
		1678.03		-9.837E+12	1.767E-01	Half-Life too short		
		1706.46		7.915E+12	1.767E-01	Half-Life too short		
		1791.20		-1.629E+11	1.767E-01	Half-Life too short		
CS-136		66.91		-5.110E-01	9.045E-01	1.413E+00	2.029E-01	-0.361
	+	86.29		4.445E+00	1.662E+00	2.346E+00	2.849E-01	1.895
		153.22		8.293E-01	7.380E-01	1.246E+00	8.614E-02	0.665
		163.89		3.539E-01	1.160E+00	1.842E+00	1.245E-01	0.192
		176.55		-1.322E-01	3.999E-01	6.303E-01	3.762E-02	-0.210
		273.65		-5.299E-01	5.873E-01	8.147E-01	5.273E-02	-0.650
		340.57		1.711E-01	1.581E-01	2.468E-01	1.490E-02	0.693
		818.51		-9.626E-02	8.464E-02	1.220E-01	9.447E-03	-0.789
		1048.07	*	1.271E-01	1.360E-01	2.437E-01	1.831E-02	0.521
		1235.34		1.122E+00	7.504E-01	1.353E+00	1.372E-01	0.830
BA-137M		661.65	*	-3.656E-02	3.822E-02	5.798E-02	3.758E-03	-0.631
CS-137		661.65	*	-3.865E-02	4.040E-02	6.129E-02	3.986E-03	-0.631
CE-139		165.85	*	-6.120E-03	2.851E-02	4.539E-02	2.326E-03	-0.135
BA-140		162.64		-1.046E-01	8.234E-01	1.282E+00	7.678E-02	-0.082
		304.84		-8.723E-01	1.533E+00	2.113E+00	5.761E-01	-0.413
		423.70		9.370E-01	2.115E+00	3.508E+00	1.114E+00	0.267
		537.32	*	-1.393E-01	2.857E-01	4.590E-01	1.496E-01	-0.304
LA-140	+	328.77		7.800E-01	4.713E-01	6.288E-01	4.016E-02	1.241
		432.53		5.374E-02	2.262E+00	3.601E+00	2.281E-01	0.015
		487.03		-6.187E-02	1.561E-01	2.430E-01	1.637E-02	-0.255
		751.79		9.200E-01	1.985E+00	3.383E+00	2.803E-01	0.272
		815.85		1.204E-01	3.490E-01	5.797E-01	5.106E-02	0.208
		867.82		-6.237E-01	1.446E+00	2.235E+00	1.923E-01	-0.279
		919.63		1.357E+00	3.600E+00	6.004E+00	6.196E-01	0.226
		925.24		-6.626E-01	1.427E+00	2.201E+00	1.924E-01	-0.301
		1596.49	*	-4.875E-02	1.015E-01	1.586E-01	1.033E-02	-0.307
CE-141		145.44	*	-5.076E-02	6.455E-02	1.010E-01	5.880E-03	-0.503
CE-143		57.37		-1.671E-03	6.455E-02	Half-Life too short		
		231.56		1.957E-03	6.455E-02	Half-Life too short		
		293.26	*	3.540E-03	6.455E-02	Half-Life too short		
	+	350.59		1.359E-01	6.455E-02	Half-Life too short		
		490.36		8.752E-03	6.455E-02	Half-Life too short		
		664.57		5.926E-03	6.455E-02	Half-Life too short		
		721.93		1.553E-03	6.455E-02	Half-Life too short		
CE-144		80.11		9.677E-02	2.088E+00	3.142E+00	2.230E-01	0.031
		133.54	*	-3.577E-02	1.928E-01	3.115E-01	4.434E-02	-0.115
PM-144		476.78		-8.564E-02	6.681E-02	9.617E-02	6.797E-03	-0.890
		618.01		1.847E-02	3.168E-02	5.501E-02	3.704E-03	0.336
		696.49	*	2.328E-02	3.758E-02	6.471E-02	4.379E-03	0.360
		778.57		-9.595E-01	2.474E+00	3.805E+00	2.824E-01	-0.252
PR-144		696.49	*	1.580E+00	2.551E+00	4.392E+00	2.969E-01	0.360
		1489.15		5.745E+00	1.082E+01	1.902E+01	1.288E+00	0.302
PM-146		453.90	*	-7.423E-04	4.232E-02	6.831E-02	5.906E-03	-0.011
		633.02		3.464E-01	1.352E+00	2.285E+00	8.440E-01	0.152
		735.90		-5.755E-02	1.565E-01	2.486E-01	7.005E-02	-0.231

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		747.13		1.280E-04	8.408E-02	1.382E-01	1.824E-02	0.001
ND-147	+	91.11		1.054E+00	2.700E-01	5.877E-01	4.819E-02	1.794
		319.41		-2.597E-02	3.645E+00	6.041E+00	3.436E-01	-0.004
		439.89		4.779E+00	6.597E+00	1.123E+01	6.475E-01	0.425
		531.02	*	-1.621E-01	6.857E-01	1.073E+00	1.469E-01	-0.151
PM-149		285.90	*	-3.195E-05	6.857E-01	Half-Life too short		
EU-152		121.78		1.936E-02	6.800E-02	1.127E-01	8.966E-03	0.172
		244.69		1.784E-01	3.164E-01	4.887E-01	2.703E-02	0.365
		344.27	*	4.479E-03	1.006E-01	1.541E-01	9.878E-03	0.029
		443.98		-6.305E-01	9.209E-01	1.413E+00	8.174E-02	-0.446
		778.89		-8.285E-02	2.764E-01	4.415E-01	3.275E-02	-0.188
		867.32		-2.851E-01	7.662E-01	1.195E+00	9.698E-02	-0.239
		964.01		6.007E-01	3.971E-01	6.309E-01	4.966E-02	0.952
		1085.78		2.702E-01	4.214E-01	7.391E-01	4.910E-02	0.366
		1112.02		-7.721E-02	3.535E-01	5.495E-01	3.474E-02	-0.141
	+	1407.95		2.523E-01	2.729E-01	3.485E-01	2.407E-02	0.724
GD-153		69.67		-2.632E+00	1.678E+00	2.506E+00	1.648E-01	-1.051
		83.37		1.144E+01	1.510E+01	2.357E+01	1.724E+00	0.485
		97.43	*	4.612E-04	8.657E-02	1.277E-01	8.878E-03	0.004
		103.18		-3.521E-02	1.028E-01	1.675E-01	1.119E-02	-0.210
EU-154		123.07		-9.352E-03	4.865E-02	7.895E-02	7.628E-03	-0.118
		247.94		-2.654E-02	3.153E-01	5.292E-01	4.969E-02	-0.050
		591.81		2.021E-01	6.100E-01	1.045E+00	1.056E-01	0.193
		723.30		-1.127E-01	1.986E-01	2.646E-01	2.136E-02	-0.426
		756.87		-4.103E-01	8.067E-01	1.268E+00	1.398E-01	-0.324
		873.19		1.191E-02	2.794E-01	4.553E-01	5.430E-02	0.026
		996.32		-1.753E-01	3.845E-01	6.190E-01	1.070E-01	-0.283
		1004.76		-3.524E-02	2.256E-01	3.735E-01	4.050E-02	-0.094
		1274.45	*	-1.506E-01	1.332E-01	1.933E-01	1.883E-02	-0.779
EU-155		48.70		-2.460E+00	2.185E+00	3.504E+00	2.289E-01	-0.702
		60.01		2.065E+00	4.998E+00	7.803E+00	4.903E-01	0.265
	+	86.54		3.535E-01	1.279E-01	1.869E-01	1.428E-02	1.891
		105.31	*	1.364E-01	1.033E-01	1.786E-01	1.204E-02	0.764
TB-160	+	86.79		9.693E-01	3.505E-01	5.087E-01	3.846E-02	1.906
		197.04		-2.485E-01	5.639E-01	8.661E-01	4.577E-02	-0.287
		215.65		1.214E+00	7.612E-01	1.293E+00	6.969E-02	0.939
	+	298.57		2.947E-01	1.429E-01	2.029E-01	1.152E-02	1.452
		879.36	*	4.633E-03	1.316E-01	2.142E-01	1.759E-02	0.022
		962.29		5.750E-01	7.068E-01	1.074E+00	8.469E-02	0.535
		966.15		1.545E+00	3.627E-01	6.365E-01	4.999E-02	2.427
		1177.93		1.982E-01	3.926E-01	6.764E-01	3.746E-02	0.293
		1271.85		-2.487E-01	7.854E-01	1.252E+00	8.015E-02	-0.199
HO-166M		80.57		-1.259E-01	2.654E-01	3.890E-01	2.772E-02	-0.324
	+	184.41		1.557E-01	5.808E-02	6.499E-02	3.388E-03	2.395
		280.46		-1.429E-01	8.403E-02	1.281E-01	7.238E-03	-1.115
		410.95		6.144E-02	2.521E-01	4.165E-01	2.331E-02	0.148
		711.68	*	3.955E-02	6.071E-02	1.051E-01	7.234E-03	0.376
		752.31		9.052E-02	2.786E-01	4.696E-01	3.384E-02	0.193
		810.29		-3.422E-02	5.695E-02	8.755E-02	6.713E-03	-0.391

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TM-171		51.35		-8.437E+00	2.663E+01	4.481E+01	2.921E+00	-0.188
		52.39		-5.005E+00	1.437E+01	2.374E+01	1.541E+00	-0.211
		59.40		4.340E+00	2.677E+01	4.115E+01	2.581E+00	0.105
		66.72	*	-5.672E+00	2.993E+01	4.482E+01	2.901E+00	-0.127
LU-176	+	88.36		6.954E-01	2.515E-01	3.418E-01	2.605E-02	2.034
		201.83		-2.117E-03	2.708E-02	4.285E-02	2.276E-03	-0.049
		306.84	*	9.350E-03	2.297E-02	3.785E-02	2.151E-03	0.247
		401.10		-1.292E+00	6.388E+00	1.028E+01	5.692E-01	-0.126
LU-177		112.95		-9.129E-01	2.047E+00	3.268E+00	2.088E-01	-0.279
	+	208.36	*	4.266E+00	1.687E+00	2.509E+00	1.342E-01	1.701
LU-177M		52.97		-4.387E-01	1.491E+00	2.466E+00	1.596E-01	-0.178
		54.07		-6.394E-02	7.956E-01	1.328E+00	8.544E-02	-0.048
		61.30		1.179E+00	1.490E+00	2.361E+00	1.492E-01	0.499
		121.62		7.835E-02	3.519E-01	5.819E-01	3.634E-02	0.135
		147.16		3.861E-01	6.133E-01	1.020E+00	5.655E-02	0.378
		171.86		2.414E-04	4.586E-01	7.361E-01	3.788E-02	0.000
		218.09		-4.310E-01	8.650E-01	1.332E+00	7.194E-02	-0.324
	+	268.79		2.073E+00	1.190E+00	1.492E+00	8.382E-02	1.390
		319.02		6.678E-02	2.363E-01	3.982E-01	2.263E-02	0.168
		367.43		-1.422E-01	8.626E-01	1.401E+00	7.828E-02	-0.102
		413.65	*	-1.265E-01	1.814E-01	2.816E-01	1.581E-02	-0.449
HF-181		56.28		2.519E-03	8.879E-01	1.508E+00	9.593E-02	0.002
		57.53		-2.230E-01	4.897E-01	8.167E-01	5.162E-02	-0.273
		65.20		-4.164E-01	1.037E+00	1.540E+00	9.892E-02	-0.270
		133.02		1.819E-02	6.389E-02	1.054E-01	6.217E-03	0.173
		136.25		-2.357E-01	4.547E-01	7.229E-01	4.201E-02	-0.326
		345.85		-6.110E-02	2.226E-01	3.150E-01	1.779E-02	-0.194
		482.03	*	2.236E-02	4.226E-02	7.074E-02	4.224E-03	0.316
W-181		56.28		1.312E-03	3.372E-01	5.728E-01	3.643E-02	0.002
		57.53		-8.466E-02	1.861E-01	3.104E-01	1.962E-02	-0.273
		65.20	*	-1.570E-01	3.911E-01	5.805E-01	3.730E-02	-0.270
TA-182		67.75		8.172E-03	1.048E-01	1.756E-01	1.142E-02	0.047
		100.10		1.431E-01	1.759E-01	2.996E-01	2.042E-02	0.478
		152.43		1.017E-01	3.266E-01	5.352E-01	2.901E-02	0.190
		222.10		-1.553E-01	3.138E-01	5.102E-01	2.767E-02	-0.304
		1001.68		1.068E+00	2.248E+00	3.846E+00	2.899E-01	0.278
	+	1121.28		5.863E-01	2.356E-01	3.772E-01	2.340E-02	1.554
		1189.05		1.904E-01	3.240E-01	5.616E-01	3.166E-02	0.339
		1221.42	*	3.900E-02	2.334E-01	3.898E-01	2.312E-02	0.100
		1230.97		-3.212E-01	5.484E-01	8.636E-01	5.199E-02	-0.372
RE-183		57.98		-8.573E-02	1.872E-01	3.120E-01	1.968E-02	-0.275
		59.32		2.960E-02	1.119E-01	1.730E-01	1.085E-02	0.171
		67.20		-9.735E-02	2.028E-01	3.188E-01	2.068E-02	-0.305
		162.32	*	-9.035E-03	1.052E-01	1.640E-01	8.526E-03	-0.055
	+	208.81		2.940E+00	1.162E+00	1.731E+00	9.264E-02	1.698
		291.72		-1.054E+00	9.680E-01	1.297E+00	7.352E-02	-0.813
RE-184		57.98		-3.107E-01	6.784E-01	1.131E+00	7.134E-02	-0.275
		59.32		1.072E-01	4.054E-01	6.264E-01	3.930E-02	0.171
		67.20		-3.527E-01	7.350E-01	1.155E+00	7.494E-02	-0.305

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		-2.356E-01	3.258E-01	5.061E-01	2.643E-02	-0.465
		216.55		2.423E-01	2.695E-01	4.445E-01	2.398E-02	0.545
		252.85	*	3.632E-02	2.118E-01	3.596E-01	2.001E-02	0.101
		318.01		-1.682E-01	4.138E-01	6.697E-01	3.807E-02	-0.251
		792.07		1.376E-01	1.133E+00	1.870E+00	1.407E-01	0.074
		903.28		-1.176E-01	1.144E+00	1.654E+00	1.376E-01	-0.071
		920.93		2.709E-01	4.904E-01	8.309E-01	6.816E-02	0.326
OS-185		59.72		8.526E-02	3.045E-01	4.705E-01	2.953E-02	0.181
		61.14		9.720E-02	1.643E-01	2.582E-01	1.630E-02	0.376
		69.30		-3.509E-01	2.854E-01	4.551E-01	2.986E-02	-0.771
		592.07		-8.005E-02	2.576E+00	4.304E+00	2.735E-01	-0.019
		646.12	*	-2.942E-02	4.090E-02	6.390E-02	4.129E-03	-0.460
		717.42		3.233E-02	8.741E-01	1.446E+00	1.002E-01	0.022
		874.81		5.740E-02	5.461E-01	8.956E-01	7.322E-02	0.064
		880.27		4.644E-03	7.032E-01	1.141E+00	9.377E-02	0.004
RE-188		155.03	*	1.750E-01	1.746E-01	2.934E-01	1.573E-02	0.596
		477.96		-1.490E+00	3.001E+00	4.637E+00	2.760E-01	-0.321
		633.10		6.296E-01	2.789E+00	4.725E+00	3.044E-01	0.133
W-188	+	63.58		5.252E+01	6.343E+01	9.320E+01	5.945E+00	0.564
		227.08		-1.823E+00	1.221E+01	2.055E+01	1.120E+00	-0.089
		290.67	*	-7.729E+00	7.486E+00	1.006E+01	5.703E-01	-0.768
IR-192	+	295.96		1.090E+00	1.582E-01	2.826E-01	1.630E-02	3.856
		308.46		6.779E-02	8.690E-02	1.507E-01	8.669E-03	0.450
		316.51	*	-1.340E-02	3.167E-02	5.120E-02	2.926E-03	-0.262
		468.07		4.145E-02	7.379E-02	1.099E-01	7.446E-03	0.377
		604.41		1.404E-01	4.744E-01	7.111E-01	8.292E-02	0.197
		612.46		-1.875E-01	8.631E-01	1.228E+00	9.876E-02	-0.153
AU-195		65.12		-1.131E-01	1.826E-01	2.684E-01	1.724E-02	-0.421
		66.83		-2.801E-02	9.940E-02	1.482E-01	9.598E-03	-0.189
	+	75.70		1.085E+00	2.494E-01	4.580E-01	3.136E-02	2.369
		98.88	*	2.057E-01	2.367E-01	3.836E-01	2.638E-02	0.536
		129.76		1.386E+00	2.696E+00	4.492E+00	2.692E-01	0.309
TL-200		367.94	*	-2.078E-05	2.696E+00	Half-Life too short		
		579.30		-2.868E-03	2.696E+00	Half-Life too short		
		828.27		6.186E-03	2.696E+00	Half-Life too short		
		1205.75		4.852E-04	2.696E+00	Half-Life too short		
TL-201		68.90		-3.548E+00	8.612E+00	1.418E+01	9.283E-01	-0.250
		70.82		-1.211E+00	5.369E+00	8.034E+00	5.319E-01	-0.151
		80.30		-7.792E-01	9.343E+00	1.397E+01	9.933E-01	-0.056
		135.34		1.441E+00	4.537E+01	7.398E+01	4.316E+00	0.019
		167.43	*	7.542E+00	1.213E+01	2.007E+01	1.029E+00	0.376
TL-202		68.90		-1.961E-01	4.759E-01	7.836E-01	5.130E-02	-0.250
		70.82		-6.675E-02	2.959E-01	4.427E-01	2.931E-02	-0.151
		80.30		-4.296E-02	5.151E-01	7.701E-01	5.476E-02	-0.056
		439.56	*	8.994E-02	7.581E-02	1.330E-01	7.658E-03	0.676
HG-203		70.83		-2.560E-01	1.139E+00	1.703E+00	2.118E-01	-0.150
		72.87		1.527E+00	6.938E-01	1.103E+00	1.328E-01	1.385
		82.60		-5.301E-01	1.179E+00	1.728E+00	2.235E-01	-0.307
		279.20	*	8.138E-04	4.144E-02	6.939E-02	4.173E-03	0.012

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		3.797E-01	1.885E-01	3.054E-01	2.048E-02	1.243
	+	74.97		5.955E-01	1.369E-01	2.257E-01	1.537E-02	2.639
		84.90		1.421E-01	1.959E-01	3.046E-01	2.261E-02	0.466
		569.67		3.708E-03	3.115E-02	5.224E-02	3.289E-03	0.071
		1063.62	*	2.611E-02	5.688E-02	9.844E-02	6.791E-03	0.265
		1770.23		-1.970E+00	7.141E-01	7.106E-01	4.194E-02	-2.773
TL-207		81.07		-1.750E-01	2.013E-01	3.094E-01	2.215E-02	-0.565
		83.78		8.377E-02	1.292E-01	2.005E-01	1.472E-02	0.418
		94.90		8.212E-02	2.309E-01	3.494E-01	2.482E-02	0.235
		122.32		5.883E-02	1.614E+00	2.647E+00	1.874E-01	0.022
		144.24		3.449E-01	6.568E-01	1.077E+00	7.630E-02	0.320
		154.21		1.916E-01	3.916E-01	6.455E-01	4.305E-02	0.297
	+	269.46		4.793E-01	2.753E-01	3.471E-01	2.045E-02	1.381
		323.87	*	-3.507E-01	7.114E-01	9.913E-01	1.633E-01	-0.354
	+	338.28		6.107E+00	1.643E+00	2.410E+00	2.520E-01	2.534
		445.03		5.024E-01	2.159E+00	3.554E+00	3.648E-01	0.141
PO-209		260.50		2.952E+00	9.298E+00	1.585E+01	8.865E-01	0.186
		262.80		-1.637E+00	2.582E+01	4.324E+01	2.422E+00	-0.038
		896.60	*	-5.225E-01	7.879E+00	1.235E+01	1.031E+00	-0.042
BI-210		46.50	*	2.346E+00	3.127E+00	5.459E+00	4.112E-01	0.430
PB-210		46.50	*	2.346E+00	3.127E+00	5.459E+00	4.112E-01	0.430
PO-210		46.50	*	2.346E+00	3.125E+00	5.459E+00	3.501E-01	0.430
PB-211		404.84	*	-6.919E-01	1.037E+00	1.465E+00	9.129E-01	-0.472
		427.08		1.796E-01	2.009E+00	3.278E+00	2.026E+00	0.055
		831.96		-4.912E-01	1.357E+00	2.088E+00	1.306E+00	-0.235
BI-212	+	727.18	*	6.423E-01	5.150E-01	6.340E-01	5.488E-02	1.013
		785.46		1.406E+00	1.897E+00	3.274E+00	2.446E-01	0.430
		1620.62		7.412E-01	1.356E+00	2.420E+00	1.559E-01	0.306
PO-215		81.07		-1.750E-01	2.013E-01	3.094E-01	2.215E-02	-0.565
		83.78		8.377E-02	1.292E-01	2.005E-01	1.472E-02	0.418
		94.90		8.212E-02	2.309E-01	3.494E-01	2.482E-02	0.235
		122.32		5.883E-02	1.614E+00	2.647E+00	1.874E-01	0.022
		144.24		3.449E-01	6.568E-01	1.077E+00	7.630E-02	0.320
		154.21		1.916E-01	3.916E-01	6.455E-01	4.305E-02	0.297
	+	269.46		4.793E-01	2.753E-01	3.471E-01	2.045E-02	1.381
		323.87	*	-3.507E-01	7.114E-01	9.913E-01	1.633E-01	-0.354
	+	338.28		6.107E+00	1.643E+00	2.410E+00	2.520E-01	2.534
		445.03		5.024E-01	2.159E+00	3.554E+00	3.648E-01	0.141
RN-219	+	271.23		6.150E-01	3.548E-01	4.290E-01	3.424E-02	1.434
		401.81	*	9.969E-02	3.987E-01	6.605E-01	8.916E-02	0.151
RN-220		549.76	*	1.071E+01	2.449E+01	4.248E+01	2.649E+00	0.252
RA-223		81.07		-1.750E-01	2.013E-01	3.094E-01	2.215E-02	-0.565
		83.78		8.377E-02	1.292E-01	2.005E-01	1.472E-02	0.418
		94.90		8.212E-02	2.309E-01	3.494E-01	2.482E-02	0.235
		122.32		5.883E-02	1.614E+00	2.647E+00	1.874E-01	0.022
		144.24		3.449E-01	6.568E-01	1.077E+00	7.630E-02	0.320
		154.21		1.916E-01	3.916E-01	6.455E-01	4.305E-02	0.297
	+	269.46		4.793E-01	2.753E-01	3.471E-01	2.045E-02	1.381
		323.87	*	-3.507E-01	7.114E-01	9.913E-01	1.633E-01	-0.354

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		6.107E+00	1.643E+00	2.410E+00	2.520E-01	2.534
		445.03		5.024E-01	2.159E+00	3.554E+00	3.648E-01	0.141
AC-227		79.80		8.614E-01	1.581E+00	2.421E+00	5.067E-01	0.356
		236.00		5.601E-01	2.739E-01	4.402E-01	4.528E-02	1.272
		256.20	*	-1.533E-01	3.600E-01	5.924E-01	8.216E-02	-0.259
		286.10		2.806E-01	1.431E+00	2.413E+00	2.773E-01	0.116
	+	299.80		3.653E+00	1.856E+00	2.618E+00	4.252E-01	1.395
		304.40		-4.123E-01	1.888E+00	2.712E+00	4.680E-01	-0.152
		334.20		-9.295E-02	2.694E+00	3.631E+00	6.642E-01	-0.026
TH-227		79.80		8.614E-01	1.581E+00	2.421E+00	5.136E-01	0.356
	+	94.00		8.939E+00	3.466E+00	3.515E+00	7.467E-01	2.543
		236.00		5.601E-01	2.724E-01	4.402E-01	3.902E-02	1.272
		256.20	*	-1.533E-01	3.603E-01	5.924E-01	9.966E-02	-0.259
		286.10		2.806E-01	1.458E+00	2.413E+00	2.417E+00	0.116
	+	299.80		3.653E+00	1.856E+00	2.618E+00	4.252E-01	1.395
		304.40		-4.123E-01	1.888E+00	2.712E+00	4.680E-01	-0.152
		334.20		-9.295E-02	2.694E+00	3.631E+00	6.642E-01	-0.026
TH-229		85.43		7.590E-02	2.050E-01	3.136E-01	2.339E-02	0.242
	+	88.47		4.003E-01	1.448E-01	1.956E-01	1.489E-02	2.046
		100.00		1.597E-01	1.806E-01	3.083E-01	2.103E-02	0.518
		193.63	*	-5.456E-02	4.895E-01	7.755E-01	4.083E-02	-0.070
		210.97		3.197E-01	8.018E-01	1.158E+00	6.208E-02	0.276
PA-231		283.67	*	6.106E-01	1.470E+00	2.503E+00	3.434E-01	0.244
	+	301.29		1.461E+00	7.196E-01	1.023E+00	1.062E-01	1.428
TH-231		81.07		-1.750E-01	2.013E-01	3.094E-01	2.215E-02	-0.565
		83.78		8.377E-02	1.292E-01	2.005E-01	1.472E-02	0.418
		94.90		8.212E-02	2.309E-01	3.494E-01	2.482E-02	0.235
		122.32		5.883E-02	1.614E+00	2.647E+00	1.874E-01	0.022
		144.24		3.449E-01	6.568E-01	1.077E+00	7.630E-02	0.320
		154.21		1.916E-01	3.916E-01	6.455E-01	4.305E-02	0.297
	+	269.46		4.793E-01	2.753E-01	3.471E-01	2.045E-02	1.381
		323.87	*	-3.507E-01	7.114E-01	9.913E-01	1.633E-01	-0.354
	+	338.28		6.107E+00	1.643E+00	2.410E+00	2.520E-01	2.534
		445.03		5.024E-01	2.159E+00	3.554E+00	3.648E-01	0.141
U-231		84.21		3.584E+00	9.008E+00	1.383E+01	1.020E+00	0.259
	+	92.29		1.412E+01	4.691E+00	6.262E+00	4.563E-01	2.256
		95.87	*	-5.529E-01	1.791E+00	2.618E+00	1.844E-01	-0.211
		108.00		-1.593E+00	3.117E+00	5.027E+00	3.276E-01	-0.317
PA-233	+	75.28		1.737E+01	4.562E+00	6.906E+00	9.956E-01	2.516
	+	86.59		5.740E+00	2.536E+00	3.037E+00	8.047E-01	1.890
	+	300.12		1.018E+00	5.088E-01	7.250E-01	9.705E-02	1.405
		311.98	*	-2.054E-02	5.522E-02	8.958E-02	5.421E-03	-0.229
		340.50		8.144E-01	6.891E-01	1.047E+00	2.400E-01	0.778
		398.62		-1.692E+00	2.066E+00	3.111E+00	8.024E-01	-0.544
		415.76		1.198E+00	1.632E+00	2.753E+00	5.655E-01	0.435
PA-234	+	63.00		1.481E+00	1.798E+00	2.674E+00	3.842E-01	0.554
		94.67		1.855E-01	1.706E-01	2.651E-01	3.025E-02	0.700
		98.44		7.743E-02	1.081E-01	1.519E-01	8.437E-02	0.510
		99.86		1.880E-01	4.711E-01	7.824E-01	5.342E-02	0.240

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-4.680E-02	1.719E-01	2.796E-01	2.975E-02	-0.167
		131.20		-2.620E-02	1.004E-01	1.619E-01	9.634E-03	-0.162
		152.70		2.832E-01	3.119E-01	5.189E-01	8.132E-02	0.546
	+	186.00		5.604E+00	2.683E+00	2.451E+00	7.465E-01	2.286
		226.40		-6.893E-02	3.759E-01	6.320E-01	7.197E-02	-0.109
		227.20		-2.119E-01	4.072E-01	6.747E-01	3.678E-02	-0.314
		248.90		-3.132E-01	7.158E-01	1.174E+00	2.516E-01	-0.267
	+	293.70		6.680E+00	1.393E+00	1.656E+00	2.656E-01	4.034
		369.80		-9.964E-02	7.955E-01	1.295E+00	2.688E-01	-0.077
		568.70		4.468E-01	9.946E-01	1.704E+00	1.072E-01	0.262
		569.50		7.989E-02	2.736E-01	4.639E-01	2.921E-02	0.172
		574.00		5.422E-01	1.484E+00	2.550E+00	1.609E-01	0.213
		699.00		3.662E-01	7.760E-01	1.271E+00	2.329E-01	0.288
		706.10		1.762E-01	9.994E-01	1.669E+00	7.389E-01	0.106
		733.00		-3.126E-02	4.415E-01	6.246E-01	1.351E-01	-0.050
		742.81		-8.006E-01	1.467E+00	2.134E+00	1.430E+00	-0.375
		796.30		1.358E+00	1.086E+00	1.831E+00	4.895E-01	0.742
		805.60		-1.500E-01	1.044E+00	1.684E+00	5.116E-01	-0.089
		819.60		-7.404E-01	1.215E+00	1.809E+00	6.846E-01	-0.409
		826.30		1.269E-01	8.230E-01	1.357E+00	6.052E-01	0.094
		831.60		-6.531E-01	7.193E-01	1.040E+00	3.082E-01	-0.628
		876.40		3.436E-01	8.428E-01	1.299E+00	1.335E+00	0.265
		880.51		-7.737E-02	2.552E-01	4.001E-01	3.289E-02	-0.193
		883.24		-1.661E-01	3.019E-01	4.272E-01	2.870E-01	-0.389
		899.00		-5.762E-01	9.038E-01	1.275E+00	5.567E-01	-0.452
		925.00		-4.356E-01	1.263E+00	1.971E+00	1.611E-01	-0.221
		926.50		-1.487E-01	1.966E-01	2.890E-01	7.262E-02	-0.514
		946.00	*	-2.040E-01	2.979E-01	4.411E-01	8.158E-02	-0.462
		949.00		3.576E-01	4.421E-01	7.667E-01	6.129E-02	0.466
		980.50		-1.483E-01	7.507E-01	1.181E+00	9.132E-02	-0.126
		1394.10		-2.472E-01	1.221E+00	1.921E+00	1.247E+00	-0.129
PA-234M		766.42		1.854E+01	1.737E+01	2.327E+01	1.176E+01	0.797
		1001.03	*	2.769E+00	4.987E+00	8.578E+00	7.764E-01	0.323
U-235	+	89.95		3.508E+00	1.368E+00	1.829E+00	5.588E-01	1.918
	+	93.35		2.781E+00	1.185E+00	1.205E+00	3.327E-01	2.309
		105.00		1.193E+00	1.075E+00	1.755E+00	5.146E-01	0.680
		143.76	*	7.206E-02	2.040E-01	3.320E-01	5.393E-02	0.217
		163.35		-1.249E-01	4.475E-01	6.908E-01	1.229E-01	-0.181
	+	185.71		2.076E-01	7.744E-02	9.158E-02	4.781E-03	2.267
		205.31		6.402E-02	5.365E-01	7.623E-01	1.360E-01	0.084
NP-236		94.67		1.428E-01	1.289E-01	2.013E-01	1.433E-02	0.709
		98.44		5.855E-02	7.505E-02	1.148E-01	7.922E-03	0.510
		111.00		-3.540E-02	1.300E-01	2.115E-01	1.361E-02	-0.167
		160.31	*	-8.473E-02	7.375E-02	1.121E-01	5.877E-03	-0.756
NP-239		99.55		6.091E-02	1.572E-01	2.609E-01	1.786E-02	0.233
		117.00	*	-3.565E-03	1.779E-01	2.918E-01	1.841E-02	-0.012
	+	209.75		2.255E+00	8.915E-01	1.320E+00	7.072E-02	1.708
		228.18		-2.749E-02	2.075E-01	3.495E-01	1.907E-02	-0.079
		277.60		2.290E-01	1.749E-01	3.092E-01	1.744E-02	0.741

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-2.476E-02	1.528E+00	2.063E+00	1.170E-01	-0.012
AM-241		59.54	*	4.194E-02	1.556E-01	2.404E-01	1.708E-02	0.174
CM-243		99.55		6.269E-02	1.618E-01	2.686E-01	1.838E-02	0.233
		103.76	*	3.078E-02	9.320E-02	1.559E-01	1.038E-02	0.197
		117.00		-3.669E-03	1.831E-01	3.002E-01	1.895E-02	-0.012
	+	209.75		2.223E+00	8.790E-01	1.302E+00	6.973E-02	1.708
		228.18		-2.778E-02	2.097E-01	3.533E-01	1.927E-02	-0.079
		277.60		2.310E-01	1.763E-01	3.117E-01	1.759E-02	0.741
AM-246		798.80		-2.881E-01	1.676E-01	2.355E-01	1.784E-02	-1.223
		1036.00		6.461E-04	2.794E-01	4.677E-01	3.366E-02	0.001
		1062.04		5.819E-02	2.452E-01	4.174E-01	2.887E-02	0.139
		1078.86	*	4.049E-02	1.593E-01	2.710E-01	1.822E-02	0.149
CM-247		278.00		1.080E+00	7.299E-01	1.298E+00	7.326E-02	0.832
		287.40		4.128E-01	1.165E+00	1.941E+00	1.099E-01	0.213
		402.60	*	1.867E-02	3.472E-02	5.861E-02	3.250E-03	0.319
CF-249		252.85		1.347E-01	7.857E-01	1.334E+00	7.422E-02	0.101
		333.44		5.333E-02	2.135E-01	2.685E-01	1.523E-02	0.199
		387.95	*	1.157E-02	3.850E-02	6.415E-02	3.526E-03	0.180
CF-251		176.60	*	-3.873E-02	1.187E-01	1.872E-01	9.677E-03	-0.207
		227.00		-5.601E-02	3.558E-01	5.990E-01	3.264E-02	-0.093
		285.00		1.823E-01	1.666E+00	2.798E+00	1.583E-01	0.065

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032580    *
* Acquisition date : 14-FEB-2010 11:09:10 Detector SN#     :               *
* Detector ID        : GAM12                Sensitivity      : 5.000       *
* Geometry           : CAN                  Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:01.65      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202032580          Analyst initials: MXR1          *
* Batch Number       : 948751               Sample Quantity : 1.3548E+02 GRAM *
* Recovery           :     1.00000          Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope       :                *
* MSD DPM          :     0.000            MSD Isotope      :               *
* LCS DPM          :     0.000            LCS Isotope      :               *
* LCSD DPM         :     0.000            LCSD Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.254E+01	2.934E+00	5.876E-01	0.000E+00
CD-109	2.996E+00	1.062E+00	1.159E+00	0.000E+00
SN-126	2.932E-01	1.039E-01	1.140E-01	0.000E+00
TL-208	6.335E-01	9.065E-02	5.489E-02	0.000E+00
BI-211	4.080E+00	5.338E-01	3.160E-01	0.000E+00
PB-212	1.601E+00	1.535E-01	9.398E-02	0.000E+00
PO-212	1.601E+00	1.535E-01	9.398E-02	0.000E+00
BI-214	1.239E+00	1.912E-01	1.120E-01	0.000E+00
PB-214	1.419E+00	1.994E-01	1.102E-01	0.000E+00
PO-214	1.419E+00	1.994E-01	1.102E-01	0.000E+00
PO-216	1.601E+00	1.535E-01	9.398E-02	0.000E+00
PO-218	1.419E+00	1.994E-01	1.102E-01	0.000E+00
RA-224	4.163E+00	9.446E-01	1.070E+00	0.000E+00
RA-226	1.239E+00	1.912E-01	1.120E-01	0.000E+00
AC-228	1.894E+00	3.483E-01	2.238E-01	0.000E+00
RA-228	1.894E+00	3.483E-01	2.238E-01	0.000E+00
TH-228	1.630E+00	1.562E-01	9.568E-02	0.000E+00
TH-230	1.239E+00	1.912E-01	1.120E-01	0.000E+00
TH-232	1.894E+00	3.483E-01	2.238E-01	0.000E+00
TH-234	1.270E+00	1.516E+00	2.154E+00	0.000E+00
U-234	1.239E+00	1.912E-01	1.120E-01	0.000E+00
NP-237	8.610E-01	3.513E-01	4.117E-01	0.000E+00
U-238	1.270E+00	1.516E+00	2.154E+00	0.000E+00
AM-243	3.317E-01	7.471E-02	9.386E-02	0.000E+00
ANH-511	1.856E-01	6.672E-02	4.357E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-3.379E-01	3.119E-01	4.778E-01	0.000E+00	NOT IDENT.
NA-22	-5.440E-02	4.662E-02	6.950E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	1.521E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.137E-03	2.351E-02	4.006E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.521E-02	7.265E-02	0.000E+00	FAIL ABUN
SC-46	2.953E-02	4.258E-02	7.535E-02	0.000E+00	FAIL ABUN
V-48	-2.296E-02	8.986E-02	1.298E-01	0.000E+00	NOT IDENT.
CR-51	8.193E-02	3.595E-01	6.350E-01	0.000E+00	NOT IDENT.
MN-52	-1.107E-01	3.184E-01	5.030E-01	0.000E+00	NOT IDENT.
MN-54	2.413E-02	3.951E-02	6.960E-02	0.000E+00	NOT IDENT.
CO-56	-5.136E-02	4.118E-02	6.091E-02	0.000E+00	NOT IDENT.
CO-57	4.830E-03	2.322E-02	4.106E-02	0.000E+00	NOT IDENT.
CO-58	-2.286E-02	3.785E-02	6.021E-02	0.000E+00	NOT IDENT.
FE-59	-4.733E-02	9.962E-02	1.637E-01	0.000E+00	NOT IDENT.
CO-60	-7.167E-04	3.928E-02	6.575E-02	0.000E+00	NOT IDENT.
ZN-65	-4.468E-02	1.104E-01	1.548E-01	0.000E+00	NOT IDENT.
GE-68	9.028E-01	1.330E+00	2.402E+00	0.000E+00	NOT IDENT.
AS-73	-1.750E-02	7.602E-01	1.381E+00	0.000E+00	NOT IDENT.
AS-74	-4.619E-02	1.018E-01	1.717E-01	0.000E+00	NOT IDENT.
SE-75	-9.480E-03	4.885E-02	7.536E-02	0.000E+00	NOT IDENT.
BR-77	2.399E+01	2.411E+01	4.308E+01	0.000E+00	FAIL ABUN
SR-82	1.786E-02	4.729E-01	6.973E-01	0.000E+00	NOT IDENT.
RB-83	6.205E-02	7.086E-02	1.257E-01	0.000E+00	NOT IDENT.
RB-84	-2.519E-02	6.571E-02	1.054E-01	0.000E+00	NOT IDENT.
KR-85	2.811E+00	7.605E+00	1.148E+01	0.000E+00	NOT IDENT.
SR-85	1.485E-02	4.018E-02	6.066E-02	0.000E+00	NOT IDENT.
RB-86	8.292E-01	9.152E-01	1.682E+00	0.000E+00	NOT IDENT.
Y-88	8.790E-03	3.479E-02	6.107E-02	0.000E+00	NOT IDENT.
ZR-88	8.576E-03	3.005E-02	5.239E-02	0.000E+00	NOT IDENT.
Y-91	-1.182E+01	2.065E+01	3.340E+01	0.000E+00	NOT IDENT.
NB-94	-2.082E-02	3.296E-02	5.372E-02	0.000E+00	NOT IDENT.
NB-95	6.404E-02	5.276E-02	8.656E-02	0.000E+00	NOT IDENT.
NB-95M	7.810E-02	1.379E-01	2.241E-01	0.000E+00	NOT IDENT.
ZR-95	-4.863E-03	7.522E-02	1.259E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.548E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.297E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	6.005E+00	2.399E+01	4.168E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.010E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.142E-02	3.205E-02	5.168E-02	0.000E+00	NOT IDENT.
RH-102	3.833E-03	2.684E-02	4.565E-02	0.000E+00	NOT IDENT.
RU-103	1.565E-02	4.381E-02	7.489E-02	0.000E+00	NOT IDENT.
RH-106	-1.820E-01	3.225E-01	5.357E-01	0.000E+00	FAIL ABUN
RU-106	-1.820E-01	3.220E-01	5.357E-01	0.000E+00	FAIL ABUN
AG-108M	-1.158E-02	3.127E-02	5.063E-02	0.000E+00	NOT IDENT.
AG-110M	1.148E-03	3.347E-02	5.788E-02	0.000E+00	NOT IDENT.
IN-111	1.779E+00	1.998E+00	3.327E+00	0.000E+00	NOT IDENT.
IN-113M	-3.518E-02	4.339E-02	7.040E-02	0.000E+00	NOT IDENT.
SN-113	-3.518E-02	4.339E-02	7.040E-02	0.000E+00	NOT IDENT.
IN-114M	8.526E-03	1.919E-01	2.898E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.560E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.826E-02	5.723E-02	9.979E-02	0.000E+00	NOT IDENT.
SB-122	1.151E+00	4.202E+00	7.483E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.896E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.949E-03	2.582E-02	4.460E-02	0.000E+00	NOT IDENT.
I-124	1.673E-01	1.127E+00	1.731E+00	0.000E+00	NOT IDENT.
SB-124	5.171E-03	6.672E-02	1.149E-01	0.000E+00	FAIL ABUN
SB-125	3.051E-02	8.654E-02	1.506E-01	0.000E+00	FAIL ABUN
TE-125M	3.132E+00	8.758E+00	1.569E+01	0.000E+00	NOT IDENT.
I-126	1.579E-01	2.152E-01	3.888E-01	0.000E+00	NOT IDENT.
SB-126	3.171E-03	1.829E-01	2.715E-01	0.000E+00	NOT IDENT.
SB-127	3.232E-01	2.161E+00	3.756E+00	0.000E+00	NOT IDENT.
XE-127	-1.878E-02	4.549E-02	7.504E-02	0.000E+00	NOT IDENT.
I-131	7.769E-02	1.378E-01	2.457E-01	0.000E+00	NOT IDENT.
TE-132	-1.690E-01	1.141E+00	2.034E+00	0.000E+00	NOT IDENT.
BA-133	3.281E-02	4.053E-02	6.572E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.720E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.678E-02	5.194E-02	9.729E-02	0.000E+00	NOT IDENT.
CS-135	2.490E-01	1.731E-01	2.916E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.477E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.271E-01	1.333E-01	2.458E-01	0.000E+00	FAIL ABUN
BA-137M	-3.656E-02	3.745E-02	5.899E-02	0.000E+00	NOT IDENT.
CS-137	-3.865E-02	3.959E-02	6.236E-02	0.000E+00	NOT IDENT.
CE-139	-6.120E-03	2.794E-02	4.737E-02	0.000E+00	NOT IDENT.
BA-140	-1.393E-01	2.800E-01	4.689E-01	0.000E+00	NOT IDENT.
LA-140	-4.875E-02	9.948E-02	1.587E-01	0.000E+00	FAIL ABUN
CE-141	-5.076E-02	6.326E-02	1.056E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.009E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.577E-02	1.889E-01	3.263E-01	0.000E+00	NOT IDENT.
PM-144	2.328E-02	3.683E-02	6.578E-02	0.000E+00	NOT IDENT.
PR-144	1.580E+00	2.500E+00	4.464E+00	0.000E+00	NOT IDENT.

PM-146	-7.423E-04	4.147E-02	6.999E-02	0.000E+00	NOT IDENT.
ND-147	-1.621E-01	6.720E-01	1.096E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.075E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	4.479E-03	9.856E-02	1.587E-01	0.000E+00	FAIL ABUN
GD-153	4.612E-04	8.484E-02	1.345E-01	0.000E+00	NOT IDENT.
EU-154	-1.506E-01	1.306E-01	1.942E-01	0.000E+00	NOT IDENT.
EU-155	1.364E-01	1.012E-01	1.879E-01	0.000E+00	FAIL ABUN
TB-160	4.633E-03	1.290E-01	2.168E-01	0.000E+00	FAIL ABUN
HO-166M	3.955E-02	5.949E-02	1.068E-01	0.000E+00	FAIL ABUN
TM-171	-5.672E+00	2.933E+01	4.752E+01	0.000E+00	NOT IDENT.
LU-176	9.350E-03	2.251E-02	3.906E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.653E+00	2.607E+00	0.000E+00	FAIL ABUN
LU-177M	-1.265E-01	1.777E-01	2.891E-01	0.000E+00	FAIL ABUN
HF-181	2.236E-02	4.142E-02	7.241E-02	0.000E+00	NOT IDENT.
W-181	-1.570E-01	3.832E-01	6.158E-01	0.000E+00	NOT IDENT.
TA-182	3.900E-02	2.288E-01	3.921E-01	0.000E+00	FAIL ABUN
RE-183	-9.035E-03	1.031E-01	1.712E-01	0.000E+00	FAIL ABUN
RE-184	3.632E-02	2.076E-01	3.724E-01	0.000E+00	NOT IDENT.
OS-185	-2.942E-02	4.008E-02	6.505E-02	0.000E+00	NOT IDENT.
RE-188	1.750E-01	1.711E-01	3.066E-01	0.000E+00	NOT IDENT.
W-188	-7.729E+00	7.337E+00	1.039E+01	0.000E+00	FAIL ABUN
IR-192	-1.340E-02	3.104E-02	5.281E-02	0.000E+00	FAIL ABUN
AU-195	2.057E-01	2.319E-01	4.039E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.557E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	7.542E+00	1.188E+01	2.094E+01	0.000E+00	NOT IDENT.
TL-202	8.994E-02	7.430E-02	1.363E-01	0.000E+00	NOT IDENT.
HG-203	8.138E-04	4.061E-02	7.174E-02	0.000E+00	NOT IDENT.
BI-207	2.611E-02	5.574E-02	9.928E-02	0.000E+00	FAIL ABUN
TL-207	-3.507E-01	6.972E-01	1.022E+00	0.000E+00	FAIL ABUN
PO-209	-5.225E-01	7.721E+00	1.249E+01	0.000E+00	NOT IDENT.
BI-210	2.346E+00	3.064E+00	5.824E+00	0.000E+00	NOT IDENT.
PB-210	2.346E+00	3.064E+00	5.824E+00	0.000E+00	NOT IDENT.
PO-210	2.346E+00	3.063E+00	5.824E+00	0.000E+00	NOT IDENT.
PB-211	-6.919E-01	1.016E+00	1.504E+00	0.000E+00	NOT IDENT.
BI-212	6.423E-01	5.047E-01	6.439E-01	0.000E+00	FAIL ABUN
PO-215	-3.507E-01	6.972E-01	1.022E+00	0.000E+00	FAIL ABUN
RN-219	9.969E-02	3.908E-01	6.784E-01	0.000E+00	FAIL ABUN
RN-220	1.071E+01	2.400E+01	4.337E+01	0.000E+00	NOT IDENT.
RA-223	-3.507E-01	6.972E-01	1.022E+00	0.000E+00	FAIL ABUN
AC-227	-1.533E-01	3.528E-01	6.133E-01	0.000E+00	FAIL ABUN
TH-227	-1.533E-01	3.531E-01	6.133E-01	0.000E+00	FAIL ABUN
TH-229	-5.456E-02	4.797E-01	8.070E-01	0.000E+00	FAIL ABUN
PA-231	6.106E-01	1.441E+00	2.587E+00	0.000E+00	FAIL ABUN
TH-231	-3.507E-01	6.972E-01	1.022E+00	0.000E+00	FAIL ABUN
U-231	-5.529E-01	1.755E+00	2.758E+00	0.000E+00	FAIL ABUN
PA-233	-2.054E-02	5.411E-02	9.243E-02	0.000E+00	FAIL ABUN
PA-234	-2.040E-01	2.919E-01	4.459E-01	0.000E+00	FAIL ABUN
PA-234M	2.769E+00	4.888E+00	8.661E+00	0.000E+00	NOT IDENT.
U-235	7.206E-02	1.999E-01	3.474E-01	0.000E+00	FAIL ABUN
NP-236	-8.473E-02	7.228E-02	1.170E-01	0.000E+00	NOT IDENT.
NP-239	-3.565E-03	1.744E-01	3.063E-01	0.000E+00	FAIL ABUN
AM-241	4.194E-02	1.525E-01	2.553E-01	0.000E+00	NOT IDENT.
CM-243	3.078E-02	9.133E-02	1.640E-01	0.000E+00	FAIL ABUN
AM-246	4.049E-02	1.561E-01	2.732E-01	0.000E+00	NOT IDENT.
CM-247	1.867E-02	3.403E-02	6.019E-02	0.000E+00	NOT IDENT.
CF-249	1.157E-02	3.773E-02	6.592E-02	0.000E+00	NOT IDENT.
CF-251	-3.873E-02	1.163E-01	1.951E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:11:09.68

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032580.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:09:10
Sample ID         : G1202032580          Sample quantity  : 1.35480E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.65  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1426	10.67*	1.138E+00	3.254E+01	3.254E+01	9.20
CD-109	88.03	221	3.72*	5.648E+00	2.916E+00	2.996E+00	36.16
SN-126	64.28	55	9.60	3.182E+00	5.028E-01	5.028E-01	121.41
	86.94	221	8.90	5.648E+00	1.219E+00	1.219E+00	54.26
	87.57	221	37.00*	5.648E+00	2.932E-01	2.932E-01	36.16
TL-208	277.35	------	6.80	4.505E+00	------	Line Not Found	------
	510.84	187	21.60	2.795E+00	8.590E-01	8.590E-01	37.63
	583.14	482	84.20*	2.505E+00	6.335E-01	6.335E-01	14.60
	860.37	------	12.46	1.795E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	4.387E+00	------	Line Not Found	------
	351.07	717	12.94*	3.763E+00	4.080E+00	4.080E+00	13.35
PB-212	74.81	362	10.70	4.581E+00	2.046E+00	2.046E+00	24.81
	77.11	652	18.00	4.811E+00	2.087E+00	2.087E+00	14.63
	87.30	221	8.00	5.648E+00	1.356E+00	1.356E+00	37.52
	238.63	1293	44.60*	5.017E+00	1.601E+00	1.601E+00	9.78
	300.09	103	3.41	4.251E+00	1.971E+00	1.971E+00	48.83
PO-212	74.81	362	10.70	4.581E+00	2.046E+00	2.046E+00	24.81
	77.11	652	18.00	4.811E+00	2.087E+00	2.087E+00	14.63
	87.30	221	8.00	5.648E+00	1.356E+00	1.356E+00	37.52
	115.19	------	0.60	6.604E+00	------	Line Not Found	------
	238.63	1293	44.60*	5.017E+00	1.601E+00	1.601E+00	9.78
	300.09	103	3.41	4.251E+00	1.971E+00	1.971E+00	48.83
BI-214	609.31	500	46.30*	2.416E+00	1.239E+00	1.239E+00	15.74
	1120.29	95	15.10	1.423E+00	1.219E+00	1.219E+00	40.72
	1764.49	67	15.80	9.902E-01	1.186E+00	1.186E+00	47.09
PB-214	74.81	362	6.21	4.581E+00	3.525E+00	3.525E+00	24.15
	77.11	652	10.50	4.811E+00	3.577E+00	3.577E+00	16.49
	87.30	221	4.67	5.648E+00	2.323E+00	2.323E+00	36.97
	241.98	295	7.49	4.973E+00	2.195E+00	2.195E+00	23.82
	295.21	415	19.20	4.304E+00	1.392E+00	1.392E+00	15.77
	351.92	717	37.20*	3.763E+00	1.419E+00	1.419E+00	14.33
PO-214	74.81	362	6.21	4.581E+00	3.525E+00	3.525E+00	24.15

Sample ID : G1202032580 Acquisition date : 14-FEB-2010 11:09:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	652	10.50	4.811E+00	3.577E+00	3.577E+00	16.49
	87.30	221	4.67	5.648E+00	2.323E+00	2.323E+00	36.97
	241.98	295	7.49	4.973E+00	2.195E+00	2.195E+00	23.82
	295.21	415	19.20	4.304E+00	1.392E+00	1.392E+00	15.77
	351.92	717	37.20*	3.763E+00	1.419E+00	1.419E+00	14.33
PO-216	74.81	362	10.70	4.581E+00	2.046E+00	2.046E+00	24.81
	77.11	652	18.00	4.811E+00	2.087E+00	2.087E+00	14.63
	87.30	221	8.00	5.648E+00	1.356E+00	1.356E+00	37.52
	238.63	1293	44.60*	5.017E+00	1.601E+00	1.601E+00	9.78
	300.09	103	3.41	4.251E+00	1.971E+00	1.971E+00	48.83
PO-218	74.81	362	6.21	4.581E+00	3.525E+00	3.525E+00	24.15
	77.11	652	10.50	4.811E+00	3.577E+00	3.577E+00	16.49
	87.30	221	4.67	5.648E+00	2.323E+00	2.323E+00	36.97
	241.98	295	7.49	4.973E+00	2.195E+00	2.195E+00	23.82
	295.21	415	19.20	4.304E+00	1.392E+00	1.392E+00	15.77
	351.92	717	37.20*	3.763E+00	1.419E+00	1.419E+00	14.33
RA-224	240.98	295	3.95*	4.973E+00	4.163E+00	4.163E+00	23.15
RA-226	609.31	500	46.30*	2.416E+00	1.239E+00	1.239E+00	15.74
	1120.29	95	15.10	1.423E+00	1.219E+00	1.219E+00	40.72
	1764.49	67	15.80	9.902E-01	1.186E+00	1.186E+00	47.09
AC-228	338.32	233	11.40	3.879E+00	1.462E+00	1.462E+00	47.70
	911.07	323	27.70*	1.707E+00	1.894E+00	1.894E+00	18.77
	969.11	165	16.60	1.617E+00	1.700E+00	1.700E+00	43.81
RA-228	338.32	233	11.40	3.879E+00	1.462E+00	1.462E+00	47.70
	911.07	323	27.70*	1.707E+00	1.894E+00	1.894E+00	18.77
	969.11	165	16.60	1.617E+00	1.700E+00	1.700E+00	43.81
TH-228	74.81	362	10.70	4.581E+00	2.046E+00	2.083E+00	23.01
	77.11	652	18.00	4.811E+00	2.087E+00	2.124E+00	14.63
	87.30	221	8.00	5.648E+00	1.356E+00	1.380E+00	36.16
	238.63	1293	44.60*	5.017E+00	1.601E+00	1.630E+00	9.78
	300.09	103	3.41	4.251E+00	1.971E+00	2.007E+00	76.09
TH-230	609.31	500	46.30*	2.416E+00	1.239E+00	1.239E+00	15.74
	1120.29	95	15.10	1.423E+00	1.219E+00	1.219E+00	40.72
	1764.49	67	15.80	9.902E-01	1.186E+00	1.186E+00	47.09
TH-232	338.32	233	11.40	3.879E+00	1.462E+00	1.462E+00	25.44
	911.07	323	27.70*	1.707E+00	1.894E+00	1.894E+00	18.77
	969.11	165	16.60	1.617E+00	1.700E+00	1.700E+00	43.81
TH-234	63.29	55	3.80*	3.182E+00	1.270E+00	1.270E+00	121.79
	92.38	270	5.41	5.973E+00	2.313E+00	2.313E+00	36.82
U-234	609.31	500	46.30*	2.416E+00	1.239E+00	1.239E+00	15.74
	1120.29	95	15.10	1.423E+00	1.219E+00	1.219E+00	40.72
	1764.49	67	15.80	9.902E-01	1.186E+00	1.186E+00	47.09
NP-237	86.50	221	12.60*	5.648E+00	8.610E-01	8.610E-01	41.63
	95.87	------	2.60	6.124E+00	------ Line Not Found		------
U-238	63.29	55	3.80*	3.182E+00	1.270E+00	1.270E+00	121.79
	92.38	270	5.41	5.973E+00	2.313E+00	2.313E+00	33.21
AM-243	74.67	362	66.00*	4.581E+00	3.317E-01	3.317E-01	22.98
	86.72	221	0.34	5.648E+00	3.229E+01	3.229E+01	36.16
	117.66	------	0.55	6.624E+00	------ Line Not Found		------

Sample ID : G1202032580 Acquisition date : 14-FEB-2010 11:09:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	6.534E+00	------	Line Not Found	------
ANH-511	511.00	187	100.00*	2.795E+00	1.856E-01	1.856E-01	36.69

Flag: "*" = Keyline

Sample ID : G1202032580 Acquisition date : 14-FEB-2010 11:09:10

Total number of lines in spectrum 29
Number of unidentified lines 2
Number of lines tentatively identified by NID 27 93.10%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.254E+01	3.254E+01	0.299E+01	9.20	
CD-109	464.00D	1.03	2.916E+00	2.996E+00	1.083E+00	36.16	
SN-126	1.00E+05Y	1.00	2.932E-01	2.932E-01	1.060E-01	36.16	
TL-208	1.41E+10Y	1.00	6.335E-01	6.335E-01	0.925E-01	14.60	
BI-211	7.04E+08Y	1.00	4.080E+00	4.080E+00	0.545E+00	13.35	
PB-212	1.41E+10Y	1.00	1.601E+00	1.601E+00	0.157E+00	9.78	
PO-212	1.41E+10Y	1.00	1.601E+00	1.601E+00	0.157E+00	9.78	
BI-214	1600.00Y	1.00	1.239E+00	1.239E+00	0.195E+00	15.74	
PB-214	1600.00Y	1.00	1.419E+00	1.419E+00	0.203E+00	14.33	
PO-214	1600.00Y	1.00	1.419E+00	1.419E+00	0.203E+00	14.33	
PO-216	1.41E+10Y	1.00	1.601E+00	1.601E+00	0.157E+00	9.78	
PO-218	1600.00Y	1.00	1.419E+00	1.419E+00	0.203E+00	14.33	
RA-224	1.41E+10Y	1.00	4.163E+00	4.163E+00	0.964E+00	23.15	
RA-226	1600.00Y	1.00	1.239E+00	1.239E+00	0.195E+00	15.74	
AC-228	1.41E+10Y	1.00	1.894E+00	1.894E+00	0.355E+00	18.77	
RA-228	1.41E+10Y	1.00	1.894E+00	1.894E+00	0.355E+00	18.77	
TH-228	1.91Y	1.02	1.601E+00	1.630E+00	0.159E+00	9.78	
TH-230	4.47E+09Y	1.00	1.239E+00	1.239E+00	0.195E+00	15.74	
TH-232	1.41E+10Y	1.00	1.894E+00	1.894E+00	0.355E+00	18.77	
TH-234	4.47E+09Y	1.00	1.270E+00	1.270E+00	1.547E+00	121.79	
U-234	4.47E+09Y	1.00	1.239E+00	1.239E+00	0.195E+00	15.74	
NP-237	2.14E+06Y	1.00	8.610E-01	8.610E-01	3.585E-01	41.63	
U-238	4.47E+09Y	1.00	1.270E+00	1.270E+00	1.547E+00	121.79	
AM-243	7380.00Y	1.00	3.317E-01	3.317E-01	0.762E-01	22.98	
ANH-511	1.00E+09Y	1.00	1.856E-01	1.856E-01	0.681E-01	36.69	
	Total Activity :		6.984E+01	6.995E+01			

Grand Total Activity : 6.984E+01 6.995E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032580 Acquisition date : 14-FEB-2010 11:09:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	89.83	199	209	1.05	179.17	177	15	2.76E-02	24.2	5.82E+00	T
0	185.51	237	387	1.17	370.62	364	12	3.30E-02	36.9	5.87E+00	T
0	209.04	144	218	1.40	417.71	414	8	2.00E-02	39.2	5.47E+00	T
0	269.84	108	240	1.08	539.36	534	10	1.50E-02	57.1	4.60E+00	T
0	328.12	86	168	1.52	655.98	651	10	1.20E-02	60.1	3.97E+00	T
0	462.42	68	117	1.03	924.66	921	10	9.43E-03	64.4	3.03E+00	T
0	727.53	57	107	1.65	1455.03	1447	13	7.89E-03	79.7	2.08E+00	T
0	768.96	92	102	1.78	1537.92	1530	18	1.28E-02	56.5	1.98E+00	
0	1407.70	22	25	1.15	2815.43	2807	14	3.06E-03	****	1.17E+00	T
0	1728.78	22	11	3.27	3457.46	3450	12	2.99E-03	77.1	1.00E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:11:17.83

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032580.CNF;1  *
* Acquisition date  : 14-FEB-2010 11:09:10  Detector SN#     :             *
* Detector ID       : GAM12                 Sensitivity      : 5.00000    *
* Geometry          : CAN                   Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:01.65          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G1202032580           Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.35480E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24.5MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.254E+01	2.994E+00	5.862E-01	4.180E-02	55.508
CD-109	2.996E+00	1.083E+00	1.099E+00	8.408E-02	2.726
SN-126	2.932E-01	1.060E-01	1.081E-01	8.235E-03	2.713
TL-208	6.335E-01	9.250E-02	5.382E-02	3.850E-03	11.772
BI-211	4.080E+00	5.447E-01	3.070E-01	1.930E-02	13.293
PB-212	1.601E+00	1.566E-01	9.065E-02	6.437E-03	17.662
PO-212	1.601E+00	1.566E-01	9.065E-02	6.437E-03	17.662
BI-214	1.239E+00	1.951E-01	1.099E-01	9.044E-03	11.280
PB-214	1.419E+00	2.034E-01	1.070E-01	8.742E-03	13.263
PO-214	1.419E+00	2.034E-01	1.070E-01	8.742E-03	13.263
PO-216	1.601E+00	1.566E-01	9.065E-02	6.437E-03	17.662
PO-218	1.419E+00	2.034E-01	1.070E-01	8.742E-03	13.263
RA-224	4.163E+00	9.638E-01	1.032E+00	5.692E-02	4.035
RA-226	1.239E+00	1.951E-01	1.099E-01	9.044E-03	11.280
AC-228	1.894E+00	3.554E-01	2.212E-01	2.429E-02	8.559
RA-228	1.894E+00	3.554E-01	2.212E-01	2.429E-02	8.559
TH-228	1.630E+00	1.594E-01	9.229E-02	6.553E-03	17.662
TH-230	1.239E+00	1.951E-01	1.099E-01	9.044E-03	11.280

Sample ID : G1202032580 Acquisition date : 14-FEB-2010 11:09:10

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.894E+00	3.554E-01	2.212E-01	2.429E-02	8.559
TH-234	1.270E+00	1.547E+00	2.030E+00	3.456E-01	0.626
U-234	1.239E+00	1.951E-01	1.099E-01	9.044E-03	11.280
NP-237	8.610E-01	3.585E-01	3.901E-01	8.570E-02	2.207
U-238	1.270E+00	1.547E+00	2.030E+00	3.456E-01	0.626
AM-243	3.317E-01	7.624E-02	8.870E-02	6.027E-03	3.740
ANH-511	1.856E-01	6.809E-02	4.261E-02	2.597E-03	4.354

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-3.379E-01		3.183E-01	4.668E-01	3.212E-02	-0.724
NA-22	-5.440E-02		4.757E-02	6.915E-02	4.453E-03	-0.787
NA-24	-3.447E+00		7.762E+00	Half-Life too short		
AL-26	1.137E-03		2.399E-02	4.013E-02	2.303E-03	0.028
TI-44	3.851E-01	+	5.634E-02	6.871E-02	4.806E-03	5.605
SC-46	2.953E-02		4.345E-02	7.446E-02	6.172E-03	0.397
V-48	-2.296E-02		9.170E-02	1.285E-01	9.899E-03	-0.179
CR-51	8.193E-02		3.668E-01	6.158E-01	3.915E-02	0.133
MN-52	-1.107E-01		3.249E-01	5.017E-01	3.446E-02	-0.221
MN-54	2.413E-02		4.032E-02	6.870E-02	5.400E-03	0.351
CO-56	-5.136E-02		4.202E-02	6.014E-02	4.784E-03	-0.854
CO-57	4.830E-03		2.369E-02	3.914E-02	2.447E-03	0.123
CO-58	-2.286E-02		3.862E-02	5.940E-02	4.571E-03	-0.385
FE-59	-4.733E-02		1.016E-01	1.624E-01	1.200E-02	-0.291
CO-60	-7.167E-04		4.008E-02	6.548E-02	4.574E-03	-0.011
ZN-65	-4.468E-02		1.127E-01	1.537E-01	9.665E-03	-0.291
GE-68	9.028E-01		1.357E+00	2.383E+00	1.606E-01	0.379
AS-73	-1.750E-02		7.757E-01	1.297E+00	8.376E-02	-0.013
AS-74	-4.619E-02		1.039E-01	1.684E-01	1.072E-02	-0.274
SE-75	-9.480E-03		4.984E-02	7.282E-02	4.128E-03	-0.130
BR-77	2.399E+01		2.460E+01	4.215E+01	2.585E+00	0.569
SR-82	1.786E-02		4.825E-01	6.873E-01	5.086E-02	0.026
RB-83	6.205E-02		7.231E-02	1.230E-01	7.539E-03	0.505
RB-84	-2.519E-02		6.705E-02	1.042E-01	8.572E-03	-0.242
KR-85	2.811E+00		7.760E+00	1.123E+01	6.859E-01	0.250
SR-85	1.485E-02		4.100E-02	5.934E-02	3.624E-03	0.250
RB-86	8.292E-01		9.339E-01	1.668E+00	1.126E-01	0.497
Y-88	8.790E-03		3.550E-02	6.119E-02	3.445E-03	0.144
ZR-88	8.576E-03		3.067E-02	5.099E-02	2.797E-03	0.168
Y-91	-1.182E+01		2.107E+01	3.320E+01	1.919E+00	-0.356
NB-94	-2.082E-02		3.363E-02	5.286E-02	3.600E-03	-0.394
NB-95	6.404E-02		5.384E-02	8.530E-02	6.239E-03	0.751
NB-95M	7.810E-02		1.407E-01	2.161E-01	1.576E-02	0.361
ZR-95	-4.863E-03		7.676E-02	1.240E-01	1.024E-02	-0.039
NB-97	-3.347E-02		7.899E-01	Half-Life too short		
ZR-97	6.026E+01		1.682E+01	Half-Life too short		

Sample ID : G1202032580 Acquisition date : 14-FEB-2010 11:09:10

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	6.005E+00		2.448E+01	4.104E+01	5.902E+00	0.146
TC-99M	-9.492E+13		5.155E+13	Half-Life too short		
RH-101	-2.142E-02		3.270E-02	4.968E-02	2.628E-03	-0.431
RH-102	3.833E-03		2.738E-02	4.459E-02	2.648E-03	0.086
RU-103	1.565E-02		4.470E-02	7.321E-02	9.338E-03	0.214
RH-106	-1.820E-01		3.291E-01	5.258E-01	6.340E-02	-0.346
RU-106	-1.820E-01		3.286E-01	5.258E-01	3.377E-02	-0.346
AG-108M	-1.158E-02		3.191E-02	4.937E-02	3.076E-03	-0.234
AG-110M	1.148E-03		3.415E-02	5.687E-02	3.876E-03	0.020
IN-111	1.779E+00		2.039E+00	3.210E+00	1.777E-01	0.554
IN-113M	-3.518E-02		4.427E-02	6.852E-02	4.034E-03	-0.513
SN-113	-3.518E-02		4.427E-02	6.852E-02	4.034E-03	-0.513
IN-114M	8.526E-03		1.958E-01	2.784E-01	1.461E-02	0.031
CD-115	8.244E-06		1.306E-05	Half-Life too short		
SN-117M	1.826E-02		5.840E-02	9.556E-02	5.048E-03	0.191
SB-122	1.151E+00		4.288E+00	7.332E+00	4.604E-01	0.157
I-123	2.166E+01		9.676E+01	Half-Life too short		
TE-123M	2.949E-03		2.634E-02	4.271E-02	2.288E-03	0.069
I-124	1.673E-01		1.150E+00	1.698E+00	1.083E-01	0.099
SB-124	5.171E-03		6.808E-02	1.150E-01	7.672E-03	0.045
SB-125	3.051E-02		8.831E-02	1.468E-01	8.727E-03	0.208
TE-125M	3.132E+00		8.937E+00	1.493E+01	1.288E+00	0.210
I-126	1.579E-01		2.196E-01	3.822E-01	2.492E-02	0.413
SB-126	3.171E-03		1.867E-01	2.673E-01	1.858E-02	0.012
SB-127	3.232E-01		2.206E+00	3.693E+00	4.053E-01	0.088
XE-127	-1.878E-02		4.642E-02	7.217E-02	3.838E-03	-0.260
I-131	7.769E-02		1.406E-01	2.388E-01	1.510E-02	0.325
TE-132	-1.690E-01		1.164E+00	1.960E+00	2.909E-01	-0.086
BA-133	3.281E-02		4.136E-02	6.385E-02	7.325E-03	0.514
I-133	1.094E-02		2.918E-02	Half-Life too short		
CS-134	8.678E-02		5.300E-02	9.594E-02	7.315E-03	0.905
CS-135	2.490E-01		1.767E-01	2.818E-01	2.120E-02	0.884
I-135	-6.517E+11		3.815E+12	Half-Life too short		
CS-136	1.271E-01		1.360E-01	2.437E-01	1.831E-02	0.521
BA-137M	-3.656E-02		3.822E-02	5.798E-02	3.758E-03	-0.631
CS-137	-3.865E-02		4.040E-02	6.129E-02	3.986E-03	-0.631
CE-139	-6.120E-03		2.851E-02	4.539E-02	2.326E-03	-0.135
BA-140	-1.393E-01		2.857E-01	4.590E-01	1.496E-01	-0.304
LA-140	-4.875E-02		1.015E-01	1.586E-01	1.033E-02	-0.307
CE-141	-5.076E-02		6.455E-02	1.010E-01	5.880E-03	-0.503
CE-143	3.540E-03		5.149E-04	Half-Life too short		
CE-144	-3.577E-02		1.928E-01	3.115E-01	4.434E-02	-0.115
PM-144	2.328E-02		3.758E-02	6.471E-02	4.379E-03	0.360
PR-144	1.580E+00		2.551E+00	4.392E+00	2.969E-01	0.360
PM-146	-7.423E-04		4.232E-02	6.831E-02	5.906E-03	-0.011
ND-147	-1.621E-01		6.857E-01	1.073E+00	1.469E-01	-0.151
PM-149	-3.195E-05		1.059E-04	Half-Life too short		
EU-152	4.479E-03		1.006E-01	1.541E-01	9.878E-03	0.029

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	4.612E-04		8.657E-02	1.277E-01	8.878E-03	0.004
EU-154	-1.506E-01		1.332E-01	1.933E-01	1.883E-02	-0.779
EU-155	1.364E-01		1.033E-01	1.786E-01	1.204E-02	0.764
TB-160	4.633E-03		1.316E-01	2.142E-01	1.759E-02	0.022
HO-166M	3.955E-02		6.071E-02	1.051E-01	7.234E-03	0.376
TM-171	-5.672E+00		2.993E+01	4.482E+01	2.901E+00	-0.127
LU-176	9.350E-03		2.297E-02	3.785E-02	2.151E-03	0.247
LU-177	4.266E+00	+	1.687E+00	2.509E+00	1.342E-01	1.701
LU-177M	-1.265E-01		1.814E-01	2.816E-01	1.581E-02	-0.449
HF-181	2.236E-02		4.226E-02	7.074E-02	4.224E-03	0.316
W-181	-1.570E-01		3.911E-01	5.805E-01	3.730E-02	-0.270
TA-182	3.900E-02		2.334E-01	3.898E-01	2.312E-02	0.100
RE-183	-9.035E-03		1.052E-01	1.640E-01	8.526E-03	-0.055
RE-184	3.632E-02		2.118E-01	3.596E-01	2.001E-02	0.101
OS-185	-2.942E-02		4.090E-02	6.390E-02	4.129E-03	-0.460
RE-188	1.750E-01		1.746E-01	2.934E-01	1.573E-02	0.596
W-188	-7.729E+00		7.486E+00	1.006E+01	5.703E-01	-0.768
IR-192	-1.340E-02		3.167E-02	5.120E-02	2.926E-03	-0.262
AU-195	2.057E-01		2.367E-01	3.836E-01	2.638E-02	0.536
TL-200	-2.078E-05		1.305E-03	Half-Life too short		
TL-201	7.542E+00		1.213E+01	2.007E+01	1.029E+00	0.376
TL-202	8.994E-02		7.581E-02	1.330E-01	7.658E-03	0.676
HG-203	8.138E-04		4.144E-02	6.939E-02	4.173E-03	0.012
BI-207	2.611E-02		5.688E-02	9.844E-02	6.791E-03	0.265
TL-207	-3.507E-01		7.114E-01	9.913E-01	1.633E-01	-0.354
PO-209	-5.225E-01		7.879E+00	1.235E+01	1.031E+00	-0.042
BI-210	2.346E+00		3.127E+00	5.459E+00	4.112E-01	0.430
PB-210	2.346E+00		3.127E+00	5.459E+00	4.112E-01	0.430
PO-210	2.346E+00		3.125E+00	5.459E+00	3.501E-01	0.430
PB-211	-6.919E-01		1.037E+00	1.465E+00	9.129E-01	-0.472
BI-212	6.423E-01	+	5.150E-01	6.340E-01	5.488E-02	1.013
PO-215	-3.507E-01		7.114E-01	9.913E-01	1.633E-01	-0.354
RN-219	9.969E-02		3.987E-01	6.605E-01	8.916E-02	0.151
RN-220	1.071E+01		2.449E+01	4.248E+01	2.649E+00	0.252
RA-223	-3.507E-01		7.114E-01	9.913E-01	1.633E-01	-0.354
AC-227	-1.533E-01		3.600E-01	5.924E-01	8.216E-02	-0.259
TH-227	-1.533E-01		3.603E-01	5.924E-01	9.966E-02	-0.259
TH-229	-5.456E-02		4.895E-01	7.755E-01	4.083E-02	-0.070
PA-231	6.106E-01		1.470E+00	2.503E+00	3.434E-01	0.244
TH-231	-3.507E-01		7.114E-01	9.913E-01	1.633E-01	-0.354
U-231	-5.529E-01		1.791E+00	2.618E+00	1.844E-01	-0.211
PA-233	-2.054E-02		5.522E-02	8.958E-02	5.421E-03	-0.229
PA-234	-2.040E-01		2.979E-01	4.411E-01	8.158E-02	-0.462
PA-234M	2.769E+00		4.987E+00	8.578E+00	7.764E-01	0.323
U-235	7.206E-02		2.040E-01	3.320E-01	5.393E-02	0.217
NP-236	-8.473E-02		7.375E-02	1.121E-01	5.877E-03	-0.756
NP-239	-3.565E-03		1.779E-01	2.918E-01	1.841E-02	-0.012
AM-241	4.194E-02		1.556E-01	2.404E-01	1.708E-02	0.174

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.078E-02		9.320E-02	1.559E-01	1.038E-02	0.197
AM-246	4.049E-02		1.593E-01	2.710E-01	1.822E-02	0.149
CM-247	1.867E-02		3.472E-02	5.861E-02	3.250E-03	0.319
CF-249	1.157E-02		3.850E-02	6.415E-02	3.526E-03	0.180
CF-251	-3.873E-02		1.187E-01	1.872E-01	9.677E-03	-0.207

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032580          *
* Acquisition date  : 14-FEB-2010 11:09:10 Detector SN#     :               *
* Detector ID       : GAM12                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.65      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032580          Analyst initials: MXR1           *
* Batch Number      : 948751               Sample Quantity : 1.3548E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.254E+01	2.934E+00	2.940E-01	1.497E+00
CD-109	2.996E+00	1.062E+00	5.801E-01	5.416E-01
SN-126	2.932E-01	1.039E-01	5.705E-02	5.301E-02
TL-208	6.335E-01	9.065E-02	2.746E-02	4.625E-02
BI-211	4.080E+00	5.338E-01	1.581E-01	2.723E-01
PB-212	1.601E+00	1.535E-01	4.702E-02	7.829E-02
PO-212	1.601E+00	1.535E-01	4.702E-02	7.829E-02
BI-214	1.239E+00	1.912E-01	5.601E-02	9.755E-02
PB-214	1.419E+00	1.994E-01	5.512E-02	1.017E-01
PO-214	1.419E+00	1.994E-01	5.512E-02	1.017E-01
PO-216	1.601E+00	1.535E-01	4.702E-02	7.829E-02
PO-218	1.419E+00	1.994E-01	5.512E-02	1.017E-01
RA-224	4.163E+00	9.446E-01	5.351E-01	4.819E-01
RA-226	1.239E+00	1.912E-01	5.601E-02	9.755E-02
AC-228	1.894E+00	3.483E-01	1.119E-01	1.777E-01
RA-228	1.894E+00	3.483E-01	1.119E-01	1.777E-01
TH-228	1.630E+00	1.562E-01	4.787E-02	7.971E-02
TH-230	1.239E+00	1.912E-01	5.601E-02	9.755E-02
TH-232	1.894E+00	3.483E-01	1.119E-01	1.777E-01
TH-234	1.270E+00	1.516E+00	1.078E+00	7.735E-01
U-234	1.239E+00	1.912E-01	5.601E-02	9.755E-02
NP-237	8.610E-01	3.513E-01	2.060E-01	1.792E-01
U-238	1.270E+00	1.516E+00	1.078E+00	7.735E-01
AM-243	3.317E-01	7.471E-02	4.696E-02	3.812E-02
ANH-511	1.856E-01	6.672E-02	2.180E-02	3.404E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-3.379E-01	3.119E-01	2.391E-01	1.591E-01	NOT IDENT.
NA-22	-5.440E-02	4.662E-02	3.477E-02	2.378E-02	NOT IDENT.

NA-24	-3.447E+06	1.521E+07	0.000E+00	7.762E+06	SHORT HLIF
AL-26	1.137E-03	2.351E-02	2.004E-02	1.200E-02	NOT IDENT.
TI-44	3.851E-01	5.521E-02	3.635E-02	2.817E-02	FAIL ABUN
SC-46	2.953E-02	4.258E-02	3.770E-02	2.172E-02	FAIL ABUN
V-48	-2.296E-02	8.986E-02	6.493E-02	4.585E-02	NOT IDENT.
CR-51	8.193E-02	3.595E-01	3.177E-01	1.834E-01	NOT IDENT.
MN-52	-1.107E-01	3.184E-01	2.517E-01	1.625E-01	NOT IDENT.
MN-54	2.413E-02	3.951E-02	3.482E-02	2.016E-02	NOT IDENT.
CO-56	-5.136E-02	4.118E-02	3.047E-02	2.101E-02	NOT IDENT.
CO-57	4.830E-03	2.322E-02	2.054E-02	1.185E-02	NOT IDENT.
CO-58	-2.286E-02	3.785E-02	3.013E-02	1.931E-02	NOT IDENT.
FE-59	-4.733E-02	9.962E-02	8.189E-02	5.082E-02	NOT IDENT.
CO-60	-7.167E-04	3.928E-02	3.290E-02	2.004E-02	NOT IDENT.
ZN-65	-4.468E-02	1.104E-01	7.745E-02	5.635E-02	NOT IDENT.
GE-68	9.028E-01	1.330E+00	1.202E+00	6.784E-01	NOT IDENT.
AS-73	-1.750E-02	7.602E-01	6.908E-01	3.878E-01	NOT IDENT.
AS-74	-4.619E-02	1.018E-01	8.591E-02	5.194E-02	NOT IDENT.
SE-75	-9.480E-03	4.885E-02	3.770E-02	2.492E-02	NOT IDENT.
BR-77	2.399E+01	2.411E+01	2.155E+01	1.230E+01	FAIL ABUN
SR-82	1.786E-02	4.729E-01	3.488E-01	2.413E-01	NOT IDENT.
RB-83	6.205E-02	7.086E-02	6.287E-02	3.615E-02	NOT IDENT.
RB-84	-2.519E-02	6.571E-02	5.275E-02	3.353E-02	NOT IDENT.
KR-85	2.811E+00	7.605E+00	5.745E+00	3.880E+00	NOT IDENT.
SR-85	1.485E-02	4.018E-02	3.035E-02	2.050E-02	NOT IDENT.
RB-86	8.292E-01	9.152E-01	8.413E-01	4.669E-01	NOT IDENT.
Y-88	8.790E-03	3.479E-02	3.055E-02	1.775E-02	NOT IDENT.
ZR-88	8.576E-03	3.005E-02	2.621E-02	1.533E-02	NOT IDENT.
Y-91	-1.182E+01	2.065E+01	1.671E+01	1.054E+01	NOT IDENT.
NB-94	-2.082E-02	3.296E-02	2.688E-02	1.682E-02	NOT IDENT.
NB-95	6.404E-02	5.276E-02	4.331E-02	2.692E-02	NOT IDENT.
NB-95M	7.810E-02	1.379E-01	1.121E-01	7.035E-02	NOT IDENT.
ZR-95	-4.863E-03	7.522E-02	6.297E-02	3.838E-02	NOT IDENT.
NB-97	-3.347E+04	1.548E+06	0.000E+00	7.899E+05	SHORT HLIF
ZR-97	6.026E+07	3.297E+07	0.000E+00	1.682E+07	SHORT HLIF
MO-99	6.005E+00	2.399E+01	2.085E+01	1.224E+01	NOT IDENT.
TC-99M	-9.492E+19	1.010E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.142E-02	3.205E-02	2.585E-02	1.635E-02	NOT IDENT.
RH-102	3.833E-03	2.684E-02	2.284E-02	1.369E-02	NOT IDENT.
RU-103	1.565E-02	4.381E-02	3.747E-02	2.235E-02	NOT IDENT.
RH-106	-1.820E-01	3.225E-01	2.680E-01	1.645E-01	FAIL ABUN
RU-106	-1.820E-01	3.220E-01	2.680E-01	1.643E-01	FAIL ABUN
AG-108M	-1.158E-02	3.127E-02	2.533E-02	1.595E-02	NOT IDENT.
AG-110M	1.148E-03	3.347E-02	2.895E-02	1.708E-02	NOT IDENT.
IN-111	1.779E+00	1.998E+00	1.664E+00	1.019E+00	NOT IDENT.
IN-113M	-3.518E-02	4.339E-02	3.522E-02	2.214E-02	NOT IDENT.
SN-113	-3.518E-02	4.339E-02	3.522E-02	2.214E-02	NOT IDENT.
IN-114M	8.526E-03	1.919E-01	1.450E-01	9.789E-02	NOT IDENT.
CD-115	8.244E+00	2.560E+01	0.000E+00	1.306E+01	SHORT HLIF
SN-117M	1.826E-02	5.723E-02	4.993E-02	2.920E-02	NOT IDENT.
SB-122	1.151E+00	4.202E+00	3.744E+00	2.144E+00	NOT IDENT.
I-123	2.166E+07	1.896E+08	0.000E+00	9.676E+07	SHORT HLIF
TE-123M	2.949E-03	2.582E-02	2.231E-02	1.317E-02	NOT IDENT.
I-124	1.673E-01	1.127E+00	8.658E-01	5.751E-01	NOT IDENT.
SB-124	5.171E-03	6.672E-02	5.749E-02	3.404E-02	FAIL ABUN
SB-125	3.051E-02	8.654E-02	7.534E-02	4.415E-02	FAIL ABUN
TE-125M	3.132E+00	8.758E+00	7.851E+00	4.469E+00	NOT IDENT.
I-126	1.579E-01	2.152E-01	1.945E-01	1.098E-01	NOT IDENT.
SB-126	3.171E-03	1.829E-01	1.358E-01	9.333E-02	NOT IDENT.
SB-127	3.232E-01	2.161E+00	1.879E+00	1.103E+00	NOT IDENT.
XE-127	-1.878E-02	4.549E-02	3.754E-02	2.321E-02	NOT IDENT.
I-131	7.769E-02	1.378E-01	1.229E-01	7.031E-02	NOT IDENT.
TE-132	-1.690E-01	1.141E+00	1.017E+00	5.822E-01	NOT IDENT.
BA-133	3.281E-02	4.053E-02	3.288E-02	2.068E-02	NOT IDENT.
I-133	1.094E+04	5.720E+04	0.000E+00	2.918E+04	SHORT HLIF
CS-134	8.678E-02	5.194E-02	4.867E-02	2.650E-02	NOT IDENT.
CS-135	2.490E-01	1.731E-01	1.459E-01	8.833E-02	NOT IDENT.
I-135	-6.517E+17	7.477E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.271E-01	1.333E-01	1.230E-01	6.802E-02	FAIL ABUN
BA-137M	-3.656E-02	3.745E-02	2.951E-02	1.911E-02	NOT IDENT.
CS-137	-3.865E-02	3.959E-02	3.120E-02	2.020E-02	NOT IDENT.
CE-139	-6.120E-03	2.794E-02	2.370E-02	1.425E-02	NOT IDENT.
BA-140	-1.393E-01	2.800E-01	2.346E-01	1.429E-01	NOT IDENT.
LA-140	-4.875E-02	9.948E-02	7.938E-02	5.075E-02	FAIL ABUN
CE-141	-5.076E-02	6.326E-02	5.285E-02	3.227E-02	NOT IDENT.
CE-143	3.540E+03	1.009E+03	0.000E+00	5.149E+02	SHORT HLIF
CE-144	-3.577E-02	1.889E-01	1.632E-01	9.640E-02	NOT IDENT.
PM-144	2.328E-02	3.683E-02	3.291E-02	1.879E-02	NOT IDENT.
PR-144	1.580E+00	2.500E+00	2.234E+00	1.275E+00	NOT IDENT.

PM-146	-7.423E-04	4.147E-02	3.502E-02	2.116E-02	NOT IDENT.
ND-147	-1.621E-01	6.720E-01	5.486E-01	3.428E-01	FAIL ABUN
PM-149	-3.195E+01	2.075E+02	0.000E+00	1.059E+02	SHORT HLIF
EU-152	4.479E-03	9.856E-02	7.942E-02	5.028E-02	FAIL ABUN
GD-153	4.612E-04	8.484E-02	6.728E-02	4.329E-02	NOT IDENT.
EU-154	-1.506E-01	1.306E-01	9.717E-02	6.661E-02	NOT IDENT.
EU-155	1.364E-01	1.012E-01	9.398E-02	5.164E-02	FAIL ABUN
TB-160	4.633E-03	1.290E-01	1.085E-01	6.580E-02	FAIL ABUN
HO-166M	3.955E-02	5.949E-02	5.343E-02	3.035E-02	FAIL ABUN
TM-171	-5.672E+00	2.933E+01	2.378E+01	1.496E+01	NOT IDENT.
LU-176	9.350E-03	2.251E-02	1.954E-02	1.149E-02	FAIL ABUN
LU-177	4.266E+00	1.653E+00	1.304E+00	8.435E-01	FAIL ABUN
LU-177M	-1.265E-01	1.777E-01	1.446E-01	9.068E-02	FAIL ABUN
HF-181	2.236E-02	4.142E-02	3.623E-02	2.113E-02	NOT IDENT.
W-181	-1.570E-01	3.832E-01	3.081E-01	1.955E-01	NOT IDENT.
TA-182	3.900E-02	2.288E-01	1.961E-01	1.167E-01	FAIL ABUN
RE-183	-9.035E-03	1.031E-01	8.565E-02	5.258E-02	FAIL ABUN
RE-184	3.632E-02	2.076E-01	1.863E-01	1.059E-01	NOT IDENT.
OS-185	-2.942E-02	4.008E-02	3.254E-02	2.045E-02	NOT IDENT.
RE-188	1.750E-01	1.711E-01	1.534E-01	8.730E-02	NOT IDENT.
W-188	-7.729E+00	7.337E+00	5.201E+00	3.743E+00	FAIL ABUN
IR-192	-1.340E-02	3.104E-02	2.642E-02	1.584E-02	FAIL ABUN
AU-195	2.057E-01	2.319E-01	2.021E-01	1.183E-01	FAIL ABUN
TL-200	-2.078E+01	2.557E+03	0.000E+00	1.305E+03	SHORT HLIF
TL-201	7.542E+00	1.188E+01	1.047E+01	6.063E+00	NOT IDENT.
TL-202	8.994E-02	7.430E-02	6.821E-02	3.791E-02	NOT IDENT.
HG-203	8.138E-04	4.061E-02	3.589E-02	2.072E-02	NOT IDENT.
BI-207	2.611E-02	5.574E-02	4.967E-02	2.844E-02	FAIL ABUN
TL-207	-3.507E-01	6.972E-01	5.113E-01	3.557E-01	FAIL ABUN
PO-209	-5.225E-01	7.721E+00	6.251E+00	3.939E+00	NOT IDENT.
BI-210	2.346E+00	3.064E+00	2.914E+00	1.563E+00	NOT IDENT.
PB-210	2.346E+00	3.064E+00	2.914E+00	1.563E+00	NOT IDENT.
PO-210	2.346E+00	3.063E+00	2.914E+00	1.563E+00	NOT IDENT.
PB-211	-6.919E-01	1.016E+00	7.526E-01	5.183E-01	NOT IDENT.
BI-212	6.423E-01	5.047E-01	3.222E-01	2.575E-01	FAIL ABUN
PO-215	-3.507E-01	6.972E-01	5.113E-01	3.557E-01	FAIL ABUN
RN-219	9.969E-02	3.908E-01	3.394E-01	1.994E-01	FAIL ABUN
RN-220	1.071E+01	2.400E+01	2.170E+01	1.224E+01	NOT IDENT.
RA-223	-3.507E-01	6.972E-01	5.113E-01	3.557E-01	FAIL ABUN
AC-227	-1.533E-01	3.528E-01	3.069E-01	1.800E-01	FAIL ABUN
TH-227	-1.533E-01	3.531E-01	3.069E-01	1.802E-01	FAIL ABUN
TH-229	-5.456E-02	4.797E-01	4.037E-01	2.447E-01	FAIL ABUN
PA-231	6.106E-01	1.441E+00	1.294E+00	7.350E-01	FAIL ABUN
TH-231	-3.507E-01	6.972E-01	5.113E-01	3.557E-01	FAIL ABUN
U-231	-5.529E-01	1.755E+00	1.380E+00	8.954E-01	FAIL ABUN
PA-233	-2.054E-02	5.411E-02	4.624E-02	2.761E-02	FAIL ABUN
PA-234	-2.040E-01	2.919E-01	2.231E-01	1.489E-01	FAIL ABUN
PA-234M	2.769E+00	4.888E+00	4.333E+00	2.494E+00	NOT IDENT.
U-235	7.206E-02	1.999E-01	1.738E-01	1.020E-01	FAIL ABUN
NP-236	-8.473E-02	7.228E-02	5.855E-02	3.688E-02	NOT IDENT.
NP-239	-3.565E-03	1.744E-01	1.533E-01	8.896E-02	FAIL ABUN
AM-241	4.194E-02	1.525E-01	1.277E-01	7.780E-02	NOT IDENT.
CM-243	3.078E-02	9.133E-02	8.207E-02	4.660E-02	FAIL ABUN
AM-246	4.049E-02	1.561E-01	1.367E-01	7.964E-02	NOT IDENT.
CM-247	1.867E-02	3.403E-02	3.011E-02	1.736E-02	NOT IDENT.
CF-249	1.157E-02	3.773E-02	3.298E-02	1.925E-02	NOT IDENT.
CF-251	-3.873E-02	1.163E-01	9.760E-02	5.935E-02	NOT IDENT.

GEL Laboratories LLC
2040 SAVAGE ROAD
CHARLESTON ,SC 29417
GAMMA SPECTROSCOPY BACKGROUND REPORT

ENERGY	MDA COUNTS
46.50	243.8547
46.50	243.8547
46.50	243.8547
48.70	287.4916
49.72	272.2073
51.35	259.8953
52.39	269.4017
52.97	268.1698
53.15	268.3228
53.44	265.1034
54.07	273.4420
56.28	283.1786
56.28	283.1811
57.37	0.0000
57.53	314.9604
57.53	314.9622
57.60	315.0270
57.98	317.1429
57.98	317.1429
59.32	302.9701
59.32	302.9701
59.40	310.9807
59.54	311.1089
59.72	317.8958
60.01	306.2347
61.10	303.2148
61.14	303.2500
61.30	303.3892
63.00	377.9598
63.29	368.4547
63.29	368.4547
63.58	380.3629
64.28	373.0572
65.12	407.5539
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65.20	391.4997
66.05	362.7473
66.72	391.7784
66.83	391.8978
66.91	405.5008
67.20	397.1615
67.20	397.1615
67.75	370.2925
67.85	370.3947
68.90	399.5194
68.90	399.5194
69.30	422.6159
69.67	448.8120
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70.82	412.4690
70.83	412.4805
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72.87	380.3340
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74.67	433.1083
74.81	433.2617
74.81	433.2617
74.81	433.2617
74.81	433.2617
74.81	433.2617
74.81	433.2617
74.81	433.2617
74.97	433.4353
75.28	433.7719
75.70	434.2271
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77.11	435.7459

77.11	435.7459
77.11	435.7459
77.11	435.7459
77.11	435.7459
77.11	435.7459
78.38	343.8349
79.62	332.3015
79.80	332.4450
79.80	332.4450
80.11	360.6512
80.18	360.7103
80.30	360.8146
80.30	360.8146
80.57	373.6415
81.00	393.3561
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81.07	393.4225
81.07	393.4225
81.07	393.4225
82.60	402.1570
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83.78	360.9668
83.78	360.9668
83.78	360.9668
83.78	360.9668
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84.90	370.3844
85.43	437.3602
86.29	475.0911
86.50	456.8734
86.54	456.9151
86.59	456.9667
86.72	457.1018
86.79	457.1731
86.94	457.3303
87.30	309.8723
87.30	309.8723
87.30	309.8723
87.30	309.8723
87.30	309.8723
87.30	309.8723
87.30	309.8723
87.57	310.0619
87.88	310.2781
88.03	310.3829
88.36	310.6124
88.47	310.6889
89.95	291.6936
91.11	292.4407
92.29	293.1940
92.38	293.2516
92.38	293.2516
93.35	293.8663
94.00	294.2772
94.67	320.6985
94.67	320.7019
94.90	320.8594
94.90	320.8594
94.90	320.8594
94.90	320.8594
95.87	336.0028
95.87	336.0028
96.73	349.6736
97.43	324.0299
98.44	295.5884
98.44	295.5899
98.88	303.1466
99.55	320.1060
99.55	320.1060
99.86	320.3101
100.00	302.8726
100.10	300.9893
103.18	323.4573
103.76	300.2818
105.00	280.3657
105.31	271.6791
108.00	314.6762
109.28	280.7372

111.00	294.6028
111.00	294.6028
111.76	310.9764
112.95	291.6970
115.19	281.8861
116.30	272.4142
117.00	277.7969
117.00	277.7969
117.66	282.1647
121.11	275.8184
121.62	257.8008
121.78	257.8744
122.06	262.0667
122.32	262.1874
122.32	262.1874
122.32	262.1874
122.32	262.1874
123.07	278.8178
127.23	289.0547
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131.20	301.3448
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133.54	281.8087
135.34	275.3785
136.00	276.7180
136.25	294.5268
136.48	284.2250
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140.51	0.0000
142.18	275.3020
142.65	258.6824
143.76	282.3155
144.24	274.0944
144.24	274.0944
144.24	274.0944
144.24	274.0944
145.22	315.6953
145.44	321.0858
147.16	261.5857
152.43	277.5909
152.70	262.7513
153.22	264.0255
154.21	293.3242
154.21	293.3242
154.21	293.3242
154.21	293.3242
155.03	279.7525
156.02	272.6526
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159.00	0.0000
159.00	245.8241
160.31	280.8653
161.27	260.7058
162.32	238.3512
162.64	243.8805
163.35	251.7251
163.89	230.2036
165.85	266.7849
167.43	225.9135
171.28	254.5689
171.86	249.2834
172.10	249.3665
176.55	254.2110
176.60	254.2286
181.06	236.8581
184.41	232.3285
185.71	232.7241
186.00	232.8130
190.27	236.3589
192.34	262.9427
193.63	255.4616
197.04	254.2946
198.01	265.9684
198.60	234.3149
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201.83	243.2500
202.84	245.8402
205.31	230.5251

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208.81	239.5648
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209.75	195.4430
210.97	233.8337
215.65	209.0057
216.55	228.9856
218.09	256.1788
222.10	213.2071
223.80	215.3788
226.40	241.5854
227.00	237.3370
227.08	237.3596
227.20	253.2752
228.16	231.4628
228.18	230.5853
228.18	230.5853
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236.00	276.6158
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238.63	247.5611
238.63	247.5611
238.63	247.5611
239.00	247.6584
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241.98	199.4833
241.98	199.4833
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248.90	181.6195
249.79	189.9296
252.40	189.5402
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252.85	178.7417
254.15	0.0000
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256.20	207.5852
260.50	197.5265
260.90	0.0000
262.80	202.5710
264.65	210.1116
268.24	194.6452
268.79	194.5671
269.46	194.6959
269.46	194.6959
269.46	194.6959
269.46	194.6959
271.23	199.6589
273.65	241.6427
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277.35	194.3461
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277.60	179.5092
278.00	177.7189
278.60	187.1310
279.20	203.0777
279.53	215.2548
280.46	237.8329
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284.30	167.5612
285.00	176.1037
285.90	0.0000
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286.10	166.9103
287.40	156.7867
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290.67	168.7574
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291.72	177.9737
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293.70	131.4579
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295.21	137.1278

295.21	137.1278
295.96	137.2230
296.50	137.2894
297.23	137.3823
298.57	137.5504
299.80	137.7053
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300.09	137.7429
300.09	137.7429
300.09	137.7429
300.09	137.7429
300.12	137.7451
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303.76	135.7228
303.91	135.7402
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319.02	133.3190
319.41	143.0272
320.08	139.2429
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323.87	162.9807
323.87	162.9807
323.87	162.9807
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334.20	162.4589
334.20	162.4589
334.30	162.4716
338.28	160.0651
338.28	160.0651
338.28	160.0651
338.28	160.0651
338.32	160.0726
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338.32	160.0726
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340.57	147.9720
344.27	144.7398
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351.92	135.0496
351.92	135.0496
351.92	135.0496
355.39	0.0000
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364.48	118.3493
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367.43	125.6580
367.94	0.0000
369.80	122.8675
374.96	129.4238
383.85	127.2449
387.95	121.5112
388.63	122.5946
391.69	140.2799
391.69	140.2799
392.90	121.9579
398.62	135.8491
400.65	124.7129
401.10	123.7225
401.81	119.6604
402.60	108.3742
404.84	147.8353
410.95	137.0616
411.60	141.2814
413.65	143.5675
414.70	133.2617
415.30	108.3212

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423.70	100.5791
427.08	111.3165
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432.53	94.8697
433.93	107.6201
439.47	81.5493
439.56	81.5540
439.89	91.1073
443.98	112.6040
444.90	102.0439
445.03	96.7375
445.03	96.7375
445.03	96.7375
445.03	96.7375
453.90	103.7241
463.38	92.9628
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473.00	94.1872
475.06	88.8905
475.35	86.7383
476.78	117.2038
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487.03	99.3917
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492.35	0.0000
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511.85	85.3831
511.85	85.3831
513.99	97.7049
513.99	97.7049
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529.87	0.0000
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555.20	92.7787
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563.90	95.9714
568.70	85.2281
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569.50	88.9340
569.67	93.5257
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574.00	90.9901
574.64	87.3439
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579.30	0.0000
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592.07	91.8795
593.00	90.0660
595.88	103.2224
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602.71	87.1058
602.71	87.1058
603.60	90.2592
604.41	77.8422
604.70	88.7540
609.31	90.8404

609.31	90.8404
609.31	90.8404
609.31	90.8404
610.33	81.2056
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614.37	112.6758
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621.84	98.9681
621.84	98.9681
631.29	92.8153
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633.10	75.8359
634.78	83.4904
635.90	87.3349
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646.12	81.1007
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661.65	105.7542
664.57	0.0000
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666.33	83.8310
675.00	80.3110
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685.20	72.9218
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696.49	90.9021
696.49	90.9021
697.00	87.9895
697.49	89.9650
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722.78	77.4938
722.89	77.4976
722.95	77.4995
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724.18	84.1409
727.18	67.4040
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735.90	84.5829
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747.13	61.0030
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765.79	78.9740
766.42	89.0795
766.84	82.3725
776.49	72.5835
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778.57	81.0957
778.89	80.0936
783.80	75.1797
785.46	75.2321
792.07	92.7729

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798.80	124.7253
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810.76	65.7531
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836.80	0.0000
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867.82	51.4991
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881.50	50.7152
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896.60	58.4442
898.02	61.6661
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903.28	63.9185
911.07	65.8852
911.07	65.8852
911.07	65.8852
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925.00	67.6573
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926.50	76.2903
935.52	76.5417
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964.01	79.8700
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969.11	78.5602
969.11	78.5602
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1001.03	57.9230
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1038.76	0.0000
1045.16	73.7250
1046.59	64.4208
1048.07	56.0474

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1062.04	62.8725
1063.62	61.9663
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1078.86	67.9336
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1112.02	70.9458
1112.84	73.7618
1115.52	78.5491
1120.29	76.4811
1120.29	76.4811
1120.29	76.4811
1120.29	76.4811
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1124.00	0.0000
1129.67	65.1999
1131.51	0.0000
1147.95	0.0000
1167.94	70.8168
1173.22	69.9580
1175.09	69.9990
1177.93	63.2465
1189.05	60.5267
1204.90	83.3710
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1213.00	77.6692
1221.42	89.6855
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1236.41	0.0000
1238.25	82.1996
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1260.41	0.0000
1271.85	59.9902
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1291.56	45.2399
1298.22	0.0000
1312.09	40.4411
1325.50	44.6481
1325.50	44.6481
1332.49	38.6324
1333.61	35.5924
1360.21	31.7493
1362.66	0.0000
1365.15	33.8419
1368.21	26.6855
1368.53	0.0000
1376.25	26.7416
1384.27	32.9818
1394.10	33.0664
1395.20	34.1091
1407.95	35.5552
1434.06	28.1865
1436.60	26.1149
1457.56	0.0000
1460.81	30.4774
1489.15	15.8752
1509.49	24.4628
1596.49	28.8473
1620.62	18.7144
1678.03	0.0000
1691.02	12.3571
1691.02	12.3571
1706.46	0.0000
1750.46	0.0000
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1764.49	16.8994
1764.49	16.8994
1764.49	16.8994
1770.23	61.8772
1771.40	35.7818
1791.20	0.0000
1808.65	8.7715

1836.01	13.7217

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032580

Total Uranium Activity	3.8119E+00	ug/g
Total Uranium Counting Unc.	4.5110E+00	ug/g
Total Uranium Tpu	2.3015E-06	ug/g
Total Uranium Mda	3.2073E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID   : G1202032580     *
*   ANALYST       : MXR1                      DETECTOR    : GAM12           *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 11:09:10.09    SAMPLE ALQT:  135.480 GRAM    *
*                                                                           *
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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.511E+00
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.247E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 2.636E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 1.275E+00
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VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 19:39:10.88

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032581.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 13-FEB-2010 18:38:37
Sample ID         : G1202032581          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948751                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.52	2264	770	1.11	119.77	114	12	6.29E-01	3.2	
2	0	77.12	121	410	1.19	154.96	152	7	3.35E-02	29.5	
3	0	88.03	1309	619	1.10	176.76	171	12	3.63E-01	4.7	
4	0	92.76*	74	386	1.30	186.22	183	10	2.05E-02	52.8	
5	0	122.28	255	350	1.31	245.22	240	13	7.08E-02	16.4	
6	0	238.82*	409	356	1.16	478.17	472	11	1.14E-01	10.3	
7	0	295.73	104	173	1.09	591.94	588	8	2.90E-02	24.0	
8	0	338.65	111	118	1.83	677.71	674	9	3.08E-02	20.1	
9	0	352.57*	174	249	1.44	705.54	698	13	4.82E-02	20.4	
10	0	511.16*	51	105	2.15	1022.53	1018	11	1.42E-02	45.2	
11	0	583.35*	115	134	1.44	1166.83	1161	13	3.20E-02	22.8	
12	0	609.40*	125	88	1.35	1218.89	1212	13	3.47E-02	18.2	
13	0	661.89	1949	146	1.58	1323.80	1319	14	5.41E-01	2.6	
14	0	892.15	54	42	1.08	1784.01	1779	9	1.50E-02	25.7	
15	0	911.60*	108	100	1.33	1822.90	1818	12	2.99E-02	21.0	
16	0	1173.40	1489	49	1.81	2346.12	2339	15	4.14E-01	2.8	
17	0	1332.69	1404	18	1.88	2664.47	2657	14	3.90E-01	2.7	
18	0	1461.65*	18	11	2.43	2922.18	2915	15	5.05E-03	48.3	
19	0	1765.00*	23	0	1.63	3528.41	3524	10	6.25E-03	23.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 13-FEB-2010 19:39:13

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032581.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 13-FEB-2010 18:38:37
Sample ID : G1202032581 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.17 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	8.714E-01	8.449E-01	8.232E-01	7.318E-02	1.059
CO-57	+	122.06	*	2.433E-01	8.277E-02	6.723E-02	5.919E-03	3.618
		136.48		8.187E-02	3.371E-01	5.777E-01	5.337E-02	0.142
CO-60	+	1173.22		6.309E+00	6.199E-01	1.307E-01	1.058E-02	48.256
	+	1332.49	*	6.662E+00	6.753E-01	9.622E-02	8.202E-03	69.237
CD-109	+	88.03	*	3.286E+01	4.390E+00	2.224E+00	2.104E-01	14.774
SN-126		64.28		-8.013E-01	1.007E+00	1.417E+00	2.085E-01	-0.566
	+	86.94		1.355E+01	5.774E+00	9.290E-01	3.857E-01	14.591
	+	87.57	*	3.260E+00	4.356E-01	2.218E-01	2.089E-02	14.698
BA-137M	+	661.65	*	5.443E+00	5.282E-01	1.200E-01	9.832E-03	45.347
CS-137	+	661.65	*	5.754E+00	5.592E-01	1.269E-01	1.042E-02	45.346
TL-208		277.35		5.034E-01	7.601E-01	1.288E+00	1.638E-01	0.391
	+	510.84		4.784E-01	4.366E-01	5.326E-01	6.331E-02	0.898
	+	583.14	*	3.086E-01	1.436E-01	1.230E-01	1.117E-02	2.509
		860.37		5.289E-01	7.340E-01	1.259E+00	1.207E-01	0.420
PB-212		74.81		1.121E+00	7.119E-01	1.081E+00	1.353E-01	1.037
	+	77.11		7.391E-01	4.408E-01	5.910E-01	5.015E-02	1.251
	+	87.30		1.508E+01	2.516E+00	1.029E+00	1.412E-01	14.652
	+	238.63	*	1.018E+00	2.338E-01	1.917E-01	1.941E-02	5.311
		300.09		6.776E-01	1.743E+00	2.579E+00	2.788E-01	0.263
PO-212		74.81		1.121E+00	7.119E-01	1.081E+00	1.353E-01	1.037
	+	77.11		7.391E-01	4.408E-01	5.910E-01	5.015E-02	1.251
	+	87.30		1.508E+01	2.516E+00	1.029E+00	1.412E-01	14.652
		115.19		7.701E-01	5.854E+00	9.368E+00	8.140E-01	0.082
	+	238.63	*	1.018E+00	2.338E-01	1.917E-01	1.941E-02	5.311
		300.09		6.776E-01	1.743E+00	2.579E+00	2.788E-01	0.263
BI-214	+	609.31	*	6.316E-01	2.380E-01	2.078E-01	2.049E-02	3.040
		1120.29		1.050E+00	7.033E-01	1.258E+00	1.346E-01	0.835
	+	1764.49		8.334E-01	4.000E-01	5.533E-01	4.640E-02	1.506
PB-214		74.81		1.932E+00	1.222E+00	1.863E+00	2.076E-01	1.037
	+	77.11		1.267E+00	7.618E-01	1.013E+00	1.156E-01	1.251
	+	87.30		2.583E+01	3.985E+00	1.763E+00	2.142E-01	14.652
		241.98		6.739E-01	7.559E-01	1.157E+00	1.235E-01	0.583
	+	295.21		7.105E-01	3.501E-01	4.187E-01	4.623E-02	1.697

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	6.992E-01	2.949E-01	2.336E-01	2.448E-02	2.993
PO-214		74.81		1.932E+00	1.222E+00	1.863E+00	2.076E-01	1.037
	+	77.11		1.267E+00	7.618E-01	1.013E+00	1.156E-01	1.251
	+	87.30		2.583E+01	3.985E+00	1.763E+00	2.142E-01	14.652
		241.98		6.739E-01	7.559E-01	1.157E+00	1.235E-01	0.583
	+	295.21		7.105E-01	3.501E-01	4.187E-01	4.623E-02	1.697
	+	351.92	*	6.992E-01	2.949E-01	2.336E-01	2.448E-02	2.993
PO-216		74.81		1.121E+00	7.119E-01	1.081E+00	1.353E-01	1.037
	+	77.11		7.391E-01	4.408E-01	5.910E-01	5.015E-02	1.251
	+	87.30		1.508E+01	2.516E+00	1.029E+00	1.412E-01	14.652
	+	238.63	*	1.018E+00	2.338E-01	1.917E-01	1.941E-02	5.311
		300.09		6.776E-01	1.743E+00	2.579E+00	2.788E-01	0.263
PO-218		74.81		1.932E+00	1.222E+00	1.863E+00	2.076E-01	1.037
	+	77.11		1.267E+00	7.618E-01	1.013E+00	1.156E-01	1.251
	+	87.30		2.583E+01	3.985E+00	1.763E+00	2.142E-01	14.652
		241.98		6.739E-01	7.559E-01	1.157E+00	1.235E-01	0.583
	+	295.21		7.105E-01	3.501E-01	4.187E-01	4.623E-02	1.697
	+	351.92	*	6.992E-01	2.949E-01	2.336E-01	2.448E-02	2.993
RA-226	+	609.31	*	6.316E-01	2.380E-01	2.078E-01	2.049E-02	3.040
		1120.29		1.050E+00	7.033E-01	1.258E+00	1.346E-01	0.835
	+	1764.49		8.334E-01	4.000E-01	5.533E-01	4.640E-02	1.506
TH-228		74.81		1.131E+00	7.105E-01	1.091E+00	9.163E-02	1.037
	+	77.11		7.456E-01	4.447E-01	5.962E-01	5.060E-02	1.251
	+	87.30		1.521E+01	2.032E+00	1.038E+00	9.749E-02	14.652
	+	238.63	*	1.027E+00	2.359E-01	1.934E-01	1.958E-02	5.311
		300.09		6.836E-01	1.803E+00	2.601E+00	1.544E+00	0.263
TH-230	+	609.31	*	6.316E-01	2.380E-01	2.078E-01	2.049E-02	3.040
		1120.29		1.050E+00	7.033E-01	1.258E+00	1.346E-01	0.835
	+	1764.49		8.334E-01	4.000E-01	5.533E-01	4.640E-02	1.506
U-234	+	609.31	*	6.316E-01	2.380E-01	2.078E-01	2.049E-02	3.040
		1120.29		1.050E+00	7.033E-01	1.258E+00	1.346E-01	0.835
	+	1764.49		8.334E-01	4.000E-01	5.533E-01	4.640E-02	1.506
AM-241	+	59.54	*	1.338E+01	1.403E+00	5.717E-01	4.711E-02	23.400
ANH-511	+	511.00	*	1.033E-01	9.391E-02	1.027E-01	8.703E-03	1.006

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.023E-01	6.671E-01	1.047E+00	9.527E-02	-0.193
NA-22		1274.54	*	-3.538E-02	5.364E-02	7.936E-02	6.664E-03	-0.446
NA-24		1368.53	*	3.444E-06	5.364E-02	Half-Life too short		
AL-26		1129.67		-8.774E-01	3.365E+00	5.258E+00	4.392E-01	-0.167
		1808.65	*	-2.574E-02	4.240E-02	5.533E-02	4.584E-03	-0.465
TI-44		67.85		1.903E-02	7.822E-02	1.278E-01	1.013E-02	0.149
	+	78.38	*	1.364E-01	8.132E-02	1.097E-01	9.410E-03	1.244
SC-46		889.25	*	7.609E-03	1.084E-01	1.544E-01	1.396E-02	0.049
		1120.51		2.120E-01	1.113E-01	2.051E-01	1.723E-02	1.034
V-48		944.10		-1.239E-01	2.011E+00	3.260E+00	2.936E-01	-0.038

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		983.50	*	-3.309E-02	1.292E-01	2.051E-01	1.831E-02	-0.161
		1312.09		1.512E-02	8.338E-02	1.429E-01	1.211E-02	0.106
CR-51		320.08	*	1.846E-01	6.189E-01	1.031E+00	9.697E-02	0.179
MN-52		744.21		8.869E-02	2.375E-01	4.035E-01	3.461E-02	0.220
		848.13		-5.435E+00	7.285E+00	1.120E+01	1.001E+00	-0.485
		935.52		7.404E-02	3.218E-01	5.325E-01	4.803E-02	0.139
		1246.25		2.303E+00	4.158E+00	7.470E+00	6.210E-01	0.308
	+	1333.61		3.898E+02	3.952E+01	4.841E+01	4.127E+00	8.053
		1434.06	*	-8.562E-02	1.101E-01	1.393E-01	1.202E-02	-0.615
MN-54		834.83	*	-2.306E-02	8.320E-02	1.336E-01	1.189E-02	-0.173
CO-56		846.75	*	-3.248E-02	8.635E-02	1.372E-01	1.226E-02	-0.237
		977.42		-7.555E-01	7.116E+00	1.151E+01	1.029E+00	-0.066
		1037.82		-5.387E-02	7.010E-01	1.126E+00	1.038E-01	-0.048
		1175.09		2.672E+02	2.652E+01	3.466E+01	2.807E+00	7.710
		1238.25		6.472E-02	9.622E-02	1.751E-01	1.497E-02	0.370
		1360.21		-3.169E-01	9.154E-01	1.381E+00	1.182E-01	-0.229
		1771.40		-2.435E-01	3.965E-01	5.543E-01	4.641E-02	-0.439
CO-58		810.76	*	8.813E-03	8.299E-02	1.376E-01	1.217E-02	0.064
FE-59		142.65		-2.509E+00	3.933E+00	6.488E+00	5.548E-01	-0.387
		192.34		-4.499E-01	1.478E+00	2.441E+00	3.297E-01	-0.184
		1099.22	*	-8.313E-02	2.049E-01	3.183E-01	2.934E-02	-0.261
		1291.56		-3.100E-02	1.501E-01	2.423E-01	2.331E-02	-0.128
ZN-65		1115.52	*	-1.317E-01	2.111E-01	3.210E-01	2.708E-02	-0.410
GE-68		1077.35	*	-8.753E-01	2.918E+00	4.578E+00	3.942E-01	-0.191
AS-73		53.44	*	-7.716E-01	2.173E+00	3.323E+00	2.689E-01	-0.232
AS-74		595.88	*	5.992E-02	1.379E-01	2.380E-01	2.005E-02	0.252
		634.78		1.801E-01	5.507E-01	9.412E-01	7.819E-02	0.191
SE-75		66.05		-4.119E+00	8.155E+00	1.293E+01	1.268E+00	-0.319
		96.73		-7.549E-01	1.320E+00	1.799E+00	2.485E-01	-0.420
	+	121.11		1.282E+00	4.456E-01	4.751E-01	5.389E-02	2.697
		136.00		1.507E-03	6.257E-02	1.063E-01	9.203E-03	0.014
		198.60		-6.450E-01	2.983E+00	4.941E+00	4.807E-01	-0.131
		264.65	*	-3.430E-02	8.194E-02	1.325E-01	1.217E-02	-0.259
		279.53		5.638E-02	2.179E-01	3.635E-01	3.435E-02	0.155
		303.91		2.013E-01	4.057E+00	6.681E+00	7.893E-01	0.030
		400.65		1.732E-01	5.246E-01	8.663E-01	9.283E-02	0.200
BR-77	+	87.88		1.121E+03	1.498E+02	1.607E+02	1.519E+01	6.977
		200.40		1.311E+01	4.431E+01	7.508E+01	6.622E+00	0.175
	+	239.00		2.558E+01	5.761E+00	7.531E+00	6.837E-01	3.397
		249.79		-1.624E+01	1.857E+01	2.924E+01	2.666E+00	-0.555
		281.68		8.132E-01	2.833E+01	4.677E+01	4.275E+00	0.017
	+	297.23		4.266E+01	2.086E+01	3.081E+01	2.803E+00	1.385
		303.76		2.337E+00	5.607E+01	9.229E+01	8.368E+00	0.025
		439.47		2.273E+01	5.096E+01	8.434E+01	6.993E+00	0.270
		484.57		1.929E+01	8.058E+01	1.312E+02	1.106E+01	0.147
		520.65	*	1.974E+00	3.492E+00	5.802E+00	4.922E-01	0.340
		574.64		-2.128E+01	6.658E+01	1.093E+02	9.250E+00	-0.195
		578.91		-2.273E+00	2.967E+01	4.299E+01	3.636E+00	-0.053
		585.48		1.141E+02	7.036E+01	1.147E+02	9.685E+00	0.995

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		755.35		6.984E-01	5.349E+01	8.844E+01	7.628E+00	0.008
		817.79		-9.903E+00	4.900E+01	7.925E+01	7.013E+00	-0.125
SR-82		698.33		-3.572E+01	5.734E+01	9.046E+01	7.575E+00	-0.395
		776.49	*	-5.737E-01	6.669E-01	1.017E+00	8.852E-02	-0.564
		1395.20		-2.775E+00	1.212E+01	1.919E+01	1.650E+00	-0.145
RB-83		520.41	*	8.841E-02	1.409E-01	2.350E-01	1.994E-02	0.376
		529.64		1.336E-01	2.032E-01	3.565E-01	3.026E-02	0.375
		552.65		1.924E-01	3.919E-01	6.795E-01	5.767E-02	0.283
RB-84		881.50	*	-1.935E-02	1.476E-01	2.389E-01	2.155E-02	-0.081
KR-85		513.99	*	4.803E+00	1.610E+01	2.307E+01	1.956E+00	0.208
SR-85		513.99	*	2.303E-02	7.718E-02	1.107E-01	9.382E-03	0.208
RB-86		1076.63	*	2.025E-01	1.456E+00	2.379E+00	2.049E-01	0.085
Y-88		898.02		9.347E-02	1.040E-01	1.723E-01	1.567E-02	0.543
		1836.01	*	3.073E-02	4.671E-02	8.896E-02	7.317E-03	0.345
ZR-88		392.90	*	1.969E-02	6.432E-02	1.061E-01	8.545E-03	0.186
Y-91		1204.90	*	1.712E+01	2.705E+01	4.830E+01	3.957E+00	0.354
NB-94		702.63	*	3.207E-02	7.117E-02	1.217E-01	1.022E-02	0.263
		871.10		-2.085E-02	8.422E-02	1.351E-01	1.216E-02	-0.154
NB-95		765.79	*	1.475E-02	8.774E-02	1.465E-01	1.269E-02	0.101
NB-95M		235.69	*	1.544E-01	2.342E-01	3.555E-01	3.646E-02	0.434
ZR-95		724.18		-3.810E-02	1.787E-01	2.911E-01	2.692E-02	-0.131
		756.15	*	-5.967E-02	1.372E-01	2.183E-01	2.074E-02	-0.273
NB-97		657.90	*	-7.029E-05	1.372E-01	Half-Life too short		
		1024.50		4.794E-02	1.372E-01	Half-Life too short		
ZR-97		254.15		8.286E-03	1.372E-01	Half-Life too short		
		355.39		1.533E-02	1.372E-01	Half-Life too short		
		507.63	*	7.105E-03	1.372E-01	Half-Life too short		
		602.52		-7.809E-03	1.372E-01	Half-Life too short		
		1021.30		1.344E-02	1.372E-01	Half-Life too short		
		1147.95		7.249E-03	1.372E-01	Half-Life too short		
		1362.66		-1.006E-02	1.372E-01	Half-Life too short		
		1750.46		-5.581E-03	1.372E-01	Half-Life too short		
MO-99		140.51		-4.285E+00	8.485E+00	1.395E+01	3.859E+00	-0.307
		181.06		-5.300E+00	5.683E+00	9.002E+00	1.647E+00	-0.589
		366.43		9.428E+00	3.379E+01	5.594E+01	4.730E+00	0.169
		739.58	*	-2.420E-01	5.154E+00	8.494E+00	1.287E+00	-0.028
		778.00		-2.988E+00	1.391E+01	2.250E+01	1.960E+00	-0.133
TC-99M		140.51	*	-7.198E+02	1.391E+01	Half-Life too short		
RH-101		127.23		-2.959E-03	5.904E-02	8.273E-02	7.196E-03	-0.036
		198.01	*	-3.275E-02	5.714E-02	9.306E-02	8.189E-03	-0.352
		325.23		-4.937E-01	4.348E-01	6.610E-01	5.899E-02	-0.747
RH-102		418.52		-2.137E-03	6.284E-01	1.015E+00	8.319E-02	-0.002
		475.06	*	4.295E-03	6.732E-02	1.084E-01	9.119E-03	0.040
		631.29		7.756E-03	1.115E-01	1.871E-01	1.557E-02	0.041
		697.49		-1.868E-01	1.553E-01	2.321E-01	1.942E-02	-0.805
		766.84		9.954E-02	2.343E-01	3.980E-01	3.450E-02	0.250
		1046.59		2.769E-01	2.667E-01	4.681E-01	4.089E-02	0.592
		1112.84		-2.114E-01	5.274E-01	8.180E-01	6.906E-02	-0.258
RU-103		497.08	*	2.499E-02	7.580E-02	1.241E-01	1.746E-02	0.201

Sample ID : G1202032581 Acquisition date : 13-FEB-2010 18:38:37

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	610.33		6.098E+00	2.437E+00	3.089E+00	5.117E-01	1.974
RH-106	+	511.85		5.100E-01	4.635E-01	6.627E-01	5.617E-02	0.770
		621.84	*	-7.272E-02	5.923E-01	9.801E-01	1.292E-01	-0.074
		1050.47		5.553E-01	5.583E+00	9.101E+00	7.937E-01	0.061
RU-106	+	511.85		5.100E-01	4.635E-01	6.627E-01	5.617E-02	0.770
		621.84	*	-7.272E-02	5.923E-01	9.801E-01	8.187E-02	-0.074
		1050.47		5.553E-01	5.583E+00	9.101E+00	7.937E-01	0.061
AG-108M		433.93	*	5.158E-02	7.463E-02	1.252E-01	1.080E-02	0.412
		614.37		3.626E-02	7.959E-02	1.214E-01	1.060E-02	0.299
		722.95		-6.647E-02	8.909E-02	1.390E-01	1.228E-02	-0.478
AG-110M		657.75	*	-2.496E-02	8.327E-02	1.167E-01	9.893E-03	-0.214
		677.61		-2.653E-01	6.026E-01	9.662E-01	8.237E-02	-0.275
		706.67		-7.866E-02	4.328E-01	7.081E-01	6.129E-02	-0.111
		763.93		-2.321E-01	3.593E-01	5.639E-01	5.019E-02	-0.412
		884.67		1.078E-01	1.224E-01	2.082E-01	1.935E-02	0.518
		937.48		3.381E-01	3.103E-01	5.396E-01	5.026E-02	0.627
		1384.27		4.426E-02	1.975E-01	3.423E-01	3.024E-02	0.129
IN-111		171.28		-2.389E-01	3.428E-01	5.577E-01	4.773E-02	-0.428
		245.39	*	-4.664E-01	4.375E-01	6.857E-01	6.244E-02	-0.680
IN-113M		391.69	*	6.817E-02	9.530E-02	1.606E-01	1.338E-02	0.424
SN-113		391.69	*	6.817E-02	9.530E-02	1.606E-01	1.338E-02	0.424
IN-114M		190.27	*	-3.640E-01	3.040E-01	4.812E-01	4.201E-02	-0.756
CD-115		260.90		2.587E-01	3.486E+01	5.769E+01	5.275E+00	0.004
		492.35		1.567E+00	1.044E+01	1.690E+01	1.427E+00	0.093
		527.90	*	6.593E-01	3.071E+00	5.249E+00	4.455E-01	0.126
SN-117M		156.02		-1.256E+00	2.590E+00	4.279E+00	3.644E-01	-0.294
		158.56	*	1.239E-02	6.269E-02	1.068E-01	9.090E-03	0.116
SB-122		563.90	*	4.983E-01	7.855E-01	1.375E+00	1.165E-01	0.362
		692.80		1.030E+01	1.662E+01	2.887E+01	2.410E+00	0.357
I-123		159.00	*	8.833E-04	1.662E+01	Half-Life too short		
		528.96		2.718E-01	1.662E+01	Half-Life too short		
TE-123M		159.00	*	1.330E-02	4.351E-02	7.441E-02	6.375E-03	0.179
I-124		602.71	*	-3.953E-02	4.859E-01	7.014E-01	5.898E-02	-0.056
		722.78		-1.367E+00	3.160E+00	5.059E+00	4.293E-01	-0.270
		1325.50		2.038E+00	1.923E+01	2.829E+01	2.407E+00	0.072
		1376.25		9.608E+00	1.326E+01	2.478E+01	2.126E+00	0.388
		1509.49		1.158E+01	7.774E+00	1.606E+01	1.391E+00	0.721
		1691.02		-1.222E+00	2.038E+00	2.803E+00	2.388E-01	-0.436
SB-124		602.71		-6.131E-03	7.537E-02	1.088E-01	9.150E-03	-0.056
		645.85		-6.305E-01	9.697E-01	1.535E+00	1.351E-01	-0.411
		709.31		1.700E+00	5.295E+00	8.988E+00	7.573E-01	0.189
		713.82		1.323E-02	3.194E+00	5.295E+00	6.309E-01	0.002
		722.78		-3.074E-01	7.104E-01	1.137E+00	9.868E-02	-0.270
		968.20		5.846E+00	6.700E+00	1.145E+01	1.026E+00	0.511
		1045.16		-3.160E+00	5.625E+00	8.683E+00	7.589E-01	-0.364
		1325.50		4.893E-01	4.619E+00	6.792E+00	5.780E-01	0.072
		1368.21		8.807E-03	2.109E+00	3.507E+00	4.715E-01	0.003
		1436.60		4.212E-01	3.697E+00	6.297E+00	5.437E-01	0.067
		1691.02	*	-6.480E-02	1.081E-01	1.486E-01	1.318E-02	-0.436

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-125		427.89	*	3.941E-02	2.165E-01	3.530E-01	2.971E-02	0.112
		463.38		-3.249E-01	6.733E-01	1.047E+00	9.494E-02	-0.310
		600.56		-2.423E-03	3.313E-01	5.544E-01	5.025E-02	-0.004
		635.90		-1.521E-01	5.411E-01	8.834E-01	7.971E-02	-0.172
TE-125M		109.28	*	-4.086E+00	1.455E+01	2.284E+01	2.364E+00	-0.179
I-126		388.63		-2.435E-01	3.328E-01	5.161E-01	4.180E-02	-0.472
		666.33	*	5.793E-02	2.981E-01	4.398E-01	3.613E-02	0.132
		753.82		1.790E+00	2.105E+00	3.704E+00	3.192E-01	0.483
SB-126		223.80		2.915E+00	5.199E+00	8.867E+00	7.977E-01	0.329
		278.60		5.283E-01	3.589E+00	5.959E+00	5.450E-01	0.089
	+	296.50		4.957E+00	2.423E+00	3.659E+00	3.330E-01	1.355
		414.70		-7.992E-02	1.201E-01	1.859E-01	1.520E-02	-0.430
		415.30		-1.182E+01	1.015E+01	1.502E+01	1.229E+00	-0.787
		555.20		1.937E+00	5.618E+00	9.661E+00	8.197E-01	0.200
		573.80		1.774E-01	1.454E+00	2.461E+00	2.083E-01	0.072
		593.00		-9.040E-01	1.312E+00	2.084E+00	1.757E-01	-0.434
		656.30		6.429E-01	5.568E+00	8.156E+00	6.701E-01	0.079
		666.33		2.386E-02	1.228E-01	1.811E-01	1.488E-02	0.132
		675.00		7.149E-01	2.783E+00	4.719E+00	3.897E-01	0.152
		695.00		-3.039E-02	1.065E-01	1.729E-01	1.445E-02	-0.176
		697.00		-3.328E-01	3.787E-01	5.837E-01	4.885E-02	-0.570
		720.50	*	5.611E-02	2.041E-01	3.451E-01	2.926E-02	0.163
		856.80		-5.098E-01	8.790E-01	1.381E+00	1.237E-01	-0.369
		989.30		-1.861E-01	2.295E+00	3.701E+00	3.299E-01	-0.050
		1034.80		2.084E+00	1.477E+01	2.419E+01	2.123E+00	0.086
		1213.00		5.197E+00	4.434E+00	8.411E+00	6.912E-01	0.618
SB-127		61.10		7.791E+02	9.054E+01	1.205E+02	1.043E+01	6.465
		252.40		-1.356E+00	2.572E+00	4.039E+00	1.686E+00	-0.336
		290.80		1.641E+00	1.486E+01	2.163E+01	2.164E+00	0.076
		411.60		4.181E+00	8.890E+00	1.473E+01	2.115E+00	0.284
		444.90		-1.019E+00	7.480E+00	1.194E+01	1.300E+00	-0.085
		473.00		2.547E-01	1.280E+00	2.079E+00	2.357E-01	0.122
		543.00		2.527E+00	1.065E+01	1.821E+01	2.386E+00	0.139
		603.60		3.039E+00	7.250E+00	1.104E+01	1.207E+00	0.275
		685.20	*	-1.830E-01	8.833E-01	1.444E+00	1.377E-01	-0.127
		698.50		-6.086E+00	9.771E+00	1.537E+01	2.242E+00	-0.396
		722.20		5.960E+00	1.972E+01	3.337E+01	3.147E+00	0.179
		783.80		-1.351E+00	2.447E+00	3.846E+00	4.262E-01	-0.351
XE-127		57.60		1.204E+02	2.059E+01	3.248E+01	2.494E+00	3.706
		145.22		3.994E-01	9.725E-01	1.676E+00	1.432E-01	0.238
		172.10		-1.217E-01	1.724E-01	2.803E-01	2.402E-02	-0.434
		202.84	*	-3.785E-02	7.358E-02	1.201E-01	1.062E-02	-0.315
		374.96		9.799E-02	3.746E-01	6.181E-01	5.147E-02	0.159
I-131		80.18		-4.587E-01	4.956E+00	7.067E+00	6.180E-01	-0.065
		284.30		-2.241E+00	1.668E+00	2.521E+00	2.402E-01	-0.889
		364.48	*	-3.944E-02	1.326E-01	2.116E-01	1.888E-02	-0.186
		636.97		-1.258E+00	1.840E+00	2.906E+00	2.547E-01	-0.433
		722.89		-6.469E+00	8.670E+00	1.353E+01	1.151E+00	-0.478
TE-132		49.72		1.219E+00	1.300E+01	2.128E+01	1.980E+00	0.057

---- Non-Identified Nuclides ----

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		111.76		-4.184E+00	1.304E+01	2.034E+01	1.928E+00	-0.206
		116.30		3.743E-01	1.235E+01	1.869E+01	1.777E+00	0.020
		228.16	*	-4.754E-02	3.329E-01	5.503E-01	8.258E-02	-0.086
BA-133		53.15		-8.144E+00	9.586E+00	1.512E+01	1.229E+00	-0.539
		79.62		1.431E-01	2.413E+00	3.471E+00	5.296E-01	0.041
		81.00		-1.847E-02	1.797E-01	2.560E-01	4.089E-02	-0.072
		276.40		3.779E-01	7.451E-01	1.255E+00	1.854E-01	0.301
		302.84		-2.139E-02	2.914E-01	4.769E-01	6.479E-02	-0.045
		356.01	*	3.138E-02	9.634E-02	1.411E-01	1.861E-02	0.222
		383.85		6.310E-01	6.569E-01	1.118E+00	1.376E-01	0.564
I-133	+	510.53		6.492E-03	6.569E-01	Half-Life too short		
		529.87	*	4.721E-05	6.569E-01	Half-Life too short		
		706.58		-9.042E-04	6.569E-01	Half-Life too short		
		856.28		-2.136E-03	6.569E-01	Half-Life too short		
		875.33		1.061E-03	6.569E-01	Half-Life too short		
		1236.41		3.309E-03	6.569E-01	Half-Life too short		
		1298.22		1.141E-03	6.569E-01	Half-Life too short		
CS-134		475.35		-1.128E+00	4.401E+00	6.938E+00	5.835E-01	-0.163
		563.23		2.247E-02	7.020E-01	1.182E+00	1.012E-01	0.019
		569.32		-3.049E-03	3.900E-01	6.545E-01	5.622E-02	-0.005
		604.70		-1.413E-02	6.784E-02	9.647E-02	8.129E-03	-0.147
		795.84	*	1.101E-01	1.003E-01	1.777E-01	1.571E-02	0.620
		801.93		-1.251E-01	8.903E-01	1.457E+00	1.288E-01	-0.086
		1038.57		9.081E-01	9.110E+00	1.487E+01	1.303E+00	0.061
		1167.94		-3.216E-01	5.070E+00	7.282E+00	5.918E-01	-0.044
		1365.15		5.468E-01	1.375E+00	2.478E+00	2.221E-01	0.221
CS-135		268.24	*	-8.089E-02	3.121E-01	5.090E-01	5.307E-02	-0.159
I-135		288.45		9.377E+02	3.121E-01	Half-Life too short		
		417.63		-5.395E+02	3.121E-01	Half-Life too short		
		546.56		-5.242E+02	3.121E-01	Half-Life too short		
		836.80		2.331E+03	3.121E-01	Half-Life too short		
		1038.76		7.498E+02	3.121E-01	Half-Life too short		
		1124.00		-4.617E+03	3.121E-01	Half-Life too short		
		1131.51		-4.700E+02	3.121E-01	Half-Life too short		
		1260.41	*	9.828E+01	3.121E-01	Half-Life too short		
		1457.56		8.513E+02	3.121E-01	Half-Life too short		
		1678.03		-7.306E+02	3.121E-01	Half-Life too short		
		1706.46		1.642E+03	3.121E-01	Half-Life too short		
		1791.20		3.879E+02	3.121E-01	Half-Life too short		
CS-136		66.91		5.171E-01	9.553E-01	1.579E+00	2.374E-01	0.328
		86.29		1.303E+01	2.515E+00	3.309E+00	4.403E-01	3.936
		153.22		3.397E-01	7.596E-01	1.307E+00	1.247E-01	0.260
		163.89		4.439E-01	1.269E+00	2.171E+00	2.075E-01	0.204
		176.55		5.801E-01	4.463E-01	7.867E-01	7.159E-02	0.737
		273.65		-8.649E-01	6.575E-01	1.008E+00	9.758E-02	-0.858
		340.57		1.875E-01	1.923E-01	2.958E-01	2.668E-02	0.634
		818.51		2.600E-02	1.230E-01	2.054E-01	1.818E-02	0.127
		1048.07	*	1.453E-01	1.863E-01	3.203E-01	2.910E-02	0.454
		1235.34		3.894E-02	5.120E-01	8.650E-01	1.004E-01	0.045

---- Non-Identified Nuclides ----

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CE-139		165.85	*	-1.040E-02	4.693E-02	7.832E-02	6.670E-03	-0.133
BA-140		162.64		4.938E-01	8.820E-01	1.521E+00	1.372E-01	0.325
		304.84		3.769E-01	1.774E+00	2.941E+00	8.283E-01	0.128
		423.70		1.047E+00	3.094E+00	5.067E+00	1.637E+00	0.207
		537.32	*	3.022E-01	3.798E-01	6.505E-01	2.154E-01	0.465
LA-140		328.77		7.391E-02	4.048E-01	6.690E-01	6.264E-02	0.110
		432.53		3.970E-01	3.420E+00	5.554E+00	4.831E-01	0.071
		487.03		5.423E-02	2.215E-01	3.606E-01	3.238E-02	0.150
		751.79		4.034E-02	2.501E+00	4.138E+00	3.945E-01	0.010
		815.85		-1.855E-01	5.298E-01	8.461E-01	8.303E-02	-0.219
		867.82		1.207E-01	2.368E+00	3.892E+00	3.669E-01	0.031
		919.63		-2.137E-01	5.570E+00	8.813E+00	9.685E-01	-0.024
		925.24		2.158E-01	2.368E+00	3.885E+00	3.710E-01	0.056
		1596.49	*	-3.849E-02	8.649E-02	1.277E-01	1.102E-02	-0.301
CE-141		145.44	*	5.094E-02	8.570E-02	1.486E-01	1.292E-02	0.343
CE-143		57.37		4.224E+02	1.438E+02	2.234E+02	2.098E+01	1.891
		231.56		-1.056E+02	1.958E+02	3.127E+02	9.941E+01	-0.338
		293.26	*	2.243E-01	1.182E+01	1.708E+01	3.721E+00	0.013
		350.59		5.505E+02	2.441E+02	2.984E+02	9.290E+01	1.845
		490.36		-1.187E+02	2.542E+02	3.885E+02	1.229E+02	-0.305
		664.57		2.735E+03	9.158E+02	5.200E+02	1.679E+02	5.260
		721.93		1.604E+01	1.156E+02	1.933E+02	5.651E+01	0.083
CE-144		80.11		-3.595E-01	3.888E+00	5.545E+00	4.835E-01	-0.065
		133.54	*	-1.616E-01	3.499E-01	5.384E-01	8.381E-02	-0.300
PM-144		476.78		-3.344E-02	1.486E-01	2.347E-01	2.167E-02	-0.142
		618.01		-6.916E-02	6.060E-02	9.164E-02	7.889E-03	-0.755
		696.49	*	-4.211E-02	6.714E-02	1.058E-01	8.849E-03	-0.398
		778.57		7.095E-01	4.543E+00	7.588E+00	6.612E-01	0.094
PR-144		696.49	*	-2.844E+00	4.534E+00	7.143E+00	5.975E-01	-0.398
		1489.15		1.177E+01	1.740E+01	3.234E+01	2.799E+00	0.364
PM-146		453.90	*	-1.743E-02	1.033E-01	1.644E-01	1.727E-02	-0.106
		633.02		1.505E+00	2.855E+00	4.855E+00	1.811E+00	0.310
		735.90		-1.062E-01	3.278E-01	5.267E-01	1.505E-01	-0.202
		747.13		4.546E-02	1.921E-01	3.233E-01	4.533E-02	0.141
ND-147		91.11		4.094E-01	4.071E-01	4.933E-01	4.876E-02	0.830
		319.41		-7.834E-03	4.370E+00	7.160E+00	6.423E-01	-0.001
		439.89		4.529E+00	8.950E+00	1.486E+01	1.232E+00	0.305
		531.02	*	-5.282E-01	7.893E-01	1.266E+00	1.883E-01	-0.417
PM-149		285.90	*	-1.748E+01	2.416E+01	3.798E+01	6.007E+00	-0.460
EU-152	+	121.78		7.171E-01	2.465E-01	2.719E-01	2.740E-02	2.637
		244.69		-5.983E-01	6.623E-01	1.009E+00	9.185E-02	-0.593
		344.27	*	-8.894E-02	2.046E-01	2.985E-01	2.760E-02	-0.298
		443.98		-7.635E-01	2.297E+00	3.623E+00	3.010E-01	-0.211
		778.89		-4.842E-02	5.458E-01	8.931E-01	7.784E-02	-0.054
		867.32		8.837E-01	1.942E+00	3.292E+00	2.959E-01	0.268
		964.01		-3.731E-01	8.229E-01	1.299E+00	1.165E-01	-0.287
		1085.78		-1.342E-01	9.542E-01	1.519E+00	1.302E-01	-0.088
		1112.02		-2.714E-01	7.405E-01	1.152E+00	9.731E-02	-0.236
		1407.95		6.065E-02	2.671E-01	4.599E-01	3.961E-02	0.132

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153		69.67		-5.670E-01	2.727E+00	4.367E+00	3.503E-01	-0.130
		83.37		8.927E-01	2.730E+01	3.907E+01	3.518E+00	0.023
		97.43	*	4.145E-02	1.327E-01	1.927E-01	1.711E-02	0.215
		103.18		-1.865E-01	1.685E-01	2.521E-01	2.199E-02	-0.740
EU-154	+	123.07		5.032E-01	1.752E-01	1.881E-01	2.159E-02	2.676
		247.94		6.565E-02	6.588E-01	1.098E+00	1.301E-01	0.060
		591.81		-9.286E-02	1.269E+00	2.116E+00	2.440E-01	-0.044
		723.30		-1.782E-01	3.632E-01	5.786E-01	5.445E-02	-0.308
		756.87		-9.205E-01	1.653E+00	2.603E+00	3.120E-01	-0.354
		873.19		3.891E-01	7.235E-01	1.231E+00	1.540E-01	0.316
		996.32		-7.186E-01	8.951E-01	1.335E+00	2.391E-01	-0.538
		1004.76		3.670E-01	5.080E-01	8.701E-01	1.029E-01	0.422
		1274.45	*	-4.604E-02	1.431E-01	2.254E-01	2.510E-02	-0.204
EU-155		48.70		-5.255E+00	6.295E+00	9.930E+00	8.498E-01	-0.529
	+	60.01		4.341E+02	4.317E+01	4.387E+01	3.316E+00	9.894
	+	86.54		3.917E+00	5.256E-01	4.832E-01	4.539E-02	8.107
		105.31	*	1.569E-01	1.818E-01	3.012E-01	2.649E-02	0.521
TB-160	+	86.79		9.868E+00	1.318E+00	1.332E+00	1.244E-01	7.409
		197.04		-3.856E-01	9.088E-01	1.492E+00	1.312E-01	-0.258
		215.65		-1.261E-02	1.266E+00	2.111E+00	1.887E-01	-0.006
		298.57		1.059E-03	2.342E-01	3.377E-01	3.070E-02	0.003
		879.36	*	-2.714E-01	3.129E-01	4.731E-01	4.267E-02	-0.574
		962.29		-8.042E-01	1.386E+00	2.166E+00	1.943E-01	-0.371
		966.15		4.191E-02	5.256E-01	8.588E-01	7.700E-02	0.049
		1177.93		6.912E-01	6.641E-01	1.101E+00	8.926E-02	0.628
		1271.85		3.747E-01	7.603E-01	1.373E+00	1.151E-01	0.273
HO-166M		80.57		6.859E-02	4.998E-01	7.218E-01	6.322E-02	0.095
		184.41		3.344E-02	5.776E-02	9.912E-02	8.602E-03	0.337
		280.46		2.060E-01	1.735E-01	3.006E-01	2.748E-02	0.685
		410.95		2.014E-01	5.588E-01	9.220E-01	7.520E-02	0.218
		711.68	*	-6.062E-02	1.256E-01	2.002E-01	1.689E-02	-0.303
		752.31		-1.403E-01	5.604E-01	9.065E-01	7.807E-02	-0.155
		810.29		-4.978E-02	1.363E-01	2.175E-01	1.919E-02	-0.229
TM-171		51.35		7.329E+01	7.933E+01	1.331E+02	1.108E+01	0.551
		52.39		8.228E+00	4.057E+01	6.656E+01	5.464E+00	0.124
	+	59.40		2.274E+03	2.261E+02	2.423E+02	1.826E+01	9.387
		66.72	*	1.521E+01	4.857E+01	7.976E+01	6.282E+00	0.191
LU-176	+	88.36		7.733E+00	1.033E+00	1.094E+00	1.032E-01	7.065
		201.83		-1.630E-04	5.083E-02	8.502E-02	7.509E-03	-0.002
		306.84	*	-1.784E-02	4.807E-02	7.721E-02	6.988E-03	-0.231
		401.10		1.305E+00	1.428E+01	2.326E+01	1.884E+00	0.056
LU-177		112.95		6.498E-01	1.392E+00	2.256E+00	1.956E-01	0.288
		208.36	*	1.901E-03	1.005E+00	1.679E+00	1.492E-01	0.001
LU-177M		52.97		-3.499E+00	4.238E+00	6.692E+00	5.451E-01	-0.523
		54.07		-7.514E-01	2.464E+00	3.531E+00	2.834E-01	-0.213
		61.30		4.135E+01	5.329E+00	8.212E+00	6.263E-01	5.036
	+	121.62		3.581E+00	1.218E+00	1.357E+00	1.192E-01	2.639
		147.16		-6.674E-01	9.951E-01	1.633E+00	1.393E-01	-0.409
		171.86		-5.203E-01	7.638E-01	1.243E+00	1.065E-01	-0.418

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		218.09		5.925E-01	1.504E+00	2.550E+00	2.285E-01	0.232
		268.79		1.400E+00	1.529E+00	2.626E+00	2.403E-01	0.533
		319.02		-5.340E-02	4.922E-01	8.015E-01	7.192E-02	-0.067
		367.43		-6.405E-01	1.773E+00	2.817E+00	2.378E-01	-0.227
		413.65	*	2.594E-02	3.844E-01	6.240E-01	5.098E-02	0.042
HF-181		56.28		1.698E+00	2.508E+00	3.742E+00	2.919E-01	0.454
		57.53		8.804E+00	1.683E+00	2.672E+00	2.054E-01	3.294
		65.20		-1.262E+00	1.597E+00	2.373E+00	1.853E-01	-0.532
		133.02		-2.462E-02	1.003E-01	1.565E-01	1.350E-02	-0.157
		136.25		2.004E-01	6.781E-01	1.165E+00	1.001E-01	0.172
		345.85		-4.358E-01	3.985E-01	5.131E-01	4.475E-02	-0.849
		482.03	*	-2.067E-02	8.647E-02	1.363E-01	1.148E-02	-0.152
W-181		56.28		7.140E-01	1.050E+00	1.567E+00	1.223E-01	0.456
		57.53		3.671E+00	7.043E-01	1.119E+00	8.597E-02	3.282
		65.20	*	-5.248E-01	6.640E-01	9.867E-01	7.703E-02	-0.532
TA-182		67.75		5.255E-02	1.799E-01	2.951E-01	2.339E-02	0.178
		100.10		1.053E-01	2.623E-01	4.276E-01	3.760E-02	0.246
		152.43		5.729E-01	5.210E-01	9.174E-01	7.816E-02	0.624
		222.10		-1.828E-02	6.094E-01	1.014E+00	9.111E-02	-0.018
		1001.68		-5.836E-02	4.783E+00	7.778E+00	6.907E-01	-0.008
		1121.28		5.579E-01	3.215E-01	5.848E-01	4.911E-02	0.954
		1189.05		-1.093E-01	4.149E-01	6.727E-01	5.479E-02	-0.162
		1221.42	*	1.246E-01	2.193E-01	3.958E-01	3.262E-02	0.315
		1230.97		7.896E-02	5.641E-01	9.614E-01	7.950E-02	0.082
RE-183		57.98		8.787E+00	9.533E-01	1.389E+00	1.062E-01	6.325
	+	59.32		8.805E+00	8.756E-01	9.438E-01	7.119E-02	9.329
		67.20		2.638E-01	3.154E-01	5.282E-01	4.172E-02	0.499
		162.32	*	8.009E-02	1.700E-01	2.923E-01	2.489E-02	0.274
		208.81		7.219E-02	1.645E+00	2.753E+00	2.448E-01	0.026
		291.72		5.406E-01	1.888E+00	2.783E+00	2.537E-01	0.194
RE-184		57.98		3.360E+01	3.645E+00	5.312E+00	4.062E-01	6.325
	+	59.32		3.364E+01	3.345E+00	3.606E+00	2.720E-01	9.329
		67.20		1.008E+00	1.205E+00	2.019E+00	1.595E-01	0.499
		161.27		-4.027E-02	5.675E-01	9.547E-01	8.127E-02	-0.042
		216.55		-1.770E-01	4.715E-01	7.727E-01	6.914E-02	-0.229
		252.85	*	-1.163E-01	4.162E-01	6.793E-01	6.200E-02	-0.171
		318.01		-3.194E-01	8.511E-01	1.363E+00	1.224E-01	-0.234
		792.07		-1.606E+00	2.177E+00	3.376E+00	2.959E-01	-0.476
		903.28		1.061E+00	2.596E+00	4.358E+00	3.946E-01	0.244
		920.93		-5.039E-01	1.249E+00	1.977E+00	1.787E-01	-0.255
OS-185	+	59.72		2.441E+01	2.427E+00	2.532E+00	1.910E-01	9.638
		61.14		6.207E+00	6.921E-01	1.001E+00	7.627E-02	6.201
		69.30		-2.694E-01	4.806E-01	7.575E-01	6.061E-02	-0.356
		592.07		-2.057E-01	4.912E+00	8.206E+00	6.920E-01	-0.025
		646.12	*	-4.483E-02	8.263E-02	1.319E-01	1.090E-02	-0.340
		717.42		-4.058E-01	1.774E+00	2.887E+00	2.443E-01	-0.141
		874.81		1.163E+00	1.342E+00	2.337E+00	2.105E-01	0.498
		880.27		-9.713E-01	1.788E+00	2.791E+00	2.518E-01	-0.348
RE-188		155.03	*	6.808E-02	2.567E-01	4.386E-01	3.735E-02	0.155

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		477.96		-1.661E+00	6.477E+00	1.020E+01	8.585E-01	-0.163
		633.10		3.935E+00	5.265E+00	9.250E+00	7.690E-01	0.425
W-188		63.58		-6.230E+01	9.801E+01	1.401E+02	1.083E+01	-0.445
		227.08		-5.373E-01	2.203E+01	3.662E+01	3.302E+00	-0.015
		290.67	*	2.140E+00	1.520E+01	2.217E+01	2.022E+00	0.097
IR-192	+	295.96		5.104E-01	2.496E-01	3.764E-01	3.448E-02	1.356
		308.46		-1.992E-01	1.745E-01	2.655E-01	2.412E-02	-0.750
		316.51	*	1.618E-03	6.377E-02	1.047E-01	9.432E-03	0.015
		468.07		-1.587E-02	1.530E-01	2.441E-01	2.203E-02	-0.065
		604.41		1.001E-01	8.458E-01	1.248E+00	1.607E-01	0.080
		612.46		9.921E-01	1.392E+00	2.169E+00	2.103E-01	0.457
AU-195		65.12		-2.345E-01	3.120E-01	4.647E-01	3.626E-02	-0.505
		66.83		8.635E-02	1.564E-01	2.593E-01	2.043E-02	0.333
	+	75.70		6.368E-01	3.798E-01	5.854E-01	4.909E-02	1.088
		98.88	*	2.729E-01	3.536E-01	5.598E-01	4.943E-02	0.487
		129.76		2.820E-02	4.708E+00	7.451E+00	6.454E-01	0.004
TL-200		367.94	*	9.091E-07	4.708E+00	Half-Life too short		
		579.30		-3.129E-05	4.708E+00	Half-Life too short		
		828.27		5.796E-05	4.708E+00	Half-Life too short		
		1205.75		1.379E-05	4.708E+00	Half-Life too short		
TL-201		68.90		-1.164E+00	1.874E+00	2.944E+00	2.350E-01	-0.396
		70.82		-1.057E+00	1.090E+00	1.684E+00	1.361E-01	-0.627
		80.30		-9.192E-01	2.237E+00	3.131E+00	2.735E-01	-0.294
		135.34		-1.594E+00	1.041E+01	1.631E+01	1.403E+00	-0.098
		167.43	*	-9.838E-01	2.672E+00	4.427E+00	3.775E-01	-0.222
TL-202		68.90		-3.108E-01	5.002E-01	7.858E-01	6.271E-02	-0.396
		70.82		-2.812E-01	2.902E-01	4.482E-01	3.623E-02	-0.627
		80.30		-2.448E-01	5.955E-01	8.338E-01	7.284E-02	-0.294
		439.56	*	5.079E-02	1.101E-01	1.823E-01	1.512E-02	0.279
HG-203		70.83		-1.584E+00	1.649E+00	2.535E+00	3.364E-01	-0.625
		72.87		1.149E-02	1.067E+00	1.536E+00	1.987E-01	0.007
		82.60		-3.597E-02	1.873E+00	2.680E+00	3.736E-01	-0.013
		279.20	*	2.959E-02	7.630E-02	1.281E-01	1.201E-02	0.231
BI-207		72.80		-2.631E-02	3.434E-01	4.921E-01	4.034E-02	-0.053
		74.97		3.572E-01	2.054E-01	3.168E-01	2.641E-02	1.128
		84.90		4.333E-01	3.623E-01	5.464E-01	5.000E-02	0.793
		569.67		1.715E-02	5.980E-02	1.024E-01	8.672E-03	0.168
		1063.62	*	-7.635E-02	1.327E-01	2.034E-01	1.764E-02	-0.375
		1770.23		7.716E-01	5.184E-01	1.196E+00	1.001E-01	0.645
TL-207		81.07		-2.600E-01	4.091E-01	5.645E-01	4.968E-02	-0.461
		83.78		1.191E-01	2.351E-01	3.447E-01	3.118E-02	0.346
		94.90		4.867E-01	3.801E-01	5.829E-01	5.241E-02	0.835
	+	122.32		1.709E+01	5.843E+00	6.498E+00	6.115E-01	2.630
		144.24		6.472E-01	1.080E+00	1.874E+00	1.794E-01	0.345
		154.21		2.578E-01	6.336E-01	1.089E+00	1.022E-01	0.237
		269.46		5.297E-01	3.726E-01	6.503E-01	6.060E-02	0.814
		323.87	*	-6.457E-01	1.290E+00	2.042E+00	3.647E-01	-0.316
	+	338.28		5.891E+00	2.482E+00	3.708E+00	4.613E-01	1.589
		445.03		-1.419E+00	5.480E+00	8.680E+00	1.030E+00	-0.163

---- Non-Identified Nuclides ----

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PO-209		260.50		3.033E+00	1.877E+01	3.129E+01	2.861E+00	0.097
		262.80		4.595E+00	5.155E+01	8.563E+01	7.832E+00	0.054
		896.60	*	8.076E+00	2.080E+01	3.066E+01	2.776E+00	0.263
BI-210		46.50	*	7.779E-01	8.692E+00	1.422E+01	1.342E+00	0.055
PB-210		46.50	*	7.779E-01	8.692E+00	1.422E+01	1.342E+00	0.055
PO-210		46.50	*	7.779E-01	8.692E+00	1.422E+01	1.219E+00	0.055
BI-211		72.87		6.351E-02	5.898E+00	8.490E+00	6.963E-01	0.007
		351.07	*	2.086E+00	5.487E-01	9.846E-01	8.956E-02	2.118
PB-211		404.84	*	4.538E-02	2.143E+00	3.472E+00	2.173E+00	0.013
		427.08		2.311E+00	5.034E+00	8.007E+00	4.971E+00	0.289
		831.96		-3.761E-01	2.809E+00	4.548E+00	2.852E+00	-0.083
BI-212		727.18	*	8.240E-02	6.201E-01	1.036E+00	1.027E-01	0.080
		785.46		2.465E-01	3.769E+00	6.242E+00	5.455E-01	0.039
		1620.62		-9.386E-01	1.782E+00	2.546E+00	2.191E-01	-0.369
PO-215		81.07		-2.600E-01	4.091E-01	5.645E-01	4.968E-02	-0.461
		83.78		1.191E-01	2.351E-01	3.447E-01	3.118E-02	0.346
		94.90		4.867E-01	3.801E-01	5.829E-01	5.241E-02	0.835
	+	122.32		1.709E+01	5.843E+00	6.498E+00	6.115E-01	2.630
		144.24		6.472E-01	1.080E+00	1.874E+00	1.794E-01	0.345
		154.21		2.578E-01	6.336E-01	1.089E+00	1.022E-01	0.237
		269.46		5.297E-01	3.726E-01	6.503E-01	6.060E-02	0.814
		323.87	*	-6.457E-01	1.290E+00	2.042E+00	3.647E-01	-0.316
	+	338.28		5.891E+00	2.482E+00	3.708E+00	4.613E-01	1.589
		445.03		-1.419E+00	5.480E+00	8.680E+00	1.030E+00	-0.163
RN-219		271.23		5.600E-01	4.884E-01	8.425E-01	9.065E-02	0.665
		401.81	*	-3.710E-01	9.043E-01	1.425E+00	2.100E-01	-0.260
RN-220		549.76	*	1.401E+01	5.444E+01	9.309E+01	7.901E+00	0.150
RA-223		81.07		-2.600E-01	4.091E-01	5.645E-01	4.968E-02	-0.461
		83.78		1.191E-01	2.351E-01	3.447E-01	3.118E-02	0.346
		94.90		4.867E-01	3.801E-01	5.829E-01	5.241E-02	0.835
	+	122.32		1.709E+01	5.843E+00	6.498E+00	6.115E-01	2.630
		144.24		6.472E-01	1.080E+00	1.874E+00	1.794E-01	0.345
		154.21		2.578E-01	6.336E-01	1.089E+00	1.022E-01	0.237
		269.46		5.297E-01	3.726E-01	6.503E-01	6.060E-02	0.814
		323.87	*	-6.457E-01	1.290E+00	2.042E+00	3.647E-01	-0.316
	+	338.28		5.891E+00	2.482E+00	3.708E+00	4.613E-01	1.589
		445.03		-1.419E+00	5.480E+00	8.680E+00	1.030E+00	-0.163
RA-224		240.98	*	6.787E+00	1.739E+00	2.855E+00	2.595E-01	2.377
AC-227		79.80		-7.804E-04	3.070E+00	4.402E+00	9.480E-01	0.000
		236.00		3.051E-01	4.685E-01	7.097E-01	8.914E-02	0.430
		256.20	*	2.020E-01	7.366E-01	1.235E+00	1.932E-01	0.164
		286.10		-3.212E-01	2.865E+00	4.690E+00	6.351E-01	-0.068
		299.80		3.188E+00	3.119E+00	4.753E+00	8.424E-01	0.671
		304.40		4.573E-01	3.738E+00	6.178E+00	1.152E+00	0.074
		334.20		1.198E+00	4.988E+00	7.275E+00	1.419E+00	0.165
TH-227		79.80		-7.804E-04	3.070E+00	4.402E+00	9.601E-01	0.000
	+	94.00		4.639E+00	5.003E+00	5.443E+00	1.195E+00	0.852
		236.00		3.051E-01	4.682E-01	7.097E-01	8.109E-02	0.430
		256.20	*	2.020E-01	7.368E-01	1.235E+00	2.261E-01	0.164

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		286.10		-3.212E-01	2.883E+00	4.690E+00	4.709E+00	-0.068
		299.80		3.188E+00	3.119E+00	4.753E+00	8.424E-01	0.671
		304.40		4.573E-01	3.738E+00	6.178E+00	1.152E+00	0.074
		334.20		1.198E+00	4.988E+00	7.275E+00	1.419E+00	0.165
AC-228	+	338.32		1.411E+00	8.137E-01	8.877E-01	3.666E-01	1.589
	+	911.07	*	1.301E+00	5.672E-01	7.974E-01	9.231E-02	1.631
		969.11		5.770E-01	6.986E-01	1.177E+00	2.762E-01	0.490
RA-228	+	338.32		1.411E+00	8.137E-01	8.877E-01	3.666E-01	1.589
	+	911.07	*	1.301E+00	5.672E-01	7.974E-01	9.231E-02	1.631
		969.11		5.770E-01	6.986E-01	1.177E+00	2.762E-01	0.490
TH-229		85.43		7.333E-01	3.709E-01	5.726E-01	5.269E-02	1.281
	+	88.47		4.451E+00	5.947E-01	6.278E-01	5.915E-02	7.091
		100.00		1.273E-01	2.836E-01	4.635E-01	4.076E-02	0.275
		193.63	*	1.359E-01	8.679E-01	1.464E+00	1.283E-01	0.093
		210.97		1.515E+00	1.364E+00	2.372E+00	2.113E-01	0.638
PA-231		283.67	*	-1.788E+00	2.979E+00	4.730E+00	7.324E-01	-0.378
		301.29		3.182E-01	1.169E+00	1.883E+00	2.368E-01	0.169
TH-231		81.07		-2.600E-01	4.091E-01	5.645E-01	4.968E-02	-0.461
		83.78		1.191E-01	2.351E-01	3.447E-01	3.118E-02	0.346
		94.90		4.867E-01	3.801E-01	5.829E-01	5.241E-02	0.835
	+	122.32		1.709E+01	5.843E+00	6.498E+00	6.115E-01	2.630
		144.24		6.472E-01	1.080E+00	1.874E+00	1.794E-01	0.345
		154.21		2.578E-01	6.336E-01	1.089E+00	1.022E-01	0.237
		269.46		5.297E-01	3.726E-01	6.503E-01	6.060E-02	0.814
		323.87	*	-6.457E-01	1.290E+00	2.042E+00	3.647E-01	-0.316
	+	338.28		5.891E+00	2.482E+00	3.708E+00	4.613E-01	1.589
		445.03		-1.419E+00	5.480E+00	8.680E+00	1.030E+00	-0.163
U-231		84.21		1.599E+00	3.584E+00	5.237E+00	4.757E-01	0.305
	+	92.29		1.603E+00	1.699E+00	2.036E+00	1.861E-01	0.787
		95.87	*	-2.883E-01	6.436E-01	8.872E-01	7.937E-02	-0.325
		108.00		-6.023E-01	1.244E+00	1.933E+00	1.676E-01	-0.312
TH-232	+	338.32		1.411E+00	5.814E-01	8.877E-01	7.814E-02	1.589
	+	911.07	*	1.301E+00	5.672E-01	7.974E-01	9.231E-02	1.631
		969.11		5.770E-01	6.986E-01	1.177E+00	2.762E-01	0.490
PA-233		75.28		1.022E+01	6.238E+00	9.371E+00	1.425E+00	1.091
	+	86.59		6.383E+01	1.832E+01	8.043E+00	2.176E+00	7.936
		300.12		3.477E-01	9.012E-01	1.332E+00	2.018E-01	0.261
		311.98	*	2.566E-02	1.195E-01	1.985E-01	1.837E-02	0.129
		340.50		1.380E+00	1.345E+00	2.024E+00	4.836E-01	0.682
		398.62		-2.969E+00	4.410E+00	6.717E+00	1.778E+00	-0.442
		415.76		-4.258E+00	3.885E+00	5.628E+00	1.203E+00	-0.757
PA-234		63.00		-1.531E+00	3.115E+00	4.483E+00	6.730E-01	-0.342
		94.67		4.771E-01	2.816E-01	4.346E-01	5.507E-02	1.098
		98.44		1.400E-01	1.734E-01	2.339E-01	1.306E-01	0.599
		99.86		2.977E-01	7.254E-01	1.180E+00	1.038E-01	0.252
		111.00		7.390E-03	3.089E-01	4.922E-01	5.966E-02	0.015
		131.20		-1.604E-02	1.784E-01	2.809E-01	2.428E-02	-0.057
		152.70		6.009E-01	5.323E-01	9.253E-01	1.573E-01	0.649
		186.00		1.479E+00	2.248E+00	3.860E+00	1.206E+00	0.383

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		226.40		9.722E-02	7.339E-01	1.229E+00	1.655E-01	0.079
		227.20		-5.980E-02	7.910E-01	1.312E+00	1.183E-01	-0.046
		248.90		-3.475E-01	1.485E+00	2.429E+00	5.491E-01	-0.143
		293.70		1.373E+00	1.539E+00	2.324E+00	4.079E-01	0.591
		369.80		1.645E-02	1.701E+00	2.769E+00	6.007E-01	0.006
		568.70		-7.690E-01	2.009E+00	3.284E+00	2.782E-01	-0.234
		569.50		1.727E-01	5.324E-01	9.135E-01	7.739E-02	0.189
		574.00		-7.782E-01	3.041E+00	5.014E+00	4.244E-01	-0.155
		699.00		-6.160E-01	1.443E+00	2.309E+00	4.381E-01	-0.267
		706.10		-1.561E-01	2.207E+00	3.639E+00	1.621E+00	-0.043
		733.00		1.370E-01	8.184E-01	1.370E+00	3.036E-01	0.100
		742.81		9.253E-01	3.069E+00	5.083E+00	3.416E+00	0.182
		796.30		1.835E+00	1.953E+00	3.342E+00	9.058E-01	0.549
		805.60		1.339E+00	2.280E+00	3.857E+00	1.184E+00	0.347
		819.60		1.066E+00	2.872E+00	4.809E+00	1.831E+00	0.222
		826.30		-1.659E+00	2.076E+00	2.966E+00	1.328E+00	-0.559
		831.60		4.556E-01	1.420E+00	2.379E+00	7.117E-01	0.192
		876.40		3.630E-01	1.981E+00	3.232E+00	3.324E+00	0.112
		880.51		-1.910E-01	6.696E-01	1.069E+00	9.646E-02	-0.179
		883.24		-3.038E-01	7.442E-01	1.131E+00	7.610E-01	-0.269
		899.00		2.042E-01	2.168E+00	3.563E+00	1.561E+00	0.057
		925.00		3.711E-01	3.477E+00	5.710E+00	5.158E-01	0.065
		926.50		5.098E-01	5.172E-01	8.720E-01	2.217E-01	0.585
		946.00	*	8.650E-02	8.710E-01	1.427E+00	2.704E-01	0.061
		949.00		-1.960E-01	1.258E+00	2.024E+00	1.821E-01	-0.097
		980.50		-3.526E-01	1.815E+00	2.899E+00	2.590E-01	-0.122
		1394.10		1.071E-01	1.472E+00	2.476E+00	1.611E+00	0.043
PA-234M		766.42		5.847E+00	2.556E+01	4.256E+01	2.160E+01	0.137
		1001.03	*	4.212E+00	1.104E+01	1.851E+01	1.887E+00	0.228
TH-234		63.29	*	-1.509E+00	2.636E+00	3.766E+00	6.619E-01	-0.401
	+	92.38		1.200E+00	1.286E+00	1.525E+00	2.796E-01	0.787
U-235		89.95		1.396E+01	5.125E+00	4.137E+00	1.285E+00	3.374
	+	93.35		1.443E+00	1.577E+00	1.759E+00	4.956E-01	0.820
		105.00		1.900E+00	1.847E+00	2.950E+00	8.811E-01	0.644
		143.76	*	2.579E-01	3.331E-01	5.780E-01	1.010E-01	0.446
		163.35		4.959E-01	7.795E-01	1.341E+00	2.552E-01	0.370
		185.71		8.691E-02	8.116E-02	1.439E-01	1.251E-02	0.604
		205.31		3.175E-01	9.160E-01	1.551E+00	2.976E-01	0.205
NP-236		94.67		3.641E-01	2.112E-01	3.300E-01	2.971E-02	1.104
		98.44		1.059E-01	1.174E-01	1.768E-01	1.564E-02	0.599
		111.00		5.590E-03	2.336E-01	3.723E-01	3.226E-02	0.015
		160.31	*	-3.946E-02	1.316E-01	2.191E-01	1.865E-02	-0.180
NP-237		86.50	*	5.743E+00	1.438E+00	1.160E+00	2.625E-01	4.952
		95.87		-7.269E-01	1.631E+00	2.237E+00	5.537E-01	-0.325
U-238		63.29	*	-1.509E+00	2.636E+00	3.766E+00	6.619E-01	-0.401
	+	92.38		1.200E+00	1.272E+00	1.525E+00	1.393E-01	0.787
NP-239		99.55		1.466E-01	2.420E-01	3.972E-01	3.499E-02	0.369
		117.00	*	-2.541E-01	3.654E-01	4.900E-01	4.267E-02	-0.519
		209.75		9.060E-01	1.361E+00	2.333E+00	2.076E-01	0.388

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		228.18		-5.697E-02	4.214E-01	6.970E-01	6.289E-02	-0.082
		277.60		2.042E-01	3.708E-01	6.266E-01	5.731E-02	0.326
		334.30		6.645E-01	2.823E+00	4.120E+00	3.643E-01	0.161
AM-243		74.67	*	1.755E-01	1.143E-01	1.751E-01	1.456E-02	1.002
	+	86.72		3.590E+02	4.797E+01	4.762E+01	4.444E+00	7.539
		117.66		-2.080E+00	7.111E+00	9.826E+00	8.566E-01	-0.212
		142.18		-1.380E+01	2.822E+01	4.683E+01	4.005E+00	-0.295
CM-243		99.55		1.508E-01	2.489E-01	4.085E-01	3.599E-02	0.369
		103.76	*	9.598E-02	1.567E-01	2.574E-01	2.242E-02	0.373
		117.00		-2.613E-01	3.757E-01	5.039E-01	4.388E-02	-0.519
		209.75		8.927E-01	1.341E+00	2.299E+00	2.046E-01	0.388
		228.18		-5.754E-02	4.257E-01	7.040E-01	6.352E-02	-0.082
		277.60		2.058E-01	3.737E-01	6.314E-01	5.775E-02	0.326
AM-246		798.80		-2.939E-01	3.130E-01	4.750E-01	4.174E-02	-0.619
		1036.00		-4.791E-02	7.319E-01	1.177E+00	1.033E-01	-0.041
		1062.04		1.654E-03	5.740E-01	9.274E-01	8.045E-02	0.002
		1078.86	*	1.222E-01	3.202E-01	5.346E-01	4.600E-02	0.229
CM-247		278.00		3.636E-01	1.556E+00	2.594E+00	2.372E-01	0.140
		287.40		-6.585E-01	2.294E+00	3.716E+00	3.392E-01	-0.177
		402.60	*	-1.764E-02	8.270E-02	1.322E-01	1.072E-02	-0.133
CF-249		252.85		-4.479E-01	1.603E+00	2.616E+00	2.388E-01	-0.171
		333.44		8.433E-02	3.543E-01	5.449E-01	4.823E-02	0.155
		387.95	*	-1.603E-01	9.340E-02	1.347E-01	1.093E-02	-1.190
CF-251		176.60	*	2.776E-01	2.149E-01	3.790E-01	3.262E-02	0.733
		227.00		1.287E-02	7.057E-01	1.176E+00	1.060E-01	0.011
		285.00		-2.914E+00	3.330E+00	5.202E+00	4.752E-01	-0.560

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                        GEL Laboratories LLC                           *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
*                                                                       *
*                            DETECTOR DATA                              *
*                                                                       *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032581  *
* Acquisition date : 13-FEB-2010 18:38:37 Detector SN#     :            *
* Detector ID       : GAM01               Sensitivity      : 5.000     *
* Geometry          : CAN                 Energy tolerance: 1.500      *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000     *
* Elapsed real time:    0 01:00:01.17     Half life ratio :  8.000     *
*************************************************************************
*                                                                       *
*                            SAMPLE DATA                                *
*                                                                       *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID      *
* Sample ID         : G1202032581         Analyst initials: MXR1        *
* Batch Number      : 948751              Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000          Carrier Weight :    0.00000   *
*************************************************************************
*                                                                       *
*                              QC DATA                                  *
* Standard Weight  :   0.00000                                          *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :             *
* MSD DPM          :    0.000            MSD Isotope     :             *
* LCS DPM          :    0.000            LCS Isotope     :             *
* LCSD DPM         :    0.000            LCSD Isotope    :             *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	8.714E-01	8.280E-01	8.302E-01	0.000E+00
CO-57	2.433E-01	8.112E-02	7.241E-02	0.000E+00
CO-60	6.662E+00	6.618E-01	9.729E-02	0.000E+00
CD-109	3.286E+01	4.302E+00	2.415E+00	0.000E+00
SN-126	3.260E+00	4.269E-01	2.409E-01	0.000E+00
BA-137M	5.443E+00	5.177E-01	1.237E-01	0.000E+00
CS-137	5.754E+00	5.481E-01	1.308E-01	0.000E+00
TL-208	3.086E-01	1.407E-01	1.273E-01	0.000E+00
PB-212	1.018E+00	2.291E-01	2.030E-01	0.000E+00
PO-212	1.018E+00	2.291E-01	2.030E-01	0.000E+00
BI-214	6.316E-01	2.333E-01	2.147E-01	0.000E+00
PB-214	6.992E-01	2.890E-01	2.449E-01	0.000E+00
PO-214	6.992E-01	2.890E-01	2.449E-01	0.000E+00
PO-216	1.018E+00	2.291E-01	2.030E-01	0.000E+00
PO-218	6.992E-01	2.890E-01	2.449E-01	0.000E+00
RA-226	6.316E-01	2.333E-01	2.147E-01	0.000E+00
TH-228	1.027E+00	2.312E-01	2.048E-01	0.000E+00
TH-230	6.316E-01	2.333E-01	2.147E-01	0.000E+00
U-234	6.316E-01	2.333E-01	2.147E-01	0.000E+00
AM-241	1.338E+01	1.375E+00	6.266E-01	0.000E+00
ANH-511	1.033E-01	9.203E-02	1.066E-01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-2.023E-01	6.538E-01	1.089E+00	0.000E+00	NOT IDENT.
NA-22	-3.538E-02	5.257E-02	8.035E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.099E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.574E-02	4.155E-02	5.546E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.970E-02	1.194E-01	0.000E+00	FAIL ABUN
SC-46	7.609E-03	1.062E-01	1.579E-01	0.000E+00	NOT IDENT.

V-48	-3.309E-02	1.266E-01	2.091E-01	0.000E+00	NOT IDENT.
CR-51	1.846E-01	6.065E-01	1.083E+00	0.000E+00	NOT IDENT.
MN-52	-8.562E-02	1.079E-01	1.405E-01	0.000E+00	FAIL ABUN
MN-54	-2.306E-02	8.153E-02	1.368E-01	0.000E+00	NOT IDENT.
CO-56	-3.248E-02	8.463E-02	1.405E-01	0.000E+00	NOT IDENT.
CO-58	8.813E-03	8.133E-02	1.411E-01	0.000E+00	NOT IDENT.
FE-59	-8.313E-02	2.008E-01	3.236E-01	0.000E+00	NOT IDENT.
ZN-65	-1.317E-01	2.069E-01	3.262E-01	0.000E+00	NOT IDENT.
GE-68	-8.753E-01	2.859E+00	4.657E+00	0.000E+00	NOT IDENT.
AS-73	-7.716E-01	2.129E+00	3.651E+00	0.000E+00	NOT IDENT.
AS-74	5.992E-02	1.352E-01	2.461E-01	0.000E+00	NOT IDENT.
SE-75	-3.430E-02	8.030E-02	1.399E-01	0.000E+00	FAIL ABUN
BR-77	1.974E+00	3.422E+00	6.019E+00	0.000E+00	FAIL ABUN
SR-82	-5.737E-01	6.536E-01	1.044E+00	0.000E+00	NOT IDENT.
RB-83	8.841E-02	1.380E-01	2.438E-01	0.000E+00	NOT IDENT.
RB-84	-1.935E-02	1.446E-01	2.443E-01	0.000E+00	NOT IDENT.
KR-85	4.803E+00	1.577E+01	2.395E+01	0.000E+00	NOT IDENT.
SR-85	2.303E-02	7.564E-02	1.149E-01	0.000E+00	NOT IDENT.
RB-86	2.025E-01	1.427E+00	2.420E+00	0.000E+00	NOT IDENT.
Y-88	3.073E-02	4.577E-02	8.914E-02	0.000E+00	NOT IDENT.
ZR-88	1.969E-02	6.303E-02	1.109E-01	0.000E+00	NOT IDENT.
Y-91	1.712E+01	2.650E+01	4.898E+01	0.000E+00	NOT IDENT.
NB-94	3.207E-02	6.974E-02	1.253E-01	0.000E+00	NOT IDENT.
NB-95	1.475E-02	8.598E-02	1.504E-01	0.000E+00	NOT IDENT.
NB-95M	1.544E-01	2.295E-01	3.765E-01	0.000E+00	NOT IDENT.
ZR-95	-5.967E-02	1.344E-01	2.242E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	4.461E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	7.757E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.420E-01	5.051E+00	8.730E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.389E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-3.275E-02	5.600E-02	9.902E-02	0.000E+00	NOT IDENT.
RH-102	4.295E-03	6.597E-02	1.128E-01	0.000E+00	NOT IDENT.
RU-103	2.499E-02	7.428E-02	1.290E-01	0.000E+00	FAIL ABUN
RH-106	-7.272E-02	5.805E-01	1.012E+00	0.000E+00	FAIL ABUN
RU-106	-7.272E-02	5.804E-01	1.012E+00	0.000E+00	FAIL ABUN
AG-108M	5.158E-02	7.314E-02	1.306E-01	0.000E+00	NOT IDENT.
AG-110M	-2.496E-02	8.161E-02	1.203E-01	0.000E+00	NOT IDENT.
IN-111	-4.664E-01	4.287E-01	7.257E-01	0.000E+00	NOT IDENT.
IN-113M	6.817E-02	9.339E-02	1.679E-01	0.000E+00	NOT IDENT.
SN-113	6.817E-02	9.339E-02	1.679E-01	0.000E+00	NOT IDENT.
IN-114M	-3.640E-01	2.980E-01	5.125E-01	0.000E+00	NOT IDENT.
CD-115	6.593E-01	3.010E+00	5.444E+00	0.000E+00	NOT IDENT.
SN-117M	1.239E-02	6.144E-02	1.142E-01	0.000E+00	NOT IDENT.
SB-122	4.983E-01	7.698E-01	1.423E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.832E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.330E-02	4.264E-02	7.962E-02	0.000E+00	NOT IDENT.
I-124	-3.953E-02	4.762E-01	7.249E-01	0.000E+00	NOT IDENT.
SB-124	-6.480E-02	1.059E-01	1.493E-01	0.000E+00	NOT IDENT.
SB-125	3.941E-02	2.121E-01	3.682E-01	0.000E+00	NOT IDENT.
TE-125M	-4.086E+00	1.426E+01	2.466E+01	0.000E+00	NOT IDENT.
I-126	5.793E-02	2.922E-01	4.533E-01	0.000E+00	NOT IDENT.
SB-126	5.611E-02	2.000E-01	3.550E-01	0.000E+00	FAIL ABUN
SB-127	-1.830E-01	8.656E-01	1.487E+00	0.000E+00	NOT IDENT.
XE-127	-3.785E-02	7.211E-02	1.277E-01	0.000E+00	NOT IDENT.
I-131	-3.944E-02	1.299E-01	2.216E-01	0.000E+00	NOT IDENT.
TE-132	-4.754E-02	3.262E-01	5.834E-01	0.000E+00	NOT IDENT.
BA-133	3.138E-02	9.441E-02	1.479E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.398E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.101E-01	9.834E-02	1.823E-01	0.000E+00	NOT IDENT.
CS-135	-8.089E-02	3.058E-01	5.374E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.445E+08	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.453E-01	1.826E-01	3.261E-01	0.000E+00	NOT IDENT.
CE-139	-1.040E-02	4.599E-02	8.371E-02	0.000E+00	NOT IDENT.
BA-140	3.022E-01	3.723E-01	6.743E-01	0.000E+00	NOT IDENT.
LA-140	-3.849E-02	8.476E-02	1.285E-01	0.000E+00	NOT IDENT.
CE-141	5.094E-02	8.399E-02	1.593E-01	0.000E+00	NOT IDENT.
CE-143	2.243E-01	1.158E+01	1.799E+01	0.000E+00	NOT IDENT.
CE-144	-1.616E-01	3.429E-01	5.786E-01	0.000E+00	NOT IDENT.
PM-144	-4.211E-02	6.580E-02	1.089E-01	0.000E+00	NOT IDENT.
PR-144	-2.844E+00	4.444E+00	7.353E+00	0.000E+00	NOT IDENT.
PM-146	-1.743E-02	1.013E-01	1.712E-01	0.000E+00	NOT IDENT.
ND-147	-5.282E-01	7.735E-01	1.313E+00	0.000E+00	NOT IDENT.
PM-149	-1.748E+01	2.368E+01	4.003E+01	0.000E+00	NOT IDENT.
EU-152	-8.894E-02	2.005E-01	3.131E-01	0.000E+00	FAIL ABUN
GD-153	4.145E-02	1.300E-01	2.087E-01	0.000E+00	NOT IDENT.
EU-154	-4.604E-02	1.402E-01	2.282E-01	0.000E+00	FAIL ABUN
EU-155	1.569E-01	1.782E-01	3.256E-01	0.000E+00	FAIL ABUN
TB-160	-2.714E-01	3.067E-01	4.840E-01	0.000E+00	FAIL ABUN

HO-166M	-6.062E-02	1.230E-01	2.059E-01	0.000E+00	NOT IDENT.
TM-171	1.521E+01	4.760E+01	8.718E+01	0.000E+00	FAIL ABUN
LU-176	-1.784E-02	4.711E-02	8.123E-02	0.000E+00	FAIL ABUN
LU-177	1.901E-03	9.847E-01	1.784E+00	0.000E+00	NOT IDENT.
LU-177M	2.594E-02	3.767E-01	6.514E-01	0.000E+00	FAIL ABUN
HF-181	-2.067E-02	8.474E-02	1.417E-01	0.000E+00	NOT IDENT.
W-181	-5.248E-01	6.508E-01	1.079E+00	0.000E+00	NOT IDENT.
TA-182	1.246E-01	2.149E-01	4.012E-01	0.000E+00	NOT IDENT.
RE-183	8.009E-02	1.666E-01	3.126E-01	0.000E+00	FAIL ABUN
RE-184	-1.163E-01	4.078E-01	7.182E-01	0.000E+00	FAIL ABUN
OS-185	-4.483E-02	8.097E-02	1.361E-01	0.000E+00	FAIL ABUN
RE-188	6.808E-02	2.516E-01	4.696E-01	0.000E+00	NOT IDENT.
W-188	2.140E+00	1.489E+01	2.336E+01	0.000E+00	NOT IDENT.
IR-192	1.618E-03	6.250E-02	1.101E-01	0.000E+00	FAIL ABUN
AU-195	2.729E-01	3.465E-01	6.061E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.564E+01	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-9.838E-01	2.619E+00	4.731E+00	0.000E+00	NOT IDENT.
TL-202	5.079E-02	1.079E-01	1.900E-01	0.000E+00	NOT IDENT.
HG-203	2.959E-02	7.478E-02	1.351E-01	0.000E+00	NOT IDENT.
BI-207	-7.635E-02	1.300E-01	2.070E-01	0.000E+00	NOT IDENT.
TL-207	-6.457E-01	1.264E+00	2.145E+00	0.000E+00	FAIL ABUN
PO-209	8.076E+00	2.039E+01	3.134E+01	0.000E+00	NOT IDENT.
BI-210	7.779E-01	8.519E+00	1.568E+01	0.000E+00	NOT IDENT.
PB-210	7.779E-01	8.519E+00	1.568E+01	0.000E+00	NOT IDENT.
PO-210	7.779E-01	8.518E+00	1.568E+01	0.000E+00	NOT IDENT.
BI-211	0.000E+00	5.378E-01	1.032E+00	0.000E+00	NOT IDENT.
PB-211	4.538E-02	2.100E+00	3.626E+00	0.000E+00	NOT IDENT.
BI-212	8.240E-02	6.077E-01	1.066E+00	0.000E+00	NOT IDENT.
PO-215	-6.457E-01	1.264E+00	2.145E+00	0.000E+00	FAIL ABUN
RN-219	-3.710E-01	8.862E-01	1.489E+00	0.000E+00	NOT IDENT.
RN-220	1.401E+01	5.335E+01	9.644E+01	0.000E+00	NOT IDENT.
RA-223	-6.457E-01	1.264E+00	2.145E+00	0.000E+00	FAIL ABUN
RA-224	0.000E+00	1.705E+00	3.023E+00	0.000E+00	NOT IDENT.
AC-227	2.020E-01	7.219E-01	1.305E+00	0.000E+00	NOT IDENT.
TH-227	2.020E-01	7.221E-01	1.305E+00	0.000E+00	FAIL ABUN
AC-228	0.000E+00	5.559E-01	8.149E-01	0.000E+00	FAIL ABUN
RA-228	0.000E+00	5.559E-01	8.149E-01	0.000E+00	FAIL ABUN
TH-229	1.359E-01	8.505E-01	1.559E+00	0.000E+00	FAIL ABUN
PA-231	-1.788E+00	2.919E+00	4.987E+00	0.000E+00	NOT IDENT.
TH-231	-6.457E-01	1.264E+00	2.145E+00	0.000E+00	FAIL ABUN
U-231	-2.883E-01	6.308E-01	9.613E-01	0.000E+00	FAIL ABUN
TH-232	0.000E+00	5.559E-01	8.149E-01	0.000E+00	FAIL ABUN
PA-233	2.566E-02	1.171E-01	2.088E-01	0.000E+00	FAIL ABUN
PA-234	8.650E-02	8.535E-01	1.457E+00	0.000E+00	NOT IDENT.
PA-234M	4.212E+00	1.082E+01	1.887E+01	0.000E+00	NOT IDENT.
TH-234	-1.509E+00	2.583E+00	4.122E+00	0.000E+00	FAIL ABUN
U-235	2.579E-01	3.264E-01	6.200E-01	0.000E+00	FAIL ABUN
NP-236	-3.946E-02	1.289E-01	2.344E-01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	1.409E+00	1.260E+00	0.000E+00	NOT IDENT.
U-238	-1.509E+00	2.583E+00	4.122E+00	0.000E+00	FAIL ABUN
NP-239	-2.541E-01	3.581E-01	5.283E-01	0.000E+00	NOT IDENT.
AM-243	1.755E-01	1.120E-01	1.909E-01	0.000E+00	FAIL ABUN
CM-243	9.598E-02	1.536E-01	2.783E-01	0.000E+00	NOT IDENT.
AM-246	1.222E-01	3.138E-01	5.437E-01	0.000E+00	NOT IDENT.
CM-247	-1.764E-02	8.105E-02	1.381E-01	0.000E+00	NOT IDENT.
CF-249	-1.603E-01	9.153E-02	1.409E-01	0.000E+00	NOT IDENT.
CF-251	2.776E-01	2.106E-01	4.044E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 19:39:11.86

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032581.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 13-FEB-2010 18:38:37
Sample ID         : G1202032581          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948751               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	18	10.67*	9.452E-01	8.714E-01	8.714E-01	96.96
CO-57	122.06	255	85.51*	6.056E+00	2.379E-01	2.433E-01	34.02
	136.48	------	10.60	5.957E+00	------ Line Not Found		------
CO-60	1173.22	1489	100.00	1.144E+00	6.289E+00	6.309E+00	9.83
	1332.49	1404	100.00*	1.021E+00	6.641E+00	6.662E+00	10.14
CD-109	88.03	1309	3.72*	5.239E+00	3.243E+01	3.286E+01	13.36
SN-126	64.28	------	9.60	2.906E+00	------ Line Not Found		------
	86.94	1309	8.90	5.239E+00	1.355E+01	1.355E+01	42.60
	87.57	1309	37.00*	5.239E+00	3.260E+00	3.260E+00	13.36
BA-137M	661.65	1949	89.98*	1.923E+00	5.440E+00	5.443E+00	9.71
CS-137	661.65	1949	85.12*	1.923E+00	5.751E+00	5.754E+00	9.72
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	51	21.60	2.392E+00	4.784E-01	4.784E-01	91.25
	583.14	115	84.20*	2.143E+00	3.086E-01	3.086E-01	46.53
	860.37	------	12.46	1.522E+00	------ Line Not Found		------
PB-212	74.81	------	10.70	4.150E+00	------ Line Not Found		------
	77.11	121	18.00	4.382E+00	7.391E-01	7.391E-01	59.63
	87.30	1309	8.00	5.239E+00	1.508E+01	1.508E+01	16.69
	238.63	409	44.60*	4.348E+00	1.018E+00	1.018E+00	22.96
	300.09	------	3.41	3.656E+00	------ Line Not Found		------
PO-212	74.81	------	10.70	4.150E+00	------ Line Not Found		------
	77.11	121	18.00	4.382E+00	7.391E-01	7.391E-01	59.63
	87.30	1309	8.00	5.239E+00	1.508E+01	1.508E+01	16.69
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	409	44.60*	4.348E+00	1.018E+00	1.018E+00	22.96
	300.09	------	3.41	3.656E+00	------ Line Not Found		------
BI-214	609.31	125	46.30*	2.065E+00	6.316E-01	6.316E-01	37.69
	1120.29	------	15.10	1.193E+00	------ Line Not Found		------
	1764.49	23	15.80	8.255E-01	8.334E-01	8.334E-01	48.00
PB-214	74.81	------	6.21	4.150E+00	------ Line Not Found		------
	77.11	121	10.50	4.382E+00	1.267E+00	1.267E+00	60.12
	87.30	1309	4.67	5.239E+00	2.583E+01	2.583E+01	15.42

Sample ID : G1202032581 Acquisition date : 13-FEB-2010 18:38:37

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	------	7.49	4.306E+00	------ Line Not Found		------
	295.21	104	19.20	3.698E+00	7.105E-01	7.105E-01	49.28
	351.92	174	37.20*	3.223E+00	6.992E-01	6.992E-01	42.18
PO-214	74.81	------	6.21	4.150E+00	------ Line Not Found		------
	77.11	121	10.50	4.382E+00	1.267E+00	1.267E+00	60.12
	87.30	1309	4.67	5.239E+00	2.583E+01	2.583E+01	15.42
	241.98	------	7.49	4.306E+00	------ Line Not Found		------
	295.21	104	19.20	3.698E+00	7.105E-01	7.105E-01	49.28
	351.92	174	37.20*	3.223E+00	6.992E-01	6.992E-01	42.18
PO-216	74.81	------	10.70	4.150E+00	------ Line Not Found		------
	77.11	121	18.00	4.382E+00	7.391E-01	7.391E-01	59.63
	87.30	1309	8.00	5.239E+00	1.508E+01	1.508E+01	16.69
	238.63	409	44.60*	4.348E+00	1.018E+00	1.018E+00	22.96
	300.09	------	3.41	3.656E+00	------ Line Not Found		------
PO-218	74.81	------	6.21	4.150E+00	------ Line Not Found		------
	77.11	121	10.50	4.382E+00	1.267E+00	1.267E+00	60.12
	87.30	1309	4.67	5.239E+00	2.583E+01	2.583E+01	15.42
	241.98	------	7.49	4.306E+00	------ Line Not Found		------
	295.21	104	19.20	3.698E+00	7.105E-01	7.105E-01	49.28
	351.92	174	37.20*	3.223E+00	6.992E-01	6.992E-01	42.18
RA-226	609.31	125	46.30*	2.065E+00	6.316E-01	6.316E-01	37.69
	1120.29	------	15.10	1.193E+00	------ Line Not Found		------
	1764.49	23	15.80	8.255E-01	8.334E-01	8.334E-01	48.00
TH-228	74.81	------	10.70	4.150E+00	------ Line Not Found		------
	77.11	121	18.00	4.382E+00	7.391E-01	7.456E-01	59.63
	87.30	1309	8.00	5.239E+00	1.508E+01	1.521E+01	13.36
	238.63	409	44.60*	4.348E+00	1.018E+00	1.027E+00	22.96
	300.09	------	3.41	3.656E+00	------ Line Not Found		------
TH-230	609.31	125	46.30*	2.065E+00	6.316E-01	6.316E-01	37.69
	1120.29	------	15.10	1.193E+00	------ Line Not Found		------
	1764.49	23	15.80	8.255E-01	8.334E-01	8.334E-01	48.00
U-234	609.31	125	46.30*	2.065E+00	6.316E-01	6.316E-01	37.69
	1120.29	------	15.10	1.193E+00	------ Line Not Found		------
	1764.49	23	15.80	8.255E-01	8.334E-01	8.334E-01	48.00
AM-241	59.54	2264	35.90*	2.277E+00	1.338E+01	1.338E+01	10.49
ANH-511	511.00	51	100.00*	2.392E+00	1.033E-01	1.033E-01	90.87

Flag: "*" = Keyline

Summary of Nuclide Activity
Sample ID : G1202032581 Acquisition date : 13-FEB-2010 18:38:37

Total number of lines in spectrum 19
Number of unidentified lines 1
Number of lines tentatively identified by NID 18 94.74%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	8.714E-01	8.714E-01	8.449E-01	96.96	
CO-57	270.90D	1.02	2.379E-01	2.433E-01	0.828E-01	34.02	
CO-60	5.27Y	1.00	6.641E+00	6.662E+00	0.675E+00	10.14	
CD-109	464.00D	1.01	3.243E+01	3.286E+01	0.439E+01	13.36	
SN-126	1.00E+05Y	1.00	3.260E+00	3.260E+00	0.436E+00	13.36	
BA-137M	30.17Y	1.00	5.440E+00	5.443E+00	0.528E+00	9.71	
CS-137	30.17Y	1.00	5.751E+00	5.754E+00	0.559E+00	9.72	
TL-208	1.41E+10Y	1.00	3.086E-01	3.086E-01	1.436E-01	46.53	
PB-212	1.41E+10Y	1.00	1.018E+00	1.018E+00	0.234E+00	22.96	
PO-212	1.41E+10Y	1.00	1.018E+00	1.018E+00	0.234E+00	22.96	
BI-214	1600.00Y	1.00	6.316E-01	6.316E-01	2.380E-01	37.69	
PB-214	1600.00Y	1.00	6.992E-01	6.992E-01	2.949E-01	42.18	
PO-214	1600.00Y	1.00	6.992E-01	6.992E-01	2.949E-01	42.18	
PO-216	1.41E+10Y	1.00	1.018E+00	1.018E+00	0.234E+00	22.96	
PO-218	1600.00Y	1.00	6.992E-01	6.992E-01	2.949E-01	42.18	
RA-226	1600.00Y	1.00	6.316E-01	6.316E-01	2.380E-01	37.69	
TH-228	1.91Y	1.01	1.018E+00	1.027E+00	0.236E+00	22.96	
TH-230	4.47E+09Y	1.00	6.316E-01	6.316E-01	2.380E-01	37.69	
U-234	4.47E+09Y	1.00	6.316E-01	6.316E-01	2.380E-01	37.69	
AM-241	432.20Y	1.00	1.338E+01	1.338E+01	0.140E+01	10.49	
ANH-511	1.00E+09Y	1.00	1.033E-01	1.033E-01	0.939E-01	90.87	
	Total Activity :		7.712E+01	7.759E+01			

Grand Total Activity : 7.712E+01 7.759E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032581 Acquisition date : 13-FEB-2010 18:38:37

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.76	74	386	1.30	186.22	183	10	2.05E-02	****	5.50E+00	T
0	338.65	111	118	1.83	677.71	674	9	3.08E-02	40.3	3.33E+00	T
0	892.15	54	42	1.08	1784.01	1779	9	1.50E-02	51.5	1.47E+00	
0	911.60	108	100	1.33	1822.90	1818	12	2.99E-02	42.0	1.44E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 13-FEB-2010 19:39:17.21

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032581.CNF;1  *
* Acquisition date  : 13-FEB-2010 18:38:37  Detector SN#     :             *
* Detector ID       : GAM01                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 01:00:01.17          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 5-FEB-2010 00:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G1202032581           Analyst initials: MXR1         *
* Batch Number      : 948751                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	8.714E-01	8.449E-01	8.232E-01	7.318E-02	1.059
CO-57	2.433E-01	8.277E-02	6.723E-02	5.919E-03	3.618
CO-60	6.662E+00	6.753E-01	9.622E-02	8.202E-03	69.237
CD-109	3.286E+01	4.390E+00	2.224E+00	2.104E-01	14.774
SN-126	3.260E+00	4.356E-01	2.218E-01	2.089E-02	14.698
BA-137M	5.443E+00	5.282E-01	1.200E-01	9.832E-03	45.347
CS-137	5.754E+00	5.592E-01	1.269E-01	1.042E-02	45.346
TL-208	3.086E-01	1.436E-01	1.230E-01	1.117E-02	2.509
PB-212	1.018E+00	2.338E-01	1.917E-01	1.941E-02	5.311
PO-212	1.018E+00	2.338E-01	1.917E-01	1.941E-02	5.311
BI-214	6.316E-01	2.380E-01	2.078E-01	2.049E-02	3.040
PB-214	6.992E-01	2.949E-01	2.336E-01	2.448E-02	2.993
PO-214	6.992E-01	2.949E-01	2.336E-01	2.448E-02	2.993
PO-216	1.018E+00	2.338E-01	1.917E-01	1.941E-02	5.311
PO-218	6.992E-01	2.949E-01	2.336E-01	2.448E-02	2.993
RA-226	6.316E-01	2.380E-01	2.078E-01	2.049E-02	3.040
TH-228	1.027E+00	2.359E-01	1.934E-01	1.958E-02	5.311
TH-230	6.316E-01	2.380E-01	2.078E-01	2.049E-02	3.040

Sample ID : G1202032581 Acquisition date : 13-FEB-2010 18:38:37

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
U-234	6.316E-01	2.380E-01	2.078E-01	2.049E-02	3.040
AM-241	1.338E+01	1.403E+00	5.717E-01	4.711E-02	23.400
ANH-511	1.033E-01	9.391E-02	1.027E-01	8.703E-03	1.006

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.023E-01		6.671E-01	1.047E+00	9.527E-02	-0.193
NA-22	-3.538E-02		5.364E-02	7.936E-02	6.664E-03	-0.446
NA-24	3.444E-06		4.132E-04	Half-Life too short		
AL-26	-2.574E-02		4.240E-02	5.533E-02	4.584E-03	-0.465
TI-44	1.364E-01	+	8.132E-02	1.097E-01	9.410E-03	1.244
SC-46	7.609E-03		1.084E-01	1.544E-01	1.396E-02	0.049
V-48	-3.309E-02		1.292E-01	2.051E-01	1.831E-02	-0.161
CR-51	1.846E-01		6.189E-01	1.031E+00	9.697E-02	0.179
MN-52	-8.562E-02		1.101E-01	1.393E-01	1.202E-02	-0.615
MN-54	-2.306E-02		8.320E-02	1.336E-01	1.189E-02	-0.173
CO-56	-3.248E-02		8.635E-02	1.372E-01	1.226E-02	-0.237
CO-58	8.813E-03		8.299E-02	1.376E-01	1.217E-02	0.064
FE-59	-8.313E-02		2.049E-01	3.183E-01	2.934E-02	-0.261
ZN-65	-1.317E-01		2.111E-01	3.210E-01	2.708E-02	-0.410
GE-68	-8.753E-01		2.918E+00	4.578E+00	3.942E-01	-0.191
AS-73	-7.716E-01		2.173E+00	3.323E+00	2.689E-01	-0.232
AS-74	5.992E-02		1.379E-01	2.380E-01	2.005E-02	0.252
SE-75	-3.430E-02		8.194E-02	1.325E-01	1.217E-02	-0.259
BR-77	1.974E+00		3.492E+00	5.802E+00	4.922E-01	0.340
SR-82	-5.737E-01		6.669E-01	1.017E+00	8.852E-02	-0.564
RB-83	8.841E-02		1.409E-01	2.350E-01	1.994E-02	0.376
RB-84	-1.935E-02		1.476E-01	2.389E-01	2.155E-02	-0.081
KR-85	4.803E+00		1.610E+01	2.307E+01	1.956E+00	0.208
SR-85	2.303E-02		7.718E-02	1.107E-01	9.382E-03	0.208
RB-86	2.025E-01		1.456E+00	2.379E+00	2.049E-01	0.085
Y-88	3.073E-02		4.671E-02	8.896E-02	7.317E-03	0.345
ZR-88	1.969E-02		6.432E-02	1.061E-01	8.545E-03	0.186
Y-91	1.712E+01		2.705E+01	4.830E+01	3.957E+00	0.354
NB-94	3.207E-02		7.117E-02	1.217E-01	1.022E-02	0.263
NB-95	1.475E-02		8.774E-02	1.465E-01	1.269E-02	0.101
NB-95M	1.544E-01		2.342E-01	3.555E-01	3.646E-02	0.434
ZR-95	-5.967E-02		1.372E-01	2.183E-01	2.074E-02	-0.273
NB-97	-7.029E-05		2.276E-04	Half-Life too short		
ZR-97	7.105E-03		3.958E-03	Half-Life too short		
MO-99	-2.420E-01		5.154E+00	8.494E+00	1.287E+00	-0.028
TC-99M	-7.198E+02		7.088E+02	Half-Life too short		
RH-101	-3.275E-02		5.714E-02	9.306E-02	8.189E-03	-0.352
RH-102	4.295E-03		6.732E-02	1.084E-01	9.119E-03	0.040
RU-103	2.499E-02		7.580E-02	1.241E-01	1.746E-02	0.201
RH-106	-7.272E-02		5.923E-01	9.801E-01	1.292E-01	-0.074

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RU-106	-7.272E-02		5.923E-01	9.801E-01	8.187E-02	-0.074
AG-108M	5.158E-02		7.463E-02	1.252E-01	1.080E-02	0.412
AG-110M	-2.496E-02		8.327E-02	1.167E-01	9.893E-03	-0.214
IN-111	-4.664E-01		4.375E-01	6.857E-01	6.244E-02	-0.680
IN-113M	6.817E-02		9.530E-02	1.606E-01	1.338E-02	0.424
SN-113	6.817E-02		9.530E-02	1.606E-01	1.338E-02	0.424
IN-114M	-3.640E-01		3.040E-01	4.812E-01	4.201E-02	-0.756
CD-115	6.593E-01		3.071E+00	5.249E+00	4.455E-01	0.126
SN-117M	1.239E-02		6.269E-02	1.068E-01	9.090E-03	0.116
SB-122	4.983E-01		7.855E-01	1.375E+00	1.165E-01	0.362
I-123	8.833E-04		1.445E-03	Half-Life too short		
TE-123M	1.330E-02		4.351E-02	7.441E-02	6.375E-03	0.179
I-124	-3.953E-02		4.859E-01	7.014E-01	5.898E-02	-0.056
SB-124	-6.480E-02		1.081E-01	1.486E-01	1.318E-02	-0.436
SB-125	3.941E-02		2.165E-01	3.530E-01	2.971E-02	0.112
TE-125M	-4.086E+00		1.455E+01	2.284E+01	2.364E+00	-0.179
I-126	5.793E-02		2.981E-01	4.398E-01	3.613E-02	0.132
SB-126	5.611E-02		2.041E-01	3.451E-01	2.926E-02	0.163
SB-127	-1.830E-01		8.833E-01	1.444E+00	1.377E-01	-0.127
XE-127	-3.785E-02		7.358E-02	1.201E-01	1.062E-02	-0.315
I-131	-3.944E-02		1.326E-01	2.116E-01	1.888E-02	-0.186
TE-132	-4.754E-02		3.329E-01	5.503E-01	8.258E-02	-0.086
BA-133	3.138E-02		9.634E-02	1.411E-01	1.861E-02	0.222
I-133	4.721E-05		3.774E-05	Half-Life too short		
CS-134	1.101E-01		1.003E-01	1.777E-01	1.571E-02	0.620
CS-135	-8.089E-02		3.121E-01	5.090E-01	5.307E-02	-0.159
I-135	9.828E+01		3.799E+02	Half-Life too short		
CS-136	1.453E-01		1.863E-01	3.203E-01	2.910E-02	0.454
CE-139	-1.040E-02		4.693E-02	7.832E-02	6.670E-03	-0.133
BA-140	3.022E-01		3.798E-01	6.505E-01	2.154E-01	0.465
LA-140	-3.849E-02		8.649E-02	1.277E-01	1.102E-02	-0.301
CE-141	5.094E-02		8.570E-02	1.486E-01	1.292E-02	0.343
CE-143	2.243E-01		1.182E+01	1.708E+01	3.721E+00	0.013
CE-144	-1.616E-01		3.499E-01	5.384E-01	8.381E-02	-0.300
PM-144	-4.211E-02		6.714E-02	1.058E-01	8.849E-03	-0.398
PR-144	-2.844E+00		4.534E+00	7.143E+00	5.975E-01	-0.398
PM-146	-1.743E-02		1.033E-01	1.644E-01	1.727E-02	-0.106
ND-147	-5.282E-01		7.893E-01	1.266E+00	1.883E-01	-0.417
PM-149	-1.748E+01		2.416E+01	3.798E+01	6.007E+00	-0.460
EU-152	-8.894E-02		2.046E-01	2.985E-01	2.760E-02	-0.298
GD-153	4.145E-02		1.327E-01	1.927E-01	1.711E-02	0.215
EU-154	-4.604E-02		1.431E-01	2.254E-01	2.510E-02	-0.204
EU-155	1.569E-01		1.818E-01	3.012E-01	2.649E-02	0.521
TB-160	-2.714E-01		3.129E-01	4.731E-01	4.267E-02	-0.574
HO-166M	-6.062E-02		1.256E-01	2.002E-01	1.689E-02	-0.303
TM-171	1.521E+01		4.857E+01	7.976E+01	6.282E+00	0.191
LU-176	-1.784E-02		4.807E-02	7.721E-02	6.988E-03	-0.231
LU-177	1.901E-03		1.005E+00	1.679E+00	1.492E-01	0.001

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
LU-177M	2.594E-02		3.844E-01	6.240E-01	5.098E-02	0.042
HF-181	-2.067E-02		8.647E-02	1.363E-01	1.148E-02	-0.152
W-181	-5.248E-01		6.640E-01	9.867E-01	7.703E-02	-0.532
TA-182	1.246E-01		2.193E-01	3.958E-01	3.262E-02	0.315
RE-183	8.009E-02		1.700E-01	2.923E-01	2.489E-02	0.274
RE-184	-1.163E-01		4.162E-01	6.793E-01	6.200E-02	-0.171
OS-185	-4.483E-02		8.263E-02	1.319E-01	1.090E-02	-0.340
RE-188	6.808E-02		2.567E-01	4.386E-01	3.735E-02	0.155
W-188	2.140E+00		1.520E+01	2.217E+01	2.022E+00	0.097
IR-192	1.618E-03		6.377E-02	1.047E-01	9.432E-03	0.015
AU-195	2.729E-01		3.536E-01	5.598E-01	4.943E-02	0.487
TL-200	9.091E-07		7.980E-06	Half-Life too short		
TL-201	-9.838E-01		2.672E+00	4.427E+00	3.775E-01	-0.222
TL-202	5.079E-02		1.101E-01	1.823E-01	1.512E-02	0.279
HG-203	2.959E-02		7.630E-02	1.281E-01	1.201E-02	0.231
BI-207	-7.635E-02		1.327E-01	2.034E-01	1.764E-02	-0.375
TL-207	-6.457E-01		1.290E+00	2.042E+00	3.647E-01	-0.316
PO-209	8.076E+00		2.080E+01	3.066E+01	2.776E+00	0.263
BI-210	7.779E-01		8.692E+00	1.422E+01	1.342E+00	0.055
PB-210	7.779E-01		8.692E+00	1.422E+01	1.342E+00	0.055
PO-210	7.779E-01		8.692E+00	1.422E+01	1.219E+00	0.055
BI-211	2.086E+00		5.487E-01	9.846E-01	8.956E-02	2.118
PB-211	4.538E-02		2.143E+00	3.472E+00	2.173E+00	0.013
BI-212	8.240E-02		6.201E-01	1.036E+00	1.027E-01	0.080
PO-215	-6.457E-01		1.290E+00	2.042E+00	3.647E-01	-0.316
RN-219	-3.710E-01		9.043E-01	1.425E+00	2.100E-01	-0.260
RN-220	1.401E+01		5.444E+01	9.309E+01	7.901E+00	0.150
RA-223	-6.457E-01		1.290E+00	2.042E+00	3.647E-01	-0.316
RA-224	6.787E+00		1.739E+00	2.855E+00	2.595E-01	2.377
AC-227	2.020E-01		7.366E-01	1.235E+00	1.932E-01	0.164
TH-227	2.020E-01		7.368E-01	1.235E+00	2.261E-01	0.164
AC-228	1.301E+00	+	5.672E-01	7.974E-01	9.231E-02	1.631
RA-228	1.301E+00	+	5.672E-01	7.974E-01	9.231E-02	1.631
TH-229	1.359E-01		8.679E-01	1.464E+00	1.283E-01	0.093
PA-231	-1.788E+00		2.979E+00	4.730E+00	7.324E-01	-0.378
TH-231	-6.457E-01		1.290E+00	2.042E+00	3.647E-01	-0.316
U-231	-2.883E-01		6.436E-01	8.872E-01	7.937E-02	-0.325
TH-232	1.301E+00	+	5.672E-01	7.974E-01	9.231E-02	1.631
PA-233	2.566E-02		1.195E-01	1.985E-01	1.837E-02	0.129
PA-234	8.650E-02		8.710E-01	1.427E+00	2.704E-01	0.061
PA-234M	4.212E+00		1.104E+01	1.851E+01	1.887E+00	0.228
TH-234	-1.509E+00		2.636E+00	3.766E+00	6.619E-01	-0.401
U-235	2.579E-01		3.331E-01	5.780E-01	1.010E-01	0.446
NP-236	-3.946E-02		1.316E-01	2.191E-01	1.865E-02	-0.180
NP-237	5.743E+00		1.438E+00	1.160E+00	2.625E-01	4.952
U-238	-1.509E+00		2.636E+00	3.766E+00	6.619E-01	-0.401
NP-239	-2.541E-01		3.654E-01	4.900E-01	4.267E-02	-0.519
AM-243	1.755E-01		1.143E-01	1.751E-01	1.456E-02	1.002

Sample ID : G1202032581 Acquisition date : 13-FEB-2010 18:38:37

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	9.598E-02		1.567E-01	2.574E-01	2.242E-02	0.373
AM-246	1.222E-01		3.202E-01	5.346E-01	4.600E-02	0.229
CM-247	-1.764E-02		8.270E-02	1.322E-01	1.072E-02	-0.133
CF-249	-1.603E-01		9.340E-02	1.347E-01	1.093E-02	-1.190
CF-251	2.776E-01		2.149E-01	3.790E-01	3.262E-02	0.733

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032581           *
* Acquisition date : 13-FEB-2010 18:38:37 Detector SN#     :                *
* Detector ID      : GAM01                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.17     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID        : G1202032581          Analyst initials: MXR1           *
* Batch Number     : 948751               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	8.714E-01	8.280E-01	4.153E-01	4.225E-01
CO-57	2.433E-01	8.112E-02	3.623E-02	4.139E-02
CO-60	6.662E+00	6.618E-01	4.867E-02	3.376E-01
CD-109	3.286E+01	4.302E+00	1.208E+00	2.195E+00
SN-126	3.260E+00	4.269E-01	1.205E-01	2.178E-01
BA-137M	5.443E+00	5.177E-01	6.191E-02	2.641E-01
CS-137	5.754E+00	5.481E-01	6.544E-02	2.796E-01
TL-208	3.086E-01	1.407E-01	6.367E-02	7.181E-02
PB-212	1.018E+00	2.291E-01	1.016E-01	1.169E-01
PO-212	1.018E+00	2.291E-01	1.016E-01	1.169E-01
BI-214	6.316E-01	2.333E-01	1.074E-01	1.190E-01
PB-214	6.992E-01	2.890E-01	1.225E-01	1.475E-01
PO-214	6.992E-01	2.890E-01	1.225E-01	1.475E-01
PO-216	1.018E+00	2.291E-01	1.016E-01	1.169E-01
PO-218	6.992E-01	2.890E-01	1.225E-01	1.475E-01
RA-226	6.316E-01	2.333E-01	1.074E-01	1.190E-01
TH-228	1.027E+00	2.312E-01	1.025E-01	1.179E-01
TH-230	6.316E-01	2.333E-01	1.074E-01	1.190E-01
U-234	6.316E-01	2.333E-01	1.074E-01	1.190E-01
AM-241	1.338E+01	1.375E+00	3.135E-01	7.017E-01
ANH-511	1.033E-01	9.203E-02	5.333E-02	4.695E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-2.023E-01	6.538E-01	5.448E-01	3.336E-01	NOT IDENT.
NA-22	-3.538E-02	5.257E-02	4.020E-02	2.682E-02	NOT IDENT.
NA-24	3.444E+00	8.099E+02	0.000E+00	4.132E+02	SHORT HLIF
AL-26	-2.574E-02	4.155E-02	2.775E-02	2.120E-02	NOT IDENT.
TI-44	1.364E-01	7.970E-02	5.973E-02	4.066E-02	FAIL ABUN
SC-46	7.609E-03	1.062E-01	7.900E-02	5.420E-02	NOT IDENT.

V-48	-3.309E-02	1.266E-01	1.046E-01	6.460E-02	NOT IDENT.
CR-51	1.846E-01	6.065E-01	5.420E-01	3.094E-01	NOT IDENT.
MN-52	-8.562E-02	1.079E-01	7.030E-02	5.503E-02	FAIL ABUN
MN-54	-2.306E-02	8.153E-02	6.847E-02	4.160E-02	NOT IDENT.
CO-56	-3.248E-02	8.463E-02	7.031E-02	4.318E-02	NOT IDENT.
CO-58	8.813E-03	8.133E-02	7.058E-02	4.149E-02	NOT IDENT.
FE-59	-8.313E-02	2.008E-01	1.619E-01	1.025E-01	NOT IDENT.
ZN-65	-1.317E-01	2.069E-01	1.632E-01	1.055E-01	NOT IDENT.
GE-68	-8.753E-01	2.859E+00	2.330E+00	1.459E+00	NOT IDENT.
AS-73	-7.716E-01	2.129E+00	1.827E+00	1.086E+00	NOT IDENT.
AS-74	5.992E-02	1.352E-01	1.231E-01	6.896E-02	NOT IDENT.
SE-75	-3.430E-02	8.030E-02	7.000E-02	4.097E-02	FAIL ABUN
BR-77	1.974E+00	3.422E+00	3.012E+00	1.746E+00	FAIL ABUN
SR-82	-5.737E-01	6.536E-01	5.221E-01	3.334E-01	NOT IDENT.
RB-83	8.841E-02	1.380E-01	1.220E-01	7.043E-02	NOT IDENT.
RB-84	-1.935E-02	1.446E-01	1.222E-01	7.380E-02	NOT IDENT.
KR-85	4.803E+00	1.577E+01	1.198E+01	8.048E+00	NOT IDENT.
SR-85	2.303E-02	7.564E-02	5.746E-02	3.859E-02	NOT IDENT.
RB-86	2.025E-01	1.427E+00	1.211E+00	7.280E-01	NOT IDENT.
Y-88	3.073E-02	4.577E-02	4.460E-02	2.335E-02	NOT IDENT.
ZR-88	1.969E-02	6.303E-02	5.550E-02	3.216E-02	NOT IDENT.
Y-91	1.712E+01	2.650E+01	2.450E+01	1.352E+01	NOT IDENT.
NB-94	3.207E-02	6.974E-02	6.268E-02	3.558E-02	NOT IDENT.
NB-95	1.475E-02	8.598E-02	7.525E-02	4.387E-02	NOT IDENT.
NB-95M	1.544E-01	2.295E-01	1.884E-01	1.171E-01	NOT IDENT.
ZR-95	-5.967E-02	1.344E-01	1.122E-01	6.858E-02	NOT IDENT.
NB-97	-7.029E+01	4.461E+02	0.000E+00	2.276E+02	SHORT HLIF
ZR-97	7.105E+03	7.757E+03	0.000E+00	3.958E+03	SHORT HLIF
MO-99	-2.420E-01	5.051E+00	4.368E+00	2.577E+00	NOT IDENT.
TC-99M	-7.198E+08	1.389E+09	0.000E+00	7.088E+08	SHORT HLIF
RH-101	-3.275E-02	5.600E-02	4.954E-02	2.857E-02	NOT IDENT.
RH-102	4.295E-03	6.597E-02	5.643E-02	3.366E-02	NOT IDENT.
RU-103	2.499E-02	7.428E-02	6.452E-02	3.790E-02	FAIL ABUN
RH-106	-7.272E-02	5.805E-01	5.063E-01	2.962E-01	FAIL ABUN
RU-106	-7.272E-02	5.804E-01	5.063E-01	2.961E-01	FAIL ABUN
AG-108M	5.158E-02	7.314E-02	6.533E-02	3.731E-02	NOT IDENT.
AG-110M	-2.496E-02	8.161E-02	6.019E-02	4.164E-02	NOT IDENT.
IN-111	-4.664E-01	4.287E-01	3.630E-01	2.187E-01	NOT IDENT.
IN-113M	6.817E-02	9.339E-02	8.400E-02	4.765E-02	NOT IDENT.
SN-113	6.817E-02	9.339E-02	8.400E-02	4.765E-02	NOT IDENT.
IN-114M	-3.640E-01	2.980E-01	2.564E-01	1.520E-01	NOT IDENT.
CD-115	6.593E-01	3.010E+00	2.724E+00	1.536E+00	NOT IDENT.
SN-117M	1.239E-02	6.144E-02	5.715E-02	3.135E-02	NOT IDENT.
SB-122	4.983E-01	7.698E-01	7.120E-01	3.928E-01	NOT IDENT.
I-123	8.833E+02	2.832E+03	0.000E+00	1.445E+03	SHORT HLIF
TE-123M	1.330E-02	4.264E-02	3.983E-02	2.175E-02	NOT IDENT.
I-124	-3.953E-02	4.762E-01	3.627E-01	2.430E-01	NOT IDENT.
SB-124	-6.480E-02	1.059E-01	7.468E-02	5.405E-02	NOT IDENT.
SB-125	3.941E-02	2.121E-01	1.842E-01	1.082E-01	NOT IDENT.
TE-125M	-4.086E+00	1.426E+01	1.234E+01	7.274E+00	NOT IDENT.
I-126	5.793E-02	2.922E-01	2.268E-01	1.491E-01	NOT IDENT.
SB-126	5.611E-02	2.000E-01	1.776E-01	1.020E-01	FAIL ABUN
SB-127	-1.830E-01	8.656E-01	7.439E-01	4.417E-01	NOT IDENT.
XE-127	-3.785E-02	7.211E-02	6.391E-02	3.679E-02	NOT IDENT.
I-131	-3.944E-02	1.299E-01	1.109E-01	6.628E-02	NOT IDENT.
TE-132	-4.754E-02	3.262E-01	2.919E-01	1.664E-01	NOT IDENT.
BA-133	3.138E-02	9.441E-02	7.400E-02	4.817E-02	NOT IDENT.
I-133	4.721E+01	7.398E+01	0.000E+00	3.774E+01	SHORT HLIF
CS-134	1.101E-01	9.834E-02	9.120E-02	5.017E-02	NOT IDENT.
CS-135	-8.089E-02	3.058E-01	2.689E-01	1.560E-01	NOT IDENT.
I-135	9.828E+07	7.445E+08	0.000E+00	3.799E+08	SHORT HLIF
CS-136	1.453E-01	1.826E-01	1.631E-01	9.316E-02	NOT IDENT.
CE-139	-1.040E-02	4.599E-02	4.188E-02	2.346E-02	NOT IDENT.
BA-140	3.022E-01	3.723E-01	3.374E-01	1.899E-01	NOT IDENT.
LA-140	-3.849E-02	8.476E-02	6.429E-02	4.324E-02	NOT IDENT.
CE-141	5.094E-02	8.399E-02	7.972E-02	4.285E-02	NOT IDENT.
CE-143	2.243E-01	1.158E+01	9.000E+00	5.908E+00	NOT IDENT.
CE-144	-1.616E-01	3.429E-01	2.895E-01	1.749E-01	NOT IDENT.
PM-144	-4.211E-02	6.580E-02	5.447E-02	3.357E-02	NOT IDENT.
PR-144	-2.844E+00	4.444E+00	3.679E+00	2.267E+00	NOT IDENT.
PM-146	-1.743E-02	1.013E-01	8.567E-02	5.167E-02	NOT IDENT.
ND-147	-5.282E-01	7.735E-01	6.567E-01	3.947E-01	NOT IDENT.
PM-149	-1.748E+01	2.368E+01	2.003E+01	1.208E+01	NOT IDENT.
EU-152	-8.894E-02	2.005E-01	1.566E-01	1.023E-01	FAIL ABUN
GD-153	4.145E-02	1.300E-01	1.044E-01	6.635E-02	NOT IDENT.
EU-154	-4.604E-02	1.402E-01	1.142E-01	7.155E-02	FAIL ABUN
EU-155	1.569E-01	1.782E-01	1.629E-01	9.092E-02	FAIL ABUN
TB-160	-2.714E-01	3.067E-01	2.421E-01	1.565E-01	FAIL ABUN

HO-166M	-6.062E-02	1.230E-01	1.030E-01	6.278E-02	NOT IDENT.
TM-171	1.521E+01	4.760E+01	4.362E+01	2.428E+01	FAIL ABUN
LU-176	-1.784E-02	4.711E-02	4.064E-02	2.403E-02	FAIL ABUN
LU-177	1.901E-03	9.847E-01	8.925E-01	5.024E-01	NOT IDENT.
LU-177M	2.594E-02	3.767E-01	3.259E-01	1.922E-01	FAIL ABUN
HF-181	-2.067E-02	8.474E-02	7.088E-02	4.323E-02	NOT IDENT.
W-181	-5.248E-01	6.508E-01	5.399E-01	3.320E-01	NOT IDENT.
TA-182	1.246E-01	2.149E-01	2.007E-01	1.097E-01	NOT IDENT.
RE-183	8.009E-02	1.666E-01	1.564E-01	8.501E-02	FAIL ABUN
RE-184	-1.163E-01	4.078E-01	3.593E-01	2.081E-01	FAIL ABUN
OS-185	-4.483E-02	8.097E-02	6.807E-02	4.131E-02	FAIL ABUN
RE-188	6.808E-02	2.516E-01	2.349E-01	1.283E-01	NOT IDENT.
W-188	2.140E+00	1.489E+01	1.169E+01	7.599E+00	NOT IDENT.
IR-192	1.618E-03	6.250E-02	5.506E-02	3.189E-02	FAIL ABUN
AU-195	2.729E-01	3.465E-01	3.032E-01	1.768E-01	FAIL ABUN
TL-200	9.091E-01	1.564E+01	0.000E+00	7.980E+00	SHORT HLIF
TL-201	-9.838E-01	2.619E+00	2.367E+00	1.336E+00	NOT IDENT.
TL-202	5.079E-02	1.079E-01	9.507E-02	5.504E-02	NOT IDENT.
HG-203	2.959E-02	7.478E-02	6.757E-02	3.815E-02	NOT IDENT.
BI-207	-7.635E-02	1.300E-01	1.036E-01	6.634E-02	NOT IDENT.
TL-207	-6.457E-01	1.264E+00	1.073E+00	6.449E-01	FAIL ABUN
PO-209	8.076E+00	2.039E+01	1.568E+01	1.040E+01	NOT IDENT.
BI-210	7.779E-01	8.519E+00	7.842E+00	4.346E+00	NOT IDENT.
PB-210	7.779E-01	8.519E+00	7.842E+00	4.346E+00	NOT IDENT.
PO-210	7.779E-01	8.518E+00	7.842E+00	4.346E+00	NOT IDENT.
BI-211	2.086E+00	5.378E-01	5.165E-01	2.744E-01	NOT IDENT.
PB-211	4.538E-02	2.100E+00	1.814E+00	1.071E+00	NOT IDENT.
BI-212	8.240E-02	6.077E-01	5.331E-01	3.101E-01	NOT IDENT.
PO-215	-6.457E-01	1.264E+00	1.073E+00	6.449E-01	FAIL ABUN
RN-219	-3.710E-01	8.862E-01	7.448E-01	4.521E-01	NOT IDENT.
RN-220	1.401E+01	5.335E+01	4.825E+01	2.722E+01	NOT IDENT.
RA-223	-6.457E-01	1.264E+00	1.073E+00	6.449E-01	FAIL ABUN
RA-224	6.787E+00	1.705E+00	1.512E+00	8.697E-01	NOT IDENT.
AC-227	2.020E-01	7.219E-01	6.530E-01	3.683E-01	NOT IDENT.
TH-227	2.020E-01	7.221E-01	6.530E-01	3.684E-01	FAIL ABUN
AC-228	1.301E+00	5.559E-01	4.077E-01	2.836E-01	FAIL ABUN
RA-228	1.301E+00	5.559E-01	4.077E-01	2.836E-01	FAIL ABUN
TH-229	1.359E-01	8.505E-01	7.799E-01	4.340E-01	FAIL ABUN
PA-231	-1.788E+00	2.919E+00	2.495E+00	1.490E+00	NOT IDENT.
TH-231	-6.457E-01	1.264E+00	1.073E+00	6.449E-01	FAIL ABUN
U-231	-2.883E-01	6.308E-01	4.809E-01	3.218E-01	FAIL ABUN
TH-232	1.301E+00	5.559E-01	4.077E-01	2.836E-01	FAIL ABUN
PA-233	2.566E-02	1.171E-01	1.044E-01	5.975E-02	FAIL ABUN
PA-234	8.650E-02	8.535E-01	7.290E-01	4.355E-01	NOT IDENT.
PA-234M	4.212E+00	1.082E+01	9.439E+00	5.518E+00	NOT IDENT.
TH-234	-1.509E+00	2.583E+00	2.062E+00	1.318E+00	FAIL ABUN
U-235	2.579E-01	3.264E-01	3.102E-01	1.665E-01	FAIL ABUN
NP-236	-3.946E-02	1.289E-01	1.173E-01	6.578E-02	NOT IDENT.
NP-237	5.743E+00	1.409E+00	6.302E-01	7.188E-01	NOT IDENT.
U-238	-1.509E+00	2.583E+00	2.062E+00	1.318E+00	FAIL ABUN
NP-239	-2.541E-01	3.581E-01	2.643E-01	1.827E-01	NOT IDENT.
AM-243	1.755E-01	1.120E-01	9.552E-02	5.713E-02	FAIL ABUN
CM-243	9.598E-02	1.536E-01	1.392E-01	7.834E-02	NOT IDENT.
AM-246	1.222E-01	3.138E-01	2.720E-01	1.601E-01	NOT IDENT.
CM-247	-1.764E-02	8.105E-02	6.909E-02	4.135E-02	NOT IDENT.
CF-249	-1.603E-01	9.153E-02	7.049E-02	4.670E-02	NOT IDENT.
CF-251	2.776E-01	2.106E-01	2.023E-01	1.074E-01	NOT IDENT.

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*************************************************************************
*                    GEL Laboratories LLC                               *
*                       2040 SAVAGE ROAD                                *
*                      CHARLESTON ,SC 29417                             *
*                 GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	334.7264
46.50	334.7264
46.50	334.7264
48.70	410.3130
49.72	396.7444
51.35	388.7473
52.39	418.5607
52.97	487.4964
53.15	487.6673
53.44	463.4436
54.07	475.5491
56.28	477.5631
56.28	477.5654
57.37	524.0474
57.53	491.2445
57.53	491.2463
57.60	491.3084
57.98	432.4896
57.98	432.4896
59.32	433.5609
59.32	433.5609
59.40	433.6240
59.54	433.7353
59.72	433.8781
60.01	434.1071
61.10	342.8107
61.14	342.8351
61.30	342.9341
63.00	313.8559
63.29	314.0164
63.29	314.0164
63.58	317.3504
64.28	324.0943
65.12	337.2956
65.20	337.3425
65.20	337.3425
66.05	321.9005
66.72	294.6154
66.83	284.0338
66.91	284.0718
67.20	268.2448
67.20	268.2448
67.75	286.6074
67.85	296.2474
68.90	310.6484
68.90	310.6484
69.30	322.6061
69.67	308.9102
70.82	350.1918
70.82	350.1918
70.83	350.1968
72.80	357.7690
72.87	357.8097
72.87	357.8097
74.67	353.9937
74.81	354.0739
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74.81	354.0739
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74.81	354.0739
74.81	354.0739
74.81	354.0739
74.97	354.1624
75.28	375.3716
75.70	414.4766
77.11	430.5392
77.11	430.5392

77.11	430.5392
77.11	430.5392
77.11	430.5392
77.11	430.5392
77.11	430.5392
78.38	323.5420
79.62	325.7874
79.80	329.1362
79.80	329.1362
80.11	329.2918
80.18	329.3257
80.30	348.9533
80.30	348.9533
80.57	318.1024
81.00	321.5739
81.07	352.6265
81.07	352.6265
81.07	352.6265
81.07	352.6265
82.60	327.2575
83.37	332.5466
83.78	319.6362
83.78	319.6362
83.78	319.6362
83.78	319.6362
84.21	332.9617
84.90	321.8062
85.43	325.3438
86.29	348.7846
86.50	348.8913
86.54	348.9107
86.59	362.1040
86.72	362.1729
86.79	362.2081
86.94	362.2870
87.30	362.4767
87.30	362.4767
87.30	362.4767
87.30	362.4767
87.30	362.4767
87.30	362.4767
87.30	362.4767
87.57	362.6176
87.88	362.7788
88.03	362.8577
88.36	363.0289
88.47	363.0859
89.95	291.0824
91.11	291.5591
92.29	292.0398
92.38	292.0774
92.38	292.0774
93.35	207.7208
94.00	207.9067
94.67	201.4383
94.67	201.4393
94.90	201.5030
94.90	201.5030
94.90	201.5030
94.90	201.5030
95.87	235.1201
95.87	235.1201
96.73	245.4124
97.43	203.8673
98.44	184.0640
98.44	184.0649
98.88	190.2006
99.55	195.5096
99.55	195.5096
99.86	200.0603
100.00	200.0977
100.10	200.1250
103.18	252.5700
103.76	213.4427
105.00	217.1594
105.31	228.5020
108.00	271.0767
109.28	253.4116

111.00	240.3514
111.00	240.3514
111.76	251.9247
112.95	219.3367
115.19	224.4947
116.30	224.5681
117.00	250.1099
117.00	250.1099
117.66	229.7349
121.11	215.1814
121.62	229.6641
121.78	229.7073
122.06	229.7821
122.32	229.8523
122.32	229.8523
122.32	229.8523
122.32	229.8523
123.07	230.0527
127.23	228.8433
129.76	244.5655
131.20	239.1556
133.02	238.4743
133.54	251.4155
135.34	247.2471
136.00	251.2170
136.25	241.6548
136.48	241.7148
140.51	252.4410
140.51	0.0000
142.18	256.4122
142.65	248.6067
143.76	206.5317
144.24	213.6997
144.24	213.6997
144.24	213.6997
144.24	213.6997
145.22	215.6873
145.44	215.7357
147.16	242.6934
152.43	207.4925
152.70	209.3309
153.22	225.4825
154.21	221.2477
154.21	221.2477
154.21	221.2477
154.21	221.2477
155.03	222.3223
156.02	232.3718
158.56	210.5573
159.00	0.0000
159.00	209.7523
160.31	240.5379
161.27	231.7792
162.32	222.1232
162.64	222.1930
163.35	216.0443
163.89	226.9638
165.85	227.3925
167.43	227.7348
171.28	225.8424
171.86	226.8715
172.10	226.9230
176.55	198.6935
176.60	198.7018
181.06	240.6934
184.41	246.0074
185.71	228.8307
186.00	242.6781
190.27	288.8024
192.34	234.7861
193.63	220.2415
197.04	239.4480
198.01	238.7179
198.60	225.8269
200.40	221.5180
201.83	238.5566
202.84	248.0863
205.31	231.7753

208.36	252.0336
208.81	253.0653
209.75	228.8710
209.75	228.8710
210.97	219.7106
215.65	225.2550
216.55	236.7372
218.09	215.3086
222.10	223.5727
223.80	210.5894
226.40	214.8183
227.00	220.6241
227.08	220.6382
227.20	220.6595
228.16	228.4369
228.18	228.4406
228.18	228.4406
231.56	238.5788
235.69	217.5016
236.00	222.1498
236.00	222.1498
238.63	274.3983
238.63	274.3983
238.63	274.3983
238.63	274.3983
239.00	274.4746
240.98	230.6689
241.98	230.8411
241.98	230.8411
241.98	230.8411
244.69	245.6232
245.39	245.8873
247.94	181.6216
248.90	183.6813
249.79	189.6043
252.40	187.0556
252.85	186.1465
252.85	186.1465
254.15	0.0000
256.20	193.3977
256.20	193.3977
260.50	194.9646
260.90	194.0444
262.80	189.4206
264.65	198.4652
268.24	219.5430
268.79	194.1358
269.46	185.3980
269.46	185.3980
269.46	185.3980
269.46	185.3980
271.23	198.3907
273.65	252.8275
276.40	204.0183
277.35	202.1785
277.60	210.1041
277.60	210.1041
278.00	221.9994
278.60	221.1050
279.20	207.3692
279.53	213.3402
280.46	180.8611
281.68	196.8350
283.67	188.1822
284.30	197.1781
285.00	184.3823
285.90	186.4767
286.10	164.6778
286.10	164.6778
287.40	166.8029
288.45	0.0000
290.67	176.7139
290.80	176.7301
291.72	168.8702
293.26	197.7461
293.70	194.6132
295.21	175.6428
295.21	175.6428

295.21	175.6428
295.96	185.7105
296.50	202.9550
297.23	204.6500
298.57	188.8259
299.80	158.5450
299.80	158.5450
300.09	187.4085
300.09	187.4085
300.09	187.4085
300.09	187.4085
300.12	187.4114
301.29	186.6353
302.84	190.5450
303.76	180.6207
303.91	180.6400
304.40	175.6756
304.40	175.6756
304.84	166.6864
306.84	165.8938
308.46	174.1140
311.98	139.1939
316.51	154.7603
318.01	158.9524
319.02	156.0115
319.41	156.0491
320.08	148.0028
323.87	165.6190
323.87	165.6190
323.87	165.6190
323.87	165.6190
325.23	182.0263
328.77	159.9945
333.44	151.2452
334.20	147.2256
334.20	147.2256
334.30	147.2344
338.28	144.3020
338.28	144.3020
338.28	144.3020
338.28	144.3020
338.32	144.3041
338.32	144.3041
338.32	144.3041
340.50	134.6373
340.57	134.6434
344.27	149.4714
345.85	168.0012
350.59	151.9460
351.07	155.9100
351.92	155.9860
351.92	155.9860
351.92	155.9860
355.39	0.0000
356.01	132.5352
364.48	136.2911
366.43	126.0257
367.43	139.6433
367.94	0.0000
369.80	131.4794
374.96	145.4562
383.85	135.6472
387.95	205.4974
388.63	182.3817
391.69	144.6636
391.69	144.6636
392.90	148.9842
398.62	146.2544
400.65	136.8617
401.10	142.2012
401.81	158.1761
402.60	161.4281
404.84	166.9323
410.95	158.9264
411.60	155.7800
413.65	152.7383
414.70	166.7141
415.30	171.0400

415.76	166.8045
417.63	0.0000
418.52	141.3397
423.70	143.8574
427.08	147.3268
427.89	153.8424
432.53	148.8065
433.93	130.5639
439.47	133.0861
439.56	133.0917
439.89	134.1946
443.98	159.4040
444.90	156.2212
445.03	158.3998
445.03	158.3998
445.03	158.3998
445.03	158.3998
453.90	151.4522
463.38	170.7416
468.07	156.8579
473.00	139.6291
475.06	132.0593
475.35	137.5790
476.78	126.6569
477.59	130.0096
477.96	127.8273
482.03	126.9622
484.57	118.2688
487.03	119.5076
490.36	117.4724
492.35	99.8300
497.08	96.7081
507.63	0.0000
510.53	0.0000
510.84	150.3130
511.00	119.6770
511.85	119.7211
511.85	119.7211
513.99	102.1380
513.99	102.1380
520.41	93.2154
520.65	93.2256
527.90	99.1504
528.96	0.0000
529.64	90.2051
529.87	0.0000
531.02	115.5281
537.32	84.1655
543.00	93.4393
546.56	0.0000
549.76	98.2521
552.65	93.8165
555.20	89.3556
563.23	92.3968
563.90	82.3557
568.70	102.6867
569.32	95.3773
569.50	87.1305
569.67	87.1351
573.80	91.8750
574.00	101.0706
574.64	102.0165
578.91	90.5310
579.30	0.0000
583.14	97.7524
585.48	112.3070
591.81	94.3898
592.07	92.5488
593.00	99.0612
595.88	78.7827
600.56	83.5708
602.52	0.0000
602.71	82.0922
602.71	82.0922
603.60	68.1753
604.41	72.8466
604.70	80.6068
609.31	78.2660

609.31	78.2660
609.31	78.2660
609.31	78.2660
610.33	91.6569
612.46	74.6289
614.37	70.0159
618.01	93.4863
621.84	75.8337
621.84	75.8337
631.29	84.5618
633.02	76.1550
633.10	71.4560
634.78	75.2637
635.90	84.7090
636.97	94.1577
645.85	94.4702
646.12	88.8112
656.30	85.3506
657.75	94.8828
657.90	0.0000
661.65	85.5176
661.65	85.5176
664.57	79.2664
666.33	82.4899
666.33	82.4899
675.00	74.4732
677.61	82.1871
685.20	82.4097
692.80	69.1787
695.00	81.7336
696.49	87.5475
696.49	87.5475
697.00	94.2987
697.49	100.0898
698.33	91.4561
698.50	92.4234
699.00	89.5511
702.63	85.8081
706.10	90.7366
706.58	0.0000
706.67	91.7205
709.31	78.2750
711.68	88.0118
713.82	83.2369
717.42	83.3398
720.50	74.6971
721.93	82.4973
722.20	82.5056
722.78	93.2016
722.78	93.2016
722.89	101.9418
722.95	101.9443
723.30	94.1890
724.18	89.3608
727.18	89.4507
733.00	84.7570
735.90	89.7157
739.58	85.9203
742.81	81.1256
744.21	79.2084
747.13	74.3913
751.79	74.5063
752.31	76.4804
753.82	60.8224
755.35	74.5936
756.15	80.5025
756.87	87.3964
763.93	103.3466
765.79	95.5317
766.42	98.5059
766.84	90.6366
776.49	84.9922
778.00	72.1802
778.57	66.2590
778.89	73.1888
783.80	87.1729
785.46	80.2822
792.07	100.3145

795.84	67.6198
796.30	65.6407
798.80	97.5430
801.93	83.6924
805.60	73.8139
810.29	87.9076
810.76	77.9295
815.85	86.0588
817.79	86.1092
818.51	78.1181
819.60	75.1373
826.30	95.3711
828.27	0.0000
831.60	78.4332
831.96	88.4984
834.83	90.5889
836.80	0.0000
846.75	85.8674
848.13	92.9771
856.28	0.0000
856.80	119.5643
860.37	92.3064
867.32	73.1848
867.82	82.3447
871.10	88.5293
873.19	75.3478
874.81	69.2717
875.33	0.0000
876.40	73.3816
879.36	89.7660
880.27	87.7490
880.51	82.6532
881.50	82.6770
883.24	91.9116
884.67	71.5159
889.25	86.9569
896.60	76.8915
898.02	73.0765
899.00	92.3335
903.28	96.5565
911.07	101.2334
911.07	101.2334
911.07	101.2334
919.63	102.0540
920.93	113.5610
925.00	114.7262
925.24	114.7343
926.50	94.0948
935.52	105.7378
937.48	94.3858
944.10	117.4223
946.00	110.2053
949.00	109.2579
962.29	138.8999
964.01	145.2340
966.15	132.7733
968.20	117.1570
969.11	110.9092
969.11	110.9092
969.11	110.9092
977.42	83.8945
980.50	80.8162
983.50	76.6803
989.30	86.2682
996.32	86.4303
1001.03	70.7082
1001.68	79.1656
1004.76	65.4966
1021.30	0.0000
1024.50	0.0000
1034.80	68.1438
1036.00	74.5562
1037.82	71.3936
1038.57	68.2125
1038.76	0.0000
1045.16	80.0720
1046.59	55.5369
1048.07	63.0361

1050.47	73.7673
1050.47	73.7673
1062.04	78.2718
1063.62	86.8852
1076.63	65.6495
1077.35	73.1963
1078.86	58.1476
1085.78	72.2704
1099.22	82.2529
1112.02	75.9985
1112.84	78.1875
1115.52	88.0163
1120.29	58.7461
1120.29	58.7461
1120.29	58.7461
1120.29	58.7461
1120.51	50.0475
1121.28	56.5855
1124.00	0.0000
1129.67	53.4287
1131.51	0.0000
1147.95	0.0000
1167.94	45.5896
1173.22	44.0723
1175.09	50.3906
1177.93	33.0908
1189.05	31.3341
1204.90	31.4489
1205.75	0.0000
1213.00	19.4611
1221.42	17.6409
1230.97	24.1930
1235.34	26.0802
1236.41	0.0000
1238.25	17.7089
1246.25	18.6743
1260.41	0.0000
1271.85	12.2076
1274.45	17.8527
1274.54	21.6112
1291.56	20.7494
1298.22	0.0000
1312.09	17.0522
1325.50	16.2870
1325.50	16.2870
1332.49	19.0299
1333.61	17.9471
1360.21	8.6140
1362.66	0.0000
1365.15	7.6647
1368.21	12.4631
1368.53	0.0000
1376.25	9.6033
1384.27	10.5811
1394.10	10.6025
1395.20	13.4970
1407.95	14.4989
1434.06	9.7176
1436.60	6.8057
1457.56	0.0000
1460.81	13.6770
1489.15	8.8418
1509.49	4.9314
1596.49	13.0344
1620.62	12.0854
1678.03	0.0000
1691.02	11.2193
1691.02	11.2193
1706.46	0.0000
1750.46	0.0000
1764.49	10.3300
1764.49	10.3300
1764.49	10.3300
1764.49	10.3300
1770.23	0.0000
1771.40	14.4791
1791.20	0.0000
1808.65	8.3262

1836.01 4.1820

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032581

Total Uranium Activity	-4.3701E+00	ug/g
Total Uranium Counting Unc.	7.6859E+00	ug/g
Total Uranium Tpu	3.9214E-06	ug/g
Total Uranium Mda	6.1361E+00	ug/g

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*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948751                    SAMPLE ID  : G1202032581      *
*   ANALYST       : MXR1                      DETECTOR   : GAM01            *
*   SAMPLE DATE   :  5-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 13-FEB-2010 18:38:37.85    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.666E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.690E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.765E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.321E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 951366 Product: H3 Date: 2-23-10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible]

Secondary Review Performed By: [illegible] 2/23/10 LANL 3-2-10

Tritium Que Sheet

95

10-FEB-10

Batch #: 951366 Analyst:KXK2 First Client Due Date 02-MAR-10 Internal Due Date: 19-FEB-10

Spike Isotope: Hydrogen-3 Spike Code: ~~[illegible]~~ 0134-K 2/12/10 Expiration Date: ____ Vol: ____

LCS Isotope: Hydrogen-3 LCS Code: 0134-K Expiration Date: 3/27/10 Vol: 0.1

Prep Date: 2/12/10 Initials: [illegible] Pipet ID: 2970968 Witness: DJM 2-15-10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	~~Dist Vol~~ Total moisture (mL)
246020001-1	RE15-10-7980	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-2	1		436.51	416.43	20.08
246020002-1	RE15-10-7958	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-3	2		448.63	360.70	87.93
246020003-1	RE15-10-7960	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-4	3		364.68	340.61	24.07
246020004-1	RE15-10-7979	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-5	4		323.00	239.67	83.33
246020005-1	RE15-10-7972	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-6	5		402.40	367.39	35.01
246020006-1	RE15-10-7957	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-7	6		343.67	265.66	78.01
246020007-1	RE15-10-7974	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-8	7	2/15/10	453.94	430.79	23.15
246020008-1	RE15-10-7961	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-9	8		377.76	322.61	55.15
246020009-1	RE15-10-7971	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-10	9		330.50	244.90	85.60
246020010-1	RE15-10-7966	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-11	10	[illegible]	351.40	318.02	33.38
246020011-1	RE15-10-7959	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	26-12	11		354.51	280.77	73.74
246020012-1	RE15-10-7969	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-1	12		575.72	520.45	55.27
246020013-1	RE15-10-8061	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-2	13		513.24	437.79	75.45
246020014-1	RE15-10-8063	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-3	14		270.99	221.13	49.86
1202038814-1	MB for batch 951366	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	20-4	15		20.00	0	20.00
1202038815-1	~~RE15-10-7980(246020001DUP)~~ RE15-10-7958(246020002DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	27-JAN-10	10	20-5	2		448.63	360.70	87.93
1202038816-1	LCS for batch 951366	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	4-1	16		20.00	~~20.00~~ BKG 2/12/10	20.00

17

Bkg Rack #: 26-1

dailies ✓

Comments: ____

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: [illegible] 2-23-10

GEL Laboratories LLC, Radiochemistry Division

DATE	2/12/2010	INITIALS	KXK2		BATCH NUMBER	951366

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
246020001	436.51	0.046	20.08	416.43	10	
246020002	448.63	0.196	87.93	360.70	10	
246020003	364.68	0.066	24.07	340.61	10	
246020004	323.00	0.258	83.33	239.67	10	
246020005	402.40	0.087	35.01	367.39	10	
246020006	343.67	0.227	78.01	265.66	10	
246020007	453.94	0.051	23.15	430.79	10	
246020008	377.76	0.146	55.15	322.61	10	
246020009	330.50	0.259	85.60	244.90	10	
246020010	351.40	0.095	33.38	318.02	10	
246020011	354.51	0.208	73.74	280.77	10	
246020012	575.72	0.096	55.27	520.45	10	
246020013	513.24	0.147	75.45	437.79	10	
246020014	270.99	0.184	49.86	221.13	10	
MB	20.00	1.000	20.00	0.00	10	
DUP	448.63	0.196	0.00	0.00	10	
LCS	20.00	1.000	20.00	0.00	10	

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.6

Batch : 951366
Analyst : KXK2
Prep Date : 2/12/2010

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2467.82
LCS Volume Added: 0.10

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.32 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	246020001.1	436.51	0.0201	0.0100	2.5729E-05	416.43	4.60%	1	1/27/2010 12:00
2	246020002.1	448.63	0.0879	0.0100	2.5729E-05	360.70	19.60%	2	1/27/2010 12:00
3	246020003.1	364.68	0.0241	0.0100	2.5729E-05	340.61	6.60%	3	1/27/2010 12:00
4	246020004.1	323.00	0.0833	0.0100	2.5729E-05	239.67	25.80%	4	1/27/2010 12:00
5	246020005.1	402.40	0.0350	0.0100	2.5729E-05	367.39	8.70%	5	1/27/2010 12:00
6	246020006.1	343.67	0.0780	0.0100	2.5729E-05	265.66	22.70%	6	1/27/2010 12:00
7	246020007.1	453.94	0.0232	0.0100	2.5729E-05	430.79	5.10%	7	1/27/2010 12:00
8	246020008.1	377.76	0.0552	0.0100	2.5729E-05	322.61	14.60%	8	1/27/2010 12:00
9	246020009.1	330.50	0.0856	0.0100	2.5729E-05	244.90	25.90%	9	1/27/2010 12:00
10	246020010.1	351.40	0.0334	0.0100	2.5729E-05	318.02	9.50%	10	1/27/2010 12:00
11	246020011.1	354.51	0.0737	0.0100	2.5729E-05	280.77	20.80%	11	1/27/2010 12:00
12	246020012.1	575.72	0.0553	0.0100	2.5729E-05	520.45	9.60%	12	1/27/2010 12:00
13	246020013.1	513.24	0.0755	0.0100	2.5729E-05	437.79	14.70%	13	1/27/2010 12:00
14	246020014.1	270.99	0.0499	0.0100	2.5729E-05	221.13	18.40%	14	1/27/2010 12:00
15	1202038814.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	15	2/12/2010 0:00
16	1202038815.1	448.63	0.0879	0.0100	2.5729E-05	360.70	19.60%	2	1/27/2010 12:00
17	1202038816.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	16	2/12/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	26-2	95	118.9	5.15	2.85	95	2/17/2010 7:05	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1834	0.00792	26-1	2/17/2010 5:27
2	26-3	3	117.5	3338	2.85	95	2/17/2010 8:41	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1844	0.00792	26-1	2/17/2010 5:27
3	26-4	14.25	118.8	704.49	2.85	95	2/17/2010 8:45	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1835	0.00792	26-1	2/17/2010 5:27
4	26-5	95	118.7	7.63	2.85	95	2/17/2010 9:03	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1835	0.00792	26-1	2/17/2010 5:27
5	26-6	95	117.3	16.54	2.85	95	2/17/2010 10:41	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1846	0.00792	26-1	2/17/2010 5:27
6	26-7	10.3	118.2	975.34	2.85	95	2/17/2010 12:17	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1839	0.00792	26-1	2/17/2010 5:27
7	26-8	95	118.3	4.92	2.85	95	2/17/2010 12:31	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1838	0.00792	26-1	2/17/2010 5:27
8	26-9	89.95	117.5	111.56	2.85	95	2/17/2010 14:09	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1844	0.00792	26-1	2/17/2010 5:27
9	26-10	95	118	6.98	2.85	95	2/17/2010 15:42	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1841	0.00792	26-1	2/17/2010 5:27
10	26-11	95	117.2	29.43	2.85	95	2/17/2010 17:20	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1847	0.00792	26-1	2/17/2010 5:27
11	26-12	95	117.3	73.43	2.85	95	2/17/2010 18:58	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1846	0.00792	26-1	2/17/2010 5:27
12	20-1	70.4	118.7	142.44	2.85	95	2/17/2010 20:36	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1850	0.00792	26-1	2/17/2010 5:27
13	20-2	5.1	117.3	1961.96	2.85	95	2/17/2010 21:48	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1846	0.00792	26-1	2/17/2010 5:27
14	20-3	95	116.3	7.8	2.85	95	2/17/2010 21:56	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1853	0.00792	26-1	2/17/2010 5:27
15	20-4	95	117.1	2.87	2.85	95	2/17/2010 23:34	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1847	0.00792	26-1	2/17/2010 5:27
16	20-5	3.05	117.5	3304.59	2.85	95	2/18/2010 1:10	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1844	0.00792	26-1	2/17/2010 5:27
17	4-1	15	115	26.93	2.85	95	2/18/2010 1:15	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1862	0.00792	26-1	2/17/2010 5:27

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	140.6398	99.2929	250	206.3676	**566.7671**	0.126	2.300	0.290	71.5089	81.6805		SAMPLE				
2	565.1372	398.9917	250	1042.9941	**817147.2346**	0.013	3335.150	33.357	8172.8464	57496.1058		SAMPLE				
3	275.2436	194.3243	250	440.5053	**172827.0568**	0.013	701.640	7.033	1732.4436	12161.0082		SAMPLE				
4	140.5238	99.2110	250	206.1974	**1176.9185**	0.070	4.780	0.332	81.7782	115.7871		SAMPLE				
5	139.7262	98.6479	250	205.0270	**3351.5818**	0.034	13.690	0.452	110.6047	258.3073		SAMPLE				
6	317.0582	223.8458	250	519.2584	**238952.7752**	0.013	972.490	9.733	2391.4159	16813.4042		SAMPLE				
7	140.2941	99.0489	250	205.8603	**508.8366**	0.138	2.070	0.286	70.3002	78.7278		SAMPLE				
8	141.7899	100.1049	250	208.3817	**26636.1640**	0.014	108.710	1.127	276.1505	1875.5834		SAMPLE				
9	140.1248	98.9293	250	205.6118	**1013.9893**	0.078	4.130	0.322	78.9766	105.9469		SAMPLE				
10	139.6768	98.6130	250	204.9545	**6505.0062**	0.024	26.580	0.583	142.6585	474.9869		SAMPLE				
11	139.7337	98.6532	250	205.0379	**17280.2947**	0.015	70.580	0.896	219.3881	1223.3620		SAMPLE				
12	151.0942	106.6738	250	223.7564	**34096.0590**	0.013	139.590	1.433	350.0061	2400.3607		SAMPLE				
13	437.7476	309.0536	250	762.1283	**479660.6422**	0.013	1959.110	19.614	4802.3321	33750.5771		SAMPLE				
14	139.1926	98.2712	250	204.2439	**1207.2292**	0.068	4.950	0.335	81.6578	117.2072		SAMPLE				
15	139.2942	98.3429	250	204.3931	**4.8813**	12.269	0.020	0.245	59.8877	59.8887		MB				
16	560.6881	395.8506	250	1032.7207	**809047.0060**	0.013	3301.740	32.917	8065.7689	56922.4589	246020002.1	DUP	1.0%	0.0354		
17	264.6167	186.8217	250	422.0695	**5830.5091**	0.057	24.080	1.351	327.1305	521.4554		LCS			5558.1560	104.9%

ID: TRITIUM 17 FEB 2010 05:30

USER: 2 COMMENT:GREEN

PRESET TIME :	95.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	26-1	95.00	118.1	2.85	12.55	34.13	3.36	0.53	97.58
2	26-2	95.00	118.9	5.15	9.45	37.21	3.39	1.08	195.81
3	26-3	3.00	117.5	3338.00	2.00	4701.67	1.68	0.02	199.82
4	26-4	14.25	118.8	704.49	2.00	1012.56	1.67	0.05	215.33
5	26-5	95.00	118.7	7.63	7.58	40.13	3.25	0.67	313.46
6	26-6	95.00	117.3	16.54	5.11	51.35	2.88	0.72	411.68
7	26-7	10.30	118.2	975.34	2.00	1381.46	1.68	0.03	423.17
8	26-8	95.00	118.3	4.92	9.62	37.24	3.38	0.90	521.38
9	26-9	89.95	117.5	111.56	2.00	188.30	1.54	0.20	614.39
10	26-10	95.00	118.0	6.98	7.98	39.37	3.29	0.85	712.60
11	26-11	95.00	117.2	29.43	3.81	69.73	2.47	0.63	810.85
12	26-12	95.00	117.3	73.43	2.40	134.11	1.78	0.37	909.12
13	20-1	70.40	116.7	142.44	2.00	231.53	1.57	0.17	982.25
14	20-2	5.10	117.3	1961.96	2.00	2752.35	1.69	0.02	988.44
15	20-3	95.00	116.3	7.80	7.48	41.36	3.20	0.61	1086.54
16	20-4	95.00	117.1	2.87	12.58	34.22	3.52	0.41	1184.64
17	20-5	3.05	117.5	3304.59	1.99	4642.29	1.68	0.01	1188.70

ID: TRITIUM 18 FEB 2010 01:20

USER: 4 COMMENT: GREEN

PRESET TIME :	15.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	:	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	4-1	15.00	115.0	26.93	9.97	69.47	6.20	0.38	15.80

INSTRUMENT CALIBRATION: Mini 18 FEB 2010 01:39
Calibration successful

Sample Count Start Time:	17 Feb 2010 05:27:22		
Data Capture Date	17 Feb 2010 07:02:38		
User Filename	S02021726-1A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	26-1	95.00
H#, Total Counts:	118.1	3305	
Win1: Tritium - Start, End, Counts:	10	230	271
Win2: - Start, End, Counts:	0	990	3305

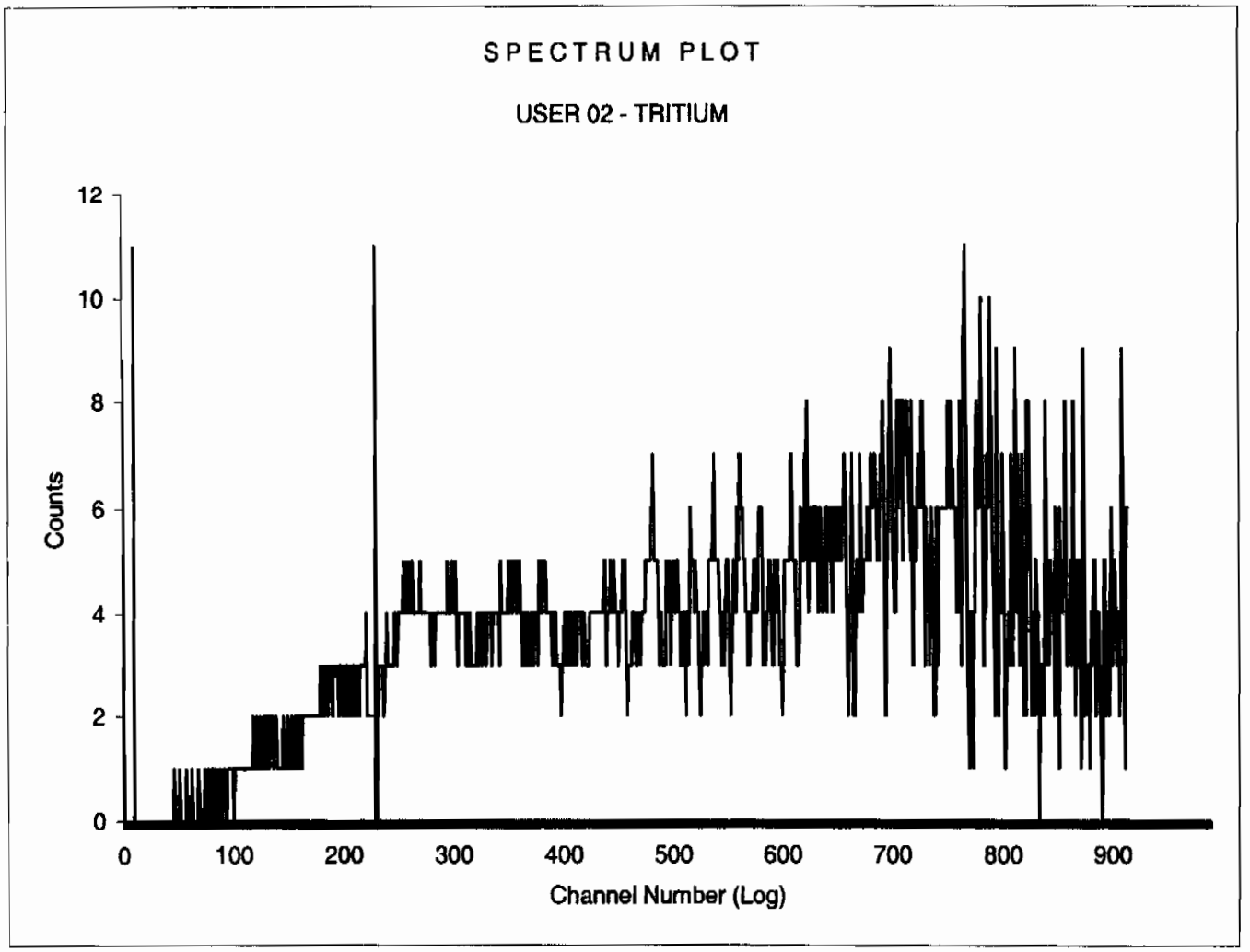

Sample Count Start Time:	17 Feb 2010 07:05:36		
Data Capture Date	17 Feb 2010 08:40:53		
User Filename	S02021726-2A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	26-2	95.00
H#, Total Counts:	118.9	3610	
Win1: Tritium - Start, End, Counts:	10	230	489
Win2: - Start, End, Counts:	0	990	3610

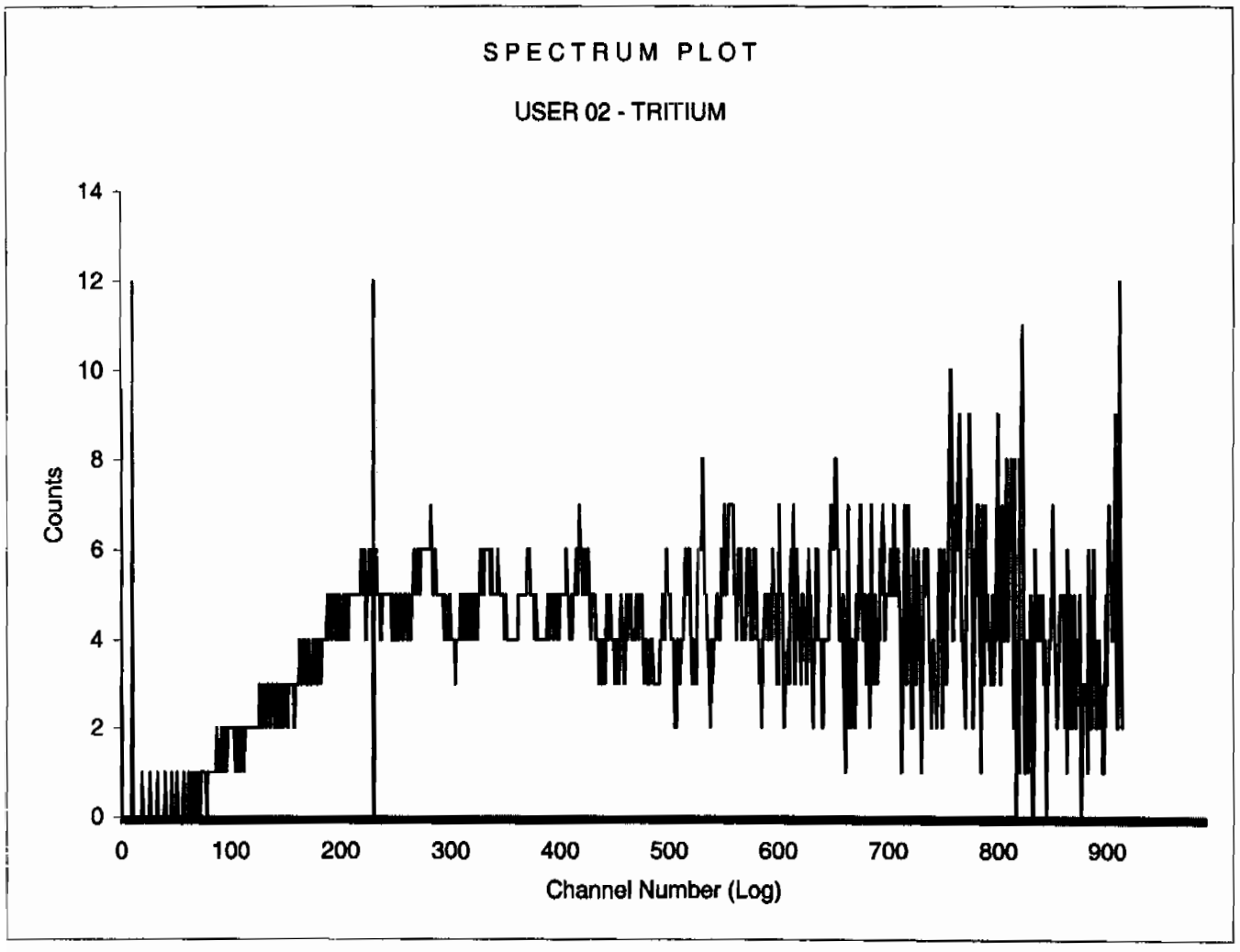

Sample Count Start Time:	17 Feb 2010 08:41:36		
Data Capture Date	17 Feb 2010 08:44:51		
User Filename	S02021726-3A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	26-3	3.00
H#, Total Counts:	117.5	14044	
Win1: Tritium - Start, End, Counts:	10	230	9950
Win2: - Start, End, Counts:	0	990	14044

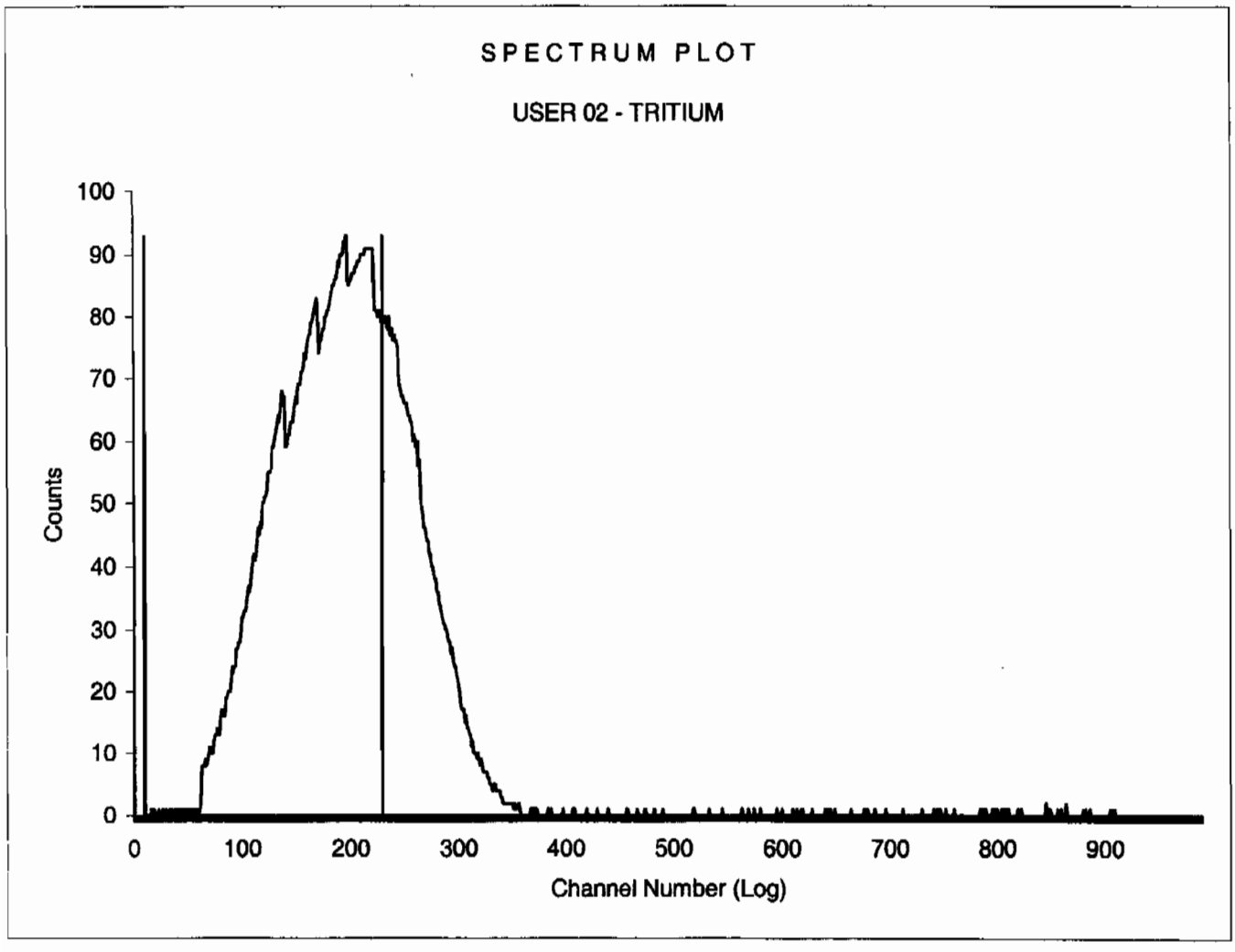

Sample Count Start Time:	17 Feb 2010 08:45:52		
Data Capture Date	17 Feb 2010 09:00:23		
User Filename	S02021726-4A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	26-4	14.25
H#, Total Counts:	118.8	14439	
Win1: Tritium - Start, End, Counts:	10	230	10039
Win2: - Start, End, Counts:	0	990	14439

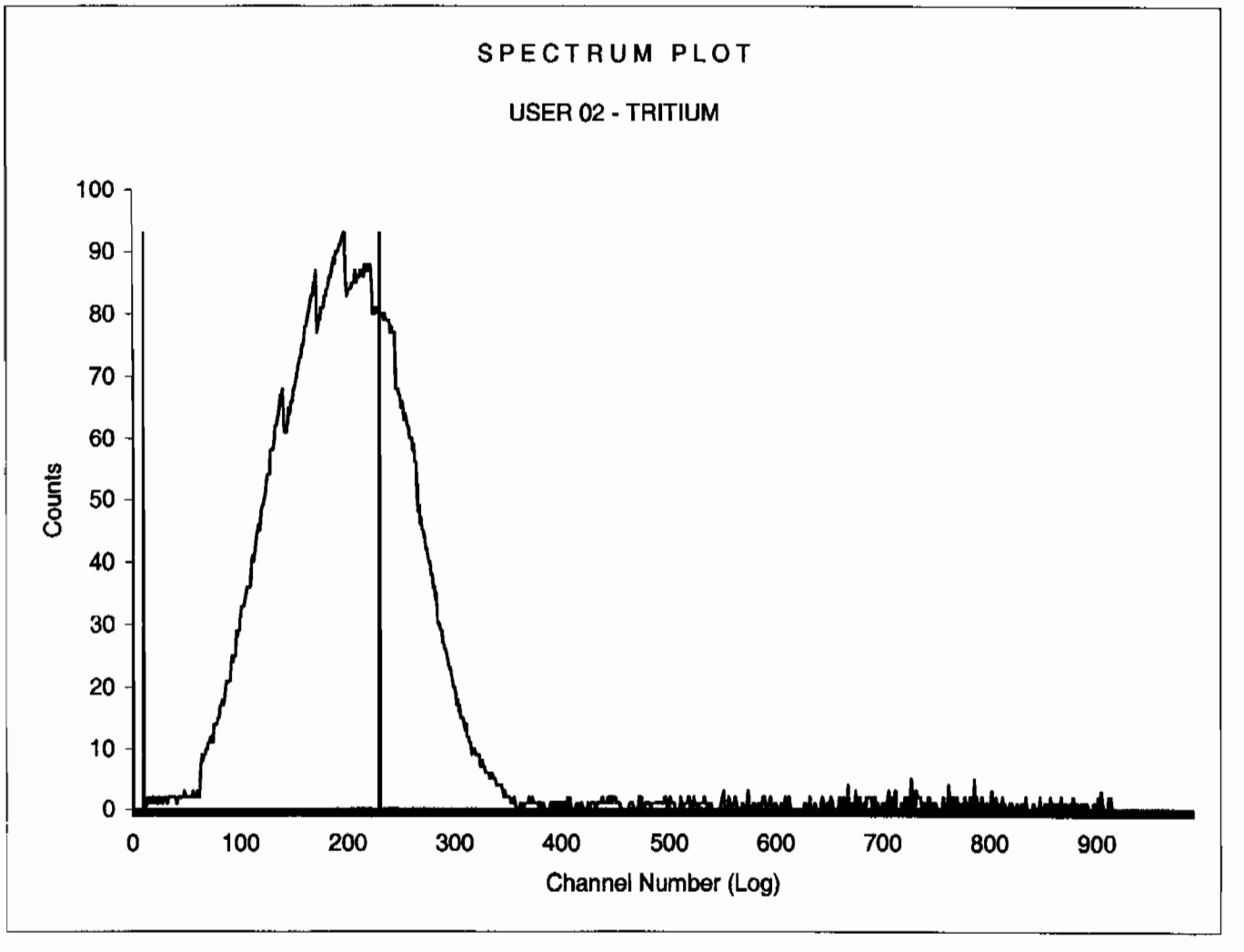

Sample Count Start Time:	17 Feb 2010 09:03:15		
Data Capture Date	17 Feb 2010 10:38:32		
User Filename	S02021726-5A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	26-5	95.00
H#, Total Counts:	118.7	3876	
Win1: Tritium - Start, End, Counts:	10	230	725
Win2: - Start, End, Counts:	0	990	3876

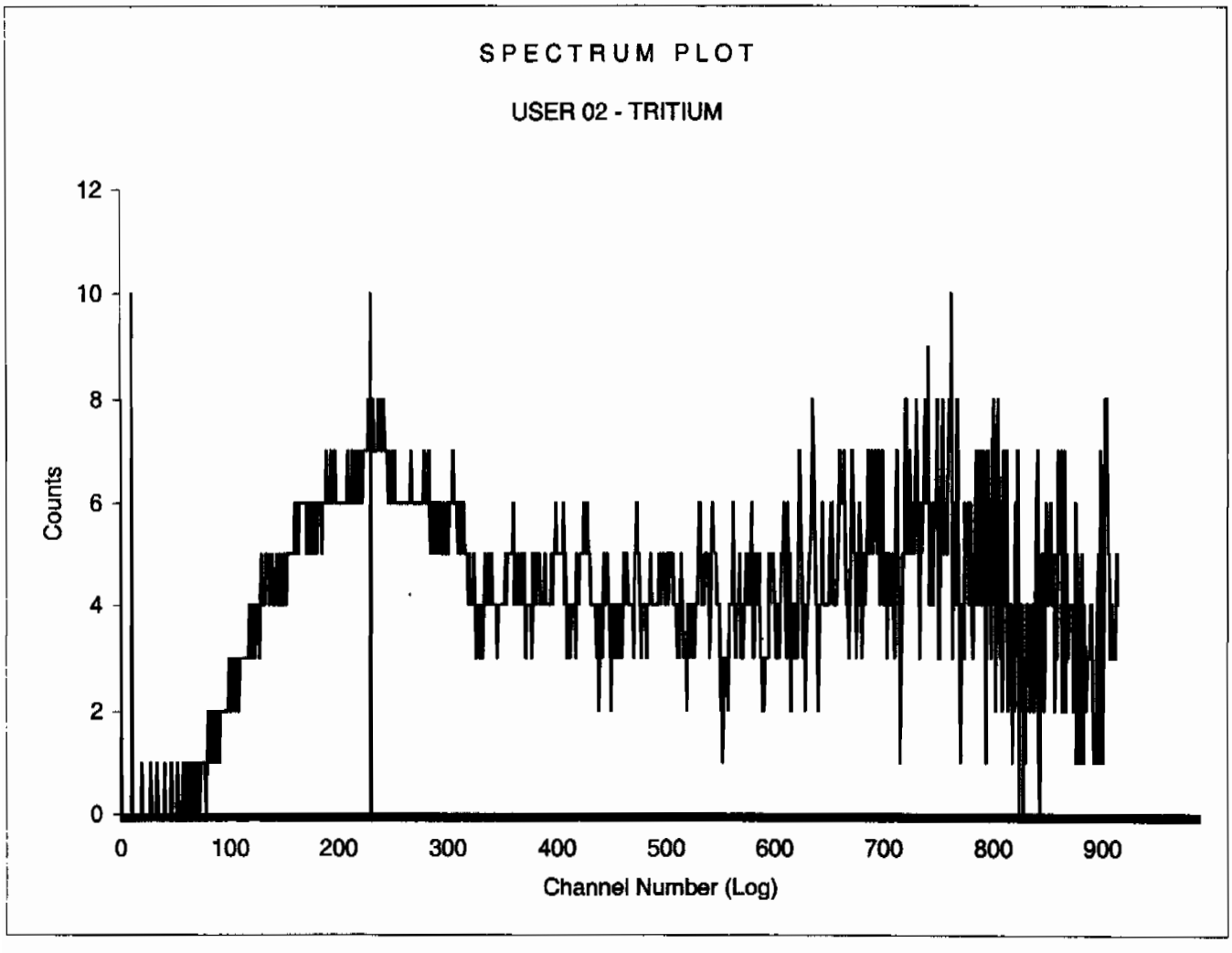

Sample Count Start Time:	17 Feb 2010 10:41:28		
Data Capture Date	17 Feb 2010 12:16:45		
User Filename	S02021726-6A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	26-6	95.00
H#, Total Counts:	117.3	4927	
Win1: Tritium - Start, End, Counts:	10	230	1571
Win2: - Start, End, Counts:	0	990	4927

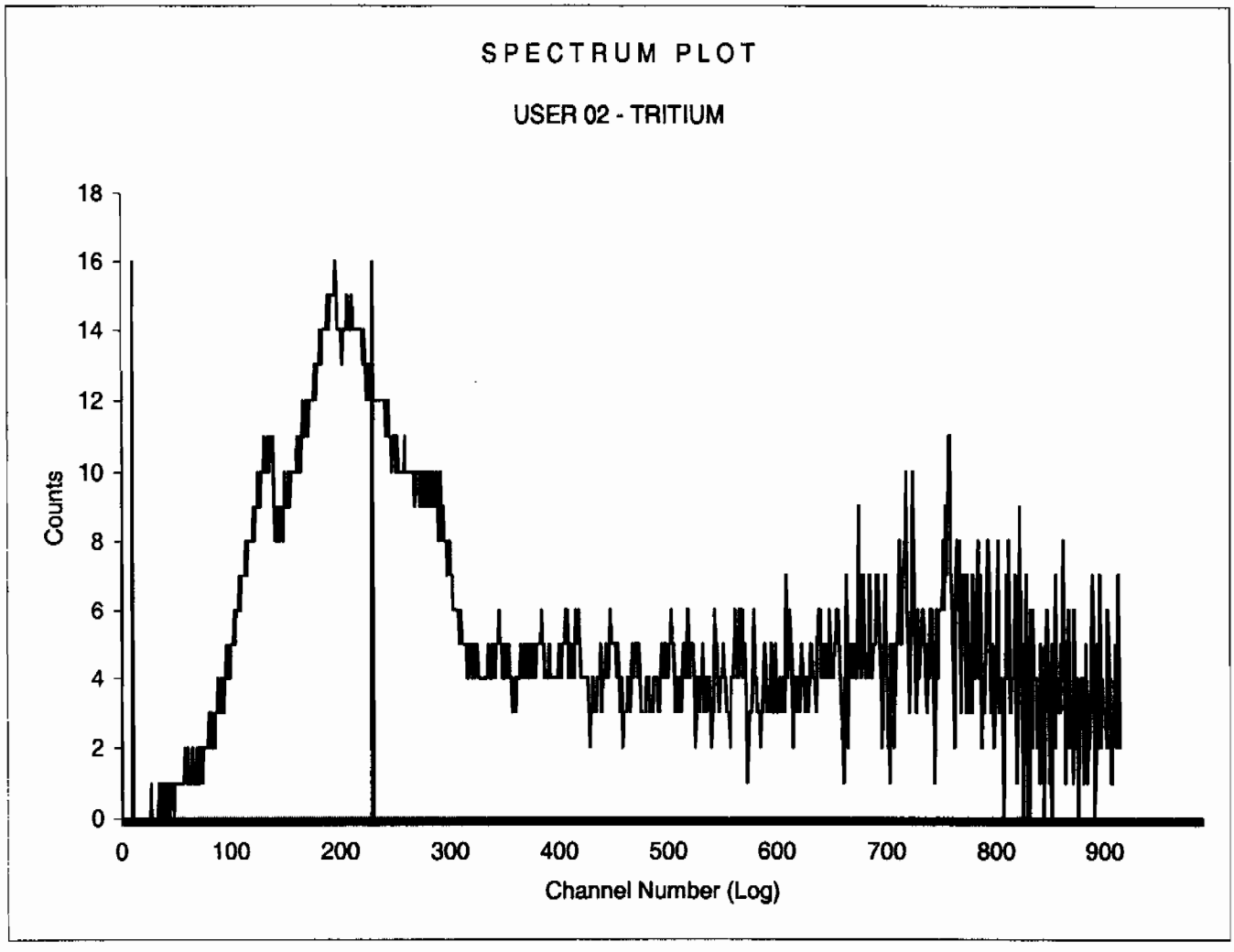

Sample Count Start Time:	17 Feb 2010 12:17:39		
Data Capture Date	17 Feb 2010 12:28:14		
User Filename	S02021726-7A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	26-7	10.30
H#, Total Counts:	118.2	14234	
Win1: Tritium - Start, End, Counts:	10	230	10046
Win2: - Start, End, Counts:	0	990	14234

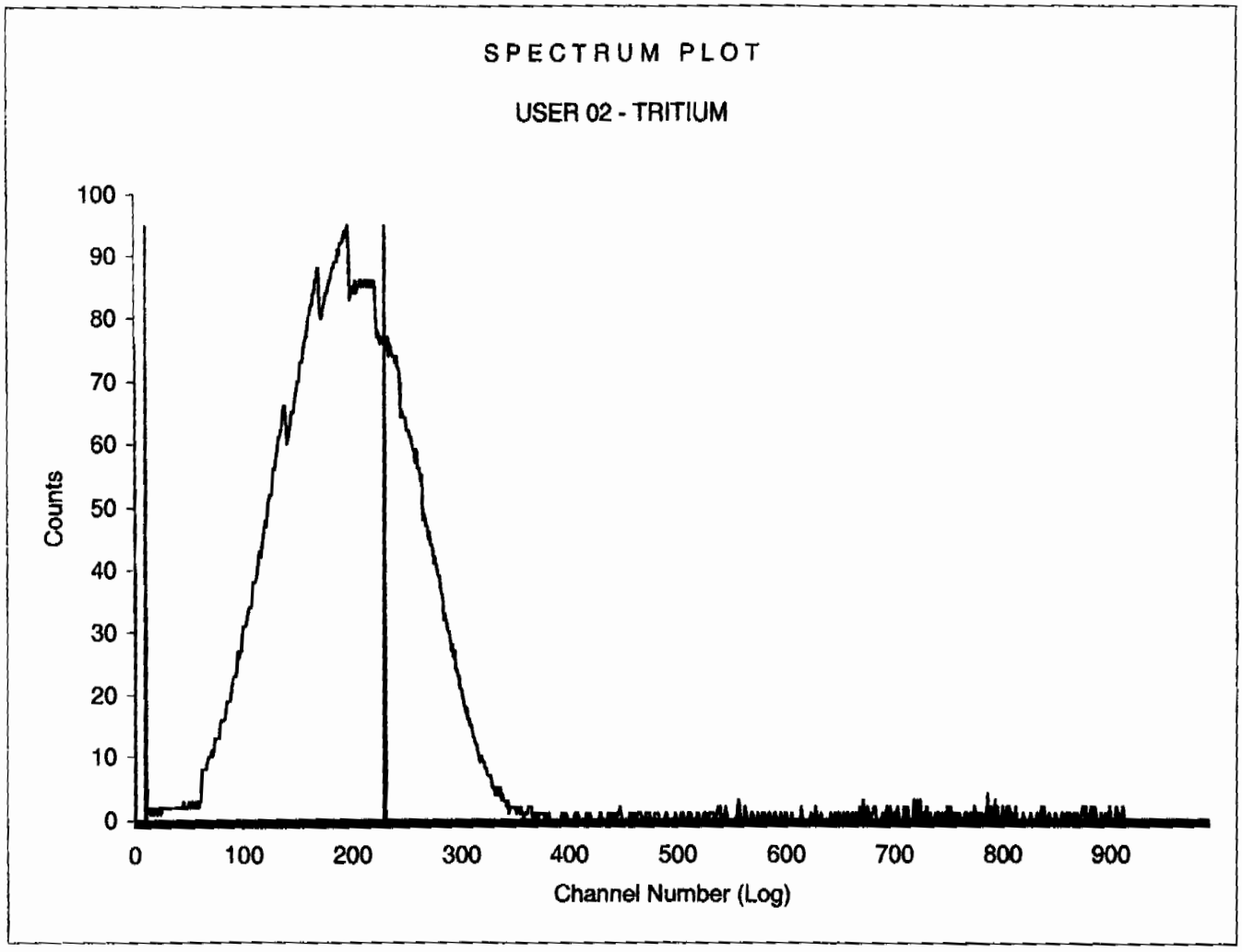

Sample Count Start Time:	17 Feb 2010 12:31:10		
Data Capture Date	17 Feb 2010 14:06:27		
User Filename	S02021726-8A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	26-8	95.00
H#, Total Counts:	118.3	3593	
Win1: Tritium - Start, End, Counts:	10	230	467
Win2: - Start, End, Counts:	0	990	3593

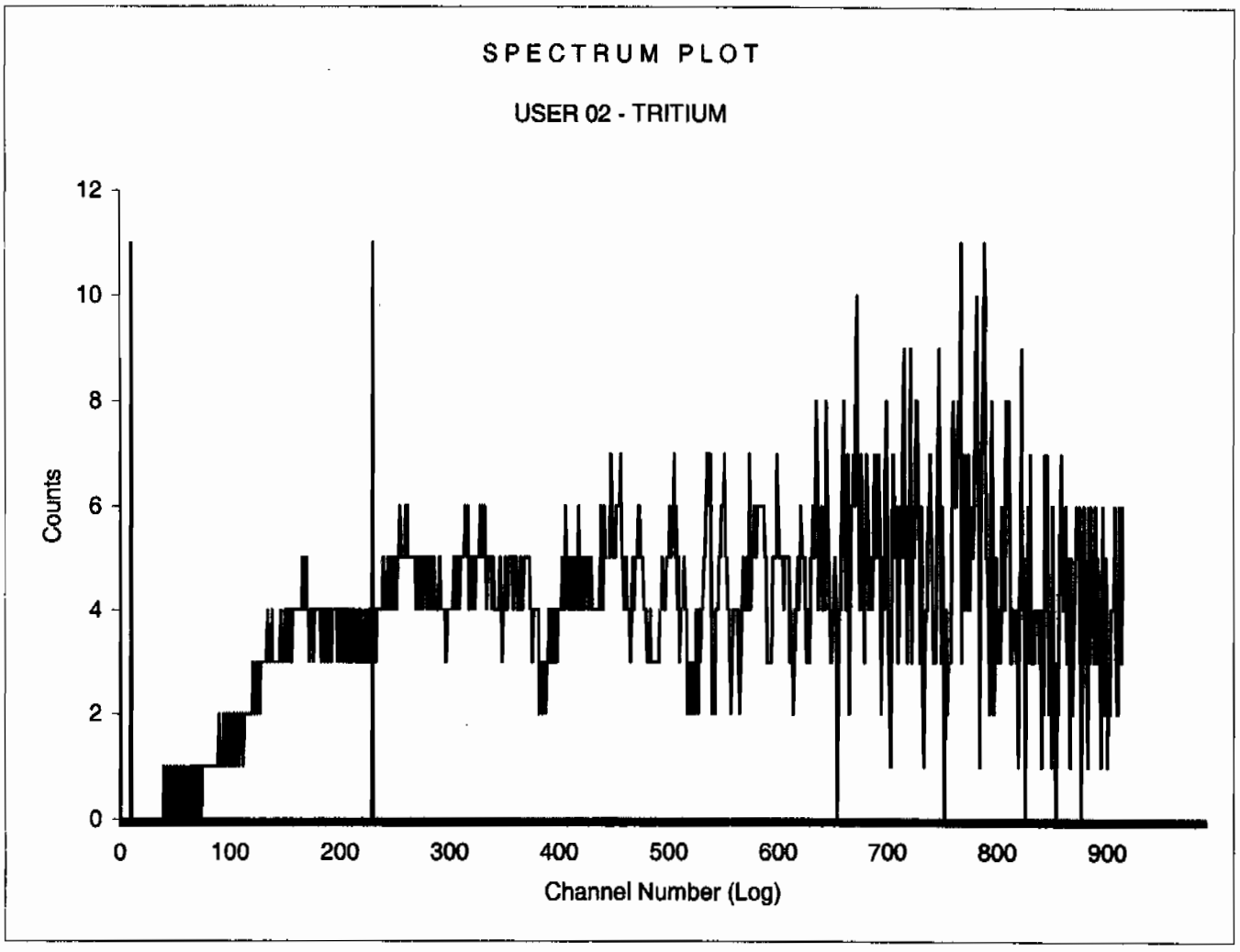

Sample Count Start Time:	17 Feb 2010 14:09:13		
Data Capture Date	17 Feb 2010 15:39:29		
User Filename	S02021726-9A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	26-9	89.95
H#, Total Counts:	117.5	16993	
Win1: Tritium - Start, End, Counts:	10	230	10035
Win2: - Start, End, Counts:	0	990	16993

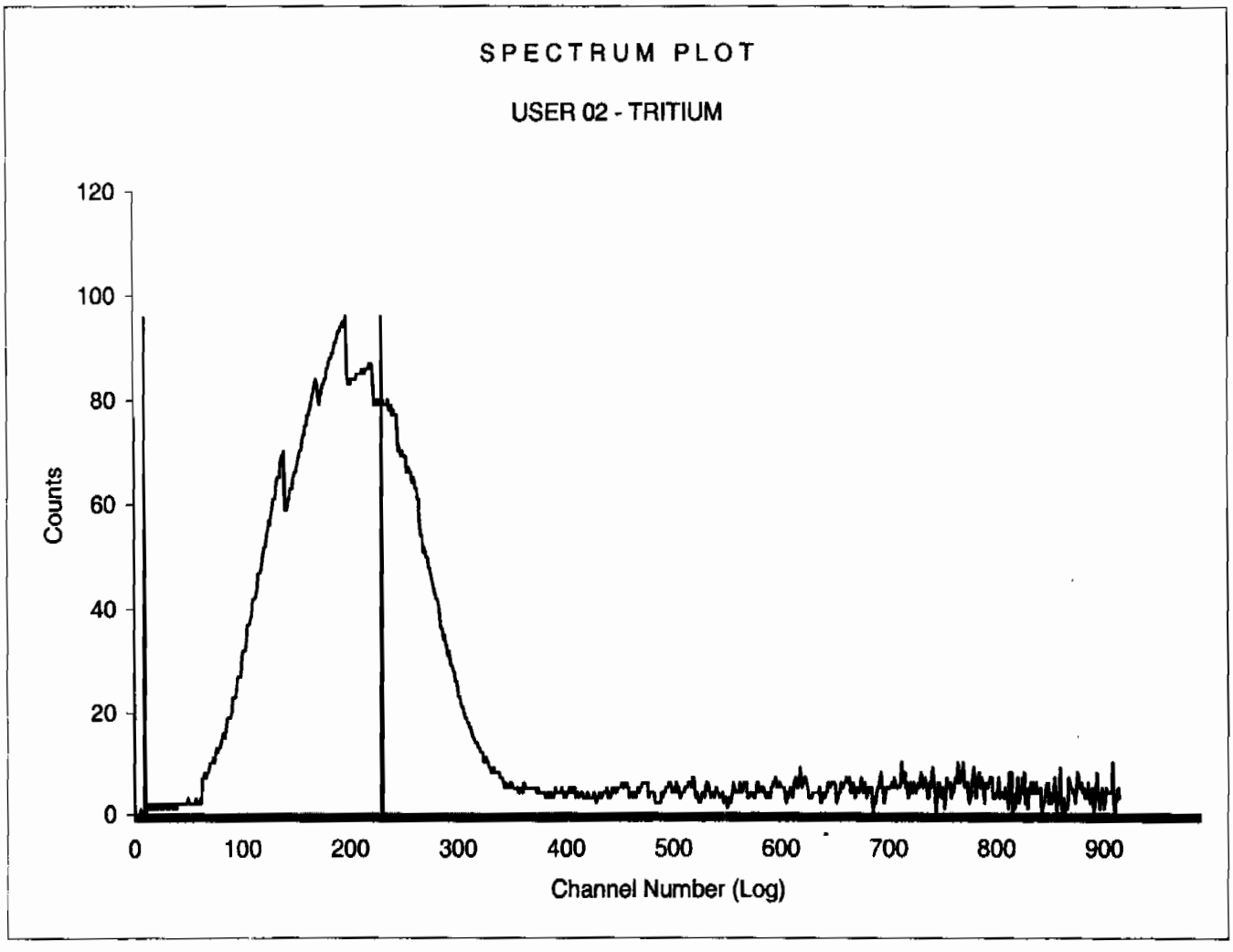

Sample Count Start Time:	17 Feb 2010 15:42:23		
Data Capture Date	17 Feb 2010 17:17:41		
User Filename	S02021726-10A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	26-10	95.00
H#, Total Counts:	118.0	3789	
Win1: Tritium - Start, End, Counts:	10	230	663
Win2: - Start, End, Counts:	0	990	3789

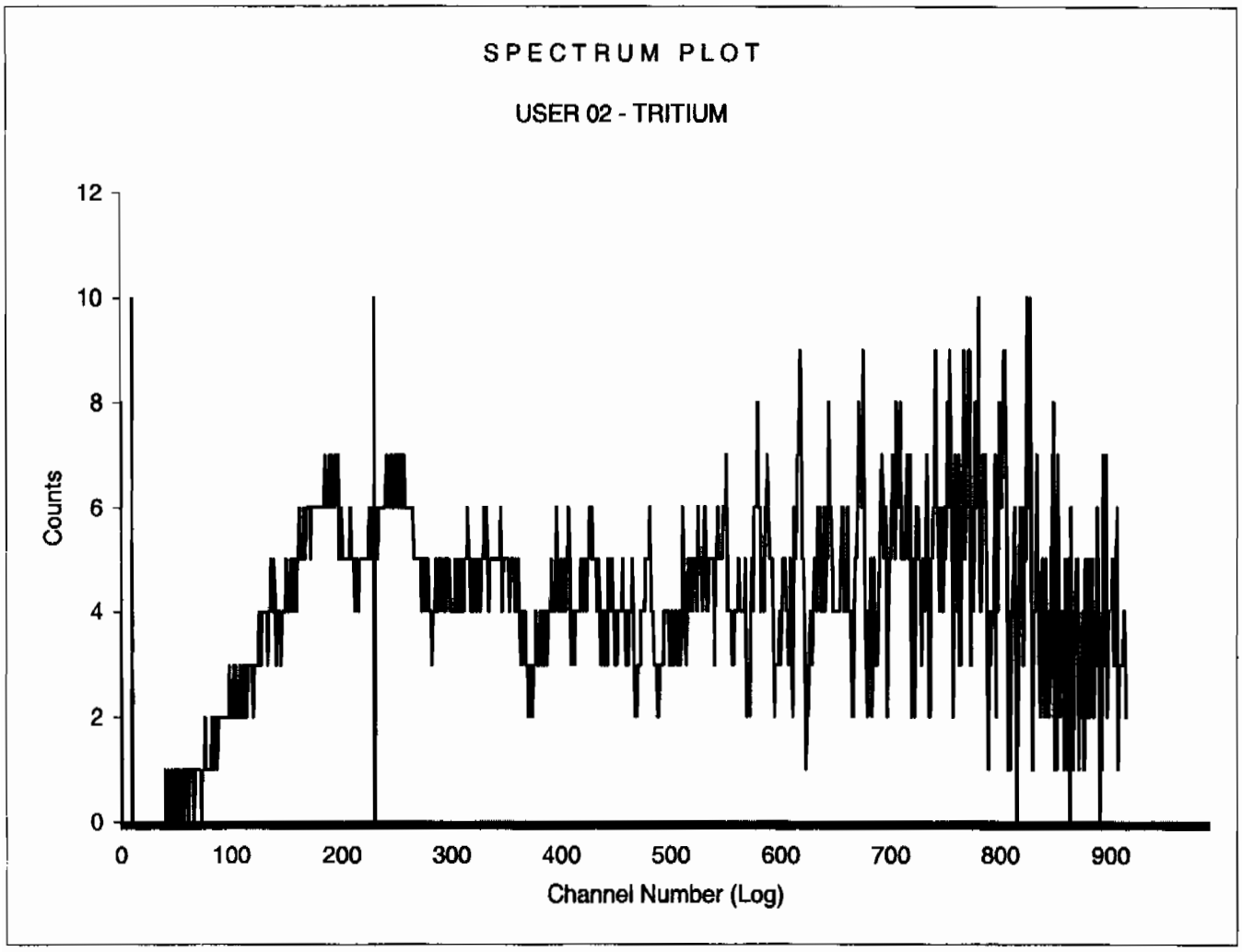

Sample Count Start Time:	17 Feb 2010 17:20:38		
Data Capture Date	17 Feb 2010 18:55:56		
User Filename	S02021726-11A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	26-11	95.00
H#, Total Counts:	117.2	6643	
Win1: Tritium - Start, End, Counts:	10	230	2764
Win2: - Start, End, Counts:	0	990	6643

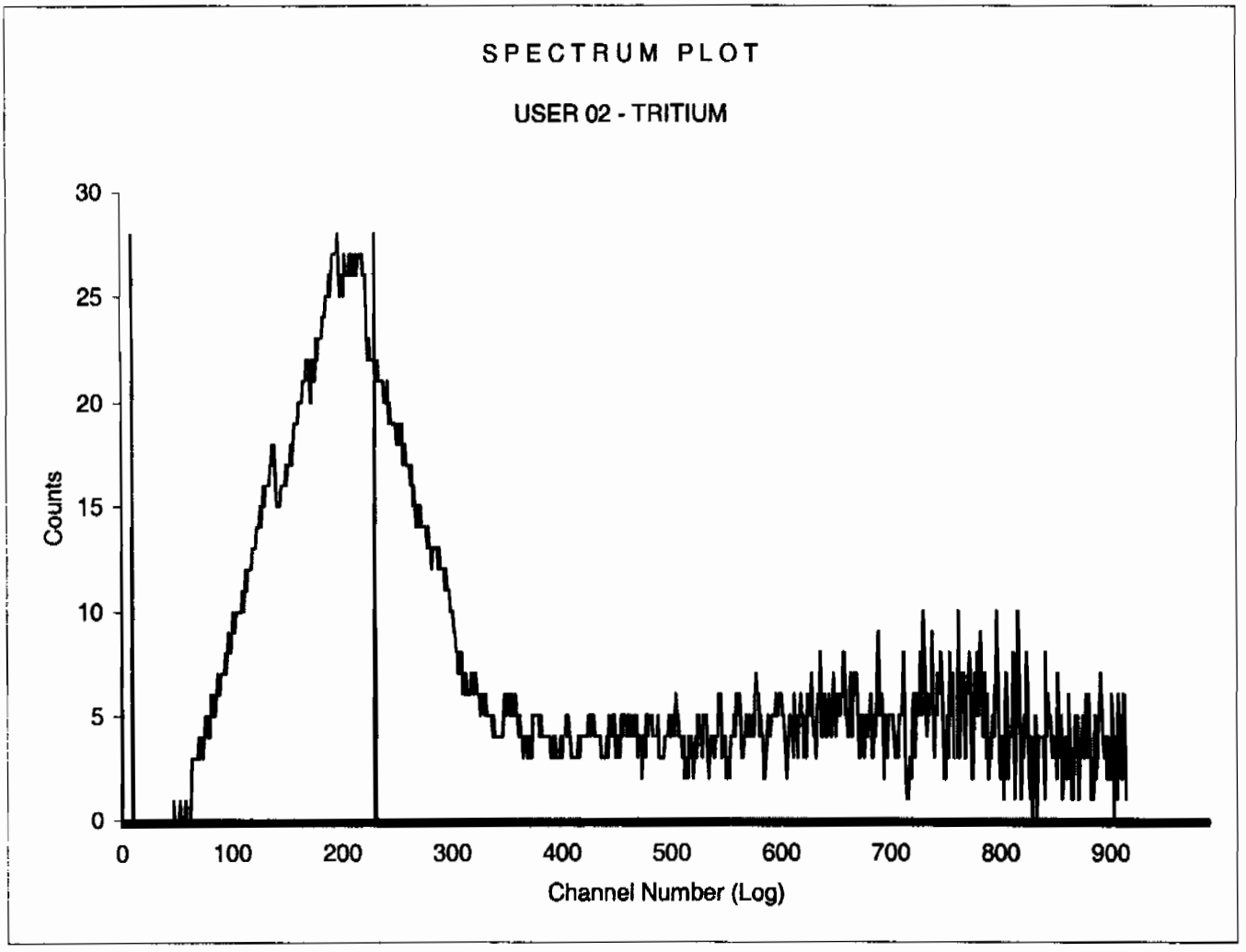

Sample Count Start Time:	17 Feb 2010 18:58:54		
Data Capture Date	17 Feb 2010 20:34:13		
User Filename	S02021726-12A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	26-12	95.00
H#, Total Counts:	117.3	12725	
Win1: Tritium - Start, End, Counts:	10	230	6912
Win2: - Start, End, Counts:	0	990	12725

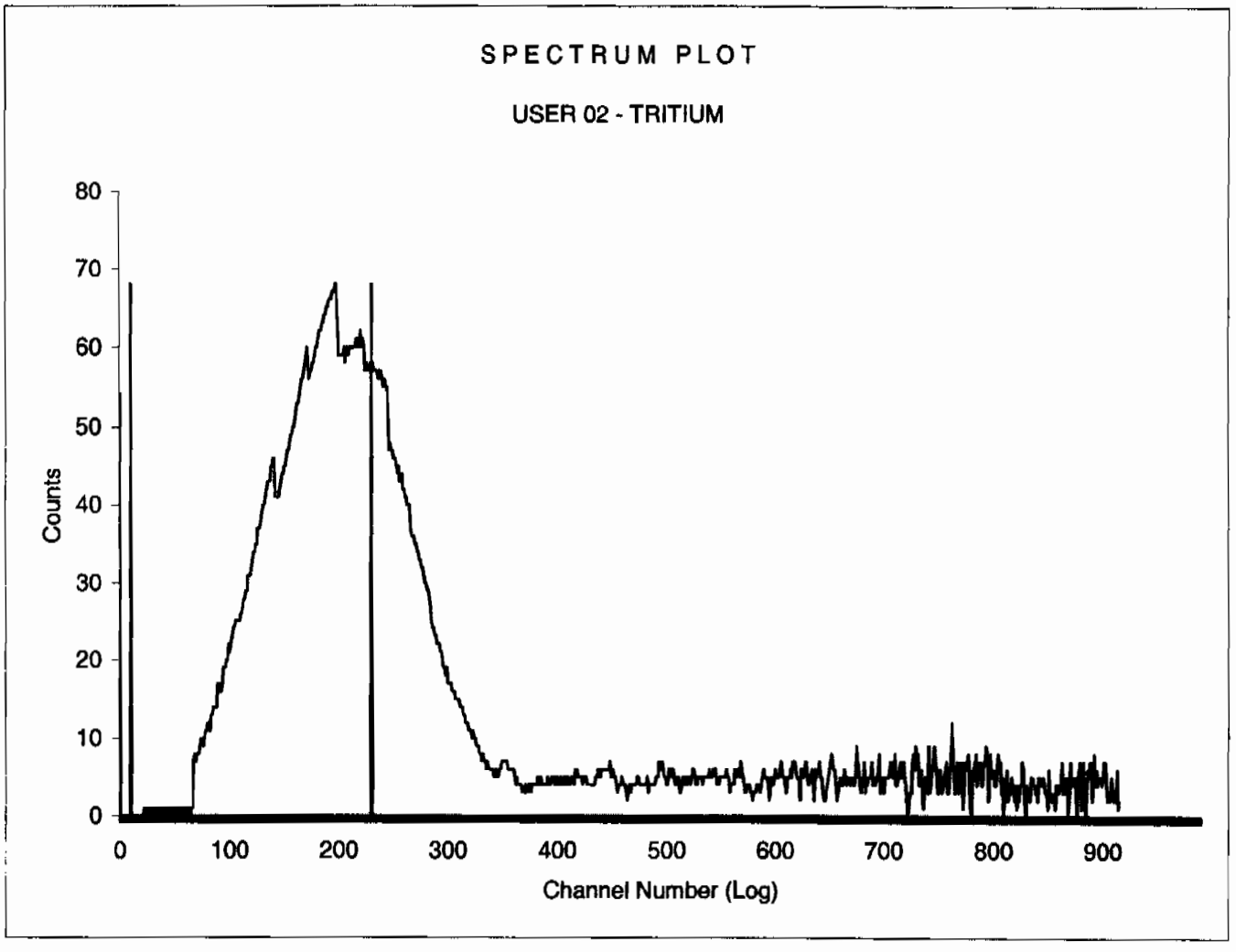

Sample Count Start Time:	17 Feb 2010 20:36:38		
Data Capture Date	17 Feb 2010 21:47:21		
User Filename	S02021720-1A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	13	20-1	70.40
H#, Total Counts:	116.7	16327	
Win1: Tritium - Start, End, Counts:	10	230	10028
Win2: - Start, End, Counts:	0	990	16327

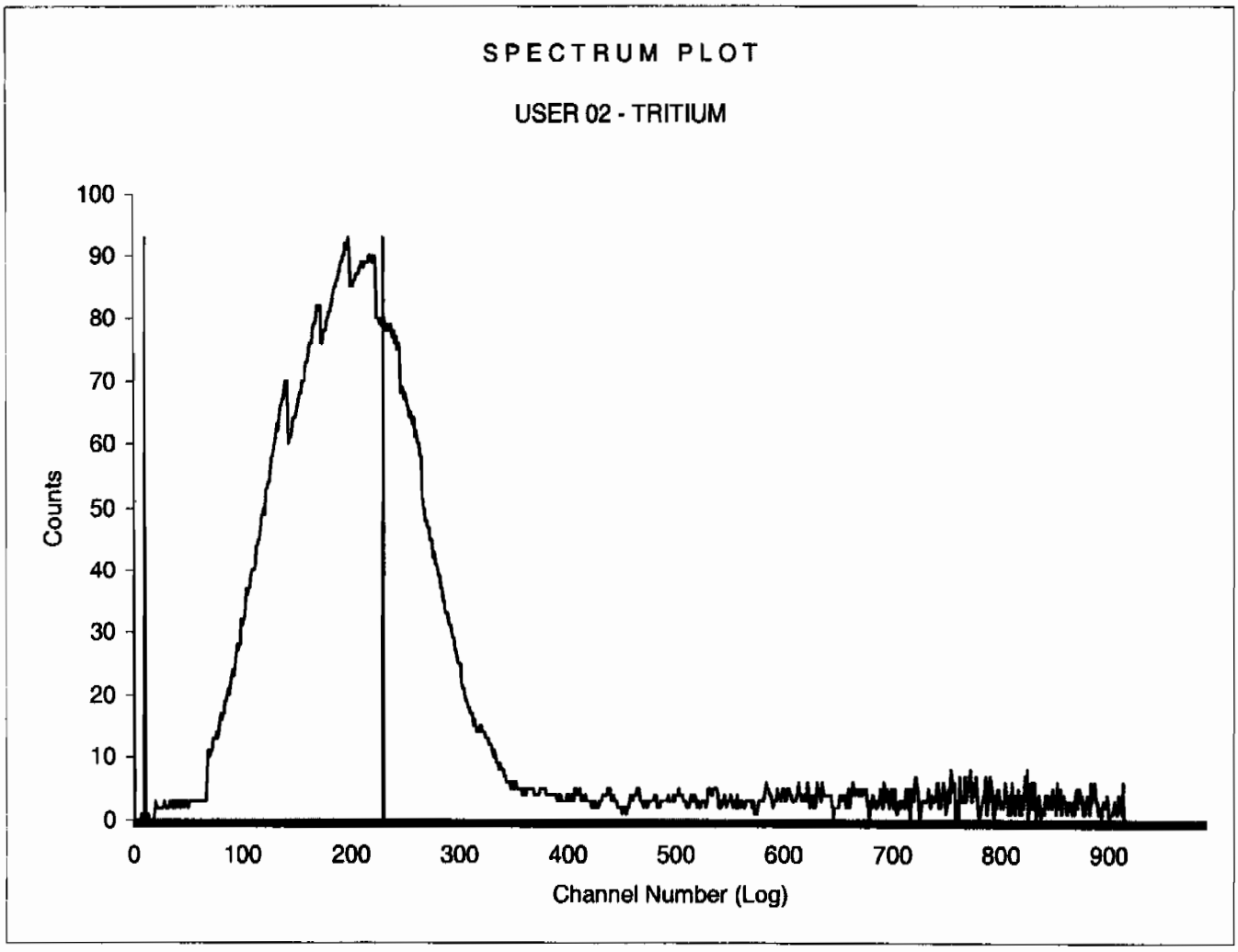

Sample Count Start Time:	17 Feb 2010 21:48:07		
Data Capture Date	17 Feb 2010 21:53:30		
User Filename	S02021720-2A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	14	20-2	5.10
H#, Total Counts:	117.3	14041	
Win1: Tritium - Start, End, Counts:	10	230	10006
Win2: - Start, End, Counts:	0	990	14041

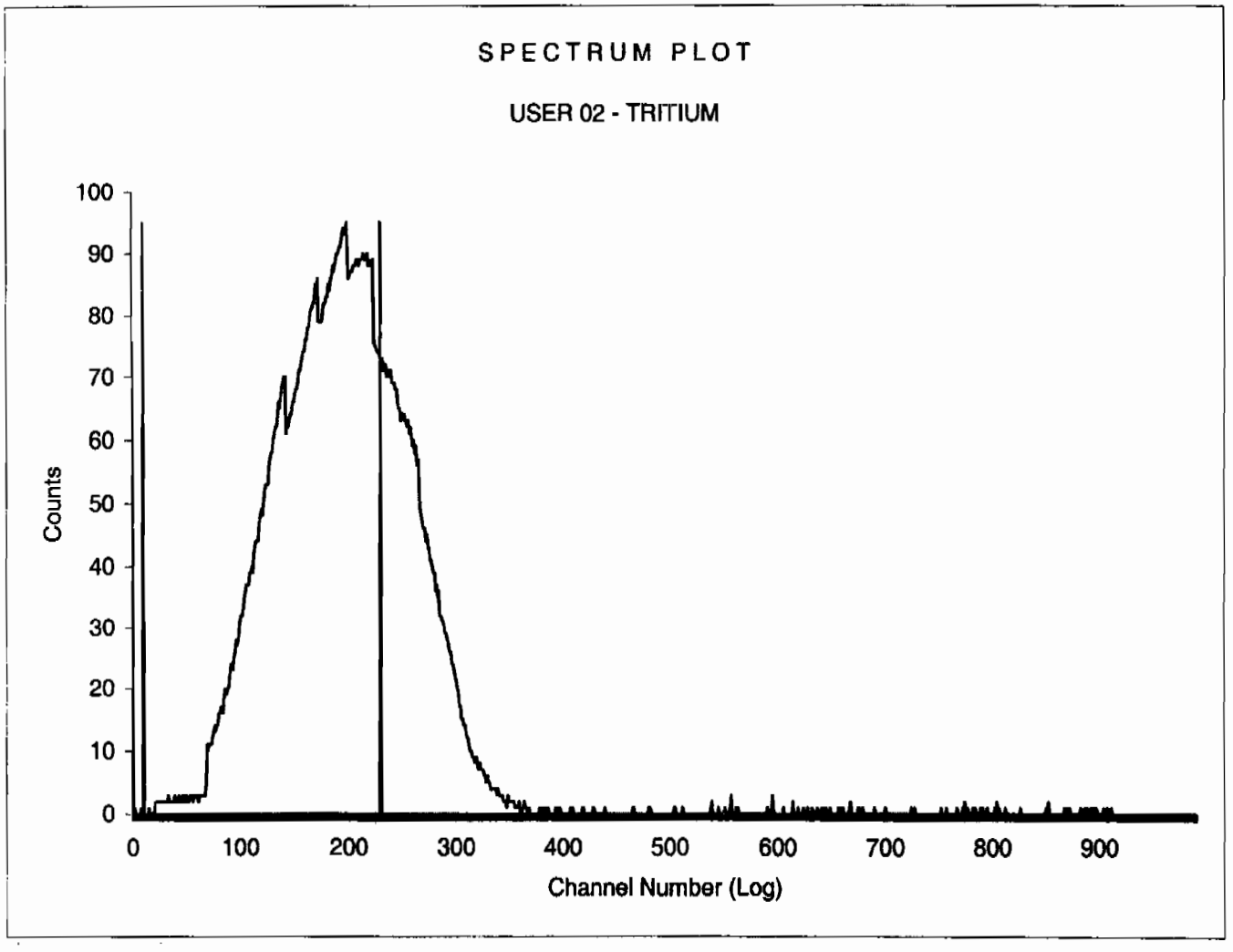

Sample Count Start Time:	17 Feb 2010 21:56:19		
Data Capture Date	17 Feb 2010 23:31:38		
User Filename	S02021720-3A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	15	20-3	95.00
H#, Total Counts:	116.3	3976	
Win1: Tritium - Start, End, Counts:	10	230	741
Win2: - Start, End, Counts:	0	990	3976

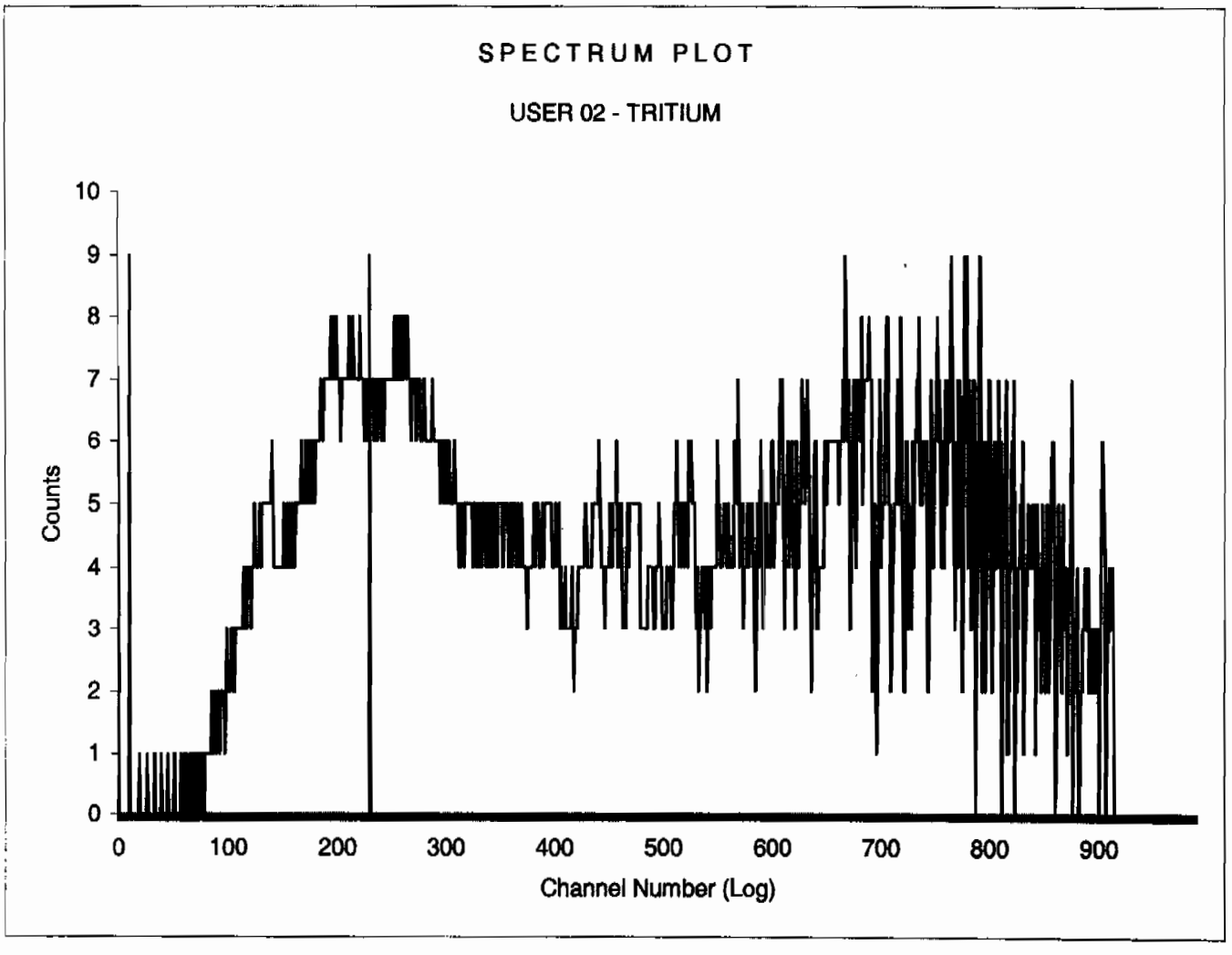

Sample Count Start Time:	17 Feb 2010 23:34:25		
Data Capture Date	18 Feb 2010 01:09:44		
User Filename	S02021820-4A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	16	20-4	95.00
H#, Total Counts:	117.1	3308	
Win1: Tritium - Start, End, Counts:	10	230	273
Win2: - Start, End, Counts:	0	990	3308

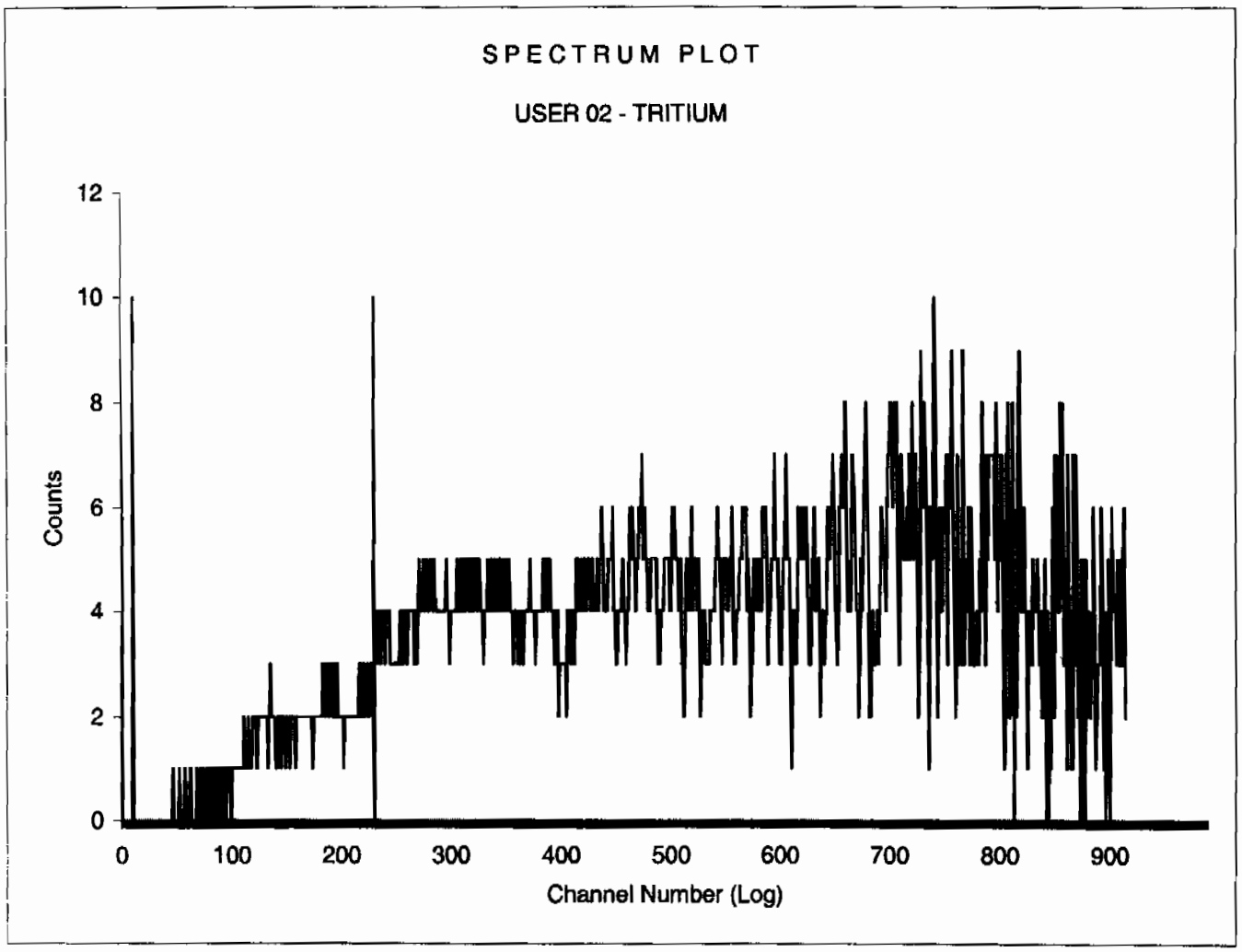

Sample Count Start Time:	18 Feb 2010 01:10:26		
Data Capture Date	18 Feb 2010 01:13:46		
User Filename	S02021820-5A.XLS		
	U02021726-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	17	20-5	3.05
H#, Total Counts:	117.5	14161	
Win1: Tritium - Start, End, Counts:	10	230	10079
Win2: - Start, End, Counts:	0	990	14161

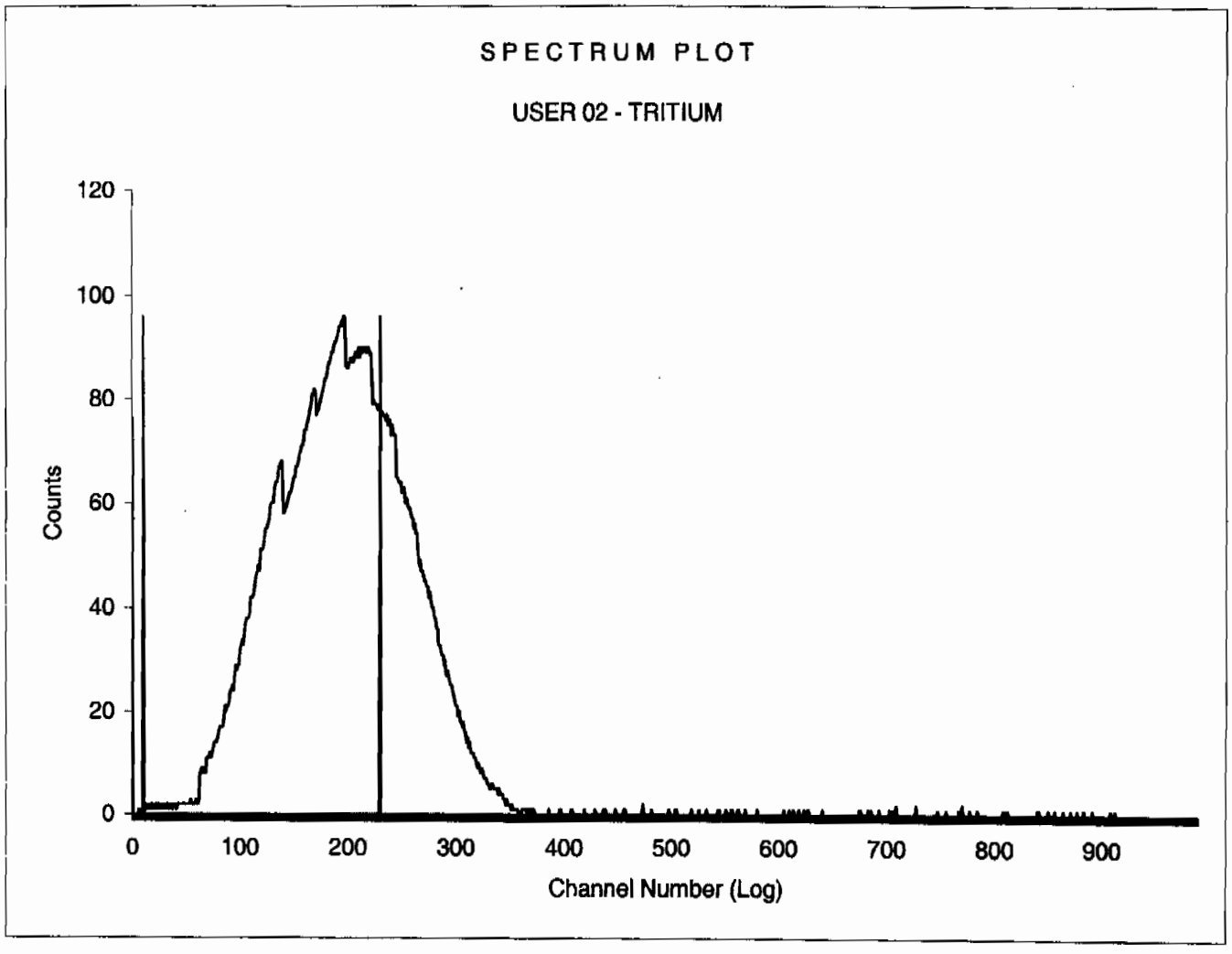

Sample Count Start Time:	18 Feb 2010 01:15:13		
Data Capture Date	18 Feb 2010 01:30:18		
User Filename	S04021804-1A.XLS		
	U04021804-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	4-1	15.00
H#, Total Counts:	115.0	1050	
Win1: Tritium - Start, End, Counts:	10	230	404
Win2: - Start, End, Counts:	0	990	1050

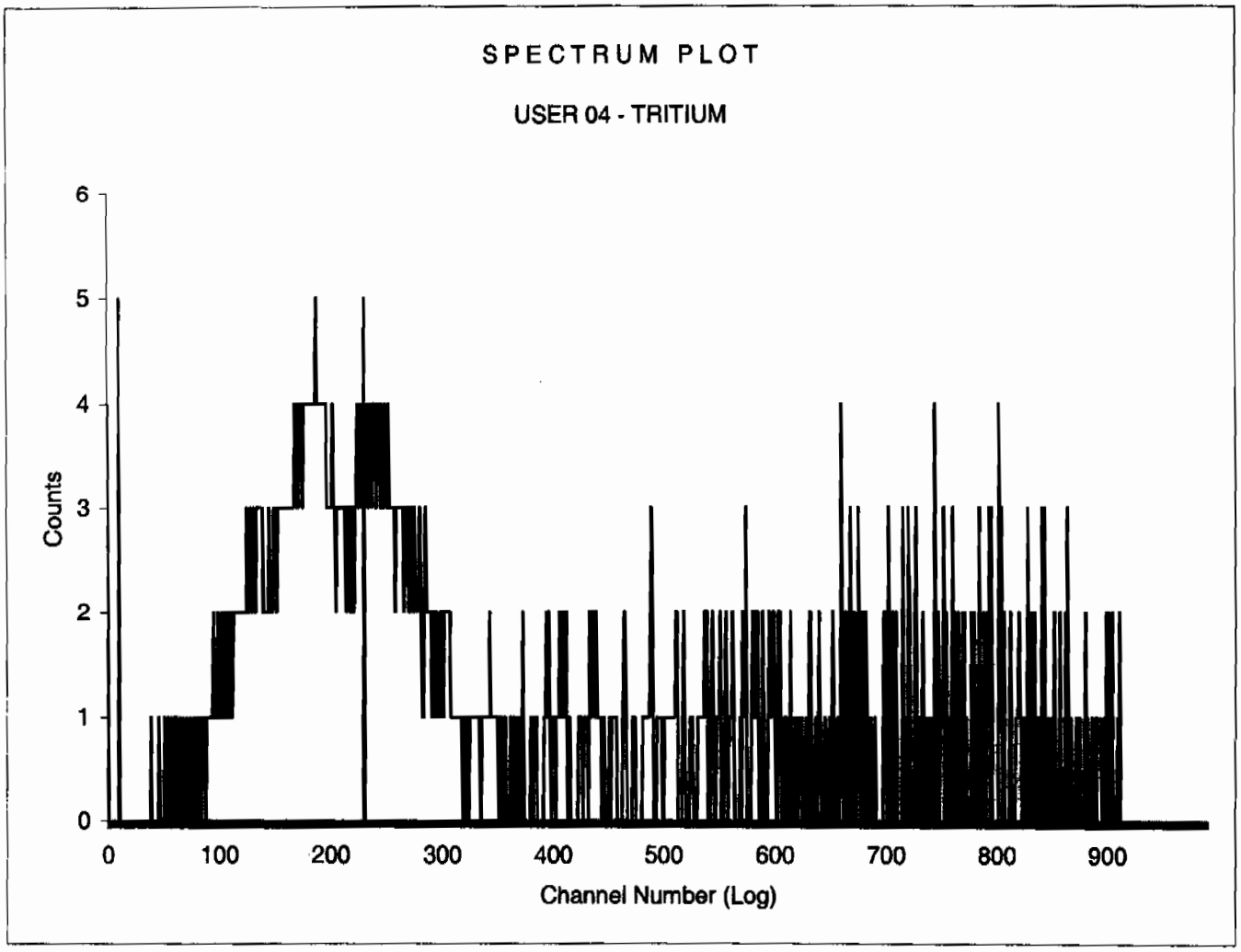

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313195 through 0.333195

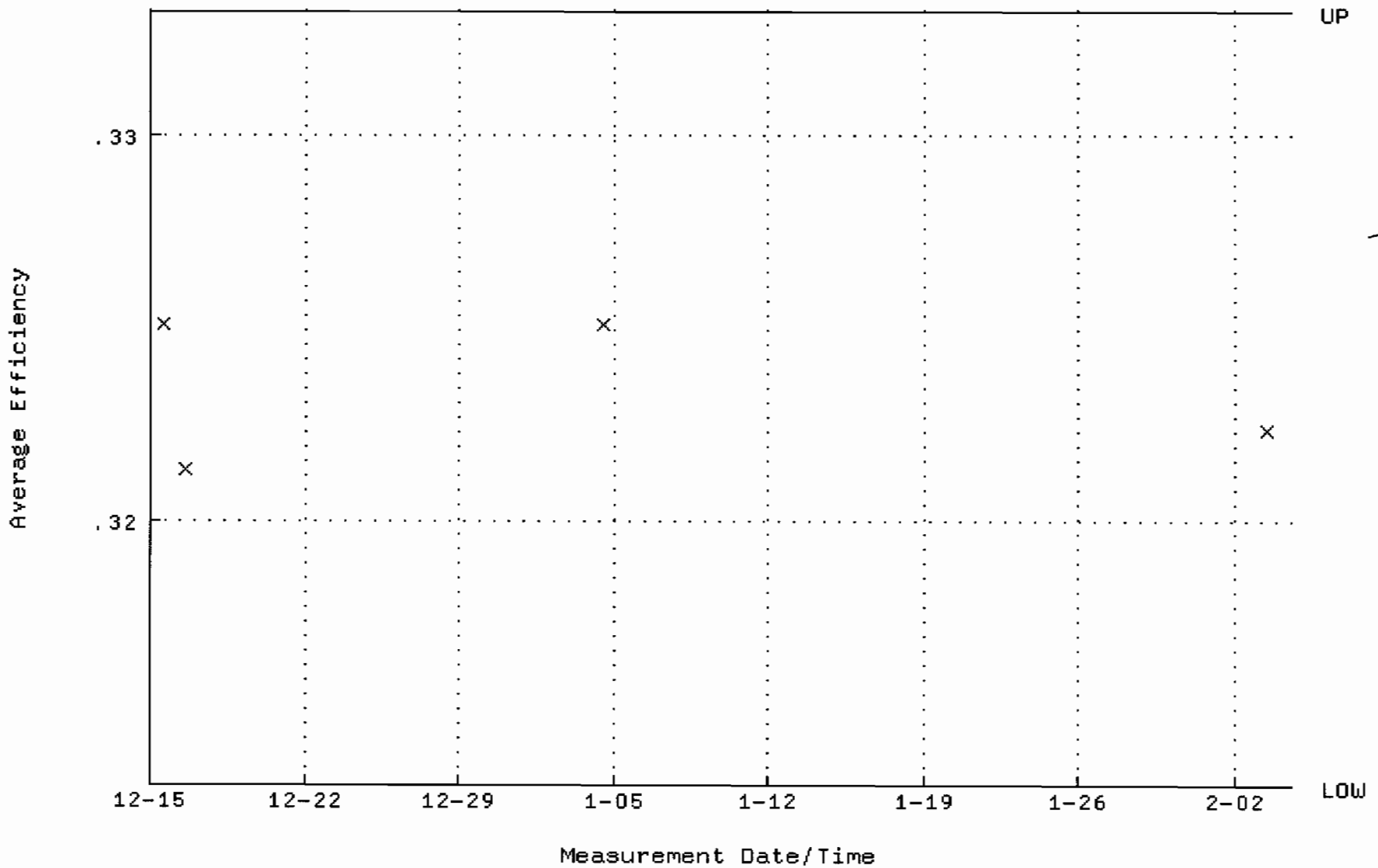

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1884 through 96.3662

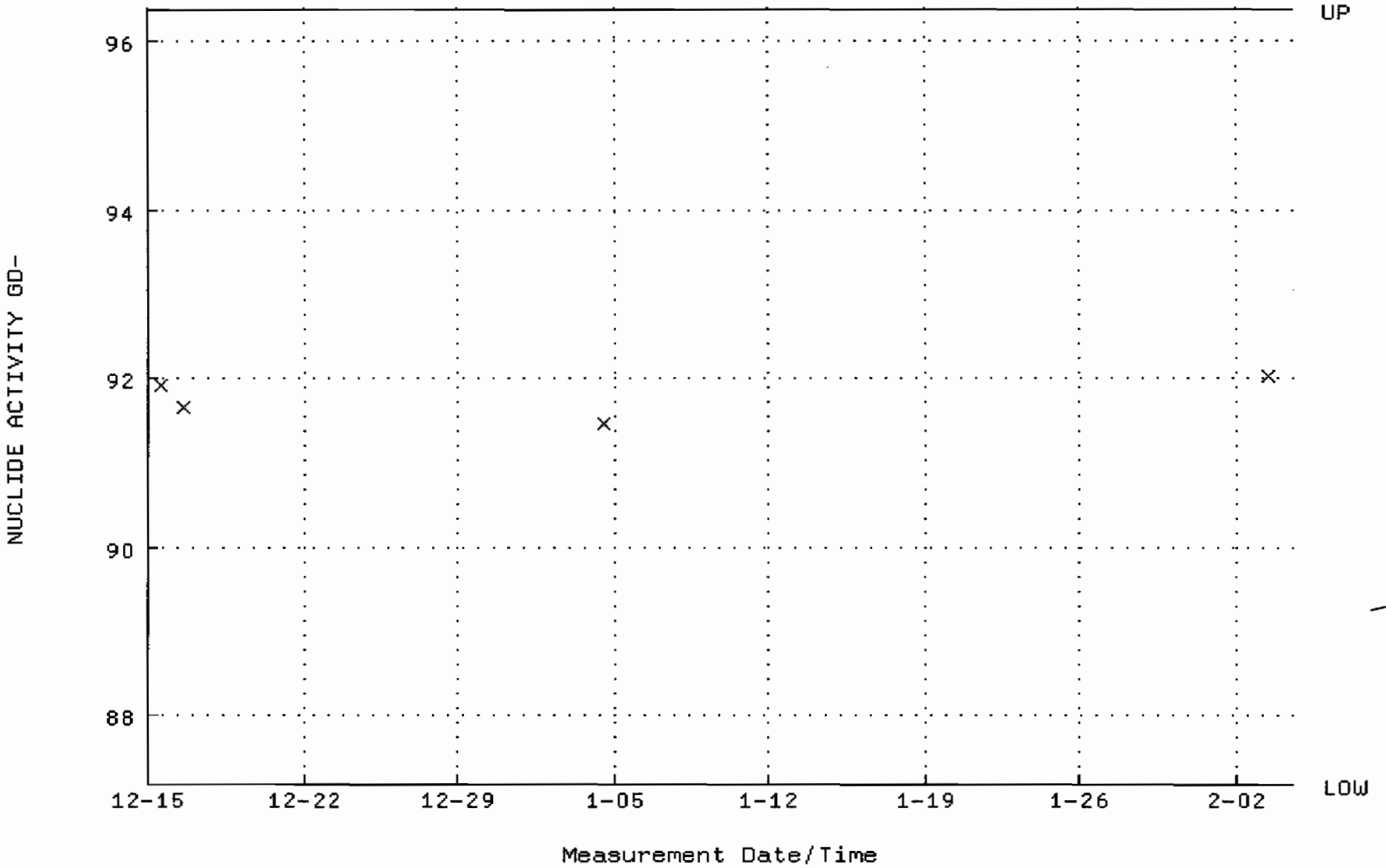

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

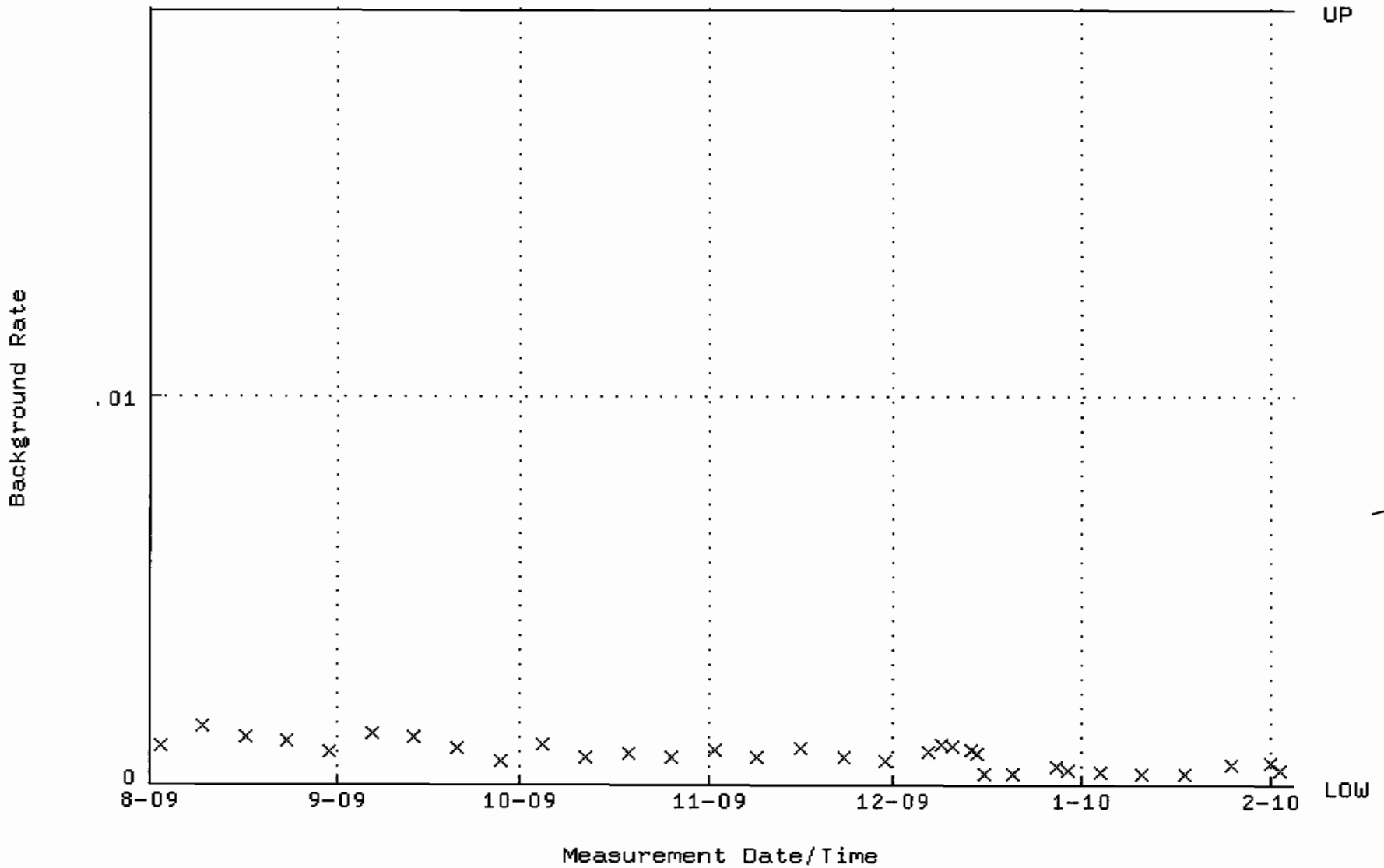

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.283765 through 0.303765

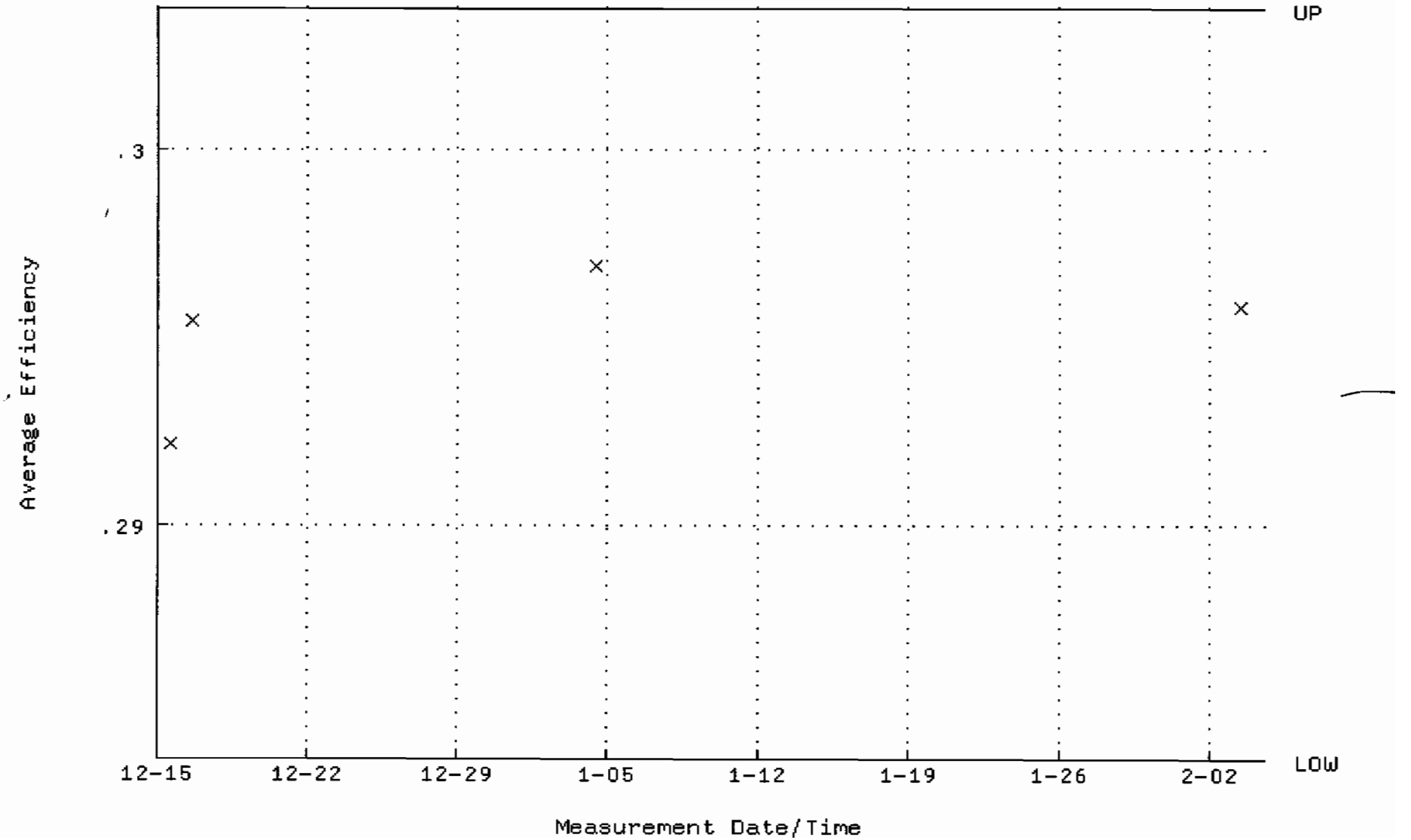

QA filename : DKA100:[ENV_ALPHA.QA.W]W002.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8037 through 93.7305

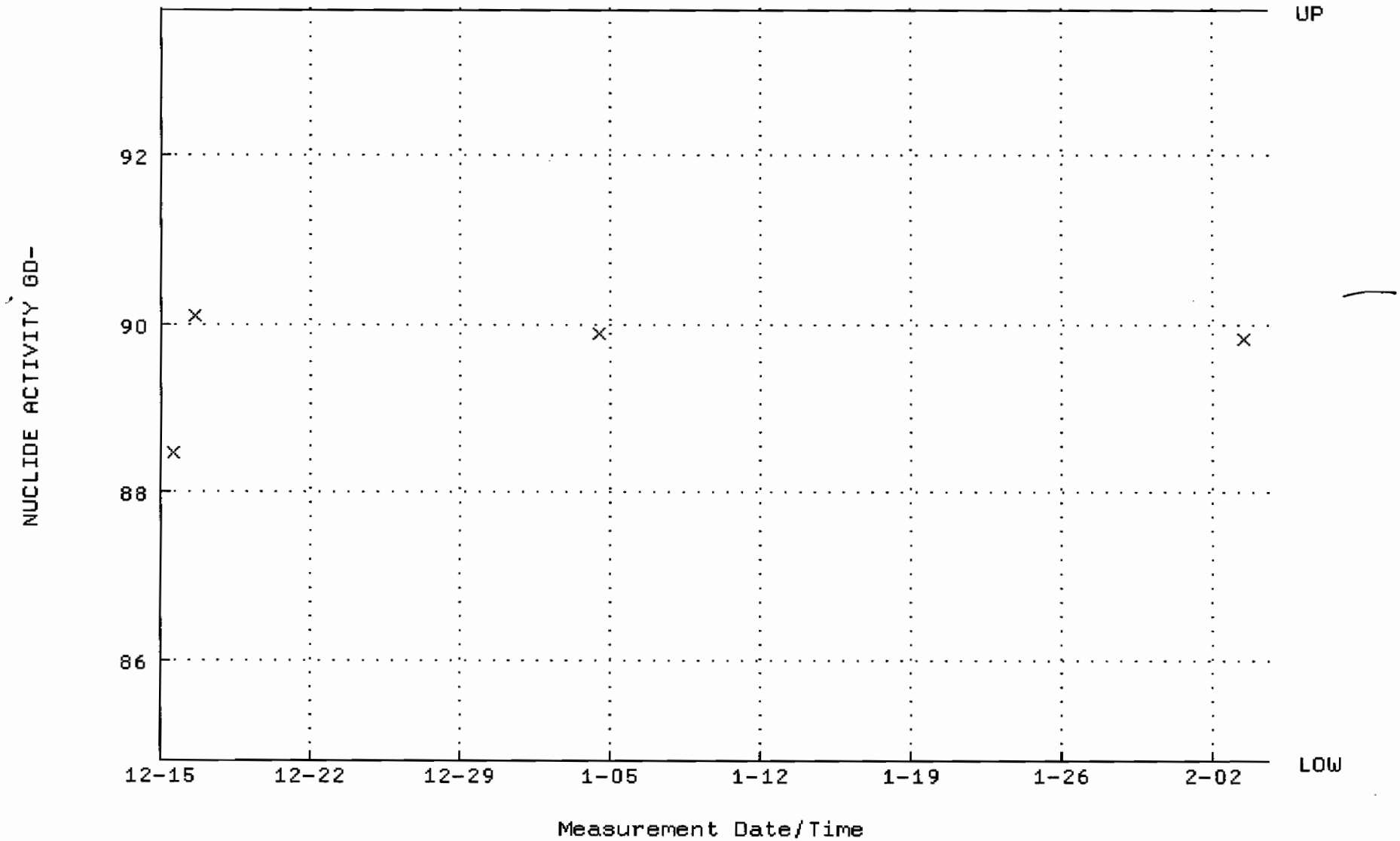

QA filename : DKA100:[ENV_ALPHA.QA.B]B002.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

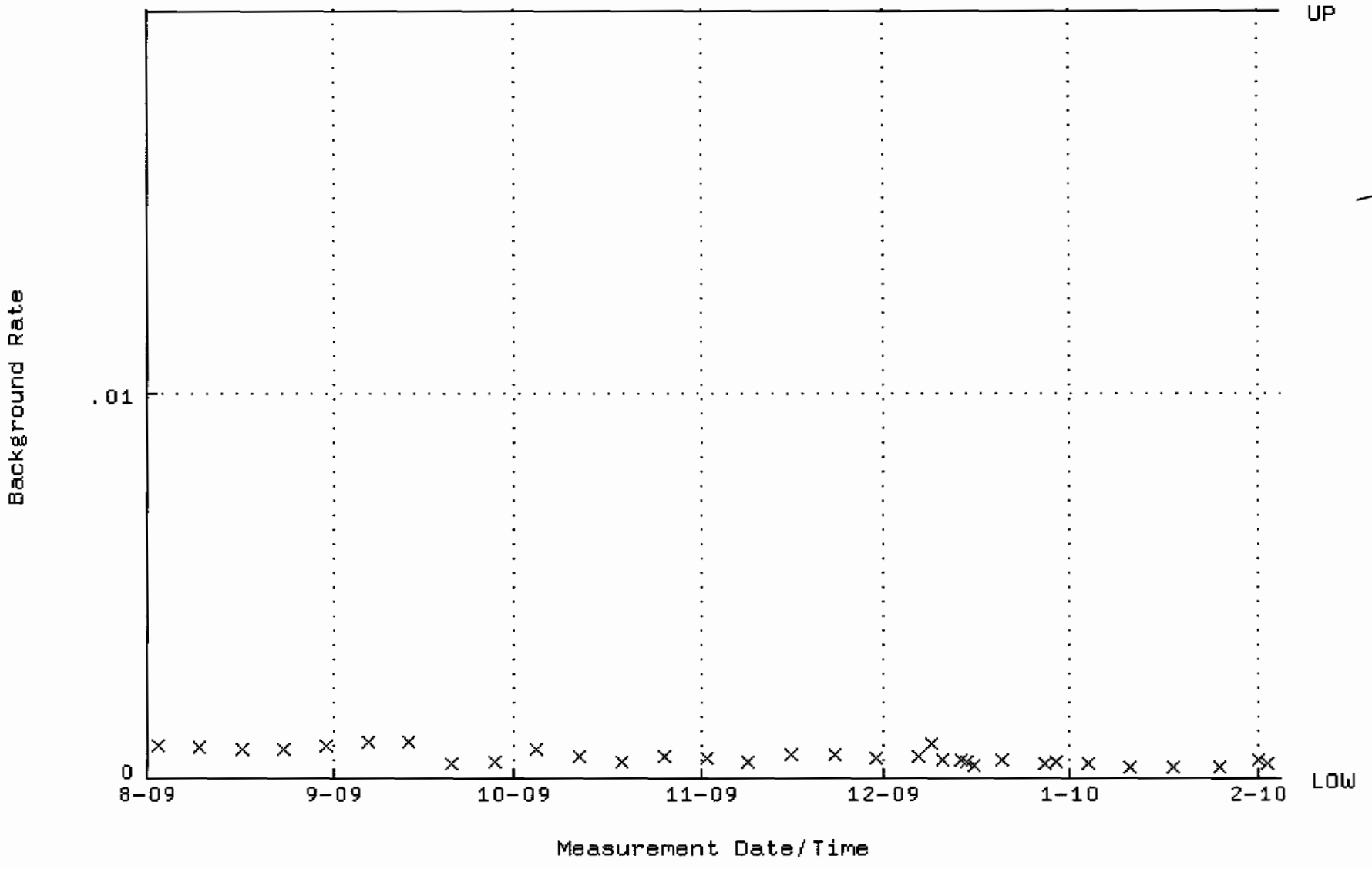

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.299193 through 0.319193

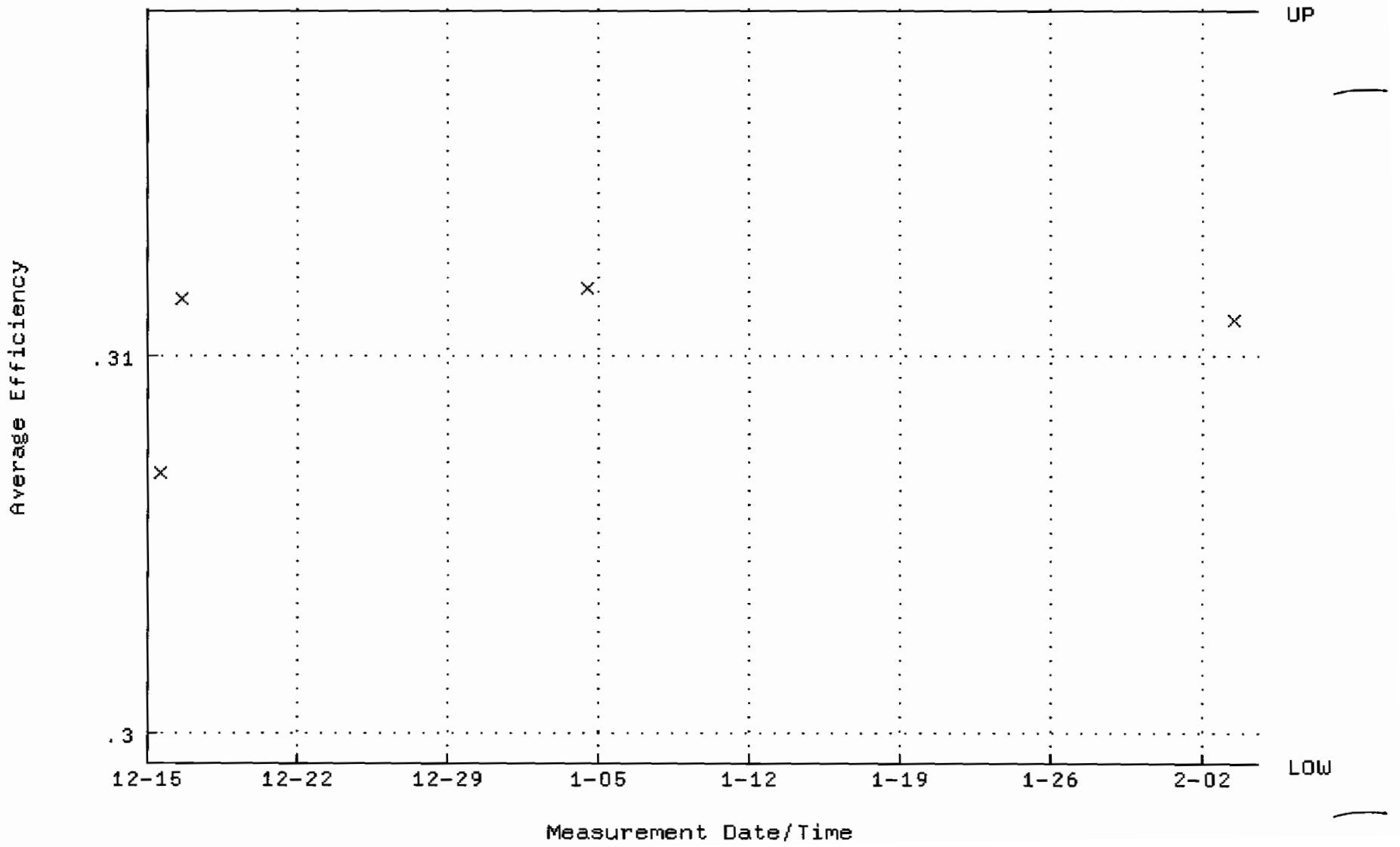

QA filename : DKA100:[ENV_ALPHA.QA.W]W003.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8745 through 94.9139

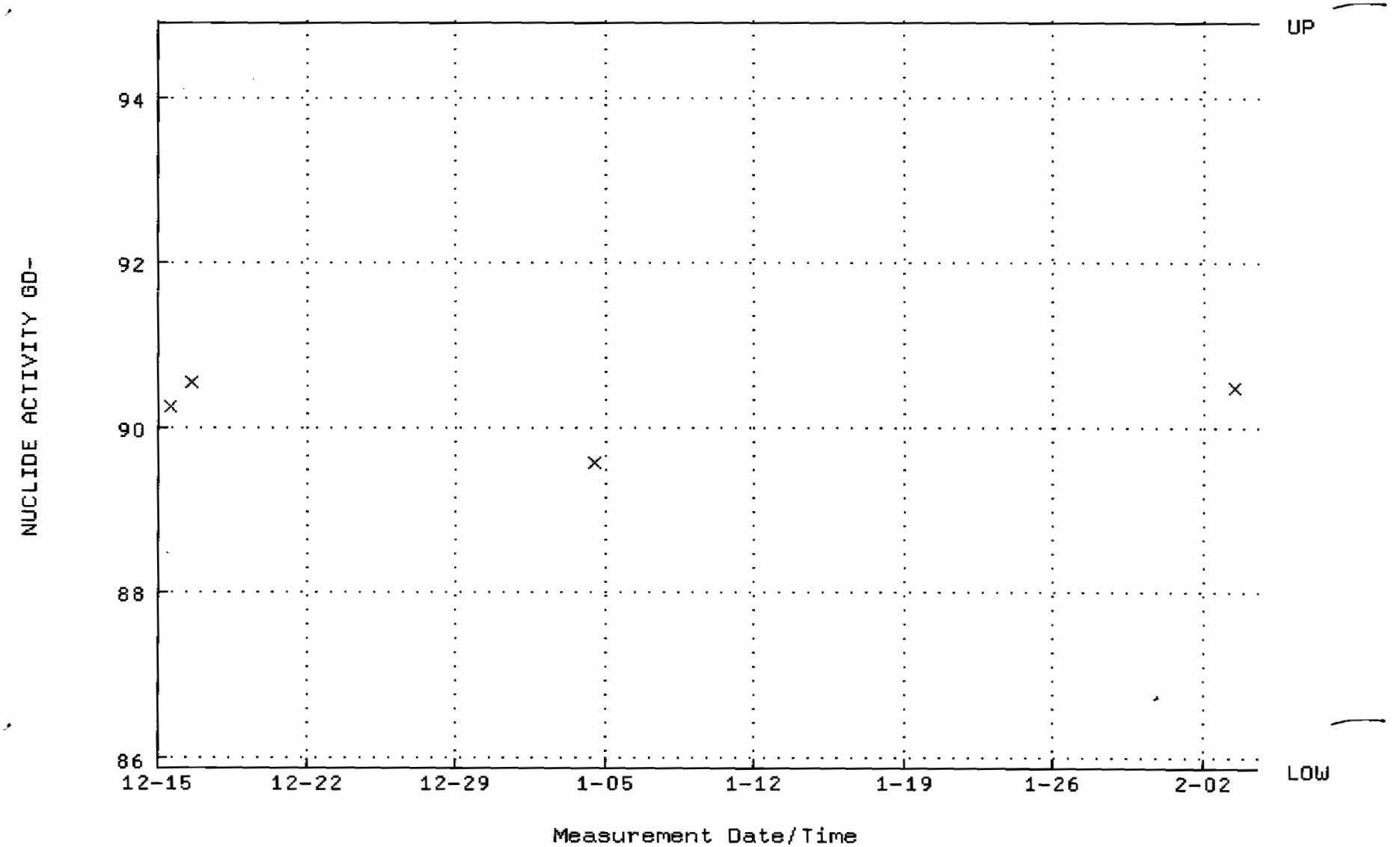

QA filename : DKA100:[ENV_ALPHA.QA.B]B003.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

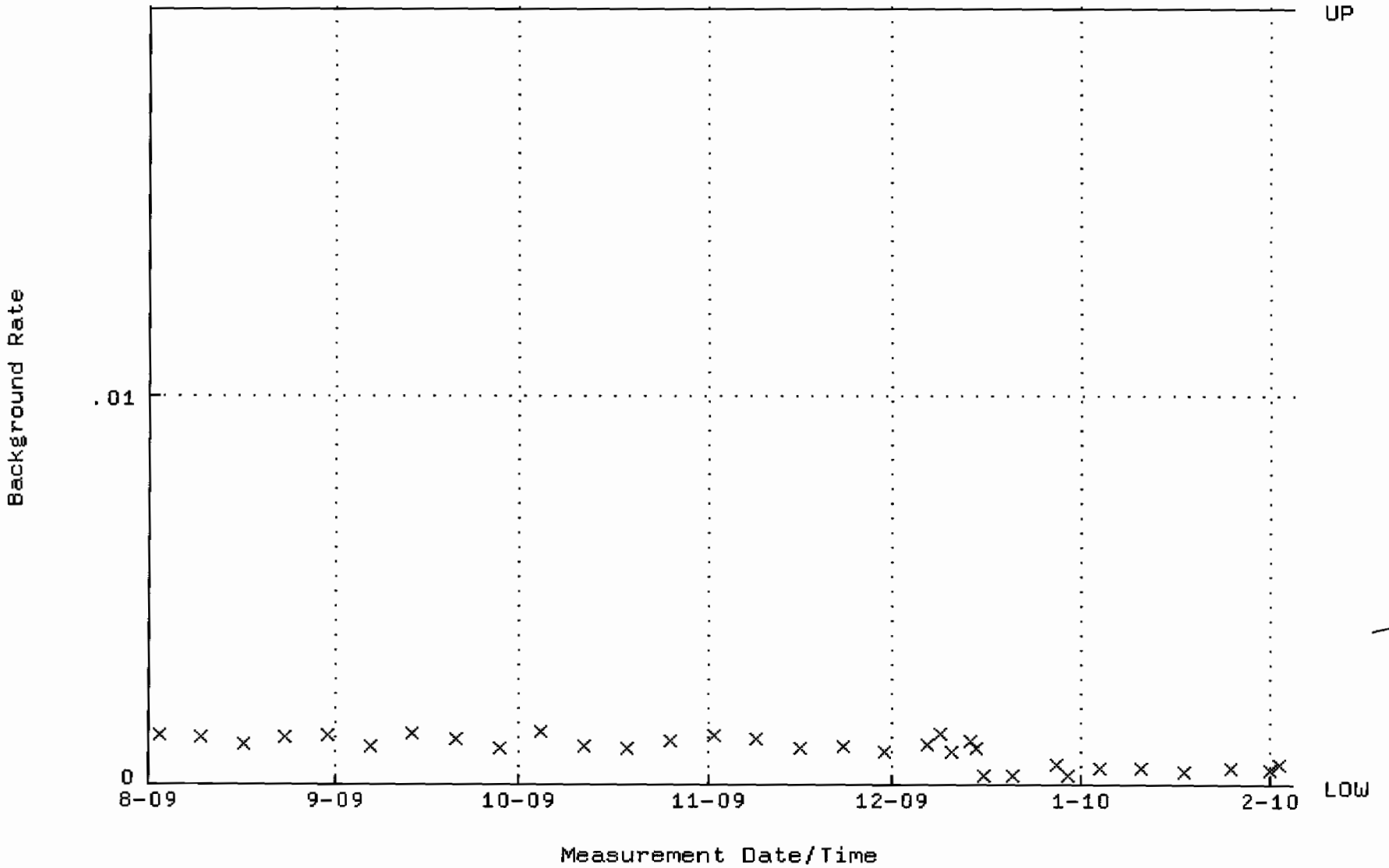

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

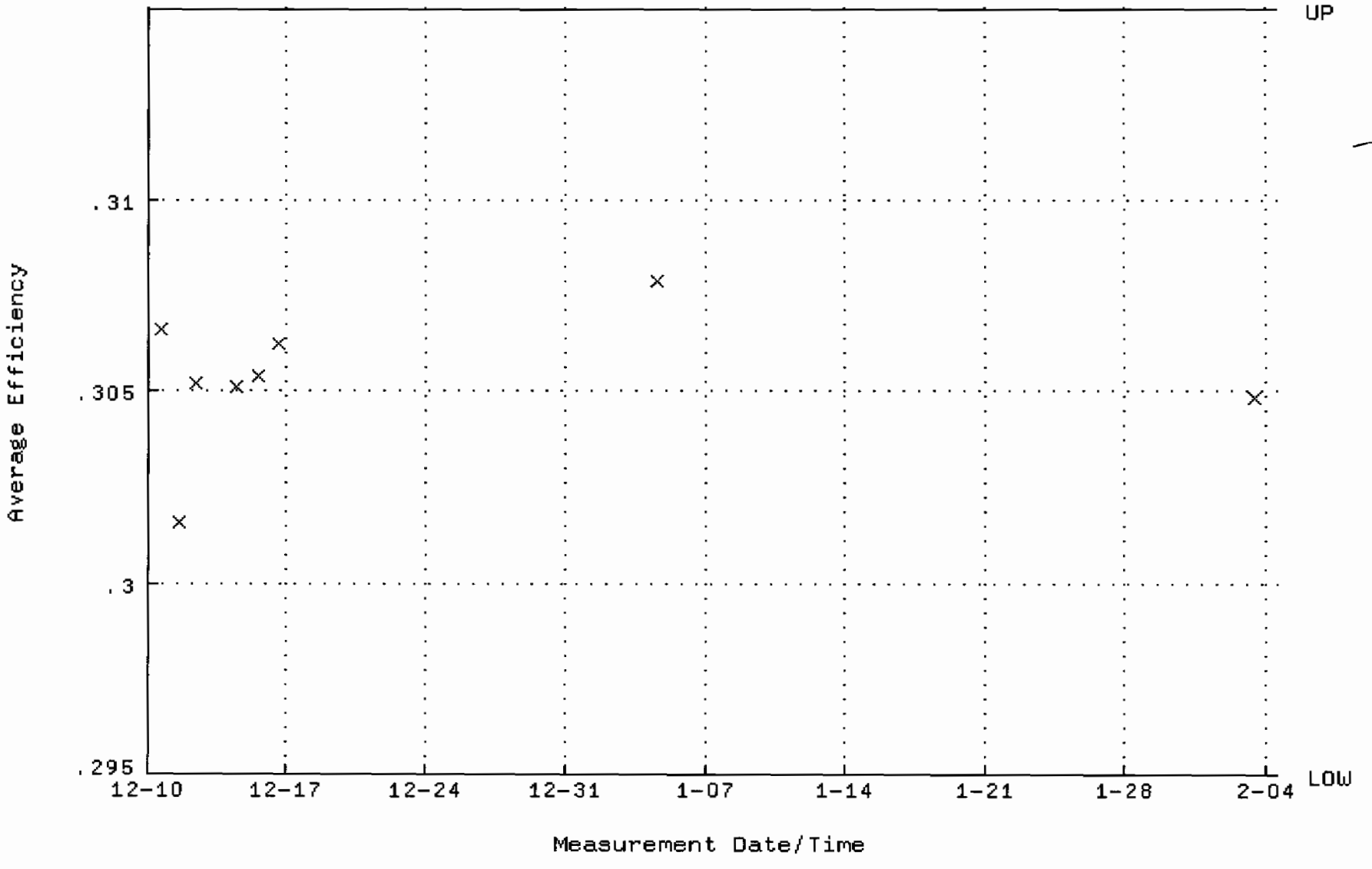

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

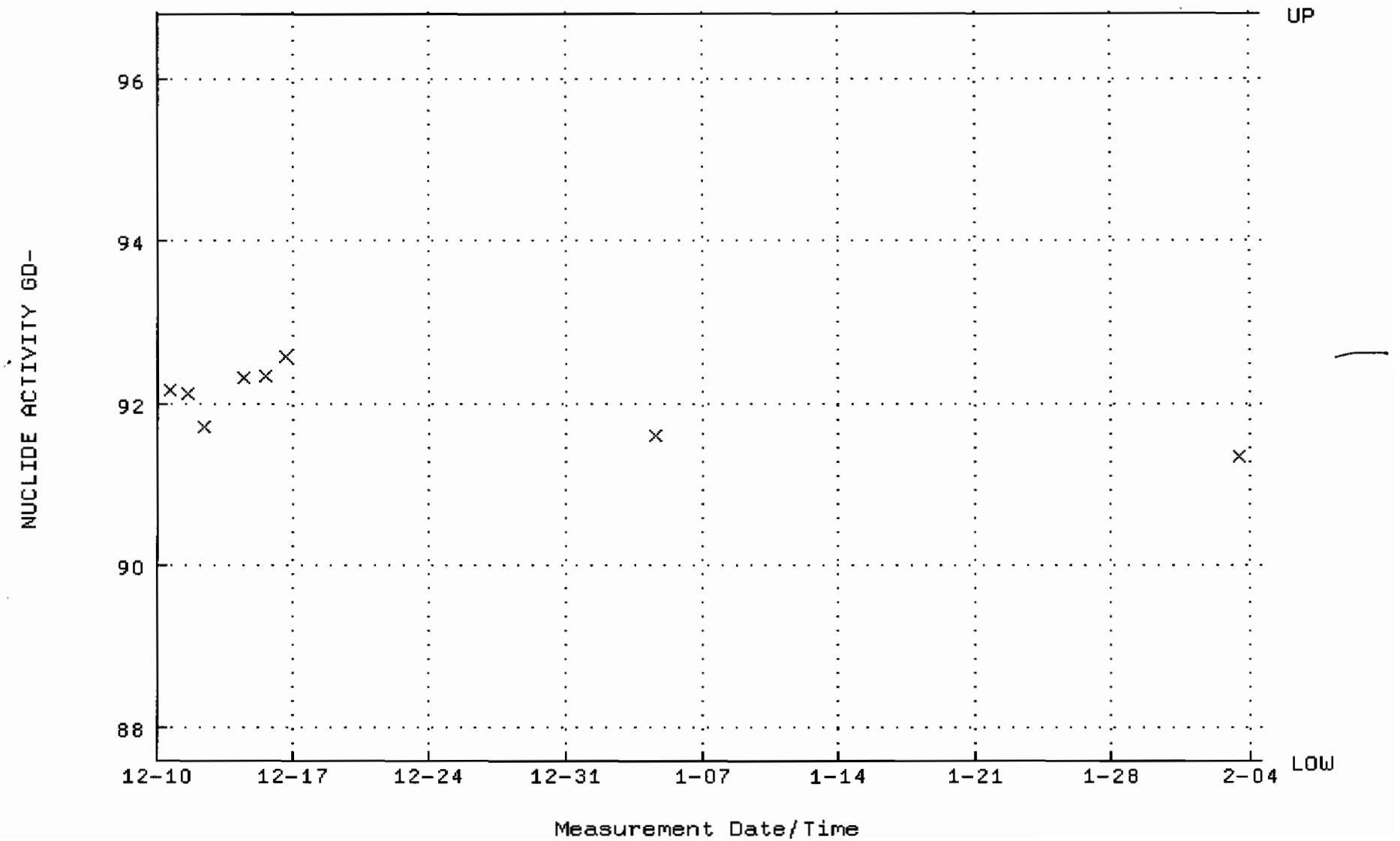

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

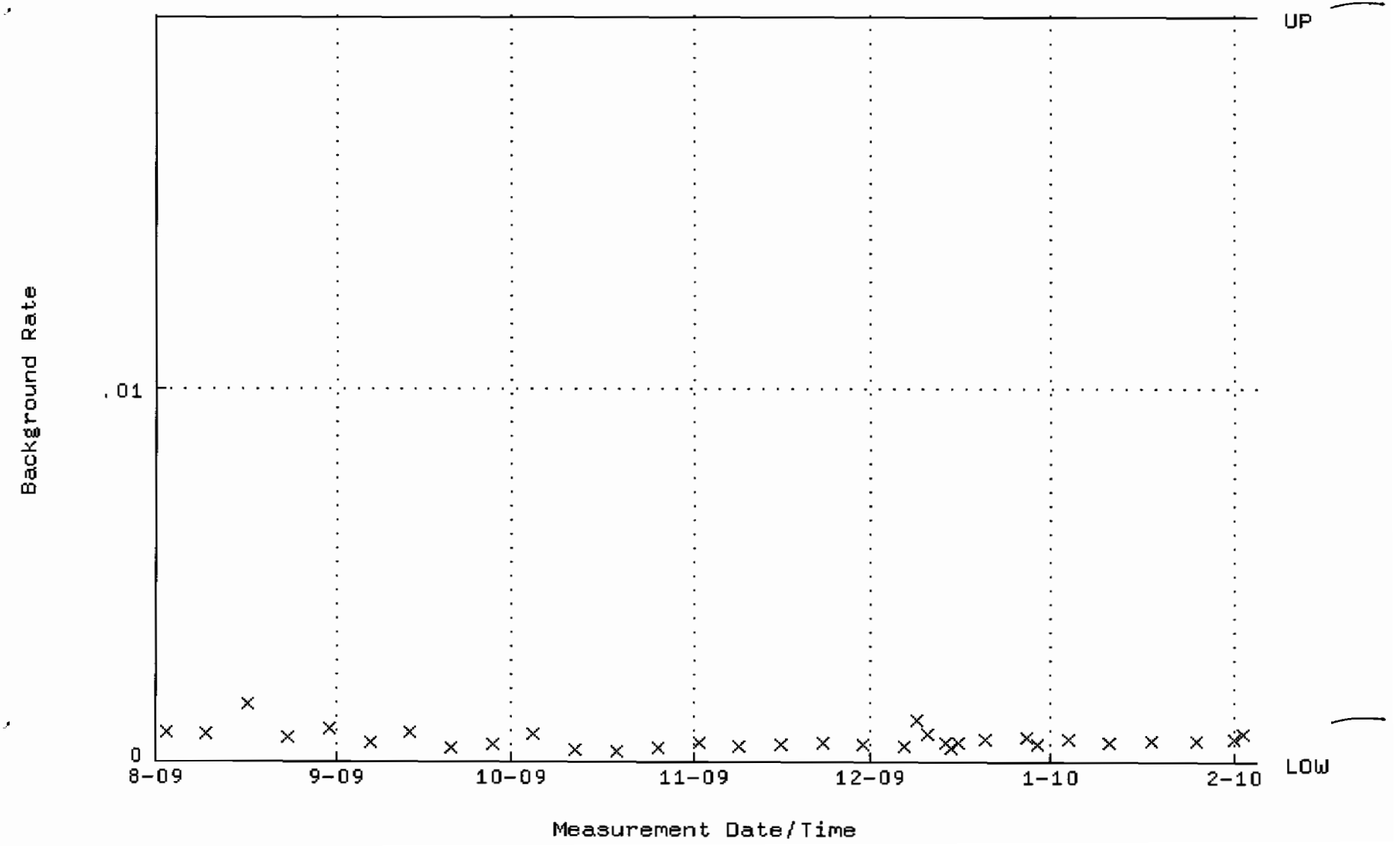

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310305 through 0.330305

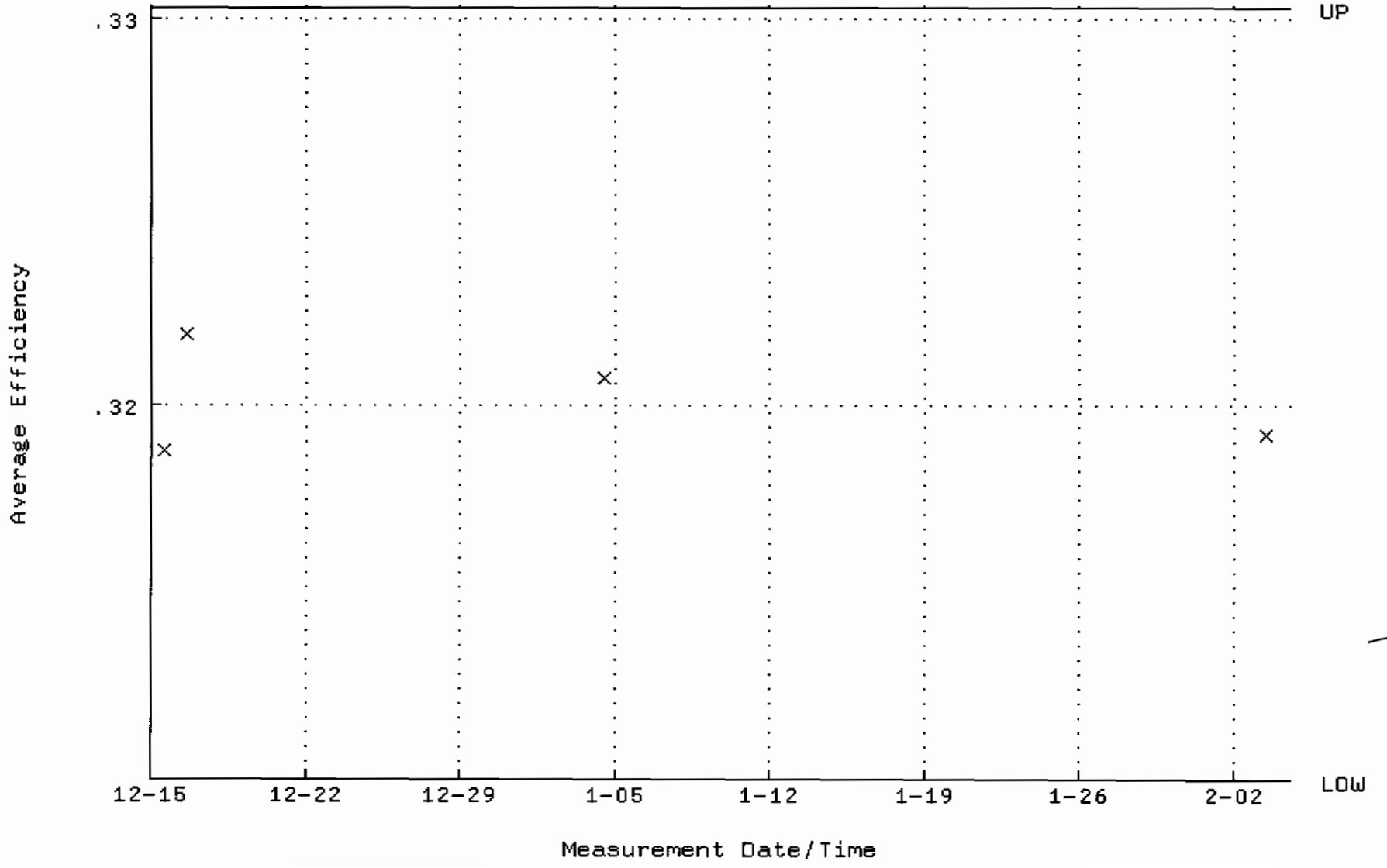

QA filename : DKA100:[ENV_ALPHA.QA.W]W005.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 89.0042 through 98.3730

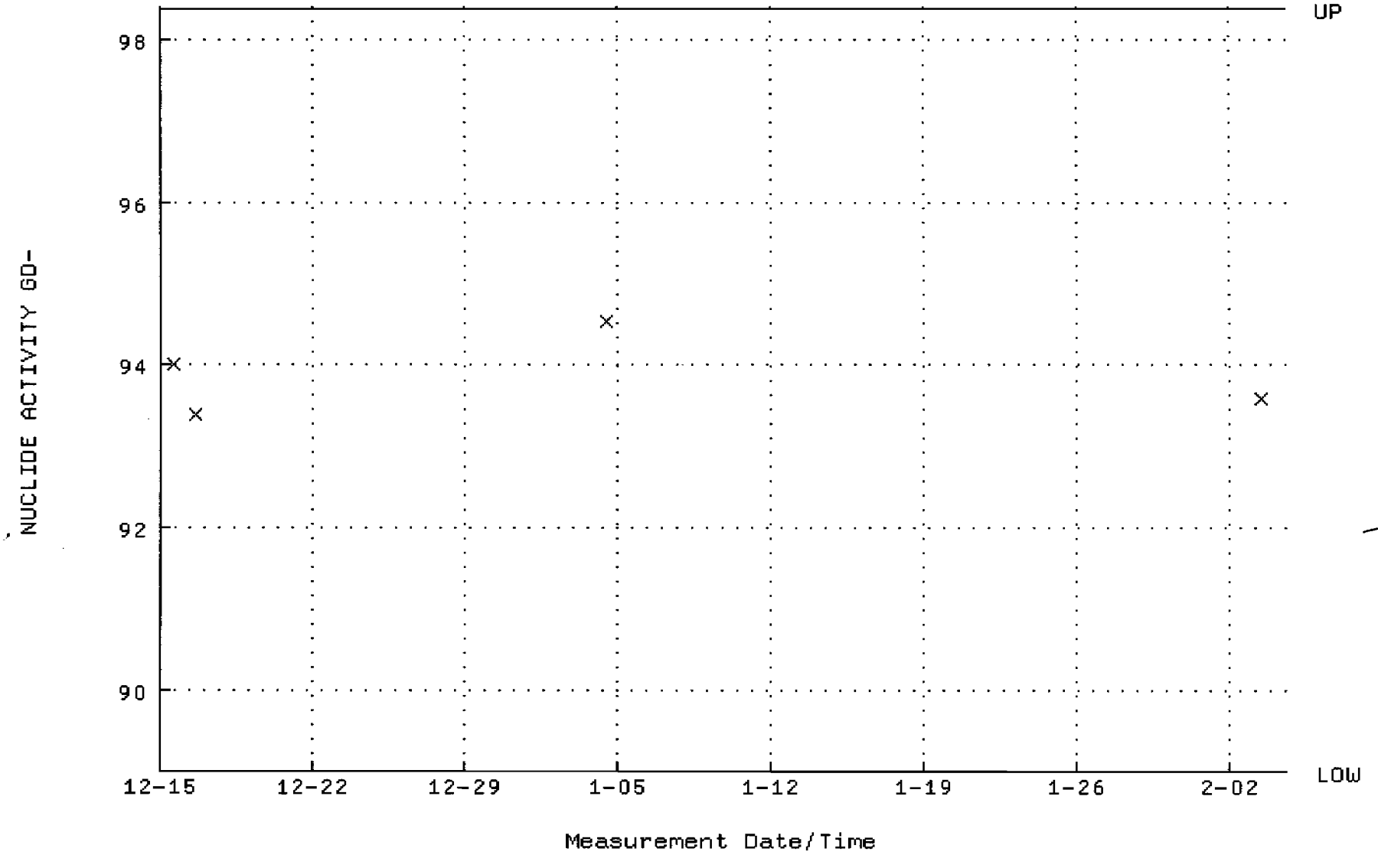

QA filename : DKA100:[ENV_ALPHA.QA.B]B005.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

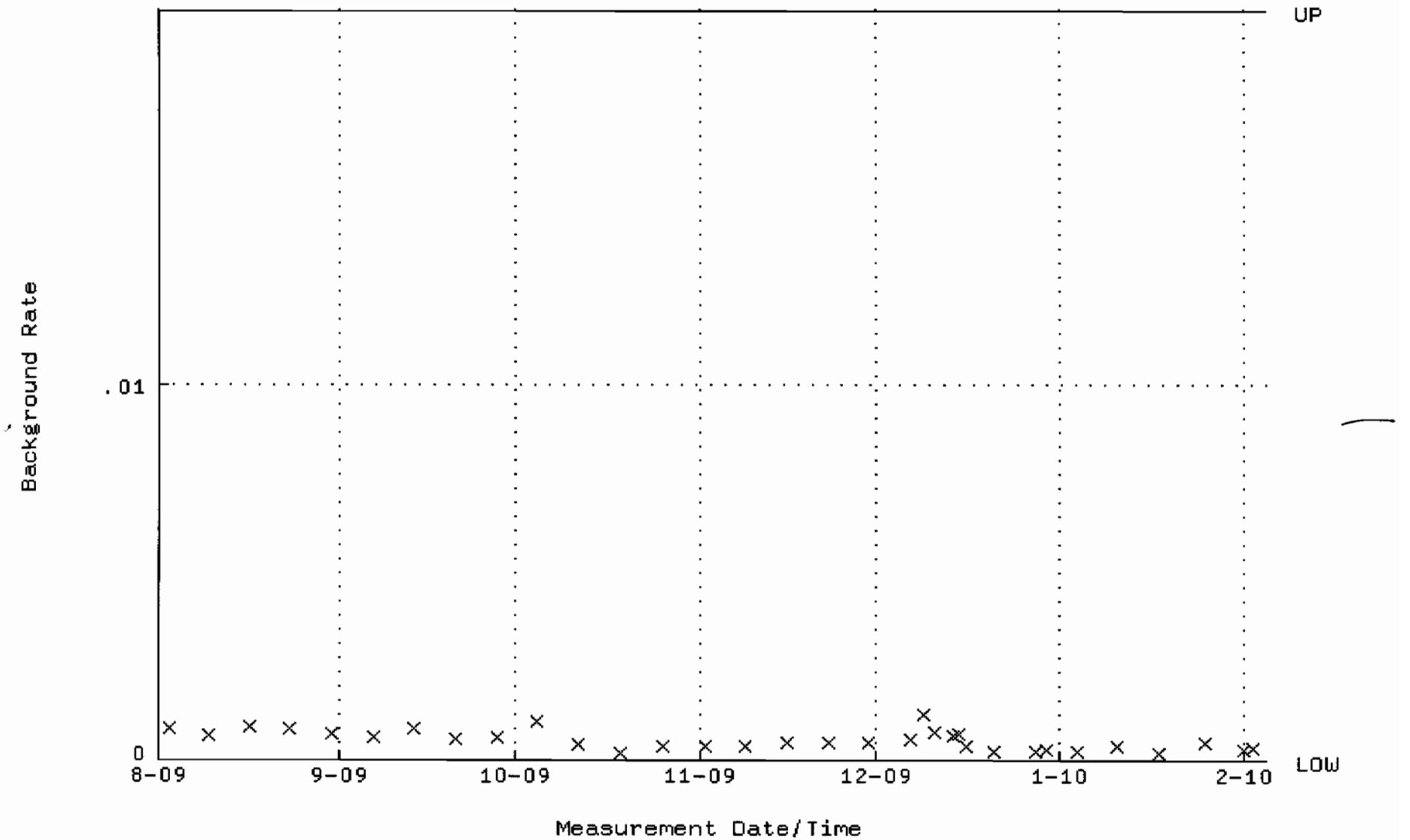

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295821 through 0.315821

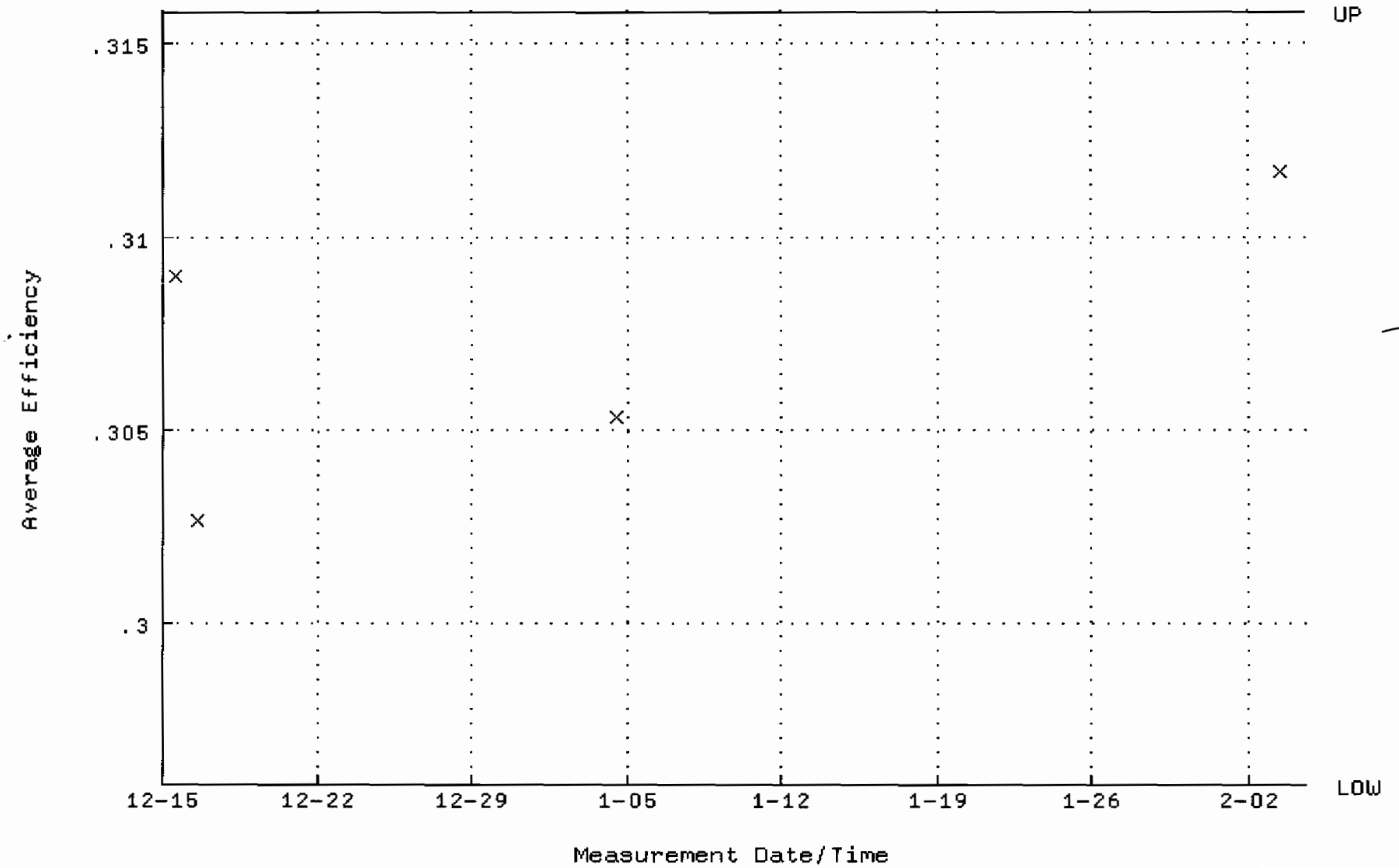

QA filename : DKA100:[ENV_ALPHA.QA.W]W006.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.3237 through 95.4105

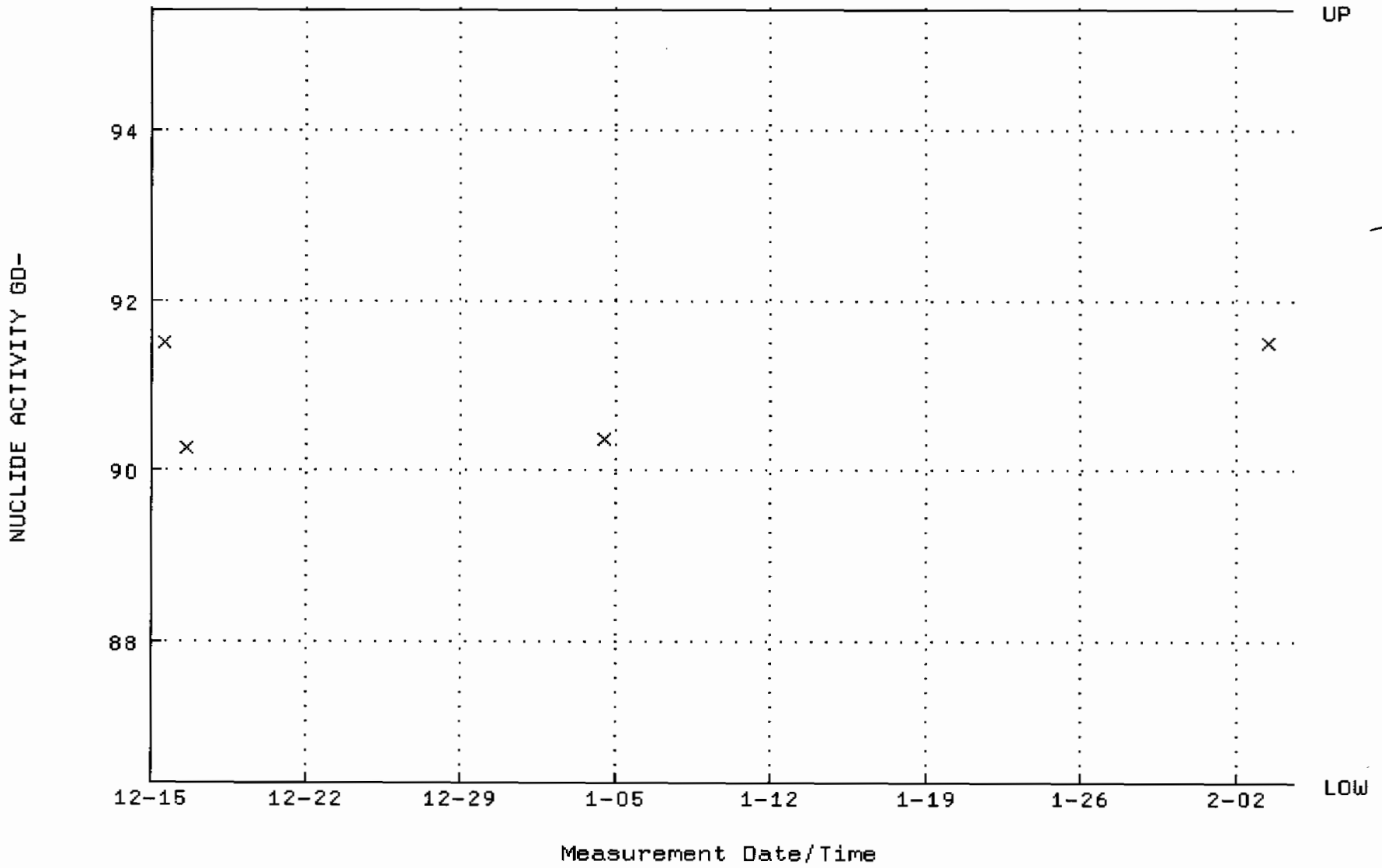

QA filename : DKA100:[ENV_ALPHA.QA.B]B006.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

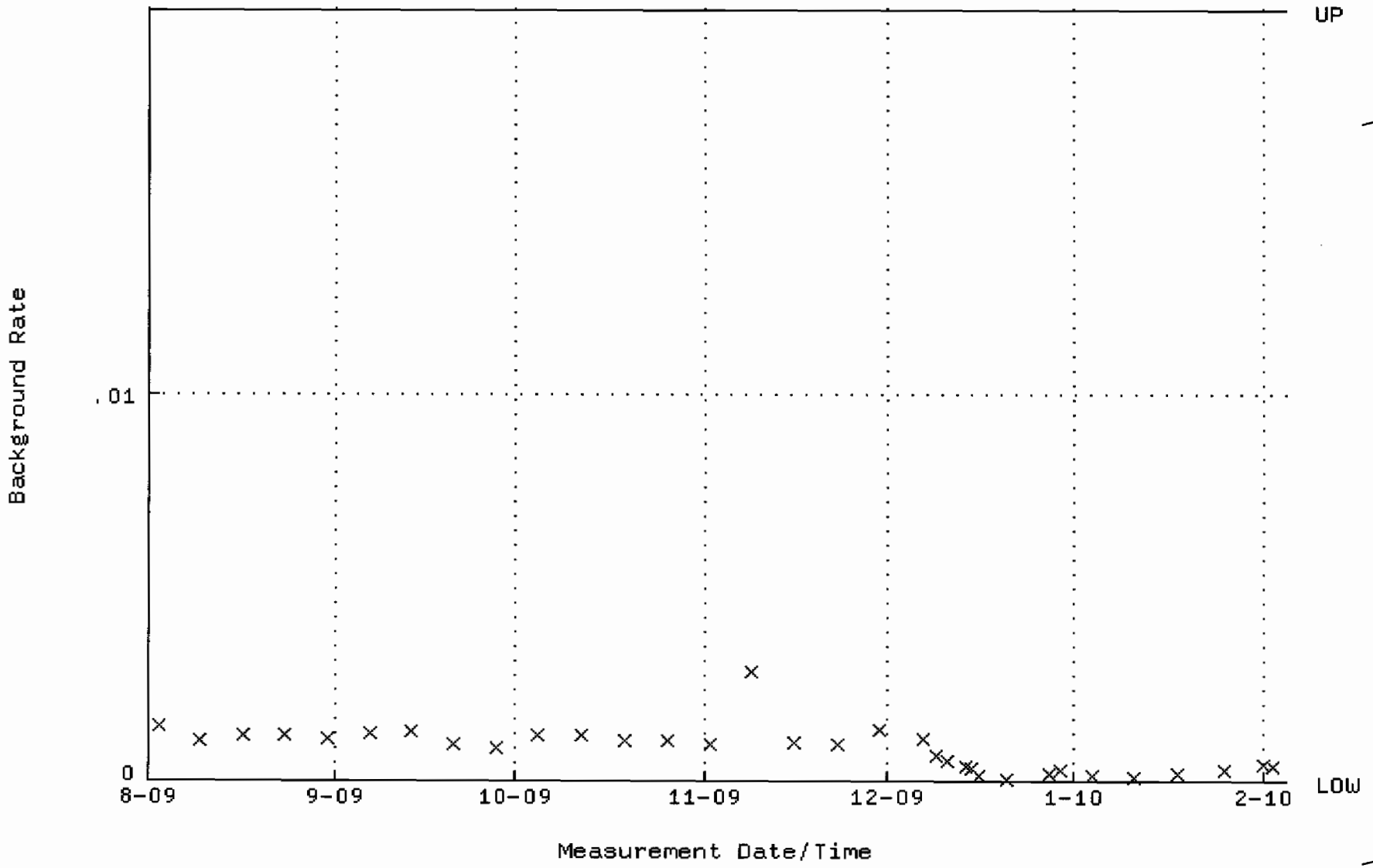

QA filename : DKA100:[ENV_ALPHA.QA.W]W009.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.328261 through 0.348261

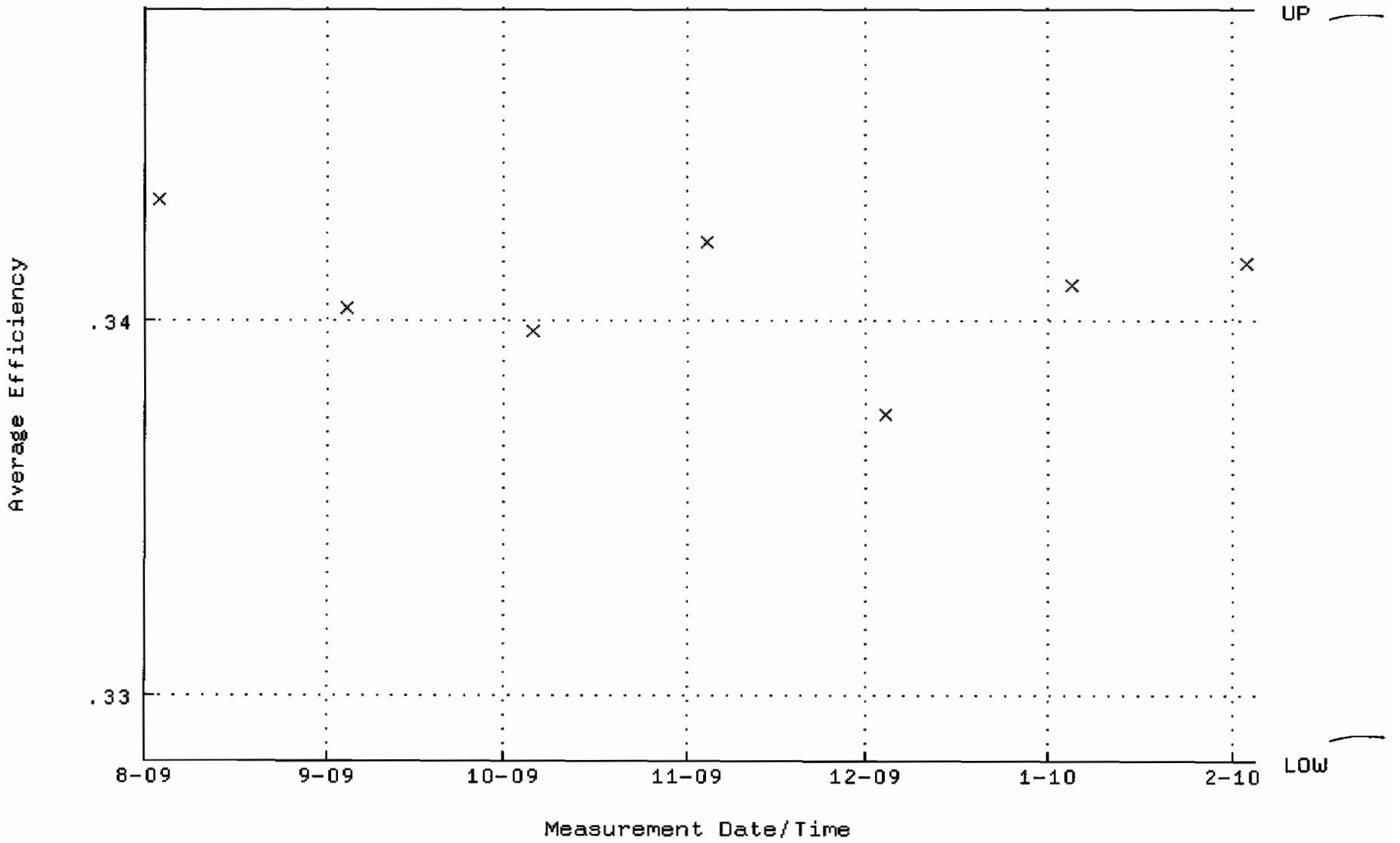

QA filename : DKA100:[ENV_ALPHA.QA.W]W009.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.4475 through 95.5473

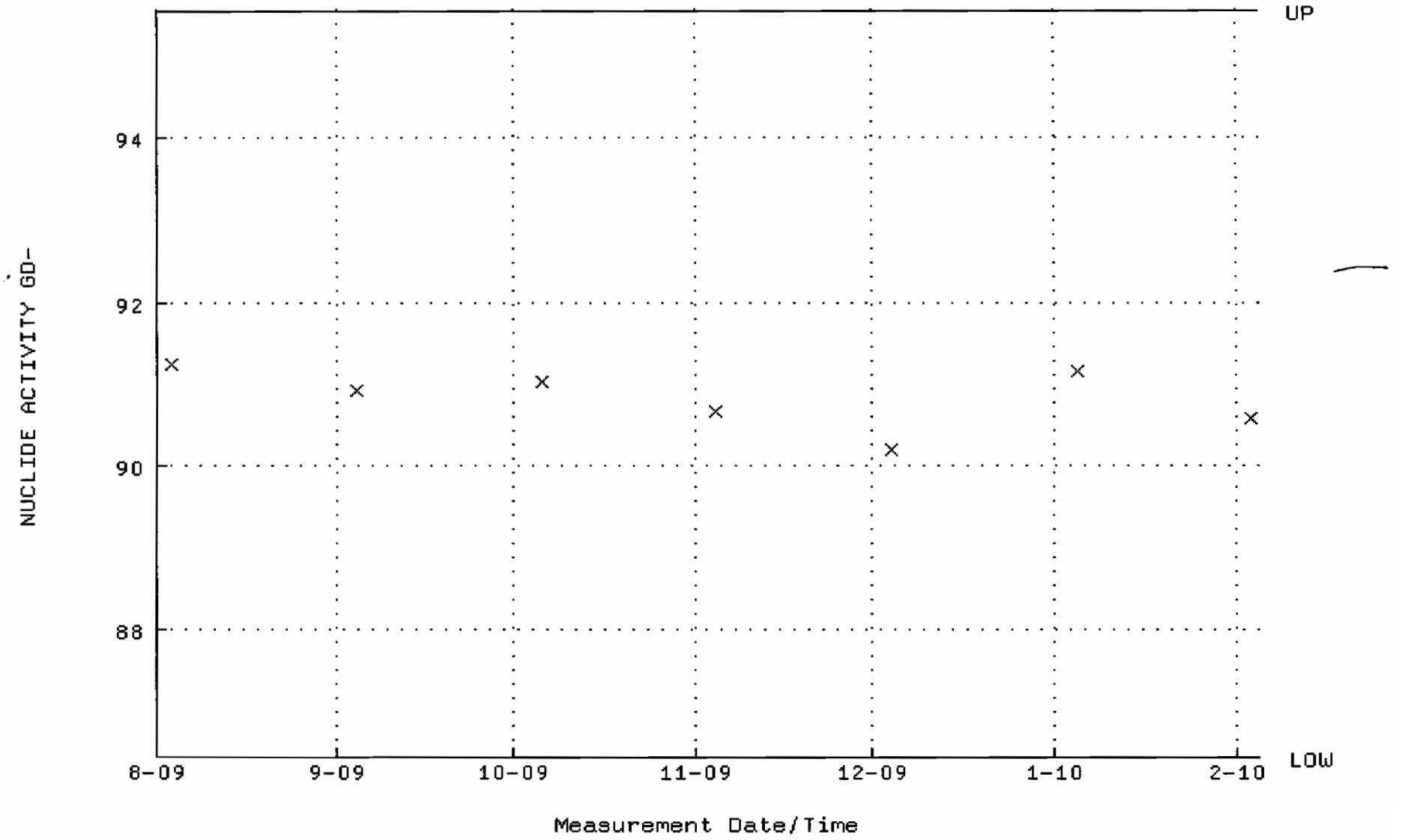

QA filename : DKA100:[ENV_ALPHA.QA.B]B009.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

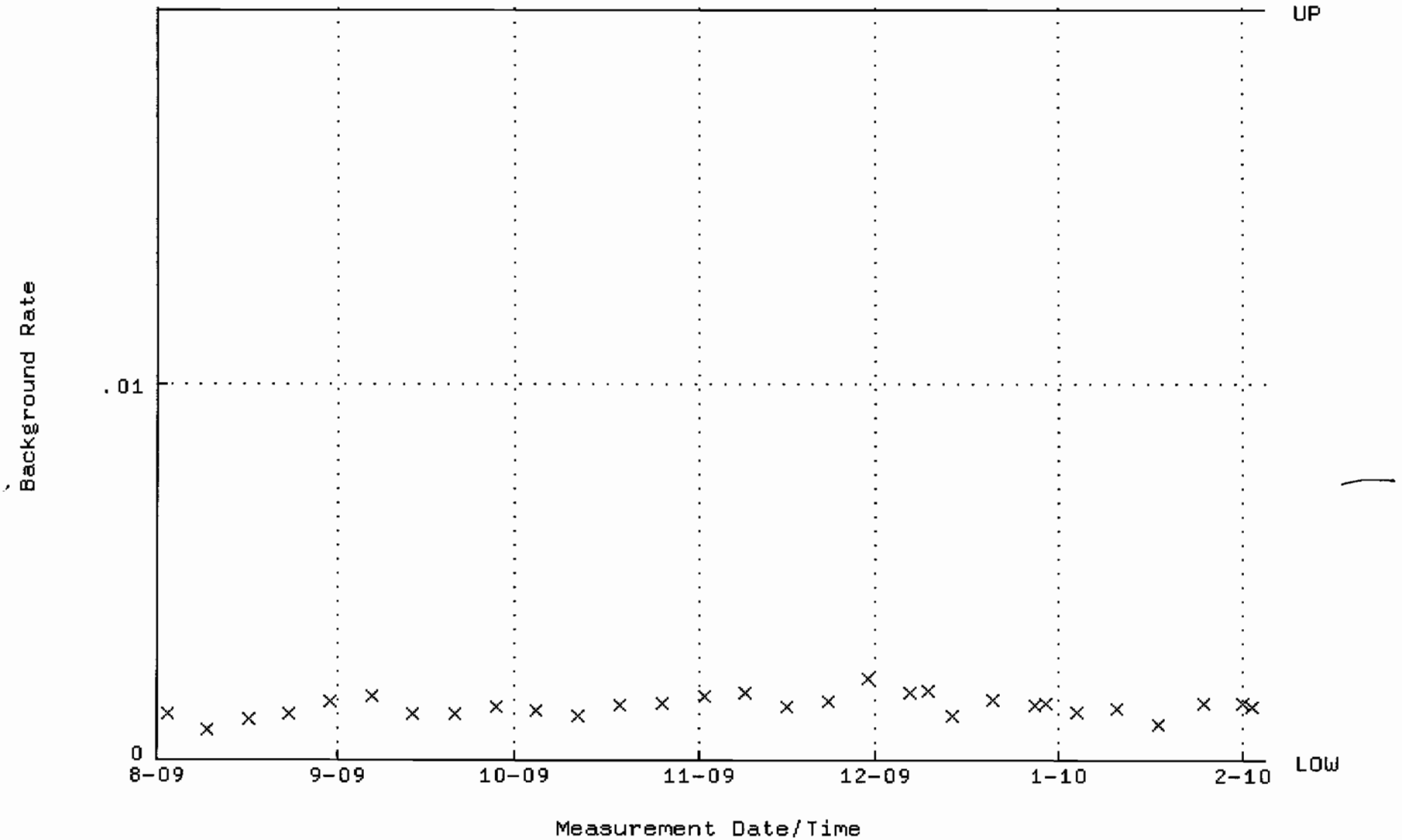

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.303169 through 0.323169

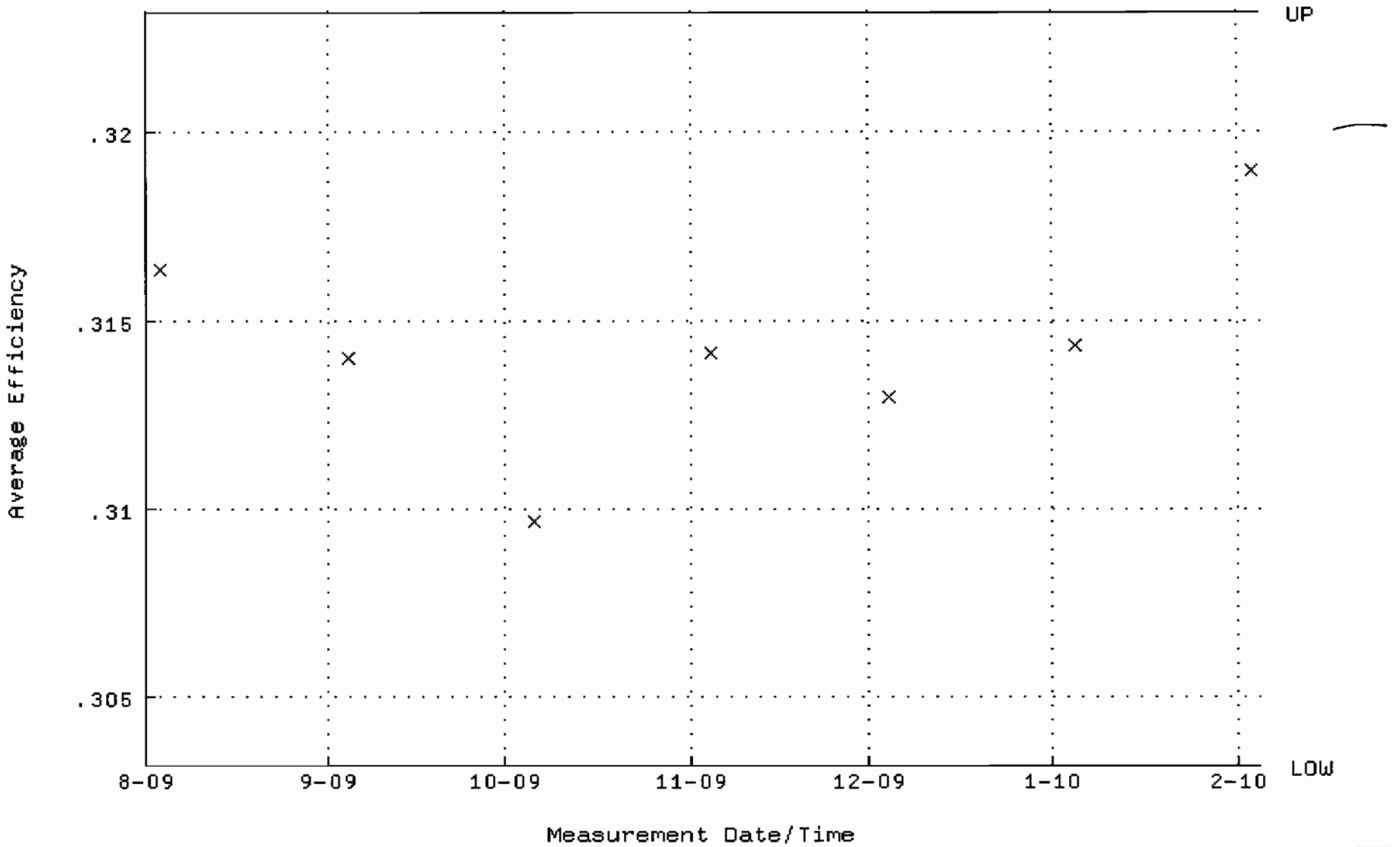

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.3273 through 94.3091

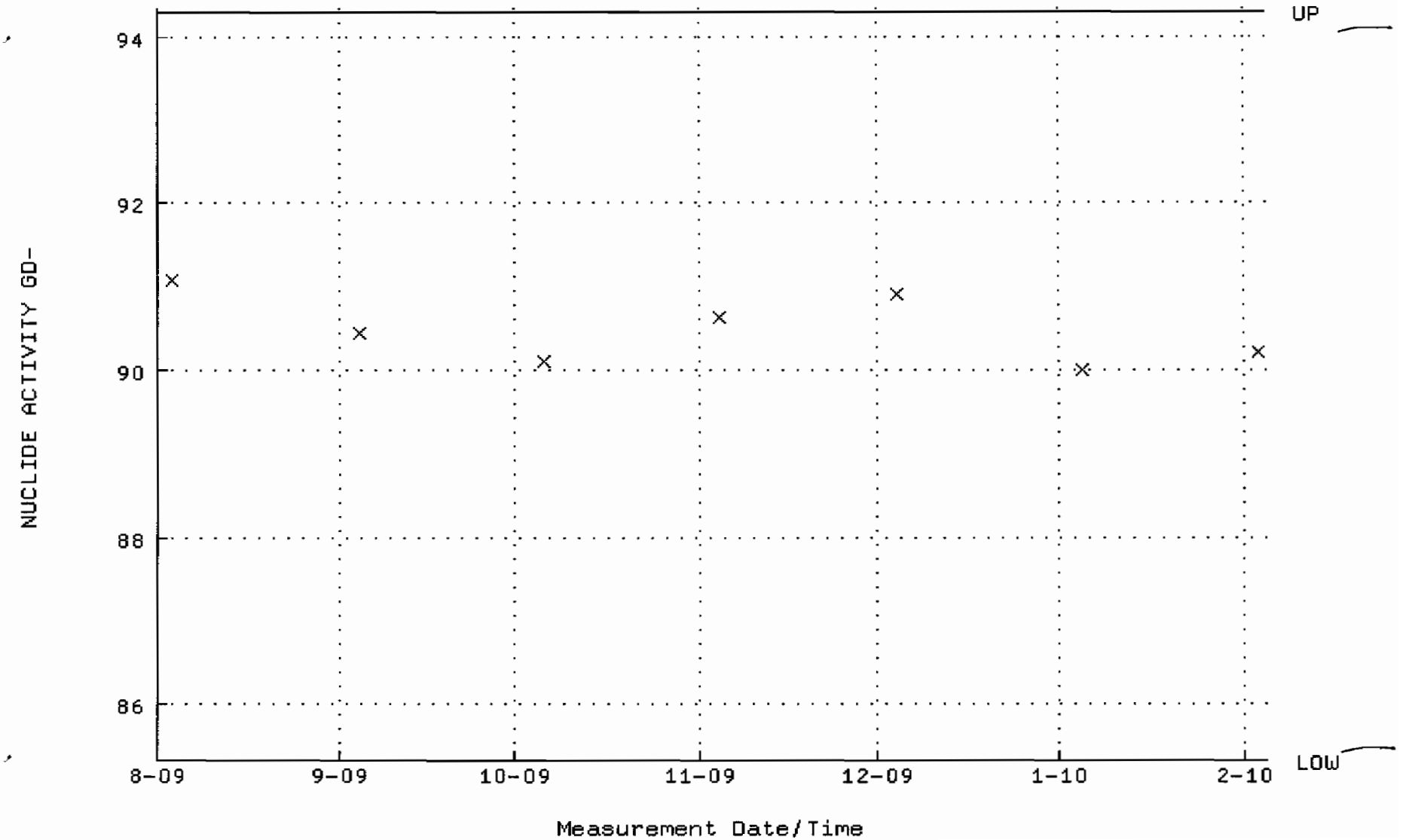

QA filename : DKA100:[ENV_ALPHA.QA.B]B010.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

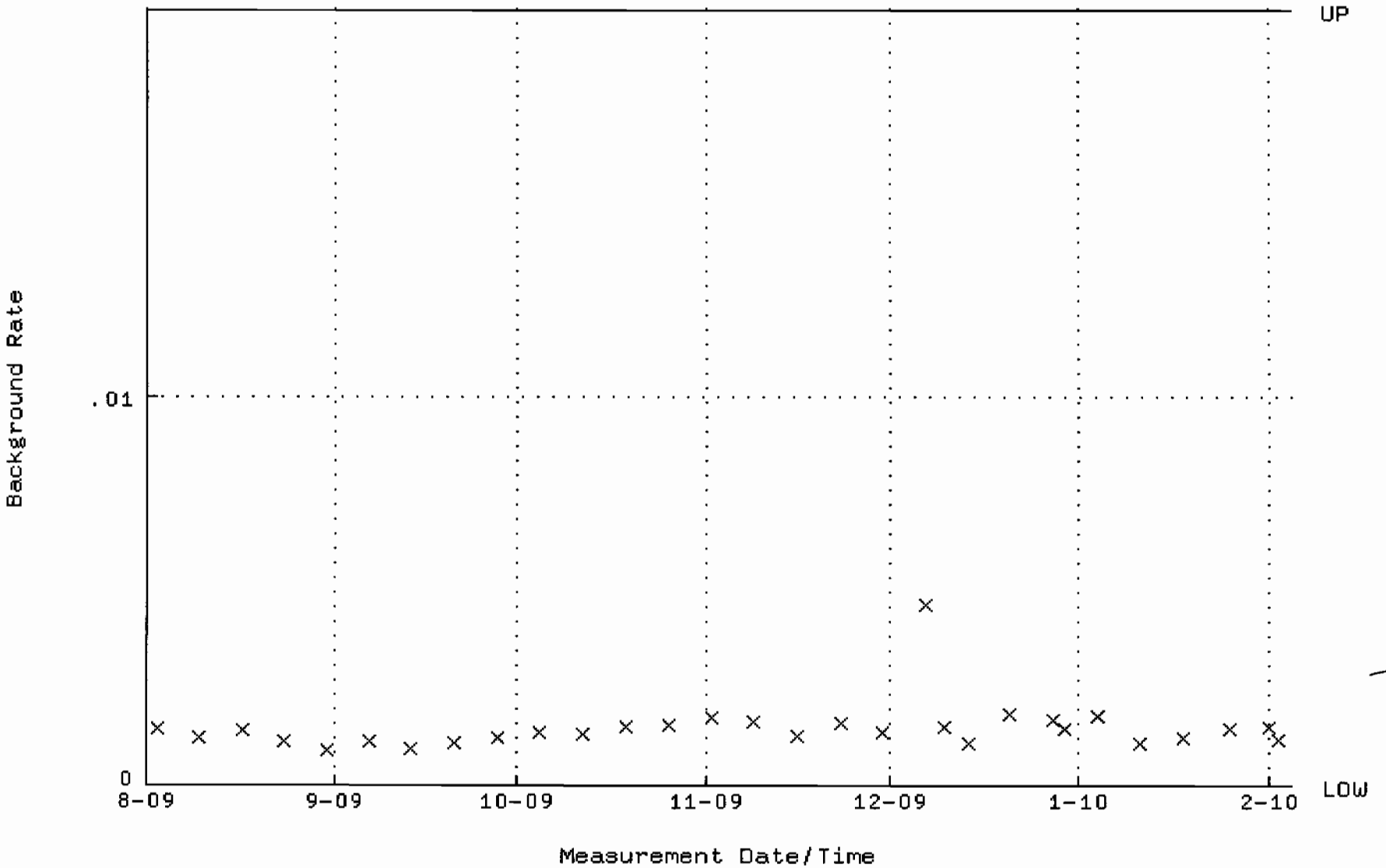

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.287129 through 0.307129

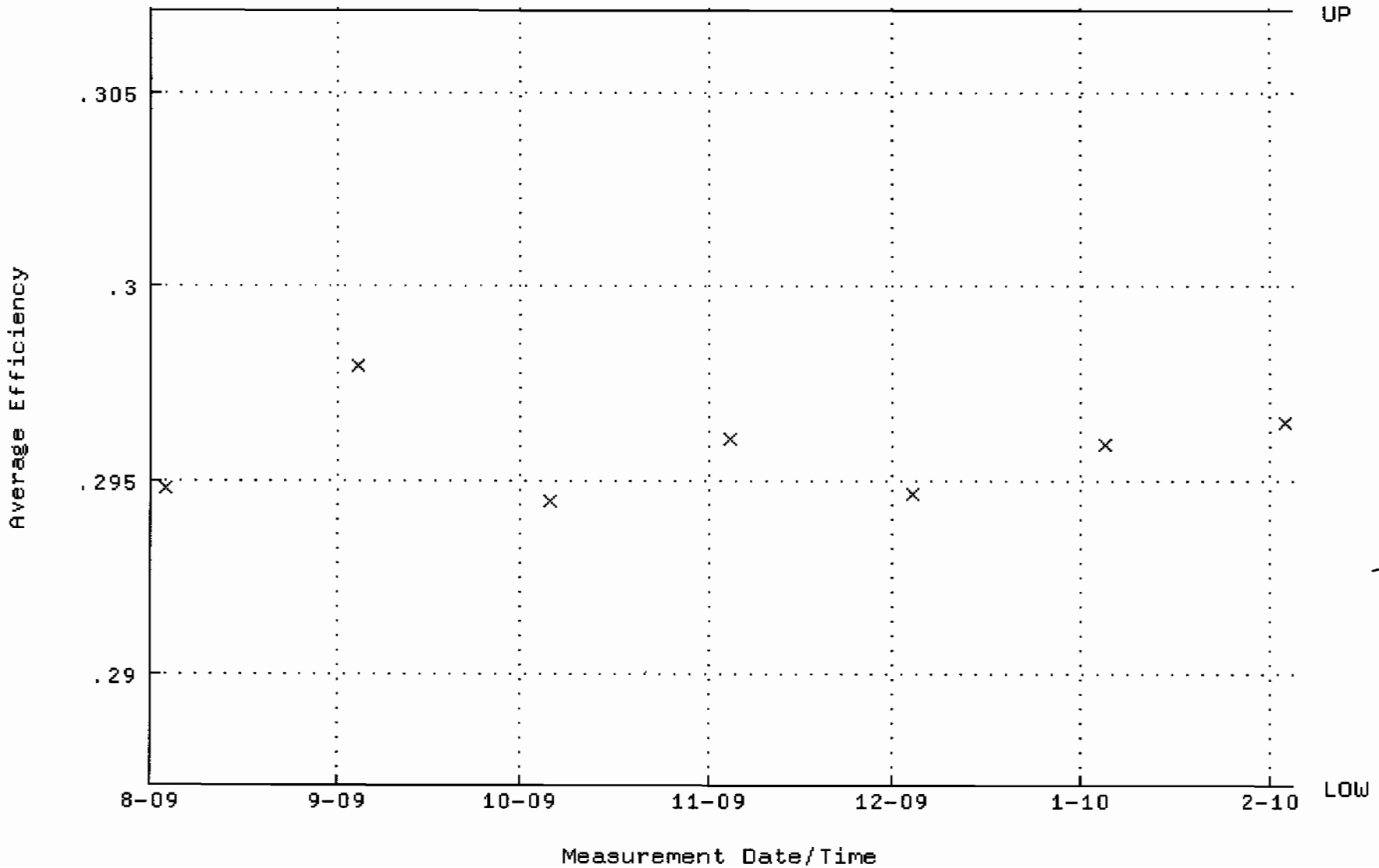

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 90.7092 through 100.258

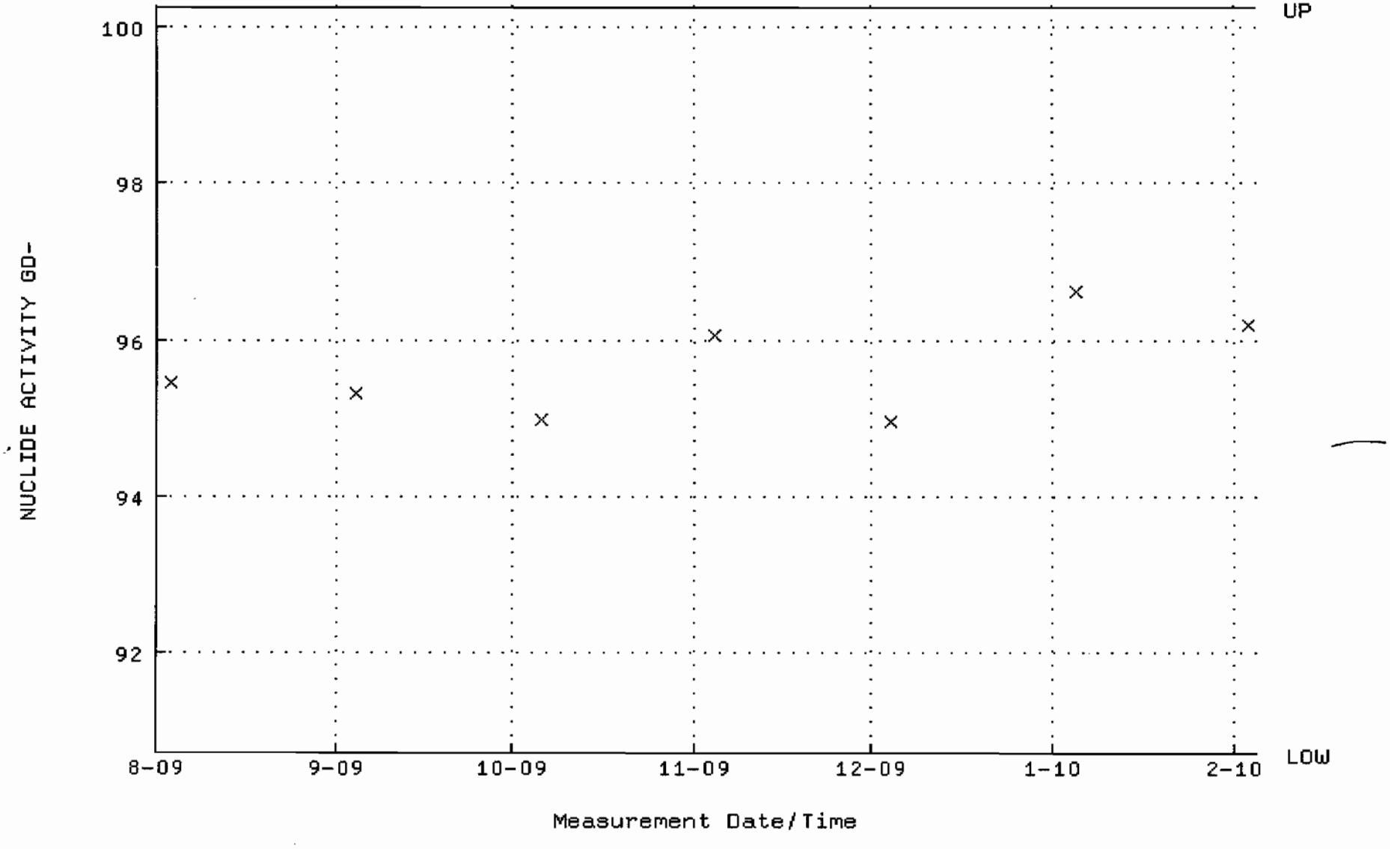

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

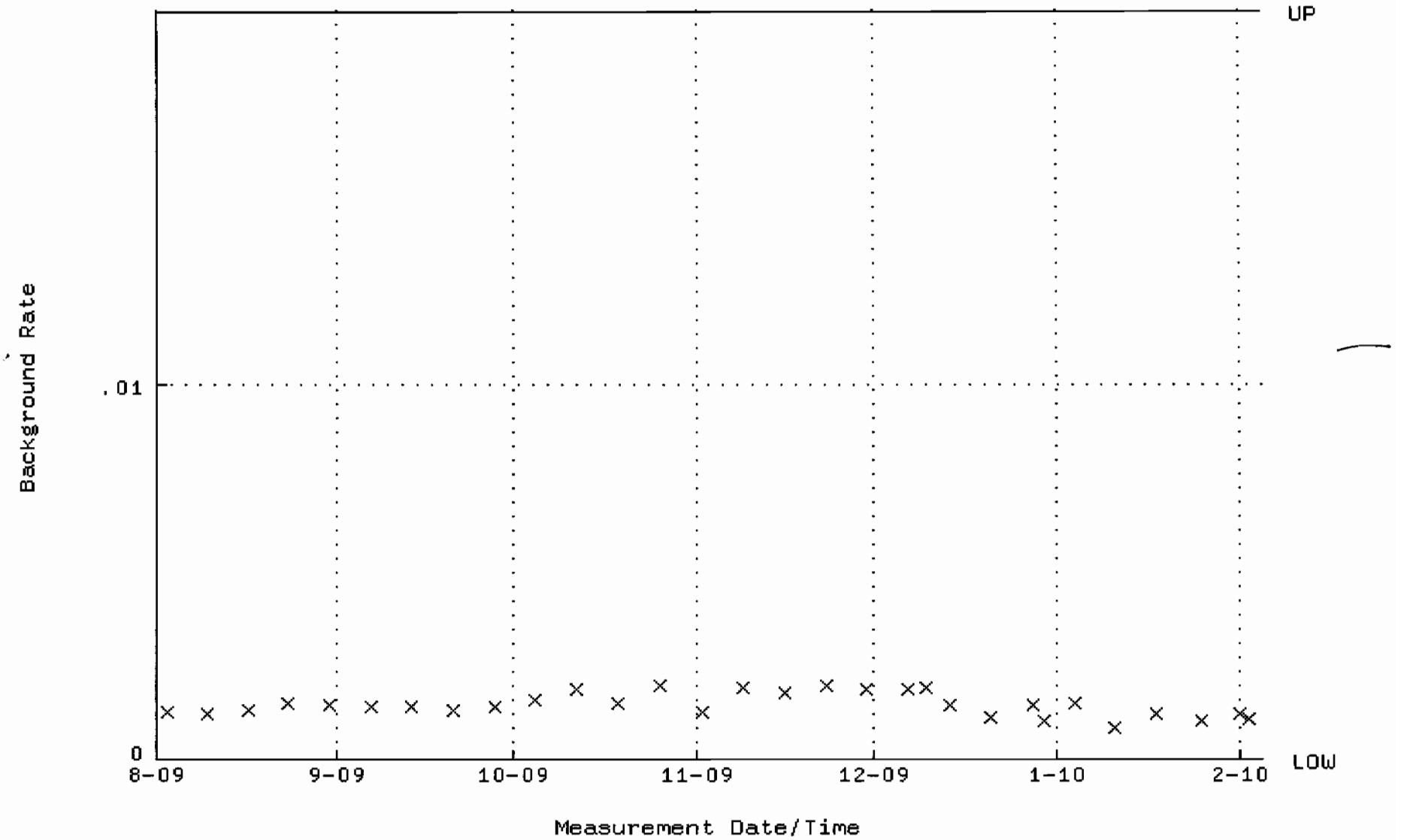

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295040 through 0.315040

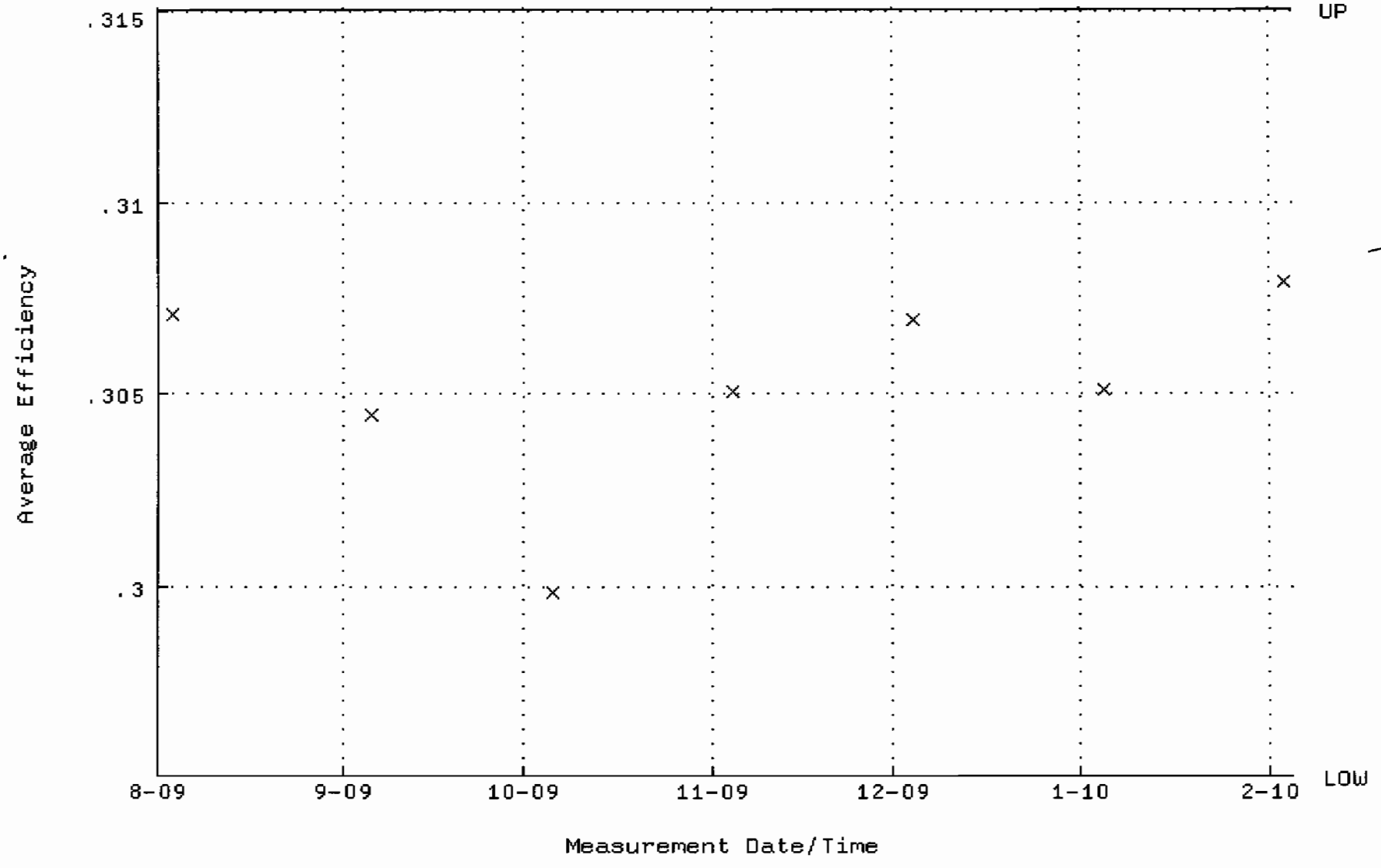

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.1965 through 94.1645

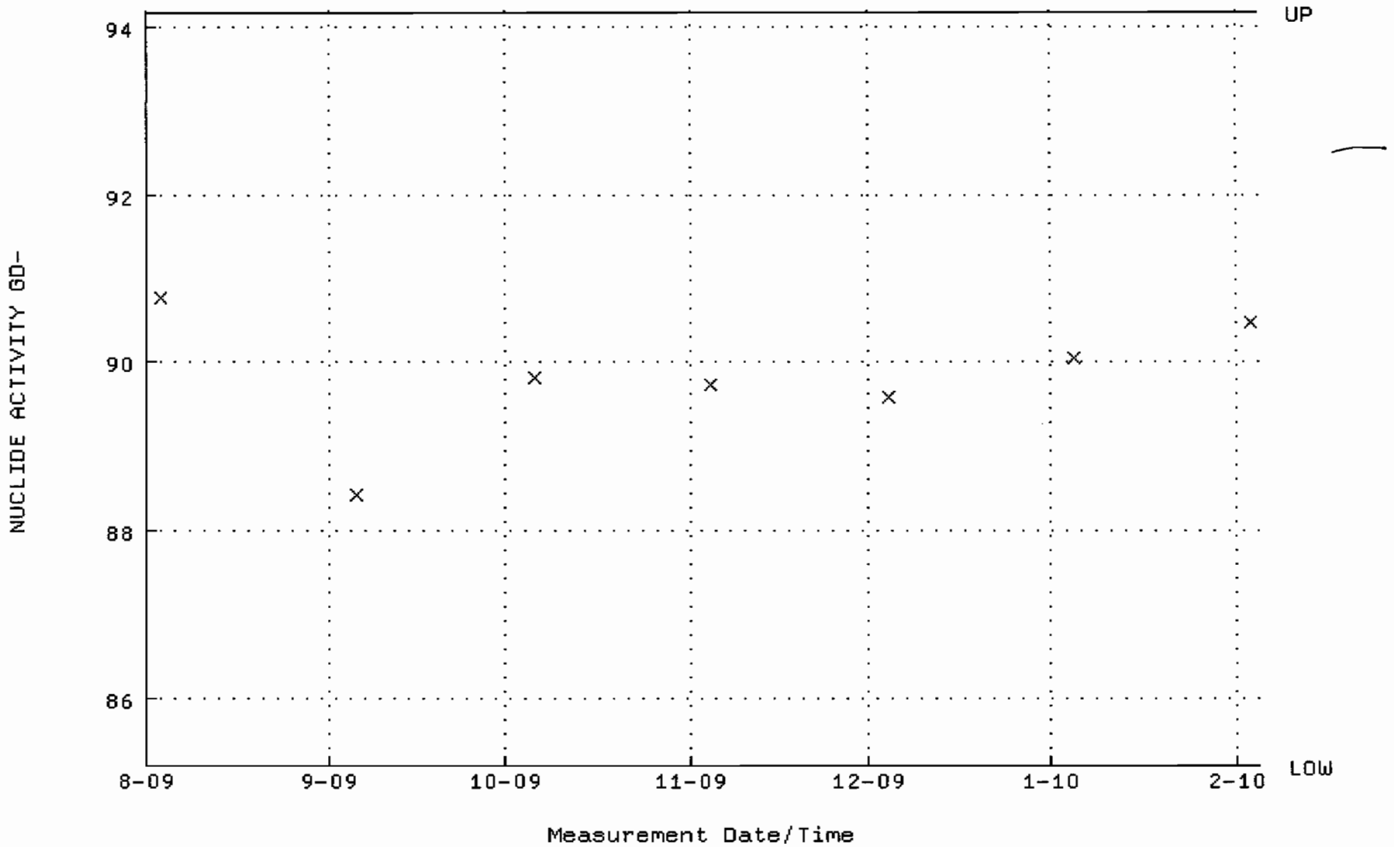

QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

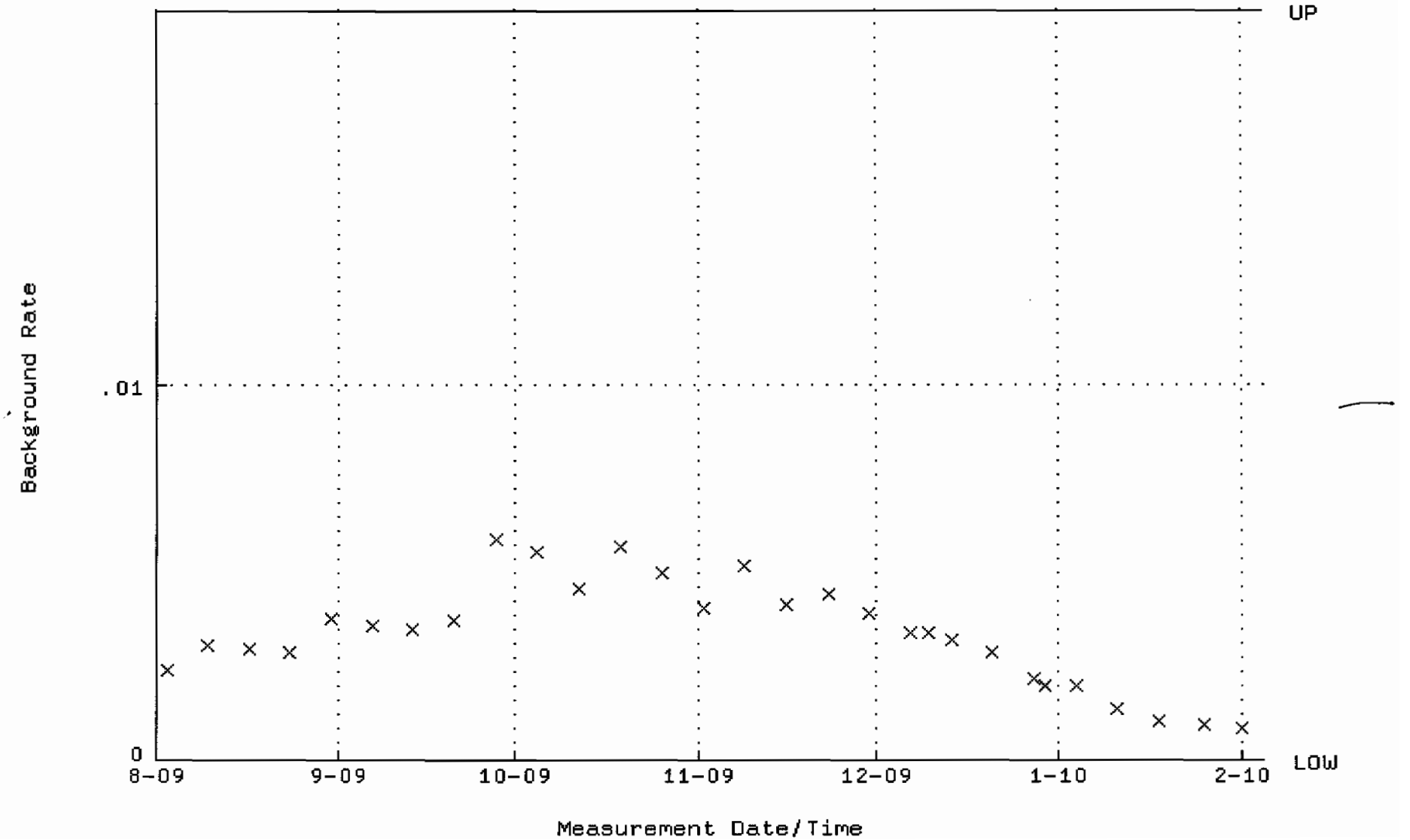

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

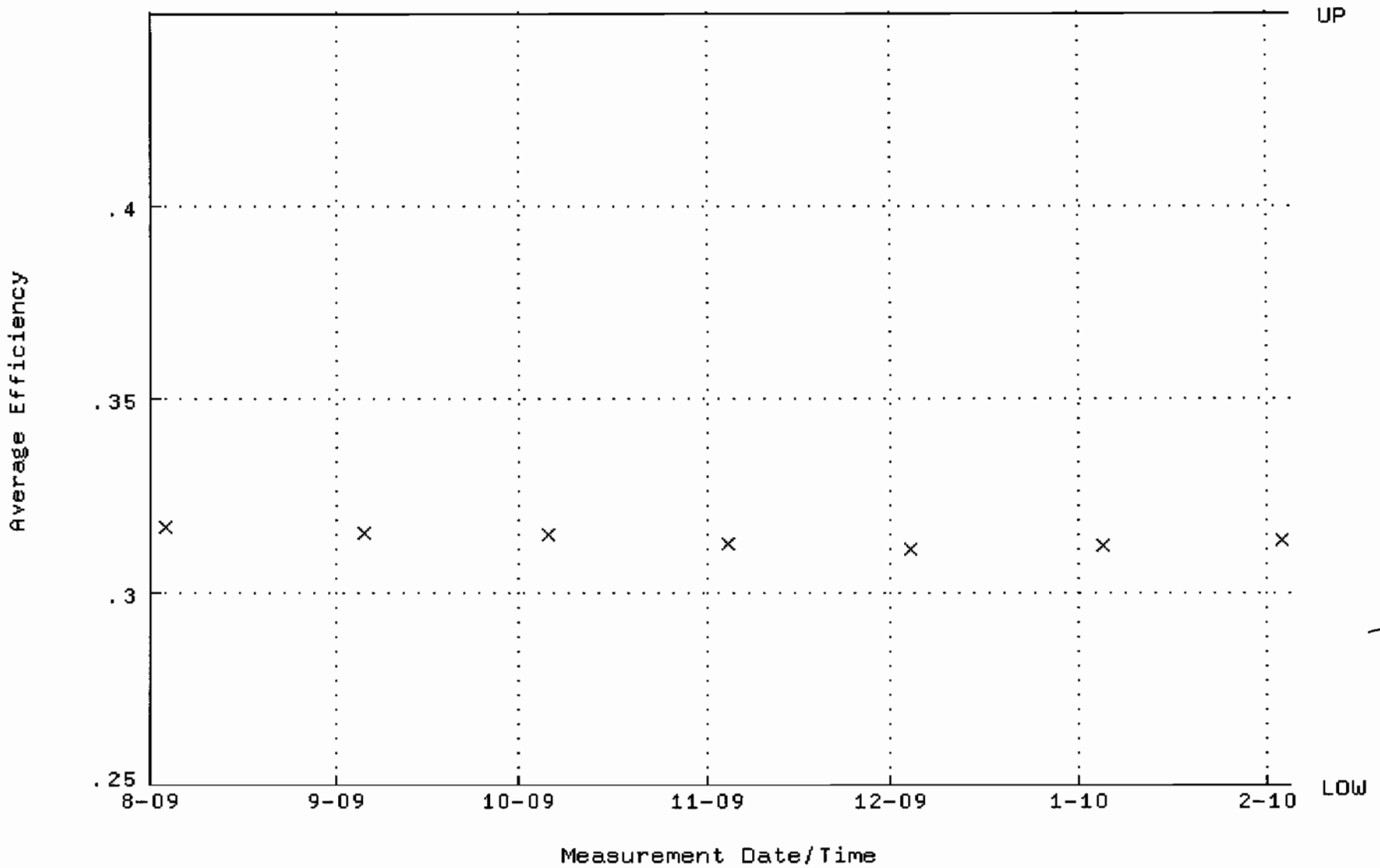

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

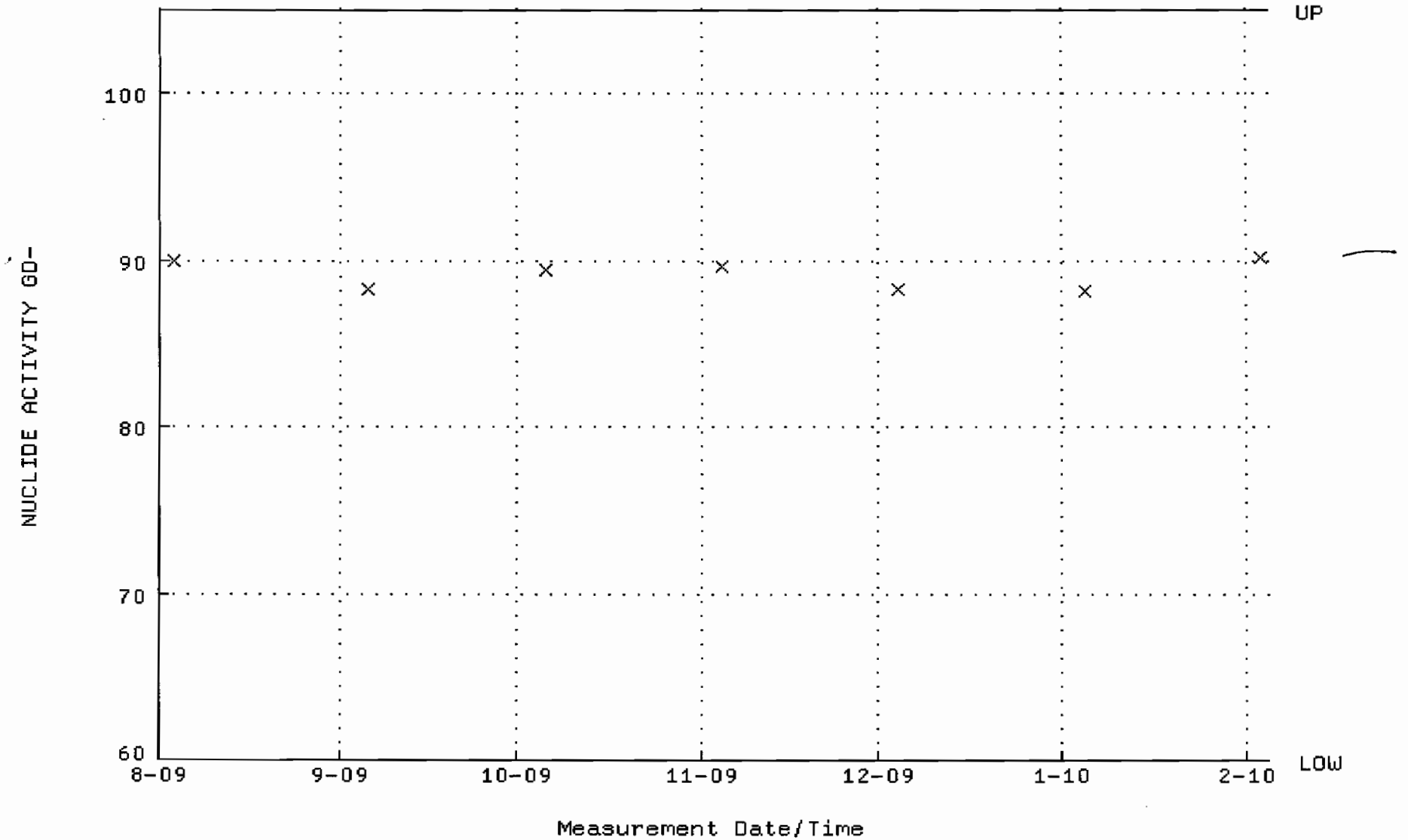

QA filename : DKA100:[ENV_ALPHA.QA.B]B029.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

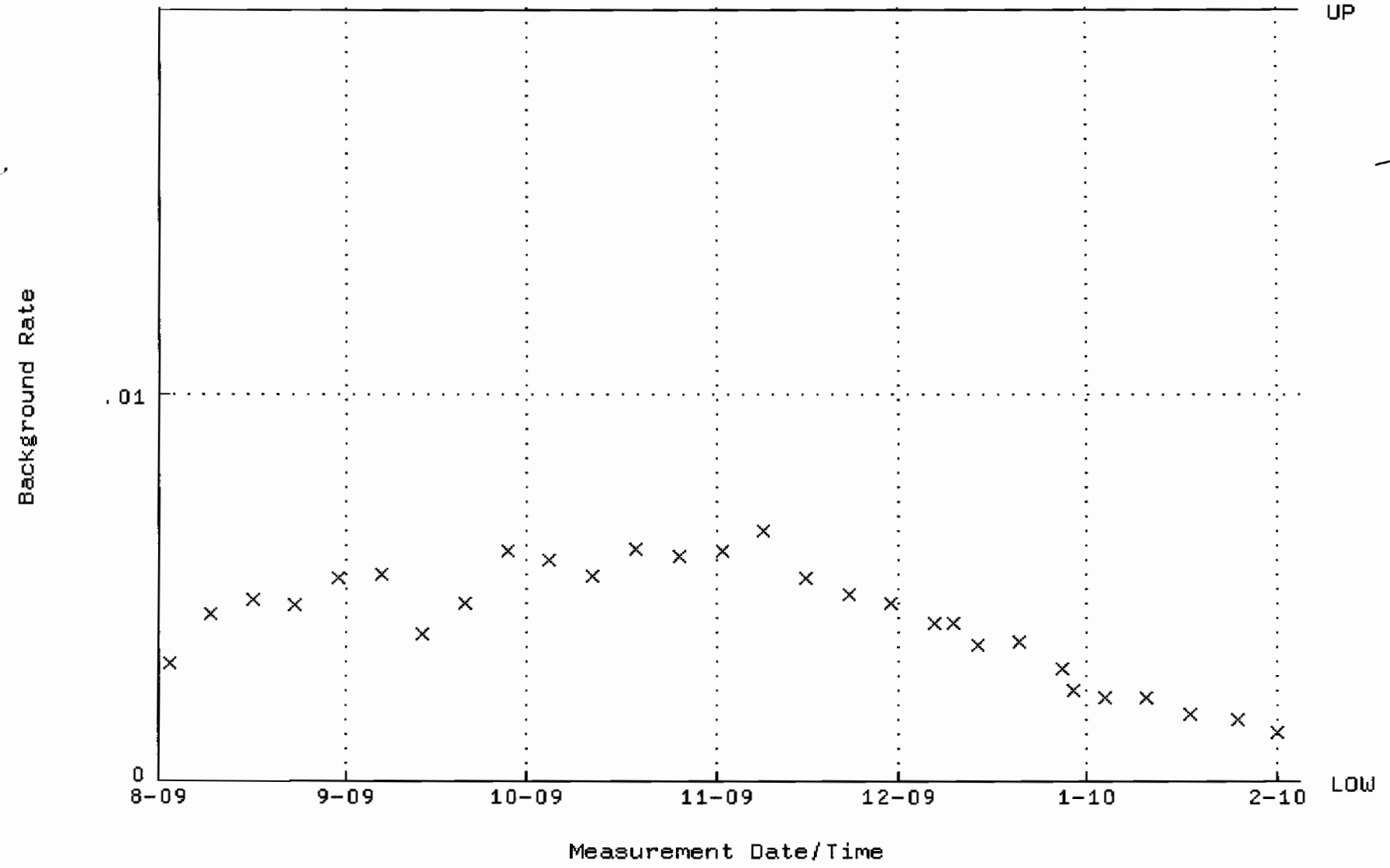

QA filename : DKA100:[ENV_ALPHA.QA.W]W031.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:41 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.324029 through 0.364065

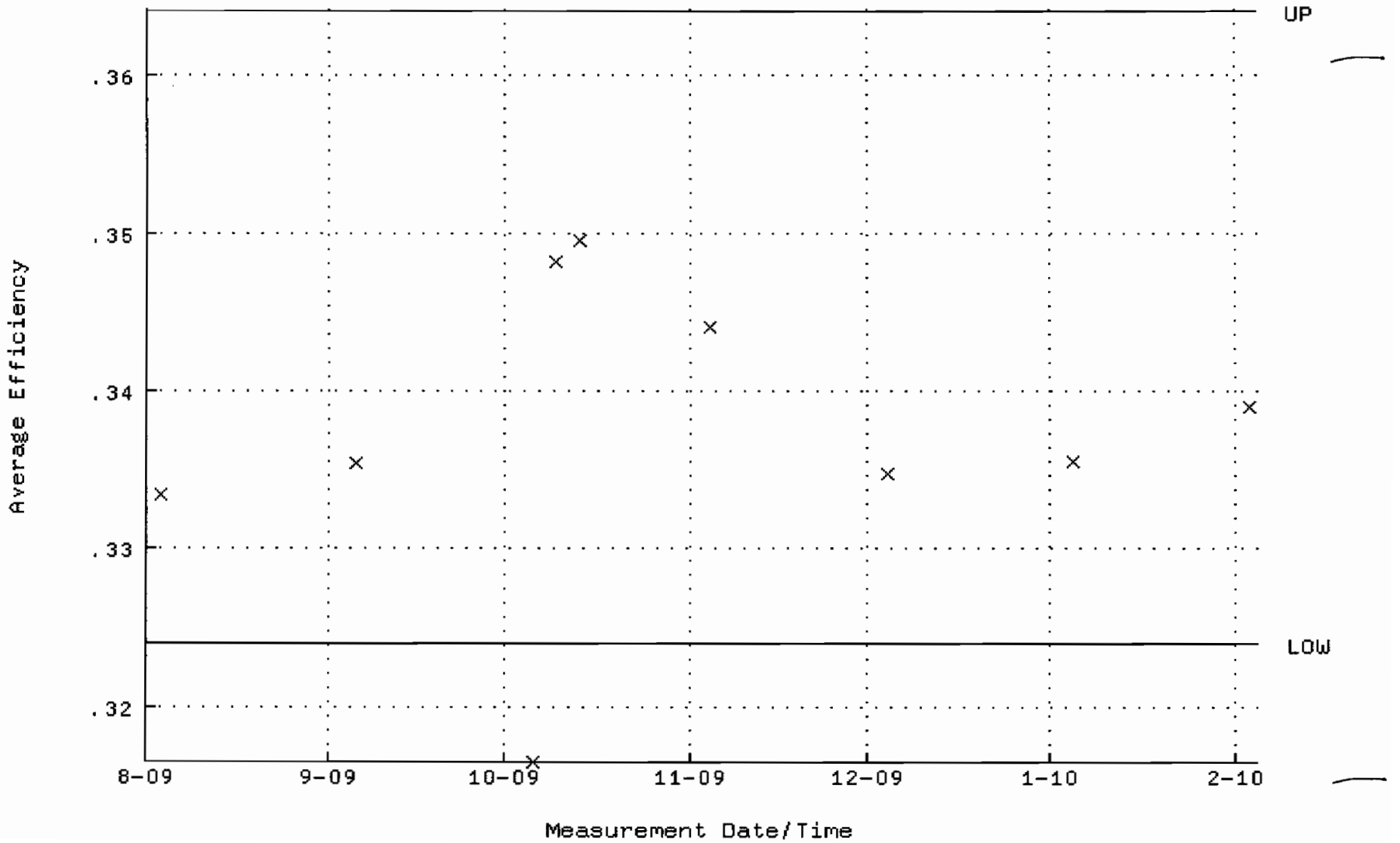

QA filename : DKA100:[ENV_ALPHA.QA.W]W031.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:41 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.2165 through 88.5165

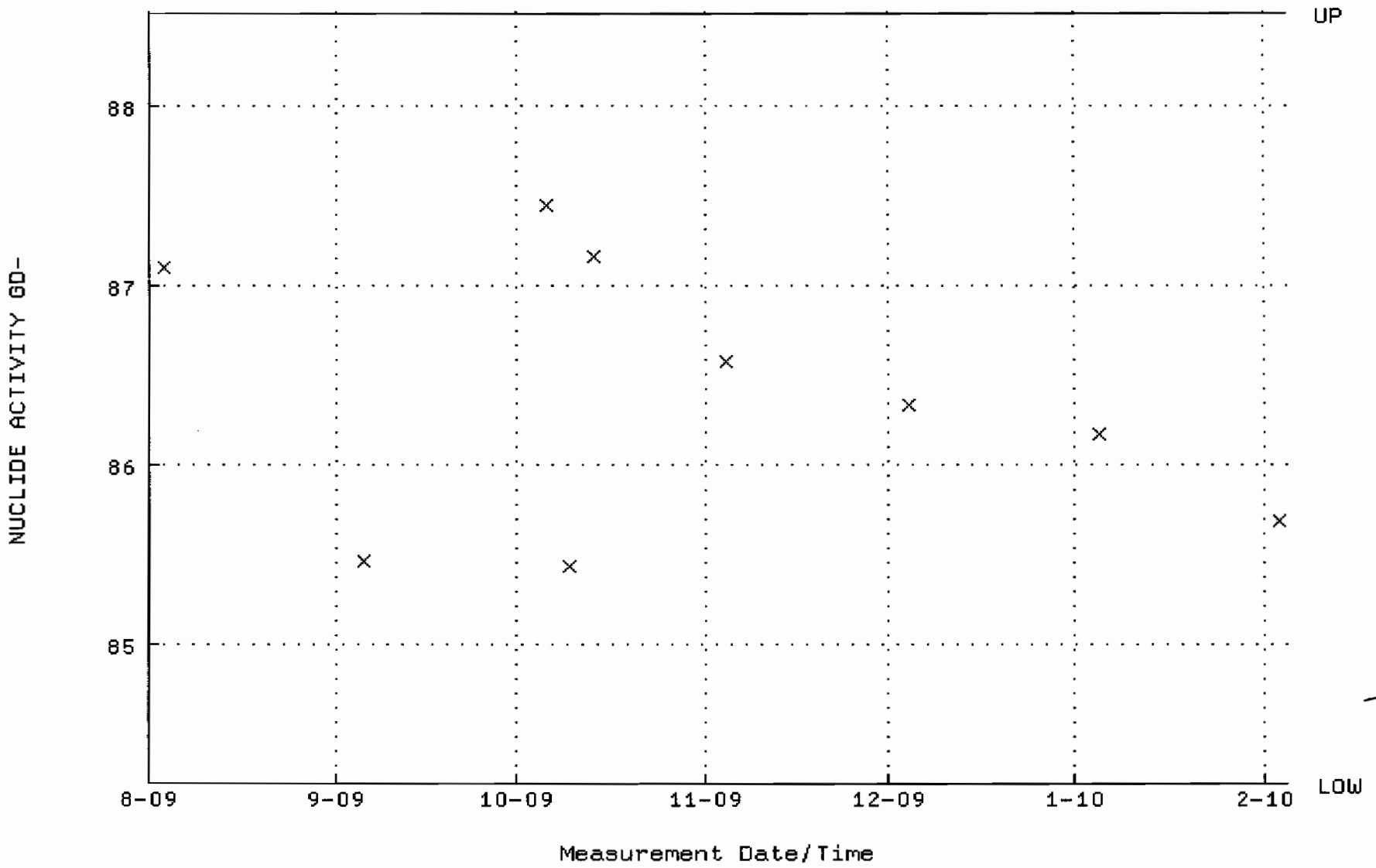

QA filename : DKA100:[ENV_ALPHA.QA.B]B031.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

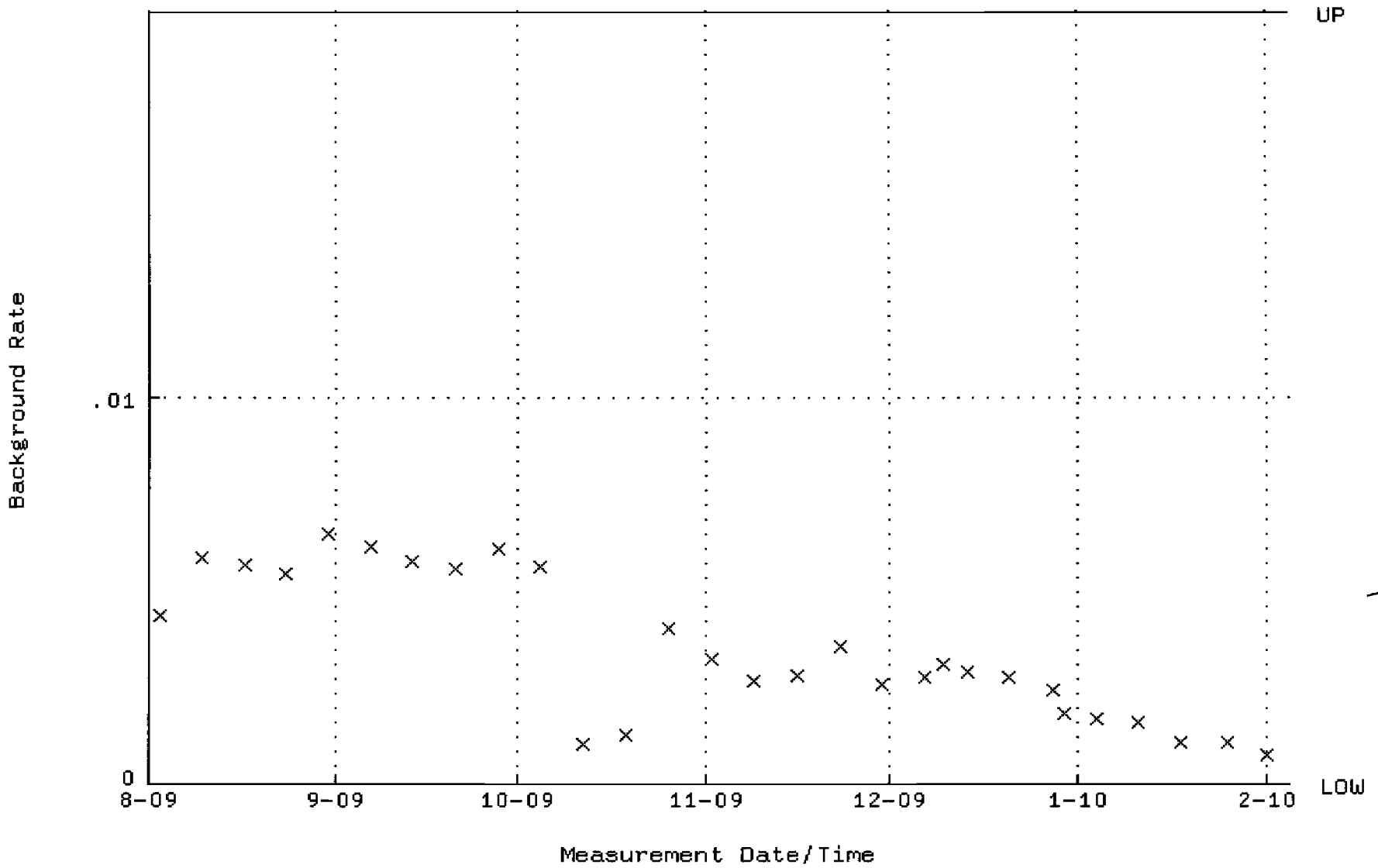

QA filename : DKA100:[ENV_ALPHA.QA.W]W033.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:41 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.304222 through 0.327748

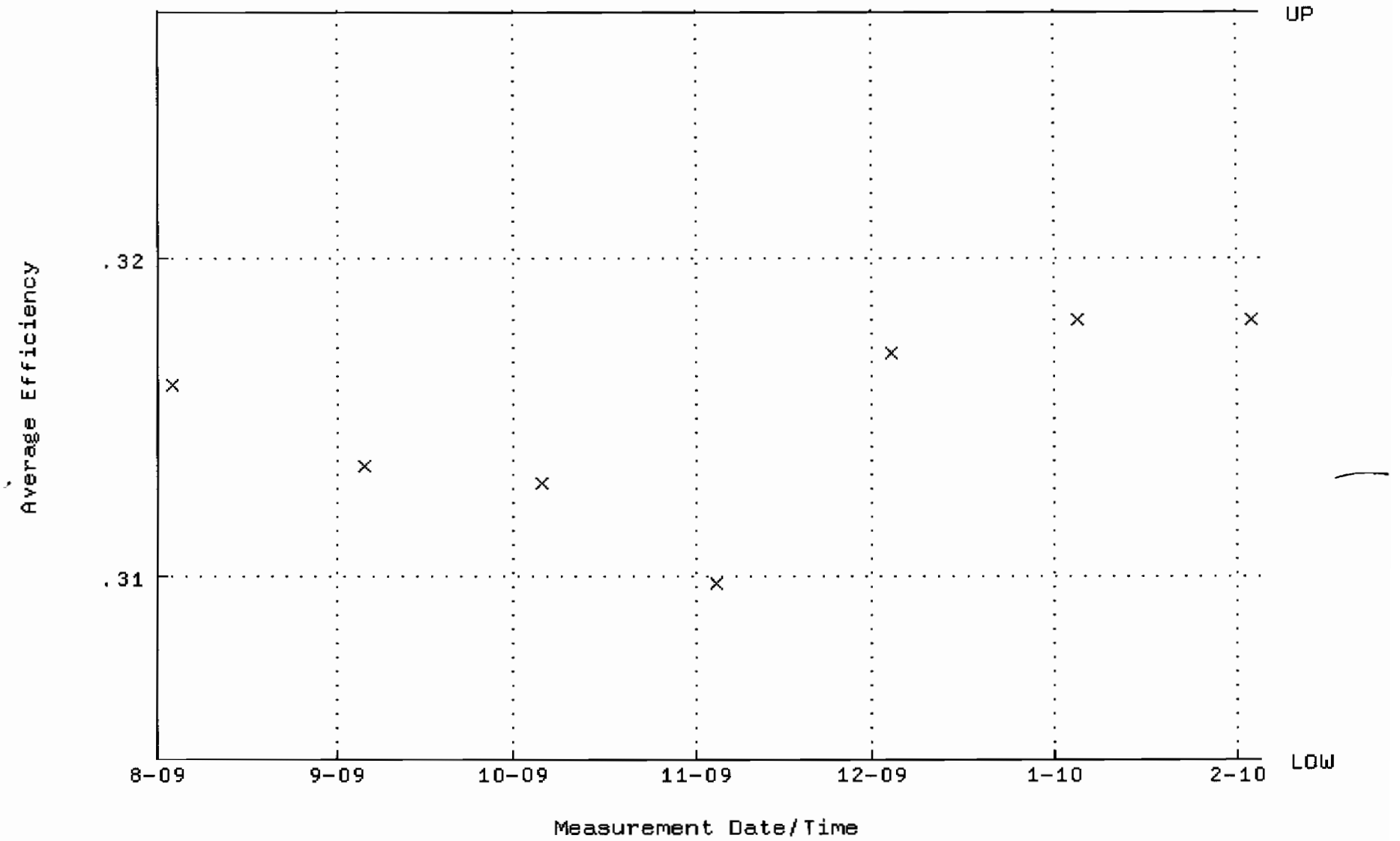

QA filename : DKA100:[ENV_ALPHA.QA.W]W033.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:41 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 83.9373 through 86.9661

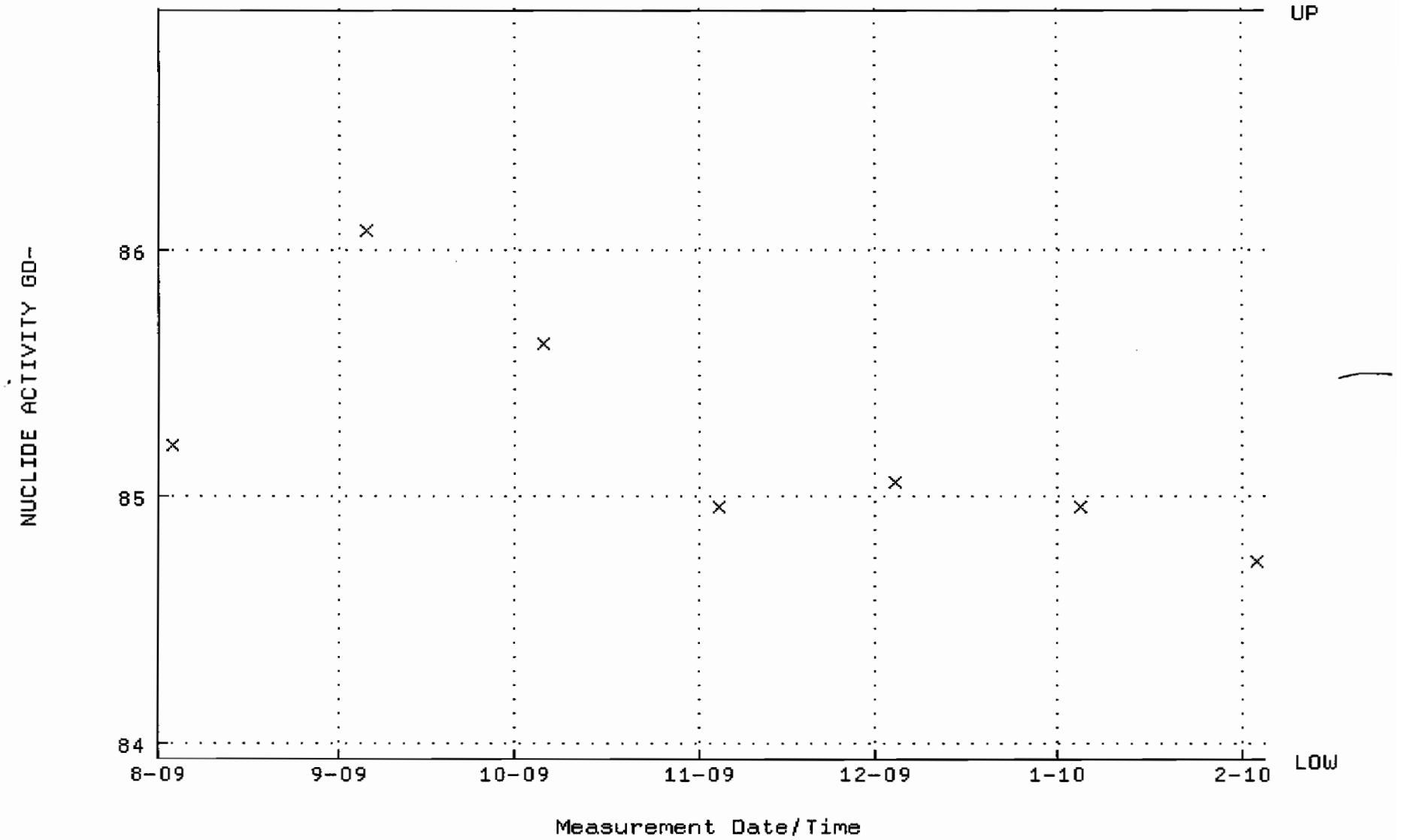

QA filename : DKA100:[ENV_ALPHA.QA.B]B033.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

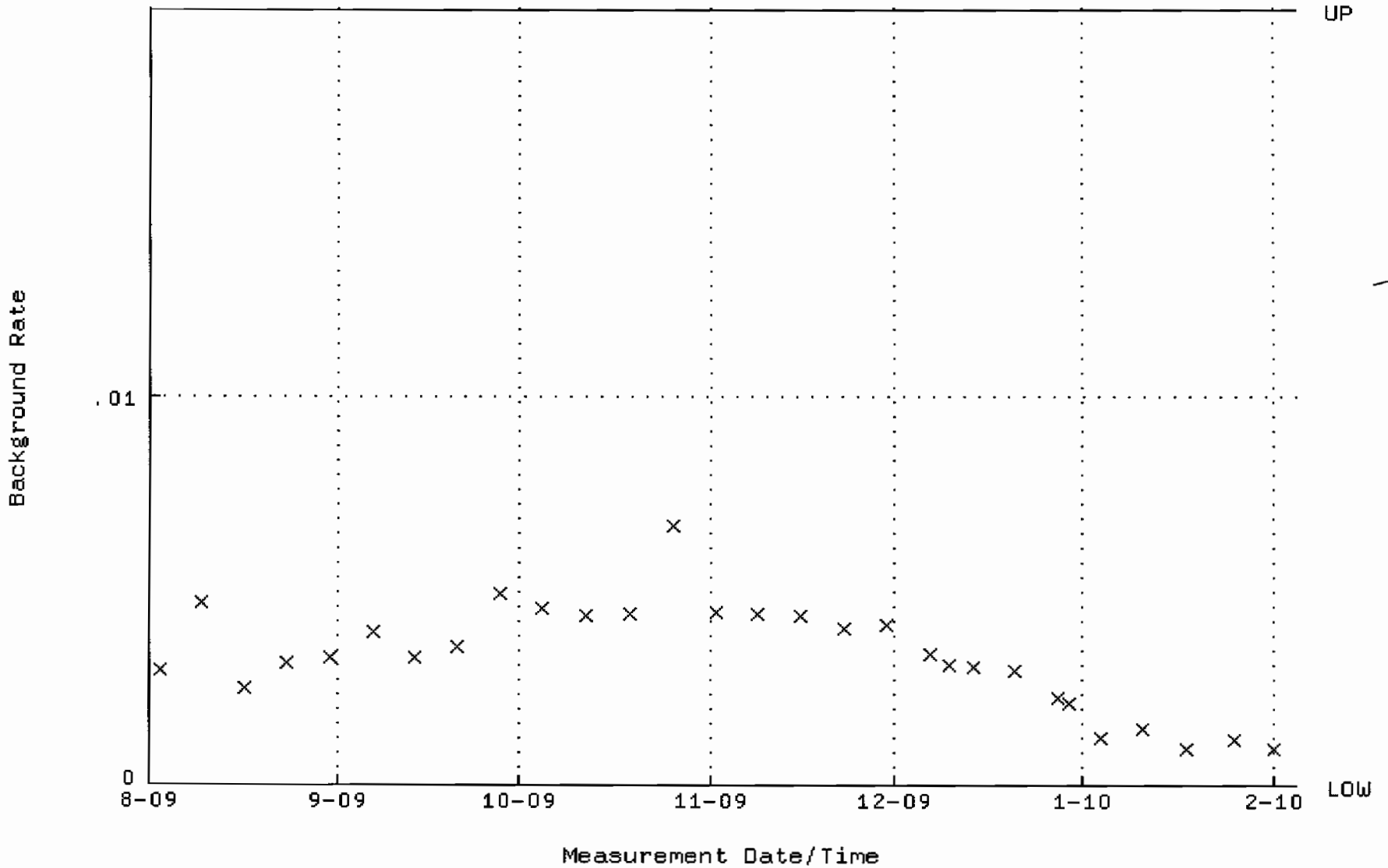

QA filename : DKA100:[ENV_ALPHA.QA.W]W036.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:41 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.318717 through 0.338717

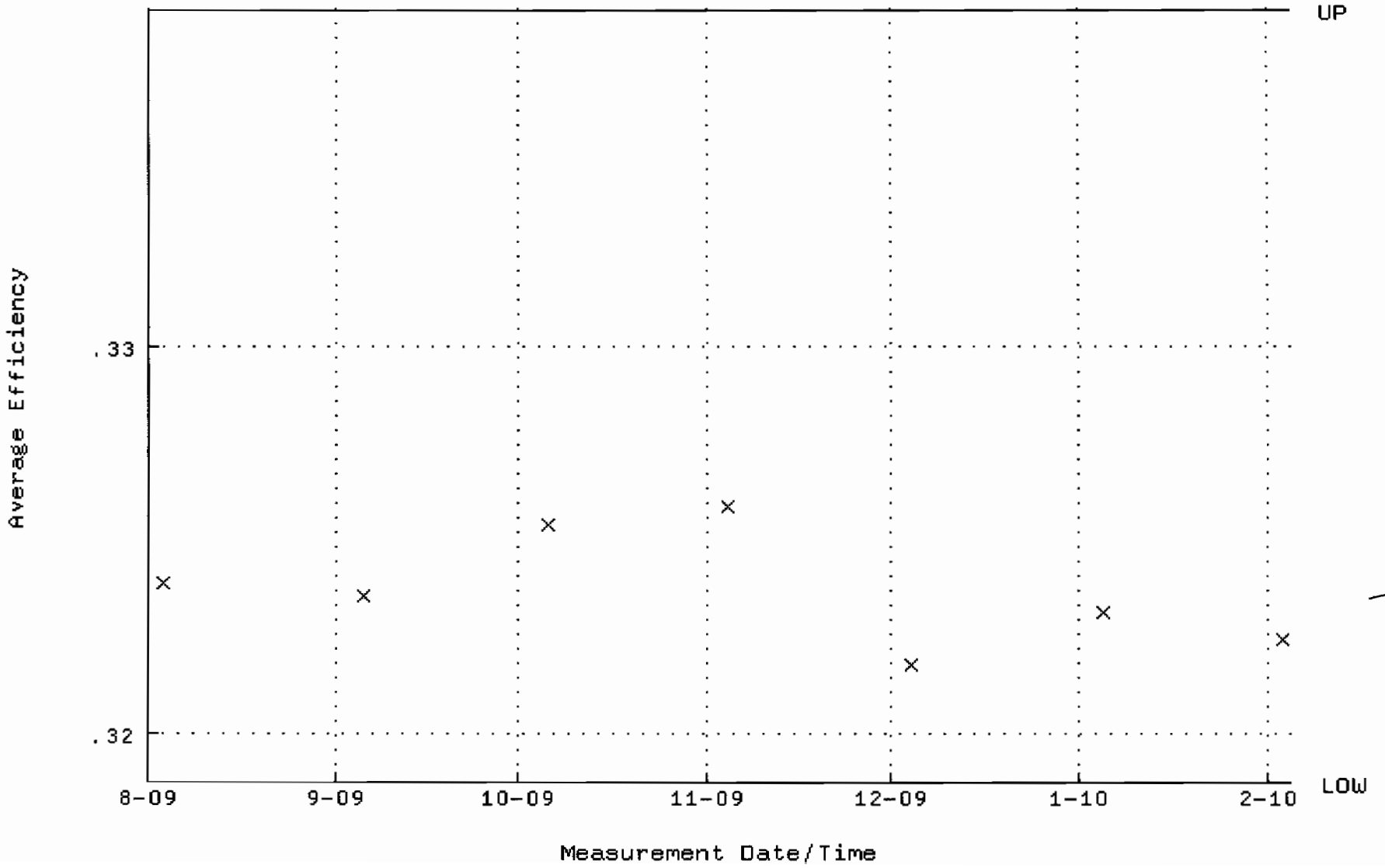

QA filename : DKA100:[ENV_ALPHA.QA.W]W036.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:41 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.6422 through 93.5518

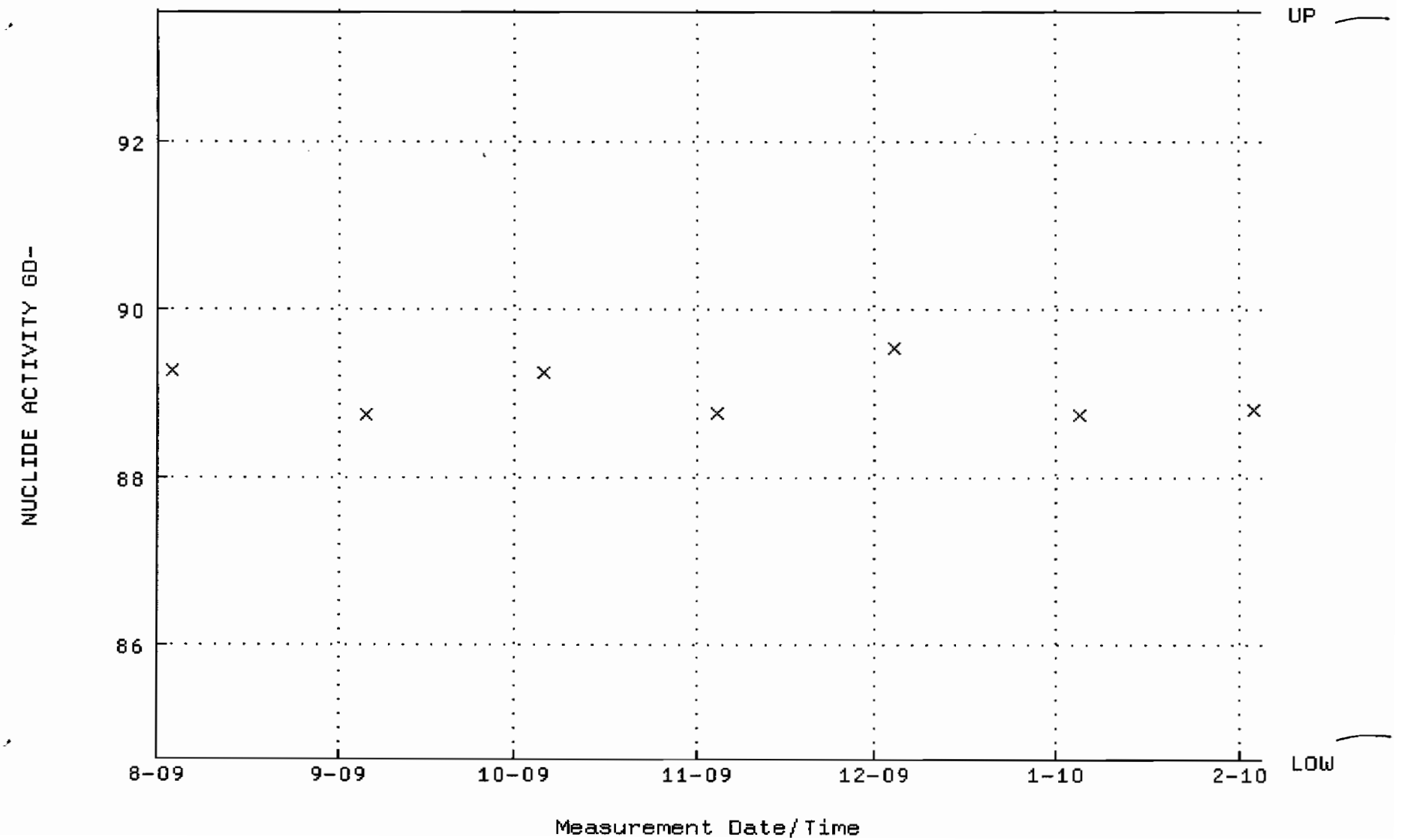

QA filename : DKA100:[ENV_ALPHA.QA.B]B036.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

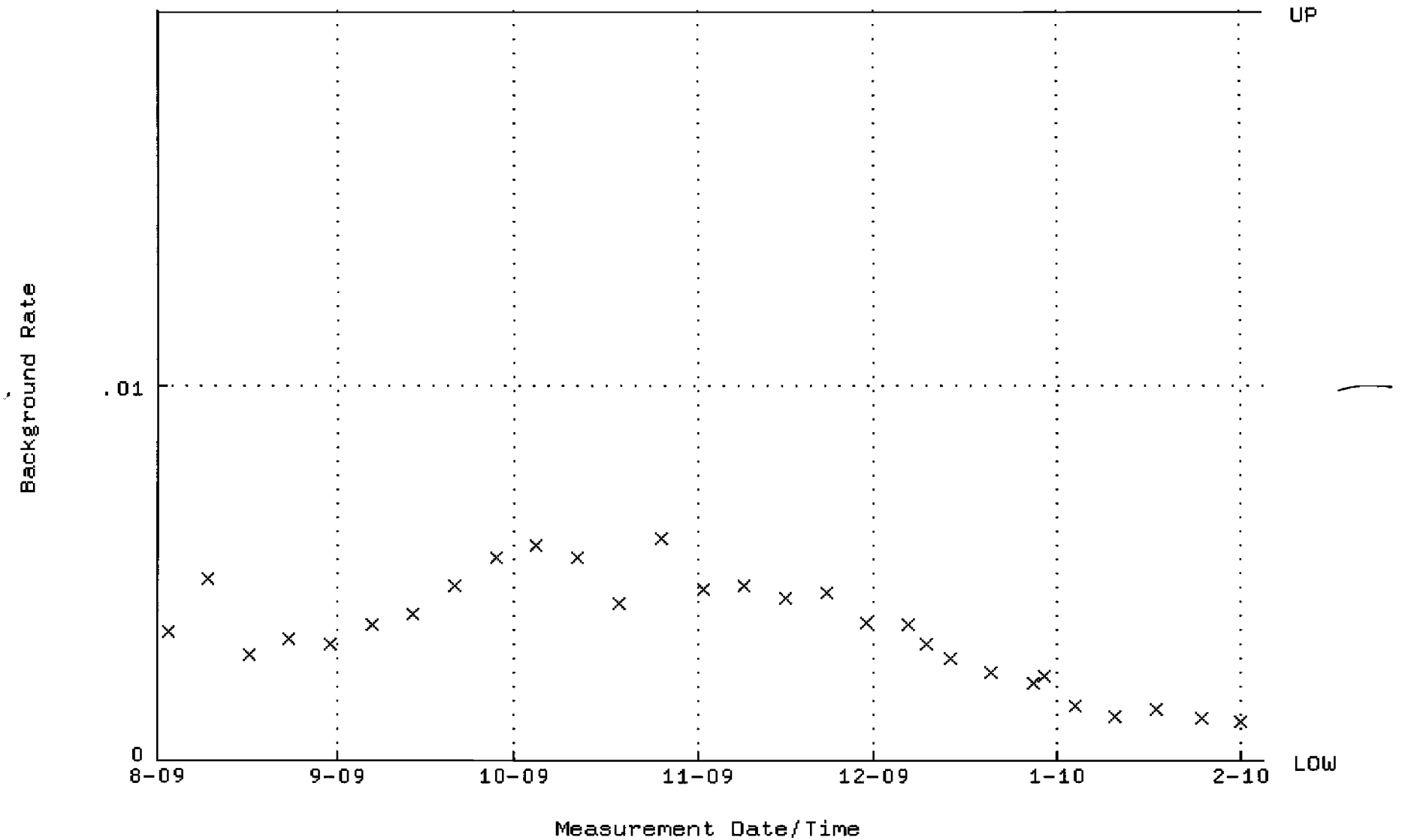

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335973 through 0.355973

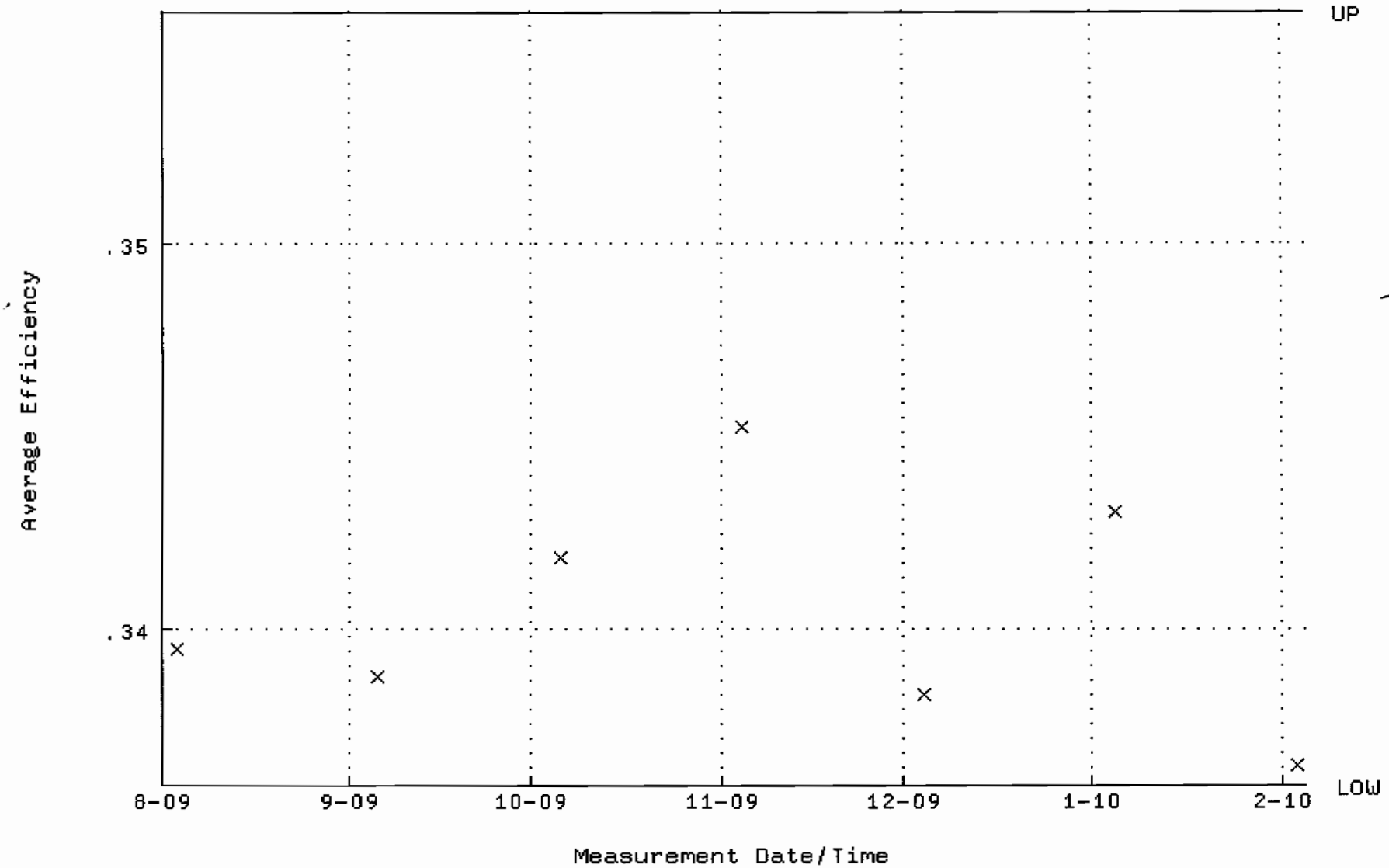

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.2440 through 93.1118

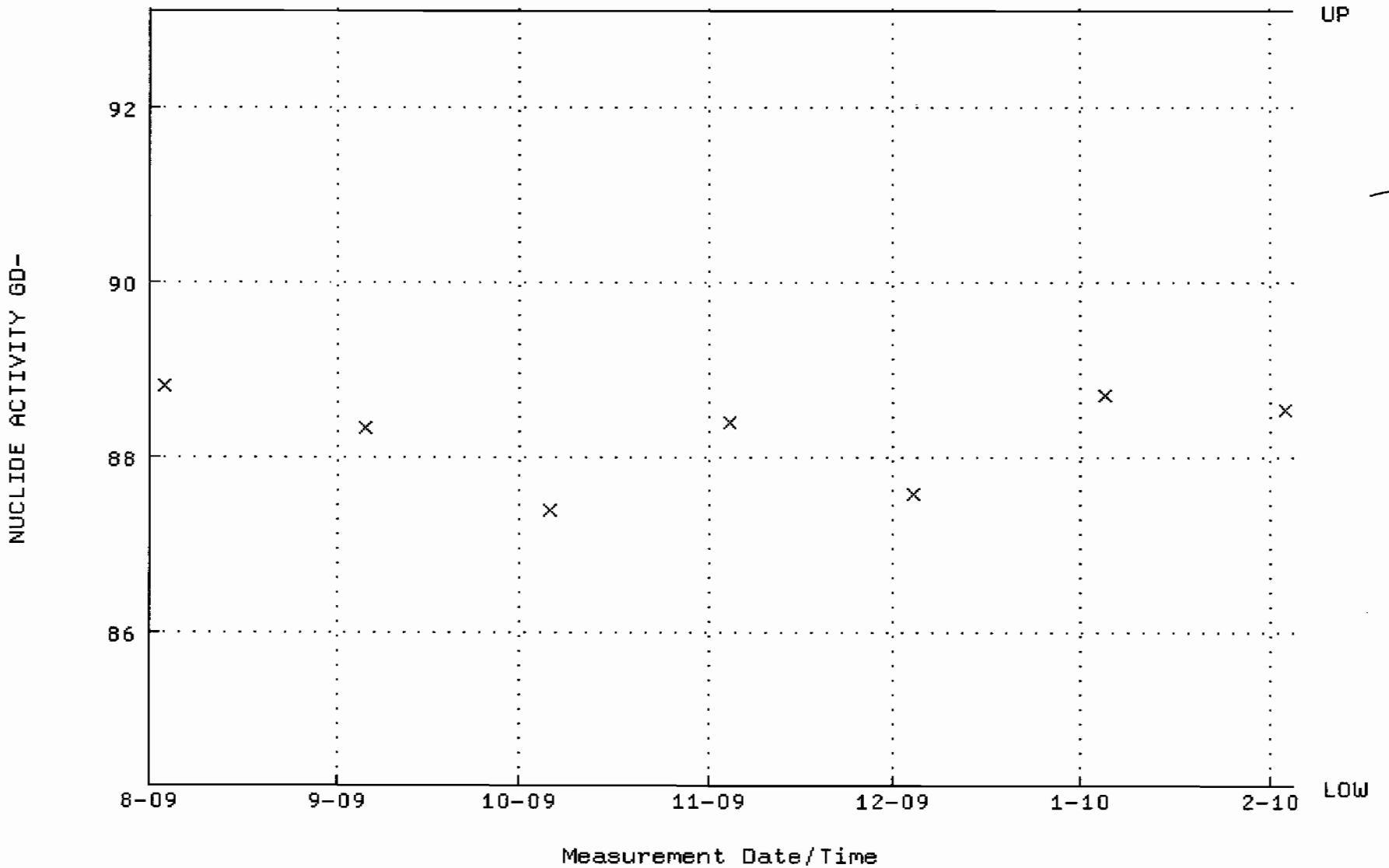

QA filename : DKA100:[ENV_ALPHA.QA.B]B043.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

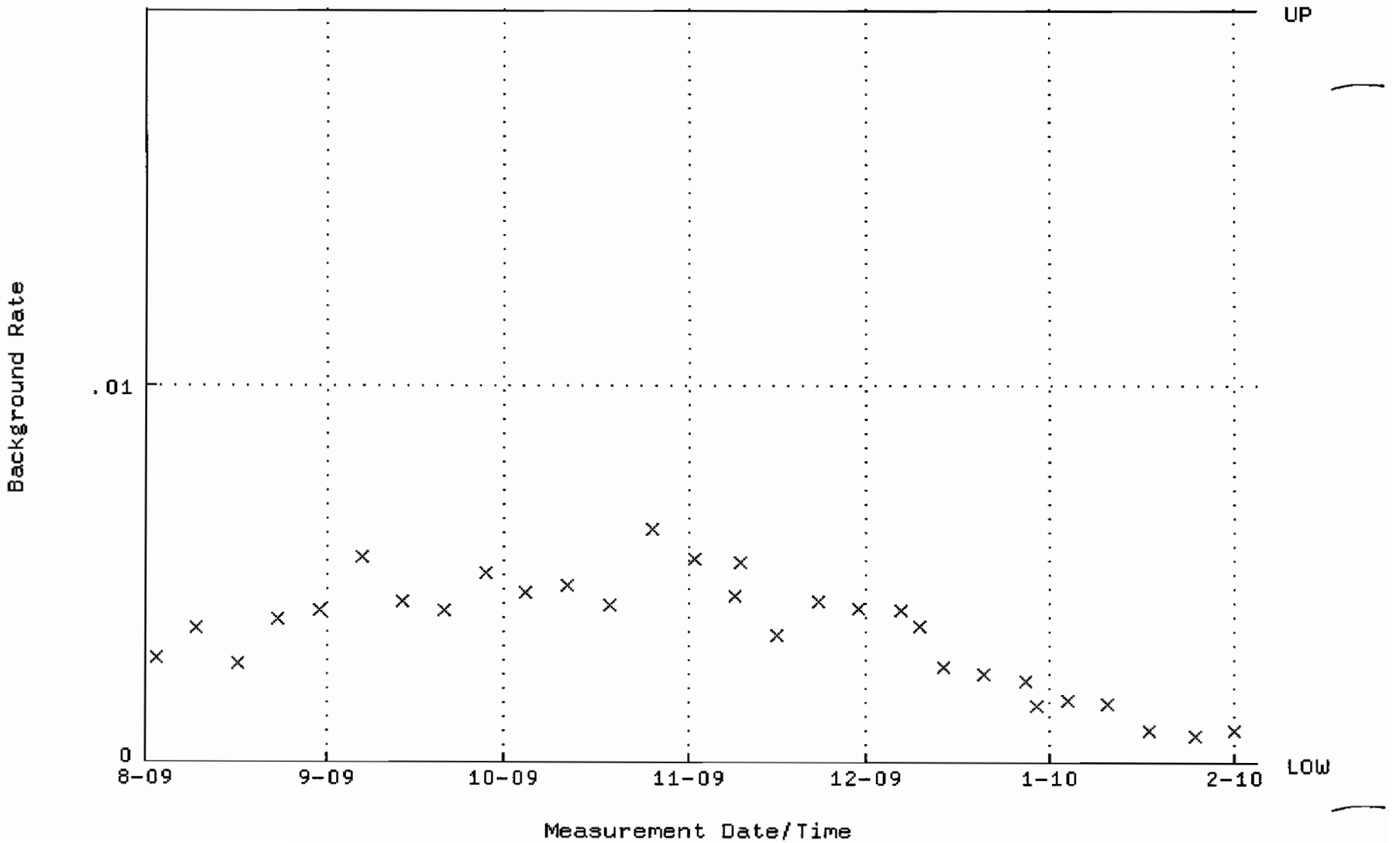

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.333927 through 0.353927

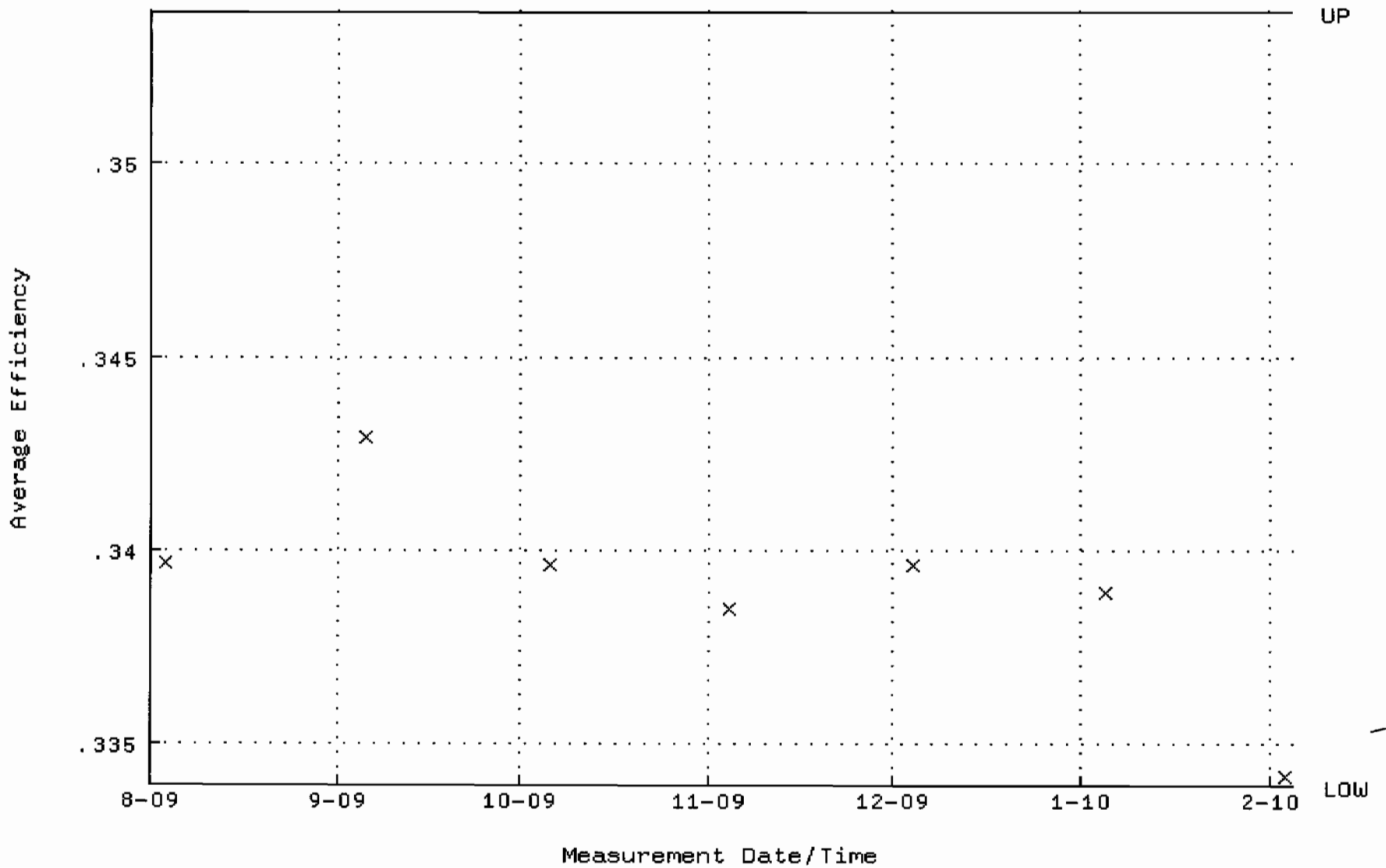

QA filename : DKA100:[ENV_ALPHA.QA.W]W046.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.7568 through 90.3628

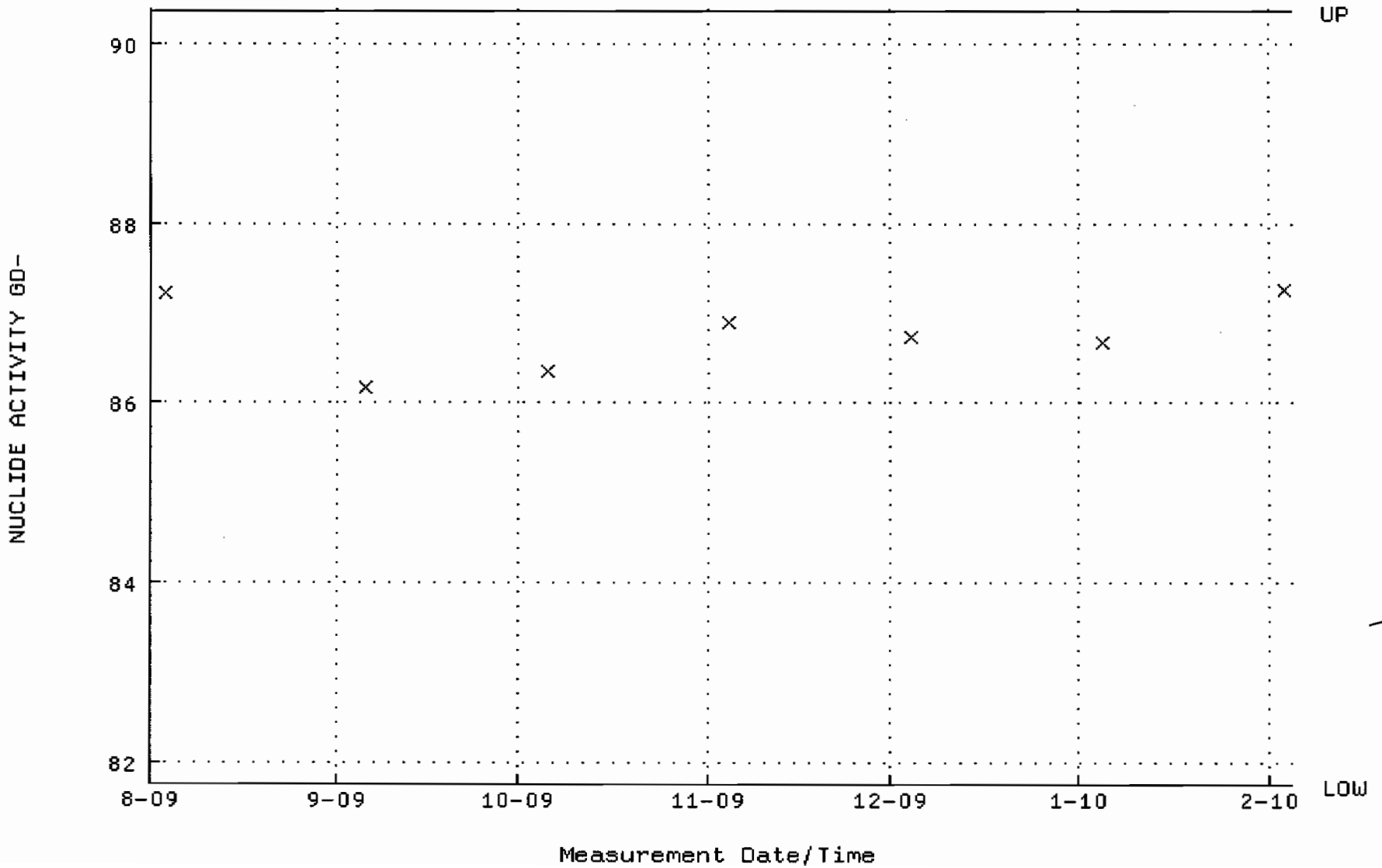

QA filename : DKA100:[ENV_ALPHA.QA.B]B046.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

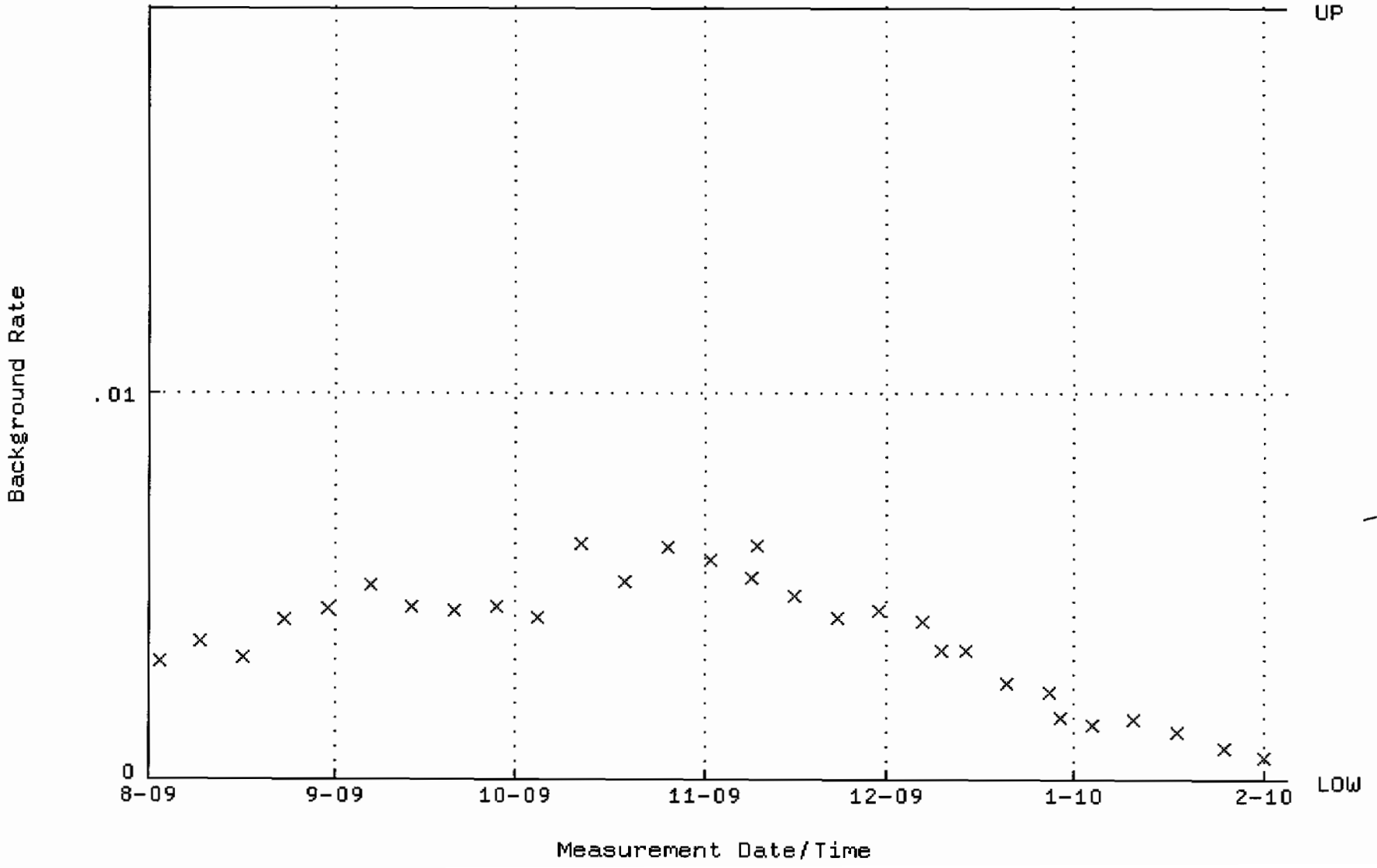

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.323184 through 0.343184

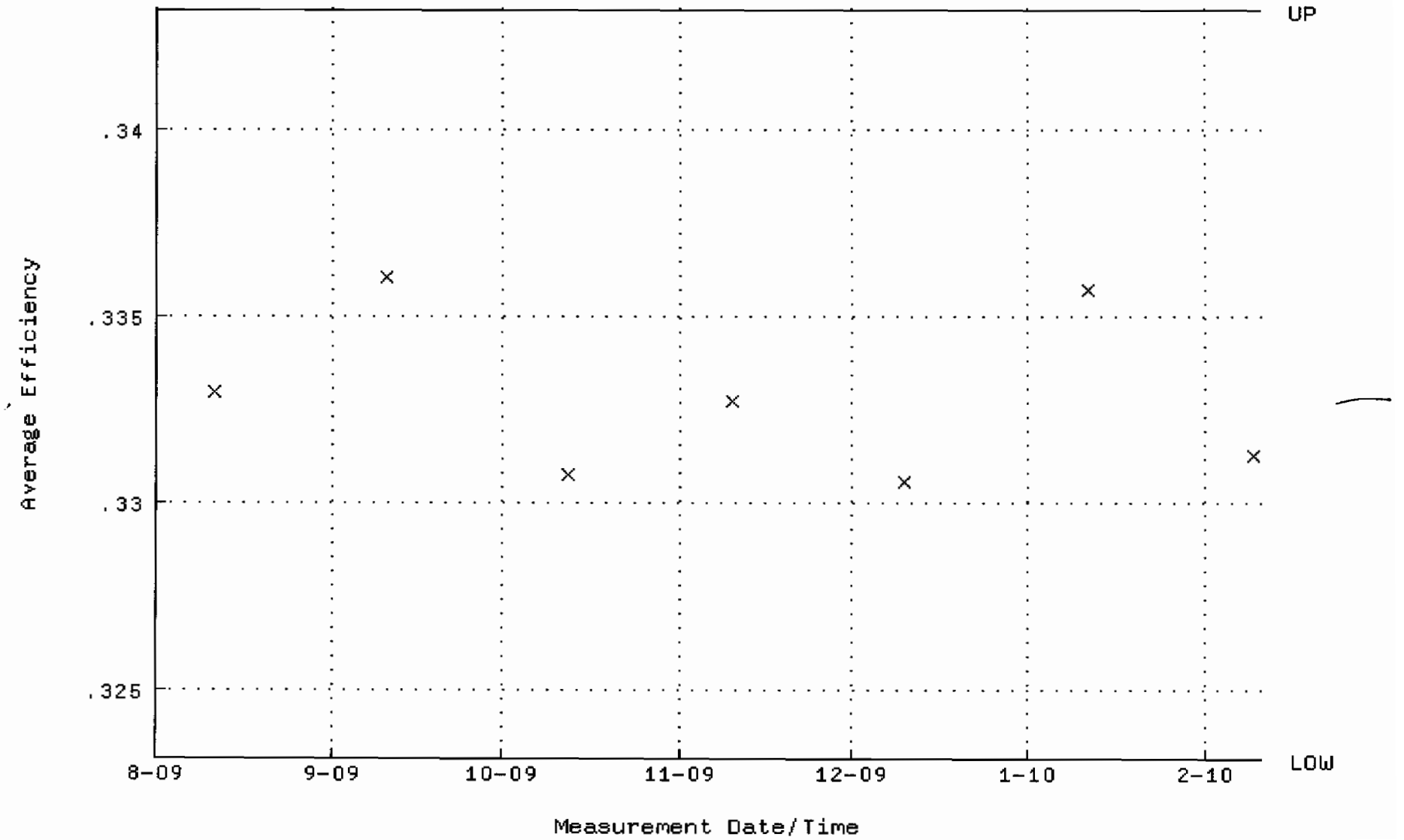

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.6734 through 95.7970

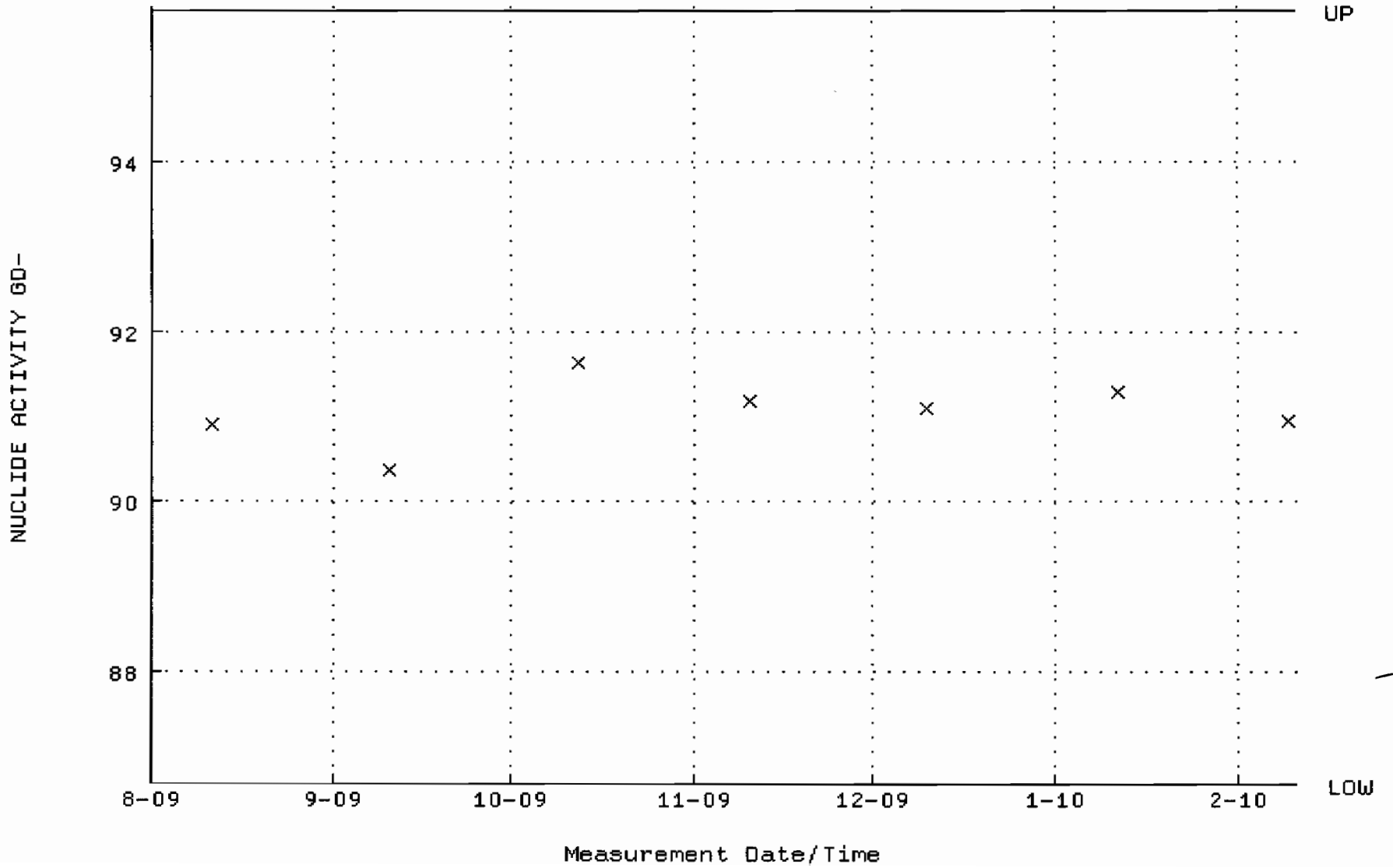

QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

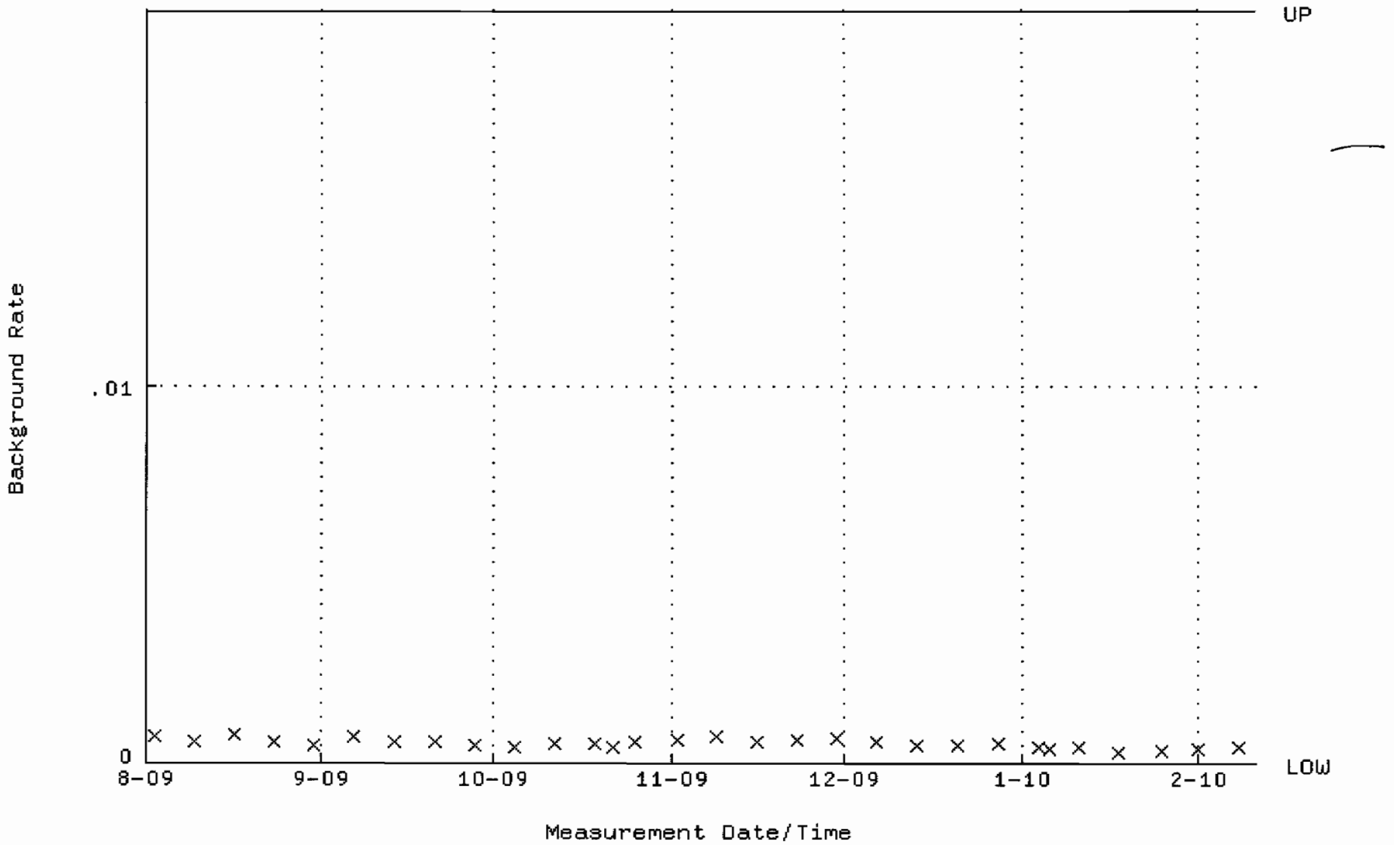

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.305830 through 0.325830

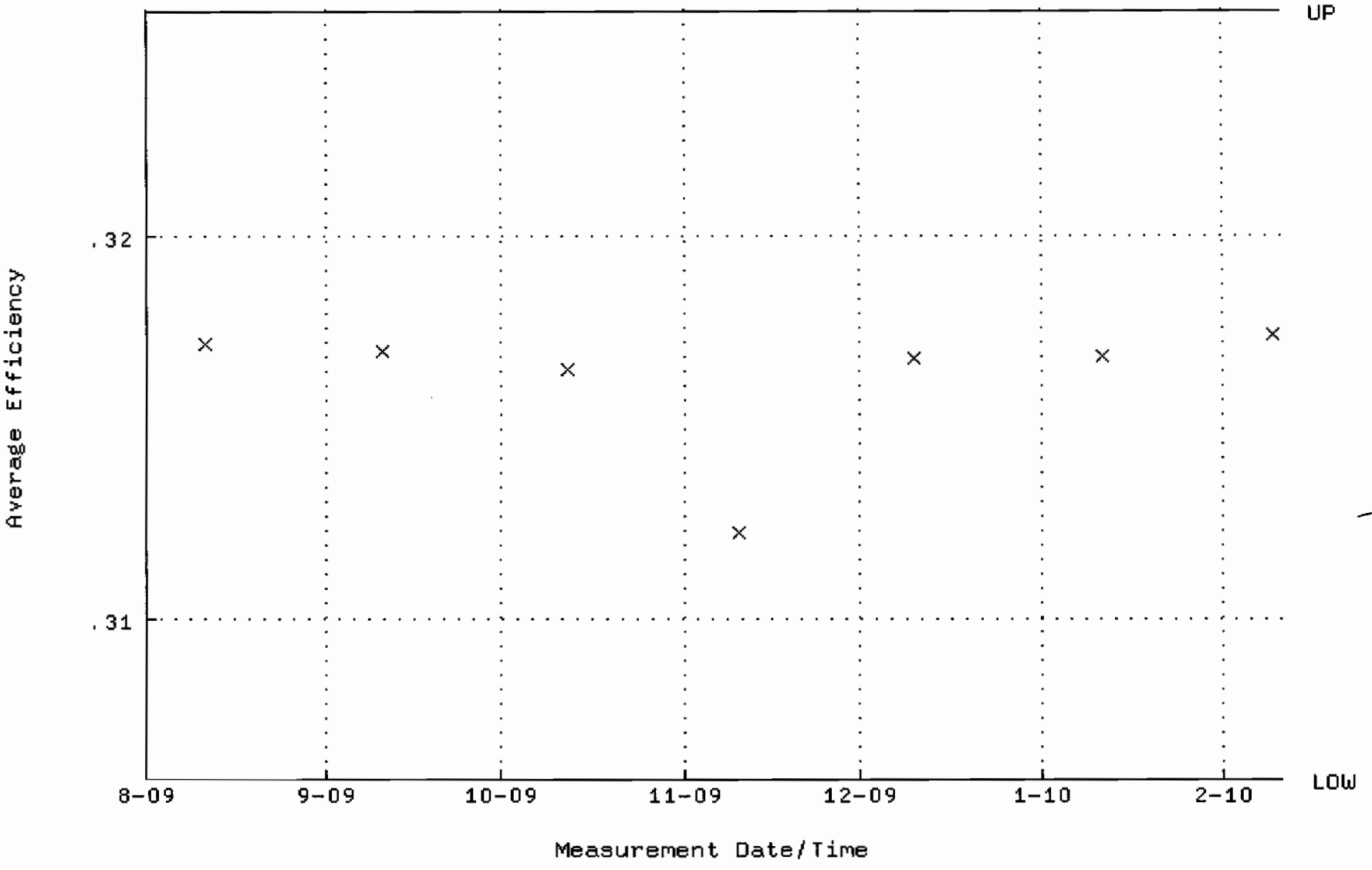

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0289 through 95.0845

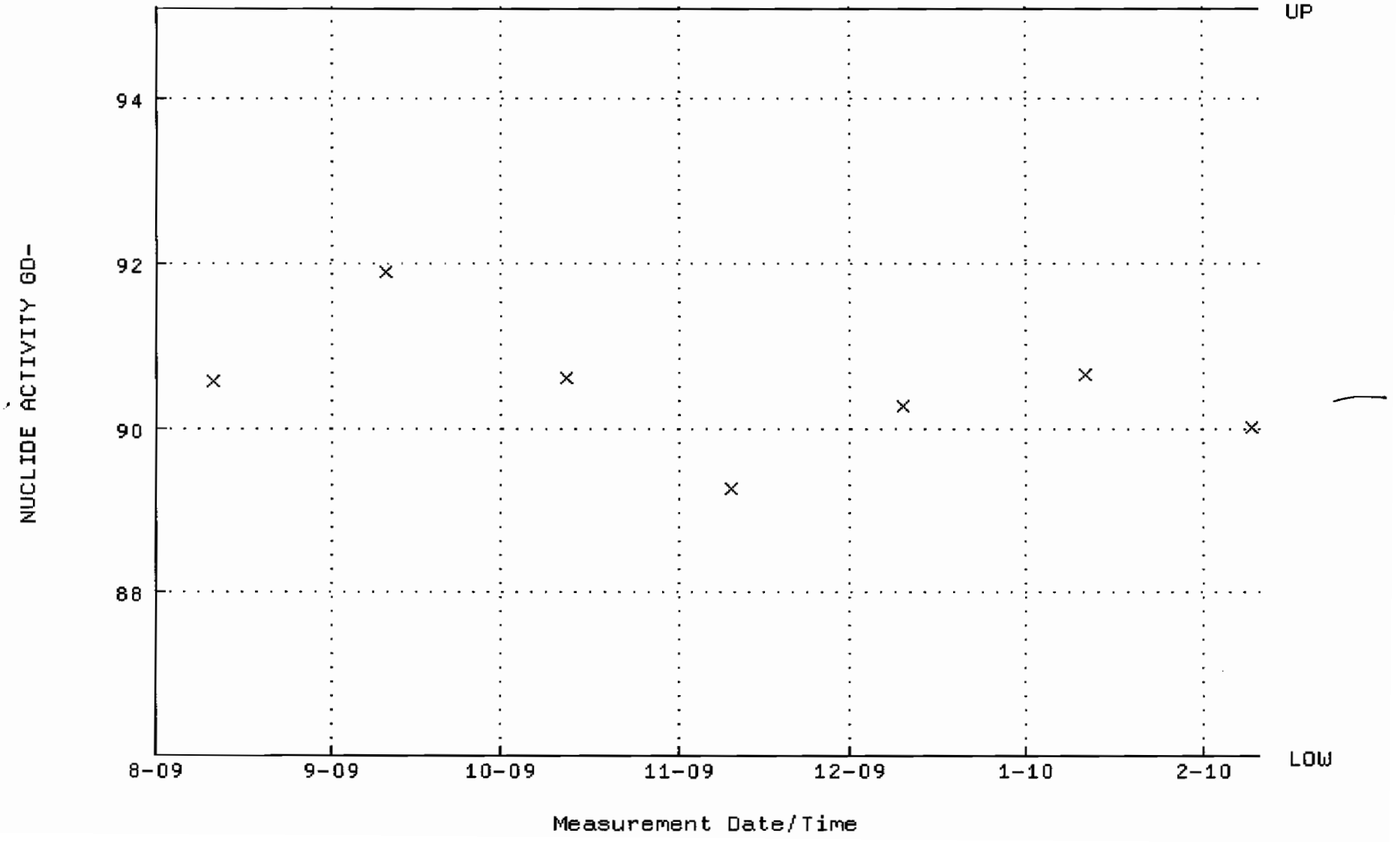

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

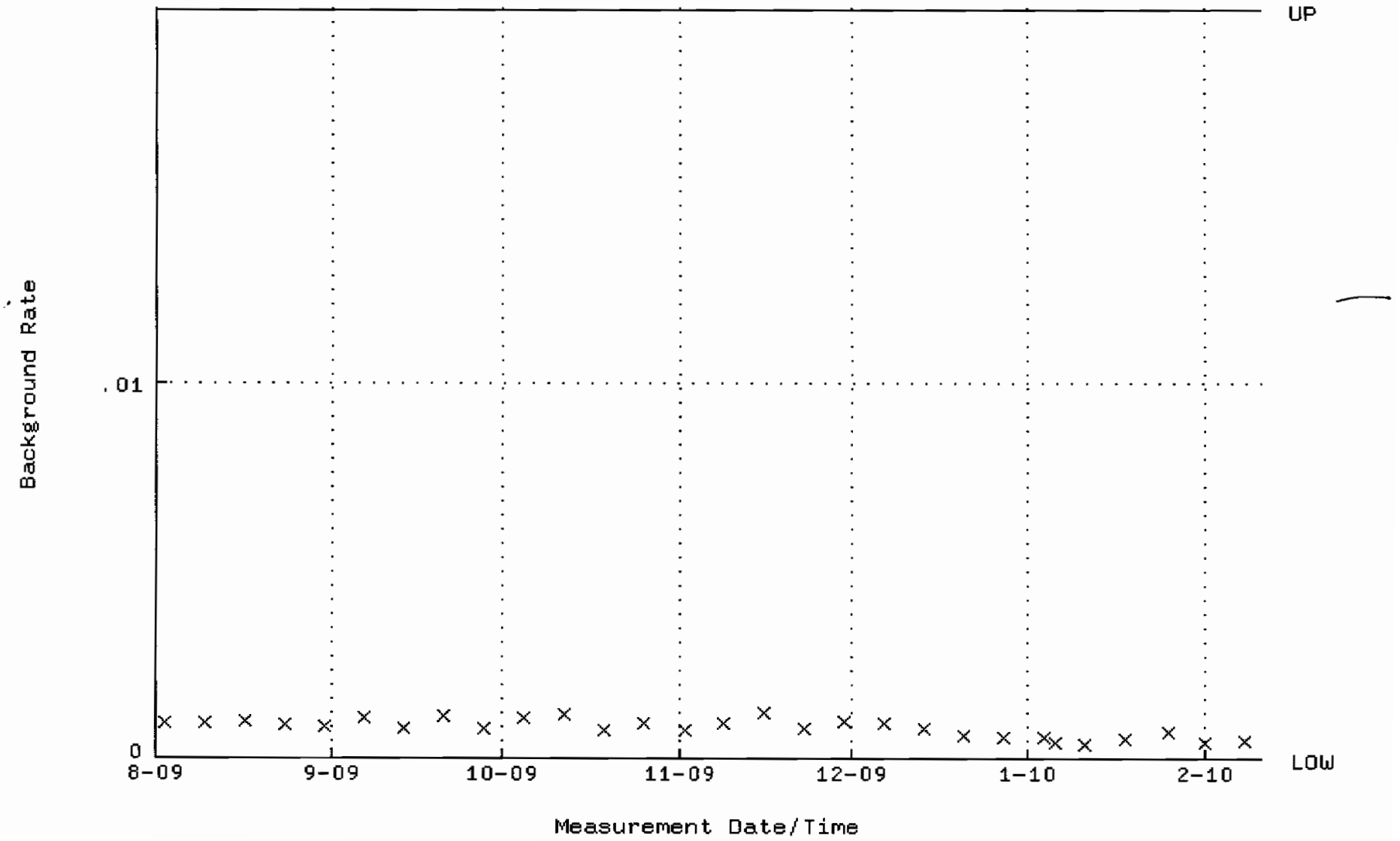

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.292134 through 0.312134

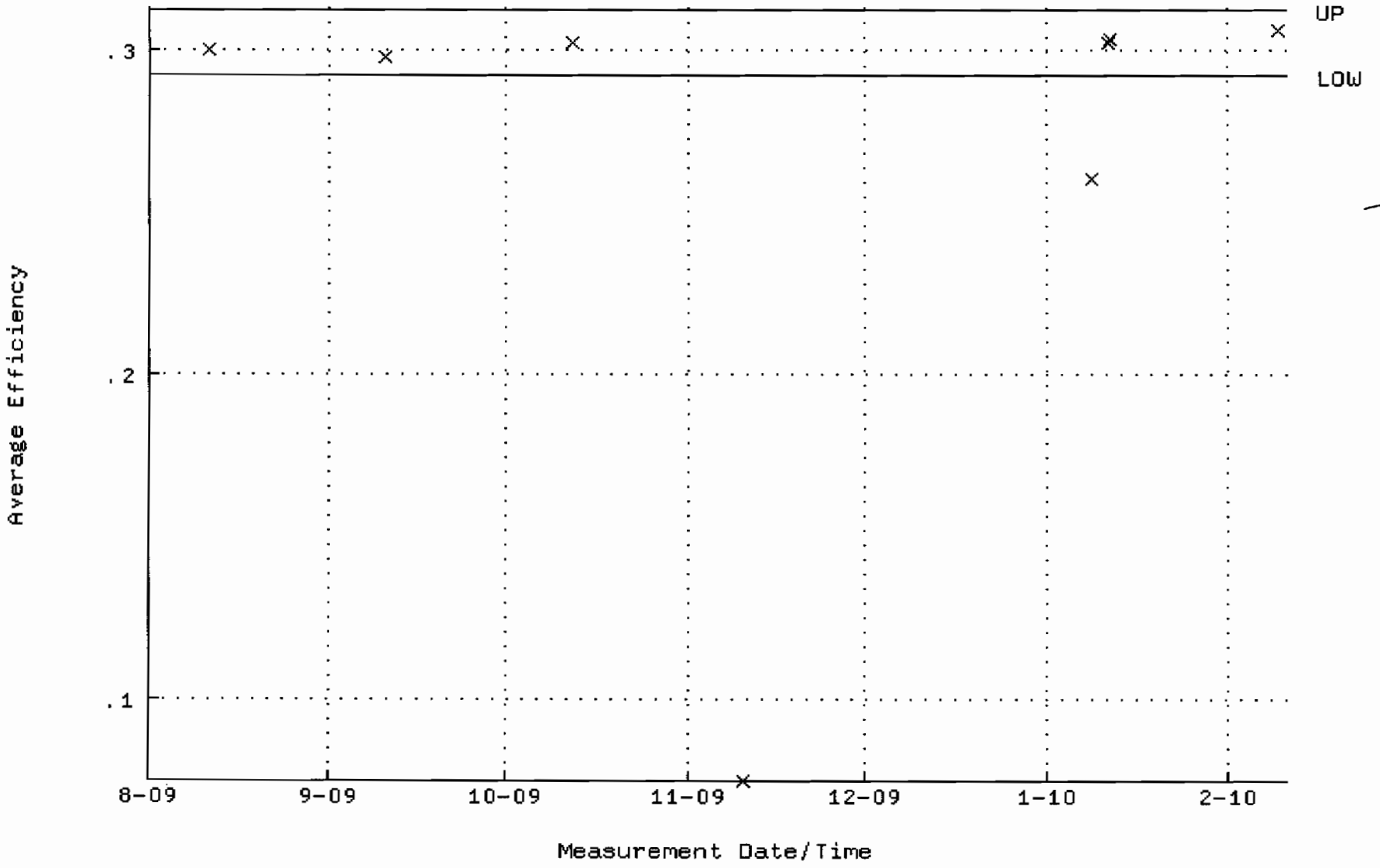

QA filename : DKA100:[ENV_ALPHA.QA.W]W075.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 91.1212 through 100.713

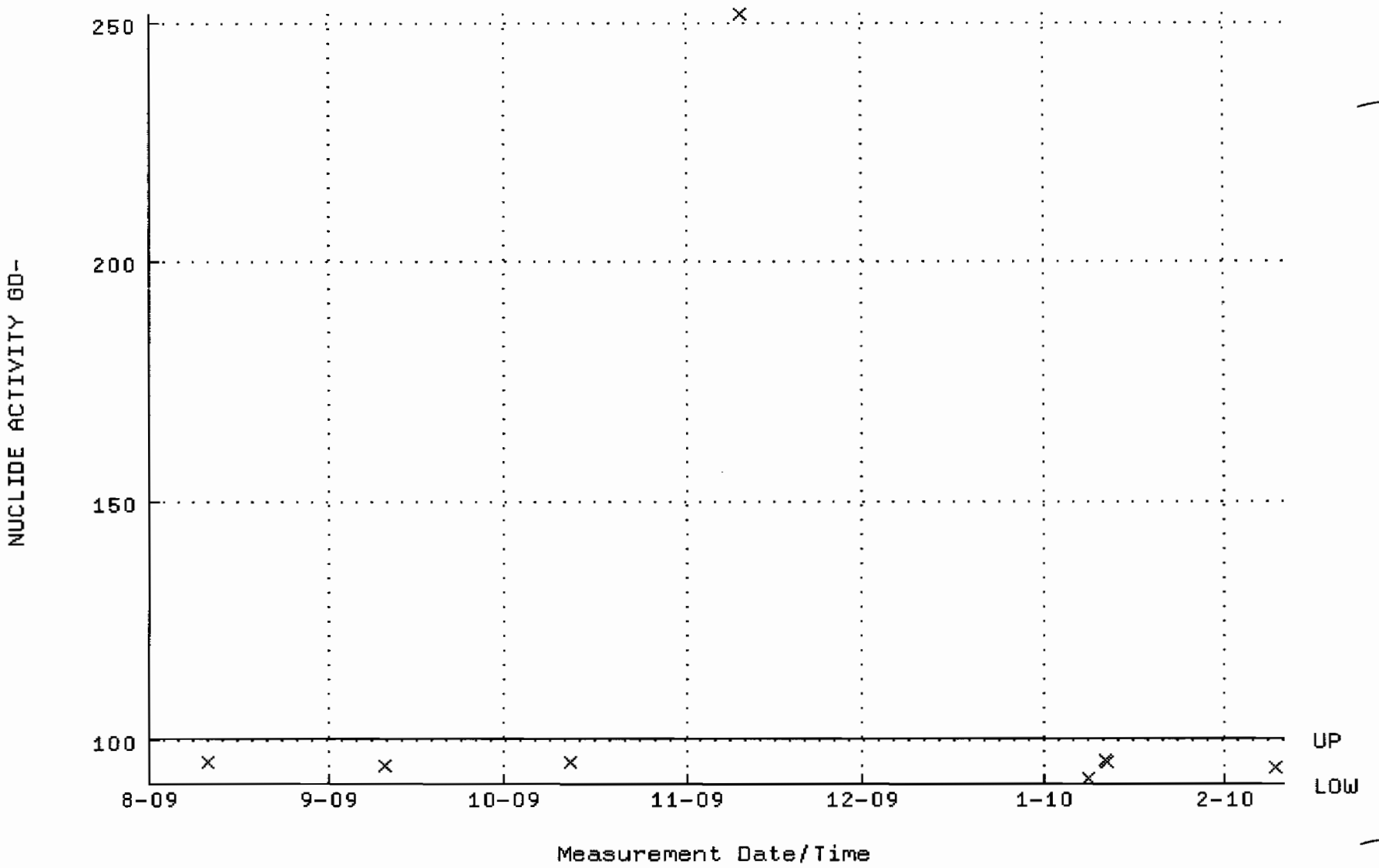

QA filename : DKA100:[ENV_ALPHA.QA.B]B075.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

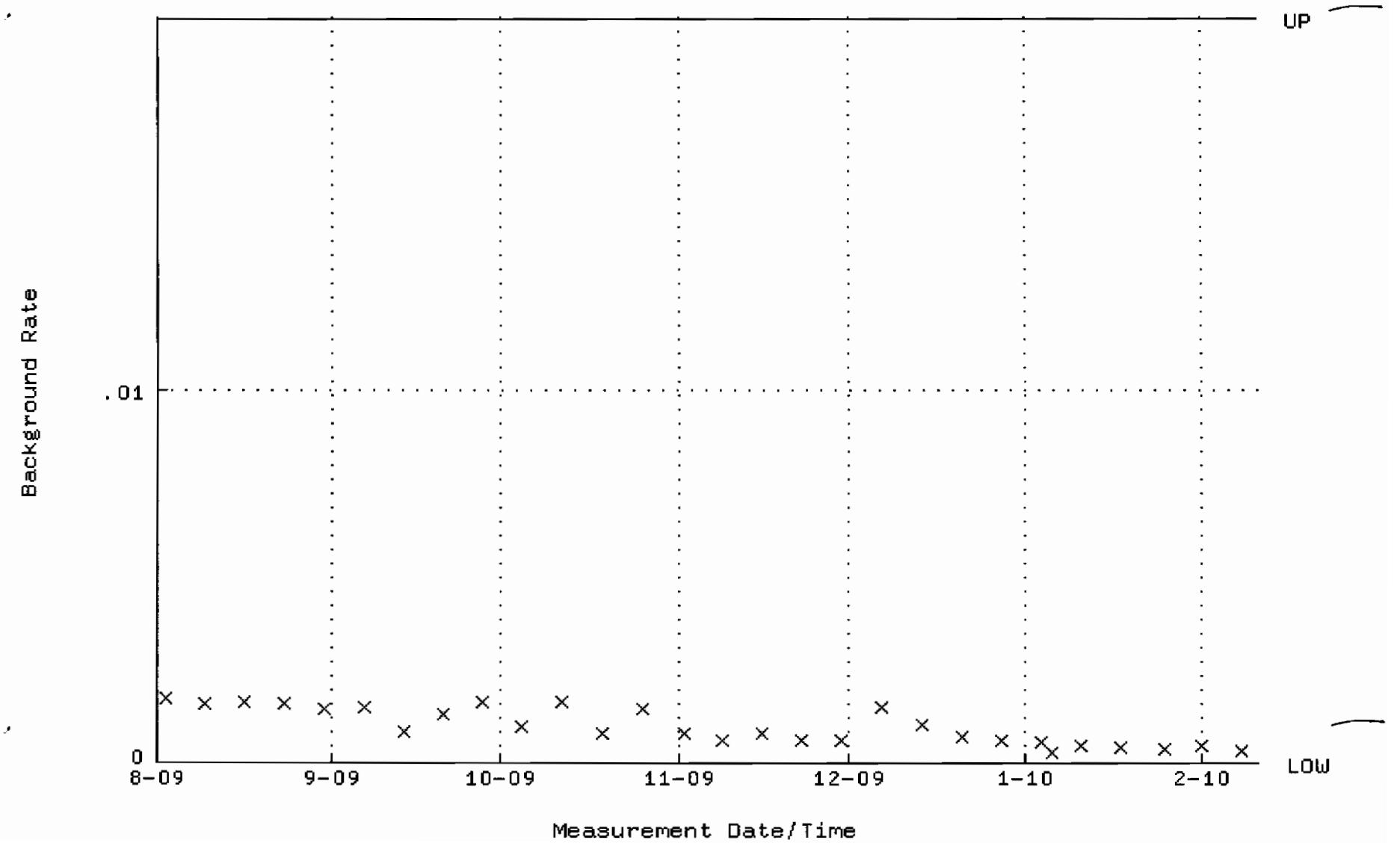

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295613 through 0.315613

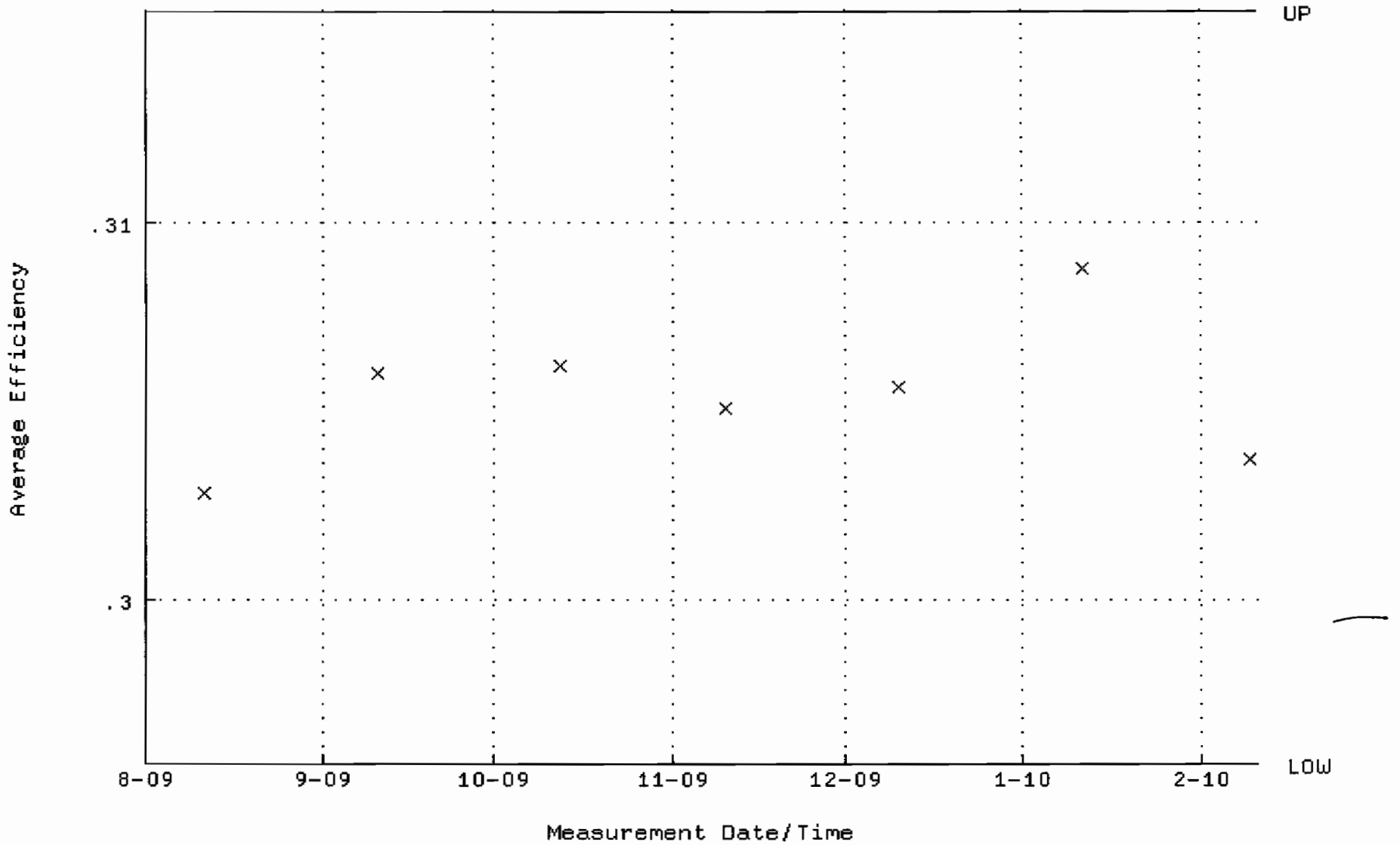

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9031 through 97.1561

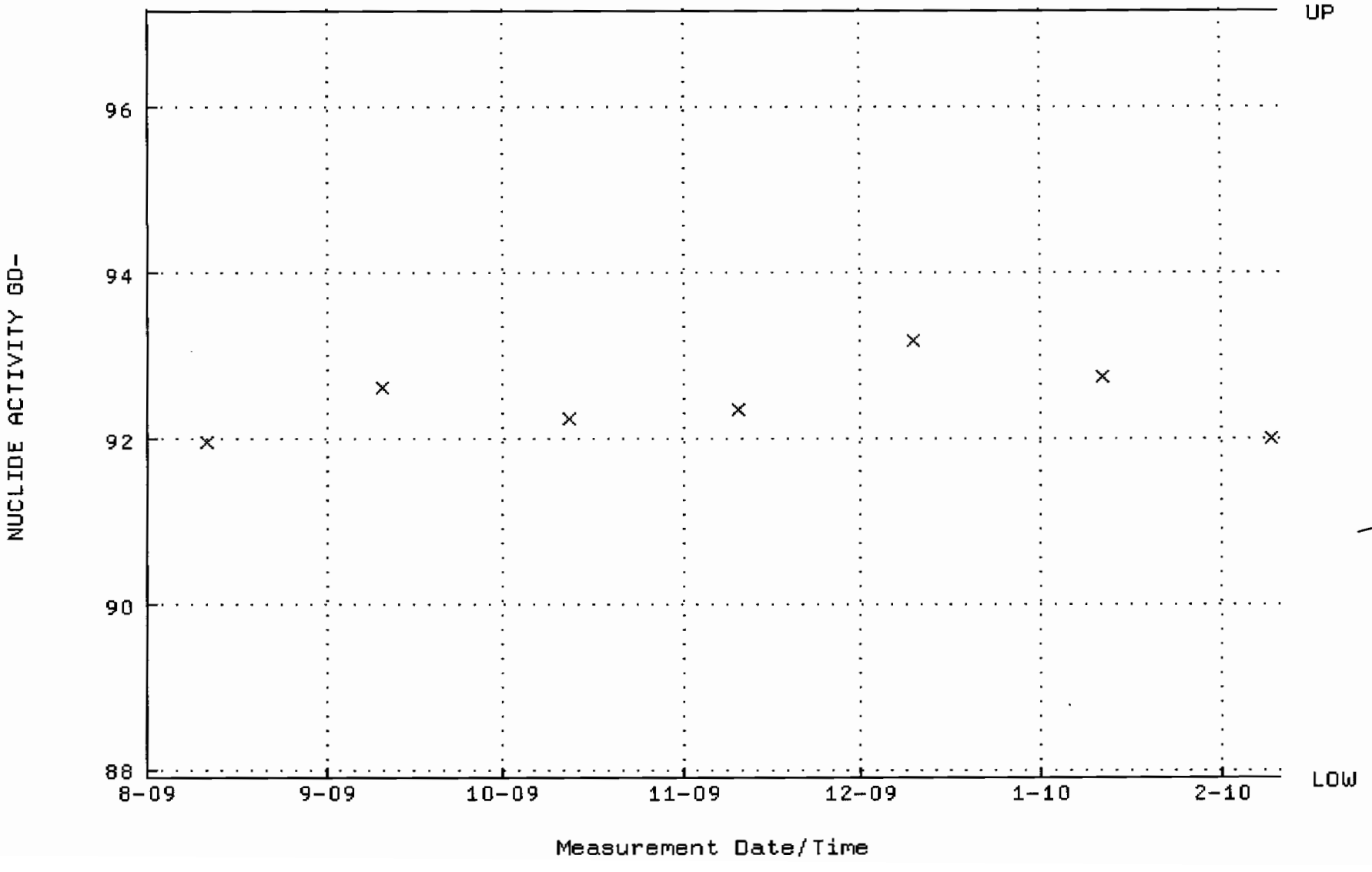

QA filename : DKA100:[ENV_ALPHA.QA.B]B076.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

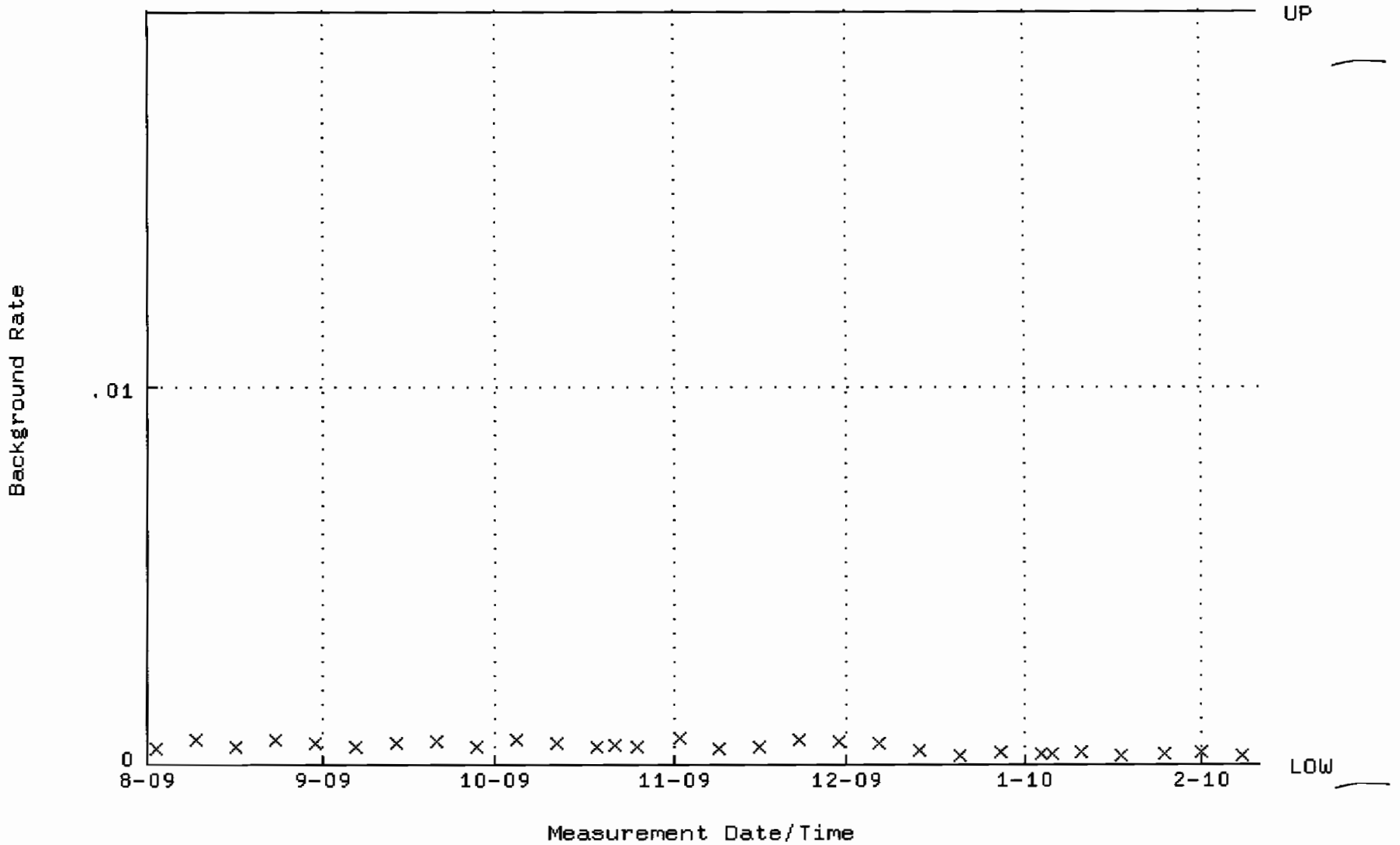

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

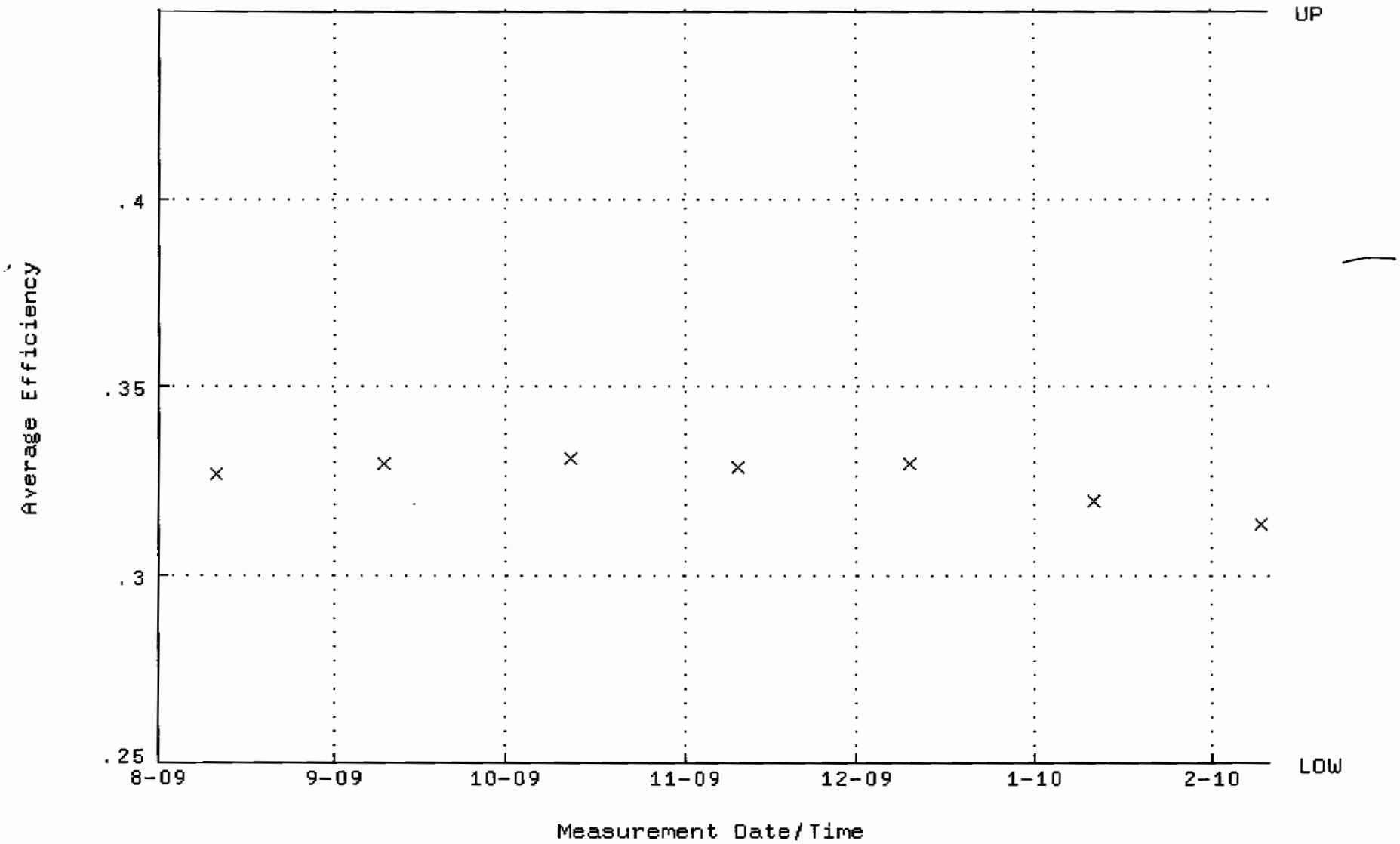

QA filename : DKA100:[ENV_ALPHA.QA.W]W077.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

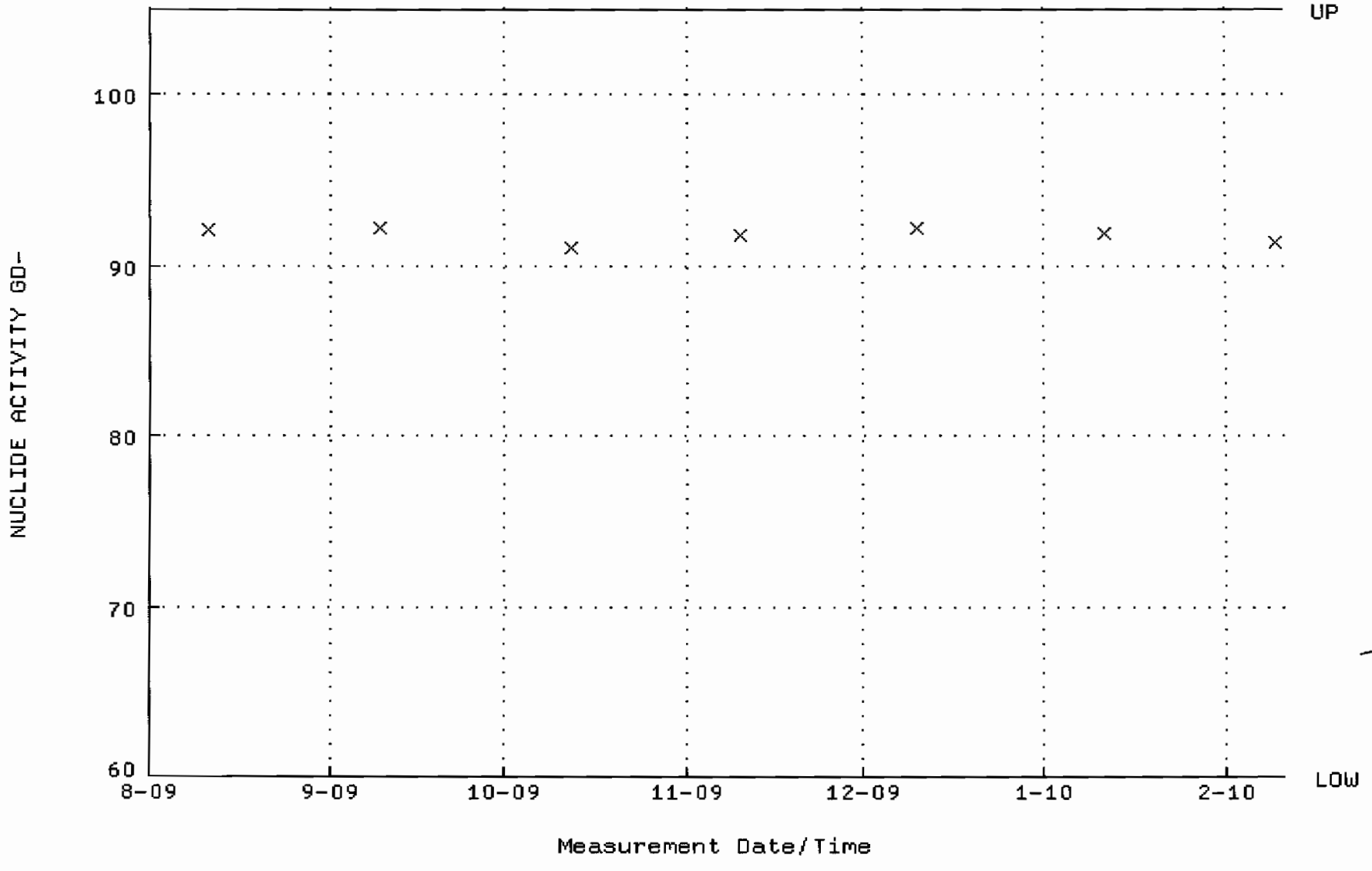

QA filename : DKA100:[ENV_ALPHA.QA.B]B077.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

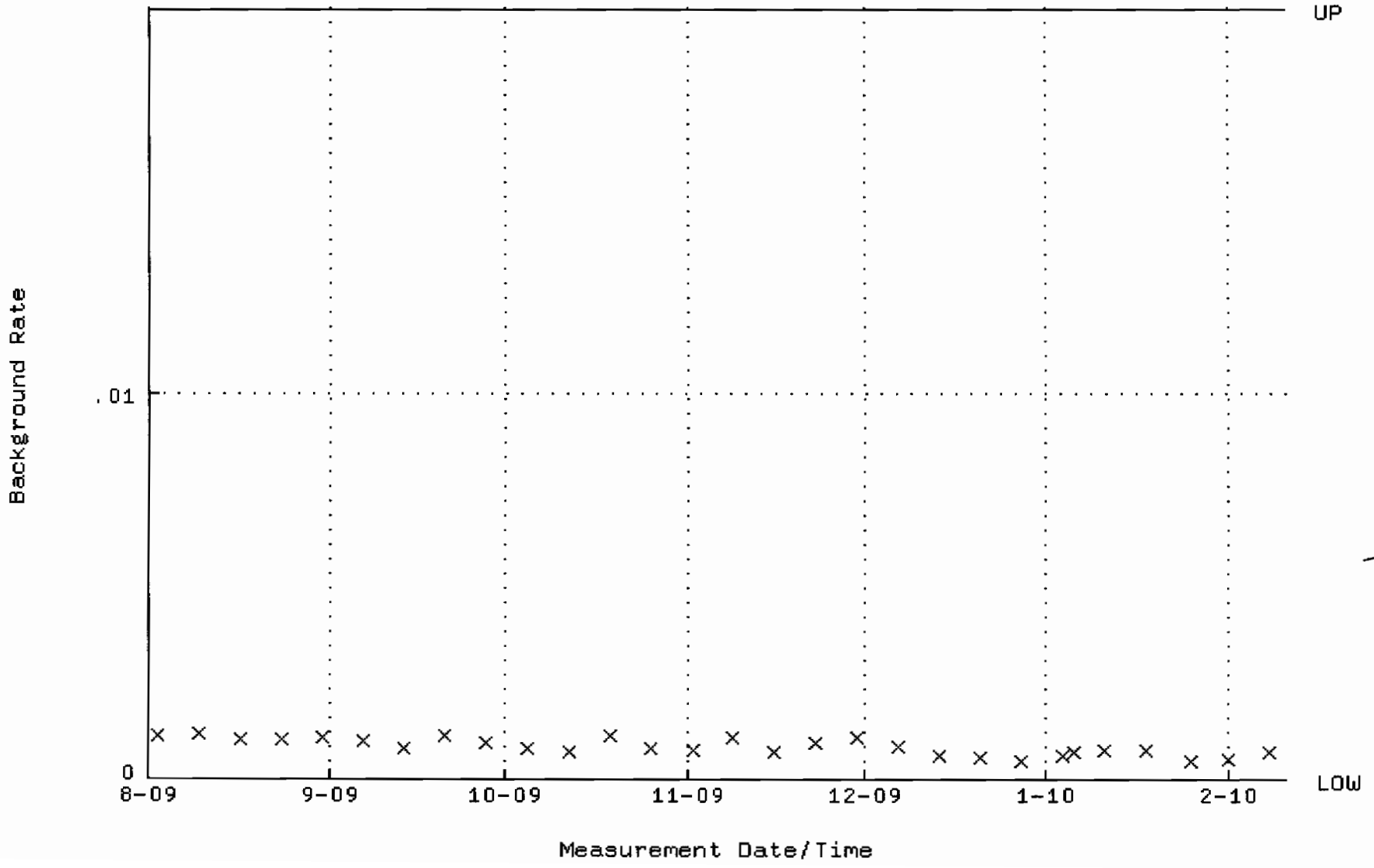

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316654 through 0.336654

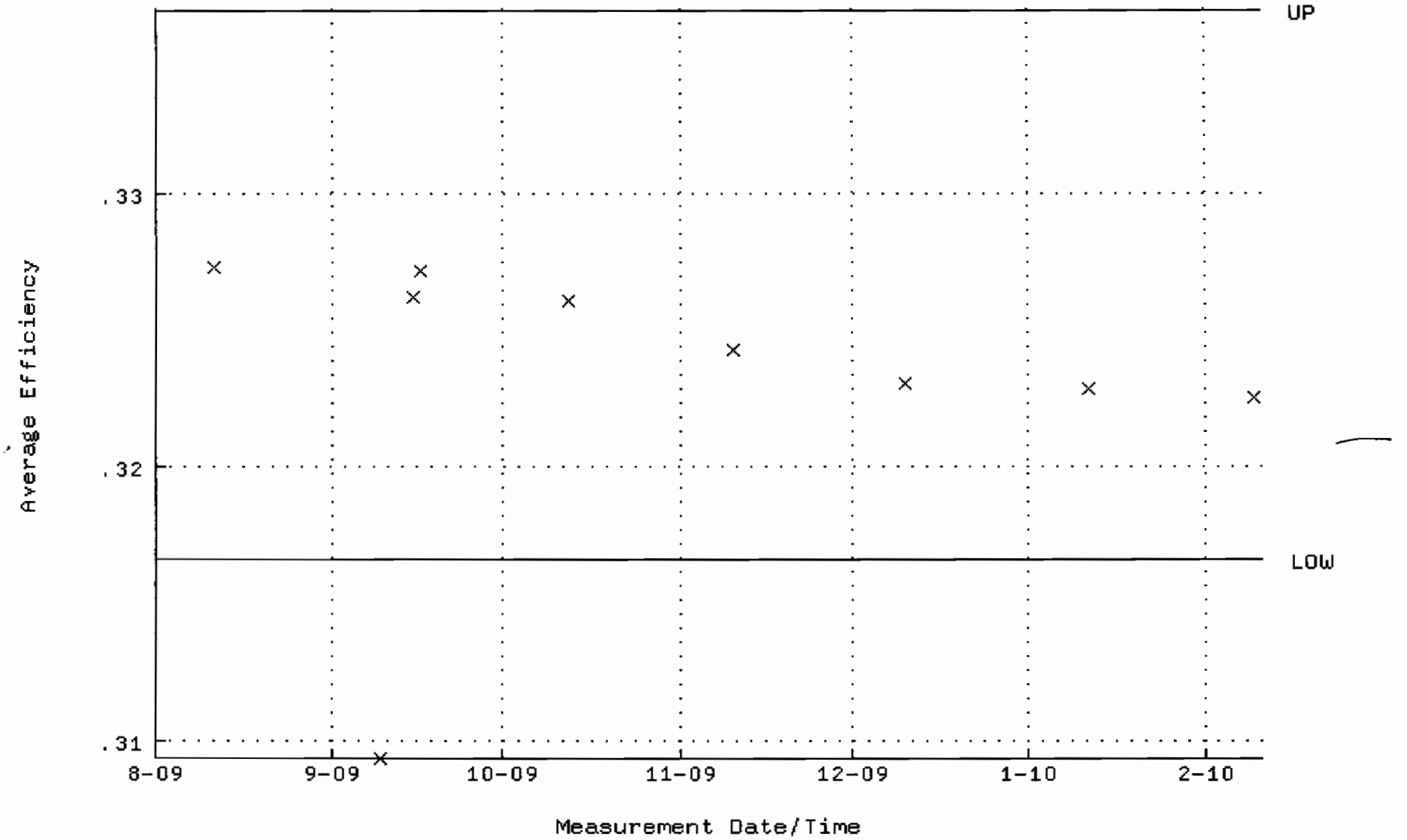

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8913 through 94.9325

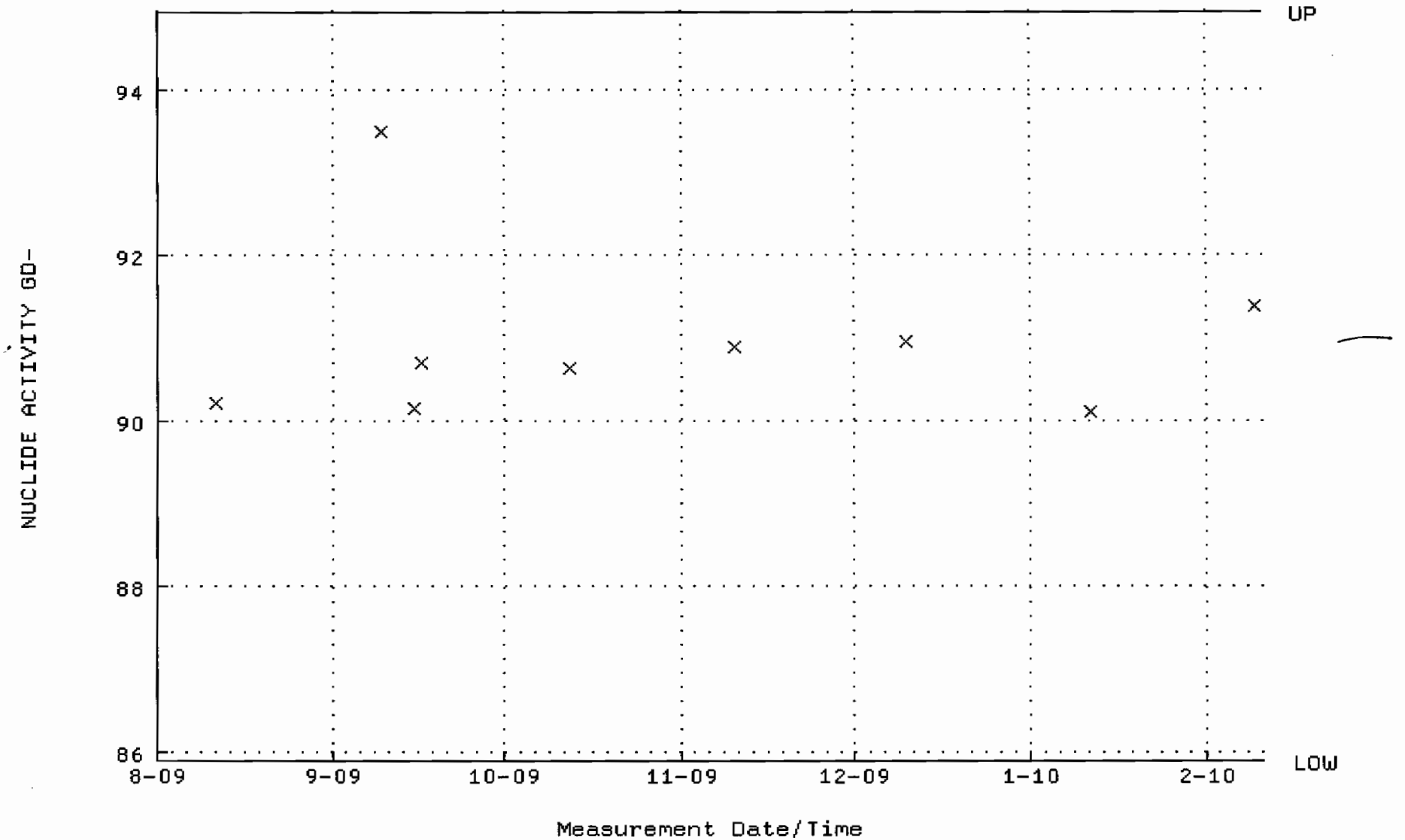

QA filename : DKA100:[ENV_ALPHA.QA.B]B079.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

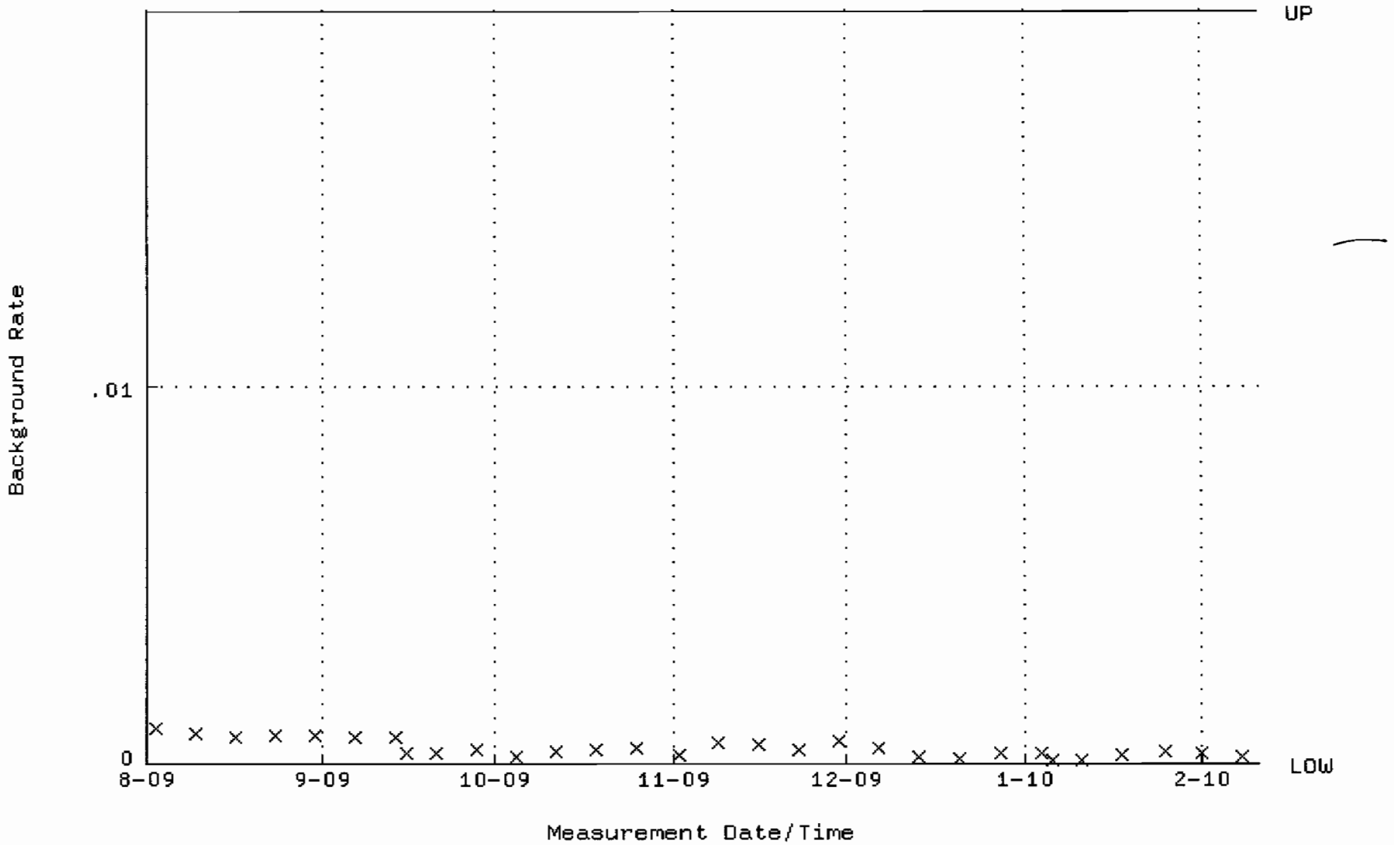

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310202 through 0.330202

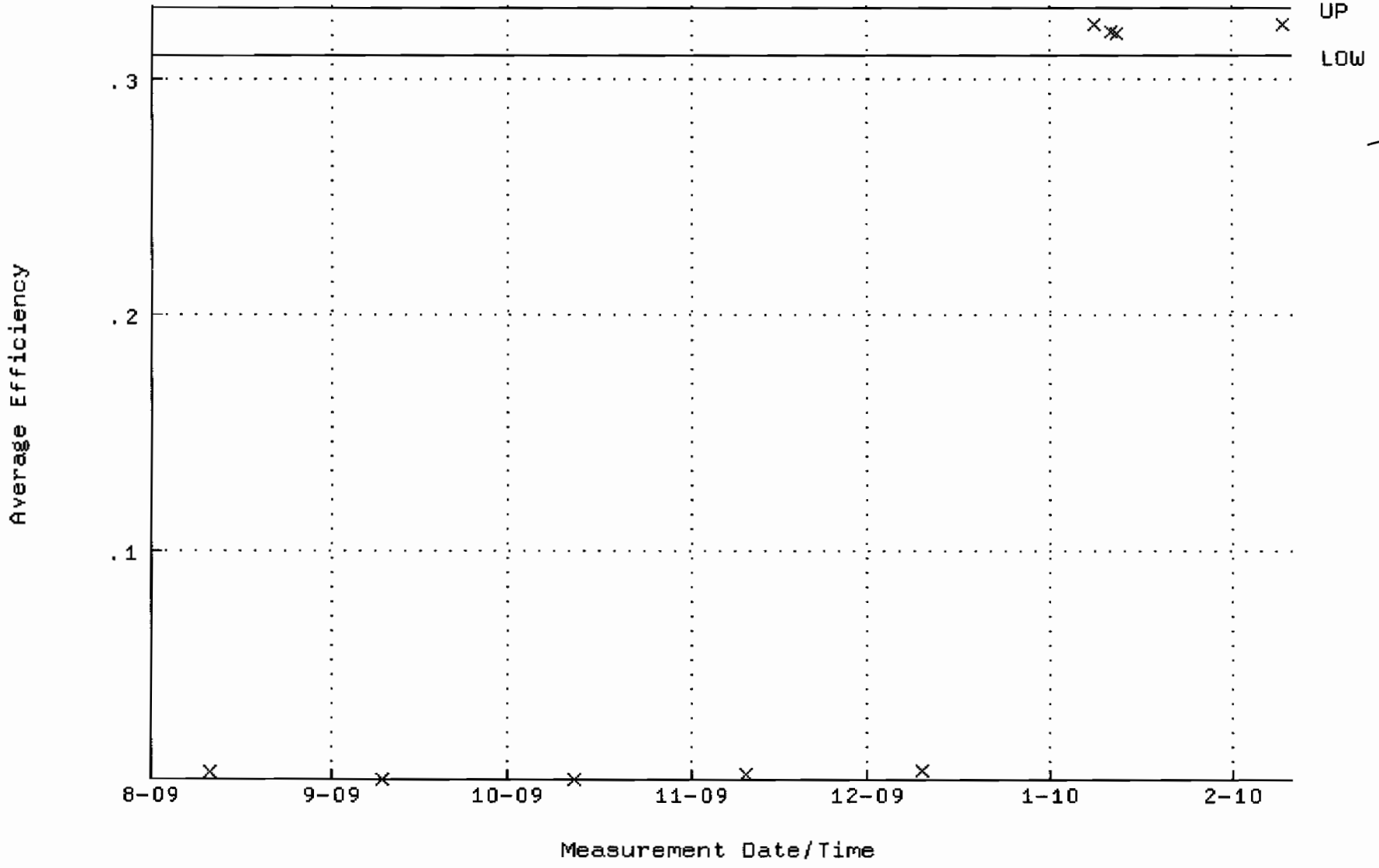

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 89.2016 through 98.5912

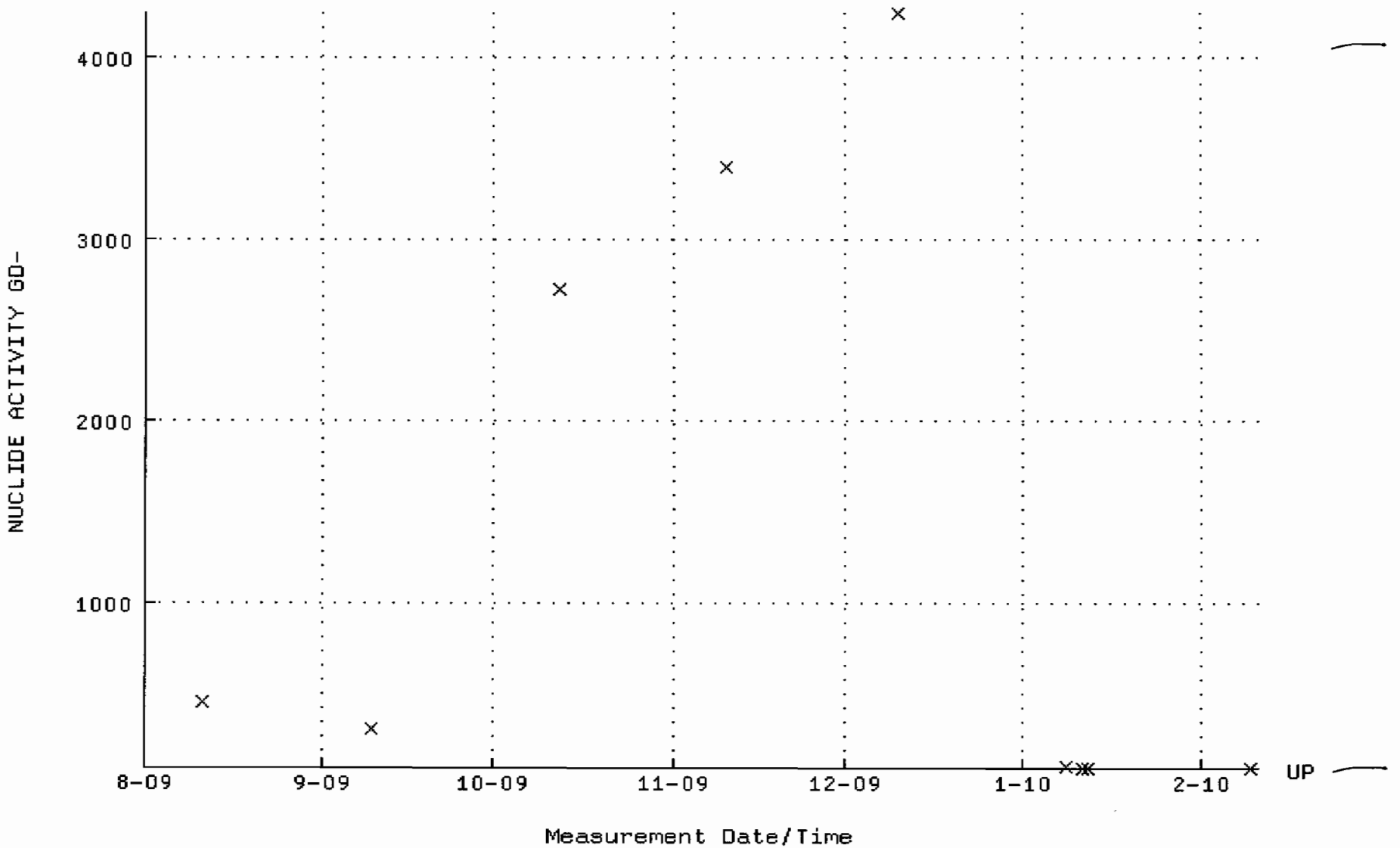

QA filename : DKA100:[ENV_ALPHA.QA.B]B081.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

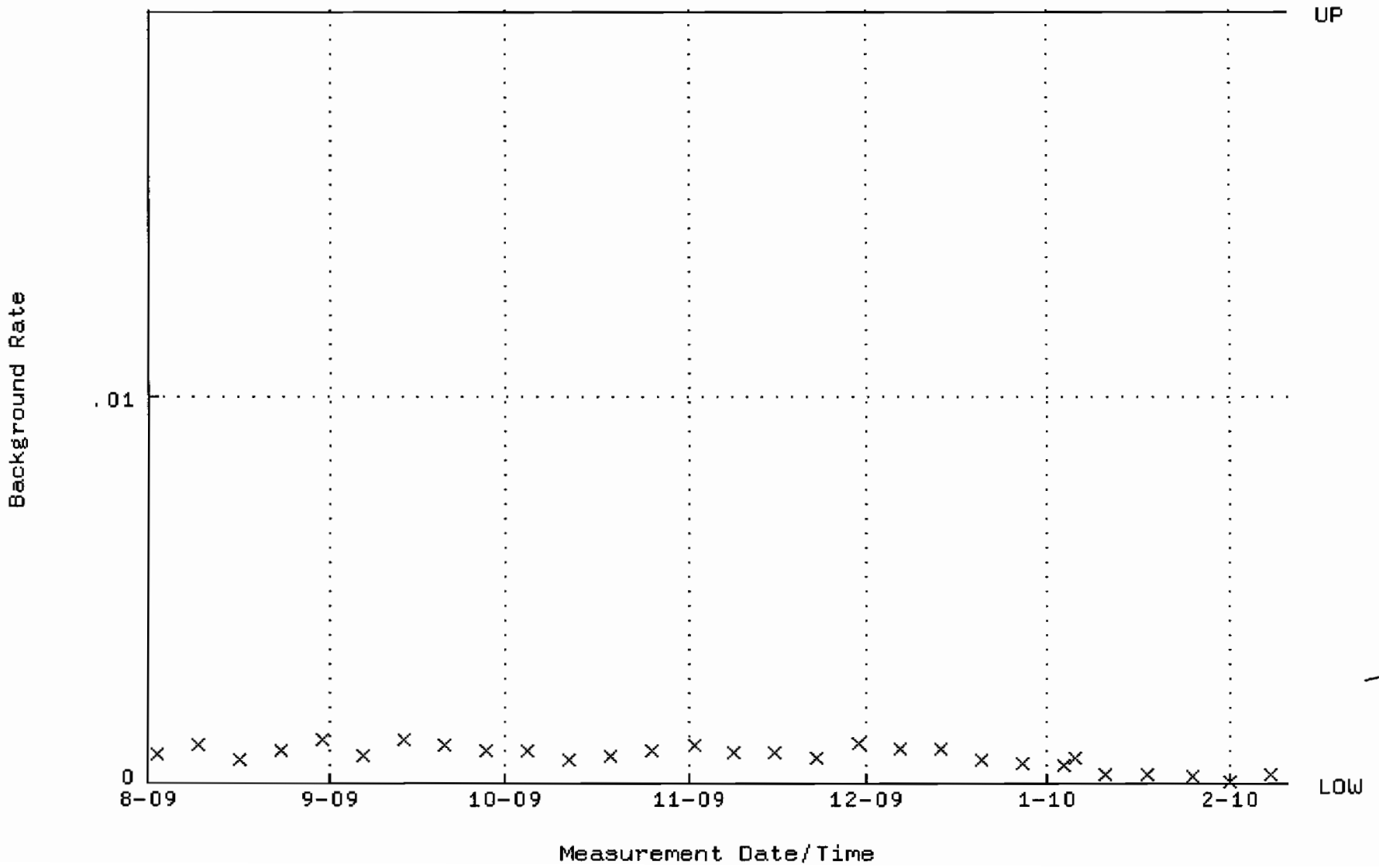

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.311357 through 0.331357

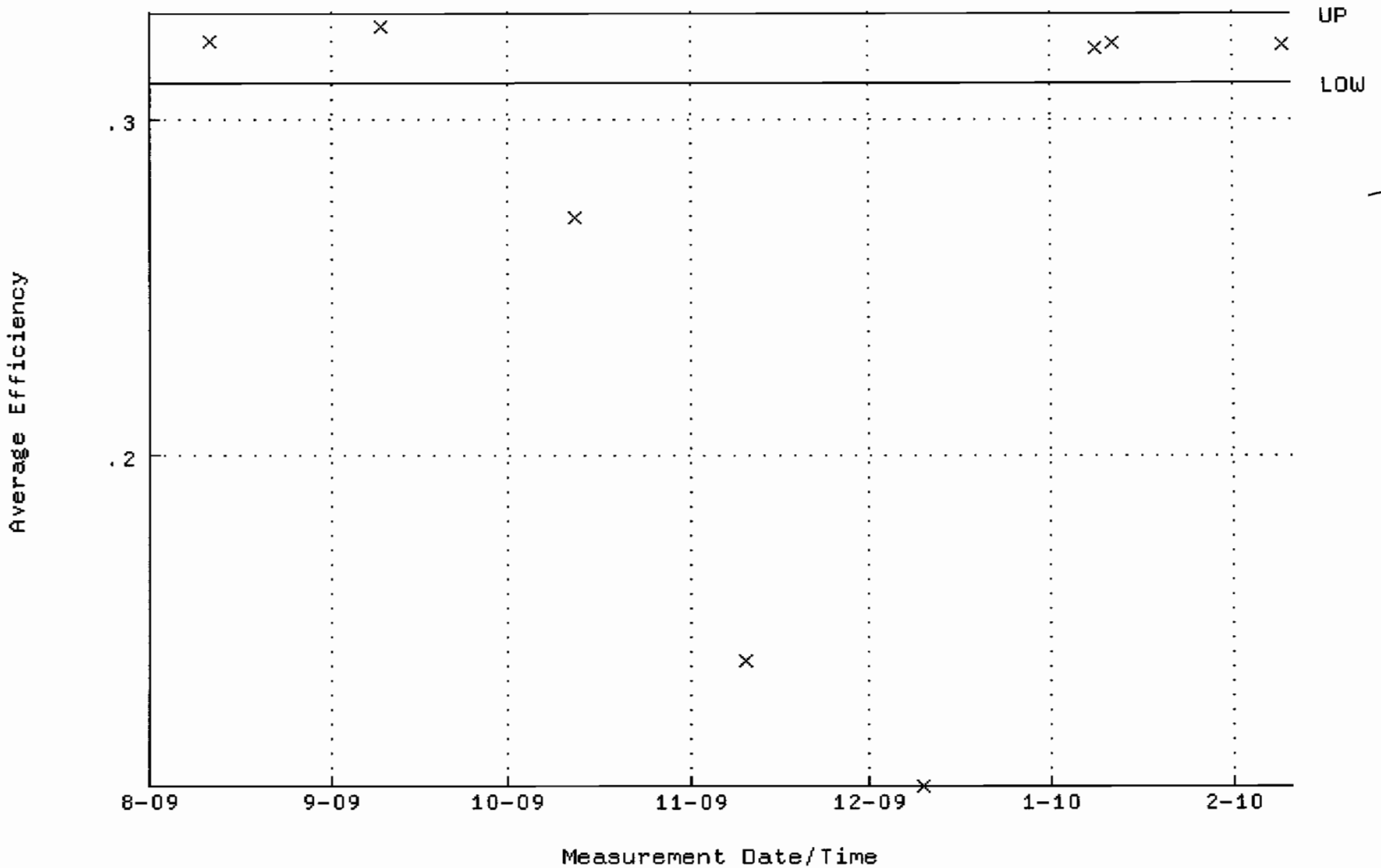

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.9094 through 96.0578

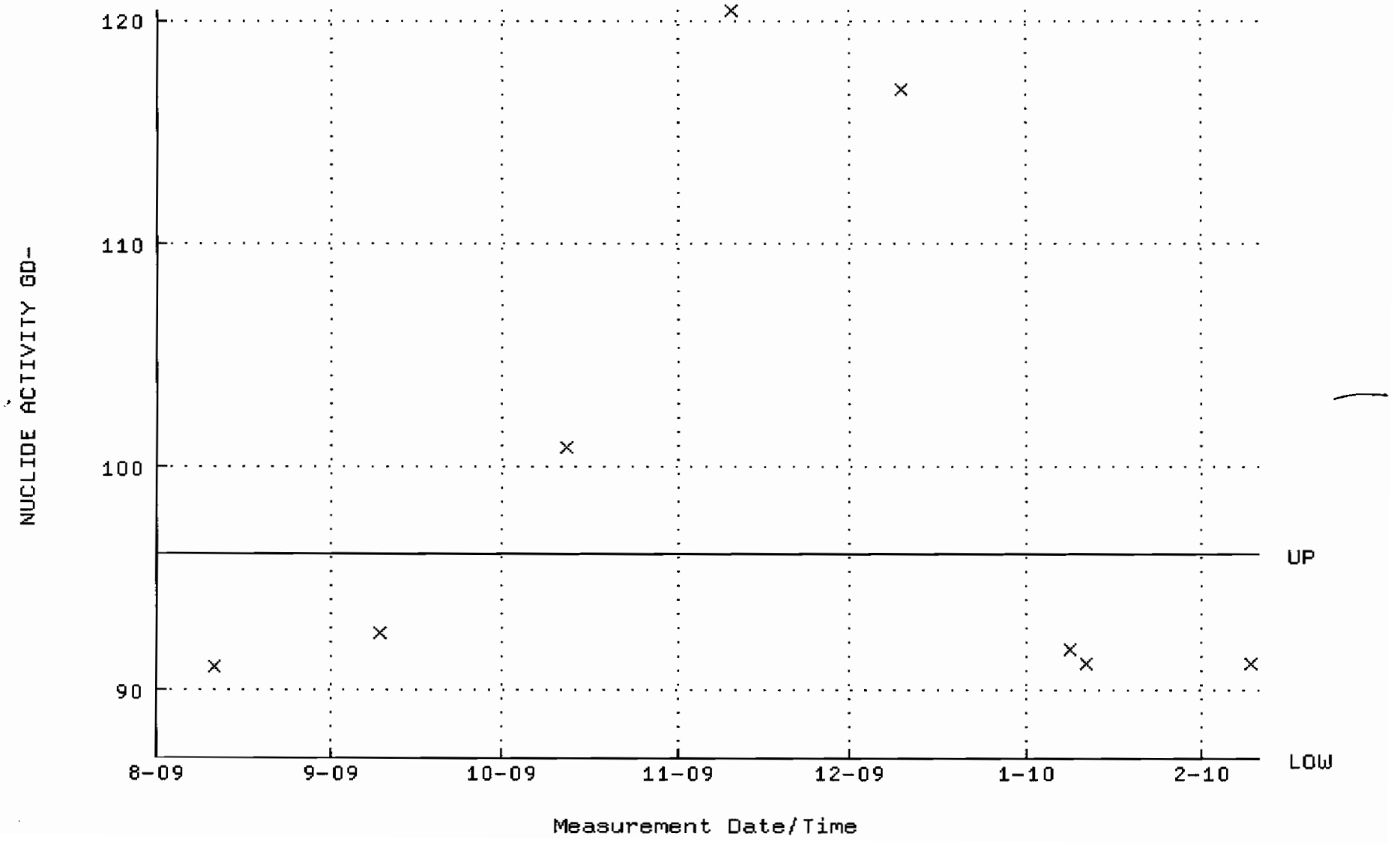

QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

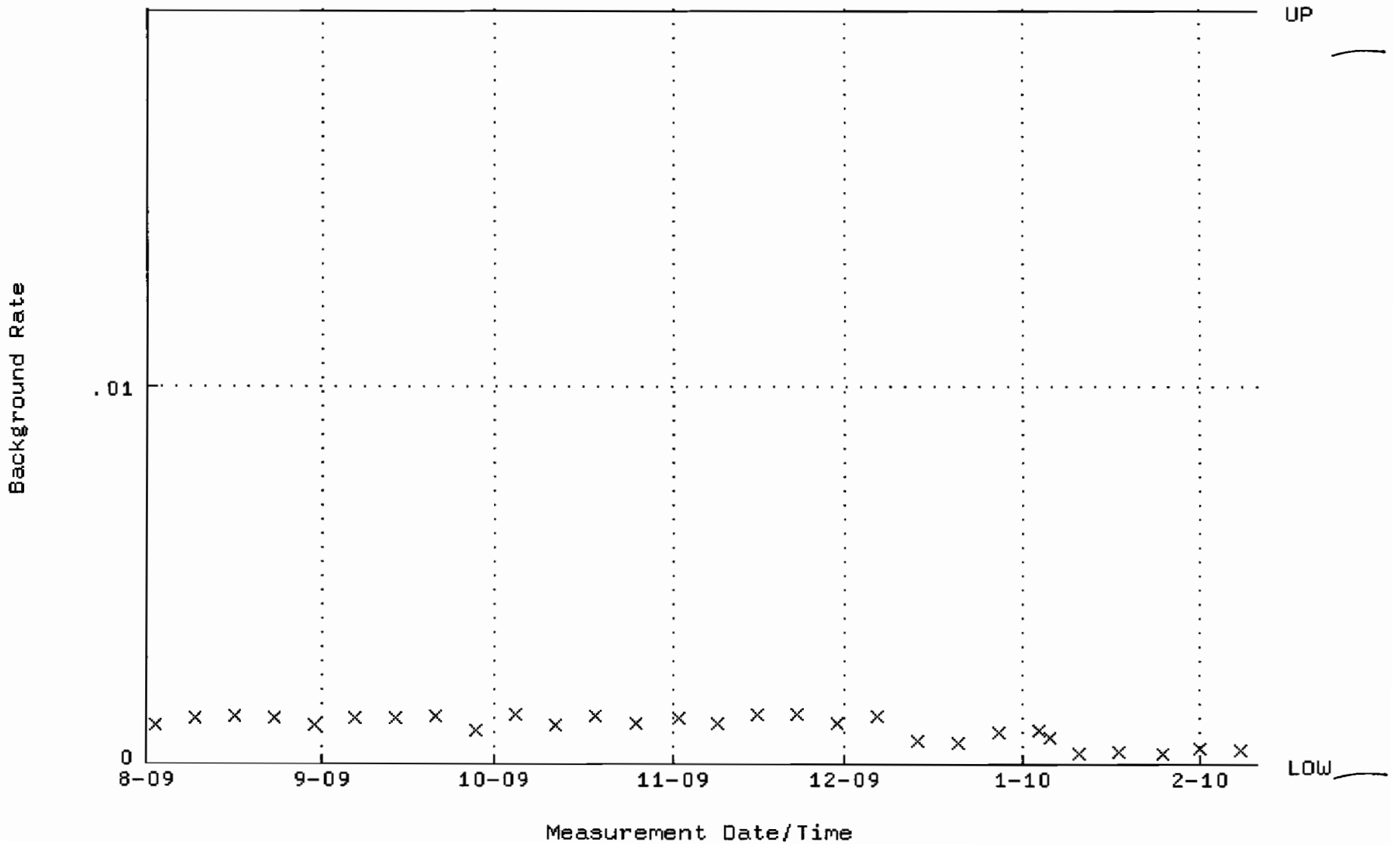

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

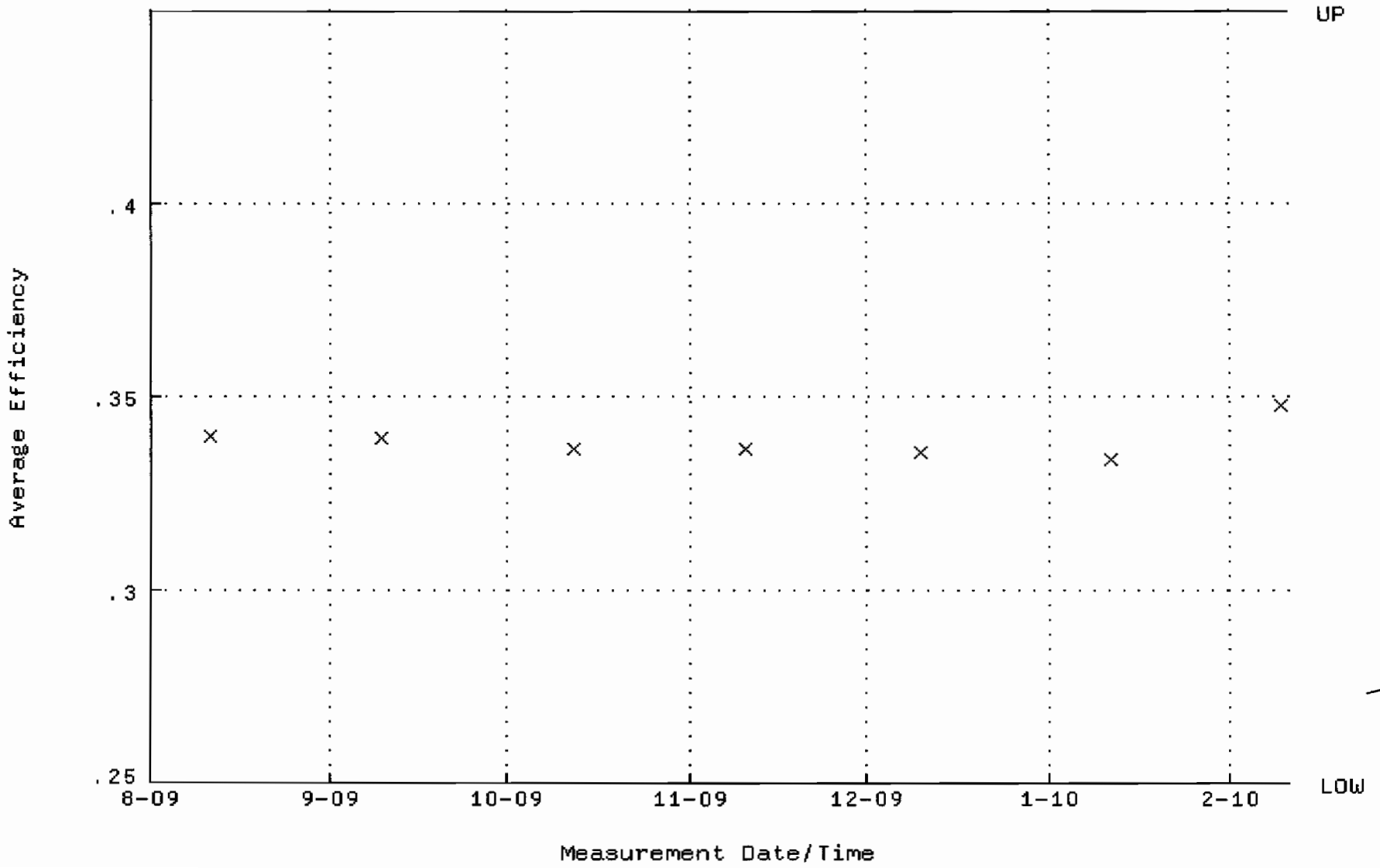

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

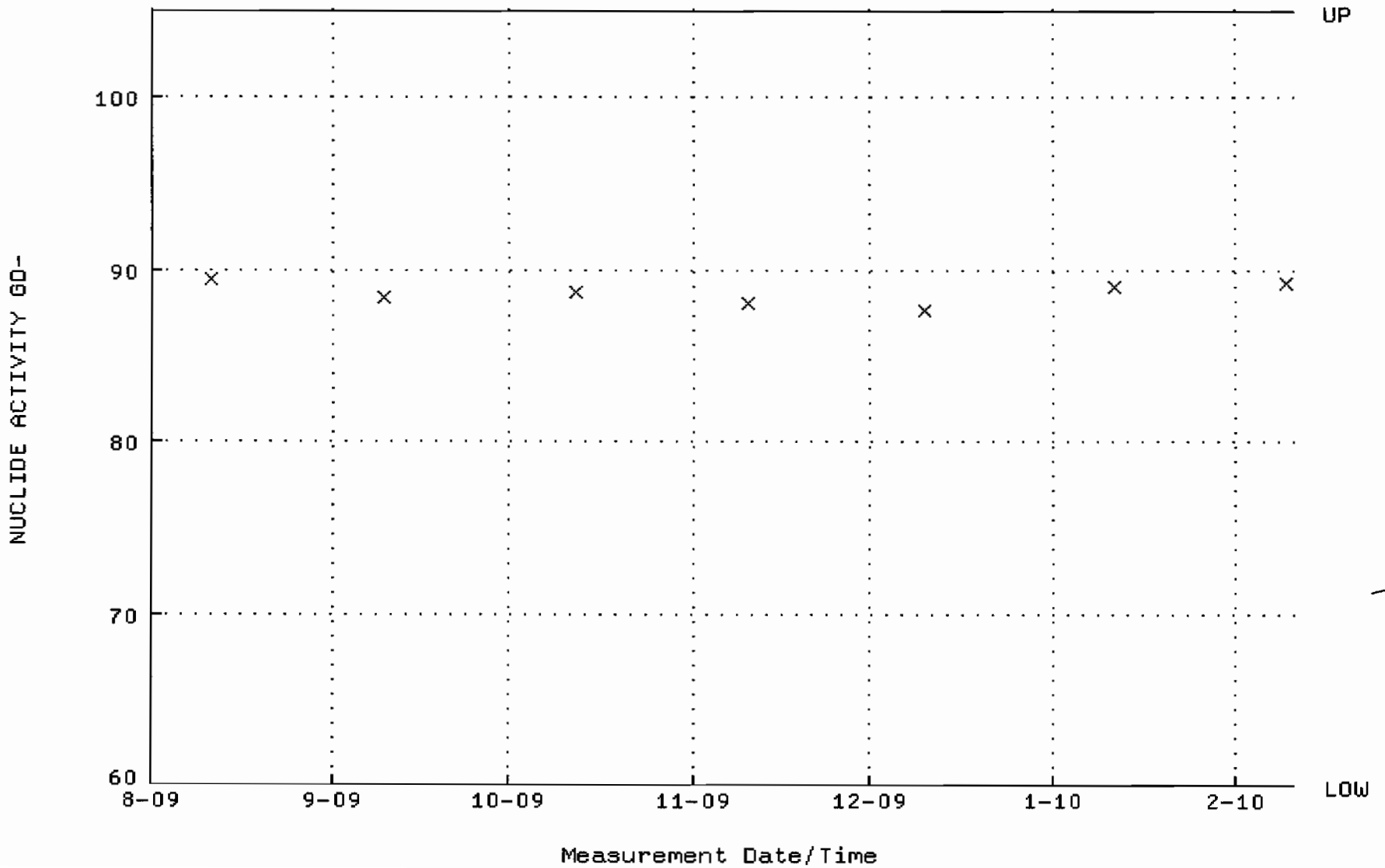

QA filename : DKA100:[ENV_ALPHA.QA.B]B083.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

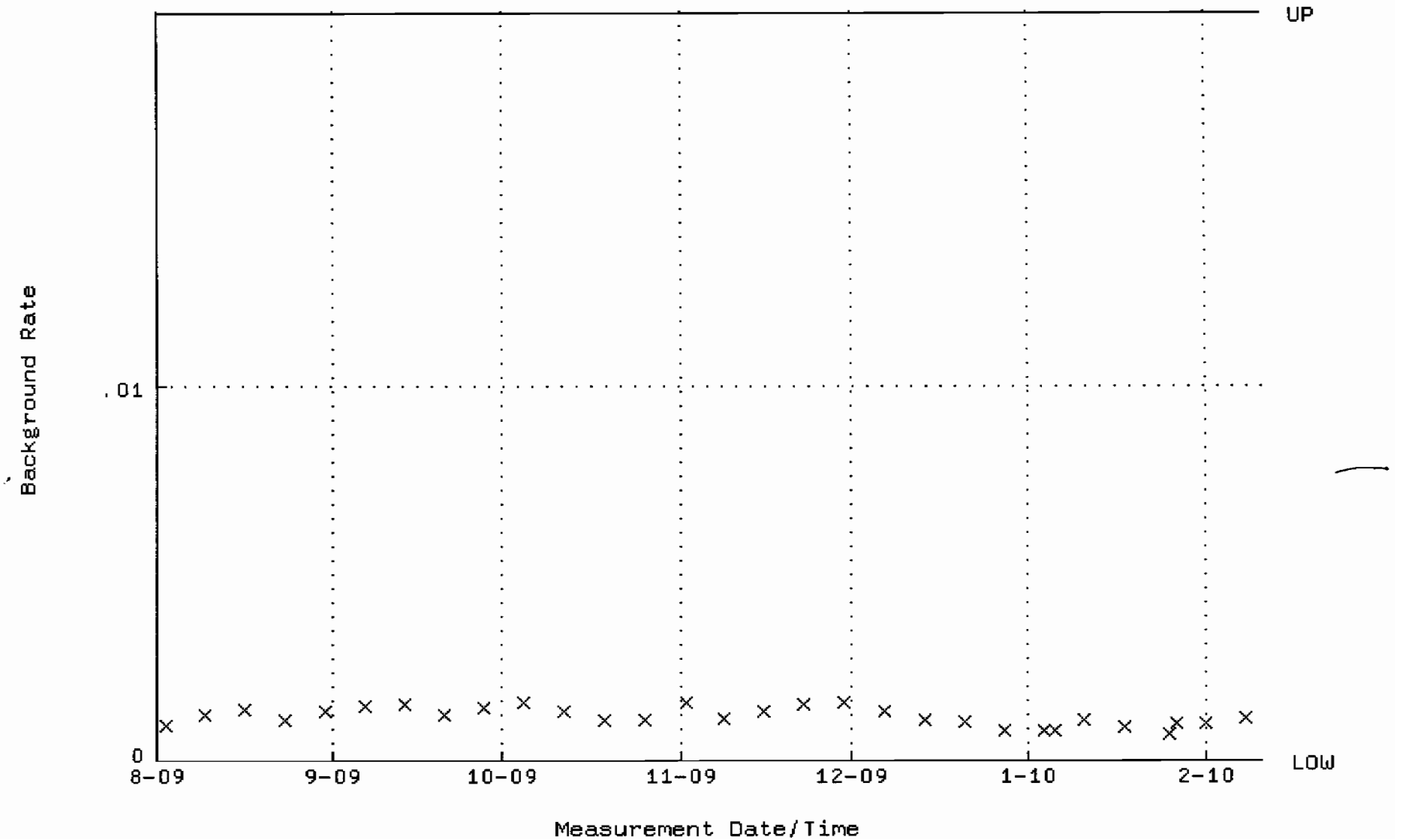

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.330740 through 0.350740

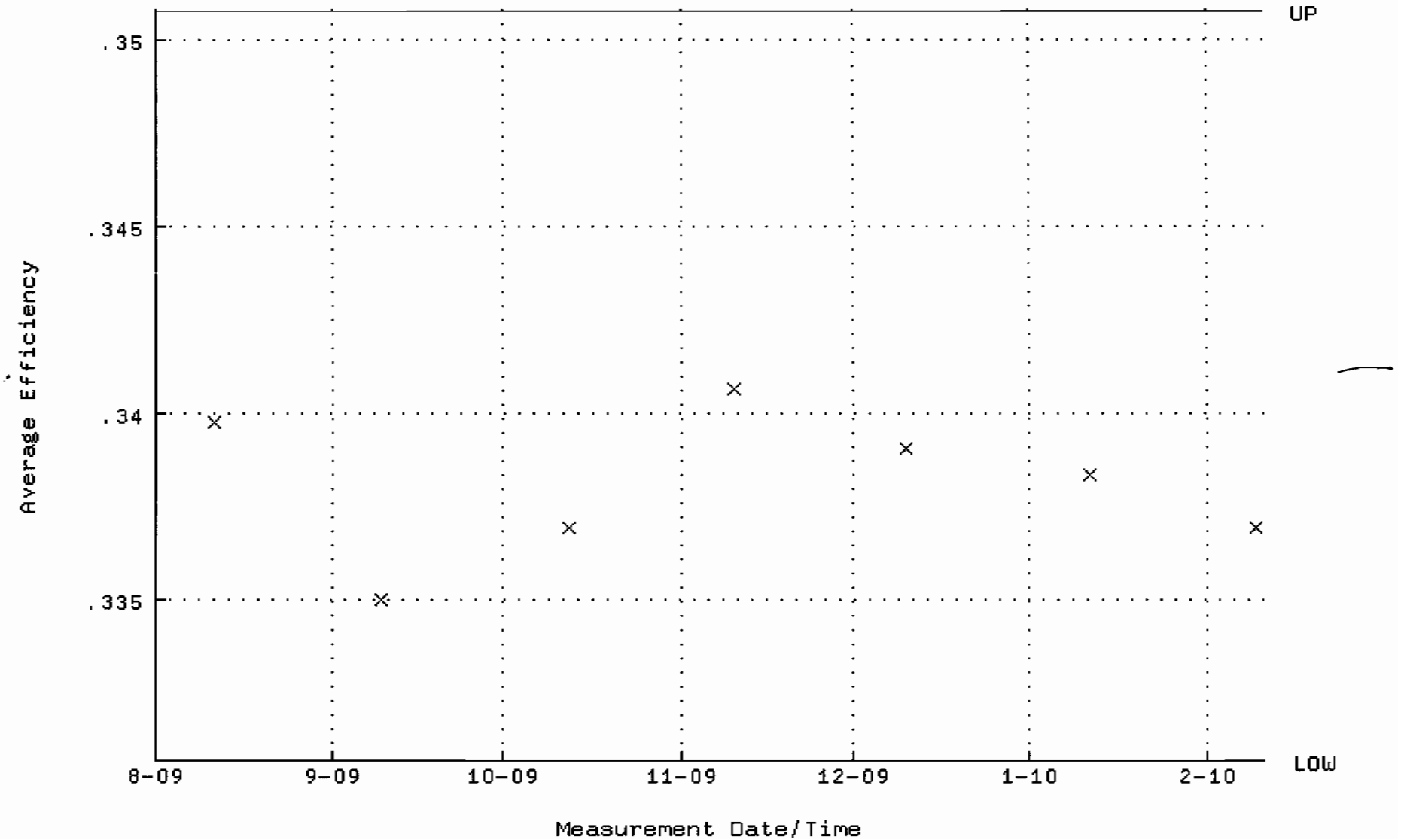

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0569 through 95.1155

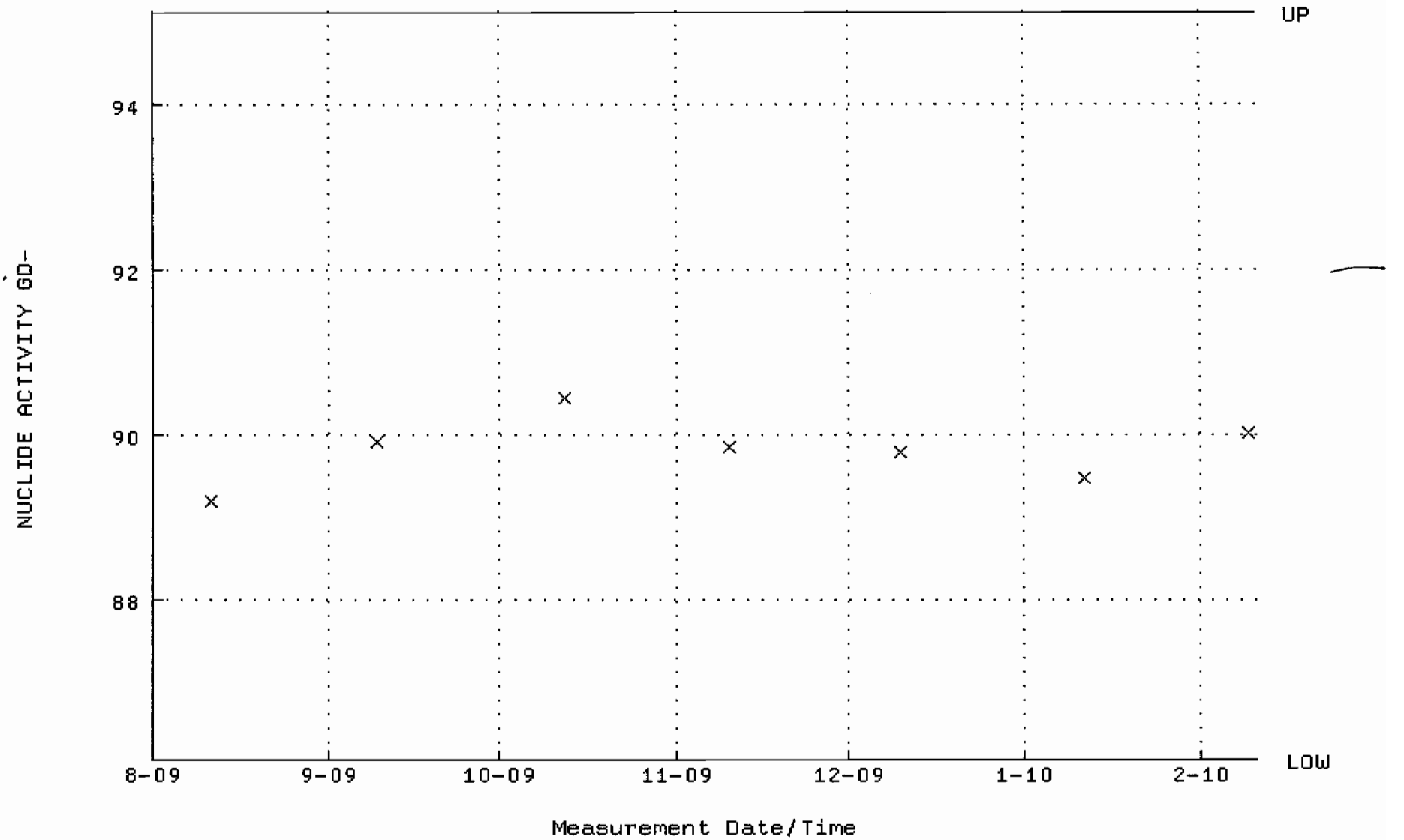

QA filename : DKA100:[ENV_ALPHA.QA.B]B084.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

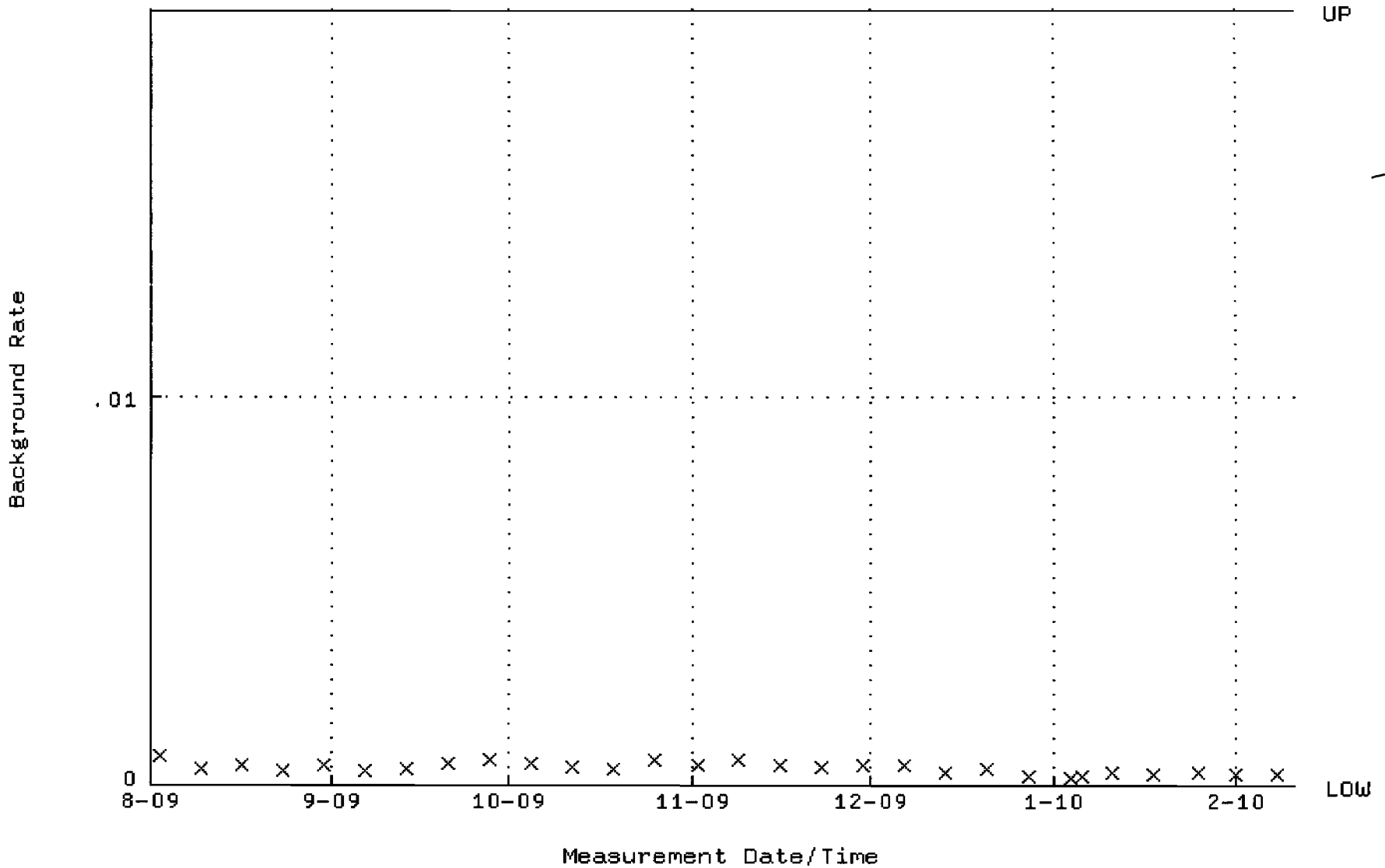

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313884 through 0.337714

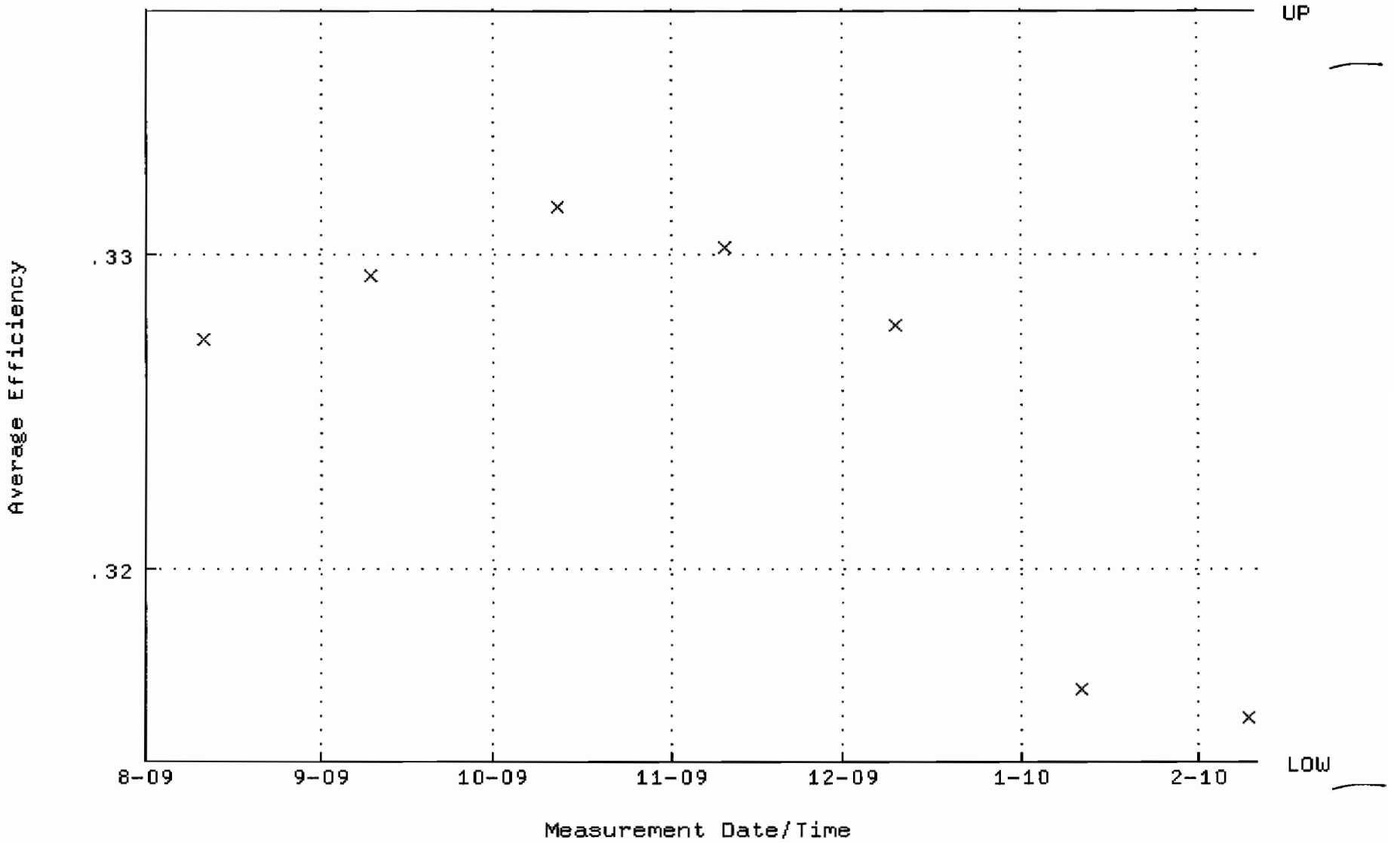

QA filename : DKA100:[ENV_ALPHA.QA.W]W085.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4059 through 93.3969

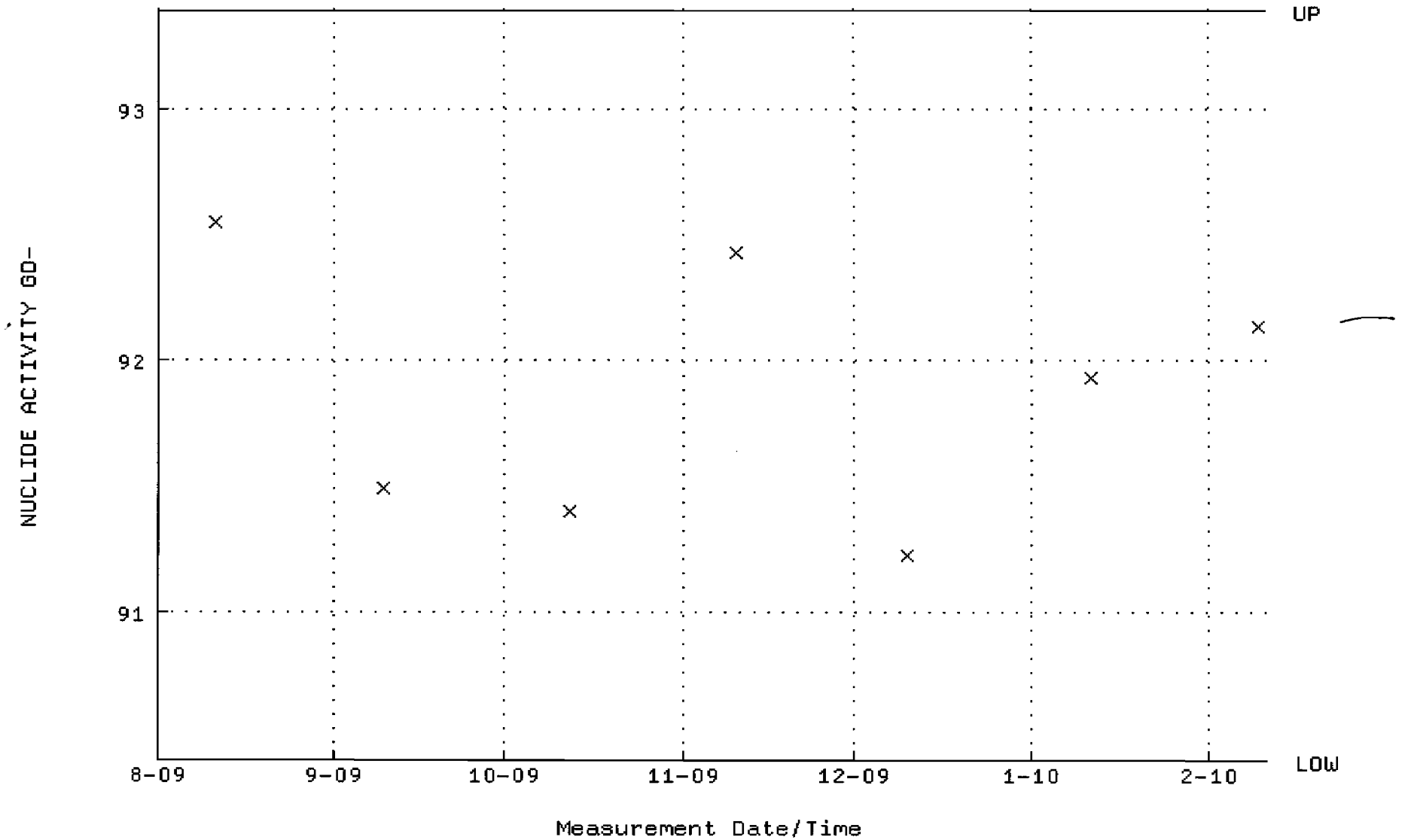

QA filename : DKA100:[ENV_ALPHA.QA.B]B085.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

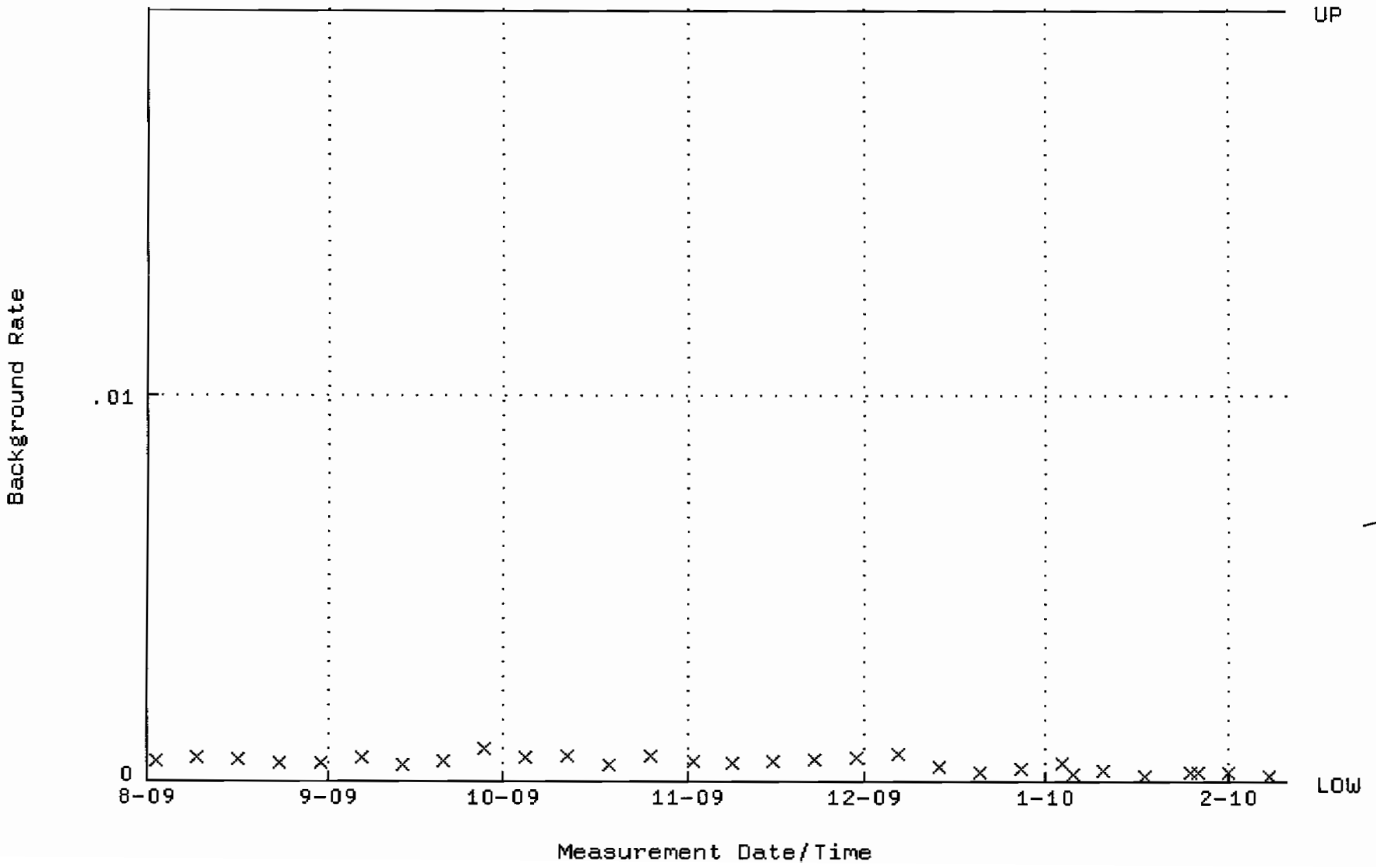

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.289508 through 0.309508

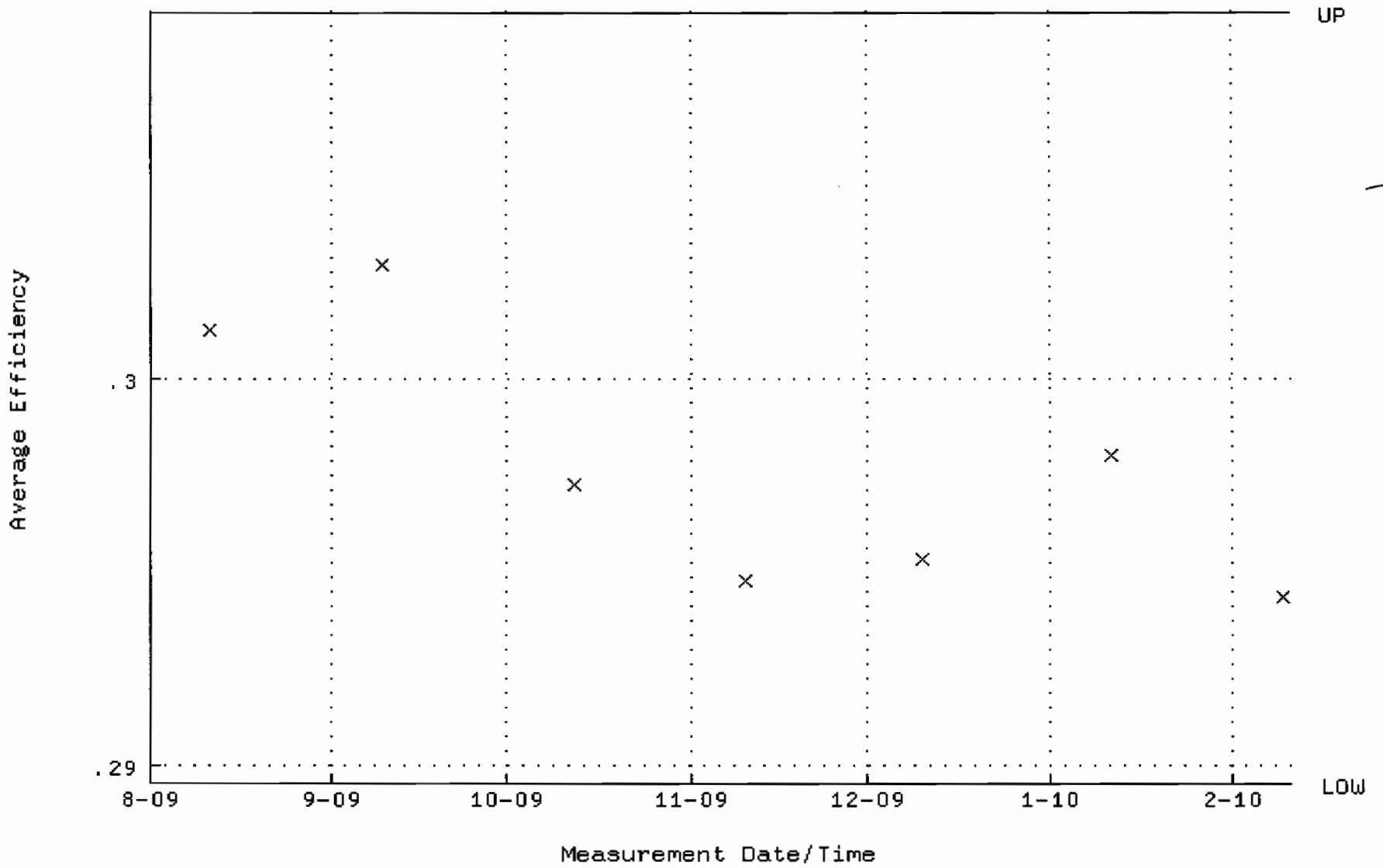

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.7898 through 97.0308

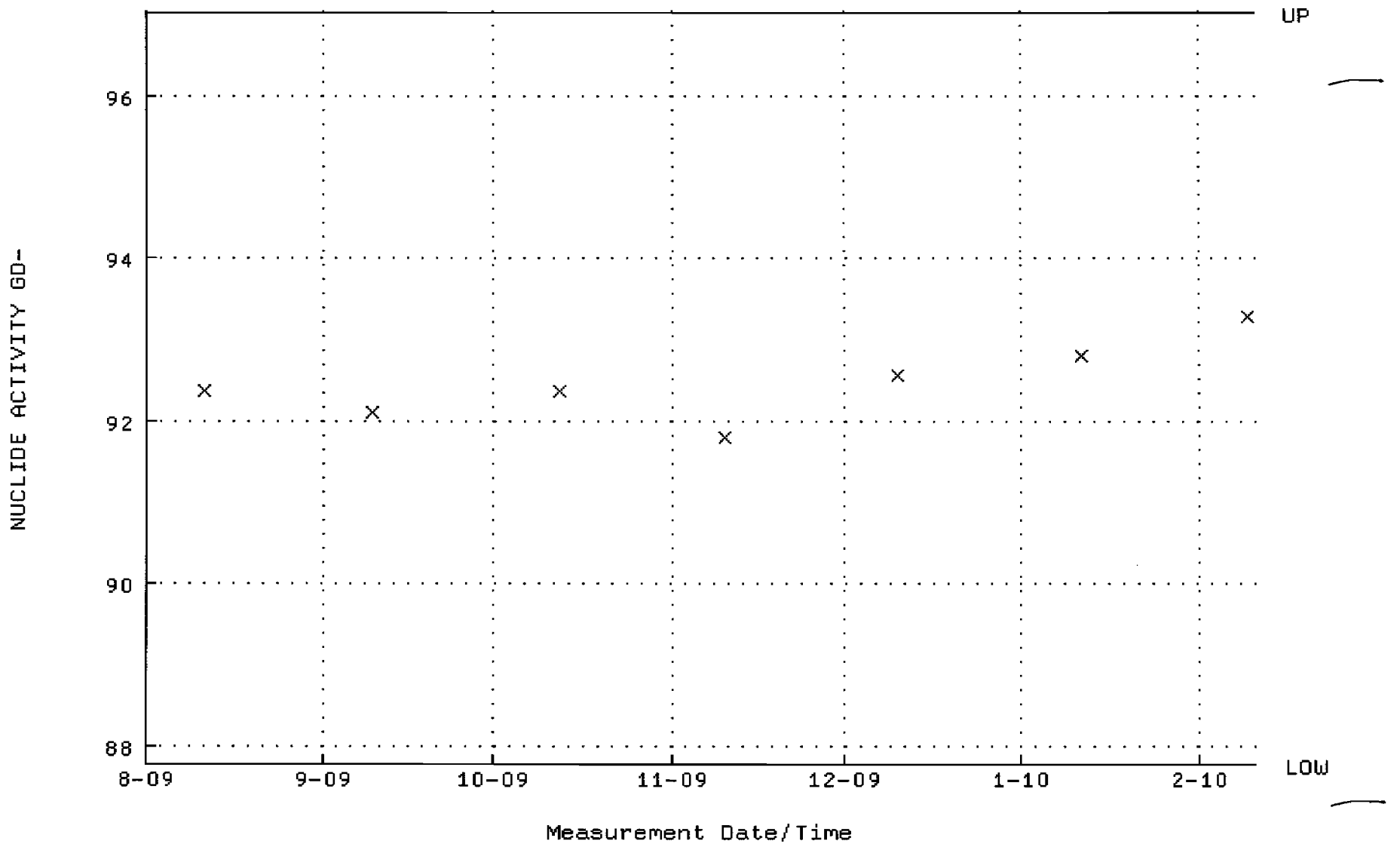

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

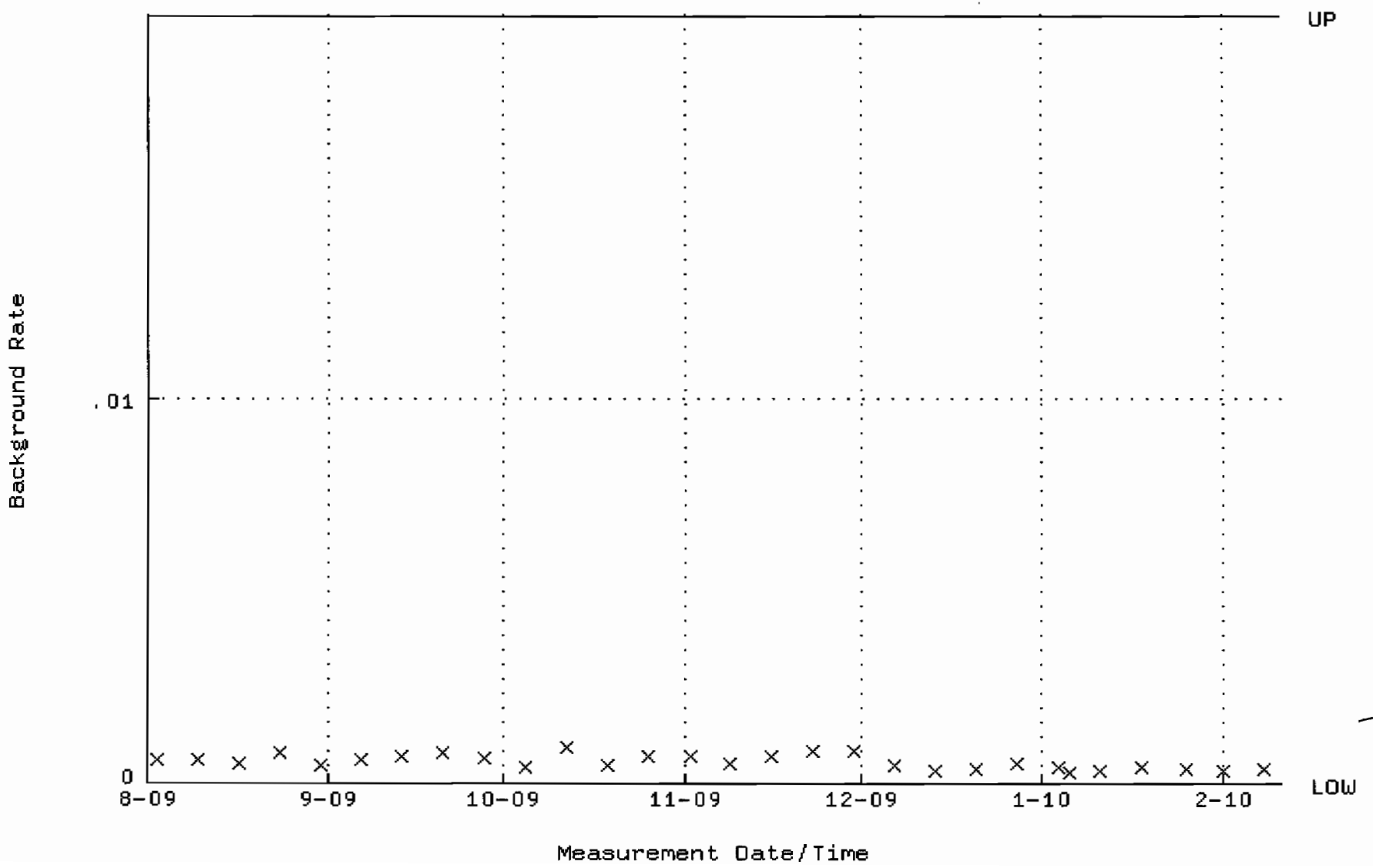

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.300530 through 0.320530

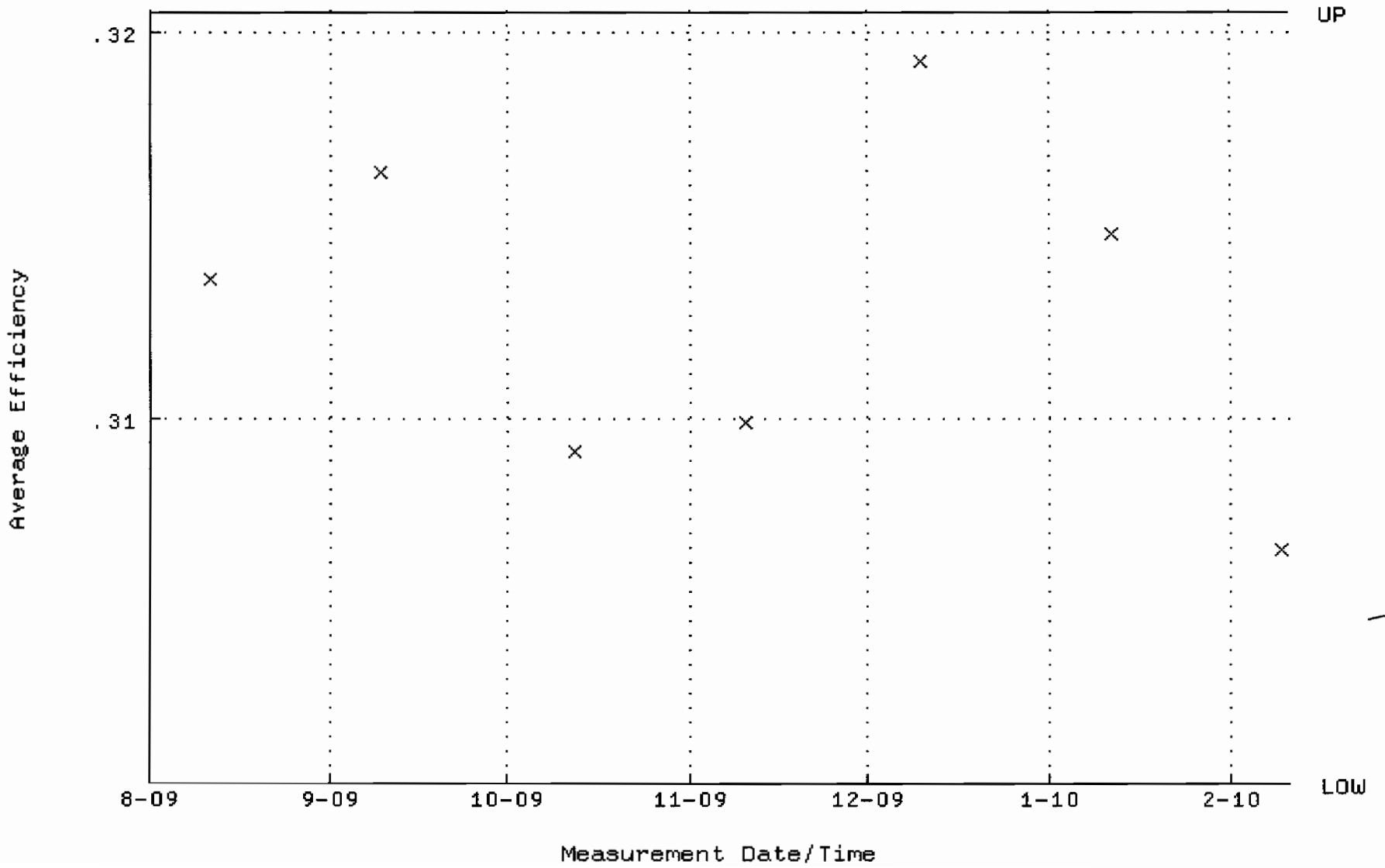

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.1845 through 96.3619

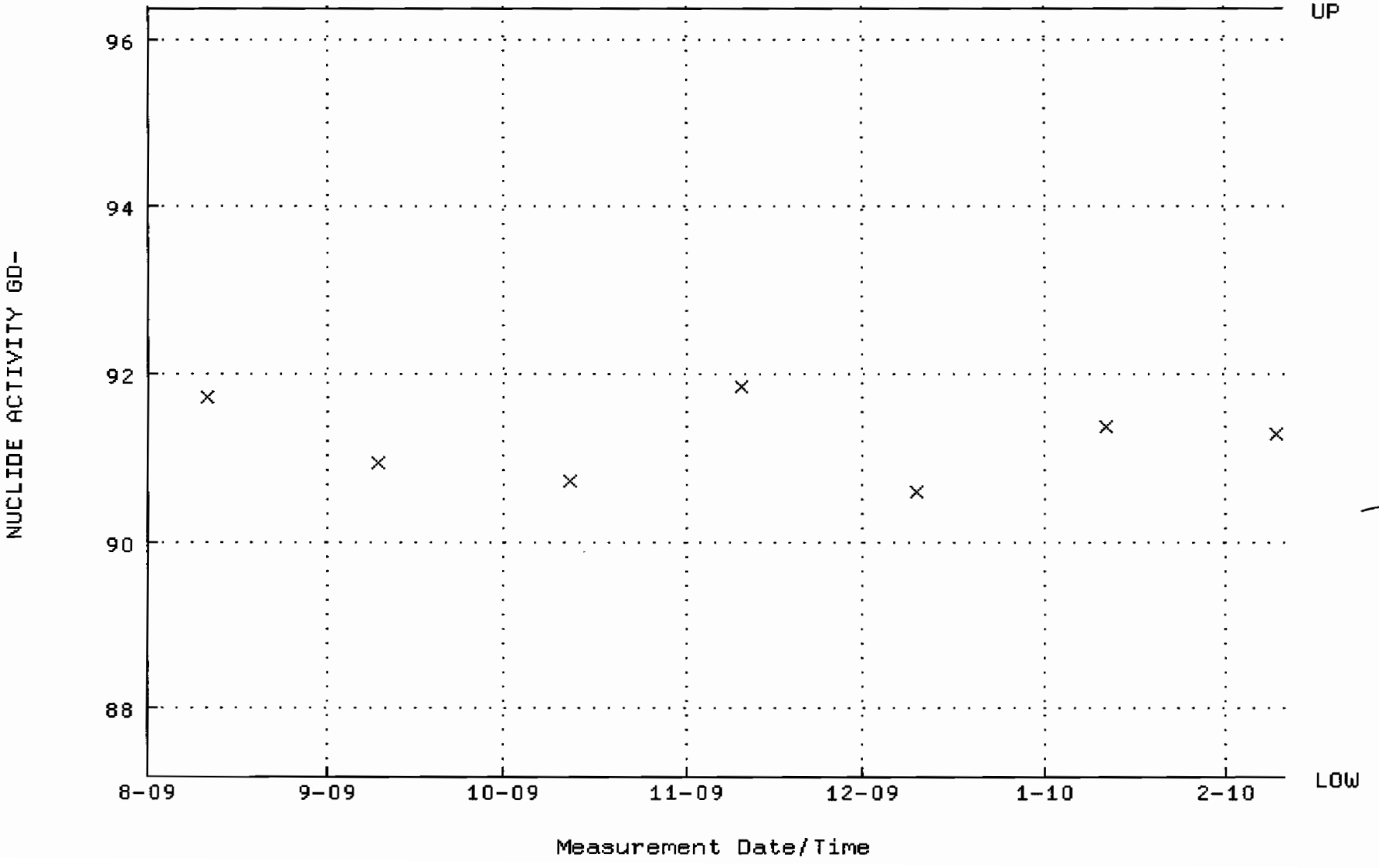

QA filename : DKA100:[ENV_ALPHA.QA.B]B087.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

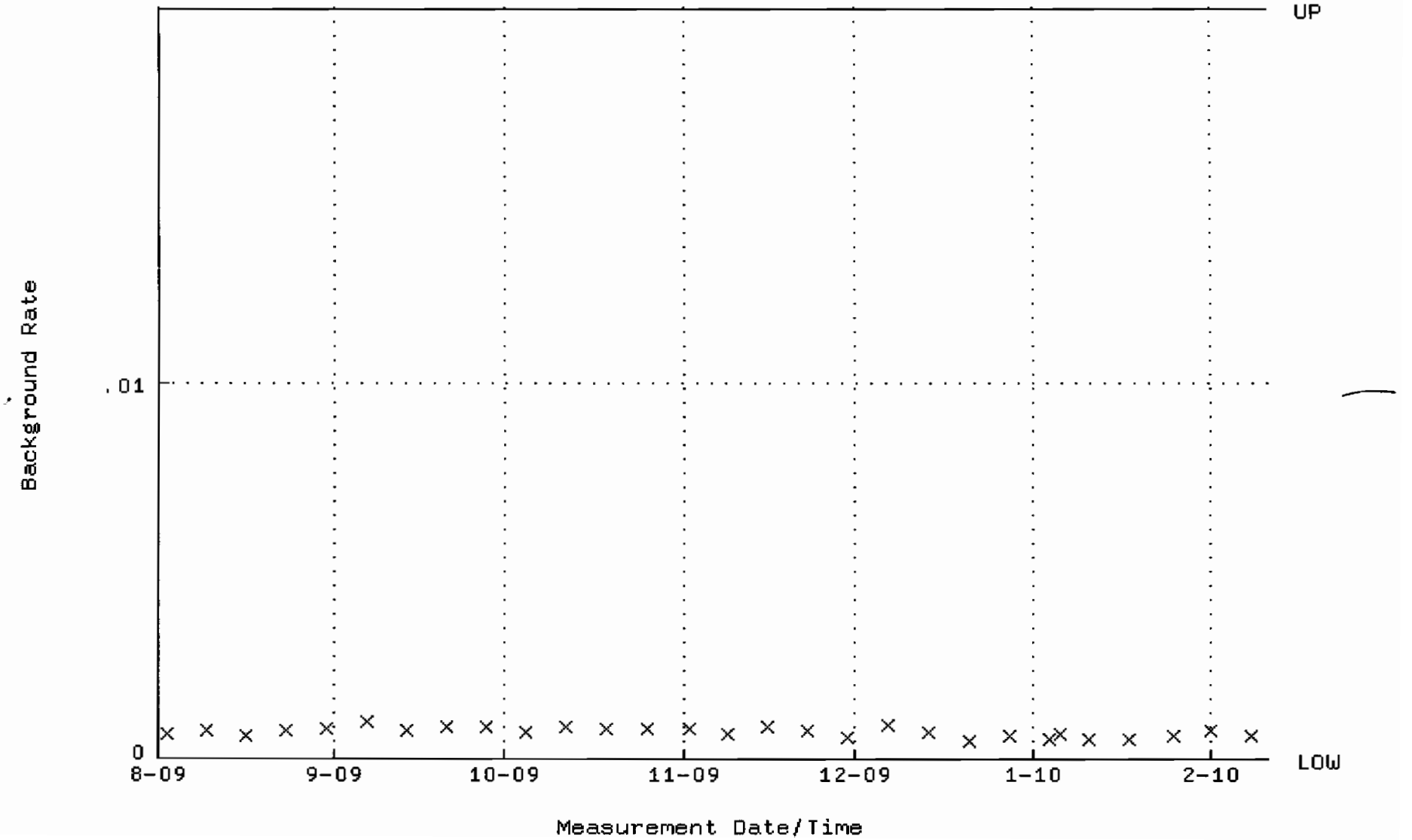

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

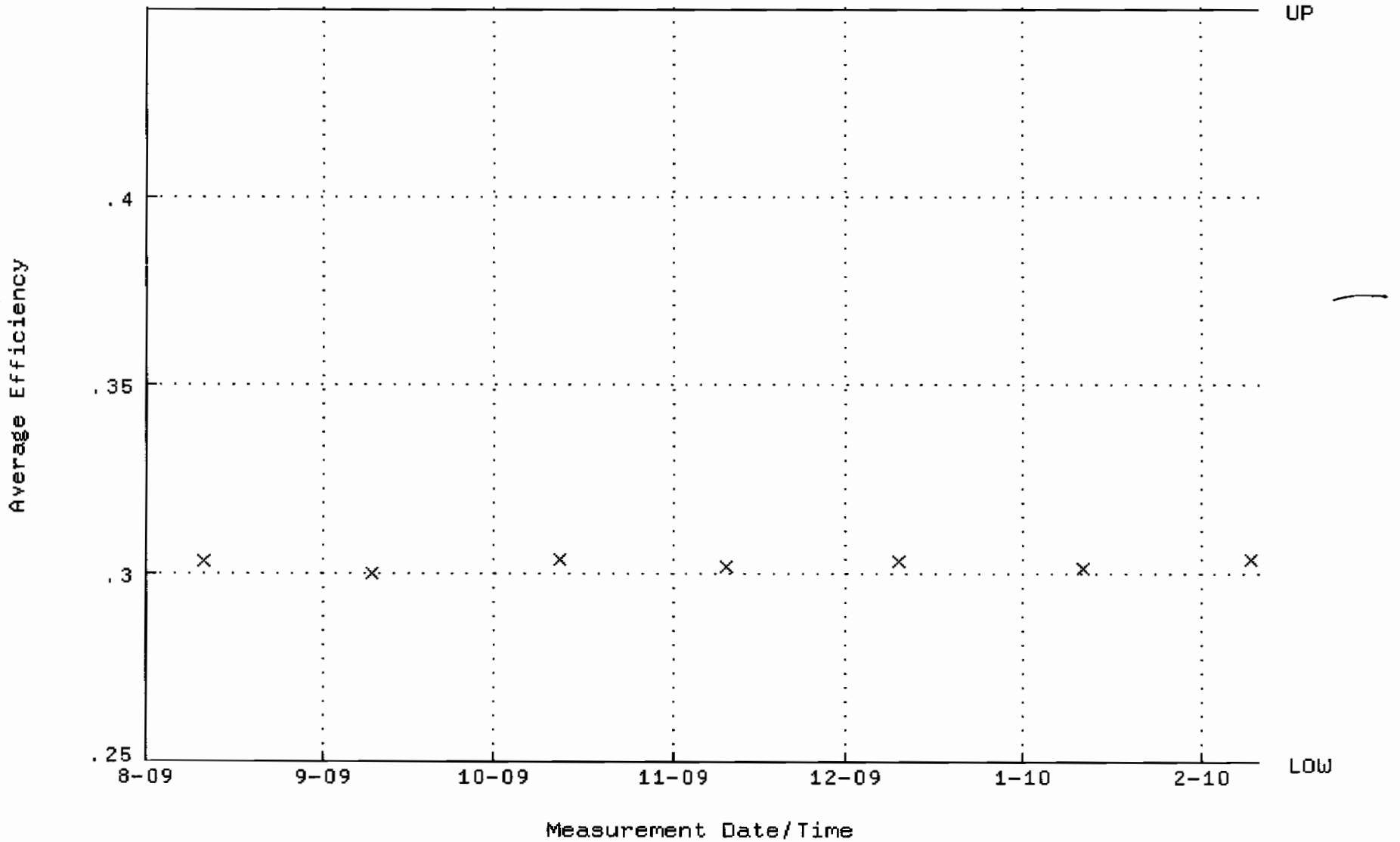

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

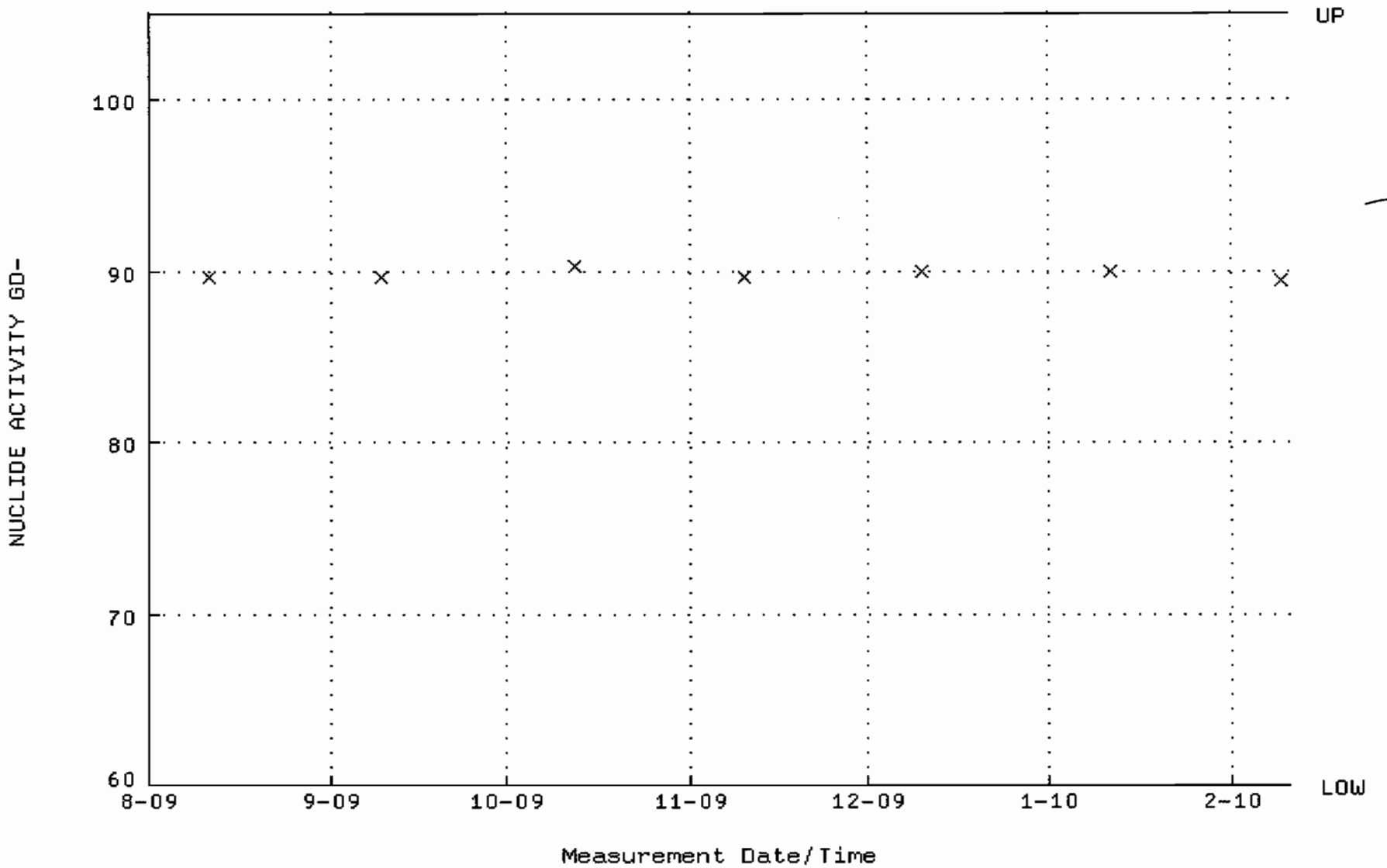

QA filename : DKA100:[ENV_ALPHA.QA.B]B088.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

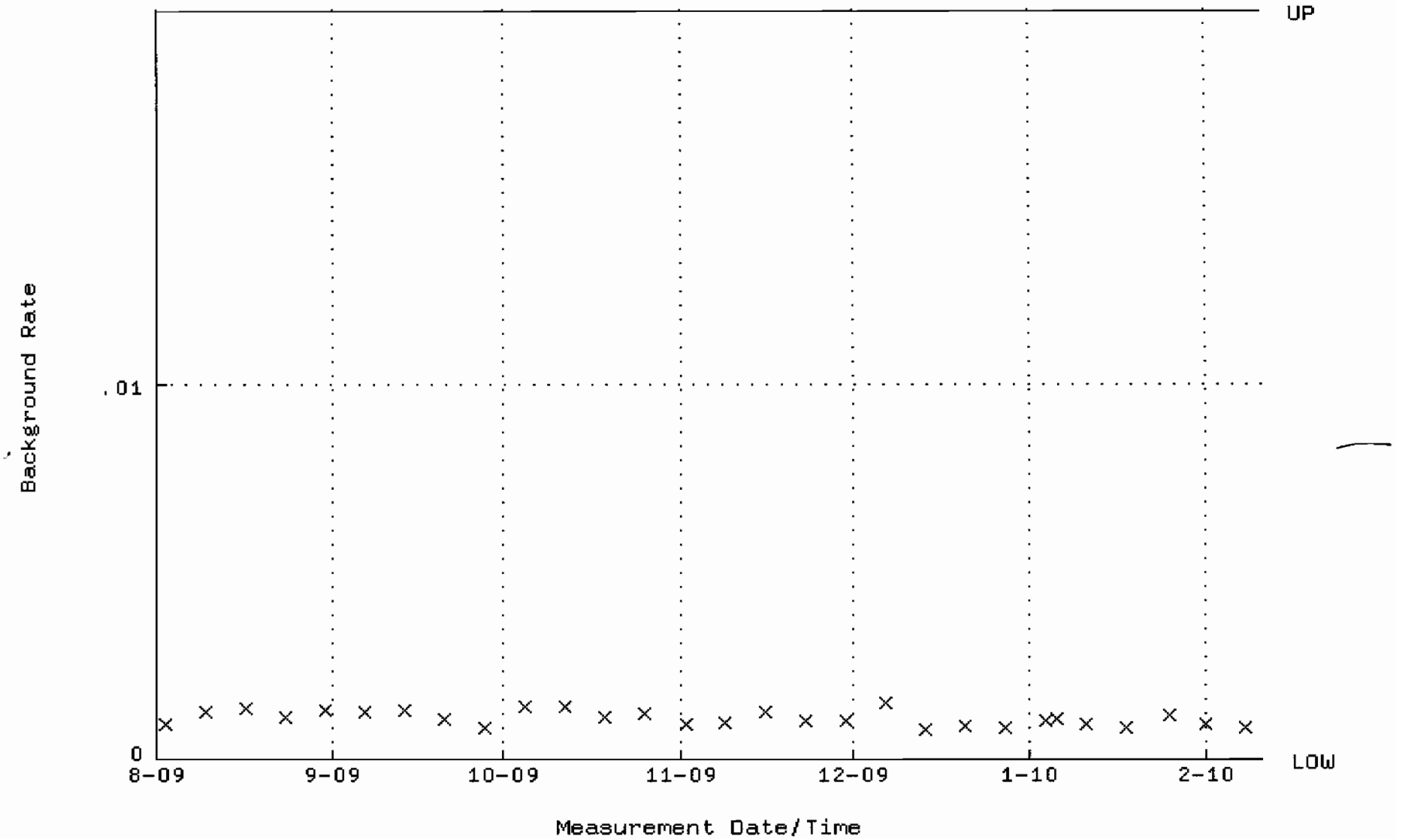

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.287888 through 0.307888

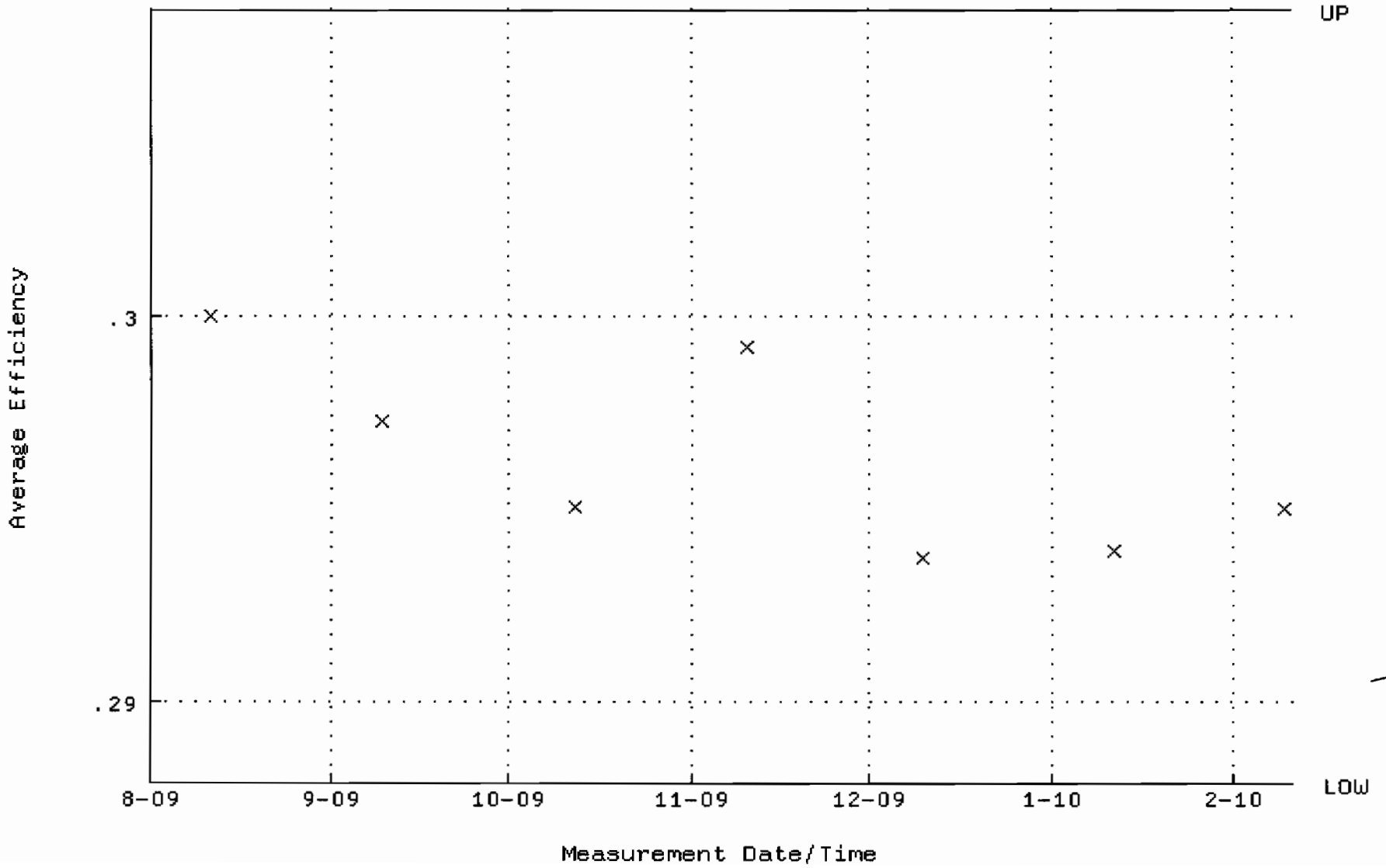

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 84.1413 through 92.9983

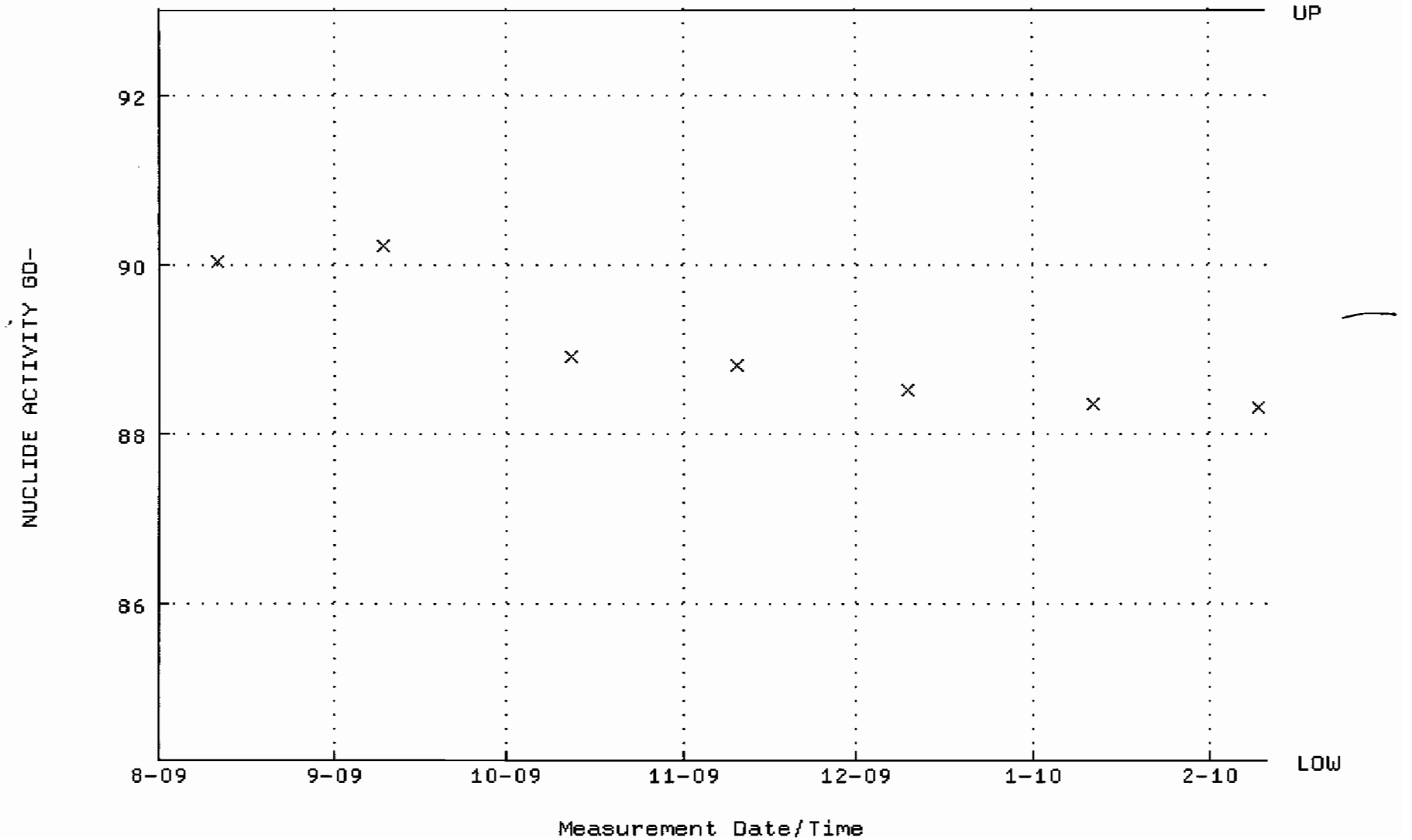

QA filename : DKA100:[ENV_ALPHA.QA.B]B089.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:42 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

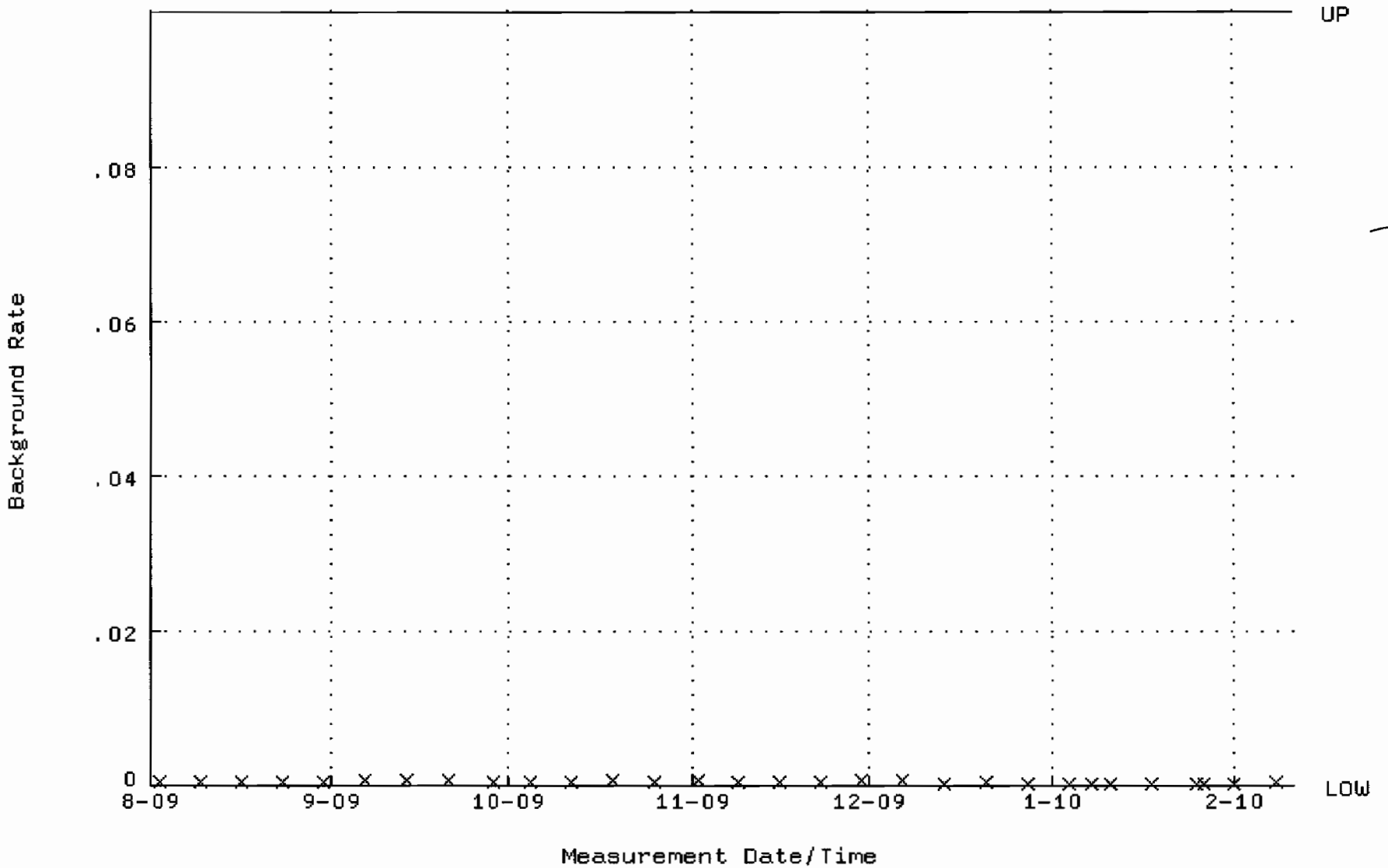

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313529 through 0.333529

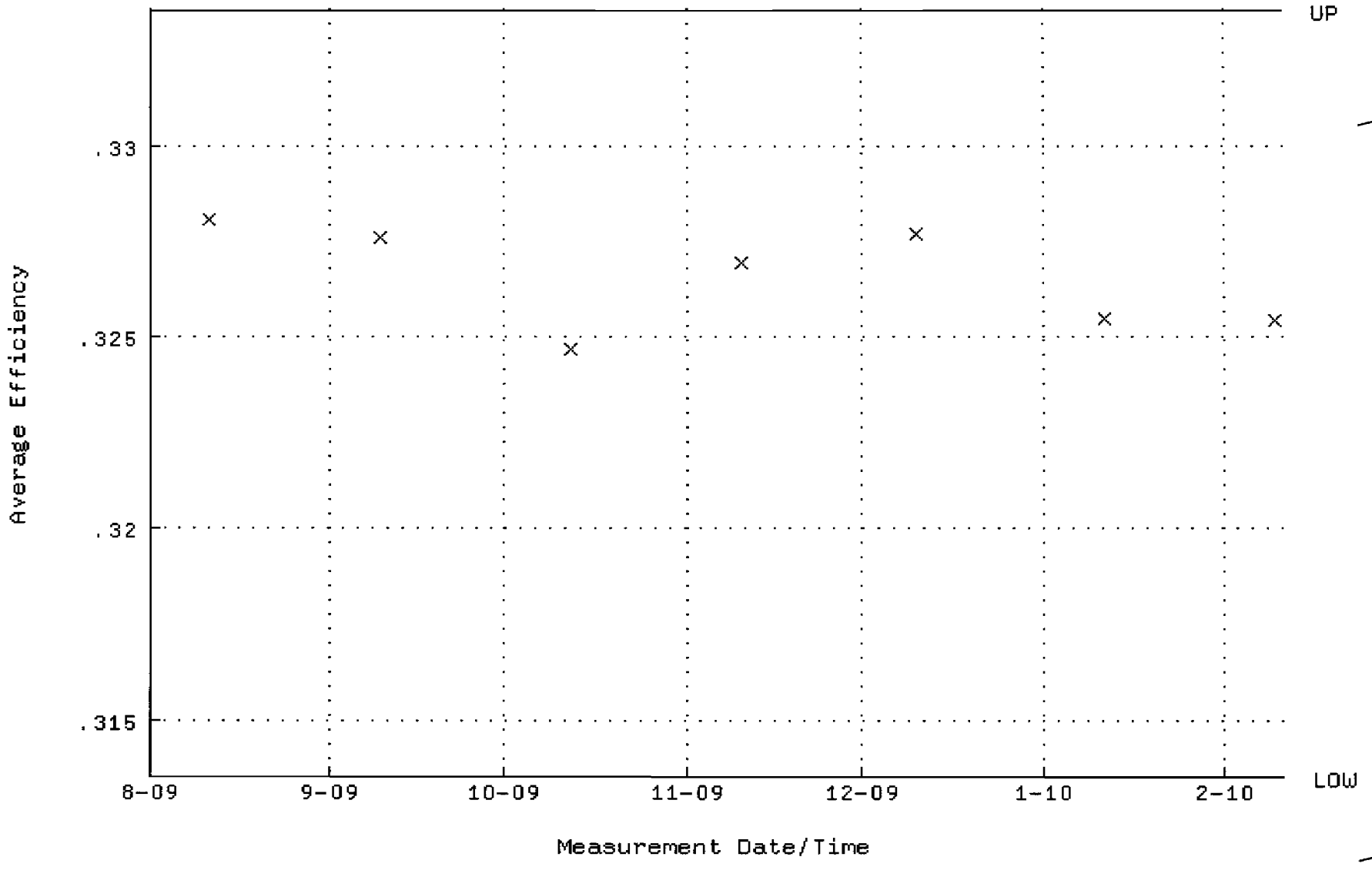

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0139 through 95.0680

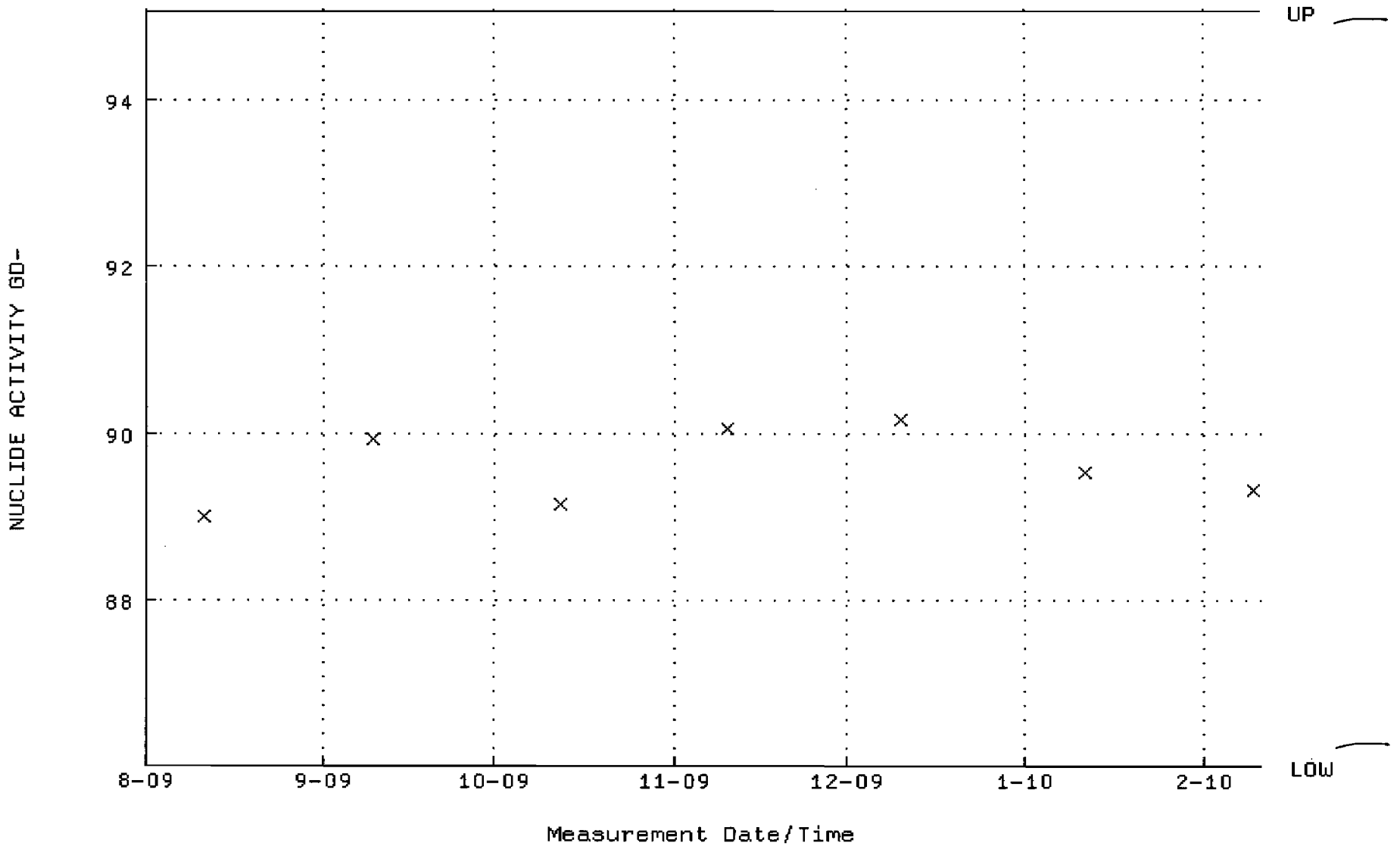

QA filename : DKA100:[ENV_ALPHA.QA.B]B090.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:42 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

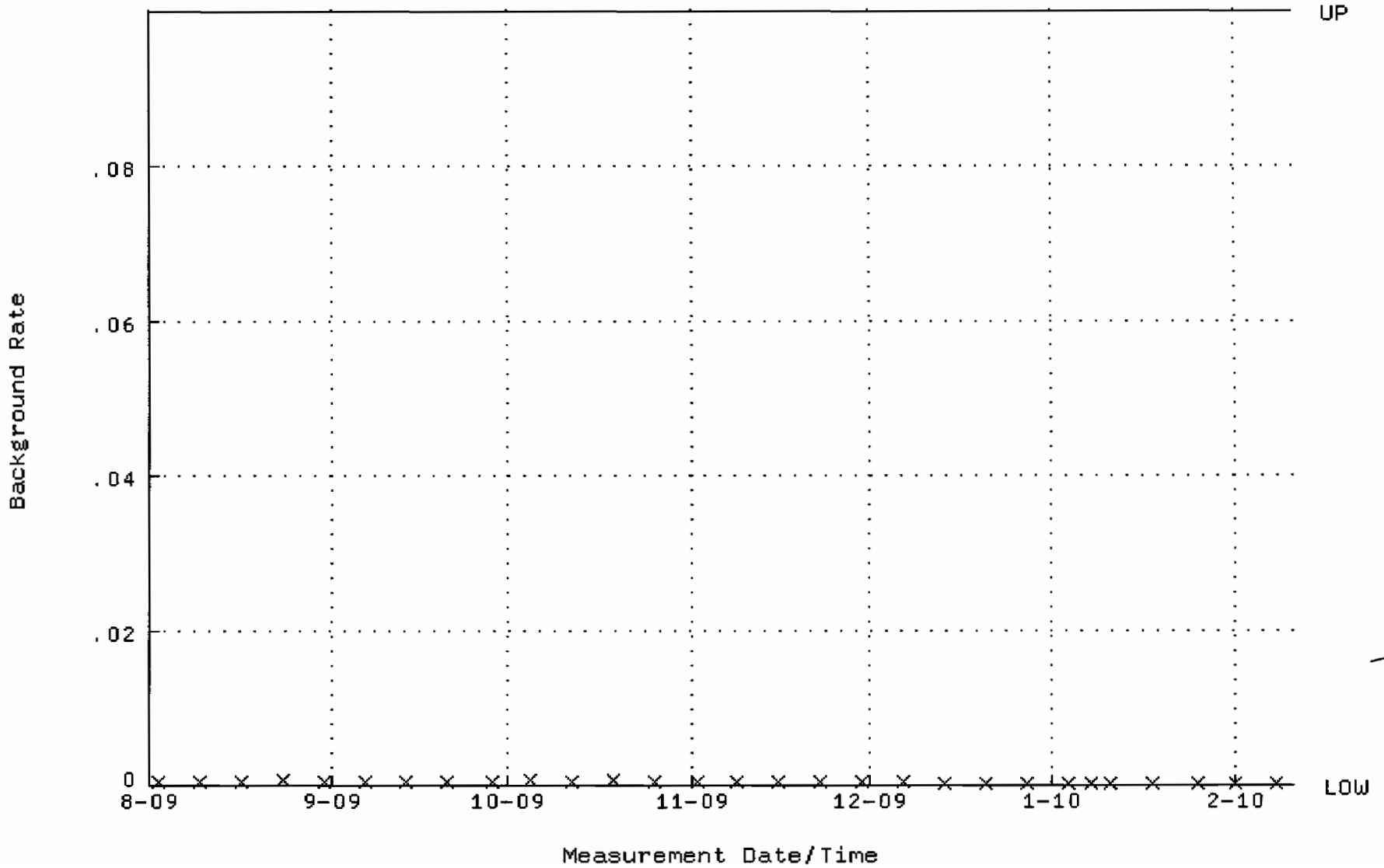

QA filename : DKA100:[ENV_ALPHA.QA.W]W091.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.332648 through 0.359902

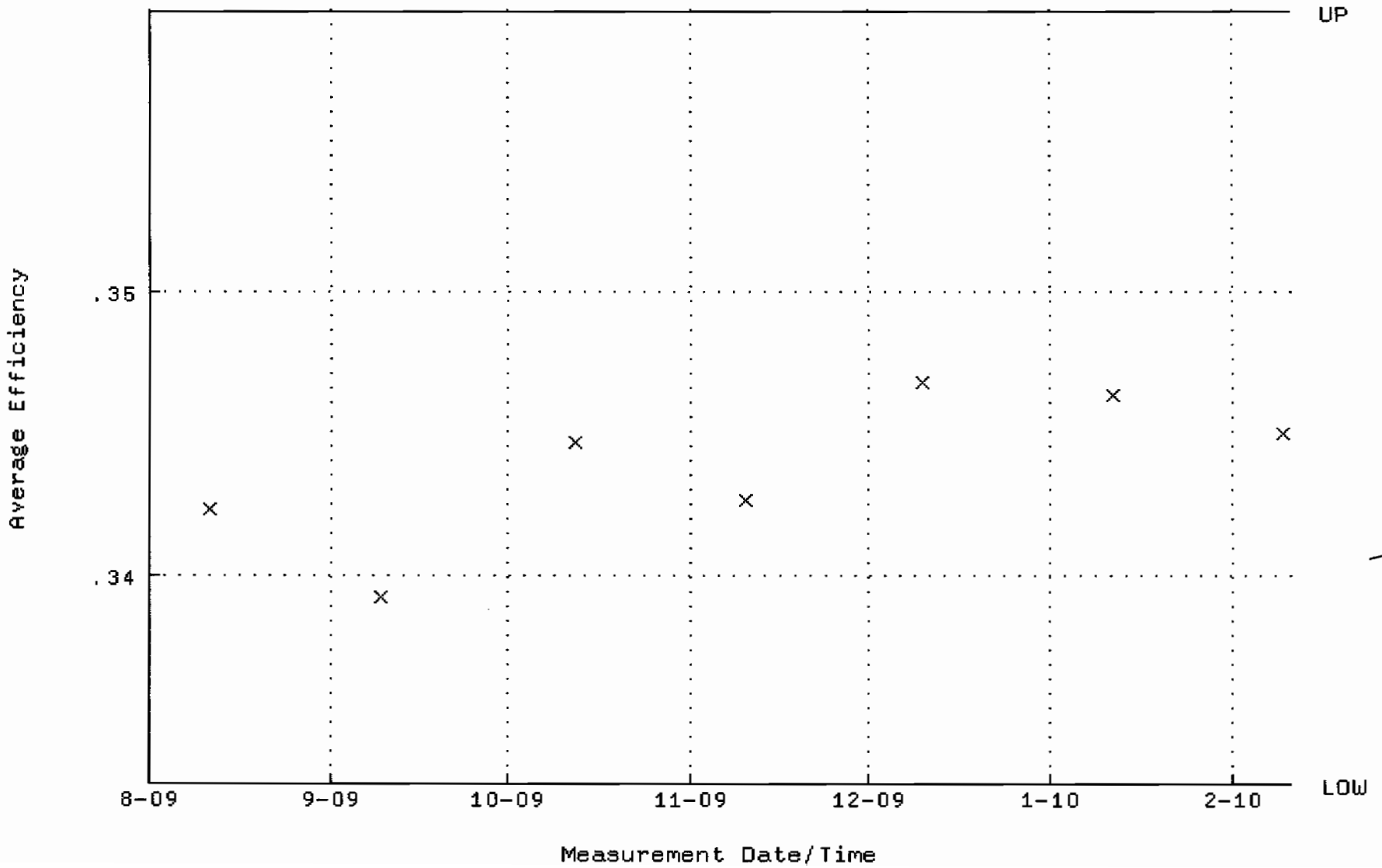

QA filename : DKA100:[ENV_ALPHA.QA.W]W091.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 84.0764 through 86.3518

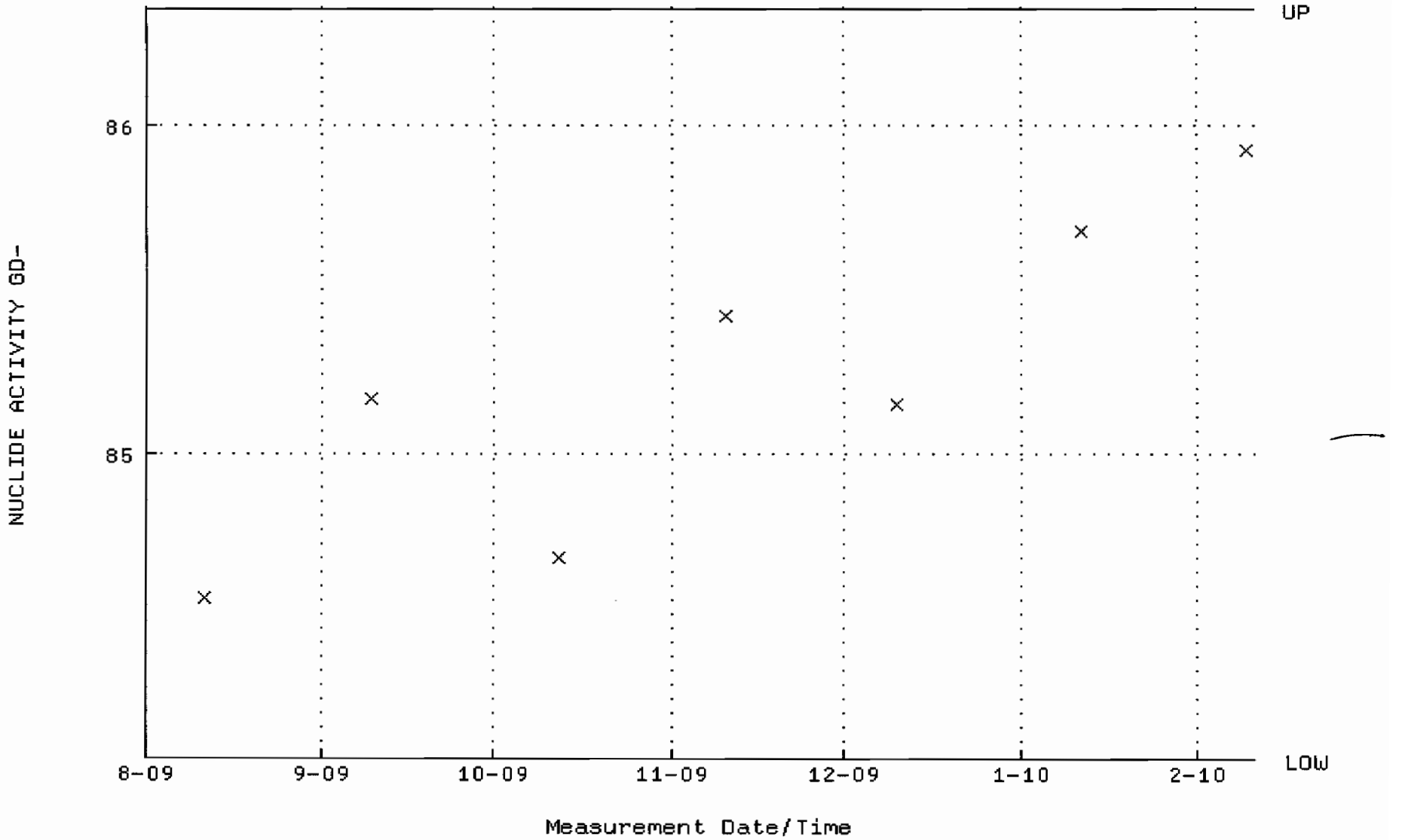

QA filename : DKA100:[ENV_ALPHA.QA.B]B091.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:42 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

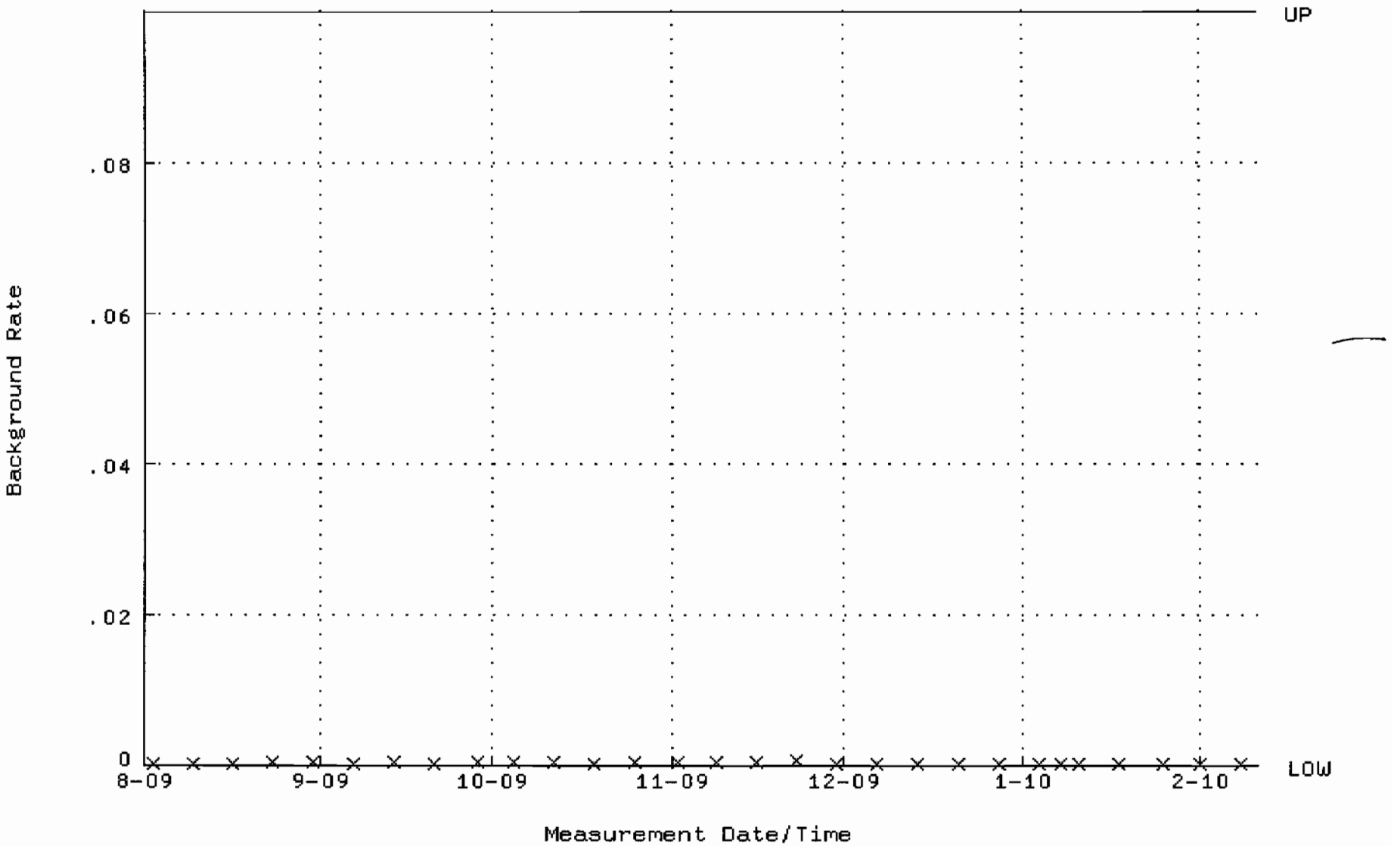

QA filename : DKA100:[ENV_ALPHA.QA.W]W092.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.301529 through 0.329133

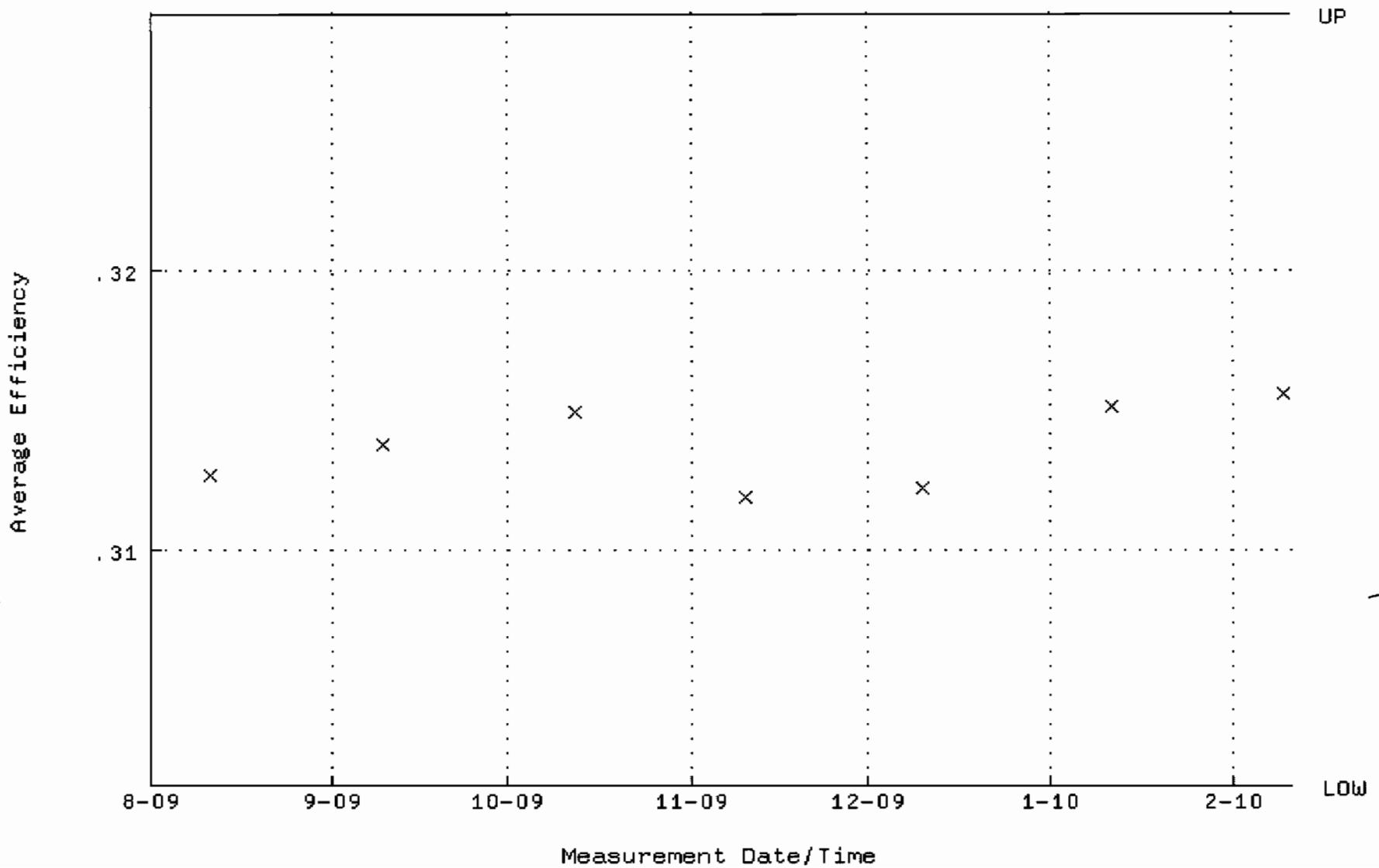

QA filename : DKA100:[ENV_ALPHA.QA.W]W092.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:15 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.3140 through 91.8878

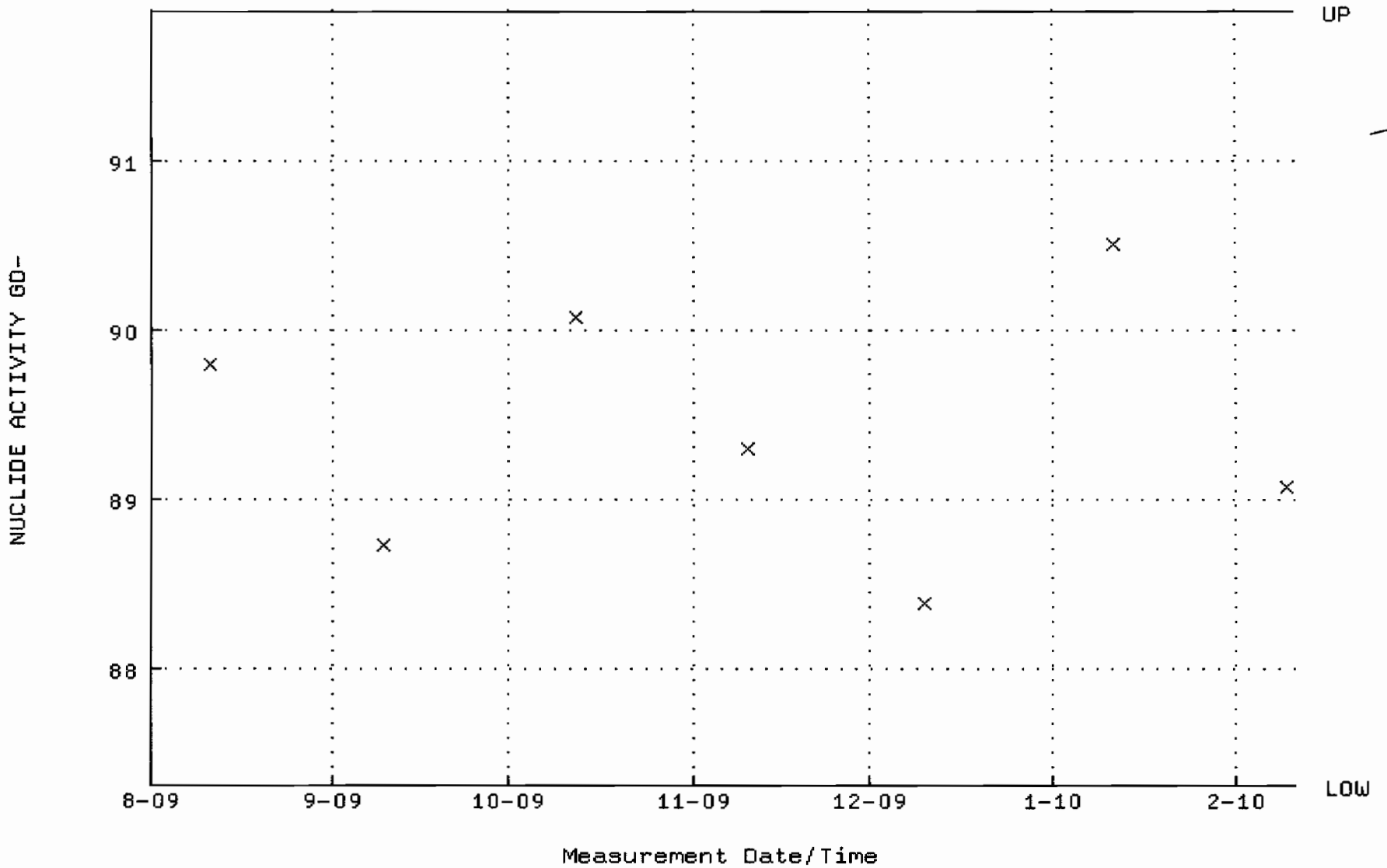

QA filename : DKA100:[ENV_ALPHA.QA.B]B092.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:42 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: -1.00000 through 0.100000

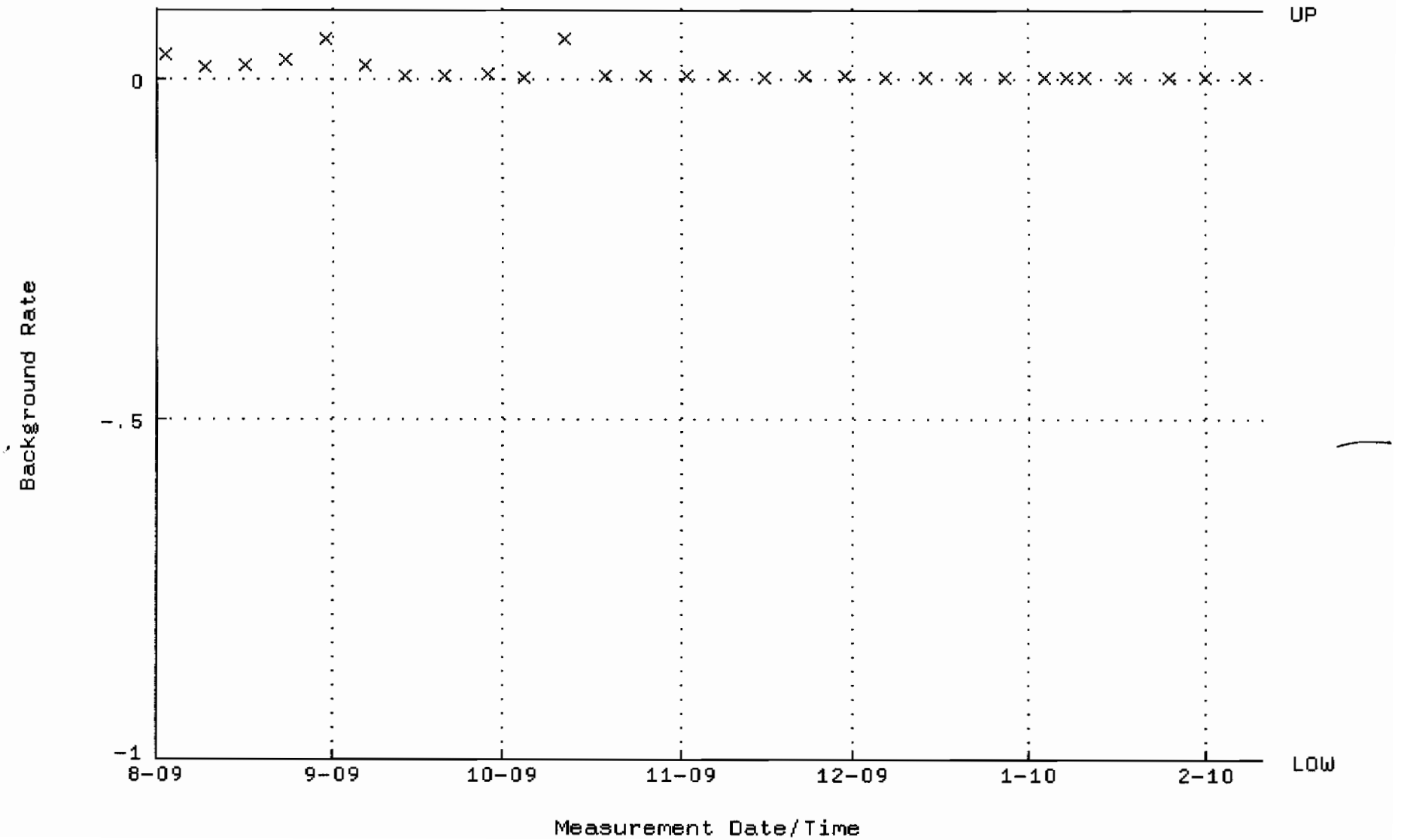

QA filename : DKA100:[ENV_ALPHA.QA.W]W095.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.296122 through 0.316122

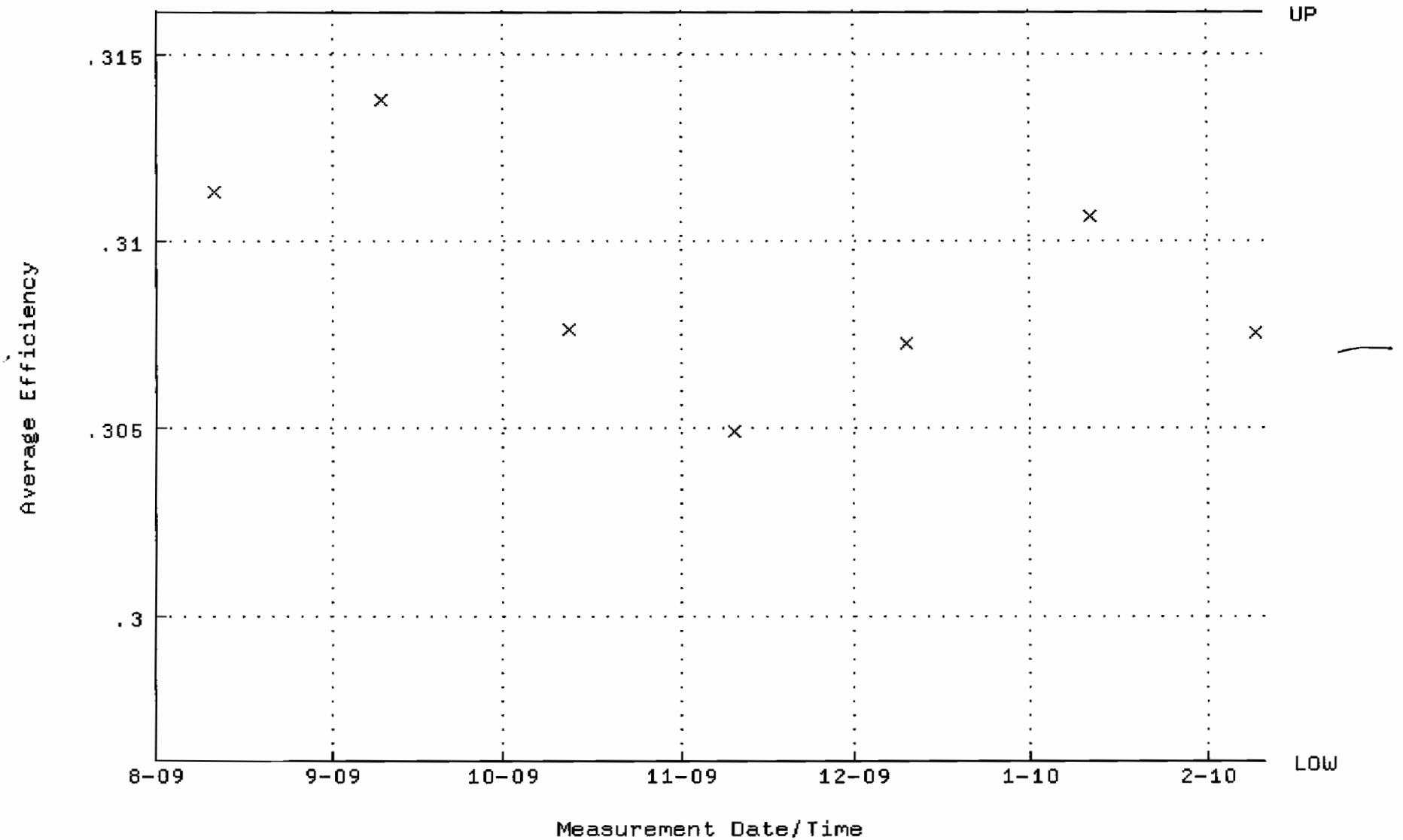

QA filename : DKA100:[ENV_ALPHA.QA.W]W095.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 65.4492 through 72.3386

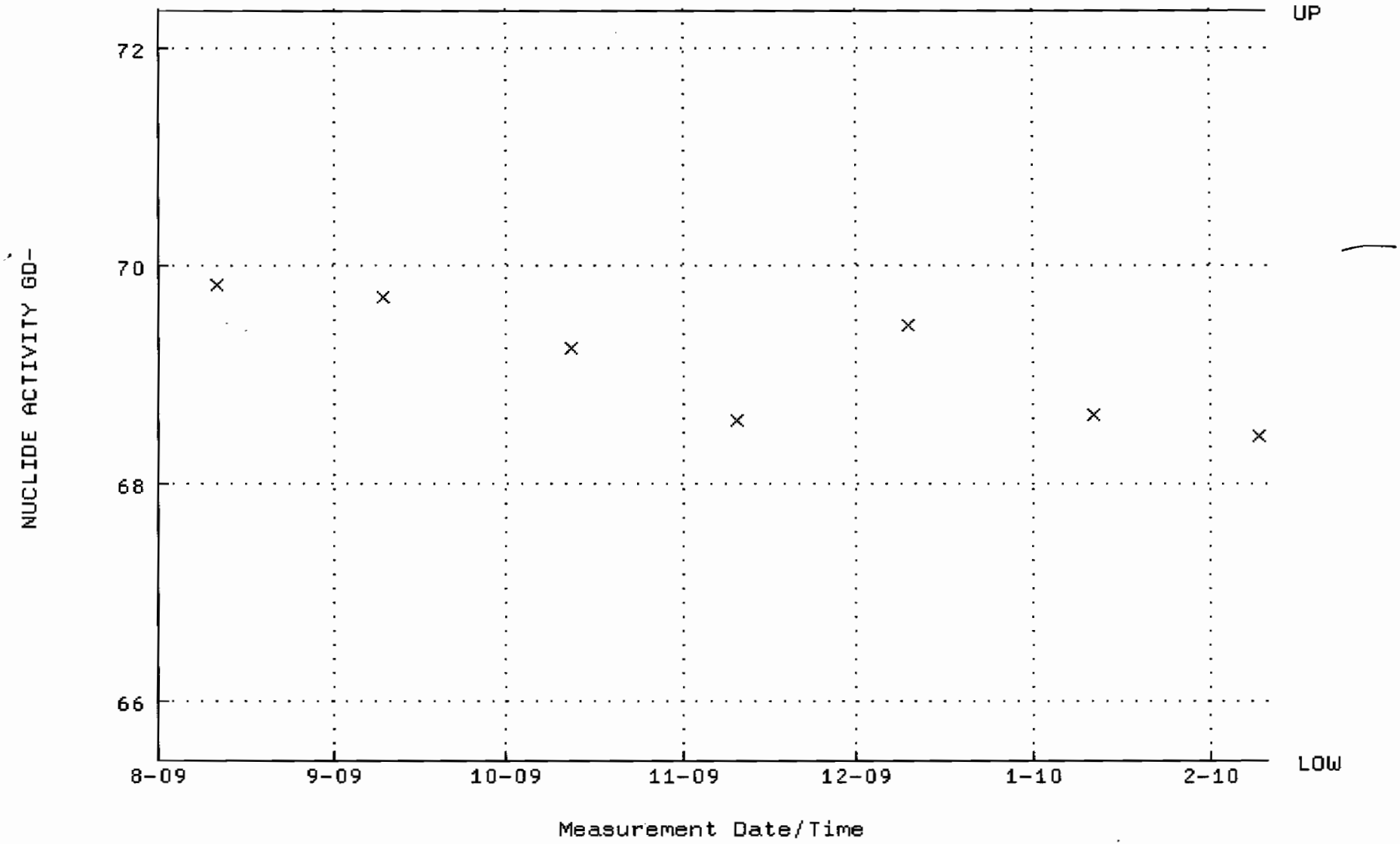

QA filename : DKA100:[ENV_ALPHA.QA.B]B095.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

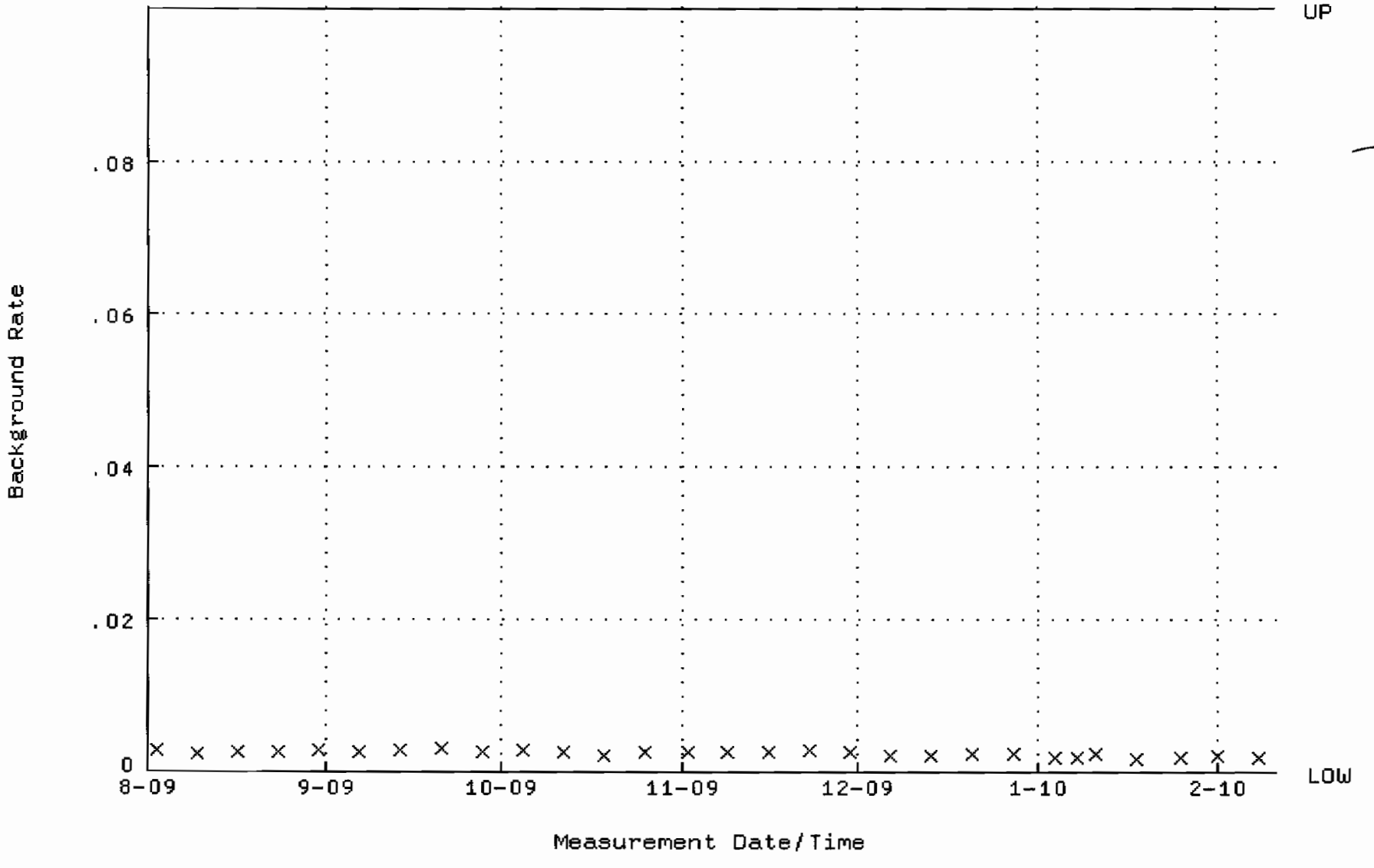

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.333275 through 0.353275

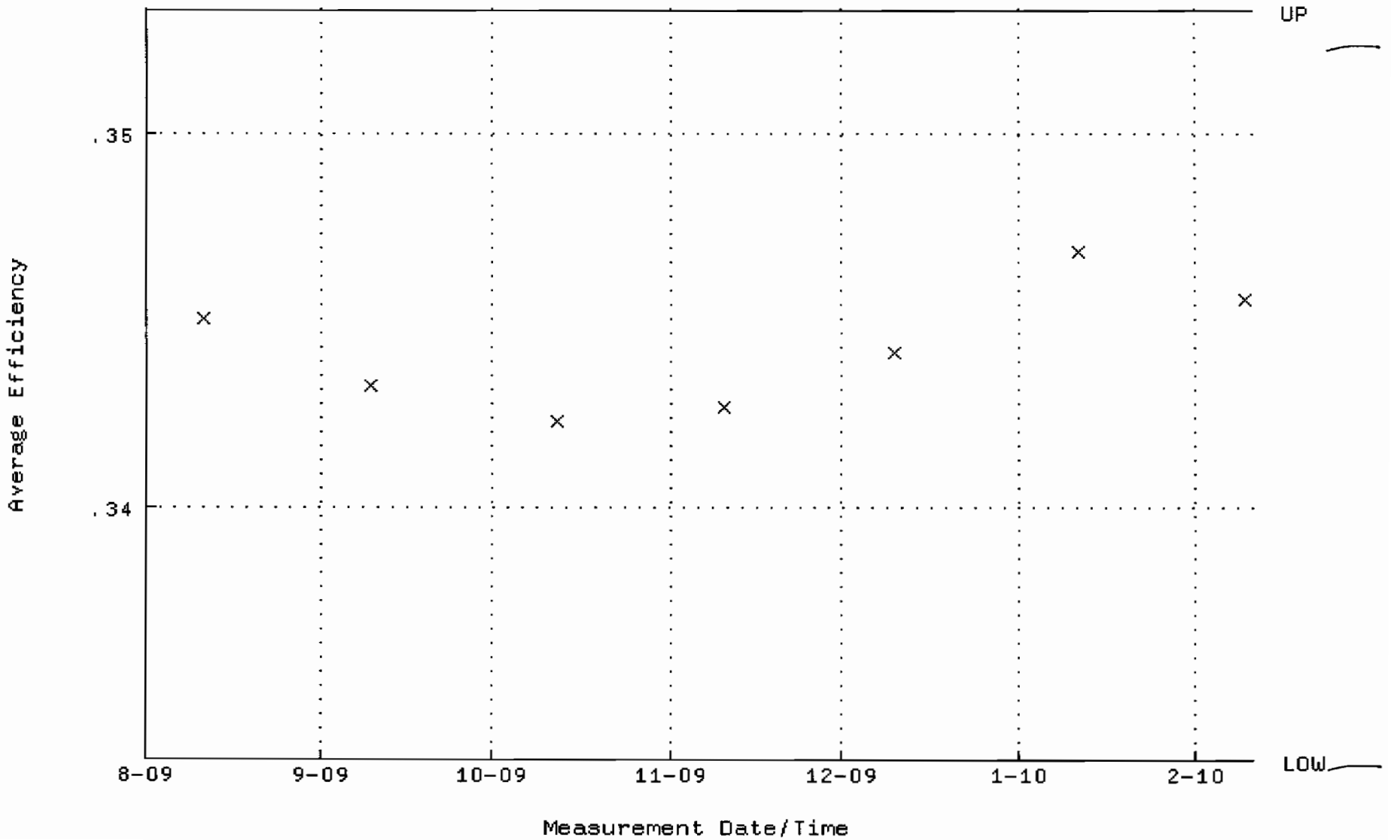

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 64.7068 through 71.5180

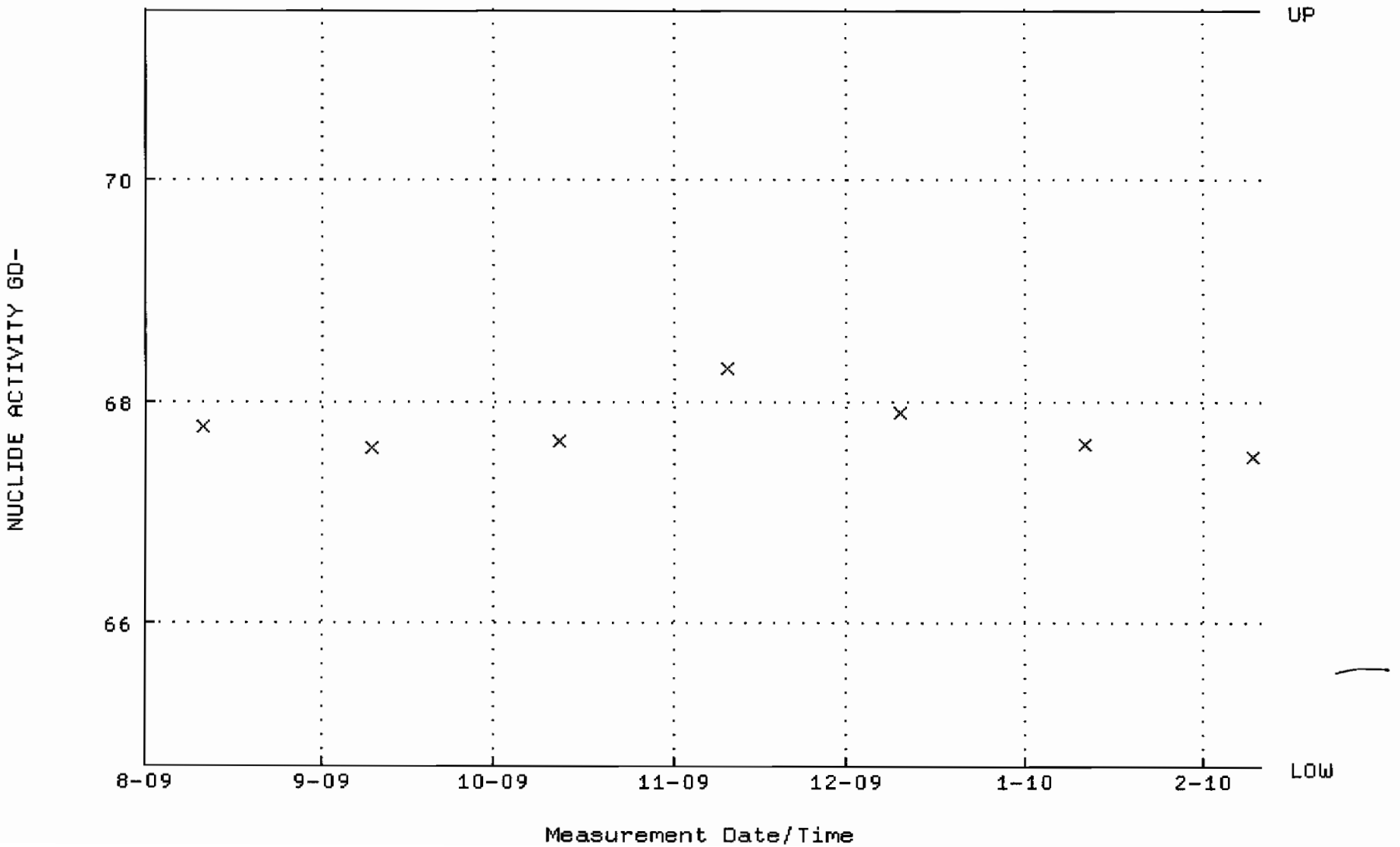

QA filename : DKA100:[ENV_ALPHA.QA.B]B097.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

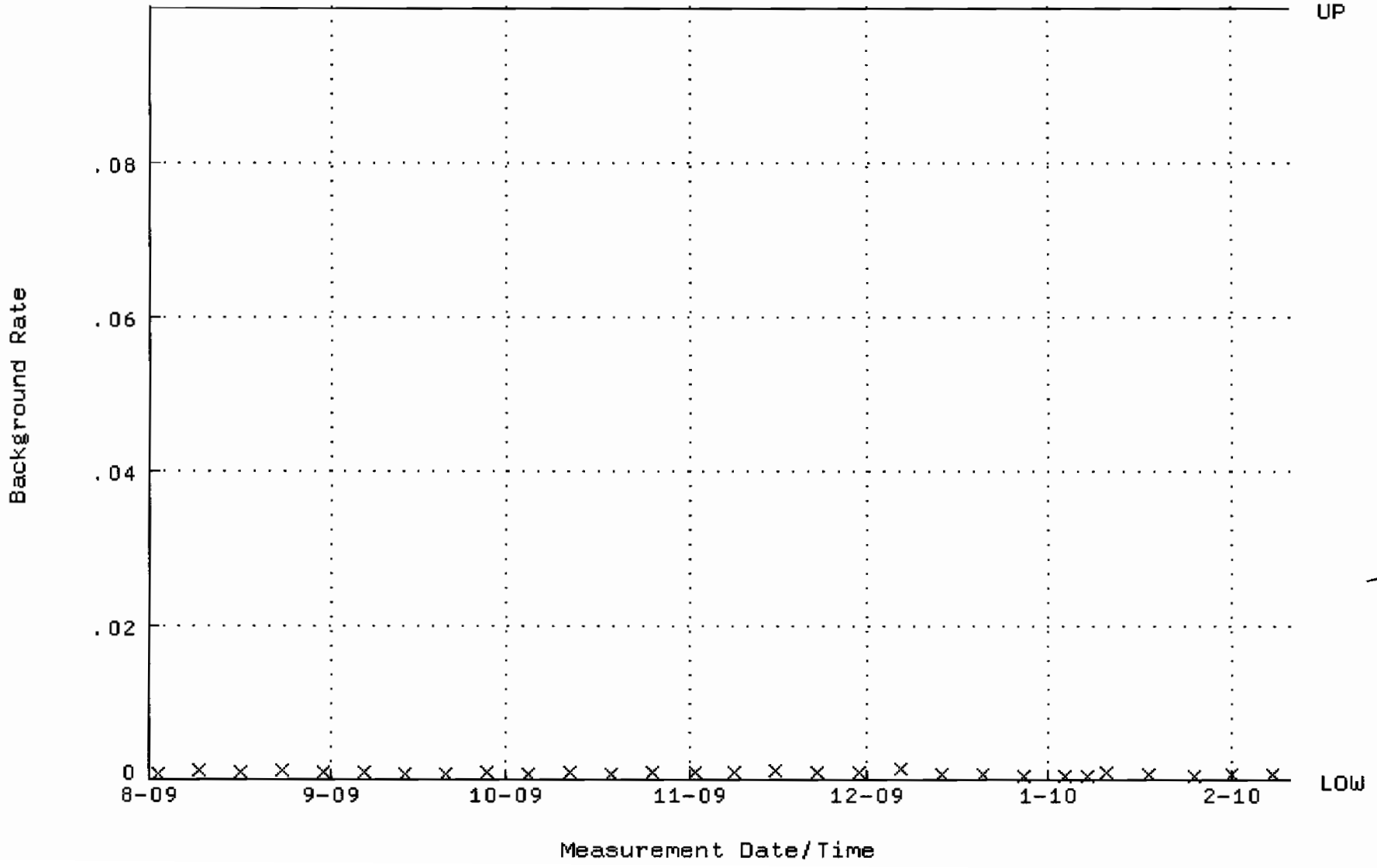

QA filename : DKA100:[ENV_ALPHA.QA.W]W099.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.330127 through 0.357809

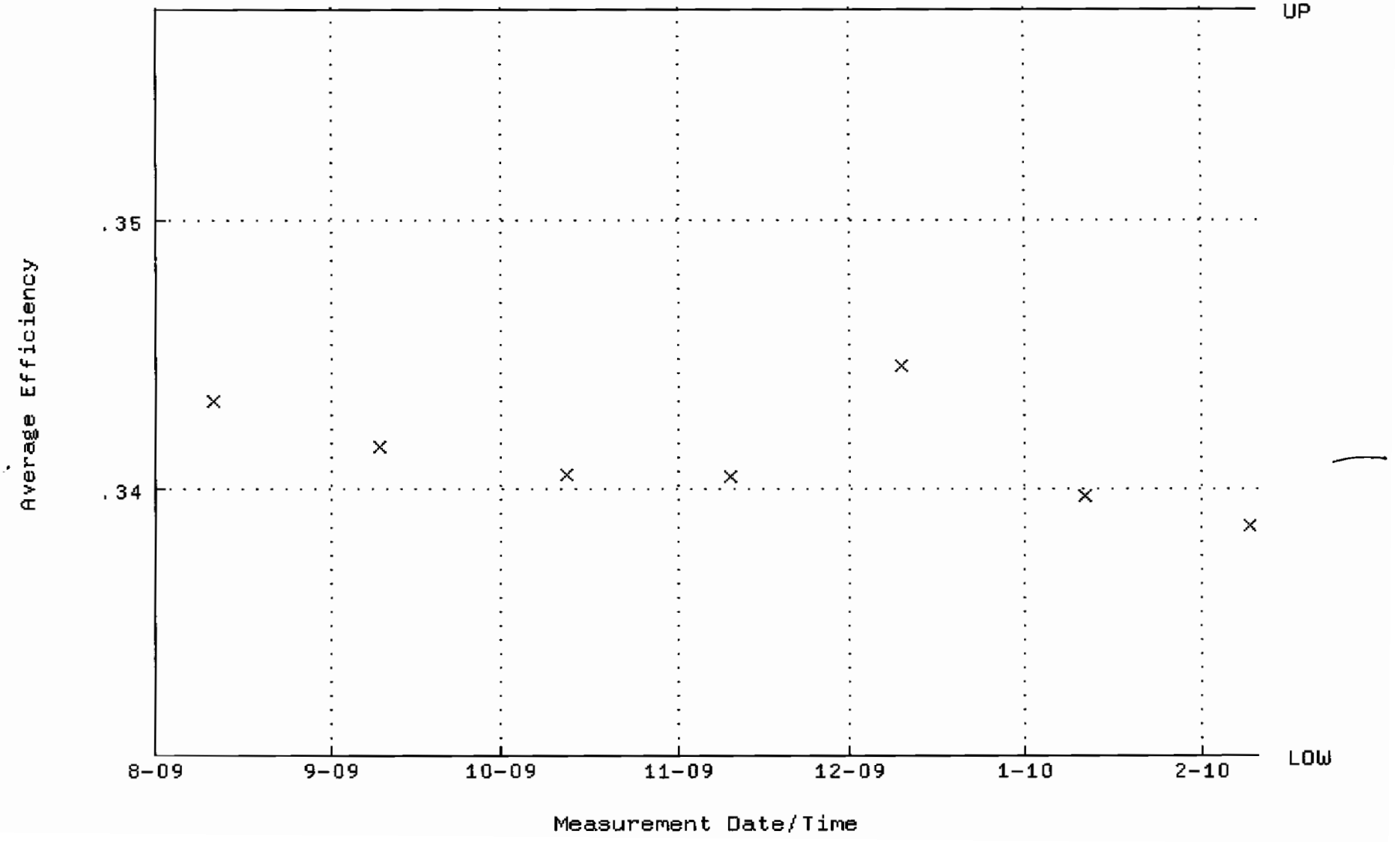

QA filename : DKA100:[ENV_ALPHA.QA.W]W099.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 68.9116 through 73.1498

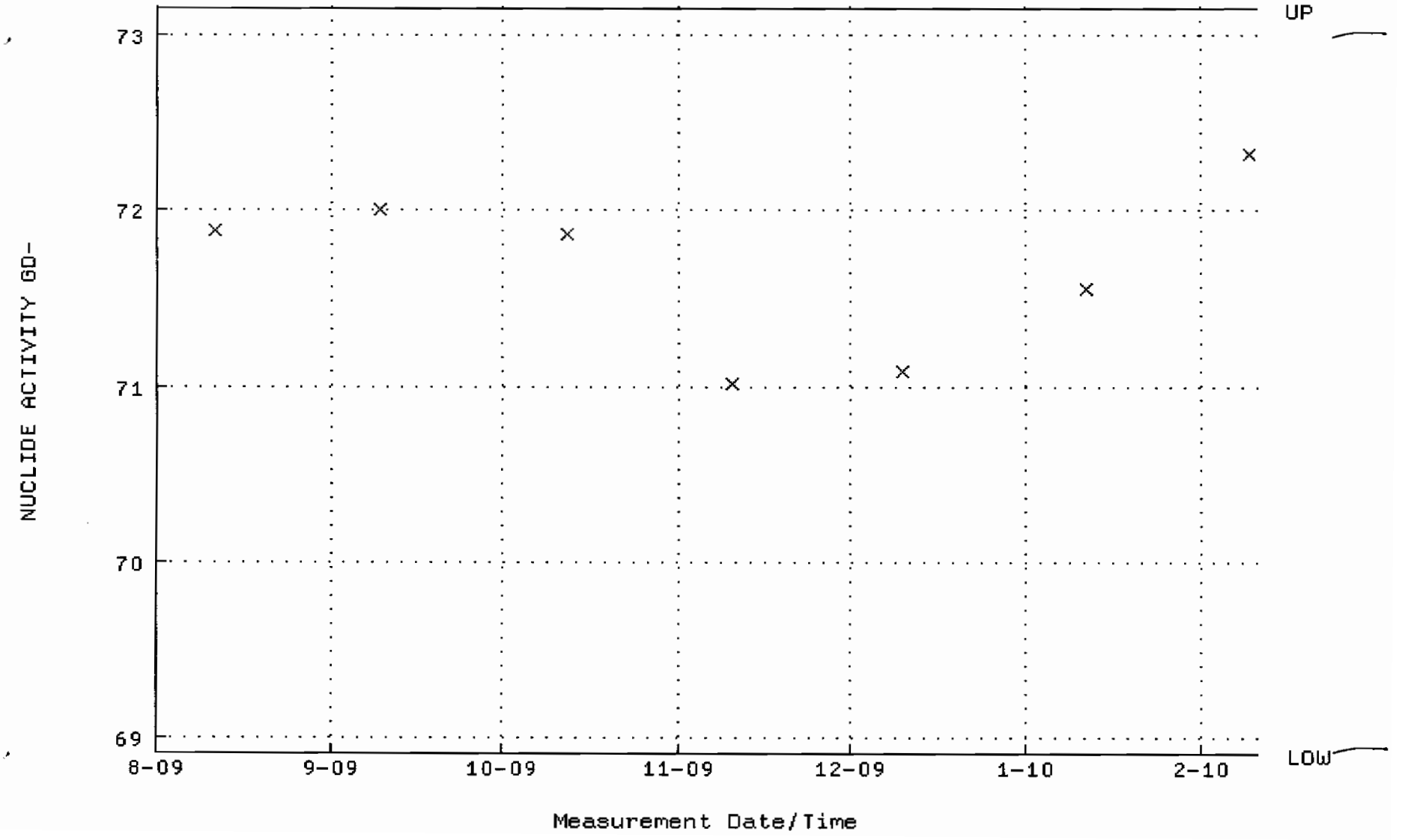

QA filename : DKA100:[ENV_ALPHA.QA.B]B099.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

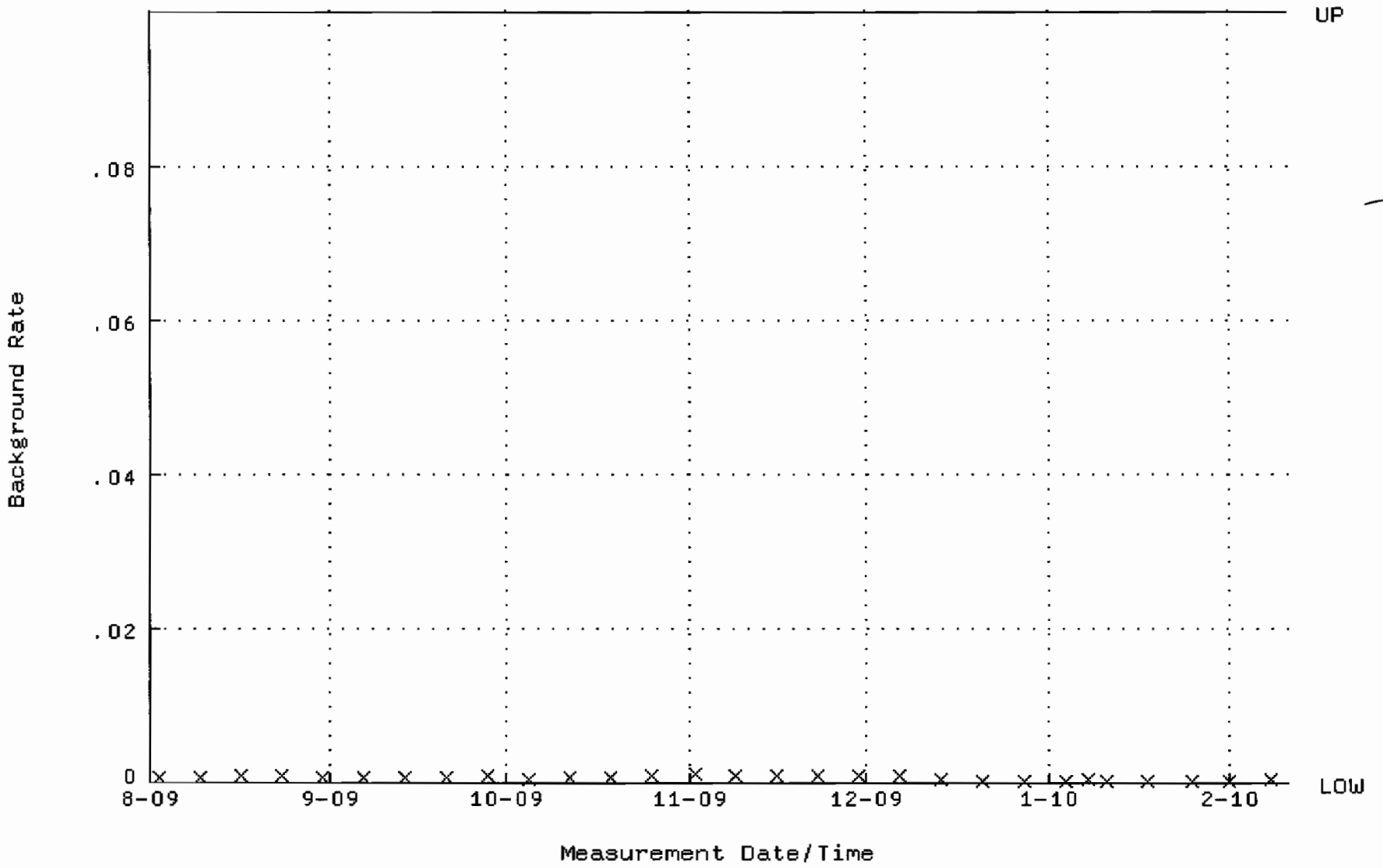

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.331433 through 0.351433

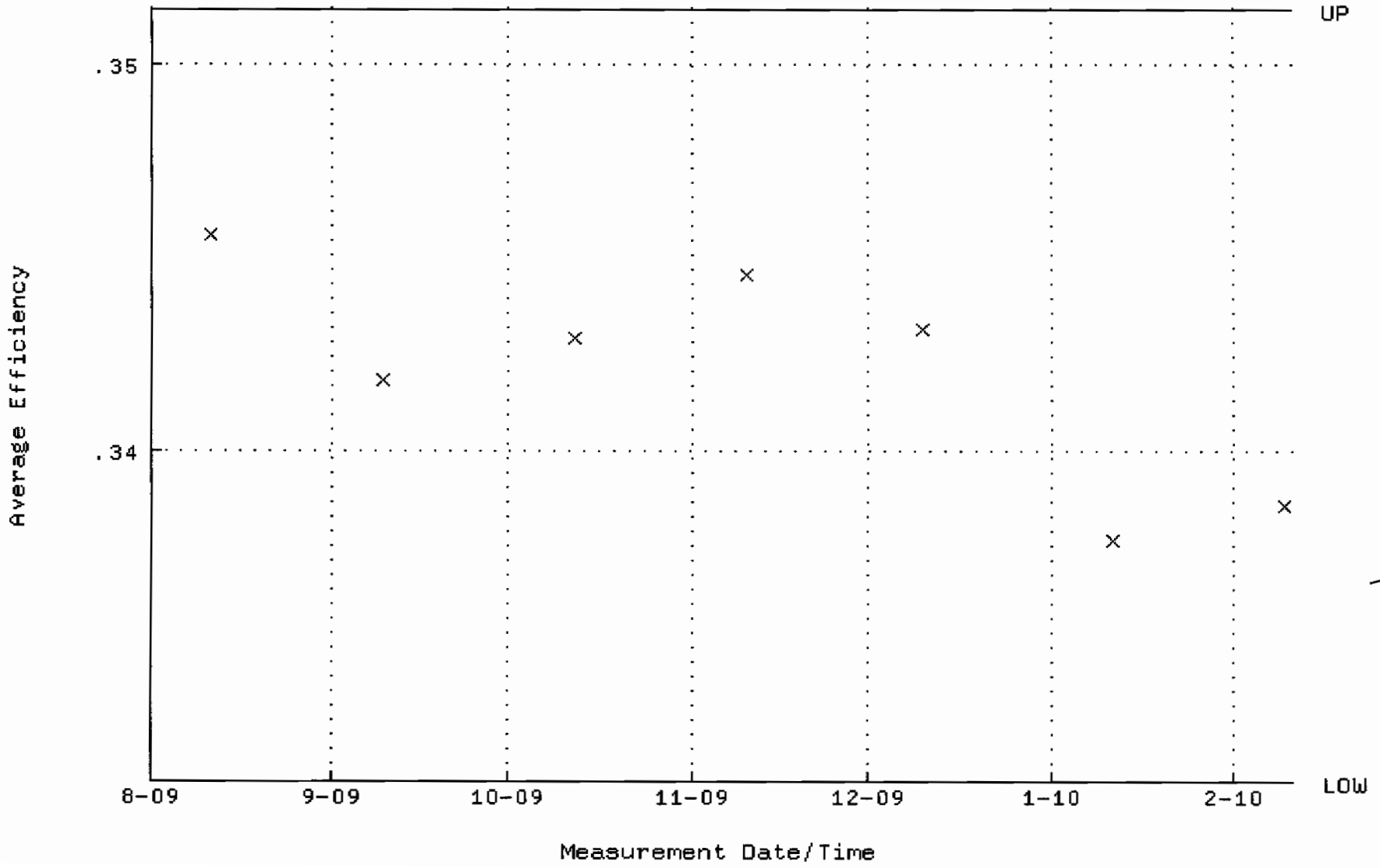

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 65.4550 through 72.3450

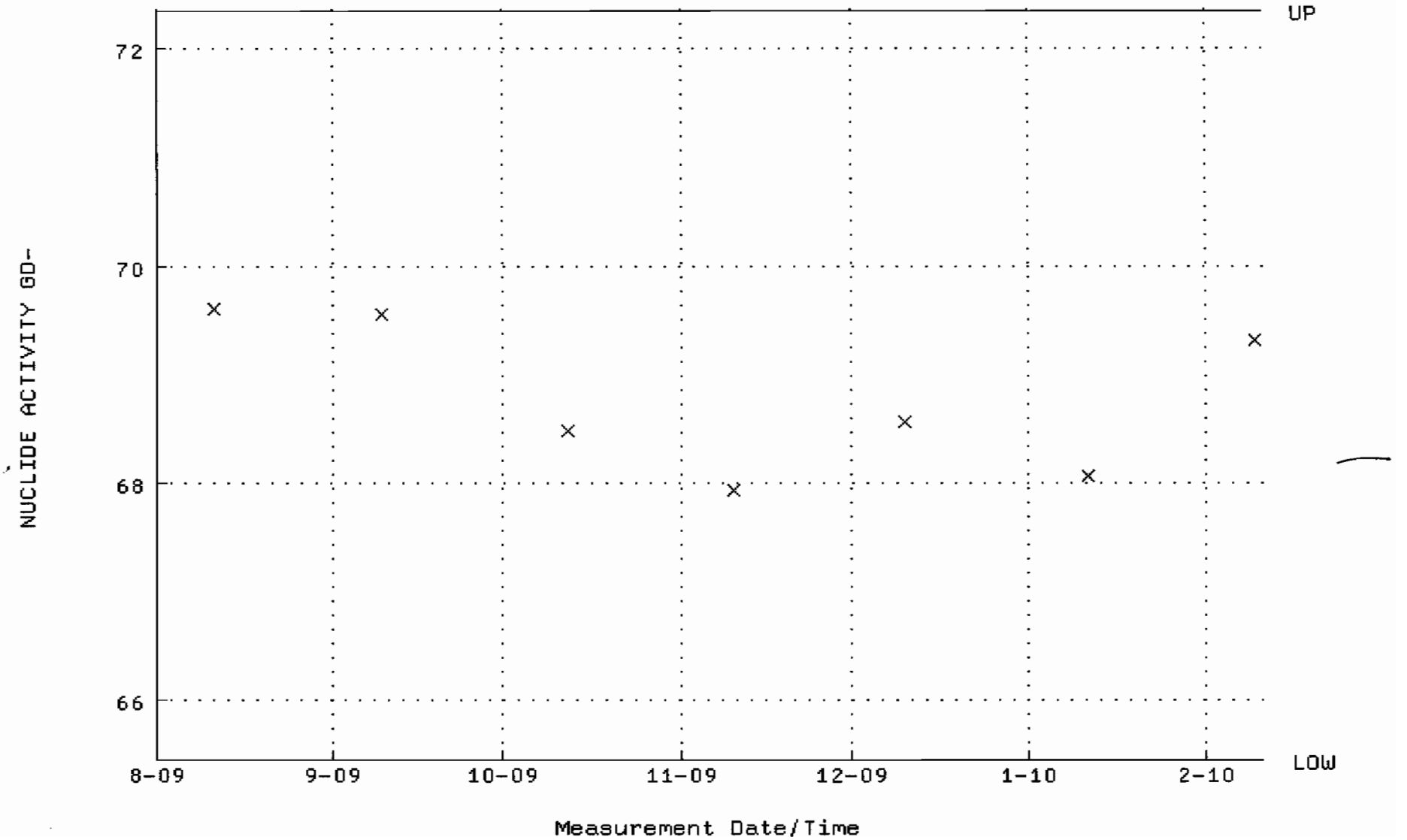

QA filename : DKA100:[ENV_ALPHA.QA.B]B100.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

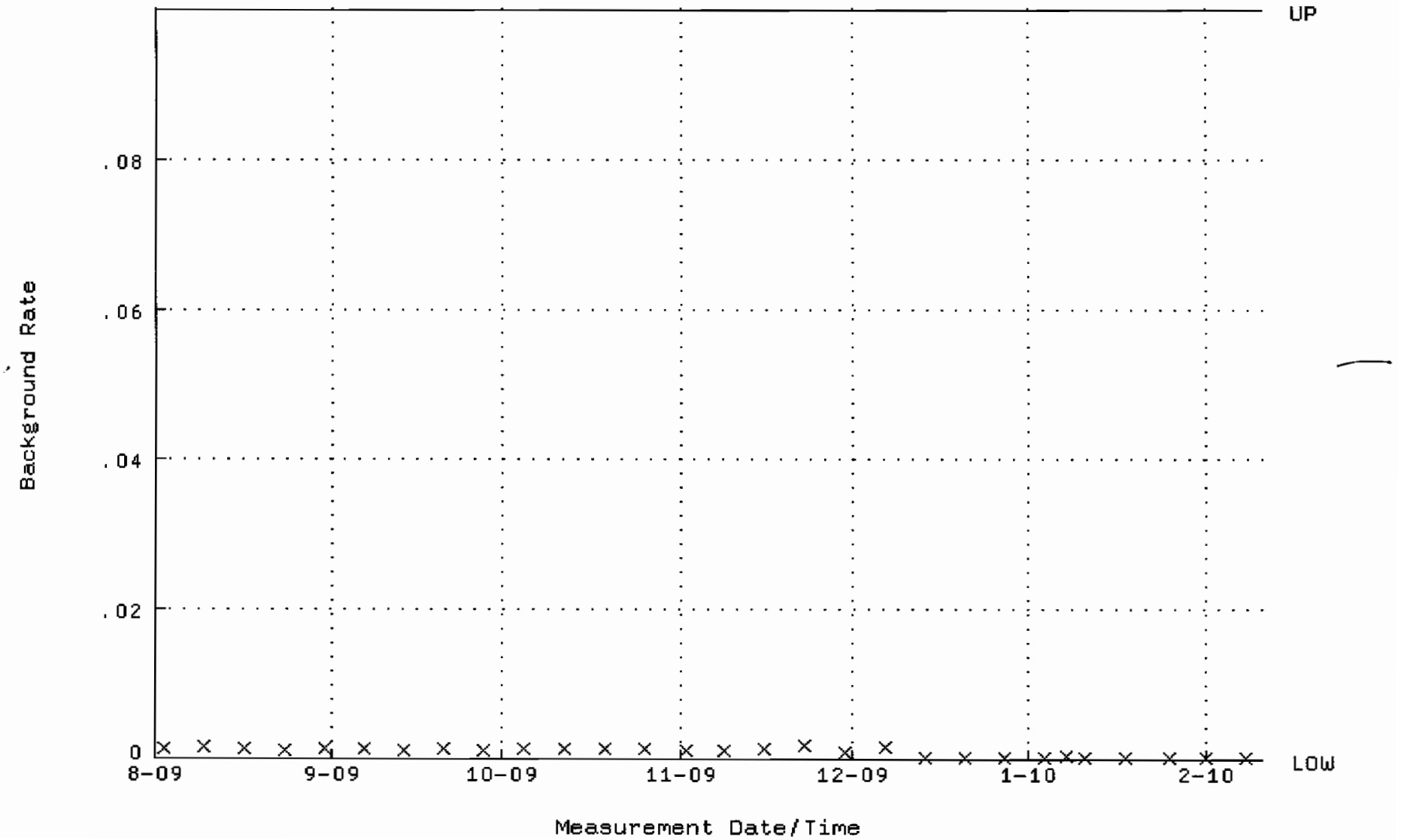

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.303231 through 0.317703

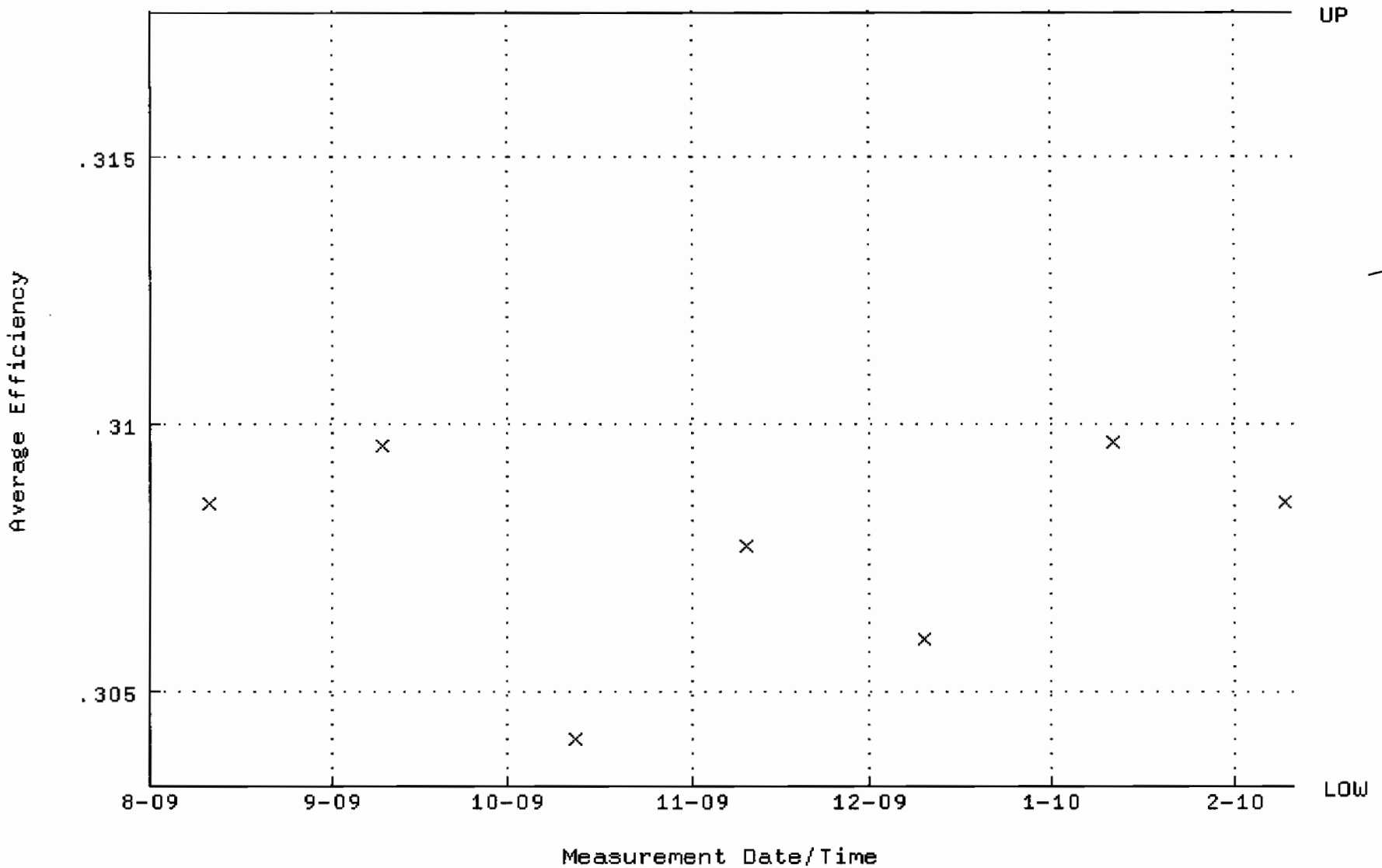

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 69.1572 through 72.0358

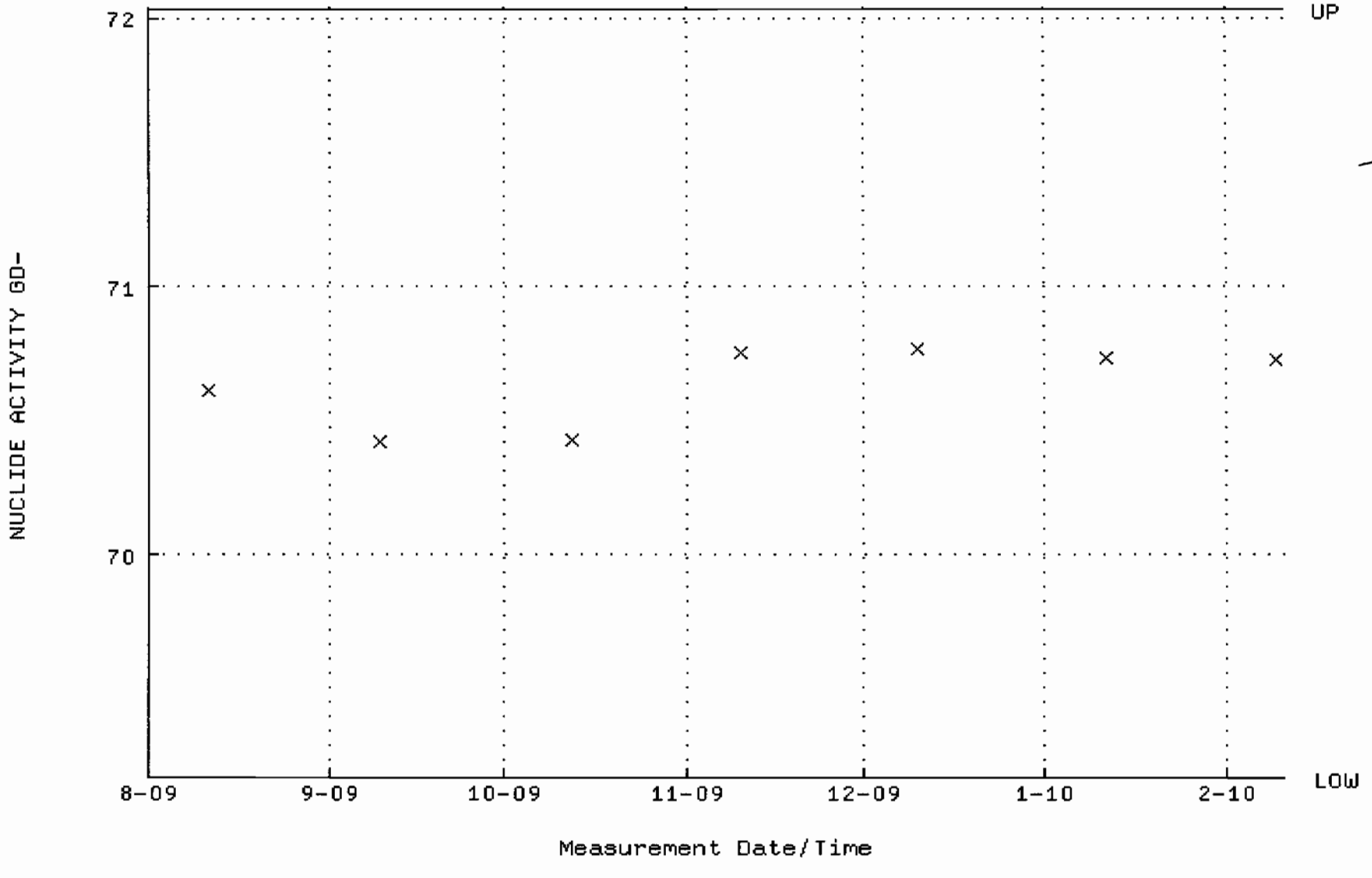

QA filename : DKA100:[ENV_ALPHA.QA.B]B107.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

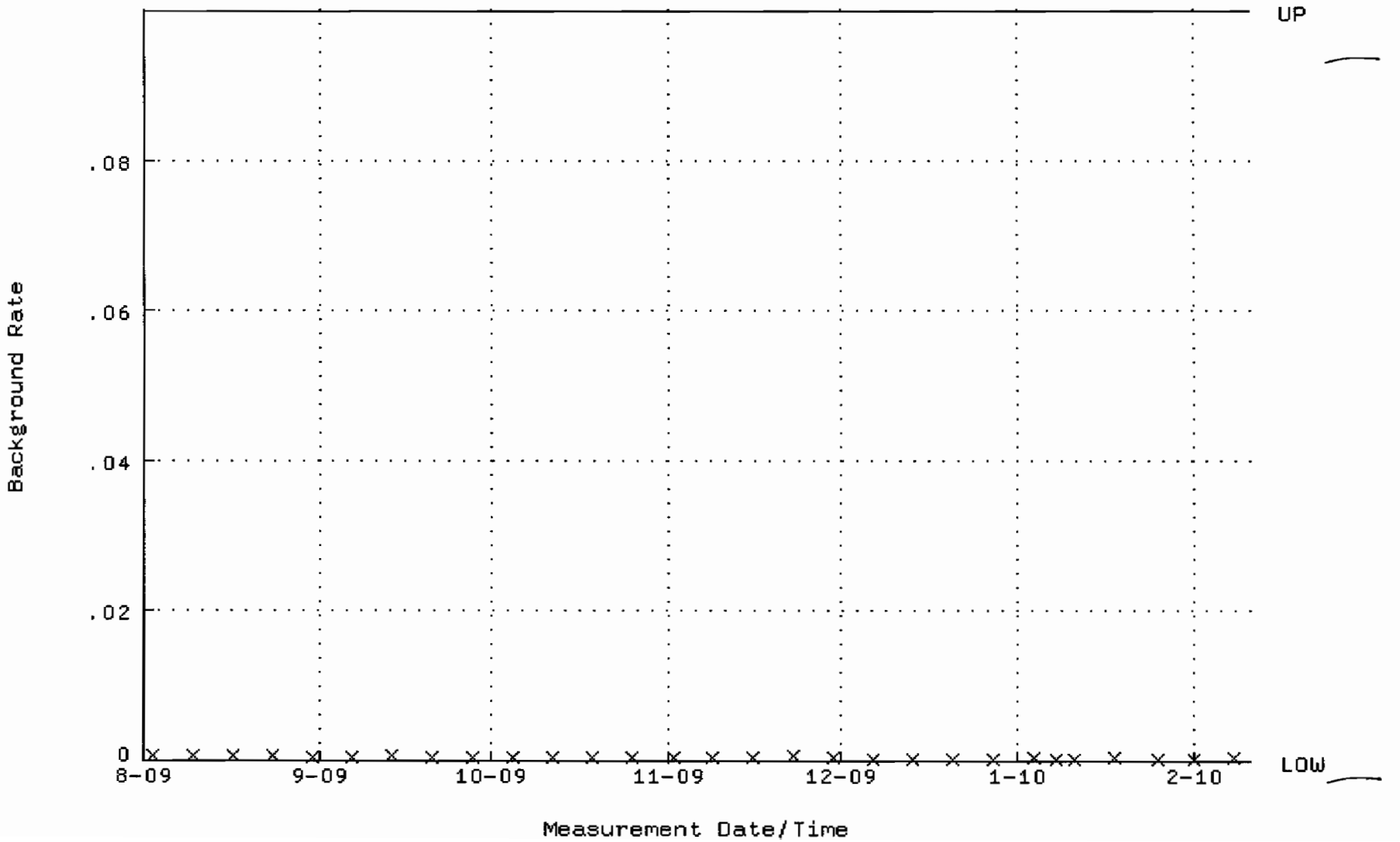

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.330641 through 0.360561

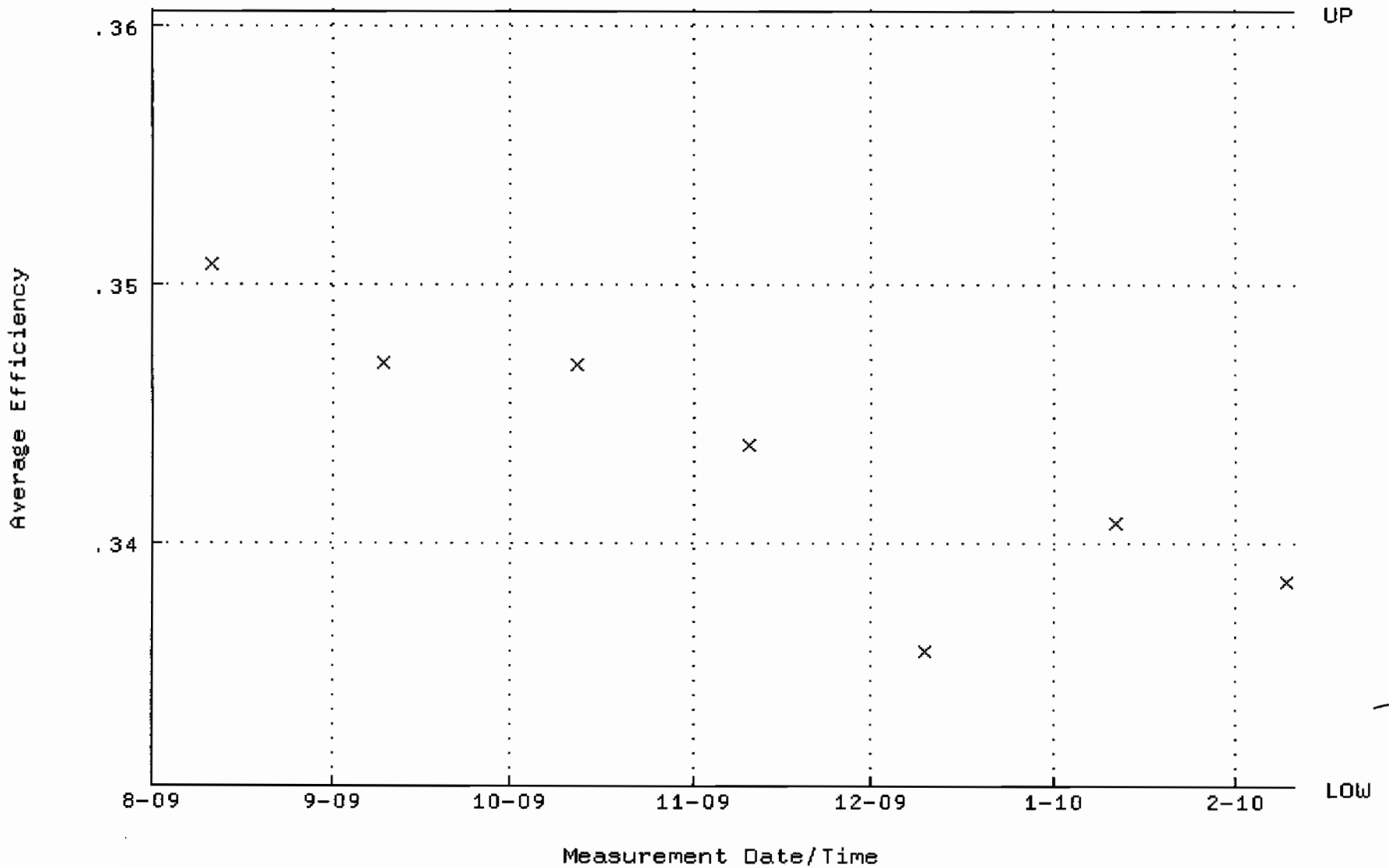

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 68.0460 through 72.0402

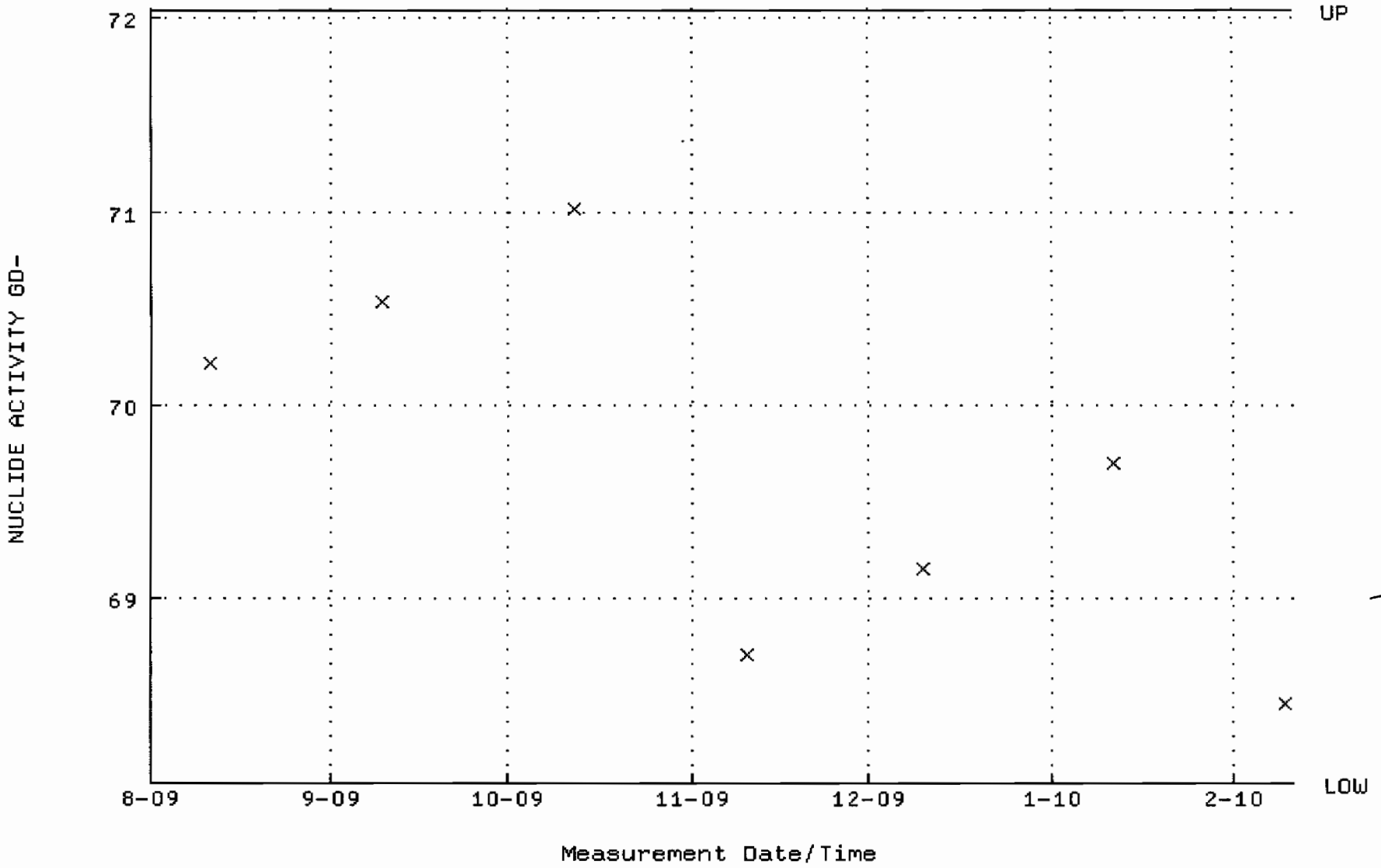

QA filename : DKA100:[ENV_ALPHA.QA.B]B108.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

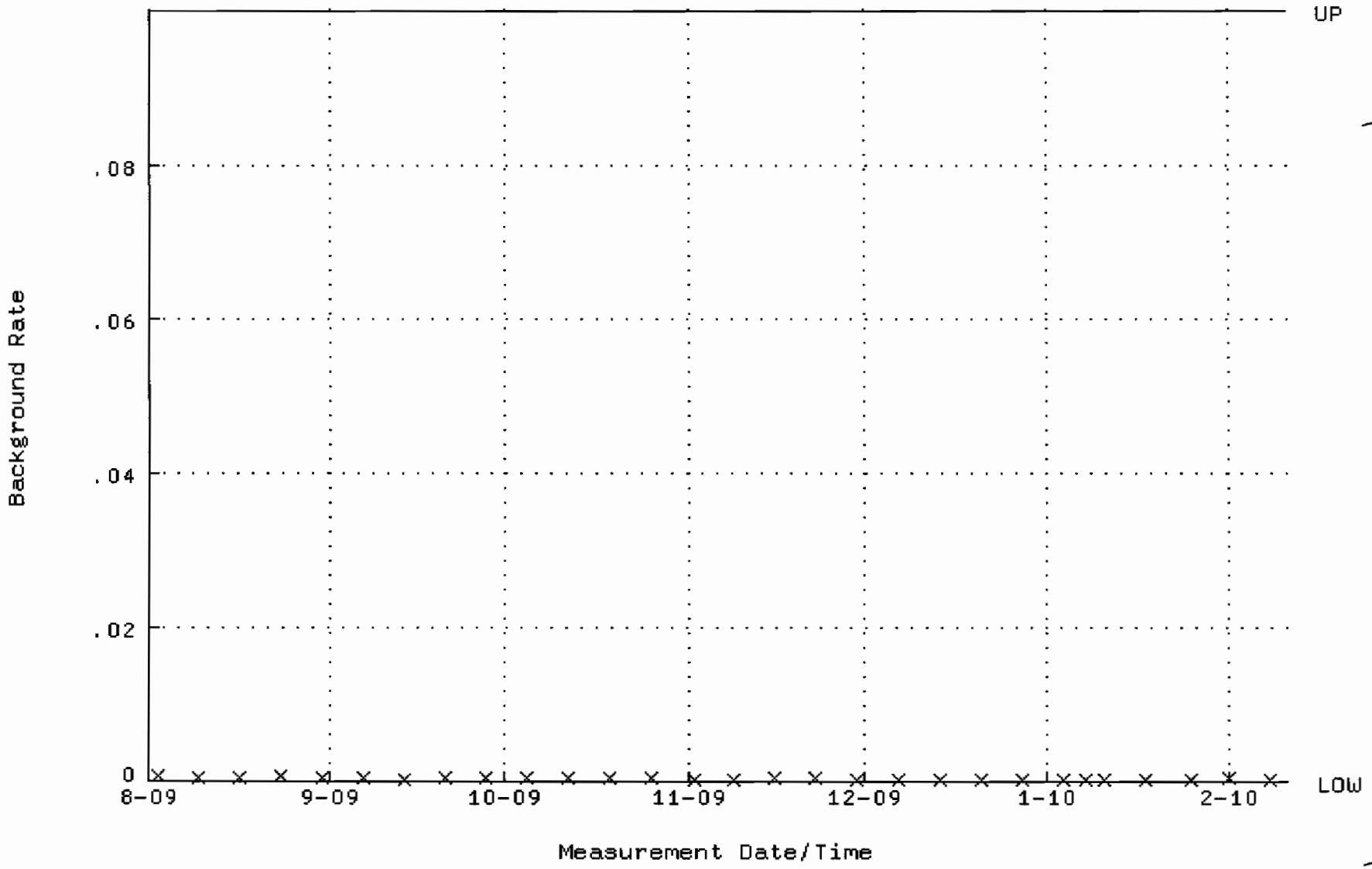

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.344397 through 0.364397

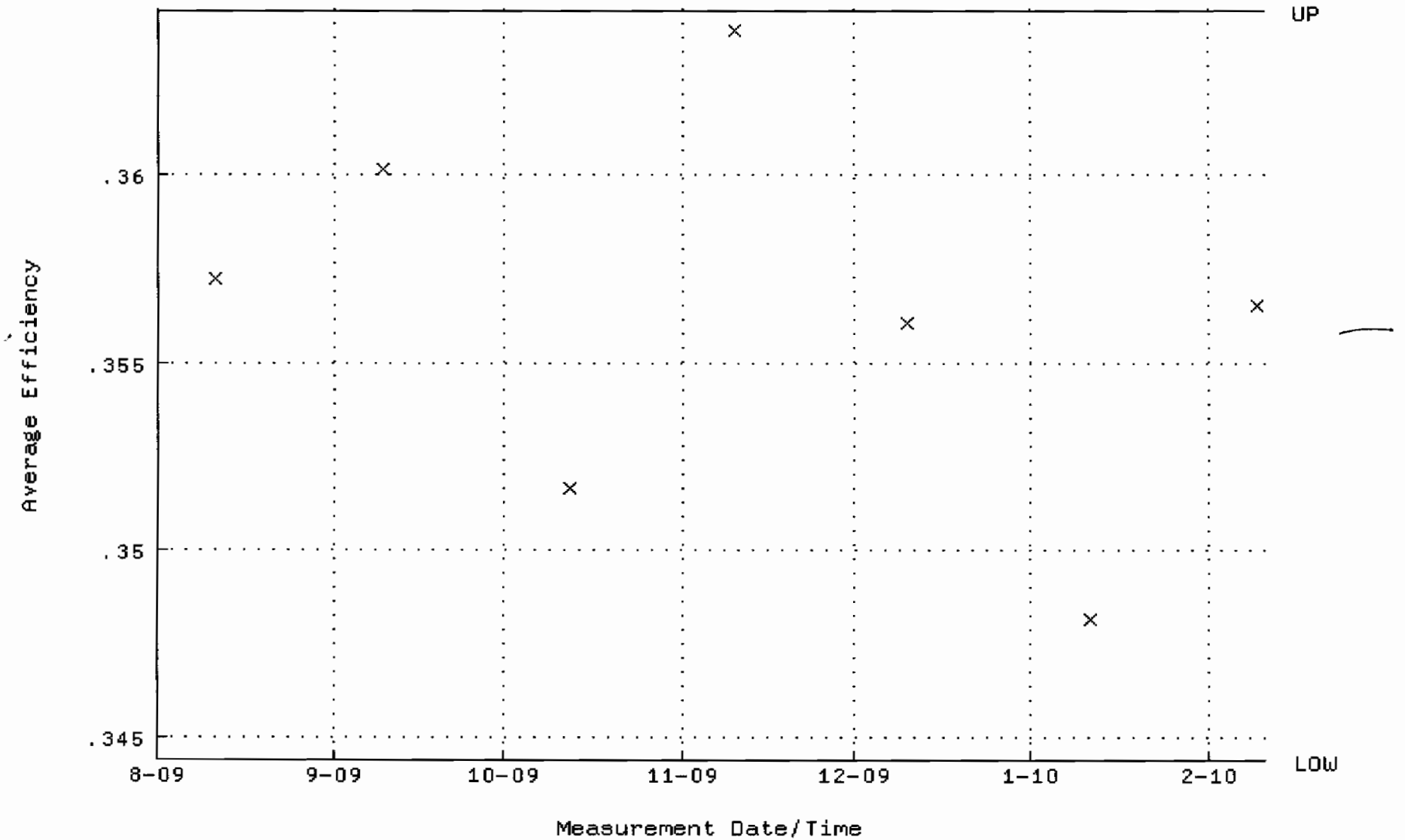

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 63.4194 through 70.0952

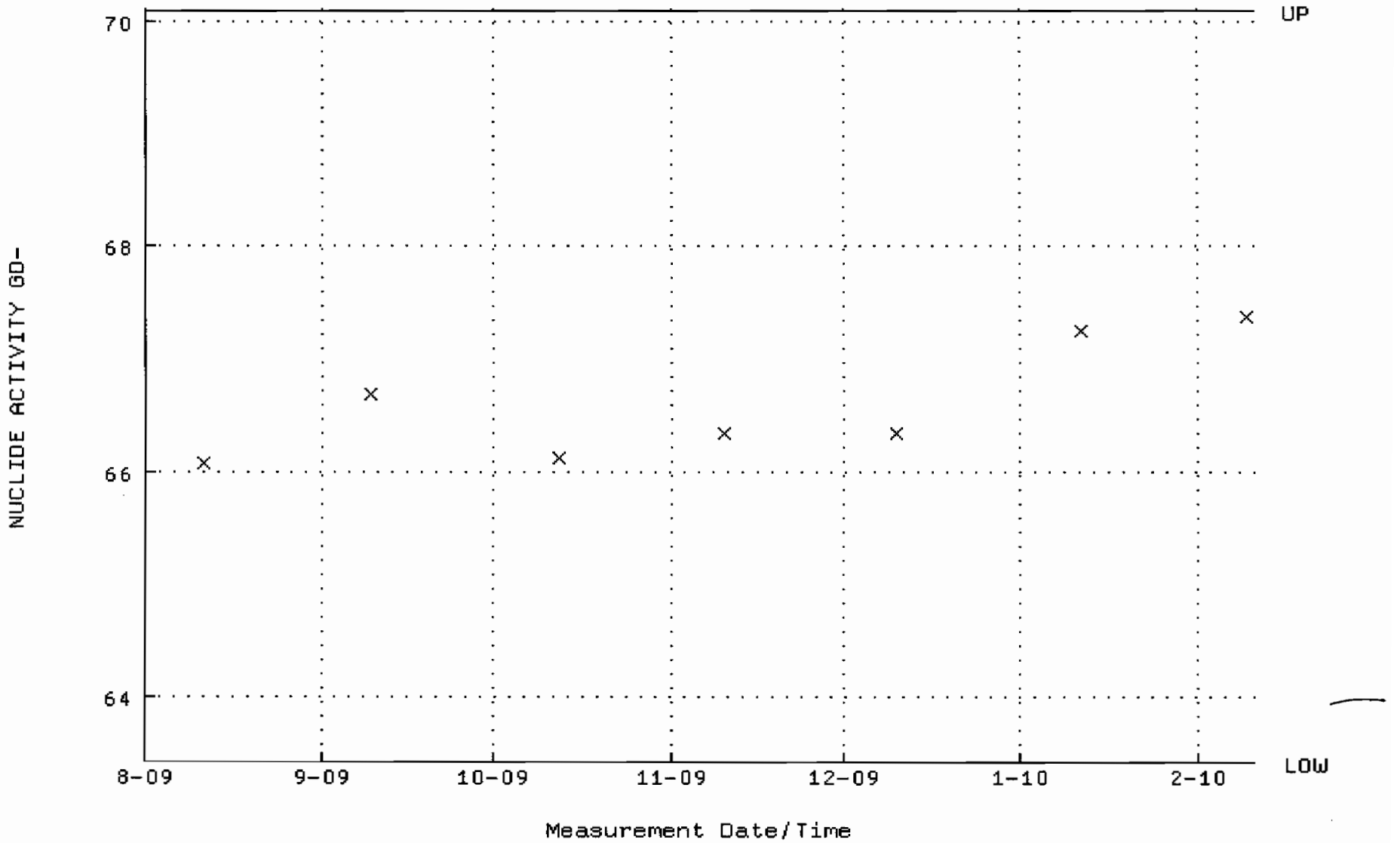

QA filename : DKA100:[ENV_ALPHA.QA.B]B109.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

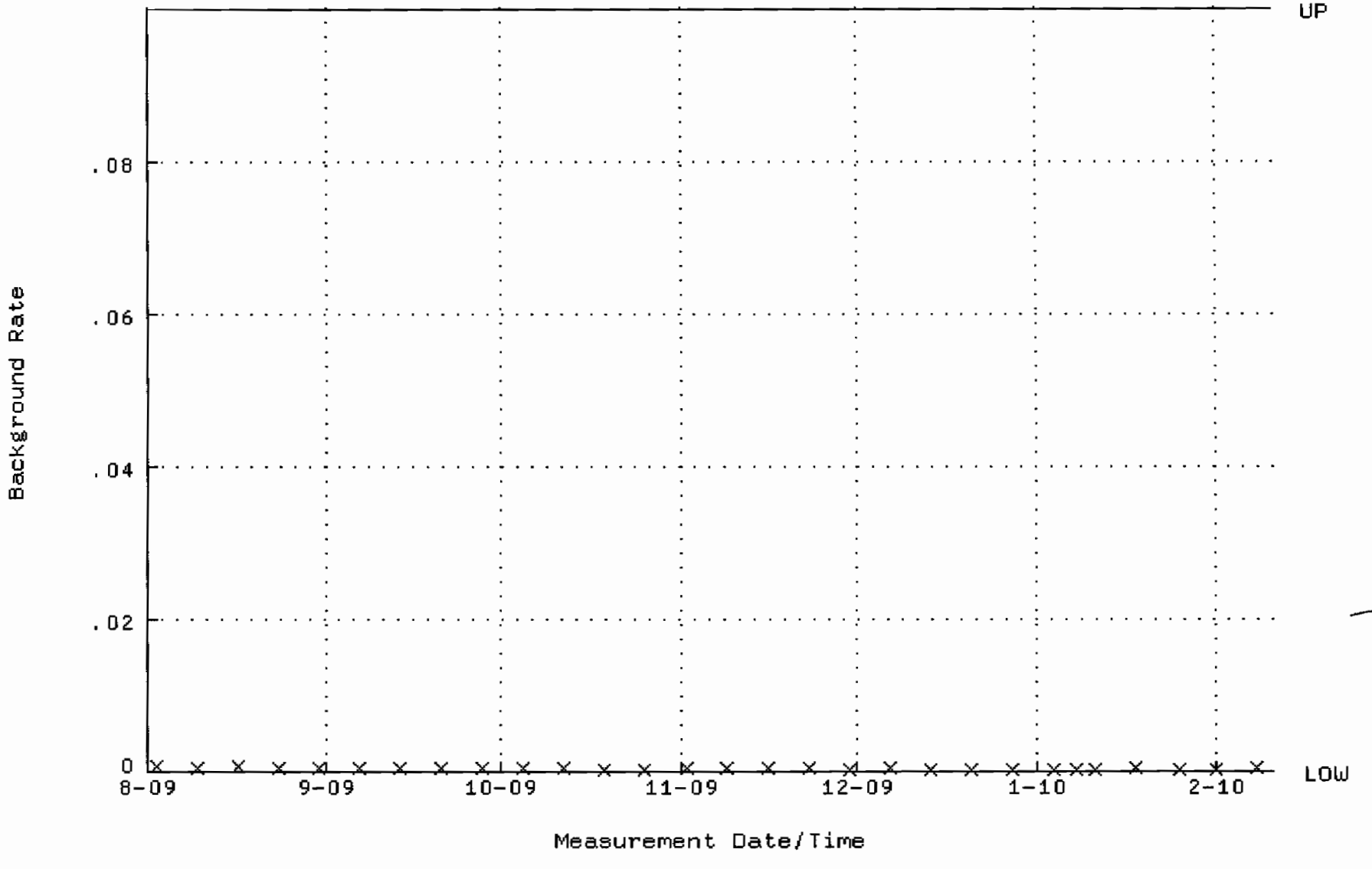

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.321662 through 0.358794

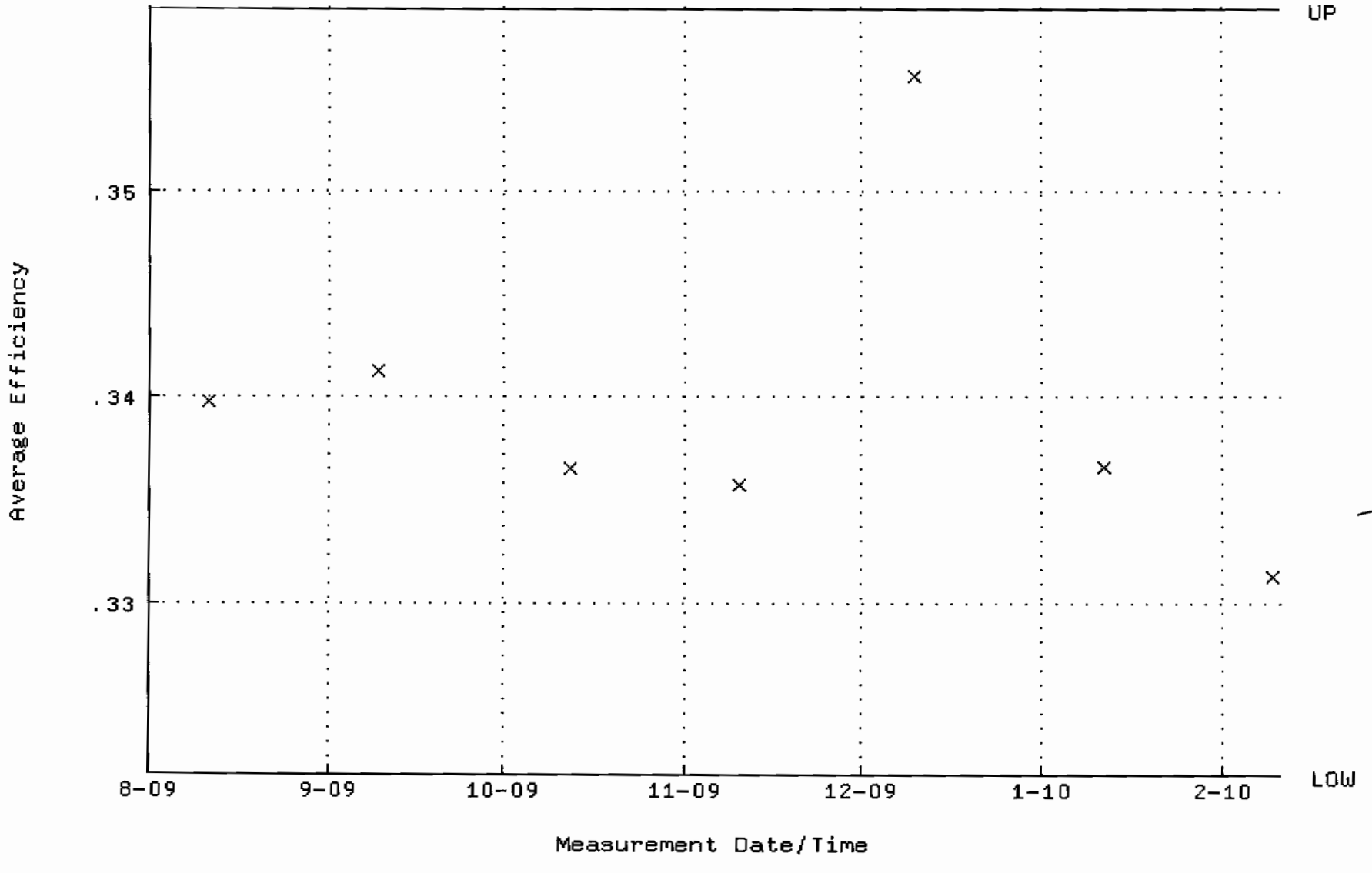

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 69.0200 through 71.9448

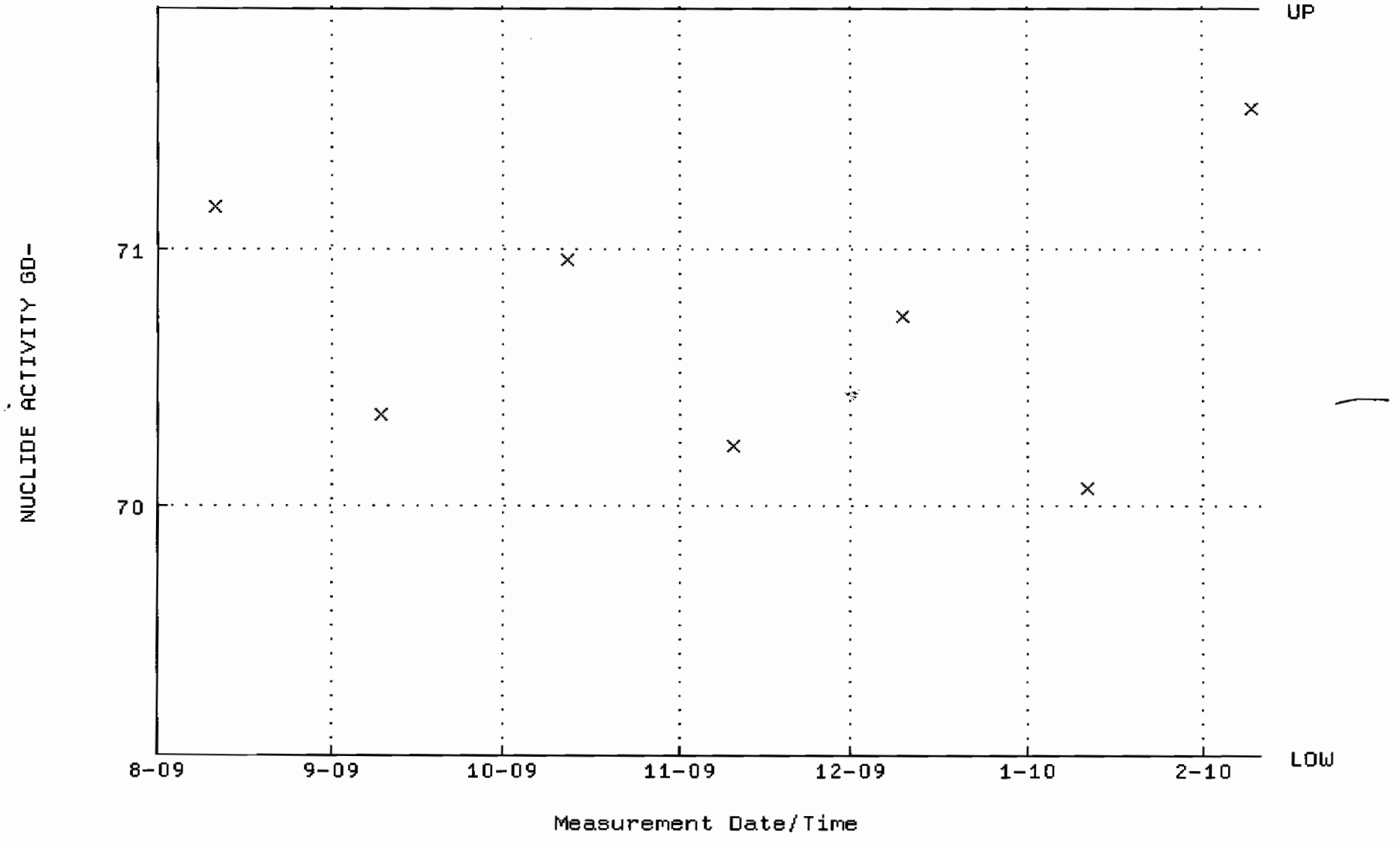

QA filename : DKA100:[ENV_ALPHA.QA.B]B111.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

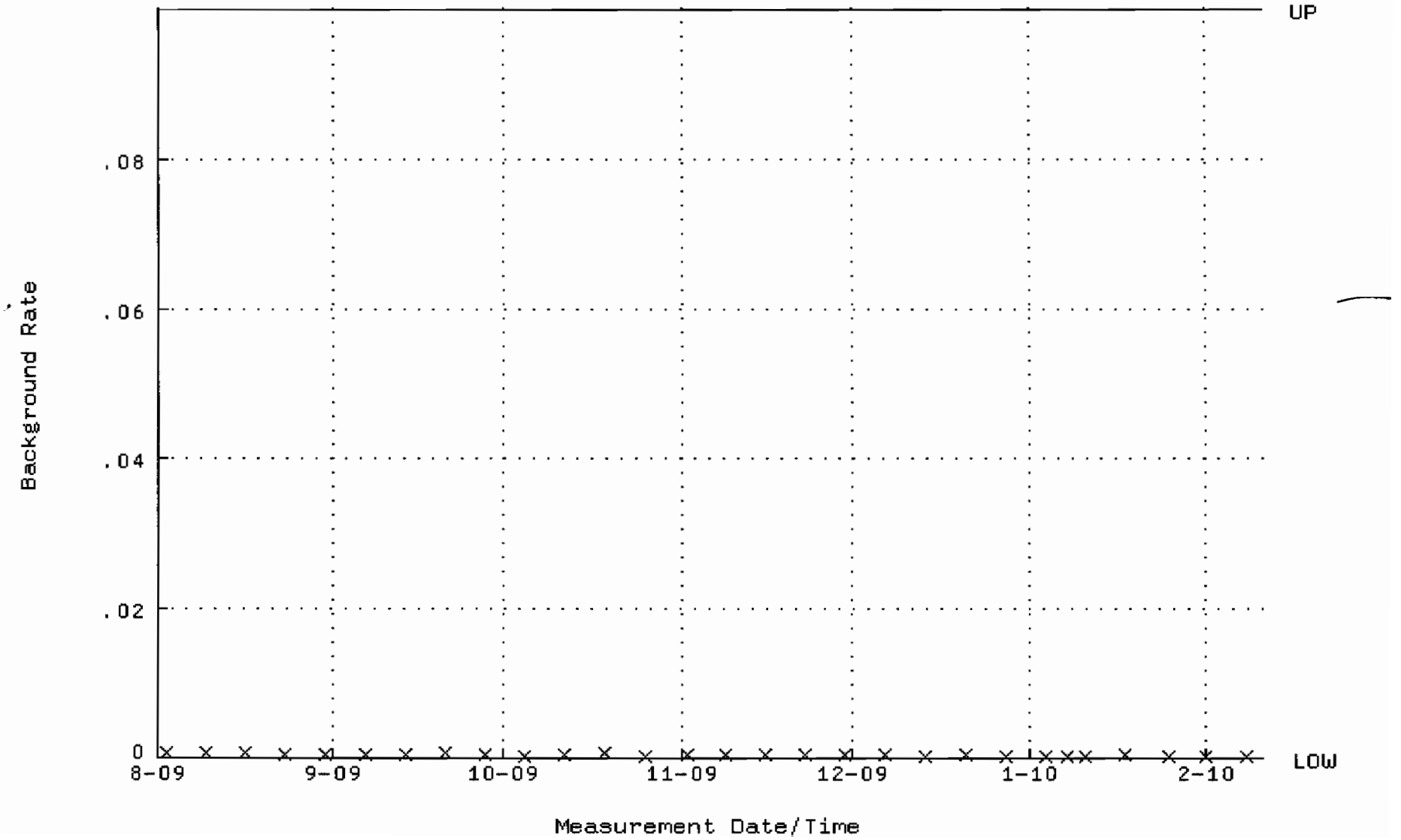

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.308263 through 0.328263

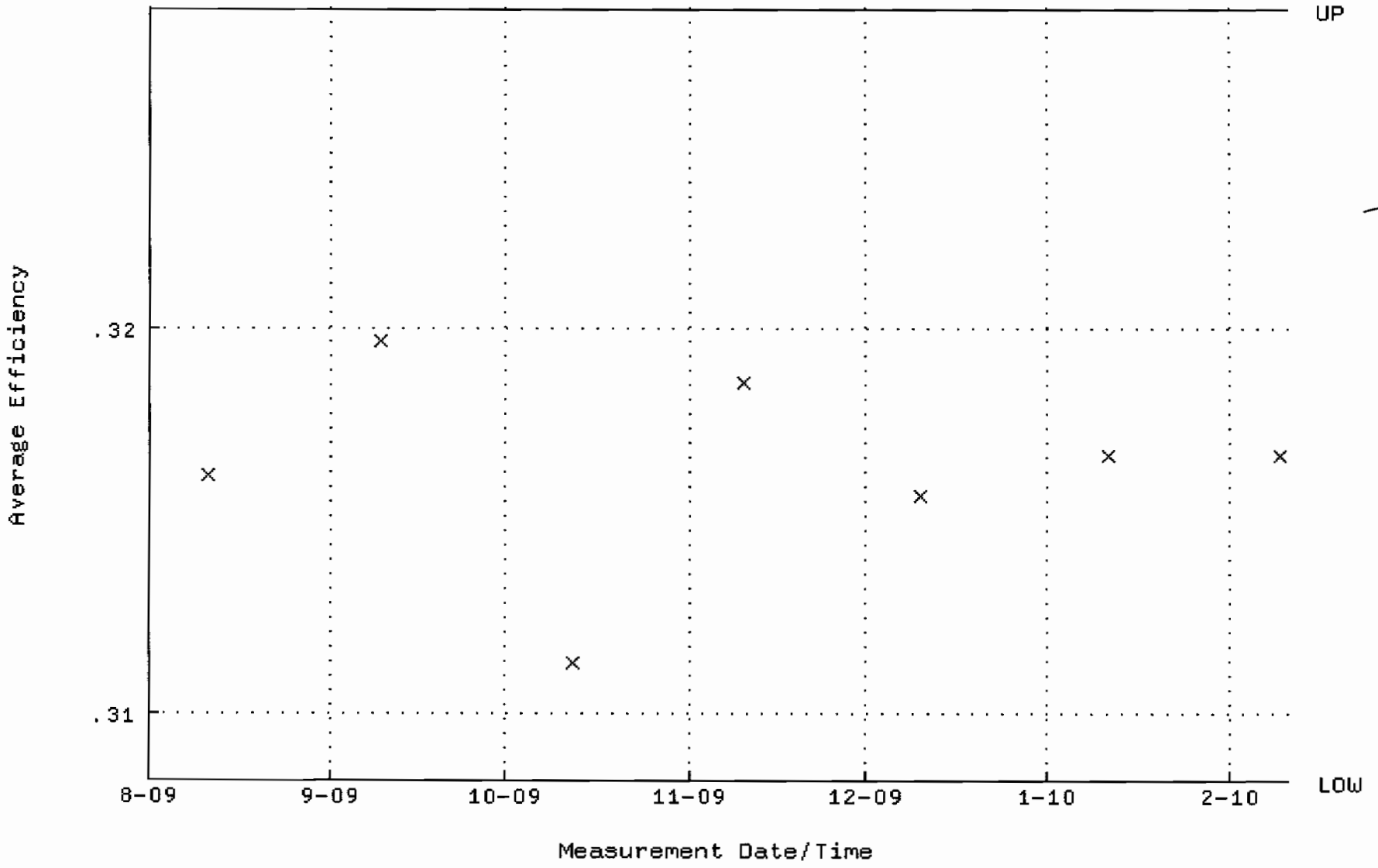

QA filename : DKA100:[ENV_ALPHA.QA.W]W112.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 64.8451 through 71.6709

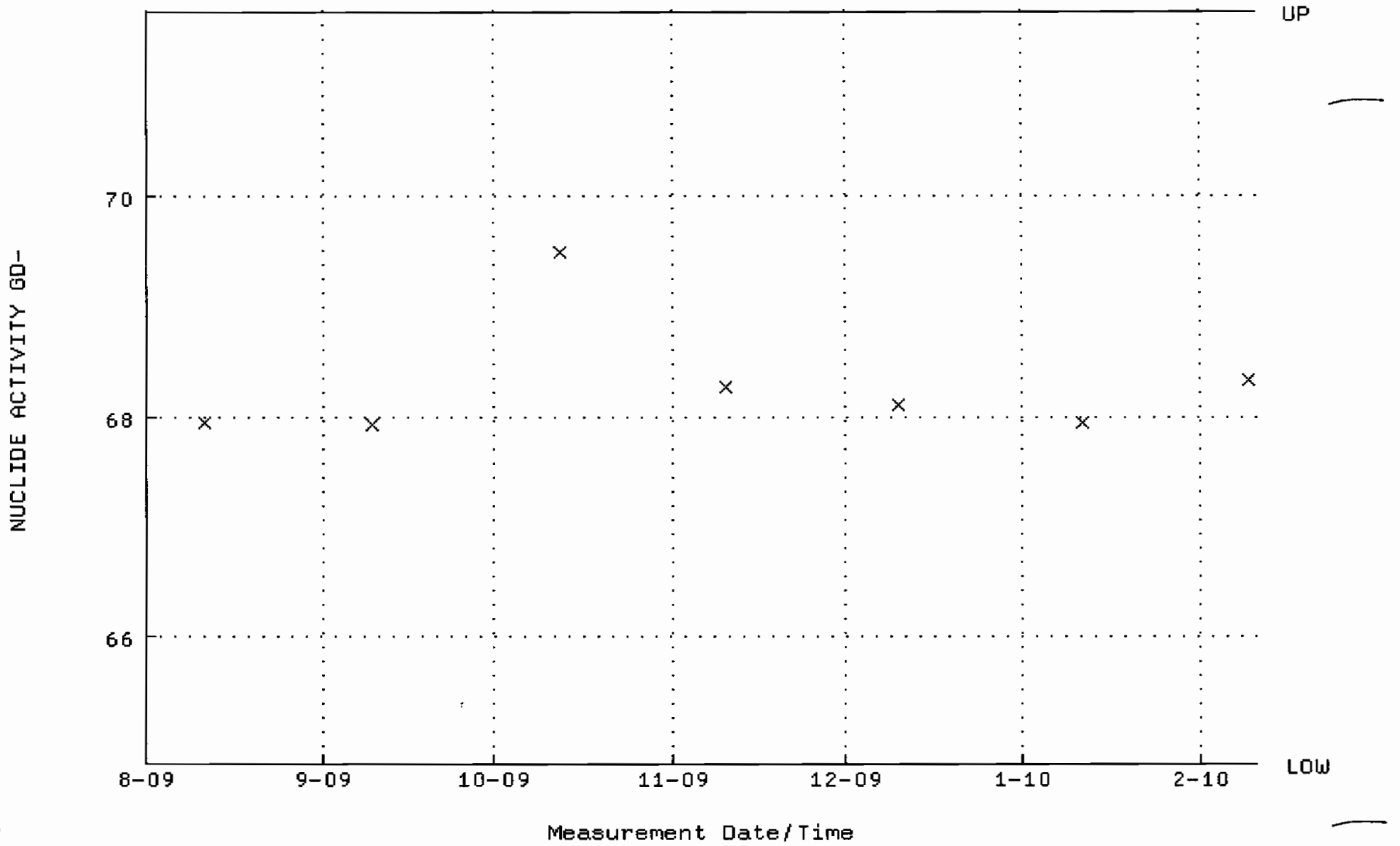

QA filename : DKA100:[ENV_ALPHA.QA.B]B112.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

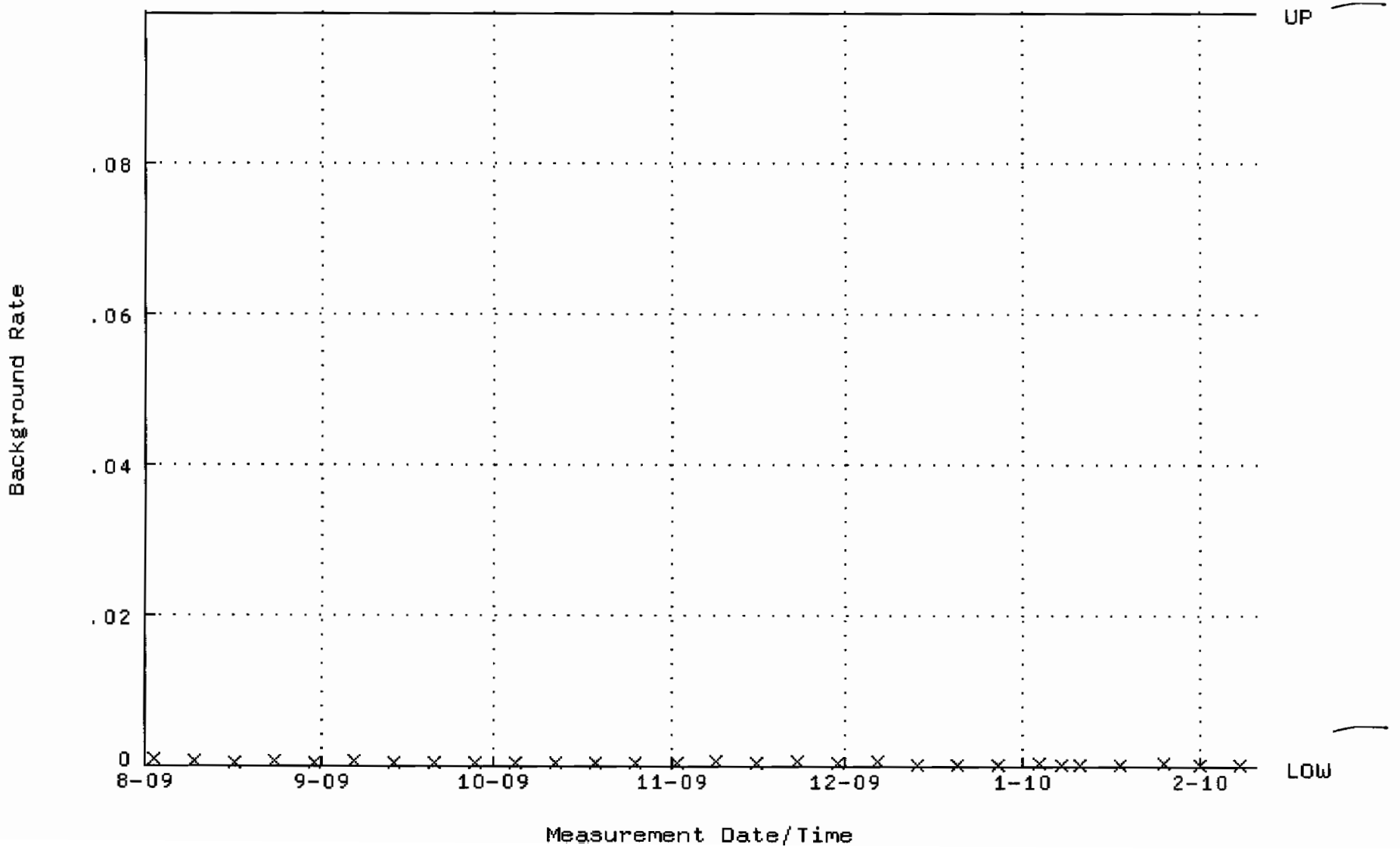

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.248404 through 0.268404

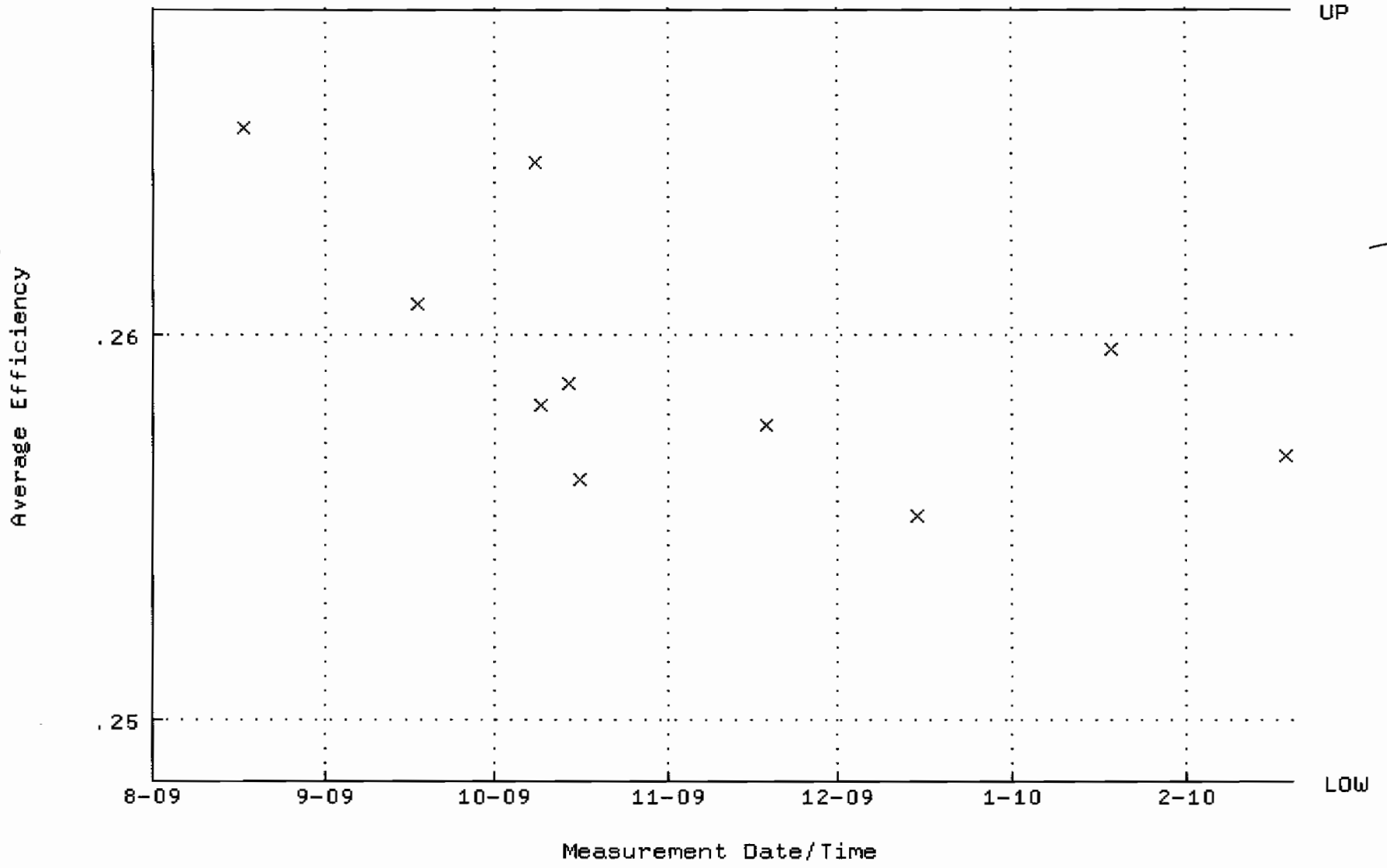

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5661 through 94.5731

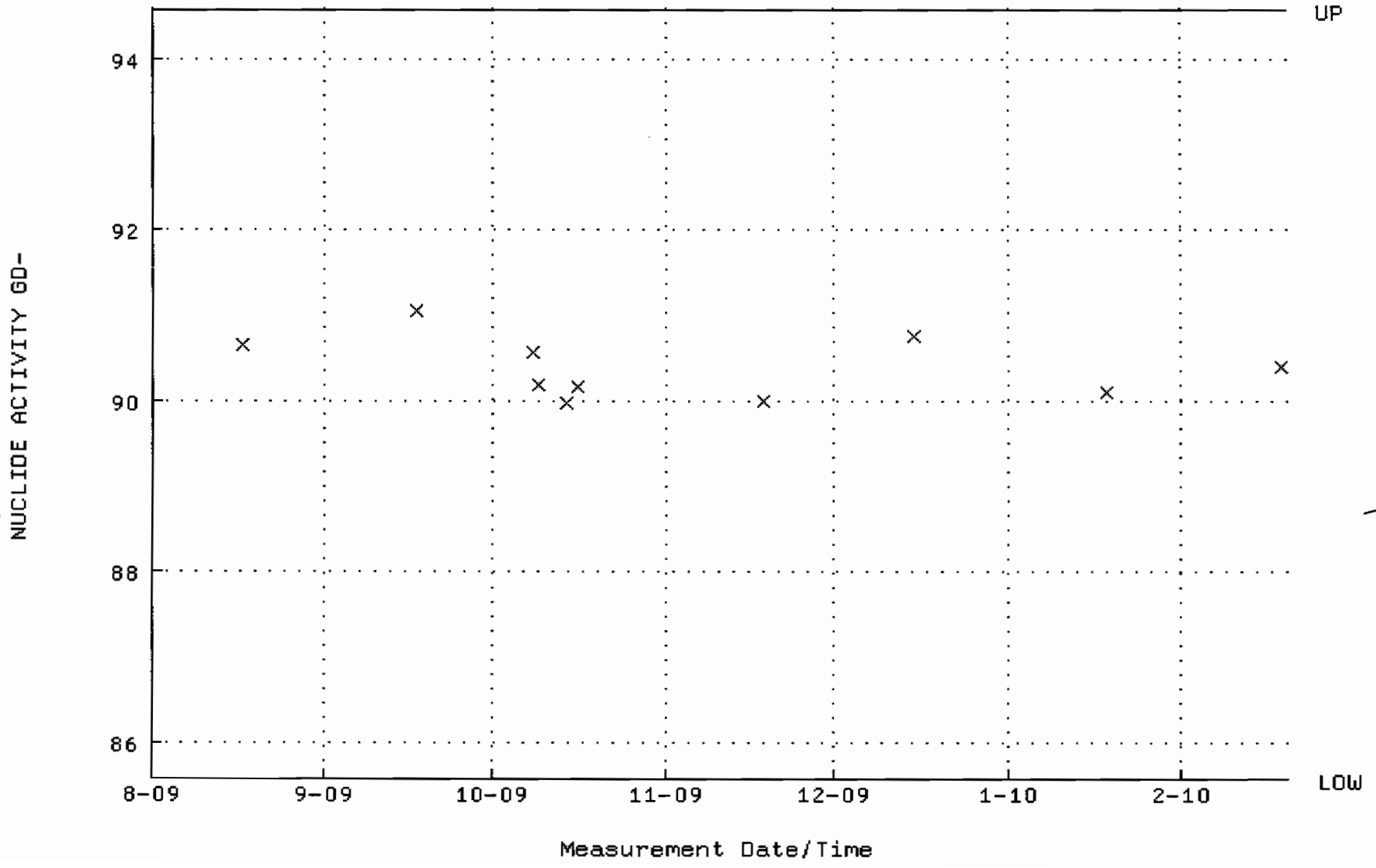

QA filename : DKA100:[ENV_ALPHA.QA.B]B115.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:05 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

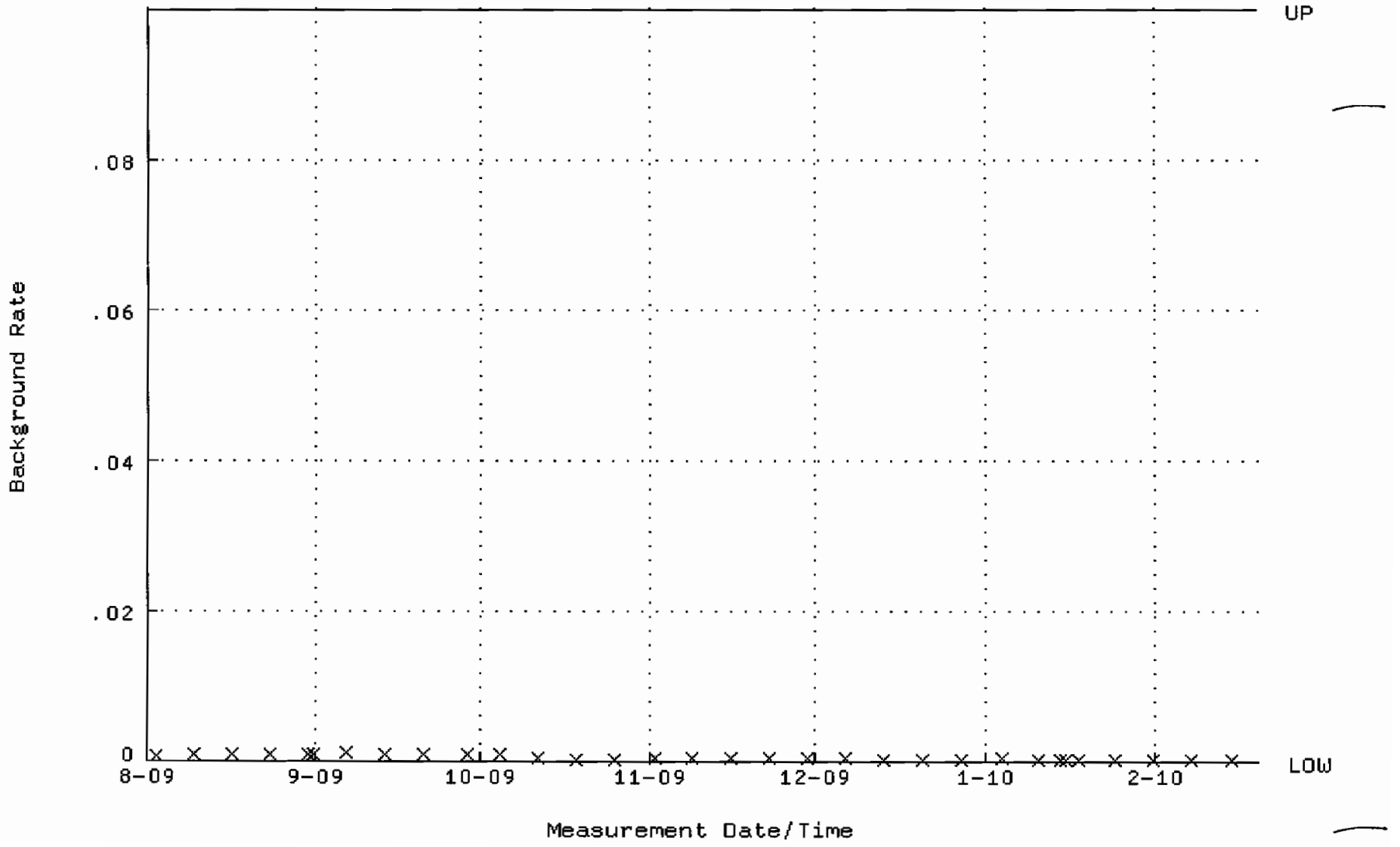

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.251398 through 0.271398

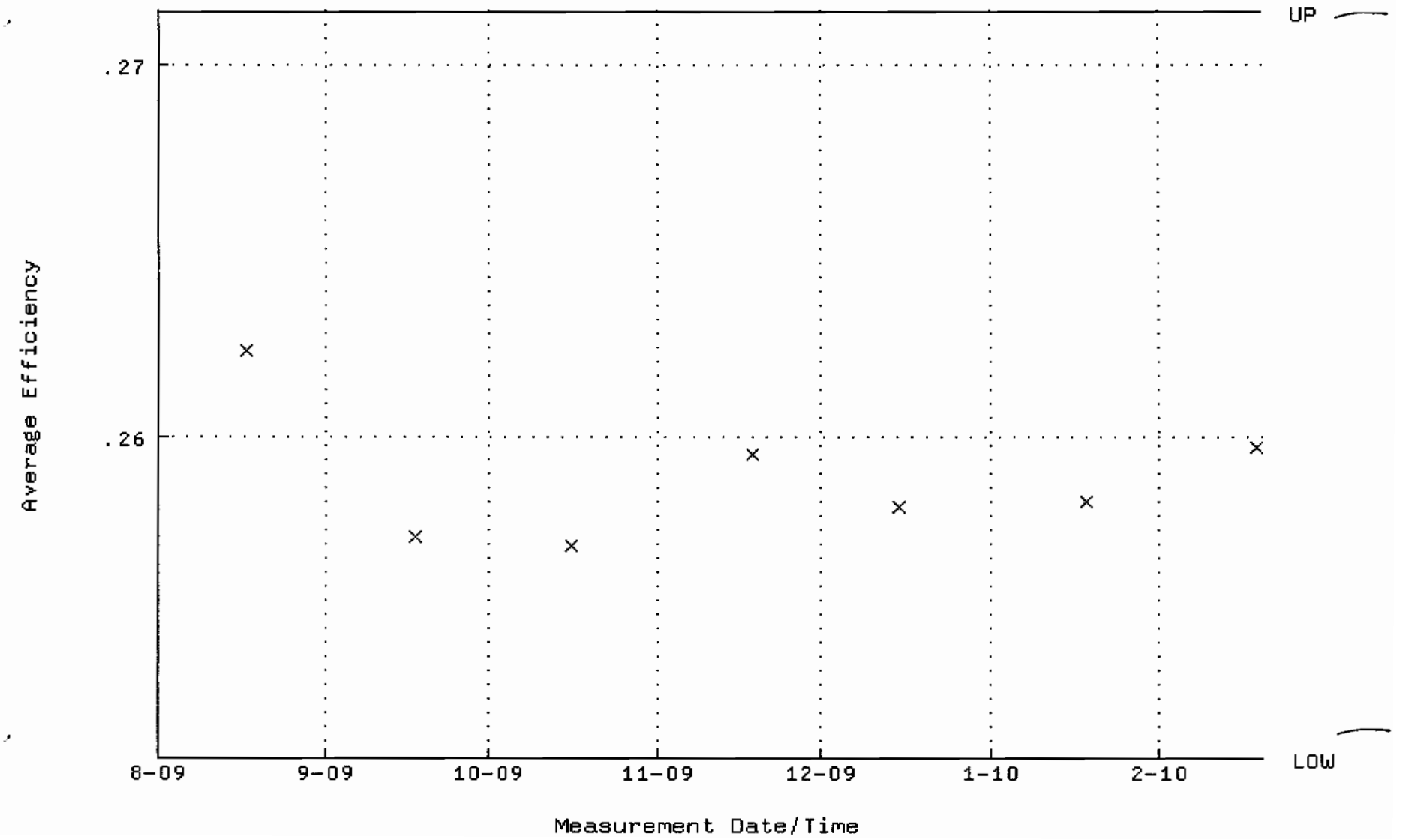

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8862 through 96.0322

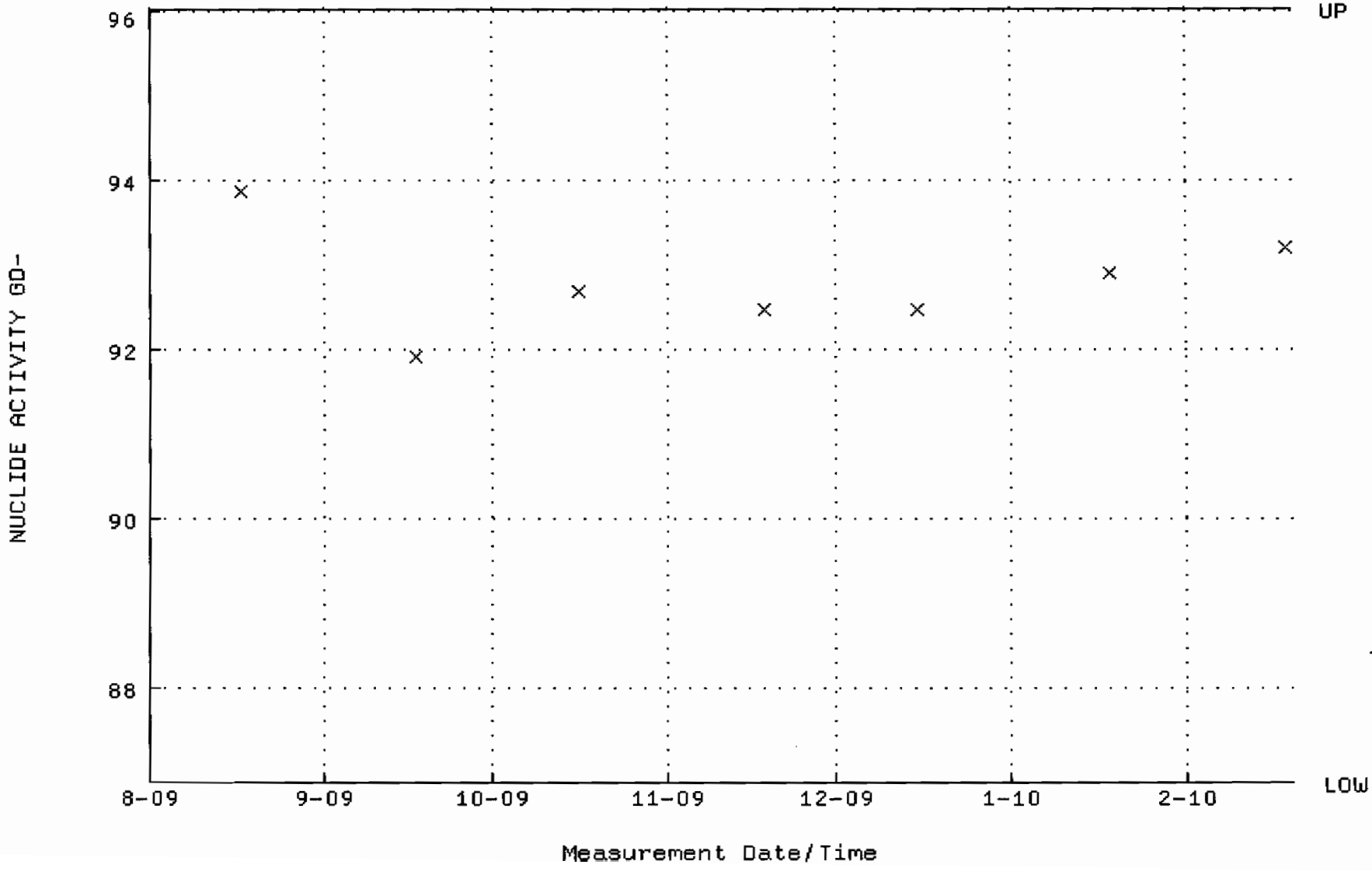

QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:47 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

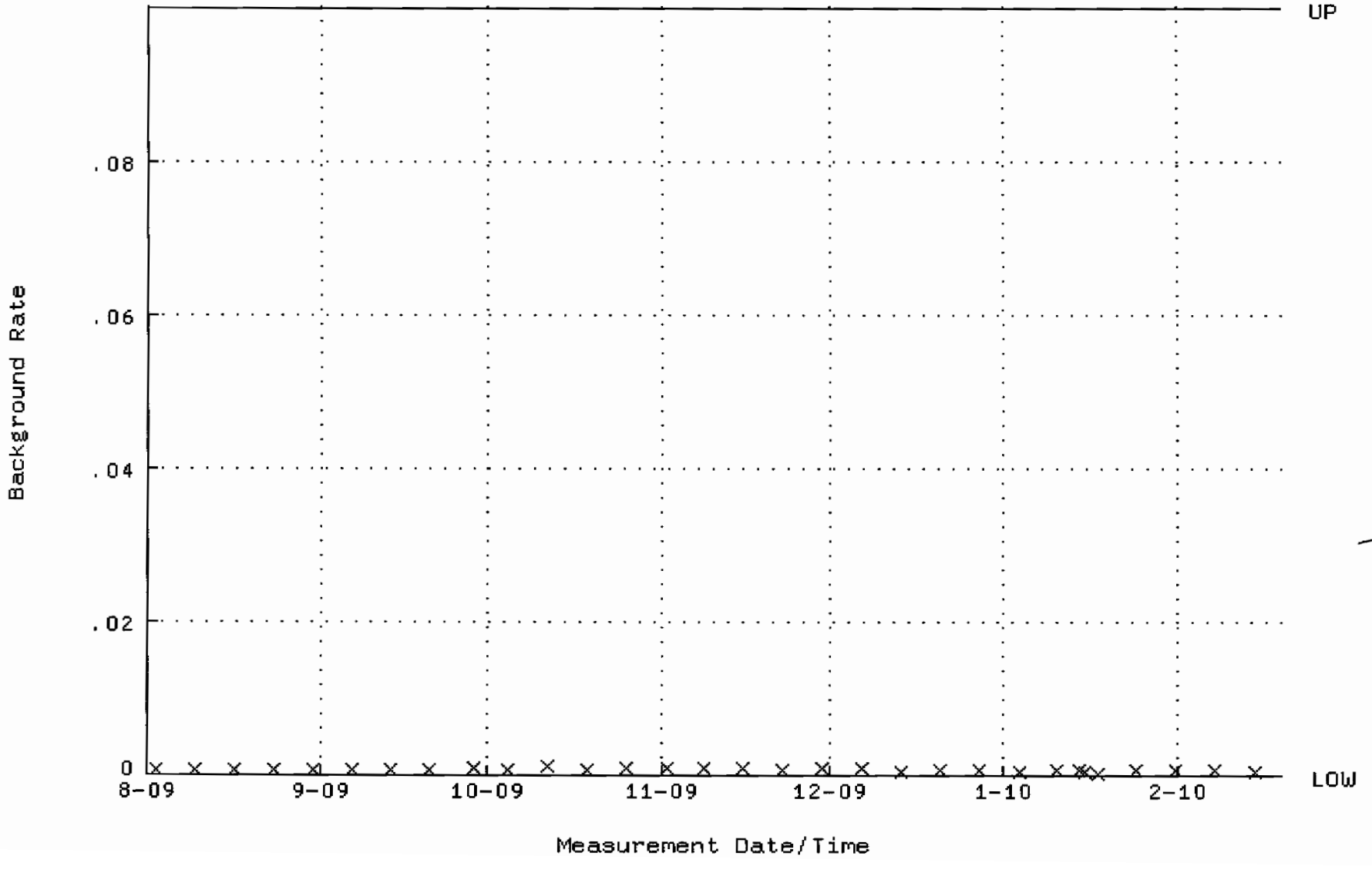

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247512 through 0.267512

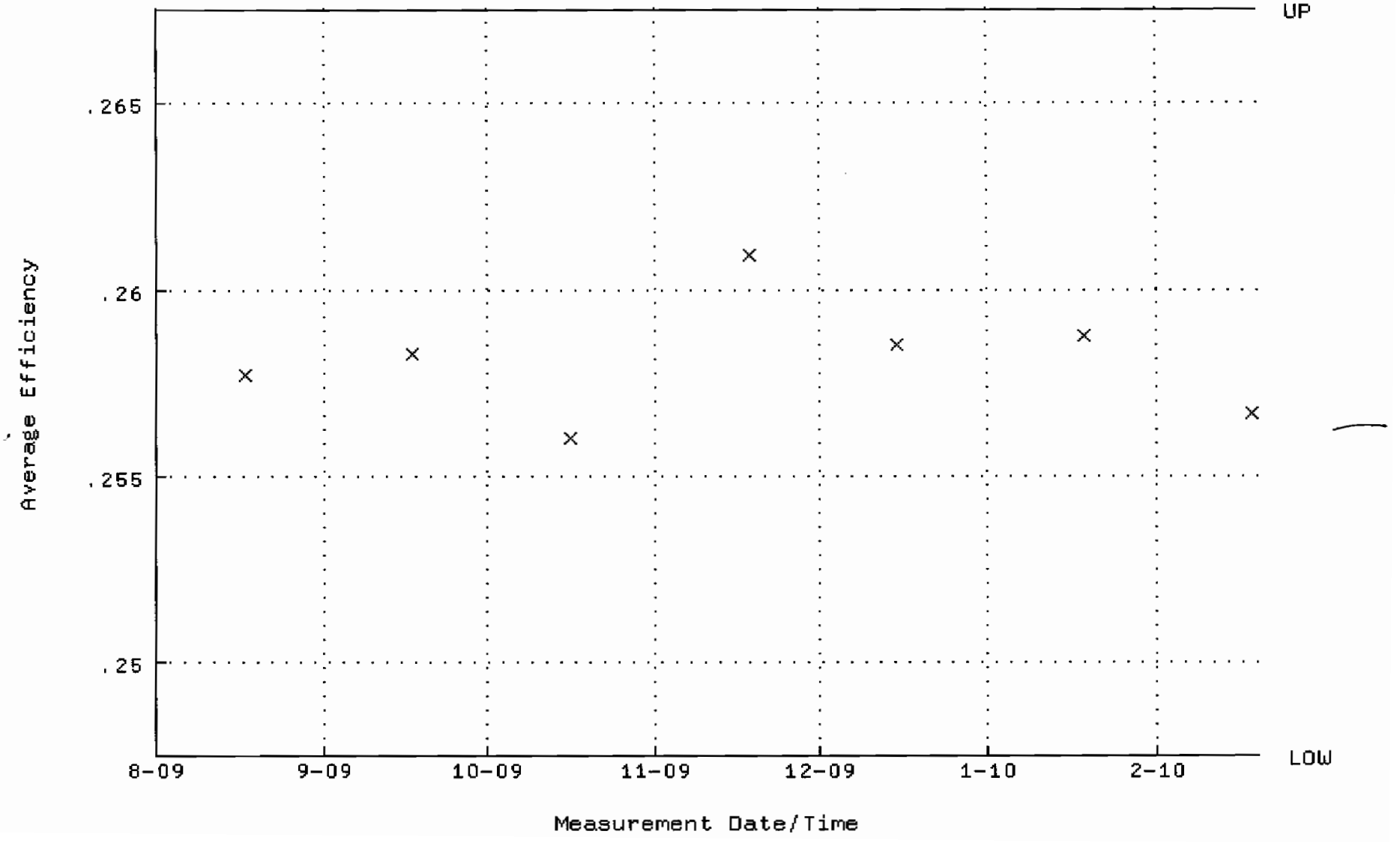

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.6956 through 96.9268

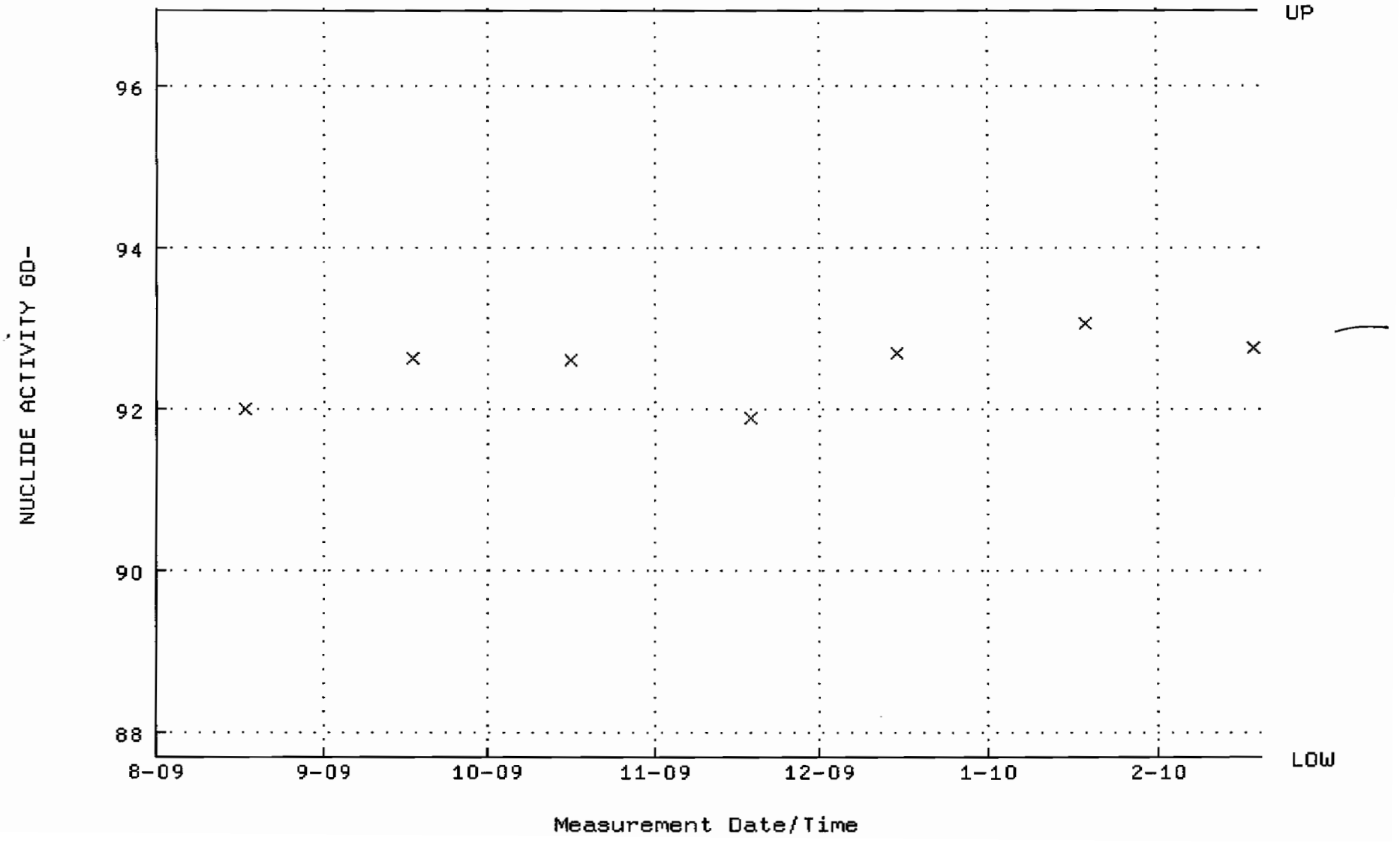

QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:51 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

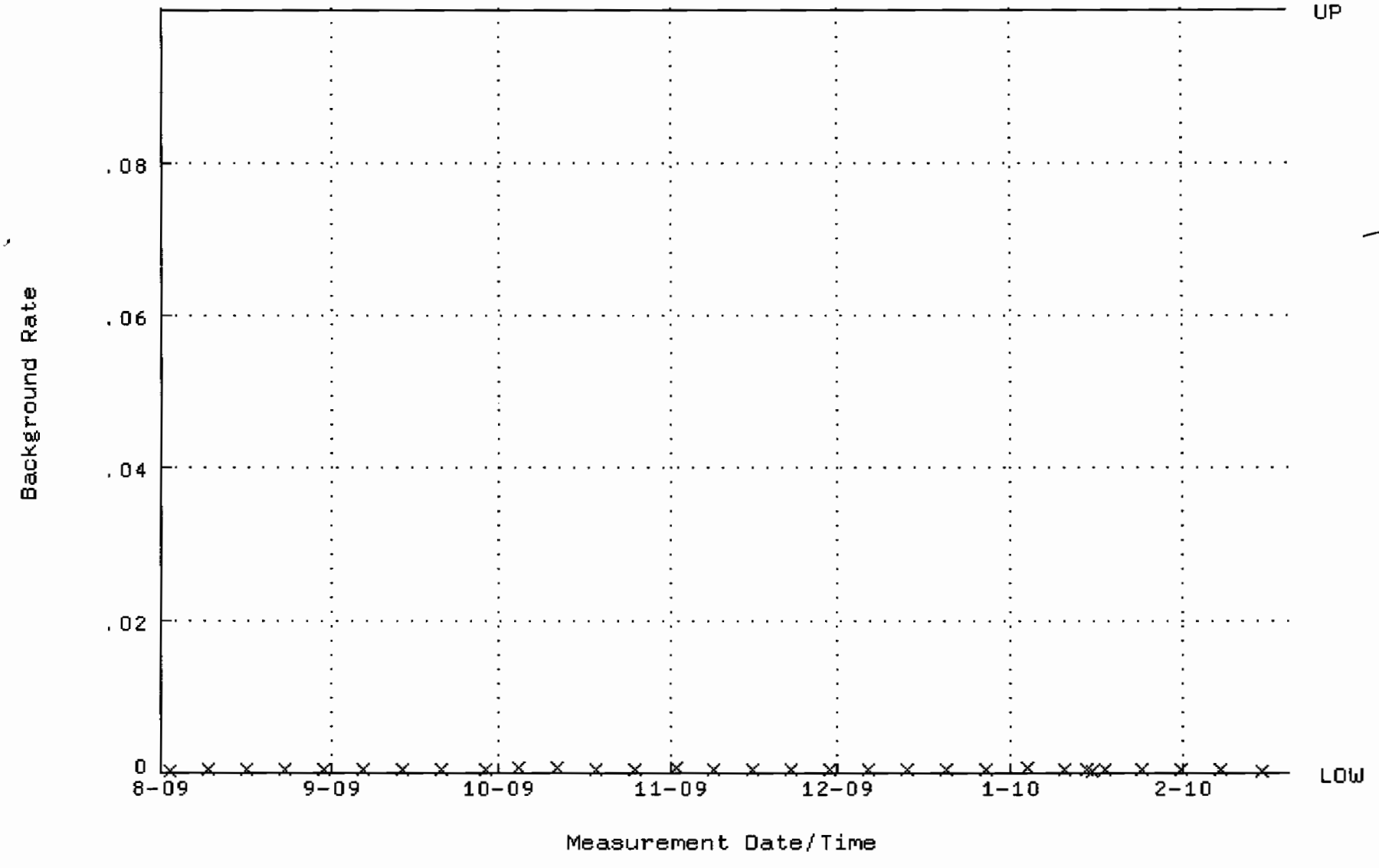

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773

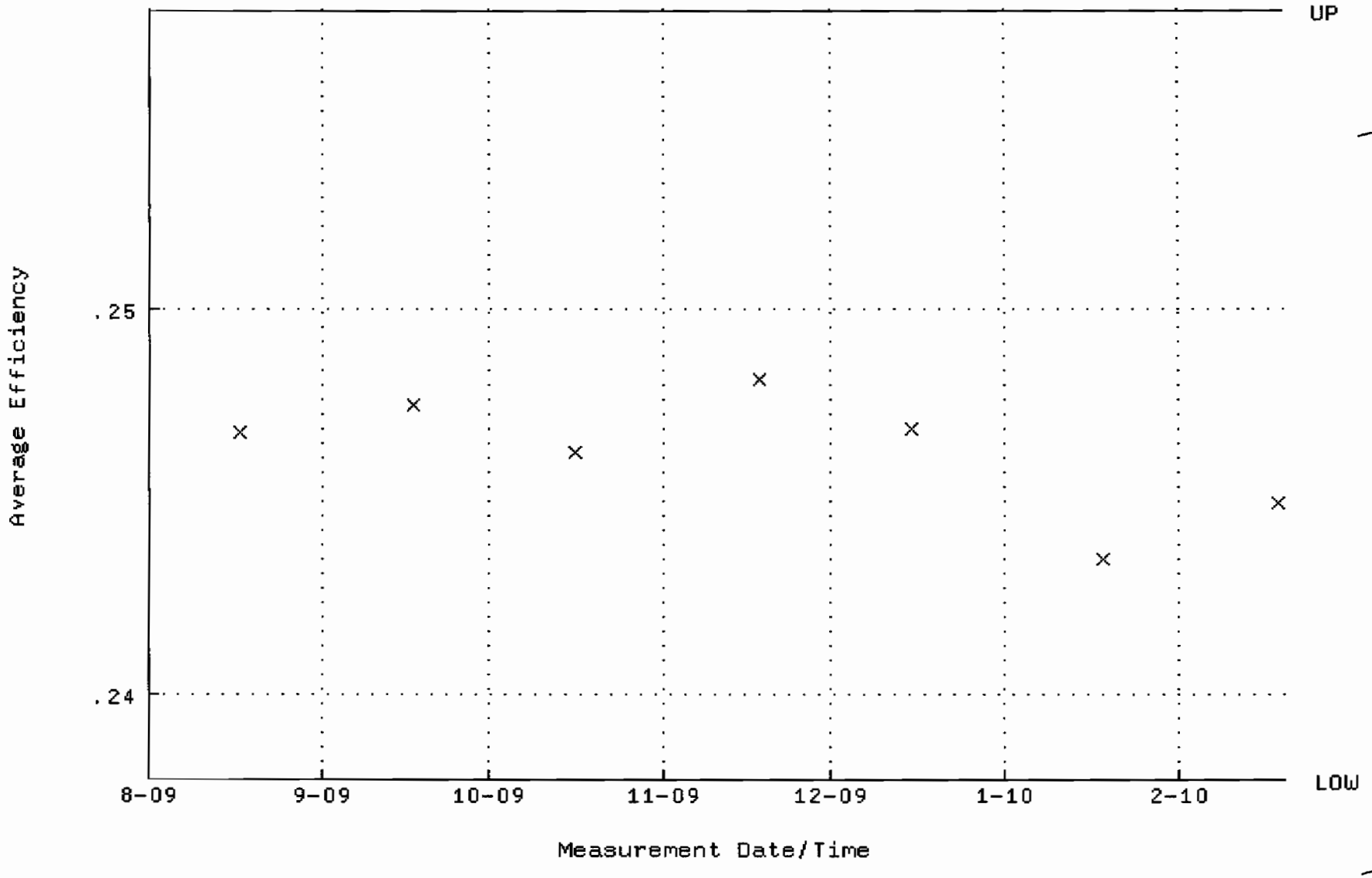

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713

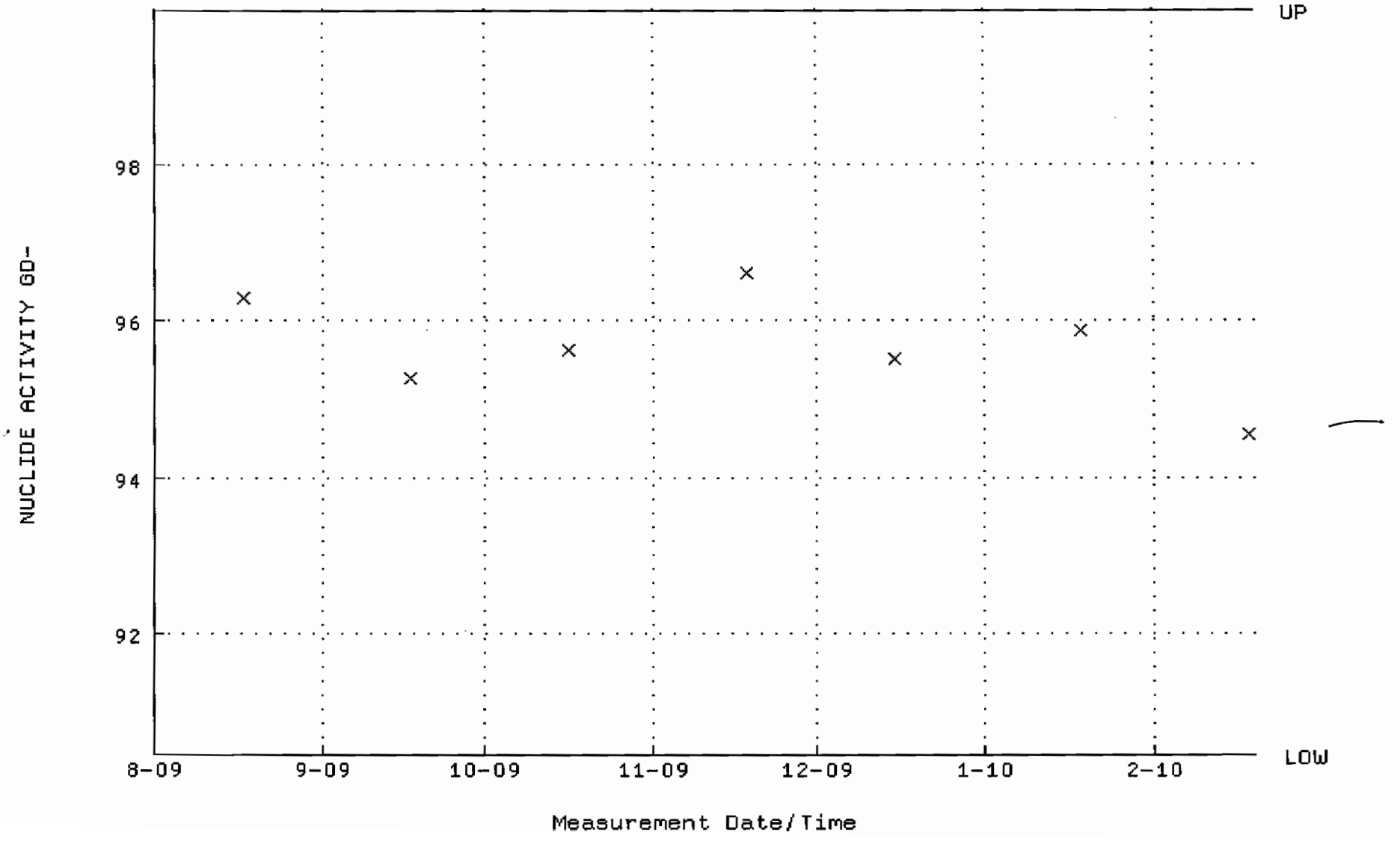

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:00 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

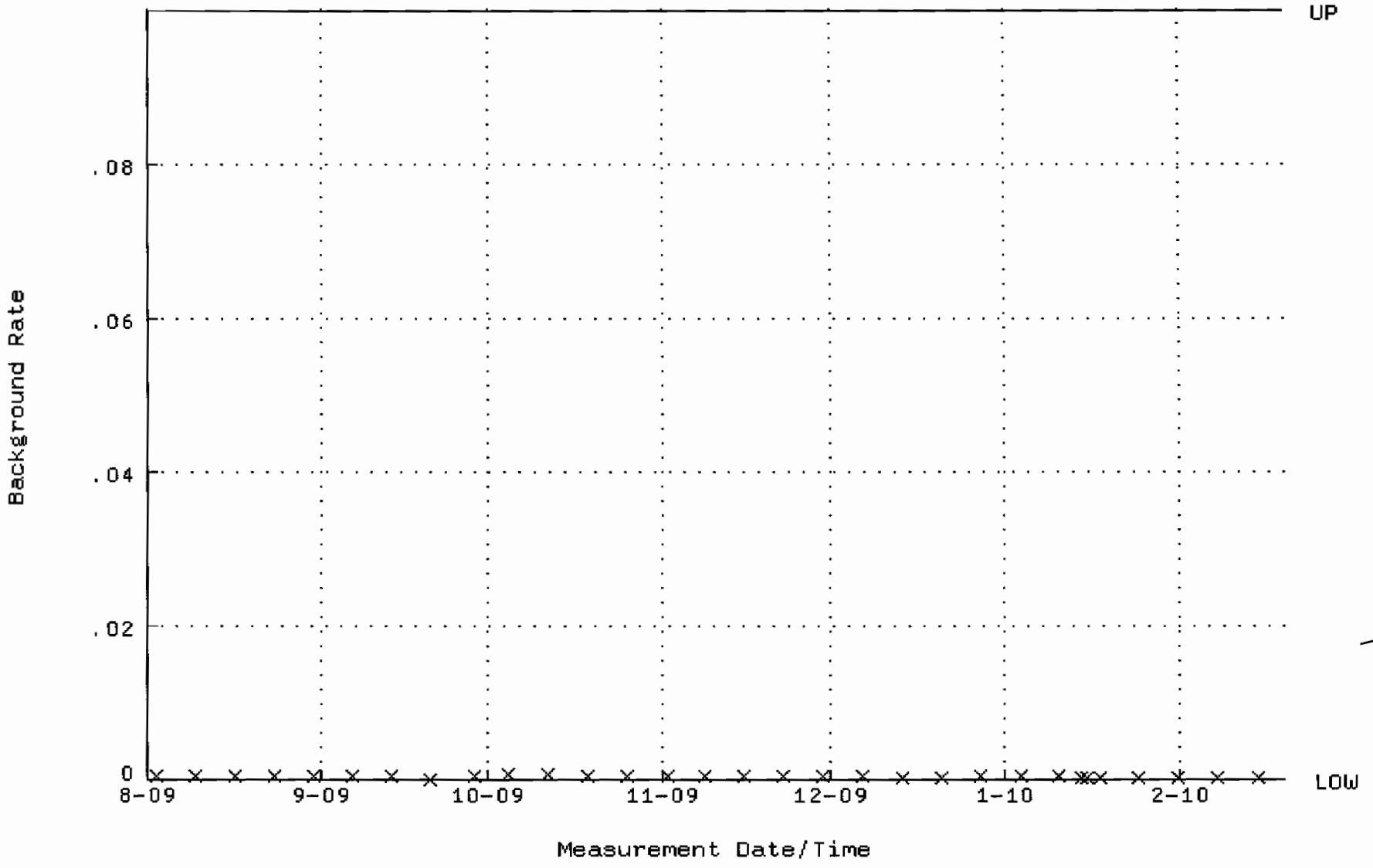

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:59 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.246062 through 0.266062

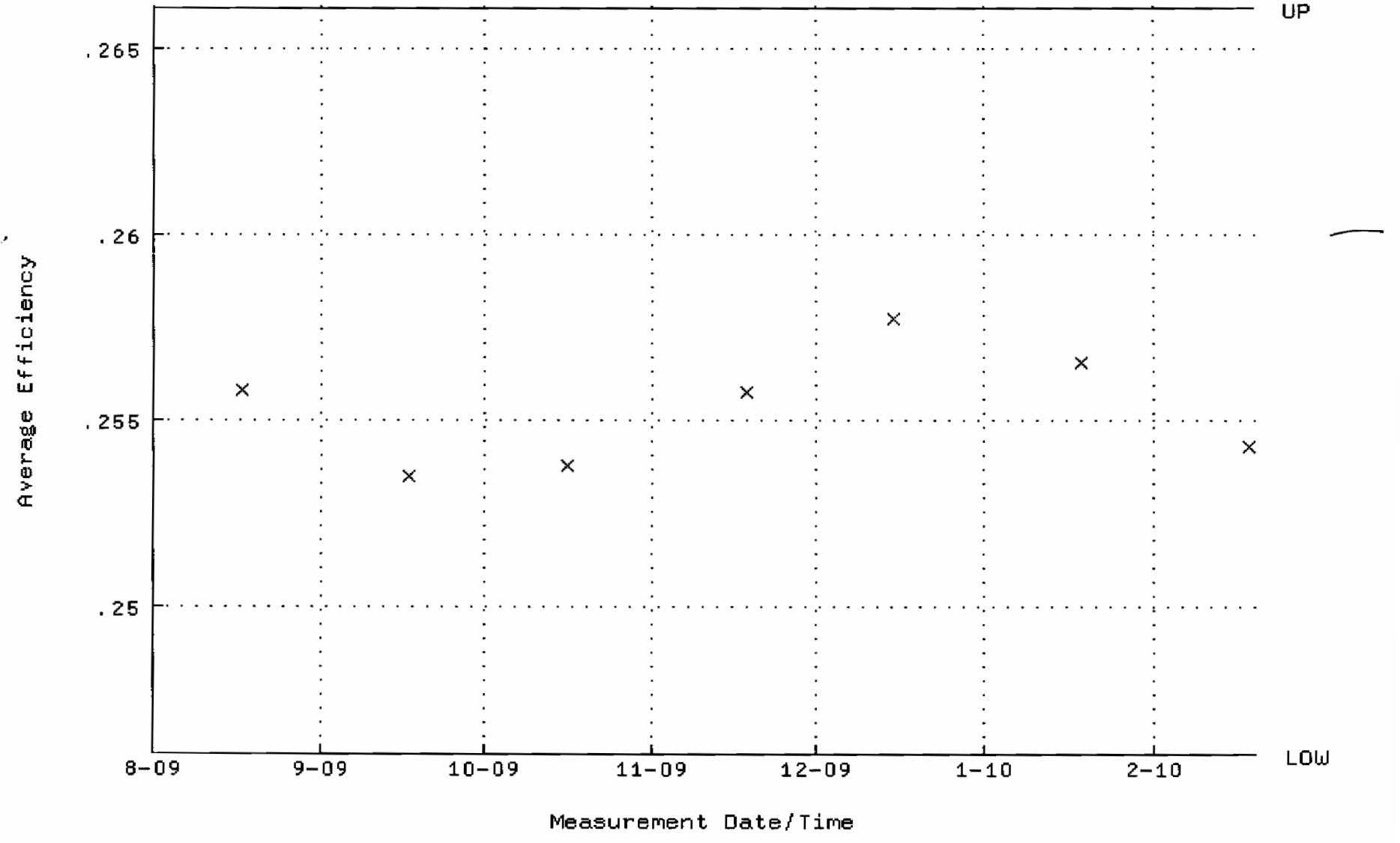

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:59 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.1964 through 95.2697

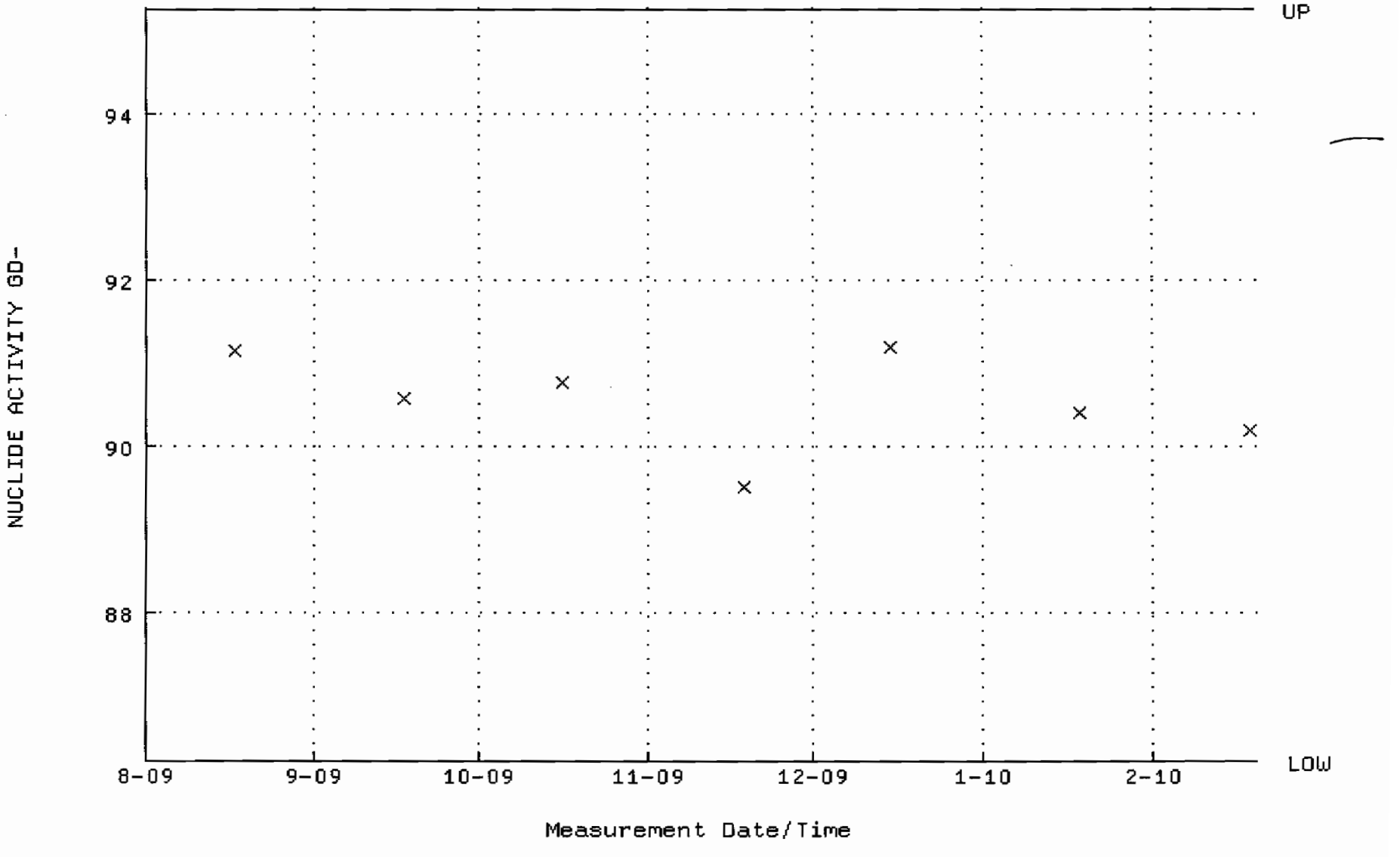

QA filename : DKA100:[ENV_ALPHA.QA.B]B128.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:04 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

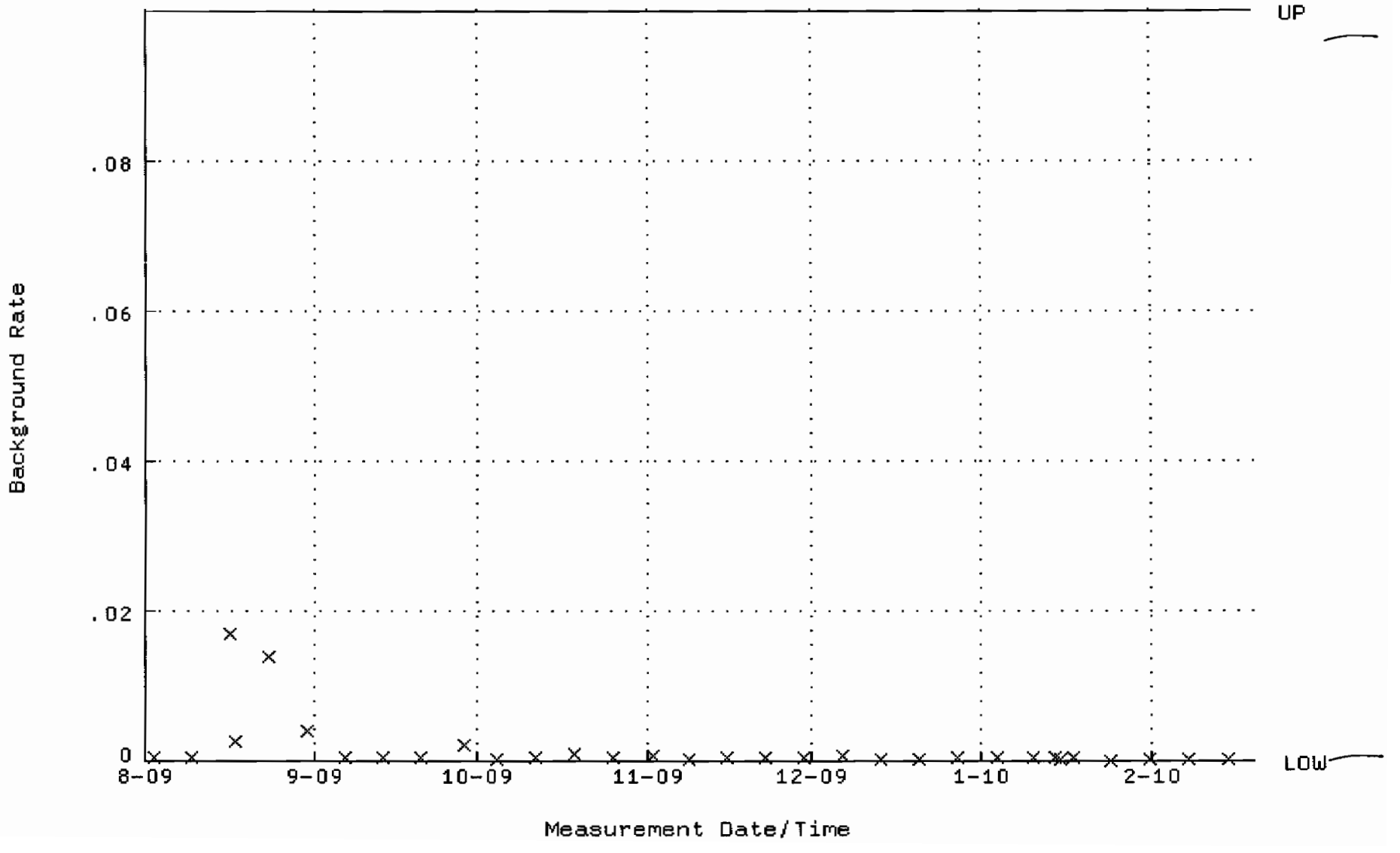

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131

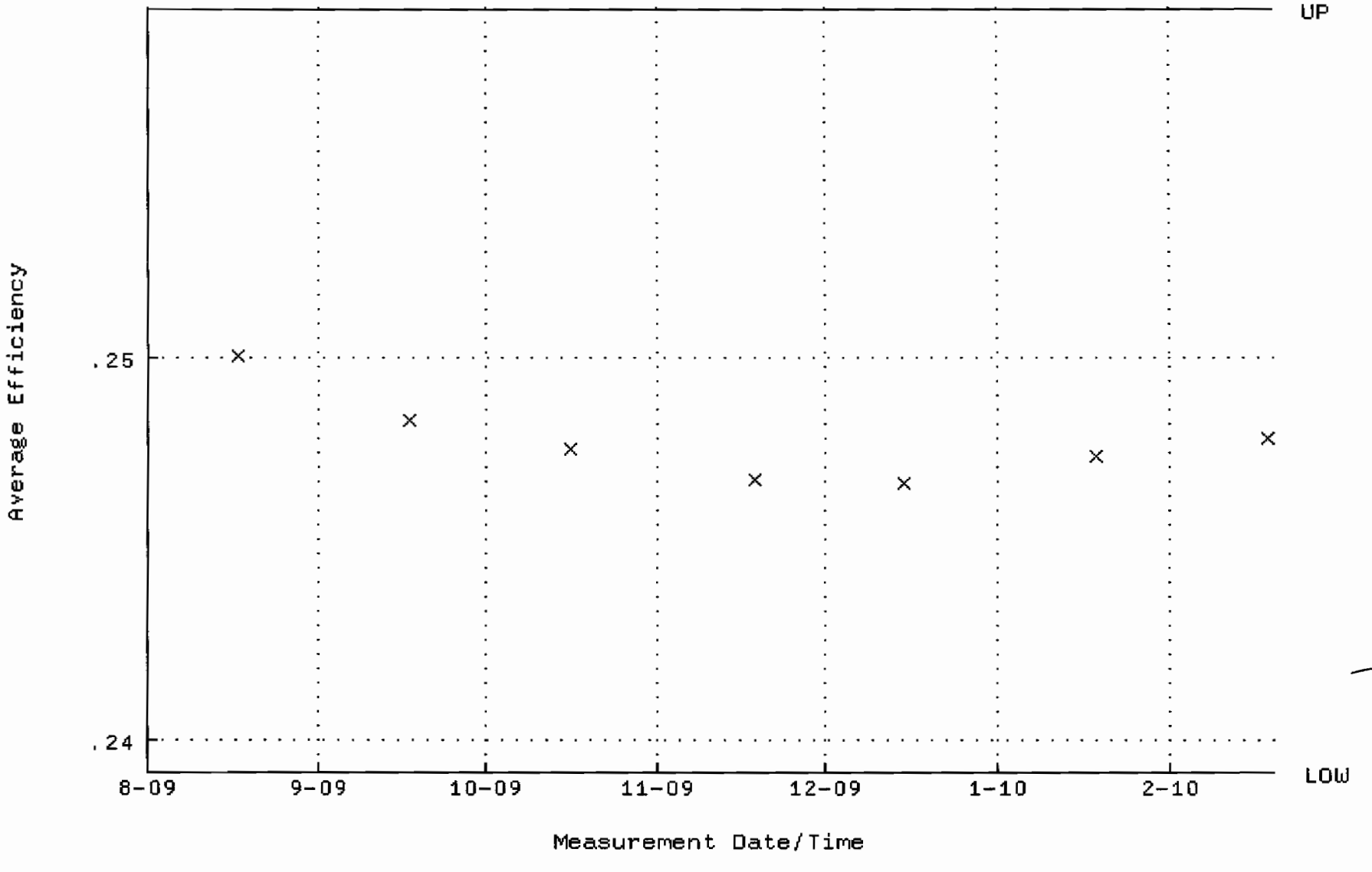

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:42:09 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 88.1614 through 97.4416

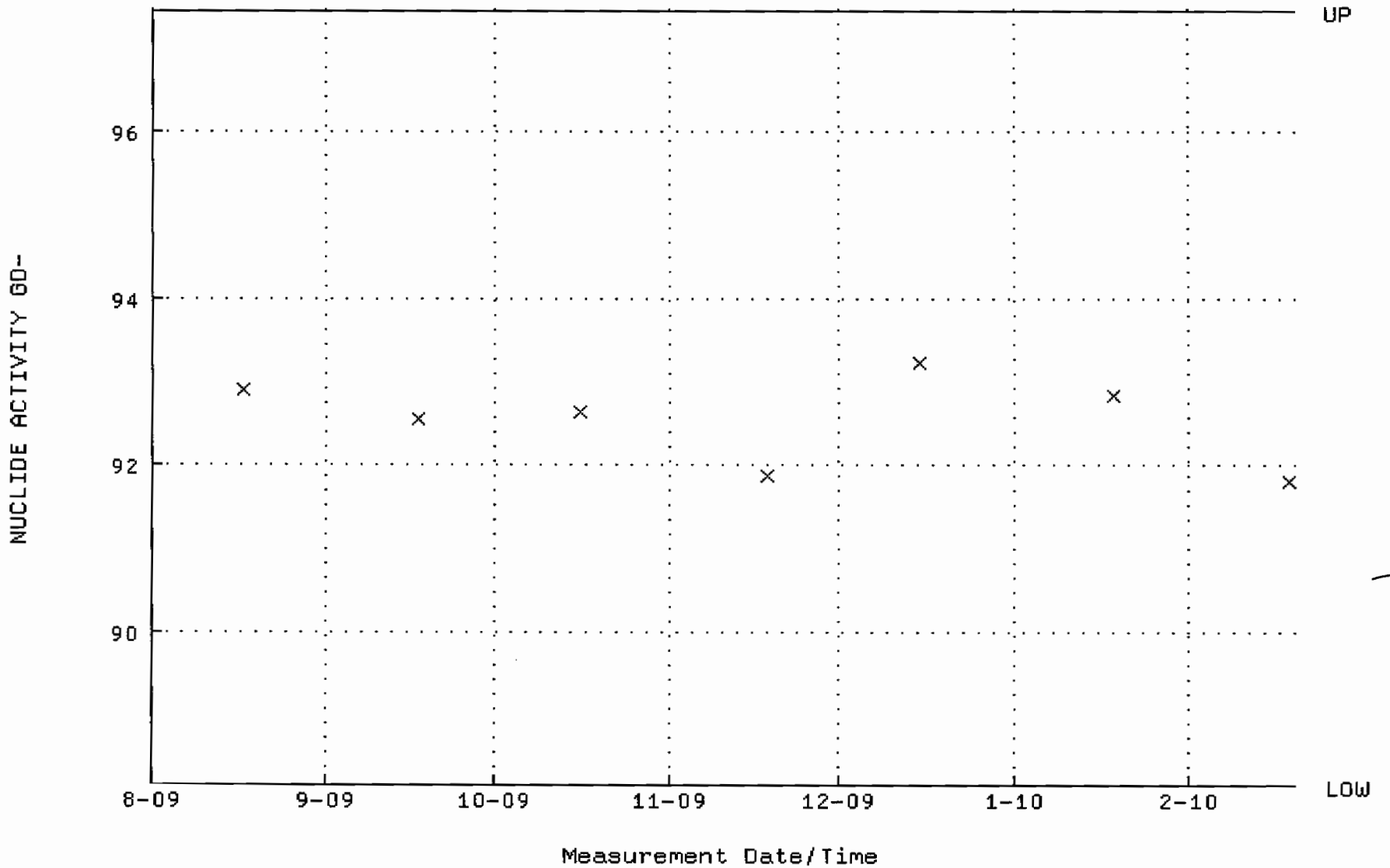

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

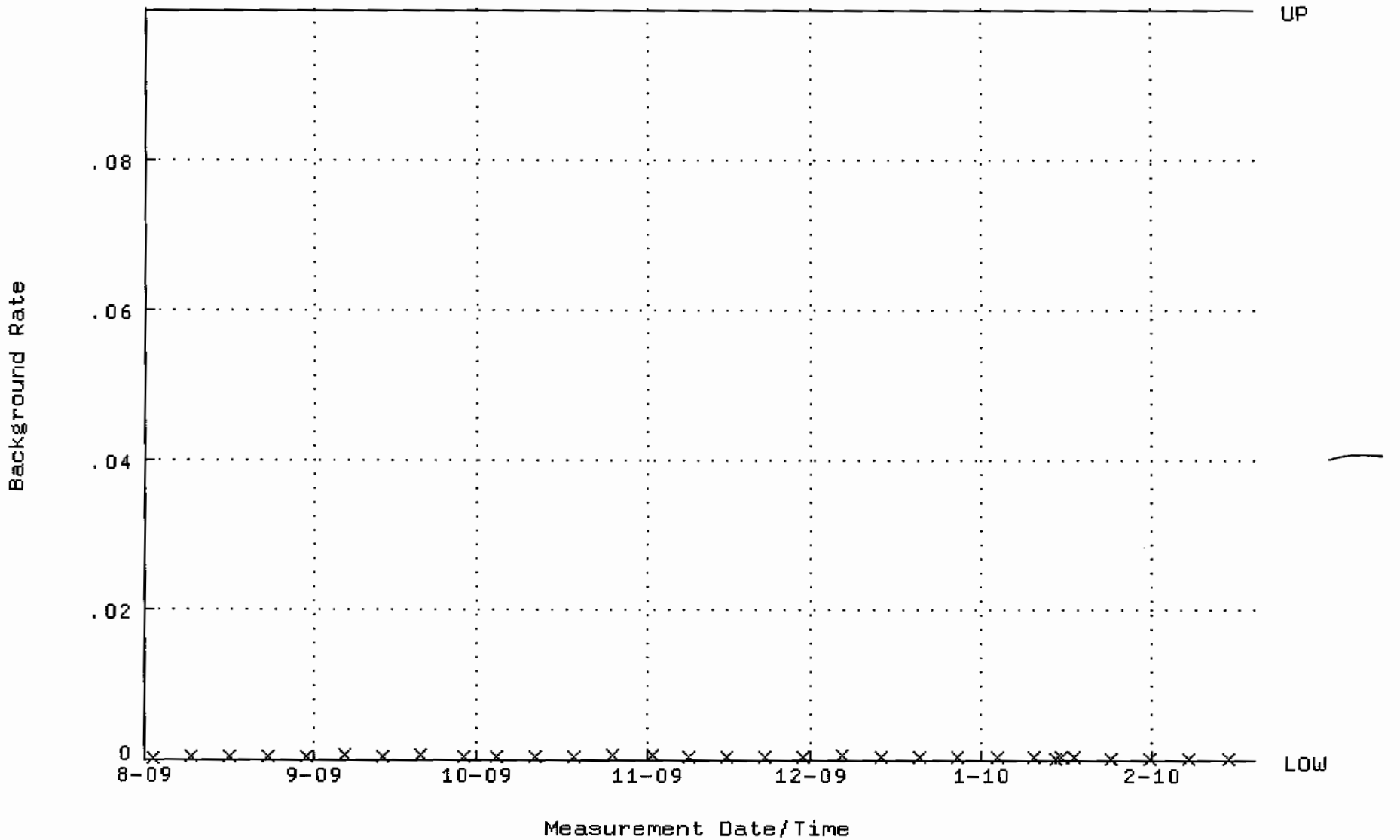

QA filename : DKA100:[ENV_ALPHA.QA.W]W160.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:48:09 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.234941 through 0.254941

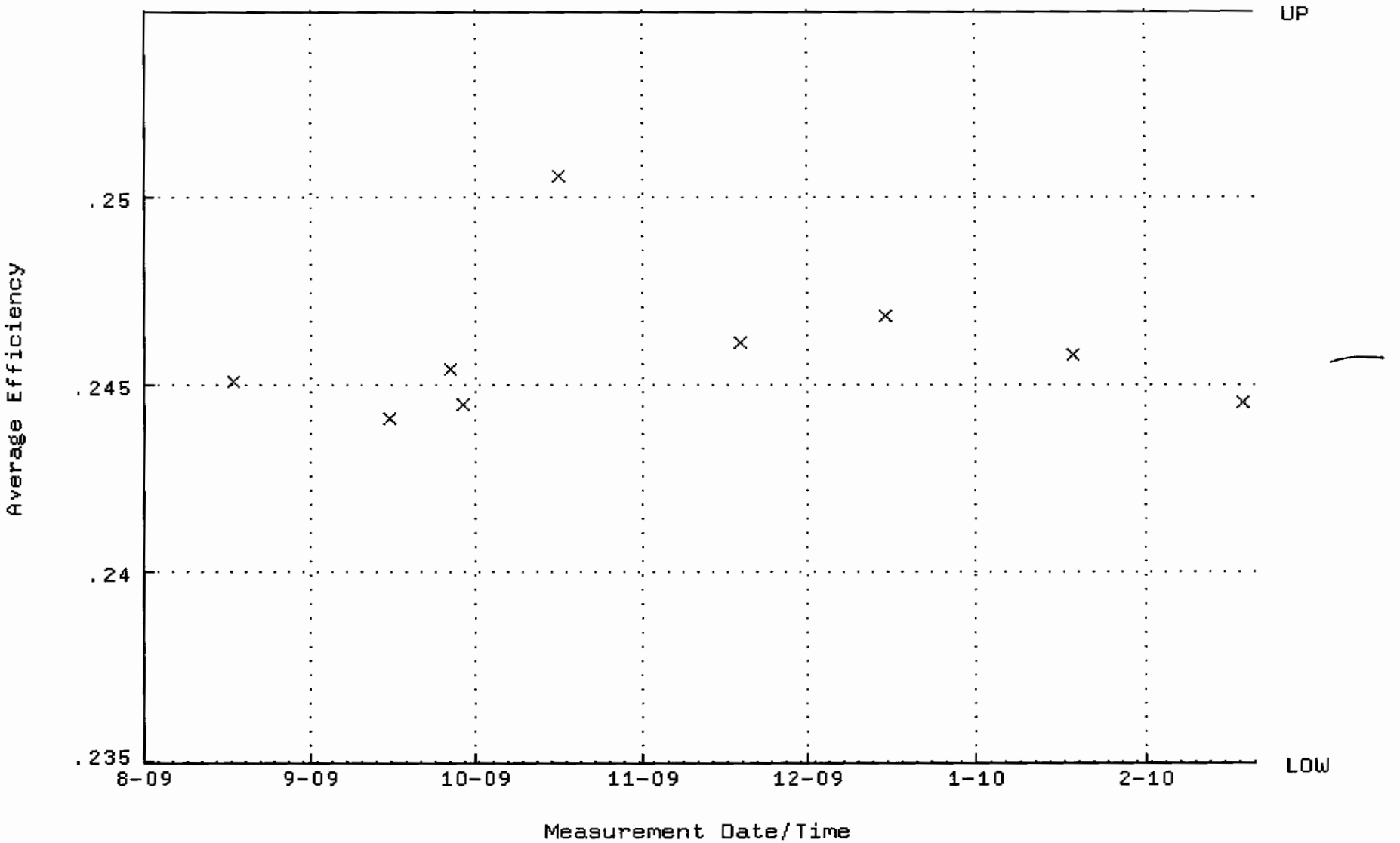

QA filename : DKA100:[ENV_ALPHA.QA.W]W160.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:48:09 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 82.0594 through 90.6972

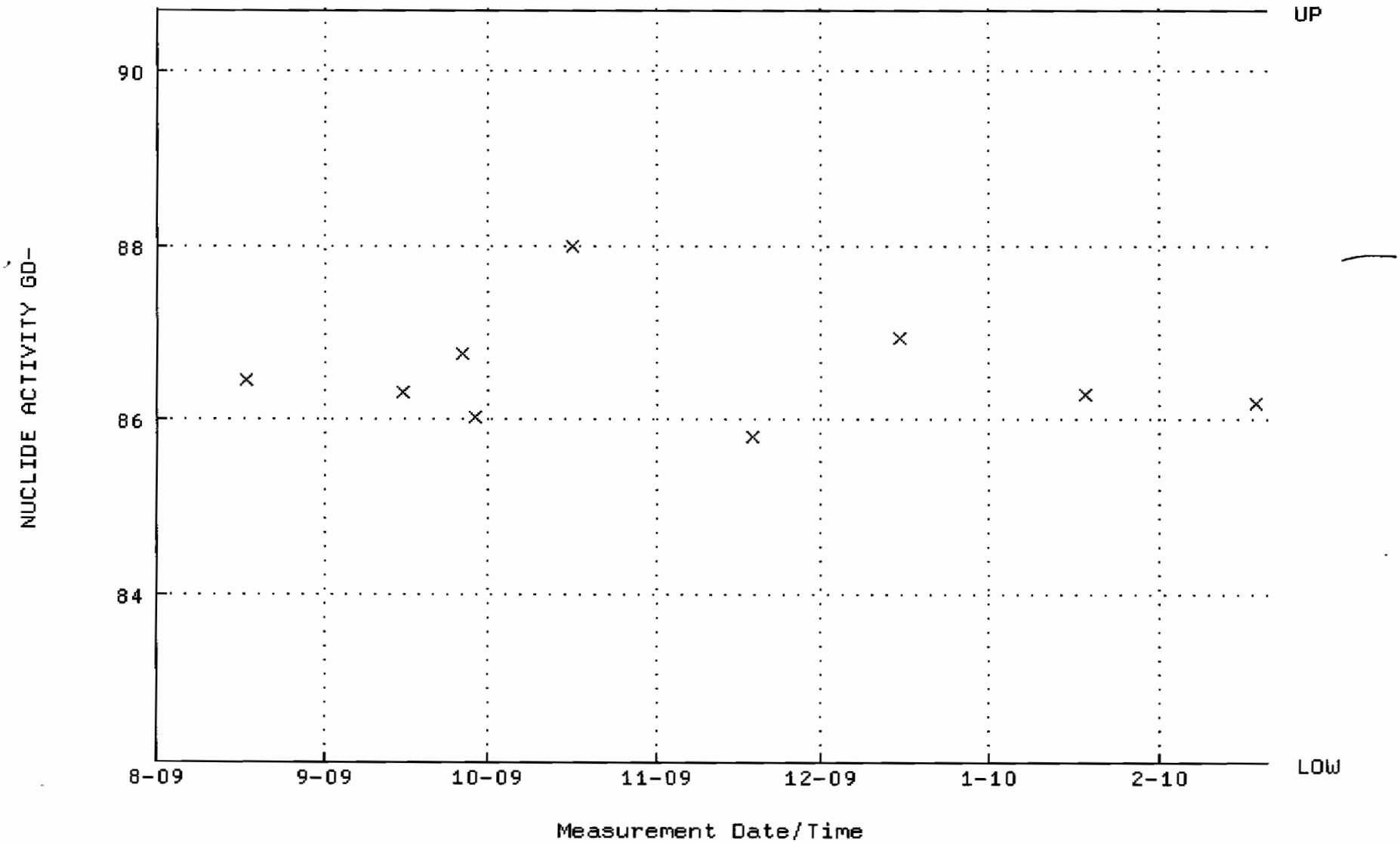

QA filename : DKA100:[ENV_ALPHA.QA.B]B160.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:15:16 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

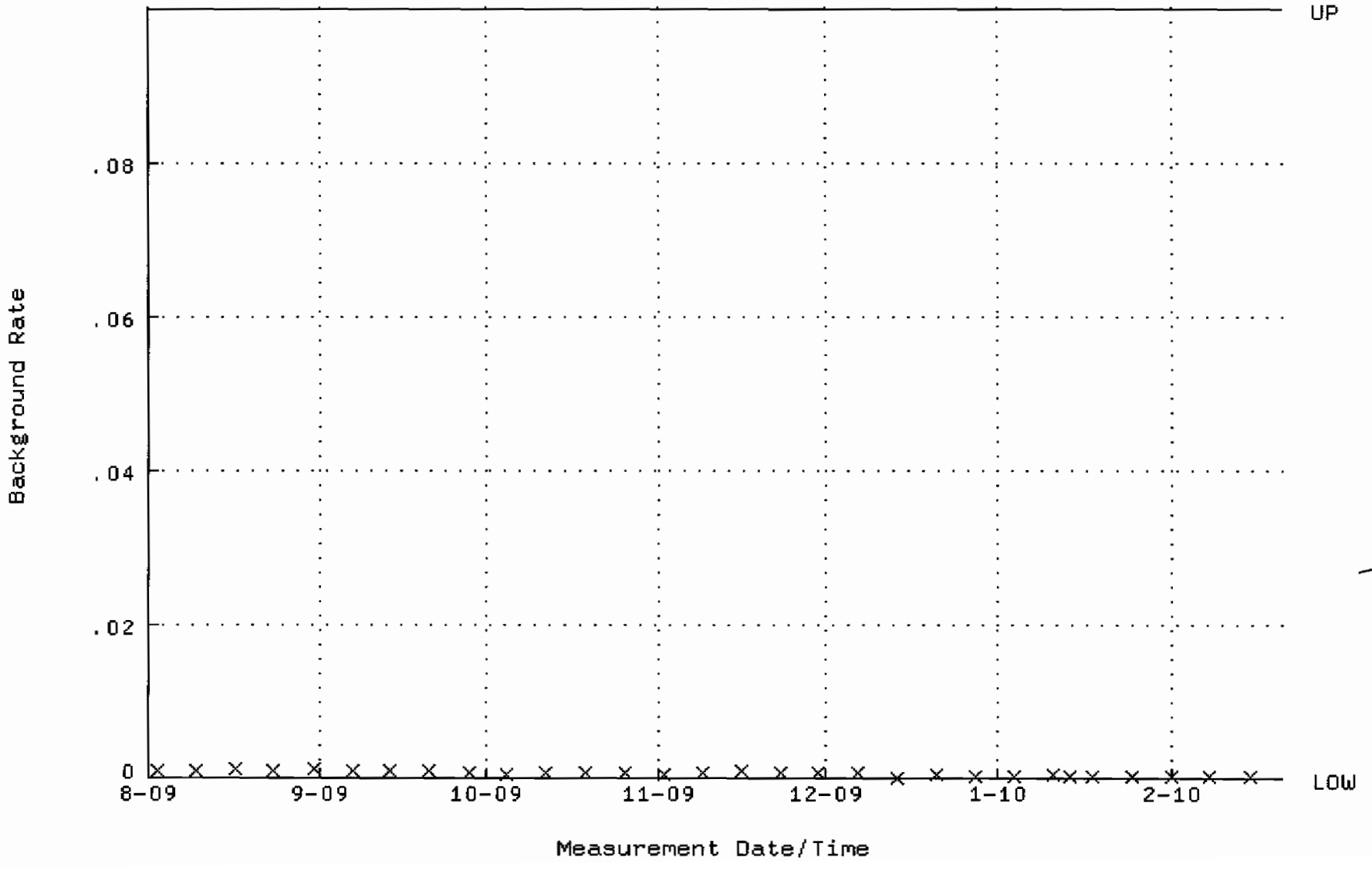

QA filename : DKA100:[ENV_ALPHA.QA.W]W165.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:14 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.374689 through 0.399127

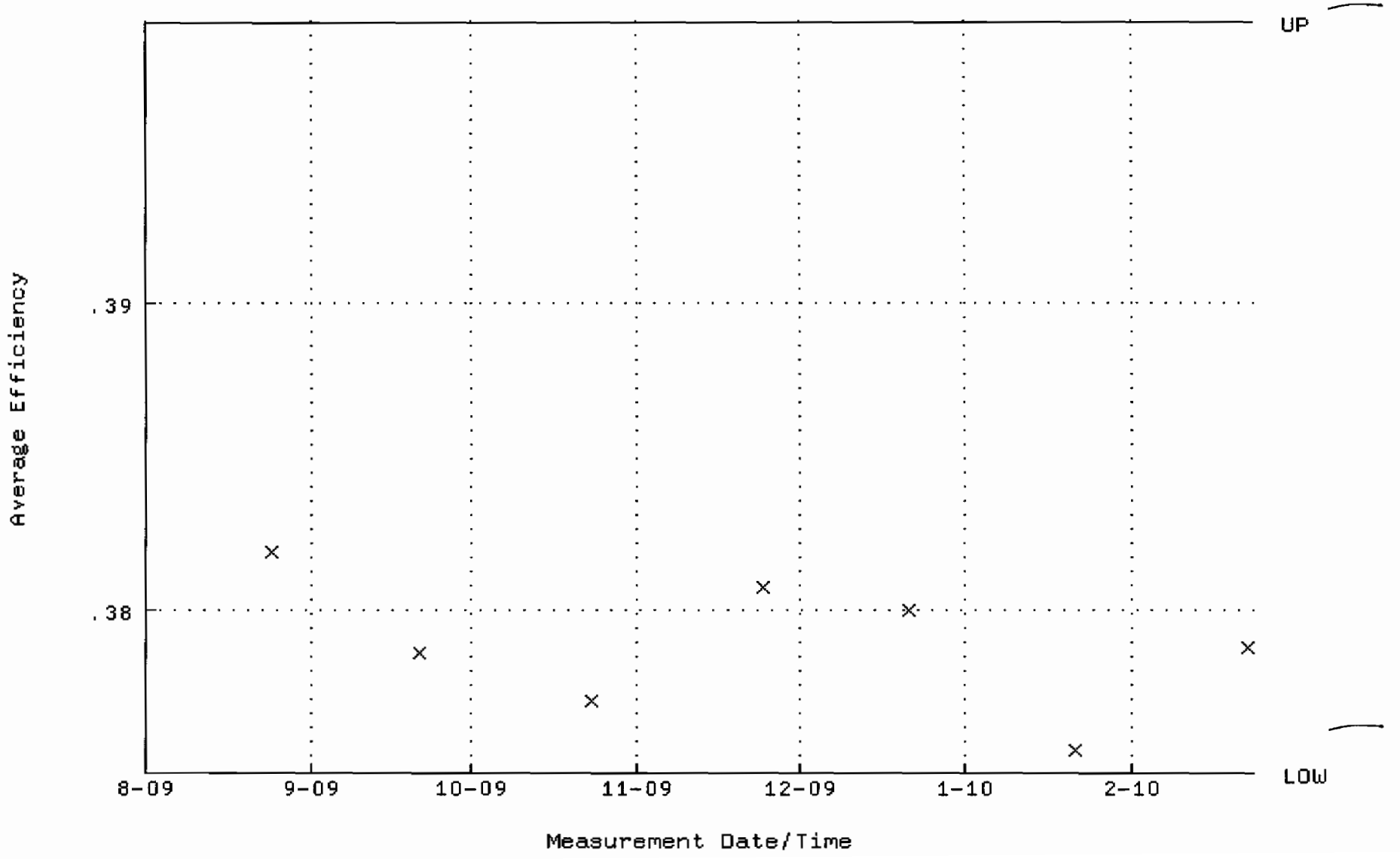

QA filename : DKA100:[ENV_ALPHA.QA.W]W165.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:14 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9613 through 90.1269

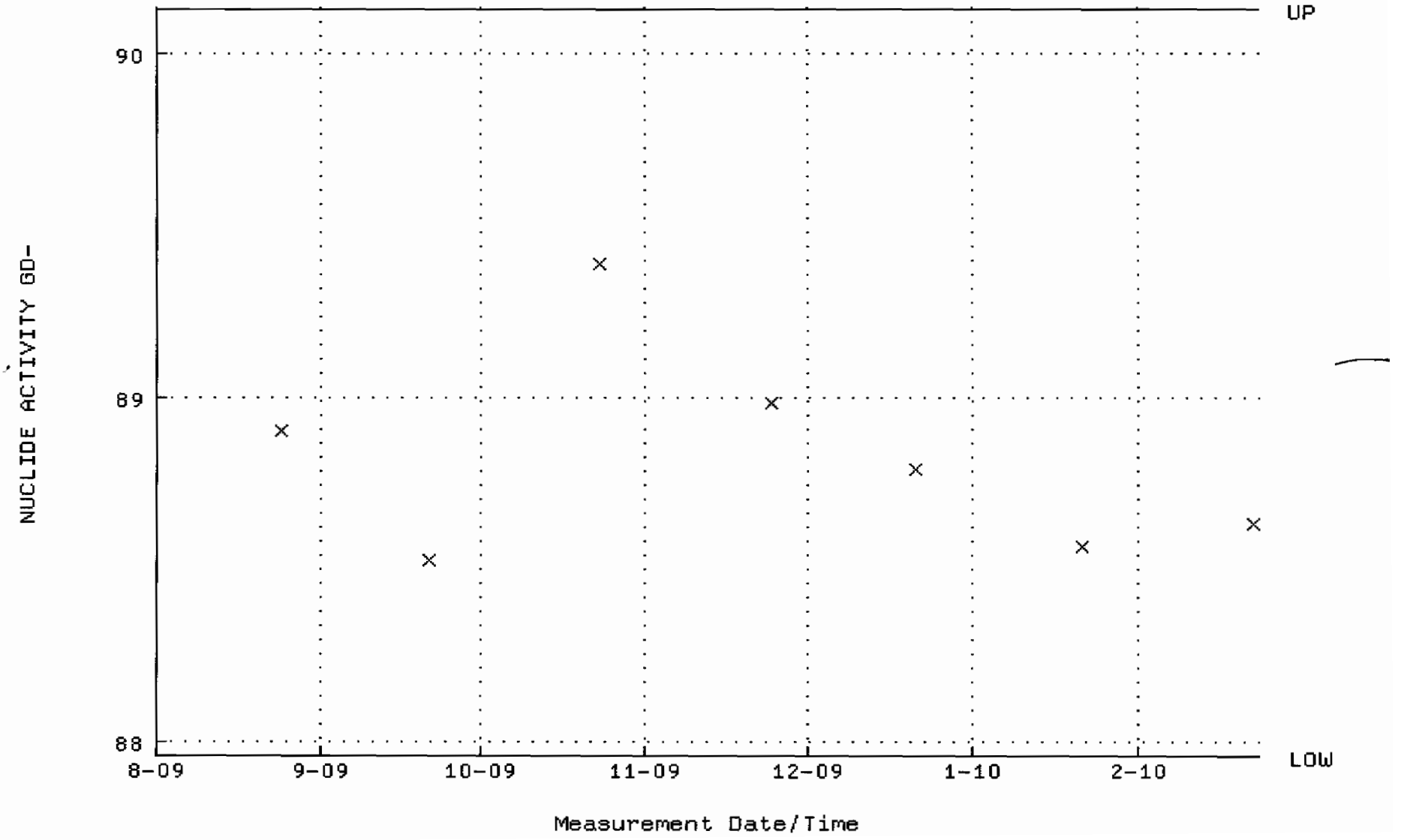

QA filename : DKA100:[ENV_ALPHA.QA.B]B165.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:21:53 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

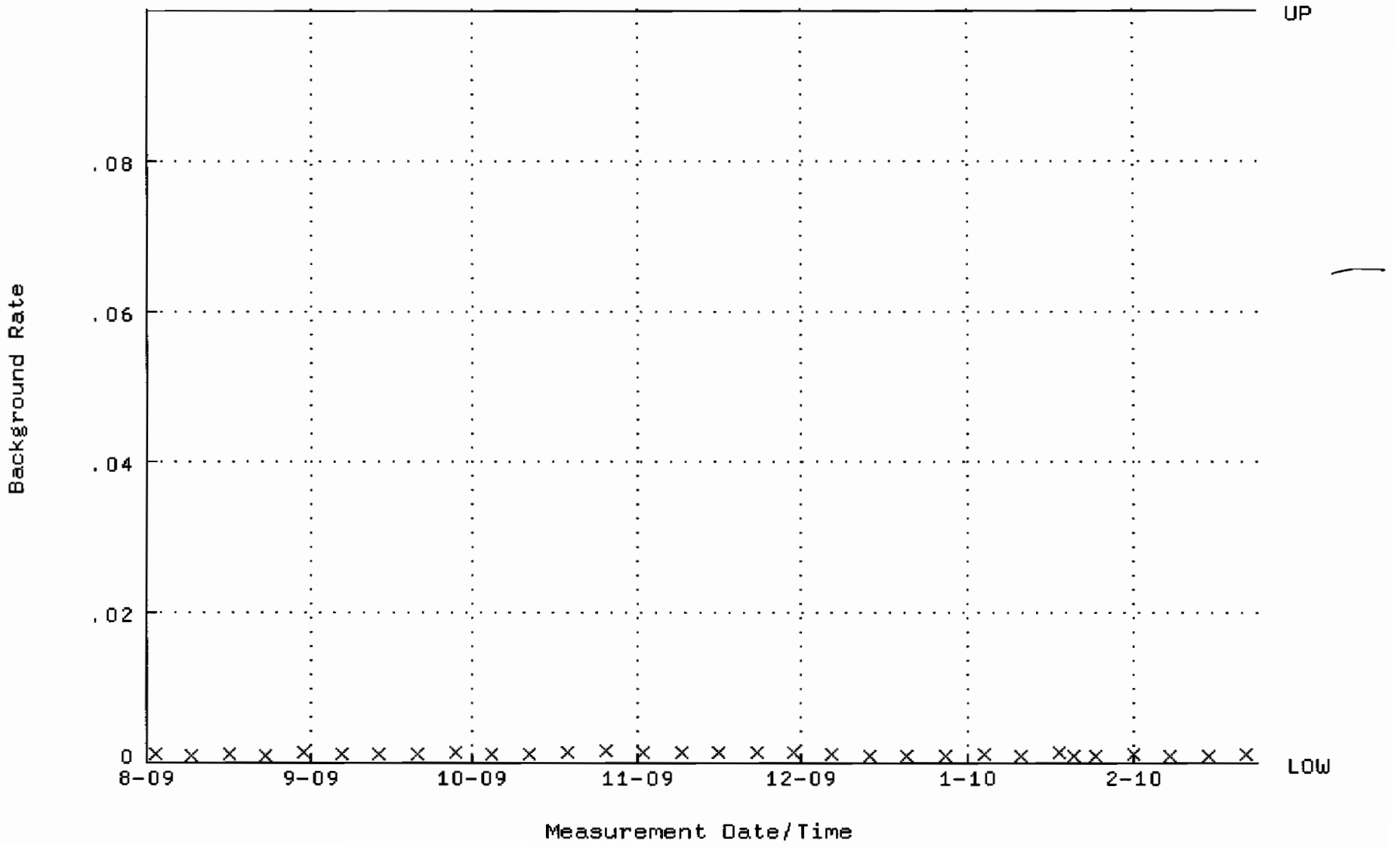

QA filename : DKA100:[ENV_ALPHA.QA.W]W166.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:20 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.385564 through 0.404504

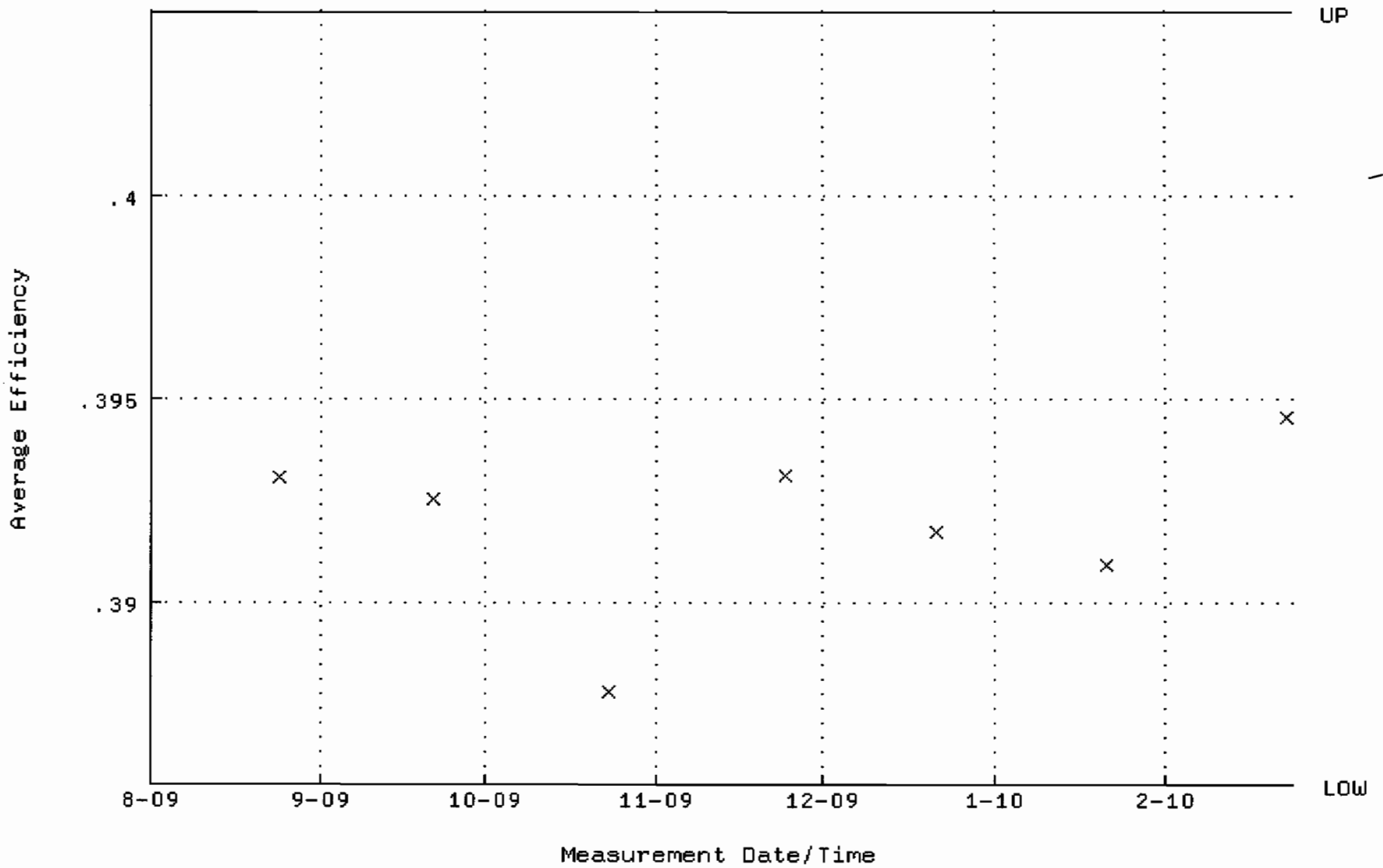

QA filename : DKA100:[ENV_ALPHA.QA.W]W166.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:20 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 88.1264 through 91.2442

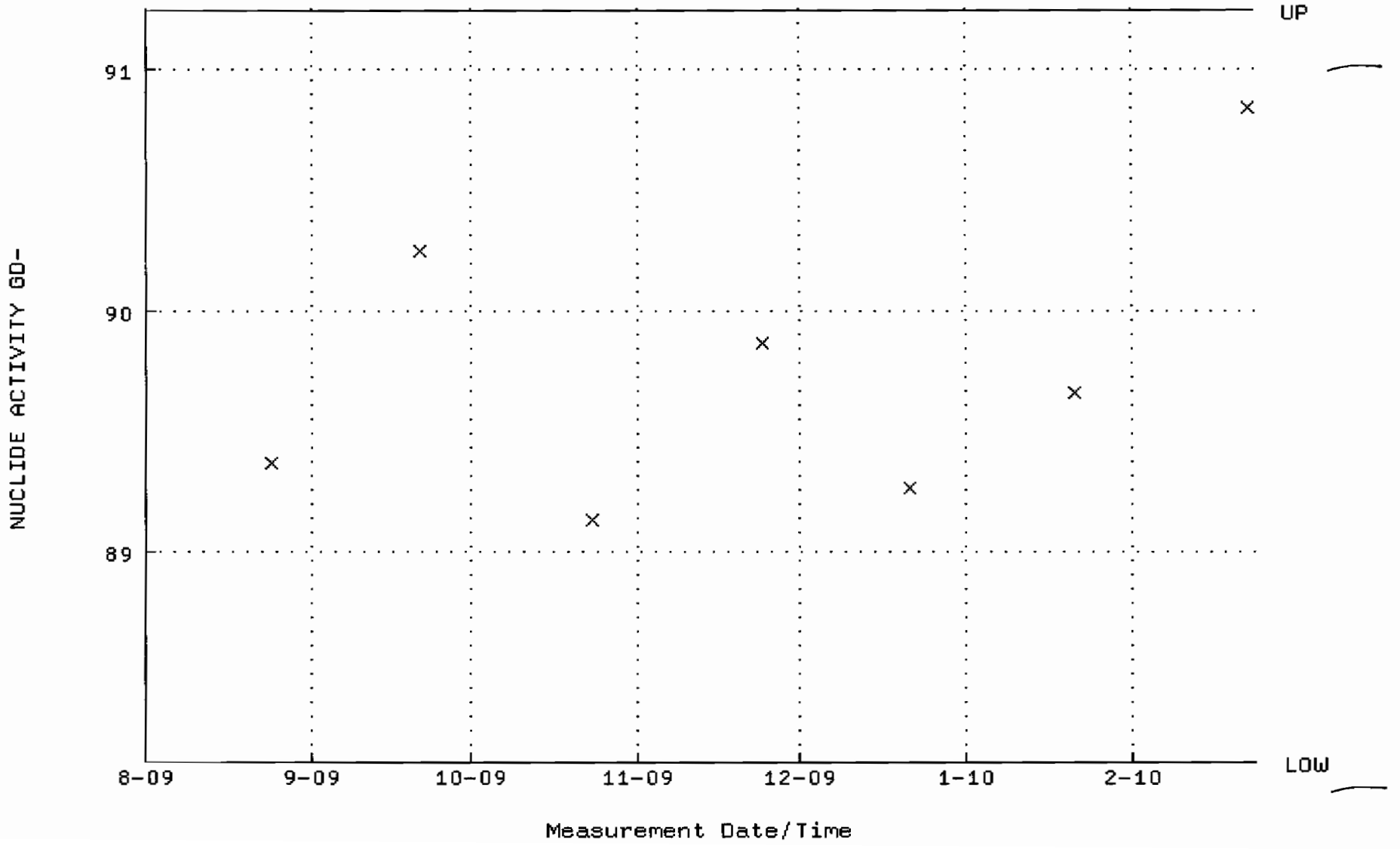

QA filename : DKA100:[ENV_ALPHA.QA.B]B166.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:21:58 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

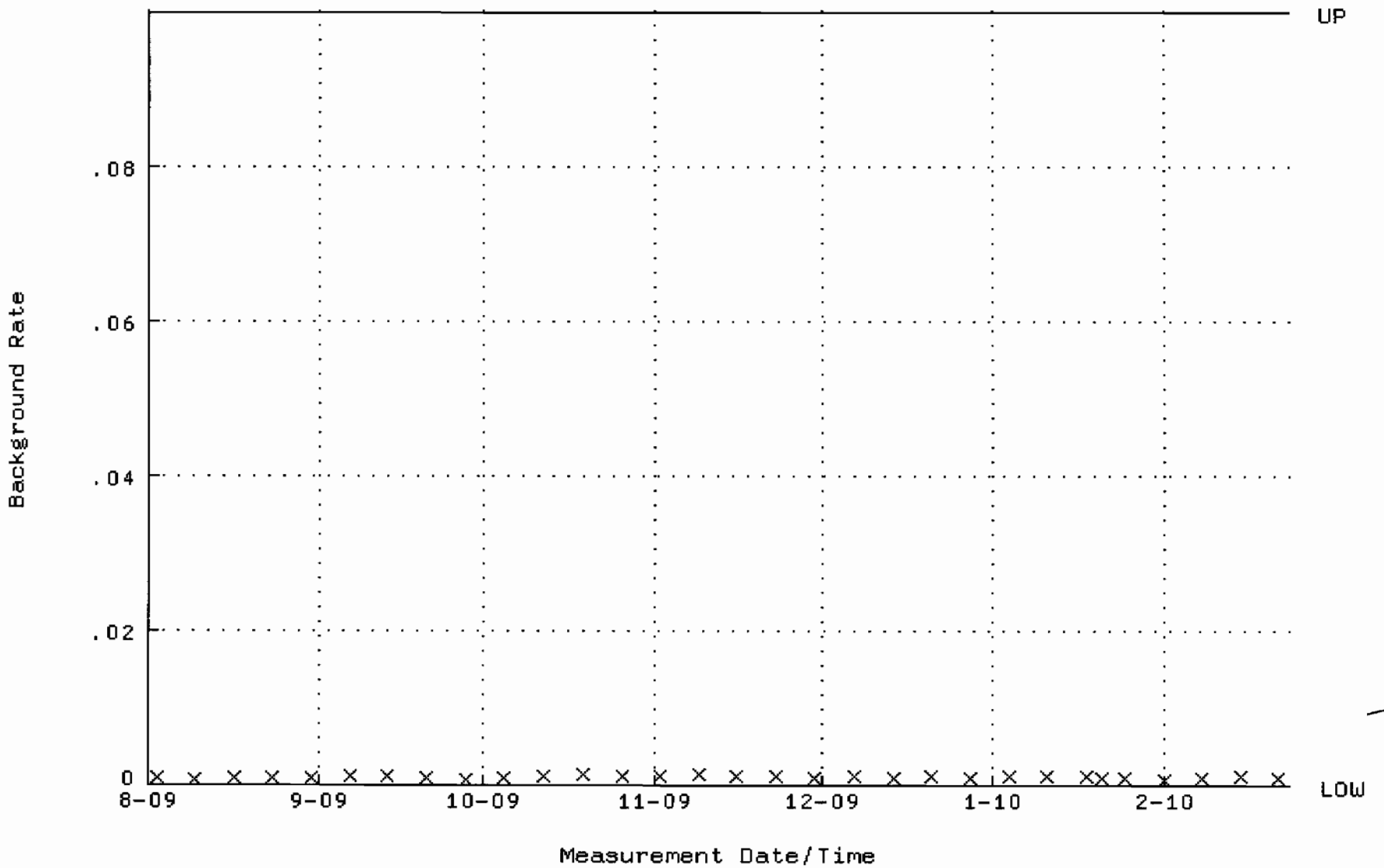

QA filename : DKA100:[ENV_ALPHA.QA.W]W167.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:25 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.384285 through 0.404285

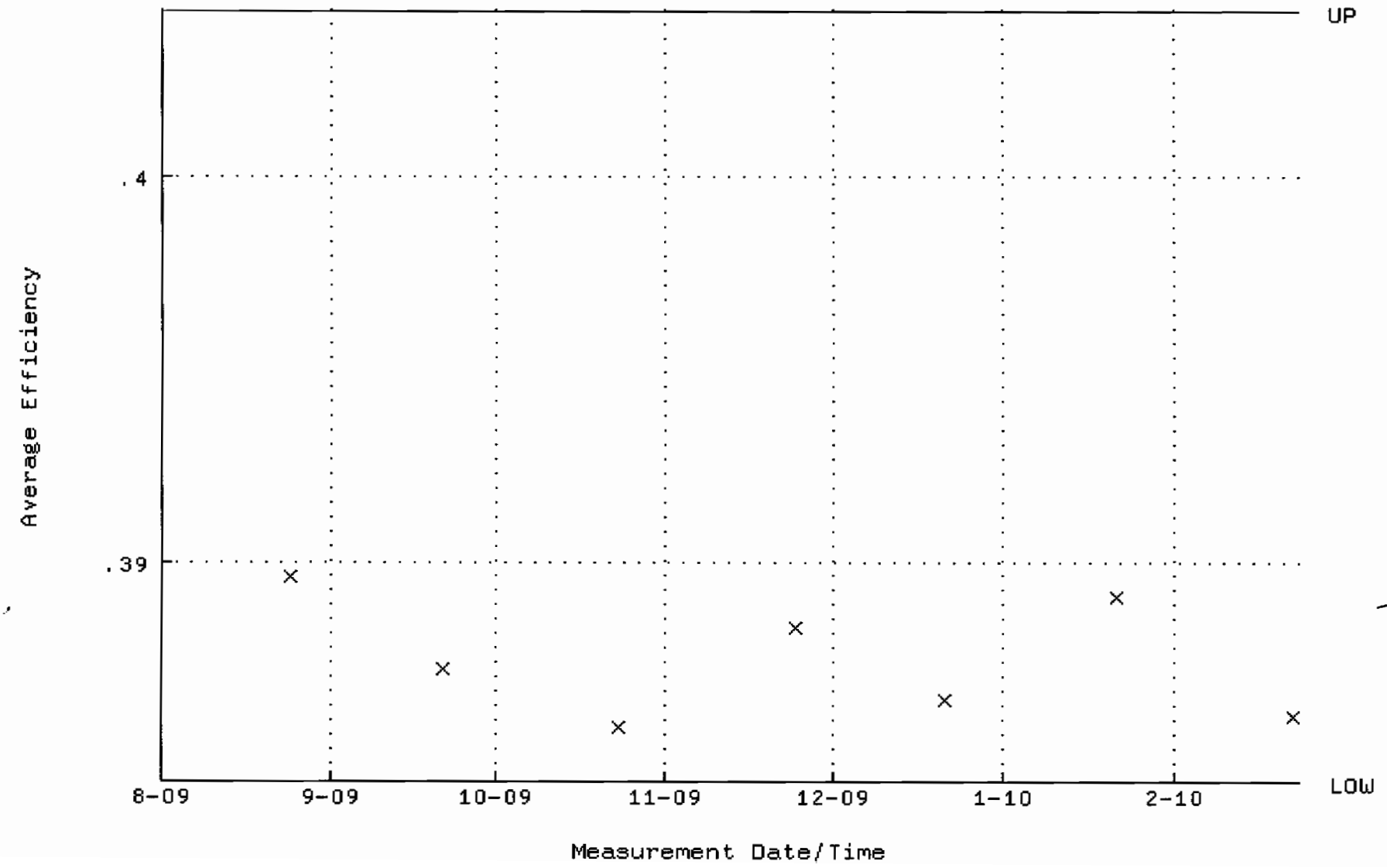

QA filename : DKA100:[ENV_ALPHA.QA.W]W167.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:25 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7740 through 95.9082

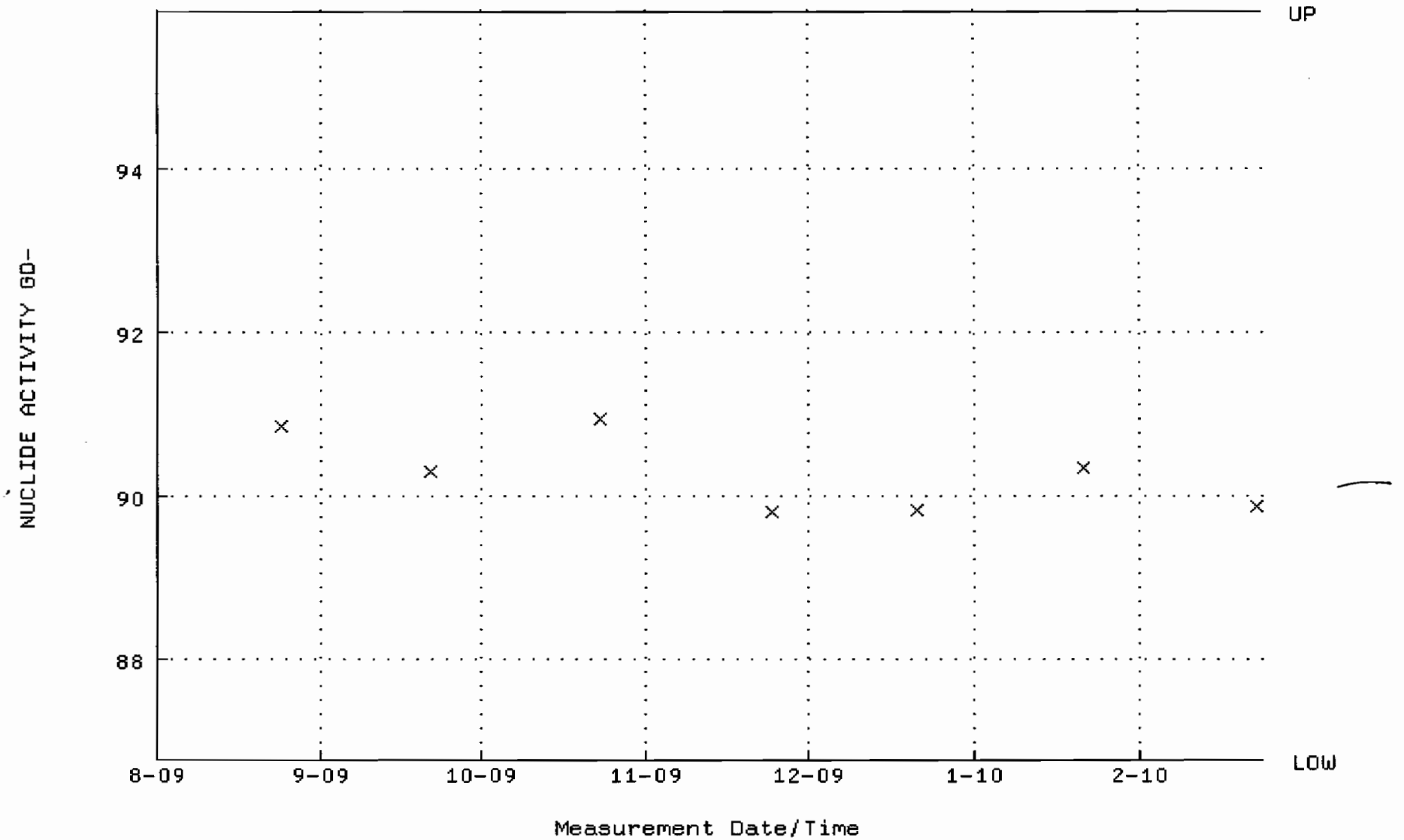

QA filename : DKA100:[ENV_ALPHA.QA.B]B167.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:22:02 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

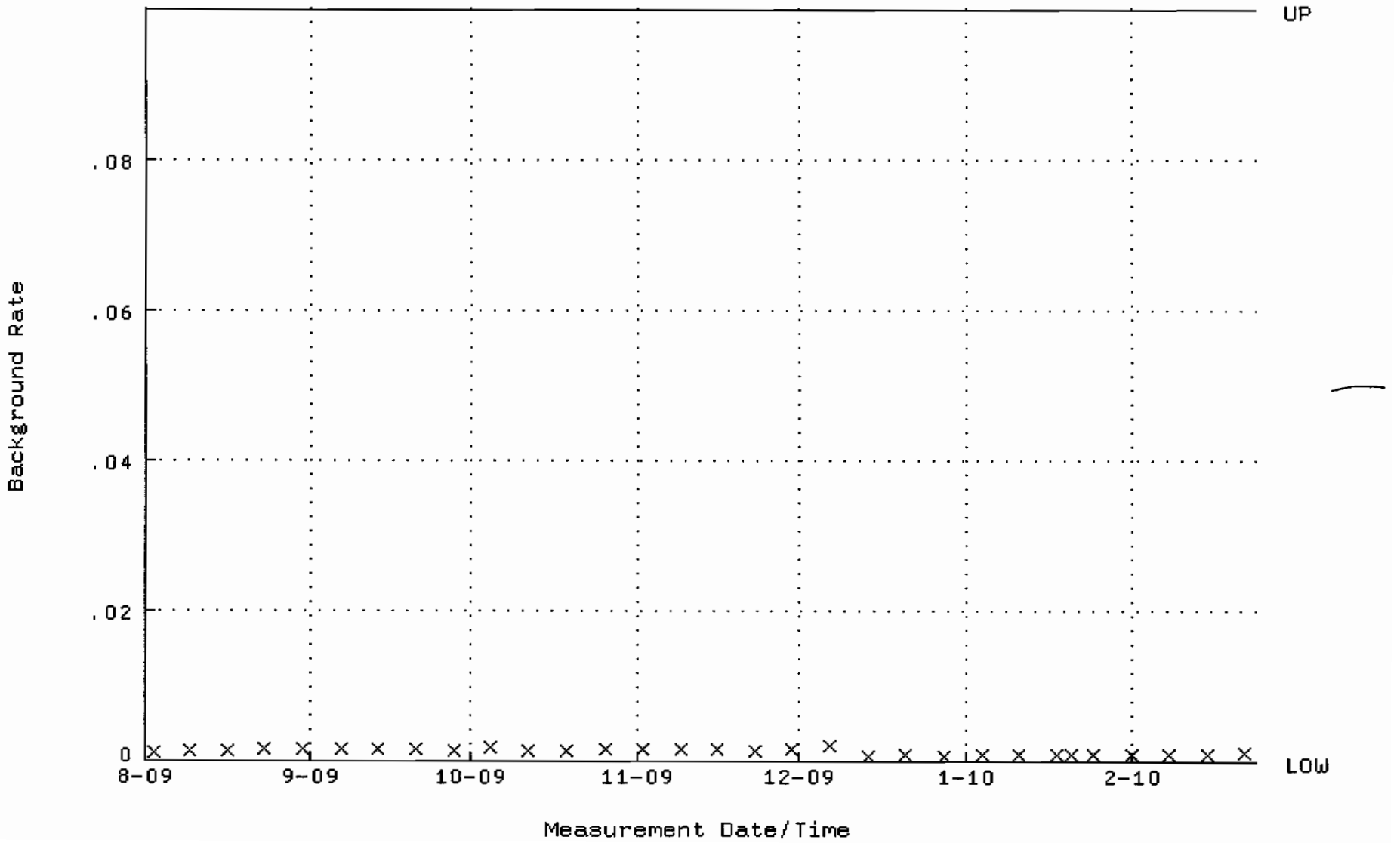

QA filename : DKA100:[ENV_ALPHA.QA.W]W168.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:32 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.381339 through 0.408495

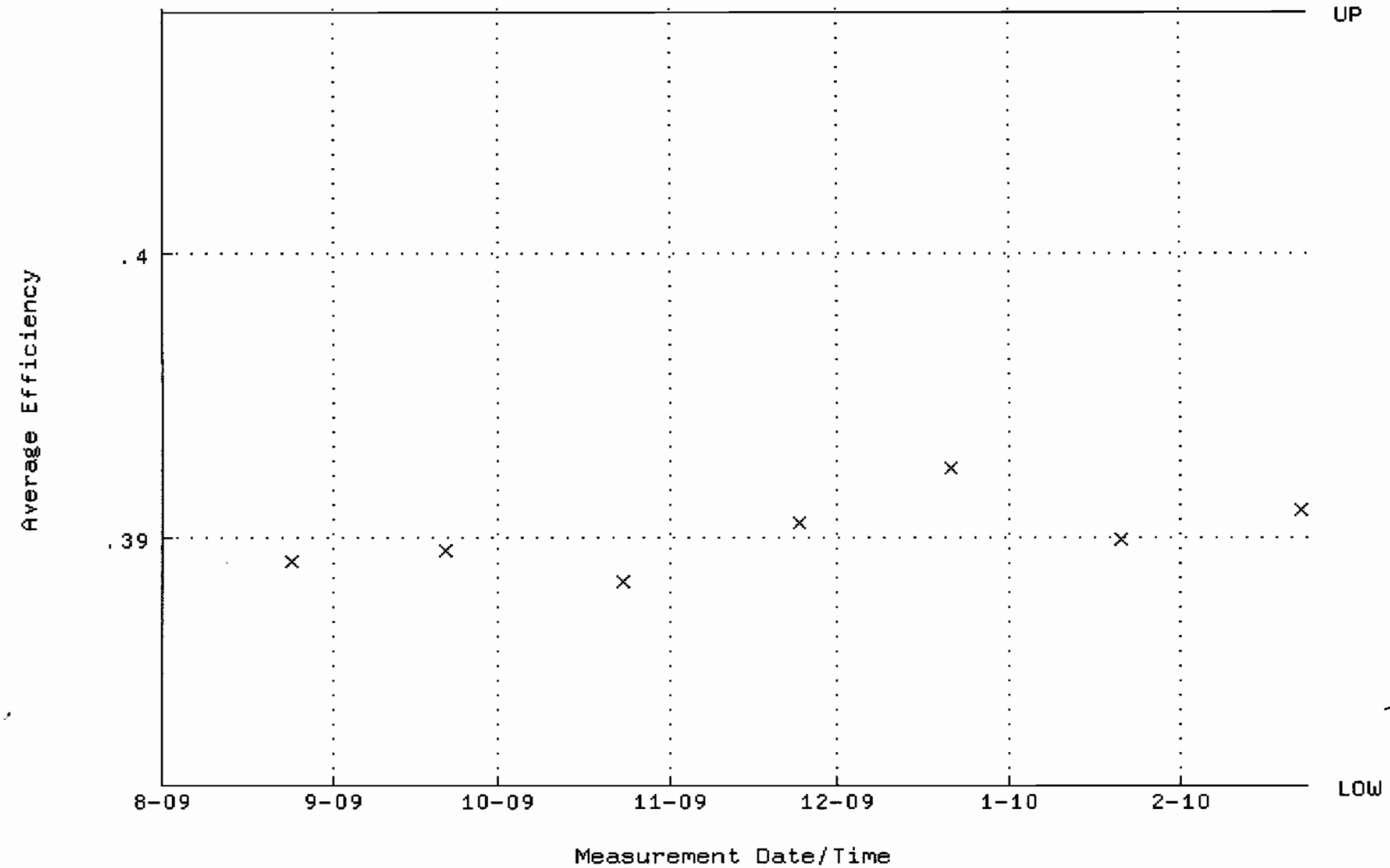

QA filename : DKA100:[ENV_ALPHA.QA.W]W168.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:32 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8544 through 90.7976

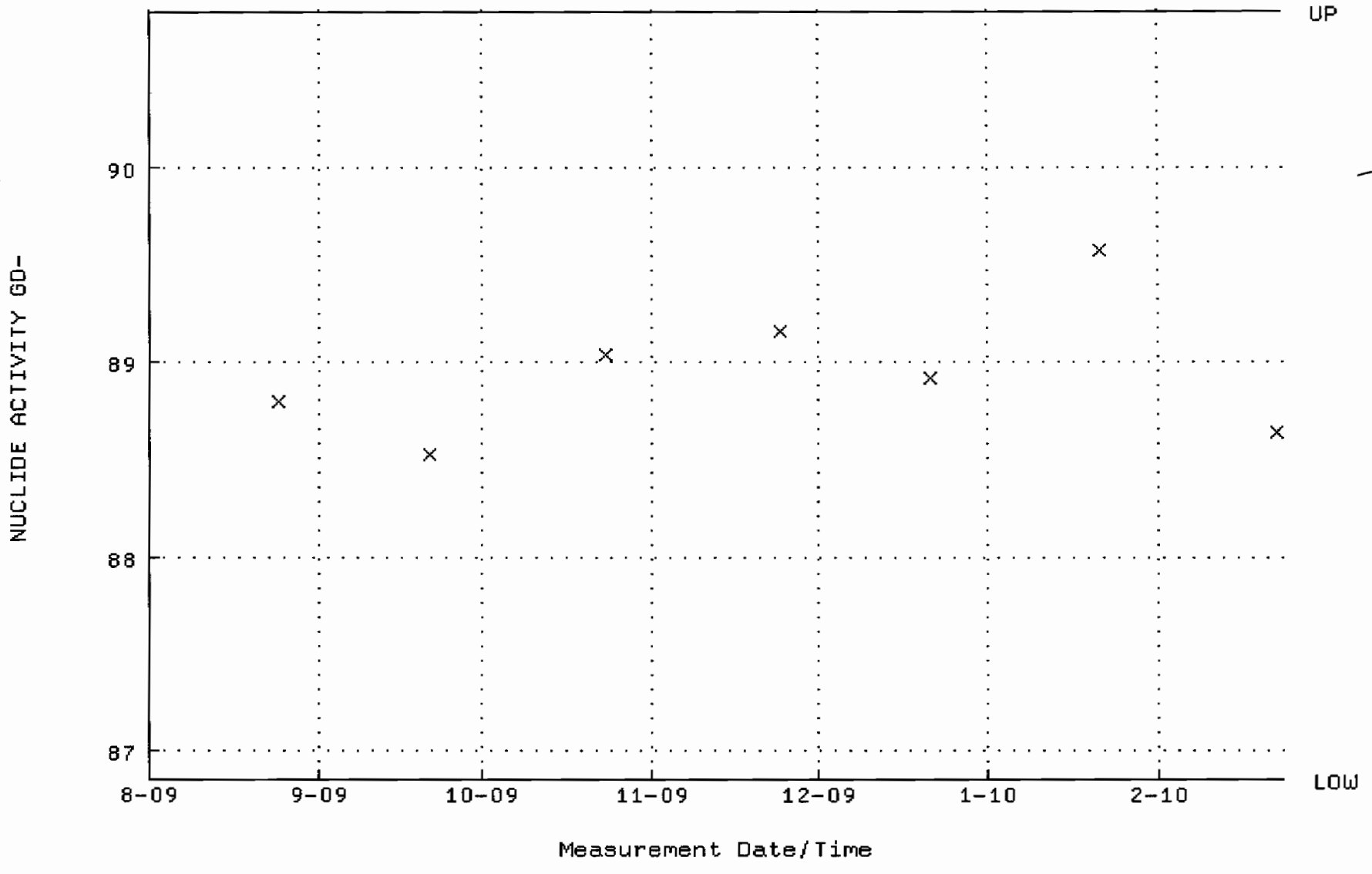

QA filename : DKA100:[ENV_ALPHA.QA.B]B168.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:22:06 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

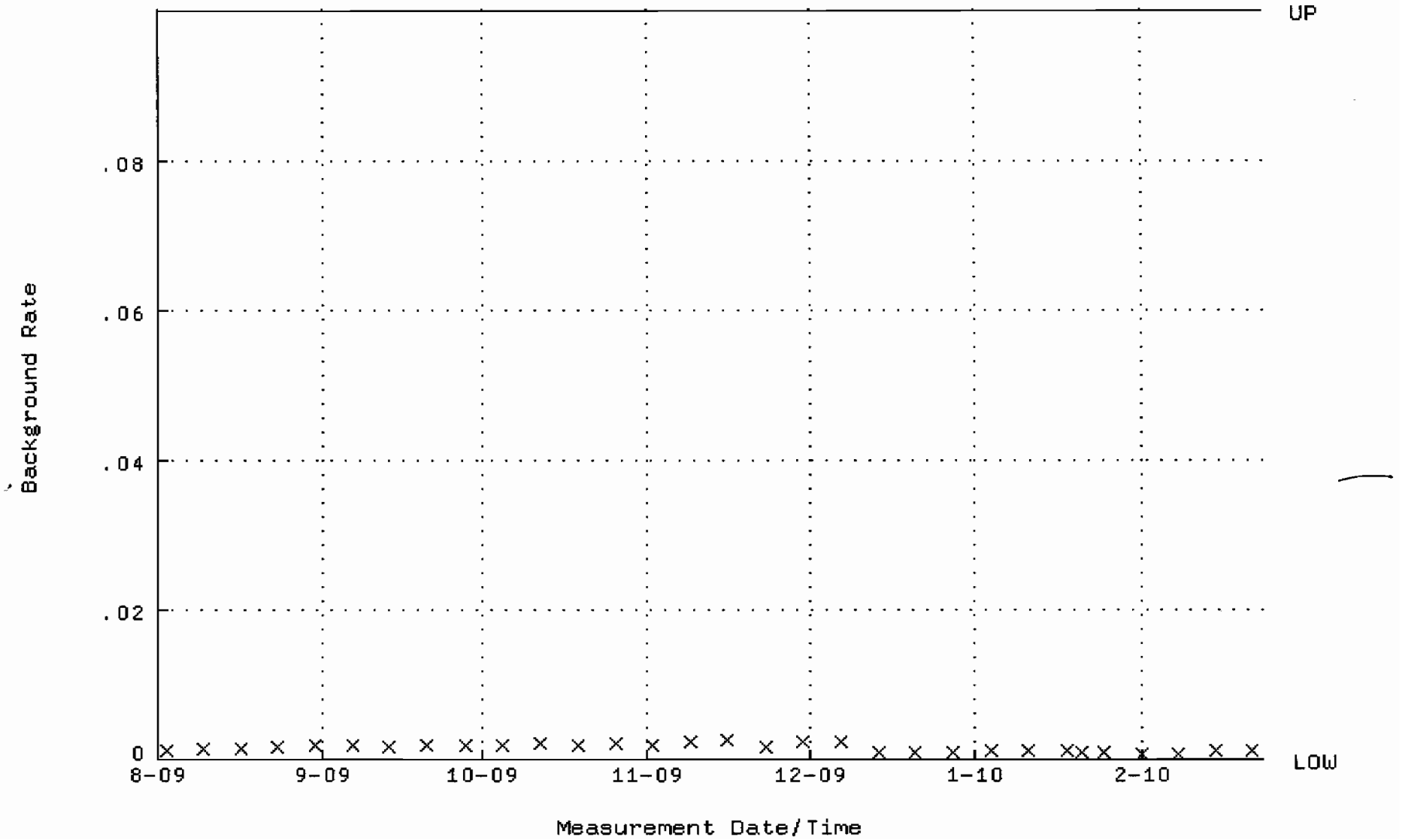

QA filename : DKA100:[ENV_ALPHA.QA.W]W169.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:03:40 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.368144 through 0.388144

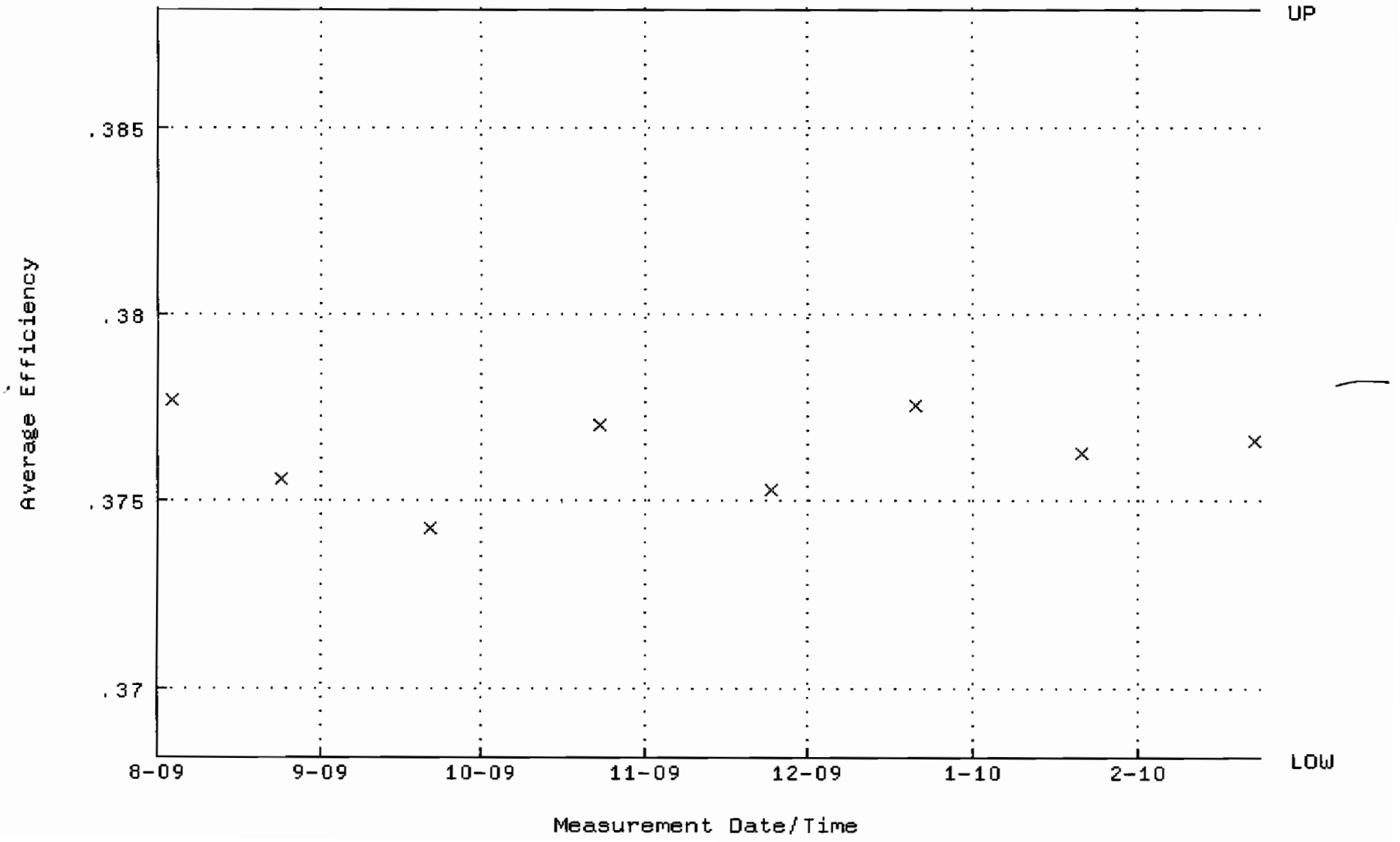

QA filename : DKA100:[ENV_ALPHA.QA.W]W169.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:03:40 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 87.7141 through 96.9471

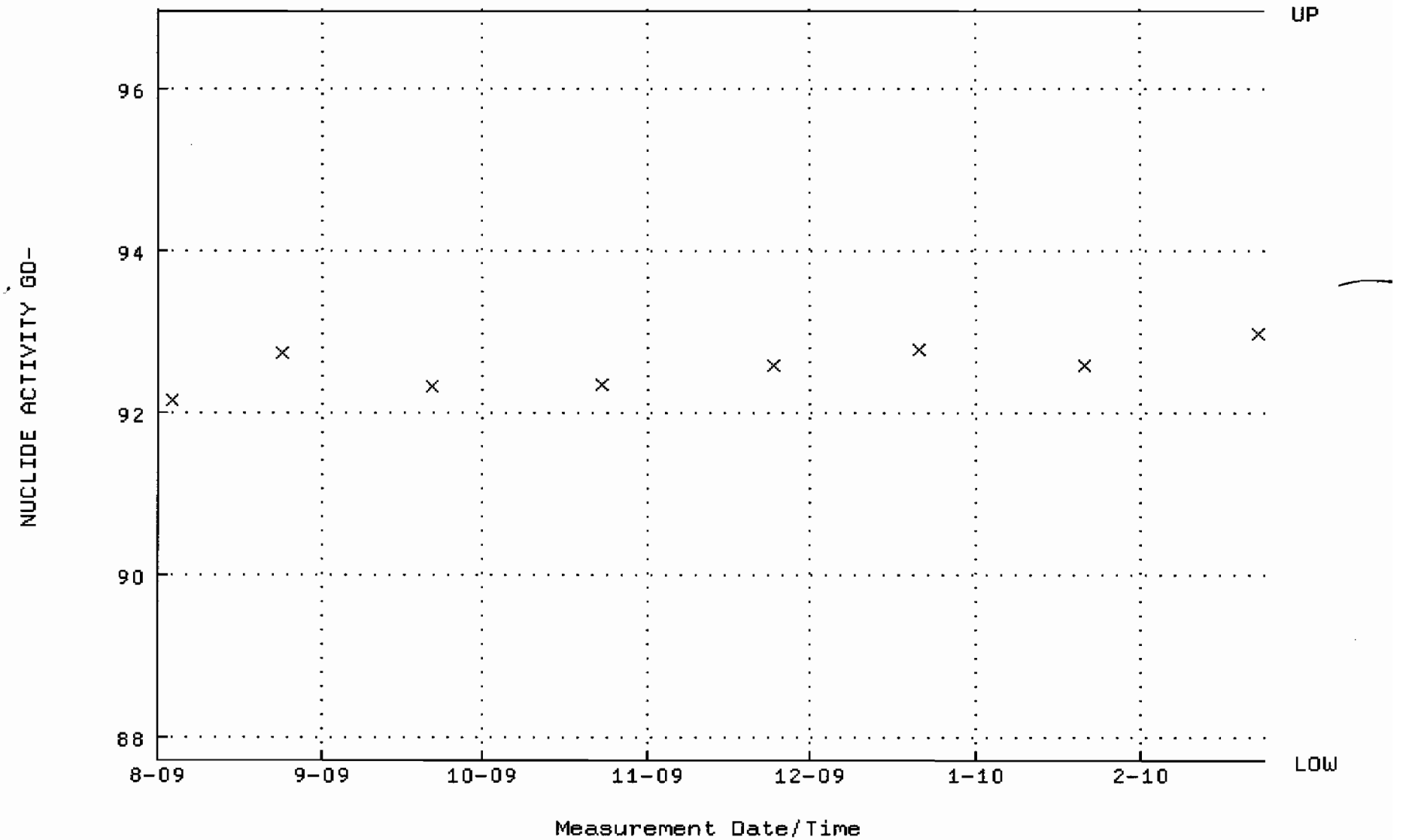

QA filename : DKA100:[ENV_ALPHA.QA.B]B169.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:22:11 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

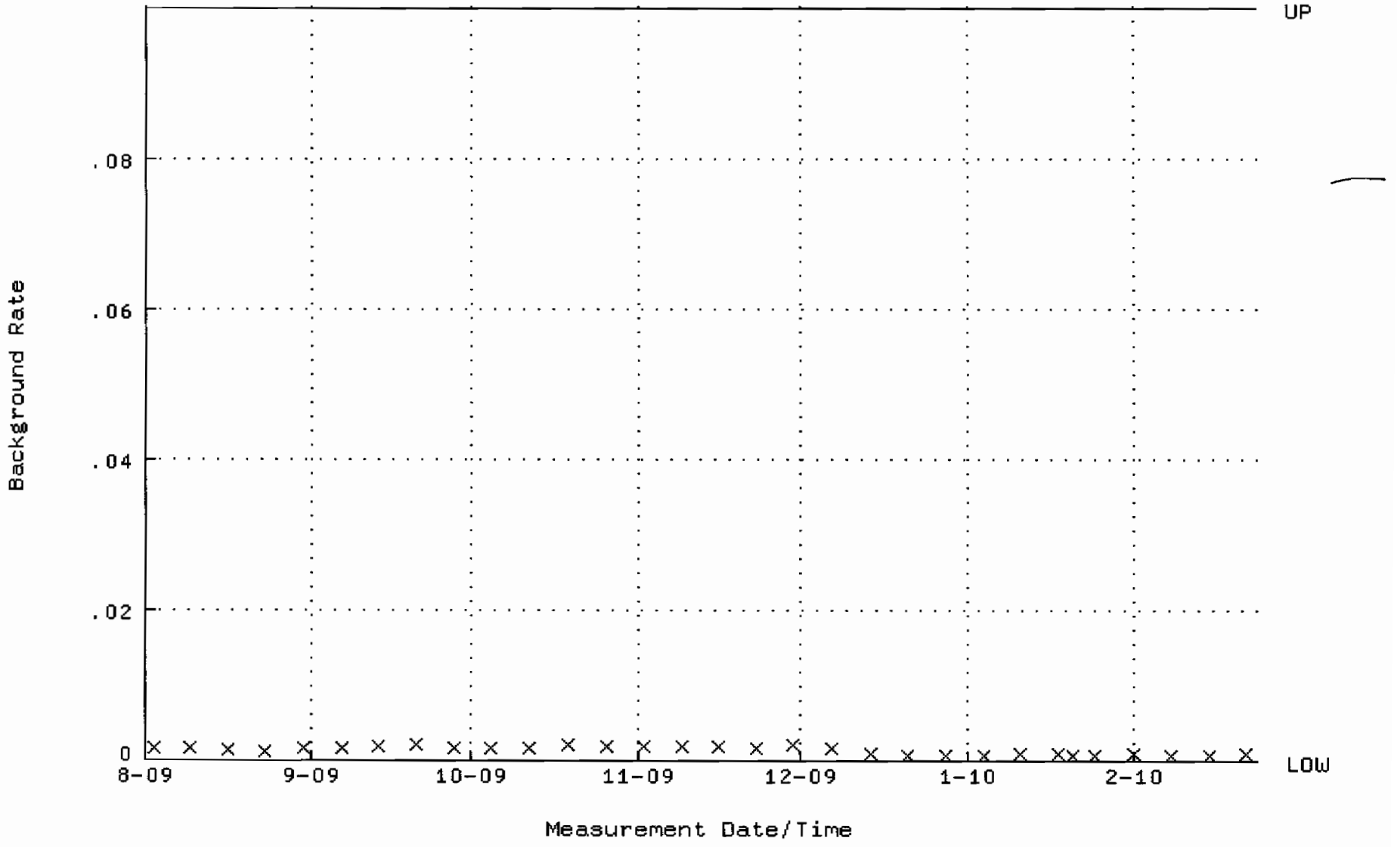

QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:06:29 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.341431 through 0.395023

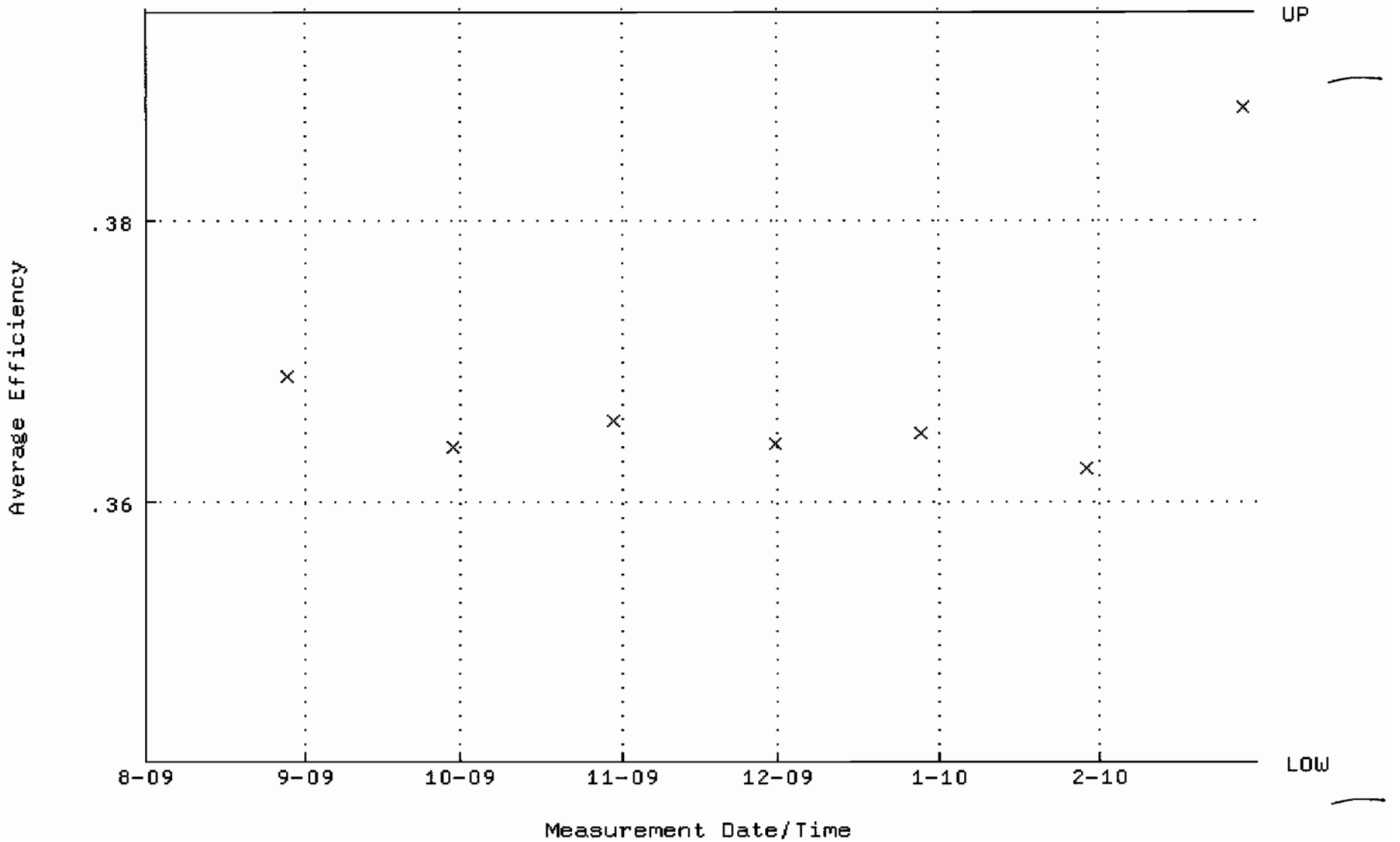

QA filename : DKA100:[ENV_ALPHA.QA.W]W209.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:06:29 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 82.4748 through 97.2344

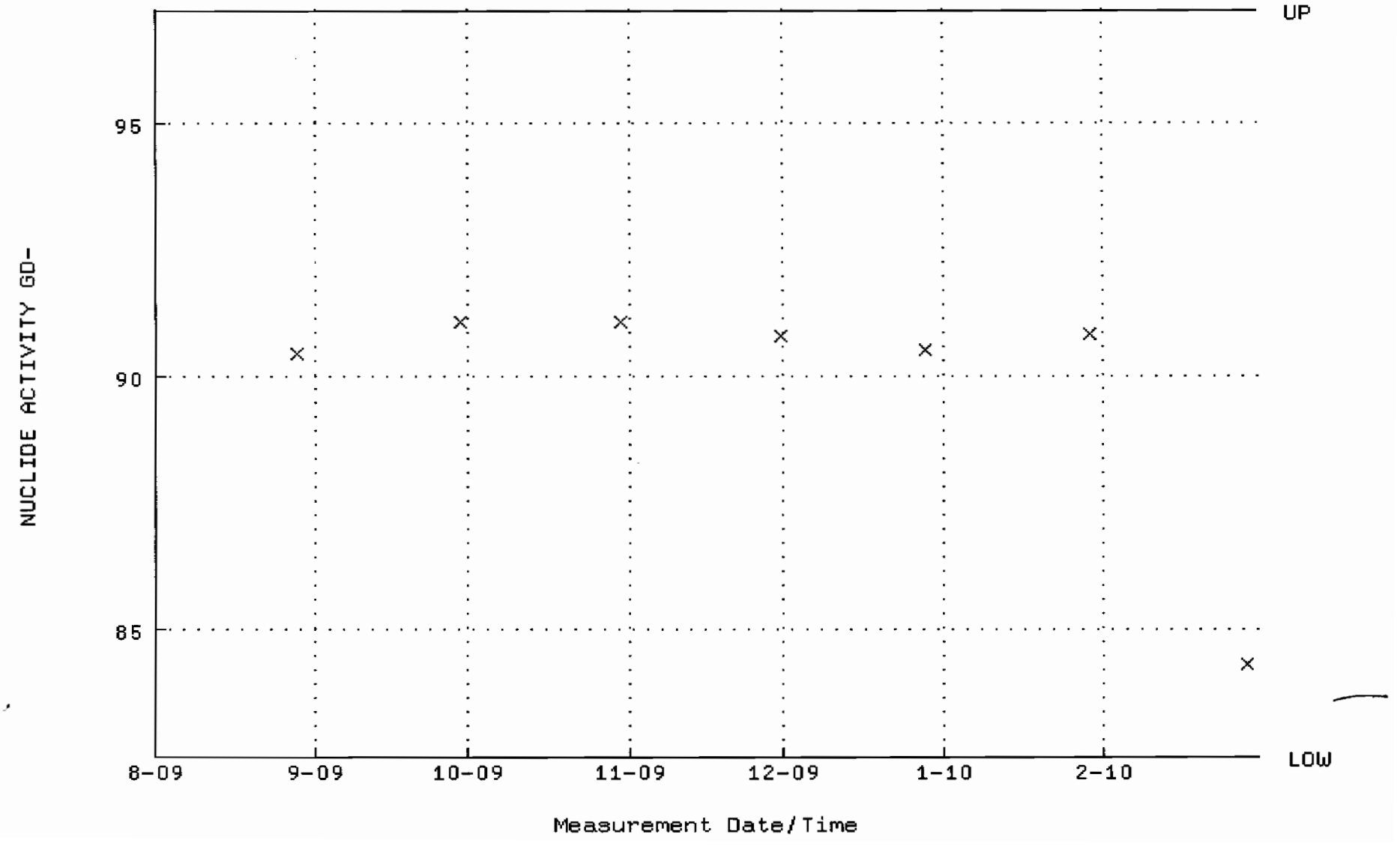

QA filename : DKA100:[ENV_ALPHA.QA.B]B209.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:10 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

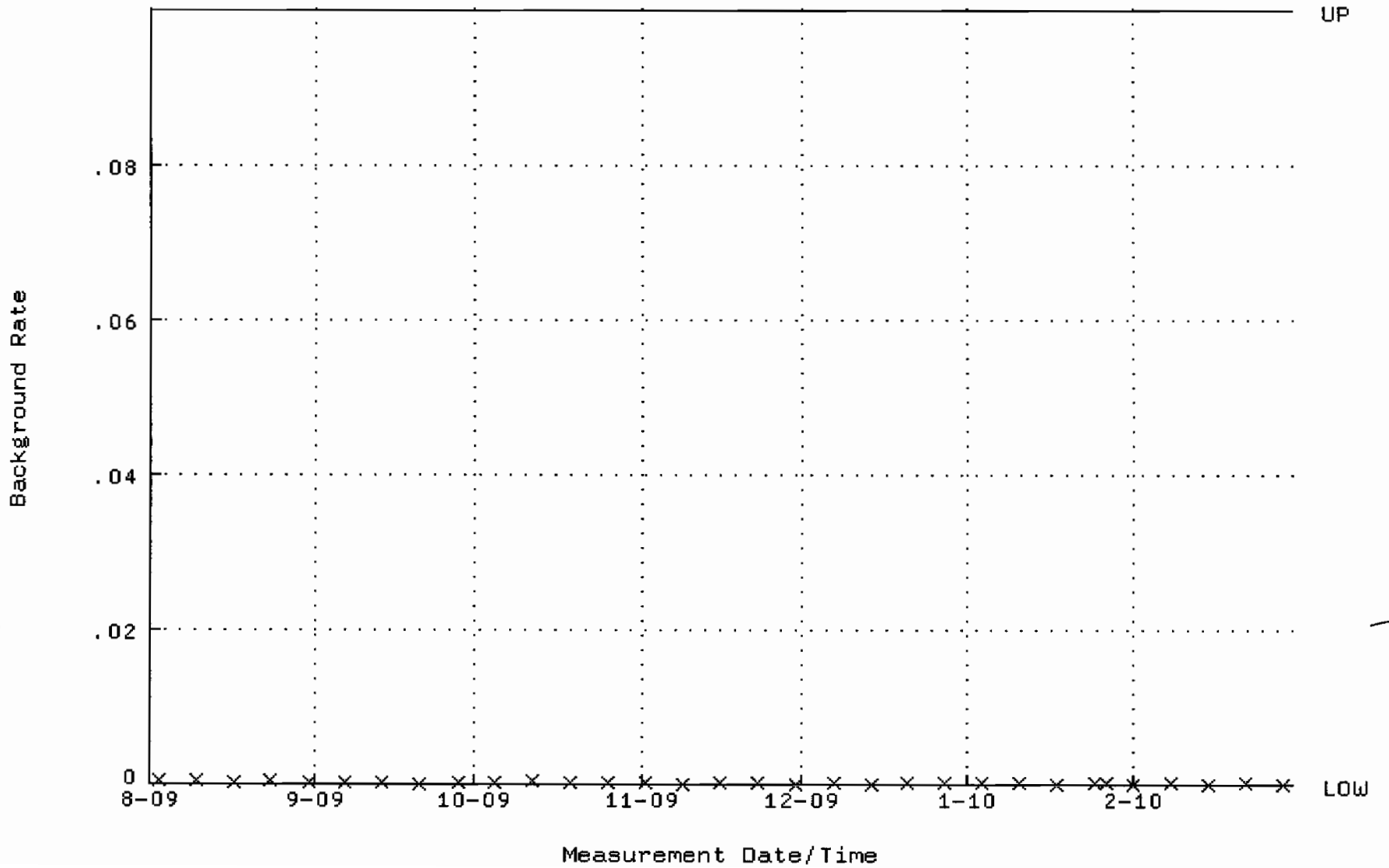

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:06:35 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.372938 through 0.398472

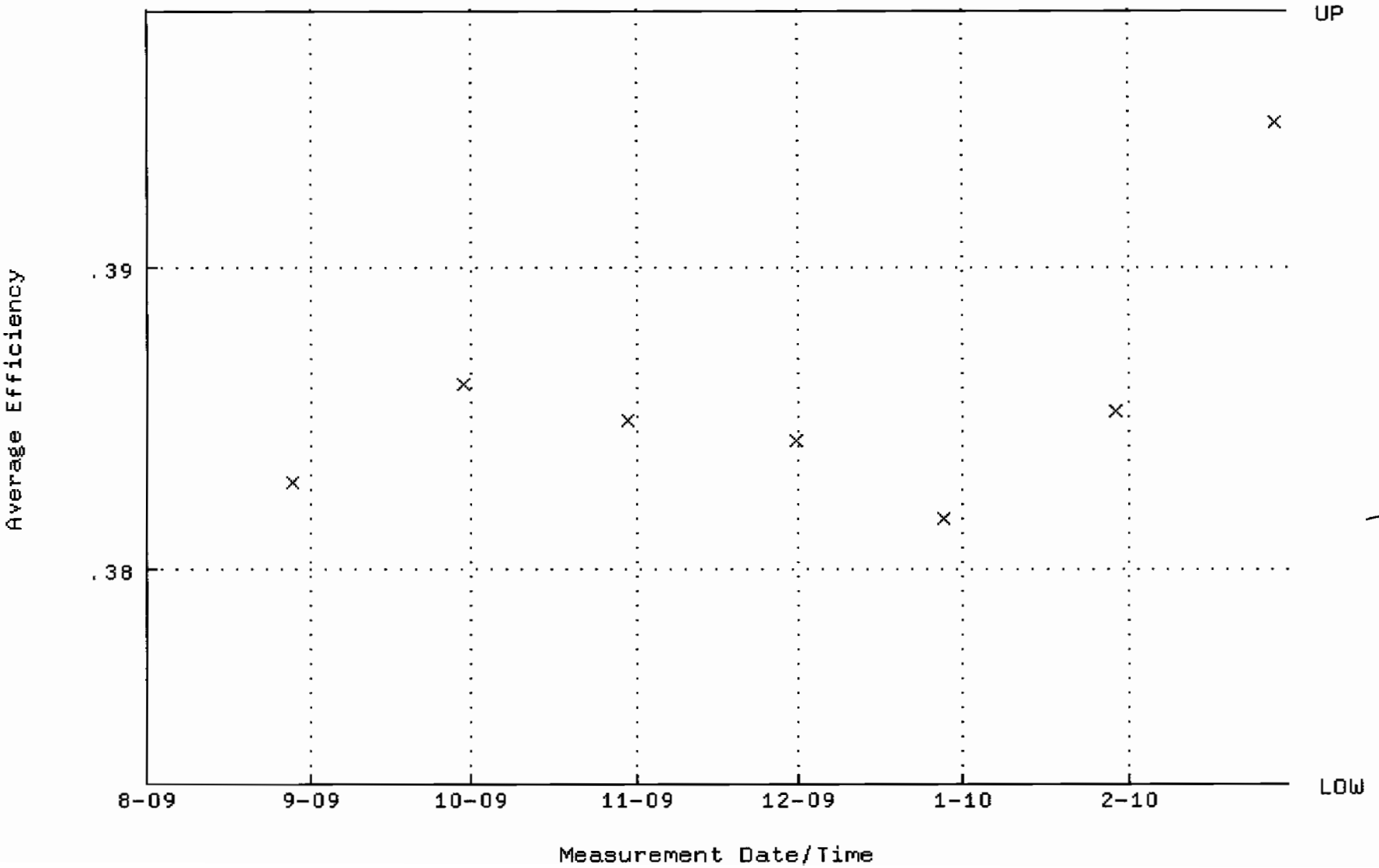

QA filename : DKA100:[ENV_ALPHA.QA.W]W210.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:06:35 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 85.4367 through 94.0881

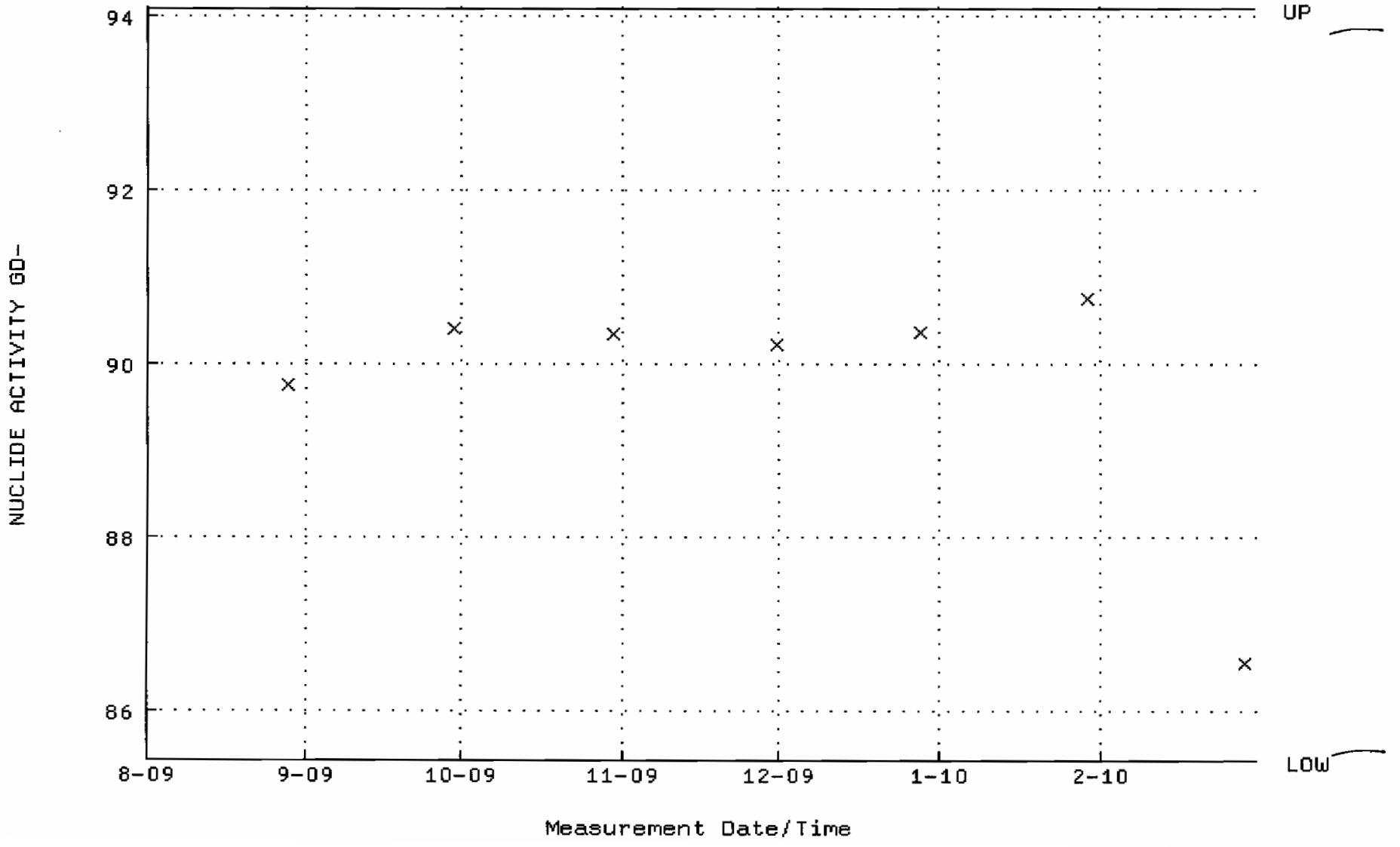

QA filename : DKA100:[ENV_ALPHA.QA.B]B210.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:14 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

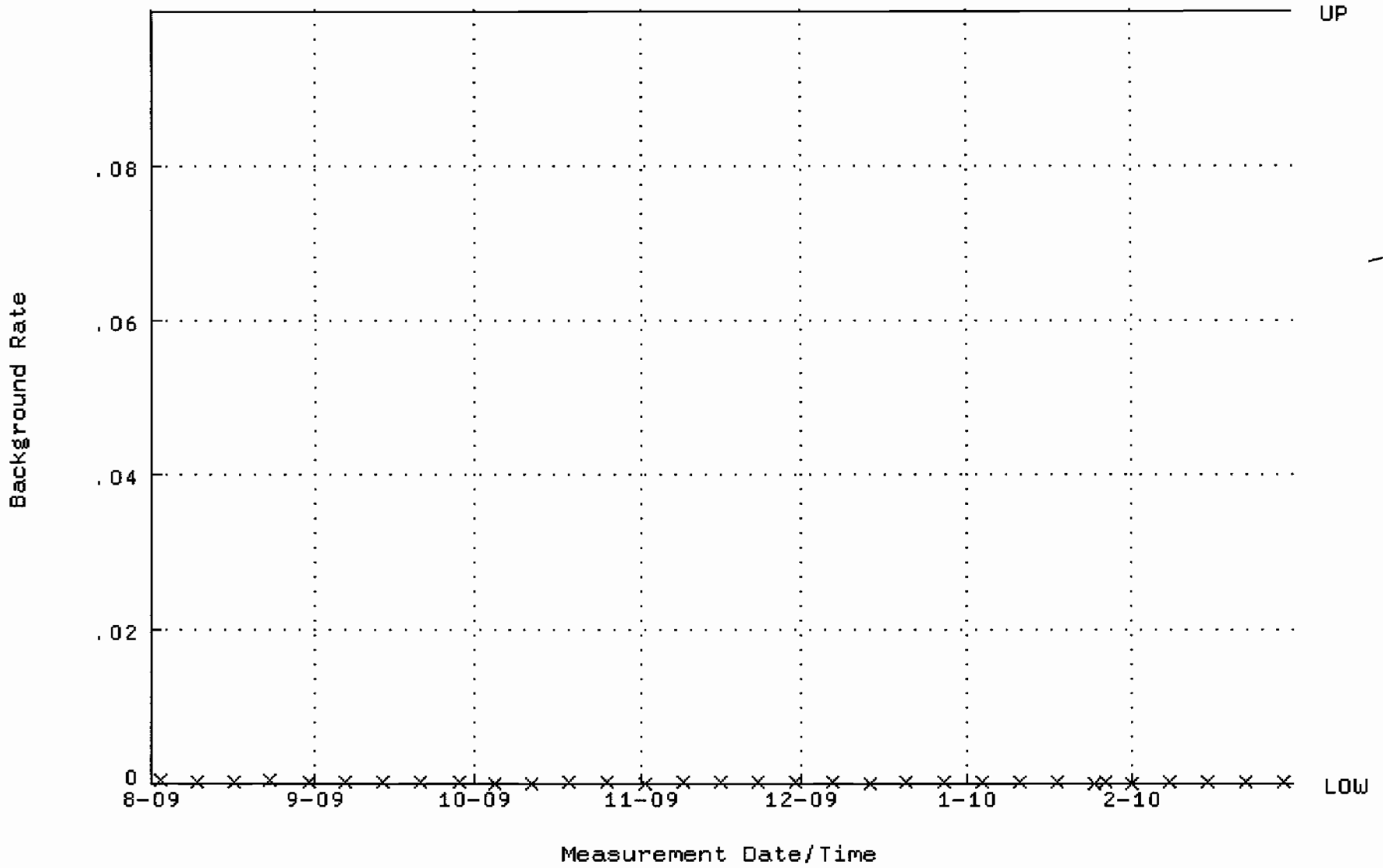

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.354934 through 0.374934

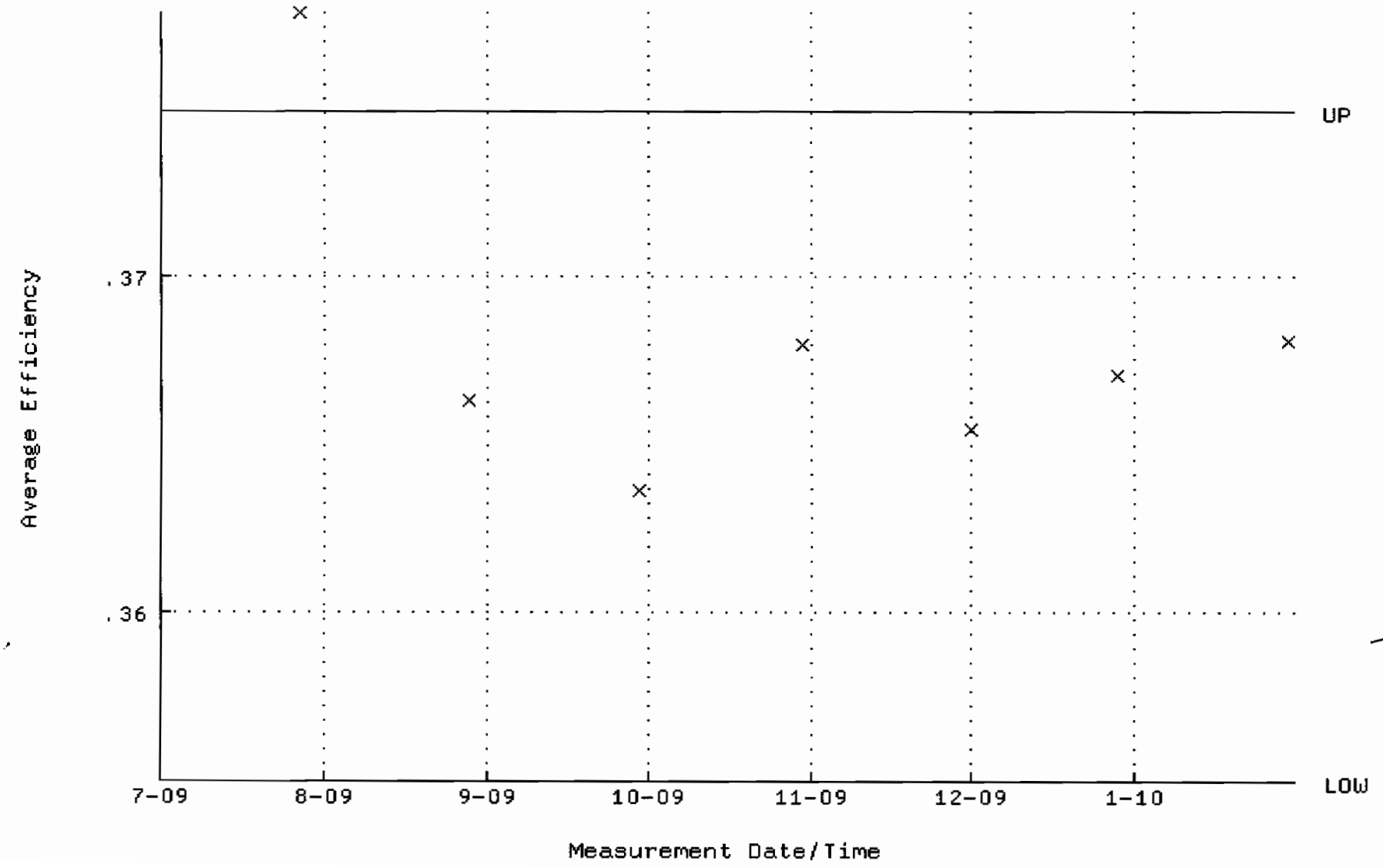

QA filename : DKA100:[ENV_ALPHA.QA.W]W217.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:04 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 88.3174 through 97.6140

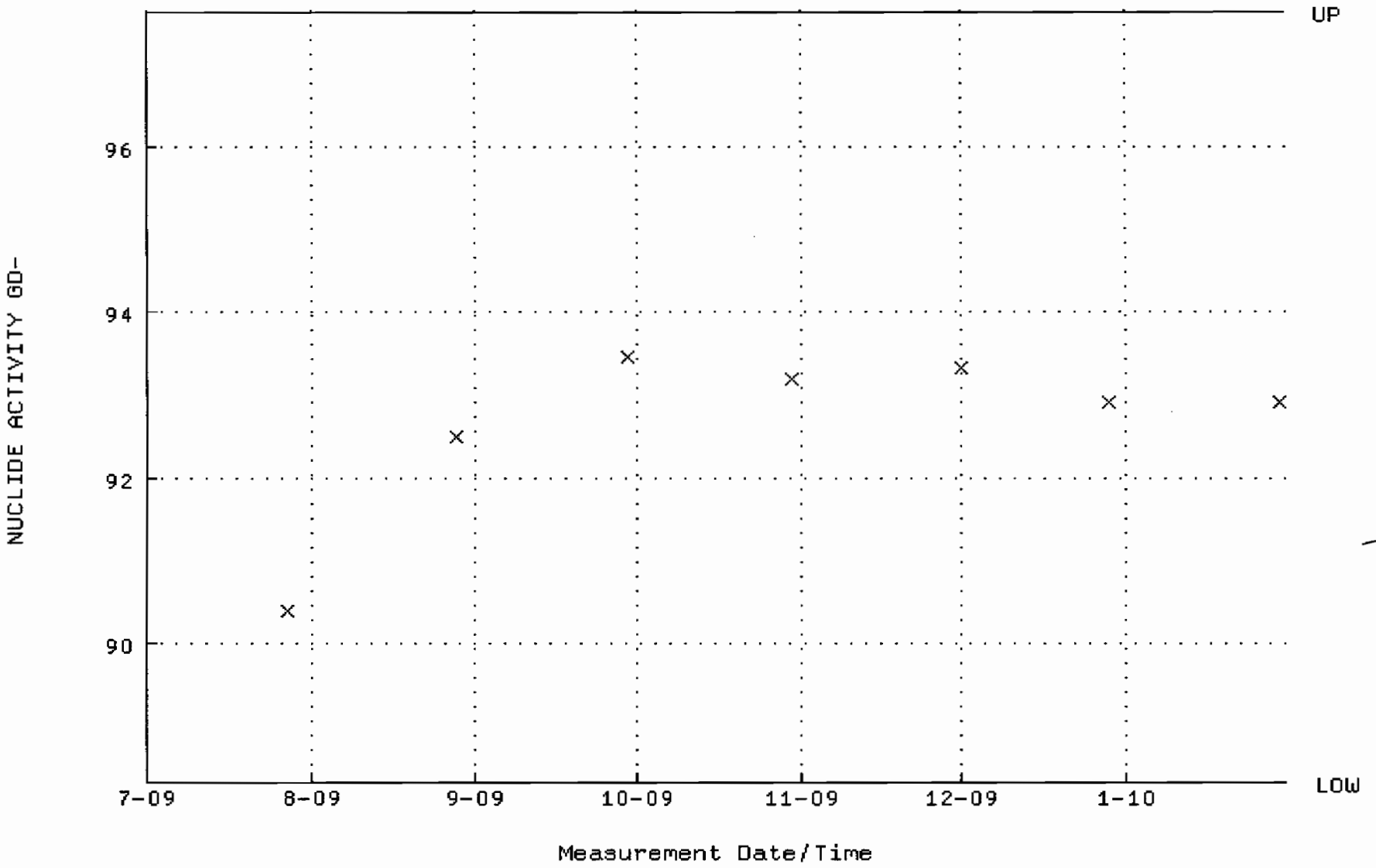

QA filename : DKA100:[ENV_ALPHA.QA.B]B217.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:03:56 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

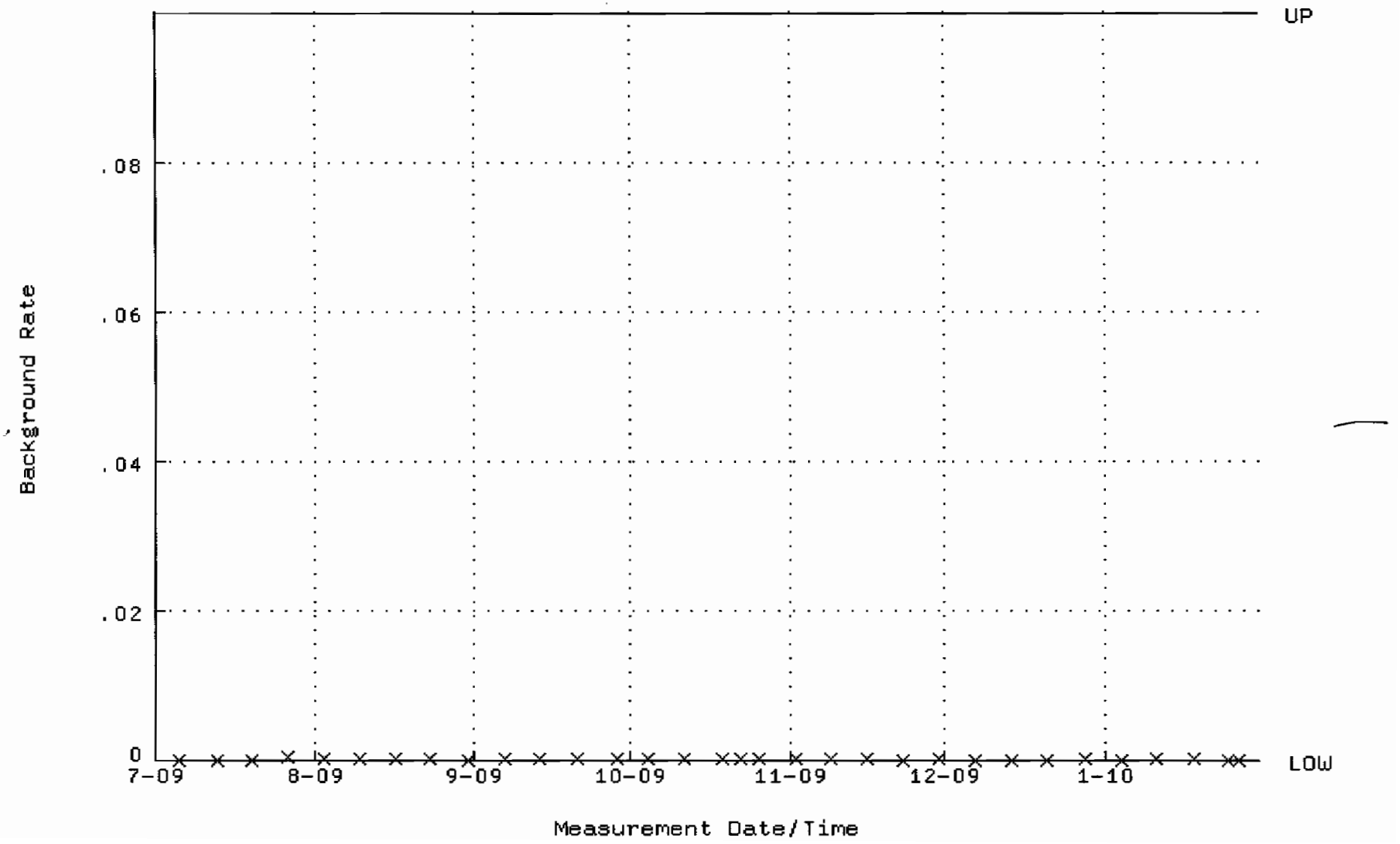

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.362380 through 0.382380

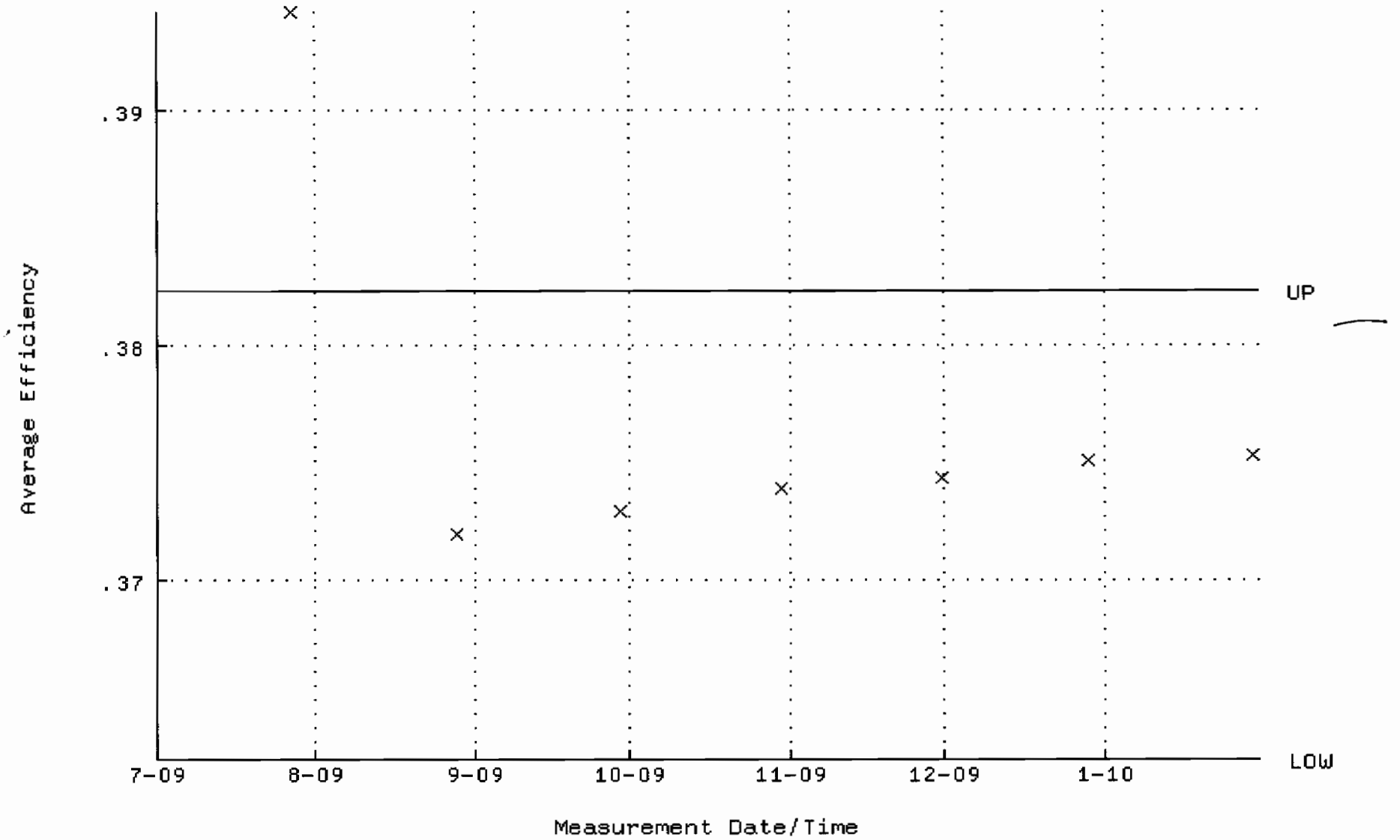

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:48:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 89.3892 through 98.7986

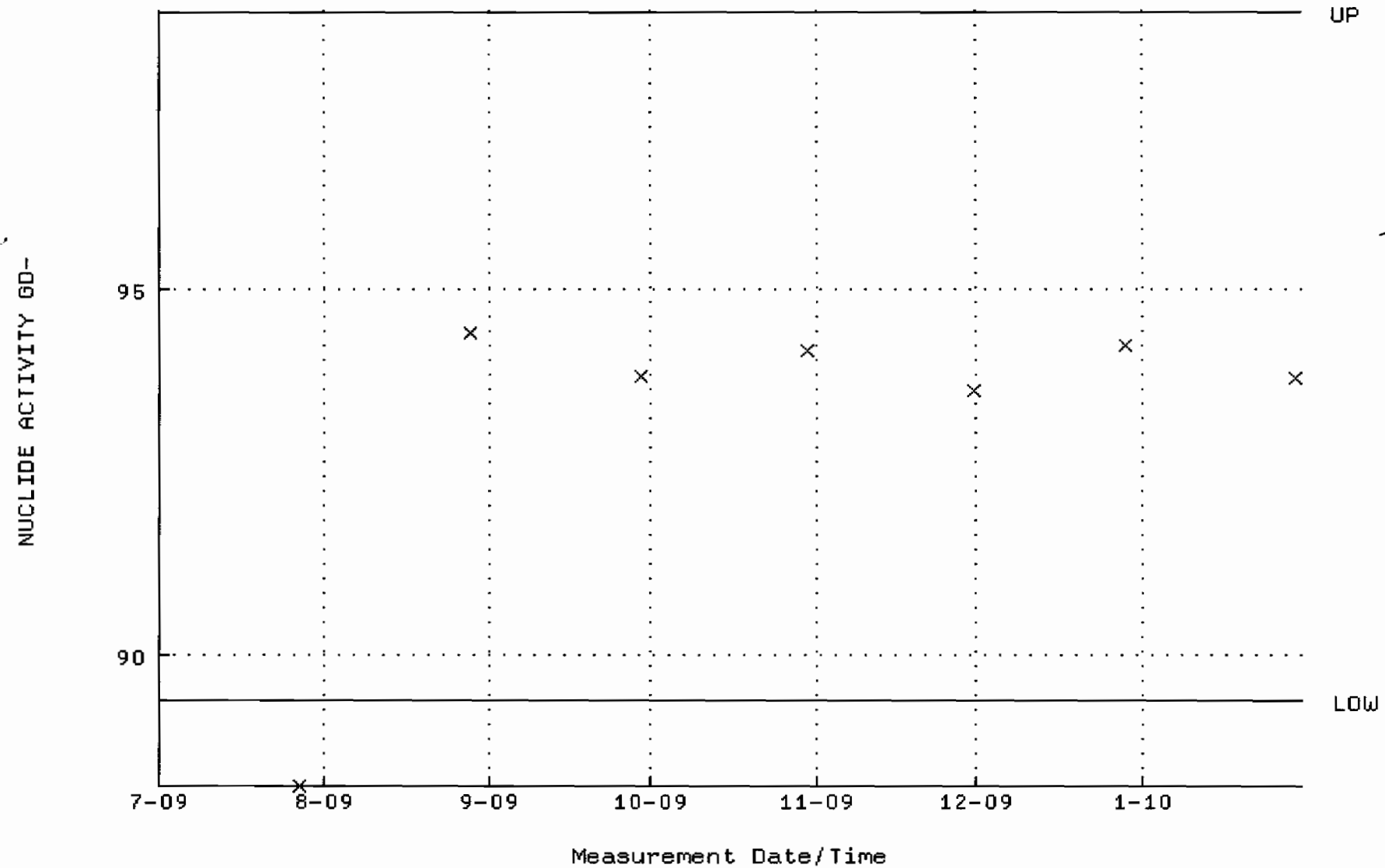

QA filename : DKA100:[ENV_ALPHA.QA.B]B218.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:04:01 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

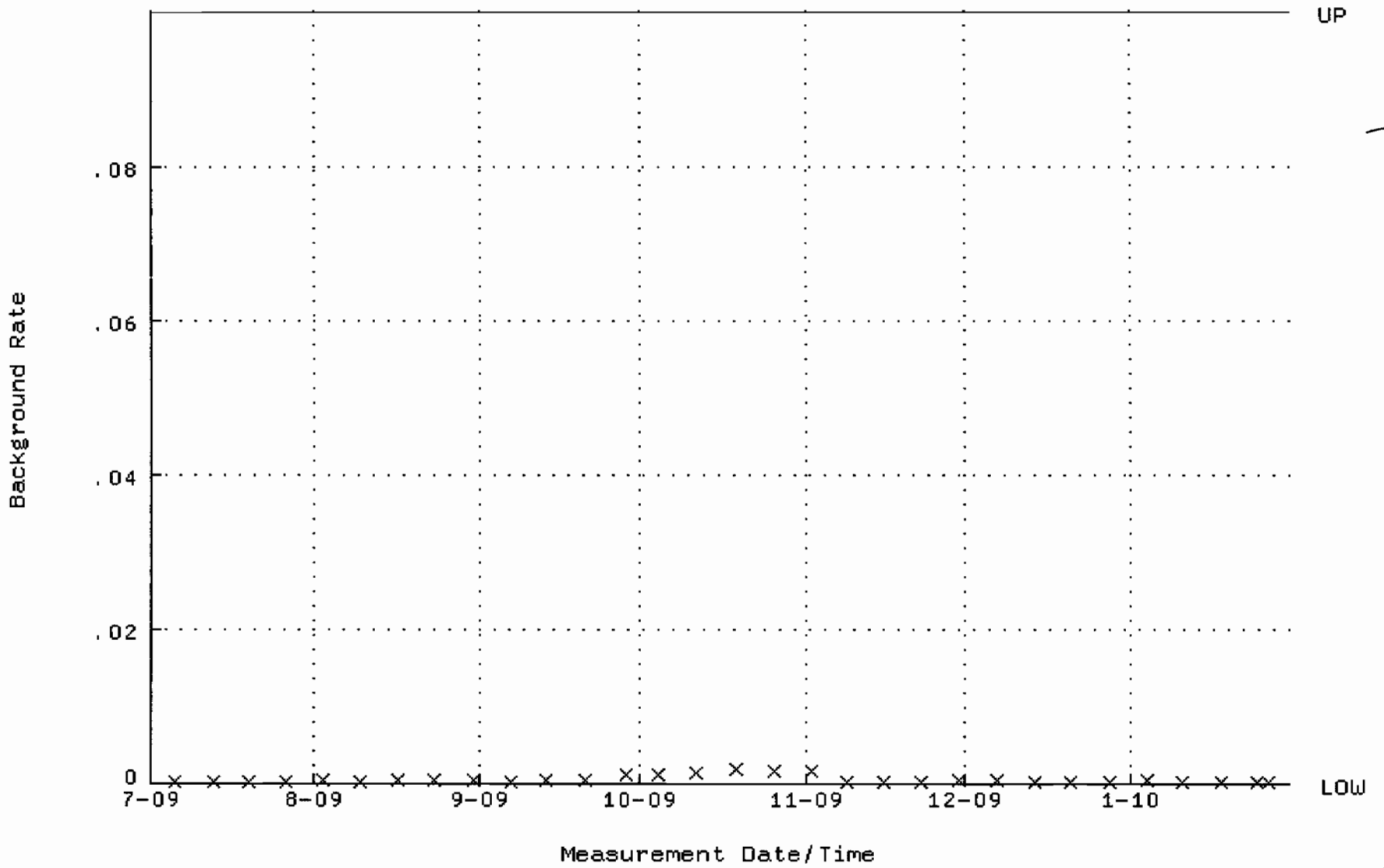

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.372001 through 0.392001

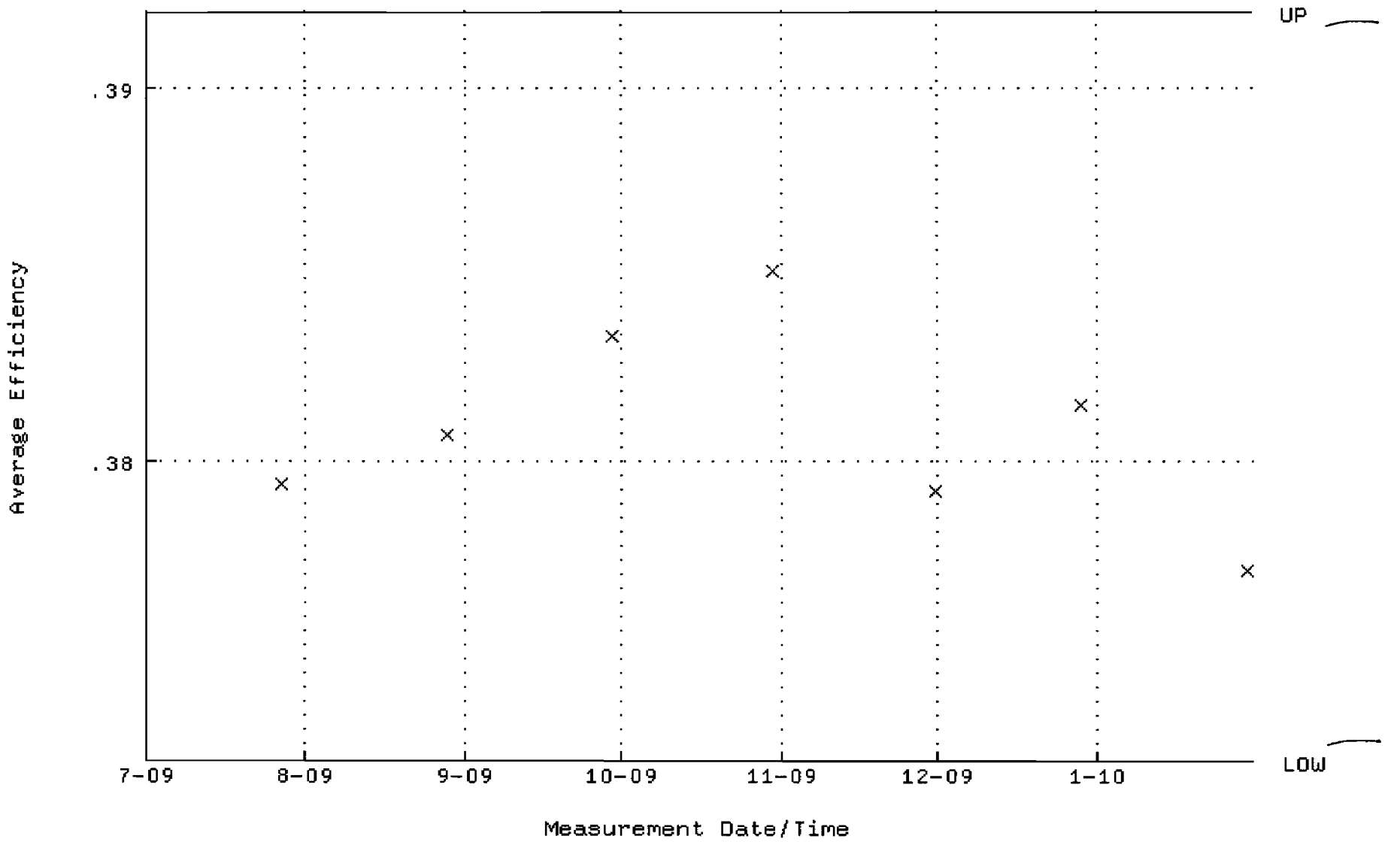

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.9652 through 91.6984

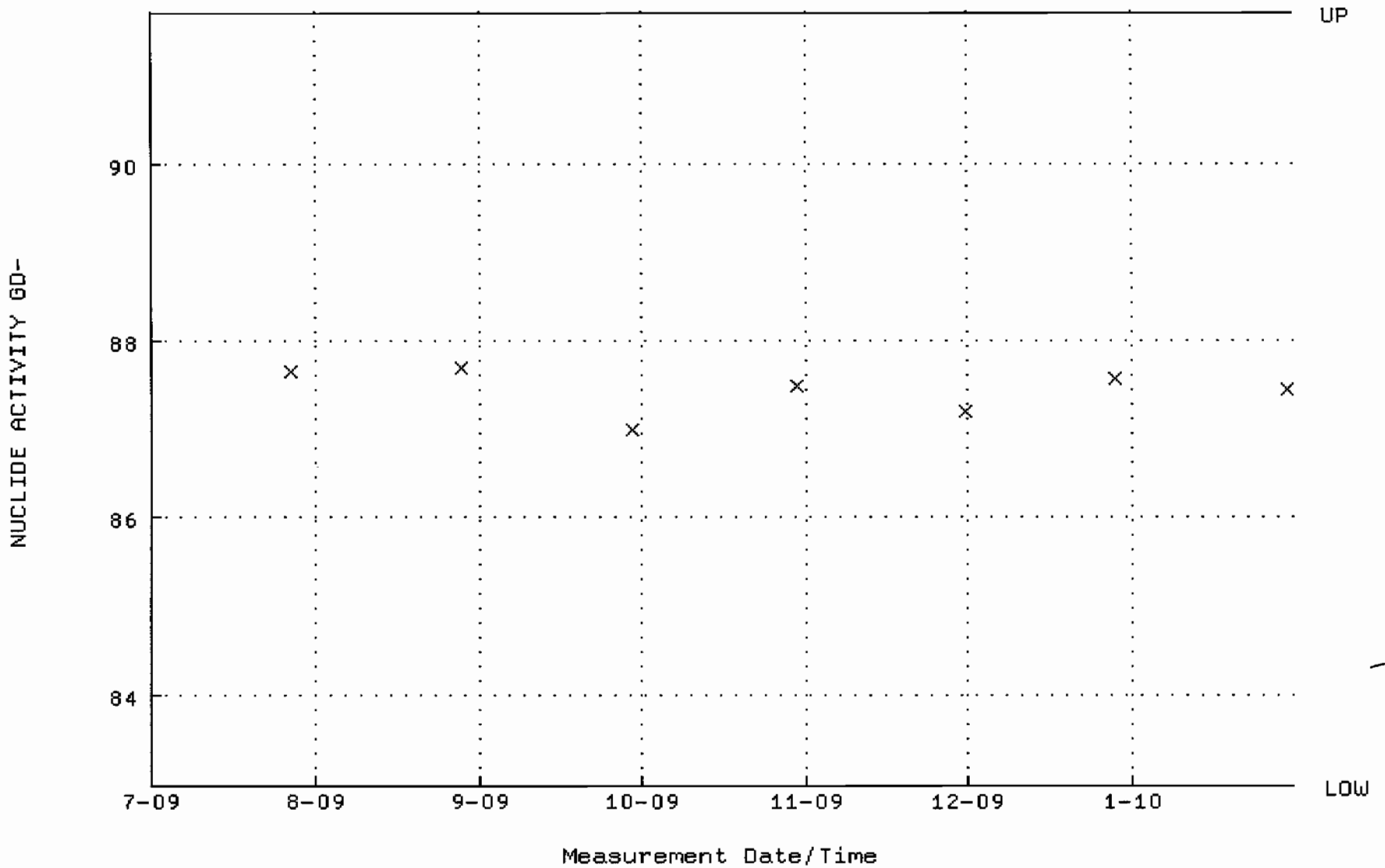

QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

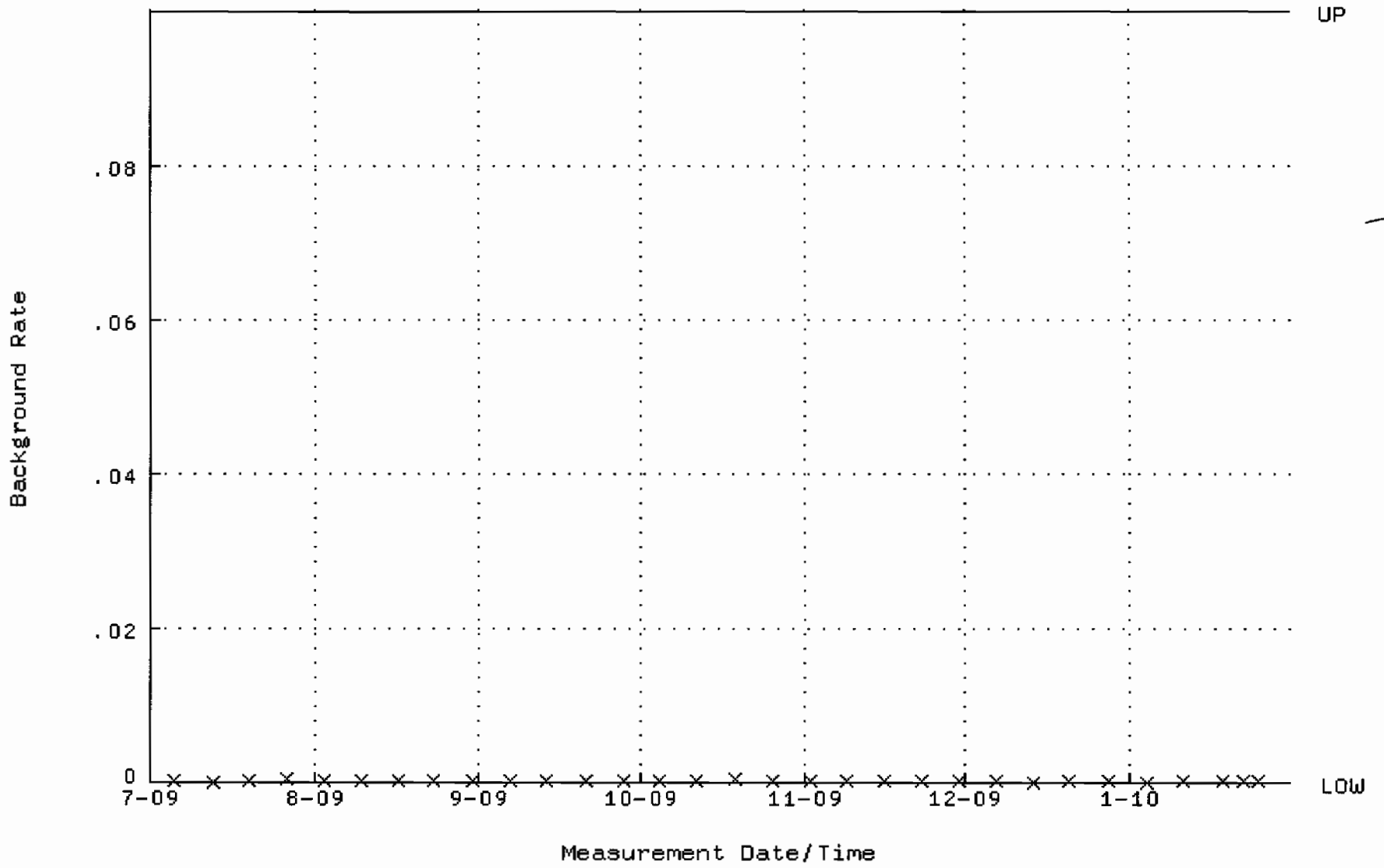

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.372763 through 0.392763

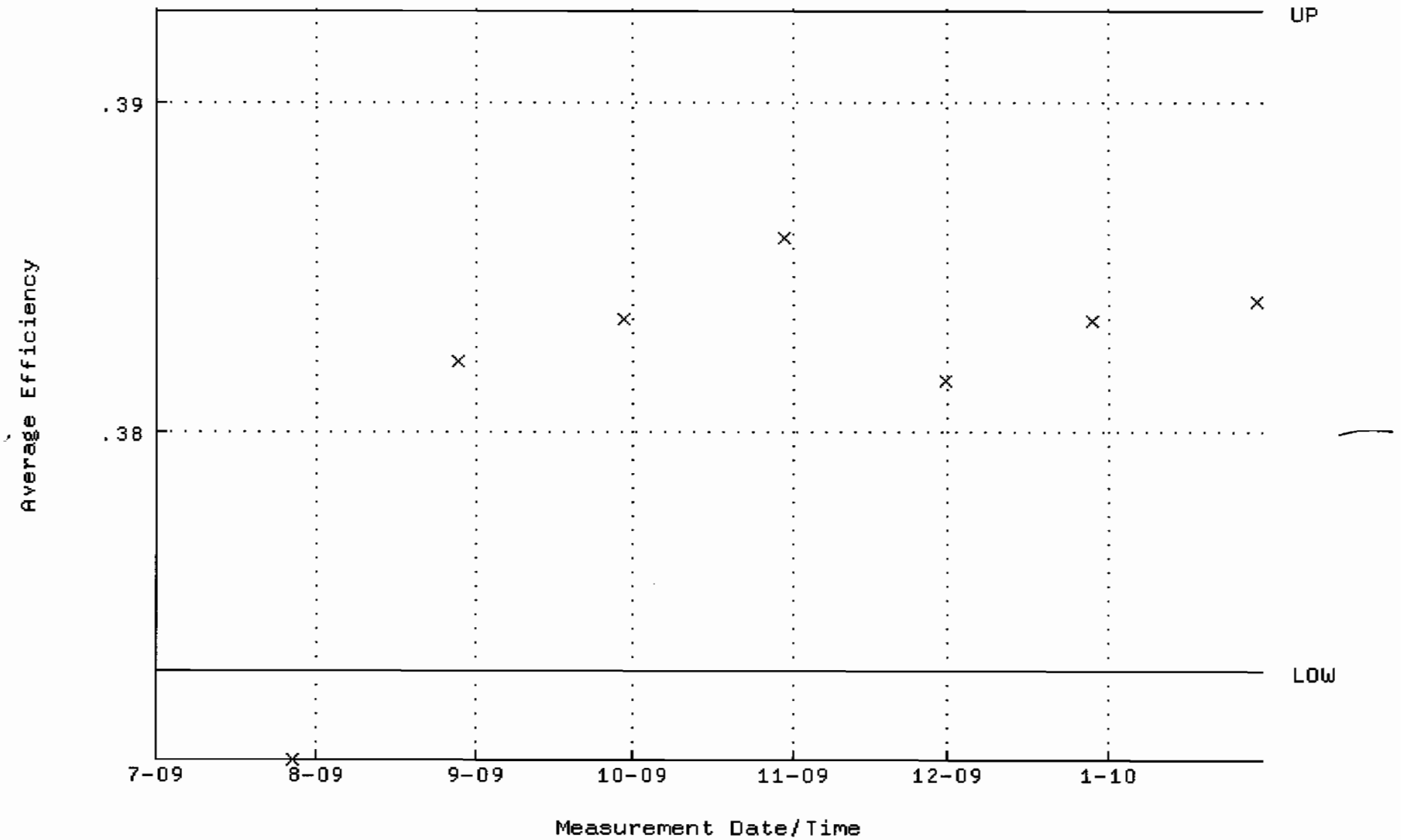

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:54 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 80.7996 through 89.3048

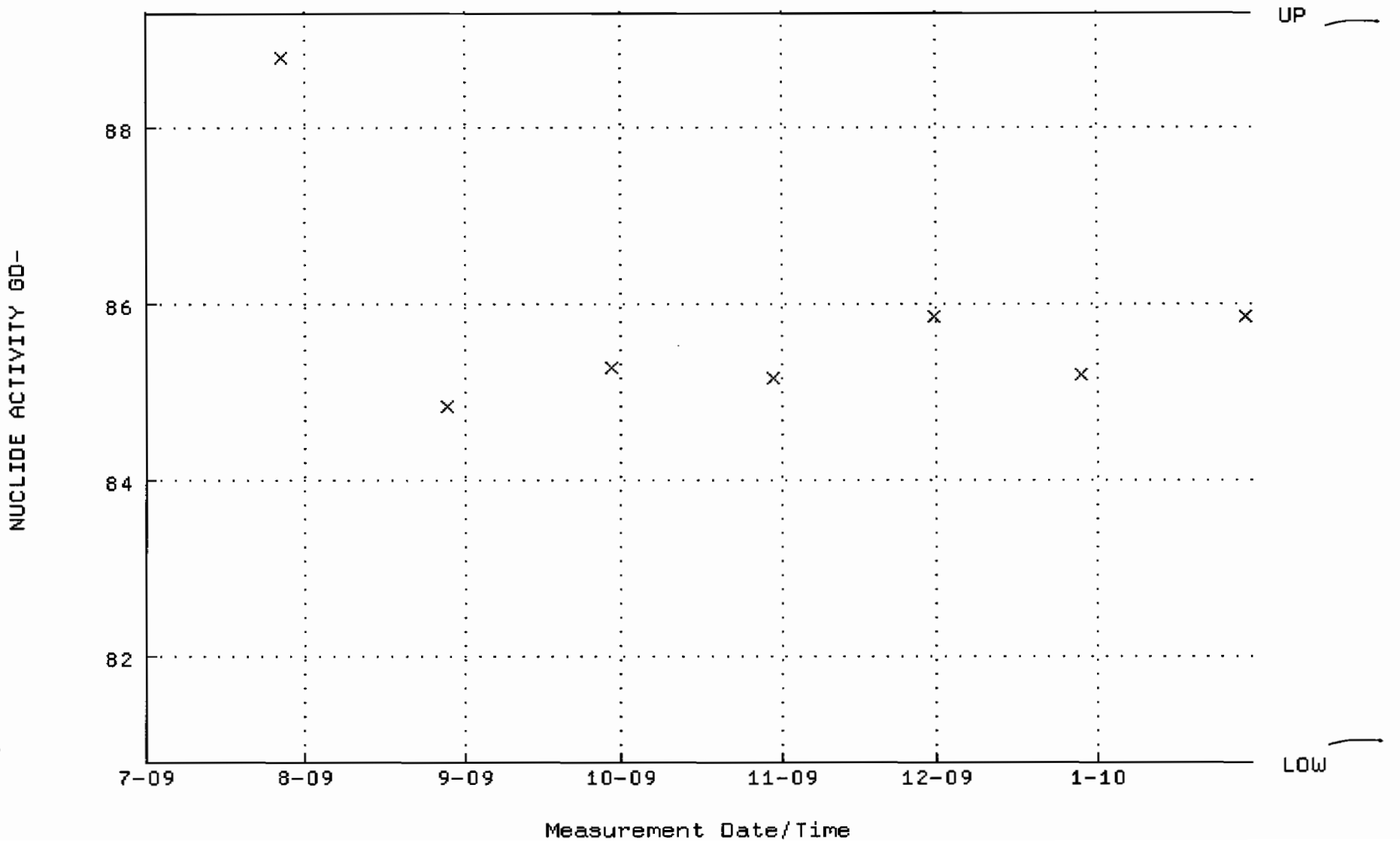

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:15 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

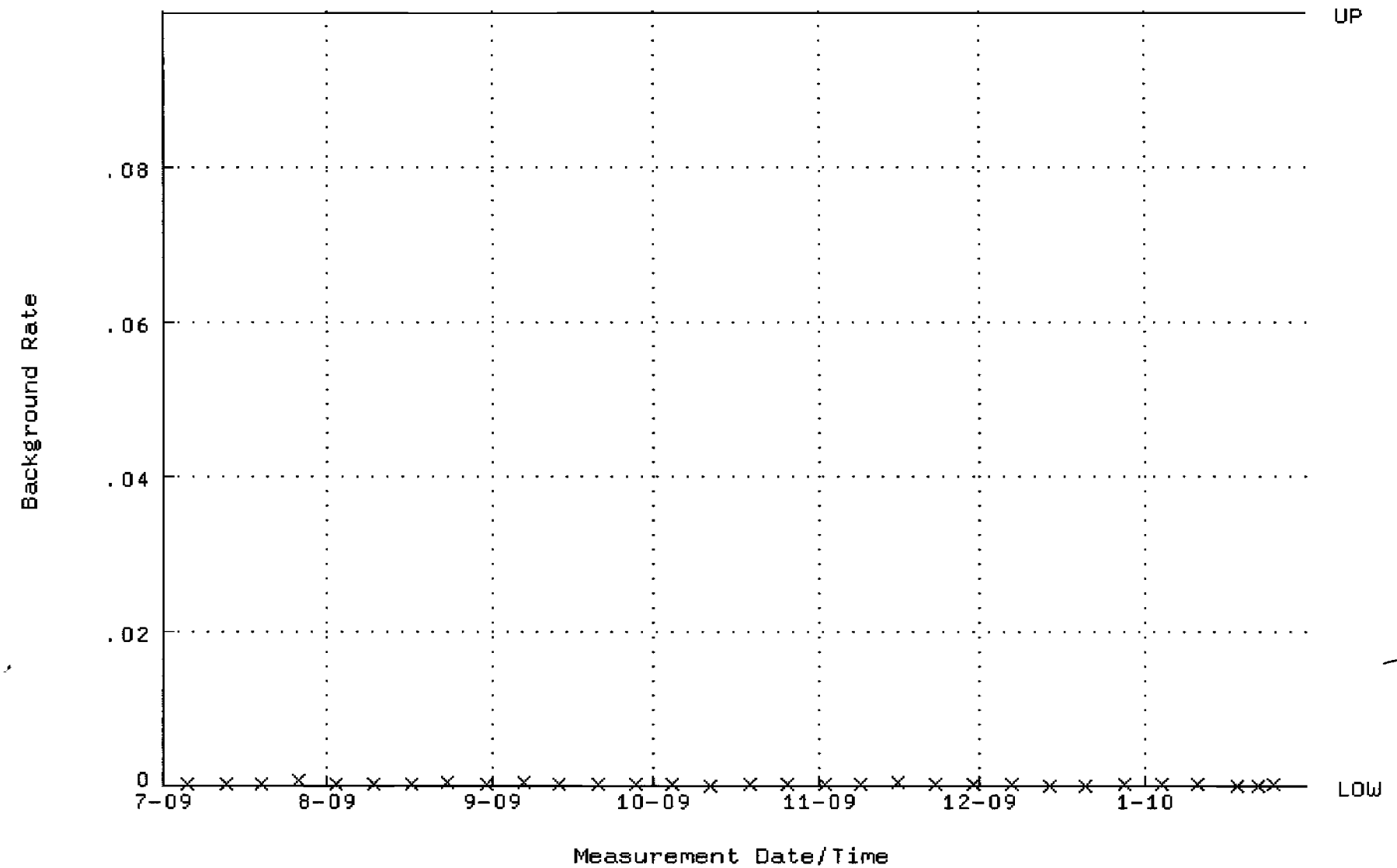

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:08:48 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

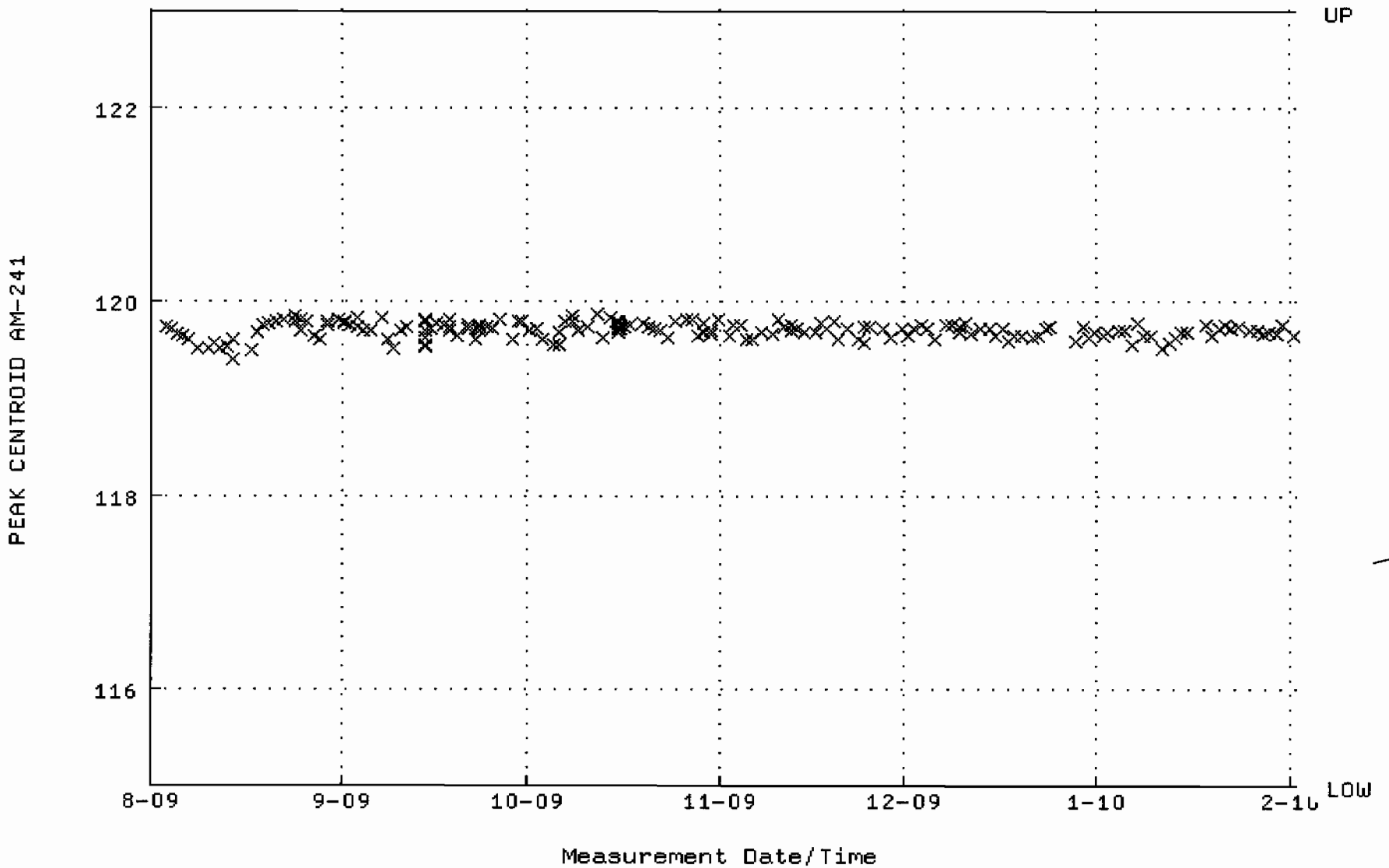

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:21:01 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

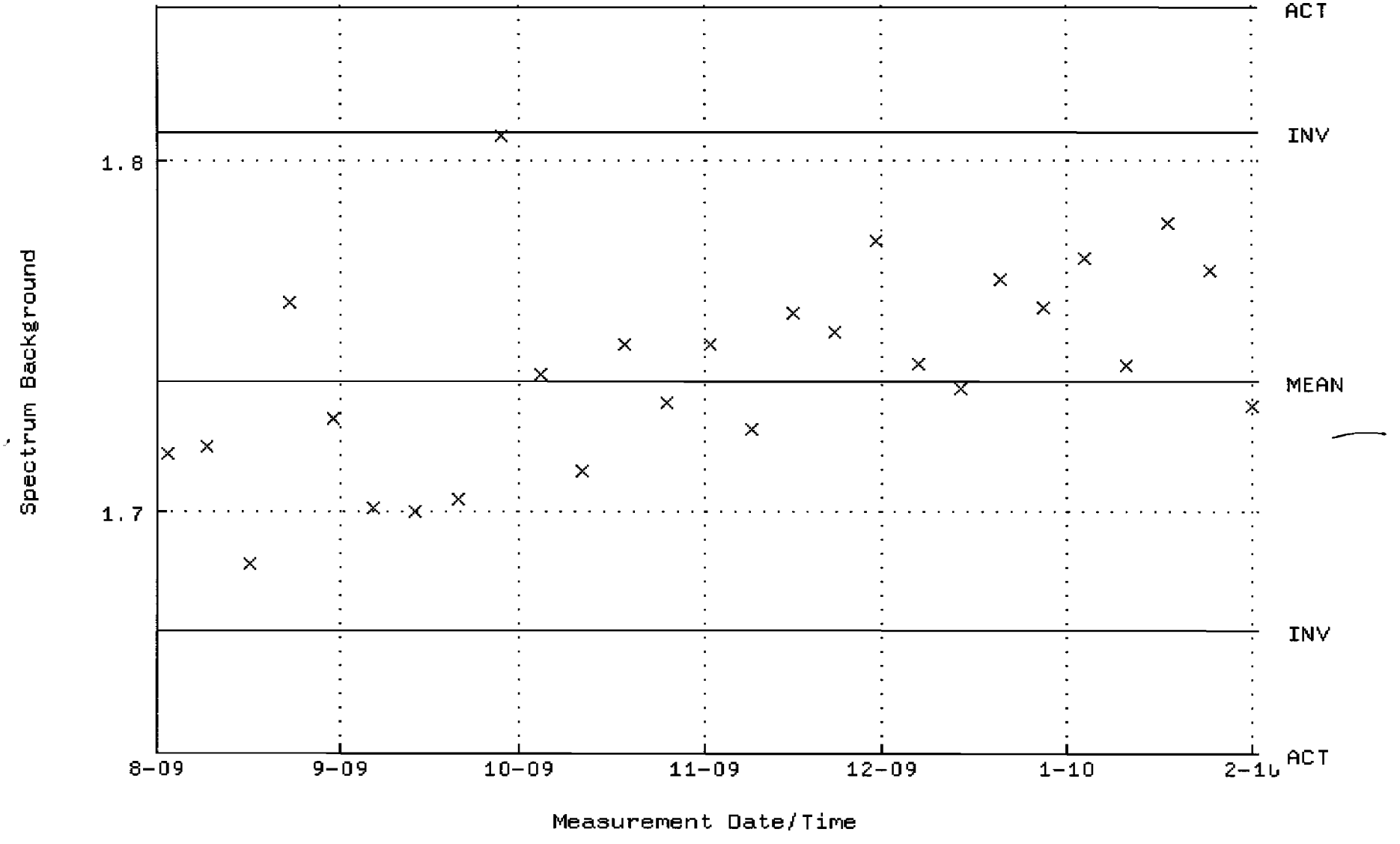

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:11:46 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

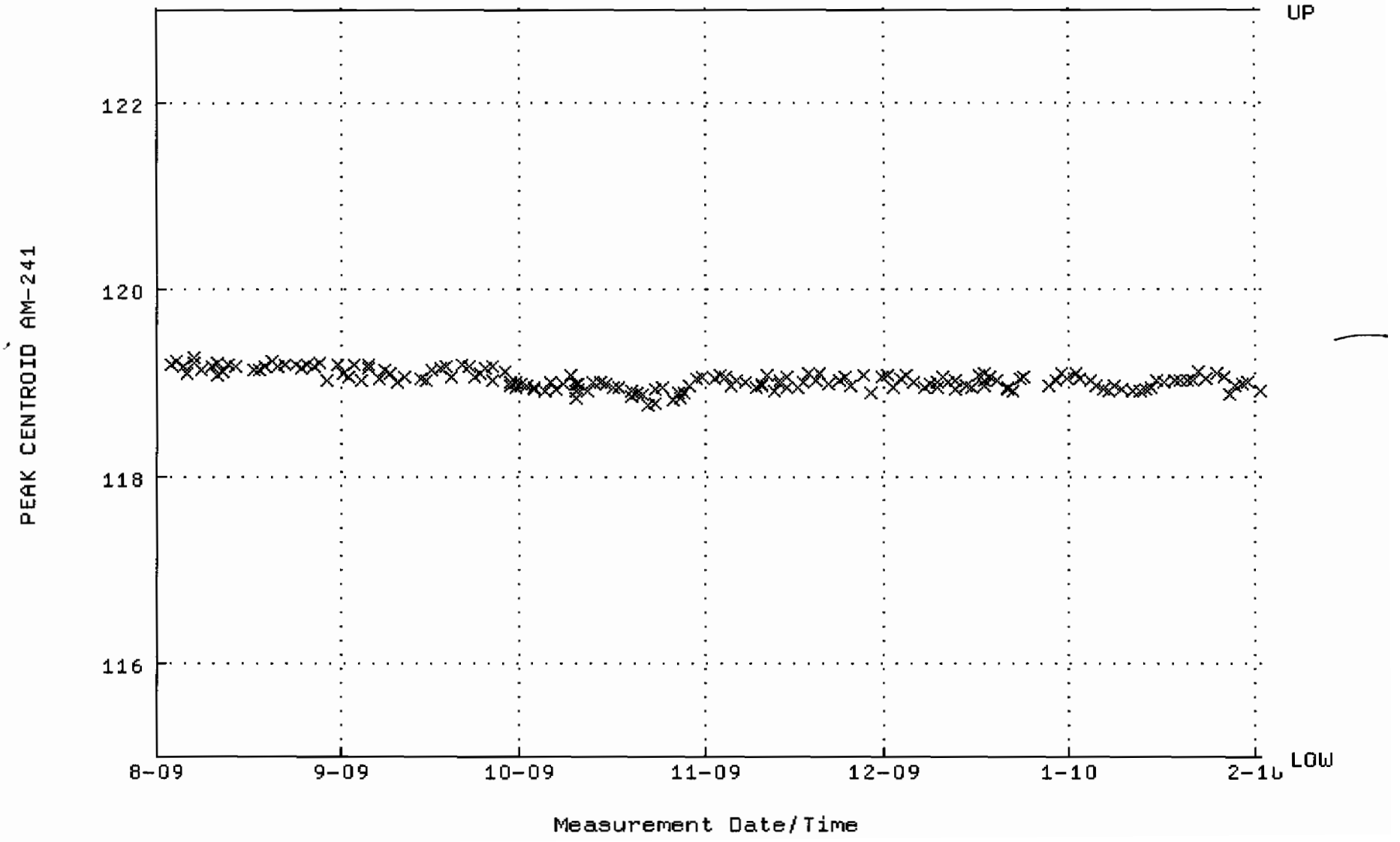

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:48 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

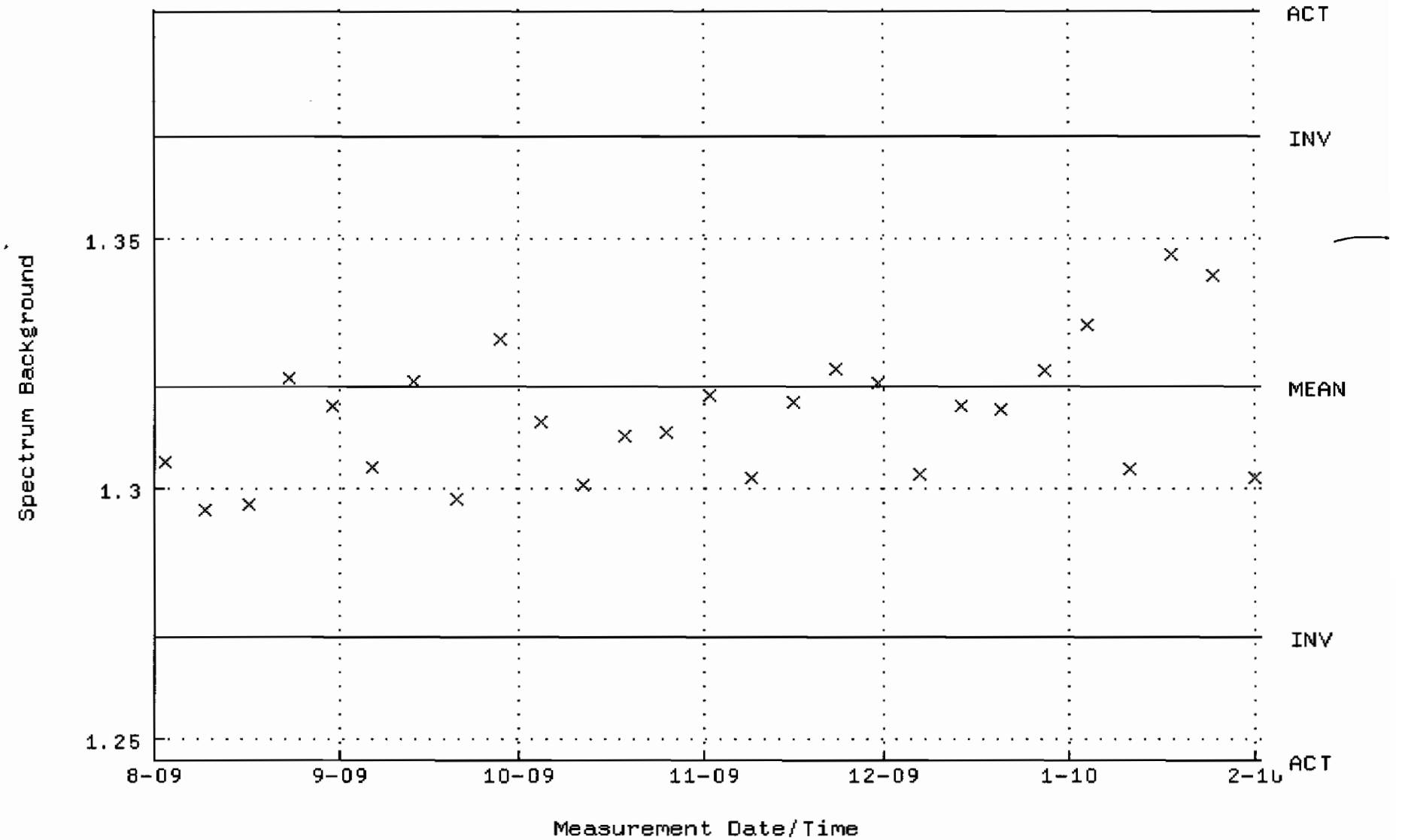

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

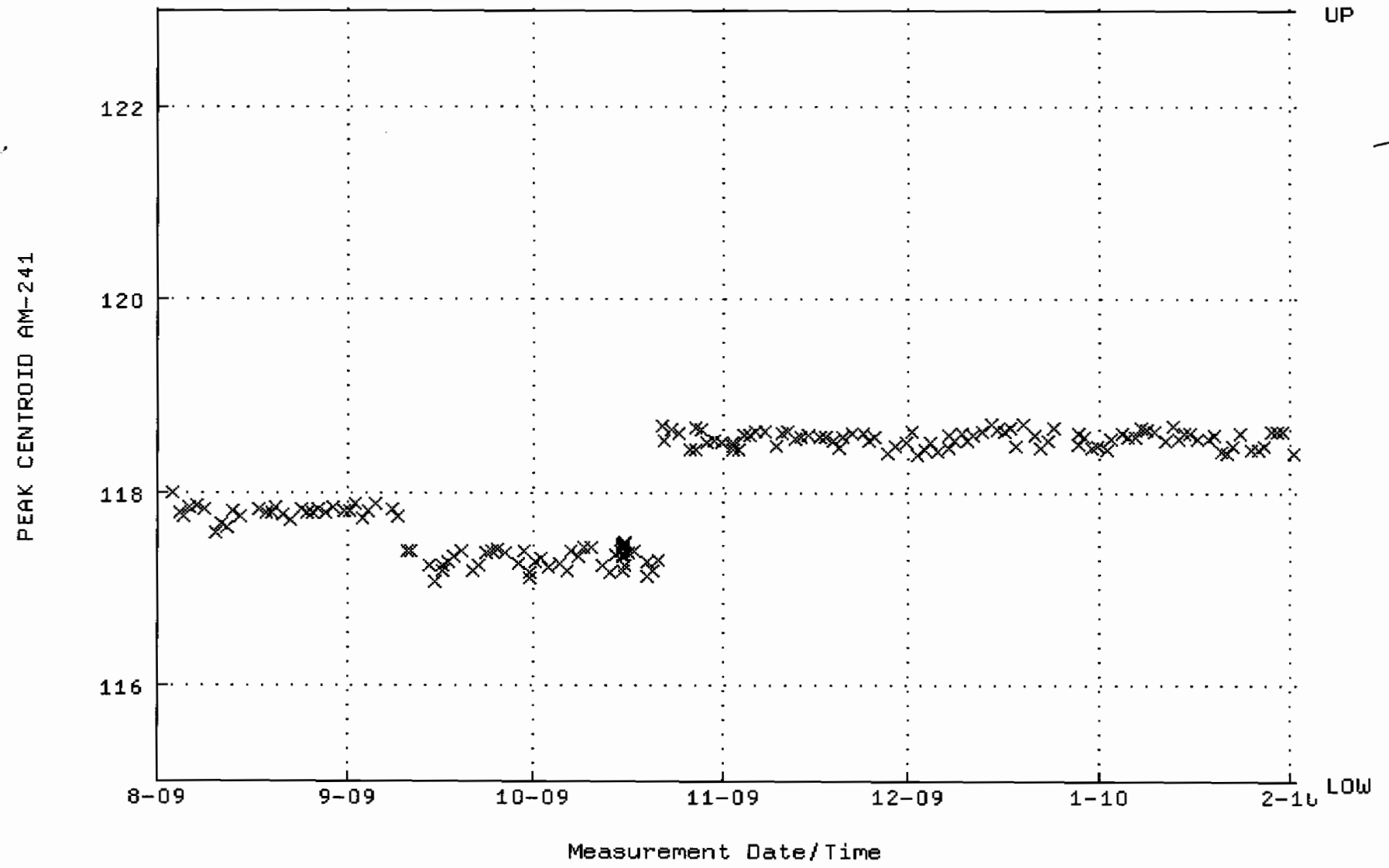

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:13 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

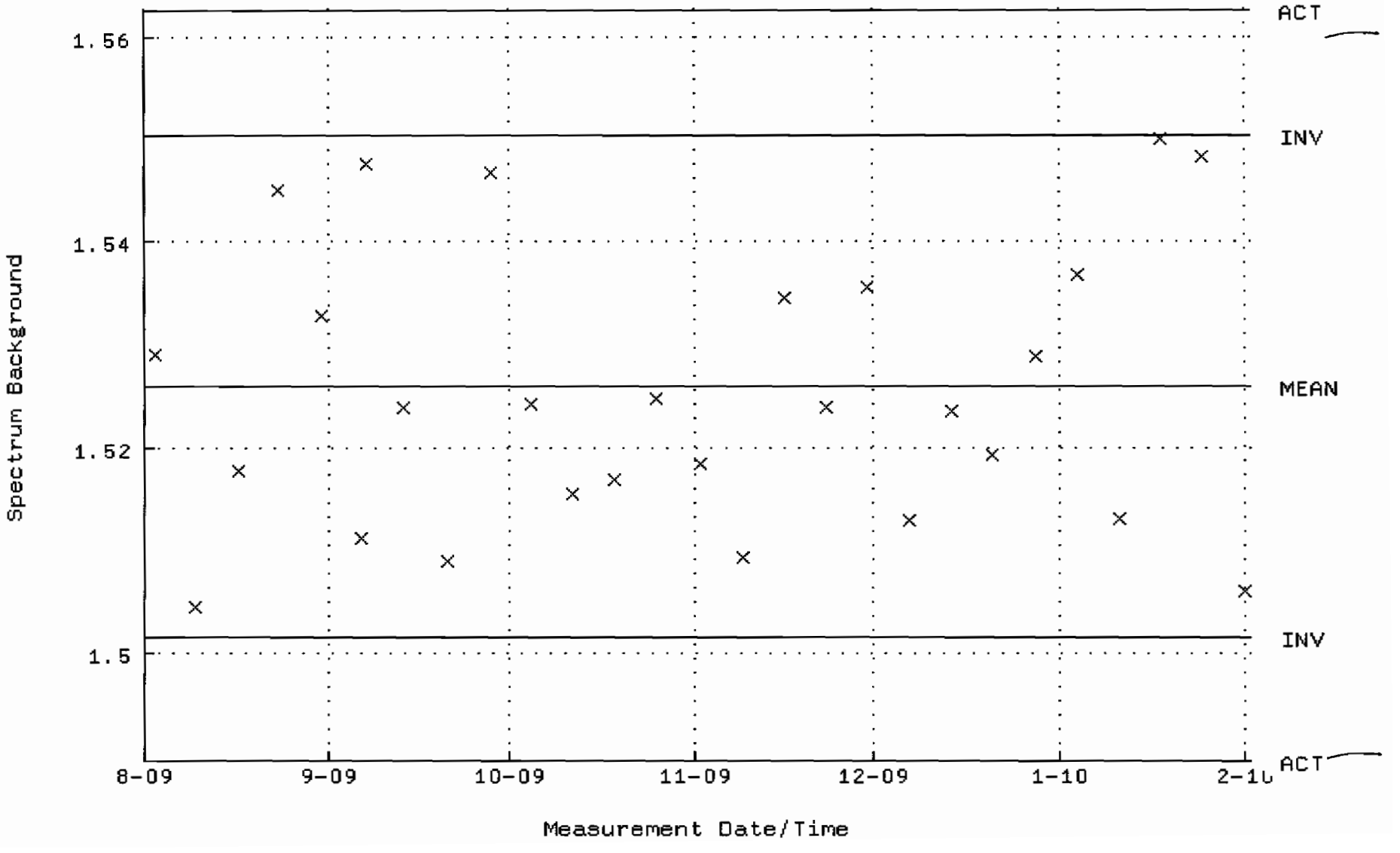

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:52 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

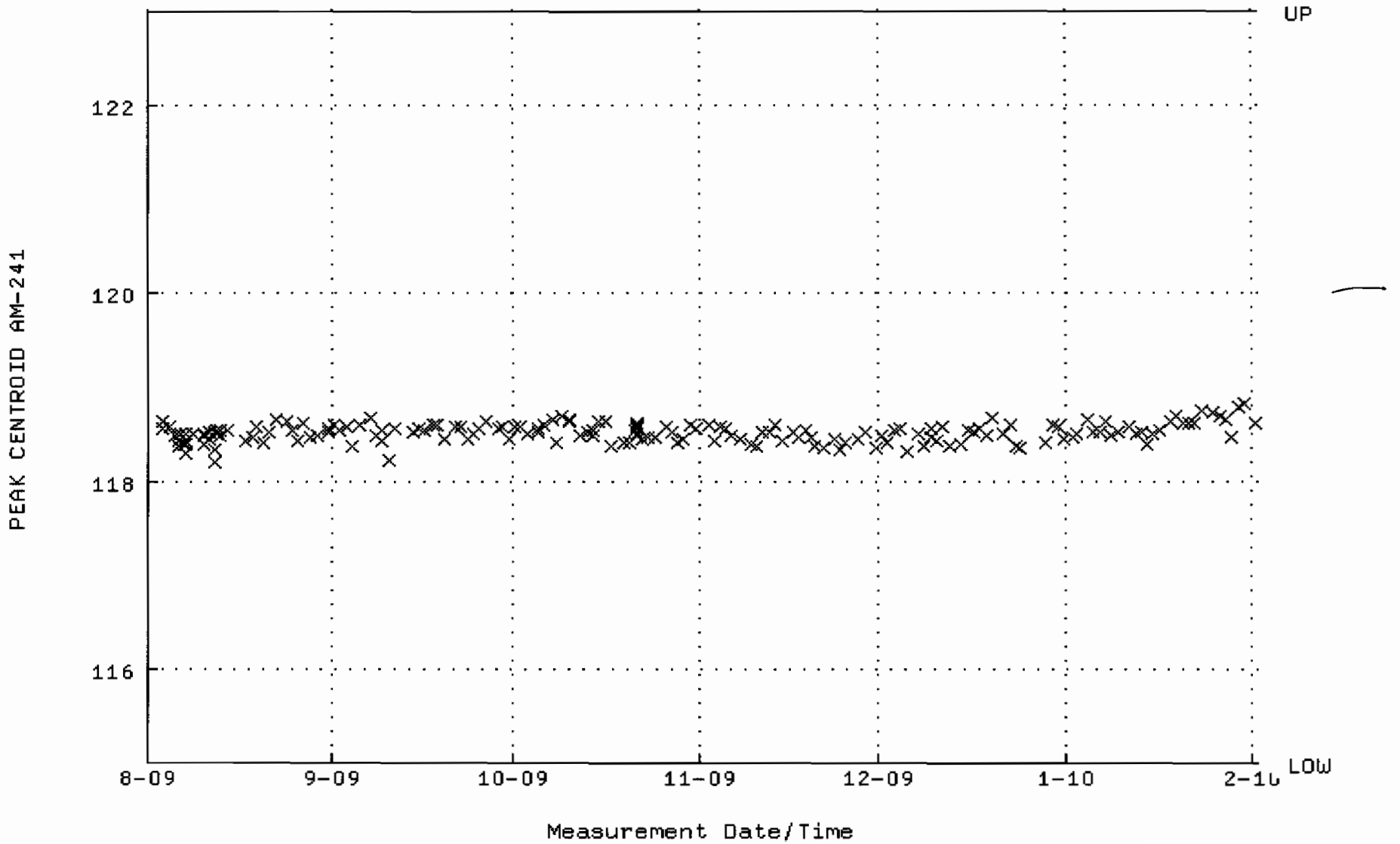

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:26 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

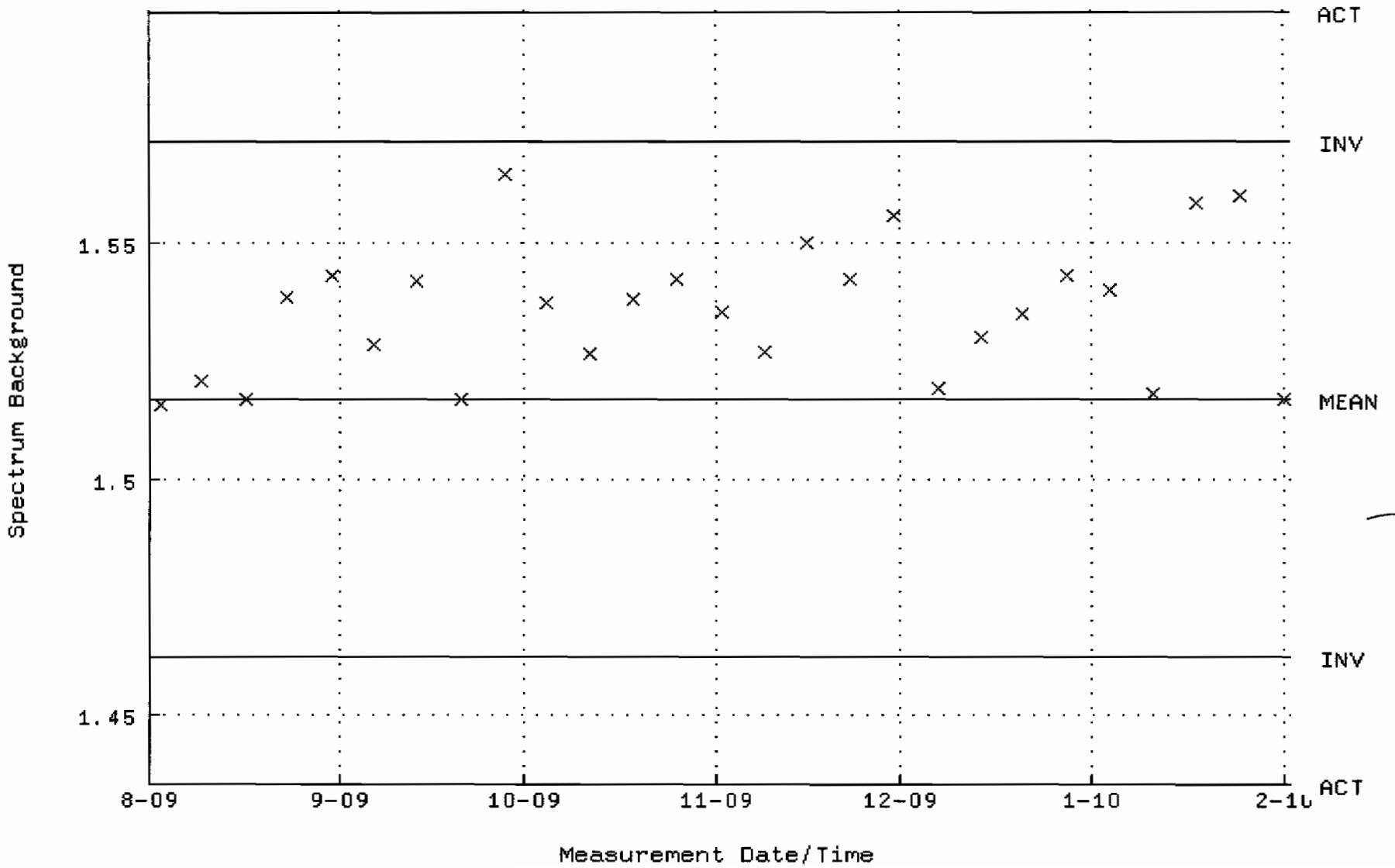

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

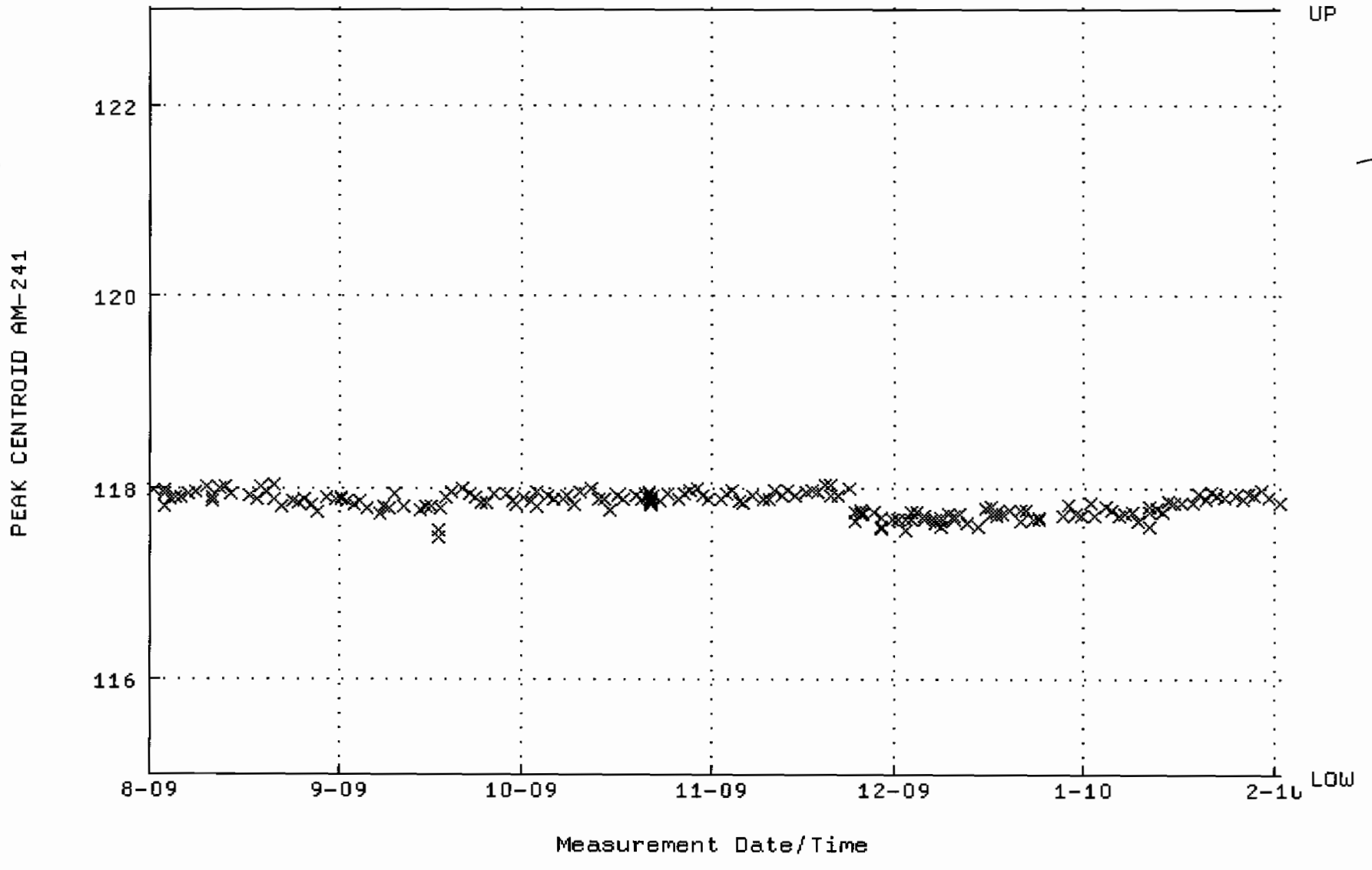

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)

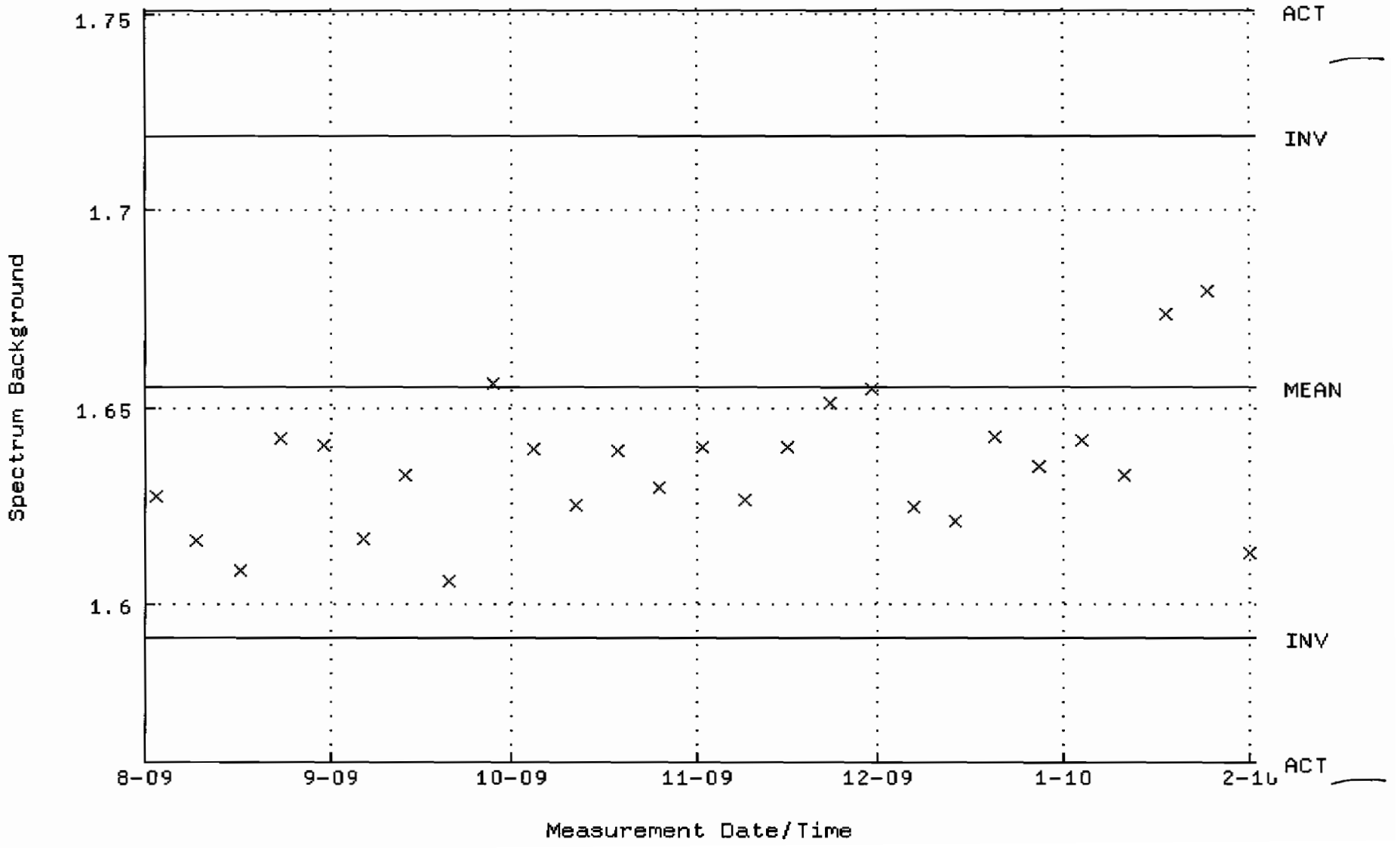

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

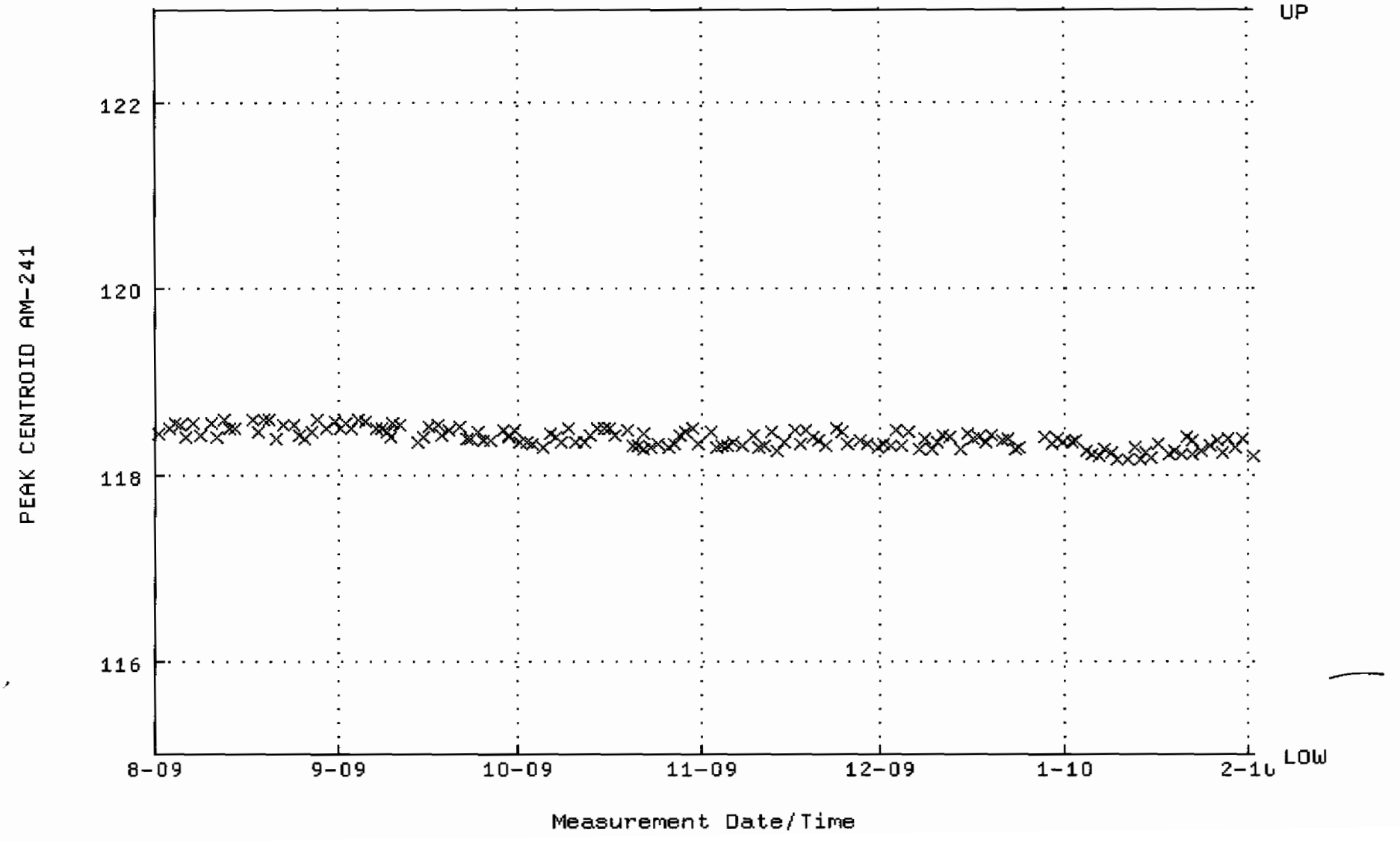

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

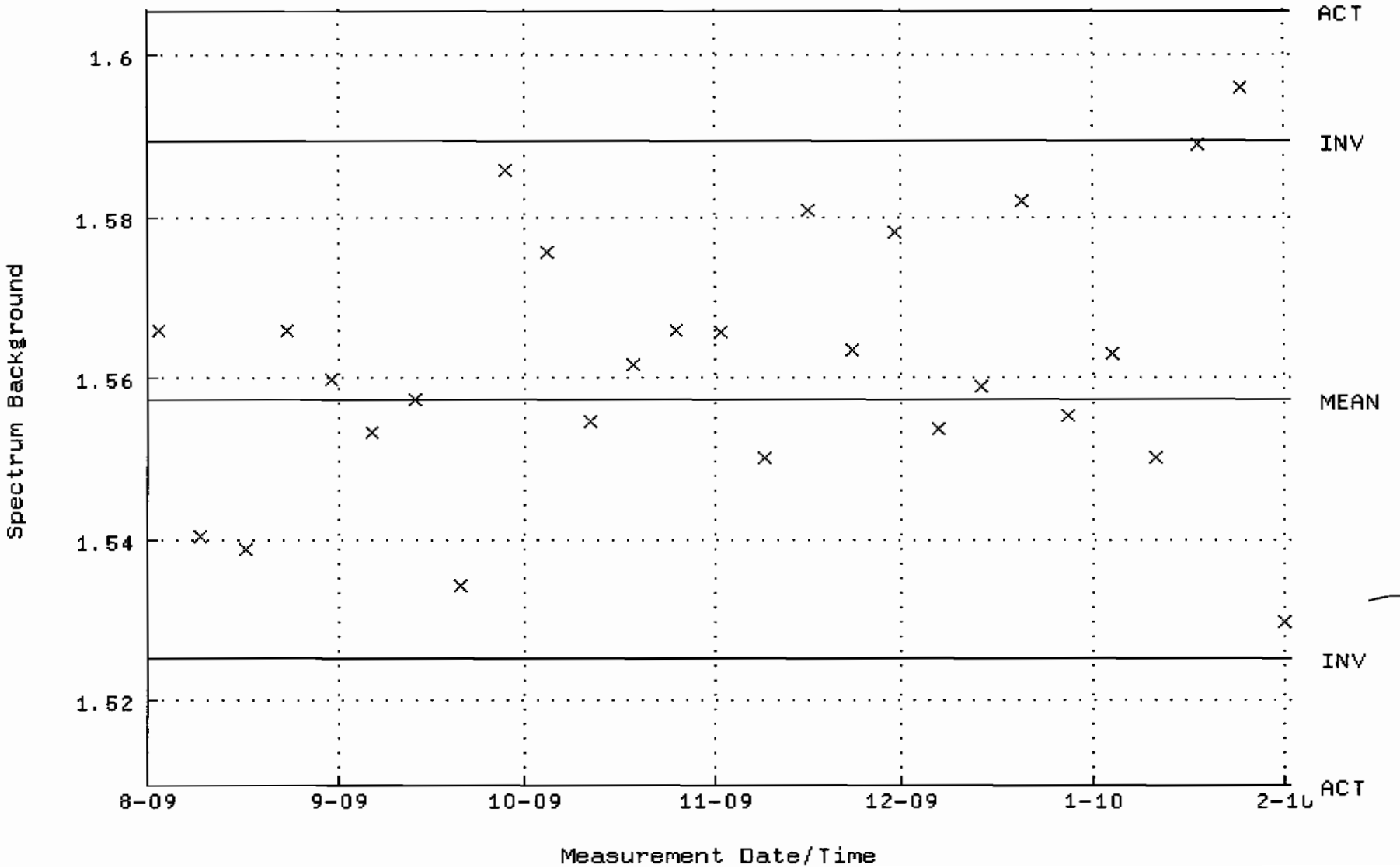

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:53:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

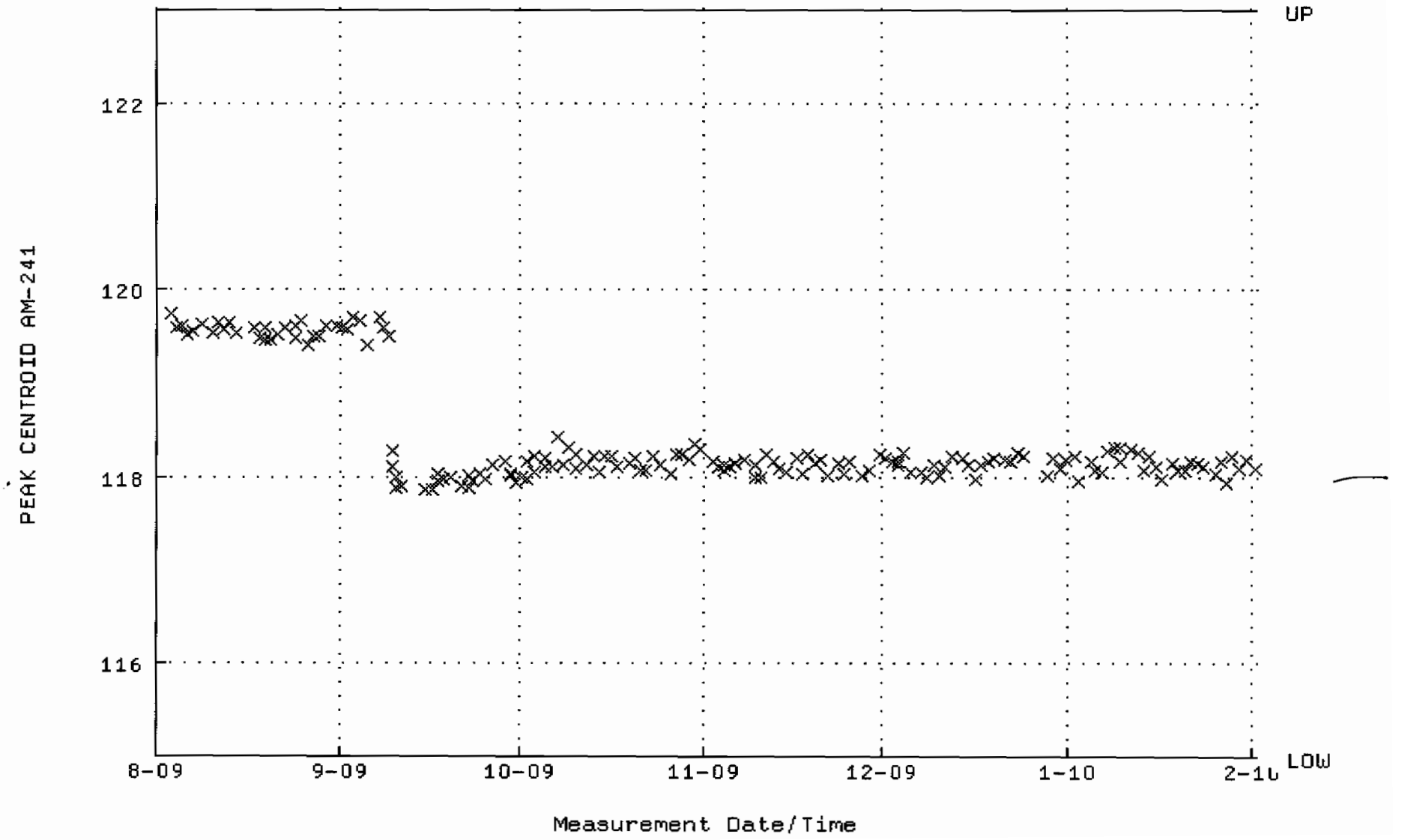

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:46 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

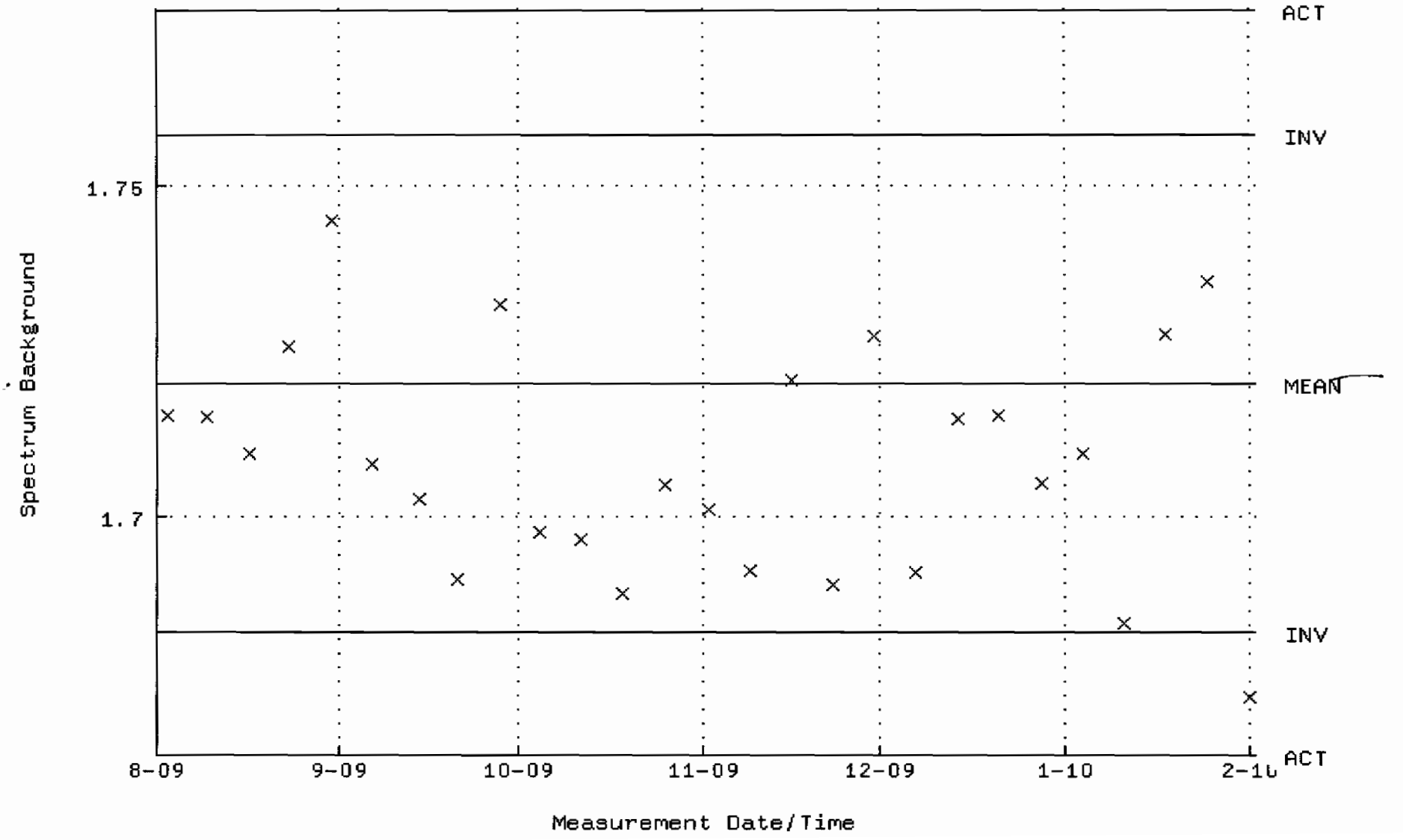

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:30 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

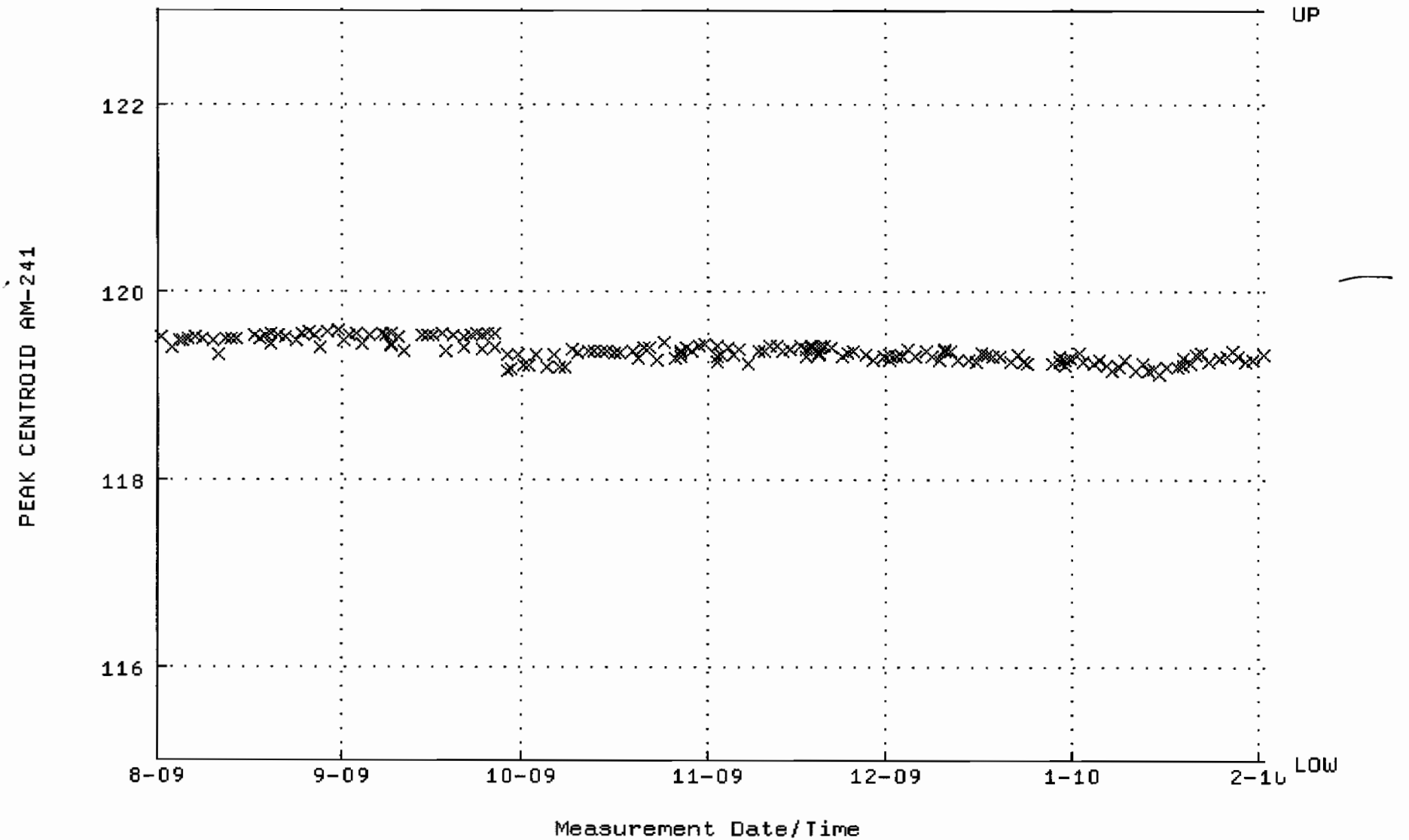

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:58 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

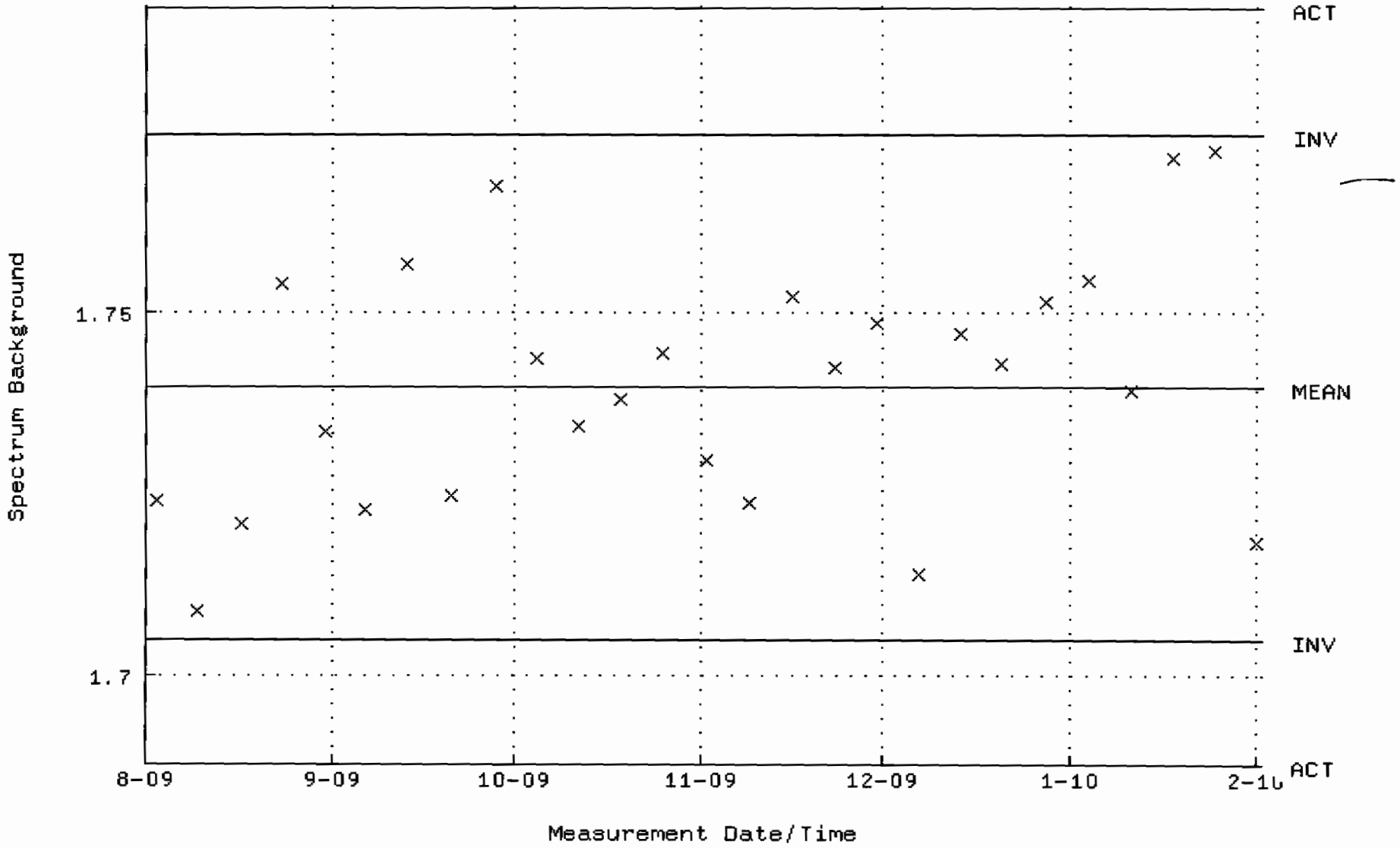

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

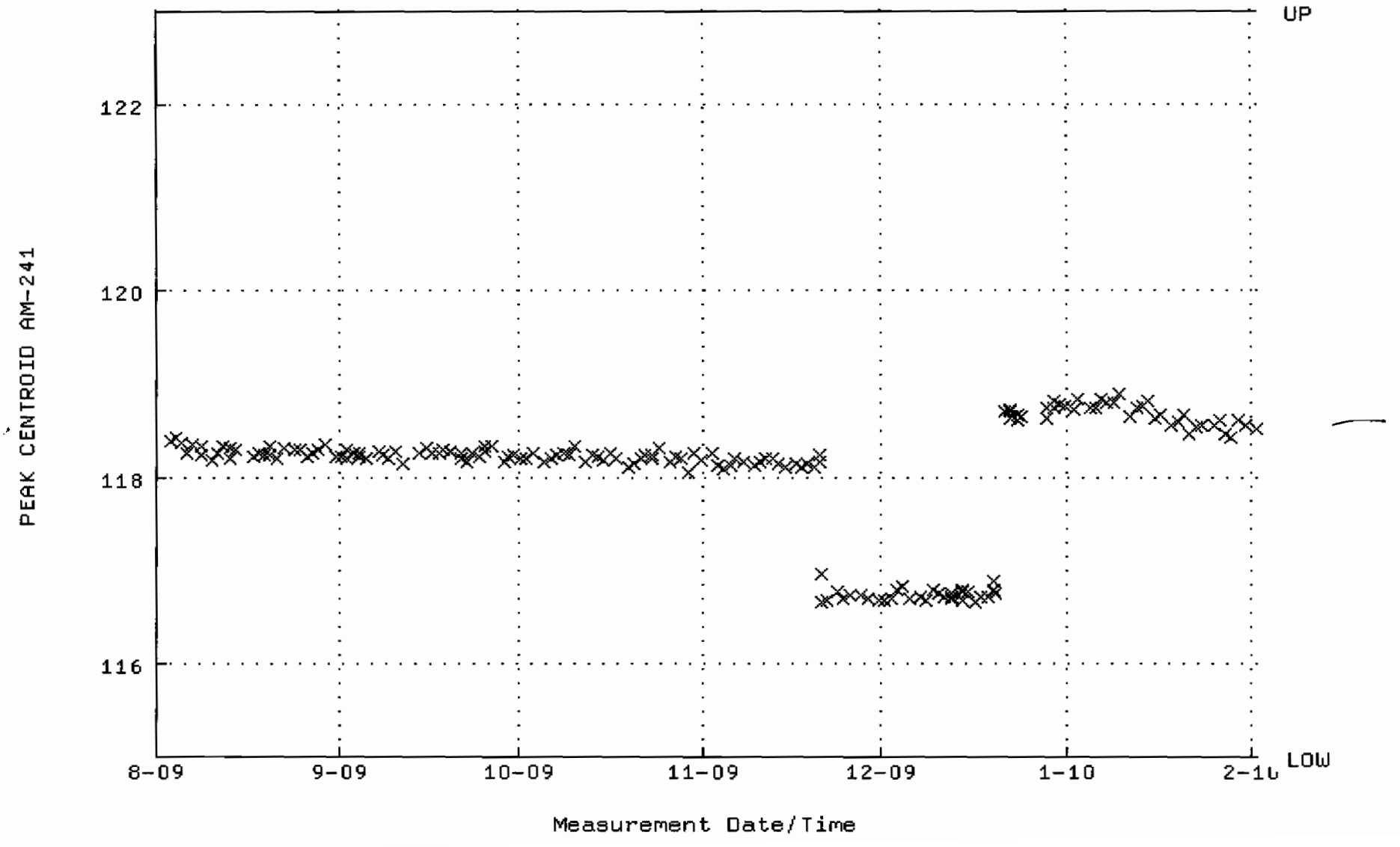

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

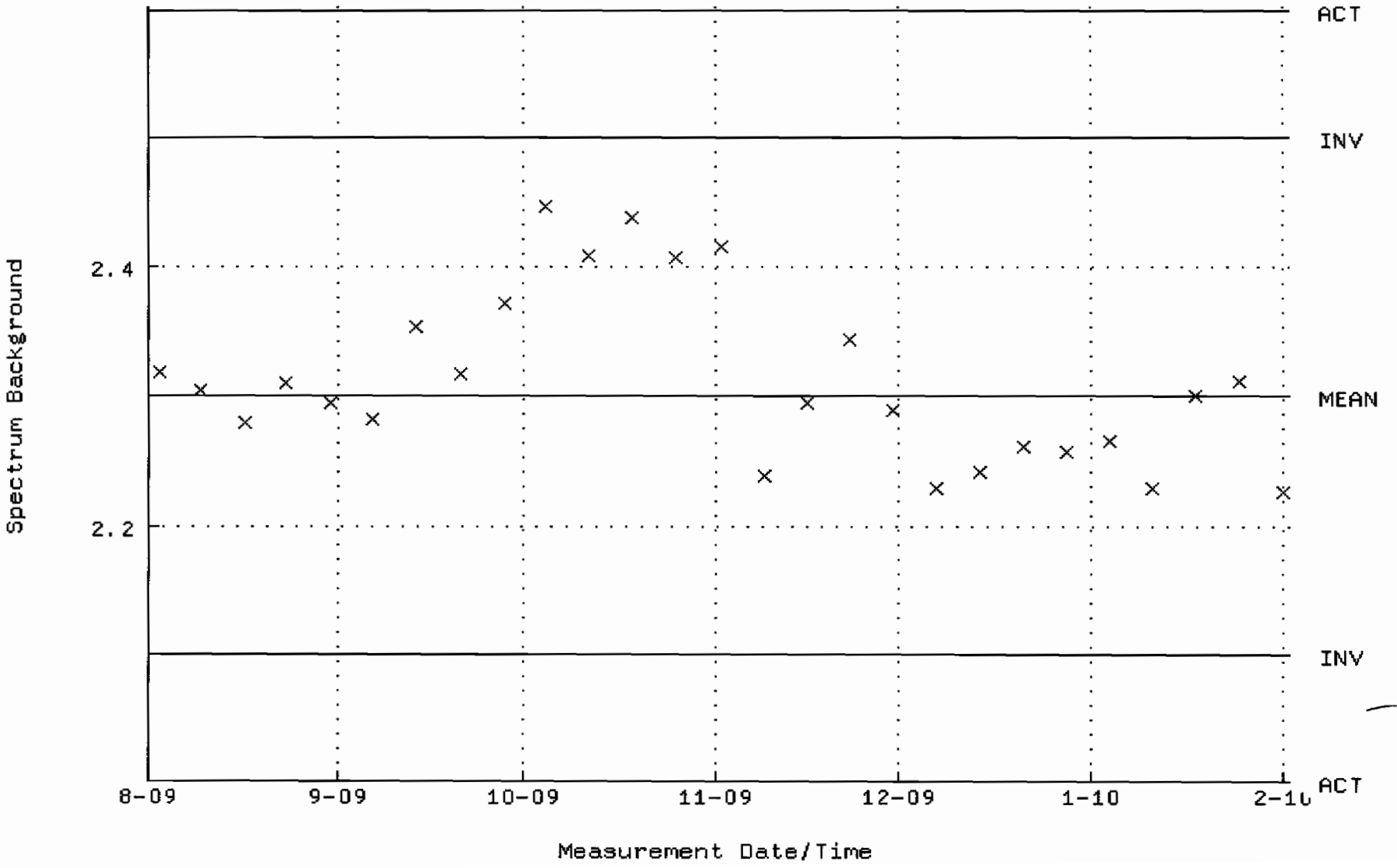

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:19:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

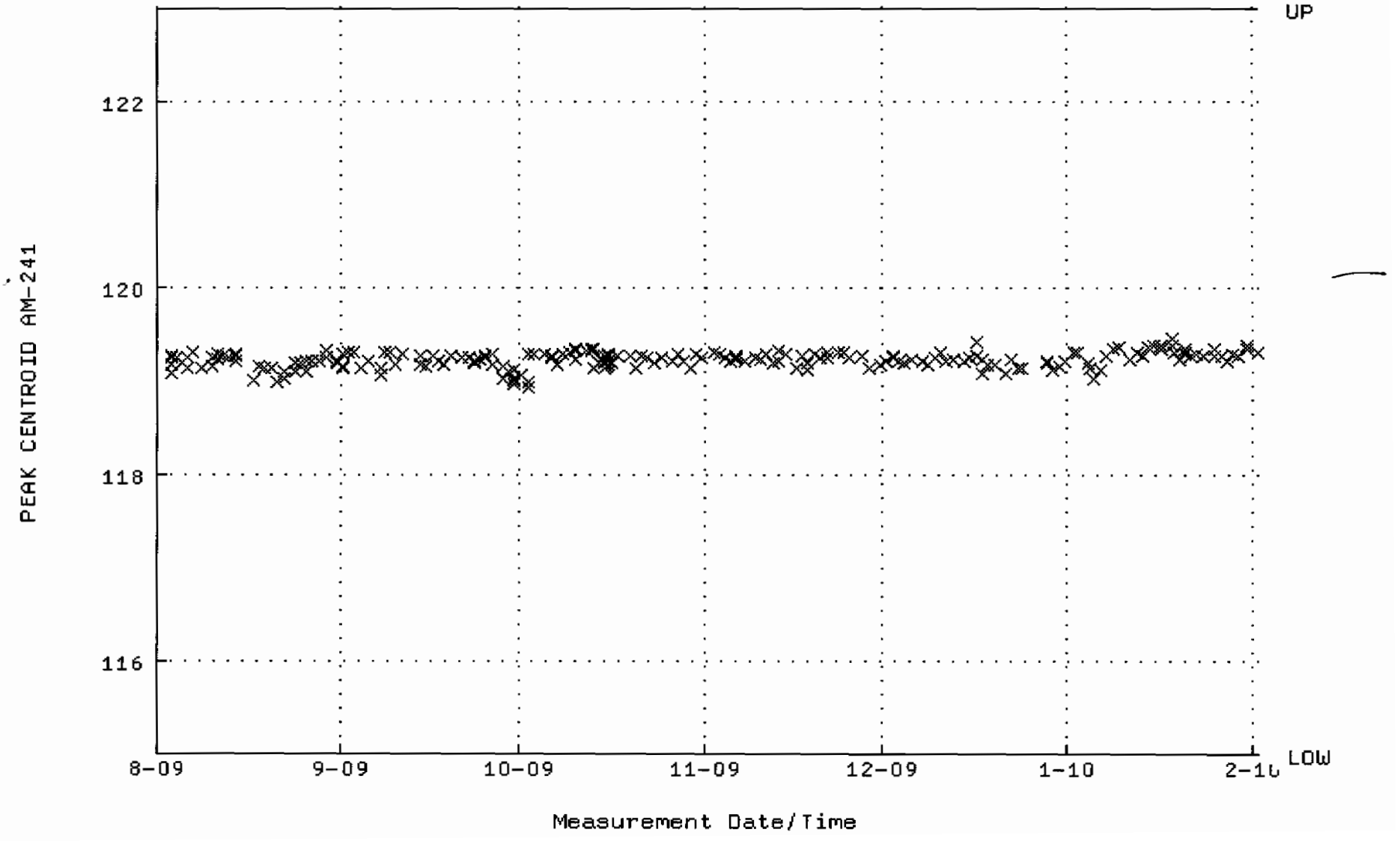

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

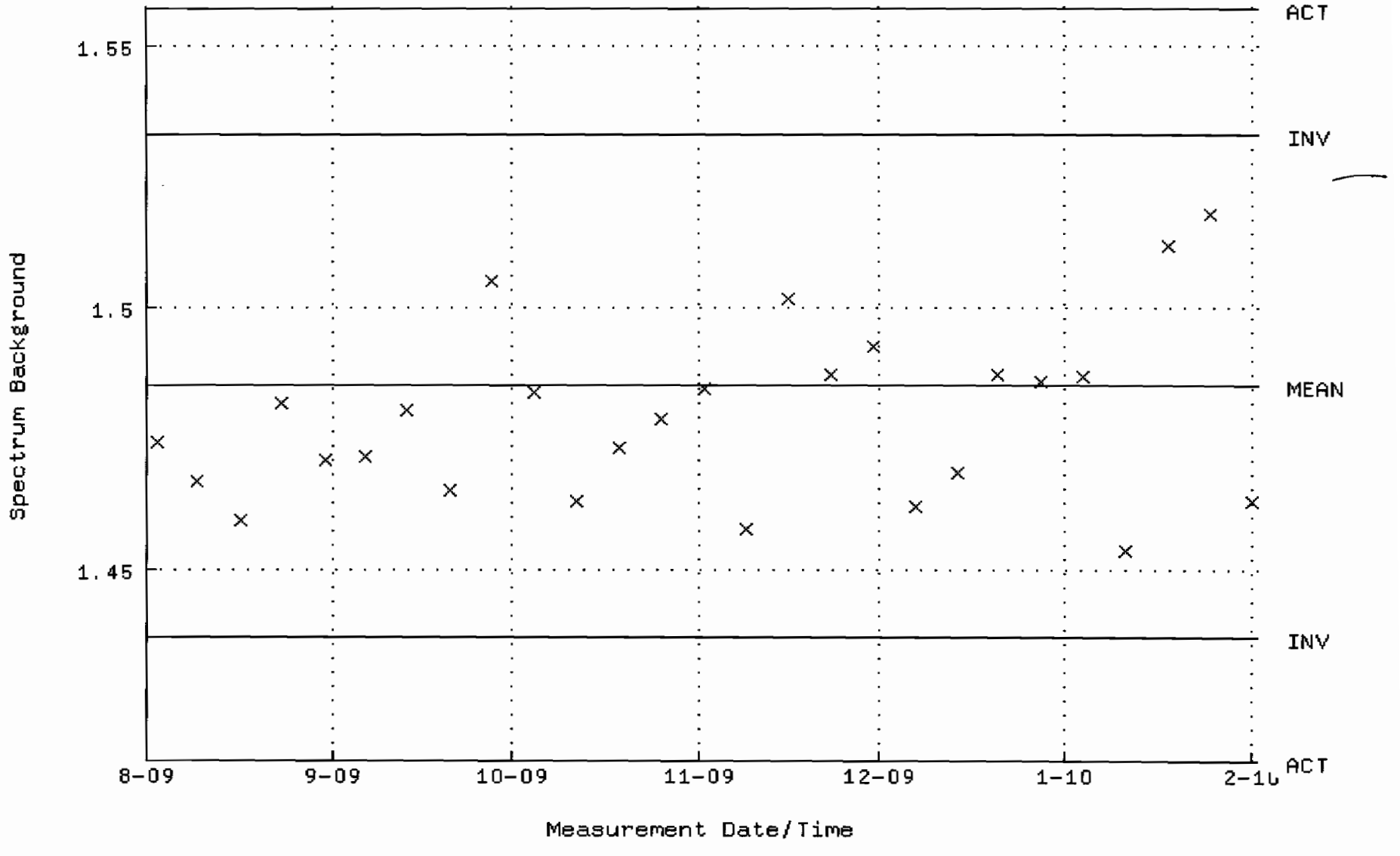

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

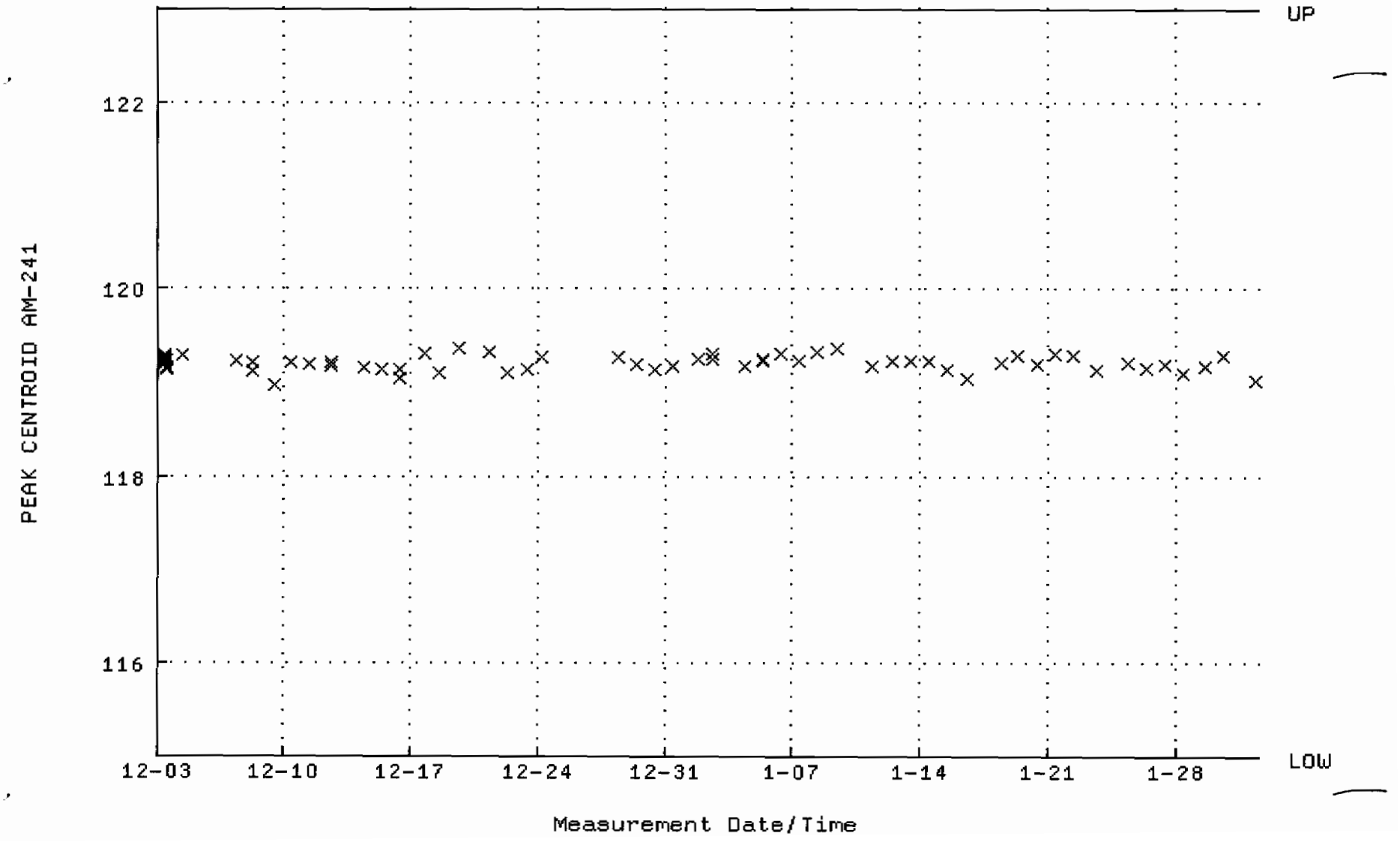

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

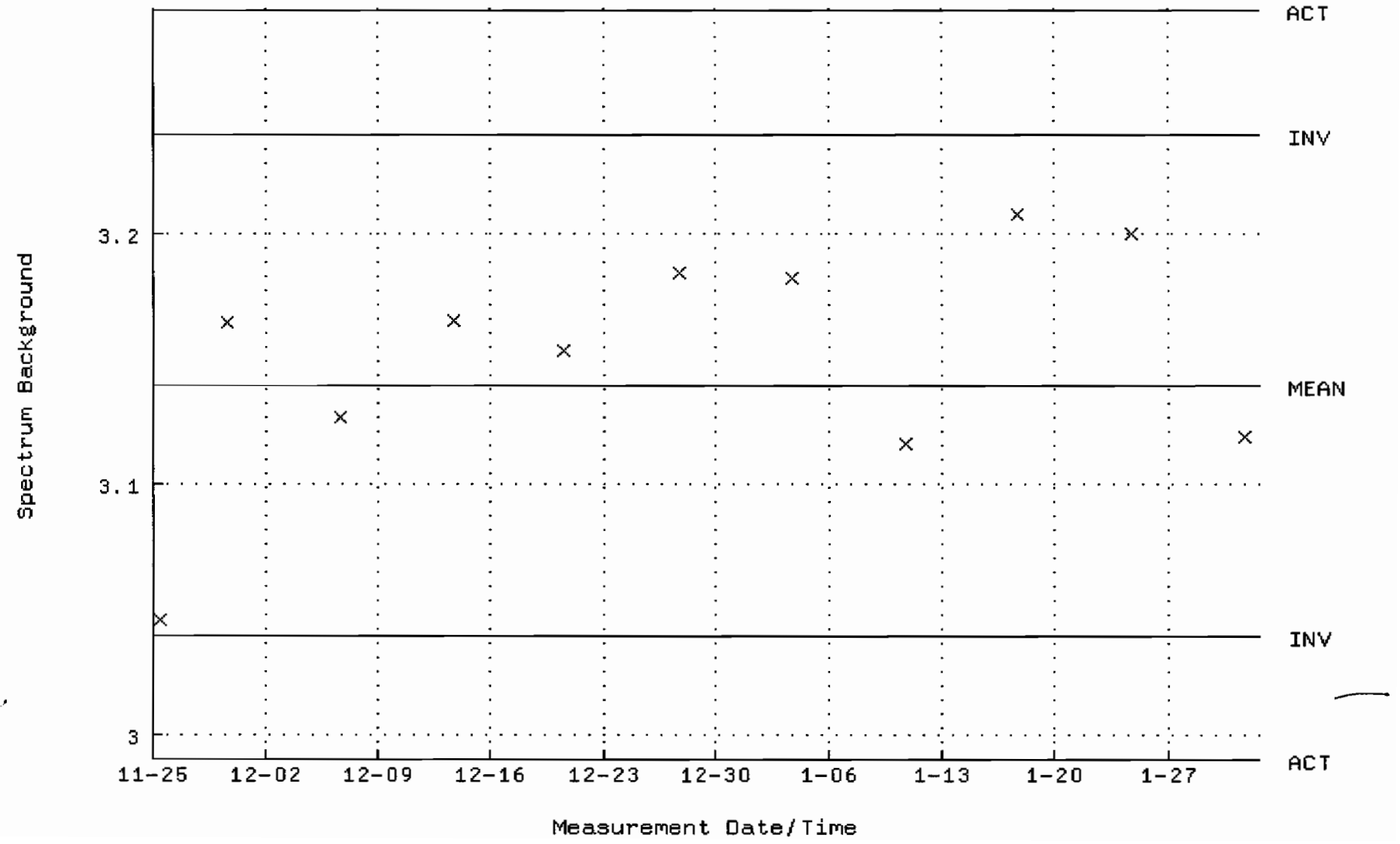

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

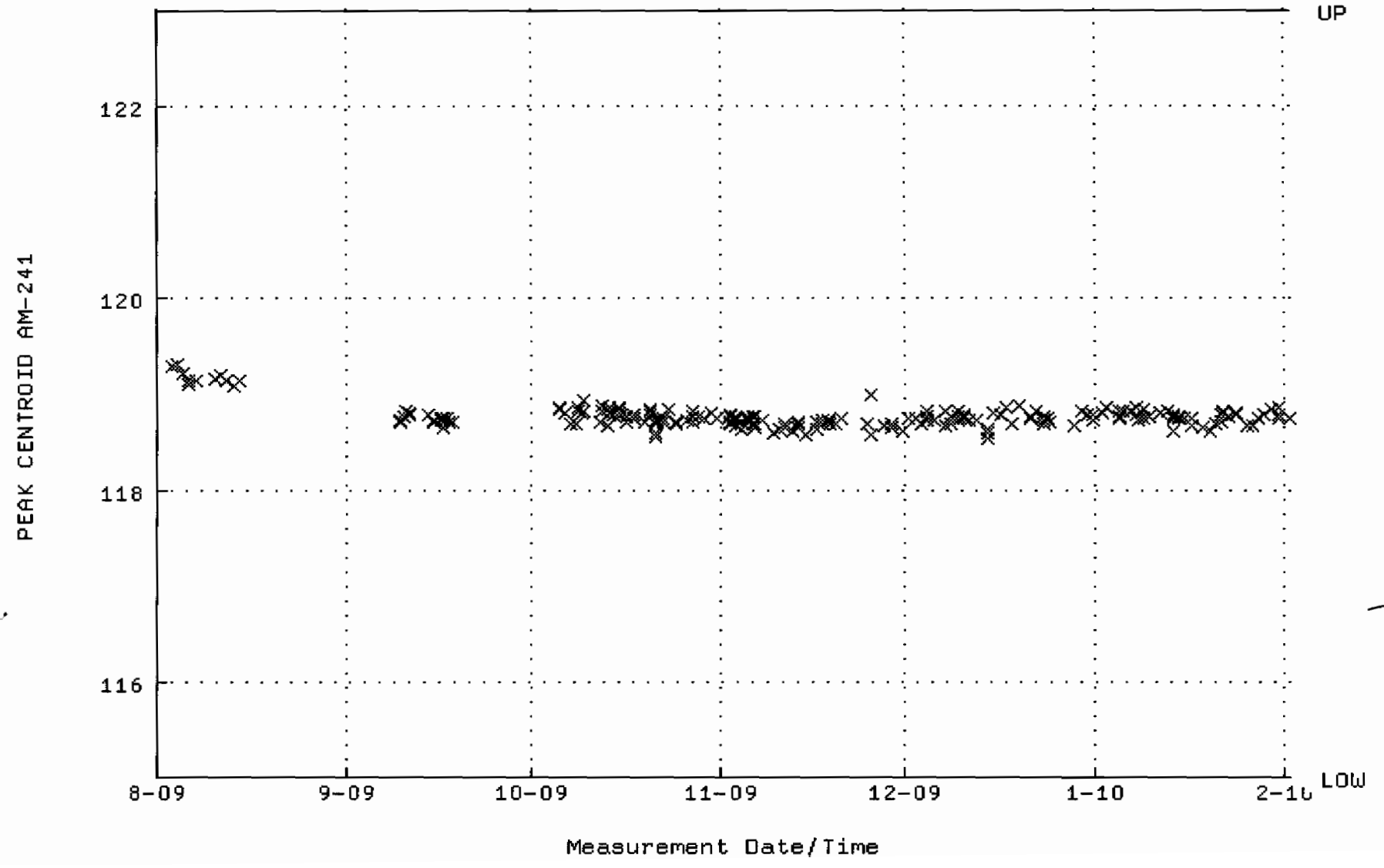

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

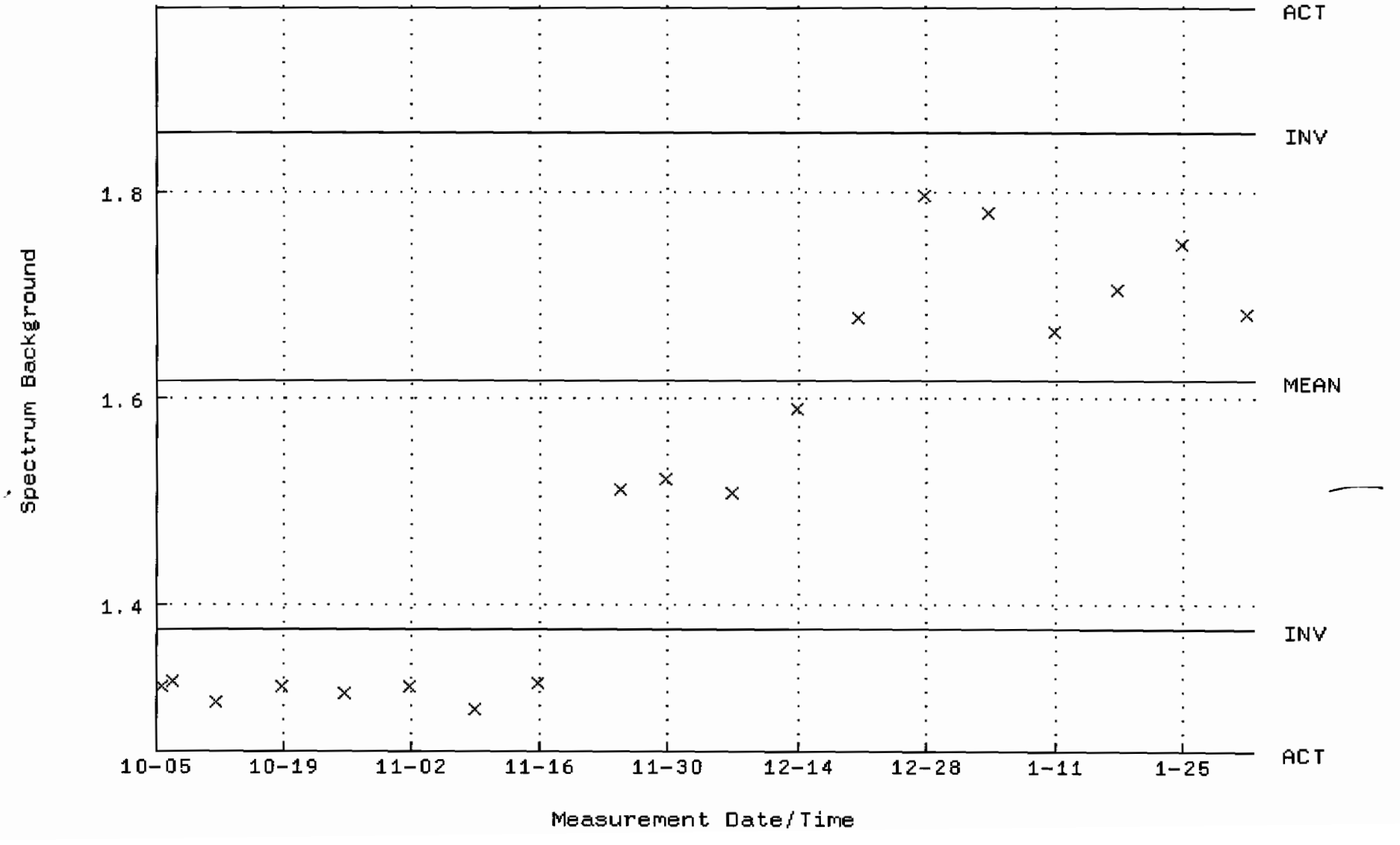

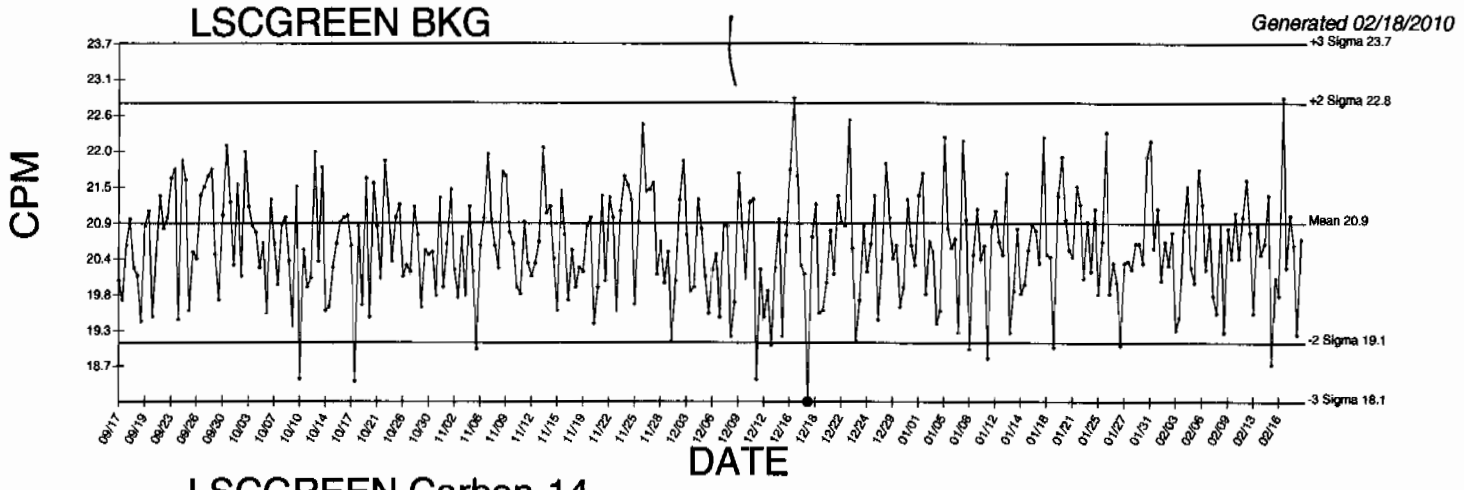

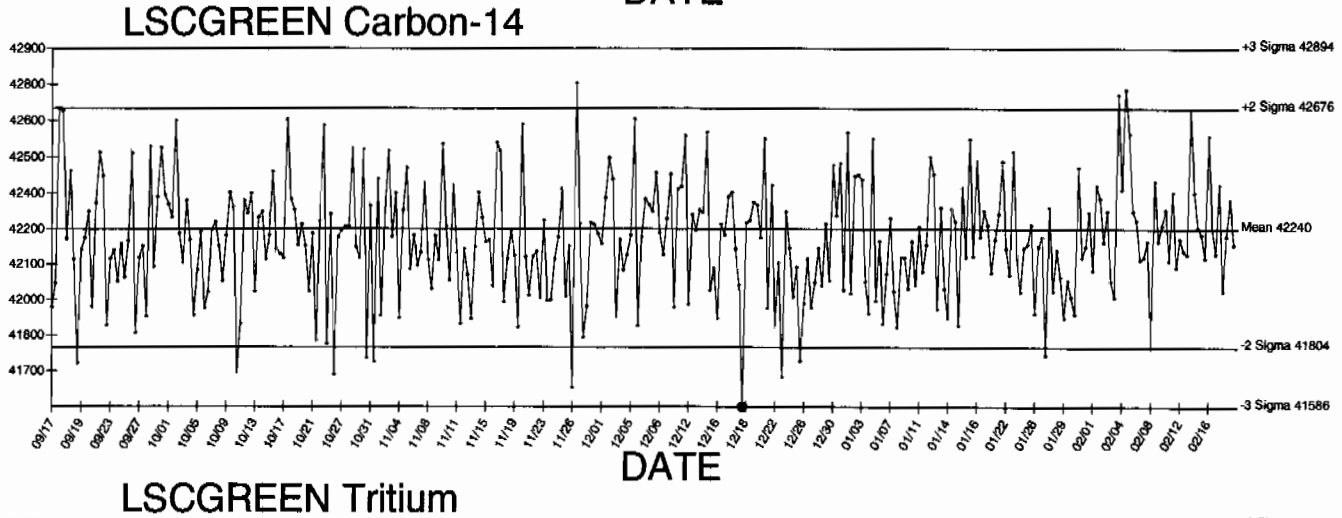

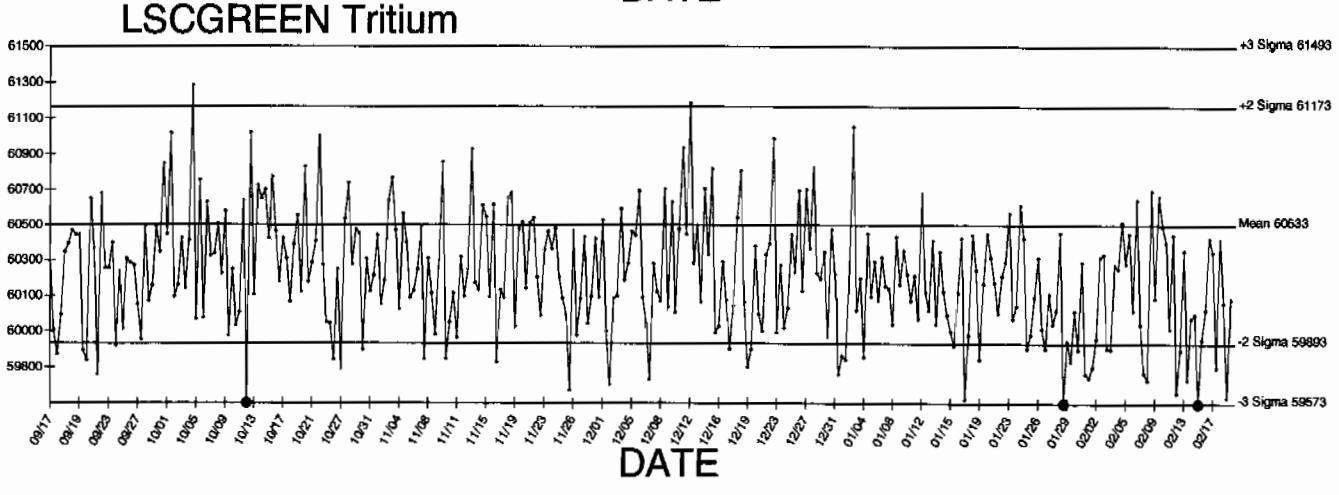

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

W.F. Case

RC-5-023-001a

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

M Aders 4/9/09
Amanda L. Fehr 4/9/09

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

24937 Avenue Tibbitts, Valencia, California 91355
Laboratory
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Jeff C Neff 12/14/04

Angela L. Johnson 12/13/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7 2 6 7 9 4
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1/3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

LAB USE

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (SMO USE)
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized rad materials being sent to GEL on behalf of Hank Mintzer
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATE 4/14/2000

Amanda L. Fehr 4/30/04
[illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-87) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 7216 4194
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-1~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (LAB USE)
Date Entered (mm/dd/yy)
Entered By

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well decontaminated and materials being sent to GEL on behalf of Hank Minter
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WT	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridlean 5/15/09
Robert Bin 007509

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A calculation AMD 12/14/09

1375

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/12/01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

RC-S-08-1 094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_r(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One µSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (µSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) = |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480
Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**
Target =	1.52		
Lower Limit =	1.48		
Upper Limit =	1.68		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.1		
10 % of Mean =	0.158		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 948751**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246020001	SAMPLE	MXR1	GAM16	13-FEB-10 14:52	DONE	CAN	16-NOV-09 00:00
246020002	SAMPLE	MXR1	GAM18	13-FEB-10 14:52	DONE	CAN	23-APR-09 00:00
246020003	SAMPLE	MXR1	GAM23	13-FEB-10 14:53	DONE	CAN	02-JUN-09 00:00
246020004	SAMPLE	MXR1	GAM01	13-FEB-10 16:26	DONE	CAN	12-JAN-10 00:00
246020005	SAMPLE	MXR1	GAM04	13-FEB-10 16:26	DONE	CAN	05-MAY-09 00:00
246020006	SAMPLE	MXR1	GAM06	13-FEB-10 16:27	DONE	CAN	04-FEB-09 00:00
246020007	SAMPLE	MXR1	GAM07	13-FEB-10 16:27	DONE	CAN	20-JUL-09 00:00
246020008	SAMPLE	MXR1	GAM15	13-FEB-10 16:42	DONE	CAN	03-FEB-10 00:00
246020009	SAMPLE	MXR1	GAM22	13-FEB-10 16:43	DONE	CAN	02-DEC-09 00:00
246020010	SAMPLE	MXR1	GAM16	13-FEB-10 16:56	DONE	CAN	16-NOV-09 00:00
246020011	SAMPLE	MXR1	GAM18	13-FEB-10 16:56	DONE	CAN	23-APR-09 00:00
246020012	SAMPLE	MXR1	GAM23	13-FEB-10 16:57	DONE	CAN	02-JUN-09 00:00
1202032581	LCS	MXR1	GAM01	13-FEB-10 18:38	DONE	CAN	12-JAN-10 00:00
246020013	SAMPLE	MXR1	GAM20	13-FEB-10 19:59	DONE	CAN	26-AUG-09 00:00
246020014	SAMPLE	MXR1	GAM01	14-FEB-10 11:07	DONE	CAN	12-JAN-10 00:00
246020015	SAMPLE	MXR1	GAM06	14-FEB-10 11:08	DONE	CAN	04-FEB-09 00:00
1202032579	MB	MXR1	GAM11	14-FEB-10 11:08	DONE	CAN	18-NOV-09 00:00
1202032580	DUP	MXR1	GAM12	14-FEB-10 11:09	DONE	CAN	10-FEB-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949827**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245994001	SAMPLE	JXD2	1048	13-FEB-10 11:15	DONE		
245994002	SAMPLE	JXD2	1065	13-FEB-10 11:15	DONE		
245994003	SAMPLE	JXD2	1066	13-FEB-10 11:15	DONE		
245994004	SAMPLE	JXD2	1067	13-FEB-10 11:15	DONE		
245994005	SAMPLE	JXD2	1068	13-FEB-10 11:15	DONE		
245994006	SAMPLE	JXD2	1069	13-FEB-10 11:15	DONE		
245994007	SAMPLE	JXD2	1070	13-FEB-10 11:15	DONE		
245994008	SAMPLE	JXD2	1071	13-FEB-10 11:15	DONE		
245994009	SAMPLE	JXD2	1072	13-FEB-10 11:15	DONE		
246008001	SAMPLE	JXD2	1073	13-FEB-10 11:15	DONE		
246008002	SAMPLE	JXD2	1074	13-FEB-10 11:15	DONE		
246008003	SAMPLE	JXD2	1075	13-FEB-10 11:15	DONE		
246008004	SAMPLE	JXD2	1076	13-FEB-10 11:15	DONE		
246008005	SAMPLE	JXD2	1083	13-FEB-10 11:15	DONE		
246008006	SAMPLE	JXD2	1084	13-FEB-10 11:15	DONE		
246008007	SAMPLE	JXD2	1085	13-FEB-10 11:15	DONE		
246008008	SAMPLE	JXD2	1086	13-FEB-10 11:15	DONE		
246020013	SAMPLE	JXD2	1087	13-FEB-10 11:15	DONE		
246020014	SAMPLE	JXD2	1088	13-FEB-10 11:15	DONE		
246020015	SAMPLE	JXD2	1089	13-FEB-10 11:15	DONE		
1202035013	MB	JXD2	1090	13-FEB-10 11:15	DONE		
1202035014	DUP	JXD2	1091	13-FEB-10 11:15	DONE		
1202035015	LCS	JXD2	1092	13-FEB-10 11:15	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949828**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245994001	SAMPLE	JXD2	1069	11-FEB-10 09:03	DONE		
245994002	SAMPLE	JXD2	1070	11-FEB-10 09:03	DONE		
245994003	SAMPLE	JXD2	1077	11-FEB-10 09:03	DONE		
245994004	SAMPLE	JXD2	1079	11-FEB-10 09:03	DONE		
245994005	SAMPLE	JXD2	1080	11-FEB-10 09:03	DONE		
245994006	SAMPLE	JXD2	1081	11-FEB-10 09:03	DONE		
245994007	SAMPLE	JXD2	1082	11-FEB-10 09:03	DONE		
245994008	SAMPLE	JXD2	1211	11-FEB-10 09:05	DONE		
245994009	SAMPLE	JXD2	1089	11-FEB-10 10:20	DONE		
246008001	SAMPLE	JXD2	1090	11-FEB-10 10:20	DONE		
246008002	SAMPLE	JXD2	1091	11-FEB-10 10:20	DONE		
246008003	SAMPLE	JXD2	1092	11-FEB-10 10:20	DONE		
246008004	SAMPLE	JXD2	1093	11-FEB-10 10:20	DONE		
246008005	SAMPLE	JXD2	1094	11-FEB-10 10:20	DONE		
246008006	SAMPLE	JXD2	1095	11-FEB-10 10:20	DONE		
246008007	SAMPLE	JXD2	1097	11-FEB-10 10:20	DONE		
246008008	SAMPLE	JXD2	1099	11-FEB-10 10:20	DONE		
246020013	SAMPLE	JXD2	1100	11-FEB-10 10:20	DONE		
246020014	SAMPLE	JXD2	1107	11-FEB-10 10:20	DONE		
246020015	SAMPLE	JXD2	1108	11-FEB-10 10:20	DONE		
1202035016	MB	JXD2	1109	11-FEB-10 10:20	DONE		
1202035017	DUP	JXD2	1111	11-FEB-10 10:20	DONE		
1202035018	LCS	JXD2	1112	11-FEB-10 10:20	DONE		

Instrument Run Log

Instrument Type: LSC **Batch ID: 951366**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246020001	SAMPLE	KXK2	LSCGREEN	17-FEB-10 07:05	DONE		
246020002	SAMPLE	KXK2	LSCGREEN	17-FEB-10 08:41	DONE		
246020003	SAMPLE	KXK2	LSCGREEN	17-FEB-10 08:45	DONE		
246020004	SAMPLE	KXK2	LSCGREEN	17-FEB-10 09:03	DONE		
246020005	SAMPLE	KXK2	LSCGREEN	17-FEB-10 10:41	DONE		
246020006	SAMPLE	KXK2	LSCGREEN	17-FEB-10 12:17	DONE		
246020007	SAMPLE	KXK2	LSCGREEN	17-FEB-10 12:31	DONE		
246020008	SAMPLE	KXK2	LSCGREEN	17-FEB-10 14:09	DONE		
246020009	SAMPLE	KXK2	LSCGREEN	17-FEB-10 15:42	DONE		
246020010	SAMPLE	KXK2	LSCGREEN	17-FEB-10 17:20	DONE		
246020011	SAMPLE	KXK2	LSCGREEN	17-FEB-10 18:58	DONE		
246020012	SAMPLE	KXK2	LSCGREEN	17-FEB-10 20:36	DONE		
246020013	SAMPLE	KXK2	LSCGREEN	17-FEB-10 21:48	DONE		
246020014	SAMPLE	KXK2	LSCGREEN	17-FEB-10 21:56	DONE		
1202038814	MB	KXK2	LSCGREEN	17-FEB-10 23:34	DONE		
1202038815	DUP	KXK2	LSCGREEN	18-FEB-10 01:10	DONE		
1202038816	LCS	KXK2	LSCGREEN	18-FEB-10 01:15	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 951665**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246020012	SAMPLE	CXM2	1217	23-FEB-10 13:25	DONE		
1202039541	MB	CXM2	1218	23-FEB-10 13:26	DONE		
1202039542	DUP	CXM2	1233	23-FEB-10 13:26	DONE		
1202039543	LCS	CXM2	1234	23-FEB-10 13:26	DONE		
245978008	SAMPLE	CXM2	1013	23-FEB-10 21:21	DONE		
245978009	SAMPLE	CXM2	1014	23-FEB-10 21:21	DUSE		
245978010	SAMPLE	CXM2	1016	23-FEB-10 21:21	DONE		
245978011	SAMPLE	CXM2	1017	23-FEB-10 21:21	DUSE		
245978012	SAMPLE	CXM2	1018	23-FEB-10 21:21	DONE		
245978013	SAMPLE	CXM2	1025	23-FEB-10 21:21	DONE		
245978014	SAMPLE	CXM2	1026	23-FEB-10 21:21	DONE		
245978015	SAMPLE	CXM2	1027	23-FEB-10 21:21	DONE		
246020001	SAMPLE	CXM2	1028	23-FEB-10 21:21	DONE		
246020002	SAMPLE	CXM2	1029	23-FEB-10 21:21	DONE		
246020003	SAMPLE	CXM2	1030	23-FEB-10 21:21	DUSE		
246020004	SAMPLE	CXM2	1031	23-FEB-10 21:21	DONE		
246020005	SAMPLE	CXM2	1033	23-FEB-10 21:21	DONE		
246020006	SAMPLE	CXM2	1035	23-FEB-10 21:21	DUSE		
246020007	SAMPLE	CXM2	1036	23-FEB-10 21:21	DONE		
246020008	SAMPLE	CXM2	1095	23-FEB-10 21:21	DONE		
246020009	SAMPLE	CXM2	1097	23-FEB-10 21:21	DONE		
246020010	SAMPLE	CXM2	1099	23-FEB-10 21:21	DONE		
246020011	SAMPLE	CXM2	1100	23-FEB-10 21:21	DONE		
246020003	SAMPLE	CXM2	1209	24-FEB-10 20:00	DONE		
246020006	SAMPLE	CXM2	1210	24-FEB-10 20:00	DONE		
245978009	SAMPLE	CXM2	1229	25-FEB-10 17:00	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 951669**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245978008	SAMPLE	CXM2	1065	23-FEB-10 13:08	DONE		
245978009	SAMPLE	CXM2	1066	23-FEB-10 13:08	DONE		
245978010	SAMPLE	CXM2	1067	23-FEB-10 13:08	DONE		
245978011	SAMPLE	CXM2	1068	23-FEB-10 13:08	DUSE		
245978012	SAMPLE	CXM2	1069	23-FEB-10 13:08	DUSE		
245978013	SAMPLE	CXM2	1070	23-FEB-10 13:08	DUSE		
245978014	SAMPLE	CXM2	1071	23-FEB-10 13:08	DONE		
245978015	SAMPLE	CXM2	1072	23-FEB-10 13:08	DONE		
246020001	SAMPLE	CXM2	1073	23-FEB-10 13:08	DONE		
246020002	SAMPLE	CXM2	1074	23-FEB-10 13:08	DONE		
246020003	SAMPLE	CXM2	1075	23-FEB-10 13:08	DONE		
246020004	SAMPLE	CXM2	1076	23-FEB-10 13:08	DONE		
246020005	SAMPLE	CXM2	1077	23-FEB-10 13:08	DONE		
246020006	SAMPLE	CXM2	1079	23-FEB-10 13:08	DONE		
246020007	SAMPLE	CXM2	1080	23-FEB-10 13:08	DUSE		
246020008	SAMPLE	CXM2	1081	23-FEB-10 13:08	DONE		
246020009	SAMPLE	CXM2	1082	23-FEB-10 13:08	DONE		
246020010	SAMPLE	CXM2	1083	23-FEB-10 13:08	DONE		
246020011	SAMPLE	CXM2	1084	23-FEB-10 13:08	DONE		
246020012	SAMPLE	CXM2	1085	23-FEB-10 13:08	DONE		
1202039555	MB	CXM2	1086	23-FEB-10 13:08	DONE		
1202039557	LCS	CXM2	1088	23-FEB-10 13:08	DONE		
245978011	SAMPLE	CXM2	1043	24-FEB-10 20:01	DONE		
245978012	SAMPLE	CXM2	1044	24-FEB-10 20:01	DONE		
245978013	SAMPLE	CXM2	1045	24-FEB-10 20:01	DONE		
246020007	SAMPLE	CXM2	1046	24-FEB-10 20:01	DONE		
1202039556	DUP	CXM2	1043	25-FEB-10 22:19	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 951672**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202039558	MB	CXM2	1166	24-FEB-10 09:54	DONE		
246020008	SAMPLE	CXM2	1003	24-FEB-10 13:02	DONE		
246020009	SAMPLE	CXM2	1004	24-FEB-10 13:02	DONE		
246020010	SAMPLE	CXM2	1005	24-FEB-10 13:02	DONE		
246020011	SAMPLE	CXM2	1008	24-FEB-10 13:02	DUSE		
246020012	SAMPLE	CXM2	1009	24-FEB-10 13:02	DONE		
1202039559	DUP	CXM2	1010	24-FEB-10 13:02	DONE		
1202039560	LCS	CXM2	1011	24-FEB-10 13:02	DONE		
245978008	SAMPLE	CXM2	1113	24-FEB-10 13:20	DONE		
245978009	SAMPLE	CXM2	1114	24-FEB-10 13:20	DONE		
245978010	SAMPLE	CXM2	1115	24-FEB-10 13:20	DONE		
245978011	SAMPLE	CXM2	1119	24-FEB-10 13:20	DONE		
245978012	SAMPLE	CXM2	1120	24-FEB-10 13:21	DONE		
245978013	SAMPLE	CXM2	1121	24-FEB-10 13:21	DONE		
245978014	SAMPLE	CXM2	1122	24-FEB-10 13:21	DONE		
245978015	SAMPLE	CXM2	1123	24-FEB-10 13:21	DONE		
246020001	SAMPLE	CXM2	1124	24-FEB-10 13:21	DONE		
246020002	SAMPLE	CXM2	1125	24-FEB-10 13:21	DONE		
246020003	SAMPLE	CXM2	1126	24-FEB-10 13:21	DUSE		
246020004	SAMPLE	CXM2	1127	24-FEB-10 13:21	DONE		
246020005	SAMPLE	CXM2	1128	24-FEB-10 13:21	DONE		
246020006	SAMPLE	CXM2	1129	24-FEB-10 13:21	DUSE		
246020007	SAMPLE	CXM2	1130	24-FEB-10 13:21	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 953461**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245994001	SAMPLE	JXD2	1120	18-FEB-10 18:40	DONE		
245994002	SAMPLE	JXD2	1121	18-FEB-10 18:40	DONE		
245994003	SAMPLE	JXD2	1122	18-FEB-10 18:40	DONE		
245994004	SAMPLE	JXD2	1123	18-FEB-10 18:40	DONE		
245994005	SAMPLE	JXD2	1124	18-FEB-10 18:40	DONE		
245994006	SAMPLE	JXD2	1125	18-FEB-10 18:40	DONE		
245994007	SAMPLE	JXD2	1126	18-FEB-10 18:40	DONE		
245994008	SAMPLE	JXD2	1127	18-FEB-10 18:40	DONE		
245994009	SAMPLE	JXD2	1128	18-FEB-10 18:40	DONE		
246008001	SAMPLE	JXD2	1129	18-FEB-10 18:41	DONE		
246008002	SAMPLE	JXD2	1130	18-FEB-10 18:41	DONE		
246008003	SAMPLE	JXD2	1131	18-FEB-10 18:41	DONE		
246008004	SAMPLE	JXD2	1132	18-FEB-10 18:41	DONE		
246008005	SAMPLE	JXD2	1133	18-FEB-10 18:41	DONE		
246008006	SAMPLE	JXD2	1161	18-FEB-10 18:41	DONE		
246008007	SAMPLE	JXD2	1162	18-FEB-10 18:41	DONE		
246008008	SAMPLE	JXD2	1163	18-FEB-10 18:41	DONE		
246020013	SAMPLE	JXD2	1164	18-FEB-10 18:41	DUSE		
246020014	SAMPLE	JXD2	1165	18-FEB-10 18:41	DONE		
246020015	SAMPLE	JXD2	1166	18-FEB-10 18:41	DONE		
1202043974	MB	JXD2	1167	18-FEB-10 18:41	DONE		
1202043975	DUP	JXD2	1168	18-FEB-10 18:41	DONE		
1202043976	LCS	JXD2	1169	18-FEB-10 18:41	DONE		
246020013	SAMPLE	JXD2	1115	21-FEB-10 10:45	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957637**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246020003	SAMPLE	CXM2	1001	26-FEB-10 23:40	DONE		
246020006	SAMPLE	CXM2	1002	26-FEB-10 23:40	DONE		
246020011	SAMPLE	CXM2	1003	26-FEB-10 23:40	DONE		
1202053428	MB	CXM2	1004	26-FEB-10 23:40	DUSE		
1202053429	DUP	CXM2	1005	26-FEB-10 23:40	DONE		
1202053430	LCS	CXM2	1006	26-FEB-10 23:40	DONE		
1202053428	MB	CXM2	1160	27-FEB-10 20:05	DONE		

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1514
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8062	R	1/27/2010	
	SW-846:6020	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	
	SW-846:6850	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	
	SW-846:7470A	1	RE15-10-8083	W	1/27/2010	
	SW-846:7471A	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:8082	1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:8321A_MOD	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:9012A	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	

Final Page of REQUEST NUMBER 10-1514

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1514C

REQUEST NUMBER: 10-1514

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7980	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7980	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7958	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7958	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7960	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7960	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7979	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7979	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7972	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7972	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7957	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7957	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7974	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7974	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7961	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7961	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7971	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7971	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7966	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7966	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7959	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7959	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7969	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7969	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8061	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8061	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8063	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8063	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8062	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8062	1	POLY	H3	Ice	R
RE15-10-8062	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8083	1	POLY	METALS+U-GEL	Nitric Acid	W

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1514C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8083	1	POLY	SW-846:6850	Ice	W
RE15-10-8083	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
		2/1/10	3:00				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7959 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		0845	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610749	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown silty sand some ~~rock~~ tuff fragments, pine needles, wood chips TJM 1/27/10

SAMPLE COMMENTS: TJM 1/27/10
~~NA~~ Wire not placed in sample containers

LOCATION DESC: 8b-33 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha = 22 dpm
Beta/Gamma = 7170 dpm

PID Ambient Reading 0.2 / 3.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sheryl Sherwood	1/28/10
(Signature)	0805 AM	(Signature)	0805
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7960 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		0859	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610749	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-33 mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 dpm
Beta/Gamma ≤ 5440 dpm

PID Ambient 0.0 / Reading 0.4 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan (Signature)	1/28/10 8:05 AM	(Printed Name) Sherri Sherwood (Signature)	1/28/10 805
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8062 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1142	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	↓
LOCATION ID:	UNK	15-610752	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	4.2	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER TRM 1/27/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7966

Pinkish gray tuff

SAMPLE COMMENTS:

Hit tuff at 3.3'

LOCATION DESC: 8b-70 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 44 **dpm**
Beta/Gamma ≤ 2150 **dpm**

PID Ambient 0.0 / Reading 0.4 **ppm**

COLLECTED BY (PRINT) Tuma Farlano

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) [illegible]	1/28/10
(Signature) [illegible]	0811 Am	(Signature) [illegible]	811
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7958 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	All h
TIME COLLECTED (HH:MM)		0835	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610748	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, some clay

FD RE 15-10-8061

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-34 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 60 dpm
Beta/Gamma ≤ 14,040 dpm

PID Ambient Reading 0.2 / 1.7 ppm

COLLECTED BY (PRINT) THMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sheryl Sherwood	1/28/10
(Signature) E. L.	7:57 AM.	(Signature) Sheryl Sherwood	757
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8063 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1351	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	UNK	15-16107516	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES (NO) NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER 12m 1/27/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7973

Dark brown silty sand, moist, tuff fragments minor clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-5la mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 49 **dpm**
Beta/Gamma ≤ 2120 **dpm**

PID Ambient Reading 0.0 / 0.0 **ppm**

COLLECTED BY (PRINT) TLM cFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name) Julia Martin	1/28/10
(Signature)	0812 Am	(Signature)	812
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8061 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		0835	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610748	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	3.0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER 7224 1/27/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1.11.10 LC	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7958

Brown sandy silt, some clay

SAMPLE COMMENTS:

NA

LOCATION DESC:

8b-34 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 60 **dpm**
Beta/Gamma ≤ 14,040 **dpm**

PID Ambient Reading 0.2 / 1.7 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherry Sherwood	1/28/10
(Signature)	0811 AM	(Signature) Sherry Sherwood	811
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7972 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1336	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610755	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Grey tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-57 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 88 dpm
Beta/Gamma = 2450 dpm

PID Ambient Reading 0.2 / 1.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Martin	1/28/10
(Signature)	0811 AM	(Signature)	811
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7979 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1533	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610759	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks and wood chips

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-55 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 dpm
Beta/Gamma ≤ 2050 dpm

HE negative

PID Ambient Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) [signature]	07:51 AM	(Signature) Sherri Sherwood	0751
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7974 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1407	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.7	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: whitish grey tuff

FR: RE15-10-8084

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b - 5 le mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 38 **dpm**
Beta/Gamma ≤ 2280 **dpm**

PID Ambient 0.1 / Reading 0.5 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarlana

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Martin	1/28/10
(Signature)	0810 Am	(Signature)	810
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7961 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		0927	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610750	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, pine needles, some rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-61 mesa top next to pine tree

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 370 dpm

PID Ambient Reading 0.3 / 2.7 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0806 AM	(Signature) Sherri Sherwood	0806
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7971 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1323	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610755	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 ~~2c~~	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: wet silty sandy clay, and wood chips

SAMPLE COMMENTS: hit tuff at 6 inch

LOCATION DESC: 8b-57 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 55 dpm
Beta/Gamma ≤ 6250 dpm

PID Ambient 0.0 / Reading 0.4 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLM CFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	0810 AM	(Signature)	810
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7966 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1142	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610752	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.2	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 JC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray tuff
FD : RE15-10-8062

SAMPLE COMMENTS: hit tuff at 3.3' 1/27/10

LOCATION DESC: 8b-70 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 44 dpm
Beta/Gamma ≤ 2150 dpm

PID Ambient 0.0 / Reading 6.4 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	0808 AM	(Signature)	808
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7980 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1545	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610759	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.7	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 JC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: greyish pink tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-55 mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2000 dpm

PID Ambient 0.1 / Reading 0.3 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) E Lujan	07:52 AM	(Signature) Sherri Sherwood	752
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7957 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		0825	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610748		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks, pine needles, and wood chips

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-34 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 16 dpm
Beta/Gamma ≤ 8210 dpm

PID Ambient 0.4 / Reading 0.5 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Martinez	1/28/10
(Signature)	7:55 AM	(Signature)	755
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7969 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		~~1238~~ 1301	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610754	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+C N	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand numerous pebbels, minor clay

SAMPLE COMMENTS: next to road

LOCATION DESC: 8b - 74 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 38 dpm
Beta/Gamma ≤ 2150 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10 0809 AM	(Printed Name) Sherri Sherwood	1/28/10 0809
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8083 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1027	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610751	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	y	
1		SW-846:6850	250 ML POLY	Ice	y	
1		TCN	500 ML POLY	Sodium Hydroxide	y	

SAMPLE DESC: QC Sample of RE15-10-7963

SAMPLE COMMENTS: Rinsate

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

12m 1/27/10

Alpha = _____ **dpm**
Beta/Gamma = _____ **dpm**

12m 1/27/10

PID **Ambient Reading** = **ppm**

COLLECTED BY (PRINT) TLMcFarlana

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Martz	1/28/10
(Signature)	0813 Am	(Signature)	813
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7978	RE15-10-7961	RE15-10-7969
" " 7979	7962	7970
" " 7980	7960	7971
" " 7880	7962	7972
" " 7891	7963	7973
" " 7892	7964	7974
" " 7957	7965	8061
" " 7958	7966	8062
7959	7967	8063
	7968	7975
		7976
		7977

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-8083
RE15-10-8084

Reason: Field Rinsate

Print Last Name Lujan Signature [signature] Date 1/28/10

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1514 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The MS/MSD for the water batch was performed on a sample from another LANL RN and the raw data for the parent sample were not present in the data package. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: L Thal DATE: 3/17/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7980

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 95.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.524	2.1	1.38	ug/kg	J	1	23-FEB-10 14:27	per0223015a
	Perchlorate Isotope Ratio			3.46			1	23-FEB-10 14:27	per0223015a
14797-73-0	Perchlorate-101	.524	2.1	1.28	ug/kg	J	1	23-FEB-10 14:27	per0223015a
	Perchlorate-O(18)			5.20	ug/kg		1	23-FEB-10 14:27	per0223015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LT 3/17/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7958

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.622	2.49	0.622	ug/kg	U	1	23-FEB-10 14:51	per0223018a
	Perchlorate Isotope Ratio						1	23-FEB-10 14:51	per0223018a
14797-73-0	Perchlorate-101	.622	2.49	0.622	ug/kg	U	1	23-FEB-10 14:51	per0223018a
	Perchlorate-O(18)			5.77	ug/kg		1	23-FEB-10 14:51	per0223018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7960

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 93.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.536	2.14	0.536	ug/kg	U	1	23-FEB-10 14:59	per0223019a
	Perchlorate Isotope Ratio						1	23-FEB-10 14:59	per0223019a
14797-73-0	Perchlorate-101	.536	2.14	0.536	ug/kg	U	1	23-FEB-10 14:59	per0223019a
	Perchlorate-O(18)			5.04	ug/kg		1	23-FEB-10 14:59	per0223019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7979

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 15:07	per0223020a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:07	per0223020a
14797-73-0	Perchlorate-101	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 15:07	per0223020a
	Perchlorate-O(18)			6.30	ug/kg		1	23-FEB-10 15:07	per0223020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7972

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 91.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 15:15	per0223021a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:15	per0223021a
14797-73-0	Perchlorate-101	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 15:15	per0223021a
	Perchlorate-O(18)			5.20	ug/kg		1	23-FEB-10 15:15	per0223021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7957

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	23-FEB-10 15:47	per0223025a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:47	per0223025a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	23-FEB-10 15:47	per0223025a
	Perchlorate-O(18)			6.09	ug/kg		1	23-FEB-10 15:47	per0223025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LT 3/17/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7974

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 94.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	23-FEB-10 15:55	per0223026a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:55	per0223026a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	23-FEB-10 15:55	per0223026a
	Perchlorate-O(18)			5.14	ug/kg		1	23-FEB-10 15:55	per0223026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LT 3/17/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7961

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.586	2.34	0.586	ug/kg	U	1	23-FEB-10 16:03	per0223027a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:03	per0223027a
14797-73-0	Perchlorate-101	.586	2.34	0.586	ug/kg	U	1	23-FEB-10 16:03	per0223027a
	Perchlorate-O(18)			5.44	ug/kg		1	23-FEB-10 16:03	per0223027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LT 3/17/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7971

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 16:11	per0223028a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:11	per0223028a
14797-73-0	Perchlorate-101	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 16:11	per0223028a
	Perchlorate-O(18)			6.68	ug/kg		1	23-FEB-10 16:11	per0223028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LT 3/17/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7966

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:20	per0223029a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:20	per0223029a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:20	per0223029a
	Perchlorate-O(18)			5.12	ug/kg		1	23-FEB-10 16:20	per0223029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LT 3/17/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7959

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	23-FEB-10 16:28	per0223030a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:28	per0223030a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	23-FEB-10 16:28	per0223030a
	Perchlorate-O(18)			6.06	ug/kg		1	23-FEB-10 16:28	per0223030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LT 3/17/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7969

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:36	per0223031a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:36	per0223031a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:36	per0223031a
	Perchlorate-O(18)			5.05	ug/kg		1	23-FEB-10 16:36	per0223031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8061

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.586	2.35	0.586	ug/kg	U	1	23-FEB-10 16:44	per0223032a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:44	per0223032a
14797-73-0	Perchlorate-101	.586	2.35	0.586	ug/kg	U	1	23-FEB-10 16:44	per0223032a
	Perchlorate-O(18)			5.64	ug/kg		1	23-FEB-10 16:44	per0223032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8063

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	23-FEB-10 16:52	per0223033a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:52	per0223033a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	23-FEB-10 16:52	per0223033a
	Perchlorate-O(18)			5.93	ug/kg		1	23-FEB-10 16:52	per0223033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8062

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	0.552	ug/kg	U	1	23-FEB-10 17:00	per0223034a
	Perchlorate Isotope Ratio						1	23-FEB-10 17:00	per0223034a
14797-73-0	Perchlorate-101	.552	2.21	0.552	ug/kg	U	1	23-FEB-10 17:00	per0223034a
	Perchlorate-O(18)			5.12	ug/kg		1	23-FEB-10 17:00	per0223034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8083

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514-1

GEL Sample ID: 245981001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:06	per0208067a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:06	per0208067a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:06	per0208067a
	Perchlorate-O(18)			0.481	ug/L		1	08-FEB-10 21:06	per0208067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1514 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The %D for HMX was >20% with positive bias for the CCV associated with samples RE15-10-7980, -7958, -7960, -7979, -7972 and -7957. The %D for RDX was >20% with positive bias for the CCV associated with sample -8062. The %D for 2,6-diamino-4-nitrotoluene was >20% with positive bias for the CCV associated with samples -7980 and -7958. The RDX result for sample -8062 was a detect and, thus, was qualified UJ,HE7c. The remaining associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.
3. The LCS %R for tetryl was < the laboratory's LAL but ≥10%. The associated sample results were NDs and, thus, were qualified UJ,HE12a. The LCS %R for 2,6-diamino-4-nitrotoluene was > the laboratory's UAL. The associated sample results were NDs and, thus, were not qualified.
4. The MS %Rs for 2,6-diamino-4-nitrotoluene and 2,4-diamino-6-nitrotoluene were > the laboratory's UAL. The associated sample results were NDs and, thus, were not qualified.

Reviewed by: ETM Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: R Neal	DATE: 3/17/10
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☒	☐	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☒	☐	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☒	☐	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979001

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301048a

Date Analyzed: 02-MAR-10 14:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979001

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220046.wiff

Date Analyzed: 23-FEB-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7958

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979002

Sample Amount 2

Moisture: 19.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301051a

Date Analyzed: 02-MAR-10 16:15

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene		500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN		1000	U
88-72-2	o-Nitrotoluene		500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene		500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene		500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7958

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979002

Sample Amount 2

Moisture: 19.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220049.wiff

Date Analyzed: 23-FEB-10 05:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7960

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979003

Sample Amount 2

Moisture: 6.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301052a

Date Analyzed: 02-MAR-10 16:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7960

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979003

Sample Amount 2

Moisture: 6.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240014.wiff

Date Analyzed: 24-FEB-10 13:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7979

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979004

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301053a

Date Analyzed: 02-MAR-10 17:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7979

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979004

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240015.wiff

Date Analyzed: 24-FEB-10 13:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7972

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979005

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301054a

Date Analyzed: 02-MAR-10 17:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7972

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979005

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240016.wiff

Date Analyzed: 24-FEB-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7957

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979006

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301055a

Date Analyzed: 02-MAR-10 18:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7957

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979006

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240017.wiff

Date Analyzed: 24-FEB-10 14:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7974

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979007

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301059a

Date Analyzed: 02-MAR-10 20:11

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE12a	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene		500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN		1000	U
88-72-2	o-Nitrotoluene		500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene		500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene		500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7974

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979007

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240018.wiff

Date Analyzed: 24-FEB-10 14:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7961

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979008

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301060a

Date Analyzed: 02-MAR-10 20:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	263	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7961

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979008

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240019.wiff

Date Analyzed: 24-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	625	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7971

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979009

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301061a

Date Analyzed: 02-MAR-10 21:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7971

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979009

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240020.wiff

Date Analyzed: 24-FEB-10 14:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7966

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979010

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301062a

Date Analyzed: 02-MAR-10 21:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	135	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	1430	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7966

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979010

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240021.wiff

Date Analyzed: 24-FEB-10 15:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	331	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7959

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979011

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301063a

Date Analyzed: 02-MAR-10 22:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7959

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979011

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240022.wiff

Date Analyzed: 24-FEB-10 15:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301064a

Date Analyzed: 02-MAR-10 22:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	205	J
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	2160	
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 5

Injection Volume (uL): 50

GEL data file: EXP0301100a

Date Analyzed: 03-MAR-10 16:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
2691-41-0	HMX	10900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240023.wiff

Date Analyzed: 24-FEB-10 15:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	8490	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8061

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979013

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301065a

Date Analyzed: 02-MAR-10 23:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8061

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979013

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240027.wiff

Date Analyzed: 24-FEB-10 16:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8063

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979014

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301066a

Date Analyzed: 02-MAR-10 23:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8063

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979014

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240028.wiff

Date Analyzed: 24-FEB-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8062

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979015

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301099a

Date Analyzed: 03-MAR-10 15:52

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX	J,HE7c	217	J
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		2270	
35572-78-2	2-Amino-4,6-dinitrotoluene		500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN		1000	U
88-72-2	o-Nitrotoluene		500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene		500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene		500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8062

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979015

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240029.wiff

Date Analyzed: 24-FEB-10 17:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LT 3/17/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1514 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Polychlorinated Biphenyls

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The decachlorobiphenyl surrogate %R was > the laboratory's UAL on both columns for sample RE15-10-8061. The aroclor-1254, -1260 and -1268 sample results were detects and, thus, were qualified J+,P3b. The remaining associated sample results were NDs and, thus, were not qualified.
2. The MS/MSD was performed on a sample from another LANL RN and the raw data for the parent sample were no included in the data package. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: [signature] DATE: 3/17/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☒	☐	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1514	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245979013	**Date Received:**	02/02/2010 09:10	**%Moisture:**	14.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8061	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 16:47	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055b5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column	
12674-11-2	Aroclor-1016	U	3.89	ug/kg	1.30	3.89	1	
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.30	3.89	1	
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.30	3.89	1	
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.30	3.89	1	
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.30	3.89	1	
11097-69-1	Aroclor-1254		23.2	ug/kg	1.30	3.89	1	J+,P3b
11096-82-5	Aroclor-1260		34.6	ug/kg	1.30	3.89	2	
11100-14-4	Aroclor-1268		97.3	ug/kg	1.30	3.89	1	

LT 3/17/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1514	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245979015	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8062	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 17:13	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	057f5701.d	**Column:**	1 CLP1	**Level:**	LOW
	057b5701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.66	ug/kg	1.22	3.66	1
11104–28–2	Aroclor–1221	U	3.66	ug/kg	1.22	3.66	1
11141–16–5	Aroclor–1232	U	3.66	ug/kg	1.22	3.66	1
53469–21–9	Aroclor–1242	U	3.66	ug/kg	1.22	3.66	1
12672–29–6	Aroclor–1248	U	3.66	ug/kg	1.22	3.66	1
11097–69–1	Aroclor–1254	U	3.66	ug/kg	1.22	3.66	1
11096–82–5	Aroclor–1260	U	3.66	ug/kg	1.22	3.66	1

LT 3/17/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1514	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245979014	**Date Received:**	02/02/2010 09:10	**%Moisture:**	18.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8063	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 17:00	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	056f5601.d	**Column:**	1 CLP1	**Level:**	LOW
	056b5601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.09	ug/kg	1.36	4.09	1
11104-28-2	Aroclor-1221	U	4.09	ug/kg	1.36	4.09	1
11141-16-5	Aroclor-1232	U	4.09	ug/kg	1.36	4.09	1
53469-21-9	Aroclor-1242	U	4.09	ug/kg	1.36	4.09	1
12672-29-6	Aroclor-1248	U	4.09	ug/kg	1.36	4.09	1
11097-69-1	Aroclor-1254	P	4.10	ug/kg	1.36	4.09	1
11096-82-5	Aroclor-1260	U	4.09	ug/kg	1.36	4.09	1

LT 3/17/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1514 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the soil MB, Cr was detected. The Cr results for all samples except samples RE15-10-7980, -7979, -7974, -7969 and -8063 were detects >5X but ≤50X the MB concentration and, thus, were qualified J,I4a. The Cr results for samples -7980, -7979, -7974, -7969 and -8063 were detects >50X the MB concentration and, thus, were not qualified, based on professional judgment.

2. In a soil CCB associated with all samples except sample -7957, Zn was detected. In the soil CCBs associated with all samples except samples -7979, -7972, -7957, -7974, -8063 and -8062, Cu was detected. The Cu result for sample -7980 was a detect ≤5X the greatest blank concentration and, thus, was qualified U,I4b. The remaining associated sample results were detects >5X the greatest blank concentration and, thus, were not qualified. In the water CCB, Tl was detected. The associated sample result was an ND and, thus, was not qualified.

3. In the FR blanks, samples -8083 and -8084 analyzed in RN 10-1512, associated with all soil samples, Mn, K, Na and U were detected. The U result for sample -7974 and the Na results for samples -7979, -7961, -7959, -8061 and -8063 were detects ≤5X the greatest FR blank concentrations and, thus, were qualified U,I4d. The remaining associated sample results were detects >5X the FR blank concentrations and, thus, were not qualified.

4. The soil MS %Rs for Al, Mg, K and Fe were > the laboratory's UAL. The associated Mg and K sample results were detects and, thus, were qualified J+,I6b. The QC parent sample results for Al and Fe were detects >4X the spike amounts and, thus, no sample results were qualified, based on professional judgment. The soil MS %Rs for Ca and Se were < the laboratory's LAL but ≥10%. The associated Ca sample results were detects and, thus, were qualified J-,I6a. The associated Se sample results were NDs and, thus, were qualified UJ,I6a.

5. The soil duplicate RPD for Cr was >35% and both the parent and duplicate sample results were >5X the PQL. The

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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associated sample results were detects and, thus, were qualified J,I10a.

6. It should be noted that the water matrix QC for all target analytes were performed on samples from other LANL RNs. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: K. Neal DATE: 3/17/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979001 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7980 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 95.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3980000	ug/Kg		6430	18900	18900	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-36-0	Antimony	729	ug/Kg	J	312	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-38-2	Arsenic	1.51	mg/kg		0.195	0.973	0.973	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-39-3	Barium	46000	ug/Kg		94.6	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-41-7	Beryllium	0.554	mg/kg	*	0.0195	0.0973	0.0973	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-43-9	Cadmium	473	ug/Kg	U	94.6	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-70-2	Calcium J-,I6a	1490000	ug/Kg	N	7570	23700	23700	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-47-3	Chromium J,I10a	16000	ug/Kg	*	142	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-48-4	Cobalt	3590	ug/Kg		142	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-50-8	Copper U,I4b	3610	ug/Kg		284	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-89-6	Iron	11500000	ug/Kg		7570	23700	23700	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-92-1	Lead	7910	ug/Kg		237	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-95-4	Magnesium J+,I6b	791000	ug/Kg	N	8040	28400	28400	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-96-5	Manganese	214000	ug/Kg		189	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-97-6	Mercury	16.2	ug/kg		4.26	12.5	12.5	1	AV	JXL1	02/18/10 13:25	021810S1-4	951518
7440-02-0	Nickel	3.79	mg/kg		0.0973	0.389	0.389	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-09-7	Potassium J+,I6b	628000	ug/Kg	N	6060	23700	23700	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7782-49-2	Selenium UJ,I6a	0.973	mg/kg	UN	0.486	0.973	0.973	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-22-4	Silver	473	ug/Kg	U	94.6	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-23-5	Sodium	244000	ug/Kg		6620	23700	23700	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-28-0	Thallium	0.0949	mg/kg	J	0.0584	0.195	0.195	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-61-1	Uranium	0.641	mg/kg	*N	0.0128	0.0389	0.0389	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-62-2	Vanadium	8750	ug/Kg		94.6	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-66-6	Zinc	42700	ug/Kg		312	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.554	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.539	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.502	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979002 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7958 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10200000	ug/Kg		7800	23000	23000	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-36-0	Antimony	6770	ug/Kg		379	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-38-2	Arsenic	6.14	mg/kg		0.235	1.17	1.17	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-39-3	Barium	121000	ug/Kg		115	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-41-7	Beryllium	4.31	mg/kg	*	0.0235	0.117	0.117	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-43-9	Cadmium	574	ug/Kg	U	115	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-70-2	Calcium J-,I6a	3530000	ug/Kg	N	9180	28700	28700	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-47-3	Chromium J,I4a	13100	ug/Kg	*	172	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-48-4	Cobalt	3400	ug/Kg		172	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-50-8	Copper	622000	ug/Kg		344	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-89-6	Iron	13400000	ug/Kg		9180	28700	28700	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-92-1	Lead	283000	ug/Kg		287	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-95-4	Magnesium J+,I6b	1610000	ug/Kg	N	9750	34400	34400	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-96-5	Manganese	172000	ug/Kg		230	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-97-6	Mercury	11.9	ug/kg	J	5.05	14.8	14.8	1	AV	JXL1	02/18/10 14:15	021810S1-4	951518
7440-02-0	Nickel	11.9	mg/kg		0.117	0.469	0.469	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-09-7	Potassium J+,I6b	1070000	ug/Kg	N	7340	28700	28700	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.17	mg/kg	UN	0.587	1.17	1.17	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-22-4	Silver	438	ug/Kg	J	115	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-23-5	Sodium	63600	ug/Kg		8030	28700	28700	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-28-0	Thallium	0.262	mg/kg		0.0704	0.235	0.235	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-61-1	Uranium	515	mg/kg	*N	0.0155	0.0469	0.0469	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-62-2	Vanadium	22700	ug/Kg		115	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-66-6	Zinc	91300	ug/Kg		379	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.542	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.53	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.503	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979003 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7960 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 93.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2560000	ug/Kg		6740	19800	19800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-36-0	Antimony	4100	ug/Kg		327	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-38-2	Arsenic	1.44	mg/kg		0.207	1.03	1.03	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-39-3	Barium	44800	ug/Kg		99.1	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-41-7	Beryllium	4.02	mg/kg	*	0.0207	0.103	0.103	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-43-9	Cadmium	495	ug/Kg	U	99.1	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-70-2	Calcium J-,I6a	989000	ug/Kg	N	7920	24800	24800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-47-3	Chromium J,I4a	11500	ug/Kg	*	149	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-48-4	Cobalt	16500	ug/Kg		149	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-50-8	Copper	187000	ug/Kg		297	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-89-6	Iron	10800000	ug/Kg		7920	24800	24800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-92-1	Lead	257000	ug/Kg		248	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-95-4	Magnesium J+,I6b	452000	ug/Kg	N	8420	29700	29700	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-96-5	Manganese	249000	ug/Kg		198	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-97-6	Mercury	12.5	ug/kg	U	4.25	12.5	12.5	1	AV	JXL1	02/18/10 14:17	021810S1-4	951518
7440-02-0	Nickel	4	mg/kg		0.103	0.414	0.414	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-09-7	Potassium J+,I6b	436000	ug/Kg	N	6340	24800	24800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.03	mg/kg	UN	0.517	1.03	1.03	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-22-4	Silver	495	ug/Kg	U	99.1	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-23-5	Sodium	142000	ug/Kg		6930	24800	24800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-28-0	Thallium	0.207	mg/kg	U	0.0621	0.207	0.207	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-61-1	Uranium	143	mg/kg	*N	0.0137	0.0414	0.0414	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-62-2	Vanadium	7130	ug/Kg		99.1	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-66-6	Zinc	53200	ug/Kg		327	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.541	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.518	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.515	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979004 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7979 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4860000	ug/Kg		8090	23800	23800	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-36-0	Antimony	780	ug/Kg	J	393	1190	1190	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-38-2	Arsenic	1.75	mg/kg		0.266	1.33	1.33	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-39-3	Barium	71300	ug/Kg		119	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-41-7	Beryllium	0.793	mg/kg	*	0.0266	0.133	0.133	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-43-9	Cadmium	595	ug/Kg	U	119	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-70-2	Calcium J-,I6a	1130000	ug/Kg	N	9520	29700	29700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-47-3	Chromium J,I10a	18300	ug/Kg	*	178	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-48-4	Cobalt	4710	ug/Kg		178	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-50-8	Copper	20300	ug/Kg		357	1190	1190	1	P	JWJ	02/21/10 05:21	022010C-2	948764
7439-89-6	Iron	11200000	ug/Kg		9520	29700	29700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7439-92-1	Lead	64200	ug/Kg		297	1190	1190	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7439-95-4	Magnesium J+,I6b	1050000	ug/Kg	N	10100	35700	35700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7439-96-5	Manganese	269000	ug/Kg		238	1190	1190	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7439-97-6	Mercury	13.5	ug/kg	U	4.59	13.5	13.5	1	AV	JXL1	02/18/10 14:19	021810S1-4	951518
7440-02-0	Nickel	4.77	mg/kg		0.133	0.531	0.531	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-09-7	Potassium J+,I6b	1110000	ug/Kg	N	7610	29700	29700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.33	mg/kg	UN	0.664	1.33	1.33	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-22-4	Silver	595	ug/Kg	U	119	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-23-5	Sodium U,I4d	47900	ug/Kg		8330	29700	29700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-28-0	Thallium	0.102	mg/kg	J	0.0797	0.266	0.266	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-61-1	Uranium	11.4	mg/kg	*N	0.0175	0.0531	0.0531	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-62-2	Vanadium	22400	ug/Kg		119	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-66-6	Zinc	27700	ug/Kg		393	1190	1190	1	P	JWJ	02/20/10 03:41	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.567	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.508	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.599	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979005 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7972 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4470000	ug/Kg		7180	21100	21100	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-36-0	Antimony	1060	ug/Kg	U	348	1060	1060	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-38-2	Arsenic	1.76	mg/kg		0.214	1.07	1.07	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-39-3	Barium	52600	ug/Kg		106	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-41-7	Beryllium	0.503	mg/kg	*	0.0214	0.107	0.107	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-43-9	Cadmium	528	ug/Kg	U	106	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-70-2	Calcium J-,I6a	952000	ug/Kg	N	8450	26400	26400	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-47-3	Chromium J,I4a	9120	ug/Kg	*	158	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-48-4	Cobalt	7200	ug/Kg		158	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-50-8	Copper	6670	ug/Kg		317	1060	1060	1	P	JWJ	02/21/10 05:25	022010C-2	948764
7439-89-6	Iron	10200000	ug/Kg		8450	26400	26400	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7439-92-1	Lead	7570	ug/Kg		264	1060	1060	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7439-95-4	Magnesium J+,I6b	691000	ug/Kg	N	8970	31700	31700	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7439-96-5	Manganese	205000	ug/Kg		211	1060	1060	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7439-97-6	Mercury	15.4	ug/kg		4.36	12.8	12.8	1	AV	JXL1	02/18/10 14:21	021810S1-4	951518
7440-02-0	Nickel	4.32	mg/kg		0.107	0.428	0.428	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-09-7	Potassium J+,I6b	544000	ug/Kg	N	6760	26400	26400	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.07	mg/kg	UN	0.535	1.07	1.07	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-22-4	Silver	528	ug/Kg	U	106	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-23-5	Sodium	159000	ug/Kg		7390	26400	26400	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-28-0	Thallium	0.214	mg/kg	U	0.0642	0.214	0.214	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-61-1	Uranium	8.19	mg/kg	*N	0.0141	0.0428	0.0428	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-62-2	Vanadium	6720	ug/Kg		106	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-66-6	Zinc	29700	ug/Kg		348	1060	1060	1	P	JWJ	02/20/10 03:44	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.512	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.513	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979006 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7957 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2540000	ug/Kg		8650	25400	25400	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-36-0	Antimony	7900	ug/Kg		420	1270	1270	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-38-2	Arsenic	1.84	mg/kg		0.234	1.17	1.17	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-39-3	Barium	97900	ug/Kg		127	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-41-7	Beryllium	7.22	mg/kg	*	0.0234	0.117	0.117	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-43-9	Cadmium	636	ug/Kg	U	127	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-70-2	Calcium J-,I6a	1880000	ug/Kg	N	10200	31800	31800	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-47-3	Chromium J,I4a	11700	ug/Kg	*	191	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-48-4	Cobalt	2690	ug/Kg		191	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-50-8	Copper	36400000	ug/Kg		19100	63600	63600	50	P	JWJ	02/21/10 05:39	022010C-2	948764
7439-89-6	Iron	8340000	ug/Kg		10200	31800	31800	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7439-92-1	Lead	473000	ug/Kg		15900	63600	63600	50	P	JWJ	02/21/10 05:39	022010C-2	948764
7439-95-4	Magnesium J+,I6b	707000	ug/Kg	N	10800	38200	38200	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7439-96-5	Manganese	122000	ug/Kg		254	1270	1270	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7439-97-6	Mercury	13.3	ug/kg	U	4.51	13.3	13.3	1	AV	JXL1	02/18/10 14:23	021810S1-4	951518
7440-02-0	Nickel	7.12	mg/kg		0.117	0.468	0.468	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-09-7	Potassium J+,I6b	492000	ug/Kg	N	8140	31800	31800	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.17	mg/kg	UN	0.585	1.17	1.17	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-22-4	Silver	6950	ug/Kg		127	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-23-5	Sodium	118000	ug/Kg		8900	31800	31800	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-28-0	Thallium	0.234	mg/kg	U	0.0702	0.234	0.234	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-61-1	Uranium	364	mg/kg	*N	0.0155	0.0468	0.0468	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-62-2	Vanadium	14700	ug/Kg		127	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-66-6	Zinc	13300000	ug/Kg		21000	63600	63600	50	P	JWJ	02/21/10 05:39	022010C-2	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.509	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.553	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.585	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979007 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7974 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 94.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3250000	ug/Kg		6710	19700	19700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-36-0	Antimony	987	ug/Kg	U	326	987	987	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-38-2	Arsenic	2.13	mg/kg		0.201	1	1	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-39-3	Barium	28000	ug/Kg		98.7	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-41-7	Beryllium	0.412	mg/kg	*	0.0201	0.1	0.1	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-43-9	Cadmium	494	ug/Kg	U	98.7	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-70-2	Calcium J-,I6a	784000	ug/Kg	N	7900	24700	24700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-47-3	Chromium J,I10a	15000	ug/Kg	*	148	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-48-4	Cobalt	3330	ug/Kg		148	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-50-8	Copper	2520	ug/Kg		296	987	987	1	P	JWJ	02/21/10 05:28	022010C-2	948764
7439-89-6	Iron	7760000	ug/Kg		7900	24700	24700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7439-92-1	Lead	4120	ug/Kg		247	987	987	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7439-95-4	Magnesium J+,I6b	567000	ug/Kg	N	8390	29600	29600	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7439-96-5	Manganese	224000	ug/Kg		197	987	987	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7439-97-6	Mercury	12.7	ug/kg		4.18	12.3	12.3	1	AV	JXL1	02/18/10 14:25	021810S1-4	951518
7440-02-0	Nickel	3.83	mg/kg		0.1	0.402	0.402	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-09-7	Potassium J+,I6b	454000	ug/Kg	N	6320	24700	24700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1	mg/kg	UN	0.502	1	1	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-22-4	Silver	494	ug/Kg	U	98.7	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-23-5	Sodium	120000	ug/Kg		6910	24700	24700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-28-0	Thallium	0.201	mg/kg	U	0.0602	0.201	0.201	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-61-1	Uranium U,I4d	0.622	mg/kg	*N	0.0133	0.0402	0.0402	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-62-2	Vanadium	6500	ug/Kg		98.7	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-66-6	Zinc	20300	ug/Kg		326	987	987	1	P	JWJ	02/20/10 03:52	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.534	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.515	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979008 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7961 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3710000	ug/Kg		7310	21500	21500	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-36-0	Antimony	1910	ug/Kg		355	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-38-2	Arsenic	1.78	mg/kg		0.233	1.16	1.16	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-39-3	Barium	46500	ug/Kg		108	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-41-7	Beryllium	1.66	mg/kg	*	0.0233	0.116	0.116	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-43-9	Cadmium	538	ug/Kg	U	108	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-70-2	Calcium J-,I6a	1030000	ug/Kg	N	8600	26900	26900	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-47-3	Chromium J,I4a	8570	ug/Kg	*	161	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-48-4	Cobalt	4990	ug/Kg		161	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-50-8	Copper	531000	ug/Kg		323	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-89-6	Iron	9470000	ug/Kg		8600	26900	26900	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-92-1	Lead	166000	ug/Kg		269	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-95-4	Magnesium J+,I6b	692000	ug/Kg	N	9140	32300	32300	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-96-5	Manganese	199000	ug/Kg		215	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-97-6	Mercury	14.1	ug/kg	U	4.78	14.1	14.1	1	AV	JXL1	02/18/10 14:27	021810S1-4	951518
7440-02-0	Nickel	8.02	mg/kg		0.116	0.465	0.465	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-09-7	Potassium J+,I6b	700000	ug/Kg	N	6880	26900	26900	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.16	mg/kg	UN	0.581	1.16	1.16	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-22-4	Silver	129	ug/Kg	J	108	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-23-5	Sodium U,I4d	42100	ug/Kg		7530	26900	26900	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-28-0	Thallium	0.0891	mg/kg	J	0.0698	0.233	0.233	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-61-1	Uranium	49.3	mg/kg	*N	0.0153	0.0465	0.0465	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-62-2	Vanadium	14600	ug/Kg		108	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-66-6	Zinc	43600	ug/Kg		355	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.545	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.504	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.5	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979009 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7971 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5600000	ug/Kg		8800	25900	25900	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-36-0	Antimony	1490	ug/Kg		427	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-38-2	Arsenic	1.4	mg/kg		0.264	1.32	1.32	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-39-3	Barium	70500	ug/Kg		129	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-41-7	Beryllium	0.885	mg/kg	*	0.0264	0.132	0.132	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-43-9	Cadmium	647	ug/Kg	U	129	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-70-2	Calcium J-,I6a	2010000	ug/Kg	N	10300	32300	32300	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-47-3	Chromium J,I4a	9150	ug/Kg	*	194	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-48-4	Cobalt	4270	ug/Kg		194	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-50-8	Copper	1010000	ug/Kg		388	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-89-6	Iron	9970000	ug/Kg		10300	32300	32300	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-92-1	Lead	155000	ug/Kg		323	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-95-4	Magnesium J+,I6b	952000	ug/Kg	N	11000	38800	38800	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-96-5	Manganese	246000	ug/Kg		259	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-97-6	Mercury	6.71	ug/kg	J	4.59	13.5	13.5	1	AV	JXL1	02/18/10 14:33	021810S1-4	951518
7440-02-0	Nickel	3.4	mg/kg		0.132	0.528	0.528	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-09-7	Potassium J+,I6b	820000	ug/Kg	N	8280	32300	32300	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.32	mg/kg	UN	0.659	1.32	1.32	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-22-4	Silver	313	ug/Kg	J	129	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-23-5	Sodium	64300	ug/Kg		9050	32300	32300	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-28-0	Thallium	0.264	mg/kg	U	0.0791	0.264	0.264	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-61-1	Uranium	45.9	mg/kg	*N	0.0174	0.0528	0.0528	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-62-2	Vanadium	19400	ug/Kg		129	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-66-6	Zinc	42600	ug/Kg		427	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.512	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979010 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7966 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.4

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		1180000	ug/Kg		7150	21000	21000	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-36-0	Antimony		434	ug/Kg	J	347	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-38-2	Arsenic		0.796	mg/kg	J	0.214	1.07	1.07	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-39-3	Barium		20300	ug/Kg		105	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-41-7	Beryllium		1.59	mg/kg	*	0.0214	0.107	0.107	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-43-9	Cadmium		526	ug/Kg	U	105	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-70-2	Calcium	J-,I6a	395000	ug/Kg	N	8410	26300	26300	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-47-3	Chromium	J,I4a	8430	ug/Kg	*	158	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-48-4	Cobalt		4860	ug/Kg		158	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-50-8	Copper		1410000	ug/Kg		315	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-89-6	Iron		7360000	ug/Kg		8410	26300	26300	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-92-1	Lead		6660	ug/Kg		263	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-95-4	Magnesium	J+,I6b	213000	ug/Kg	N	8930	31500	31500	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-96-5	Manganese		205000	ug/Kg		210	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-97-6	Mercury		11.8	ug/kg	U	4.02	11.8	11.8	1	AV	JXL1	02/18/10 14:35	021810S1-4	951518
7440-02-0	Nickel		3.61	mg/kg		0.107	0.428	0.428	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-09-7	Potassium	J+,I6b	285000	ug/Kg	N	6730	26300	26300	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7782-49-2	Selenium	UJ,I6a	1.07	mg/kg	UN	0.535	1.07	1.07	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-22-4	Silver		526	ug/Kg	U	105	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-23-5	Sodium		166000	ug/Kg		7360	26300	26300	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-28-0	Thallium		0.214	mg/kg	U	0.0642	0.214	0.214	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-61-1	Uranium		11.2	mg/kg	*N	0.0141	0.0428	0.0428	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-62-2	Vanadium		3220	ug/Kg		105	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-66-6	Zinc		39900	ug/Kg		347	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.526	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.561	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979011 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7959 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4330000	ug/Kg		7730	22700	22700	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-36-0	Antimony	9560	ug/Kg		375	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-38-2	Arsenic	4.42	mg/kg		0.243	1.22	1.22	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-39-3	Barium	56700	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-41-7	Beryllium	7.52	mg/kg	*	0.0243	0.122	0.122	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-43-9	Cadmium	568	ug/Kg	U	114	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-70-2	Calcium J-,I6a	1190000	ug/Kg	N	9090	28400	28400	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-47-3	Chromium J,I4a	11900	ug/Kg	*	170	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-48-4	Cobalt	3700	ug/Kg		170	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-50-8	Copper	618000	ug/Kg		341	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-89-6	Iron	7080000	ug/Kg		9090	28400	28400	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-92-1	Lead	777000	ug/Kg		284	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-95-4	Magnesium J+,I6b	602000	ug/Kg	N	9660	34100	34100	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-96-5	Manganese	156000	ug/Kg		227	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-97-6	Mercury	13.4	ug/kg	U	4.56	13.4	13.4	1	AV	JXL1	02/18/10 14:37	021810S1-4	951518
7440-02-0	Nickel	5.5	mg/kg		0.122	0.486	0.486	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-09-7	Potassium J+,I6b	499000	ug/Kg	N	7270	28400	28400	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.22	mg/kg	UN	0.608	1.22	1.22	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-22-4	Silver	1050	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-23-5	Sodium U,I4d	53700	ug/Kg		7960	28400	28400	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-28-0	Thallium	0.243	mg/kg	U	0.0729	0.243	0.243	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-61-1	Uranium	249	mg/kg	*N	0.016	0.0486	0.0486	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-62-2	Vanadium	11300	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-66-6	Zinc	90600	ug/Kg		375	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.556	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.52	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.565	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979012 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7969 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5250000	ug/Kg		7390	21700	21700	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-36-0	Antimony	1630	ug/Kg		359	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-38-2	Arsenic	1.4	mg/kg		0.196	0.981	0.981	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-39-3	Barium	162000	ug/Kg		109	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-41-7	Beryllium	0.623	mg/kg	*	0.0196	0.0981	0.0981	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-70-2	Calcium J-,I6a	1670000	ug/Kg	N	8690	27200	27200	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-47-3	Chromium J,I10a	55800	ug/Kg	*	163	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-48-4	Cobalt	3450	ug/Kg		163	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-50-8	Copper	103000	ug/Kg		326	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-89-6	Iron	9300000	ug/Kg		8690	27200	27200	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-92-1	Lead	406000	ug/Kg		272	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-95-4	Magnesium J+,I6b	1260000	ug/Kg	N	9240	32600	32600	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-96-5	Manganese	248000	ug/Kg		217	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-97-6	Mercury	11.4	ug/kg	U	3.89	11.4	11.4	1	AV	JXL1	02/18/10 14:39	021810S1-4	951518
7440-02-0	Nickel	4.41	mg/kg		0.0981	0.392	0.392	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-09-7	Potassium J+,I6b	770000	ug/Kg	N	6950	27200	27200	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7782-49-2	Selenium UJ,I6a	0.981	mg/kg	UN	0.49	0.981	0.981	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-22-4	Silver	167	ug/Kg	J	109	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-23-5	Sodium	59200	ug/Kg		7610	27200	27200	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-28-0	Thallium	0.0879	mg/kg	J	0.0588	0.196	0.196	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-61-1	Uranium	5.37	mg/kg	*N	0.0129	0.0392	0.0392	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-62-2	Vanadium	15800	ug/Kg		109	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-66-6	Zinc	39000	ug/Kg		359	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.509	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.564	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.58	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979013 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8061 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7460000	ug/Kg		7730	22700	22700	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-36-0	Antimony	7380	ug/Kg		375	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-38-2	Arsenic	2	mg/kg		0.226	1.13	1.13	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-39-3	Barium	108000	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-41-7	Beryllium	2.99	mg/kg	*	0.0226	0.113	0.113	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-43-9	Cadmium	568	ug/Kg	U	114	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-70-2	Calcium J-,I6a	3270000	ug/Kg	N	9090	28400	28400	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-47-3	Chromium J,I4a	11300	ug/Kg	*	170	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-48-4	Cobalt	2890	ug/Kg		170	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-50-8	Copper	547000	ug/Kg		341	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-89-6	Iron	10600000	ug/Kg		9090	28400	28400	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-92-1	Lead	294000	ug/Kg		284	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-95-4	Magnesium J+,I6b	1250000	ug/Kg	N	9660	34100	34100	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-96-5	Manganese	151000	ug/Kg		227	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-97-6	Mercury	10	ug/kg	J	4.21	12.4	12.4	1	AV	JXL1	02/18/10 14:41	021810S1-4	951518
7440-02-0	Nickel	6.79	mg/kg		0.113	0.452	0.452	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-09-7	Potassium J+,I6b	777000	ug/Kg	N	7270	28400	28400	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.13	mg/kg	UN	0.565	1.13	1.13	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-22-4	Silver	513	ug/Kg	J	114	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-23-5	Sodium U,I4d	52200	ug/Kg		7960	28400	28400	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-28-0	Thallium	0.085	mg/kg	J	0.0678	0.226	0.226	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-61-1	Uranium	80.1	mg/kg	*N	0.0149	0.0452	0.0452	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-62-2	Vanadium	18400	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-66-6	Zinc	86900	ug/Kg		375	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.516	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.569	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979014 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8063 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5600000	ug/Kg		8070	23700	23700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-36-0	Antimony	1560	ug/Kg		391	1190	1190	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-38-2	Arsenic	2.82	mg/kg		0.232	1.16	1.16	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-39-3	Barium	67500	ug/Kg		119	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-41-7	Beryllium	16.7	mg/kg	*	0.0232	0.116	0.116	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-43-9	Cadmium	593	ug/Kg	U	119	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-70-2	Calcium J-,I6a	1350000	ug/Kg	N	9490	29700	29700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-47-3	Chromium J,I10a	15200	ug/Kg	*	178	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-48-4	Cobalt	4540	ug/Kg		178	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-50-8	Copper	17600	ug/Kg		356	1190	1190	1	P	JWJ	02/21/10 05:32	022010C-2	948764
7439-89-6	Iron	11300000	ug/Kg		9490	29700	29700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7439-92-1	Lead	158000	ug/Kg		297	1190	1190	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7439-95-4	Magnesium J+,I6b	1110000	ug/Kg	N	10100	35600	35600	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7439-96-5	Manganese	265000	ug/Kg		237	1190	1190	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7439-97-6	Mercury	12.8	ug/kg	U	4.34	12.8	12.8	1	AV	JXL1	02/18/10 14:43	021810S1-4	951518
7440-02-0	Nickel	8.57	mg/kg		0.116	0.465	0.465	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-09-7	Potassium J+,I6b	978000	ug/Kg	N	7590	29700	29700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.16	mg/kg	UN	0.581	1.16	1.16	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-22-4	Silver	593	ug/Kg	U	119	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-23-5	Sodium U,I4d	52300	ug/Kg		8300	29700	29700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-28-0	Thallium	0.0725	mg/kg	J	0.0697	0.232	0.232	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-61-1	Uranium	803	mg/kg	*N	0.0153	0.0465	0.0465	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-62-2	Vanadium	22700	ug/Kg		119	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-66-6	Zinc	24200	ug/Kg		391	1190	1190	1	P	JWJ	02/20/10 04:25	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.528	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.577	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979015 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8062 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1260000	ug/Kg		6960	20500	20500	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-36-0	Antimony	448	ug/Kg	J	338	1020	1020	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-38-2	Arsenic	0.561	mg/kg	J	0.215	1.07	1.07	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-39-3	Barium	21300	ug/Kg		102	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-41-7	Beryllium	0.353	mg/kg	*	0.0215	0.107	0.107	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-43-9	Cadmium	511	ug/Kg	U	102	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-70-2	Calcium J-,I6a	640000	ug/Kg	N	8180	25600	25600	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-47-3	Chromium J,I4a	11000	ug/Kg	*	153	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-48-4	Cobalt	5860	ug/Kg		153	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-50-8	Copper	6170	ug/Kg		307	1020	1020	1	P	JWJ	02/21/10 05:36	022010C-2	948764
7439-89-6	Iron	9250000	ug/Kg		8180	25600	25600	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7439-92-1	Lead	8280	ug/Kg		256	1020	1020	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7439-95-4	Magnesium J+,I6b	238000	ug/Kg	N	8690	30700	30700	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7439-96-5	Manganese	226000	ug/Kg		205	1020	1020	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7439-97-6	Mercury	12.1	ug/kg	U	4.1	12.1	12.1	1	AV	JXL1	02/18/10 14:45	021810S1-4	951518
7440-02-0	Nickel	3.04	mg/kg		0.107	0.43	0.43	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-09-7	Potassium J+,I6b	310000	ug/Kg	N	6550	25600	25600	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7782-49-2	Selenium UJ,I6a	1.07	mg/kg	UN	0.537	1.07	1.07	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-22-4	Silver	511	ug/Kg	U	102	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-23-5	Sodium	180000	ug/Kg		7160	25600	25600	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-28-0	Thallium	0.215	mg/kg	U	0.0645	0.215	0.215	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-61-1	Uranium	6.98	mg/kg	*N	0.0142	0.043	0.043	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-62-2	Vanadium	3700	ug/Kg		102	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-66-6	Zinc	45900	ug/Kg		338	1020	1020	1	P	JWJ	02/20/10 04:29	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.54	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.55	g	30	mL	02/17/10	TXB3

LT 3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245981001 **BASIS:** As Received **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8083 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 04:51	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:34	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 04:51	100224-2	948740
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:03	021110B-1	948737
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 20:03	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:34	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:03	021110B-1	948737
7439-96-5	Manganese	1	ug/L	J	1	5	5	1	MS	BAJ	02/25/10 15:34	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:05	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-09-7	Potassium	194	ug/L		50	150	150	1	P	HSC	02/11/10 20:03	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-23-5	Sodium	103	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/28/10 14:36	100228-5	948740
7440-61-1	Uranium	0.640	ug/L		0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:27	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:03	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

LT 3/17/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1514 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total Cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Total cyanide was detected in the soil CCBs. The associated results for samples RE15-10-7958, -7957 and -8061 were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4b. The remaining associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the water matrix QC was performed on a sample from another LANL RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: K Thal DATE: 3/17/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7980	Project:	LANL01004
Sample ID:	245979001	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	4.62%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.3	262	ug/kg	1	AXC2 02/10/10	1537	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7958	Project:	LANL01004
Sample ID:	245979002	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	19.6%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	114	U,l4b	75.5	278	ug/kg	1	AXC2 02/10/10	1619	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7960	Project:	LANL01004
Sample ID:	245979003	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.9	268	ug/kg	1	AXC2 02/10/10	1548	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7979	Project:	LANL01004
Sample ID:	245979004	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	25.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	91.7	337	ug/kg	1	AXC2 02/10/10	1549	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7972	Project:	LANL01004
Sample ID:	245979005	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.75%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	67.7	249	ug/kg	1	AXC2 02/10/10	1550	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7957	Project:	LANL01004
Sample ID:	245979006	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.8%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	139	U,l4b	84.7	311	ug/kg	1	AXC2 02/10/10	1551	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7974	Project:	LANL01004
Sample ID:	245979007	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	5.14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	61.8	227	ug/kg	1	AXC2 02/10/10	1552	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7961	Project:	LANL01004
Sample ID:	245979008	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2 02/10/10	1553	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7971	Project:	LANL01004
Sample ID:	245979009	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	25.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	91.8	338	ug/kg	1	AXC2 02/10/10	1554	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7966	Project:	LANL01004
Sample ID:	245979010	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.56%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.7	271	ug/kg	1	AXC2 02/10/10	1554	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/17/10

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7959	Project:	LANL01004
Sample ID:	245979011	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	20.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.4	277	ug/kg	1	AXC2 02/10/10	1555	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/17/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7969	Project:	LANL01004
Sample ID:	245979012	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.3	266	ug/kg	1	AXC2 02/10/10	1600	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/17/10

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-8061	Project:	LANL01004
Sample ID:	245979013	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.7%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	101	U,I4b	75.2	277	ug/kg	1	AXC2 02/10/10	1601	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/17/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-8063	Project:	LANL01004
Sample ID:	245979014	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.2	295	ug/kg	1	AXC2 02/10/10	1602	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/17/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-8062	Project:	LANL01004
Sample ID:	245979015	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.48%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.6	256	ug/kg	1	AXC2 02/10/10	1603	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/17/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1514-1

Client Sample ID:	RE15-10-8083	Project:	LANL01004
Sample ID:	245981001	Client ID:	LANL010
Matrix:	W		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1459	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/17/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1514 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. An MS was not performed for the tritium analysis. The LCS met laboratory acceptance criteria and, thus, no sample results were qualified.
2. The matrix QC analysis was performed on a sample from another LANL RN. No sample data were qualified as a result.

Reviewed by: ETM Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: L Thal DATE: 3/17/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID:	RE15-10-8062	Project:	LANL01004
Sample ID:	245979015	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.48%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		7980	195	+/-571	250	pCi/L		KXK2	02/14/10	0913	950495	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit

LT 3/17/10

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1514C

REQUEST NUMBER: 10-1514

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245979, 245981 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7980	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7980	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7958	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7958	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7960	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7960	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7979	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7979	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7972	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7972	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7957	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7957	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7974	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7974	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7961	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7961	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7971	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7971	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7966	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7966	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7959	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7959	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7969	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7969	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8061	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8061	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8063	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8063	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8062	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8062	1	POLY	H3	Ice	R
RE15-10-8062	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8082	1	POLY	METALS+U-GEL	Nitric Acid	W

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1514C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8083	1	POLY	SW-846:6850	Ice	W
RE15-10-8083	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		2/1/10	3:00	Patricia Dover-Dent	P.D.-Dent	2-2-10	09:10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name	Signature		

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1514
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8062	R	1/27/2010	
	SW-846:6020	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	
	SW-846:6850	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	
	SW-846:7470A	1	RE15-10-8083	W	1/27/2010	
	SW-846:7471A	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:8082	1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:8321A_MOD	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:9012A	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	

Final Page of REQUEST NUMBER 10-1514

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 245979 245981
SDG: 10-1514

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1514
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245979 and 245981
SDG: 10-1514

Table of Contents

Case Narrative **1**

Chain of Custody and Supporting Documentation **5**

Data Review Qualifier Flag Definition Sheet **20**

LC/MS/MS Perchlorate Analysis **22**
Sample Data Summary 27
Quality Control Summary 43
Sample Data 67
Standards Data 98
Quality Control 112
Miscellaneous Data 121

LC/MS/MS Perchlorate Analysis **128**
Sample Data Summary 133
Quality Control Summary 135
Sample Data 162
Standards Data 165
Quality Control 187
Miscellaneous Data 192

LC/MS/MS Explosives Analysis **200**
Sample Data Summary 207
Sample Data 360
Standards Data 469
Quality Control Data 631
Miscellaneous Data 663

GC Semivolatile PCB Analysis **675**
Sample Data Summary 681
Quality Control Summary 685
Sample Data 691
Standards Data 711
Quality Control Data 799
Miscellaneous Data 814

Metals Analysis **843**
Case Narrative 844
Sample Data Summary 851
Quality Control Summary 867

Standards 946
Raw Data 958
Miscellaneous 1478

Metals Analysis 1521
Case Narrative 1522
Sample Data Summary 1527
Quality Control Summary 1529
Standards 1582
Raw Data 1594
Miscellaneous 1911

General Chemistry Analysis 1958
Case Narrative 1959
Sample Data Summary 1964
Quality Control Summary 1981
Instrument QC Data Summary 1984
Cyanide, Total 1986
Miscellaneous 2001

General Chemistry Analysis 2003
Case Narrative 2004
Sample Data Summary 2009
Quality Control Summary 2012
Instrument QC Data Summary 2015
Cyanide, Total 2017

Radiological Analysis 2031
Sample Data Summary 2037
Quality Control Data 2041
Raw Data 2044
Background and Efficiency Data 2074
Standards Data 2076
Runlogs 2080

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245979 and 245981
SDG # : 10-1514

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245979001	RE15-10-7980
245979002	RE15-10-7958
245979003	RE15-10-7960
245979004	RE15-10-7979
245979005	RE15-10-7972
245979006	RE15-10-7957
245979007	RE15-10-7974
245979008	RE15-10-7961
245979009	RE15-10-7971
245979010	RE15-10-7966
245979011	RE15-10-7959
245979012	RE15-10-7969
245979013	RE15-10-8061
245979014	RE15-10-8063
245979015	RE15-10-8062
245981001	RE15-10-8083

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1514C

REQUEST NUMBER: 10-1514

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245979, 245981 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7980	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7980	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7958	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7958	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7960	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7960	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7979	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7979	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7972	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7972	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7957	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7957	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7974	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7974	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7961	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7961	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7971	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7971	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7966	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7966	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7959	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7959	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7969	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7969	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8061	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8061	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8063	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8063	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8062	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8062	1	POLY	H3	Ice	R
RE15-10-8062	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8088	1	POLY	METALS+U-GEL	Nitric Acid	W

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1514C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8083	1	POLY	SW-846:6850	Ice	W
RE15-10-8083	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
		2/1/10	3:00	Patricia Dover-Dent	P.D.-Dent	2-2-10	09:10
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1514

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8062	R	1/27/2010	
	SW-846:6020	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	
	SW-846:6850	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	
	SW-846:7470A	1	RE15-10-8083	W	1/27/2010	
	SW-846:7471A	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:8082	1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:8321A_MOD	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1514

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
	SW-846:9012A	1	RE15-10-7957	R	1/27/2010	
		1	RE15-10-7958	R	1/27/2010	
		1	RE15-10-7959	R	1/27/2010	
		1	RE15-10-7960	R	1/27/2010	
		1	RE15-10-7961	R	1/27/2010	
		1	RE15-10-7966	R	1/27/2010	
		1	RE15-10-7969	R	1/27/2010	
		1	RE15-10-7971	R	1/27/2010	
		1	RE15-10-7972	R	1/27/2010	
		1	RE15-10-7974	R	1/27/2010	
		1	RE15-10-7979	R	1/27/2010	
		1	RE15-10-7980	R	1/27/2010	
		1	RE15-10-8061	R	1/27/2010	
		1	RE15-10-8062	R	1/27/2010	
		1	RE15-10-8063	R	1/27/2010	
		1	RE15-10-8083	W	1/27/2010	

Final Page of REQUEST NUMBER 10-1514

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1514**
Received By: Patricia Dover-Dent	**Date Received: February 2, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **0-5** **13-15&19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C	**7209 7849 7842 1C**	**7209 7849 7809 2C**	**7209 7849 7717 14C**
7209 7849 7772 1C	**7209 7849 7886 2C**	**7209 7849 7912 3C**	**7209 7849 7750 15C**
7209 7849 7934 1C	**7209 7849 7901 2C**	**7209 7849 7967 3C**	**7209 7849 7740 15C**
7209 7849 7831 1C	**7209 7849 7853 2C**	**7209 7849 7945 4C**	**7209 7849 7739 19C**
7209 7849 7783 1C	**7209 7849 7875 2C**	**7209 7849 7810 5C**	
7209 7849 7864 1C	**7209 7849 7956 2C**	**7209 7849 7897 5C**	
7209 7849 7923 1C	**7209 7849 7794 2C**	**7209 7849 7728 13C**	
7209 7849 7761 1C	**7209 7849 7820 2C**	**7209 7849 7706 13C**	

PM (or PMA) review: Initials PF Date 2/3/10

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CHG: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

0c

FedEx Express

TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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2 of 2
MPS# 0263 7209 7849 7772
Mstr# 7209 7849 7761 0201

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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

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GENERAL ENGINEERING LAB
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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 69.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
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(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1C

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1 of 2
TRK# 0201 7209 7849 7783
NN MASTER NN

TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

1C

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2 of 2
MPS# 0263 7209 784[illegible] 7864
Matr# 7209 7[illegible] 7853 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

1C

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2 of 2
MPS# 0263 7209 7849 7923
Matr# 7209 7849 7912 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1C

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1 of 2
TRK# 0201 7209 7849 7761
NN MASTER NN

TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05ZVA00

1

FedEx Express

2 of 2
MPS# 0263 7209 7849 7842
Mstr# 7209 7849 7831 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

Part # 156148-434 NRT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2c

FedEx Express

2 of 2
MPS# 0263 7209 7849 7901
Mstr# 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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FedEx Express

2 of 2
MPS# 0263 7209 7849 7886
Mstr# 7209 7849 7875 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7853
** MASTER **

TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7875
TUE - 02FEB A1
PRIORITY OVERNIGHT

MASTER

XX CHSA
29407
SC-US
CHS

Part # 158148-434 NAIT V8.04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7956
TUE - 02FEB A1
PRIORITY OVERNIGHT

MASTER

XX CHSA
29407
SC-US
CHS

Part # 158148-434 NAIT V8.04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7794
Mstr# 7209 7849 7783 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

3 of 3
MPS# 0263 7209 7849 7820
Mstr# 7209 7849 7809 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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FedEx Express

1 of 3
TRK# [illegible]

TUE - 02FEB A1

FedEx
TRK# 0201 7209 7849 7809

TUE - 02 FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Emp# 133998 01FEB10 SAFA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7912

TUE - 02FEB A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NAIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7967
Mstr# 7209 7849 7956 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

4C

FedEx Express

2 of 2
0263 7209 7849 7945
Mstr# 7209 7849 7934 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

5c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7810
Matr# 7209 7849 7808 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7897
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156143-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

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1 of 2
TRK# 0201 7209 7849 7728
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7706
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

14c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7717
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 158143-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

15c

FedEx Express

2 of 2
MPS# 0263 7209 7849 7750
Matr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 158148-434 NRIT V3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7740
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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

19°

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2 of 2
MPS# 0263 7209 7849 7739
Matr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1514

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950063
Prep Batch Number:	950062

Sample Analysis

Sample ID	Client ID
245979001	RE15-10-7980
245979002	RE15-10-7958
245979003	RE15-10-7960
245979004	RE15-10-7979
245979005	RE15-10-7972
245979006	RE15-10-7957
245979007	RE15-10-7974
245979008	RE15-10-7961
245979009	RE15-10-7971
245979010	RE15-10-7966
245979011	RE15-10-7959
245979012	RE15-10-7969
245979013	RE15-10-8061
245979014	RE15-10-8063

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245979015	RE15-10-8062
1202035650	Interference Check Sample (ICS)
1202035646	Method Blank (MB)
1202035647	Laboratory Control Sample (LCS)
1202035648	245979001(RE15-10-7980) Matrix Spike (MS)
1202035649	245979001(RE15-10-7980) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

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QC Sample Designation
Sample 245979001 (RE15-10-7980) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

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Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M Muse **Date:** 02/25/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7980

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 95.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.524	2.1	1.38	ug/kg	J	1	23-FEB-10 14:27	per0223015a
	Perchlorate Isotope Ratio			3.46			1	23-FEB-10 14:27	per0223015a
14797-73-0	Perchlorate-101	.524	2.1	1.28	ug/kg	J	1	23-FEB-10 14:27	per0223015a
	Perchlorate-O(18)			5.20	ug/kg		1	23-FEB-10 14:27	per0223015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7958

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.622	2.49	0.622	ug/kg	U	1	23-FEB-10 14:51	per0223018a
	Perchlorate Isotope Ratio						1	23-FEB-10 14:51	per0223018a
14797-73-0	Perchlorate-101	.622	2.49	0.622	ug/kg	U	1	23-FEB-10 14:51	per0223018a
	Perchlorate-O(18)			5.77	ug/kg		1	23-FEB-10 14:51	per0223018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7960

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 93.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.536	2.14	0.536	ug/kg	U	1	23-FEB-10 14:59	per0223019a
	Perchlorate Isotope Ratio						1	23-FEB-10 14:59	per0223019a
14797-73-0	Perchlorate-101	.536	2.14	0.536	ug/kg	U	1	23-FEB-10 14:59	per0223019a
	Perchlorate-O(18)			5.04	ug/kg		1	23-FEB-10 14:59	per0223019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7979

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 15:07	per0223020a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:07	per0223020a
14797-73-0	Perchlorate-101	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 15:07	per0223020a
	Perchlorate-O(18)			6.30	ug/kg		1	23-FEB-10 15:07	per0223020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7972

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 91.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 15:15	per0223021a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:15	per0223021a
14797-73-0	Perchlorate-101	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 15:15	per0223021a
	Perchlorate-O(18)			5.20	ug/kg		1	23-FEB-10 15:15	per0223021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7957

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	23-FEB-10 15:47	per0223025a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:47	per0223025a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	23-FEB-10 15:47	per0223025a
	Perchlorate-O(18)			6.09	ug/kg		1	23-FEB-10 15:47	per0223025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7974

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 94.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	23-FEB-10 15:55	per0223026a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:55	per0223026a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	23-FEB-10 15:55	per0223026a
	Perchlorate-O(18)			5.14	ug/kg		1	23-FEB-10 15:55	per0223026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7961

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.586	2.34	0.586	ug/kg	U	1	23-FEB-10 16:03	per0223027a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:03	per0223027a
14797-73-0	Perchlorate-101	.586	2.34	0.586	ug/kg	U	1	23-FEB-10 16:03	per0223027a
	Perchlorate-O(18)			5.44	ug/kg		1	23-FEB-10 16:03	per0223027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7971

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 16:11	per0223028a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:11	per0223028a
14797-73-0	Perchlorate-101	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 16:11	per0223028a
	Perchlorate-O(18)			6.68	ug/kg		1	23-FEB-10 16:11	per0223028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7966

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:20	per0223029a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:20	per0223029a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:20	per0223029a
	Perchlorate-O(18)			5.12	ug/kg		1	23-FEB-10 16:20	per0223029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7959

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	23-FEB-10 16:28	per0223030a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:28	per0223030a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	23-FEB-10 16:28	per0223030a
	Perchlorate-O(18)			6.06	ug/kg		1	23-FEB-10 16:28	per0223030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7969

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:36	per0223031a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:36	per0223031a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:36	per0223031a
	Perchlorate-O(18)			5.05	ug/kg		1	23-FEB-10 16:36	per0223031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8061

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.586	2.35	0.586	ug/kg	U	1	23-FEB-10 16:44	per0223032a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:44	per0223032a
14797-73-0	Perchlorate-101	.586	2.35	0.586	ug/kg	U	1	23-FEB-10 16:44	per0223032a
	Perchlorate-O(18)			5.64	ug/kg		1	23-FEB-10 16:44	per0223032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8063

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	23-FEB-10 16:52	per0223033a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:52	per0223033a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	23-FEB-10 16:52	per0223033a
	Perchlorate-O(18)			5.93	ug/kg		1	23-FEB-10 16:52	per0223033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8062

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	0.552	ug/kg	U	1	23-FEB-10 17:00	per0223034a
	Perchlorate Isotope Ratio						1	23-FEB-10 17:00	per0223034a
14797-73-0	Perchlorate-101	.552	2.21	0.552	ug/kg	U	1	23-FEB-10 17:00	per0223034a
	Perchlorate-O(18)			5.12	ug/kg		1	23-FEB-10 17:00	per0223034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1514

Extract Batch Code: 950062

Date Filtered: 18–FEB–10

Matrix: SOIL

Sample ID: 1202035647

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.04	ug/kg	102		70 – 130
Perchlorate Isotope Ratio		3.25				–
Perchlorate–101	2.00	2.01	ug/kg	101		70 – 130
Perchlorate–O(18)		4.69	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1514

Extract Batch Code: 950062

Date Filtered: 18–FEB–10

Matrix: SOIL

Sample ID: 1202035650

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.09	ug/kg	105		70 – 130
Perchlorate Isotope Ratio		3.25				
Perchlorate–101	2.00	2.06	ug/kg	103		70 – 130
Perchlorate–O(18)		4.79	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223014a
Date: 23-Feb-2010
Time: 14:19:19
ID: 1202035650
Vial: 1:3,C

|LANL|950263|5025|IC5|1|

CWW 02-24-10

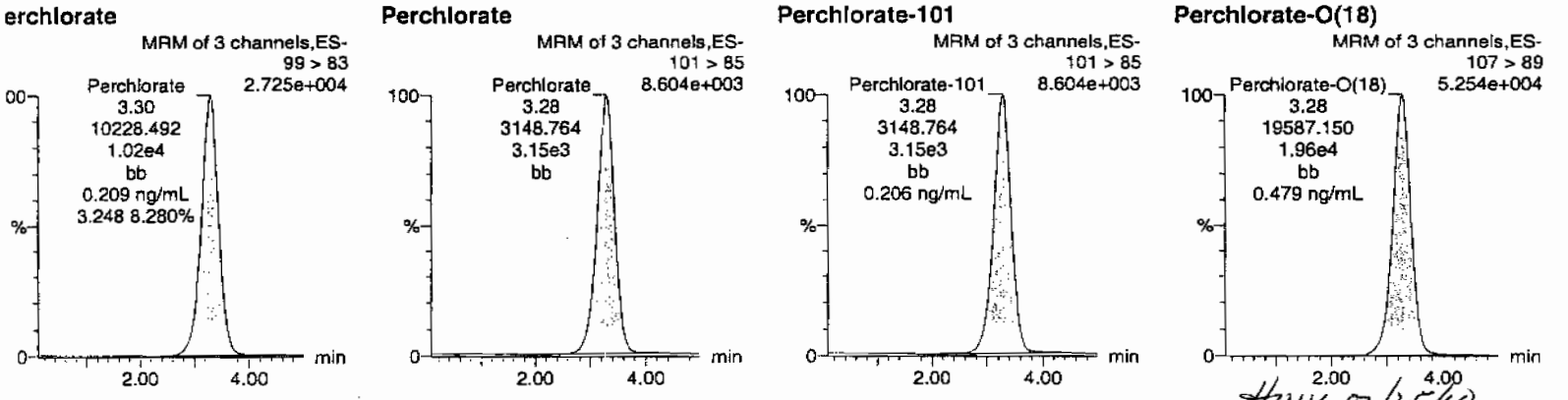

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202035650	Perchlorate	99 > 83	3.30	10228.492	10228.492	bb			0.2092	104.58	4.58	1730.3...	3.25
202035650	Perchlorate-101	101 > 85	3.28	3148.764	3148.764	bb			0.2064	103.22	3.22	1109.1...	
202035650	Perchlorate-O(18)	107 > 89	3.28	19587.150	19587.150	bb			0.4787	95.74	-4.26	7276.9...	

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1514

Extract Batch Code: 950062

Date Extracted: 18–FEB–10

GEL MS/PS ID: 1202035648

Client ID: RE15–10–7980

GEL MSD/PSD ID: 1202035649

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.10	1.38	ug/kg	3.72	111	3.61	106	2.88	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.16		3.22		0		–
Perchlorate–101	2.10	1.28	ug/kg	3.77	118	3.59	110	4.77	30	75 – 125
Perchlorate–O(18)	0	5.20	ug/kg	5.26		5.34		1.58		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1514

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	23–FEB–10	per0223001a	IPB001
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223001a	IPB001
Perchlorate	0.00	0	NA	23–FEB–10	per0223002a	IPB001
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223002a	IPB001

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

ast Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

lethod: C:\MassLynx\Perchlorate.PRO\MethDB\per022310a.mdb 24 Feb 2010 09:36:48
alibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022310a.cdb 24 Feb 2010 09:37:11

ame: per0223001a
ate: 23-Feb-2010
ime: 12:33:48
): IPB001
ial: 1:1,A

02-24-10

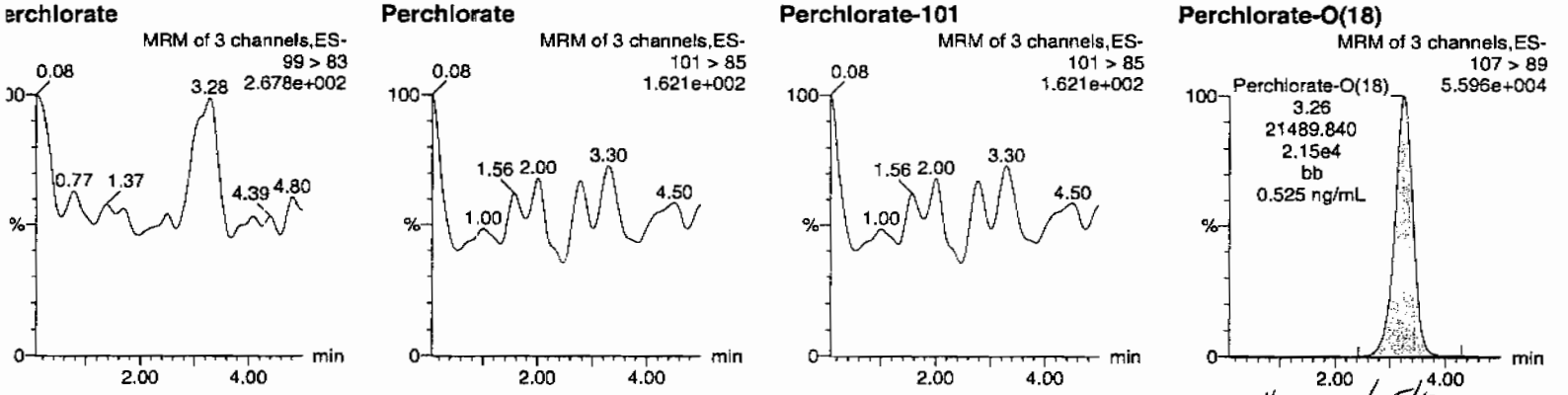

Hmw 02/25/12

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B001	Perchlorate	99 > 83											0.00
B001	Perchlorate-101	101 > 85											
B001	Perchlorate-O(18)	107 > 89	3.26	21489.840	21489.840	bb			0.5252	105.04	5.04	7285.2...	

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

ast Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

ame: per0223002a
ate: 23-Feb-2010
ime: 12:42:00
): IPB001
ial: 1:1,A

CWO 02-24-10

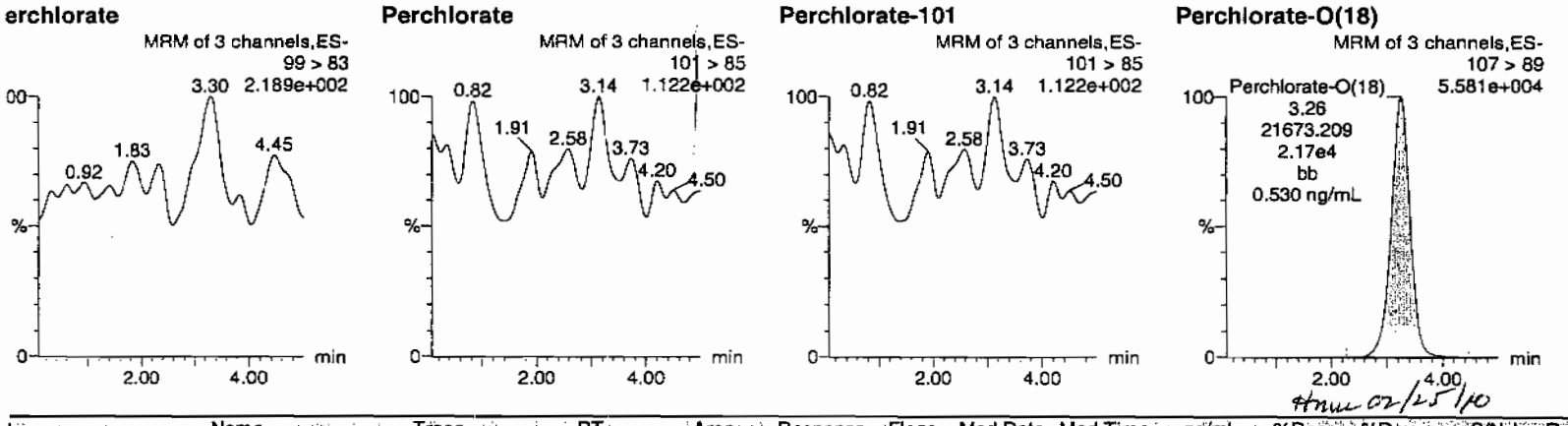

Hmm 02/25/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
B001	Perchlorate	99 > 83											0.00
B001	Perchlorate-101	101 > 85											
B001	Perchlorate-O(18)	107 > 89	3.26	21673.209	21673.209	bb			0.5297	105.93	5.93	1580.2...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1514

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	23–FEB–10	per0223008a	IPB002
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223008a	IPB002
Perchlorate	0.00	0	NA	23–FEB–10	per0223010a	IPB003
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223010a	IPB003
Perchlorate	0.00	0	NA	23–FEB–10	per0223023a	IPB004
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223023a	IPB004
Perchlorate	0.00	0	NA	23–FEB–10	per0223036a	IPB005
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223036a	IPB005

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

ast Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

ame: per0223008a
ate: 23-Feb-2010
ime: 13:30:32
): IPB002
ial: 1:1,A

cwp 02-24-10

erchlorate

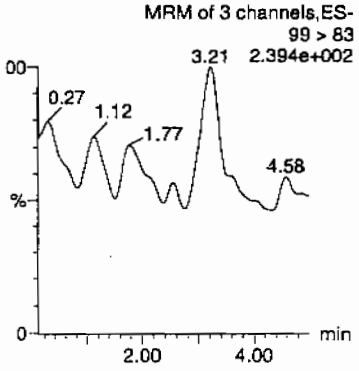

Perchlorate

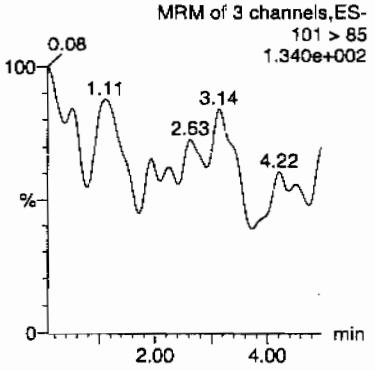

Perchlorate-101

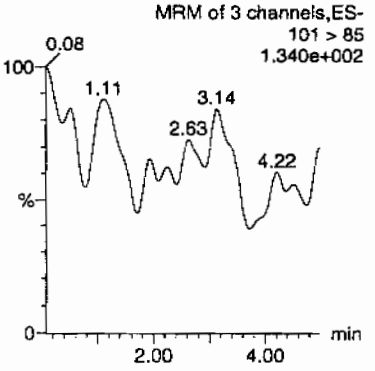

Perchlorate-O(18)

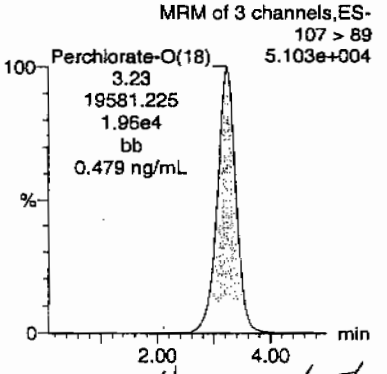

HMM 02/25/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B002	Perchlorate	99 > 83											0.00
'B002	Perchlorate-101	101 > 85											
'B002	Perchlorate-O(18)	107 > 89	3.23	19581.225	19581.225	bb			0.4785	95.71	-4.29	7325.9...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223010a
Date: 23-Feb-2010
Time: 13:46:52
ID: IPB003
Vial: 1:1,A

CWO 02-24-10

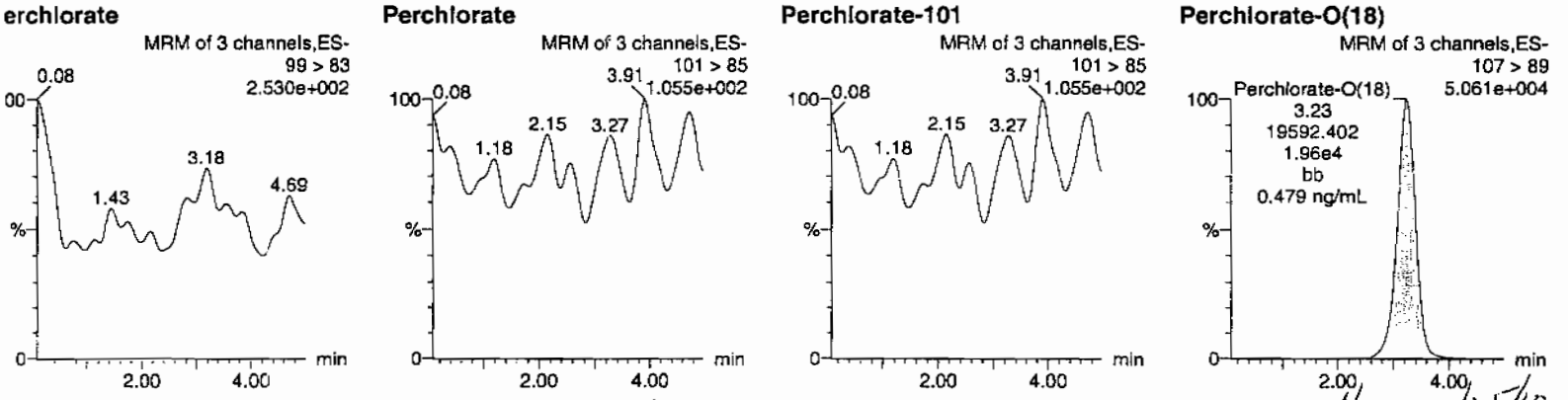

HWW 02/25/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.23	19592.402	19592.402	bb			0.4788	95.76	-4.24	4079.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223023a
Date: 23-Feb-2010
Time: 15:31:45
ID: IPB004
Vial: 1:1,A

CWD 02-24-10

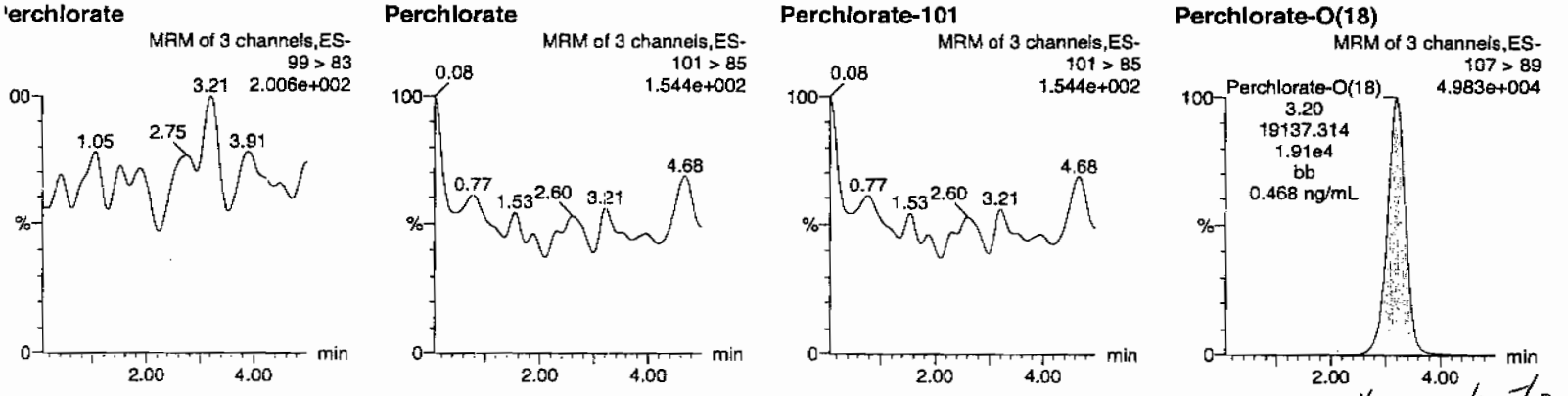

Hrinc 02-24-10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B004	Perchlorate	99 > 83											0.00
'B004	Perchlorate-101	101 > 85											
'B004	Perchlorate-O(18)	107 > 89	3.20	19137.314	19137.314	bb			0.4677	93.54	-6.46	8424.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223036a
Date: 23-Feb-2010
Time: 17:16:21
ID: IPB005
Vial: 1:1,A

02-24-10

Perchlorate

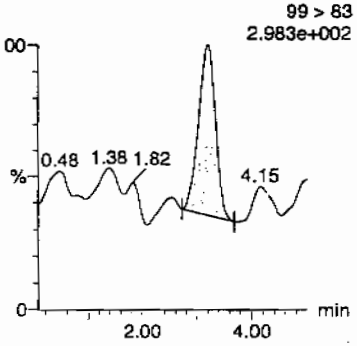

Perchlorate

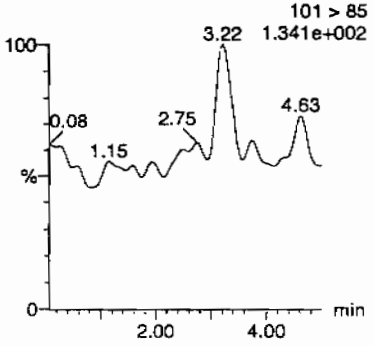

Perchlorate-101

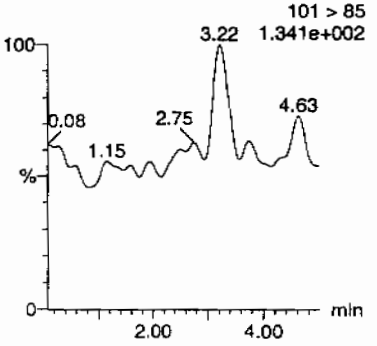

Perchlorate-O(18)

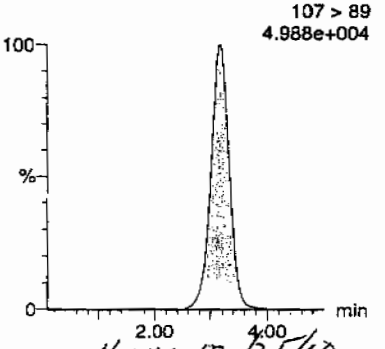

Hmc 02/25/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B005	Perchlorate	99 > 83	3.20	71.064	71.064	bb			0.0015			8.434	0.00
'B005	Perchlorate-101	101 > 85											
'B005	Perchlorate-O(18)	107 > 89	3.17	18894.705	18894.705	bb			0.4618	92.35	-7.65	2125.4...	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CONS 01-09-08

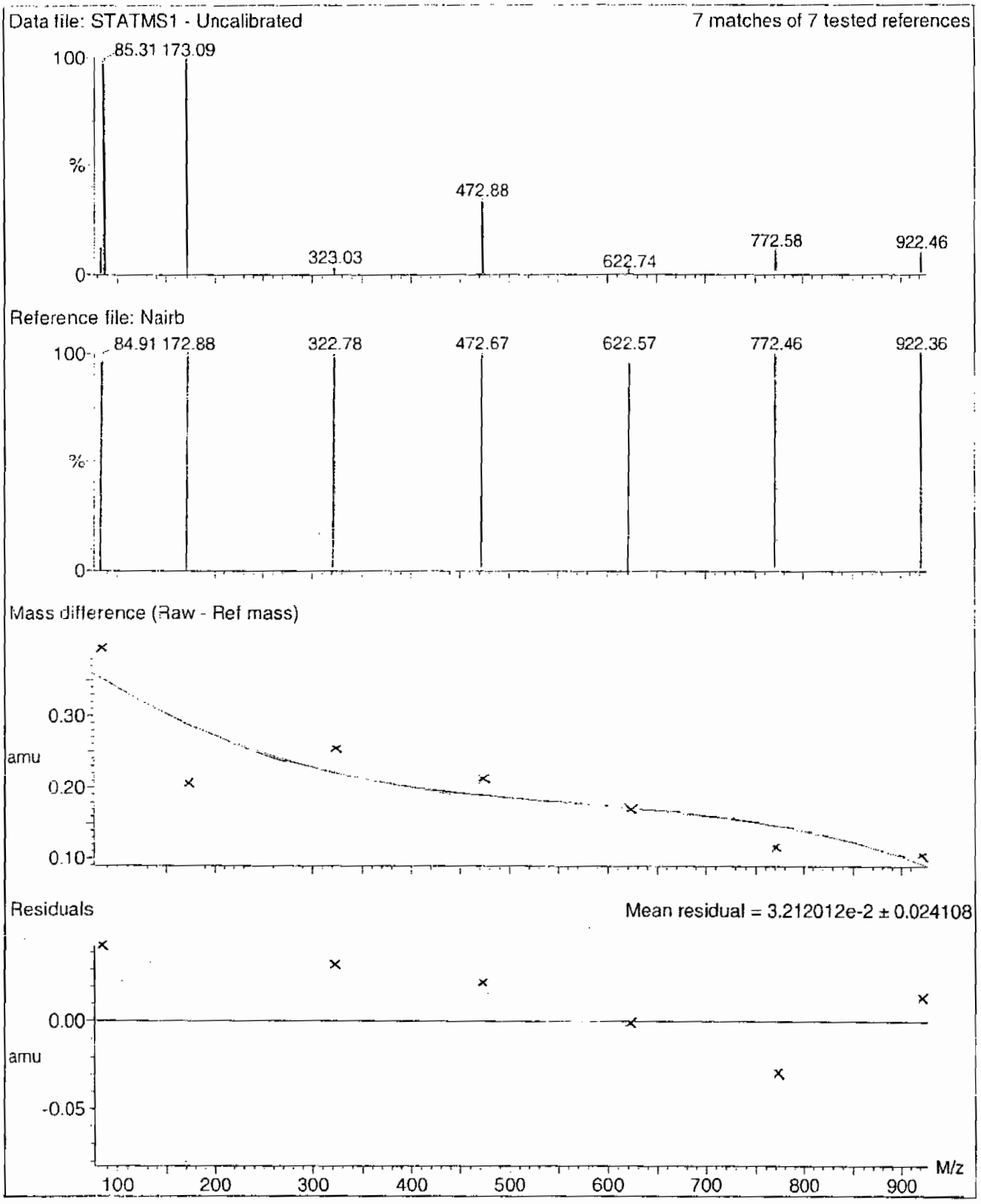

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

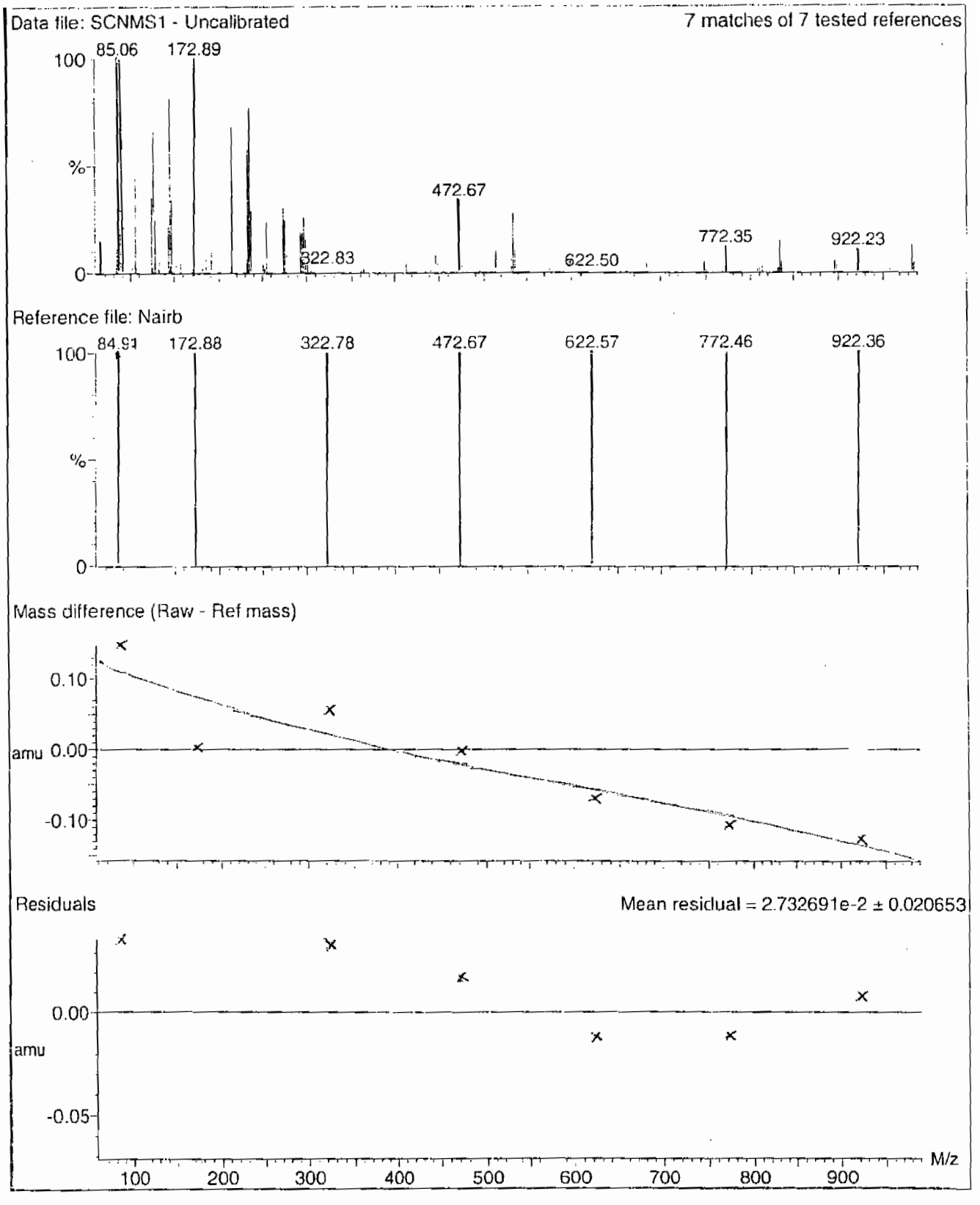

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

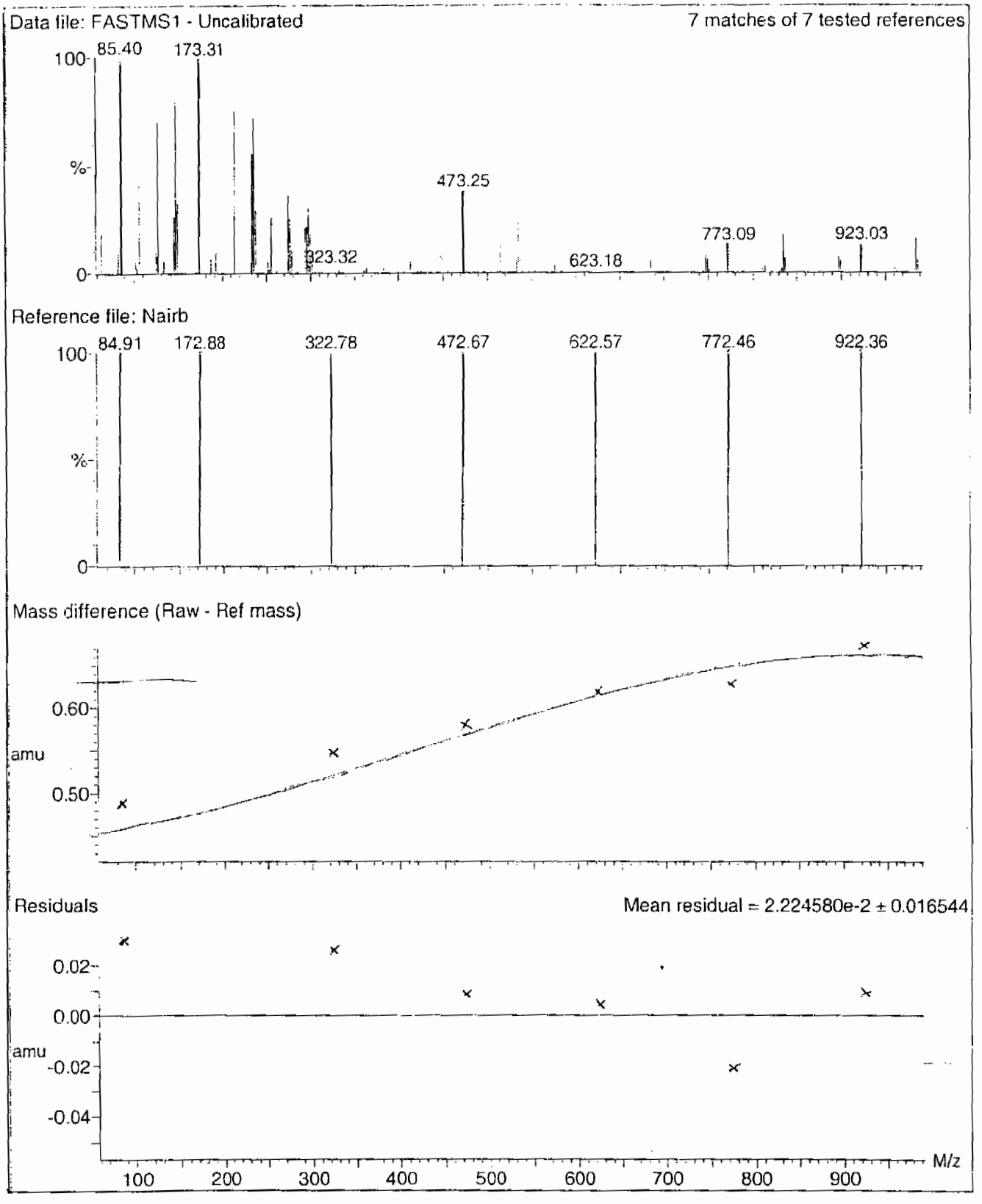

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated

7 matches of 7 tested references

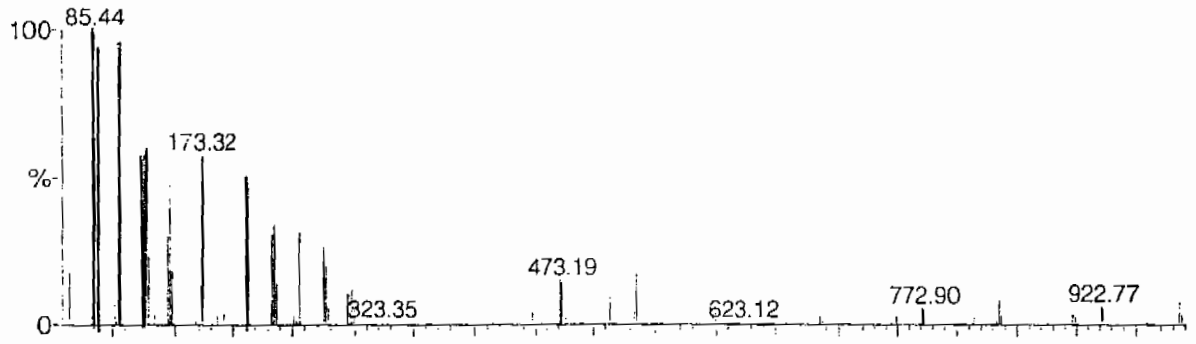

Reference file: Nairb

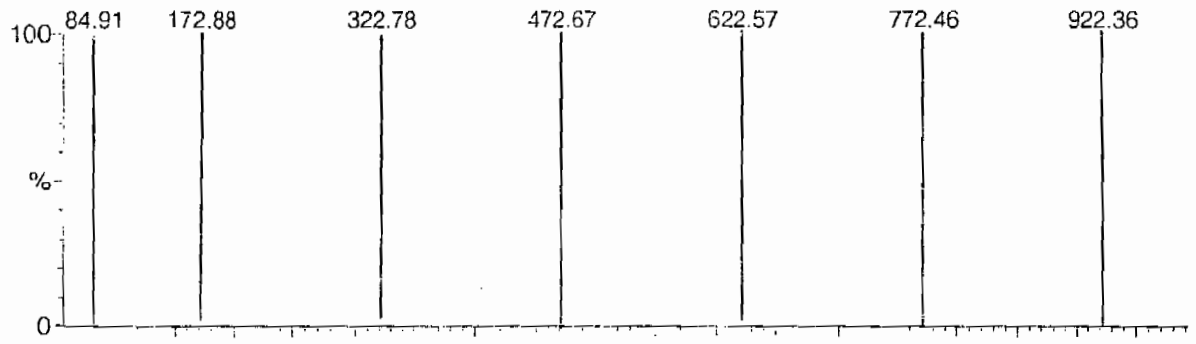

Mass difference (Raw - Ref mass)

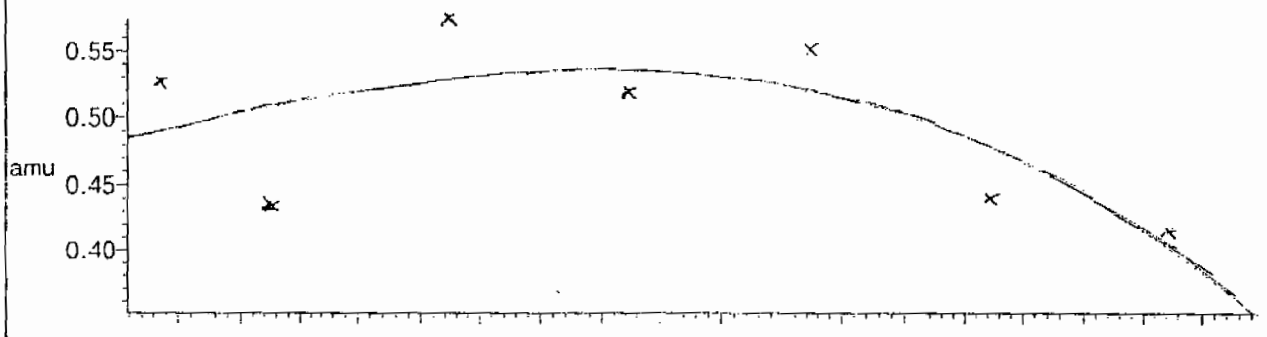

Residuals

Mean residual = 3.598289e-2 ± 0.017899

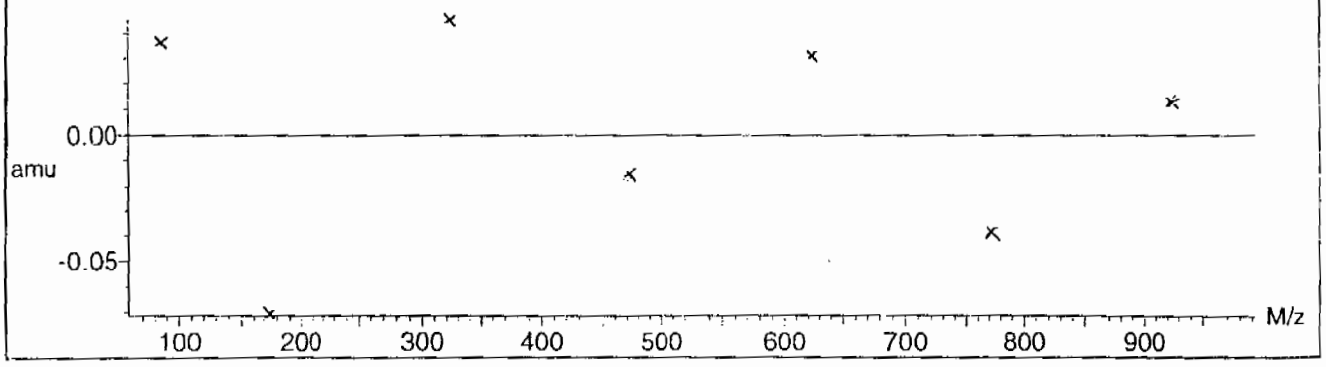

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

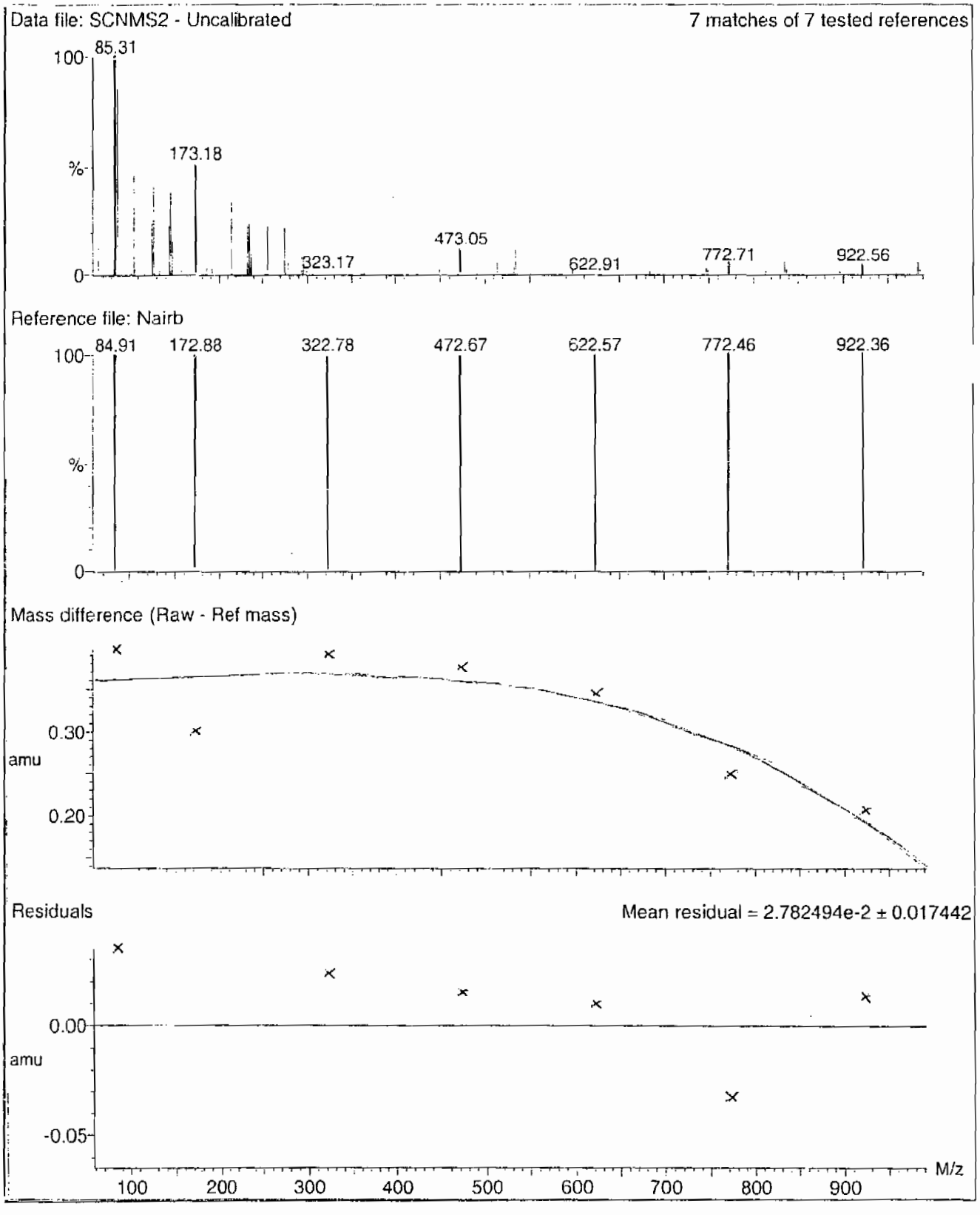

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

7 matches of 7 tested references

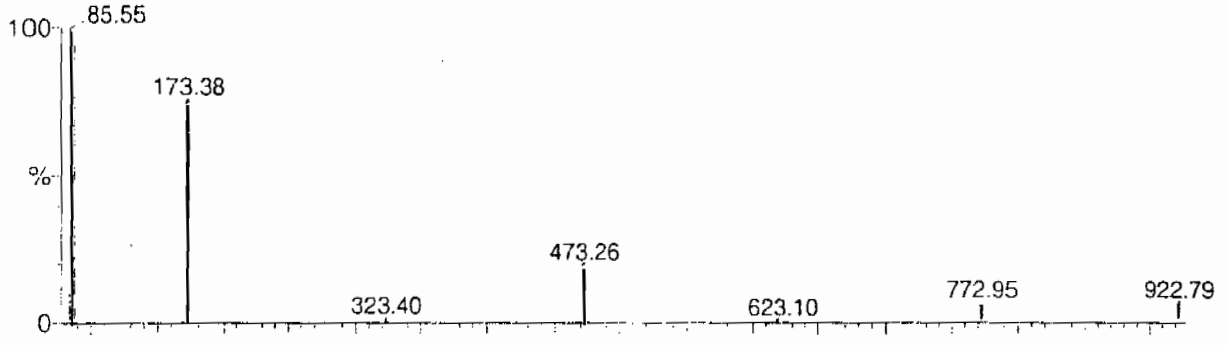

Reference file: Nairb

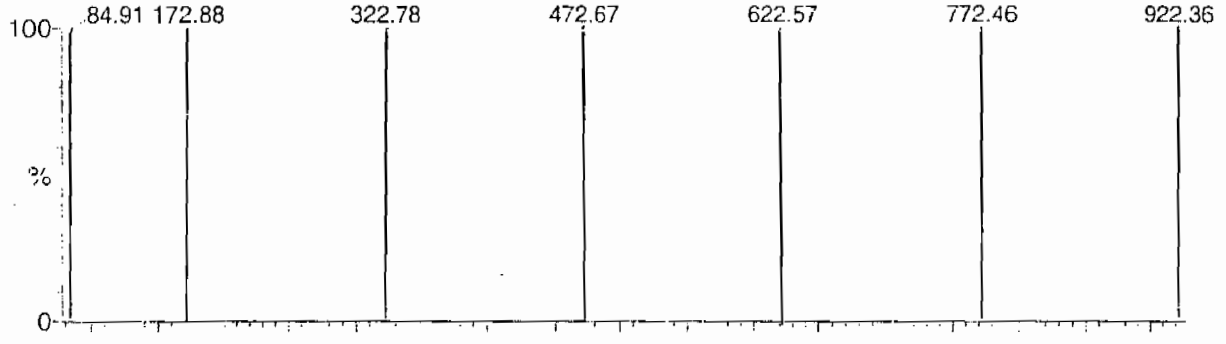

Mass difference (Raw - Ref mass)

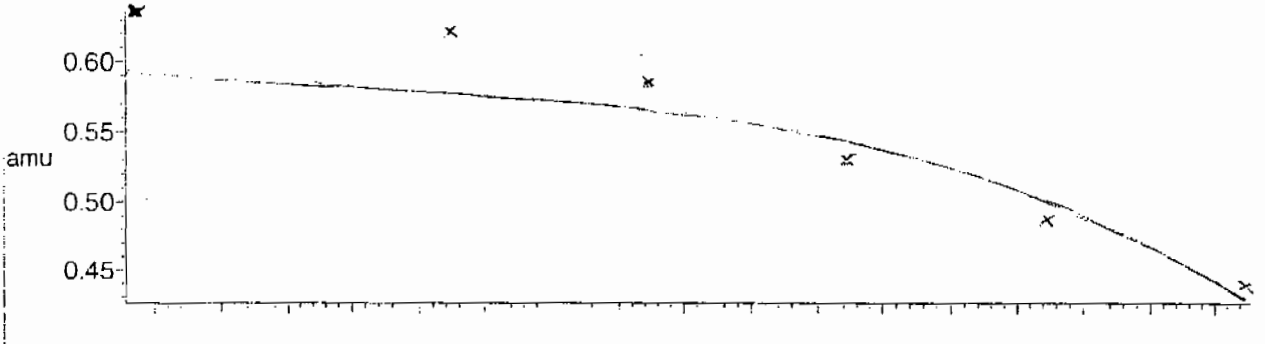

Residuals

Mean residual = 3.295980e-2 ± 0.025603

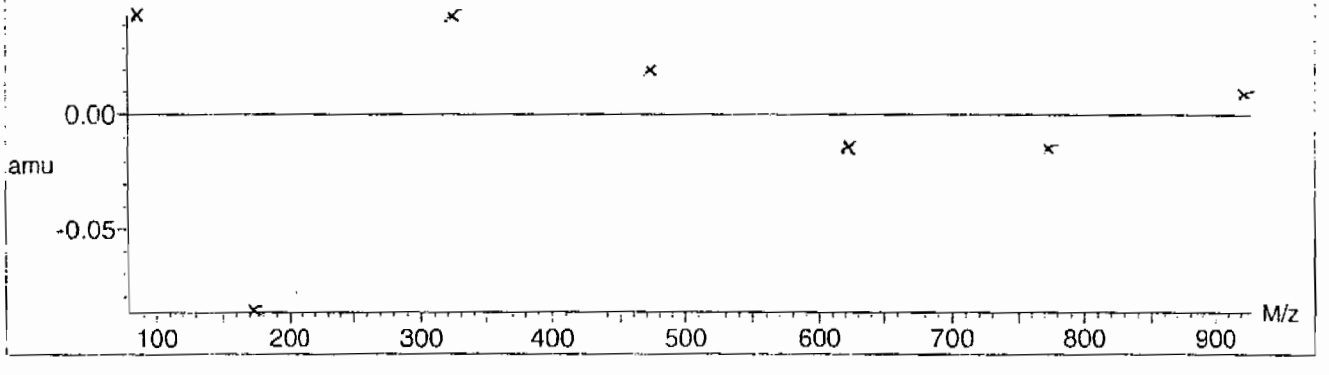

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, February 23, 2010 10:32:55 Eastern Standard Time

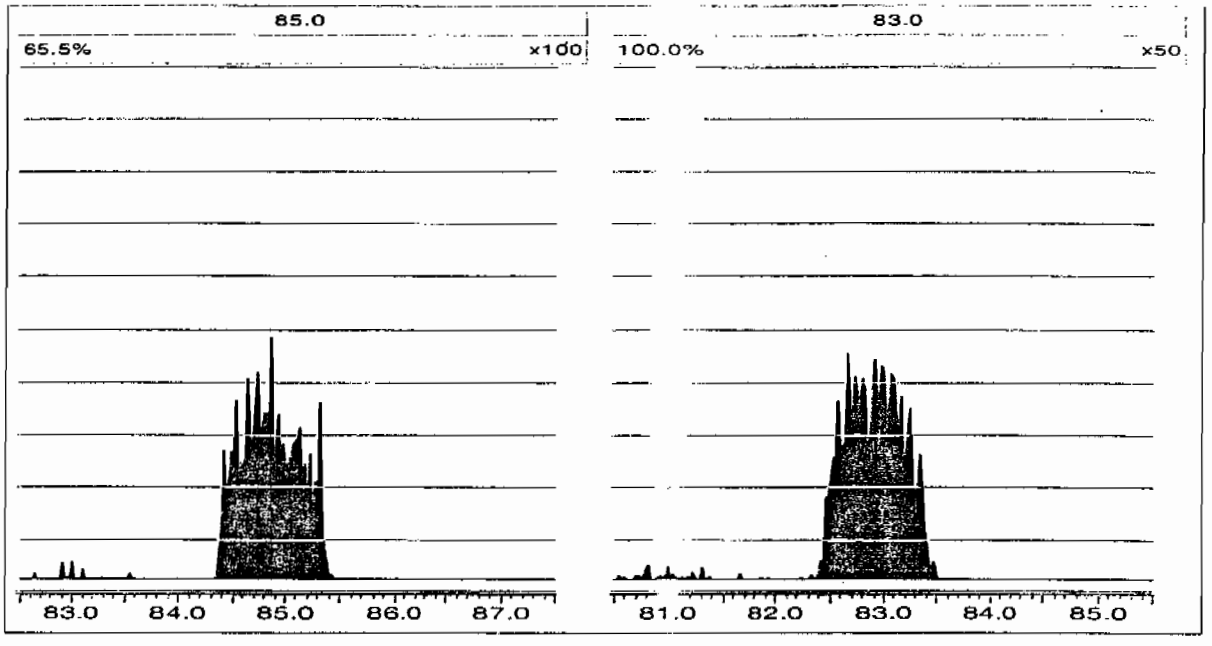

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1514

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0223006a**	**23–FEB–10**	**18832.2**				
Lower Area Limit			**9416.1**				
Upper Area Limit			**37664.4**				
1202035646	per0223012a	23–FEB–10 14:03	19334.2	3.23	3.24692	1.005	
1202035647	per0223013a	23–FEB–10 14:11	19182.6	3.23	3.24692	1.005	
1202035650	per0223014a	23–FEB–10 14:19	19587.2	3.28	3.29643	1.005	
245979001	per0223015a	23–FEB–10 14:27	20280.1	3.21	3.23435	1.008	
1202035648	per0223016a	23–FEB–10 14:35	20514.8	3.2	3.20958	1.003	
1202035649	per0223017a	23–FEB–10 14:43	20842.3	3.21	3.2219	1.004	
245979002	per0223018a	23–FEB–10 14:51	18991.1	3.22	3.23443	1.004	
245979003	per0223019a	23–FEB–10 14:59	19236.7	3.21	3.23438	1.008	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1514

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0223006a**	**23–FEB–10**	**18832.2**				
Lower Area Limit			**9416.1**				
Upper Area Limit			**37664.4**				
245979004	per0223020a	23–FEB–10 15:07	19096.9	3.21	3.20958	1	
245979005	per0223021a	23–FEB–10 15:15	19421.2	3.2	3.22195	1.007	
245979006	per0223025a	23–FEB–10 15:47	19247.5	3.21	3.2096	1	
245979007	per0223026a	23–FEB–10 15:55	19945.3	3.2	3.19712	.999	
245979008	per0223027a	23–FEB–10 16:03	18996	3.2	3.20962	1.003	
245979009	per0223028a	23–FEB–10 16:11	20241.5	3.18	3.19712	1.005	
245979010	per0223029a	23–FEB–10 16:20	18952.5	3.18	3.22192	1.013	
245979011	per0223030a	23–FEB–10 16:28	19616.7	3.18	3.2096	1.009	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1514

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0223006a**	**23-FEB-10**	**18832.2**				
Lower Area Limit			**9416.1**				
Upper Area Limit			**37664.4**				
245979012	per0223031a	23-FEB-10 16:36	18688.6	3.18	3.19712	1.005	
245979013	per0223032a	23-FEB-10 16:44	19675.5	3.18	3.19715	1.005	
245979014	per0223033a	23-FEB-10 16:52	19788.1	3.17	3.19713	1.009	
245979015	per0223034a	23-FEB-10 17:00	18952.5	3.17	3.19713	1.009	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7980

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 95.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.524	2.1	1.38	ug/kg	J	1	23-FEB-10 14:27	per0223015a
	Perchlorate Isotope Ratio			3.46			1	23-FEB-10 14:27	per0223015a
14797-73-0	Perchlorate-101	.524	2.1	1.28	ug/kg	J	1	23-FEB-10 14:27	per0223015a
	Perchlorate-O(18)			5.20	ug/kg		1	23-FEB-10 14:27	per0223015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223015a
Date: 23-Feb-2010
Time: 14:27:21
ID: 245979001
Vial: 1:3,D

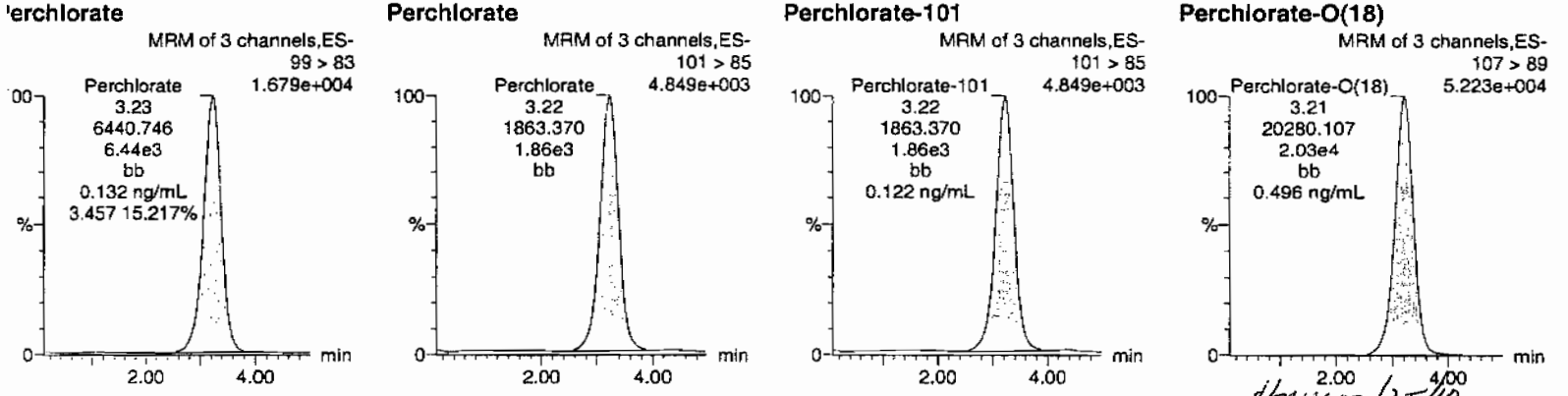

HMK 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45979001	Perchlorate	99 > 83	3.23	6440.746	6440.746	bb			0.1317			587.810	3.46
45979001	Perchlorate-101	101 > 85	3.22	1863.370	1863.370	bb			0.1222			381.924	
45979001	Perchlorate-O(18)	107 > 89	3.21	20280.107	20280.107	bb			0.4956	99.12	-0.88	1061.6...	

$$\frac{6440.746 \mid 10 \mid 100}{48901.4 \mid \mid 95.38} = 1.38$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7958

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 80

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.622	2.49	0.622	ug/kg	U	1	23-FEB-10 14:51	per0223018a
	Perchlorate Isotope Ratio						1	23-FEB-10 14:51	per0223018a
14797-73-0	Perchlorate-101	.622	2.49	0.622	ug/kg	U	1	23-FEB-10 14:51	per0223018a
	Perchlorate-O(18)			5.77	ug/kg		1	23-FEB-10 14:51	per0223018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qid

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223018a
Date: 23-Feb-2010
Time: 14:51:25
ID: 245979002
Vial: 1:4,A

LANL | 950365 | 50620 | 1 |

MW 02-24-10

Perchlorate

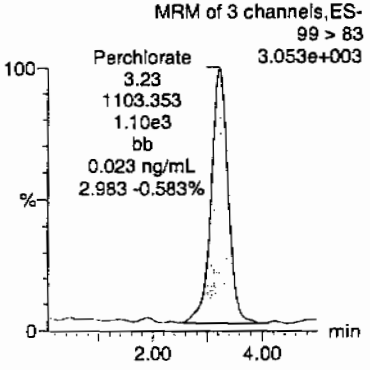

Perchlorate

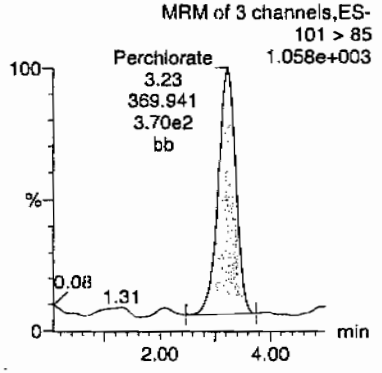

Perchlorate-101

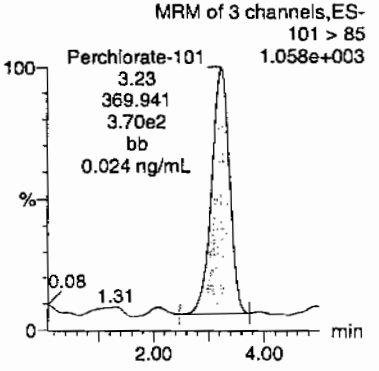

Perchlorate-O(18)

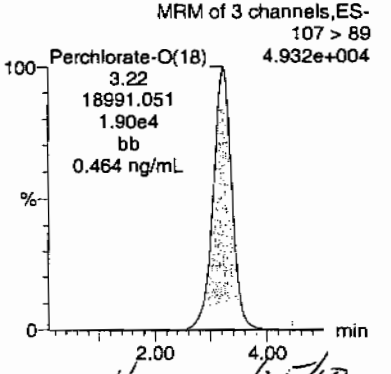

Hmm 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979002	Perchlorate	99 > 83	3.23	1103.353	1103.353	bb			0.0226			469.546	2.98
245979002	Perchlorate-101	101 > 85	3.23	369.941	369.941	bb			0.0243			243.314	
245979002	Perchlorate-O(18)	107 > 89	3.22	18991.051	18991.051	bb			0.4641	92.82	-7.18	1236.5...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7960

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 93.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.536	2.14	0.536	ug/kg	U	1	23-FEB-10 14:59	per0223019a
	Perchlorate Isotope Ratio						1	23-FEB-10 14:59	per0223019a
14797-73-0	Perchlorate-101	.536	2.14	0.536	ug/kg	U	1	23-FEB-10 14:59	per0223019a
	Perchlorate-O(18)			5.04	ug/kg		1	23-FEB-10 14:59	per0223019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223019a
Date: 23-Feb-2010
Time: 14:59:28
ID: 245979003
Vial: 1:4,B

LANL | 950063 | 50120 | 1 |

CWW 0224-10

Perchlorate

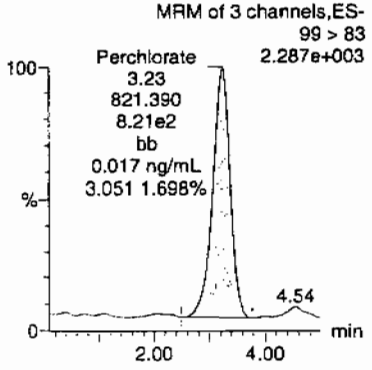

Perchlorate

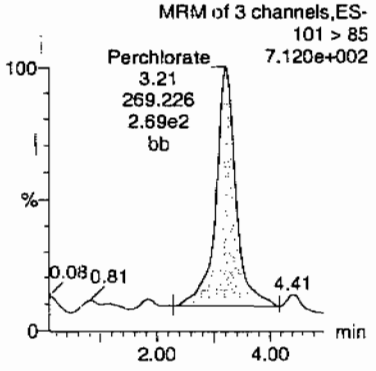

Perchlorate-101

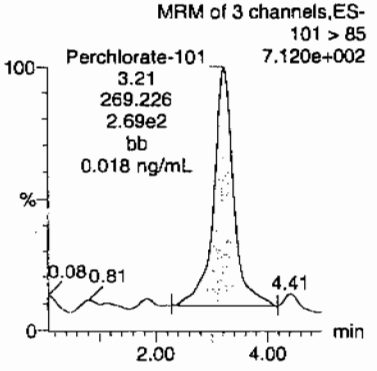

Perchlorate-O(18)

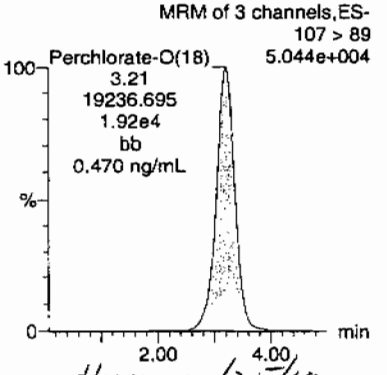

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979003	Perchlorate	99 > 83	3.23	821.390	821.390	bb			0.0168			127.403	3.05
245979003	Perchlorate-101	101 > 85	3.21	269.226	269.226	bb			0.0177			120.363	
245979003	Perchlorate-O(18)	107 > 89	3.21	19236.695	19236.695	bb			0.4701	94.02	-5.98	7562.9...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7979

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 15:07	per0223020a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:07	per0223020a
14797-73-0	Perchlorate-101	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 15:07	per0223020a
	Perchlorate-O(18)			6.30	ug/kg		1	23-FEB-10 15:07	per0223020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223020a
Date: 23-Feb-2010
Time: 15:07:30
ID: 245979004
Vial: 1:4,C

| LANL | 950063 | 50120 | 1 |

GWW 02-24-10

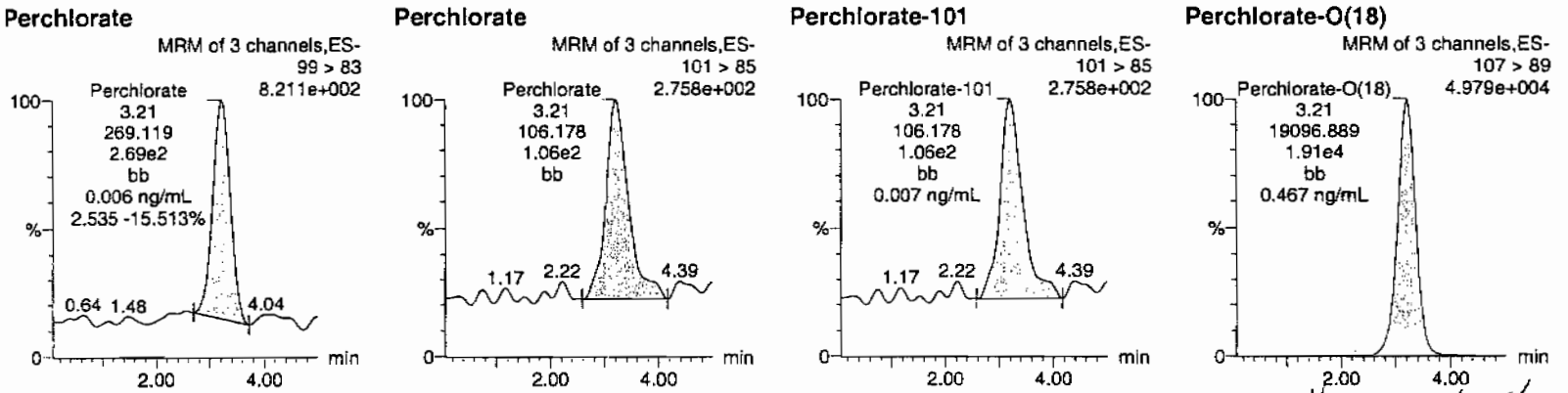

HMM 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979004	Perchlorate	99 > 83	3.21	269.119	269.119	bb			0.0055			84.772	2.53
245979004	Perchlorate-101	101 > 85	3.21	106.178	106.178	bb			0.0070			38.462	
245979004	Perchlorate-O(18)	107 > 89	3.21	19096.889	19096.889	bb			0.4667	93.34	-6.66	3024.8...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7972

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 91.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 15:15	per0223021a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:15	per0223021a
14797-73-0	Perchlorate-101	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 15:15	per0223021a
	Perchlorate-O(18)			5.20	ug/kg		1	23-FEB-10 15:15	per0223021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223021a
Date: 23-Feb-2010
Time: 15:15:33
ID: 245979005
Vial: 1:4,D

LANL | 950063 | 50170 | 1 |

CWW 02-24-10

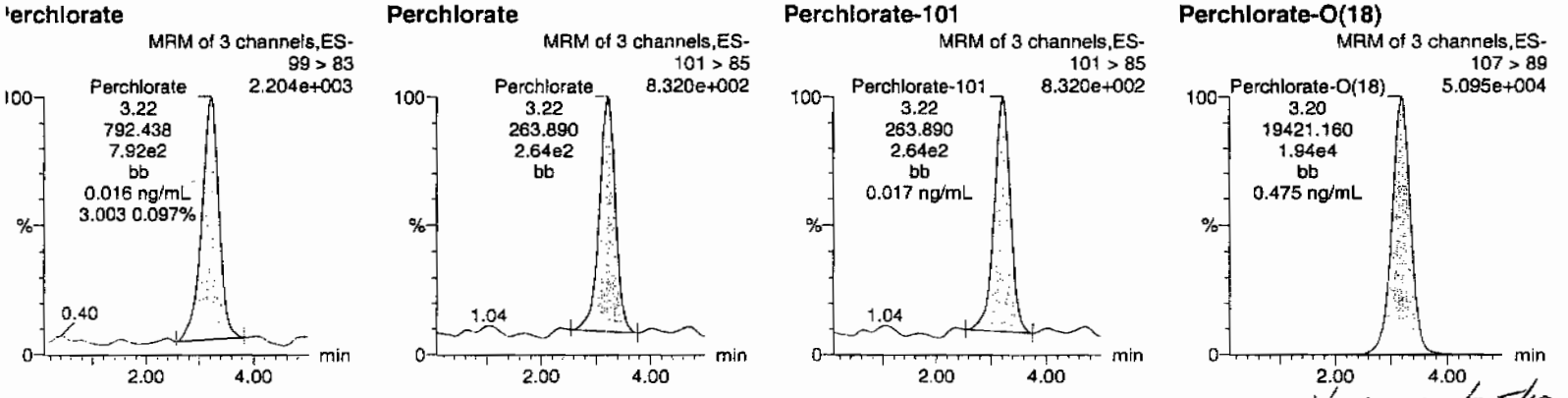

Hmm 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45979005	Perchlorate	99 > 83	3.22	792.438	792.438	bb			0.0162			61.795	3.00
45979005	Perchlorate-101	101 > 85	3.22	263.890	263.890	bb			0.0173			77.202	
45979005	Perchlorate-O(18)	107 > 89	3.20	19421.160	19421.160	bb			0.4746	94.93	-5.07	9547.7...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7957

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	23-FEB-10 15:47	per0223025a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:47	per0223025a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	23-FEB-10 15:47	per0223025a
	Perchlorate-O(18)			6.09	ug/kg		1	23-FEB-10 15:47	per0223025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223025a
Date: 23-Feb-2010
Time: 15:47:50
ID: 245979006
Vial: 1:4,E

|LANL|950063|5020|1|

GWO 02-24-10

Perchlorate

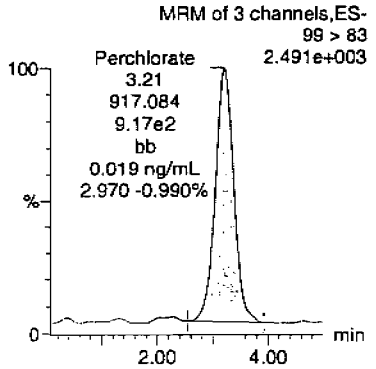

Perchlorate

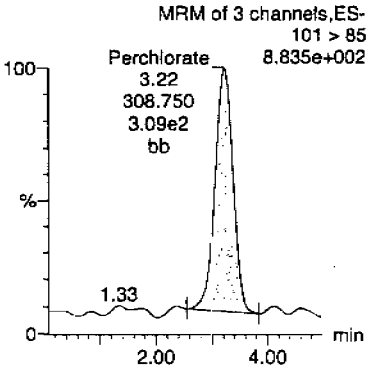

Perchlorate-101

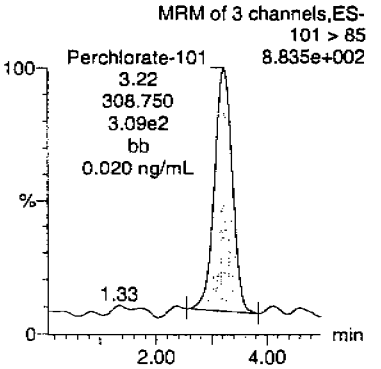

Perchlorate-O(18)

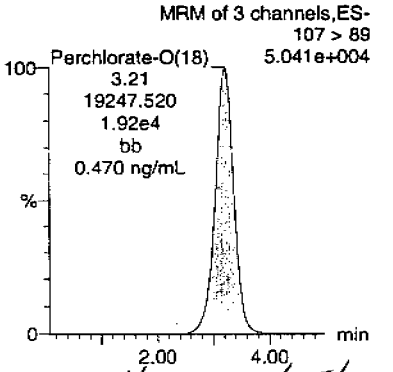

Hmc 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979006	Perchlorate	99 > 83	3.21	917.084	917.084	bb			0.0188			278.303	2.97
245979006	Perchlorate-101	101 > 85	3.22	308.750	308.750	bb			0.0202			94.886	
245979006	Perchlorate-O(18)	107 > 89	3.21	19247.520	19247.520	bb			0.4704	94.08	-5.92	10826....	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7974

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 94.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.527	2.11	0.527	ug/kg	U	1	23-FEB-10 15:55	per0223026a
	Perchlorate Isotope Ratio						1	23-FEB-10 15:55	per0223026a
14797-73-0	Perchlorate-101	.527	2.11	0.527	ug/kg	U	1	23-FEB-10 15:55	per0223026a
	Perchlorate-O(18)			5.14	ug/kg		1	23-FEB-10 15:55	per0223026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223026a
Date: 23-Feb-2010
Time: 15:55:51
ID: 245979007
Vial: 1:4,F

|LANC|950063|SD20|1|

CWW 02-24-10

Perchlorate

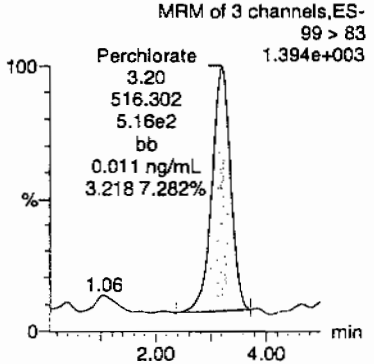

Perchlorate

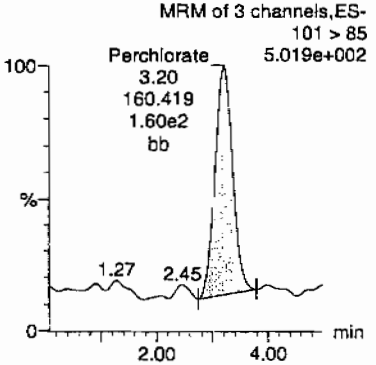

Perchlorate-101

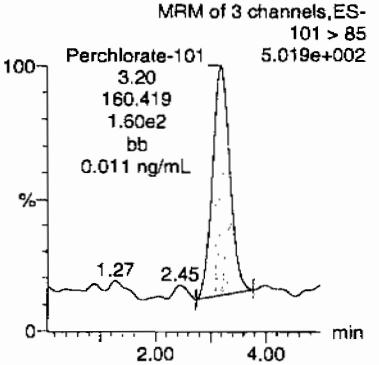

Perchlorate-O(18)

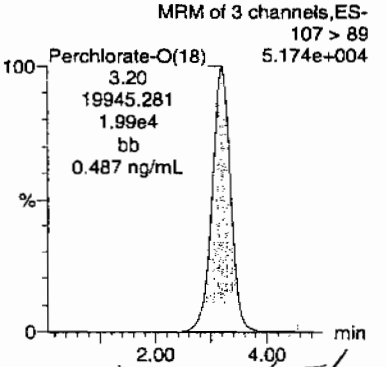

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979007	Perchlorate	99 > 83	3.20	516.302	516.302	bb			0.0106			46.287	3.22
245979007	Perchlorate-101	101 > 85	3.20	160.419	160.419	bb			0.0105			46.284	
245979007	Perchlorate-O(18)	107 > 89	3.20	19945.281	19945.281	bb			0.4874	97.49	-2.51	4458.4...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7961

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.586	2.34	0.586	ug/kg	U	1	23-FEB-10 16:03	per0223027a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:03	per0223027a
14797-73-0	Perchlorate-101	.586	2.34	0.586	ug/kg	U	1	23-FEB-10 16:03	per0223027a
	Perchlorate-O(18)			5.44	ug/kg		1	23-FEB-10 16:03	per0223027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223027a
Date: 23-Feb-2010
Time: 16:03:52
ID: 245979008
Vial: 1:5,A

1152 | 950003 | 50120 | 1 |

02-24-10

Perchlorate

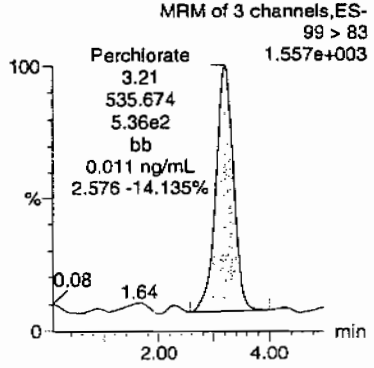

Perchlorate

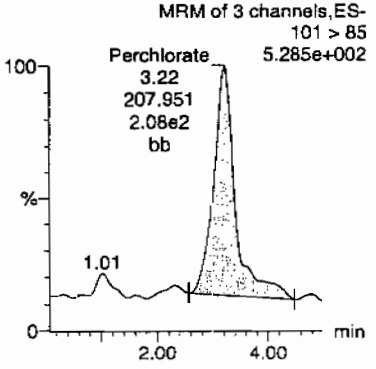

Perchlorate-101

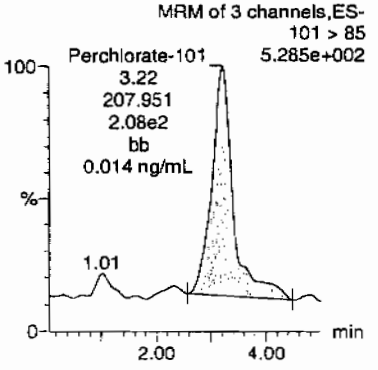

Perchlorate-O(18)

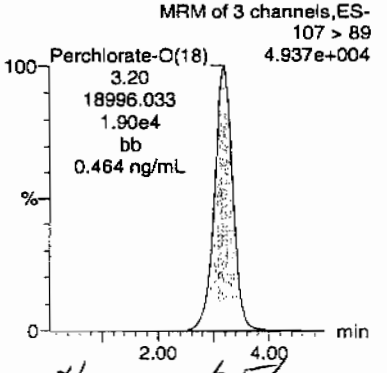

Hmm 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979008	Perchlorate	99 > 83	3.21	535.674	535.674	bb			0.0110			104.541	2.58
245979008	Perchlorate-101	101 > 85	3.22	207.951	207.951	bb			0.0136			48.051	
245979008	Perchlorate-O(18)	107 > 89	3.20	18996.033	18996.033	bb			0.4642	92.85	-7.15	12965....	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7971

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 16:11	per0223028a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:11	per0223028a
14797-73-0	Perchlorate-101	.675	2.7	0.675	ug/kg	U	1	23-FEB-10 16:11	per0223028a
	Perchlorate-O(18)			6.68	ug/kg		1	23-FEB-10 16:11	per0223028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223028a
Date: 23-Feb-2010
Time: 16:11:56
ID: 245979009
Vial: 1:5,B

|LANL|950063|50170|1|

02-24-10

Perchlorate

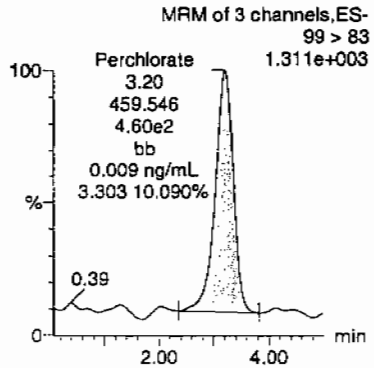

Perchlorate

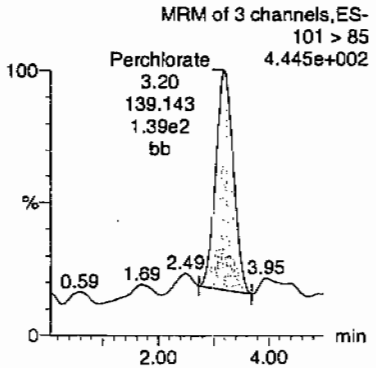

Perchlorate-101

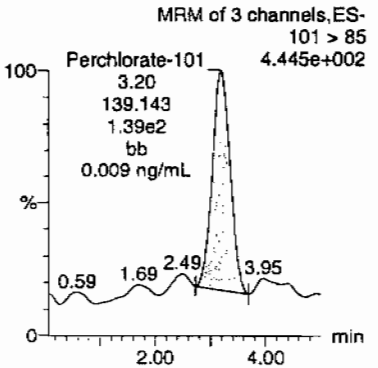

Perchlorate-O(18)

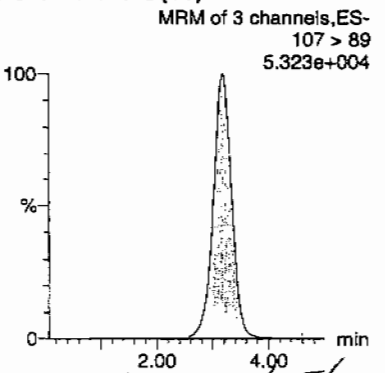

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979009	Perchlorate	99 > 83	3.20	459.546	459.546	bb			0.0094			123.123	3.30
245979009	Perchlorate-101	101 > 85	3.20	139.143	139.143	bb			0.0091			123.087	
245979009	Perchlorate-O(18)	107 > 89	3.18	20241.541	20241.541	bb			0.4947	98.94	-1.06	6320.3...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7966

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:20	per0223029a
	Perchlorate Isotope Ratio						I	23-FEB-10 16:20	per0223029a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:20	per0223029a
	Perchlorate-O(18)			5.12	ug/kg		1	23-FEB-10 16:20	per0223029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223029a
Date: 23-Feb-2010
Time: 16:20:00
ID: 245979010
Vial: 1:5,C

|LANL|950063|50020|1|

GW 02-24-10

Perchlorate

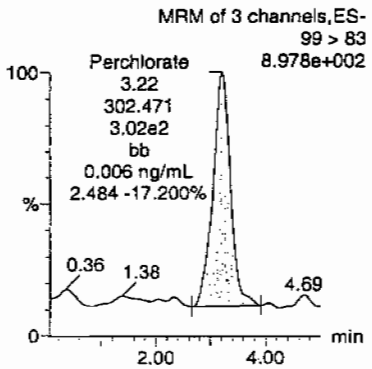

Perchlorate

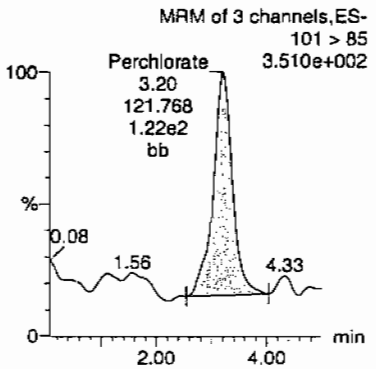

Perchlorate-101

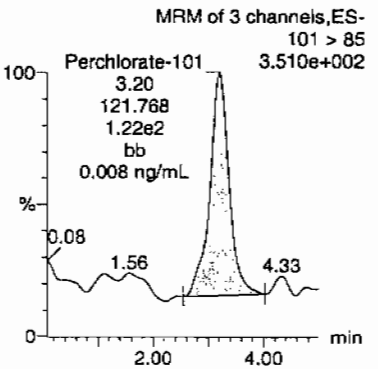

Perchlorate-O(18)

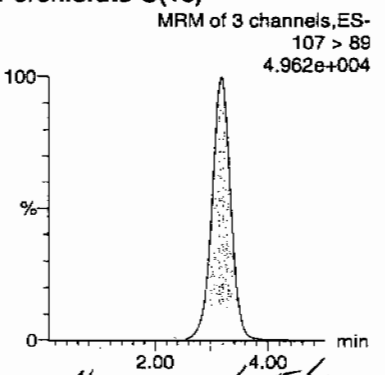

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979010	Perchlorate	99 > 83	3.22	302.471	302.471	bb			0.0062			78.657	2.48
245979010	Perchlorate-101	101 > 85	3.20	121.768	121.768	bb			0.0080			24.613	
245979010	Perchlorate-O(18)	107 > 89	3.18	18952.539	18952.539	bb			0.4632	92.64	-7.36	2474.5...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7959

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	23-FEB-10 16:28	per0223030a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:28	per0223030a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	23-FEB-10 16:28	per0223030a
	Perchlorate-O(18)			6.06	ug/kg		1	23-FEB-10 16:28	per0223030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223030a
Date: 23-Feb-2010
Time: 16:28:03
ID: 245979011
Vial: 1:5,D

|LANL|950063|50020|11|

GWW 02-24-10

Perchlorate

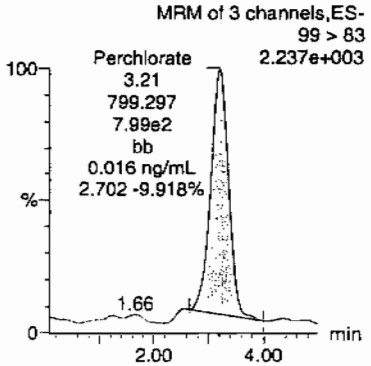

Perchlorate

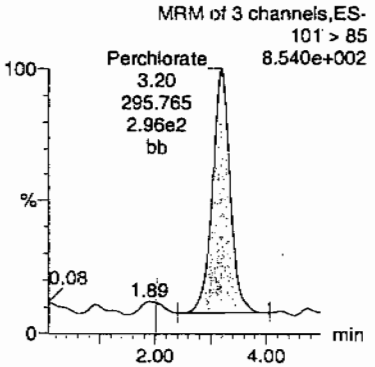

Perchlorate-101

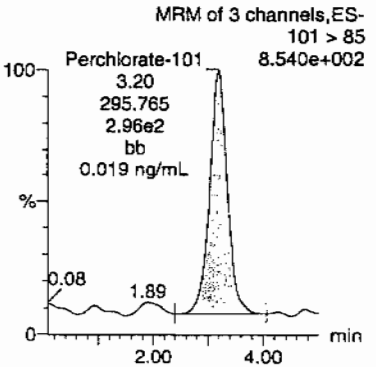

Perchlorate-O(18)

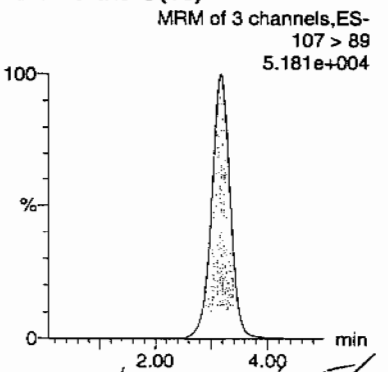

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979011	Perchlorate	99 > 83	3.21	799.297	799.297	bb			0.0163			111.839	2.70
245979011	Perchlorate-101	101 > 85	3.20	295.765	295.765	bb			0.0194			175.196	
245979011	Perchlorate-O(18)	107 > 89	3.18	19616.748	19616.748	bb			0.4794	95.88	-4.12	1607.3...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7969

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:36	per0223031a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:36	per0223031a
14797-73-0	Perchlorate-101	.553	2.21	0.553	ug/kg	U	1	23-FEB-10 16:36	per0223031a
	Perchlorate-O(18)			5.05	ug/kg		1	23-FEB-10 16:36	per0223031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223031a
Date: 23-Feb-2010
Time: 16:36:05
ID: 245979012
Vial: 1:5,E

|LANL|950063|50120|1|

02.24-10

Perchlorate

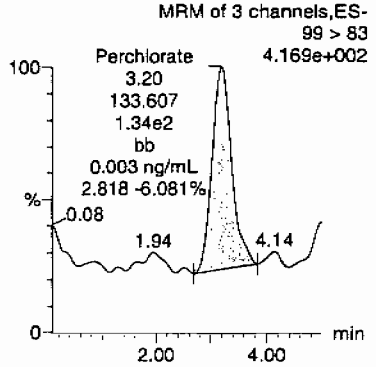

Perchlorate

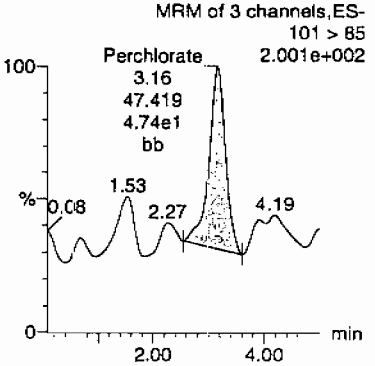

Perchlorate-101

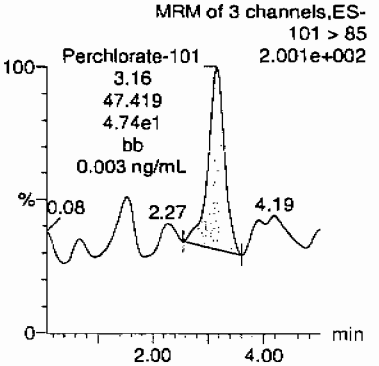

Perchlorate-O(18)

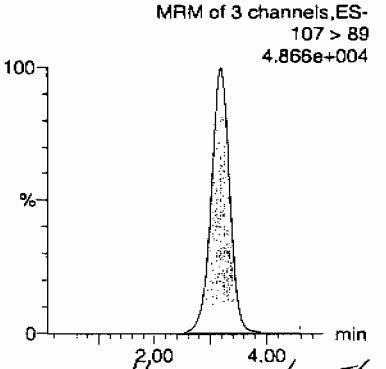

MM 12 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979012	Perchlorate	99 > 83	3.20	133.607	133.607	bb			0.0027			33.792	2.82
245979012	Perchlorate-101	101 > 85	3.16	47.419	47.419	bb			0.0031			28.961	
245979012	Perchlorate-O(18)	107 > 89	3.18	18688.551	18688.551	bb			0.4567	91.35	-8.65	2739.7...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8061

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.586	2.35	0.586	ug/kg	U	1	23-FEB-10 16:44	per0223032a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:44	per0223032a
14797-73-0	Perchlorate-101	.586	2.35	0.586	ug/kg	U	1	23-FEB-10 16:44	per0223032a
	Perchlorate-O(18)			5.64	ug/kg		1	23-FEB-10 16:44	per0223032a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223032a
Date: 23-Feb-2010
Time: 16:44:08
ID: 245979013
Vial: 1:5,F

|LANL|950063|SD620|1|

AWD 02-24-10

Perchlorate

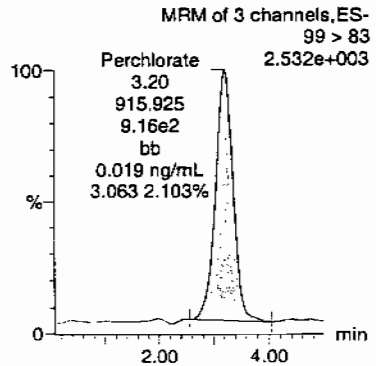

Perchlorate

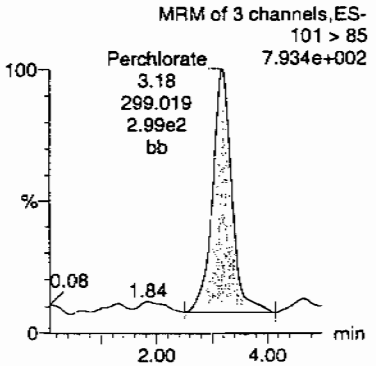

Perchlorate-101

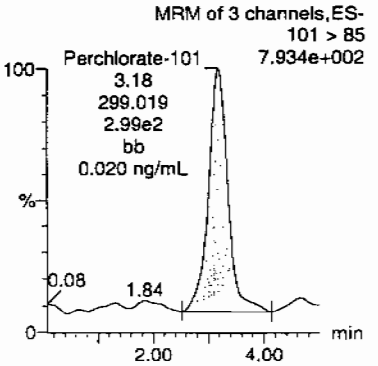

Perchlorate-O(18)

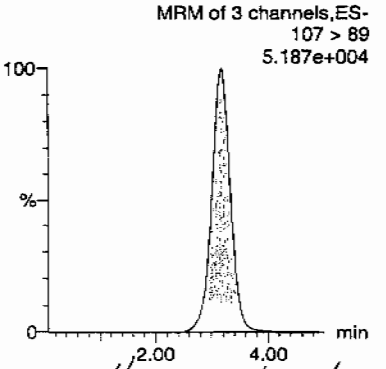

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979013	Perchlorate	99 > 83	3.20	915.925	915.925	bb			0.0187			222.674	3.06
245979013	Perchlorate-101	101 > 85	3.18	299.019	299.019	bb			0.0196			75.200	
245979013	Perchlorate-O(18)	107 > 89	3.18	19675.496	19675.496	bb			0.4808	96.17	-3.83	7911.4...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8063

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	23-FEB-10 16:52	per0223033a
	Perchlorate Isotope Ratio						1	23-FEB-10 16:52	per0223033a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	23-FEB-10 16:52	per0223033a
	Perchlorate-O(18)			5.93	ug/kg		1	23-FEB-10 16:52	per0223033a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223033a
Date: 23-Feb-2010
Time: 16:52:10
ID: 245979014
Vial: 1:6,A

|LANL|950063|50120|1|

GWW 02-24-10

Perchlorate

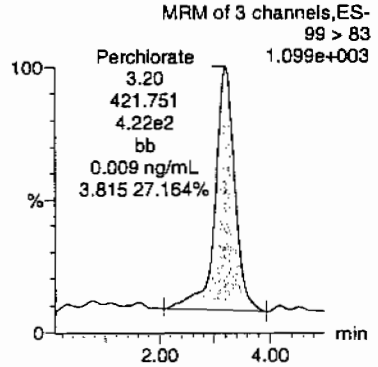

Perchlorate

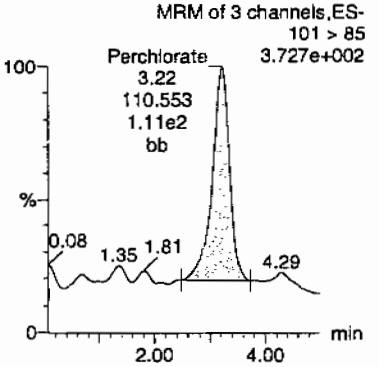

Perchlorate-101

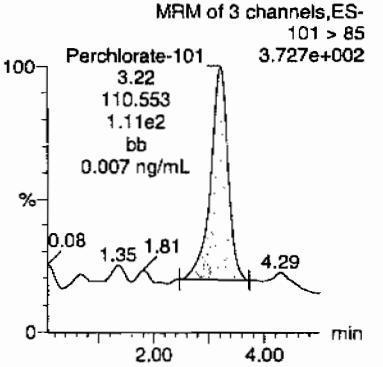

Perchlorate-O(18)

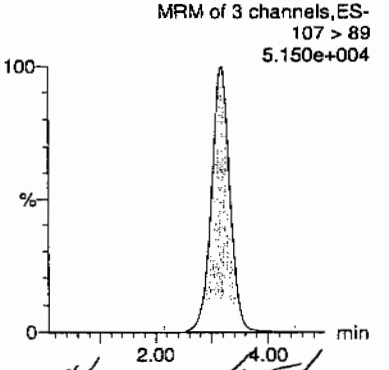

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979014	Perchlorate	99 > 83	3.20	421.751	421.751	bb			0.0086			237.682	3.81
245979014	Perchlorate-101	101 > 85	3.22	110.553	110.553	bb			0.0072			12.166	
245979014	Perchlorate-O(18)	107 > 89	3.17	19788.131	19788.131	bb			0.4836	96.72	-3.28	9967.0...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8062

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 245979015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.552	2.21	0.552	ug/kg	U	1	23-FEB-10 17:00	per0223034a
	Perchlorate Isotope Ratio						1	23-FEB-10 17:00	per0223034a
14797-73-0	Perchlorate-101	.552	2.21	0.552	ug/kg	U	1	23-FEB-10 17:00	per0223034a
	Perchlorate-O(18)			5.12	ug/kg		1	23-FEB-10 17:00	per0223034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223034a
Date: 23-Feb-2010
Time: 17:00:15
ID: 245979015
Vial: 1:6,B

|LANL|950063|SDZ0|11

GWO 02-24-10

Perchlorate

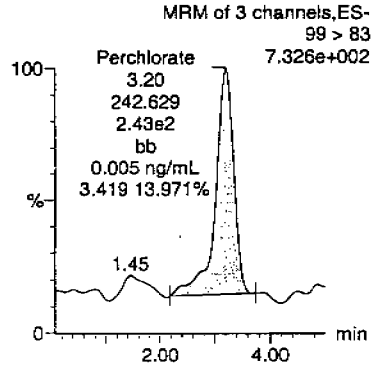

Perchlorate

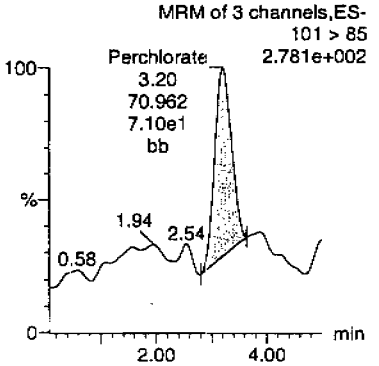

Perchlorate-101

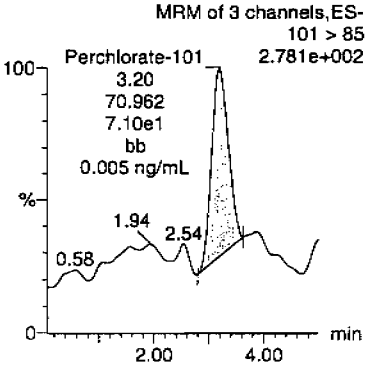

Perchlorate-O(18)

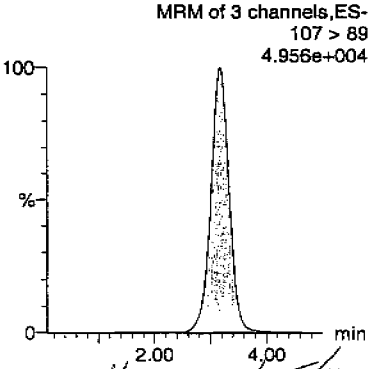

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245979015	Perchlorate	99 > 83	3.20	242.629	242.629	bb			0.0050			38.530	3.42
245979015	Perchlorate-101	101 > 85	3.20	70.962	70.962	bb			0.0047			38.724	
245979015	Perchlorate-O(18)	107 > 89	3.17	18952.547	18952.547	bb			0.4632	92.64	-7.36	5316.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1514

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 23–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 48901.36

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1514

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 23–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 15252.16

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022310a.mdb 24 Feb 2010 09:36:48
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022310a.cdb 24 Feb 2010 09:37:11

Compound name: Perchlorate
Response Factor: 48901.4
RRF SD: 2330.99, % Relative SD: 4.76673
Response type: External Std, Area
Curve type: RF

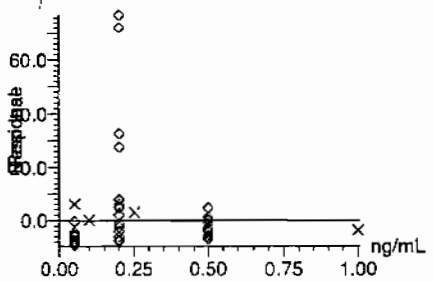

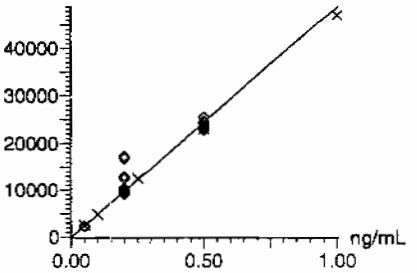

CW 02-24-10

Compound name: Perchlorate-101
Response Factor: 15252.2
RRF SD: 748.661, % Relative SD: 4.90856
Response type: External Std, Area
Curve type: RF

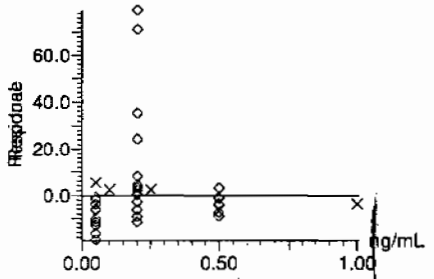

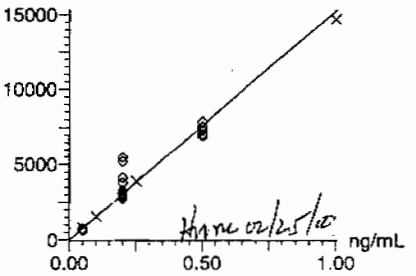

HM 02/25/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report MassLynx 4.0 SP4

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 40918.6
RRF SD: 2026.62, % Relative SD: 4.9528
Response type: External Std, Area
Curve type: RF

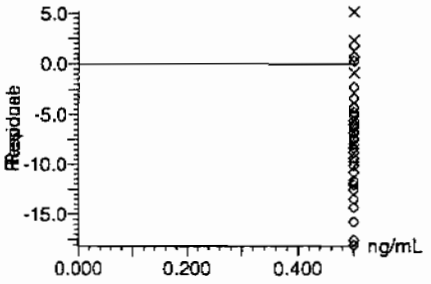

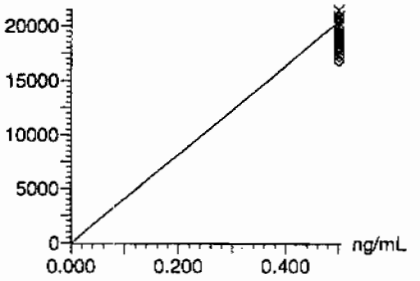

CWW
02-24-10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1514

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.93	23–FEB–10 13:38	per0223009a
Perchlorate Isotope Ratio		3.22		23–FEB–10 13:38	per0223009a
Perchlorate–101	.5	.5	99.45	23–FEB–10 13:38	per0223009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223009a
Date: 23-Feb-2010
Time: 13:38:42
ID: WCL100219-06ICV
Vial: 1:2,A

Pass
CWW
02-24-10

Perchlorate

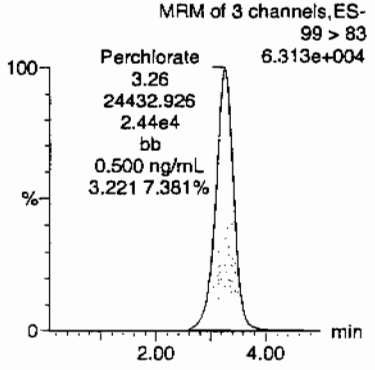

Perchlorate

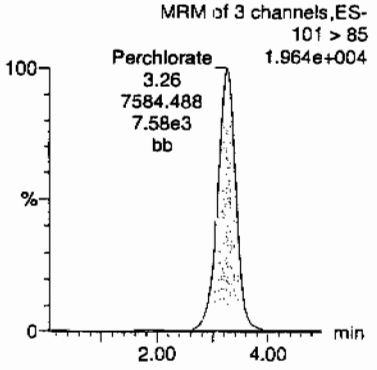

Perchlorate-101

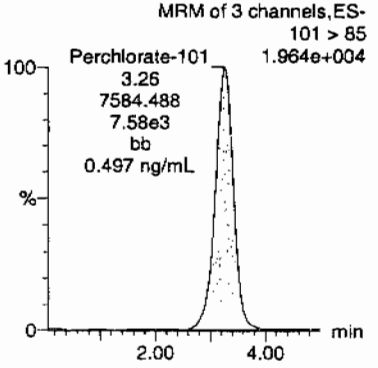

Perchlorate-O(18)

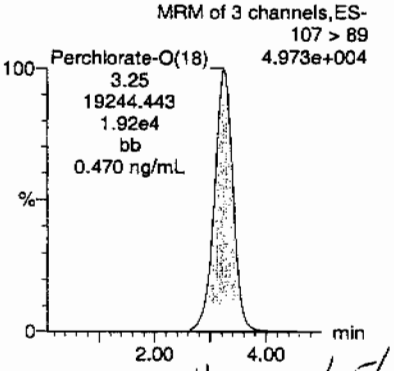

Hume 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06ICV	Perchlorate	99 > 83	3.26	24432.926	24432.926	bb			0.4996	99.93	-0.07	4797.0...	3.22
WCL100219-06ICV	Perchlorate-101	101 > 85	3.26	7584.488	7584.488	bb			0.4973	99.45	-0.55	1371.9...	
WCL100219-06ICV	Perchlorate-O(18)	107 > 89	3.25	19244.443	19244.443	bb			0.4703	94.06	-5.94	7972.2...	

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1514

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.18	23–FEB–10 15:23	per0223022a
Perchlorate Isotope Ratio		3.26		23–FEB–10 15:23	per0223022a
Perchlorate–101	.5	.5	99.37	23–FEB–10 15:23	per0223022a
Perchlorate	.5	.52	104.6	23–FEB–10 17:08	per0223035a
Perchlorate Isotope Ratio		3.25		23–FEB–10 17:08	per0223035a
Perchlorate–101	.5	.52	103.03	23–FEB–10 17:08	per0223035a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223022a
Date: 23-Feb-2010
Time: 15:23:34
ID: WCL100219-06CCV
Vial: 1:2,A

Pwm
02-24-10

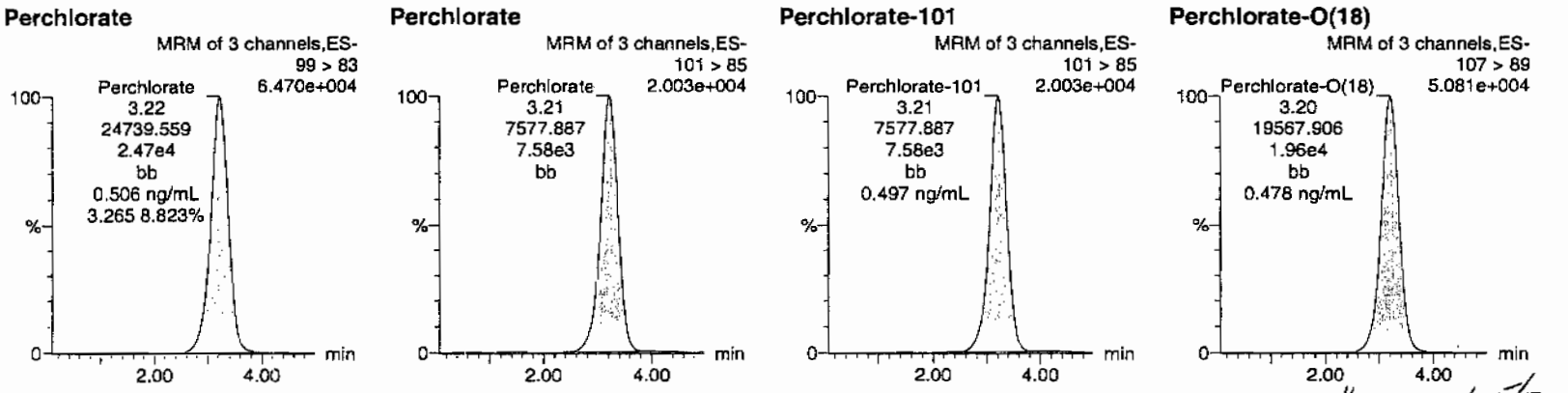

MM 02/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	3.22	24739.559	24739.559	bb			0.5059	101.18	1.18	3907.3...	3.26
WCL100219-06CCV	Perchlorate-101	101 > 85	3.21	7577.887	7577.887	bb			0.4968	99.37	-0.63	3206.1...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.20	19567.906	19567.906	bb			0.4782	95.64	-4.36	3999.2...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223035a
Date: 23-Feb-2010
Time: 17:08:18
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
aw
02-24-10

Perchlorate

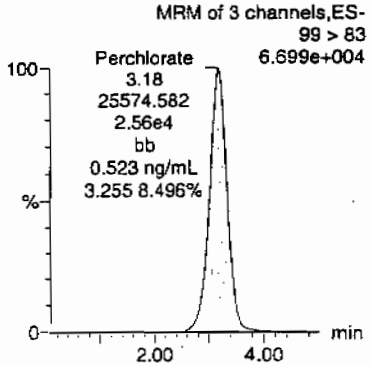

Perchlorate

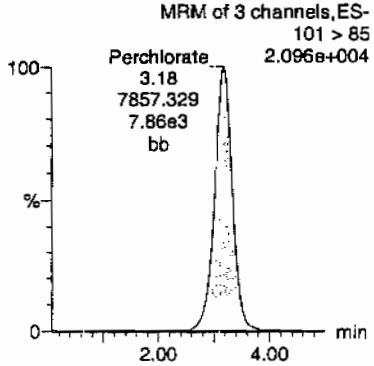

Perchlorate-101

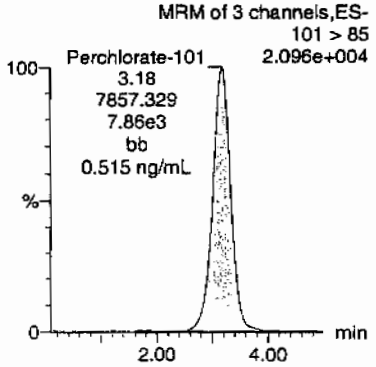

Perchlorate-O(18)

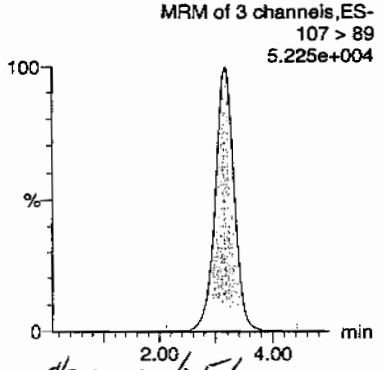

dmm 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL100219-06CCV	Perchlorate	99 > 83	3.18	25574.582	25574.582	bb			0.5230	104.60	4.60	5650.3...	3.25
VCL100219-06CCV	Perchlorate-101	101 > 85	3.18	7857.329	7857.329	bb			0.5152	103.03	3.03	775.250	
VCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.17	20000.623	20000.623	bb			0.4888	97.76	-2.24	9648.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1514

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.65	23–FEB–10 13:55	per0223011a
Perchlorate Isotope Ratio		3.41		23–FEB–10 13:55	per0223011a
Perchlorate–101	.05	.05	93.69	23–FEB–10 13:55	per0223011a
Perchlorate	.05	.05	94.13	23–FEB–10 15:39	per0223024a
Perchlorate Isotope Ratio		3.07		23–FEB–10 15:39	per0223024a
Perchlorate–101	.05	.05	98.19	23–FEB–10 15:39	per0223024a
Perchlorate	.05	.05	95.66	23–FEB–10 17:24	per0223037a
Perchlorate Isotope Ratio		3.19		23–FEB–10 17:24	per0223037a
Perchlorate–101	.05	.05	96.29	23–FEB–10 17:24	per0223037a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223011a
Date: 23-Feb-2010
Time: 13:55:02
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-24-10

Perchlorate

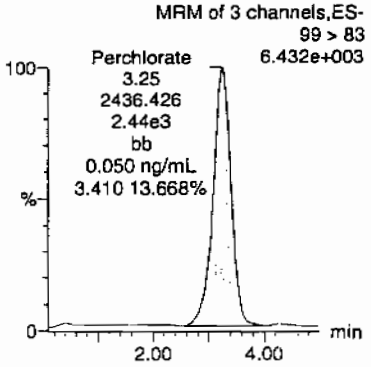

Perchlorate

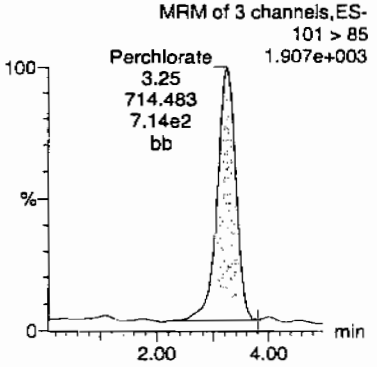

Perchlorate-101

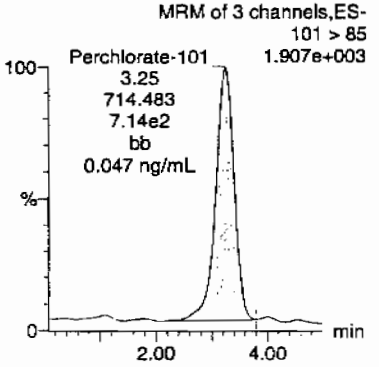

Perchlorate-O(18)

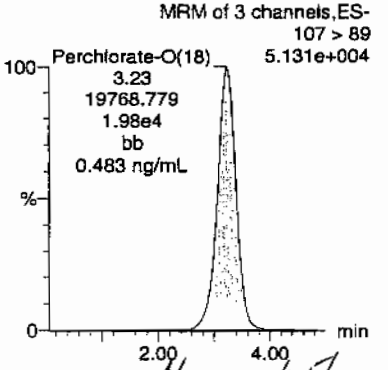

Hmm 02/26/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.25	2436.426	2436.426	bb			0.0498	99.65	-0.35	752.514	3.41
WCL100219-07CRI	Perchlorate-101	101 > 85	3.25	714.483	714.483	bb			0.0468	93.69	-6.31	197.166	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.23	19768.779	19768.779	bb			0.4831	96.63	-3.37	3562.3...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223024a
Date: 23-Feb-2010
Time: 15:39:48
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
aw
02-24-10

Perchlorate

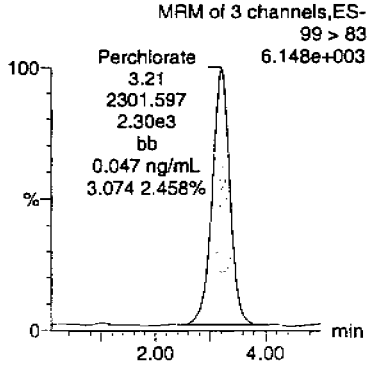

Perchlorate

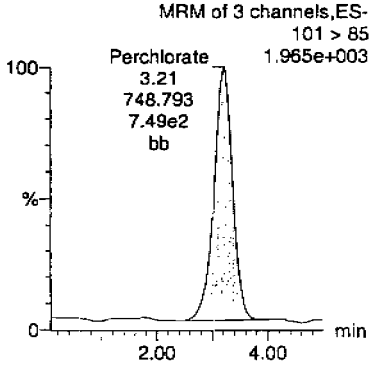

Perchlorate-101

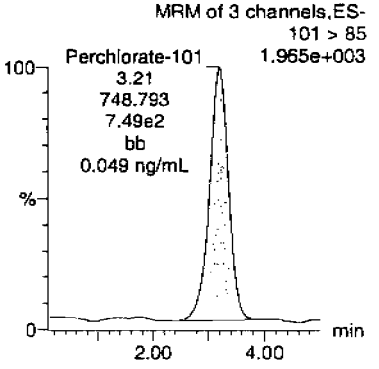

Perchlorate-O(18)

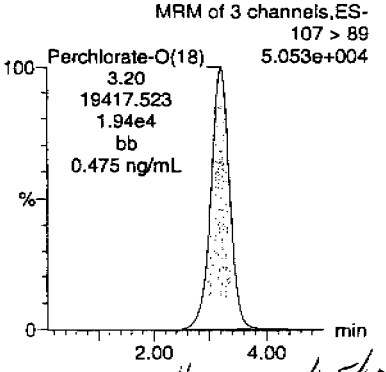

Amu ordsho

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.21	2301.597	2301.597	bb			0.0471	94.13	-5.87	345.822	3.07
WCL100219-07CRI	Perchlorate-101	101 > 85	3.21	748.793	748.793	bb			0.0491	98.19	-1.81	179.800	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.20	19417.523	19417.523	bb			0.4745	94.91	-5.09	8390.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223037a
Date: 23-Feb-2010
Time: 17:24:23
ID: WCL100219-07CRI
Vial: 1:2,B

Pers
02-24-10

Perchlorate

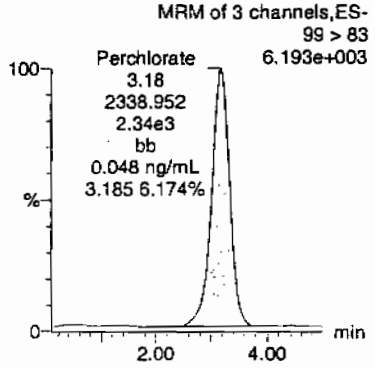

Perchlorate

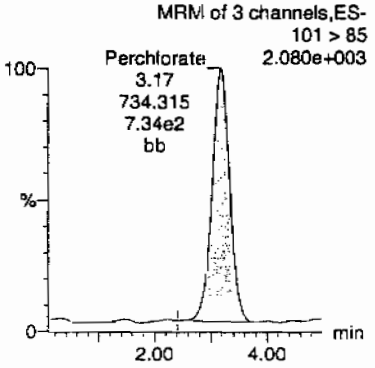

Perchlorate-101

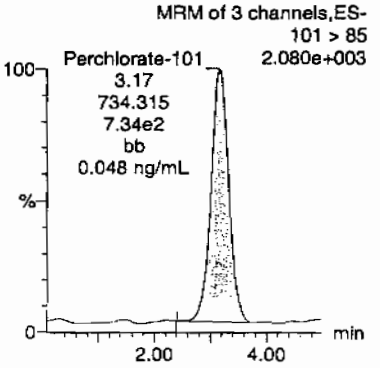

Perchlorate-O(18)

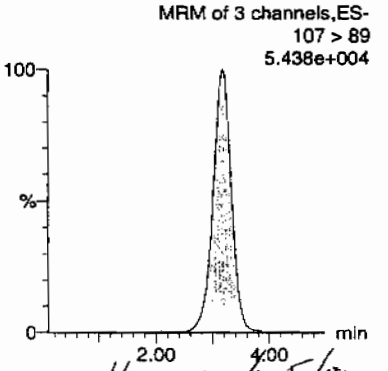

Hmm 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.18	2338.952	2338.952	bb			0.0478	95.66	-4.34	575.341	3.19
WCL100219-07CRI	Perchlorate-101	101 > 85	3.17	734.315	734.315	bb			0.0481	96.29	-3.71	259.348	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.17	20606.650	20606.650	bb			0.5036	100.72	0.72	10983....	

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 1202035646

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	23-FEB-10 14:03	per0223012a
	Perchlorate Isotope Ratio						1	23-FEB-10 14:03	per0223012a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	23-FEB-10 14:03	per0223012a
	Perchlorate-O(18)			4.73	ug/kg		1	23-FEB-10 14:03	per0223012a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223012a
Date: 23-Feb-2010
Time: 14:03:14
ID: 1202035646
Vial: 1:3,A

|LANL|950303|50125|MB|1|

GWO 02.24-10

Perchlorate

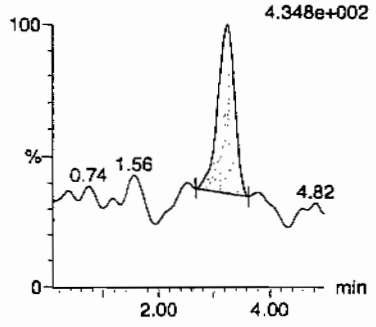

Perchlorate

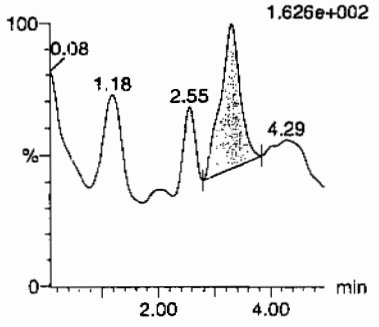

Perchlorate-101

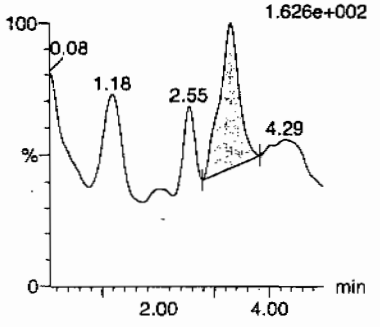

Perchlorate-O(18)

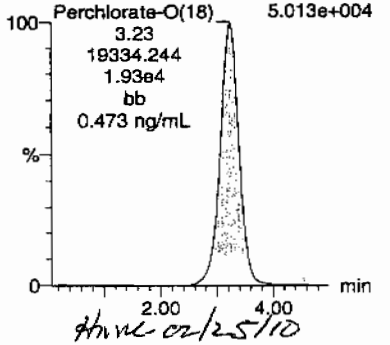

AMC 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035646	Perchlorate	99 > 83	3.25	100.583	100.583	bb			0.0021			14.146	2.73
1202035646	Perchlorate-101	101 > 85	3.30	36.782	36.782	bb			0.0024			13.612	
1202035646	Perchlorate-O(18)	107 > 89	3.23	19334.244	19334.244	bb			0.4725	94.50	-5.50	3007.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 1202035647

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.04	ug/kg		1	23-FEB-10 14:11	per0223013a
	Perchlorate Isotope Ratio			3.25			1	23-FEB-10 14:11	per0223013a
14797-73-0	Perchlorate-101	.5	2	2.01	ug/kg		1	23-FEB-10 14:11	per0223013a
	Perchlorate-O(18)			4.69	ug/kg		1	23-FEB-10 14:11	per0223013a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223013a
Date: 23-Feb-2010
Time: 14:11:16
ID: 1202035647
Vial: 1:3,B

|LANL|950263|5225|LCS|1|

GW 02-24-10

Perchlorate

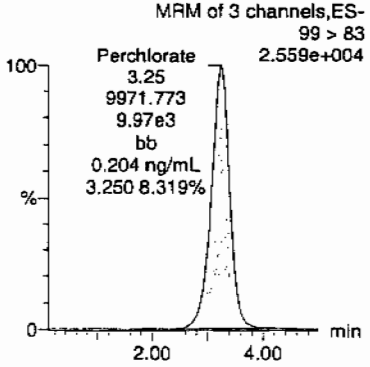

Perchlorate

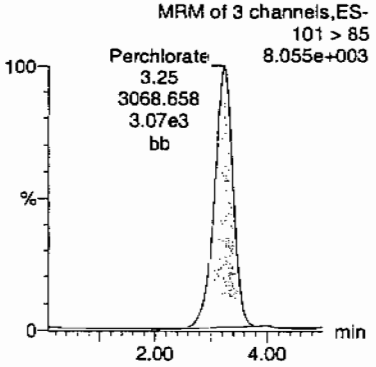

Perchlorate-101

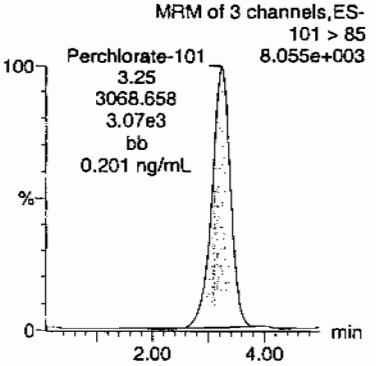

Perchlorate-O(18)

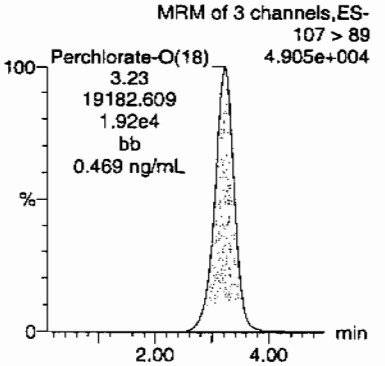

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035647	Perchlorate	99 > 83	3.25	9971.773	9971.773	bb			0.2039	101.96	1.96	792.525	3.25
1202035647	Perchlorate-101	101 > 85	3.25	3068.658	3068.658	bb			0.2012	100.60	0.60	343.515	
1202035647	Perchlorate-O(18)	107 > 89	3.23	19182.609	19182.609	bb			0.4688	93.76	-6.24	6211.8...	

$\frac{9971.773}{48901.4} = 0.2039$

Hmc 02/25/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7980MS

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 1202035648

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 95.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.524	2.1	3.72	ug/kg		1	23-FEB-10 14:35	per0223016a
	Perchlorate Isotope Ratio			3.16			1	23-FEB-10 14:35	per0223016a
14797-73-0	Perchlorate-101	.524	2.1	3.77	ug/kg		1	23-FEB-10 14:35	per0223016a
	Perchlorate-O(18)			5.26	ug/kg		1	23-FEB-10 14:35	per0223016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223016a
Date: 23-Feb-2010
Time: 14:35:22
ID: 1202035648
Vial: 1:3,E

|LANL|950063|50020|MS|1|

CWW 02-24-10

Perchlorate

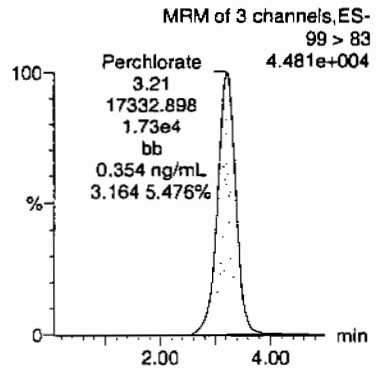

Perchlorate

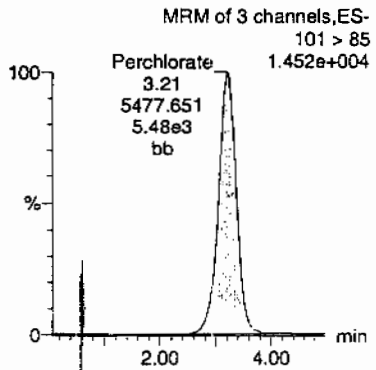

Perchlorate-101

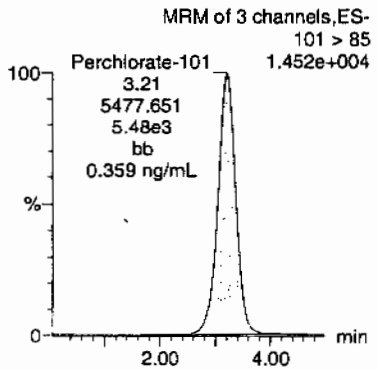

Perchlorate-O(18)

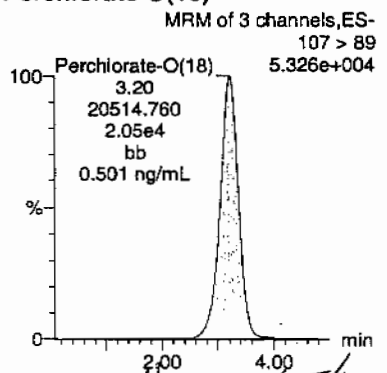

AM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035648	Perchlorate	99 > 83	3.21	17332.898	17332.898	bb			0.3544	177.22	77.22	1576.6...	3.16
1202035648	Perchlorate-101	101 > 85	3.21	5477.651	5477.651	bb			0.3591	179.57	79.57	4850.9...	
1202035648	Perchlorate-O(18)	107 > 89	3.20	20514.760	20514.760	bb			0.5014	100.27	0.27	4758.9...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950062

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7980MSD

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514

GEL Sample ID: 1202035649

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 95.4

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.524	2.1	3.61	ug/kg		1	23-FEB-10 14:43	per0223017a
	Perchlorate Isotope Ratio			3.22			1	23-FEB-10 14:43	per0223017a
14797-73-0	Perchlorate-101	.524	2.1	3.59	ug/kg		1	23-FEB-10 14:43	per0223017a
	Perchlorate-O(18)			5.34	ug/kg		1	23-FEB-10 14:43	per0223017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223017a
Date: 23-Feb-2010
Time: 14:43:24
ID: 1202035649
Vial: 1:3,F

|LANL|950063|50120|MSD|1|

CWW 02-24-10

Perchlorate

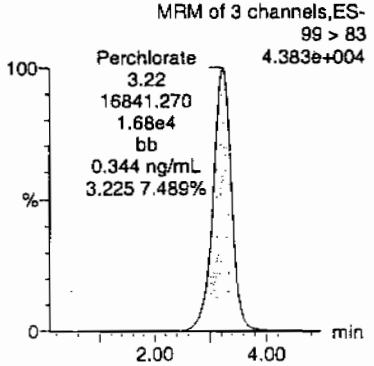

Perchlorate

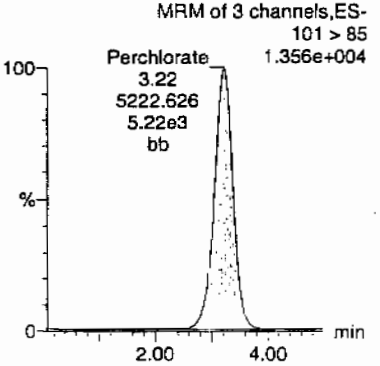

Perchlorate-101

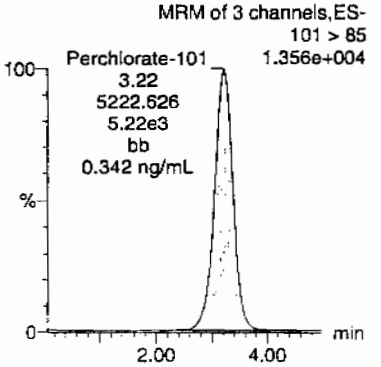

Perchlorate-O(18)

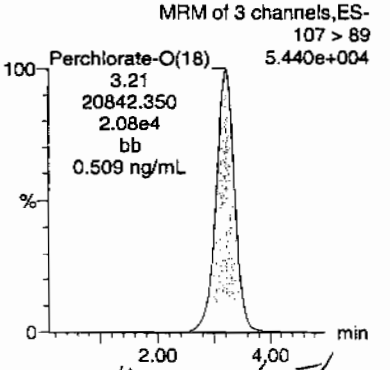

dhm 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035649	Perchlorate	99 > 83	3.22	16841.270	16841.270	bb			0.3444	172.20	72.20	6674.3...	3.22
1202035649	Perchlorate-101	101 > 85	3.22	5222.626	5222.626	bb			0.3424	171.21	71.21	3469.7...	
1202035649	Perchlorate-O(18)	107 > 89	3.21	20842.350	20842.350	bb			0.5094	101.87	1.87	3957.5...	

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950062 **Verified by:** _____

Analyst: Charles Wilson

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035646 MB	18-FEB-2010 11:31:00	2	20	10
1202035647 LCS	18-FEB-2010 11:31:00	2	20	10
245979001	18-FEB-2010 11:31:00	2	20	10
1202035648 MS (245979001)	18-FEB-2010 11:31:00	2	20	10
1202035649 MSD (245979001)	18-FEB-2010 11:31:00	2	20	10
245979002	18-FEB-2010 11:31:00	2	20	10
245979003	18-FEB-2010 11:31:00	2	20	10
245979004	18-FEB-2010 11:31:00	2	20	10
245979005	18-FEB-2010 11:31:00	2	20	10
245979006	18-FEB-2010 11:31:00	2	20	10
245979007	18-FEB-2010 11:31:00	2	20	10
245979008	18-FEB-2010 11:31:00	2	20	10
245979009	18-FEB-2010 11:31:00	2	20	10
245979010	18-FEB-2010 11:31:00	2	20	10
245979011	18-FEB-2010 11:31:00	2	20	10
245979012	18-FEB-2010 11:31:00	2	20	10
245979013	18-FEB-2010 11:31:00	2	20	10
245979014	18-FEB-2010 11:31:00	2	20	10
245979015	18-FEB-2010 11:31:00	2	20	10
1202035650 ICS	18-FEB-2010 11:31:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035650	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
LCS	1202035647	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MS	1202035648	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MSD	1202035649	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL

Comments:

Desalting cartridges used: 091120-1-Ba & 100112-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/23/10
Extr. Injection Volume: 20uL
Sequence Number: per022310a
Initial Calibration Date: 02/23/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: HMC
Date: 02/25/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0223001a	IPB001	CWW	2/23/2010 12:33			1		USE	B
per0223002a	IPB001	CWW	2/23/2010 12:42			1		USE	B
per0223003a	WCLICAL-01	CWW	2/23/2010 12:50			1		USE	I
per0223004a	WCLICAL-02	CWW	2/23/2010 12:58			1		USE	I
per0223005a	WCLICAL-03	CWW	2/23/2010 13:06			1		USE	I
per0223006a	WCLICAL-04	CWW	2/23/2010 13:14			1		USE	I
per0223007a	WCLICAL-05	CWW	2/23/2010 13:22			1		USE	I
per0223008a	IPB002	CWW	2/23/2010 13:30			1		USE	B
per0223009a	WCLICV	CWW	2/23/2010 13:38			1		USE	C
per0223010a	IPB003	CWW	2/23/2010 13:46			1		USE	B
per0223011a	WCLCRI	CWW	2/23/2010 13:55			1		USE	C
per0223012a	1202035646	CWW	2/23/2010 14:03	950063	10-1514	1	LANL	USE	S
per0223013a	1202035647	CWW	2/23/2010 14:11	950063	10-1514	1	LANL	USE	S
per0223014a	1202035650	CWW	2/23/2010 14:19	950063	10-1514	1	LANL	USE	S
per0223015a	245979001	CWW	2/23/2010 14:27	950063	10-1514	1	LANL	USE	S
per0223016a	1202035648	CWW	2/23/2010 14:35	950063	10-1514	1	LANL	USE	S
per0223017a	1202035649	CWW	2/23/2010 14:43	950063	10-1514	1	LANL	USE	S
per0223018a	245979002	CWW	2/23/2010 14:51	950063	10-1514	1	LANL	USE	S
per0223019a	245979003	CWW	2/23/2010 14:59	950063	10-1514	1	LANL	USE	S
per0223020a	245979004	CWW	2/23/2010 15:07	950063	10-1514	1	LANL	USE	S
per0223021a	245979005	CWW	2/23/2010 15:15	950063	10-1514	1	LANL	USE	S
per0223022a	WCLCCV	CWW	2/23/2010 15:23			1		USE	C
per0223023a	IPB004	CWW	2/23/2010 15:31			1		USE	B
per0223024a	WCLCRI	CWW	2/23/2010 15:39			1		USE	C
per0223025a	245979006	CWW	2/23/2010 15:47	950063	10-1514	1	LANL	USE	S
per0223026a	245979007	CWW	2/23/2010 15:55	950063	10-1514	1	LANL	USE	S
per0223027a	245979008	CWW	2/23/2010 16:03	950063	10-1514	1	LANL	USE	S
per0223028a	245979009	CWW	2/23/2010 16:11	950063	10-1514	1	LANL	USE	S
per0223029a	245979010	CWW	2/23/2010 16:20	950063	10-1514	1	LANL	USE	S

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per0223030a	245979011	CWW	2/23/2010 16:28	950063	10-1514	1	LANL	USE	S
per0223031a	245979012	CWW	2/23/2010 16:36	950063	10-1514	1	LANL	USE	S
per0223032a	245979013	CWW	2/23/2010 16:44	950063	10-1514	1	LANL	USE	S
per0223033a	245979014	CWW	2/23/2010 16:52	950063	10-1514	1	LANL	USE	S
per0223034a	245979015	CWW	2/23/2010 17:00	950063	10-1514	1	LANL	USE	S
per0223035a	WCLCCV	CWW	2/23/2010 17:08			1		USE	C
per0223036a	IPB005	CWW	2/23/2010 17:16			1		USE	B
per0223037a	WCLCRI	CWW	2/23/2010 17:24			1		USE	C
per0223038a	1202035660	CWW	2/23/2010 17:32	950071	VARIOUS	1	LANL	USE	S
per0223039a	1202035661	CWW	2/23/2010 17:40	950071	VARIOUS	1	LANL	USE	S
per0223040a	1202035664	CWW	2/23/2010 17:48	950071	VARIOUS	1	LANL	USE	S
per0223041a	245998001	CWW	2/23/2010 17:56	950071	10-1517	1	LANL	USE	S
per0223042a	245998002	CWW	2/23/2010 18:04	950071	10-1517	1	LANL	USE	S
per0223043a	245998003	CWW	2/23/2010 18:12	950071	10-1517	1	LANL	USE	S
per0223044a	245998004	CWW	2/23/2010 18:20	950071	10-1517	1	LANL	USE	S
per0223045a	245998005	CWW	2/23/2010 18:28	950071	10-1517	1	LANL	USE	S
per0223046a	245998006	CWW	2/23/2010 18:36	950071	10-1517	1	LANL	USE	S
per0223047a	245998007	CWW	2/23/2010 18:44	950071	10-1517	1	LANL	USE	S
per0223048a	WCLCCV	CWW	2/23/2010 18:52			1		USE	C
per0223049a	IPB006	CWW	2/23/2010 19:01			1		USE	B
per0223050a	WCLCRI	CWW	2/23/2010 19:09			1		USE	C
per0223051a	245998008	CWW	2/23/2010 19:17	950071	10-1517	1	LANL	USE	S
per0223052a	245998009	CWW	2/23/2010 19:25	950071	10-1517	1	LANL	USE	S
per0223053a	246055001	CWW	2/23/2010 19:33	950071	10-1545	1	LANL	USE	S
per0223054a	1202035662	CWW	2/23/2010 19:41	950071	10-1545	1	LANL	USE	S
per0223055a	1202035663	CWW	2/23/2010 19:49	950071	10-1545	1	LANL	USE	S
per0223056a	246055002	CWW	2/23/2010 19:57	950071	10-1545	1	LANL	USE	S
per0223057a	246055003	CWW	2/23/2010 20:05	950071	10-1545	1	LANL	USE	S
per0223058a	246055004	CWW	2/23/2010 20:13	950071	10-1545	1	LANL	USE	S
per0223059a	246055005	CWW	2/23/2010 20:21	950071	10-1545	1	LANL	USE	S
per0223060a	246055006	CWW	2/23/2010 20:29	950071	10-1545	1	LANL	USE	S
per0223061a	WCLCCV	CWW	2/23/2010 20:37			1		USE	C
per0223062a	IPB007	CWW	2/23/2010 20:46			1		USE	B
per0223063a	WCLCRI	CWW	2/23/2010 20:54			1		USE	C
per0223064a	246055007	CWW	2/23/2010 21:02	950071	10-1545	1	LANL	USE	S
per0223065a	246055008	CWW	2/23/2010 21:10	950071	10-1545	1	LANL	USE	S
per0223066a	246055009	CWW	2/23/2010 21:18	950071	10-1545	1	LANL	USE	S

per0223067a	IPB008	CWW	2/23/2010 21:26			1		USE	B
per0223068a	1202042433	CWW	2/23/2010 21:34	952906	VARIOUS	1	LANL	USE	S
per0223069a	1202042434	CWW	2/23/2010 21:42	952906	VARIOUS	1	LANL	USE	S
per0223070a	1202042437	CWW	2/23/2010 21:50	952906	VARIOUS	1	LANL	USE	S
per0223071a	246607001	CWW	2/23/2010 21:58	952906	10-1699-1	1	LANL	USE	S
per0223072a	246607002	CWW	2/23/2010 22:06	952906	10-1699-1	1	LANL	USE	S
per0223073a	246607003	CWW	2/23/2010 22:14	952906	10-1699-1	1	LANL	USE	S
per0223074a	WCLCCV	CWW	2/23/2010 22:22			1		USE	C
per0223075a	IPB009	CWW	2/23/2010 22:31			1		USE	B
per0223076a	WCLCRI	CWW	2/23/2010 22:39			1		USE	C
per0223077a	246607004	CWW	2/23/2010 22:47	952906	10-1699-1	1	LANL	USE	S
per0223078a	246607005	CWW	2/23/2010 22:55	952906	10-1699-1	1	LANL	USE	S
per0223079a	246607006	CWW	2/23/2010 23:03	952906	10-1699-1	1	LANL	USE	S
per0223080a	246610001	CWW	2/23/2010 23:11	952906	10-1701	1	LANL	USE	S
per0223081a	246610002	CWW	2/23/2010 23:19	952906	10-1701	1	LANL	USE	S
per0223082a	246610003	CWW	2/23/2010 23:27	952906	10-1701	1	LANL	USE	S
per0223083a	246611001	CWW	2/23/2010 23:35	952906	10-1702	1	LANL	USE	S
per0223084a	246611002	CWW	2/23/2010 23:43	952906	10-1702	1	LANL	USE	S
per0223085a	246611003	CWW	2/23/2010 23:51	952906	10-1702	1	LANL	USE	S
per0223086a	WCLCCV	CWW	2/23/2010 23:59			1		USE	C
per0223087a	IPB010	CWW	2/24/2010 0:08			1		USE	B
per0223088a	WCLCRI	CWW	2/24/2010 0:16			1		USE	C
per0223089a	246679001	CWW	2/24/2010 0:24	952906	10-1704	1	LANL	USE	S
per0223090a	1202042435	CWW	2/24/2010 0:32	952906	10-1704	1	LANL	USE	S
per0223091a	1202042436	CWW	2/24/2010 0:40	952906	10-1704	1	LANL	USE	S
per0223092a	246679002	CWW	2/24/2010 0:48	952906	10-1704	1	LANL	USE	S
per0223093a	246679003	CWW	2/24/2010 0:56	952906	10-1704	1	LANL	USE	S
per0223094a	246679004	CWW	2/24/2010 1:04	952906	10-1704	1	LANL	USE	S
per0223095a	246679005	CWW	2/24/2010 1:12	952906	10-1704	1	LANL	USE	S
per0223096a	246679006	CWW	2/24/2010 1:20	952906	10-1704	1	LANL	USE	S
per0223097a	246679007	CWW	2/24/2010 1:28	952906	10-1704	1	LANL	USE	S
per0223098a	246679008	CWW	2/24/2010 1:36	952906	10-1704	1	LANL	USE	S
per0223099a	WCLCCV	CWW	2/24/2010 1:44			1		USE	C
per0223100a	IPB011	CWW	2/24/2010 1:52			1		USE	B
per0223101a	WCLCRI	CWW	2/24/2010 2:00			1		USE	C
per0223102a	1202042671	CWW	2/24/2010 2:08	952990	VARIOUS	1	LANL	USE	S
per0223103a	1202042672	CWW	2/24/2010 2:17	952990	VARIOUS	1	LANL	USE	S

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per0223104a	1202042675	CWW	2/24/2010	2:25	952990	VARIOUS	1	LANL	USE	S
per0223105a	246719001	CWW	2/24/2010	2:33	952990	10-1729	1	LANL	USE	S
per0223106a	1202042673	CWW	2/24/2010	2:41	952990	10-1729	1	LANL	USE	S
per0223107a	1202042674	CWW	2/24/2010	2:49	952990	10-1729	1	LANL	USE	S
per0223108a	246719002	CWW	2/24/2010	2:57	952990	10-1729	1	LANL	USE	S
per0223109a	246719003	CWW	2/24/2010	3:05	952990	10-1729	1	LANL	USE	S
per0223110a	WCLCCV	CWW	2/24/2010	3:13			1		USE	C
per0223111a	IPB012	CWW	2/24/2010	3:21			1		USE	B
per0223112a	WCLCRI	CWW	2/24/2010	3:29			1		USE	C
per0223113a	246719004	CWW	2/24/2010	3:37	952990	10-1729	1	LANL	USE	S
per0223114a	246719005	CWW	2/24/2010	3:46	952990	10-1729	1	LANL	USE	S
per0223115a	246719006	CWW	2/24/2010	3:54	952990	10-1729	1	LANL	USE	S
per0223116a	246719007	CWW	2/24/2010	4:02	952990	10-1729	1	LANL	USE	S
per0223117a	246719008	CWW	2/24/2010	4:10	952990	10-1729	1	LANL	USE	S
per0223118a	246741001	CWW	2/24/2010	4:18	952990	10-1711	1	LANL	USE	S
per0223119a	246741002	CWW	2/24/2010	4:26	952990	10-1711	1	LANL	USE	S
per0223120a	246741003	CWW	2/24/2010	4:34	952990	10-1711	1	LANL	USE	S
per0223121a	WCLCCV	CWW	2/24/2010	4:42			1		USE	C
per0223122a	IPB013	CWW	2/24/2010	4:50			1		USE	B
per0223123a	WCLCRI	CWW	2/24/2010	4:58			1		USE	C
per0223124a	246741004	CWW	2/24/2010	5:06	952990	10-1711	1	LANL	USE	S
per0223125a	246741005	CWW	2/24/2010	5:14	952990	10-1711	1	LANL	USE	S
per0223126a	246741006	CWW	2/24/2010	5:22	952990	10-1711	1	LANL	USE	S
per0223127a	246741007	CWW	2/24/2010	5:30	952990	10-1711	1	LANL	USE	S
per0223128a	246741008	CWW	2/24/2010	5:38	952990	10-1711	1	LANL	USE	S
per0223129a	246741009	CWW	2/24/2010	5:46	952990	10-1711	1	LANL	USE	S
per0223130a	246741010	CWW	2/24/2010	5:54	952990	10-1711	1	LANL	USE	S
per0223131a	246741011	CWW	2/24/2010	6:02	952990	10-1711	1	LANL	USE	S
per0223132a	WCLCCV	CWW	2/24/2010	6:11			1		USE	C
per0223133a	IPB014	CWW	2/24/2010	6:19			1		USE	B
per0223134a	WCLCRI	CWW	2/24/2010	6:27			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1 100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1514-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950028
Prep Batch Number:	950027

Sample Analysis

Sample ID	Client ID
245981001	RE15-10-8083
1202035573	Interference Check Sample (ICS)
1202035565	Method Blank (MB)
1202035566	Laboratory Control Sample (LCS)
1202035571	245911001(RE16-10-1400) Matrix Spike (MS)
1202035572	245911001(RE16-10-1400) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

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CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245911001 (RE16-10-1400) from SDG 10-1487-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

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Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Moser **Date:** 02/11/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8083

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514-1

GEL Sample ID: 245981001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:06	per0208067a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:06	per0208067a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:06	per0208067a
	Perchlorate-O(18)			0.481	ug/L		1	08-FEB-10 21:06	per0208067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1514-1

Extract Batch Code: 950027

Date Filtered: 07-FEB-10

Matrix: WASTE WATER

Sample ID: 1202035566

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.196	ug/L	98.0		85 – 115
Perchlorate Isotope Ratio		3.01				–
Perchlorate–101	0.200	.207	ug/L	103		85 – 115
Perchlorate–O(18)		.483	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1514–1

Extract Batch Code: 950027

Date Filtered: 07–FEB–10

Matrix: WATER

Sample ID: 1202035573

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.211	ug/L	105		70 – 130
Perchlorate Isotope Ratio		3.12				
Perchlorate–101	0.200	.214	ug/L	107		70 – 130
Perchlorate–O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208052a
Date: 08-Feb-2010
Time: 19:28:20
ID: 1202035573
Vial: 2:1,C

|LANL|950028|LCQ|IC5|1|

CWW 02-09-10

Perchlorate

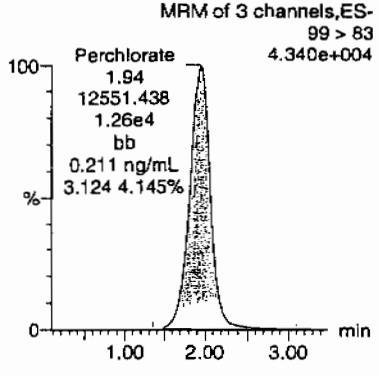

Perchlorate

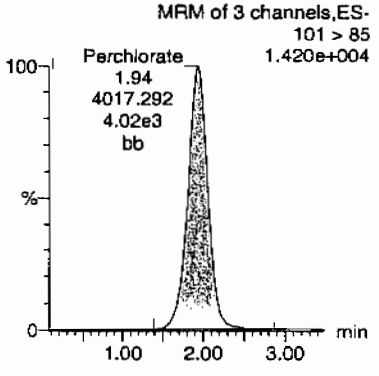

Perchlorate-101

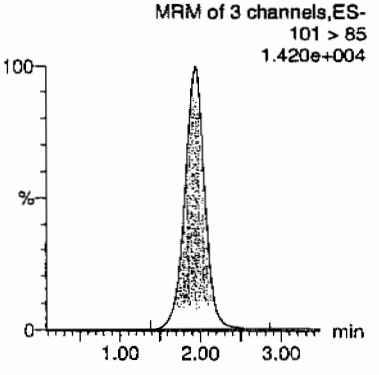

Perchlorate-O(18)

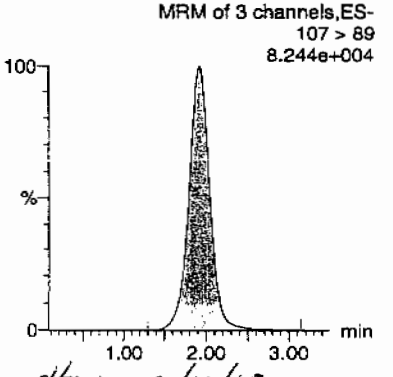

HMW 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035573	Perchlorate	99 > 83	1.94	12551.438	12551.438	bb			0.2108	105.42	5.42	1217.2...	3.12
1202035573	Perchlorate-101	101 > 85	1.94	4017.292	4017.292	bb			0.2140	107.01	7.01	2883.8...	
1202035573	Perchlorate-O(18)	107 > 89	1.93	23733.555	23733.555	bb			0.4879	97.59	-2.41	5289.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1514–1

Extract Batch Code: 950027

Date Extracted: 07–FEB–10

GEL MS/PS ID: 1202035571

Client ID: RE16–10–1400

GEL MSD/PSD ID: 1202035572

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00204	ug/L	0.192	94.8	.198	98.1	3.39	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3		3.01		0		–
Perchlorate–101	0.200	0.00319	ug/L	0.203	99.9	.209	103	2.76	30	75 – 125
Perchlorate–O(18)	0	0.461	ug/L	0.468		.462		1.31		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1514-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-FEB-10	per0208001a	IPB001
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208001a	IPB001
Perchlorate	0.00	0	NA	08-FEB-10	per0208002a	IPB001
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Name: per0208001a
Date: 08-Feb-2010
Time: 13:54:09
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

Perchlorate

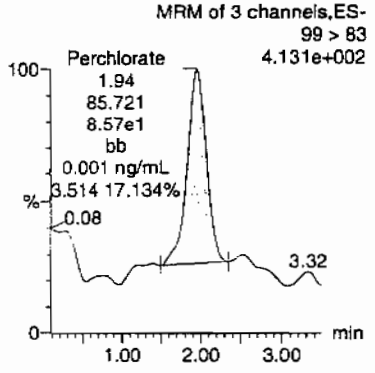

Perchlorate

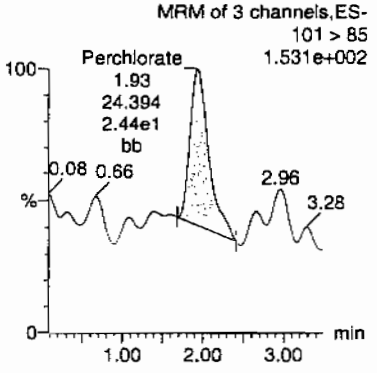

Perchlorate-101

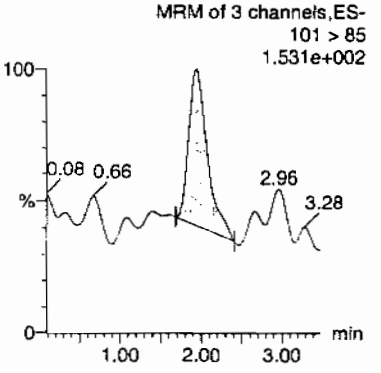

Perchlorate-O(18)

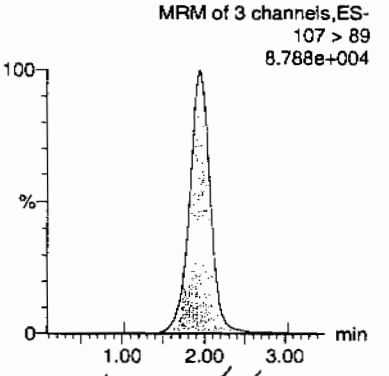

Hme 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	1.94	85.721	85.721	bb			0.0014			29.463	3.51
IPB001	Perchlorate-101	101 > 85	1.93	24.394	24.394	bb			0.0013			21.780	
IPB001	Perchlorate-O(18)	107 > 89	1.94	25816.436	25816.436	bb			0.5308	106.15	6.15	6489.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208002a
Date: 08-Feb-2010
Time: 14:00:52
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

Perchlorate

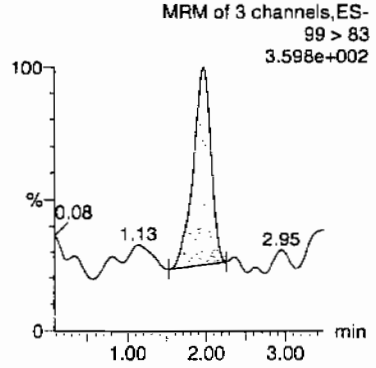

Perchlorate

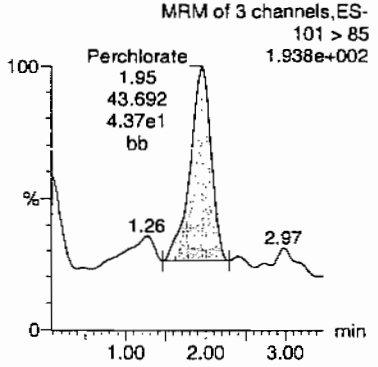

Perchlorate-101

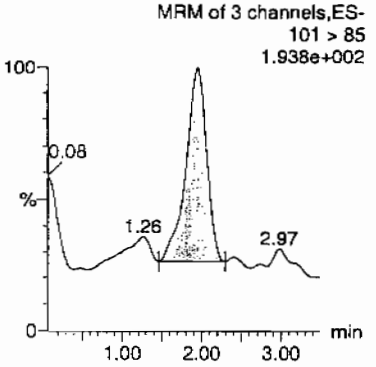

Perchlorate-O(18)

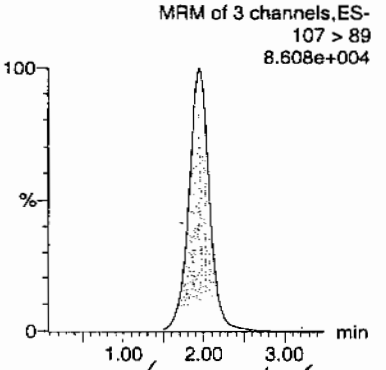

Hrm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	1.97	72.177	72.177	bb			0.0012			25.847	1.65
IPB001	Perchlorate-101	101 > 85	1.95	43.692	43.692	bb			0.0023			6.442	
IPB001	Perchlorate-O(18)	107 > 89	1.94	25472.947	25472.947	bb			0.5237	104.74	4.74	6120.9...	

OKAY
2/10/10

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1514-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-FEB-10	per0208008a	IPB002
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208008a	IPB002
Perchlorate	0.00	0	NA	08-FEB-10	per0208010a	IPB003
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208010a	IPB003
Perchlorate	0.00	0	NA	08-FEB-10	per0208022a	IPB004
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208022a	IPB004
Perchlorate	0.00	0	NA	08-FEB-10	per0208026a	IPB005
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208026a	IPB005
Perchlorate	0.00	0	NA	08-FEB-10	per0208035a	IPB006
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208035a	IPB006
Perchlorate	0.00	0	NA	08-FEB-10	per0208048a	IPB007
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208048a	IPB007
Perchlorate	0.00	0	NA	08-FEB-10	per0208061a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1514-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208061a	IPB008
Perchlorate	0.00	0	NA	08-FEB-10	per0208074a	IPB009
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208074a	IPB009

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208008a
Date: 08-Feb-2010
Time: 14:40:00
ID: IPB002
Vial: 1:1,A

02-09-10

Perchlorate

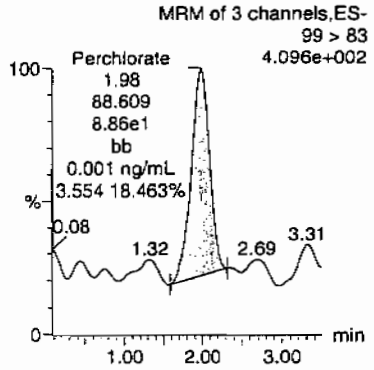

Perchlorate

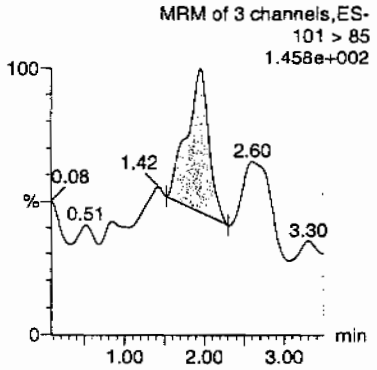

Perchlorate-101

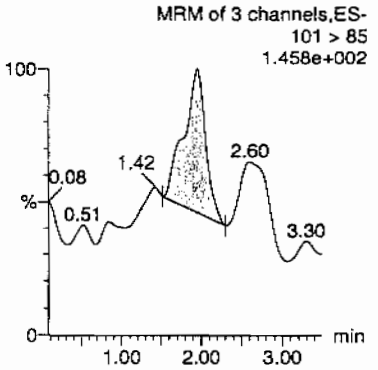

Perchlorate-O(18)

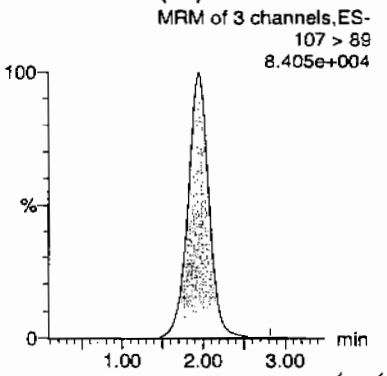

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	1.98	88.609	88.609	bb			0.0015			17.608	3.55
IPB002	Perchlorate-101	101 > 85	1.95	24.933	24.933	bb			0.0013			9.796	
IPB002	Perchlorate-O(18)	107 > 89	1.94	24800.170	24800.170	bb			0.5099	101.97	1.97	8413.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208010a
Date: 08-Feb-2010
Time: 14:53:04
ID: IPB003
Vial: 1:1,A

CWW
02-09-10

Perchlorate

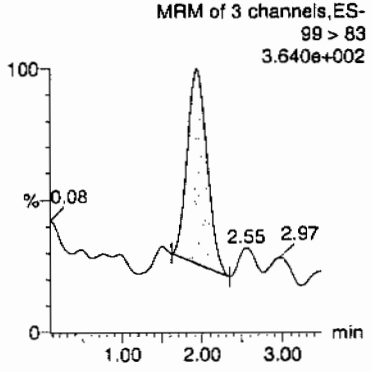

Perchlorate

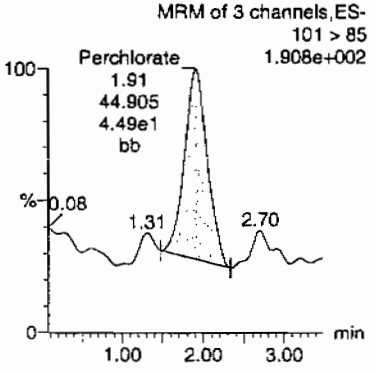

Perchlorate-101

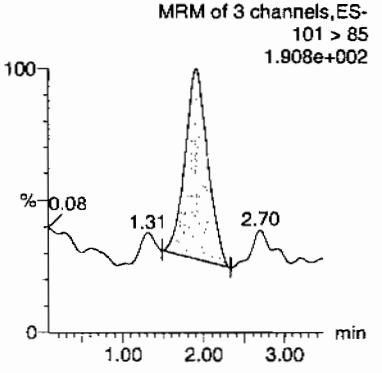

Perchlorate-O(18)

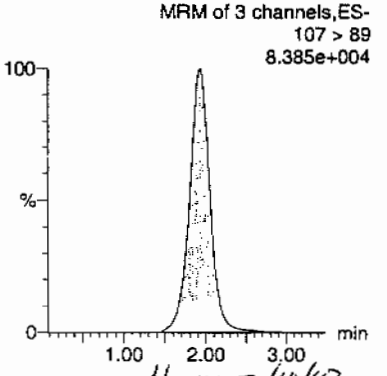

Hmcalicko

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	1.93	78.058	78.058	bb			0.0013			17.447	1.74
IPB003	Perchlorate-101	101 > 85	1.91	44.905	44.905	bb			0.0024			6.119	
IPB003	Perchlorate-O(18)	107 > 89	1.93	24645.639	24645.639	bb			0.5067	101.34	1.34	10100....	

OKAY
2.0500

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qid

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208022a
Date: 08-Feb-2010
Time: 16:11:45
ID: IPB004
Vial: 1:1,A

CWW
02-09-10

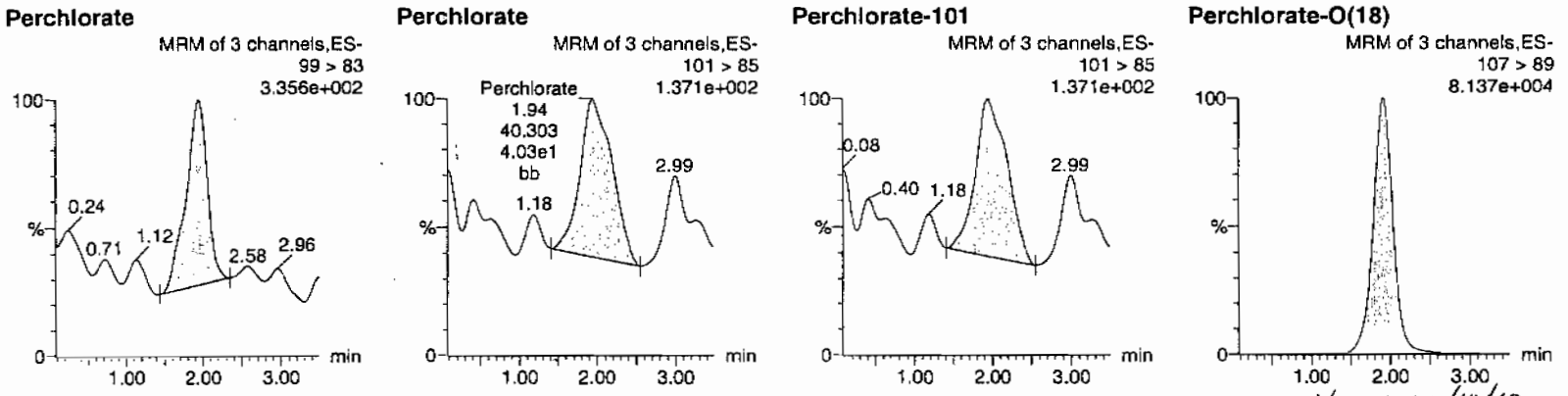

Hme 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	1.94	78.709	78.709	bb			0.0013			20.514	1.95
IPB004	Perchlorate-101	101 > 85	1.94	40.303	40.303	bb			0.0021			13.319	
IPB004	Perchlorate-O(18)	107 > 89	1.92	23985.541	23985.541	bb			0.4931	98.62	-1.38	5434.3...	

ok 94
<0.0500

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qid

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208026a
Date: 08-Feb-2010
Time: 16:37:55
ID: IPB005
Vial: 1:1,A

CWW 0209-10

Perchlorate

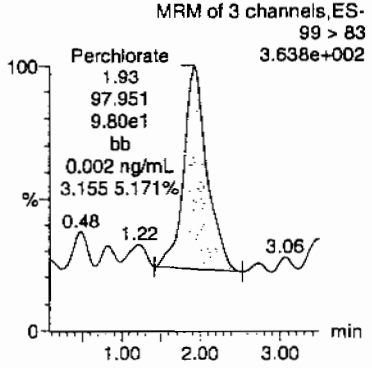

Perchlorate

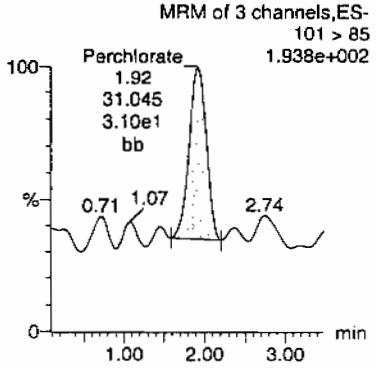

Perchlorate-101

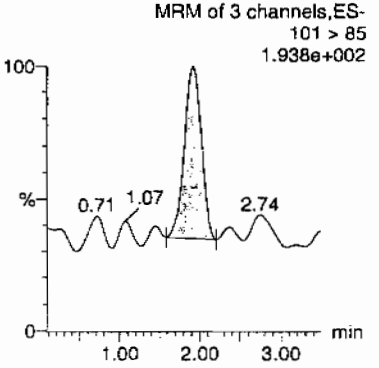

Perchlorate-O(18)

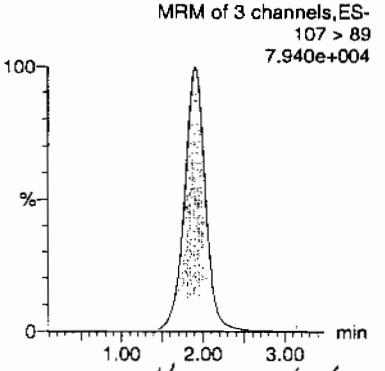

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	1.93	97.951	97.951	bb			0.0016			26.012	3.16
IPB005	Perchlorate-101	101 > 85	1.92	31.045	31.045	bb			0.0017			24.338	
IPB005	Perchlorate-O(18)	107 > 89	1.91	23263.740	23263.740	bb			0.4783	95.66	-4.34	17328....	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208035a
Date: 08-Feb-2010
Time: 17:36:50
ID: IPB006
Vial: 1:1,A

CWW
02-09-10

Perchlorate

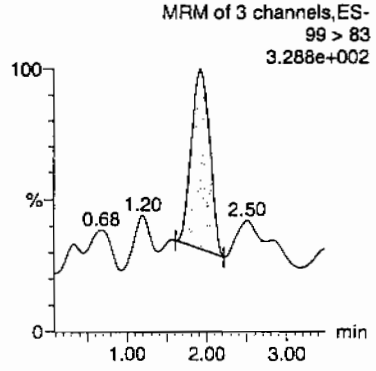

Perchlorate

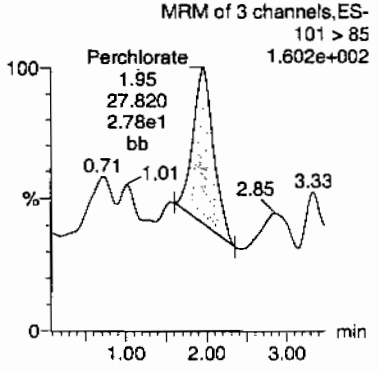

Perchlorate-101

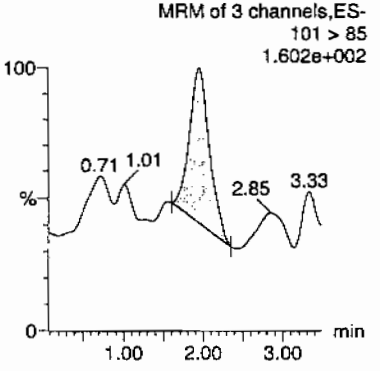

Perchlorate-O(18)

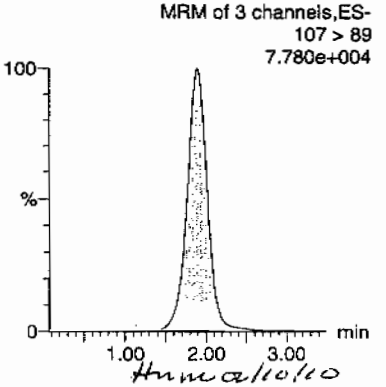

Hmm 2/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	1.92	61.682	61.682	bb			0.0010			7.589	2.22
IPB006	Perchlorate-101	101 > 85	1.95	27.820	27.820	bb			0.0015			8.535	
IPB006	Perchlorate-O(18)	107 > 89	1.89	22700.701	22700.701	bb			0.4667	93.34	-6.66	9296.2...	

okay
2.0530

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208048a
Date: 08-Feb-2010
Time: 19:01:59
ID: IPB007
Vial: 1:1,A

AWD
02-09-10

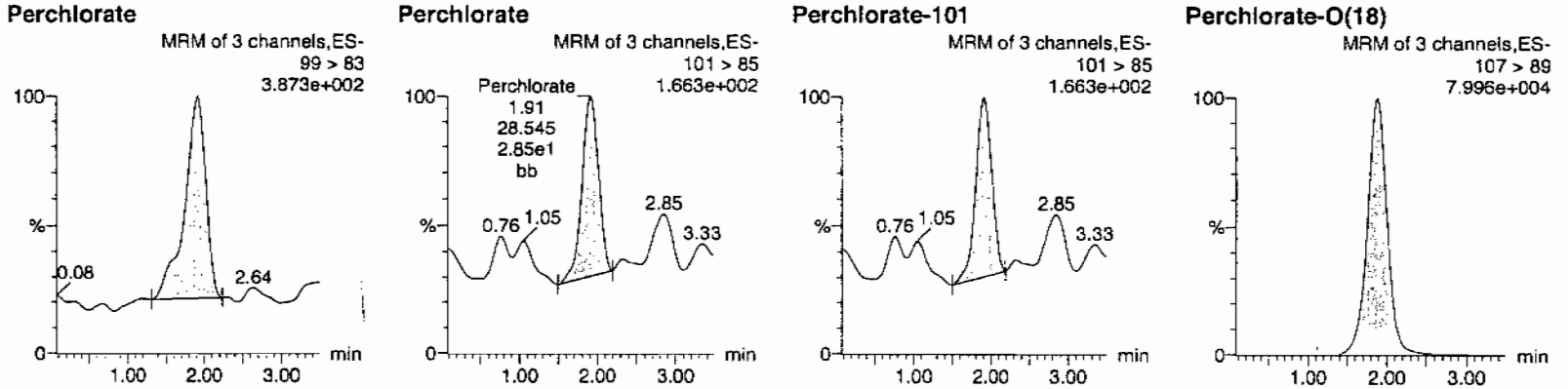

tm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	1.92	98.695	98.695	bb			0.0017			45.617	3.46
IPB007	Perchlorate-101	101 > 85	1.91	28.545	28.545	bb			0.0015			16.585	
IPB007	Perchlorate-O(18)	107 > 89	1.88	23201.119	23201.119	bb			0.4770	95.40	-4.60	2781.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

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Date: 08-Feb-2010
Time: 20:27:18
ID: IPB008
Vial: 1:1,A

CWW 02-09-10

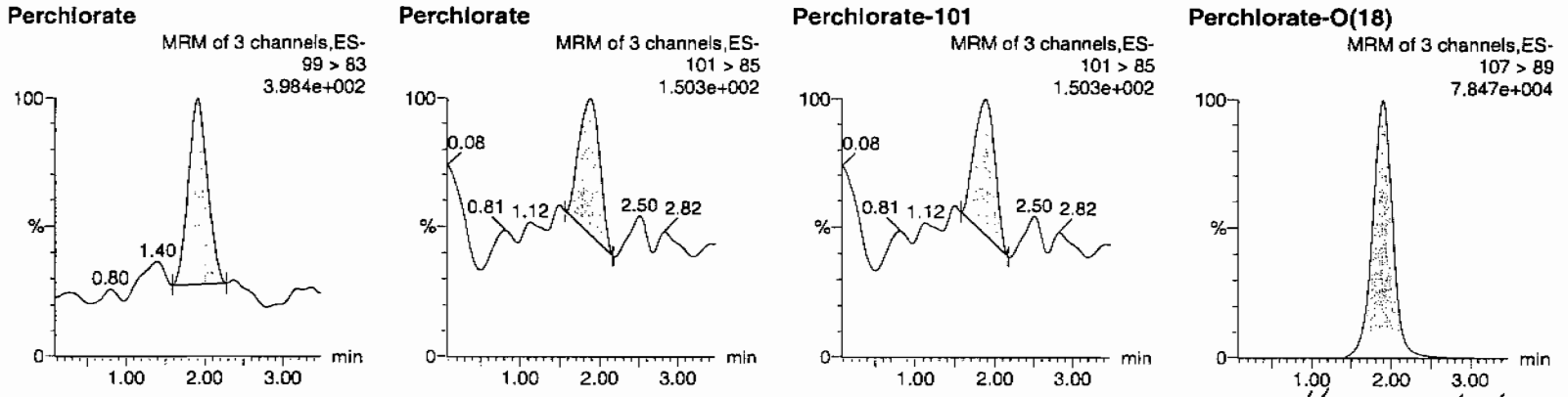

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	1.91	82.327	82.327	bb			0.0014			25.247	3.44
IPB008	Perchlorate-101	101 > 85	1.88	23.921	23.921	bb			0.0013			7.965	
IPB008	Perchlorate-O(18)	107 > 89	1.89	22850.625	22850.625	bb			0.4698	93.96	-6.04	9586.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208074a
Date: 08-Feb-2010
Time: 21:52:41
ID: IPB009
Vial: 1:1,A

02-09-10

Perchlorate

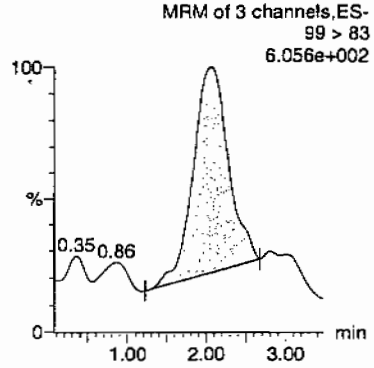

Perchlorate

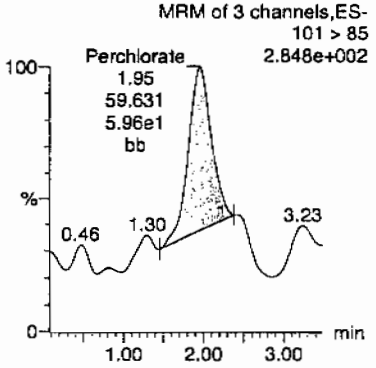

Perchlorate-101

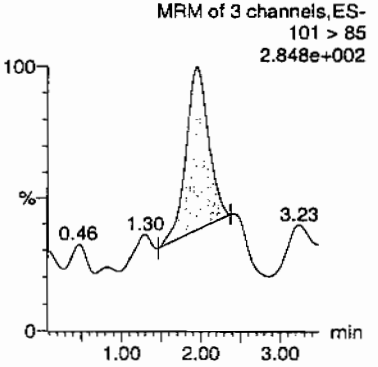

Perchlorate-O(18)

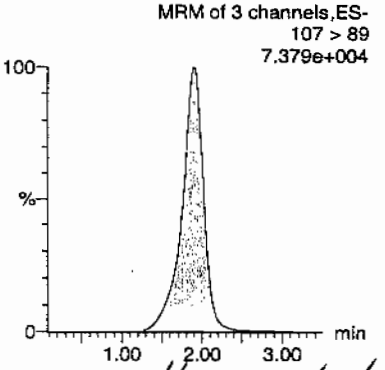

02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83	2.05	246.817	246.817	bb			0.0041			12.504	4.14
IPB009	Perchlorate-101	101 > 85	1.95	59.631	59.631	bb			0.0032			10.438	
IPB009	Perchlorate-O(18)	107 > 89	1.89	23201.656	23201.656	bb			0.4770	95.40	-4.60	2554.5...	

OKAY 4.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

POINTS HIGHLIGHTED BY CURSOR 01-07-05

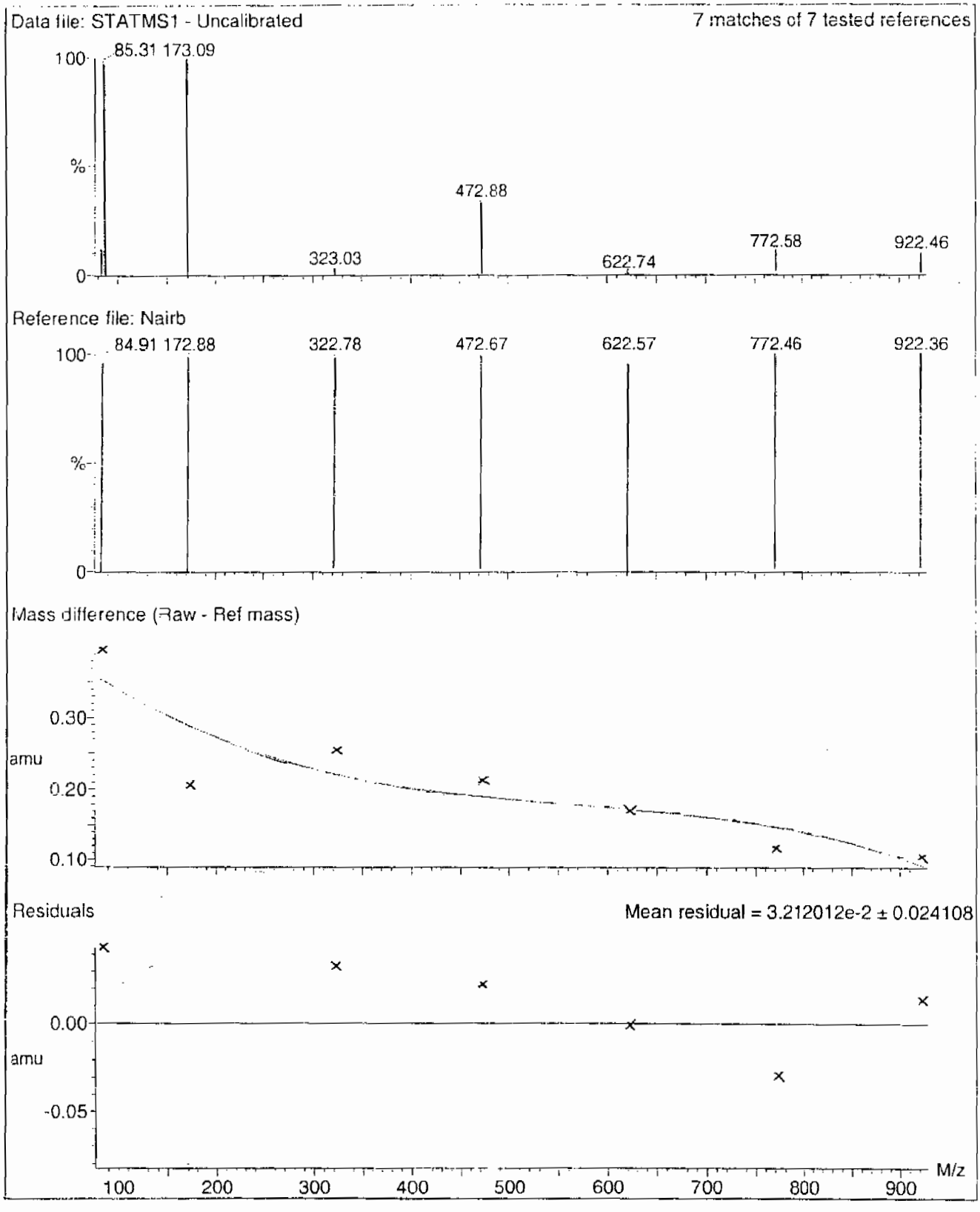

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

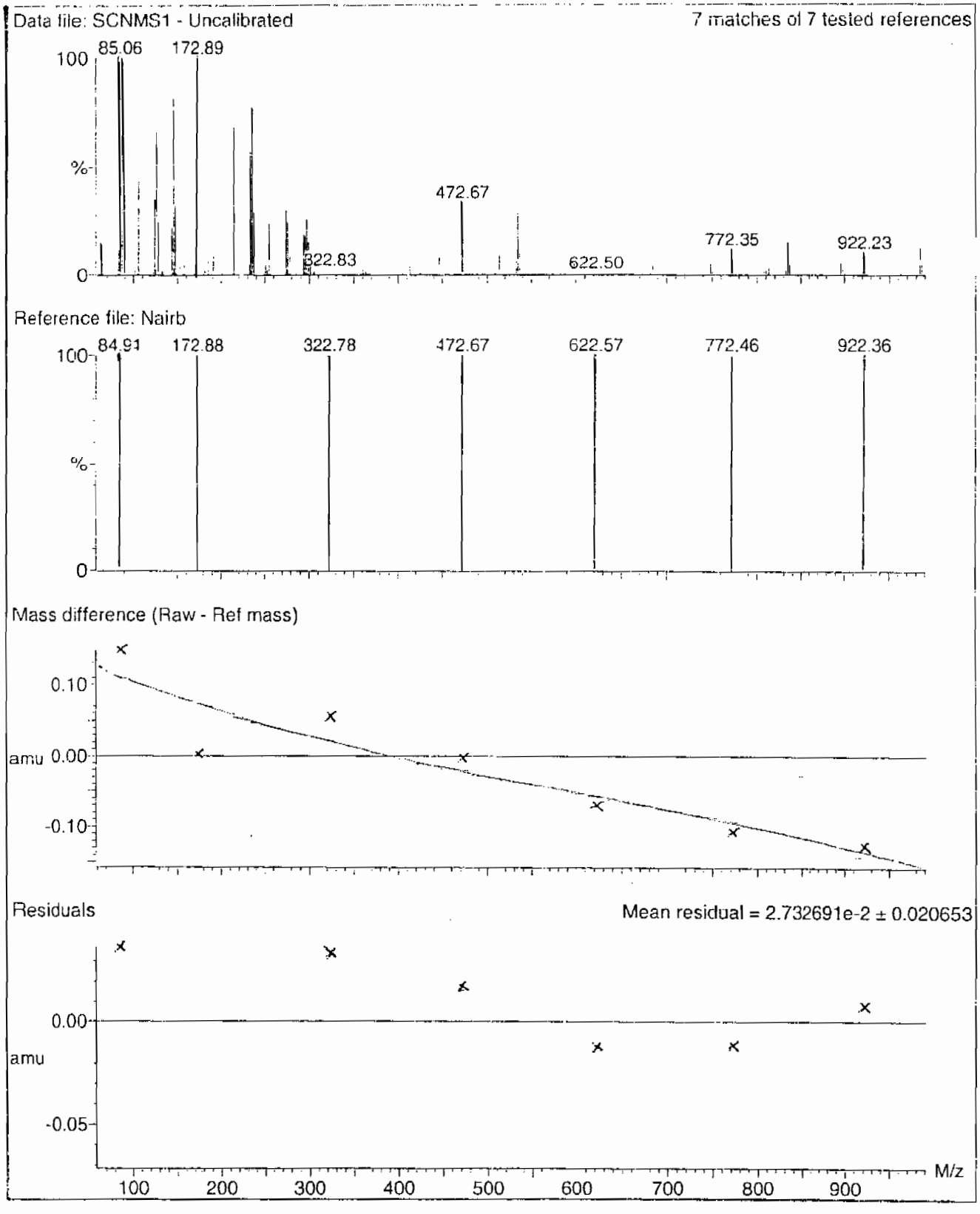

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

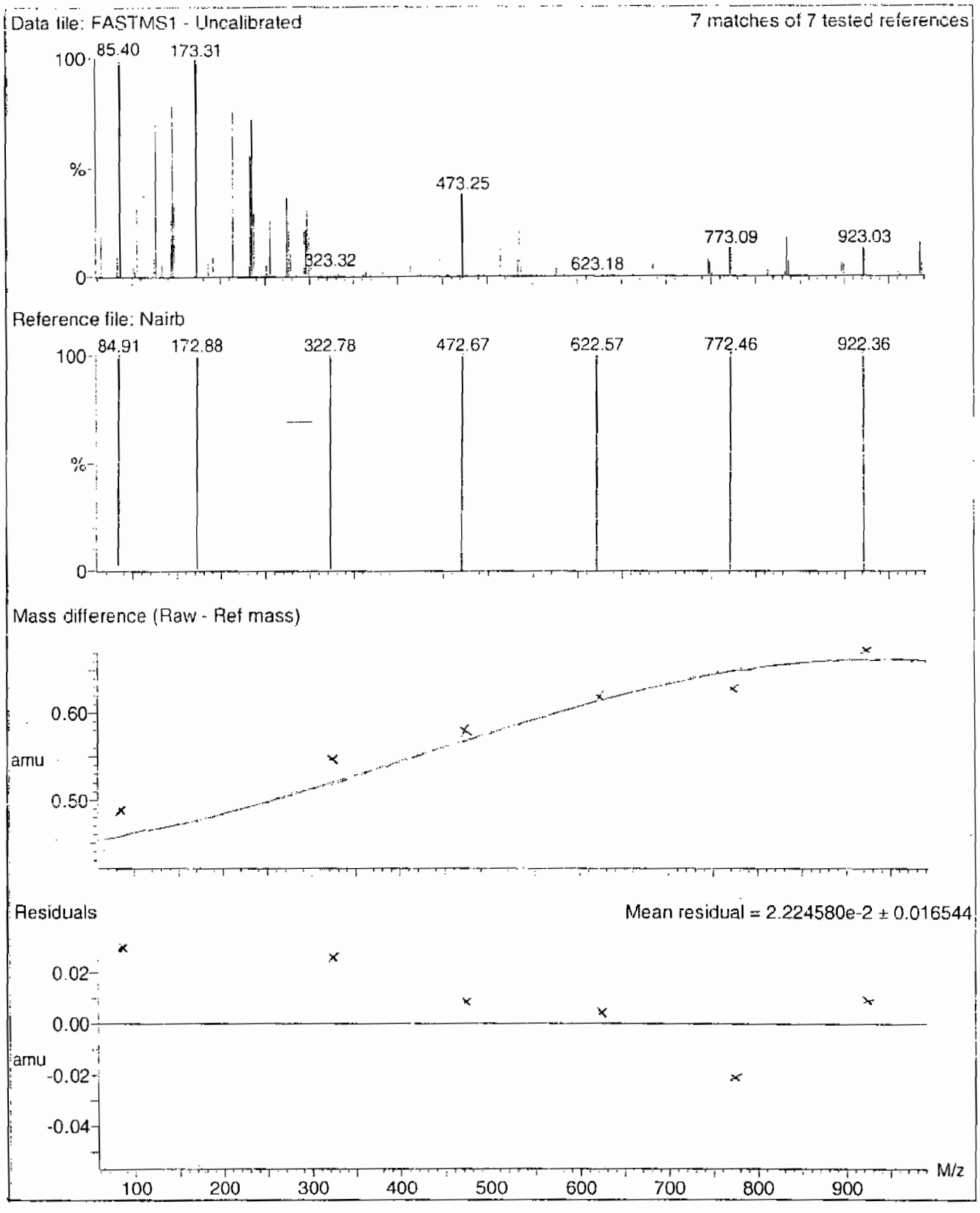

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Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

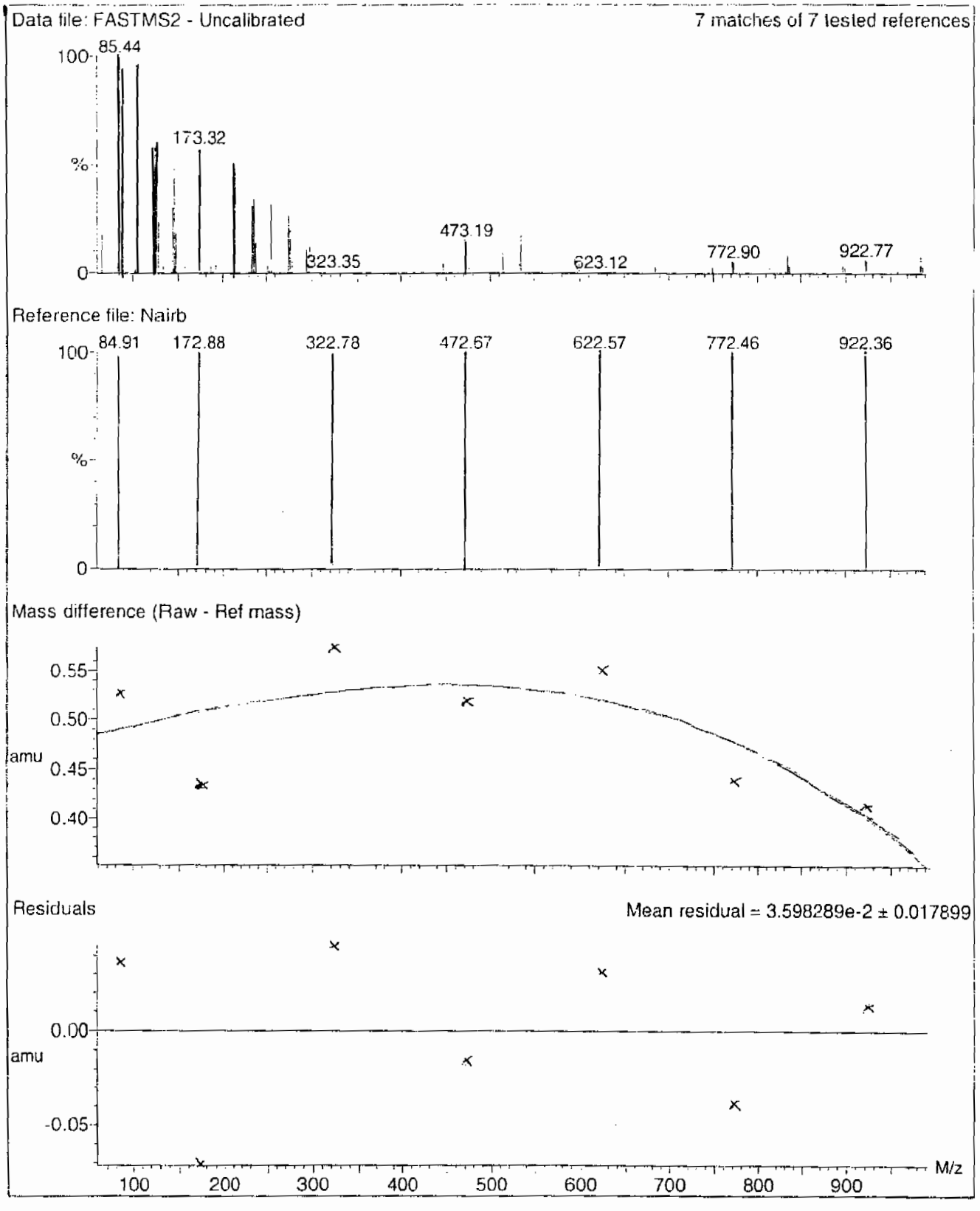

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

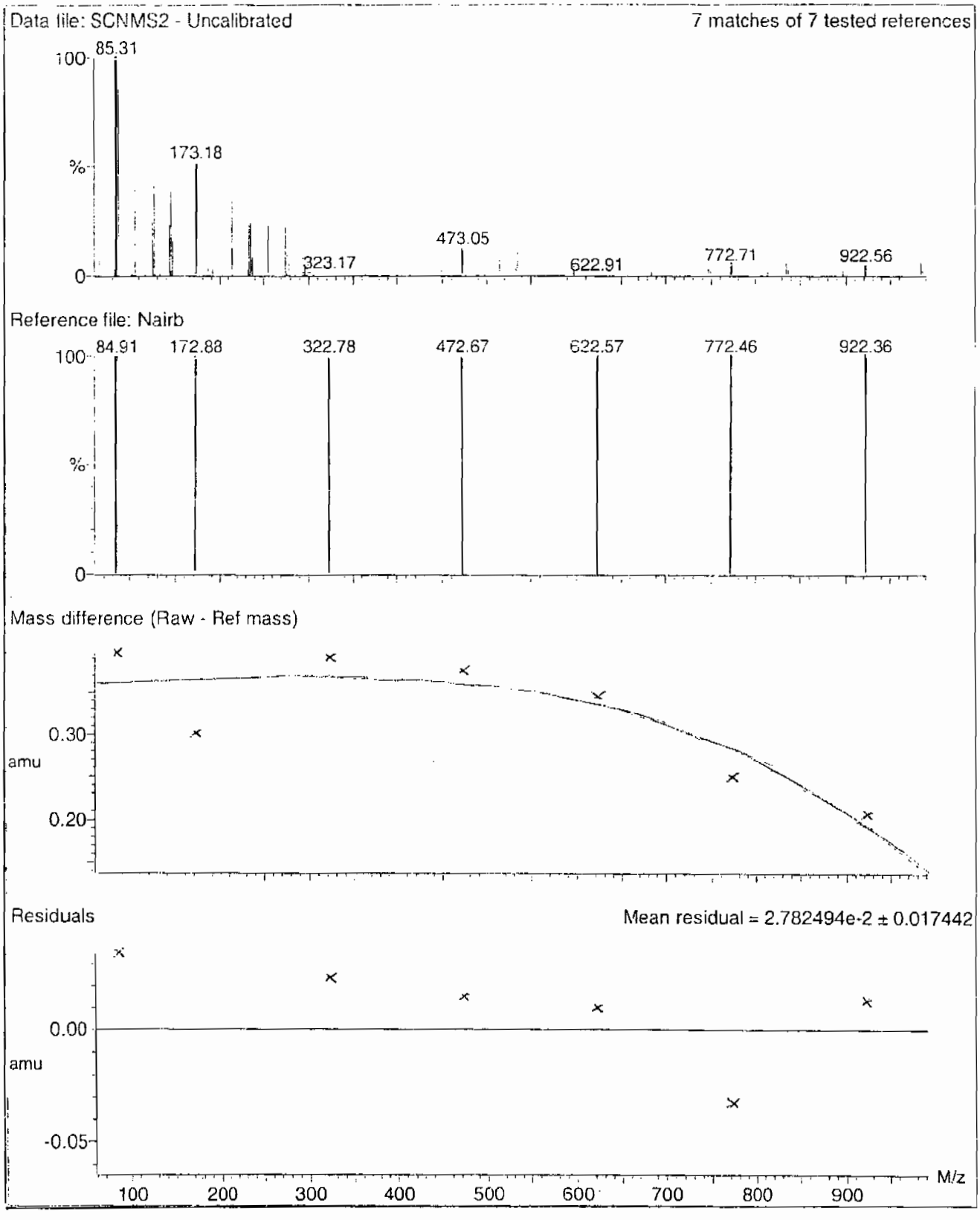

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

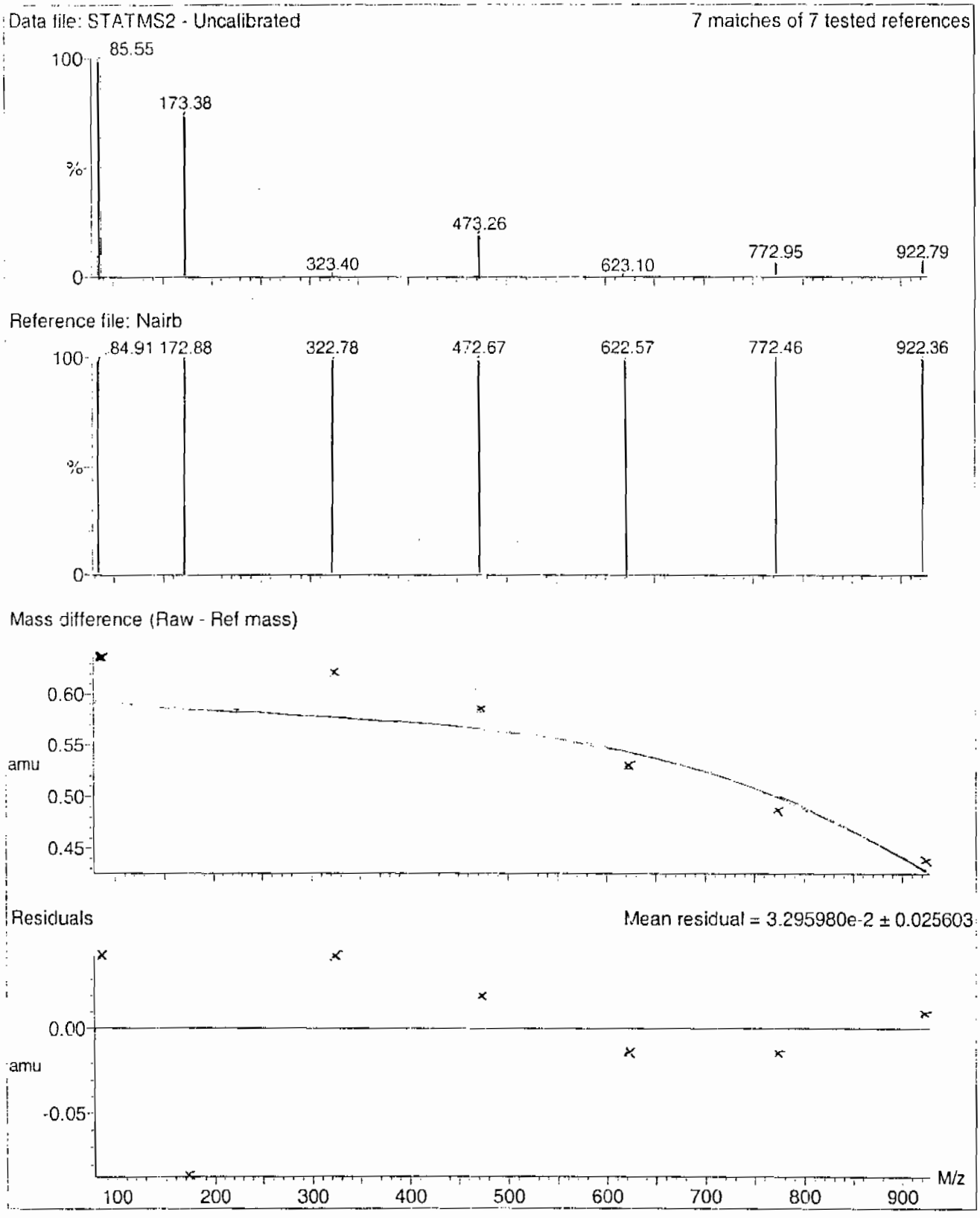

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, February 08, 2010 12:29:43 Eastern Standard Time

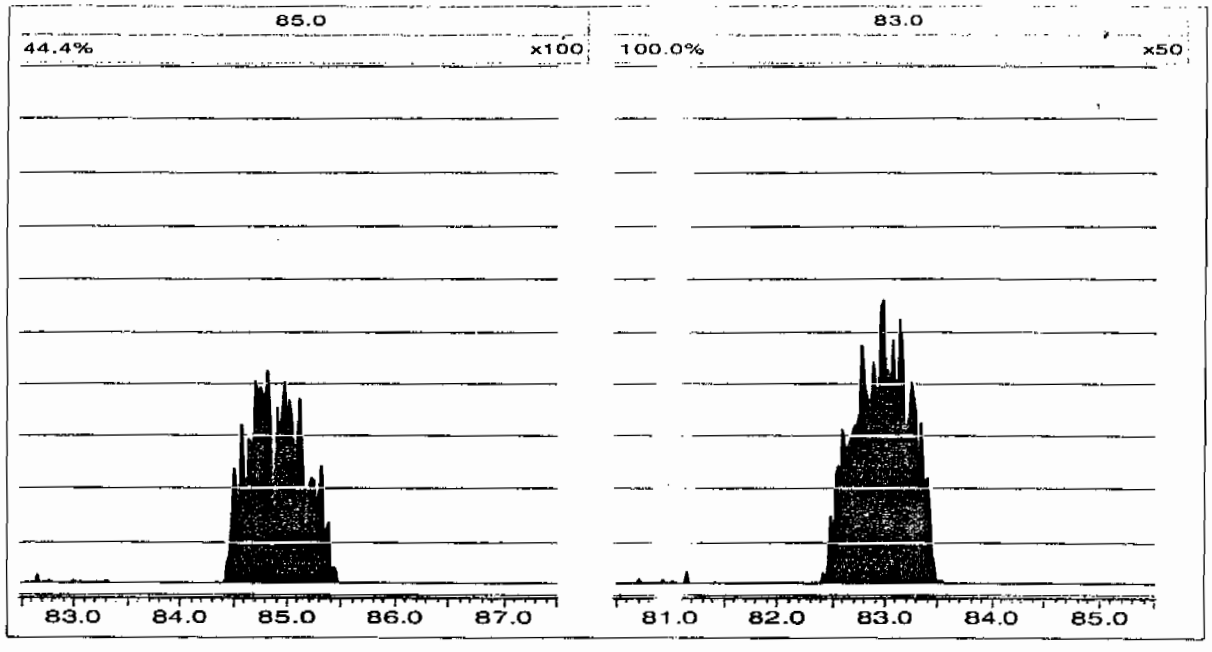

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1514–1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0208006a**	**08–FEB–10**	**24441.6**				
Lower Area Limit			**12220.8**				
Upper Area Limit			**48883.2**				
1202035565	per0208050a	08–FEB–10 19:15	22209.3	1.88	1.89273	1.007	
1202035566	per0208051a	08–FEB–10 19:21	23514.8	1.88	1.89277	1.007	
1202035573	per0208052a	08–FEB–10 19:28	23733.6	1.93	1.94248	1.006	
245981001	per0208067a	08–FEB–10 21:06	23383.4	1.89	1.89273	1.001	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8083

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1514-1

GEL Sample ID: 245981001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:06	per0208067a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:06	per0208067a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:06	per0208067a
	Perchlorate-O(18)			0.481	ug/L		1	08-FEB-10 21:06	per0208067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208067a
Date: 08-Feb-2010
Time: 21:06:42
ID: 245981001
Vial: 2:3,C

|LANL|950028|L22|11

CWW
02-09-10

Perchlorate

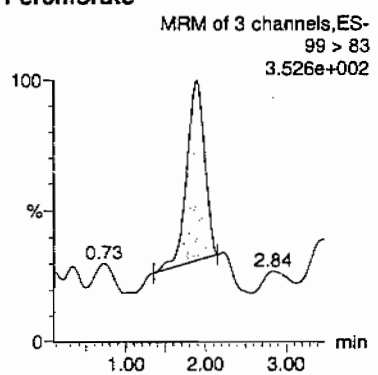

Perchlorate

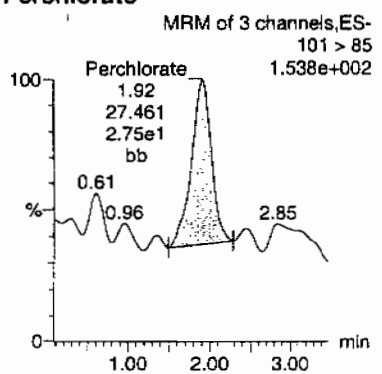

Perchlorate-101

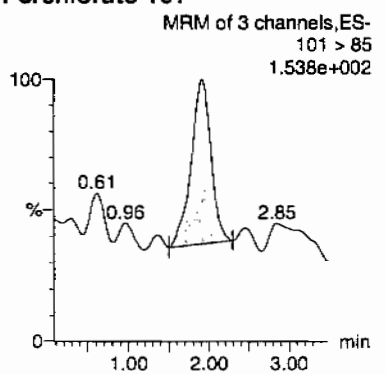

Perchlorate-O(18)

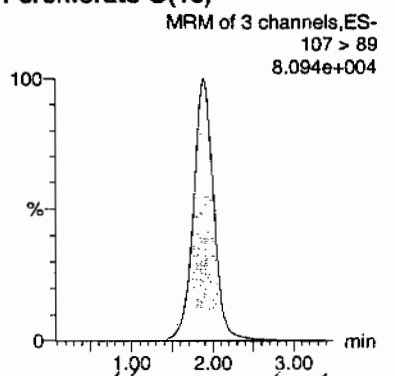

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245981001	Perchlorate	99 > 83	1.89	63.794	63.794	bb			0.0011			20.850	2.32
245981001	Perchlorate-101	101 > 85	1.92	27.461	27.461	bb			0.0015			5.444	
245981001	Perchlorate-O(18)	107 > 89	1.89	23383.402	23383.402	bb			0.4807	96.15	-3.85	1376.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1514-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 59530.66

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1514-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 18771.12

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Compound name: Perchlorate
Response Factor: 59530.6
RRF SD: 1393.77, % Relative SD: 2.34126
Response type: External Std, Area
Curve type: RF

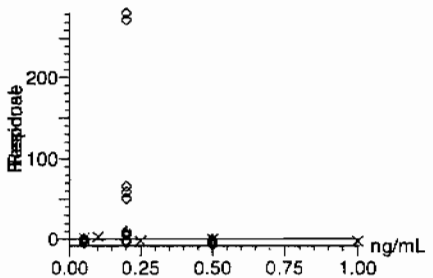

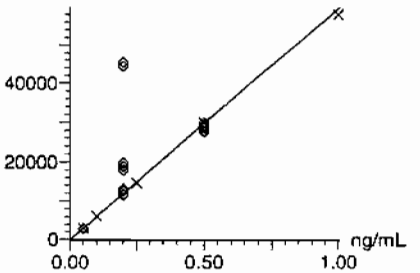

CWW
02-09-10

Compound name: Perchlorate-101
Response Factor: 18771.1
RRF SD: 687.466, % Relative SD: 3.66236
Response type: External Std, Area
Curve type: RF

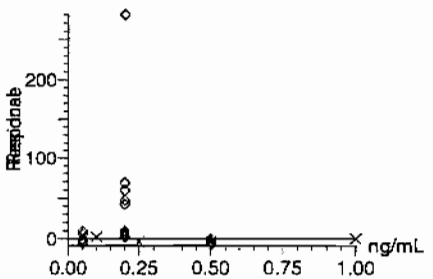

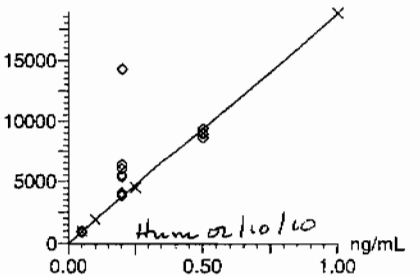

Hum 02/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 48640
RRF SD: 647.782, % Relative SD: 1.33179
Response type: External Std, Area
Curve type: RF

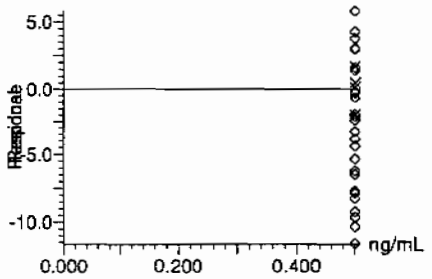

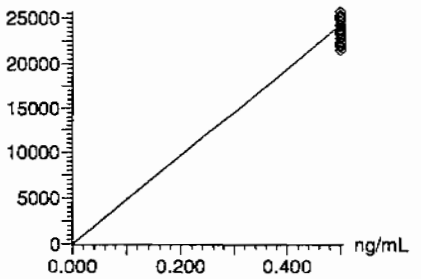

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1514–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	100.59	08–FEB–10 14:46	per0208009a
Perchlorate Isotope Ratio		3.19		08–FEB–10 14:46	per0208009a
Perchlorate–101	.5	.5	99.88	08–FEB–10 14:46	per0208009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208009a
Date: 08-Feb-2010
Time: 14:46:32
ID: WCL100128-06ICV
Vial: 1:2,A

Paro
CMO
02-09-10

Perchlorate

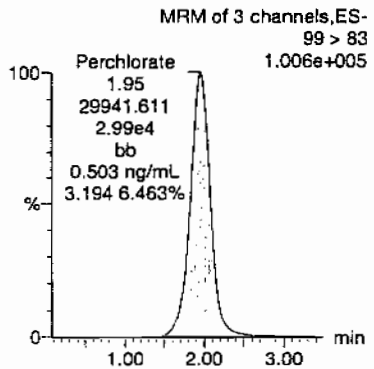

Perchlorate

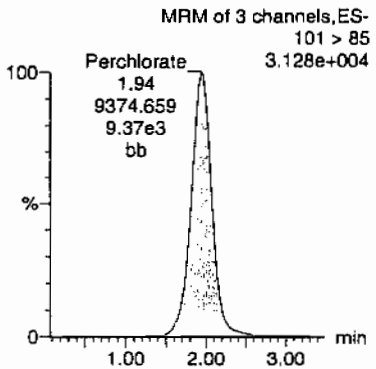

Perchlorate-101

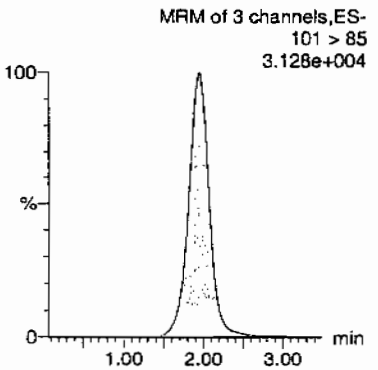

Perchlorate-O(18)

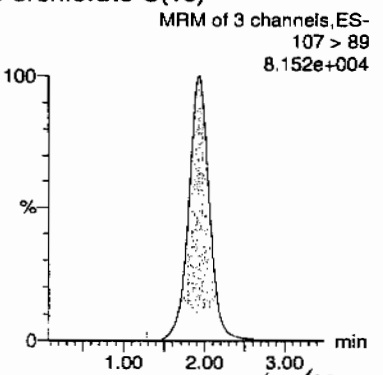

Have on file

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	1.95	29941.611	29941.611	bb			0.5030	100.59	0.59	5446.9...	3.19
WCL100128-06ICV	Perchlorate-101	101 > 85	1.94	9374.659	9374.659	bb			0.4994	99.88	-0.12	264.354	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	1.93	24277.504	24277.504	bb			0.4991	99.83	-0.17	3258.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1514-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.49	08-FEB-10 16:05	per0208021a
Perchlorate Isotope Ratio		3.13		08-FEB-10 16:05	per0208021a
Perchlorate-101	.5	.5	99.83	08-FEB-10 16:05	per0208021a
Perchlorate	.5	.49	97.32	08-FEB-10 17:30	per0208034a
Perchlorate Isotope Ratio		3.24		08-FEB-10 17:30	per0208034a
Perchlorate-101	.5	.48	95.26	08-FEB-10 17:30	per0208034a
Perchlorate	.5	.48	95.6	08-FEB-10 18:55	per0208047a
Perchlorate Isotope Ratio		3.13		08-FEB-10 18:55	per0208047a
Perchlorate-101	.5	.49	97	08-FEB-10 18:55	per0208047a
Perchlorate	.5	.47	93.45	08-FEB-10 20:20	per0208060a
Perchlorate Isotope Ratio		3.05		08-FEB-10 20:20	per0208060a
Perchlorate-101	.5	.49	97.09	08-FEB-10 20:20	per0208060a
Perchlorate	.5	.48	96.67	08-FEB-10 21:45	per0208073a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1514-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.22		08-FEB-10 21:45	per0208073a
Perchlorate-101	.5	.48	95.12	08-FEB-10 21:45	per0208073a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208021a
Date: 08-Feb-2010
Time: 16:05:12
ID: WCL100128-06CCV
Vial: 1:2,A

Pwb
CWW
02-09-10

Perchlorate

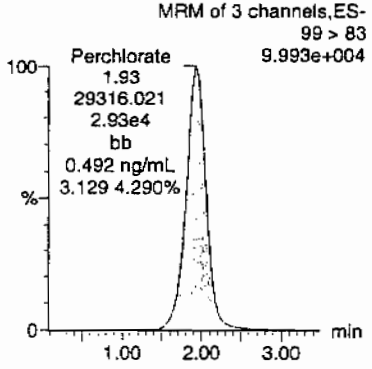

Perchlorate

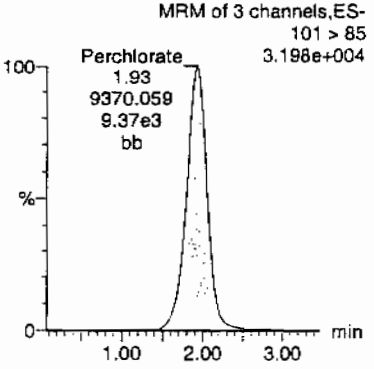

Perchlorate-101

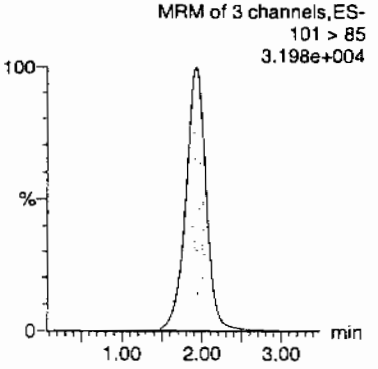

Perchlorate-O(18)

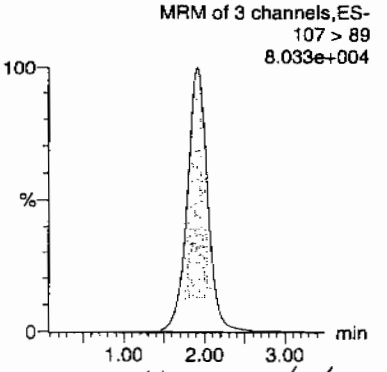

Hung on/iolic

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.93	29316.021	29316.021	bb			0.4925	98.49	-1.51	1324.3...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.93	9370.059	9370.059	bb			0.4992	99.83	-0.17	4157.5...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.92	23385.551	23385.551	bb			0.4808	96.16	-3.84	3253.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208034a
Date: 08-Feb-2010
Time: 17:30:17
ID: WCL100128-06CCV
Vial: 1:2,A

Pwo
cwo
02-09-10

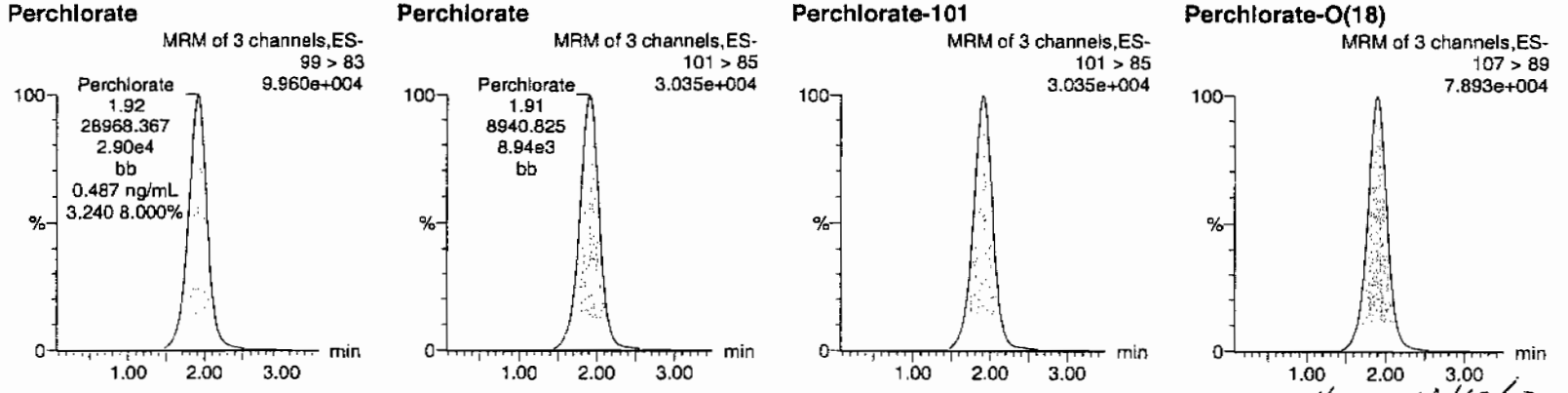

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.92	28968.367	28968.367	bb			0.4866	97.32	-2.68	7606.4...	3.24
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8940.825	8940.825	bb			0.4763	95.26	-4.74	3381.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.91	23019.350	23019.350	bb			0.4733	94.65	-5.35	4411.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208047a
Date: 08-Feb-2010
Time: 18:55:25
ID: WCL100128-06CCV
Vial: 1:2,A

Rso
aw
02-09-10

Perchlorate

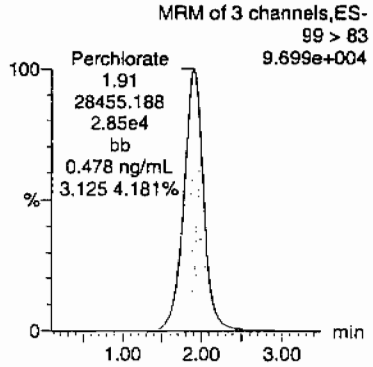

Perchlorate

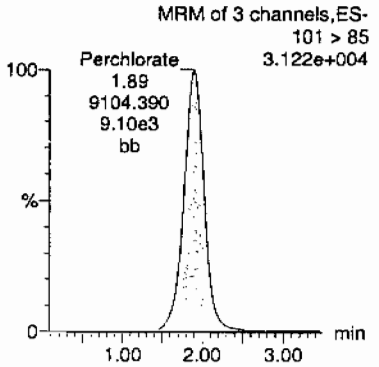

Perchlorate-101

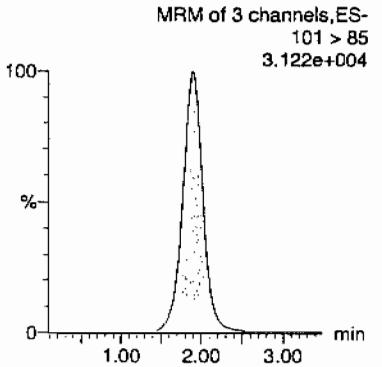

Perchlorate-O(18)

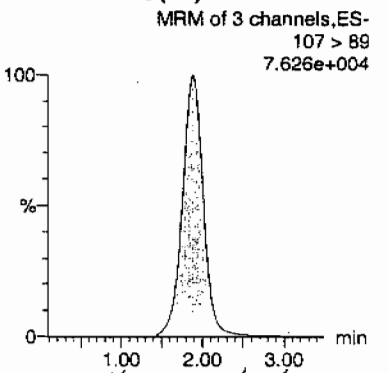

Hmm a little

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28455.188	28455.188	bb			0.4780	95.60	-4.40	6190.9...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9104.390	9104.390	bb			0.4850	97.00	-3.00	681.071	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22404.150	22404.150	bb			0.4606	92.12	-7.88	2959.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208060a
Date: 08-Feb-2010
Time: 20:20:32
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
and
02-25-10

Perchlorate

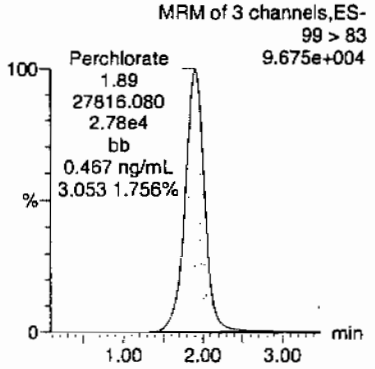

Perchlorate

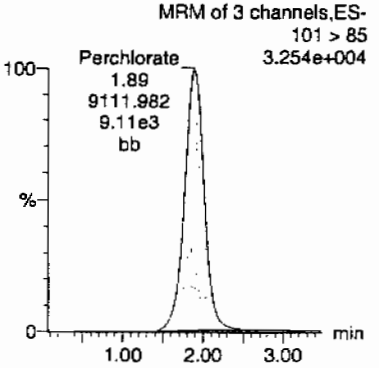

Perchlorate-101

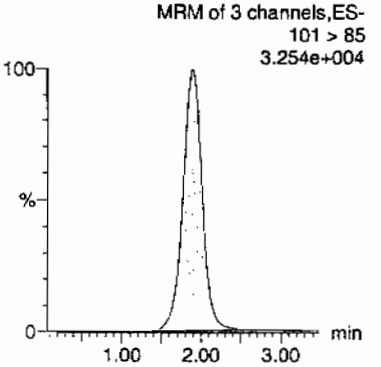

Perchlorate-O(18)

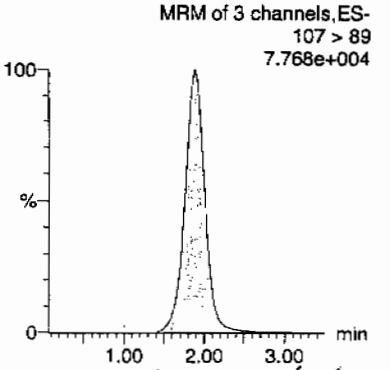

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	27816.080	27816.080	bb			0.4673	93.45	-6.55	1799.5...	3.05
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9111.982	9111.982	bb			0.4854	97.09	-2.91	1434.4...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22435.383	22435.383	bb			0.4613	92.25	-7.75	1805.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208073a
Date: 08-Feb-2010
Time: 21:45:55
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-09-10

Perchlorate

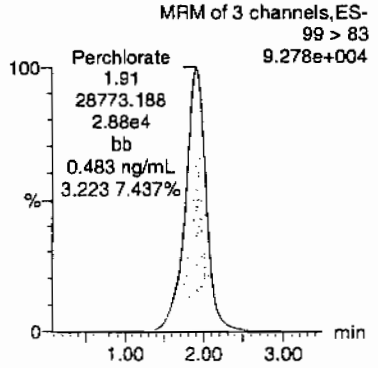

Perchlorate

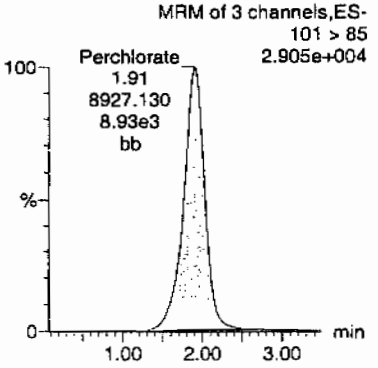

Perchlorate-101

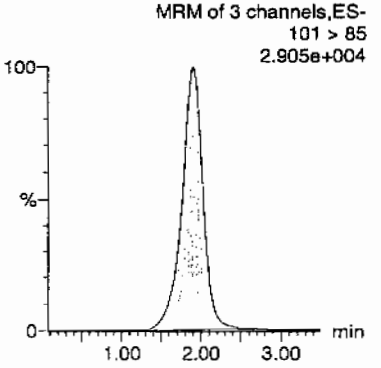

Perchlorate-O(18)

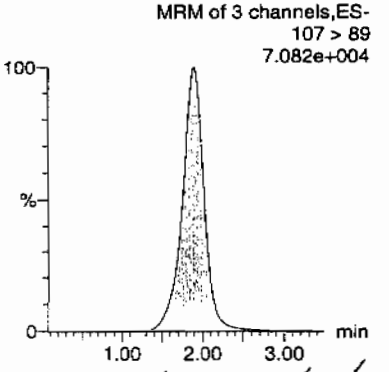

Hrw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28773.188	28773.188	bb			0.4833	96.67	-3.33	3174.1...	3.22
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8927.130	8927.130	bb			0.4756	95.12	-4.88	5417.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22077.664	22077.664	bb			0.4539	90.78	-9.22	7805.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1514-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.73	08-FEB-10 14:59	per0208011a
Perchlorate Isotope Ratio		2.96		08-FEB-10 14:59	per0208011a
Perchlorate-101	.05	.05	109.1	08-FEB-10 14:59	per0208011a
Perchlorate	.05	.05	100.29	08-FEB-10 16:18	per0208023a
Perchlorate Isotope Ratio		3.21		08-FEB-10 16:18	per0208023a
Perchlorate-101	.05	.05	98.94	08-FEB-10 16:18	per0208023a
Perchlorate	.05	.05	101.53	08-FEB-10 17:43	per0208036a
Perchlorate Isotope Ratio		3.05		08-FEB-10 17:43	per0208036a
Perchlorate-101	.05	.05	105.49	08-FEB-10 17:43	per0208036a
Perchlorate	.05	.05	101.45	08-FEB-10 19:08	per0208049a
Perchlorate Isotope Ratio		3.36		08-FEB-10 19:08	per0208049a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1514-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	95.78	08-FEB-10 19:08	per0208049a
Perchlorate	.05	.05	97.2	08-FEB-10 20:33	per0208062a
Perchlorate Isotope Ratio		3.14		08-FEB-10 20:33	per0208062a
Perchlorate-101	.05	.05	98.24	08-FEB-10 20:33	per0208062a
Perchlorate	.05	.05	99.1	08-FEB-10 21:59	per0208075a
Perchlorate Isotope Ratio		3.16		08-FEB-10 21:59	per0208075a
Perchlorate-101	.05	.05	99.59	08-FEB-10 21:59	per0208075a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208011a
Date: 08-Feb-2010
Time: 14:59:36
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
CWW
02-09-10

Perchlorate

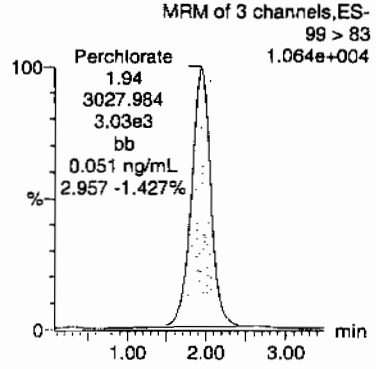

Perchlorate

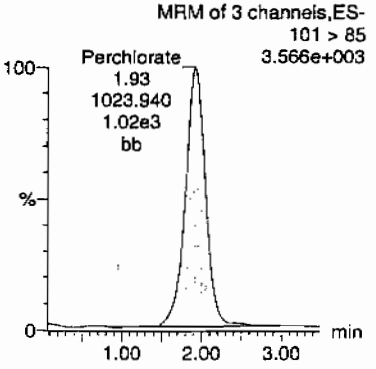

Perchlorate-101

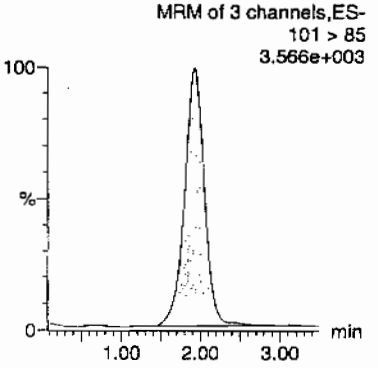

Perchlorate-O(18)

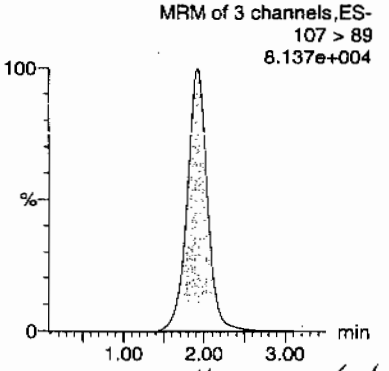

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.94	3027.984	3027.984	bb			0.0509	101.73	1.73	849.198	2.96
WCL100128-07CRI	Perchlorate-101	101 > 85	1.93	1023.940	1023.940	bb			0.0545	109.10	9.10	829.276	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.92	23852.451	23852.451	bb			0.4904	98.08	-1.92	6658.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208023a
Date: 08-Feb-2010
Time: 16:18:17
ID: WCL100128-07CRI
Vial: 1:2,B

Pwm
02-09-10

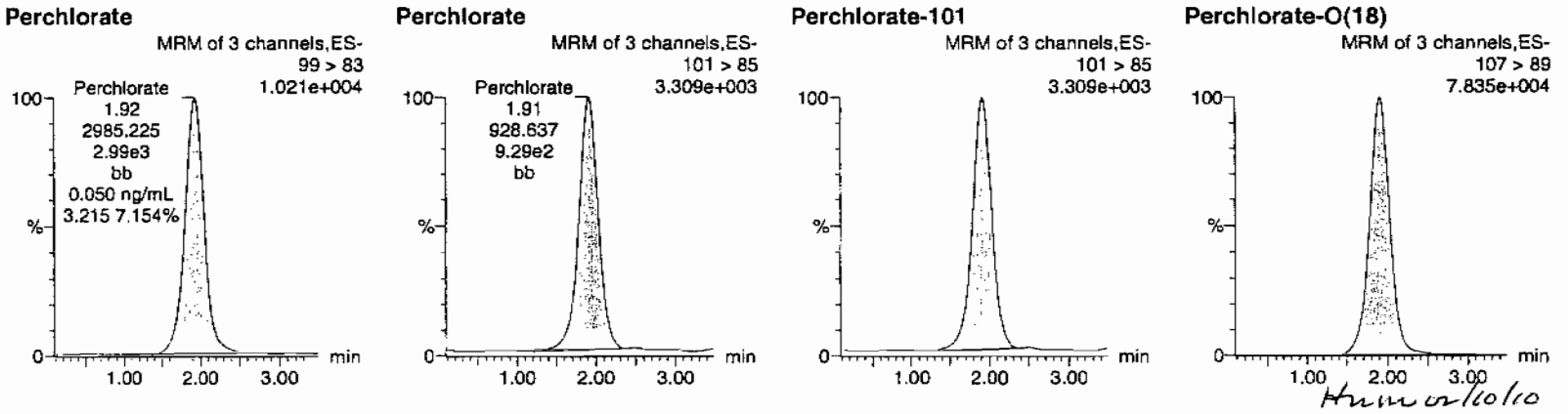

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.92	2985.225	2985.225	bb			0.0501	100.29	0.29	2277.7...	3.21
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	928.637	928.637	bb			0.0495	98.94	-1.06	1285.2...	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.91	22805.957	22805.957	bb			0.4689	93.77	-6.23	2391.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208036a
Date: 08-Feb-2010
Time: 17:43:22
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
ow
02-09-10

Perchlorate

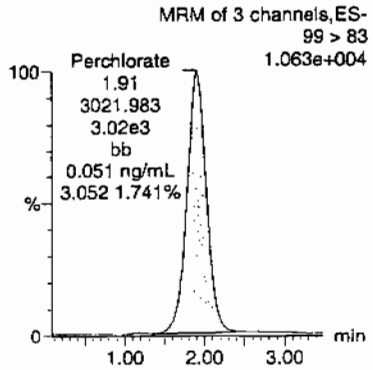

Perchlorate

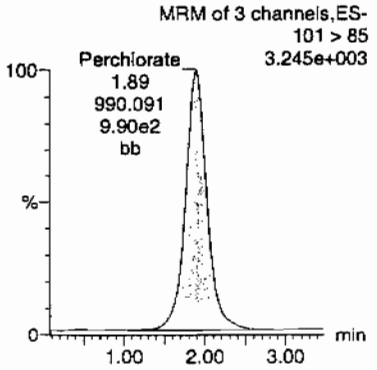

Perchlorate-101

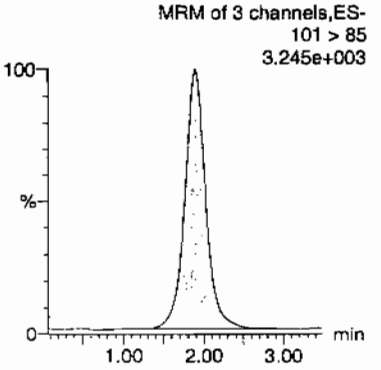

Perchlorate-O(18)

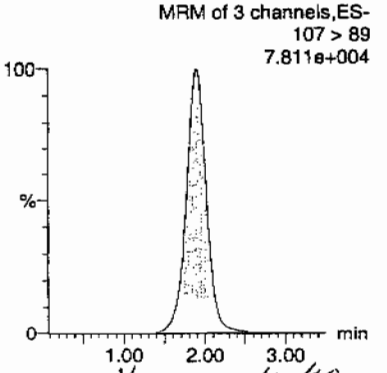

Hum or Holo

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3021.983	3021.983	bb			0.0508	101.53	1.53	1282.6...	3.05
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	990.091	990.091	bb			0.0527	105.49	5.49	30.390	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22734.426	22734.426	bb			0.4674	93.48	-6.52	4696.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208049a
Date: 08-Feb-2010
Time: 19:08:31
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
CWW
02-09-10

Perchlorate

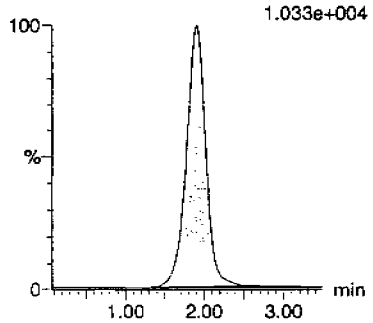

Perchlorate

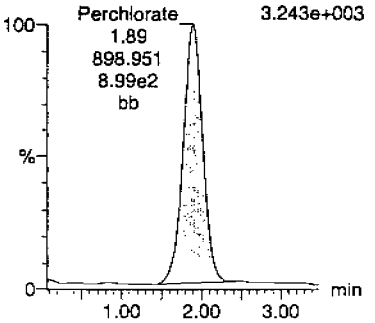

Perchlorate-101

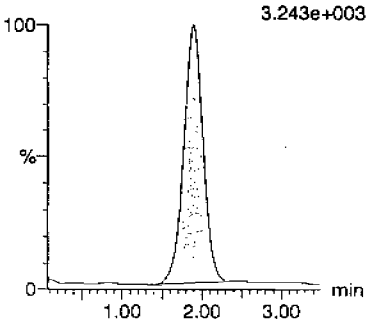

Perchlorate-O(18)

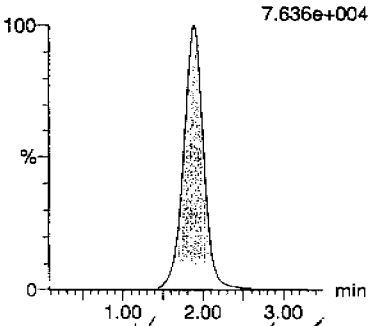

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3019.704	3019.704	bb			0.0507	101.45	1.45	1111.1...	3.36
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	898.951	898.951	bb			0.0479	95.78	-4.22	607.346	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22316.896	22316.896	bb			0.4588	91.76	-8.24	6290.4...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208062a
Date: 08-Feb-2010
Time: 20:33:51
ID: WCL100128-07CRI
Vial: 1:2,B

Pwo
02-09-10

Perchlorate

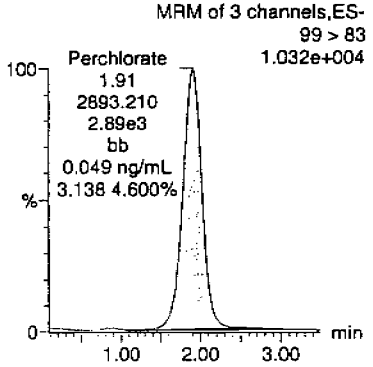

Perchlorate

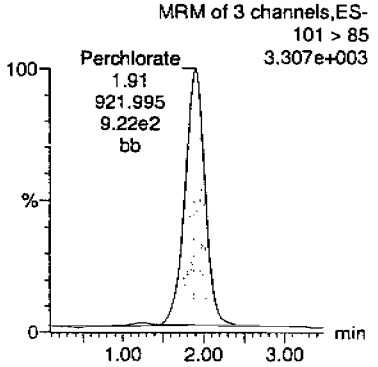

Perchlorate-101

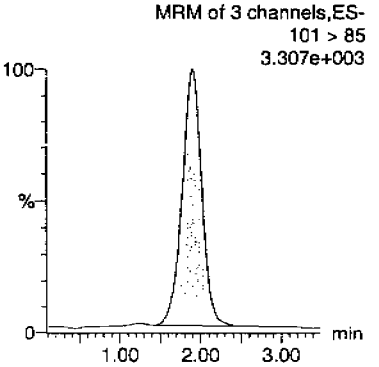

Perchlorate-O(18)

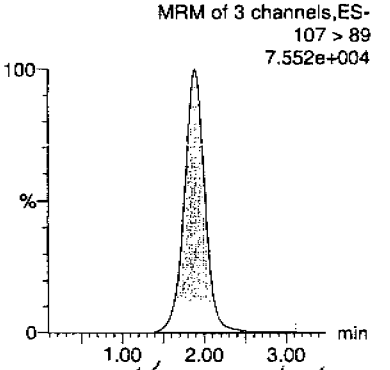

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	2893.210	2893.210	bb			0.0486	97.20	-2.80	767.866	3.14
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	921.995	921.995	bb			0.0491	98.24	-1.76	510.313	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	21979.691	21979.691	bb			0.4519	90.38	-9.62	1938.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qid

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208075a
Date: 08-Feb-2010
Time: 21:59:15
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02-5-10

Perchlorate

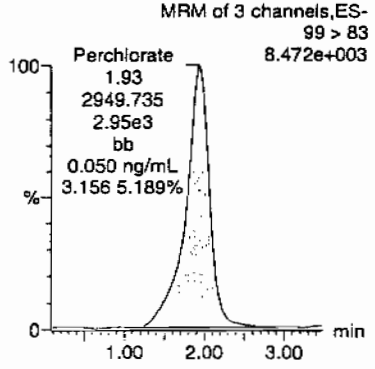

Perchlorate

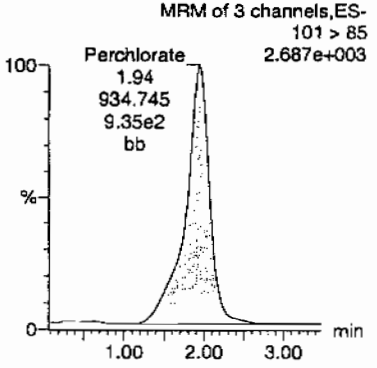

Perchlorate-101

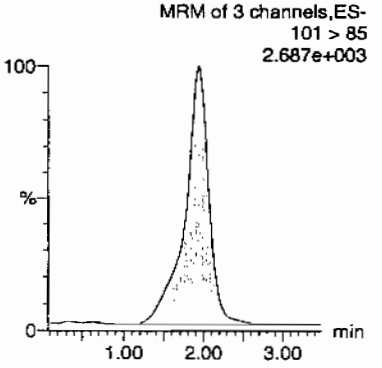

Perchlorate-O(18)

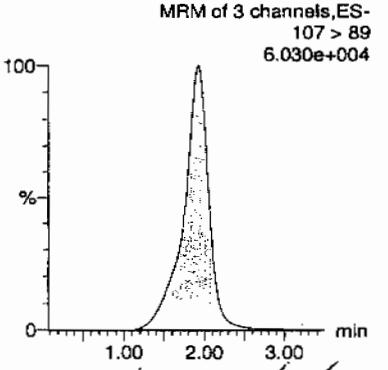

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.93	2949.735	2949.735	bb			0.0495	99.10	-0.90	555.102	3.16
WCL100128-07CRI	Perchlorate-101	101 > 85	1.94	934.745	934.745	bb			0.0498	99.59	-0.41	523.923	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.93	21809.545	21809.545	bb			0.4484	89.68	-10.32	1949.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1514-1

GEL Sample ID: 1202035565

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate Isotope Ratio						1	08-FEB-10 19:15	per0208050a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate-O(18)			0.457	ug/L		1	08-FEB-10 19:15	per0208050a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208050a
Date: 08-Feb-2010
Time: 19:15:05
ID: 1202035565
Vial: 2:1,A

LANL | 950028 | LCQ | MB | 1 |

CWJ 02-09-10

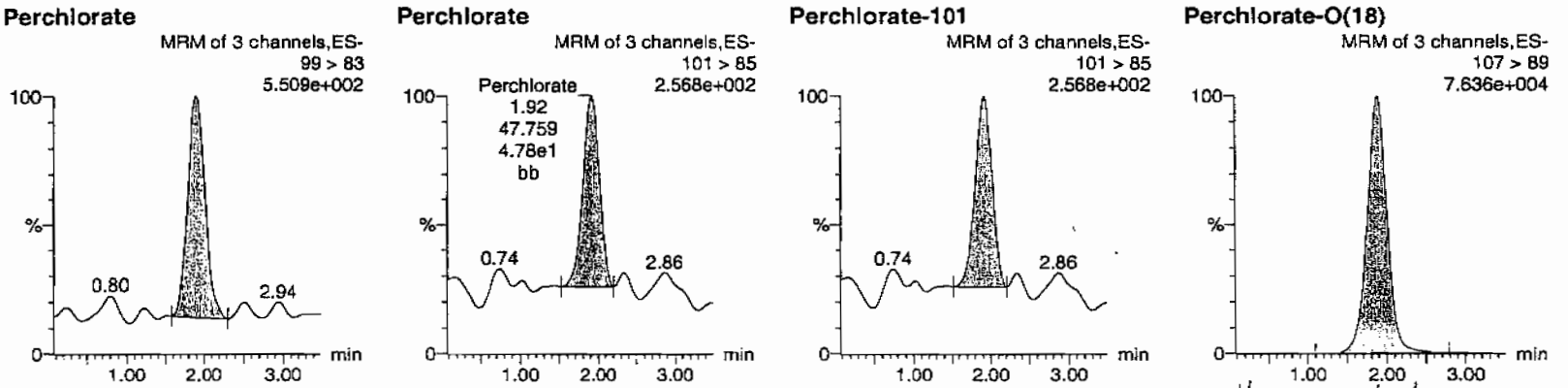

HWW 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035565	Perchlorate	99 > 83	1.89	121.925	121.925	bb			0.0020			39.295	2.55
1202035565	Perchlorate-101	101 > 85	1.92	47.759	47.759	bb			0.0025			14.790	
1202035565	Perchlorate-O(18)	107 > 89	1.88	22209.346	22209.346	bb			0.4566	91.32	-8.68	5376.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1514-1

GEL Sample ID: 1202035566

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	08-FEB-10 19:21	per0208051a
	Perchlorate Isotope Ratio			3.01			1	08-FEB-10 19:21	per0208051a
14797-73-0	Perchlorate-101	.05	.2	0.207	ug/L		1	08-FEB-10 19:21	per0208051a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 19:21	per0208051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208051a
Date: 08-Feb-2010
Time: 19:21:48
ID: 1202035566
Vial: 2:1,B

|LANL|950028|L22|L63|11|

AW
02-09-10

Perchlorate

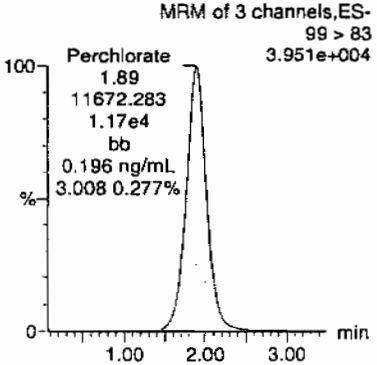

Perchlorate

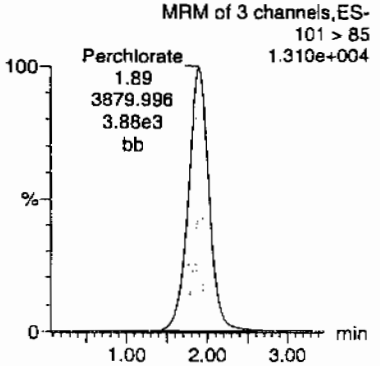

Perchlorate-101

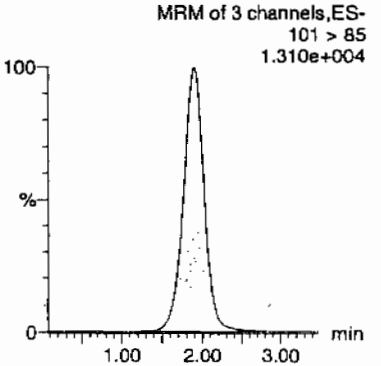

Perchlorate-O(18)

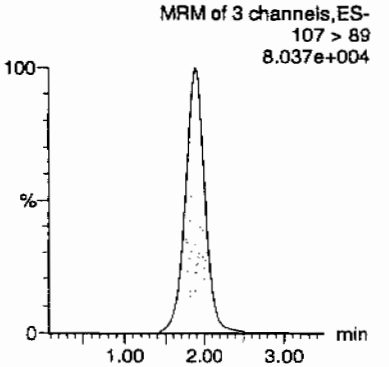

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035566	Perchlorate	99 > 83	1.89	11672.283	11672.283	bb			0.1961	98.04	-1.96	1706.5...	3.01
1202035566	Perchlorate-101	101 > 85	1.89	3879.996	3879.996	bb			0.2067	103.35	3.35	835.288	
1202035566	Perchlorate-O(18)	107 > 89	1.88	23514.770	23514.770	bb			0.4834	96.69	-3.31	6317.6...	

$$\frac{11672.283}{59530.6} = 0.1961$$

AMW 02/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950027 **Verified by:** _____

Analyst: Charles Wilson

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202035565 MB	07-FEB-2010 14:31:00	10	10	1
1202035566 LCS	07-FEB-2010 14:31:00	10	10	1
245911001	07-FEB-2010 14:31:00	10	10	1
1202035571 MS (245911001)	07-FEB-2010 14:31:00	10	10	1
1202035572 MSD (245911001)	07-FEB-2010 14:31:00	10	10	1
245922001	07-FEB-2010 14:31:00	10	10	1
245934001	07-FEB-2010 14:31:00	10	10	1
245934004	07-FEB-2010 14:31:00	10	10	1
245939001	07-FEB-2010 14:31:00	10	10	1
245939002	07-FEB-2010 14:31:00	10	10	1
245953001	07-FEB-2010 14:31:00	10	10	1
245965001	07-FEB-2010 14:31:00	10	10	1
245975001	07-FEB-2010 14:31:00	10	10	1
245981001	07-FEB-2010 14:31:00	10	10	1
246000001	07-FEB-2010 14:31:00	10	10	1
246007001	07-FEB-2010 14:31:00	10	10	1
246056001	07-FEB-2010 14:31:00	10	10	1
246056002	07-FEB-2010 14:31:00	10	10	1
246056003	07-FEB-2010 14:31:00	10	10	1
246056004	07-FEB-2010 14:31:00	10	10	1
246375001	07-FEB-2010 14:31:00	10	10	1
1202035567 MS (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035568 MSD (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035573 ICS	07-FEB-2010 14:31:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035573	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
LCS	1202035566	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035567	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035571	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035568	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035572	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL

Comments:

Desalting cartridges used: 100105-1-H & 091118-1-Ba

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/08/10
Extr. Injection Volume: 20uL
Sequence Number: per020810a
Initial Calibration Date: 02/08/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: Anne
Date: 02/10/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0208001a	IPB001	CWW	2/8/2010 13:54			1		USE	B
per0208002a	IPB001	CWW	2/8/2010 14:00			1		USE	B
per0208003a	WCLICAL-01	CWW	2/8/2010 14:07			1		USE	I
per0208004a	WCLICAL-02	CWW	2/8/2010 14:13			1		USE	I
per0208005a	WCLICAL-03	CWW	2/8/2010 14:20			1		USE	I
per0208006a	WCLICAL-04	CWW	2/8/2010 14:26			1		USE	I
per0208007a	WCLICAL-05	CWW	2/8/2010 14:33			1		USE	I
per0208008a	IPB002	CWW	2/8/2010 14:40			1		USE	B
per0208009a	WCLICV	CWW	2/8/2010 14:46			1		USE	C
per0208010a	IPB003	CWW	2/8/2010 14:53			1		USE	B
per0208011a	WCLCRI	CWW	2/8/2010 14:59			1		USE	C
per0208012a	1202035621	CWW	2/8/2010 15:06	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208013a	1202035622	CWW	2/8/2010 15:12	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208014a	1202035625	CWW	2/8/2010 15:19	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208015a	246431001	CWW	2/8/2010 15:25	950048	10-1650	1	LANL	DUSE-RE	S
per0208016a	1202035623	CWW	2/8/2010 15:32	950048	10-1650	1	LANL	DUSE-RE	S
per0208017a	1202035624	CWW	2/8/2010 15:39	950048	10-1650	1	LANL	DUSE-RE	S
per0208018a	246431002	CWW	2/8/2010 15:45	950048	10-1650	1	LANL	DUSE-RE	S
per0208019a	246431003	CWW	2/8/2010 15:52	950048	10-1650	1	LANL	DUSE-RE	S
per0208020a	246431004	CWW	2/8/2010 15:58	950048	10-1650	1	LANL	DUSE-RE	S
per0208021a	WCLCCV	CWW	2/8/2010 16:05			1		USE	C
per0208022a	IPB004	CWW	2/8/2010 16:11			1		USE	B
per0208023a	WCLCRI	CWW	2/8/2010 16:18			1		USE	C
per0208024a	246472001	CWW	2/8/2010 16:24	950048	10-1640	1	LANL	DUSE-RE	S
per0208025a	246472002	CWW	2/8/2010 16:31	950048	10-1640	1	LANL	DUSE-RE	S
per0208026a	IPB005	CWW	2/8/2010 16:37			1		USE	B
per0208027a	1202029082	CWW	2/8/2010 16:44	947249	VARIOUS	1	LANL	USE	S
per0208028a	1202029083	CWW	2/8/2010 16:51	947249	VARIOUS	1	LANL	USE	S
per0208029a	1202029088	CWW	2/8/2010 16:57	947249	VARIOUS	1	LANL	USE	S

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per0208030a	245605003	CWW	2/8/2010 17:04	947249	10-1413	200	LANL	USE	S
per0208031a	245608002	CWW	2/8/2010 17:10	947249	10-1415	1	LANL	USE	S
per0208032a	245673001	CWW	2/8/2010 17:17	947249	10-1442	100	LANL	USE	S
per0208033a	245673003	CWW	2/8/2010 17:23	947249	10-1442	200	LANL	USE	S
per0208034a	WCLCCV	CWW	2/8/2010 17:30			1		USE	C
per0208035a	IPB006	CWW	2/8/2010 17:36			1		USE	B
per0208036a	WCLCRI	CWW	2/8/2010 17:43			1		USE	C
per0208037a	245673006	CWW	2/8/2010 17:49	947249	10-1442	200	LANL	USE	S
per0208038a	245676001	CWW	2/8/2010 17:56	947249	10-1446	1	LANL	USE	S
per0208039a	1202029086	CWW	2/8/2010 18:03	947249	10-1446	1	LANL	USE	S
per0208040a	1202029087	CWW	2/8/2010 18:09	947249	10-1446	1	LANL	USE	S
per0208041a	245791001	CWW	2/8/2010 18:16	947249	10-1467	1	LANL	USE	S
per0208042a	1202029084	CWW	2/8/2010 18:22	947249	10-1467	1	LANL	USE	S
per0208043a	1202029085	CWW	2/8/2010 18:29	947249	10-1467	1	LANL	USE	S
per0208044a	245791003	CWW	2/8/2010 18:35	947249	10-1467	1	LANL	USE	S
per0208045a	245791006	CWW	2/8/2010 18:42	947249	10-1467	1	LANL	USE	S
per0208046a	245791007	CWW	2/8/2010 18:48	947249	10-1467	1	LANL	USE	S
per0208047a	WCLCCV	CWW	2/8/2010 18:55			1		USE	C
per0208048a	IPB007	CWW	2/8/2010 19:01			1		USE	B
per0208049a	WCLCRI	CWW	2/8/2010 19:08			1		USE	C
per0208050a	1202035565	CWW	2/8/2010 19:15	950028	VARIOUS	1	LANL	USE	S
per0208051a	1202035566	CWW	2/8/2010 19:21	950028	VARIOUS	1	LANL	USE	S
per0208052a	1202035573	CWW	2/8/2010 19:28	950028	VARIOUS	1	LANL	USE	S
per0208053a	245911001	CWW	2/8/2010 19:34	950028	10-1487-1	1	LANL	USE	S
per0208054a	1202035571	CWW	2/8/2010 19:41	950028	10-1487-1	1	LANL	USE	S
per0208055a	1202035572	CWW	2/8/2010 19:47	950028	10-1487-1	1	LANL	USE	S
per0208056a	245922001	CWW	2/8/2010 19:54	950028	10-1493-1	1	LANL	USE	S
per0208057a	245934001	CWW	2/8/2010 20:00	950028	10-1502	1	LANL	DUSE-DL	S
per0208058a	245934004	CWW	2/8/2010 20:07	950028	10-1502	1	LANL	DUSE-RA	S
per0208059a	245939001	CWW	2/8/2010 20:14	950028	10-1506-1	1	LANL	USE	S
per0208060a	WCLCCV	CWW	2/8/2010 20:20			1		USE	C
per0208061a	IPB008	CWW	2/8/2010 20:27			1		USE	B
per0208062a	WCLCRI	CWW	2/8/2010 20:33			1		USE	C
per0208063a	245939002	CWW	2/8/2010 20:40	950028	10-1506-1	1	LANL	USE	S
per0208064a	245953001	CWW	2/8/2010 20:47	950028	10-1508-1	1	LANL	USE	S
per0208065a	245965001	CWW	2/8/2010 20:53	950028	10-1511-1	1	LANL	USE	S
per0208066a	245975001	CWW	2/8/2010 21:00	950028	10-1512-1	1	LANL	USE	S

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per0208067a	245981001	CWW	2/8/2010 21:06	950028	10-1514-1	1	LANL	USE	S
per0208068a	246000001	CWW	2/8/2010 21:13	950028	10-1517-1	1	LANL	USE	S
per0208069a	246007001	CWW	2/8/2010 21:19	950028	10-1520-1	1	LANL	USE	S
per0208070a	246056001	CWW	2/8/2010 21:26	950028	10-1545-1	1	LANL	USE	S
per0208071a	246056002	CWW	2/8/2010 21:32	950028	10-1545-1	1	LANL	USE	S
per0208072a	246056003	CWW	2/8/2010 21:39	950028	10-1545-1	1	LANL	USE	S
per0208073a	WCLCCV	CWW	2/8/2010 21:45			1		USE	C
per0208074a	IPB009	CWW	2/8/2010 21:52			1		USE	B
per0208075a	WCLCRI	CWW	2/8/2010 21:59			1		USE	C
per0208076a	246056004	CWW	2/8/2010 22:05	950028	10-1545-1	1	LANL	USE	S
per0208077a	246375001	CWW	2/8/2010 22:12	950028	10-1609	1	LANL	USE	S
per0208078a	1202035567	CWW	2/8/2010 22:19	950028	10-1609	1	LANL	USE	S
per0208079a	1202035568	CWW	2/8/2010 22:25	950028	10-1609	1	LANL	USE	S
per0208080a	IPB010	CWW	2/8/2010 22:32			1		USE	B
per0208081a	1262643 Supp	CWW	2/8/2010 22:38	Screen	Inhouse	1	GEL	DUSE	S
per0208082a	1202035625	CWW	2/8/2010 22:45	950048	VARIOUS	1	LANL	DUSE	S
per0208083a	WCLCCV	CWW	2/8/2010 22:52			1		USE	C
per0208084a	IPB011	CWW	2/8/2010 22:58			1		USE	B
per0208085a	WCLCRI	CWW	2/8/2010 23:05			1		USE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208054a
Date: 08-Feb-2010
Time: 19:41:23
ID: 1202035571 |LANL|950028|LZQ|MS|1|
Vial: 2:1,E

WW 02-04-10

Perchlorate

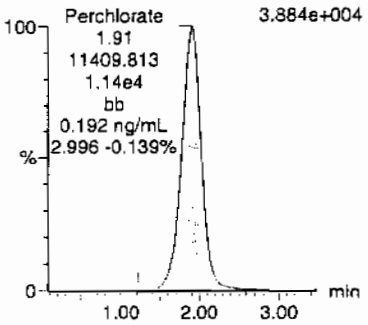

Perchlorate

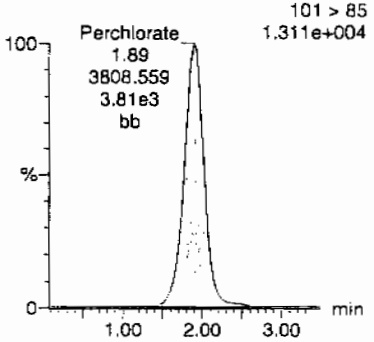

Perchlorate-101

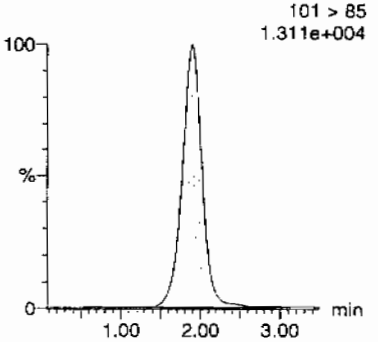

Perchlorate-O(18)

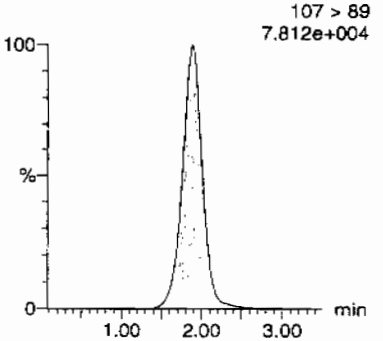

Hmc 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202035571	Perchlorate	99 > 83	1.91	11409.813	11409.813	bb			0.1917	95.83	-4.17	2471.6...	3.00
202035571	Perchlorate-101	101 > 85	1.89	3808.559	3808.559	bb			0.2029	101.45	1.45	676.220	
202035571	Perchlorate-O(18)	107 > 89	1.89	22745.916	22745.916	bb			0.4676	93.53	-6.47	4602.2...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208055a
Date: 08-Feb-2010
Time: 19:47:53
ID: 1202035572
Vial: 2:1,F

|LZNL|950028|LCQ|MSD|1|

CWW 02-09-10

Perchlorate

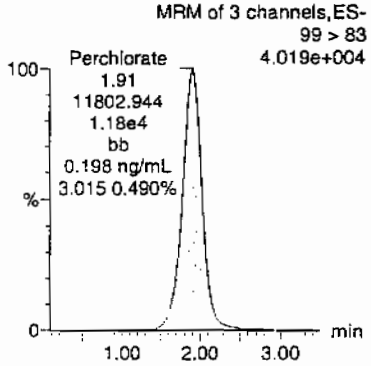

Perchlorate

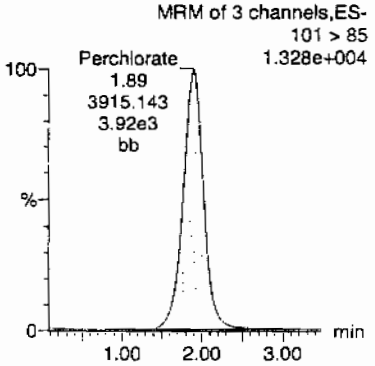

Perchlorate-101

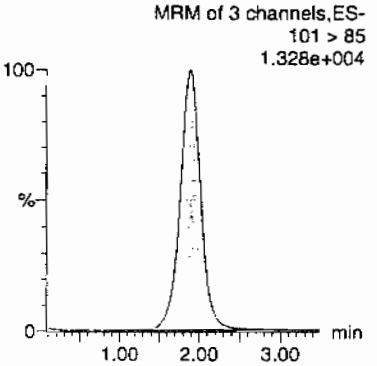

Perchlorate-O(18)

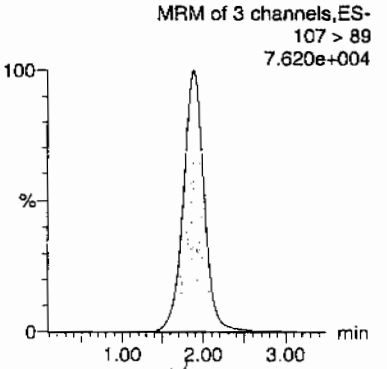

Hrm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035572	Perchlorate	99 > 83	1.91	11802.944	11802.944	bb			0.1983	99.13	-0.87	5921.1...	3.01
1202035572	Perchlorate-101	101 > 85	1.89	3915.143	3915.143	bb			0.2086	104.29	4.29	847.965	
1202035572	Perchlorate-O(18)	107 > 89	1.89	22449.852	22449.852	bb			0.4616	92.31	-7.69	7045.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1514

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	948577
Prep Batch Number:	948576

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
245979001	RE15-10-7980
245979002	RE15-10-7958
245979003	RE15-10-7960
245979004	RE15-10-7979
245979005	RE15-10-7972
245979006	RE15-10-7957
245979007	RE15-10-7974
245979008	RE15-10-7961
245979009	RE15-10-7971
245979010	RE15-10-7966
245979011	RE15-10-7959
245979012	RE15-10-7969
245979013	RE15-10-8061

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245979014	RE15-10-8063
245979015	RE15-10-8062
1202032105	Method Blank (MB)
1202032106	Laboratory Control Sample (LCS)
1202032107	245979001(RE15-10-7980) Matrix Spike (MS)
1202032108	245979001(RE15-10-7980) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered Tetryl at 44.7% with recovery limits of 51-112%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 799292.

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QC Sample Designation
Sample 245979001 (RE15-10-7980) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. Sample 245979012 (RE15-10-7969) was further diluted to bring the over range concentration within the calibration range. The final dilution in each case takes the 1:1 v/v dilution into account.

Sample Re-extraction/Re-analysis
Sample 245979015 (RE15-10-8062) failed ISTD acceptance criteria. The sample was re-analyzed and passed acceptance criteria. The re-analysis is reported.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

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Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered 2,6-Diamino-4-nitrotoluene at 141% with recovery limits of 64-122%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 799292.

QC Sample Designation
Sample 245979001 (RE15-10-7980) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recovered 2,4-Diamino-6-nitrotoluene at 136% with recovery limits of 34-135% and recovered 2,6-Diamino-4-nitrotoluene at 135% with recovery limits of 55-130%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 799292.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

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Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 799292 was generated for this SDG.

The LCS recovered Tetryl at 44.7% with recovery limits of 51-112%. The LCS recovered 2,6-Diamino-4-nitrotoluene at 141% with recovery limits of 64-122%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported.

The MS recovered 2,4-Diamino-6-nitrotoluene at 136% with recovery limits of 34-135% and recovered 2,6-Diamino-4-nitrotoluene at 135% with recovery limits of 55-130%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

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Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Mauer **Date:** 03/05/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979001

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301048a

Date Analyzed: 02-MAR-10 14:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979001

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220046.wiff

Date Analyzed: 23-FEB-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7958

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979002

Sample Amount 2

Moisture: 19.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301051a

Date Analyzed: 02-MAR-10 16:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7958

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979002

Sample Amount 2

Moisture: 19.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220049.wiff

Date Analyzed: 23-FEB-10 05:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7960

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979003

Sample Amount 2

Moisture: 6.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301052a

Date Analyzed: 02-MAR-10 16:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7960

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979003

Sample Amount 2

Moisture: 6.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240014.wiff

Date Analyzed: 24-FEB-10 13:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7979

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979004

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301053a

Date Analyzed: 02-MAR-10 17:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7979

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979004

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240015.wiff

Date Analyzed: 24-FEB-10 13:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7972

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979005

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301054a

Date Analyzed: 02-MAR-10 17:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7972

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979005

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240016.wiff

Date Analyzed: 24-FEB-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7957

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979006

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301055a

Date Analyzed: 02-MAR-10 18:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7957

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979006

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240017.wiff

Date Analyzed: 24-FEB-10 14:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7974

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979007

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301059a

Date Analyzed: 02-MAR-10 20:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7974

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979007

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240018.wiff

Date Analyzed: 24-FEB-10 14:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7961

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979008

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301060a

Date Analyzed: 02-MAR-10 20:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	263	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7961

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979008

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240019.wiff

Date Analyzed: 24-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	625	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7971

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979009

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301061a

Date Analyzed: 02-MAR-10 21:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7971

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979009

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240020.wiff

Date Analyzed: 24-FEB-10 14:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7966

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979010

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301062a

Date Analyzed: 02-MAR-10 21:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	135	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	1430	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7966

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979010

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240021.wiff

Date Analyzed: 24-FEB-10 15:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	331	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7959

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979011

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301063a

Date Analyzed: 02-MAR-10 22:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7959

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979011

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240022.wiff

Date Analyzed: 24-FEB-10 15:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301064a

Date Analyzed: 02-MAR-10 22:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	205	J
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	2160	
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 5

Injection Volume (uL): 50

GEL data file: EXP0301100a

Date Analyzed: 03-MAR-10 16:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
2691-41-0	HMX	10900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240023.wiff

Date Analyzed: 24-FEB-10 15:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	8490	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8061

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979013

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301065a

Date Analyzed: 02-MAR-10 23:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8061

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979013

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240027.wiff

Date Analyzed: 24-FEB-10 16:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8063

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979014

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301066a

Date Analyzed: 02-MAR-10 23:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8063

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979014

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240028.wiff

Date Analyzed: 24-FEB-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8062

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979015

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301099a

Date Analyzed: 03-MAR-10 15:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	217	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	2270	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8062

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979015

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240029.wiff

Date Analyzed: 24-FEB-10 17:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1514

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245979001	RE15-10-7980	101	70 – 144	
245979001	RE15-10-7980	138	70 – 144	
245979002	RE15-10-7958	106	70 – 144	
245979002	RE15-10-7958	126	70 – 144	
245979003	RE15-10-7960	91.3	70 – 144	
245979003	RE15-10-7960	124	70 – 144	
245979004	RE15-10-7979	101	70 – 144	
245979004	RE15-10-7979	125	70 – 144	
245979005	RE15-10-7972	120	70 – 144	
245979005	RE15-10-7972	126	70 – 144	
245979006	RE15-10-7957	104	70 – 144	
245979006	RE15-10-7957	126	70 – 144	
245979007	RE15-10-7974	114	70 – 144	
245979007	RE15-10-7974	126	70 – 144	
245979008	RE15-10-7961	105	70 – 144	
245979008	RE15-10-7961	119	70 – 144	
245979009	RE15-10-7971	104	70 – 144	
245979009	RE15-10-7971	124	70 – 144	
245979010	RE15-10-7966	104	70 – 144	
245979010	RE15-10-7966	129	70 – 144	
245979011	RE15-10-7959	112	70 – 144	
245979011	RE15-10-7959	126	70 – 144	
245979012	RE15-10-7969	93.5	70 – 144	
245979012	RE15-10-7969	133	70 – 144	
245979012	RE15-10-7969	102	70 – 144	
245979013	RE15-10-8061	103	70 – 144	
245979013	RE15-10-8061	130	70 – 144	
245979014	RE15-10-8063	100	70 – 144	
245979014	RE15-10-8063	126	70 – 144	
245979015	RE15-10-8062	106	70 – 144	
245979015	RE15-10-8062	134	70 – 144	
1202032105	MB for batch 948576	92.7	70 – 144	
1202032105	MB for batch 948576	128	70 – 144	
1202032106	LCS for batch 948576	100	70 – 144	
1202032106	LCS for batch 948576	126	70 – 144	
1202032107	RE15-10-7980(245979001MS)	104	70 – 144	
1202032107	RE15-10-7980(245979001MS)	124	70 – 144	

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1514

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
1202032108	RE15-10-7980(245979001MSD)	100	70 – 144	
1202032108	RE15-10-7980(245979001MSD)	120	70 – 144	

DNT = 3,4-Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1514

Extract Batch Code: 948576

Date Extracted: 09-FEB-10

GEL LCS ID: 1202032106

GEL LCSDUP ID:

Analysis Date/Time: 02-MAR-10 14:17

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4400	87.9								69 – 126
2,4,6-Trinitrotoluene	5000	5340	107								73 – 149
2,4-Dinitrotoluene	5000	5420	108								87 – 137
2,6-Dinitrotoluene	5000	4930	98.6								89 – 120
2-Amino-4,6-dinitrotoluene	5000	5490	110								90 – 130
4-Amino-2,6-dinitrotoluene	5000	5020	100								84 – 130
HMX	5000	4650	92.9								58 – 138
Nitrobenzene	5000	4670	93.4								71 – 122
PETN	5000	4150	83.1								64 – 137
RDX	5000	5030	101								81 – 137
Tetryl	5000	2230	44.7	*							51 – 112
m-Dinitrobenzene	5000	4750	95.1								83 – 122
m-Nitrotoluene	5000	4120	82.3								73 – 118
o-Nitrotoluene	5000	4300	86.1								72 – 119
p-Nitrotoluene	5000	4590	91.8								67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1514

Extract Batch Code: 948576

Date Extracted: 09-FEB-10

GEL LCS ID: 1202032106

GEL LCSDUP ID:

Analysis Date/Time: 23-FEB-10 04:33

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	5570	111								52 - 114
2,6-Diamino-4-nitrotoluene	5000	7050	141	*							64 - 122
3,5-Dinitroaniline	5000	5250	105								70 - 127
tris(o-cresyl) phosphate	5000	5100	102								84 - 119
TATB	7500	5650	75.3								28 - 162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7980

Lab Code: GEL

GEL Job No (SDG) 10-1514

Extract Batch Code: 948576

Date Extracted: 09-FEB-10

GEL Spike ID: 1202032107

GEL SpikeDup ID: 1202032108

Analysis Date/Time: 02-MAR-10 15:16

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,6-Dinitrotoluene	5000	0	5240	105	5120	102	2.5	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	5930	119	6090	122	2.73	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5560	111	5320	106	4.56	30	72 – 143
HMX	5000	0	4410	88.2	5430	109	20.7	30	51 – 144
Nitrobenzene	5000	0	4390	87.8	4620	92.3	5.06	30	70 – 122
2,4-Dinitrotoluene	5000	0	5400	108	5170	103	4.42	30	86 – 135
2,4,6-Trinitrotoluene	5000	0	6040	121	5600	112	7.52	30	76 – 144
1,3,5-Trinitrobenzene	5000	0	4810	96.2	4820	96.3	.09	30	50 – 140
PETN	5000	0	4680	93.6	4660	93.2	.49	30	60 – 140
RDX	5000	0	4200	83.9	5200	104	21.3	30	59 – 152
Tetryl	5000	0	3550	71	3750	75.1	5.52	30	36 – 124
m-Dinitrobenzene	5000	0	4930	98.6	4950	99	.458	30	85 – 118
m-Nitrotoluene	5000	0	4590	91.9	4060	81.2	12.3	30	70 – 120
o-Nitrotoluene	5000	0	4660	93.2	4190	83.7	10.7	30	69 – 123
p-Nitrotoluene	5000	0	5010	100	4470	89.3	11.5	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7980

Lab Code: GEL

GEL Job No (SDG) 10-1514

Extract Batch Code: 948576

Date Extracted: 09-FEB-10

GEL Spike ID: 1202032107

GEL SpikeDup ID: 1202032108

Analysis Date/Time: 23-FEB-10 05:05

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	6800	136	*	6320	126		7.32		26	34 – 135
2,6-Diamino-4-nitrotoluene	5000	0	6740	135	*	6440	129		4.55		30	55 – 130
TATB	7500	0	5150	68.7		5340	71.2		3.62		30	29 – 155
tris(o-cresyl) phosphate	5000	6.27	5100	102		5080	101		.393		30	72 – 127
3,5-Dinitroaniline	5000	0	5310	106		5230	105		1.52		30	73 – 129

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-MAR-10 15:33

GEL Data File: EXP0301001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	506.135
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	544.922

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010
Calibration: Untitled, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301001a
Date: 01-Mar-2010
Time: 15:33:10
ID: XIBLK01
Vial: 1:1,A

MMT 3/2/10

HMX

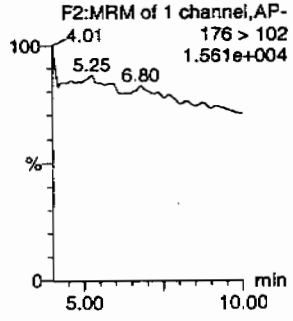

RDX

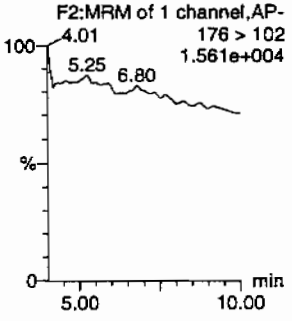

135-Trinitrobenzene

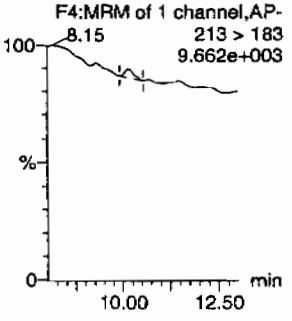

13-Dinitrobenzene-d4

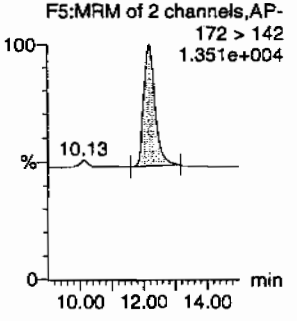

13-Dinitrobenzene

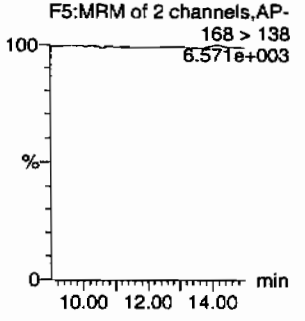

Tetryl

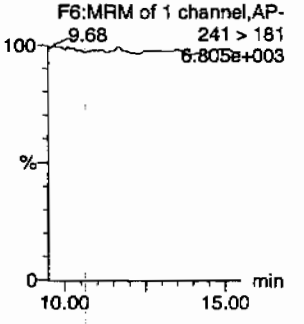

Nitrobenzene

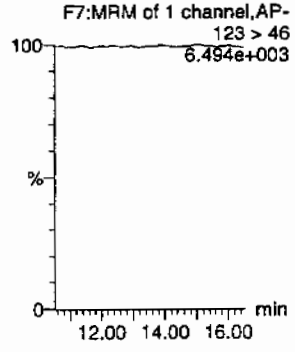

4-Amino-26-dinitrotoluene

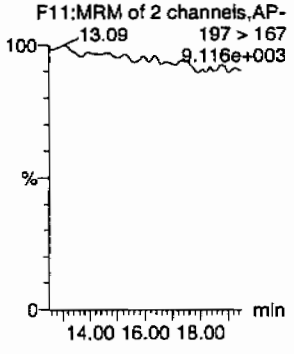

2-Amino-46-dinitrotoluene

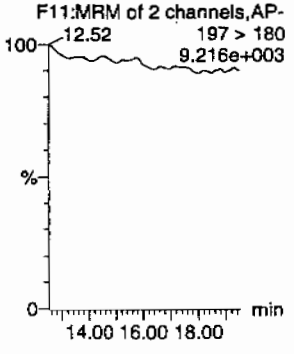

246-Trinitrotoluene

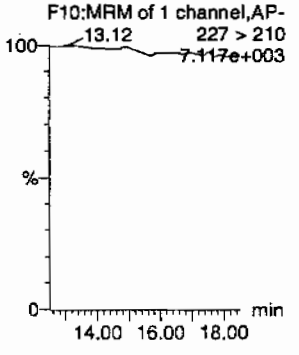

34-dinitrotoluene

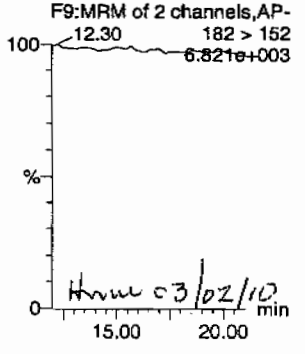

Hmm 03/02/10

26-dinitrotoluene

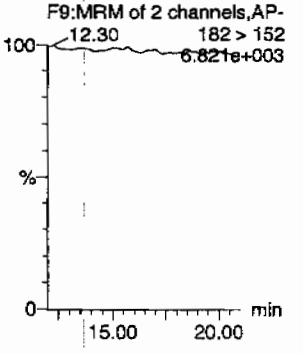

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

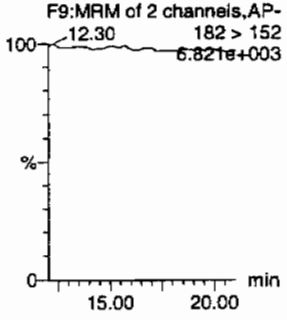

26-dinitrotoluene-d3

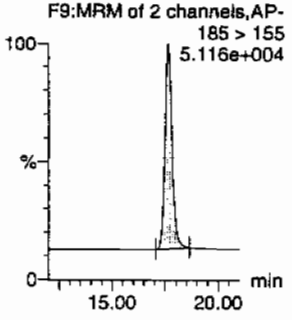

2-Nitrotoluene

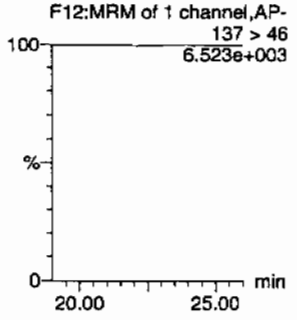

4-Nitrotoluene

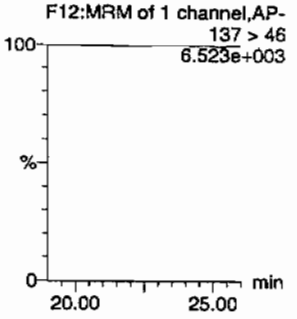

3-Nitrotoluene

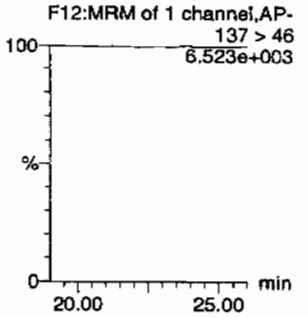

PETN

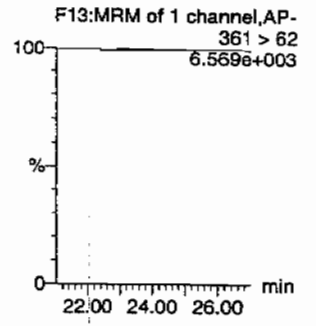

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			2933.636									
XIBLK01	RDX	176 > 102			2933.636									
XIBLK01	135-Trinitrobenzene	213 > 183			2933.636			MM-	02-Mar-10	09:57:26				
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.21	2933.636		2933.636	2933.636	bb			506.1351	101.2	1.2	224.6
XIBLK01	13-Dinitrobenzene	168 > 138			2933.636									
XIBLK01	Tetryl	241 > 181			2933.636									
XIBLK01	Nitrobenzene	123 > 46			2933.636									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			17529.949									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			17529.949									
XIBLK01	246-Trinitrotoluene	227 > 210			17529.949									
XIBLK01	34-dinitrotoluene	182 > 152			17529.949									
XIBLK01	26-dinitrotoluene	182 > 152			17529.949									
XIBLK01	24-dinitrotoluene	182 > 152			17529.949									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.64	17529.949		17529.949	17529.949	bb			544.9221	109.0	9.0	1581.7
XIBLK01	2-Nitrotoluene	137 > 46			17529.949									
XIBLK01	4-Nitrotoluene	137 > 46			17529.949									
XIBLK01	3-Nitrotoluene	137 > 46			17529.949									
XIBLK01	PETN	361 > 62			17529.949									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-MAR-10 16:02

GEL Data File: EXP0301002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	482.107
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	528.54
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301002a
Date: 01-Mar-2010
Time: 16:02:42
ID: XIBLK01
Vial: 1:1,A

MMT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
4.01 6.09 9.372e+003

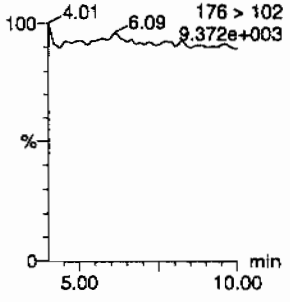

RDX
F2:MRM of 1 channel,AP-
176 > 102
4.01 6.09 9.372e+003

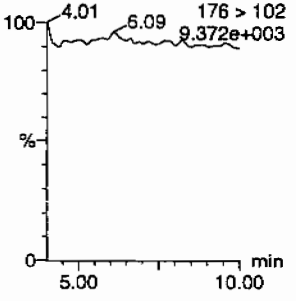

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.755e+003

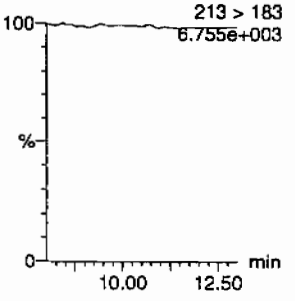

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.309e+004

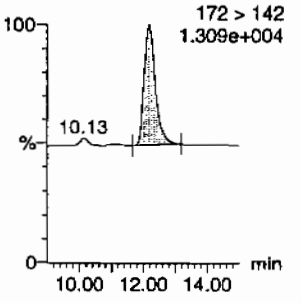

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.442e+003

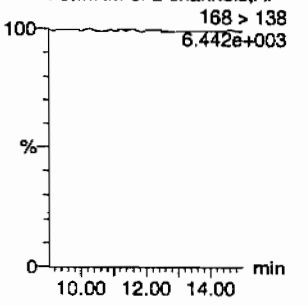

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.498e+003

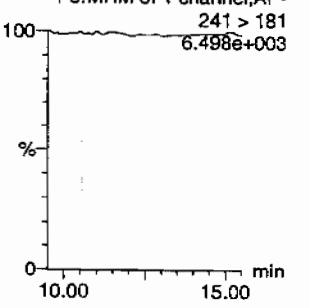

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.453e+003

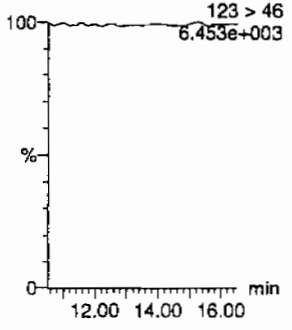

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
17.22 7.239e+003

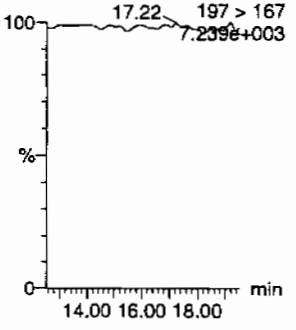

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
12.71 7.245e+003

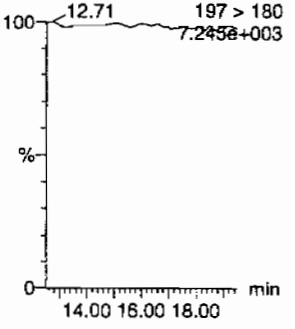

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.537e+003

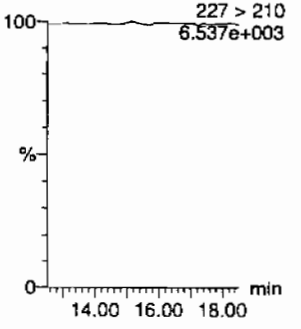

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.530e+003

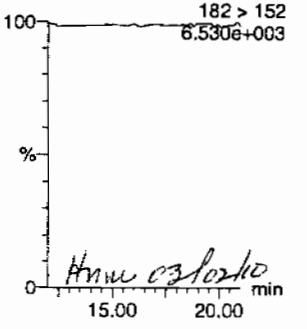

HMW 03/02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.530e+003

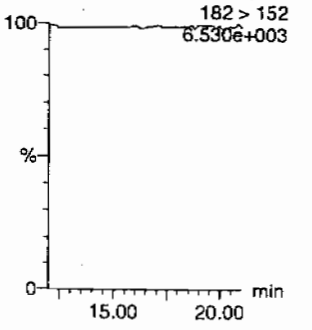

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

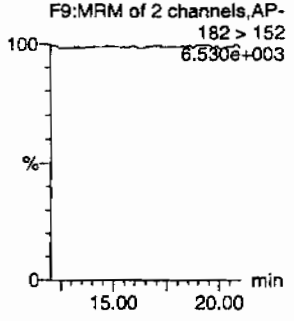

26-dinitrotoluene-d3

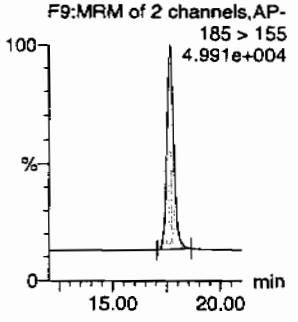

2-Nitrotoluene

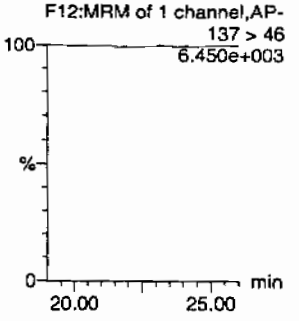

4-Nitrotoluene

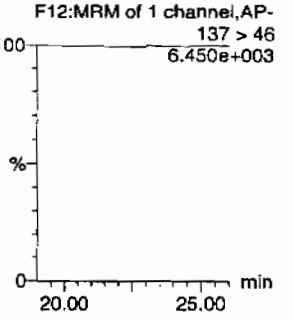

3-Nitrotoluene

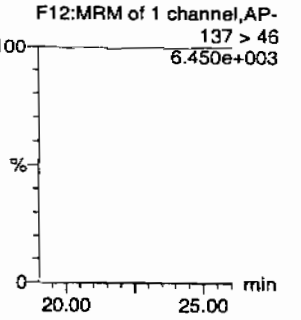

PETN

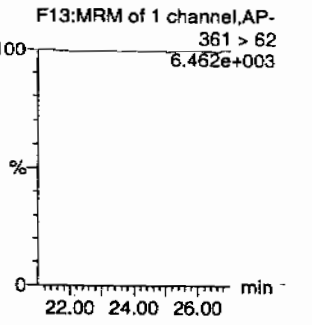

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			2794.367									
XIBLK01	RDX	176 > 102			2794.367									
XIBLK01	135-Trinitrobenzene	213 > 183			2794.367									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.17	2794.367		2794.367	2794.367	bb			482.1072	96.4	-3.6	249.6
XIBLK01	13-Dinitrobenzene	168 > 138			2794.367									
XIBLK01	Tetryl	241 > 181			2794.367									
XIBLK01	Nitrobenzene	123 > 46			2794.367									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			17002.941									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			17002.941									
XIBLK01	246-Trinitrotoluene	227 > 210			17002.941									
XIBLK01	34-dinitrotoluene	182 > 152			17002.941									
XIBLK01	26-dinitrotoluene	182 > 152			17002.941									
XIBLK01	24-dinitrotoluene	182 > 152			17002.941									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.64	17002.941		17002.941	17002.941	bb			528.5399	105.7	5.7	1208.2
XIBLK01	2-Nitrotoluene	137 > 46			17002.941									
XIBLK01	4-Nitrotoluene	137 > 46			17002.941									
XIBLK01	3-Nitrotoluene	137 > 46			17002.941									
XIBLK01	PETN	361 > 62			17002.941									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22-FEB-10 17:01

GEL Data File: EXS02220001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.87
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ran 2/23/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

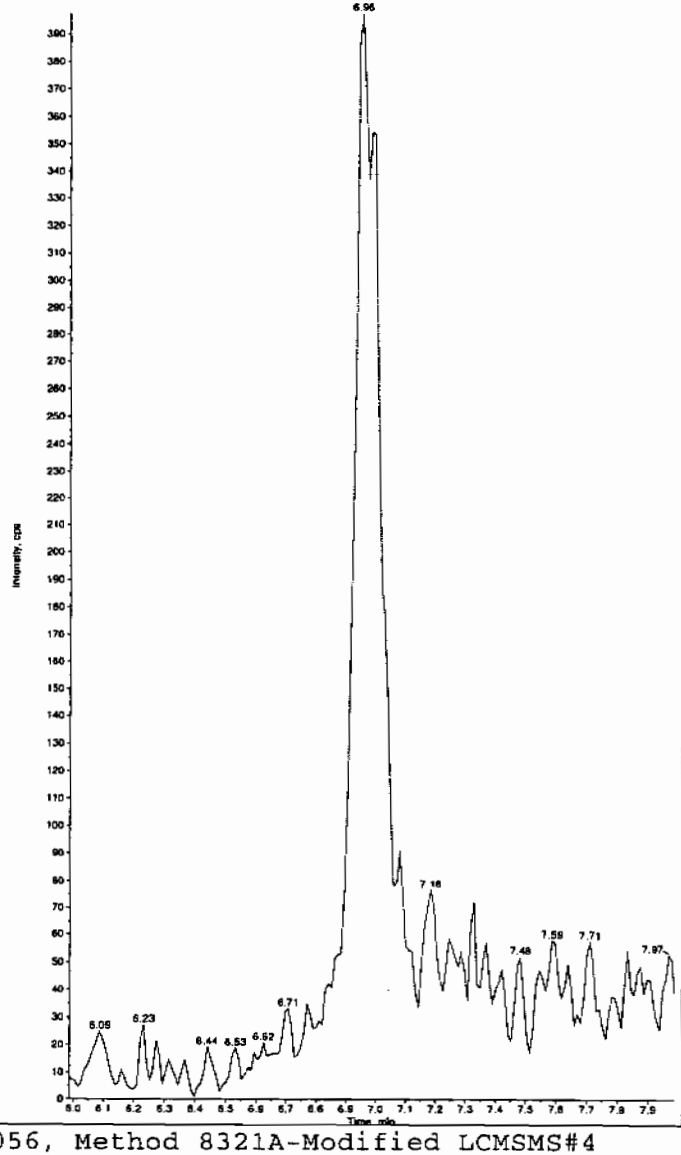

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

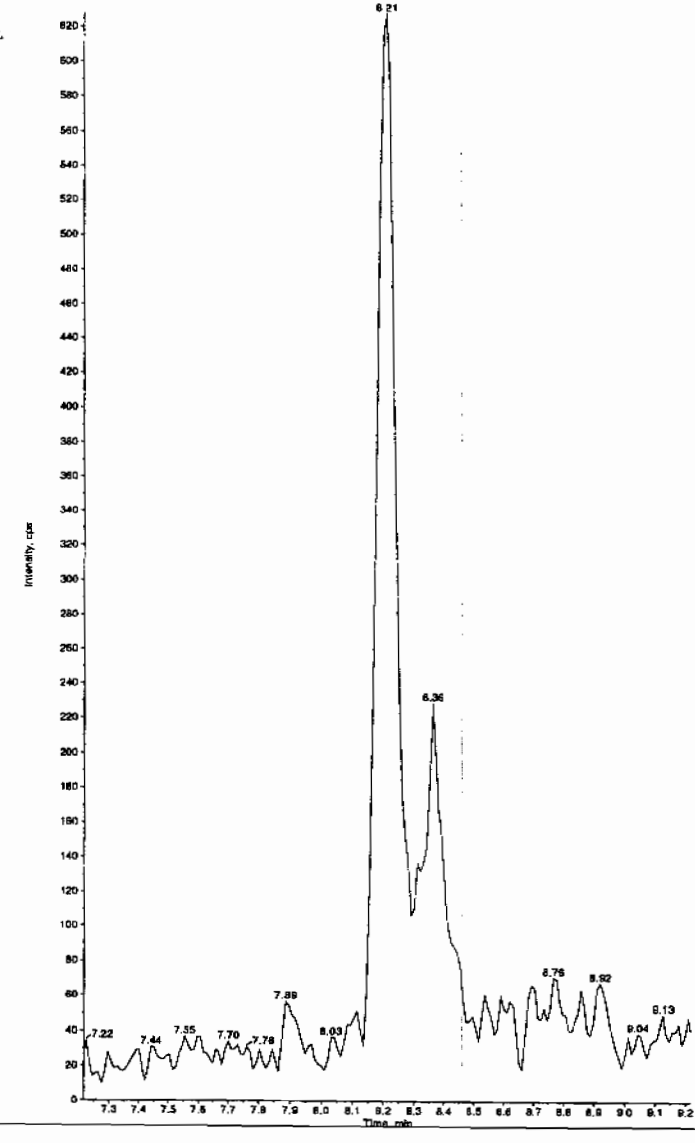

HMM 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

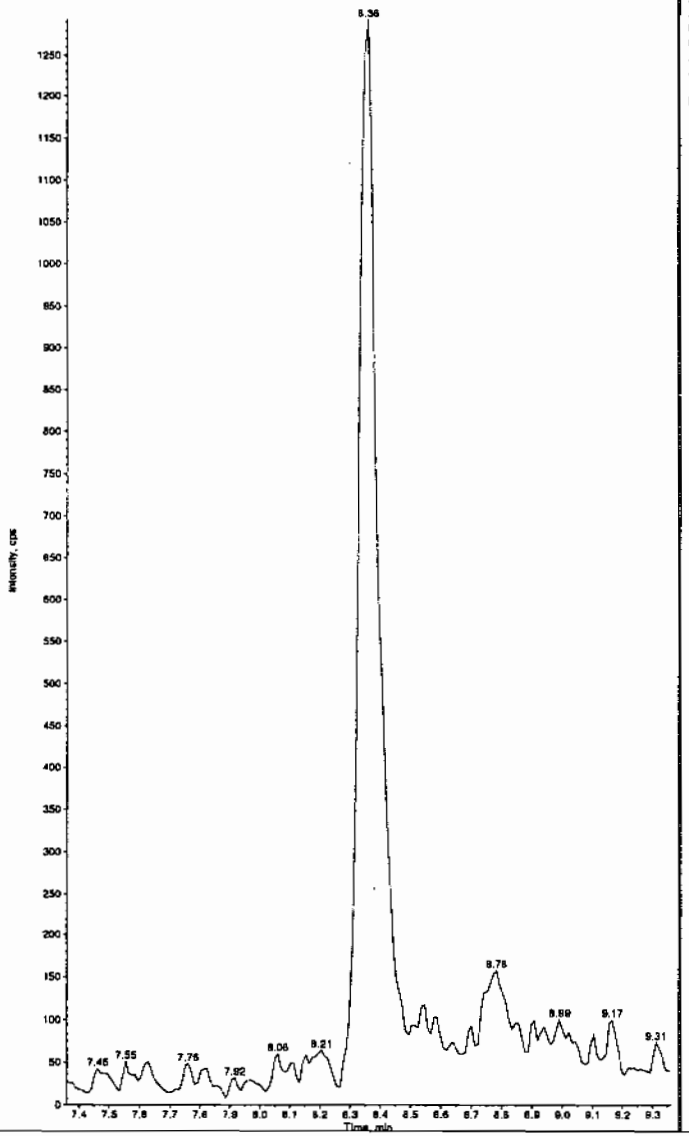

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

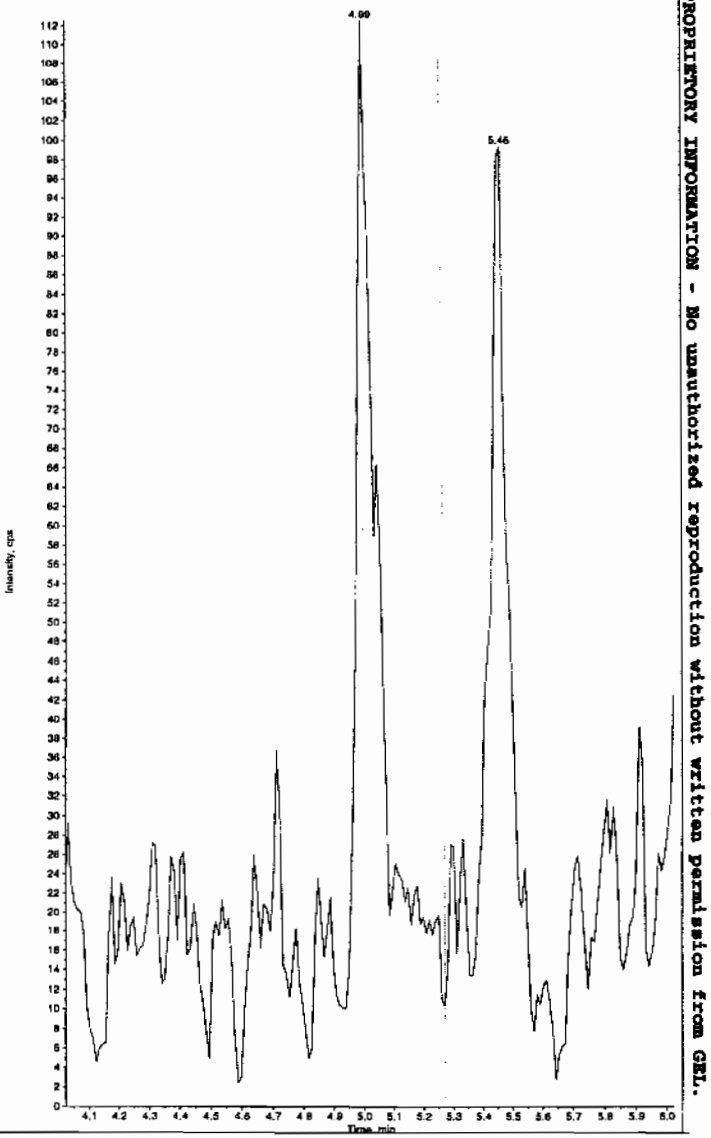

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

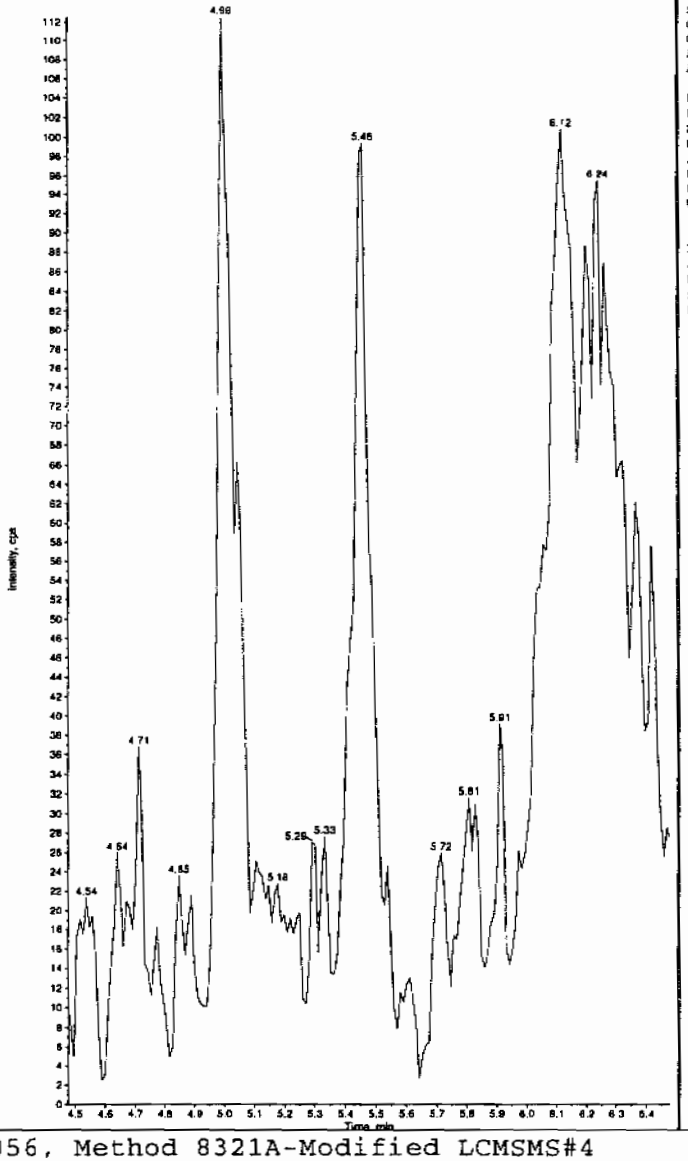

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.87 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.33e+004 counts
Height: 20089.369 cps
Start Time: 10.7 min
End Time: 11.0 min

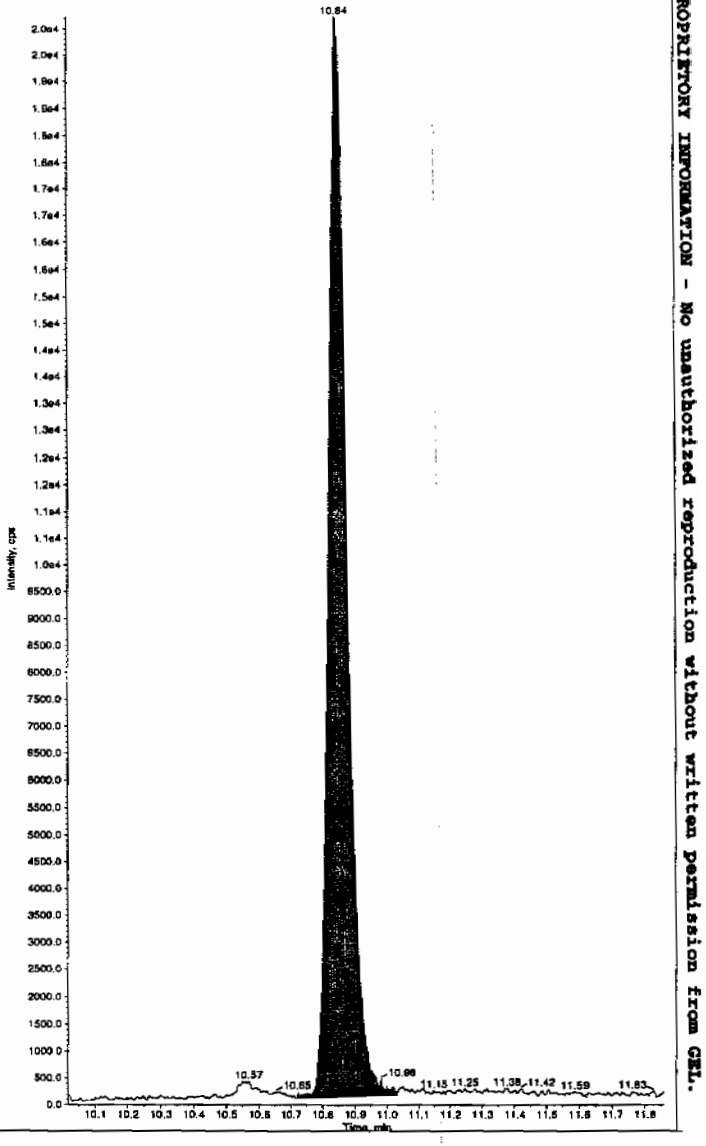

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22-FEB-10 17:17

GEL Data File: EXS02220002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.84
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ran 2/23/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

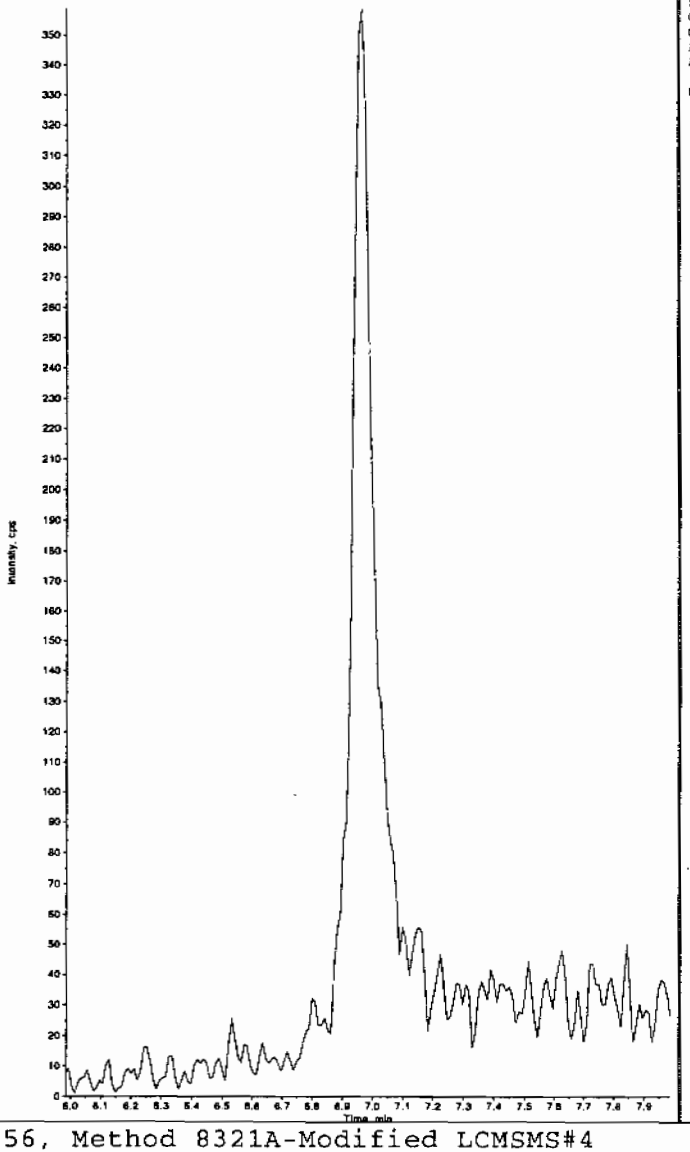

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

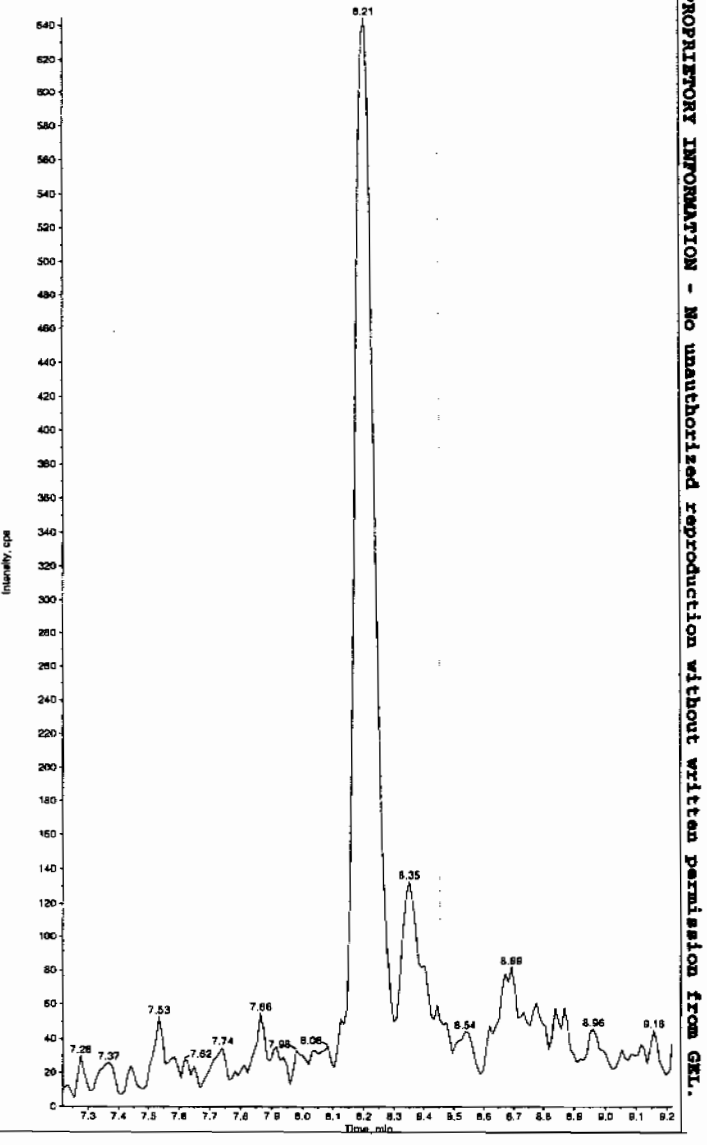

Hm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

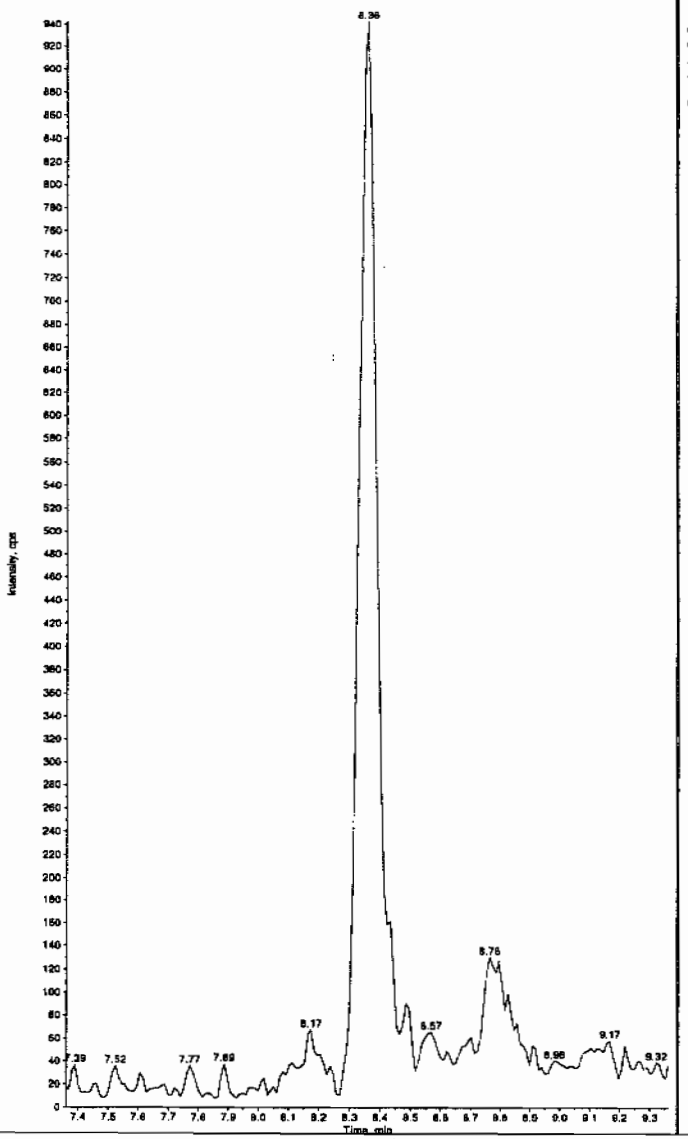

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

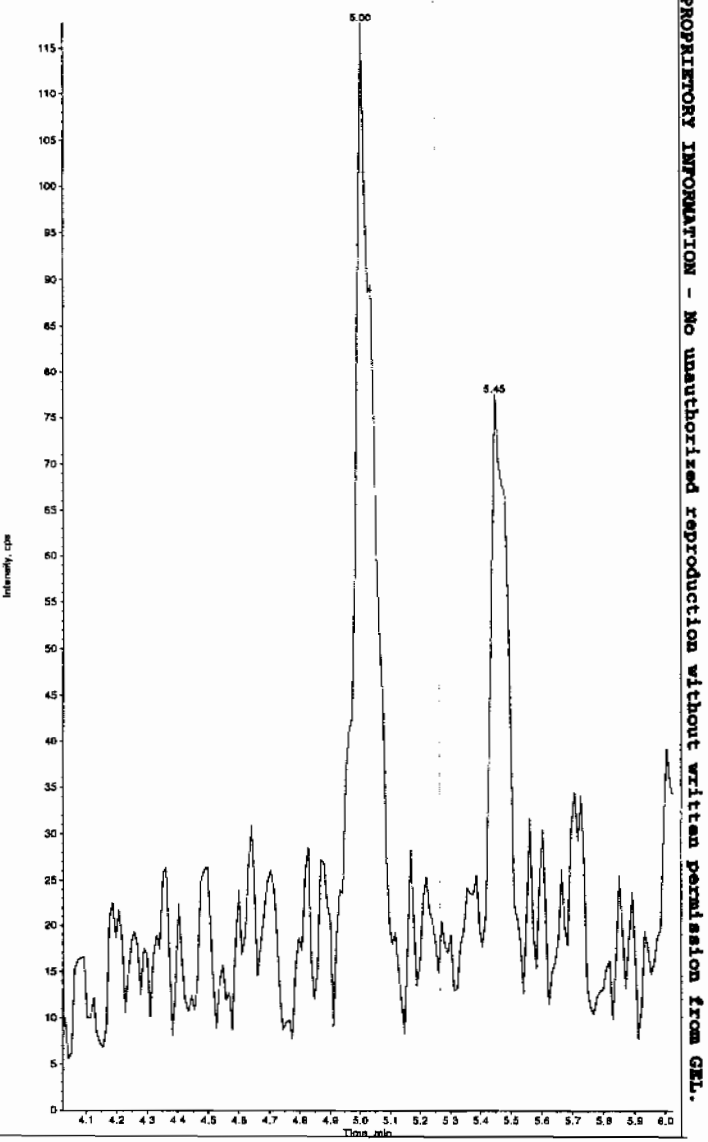

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

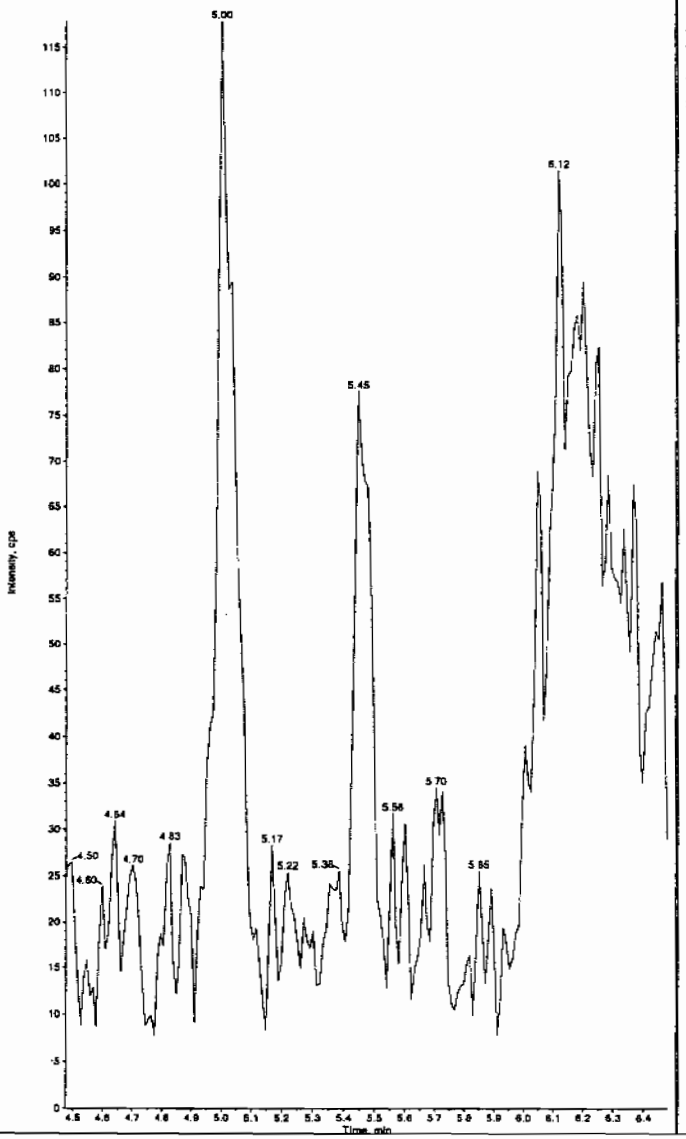

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.84 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - TQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.25e+004 counts
Height: 19383.148 cps
Start Time: 10.7 min
End Time: 11.1 min

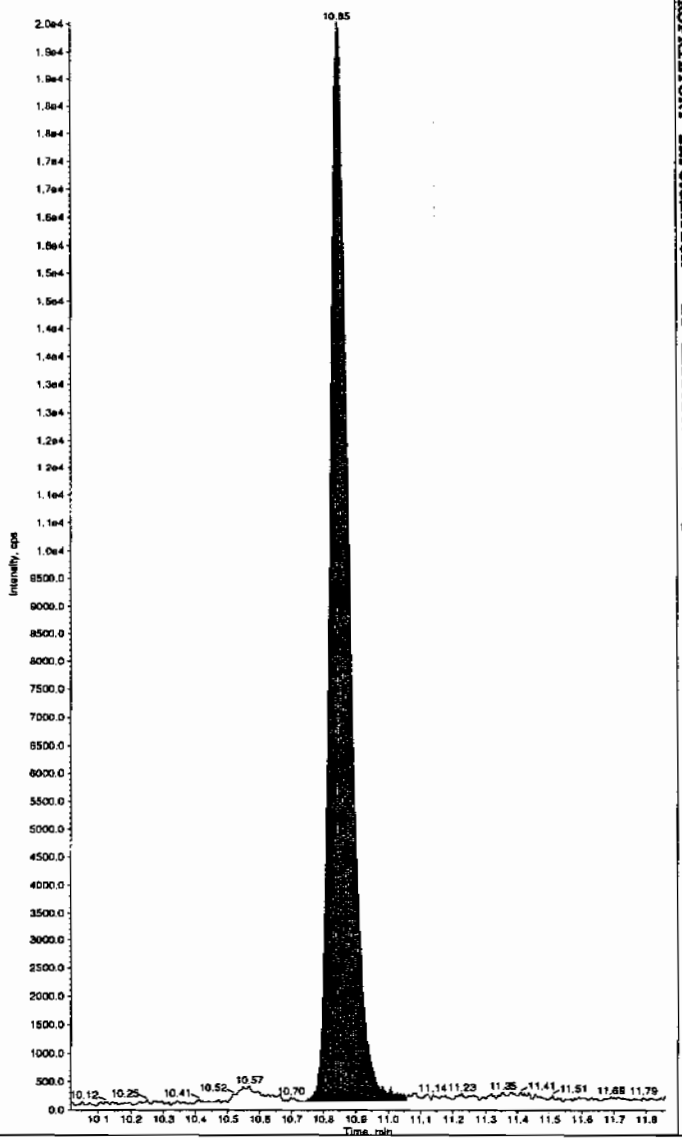

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 24-FEB-10 09:58

GEL Data File: EXS02240001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Sam 2/28/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02240001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 9:58:05 AM

Modified: No

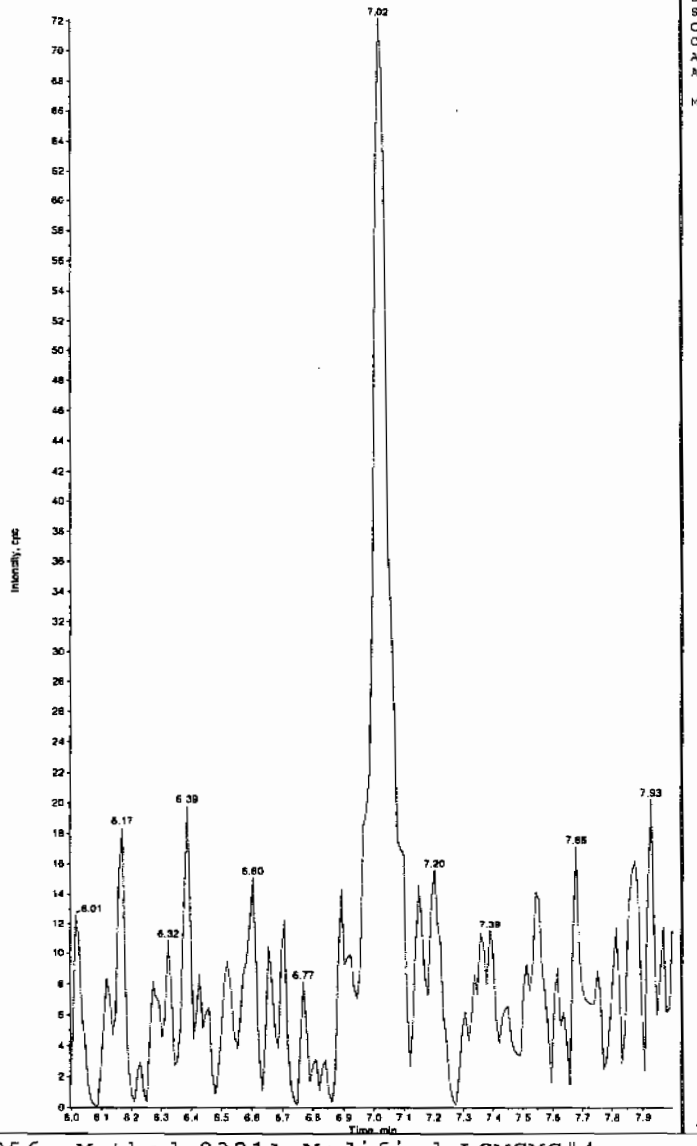

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02240001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 9:58:05 AM

Modified: No

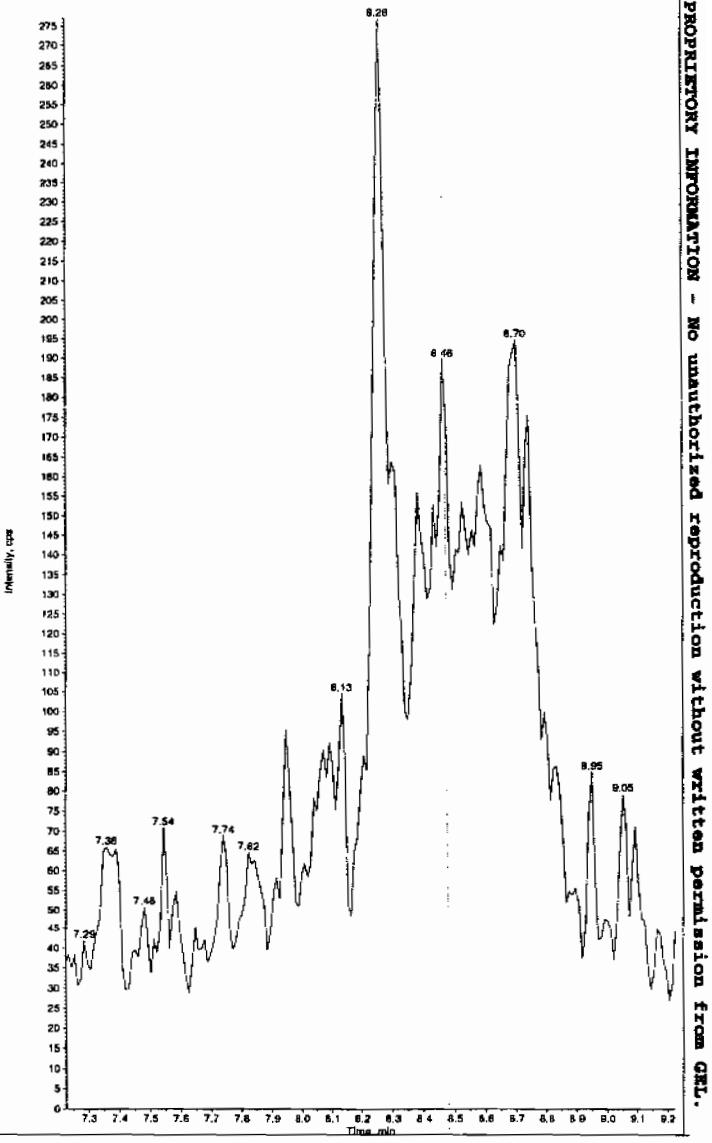

Hmw 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02240001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 9:58:05 AM

Modified: No

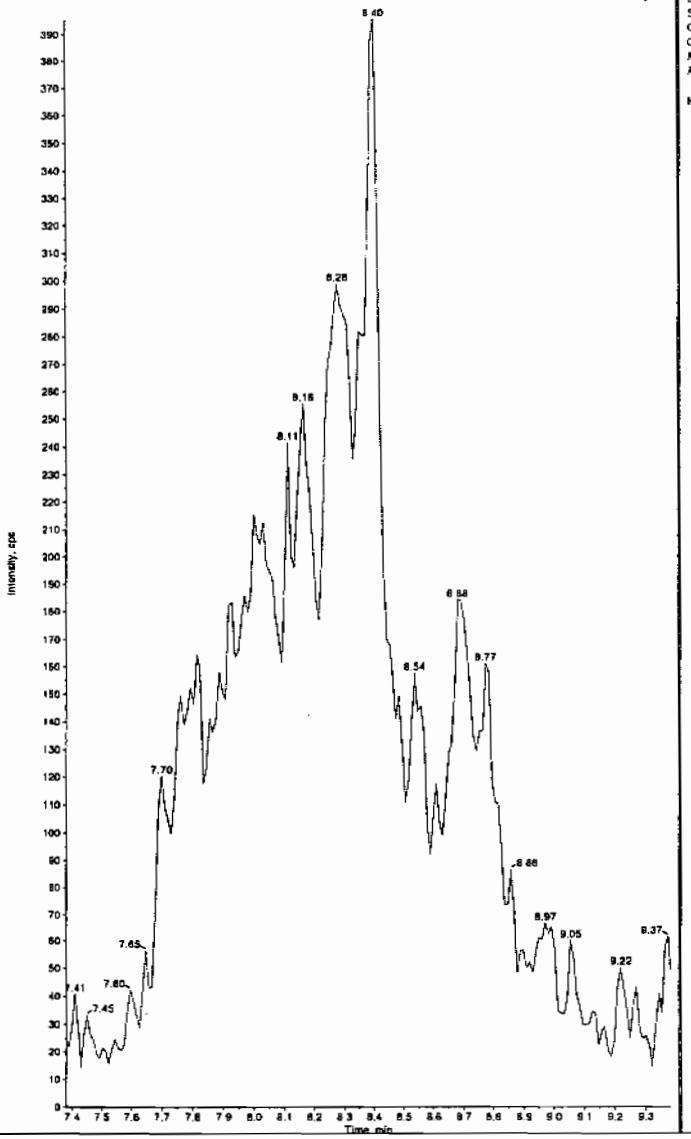

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02240001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 9:58:05 AM

Modified: No

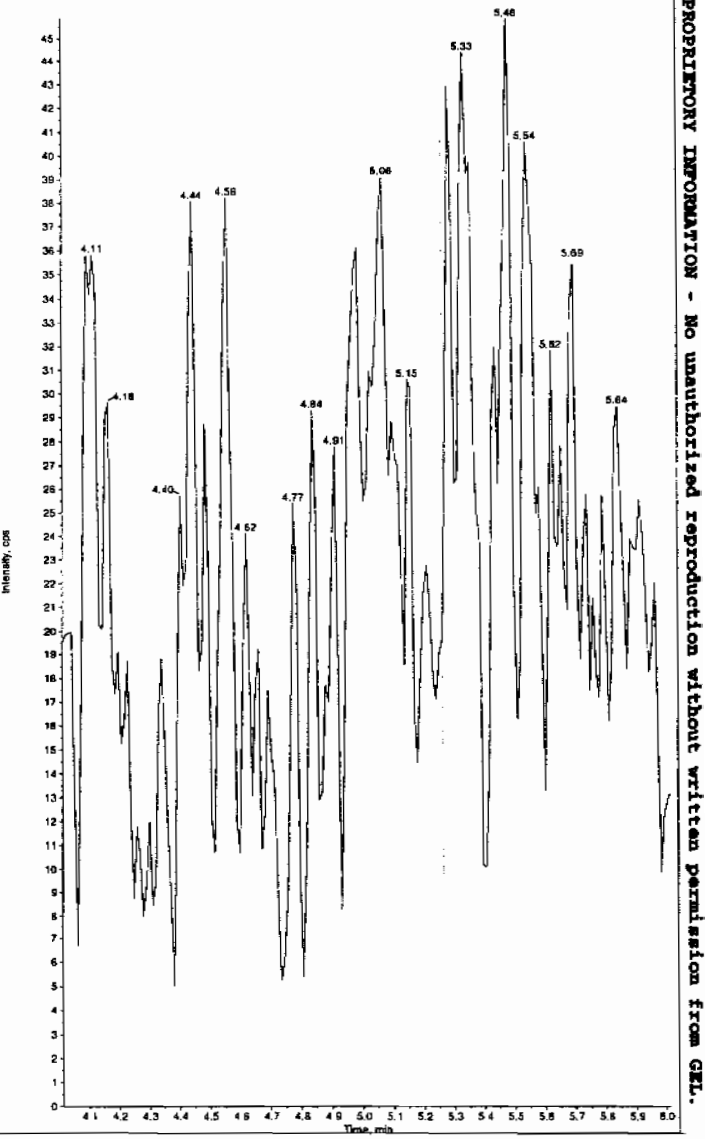

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02240001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 9:58:05 AM

Modified: No

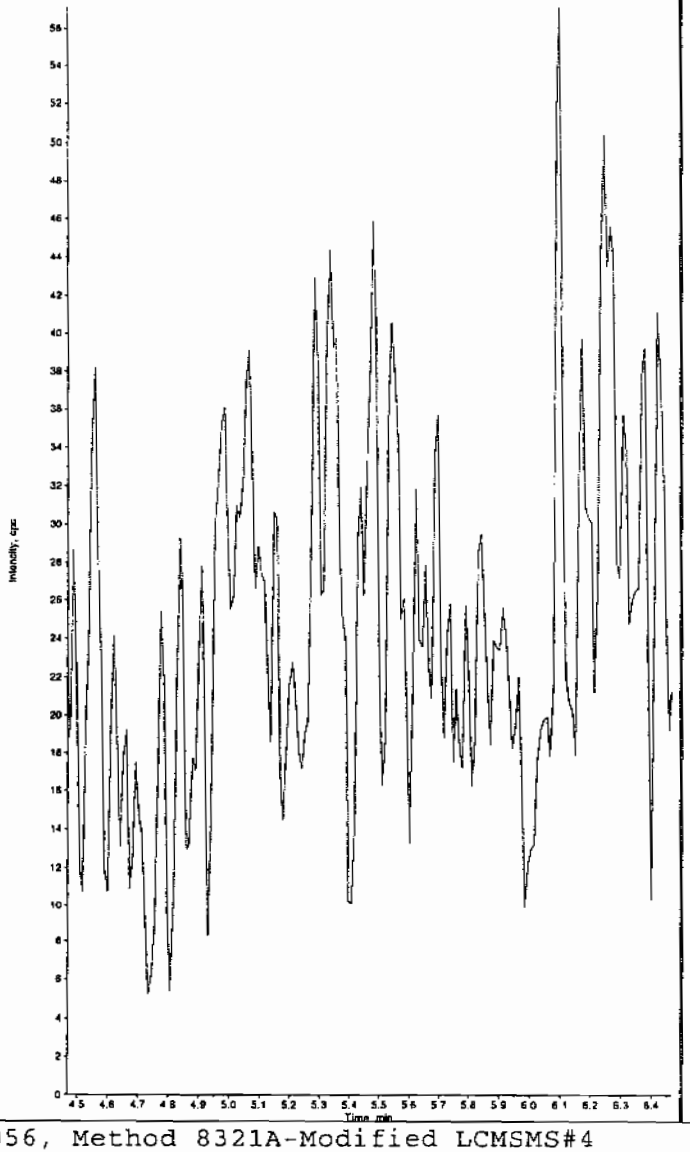

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02240001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 9:58:05 AM

Modified: No

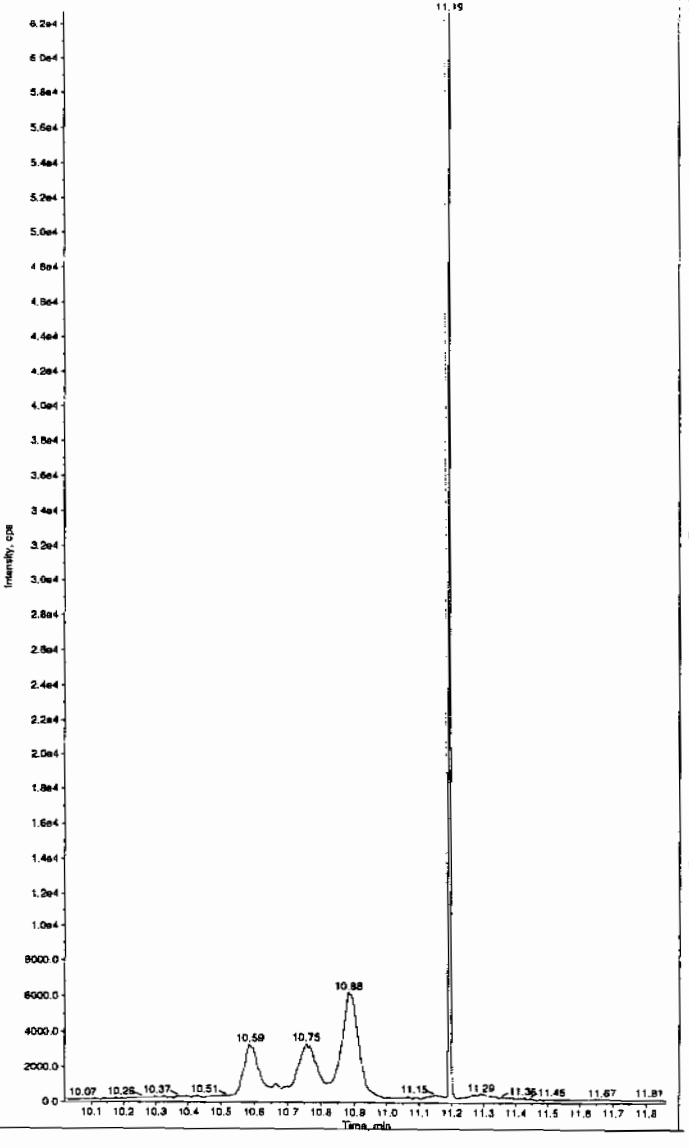

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1514

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 24–FEB–10 10:13

GEL Data File: EXS02240002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sam 2/25/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02240002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 10:13:52 AM

Modified: No

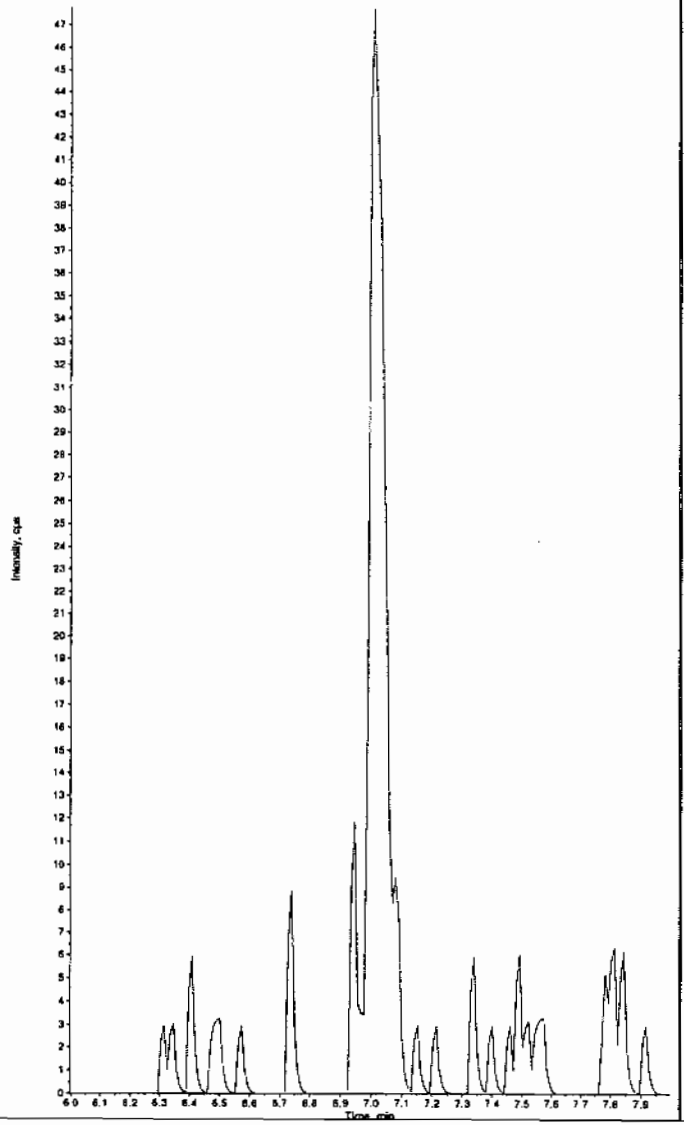

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02240002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 10:13:52 AM

Modified: No

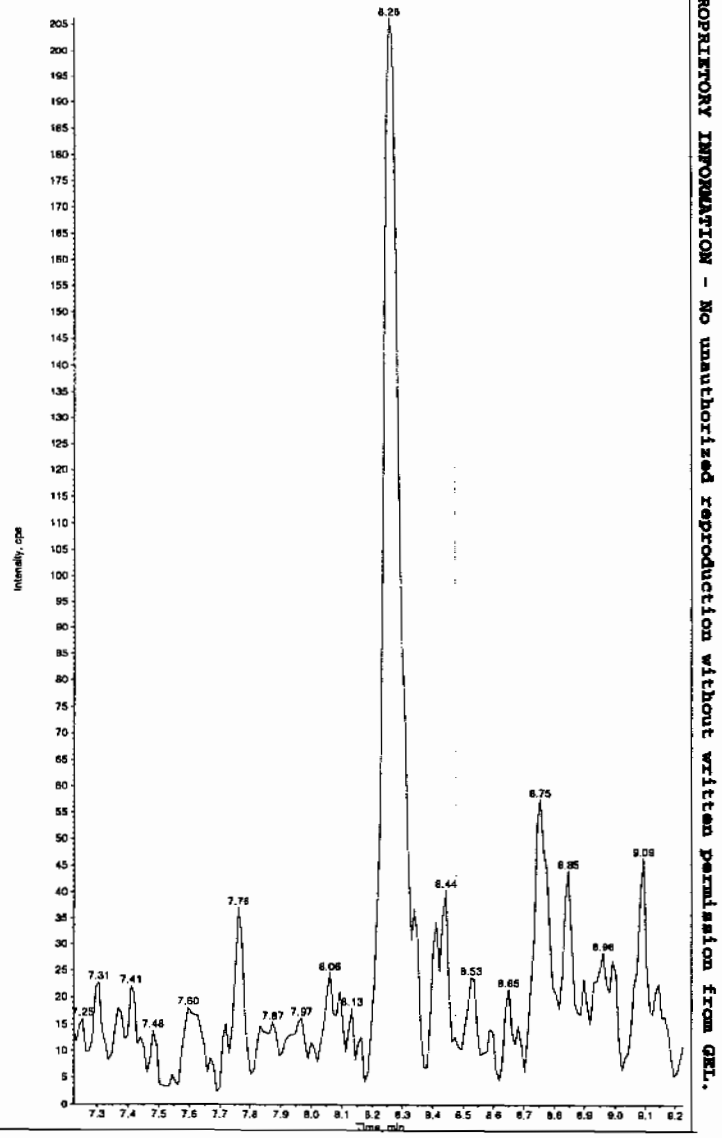

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02240002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 10:13:52 AM

Modified: No

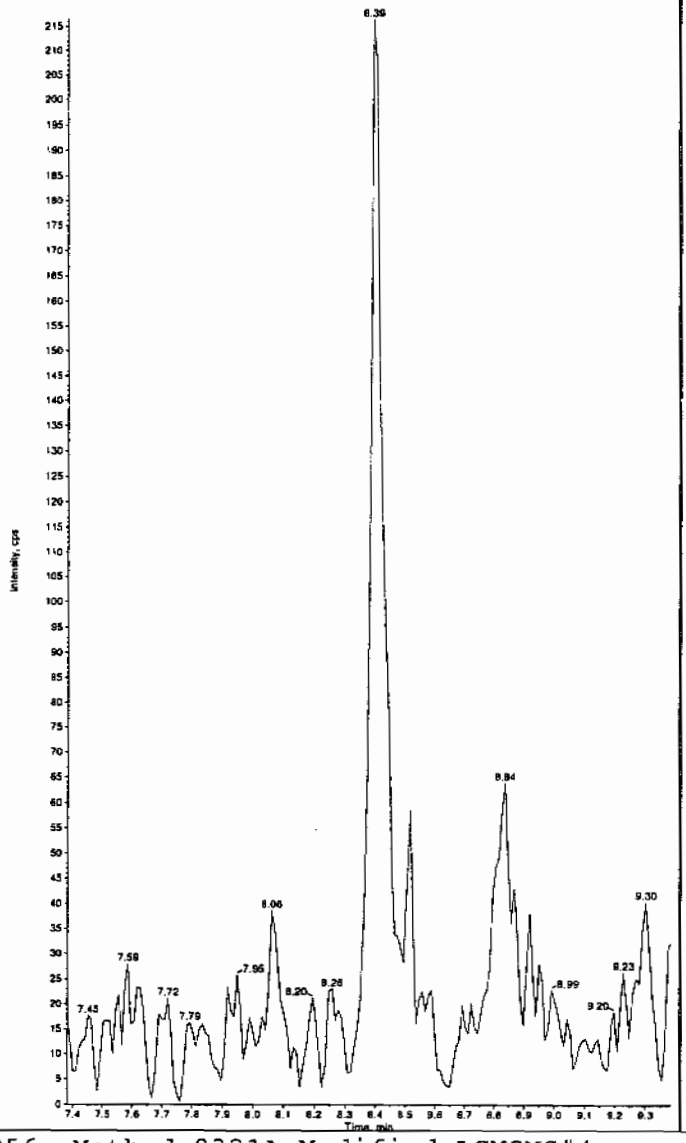

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02240002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 10:13:52 AM

Modified: No

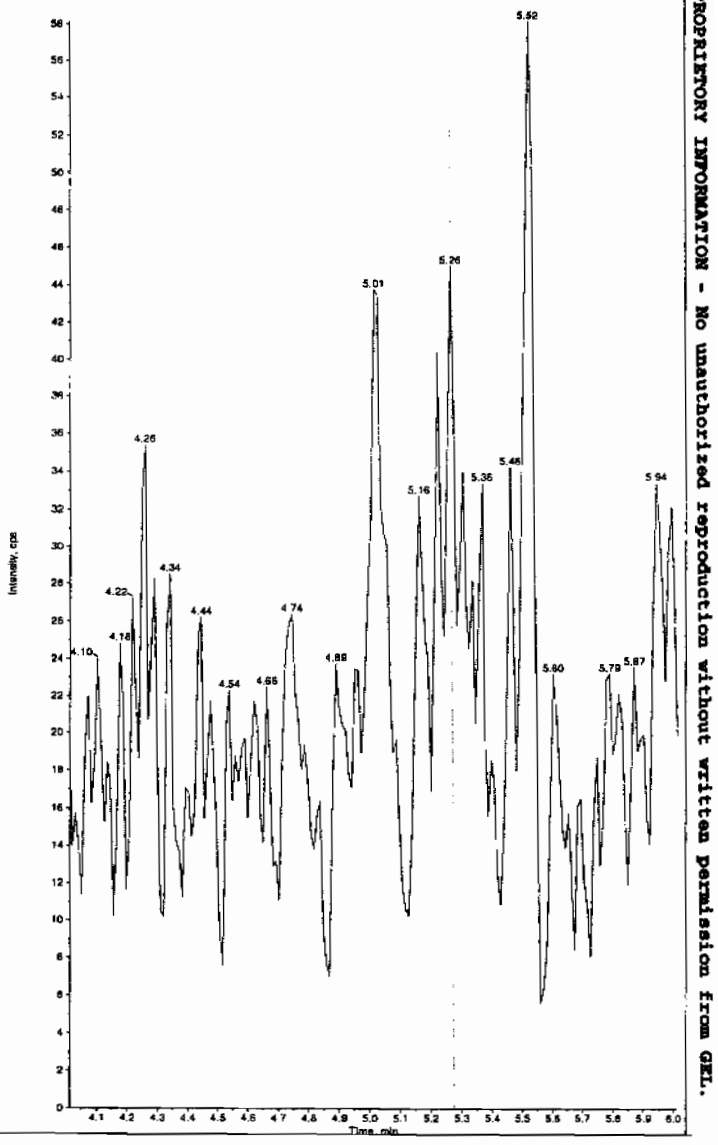

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02240002.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 10:13:52 AM

Modified: No

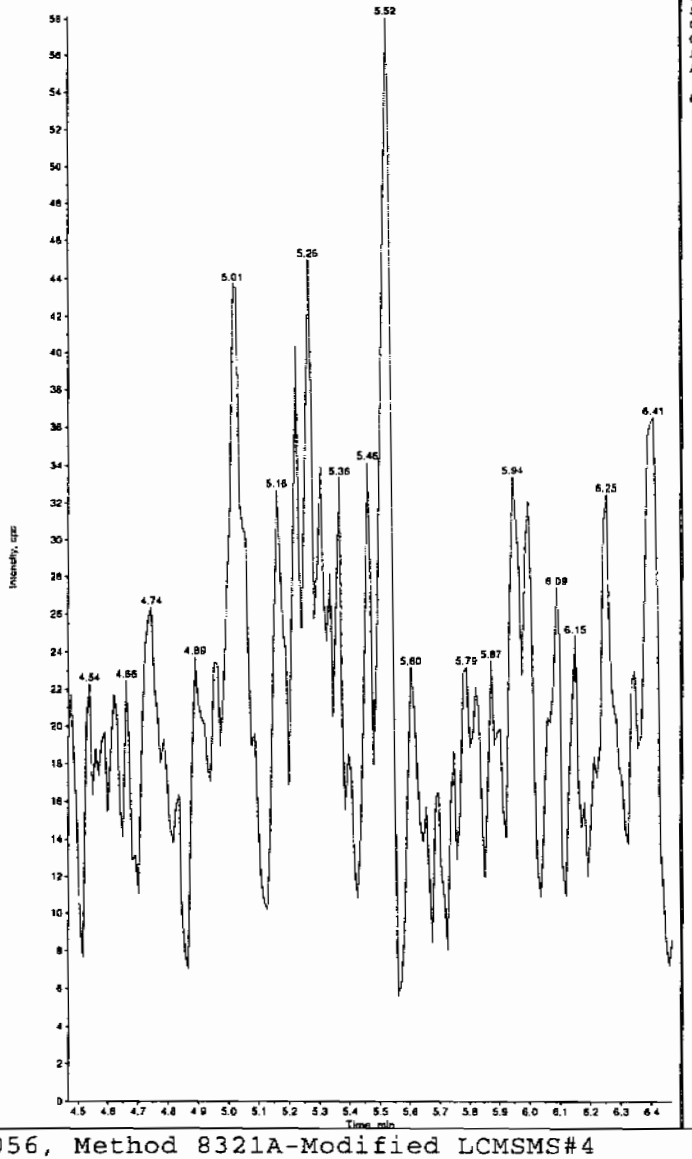

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02240002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 10:13:52 AM

Modified: No

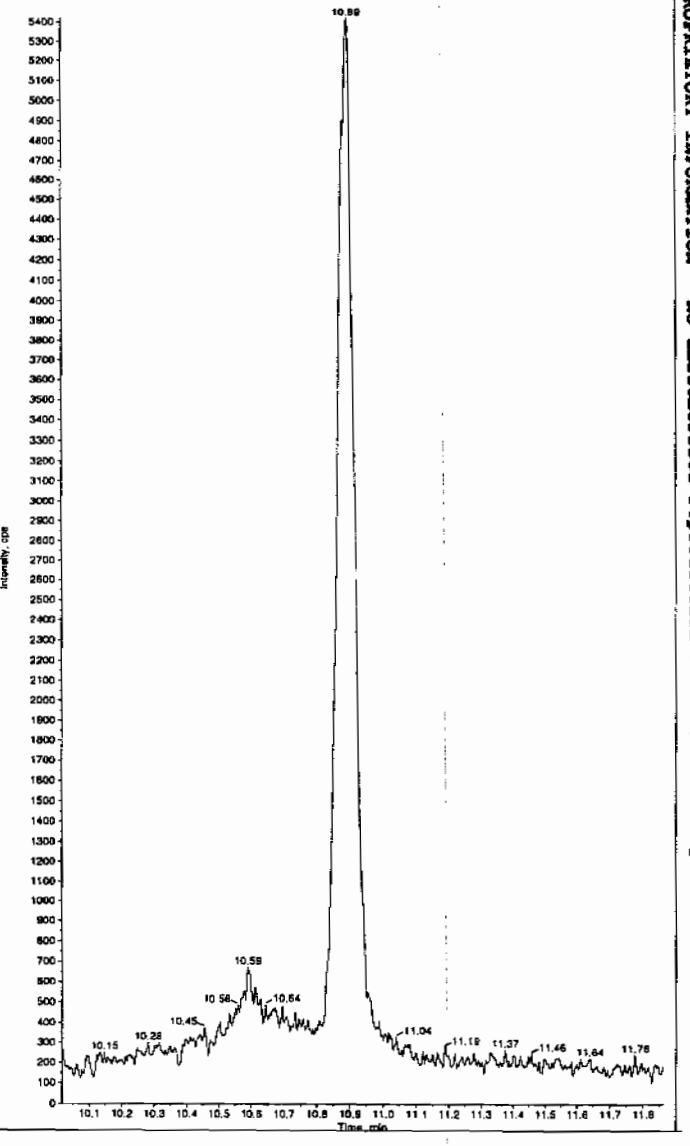

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1514
Lab Code: GEL
Lab Sample ID: XJBLK02
Analysis Date: 01-MAR-10 19:28
GEL Data File: EXP0301009a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene-d3	500	463.845
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	489.394
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301009a
Date: 01-Mar-2010
Time: 19:28:59
ID: XIBLK02
Vial: 1:1,A

MM 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.053e+003
4.36

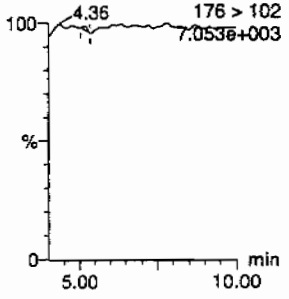

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.053e+003
4.36

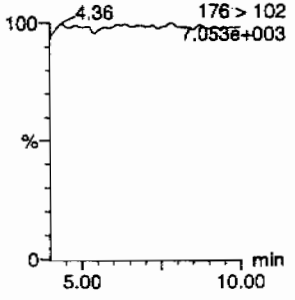

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.577e+003

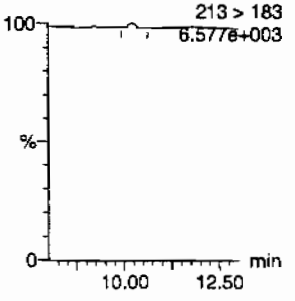

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.326e+004

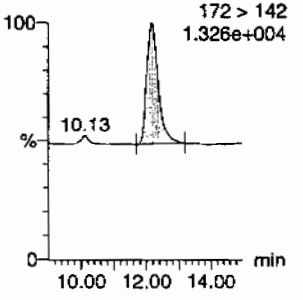

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.472e+003

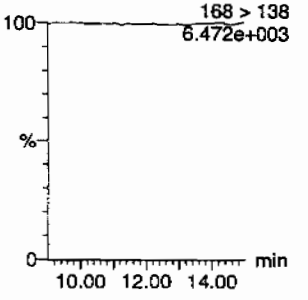

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.493e+003

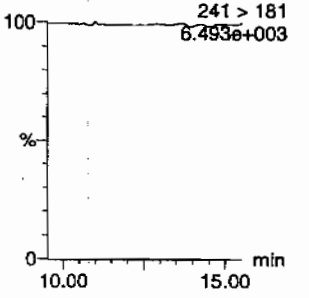

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.486e+003

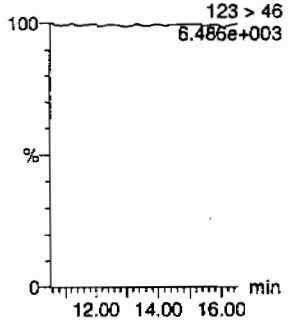

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.627e+003

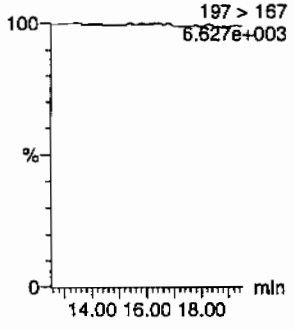

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.536e+003

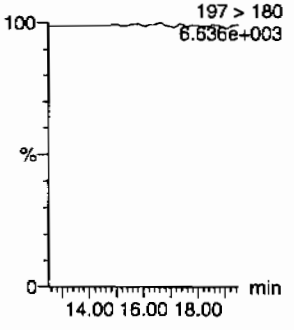

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.469e+003

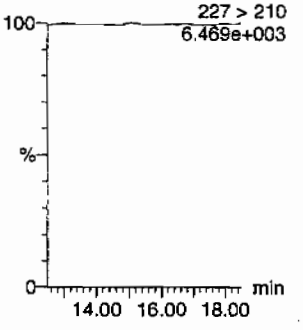

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.504e+003

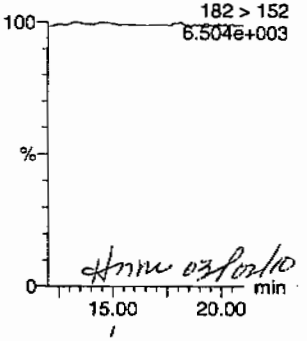

Hmm 03/02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.504e+003

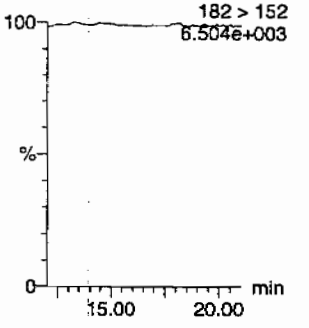

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

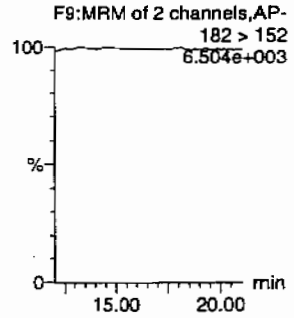

26-dinitrotoluene-d3

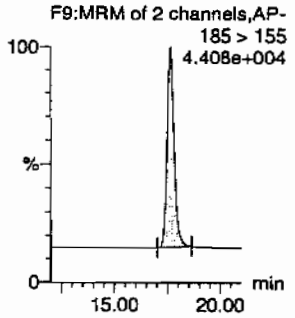

2-Nitrotoluene

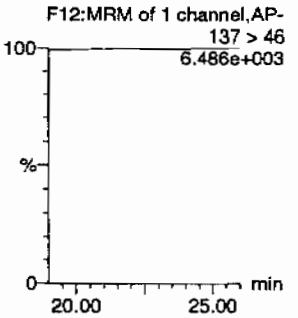

4-Nitrotoluene

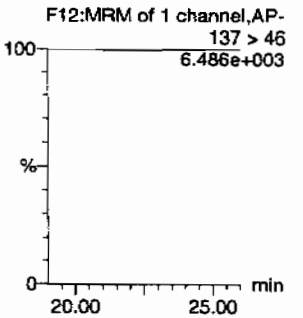

3-Nitrotoluene

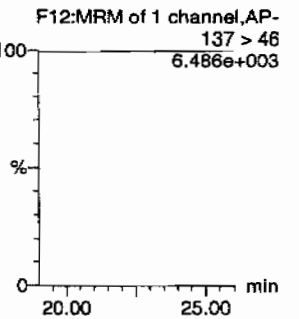

PETN

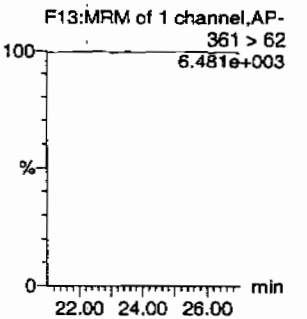

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			2836.603			MM-	02-Mar-10	09:58:29				
XIBLK02	RDX	176 > 102			2836.603									
XIBLK02	135-Trinitrobenzene	213 > 183			2836.603			MM-	02-Mar-10	09:57:05				
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.17	2836.603		2836.603	2836.603	bb			489.3941	97.9	-2.1	355.5
XIBLK02	13-Dinitrobenzene	168 > 138			2836.603									
XIBLK02	Tetryl	241 > 181			2836.603									
XIBLK02	Nitrobenzene	123 > 46			2836.603									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			14921.731									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			14921.731									
XIBLK02	246-Trinitrotoluene	227 > 210			14921.731									
XIBLK02	34-dinitrotoluene	182 > 152			14921.731									
XIBLK02	26-dinitrotoluene	182 > 152			14921.731									
XIBLK02	24-dinitrotoluene	182 > 152			14921.731									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.64	14921.731		14921.731	14921.731	bb			463.8451	92.8	-7.2	858.6
XIBLK02	2-Nitrotoluene	137 > 46			14921.731									
XIBLK02	4-Nitrotoluene	137 > 46			14921.731									
XIBLK02	3-Nitrotoluene	137 > 46			14921.731									
XIBLK02	PETN	361 > 62			14921.731									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1514
Lab Code: GEL
Lab Sample ID: XIBLK03
Analysis Date: 01-MAR-10 20:27
GEL Data File: EXP0301011a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	593.284
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	629.492
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301011a
Date: 01-Mar-2010
Time: 20:27:57
ID: XIBLK03
Vial: 1:1,A

MAT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.120e+003

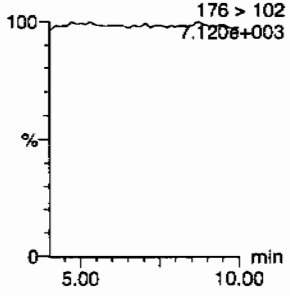

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.120e+003

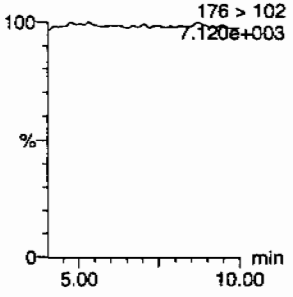

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.628e+003

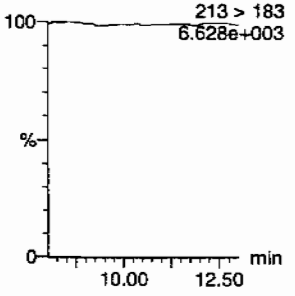

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.476e+004

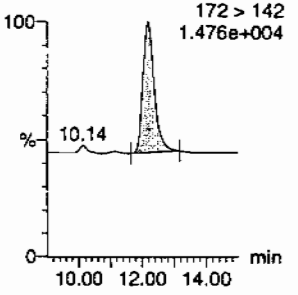

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.597e+003

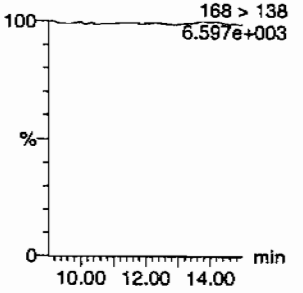

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.602e+003

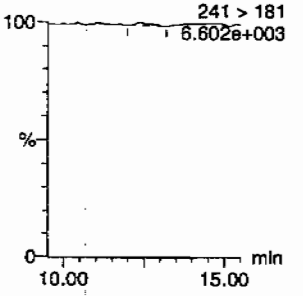

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.647e+003

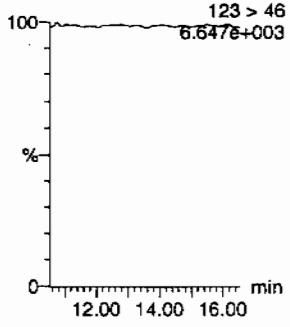

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.742e+003

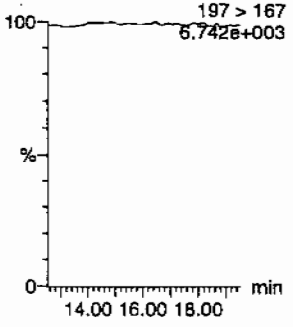

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.727e+003

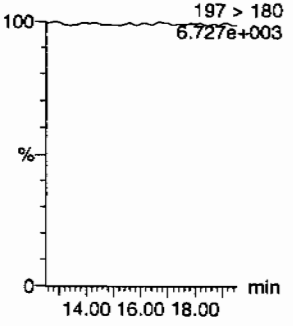

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.581e+003

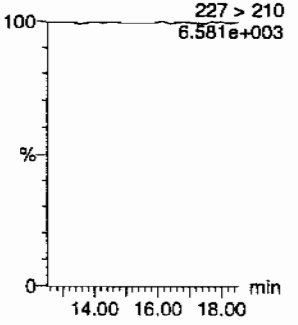

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.615e+003

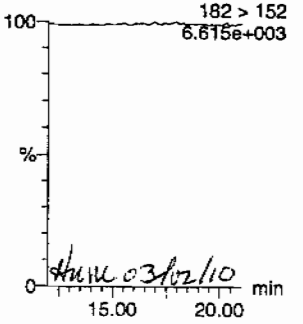

HWC 03/02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.615e+003

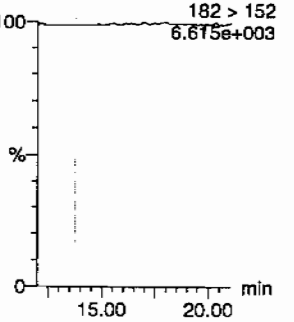

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

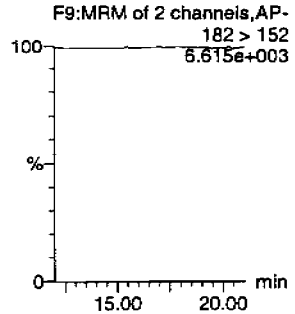

26-dinitrotoluene-d3

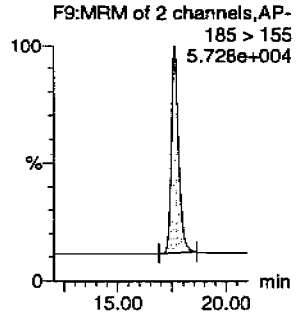

2-Nitrotoluene

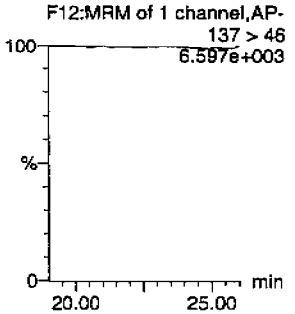

4-Nitrotoluene

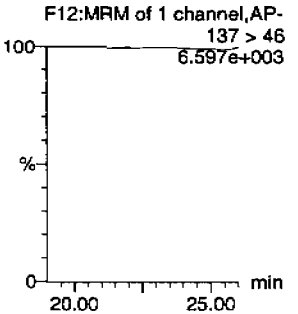

3-Nitrotoluene

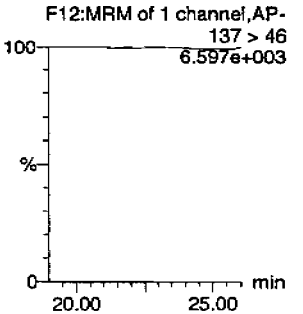

PETN

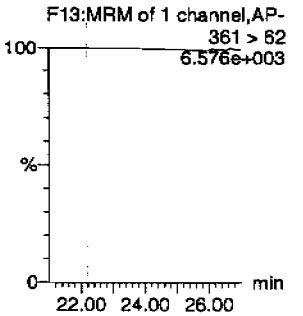

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			3438.767									
XIBLK03	RDX	176 > 102			3438.767									
XIBLK03	135-Trinitrobenzene	213 > 183			3438.767									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.17	3438.767		3438.767	3438.767	bb			593.2844	118.7	18.7	152.6
XIBLK03	13-Dinitrobenzene	168 > 138			3438.767									
XIBLK03	Tetryl	241 > 181			3438.767			MM-	02-Mar-10	09:55:33				
XIBLK03	Nitrobenzene	123 > 46			3438.767									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			20250.545									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			20250.545									
XIBLK03	246-Trinitrotoluene	227 > 210			20250.545									
XIBLK03	34-dinitrotoluene	182 > 152			20250.545									
XIBLK03	26-dinitrotoluene	182 > 152			20250.545									
XIBLK03	24-dinitrotoluene	182 > 152			20250.545									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.62	20250.545		20250.545	20250.545	bb			629.4924	125.9	25.9	1728.6
XIBLK03	2-Nitrotoluene	137 > 46			20250.545									
XIBLK03	4-Nitrotoluene	137 > 46			20250.545									
XIBLK03	3-Nitrotoluene	137 > 46			20250.545									
XIBLK03	PETN	361 > 62			20250.545									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 01-MAR-10 23:54

GEL Data File: EXP0301018a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	606.462
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	554.129
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301018a
Date: 01-Mar-2010
Time: 23:54:20
ID: X!BLK04
Vial: 1:1,A

MAP 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.166e+003

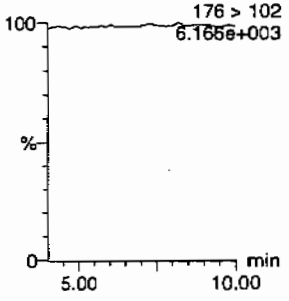

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.166e+003

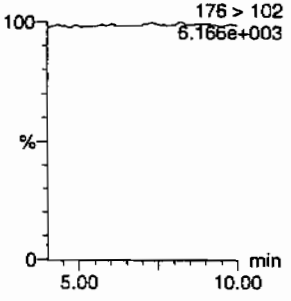

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.912e+003

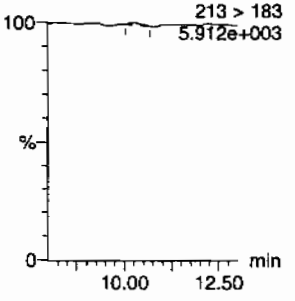

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.421e+004

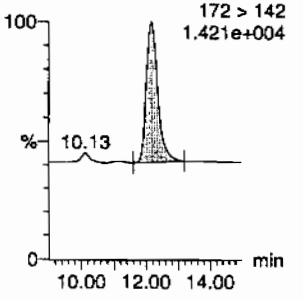

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.883e+003

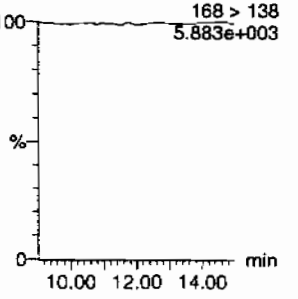

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.885e+003

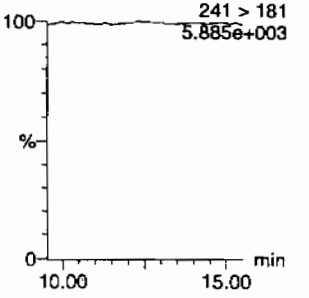

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.907e+003

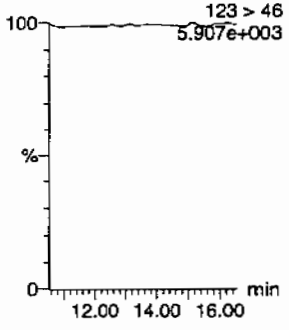

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.009e+003

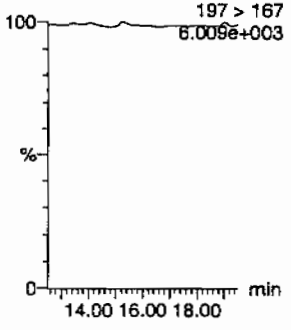

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.014e+003

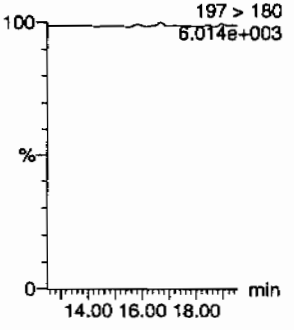

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.913e+003

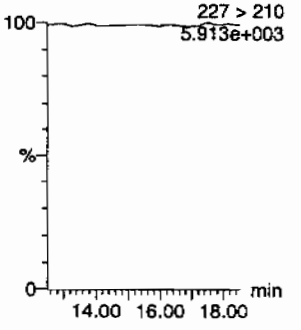

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003

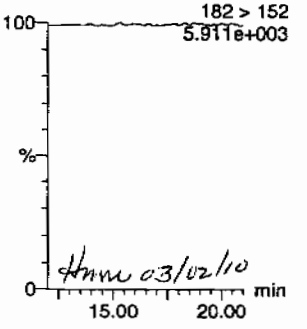

Hmm 03/02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003

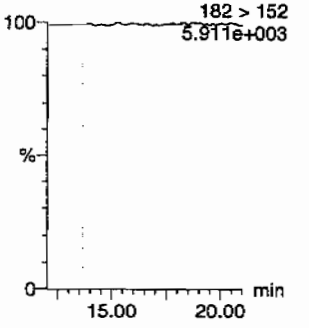

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003

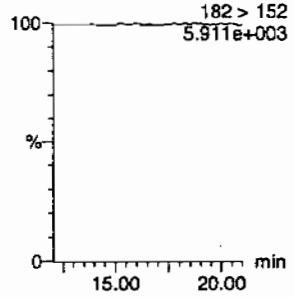

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.106e+004

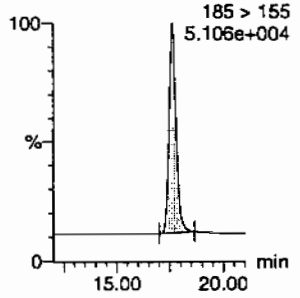

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003

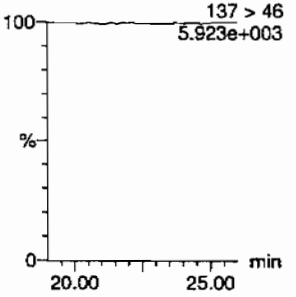

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003

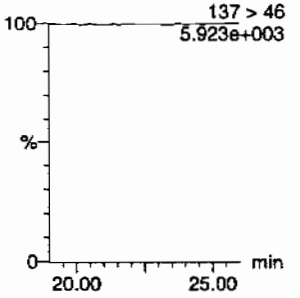

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003

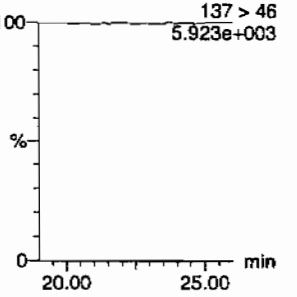

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.934e+003

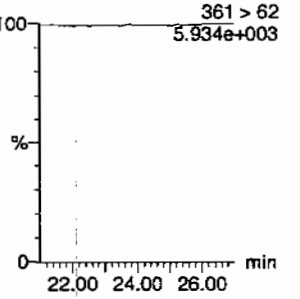

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3515.148									
XIBLK04	RDX	176 > 102			3515.148									
XIBLK04	135-Trinitrobenzene	213 > 183			3515.148			MM-	02-Mar-10	09:56:58				
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.17	3515.148		3515.148	3515.148	bb			606.4623	121.3	21.3	516.3
XIBLK04	13-Dinitrobenzene	168 > 138			3515.148									
XIBLK04	Tetryl	241 > 181			3515.148									
XIBLK04	Nitrobenzene	123 > 46			3515.148									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			17826.121									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			17826.121									
XIBLK04	246-Trinitrotoluene	227 > 210			17826.121									
XIBLK04	34-dinitrotoluene	182 > 152			17826.121									
XIBLK04	26-dinitrotoluene	182 > 152			17826.121									
XIBLK04	24-dinitrotoluene	182 > 152			17826.121									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.62	17826.121		17826.121	17826.121	bb			554.1287	110.8	10.8	2328.6
XIBLK04	2-Nitrotoluene	137 > 46			17826.121									
XIBLK04	4-Nitrotoluene	137 > 46			17826.121									
XIBLK04	3-Nitrotoluene	137 > 46			17826.121									
XIBLK04	PETN	361 > 62			17826.121									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 02-MAR-10 06:17

GEL Data File: EXP0301031a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
HMX	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	455.251
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	499.31
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301031a
Date: 02-Mar-2010
Time: 06:17:40
ID: XIBLK05
Vial: 1:1,A

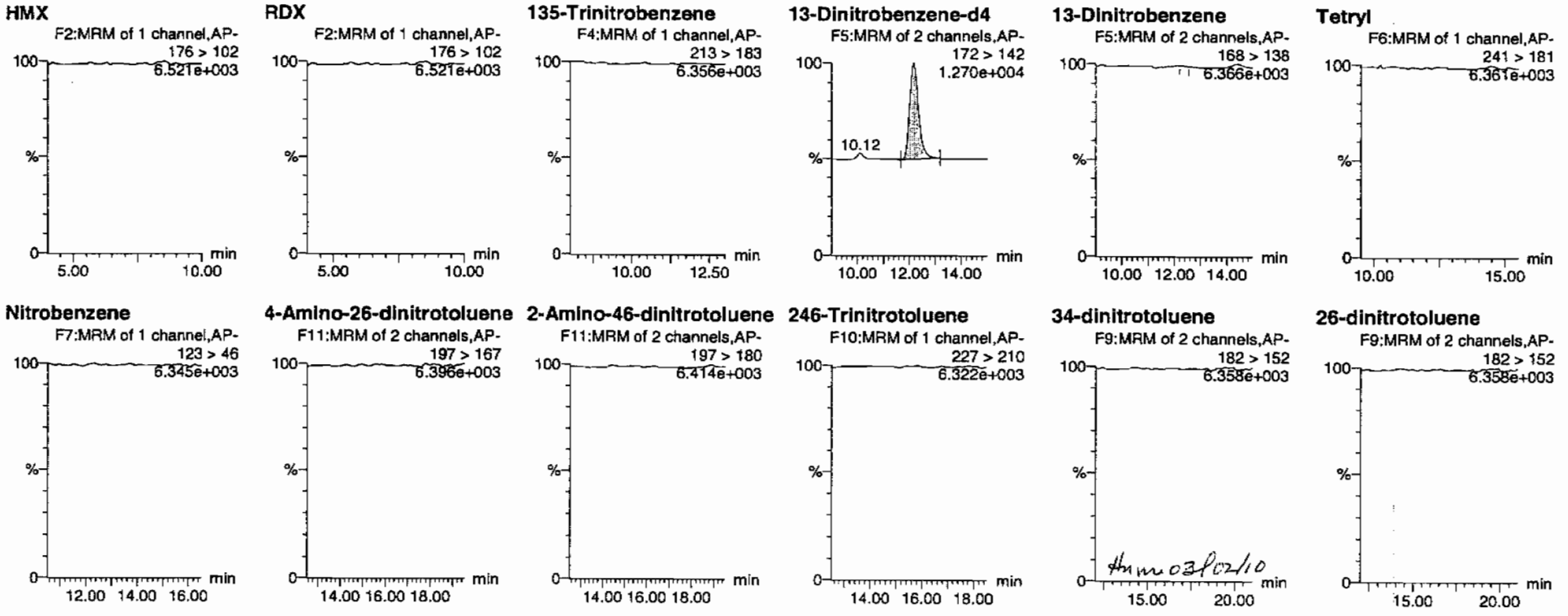

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

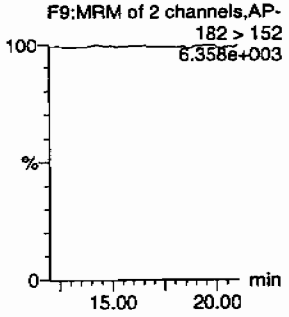

26-dinitrotoluene-d3

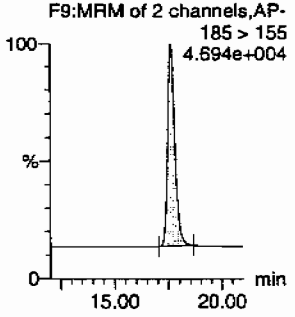

2-Nitrotoluene

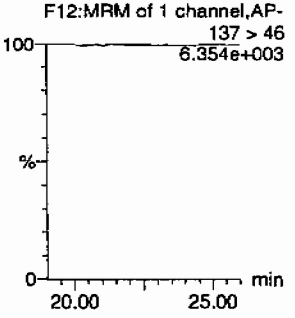

4-Nitrotoluene

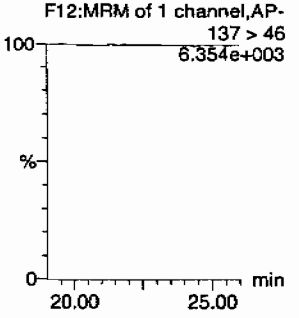

3-Nitrotoluene

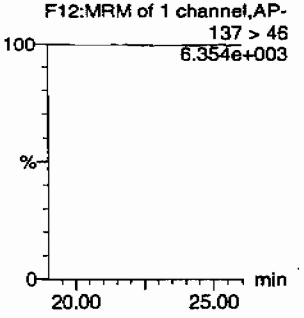

PETN

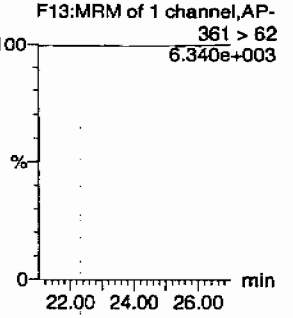

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			2638.707									
XIBLK05	RDX	176 > 102			2638.707									
XIBLK05	135-Trinitrobenzene	213 > 183			2638.707									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.17	2638.707		2638.707	2638.707	bb			455.2515	91.1	-8.9	188.8
XIBLK05	13-Dinitrobenzene	168 > 138			2638.707			MM-	02-Mar-10	09:56:43				
XIBLK05	Tetryl	241 > 181			2638.707									
XIBLK05	Nitrobenzene	123 > 46			2638.707									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			16062.614									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			16062.614									
XIBLK05	246-Trinitrotoluene	227 > 210			16062.614									
XIBLK05	34-dinitrotoluene	182 > 152			16062.614									
XIBLK05	26-dinitrotoluene	182 > 152			16062.614									
XIBLK05	24-dinitrotoluene	182 > 152			16062.614									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.62	16062.614		16062.614	16062.614	bb			499.3097	99.9	-0.1	1757.4
XIBLK05	2-Nitrotoluene	137 > 46			16062.614									
XIBLK05	4-Nitrotoluene	137 > 46			16062.614									
XIBLK05	3-Nitrotoluene	137 > 46			16062.614									
XIBLK05	PETN	361 > 62			16062.614									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 02-MAR-10 12:41

GEL Data File: EXP0301044a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	507.1
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	517.389
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301044a
Date: 02-Mar-2010
Time: 12:41:52
ID: XIBLK06
Vial: 1:1,A

KMT 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.121e+003

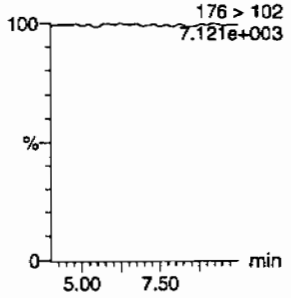

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.121e+003

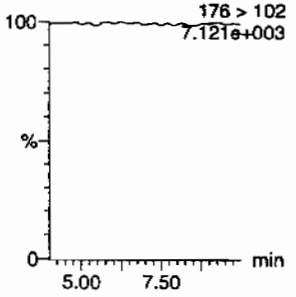

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
7.012e+003

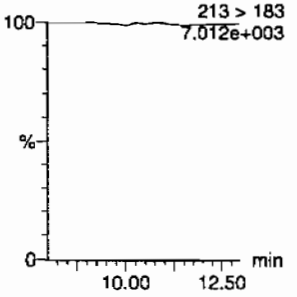

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.394e+004

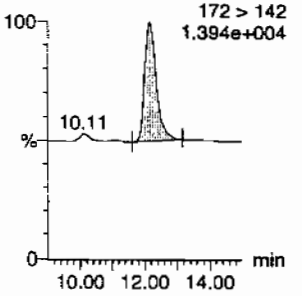

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.977e+003

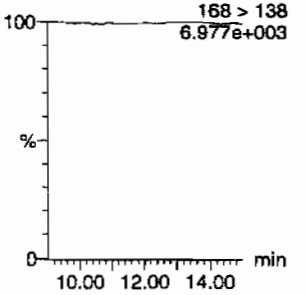

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.005e+003

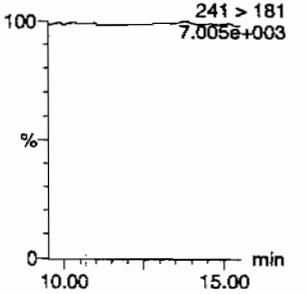

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.981e+003

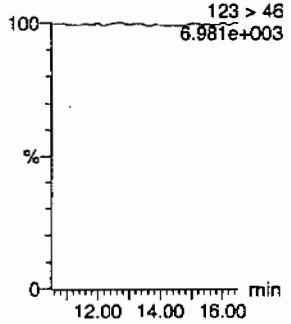

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.081e+003

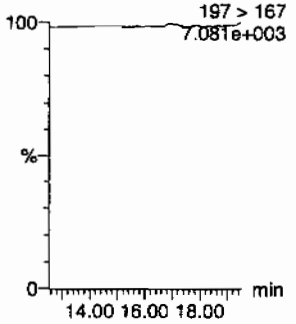

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.060e+003

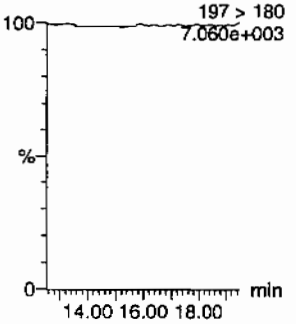

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.010e+003

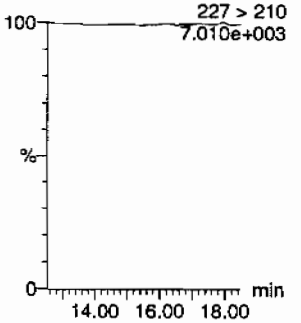

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.026e+003

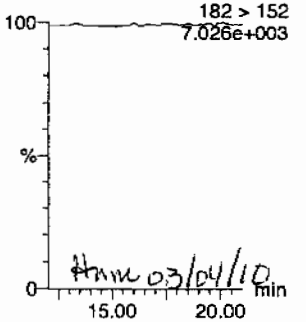

Hmm 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.026e+003

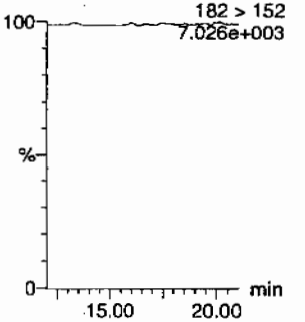

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

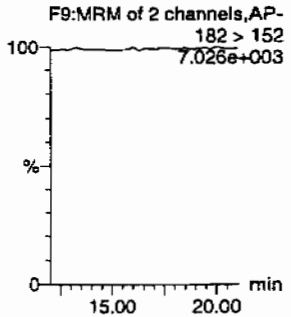

26-dinitrotoluene-d3

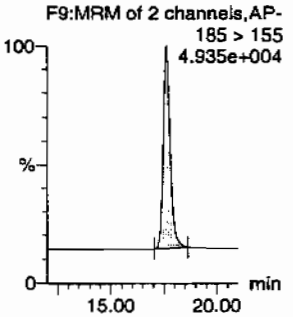

2-Nitrotoluene

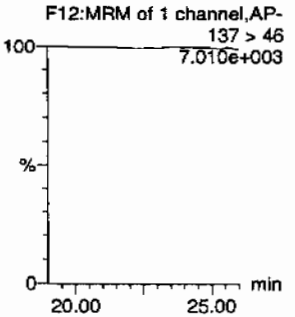

4-Nitrotoluene

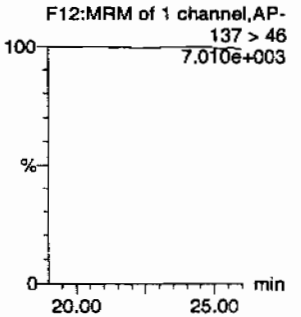

3-Nitrotoluene

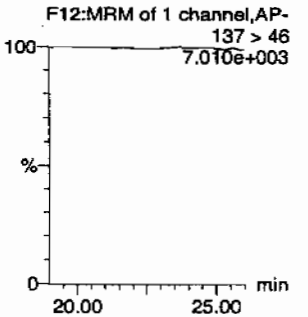

PETN

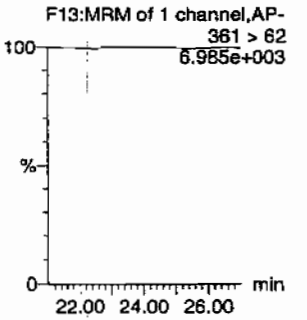

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			2939.228									
XIBLK06	RDX	176 > 102			2939.228									
XIBLK06	135-Trinitrobenzene	213 > 183			2939.228									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.17	2939.228		2939.228	2939.228	bb			507.0999	101.4	1.4	285.5
XIBLK06	13-Dinitrobenzene	168 > 138			2939.228									
XIBLK06	Tetryl	241 > 181			2939.228									
XIBLK06	Nitrobenzene	123 > 46			2939.228									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			16644.225									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			16644.225									
XIBLK06	246-Trinitrotoluene	227 > 210			16644.225									
XIBLK06	34-dinitrotoluene	182 > 152			16644.225									
XIBLK06	26-dinitrotoluene	182 > 152			16644.225									
XIBLK06	24-dinitrotoluene	182 > 152			16644.225									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.63	16644.225		16644.225	16644.225	bb			517.3892	103.5	3.5	1828.0
XIBLK06	2-Nitrotoluene	137 > 46			16644.225									
XIBLK06	4-Nitrotoluene	137 > 46			16644.225									
XIBLK06	3-Nitrotoluene	137 > 46			16644.225									
XIBLK06	PETN	361 > 62			16644.225									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1514
Lab Code: GEL
Lab Sample ID: XIBLK07
Analysis Date: 02-MAR-10 19:12
GEL Data File: EXP0301057a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	498.442
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	513.169
2-Amino-4,6-dinitrotoluene	0	0

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301057a
Date: 02-Mar-2010
Time: 19:12:15
ID: XIBLK07
Vial: 1:1,A

LMP 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.273e+003

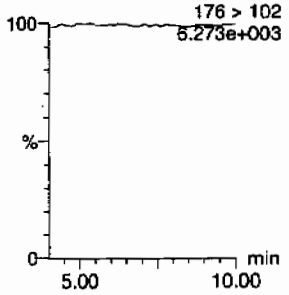

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.273e+003

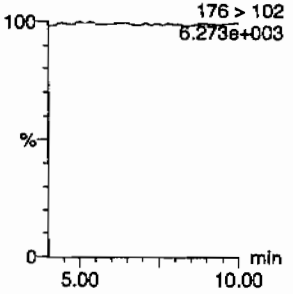

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.160e+003

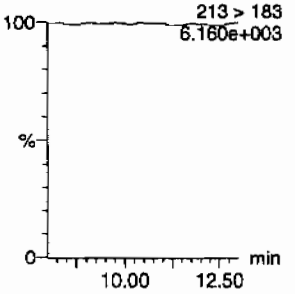

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.307e+004

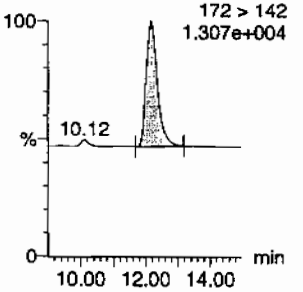

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.182e+003

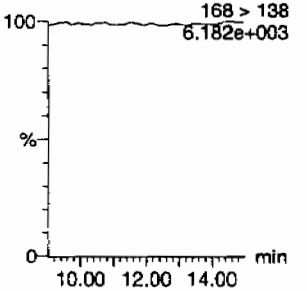

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.176e+003

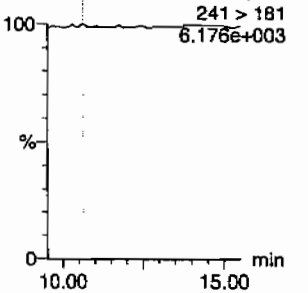

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.226e+003

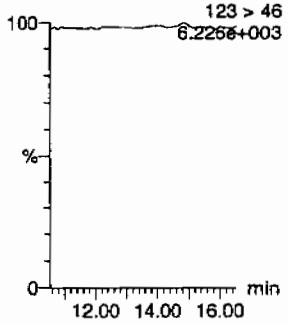

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.240e+003

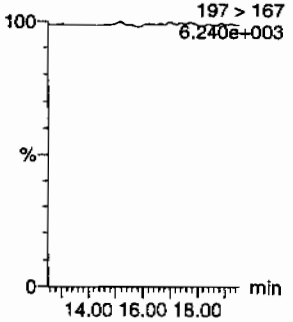

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.235e+003

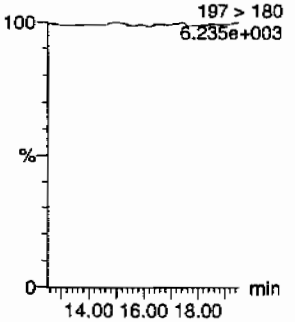

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.165e+003

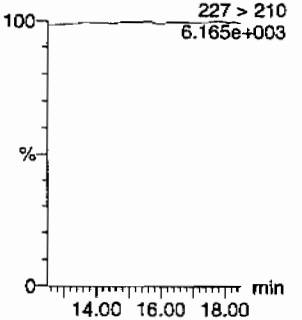

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.198e+003

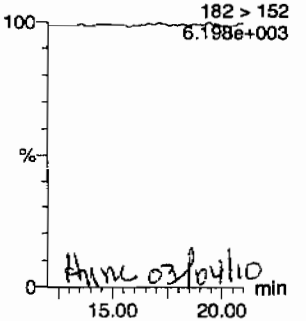

AMC 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.198e+003

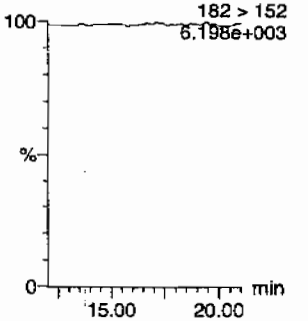

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

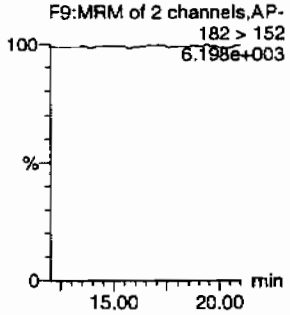

26-dinitrotoluene-d3

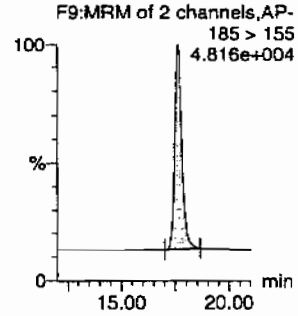

2-Nitrotoluene

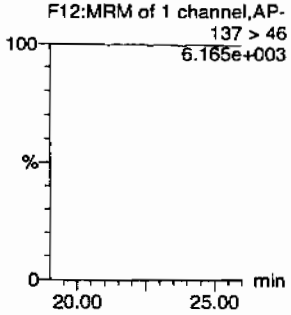

4-Nitrotoluene

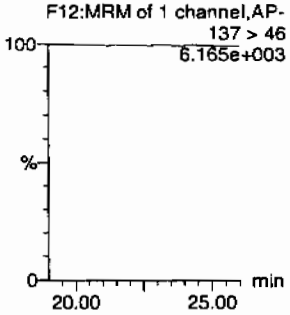

3-Nitrotoluene

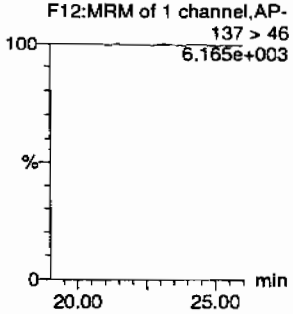

PETN

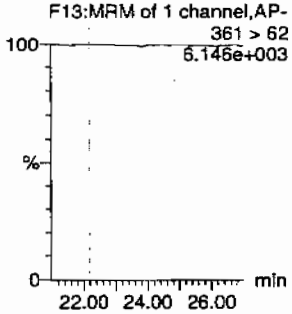

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			2889.043									
XIBLK07	RDX	176 > 102			2889.043									
XIBLK07	135-Trinitrobenzene	213 > 183			2889.043									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.17	2889.043		2889.043	2889.043	bb			498.4415	99.7	-0.3	171.0
XIBLK07	13-Dinitrobenzene	168 > 138			2889.043									
XIBLK07	Tetryl	241 > 181			2889.043									
XIBLK07	Nitrobenzene	123 > 46			2889.043									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			16508.475									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			16508.475									
XIBLK07	246-Trinitrotoluene	227 > 210			16508.475									
XIBLK07	34-dinitrotoluene	182 > 152			16508.475									
XIBLK07	26-dinitrotoluene	182 > 152			16508.475									
XIBLK07	24-dinitrotoluene	182 > 152			16508.475									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.64	16508.475		16508.475	16508.475	bb			513.1694	102.6	2.6	1224.6
XIBLK07	2-Nitrotoluene	137 > 46			16508.475									
XIBLK07	4-Nitrotoluene	137 > 46			16508.475									
XIBLK07	3-Nitrotoluene	137 > 46			16508.475									
XIBLK07	PETN	361 > 62			16508.475									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 03-MAR-10 01:06

GEL Data File: EXP0301069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	575.51
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	589.51
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301069a
Date: 03-Mar-2010
Time: 01:06:20
ID: XIBLK08
Vial: 1:1,A

MTT 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.484e+003

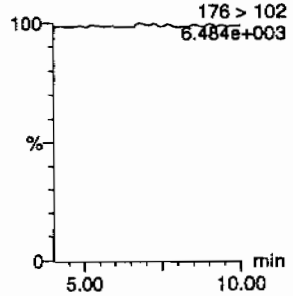

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.484e+003

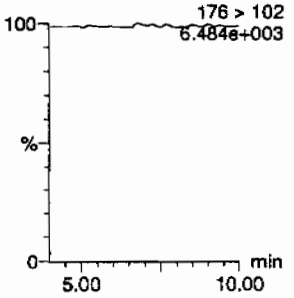

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.362e+003

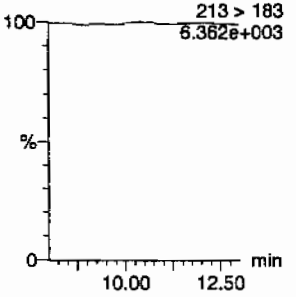

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.420e+004

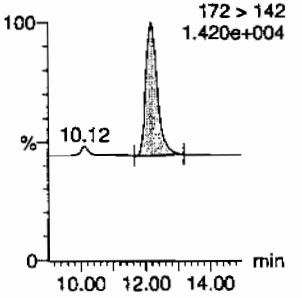

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.351e+003

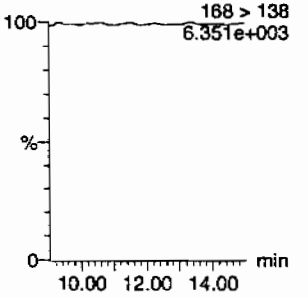

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.365e+003

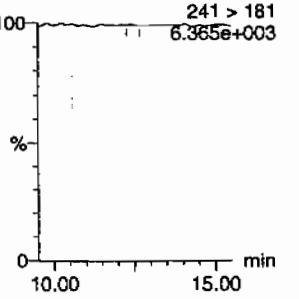

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.353e+003

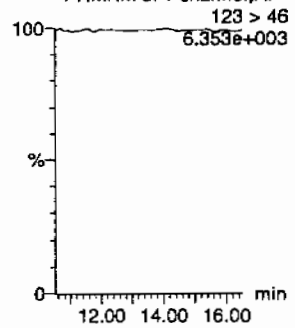

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.390e+003

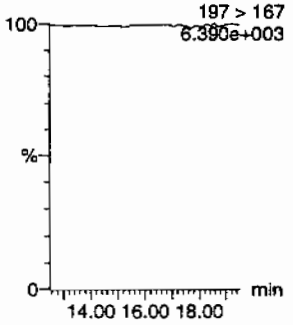

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.387e+003

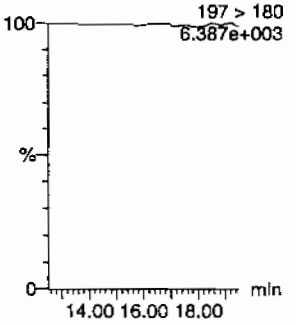

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.338e+003

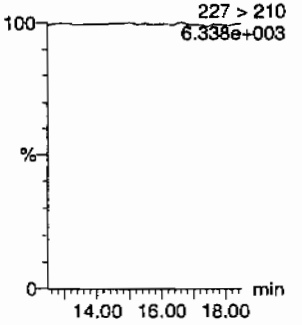

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.367e+003

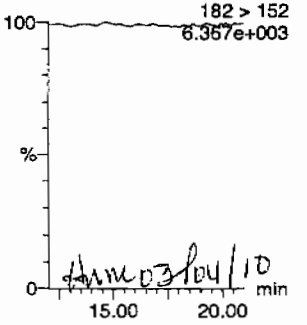

HMM 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.367e+003

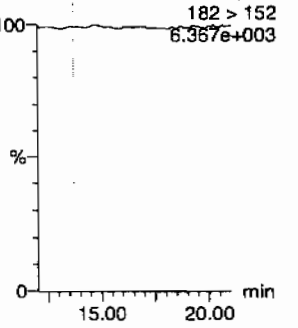

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.367e+003

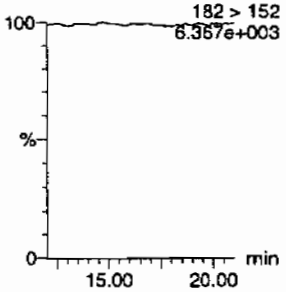

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.431e+004

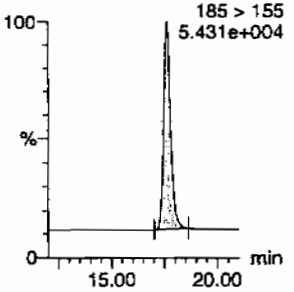

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.392e+003

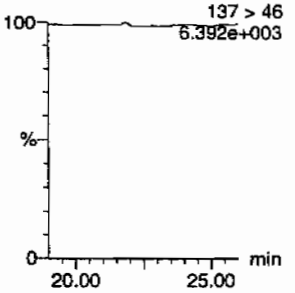

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.392e+003

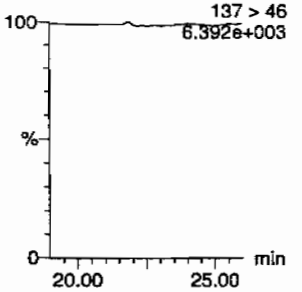

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.392e+003

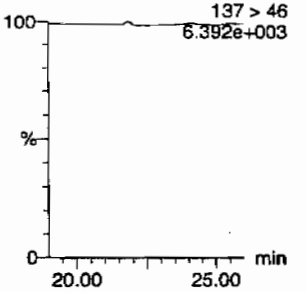

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.338e+003

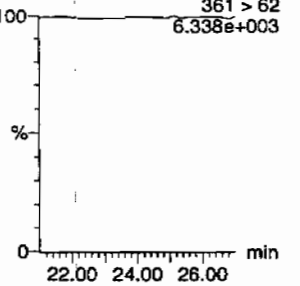

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	% Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3335.746									
XIBLK08	RDX	176 > 102			3335.746									
XIBLK08	135-Trinitrobenzene	213 > 183			3335.746									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.17	3335.746		3335.746	3335.746	bb			575.5104	115.1	15.1	206.2
XIBLK08	13-Dinitrobenzene	168 > 138			3335.746									
XIBLK08	Tetryl	241 > 181			3335.746			MM-	03-Mar-10	08:44:06				
XIBLK08	Nitrobenzene	123 > 46			3335.746									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			18964.324									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			18964.324									
XIBLK08	246-Trinitrotoluene	227 > 210			18964.324									
XIBLK08	34-dinitrotoluene	182 > 152			18964.324									
XIBLK08	26-dinitrotoluene	182 > 152			18964.324									
XIBLK08	24-dinitrotoluene	182 > 152			18964.324									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.62	18964.324		18964.324	18964.324	bb			589.5099	117.9	17.9	2280.5
XIBLK08	2-Nitrotoluene	137 > 46			18964.324									
XIBLK08	4-Nitrotoluene	137 > 46			18964.324									
XIBLK08	3-Nitrotoluene	137 > 46			18964.324									
XIBLK08	PETN	361 > 62			18964.324									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 03-MAR-10 07:29

GEL Data File: EXP0301082a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	554.089
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	556.508
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301082a
Date: 03-Mar-2010
Time: 07:29:51
ID: XIBLK09
Vial: 1:1,A

MM 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.306e+003

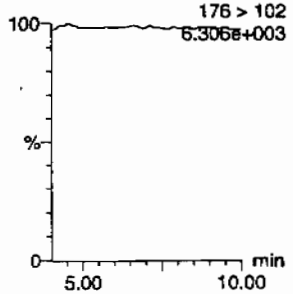

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.306e+003

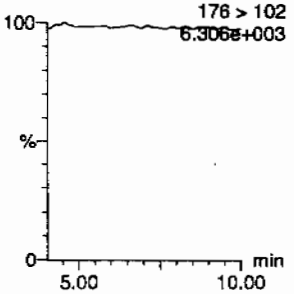

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.094e+003

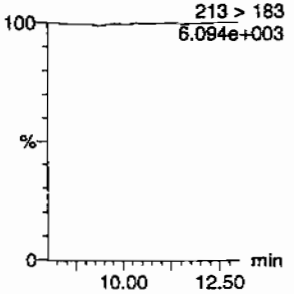

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.368e+004

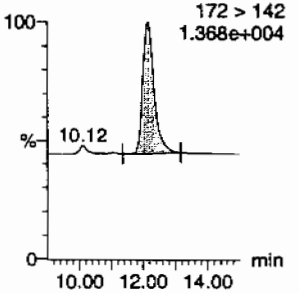

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.131e+003

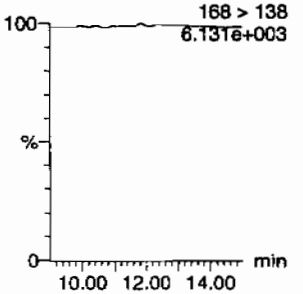

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.089e+003

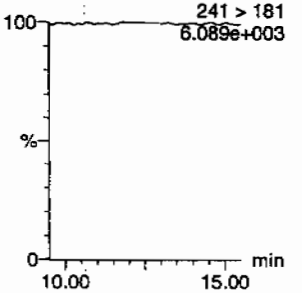

Nitrobenzene
F7:MRM of 1 channel,AP-
11.30
123 > 46
6.258e+003

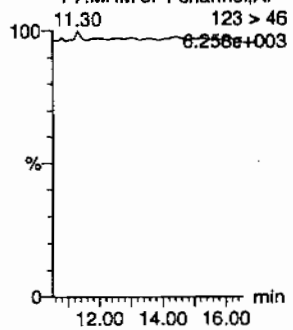

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.196e+003

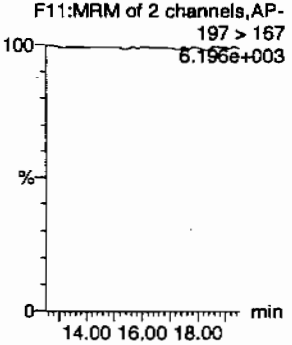

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.254e+003

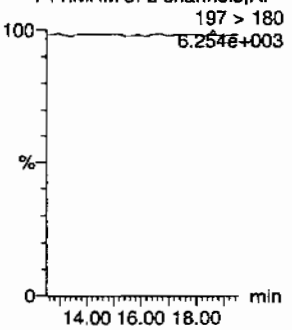

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.130e+003

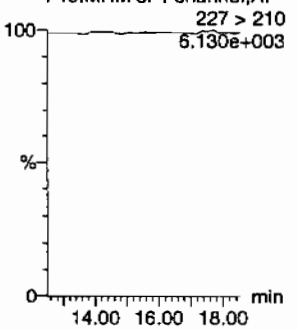

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.134e+003

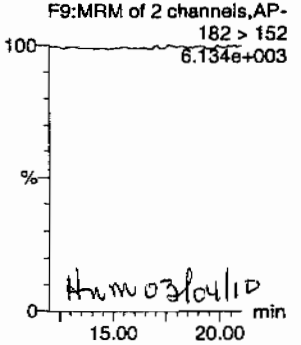

HWM 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.134e+003

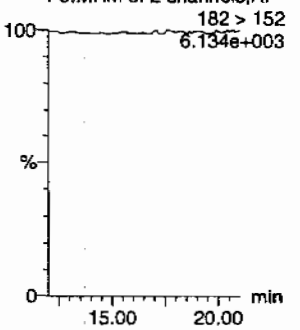

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

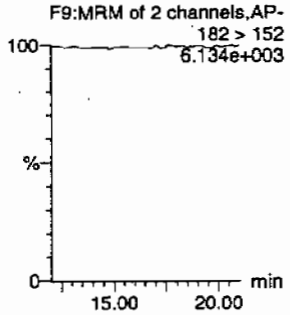

26-dinitrotoluene-d3

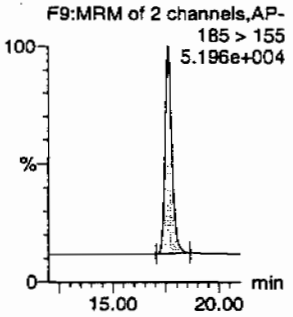

2-Nitrotoluene

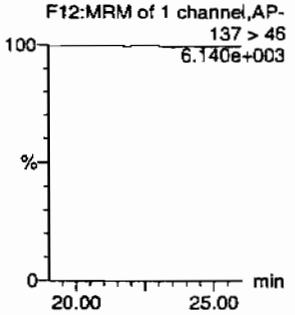

4-Nitrotoluene

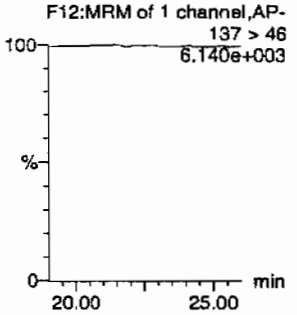

3-Nitrotoluene

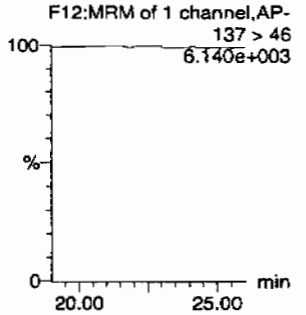

PETN

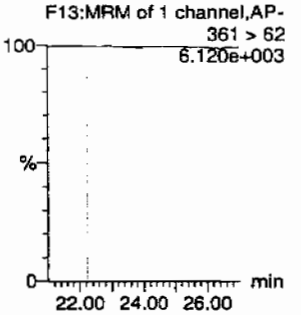

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3211.582									
XIBLK09	RDX	176 > 102			3211.582									
XIBLK09	135-Trinitrobenzene	213 > 183			3211.582									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.17	3211.582		3211.582	3211.582	bb			554.0886	110.8	10.8	286.4
XIBLK09	13-Dinitrobenzene	168 > 138			3211.582									
XIBLK09	Tetryl	241 > 181			3211.582									
XIBLK09	Nitrobenzene	123 > 46			3211.582									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			17902.656									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			17902.656									
XIBLK09	246-Trinitrotoluene	227 > 210			17902.656									
XIBLK09	34-dinitrotoluene	182 > 152			17902.656									
XIBLK09	26-dinitrotoluene	182 > 152			17902.656									
XIBLK09	24-dinitrotoluene	182 > 152			17902.656									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.62	17902.656		17902.656	17902.656	bb			556.5078	111.3	11.3	1976.1
XIBLK09	2-Nitrotoluene	137 > 46			17902.656									
XIBLK09	4-Nitrotoluene	137 > 46			17902.656									
XIBLK09	3-Nitrotoluene	137 > 46			17902.656									
XIBLK09	PETN	361 > 62			17902.656									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 03-MAR-10 11:26

GEL Data File: EXP0301090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	577.198
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	590.189
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030110expa.cdb, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301090a
Date: 03-Mar-2010
Time: 11:26:38
ID: XIBLK10
Vial: 1:1,A

Lan 3/5/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.107e+003

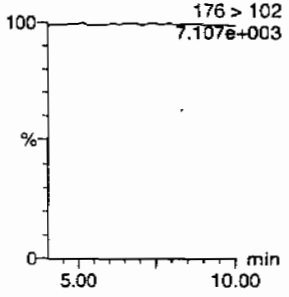

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.107e+003

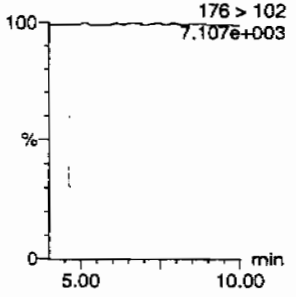

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
7.003e+003

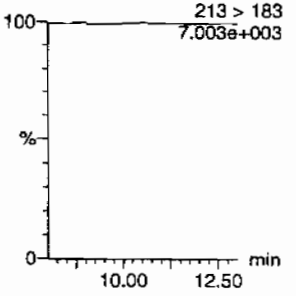

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.488e+004

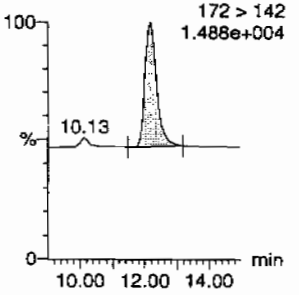

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.005e+003

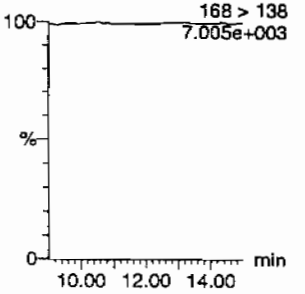

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.017e+003

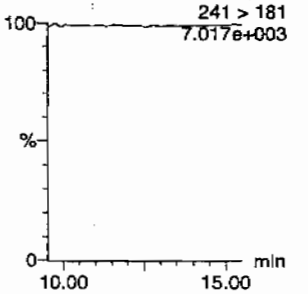

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.999e+003

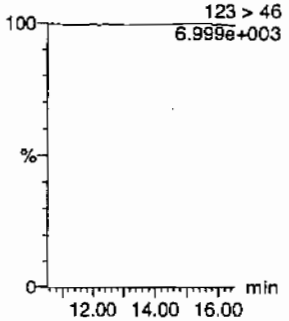

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
12.51
197 > 167
7.252e+003

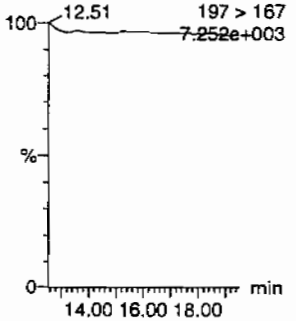

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.049e+003

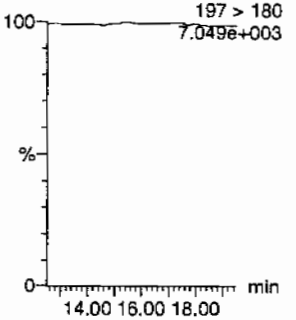

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.102e+003

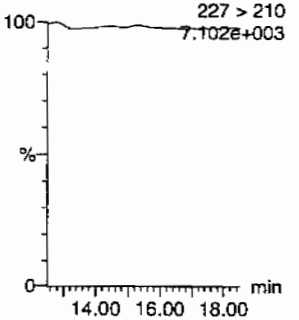

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.017e+003

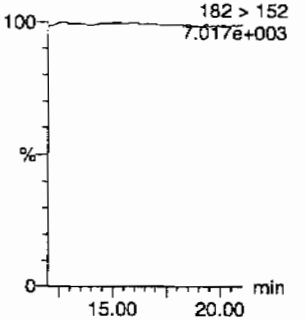

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.017e+003

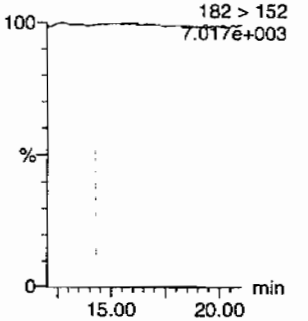

Shiw 03/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.017e+003

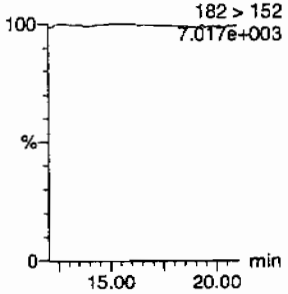

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.410e+004

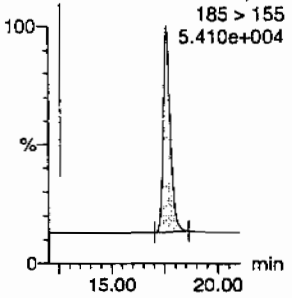

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.982e+003

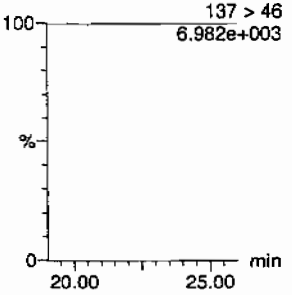

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.982e+003

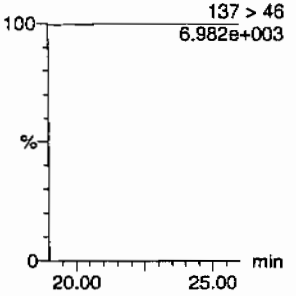

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.982e+003

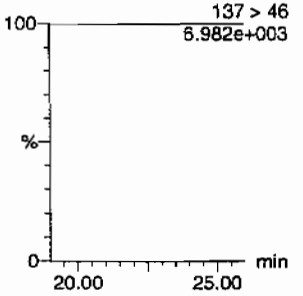

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.969e+003

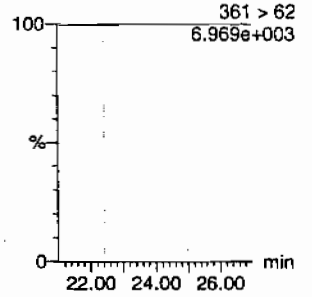

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			3345.529									
XIBLK10	RDX	176 > 102			3345.529									
XIBLK10	135-Trinitrobenzene	213 > 183			3345.529									
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.17	3345.529		3345.529	3345.529	bb			577.1983	115.4	15.4	390.7
XIBLK10	13-Dinitrobenzene	168 > 138			3345.529									
XIBLK10	Tetryl	241 > 181			3345.529									
XIBLK10	Nitrobenzene	123 > 46			3345.529									
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			18986.160									
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			18986.160									
XIBLK10	246-Trinitrotoluene	227 > 210			18986.160									
XIBLK10	34-dinitrotoluene	182 > 152			18986.160									
XIBLK10	26-dinitrotoluene	182 > 152			18986.160									
XIBLK10	24-dinitrotoluene	182 > 152			18986.160									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.62	18986.160		18986.160	18986.160	bb			590.1887	118.0	18.0	1170.8
XIBLK10	2-Nitrotoluene	137 > 46			18986.160									
XIBLK10	4-Nitrotoluene	137 > 46			18986.160									
XIBLK10	3-Nitrotoluene	137 > 46			18986.160									
XIBLK10	PETN	361 > 62			18986.160									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1514
Lab Code: GEL
Lab Sample ID: XIBLK11
Analysis Date: 03-MAR-10 12:55
GEL Data File: EXP0301093a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	593.435
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	676.398
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301093a
Date: 03-Mar-2010
Time: 12:55:15
ID: XIBLK11
Vial: 1:1,A

MMT 3/4/10

HMX

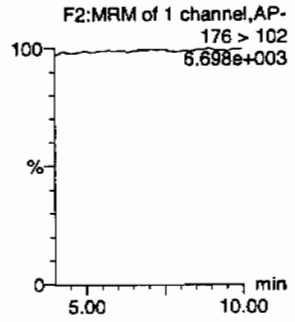

RDX

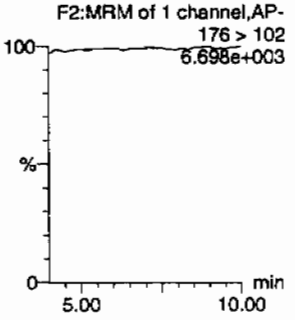

135-Trinitrobenzene

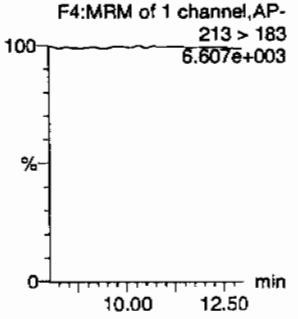

13-Dinitrobenzene-d4

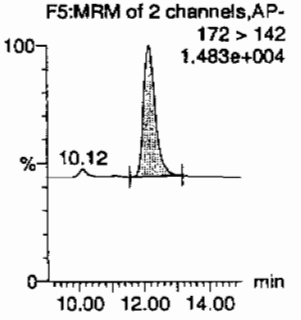

13-Dinitrobenzene

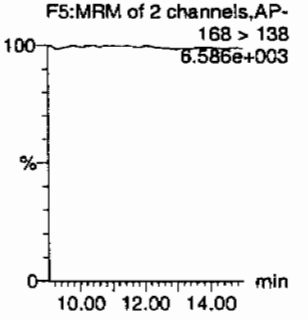

Tetryl

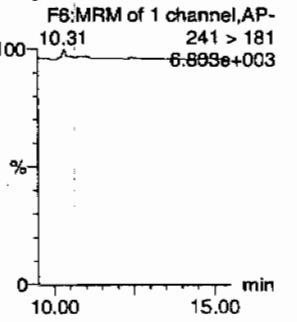

Nitrobenzene

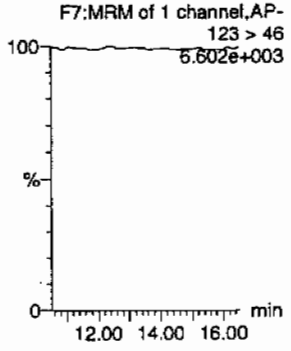

4-Amino-26-dinitrotoluene

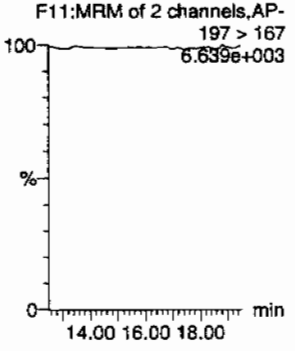

2-Amino-46-dinitrotoluene

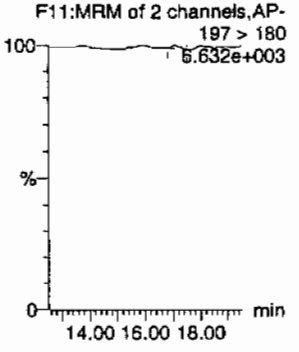

246-Trinitrotoluene

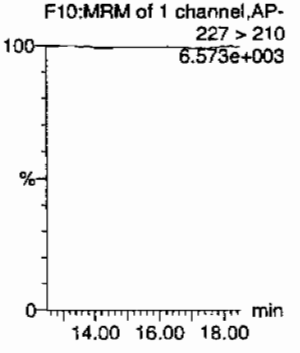

34-dinitrotoluene

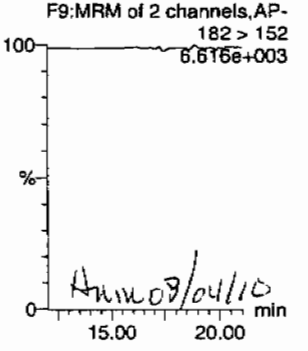

Amino 03/04/10

26-dinitrotoluene

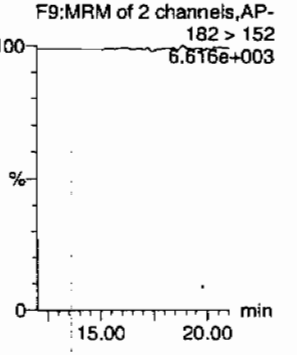

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

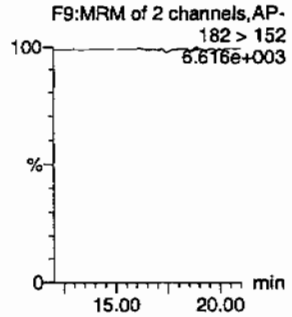

26-dinitrotoluene-d3

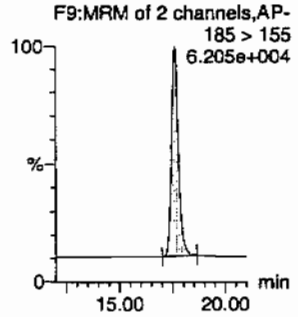

2-Nitrotoluene

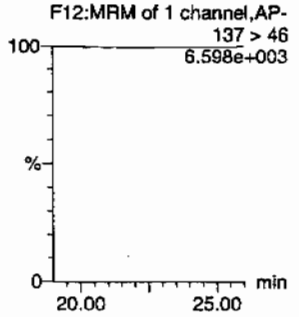

4-Nitrotoluene

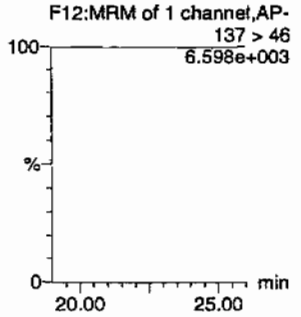

3-Nitrotoluene

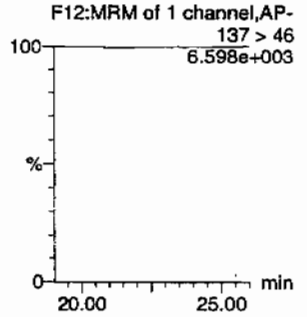

PETN

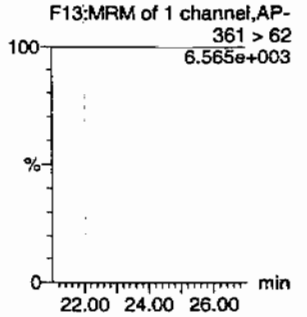

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			3439.638									
XIBLK11	RDX	176 > 102			3439.638									
XIBLK11	135-Trinitrobenzene	213 > 183			3439.638									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.17	3439.638		3439.638	3439.638	bb			593.4347	118.7	18.7	240.1
XIBLK11	13-Dinitrobenzene	168 > 138			3439.638									
XIBLK11	Tetryl	241 > 181			3439.638									
XIBLK11	Nitrobenzene	123 > 46			3439.638									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			21759.496									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			21759.496			MM-	04-Mar-10	09:48:48				
XIBLK11	246-Trinitrotoluene	227 > 210			21759.496									
XIBLK11	34-dinitrotoluene	182 > 152			21759.496									
XIBLK11	26-dinitrotoluene	182 > 152			21759.496									
XIBLK11	24-dinitrotoluene	182 > 152			21759.496			MM-	04-Mar-10	09:56:00				
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.62	21759.496		21759.496	21759.496	bb			676.3984	135.3	35.3	2071.4
XIBLK11	2-Nitrotoluene	137 > 46			21759.496									
XIBLK11	4-Nitrotoluene	137 > 46			21759.496									
XIBLK11	3-Nitrotoluene	137 > 46			21759.496									
XIBLK11	PETN	361 > 62			21759.496									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 03-MAR-10 14:53

GEL Data File: EXP0301097a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
HMX	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	626.501
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	660.044
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301097a
Date: 03-Mar-2010
Time: 14:53:21
ID: XIBLK12
Vial: 1:1,A

HMT 3/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.453e+003

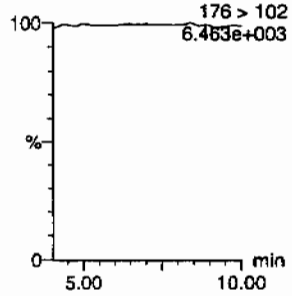

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.453e+003

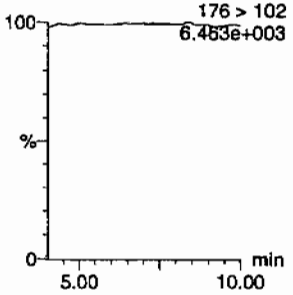

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.321e+003

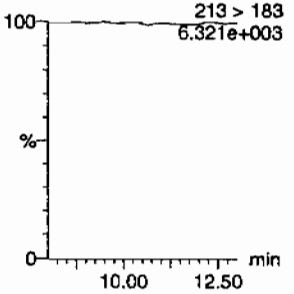

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.525e+004

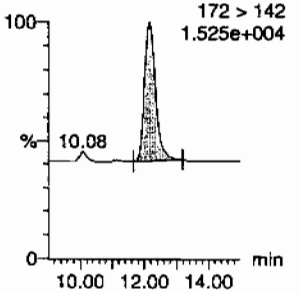

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.294e+003

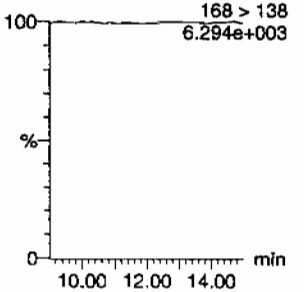

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.308e+003

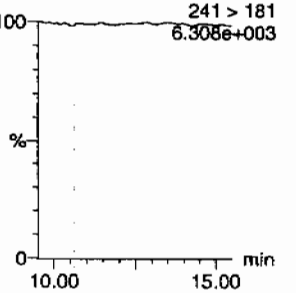

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.314e+003

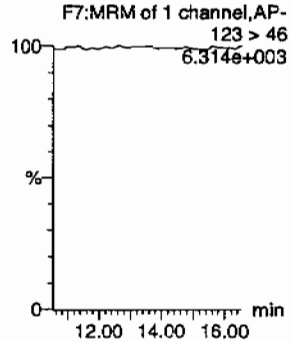

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.401e+003

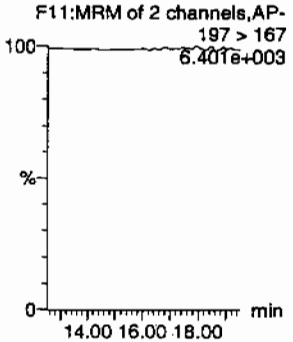

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.395e+003

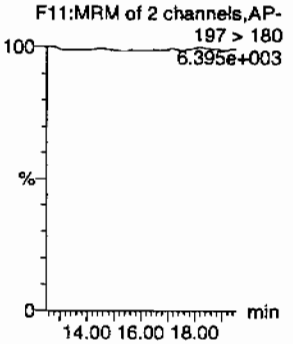

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.344e+003

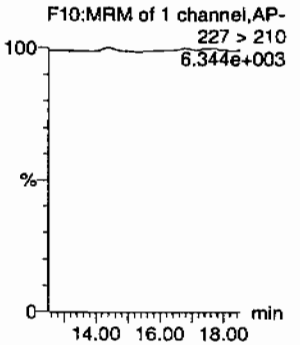

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.319e+003

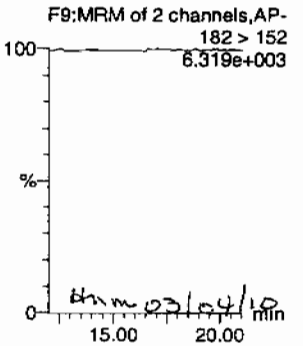

HMM 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.319e+003

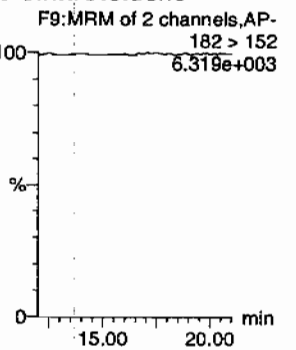

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

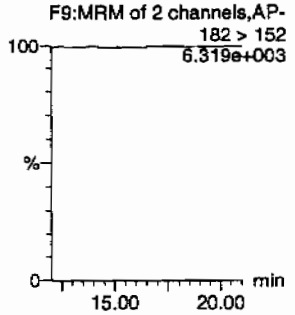

26-dinitrotoluene-d3

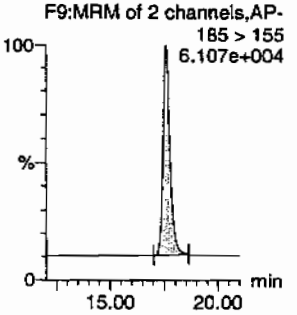

2-Nitrotoluene

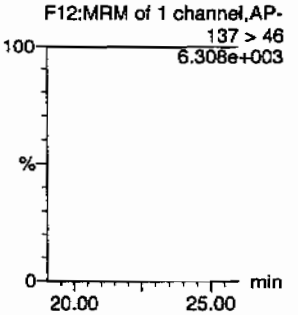

4-Nitrotoluene

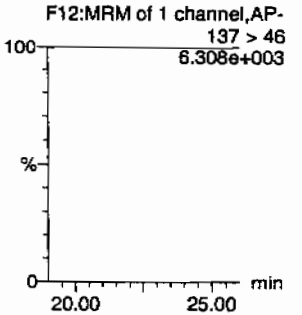

3-Nitrotoluene

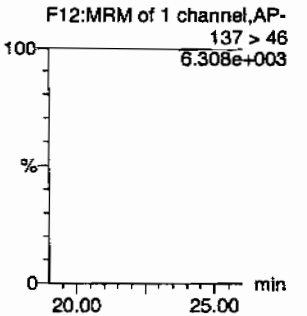

PETN

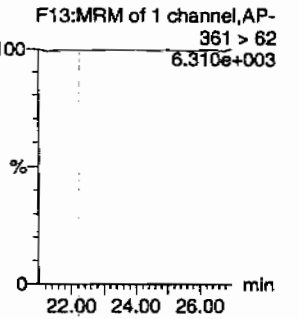

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			3631.295									
XIBLK12	RDX	176 > 102			3631.295									
XIBLK12	135-Trinitrobenzene	213 > 183			3631.295									
XIBLK12	13-Dinitrobenzene-d4	172 > 142	12.17	3631.295		3631.295	3631.295	bb			626.5010	125.3	25.3	482.6
XIBLK12	13-Dinitrobenzene	168 > 138			3631.295									
XIBLK12	Tetryl	241 > 181			3631.295									
XIBLK12	Nitrobenzene	123 > 46			3631.295									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			21233.377									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			21233.377									
XIBLK12	246-Trinitrotoluene	227 > 210			21233.377									
XIBLK12	34-dinitrotoluene	182 > 152			21233.377									
XIBLK12	26-dinitrotoluene	182 > 152			21233.377									
XIBLK12	24-dinitrotoluene	182 > 152			21233.377									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.60	21233.377		21233.377	21233.377	bb			660.0439	132.0	32.0	2348.9
XIBLK12	2-Nitrotoluene	137 > 46			21233.377									
XIBLK12	4-Nitrotoluene	137 > 46			21233.377									
XIBLK12	3-Nitrotoluene	137 > 46			21233.377									
XIBLK12	PETN	361 > 62			21233.377									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XJBLK13

Analysis Date: 03-MAR-10 19:48

GEL Data File: EXP0301107a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	592.73
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	616.274
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301107a
Date: 03-Mar-2010
Time: 19:48:30
ID: XIBLK13
Vial: 1:1,A

MATT 3/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.891e+003

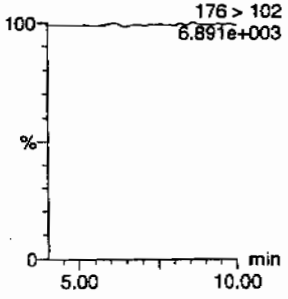

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.891e+003

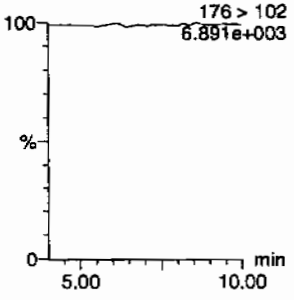

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.763e+003

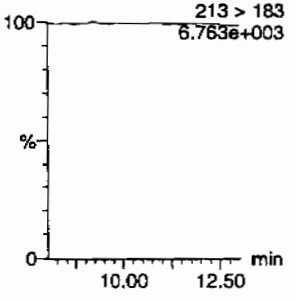

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.509e+004

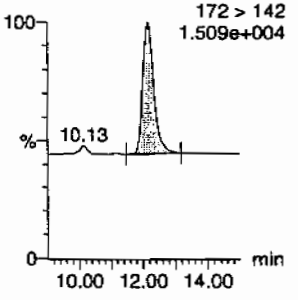

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.748e+003

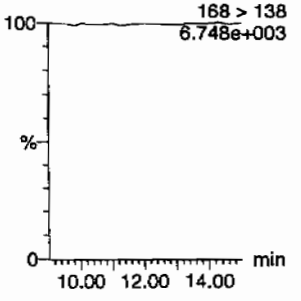

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.749e+003

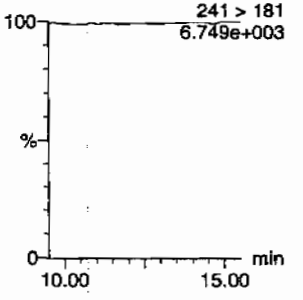

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.767e+003

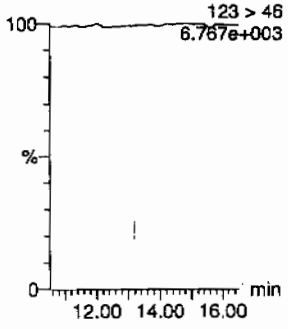

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.857e+003

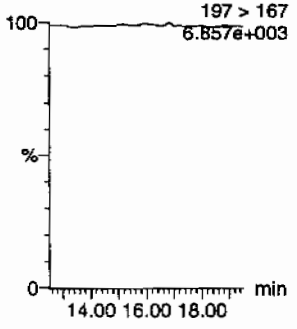

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.827e+003

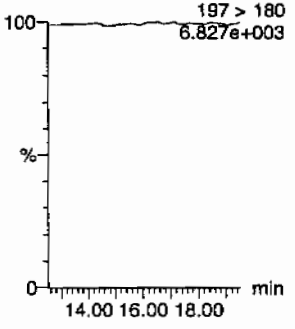

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.762e+003

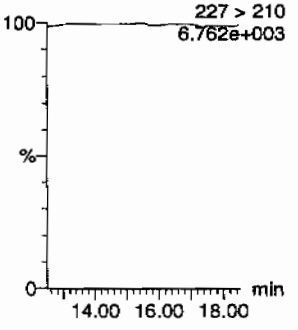

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.785e+003

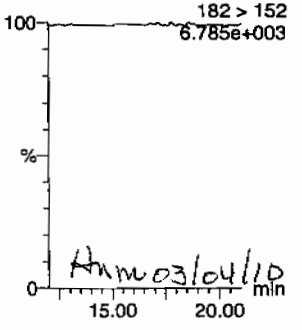

HMM 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.785e+003

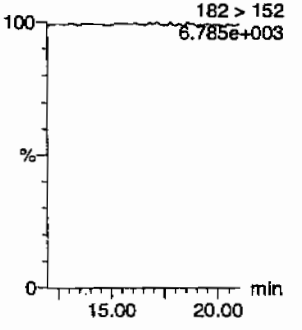

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

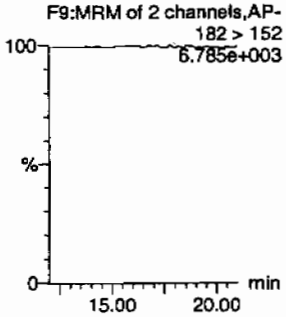

26-dinitrotoluene-d3

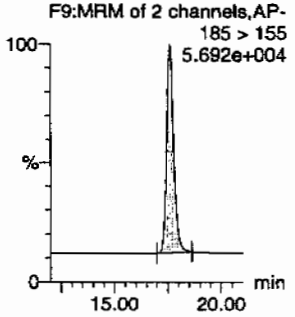

2-Nitrotoluene

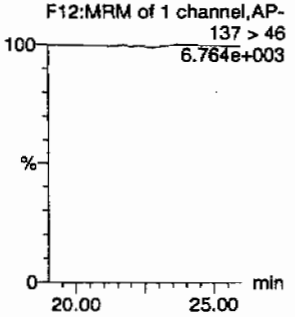

4-Nitrotoluene

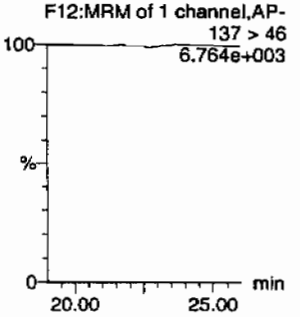

3-Nitrotoluene

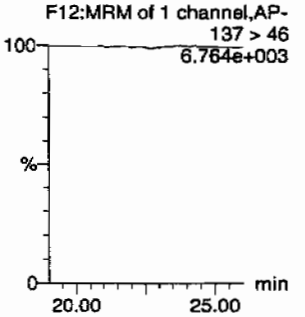

PETN

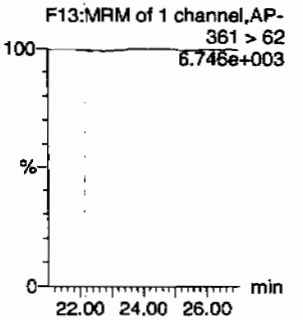

ID	Name	Trace	RT	Area	S*Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			3435.551									
XIBLK13	RDX	176 > 102			3435.551									
XIBLK13	135-Trinitrobenzene	213 > 183			3435.551									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	12.17	3435.551		3435.551	3435.551	bb			592.7296	118.5	18.5	225.4
XIBLK13	13-Dinitrobenzene	168 > 138			3435.551									
XIBLK13	Tetryl	241 > 181			3435.551									
XIBLK13	Nitrobenzene	123 > 46			3435.551									
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			19825.314									
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			19825.314									
XIBLK13	246-Trinitrotoluene	227 > 210			19825.314									
XIBLK13	34-dinitrotoluene	182 > 152			19825.314									
XIBLK13	26-dinitrotoluene	182 > 152			19825.314									
XIBLK13	24-dinitrotoluene	182 > 152			19825.314									
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.62	19825.314		19825.314	19825.314	bb			616.2740	123.3	23.3	2722.4
XIBLK13	2-Nitrotoluene	137 > 46			19825.314									
XIBLK13	4-Nitrotoluene	137 > 46			19825.314									
XIBLK13	3-Nitrotoluene	137 > 46			19825.314									
XIBLK13	PETN	361 > 62			19825.314									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 03-MAR-10 20:47

GEL Data File: EXP0301109a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	559.252
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	578.588
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301109a
Date: 03-Mar-2010
Time: 20:47:27
ID: XIBLK14
Vial: 1:1,A

MMT 3/4/10

HMX

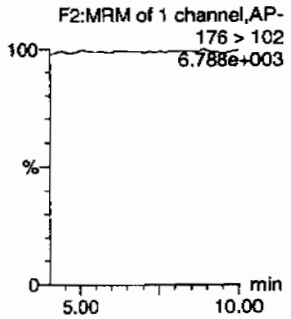

RDX

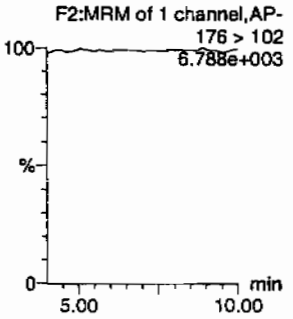

135-Trinitrobenzene

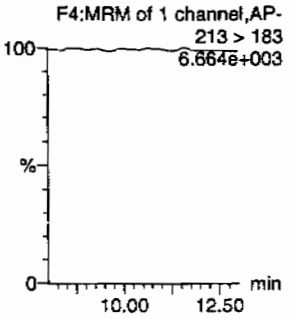

13-Dinitrobenzene-d4

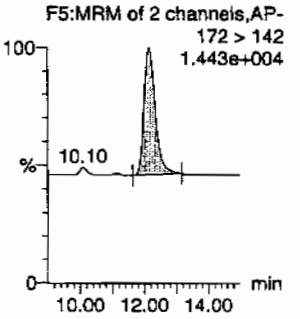

13-Dinitrobenzene

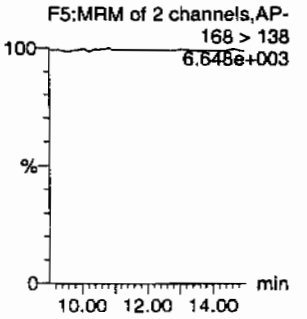

Tetryl

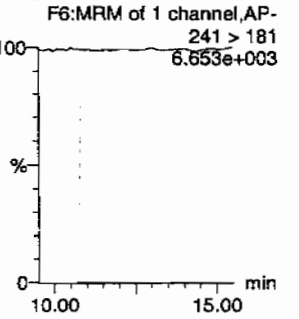

Nitrobenzene

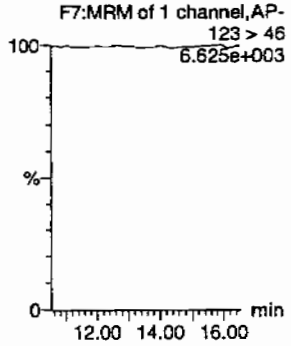

4-Amino-26-dinitrotoluene

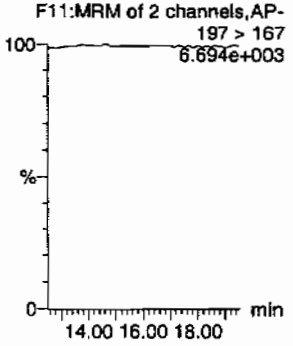

2-Amino-46-dinitrotoluene

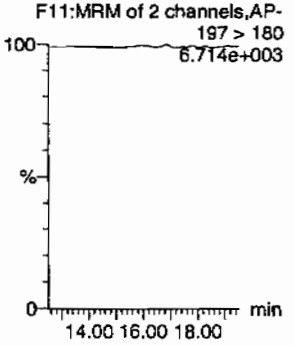

246-Trinitrotoluene

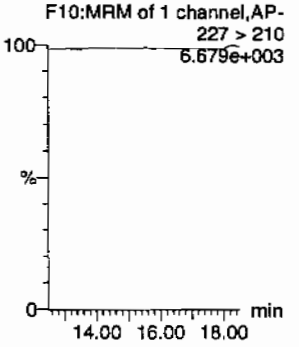

34-dinitrotoluene

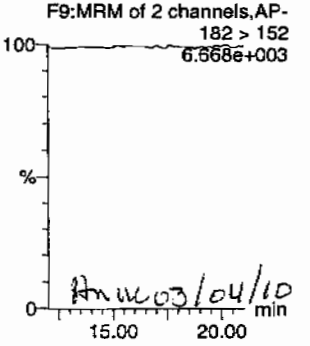

Rmw 03/04/10

26-dinitrotoluene

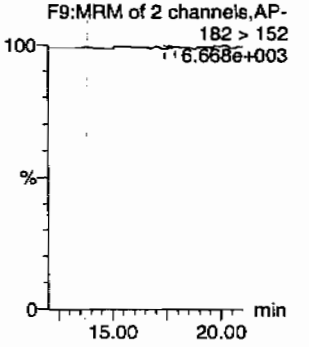

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

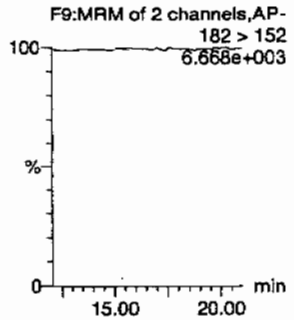

26-dinitrotoluene-d3

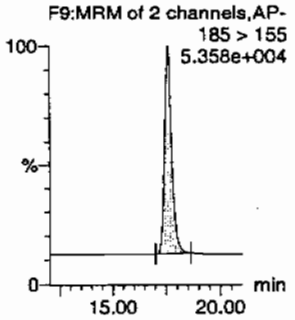

2-Nitrotoluene

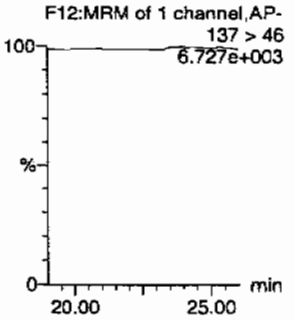

4-Nitrotoluene

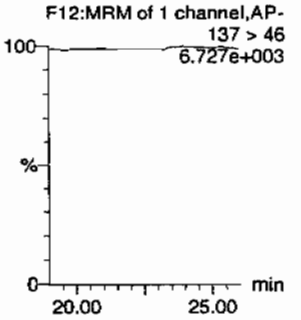

3-Nitrotoluene

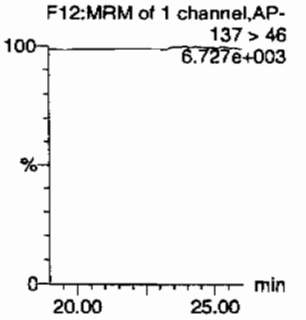

PETN

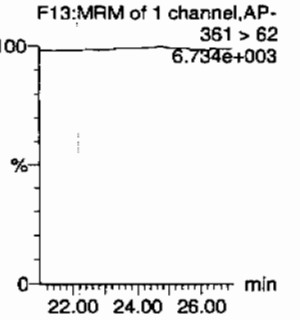

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK14	HMX	176 > 102			3241.511									
XIBLK14	RDX	176 > 102			3241.511									
XIBLK14	135-Trinitrobenzene	213 > 183			3241.511									
XIBLK14	13-Dinitrobenzene-d4	172 > 142	12.17	3241.511		3241.511	3241.511	bb			559.2522	111.9	11.9	382.4
XIBLK14	13-Dinitrobenzene	168 > 138			3241.511									
XIBLK14	Tetryl	241 > 181			3241.511									
XIBLK14	Nitrobenzene	123 > 46			3241.511									
XIBLK14	4-Amino-26-dinitrotoluene	197 > 167			18612.984									
XIBLK14	2-Amino-46-dinitrotoluene	197 > 180			18612.984									
XIBLK14	246-Trinitrotoluene	227 > 210			18612.984									
XIBLK14	34-dinitrotoluene	182 > 152			18612.984									
XIBLK14	26-dinitrotoluene	182 > 152			18612.984			MM-	04-Mar-10	09:52:18				
XIBLK14	24-dinitrotoluene	182 > 152			18612.984									
XIBLK14	26-dinitrotoluene-d3	185 > 155	17.60	18612.984		18612.984	18612.984	bb			578.5885	115.7	15.7	1257.2
XIBLK14	2-Nitrotoluene	137 > 46			18612.984									
XIBLK14	4-Nitrotoluene	137 > 46			18612.984									
XIBLK14	3-Nitrotoluene	137 > 46			18612.984									
XIBLK14	PETN	361 > 62			18612.984									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 22-FEB-10 19:23

GEL Data File: EXS02220010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	1.35
tris(o-cresyl) phosphate	0	10.7
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

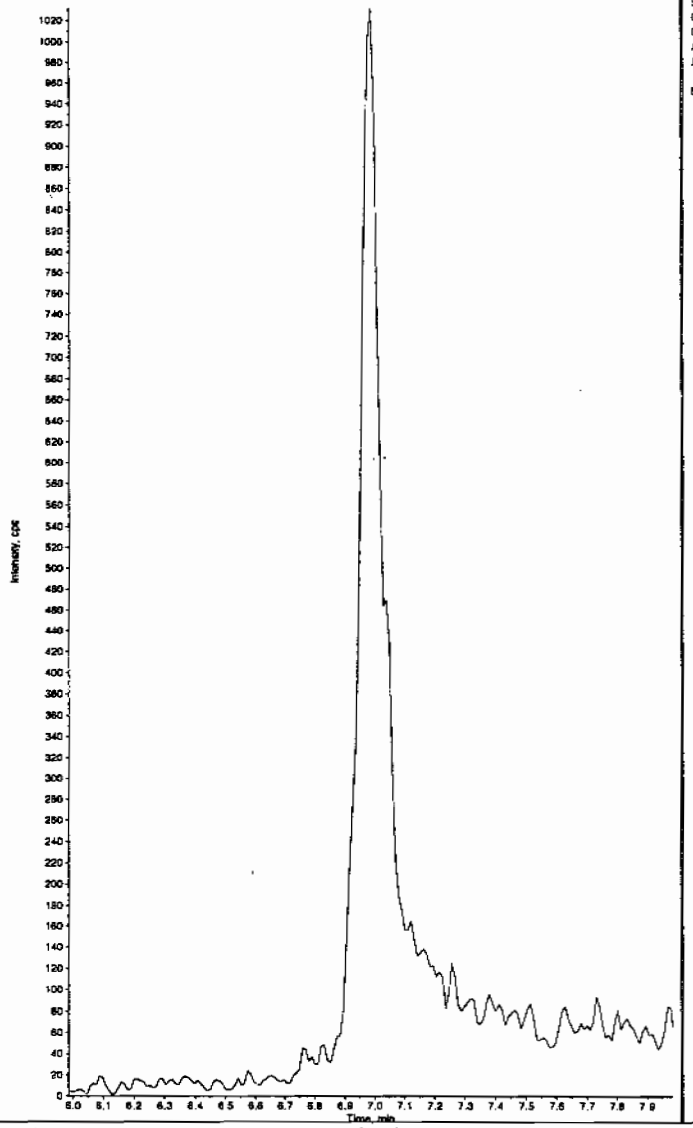

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

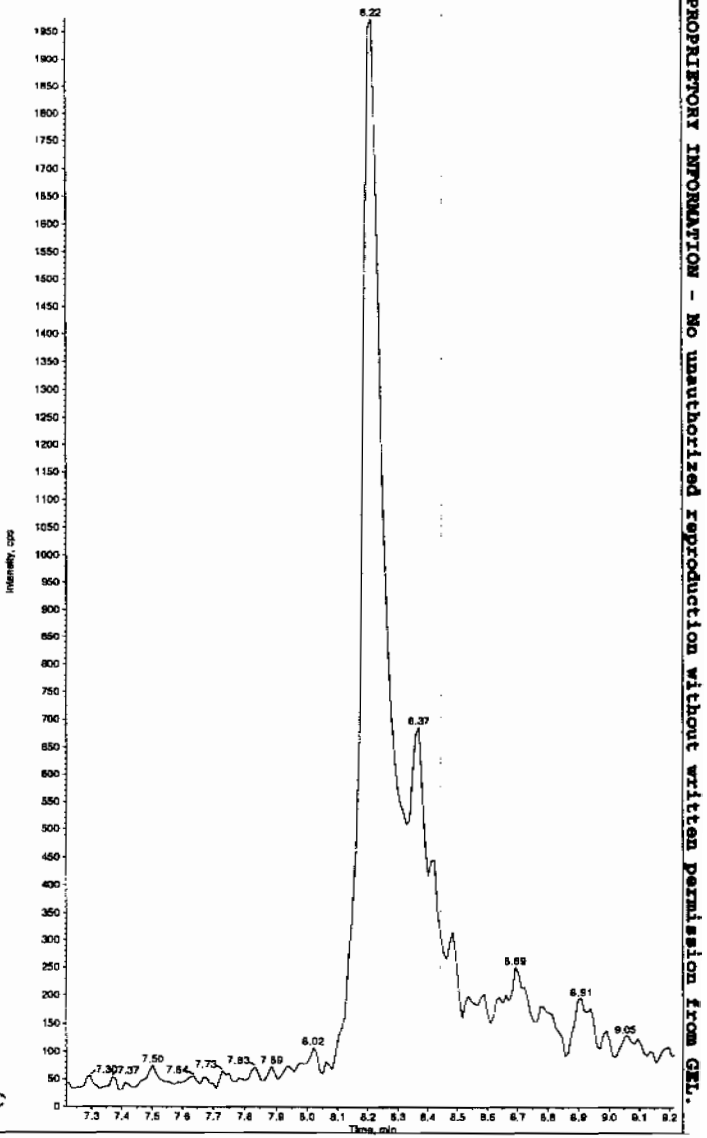

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02220010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.35 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 9.14e+003 counts
Height: 1997.357 cps
Start Time: 8.30 min
End Time: 8.59 min

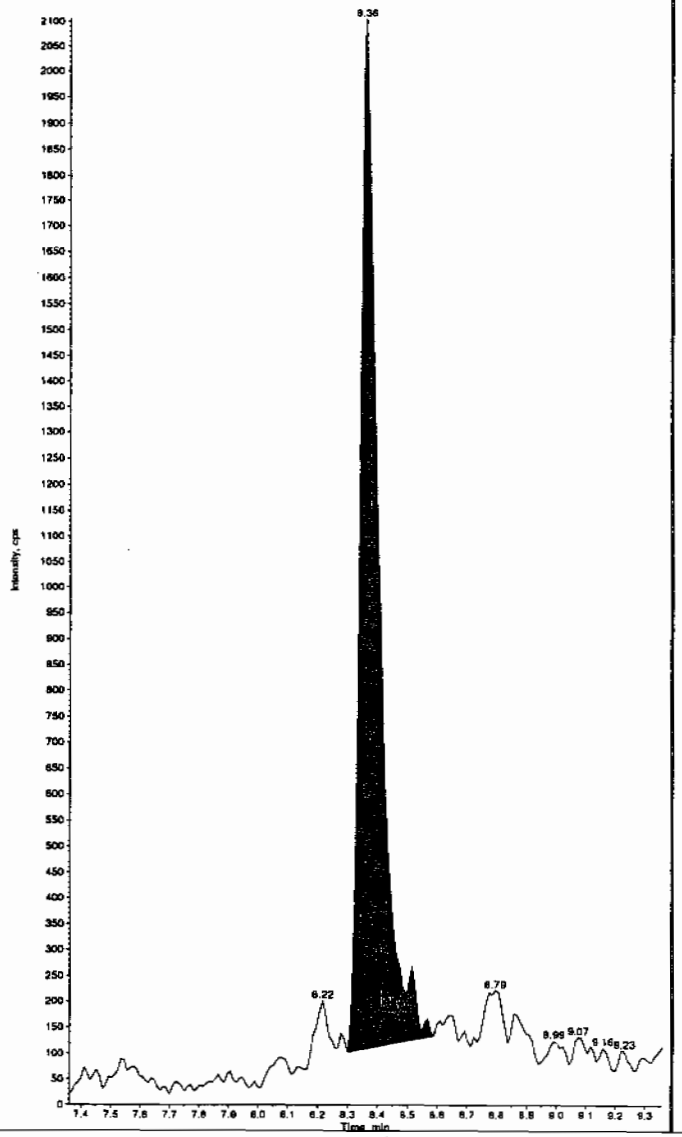

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02220010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

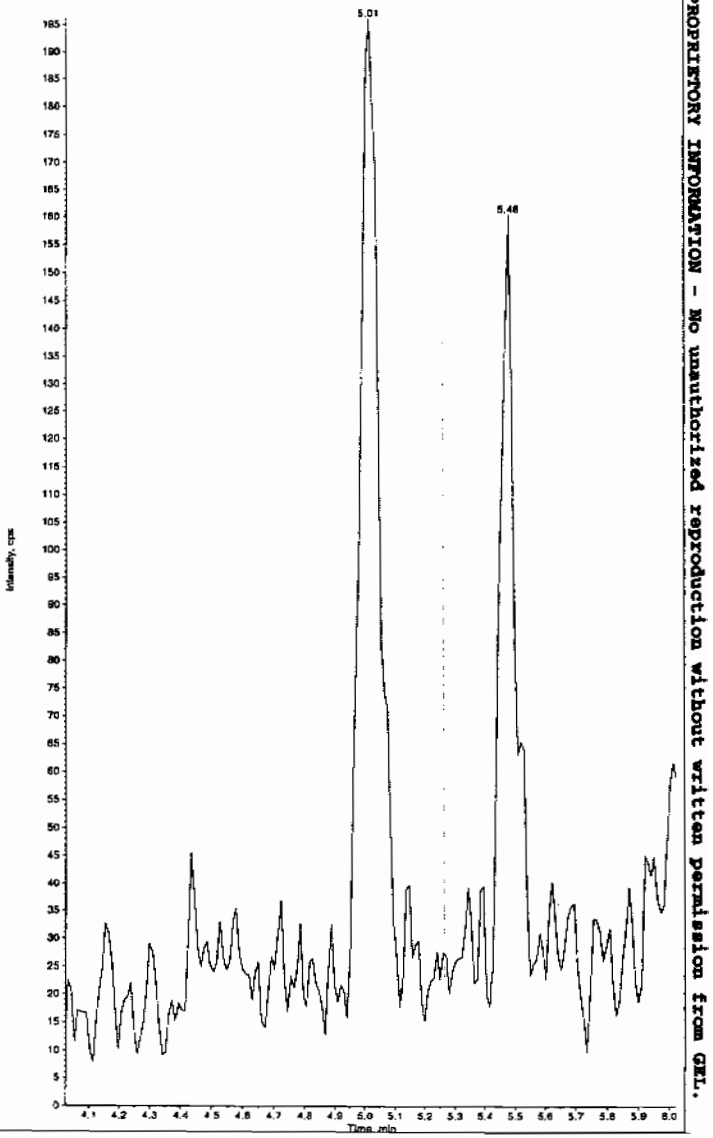

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02220010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

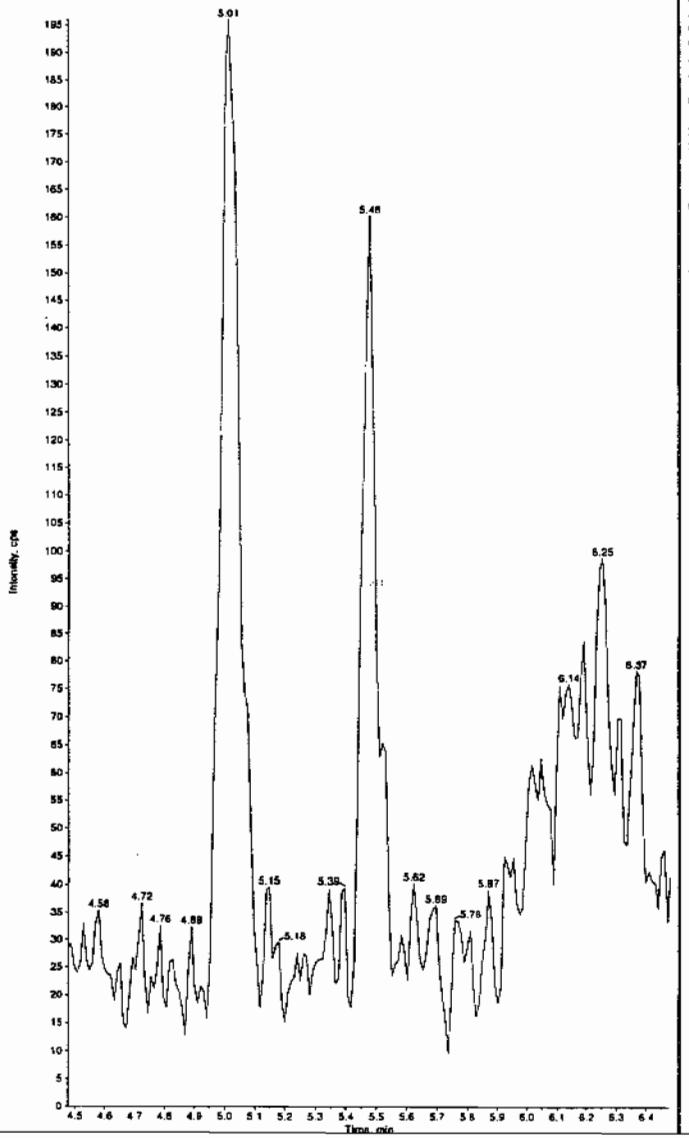

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02220010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 10.7 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.72e+005 counts
Height: 61036.366 cps
Start Time: 10.8 min
End Time: 11.3 min

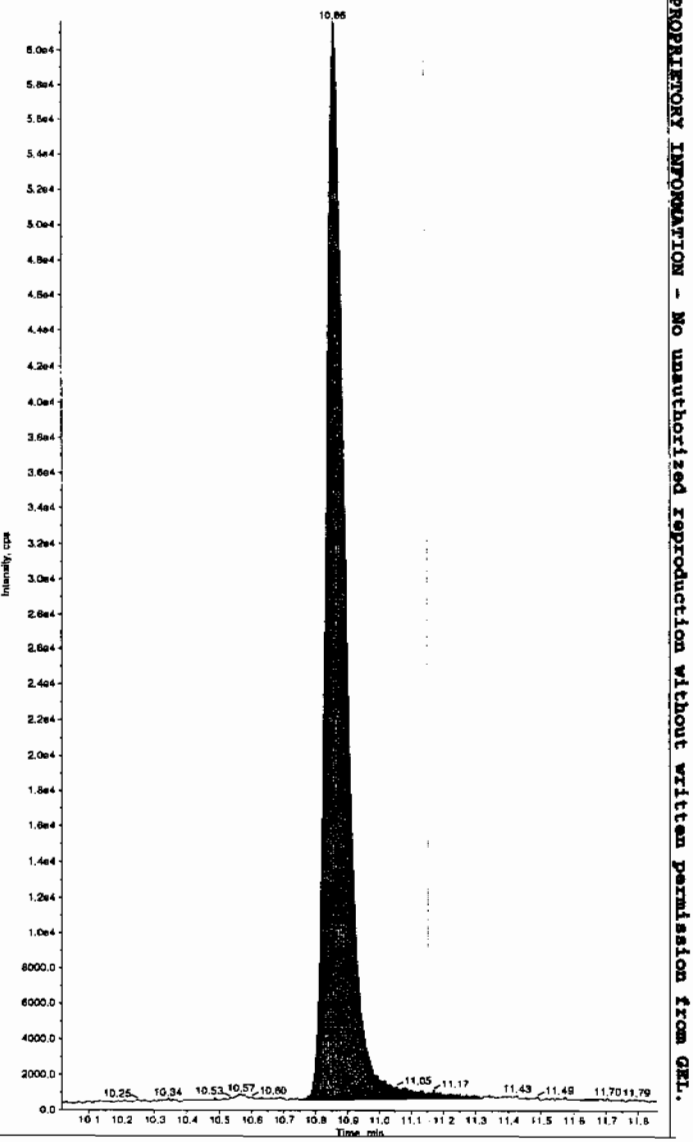

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 22-FEB-10 19:54

GEL Data File: EXS02220012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	7.18
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rcn 2/23/10

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02220012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

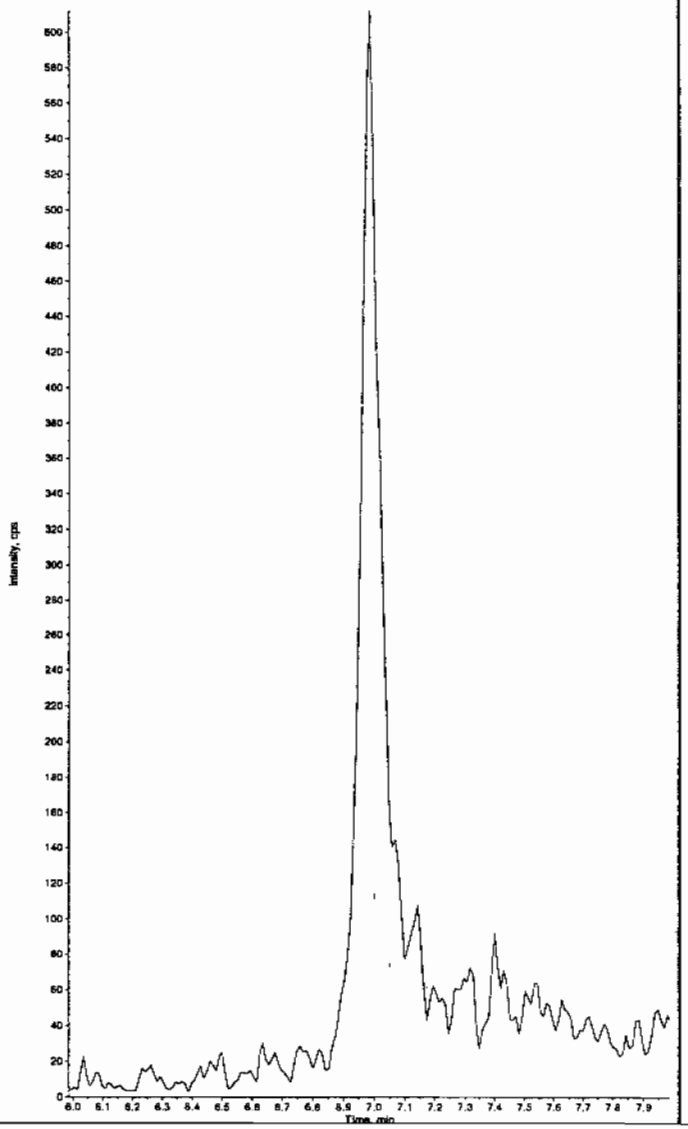

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02220012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

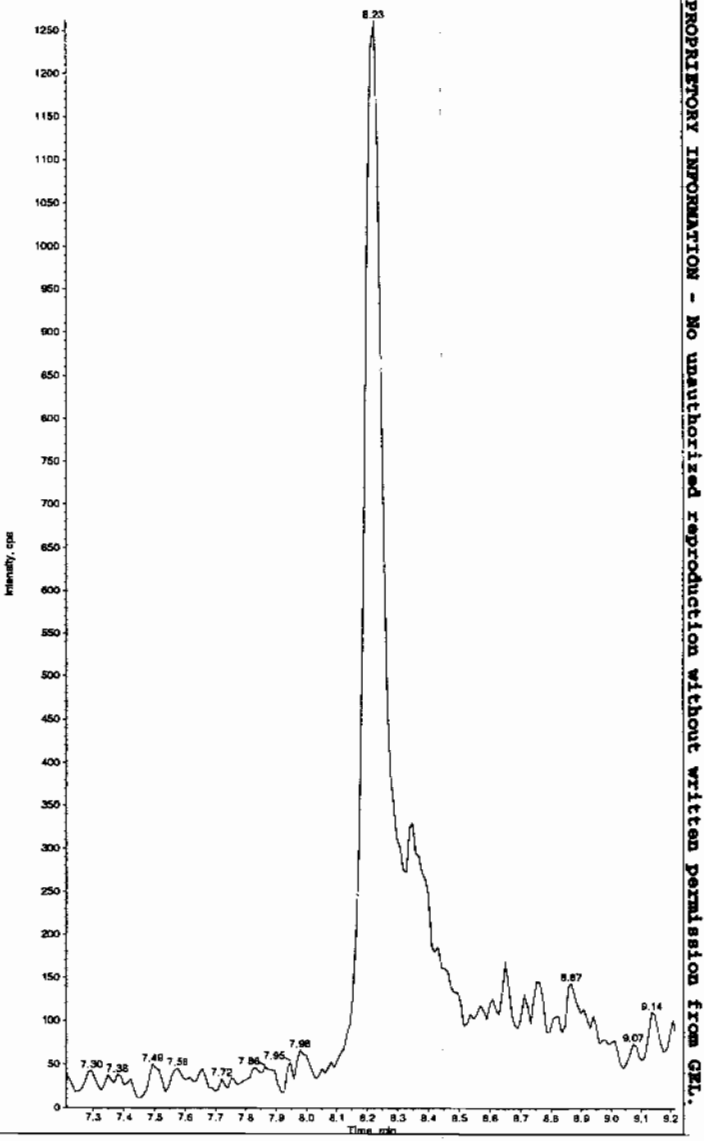

HJ 2/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

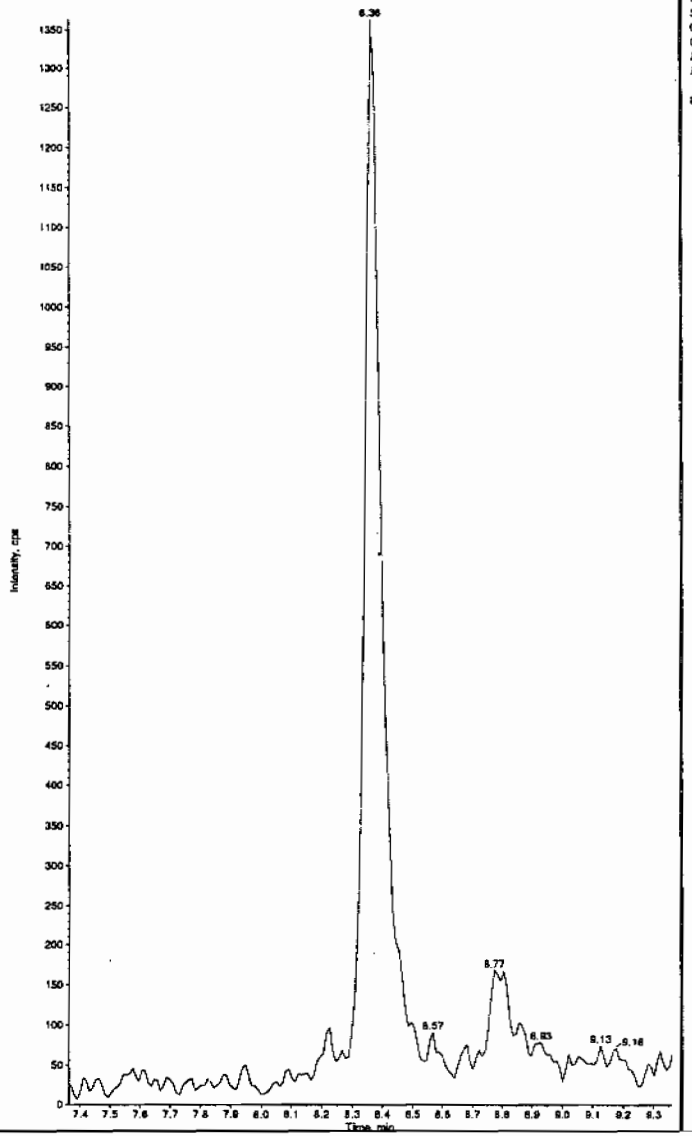

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

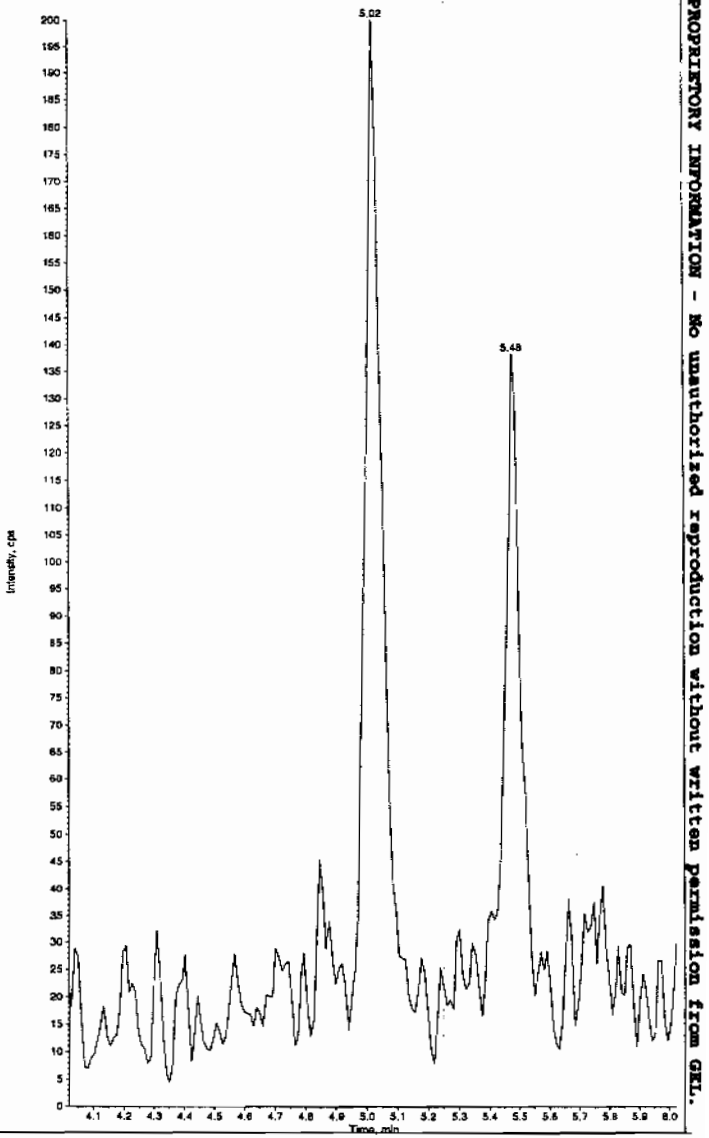

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02220012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

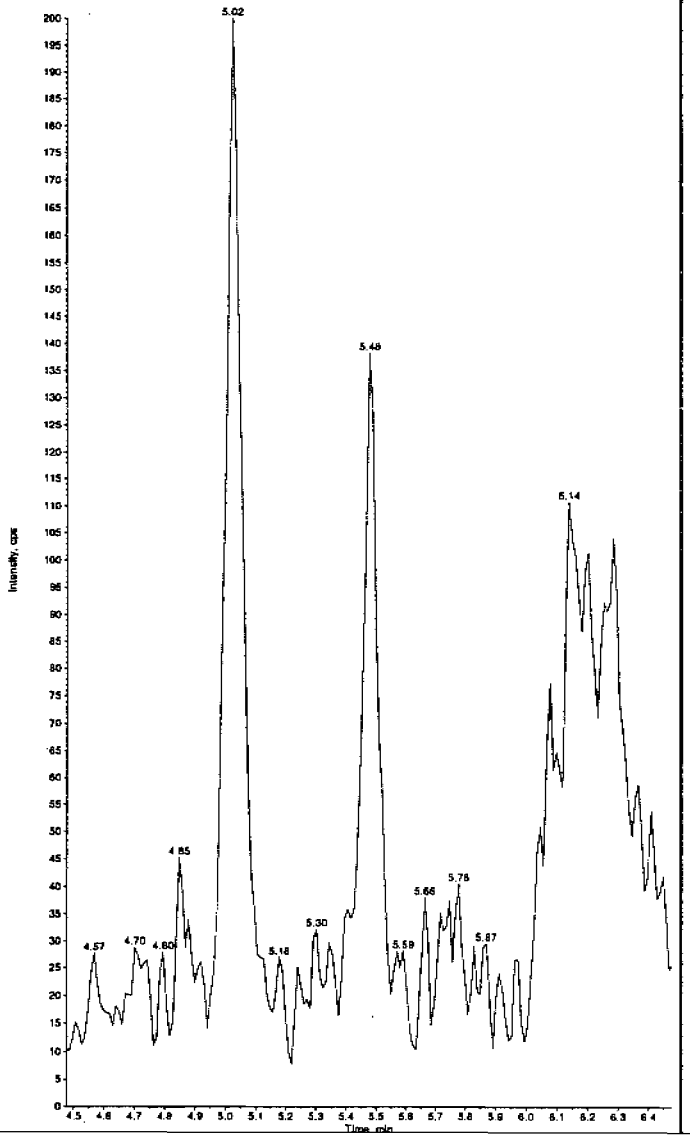

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02220012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 7.18 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.30 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.97e+005 counts
Height: 46330.444 cps
Start Time: 10.7 min
End Time: 11.1 min

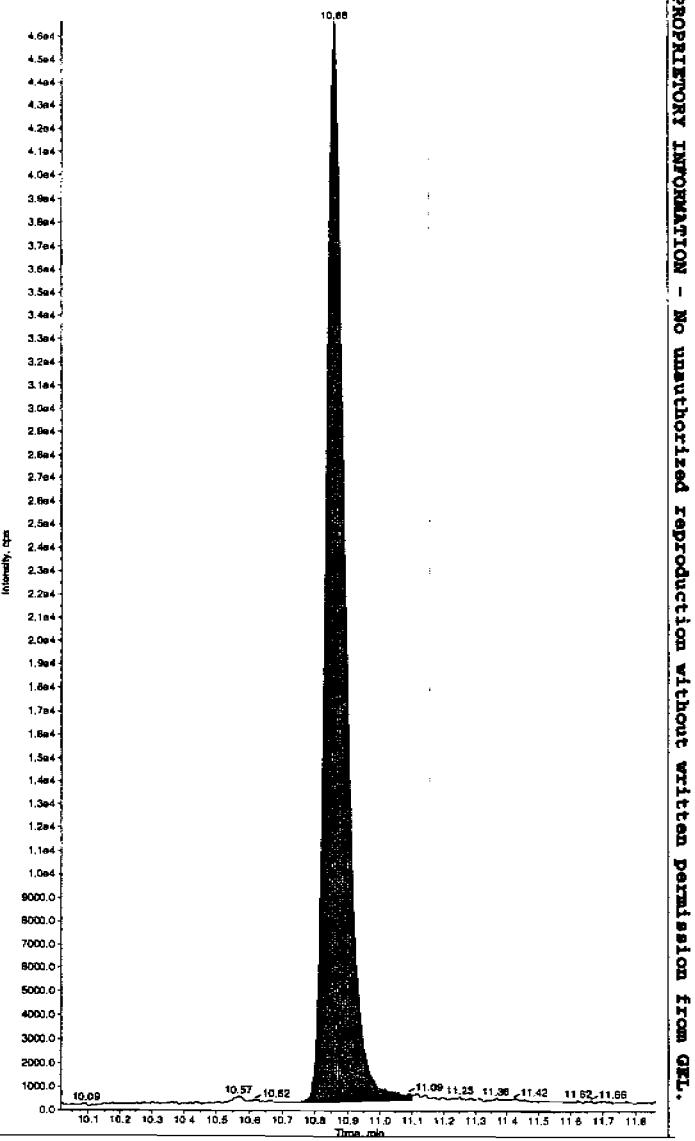

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 22-FEB-10 21:13

GEL Data File: EXS02220017.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	1.15
tris(o-cresyl) phosphate	0	2.53
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0

Jan 2/23/10

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02220017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

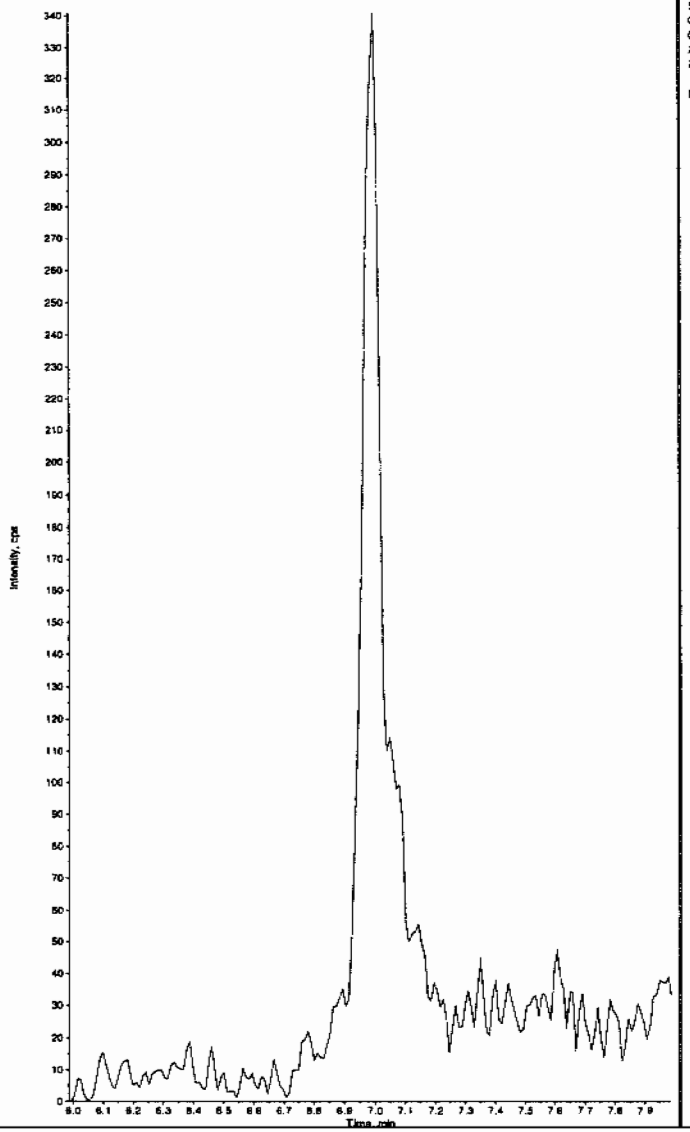

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02220017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

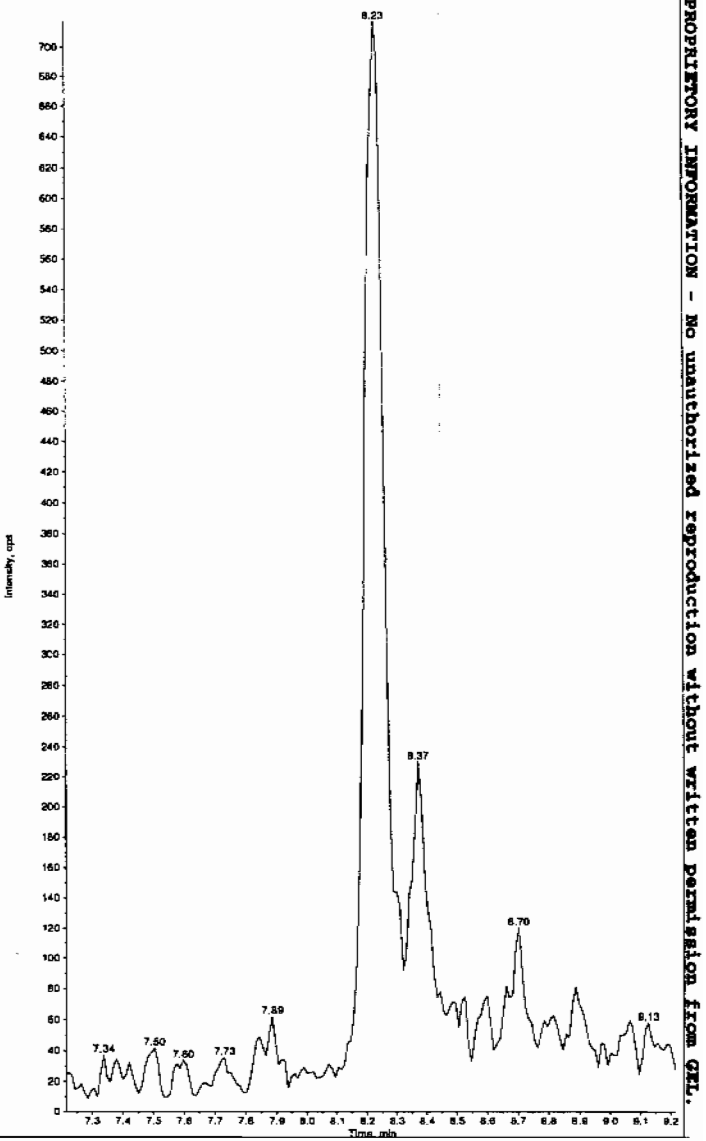

HMM 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02220017.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.15 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.37e+003 counts
Height: 1560.241 cps
Start Time: 8.29 min
End Time: 8.59 min

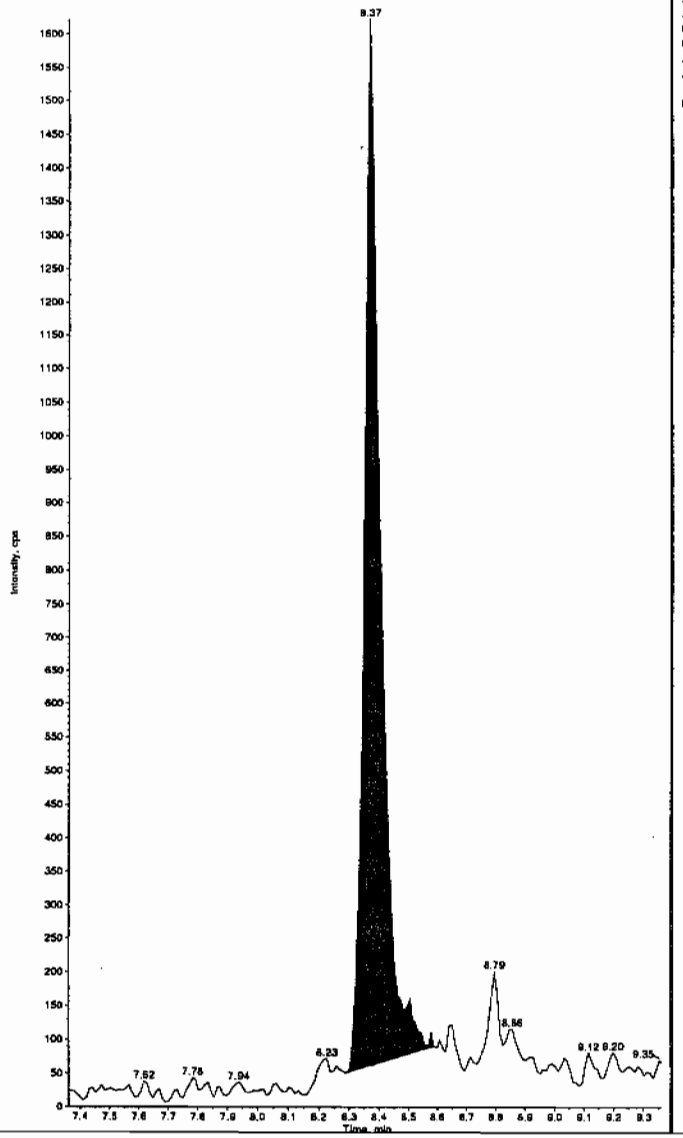

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02220017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "155.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

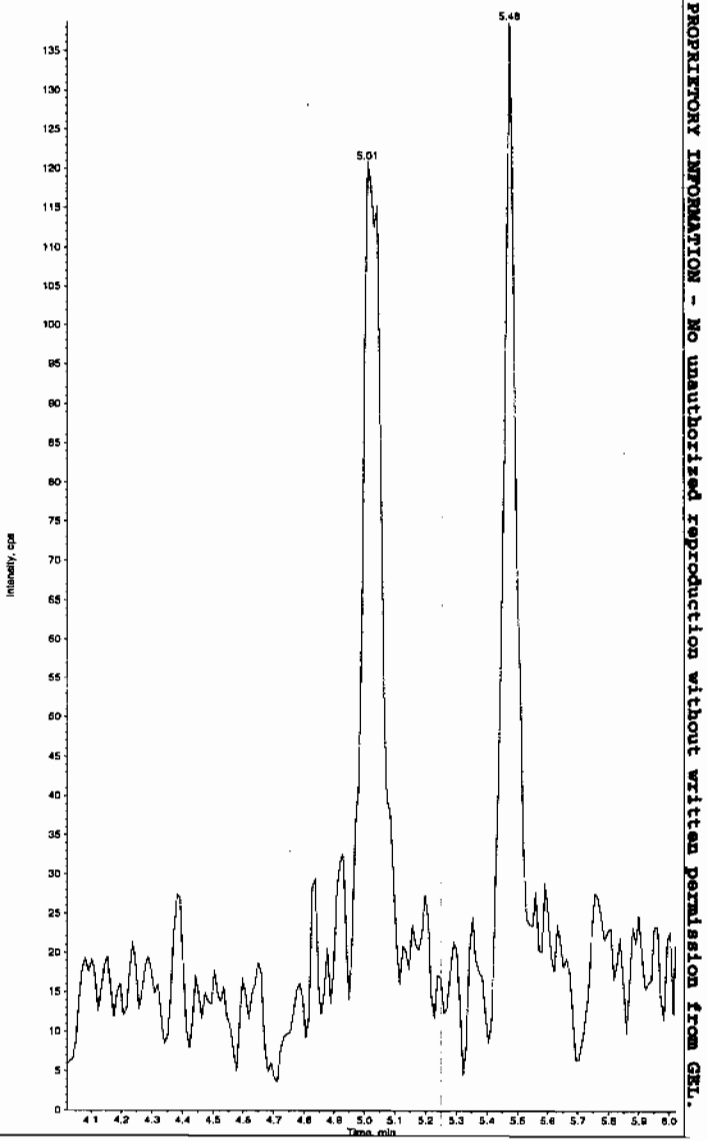

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Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02220017.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

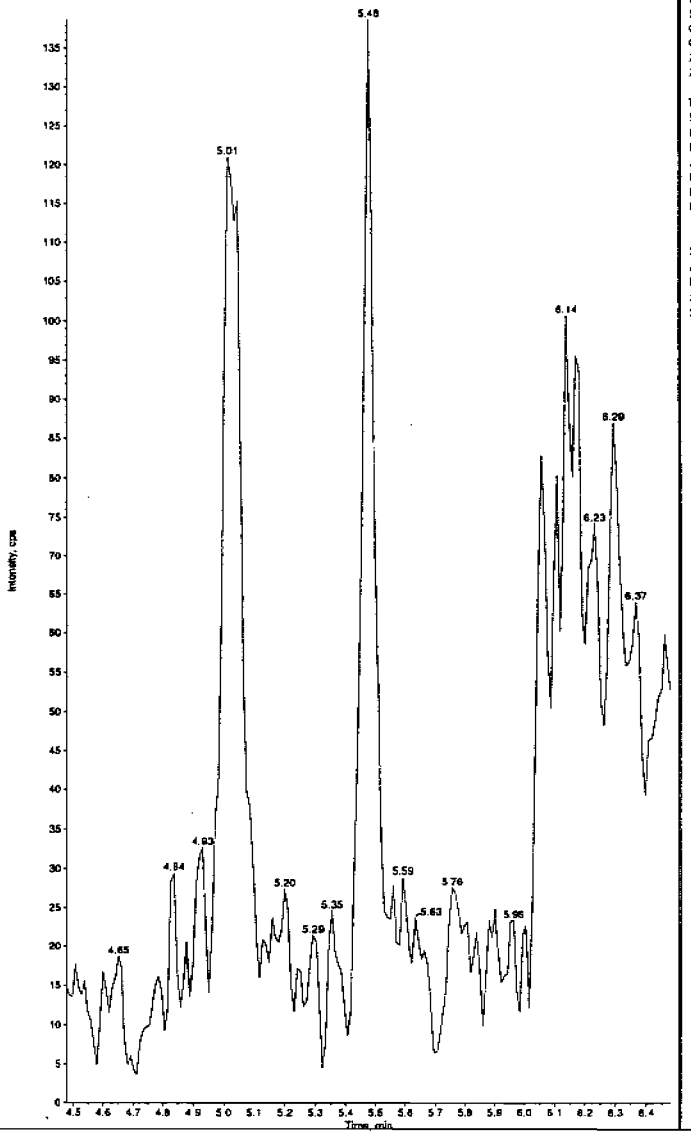

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS02220017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.53 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.75e+004 counts
Height: 23543.831 cps
Start Time: 10.8 min
End Time: 11.0 min

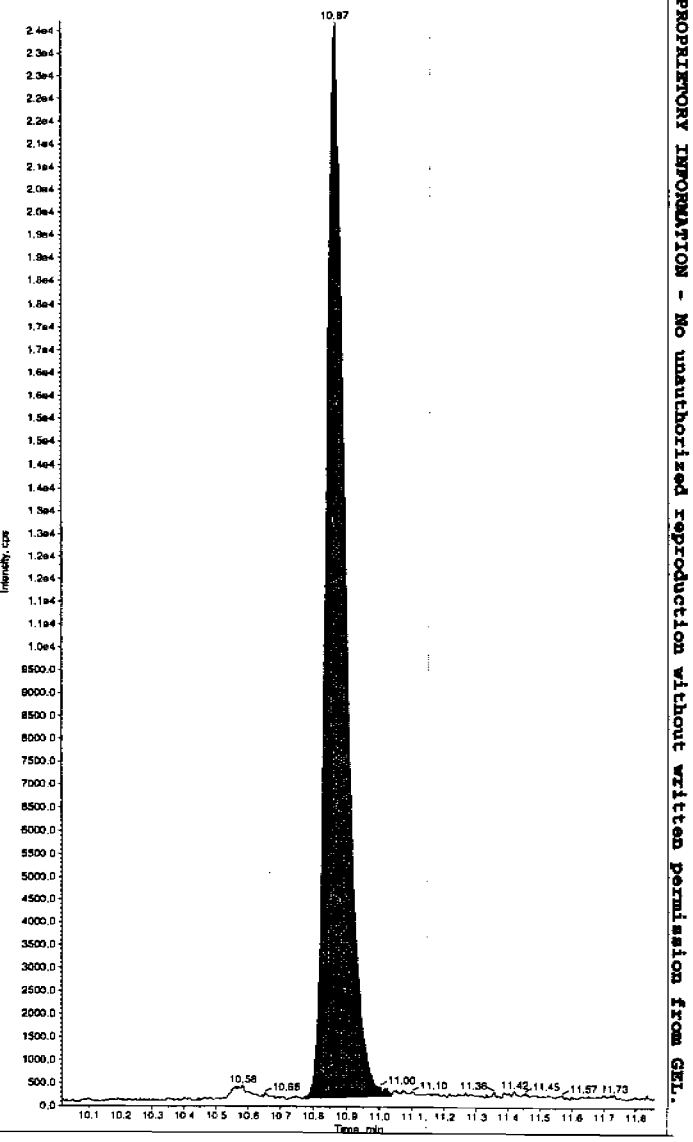

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1514

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 22–FEB–10 23:19

GEL Data File: EXS02220025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.52
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sam 2/23/10

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

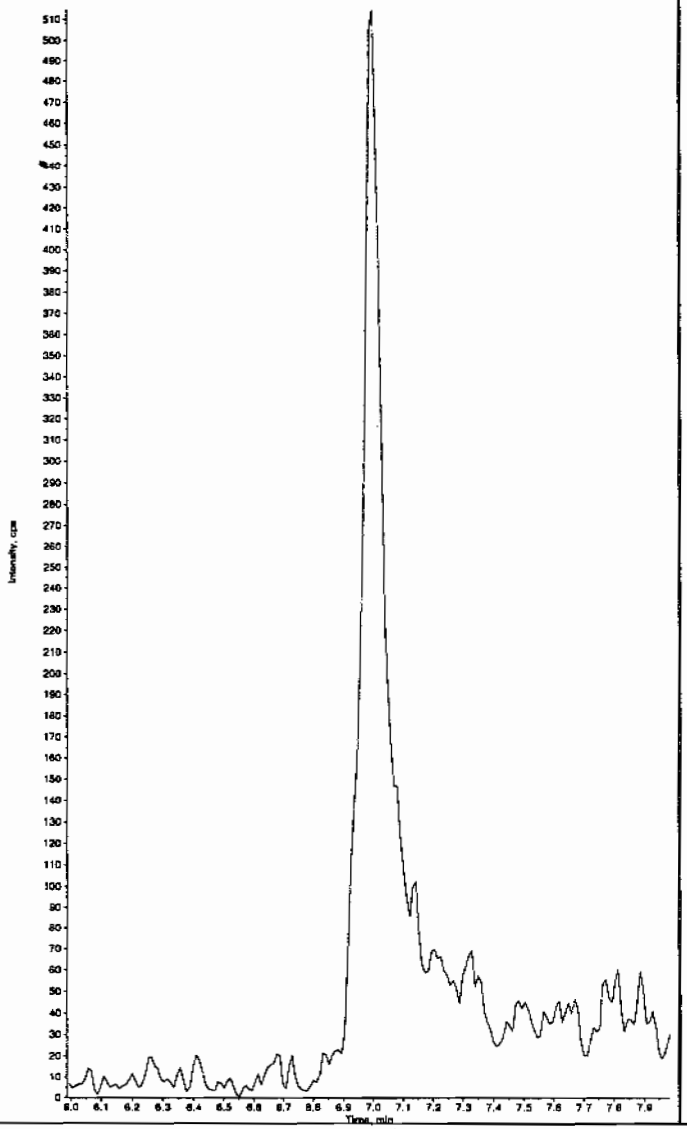

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

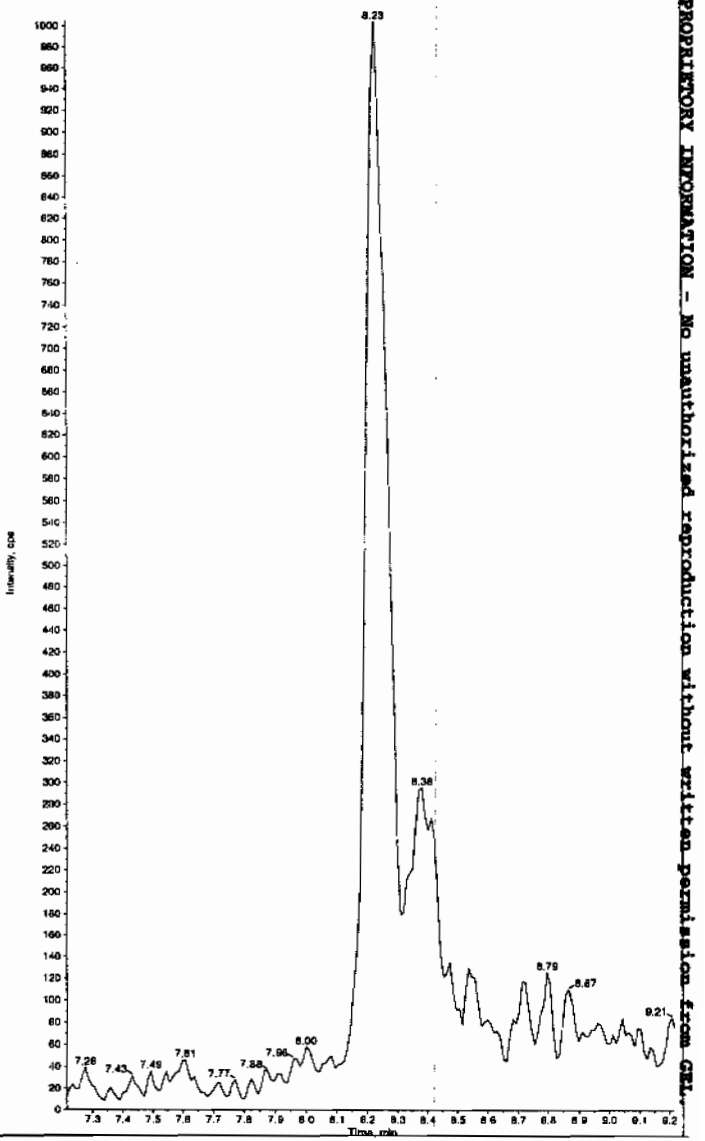

HMW 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02220025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

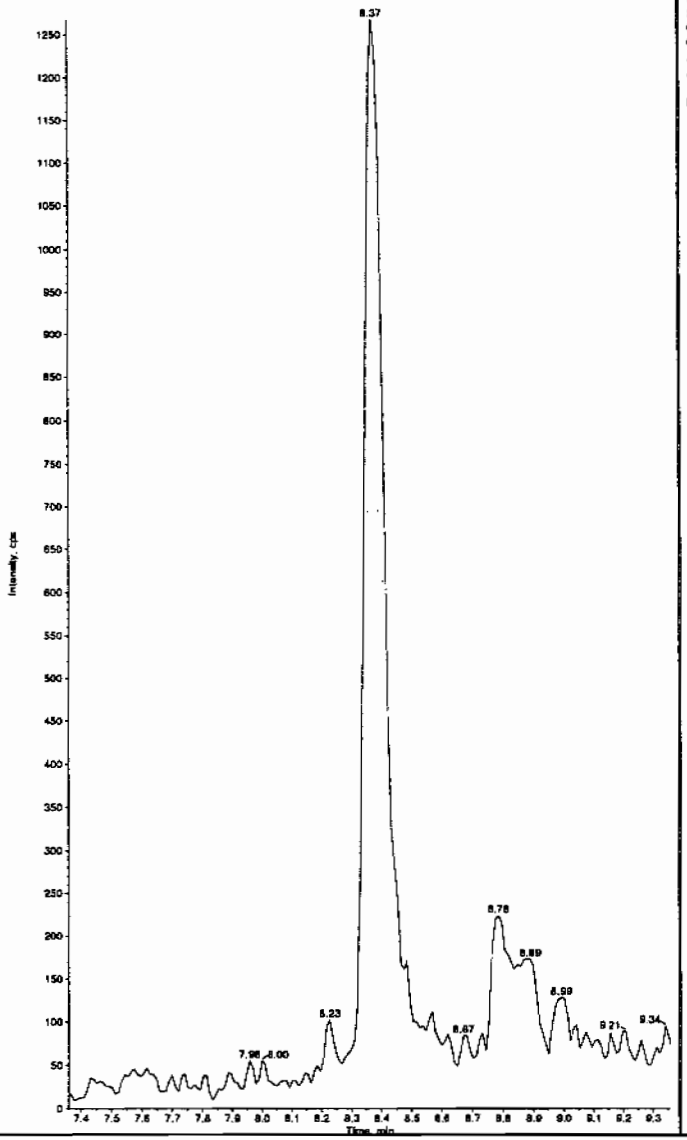

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02220025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

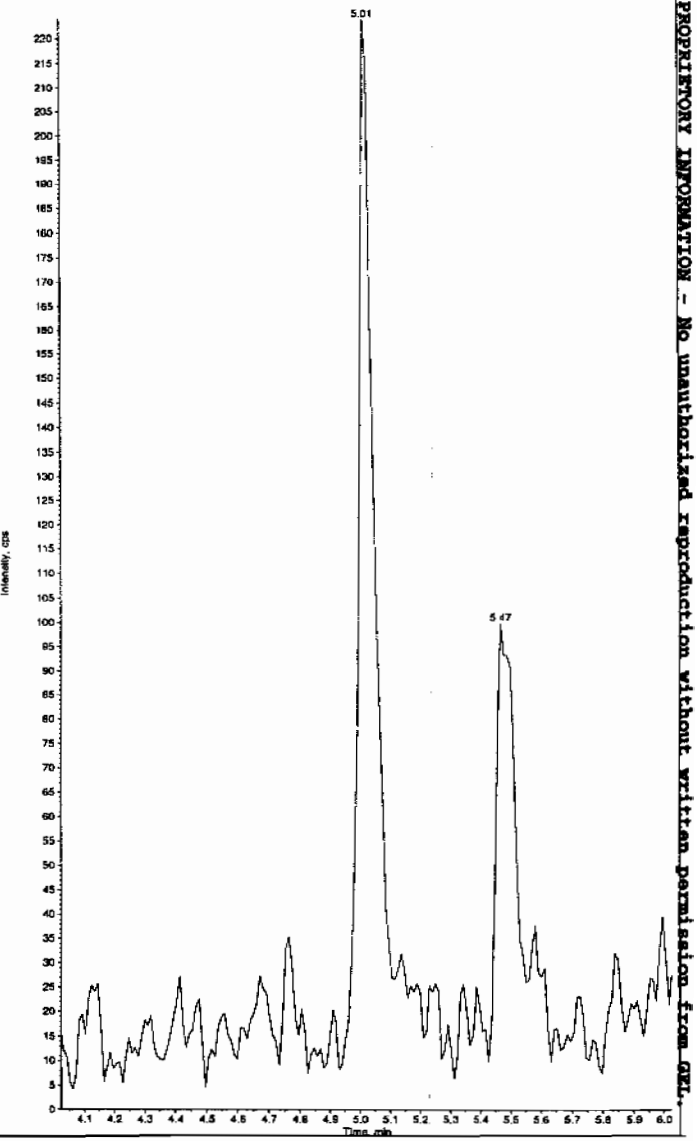

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

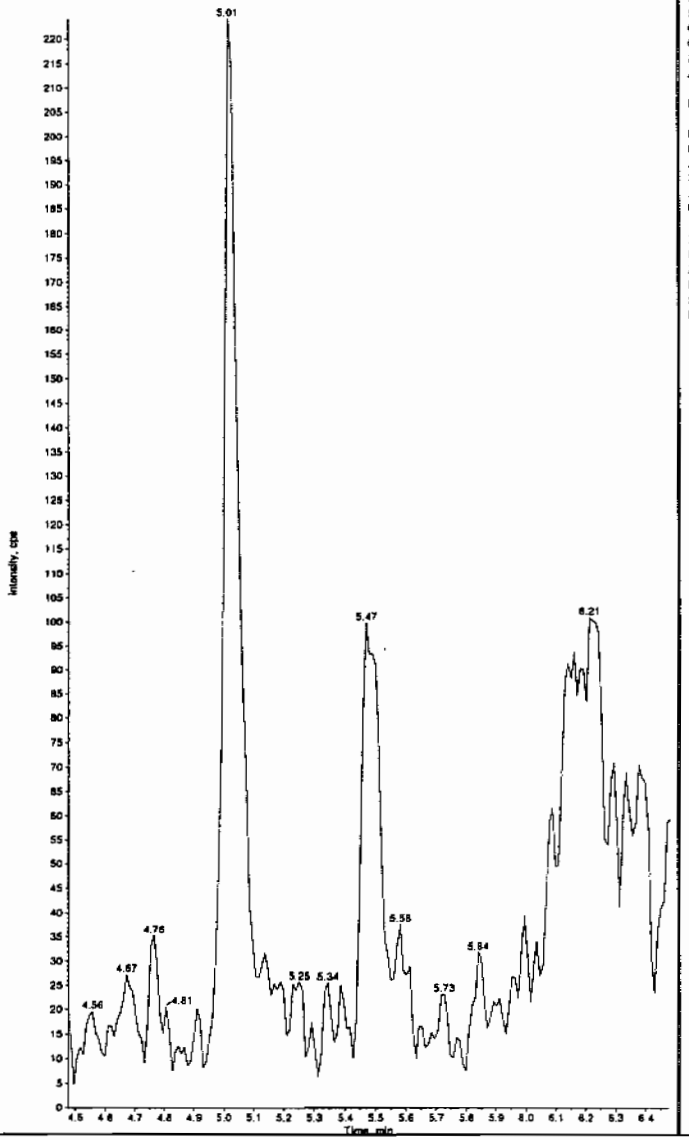

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.52 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.40e+005 counts
Height: 33527.149 cps
Start Time: 10.8 min
End Time: 11.2 min

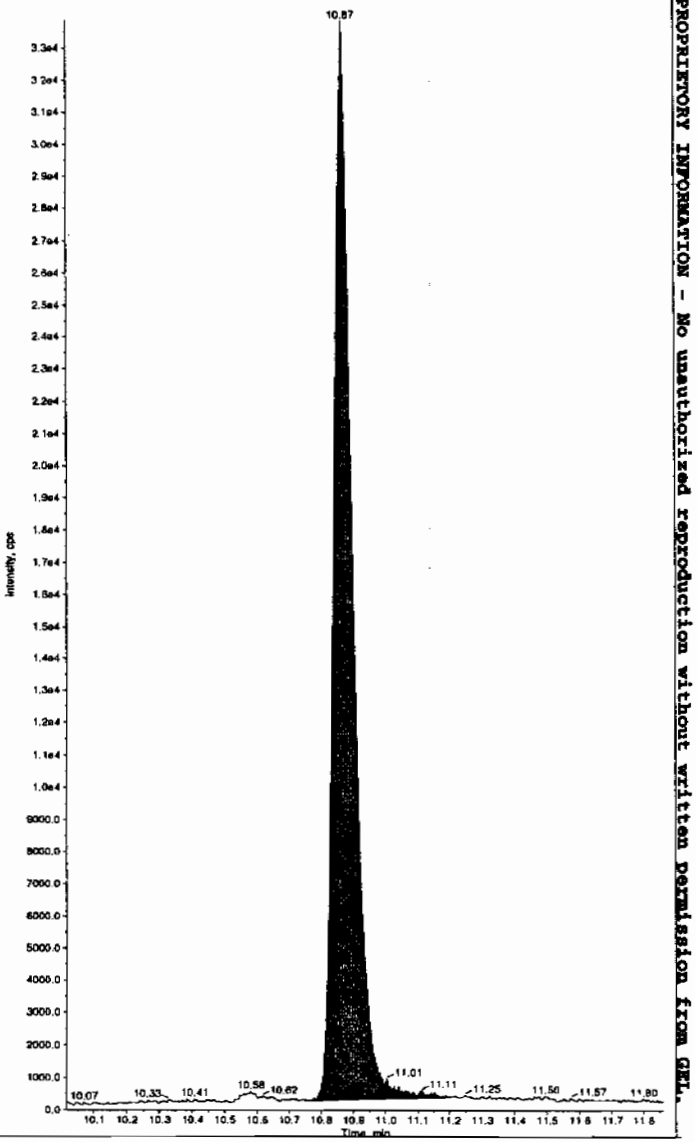

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 23-FEB-10 02:43

GEL Data File: EXS02220038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	1.18
tris(o-cresyl) phosphate	0	4.04
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ken 2/23/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

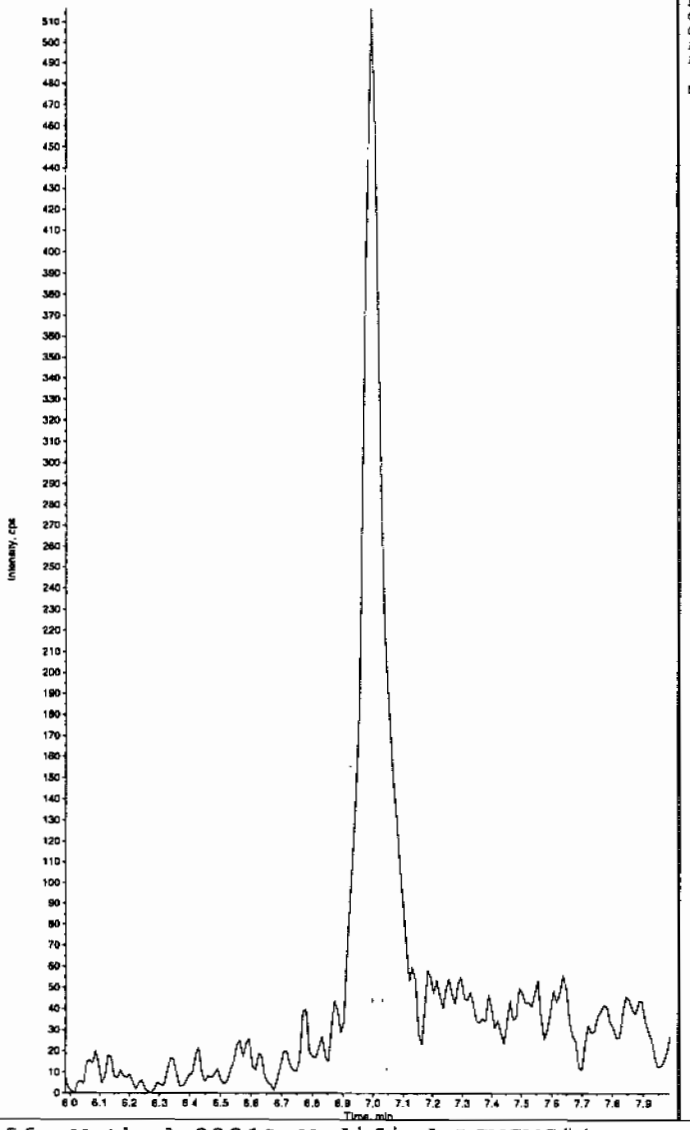

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

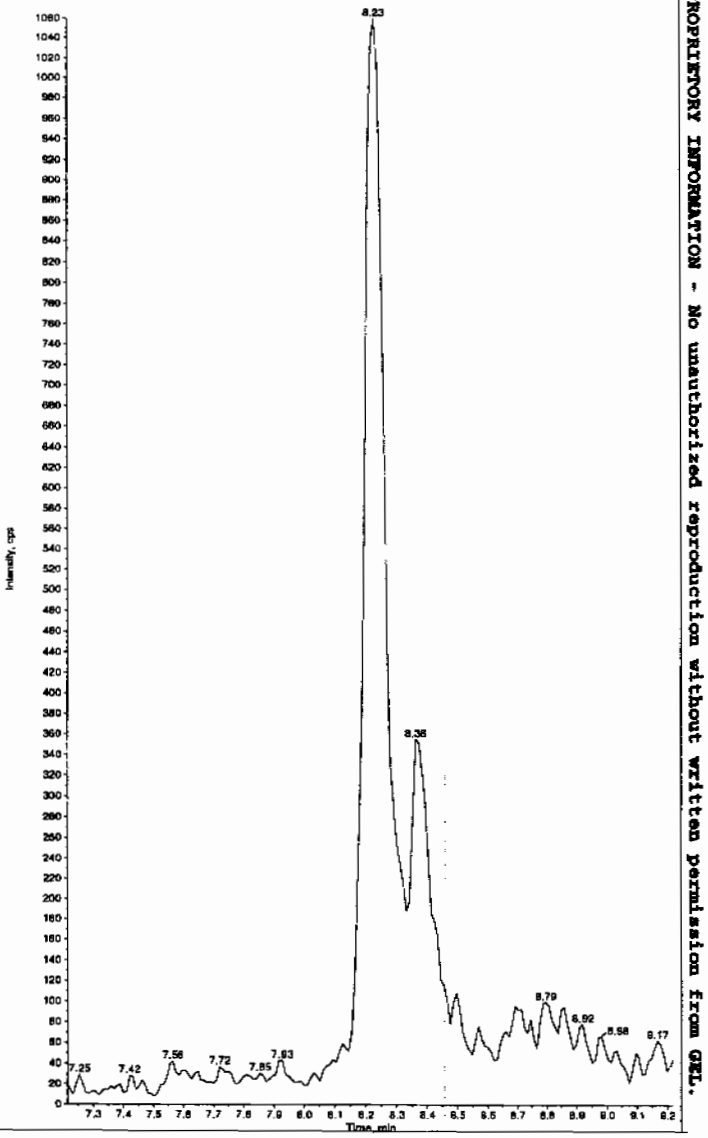

Ann 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.18 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.82e+003 counts
Height: 1502.971 cps
Start Time: 8.30 min
End Time: 8.65 min

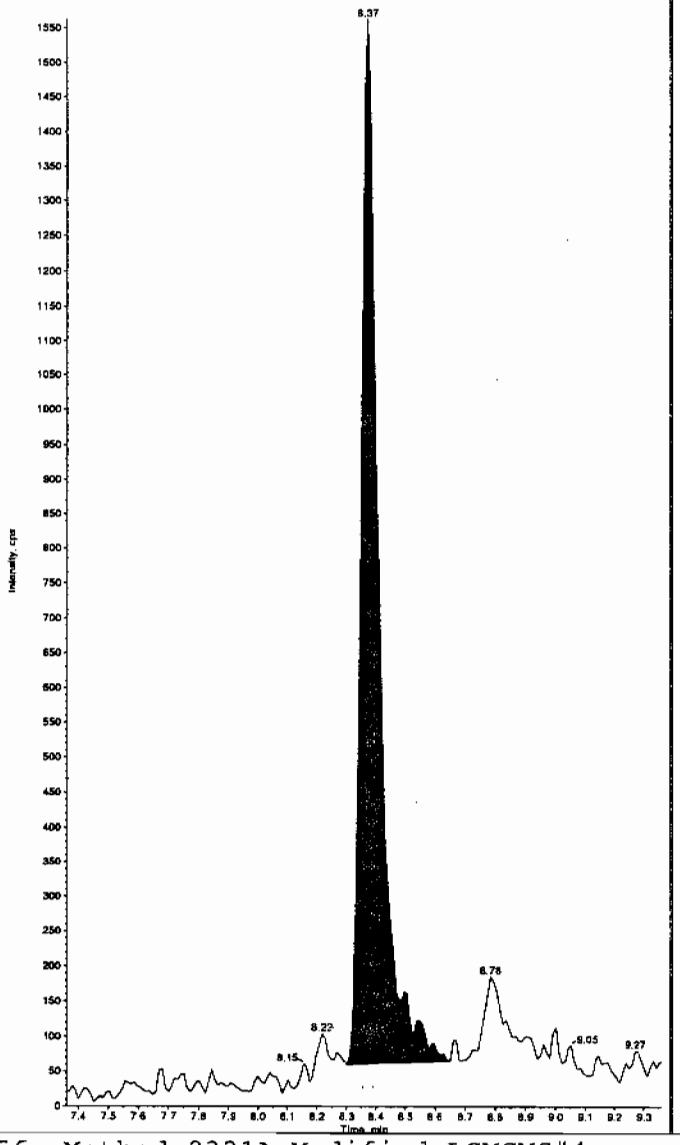

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

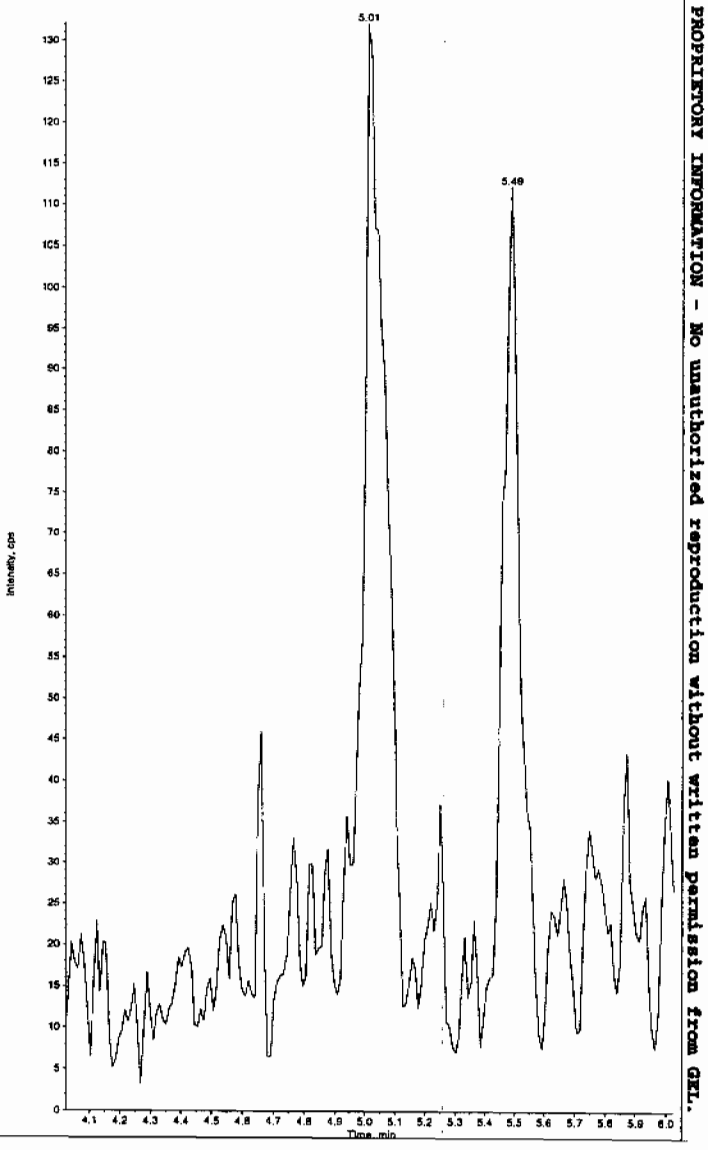

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02220038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

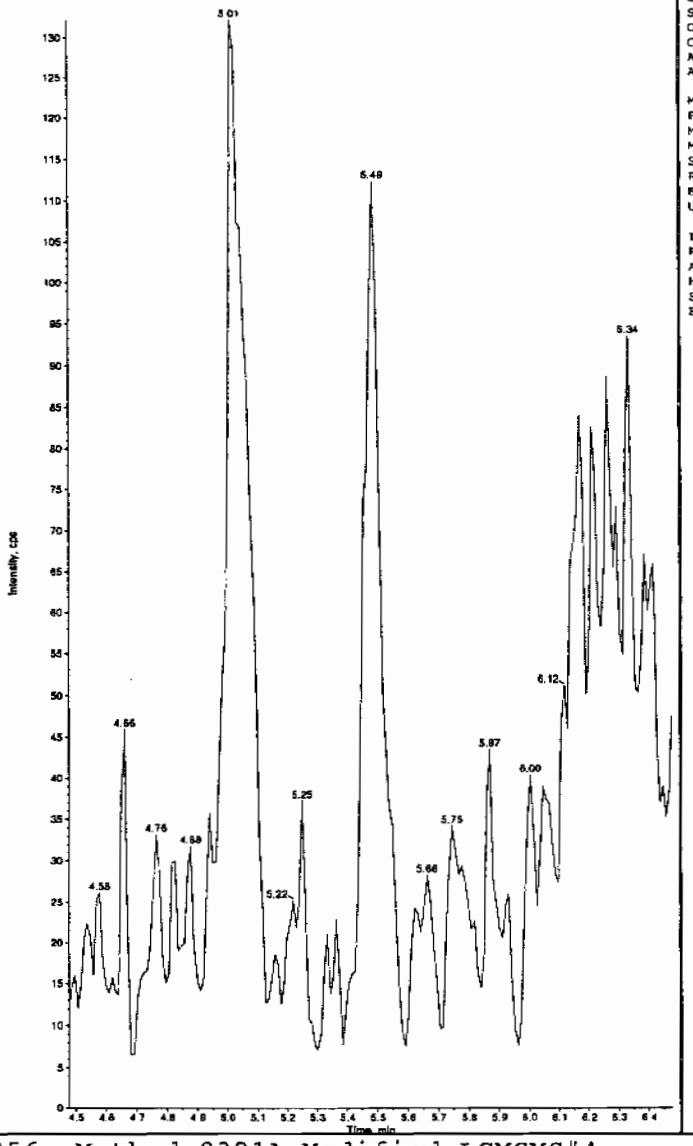

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02220038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.04 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.30e+005 counts
Height: 31013.344 cps
Start Time: 10.8 min
End Time: 11.1 min

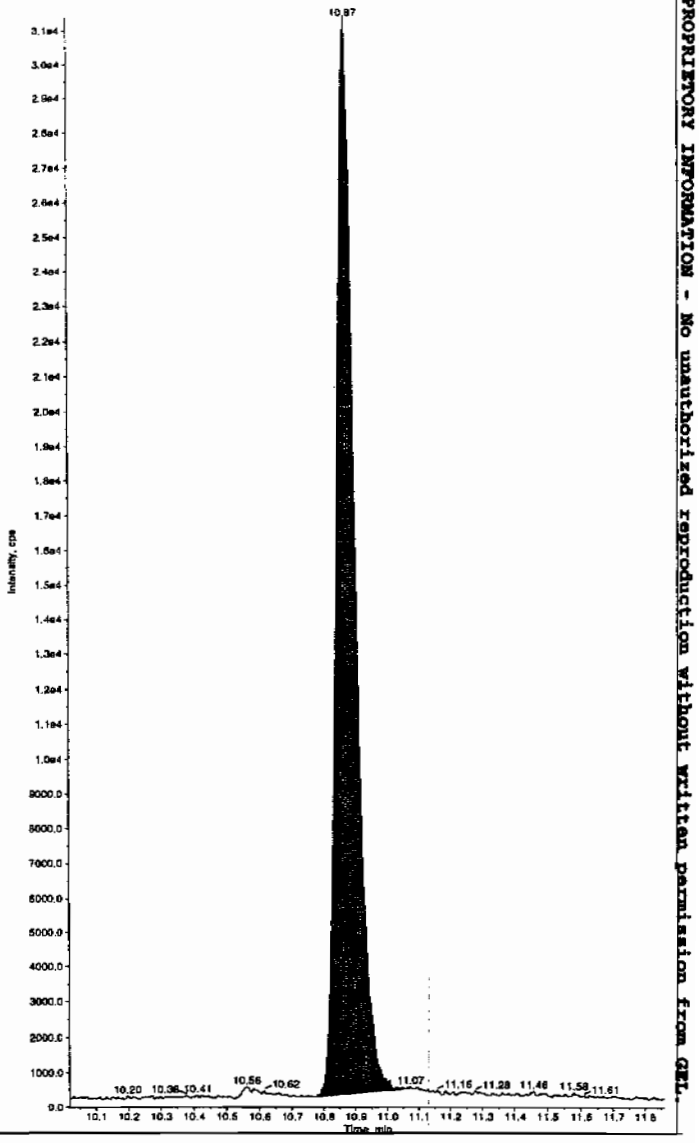

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1514

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 23–FEB–10 04:02

GEL Data File: EXS02220043.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.43
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcn 2/23/10

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

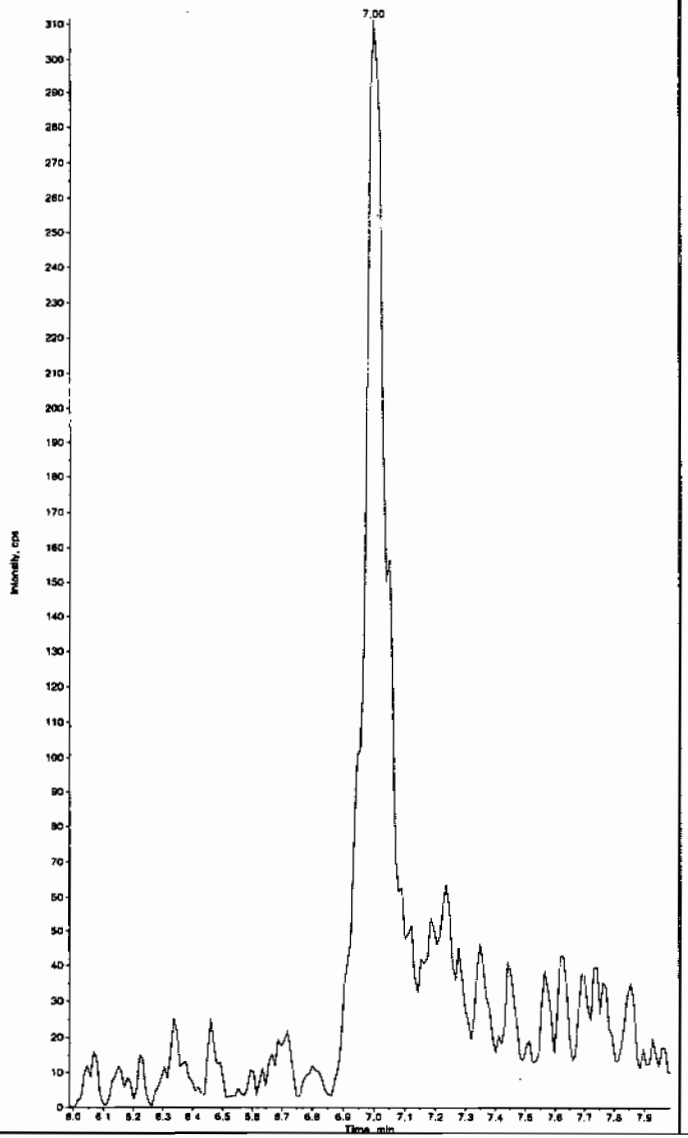

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

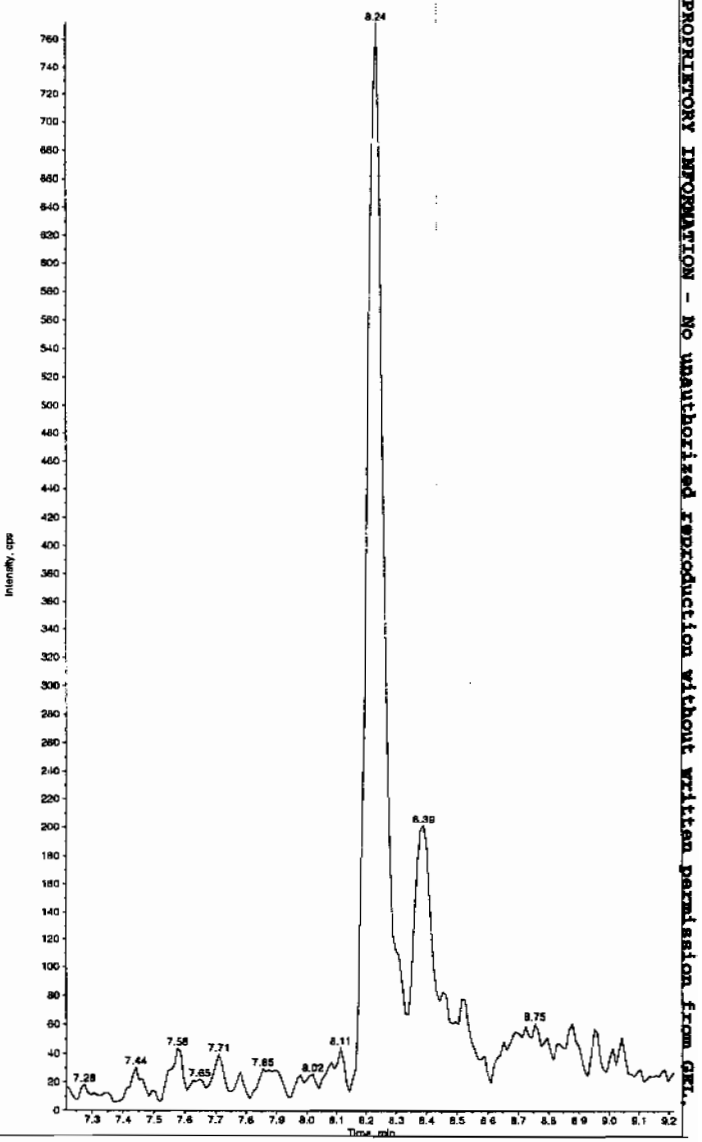

HJW 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02220043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

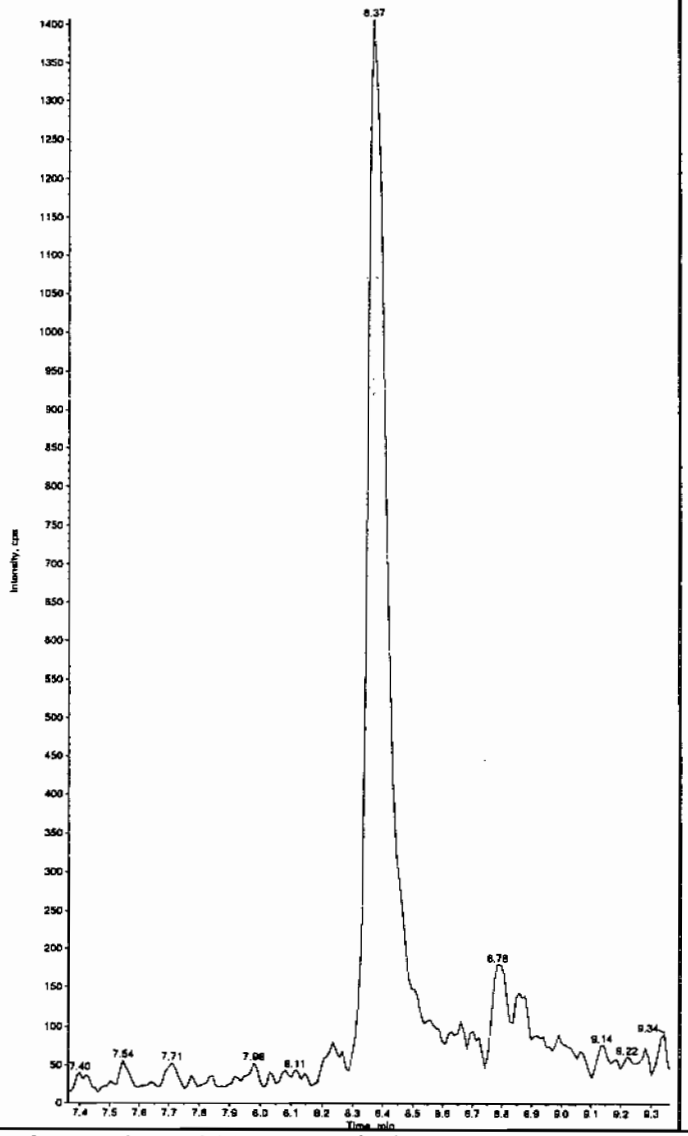

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02220043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

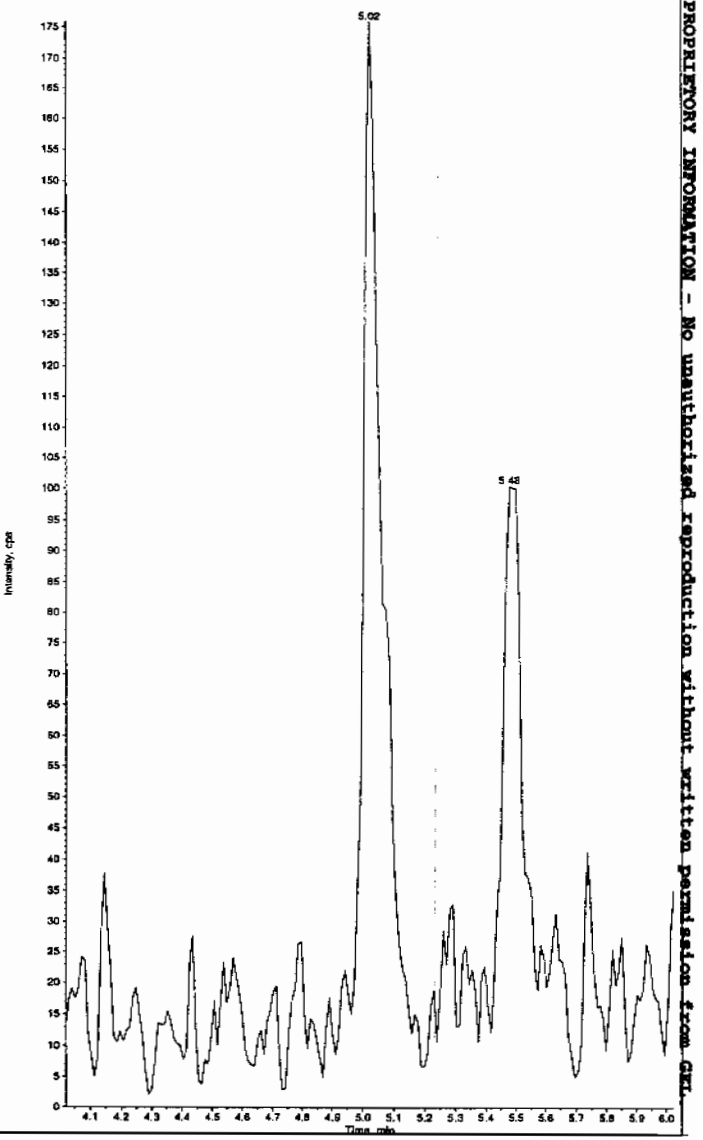

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

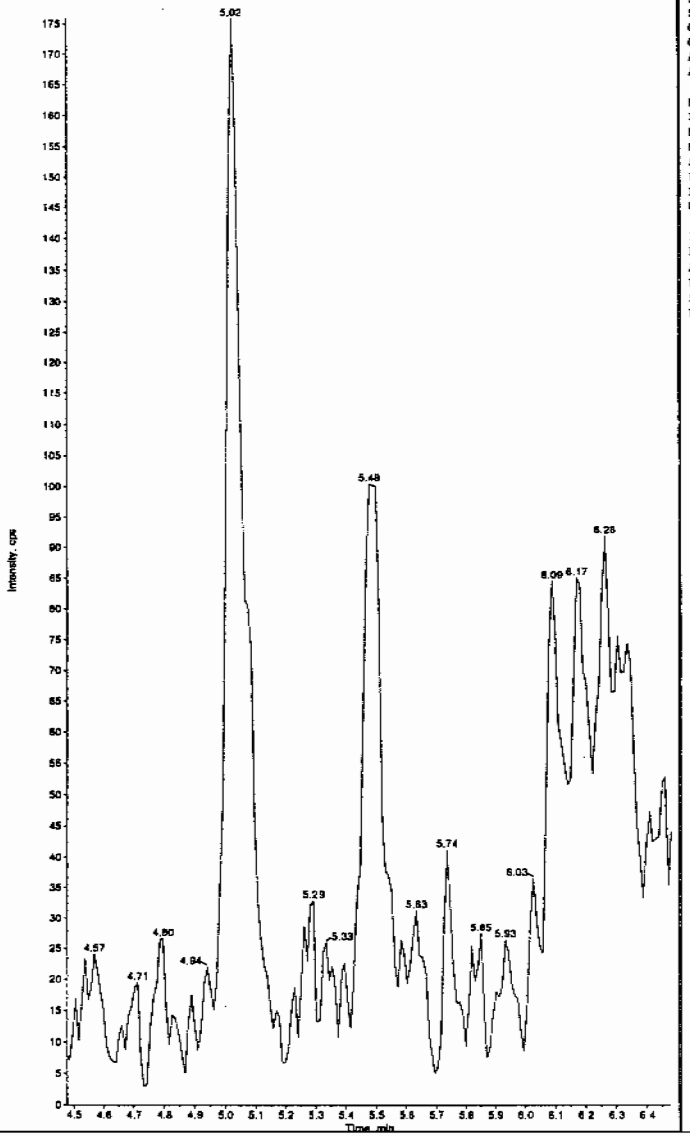

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.43 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.52e-004 counts
Height: 22422.792 cps
Start Time: 10.8 min
End Time: 11.1 min

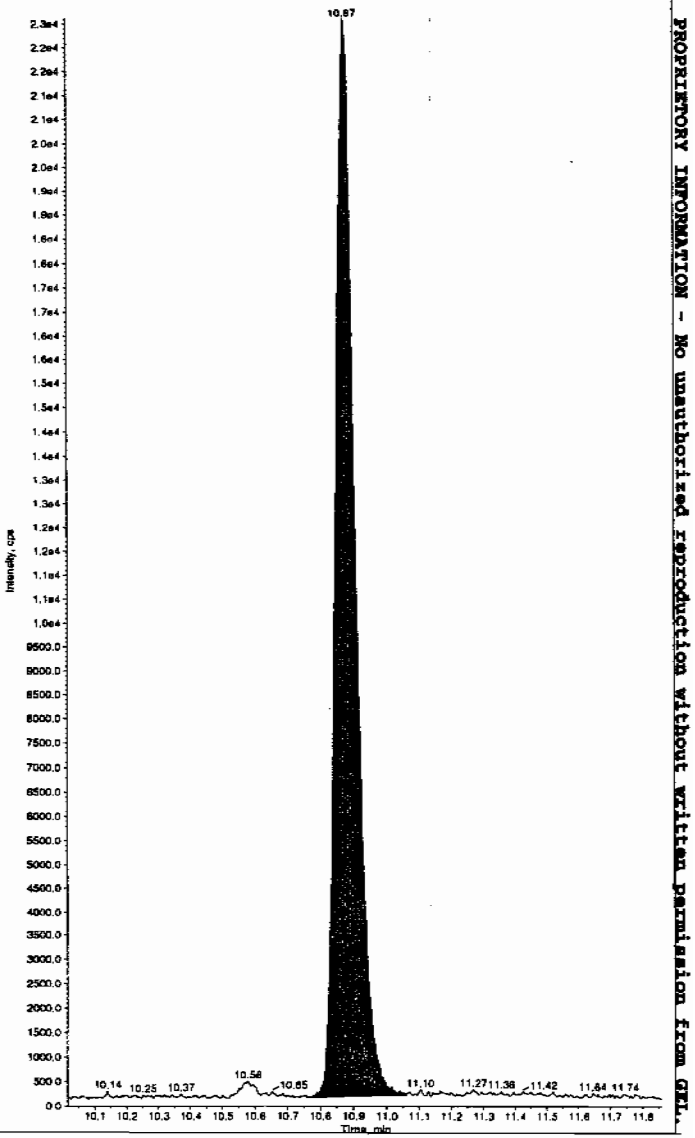

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 23-FEB-10 06:08

GEL Data File: EXS02220051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.67
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Dan 2/23/10

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

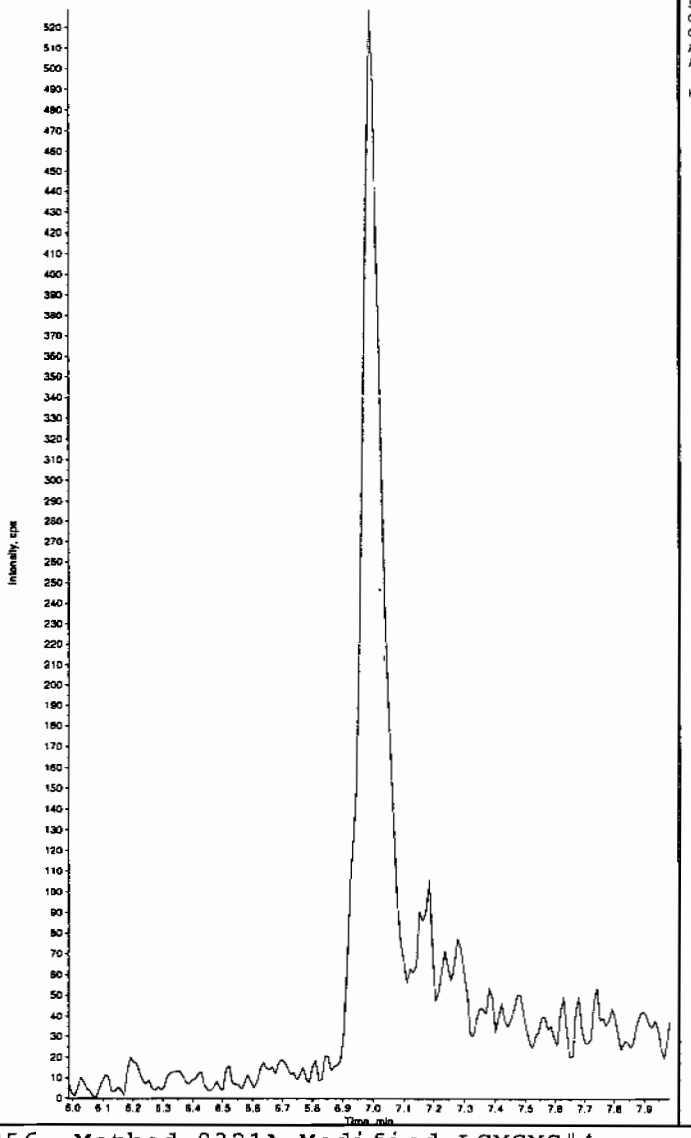

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

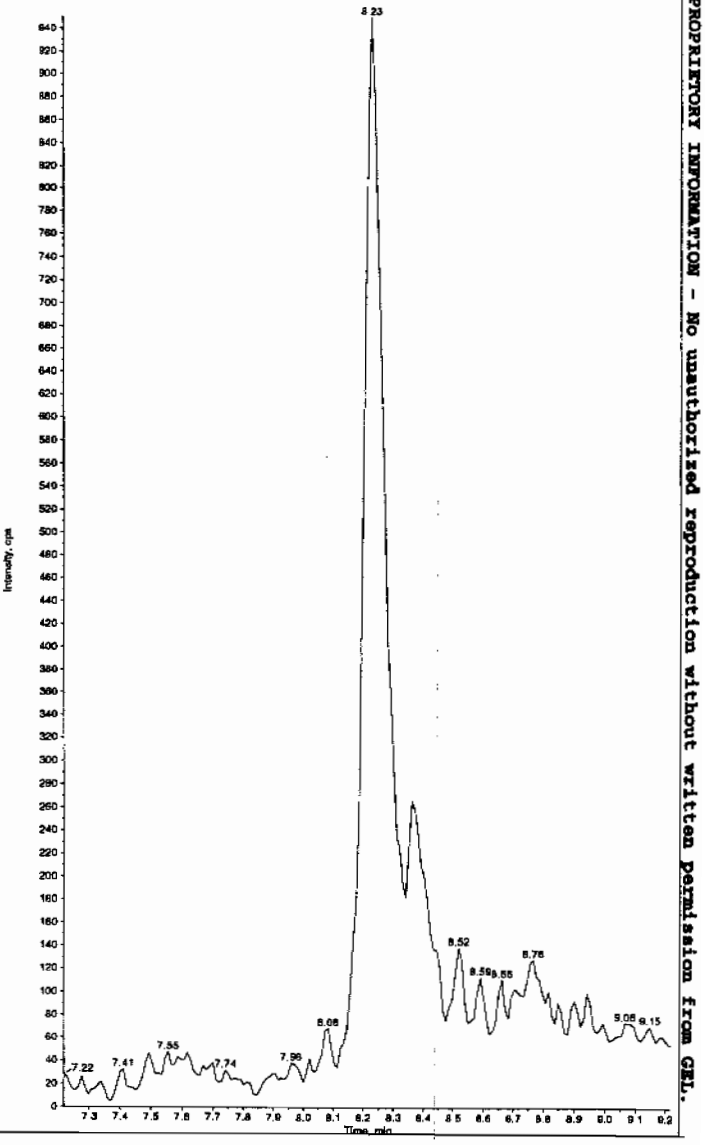

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

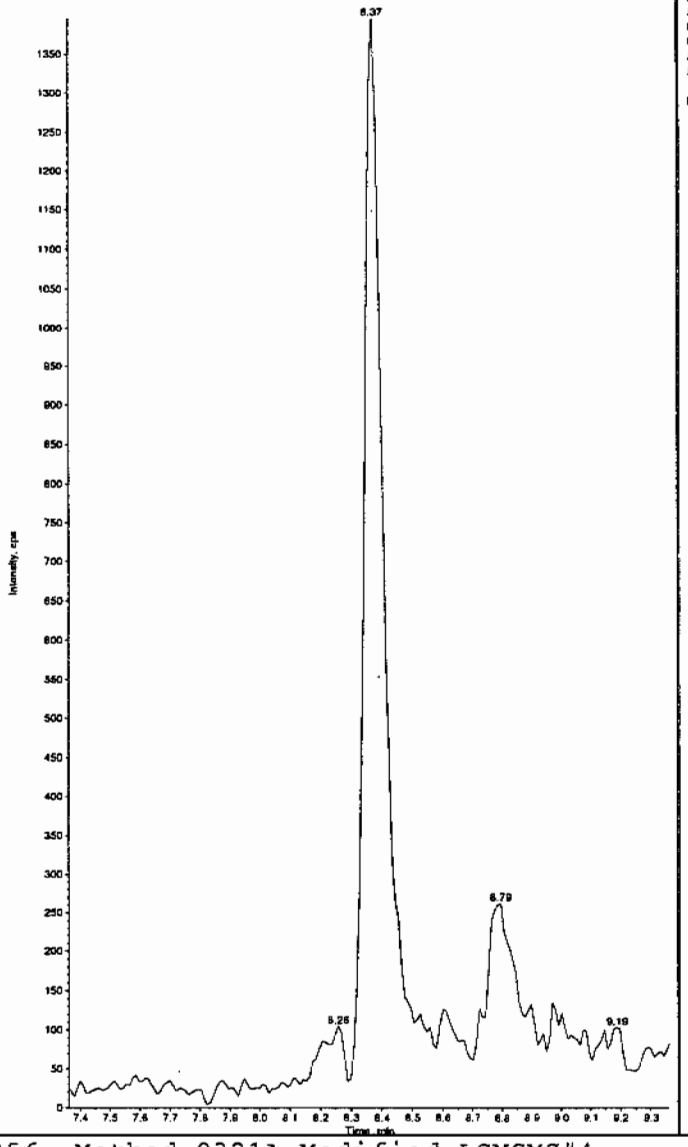

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

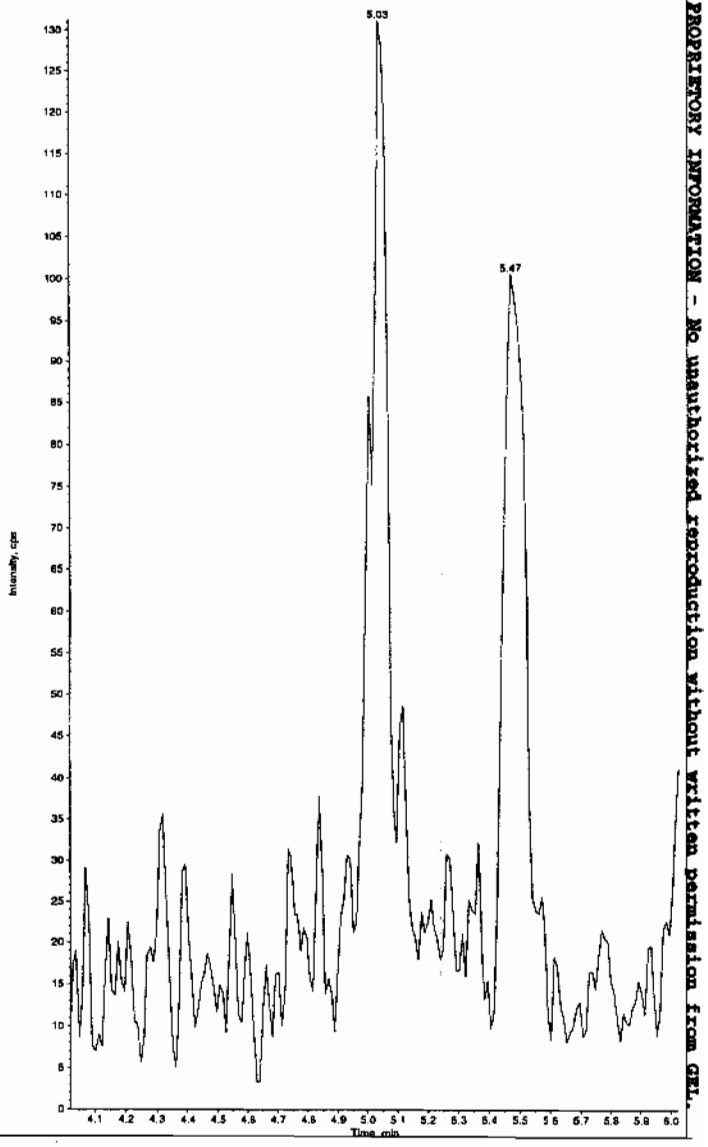

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

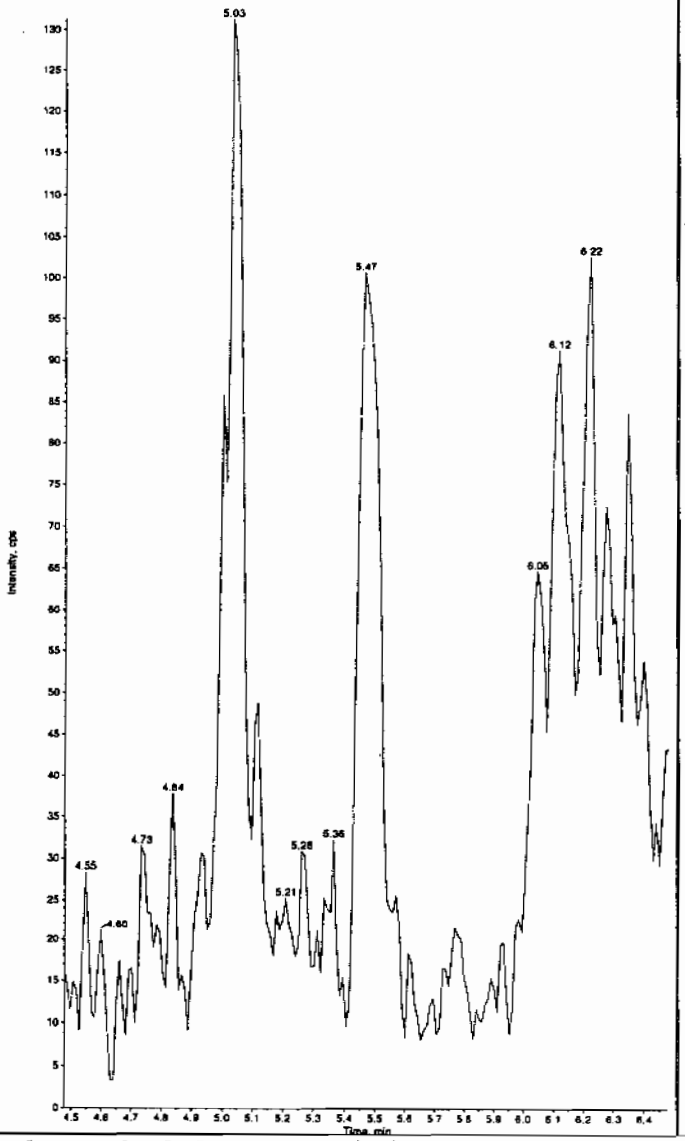

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.67 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.65e+005 counts
Height: 37790.951 cps
Start Time: 10.8 min
End Time: 11.2 min

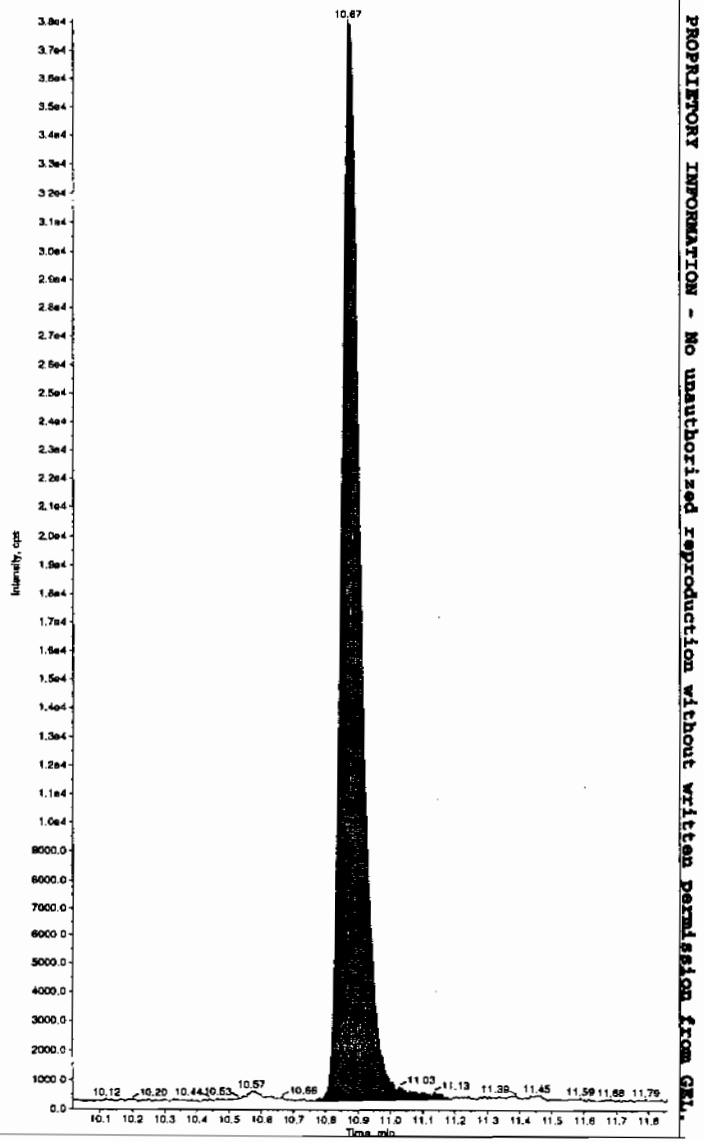

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 24-FEB-10 12:19

GEL Data File: EXS02240010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.15
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ker 2/25/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02240010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:19:25 PM

Modified: No

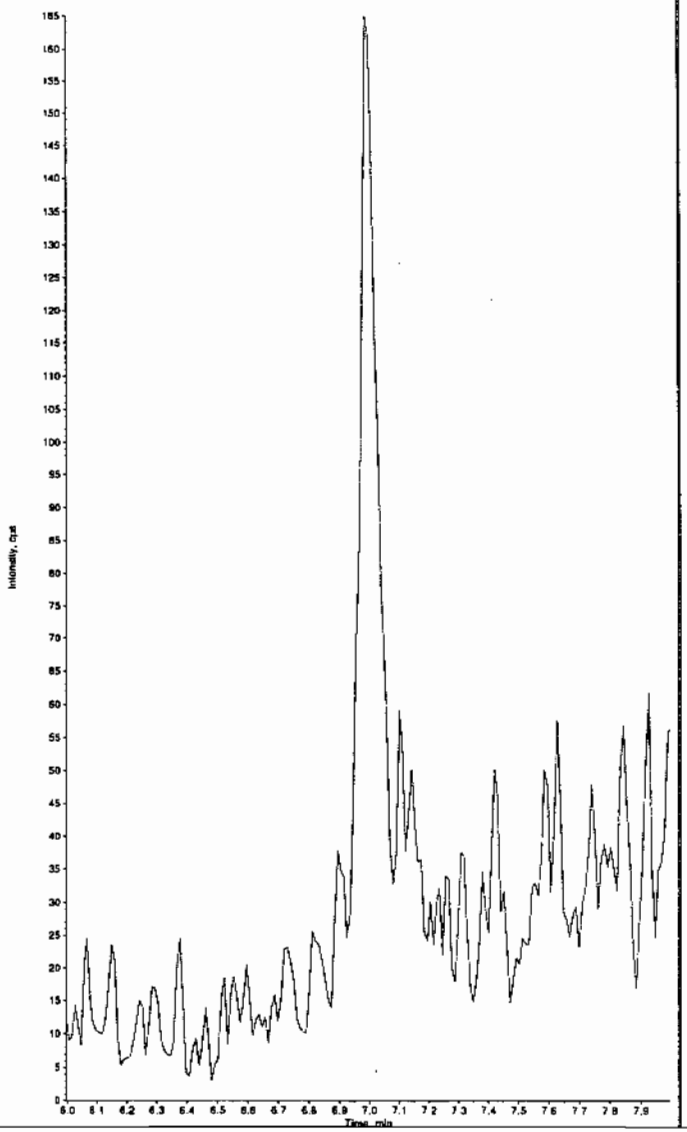

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02240010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:19:25 PM

Modified: No

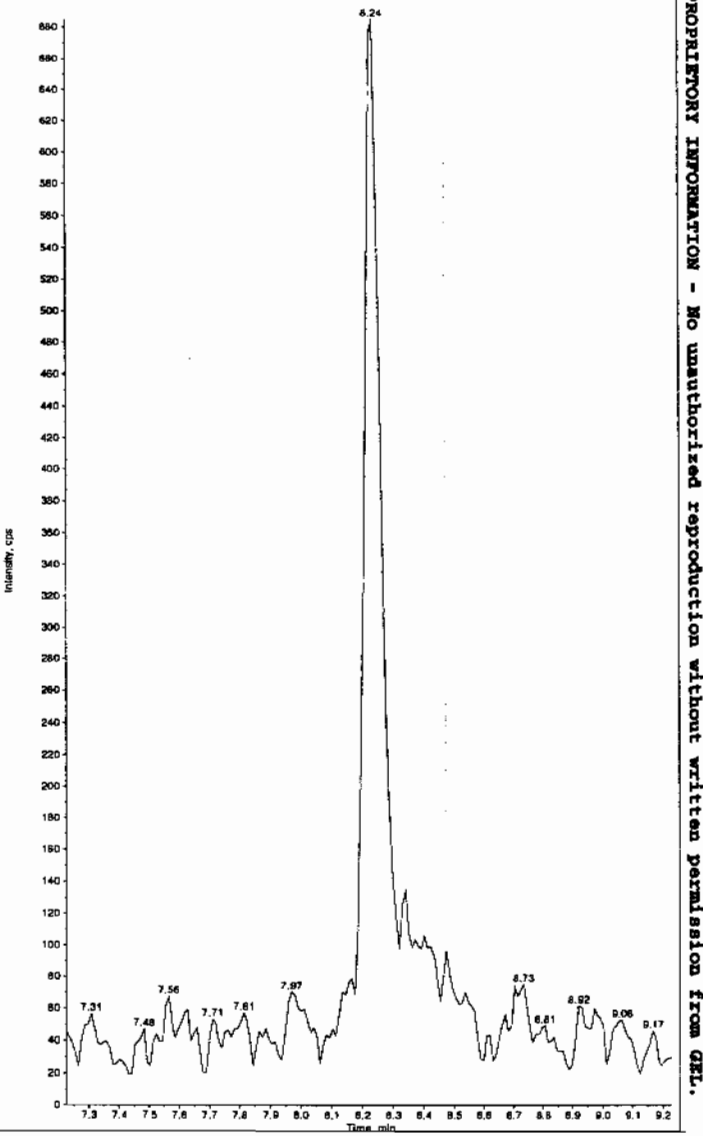

Hmc 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02240010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:19:25 PM

Modified: No

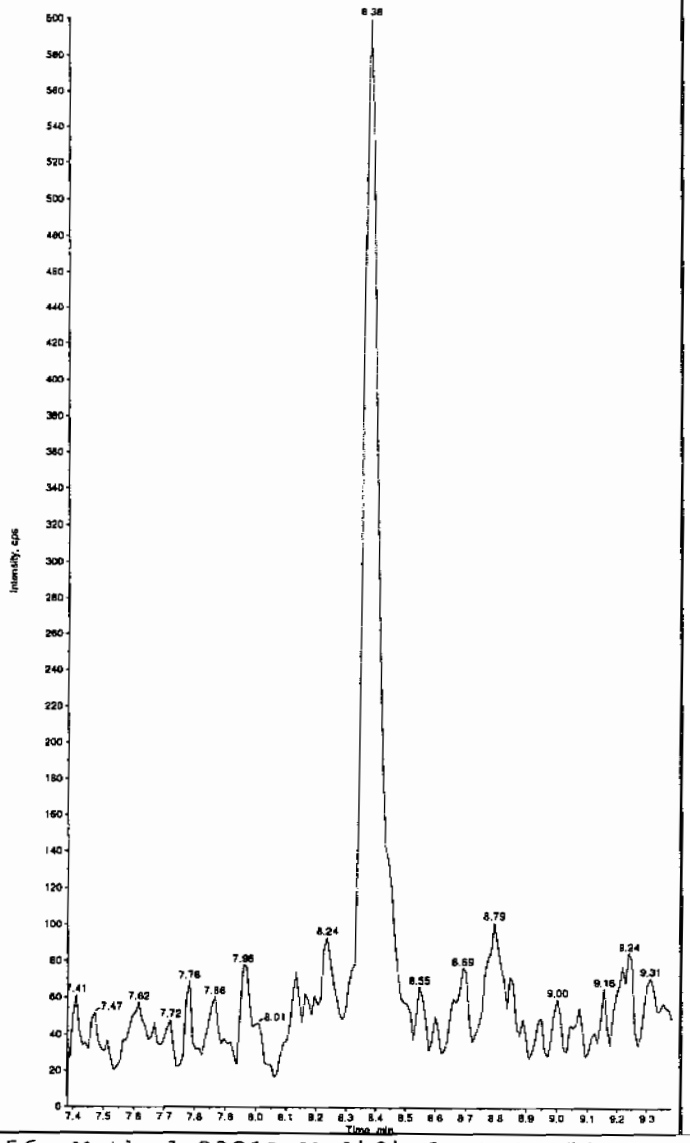

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02240010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:19:25 PM

Modified: No

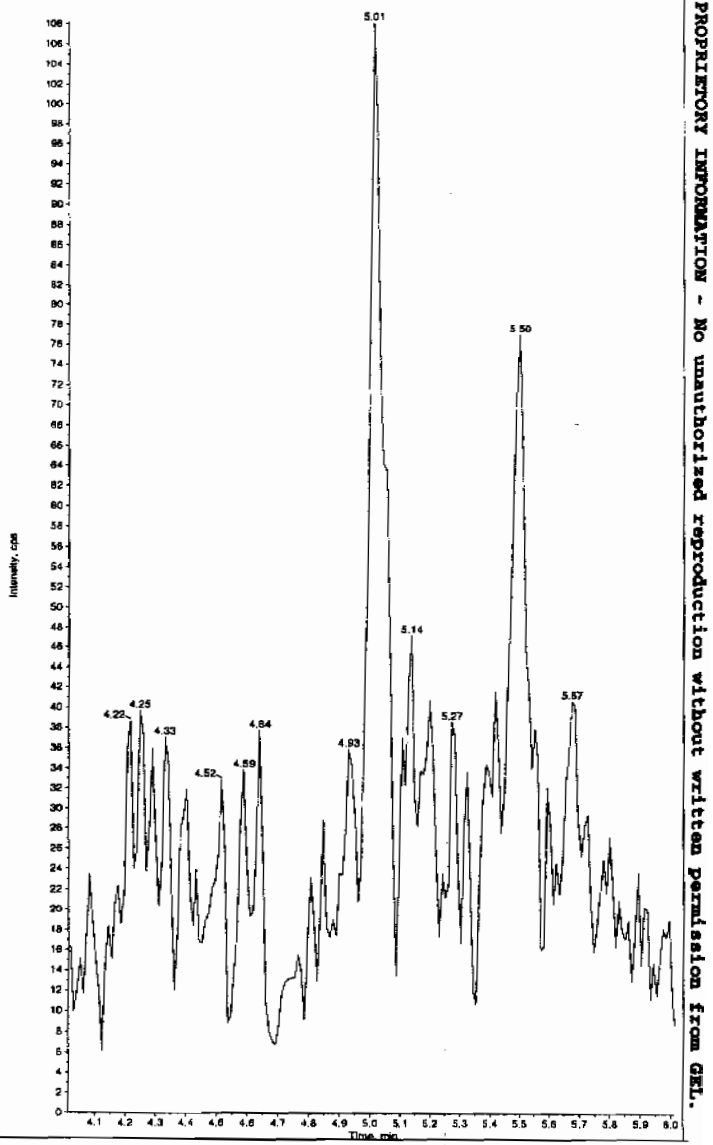

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "]1|LER" File: "EXS02240010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:19:25 PM

Modified: No

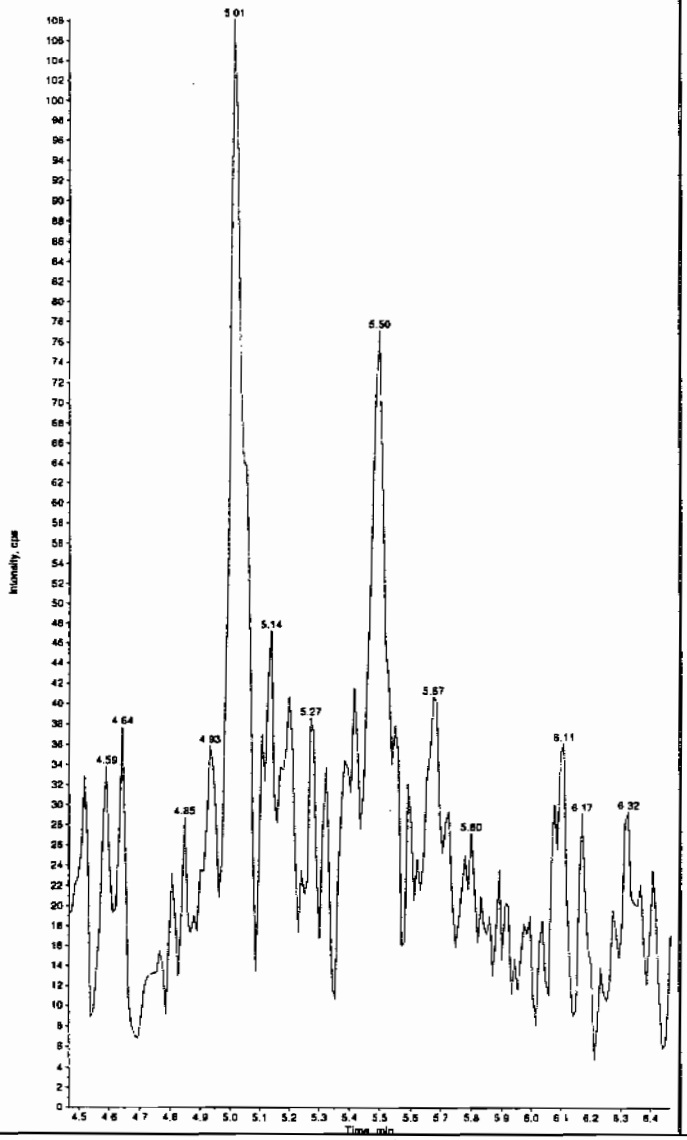

Sample Name: "XIBLK02" Sample ID: "]1|LER" File: "EXS02240010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.15 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:19:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.34e+004 counts
Height: 25905.701 cps
Start Time: 10.8 min
End Time: 11.1 min

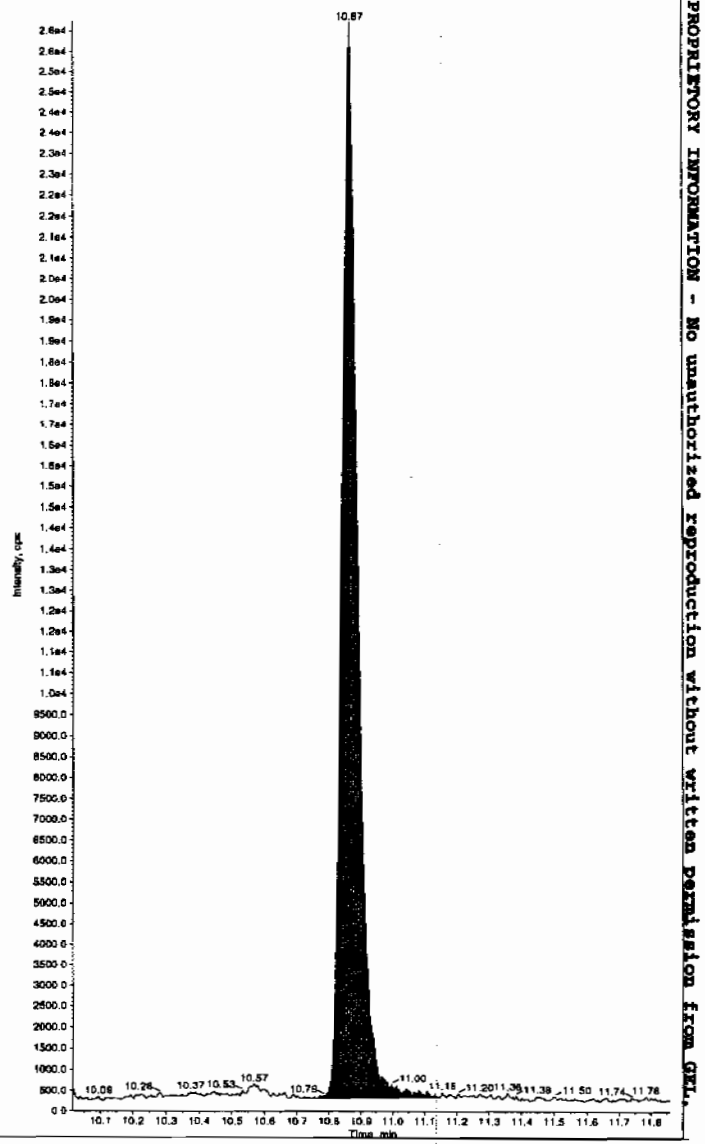

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 24-FEB-10 12:50

GEL Data File: EXS02240012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.8
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lcr 2/25/10

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02240012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:50:49 PM

Modified: No

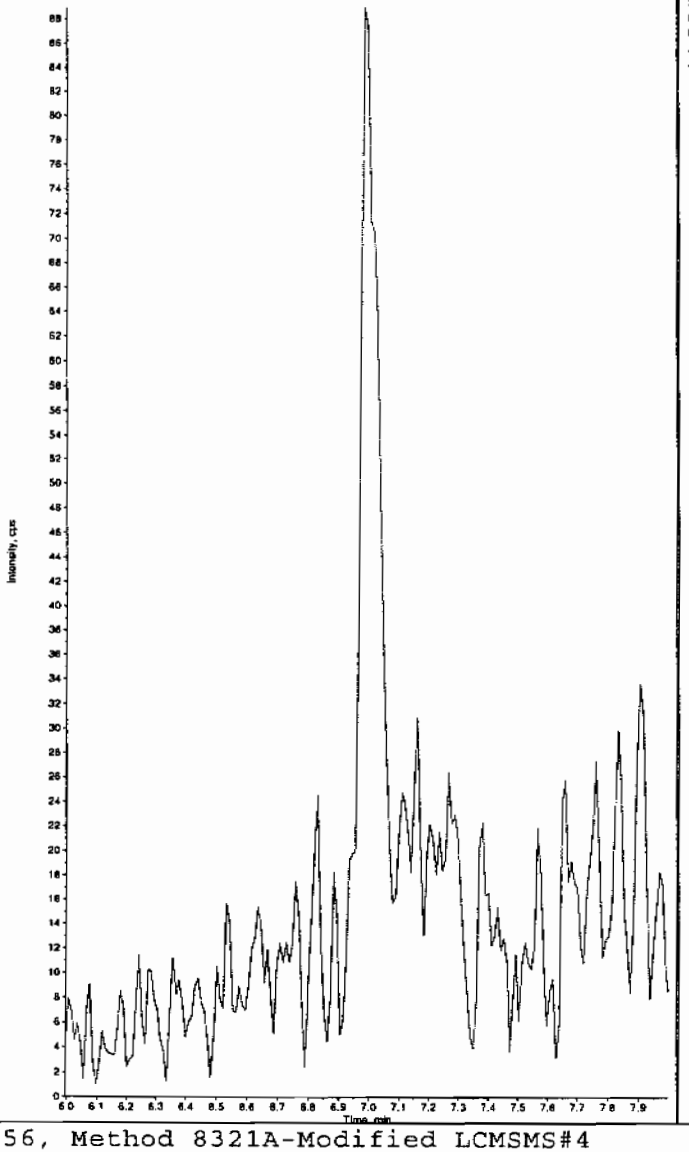

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02240012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:50:49 PM

Modified: No

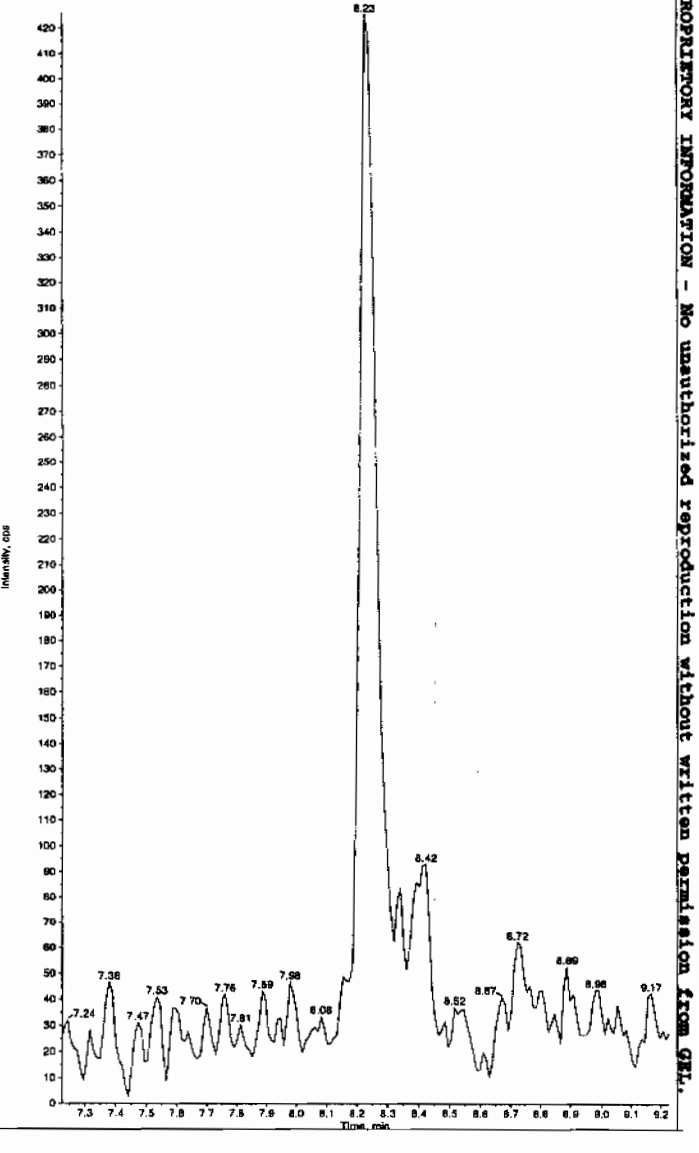

Hmc 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02240012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:50:49 PM

Modified: No

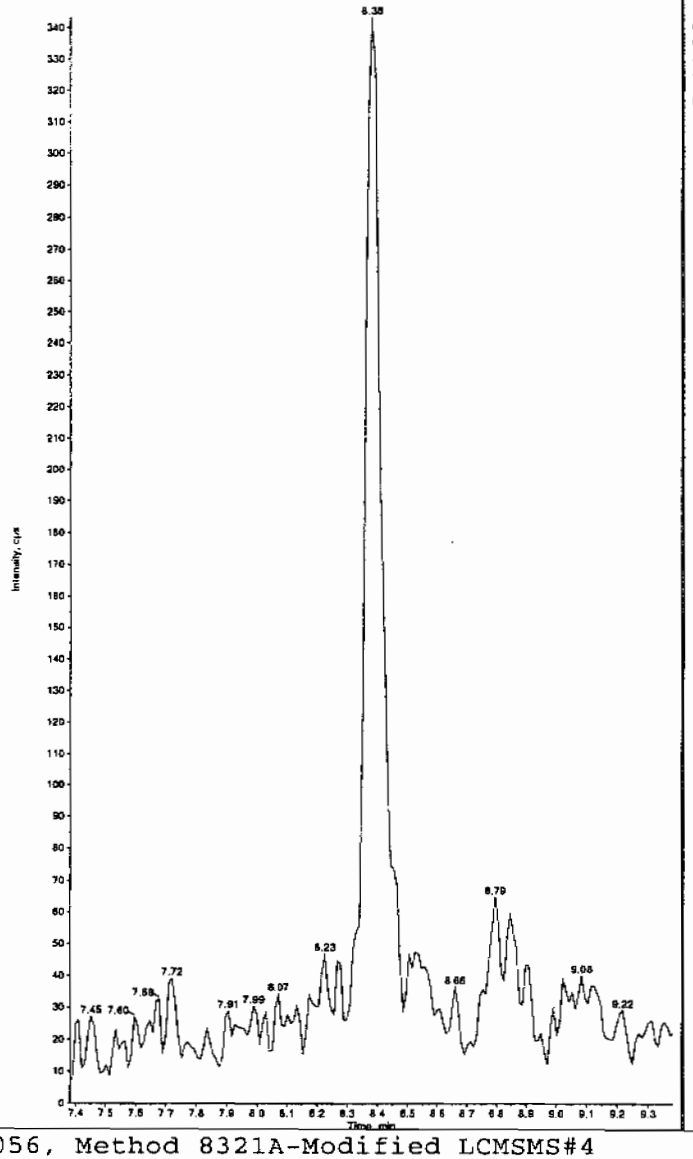

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02240012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:50:49 PM

Modified: No

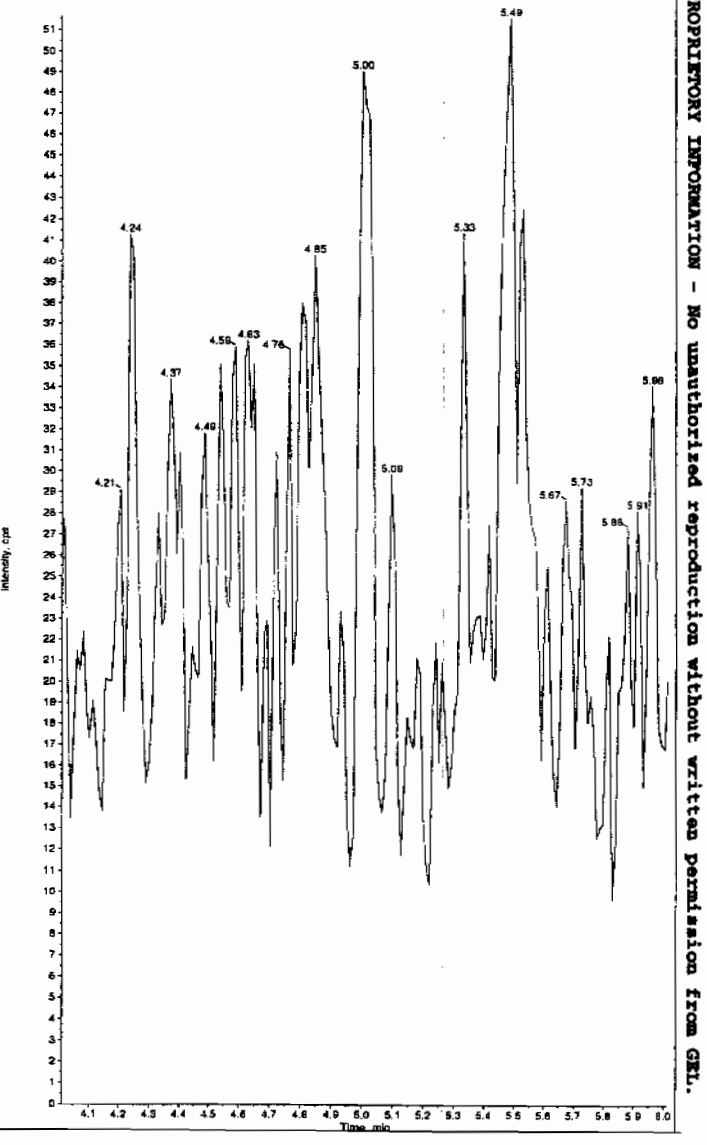

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "X1BLK03" Sample ID: "[1]LER" File: "EXS02240012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:50:49 PM

Modified: No

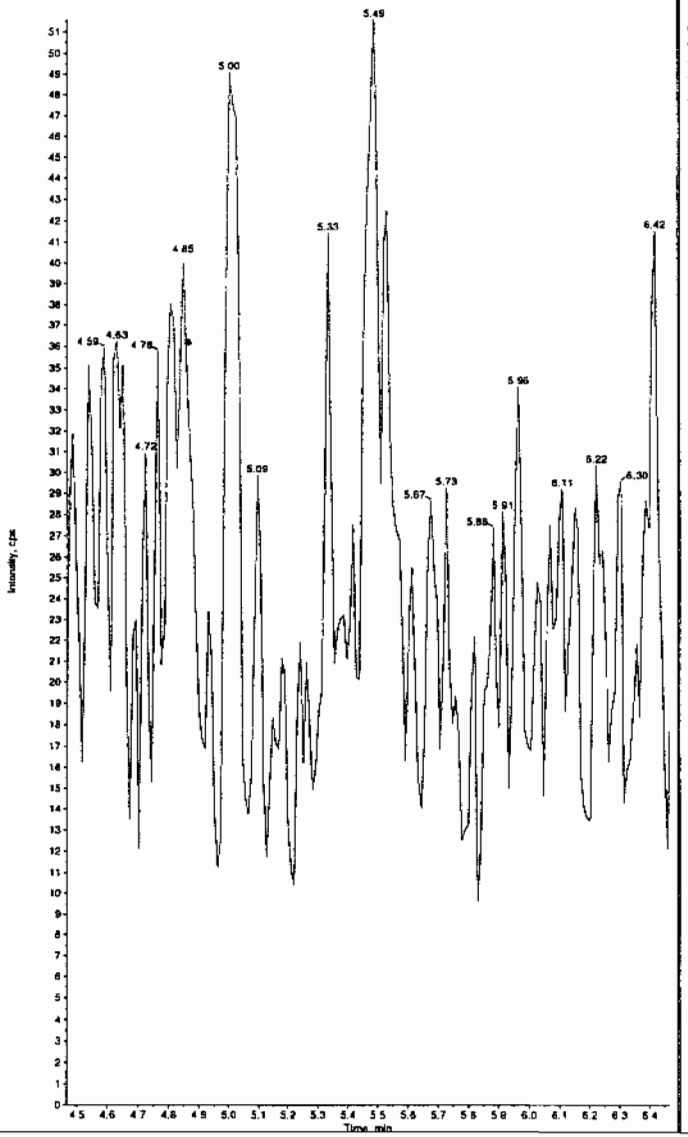

Sample Name: "X1BLK03" Sample ID: "[1]LER" File: "EXS02240012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.80 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:50:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.08e+004 counts
Height: 14005.919 cps
Start Time: 10.8 min
End Time: 11.0 min

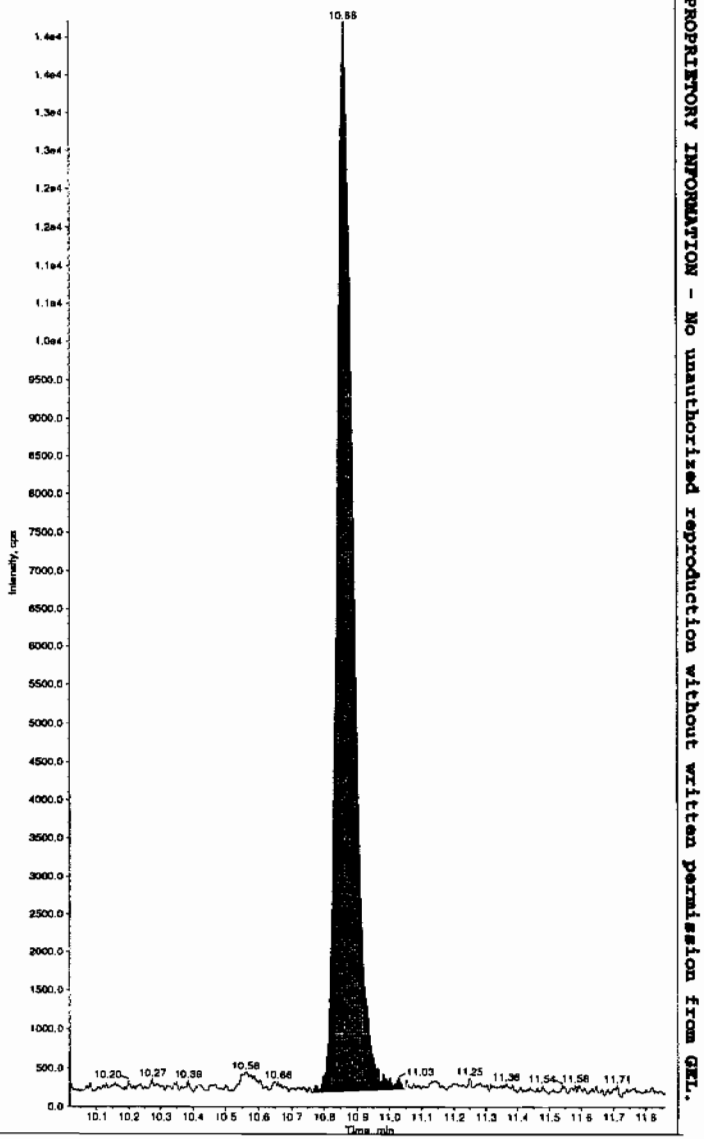

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1514

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 24-FEB-10 16:15

GEL Data File: EXS02240025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	.923
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02240025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:15:20 PM

Modified: No

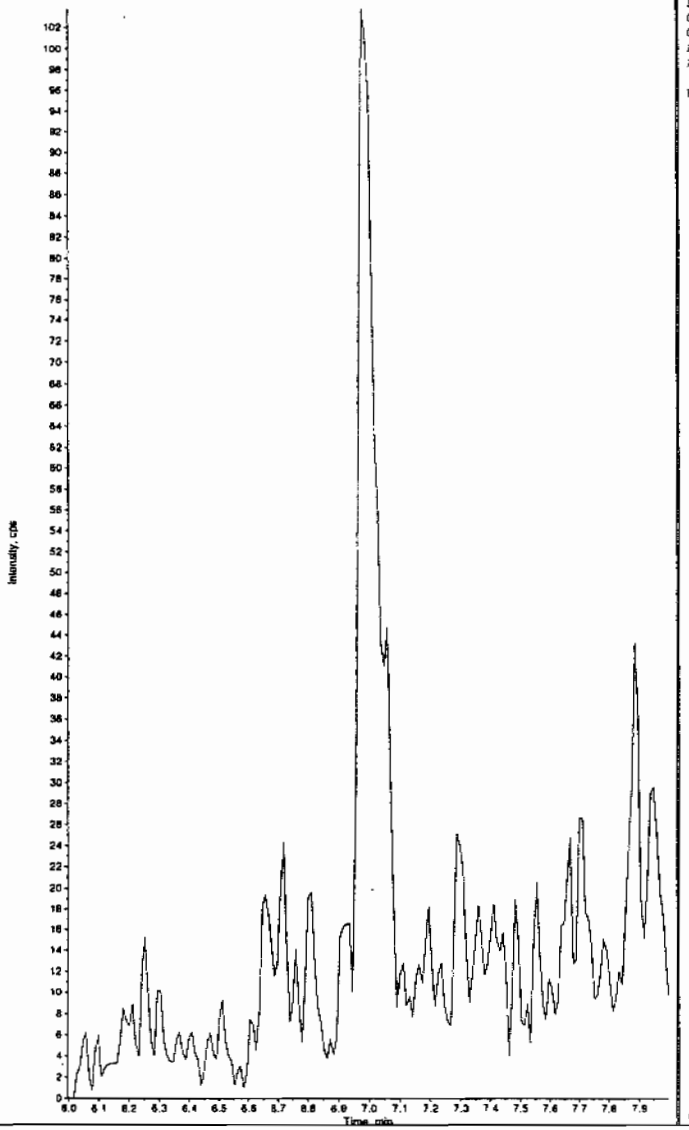

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02240025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:15:20 PM

Modified: No

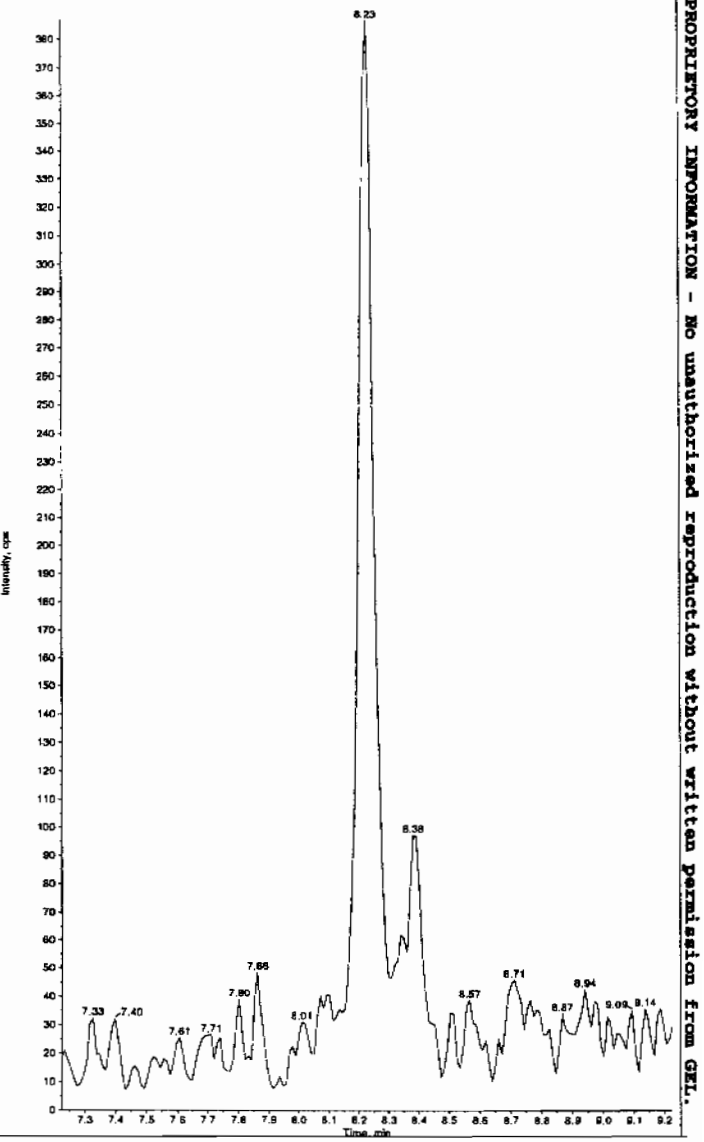

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02240025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:15:20 PM

Modified: No

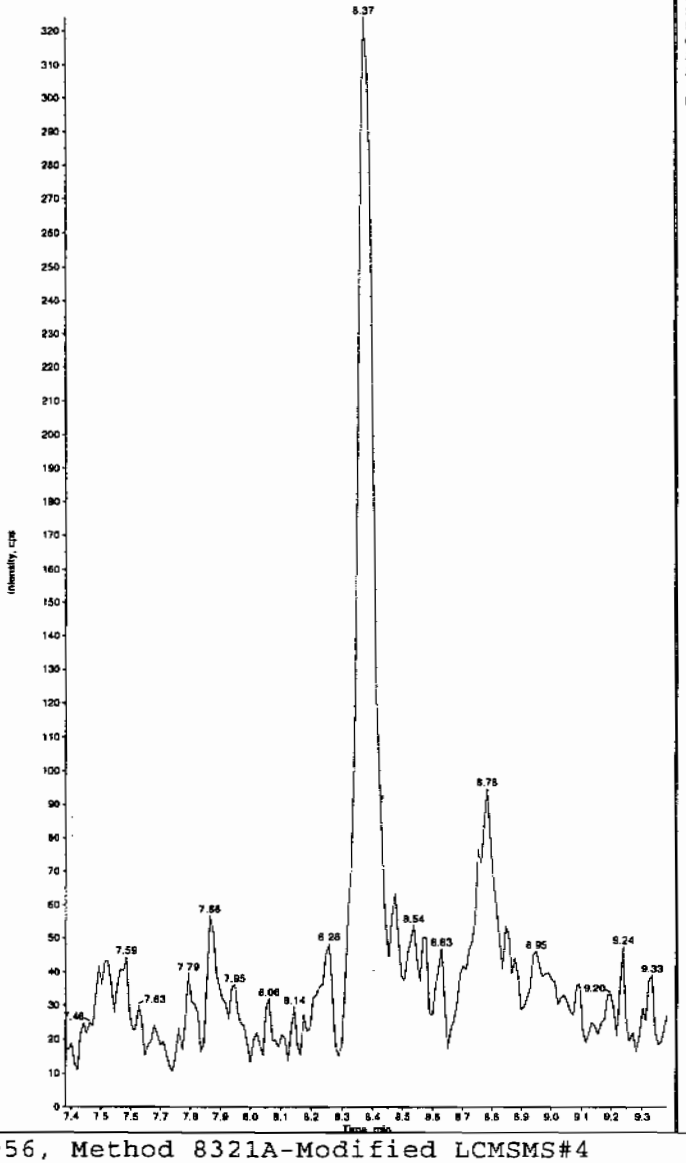

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02240025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:15:20 PM

Modified: No

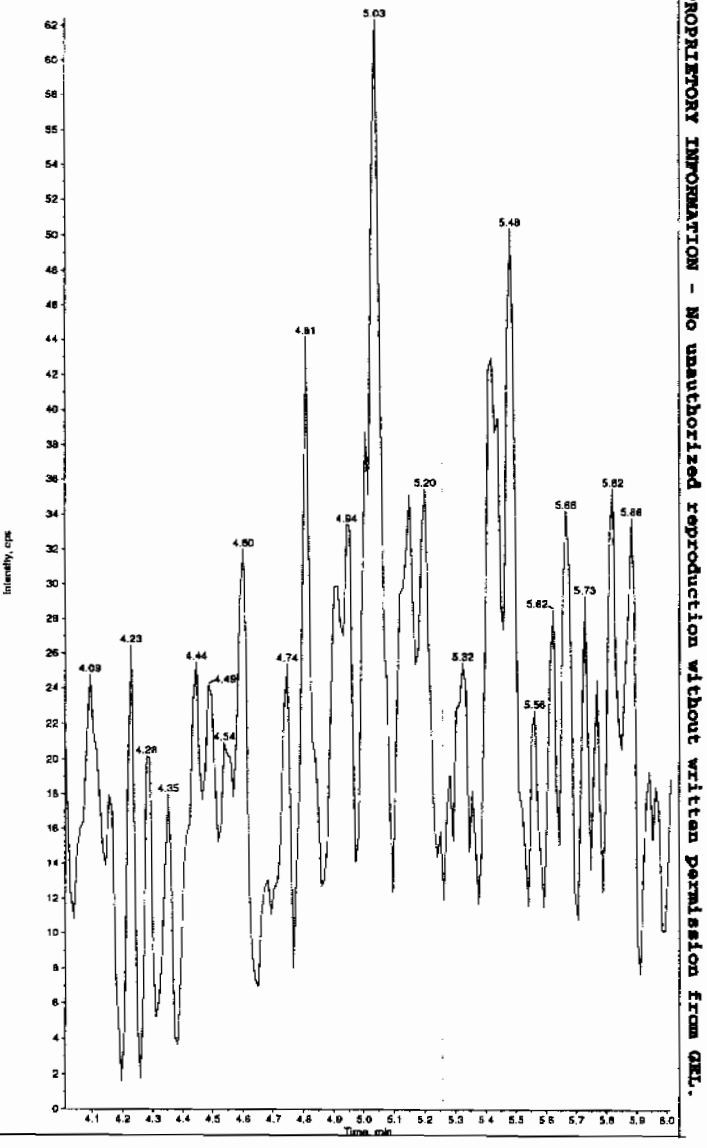

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK04" Sample ID: "]1|LER" File: "EXS02240025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:15:20 PM

Modified: No

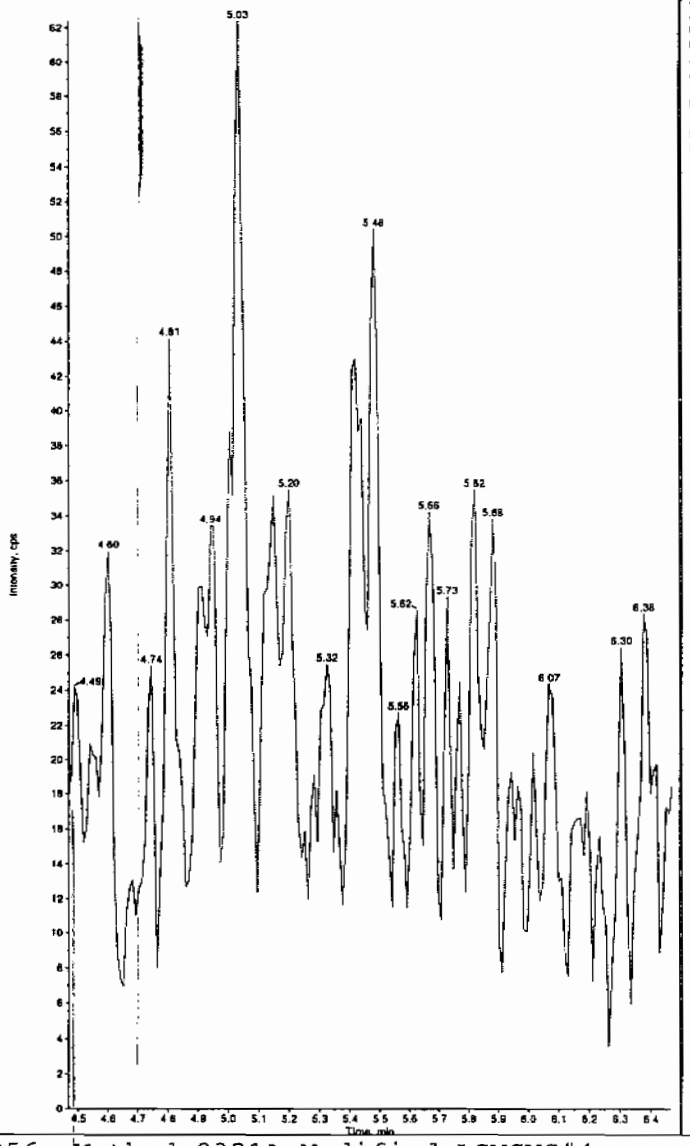

Sample Name: "XIBLK04" Sample ID: "]1|LER" File: "EXS02240025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.923 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:15:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.96e+004 counts
Height: 11309.083 cps
Start Time: 10.8 min
End Time: 11.0 min

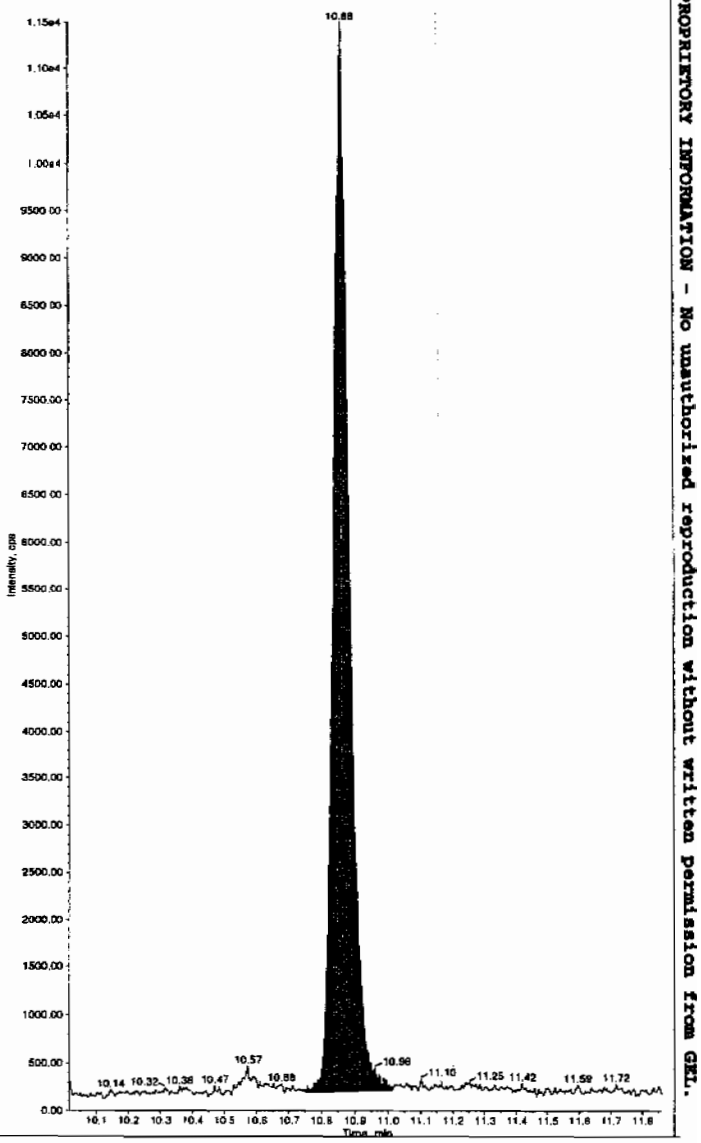

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1514

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 24–FEB–10 18:05

GEL Data File: EXS02240032.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.09
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02240032.wiff"
Peak Name: "TATB" Mass(es). "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:05:33 PM

Modified: No

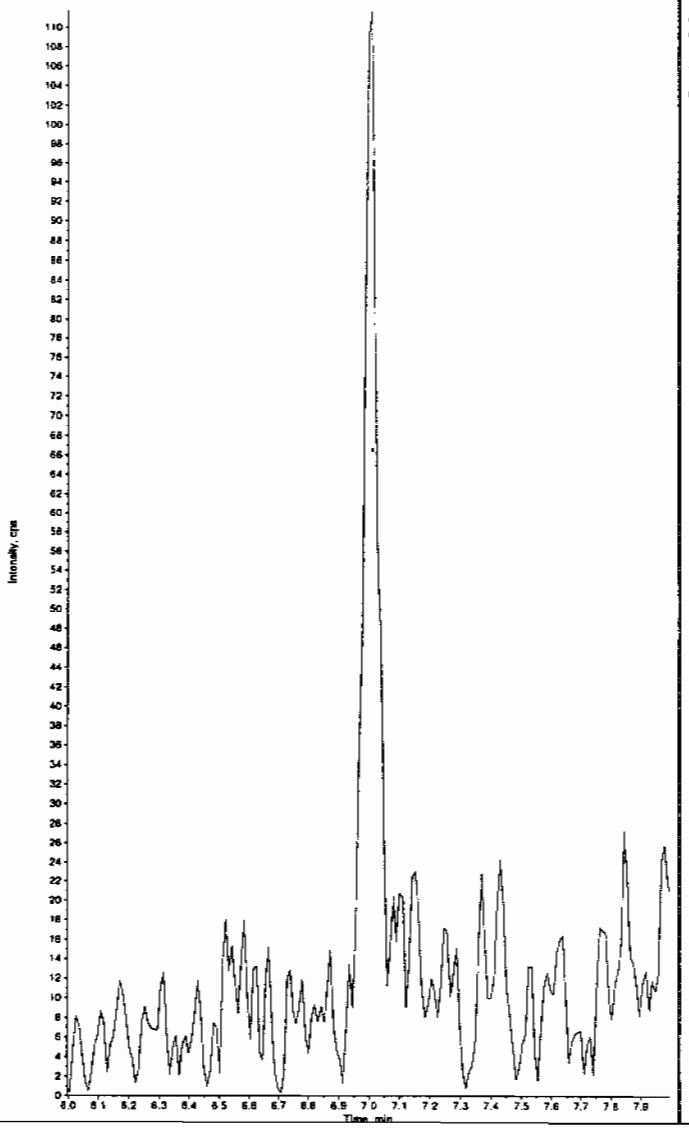

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02240032.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:05:33 PM

Modified: No

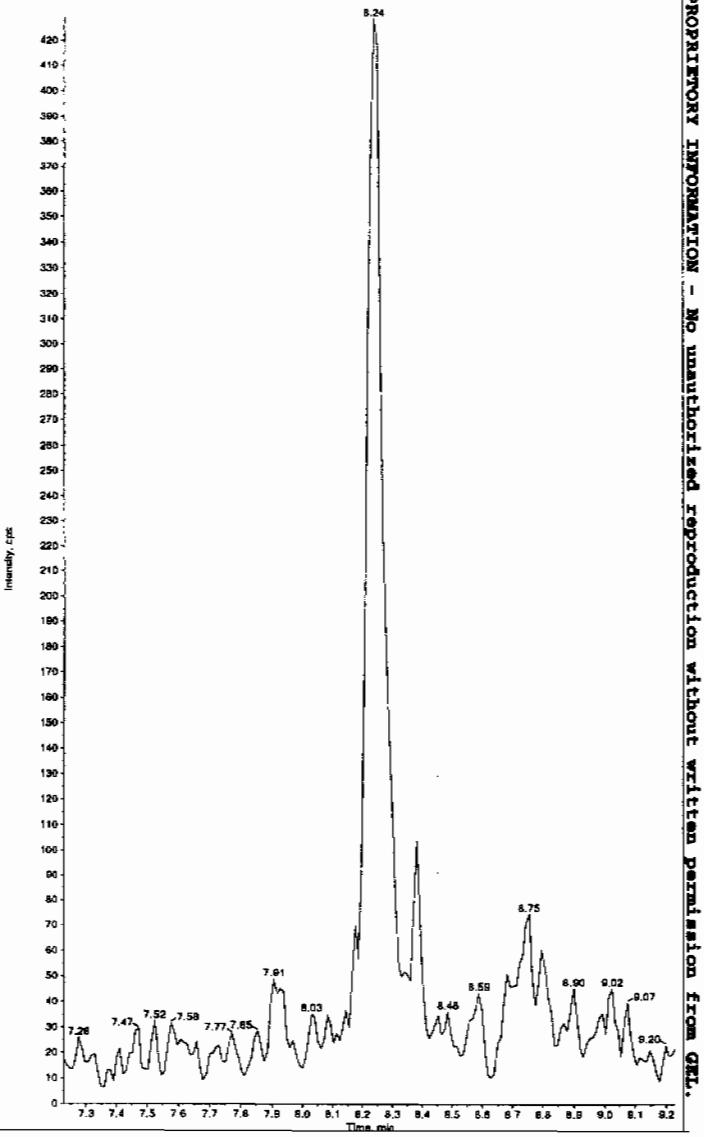

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02240032.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:05:33 PM

Modified: No

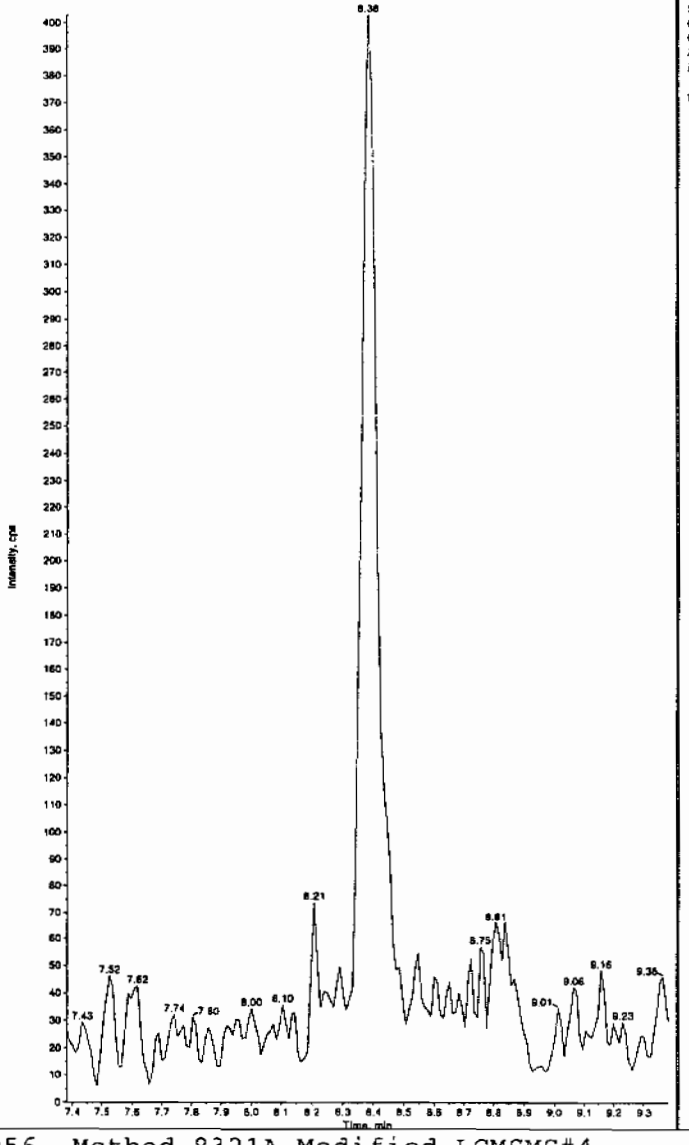

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02240032.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:05:33 PM

Modified: No

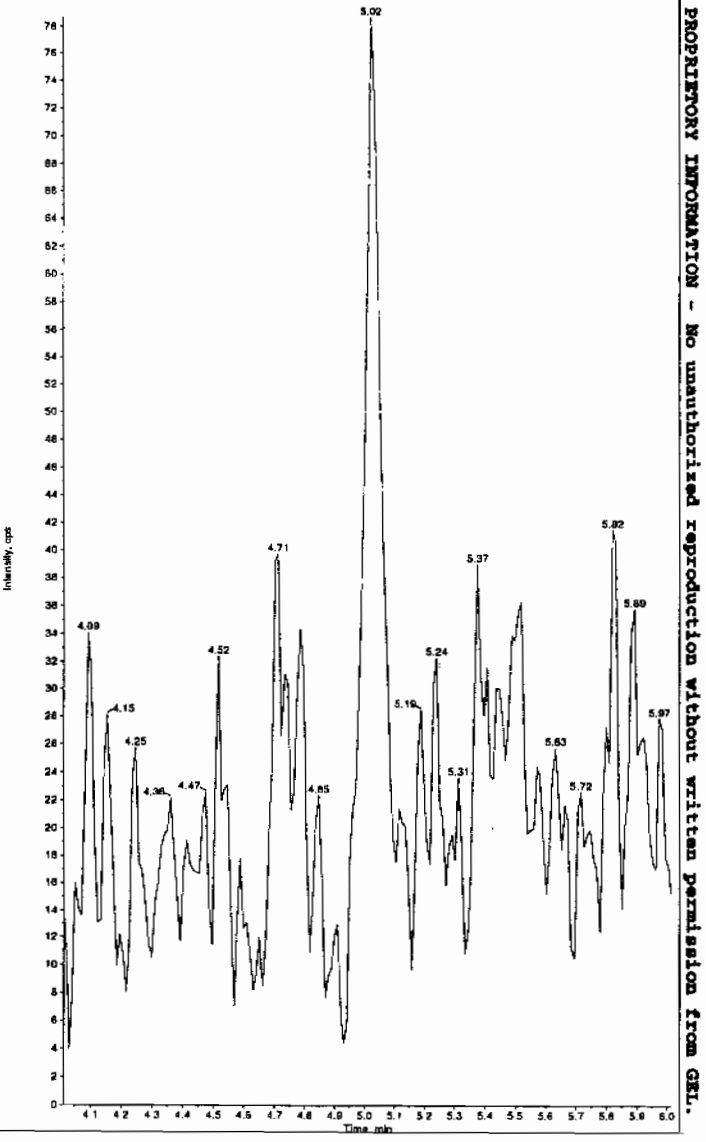

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02240032.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:05:33 PM

Modified: No

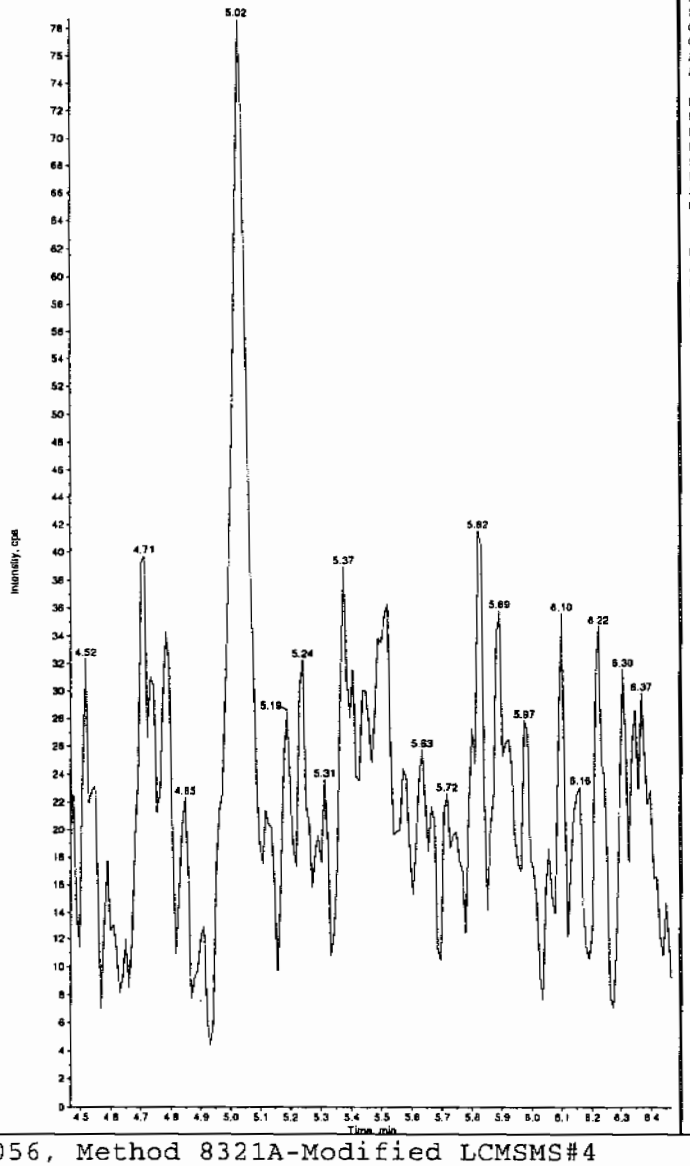

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02240032.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.09 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:05:33 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.16e+004 counts
Height: 11242.744 cps
Start Time: 10.7 min
End Time: 11.0 min

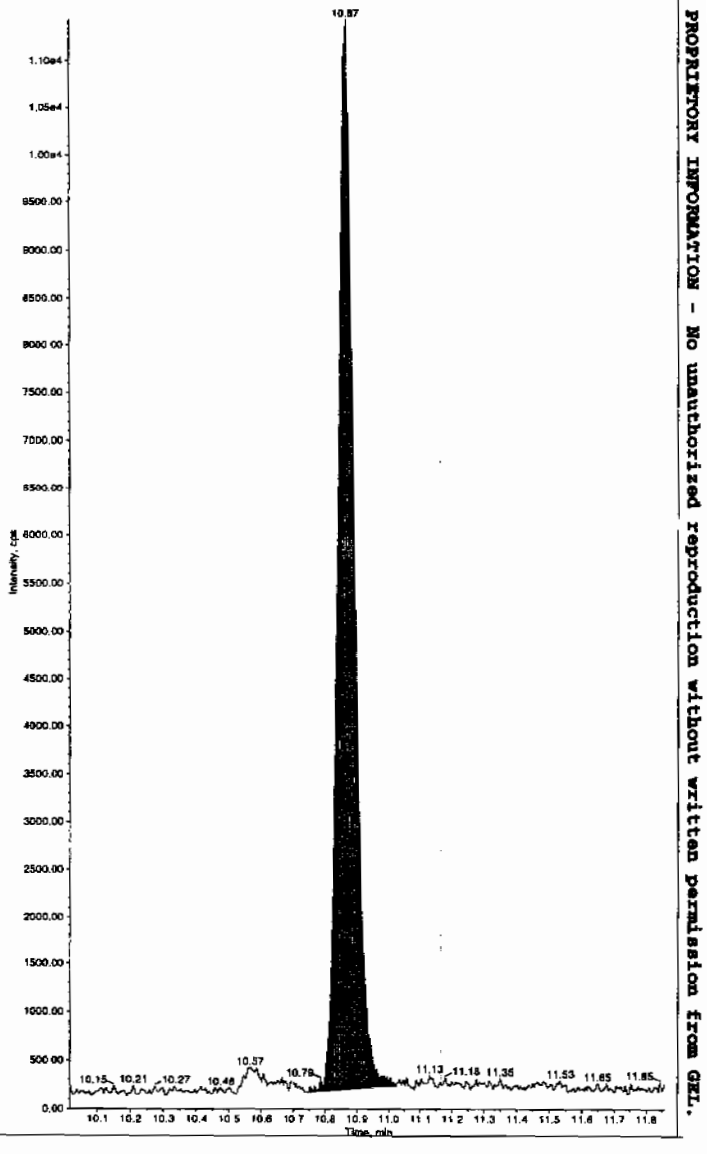

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

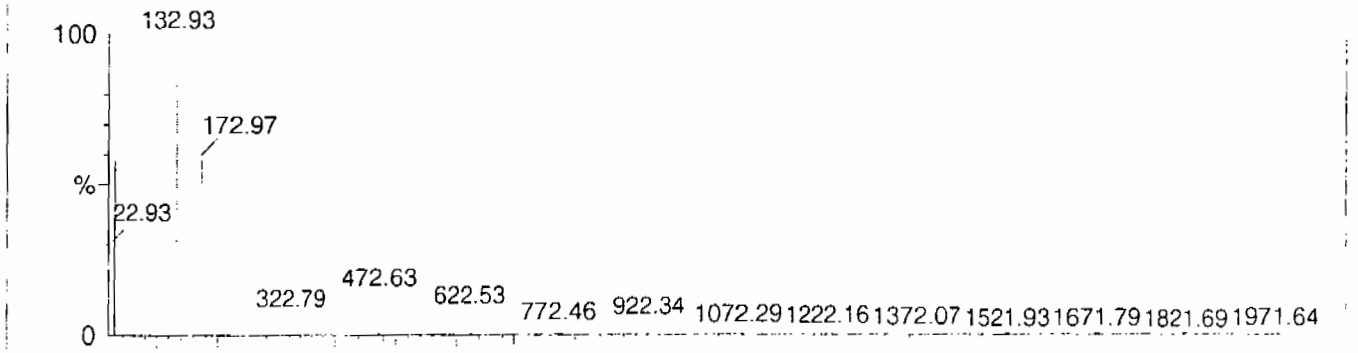

Reference file: Naics2

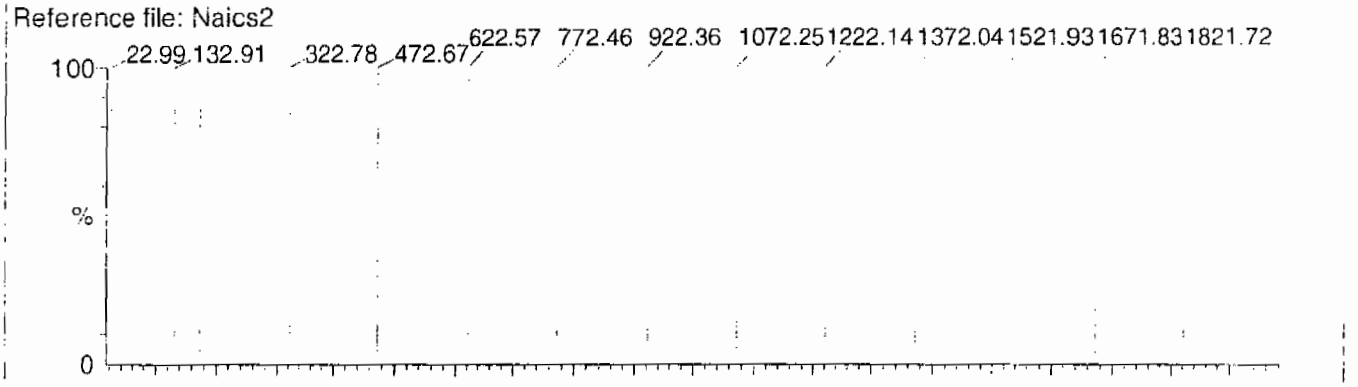

Mass difference (Raw - Ref mass)

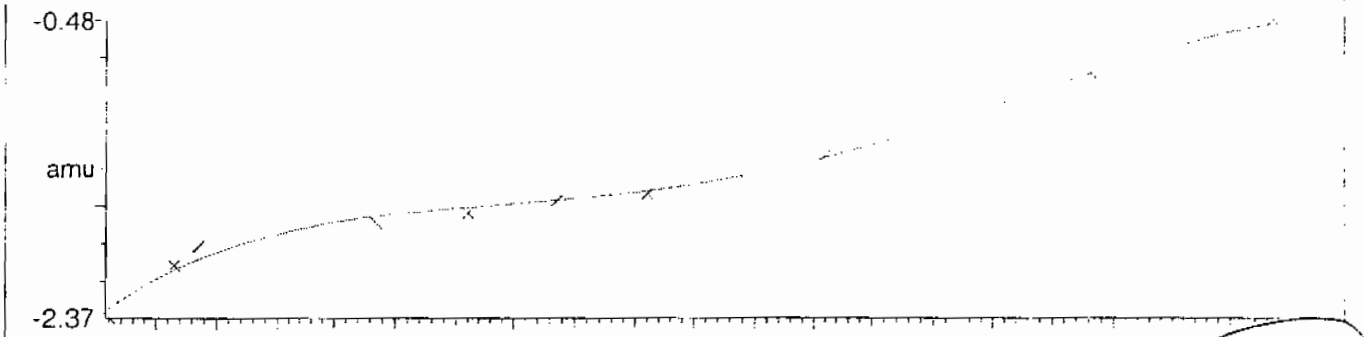

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

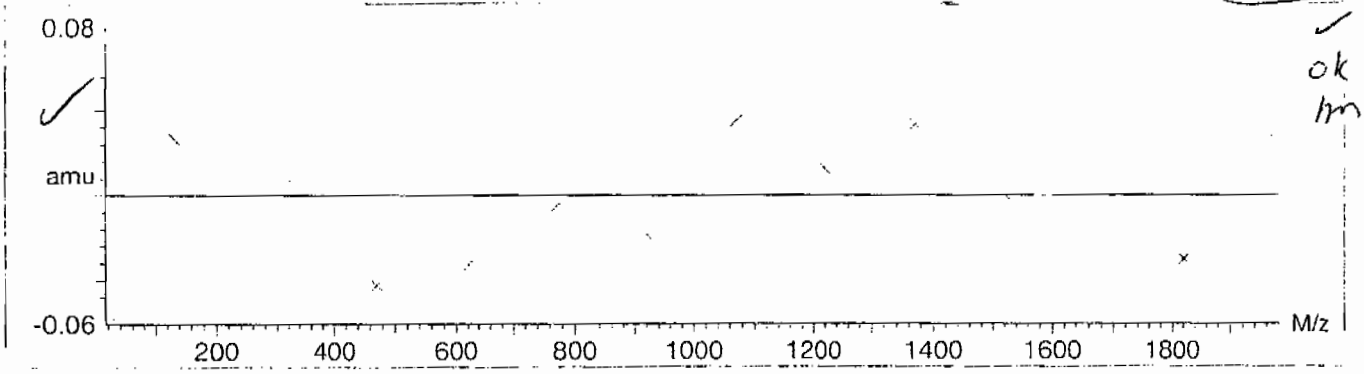

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

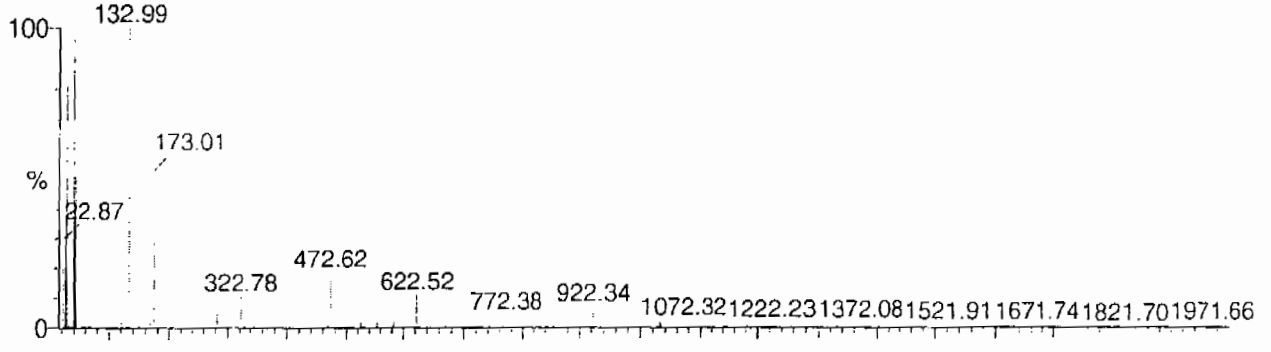

Reference file: Naics2

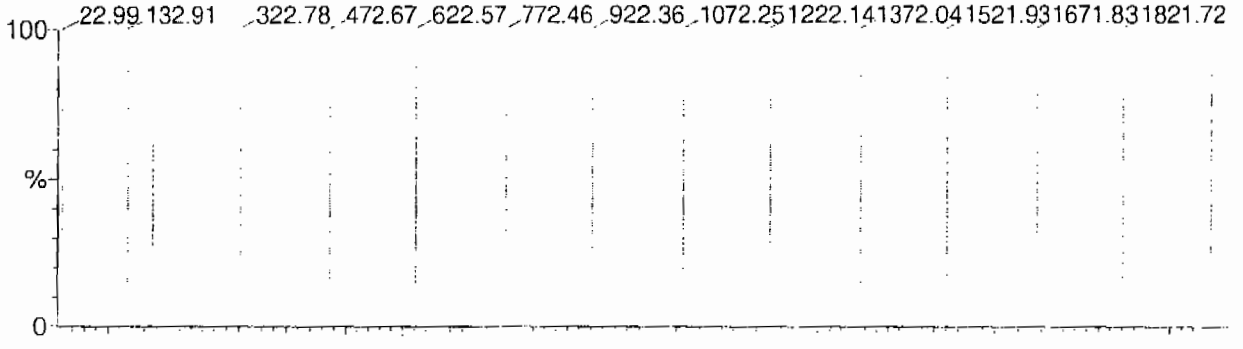

Mass difference (Raw - Ref mass)

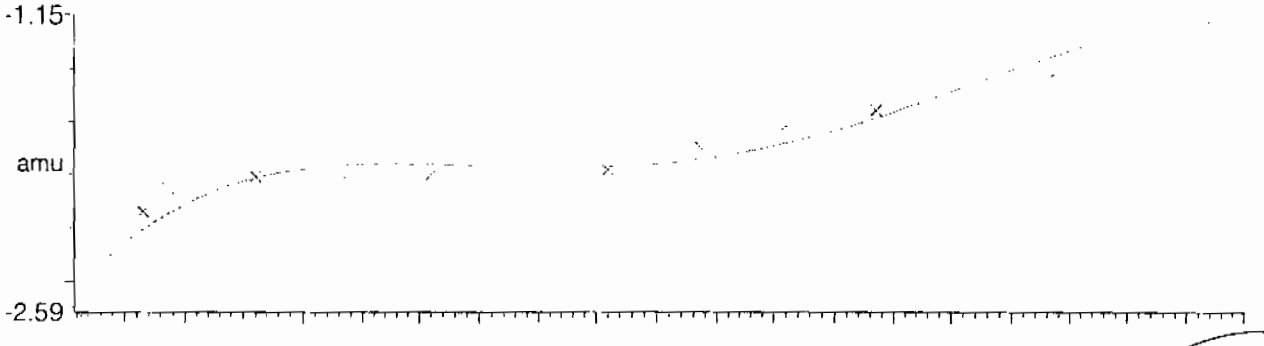

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

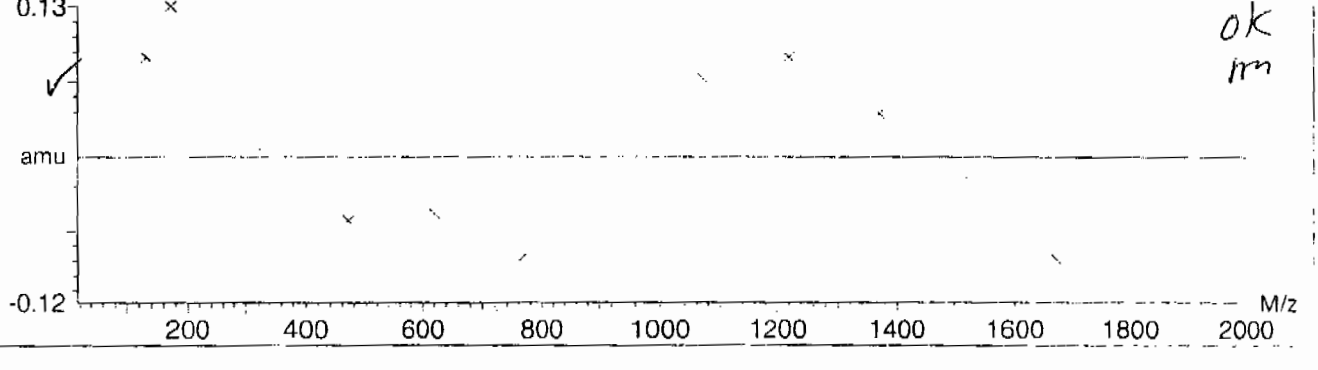

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

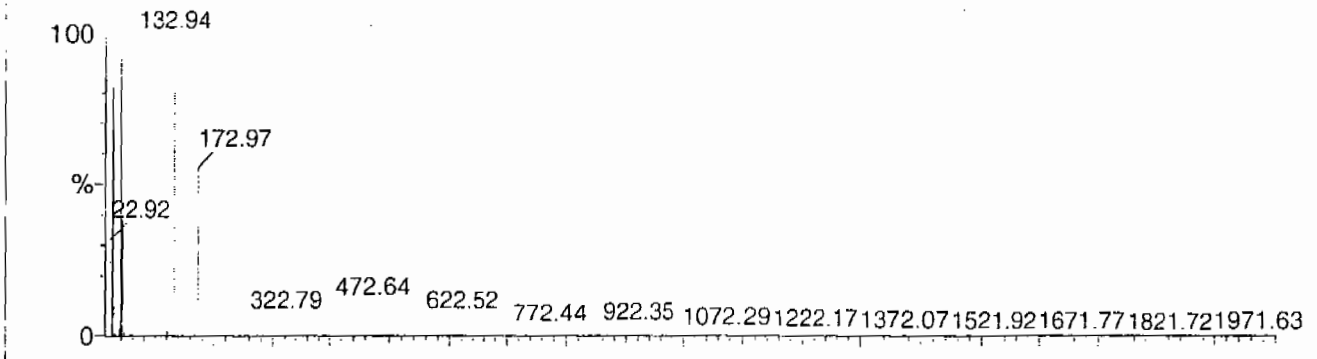

Reference file: Naics2

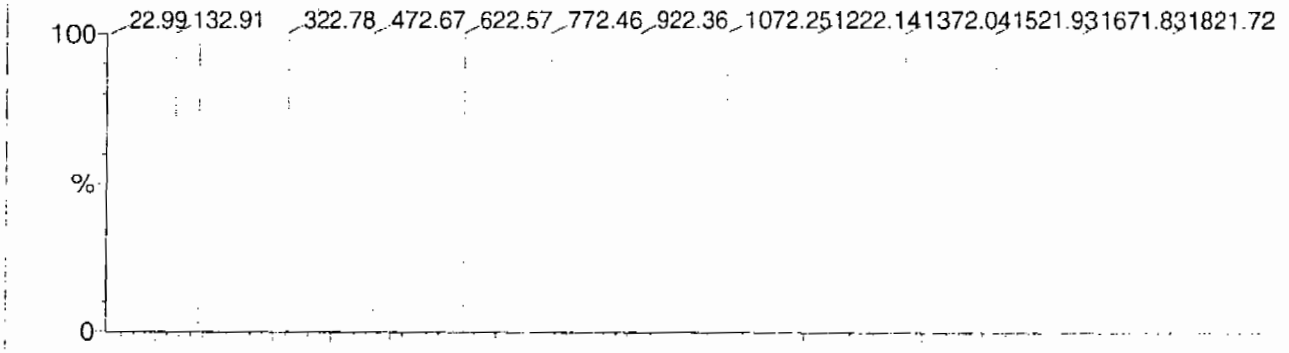

Mass difference (Raw - Ref mass)

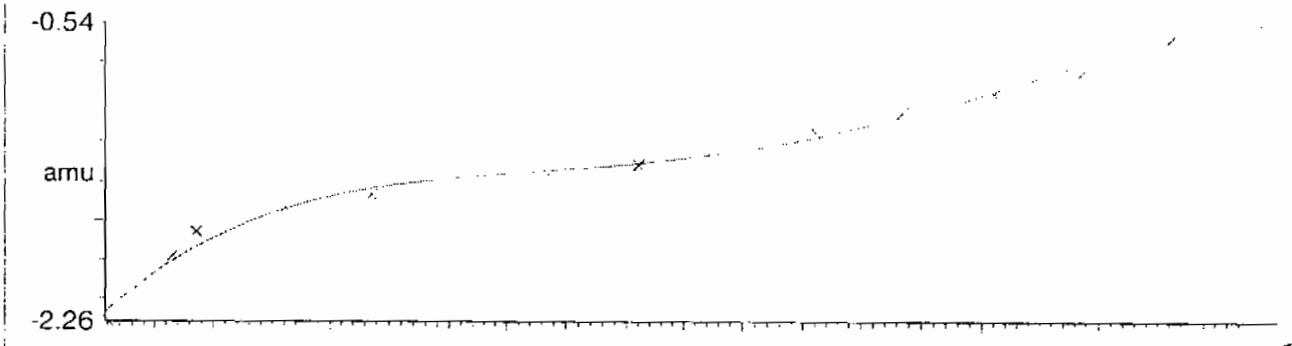

Residuals

Mean residual = 3.486639e-9 ± 0.040487

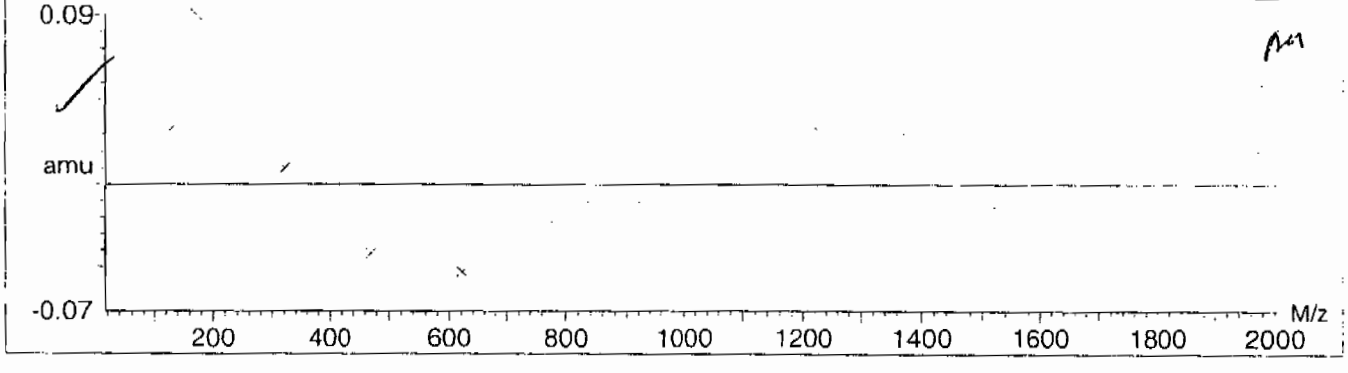

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

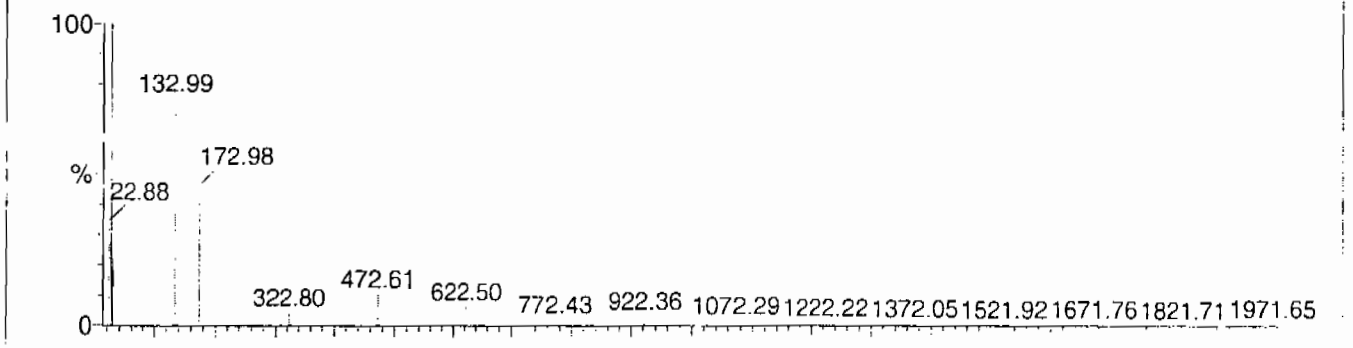

Reference file: Naics2

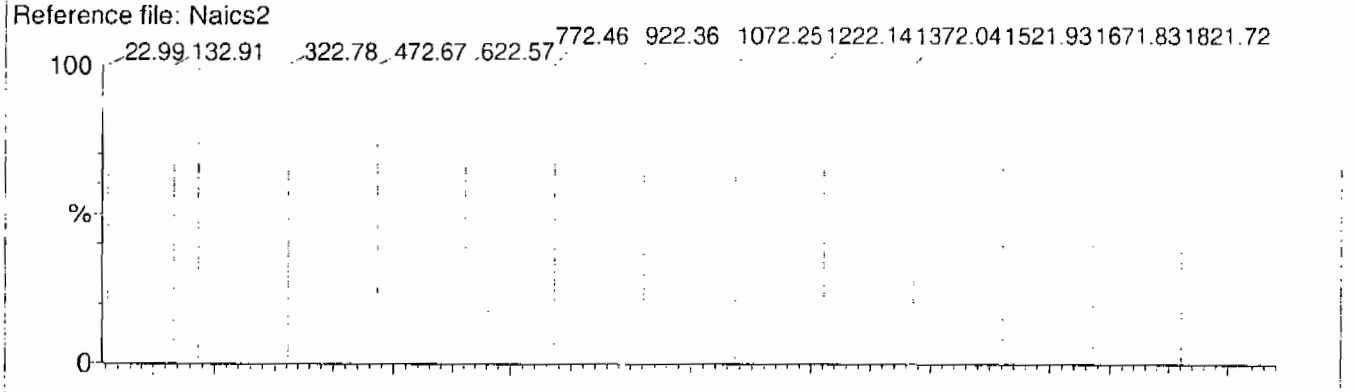

Mass difference (Raw - Ref mass)

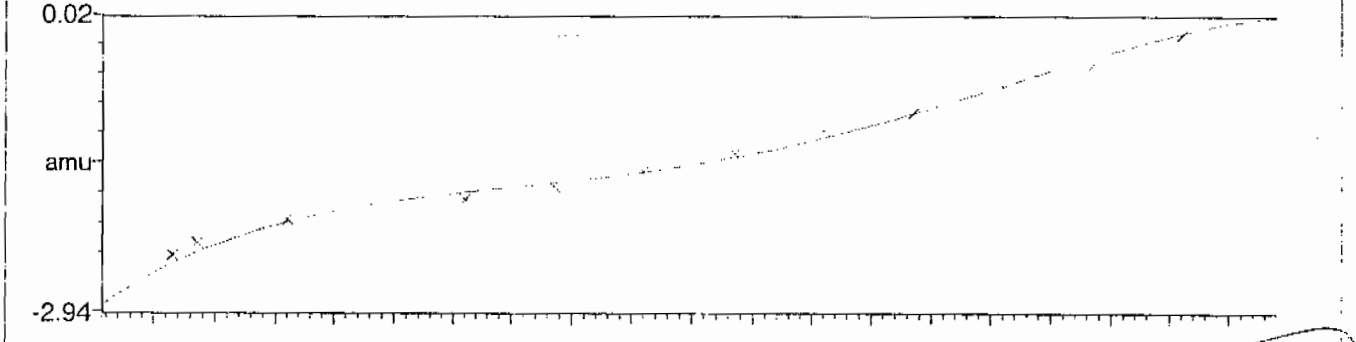

Residuals

Mean residual = 2.048910e-9 ± 0.057803

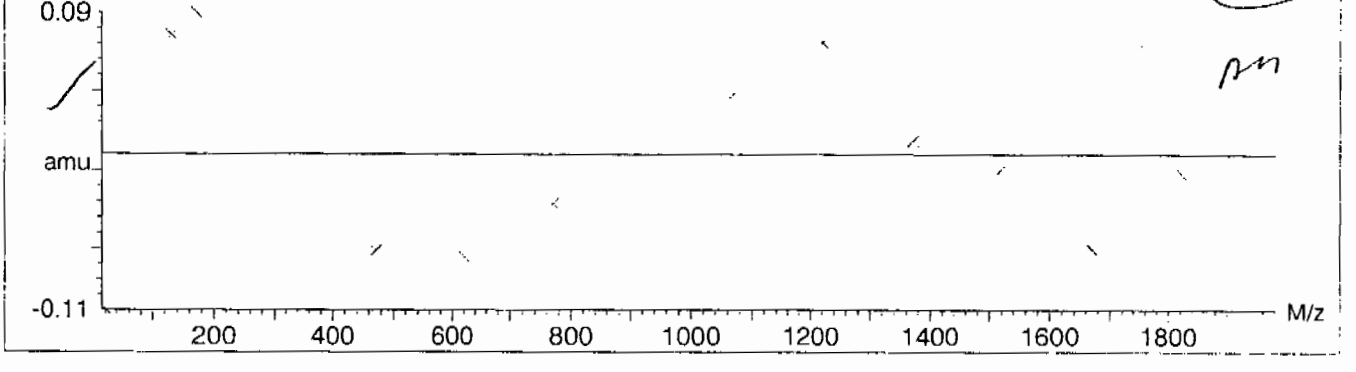

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

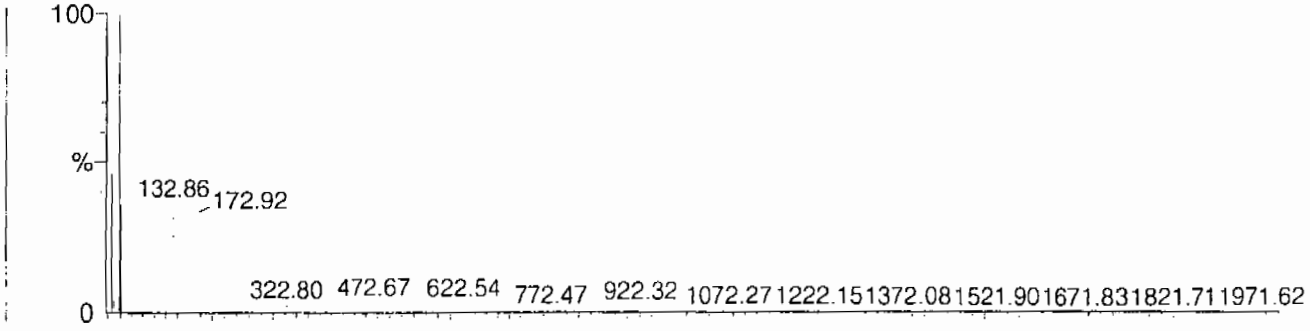

Reference file: Naics2

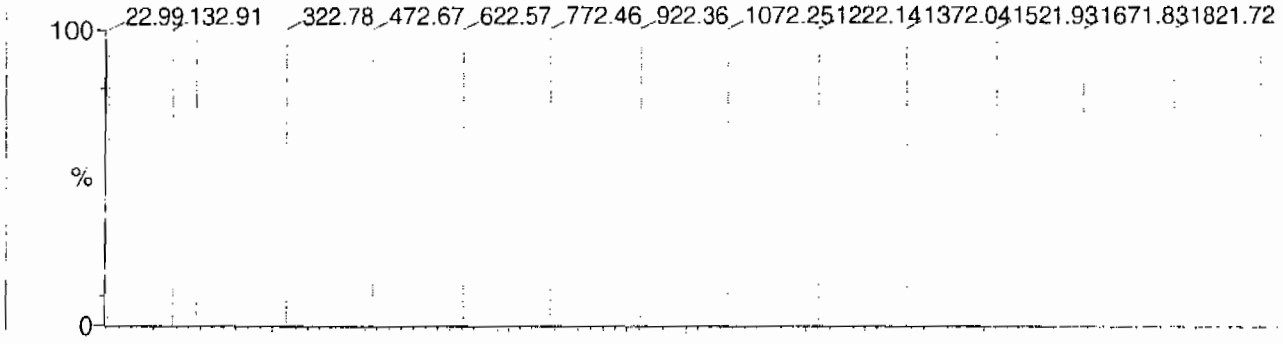

Mass difference (Raw - Ref mass)

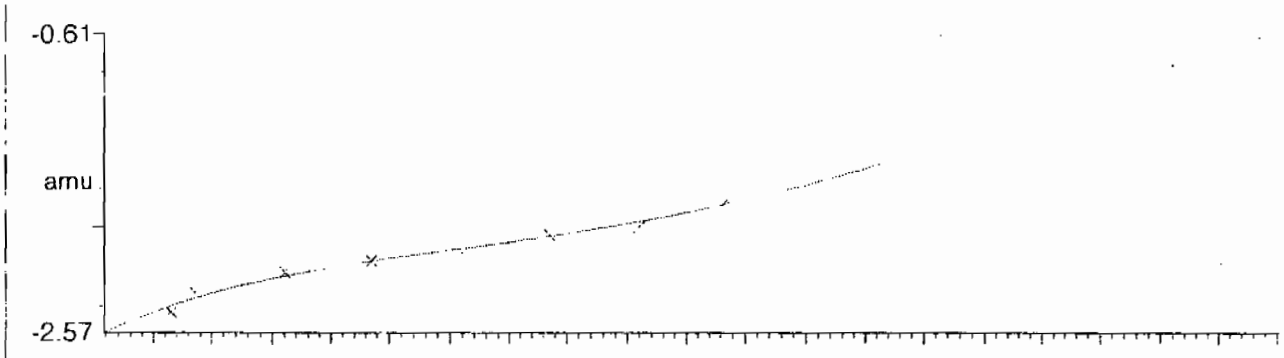

Residuals

Mean residual = -2.623502e-9 ± 0.025622

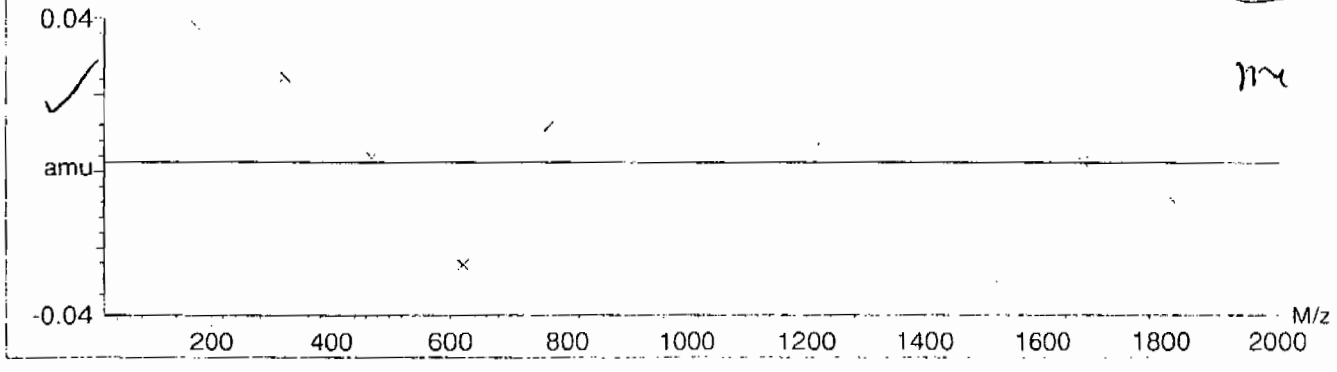

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

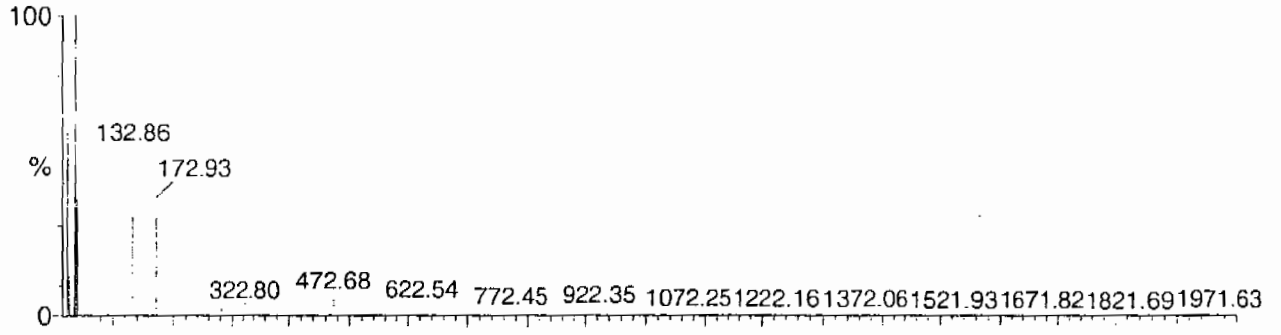

Reference file: Naics2

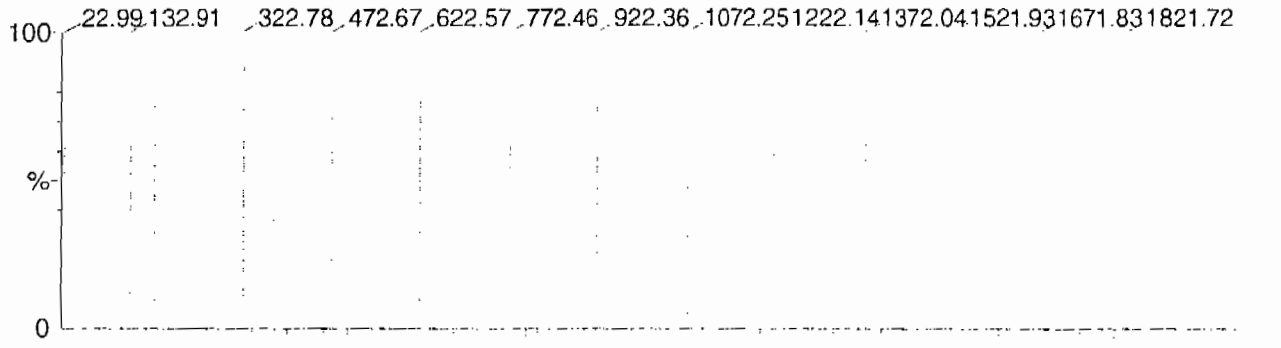

Mass difference (Raw - Ref mass)

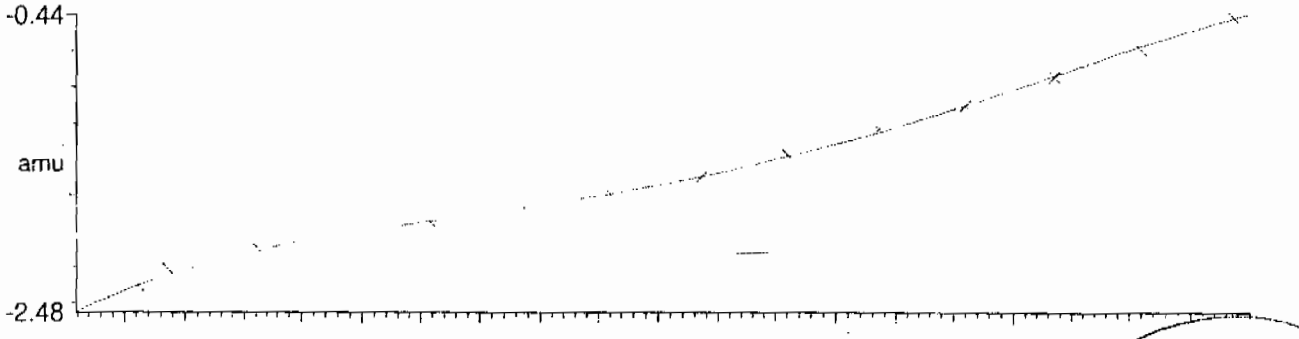

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

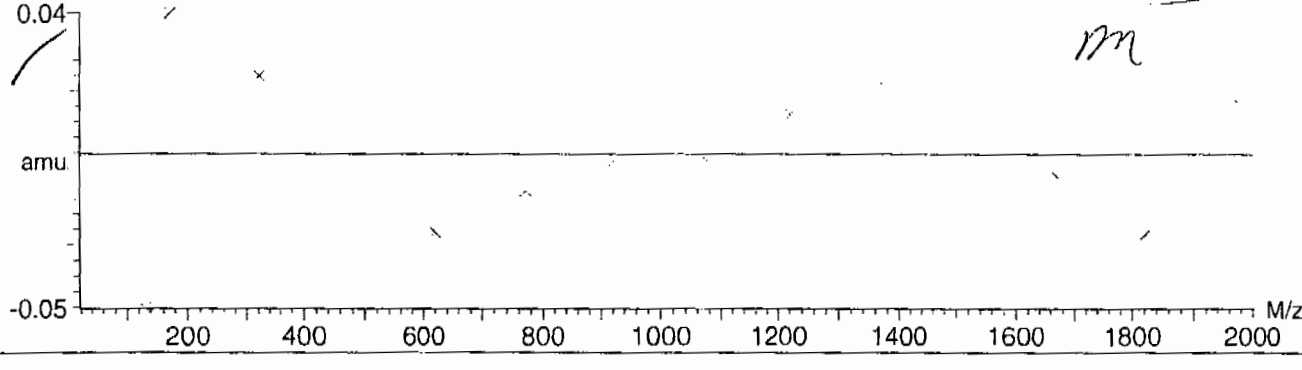

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Mon Mar 01 15:29:45 2010

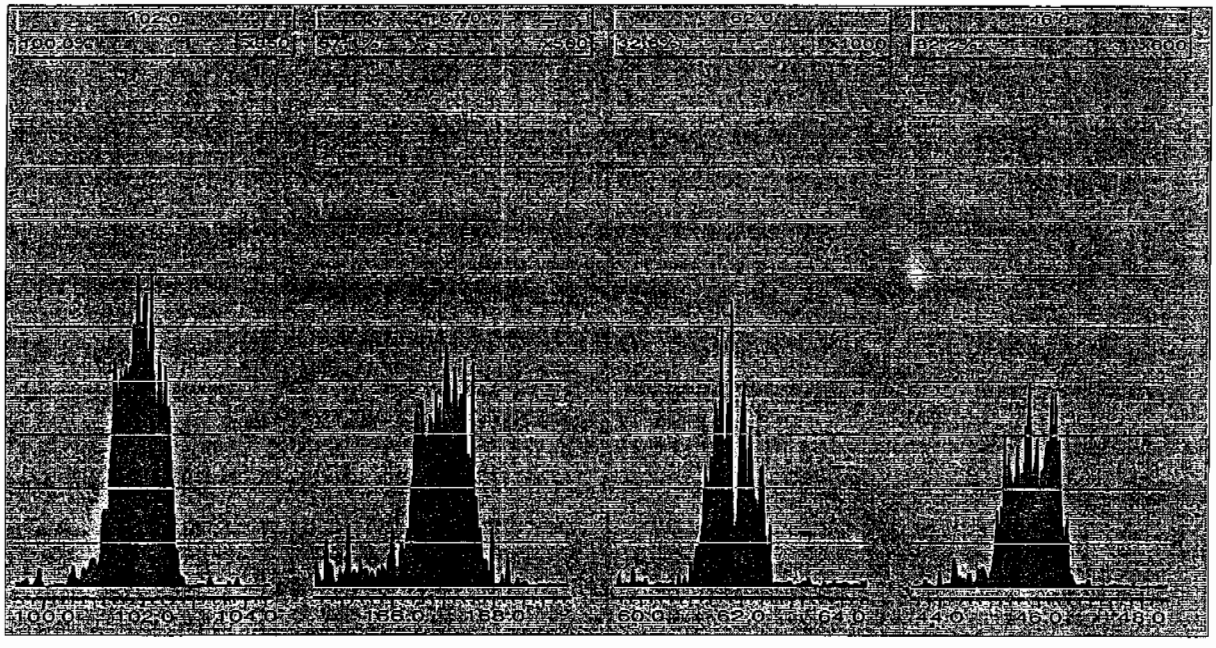

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			2898.075	12.172	16084.817	17.641
Upper Limit			3767.4975	12.672	20910.2621	18.141
Lower Limit			2028.6525	11.672	11259.3719	17.141
MB for batch 948576	02-mar-10 13:47	EXP0301046a	3512.81	12.17	18261.5	17.641
LCS for batch 948576	02-mar-10 14:17	EXP0301047a	3334.8	12.177	19940.8	17.641
RE15-10-7980	02-mar-10 14:46	EXP0301048a	3528.33	12.168	19743.8	17.631
RE15-10-7980(245979001MS)	02-mar-10 15:16	EXP0301049a	3403.86	12.172	18800.9	17.617
RE15-10-7980(245979001MSD)	02-mar-10 15:45	EXP0301050a	3476.88	12.174	19982	17.619
RE15-10-7958	02-mar-10 16:15	EXP0301051a	3085.55	12.177	18395.4	17.619
RE15-10-7960	02-mar-10 16:44	EXP0301052a	3186.19	12.172	18322.8	17.638
RE15-10-7979	02-mar-10 17:14	EXP0301053a	3255.96	12.17	18008.2	17.62
RE15-10-7972	02-mar-10 17:43	EXP0301054a	3581.04	12.17	19986.5	17.62
RE15-10-7957	02-mar-10 18:13	EXP0301055a	3035.07	12.17	17152.8	17.619
RE15-10-7974	02-mar-10 20:11	EXP0301059a	3116.5	12.171	17523.4	17.619
RE15-10-7961	02-mar-10 20:40	EXP0301060a	3228.51	12.174	16971.1	17.619
RE15-10-7971	02-mar-10 21:10	EXP0301061a	3368.68	12.172	19838	17.639
RE15-10-7966	02-mar-10 21:39	EXP0301062a	3430.59	12.168	19655.5	17.631
RE15-10-7959	02-mar-10 22:09	EXP0301063a	3309.82	12.171	17384.2	17.642
RE15-10-7969	02-mar-10 22:38	EXP0301064a	3447.55	12.17	20135.2	17.642
RE15-10-8061	02-mar-10 23:08	EXP0301065a	3020.92	12.17	18700.8	17.64
RE15-10-8063	02-mar-10 23:37	EXP0301066a	3366.52	12.17	19432.2	17.64
RE15-10-8062	03-mar-10 15:52	EXP0301099a	3277.36	12.17	19332.2	17.597
RE15-10-7969	03-mar-10 16:21	EXP0301100a	2060.31	12.17	12755.8	17.618

IS1 (DNB) = 1,3-Dinitrobenzene-d4
IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = -0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979001

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301048a

Date Analyzed: 02-MAR-10 14:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301048a
Date: 02-Mar-2010
Time: 14:46:43
ID: 245979001 | LANL | 948577 | Solid | 2 |
Vial: 2:5,C

LMM 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.064e+003

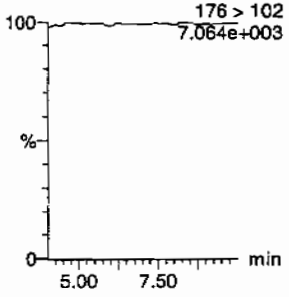

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.064e+003

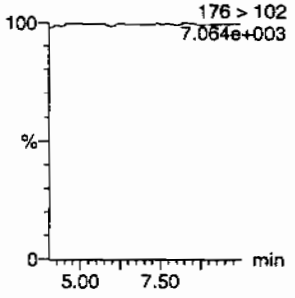

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.979e+003

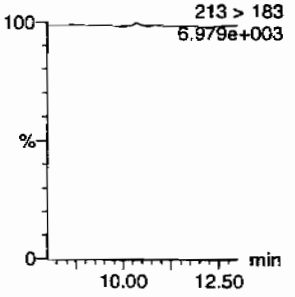

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.549e+004

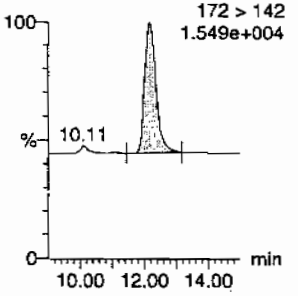

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.935e+003

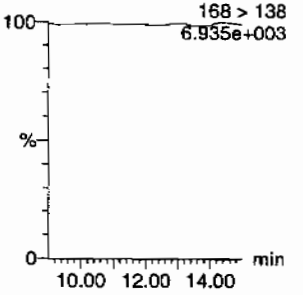

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.929e+003

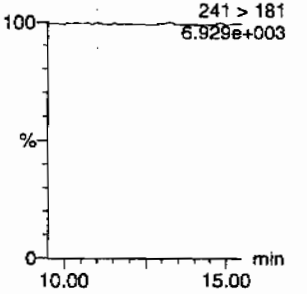

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.937e+003

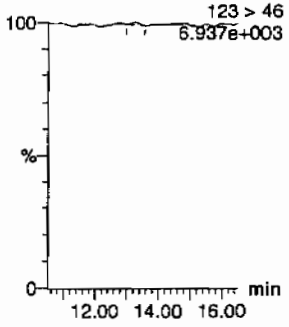

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.988e+003

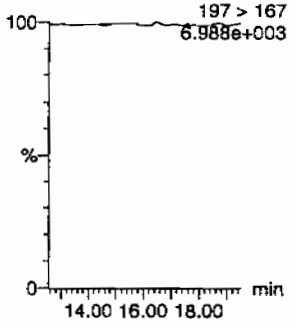

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.986e+003

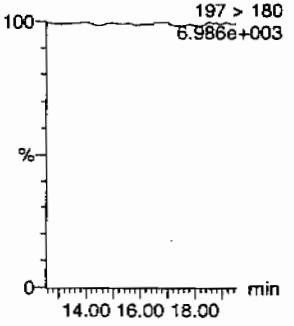

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.931e+003

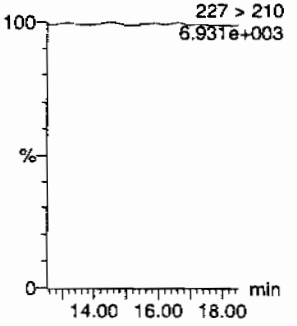

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.791e+004

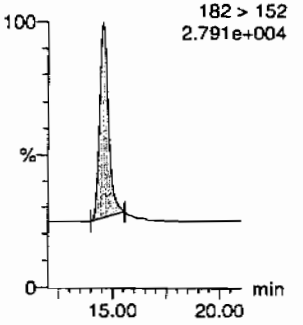

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.59
182 > 152
2.791e+004

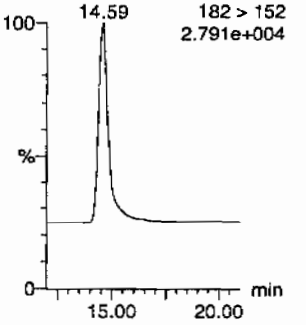

HMW 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

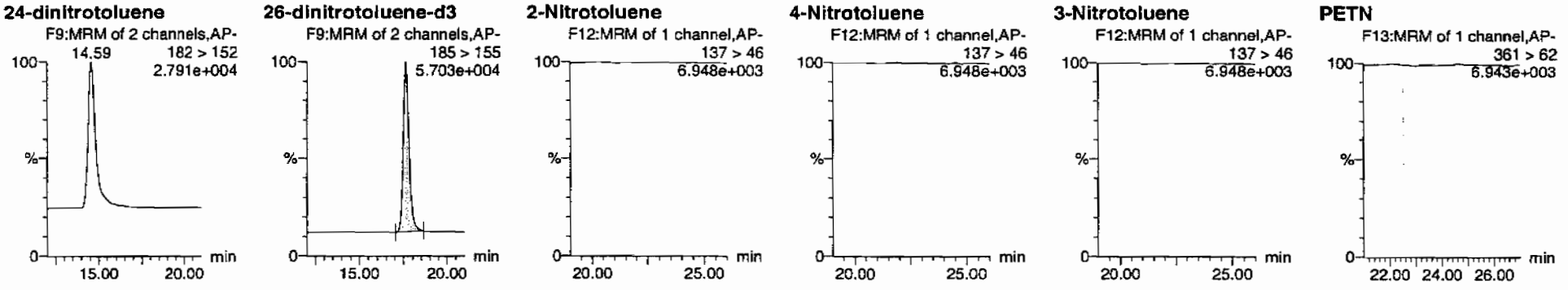

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979001	HMX	176 > 102			3528.333									
245979001	RDX	176 > 102			3528.333									
245979001	135-Trinitrobenzene	213 > 183			3528.333									
245979001	13-Dinitrobenzene-d4	172 > 142	12.17	3528.333		3528.333	3528.333	bb			608.7371	121.7	21.7	198.7
245979001	13-Dinitrobenzene	168 > 138			3528.333									
245979001	Tetryl	241 > 181			3528.333									
245979001	Nitrobenzene	123 > 46			3528.333			MM-	03-Mar-10	08:44:45				
245979001	4-Amino-26-dinitrotoluene	197 > 167			19743.844									
245979001	2-Amino-46-dinitrotoluene	197 > 180			19743.844									
245979001	246-Trinitrotoluene	227 > 210			19743.844									
245979001	34-dinitrotoluene	182 > 152	14.59	9876.957	19743.844	9876.957	250.128	bb			252.4842	101.0	1.0	573.5
245979001	26-dinitrotoluene	182 > 152			19743.844									
245979001	24-dinitrotoluene	182 > 152			19743.844									
245979001	26-dinitrotoluene-d3	185 > 155	17.63	19743.844		19743.844	19743.844	bb			613.7415	122.7	22.7	936.0
245979001	2-Nitrotoluene	137 > 46			19743.844									
245979001	4-Nitrotoluene	137 > 46			19743.844									
245979001	3-Nitrotoluene	137 > 46			19743.844									
245979001	PETN	361 > 62			19743.844									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979001

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220046.wiff

Date Analyzed: 23-FEB-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 2/23/10

Sample Name: "245979001" Sample ID: "948577|2|LER" File: "EXS02220046.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:49:39 AM

Modified: No

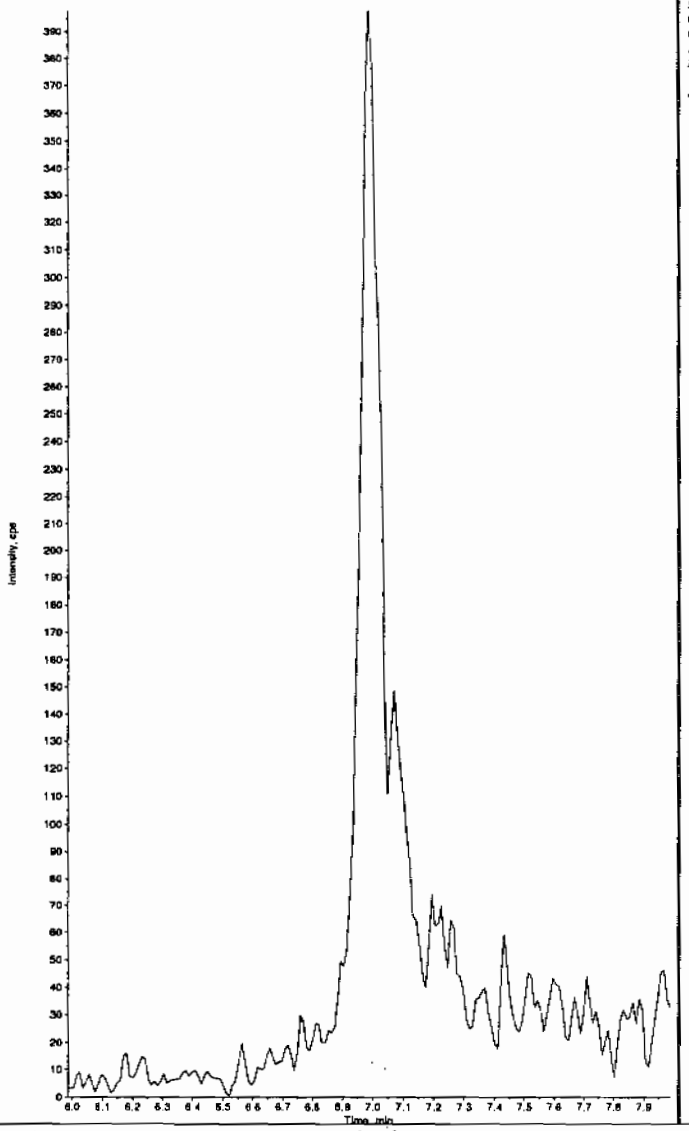

Sample Name: "245979001" Sample ID: "948577|2|LER" File: "EXS02220046.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:49:39 AM

Modified: No

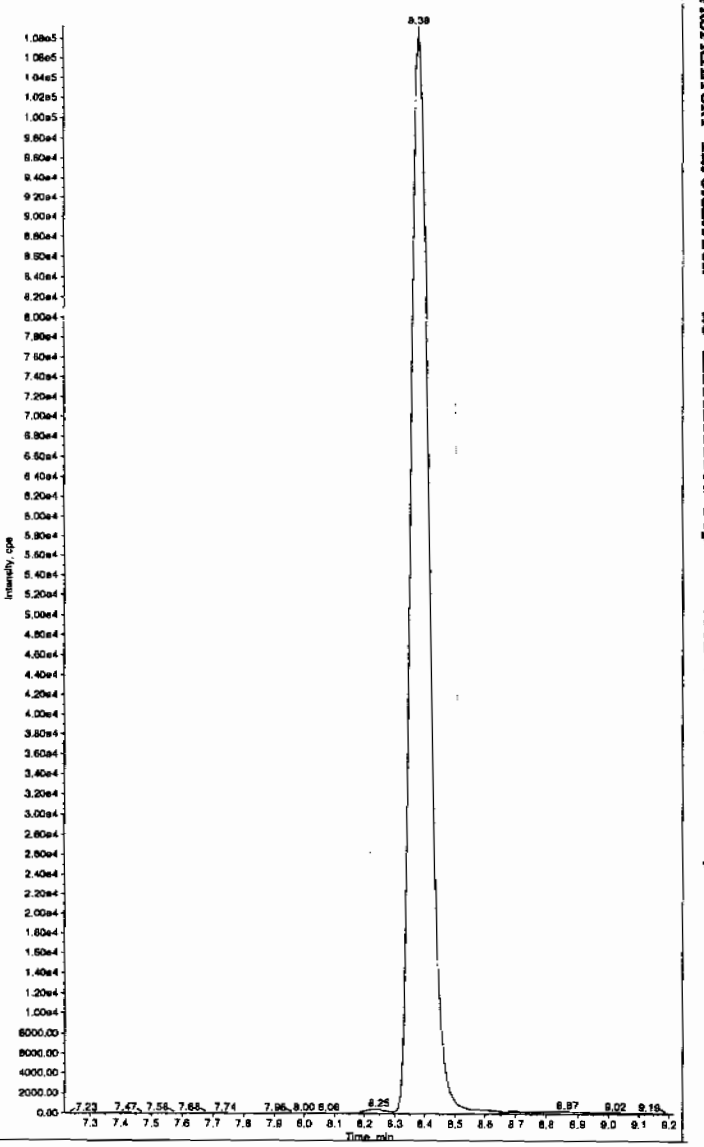

HMM 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979001" Sample ID: "948577|2|LER" File: "EXS02220046.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 345. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:49:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.51e+006 counts
Height: 1110531.006 cps
Start Time: 8.27 min
End Time: 8.72 min

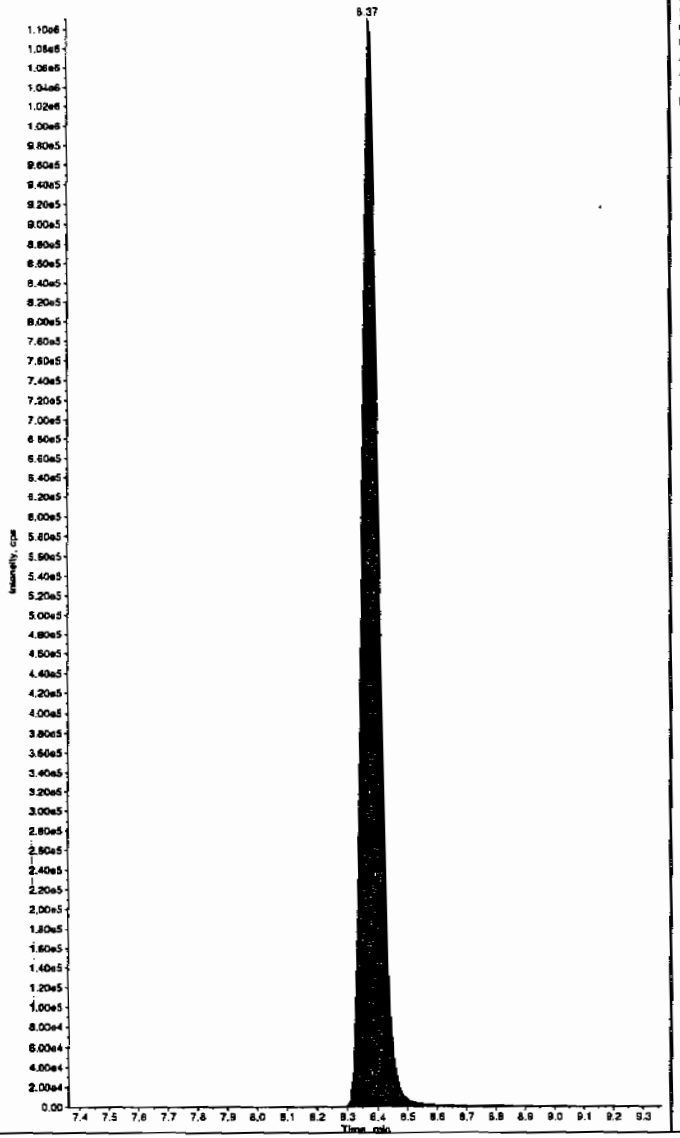

Sample Name: "245979001" Sample ID: "948577|2|LER" File: "EXS02220046.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:49:39 AM

Modified: No

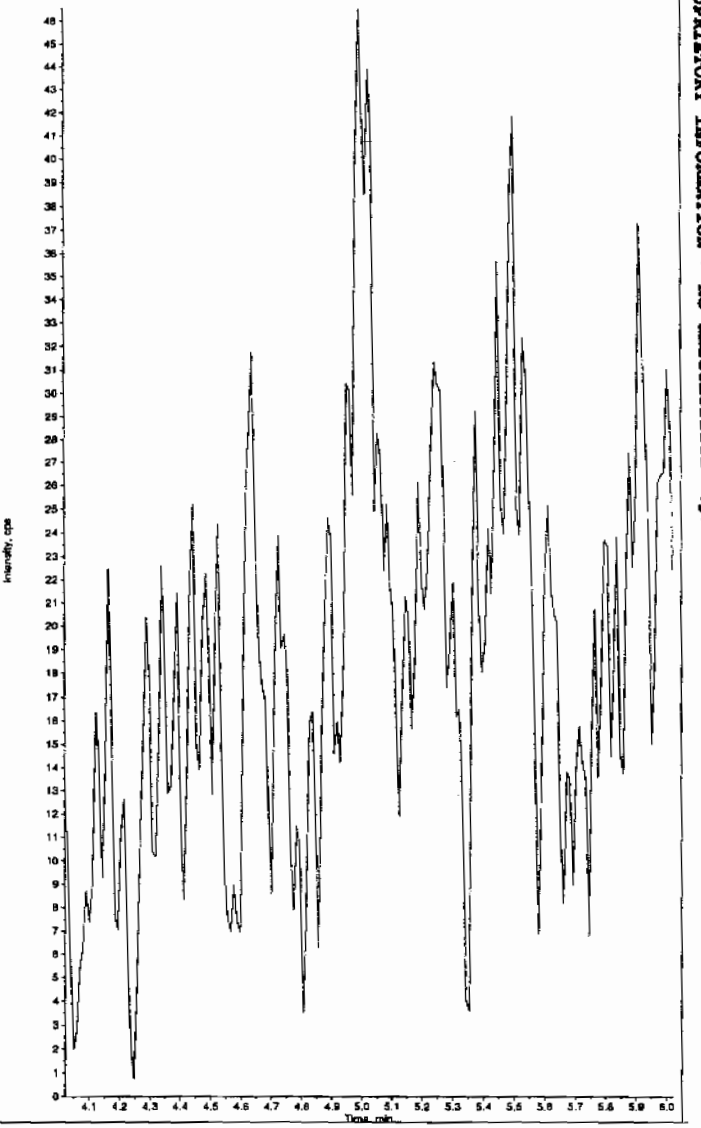

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979001" Sample ID: "948577|2|LER" File: "EXS02220046.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" . Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:49:39 AM

Modified: No

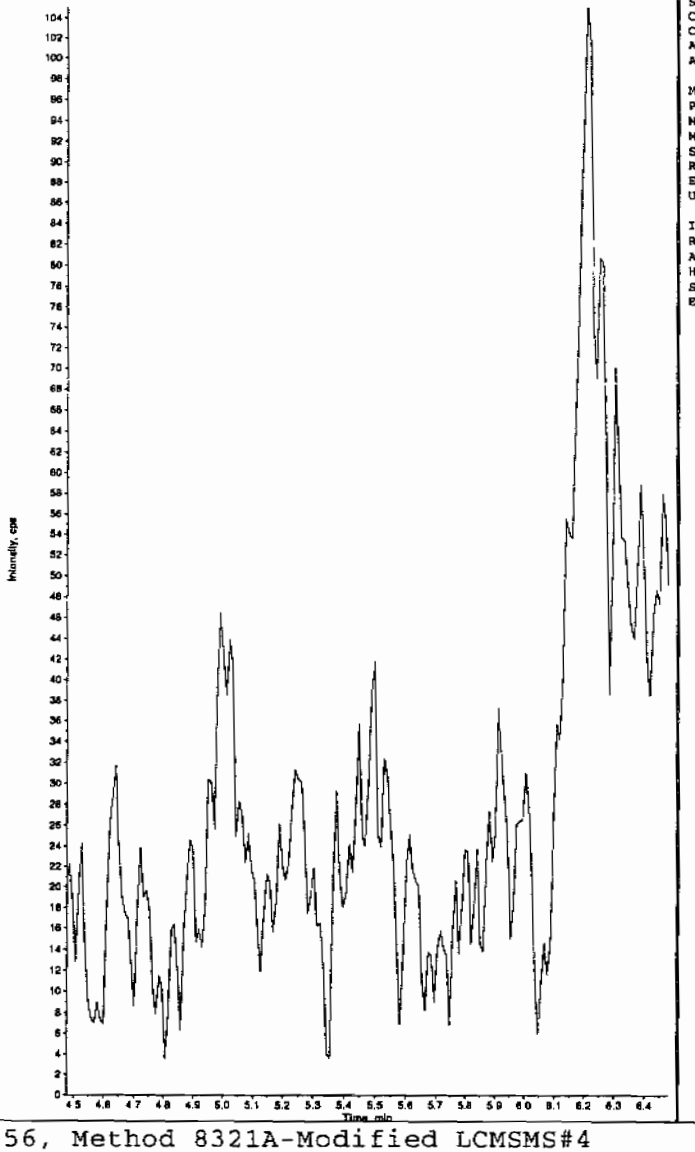

Sample Name: "245979001" Sample ID: "948577|2|LER" File: "EXS02220046.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.627 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:49:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.65e+004 counts
Height: 12924.276 cps
Start Time: 10.8 min
End Time: 11.1 min

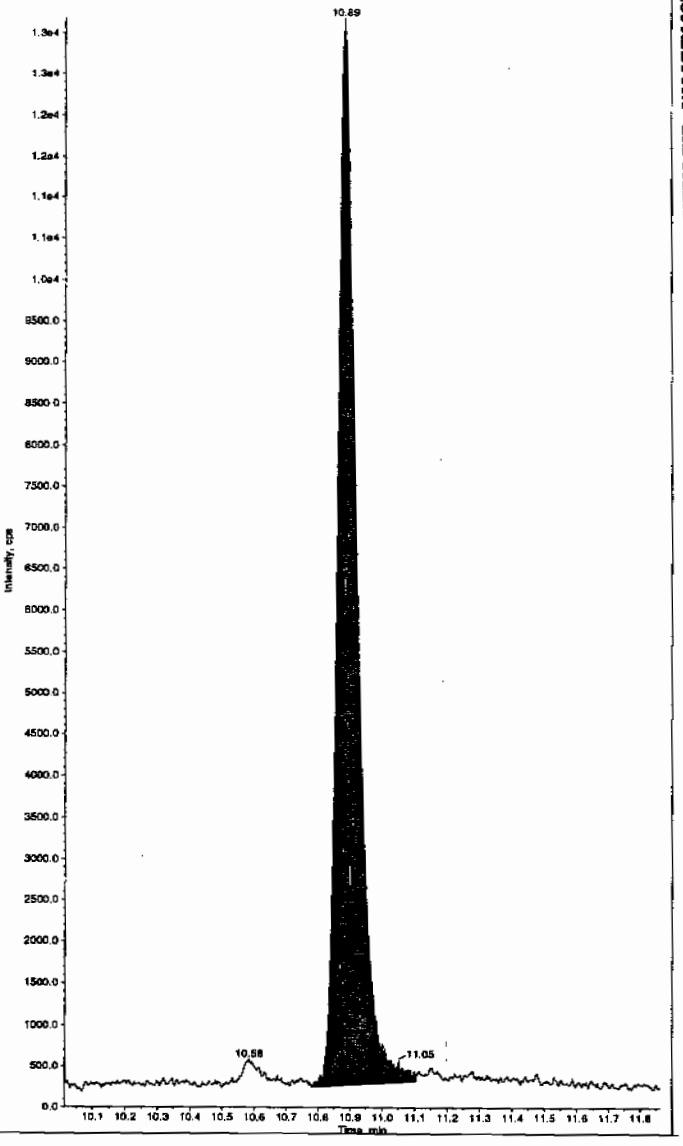

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7958

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979002

Sample Amount 2

Moisture: 19.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301051a

Date Analyzed: 02-MAR-10 16:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301051a
Date: 02-Mar-2010
Time: 16:15:11
ID: 245979002 | LANL | 948577 | Soil | 2 |
Vial: 2:5,F

LMH 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.459e+003

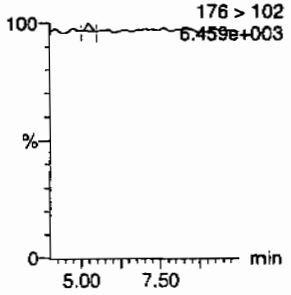

RDX
F2:MRM of 1 channel,AP-
5.24
176 > 102
6.459e+003

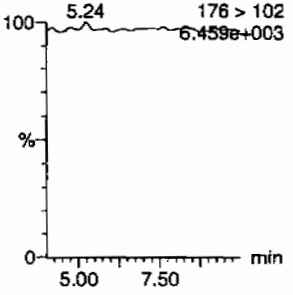

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.181e+003

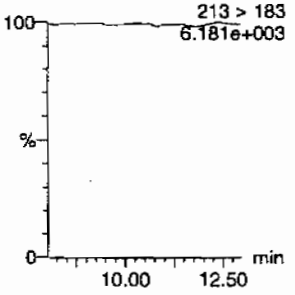

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.370e+004

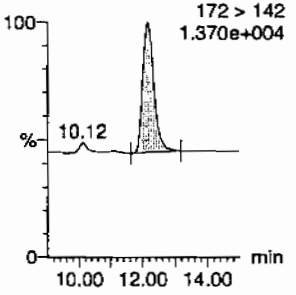

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.179e+003

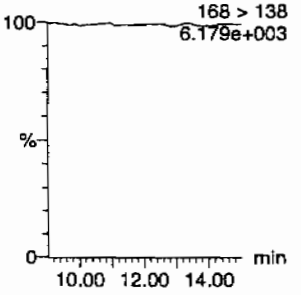

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.171e+003

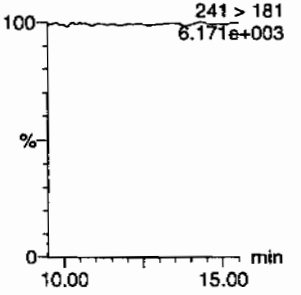

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.176e+003

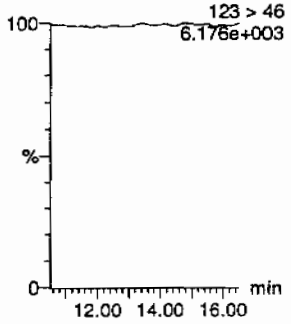

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.277e+003

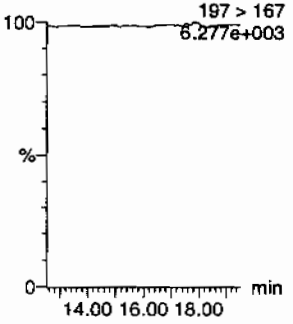

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.291e+003

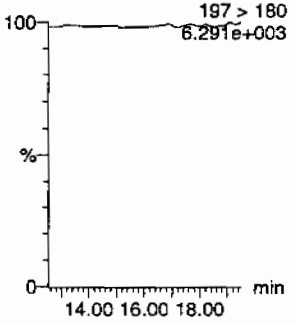

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.172e+003

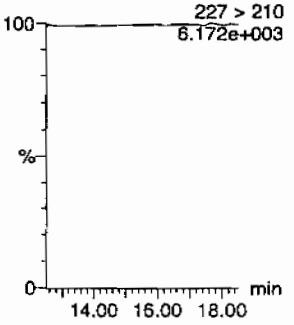

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.694e+004

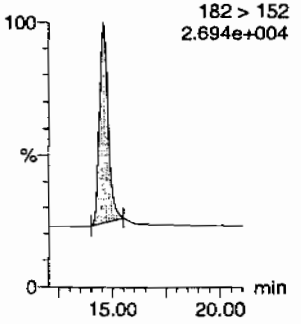

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.694e+004

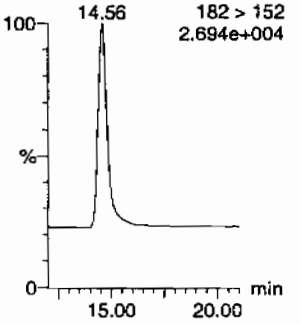

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

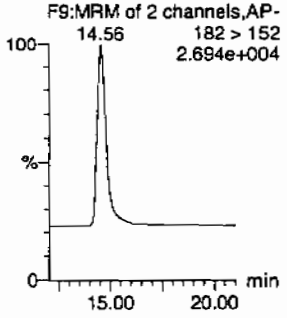

26-dinitrotoluene-d3

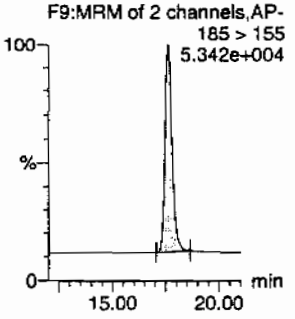

2-Nitrotoluene

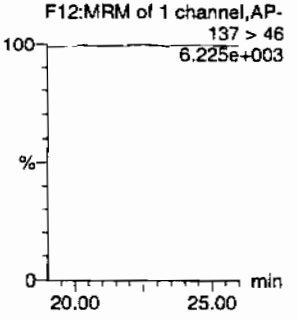

4-Nitrotoluene

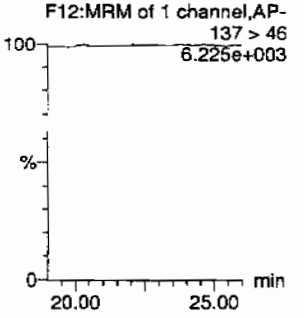

3-Nitrotoluene

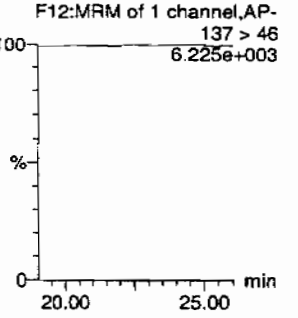

PETN

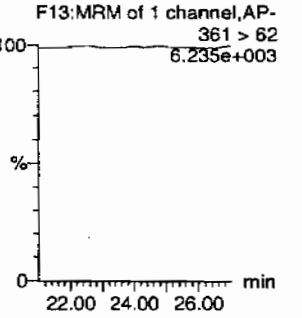

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979002	HMX	176 > 102	5.24	.46.082	3085.547	46.082	7.467	bb			1.9575			5.5
245979002	RDX	176 > 102			3085.547									
245979002	135-Trinitrobenzene	213 > 183			3085.547									
245979002	13-Dinitrobenzene-d4	172 > 142	12.18	3085.547		3085.547	3085.547	bb			532.3440	106.5	6.5	178.5
245979002	13-Dinitrobenzene	168 > 138			3085.547									
245979002	Tetryl	241 > 181			3085.547									
245979002	Nitrobenzene	123 > 46			3085.547									
245979002	4-Amino-26-dinitrotoluene	197 > 167			18395.398									
245979002	2-Amino-46-dinitrotoluene	197 > 180			18395.398									
245979002	246-Trinitrotoluene	227 > 210			18395.398									
245979002	34-dinitrotoluene	182 > 152	14.56	9625.942	18395.398	9625.942	261.640	bb			264.1051	105.6	5.6	765.0
245979002	26-dinitrotoluene	182 > 152			18395.398									
245979002	24-dinitrotoluene	182 > 152			18395.398									
245979002	26-dinitrotoluene-d3	185 > 155	17.62	18395.398		18395.398	18395.398	bb			571.8247	114.4	14.4	1510.8
245979002	2-Nitrotoluene	137 > 46			18395.398									
245979002	4-Nitrotoluene	137 > 46			18395.398									
245979002	3-Nitrotoluene	137 > 46			18395.398									
245979002	PETN	361 > 62			18395.398									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7958

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979002

Sample Amount 2

Moisture: 19.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220049.wiff

Date Analyzed: 23-FEB-10 05:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 2/23/10

Sample Name: "245979002" Sample ID: "948577|2|LER" File: "EXS02220049.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:36:48 AM

Modified: No

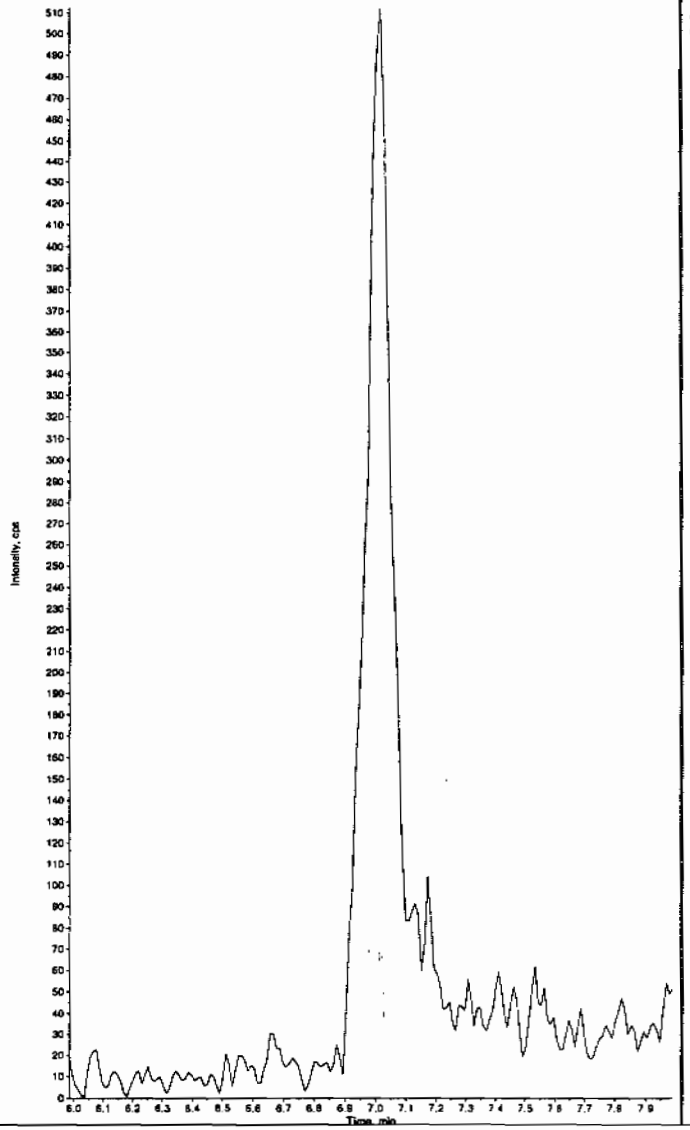

Sample Name: "245979002" Sample ID: "948577|2|LER" File: "EXS02220049.wiff"
Peak Name: "3,5-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:36:48 AM

Modified: No

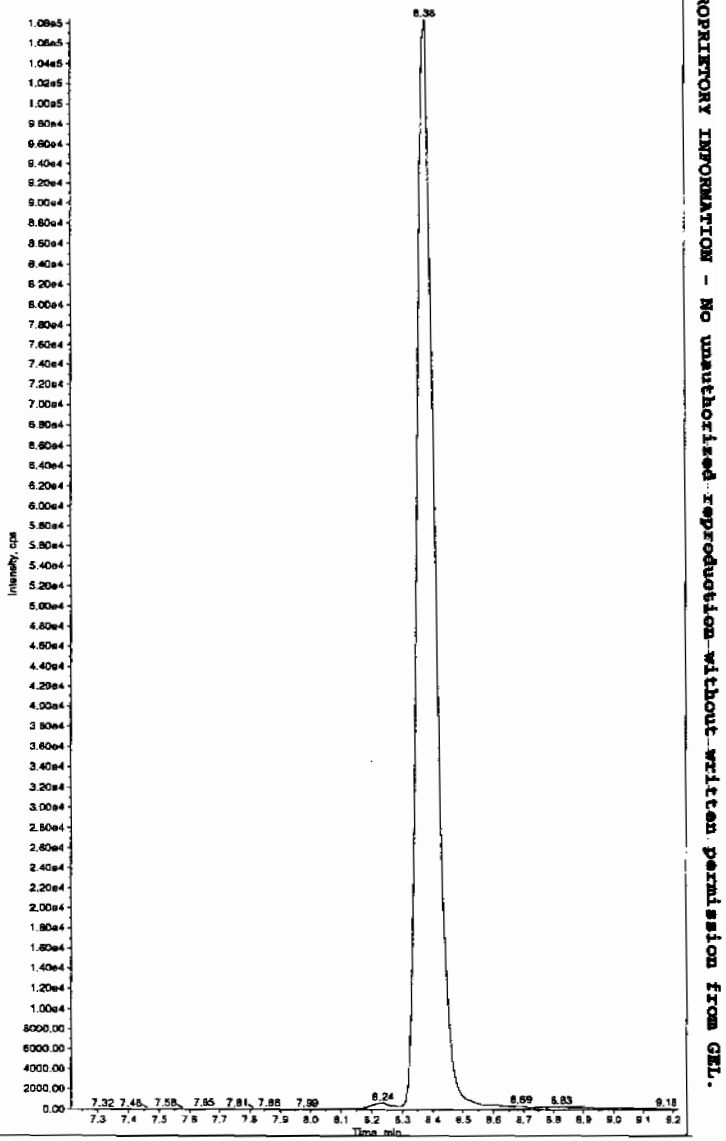

Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245979002" Sample ID: "948577|2|LER" File: "EXS02220049.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 314. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:36:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.13e+006 counts
Height: 1064876.221 cps
Start Time: 8.28 min
End Time: 8.72 min

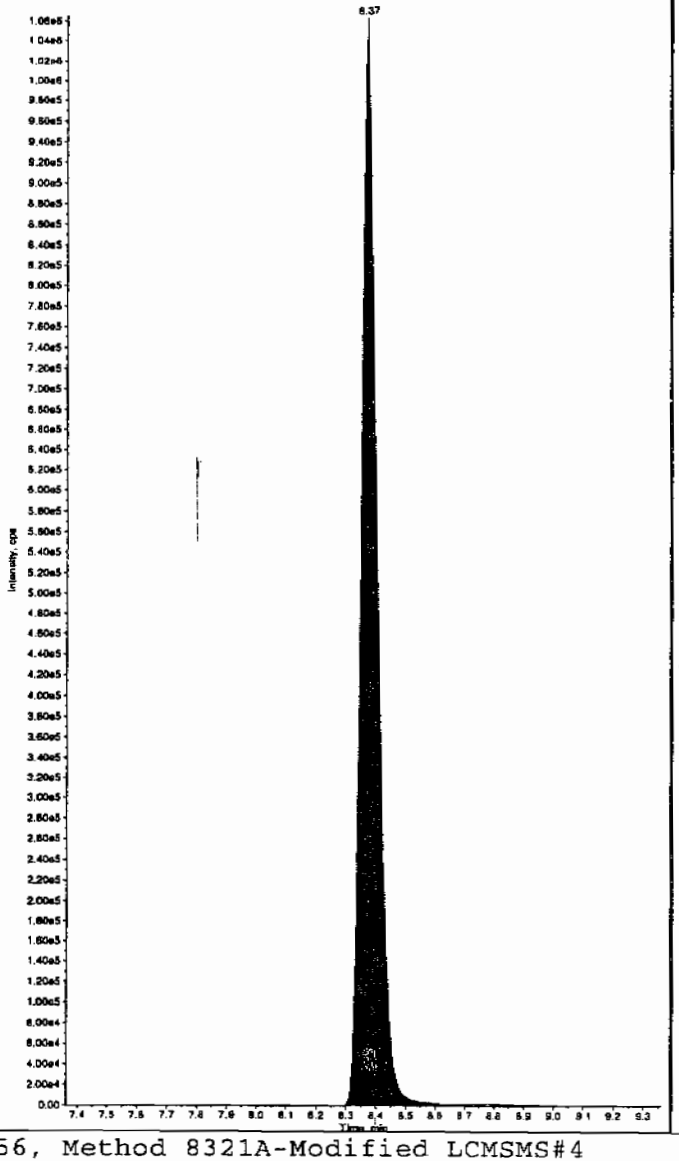

Sample Name: "245979002" Sample ID: "948577|2|LER" File: "EXS02220049.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:36:48 AM

Modified: No

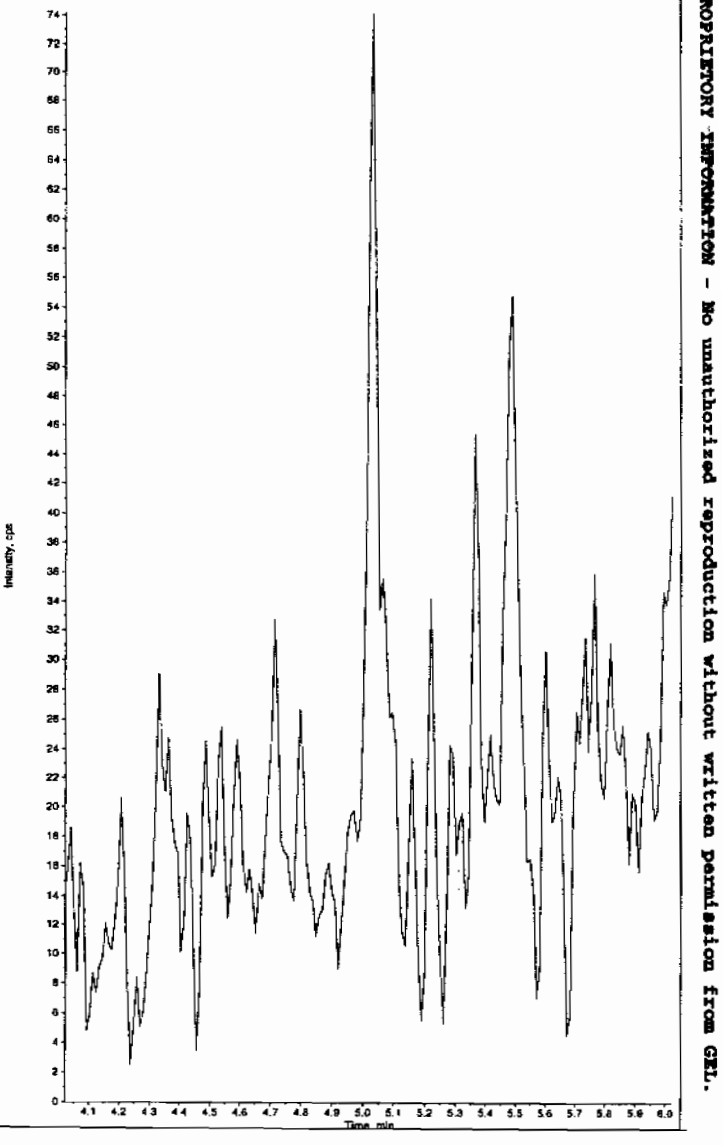

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979002" Sample ID: "948577|2|LER" File: "EXS02220049.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "155.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:36:48 AM

Modified: No

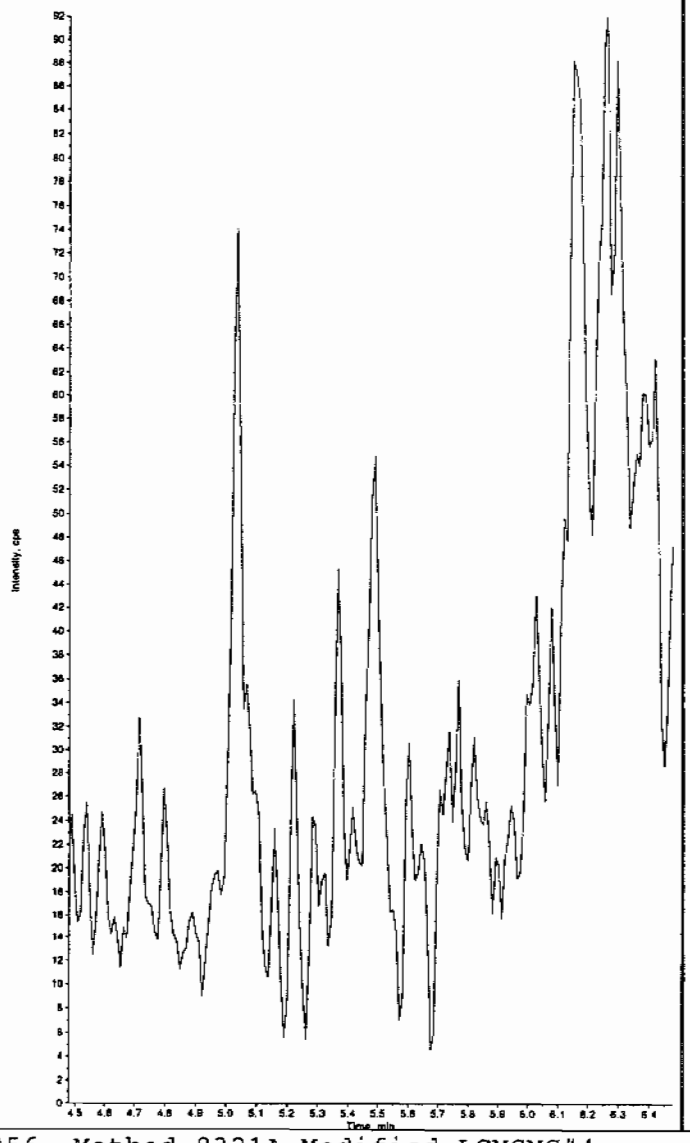

Sample Name: "245979002" Sample ID: "948577|2|LER" File: "EXS02220049.wiff"
Peak Name: "tris(p-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.77 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:36:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.11e+004 counts
Height: 17795.092 cps
Start Time: 10.7 min
End Time: 11.0 min

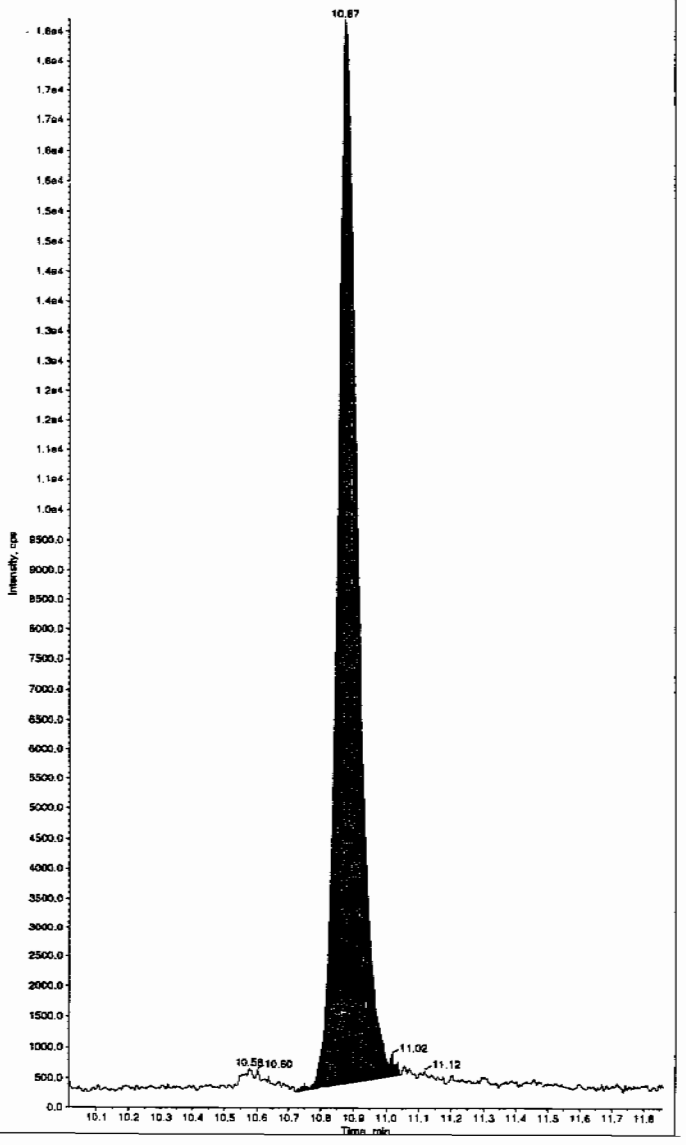

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7960

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979003

Sample Amount 2

Moisture: 6.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301052a

Date Analyzed: 02-MAR-10 16:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301052a
Date: 02-Mar-2010
Time: 16:44:39
ID: 245979003
Vial: 2:6,A

LANL / 943577 / Solids / 21

LMT 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.202e+003

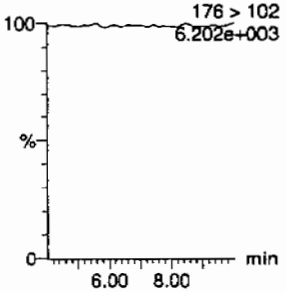

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.202e+003

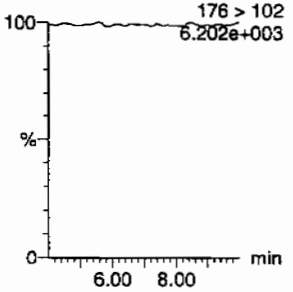

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.122e+003

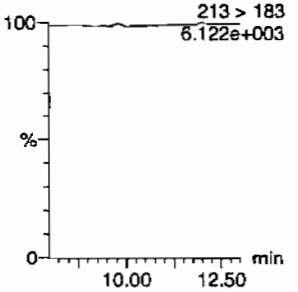

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.386e+004

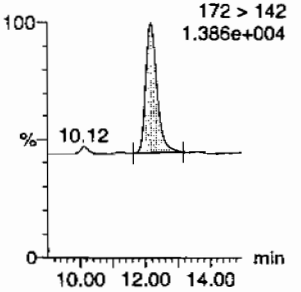

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.132e+003

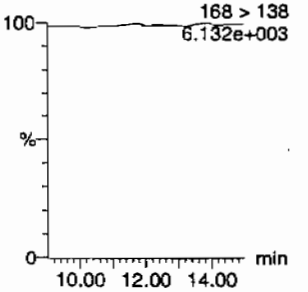

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.161e+003

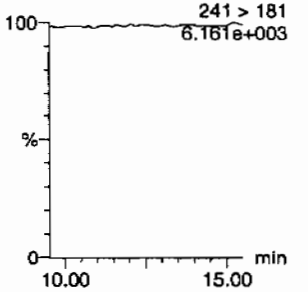

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.136e+003

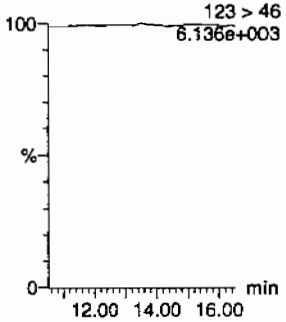

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.191e+003

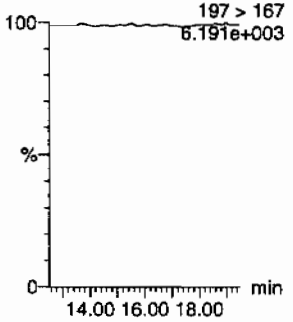

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.185e+003

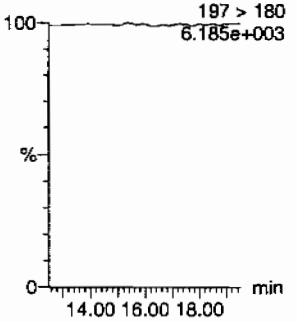

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.125e+003

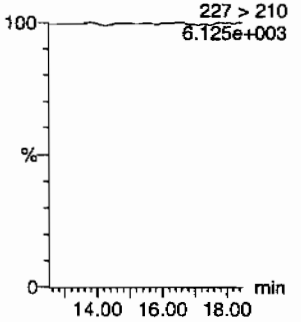

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.433e+004

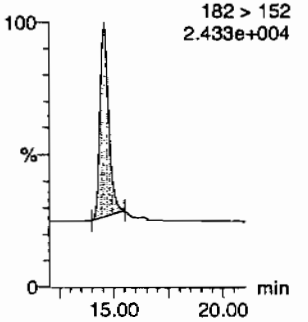

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.55
182 > 152
2.433e+004

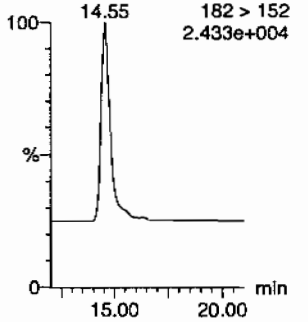

HMM 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.55 182 > 152
2.433e+004

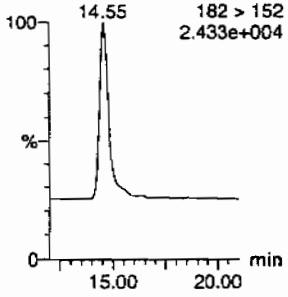

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.304e+004

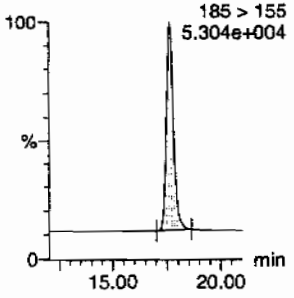

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.137e+003

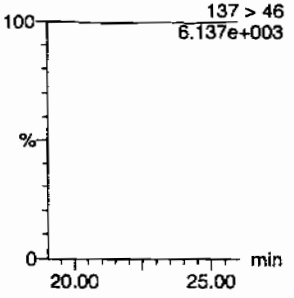

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.137e+003

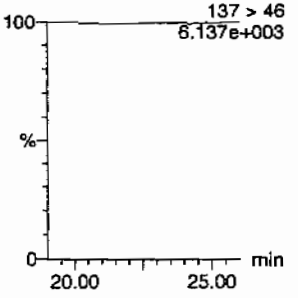

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.137e+003

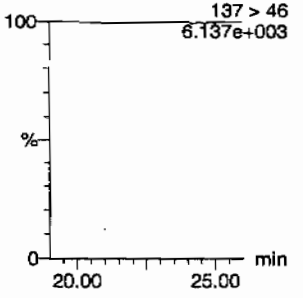

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.111e+003

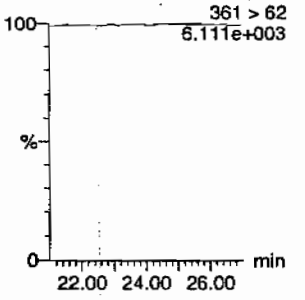

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979003	HMX	176 > 102			3186.187									
245979003	RDX	176 > 102			3186.187									
245979003	135-Trinitrobenzene	213 > 183			3186.187									
245979003	13-Dinitrobenzene-d4	172 > 142	12.17	3186.187		3186.187	3186.187	bb			549.7073	109.9	9.9	201.5
245979003	13-Dinitrobenzene	168 > 138			3186.187									
245979003	Tetryl	241 > 181			3186.187									
245979003	Nitrobenzene	123 > 46			3186.187									
245979003	4-Amino-26-dinitrotoluene	197 > 167			18322.850									
245979003	2-Amino-46-dinitrotoluene	197 > 180			18322.850									
245979003	246-Trinitrotoluene	227 > 210			18322.850									
245979003	34-dinitrotoluene	182 > 152	14.55	8289.360	18322.850	8289.360	226.203	bb			228.3340	91.3	-8.7	435.9
245979003	26-dinitrotoluene	182 > 152			18322.850									
245979003	24-dinitrotoluene	182 > 152			18322.850									
245979003	26-dinitrotoluene-d3	185 > 155	17.64	18322.850		18322.850	18322.850	bb			569.5696	113.9	13.9	1458.0
245979003	2-Nitrotoluene	137 > 46			18322.850									
245979003	4-Nitrotoluene	137 > 46			18322.850									
245979003	3-Nitrotoluene	137 > 46			18322.850									
245979003	PETN	361 > 62			18322.850									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7960

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979003

Sample Amount 2

Moisture: 6.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240014.wiff

Date Analyzed: 24-FEB-10 13:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Olan 2/25/10

Sample Name: "245979003" Sample ID: "948577|2|LER" File: "EXS02240014.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:22:10 PM

Modified: No

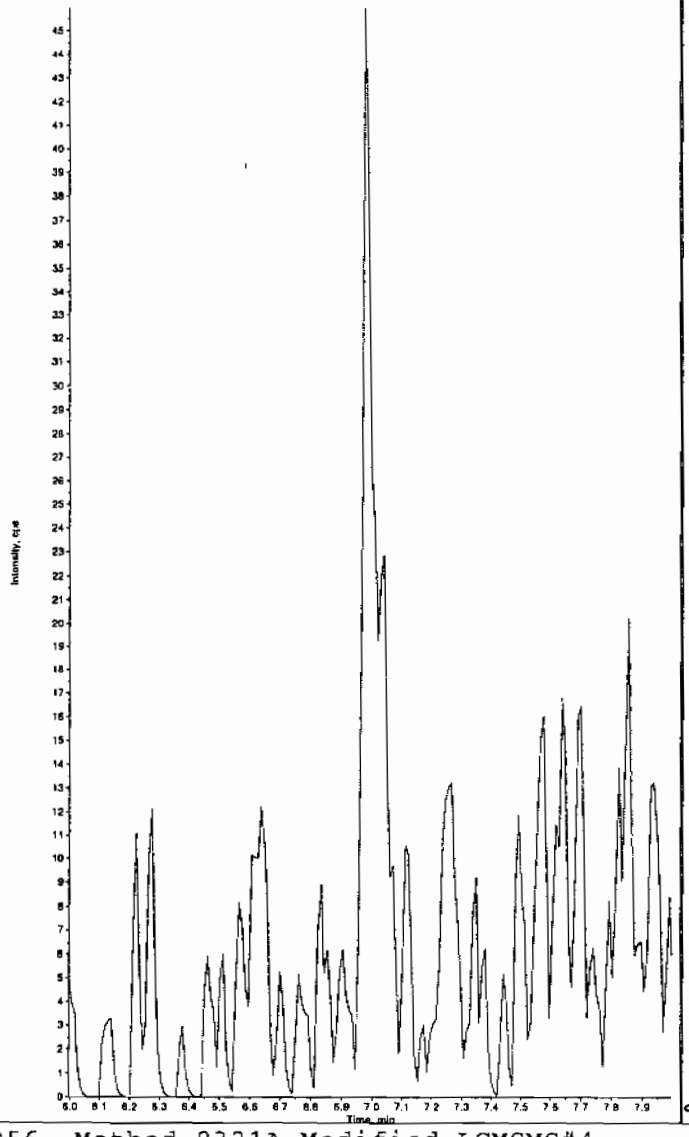

Sample Name: "245979003" Sample ID: "948577|2|LER" File: "EXS02240014.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:22:10 PM

Modified: No

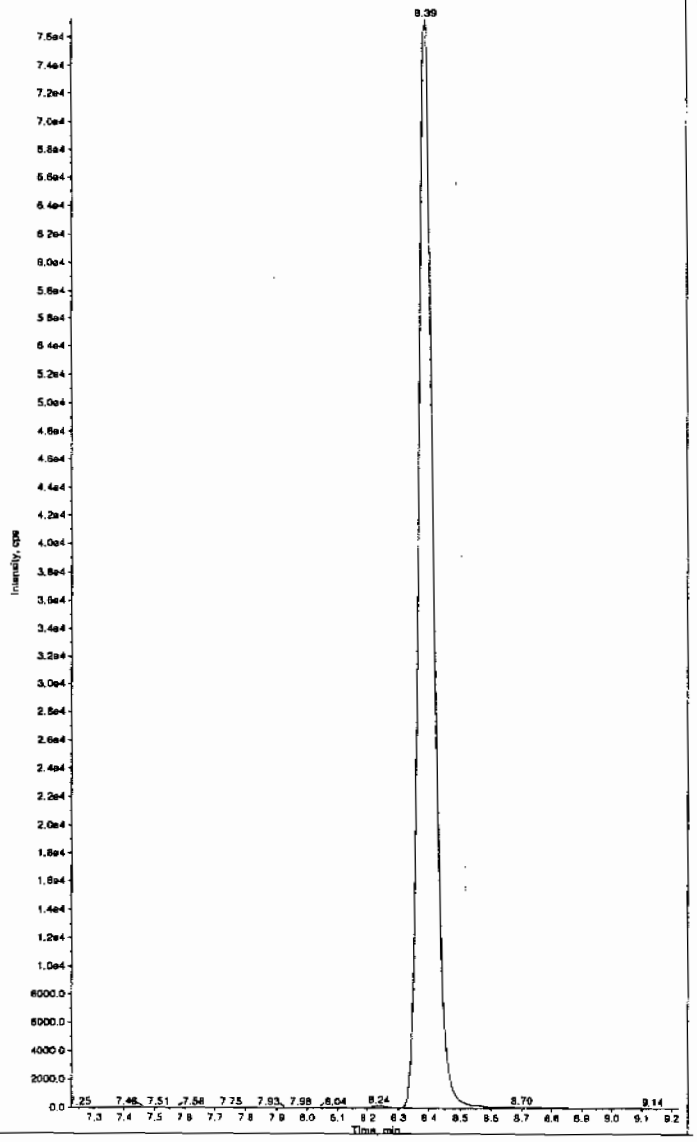

Hmw 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979003" Sample ID: "948577|2|LER" File: "EXS02240014.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 309. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:22:10 PM

Modified: No
Proc. Algorithm: IntelliQusn - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.06e+006 counts
Height: 604936.951 cps
Start Time: 8.24 min
End Time: 8.71 min

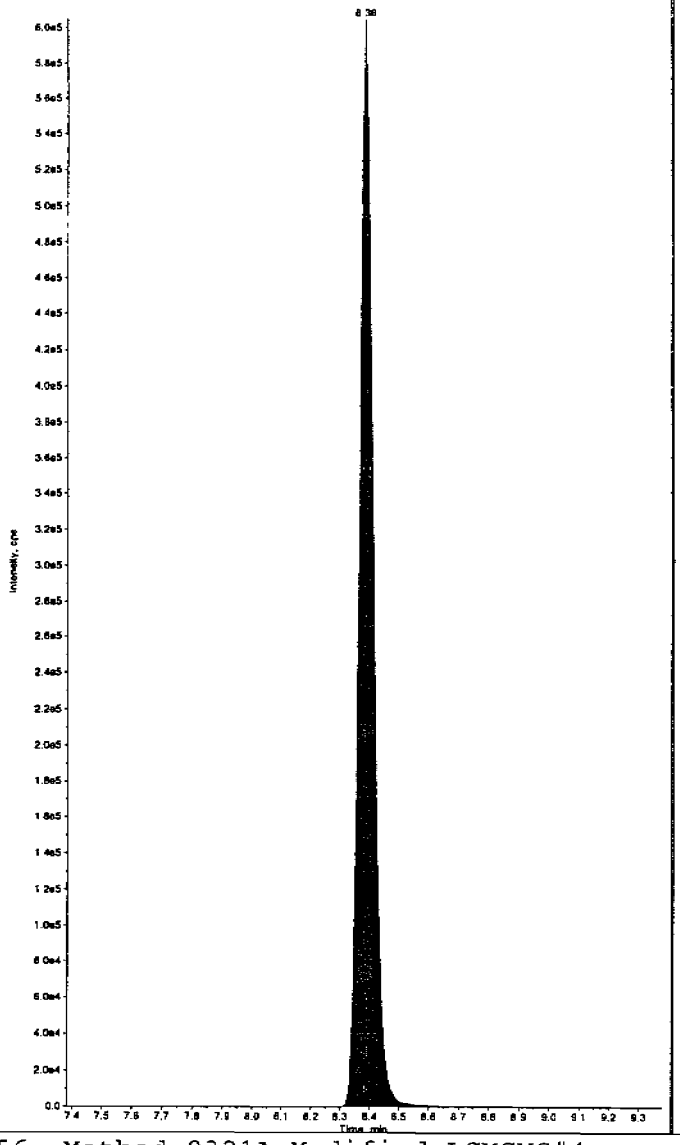

Sample Name: "245979003" Sample ID: "948577|2|LER" File: "EXS02240014.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:22:10 PM

Modified: No

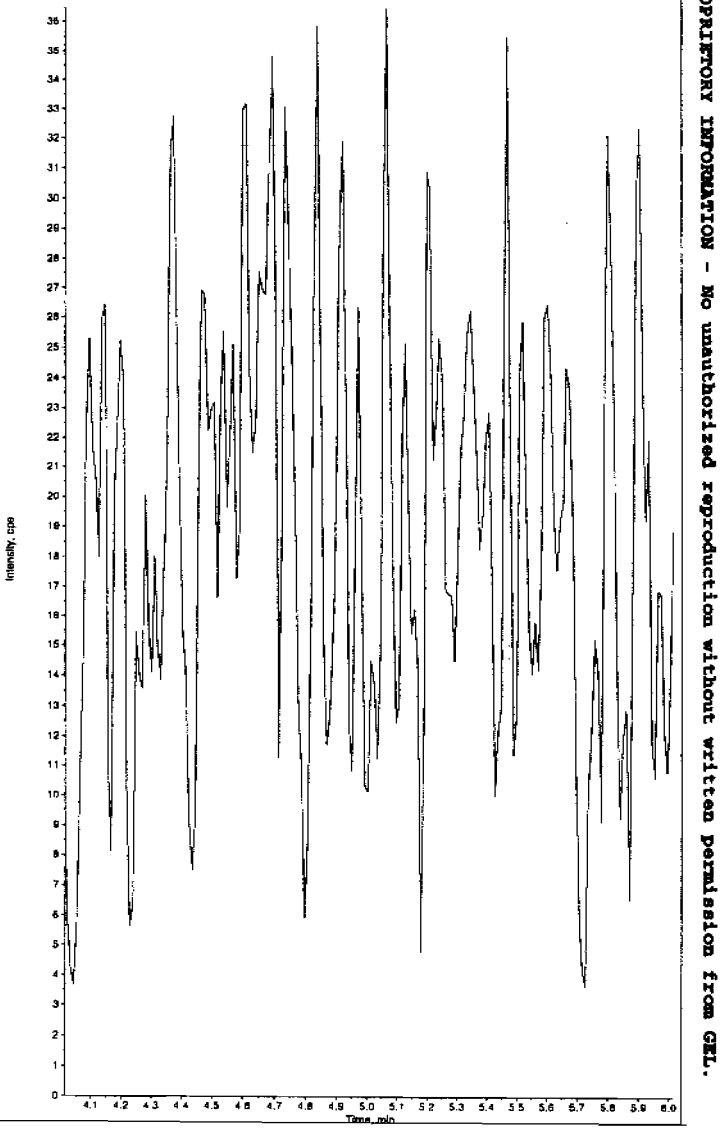

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245979003" Sample ID: "948577|2|LER" File: "EXS02240014.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:22:10 PM

Modified: No

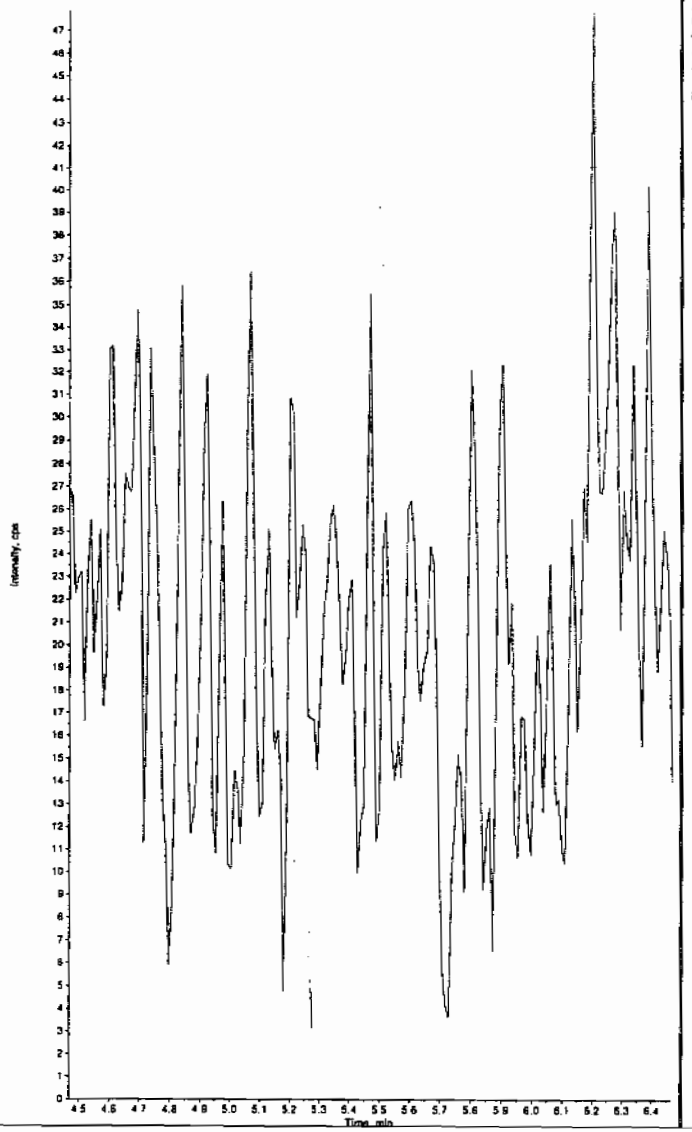

Sample Name: "245979003" Sample ID: "948577|2|LER" File: "EXS02240014.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:22:10 PM

Modified: No

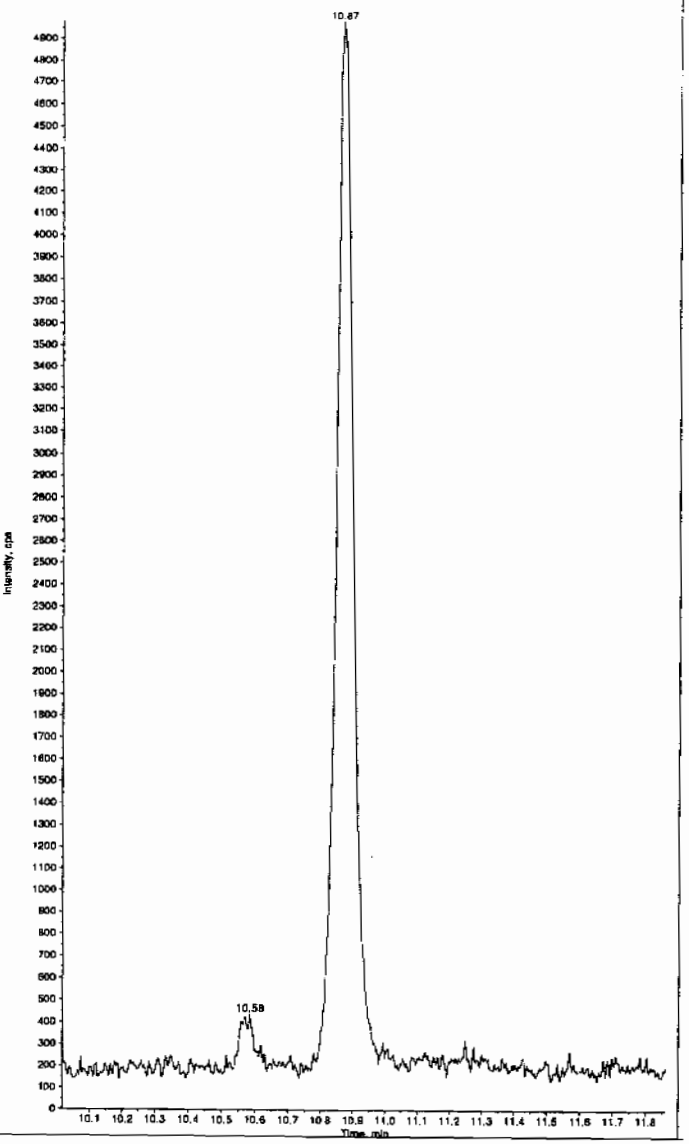

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7979

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979004

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301053a

Date Analyzed: 02-MAR-10 17:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301053a
Date: 02-Mar-2010
Time: 17:14:10
ID: 245979004 | LANL | 948577 | Soils | 2
Vial: 2:6,B

MAP 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.427e+003

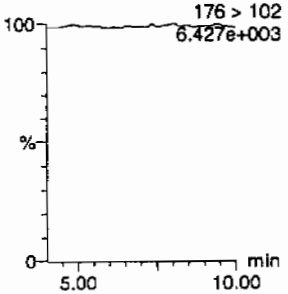

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.427e+003

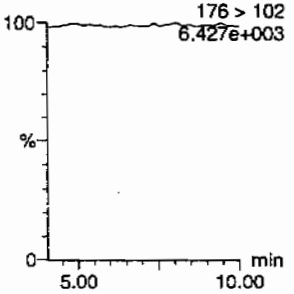

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.394e+003

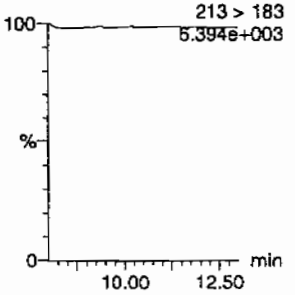

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.391e+004

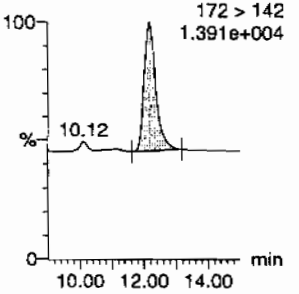

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.342e+003

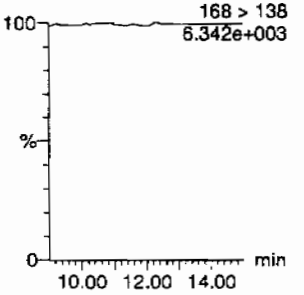

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.374e+003

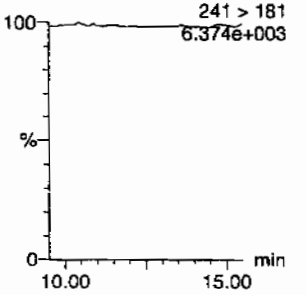

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.338e+003

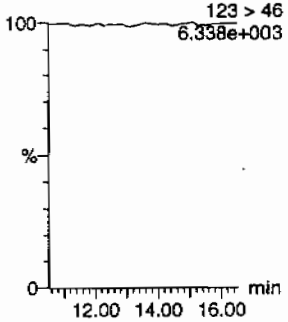

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.387e+003

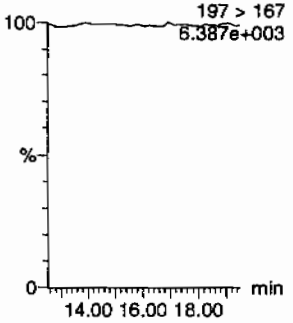

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.381e+003

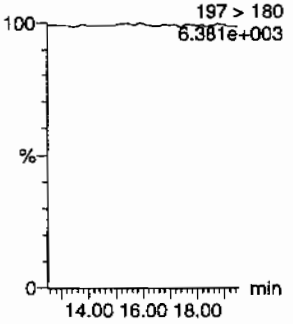

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.319e+003

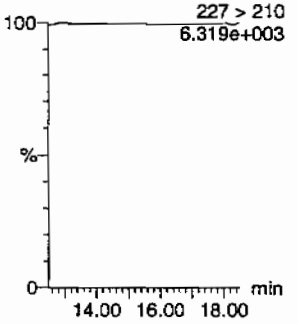

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.571e+004

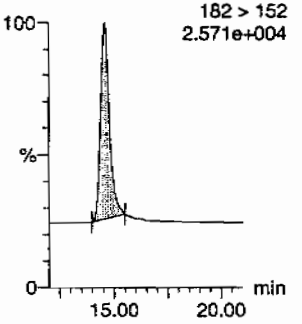

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.571e+004

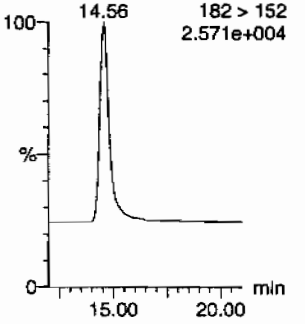

HMW 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.571e+004

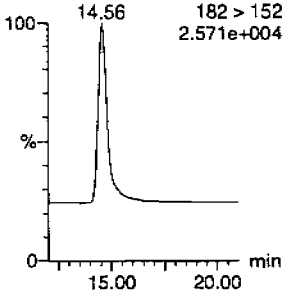

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.245e+004

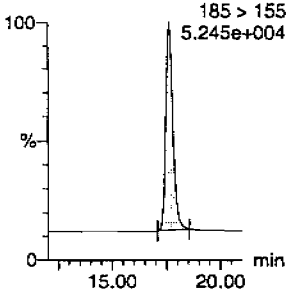

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.338e+003

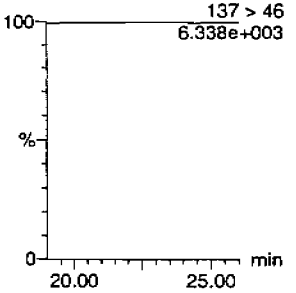

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.338e+003

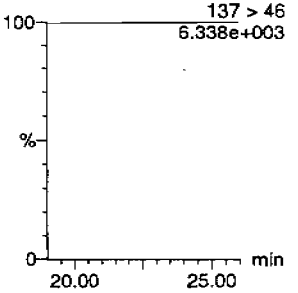

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.338e+003

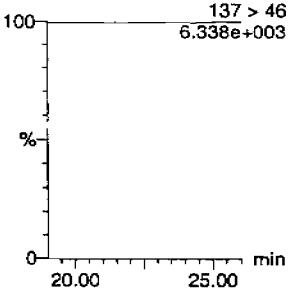

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.320e+003

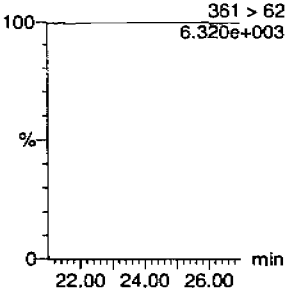

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979004	HMX	176 > 102			3255.961									
245979004	RDX	176 > 102			3255.961									
245979004	135-Trinitrobenzene	213 > 183			3255.961									
245979004	13-Dinitrobenzene-d4	172 > 142	12.17	3255.961		3255.961	3255.961	bb			561.7452	112.3	12.3	915.3
245979004	13-Dinitrobenzene	168 > 138			3255.961									
245979004	Tetryl	241 > 181			3255.961									
245979004	Nitrobenzene	123 > 46			3255.961									
245979004	4-Amino-26-dinitrotoluene	197 > 167			18008.184									
245979004	2-Amino-46-dinitrotoluene	197 > 180			18008.184									
245979004	246-Trinitrotoluene	227 > 210			18008.184									
245979004	34-dinitrotoluene	182 > 152	14.56	9019.652	18008.184	9019.652	250.432	bb			252.7915	101.1	1.1	387.1
245979004	26-dinitrotoluene	182 > 152			18008.184									
245979004	24-dinitrotoluene	182 > 152			18008.184									
245979004	26-dinitrotoluene-d3	185 > 155	17.62	18008.184		18008.184	18008.184	bb			559.7881	112.0	12.0	1715.9
245979004	2-Nitrotoluene	137 > 46			18008.184									
245979004	4-Nitrotoluene	137 > 46			18008.184									
245979004	3-Nitrotoluene	137 > 46			18008.184									
245979004	PETN	361 > 62			18008.184									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7979

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979004

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240015.wiff

Date Analyzed: 24-FEB-10 13:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "245979004" Sample ID: "948577|2|LER" File: "EXS02240015.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:38:02 PM

Modified: No

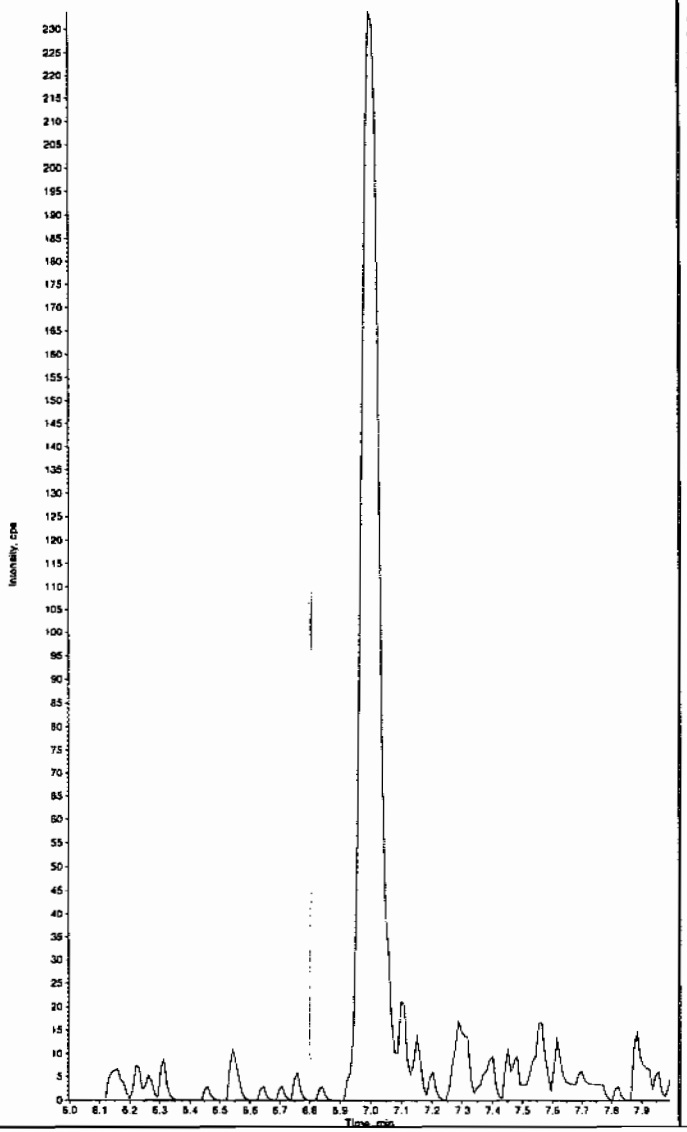

Sample Name: "245979004" Sample ID: "948577|2|LER" File: "EXS02240015.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:38:02 PM

Modified: No

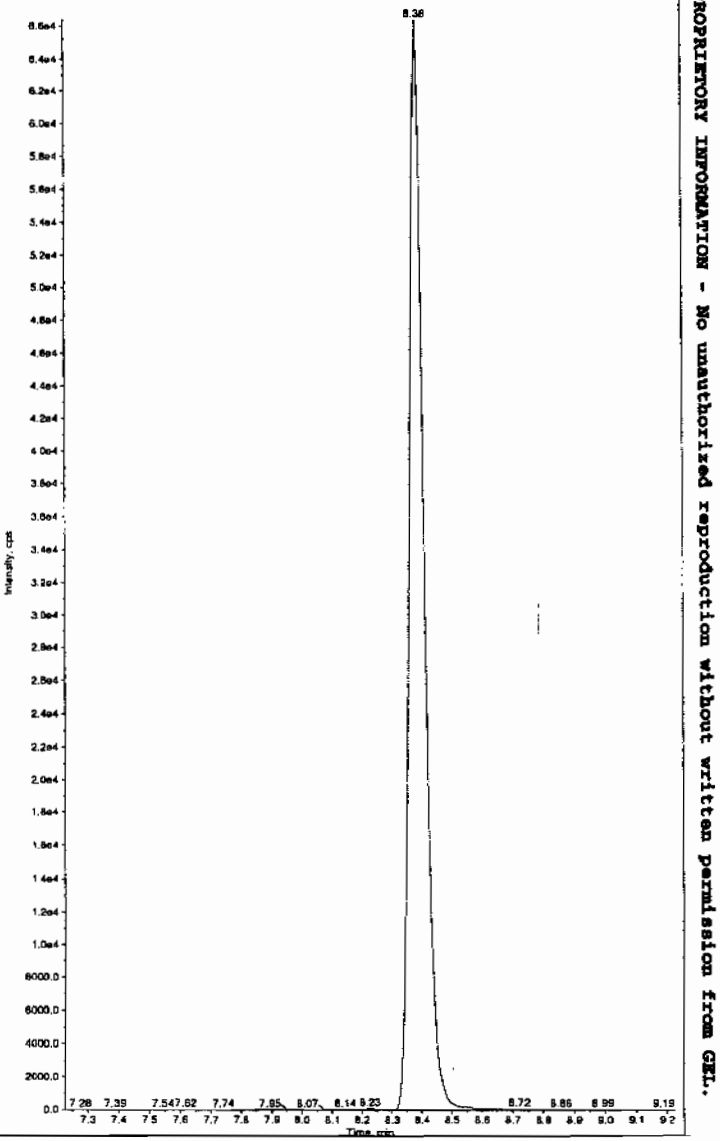

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979004" Sample ID: "948577|2|LER" File: "EXS02240015.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:      N/A
Calculated Conc:    312.     ng/mL
Acq. Date:       2/24/2010
Acq. Time:       1:38:02 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:        15.0      sec
Expected RT:        8.38    min
Use Relative RT:    No

Inc. Type:       Valley
Retention Time:     8.38    min
Area:        2.08e+006    counts
Height:        604666.077   cps
Start Time:         5.29    min
End Time:           8.69    min
```

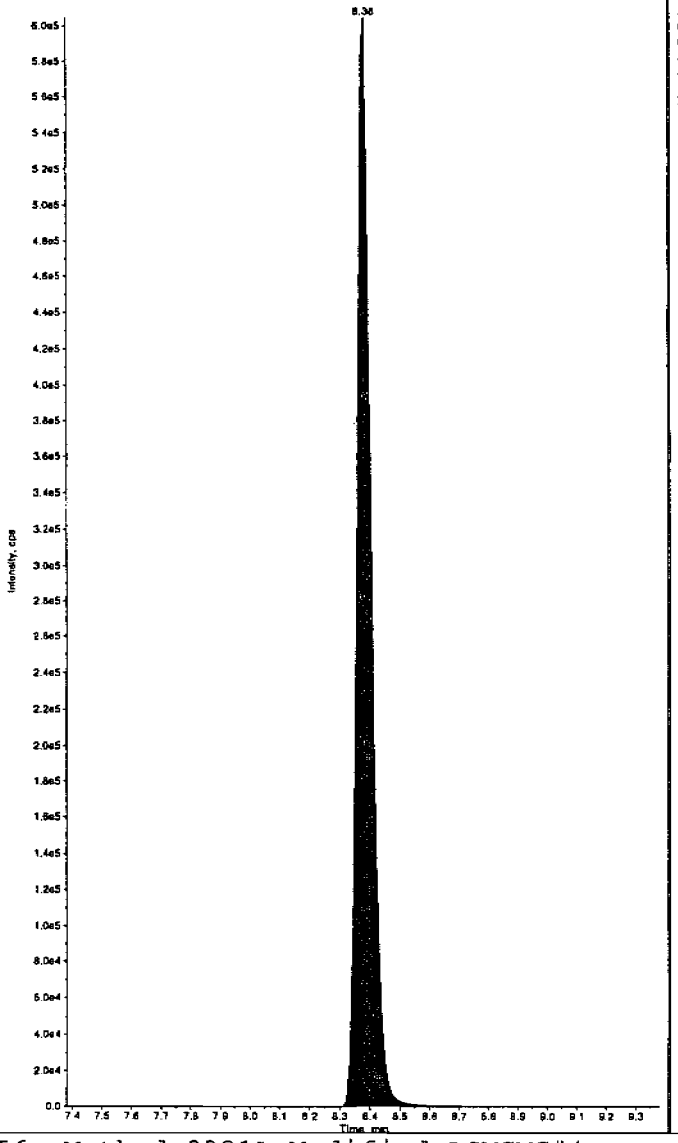

Sample Name: "245979004" Sample ID: "948577|2|LER" File: "EXS02240015.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:      N/A
Calculated Conc:    0.00     ng/mL
Acq. Date:       2/24/2010
Acq. Time:       1:38:02 PM

Modified:           No
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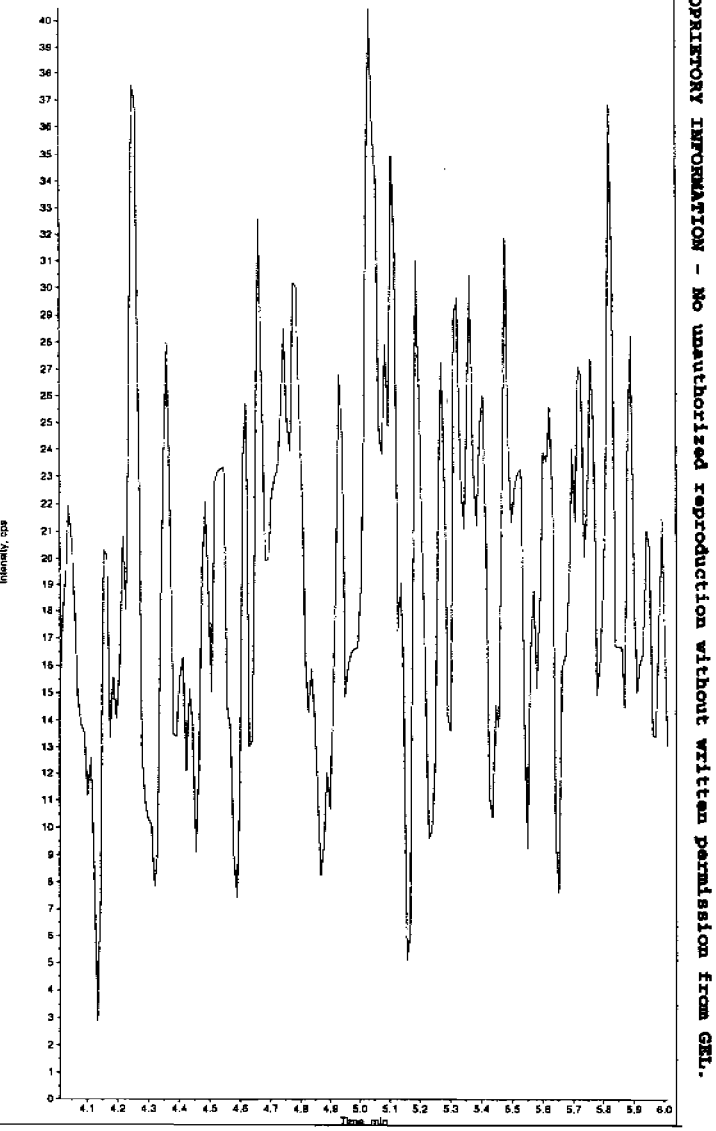

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245979004" Sample ID: "948577|2|LER" File: "EXS02240015.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:38:02 PM

Modified: No

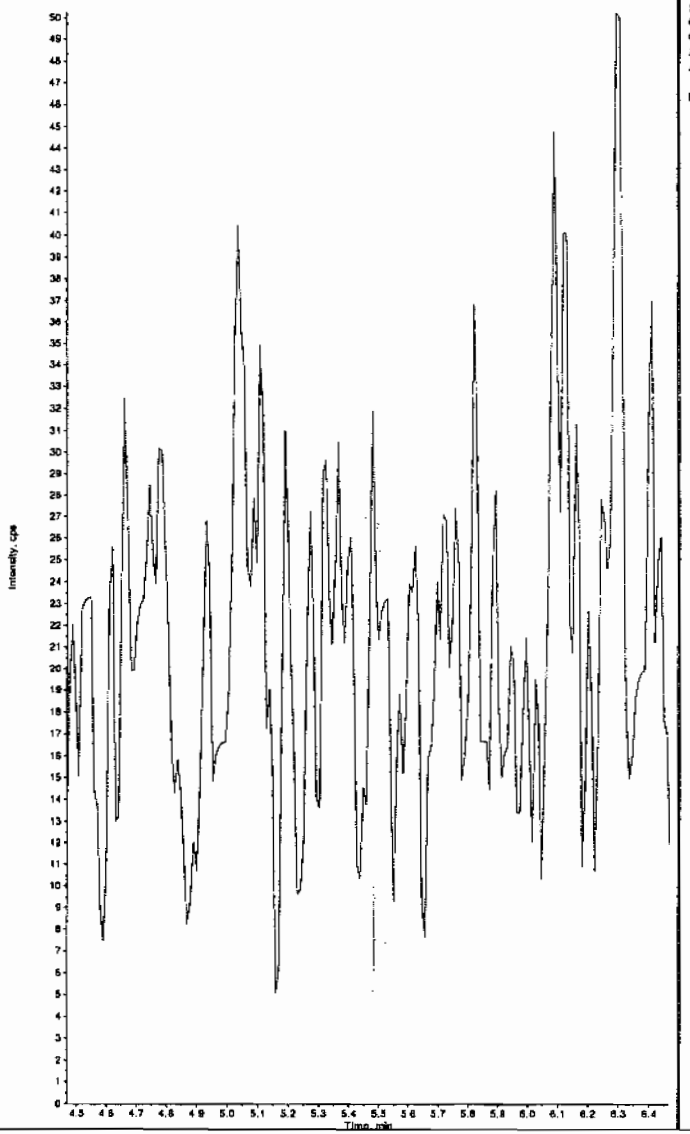

Sample Name: "245979004" Sample ID: "948577|2|LER" File: "EXS02240015.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:38:02 PM

Modified: No

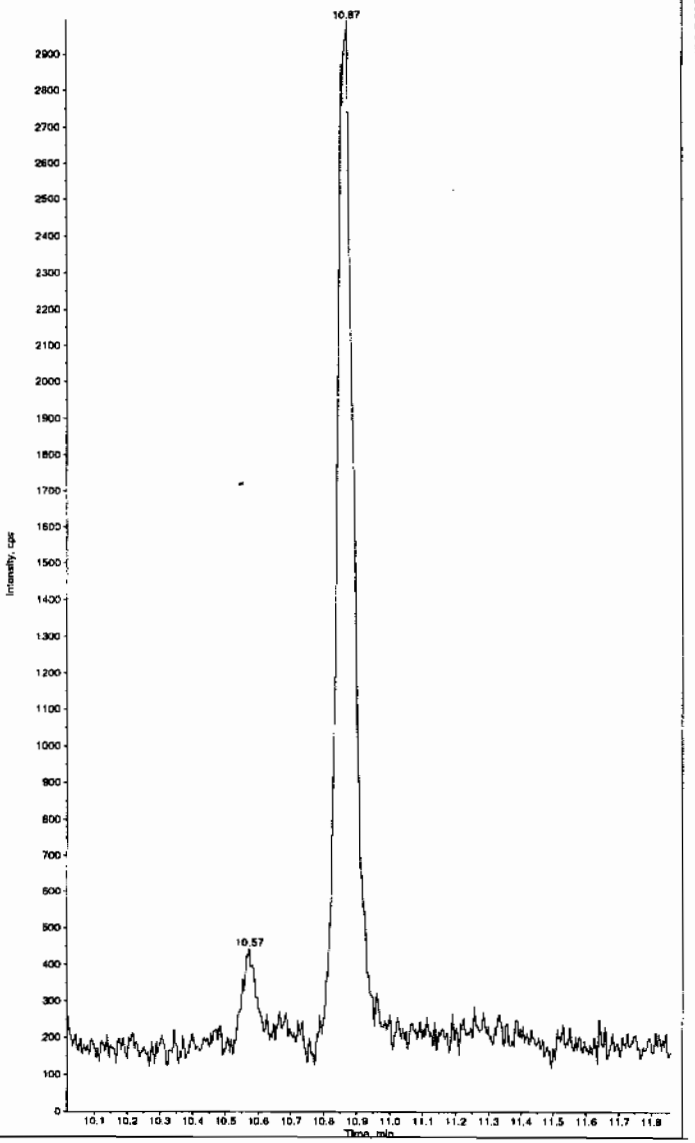

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7972

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979005

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301054a

Date Analyzed: 02-MAR-10 17:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qid, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301054a
Date: 02-Mar-2010
Time: 17:43:40
ID: 245979005 | LANL | 948572 | Solid | 2 |
Vial: 2:6,C

MM 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.255e+003

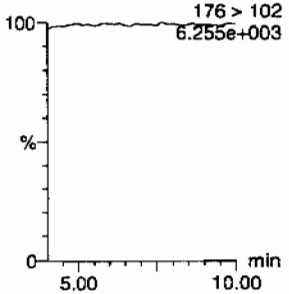

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.255e+003

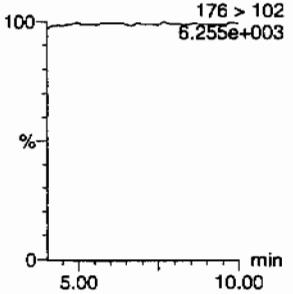

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.162e+003

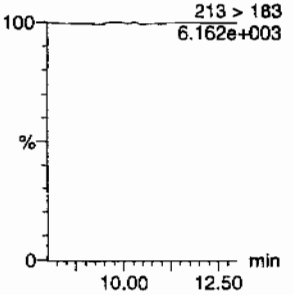

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.463e+004

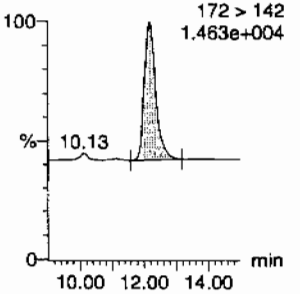

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.188e+003

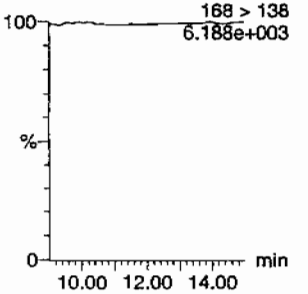

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.176e+003

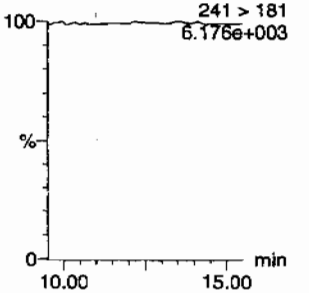

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.179e+003

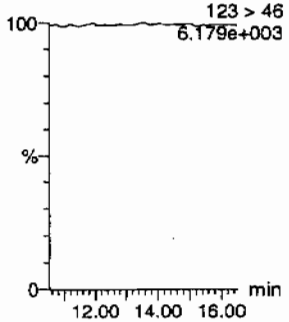

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.225e+003

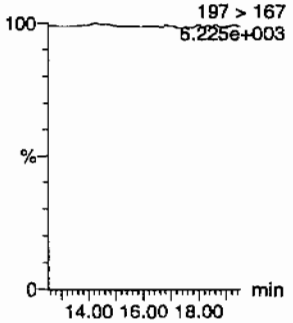

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.212e+003

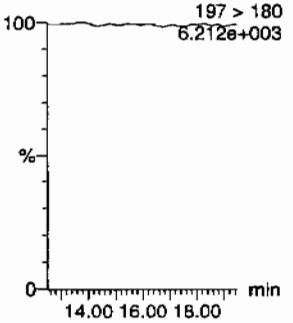

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.223e+003

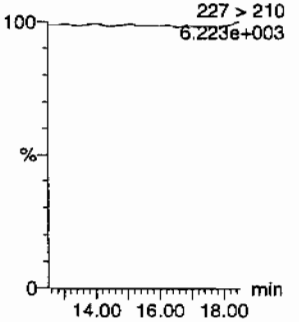

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.167e+004

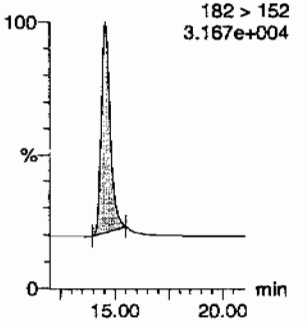

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
3.167e+004

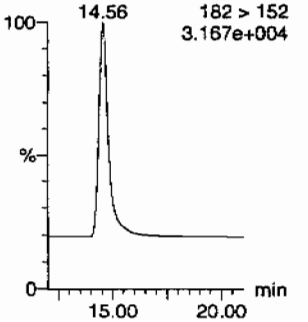

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

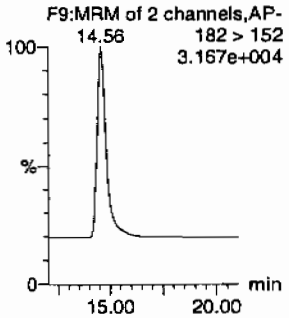

26-dinitrotoluene-d3

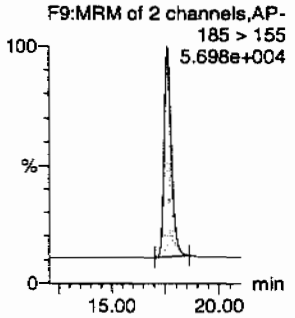

2-Nitrotoluene

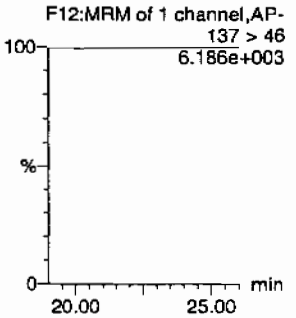

4-Nitrotoluene

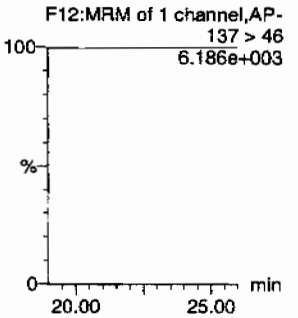

3-Nitrotoluene

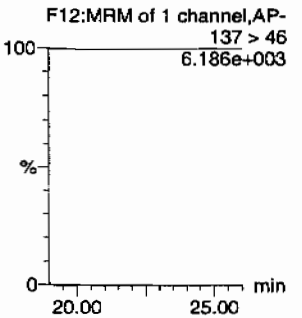

PETN

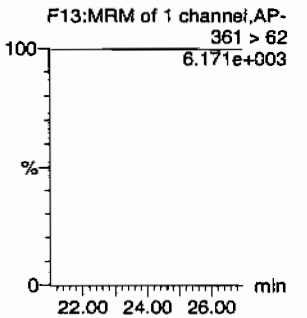

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979005	HMX	176 > 102			3581.039									
245979005	RDX	176 > 102			3581.039									
245979005	135-Trinitrobenzene	213 > 183			3581.039									
245979005	13-Dinitrobenzene-d4	172 > 142	12.17	3581.039		3581.039	3581.039	bb			617.8304	123.6	23.6	245.5
245979005	13-Dinitrobenzene	168 > 138			3581.039									
245979005	Tetryl	241 > 181			3581.039									
245979005	Nitrobenzene	123 > 46			3581.039									
245979005	4-Amino-26-dinitrotoluene	197 > 167			19986.523									
245979005	2-Amino-46-dinitrotoluene	197 > 180			19986.523									
245979005	246-Trinitrotoluene	227 > 210			19986.523									
245979005	34-dinitrotoluene	182 > 152	14.56	11841.496	19986.523	11841.496	296.237	bb			299.0281	119.6	19.6	560.7
245979005	26-dinitrotoluene	182 > 152			19986.523									
245979005	24-dinitrotoluene	182 > 152			19986.523									
245979005	26-dinitrotoluene-d3	185 > 155	17.62	19986.523		19986.523	19986.523	bb			621.2852	124.3	24.3	945.6
245979005	2-Nitrotoluene	137 > 46			19986.523									
245979005	4-Nitrotoluene	137 > 46			19986.523									
245979005	3-Nitrotoluene	137 > 46			19986.523									
245979005	PETN	361 > 62			19986.523									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7972

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979005

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240016.wiff

Date Analyzed: 24-FEB-10 13:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcu 2/25/10

Sample Name: "245979005" Sample ID: "948577|2|LER" File: "EXS02240016.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:53:43 PM

Modified: No

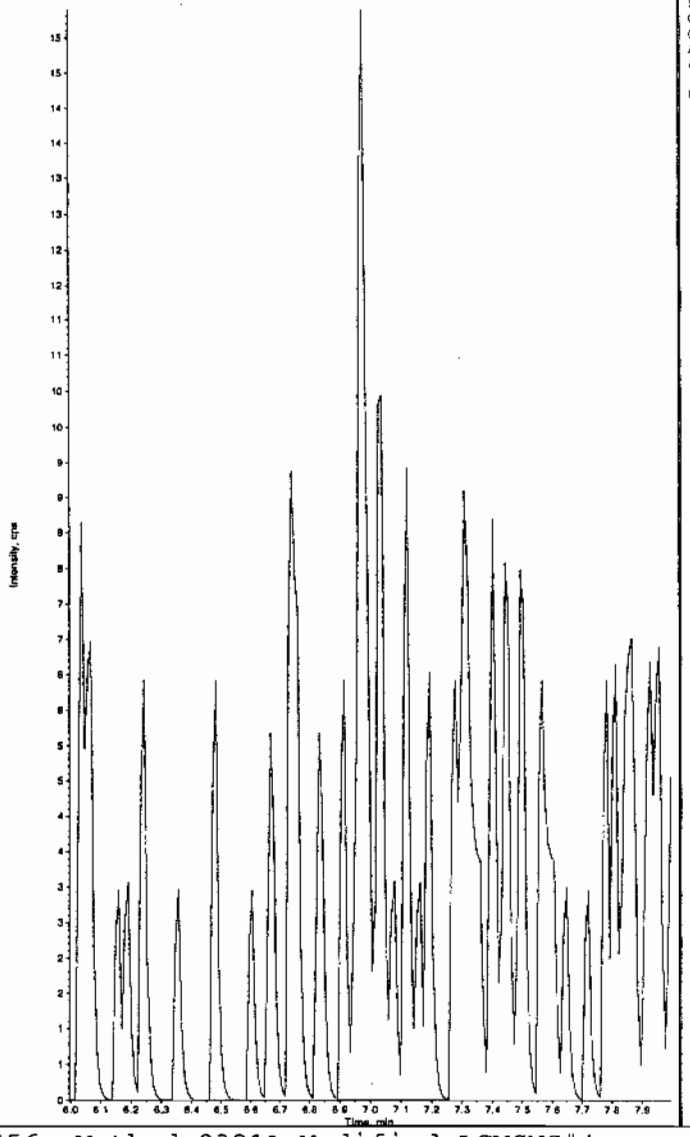

Sample Name: "245979005" Sample ID: "948577|2|LER" File: "EXS02240016.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:53:43 PM

Modified: No

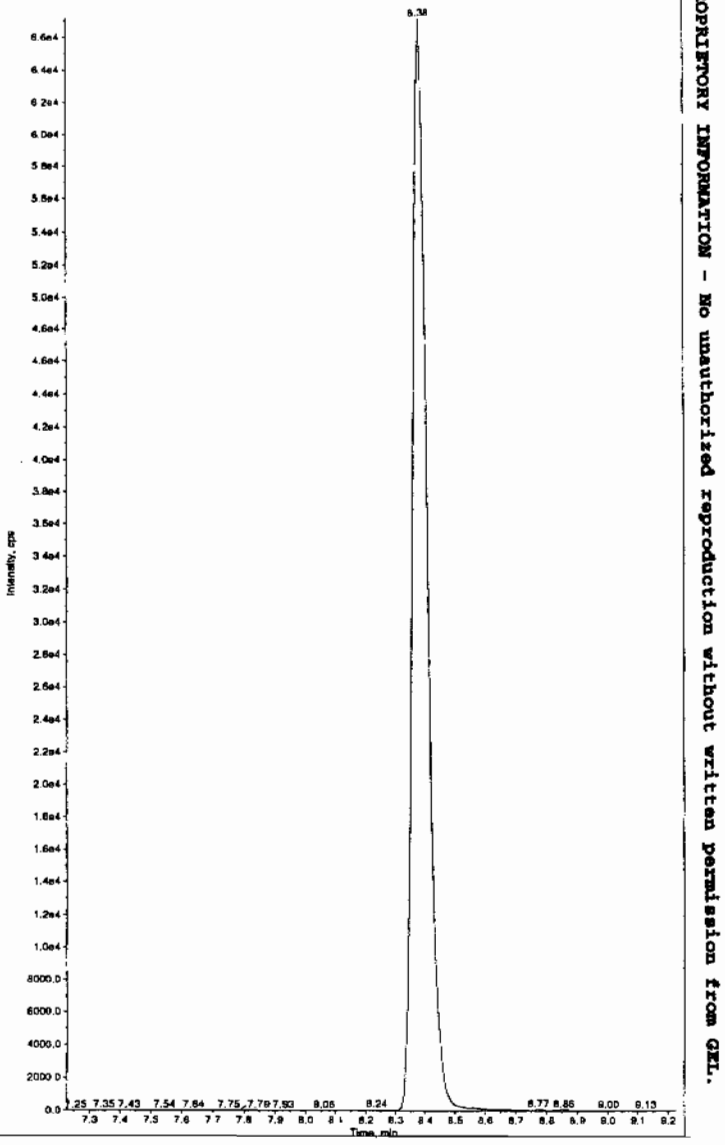

Hmwor 2/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245979005" Sample ID: "948577|2|LER" File: "EXS02240016.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 315. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:53:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.10e+006 counts
Height: 619723.450 cps
Start Time: 8.28 min
End Time: 8.76 min

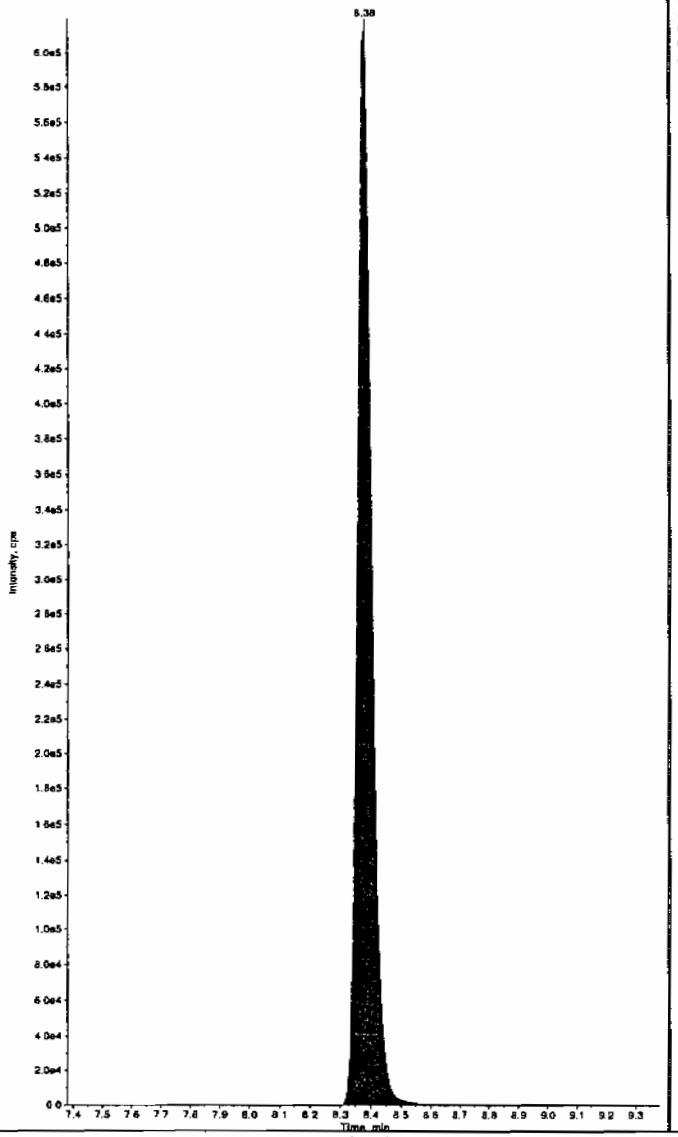

Sample Name: "245979005" Sample ID: "948577|2|LER" File: "EXS02240016.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:53:43 PM

Modified: No

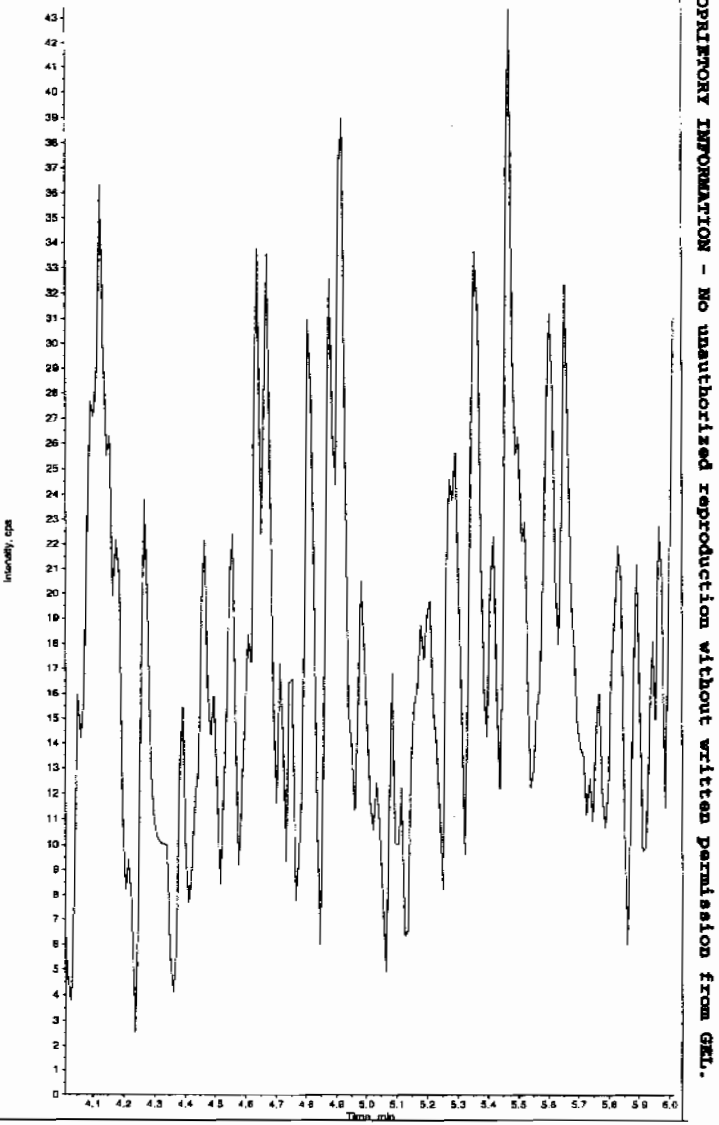

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979005" Sample ID: "948577|2|LER" File: "EXS02240016.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:53:43 PM

Modified: No

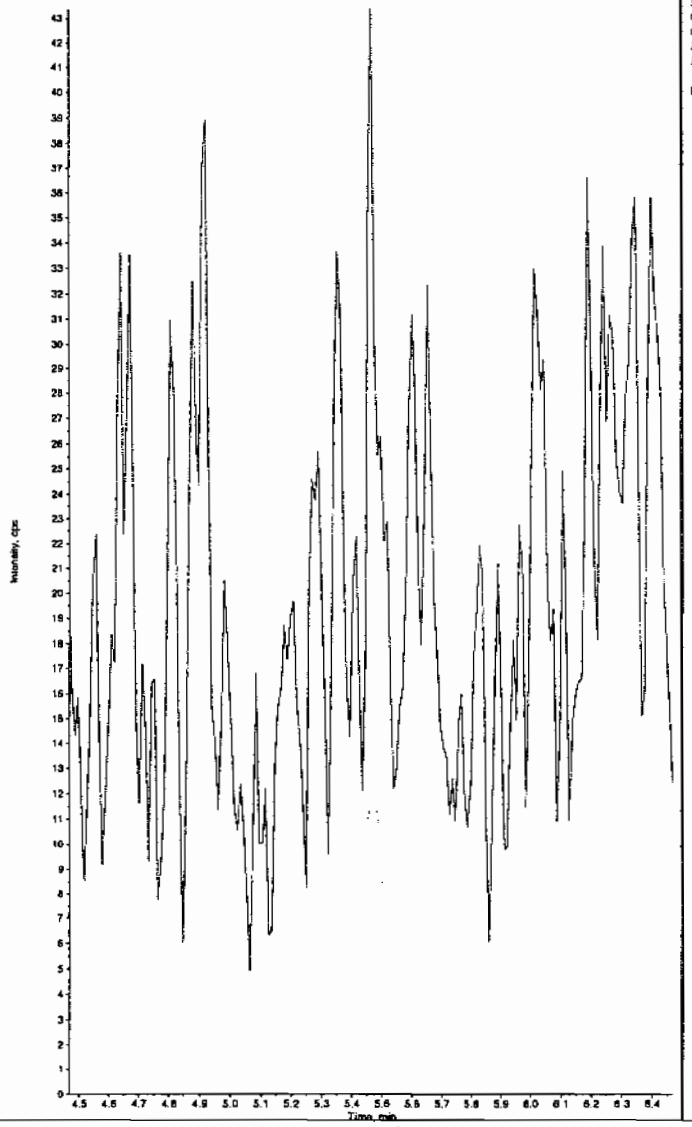

Sample Name: "245979005" Sample ID: "948577|2|LER" File: "EXS02240016.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:53:43 PM

Modified: No

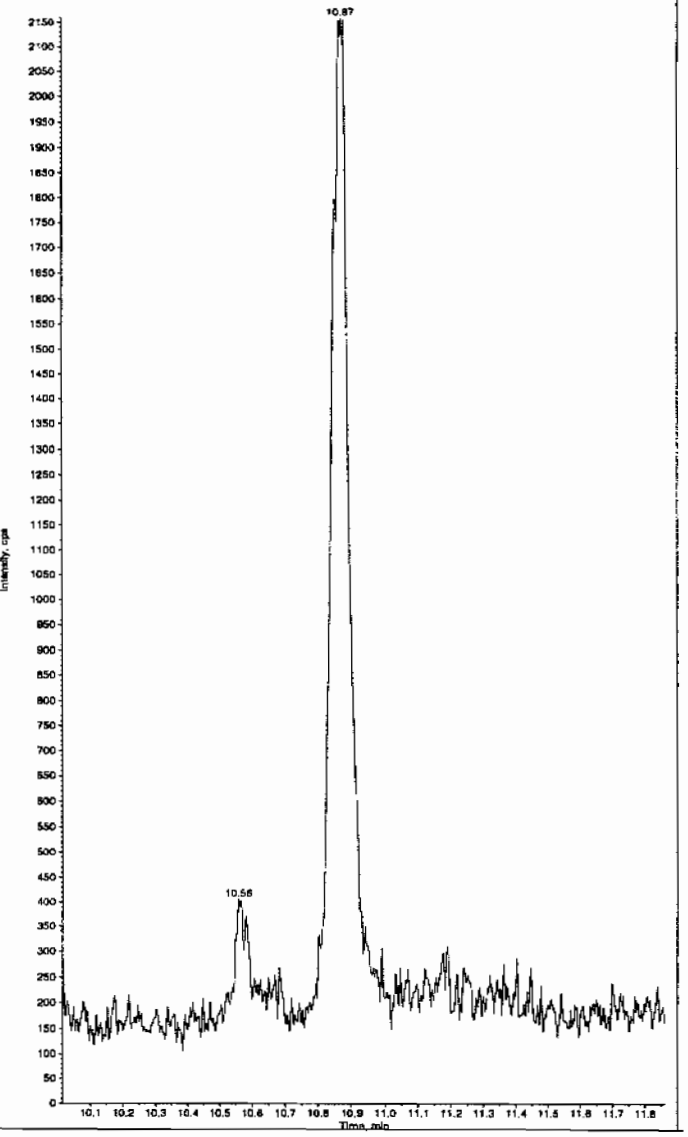

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7957

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979006

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301055a

Date Analyzed: 02-MAR-10 18:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301055a
Date: 02-Mar-2010
Time: 18:13:10
ID: 245979006 | LANC | 948577 | Solids | 21
Vial: 2:6,D

MAT 3/3/10

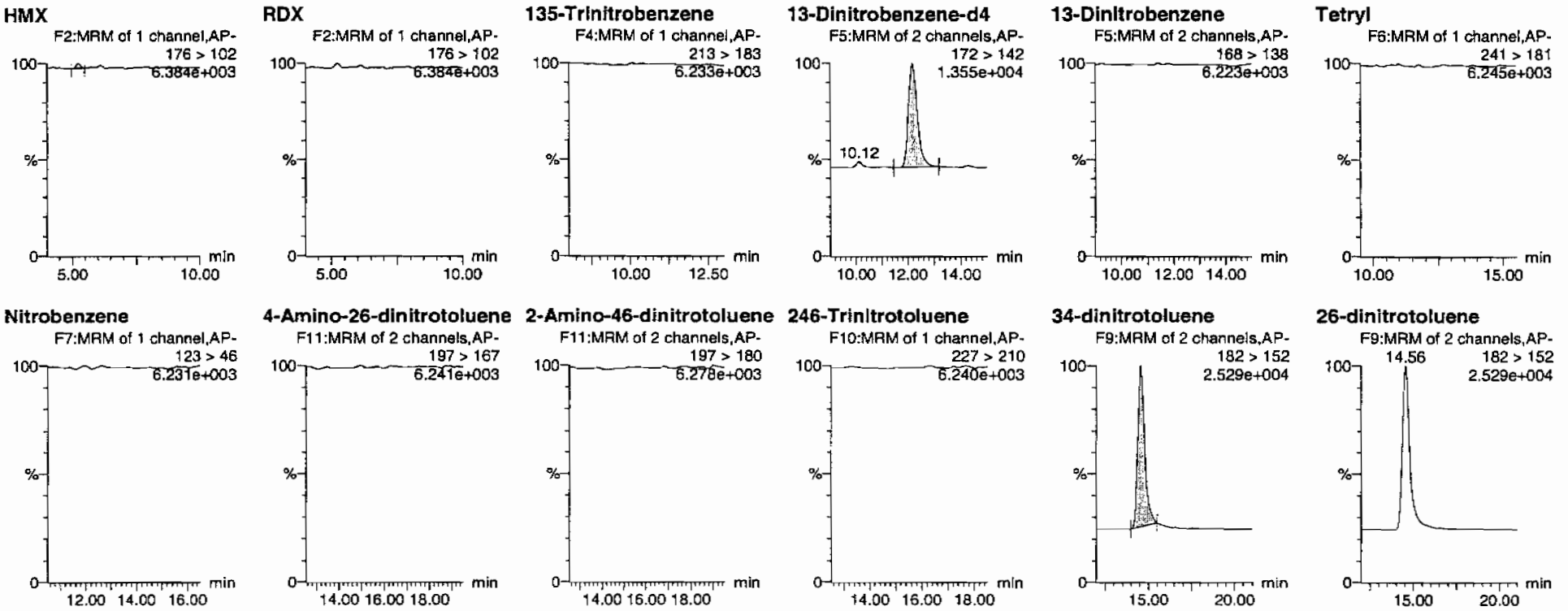

HMC 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

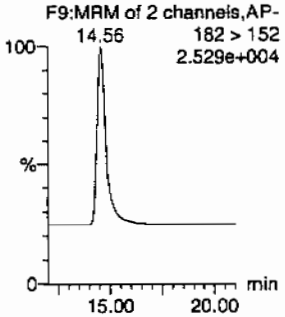

26-dinitrotoluene-d3

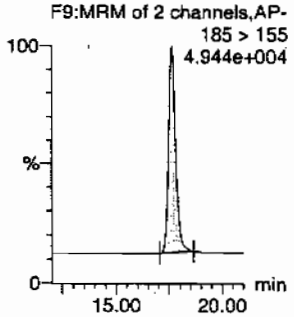

2-Nitrotoluene

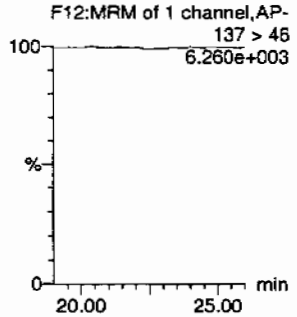

4-Nitrotoluene

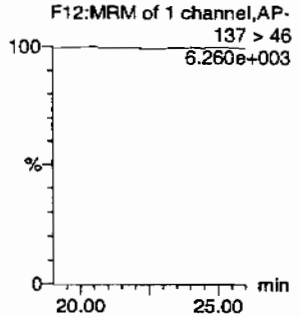

3-Nitrotoluene

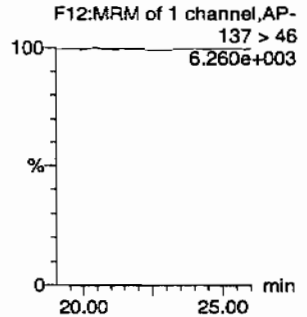

PETN

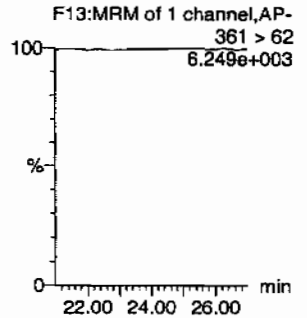

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979006	HMX	176 > 102	5.24	37.283	3035.070	37.283	6.142	bb			1.6100			5.4
245979006	RDX	176 > 102			3035.070									
245979006	135-Trinitrobenzene	213 > 183			3035.070									
245979006	13-Dinitrobenzene-d4	172 > 142	12.17	3035.070		3035.070	3035.070	bb			523.6353	104.7	4.7	269.4
245979006	13-Dinitrobenzene	168 > 138			3035.070									
245979006	Tetryl	241 > 181			3035.070									
245979006	Nitrobenzene	123 > 46			3035.070									
245979006	4-Amino-26-dinitrotoluene	197 > 167			17152.828									
245979006	2-Amino-46-dinitrotoluene	197 > 180			17152.828									
245979006	246-Trinitrotoluene	227 > 210			17152.828									
245979006	34-dinitrotoluene	182 > 152	14.56	8875.198	17152.828	8875.198	258.709	bb			261.1470	104.5	4.5	501.0
245979006	26-dinitrotoluene	182 > 152			17152.828									
245979006	24-dinitrotoluene	182 > 152			17152.828									
245979006	26-dinitrotoluene-d3	185 > 155	17.62	17152.828		17152.828	17152.828	bb			533.1992	106.6	6.6	1344.0
245979006	2-Nitrotoluene	137 > 46			17152.828									
245979006	4-Nitrotoluene	137 > 46			17152.828									
245979006	3-Nitrotoluene	137 > 46			17152.828									
245979006	PETN	361 > 62			17152.828									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7957

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979006

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240017.wiff

Date Analyzed: 24-FEB-10 14:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sum 2/25/10

Sample Name: "245979006" Sample ID: "948577|2|LER" File: "EXS02240017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:09:27 PM

Modified: No

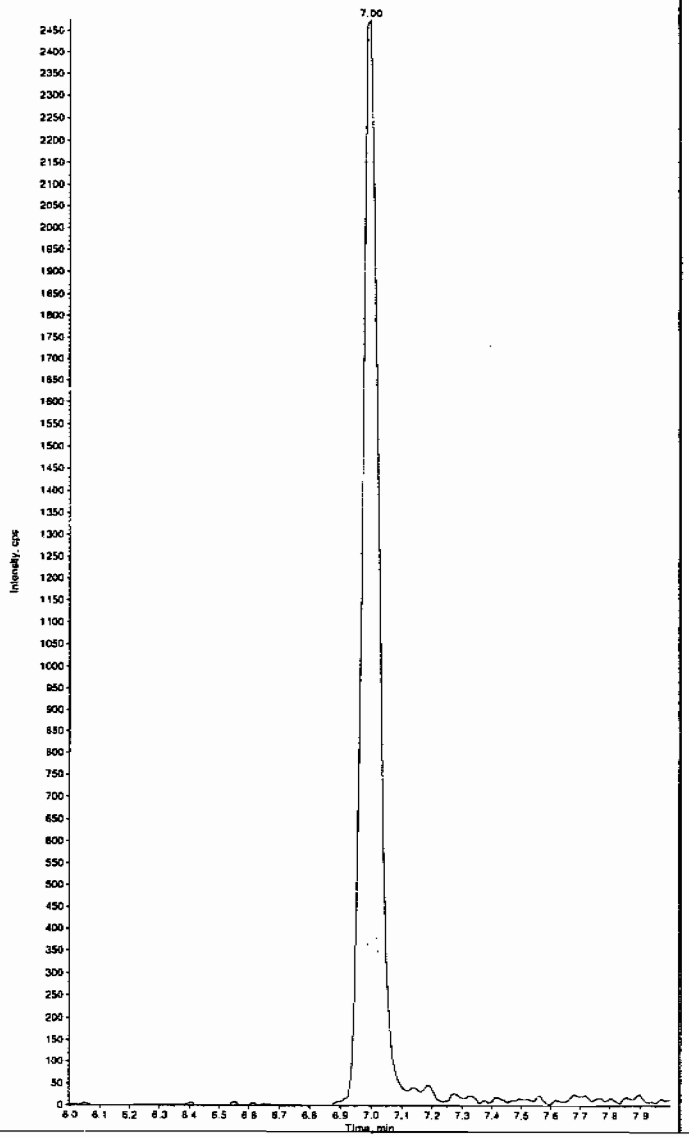

Sample Name: "245979006" Sample ID: "948577|2|LER" File: "EXS02240017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:09:27 PM

Modified: No

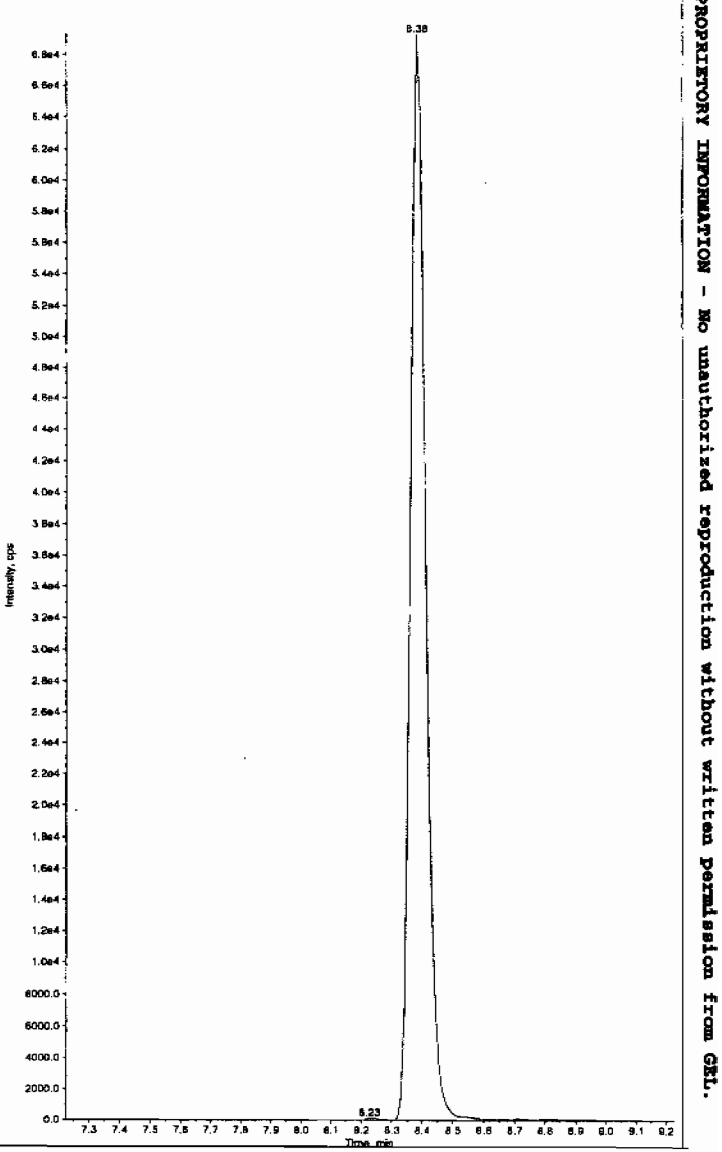

Hammer 2/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979006" Sample ID: "948577|2|LER" File: "EXS02240017.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 315. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:09:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.10e+006 counts
Height: 573272.522 cps
Start Time: 8.29 min
End Time: 8.67 min

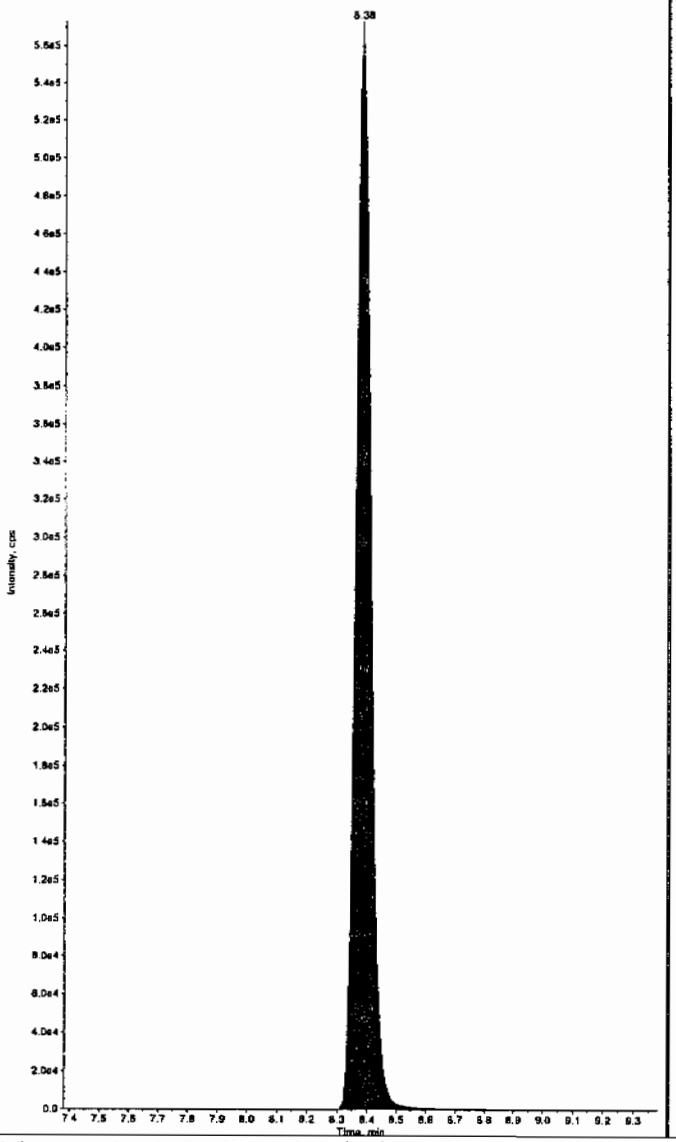

Sample Name: "245979006" Sample ID: "948577|2|LER" File: "EXS02240017.wiff"
Peak Name: "26-Diamino-4-Nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:09:27 PM

Modified: No

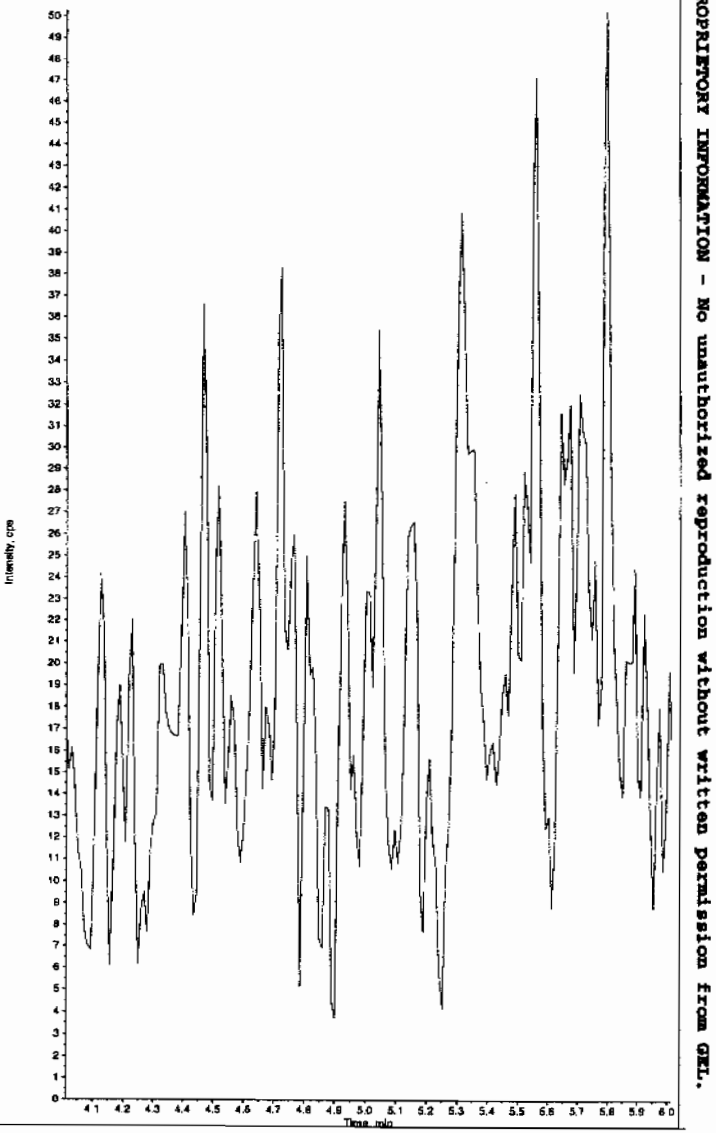

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979006" Sample ID: "948577|2|LER" File: "EXS02240017.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:09:27 PM

Modified: No

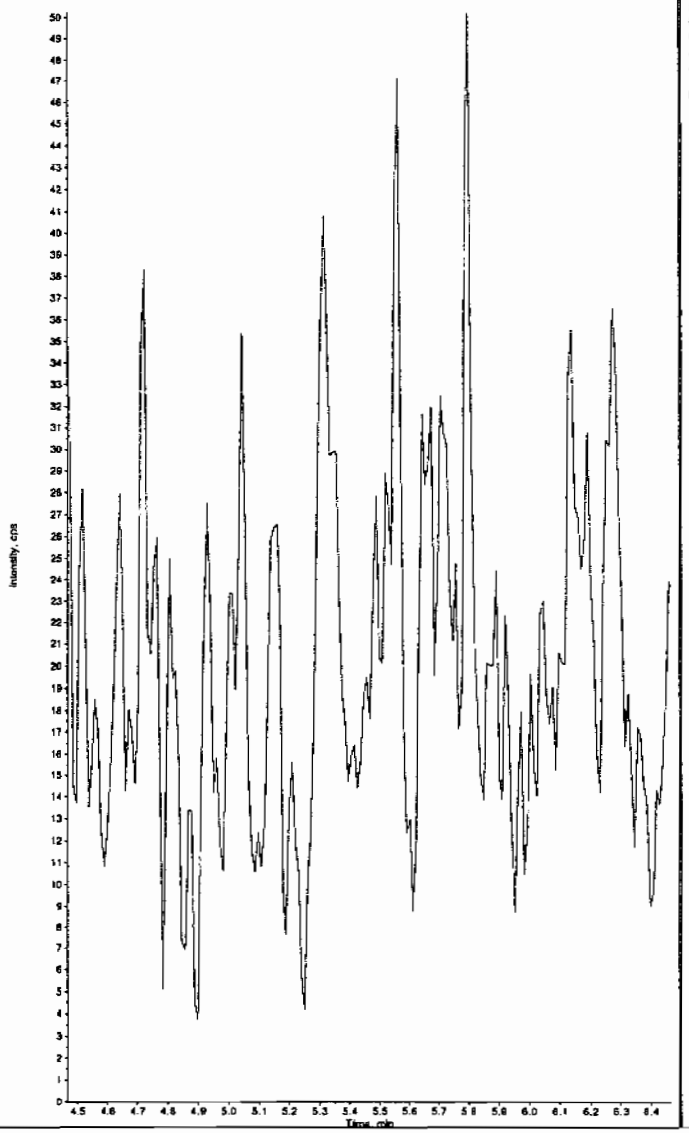

Sample Name: "245979006" Sample ID: "948577|2|LER" File: "EXS02240017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:09:27 PM

Modified: No

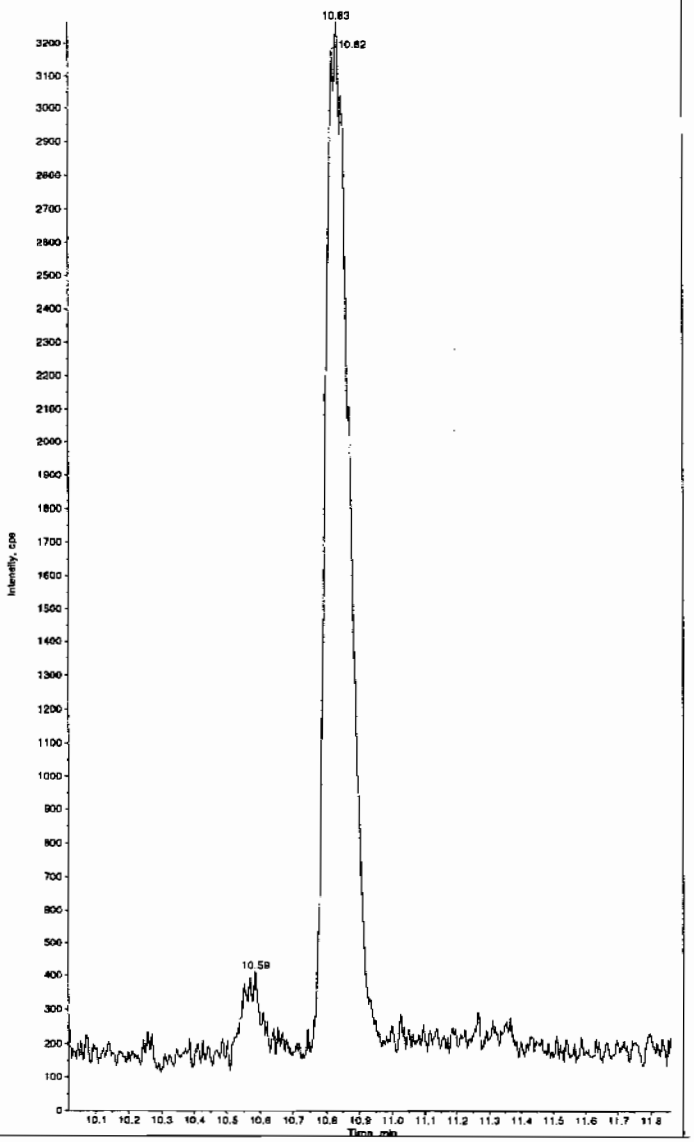

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7974

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979007

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301059a

Date Analyzed: 02-MAR-10 20:11

Units: µg/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301059a
Date: 02-Mar-2010
Time: 20:11:11
ID: 245979007 | LANL | 948577 | Soil | 2 |
Vial: 2:6,E

MAP 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.284e+003

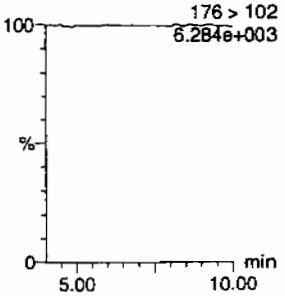

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.284e+003

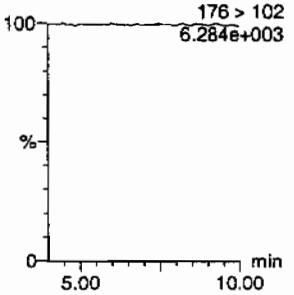

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.235e+003

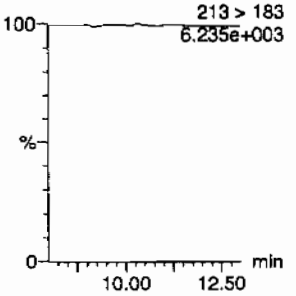

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.370e+004

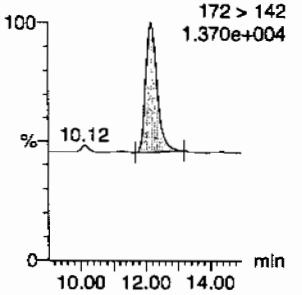

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.222e+003

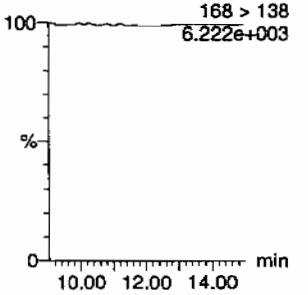

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.244e+003

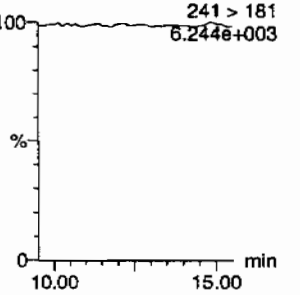

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.360e+003

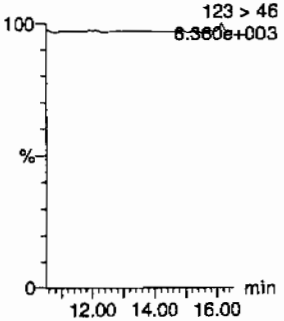

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.264e+003

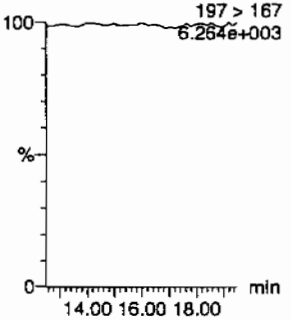

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.306e+003

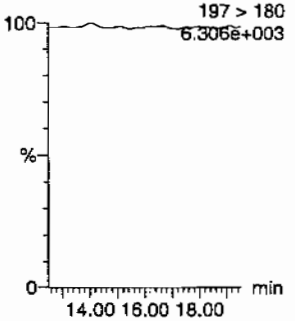

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.207e+003

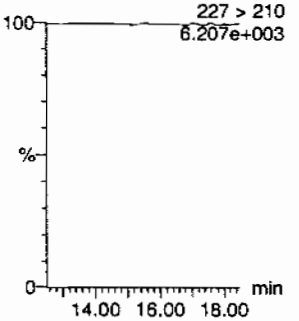

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.715e+004

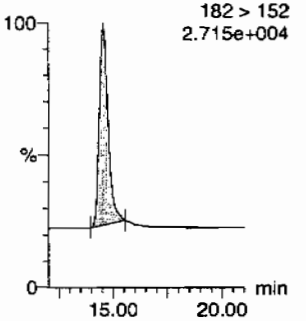

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.715e+004

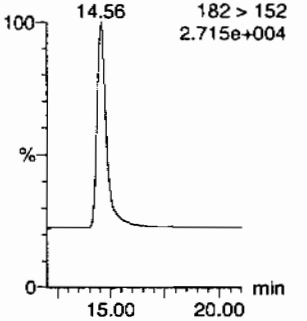

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

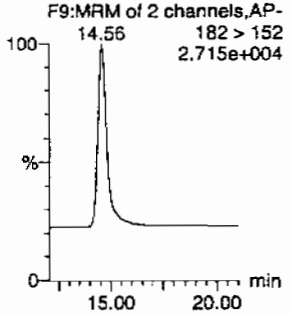

26-dinitrotoluene-d3

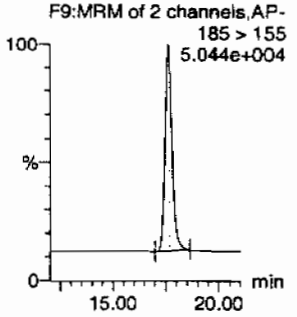

2-Nitrotoluene

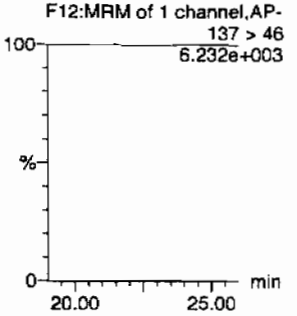

4-Nitrotoluene

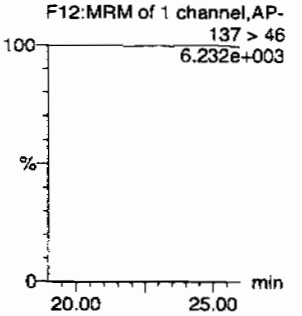

3-Nitrotoluene

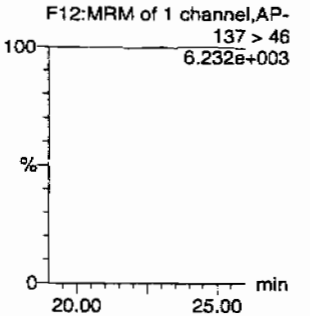

PETN

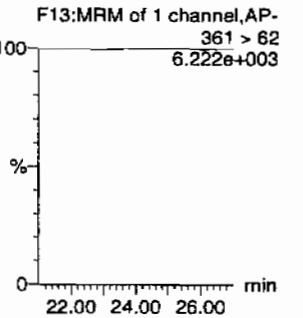

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979007	HMX	176 > 102			3116.503									
245979007	RDX	176 > 102			3116.503									
245979007	135-Trinitrobenzene	213 > 183			3116.503									
245979007	13-Dinitrobenzene-d4	172 > 142	12.17	3116.503		3116.503	3116.503	bb			537.6848	107.5	7.5	357.3
245979007	13-Dinitrobenzene	168 > 138			3116.503									
245979007	Tetryl	241 > 181			3116.503									
245979007	Nitrobenzene	123 > 46			3116.503									
245979007	4-Amino-26-dinitrotoluene	197 > 167			17523.393									
245979007	2-Amino-46-dinitrotoluene	197 > 180			17523.393									
245979007	246-Trinitrotoluene	227 > 210			17523.393									
245979007	34-dinitrotoluene	182 > 152	14.56	9863.419	17523.393	9863.419	281.436	bb			284.0874	113.6	13.6	526.7
245979007	26-dinitrotoluene	182 > 152			17523.393									
245979007	24-dinitrotoluene	182 > 152			17523.393									
245979007	26-dinitrotoluene-d3	185 > 155	17.62	17523.393		17523.393	17523.393	bb			544.7183	108.9	8.9	1879.1
245979007	2-Nitrotoluene	137 > 46			17523.393									
245979007	4-Nitrotoluene	137 > 46			17523.393									
245979007	3-Nitrotoluene	137 > 46			17523.393									
245979007	PETN	361 > 62			17523.393									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7974

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979007

Sample Amount 2

Moisture: 5.1

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240018.wiff

Date Analyzed: 24-FEB-10 14:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sur 2/25/10

Sample Name: "245979007" Sample ID: "948577[2]LER" File: "EXS02240018.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:25:11 PM

Modified: No

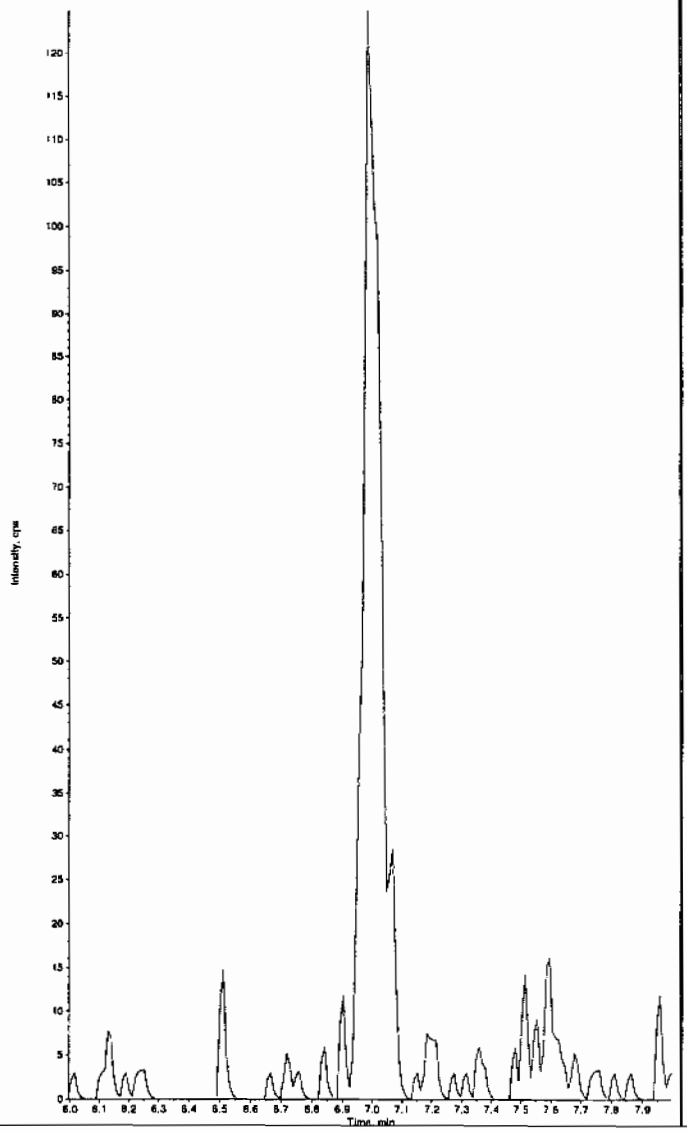

Sample Name: "245979007" Sample ID: "948577[2]LER" File: "EXS02240018.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:25:11 PM

Modified: No

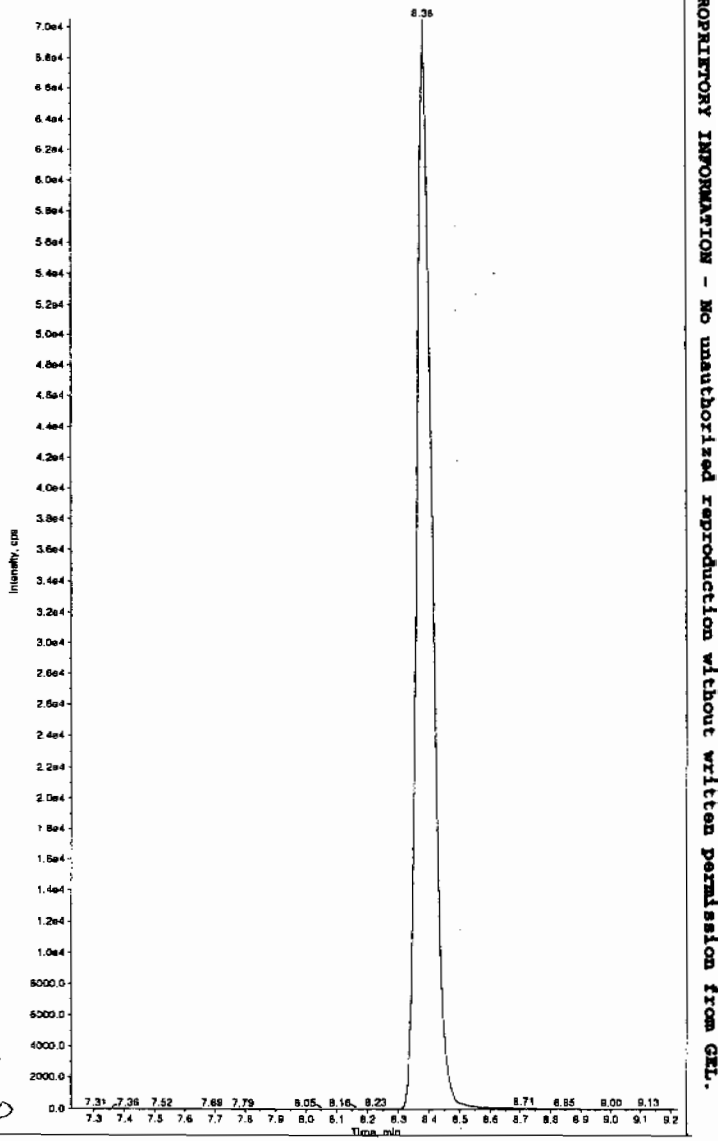

dmcor 2/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245979007" Sample ID: "948577|2|LER" File: "EXS02240018.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 316. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:25:11 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.10e+006 counts
Height: 593373.742 cps
Start Time: 8.28 min
End Time: 8.70 min

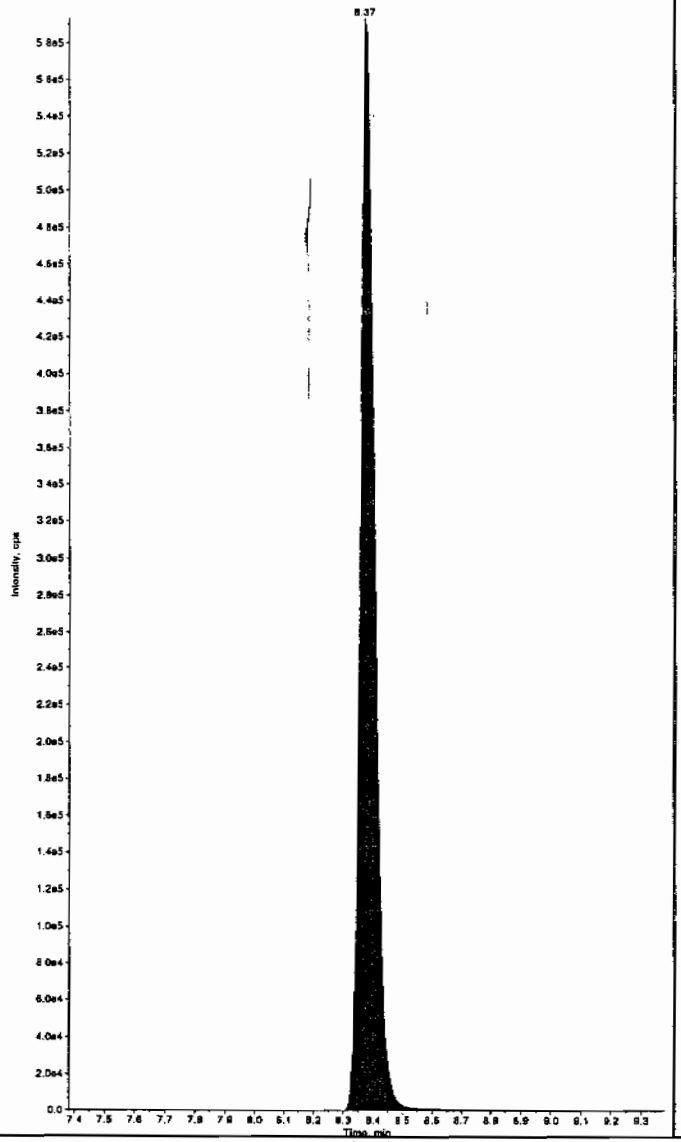

Sample Name: "245979007" Sample ID: "948577|2|LER" File: "EXS02240018.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:25:11 PM

Modified: No

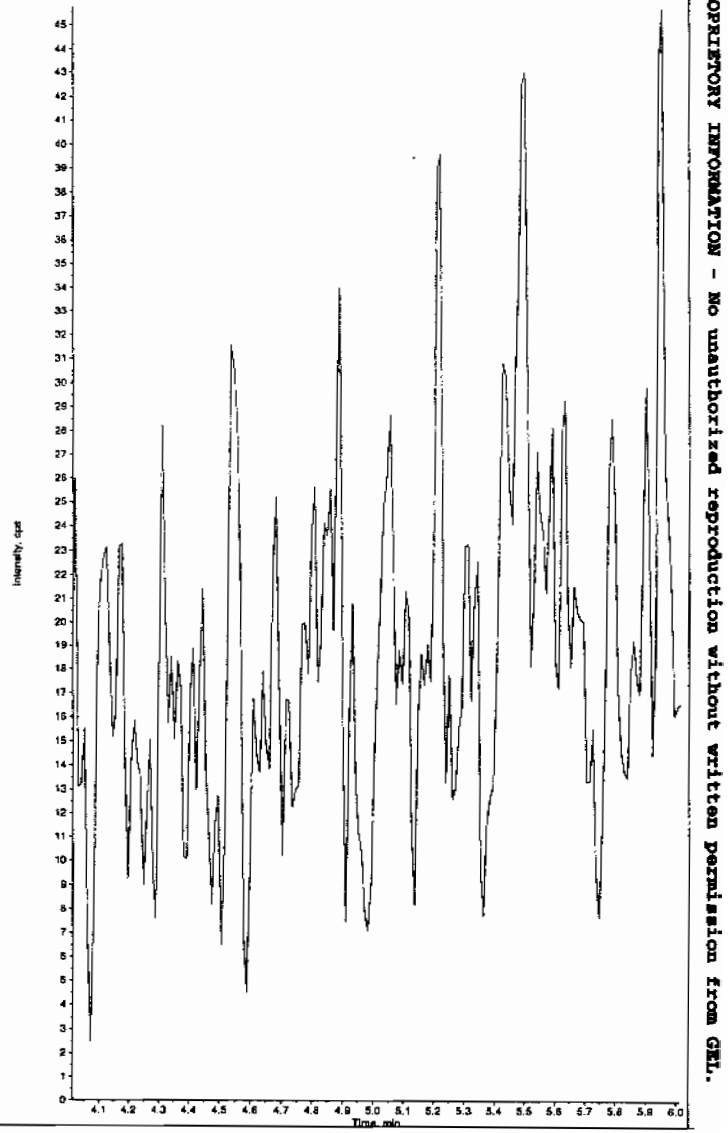

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979007" Sample ID: "948577|2|LER" File: "EXS02240018.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:25:11 PM

Modified: No

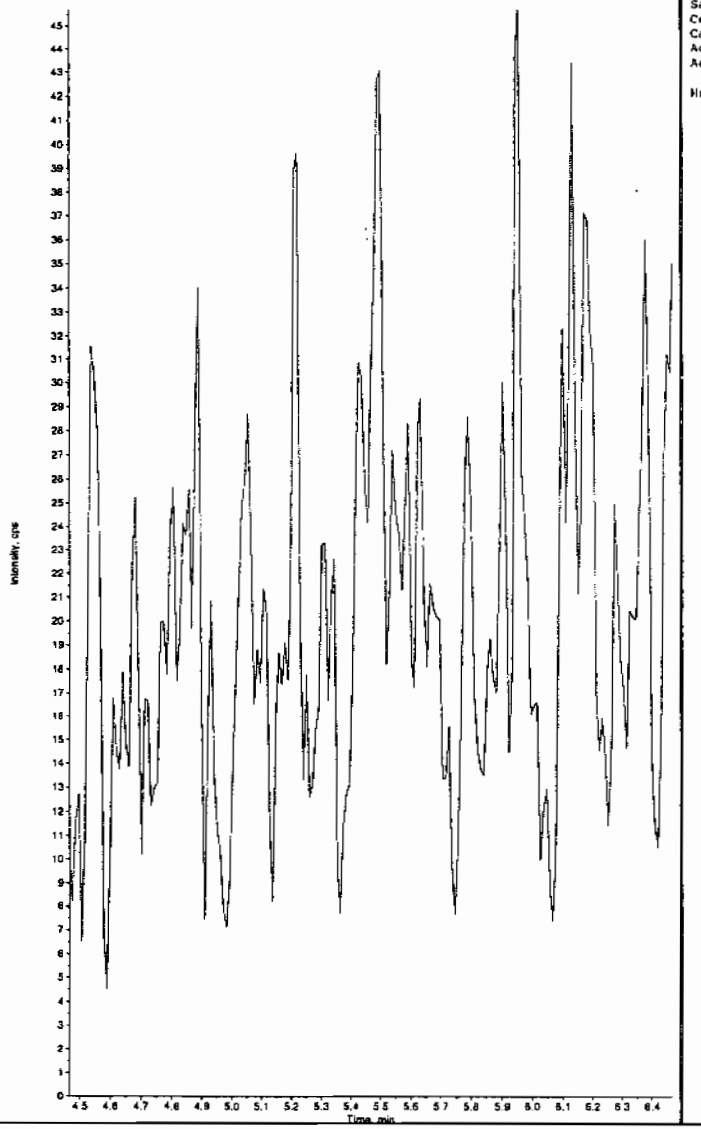

Sample Name: "245979007" Sample ID: "948577|2|LER" File: "EXS02240018.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:25:11 PM

Modified: No

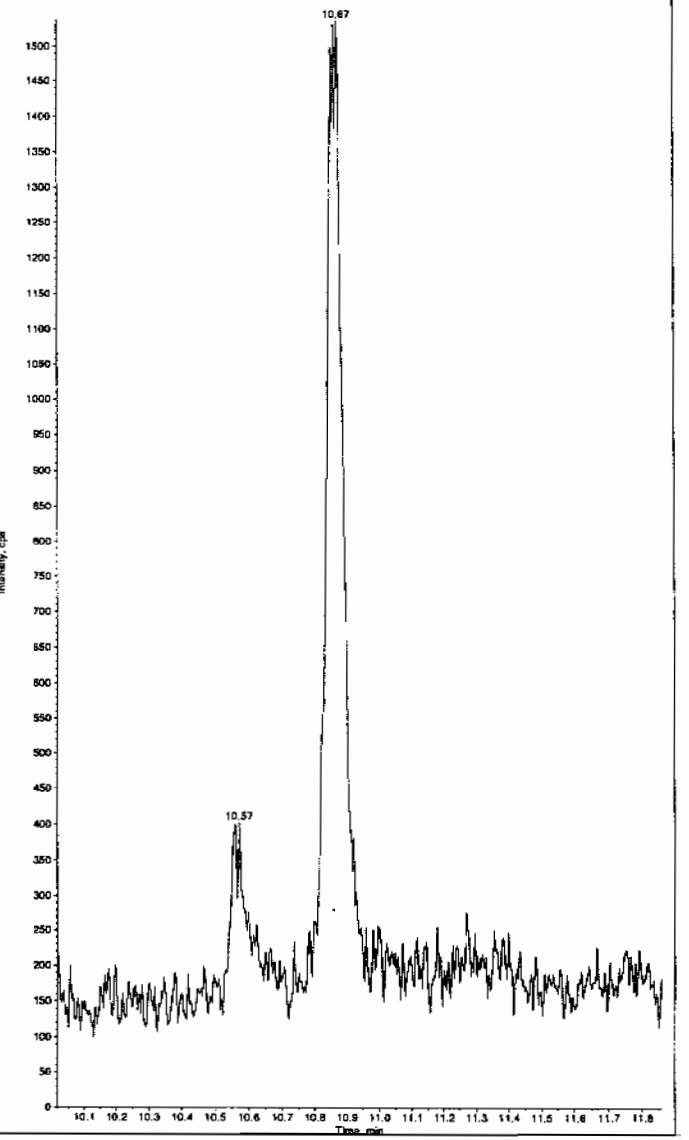

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7961

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979008

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301060a

Date Analyzed: 02-MAR-10 20:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	263	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301060a
Date: 02-Mar-2010
Time: 20:40:43
ID: 245979008 | LAW | 948577 | Solids | 2 |
Vial: 2:6,F

LLT 3/3/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.21 9.413e+003
647.02 7.65

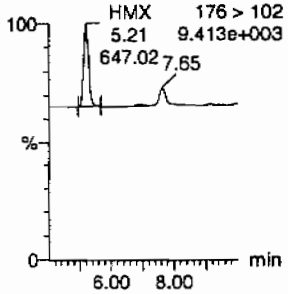

RDX
F2:MRM of 1 channel,AP-
5.21 176 > 102
9.413e+003

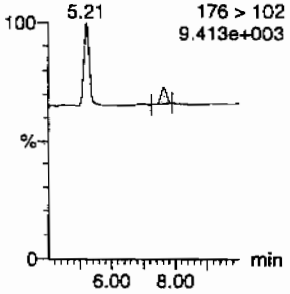

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.173e+003

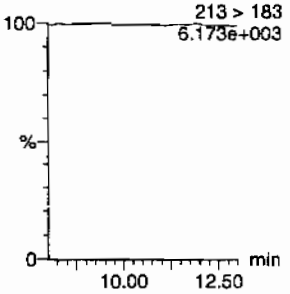

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.396e+004

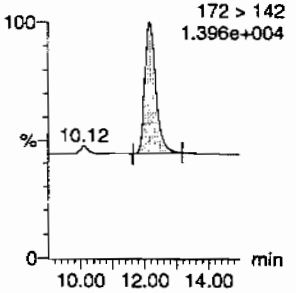

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.181e+003

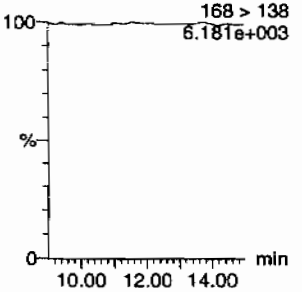

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.171e+003

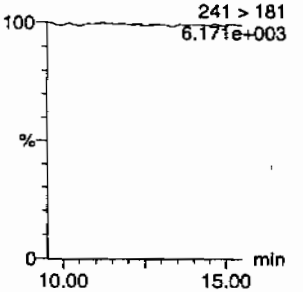

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.187e+003

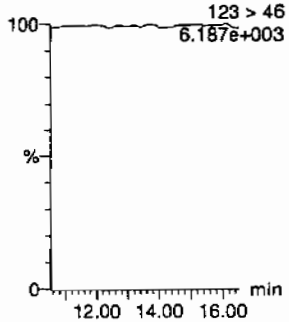

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.195e+003

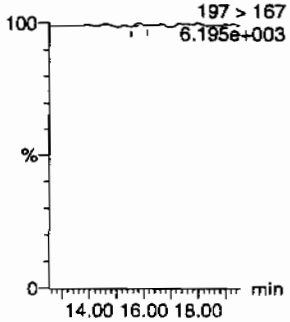

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.212e+003

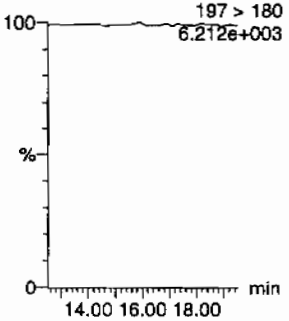

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.193e+003

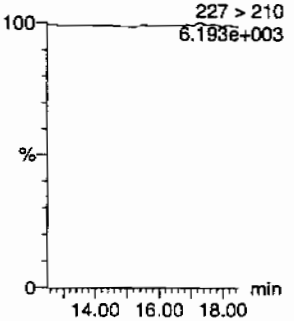

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.530e+004

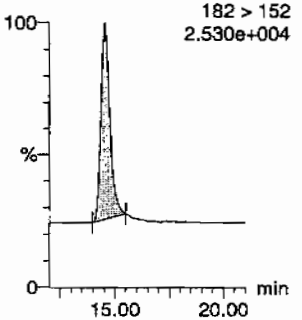

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.530e+004

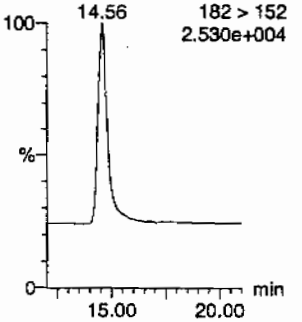

HMM 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

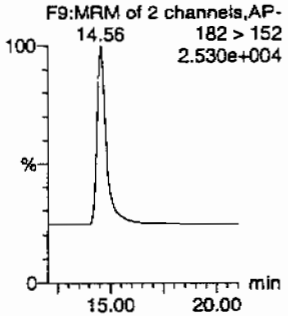

26-dinitrotoluene-d3

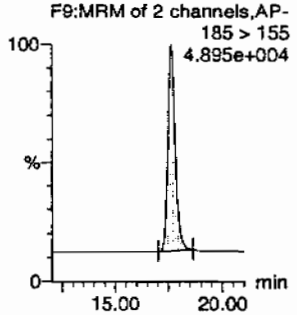

2-Nitrotoluene

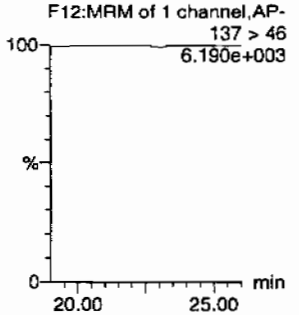

4-Nitrotoluene

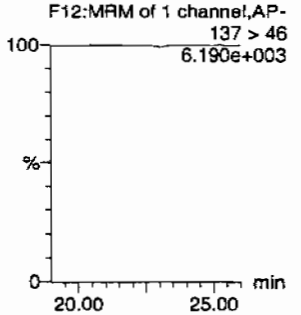

3-Nitrotoluene

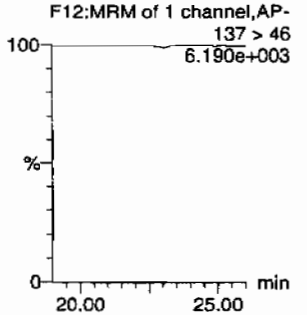

PETN

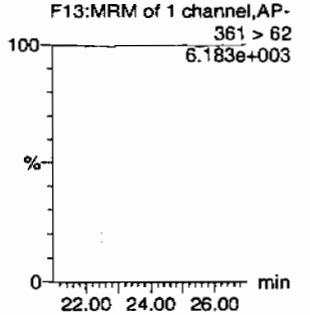

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979008	HMX	176 > 102	5.21	647.022	3228.510	647.022	100.204	bb			26.2671			114.3
245979008	RDX	176 > 102	7.65	146.057	3228.510	146.057	22.620	bb			8.2415			23.6
245979008	135-Trinitrobenzene	213 > 183			3228.510									
245979008	13-Dinitrobenzene-d4	172 > 142	12.17	3228.510		3228.510	3228.510	bb			557.0092	111.4	11.4	82.3
245979008	13-Dinitrobenzene	168 > 138			3228.510									
245979008	Tetryl	241 > 181			3228.510									
245979008	Nitrobenzene	123 > 46			3228.510									
245979008	4-Amino-26-dinitrotoluene	197 > 167			16971.135			MM-	03-Mar-10	08:46:13				
245979008	2-Amino-46-dinitrotoluene	197 > 180			16971.135									
245979008	246-Trinitrotoluene	227 > 210			16971.135									
245979008	34-dinitrotoluene	182 > 152	14.56	8853.153	16971.135	8853.153	260.830	bb			263.2872	105.3	5.3	342.2
245979008	26-dinitrotoluene	182 > 152			16971.135									
245979008	24-dinitrotoluene	182 > 152			16971.135									
245979008	26-dinitrotoluene-d3	185 > 155	17.62	16971.135		16971.135	16971.135	bb			527.5512	105.5	5.5	2112.9
245979008	2-Nitrotoluene	137 > 46			16971.135									
245979008	4-Nitrotoluene	137 > 46			16971.135									
245979008	3-Nitrotoluene	137 > 46			16971.135									
245979008	PETN	361 > 62			16971.135									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7961

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979008

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240019.wiff

Date Analyzed: 24-FEB-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	625	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

2/25/10

Sample Name: "245979008" Sample ID: "948577|2|LER" File: "EXS02240019.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 62.5 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:40:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - ICA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 5.22e+004 counts
Height: 14032.753 cps
Start Time: 6.90 min
End Time: 7.24 min

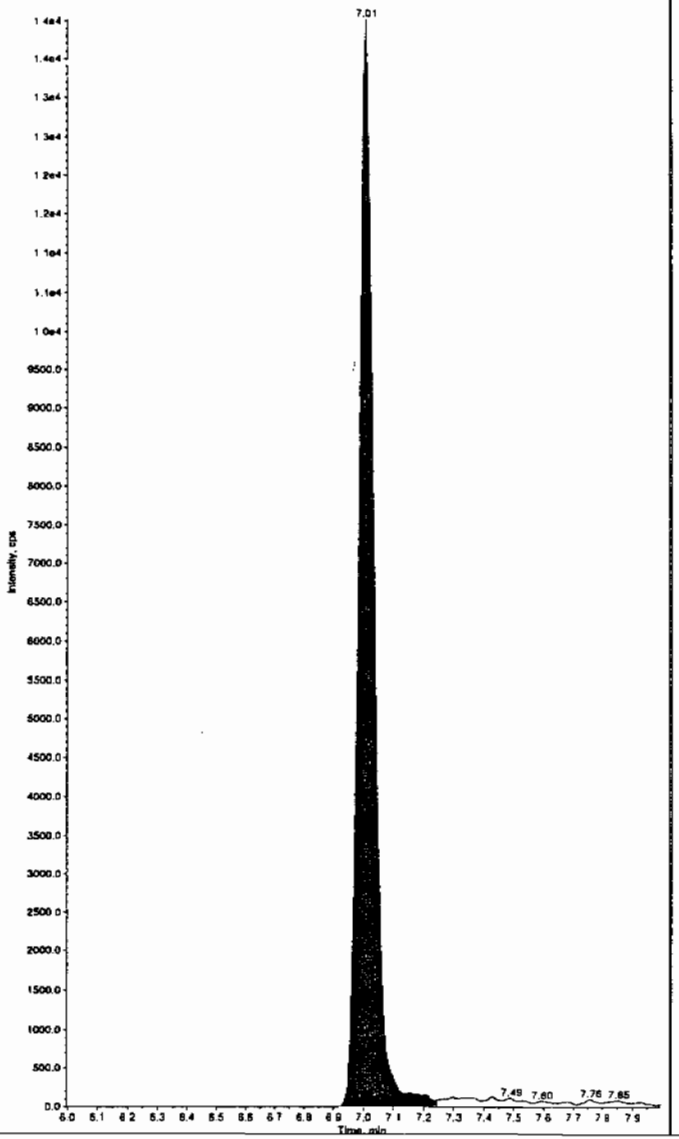

Sample Name: "245979008" Sample ID: "948577|2|LER" File: "EXS02240019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:40:53 PM

Modified: No

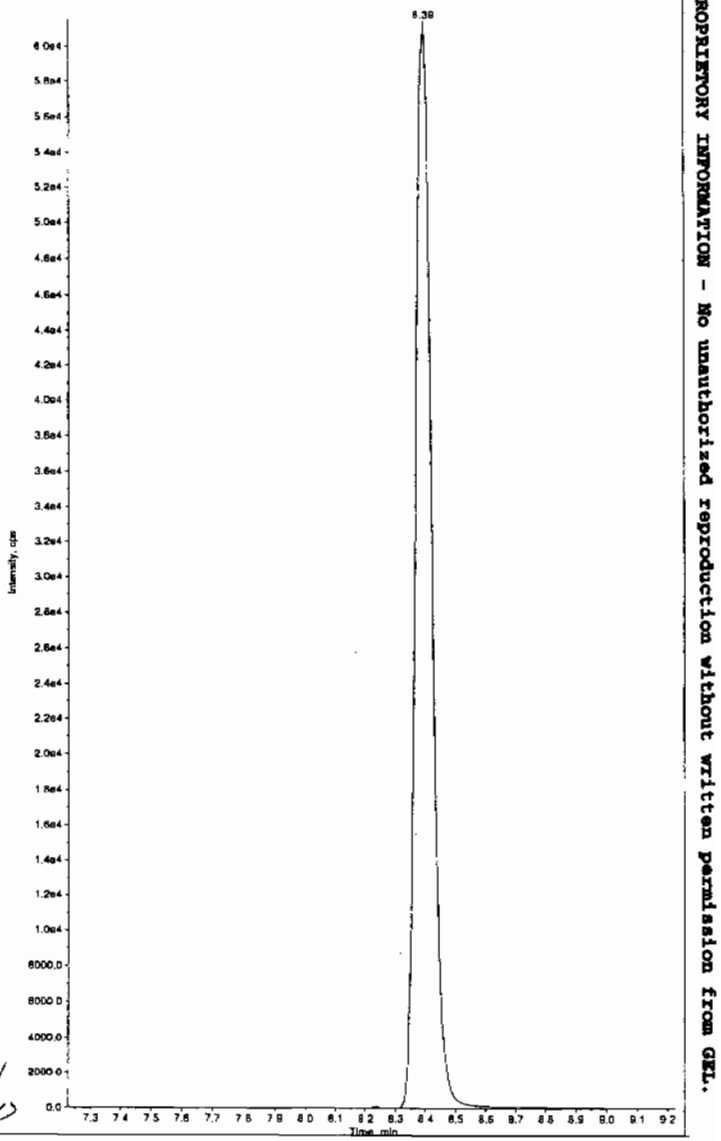

Hamilton 2/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245979008" Sample ID: "948577|2|LER" File: "EXS02240019.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 298. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:40:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 1.99e+006 counts
Height: 552846.924 cps
Start Time: 8.26 min
End Time: 8.70 min

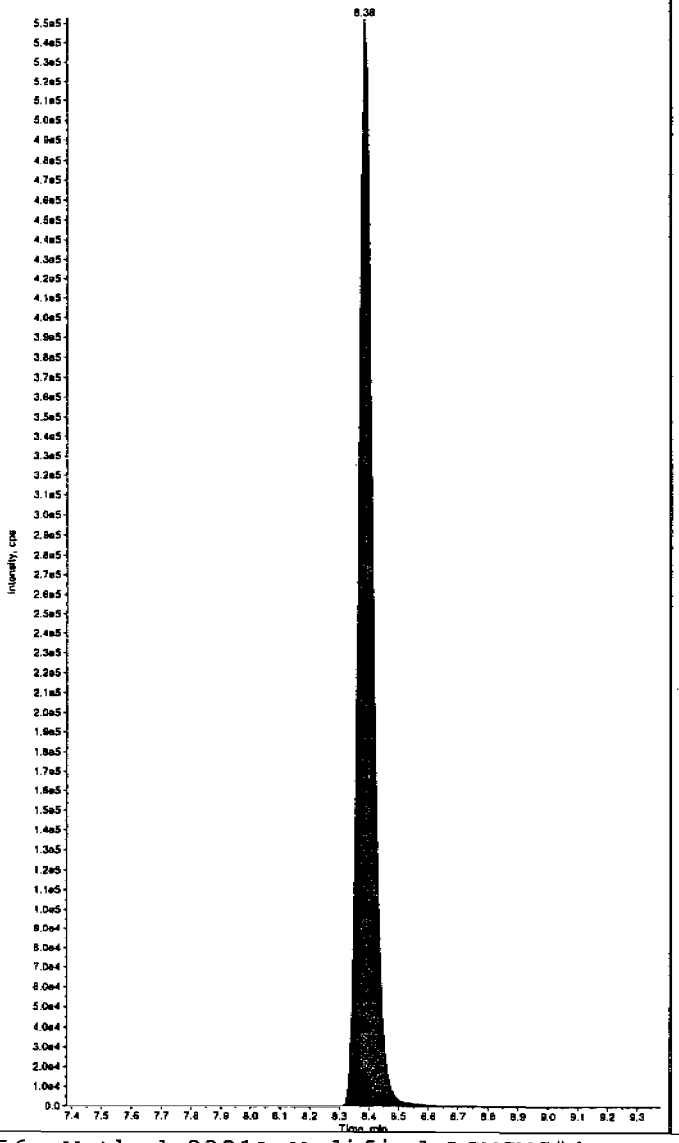

Sample Name: "245979008" Sample ID: "948577|2|LER" File: "EXS02240019.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:40:53 PM

Modified: No

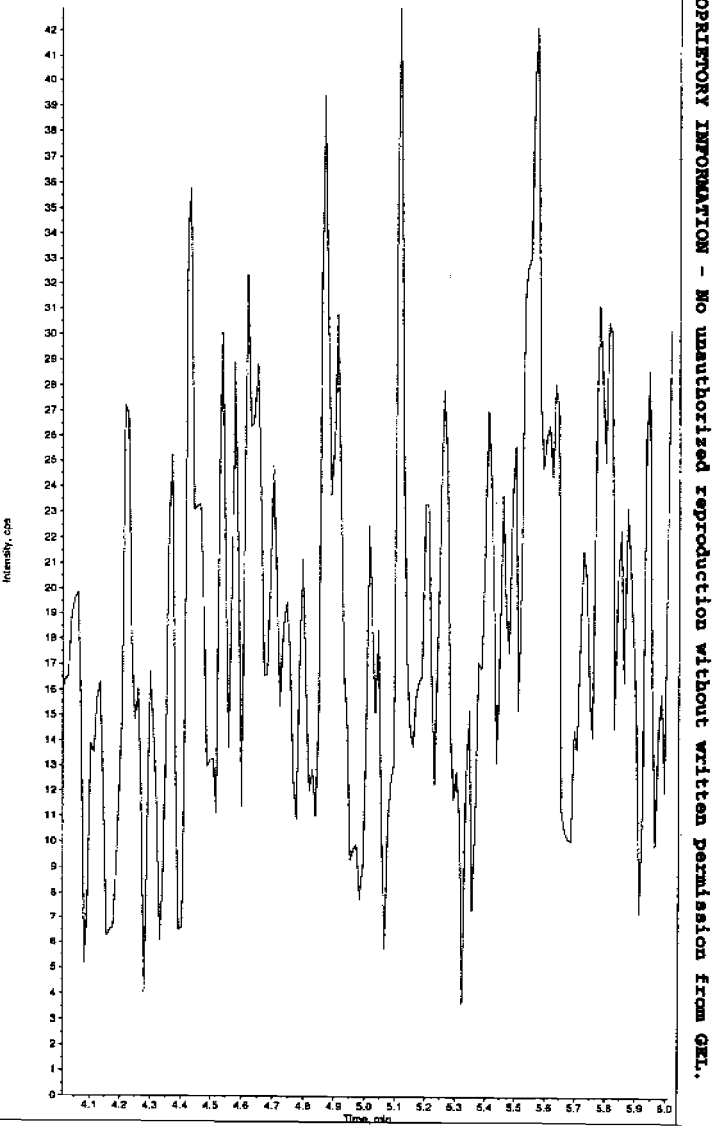

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979008" Sample ID: "948577|2|LER" File: "EXS02240019.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:40:53 PM

Modified: No

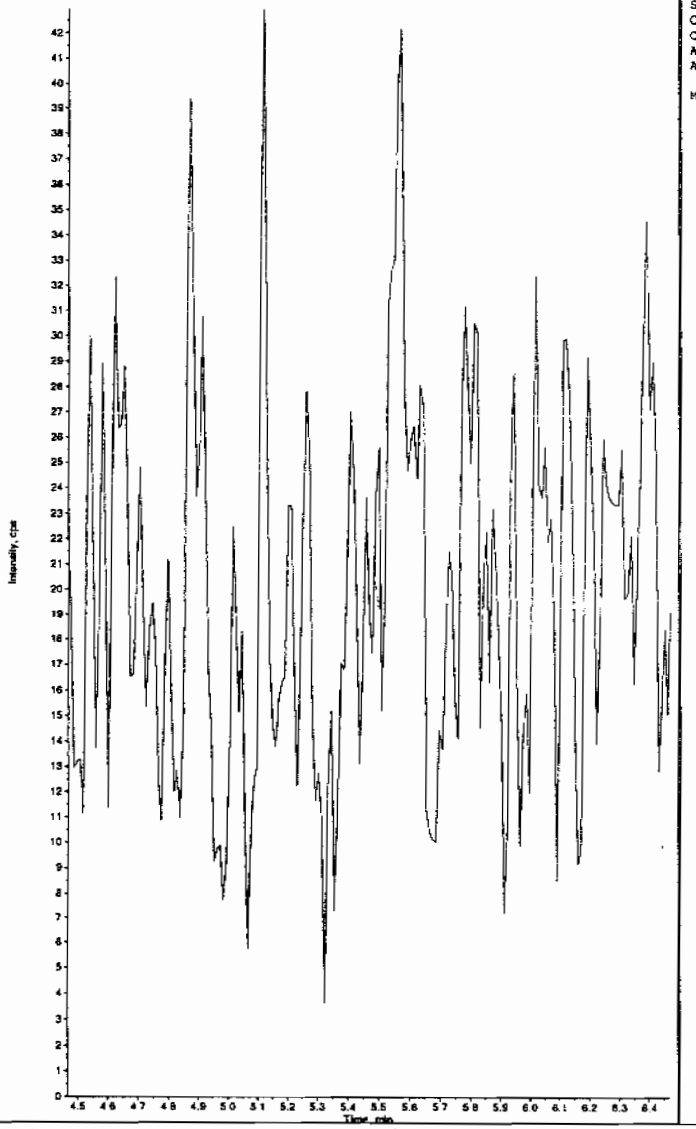

Sample Name: "245979008" Sample ID: "948577|2|LER" File: "EXS02240019.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:40:53 PM

Modified: No

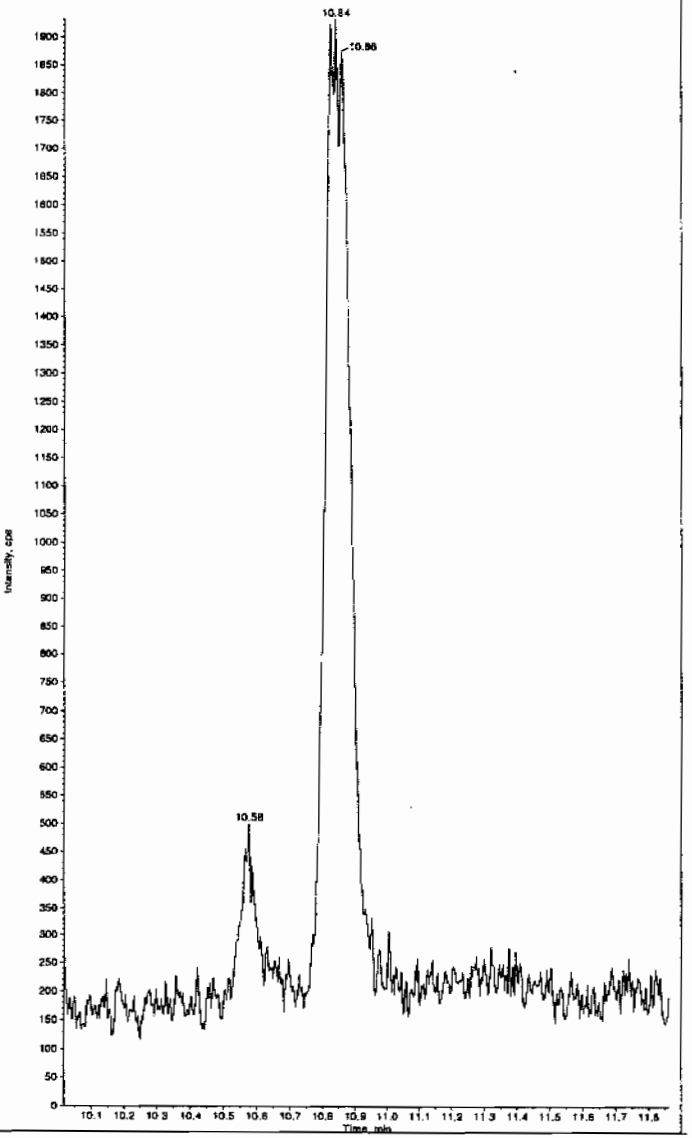

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7971

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979009

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301061a

Date Analyzed: 02-MAR-10 21:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301061a
Date: 02-Mar-2010
Time: 21:10:12
ID: 245979009 | LANL | 948577 | Solids | 2 |
Vial: 2:7,A

LMT 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.291e+003

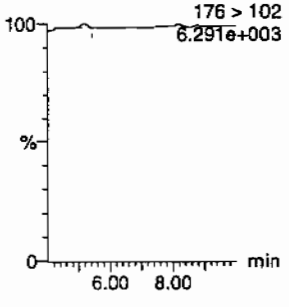

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.291e+003

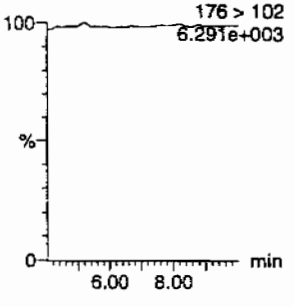

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.204e+003

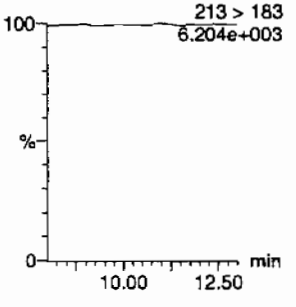

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.445e+004

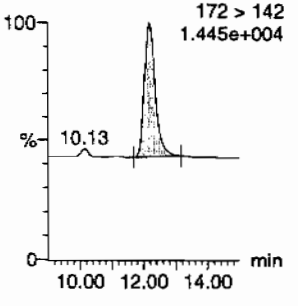

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.223e+003

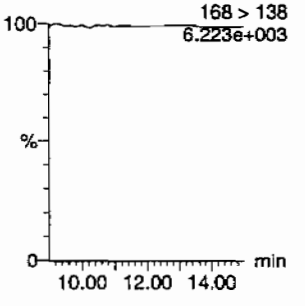

Tetryl
F6:MRM of 1 channel,AP-
9.52
241 > 181
6.293e+003

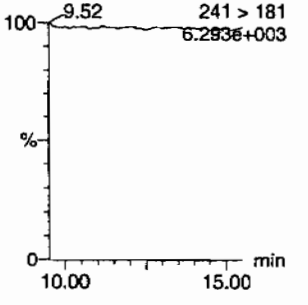

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.218e+003

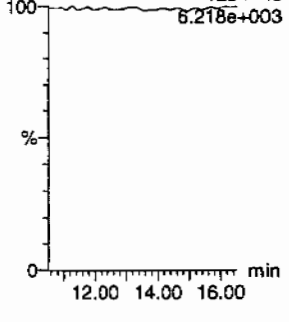

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.207e+003

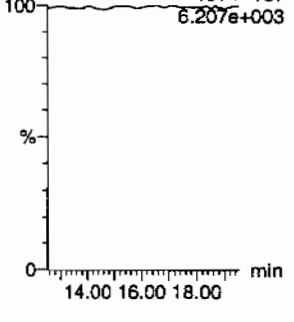

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.213e+003

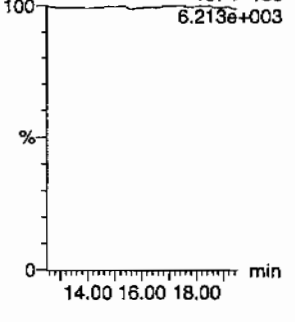

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.178e+003

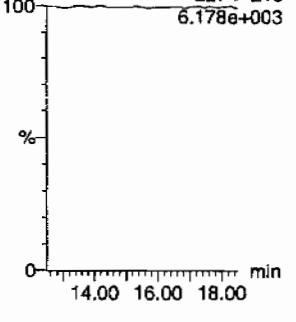

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.754e+004

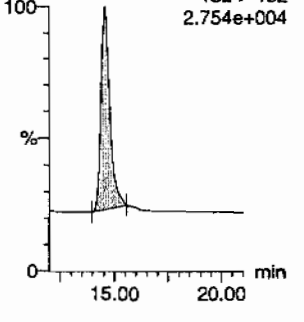

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.55
182 > 152
2.754e+004

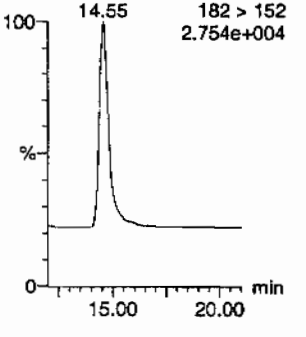

HMW 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

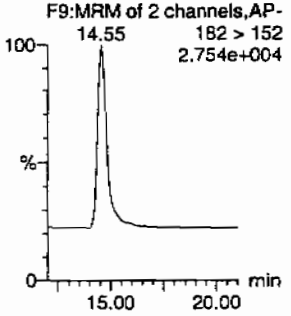

26-dinitrotoluene-d3

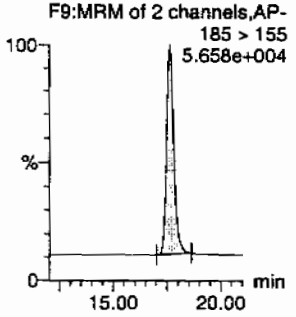

2-Nitrotoluene

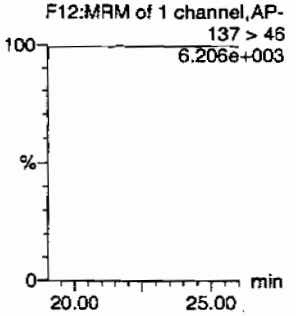

4-Nitrotoluene

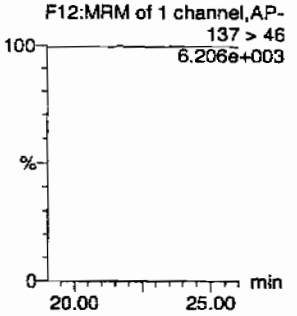

3-Nitrotoluene

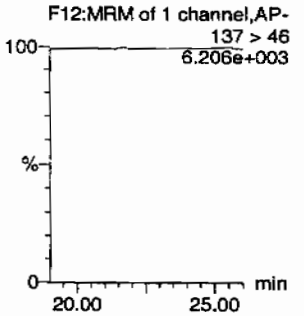

PETN

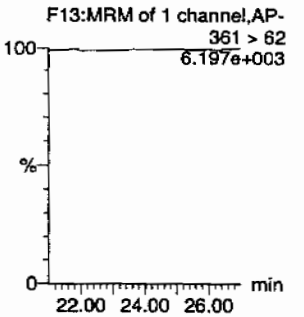

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979009	HMX	176 > 102			3368.679			MM-	03-Mar-10	08:38:56				
245979009	RDX	176 > 102			3368.679									
245979009	135-Trinitrobenzene	213 > 183			3368.679									
245979009	13-Dinitrobenzene-d4	172 > 142	12.17	3368.679		3368.679	3368.679	bb			581.1923	116.2	16.2	270.2
245979009	13-Dinitrobenzene	168 > 138			3368.679									
245979009	Tetryl	241 > 181			3368.679									
245979009	Nitrobenzene	123 > 46			3368.679									
245979009	4-Amino-26-dinitrotoluene	197 > 167			19837.963									
245979009	2-Amino-46-dinitrotoluene	197 > 180			19837.963									
245979009	246-Trinitrotoluene	227 > 210			19837.963									
245979009	34-dinitrotoluene	182 > 152	14.55	10210.262	19837.963	10210.262	257.341	bb			259.7661	103.9	3.9	556.3
245979009	26-dinitrotoluene	182 > 152			19837.963									
245979009	24-dinitrotoluene	182 > 152			19837.963									
245979009	26-dinitrotoluene-d3	185 > 155	17.64	19837.963		19837.963	19837.963	bb			616.6672	123.3	23.3	2213.0
245979009	2-Nitrotoluene	137 > 46			19837.963									
245979009	4-Nitrotoluene	137 > 46			19837.963									
245979009	3-Nitrotoluene	137 > 46			19837.963									
245979009	PETN	361 > 62			19837.963									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7971

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979009

Sample Amount 2

Moisture: 25.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240020.wiff

Date Analyzed: 24-FEB-10 14:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sun 2/25/10

Sample Name: "245979009" Sample ID: "948577|2|LER" File: "EXS02240020.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:56:37 PM

Modified: No

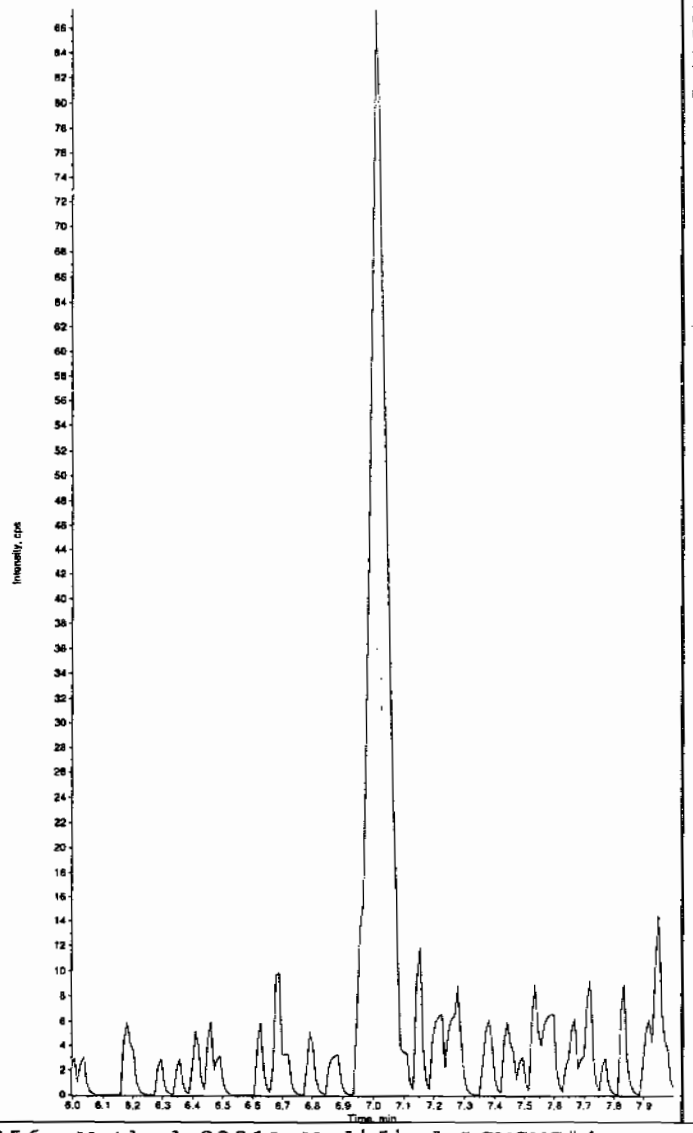

Sample Name: "245979009" Sample ID: "948577|2|LER" File: "EXS02240020.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:56:37 PM

Modified: No

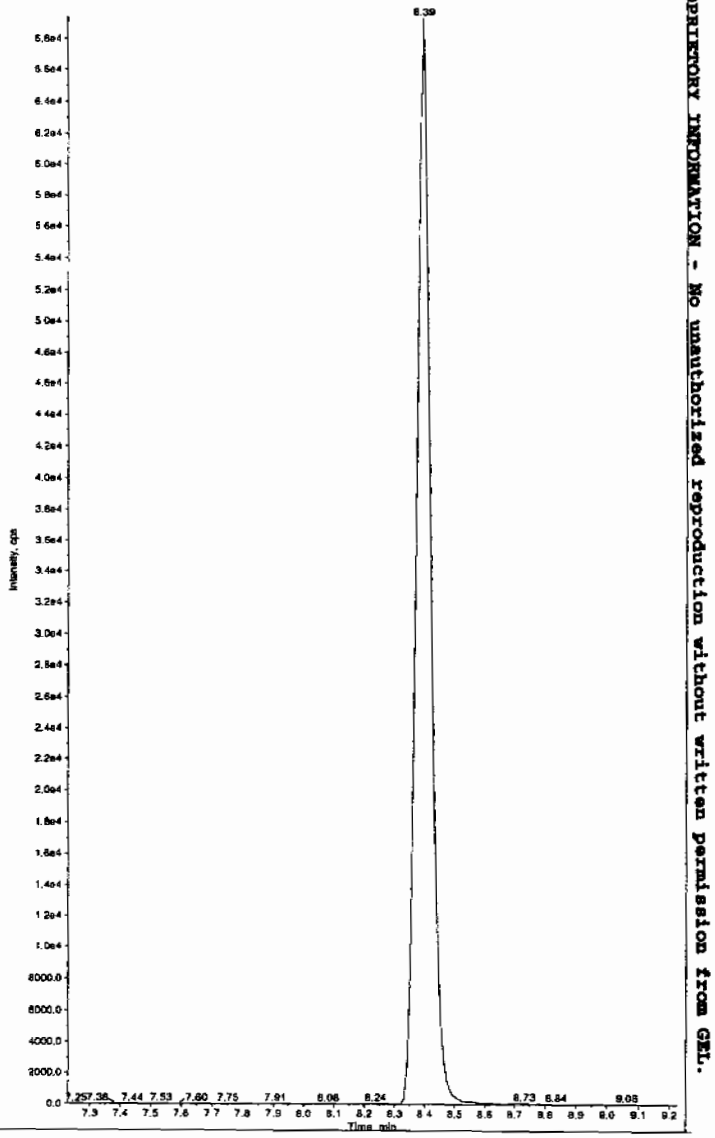

Hmm 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979009" Sample ID: "948577|2|LER" File: "EXS02240020.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 311. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:56:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.03 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.08e+006 counts
Height: 628426.208 cps
Start Time: 8.27 min
End Time: 8.74 min

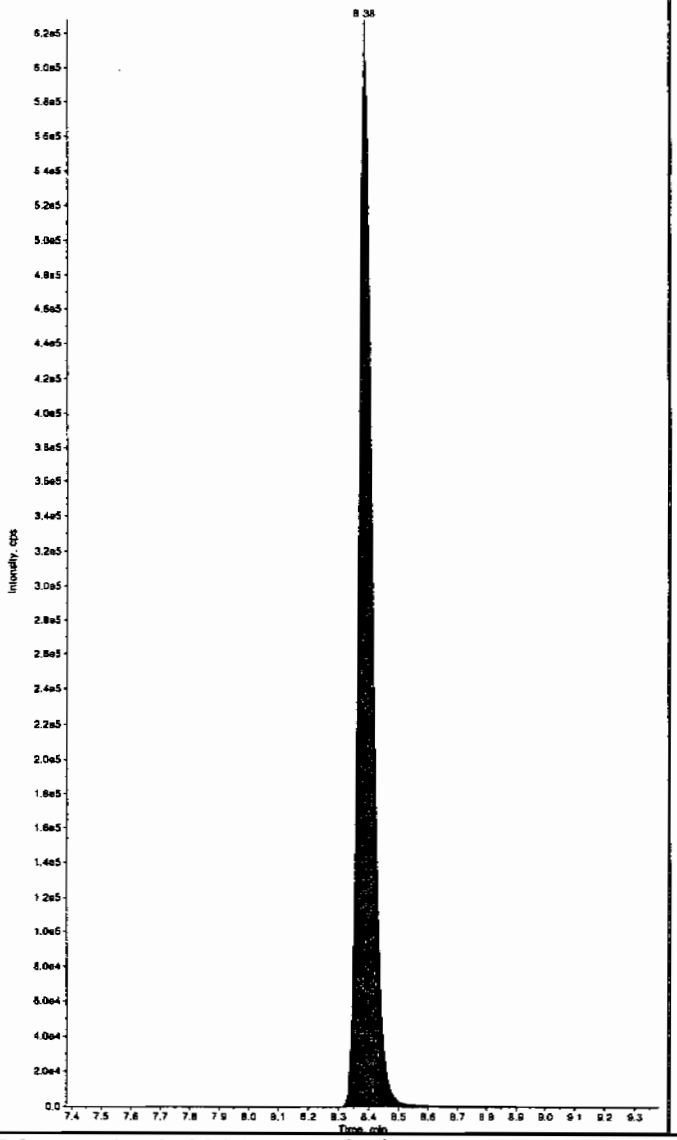

Sample Name: "245979009" Sample ID: "948577|2|LER" File: "EXS02240020.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:56:37 PM

Modified: No

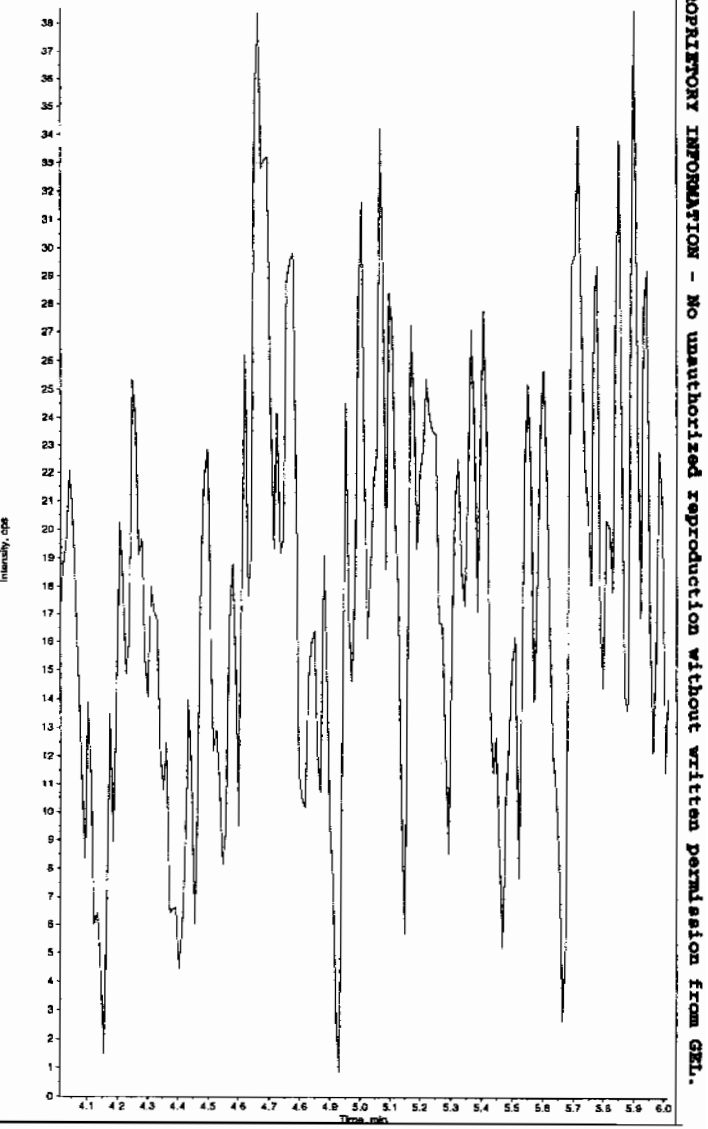

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245979009" Sample ID: "948577|2|LER" File: "EXS02240020.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:56:37 PM

Modified: No

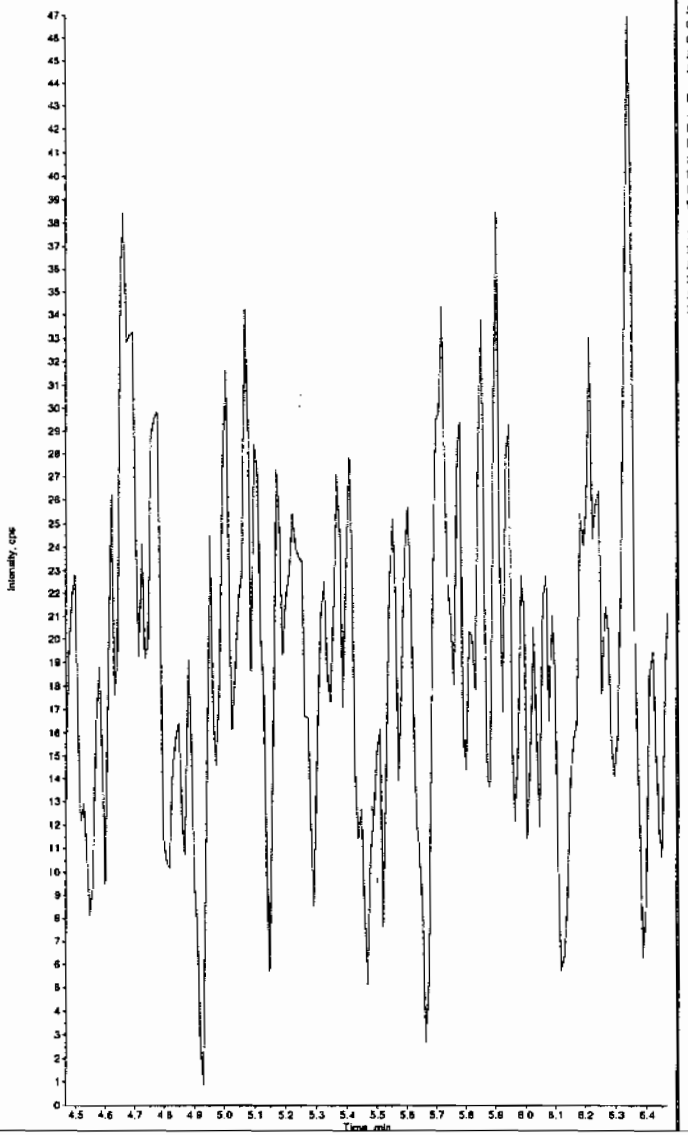

Sample Name: "245979009" Sample ID: "948577|2|LER" File: "EXS02240020.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.12 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 2:56:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.03e+004 counts
Height: 21301.823 cps
Start Time: 10.7 min
End Time: 11.0 min

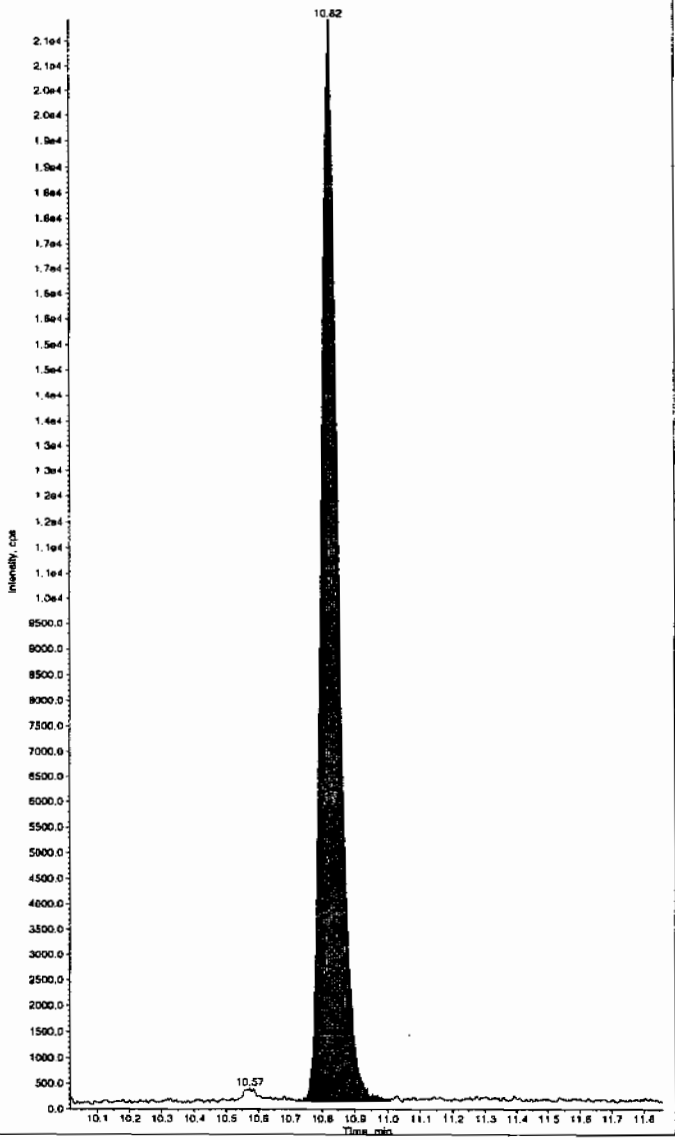

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7966

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979010

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301062a

Date Analyzed: 02-MAR-10 21:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	135	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	1430	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301062a
Date: 02-Mar-2010
Time: 21:39:43
ID: 245979010 | LANL | 948577 | Solid | 2 |
Vial: 2:7,B

MM 3/3/10

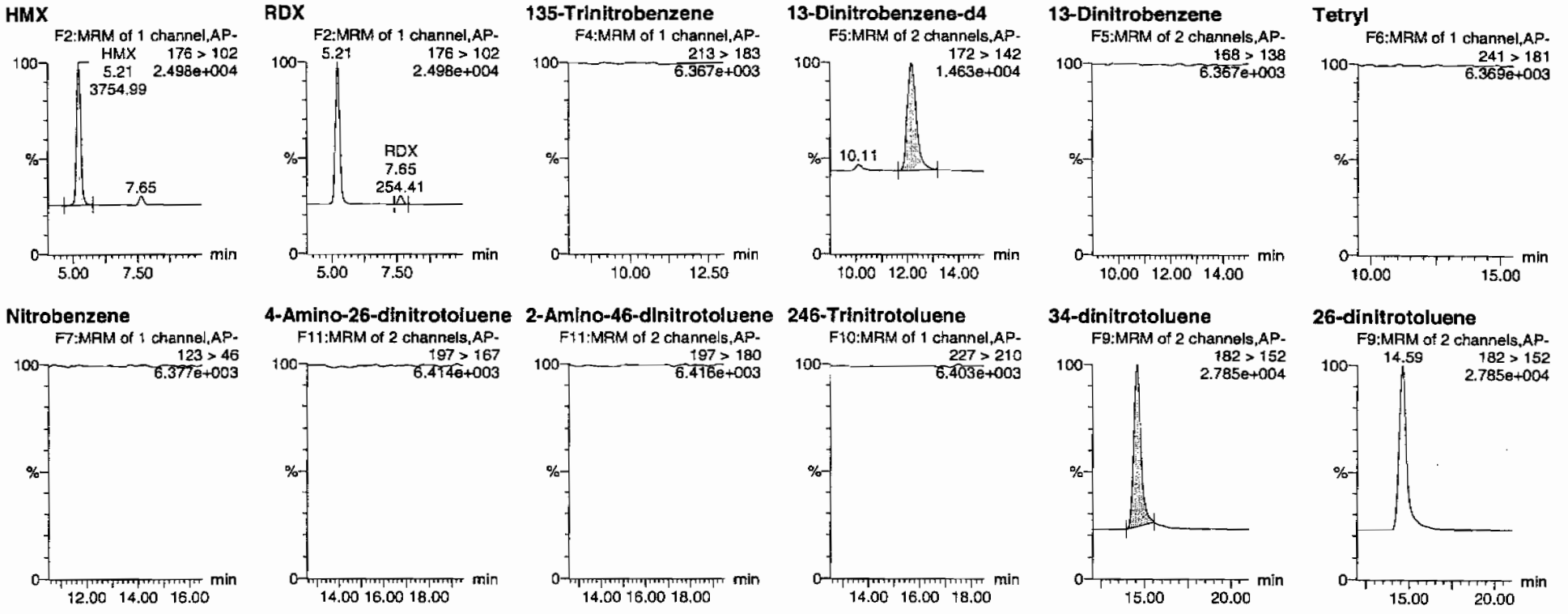

tzimu 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

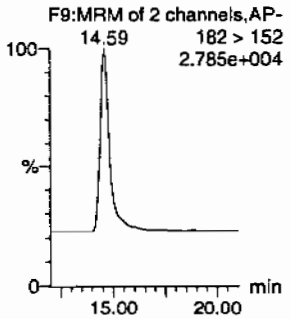

26-dinitrotoluene-d3

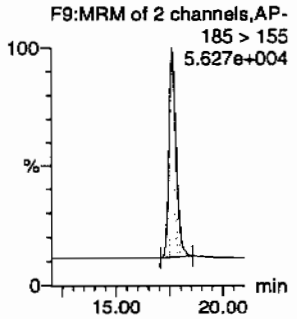

2-Nitrotoluene

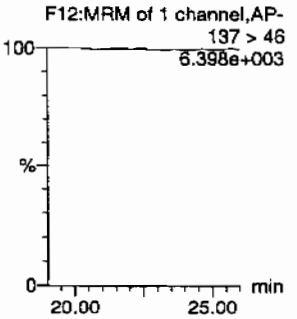

4-Nitrotoluene

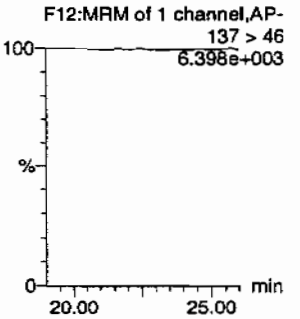

3-Nitrotoluene

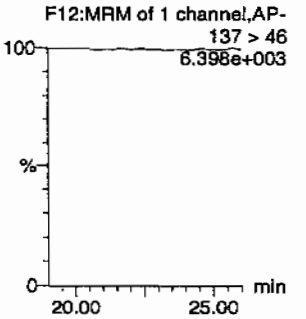

PETN

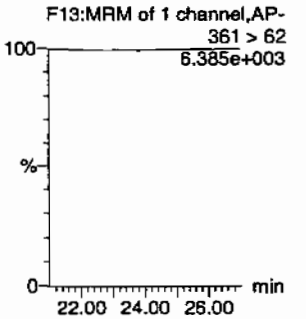

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245979010	HMX	176 > 102	5.21	3754.993	3430.595	3754.993	547.280	bb			143.4615			614.7
245979010	RDX	176 > 102	7.65	254.415	3430.595	254.415	37.080	bb			13.5102			39.3
245979010	135-Trinitrobenzene	213 > 183			3430.595									
245979010	13-Dinitrobenzene-d4	172 > 142	12.17	3430.595		3430.595	3430.595	bb			591.8745	118.4	18.4	230.5
245979010	13-Dinitrobenzene	168 > 138			3430.595									
245979010	Tetryl	241 > 181			3430.595									
245979010	Nitrobenzene	123 > 46			3430.595									
245979010	4-Amino-26-dinitrotoluene	197 > 167			19655.539									
245979010	2-Amino-46-dinitrotoluene	197 > 180			19655.539									
245979010	246-Trinitrotoluene	227 > 210			19655.539									
245979010	34-dinitrotoluene	182 > 152	14.59	10160.785	19655.539	10160.785	258.471	bb			260.9066	104.4	4.4	683.0
245979010	26-dinitrotoluene	182 > 152			19655.539									
245979010	24-dinitrotoluene	182 > 152			19655.539									
245979010	26-dinitrotoluene-d3	185 > 155	17.63	19655.539		19655.539	19655.539	bb			610.9965	122.2	22.2	1354.6
245979010	2-Nitrotoluene	137 > 46			19655.539									
245979010	4-Nitrotoluene	137 > 46			19655.539									
245979010	3-Nitrotoluene	137 > 46			19655.539									
245979010	PETN	361 > 62			19655.539									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7966

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979010

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240021.wiff

Date Analyzed: 24-FEB-10 15:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	331	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/25/10

Sample Name: "245979010" Sample ID: "948577|2|LER" File: "EXS02240021.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 33.1 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:12:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 2.14e+004 counts
Height: 5762.265 cps
Start Time: 6.90 min
End Time: 7.25 min

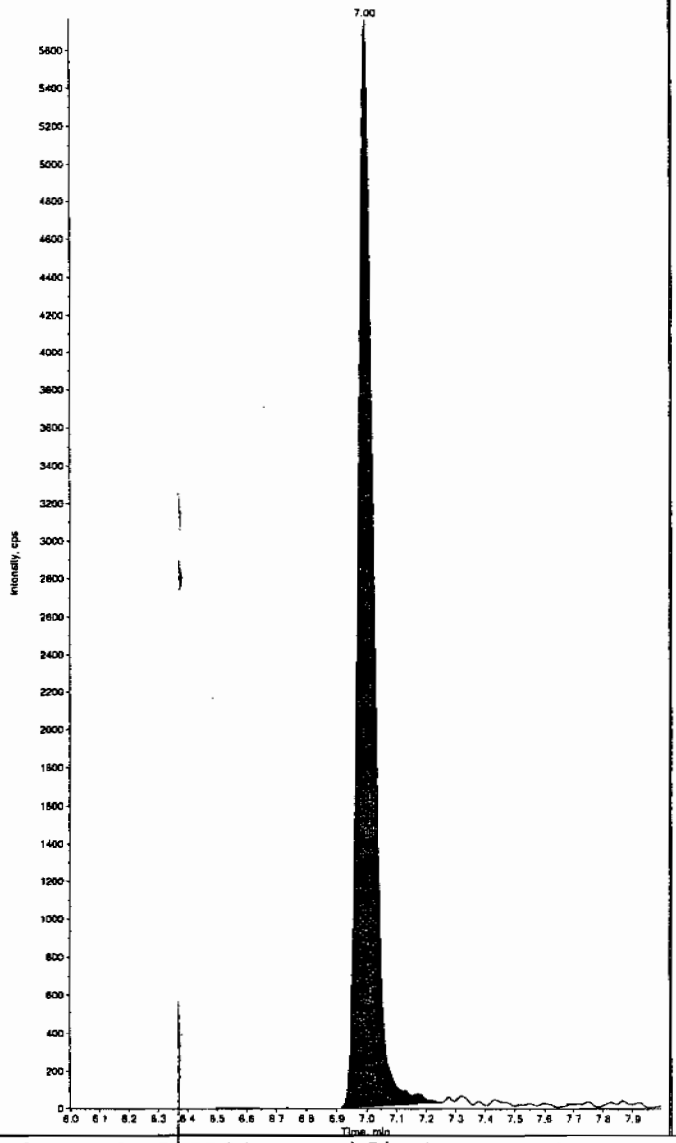

Sample Name: "245979010" Sample ID: "948577|2|LER" File: "EXS02240021.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:12:20 PM

Modified: No

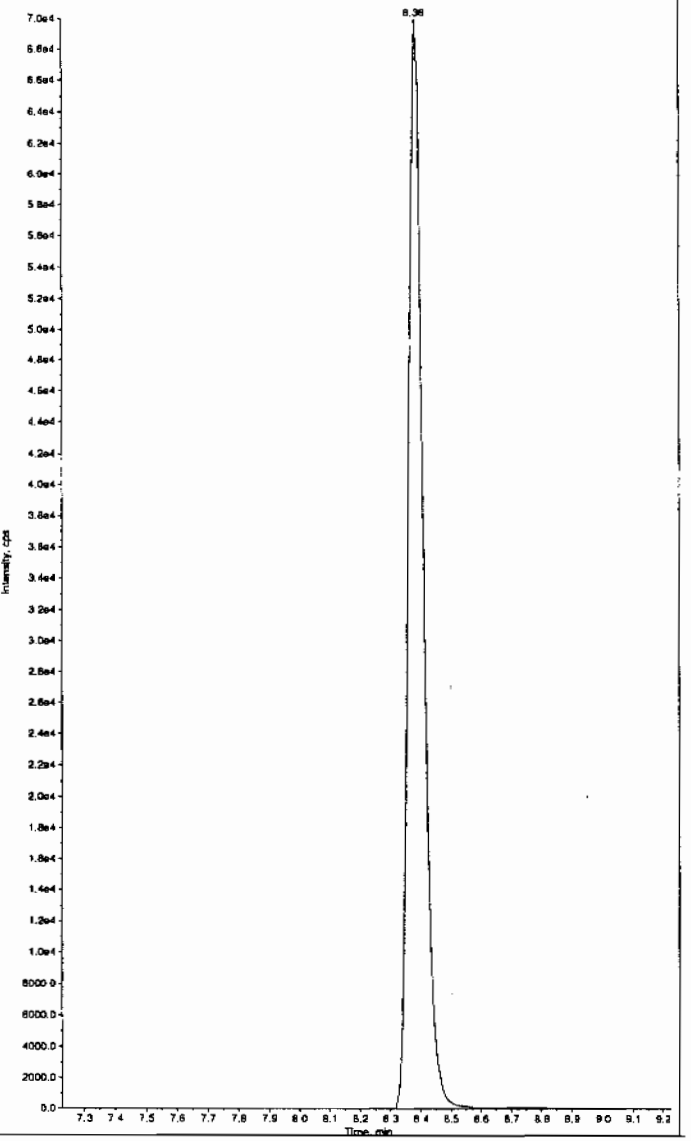

HM 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979010" Sample ID: "948577|2|LER" File: "EXS02240021.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 323. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:12:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.15e+006 counts
Height: 617383.606 cps
Start Time: 8.29 min
End Time: 8.72 min

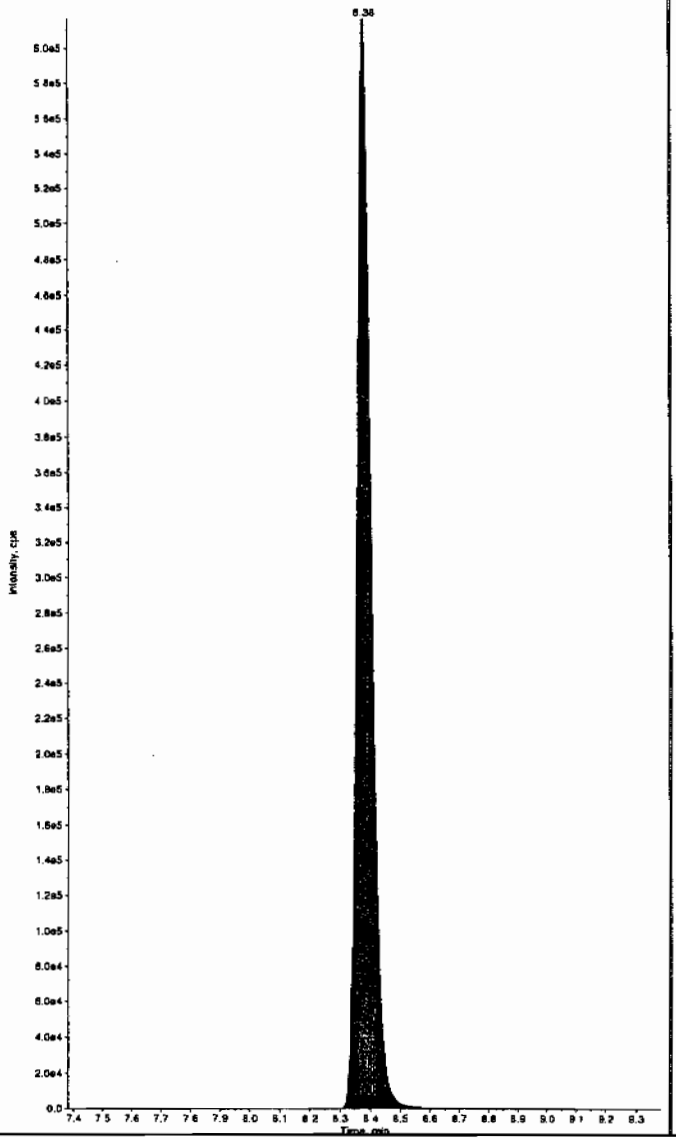

Sample Name: "245979010" Sample ID: "948577|2|LER" File: "EXS02240021.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:12:20 PM

Modified: No

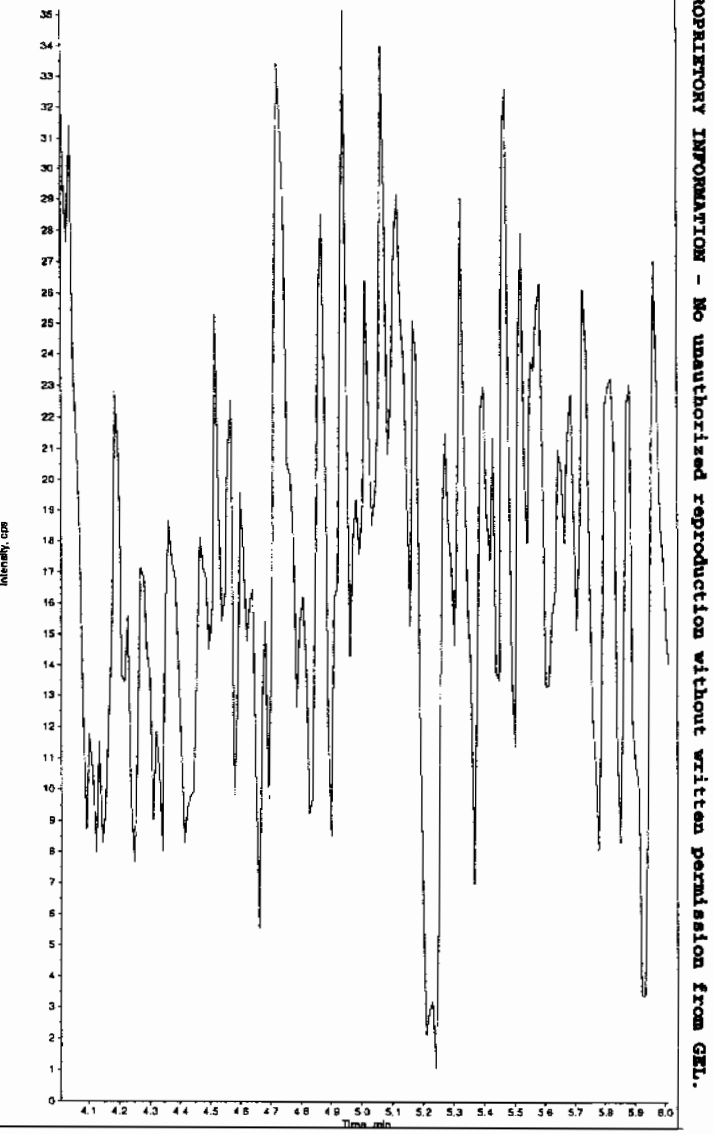

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245979010" Sample ID: "948577|2|LER" File: "EXS02240021.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:12:20 PM

Modified: No

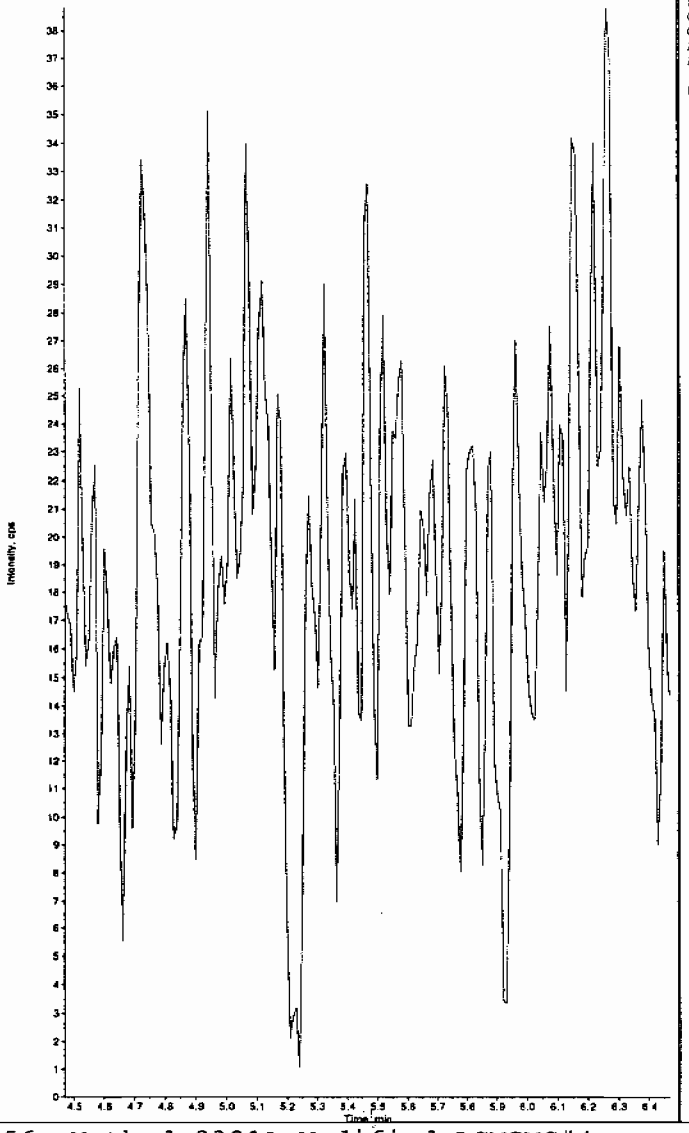

Sample Name: "245979010" Sample ID: "948577|2|LER" File: "EXS02240021.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:12:20 PM

Modified: No

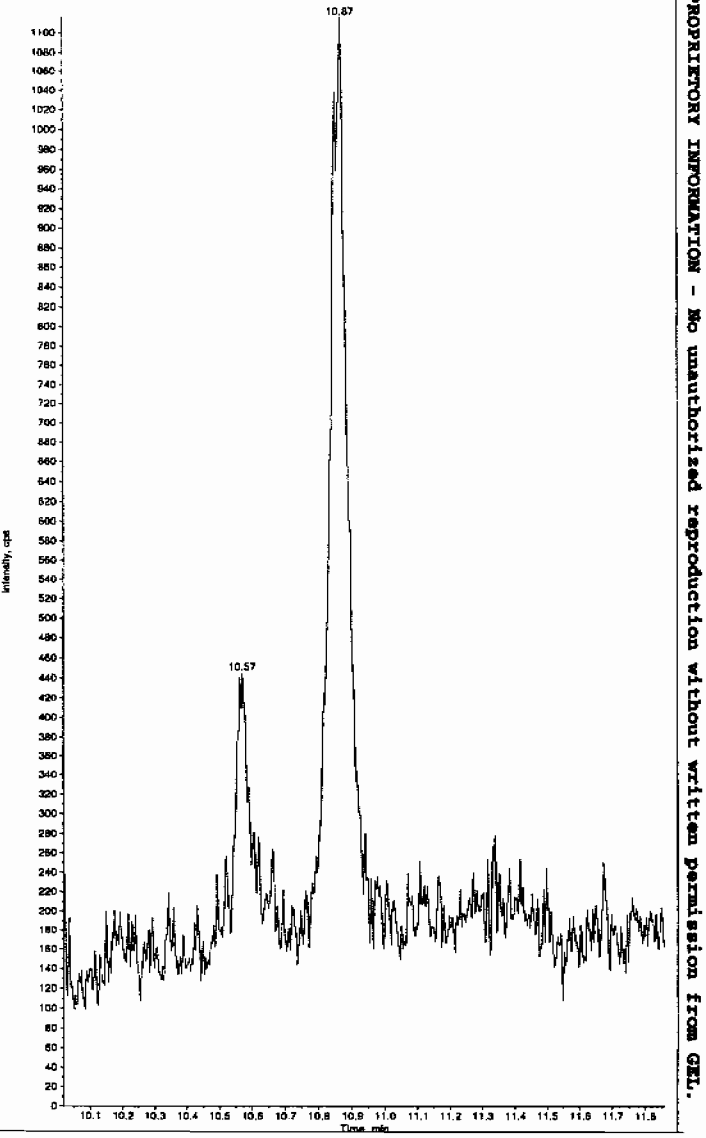

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7959

Lab Code: GEI

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979011

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301063a

Date Analyzed: 02-MAR-10 22:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301063a
Date: 02-Mar-2010
Time: 22:09:14
ID: 245979011 | LANL | 948577 | Solids | 2
Vial: 2:7,C

MEH 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.401e+003

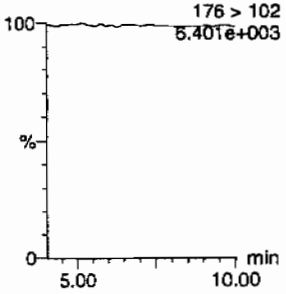

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.401e+003

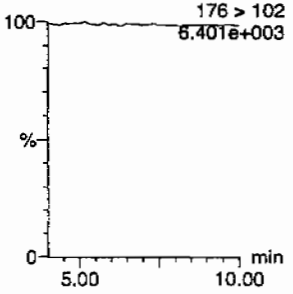

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.336e+003

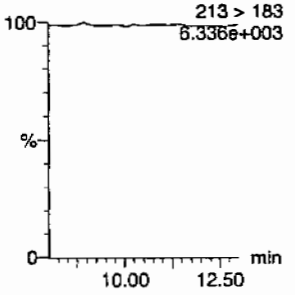

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.421e+004

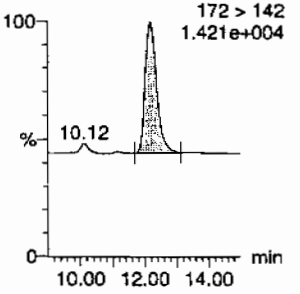

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.320e+003

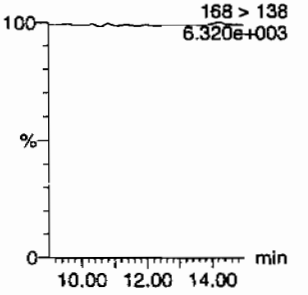

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.322e+003

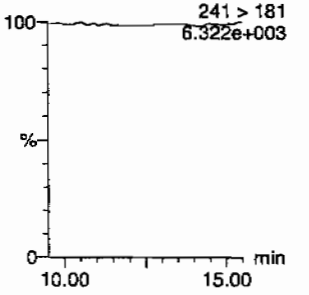

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.375e+003

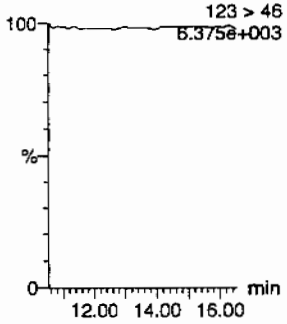

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.352e+003

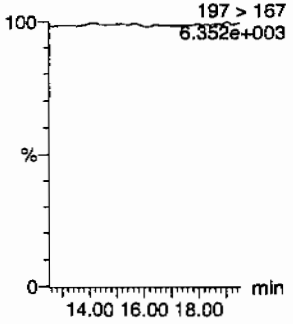

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.348e+003

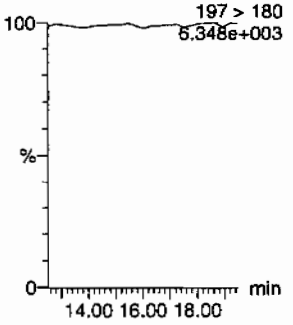

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.324e+003

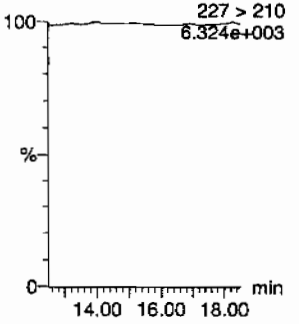

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.697e+004

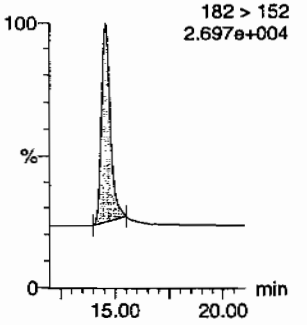

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.697e+004

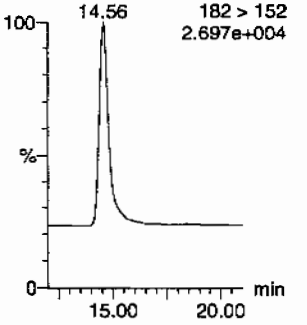

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

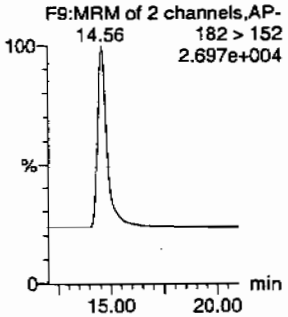

26-dinitrotoluene-d3

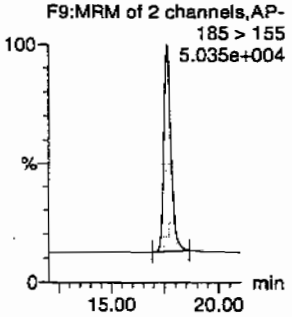

2-Nitrotoluene

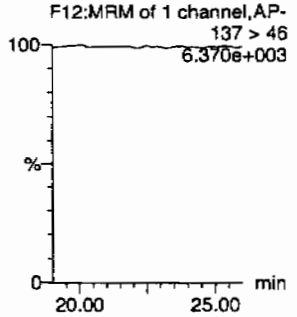

4-Nitrotoluene

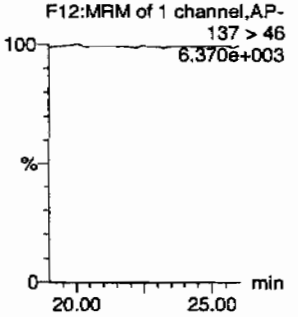

3-Nitrotoluene

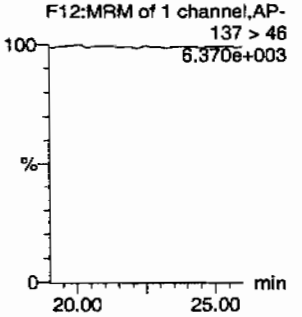

PETN

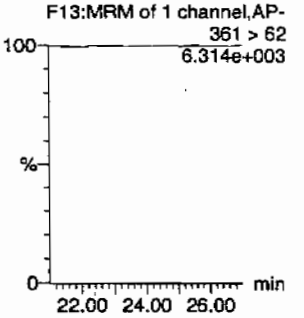

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245979011	HMX	176 > 102			3309.823									
245979011	RDX	176 > 102			3309.823									
245979011	135-Trinitrobenzene	213 > 183			3309.823									
245979011	13-Dinitrobenzene-d4	172 > 142	12.17	3309.823		3309.823	3309.823	bb			571.0380	114.2	14.2	396.1
245979011	13-Dinitrobenzene	168 > 138			3309.823									
245979011	Tetryl	241 > 181			3309.823									
245979011	Nitrobenzene	123 > 46			3309.823									
245979011	4-Amino-26-dinitrotoluene	197 > 167			17384.195									
245979011	2-Amino-46-dinitrotoluene	197 > 180			17384.195									
245979011	246-Trinitrotoluene	227 > 210			17384.195									
245979011	34-dinitrotoluene	182 > 152	14.56	9626.674	17384.195	9626.674	276.880	bb			279.4888	111.8	11.8	724.9
245979011	26-dinitrotoluene	182 > 152			17384.195									
245979011	24-dinitrotoluene	182 > 152			17384.195									
245979011	26-dinitrotoluene-d3	185 > 155	17.64	17384.195		17384.195	17384.195	bb			540.3913	108.1	8.1	1796.5
245979011	2-Nitrotoluene	137 > 46			17384.195									
245979011	4-Nitrotoluene	137 > 46			17384.195									
245979011	3-Nitrotoluene	137 > 46			17384.195									
245979011	PETN	361 > 62			17384.195									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7959

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979011

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240022.wiff

Date Analyzed: 24-FEB-10 15:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "245979011" Sample ID: "948577|2|LER" File: "EXS02240022.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:28:03 PM

Modified: No

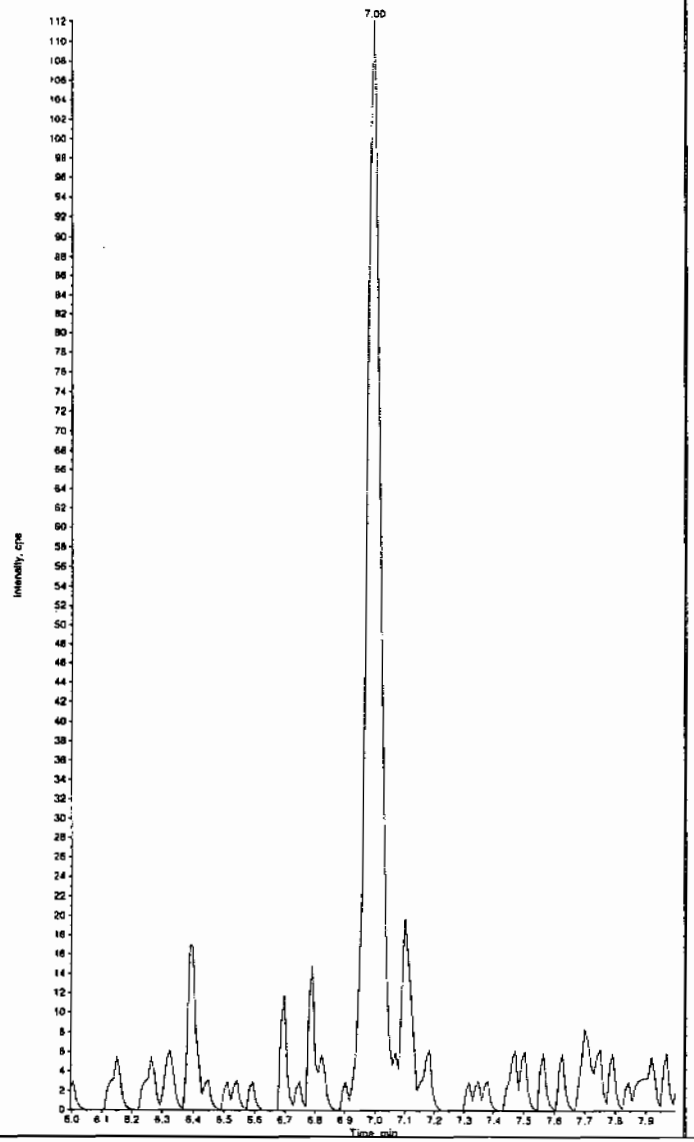

Sample Name: "245979011" Sample ID: "948577|2|LER" File: "EXS02240022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:28:03 PM

Modified: No

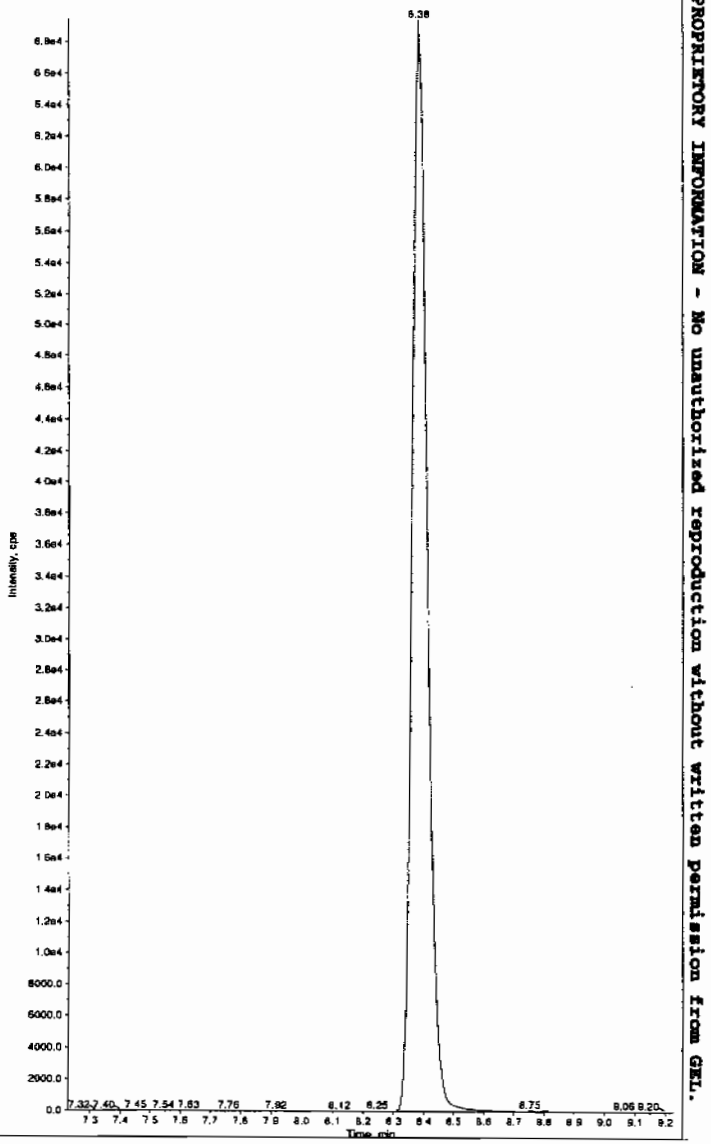

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979011" Sample ID: "948577|2|LER" File: "EXS02240022.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 314. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:28:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.09e+006 counts
Height: 604498.657 cps
Start Time: 8.29 min
End Time: 8.71 min

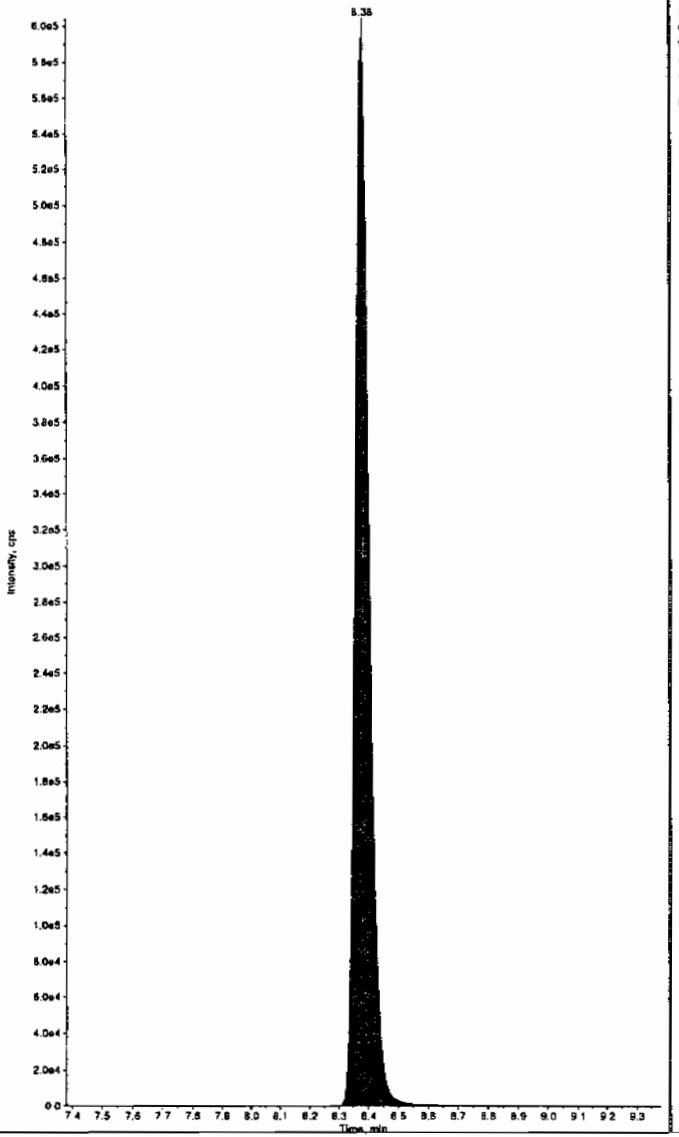

Sample Name: "245979011" Sample ID: "948577|2|LER" File: "EXS02240022.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:28:03 PM

Modified: No

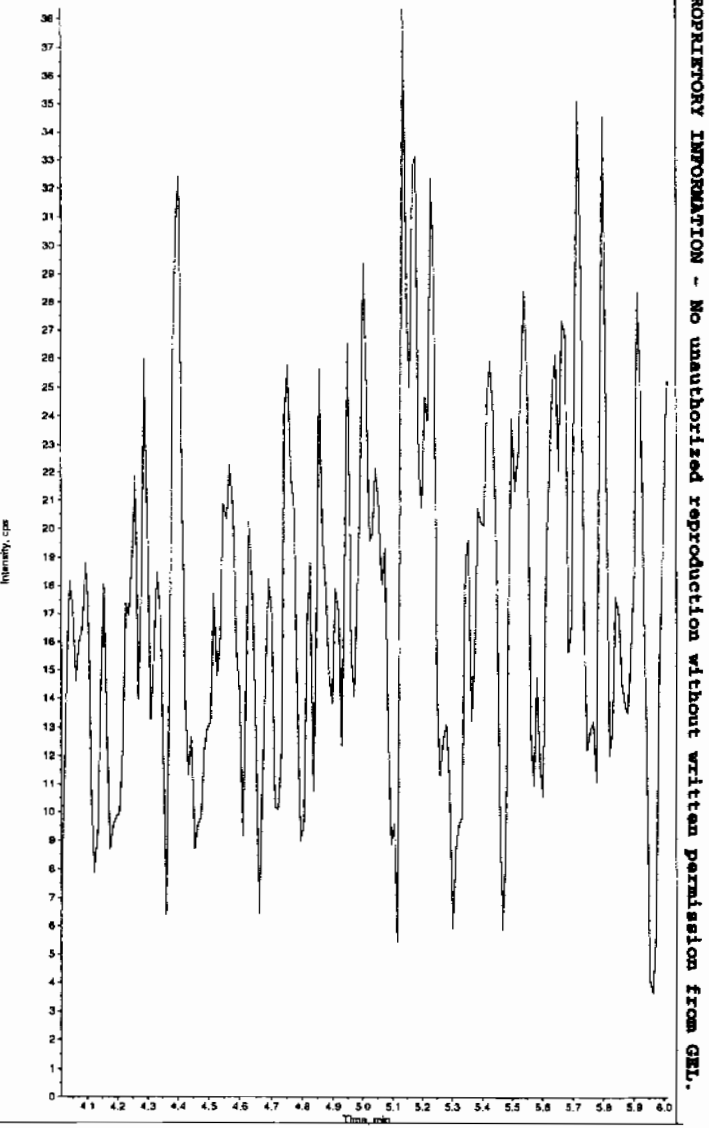

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979011" Sample ID: "948577|2|LER" File: "EXS02240022.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:28:03 PM

Modified: No

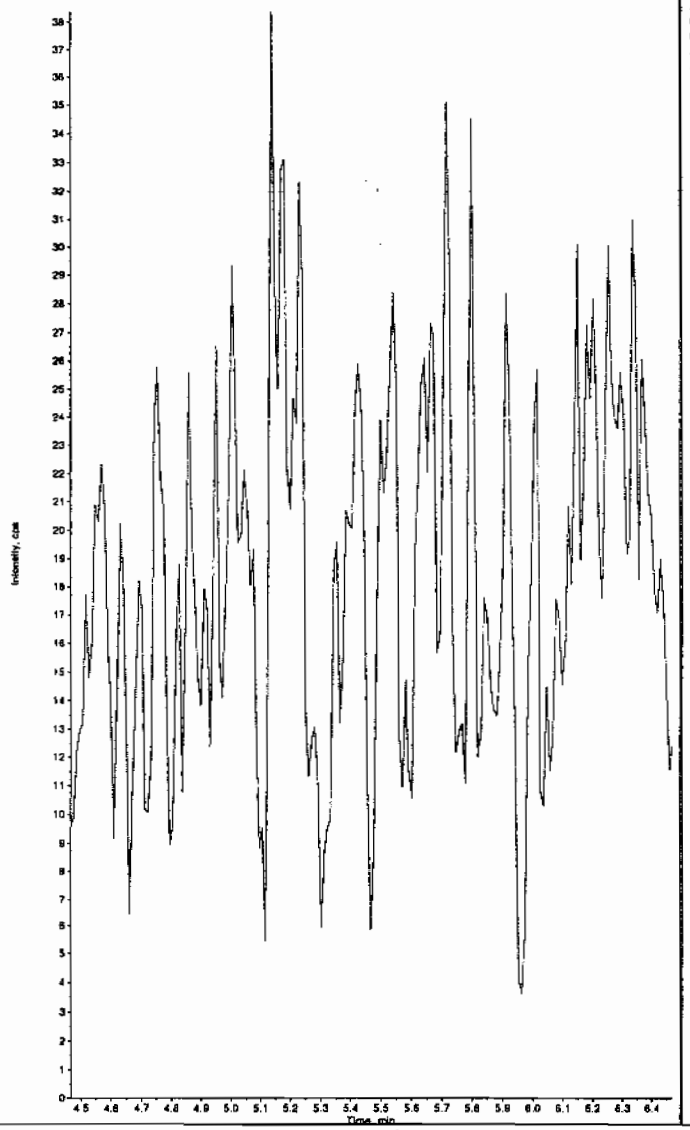

Sample Name: "245979011" Sample ID: "948577|2|LER" File: "EXS02240022.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 12.7 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:28:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.90e+005 counts
Height: 53352.215 cps
Start Time: 10.7 min
End Time: 11.0 min

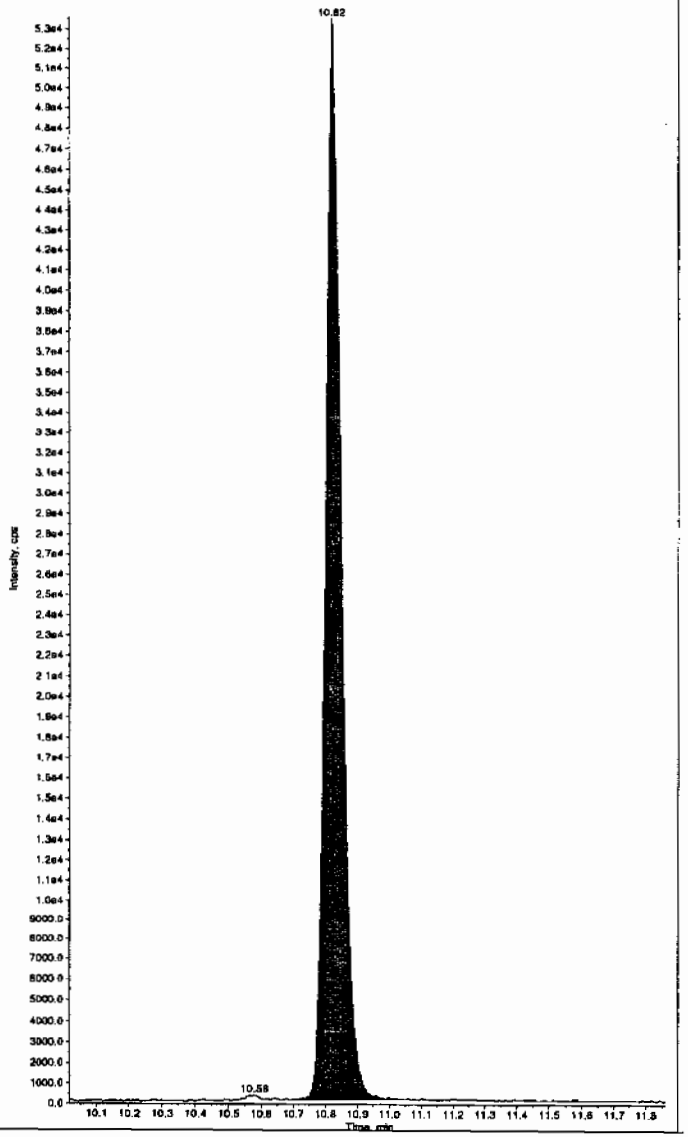

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301064a

Date Analyzed: 02-MAR-10 22:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	205	J
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	2160	
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301064a
Date: 02-Mar-2010
Time: 22:38:44
ID: 245979012 | LANX | 948577 | Solids | 2 |
Vial: 2:7,D

MAT 3/3/10

DL @ 5x For HMX
See EXP0301100a

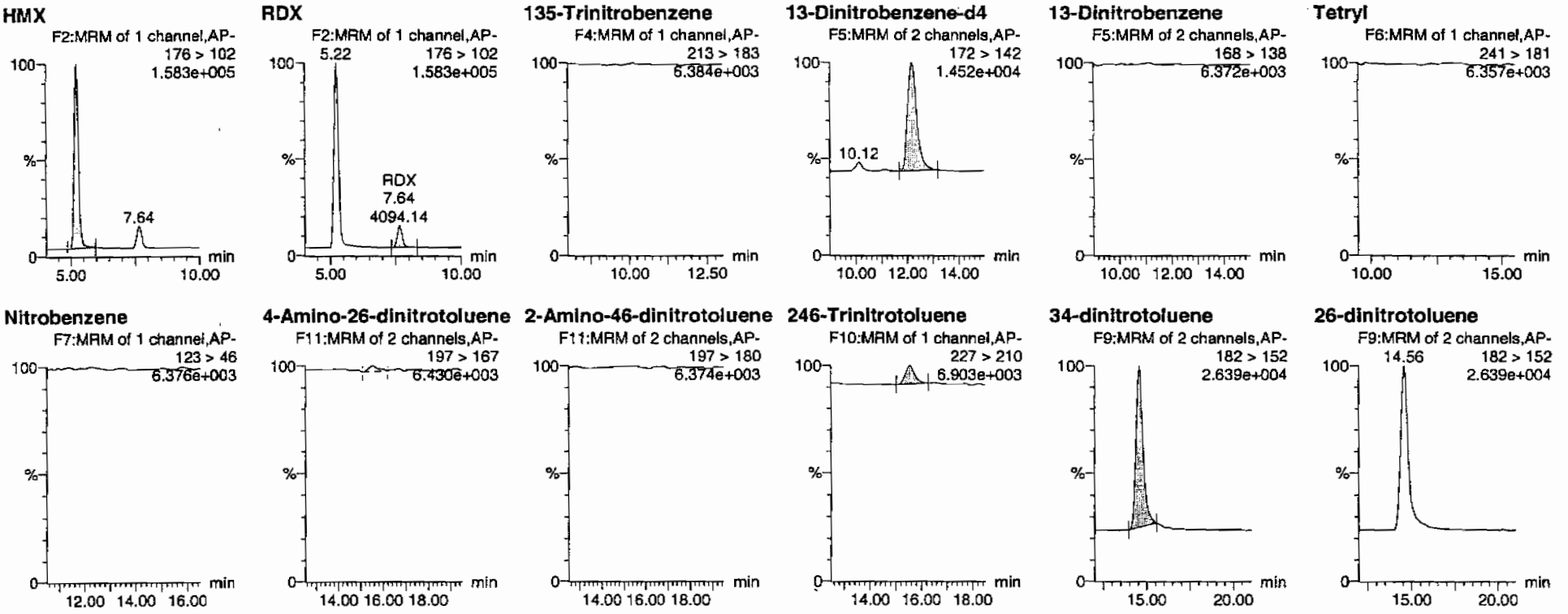

HMM 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

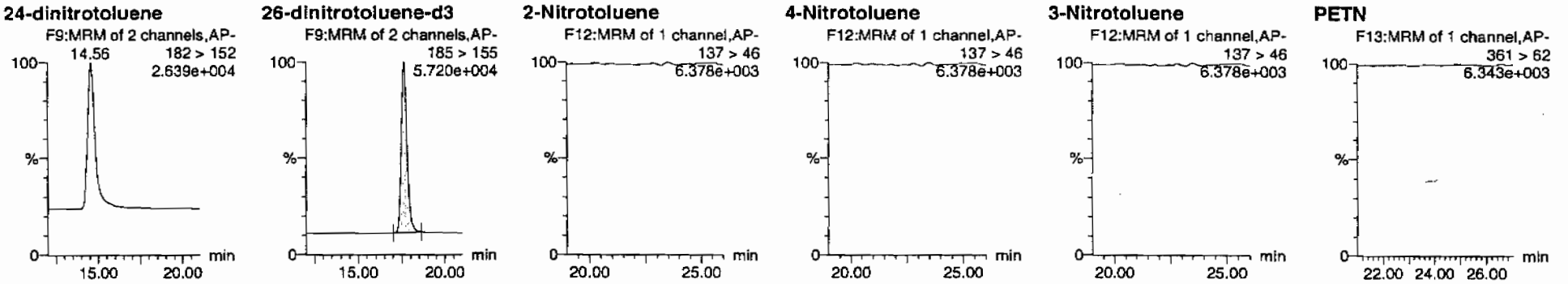

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245979012	HMX	176 > 102	5.22	30644.936	3447.555	30644.936	4444.445	bb			1165.0...			2141.8
245979012	RDX	176 > 102	7.64	4094.141	3447.555	4094.141	593.775	bb			216.3415			258.4
245979012	135-Trinitrobenzene	213 > 183			3447.555									
245979012	13-Dinitrobenzene-d4	172 > 142	12.17	3447.555		3447.555	3447.555	bb			594.8006	119.0	19.0	160.6
245979012	13-Dinitrobenzene	168 > 138			3447.555									
245979012	Tetryl	241 > 181			3447.555									
245979012	Nitrobenzene	123 > 46			3447.555									
245979012	4-Amino-26-dinitrotoluene	197 > 167			20135.234			MM-	03-Mar-10	08:46:19				
245979012	2-Amino-46-dinitrotoluene	197 > 180			20135.234									
245979012	246-Trinitrotoluene	227 > 210	15.55	259.807	20135.234	259.807	6.452	bb			20.4694			24.0
245979012	34-dinitrotoluene	182 > 152	14.56	9329.891	20135.234	9329.891	231.681	bb			233.8636	93.5	-6.5	500.6
245979012	26-dinitrotoluene	182 > 152			20135.234									
245979012	24-dinitrotoluene	182 > 152			20135.234									
245979012	26-dinitrotoluene-d3	185 > 155	17.64	20135.234		20135.234	20135.234	bb			625.9079	125.2	25.2	2115.5
245979012	2-Nitrotoluene	137 > 46			20135.234									
245979012	4-Nitrotoluene	137 > 46			20135.234									
245979012	3-Nitrotoluene	137 > 46			20135.234									
245979012	PETN	361 > 62			20135.234									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 5

Injection Volume (uL): 50

GEL data file: EXP0301100a

Date Analyzed: 03-MAR-10 16:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
2691-41-0	HMX	10900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301100a
Date: 03-Mar-2010
Time: 16:21:56
ID: 245979012 | LANW | 948577 | Solids | SL | 5 |
Vial: 2:8,B

MAP 3/4/10

Report HMX w/ EXP0301064a

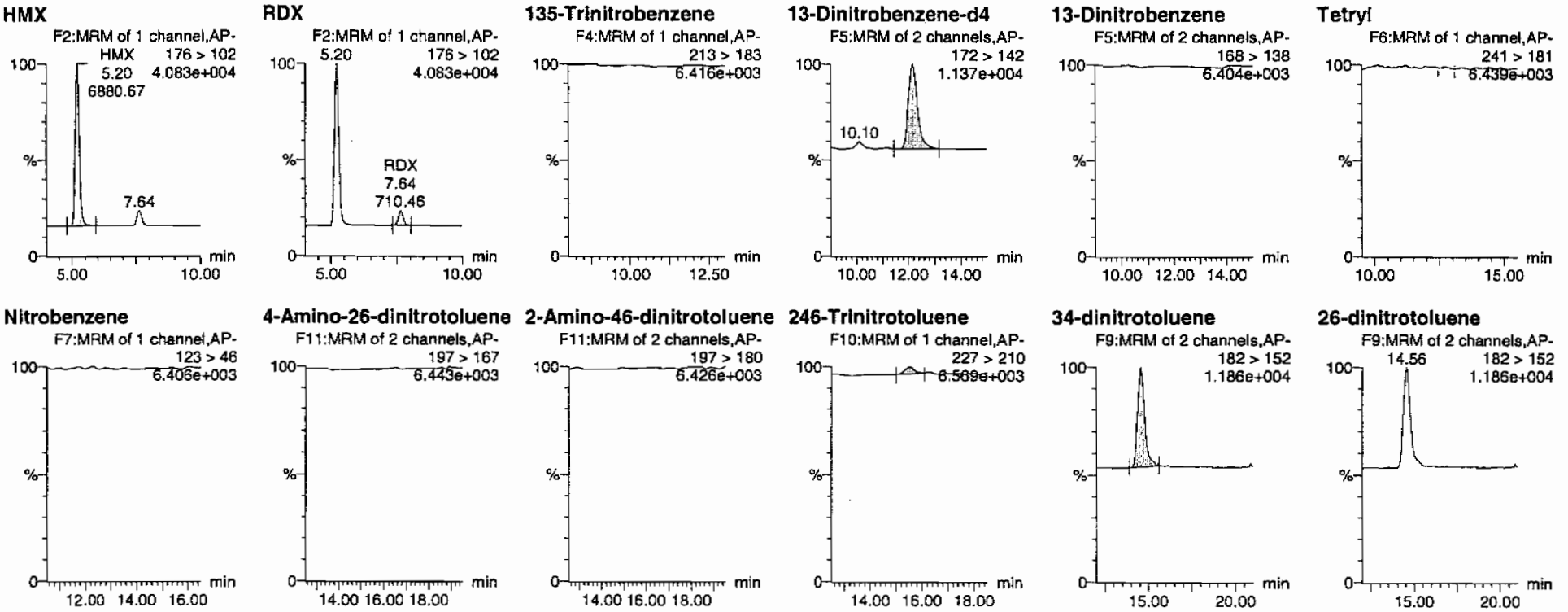

Hmm 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

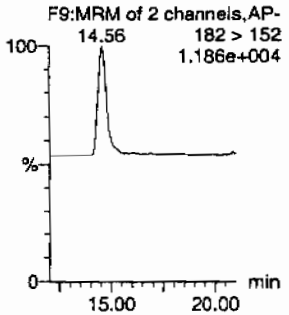

26-dinitrotoluene-d3

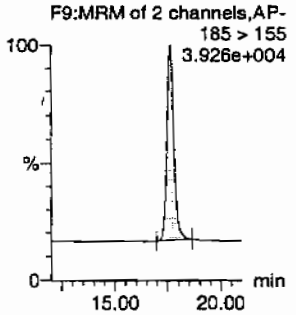

2-Nitrotoluene

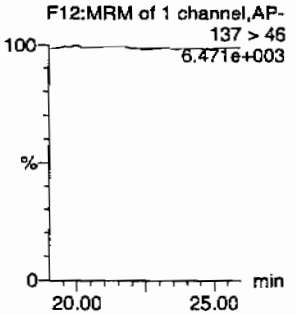

4-Nitrotoluene

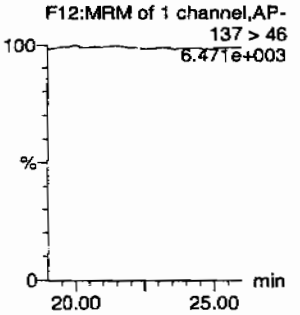

3-Nitrotoluene

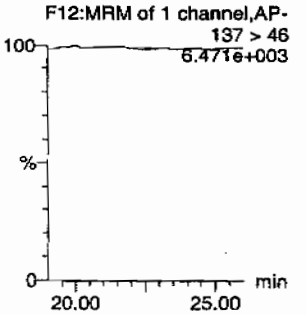

PETN

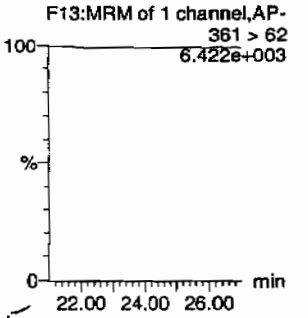

x 5

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979012	HMX	176 > 102	5.20	6880.671	2060.313	6880.671	1669.812	bb			437.7168	1090		1483.4
245979012	RDX	176 > 102	7.64	710.462	2060.313	710.462	172.416	bb			62.8197			139.4
245979012	135-Trinitrobenzene	213 > 183			2060.313									
245979012	13-Dinitrobenzene-d4	172 > 142	12.17	2060.313		2060.313	2060.313	bb			355.4622	71.1	-28.9	159.3
245979012	13-Dinitrobenzene	168 > 138			2060.313									
245979012	Tetryl	241 > 181			2060.313			MM-	04-Mar-10	09:46:01				
245979012	Nitrobenzene	123 > 46			2060.313									
245979012	4-Amino-26-dinitrotoluene	197 > 167			12755.799									
245979012	2-Amino-46-dinitrotoluene	197 > 180			12755.799									
245979012	246-Trinitrotoluene	227 > 210	15.55	88.507	12755.799	88.507	3.469	bb			11.0073			11.1
245979012	34-dinitrotoluene	182 > 152	14.56	2569.690	12755.799	2569.690	100.726	bb			101.6754	40.7	-59.3	200.3
245979012	26-dinitrotoluene	182 > 152			12755.799									
245979012	24-dinitrotoluene	182 > 152			12755.799									
245979012	26-dinitrotoluene-d3	185 > 155	17.62	12755.799		12755.799	12755.799	bb			396.5166	79.3	-20.7	1081.8
245979012	2-Nitrotoluene	137 > 46			12755.799									
245979012	4-Nitrotoluene	137 > 46			12755.799									
245979012	3-Nitrotoluene	137 > 46			12755.799									
245979012	PETN	361 > 62			12755.799									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7969

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979012

Sample Amount 2

Moisture: 9.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240023.wiff

Date Analyzed: 24-FEB-10 15:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	8490	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "245979012" Sample ID: "948577|2|LER" File: "EXS02240023.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 849. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:43:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.78e+005 counts
Height: 215388.031 cps
Start Time: 6.89 min
End Time: 7.58 min

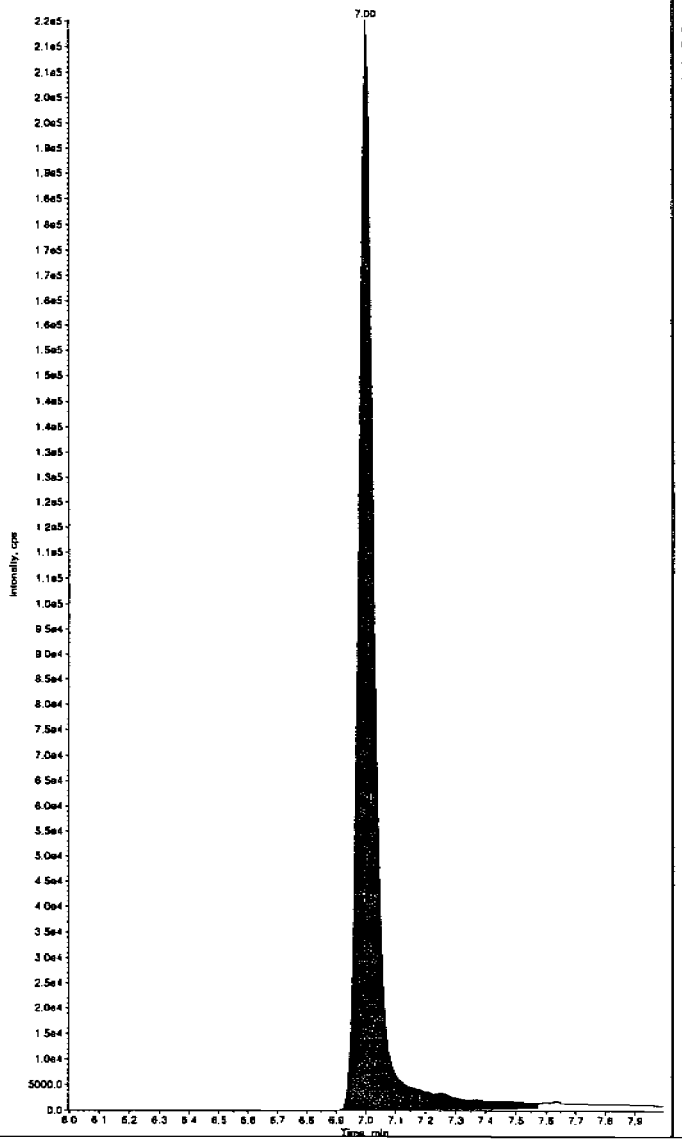

Sample Name: "245979012" Sample ID: "948577|2|LER" File: "EXS02240023.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:43:46 PM

Modified: No

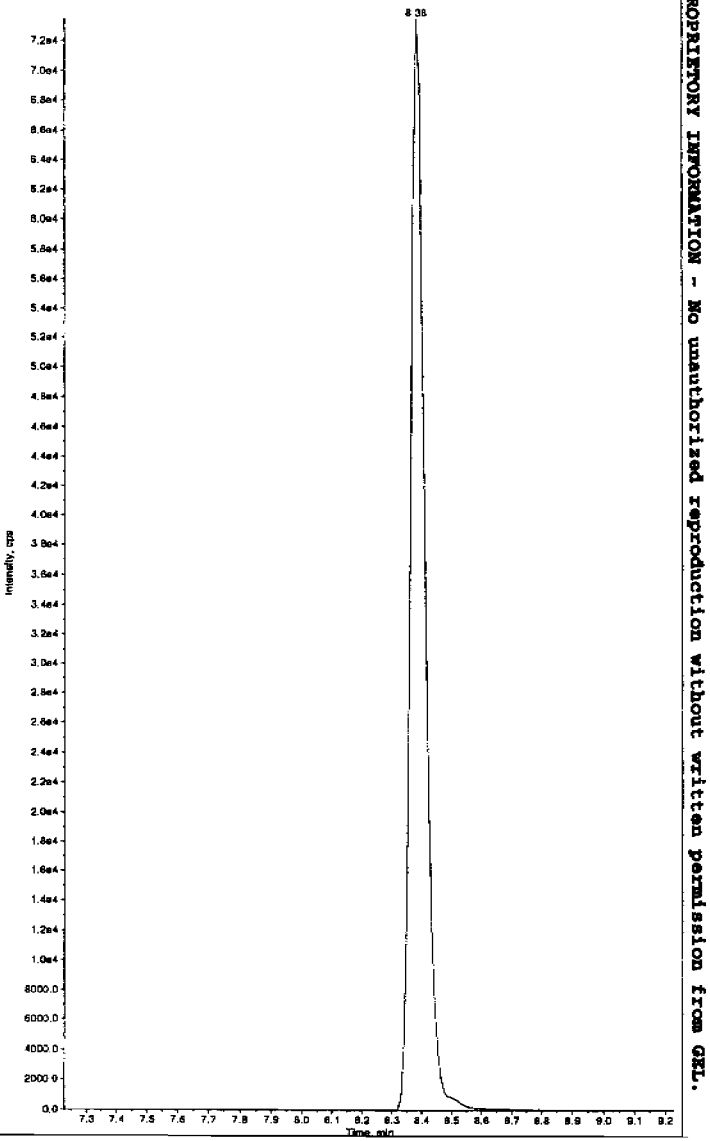

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245979012" Sample ID: "948577|2|LER" File: "EXS02240023.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 332. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:43:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.21e+006 counts
Height: 665484.497 cps
Start Time: 8.24 min
End Time: 8.72 min

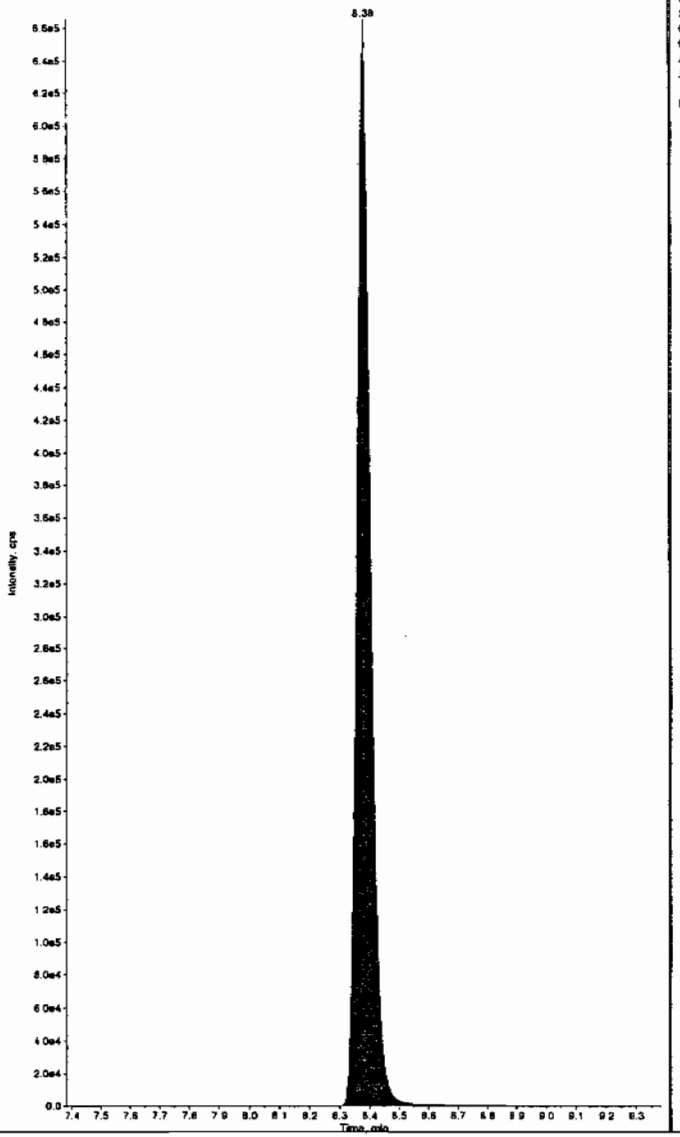

Sample Name: "245979012" Sample ID: "948577|2|LER" File: "EXS02240023.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:43:46 PM

Modified: No

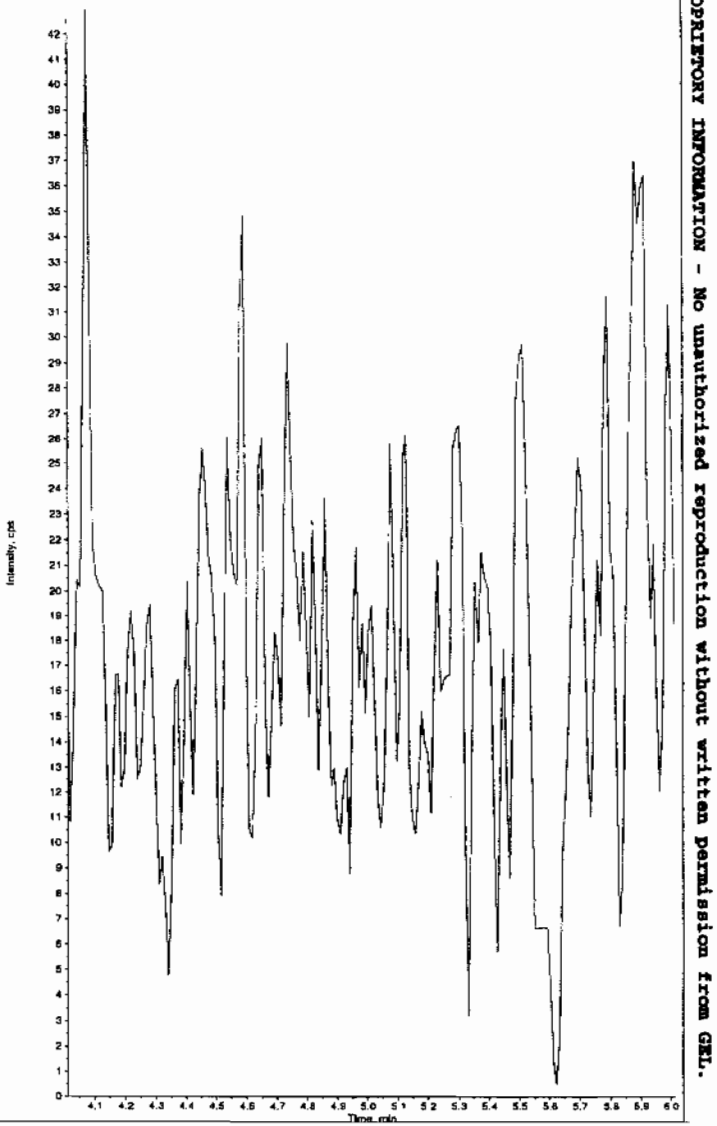

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979012" Sample ID: "948577|2|LER" File: "EXS02240023.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:43:46 PM

Modified: No

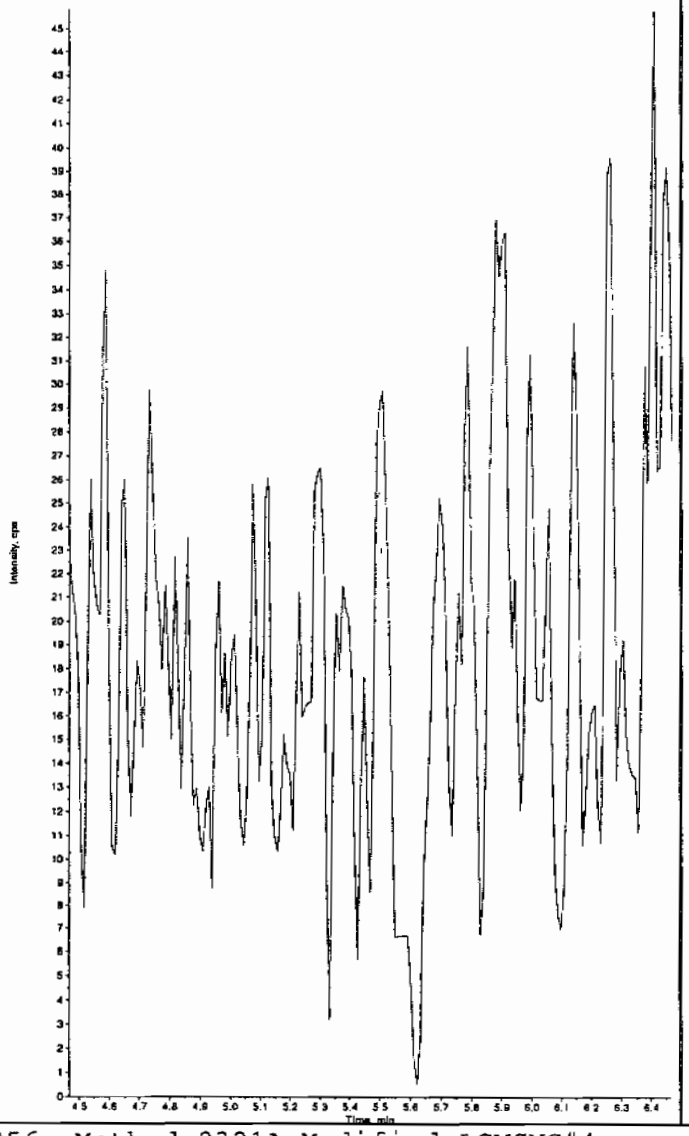

Sample Name: "245979012" Sample ID: "948577|2|LER" File: "EXS02240023.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:43:46 PM

Modified: No

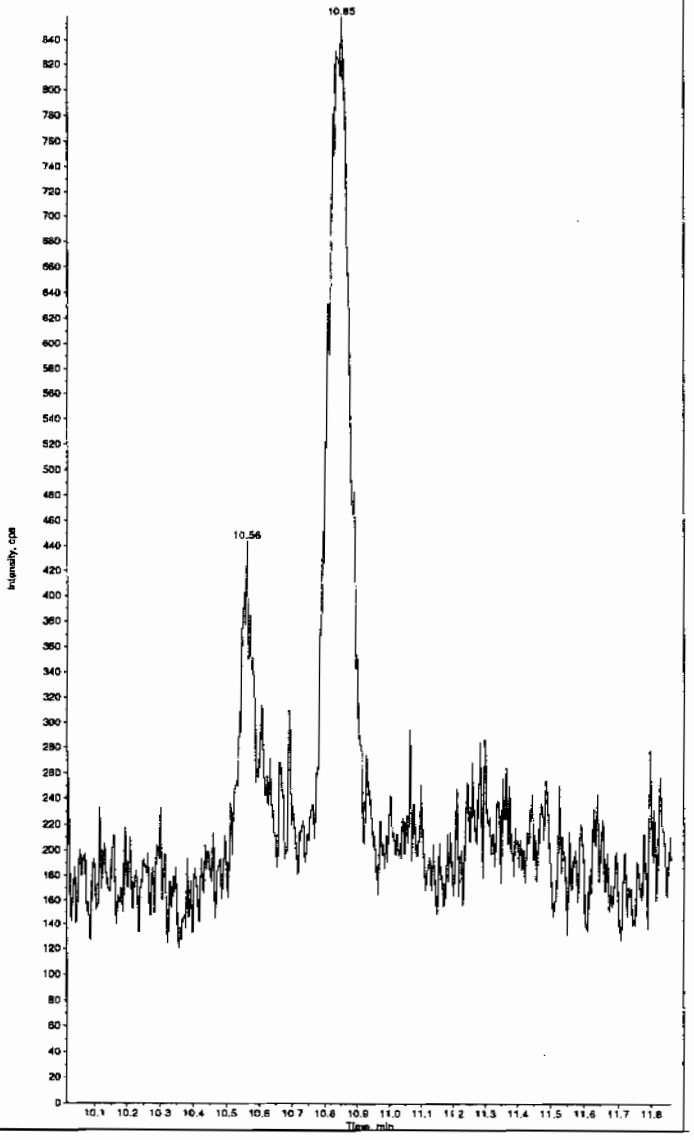

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8061

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979013

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301065a

Date Analyzed: 02-MAR-10 23:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030110expa.cdb, Time: Tue Mar 02 09:59:16 2010

RA - Carryover possible

Report - XQ. EXP0301084a
HMX < MDL

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301065a
Date: 02-Mar-2010
Time: 23:08:14
ID: 245979013 | LANL | 948577 | Solid | 2 |
Vial: 2:7,E

MATT 3/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.537e+003

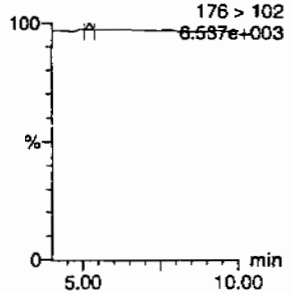

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
6.537e+003

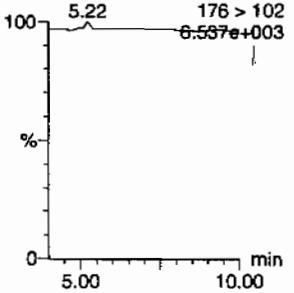

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.316e+003

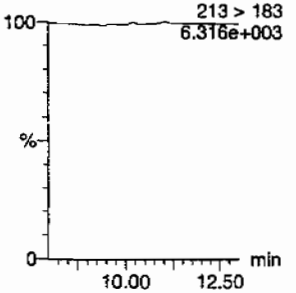

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.339e+004

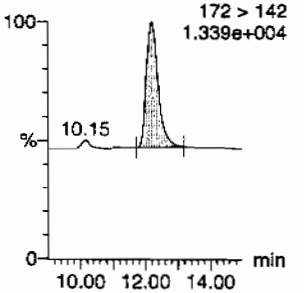

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.307e+003

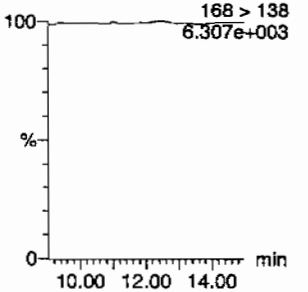

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.318e+003

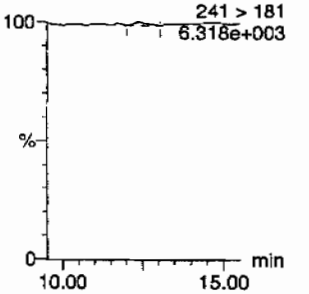

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.318e+003

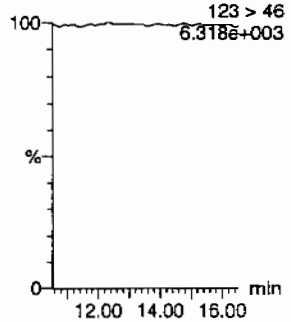

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.323e+003

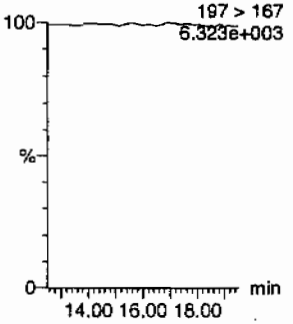

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.355e+003

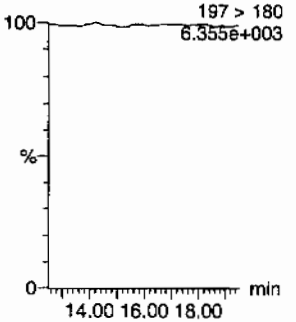

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.305e+003

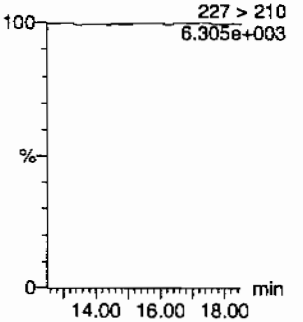

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.691e+004

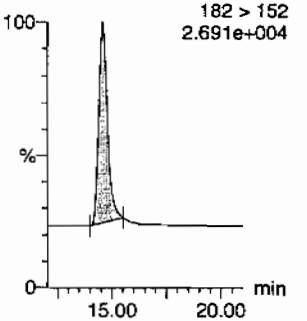

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.691e+004

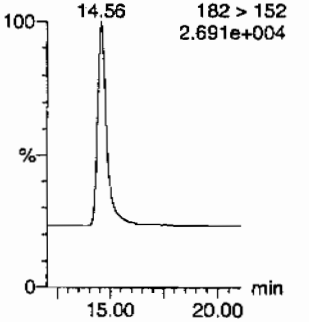

CW
03-04-10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

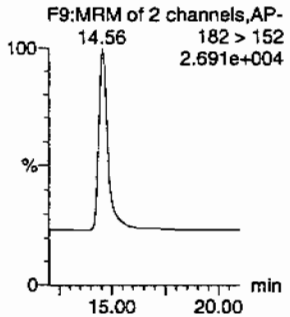

26-dinitrotoluene-d3

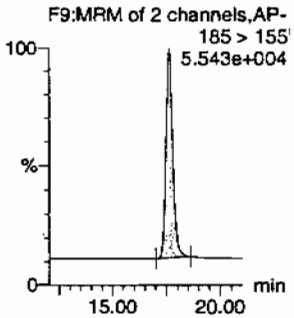

2-Nitrotoluene

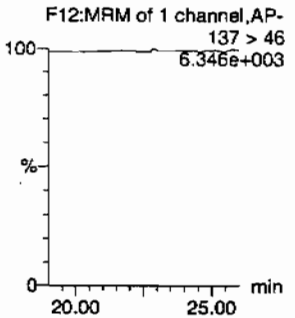

4-Nitrotoluene

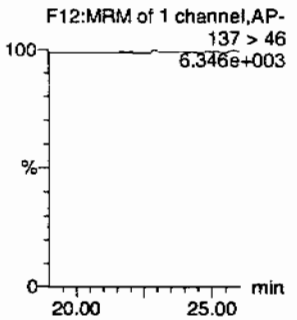

3-Nitrotoluene

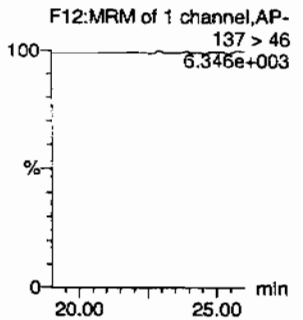

PETN

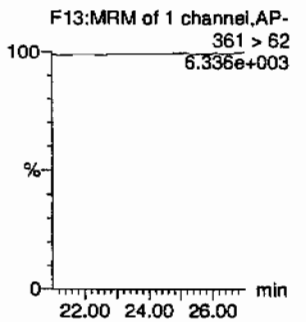

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979013	HMX	176 > 102	5.22	31.900	3020.922	31.900	5.280	bb			1.3840			3.3
245979013	RDX	176 > 102			3020.922									
245979013	135-Trinitrobenzene	213 > 183			3020.922									
245979013	13-Dinitrobenzene-d4	172 > 142	12.17	3020.922		3020.922	3020.922	bb			521.1944	104.2	4.2	423.6
245979013	13-Dinitrobenzene	168 > 138			3020.922									
245979013	Tetryl	241 > 181			3020.922			MM-	03-Mar-10	08:44:03				
245979013	Nitrobenzene	123 > 46			3020.922									
245979013	4-Amino-26-dinitrotoluene	197 > 167			18700.850									
245979013	2-Amino-46-dinitrotoluene	197 > 180			18700.850									
245979013	246-Trinitrotoluene	227 > 210			18700.850									
245979013	34-dinitrotoluene	182 > 152	14.56	9507.478	18700.850	9507.478	254.199	bb			256.5941	102.6	2.6	543.5
245979013	26-dinitrotoluene	182 > 152			18700.850									
245979013	24-dinitrotoluene	182 > 152			18700.850									
245979013	26-dinitrotoluene-d3	185 > 155	17.64	18700.850		18700.850	18700.850	bb			581.3198	116.3	16.3	2999.8
245979013	2-Nitrotoluene	137 > 46			18700.850									
245979013	4-Nitrotoluene	137 > 46			18700.850									
245979013	3-Nitrotoluene	137 > 46			18700.850									
245979013	PETN	361 > 62			18700.850									

below MDL HMN 03/05/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8061

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979013

Sample Amount 2

Moisture: 14.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240027.wiff

Date Analyzed: 24-FEB-10 16:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sven 2/25/10

Sample Name: "245979013" Sample ID: "948577|2|LER" File: "EXS02240027.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:46:45 PM

Modified: No

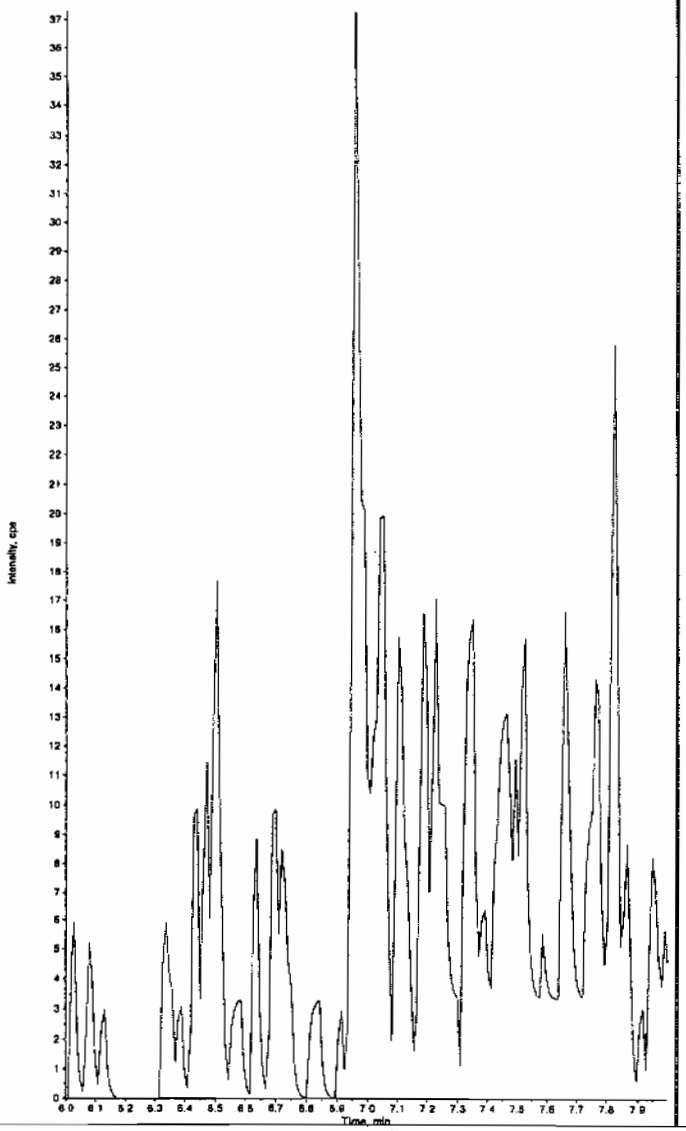

Sample Name: "245979013" Sample ID: "948577|2|LER" File: "EXS02240027.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:46:45 PM

Modified: No

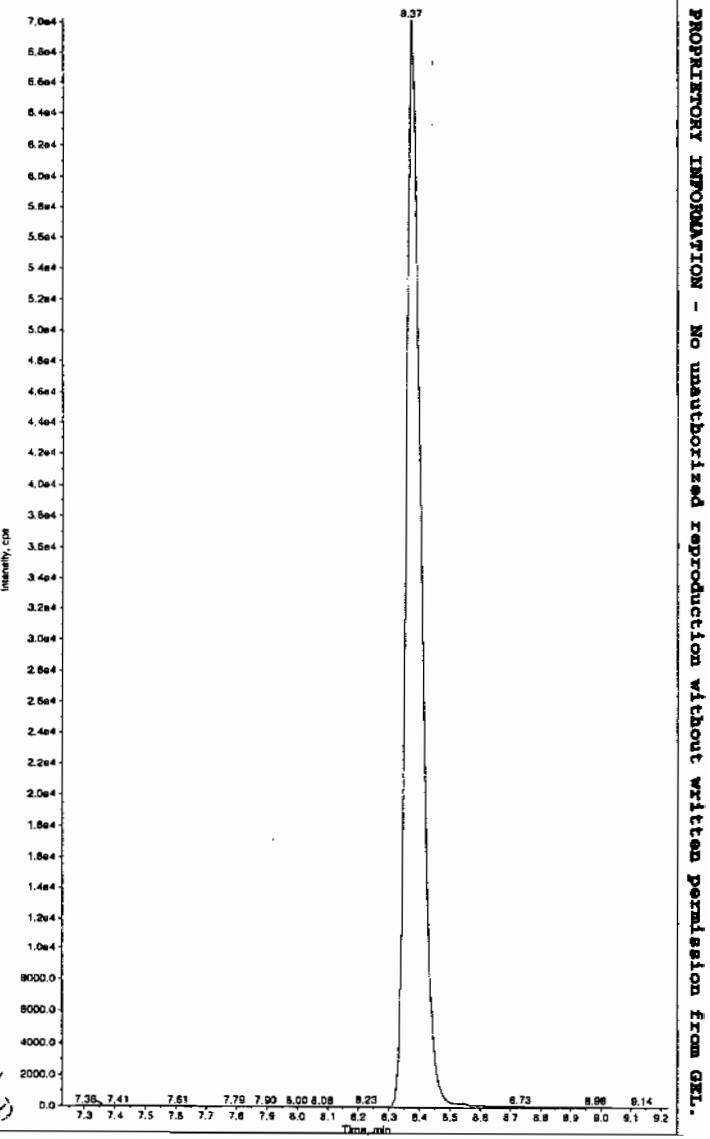

Hmm 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979013" Sample ID: "948577|2|LER" File: "EXS02240027.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 324. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:46:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1660.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.16e+006 counts
Height: 640328.735 cps
Start Time: 8.28 min
End Time: 8.72 min

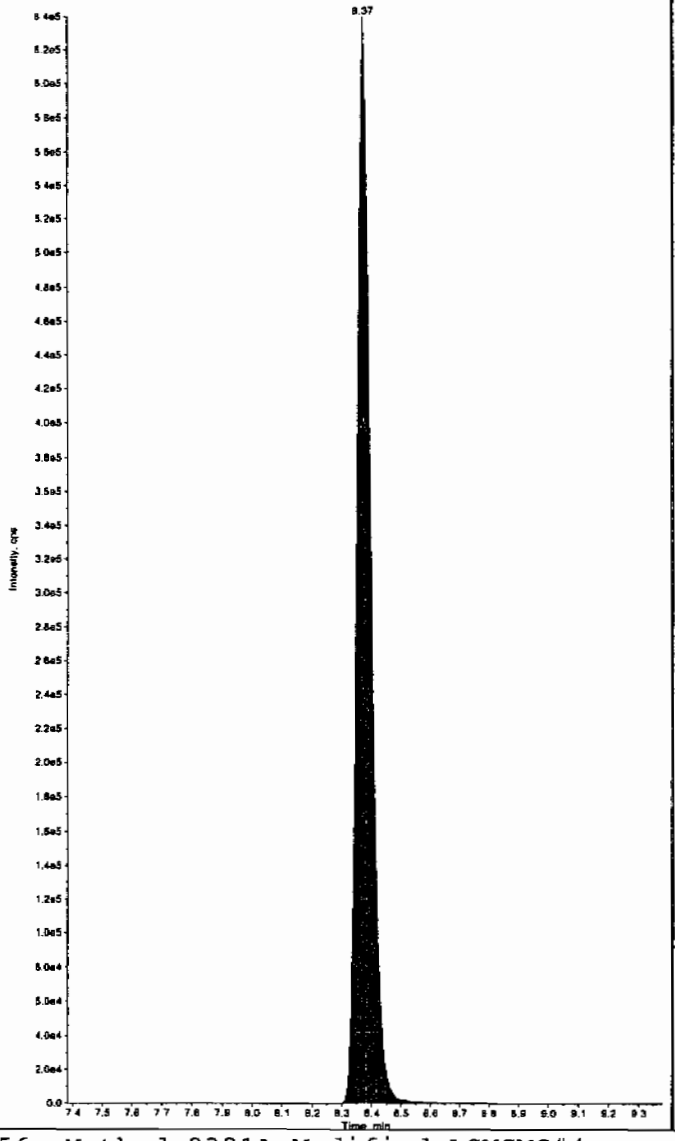

Sample Name: "245979013" Sample ID: "948577|2|LER" File: "EXS02240027.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:46:45 PM

Modified: No

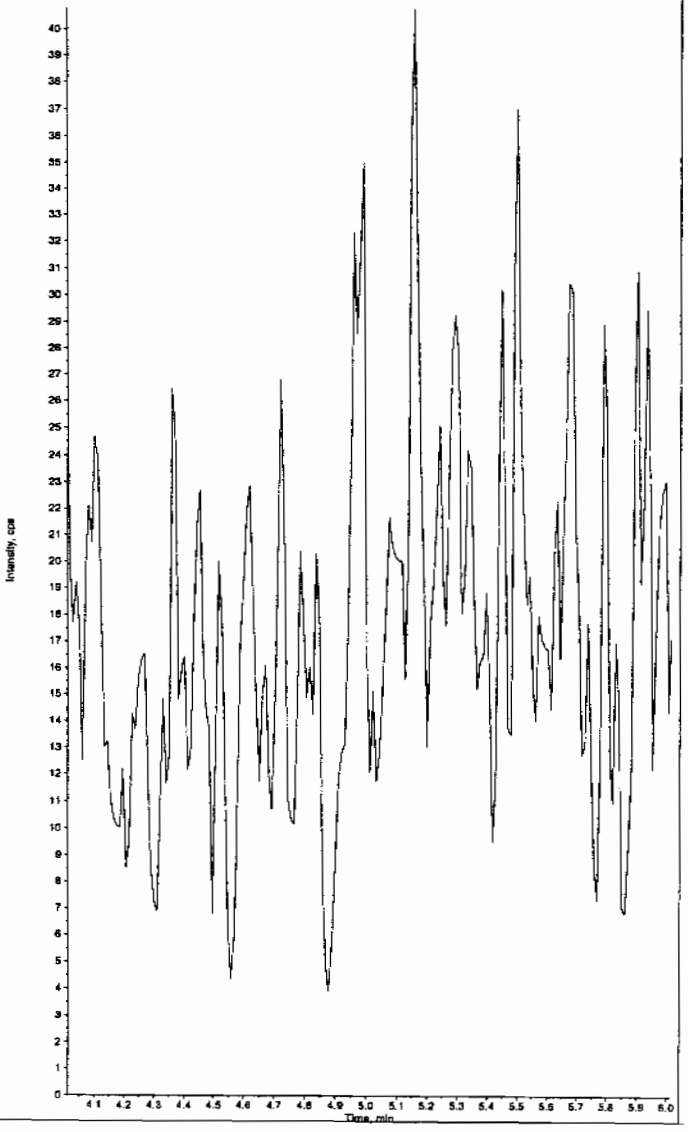

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245979013" Sample ID: "948577|2|LER" File: "EXS02240027.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:46:45 PM

Modified: No

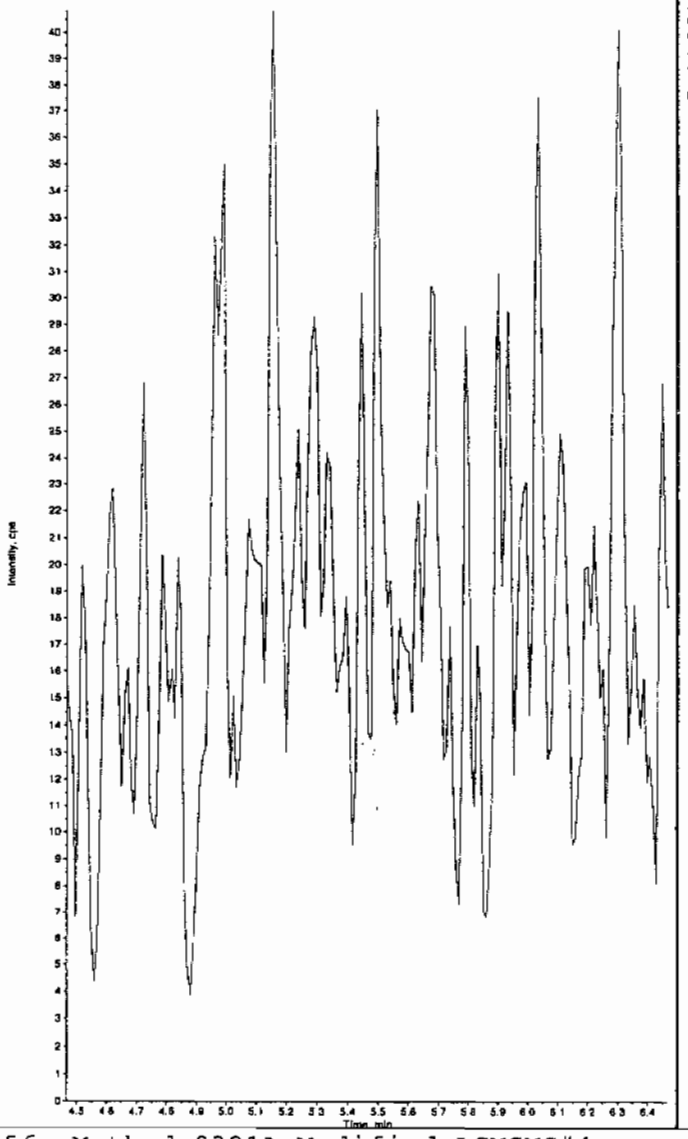

Sample Name: "245979013" Sample ID: "948577|2|LER" File: "EXS02240027.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:46:45 PM

Modified: No

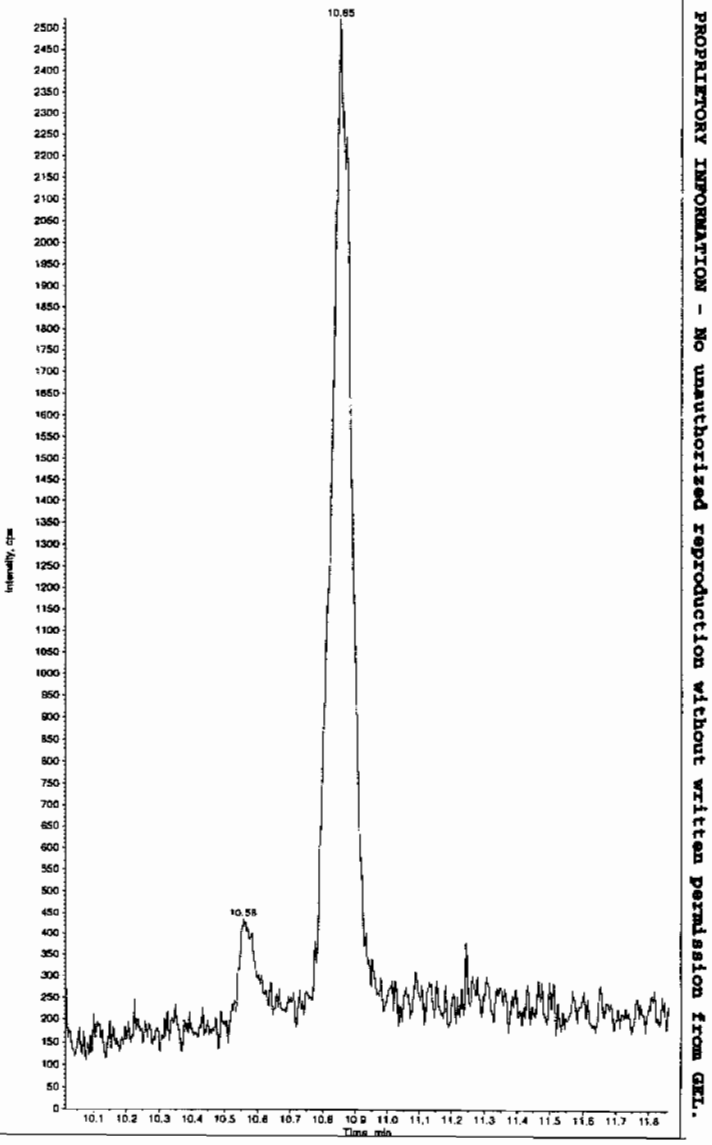

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8063

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979014

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301066a

Date Analyzed: 02-MAR-10 23:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301066a
Date: 02-Mar-2010
Time: 23:37:44
ID: 245979014 | LANC | 948577 | Solid | 2 |
Vial: 2:7,F

MAP 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.306e+003

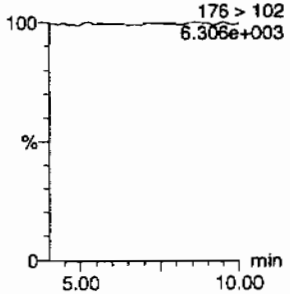

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.306e+003

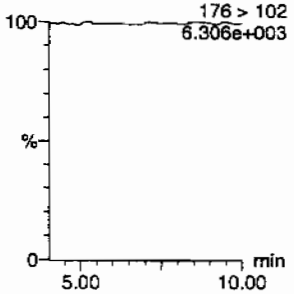

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.267e+003

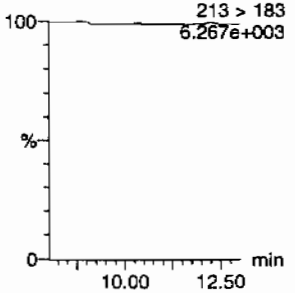

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.439e+004

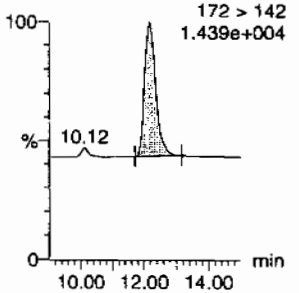

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.259e+003

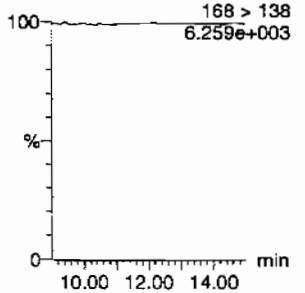

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.268e+003

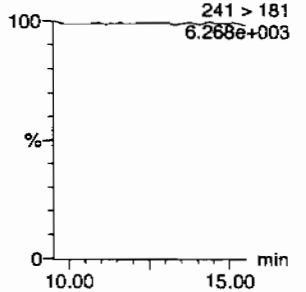

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.284e+003

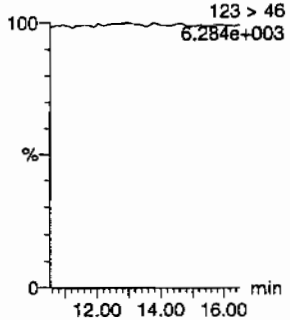

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.270e+003

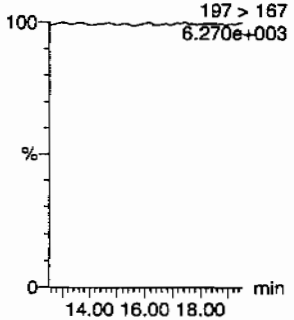

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.280e+003

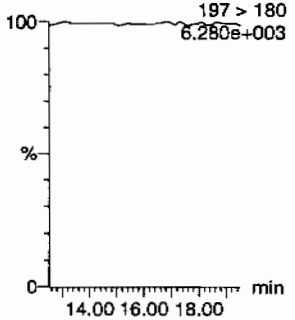

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.241e+003

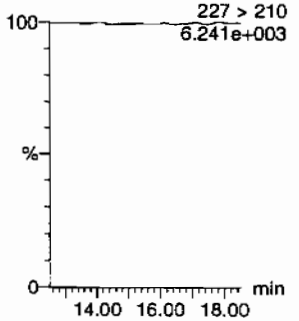

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.699e+004

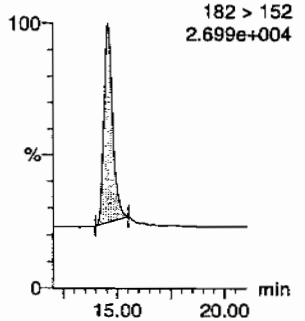

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.699e+004

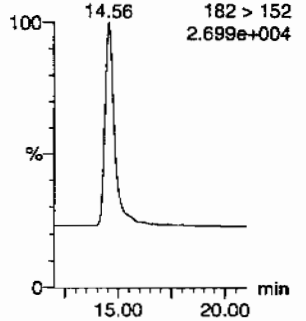

HMM 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

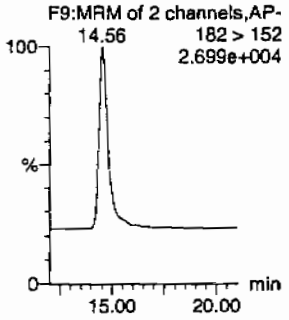

26-dinitrotoluene-d3

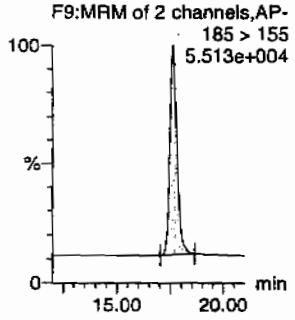

2-Nitrotoluene

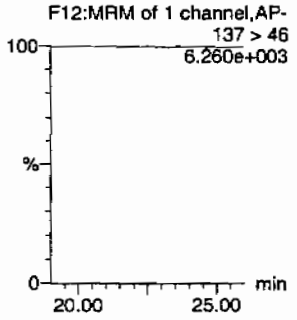

4-Nitrotoluene

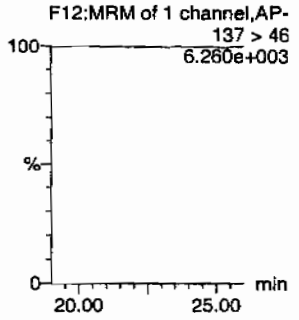

3-Nitrotoluene

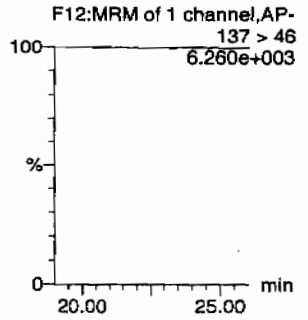

PETN

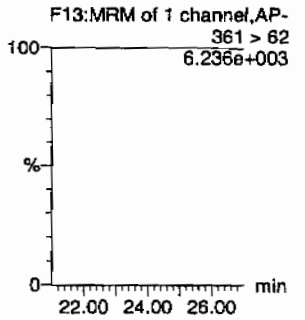

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979014	HMX	176 > 102			3366.522									
245979014	RDX	176 > 102			3366.522									
245979014	135-Trinitrobenzene	213 > 183			3366.522									
245979014	13-Dinitrobenzene-d4	172 > 142	12.17	3366.522		3366.522	3366.522	bb			580.8201	116.2	16.2	563.9
245979014	13-Dinitrobenzene	168 > 138			3366.522									
245979014	Tetryl	241 > 181			3366.522									
245979014	Nitrobenzene	123 > 46			3366.522									
245979014	4-Amino-26-dinitrotoluene	197 > 167			19432.178									
245979014	2-Amino-46-dinitrotoluene	197 > 180			19432.178									
245979014	246-Trinitrotoluene	227 > 210			19432.178									
245979014	34-dinitrotoluene	182 > 152	14.56	9661.504	19432.178	9661.504	248.595	bb			250.9377	100.4	0.4	643.5
245979014	26-dinitrotoluene	182 > 152			19432.178									
245979014	24-dinitrotoluene	182 > 152			19432.178									
245979014	26-dinitrotoluene-d3	185 > 155	17.64	19432.178		19432.178	19432.178	bb			604.0533	120.8	20.8	1026.0
245979014	2-Nitrotoluene	137 > 46			19432.178									
245979014	4-Nitrotoluene	137 > 46			19432.178									
245979014	3-Nitrotoluene	137 > 46			19432.178									
245979014	PETN	361 > 62			19432.178									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8063

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979014

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240028.wiff

Date Analyzed: 24-FEB-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Sun 2/25/10

Sample Name: "245979014" Sample ID: "948577|2|LER" File: "EXS02240028.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:02:35 PM
Modified: No

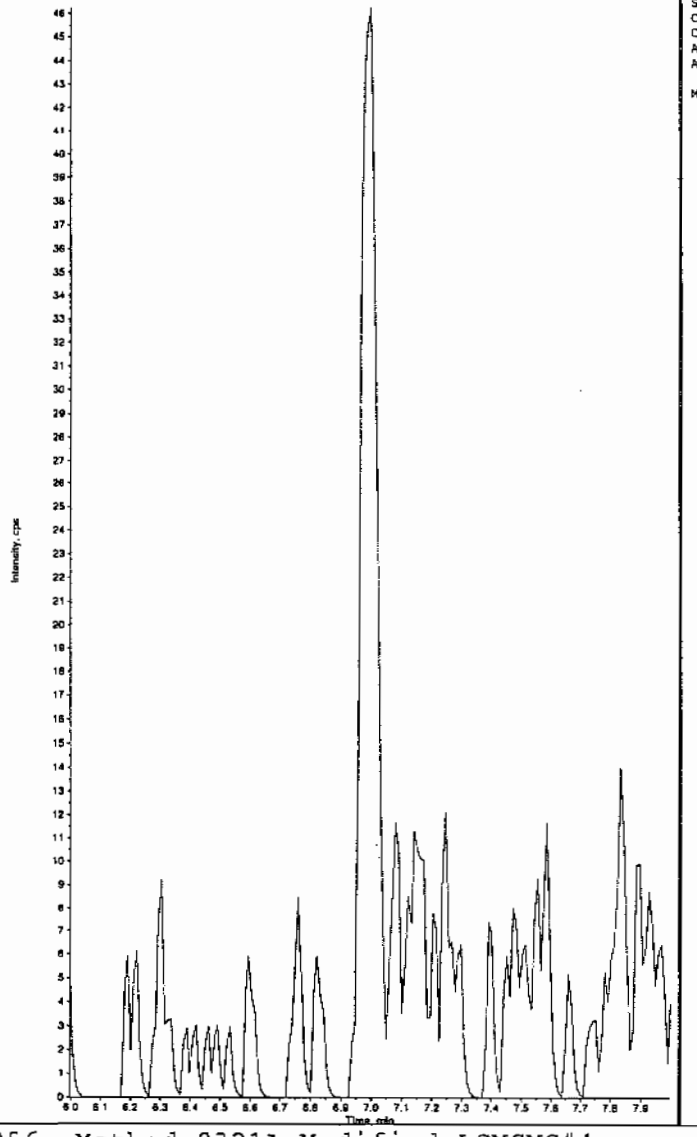

Sample Name: "245979014" Sample ID: "948577|2|LER" File: "EXS02240028.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:02:35 PM
Modified: No

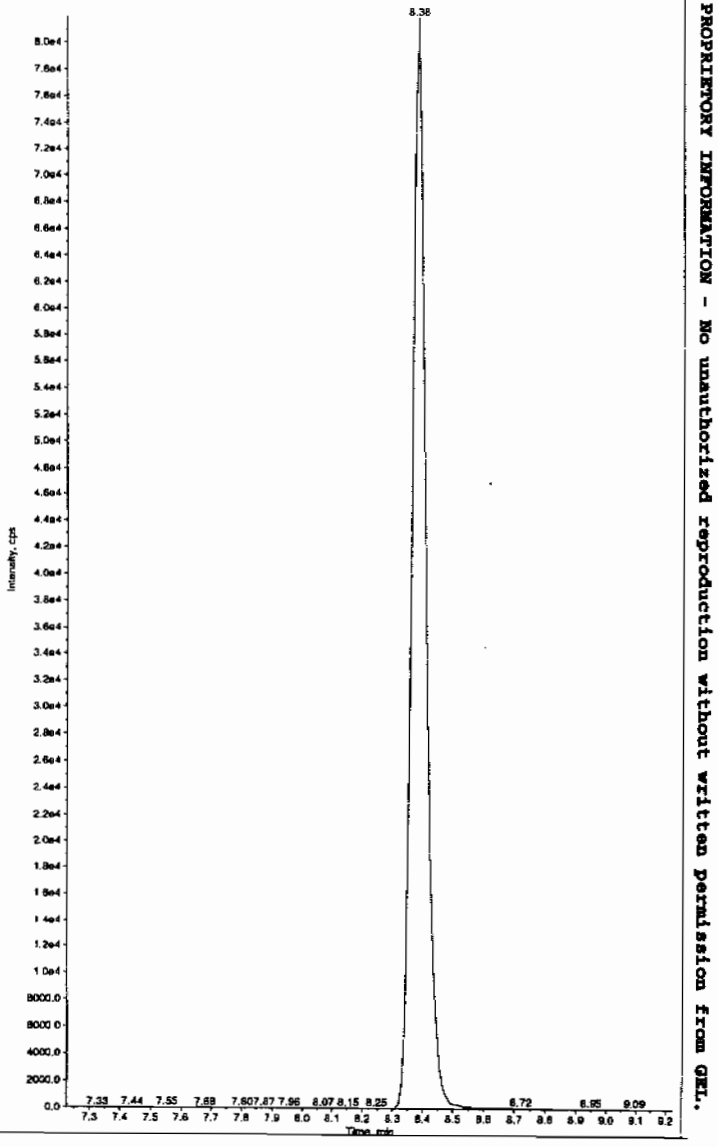

HMcar 2/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245979014" Sample ID: "948577|2|LER" File: "EXS02240028.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 316. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:02:35 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.11e+006 counts
Height: 612864.807 cps
Start Time: 8.26 min
End Time: 8.70 min

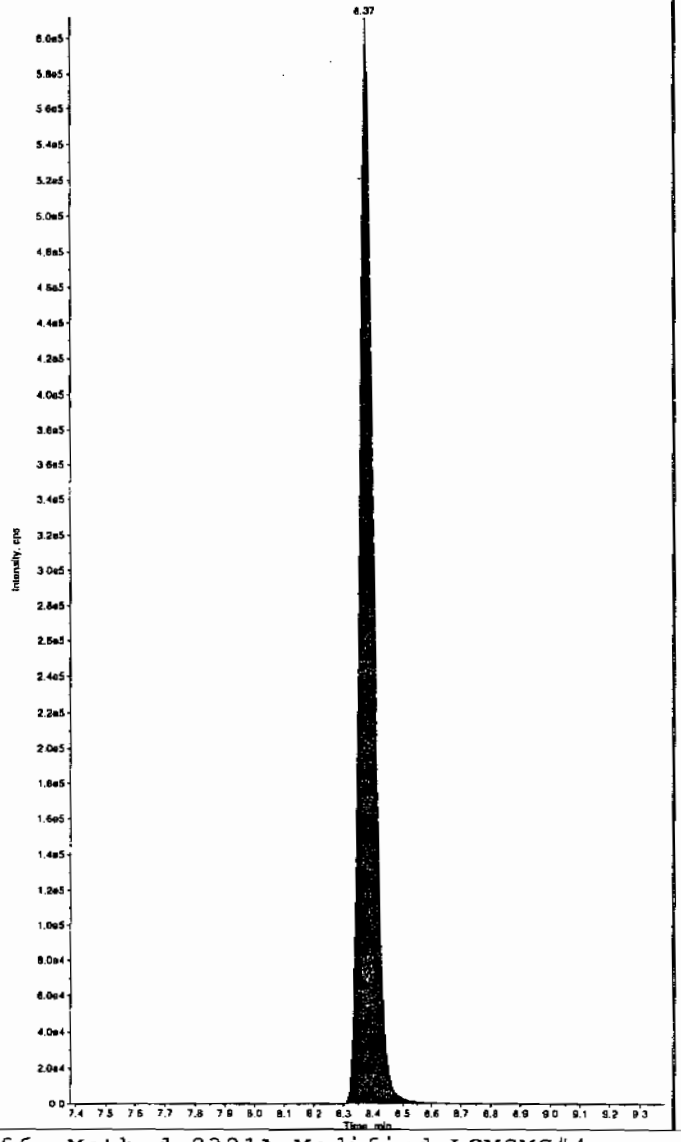

Sample Name: "245979014" Sample ID: "948577|2|LER" File: "EXS02240028.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:02:35 PM

Modified: No

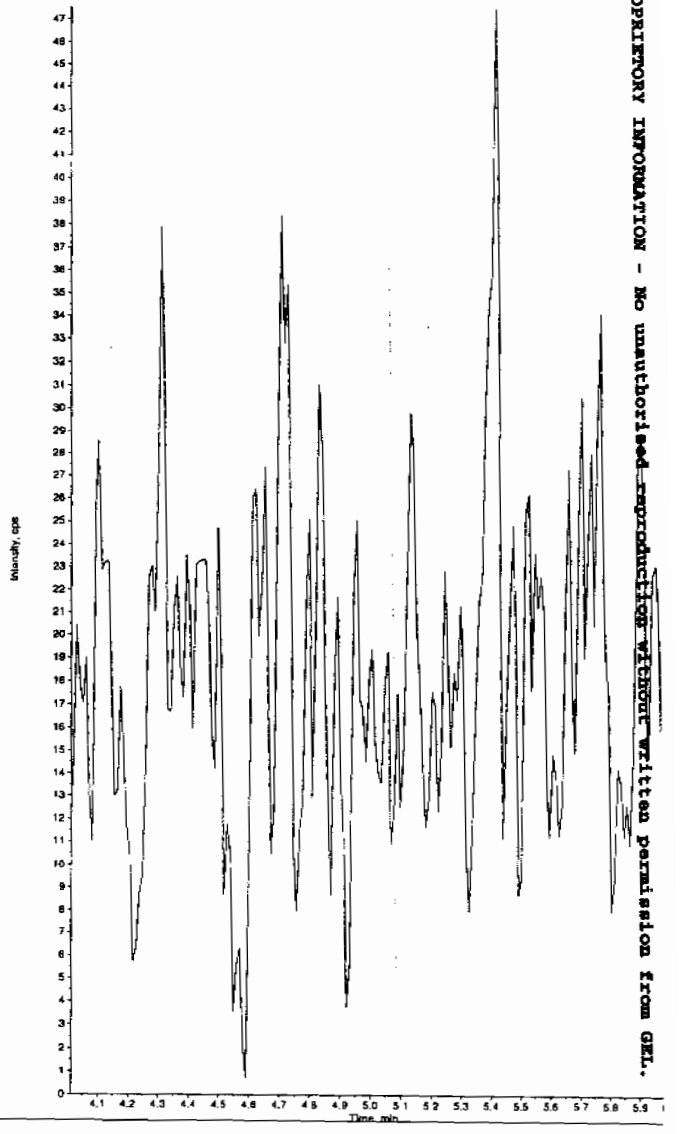

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245979014" Sample ID: "948577|2|LER" File: "EXS02240028.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:02:35 PM

Modified: No

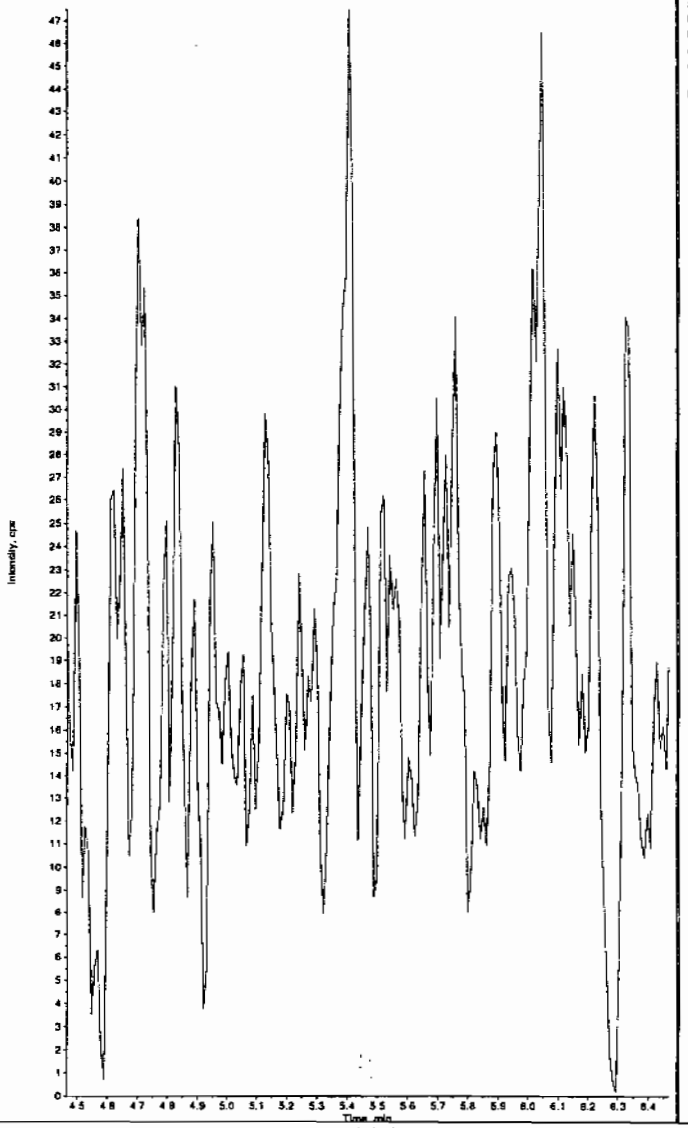

Sample Name: "245979014" Sample ID: "948577|2|LER" File: "EXS02240028.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:02:35 PM

Modified: No

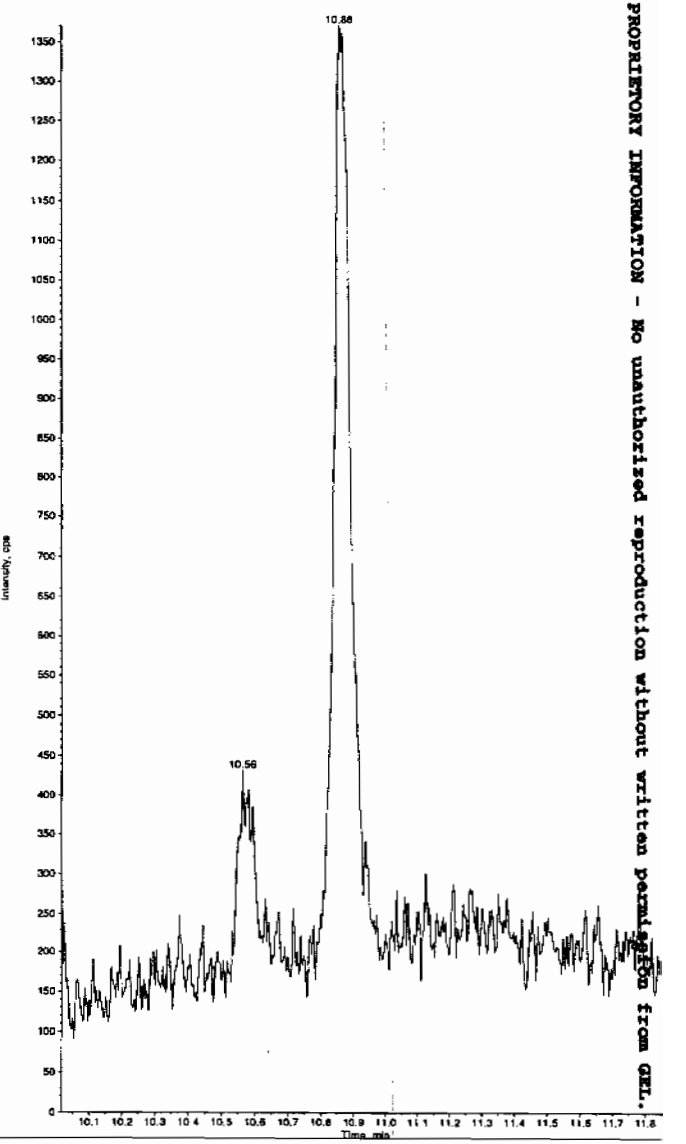

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8062

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979015

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301099a

Date Analyzed: 03-MAR-10 15:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	217	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	2270	
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301099a
Date: 03-Mar-2010
Time: 15:52:19
ID: 245979015
Vial: 2:8,A

LANL | 948577 | Soil | 21

MM 3/4/10

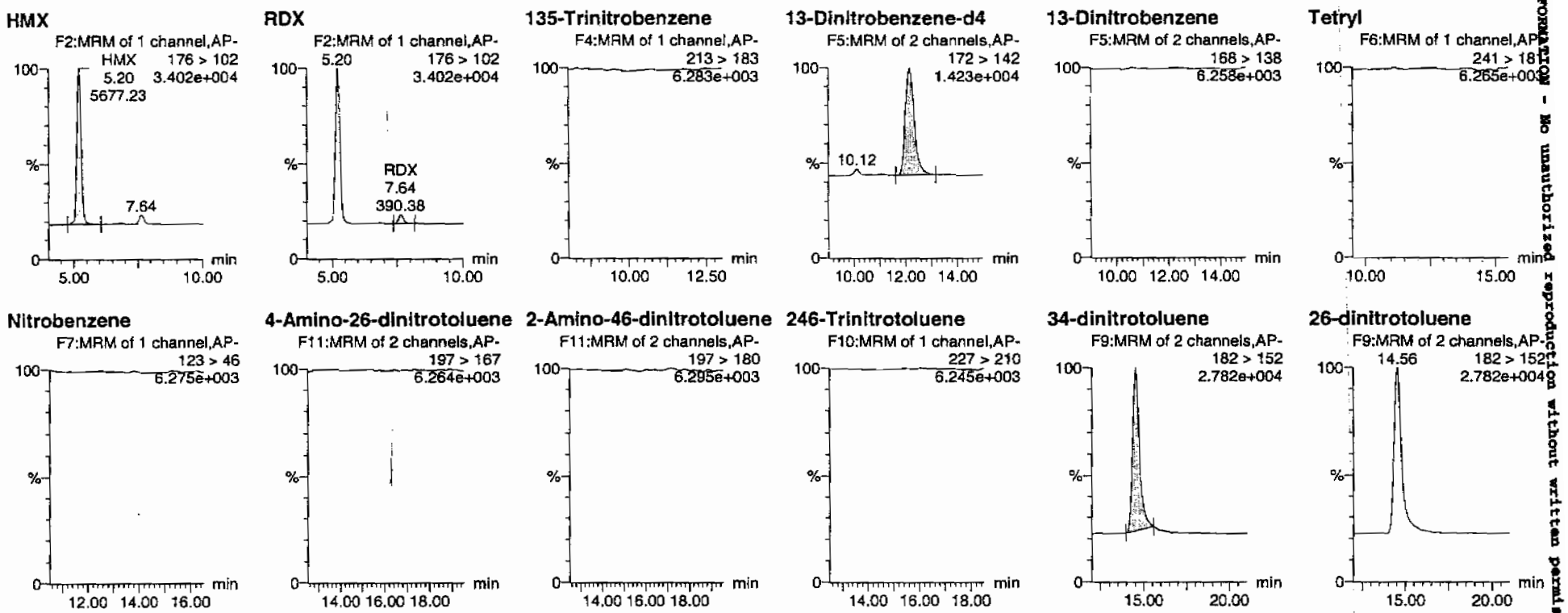

HM 03/04/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

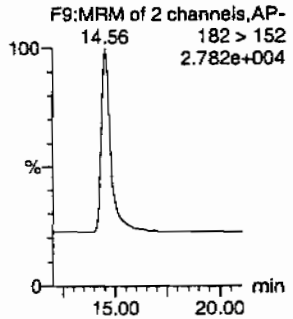

26-dinitrotoluene-d3

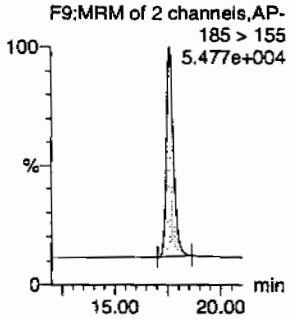

2-Nitrotoluene

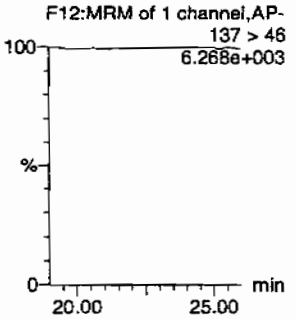

4-Nitrotoluene

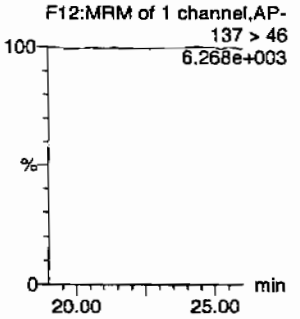

3-Nitrotoluene

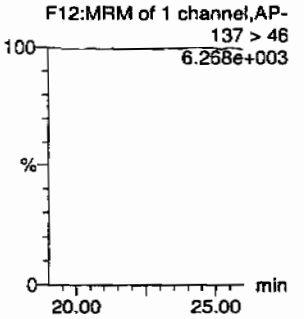

PETN

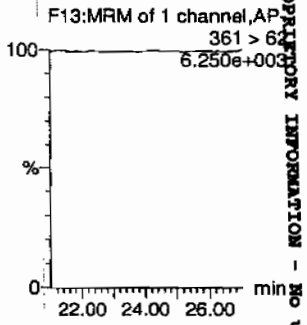

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245979015	HMX	176 > 102	5.20	5677.234	3277.364	5677.234	866.128	bb			227.0428			1620.8
245979015	RDX	176 > 102	7.64	390.385	3277.364	390.385	59.558	bb			21.6998			100.5
245979015	135-Trinitrobenzene	213 > 183			3277.364									
245979015	13-Dinitrobenzene-d4	172 > 142	12.17	3277.364		3277.364	3277.364	bb			565.4379	113.1	13.1	420.2
245979015	13-Dinitrobenzene	168 > 138			3277.364									
245979015	Tetryl	241 > 181			3277.364									
245979015	Nitrobenzene	123 > 46			3277.364									
245979015	4-Amino-26-dinitrotoluene	197 > 167			19332.227									
245979015	2-Amino-46-dinitrotoluene	197 > 180			19332.227									
245979015	246-Trinitrotoluene	227 > 210			19332.227									
245979015	34-dinitrotoluene	182 > 152	14.56	10182.065	19332.227	10182.065	263.344	bb			265.8255	106.3	6.3	700.8
245979015	26-dinitrotoluene	182 > 152			19332.227									
245979015	24-dinitrotoluene	182 > 152			19332.227									
245979015	26-dinitrotoluene-d3	185 > 155	17.60	19332.227		19332.227	19332.227	bb			600.9463	120.2	20.2	2629.8
245979015	2-Nitrotoluene	137 > 46			19332.227									
245979015	4-Nitrotoluene	137 > 46			19332.227									
245979015	3-Nitrotoluene	137 > 46			19332.227									
245979015	PETN	361 > 62			19332.227									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8062

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 245979015

Sample Amount 2

Moisture: 9.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02240029.wiff

Date Analyzed: 24-FEB-10 17:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/25/10

Sample Name: "245979015" Sample ID: "948577|2|LER" File: "EXS02240029.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 25.4 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:18:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.33e+004 counts
Height: 3680.615 cps
Start Time: 6.89 min
End Time: 7.16 min

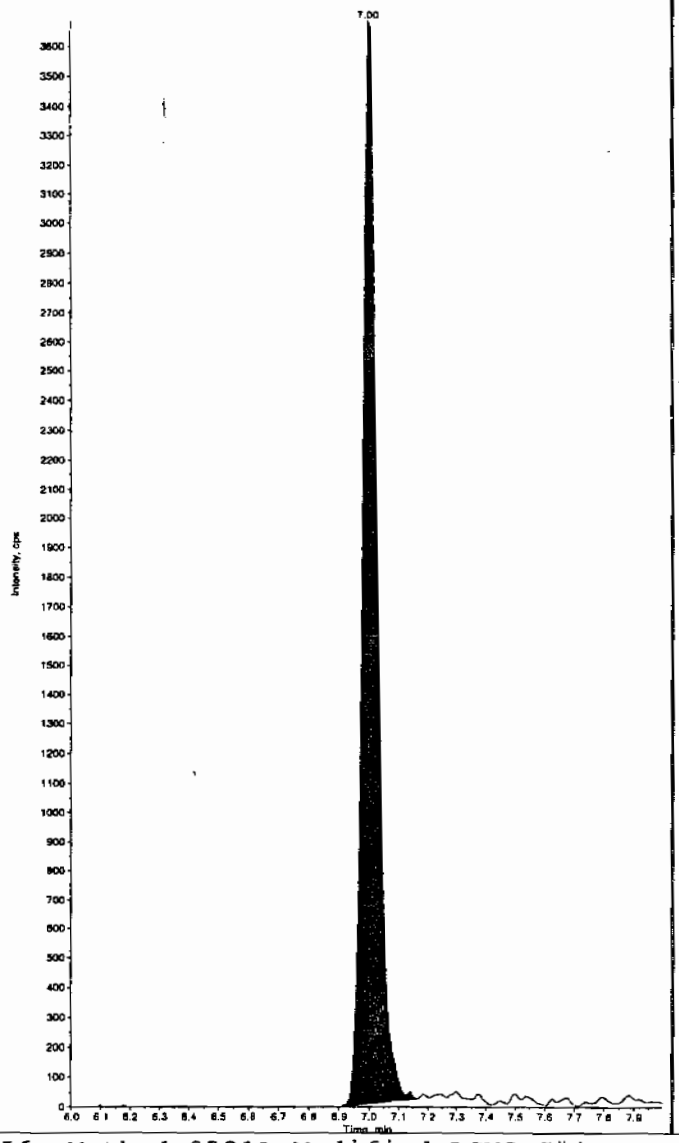

Sample Name: "245979015" Sample ID: "948577|2|LER" File: "EXS02240029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:18:18 PM

Modified: No

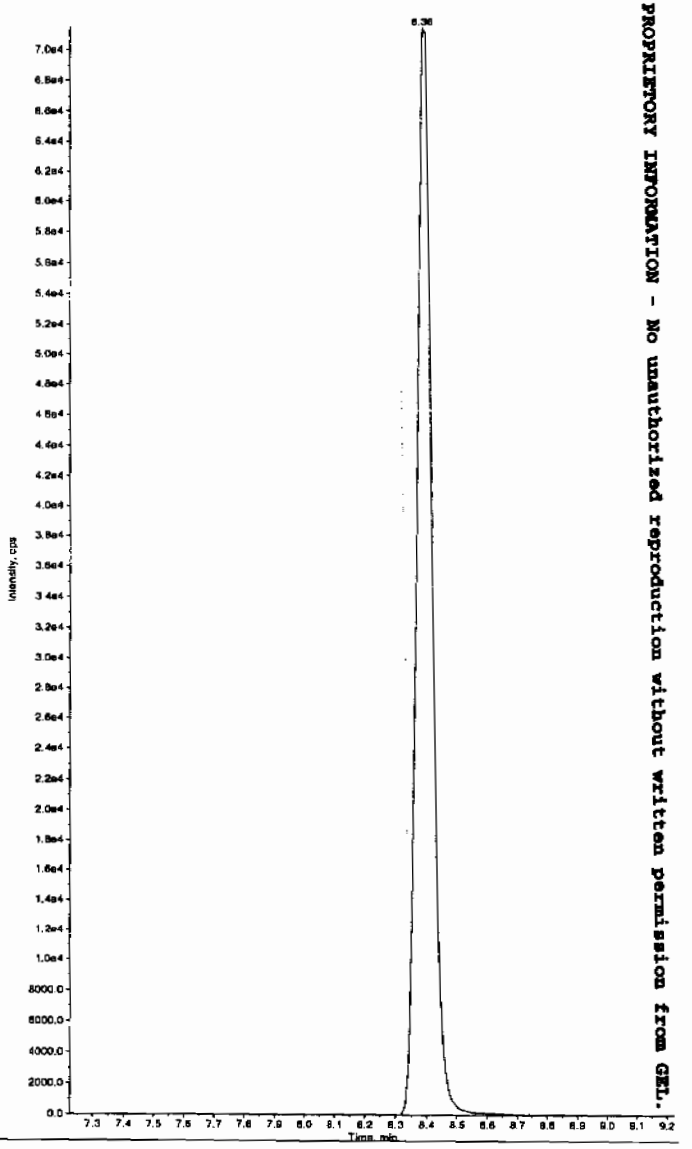

Hammond 2/25/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245979015" Sample ID: "948577|2|LER" File: "EXS02240029.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 336. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:18:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 2.23e+006 counts
Height: 659186.462 cps
Start Time: 8.29 min
End Time: 8.66 min

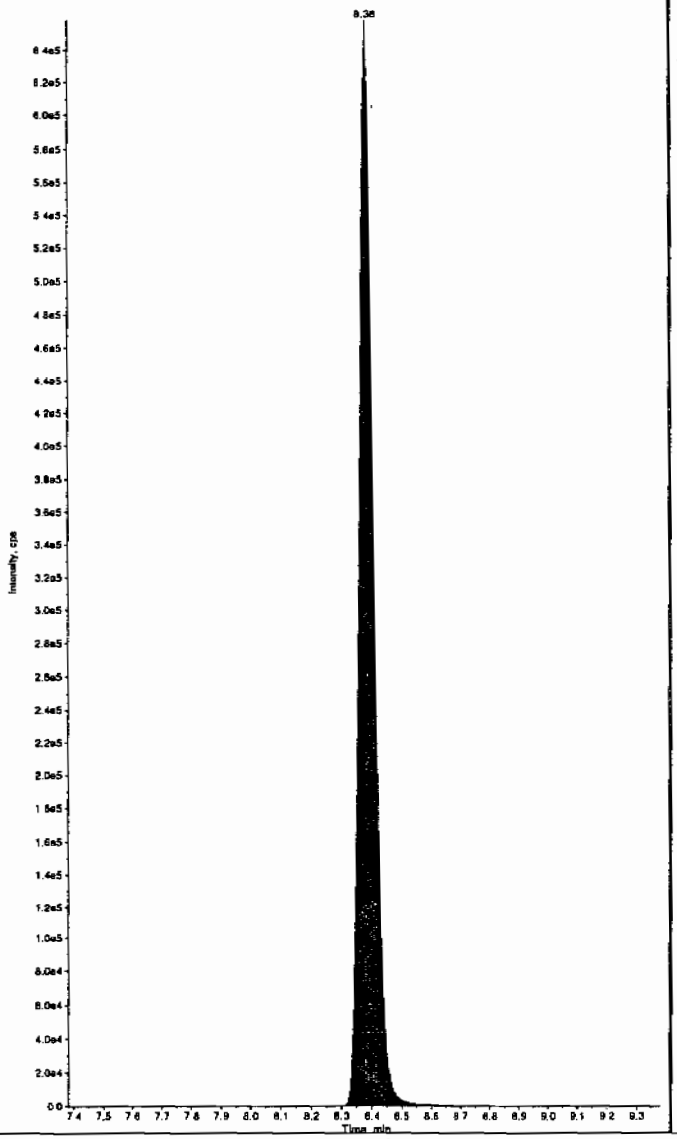

Sample Name: "245979015" Sample ID: "948577|2|LER" File: "EXS02240029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:18:18 PM

Modified: No

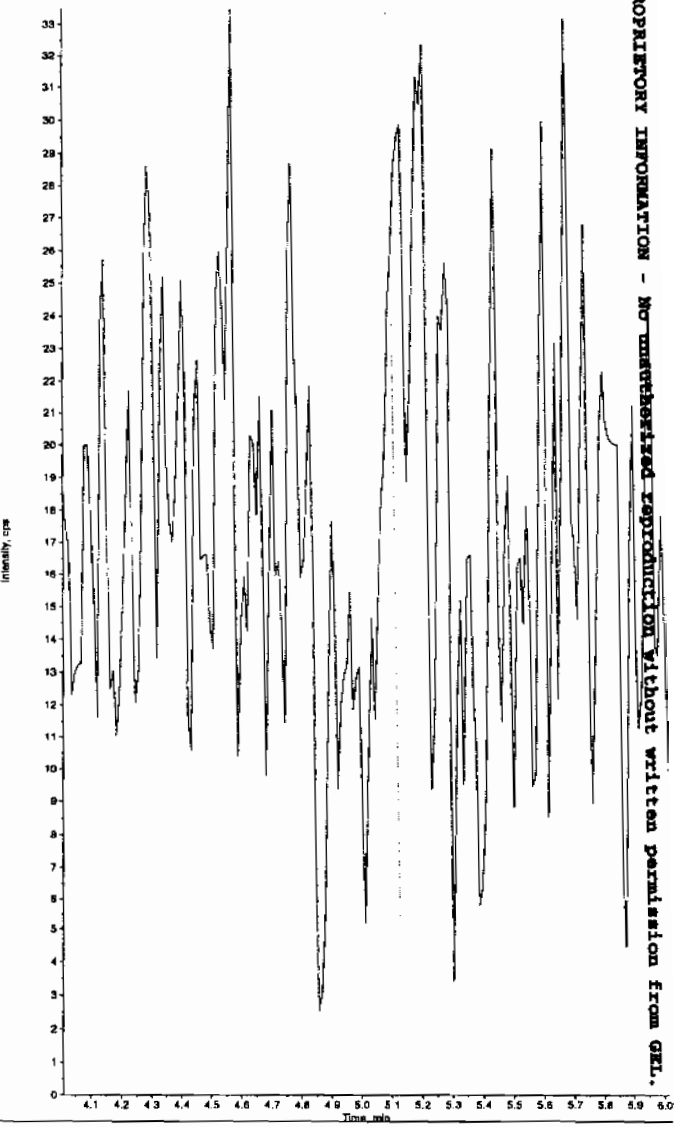

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245979015" Sample ID: "948577|2|LER" File: "EXS02240029.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:18:18 PM

Modified: No

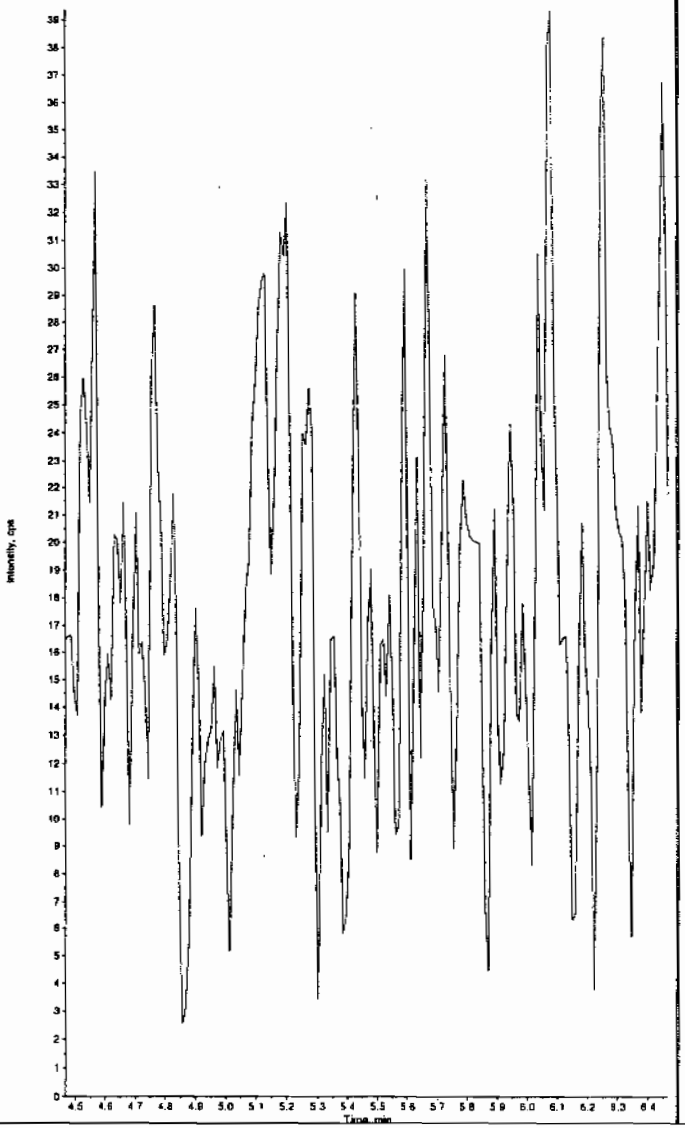

Sample Name: "245979015" Sample ID: "948577|2|LER" File: "EXS02240029.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:18:18 PM

Modified: No

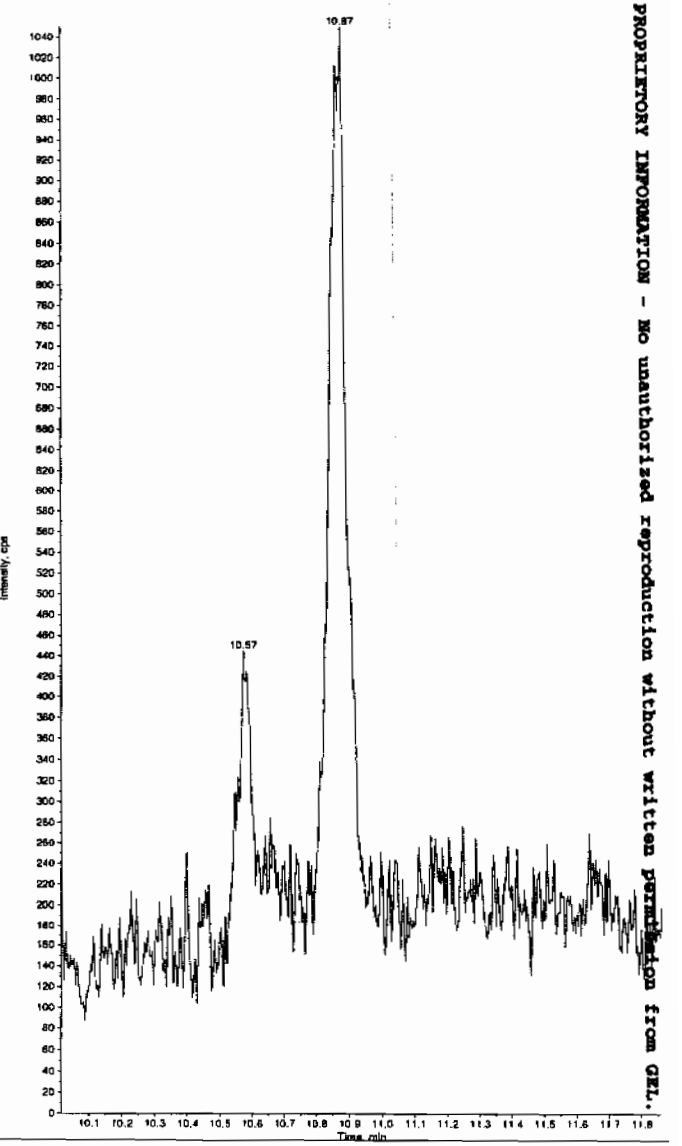

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1514

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10,24-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0301003a	EXP0301004a	EXP0301005a	EXP0301006a	EXP0301007a	EXP0301008a			
Parmname									
1,3,5-Trinitrobenzene	3.94	3.776	3.064	3.285	3.334	3.259	3.443	9.828	
1,3-Dinitrobenzene-d4	5.612	5.852	6.175	5.983	5.62	5.535	5.796	4.328	
2,4,6-Trinitrotoluene	.267	.261	.328	.334	.377	.324	0.315	13.943	
2,4-Dinitrotoluene	.208	.246	.25	.254	.288	.263	0.252	10.426	
2,6-Dinitrotoluene	1.209	1.096	1.096	1.117	1.133	1.119	1.128	3.735	
2,6-Dinitrotoluene-d3	33.172	35.403	31.893	32.922	29.123	30.505	32.170	6.832	
2-Amino-4,6-dinitrotoluene	.315	.372	.358	.403	.402	.411	0.377	9.673	
3,4-Dinitrotoluene	.839	1.005	1.146	.983	1.067	.904	0.991	11.122	
4-Amino-2,6-dinitrotoluene	.235	.284	.272	.293	.32	.29	0.282	10.019	
HMX	3.849	3.259	3.73	4.343	4.56	3.148	3.815	14.813	
Nitrobenzene	.876	.868	1.079	.879	.84	.791	0.889	11.103	
RDX	2.412	2.499	2.592	3.205	3.222	2.537	2.745	13.408	
m-Dinitrobenzene	1.471	1.362	1.238	1.234	1.361	1.205	1.312	7.875	
m-Nitrotoluene	.123	.1	.094	.091	.094	.087	0.098	13.106	
o-Nitrotoluene	.16	.185	.191	.153	.156	.151	0.166	10.588	
p-Nitrotoluene	.067	.081	.106	.072	.076	.073	0.079	17.87	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1514

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10,24-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0301003a	EXP0301004a	EXP0301005a	EXP0301006a	EXP0301007a	EXP0301008a					
Parmname:											
PETN	2325.51	4729.22	15138.1	24668.9	39677.2	43783.1	2.313	-.00087	17.184	.9959	
Tetryl	191.472	392.536	1477.14	2445.29	4498.25	4869.09	1.206	-.0003128	3.667	.9968	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010
Calibration: Untitled, Time: Tue Mar 02 09:59:16 2010

Compound name: HMX
Response Factor: 3.81482
RRF SD: 0.565071, % Relative SD: 14.8125
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

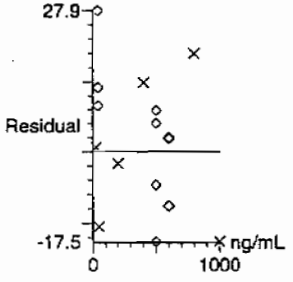

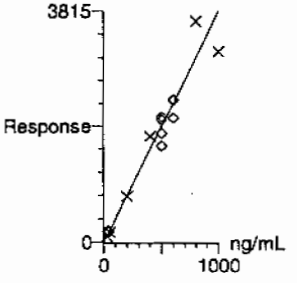

MM
3/2/10

Compound name: RDX
Response Factor: 2.74462
RRF SD: 0.368004, % Relative SD: 13.4082
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

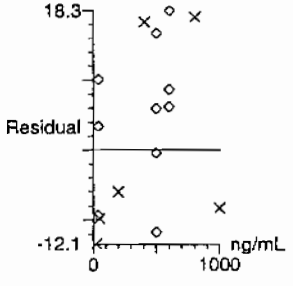

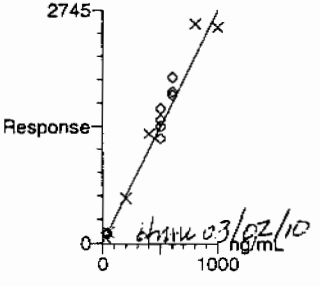

dmm 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.44305
RRF SD: 0.338375, % Relative SD: 9.82776
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

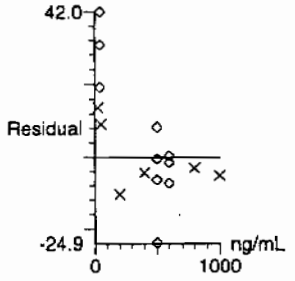

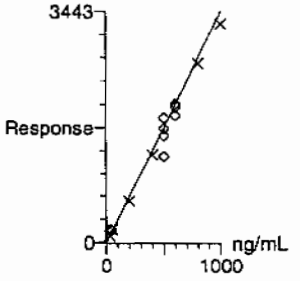

Compound name: 13-Dinitrobenzene-d4
Response Factor: 5.79615
RRF SD: 0.25088, % Relative SD: 4.32839
Response type: External Std, Area
Curve type: RF

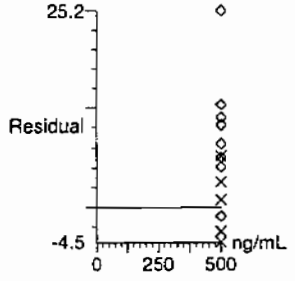

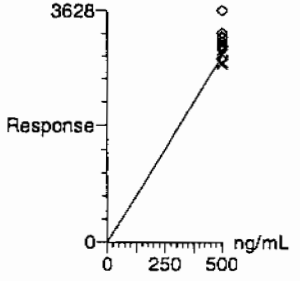

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Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.31187
RRF SD: 0.103314, % Relative SD: 7.87531
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

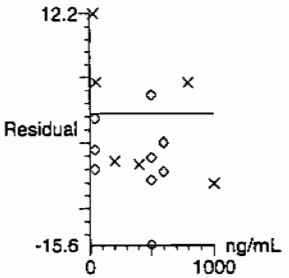

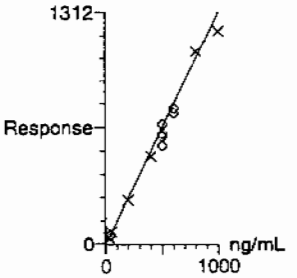

Compound name: Tetryl
Coefficient of Determination: 0.996770
Calibration curve: -0.000312791 * x^2 + 1.20554 * x + 3.66734
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

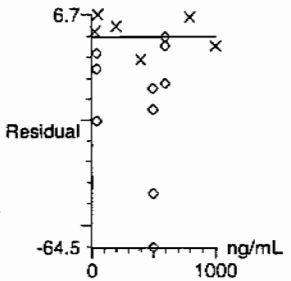

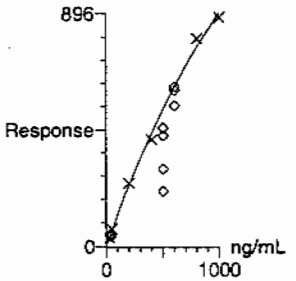

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Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: Nitrobenzene
Response Factor: 0.888932
RRF SD: 0.0986941, % Relative SD: 11.1025
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

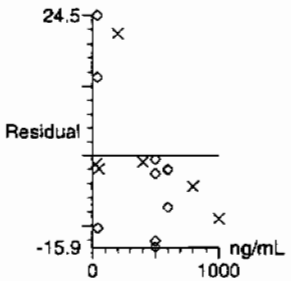

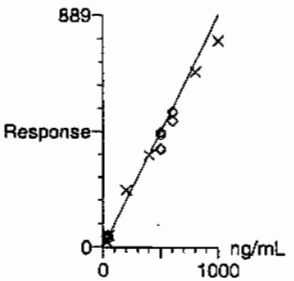

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.282269
RRF SD: 0.0282816, % Relative SD: 10.0194
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

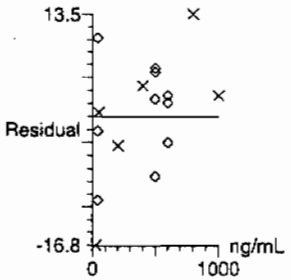

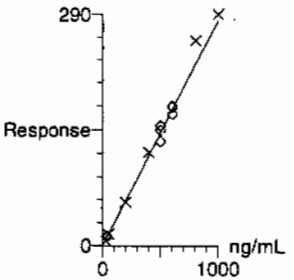

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.377019
RRF SD: 0.0364675, % Relative SD: 9.67257
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

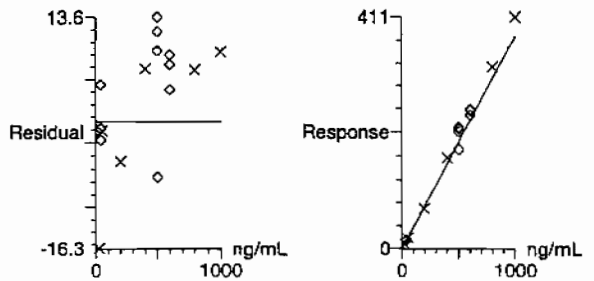

Compound name: 246-Trinitrotoluene
Response Factor: 0.31518
RRF SD: 0.0439443, % Relative SD: 13.9426
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

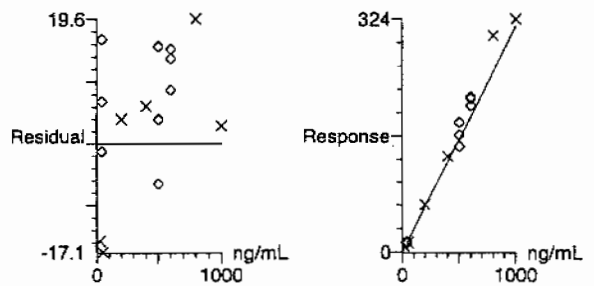

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.990666
RRF SD: 0.110182, % Relative SD: 11.122
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

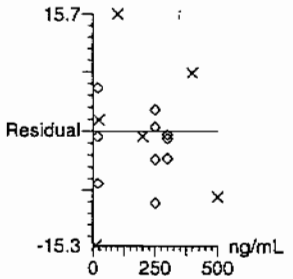

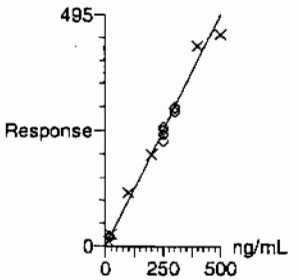

Compound name: 26-dinitrotoluene
Response Factor: 1.12824
RRF SD: 0.0421371, % Relative SD: 3.73478
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

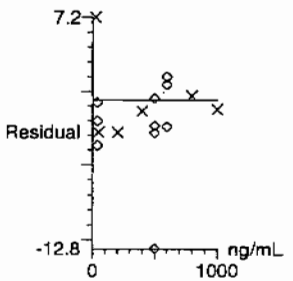

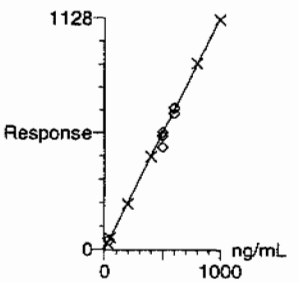

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.251541
RRF SD: 0.0262257, % Relative SD: 10.426
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

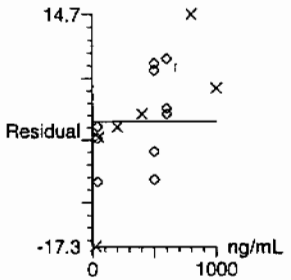

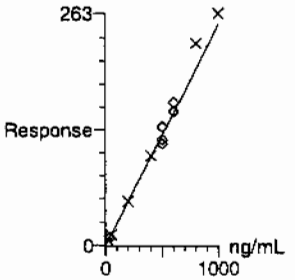

Compound name: 26-dinitrotoluene-d3
Response Factor: 32.1696
RRF SD: 2.19789, % Relative SD: 6.83218
Response type: External Std, Area
Curve type: RF

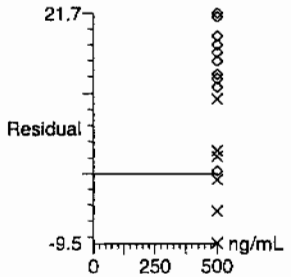

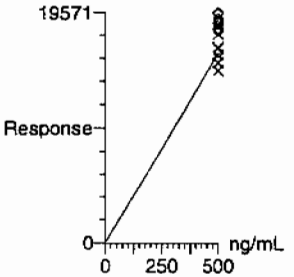

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.165882
RRF SD: 0.0175634, % Relative SD: 10.5879
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

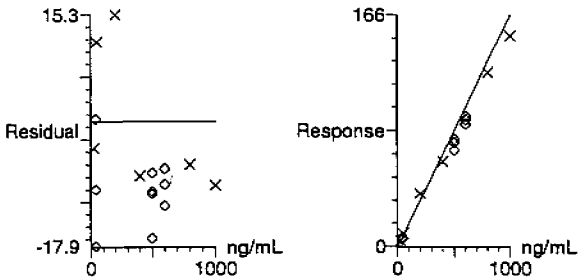

Compound name: 4-Nitrotoluene
Response Factor: 0.0792496
RRF SD: 0.014162, % Relative SD: 17.8701
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

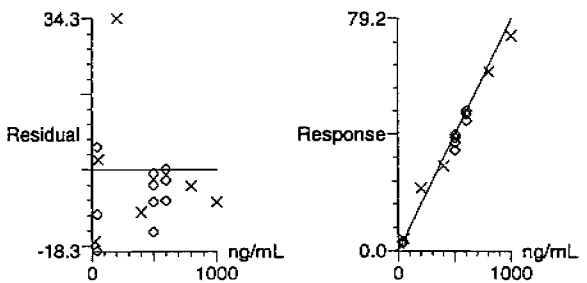

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Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0982133
RRF SD: 0.0128718, % Relative SD: 13.106
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

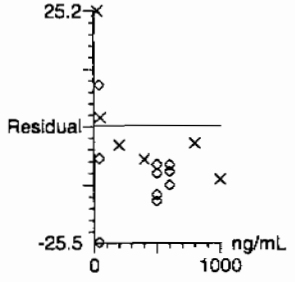

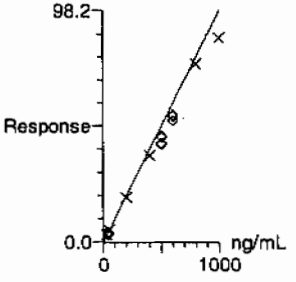

Compound name: PETN
Coefficient of Determination: 0.995946
Calibration curve: -0.000869973 * x^2 + 2.31341 * x + 17.1838
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

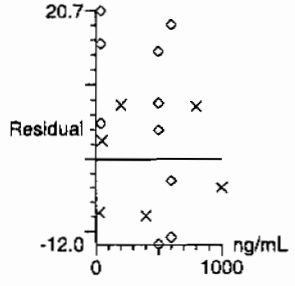

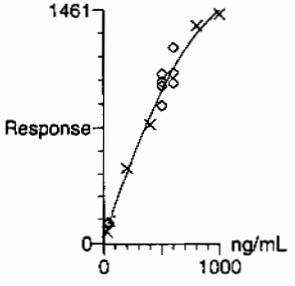

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0301010a

Analysis Date: 01-MAR-10 19:58

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	600	644.551	107	
3,4-Dinitrotoluene	300	296.974	99	
4-Amino-2,6-dinitrotoluene	600	579.777	97	
HMX	600	536.335	89	
Nitrobenzene	600	585.727	98	
PETN	600	533.297	89	
RDX	600	709.645	118	
Tetryl	600	514.366	86	
m-Dinitrobenzene	600	559.17	93	
m-Nitrotoluene	600	522.296	87	
o-Nitrotoluene	600	546.617	91	
p-Nitrotoluene	600	600.673	100	
1,3,5-Trinitrobenzene	600	553.636	92	
1,3-Dinitrobenzene-d4	500	552.255	110	
2,4,6-Trinitrotoluene	600	650.963	108	
2,4-Dinitrotoluene	600	610.999	102	
2,6-Dinitrotoluene	600	612.154	102	
2,6-Dinitrotoluene-d3	500	563.698	113	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301010a
Date: 01-Mar-2010
Time: 19:58:29
ID: WXX100301-07ICV
Vial: 1:1,B

MAT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.64 7.251e+004

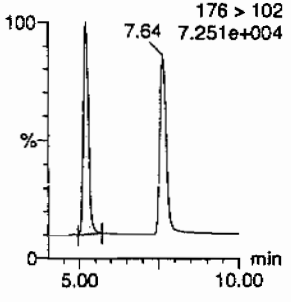

RDX
F2:MRM of 1 channel,AP-
5.22 176 > 102
7.251e+004

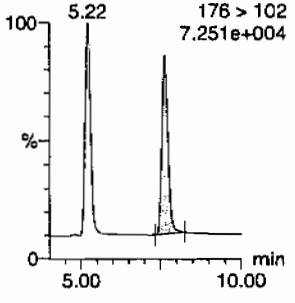

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.109e+004

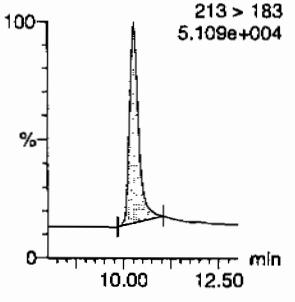

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.431e+004

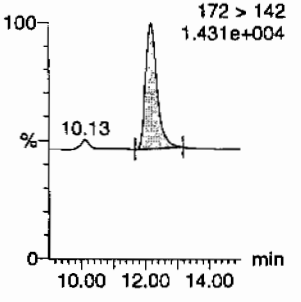

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.894e+004

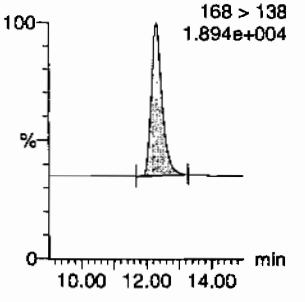

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 18
12.82 1.621e+004
3463.43

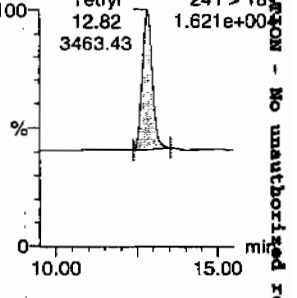

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.632e+004

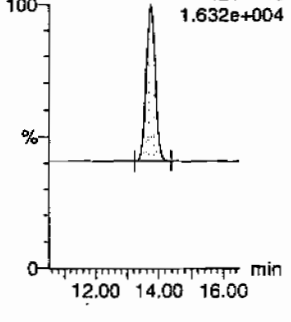

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.157e+004

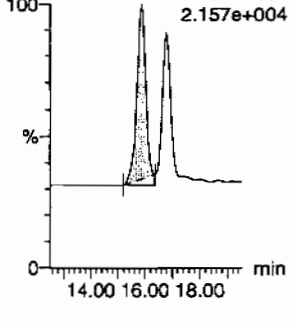

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.004e+004

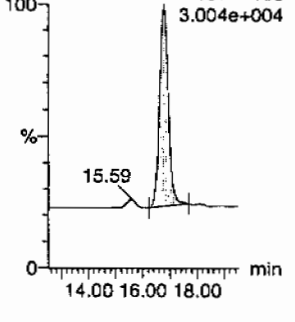

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.432e+004

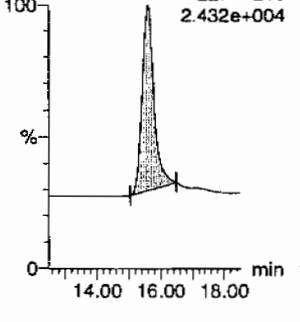

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.79 182 > 152
7.456e+004

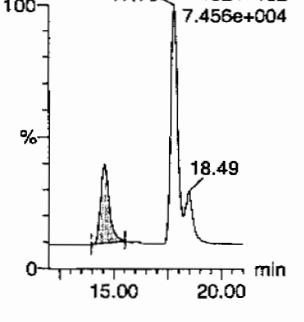

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 15
7.456e+004

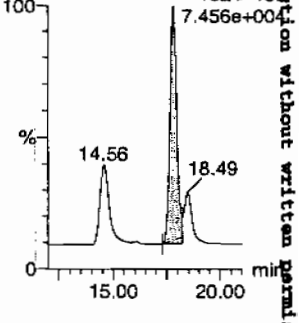

HMW 03/02/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

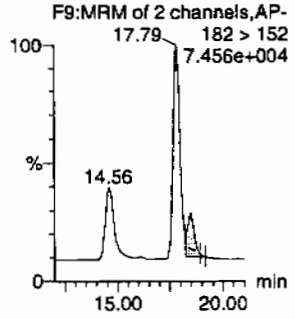

26-dinitrotoluene-d3

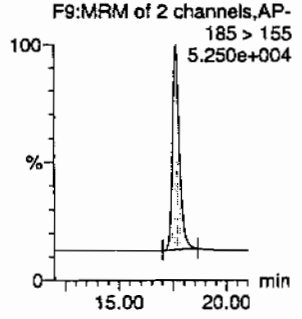

2-Nitrotoluene

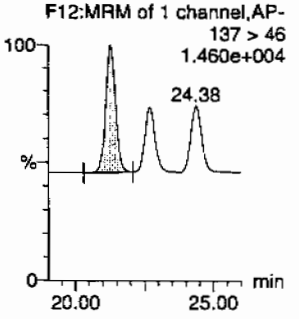

4-Nitrotoluene

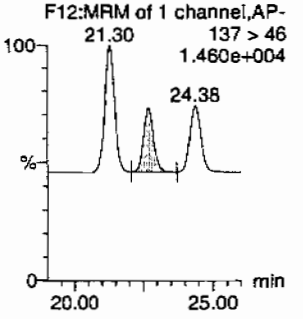

3-Nitrotoluene

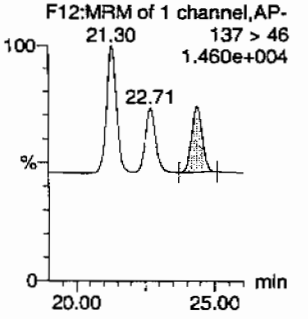

PETN

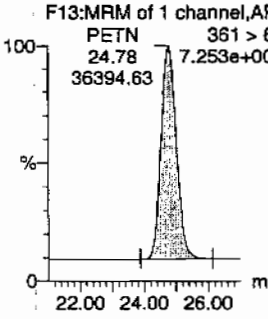

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07ICV	HMX	176 > 102	5.22	13098.474	3200.957	13098.474	2046.025	bb			536.3354	89.4	-10.6	1184.6
WXX100301-07ICV	RDX	176 > 102	7.64	12469.034	3200.957	12469.034	1947.704	bb			709.6451	118.3	18.3	994.7
WXX100301-07ICV	135-Trinitrobenzene	213 > 183	10.27	12203.332	3200.957	12203.332	1906.201	bb			553.6364	92.3	-7.7	963.4
WXX100301-07ICV	13-Dinitrobenzene-d4	172 > 142	12.17	3200.957		3200.957	3200.957	bb			552.2555	110.5	10.5	294.2
WXX100301-07ICV	13-Dinitrobenzene	168 > 138	12.31	4696.164	3200.957	4696.164	733.556	bb			559.1698	93.2	-6.8	388.3
WXX100301-07ICV	Tetryl	241 > 181	12.82	3463.432	3200.957	3463.432	540.999	bb			514.3662	85.7	-14.3	378.0
WXX100301-07ICV	Nitrobenzene	123 > 46	13.72	3333.296	3200.957	3333.296	520.672	bb			585.7272	97.6	-2.4	362.0
WXX100301-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.89	5935.360	18133.975	5935.360	163.653	MM	02-Mar-10	09:46:04	579.7767	96.6	-3.4	265.0
WXX100301-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.79	8813.408	18133.975	8813.408	243.008	bb			644.5509	107.4	7.4	424.6
WXX100301-07ICV	246-Trinitrotoluene	227 > 210	15.58	7441.112	18133.975	7441.112	205.170	bb			650.9626	108.5	8.5	640.1
WXX100301-07ICV	34-dinitrotoluene	182 > 152	14.56	10670.113	18133.975	10670.113	294.202	bb			296.9742	99.0	-1.0	440.7
WXX100301-07ICV	26-dinitrotoluene	182 > 152	17.79	25048.648	18133.975	25048.648	690.655	MM	02-Mar-10	09:37:31	612.1544	102.0	2.0	1325.9
WXX100301-07ICV	24-dinitrotoluene	182 > 152	18.49	5574.063	18133.975	5574.063	153.691	MM	02-Mar-10	09:28:46	610.9991	101.8	1.8	275.6
WXX100301-07ICV	26-dinitrotoluene-d3	185 > 155	17.64	18133.975		18133.975	18133.975	bb			563.6984	112.7	12.7	1372.6
WXX100301-07ICV	2-Nitrotoluene	137 > 46	21.30	3288.563	18133.975	3288.563	90.674	bb			546.6170	91.1	-8.9	801.1
WXX100301-07ICV	4-Nitrotoluene	137 > 46	22.71	1726.468	18133.975	1726.468	47.603	bb			600.6731	100.1	0.1	401.9
WXX100301-07ICV	3-Nitrotoluene	137 > 46	24.38	1860.416	18133.975	1860.416	51.296	bb			522.2960	87.0	-13.0	411.6
WXX100301-07ICV	PETN	361 > 62	24.78	36394.633	18133.975	36394.633	1003.493	bb			533.2968	88.9	-11.1	2990.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/01/10
Time of Injection: 1958
Standard Number: WXX100301-07ICV
Data File: EXP0301010a

HMX	89.4
RDX	118.3
135-TNB	92.3
13-DNB	93.2
Tetryl	85.7
Nitrobenzene	97.6
4A-26-DNT	96.6
2A-46-DNT	107.4
246-TNT	108.5
34-DNT(surr)	99.0
26-DNT	102.0
24-DNT	101.8
2-NT	91.1
4-NT	100.1
3-NT	87.0
PETN	88.9
Total	1558.9
Average	97.4

MJT 3/2/10

Hmc 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1514

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10,24-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02220003.wifl	EXS02220004.wifl	EXS02220005.wifl	EXS02220006.wifl	EXS02220007.wifl	EXS02220008.wifl	EXS02220009.wifl					
Parmname:												
3,4-Dinitrotoluene	349000	660000	1640000	3130000	4800000	6040000	11400000	-9720	14000	-2.69	.9977	
3,5-Dinitroaniline	385000	817000	1720000	3510000	5180000	7210000	12200000	-71000	7870	-.865	.9993	
TATB	100000	195000	464000	973000	1450000	1810000	3550000	4110	1940	-.085	.9997	
tris(o-cresyl) phosphate	1130000	2200000	5170000	9780000	14700000	18100000	29900000	43000	21500	-3.29	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1514

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10,24-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Average RF

Calibration Level:	19	20	21	22	23	24	25	Ave RF	RSD	Q
Data File:	EXS02220003.w	EXS02220004.w	EXS02220005.w	EXS02220006.w	EXS02220007.w	EXS02220008.w	EXS02220009.w			
Parmname										
2,6-Diamino-4-nitrotoluene	1550	1760	1990	1780	2210	1890	2120	1900.000	12	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1514

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10,24-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Linear

Calibration Level:	19	20	21	22	23	24	25	Slope	Intercept	COD	Q
Data File:	EXS02220003.w	EXS02220004.w	EXS02220005.w	EXS02220006.w	EXS02220007.w	EXS02220008.w	EXS02220009.w				
Parmname											
2,4-Diamino-6-nitrotoluene	50600	96100	236000	641000	956000	1340000	2550000	1300	-27000	.999	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	4.11e+003			
a1	1.94e+003			
a2	-0.0847			

Correlation coefficient 0.9997
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-7.1e+004			
a1	7.87e+003			
a2	-0.865			

Correlation coefficient 0.9993
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.72e+003			
a1	1.4e+004			
a2	-2.69			

Correlation coefficient 0.9977
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Mean Response Factor	Weighting	None	Iterate No
Factor	1.9e+003			
Standard deviation	228			
%RSD	12			

Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Sam 2/23/10

shirley 02/23/10

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022210ICAL

Fit Linear Weighting None Iterate No
Intercept -2.7e+004
Slope 1.3e+003
Correlation coefficient 0.9990
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit Quadratic Weighting None Iterate No
a0 4.3e+004
a1 2.15e+004
a2 -3.29
Correlation coefficient 0.9999
Use Area

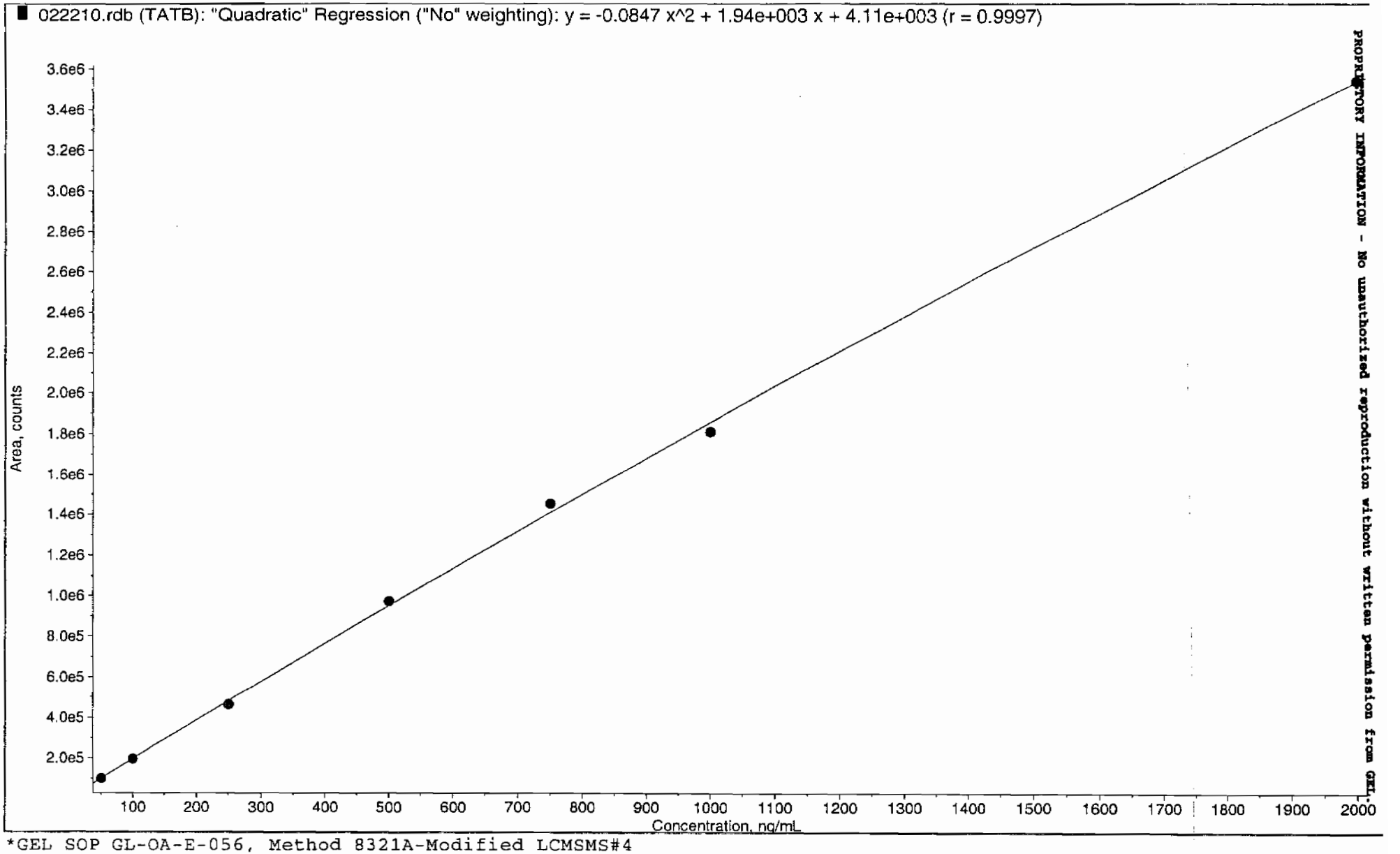

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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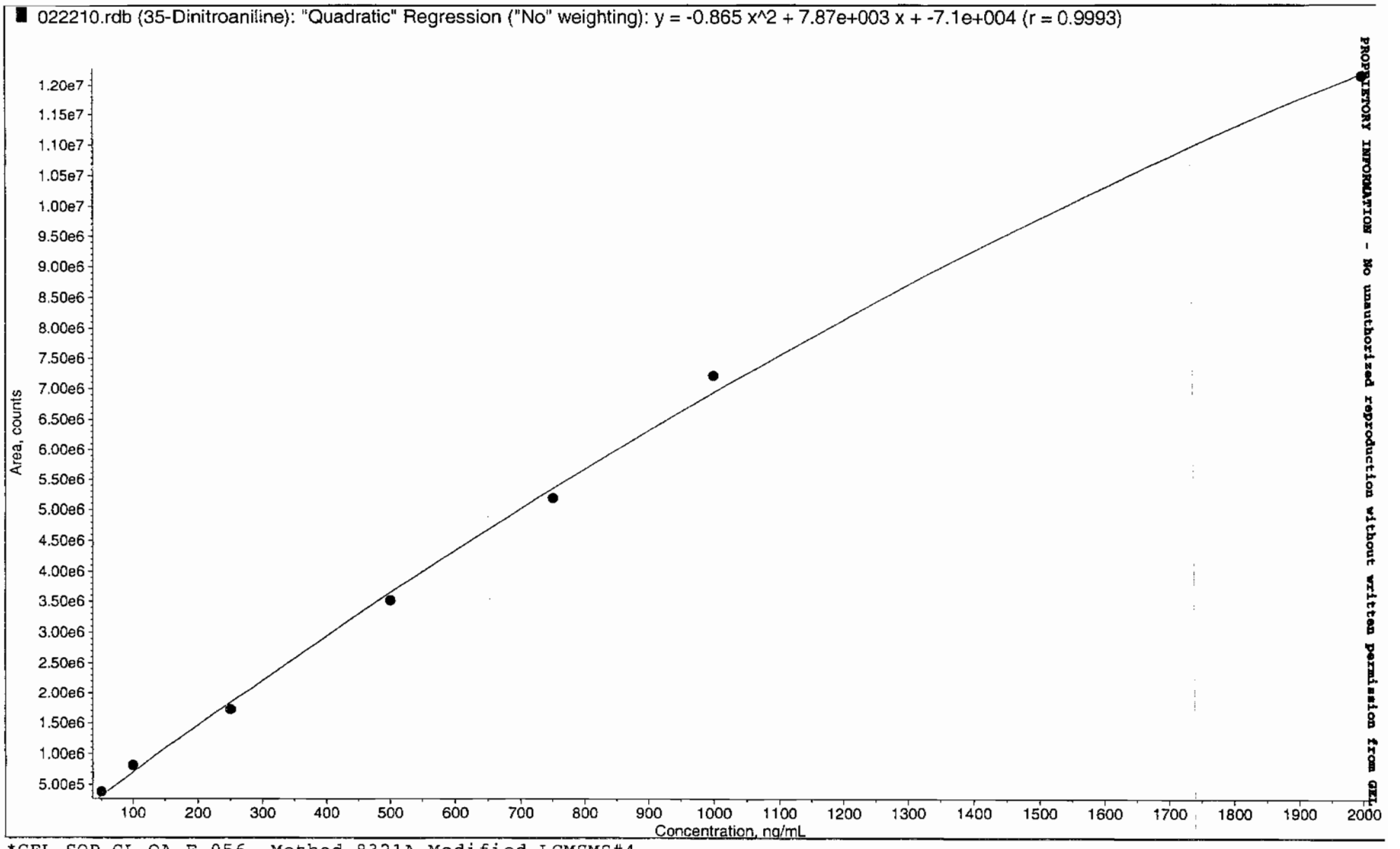

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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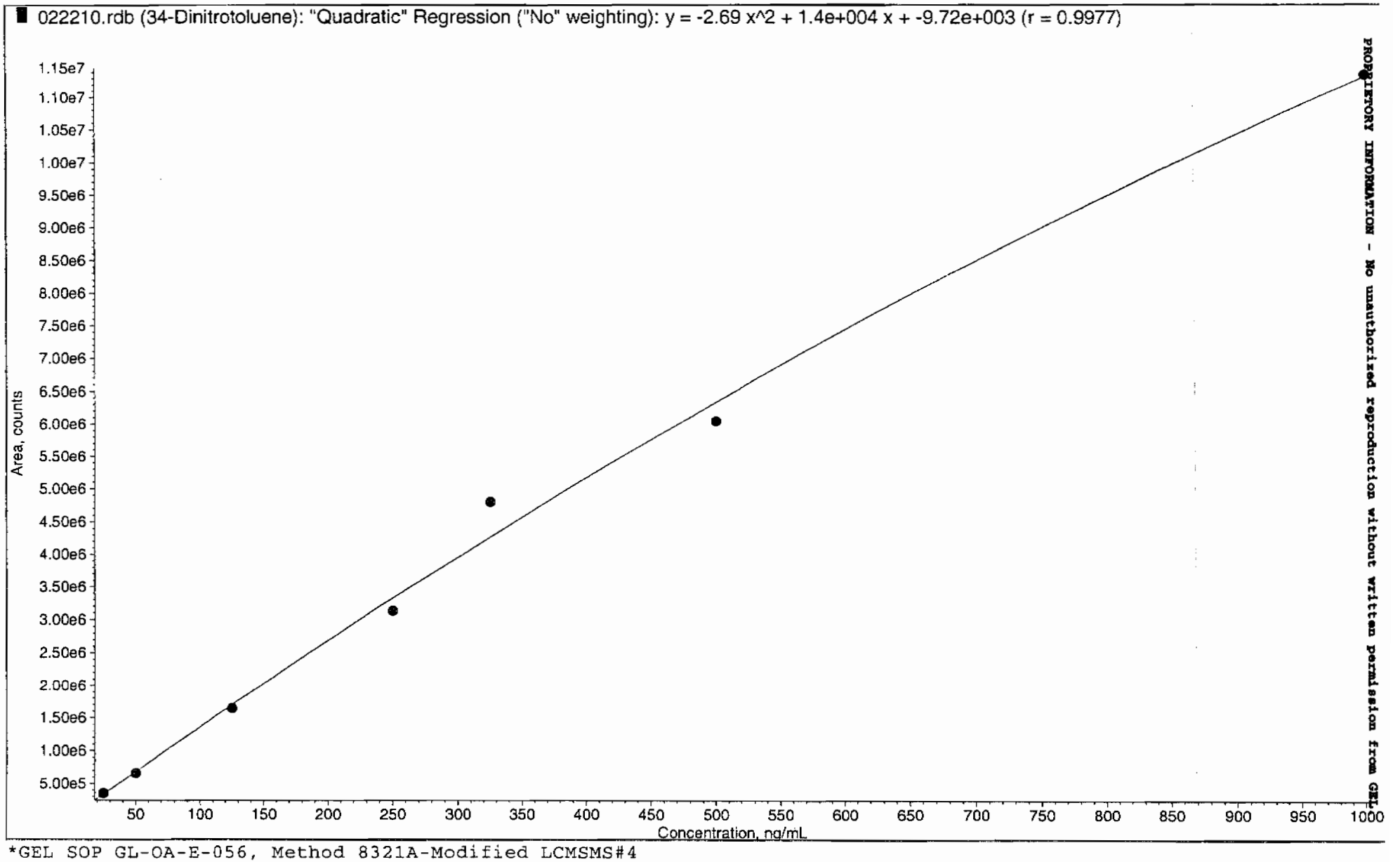

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

022210.rdb (26-Diamino-4-nitrotoluene): "Mean Response Factor" Regression ("No" weighting): y = 1.9e+003 x (std. dev. = 228)

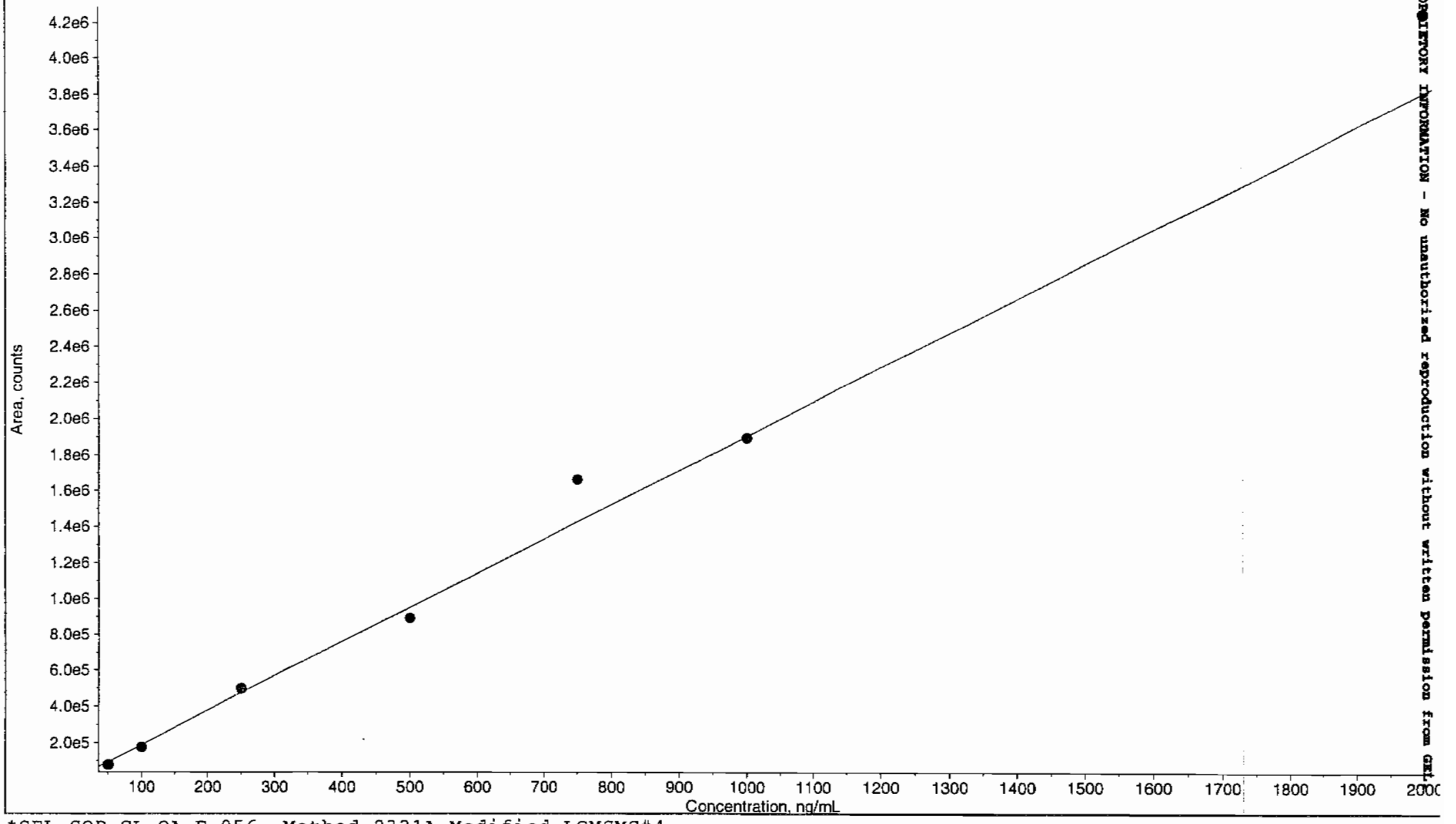

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

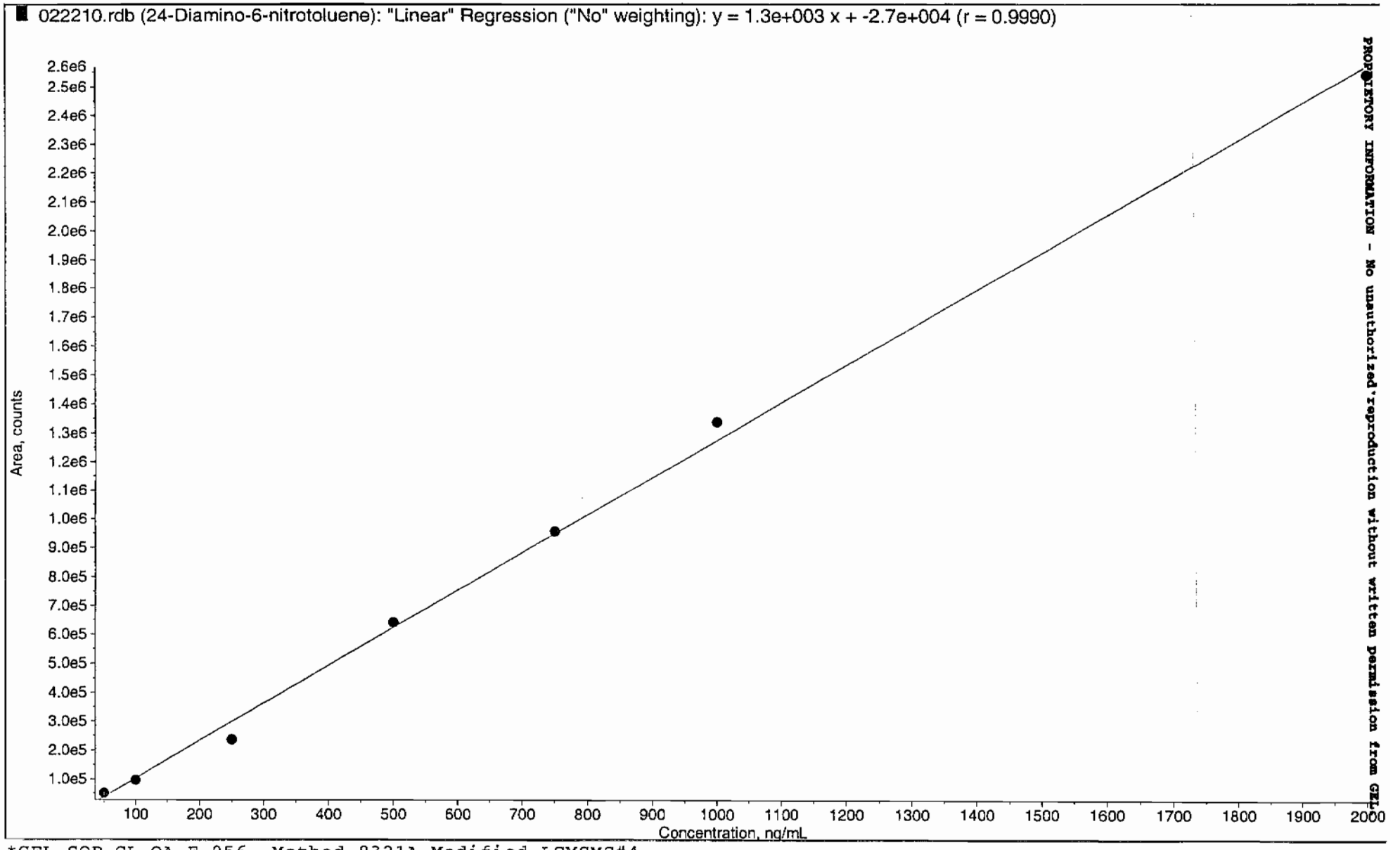

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

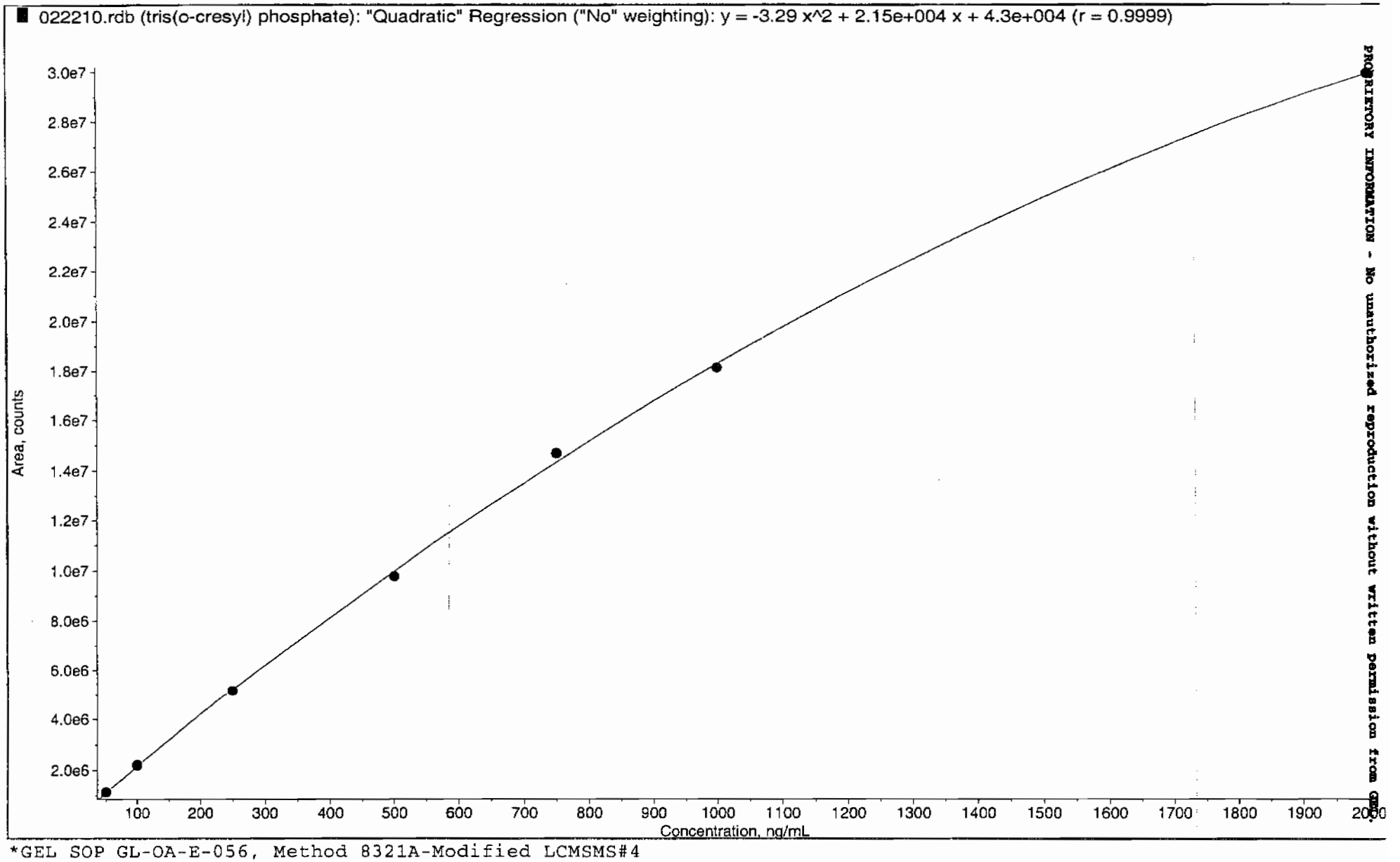

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02220011.wiff

Analysis Date: 22-FEB-10 19:38

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	562	112	
2,6-Diamino-4-nitrotoluene	500	578	116	
3,4-Dinitrotoluene	250	228	91	
3,5-Dinitroaniline	500	469	94	
TATB	500	461	92	
tris(o-cresyl) phosphate	500	492	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/23/10

Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 461. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 8.79e+005 counts
Height: 191509.689 cps
Start Time: 6.87 min
End Time: 7.50 min

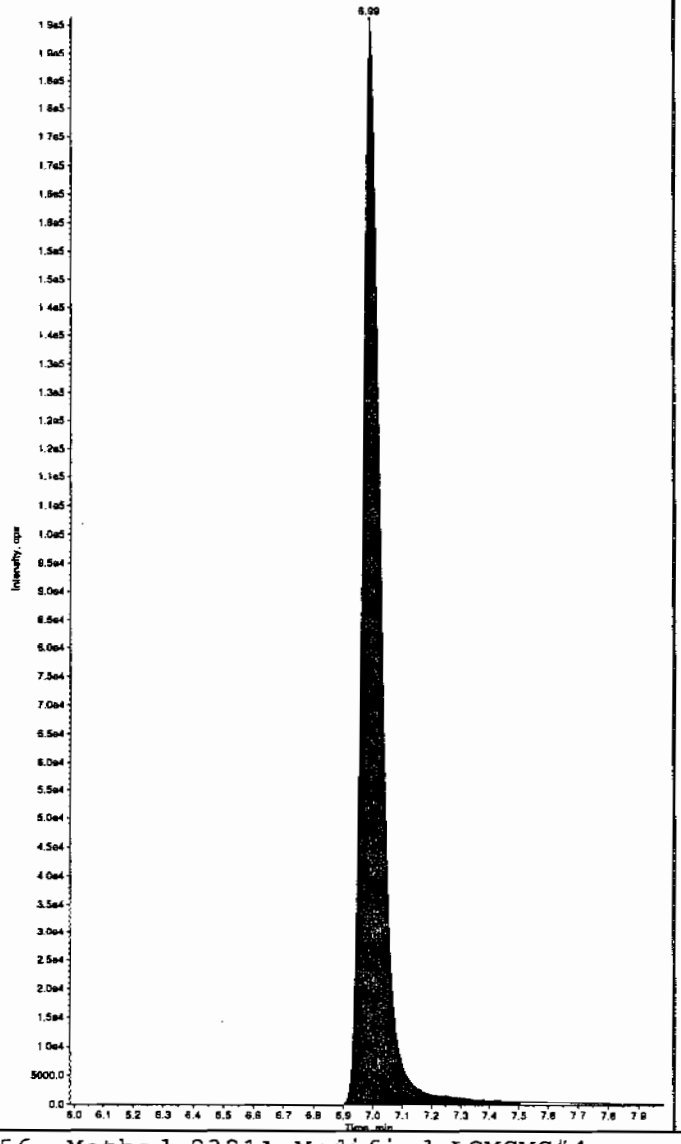

Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 3.28e+006 counts
Height: 838502.686 cps
Start Time: 8.14 min
End Time: 8.32 min

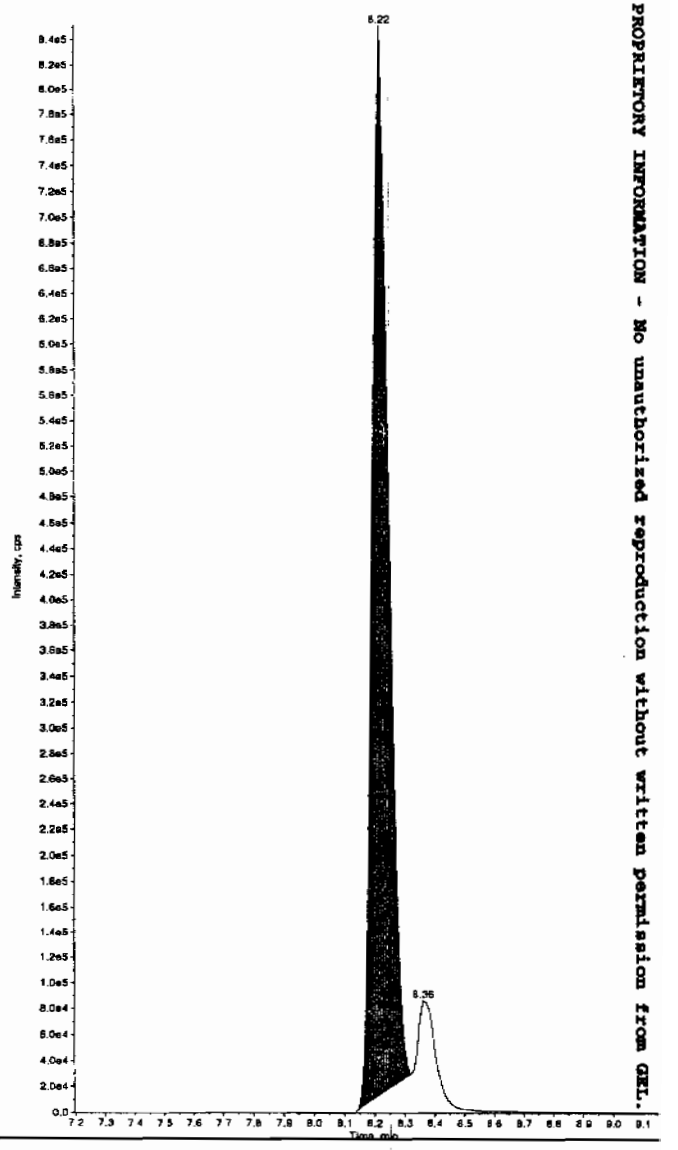

Hmm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Scan 2/23/10

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 461. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 8.79e+005 counts
Height: 191509.689 cps
Start Time: 6.87 min
End Time: 7.50 min

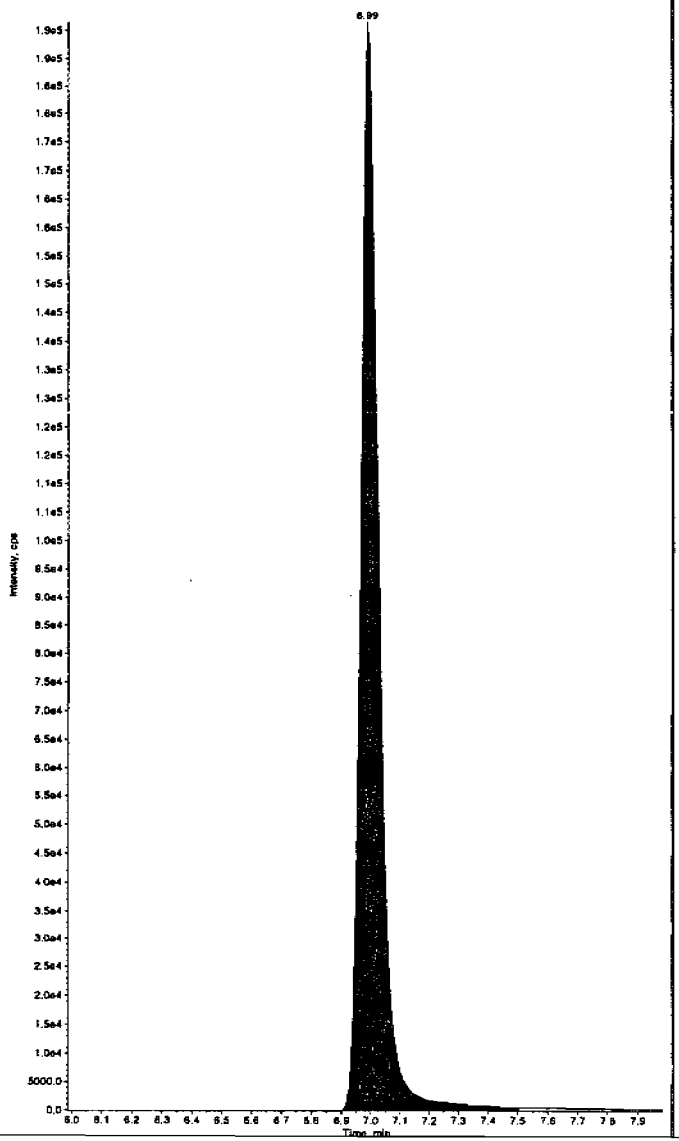

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 469. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 3.43e+006 counts
Height: 850566.030 cps
Start Time: 8.14 min
End Time: 8.32 min

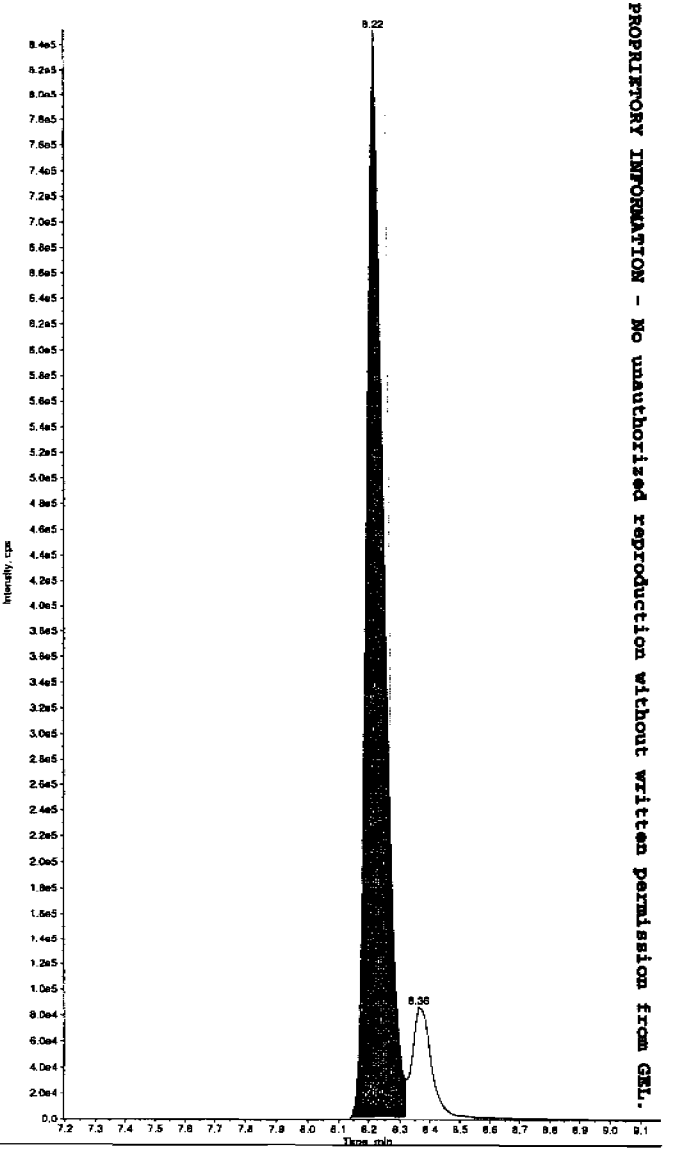

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 228. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 3.05e+006 counts
Height: 803488.770 cps
Start Time: 8.29 min
End Time: 8.64 min

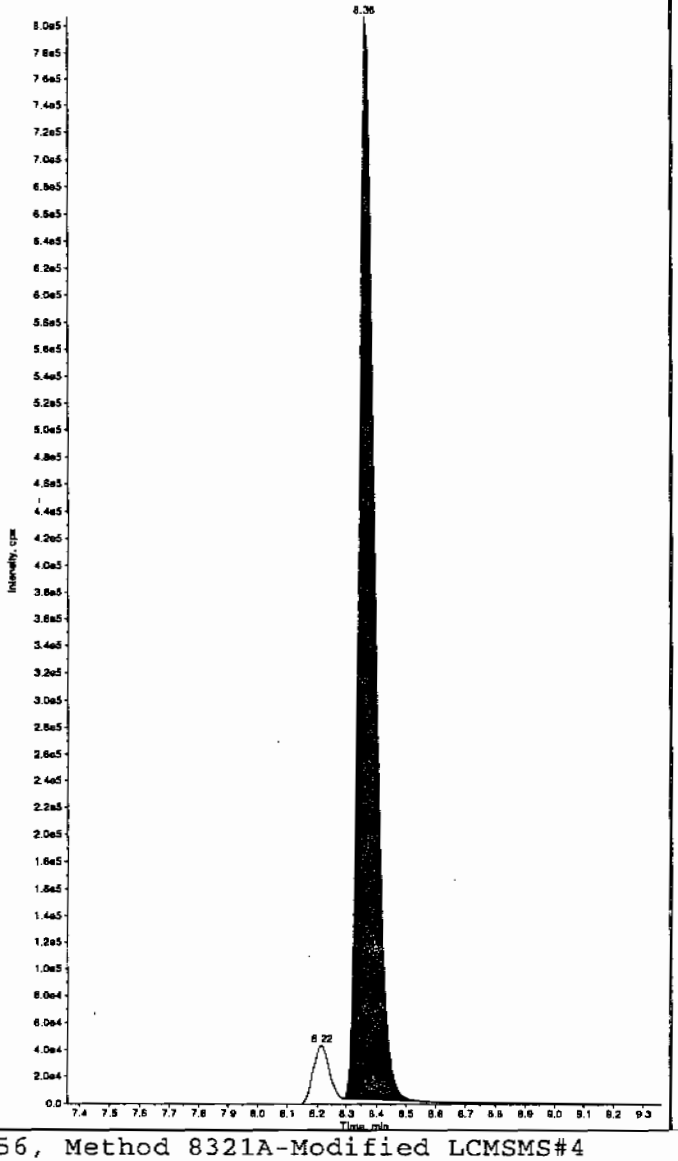

Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 578. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.10e+006 counts
Height: 256377.838 cps
Start Time: 4.91 min
End Time: 5.31 min

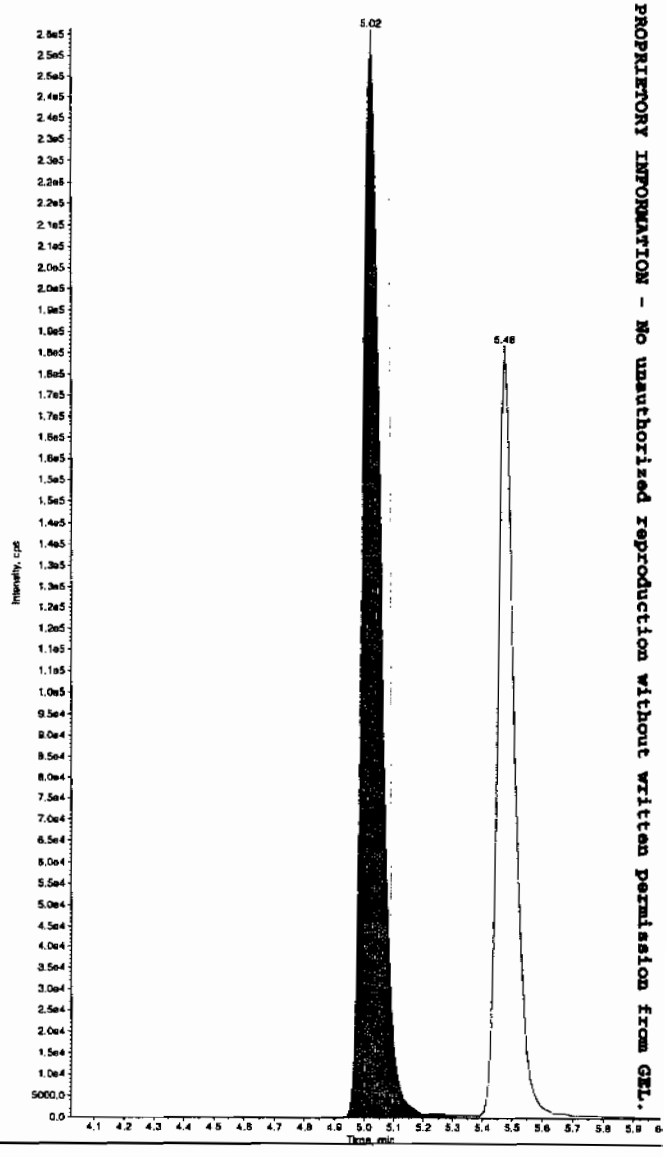

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 562. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 7.04e+005 counts
Height: 181330.688 cps
Start Time: 5.38 min
End Time: 5.72 min

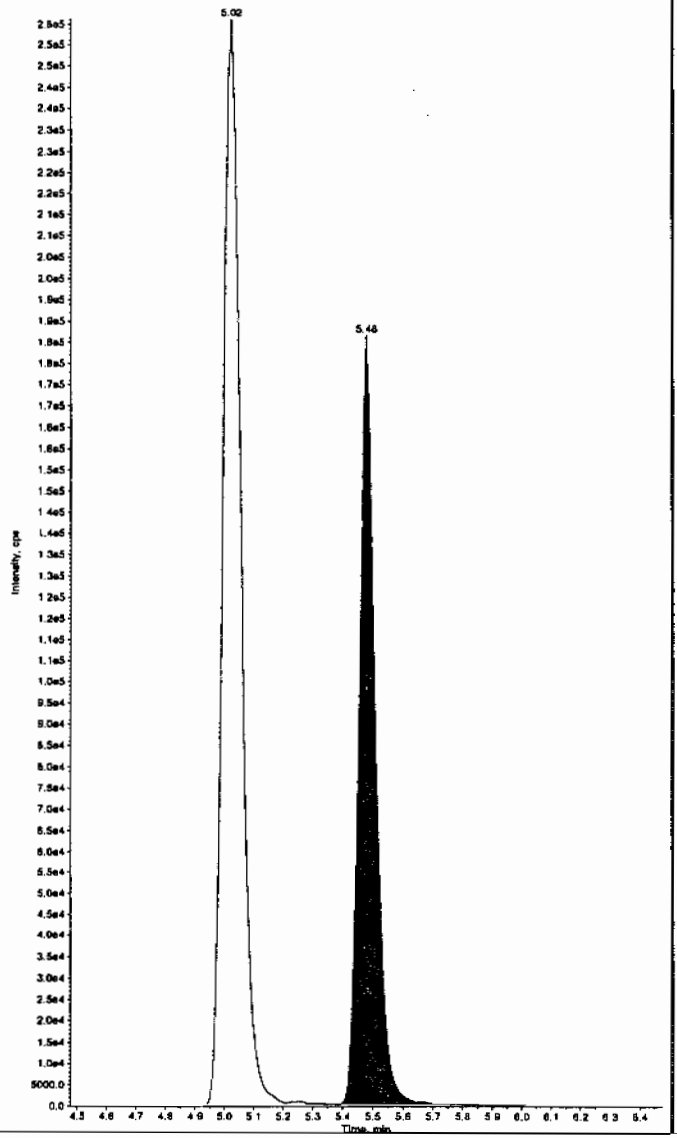

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es) "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 492. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.83e+006 counts
Height: 2255017.334 cps
Start Time: 10.8 min
End Time: 11.2 min

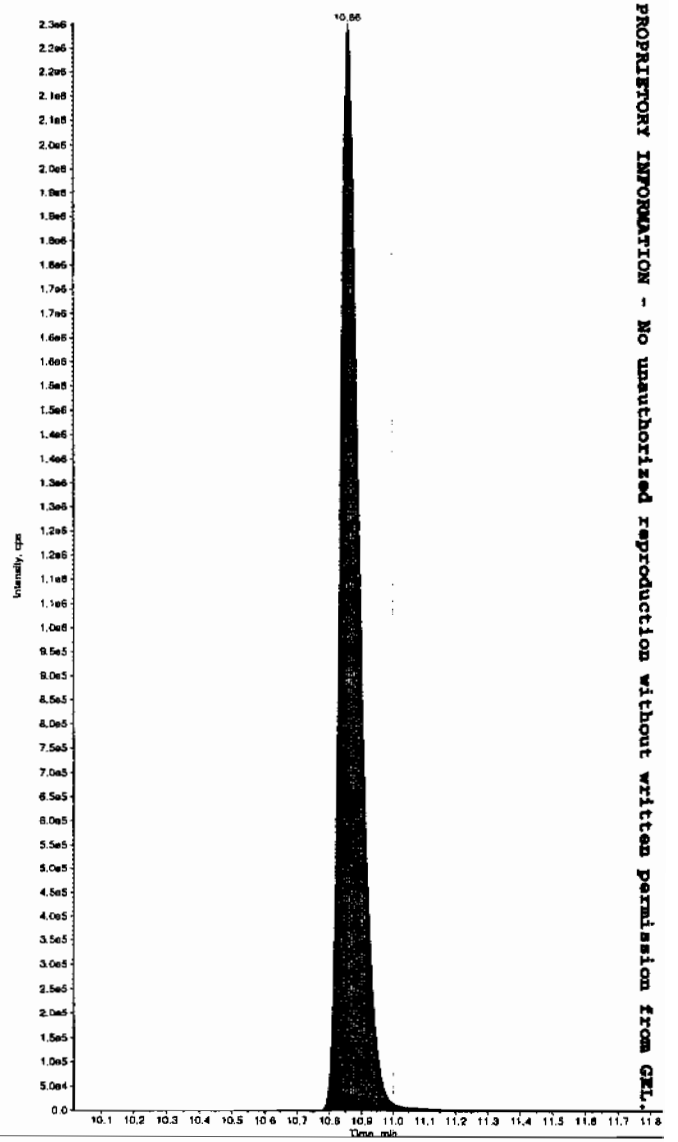

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1514

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10,24-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02240003.wifl	EXS02240004.wifl	EXS02240005.wifl	EXS02240006.wifl	EXS02240007.wifl	EXS02240008.wifl	EXS02240009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	48700	81500	230000	427000	622000	846000	1560000	1100	886	-.053	.9998	
2,6-Diamino-4-nitrotoluene	70000	111000	300000	612000	773000	1370000	2850000	5920	1080	.172	.9972	
3,4-Dinitrotoluene	171000	348000	795000	1580000	2450000	3100000	6100000	-3340	6950	-.861	.9977	
3,5-Dinitroaniline	250000	536000	1210000	2460000	3640000	4540000	8050000	-2250	5180	-.581	.9999	
TATB	48000	97900	246000	487000	756000	1070000	2090000	-13300	1050	.003	.9996	
tris(o-cresyl) phosphate	664000	1330000	3100000	6040000	8760000	11500000	20000000	27800	12800	-1.38	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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022410ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.33e+004			
a1	1.05e+003			
a2	0.00295			

Correlation coefficient 0.9996
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.25e+003			
a1	5.18e+003			
a2	-0.581			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-3.34e+003			
a1	6.95e+003			
a2	-0.861			

Correlation coefficient 0.9977
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	5.92e+003			
a1	1.08e+003			
a2	0.172			

Correlation coefficient 0.9972
Use Area

Lan 2/25/10

dtmm 02/25/10

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Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.1e+003			
a1	886			
a2	-0.0533			

Correlation coefficient 0.9998
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.78e+004			
a1	1.28e+004			
a2	-1.38			

Correlation coefficient 1.0000
Use Area

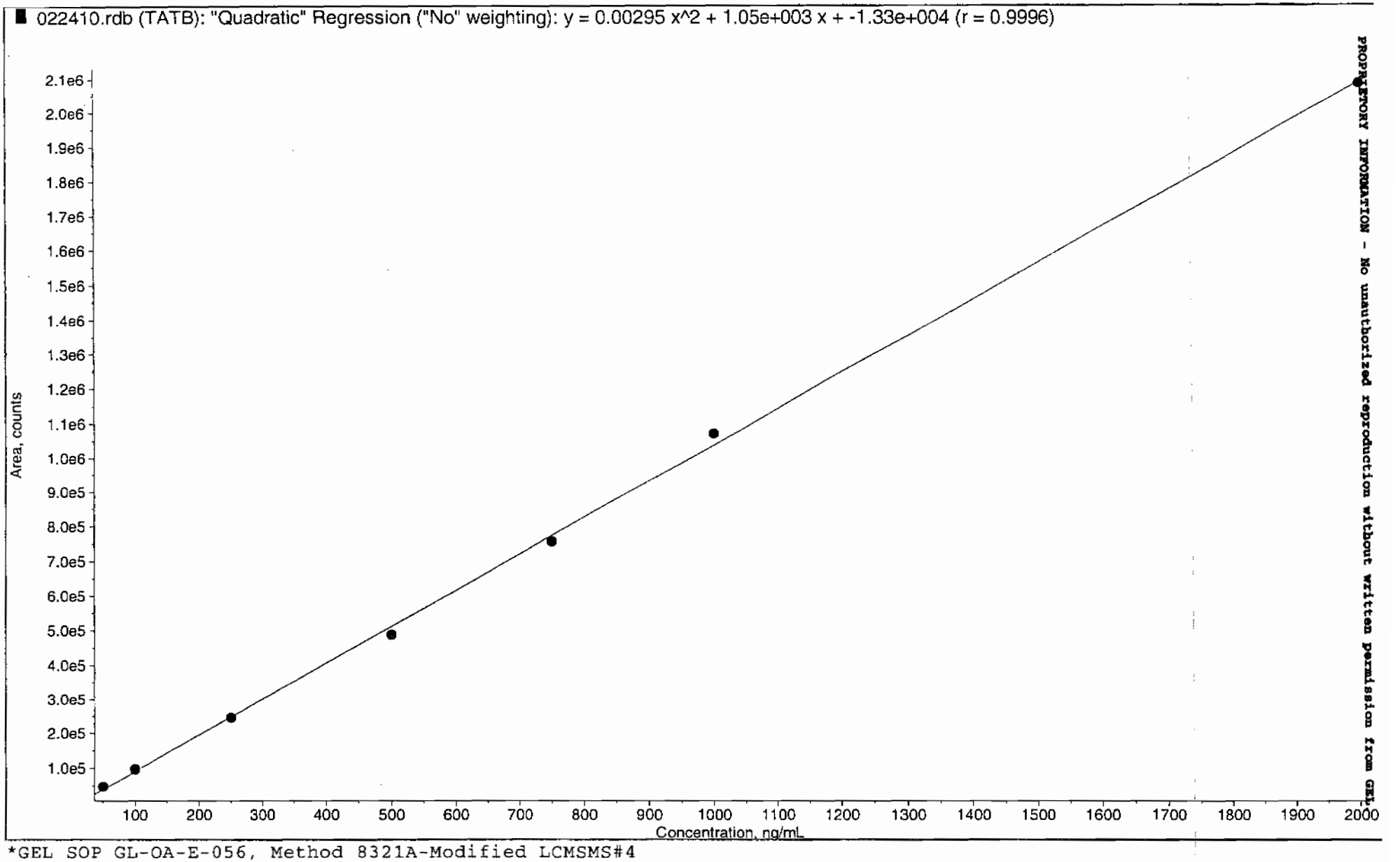

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

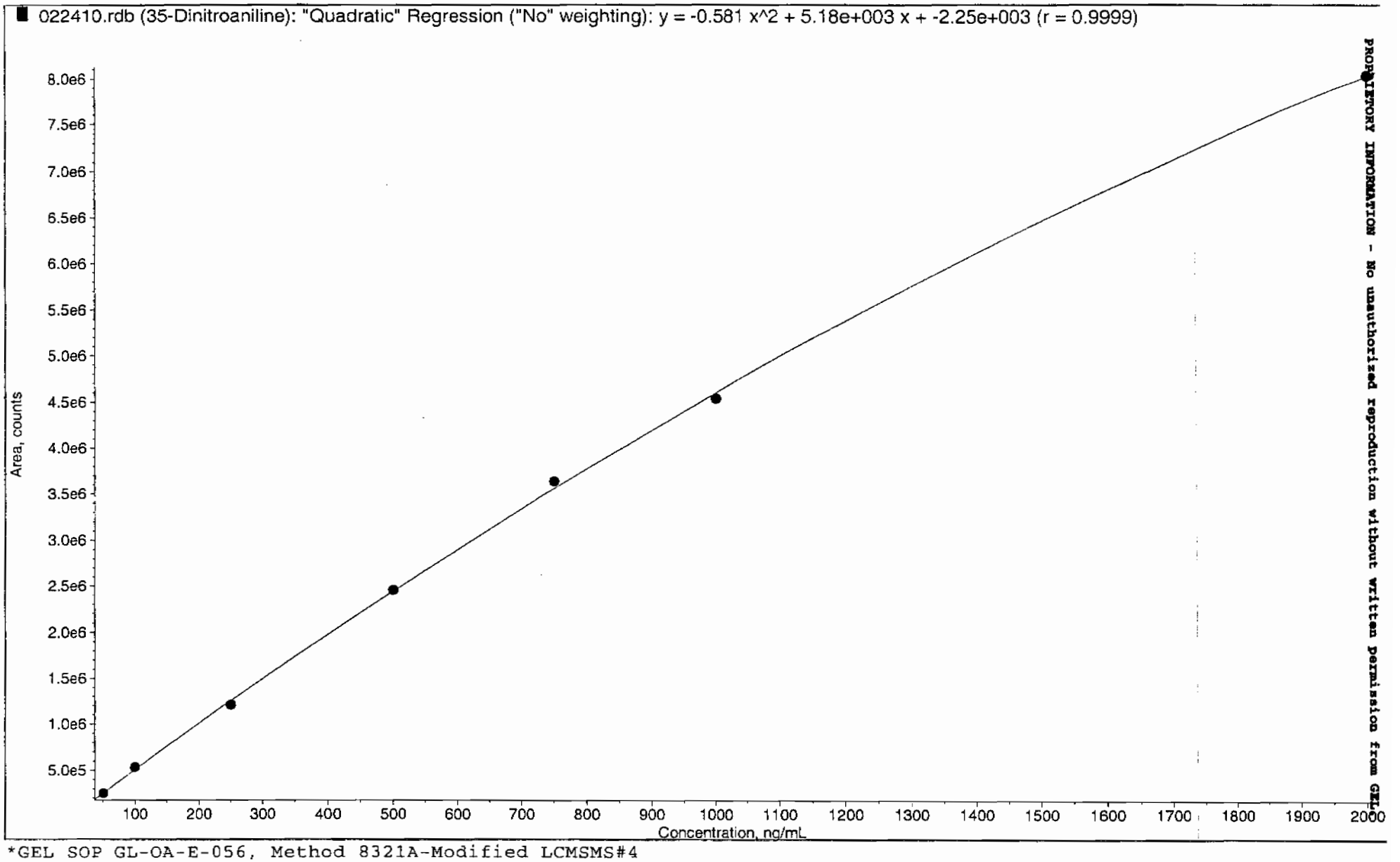

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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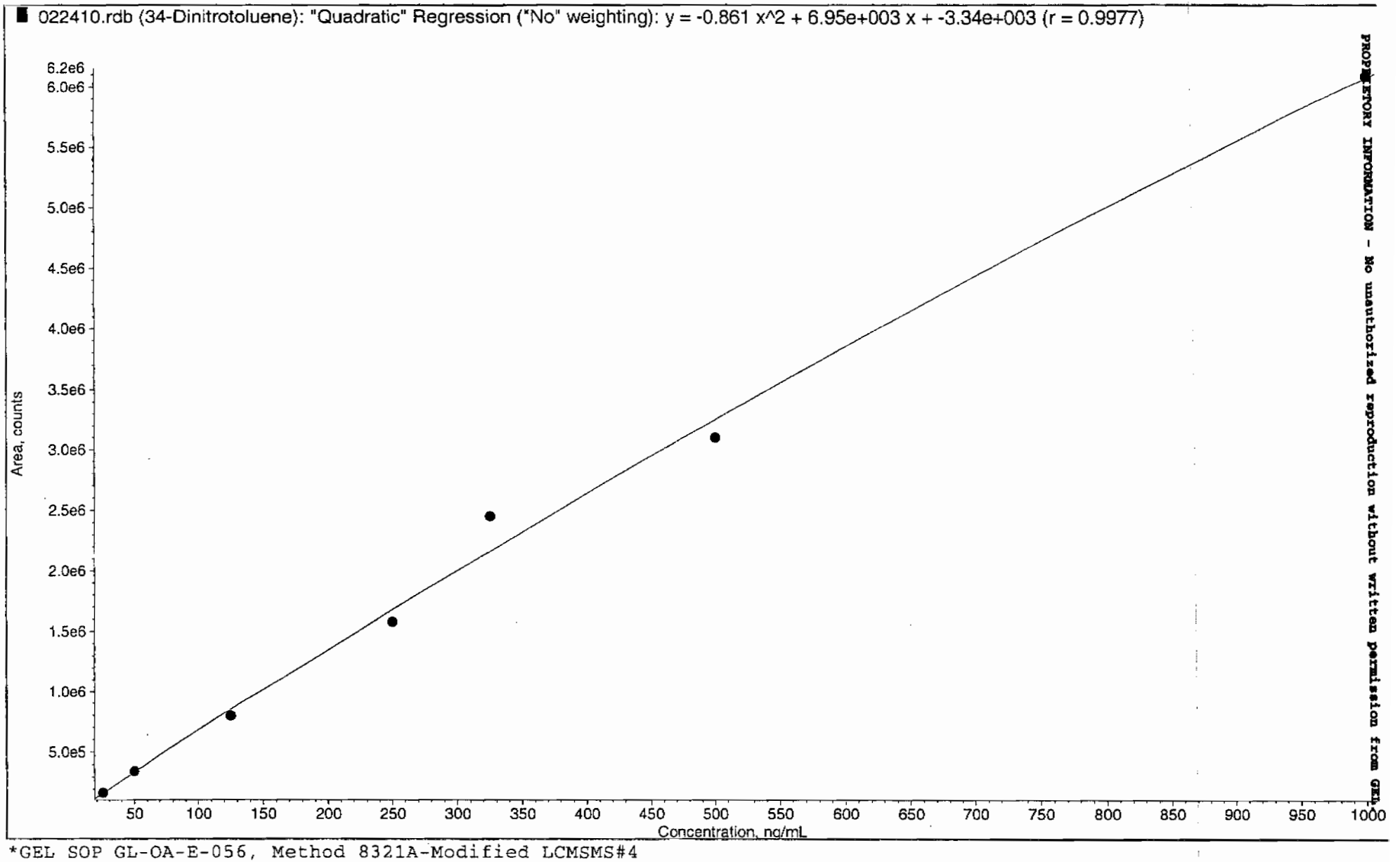

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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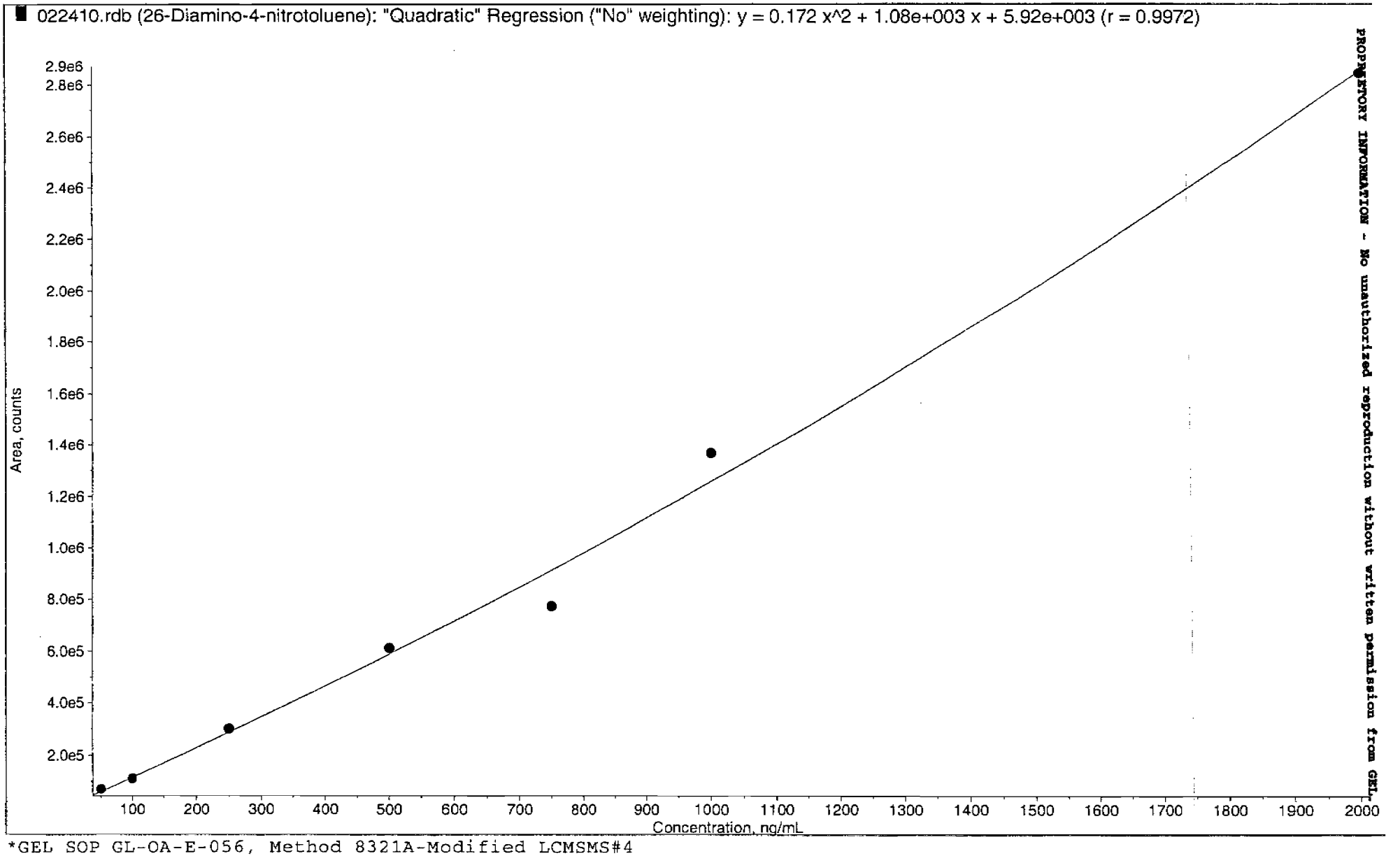

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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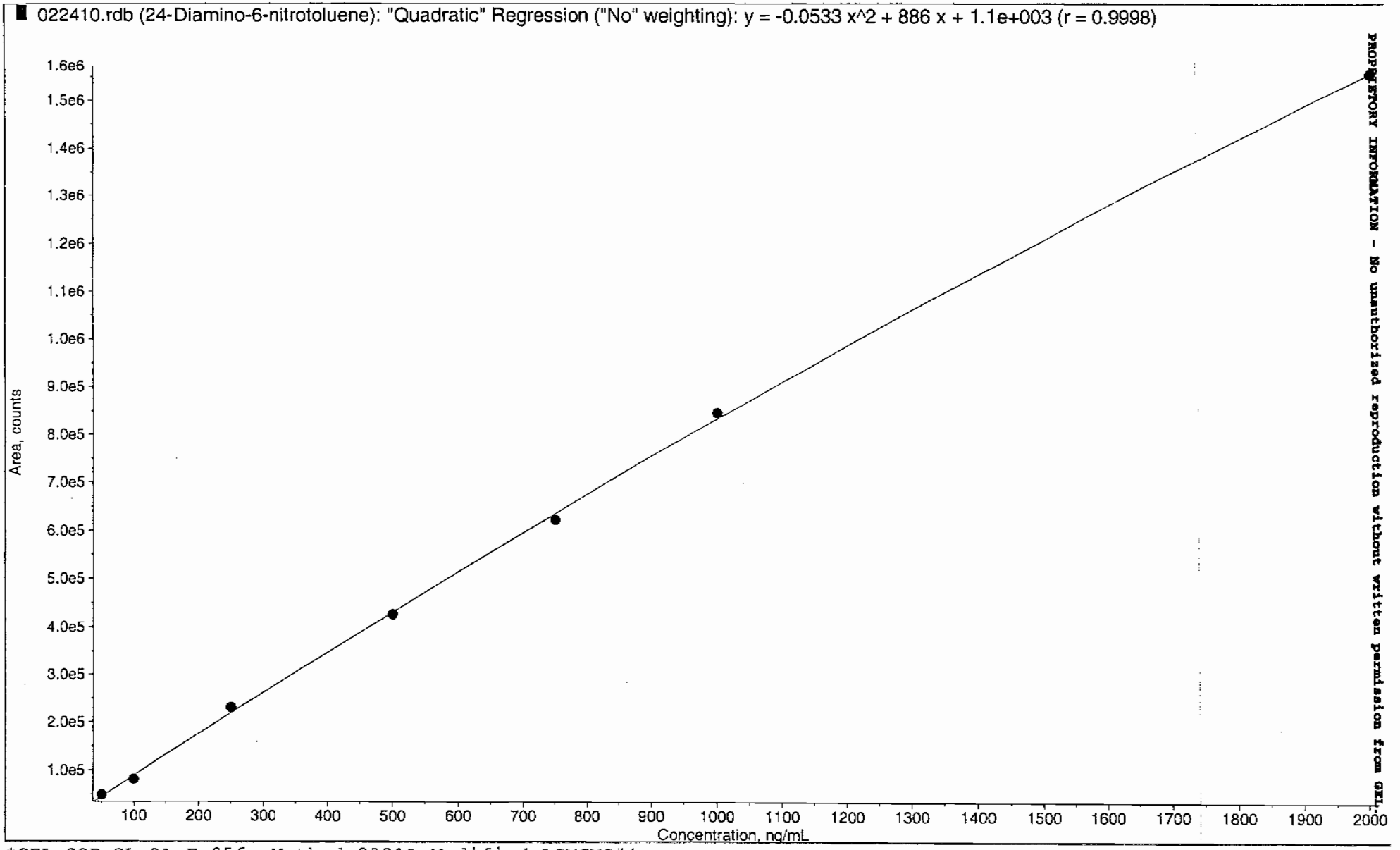

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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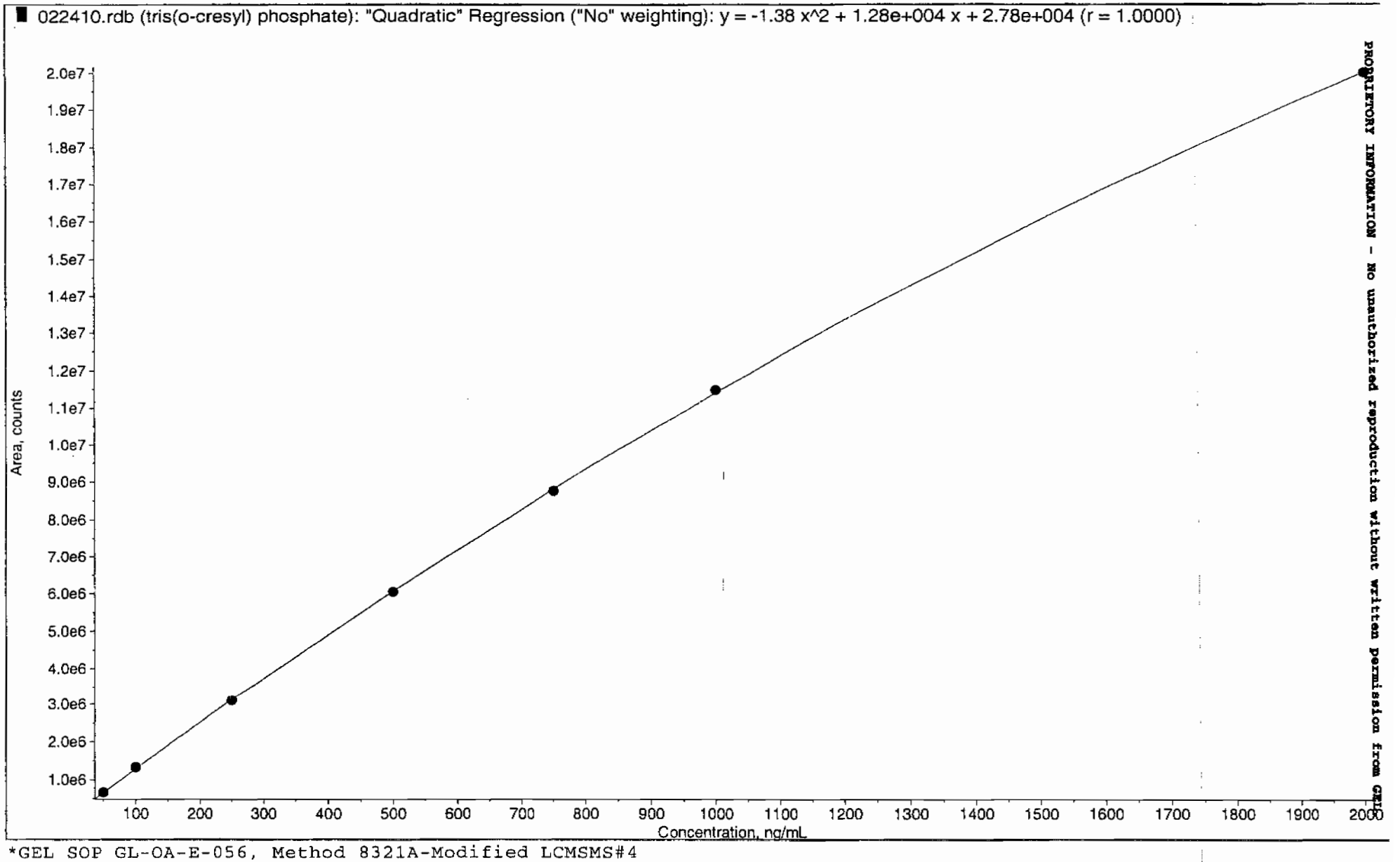

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02240011.wiff

Analysis Date: 24-FEB-10 12:35

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	497	99	
2,6-Diamino-4-nitrotoluene	500	544	109	
3,4-Dinitrotoluene	250	223	89	
3,5-Dinitroaniline	500	458	92	
TATB	500	481	96	
tris(o-cresyl) phosphate	500	493	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 2/25/10

Sample Name: "WXX100224-26ICV" Sample ID: "|1|LER" File: "EXS02240011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 481. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:35:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 4.91e+005 counts
Height: 126984.299 cps
Start Time: 6.39 min
End Time: 7.50 min

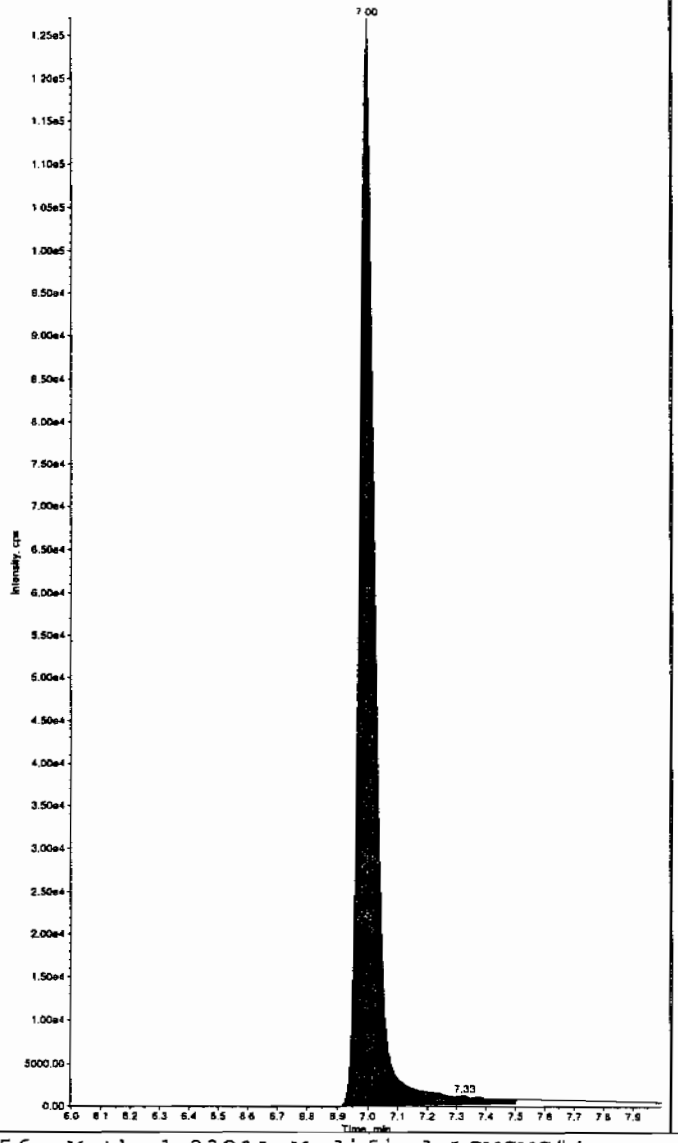

Sample Name: "WXX100224-25ICV" Sample ID: "|1|LER" File: "EXS02240011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 458. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:35:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 2.25e+006 counts
Height: 610281.799 cps
Start Time: 8.12 min
End Time: 8.34 min

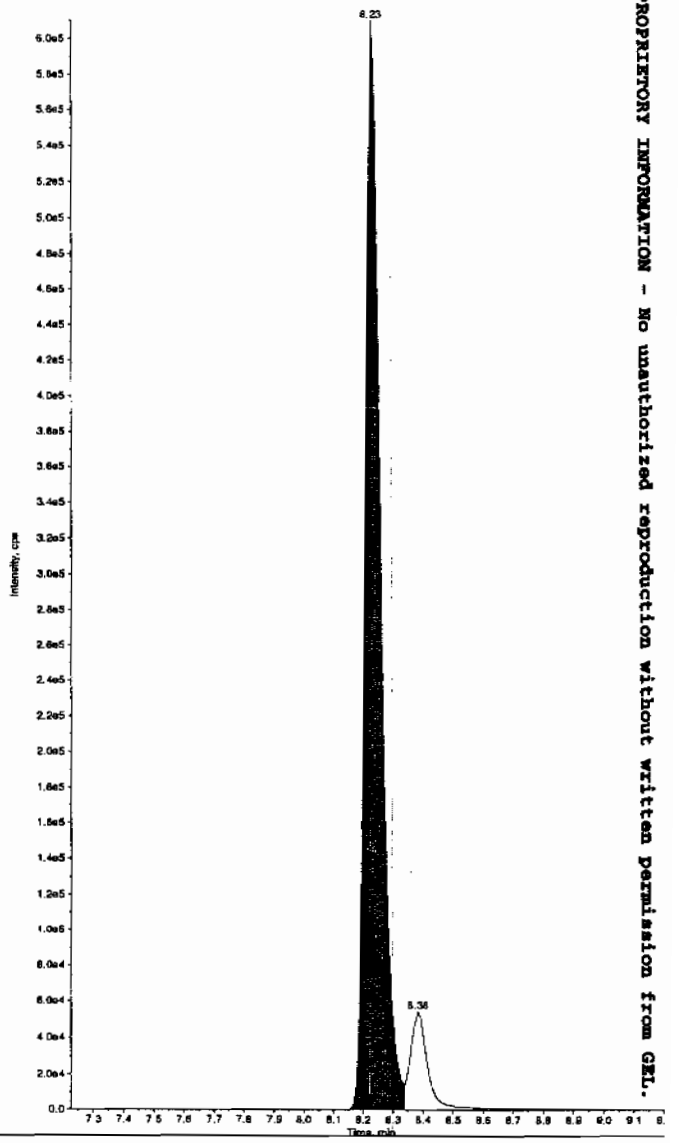

Hnik 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100224-26ICV" Sample ID: "[1]LER" File: "EXS02240011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 223. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:35:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 1.50e+006 counts
Height: 422965.179 cps
Start Time: 8.31 min
End Time: 8.70 min

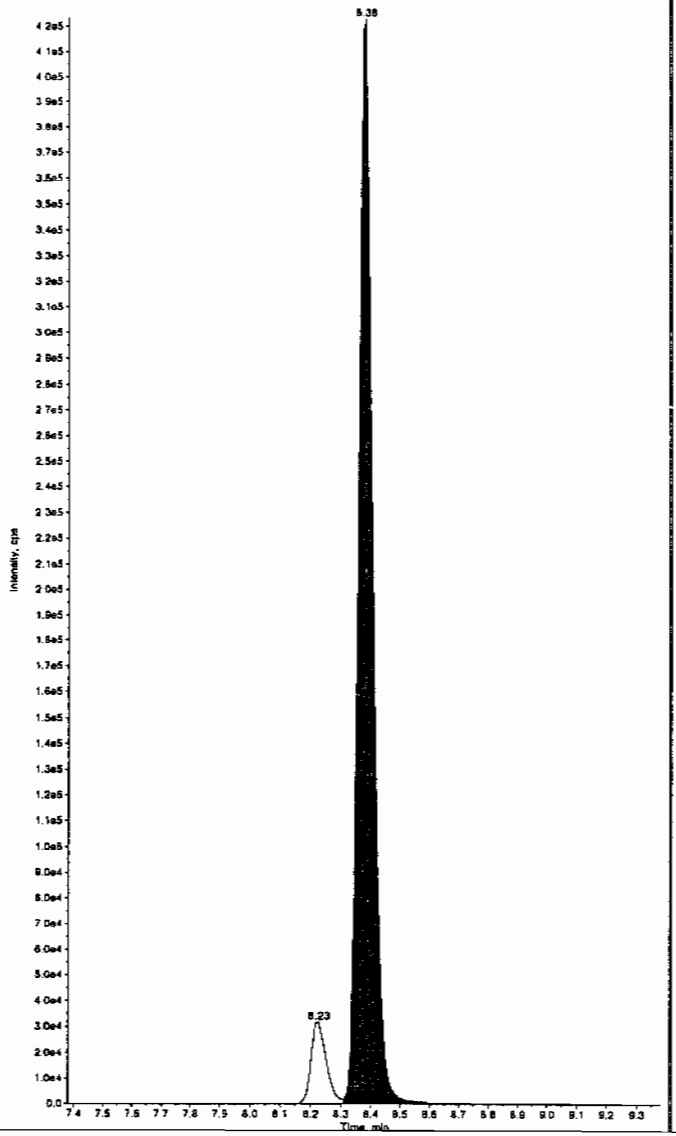

Sample Name: "WXX100224-26ICV" Sample ID: "[1]LER" File: "EXS02240011.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 544. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:35:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.01 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 6.44e+005 counts
Height: 149324.402 cps
Start Time: 4.92 min
End Time: 5.30 min

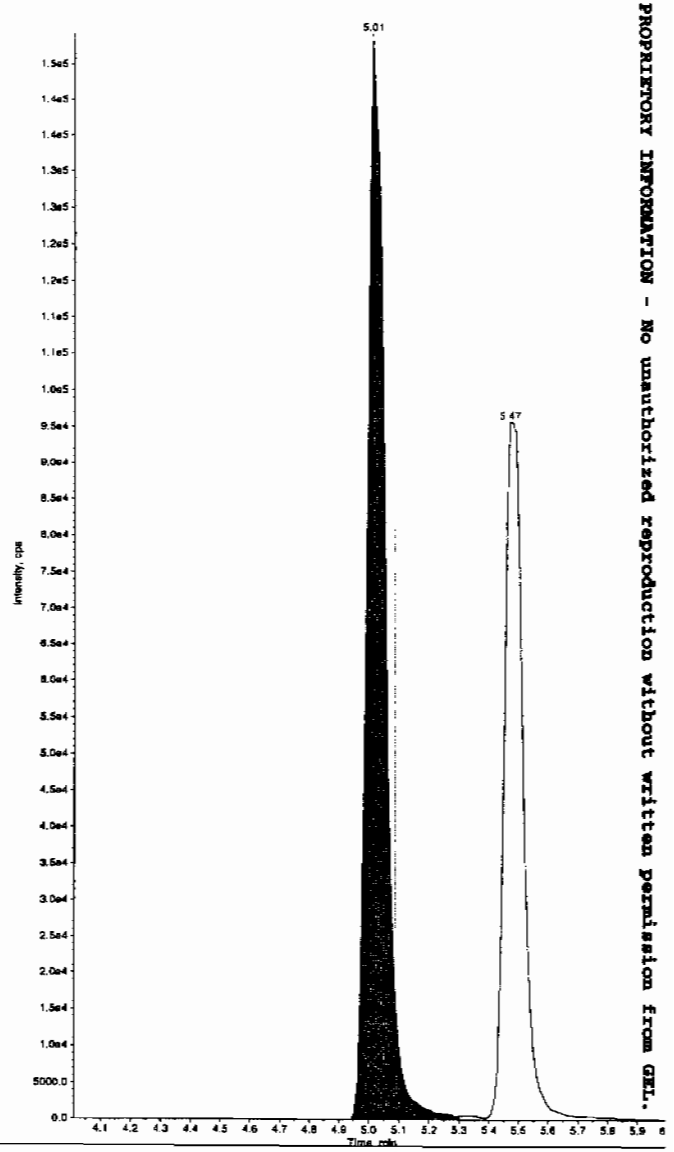

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100224-26ICV" Sample ID: "[1]LER" File: "EXS02240011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 497. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:35:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.47 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 4.28e+005 counts
Height: 95739.700 cps
Start Time: 5.38 min
End Time: 5.93 min

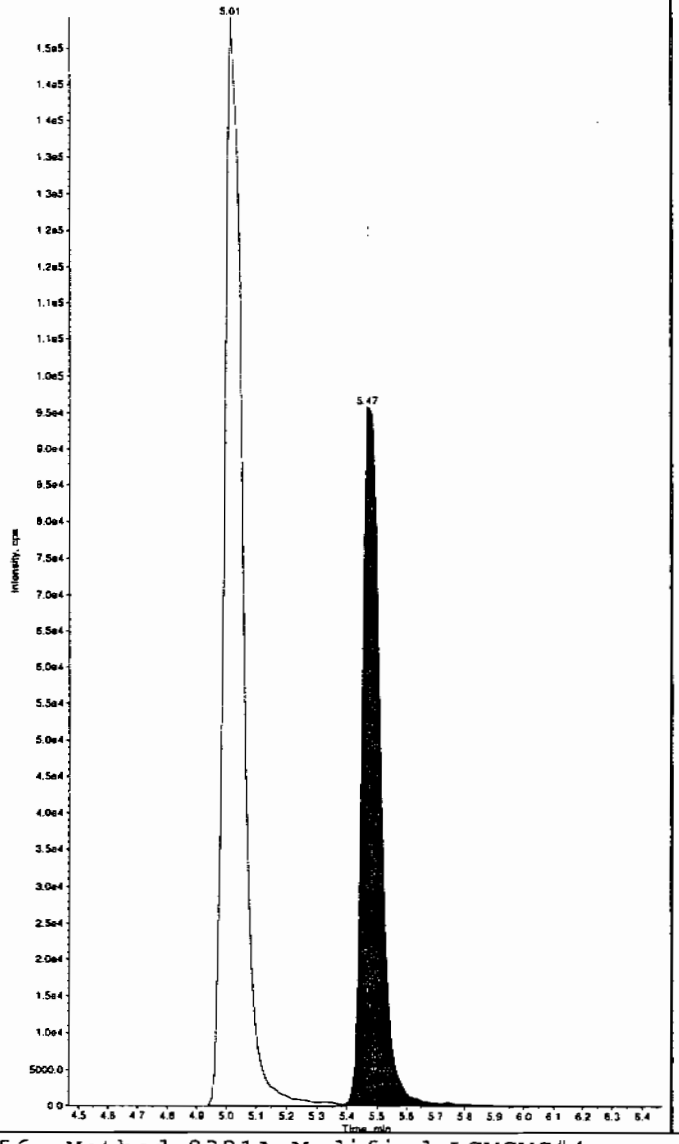

Sample Name: "WXX100224-26ICV" Sample ID: "[1]LER" File: "EXS02240011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 12:35:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.98e+006 counts
Height: 1603728.760 cps
Start Time: 10.8 min
End Time: 11.2 min

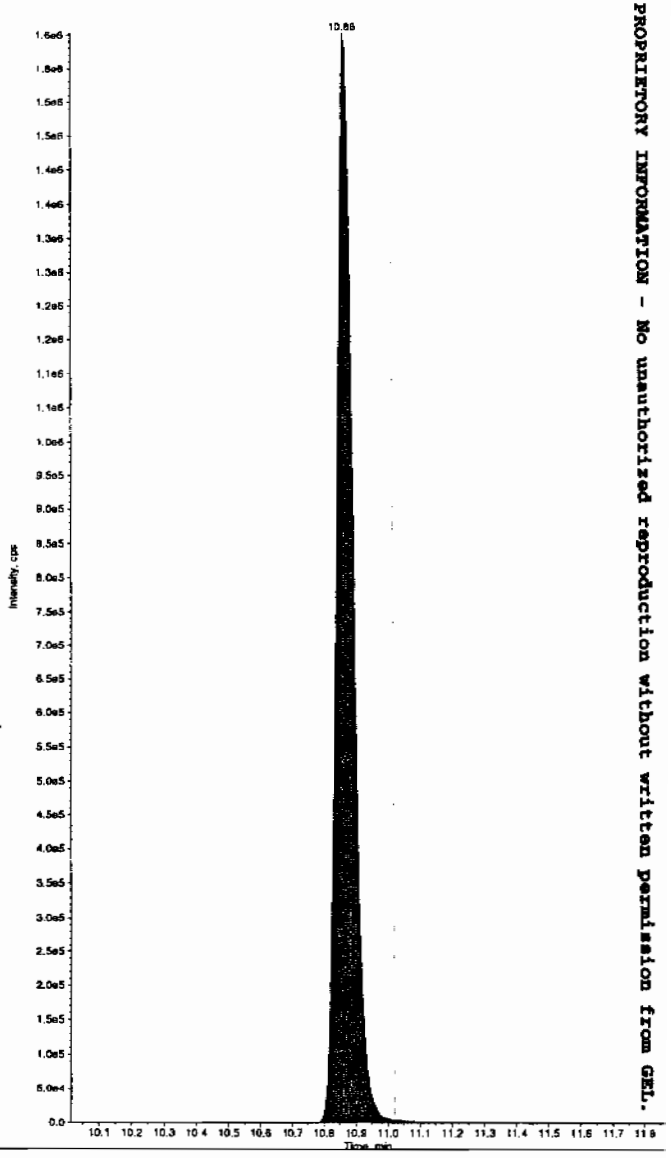

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301012a

Analysis Date: 01-MAR-10 20:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.081	120	
1,3-Dinitrobenzene-d4	500	625.96	125	
2,4,6-Trinitrotoluene	40	39.523	99	
2,4-Dinitrotoluene	40	39.691	99	
2,6-Dinitrotoluene	40	39.923	100	
2,6-Dinitrotoluene-d3	500	592.475	118	
2-Amino-4,6-dinitrotoluene	40	39.044	98	
3,4-Dinitrotoluene	20	21.135	106	
4-Amino-2,6-dinitrotoluene	40	44.136	110	
HMX	40	43.681	109	
Nitrobenzene	40	34.954	87	
PETN	40	42.016	105	
RDX	40	36.598	91	
Tetryl	40	29.639	74	
m-Dinitrobenzene	40	37.394	93	
m-Nitrotoluene	40	29.818	75	
o-Nitrotoluene	40	36.123	90	
p-Nitrotoluene	40	42.037	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301012a
Date: 01-Mar-2010
Time: 20:57:26
ID: WXX100301-08CRI
Vial: 1:1,C

MMT 3/2/10

HMX

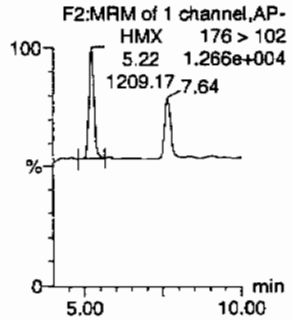

RDX

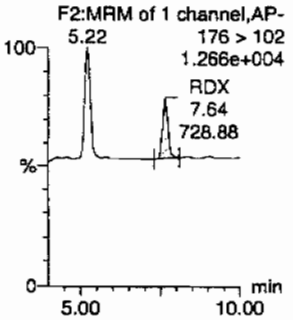

135-Trinitrobenzene

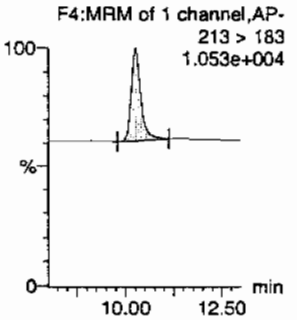

13-Dinitrobenzene-d4

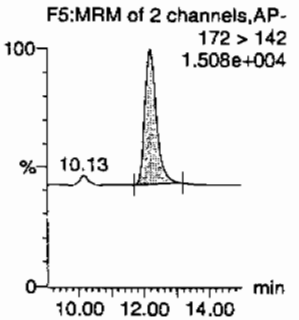

13-Dinitrobenzene

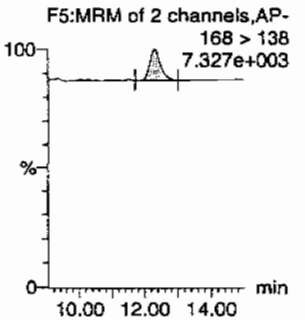

Tetryl

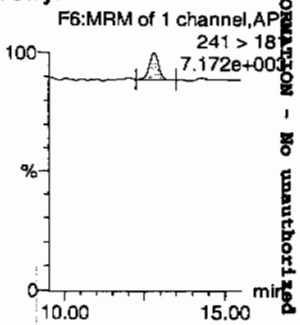

Nitrobenzene

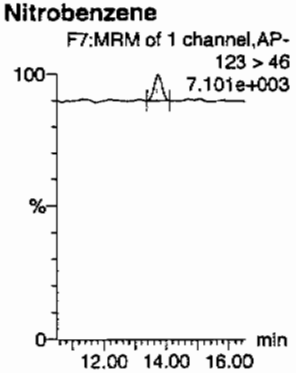

4-Amino-26-dinitrotoluene

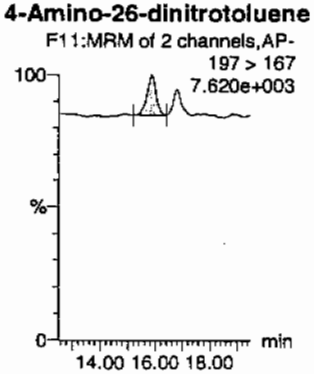

2-Amino-46-dinitrotoluene

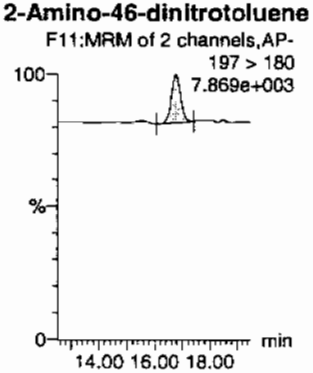

246-Trinitrotoluene

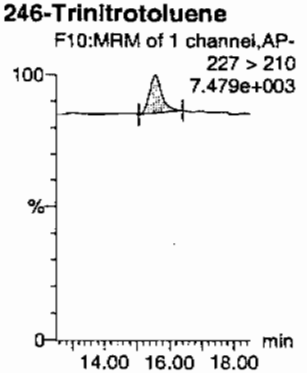

34-dinitrotoluene

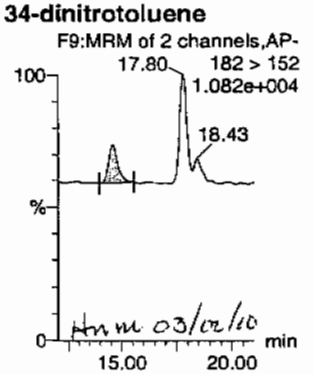

26-dinitrotoluene

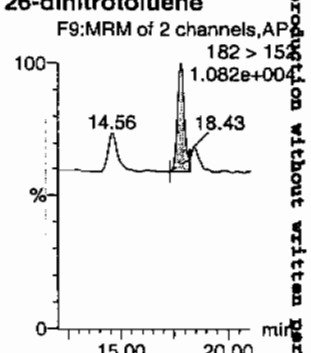

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

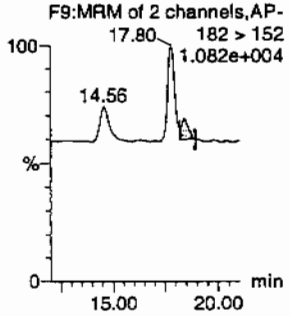

26-dinitrotoluene-d3

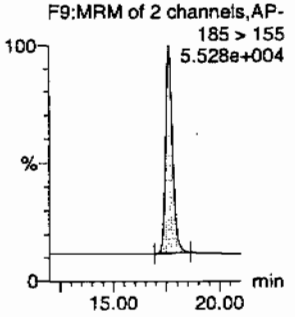

2-Nitrotoluene

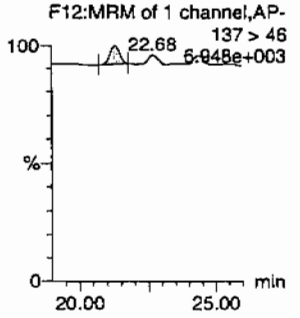

4-Nitrotoluene

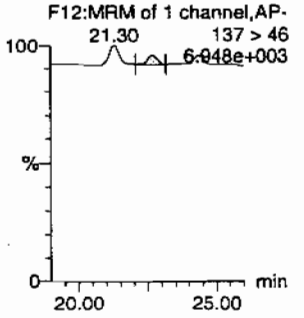

3-Nitrotoluene

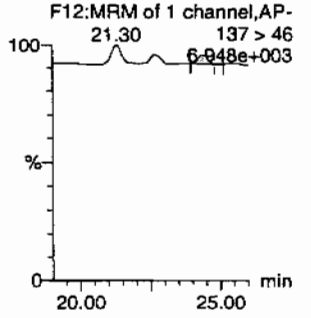

PETN

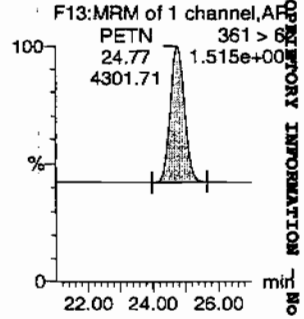

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1209.170	3628.160	1209.170	166.637	bb			43.6814	109.2	9.2	113.9
WXX100301-08CRI	RDX	176 > 102	7.64	728.884	3628.160	728.884	100.448	bb			36.5982	91.5	-8.5	63.0
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1201.239	3628.160	1201.239	165.544	bb			48.0805	120.2	20.2	248.5
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3628.160		3628.160	3628.160	bb			625.9601	125.2	25.2	268.9
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	355.969	3628.160	355.969	49.056	bb			37.3944	93.5	-6.5	37.6
WXX100301-08CRI	Tetryl	241 > 181	12.82	283.892	3628.160	283.892	39.123	bb			29.6389	74.1	-25.9	28.1
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	225.469	3628.160	225.469	31.072	bb			34.9544	87.4	-12.6	14.1
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	474.895	19059.697	474.895	12.458	MM	02-Mar-10	09:46:12	44.1355	110.3	10.3	26.7
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	561.125	19059.697	561.125	14.720	bb			39.0436	97.6	-2.4	75.2
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	474.848	19059.697	474.848	12.457	bb			39.5230	98.8	-1.2	43.7
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	798.141	19059.697	798.141	20.938	bb			21.1352	105.7	5.7	67.8
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.80	1717.012	19059.697	1717.012	45.043	MM	02-Mar-10	09:37:38	39.9234	99.8	-0.2	189.9
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.43	380.581	19059.697	380.581	9.984	MM	02-Mar-10	09:28:55	39.6911	99.2	-0.8	41.9
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	19059.697		19059.697	19059.697	bb			592.4746	118.5	18.5	2157.9
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.30	228.420	19059.697	228.420	5.992	bb			36.1234	90.3	-9.7	52.1
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.68	126.991	19059.697	126.991	3.331	bb			42.0368	105.1	5.1	27.3
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.38	111.634	19059.697	111.634	2.929	MM	02-Mar-10	09:27:09	29.8181	74.5	-25.5	24.7
WXX100301-08CRI	PETN	361 > 62	24.77	4301.707	19059.697	4301.707	112.848	bb			42.0160	105.0	5.0	1201.0

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GRAND MEAN AVERAGE

Vendor: UltraScientific
Date of Analysis 03/01/10
Time of Injection 2057
Standard Number WXX100301-08CRI
Data File EXP0301012a

HMX	109.2
RDX	91.5
135-TNB	120.2
13-DNB	93.5
Tetryl	74.1
Nitrobenzene	87.4
4A-26-DNT	110.3
2A-46-DNT	97.6
246-TNT	98.8
34-DNT(surr)	105.7
26-DNT	99.8
24-DNT	99.2
2-NT	90.3
4-NT	105.1
3-NT	74.5
PETN	105.0
Total	1562.2
Average	97.6

MAT 3/2/10

Hmm 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301017a

Analysis Date: 01-MAR-10 23:24

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	590.293	98	
1,3-Dinitrobenzene-d4	500	531.866	106	
2,4,6-Trinitrotoluene	600	689.425	115	
2,4-Dinitrotoluene	600	651.929	109	
2,6-Dinitrotoluene	600	585.717	98	
2,6-Dinitrotoluene-d3	500	566.557	113	
2-Amino-4,6-dinitrotoluene	600	624.405	104	
3,4-Dinitrotoluene	300	298.589	100	
4-Amino-2,6-dinitrotoluene	600	616.104	103	
HMX	600	617.233	103	
Nitrobenzene	600	584.33	97	
PETN	600	581.43	97	
RDX	600	647.393	108	
Tetryl	600	583.501	97	
m-Dinitrobenzene	600	579.417	97	
m-Nitrotoluene	600	540.344	90	
o-Nitrotoluene	600	527.736	88	
p-Nitrotoluene	600	558.211	93	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301017a
Date: 01-Mar-2010
Time: 23:24:52
ID: WXX100301-07CCV
Vial: 1:1,B

MJP 3/2/10

HMX

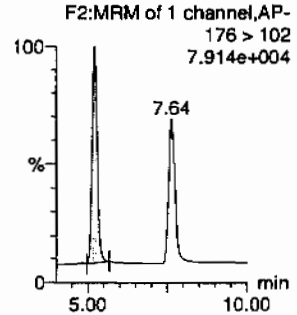

RDX

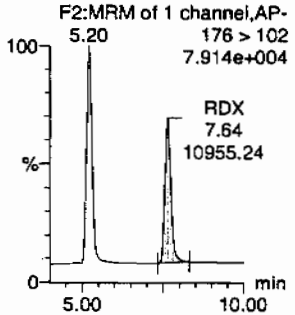

135-Trinitrobenzene

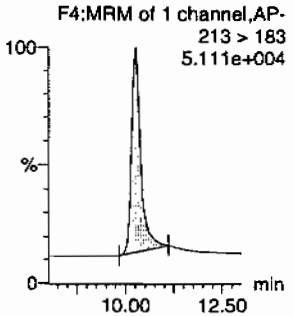

13-Dinitrobenzene-d4

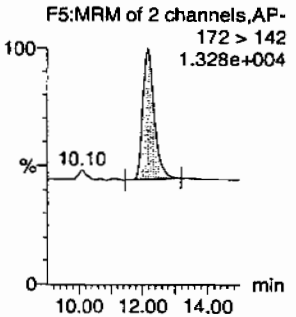

13-Dinitrobenzene

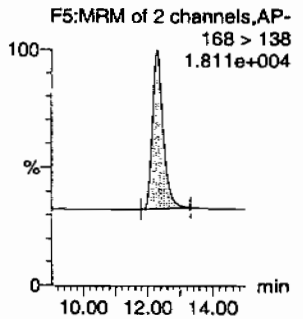

Tetryl

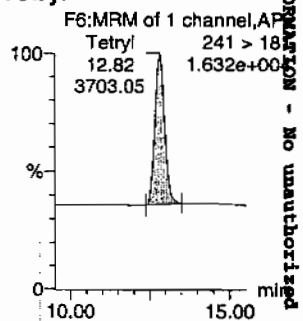

Nitrobenzene

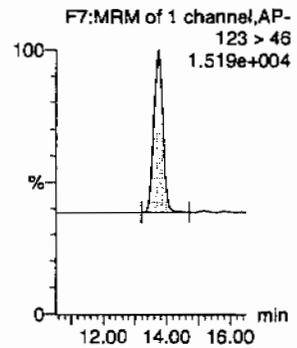

4-Amino-26-dinitrotoluene

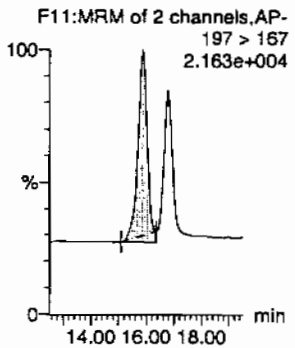

2-Amino-46-dinitrotoluene

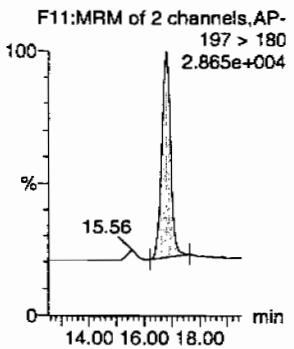

246-Trinitrotoluene

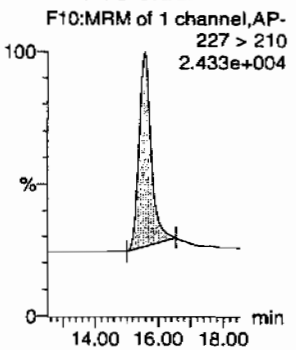

34-dinitrotoluene

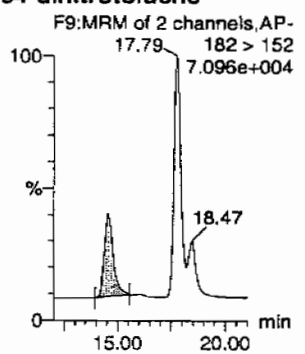

26-dinitrotoluene

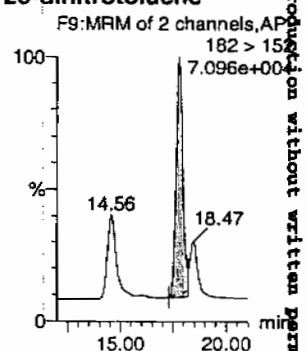

Hmm 03/02/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

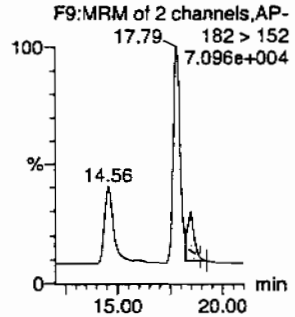

26-dinitrotoluene-d3

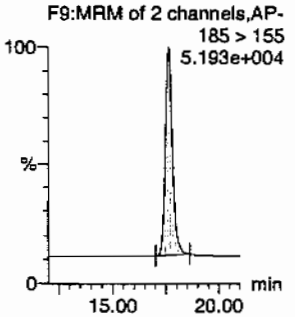

2-Nitrotoluene

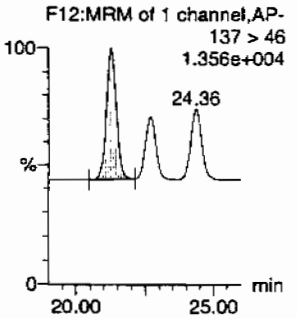

4-Nitrotoluene

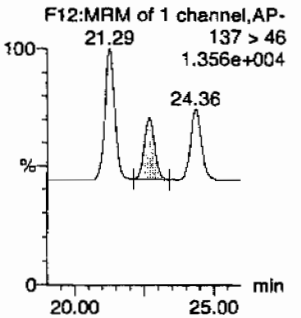

3-Nitrotoluene

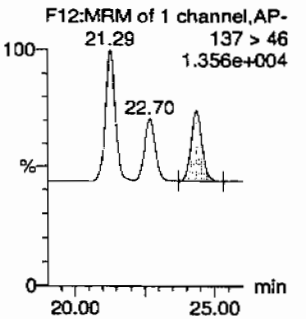

PETN

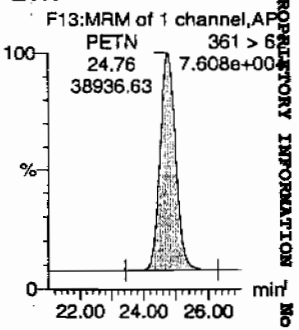

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.20	14517.626	3082.776	14517.626	2354.635	bb			617.2332	102.9	2.9	1021.8
WXX100301-07CCV	RDX	176 > 102	7.64	10955.236	3082.776	10955.236	1776.846	bb			647.3930	107.9	7.9	676.8
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	12530.938	3082.776	12530.938	2032.411	bb			590.2931	98.4	-1.6	1341.1
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3082.776		3082.776	3082.776	bb			531.8659	106.4	6.4	261.7
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4686.547	3082.776	4686.547	760.118	bb			579.4171	96.6	-3.4	272.4
WXX100301-07CCV	Tetryl	241 > 181	12.82	3703.050	3082.776	3703.050	600.603	bb			583.5012	97.3	-2.7	411.1
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	3202.571	3082.776	3202.571	519.430	bb			584.3299	97.4	-2.6	338.7
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	6339.237	18225.936	6339.237	173.907	MM	02-Mar-10	09:46:40	616.1038	102.7	2.7	695.4
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	8581.235	18225.936	8581.235	235.413	bb			624.4049	104.1	4.1	418.3
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	7920.737	18225.936	7920.737	217.293	bb			689.4249	114.9	14.9	367.3
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	10782.521	18225.936	10782.521	295.802	bb			298.5886	99.5	-0.5	148.0
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	24088.418	18225.936	24088.418	660.828	MM	02-Mar-10	09:37:53	585.7174	97.6	-2.4	423.9
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.47	5977.618	18225.936	5977.618	163.987	MM	02-Mar-10	09:29:15	651.9286	108.7	8.7	95.7
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	18225.936		18225.936	18225.936	bb			566.5570	113.3	13.3	1002.3
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.29	3191.069	18225.936	3191.069	87.542	bb			527.7355	88.0	-12.0	216.6
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1612.560	18225.936	1612.560	44.238	bb			558.2114	93.0	-7.0	104.1
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.36	1934.462	18225.936	1934.462	53.069	bb			540.3436	90.1	-9.9	118.2
WXX100301-07CCV	PETN	361 > 62	24.76	38936.629	18225.936	38936.629	1068.165	bb			581.4295	96.9	-3.1	5222.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/01/10
Time of Injection: 2324
Standard Number: WXX100301-07CCV
Data File: EXP0301017a

HMX	102.9
RDX	107.9
135-TNB	98.4
13-DNB	96.6
Tetryl	97.3
Nitrobenzene	97.4
4A-26-DNT	102.7
2A-46-DNT	104.1
246-TNT	114.9
34-DNT(surr)	99.5
26-DNT	97.6
24-DNT	108.7
2-NT	88.0
4-NT	93.0
3-NT	90.1
PETN	96.9
Total	1596.0
Average	99.8

MAP 3/2/10

Hmm 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301019a

Analysis Date: 02-MAR-10 00:23

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	20	19.858	99	
4-Amino-2,6-dinitrotoluene	40	39.257	98	
HMX	40	51.161	128	
Nitrobenzene	40	45.545	114	
PETN	40	48.277	121	
RDX	40	41.262	103	
Tetryl	40	37.992	95	
m-Dinitrobenzene	40	38.309	96	
m-Nitrotoluene	40	43.591	109	
o-Nitrotoluene	40	32.824	82	
p-Nitrotoluene	40	35.984	90	
1,3,5-Trinitrobenzene	40	52.926	132	*
1,3-Dinitrobenzene-d4	500	525.871	105	
2,4,6-Trinitrotoluene	40	42.691	107	
2,4-Dinitrotoluene	40	39.054	98	
2,6-Dinitrotoluene	40	39.257	98	
2,6-Dinitrotoluene-d3	500	558.185	112	
2-Amino-4,6-dinitrotoluene	40	39.63	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301019a
Date: 02-Mar-2010
Time: 00:23:49
ID: WXX100301-08CRI
Vial: 1:1,C

MMT 3/2/10

HMX

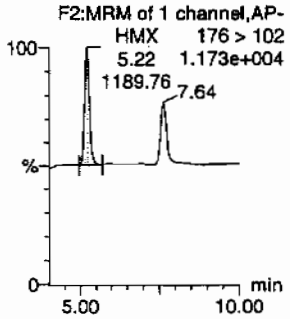

RDX

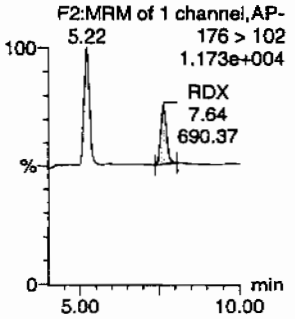

135-Trinitrobenzene

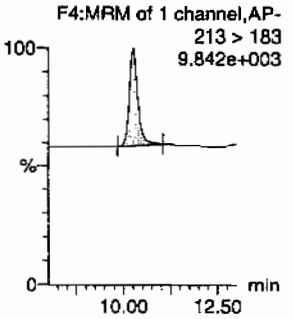

13-Dinitrobenzene-d4

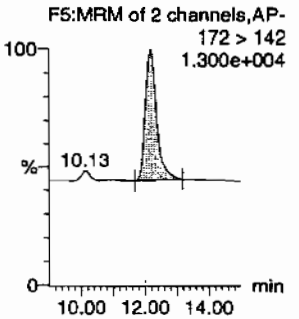

13-Dinitrobenzene

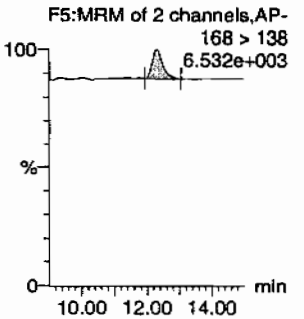

Tetryl

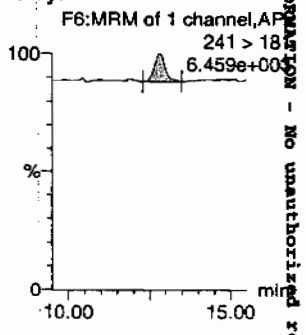

Nitrobenzene

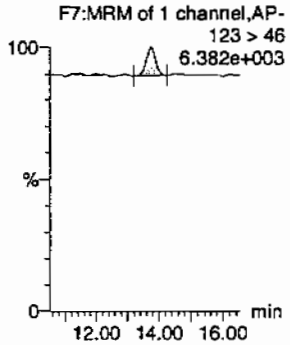

4-Amino-26-dinitrotoluene

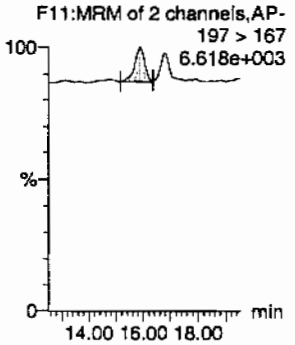

2-Amino-46-dinitrotoluene

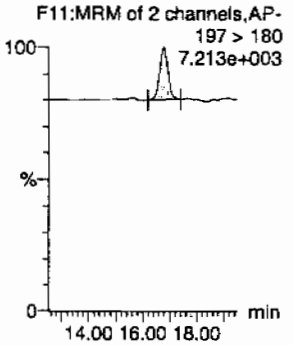

246-Trinitrotoluene

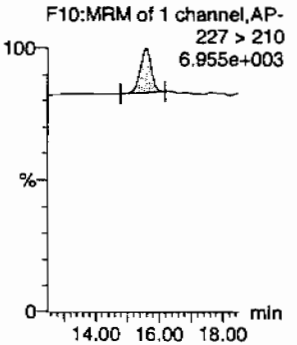

34-dinitrotoluene

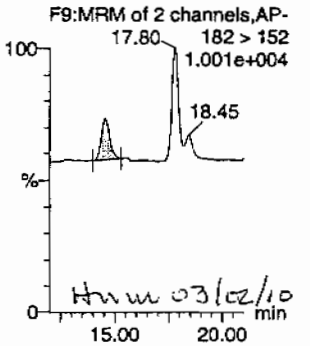

26-dinitrotoluene

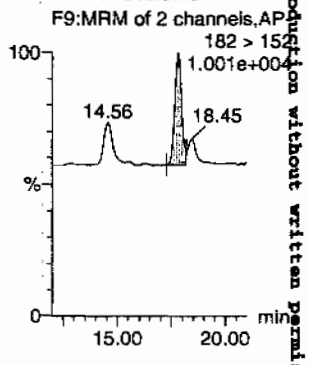

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

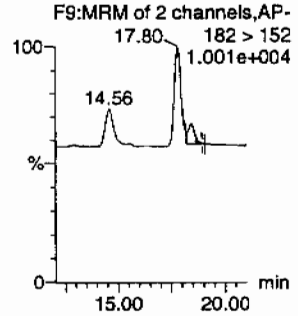

26-dinitrotoluene-d3

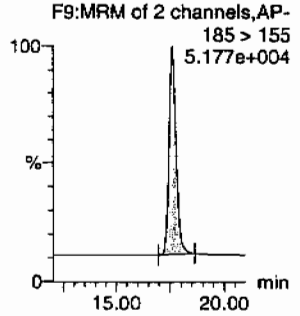

2-Nitrotoluene

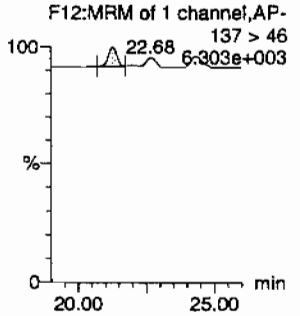

4-Nitrotoluene

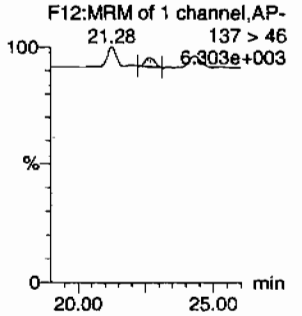

3-Nitrotoluene

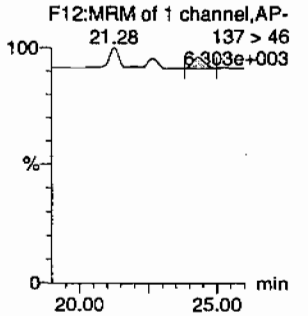

PETN

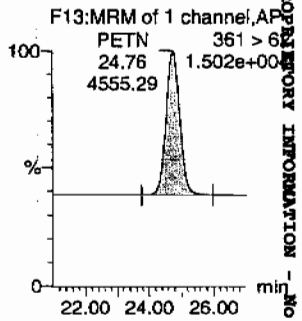

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1189.756	3048.029	1189.756	195.168	bb			51.1605	127.9	27.9	142.9
WXX100301-08CRI	RDX	176 > 102	7.64	690.369	3048.029	690.369	113.248	bb			41.2620	103.2	3.2	75.1
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1110.860	3048.029	1110.860	182.226	bb			52.9257	132.3	32.3	172.2
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3048.029		3048.029	3048.029	bb			525.8711	105.2	5.2	119.6
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	306.363	3048.029	306.363	50.256	bb			38.3087	95.8	-4.2	26.9
WXX100301-08CRI	Tetryl	241 > 181	12.82	298.811	3048.029	298.811	49.017	bb			37.9924	95.0	-5.0	30.5
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	246.808	3048.029	246.808	40.486	bb			45.5451	113.9	13.9	15.3
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	397.960	17956.605	397.960	11.081	MM	02-Mar-10	09:47:07	39.2574	98.1	-1.9	21.8
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	536.586	17956.605	536.586	14.941	bb			39.6298	99.1	-0.9	69.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	483.222	17956.605	483.222	13.455	bb			42.6907	106.7	6.7	38.2
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	706.510	17956.605	706.510	19.673	bb			19.8581	99.3	-0.7	43.3
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.80	1590.641	17956.605	1590.641	44.291	MM	02-Mar-10	09:38:00	39.2570	98.1	-1.9	117.4
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.45	352.801	17956.605	352.801	9.824	MM	02-Mar-10	09:29:27	39.0542	97.6	-2.4	24.3
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	17956.605		17956.605	17956.605	bb			558.1848	111.6	11.6	1259.1
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.28	195.546	17956.605	195.546	5.445	bb			32.8242	82.1	-17.9	36.0
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.68	102.414	17956.605	102.414	2.852	bb			35.9839	90.0	-10.0	17.3
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.35	153.752	17956.605	153.752	4.281	bb			43.5909	109.0	9.0	21.2
WXX100301-08CRI	PETN	361 > 62	24.76	4555.286	17956.605	4555.286	126.842	bb			48.2774	120.7	20.7	1918.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/02/10
Time of Injection	0023
Standard Number	WXX100301-08CRI
Data File	EXP0301019a

HMX	127.9
RDX	103.2
135-TNB	132.3
13-DNB	95.8
Tetryl	95.0
Nitrobenzene	113.9
4A-26-DNT	98.1
2A-46-DNT	99.1
246-TNT	106.7
34-DNT(surr)	99.3
26-DNT	98.1
24-DNT	97.6
2-NT	82.1
4-NT	90.0
3-NT	109.0
PETN	120.7
Total	1668.8
Average	104.3

MJP 3/2/10

dm m 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301030a

Analysis Date: 02-MAR-10 05:48

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	602.258	100	
1,3-Dinitrobenzene-d4	500	494.372	99	
2,4,6-Trinitrotoluene	600	680.786	113	
2,4-Dinitrotoluene	600	606.313	101	
2,6-Dinitrotoluene	600	608.101	101	
2,6-Dinitrotoluene-d3	500	501.765	100	
2-Amino-4,6-dinitrotoluene	600	651.99	109	
3,4-Dinitrotoluene	300	289.207	96	
4-Amino-2,6-dinitrotoluene	600	610.451	102	
HMX	600	614.974	102	
Nitrobenzene	600	545.928	91	
PETN	600	712.654	119	
RDX	600	633.914	106	
Tetryl	600	599.969	100	
m-Dinitrobenzene	600	580.256	97	
m-Nitrotoluene	600	548.818	91	
o-Nitrotoluene	600	560.002	93	
p-Nitrotoluene	600	586.006	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301030a
Date: 02-Mar-2010
Time: 05:48:04
ID: WXX100301-07CCV
Vial: 1:1,B

MM 3/2/10

HMX

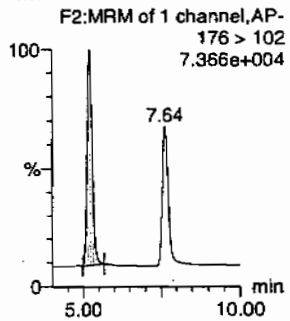

RDX

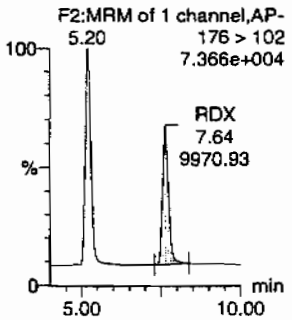

135-Trinitrobenzene

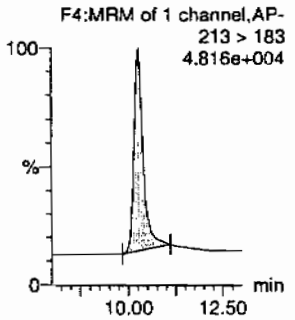

13-Dinitrobenzene-d4

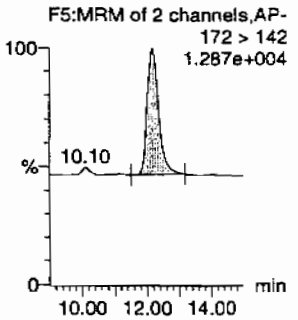

13-Dinitrobenzene

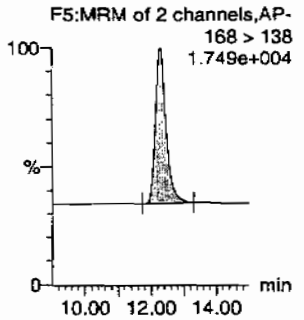

Tetryl

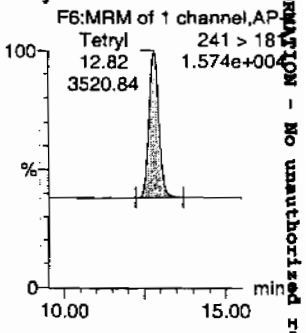

Nitrobenzene

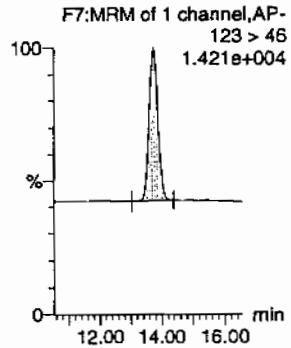

4-Amino-26-dinitrotoluene

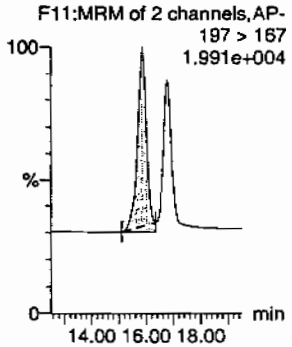

2-Amino-46-dinitrotoluene

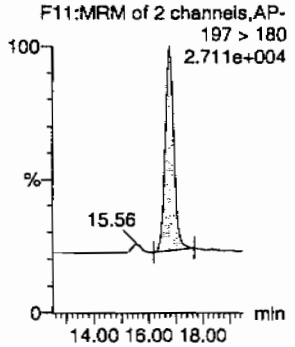

246-Trinitrotoluene

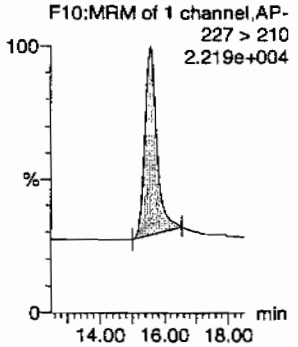

34-dinitrotoluene

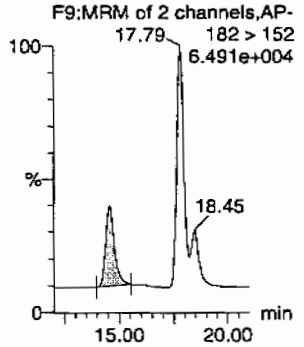

26-dinitrotoluene

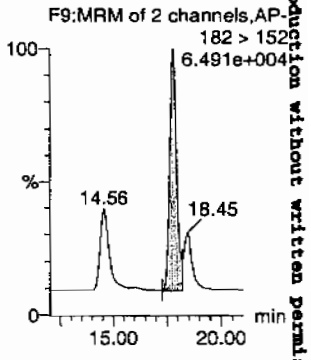

Hmm 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

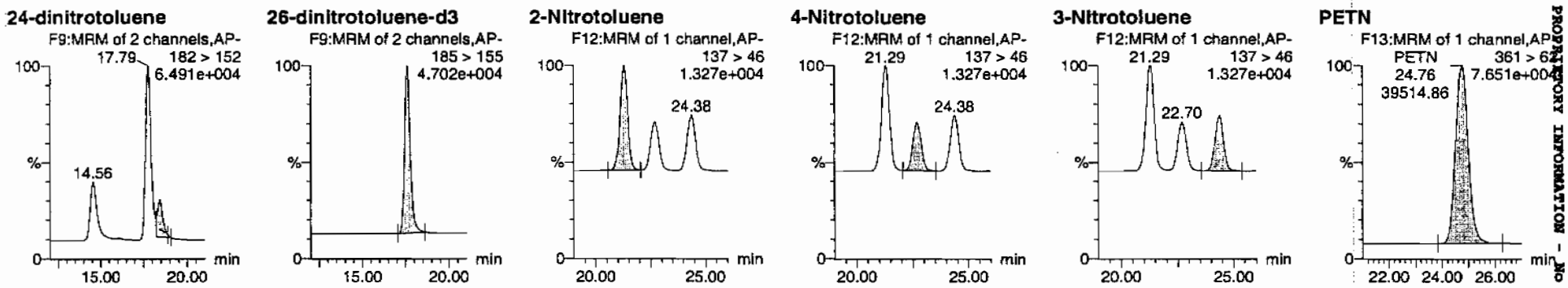

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.20	13444.806	2865.454	13444.806	2346.017	bb			614.9740	102.5	2.5	2571.7
WXX100301-07CCV	RDX	176 > 102	7.64	9970.935	2865.454	9970.935	1739.853	bb			633.9145	105.7	5.7	1663.7
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	11883.659	2865.454	11883.659	2073.608	bb			602.2583	100.4	0.4	192.1
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2865.454		2865.454	2865.454	bb			494.3718	98.9	-1.1	270.3
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4362.471	2865.454	4362.471	761.218	bb			580.2557	96.7	-3.3	110.3
WXX100301-07CCV	Tetryl	241 > 181	12.82	3520.838	2865.454	3520.838	614.360	bb			599.9689	100.0	-0.0	333.0
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	2781.172	2865.454	2781.172	485.293	bb			545.9285	91.0	-9.0	216.3
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5562.768	16141.602	5562.768	172.312	MM	02-Mar-10	09:47:59	610.4513	101.7	1.7	311.5
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	7935.624	16141.602	7935.624	245.813	bb			651.9898	108.7	8.7	359.4
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	6927.009	16141.602	6927.009	214.570	bb			680.7856	113.5	13.5	252.6
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	9249.384	16141.602	9249.384	286.508	bb			289.2070	96.4	-3.6	565.8
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	22148.932	16141.602	22148.932	686.082	MM	02-Mar-10	09:38:36	608.1012	101.4	1.4	1714.5
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.45	4923.592	16141.602	4923.592	152.512	MM	02-Mar-10	09:30:10	606.3134	101.1	1.1	367.7
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	16141.602		16141.602	16141.602	bb			501.7650	100.4	0.4	1182.6
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.29	2998.927	16141.602	2998.927	92.894	bb			560.0016	93.3	-6.7	1564.0
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1499.257	16141.602	1499.257	46.441	bb			586.0061	97.7	-2.3	725.1
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	1740.106	16141.602	1740.106	53.901	bb			548.8185	91.5	-8.5	831.2
WXX100301-07CCV	PETN	361 > 62	24.76	39514.859	16141.602	39514.859	1224.007	bb			712.6541	118.8	18.8	12578.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 0548
Standard Number: WXX100301-07CCV
Data File: EXP0301030a

HMX	102.5
RDX	105.7
135-TNB	100.4
13-DNB	96.7
Tetryl	100.0
Nitrobenzene	91.0
4A-26-DNT	101.7
2A-46-DNT	108.7
246-TNT	113.5
34-DNT(surr)	96.4
26-DNT	101.4
24-DNT	101.1
2-NT	93.3
4-NT	97.7
3-NT	91.5
PETN	118.8
Total	1620.4
Average	101.3

MTP 3/2/10

Hmm 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301032a

Analysis Date: 02-MAR-10 06:47

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	56.807	142	*
1,3-Dinitrobenzene-d4	500	493.808	99	
2,4,6-Trinitrotoluene	40	46.587	116	
2,4-Dinitrotoluene	40	36.621	92	
2,6-Dinitrotoluene	40	38.39	96	
2,6-Dinitrotoluene-d3	500	575.349	115	
2-Amino-4,6-dinitrotoluene	40	41.902	105	
3,4-Dinitrotoluene	20	18.621	93	
4-Amino-2,6-dinitrotoluene	40	35.659	89	
HMX	40	45.151	113	
Nitrobenzene	40	49.82	125	
PETN	40	46.402	116	
RDX	40	43.703	109	
Tetryl	40	36.051	90	
m-Dinitrobenzene	40	39.792	99	
m-Nitrotoluene	40	37.14	93	
o-Nitrotoluene	40	40.127	100	
p-Nitrotoluene	40	32.699	82	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301032a
Date: 02-Mar-2010
Time: 06:47:09
ID: WXX100301-08CRI
Vial: 1:1,C

MOTT 3/2/10

HMX

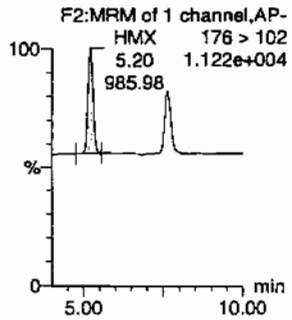

RDX

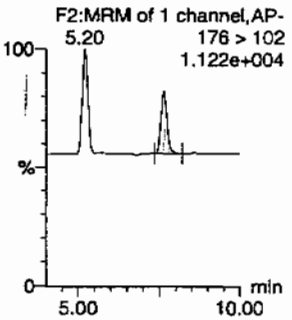

135-Trinitrobenzene

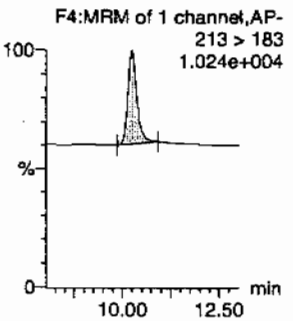

13-Dinitrobenzene-d4

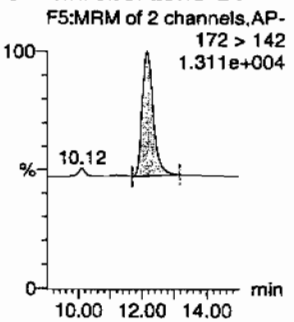

13-Dinitrobenzene

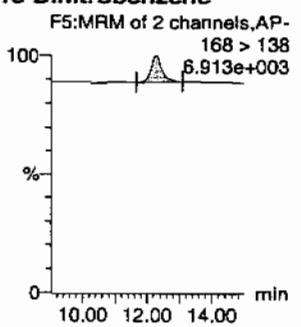

Tetryl

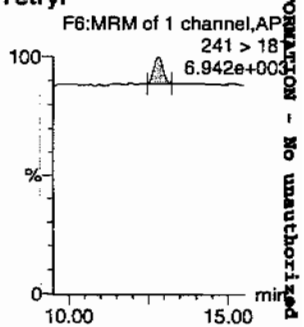

Nitrobenzene

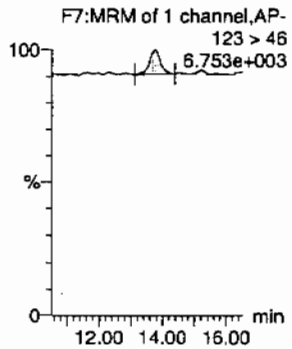

4-Amino-26-dinitrotoluene

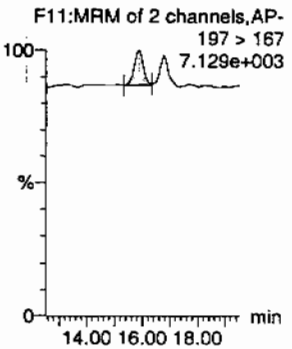

2-Amino-46-dinitrotoluene

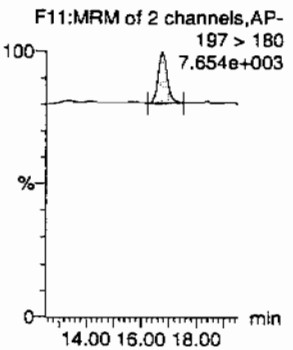

246-Trinitrotoluene

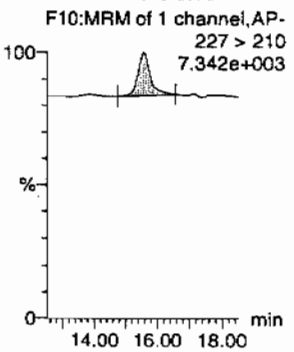

34-dinitrotoluene

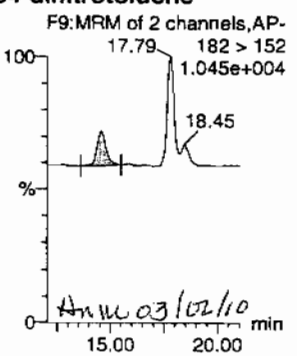

Amw 03/02/10

26-dinitrotoluene

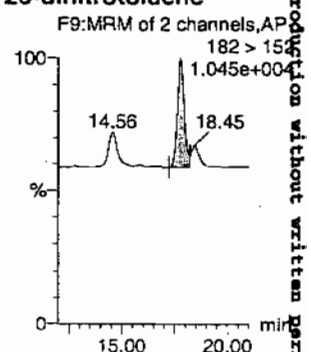

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

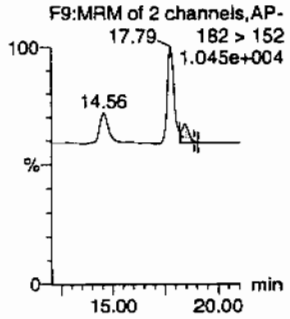

26-dinitrotoluene-d3

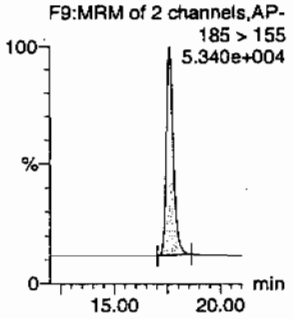

2-Nitrotoluene

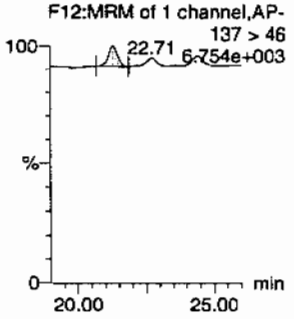

4-Nitrotoluene

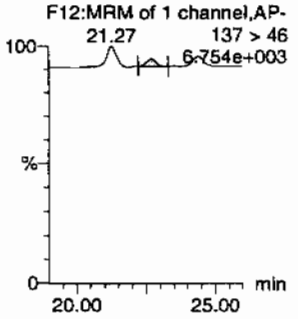

3-Nitrotoluene

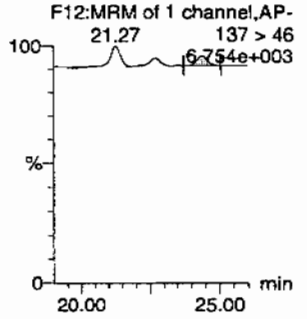

PETN

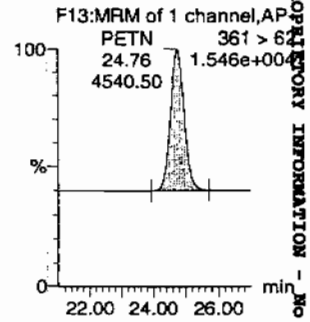

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.20	985.979	2862.189	985.979	172.242	bb			45.1508	112.9	12.9	191.8
WXX100301-08CRI	RDX	176 > 102	7.64	686.625	2862.189	686.625	119.948	bb			43.7028	109.3	9.3	115.5
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.25	1119.636	2862.189	1119.636	195.591	bb			56.8074	142.0	42.0	145.8
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	2862.189		2862.189	2862.189	bb			493.8085	98.8	-1.2	676.0
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.27	298.819	2862.189	298.819	52.201	bb			39.7915	99.5	-0.5	28.1
WXX100301-08CRI	Tetryl	241 > 181	12.82	267.449	2862.189	267.449	46.721	bb			36.0505	90.1	-9.9	36.1
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	253.513	2862.189	253.513	44.287	bb			49.8199	124.5	24.5	18.3
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	372.598	18508.766	372.598	10.065	MM	02-Mar-10	09:48:09	35.6591	89.1	-10.9	31.0
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	584.791	18508.766	584.791	15.798	bb			41.9015	104.8	4.8	54.6
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.55	543.539	18508.766	543.539	14.683	bb			46.5870	116.5	16.5	34.9
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	682.884	18508.766	682.884	18.448	bb			18.6214	93.1	-6.9	50.9
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1603.357	18508.766	1603.357	43.313	MM	02-Mar-10	09:38:44	38.3904	96.0	-4.0	158.3
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.45	340.997	18508.766	340.997	9.212	MM	02-Mar-10	09:30:20	36.6214	91.6	-8.4	30.3
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	18508.766		18508.766	18508.766	bb			575.3488	115.1	15.1	766.4
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.27	246.403	18508.766	246.403	6.656	bb			40.1272	100.3	0.3	65.8
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.71	95.927	18508.766	95.927	2.591	bb			32.6991	81.7	-18.3	24.5
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.40	135.025	18508.766	135.025	3.648	bb			37.1395	92.8	-7.2	32.5
WXX100301-08CRI	PETN	361 > 62	24.76	4540.501	18508.766	4540.501	122.658	bb			46.4023	116.0	16.0	1315.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/02/10
Time of Injection	0647
Standard Number	WXX100301-08CRI
Data File	EXP0301032a

HMX	112.9
RDX	109.3
135-TNB	142.0
13-DNB	99.5
Tetryl	90.1
Nitrobenzene	124.5
4A-26-DNT	89.1
2A-46-DNT	104.8
246-TNT	116.5
34-DNT(surr)	93.1
26-DNT	96.0
24-DNT	91.6
2-NT	100.3
4-NT	81.7
3-NT	92.8
PETN	116.0
Total	1660.2
Average	103.8

MPP 3/2/10

Hmw 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0301043a

Analysis Date: 02-MAR-10 12:12

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	656.909	109	
2,6-Dinitrotoluene	600	614.349	102	
2,6-Dinitrotoluene-d3	500	563.804	113	
2-Amino-4,6-dinitrotoluene	600	721.579	120	*
3,4-Dinitrotoluene	300	252.075	84	
4-Amino-2,6-dinitrotoluene	600	528.132	88	
HMX	600	750.903	125	*
Nitrobenzene	600	564.338	94	
PETN	600	561.884	94	
RDX	600	599.348	100	
Tetryl	600	539.471	90	
m-Dinitrobenzene	600	583.866	97	
m-Nitrotoluene	600	483.41	81	
o-Nitrotoluene	600	523.965	87	
p-Nitrotoluene	600	533.33	89	
1,3,5-Trinitrobenzene	600	588.95	98	
1,3-Dinitrobenzene-d4	500	488.117	98	
2,4,6-Trinitrotoluene	600	582.004	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301043a
Date: 02-Mar-2010
Time: 12:12:16
ID: WXX100301-07CCV
Vial: 1:1,B

LMT 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.788e+004
7.65

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.788e+004
5.21
RDX
7.65
9307.97

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.706e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.288e+004
10.11

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.751e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 18
1.475e+00
Tetryl
12.85
3185.62

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.439e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.015e+004
16.78

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.232e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.169e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.296e+004
17.81
18.48

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.296e+004
14.59
18.48

Hmc 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

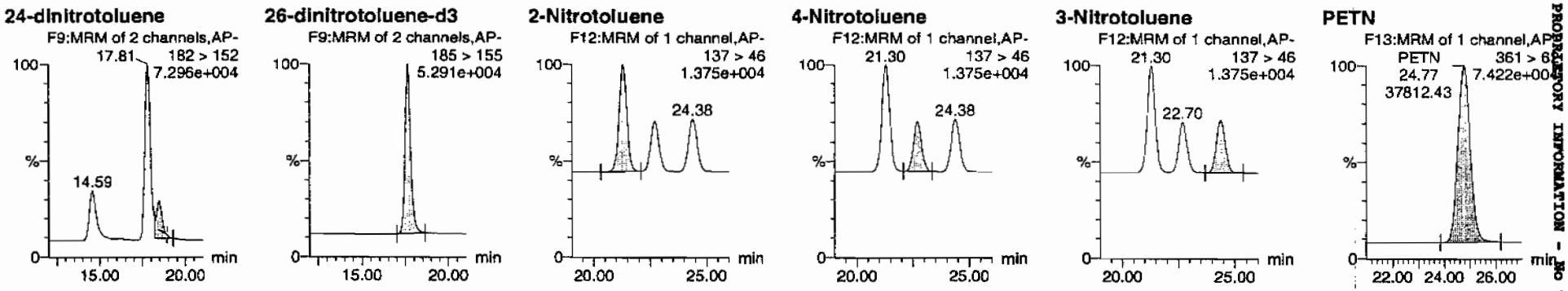

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.21	16208.861	2829.203	16208.861	2864.563	bb			750.9033	125.2	25.2	2295.4
WXX100301-07CCV	RDX	176 > 102	7.65	9307.974	2829.203	9307.974	1644.982	bb			599.3483	99.9	-0.1	1159.0
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.26	11474.052	2829.203	11474.052	2027.789	bb			588.9505	98.2	-1.8	790.1
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2829.203		2829.203	2829.203	bb			488.1174	97.6	-2.4	347.7
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4334.083	2829.203	4334.083	765.955	bb			583.8663	97.3	-2.7	278.1
WXX100301-07CCV	Tetryl	241 > 181	12.85	3185.622	2829.203	3185.622	562.989	bb			539.4714	89.9	-10.1	301.9
WXX100301-07CCV	Nitrobenzene	123 > 46	13.74	2838.587	2829.203	2838.587	501.658	bb			564.3382	94.1	-5.9	216.0
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.88	5407.666	18137.371	5407.666	149.075	MM	03-Mar-10	08:45:19	528.1317	88.0	-12.0	671.8
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.78	9868.511	18137.371	9868.511	272.049	bb			721.5786	120.3	20.3	701.2
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.57	6654.099	18137.371	6654.099	183.436	bb			582.0043	97.0	-3.0	270.5
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.59	9058.592	18137.371	9058.592	249.722	bb			252.0746	84.0	-16.0	344.6
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.81	25143.154	18137.371	25143.154	693.131	MM	03-Mar-10	08:56:41	614.3490	102.4	2.4	1225.3
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.48	5994.011	18137.371	5994.011	165.239	MM	03-Mar-10	08:57:01	656.9086	109.5	9.5	264.3
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.63	18137.371		18137.371	18137.371	bb			563.8039	112.8	12.8	1665.1
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.30	3152.875	18137.371	3152.875	86.917	bb			523.9652	87.3	-12.7	426.3
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1533.195	18137.371	1533.195	42.266	bb			533.3297	88.9	-11.1	199.5
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	1722.228	18137.371	1722.228	47.477	bb			483.4104	80.6	-19.4	209.6
WXX100301-07CCV	PETN	361 > 62	24.77	37812.434	18137.371	37812.434	1042.390	bb			561.8844	93.6	-6.4	3954.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 1212
Standard Number: WXX100301-07CCV
Data File: EXP0301043a

HMX		125.2
RDX		99.9
135-TNB		98.2
13-DNB		97.3
Tetryl		89.9
Nitrobenzene		94.1
4A-26-DNT		88.0
2A-46-DNT		120.3
246-TNT		97.0
34-DNT(surr)		84.0
26-DNT		102.4
24-DNT		109.5
2-NT		87.3
4-NT		88.9
3-NT		80.6
PETN		93.6
Total		1556.2
Average		97.3

3/3/10

Hmm 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301045a

Analysis Date: 02-MAR-10 13:11

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	52.342	131	*
1,3-Dinitrobenzene-d4	500	567.192	113	
2,4,6-Trinitrotoluene	40	43.217	108	
2,4-Dinitrotoluene	40	40.629	102	
2,6-Dinitrotoluene	40	39.638	99	
2,6-Dinitrotoluene-d3	500	584.534	117	
2-Amino-4,6-dinitrotoluene	40	44.683	112	
3,4-Dinitrotoluene	20	18.858	94	
4-Amino-2,6-dinitrotoluene	40	41.968	105	
HMX	40	44.598	111	
Nitrobenzene	40	33.284	83	
PETN	40	44.336	111	
RDX	40	40.437	101	
Tetryl	40	37.348	93	
m-Dinitrobenzene	40	41.99	105	
m-Nitrotoluene	40	45.416	114	
o-Nitrotoluene	40	39.436	99	
p-Nitrotoluene	40	37.7	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301045a
Date: 02-Mar-2010
Time: 13:11:21
ID: WXX100301-08CRI
Vial: 1:1,C

MMT 3/3/10

HMX

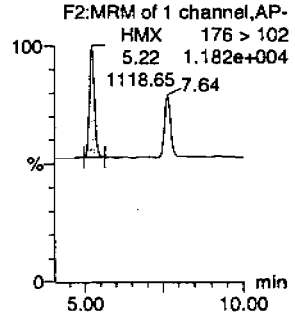

RDX

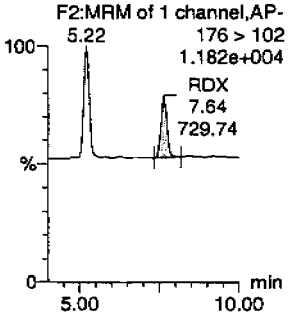

135-Trinitrobenzene

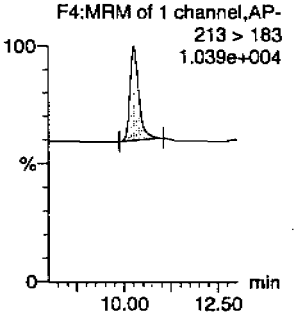

13-Dinitrobenzene-d4

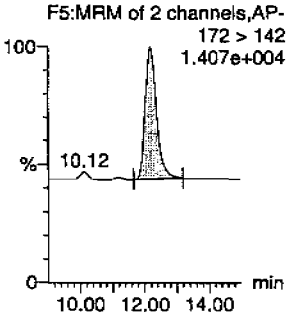

13-Dinitrobenzene

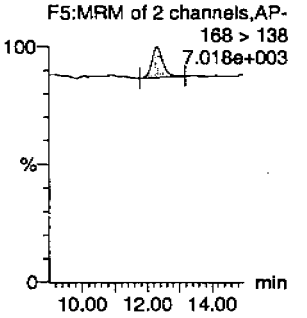

Tetryl

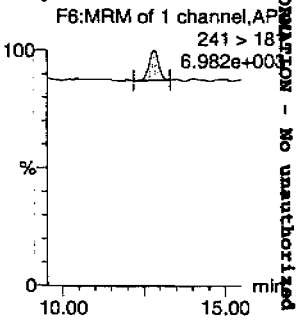

Nitrobenzene

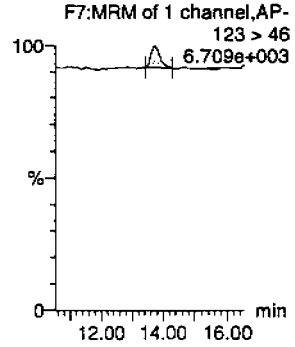

4-Amino-26-dinitrotoluene

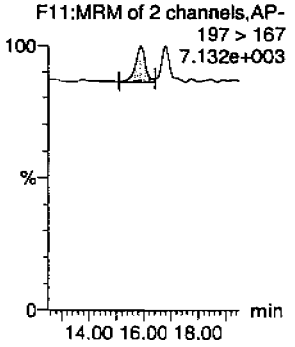

2-Amino-46-dinitrotoluene

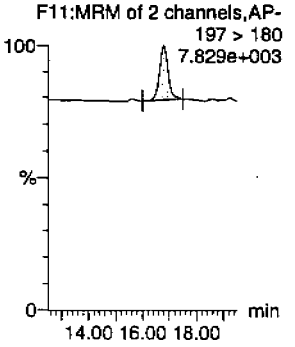

246-Trinitrotoluene

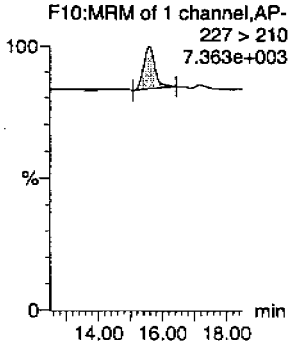

34-dinitrotoluene

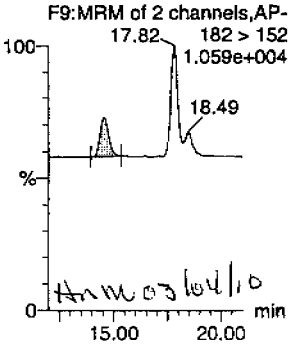

HMM 03/04/10

26-dinitrotoluene

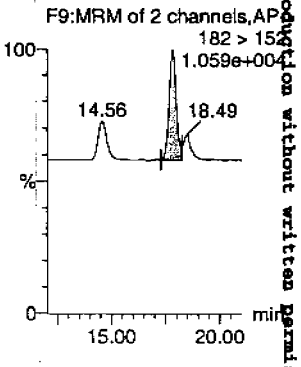

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

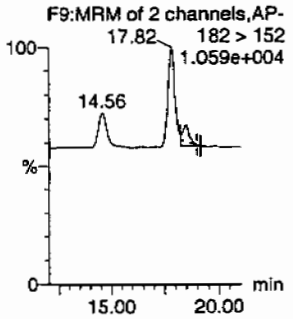

26-dinitrotoluene-d3

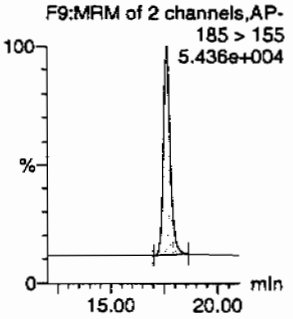

2-Nitrotoluene

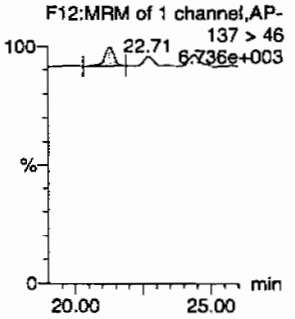

4-Nitrotoluene

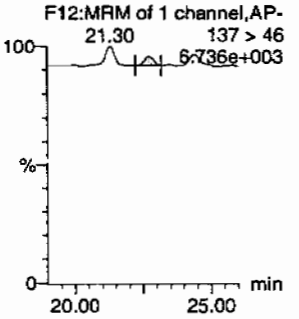

3-Nitrotoluene

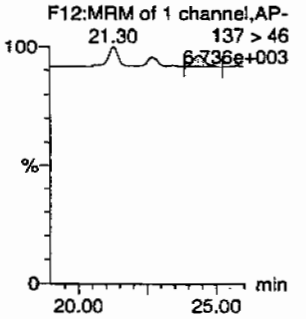

PETN

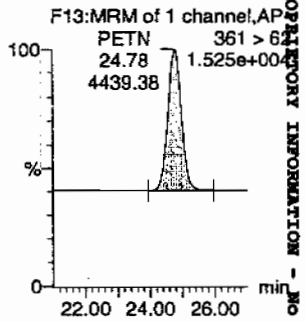

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1118.648	3287.534	1118.648	170.135	bb			44.5984	111.5	11.5	229.0
WXX100301-08CRI	RDX	176 > 102	7.64	729.735	3287.534	729.735	110.985	bb			40.4374	101.1	1.1	127.8
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1184.930	3287.534	1184.930	180.216	bb			52.3418	130.9	30.9	176.0
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3287.534		3287.534	3287.534	bb			567.1925	113.4	13.4	252.1
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	362.192	3287.534	362.192	55.086	bb			41.9903	105.0	5.0	39.5
WXX100301-08CRI	Tetryl	241 > 181	12.82	317.284	3287.534	317.284	48.256	bb			37.3481	93.4	-6.6	24.4
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	194.537	3287.534	194.537	29.587	bb			33.2838	83.2	-16.8	18.3
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.89	445.521	18804.244	445.521	11.846	MM	03-Mar-10	08:45:25	41.9681	104.9	4.9	22.0
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	633.568	18804.244	633.568	16.846	bb			44.6831	111.7	11.7	75.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	512.274	18804.244	512.274	13.621	bb			43.2173	108.0	8.0	102.3
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	702.612	18804.244	702.612	18.682	bb			18.8583	94.3	-5.7	23.2
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.82	1681.909	18804.244	1681.909	44.722	MM	03-Mar-10	08:56:34	39.6384	99.1	-0.9	67.1
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.49	384.351	18804.244	384.351	10.220	MM	03-Mar-10	08:57:13	40.6288	101.6	1.6	14.2
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	18804.244		18804.244	18804.244	bb			584.5338	116.9	16.9	1585.0
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.30	246.023	18804.244	246.023	6.542	bb			39.4357	98.6	-1.4	83.2
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.71	112.363	18804.244	112.363	2.988	bb			37.6999	94.2	-5.8	40.4
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.39	167.752	18804.244	167.752	4.460	bb			45.4163	113.5	13.5	49.2
WXX100301-08CRI	PETN	361 > 62	24.78	4439.381	18804.244	4439.381	118.042	bb			44.3364	110.8	10.8	1079.6

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GRAND MEAN AVERAGE

Vendor: UltraScientific
Date of Analysis 03/02/10
Time of Injection 1311
Standard Number WXX100301-08CRI
Data File EXP0301045a

HMX	111.5
RDX	101.1
135-TNB	130.9
13-DNB	105.0
Tetryl	93.4
Nitrobenzene	83.2
4A-26-DNT	104.9
2A-46-DNT	111.7
246-TNT	108.0
34-DNT(surr)	94.3
26-DNT	99.1
24-DNT	101.6
2-NT	98.6
4-NT	94.2
3-NT	113.5
PETN	110.8
Total	1661.8
Average	103.9

MJT 3/3/10

dhm 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301056a

Analysis Date: 02-MAR-10 18:42

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	576.331	96	
m-Dinitrobenzene	600	617.22	103	
m-Nitrotoluene	600	550.813	92	
o-Nitrotoluene	600	566.894	94	
p-Nitrotoluene	600	589.286	98	
1,3,5-Trinitrobenzene	600	663.068	111	
1,3-Dinitrobenzene-d4	500	453.09	91	
2,4,6-Trinitrotoluene	600	691.385	115	
2,4-Dinitrotoluene	600	651.233	109	
2,6-Dinitrotoluene	600	612.072	102	
2,6-Dinitrotoluene-d3	500	486.839	97	
2-Amino-4,6-dinitrotoluene	600	682.306	114	
3,4-Dinitrotoluene	300	294.085	98	
4-Amino-2,6-dinitrotoluene	600	628.379	105	
HMX	600	655.741	109	
Nitrobenzene	600	593.858	99	
PETN	600	708.678	118	
RDX	600	661.836	110	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301056a
Date: 02-Mar-2010
Time: 18:42:39
ID: WXX100301-07CCV
Vial: 1:1,B

MM 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.286e+004

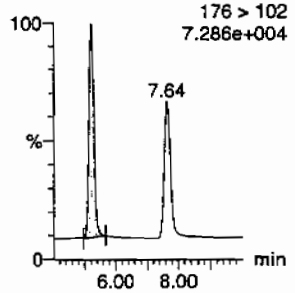

RDX
F2:MRM of 1 channel,AP-
5.21
176 > 102
7.286e+004

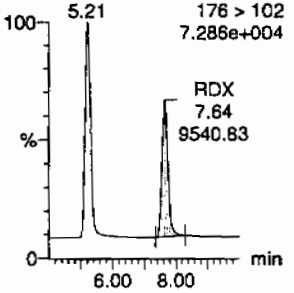

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.888e+004

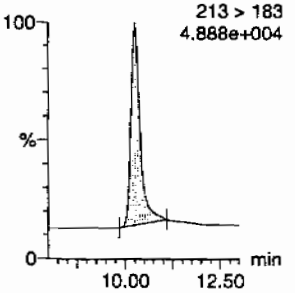

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.254e+004

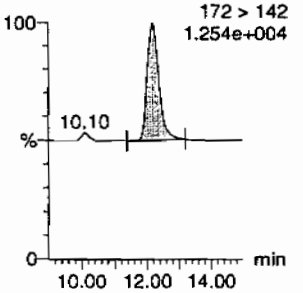

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.717e+004

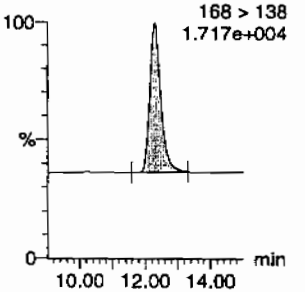

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.83
3122.84
241 > 18
1.496e+00

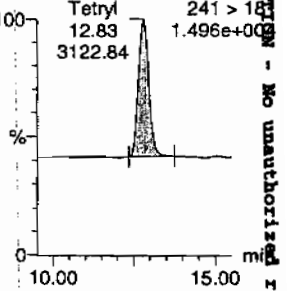

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.430e+004

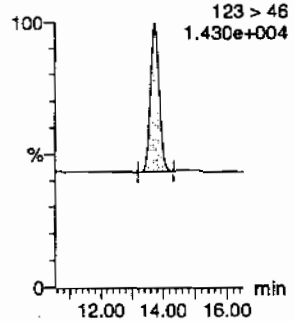

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.020e+004

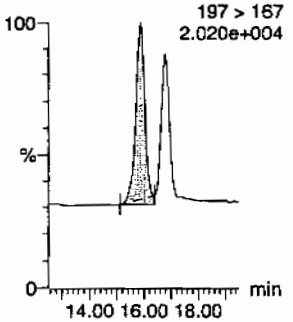

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.769e+004

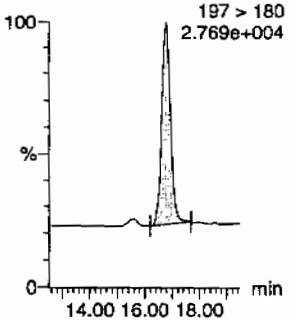

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.210e+004

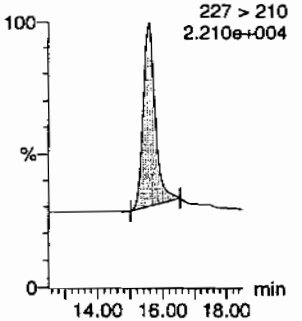

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.79
182 > 152
6.441e+004

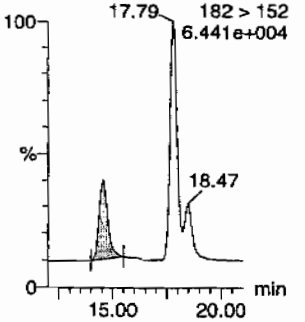

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 15
6.441e+00

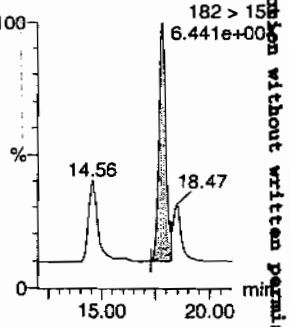

dhmw
03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

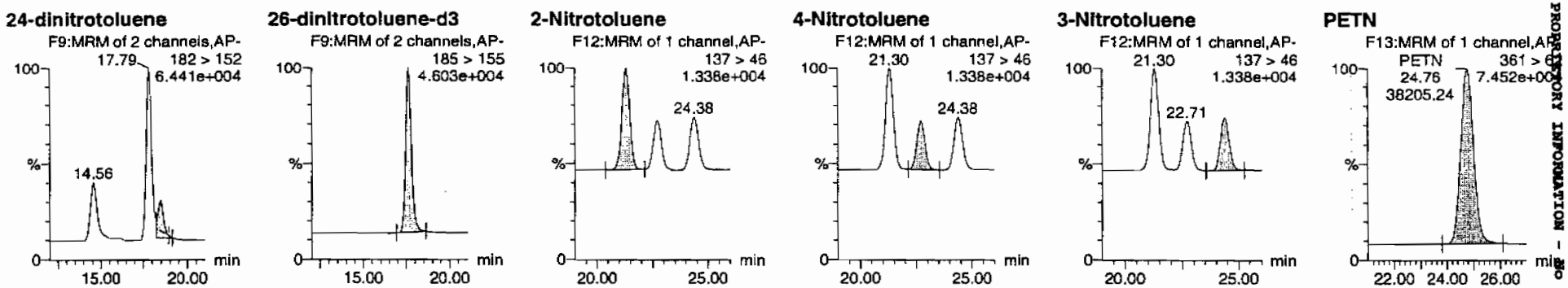

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.21	13138.960	2626.177	13138.960	2501.537	bb			655.7414	109.3	9.3	970.9
WXX100301-07CCV	RDX	176 > 102	7.64	9540.825	2626.177	9540.825	1816.486	bb			661.8357	110.3	10.3	613.2
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	11991.019	2626.177	11991.019	2282.980	bb			663.0682	110.5	10.5	615.6
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.18	2626.177		2626.177	2626.177	bb			453.0897	90.6	-9.4	344.9
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4252.885	2626.177	4252.885	809.710	bb			617.2199	102.9	2.9	361.1
WXX100301-07CCV	Tetryl	241 > 181	12.83	3122.841	2626.177	3122.841	594.560	bb			576.3308	96.1	-3.9	412.3
WXX100301-07CCV	Nitrobenzene	123 > 46	13.71	2772.714	2626.177	2772.714	527.899	bb			593.8577	99.0	-1.0	141.0
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5555.793	15661.421	5555.793	177.372	MM	03-Mar-10	08:45:58	628.3789	104.7	4.7	323.6
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.79	8057.564	15661.421	8057.564	257.242	bb			682.3056	113.7	13.7	383.5
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	6825.581	15661.421	6825.581	217.911	bb			691.3846	115.2	15.2	242.5
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	9125.598	15661.421	9125.598	291.340	bb			294.0850	98.0	-2.0	291.2
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	21630.381	15661.421	21630.381	690.563	MM	03-Mar-10	08:55:54	612.0723	102.0	2.0	870.9
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.47	5131.042	15661.421	5131.042	163.812	MM	03-Mar-10	08:58:11	651.2326	108.5	8.5	191.7
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	15661.421		15661.421	15661.421	bb			486.8385	97.4	-2.6	1427.6
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.30	2945.527	15661.421	2945.527	94.038	bb			566.8940	94.5	-5.5	256.2
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.71	1462.799	15661.421	1462.799	46.701	bb			589.2861	98.2	-1.8	121.3
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	1694.477	15661.421	1694.477	54.097	bb			550.8130	91.8	-8.2	131.0
WXX100301-07CCV	PETN	361 > 62	24.76	38205.238	15661.421	38205.238	1219.725	bb			708.6776	118.1	18.1	8165.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 1842
Standard Number: WXX100301-07CCV
Data File: EXP0301056a

HMX	109.3
RDX	110.3
135-TNB	110.5
13-DNB	102.9
Tetryl	96.1
Nitrobenzene	99.0
4A-26-DNT	104.7
2A-46-DNT	113.7
246-TNT	115.2
34-DNT(surr)	98.0
26-DNT	102.0
24-DNT	108.5
2-NT	94.5
4-NT	98.2
3-NT	91.8
PETN	118.1
Total	1672.8
Average	104.6

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

HJP 3/3/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1514

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0301058a **Analysis Date:** 02-MAR-10 19:41

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	43.335	108	
PETN	40	52.803	132	*
RDX	40	40.001	100	
Tetryl	40	39.676	99	
m-Dinitrobenzene	40	30.191	75	
m-Nitrotoluene	40	44.578	111	
o-Nitrotoluene	40	40.684	102	
p-Nitrotoluene	40	40.786	102	
1,3,5-Trinitrobenzene	40	54.949	137	*
1,3-Dinitrobenzene-d4	500	526.73	105	
2,4,6-Trinitrotoluene	40	42.619	107	
2,4-Dinitrotoluene	40	40.949	102	
2,6-Dinitrotoluene	40	39.716	99	
2,6-Dinitrotoluene-d3	500	543.465	109	
2-Amino-4,6-dinitrotoluene	40	45.865	115	
3,4-Dinitrotoluene	20	20.539	103	
4-Amino-2,6-dinitrotoluene	40	39.394	98	
HMX	40	47.031	118	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301058a
Date: 02-Mar-2010
Time: 19:41:43
ID: WXX100301-08CRI
Vial: 1:1,C

MATT 3/3/10

HMX

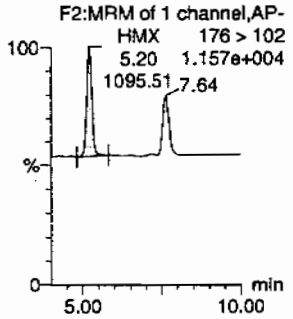

RDX

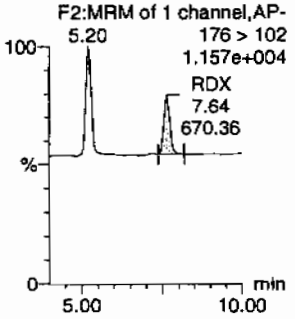

135-Trinitrobenzene

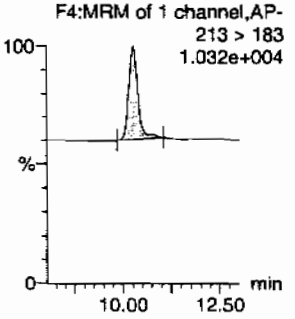

13-Dinitrobenzene-d4

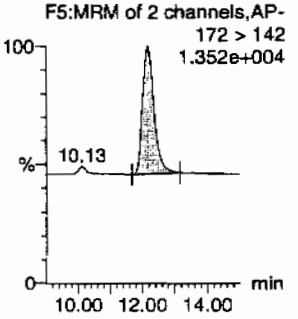

13-Dinitrobenzene

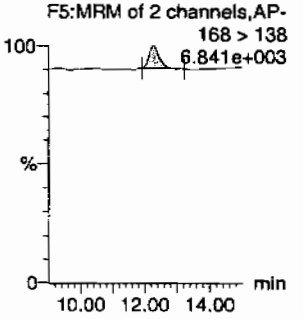

Tetryl

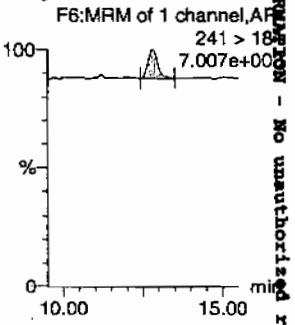

Nitrobenzene

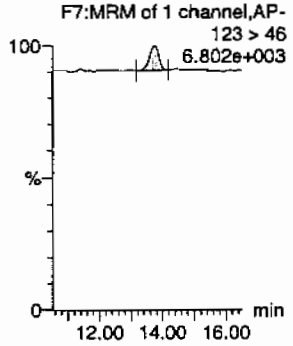

4-Amino-26-dinitrotoluene

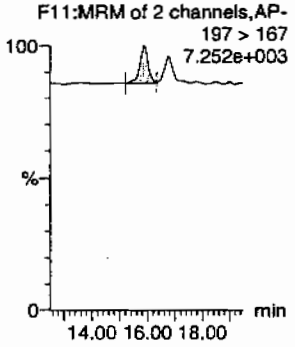

2-Amino-46-dinitrotoluene

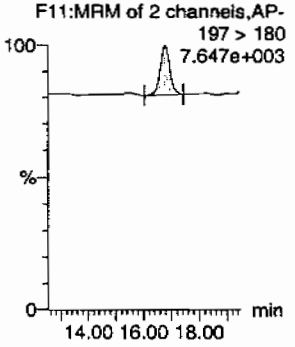

246-Trinitrotoluene

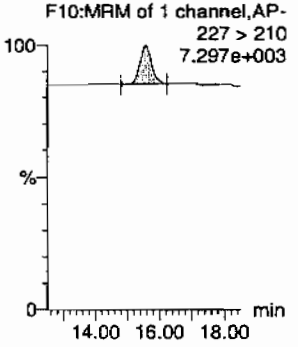

34-dinitrotoluene

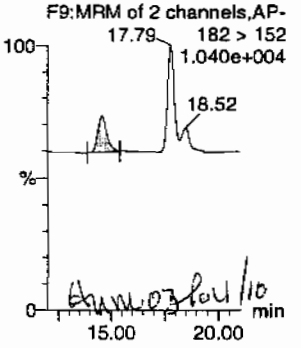

26-dinitrotoluene

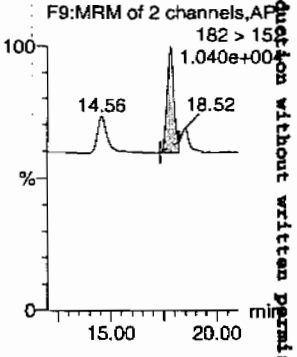

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

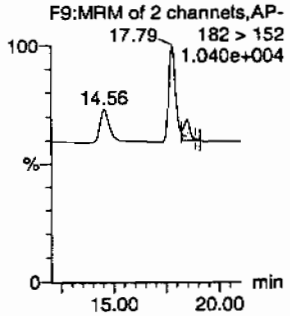

26-dinitrotoluene-d3

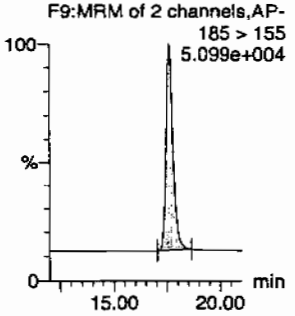

2-Nitrotoluene

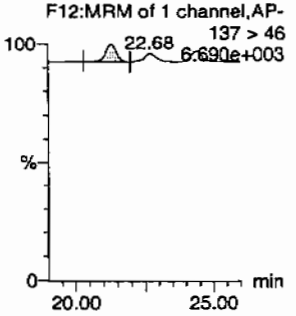

4-Nitrotoluene

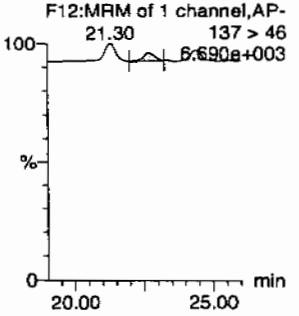

3-Nitrotoluene

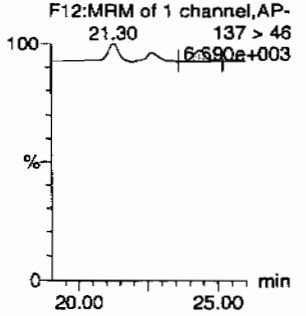

PETN

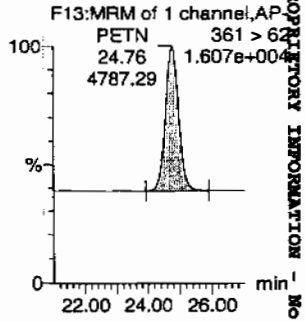

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.20	1095.506	3053.009	1095.506	179.414	bb			47.0308	117.6	17.6	153.7
WXX100301-08CRI	RDX	176 > 102	7.64	670.361	3053.009	670.361	109.787	bb			40.0008	100.0	0.0	84.2
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1155.212	3053.009	1155.212	189.192	bb			54.9490	137.4	37.4	160.1
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3053.009		3053.009	3053.009	bb			526.7303	105.3	5.3	171.3
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	241.838	3053.009	241.838	39.606	bb			30.1909	75.5	-24.5	29.4
WXX100301-08CRI	Tetryl	241 > 181	12.82	311.444	3053.009	311.444	51.006	bb			39.6762	99.2	-0.8	31.1
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	235.215	3053.009	235.215	38.522	bb			43.3349	108.3	8.3	31.8
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.89	388.816	17483.064	388.816	11.120	MM	03-Mar-10	08:46:06	39.3943	98.5	-1.5	28.5
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	604.638	17483.064	604.638	17.292	bb			45.8653	114.7	14.7	73.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	469.685	17483.064	469.685	13.433	bb			42.6187	106.5	6.5	49.4
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	711.467	17483.064	711.467	20.347	bb			20.5390	102.7	2.7	53.9
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1566.794	17483.064	1566.794	44.809	MM	03-Mar-10	08:55:43	39.7159	99.3	-0.7	159.0
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.52	360.159	17483.064	360.159	10.300	MM	03-Mar-10	08:58:23	40.9485	102.4	2.4	33.8
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	17483.064		17483.064	17483.064	bb			543.4647	108.7	8.7	1571.5
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.30	235.979	17483.064	235.979	6.749	bb			40.6842	101.7	1.7	103.7
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.68	113.019	17483.064	113.019	3.232	bb			40.7856	102.0	2.0	47.3
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.38	153.088	17483.064	153.088	4.378	bb			44.5783	111.4	11.4	61.5
WXX100301-08CRI	PETN	361 > 62	24.76	4787.289	17483.064	4787.289	136.912	bb			52.8026	132.0	32.0	1269.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/02/10
Time of Injection	1941
Standard Number	WXX100301-08CRI
Data File	EXP0301058a

HMX		117.6
RDX		100.0
135-TNB		137.4
13-DNB		75.5
Tetryl		99.2
Nitrobenzene		108.3
4A-26-DNT		98.5
2A-46-DNT		114.7
246-TNT		106.5
34-DNT(surr)		102.7
26-DNT		99.3
24-DNT		102.4
2-NT		101.7
4-NT		102.0
3-NT		111.4
PETN		132.0
Total		1709.2
Average		106.8

AMT 3/3/10

HMX co-elution

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301068a

Analysis Date: 03-MAR-10 00:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	625.261	104	
1,3-Dinitrobenzene-d4	500	521.037	104	
2,4,6-Trinitrotoluene	600	703.496	117	
2,4-Dinitrotoluene	600	657.764	110	
2,6-Dinitrotoluene	600	618.87	103	
2,6-Dinitrotoluene-d3	500	562.762	113	
2-Amino-4,6-dinitrotoluene	600	672.055	112	
3,4-Dinitrotoluene	300	301.113	100	
4-Amino-2,6-dinitrotoluene	600	621.473	104	
HMX	600	594.011	99	
Nitrobenzene	600	603.396	101	
PETN	600	563.001	94	
RDX	600	653.924	109	
Tetryl	600	574.954	96	
m-Dinitrobenzene	600	607.15	101	
m-Nitrotoluene	600	622	104	
o-Nitrotoluene	600	561.005	94	
p-Nitrotoluene	600	634.214	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301068a
Date: 03-Mar-2010
Time: 00:36:45
ID: WXX100301-07CCV
Vial: 1:1,B

KOH 3/3/10

HMX

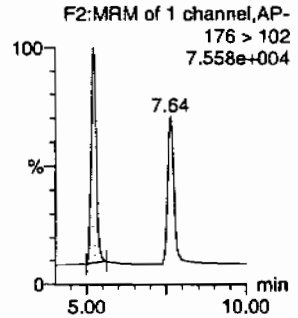

RDX

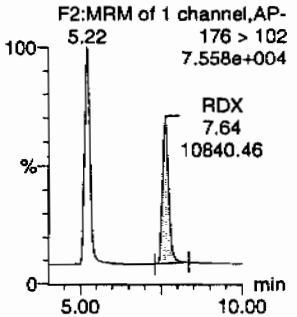

135-Trinitrobenzene

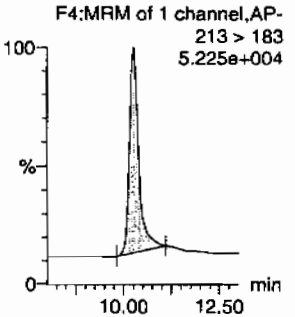

13-Dinitrobenzene-d4

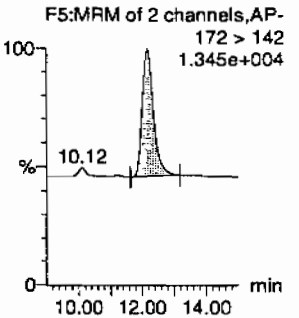

13-Dinitrobenzene

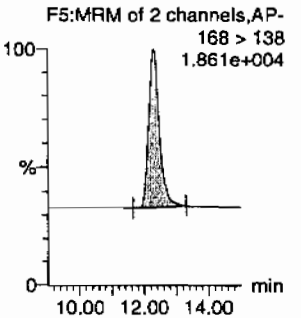

Tetryl

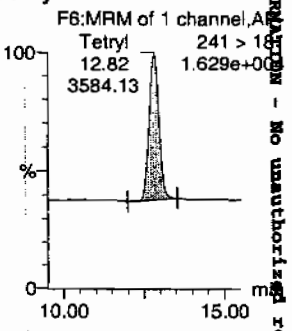

Nitrobenzene

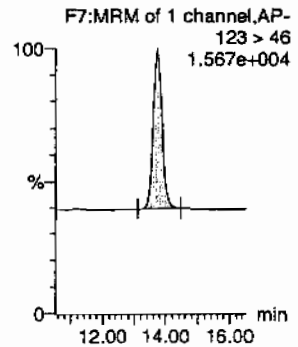

4-Amino-26-dinitrotoluene

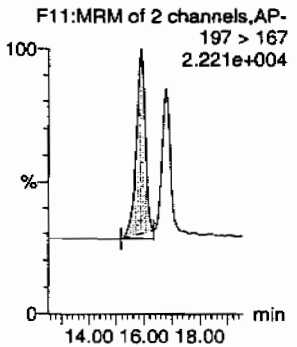

2-Amino-46-dinitrotoluene

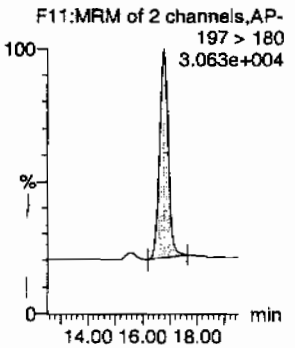

246-Trinitrotoluene

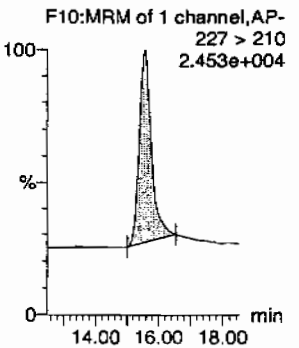

34-dinitrotoluene

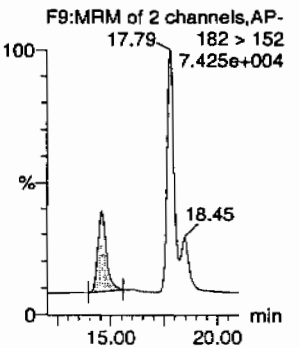

26-dinitrotoluene

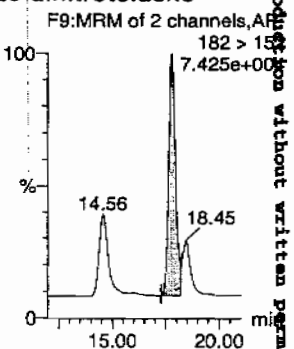

03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

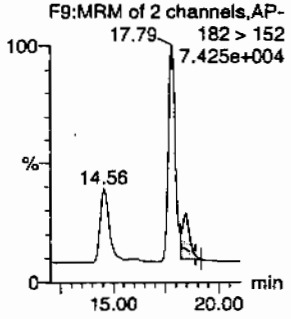

26-dinitrotoluene-d3

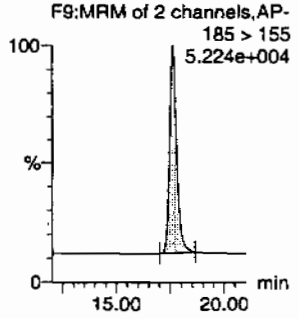

2-Nitrotoluene

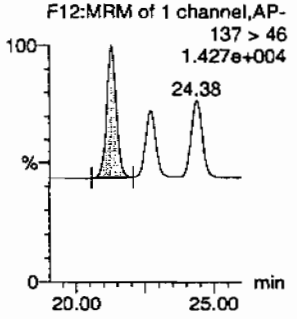

4-Nitrotoluene

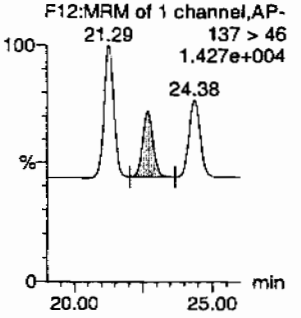

3-Nitrotoluene

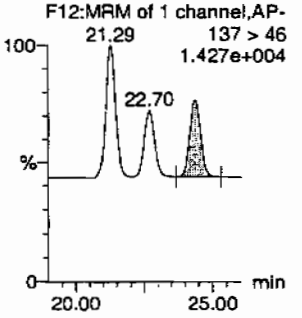

PETN

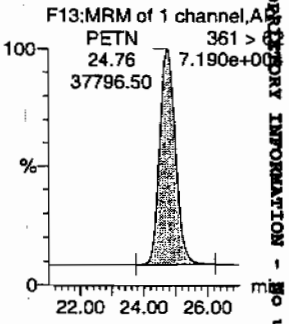

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.22	13686.972	3020.010	13686.972	2266.047	bb			594.0112	99.0	-1.0	2017.6
WXX100301-07CCV	RDX	176 > 102	7.64	10840.460	3020.010	10840.460	1794.772	bb			653.9244	109.0	9.0	1378.6
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	13002.997	3020.010	13002.997	2152.807	bb			625.2607	104.2	4.2	504.6
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3020.010		3020.010	3020.010	bb			521.0370	104.2	4.2	355.7
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4810.877	3020.010	4810.877	796.500	bb			607.1502	101.2	1.2	395.0
WXX100301-07CCV	Tetryl	241 > 181	12.62	3584.126	3020.010	3584.126	593.396	bb			574.9541	95.8	-4.2	310.5
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	3239.733	3020.010	3239.733	536.378	bb			603.3957	100.6	0.6	203.6
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	6351.652	18103.846	6351.652	175.423	MM	03-Mar-10	08:46:33	621.4735	103.6	3.6	444.3
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	9174.229	18103.846	9174.229	253.378	bb			672.0554	112.0	12.0	280.1
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	8028.257	18103.846	8028.257	221.728	bb			703.4960	117.2	17.2	371.1
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	10800.842	18103.846	10800.842	298.302	bb			301.1130	100.4	0.4	490.4
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	25281.350	18103.846	25281.350	698.231	MM	03-Mar-10	08:55:30	618.8696	103.1	3.1	1467.1
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.45	5990.723	18103.846	5990.723	165.454	MM	03-Mar-10	08:58:38	657.7640	109.6	9.6	310.3
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	18103.846		18103.846	18103.846	bb			562.7618	112.6	12.6	1275.0
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.29	3369.519	18103.846	3369.519	93.061	bb			561.0054	93.5	-6.5	348.8
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1819.844	18103.846	1819.844	50.261	bb			634.2143	105.7	5.7	177.8
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	2211.880	18103.846	2211.880	61.089	bb			622.0000	103.7	3.7	205.2
WXX100301-07CCV	PETN	361 > 62	24.76	37796.500	18103.846	37796.500	1043.880	bb			563.0009	93.8	-6.2	4013.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/03/10
Time of Injection: 0036
Standard Number: WXX100301-07CCV
Data File: EXP0301068a

HMX	99.0
RDX	109.0
135-TNB	104.2
13-DNB	101.2
Tetryl	95.8
Nitrobenzene	100.6
4A-26-DNT	103.6
2A-46-DNT	112.0
246-TNT	117.2
34-DNT(surr)	100.4
26-DNT	103.1
24-DNT	109.6
2-NT	93.5
4-NT	105.7
3-NT	103.7
PETN	93.8
Total	1652.4
Average	103.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0301070a

Analysis Date: 03-MAR-10 01:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	50.024	125	
1,3-Dinitrobenzene-d4	500	599.39	120	
2,4,6-Trinitrotoluene	40	42.921	107	
2,4-Dinitrotoluene	40	44.869	112	
2,6-Dinitrotoluene	40	39.409	99	
2,6-Dinitrotoluene-d3	500	621.51	124	
2-Amino-4,6-dinitrotoluene	40	47.604	119	
3,4-Dinitrotoluene	20	18.932	95	
4-Amino-2,6-dinitrotoluene	40	42.217	106	
HMX	40	49.129	123	
Nitrobenzene	40	36.502	91	
PETN	40	47.635	119	
RDX	40	42.752	107	
Tetryl	40	36.156	90	
m-Dinitrobenzene	40	43.178	108	
m-Nitrotoluene	40	41.745	104	
o-Nitrotoluene	40	37.385	93	
p-Nitrotoluene	40	41.194	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301070a
Date: 03-Mar-2010
Time: 01:35:49
ID: WXX100301-08CRI
Vial: 1:1,C

MMT 3/3/10

HMX

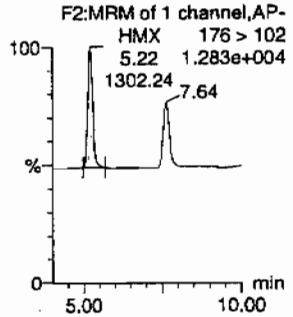

RDX

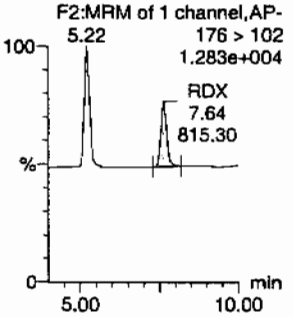

135-Trinitrobenzene

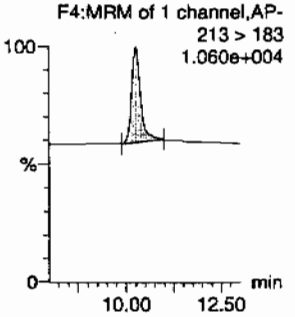

13-Dinitrobenzene-d4

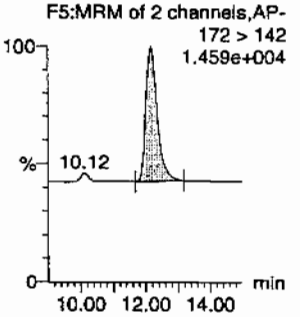

13-Dinitrobenzene

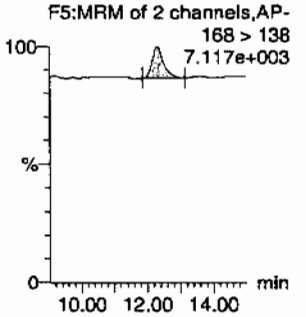

Tetryl

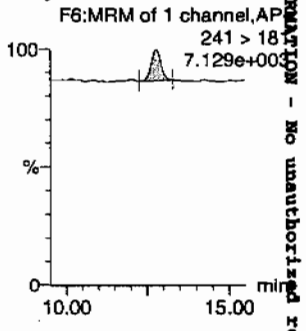

Nitrobenzene

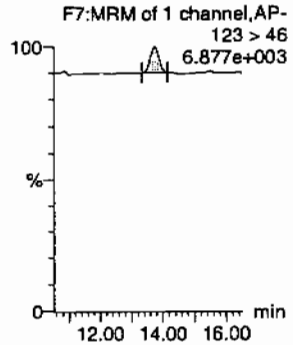

4-Amino-26-dinitrotoluene

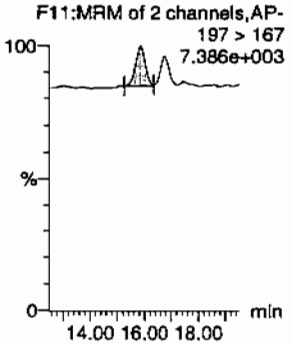

2-Amino-46-dinitrotoluene

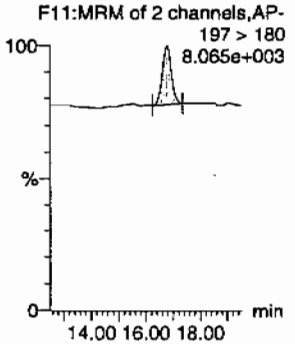

246-Trinitrotoluene

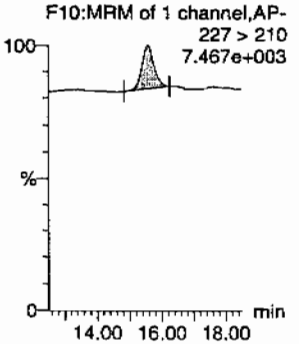

34-dinitrotoluene

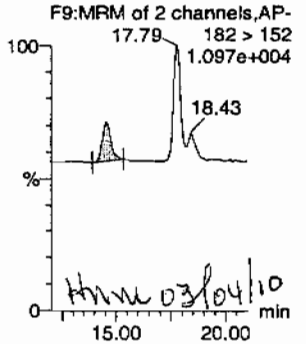

HMM 03/04/10

26-dinitrotoluene

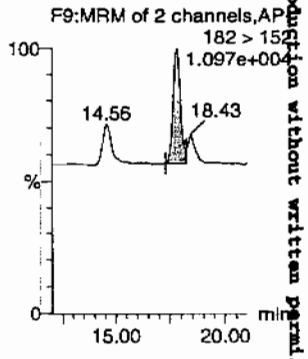

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

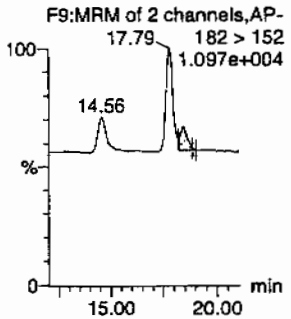

26-dinitrotoluene-d3

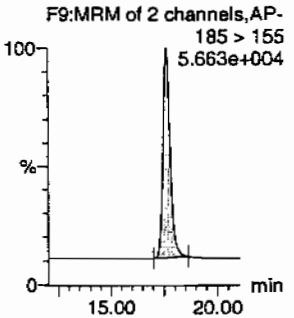

2-Nitrotoluene

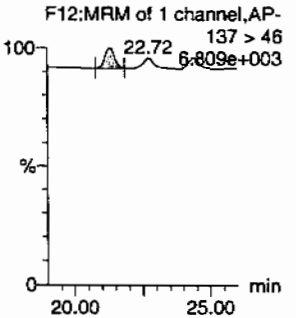

4-Nitrotoluene

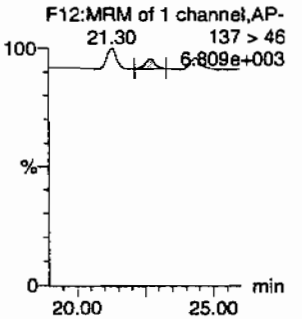

3-Nitrotoluene

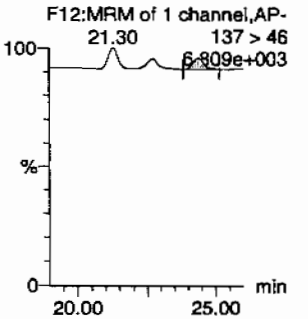

PETN

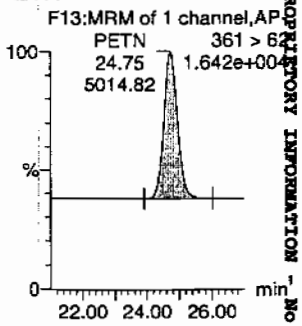

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1302.244	3474.158	1302.244	187.419	bb			49.1291	122.8	22.8	190.8
WXX100301-08CRI	RDX	176 > 102	7.64	815.297	3474.158	815.297	117.337	bb			42.7518	106.9	6.9	102.4
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1196.755	3474.158	1196.755	172.237	bb			50.0244	125.1	25.1	250.0
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3474.158		3474.158	3474.158	bb			599.3904	119.9	19.9	657.7
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	393.580	3474.158	393.580	56.644	bb			43.1781	107.9	7.9	53.6
WXX100301-08CRI	Tetryl	241 > 181	12.82	325.501	3474.158	325.501	46.846	bb			36.1561	90.4	-9.6	25.8
WXX100301-08CRI	Nitrobenzene	123 > 46	13.76	225.458	3474.158	225.458	32.448	bb			36.5021	91.3	-8.7	24.8
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	476.509	19993.752	476.509	11.916	MM	03-Mar-10	08:46:42	42.2166	105.5	5.5	58.7
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	717.676	19993.752	717.676	17.948	bb			47.6037	119.0	19.0	66.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.55	540.942	19993.752	540.942	13.528	bb			42.9208	107.3	7.3	54.8
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	749.975	19993.752	749.975	18.755	bb			18.9319	94.7	-5.3	51.3
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1777.950	19993.752	1777.950	44.463	MM	03-Mar-10	08:55:19	39.4090	98.5	-1.5	150.3
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.43	451.310	19993.752	451.310	11.286	MM	03-Mar-10	08:58:49	44.8686	112.2	12.2	35.6
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	19993.752		19993.752	19993.752	bb			621.5099	124.3	24.3	3720.8
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.30	247.985	19993.752	247.985	6.202	bb			37.3853	93.5	-6.5	85.9
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.72	130.542	19993.752	130.542	3.265	bb			41.1935	103.0	3.0	42.2
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.38	163.944	19993.752	163.944	4.100	bb			41.7447	104.4	4.4	47.7
WXX100301-08CRI	PETN	361 > 62	24.75	5014.823	19993.752	5014.823	125.410	bb			47.6353	119.1	19.1	1827.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: UltraScientific
Date of Analysis 03/03/10
Time of Injection 0135
Standard Number WXX100301-08CRI
Data File EXP0301070a

HMX	122.8
RDX	106.9
135-TNB	125.1
13-DNB	107.9
Tetryl	90.4
Nitrobenzene	91.3
4A-26-DNT	105.5
2A-46-DNT	119.0
246-TNT	107.3
34-DNT(surr)	94.7
26-DNT	98.5
24-DNT	112.2
2-NT	93.5
4-NT	103.0
3-NT	104.4
PETN	119.1
Total	1701.6
Average	106.4

HMP 3/3/10

HMM 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301081a

Analysis Date: 03-MAR-10 07:00

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	494.993	82	
RDX	600	611.075	102	
Tetryl	600	521.429	87	
m-Dinitrobenzene	600	581.641	97	
m-Nitrotoluene	600	494.415	82	
o-Nitrotoluene	600	483.022	81	
p-Nitrotoluene	600	520.182	87	
1,3,5-Trinitrobenzene	600	597.421	100	
1,3-Dinitrobenzene-d4	500	541.498	108	
2,4,6-Trinitrotoluene	600	710.046	118	
2,4-Dinitrotoluene	600	678.751	113	
2,6-Dinitrotoluene	600	618.273	103	
2,6-Dinitrotoluene-d3	500	564.163	113	
2-Amino-4,6-dinitrotoluene	600	652.34	109	
3,4-Dinitrotoluene	300	313.63	105	
4-Amino-2,6-dinitrotoluene	600	563.974	94	
HMX	600	654.039	109	
Nitrobenzene	600	549.595	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301081a
Date: 03-Mar-2010
Time: 07:00:23
ID: WXX100301-07CCV
Vial: 1:1,B

HMX

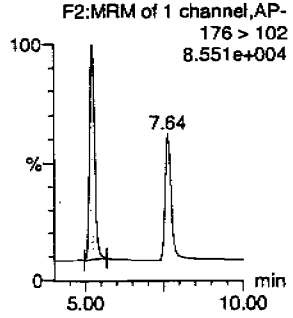

RDX

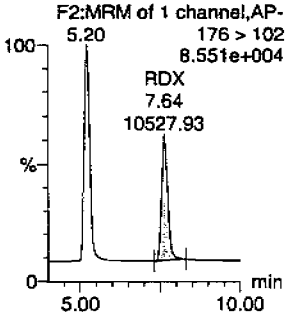

135-Trinitrobenzene

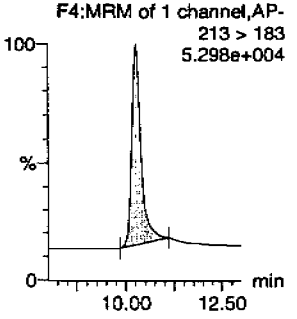

13-Dinitrobenzene-d4

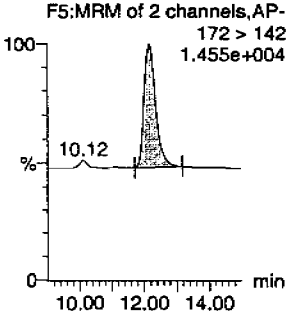

13-Dinitrobenzene

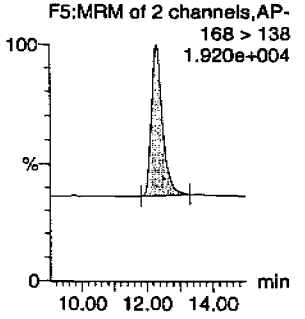

Tetryl

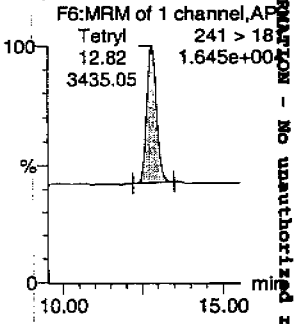

Nitrobenzene

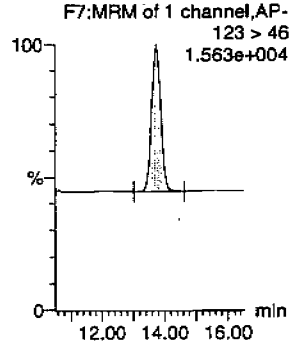

4-Amino-26-dinitrotoluene

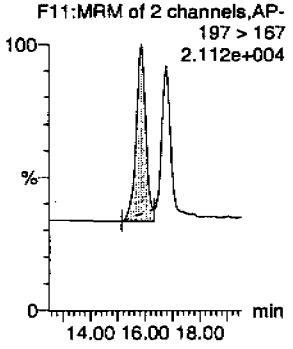

2-Amino-46-dinitrotoluene

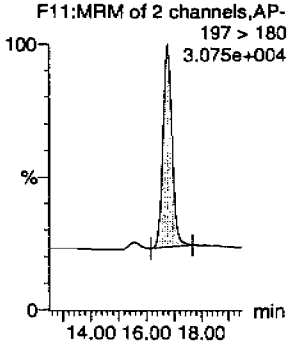

246-Trinitrotoluene

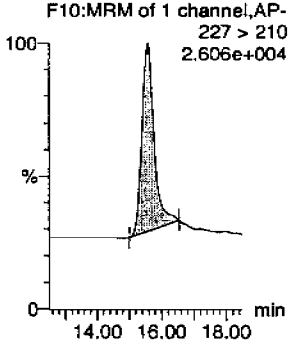

34-dinitrotoluene

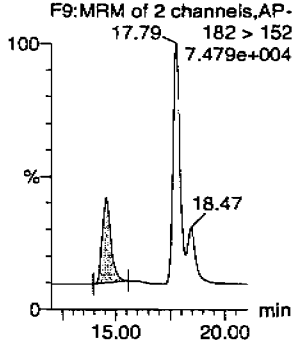

26-dinitrotoluene

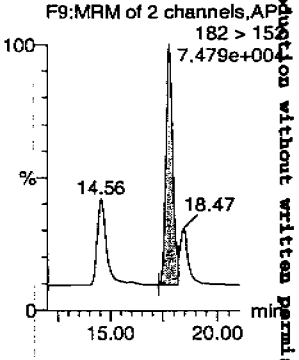

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

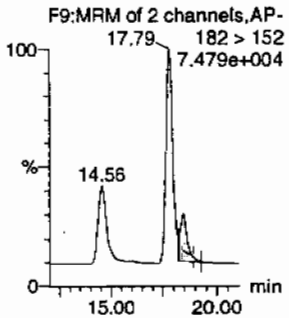

26-dinitrotoluene-d3

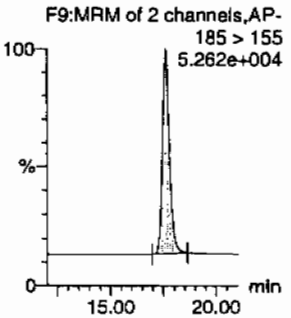

2-Nitrotoluene

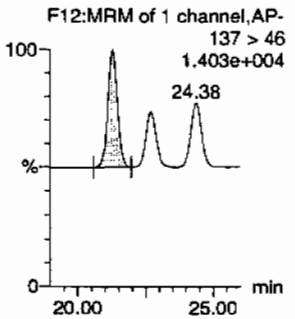

4-Nitrotoluene

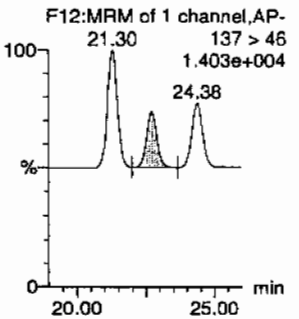

3-Nitrotoluene

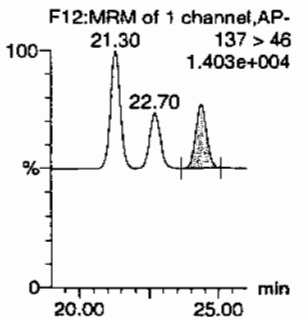

PETN

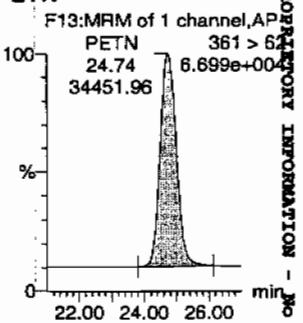

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.20	15661.918	3138.605	15661.918	2495.044	bb			654.0394	109.0	9.0	3102.5
WXX100301-07CCV	RDX	176 > 102	7.64	10527.930	3138.605	10527.930	1677.167	bb			611.0751	101.8	1.8	1822.8
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	12911.929	3138.605	12911.929	2056.953	bb			597.4211	99.6	-0.4	1467.1
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3138.605		3138.605	3138.605	bb			541.4980	108.3	8.3	166.7
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4789.737	3138.605	4789.737	763.036	bb			581.6414	96.9	-3.1	257.6
WXX100301-07CCV	Tetryl	241 > 181	12.82	3435.049	3138.605	3435.049	547.225	bb			521.4288	86.9	-13.1	219.6
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	3066.749	3138.605	3066.749	488.553	bb			549.5952	91.6	-8.4	340.0
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5778.337	18148.918	5778.337	159.192	MM	03-Mar-10	08:47:27	563.9737	94.0	-6.0	205.9
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	8927.271	18148.918	8927.271	245.945	bb			652.3405	108.7	8.7	535.8
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	8123.173	18148.918	8123.173	223.792	bb			710.0455	118.3	18.3	153.9
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	11277.819	18148.918	11277.819	310.702	bb			313.6296	104.5	4.5	278.4
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	25319.865	18148.918	25319.865	697.559	MM	03-Mar-10	08:54:25	618.2731	103.0	3.0	783.2
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.47	6197.255	18148.918	6197.255	170.733	MM	03-Mar-10	09:00:43	678.7508	113.1	13.1	175.4
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	18148.918		18148.918	18148.918	bb			564.1629	112.8	12.8	1480.8
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.30	2908.356	18148.918	2908.356	80.125	bb			483.0219	80.5	-19.5	479.2
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1496.350	18148.918	1496.350	41.224	bb			520.1818	86.7	-13.3	228.8
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	1762.555	18148.918	1762.555	48.558	bb			494.4149	82.4	-17.6	262.9
WXX100301-07CCV	PETN	361 > 62	24.74	34451.961	18148.918	34451.961	949.146	bb			494.9929	82.5	-17.5	509.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/03/10
Time of Injection: 0700
Standard Number: WXX100301-07CCV
Data File: EXP0301081a

HMX	109.0
RDX	101.8
135-TNB	99.6
13-DNB	96.9
Tetryl	86.9
Nitrobenzene	91.6
4A-26-DNT	94.0
2A-46-DNT	108.7
246-TNT	118.3
34-DNT(surr)	104.5
26-DNT	103.0
24-DNT	113.1
2-NT	80.5
4-NT	86.7
3-NT	82.4
PETN	82.5
Total	1559.5
Average	97.5

MJT 3/3/10

Hmm 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301083a

Analysis Date: 03-MAR-10 07:59

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	40	42.604	107	
2,6-Dinitrotoluene	40	40.372	101	
2,6-Dinitrotoluene-d3	500	642.665	129	
2-Amino-4,6-dinitrotoluene	40	41.73	104	
3,4-Dinitrotoluene	20	17.556	88	
4-Amino-2,6-dinitrotoluene	40	40.477	101	
HMX	40	36.066	90	
Nitrobenzene	40	30.414	76	
PETN	40	46.771	117	
RDX	40	30.064	75	
Tetryl	40	29.332	73	
m-Dinitrobenzene	40	42.74	107	
m-Nitrotoluene	40	29.241	73	
o-Nitrotoluene	40	36.839	92	
p-Nitrotoluene	40	41.871	105	
1,3,5-Trinitrobenzene	40	49.866	125	
1,3-Dinitrobenzene-d4	500	643.486	129	
2,4,6-Trinitrotoluene	40	47.216	118	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301083a
Date: 03-Mar-2010
Time: 07:59:21
ID: WXX100301-08CRI
Vial: 1:1,C

MAT 3/3/10

HMX

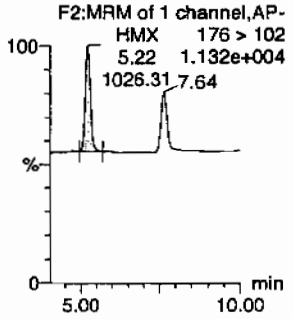

RDX

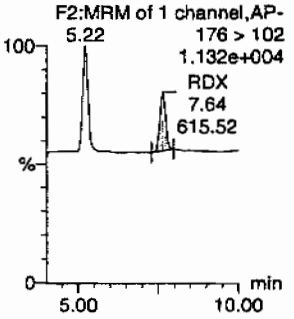

135-Trinitrobenzene

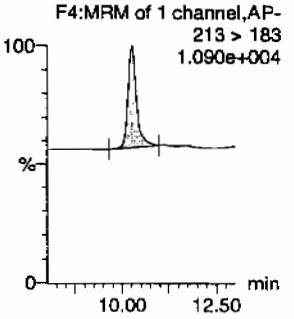

13-Dinitrobenzene-d4

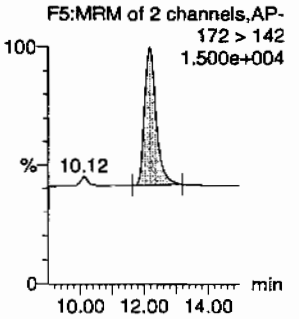

13-Dinitrobenzene

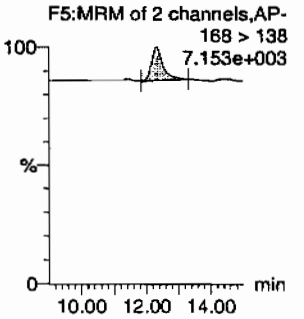

Tetryl

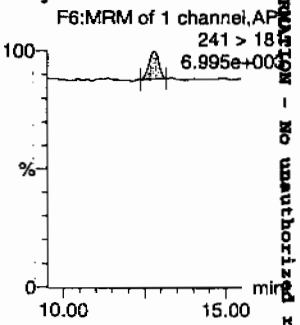

Nitrobenzene

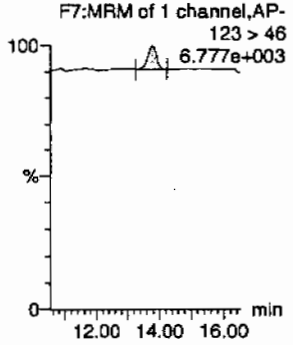

4-Amino-26-dinitrotoluene

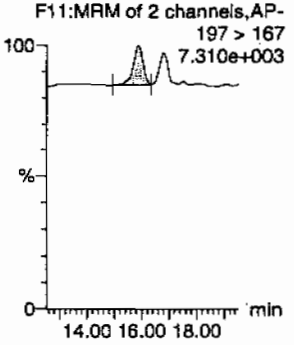

2-Amino-46-dinitrotoluene

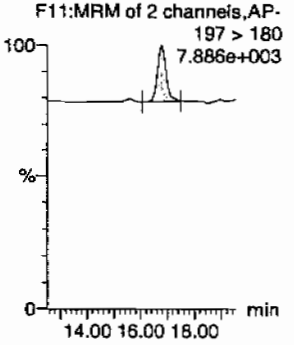

246-Trinitrotoluene

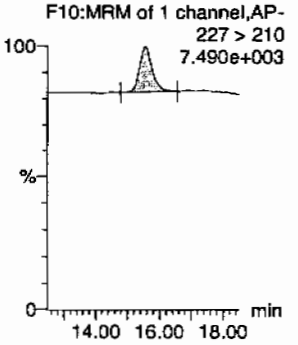

34-dinitrotoluene

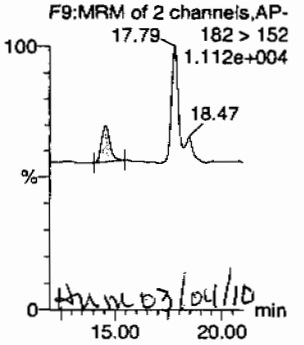

thanc 03/04/10

26-dinitrotoluene

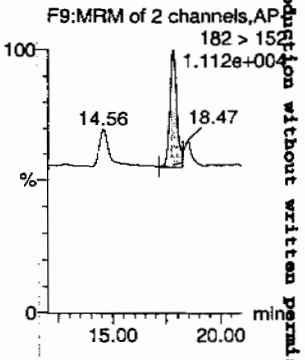

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

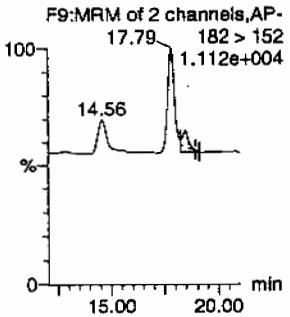

26-dinitrotoluene-d3

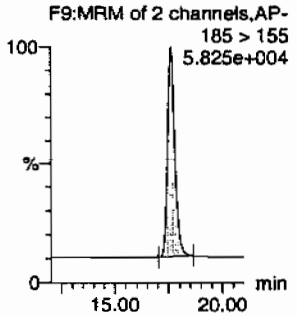

2-Nitrotoluene

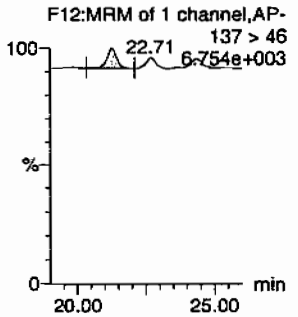

4-Nitrotoluene

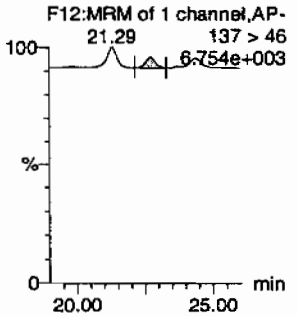

3-Nitrotoluene

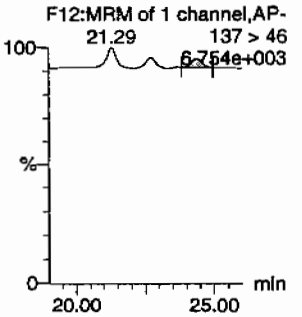

PETN

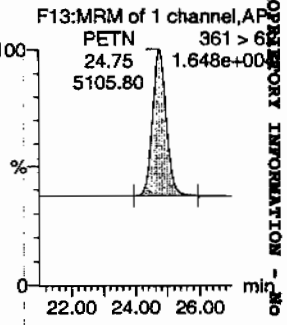

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1026.314	3729.741	1026.314	137.585	bb			36.0659	90.2	-9.8	161.9
WXX100301-08CRI	RDX	176 > 102	7.64	615.518	3729.741	615.518	82.515	bb			30.0642	75.2	-24.8	89.5
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.25	1280.718	3729.741	1280.718	171.690	bb			49.8656	124.7	24.7	150.7
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3729.741		3729.741	3729.741	bb			643.4857	128.7	28.7	565.7
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	418.249	3729.741	418.249	56.069	bb			42.7402	106.9	6.9	44.2
WXX100301-08CRI	Tetryl	241 > 181	12.82	289.126	3729.741	289.126	38.760	bb			29.3324	73.3	-26.7	24.6
WXX100301-08CRI	Nitrobenzene	123 > 46	13.76	201.672	3729.741	201.672	27.036	bb			30.4136	76.0	-24.0	25.4
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	472.425	20674.299	472.425	11.425	MM	03-Mar-10	08:47:36	40.4770	101.2	1.2	36.8
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	650.540	20674.299	650.540	15.733	bb			41.7301	104.3	4.3	75.3
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	615.329	20674.299	615.329	14.881	bb			47.2159	118.0	18.0	69.2
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	719.132	20674.299	719.132	17.392	bb			17.5558	87.8	-12.2	34.6
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1883.394	20674.299	1883.394	45.549	MM	03-Mar-10	08:49:29	40.3720	100.9	0.9	109.4
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.47	443.117	20674.299	443.117	10.717	MM	03-Mar-10	09:00:13	42.6039	106.5	6.5	23.7
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	20674.299		20674.299	20674.299	bb			642.6649	128.5	28.5	1440.0
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.29	252.676	20674.299	252.676	6.111	bb			36.8386	92.1	-7.9	51.1
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.71	137.205	20674.299	137.205	3.318	bb			41.8709	104.7	4.7	27.4
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.37	118.745	20674.299	118.745	2.872	bb			29.2405	73.1	-26.9	22.9
WXX100301-08CRI	PETN	361 > 62	24.75	5105.803	20674.299	5105.803	123.482	bb			46.7713	116.9	16.9	557.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/03/10
Time of Injection	0759
Standard Number	WXX100301-08CRI
Data File	EXP0301083a

HMX	90.2
RDX	75.2
135-TNB	124.7
13-DNB	106.9
Tetryl	73.3
Nitrobenzene	76.0
4A-26-DNT	101.2
2A-46-DNT	104.3
246-TNT	118.0
34-DNT(surr)	87.8
26-DNT	100.9
24-DNT	106.5
2-NT	92.1
4-NT	104.7
3-NT	73.1
PETN	116.9
Total	1551.8
Average	97.0

HMM 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301096a

Analysis Date: 03-MAR-10 14:23

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	608.469	101	
1,3-Dinitrobenzene-d4	500	564.313	113	
2,4,6-Trinitrotoluene	600	632.483	105	
2,4-Dinitrotoluene	600	611.259	102	
2,6-Dinitrotoluene	600	610.95	102	
2,6-Dinitrotoluene-d3	500	602.468	120	*
2-Amino-4,6-dinitrotoluene	600	653.472	109	
3,4-Dinitrotoluene	300	285.157	95	
4-Amino-2,6-dinitrotoluene	600	592.074	99	
HMX	600	609.032	102	
Nitrobenzene	600	563.081	94	
PETN	600	555.607	93	
RDX	600	727.597	121	*
Tetryl	600	570.012	95	
m-Dinitrobenzene	600	579.98	97	
m-Nitrotoluene	600	544.654	91	
o-Nitrotoluene	600	587.721	98	
p-Nitrotoluene	600	615.437	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301096a
Date: 03-Mar-2010
Time: 14:23:52
ID: WXX100301-07CCV
Vial: 1:1,B

MMT 3/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.250e+004
7.62

RDX
F2:MRM of 1 channel,AP-
5.20
176 > 102
8.250e+004
RDX
7.62
13063.59

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.592e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.414e+004
10.12

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.925e+004

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.82
3854.42
241 > 181
1.708e+004

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.592e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.229e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.143e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.436e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.77
182 > 152
7.701e+004
18.45

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.701e+004
14.56
18.45

Amw 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

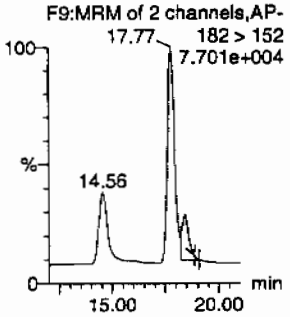

26-dinitrotoluene-d3

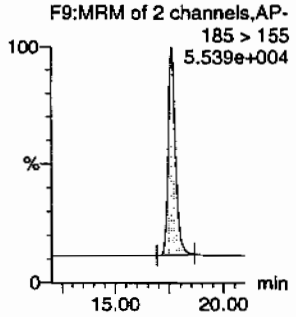

2-Nitrotoluene

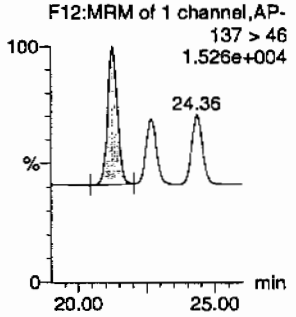

4-Nitrotoluene

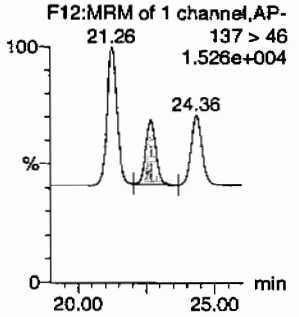

3-Nitrotoluene

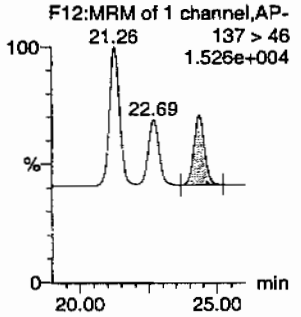

PETN

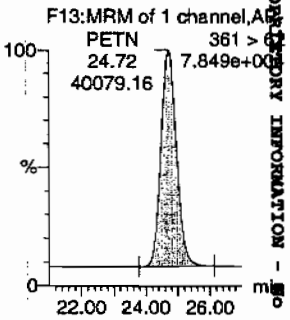

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.20	15198.614	3270.844	15198.614	2323.347	bb			609.0315	101.5	1.5	2344.8
WXX100301-07CCV	RDX	176 > 102	7.62	13063.593	3270.844	13063.593	1996.976	bb			727.5972	121.3	21.3	1742.9
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.25	13704.780	3270.844	13704.780	2094.991	bb			608.4688	101.4	1.4	1356.8
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3270.844		3270.844	3270.844	bb			564.3130	112.9	12.9	361.4
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.27	4977.288	3270.844	4977.288	760.857	bb			579.9803	96.7	-3.3	887.7
WXX100301-07CCV	Tetryl	241 > 181	12.82	3854.419	3270.844	3854.419	589.209	bb			570.0123	95.0	-5.0	211.2
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	3274.383	3270.844	3274.383	500.541	bb			563.0811	93.8	-6.2	196.2
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	6478.129	19381.193	6478.129	167.124	MM	04-Mar-10	09:48:11	592.0738	98.7	-1.3	283.5
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	9549.953	19381.193	9549.953	246.372	bb			653.4721	108.9	8.9	933.1
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.55	7727.126	19381.193	7727.126	199.346	bb			632.4828	105.4	5.4	466.4
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	10950.205	19381.193	10950.205	282.496	bb			285.1573	95.1	-4.9	159.3
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.77	26718.768	19381.193	26718.768	689.296	MM	04-Mar-10	09:51:26	610.9500	101.8	1.8	492.7
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.45	5959.965	19381.193	5959.965	153.756	MM	04-Mar-10	09:55:45	611.2585	101.9	1.9	103.9
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.60	19381.193		19381.193	19381.193	bb			602.4684	120.5	20.5	2128.8
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.26	3779.042	19381.193	3779.042	97.493	bb			587.7210	98.0	-2.0	782.5
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.69	1890.564	19381.193	1890.564	48.773	bb			615.4370	102.6	2.6	368.1
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.36	2073.487	19381.193	2073.487	53.492	bb			544.6537	90.8	-9.2	395.7
WXX100301-07CCV	PETN	361 > 62	24.72	40079.164	19381.193	40079.164	1033.971	bb			555.6068	92.6	-7.4	5362.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/03/10
Time of Injection: 1423
Standard Number: WXX100301-07CCV
Data File: EXP0301096a

HMX	101.5
RDX	121.3
135-TNB	101.4
13-DNB	96.7
Tetryl	95.0
Nitrobenzene	93.8
4A-26-DNT	98.7
2A-46-DNT	108.9
246-TNT	105.4
34-DNT(surr)	95.1
26-DNT	101.8
24-DNT	101.9
2-NT	98.0
4-NT	102.6
3-NT	90.8
PETN	92.6
Total	1605.5
Average	100.3

MDT 3/4/10

hm mc 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301098a

Analysis Date: 03-MAR-10 15:22

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	42.506	106	
1,3-Dinitrobenzene-d4	500	552.568	111	
2,4,6-Trinitrotoluene	40	52.156	130	*
2,4-Dinitrotoluene	40	41.794	104	
2,6-Dinitrotoluene	40	39.346	98	
2,6-Dinitrotoluene-d3	500	581.098	116	
2-Amino-4,6-dinitrotoluene	40	52.106	130	*
3,4-Dinitrotoluene	20	18.601	93	
4-Amino-2,6-dinitrotoluene	40	46.843	117	
HMX	40	55.874	140	*
Nitrobenzene	40	34.616	87	
PETN	40	46.069	115	
RDX	40	47.407	119	
Tetryl	40	38.641	97	
m-Dinitrobenzene	40	44.084	110	
m-Nitrotoluene	40	43.315	108	
o-Nitrotoluene	40	42.886	107	
p-Nitrotoluene	40	47.245	118	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301098a
Date: 03-Mar-2010
Time: 15:22:50
ID: WXX100301-08CRI
Vial: 1:1,C

MM 3/4/10

HMX

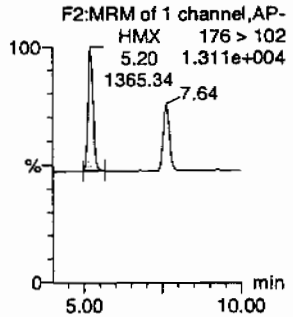

RDX

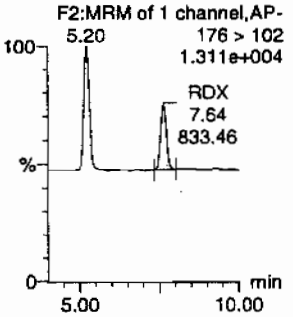

135-Trinitrobenzene

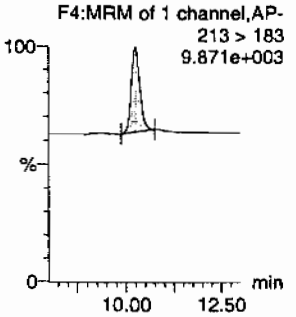

13-Dinitrobenzene-d4

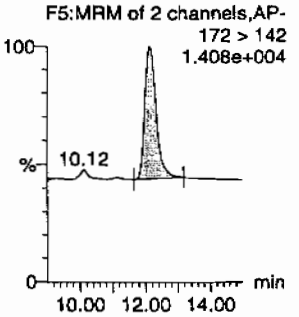

13-Dinitrobenzene

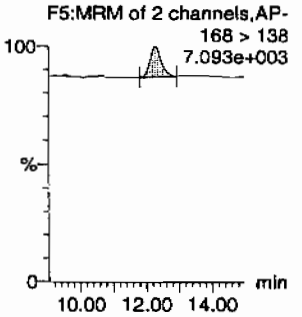

Tetryl

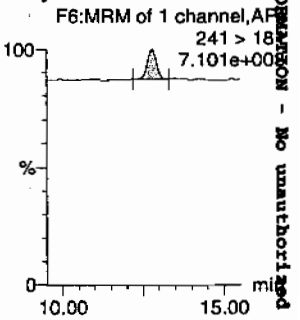

Nitrobenzene

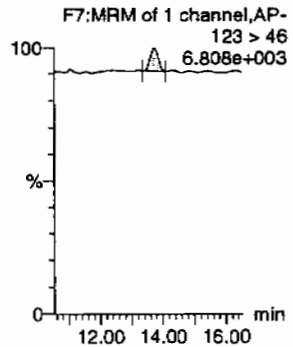

4-Amino-26-dinitrotoluene

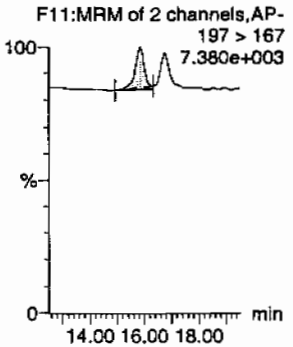

2-Amino-46-dinitrotoluene

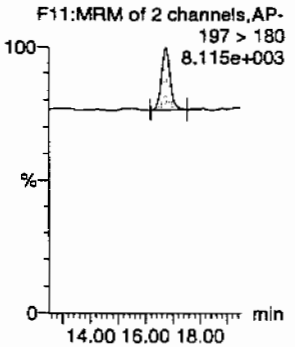

246-Trinitrotoluene

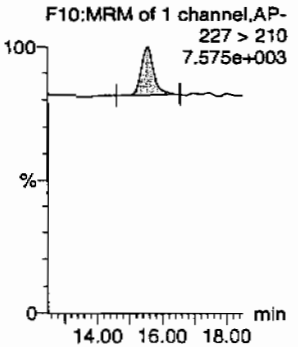

34-dinitrotoluene

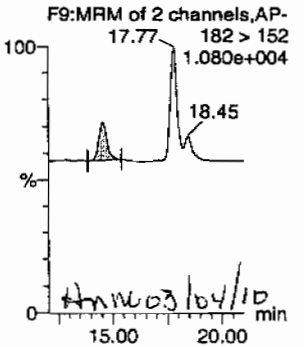

Hmw 03/04/10

26-dinitrotoluene

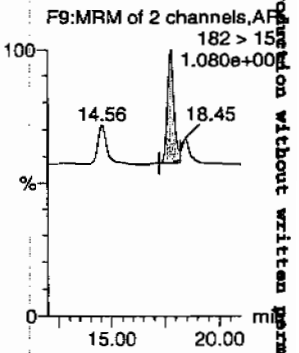

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

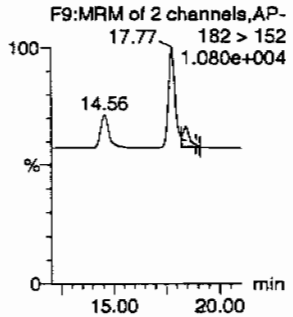

26-dinitrotoluene-d3

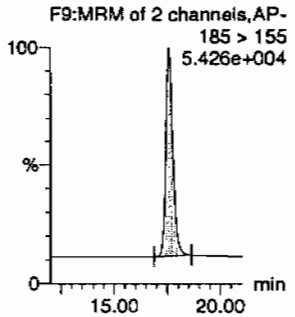

2-Nitrotoluene

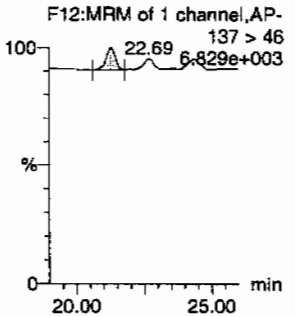

4-Nitrotoluene

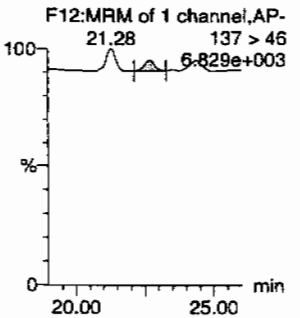

3-Nitrotoluene

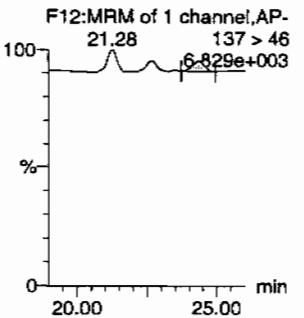

PETN

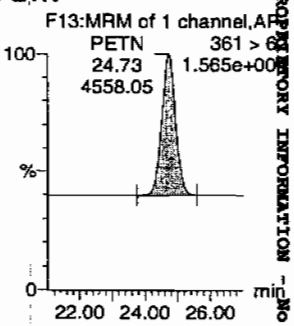

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.20	1365.344	3202.767	1365.344	213.151	bb			55.8743	139.7	39.7	163.2
WXX100301-08CRI	RDX	176 > 102	7.64	833.455	3202.767	833.455	130.115	bb			47.4073	118.5	18.5	87.0
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.25	937.450	3202.767	937.450	146.350	bb			42.5059	106.3	6.3	141.1
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3202.767		3202.767	3202.767	bb			552.5678	110.5	10.5	262.1
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.27	370.444	3202.767	370.444	57.832	bb			44.0836	110.2	10.2	45.0
WXX100301-08CRI	Tetryl	241 > 181	12.82	318.889	3202.767	318.889	49.783	bb			38.6409	96.6	-3.4	33.3
WXX100301-08CRI	Nitrobenzene	123 > 46	13.71	197.104	3202.767	197.104	30.771	bb			34.6156	86.5	-13.5	21.4
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	494.348	18693.730	494.348	13.222	MM	04-Mar-10	09:48:00	46.8429	117.1	17.1	16.8
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	734.473	18693.730	734.473	19.645	bb			52.1058	130.3	30.3	80.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.55	614.591	18693.730	614.591	16.438	bb			52.1557	130.4	30.4	54.0
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	688.937	18693.730	688.937	18.427	bb			18.6006	93.0	-7.0	55.7
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.77	1659.699	18693.730	1659.699	44.392	MM	04-Mar-10	09:51:33	39.3462	98.4	-1.6	167.2
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.45	393.046	18693.730	393.046	10.513	MM	04-Mar-10	09:55:36	41.7935	104.5	4.5	35.6
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	18693.730		18693.730	18693.730	bb			581.0985	116.2	16.2	1601.8
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.28	265.973	18693.730	265.973	7.114	bb			42.8856	107.2	7.2	39.6
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.69	139.984	18693.730	139.984	3.744	bb			47.2449	118.1	18.1	19.2
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.37	159.052	18693.730	159.052	4.254	bb			43.3154	108.3	8.3	19.3
WXX100301-08CRI	PETN	361 > 62	24.73	4558.049	18693.730	4558.049	121.914	bb			46.0690	115.2	15.2	1117.5

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/03/10
Time of Injection	1522
Standard Number	WXX100301-08CRI
Data File	EXP0301098a

HMX	139.7
RDX	118.5
135-TNB	106.3
13-DNB	110.2
Tetryl	96.6
Nitrobenzene	86.5
4A-26-DNT	117.1
2A-46-DNT	130.3
246-TNT	130.4
34-DNT(surr)	93.0
26-DNT	98.4
24-DNT	104.5
2-NT	107.2
4-NT	118.1
3-NT	108.3
PETN	115.2
Total	1780.3
Average	111.3

HMX 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301108a

Analysis Date: 03-MAR-10 20:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	595.559	119	
2,4,6-Trinitrotoluene	600	698.433	116	
2,4-Dinitrotoluene	600	613.948	102	
2,6-Dinitrotoluene	600	616.041	103	
2,6-Dinitrotoluene-d3	500	562.421	112	
2-Amino-4,6-dinitrotoluene	600	699.102	117	
3,4-Dinitrotoluene	300	322.208	107	
4-Amino-2,6-dinitrotoluene	600	618.465	103	
HMX	600	626.426	104	
Nitrobenzene	600	521.734	87	
PETN	600	602.609	100	
RDX	600	640.81	107	
Tetryl	600	510.929	85	
m-Dinitrobenzene	600	599.969	100	
m-Nitrotoluene	600	549.035	92	
o-Nitrotoluene	600	556.558	93	
p-Nitrotoluene	600	598.126	100	
1,3,5-Trinitrobenzene	600	580.289	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301108a
Date: 03-Mar-2010
Time: 20:17:59
ID: WXX100301-07CCV
Vial: 1:1,B

MMT 3/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
9.085e+004
7.63

RDX
F2:MRM of 1 channel,AP-
176 > 102
9.085e+004
5.21
RDX
7.63
12142.42

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.642e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.511e+004
10.10

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.099e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 18
1.729e+00
Tetryl
12.80
3714.01

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.608e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.250e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.193e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.508e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.473e+004
17.78
18.44

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 15
7.473e+00
14.54
18.44

thmy 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

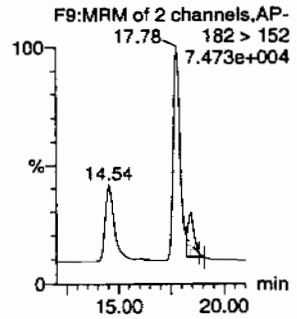

26-dinitrotoluene-d3

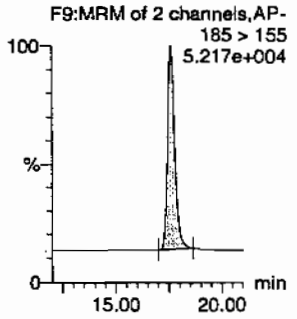

2-Nitrotoluene

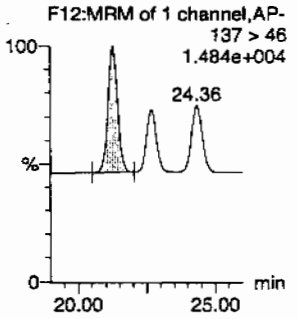

4-Nitrotoluene

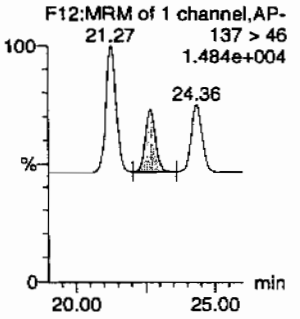

3-Nitrotoluene

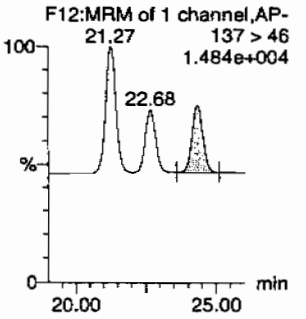

PETN

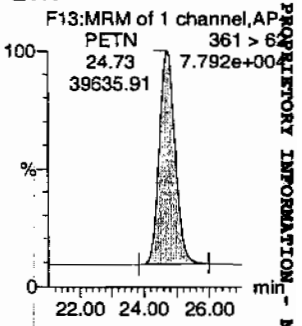

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.21	16498.270	3451.950	16498.270	2389.703	bb			626.4257	104.4	4.4	1491.0
WXX100301-07CCV	RDX	176 > 102	7.63	12142.424	3451.950	12142.424	1758.778	bb			640.8098	106.8	6.8	963.4
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.25	13793.762	3451.950	13793.762	1997.967	bb			580.2890	96.7	-3.3	1543.9
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3451.950		3451.950	3451.950	bb			595.5589	119.1	19.1	151.5
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.27	5433.921	3451.950	5433.921	787.080	bb			599.9694	100.0	-0.0	573.2
WXX100301-07CCV	Tetryl	241 > 181	12.80	3714.008	3451.950	3714.008	537.958	bb			510.9289	85.2	-14.8	225.4
WXX100301-07CCV	Nitrobenzene	123 > 46	13.70	3201.935	3451.950	3201.935	463.786	bb			521.7343	87.0	-13.0	332.0
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.85	6317.073	18092.881	6317.073	174.573	MM	04-Mar-10	09:47:18	618.4647	103.1	3.1	452.3
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.75	9537.665	18092.881	9537.665	263.575	bb			699.1022	116.5	16.5	309.3
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.57	7965.653	18092.881	7965.653	220.132	bb			698.4332	116.4	16.4	610.9
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.54	11550.512	18092.881	11550.512	319.200	bb			322.2079	107.4	7.4	752.7
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.78	25150.574	18092.881	25150.574	695.041	MM	04-Mar-10	09:52:14	616.0414	102.7	2.7	2116.7
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.44	5588.277	18092.881	5588.277	154.433	MM	04-Mar-10	09:55:01	613.9485	102.3	2.3	441.5
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.61	18092.881		18092.881	18092.881	bb			562.4209	112.5	12.5	1150.2
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.27	3340.784	18092.881	3340.784	92.323	bb			556.5583	92.8	-7.2	613.5
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.68	1715.251	18092.881	1715.251	47.401	bb			598.1260	99.7	-0.3	304.5
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.36	1951.227	18092.881	1951.227	53.923	bb			549.0346	91.5	-8.5	325.3
WXX100301-07CCV	PETN	361 > 62	24.73	39635.906	18092.881	39635.906	1095.345	bb			602.6087	100.4	0.4	5066.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/03/10
Time of Injection: 2017
Standard Number: WXX100301-07CCV
Data File: EXP0301108a

HMX	104.4
RDX	106.8
135-TNB	96.7
13-DNB	100.0
Tetryl	85.2
Nitrobenzene	87.0
4A-26-DNT	103.1
2A-46-DNT	116.5
246-TNT	116.4
34-DNT(surr)	107.4
26-DNT	102.7
24-DNT	102.3
2-NT	92.8
4-NT	99.7
3-NT	91.5
PETN	100.4
Total	1612.9
Average	100.8

MDT 3/4/10

Hmc 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301110a

Analysis Date: 03-MAR-10 21:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	48.972	122	
3,4-Dinitrotoluene	20	21.523	108	
4-Amino-2,6-dinitrotoluene	40	48.76	122	
HMX	40	44.163	110	
Nitrobenzene	40	36.941	92	
PETN	40	46.105	115	
RDX	40	43.031	108	
Tetryl	40	34.785	87	
m-Dinitrobenzene	40	42.396	106	
m-Nitrotoluene	40	39.029	98	
o-Nitrotoluene	40	40.968	102	
p-Nitrotoluene	40	38.171	95	
1,3,5-Trinitrobenzene	40	45.452	114	
1,3-Dinitrobenzene-d4	500	632.25	126	
2,4,6-Trinitrotoluene	40	51.074	128	
2,4-Dinitrotoluene	40	43.164	108	
2,6-Dinitrotoluene	40	39.782	99	
2,6-Dinitrotoluene-d3	500	627.417	125	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301110a
Date: 03-Mar-2010
Time: 21:16:56
ID: WXX100301-08CRI
Vial: 1:1,C

MM 3/4/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.299e+004

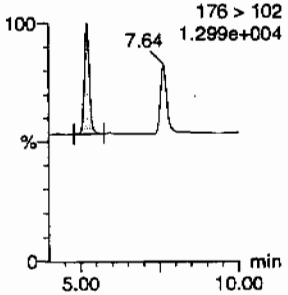

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.299e+004

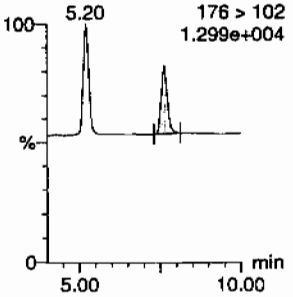

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.122e+004

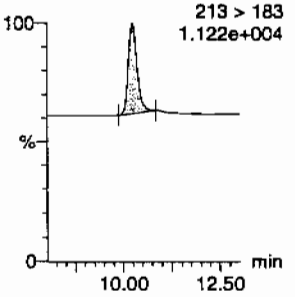

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.559e+004

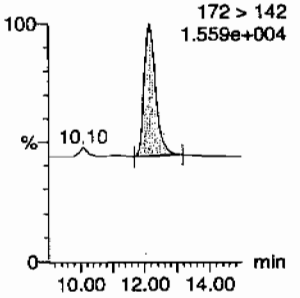

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.778e+003

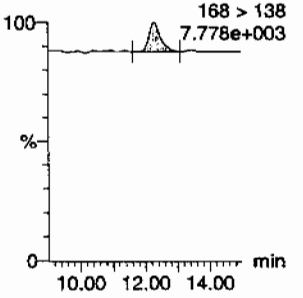

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.746e+003

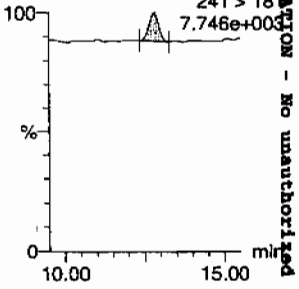

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.468e+003

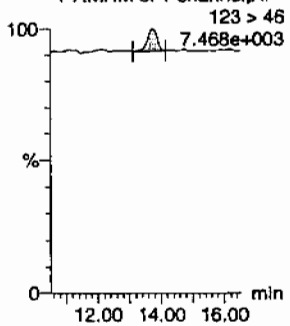

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.137e+003

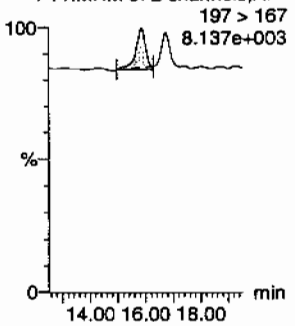

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.642e+003

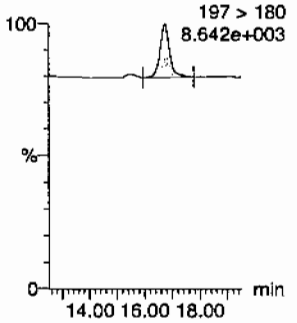

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
8.292e+003

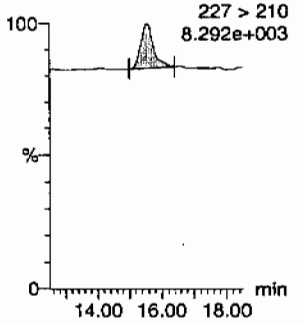

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.174e+004

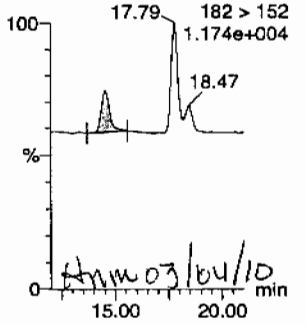

Hmm 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.174e+004

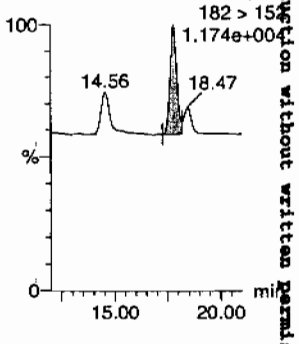

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA2.qld, Time: Thu Mar 04 09:56:19 2010

24-dinitrotoluene

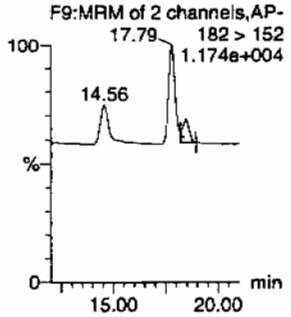

26-dinitrotoluene-d3

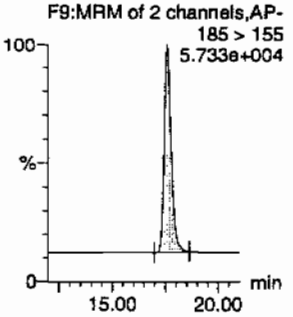

2-Nitrotoluene

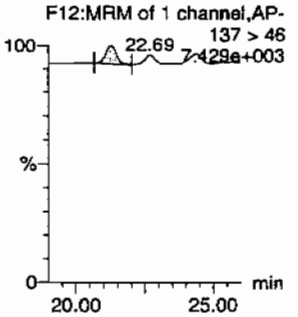

4-Nitrotoluene

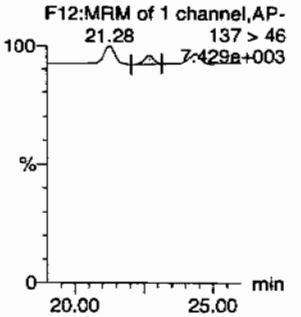

3-Nitrotoluene

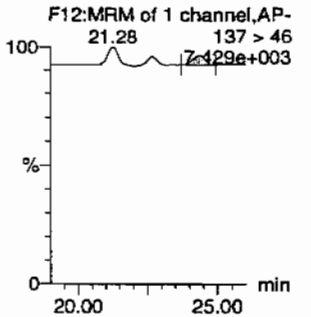

PETN

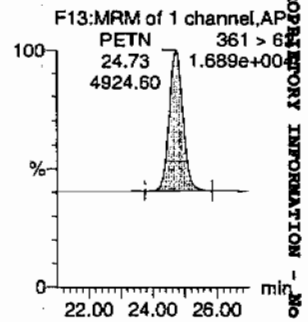

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.20	1234.775	3664.616	1234.775	168.473	bb			44.1626	110.4	10.4	290.0
WXX100301-08CRI	RDX	176 > 102	7.64	865.606	3664.616	865.606	118.103	bb			43.0309	107.6	7.6	178.5
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.25	1146.985	3664.616	1146.985	156.495	bb			45.4522	113.6	13.6	178.3
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3664.616		3664.616	3664.616	bb			632.2498	126.4	26.4	249.8
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.27	407.640	3664.616	407.640	55.618	bb			42.3964	106.0	6.0	53.7
WXX100301-08CRI	Tetryl	241 > 181	12.82	331.457	3664.616	331.457	45.224	bb			34.7854	87.0	-13.0	15.7
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	240.676	3664.616	240.676	32.838	bb			36.9407	92.4	-7.6	30.6
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	555.597	20183.787	555.597	13.763	MM	04-Mar-10	09:47:08	48.7600	121.9	21.9	27.3
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	745.326	20183.787	745.326	18.463	bb			48.9722	122.4	22.4	60.6
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.55	649.818	20183.787	649.818	16.098	bb			51.0741	127.7	27.7	42.7
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	860.730	20183.787	860.730	21.322	bb			21.5232	107.6	7.6	67.4
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1811.858	20183.787	1811.858	44.884	MM	04-Mar-10	09:52:24	39.7824	99.5	-0.5	176.8
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.47	438.286	20183.787	438.286	10.857	MM	04-Mar-10	09:54:48	43.1635	107.9	7.9	41.6
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	20183.787		20183.787	20183.787	bb			627.4172	125.5	25.5	1251.4
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.28	274.331	20183.787	274.331	6.796	bb			40.9678	102.4	2.4	31.3
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.69	122.112	20183.787	122.112	3.025	bb			38.1705	95.4	-4.6	15.5
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.38	154.735	20183.787	154.735	3.833	bb			39.0288	97.6	-2.4	17.2
WXX100301-08CRI	PETN	361 > 62	24.73	4924.597	20183.787	4924.597	121.994	bb			46.1048	115.3	15.3	1886.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/03/10
Time of Injection	2116
Standard Number	WXX100301-08CRI
Data File	EXP0301110a

HMX	110.4
RDX	107.6
135-TNB	113.6
13-DNB	106.0
Tetryl	87.0
Nitrobenzene	92.4
4A-26-DNT	121.9
2A-46-DNT	122.4
246-TNT	127.7
34-DNT(surr)	107.6
26-DNT	99.5
24-DNT	107.9
2-NT	102.4
4-NT	95.4
3-NT	97.6
PETN	115.3
Total	1714.7
Average	107.2

AMT 3/4/10

HMM 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02220013.wiff

Analysis Date: 22-FEB-10 20:10

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	144	144	
2,6-Diamino-4-nitrotoluene	100	138	138	
3,4-Dinitrotoluene	50	46.4	93	
3,5-Dinitroaniline	100	100	100	
TATB	100	92.4	92	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.83e+005 counts
Height: 39346.195 cps
Start Time: 6.87 min
End Time: 7.70 min

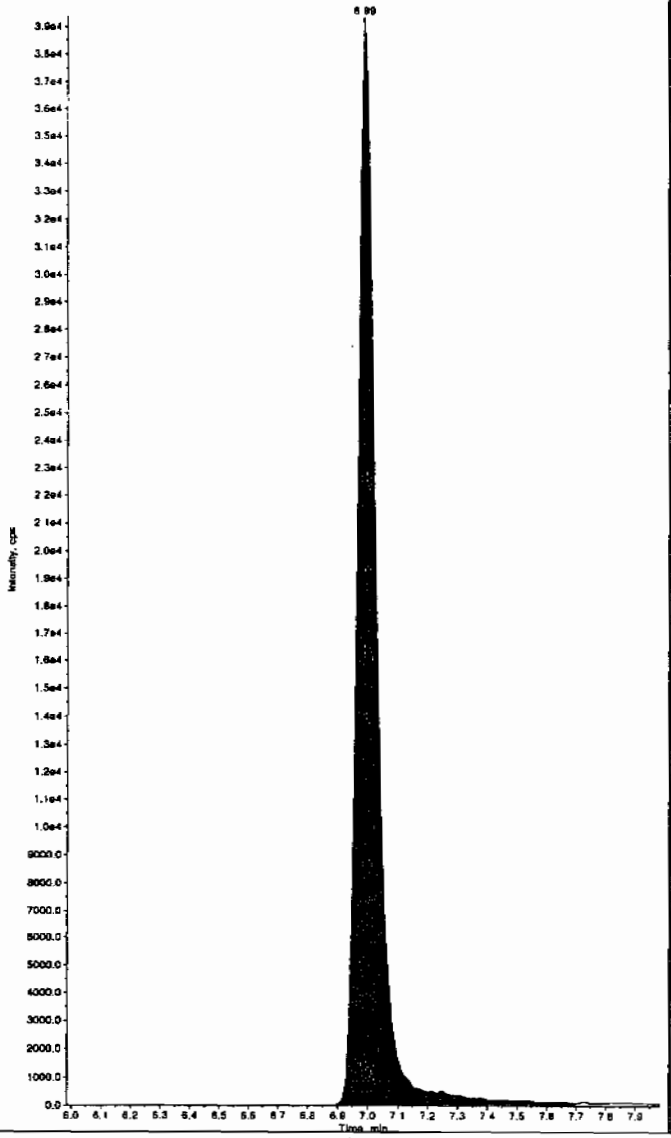

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 7.08e+005 counts
Height: 169761.169 cps
Start Time: 8.10 min
End Time: 8.33 min

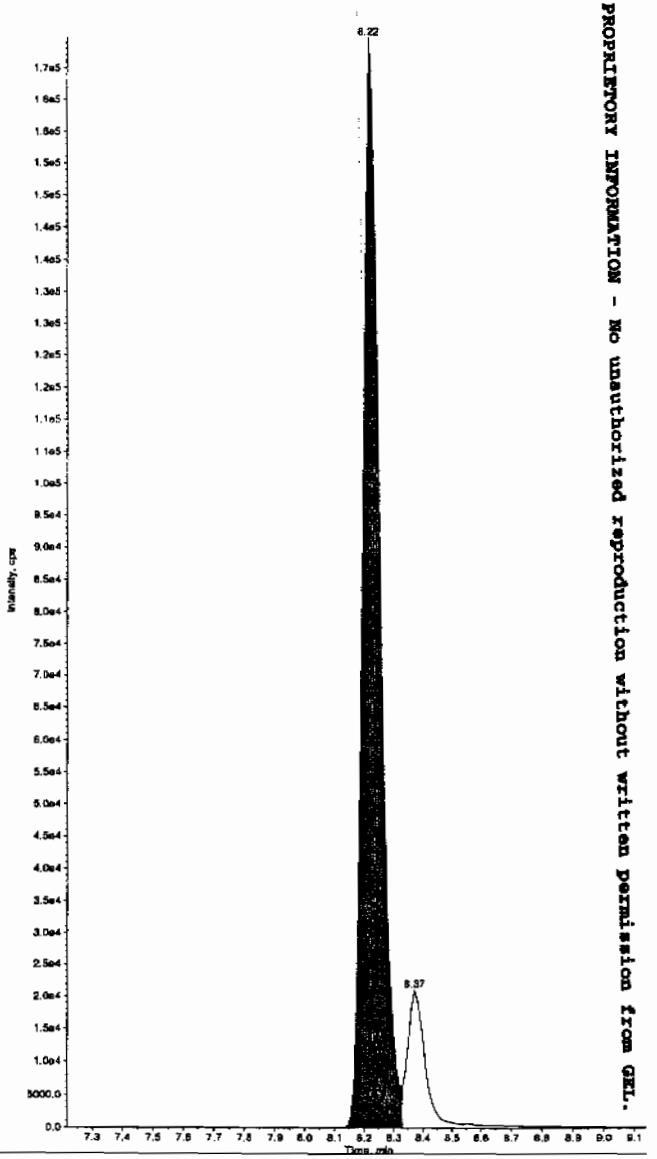

dhm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 46.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.36e+005 counts
Height: 169130.783 cps
Start Time: 8.29 min
End Time: 8.57 min

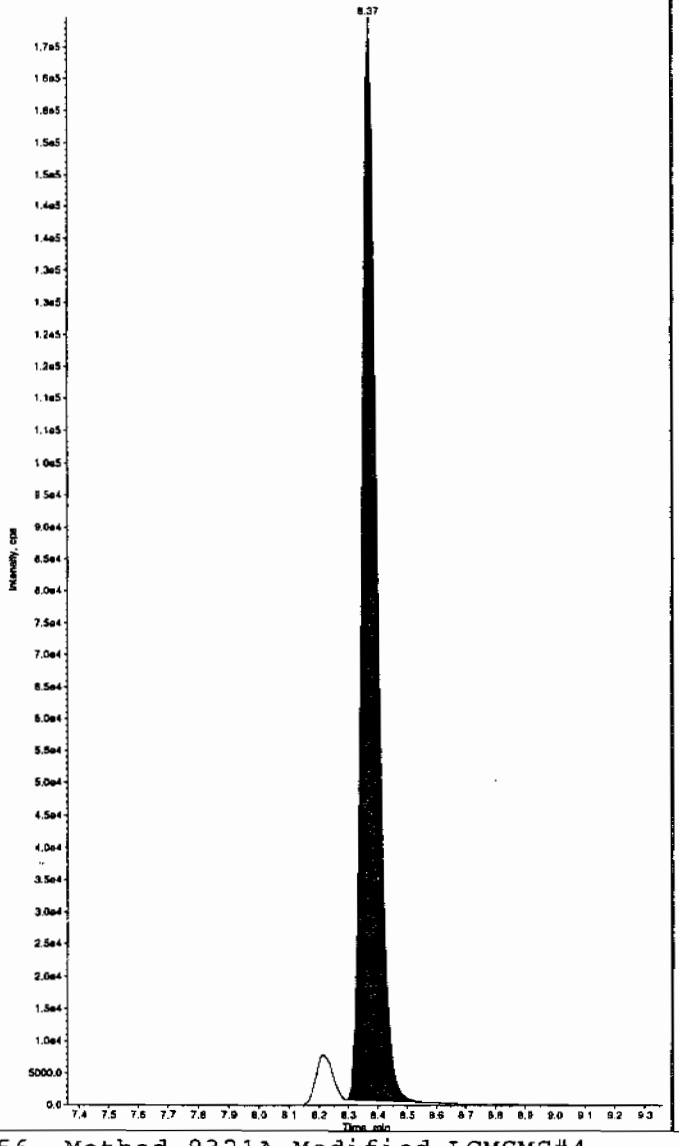

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 138. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.63e+005 counts
Height: 60650.684 cps
Start Time: 4.89 min
End Time: 5.27 min

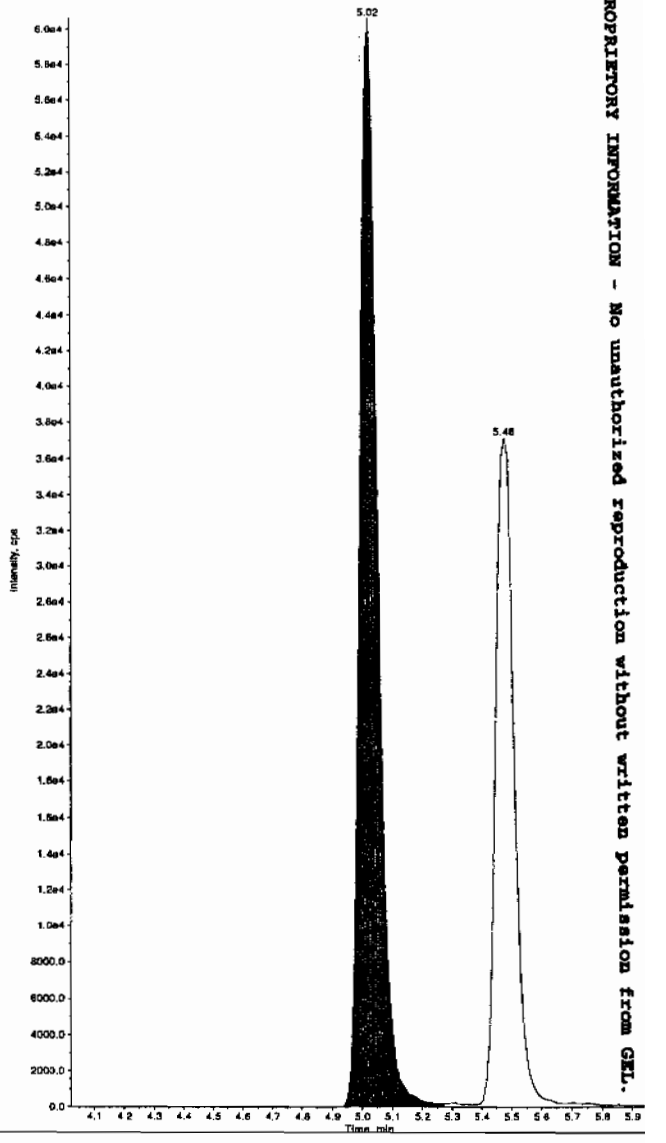

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 144. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.61e+005 counts
Height: 37082.989 cps
Start Time: 5.37 min
End Time: 5.83 min

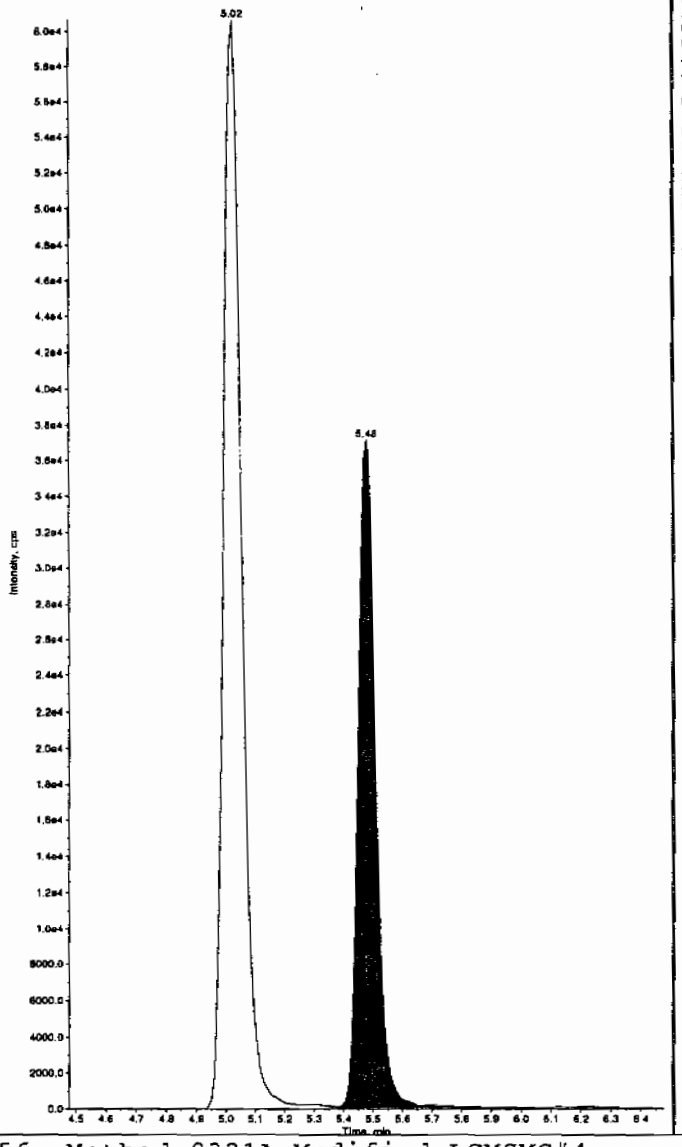

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.20e+006 counts
Height: 530816.833 cps
Start Time: 10.8 min
End Time: 11.2 min

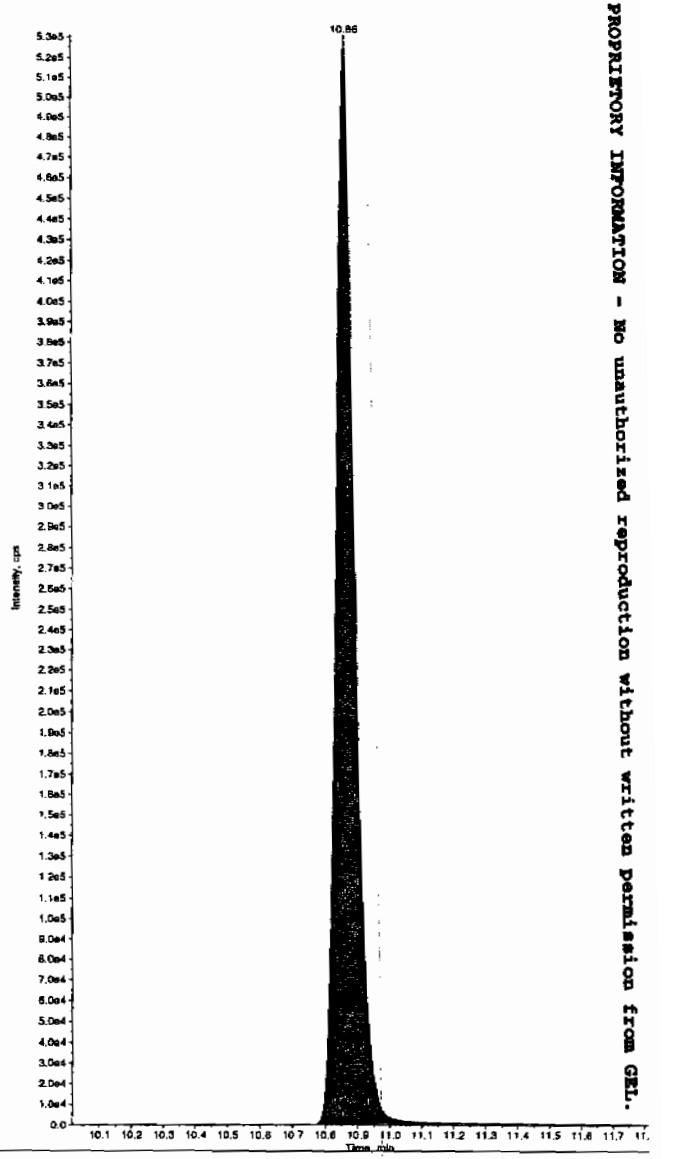

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS02220024.wiff

Analysis Date: 22-FEB-10 23:03

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	608	122	
2,6-Diamino-4-nitrotoluene	500	589	118	
3,4-Dinitrotoluene	250	240	96	
3,5-Dinitroaniline	500	502	100	
TATB	500	434	87	
tris(o-cresyl) phosphate	500	474	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 434. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.29e+005 counts
Height: 176679.764 cps
Start Time: 6.88 min
End Time: 7.69 min

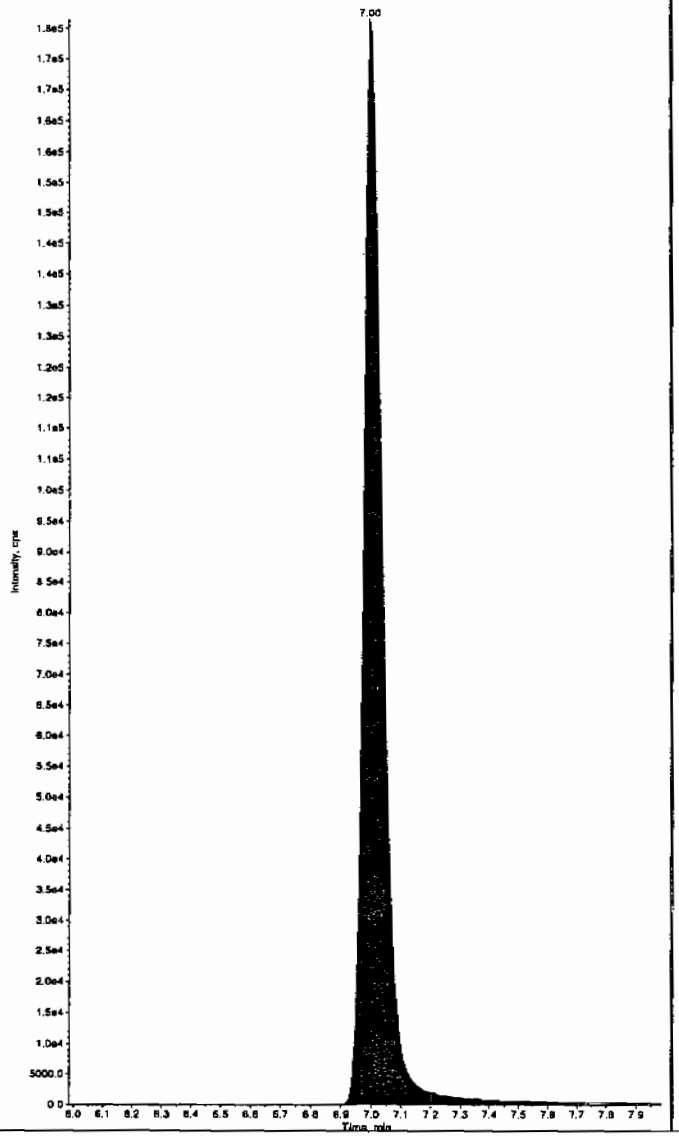

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.66e+006 counts
Height: 888949.829 cps
Start Time: 8.13 min
End Time: 8.33 min

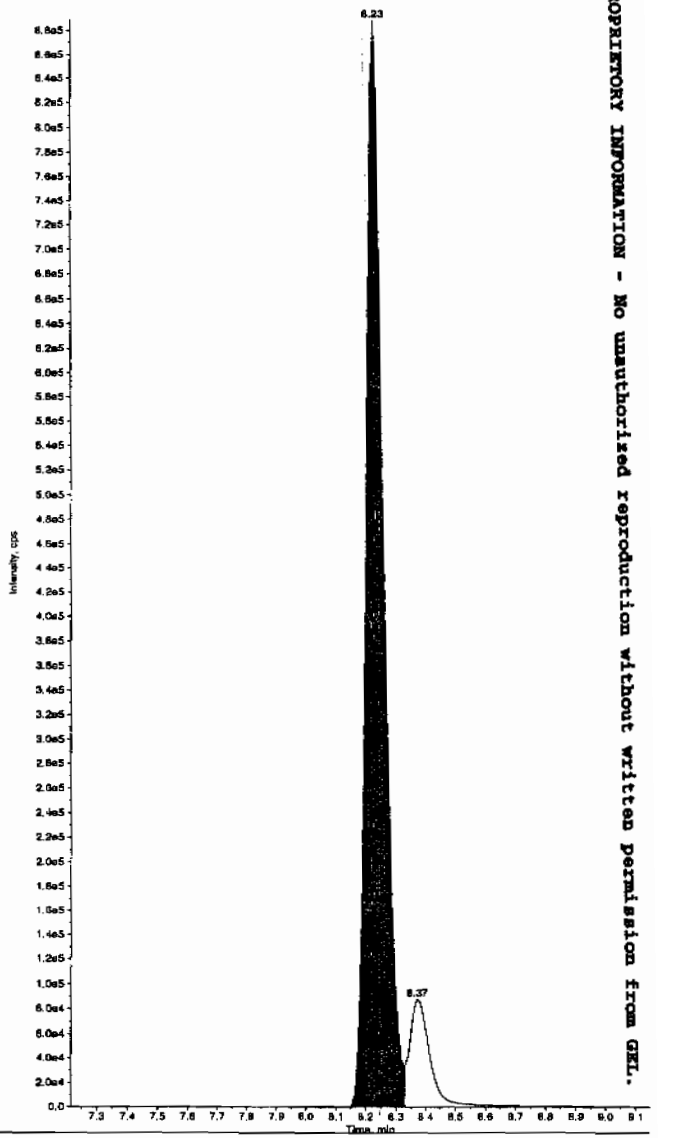

HZ 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 240. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.21e+006 counts
Height: 793470.642 cps
Start Time: 8.30 min
End Time: 8.60 min

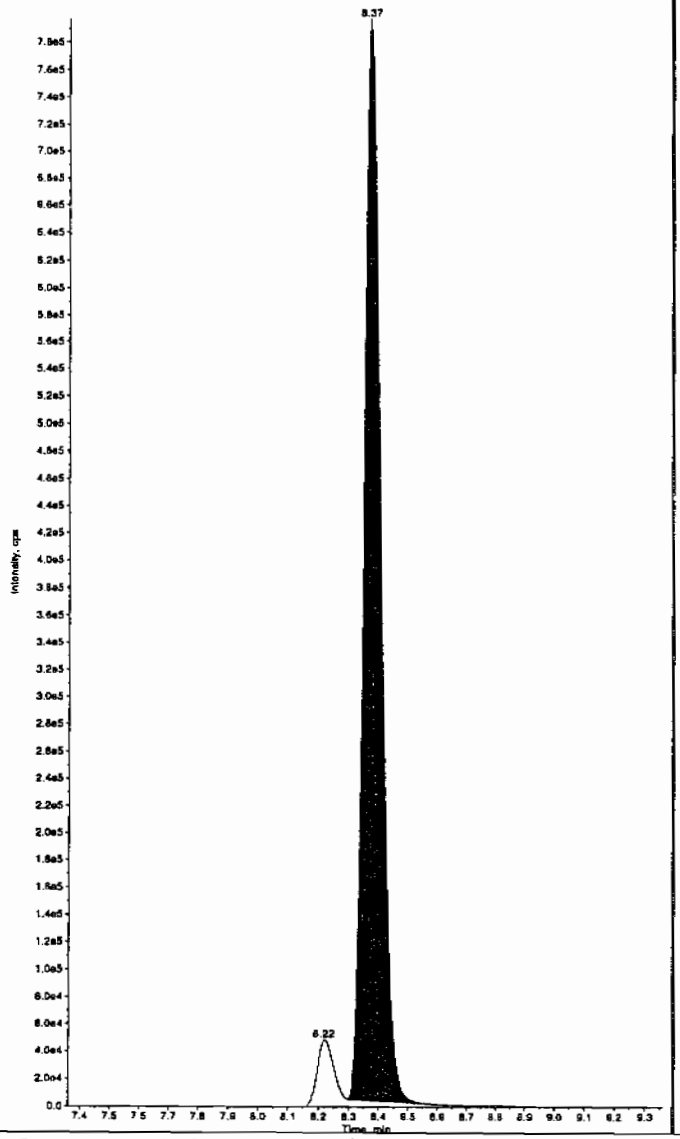

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 589. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.12e+006 counts
Height: 280152.069 cps
Start Time: 4.92 min
End Time: 5.32 min

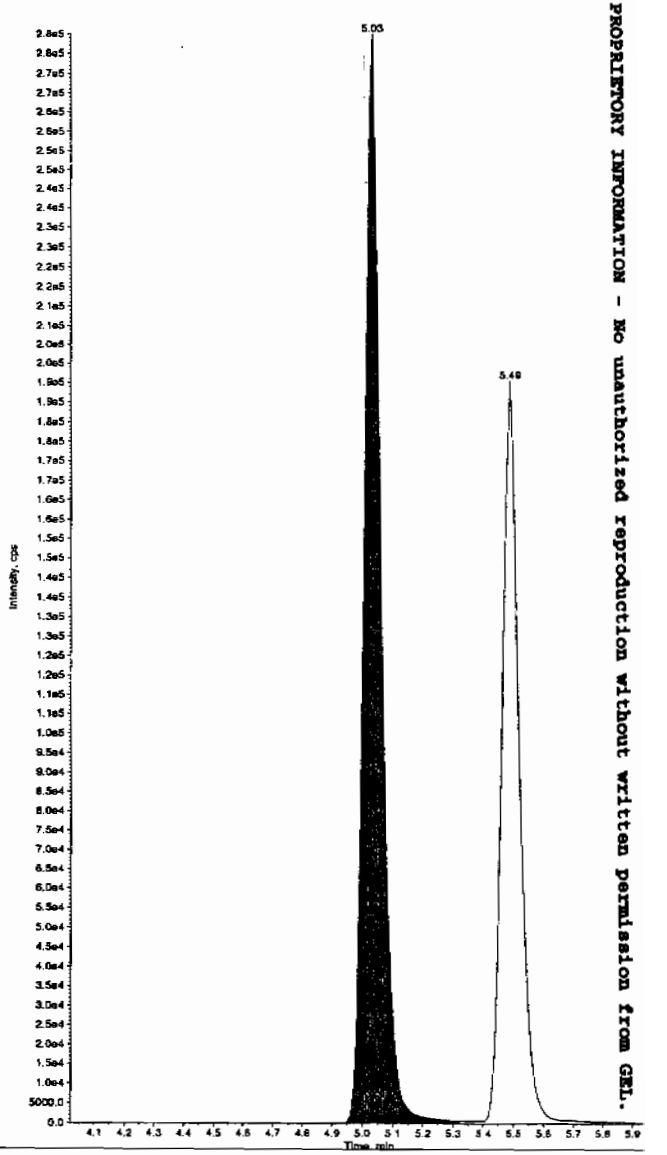

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 608. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 7.64e+005 counts
Height: 190631.074 cps
Start Time: 5.36 min
End Time: 5.93 min

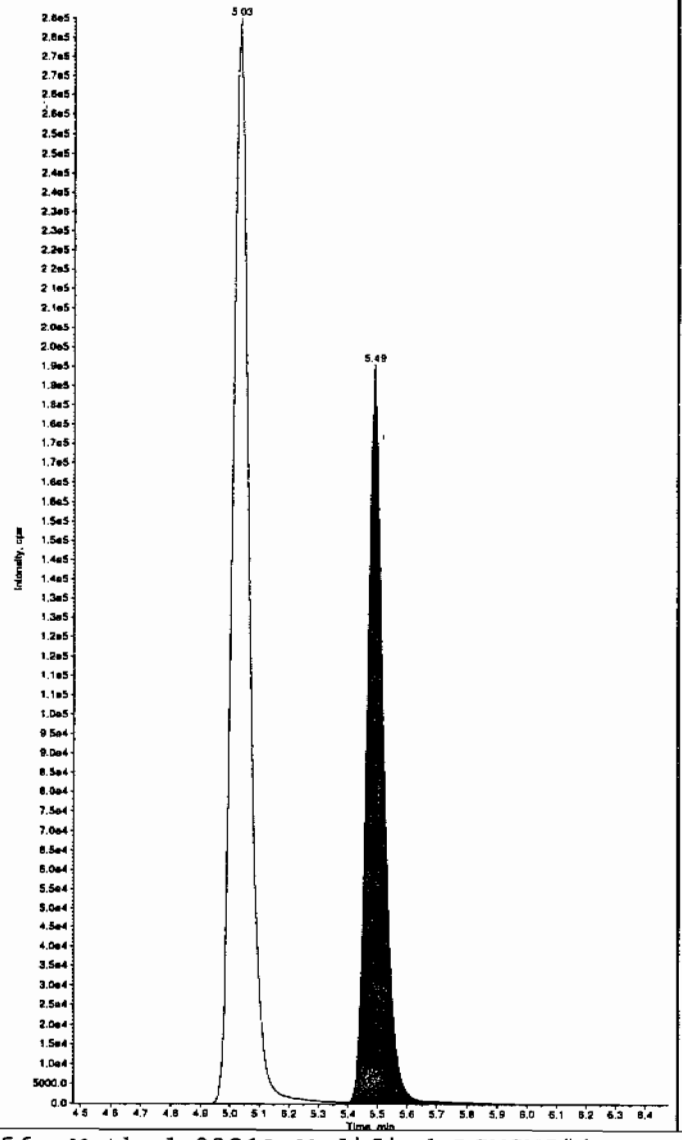

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 474. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.50e+006 counts
Height: 2173984.131 cps
Start Time: 10.8 min
End Time: 11.2 min

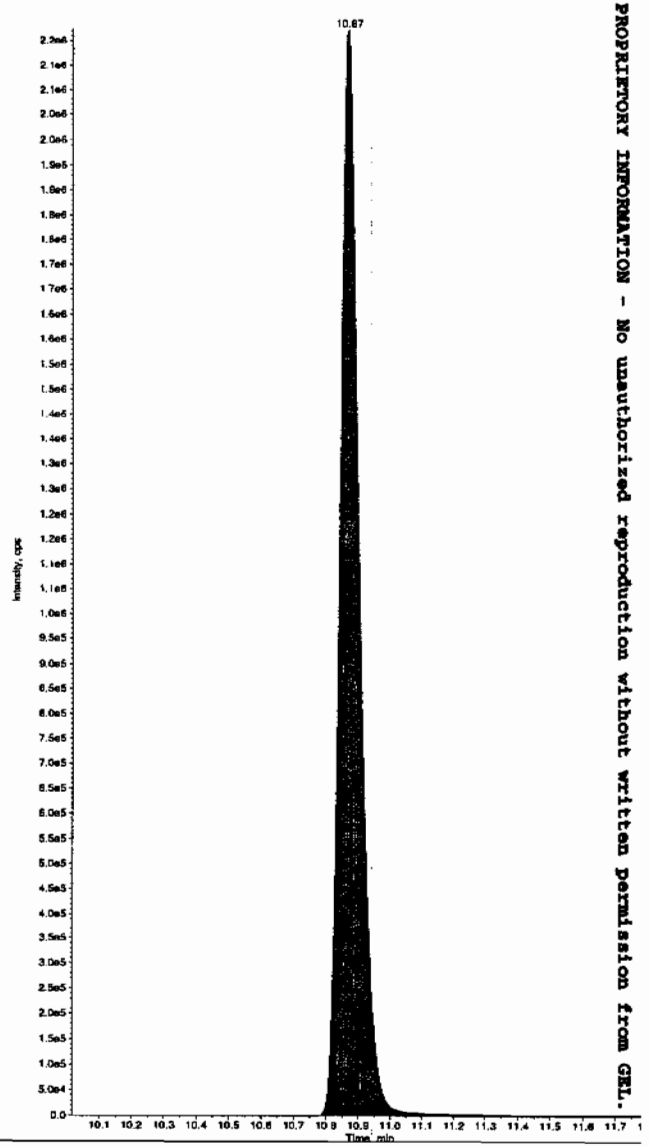

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02220026.wiff

Analysis Date: 22-FEB-10 23:34

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	100	106	106	
3,4-Dinitrotoluene	50	47.3	95	
3,5-Dinitroaniline	100	103	103	
TATB	100	87.6	88	
tris(o-cresyl) phosphate	100	99.4	99	
2,4-Diamino-6-nitrotoluene	100	125	125	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.6 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.73e+005 counts
Height: 36736.000 cps
Start Time: 6.89 min
End Time: 7.54 min

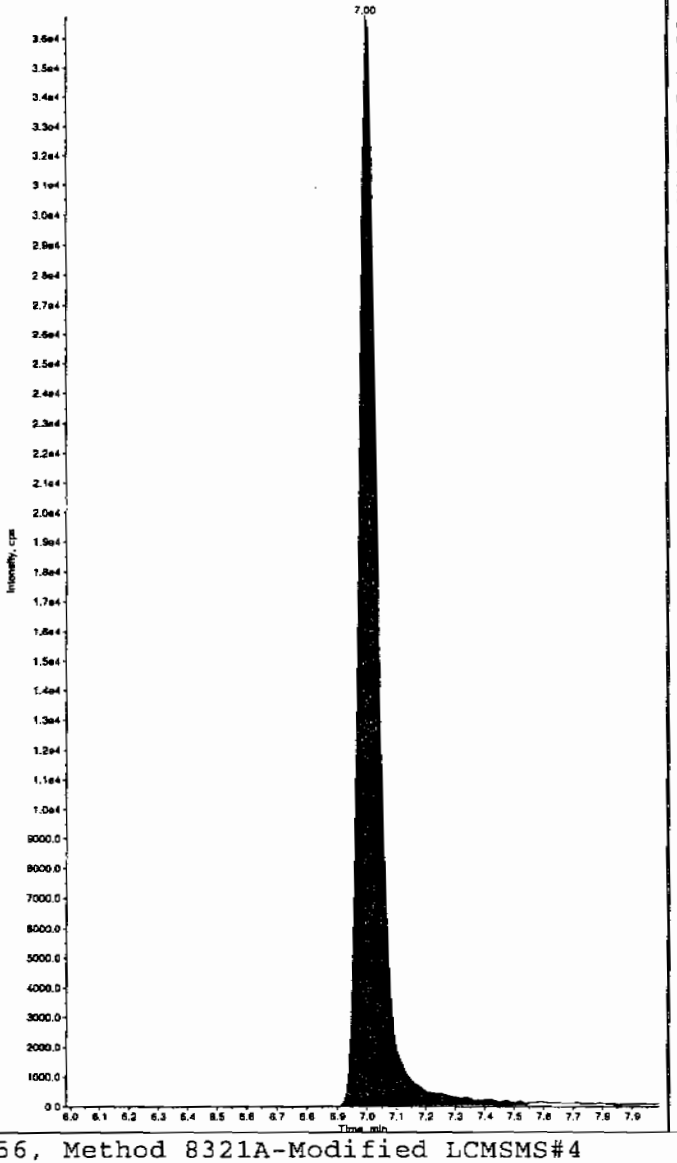

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 7.34e+005 counts
Height: 162769.363 cps
Start Time: 8.11 min
End Time: 8.33 min

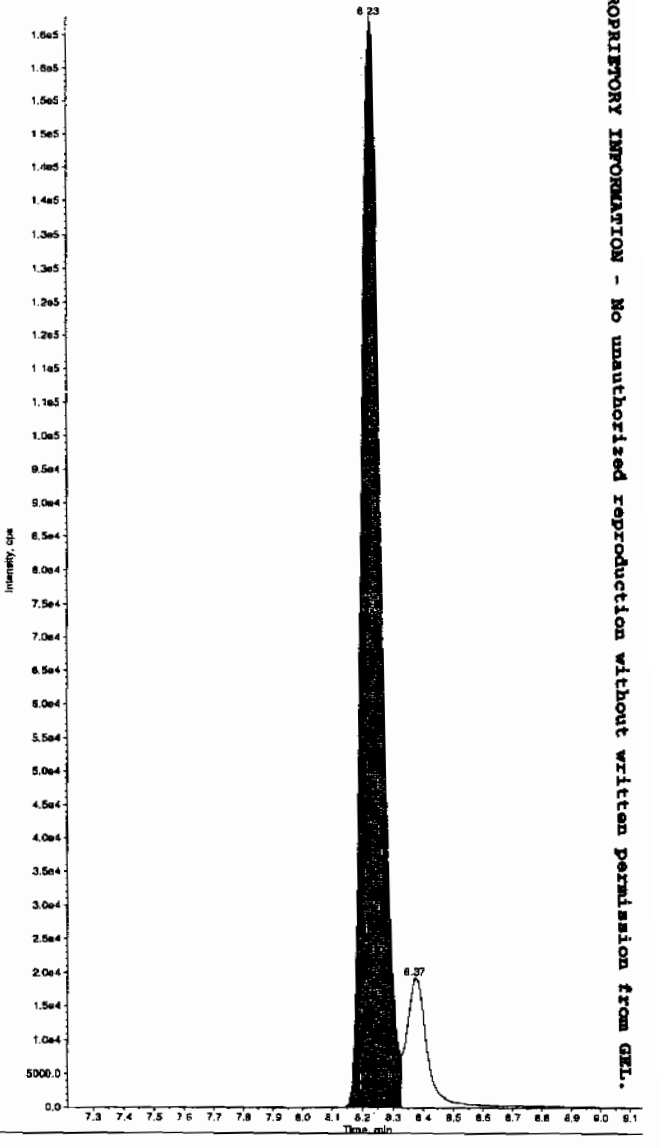

Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100222-27CRI" Sample ID: "1|LER" File: "EXS02220026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 47.3 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.48e+005 counts
Height: 171754.425 cps
Start Time: 8.30 min
End Time: 8.57 min

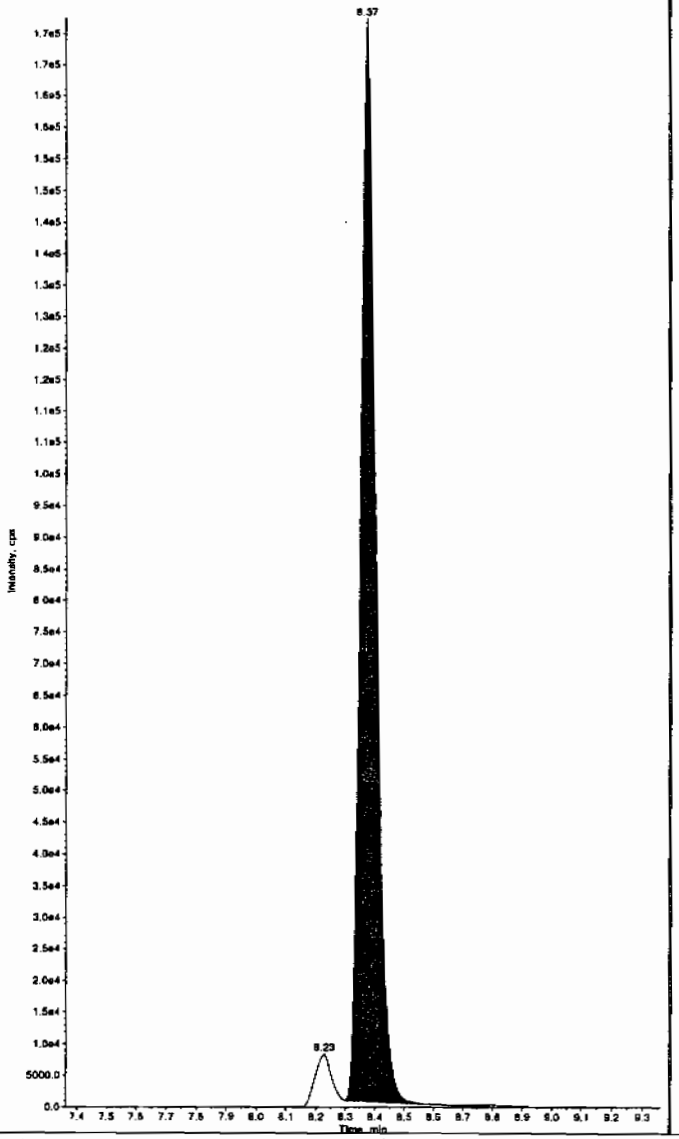

Sample Name: "WXX100222-27CRI" Sample ID: "1|LER" File: "EXS02220026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 2.02e+005 counts
Height: 43339.493 cps
Start Time: 4.91 min
End Time: 5.32 min

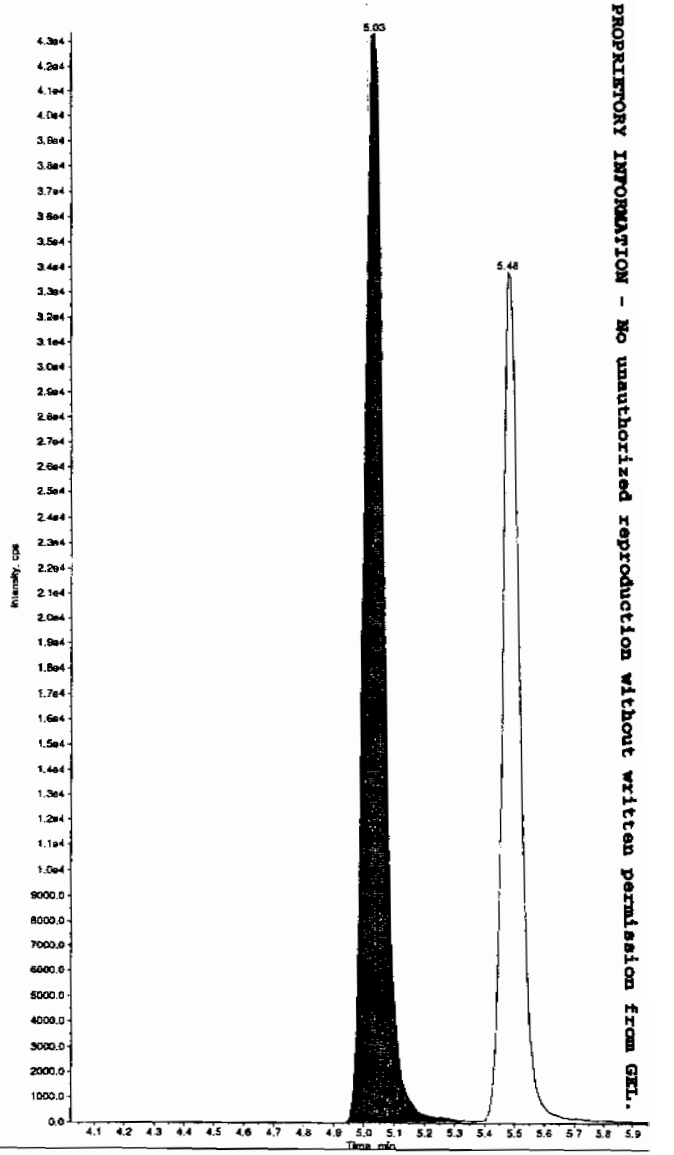

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 125. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.36e+005 counts
Height: 33829.556 cps
Start Time: 5.36 min
End Time: 5.87 min

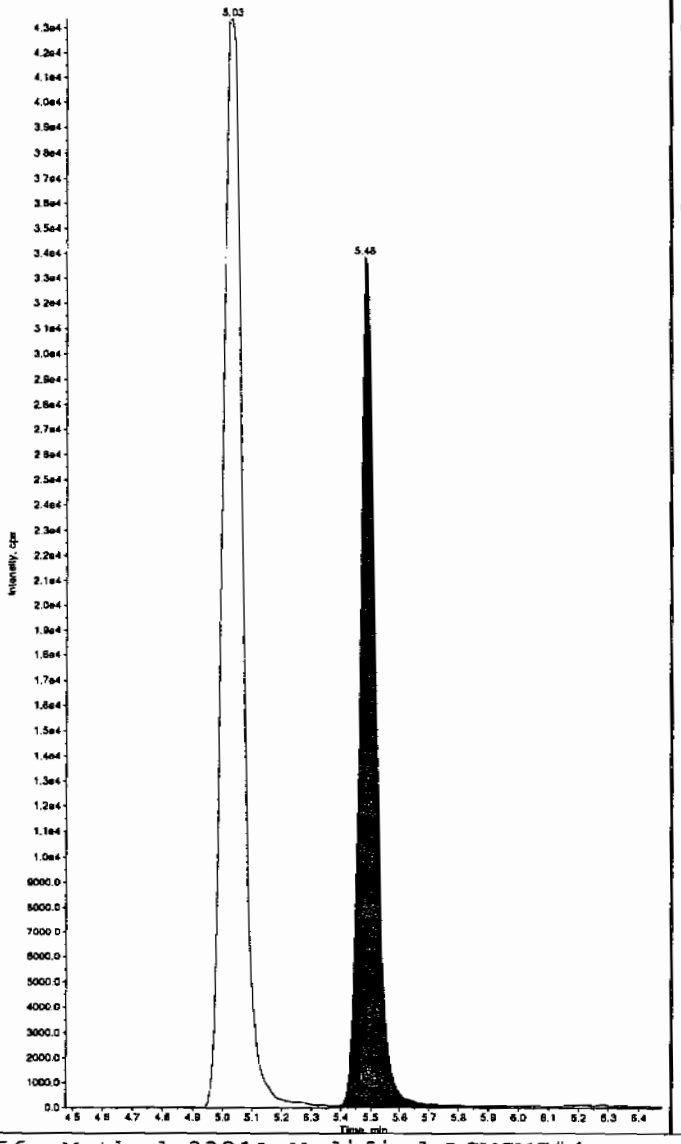

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.15e+006 counts
Height: 510783.722 cps
Start Time: 10.8 min
End Time: 11.2 min

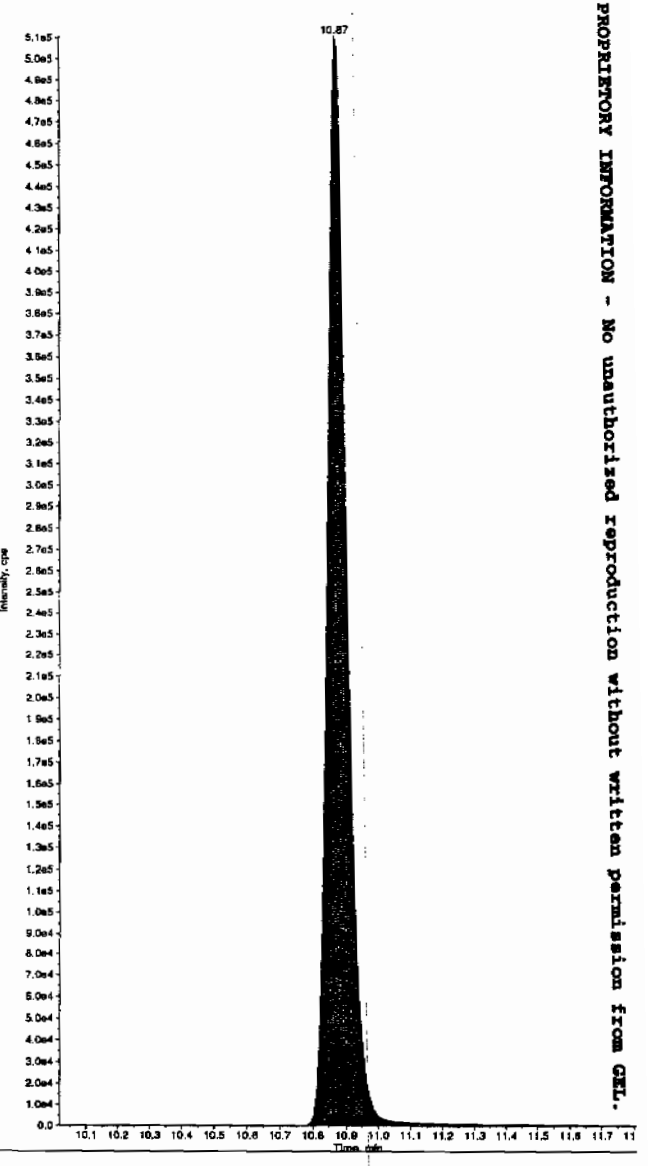

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02220037.wiff

Analysis Date: 23-FEB-10 02:27

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	599	120	
2,6-Diamino-4-nitrotoluene	500	568	114	
3,4-Dinitrotoluene	250	263	105	
3,5-Dinitroaniline	500	547	109	
TATB	500	445	89	
tris(o-cresyl) phosphate	500	485	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 445. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.50e+005 counts
Height: 186114.761 cps
Start Time: 6.87 min
End Time: 7.55 min

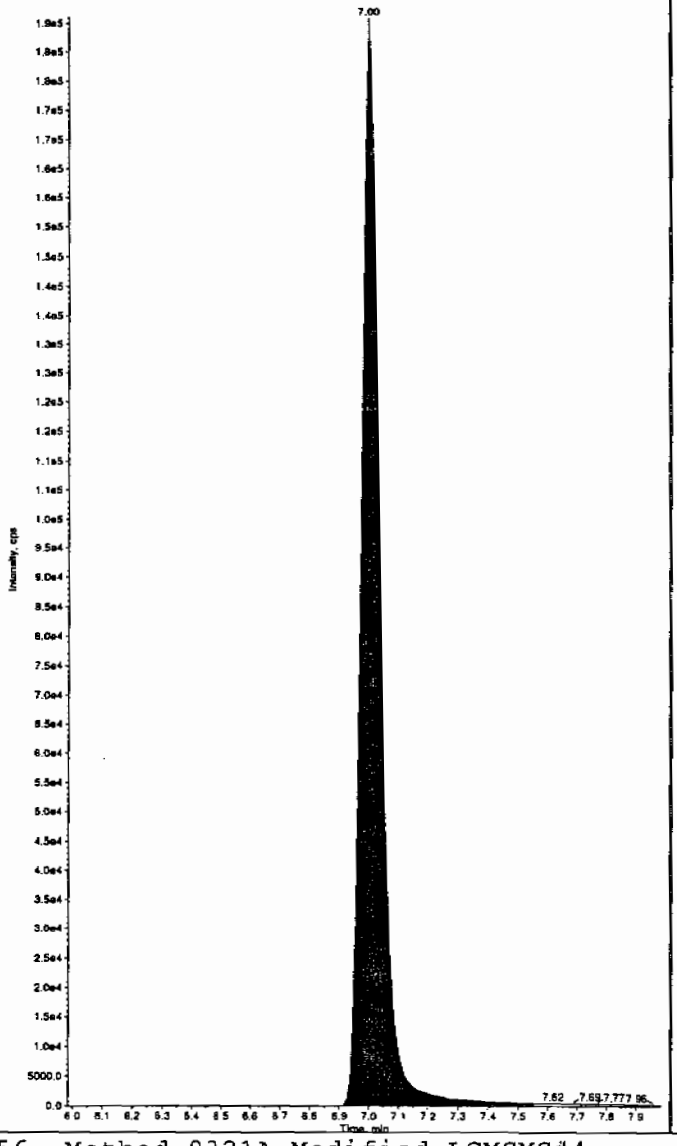

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 547. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.97e+006 counts
Height: 1008123.047 cps
Start Time: 8.13 min
End Time: 8.33 min

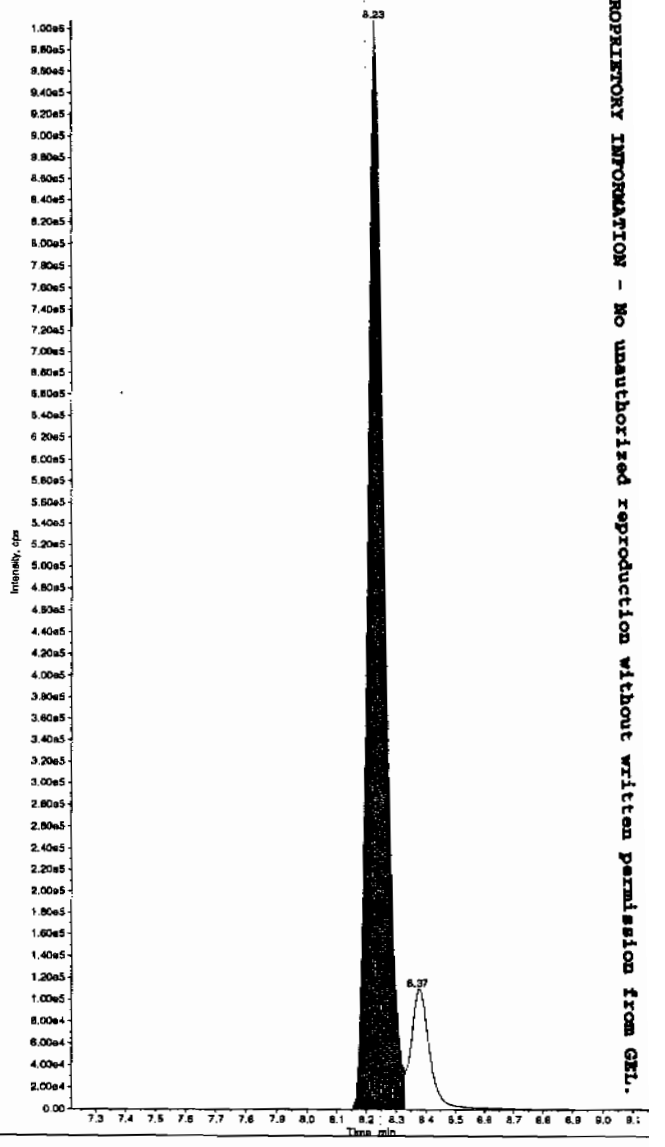

Hmm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 263. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.49e+006 counts
Height: 933031.006 cps
Start Time: 8.30 min
End Time: 8.59 min

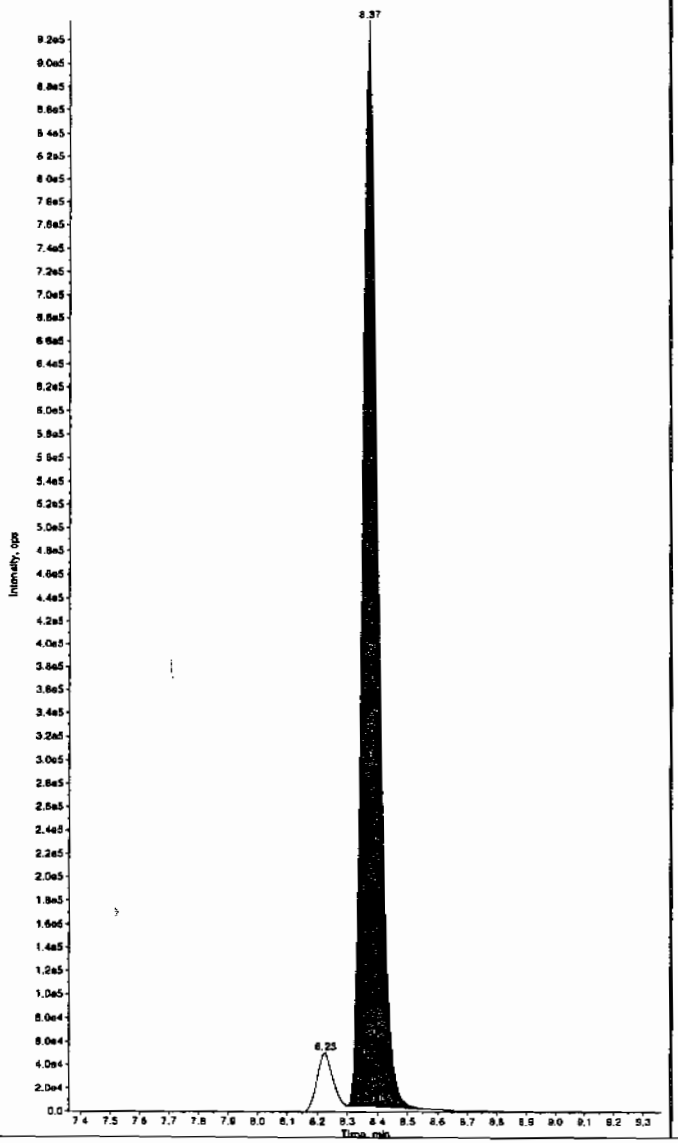

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 568. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.08e+006 counts
Height: 245930.420 cps
Start Time: 4.92 min
End Time: 5.32 min

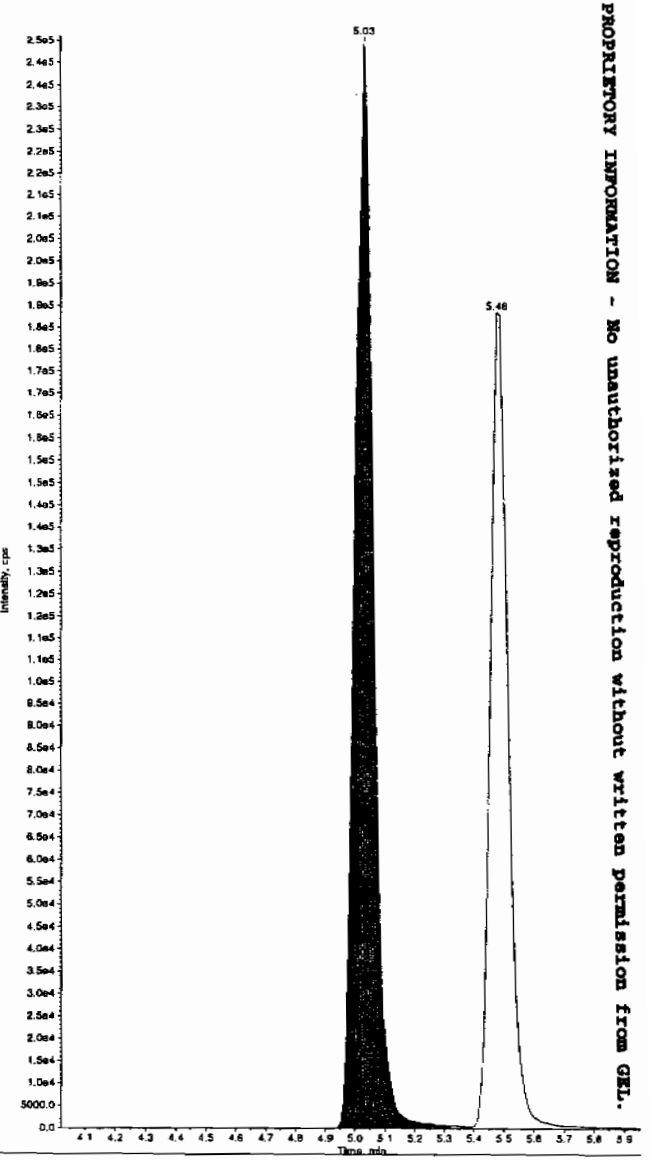

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 599. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 7.53e+005 counts
Height: 181671.036 cps
Start Time: 5.38 min
End Time: 6.04 min

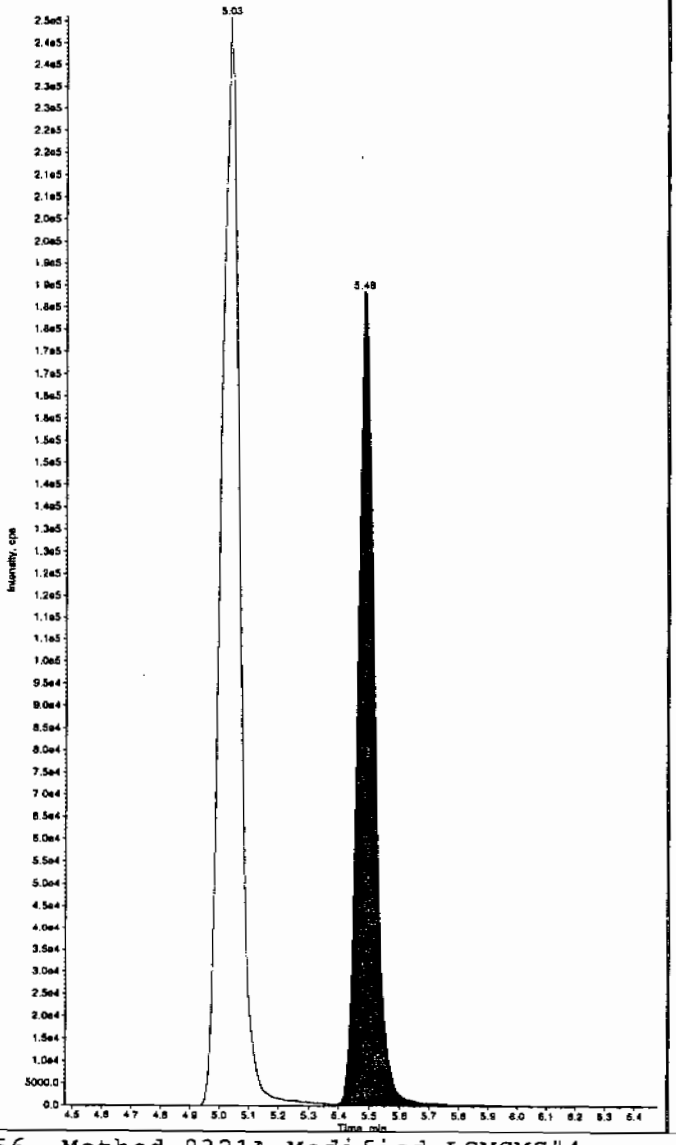

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 6000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.71e+006 counts
Height: 2276301.025 cps
Start Time: 10.8 min
End Time: 11.2 min

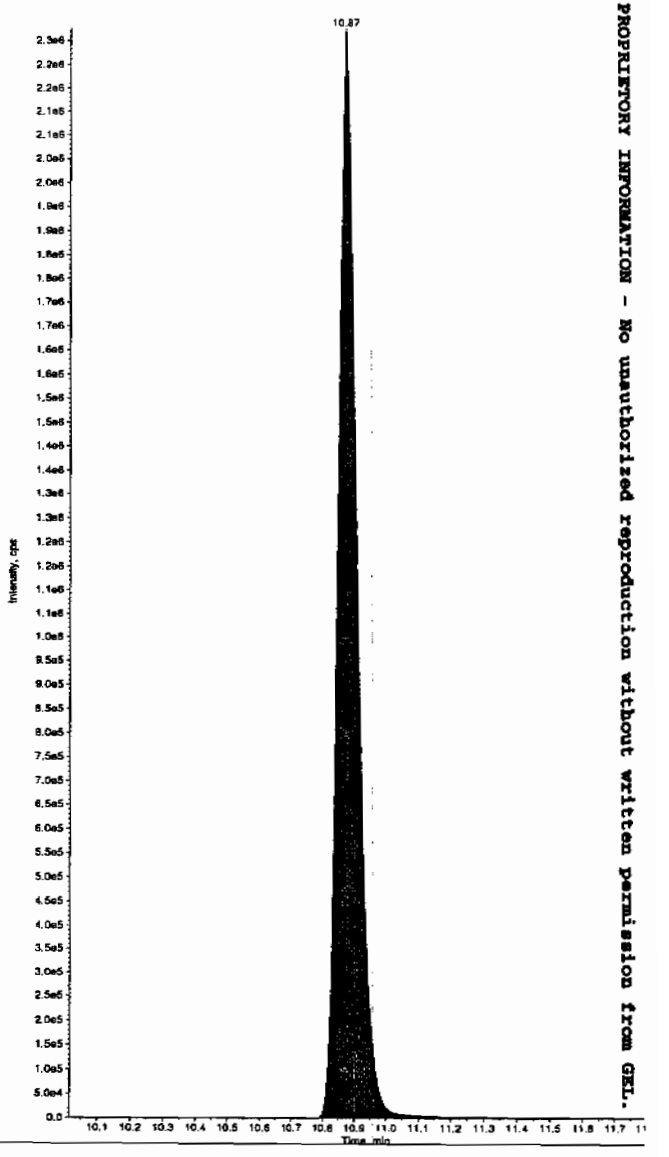

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02220039.wiff

Analysis Date: 23-FEB-10 02:59

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	120	120	
2,6-Diamino-4-nitrotoluene	100	125	125	
3,4-Dinitrotoluene	50	53.4	107	
3,5-Dinitroaniline	100	114	114	
TATB	100	91.3	91	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.3 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.80e+005 counts
Height: 40684.280 cps
Start Time: 6.85 min
End Time: 7.52 min

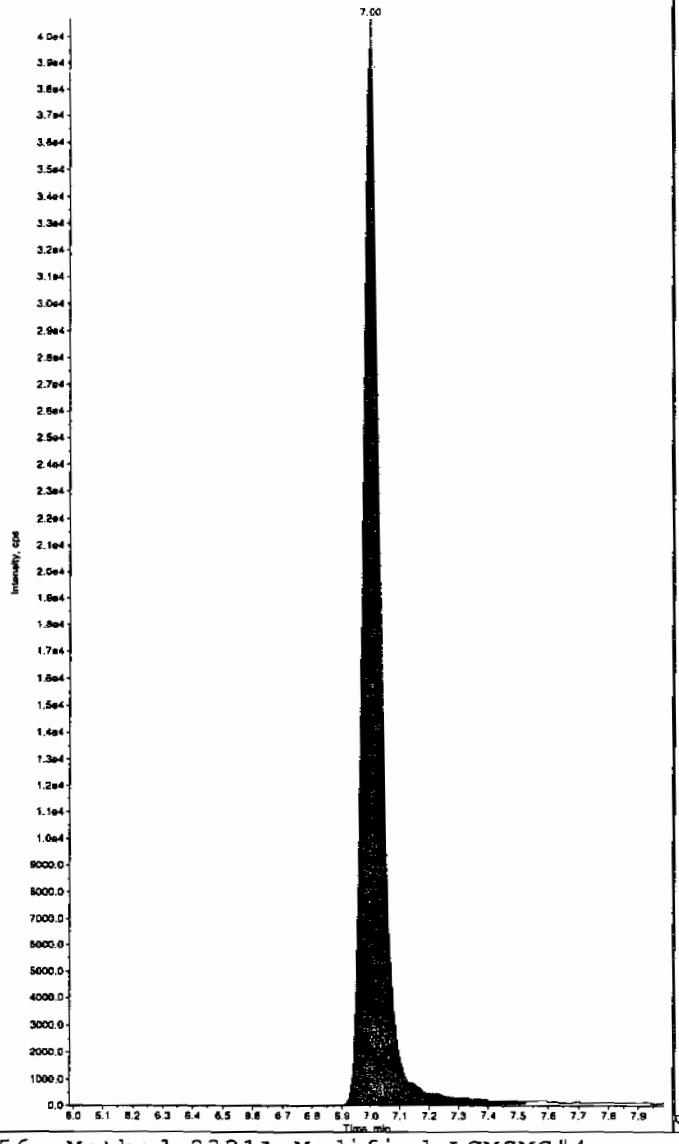

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 8.16e+005 counts
Height: 203416.260 cps
Start Time: 8.12 min
End Time: 8.33 min

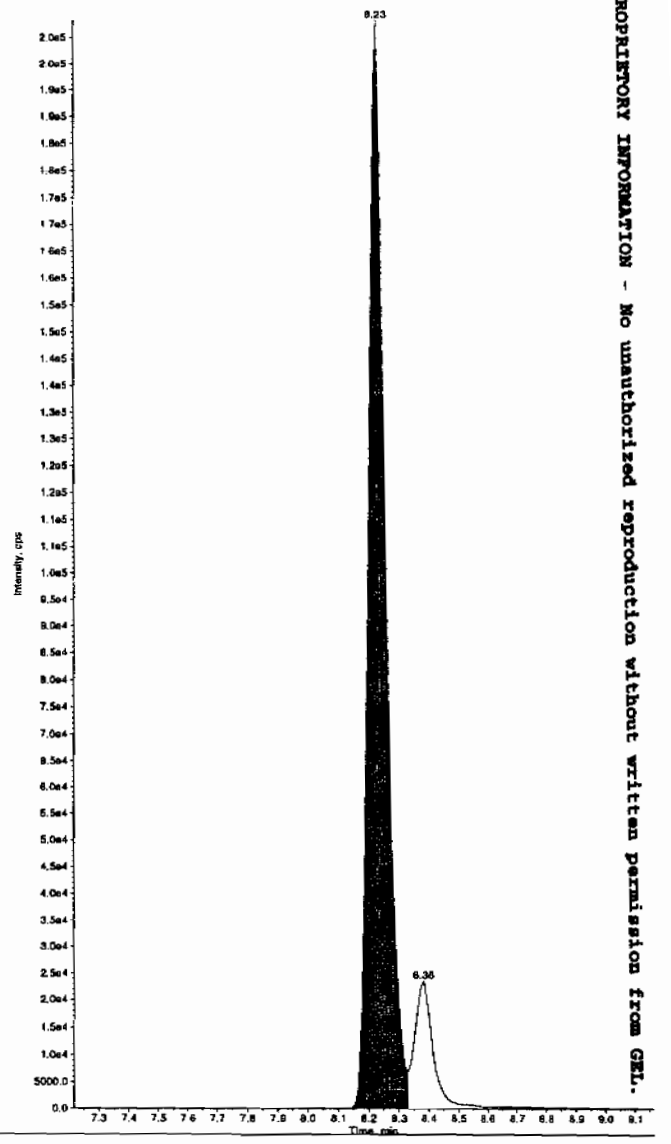

HMM 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 53.4 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 7.31e+005 counts
Height: 199268.600 cps
Start Time: 8.30 min
End Time: 8.61 min

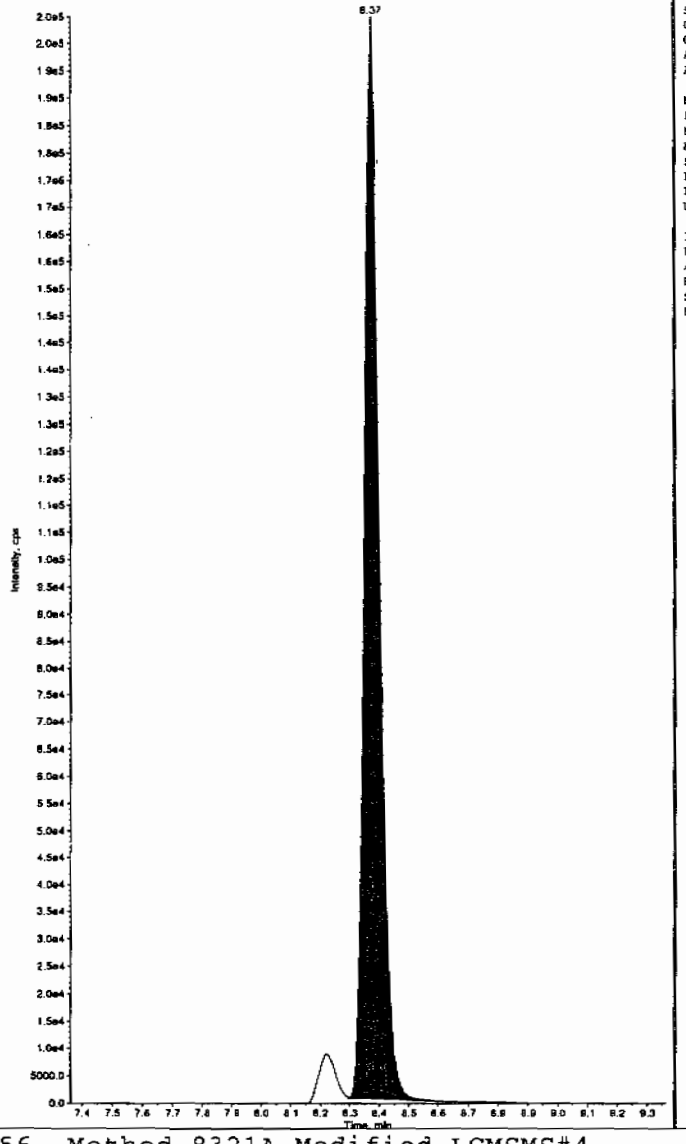

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 125. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.37e+005 counts
Height: 56829.735 cps
Start Time: 4.92 min
End Time: 5.27 min

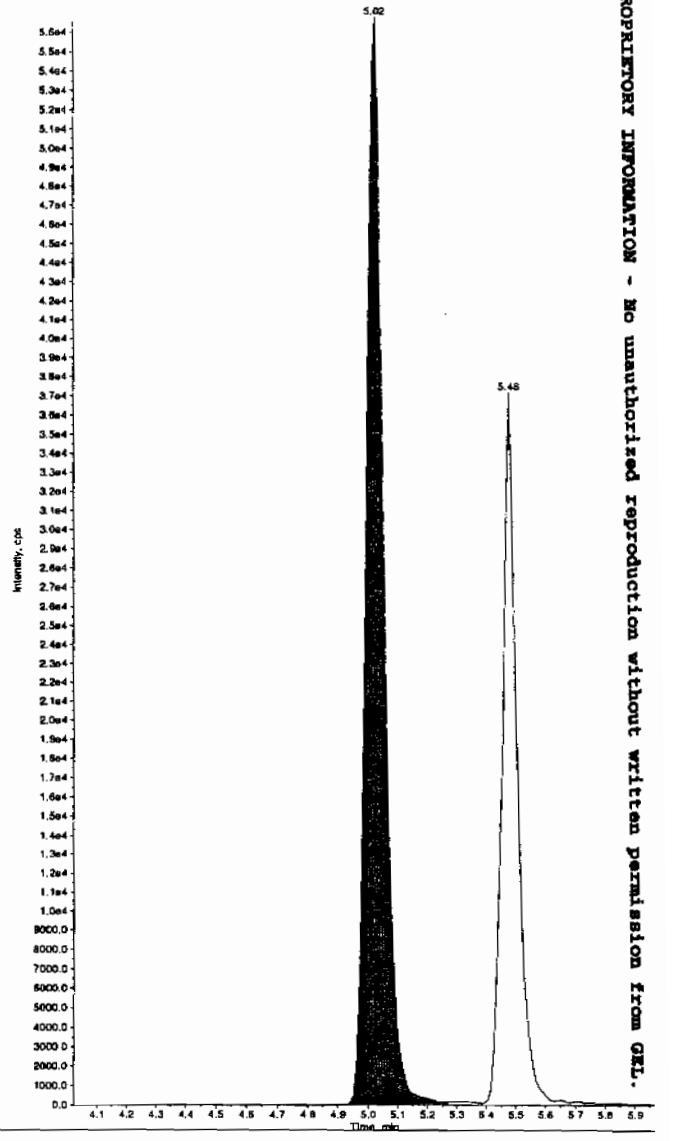

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ''

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 120. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.29e+005 counts
Height: 37130.470 cps
Start Time: 5.38 min
End Time: 5.85 min

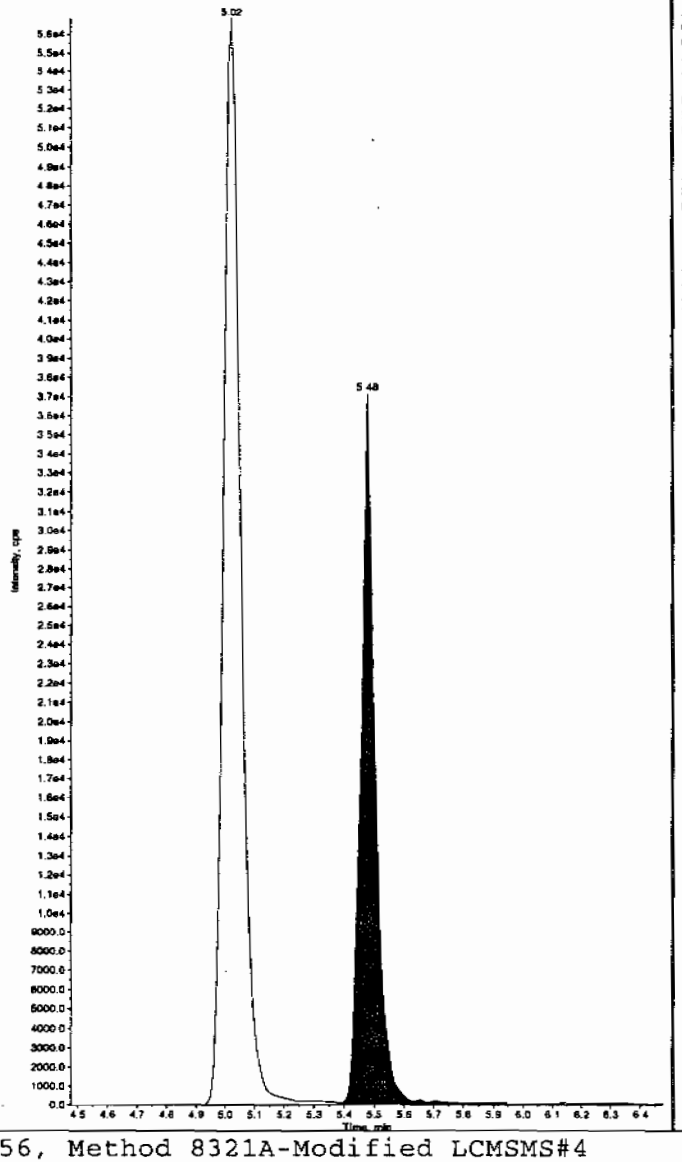

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.23e+006 counts
Height: 538292.603 cps
Start Time: 10.8 min
End Time: 11.2 min

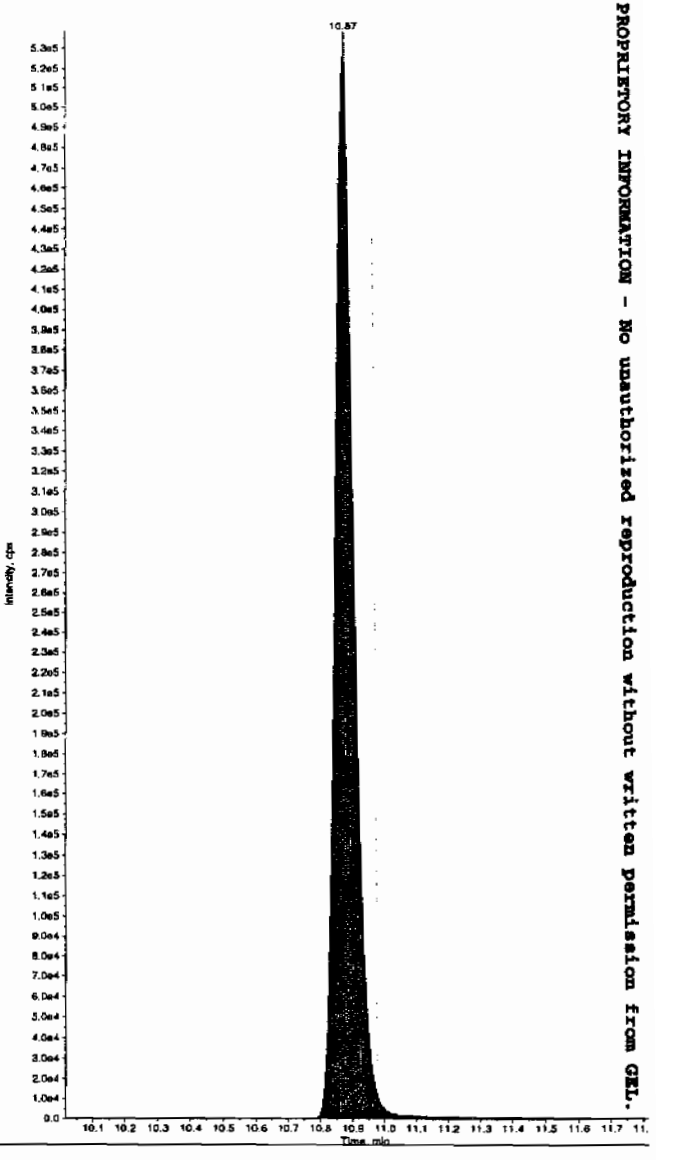

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02220050.wiff

Analysis Date: 23-FEB-10 05:52

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	590	118	
2,6-Diamino-4-nitrotoluene	500	623	125	
3,4-Dinitrotoluene	250	250	100	
3,5-Dinitroaniline	500	530	106	
TATB	500	448	90	
tris(o-cresyl) phosphate	500	493	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.55e+005 counts
Height: 189822.083 cps
Start Time: 6.88 min
End Time: 7.59 min

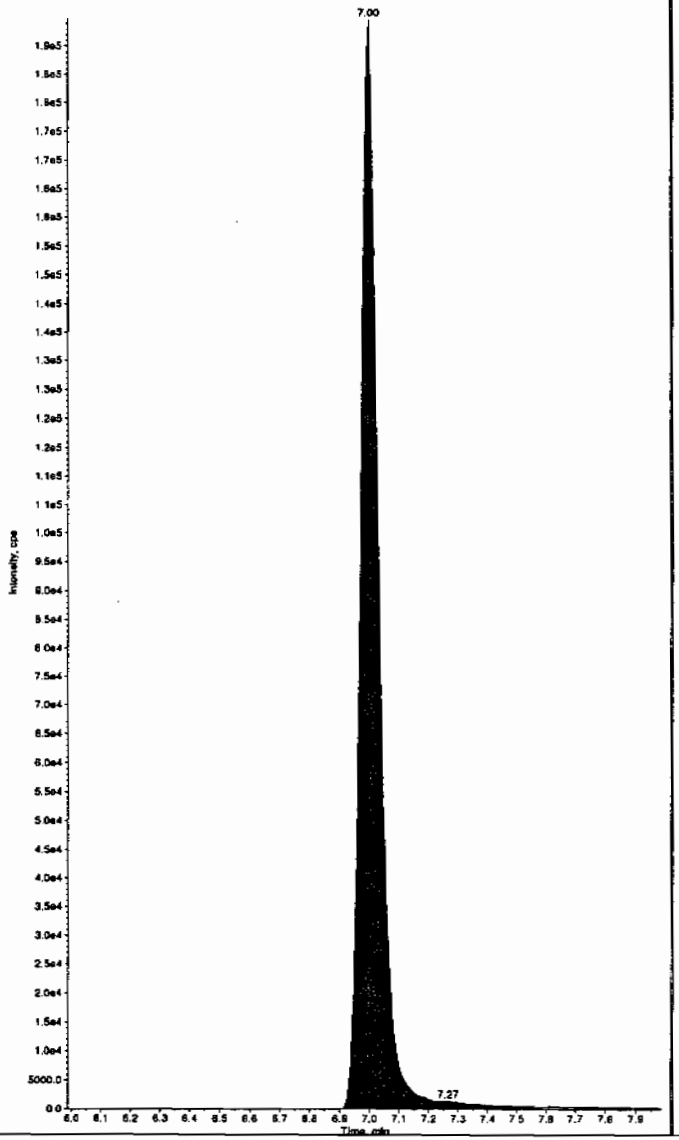

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 530. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.86e+006 counts
Height: 923200.134 cps
Start Time: 8.12 min
End Time: 8.33 min

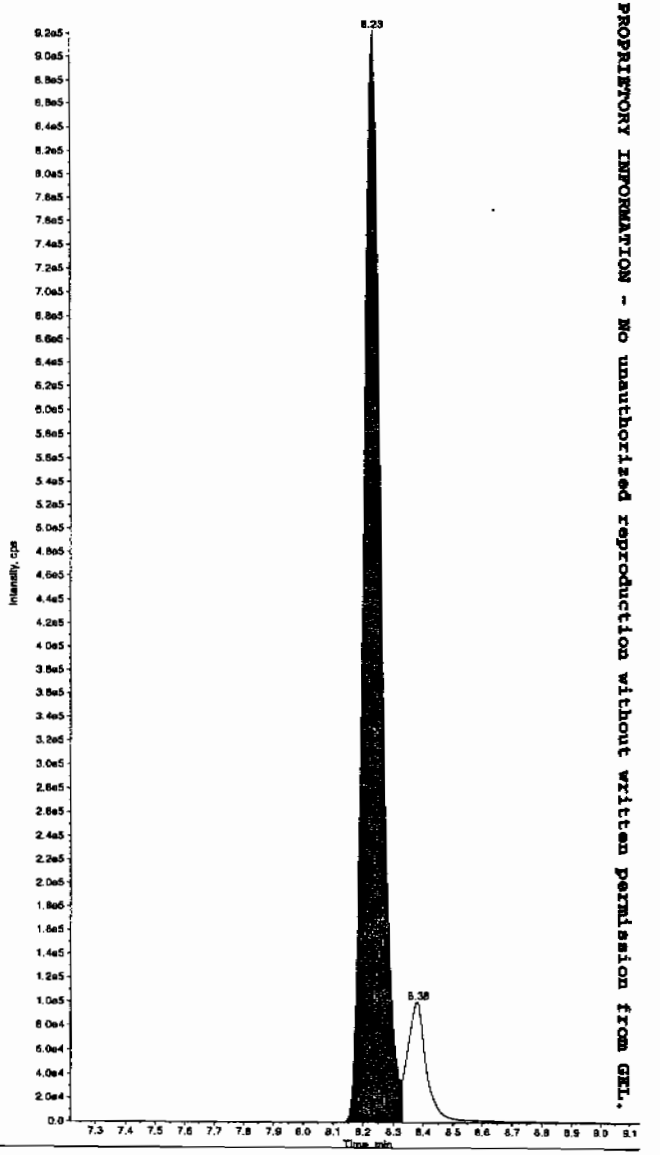

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 250. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.34e+006 counts
Height: 877578.186 cps
Start Time: 8.30 min
End Time: 8.60 min

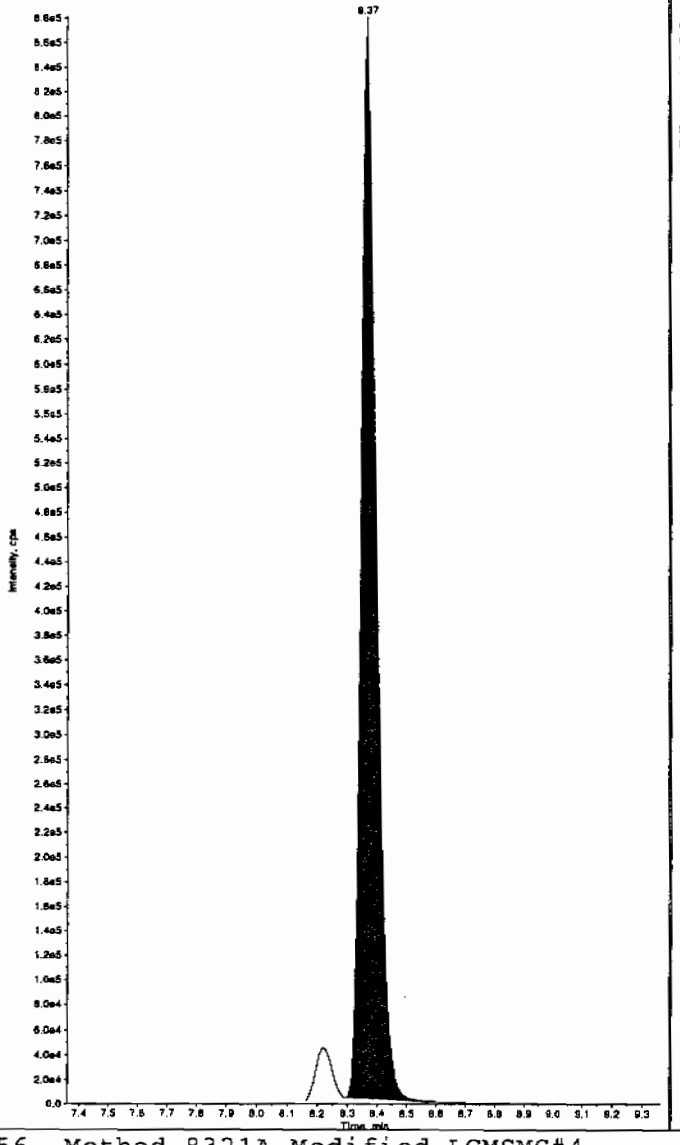

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 623. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.19e+006 counts
Height: 270338.470 cps
Start Time: 4.88 min
End Time: 5.31 min

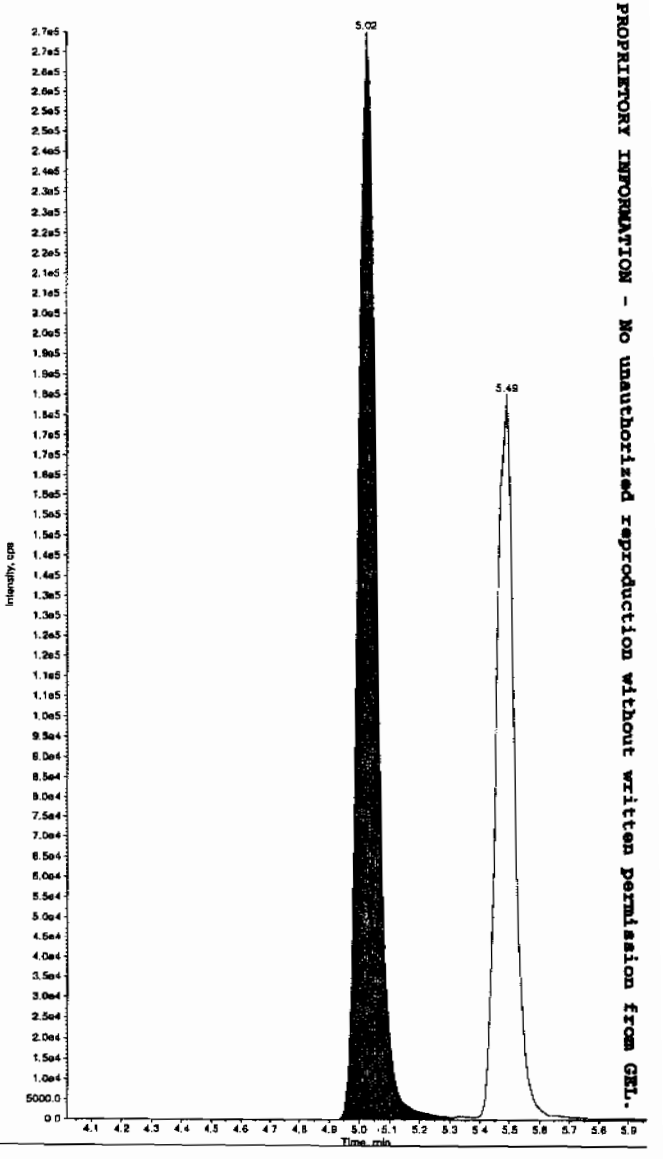

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "|1|LER" File: "EXS02220050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 590. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 7.42e+005 counts
Height: 180096.237 cps
Start Time: 5.38 min
End Time: 5.79 min

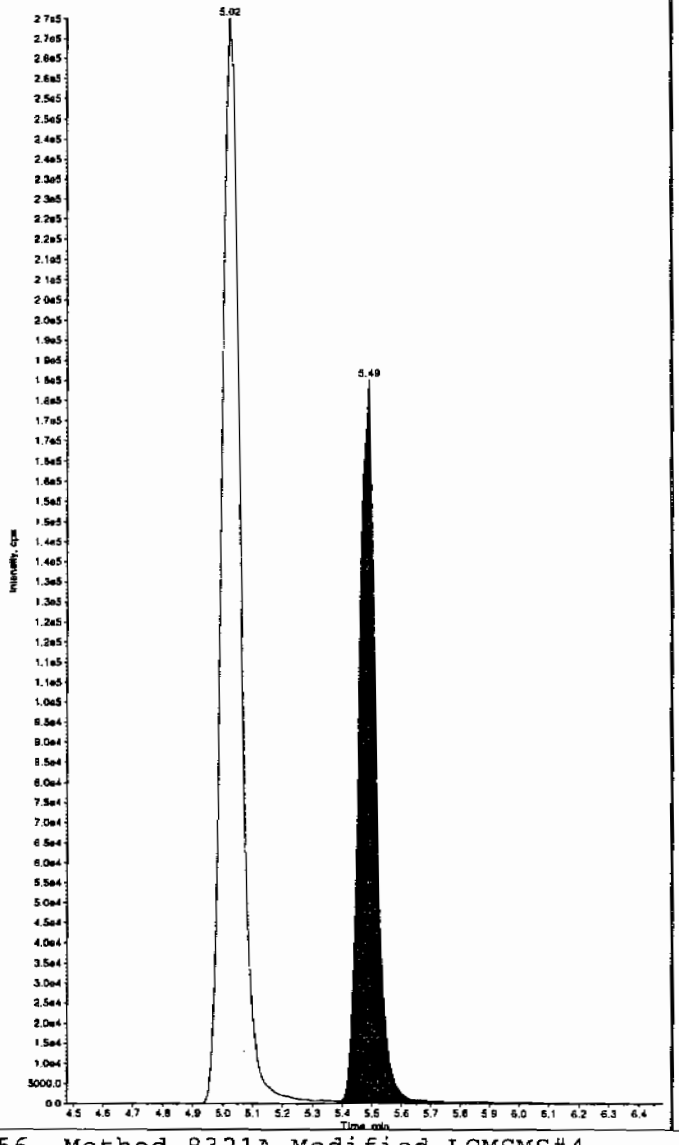

Sample Name: "WXX100222-26CCV" Sample ID: "|1|LER" File: "EXS02220050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.86e+006 counts
Height: 2315829.346 cps
Start Time: 10.8 min
End Time: 11.2 min

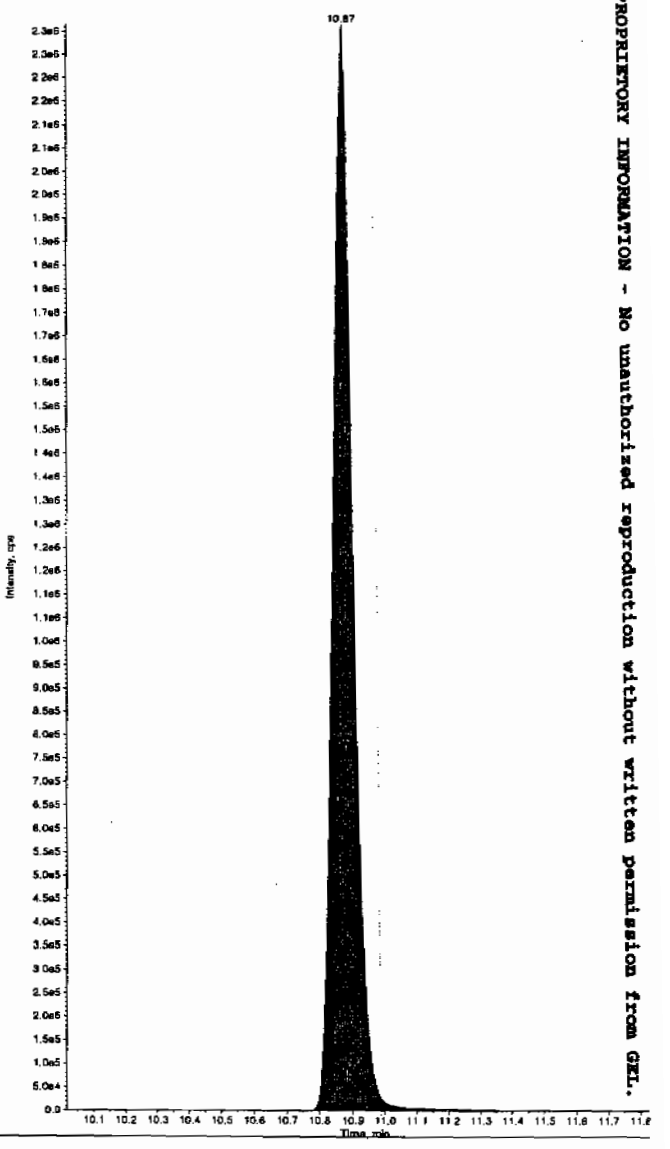

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02220052.wiff

Analysis Date: 23-FEB-10 06:24

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	129	129	
2,6-Diamino-4-nitrotoluene	100	140	140	
3,4-Dinitrotoluene	50	50.5	101	
3,5-Dinitroaniline	100	111	111	
TATB	100	95.9	96	
tris(o-cresyl) phosphate	100	107	107	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.9 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.89e+005 counts
Height: 41713.528 cps
Start Time: 6.86 min
End Time: 7.53 min

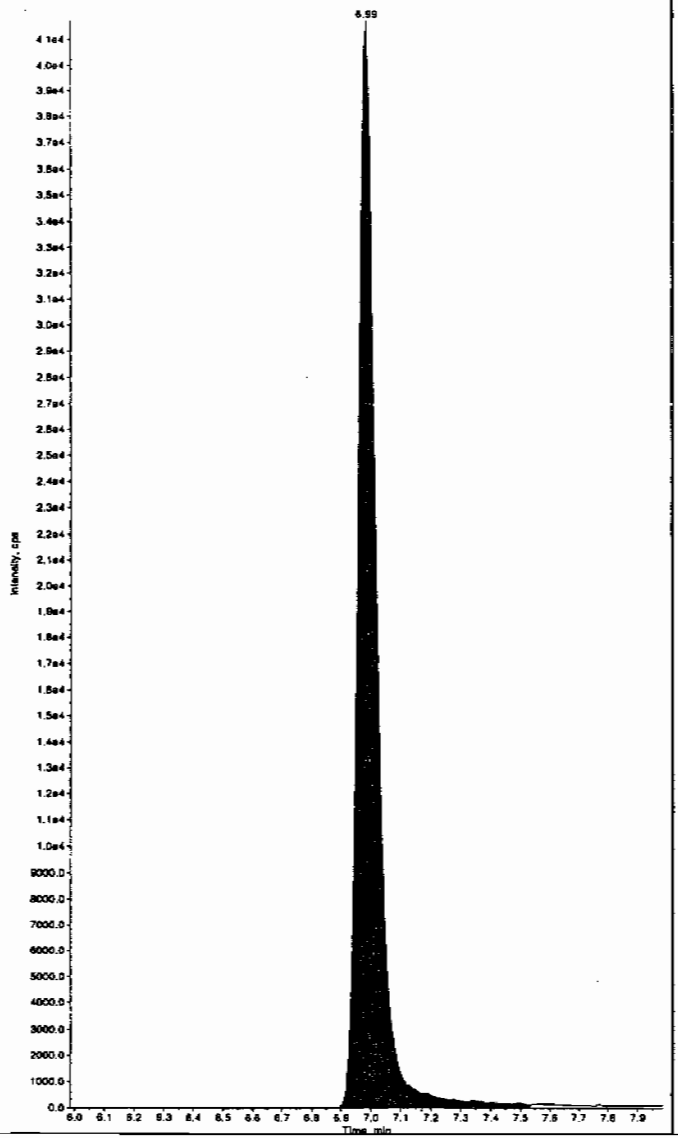

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 7.89e+005 counts
Height: 184727.554 cps
Start Time: 8.11 min
End Time: 8.32 min

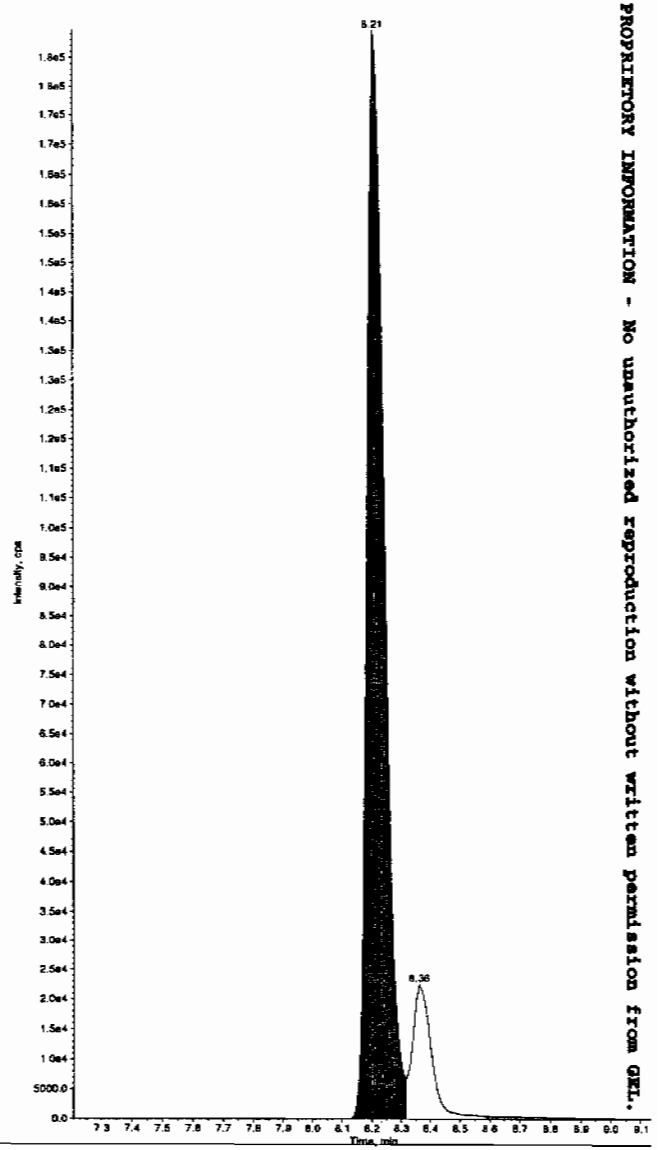

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 50.5 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 6.92e+005 counts
Height: 180392.654 cps
Start Time: 8.28 min
End Time: 8.66 min

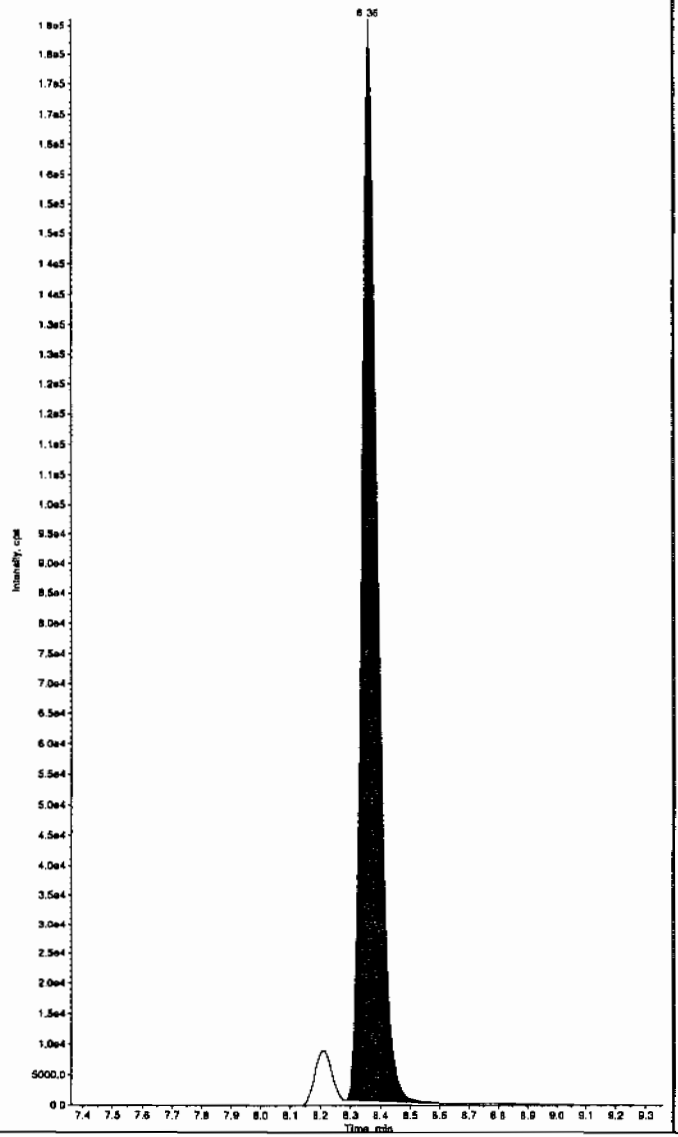

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 140. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.66e+005 counts
Height: 62152.336 cps
Start Time: 4.86 min
End Time: 5.31 min

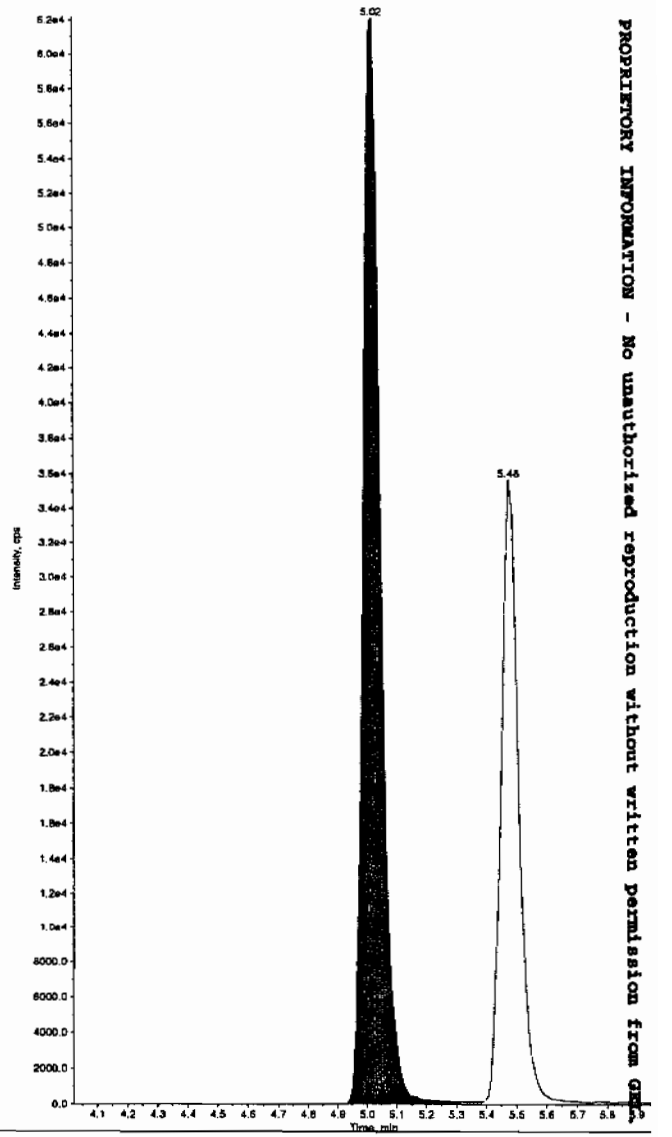

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "":

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 129. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.41e+005 counts
Height: 35624.271 cps
Start Time: 5.38 min
End Time: 5.74 min

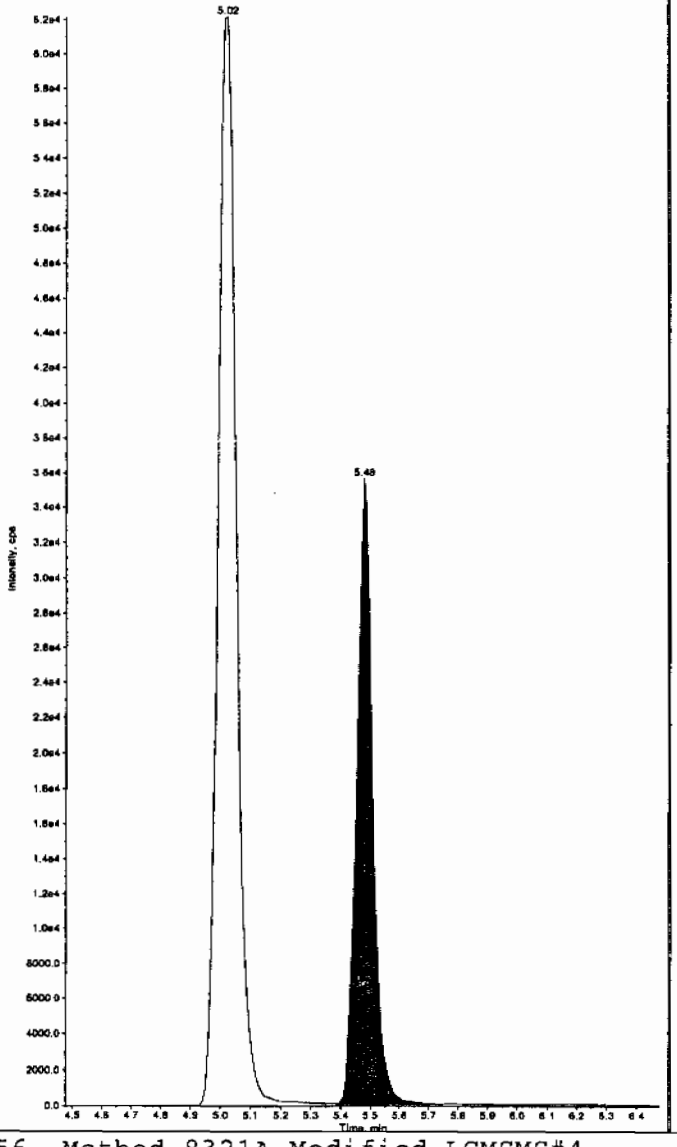

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.31e+006 counts
Height: 560037.781 cps
Start Time: 10.8 min
End Time: 11.2 min

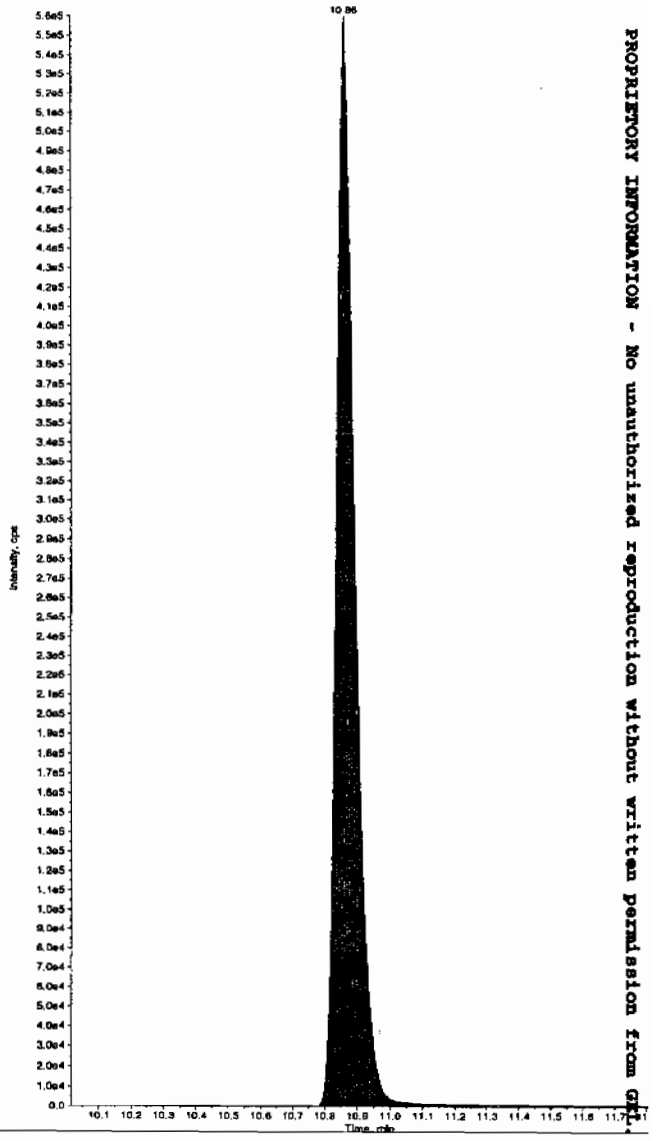

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02240013.wiff

Analysis Date: 24-FEB-10 13:06

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	91.3	91	
2,6-Diamino-4-nitrotoluene	100	99	99	
3,4-Dinitrotoluene	50	46.6	93	
3,5-Dinitroaniline	100	96.6	97	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	98.6	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:06:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 9.41e+004 counts
Height: 25047.522 cps
Start Time: 6.91 min
End Time: 7.28 min

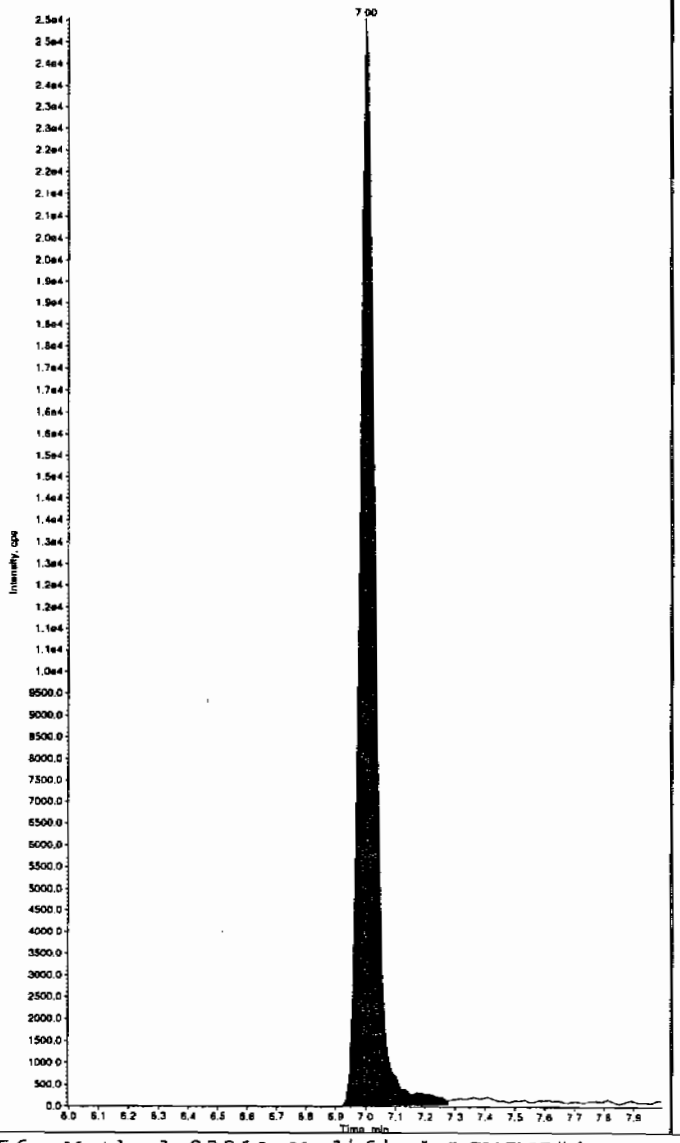

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.6 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:06:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 4.93e+005 counts
Height: 140458.725 cps
Start Time: 8.13 min
End Time: 8.34 min

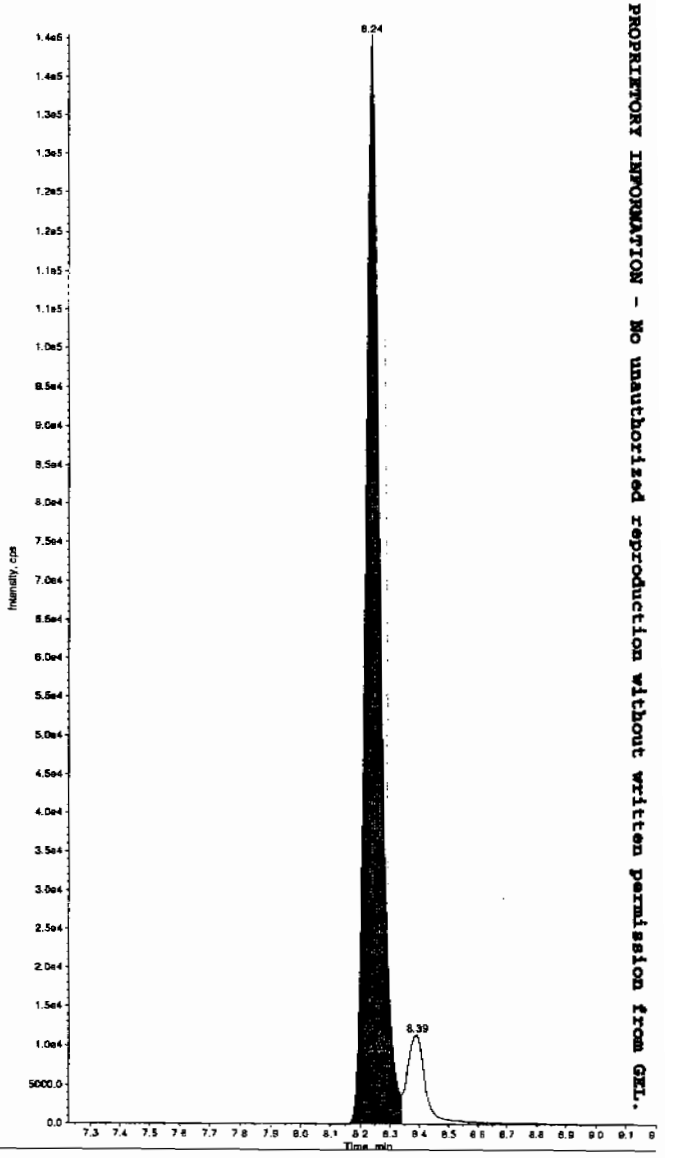

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100224-27CRI" Sample ID: "|1|LER" File: "EXS02240013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 46.6 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:06:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 3.19e+005 counts
Height: 92954.025 cps
Start Time: 8.31 min
End Time: 8.69 min

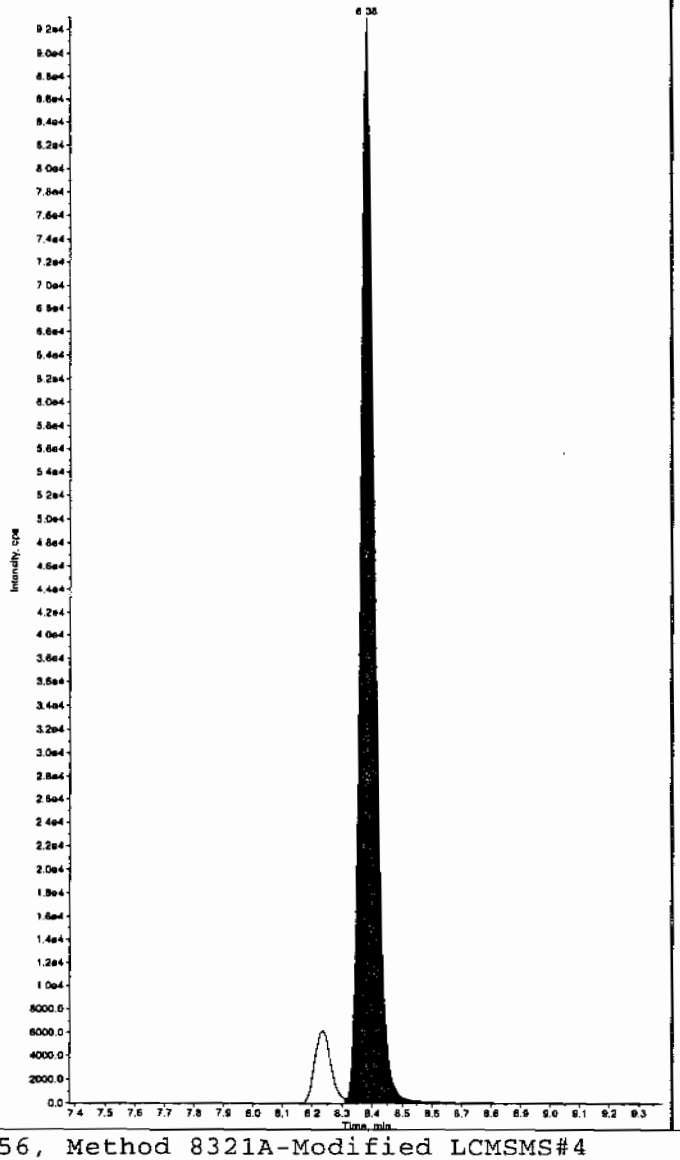

Sample Name: "WXX100224-27CRI" Sample ID: "|1|LER" File: "EXS02240013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.0 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:06:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.01 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.15e+005 counts
Height: 27872.238 cps
Start Time: 4.94 min
End Time: 5.31 min

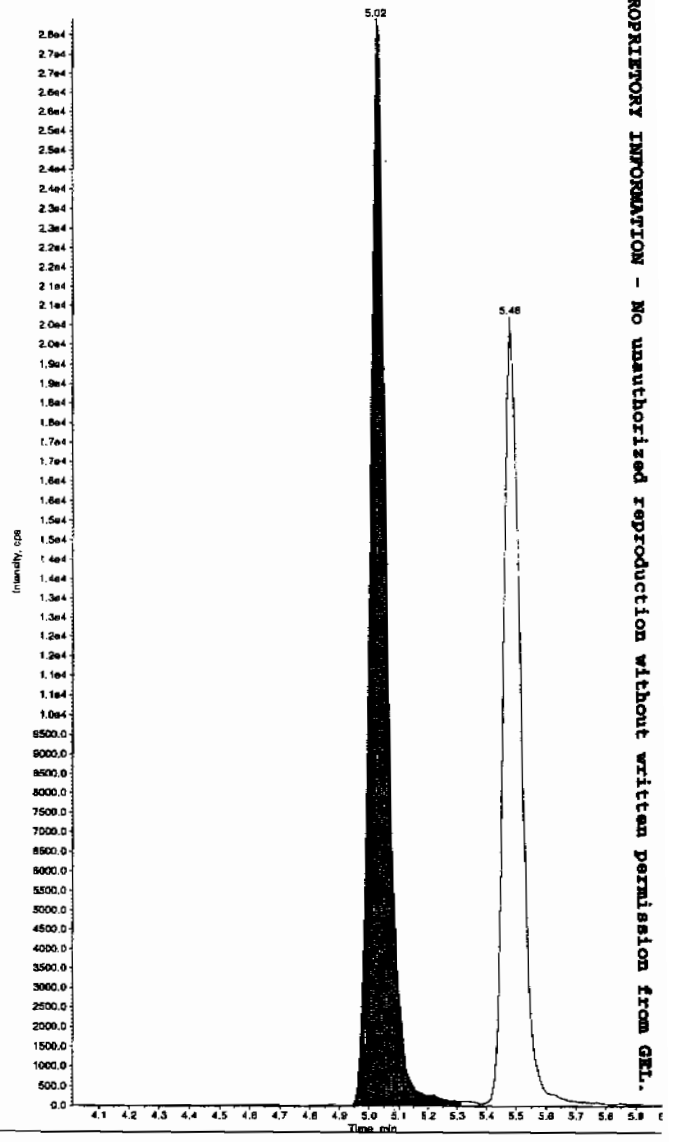

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.3 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:06:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.47 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 8.16e+004 counts
Height: 20185.297 cps
Start Time: 5.38 min
End Time: 5.82 min

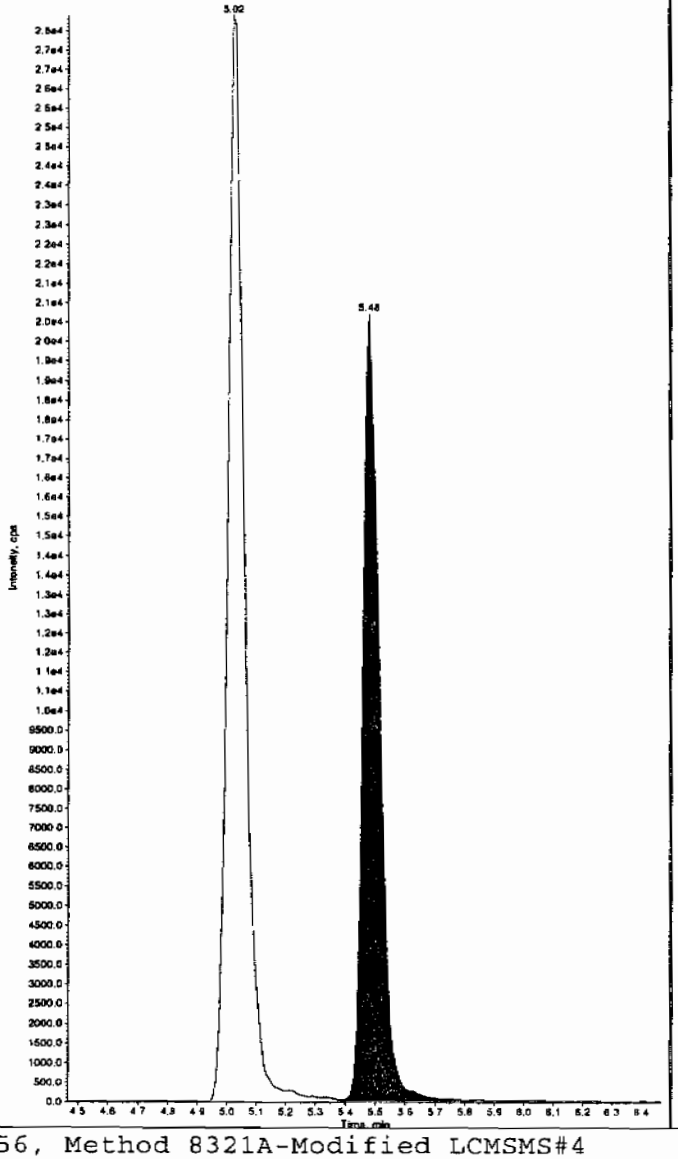

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.6 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 1:06:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.27e+006 counts
Height: 350758.728 cps
Start Time: 10.8 min
End Time: 11.2 min

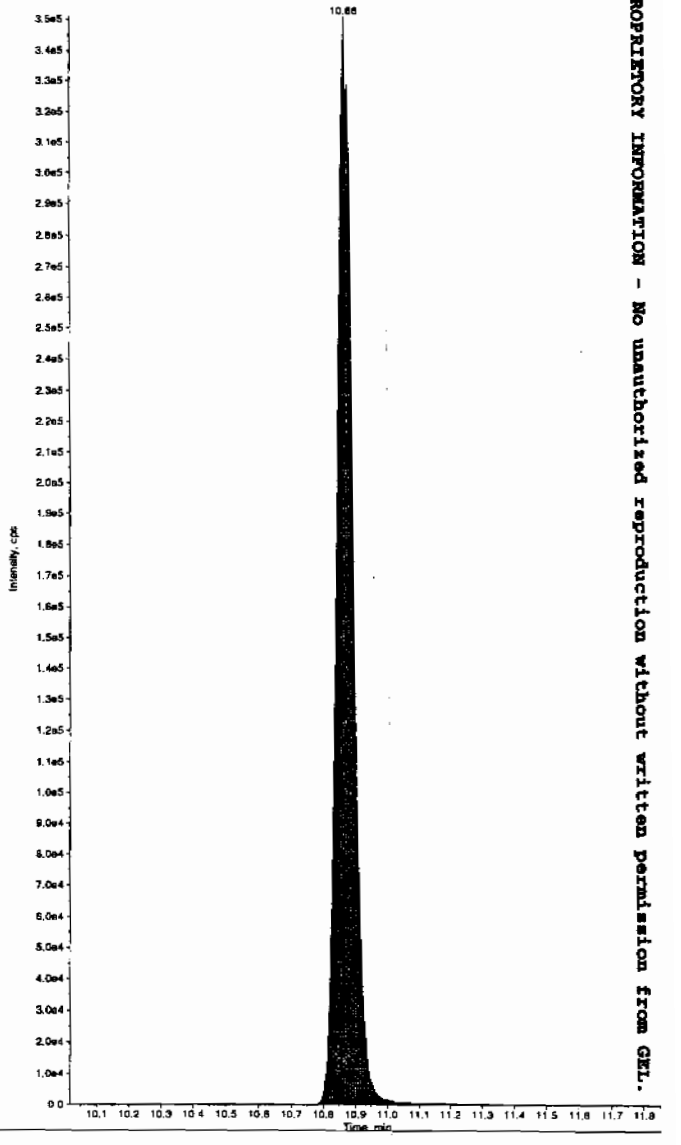

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02240024.wiff

Analysis Date: 24-FEB-10 15:59

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	508	102	
2,6-Diamino-4-nitrotoluene	500	460	92	
3,4-Dinitrotoluene	250	241	96	
3,5-Dinitroaniline	500	465	93	
TATB	500	489	98	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Sample Name: "WXX100224-26CCV" Sample ID: "|1|LER" File: "EXS02240024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:59:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 5.00e+005 counts
Height: 126589.958 cps
Start Time: 6.88 min
End Time: 7.67 min

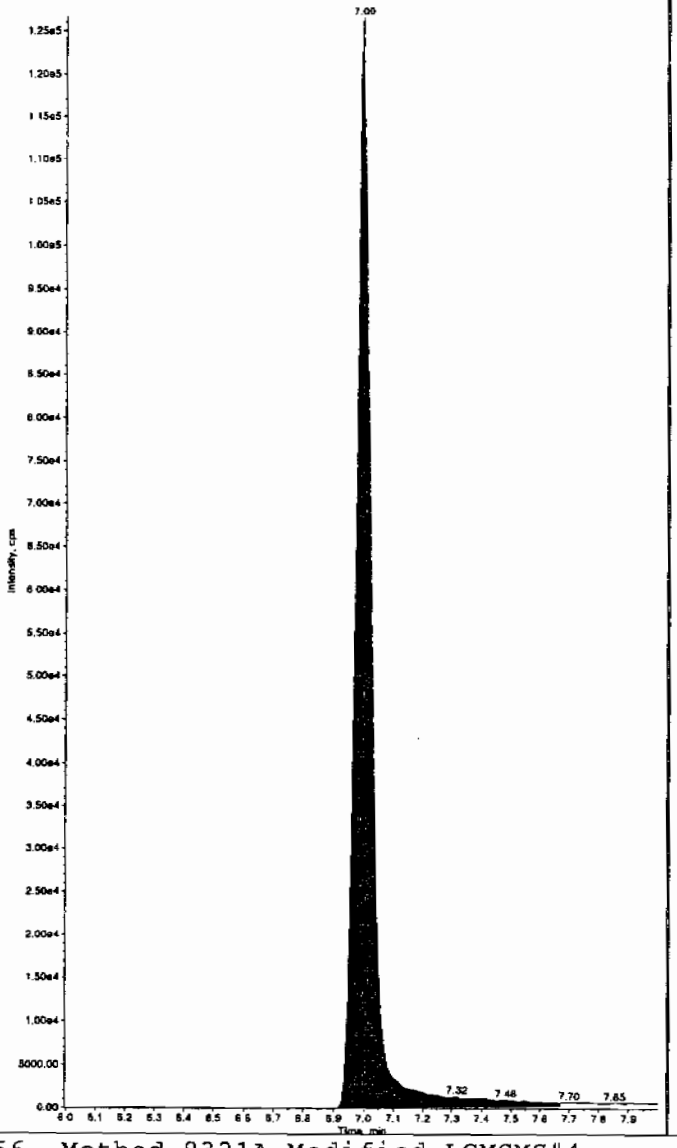

Sample Name: "WXX100224-26CCV" Sample ID: "|1|LER" File: "EXS02240024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 465. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:59:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 2.28e+006 counts
Height: 588441.589 cps
Start Time: 8.12 min
End Time: 8.33 min

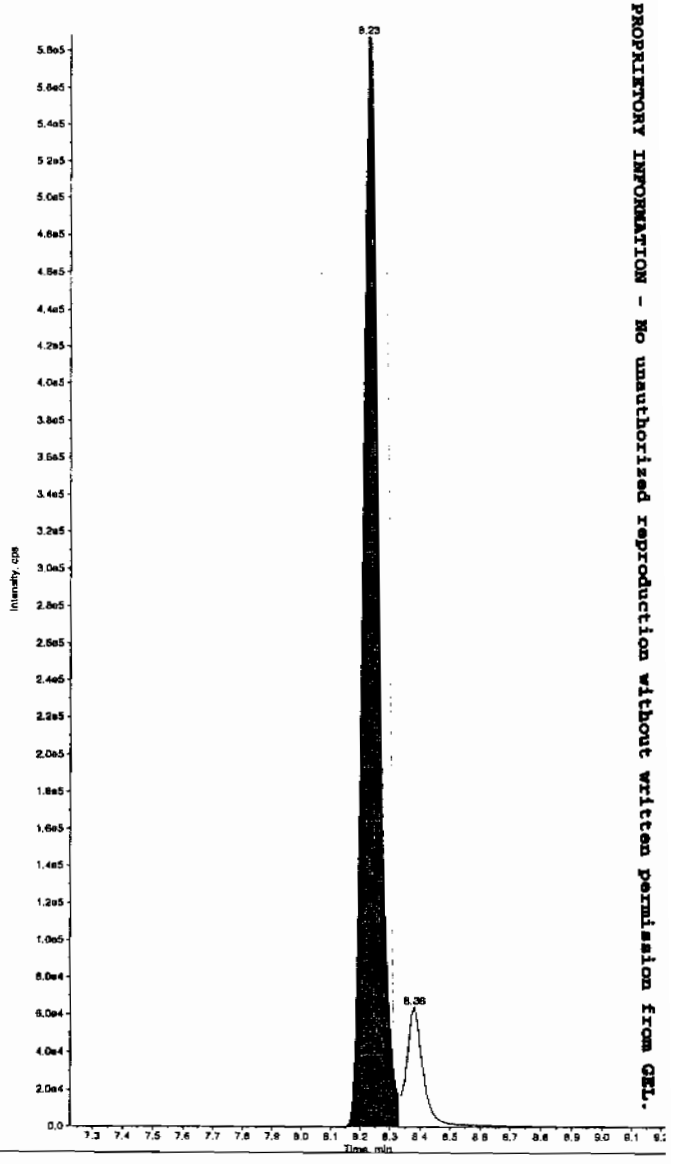

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100224-26CCV" Sample ID: "[1]LER" File: "EXS02240024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 241. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:59:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 1.62e+006 counts
Height: 476866.943 cps
Start Time: 8.31 min
End Time: 8.71 min

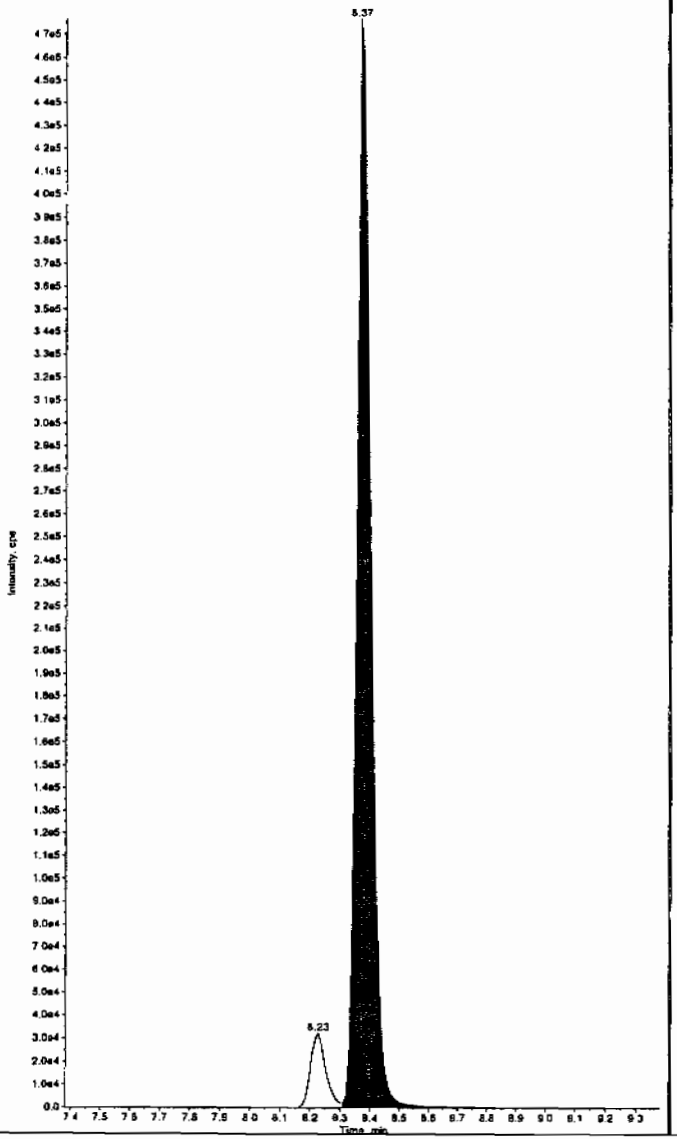

Sample Name: "WXX100224-26CCV" Sample ID: "[1]LER" File: "EXS02240024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 460. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:59:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.01 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 5.39e+005 counts
Height: 114527.725 cps
Start Time: 4.92 min
End Time: 5.29 min

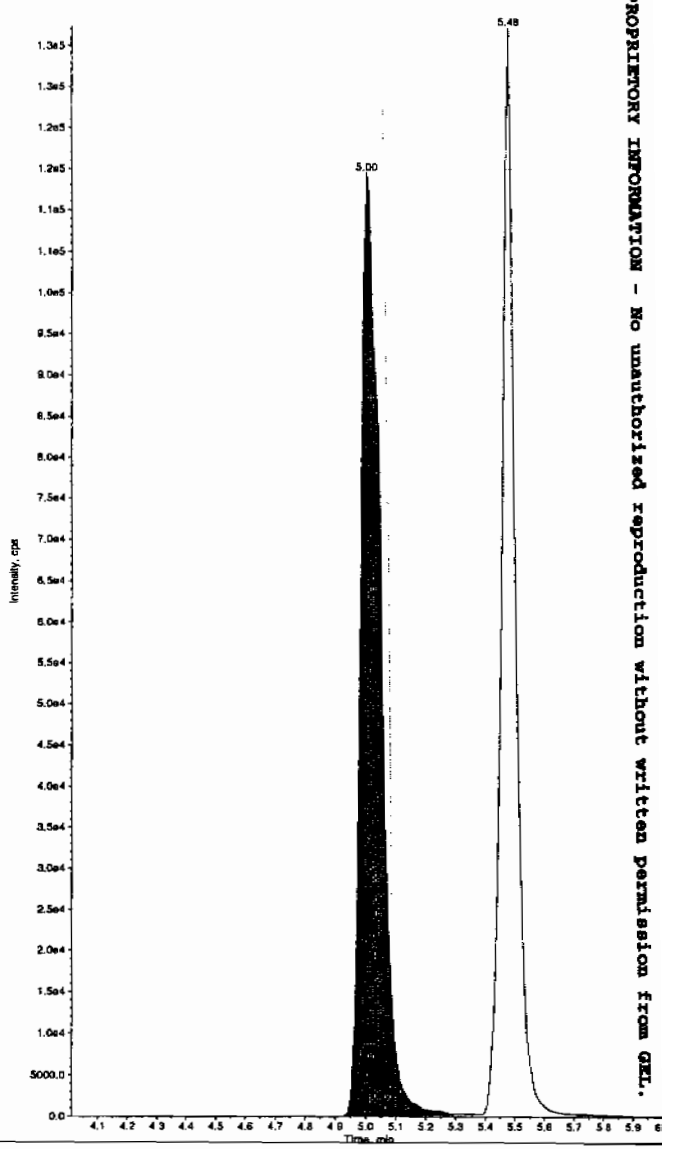

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100224-26CCV" Sample ID: "|1|LER" File: "EXS02240024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 532. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:59:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 30.0 sec
Expected RT: 5.47 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 4.17e-005 counts
Height: 132291.260 cps
Start Time: 5.36 min
End Time: 5.93 min

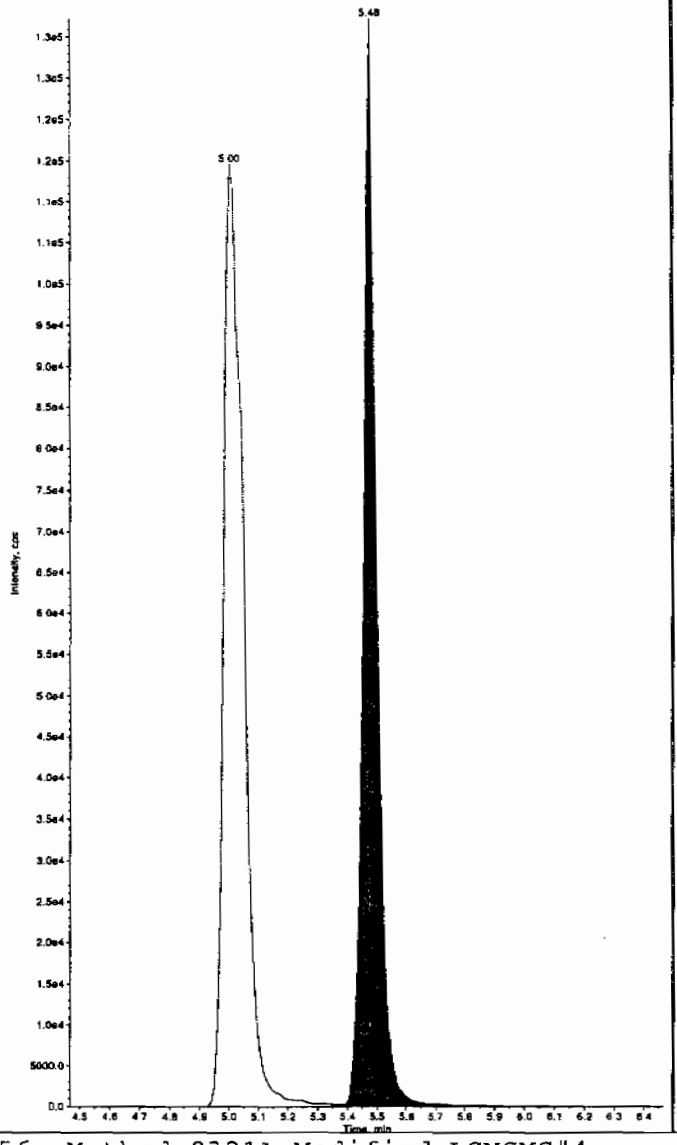

Sample Name: "WXX100224-26CCV" Sample ID: "|1|LER" File: "EXS02240024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 3:59:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.03e+006 counts
Height: 1587285.034 cps
Start Time: 10.7 min
End Time: 11.2 min

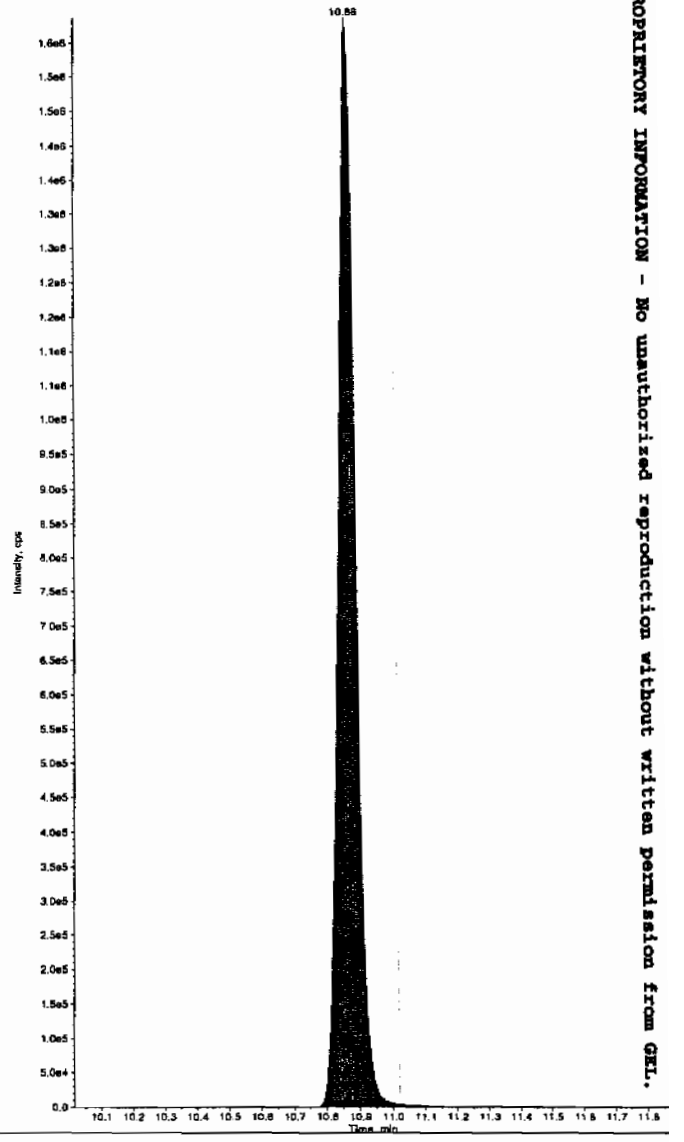

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B

Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02240026.wiff

Analysis Date: 24-FEB-10 16:31

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	112	112	
2,6-Diamino-4-nitrotoluene	100	106	106	
3,4-Dinitrotoluene	50	48.5	97	
3,5-Dinitroaniline	100	104	104	
TATB	100	98.9	99	
tris(o-cresyl) phosphate	100	100	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.9 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:31:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 9.04e+004 counts
Height: 23627.918 cps
Start Time: 6.90 min
End Time: 7.28 min

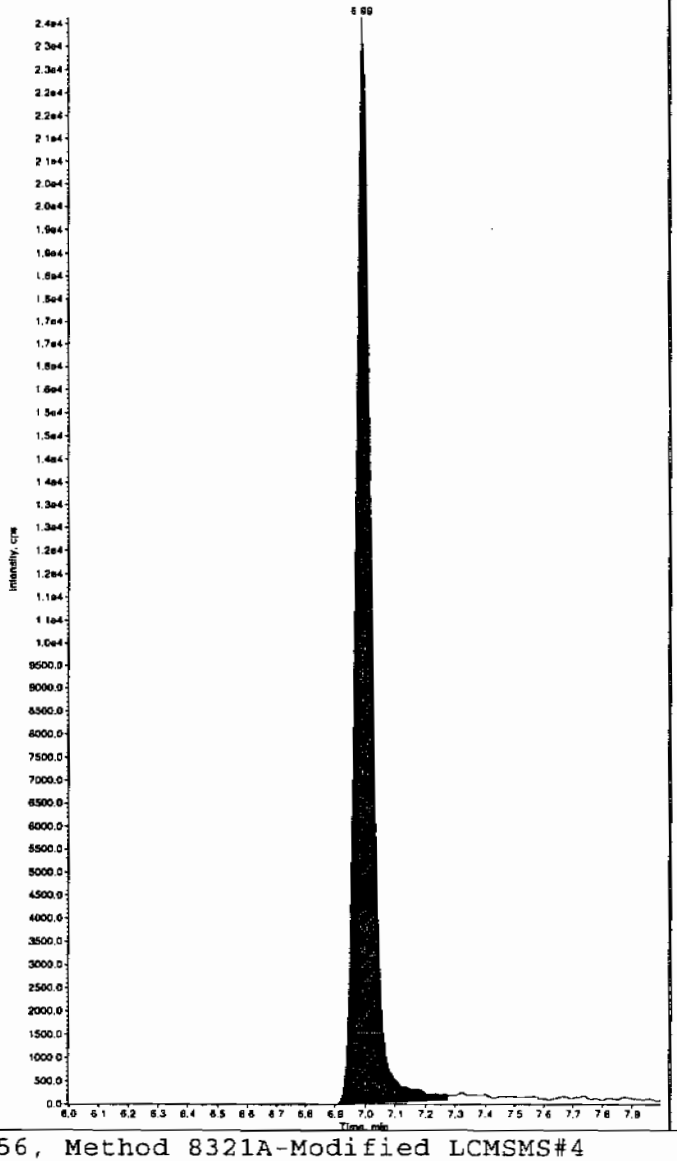

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:31:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 5.29e+005 counts
Height: 144707.428 cps
Start Time: 8.12 min
End Time: 8.34 min

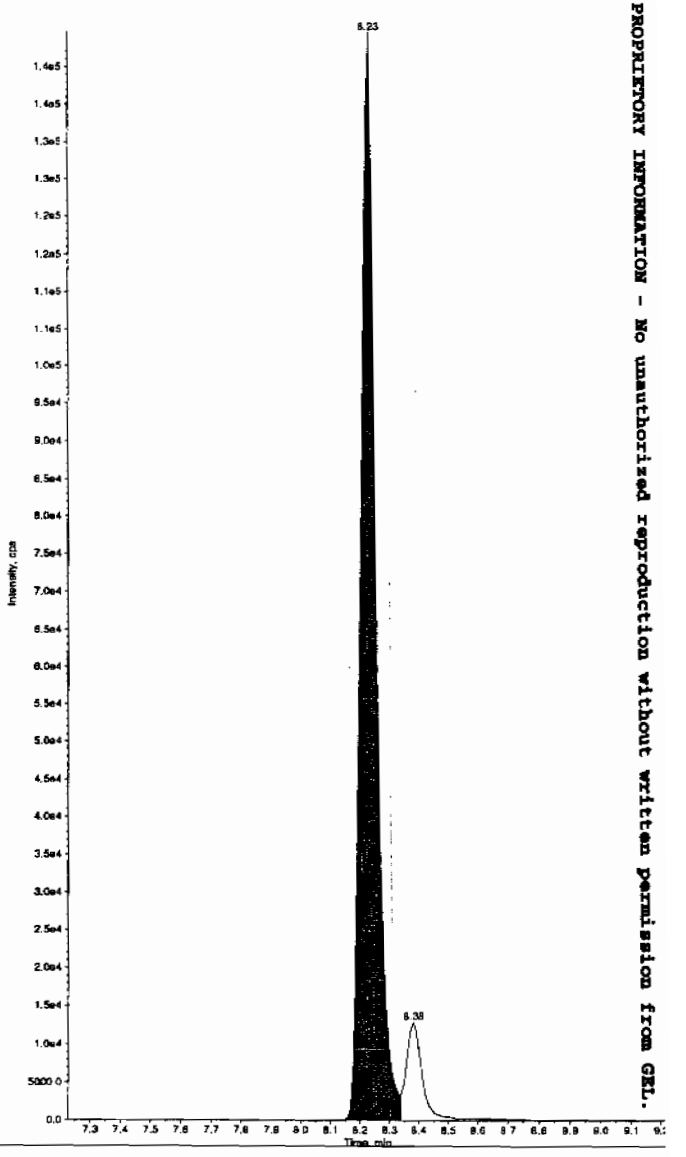

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100224-27CRI" Sample ID: "|1|LER" File: "EXS02240026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 48.5 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:31:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.31e+005 counts
Height: 96104.195 cps
Start Time: 8.30 min
End Time: 8.67 min

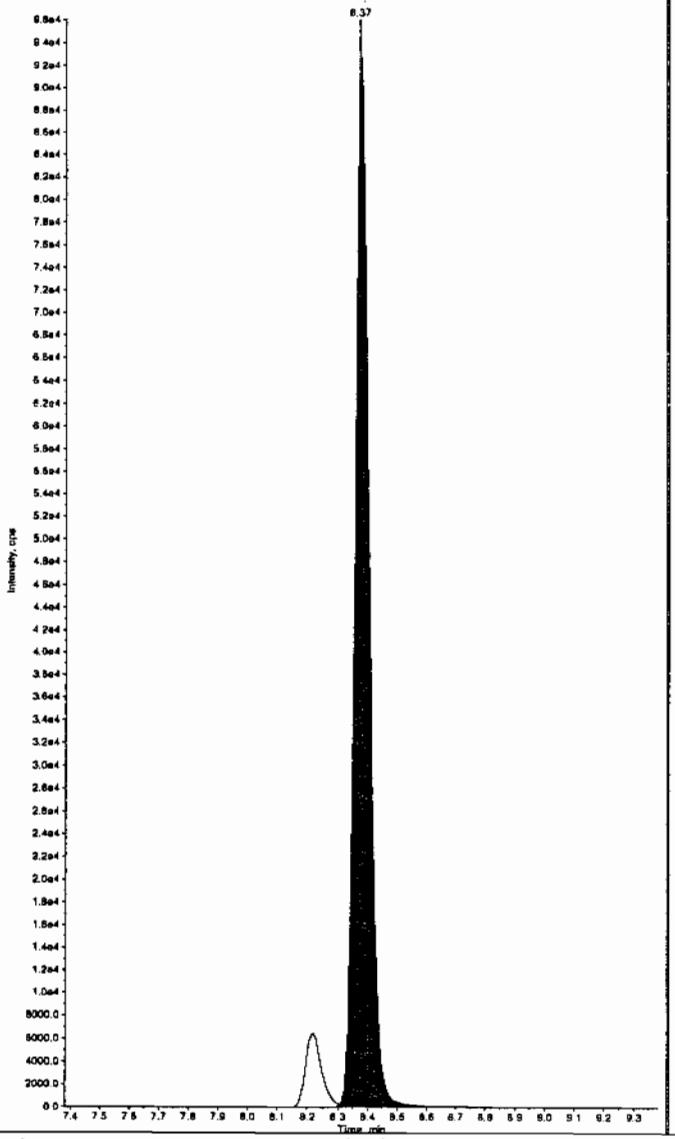

Sample Name: "WXX100224-27CRI" Sample ID: "|1|LER" File: "EXS02240026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:31:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.01 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.23e+005 counts
Height: 29377.720 cps
Start Time: 4.93 min
End Time: 5.25 min

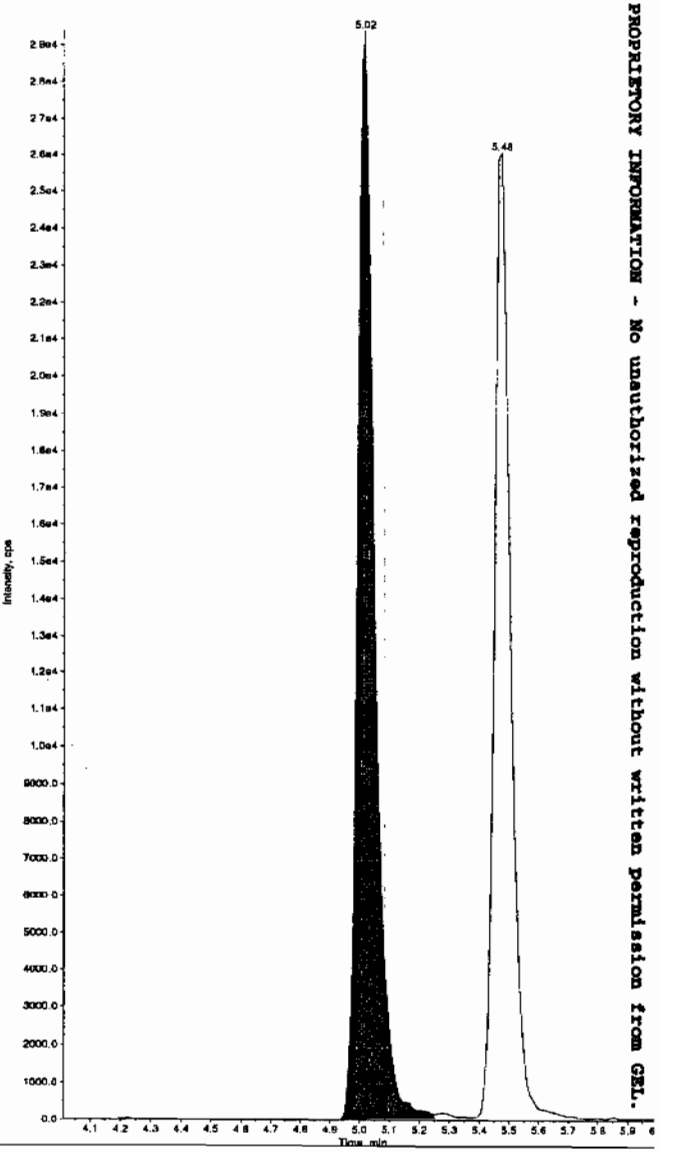

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:31:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.47 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.00e+005 counts
Height: 26040.609 cps
Start Time: 5.37 min
End Time: 5.76 min

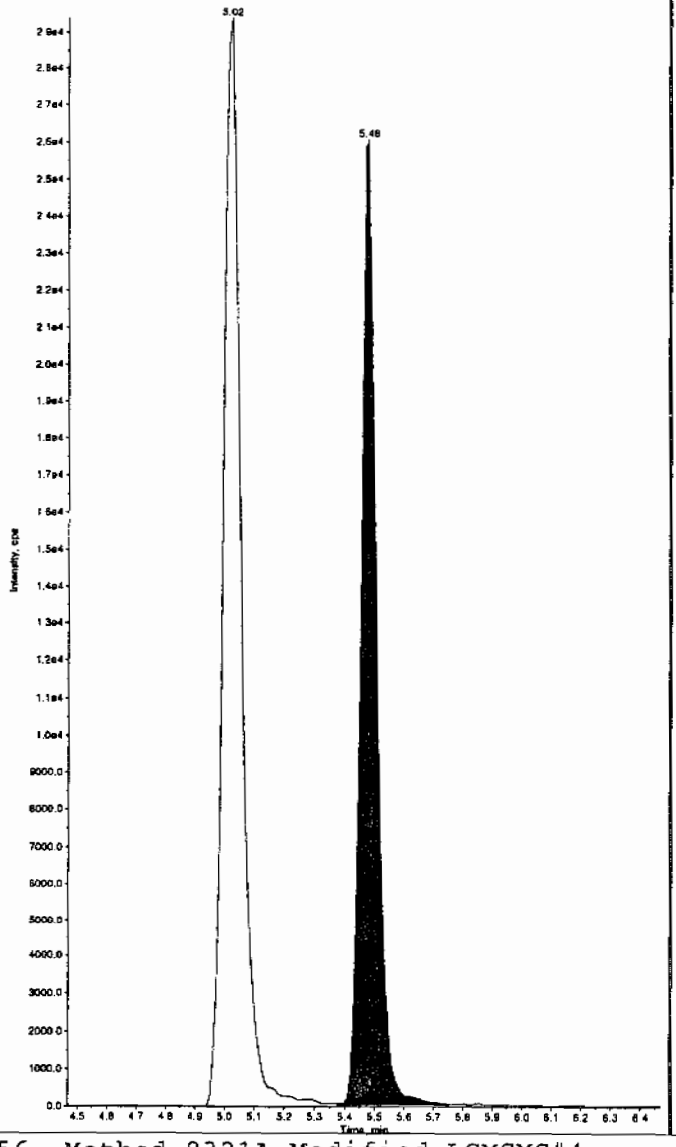

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 4:31:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.29e+006 counts
Height: 351786.591 cps
Start Time: 10.7 min
End Time: 11.1 min

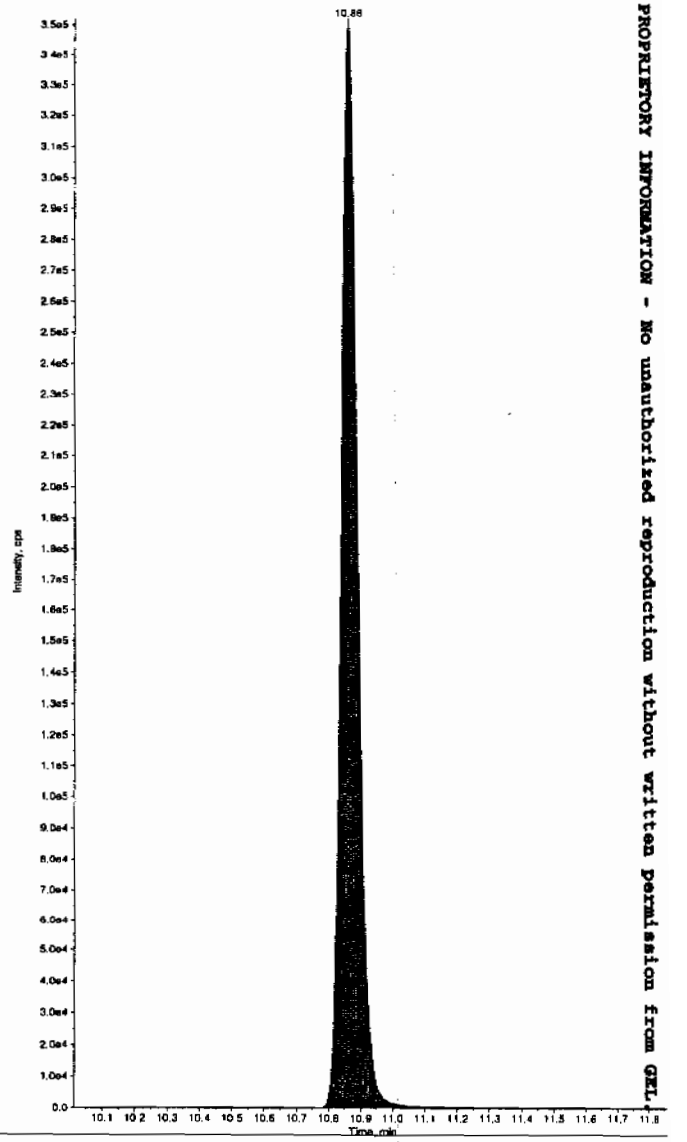

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02240031.wiff

Analysis Date: 24-FEB-10 17:49

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	479	96	
2,6-Diamino-4-nitrotoluene	500	468	94	
3,4-Dinitrotoluene	250	267	107	
3,5-Dinitroaniline	500	583	117	
TATB	500	519	104	
tris(o-cresyl) phosphate	500	499	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LER 2/25/10

Sample Name: "WXX100224-26CCV" Sample ID: "[1]LER" File: "EXS02240031.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 519. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:49:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 3.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 5.31e+005 counts
Height: 131338.699 cps
Start Time: 6.90 min
End Time: 7.71 min

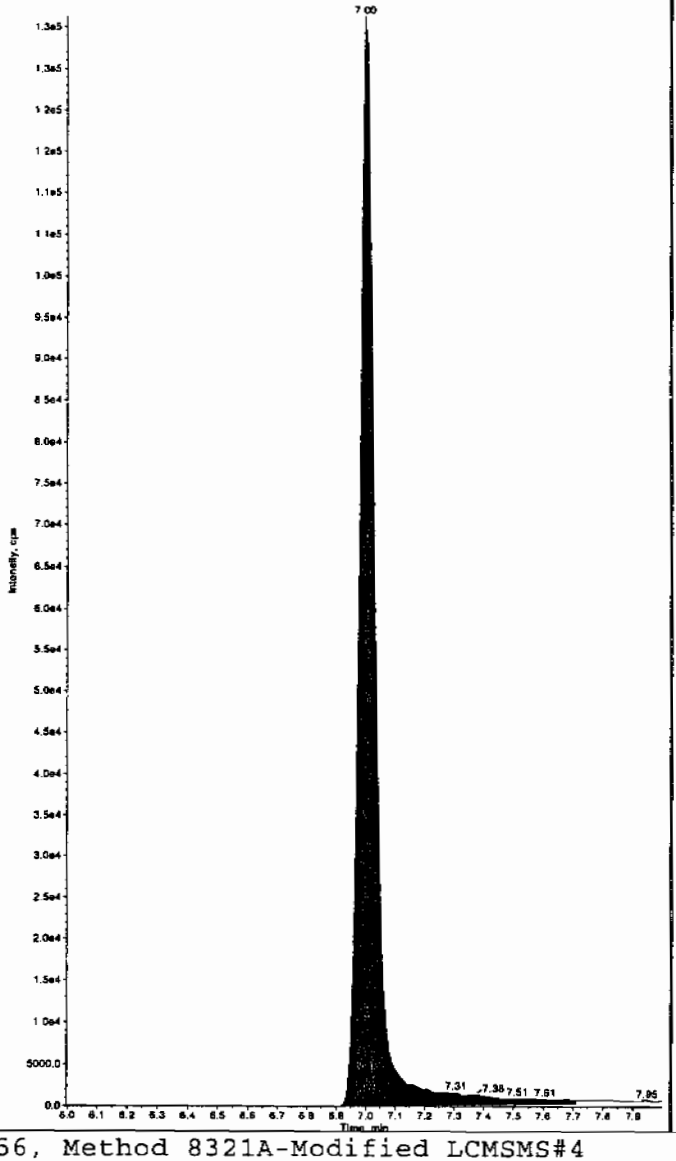

Sample Name: "WXX100224-26CCV" Sample ID: "[1]LER" File: "EXS02240031.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 583. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:49:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 2.82e+006 counts
Height: 780627.625 cps
Start Time: 8.13 min
End Time: 8.34 min

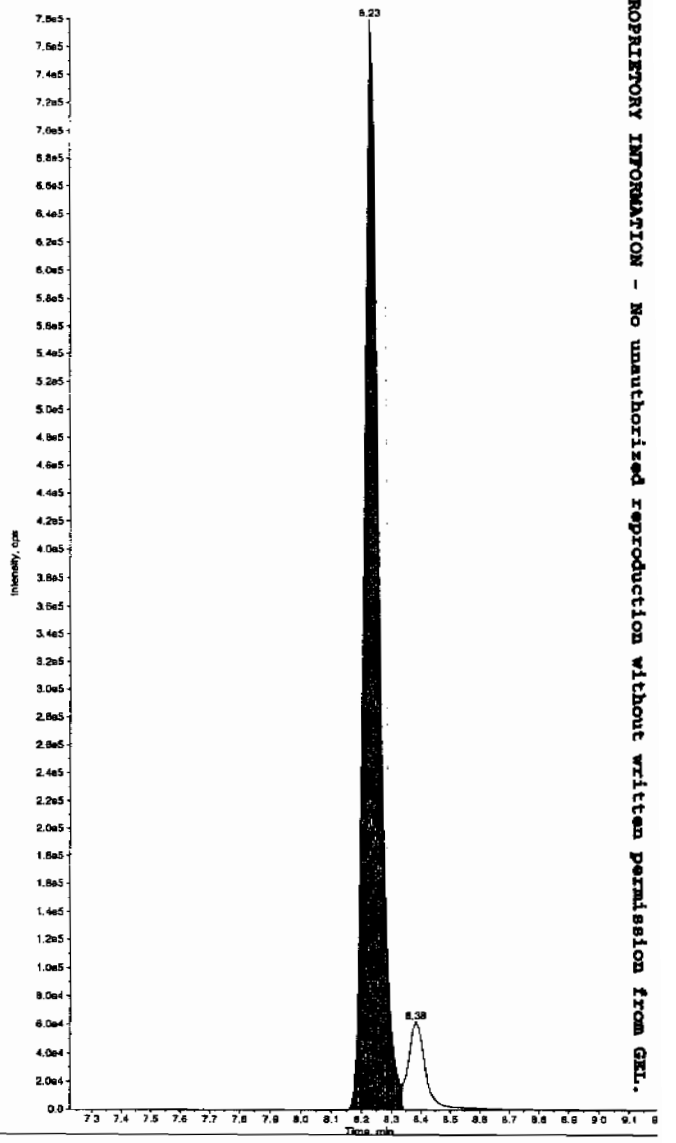

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100224-26CCV" Sample ID: "[1]LER" File: "EXS02240031.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 267. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:49:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 1.79e+006 counts
Height: 519346.313 cps
Start Time: 8.31 min
End Time: 8.71 min

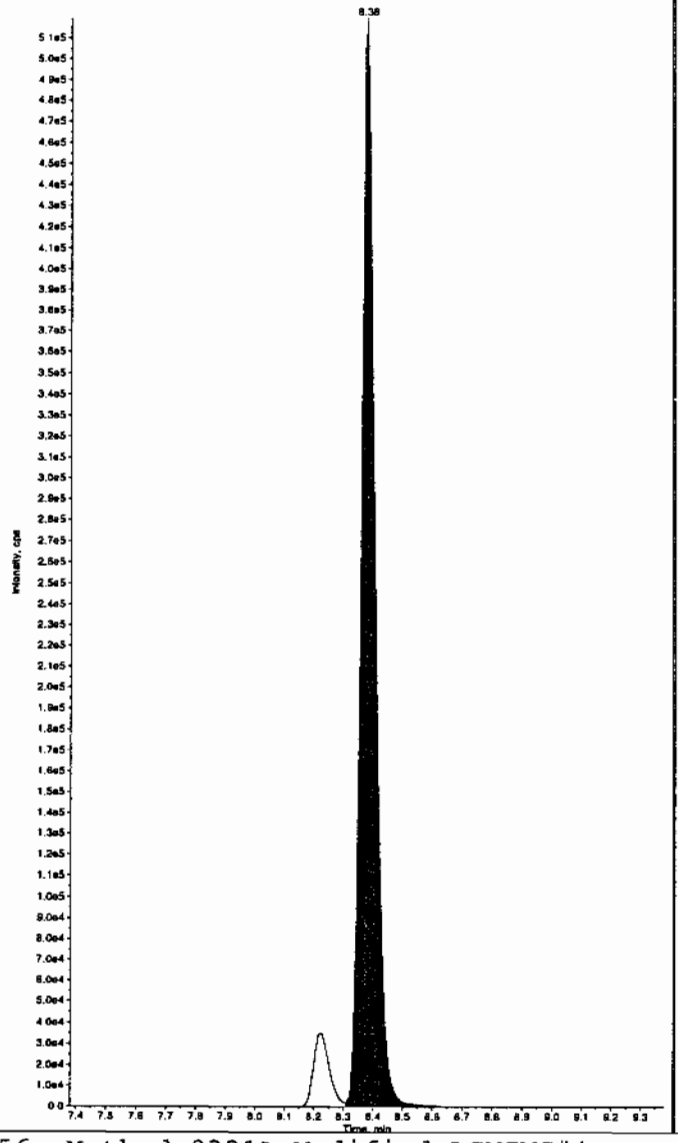

Sample Name: "WXX100224-26CCV" Sample ID: "[1]LER" File: "EXS02240031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 468. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:49:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.01 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 5.50e+005 counts
Height: 136580.093 cps
Start Time: 4.92 min
End Time: 5.31 min

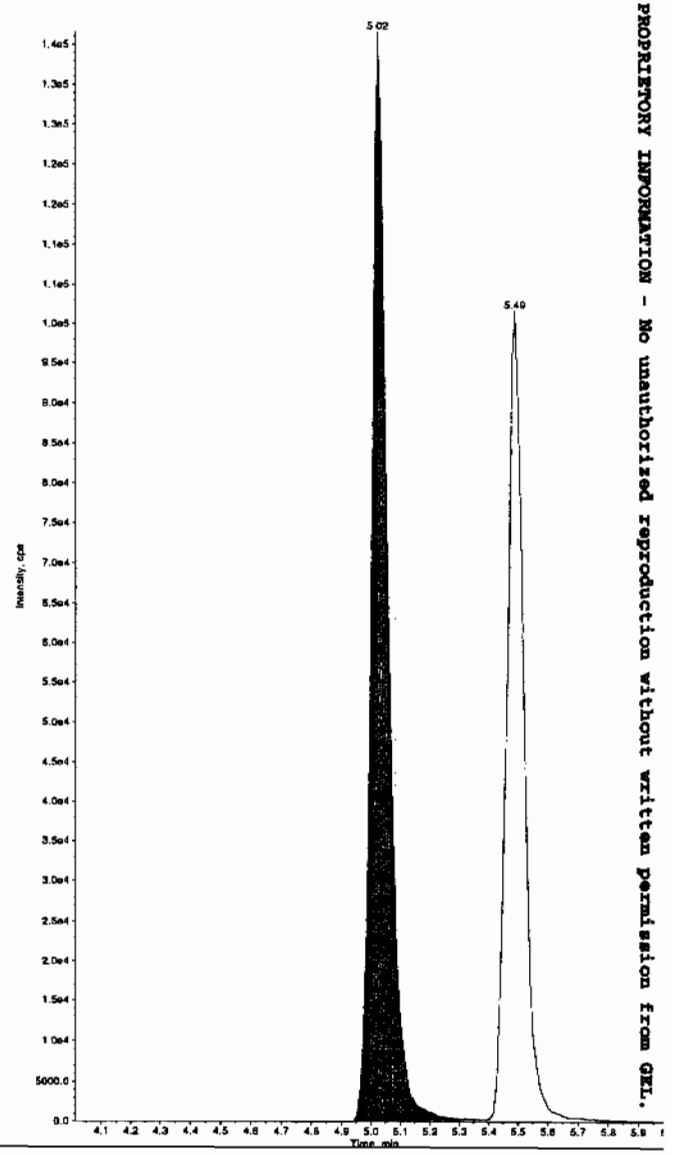

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100224-26CCV" Sample ID: "|1|LER" File: "EXS02240031.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 479. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:49:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.47 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 4.13e+005 counts
Height: 101664.902 cps
Start Time: 5.38 min
End Time: 5.98 min

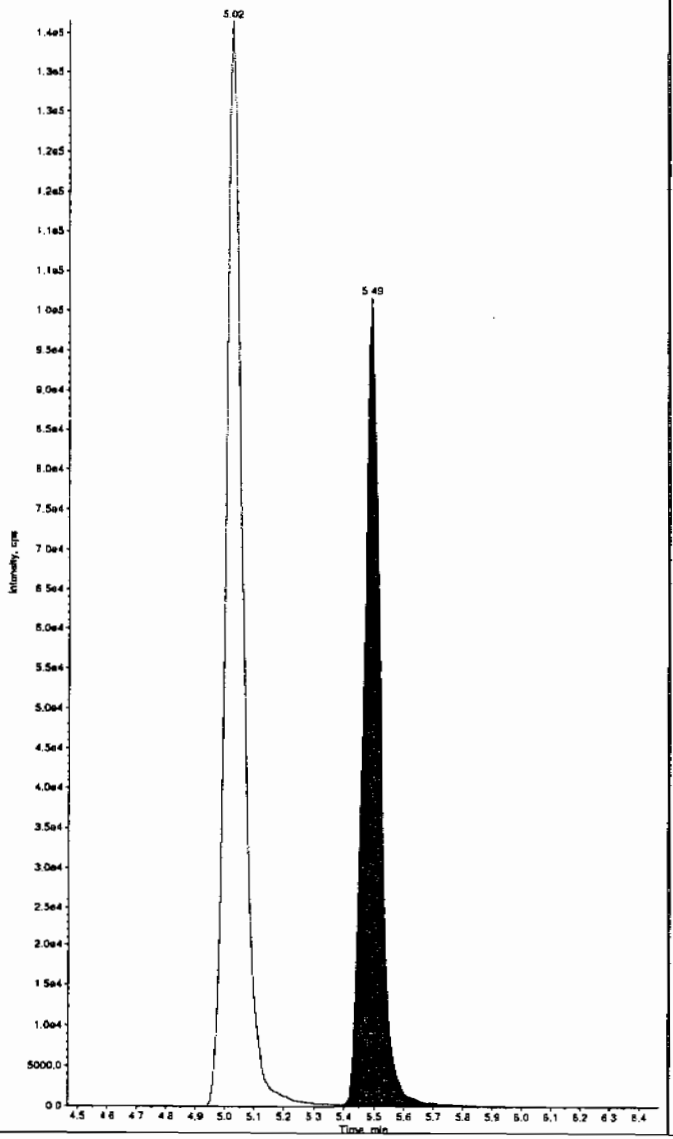

Sample Name: "WXX100224-26CCV" Sample ID: "|1|LER" File: "EXS02240031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 5:49:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.05e+006 counts
Height: 1584779.907 cps
Start Time: 10.8 min
End Time: 11.2 min

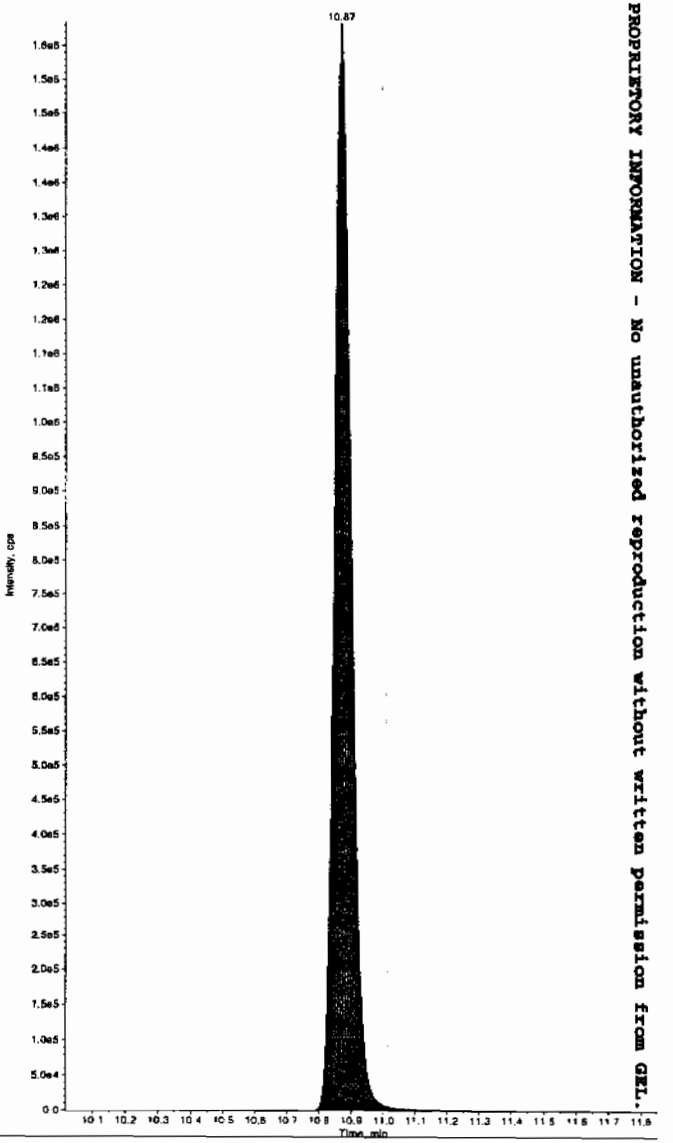

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1514

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02240033.wiff

Analysis Date: 24-FEB-10 18:21

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	53.1	106	
3,5-Dinitroaniline	100	104	104	
TATB	100	110	110	
tris(o-cresyl) phosphate	100	101	101	
2,4-Diamino-6-nitrotoluene	100	110	110	
2,6-Diamino-4-nitrotoluene	100	110	110	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Clar 2/25/10

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240033.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 109. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:21:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.02e+005 counts
Height: 26617.056 cps
Start Time: 6.90 min
End Time: 7.33 min

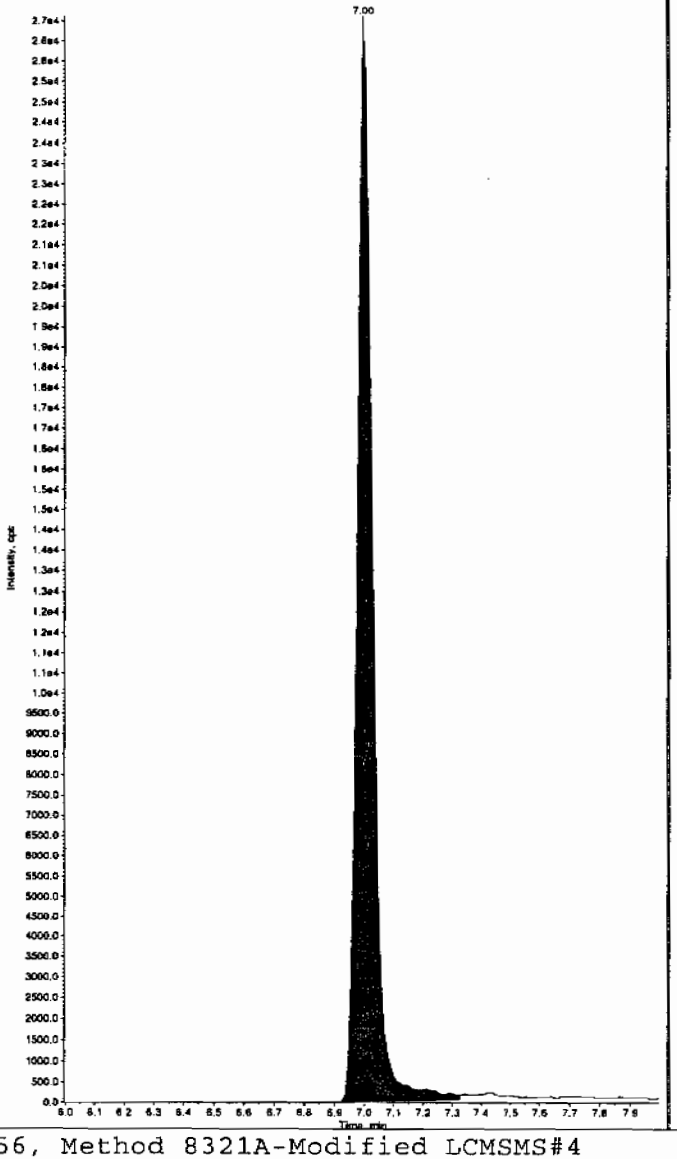

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240033.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:21:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 5.28e+005 counts
Height: 141831.085 cps
Start Time: 8.14 min
End Time: 8.34 min

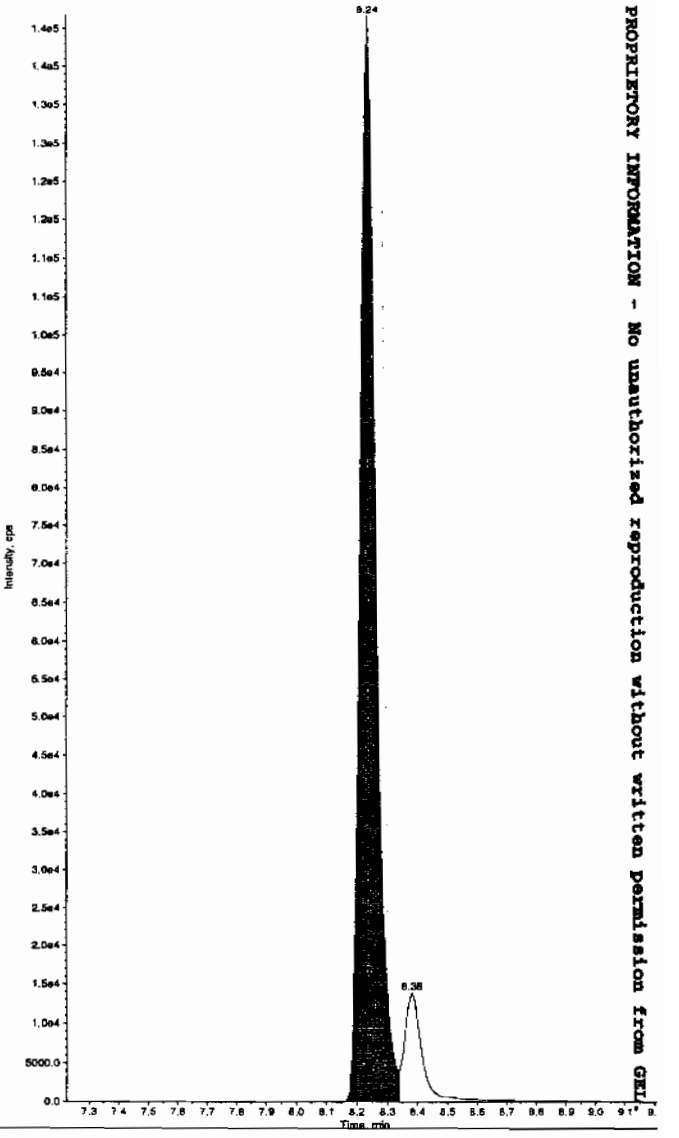

Hmc 02/25/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100224-27CRI" Sample ID: "|1|LER" File: "EXS02240033.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 53.1 ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:21:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.38 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 3.63e+005 counts
Height: 107514.549 cps
Start Time: 8.31 min
End Time: 8.63 min

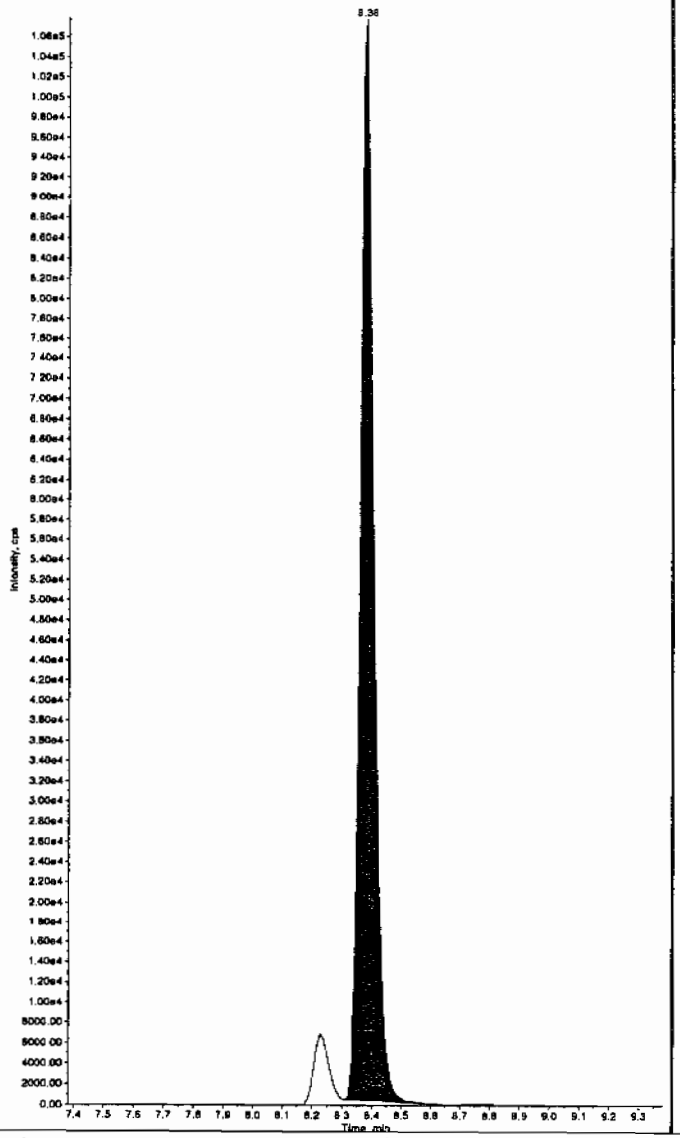

Sample Name: "WXX100224-27CRI" Sample ID: "|1|LER" File: "EXS02240033.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:21:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.01 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.27e+005 counts
Height: 27035.538 cps
Start Time: 4.92 min
End Time: 5.33 min

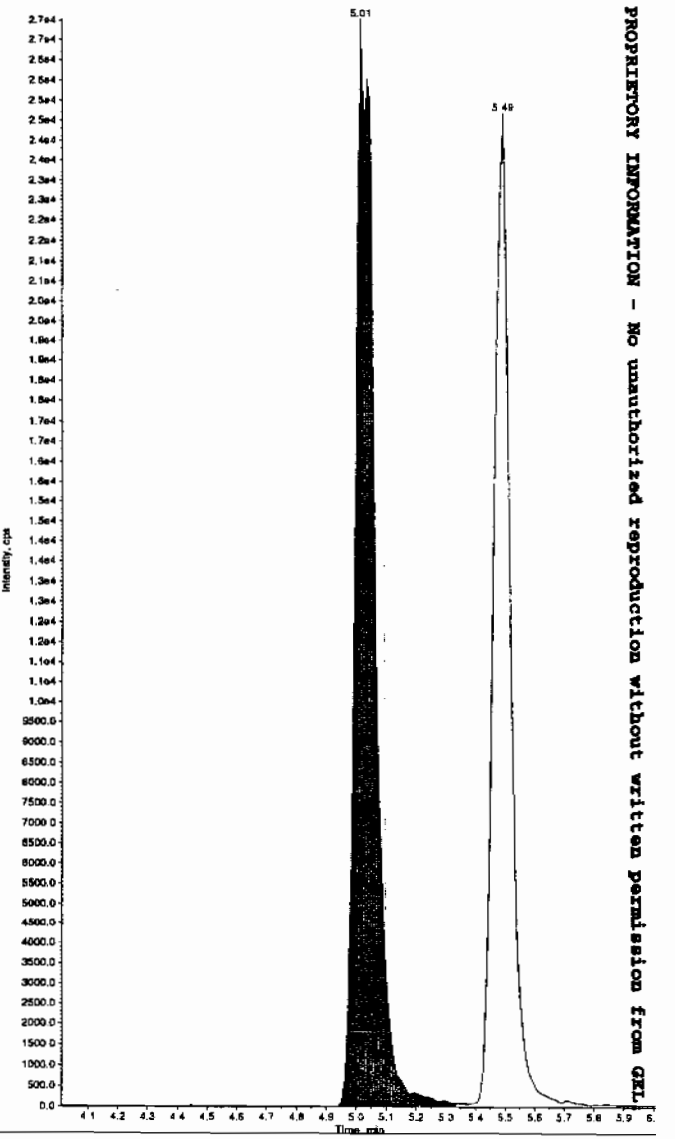

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240033.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:21:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.47 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 9.81e+004 counts
Height: 24663.464 cps
Start Time: 5.37 min
End Time: 5.79 min

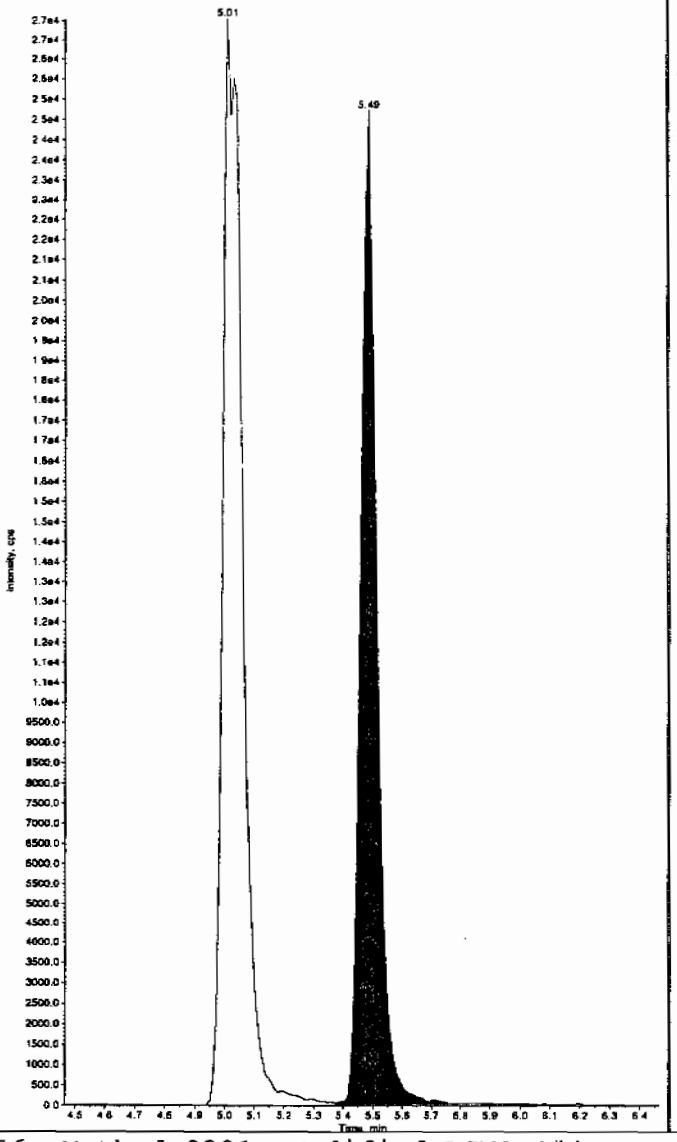

Sample Name: "WXX100224-27CRI" Sample ID: "[1]LER" File: "EXS02240033.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/24/2010
Acq. Time: 6:21:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.30e+006 counts
Height: 356035.400 cps
Start Time: 10.8 min
End Time: 11.2 min

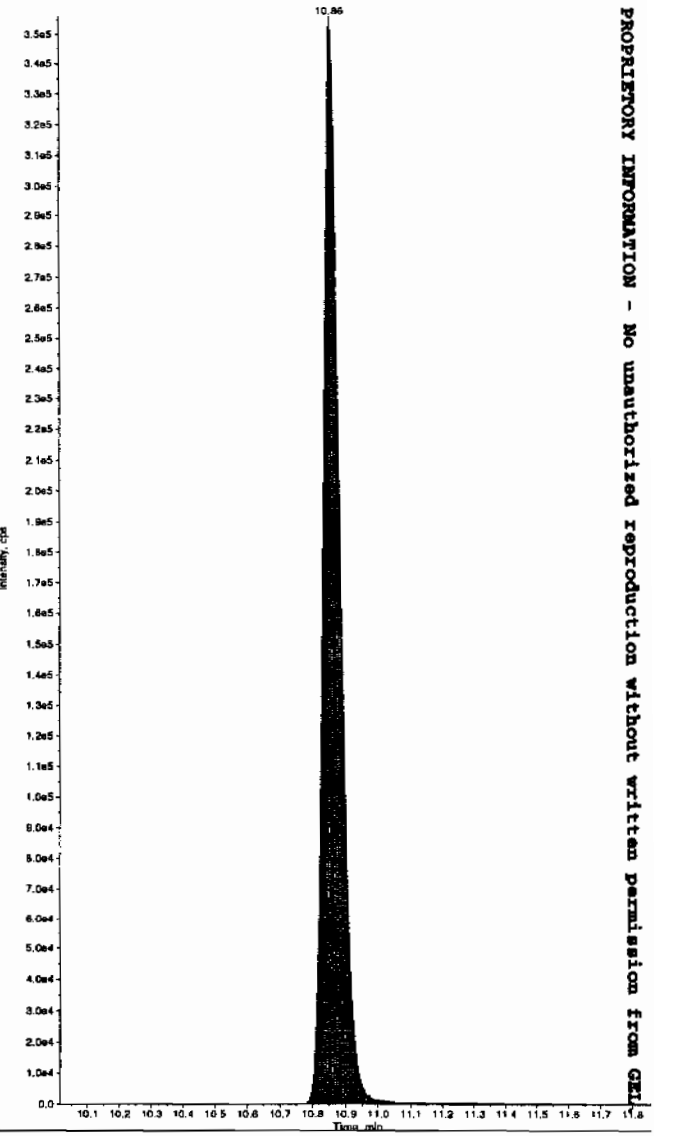

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948576

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 1202032105

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301046a

Date Analyzed: 02-MAR-10 13:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301046a
Date: 02-Mar-2010
Time: 13:47:39
ID: 1202032105 | LANDL | 948577 | Solids | MB | 2 |
Vial: 2:5,A

MM 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.241e+003

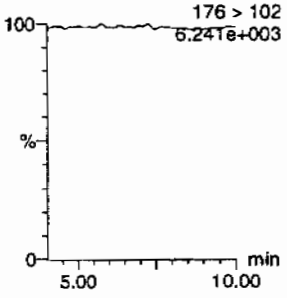

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.241e+003

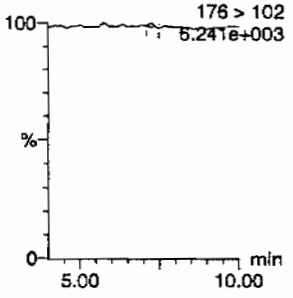

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.106e+003

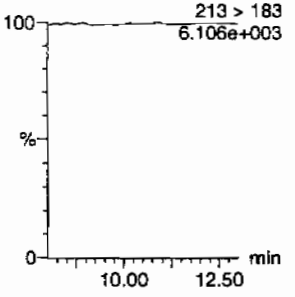

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.450e+004

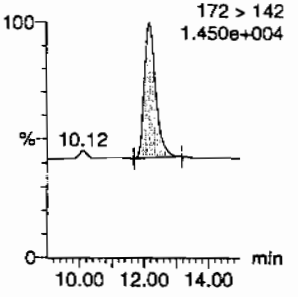

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.097e+003

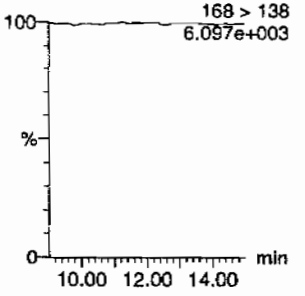

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.130e+003

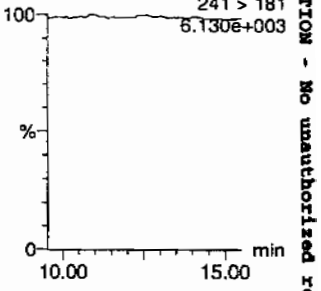

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.111e+003

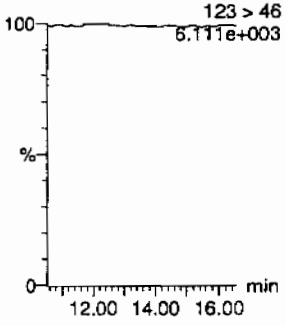

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.144e+003

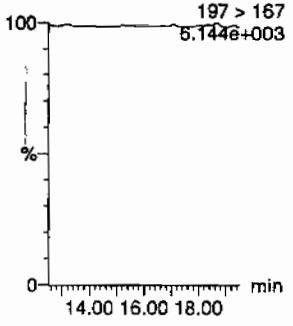

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.120e+003

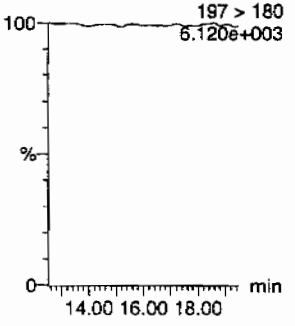

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.083e+003

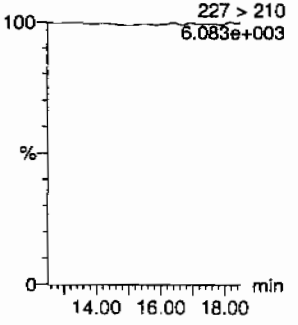

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.384e+004

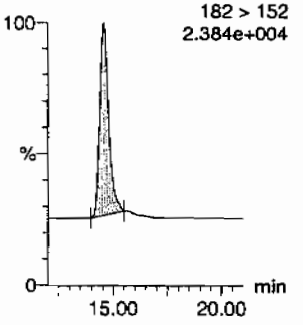

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.384e+004

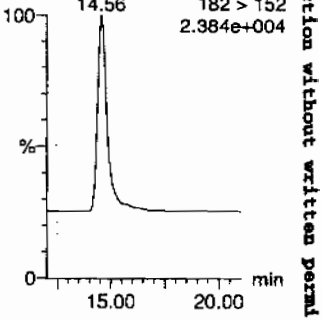

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

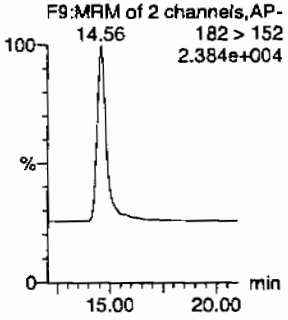

26-dinitrotoluene-d3

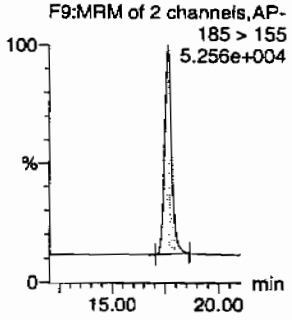

2-Nitrotoluene

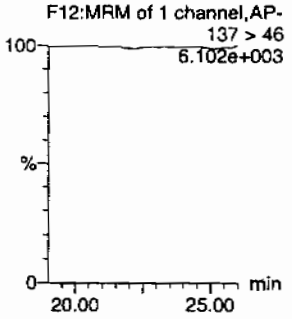

4-Nitrotoluene

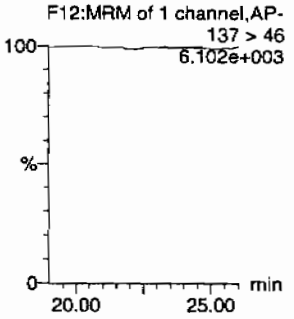

3-Nitrotoluene

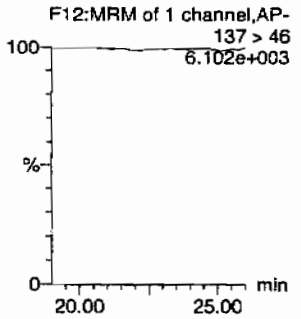

PETN

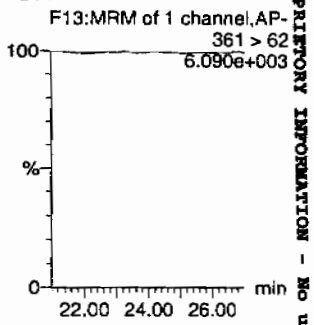

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032105	HMX	176 > 102			3512.808									
1202032105	RDX	176 > 102			3512.808			MM-	03-Mar-10	08:42:39				
1202032105	135-Trinitrobenzene	213 > 183			3512.808									
1202032105	13-Dinitrobenzene-d4	172 > 142	12.17	3512.808		3512.808	3512.808	bb			606.0586	121.2	21.2	298.0
1202032105	13-Dinitrobenzene	168 > 138			3512.808									
1202032105	Tetryl	241 > 181			3512.808									
1202032105	Nitrobenzene	123 > 46			3512.808									
1202032105	4-Amino-26-dinitrotoluene	197 > 167			18261.514									
1202032105	2-Amino-46-dinitrotoluene	197 > 180			18261.514									
1202032105	246-Trinitrotoluene	227 > 210			18261.514									
1202032105	34-dinitrotoluene	182 > 152	14.56	8388.849	18261.514	8388.849	229.687	bb			231.8506	92.7	-7.3	447.5
1202032105	26-dinitrotoluene	182 > 152			18261.514									
1202032105	24-dinitrotoluene	182 > 152			18261.514									
1202032105	26-dinitrotoluene-d3	185 > 155	17.64	18261.514		18261.514	18261.514	bb			567.6629	113.5	13.5	862.2
1202032105	2-Nitrotoluene	137 > 46			18261.514									
1202032105	4-Nitrotoluene	137 > 46			18261.514									
1202032105	3-Nitrotoluene	137 > 46			18261.514									
1202032105	PETN	361 > 62			18261.514									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948576

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 1202032105

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220044.wiff

Date Analyzed: 23-FEB-10 04:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "1202032105" Sample ID: "948577|2|LER" File: "EXS02220044.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:18:04 AM

Modified: No

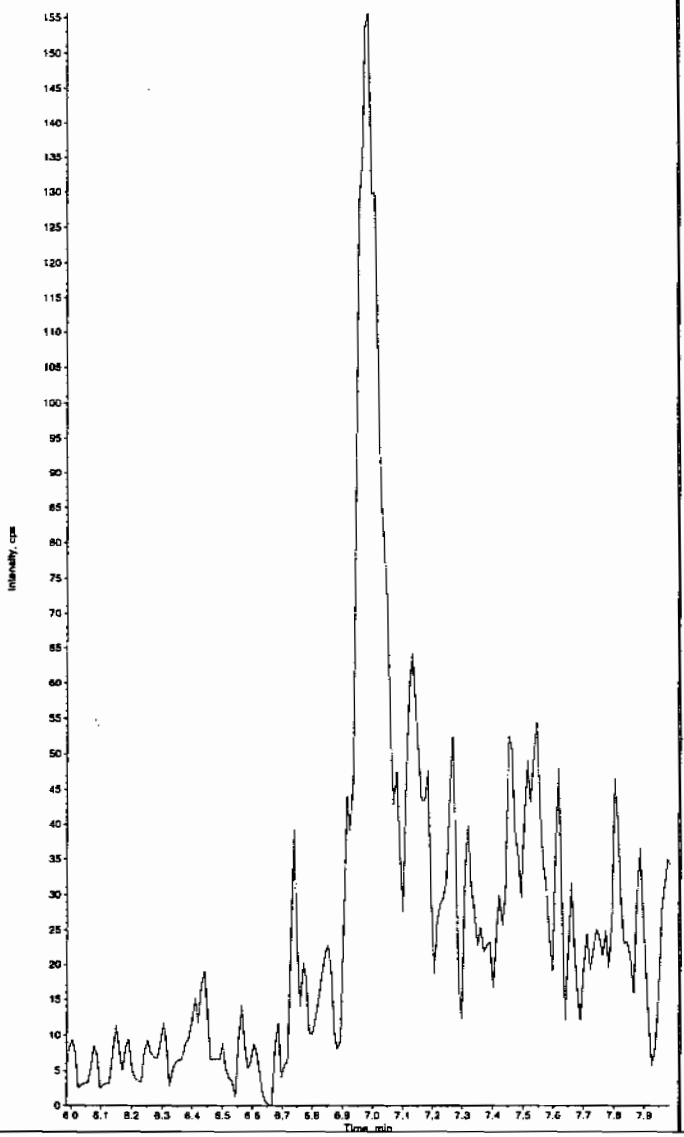

Sample Name: "1202032105" Sample ID: "948577|2|LER" File: "EXS02220044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:18:04 AM

Modified: No

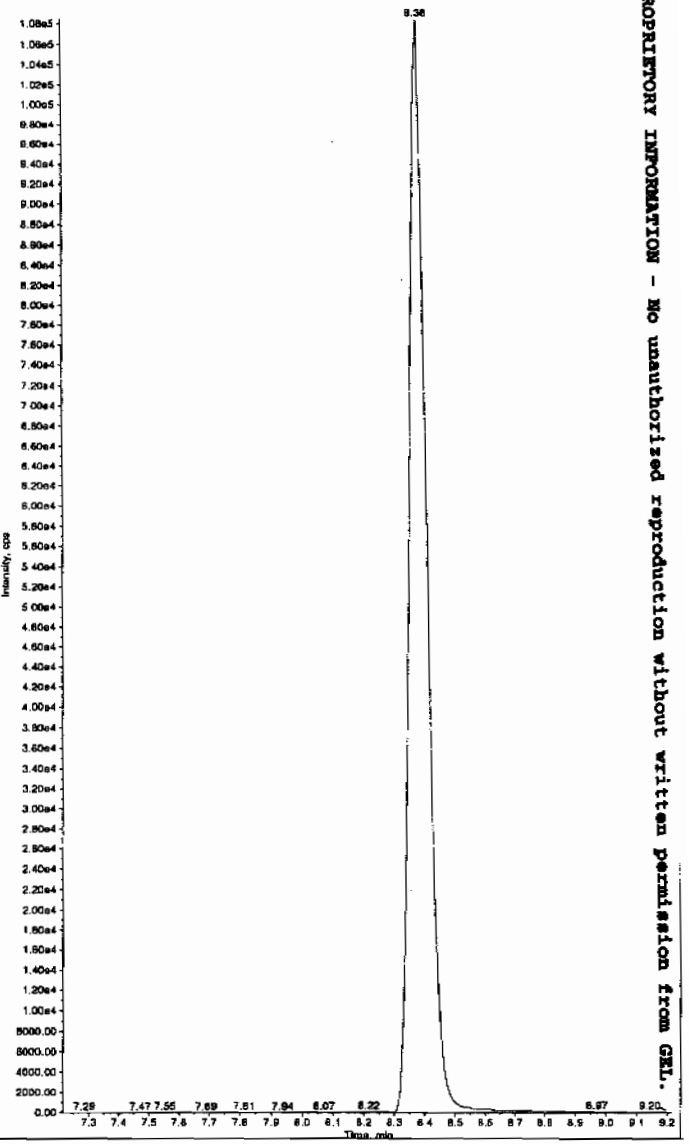

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032105" Sample ID: "948577[2]LER" File: "EXS02220044.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 320. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:18:04 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.21e+006 counts
Height: 1087066.895 cps
Start Time: 8.28 min
End Time: 8.91 min

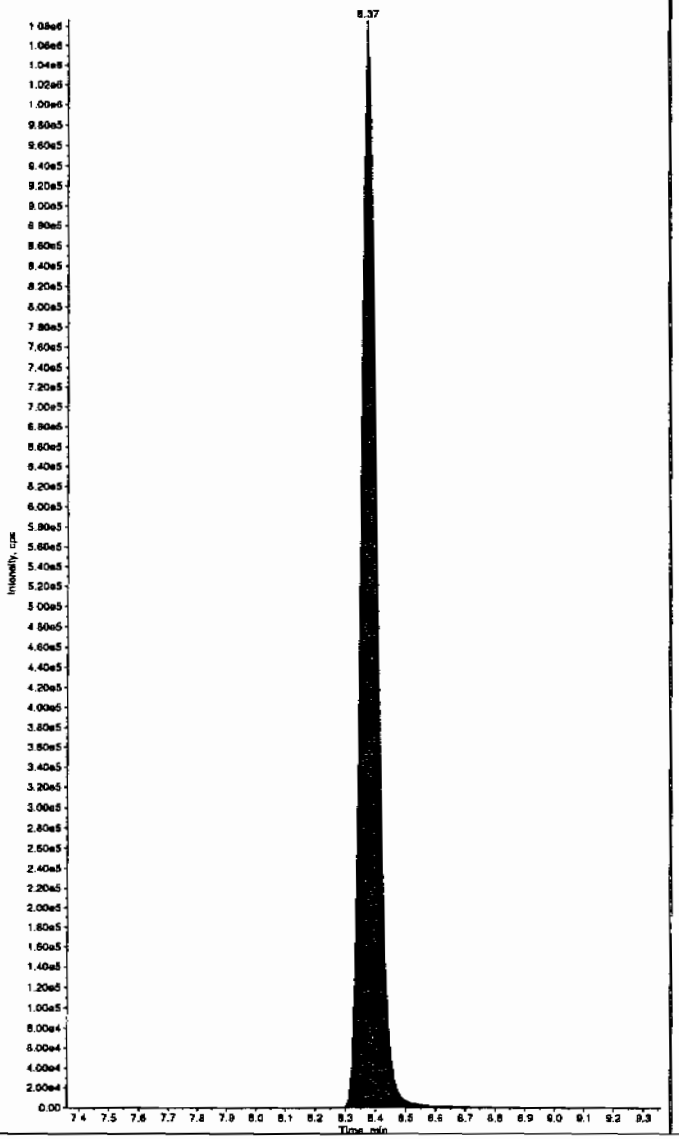

Sample Name: "1202032105" Sample ID: "948577[2]LER" File: "EXS02220044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:18:04 AM

Modified: No

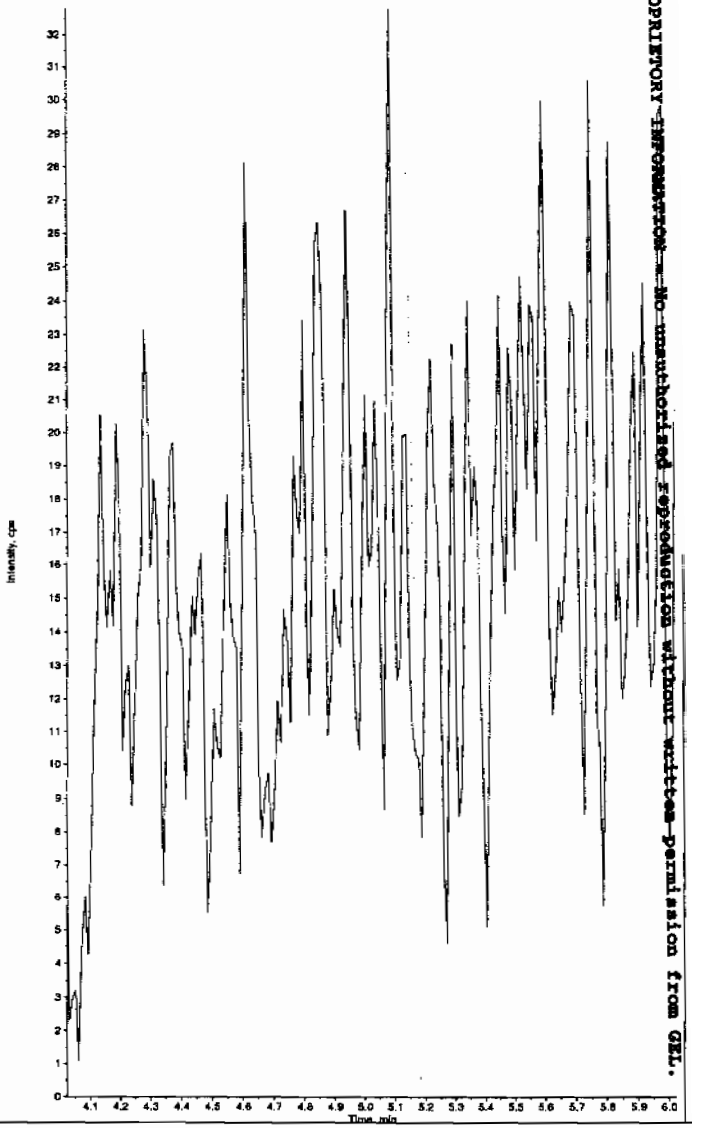

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032105" Sample ID: "948577|2|LER" File: "EXS02220044.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:18:04 AM

Modified: No

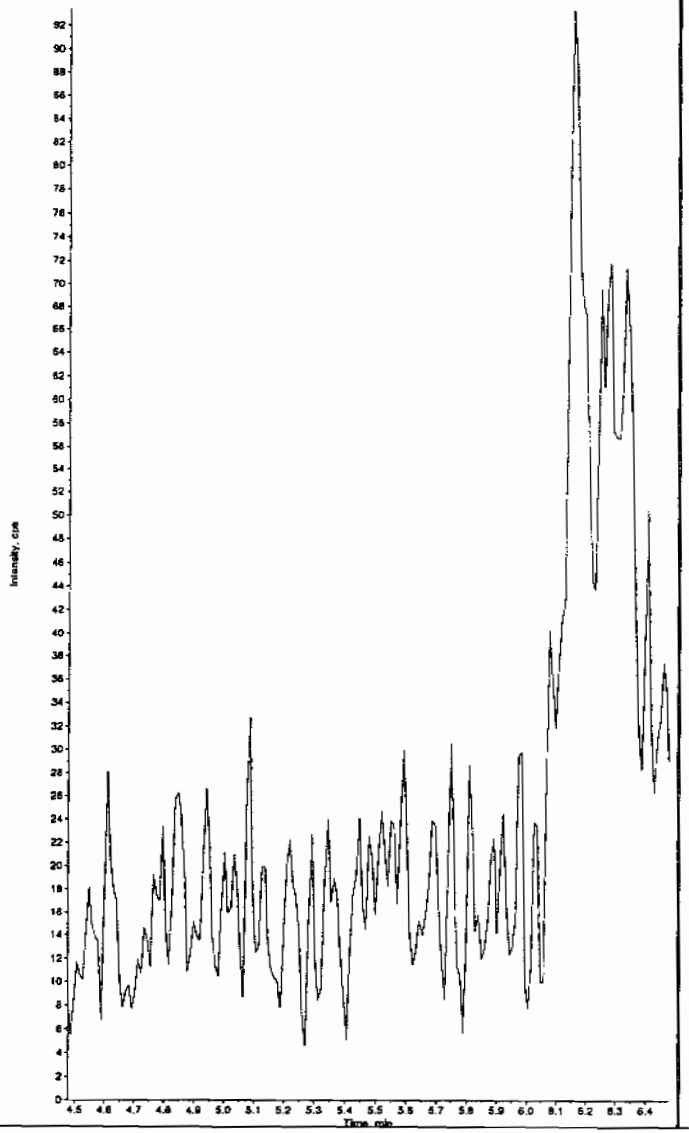

Sample Name: "1202032105" Sample ID: "948577|2|LER" File: "EXS02220044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:18:04 AM

Modified: No

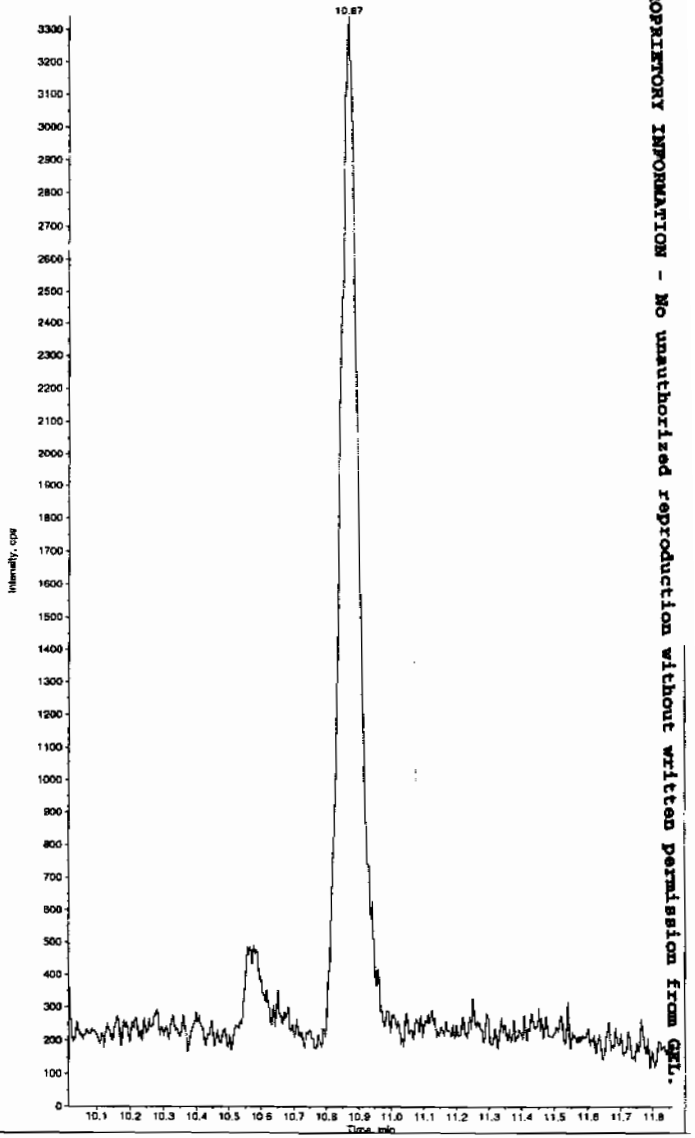

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948576

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 1202032106

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301047a

Date Analyzed: 02-MAR-10 14:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5340	
121-14-2	2,4-Dinitrotoluene	5420	
121-82-4	RDX	5030	
19406-51-0	4-Amino-2,6-dinitrotoluene	5020	
2691-41-0	HMX	4650	
35572-78-2	2-Amino-4,6-dinitrotoluene	5490	
479-45-8	Tetryl	2230	
606-20-2	2,6-Dinitrotoluene	4930	
78-11-5	PETN	4150	
88-72-2	o-Nitrotoluene	4300	
98-95-3	Nitrobenzene	4670	
99-08-1	m-Nitrotoluene	4120	
99-35-4	1,3,5-Trinitrobenzene	4400	
99-65-0	m-Dinitrobenzene	4750	
99-99-0	p-Nitrotoluene	4590	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301047a
Date: 02-Mar-2010
Time: 14:17:13
ID: 1202032106 | LANL | 948577 | Solids | LCS | 2 |
Vial: 2:5,B

MAT 3/3/10

↓ Tetryl

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.579e+004

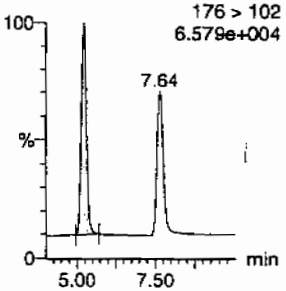

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
6.579e+004

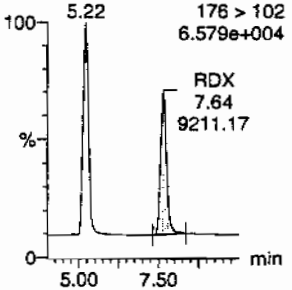

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.176e+004

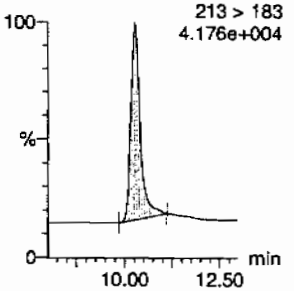

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.420e+004

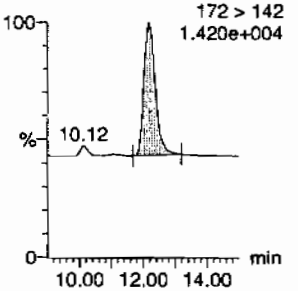

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.702e+004

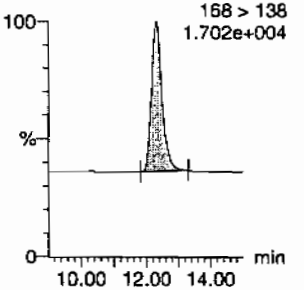

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.83
1715.59
241 > 181
1.096e+004

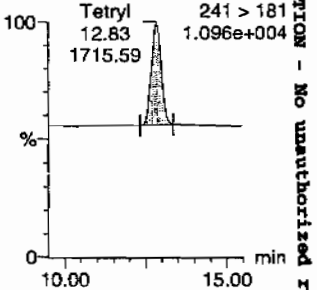

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.416e+004

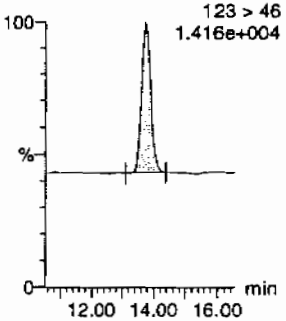

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.994e+004

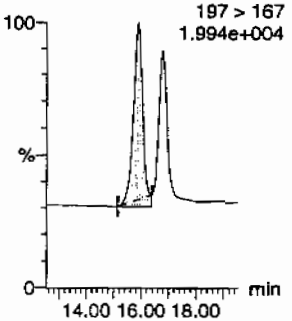

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.771e+004

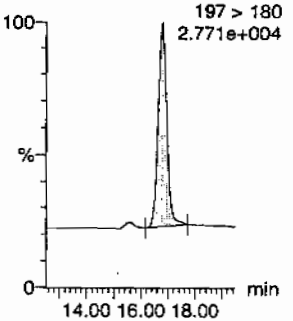

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.170e+004

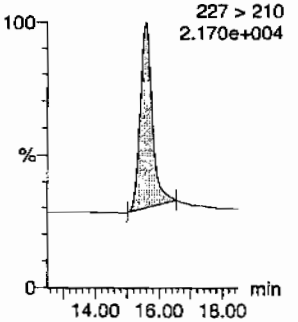

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.79
182 > 152
6.500e+004

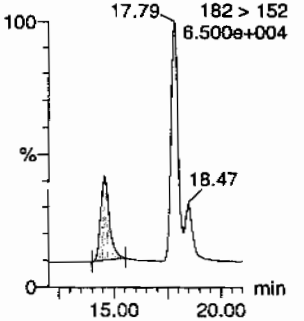

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.500e+004

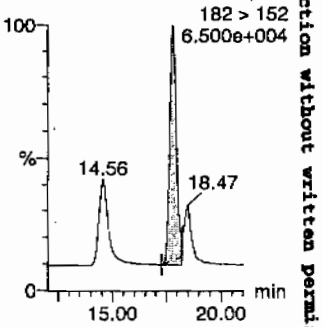

dhm 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

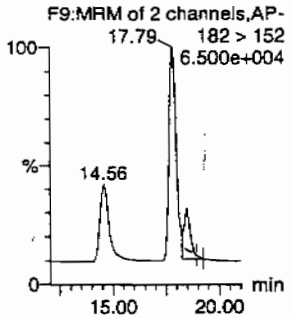

26-dinitrotoluene-d3

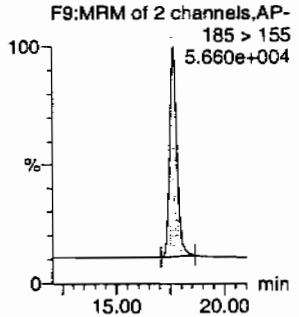

2-Nitrotoluene

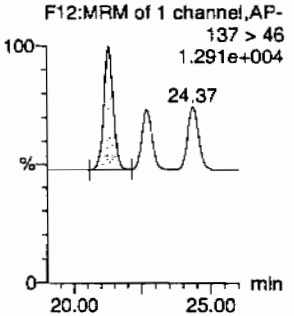

4-Nitrotoluene

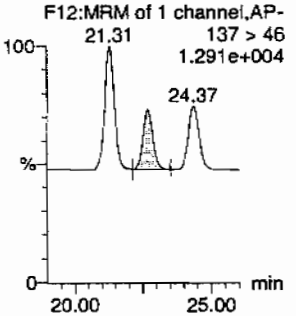

3-Nitrotoluene

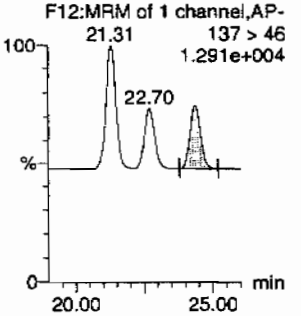

PETN

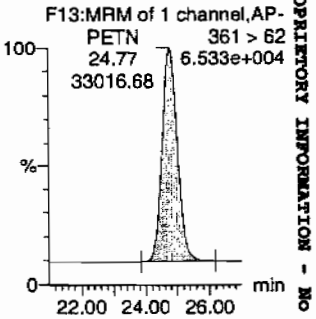

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032106	HMX	176 > 102	5.22	11820.963	3334.796	11820.963	1772.367	bb			464.6000	92.9	-7.1	1664.9
1202032106	RDX	176 > 102	7.64	9211.172	3334.796	9211.172	1381.070	bb			503.1921	100.6	0.6	1124.0
1202032106	135-Trinitrobenzene	213 > 183	10.27	10094.581	3334.796	10094.581	1513.523	bb			439.5873	87.9	-12.1	1106.5
1202032106	13-Dinitrobenzene-d4	172 > 142	12.18	3334.796		3334.796	3334.796	bb			575.3465	115.1	15.1	112.1
1202032106	13-Dinitrobenzene	168 > 138	12.32	4159.718	3334.796	4159.718	623.684	bb			475.4172	95.1	-4.9	186.1
1202032106	Tetryl	241 > 181	12.83	1715.589	3334.796	1715.589	257.225	bb			223.2607	44.7	-55.3	186.0
1202032106	Nitrobenzene	123 > 46	13.72	2769.294	3334.796	2769.294	415.212	bb			467.0906	93.4	-6.6	267.6
1202032106	4-Amino-26-dinitrotoluene	197 > 167	15.86	5648.021	19940.838	5648.021	141.619	MM	03-Mar-10	08:45:34	501.7179	100.3	0.3	339.4
1202032106	2-Amino-46-dinitrotoluene	197 > 180	16.78	8253.852	19940.838	8253.852	206.959	bb			548.9333	109.8	9.8	1159.8
1202032106	246-Trinitrotoluene	227 > 210	15.58	6712.454	19940.838	6712.454	168.309	bb			534.0097	106.8	6.8	193.0
1202032106	34-dinitrotoluene	182 > 152	14.56	9877.526	19940.838	9877.526	247.671	bb			250.0043	100.0	0.0	396.5
1202032106	26-dinitrotoluene	182 > 152	17.79	22187.010	19940.838	22187.010	556.321	MM	03-Mar-10	08:56:26	493.0887	98.6	-1.4	1115.6
1202032106	24-dinitrotoluene	182 > 152	18.47	5432.706	19940.838	5432.706	136.221	MM	03-Mar-10	08:57:22	541.5450	108.3	8.3	262.3
1202032106	26-dinitrotoluene-d3	185 > 155	17.64	19940.838		19940.838	19940.838	bb			619.8651	124.0	24.0	2010.2
1202032106	2-Nitrotoluene	137 > 46	21.31	2847.084	19940.838	2847.084	71.388	bb			430.3550	86.1	-13.9	346.9
1202032106	4-Nitrotoluene	137 > 46	22.70	1450.649	19940.838	1450.649	36.374	bb			458.9777	91.8	-8.2	171.2
1202032106	3-Nitrotoluene	137 > 46	24.37	1612.349	19940.838	1612.349	40.428	bb			411.6378	82.3	-17.7	179.8
1202032106	PETN	361 > 62	24.77	33016.684	19940.838	33016.684	827.866	bb			415.2816	83.1	-16.9	3514.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948576

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 1202032106

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220045.wiff

Date Analyzed: 23-FEB-10 04:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5650	
59229-75-3	2,6-Diamino-4-nitrotoluene	7050	
618-87-1	3,5-Dinitroaniline	5250	
6629-29-4	2,4-Diamino-6-nitrotoluene	5570	
78-30-8	tris(o-cresyl) phosphate	5100	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Clean 2/23/10

Sample Name: "1202032106" Sample ID: "948577|2|LER" File: "EXS02220045.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 565. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:33:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.07e+006 counts
Height: 239901.215 cps
Start Time: 6.88 min
End Time: 7.70 min

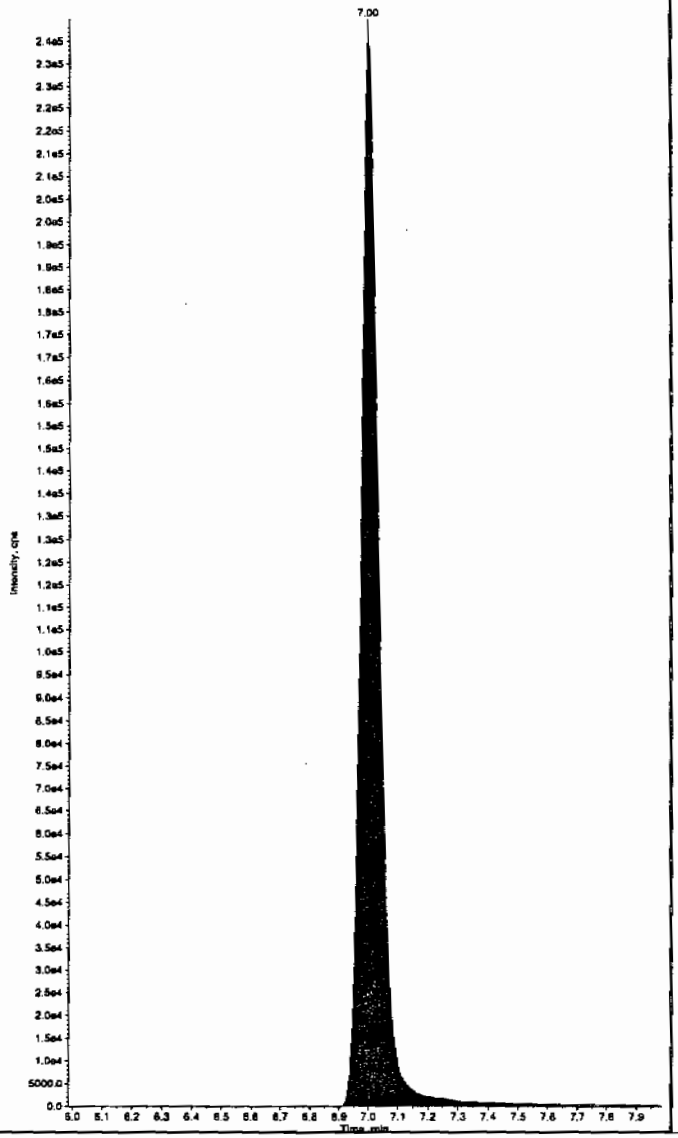

Sample Name: "1202032106" Sample ID: "948577|2|LER" File: "EXS02220045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 508. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:33:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.70e+006 counts
Height: 983396.973 cps
Start Time: 8.15 min
End Time: 8.33 min

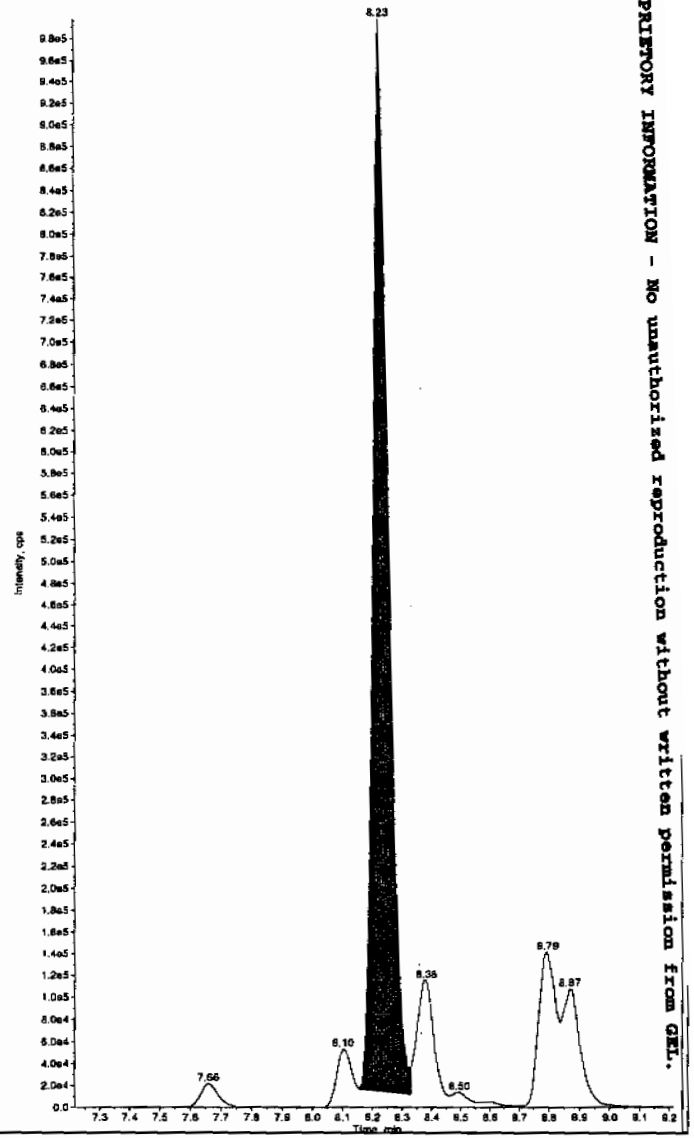

#1 11:02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Scan 2/23/10

Sample Name: "1202032106" Sample ID: "948577|2|LER" File: "EXS02220045.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 565. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:33:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.07e+006 counts
Height: 239901.215 cps
Start Time: 6.88 min
End Time: 7.70 min

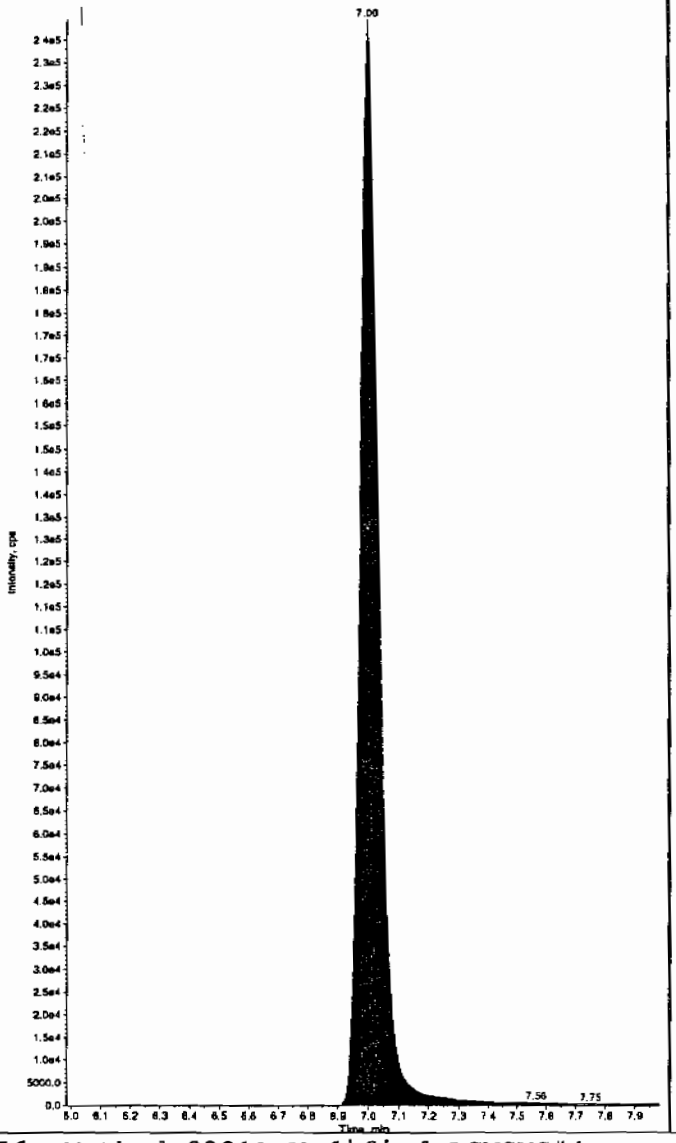

Sample Name: "1202032106" Sample ID: "948577|2|LER" File: "EXS02220045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 525. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:33:56 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.82e+006 counts
Height: 998940.479 cps
Start Time: 8.15 min
End Time: 8.33 min

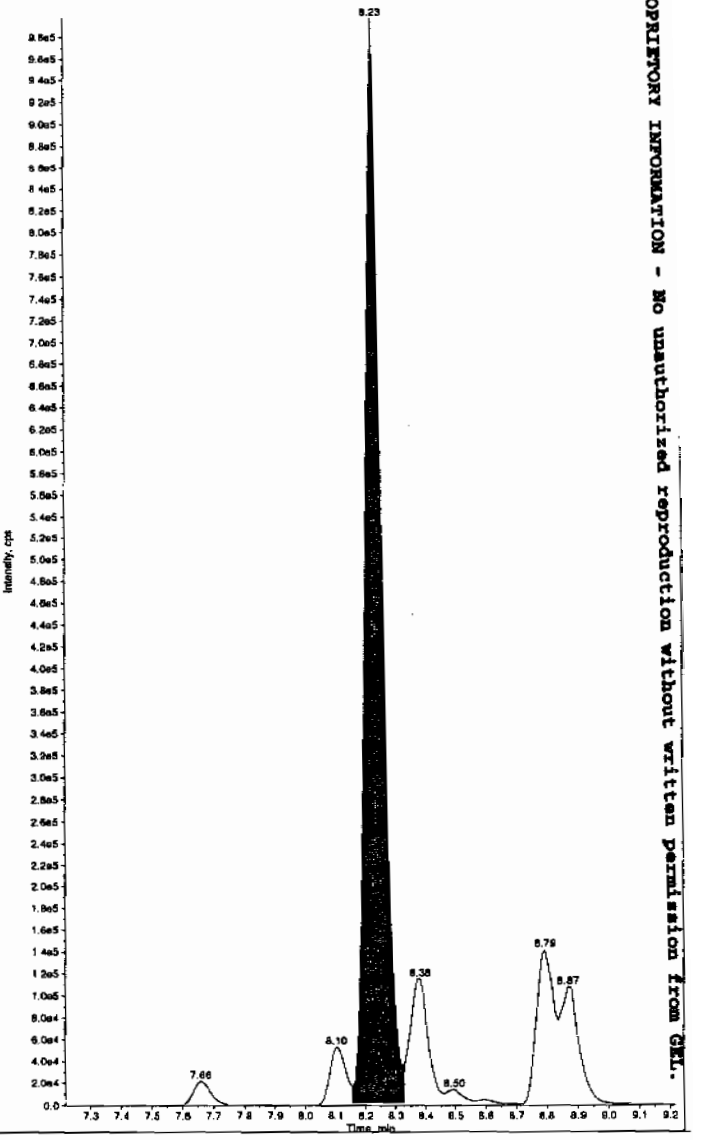

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032106" Sample ID: "948577[2]LER" File: "EXS02220045.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 314. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:33:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.13e+006 counts
Height: 1063175.781 cps
Start Time: 8.30 min
End Time: 8.59 min

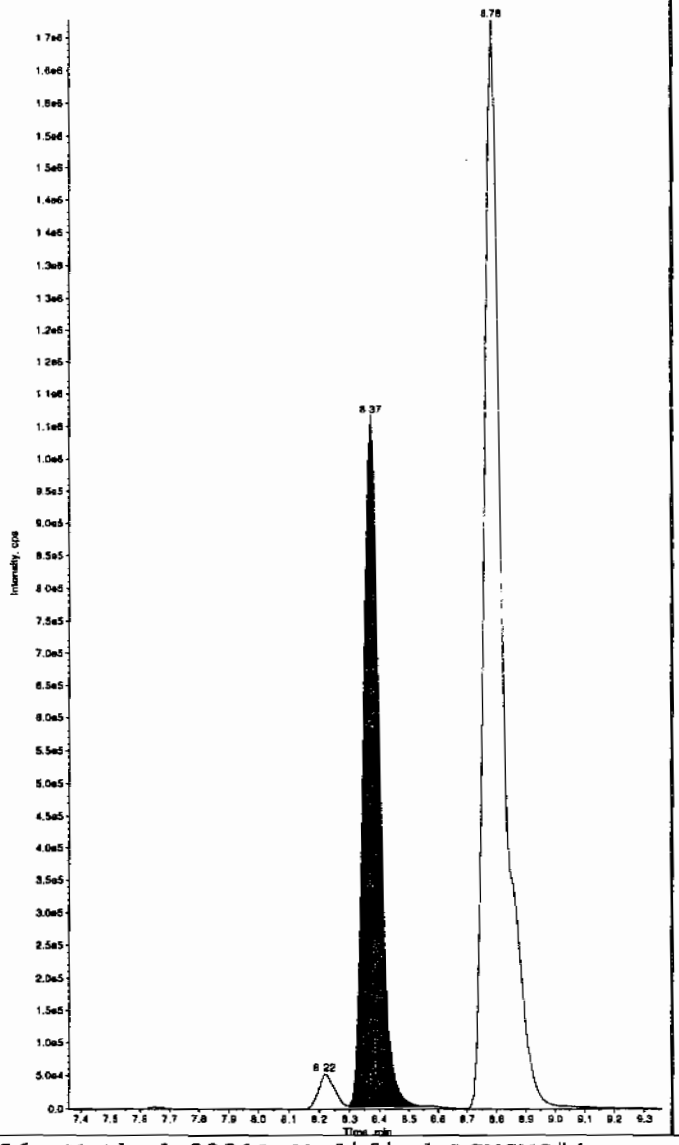

Sample Name: "1202032106" Sample ID: "948577[2]LER" File: "EXS02220045.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 705. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:33:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.34e+006 counts
Height: 328864.532 cps
Start Time: 4.93 min
End Time: 5.32 min

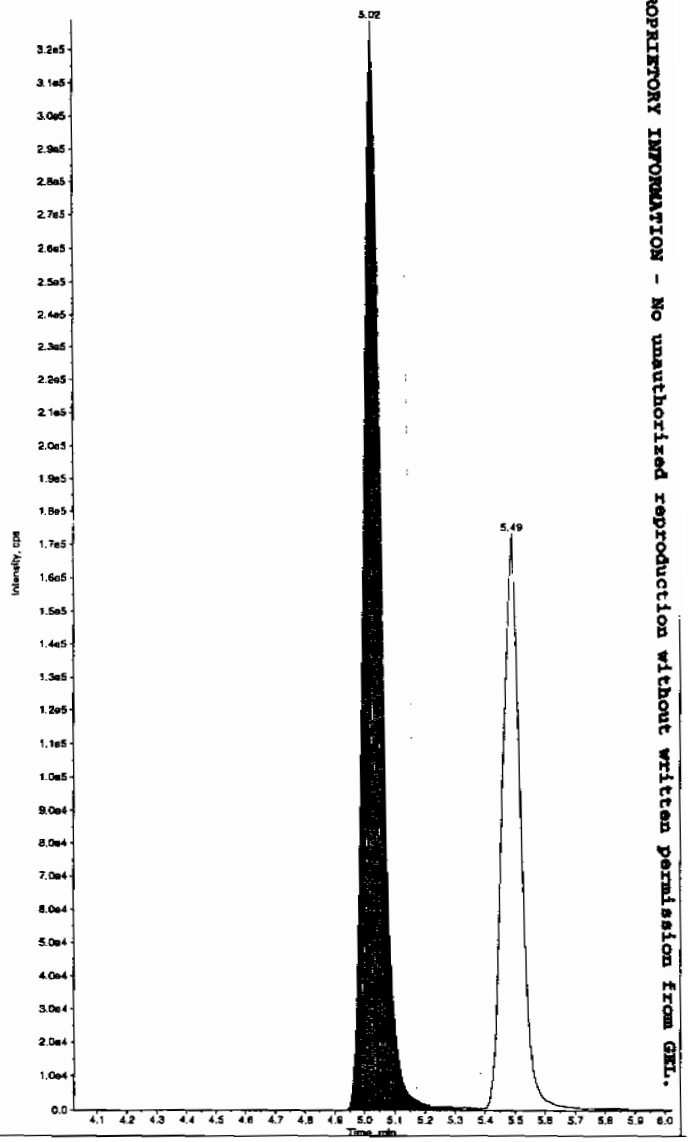

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032106" Sample ID: "948577|2|LER" File: "EXS02220045.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 557. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:33:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 6.97e+005 counts
Height: 172341.171 cps
Start Time: 5.41 min
End Time: 5.64 min

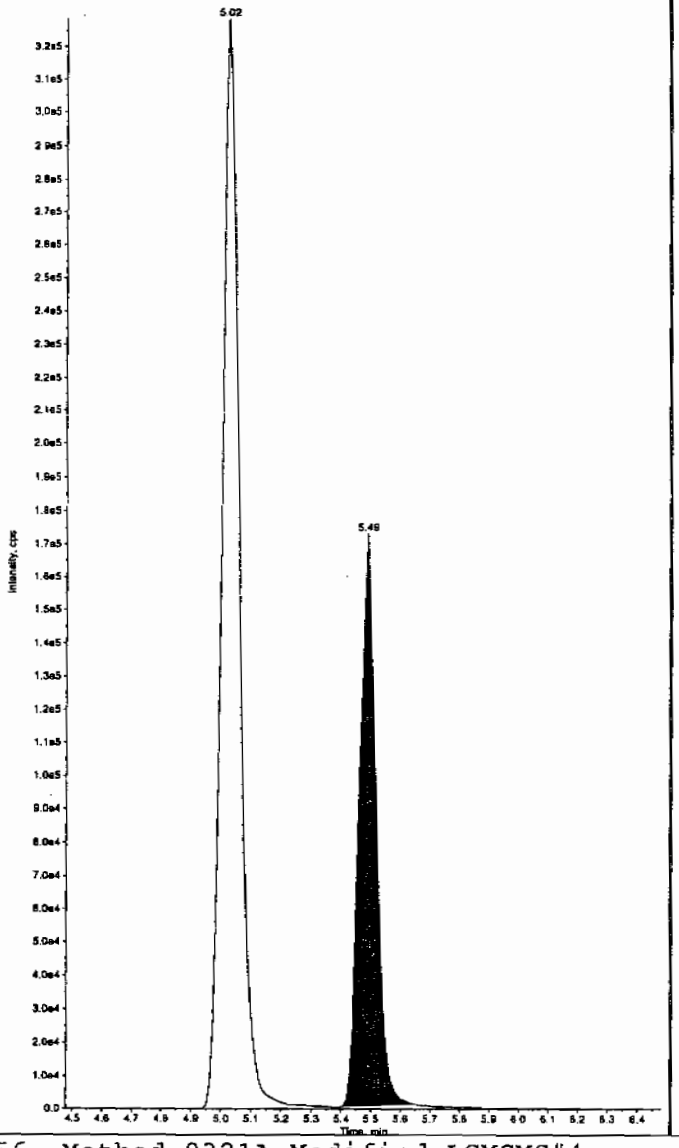

Sample Name: "1202032106" Sample ID: "948577|2|LER" File: "EXS02220045.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 510. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:33:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.02e+007 counts
Height: 2351313.965 cps
Start Time: 10.8 min
End Time: 11.2 min

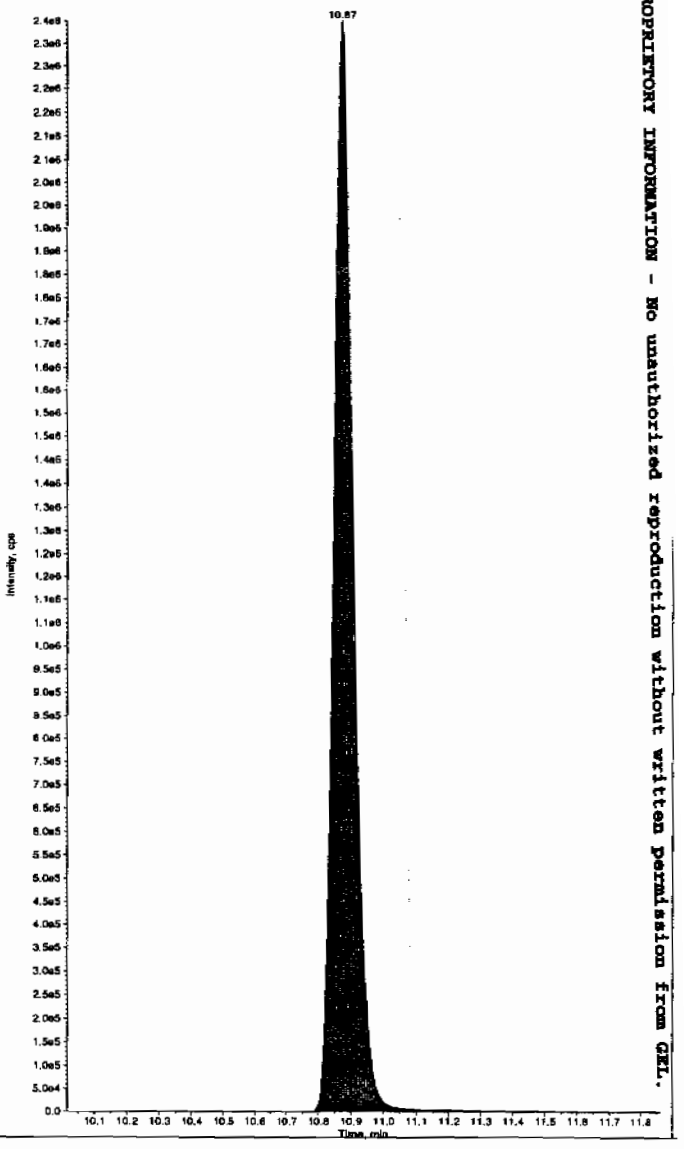

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980(245979001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 1202032107

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301049a

Date Analyzed: 02-MAR-10 15:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	6040	
121-14-2	2,4-Dinitrotoluene	5400	
121-82-4	RDX	4200	
19406-51-0	4-Amino-2,6-dinitrotoluene	5560	
2691-41-0	HMX	4410	
35572-78-2	2-Amino-4,6-dinitrotoluene	5930	
479-45-8	Tetryl	3550	
606-20-2	2,6-Dinitrotoluene	5240	
78-11-5	PETN	4680	
88-72-2	o-Nitrotoluene	4660	
98-95-3	Nitrobenzene	4390	
99-08-1	m-Nitrotoluene	4590	
99-35-4	1,3,5-Trinitrobenzene	4810	
99-65-0	m-Dinitrobenzene	4930	
99-99-0	p-Nitrotoluene	5010	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301049a
Date: 02-Mar-2010
Time: 15:16:12
ID: 1202032107 | LANL | 948577 | Solid | 245979001MS | 2 |
Vial: 2:5,D

MSH 3/3/10

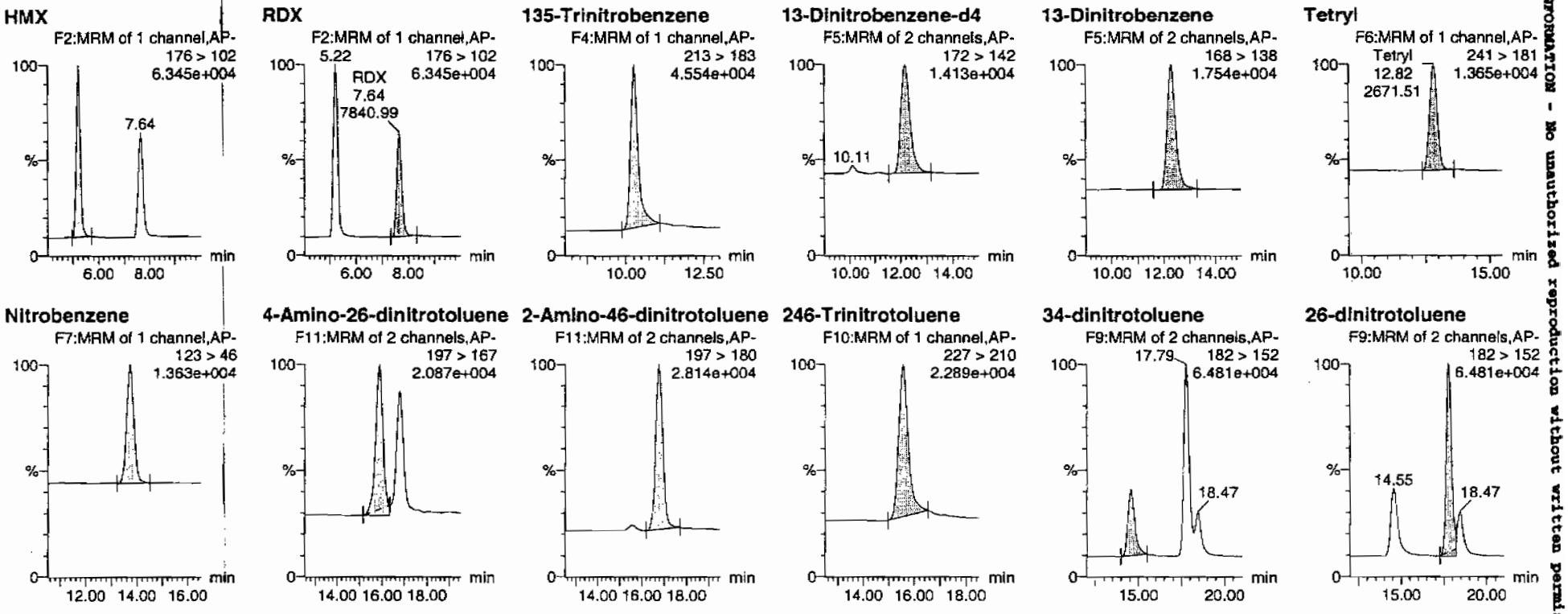

MM 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

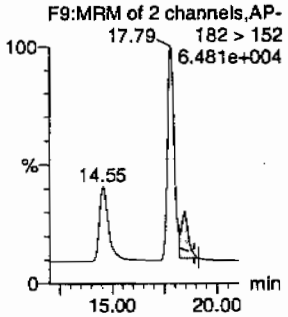

26-dinitrotoluene-d3

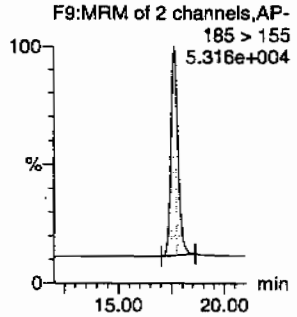

2-Nitrotoluene

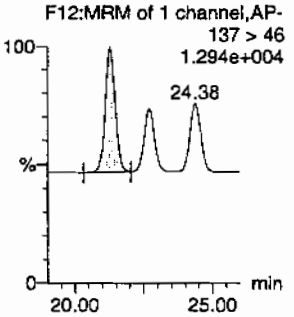

4-Nitrotoluene

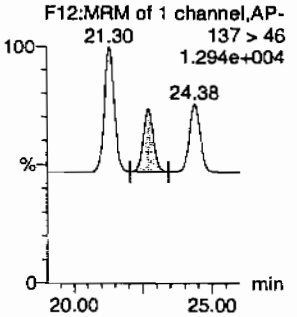

3-Nitrotoluene

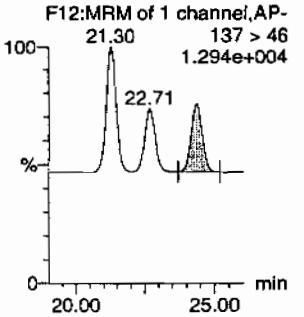

PETN

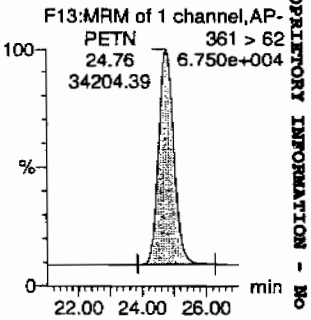

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032107	HMX	176 > 102	5.22	11457.475	3403.859	11457.475	1683.013	bb			441.1771	88.2	-11.8	971.7
1202032107	RDX	176 > 102	7.64	7840.993	3403.859	7840.993	1151.780	bb			419.6505	83.9	-16.1	587.9
1202032107	135-Trinitrobenzene	213 > 183	10.26	11278.645	3403.859	11278.645	1656.744	bb			481.1843	96.2	-3.8	422.2
1202032107	13-Dinitrobenzene-d4	172 > 142	12.17	3403.859		3403.859	3403.859	bb			587.2618	117.5	17.5	383.5
1202032107	13-Dinitrobenzene	168 > 138	12.31	4401.990	3403.859	4401.990	646.618	bb			492.8988	98.6	-1.4	310.3
1202032107	Tetryl	241 > 181	12.82	2671.509	3403.859	2671.509	392.424	bb			355.2132	71.0	-29.0	297.2
1202032107	Nitrobenzene	123 > 46	13.71	2656.004	3403.859	2656.004	390.146	bb			438.8928	87.8	-12.2	202.2
1202032107	4-Amino-26-dinitrotoluene	197 > 167	15.89	5905.417	18800.855	5905.417	157.052	MM	03-Mar-10	08:45:45	556.3905	111.3	11.3	165.4
1202032107	2-Amino-46-dinitrotoluene	197 > 180	16.78	8399.995	18800.855	8399.995	223.394	bb			592.5265	118.5	18.5	119.8
1202032107	246-Trinitrotoluene	227 > 210	15.57	7156.731	18800.855	7156.731	190.330	bb			603.8768	120.8	20.8	88.1
1202032107	34-dinitrotoluene	182 > 152	14.55	9718.135	18800.855	9718.135	258.449	bb			260.8843	104.4	4.4	676.7
1202032107	26-dinitrotoluene	182 > 152	17.79	22250.047	18800.855	22250.047	591.730	MM	03-Mar-10	08:56:11	524.4729	104.9	4.9	1966.6
1202032107	24-dinitrotoluene	182 > 152	18.47	5111.846	18800.855	5111.846	135.947	MM	03-Mar-10	08:57:35	540.4579	108.1	8.1	428.0
1202032107	26-dinitrotoluene-d3	185 > 155	17.62	18800.855		18800.855	18800.855	bb			584.4285	116.9	16.9	2745.9
1202032107	2-Nitrotoluene	137 > 46	21.30	2905.254	18800.855	2905.254	77.264	bb			465.7753	93.2	-6.8	736.9
1202032107	4-Nitrotoluene	137 > 46	22.71	1493.083	18800.855	1493.083	39.708	bb			501.0477	100.2	0.2	367.4
1202032107	3-Nitrotoluene	137 > 46	24.38	1696.149	18800.855	1696.149	45.108	bb			459.2890	91.9	-8.1	398.6
1202032107	PETN	361 > 62	24.76	34204.395	18800.855	34204.395	909.650	bb			468.2236	93.6	-6.4	6130.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980(245979001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 1202032107

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220047.wiff

Date Analyzed: 23-FEB-10 05:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5150	
59229-75-3	2,6-Diamino-4-nitrotoluene	6740	
618-87-1	3,5-Dinitroaniline	5310	
6629-29-4	2,4-Diamino-6-nitrotoluene	6800	
78-30-8	tris(o-cresyl) phosphate	5100	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Chan 2/23/10

Sample Name: "1202032107" Sample ID: "9485772|LER" File: "EXS02220047.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 515. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:05:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 9.80e+005 counts
Height: 210836.441 cps
Start Time: 6.85 min
End Time: 7.85 min

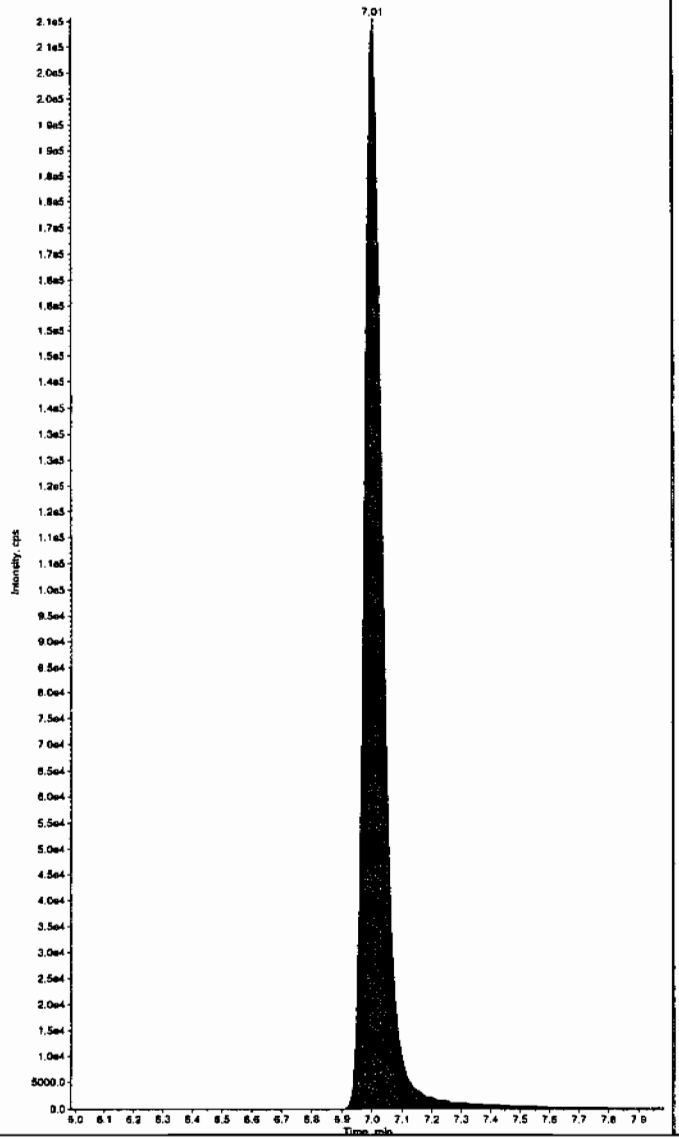

Sample Name: "1202032107" Sample ID: "9485772|LER" File: "EXS02220047.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 509. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:05:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 3.71e+006 counts
Height: 958811.523 cps
Start Time: 8.16 min
End Time: 8.33 min

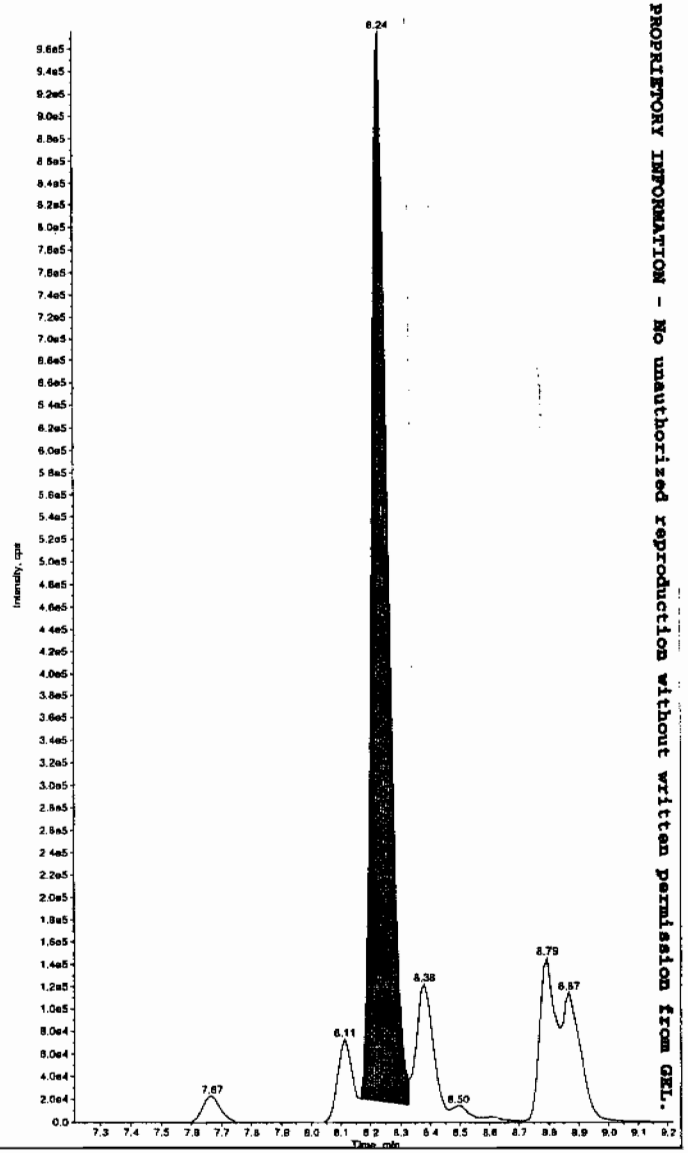

dhm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Chan 2/28/10

Sample Name: "1202032107" Sample ID: "948577|2|LER" File: "EXS02220047.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 515. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:05:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 9.80e+005 counts
Height: 210836.441 cps
Start Time: 6.85 min
End Time: 7.85 min

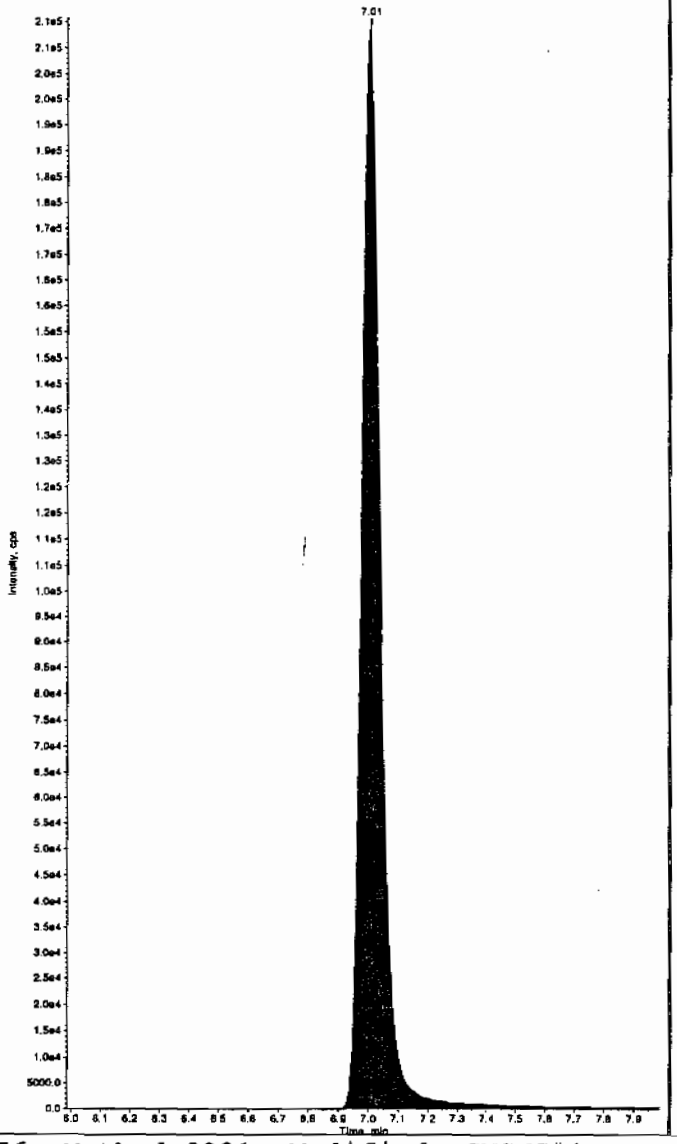

Sample Name: "1202032107" Sample ID: "948577|2|LER" File: "EXS02220047.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 531. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:05:22 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.86e+006 counts
Height: 985113.841 cps
Start Time: 8.16 min
End Time: 8.33 min

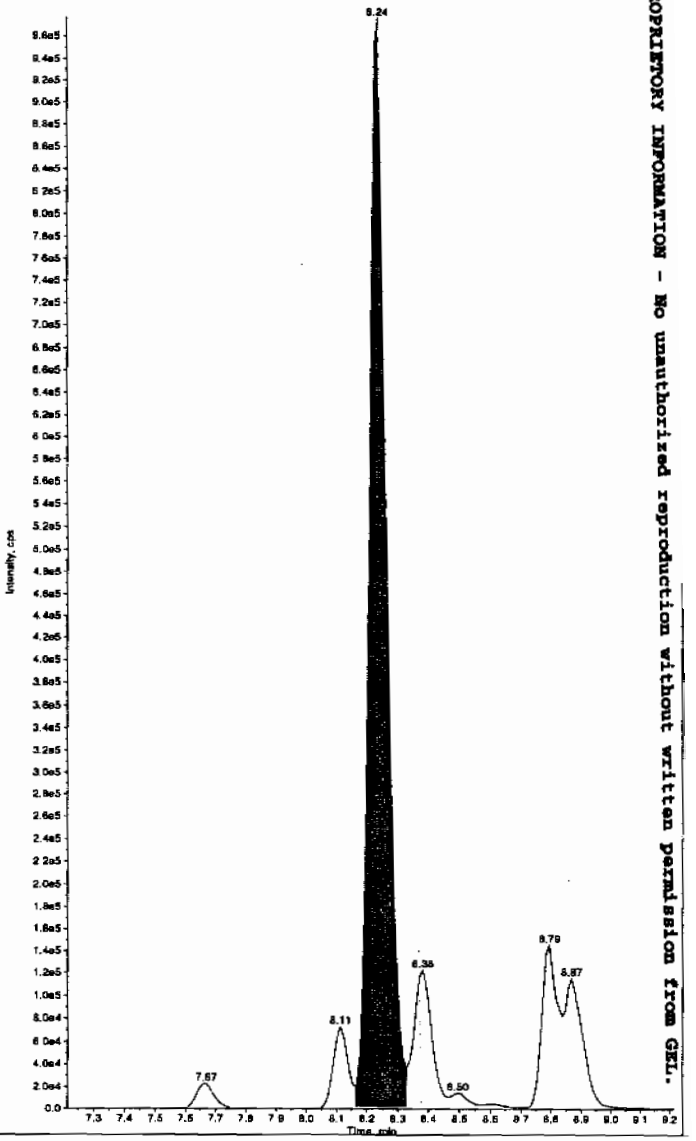

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032107" Sample ID: "948577|2|LER" File: "EXS02220047.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 309. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:05:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.07e+006 counts
Height: 1081032.349 cps
Start Time: 8.30 min
End Time: 8.58 min

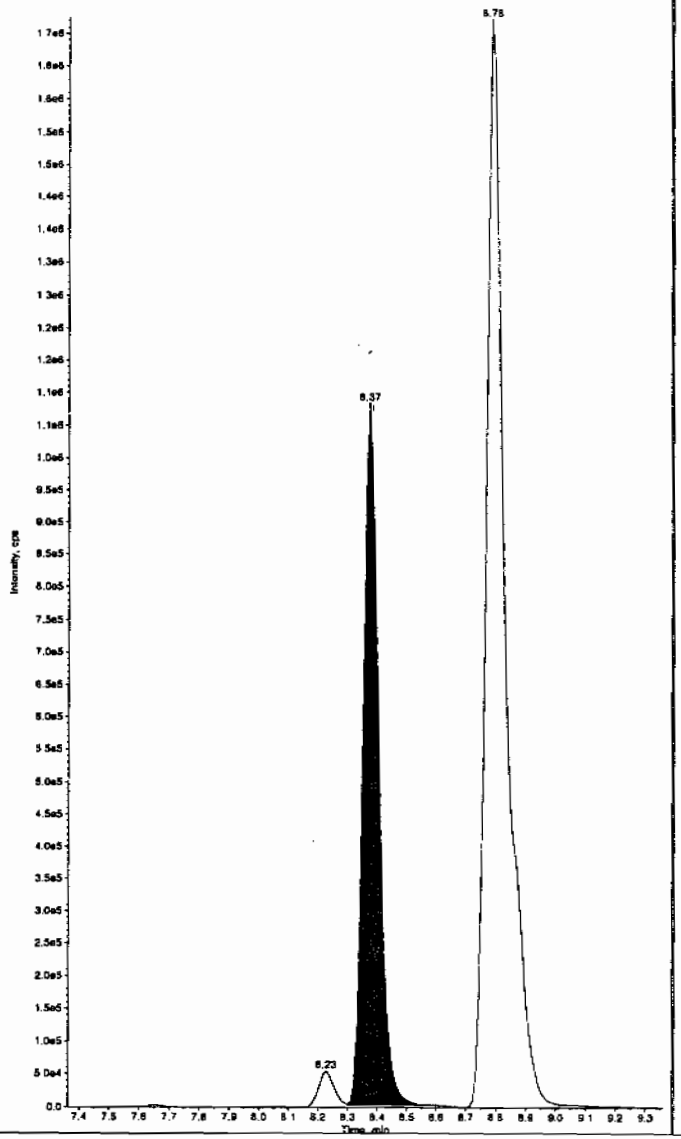

Sample Name: "1202032107" Sample ID: "948577|2|LER" File: "EXS02220047.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 674. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:05:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.28e+006 counts
Height: 297962.799 cps
Start Time: 4.92 min
End Time: 5.28 min

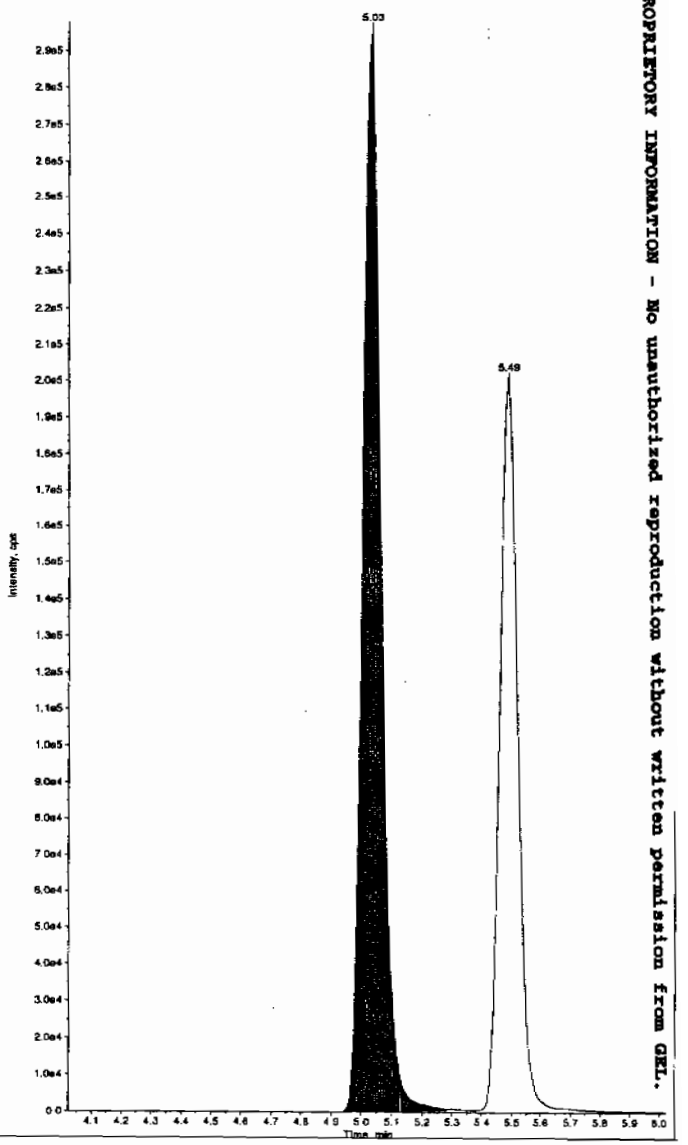

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032107" Sample ID: "948577|2|LER" File: "EXS02220047.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 680. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:05:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 8.58e+005 counts
Height: 202103.546 cps
Start Time: 5.36 min
End Time: 5.87 min

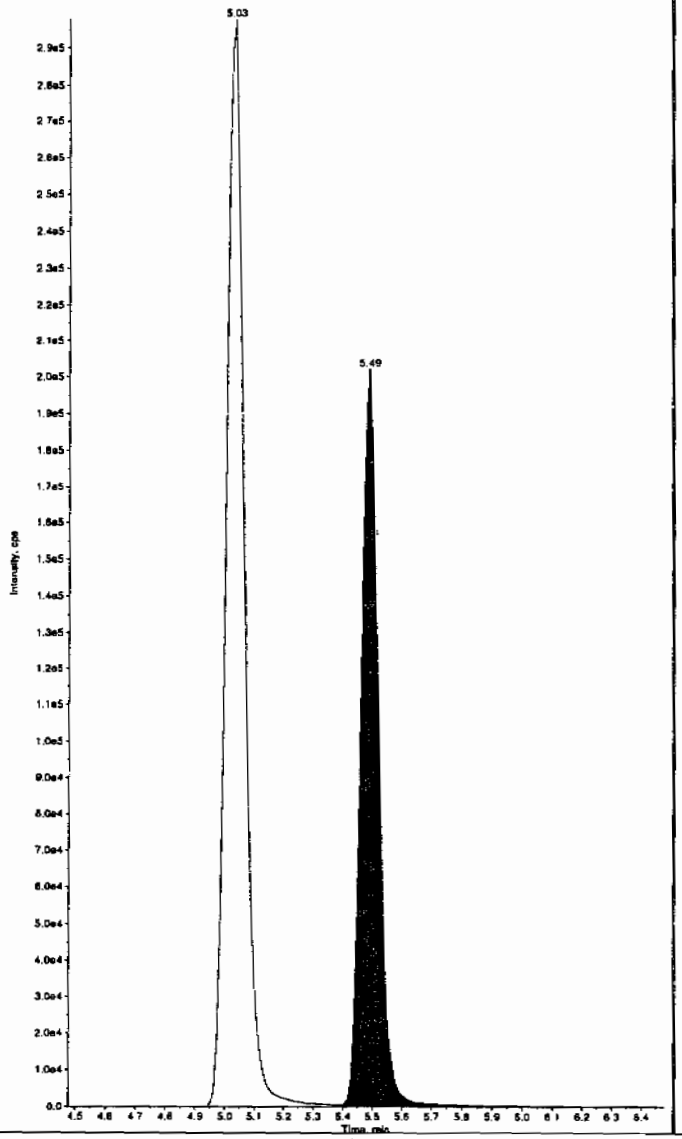

Sample Name: "1202032107" Sample ID: "948577|2|LER" File: "EXS02220047.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 510. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:05:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.02e+007 counts
Height: 2325568.604 cps
Start Time: 10.8 min
End Time: 11.2 min

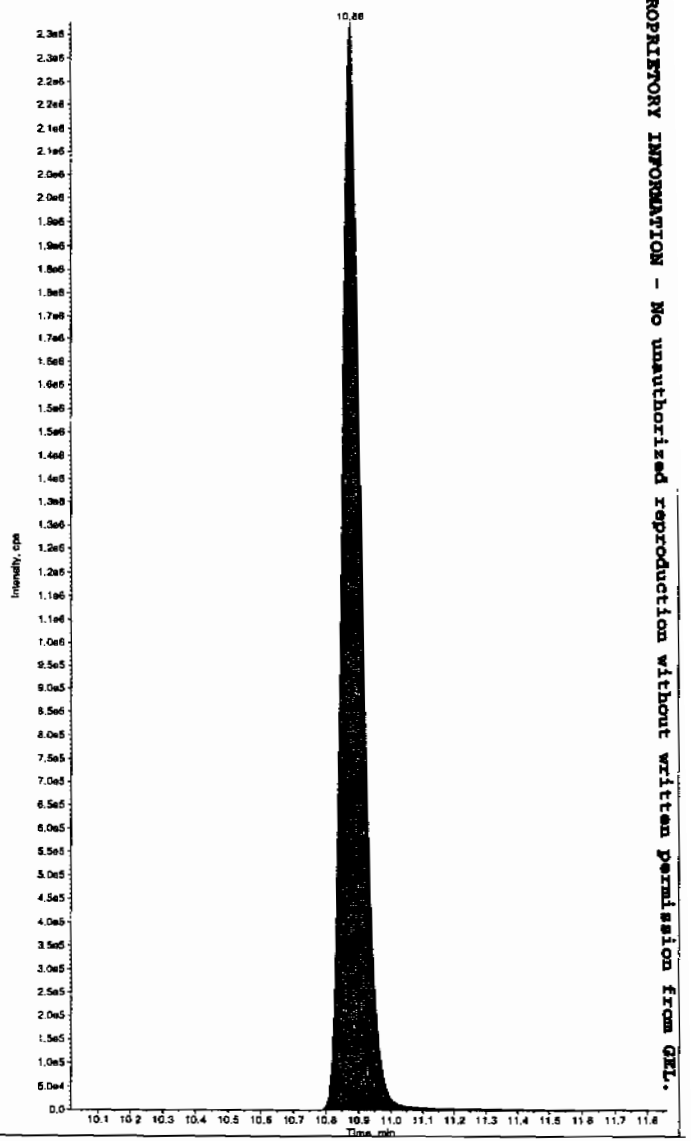

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980(245979001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 1202032108

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301050a

Date Analyzed: 02-MAR-10 15:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5600	
121-14-2	2,4-Dinitrotoluene	5170	
121-82-4	RDX	5200	
19406-51-0	4-Amino-2,6-dinitrotoluene	5320	
2691-41-0	HMX	5430	
35572-78-2	2-Amino-4,6-dinitrotoluene	6090	
479-45-8	Tetryl	3750	
606-20-2	2,6-Dinitrotoluene	5120	
78-11-5	PETN	4660	
88-72-2	o-Nitrotoluene	4190	
98-95-3	Nitrobenzene	4620	
99-08-1	m-Nitrotoluene	4060	
99-35-4	1,3,5-Trinitrobenzene	4820	
99-65-0	m-Dinitrobenzene	4950	
99-99-0	p-Nitrotoluene	4470	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301050a
Date: 02-Mar-2010
Time: 15:45:42
ID: 1202032108 | LANL | 948577 | Soil | 245977001 (MS) | 2 |
Vial: 2:5,E

MWT 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.987e+004

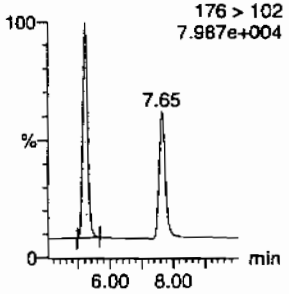

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.987e+004

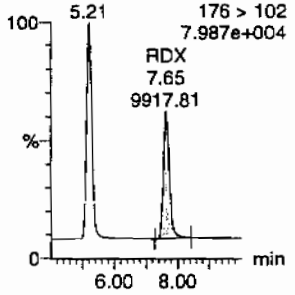

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.719e+004

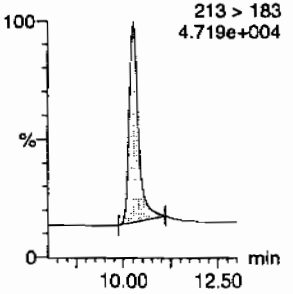

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.466e+004

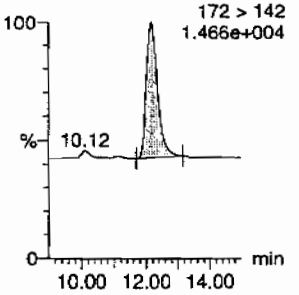

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.802e+004

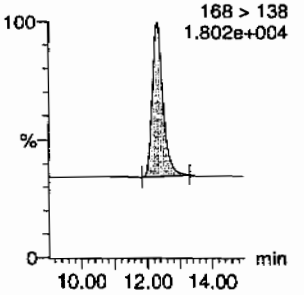

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.436e+004

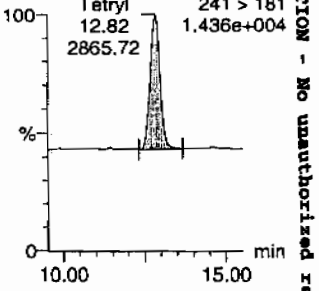

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.456e+004

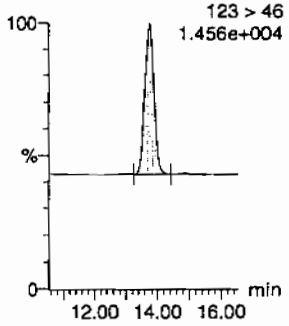

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.151e+004

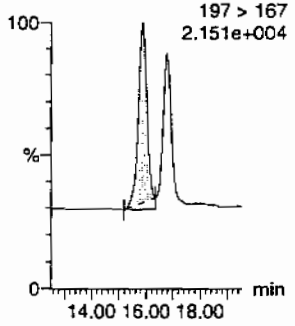

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.069e+004

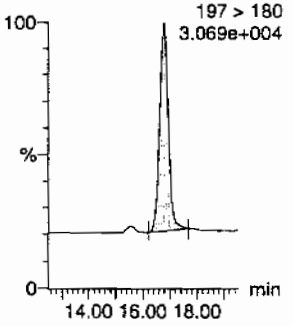

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.256e+004

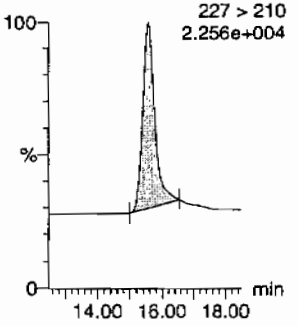

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.701e+004

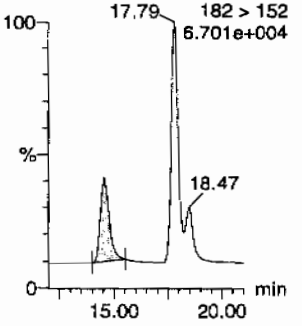

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.701e+004

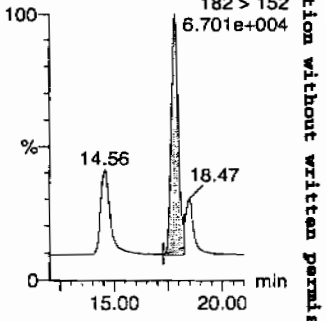

Hnm 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

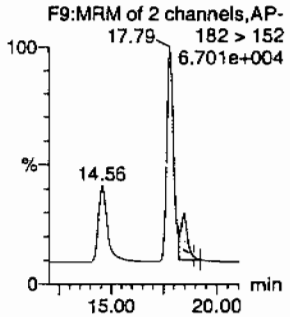

26-dinitrotoluene-d3

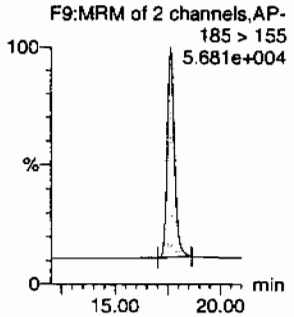

2-Nitrotoluene

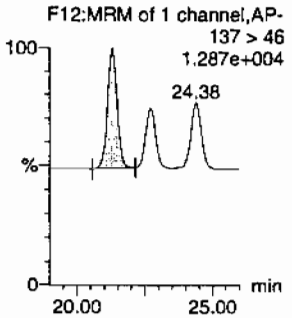

4-Nitrotoluene

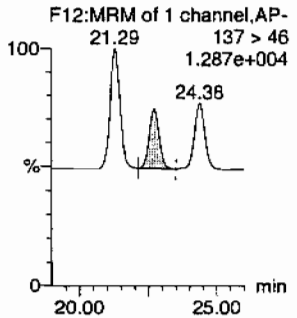

3-Nitrotoluene

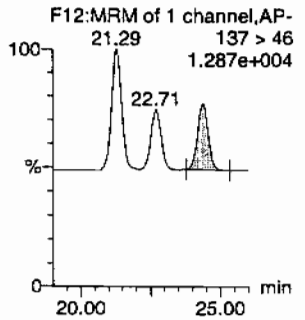

PETN

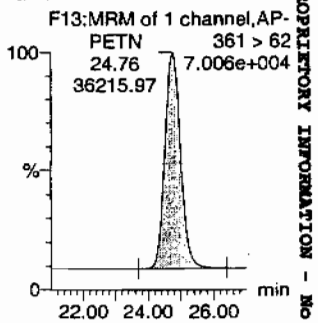

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032108	HMX	176 > 102	5.21	14408.320	3476.883	14408.320	2072.017	bb			543.1489	108.6	8.6	1595.3
1202032108	RDX	176 > 102	7.65	9917.811	3476.883	9917.811	1426.250	bb			519.6536	103.9	3.9	941.7
1202032108	135-Trinitrobenzene	213 > 183	10.27	11530.993	3476.883	11530.993	1658.237	bb			481.6180	96.3	-3.7	842.4
1202032108	13-Dinitrobenzene-d4	172 > 142	12.17	3476.883		3476.883	3476.883	bb			599.8605	120.0	20.0	326.7
1202032108	13-Dinitrobenzene	168 > 138	12.31	4517.083	3476.883	4517.083	649.588	bb			495.1631	99.0	-1.0	273.5
1202032108	Tetryl	241 > 181	12.82	2865.716	3476.883	2865.716	412.110	bb			375.3626	75.1	-24.9	269.2
1202032108	Nitrobenzene	123 > 46	13.71	2853.806	3476.883	2853.806	410.397	bb			461.6743	92.3	-7.7	151.7
1202032108	4-Amino-26-dinitrotoluene	197 > 167	15.89	5996.734	19982.016	5996.734	150.053	MM	03-Mar-10	08:45:51	531.5966	106.3	6.3	291.9
1202032108	2-Amino-46-dinitrotoluene	197 > 180	16.79	9175.179	19982.016	9175.179	229.586	bb			608.9499	121.8	21.8	847.6
1202032108	246-Trinitrotoluene	227 > 210	15.58	7054.812	19982.016	7054.812	176.529	bb			560.0894	112.0	12.0	149.5
1202032108	34-dinitrotoluene	182 > 152	14.56	9913.565	19982.016	9913.565	248.062	bb			250.3994	100.2	0.2	637.8
1202032108	26-dinitrotoluene	182 > 152	17.79	23063.344	19982.016	23063.344	577.103	MM	03-Mar-10	08:56:03	511.5083	102.3	2.3	1839.5
1202032108	24-dinitrotoluene	182 > 152	18.47	5198.064	19982.016	5198.064	130.069	MM	03-Mar-10	08:57:45	517.0875	103.4	3.4	397.3
1202032108	26-dinitrotoluene-d3	185 > 155	17.62	19982.016		19982.016	19982.016	bb			621.1451	124.2	24.2	2236.4
1202032108	2-Nitrotoluene	137 > 46	21.29	2775.083	19982.016	2775.083	69.440	bb			418.6072	83.7	-16.3	371.2
1202032108	4-Nitrotoluene	137 > 46	22.71	1414.398	19982.016	1414.398	35.392	bb			446.5859	89.3	-10.7	183.6
1202032108	3-Nitrotoluene	137 > 46	24.38	1593.798	19982.016	1593.798	39.881	bb			406.0632	81.2	-18.8	201.7
1202032108	PETN	361 > 62	24.76	36215.969	19982.016	36215.969	906.214	bb			465.9341	93.2	-6.8	7163.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7980(245979001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1514

Matrix: SOIL

GEL Sample ID: 1202032108

Sample Amount 2

Moisture: 4.6

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948576

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220048.wiff

Date Analyzed: 23-FEB-10 05:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5340	
59229-75-3	2,6-Diamino-4-nitrotoluene	6440	
618-87-1	3,5-Dinitroaniline	5230	
6629-29-4	2,4-Diamino-6-nitrotoluene	6320	
78-30-8	tris(o-cresyl) phosphate	5080	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Clear 2/23/10

Sample Name: "1202032108" Sample ID: "948577|2|LER" File: "EXS02220048.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 534. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:21:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.01e+006 counts
Height: 231635.315 cps
Start Time: 6.87 min
End Time: 7.60 min

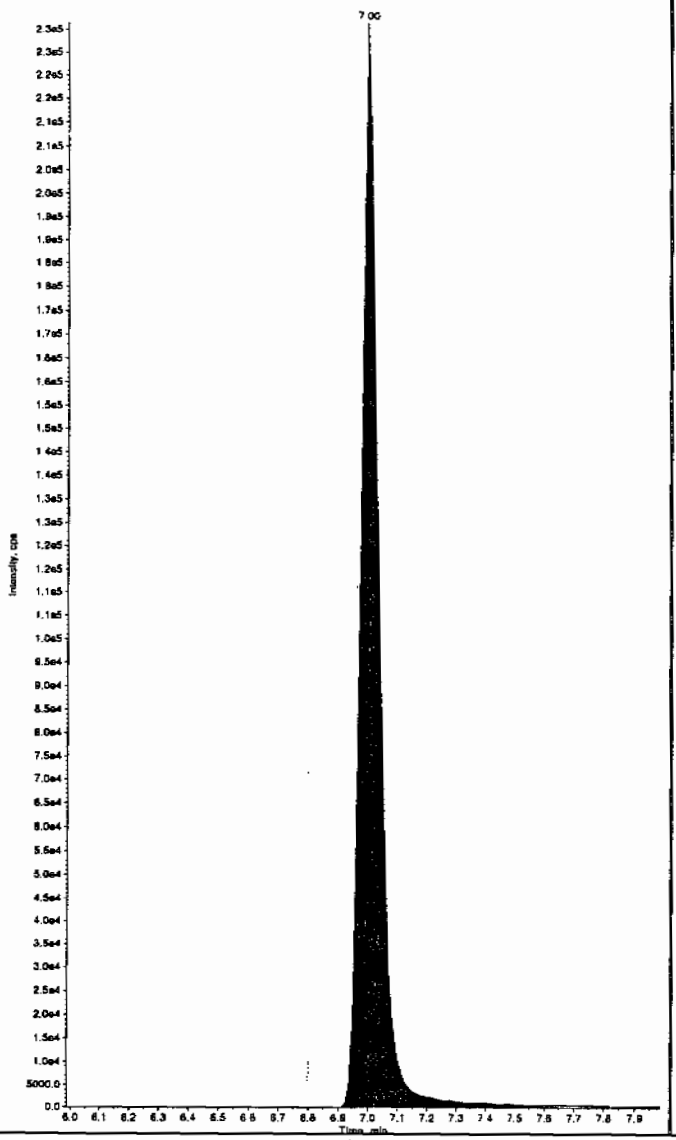

Sample Name: "1202032108" Sample ID: "948577|2|LER" File: "EXS02220048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 498. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:21:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.63e+006 counts
Height: 893596.619 cps
Start Time: 8.15 min
End Time: 8.33 min

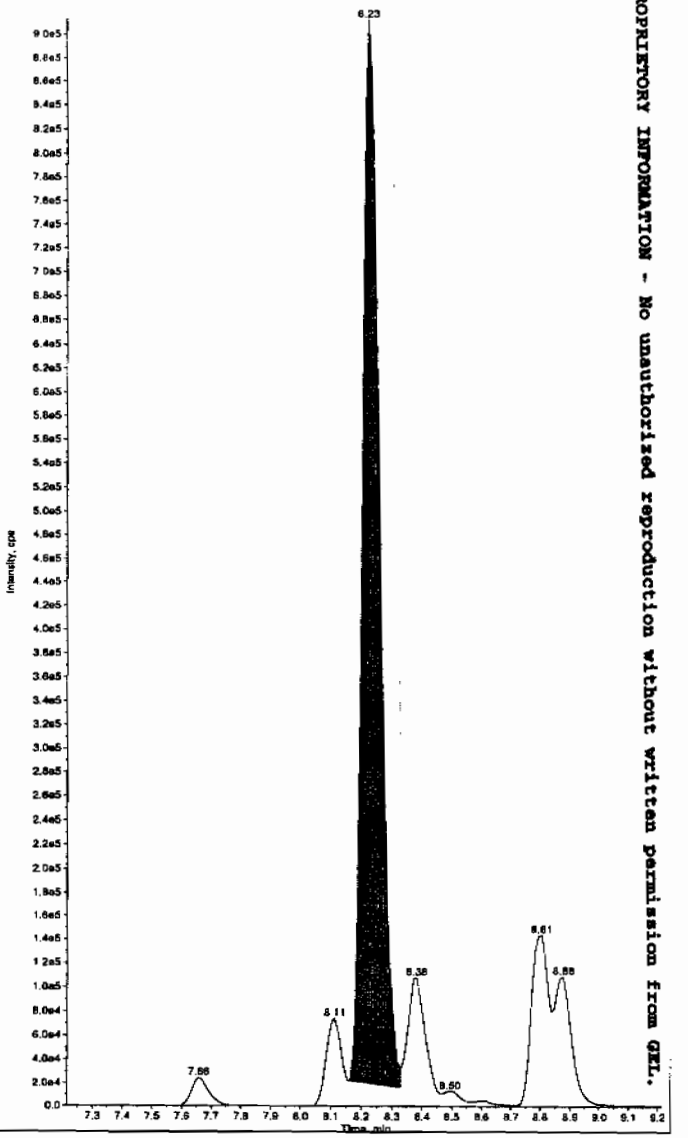

dhmc 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after scan 2/23/10

Sample Name: "1202032108" Sample ID: "948577|2|LER" File: "EXS02220048.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 534. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:21:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.01e+006 counts
Height: 231635.315 cps
Start Time: 6.87 min
End Time: 7.60 min

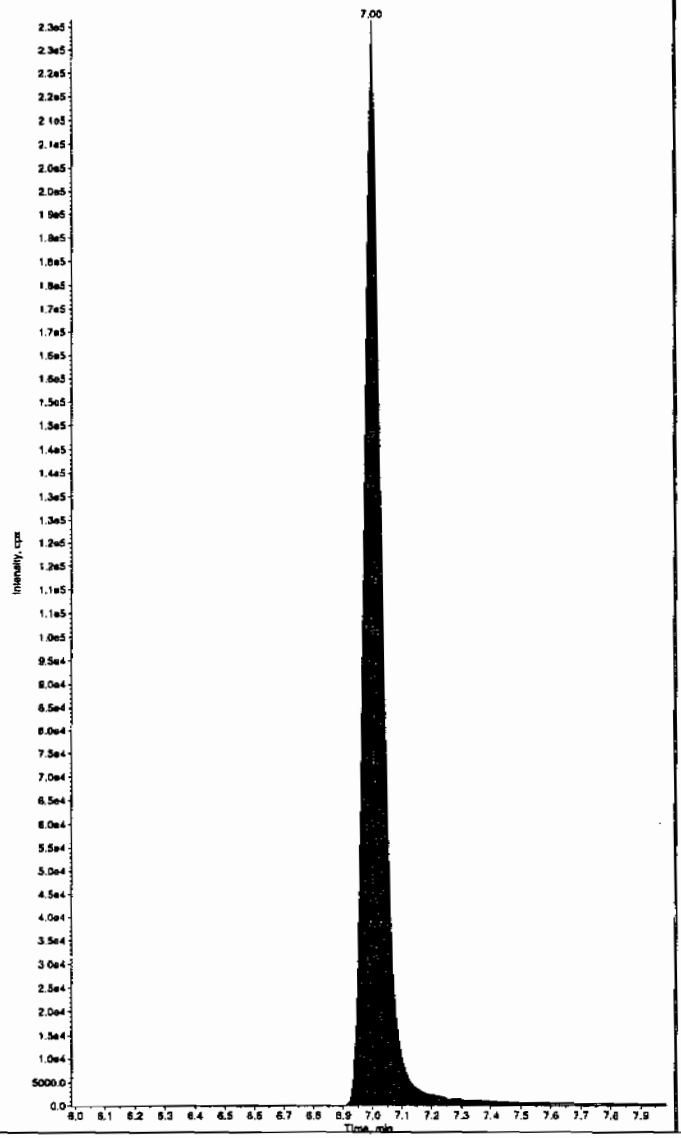

Sample Name: "1202032108" Sample ID: "948577|2|LER" File: "EXS02220048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 523. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:21:05 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.81e+006 counts
Height: 912483.997 cps
Start Time: 8.15 min
End Time: 8.33 min

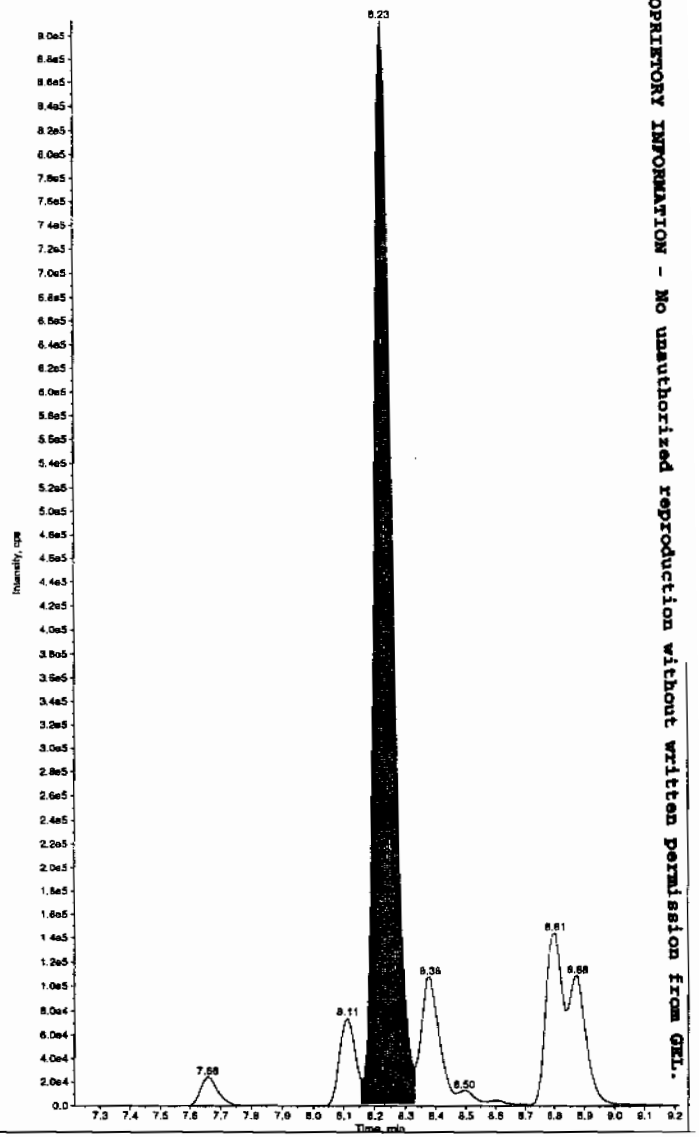

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032108" Sample ID: "948577|2|LER" File: "EXS02220048.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 301. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:21:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.97e+006 counts
Height: 1029906.372 cps
Start Time: 8.30 min
End Time: 8.60 min

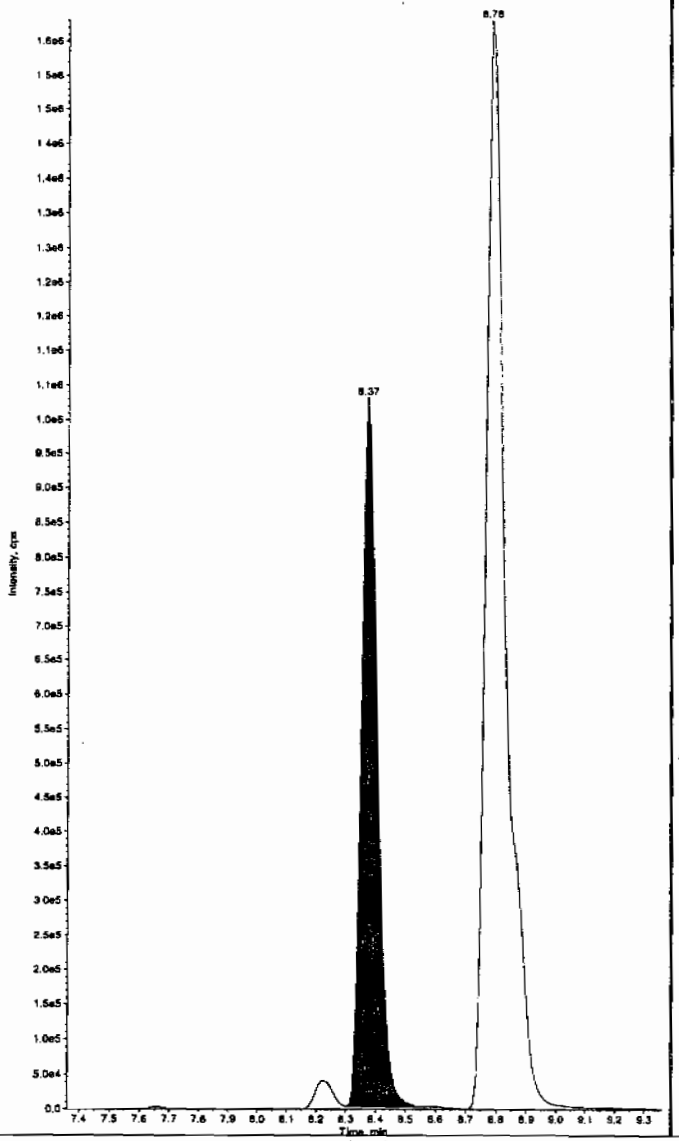

Sample Name: "1202032108" Sample ID: "948577|2|LER" File: "EXS02220048.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 644. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:21:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.22e+006 counts
Height: 274397.888 cps
Start Time: 4.92 min
End Time: 5.31 min

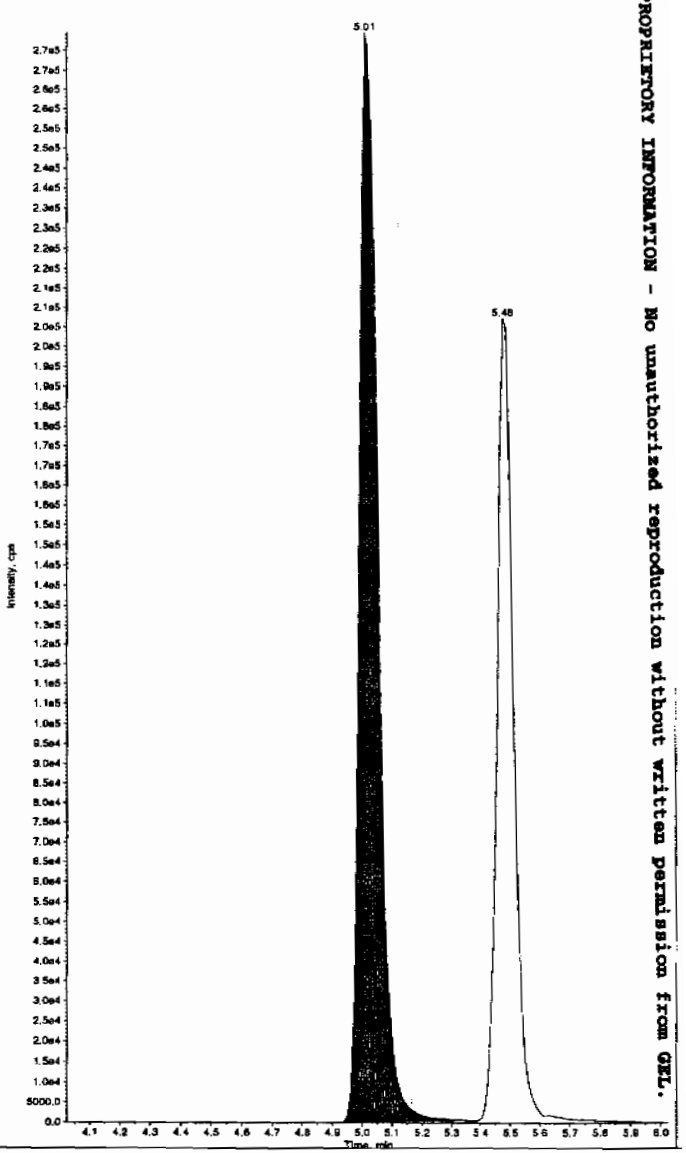

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032106" Sample ID: "948577[2]LER" File: "EXS02220048.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 632. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:21:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 7.96e+005 counts
Height: 202256.088 cps
Start Time: 5.38 min
End Time: 5.97 min

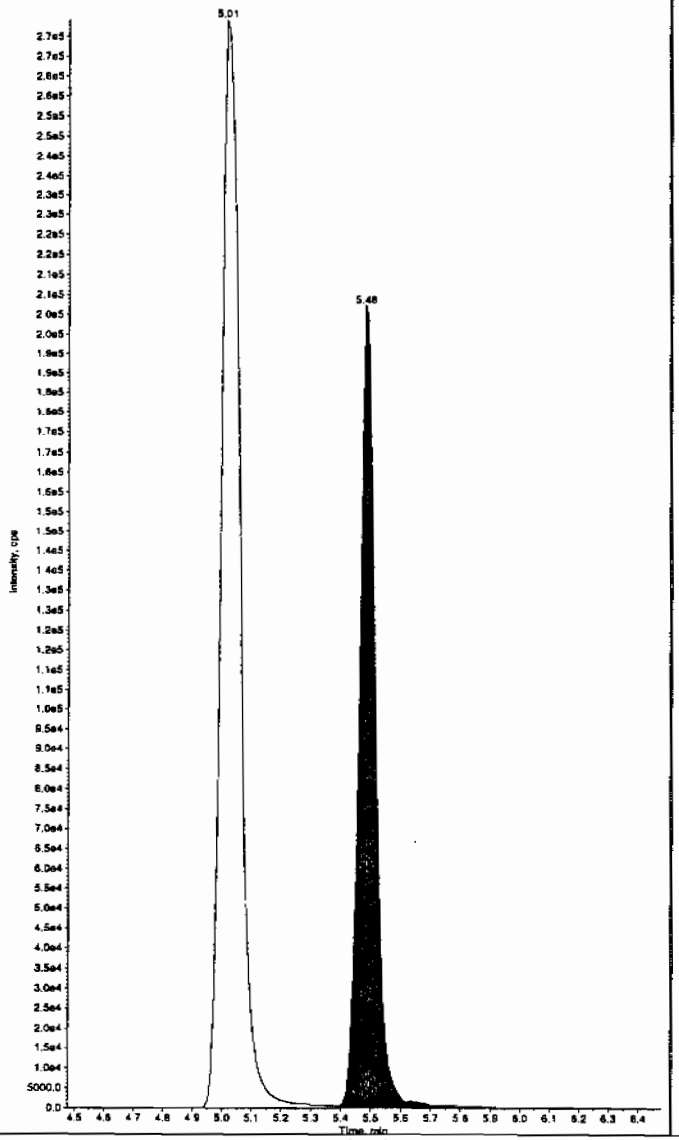

Sample Name: "1202032106" Sample ID: "948577[2]LER" File: "EXS02220048.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 508. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:21:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.01e+007 counts
Height: 2336919.922 cps
Start Time: 10.8 min
End Time: 11.2 min

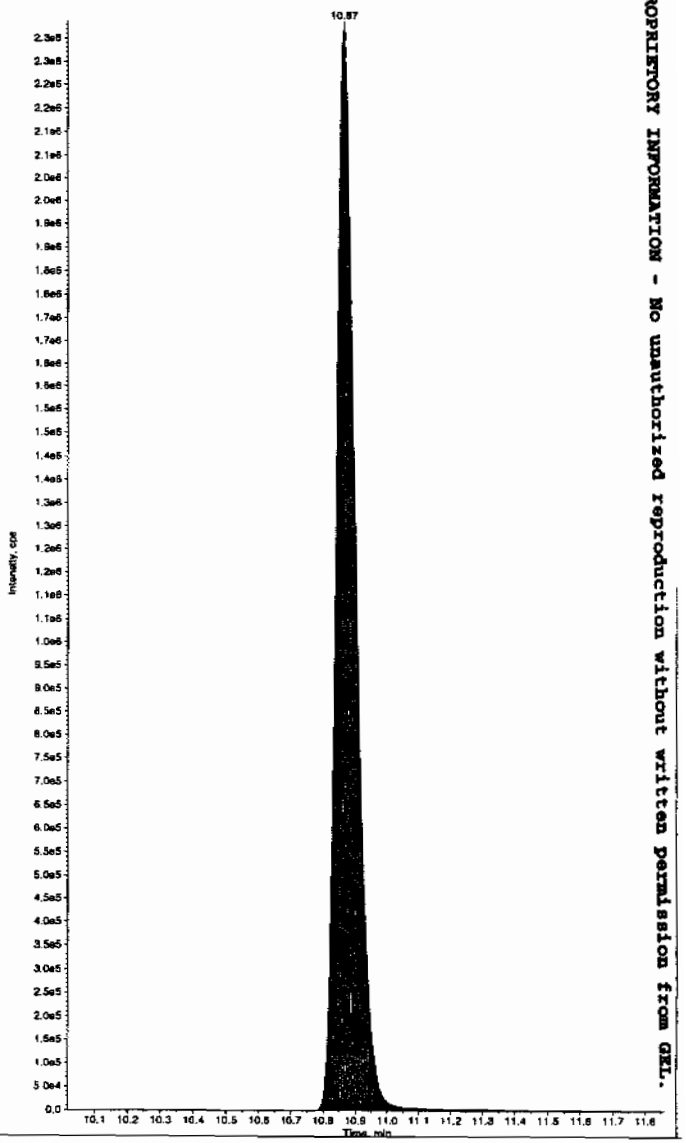

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 948576 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202032105 MB	09-FEB-2010 18:31:00	2	10	5
1202032106 LCS	09-FEB-2010 18:31:00	2	10	5
245979001	09-FEB-2010 18:31:00	2	10	5
1202032107 MS (245979001)	09-FEB-2010 18:31:00	2	10	5
1202032108 MSD (245979001)	09-FEB-2010 18:31:00	2	10	5
245979002	09-FEB-2010 18:31:00	2	10	5
245979003	09-FEB-2010 18:31:00	2	10	5
245979004	09-FEB-2010 18:31:00	2	10	5
245979005	09-FEB-2010 18:31:00	2	10	5
245979006	09-FEB-2010 18:31:00	2	10	5
245979007	09-FEB-2010 18:31:00	2	10	5
245979008	09-FEB-2010 18:31:00	2	10	5
245979009	09-FEB-2010 18:31:00	2	10	5
245979010	09-FEB-2010 18:31:00	2	10	5
245979011	09-FEB-2010 18:31:00	2	10	5
245979012	09-FEB-2010 18:31:00	2	10	5
245979013	09-FEB-2010 18:31:00	2	10	5
245979014	09-FEB-2010 18:31:00	2	10	5
245979015	09-FEB-2010 18:31:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202032106	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202032106	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MS	1202032107	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202032107	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MSD	1202032108	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202032108	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100204-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date:03/01/10
Extr. Injection Volume: 50uL
Sequence Number: 030110expA
Initial Calibration Date: 03/01/10

Method: SW846 8321A-Modified
Int. Std.: UXX1000220-01
Mobile Phase Lot#: 1277087, 1268566
Standard-Samp Reagent Lot#: 1274562, 1271949

Reviewed BY: HMC
Date: 03/04/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100301-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0301001a	XIBLK01	MAP	3/1/10 15:33			1		USE	B
EXP0301002a	XIBLK01	MAP	3/1/10 16:02			1		USE	B
EXP0301003a	WXXICAL-01	MAP	3/1/10 16:32			1		USE	I
EXP0301004a	WXXICAL-02	MAP	3/1/10 17:01			1		USE	I
EXP0301005a	WXXICAL-03	MAP	3/1/10 17:31			1		USE	I
EXP0301006a	WXXICAL-04	MAP	3/1/10 18:00			1		USE	I
EXP0301007a	WXXICAL-05	MAP	3/1/10 18:30			1		USE	I
EXP0301008a	WXXICAL-06	MAP	3/1/10 18:59			1		USE	I
EXP0301009a	XIBLK02	MAP	3/1/10 19:28			1		USE	B
EXP0301010a	WXXICV	MAP	3/1/10 19:58			1		USE	C
EXP0301011a	XIBLK03	MAP	3/1/10 20:27			1		USE	B
EXP0301012a	WXXCRI	MAP	3/1/10 20:57			1		USE	C
EXP0301013a	1202035702	MAP	3/1/10 21:26	950093	10-1637	2	LANL	USE	S
EXP0301014a	1202035703	MAP	3/1/10 21:56	950093	10-1637	2	LANL	USE	S
EXP0301015a	246469004	MAP	3/1/10 22:25	950093	10-1637	2	LANL	USE	S
EXP0301016a	246469009	MAP	3/1/10 22:55	950093	10-1637	2	LANL	USE	S
EXP0301017a	WXXCCV	MAP	3/1/10 23:24			1		USE	C
EXP0301018a	XIBLK04	MAP	3/1/10 23:54			1		USE	B
EXP0301019a	WXXCRI	MAP	3/2/10 0:23			1		USE	C
EXP0301020a	1202032101	MAP	3/2/10 0:53	948575	10-1512	2	LANL	USE	S
EXP0301021a	1202032102	MAP	3/2/10 1:22	948575	10-1512	2	LANL	USE	S
EXP0301022a	245969001	MAP	3/2/10 1:52	948575	10-1512	2	LANL	USE	S
EXP0301023a	1202032103	MAP	3/2/10 2:21	948575	10-1512	2	LANL	USE	S
EXP0301024a	1202032104	MAP	3/2/10 2:51	948575	10-1512	2	LANL	USE	S
EXP0301025a	245969002	MAP	3/2/10 3:20	948575	10-1512	2	LANL	USE	S
EXP0301026a	245969003	MAP	3/2/10 3:50	948575	10-1512	2	LANL	USE	S
EXP0301027a	245969004	MAP	3/2/10 4:19	948575	10-1512	2	LANL	USE	S
EXP0301028a	245969005	MAP	3/2/10 4:49	948575	10-1512	2	LANL	USE	S
EXP0301029a	245969006	MAP	3/2/10 5:18	948575	10-1512	2	LANL	USE	S

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EXP0301030a	WXXCCV	MAP	3/2/10 5:48			1		USE	C
EXP0301031a	XIBLK05	MAP	3/2/10 6:17			1		USE	B
EXP0301032a	WXXCRI	MAP	3/2/10 6:47			1		USE	C
EXP0301033a	245969007	MAP	3/2/10 7:16	948575	10-1512	2	LANL	USE	S
EXP0301034a	245969008	MAP	3/2/10 7:46	948575	10-1512	2	LANL	USE	S
EXP0301035a	245969009	MAP	3/2/10 8:15	948575	10-1512	2	LANL	USE	S
EXP0301036a	245969010	MAP	3/2/10 8:45	948575	10-1512	2	LANL	DUSE-RA	S
EXP0301037a	245969011	MAP	3/2/10 9:14	948575	10-1512	2	LANL	DUSE-RA	S
EXP0301038a	245969012	MAP	3/2/10 9:44	948575	10-1512	2	LANL	USE	S
EXP0301039a	245969013	MAP	3/2/10 10:13	948575	10-1512	2	LANL	USE	S
EXP0301040a	245969014	MAP	3/2/10 10:42	948575	10-1512	2	LANL	USE	S
EXP0301041a	245969015	MAP	3/2/10 11:12	948575	10-1512	2	LANL	USE	S
EXP0301042a	245969007	MAP	3/2/10 11:42	948575	10-1512	10	LANL	USE	S
EXP0301043a	WXXCCV	MAP	3/2/10 12:12			1		USE	C
EXP0301044a	XIBLK06	MAP	3/2/10 12:41			1		USE	B
EXP0301045a	WXXCRI	MAP	3/2/10 13:11			1		USE	C
EXP0301046a	1202032105	MAP	3/2/10 13:47	948577	10-1514	2	LANL	USE	S
EXP0301047a	1202032106	MAP	3/2/10 14:17	948577	10-1514	2	LANL	USE	S
EXP0301048a	245979001	MAP	3/2/10 14:46	948577	10-1514	2	LANL	USE	S
EXP0301049a	1202032107	MAP	3/2/10 15:16	948577	10-1514	2	LANL	USE	S
EXP0301050a	1202032108	MAP	3/2/10 15:45	948577	10-1514	2	LANL	USE	S
EXP0301051a	245979002	MAP	3/2/10 16:15	948577	10-1514	2	LANL	USE	S
EXP0301052a	245979003	MAP	3/2/10 16:44	948577	10-1514	2	LANL	USE	S
EXP0301053a	245979004	MAP	3/2/10 17:14	948577	10-1514	2	LANL	USE	S
EXP0301054a	245979005	MAP	3/2/10 17:43	948577	10-1514	2	LANL	USE	S
EXP0301055a	245979006	MAP	3/2/10 18:13	948577	10-1514	2	LANL	USE	S
EXP0301056a	WXXCCV	MAP	3/2/10 18:42			1		USE	C
EXP0301057a	XIBLK07	MAP	3/2/10 19:12			1		USE	B
EXP0301058a	WXXCRI	MAP	3/2/10 19:41			1		USE	C
EXP0301059a	245979007	MAP	3/2/10 20:11	948577	10-1514	2	LANL	USE	S
EXP0301060a	245979008	MAP	3/2/10 20:40	948577	10-1514	2	LANL	USE	S
EXP0301061a	245979009	MAP	3/2/10 21:10	948577	10-1514	2	LANL	USE	S
EXP0301062a	245979010	MAP	3/2/10 21:39	948577	10-1514	2	LANL	USE	S
EXP0301063a	245979011	MAP	3/2/10 22:09	948577	10-1514	2	LANL	USE	S
EXP0301064a	245979012	MAP	3/2/10 22:38	948577	10-1514	2	LANL	USE	S
EXP0301065a	245979013	MAP	3/2/10 23:08	948577	10-1514	2	LANL	USE	S
EXP0301066a	245979014	MAP	3/2/10 23:37	948577	10-1514	2	LANL	USE	S

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EXP0301067a	245979015	MAP	3/3/10 0:07	948577	10-1514	2	LANL	DUSE-RA	S
EXP0301068a	WXXCCV	MAP	3/3/10 0:36			1		USE	C
EXP0301069a	XIBLK08	MAP	3/3/10 1:06			1		USE	B
EXP0301070a	WXXCRI	MAP	3/3/10 1:35			1		USE	C
EXP0301071a	245969010	MAP	3/3/10 2:05	948575	10-1512	2	LANL	USE	S
EXP0301072a	245969011	MAP	3/3/10 2:34	948575	10-1512	2	LANL	USE	S
EXP0301073a	1202032038	MAP	3/3/10 3:04	948558	Various	2	LANL	USE	S
EXP0301074a	1202032039	MAP	3/3/10 3:33	948558	Various	2	LANL	DUSE-RA	S
EXP0301075a	1202032154	MAP	3/3/10 4:03	948558	Various	2	LANL	USE	S
EXP0301076a	245928018	MAP	3/3/10 4:32	948558	10-1495	2	LANL	DUSE-RA	S
EXP0301077a	245928025	MAP	3/3/10 5:02	948558	10-1495	2	LANL	DUSE-RA	S
EXP0301078a	245932006	MAP	3/3/10 5:31	948558	10-1501	2	LANL	DUSE-RA	S
EXP0301079a	1202032040	MAP	3/3/10 6:01	948558	10-1501	2	LANL	DUSE-RA	S
EXP0301080a	1202032041	MAP	3/3/10 6:30	948558	10-1501	2	LANL	DUSE-RA	S
EXP0301081a	WXXCCV	MAP	3/3/10 7:00			1		USE	C
EXP0301082a	XIBLK09	MAP	3/3/10 7:29			1		USE	B
EXP0301083a	WXXCRI	MAP	3/3/10 7:59			1		USE	C
EXP0301084a	245979013	MAP	3/3/10 8:28	948577	10-1514	2	LANL	DUSE	S
EXP0301085a	245979015	MAP	3/3/10 8:58	948577	10-1514	2	LANL	DUSE	S
EXP0301086a	245979012	MAP	3/3/10 9:27	948577	10-1514	5	LANL	DUSE	S
EXP0301087a	245969010	MAP	3/3/10 9:57	948575	10-1512	2	LANL	DUSE	S
EXP0301088a	245969011	MAP	3/3/10 10:26	948575	10-1512	2	LANL	DUSE	S
EXP0301089a	1202032039	MAP	3/3/10 10:56	948558	Various	2	LANL	DUSE	S
EXP0301090a	XIBLK10	MAP	3/3/10 11:26			1		USE	B
EXP0301091a	245979013	MAP	3/3/10 11:56	948577	10-1514	2	LANL	DUSE	S
EXP0301092a	WXXCCV	MAP	3/3/10 12:25			1		DUSE	C
EXP0301093a	XIBLK11	MAP	3/3/10 12:55			1		USE	B
EXP0301094a	WXXCRI	MAP	3/3/10 13:24			1		DUSE	C
EXP0301095a	245928018	MAP	3/3/10 13:54	948558	10-1495	2	LANL	DUSE	S
EXP0301096a	WXXCCV	MAP	3/3/10 14:23			1		USE	C
EXP0301097a	XIBLK12	MAP	3/3/10 14:53			1		USE	B
EXP0301098a	WXXCRI	MAP	3/3/10 15:22			1		USE	C
EXP0301099a	245979015	MAP	3/3/10 15:52	948577	10-1514	2	LANL	USE	S
EXP0301100a	245979012	MAP	3/3/10 16:21	948577	10-1514	5	LANL	USE	S
EXP0301101a	1202032039	MAP	3/3/10 16:51	948558	Various	2	LANL	USE	S
EXP0301102a	245928018	MAP	3/3/10 17:21	948558	10-1495	2	LANL	USE	S
EXP0301103a	245928025	MAP	3/3/10 17:50	948558	10-1495	2	LANL	USE	S

EXP0301104a	245932006	MAP	3/3/10 18:20	948558	10-1501	2	LANL	USE	S
EXP0301105a	1202032040	MAP	3/3/10 18:49	948558	10-1501	2	LANL	USE	S
EXP0301106a	1202032041	MAP	3/3/10 19:19	948558	10-1501	2	LANL	USE	S
EXP0301107a	XIBLK13	MAP	3/3/10 19:48			1		USE	B
EXP0301108a	WXXCCV	MAP	3/3/10 20:17			1		USE	C
EXP0301109a	XIBLK14	MAP	3/3/10 20:47			1		USE	B
EXP0301110a	WXXCRI	MAP	3/3/10 21:16			1		USE	C
EXP0301111a	1202038795	MAP	3/3/10 21:46	951357	Various	2	LANL	DUSE-RA	S
EXP0301112a	1202038796	MAP	3/3/10 22:16	951357	Various	2	LANL	DUSE-RA	S
EXP0301113a	246661001	MAP	3/3/10 22:45	951357	10-1701	2	LANL	DUSE-RA	S
EXP0301114a	1202038797	MAP	3/3/10 23:15	951357	10-1701	2	LANL	DUSE-RA	S
EXP0301115a	1202038798	MAP	3/3/10 23:44	951357	10-1701	2	LANL	DUSE-RA	S
EXP0301116a	246661002	MAP	3/4/10 0:14	951357	10-1701	2	LANL	DUSE-RA	S
EXP0301117a	246661003	MAP	3/4/10 0:43	951357	10-1701	2	LANL	DUSE-RA	S
EXP0301118a	246611001	MAP	3/4/10 1:13	951357	10-1702	2	LANL	DUSE-RA	S
EXP0301119a	246611002	MAP	3/4/10 1:42	951357	10-1702	2	LANL	DUSE-RA	S
EXP0301120a	246611003	MAP	3/4/10 2:12	951357	10-1702	2	LANL	DUSE-RA	S
EXP0301121a	WXXCCV	MAP	3/4/10 2:41			1		DUSE	C
EXP0301122a	XIBLK15	MAP	3/4/10 3:11			1		DUSE	B
EXP0301123a	WXXCRI	MAP	3/4/10 3:40			1		DUSE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 02/22/10
Extr. Injection Volume: 10uL
Sequence Number: 022210exs
Initial Calibration Date: 022210

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1263794, 1258141
Standard-Samp Reagent Lot# :1260901, 1261217

Reviewed By: HMM
Date: 02/23/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100222-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02220001.wiff	XIBLK01	LER	2/22/2010 17:01			1		USE	B
EXS02220002.wiff	XIBLK01	LER	2/22/2010 17:17			1		USE	B
EXS02220003.wiff	WXXICAL-19	LER	2/22/2010 17:33			1		USE	I
EXS02220004.wiff	WXXICAL-20	LER	2/22/2010 17:49			1		USE	I
EXS02220005.wiff	WXXICAL-21	LER	2/22/2010 18:04			1		USE	I
EXS02220006.wiff	WXXICAL-22	LER	2/22/2010 18:20			1		USE	I
EXS02220007.wiff	WXXICAL-23	LER	2/22/2010 18:36			1		USE	I
EXS02220008.wiff	WXXICAL-24	LER	2/22/2010 18:51			1		USE	I
EXS02220009.wiff	WXXICAL-25	LER	2/22/2010 19:07			1		USE	I
EXS02220010.wiff	XIBLK02	LER	2/22/2010 19:23			1		USE	B
EXS02220011.wiff	WXXICV	LER	2/22/2010 19:38			1		USE	C
EXS02220012.wiff	XIBLK03	LER	2/22/2010 19:54			1		USE	B
EXS02220013.wiff	WXXCRI	LER	2/22/2010 20:10			1		USE	C
EXS02220014.wiff	246469007	LER	2/22/2010 20:26	950093	10-1637	2	LANL	USE	S
EXS02220015.wiff	246469008	LER	2/22/2010 20:41	950093	10-1637	2	LANL	USE	S
EXS02220016.wiff	246469009	LER	2/22/2010 20:57	950093	10-1637	2	LANL	USE	S
EXS02220017.wiff	XIBLK04	LER	2/22/2010 21:13			1		USE	B
EXS02220018.wiff	1202032101	LER	2/22/2010 21:28	948575	10-1512	2	LANL	USE	S
EXS02220019.wiff	1202032102	LER	2/22/2010 21:44	948575	10-1512	2	LANL	USE	S
EXS02220020.wiff	245969001	LER	2/22/2010 22:00	948575	10-1512	2	LANL	USE	S
EXS02220021.wiff	1202032103	LER	2/22/2010 22:16	948575	10-1512	2	LANL	USE	S
EXS02220022.wiff	1202032104	LER	2/22/2010 22:31	948575	10-1512	2	LANL	USE	S
EXS02220023.wiff	245969002	LER	2/22/2010 22:47	948575	10-1512	2	LANL	USE	S
EXS02220024.wiff	WXXCCV	LER	2/22/2010 23:03			1		USE	C
EXS02220025.wiff	XIBLK05	LER	2/22/2010 23:19			1		USE	B
EXS02220026.wiff	WXXCRI	LER	2/22/2010 23:34			1		USE	C
EXS02220027.wiff	245969003	LER	2/22/2010 23:50	948575	10-1512	2	LANL	USE	S
EXS02220028.wiff	245969004	LER	2/23/2010 0:06	948575	10-1512	2	LANL	USE	S
EXS02220029.wiff	245969005	LER	2/23/2010 0:22	948575	10-1512	2	LANL	USE	S
EXS02220030.wiff	245969006	LER	2/23/2010 0:37	948575	10-1512	2	LANL	USE	S

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EXS02220031.wiff	245969007	LER	2/23/2010 0:53	948575	10-1512	2	LANL	USE	S
EXS02220032.wiff	245969008	LER	2/23/2010 1:09	948575	10-1512	2	LANL	USE	S
EXS02220033.wiff	245969009	LER	2/23/2010 1:24	948575	10-1512	2	LANL	USE	S
EXS02220034.wiff	245969010	LER	2/23/2010 1:40	948575	10-1512	2	LANL	USE	S
EXS02220035.wiff	245969011	LER	2/23/2010 1:56	948575	10-1512	2	LANL	USE	S
EXS02220036.wiff	245969012	LER	2/23/2010 2:11	948575	10-1512	2	LANL	USE	S
EXS02220037.wiff	WXXCCV	LER	2/23/2010 2:27			1		USE	C
EXS02220038.wiff	XIBLK06	LER	2/23/2010 2:43			1		USE	B
EXS02220039.wiff	WXXCRI	LER	2/23/2010 2:59			1		USE	C
EXS02220040.wiff	245969013	LER	2/23/2010 3:14	948575	10-1512	2	LANL	USE	S
EXS02220041.wiff	245969014	LER	2/23/2010 3:30	948575	10-1512	2	LANL	USE	S
EXS02220042.wiff	245969015	LER	2/23/2010 3:46	948575	10-1512	2	LANL	USE	S
EXS02220043.wiff	XIBLK07	LER	2/23/2010 4:02			1		USE	B
EXS02220044.wiff	1202032105	LER	2/23/2010 4:18	948577	10-1514	2	LANL	USE	S
EXS02220045.wiff	1202032106	LER	2/23/2010 4:33	948577	10-1514	2	LANL	USE	S
EXS02220046.wiff	245979001	LER	2/23/2010 4:49	948577	10-1514	2	LANL	USE	S
EXS02220047.wiff	1202032107	LER	2/23/2010 5:05	948577	10-1514	2	LANL	USE	S
EXS02220048.wiff	1202032108	LER	2/23/2010 5:21	948577	10-1514	2	LANL	USE	S
EXS02220049.wiff	245979002	LER	2/23/2010 5:36	948577	10-1514	2	LANL	USE	S
EXS02220050.wiff	WXXCCV	LER	2/23/2010 5:52			1		USE	C
EXS02220051.wiff	XIBLK08	LER	2/23/2010 6:08			1		USE	B
EXS02220052.wiff	WXXCRI	LER	2/23/2010 6:24			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 02/24/10
Extr. Injection Volume: 10uL
Sequence Number: 022410exs
Initial Calibration Date: 022410

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1263794, 1258141
Standard-Samp Reagent Lot# :1260901, 1261217

Reviewed By: [illegible]
Date 02/23/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100224-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02240001.wiff	XIBLK01	LER	2/24/2010 9:58			1		USE	B
EXS02240002.wiff	XIBLK01	LER	2/24/2010 10:13			1		USE	B
EXS02240003.wiff	WXXICAL-19	LER	2/24/2010 10:29			1		USE	I
EXS02240004.wiff	WXXICAL-20	LER	2/24/2010 10:45			1		USE	I
EXS02240005.wiff	WXXICAL-21	LER	2/24/2010 11:00			1		USE	I
EXS02240006.wiff	WXXICAL-22	LER	2/24/2010 11:16			1		USE	I
EXS02240007.wiff	WXXICAL-23	LER	2/24/2010 11:32			1		USE	I
EXS02240008.wiff	WXXICAL-24	LER	2/24/2010 11:48			1		USE	I
EXS02240009.wiff	WXXICAL-25	LER	2/24/2010 12:03			1		USE	I
EXS02240010.wiff	XIBLK02	LER	2/24/2010 12:19			1		USE	B
EXS02240011.wiff	WXXICV	LER	2/24/2010 12:35			1		USE	C
EXS02240012.wiff	XIBLK03	LER	2/24/2010 12:50			1		USE	B
EXS02240013.wiff	WXXCRI	LER	2/24/2010 13:06			1		USE	C
EXS02240014.wiff	245979003	LER	2/24/2010 13:22	948577	10-1514	2	LANL	USE	S
EXS02240015.wiff	245979004	LER	2/24/2010 13:38	948577	10-1514	2	LANL	USE	S
EXS02240016.wiff	245979005	LER	2/24/2010 13:53	948577	10-1514	2	LANL	USE	S
EXS02240017.wiff	245979006	LER	2/24/2010 14:09	948577	10-1514	2	LANL	USE	S
EXS02240018.wiff	245979007	LER	2/24/2010 14:25	948577	10-1514	2	LANL	USE	S
EXS02240019.wiff	245979008	LER	2/24/2010 14:40	948577	10-1514	2	LANL	USE	S
EXS02240020.wiff	245979009	LER	2/24/2010 14:56	948577	10-1514	2	LANL	USE	S
EXS02240021.wiff	245979010	LER	2/24/2010 15:12	948577	10-1514	2	LANL	USE	S
EXS02240022.wiff	245979011	LER	2/24/2010 15:28	948577	10-1514	2	LANL	USE	S
EXS02240023.wiff	245979012	LER	2/24/2010 15:43	948577	10-1514	2	LANL	USE	S
EXS02240024.wiff	WXXCCV	LER	2/24/2010 15:59			1		USE	C
EXS02240025.wiff	XIBLK04	LER	2/24/2010 16:15			1		USE	B
EXS02240026.wiff	WXXCRI	LER	2/24/2010 16:31			1		USE	C
EXS02240027.wiff	245979013	LER	2/24/2010 16:46	948577	10-1514	2	LANL	USE	S
EXS02240028.wiff	245979014	LER	2/24/2010 17:02	948577	10-1514	2	LANL	USE	S
EXS02240029.wiff	245979015	LER	2/24/2010 17:18	948577	10-1514	2	LANL	USE	S
EXS02240030.wiff	245969002	LER	2/24/2010 17:34	948575	10-1512	2	LANL	USE	S

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EXS02240031.wiff	WXXCCV	LER	2/24/2010 17:49			1		USE	C
EXS02240032.wiff	XIBLK05	LER	2/24/2010 18:05			1		USE	B
EXS02240033.wiff	WXXCRI	LER	2/24/2010 18:21			1		USE	C
EXS02240034.wiff	1202038789	LER	2/24/2010 18:36	951353	VARIOUS	2	LANL	USE	S
EXS02240035.wiff	1202038790	LER	2/24/2010 18:52	951353	VARIOUS	2	LANL	USE	S
EXS02240036.wiff	246588002	LER	2/24/2010 19:08	951353	10-1688	2	LANL	USE	S
EXS02240037.wiff	1202038791	LER	2/24/2010 19:24	951353	10-1688	2	LANL	USE	S
EXS02240038.wiff	1202038792	LER	2/24/2010 19:39	951353	10-1688	2	LANL	USE	S
EXS02240039.wiff	246588003	LER	2/24/2010 19:55	951353	10-1688	2	LANL	USE	S
EXS02240040.wiff	246588004	LER	2/24/2010 20:11	951353	10-1688	2	LANL	USE	S
EXS02240041.wiff	246588005	LER	2/24/2010 20:27	951353	10-1688	2	LANL	USE	S
EXS02240042.wiff	246588006	LER	2/24/2010 20:42	951353	10-1688	2	LANL	USE	S
EXS02240043.wiff	246588007	LER	2/24/2010 20:58	951353	10-1688	2	LANL	USE	S
EXS02240044.wiff	WXXCCV	LER	2/24/2010 21:14			1		USE	C
EXS02240045.wiff	XIBLK06	LER	2/24/2010 21:30			1		USE	B
EXS02240046.wiff	WXXCRI	LER	2/24/2010 21:45			1		USE	C
EXS02240047.wiff	246588008	LER	2/24/2010 22:01	951353	10-1688	2	LANL	DUSE-RA	S
EXS02240048.wiff	246588009	LER	2/24/2010 22:17	951353	10-1688	2	LANL	DUSE-RA	S
EXS02240049.wiff	246588010	LER	2/24/2010 22:33	951353	10-1688	2	LANL	DUSE-RA	S
EXS02240050.wiff	246588011	LER	2/24/2010 22:48	951353	10-1688	2	LANL	DUSE-RA	S
EXS02240051.wiff	246588012	LER	2/24/2010 23:04	951353	10-1688	2	LANL	DUSE-RA	S
EXS02240052.wiff	246605001	LER	2/24/2010 23:20	951353	10-1698-1	2	LANL	DUSE-RA	S
EXS02240053.wiff	246605002	LER	2/24/2010 23:35	951353	10-1698-1	2	LANL	DUSE-RA	S
EXS02240054.wiff	246605003	LER	2/24/2010 23:51	951353	10-1698-1	2	LANL	DUSE-RA	S
EXS02240055.wiff	246605004	LER	2/25/2010 0:07	951353	10-1698-1	2	LANL	DUSE-RA	S
EXS02240056.wiff	246605005	LER	2/25/2010 0:23	951353	10-1698-1	2	LANL	DUSE-RA	S
EXS02240057.wiff	WXXCCV	LER	2/25/2010 0:38			1		DUSE-RA	C
EXS02240058.wiff	XIBLK07	LER	2/25/2010 0:54			1		DUSE-RA	B
EXS02240059.wiff	WXXCRI	LER	2/25/2010 1:10			1		DUSE-RA	C
EXS02240060.wiff	246605006	LER	2/25/2010 1:25	951353	10-1698-1	2	LANL	DUSE-RA	S
EXS02240061.wiff	XIBLK08	LER	2/25/2010 1:41			1		DUSE-RA	B
EXS02240062.wiff	1202038795	LER	2/25/2010 1:57	951357	VARIOUS	2	LANL	DUSE-RA	S
EXS02240063.wiff	1202038796	LER	2/25/2010 2:13	951357	VARIOUS	2	LANL	DUSE-RA	S
EXS02240064.wiff	246610001	LER	2/25/2010 2:29	951357	10-1701	2	LANL	DUSE-RA	S
EXS02240065.wiff	1202038797	LER	2/25/2010 2:44	951357	10-1701	2	LANL	DUSE-RA	S
EXS02240066.wiff	1202038798	LER	2/25/2010 3:00	951357	10-1701	2	LANL	DUSE-RA	S
EXS02240067.wiff	246610002	LER	2/25/2010 3:16	951357	10-1701	2	LANL	DUSE-RA	S

EXS02240068.wiff	246610003	LER	2/25/2010 3:32	951357	10-1701	2	LANL	DUSE-RA	S
EXS02240069.wiff	246611001	LER	2/25/2010 3:47	951357	10-1702	2	LANL	DUSE-RA	S
EXS02240070.wiff	WXXCCV	LER	2/25/2010 4:03			1		DUSE-RA	C
EXS02240071.wiff	XIBLK09	LER	2/25/2010 4:19			1		DUSE-RA	B
EXS02240072.wiff	WXXCRI	LER	2/25/2010 4:35			1		DUSE-RA	C
EXS02240073.wiff	246611002	LER	2/25/2010 4:50	951357	10-1702	2	LANL	DUSE-RA	S
EXS02240074.wiff	246611003	LER	2/25/2010 5:06	951357	10-1702	2	LANL	DUSE-RA	S
EXS02240075.wiff	UXX100210-02.2	LER	2/25/2010 5:22	SCREEN	SOILID	2	O2SI	DUSE-RA	S
EXS02240076.wiff	WXXCCV	LER	2/25/2010 5:37			1		DUSE-RA	C
EXS02240077.wiff	XIBLK10	LER	2/25/2010 5:53			1		DUSE-RA	B
EXS02240078.wiff	WXXCRI	LER	2/25/2010 6:09			1		DUSE-RA	C

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-MAR-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
948577	1202032106, 1202032107		

Potentially affected work order(s)(SDG): 245979(10-1514)

Application Issues:

Failed Recovery for LCS/LCSD

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. The Laboratory Control Sample (1202032106) did not meet spike recovery limits for Tetryl at 44.7% with recovery limits of 51-112% and 2,6-Diamino-4-nitrotoluene at 141% with recovery limits of 64-122%. 2. The Matrix Spike (1202032107) did not meet spike recovery limits for 2,4-Diamino-6-nitrotoluene at 136% with recovery limits of 34-135% and 2,6-Diamino-4-nitrotoluene at 135% with recovery limits of 55-130%.	1. & 2. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported with the appropriate DER. The discrepancies are noted in the case narrative.

Originator's Name:

Michael Penny 04-MAR-10

Data Validator/Group Leader:

Herbert Maier 04-MAR-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1514

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	951299
Prep Batch Number:	951296

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
245979013	RE15-10-8061
245979014	RE15-10-8063
245979015	RE15-10-8062
1202038652	Method Blank (MB)
1202038653	Laboratory Control Sample (LCS)
1202038654	245994001(RE15-10-8122) Matrix Spike (MS)
1202038655	245994001(RE15-10-8122) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been

independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Sample 245979013 (RE15-10-8061) did not meet the surrogate recovery acceptance criteria with a positive bias for Decachlorobiphenyl (DCB) due to co-elution of DCB with one of Aroclor-1268 peaks. See DER #790207 located in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1516) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 790207 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/1/10

Roadmap for LANL 10-1514 PCB

This roadmap was analyzed by yip00818 on 02-12-2010, 13:12.
This roadmap was reviewed by rob01090 on 02-16-2010, 16:25.
This roadmap was packaged by yml on 02-26-2010, 17:04.
This roadmap was validated by jim01140 on 03-01-2010, 09:42.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/021110.b/055f5501.d	245979013	sample	11-FEB-2010	16:47	10-1514.sub	RE15-10-8061	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/056f5601.d	245979014	sample	11-FEB-2010	17:00	10-1514.sub	RE15-10-8063	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/057f5701.d	245979015	sample	11-FEB-2010	17:13	10-1514.sub	RE15-10-8062	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/021110.b/055b5501.d	245979013	sample	11-FEB-2010	16:47	10-1514.sub	RE15-10-8061	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/056b5601.d	245979014	sample	11-FEB-2010	17:00	10-1514.sub	RE15-10-8063	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021110.b/057b5701.d	245979015	sample	11-FEB-2010	17:13	10-1514.sub	RE15-10-8062	1.00000	951299	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/021110.b/043f4301-1.d	1202038652	mb	11-FEB-2010	14:20	10-1514.sub	PBLK01	1.00000	951299	
☐	N	/chem/ecd1a.i/021110.b/044f4401-1.d	1202038653	lcs	11-FEB-2010	14:33	10-1514.sub	PBLK01LCS	1.00000	951299	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/021110.b/043b4301-1.d	1202038652	mb	11-FEB-2010	14:20	10-1514.sub	PBLK01	1.00000	951299	
☐	N	/chem/ecd1a.i/021110.b/044b4401-1.d	1202038653	lcs	11-FEB-2010	14:33	245514.sub	PBLK01LCS	1.00000	951299	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1514**	**Date Collected:**	**01/27/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245979013**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**14.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8061**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 16:47**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.13 g**	**Final Volume:**	**1 mL**
Data File:	**055f5501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	055b5501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.89	ug/kg	1.30	3.89	1
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.30	3.89	1
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.30	3.89	1
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.30	3.89	1
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.30	3.89	1
11097-69-1	Aroclor-1254		23.2	ug/kg	1.30	3.89	1
11096-82-5	Aroclor-1260		34.6	ug/kg	1.30	3.89	2
11100-14-4	Aroclor-1268		97.3	ug/kg	1.30	3.89	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1514	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245979015	**Date Received:**	02/02/2010 09:10	**%Moisture:**	9.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8062	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 17:13	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.19 g	**Final Volume:**	1 mL
Data File:	057f5701.d	**Column:**	1 CLP1	**Level:**	LOW
	057b5701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.66	ug/kg	1.22	3.66	1
11104-28-2	Aroclor 1221	U	3.66	ug/kg	1.22	3.66	1
11141-16-5	Aroclor-1232	U	3.66	ug/kg	1.22	3.66	1
53469-21-9	Aroclor-1242	U	3.66	ug/kg	1.22	3.66	1
12672-29-6	Aroclor-1248	U	3.66	ug/kg	1.22	3.66	1
11097-69-1	Aroclor-1254	U	3.66	ug/kg	1.22	3.66	1
11096-82-5	Aroclor-1260	U	3.66	ug/kg	1.22	3.66	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1514	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245979014	**Date Received:**	02/02/2010 09:10	**%Moisture:**	18.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8063	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 17:00	**Analyst:**	YSJ	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	056f5601.d	**Column:**	1 CLP1	**Level:**	LOW
	056b5601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.09	ug/kg	1.36	4.09	1
11104-28-2	Aroclor-1221	U	4.09	ug/kg	1.36	4.09	1
11141-16-5	Aroclor-1232	U	4.09	ug/kg	1.36	4.09	1
53469-21-9	Aroclor-1242	U	4.09	ug/kg	1.36	4.09	1
12672-29-6	Aroclor-1248	U	4.09	ug/kg	1.36	4.09	1
11097-69-1	Aroclor-1254	P	4.10	ug/kg	1.36	4.09	1
11096-82-5	Aroclor-1260	U	4.09	ug/kg	1.36	4.09	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1514

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202038652	MB for batch 951296	66	65	74	72
1202038653	LCS for batch 951296	64	62	70	69
245979013	RE15-10-8061	49	46	143 *	143 *
245979014	RE15-10-8063	68	67	73	68
245979015	RE15-10-8062	48	46	52	51

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1514
Client ID: LCS for batch 951296
Lab Sample ID: 1202038653
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/11/2010 14:33
Dilution: 1
Prep Batch ID: 951296
Batch ID: 951299

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	21.9	66	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	25.8	77	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1516**	**Sample Type:**	**Matrix Spike**
Client ID:	**RE15-10-8122MS**	**Matrix:**	**R**
Lab Sample ID:	**1202038654**	**%Moisture:**	**14.9**
Instrument:	**ECD1A.I**	**Analysis Date:**	**02/11/2010 17:38**
Analyst:	**YS1**	**Prep Batch ID**	**951296**
Inj. Vol:	**1 uL**	**Batch ID:**	**951299**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	39.1	0.00	U	24.3	62	23-119
11096-82-5	MS	Aroclor-1260	39.1	0.00	U	29.9	77	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1516
Client ID: RE15-10-8122MSD
Lab Sample ID: 1202038655
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 14.9
Analysis Date: 02/11/2010 17:51
Dilution: 1
Prep Batch ID: 951296
Batch ID: 951299

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	39.1	0.00	U	22.5	57	23-119	8	0-28
11096-82-5	MSD Aroclor-1260	39.1	0.00	U	26.9	69	28-124	11	0-30

Method Blank Summary

SDG Number:	10-1514	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 951296	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	043b4301-1.d 043f4301-1.d
Lab Sample ID:	1202038652				
Column:	CLP2 CLP1	Prep Date:	02/10/2010 21:22	Analyzed:	02/11/10 14:20
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 951296	1202038653	044f4401-1.d 044b4401-1.d	02/11/10	1433
02 RE15-10-8061	245979013	055f5501.d 055b5501.d	02/11/10	1647
03 RE15-10-8063	245979014	056f5601.d 056b5601.d	02/11/10	1700
04 RE15-10-8062	245979015	057f5701.d 057b5701.d	02/11/10	1713

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1514	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245979013	**Date Received:**	02/02/2010 09:10	**%Moisture:**	14.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8061	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 16:47	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30.13 g	**Final Volume:**	1 mL
Data File:	055f5501.d	**Column:**	1 CLP1	**Level:**	LOW
	055h5501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.89	ug/kg	1.30	3.89	1
11104-28-2	Aroclor-1221	U	3.89	ug/kg	1.30	3.89	1
11141-16-5	Aroclor-1232	U	3.89	ug/kg	1.30	3.89	1
53469-21-9	Aroclor-1242	U	3.89	ug/kg	1.30	3.89	1
12672-29-6	Aroclor-1248	U	3.89	ug/kg	1.30	3.89	1
11097-69-1	Aroclor-1254		23.2	ug/kg	1.30	3.89	1
11096-82-5	Aroclor-1260		34.6	ug/kg	1.30	3.89	2
11100-14-4	Aroclor-1268		97.3	ug/kg	1.30	3.89	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/055f5501.d
Lab Smp Id: 245979013 Client Smp ID: RE15-10-8061
Inj Date : 11-FEB-2010 16:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245979013|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8061|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	14.74470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.963	1.962	0.001	43115422	98.6238	3.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	95094647	285.098	11.1	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.264	0.000	11787039	746.768	29.1	80.00- 120.00	100.00
3.419	3.420	-0.001	8479269	397.231	15.5	113.70- 153.70	71.94
3.658	3.654	0.004	19801001	726.472	28.3	155.79- 195.79	167.99
3.817	3.817	0.000	3197037	155.039	6.0	112.67- 152.67	27.12

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.924	3.926	-0.002	18599880	949.259	37.0	108.44- 148.44	157.80
Average of Peak Concentrations =					23.2		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.760	0.001	13272607	697.448	27.2	80.00- 120.00	100.00
3.924	3.924	0.000	18599880	656.001	25.5	129.97- 169.97	140.14
4.153	4.154	-0.001	18134667	1063.95	41.4	69.84- 109.84	136.63
4.294	4.296	-0.002	23861697	1333.64	51.9	74.16- 114.16	179.78
4.481	4.475	0.006	25798105	664.035	25.8	190.26- 230.26	194.37
Average of Peak Concentrations =					34.4		
9 Aroclor-1268					CAS #: 11100-14-4		
4.662	4.662	0.000	114093545	2173.83	84.6	80.00- 120.00	100.00
4.684	4.685	-0.001	108406084	2252.92	87.7	75.88- 115.88	95.02
4.797	4.797	0.000	88532206	2390.98	93.1	55.36- 95.36	77.60
5.000	5.001	-0.001	40583927	2490.69	97.0	17.80- 57.80	35.57
5.166	5.166	0.000	344830635	3184.70	124	219.60- 259.60	302.24
Average of Peak Concentrations =					97.3		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/021110.b/055f5501.d
Date : 11-FEB-2010 16:47
Client ID: RE15-10-8061
Sample Info: |2459790131|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

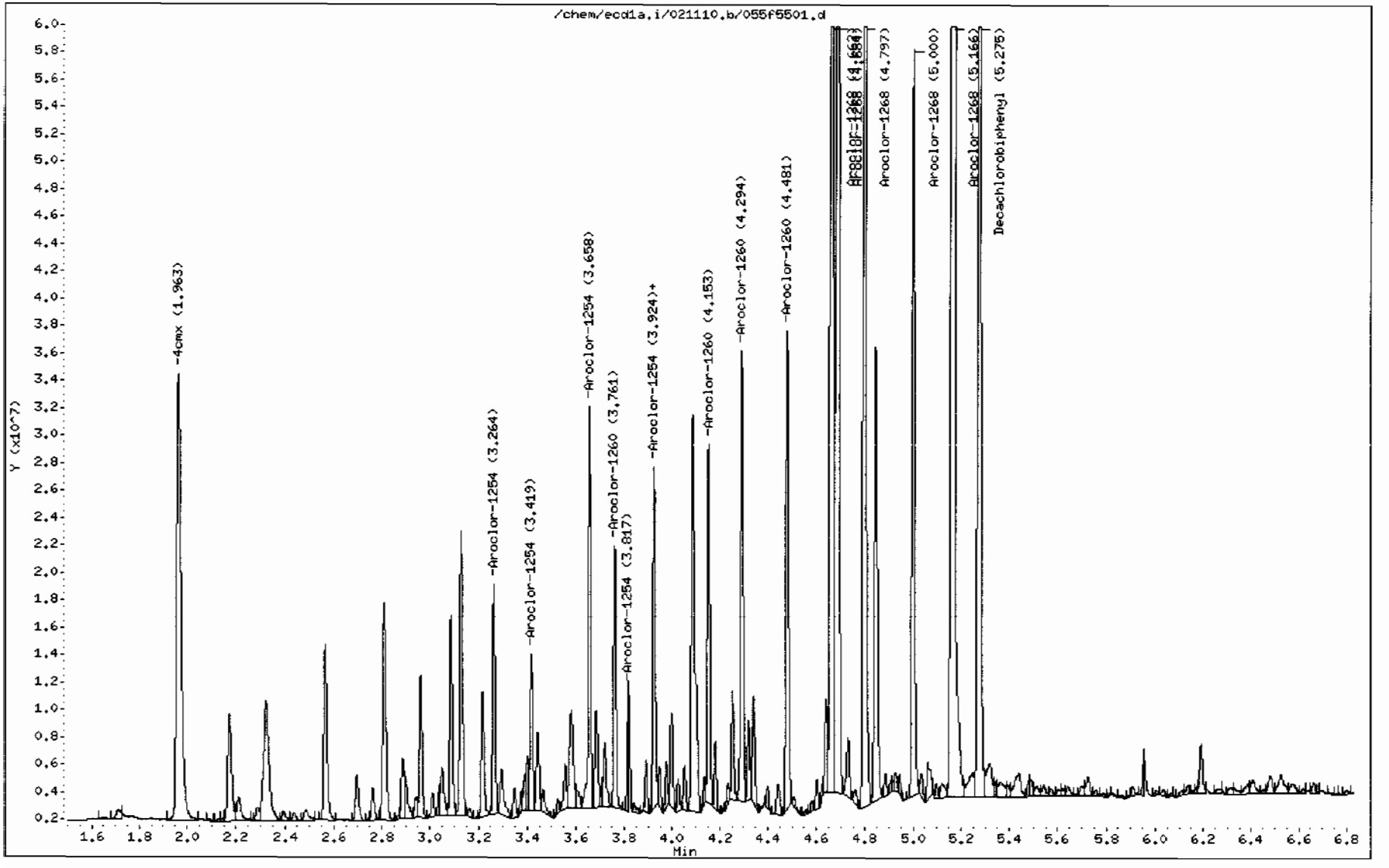

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/055b5501.d
Lab Smp Id: 245979013 Client Smp ID: RE15-10-8061
Inj Date : 11-FEB-2010 16:47
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245979013|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8061|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 55
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.13000	Weight of sample extracted (g)
M	14.74470	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.294	0.001	26653722	92.8987	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.941	-0.001	61480203	285.829	11.1	80.00- 120.00	100.00(R)
6 Aroclor-1254					CAS #: 11097-69-1		
3.399	3.400	-0.001	1563136	235.741	9.2	80.00- 120.00	100.00
3.822	3.822	0.000	7921012	676.829	26.3	159.63- 199.63	506.74
3.938	3.939	-0.001	5847255	453.632	17.6	177.60- 217.60	374.07
4.229	4.215	0.014	11490057	649.763	25.3	255.98- 295.98	735.06

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.351	4.351	0.000	3173251	240.707	9.4	179.01- 219.01	203.01
Average of Peak Concentrations =					17.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.330	0.001	10869873	863.205	33.6	80.00- 120.00	100.00
4.455	4.455	0.000	7914001	525.252	20.4	102.02- 142.02	72.81
4.722	4.721	0.001	13956024	1201.25	46.8	72.44- 112.44	128.39
4.898	4.895	0.003	15783700	1312.02	51.1	75.48- 115.48	145.21
5.043	5.042	0.001	14103664	546.149	21.3	192.44- 232.44	129.75
Average of Peak Concentrations =					34.6		
9 Aroclor-1268					CAS #: 11100-14-4		
5.255	5.255	0.000	68253296	1882.56	73.3	80.00- 120.00	100.00
5.283	5.282	0.001	72774899	2167.04	84.4	75.84- 115.84	106.62
5.431	5.432	-0.001	57601641	2216.95	86.3	55.20- 95.20	84.39
5.596	5.597	-0.001	26874563	2368.50	92.2	17.26- 57.26	39.37
5.789	5.790	-0.001	210706182	3141.30	122	215.50- 255.50	308.71
Average of Peak Concentrations =					91.6		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/021110.b/055b5501.d

Date : 11-FEB-2010 16:47

Client ID: RE15-10-8061

Sample Info: |24597901311|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

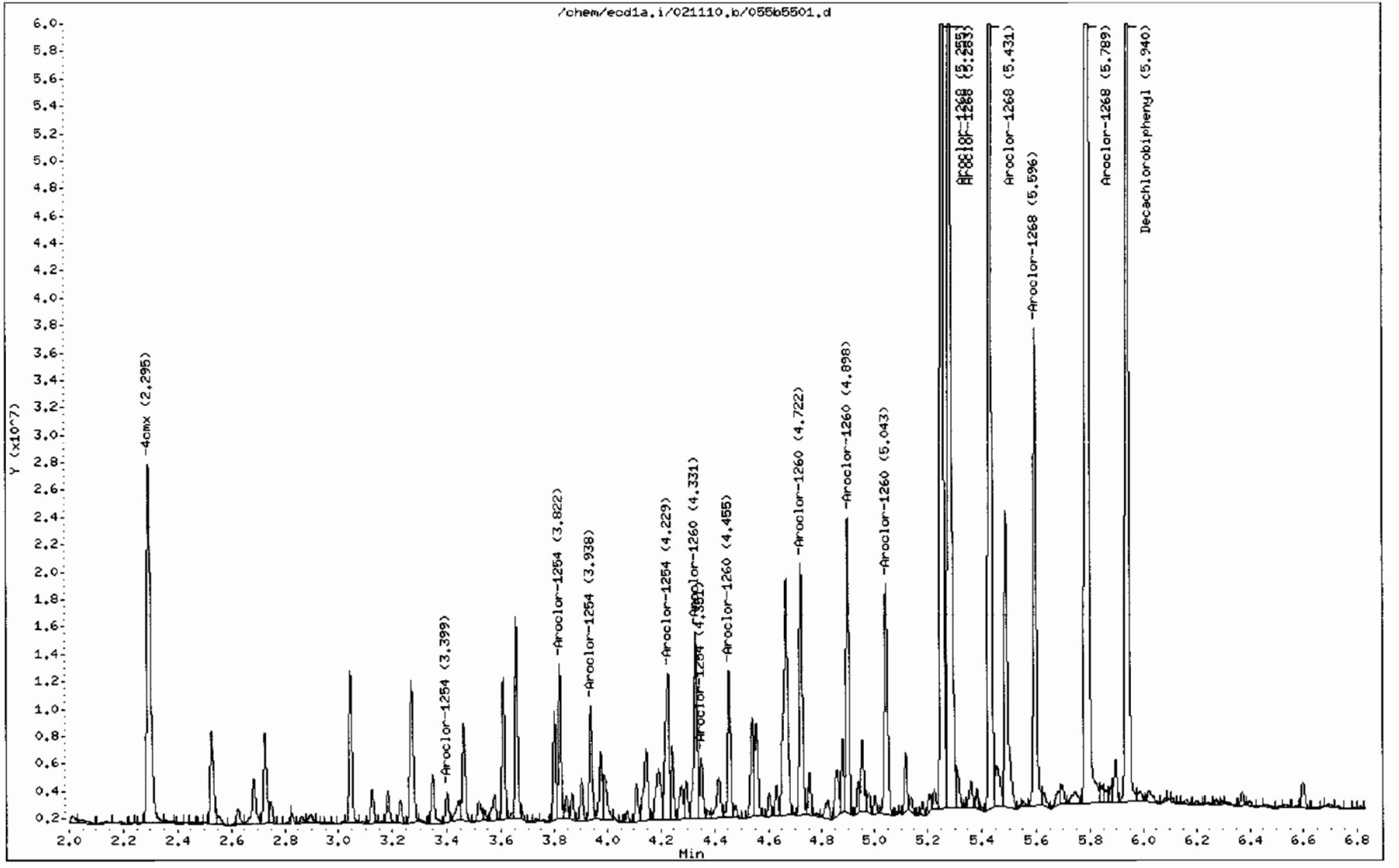

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1514**	**Date Collected:**	**01/27/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245979015**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**9.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8062**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 17:13**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.19 g**	**Final Volume:**	**1 mL**
Data File:	**057f5701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	057b5701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.66	ug/kg	1.22	3.66	1
11104-28-2	Aroclor-1221	U	3.66	ug/kg	1.22	3.66	1
11141-16-5	Aroclor-1232	U	3.66	ug/kg	1.22	3.66	1
53469-21-9	Aroclor-1242	U	3.66	ug/kg	1.22	3.66	1
12672-29-6	Aroclor-1248	U	3.66	ug/kg	1.22	3.66	1
11097-69-1	Aroclor-1254	U	3.66	ug/kg	1.22	3.66	1
11096-82-5	Aroclor-1260	U	3.66	ug/kg	1.22	3.66	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/057f5701.d
Lab Smp Id: 245979015 Client Smp ID: RE15-10-8062
Inj Date : 11-FEB-2010 17:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245979015|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8062|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 57
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	9.47790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.961	1.962	-0.001	41537230	95.0138	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	34522638	103.501	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/057f5701.d

Date : 11-FEB-2010 17:13

Client ID: RE15-10-8062

Sample Info: |2459790151|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

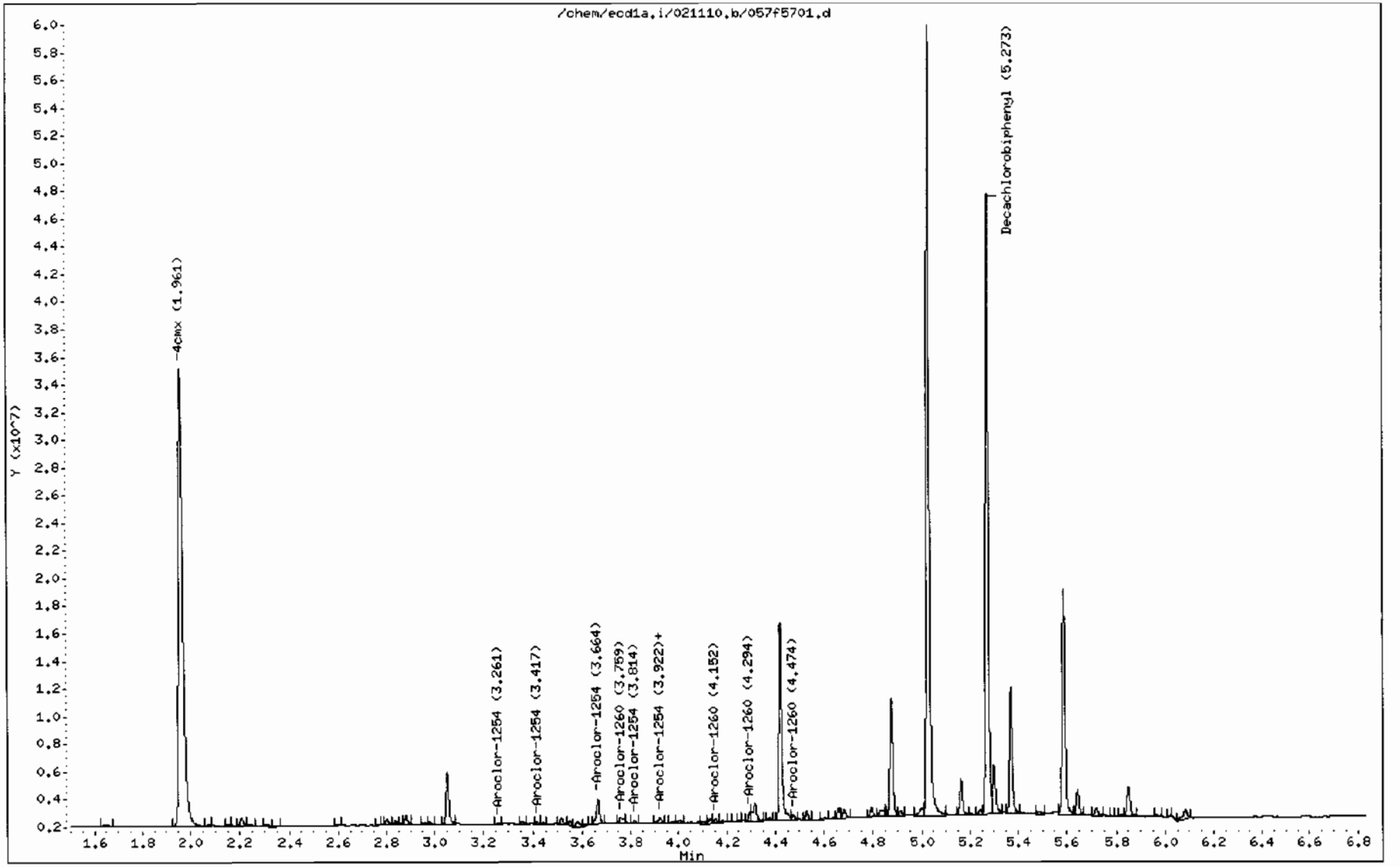

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/057b5701.d
Lab Smp Id: 245979015 Client Smp ID: RE15-10-8062
Inj Date : 11-FEB-2010 17:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245979015|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8062|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 57
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.19000	Weight of sample extracted (g)
M	9.47790	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.293	2.294	-0.001	26245496	91.4759	3.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	21966439	102.125	3.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/057b5701.d

Date : 11-FEB-2010 17:13

Client ID: RE15-10-8062

Sample Info: |245979015|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

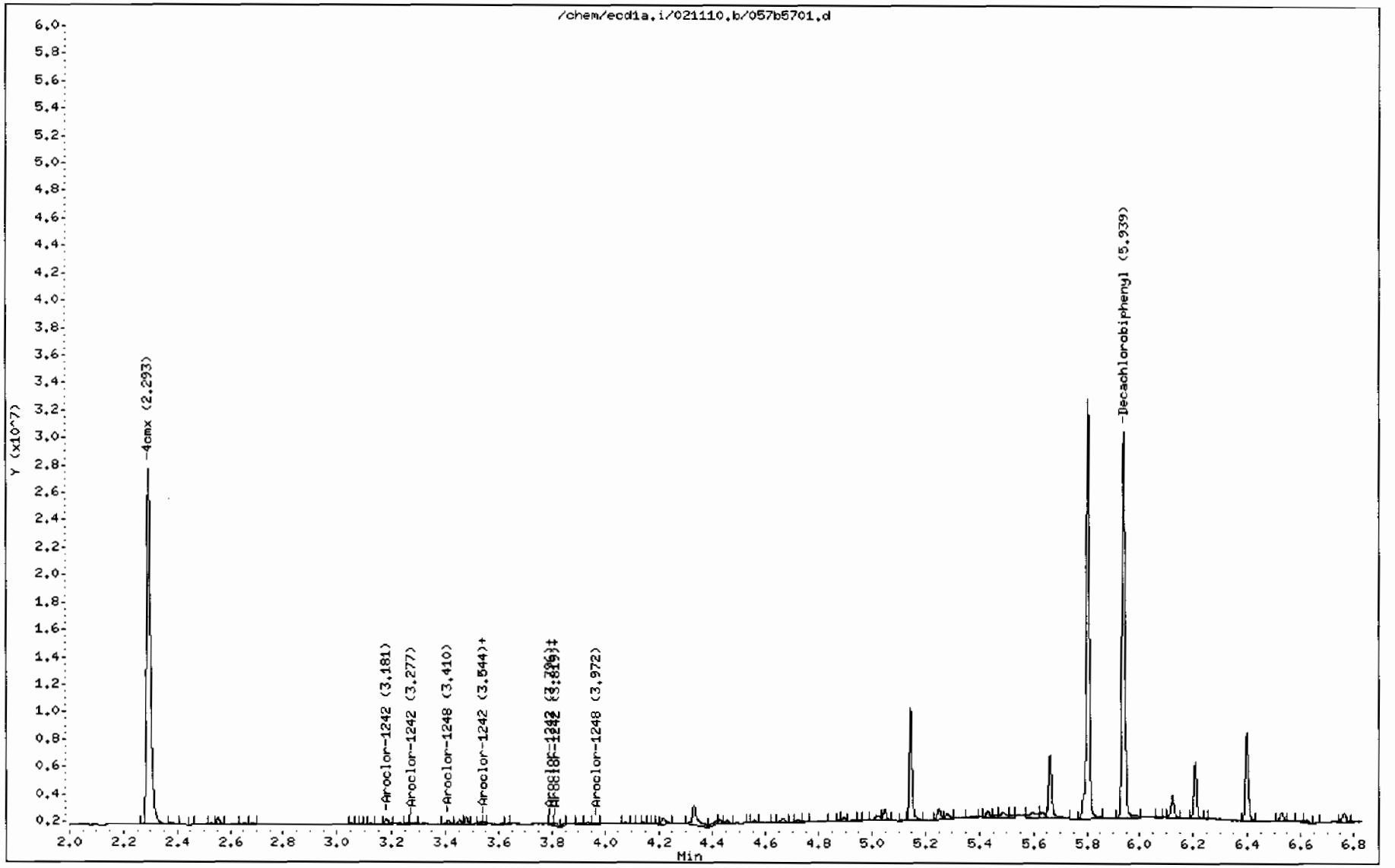

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1514**	**Date Collected:**	**01/27/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245979014**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**18.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8063**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 17:00**	**Analyst:**	**YSI**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**056f5601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	056b5601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.09	ug/kg	1.36	4.09	1
11104–28–2	Aroclor–1221	U	4.09	ug/kg	1.36	4.09	1
11141–16–5	Aroclor–1232	U	4.09	ug/kg	1.36	4.09	1
53469–21–9	Aroclor–1242	U	4.09	ug/kg	1.36	4.09	1
12672–29–6	Aroclor–1248	U	4.09	ug/kg	1.36	4.09	1
11097–69–1	Aroclor–1254	P	4.10	ug/kg	1.36	4.09	1
11096–82–5	Aroclor–1260	U	4.09	ug/kg	1.36	4.09	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/056f5601.d
Lab Smp Id: 245979014 Client Smp ID: RE15-10-8063
Inj Date : 11-FEB-2010 17:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245979014|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8063|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 56
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	18.47730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.963	1.962	0.001	59878063	136.967	5.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.272	5.275	-0.003	48388827	145.072	5.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.263	3.264	-0.001	633122	40.1115	1.6	80.00- 120.00	100.00
3.418	3.420	-0.002	1627114	76.2260	3.1	113.70- 153.70	257.00
3.651	3.654	-0.003	2139514	78.4958	3.2	155.79- 195.79	337.93
3.815	3.817	-0.002	2806076	136.079	5.6	112.67- 152.67	443.21

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.922	3.926	-0.004	3361508	171.557	7.0	108.44- 148.44	530.94
			Average of Peak Concentrations =		4.1		

Data File: /chem/ecd1a.i/021110.b/056f5601.d

Date : 11-FEB-2010 17:00

Client ID: RE15-10-8063

Sample Info: 1245979014|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

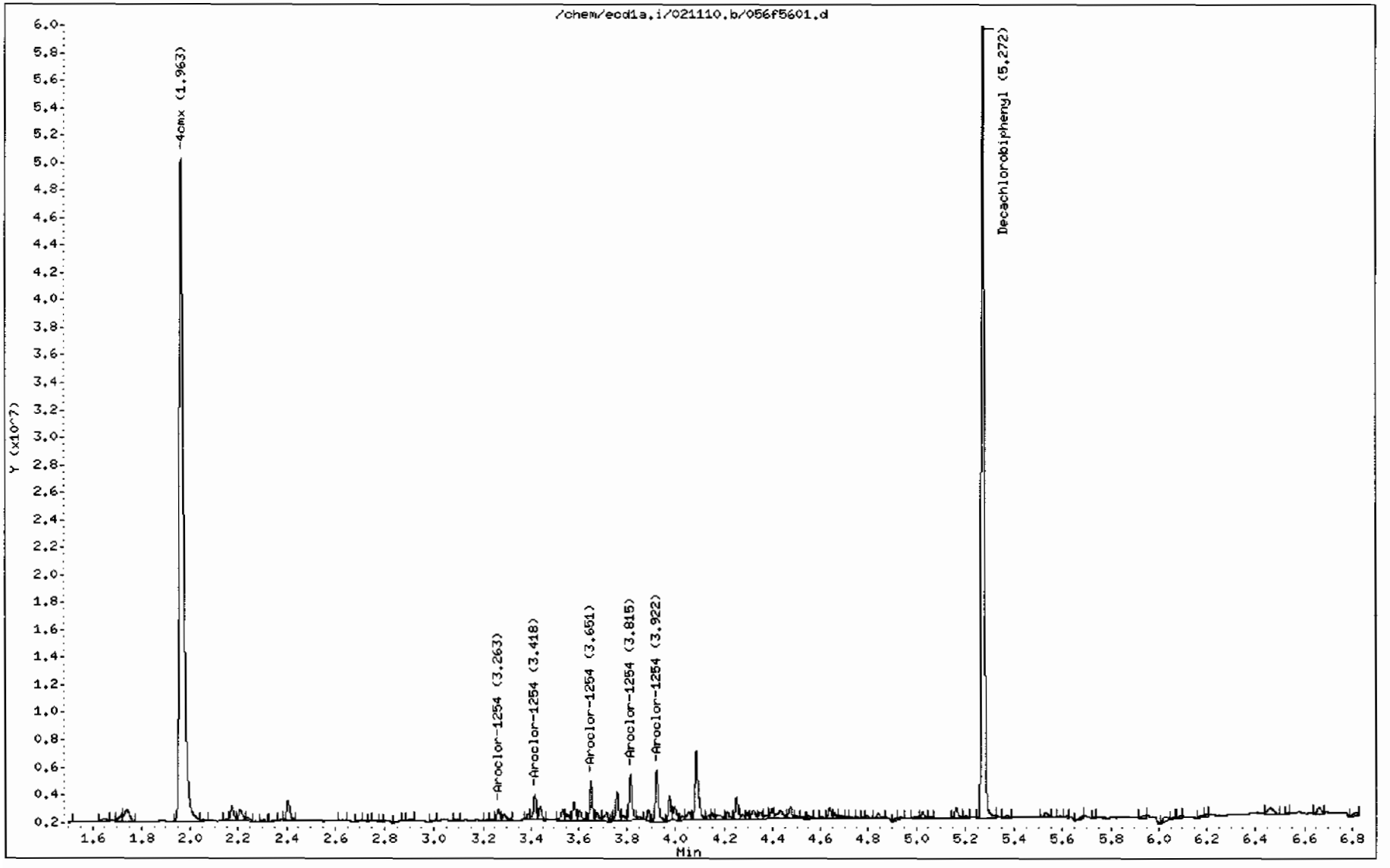

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/056b5601.d
Lab Smp Id: 245979014 Client Smp ID: RE15-10-8063
Inj Date : 11-FEB-2010 17:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245979014|1|
Misc Info : |ECD82P_1S|951299|SVA|LANL|SOIL|RE15-10-8063|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 56
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	18.47730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	38592462	134.510	5.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	29259509	136.031	5.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.400	3.400	0.000	101100	15.2472	0.62	80.00- 120.00	100.00(a)
3.821	3.822	-0.001	439214	37.5296	1.5	159.63- 199.63	434.43
3.937	3.939	-0.002	970258	75.2729	3.1	177.60- 217.60	959.69
4.213	4.215	-0.002	1409831	79.7259	3.2	255.98- 295.98	1394.48

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.350	4.351	-0.001	1633032	123.874	5.1	179.01- 219.01	1615.25
Average of Peak Concentrations =					2.7		

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/ecd1a.i/021110.b/056b5601.d

Date : 11-FEB-2010 17:00

Client ID: RE15-10-8063

Sample Info: |245979014|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

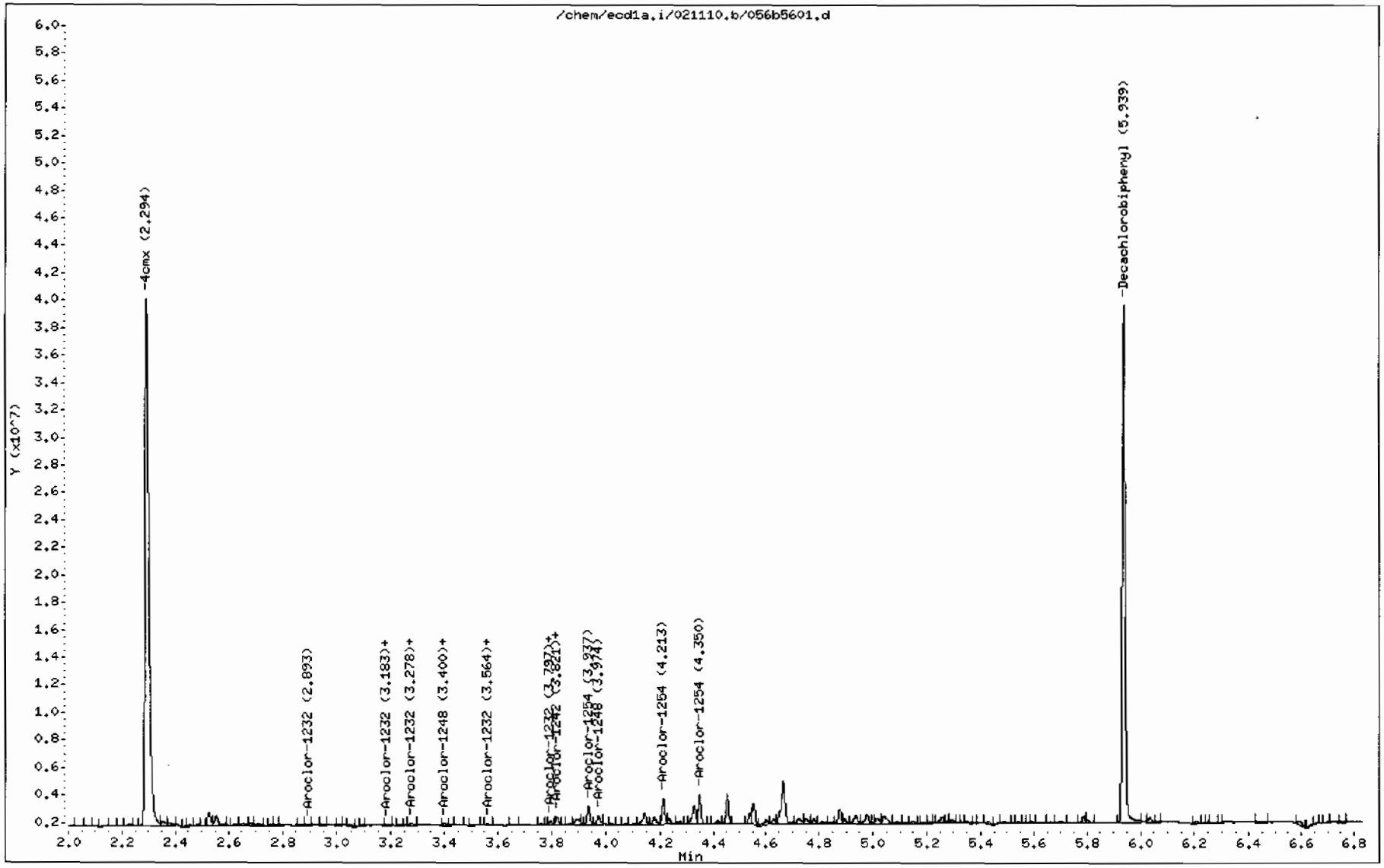

STANDARDS DATA

Report Date: 12-Feb-2010 09:03

Calibration History

Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 11-FEB-2010 08:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006f0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018f1801.d
11-FEB-2010 08:12	AR1248	/chem/ecd1a.i/021110.b/011f1101.d
10-FEB-2010 22:01	AR1242	/chem/ecd1a.i/021010c.b/008f0801.d
09-FEB-2010 08:36	AR1254	/chem/ecd1a.i/020910.b/011f1101.d
10-FEB-2010 20:58	AR1660	/chem/ecd1a.i/021010c.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007f0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019f1901.d
11-FEB-2010 08:22	AR1248	/chem/ecd1a.i/021110.b/012f1201.d
10-FEB-2010 22:12	AR1242	/chem/ecd1a.i/021010c.b/009f0901.d
09-FEB-2010 08:47	AR1254	/chem/ecd1a.i/020910.b/012f1201.d
10-FEB-2010 21:09	AR1660	/chem/ecd1a.i/021010c.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008f0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020f2001.d
11-FEB-2010 08:33	AR1248	/chem/ecd1a.i/021110.b/013f1301.d
10-FEB-2010 22:22	AR1242	/chem/ecd1a.i/021010c.b/010f1001.d
09-FEB-2010 08:57	AR1254	/chem/ecd1a.i/020910.b/013f1301.d
10-FEB-2010 21:19	AR1660	/chem/ecd1a.i/021010c.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
11-FEB-2010 08:44	AR1248	/chem/ecd1a.i/021110.b/014f1401.d
10-FEB-2010 22:33	AR1242	/chem/ecd1a.i/021010c.b/011f1101.d
09-FEB-2010 09:08	AR1254	/chem/ecd1a.i/020910.b/014f1401.d
10-FEB-2010 21:30	AR1660	/chem/ecd1a.i/021010c.b/005f0501.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021f2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009f0901.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010f1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022f2201.d
11-FEB-2010 08:54	AR1248	/chem/ecd1a.i/021110.b/015f1501.d
10-FEB-2010 22:43	AR1242	/chem/ecd1a.i/021010c.b/012f1201.d
09-FEB-2010 09:18	AR1254	/chem/ecd1a.i/020910.b/015f1501.d
10-FEB-2010 21:40	AR1660	/chem/ecd1a.i/021010c.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 18:28	AR1660	/chem/ecd1a.i/021110.b/063f6301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 20:56	AR1660	/chem/ecd1a.i/021110.b/075f7501.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 16:26	AR1660	/chem/ecd1a.i/021110.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 13:59	AR1660	/chem/ecd1a.i/021110.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 13:12	AR1660	/chem/ecd1a.i/021110.b/037f3701.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 10:35	AR1660	/chem/ecd1a.i/021110.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 09:04	AR1248	/chem/ecd1a.i/021110.b/016f1601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 08:44	AR1248	/chem/ecd1a.i/021110.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 08:01	AR1268	/chem/ecd1a.i/021110.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:51	AR1262	/chem/ecd1a.i/021110.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:40	AR1221	/chem/ecd1a.i/021110.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:19	AR1232	/chem/ecd1a.i/021110.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:46	AR1242	/chem/ecd1a.i/021110.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:35	AR1254	/chem/ecd1a.i/021110.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:25	AR1660	/chem/ecd1a.i/021110.b/002f0201.d

Report Date: 12-Feb-2010 09:02

Calibration History

Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 11-FEB-2010 08:54

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006b0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018b1801.d
11-FEB-2010 08:12	AR1248	/chem/ecd1a.i/021110.b/011b1101.d
10-FEB-2010 22:01	AR1242	/chem/ecd1a.i/021010c.b/008b0801.d
09-FEB-2010 08:36	AR1254	/chem/ecd1a.i/020910.b/011b1101.d
10-FEB-2010 20:58	AR1660	/chem/ecd1a.i/021010c.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007b0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019b1901.d
11-FEB-2010 08:22	AR1248	/chem/ecd1a.i/021110.b/012b1201.d
10-FEB-2010 22:12	AR1242	/chem/ecd1a.i/021010c.b/009b0901.d
09-FEB-2010 08:47	AR1254	/chem/ecd1a.i/020910.b/012b1201.d
10-FEB-2010 21:09	AR1660	/chem/ecd1a.i/021010c.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008b0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020b2001.d
11-FEB-2010 08:33	AR1248	/chem/ecd1a.i/021110.b/013b1301.d
10-FEB-2010 22:22	AR1242	/chem/ecd1a.i/021010c.b/010b1001.d
09-FEB-2010 08:57	AR1254	/chem/ecd1a.i/020910.b/013b1301.d
10-FEB-2010 21:19	AR1660	/chem/ecd1a.i/021010c.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021b2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009b0901.d
11-FEB-2010 08:44	AR1248	/chem/ecd1a.i/021110.b/014b1401.d
10-FEB-2010 22:33	AR1242	/chem/ecd1a.i/021010c.b/011b1101.d
09-FEB-2010 09:08	AR1254	/chem/ecd1a.i/020910.b/014b1401.d
10-FEB-2010 21:30	AR1660	/chem/ecd1a.i/021010c.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010b1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022b2201.d
11-FEB-2010 08:54	AR1248	/chem/ecd1a.i/021110.b/015b1501.d
10-FEB-2010 22:43	AR1242	/chem/ecd1a.i/021010c.b/012b1201.d
09-FEB-2010 09:18	AR1254	/chem/ecd1a.i/020910.b/015b1501.d
10-FEB-2010 21:40	AR1660	/chem/ecd1a.i/021010c.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 20:56	AR1660	/chem/ecd1a.i/021110.b/075b7501.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 18:28	AR1660	/chem/ecd1a.i/021110.b/063b6301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 16:26	AR1660	/chem/ecd1a.i/021110.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 13:59	AR1660	/chem/ecd1a.i/021110.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 13:12	AR1660	/chem/ecd1a.i/021110.b/037b3701.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 10:35	AR1660	/chem/ecd1a.i/021110.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 09:04	AR1248	/chem/ecd1a.i/021110.b/016b1601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 08:44	AR1248	/chem/ecd1a.i/021110.b/014b1401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 08:01	AR1268	/chem/ecd1a.i/021110.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:51	AR1262	/chem/ecd1a.i/021110.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:40	AR1221	/chem/ecd1a.i/021110.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 07:19	AR1232	/chem/ecd1a.i/021110.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:46	AR1242	/chem/ecd1a.i/021110.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:35	AR1254	/chem/ecd1a.i/021110.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:25	AR1660	/chem/ecd1a.i/021110.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Quant Method : ESTD Target Version : 3.50
Last Update : 12-Feb-2010 07:41 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.418	2.388-2.448	1.611e+04
	2.705	2.675-2.735	1.978e+04
	2.786	2.756-2.816	1.303e+04
	2.824	2.794-2.854	7.781e+03
	3.035	3.005-3.065	1.002e+04
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.075	2.045-2.105	4.301e+03
	2.168	2.138-2.198	2.440e+03
	2.194	2.164-2.224	1.027e+04
3 Aroclor-1232	2.422	2.392-2.452	6.849e+03
	2.711	2.681-2.741	8.426e+03
	2.792	2.762-2.822	5.627e+03
	3.041	3.011-3.071	3.983e+03
	3.296	3.266-3.326	3.858e+03
4 Aroclor-1242	2.418	2.388-2.448	1.423e+04
	2.706	2.676-2.736	1.725e+04
	2.825	2.795-2.855	6.715e+03
	3.035	3.005-3.065	8.866e+03
	3.290	3.260-3.320	8.594e+03

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COMPOUND LISTING

Method file : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.087	3.057-3.117	9.450e+03
	3.238	3.208-3.268	8.270e+03
	3.290	3.260-3.320	1.593e+04
	3.421	3.391-3.451	1.308e+04
	3.654	3.624-3.684	8.823e+03
6 Aroclor-1254	3.264	3.234-3.294	1.578e+04
	3.420	3.390-3.450	2.135e+04
	3.654	3.624-3.684	2.726e+04
	3.817	3.787-3.847	2.062e+04
	3.926	3.896-3.956	1.959e+04
7 Aroclor-1260	3.760	3.730-3.790	1.903e+04
	3.924	3.894-3.954	2.835e+04
	4.154	4.124-4.184	1.704e+04
	4.296	4.266-4.326	1.789e+04
	4.475	4.445-4.505	3.885e+04
8 Aroclor-1262	3.762	3.732-3.792	1.500e+04
	3.925	3.895-3.955	2.038e+04
	4.155	4.125-4.185	2.520e+04
	4.297	4.267-4.327	2.299e+04
	4.477	4.447-4.507	4.717e+04
9 Aroclor-1268	4.662	4.632-4.691	5.248e+04
	4.685	4.655-4.715	4.812e+04
	4.797	4.767-4.827	3.703e+04
	5.001	4.971-5.031	1.629e+04
	5.166	5.136-5.196	1.083e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.962	1.932-1.992	4.372e+05
$ 12 Decachlorobiphenyl	5.275	5.245-5.305	3.336e+05

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COMPOUND LISTING

Method file : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Quant Method : ESTD Target Version : 3.50
Last Update : 11-Feb-2010 10:57 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.190	3.160-3.220	1.243e+04
	3.274	3.244-3.304	8.521e+03
	3.337	3.307-3.367	5.254e+03
	3.564	3.534-3.594	6.732e+03
	3.640	3.610-3.670	6.324e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.491	2.461-2.521	3.640e+03
	2.585	2.555-2.615	2.329e+03
	2.626	2.596-2.656	8.119e+03
3 Aroclor-1232	2.895	2.865-2.925	5.892e+03
	3.194	3.164-3.224	6.222e+03
	3.278	3.248-3.308	4.345e+03
	3.569	3.539-3.599	3.111e+03
	3.803	3.773-3.833	3.193e+03
4 Aroclor-1242	3.191	3.161-3.221	1.075e+04
	3.274	3.244-3.304	7.486e+03
	3.565	3.535-3.595	5.934e+03
	3.799	3.769-3.829	5.957e+03
	3.825	3.795-3.855	6.667e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.400	3.370-3.430	7.671e+03
	3.565	3.535-3.595	9.454e+03
	3.799	3.769-3.829	1.075e+04
	3.826	3.796-3.856	1.201e+04
	3.963	3.933-3.993	1.157e+04
6 Aroclor-1254	3.400	3.370-3.430	6.631e+03
	3.822	3.792-3.852	1.170e+04
	3.939	3.909-3.969	1.289e+04
	4.215	4.185-4.245	1.768e+04
	4.351	4.321-4.381	1.318e+04
7 Aroclor-1260	4.330	4.300-4.360	1.259e+04
	4.455	4.425-4.485	1.507e+04
	4.721	4.691-4.751	1.162e+04
	4.895	4.865-4.925	1.203e+04
	5.042	5.012-5.072	2.582e+04
8 Aroclor-1262	4.456	4.426-4.486	1.356e+04
	4.722	4.692-4.752	1.889e+04
	4.896	4.866-4.926	1.747e+04
	5.043	5.013-5.073	3.453e+04
	5.256	5.226-5.286	2.487e+04
9 Aroclor-1268	5.255	5.225-5.285	3.626e+04
	5.282	5.252-5.312	3.358e+04
	5.432	5.402-5.462	2.598e+04
	5.597	5.567-5.627	1.135e+04
	5.790	5.760-5.820	6.708e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.294	2.264-2.324	2.869e+05
$ 12 Decachlorobiphenyl	5.941	5.911-5.971	2.151e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 11-FEB-2010 08:54
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Cal Date : 11-Feb-2010 10:57 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	19326	17292	16249	14619	13058	16109	14.981
(2)	22153	20229	20057	18657	17817	19783	8.392
(3)	15191	13813	12984	11880	11259	13025	11.981
(4)	8766	8210	7786	7162	6984	7781	9.470
(5)	11843	10436	9856	9117	8861	10022	11.892
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	17196	15480	14031	13205	11219	14226	15.919
(2)	19366	18107	17235	16522	15038	17254	9.451
(3)	7556	7133	6646	6336	5902	6715	9.682
(4)	10515	9349	8647	8192	7629	8866	12.591
(5)	9978	8943	8379	8018	7652	8594	10.575
5 Aroclor-1248(1)	10726	9846	9290	8975	8413	9450	9.334
(2)	9327	8548	8186	7843	7446	8270	8.680
(3)	17521	16821	15652	15280	14383	15931	7.826
(4)	14862	13498	12885	12502	11648	13079	9.187
(5)	10025	9201	8833	8291	7765	8823	9.799

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 11-FEB-2010 08:54
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Cal Date : 11-Feb-2010 10:57 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	18218	16468	15766	15064	13404	15784	11.233
(2)	24302	22248	21155	20648	18377	21346	10.182
(3)	29883	28006	27625	26757	24011	27256	7.865
(4)	22385	20901	20953	20353	18513	20621	6.778
(5)	21764	19914	20167	19029	17098	19594	8.725
7 Aroclor-1260(1)	21642	19935	19107	17723	16744	19030	10.032
(2)	32138	29342	28391	26620	25276	28353	9.293
(3)	19407	17671	16915	15834	15397	17045	9.355
(4)	20180	18339	17702	16653	16586	17892	8.248
(5)	42057	39974	39147	37071	36004	38851	6.158
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25041	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor-1268(1)	55111	53385	52967	52495	48466	52485	4.676
(2)	51014	48609	47960	48222	44786	48118	4.620
(3)	39244	37391	36973	36968	34562	37028	4.505
(4)	17802	16531	16072	16029	15038	16294	6.158
(5)	113064	109648	108755	109096	100824	108277	4.162
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	463524	446573	443497	419634	412623	437170	4.761
$ 12 Decachlorobiphenyl	376792	343805	329903	311587	305664	333550	8.544

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 11-FEB-2010 08:54
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Cal Date : 11-Feb-2010 10:57 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14591	12913	12188	11398	11060	12430	11.307
(2)	10470	9150	8372	7586	7028	8521	15.876
(3)	6450	5571	5116	4655	4476	5254	15.089
(4)	8237	7137	6558	5942	5787	6732	14.811
(5)	7728	6741	6161	5527	5464	6324	14.885
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12868	11152	10610	10007	9095	10746	13.125
(2)	9289	8079	7275	6770	6015	7486	16.798
(3)	7189	6322	5719	5508	4930	5934	14.498
(4)	7095	6343	5815	5502	5032	5957	13.341
(5)	7801	7111	6544	6217	5664	6667	12.341
5 Aroclor-1248(1)	9444	8118	7508	7032	6252	7671	15.686
(2)	11407	9946	9274	8769	7875	9454	14.042
(3)	12626	11184	10575	10134	9235	10751	11.776
(4)	13986	12612	11847	11369	10240	12011	11.653
(5)	13621	12052	11294	10873	9986	11565	11.846

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 11-FEB-2010 08:54
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Cal Date : 11-Feb-2010 10:57 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	8119	7134	6511	6102	5288	6631	16.115
(2)	13835	12411	11575	10994	9701	11703	13.219
(3)	15198	13631	12780	12111	10729	12890	12.960
(4)	20285	18437	17626	16945	15125	17683	10.740
(5)	15441	13882	13241	12228	11123	13183	12.432
7 Aroclor-1260(1)	15081	13204	12414	11388	10875	12592	13.167
(2)	17861	15711	14887	13769	13107	15067	12.319
(3)	13915	12197	11404	10497	10076	11618	13.121
(4)	14295	12571	11824	10912	10548	12030	12.409
(5)	29523	26703	25717	24048	23128	25824	9.659
8 Aroclor-1262(1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268(1)	40076	37508	36193	35765	31736	36256	8.369
(2)	36699	34342	33454	33223	30195	33583	6.968
(3)	29294	26633	25688	25340	22957	25982	8.826
(4)	12990	11609	11161	10996	9978	11347	9.656
(5)	67306	67058	67598	69416	64002	67076	2.911
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	319320	296105	286786	270335	262011	286912	7.851
$ 12 Decachlorobiphenyl	252618	222970	211940	195273	192671	215094	11.330

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 0625

Lab File ID: 002F0201 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	16108.588	14817.126	0.01	-8.0	15.0
(2)	19782.624	18740.852	0.01	-5.3	15.0
(3)	13025.402	12028.069	0.01	-7.6	15.0
(4)	7781.493	7264.684	0.01	-6.6	15.0
(5)	10022.454	9348.232	0.01	-6.7	15.0
Aroclor-1260	19030.240	18024.742	0.01	-5.3	15.0
(2)	28353.443	26976.990	0.01	-4.8	15.0
(3)	17044.603	16166.057	0.01	-5.2	15.0
(4)	17892.160	16921.624	0.01	-5.4	15.0
(5)	38850.548	37874.774	0.01	-2.5	15.0
4cmx	437170.47	424281.80	0.01	-2.9	15.0
Decachlorobiphenyl	333550.18	317081.31	0.01	-4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 0625

Lab File ID: 002B0201 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12430.231	11562.048	0.01	-7.0	15.0
(2)	8521.037	7683.410	0.01	-9.8	15.0
(3)	5253.747	4741.718	0.01	-9.7	15.0
(4)	6732.031	6035.202	0.01	-10.4	15.0
(5)	6324.172	5692.505	0.01	-10.0	15.0
Aroclor-1260	12592.453	11645.040	0.01	-7.5	15.0
(2)	15067.065	14168.599	0.01	-6.0	15.0
(3)	11617.964	10727.829	0.01	-7.7	15.0
(4)	12030.051	11090.617	0.01	-7.8	15.0
(5)	25823.849	24504.654	0.01	-5.1	15.0
4cmx	286911.58	274787.62	0.01	-4.2	15.0
Decachlorobiphenyl	215094.49	199976.09	0.01	-7.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 0635

Lab File ID: 003F0301 Init. Calib. Date(s): 02/09/10 02/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0836 0918

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	15784.063	14558.540	0.01	-7.8	15.0
(2)	21345.916	19465.262	0.01	-8.8	15.0
(3)	27256.404	25592.166	0.01	-6.1	15.0
(4)	20620.884	19314.338	0.01	-6.3	15.0
(5)	19594.109	18698.582	0.01	-4.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 0635

Lab File ID: 003B0301 Init. Calib. Date(s): 02/09/10 02/09/10

Heated Purge: (Y/N) N Init. Calib. Times: 0836 0918

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6630.731	5993.845	0.01	-9.6	15.0
(2)	11703.124	10766.620	0.01	-8.0	15.0
(3)	12889.867	11844.136	0.01	-8.1	15.0
(4)	17683.472	16541.698	0.01	-6.4	15.0
(5)	13183.053	11928.232	0.01	-9.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 0801

Lab File ID: 010F1001 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1268	52484.978	48752.732	0.01	-7.1	15.0
(2)	48118.088	46743.320	0.01	-2.8	15.0
(3)	37027.541	36739.910	0.01	-0.8	15.0
(4)	16294.262	18430.486	0.01	13.1	15.0
(5)	108277.36	116812.90	0.01	7.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 0801

Lab File ID: 010B1001 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1268	36255.530	31076.356	0.01	-14.3	15.0
(2)	33582.584	29783.418	0.01	-11.3	15.0
(3)	25982.381	23368.210	0.01	-10.1	15.0
(4)	11346.665	11578.931	0.01	2.0	15.0
(5)	67076.083	73183.396	0.01	9.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1359

Lab File ID: 041F4101 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	16108.588	15417.702	0.01	-4.3	15.0
(2)	19782.624	20182.782	0.01	2.0	15.0
(3)	13025.402	12638.306	0.01	-3.0	15.0
(4)	7781.493	7558.454	0.01	-2.9	15.0
(5)	10022.454	9745.749	0.01	-2.8	15.0
Aroclor-1260	19030.240	20119.986	0.01	5.7	15.0
(2)	28353.443	30406.525	0.01	7.2	15.0
(3)	17044.603	18123.617	0.01	6.3	15.0
(4)	17892.160	19480.990	0.01	8.9	15.0
(5)	38850.548	42671.482	0.01	9.8	15.0
4cmx	437170.47	445336.32	0.01	1.9	15.0
Decachlorobiphenyl	333550.18	333901.88	0.01	0.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1359

Lab File ID: 041B4101 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12430.231	12136.535	0.01	-2.4	15.0
(2)	8521.037	7885.509	0.01	-7.4	15.0
(3)	5253.747	4854.387	0.01	-7.6	15.0
(4)	6732.031	6230.767	0.01	-7.4	15.0
(5)	6324.172	5804.457	0.01	-8.2	15.0
Aroclor-1260	12592.453	12875.144	0.01	2.2	15.0
(2)	15067.065	15626.067	0.01	3.7	15.0
(3)	11617.964	11908.223	0.01	2.5	15.0
(4)	12030.051	12306.280	0.01	2.3	15.0
(5)	25823.849	27241.559	0.01	5.5	15.0
4cmx	286911.58	282518.17	0.01	-1.5	15.0
Decachlorobiphenyl	215094.49	208423.32	0.01	-3.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1626

Lab File ID: 053F5301 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	16108.588	15384.834	0.01	-4.5	15.0
(2)	19782.624	19723.224	0.01	-0.3	15.0
(3)	13025.402	12610.788	0.01	-3.2	15.0
(4)	7781.493	7597.045	0.01	-2.4	15.0
(5)	10022.454	9627.379	0.01	-3.9	15.0
Aroclor-1260	19030.240	20163.698	0.01	6.0	15.0
(2)	28353.443	30122.749	0.01	6.2	15.0
(3)	17044.603	17936.662	0.01	5.2	15.0
(4)	17892.160	18821.491	0.01	5.2	15.0
(5)	38850.548	41846.605	0.01	7.7	15.0
4cmx	437170.47	444487.38	0.01	1.7	15.0
Decachlorobiphenyl	333550.18	323722.27	0.01	-2.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1626

Lab File ID: 053B5301 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12430.231	11752.589	0.01	-5.4	15.0
(2)	8521.037	7925.933	0.01	-7.0	15.0
(3)	5253.747	4861.568	0.01	-7.5	15.0
(4)	6732.031	6425.703	0.01	-4.6	15.0
(5)	6324.172	5899.022	0.01	-6.7	15.0
Aroclor-1260	12592.453	12748.818	0.01	1.2	15.0
(2)	15067.065	15400.913	0.01	2.2	15.0
(3)	11617.964	11718.691	0.01	0.9	15.0
(4)	12030.051	12136.482	0.01	0.9	15.0
(5)	25823.849	26752.597	0.01	3.6	15.0
4cmx	286911.58	282963.31	0.01	-1.4	15.0
Decachlorobiphenyl	215094.49	202100.79	0.01	-6.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1828

Lab File ID: 063F6301 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	16108.588	14670.768	0.01	-8.9	15.0
(2)	19782.624	19413.394	0.01	-1.9	15.0
(3)	13025.402	12409.380	0.01	-4.7	15.0
(4)	7781.493	7474.666	0.01	-3.9	15.0
(5)	10022.454	9497.975	0.01	-5.2	15.0
Aroclor-1260	19030.240	19886.462	0.01	4.5	15.0
(2)	28353.443	29823.794	0.01	5.2	15.0
(3)	17044.603	17865.326	0.01	4.8	15.0
(4)	17892.160	18725.540	0.01	4.6	15.0
(5)	38850.548	41814.099	0.01	7.6	15.0
4cmx	437170.47	434734.20	0.01	-0.6	15.0
Decachlorobiphenyl	333550.18	325516.50	0.01	-2.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

Instrument ID: ECD1A Calibration Date: 02/11/10 Time: 1828

Lab File ID: 063B6301 Init. Calib. Date(s): 02/10/10 02/10/10

Heated Purge: (Y/N) N Init. Calib. Times: 2058 2140

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12430.231	11730.474	0.01	-5.6	15.0
(2)	8521.037	7797.700	0.01	-8.5	15.0
(3)	5253.747	4820.709	0.01	-8.2	15.0
(4)	6732.031	6116.647	0.01	-9.1	15.0
(5)	6324.172	5692.008	0.01	-10.0	15.0
Aroclor-1260	12592.453	12653.249	0.01	0.5	15.0
(2)	15067.065	15351.314	0.01	1.9	15.0
(3)	11617.964	11677.224	0.01	0.5	15.0
(4)	12030.051	12150.048	0.01	1.0	15.0
(5)	25823.849	26887.303	0.01	4.1	15.0
4cmx	286911.58	277205.39	0.01	-3.4	15.0
Decachlorobiphenyl	215094.49	205818.45	0.01	-4.3	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 11-FEB-2010 06:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	42428180	100.000	97.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	31708131	100.000	95.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.418	0.000	14817126	1000.00	920	80.00- 120.00	100.00
2.705	2.705	0.000	18740852	1000.00	947	106.48- 146.48	126.48
2.786	2.786	0.000	12028069	1000.00	923	61.18- 101.18	81.18
2.824	2.824	0.000	7264684	1000.00	934	29.03- 69.03	49.03
3.035	3.035	0.000	9348232	1000.00	933	43.09- 83.09	63.09
Average of Peak Amounts =					931		
7 Aroclor-1260					CAS #: 11096-82-5		
3.760	3.760	0.000	18024742	1000.00	947	80.00- 120.00	100.00
3.924	3.924	0.000	26976990	1000.00	951	129.67- 169.67	149.67
4.154	4.154	0.000	16166057	1000.00	948	69.69- 109.69	89.69
4.296	4.296	0.000	16921624	1000.00	946	73.88- 113.88	93.88
4.475	4.475	0.000	37874774	1000.00	975	190.13- 230.13	210.13
Average of Peak Amounts =					954		

Data File: /chem/ecdla.i/021110.b/002f0201.d
Date : 11-FEB-2010 06:25
Client ID: AR166001
Sample Info: WAR100203-60 01

Column phase: CLP1

Instrument: ecdla.i
Operator: YS1
Column diameter: 0.25

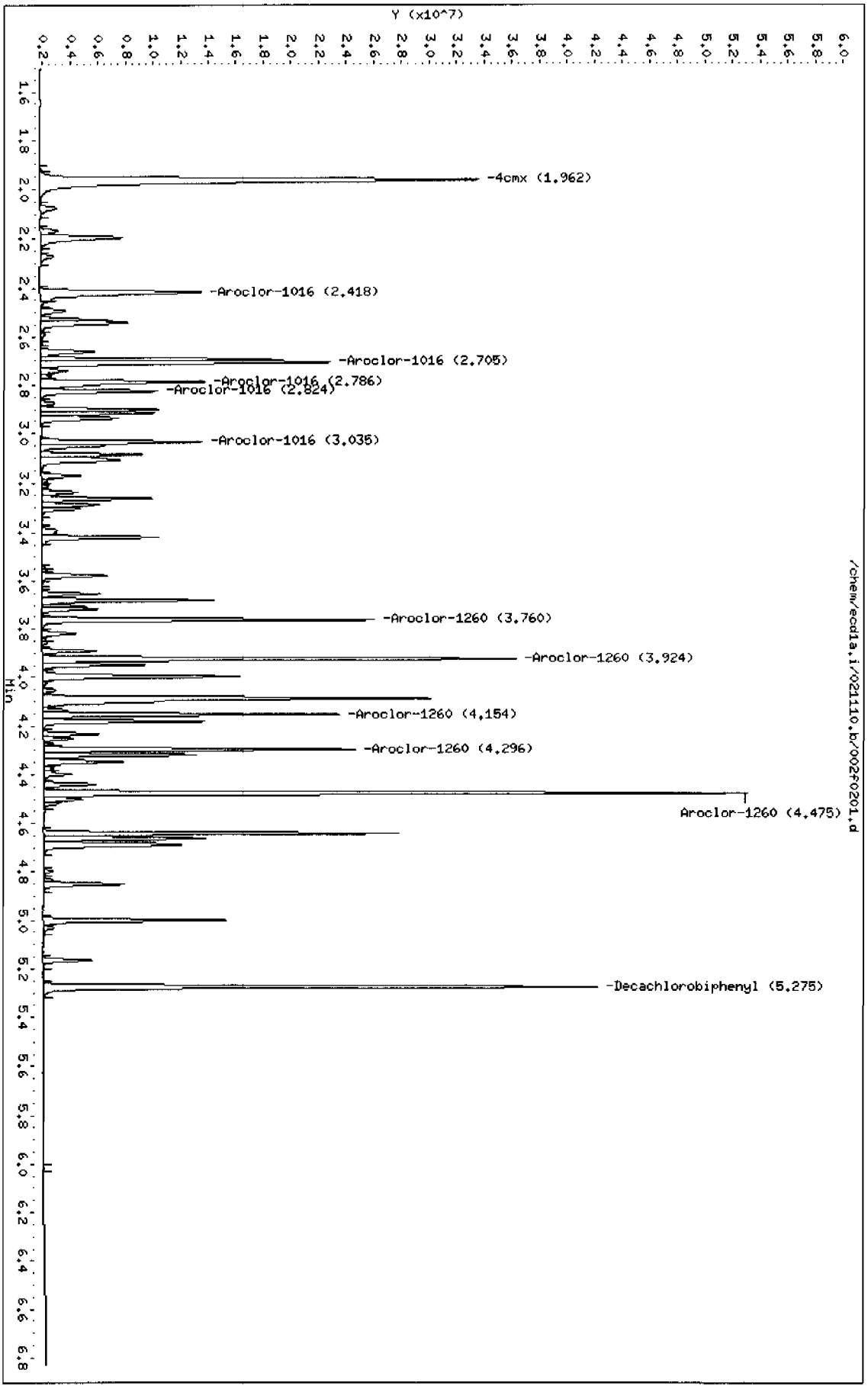

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 11-FEB-2010 06:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	27478762	100.000	95.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.941	0.000	19997609	100.000	93.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.190	0.000	11562048	1000.00	930	80.00- 120.00	100.00(M)
3.274	3.274	0.000	7683410	1000.00	902	46.45- 86.45	66.45
3.337	3.337	0.000	4741718	1000.00	902	21.01- 61.01	41.01
3.564	3.564	0.000	6035202	1000.00	896	32.20- 72.20	52.20
3.640	3.640	0.000	5692505	1000.00	900	29.23- 69.23	49.23
Average of Peak Amounts =					906		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.330	0.000	11645040	1000.00	925	80.00- 120.00	100.00
4.455	4.455	0.000	14168599	1000.00	940	101.67- 141.67	121.67
4.721	4.721	0.000	10727829	1000.00	923	72.12- 112.12	92.12
4.895	4.895	0.000	11090617	1000.00	922	75.24- 115.24	95.24
5.042	5.042	0.000	24504654	1000.00	949	190.43- 230.43	210.43
Average of Peak Amounts =					932		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/002b0201.d

Date : 11-FEB-2010 06:25

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

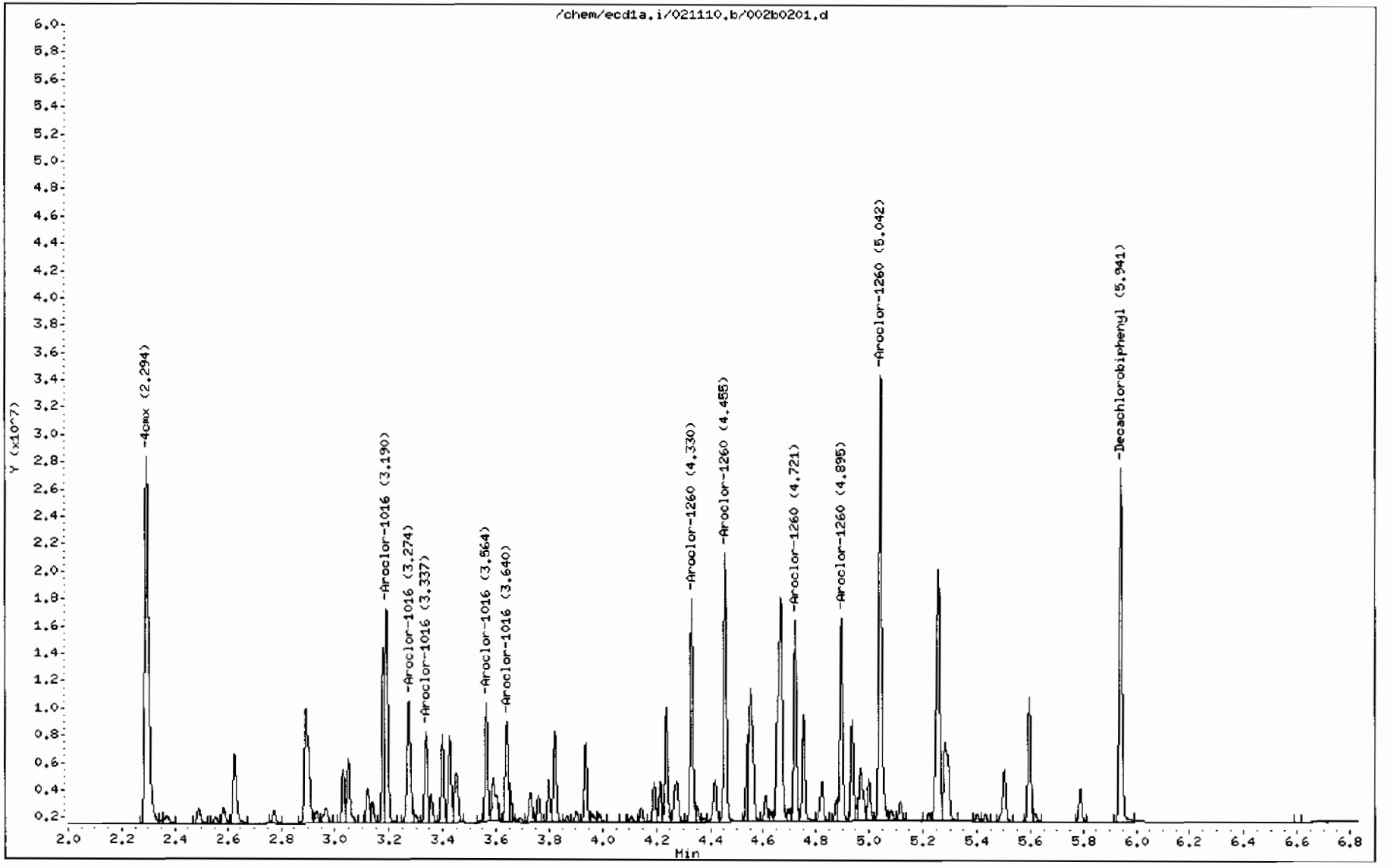

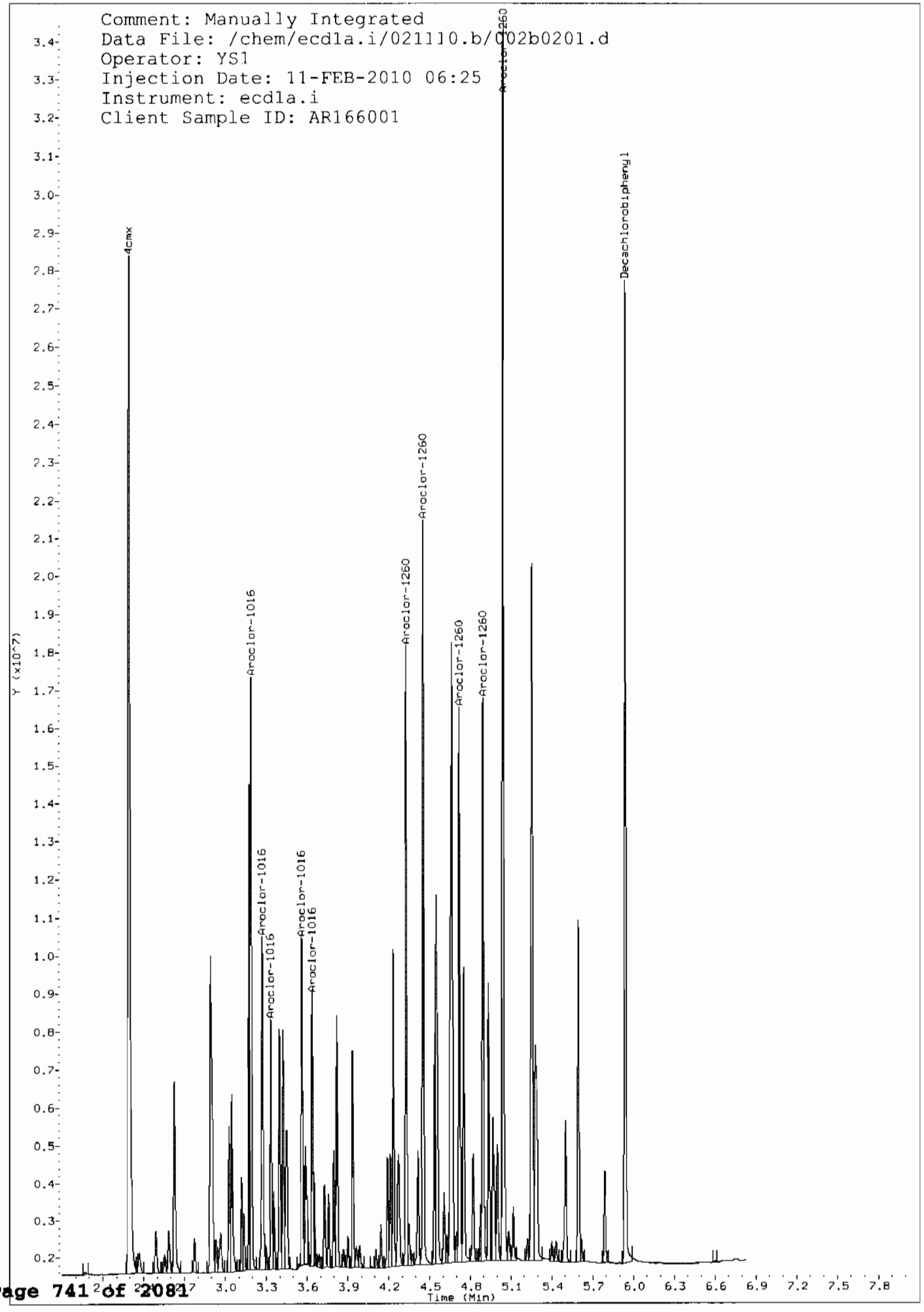
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Data File: /chem/ecd1a.i/021110.b/002b0201.d
Operator: YS1
Injection Date: 11-FEB-2010 06:25
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

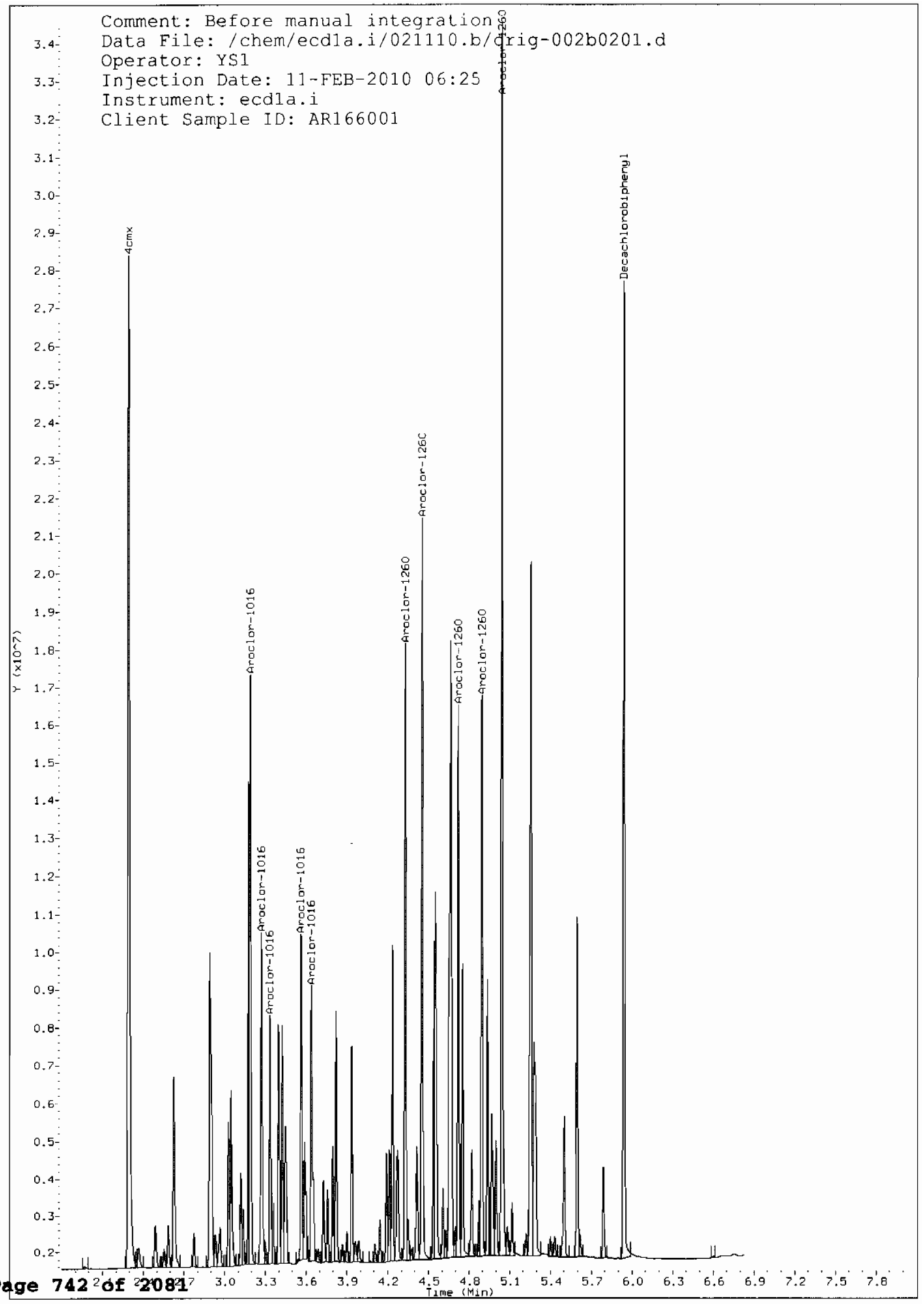
Comment: Before manual integration
Data File: /chem/ecd1a.i/021110.b/drig-002b0201.d
Operator: YS1
Injection Date: 11-FEB-2010 06:25
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 11-FEB-2010 06:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.264	0.000	14558540	1000.00	922	80.00- 120.00	100.00
3.420	3.420	0.000	19465262	1000.00	912	113.70- 153.70	133.70
3.654	3.654	0.000	25592166	1000.00	939	155.79- 195.79	175.79
3.817	3.817	0.000	19314338	1000.00	937	112.67- 152.67	132.67
3.926	3.926	0.000	18698582	1000.00	954	108.44- 148.44	128.44
Average of Peak Amounts =					933		

Data File: /chem/ecd1a.i/021110.b/003f0301.d

Date : 11-FEB-2010 06:35

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

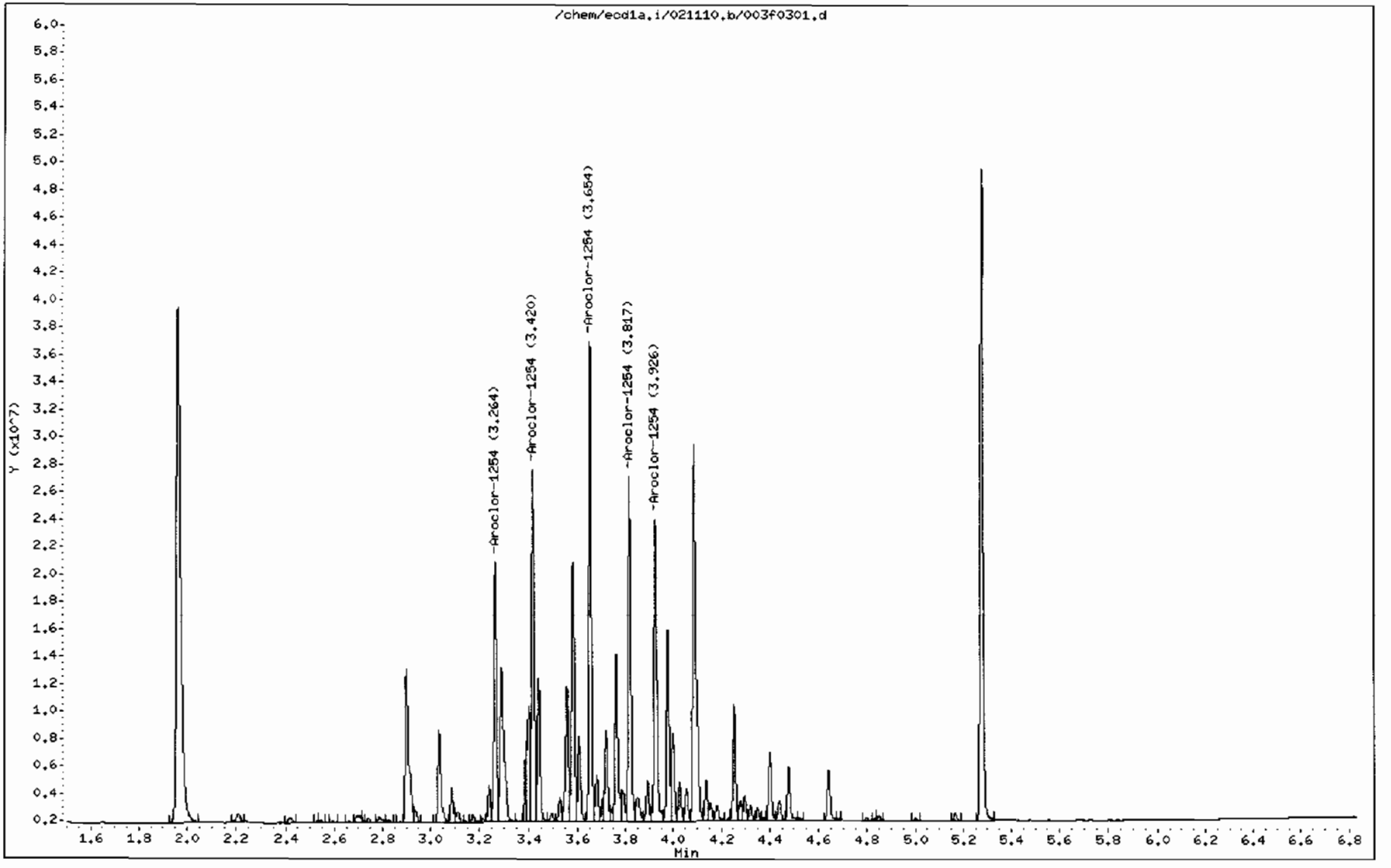

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/021110.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 11-FEB-2010 06:35
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecdla.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.400	3.400	0.000	5993845	1000.00	904	80.00- 120.00	100.00
3.822	3.822	0.000	10766620	1000.00	920	159.63- 199.63	179.63
3.939	3.939	0.000	11844136	1000.00	919	177.60- 217.60	197.60
4.215	4.215	0.000	16541698	1000.00	935	255.98- 295.98	275.98
4.351	4.351	0.000	11928232	1000.00	905	179.01- 219.01	199.01
Average of Peak Amounts =					917		

Data File: /chem/ecd1a.i/021110.b/003b0301.d

Date : 11-FEB-2010 06:35

Client ID: AR125401

Sample Info: !WAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

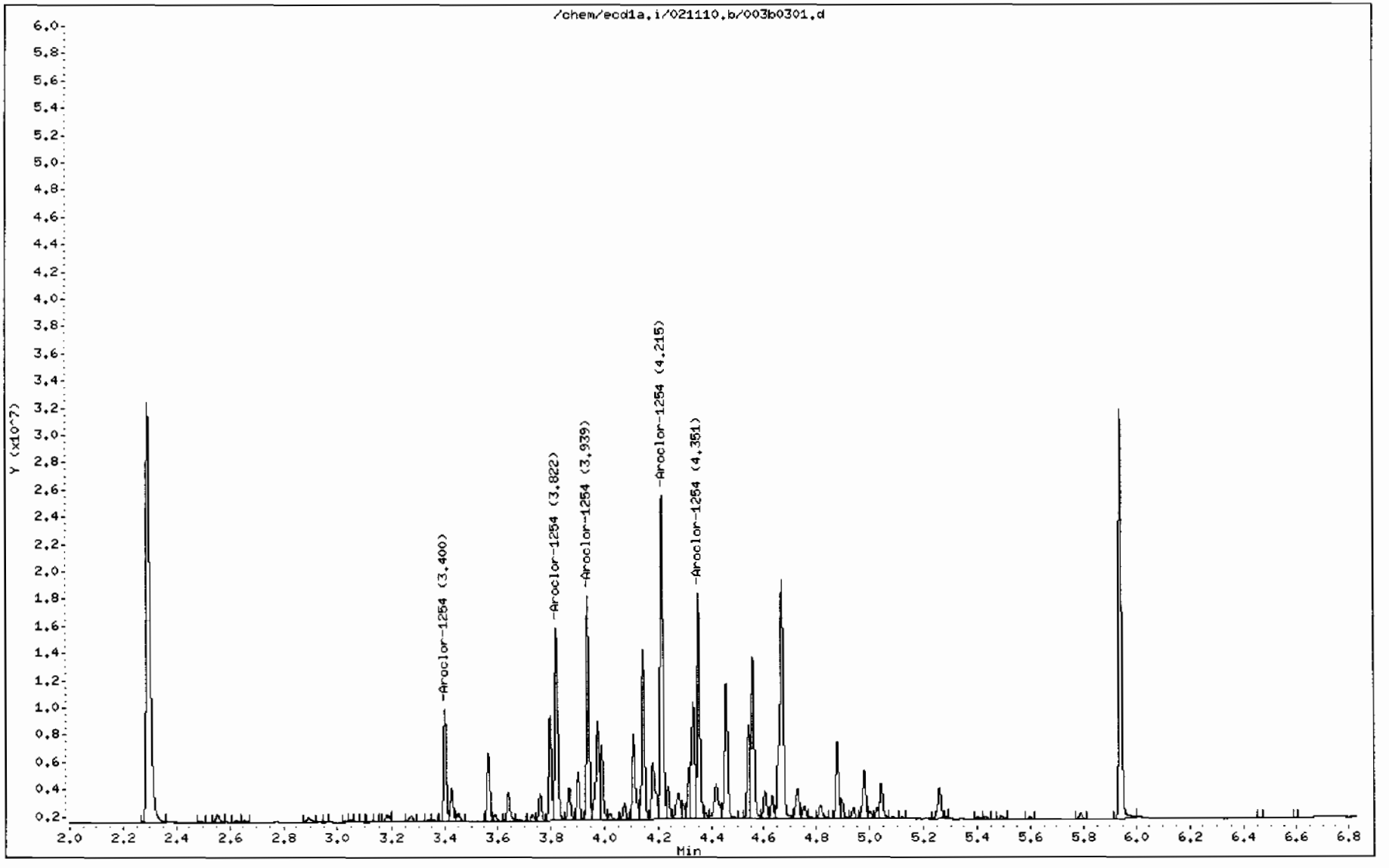

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 11-FEB-2010 06:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.418	2.418	0.000	12811931	1000.00	901	80.00- 120.00	100.00
2.706	2.706	0.000	16871961	1000.00	978	111.69- 151.69	131.69
2.825	2.825	0.000	6444039	1000.00	960	30.30- 70.30	50.30
3.035	3.035	0.000	8260646	1000.00	932	44.48- 84.48	64.48
3.290	3.290	0.000	8186664	1000.00	953	43.90- 83.90	63.90
Average of Peak Amounts					944		

Data File: /chem/ecd1a.i/021110.b/004f0401.d

Date : 11-FEB-2010 06:46

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

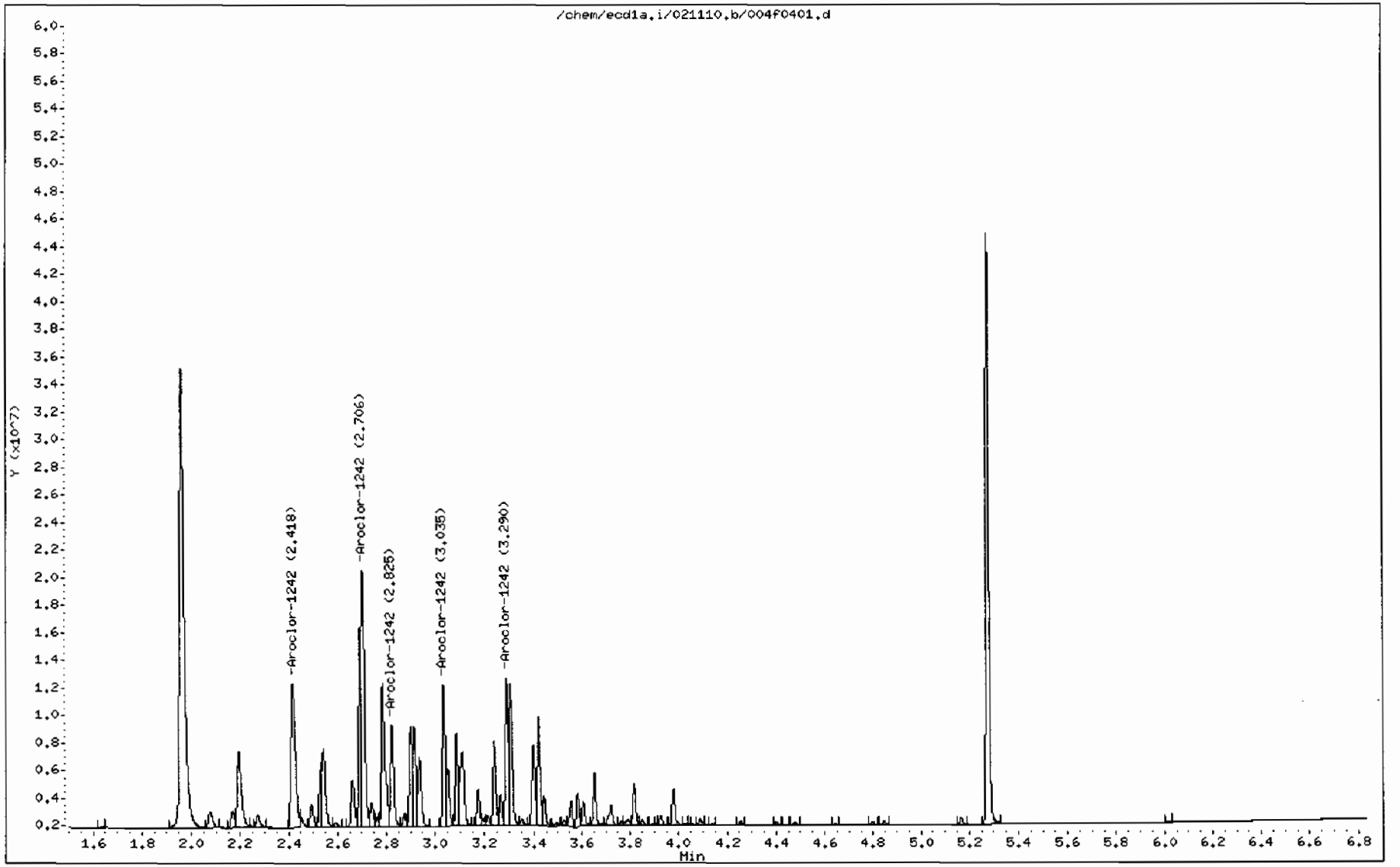

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 11-FEB-2010 06:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.191	3.191	0.000	10156154	1000.00	945	80.00- 120.00	100.00
3.274	3.274	0.000	6809009	1000.00	910	47.04- 87.04	67.04
3.565	3.565	0.000	5378381	1000.00	906	32.96- 72.96	52.96
3.799	3.799	0.000	5515991	1000.00	926	34.31- 74.31	54.31
3.825	3.825	0.000	5402650	1000.00	810	33.20- 73.20	53.20
		Average of Peak Amounts =			899		

Data File: /chem/ecd1a.i/021110.b/004b0401.d

Date : 11-FEB-2010 06:46

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

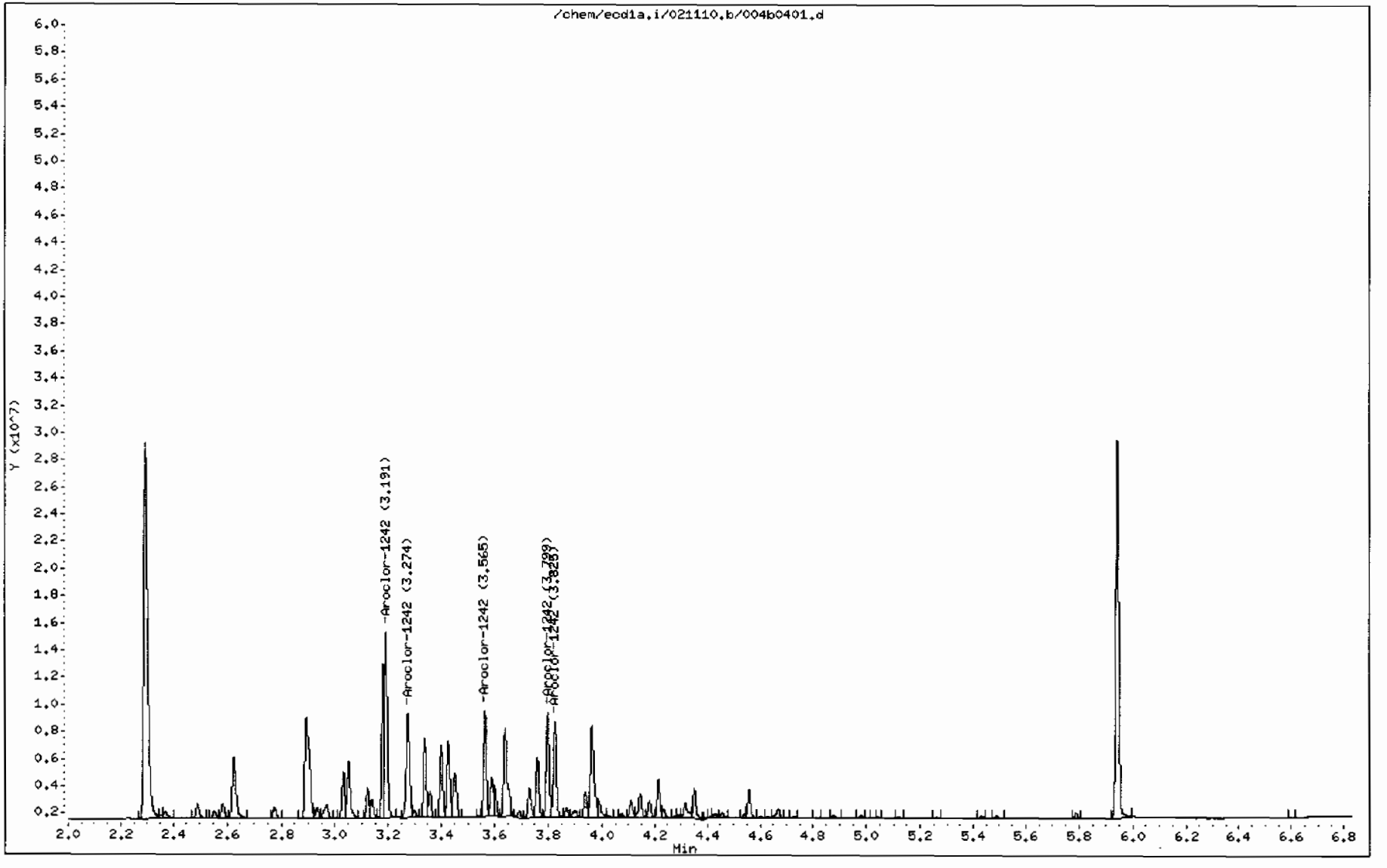

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 11-FEB-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:43 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 76 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.422	2.422	0.000	8154572	1000.00	1190	80.00- 120.00	100.00
2.711	2.711	0.000	11028342	1000.00	1310	115.24- 155.24	135.24
2.792	2.792	0.000	6790675	1000.00	1210	63.27- 103.27	83.27
3.041	3.041	0.000	4995623	1000.00	1250	41.26- 81.26	61.26
3.296	3.296	0.000	4819542	1000.00	1250	39.10- 79.10	59.10

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd1a.i/021110.b/006f0601.d

Date : 11-FEB-2010 07:19

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

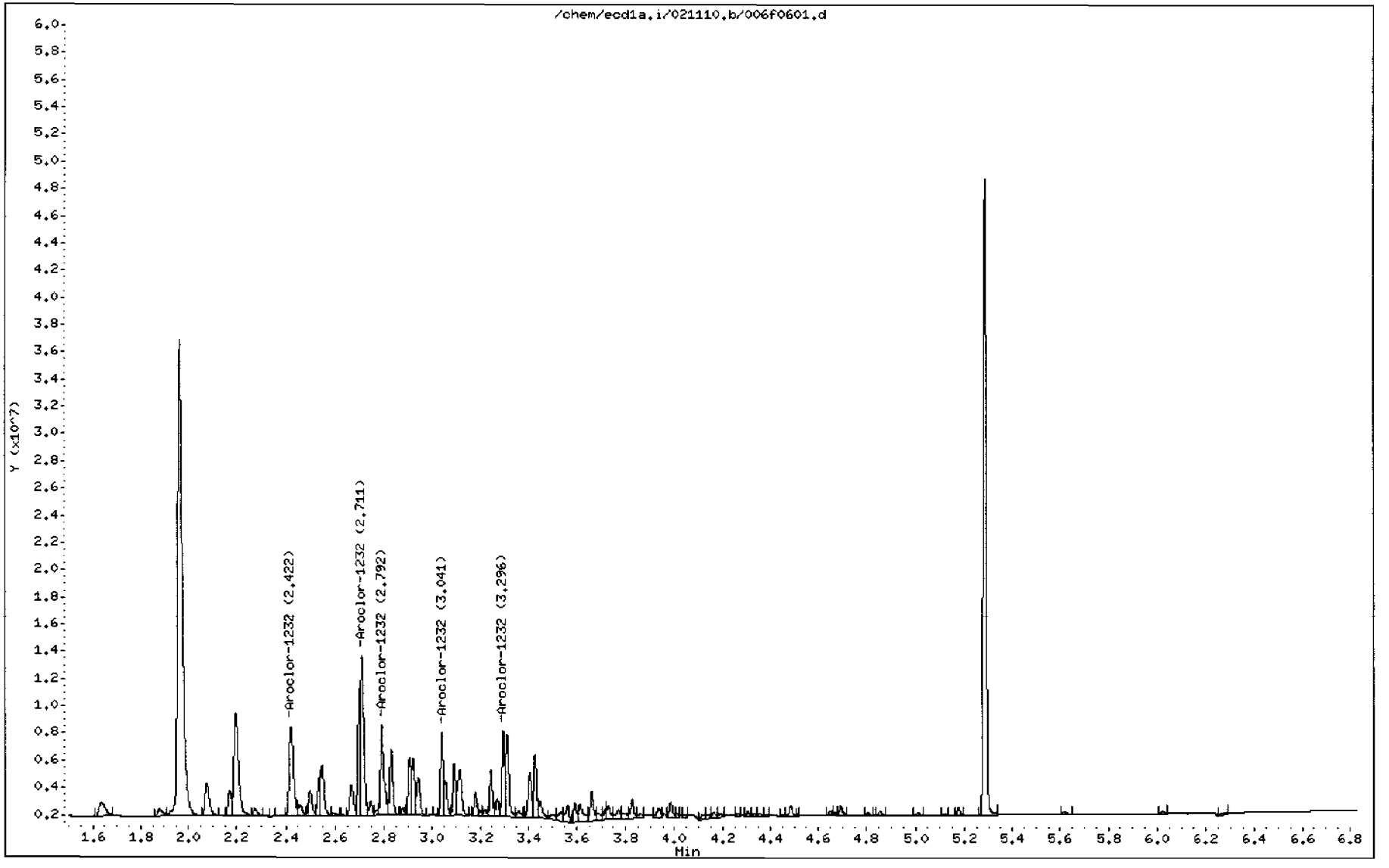

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 11-FEB-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:43 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 76 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.895	2.895	0.000	5903575	1000.00	1000	80.00- 120.00	100.00
3.194	3.194	0.000	6634910	1000.00	1070	92.39- 132.39	112.39
3.278	3.278	0.000	4456496	1000.00	1020	55.49- 95.49	75.49
3.569	3.569	0.000	3304789	1000.00	1060	35.98- 75.98	55.98
3.803	3.803	0.000	3250245	1000.00	1020	35.06- 75.06	55.06

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/021110.b/006b0601.d

Date : 11-FEB-2010 07:19

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

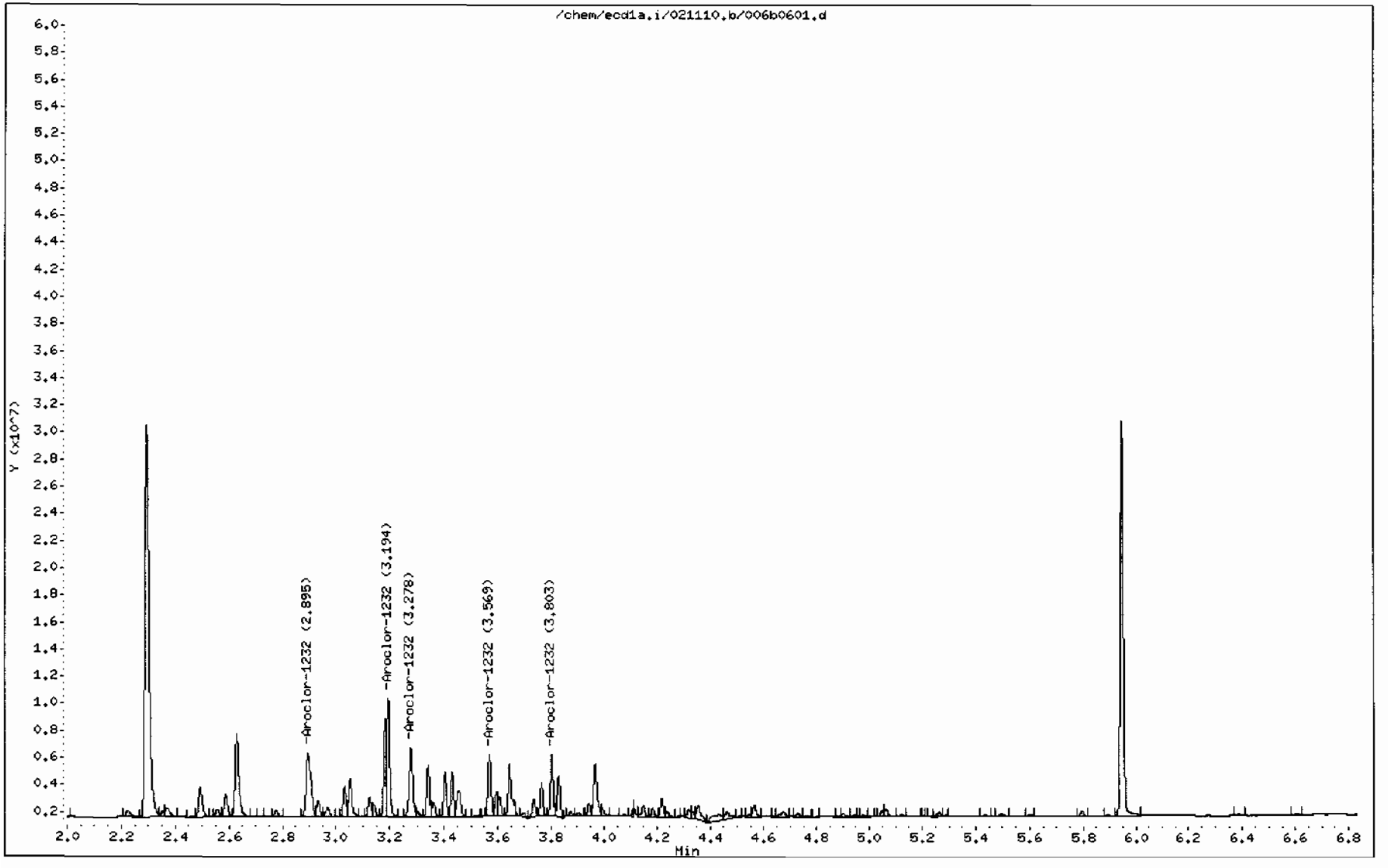

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 11-FEB-2010 07:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:43 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.075	2.075	0.000	5016640	1000.00	1170	80.00- 120.00	100.00
2.168	2.168	0.000	2677031	1000.00	1100	33.36- 73.36	53.36
2.194	2.194	0.000	12074242	1000.00	1180	220.68- 260.68	240.68

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd1a.i/021110.b/008f0801.d

Page 1

Date : 11-FEB-2010 07:40

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

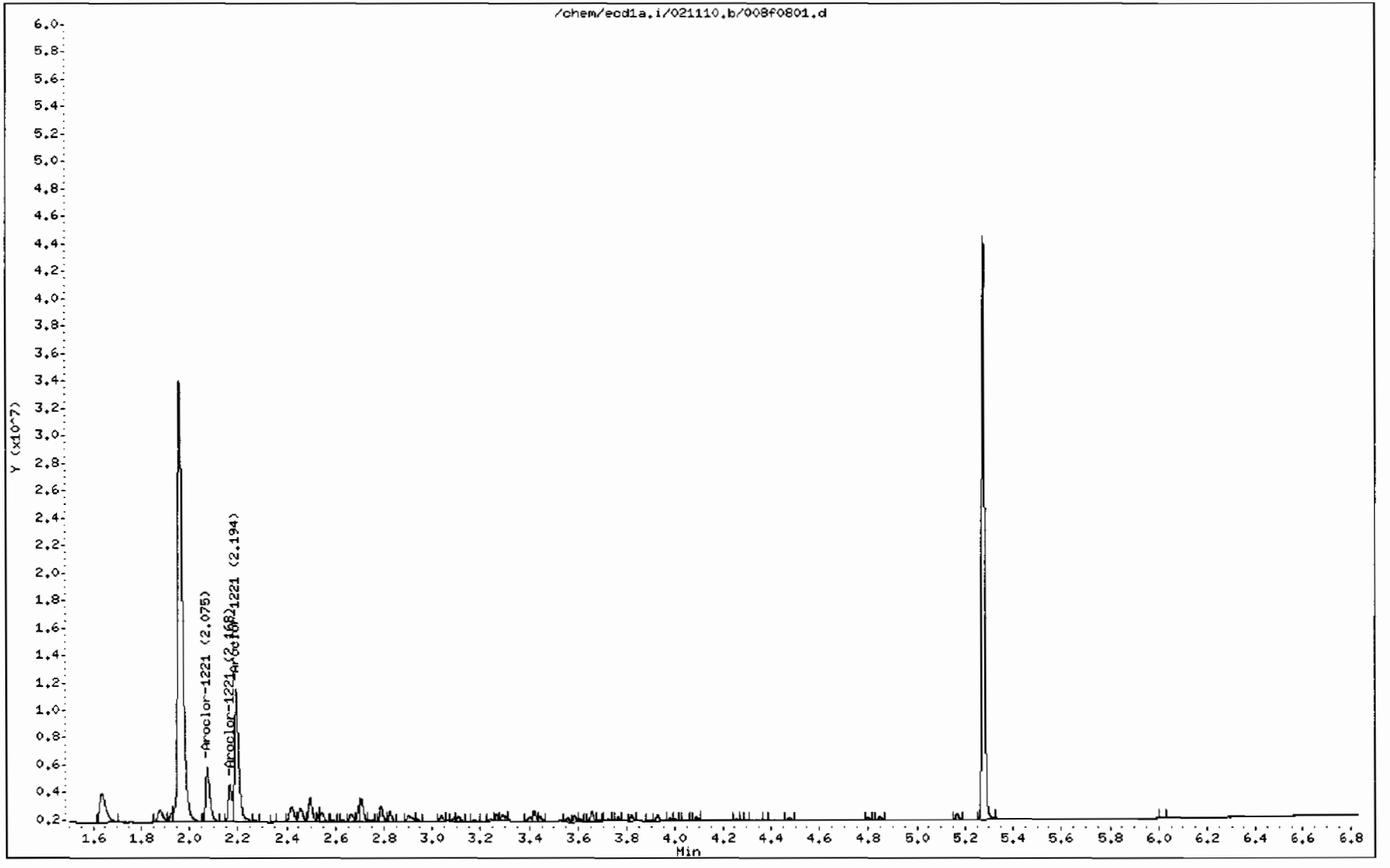

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 11-FEB-2010 07:40
Operator : YSl Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:43 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.491	2.491	0.000	3583178	1000.00	984	80.00- 120.00	100.00
2.585	2.585	0.000	2262373	1000.00	971	43.14- 83.14	63.14
2.626	2.626	0.000	7643207	1000.00	941	193.31- 233.31	213.31
		Average of Peak Amounts =			966		

Data File: /chem/ecd1a.i/021110.b/008b0801.d

Date : 11-FEB-2010 07:40

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

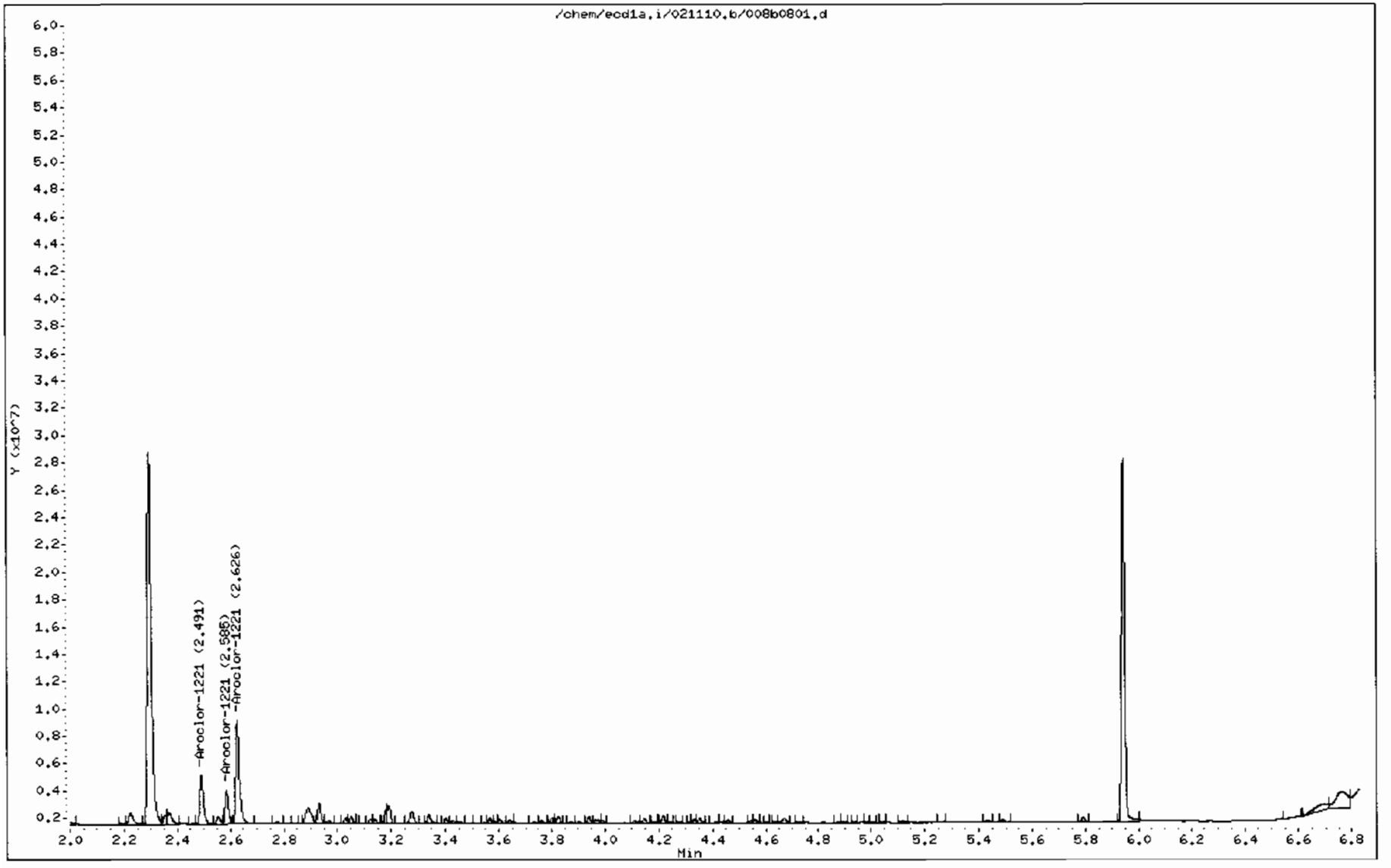

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/010f1001.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 11-FEB-2010 08:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:44 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
4.662	4.662	0.000	48752732	1000.00	929	80.00- 120.00	100.00
4.685	4.685	0.000	46743320	1000.00	971	75.88- 115.88	95.88
4.797	4.797	0.000	36739910	1000.00	992	55.36- 95.36	75.36
5.001	5.001	0.000	18430486	1000.00	1130	17.80- 57.80	37.80
5.166	5.166	0.000	116812895	1000.00	1080	219.60- 259.60	239.60

Average of Peak Amounts 1.02e+03

Data File: /chem/ecd1a.i/021110.b/010f1001.d

Date : 11-FEB-2010 08:01

Client ID: AR126801

Sample Info: IWAR100107-68

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

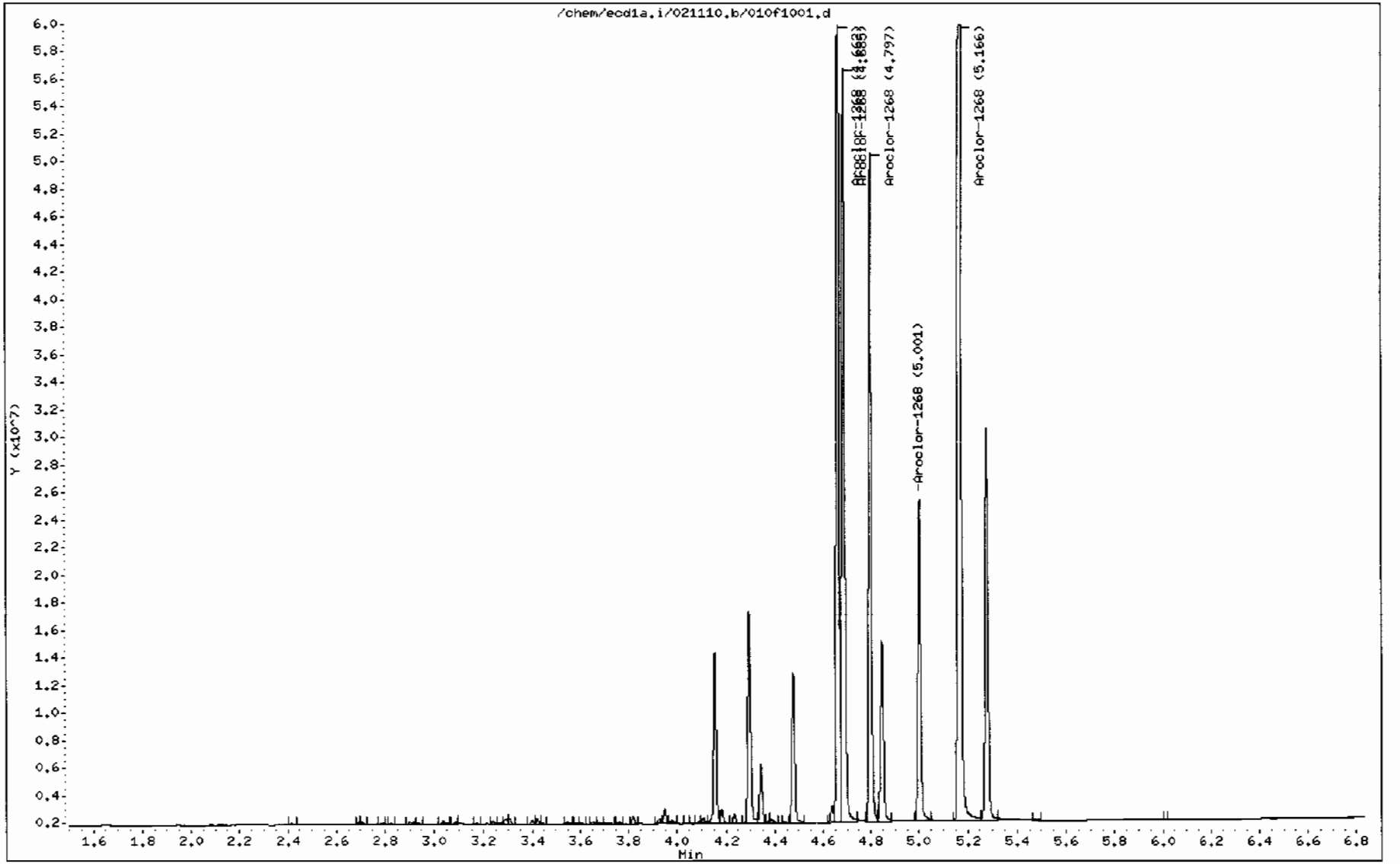

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/010b1001.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 11-FEB-2010 08:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:44 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
5.255	5.255	0.000	31076356	1000.00	857	80.00- 120.00	100.00
5.282	5.282	0.000	29783418	1000.00	887	75.84- 115.84	95.84
5.432	5.432	0.000	23368210	1000.00	899	55.20- 95.20	75.20
5.597	5.597	0.000	11578931	1000.00	1020	17.26- 57.26	37.26
5.790	5.790	0.000	73183396	1000.00	1090	215.50- 255.50	235.50
Average of Peak Amounts					951		

Data File: /chem/ecd1a.i/021110.b/010b1001.d

Date : 11-FEB-2010 08:01

Client ID: AR126801

Sample Info: IWAR100107-68

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

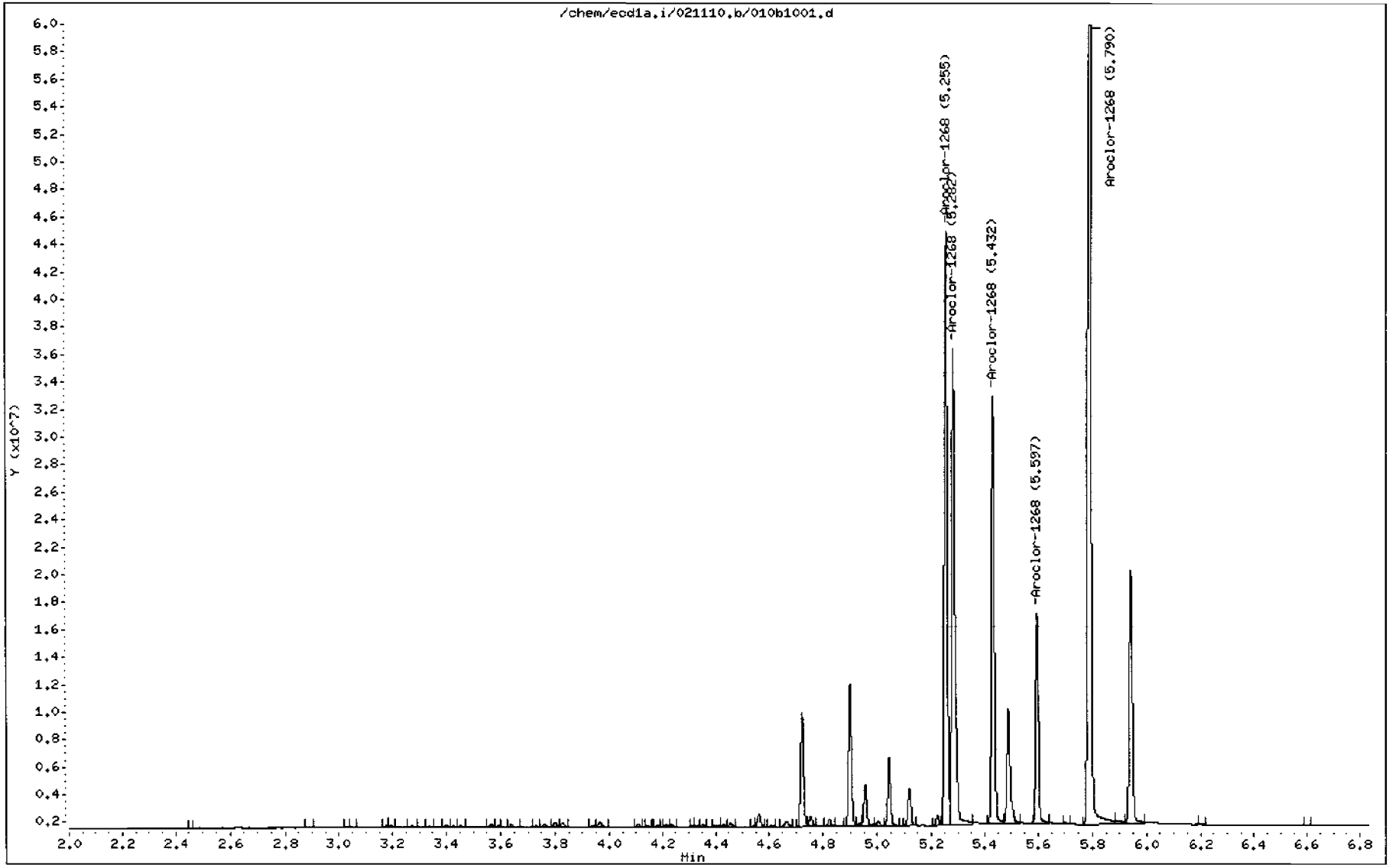

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/016f1601.d
Lab Smp Id: WAR091217-48 48 Client Smp ID: AR124801
Inj Date : 11-FEB-2010 09:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48 48
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.087	3.087	0.000	8873993	1000.00	939	80.00- 120.00	100.00
3.238	3.238	0.000	7689955	1000.00	930	66.66- 106.66	86.66
3.290	3.290	0.000	14863457	1000.00	933	147.49- 187.49	167.49
3.421	3.421	0.000	12125245	1000.00	927	116.64- 156.64	136.64
3.654	3.654	0.000	7845412	1000.00	889	68.41- 108.41	88.41
Average of Peak Amounts =					924		

Data File: /chem/ecd1a.i/021110.b/016f1601.d

Date : 11-FEB-2010 09:04

Client ID: AR124801

Sample Info: IWAR091217-48 48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

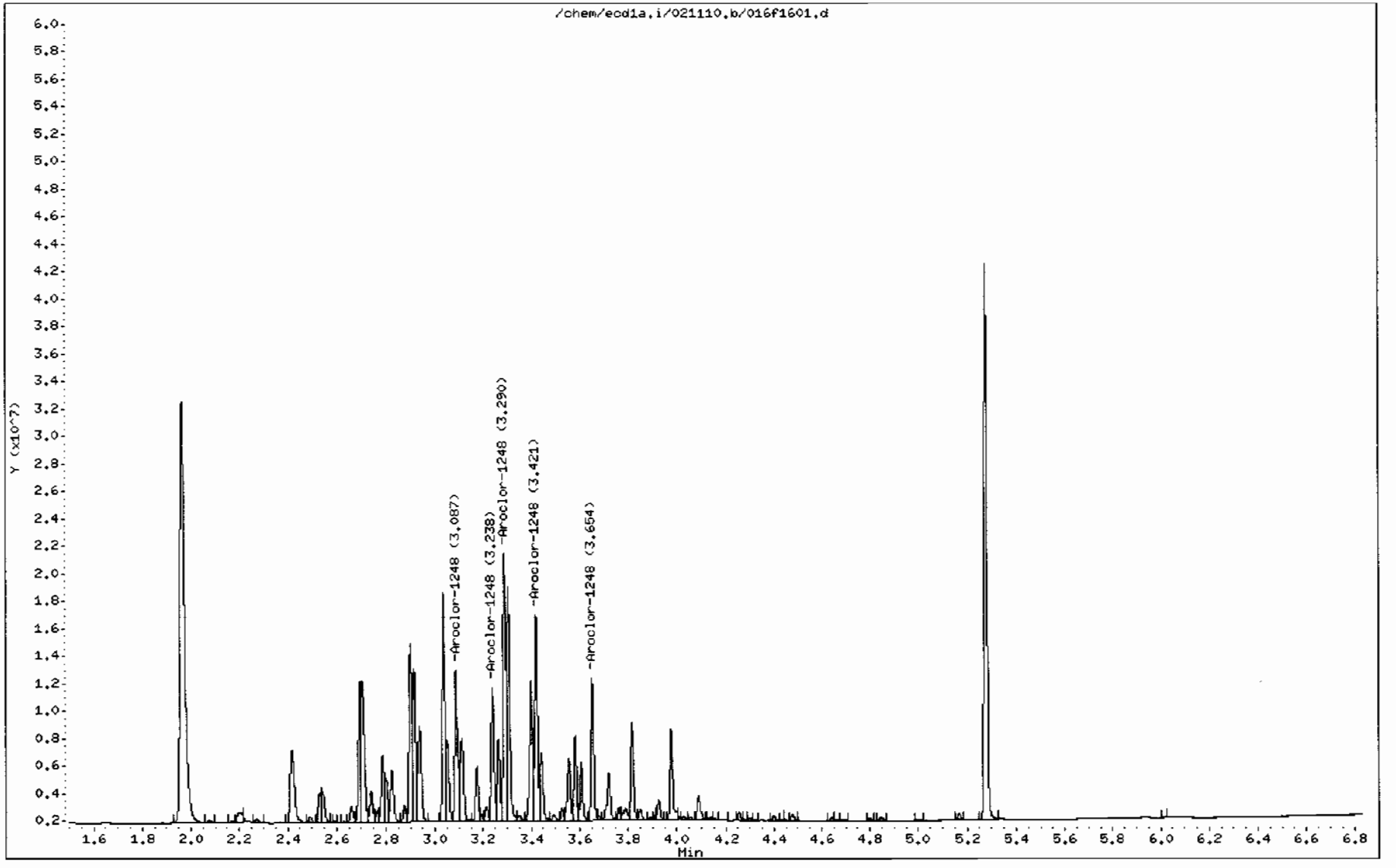

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/016b1601.d
Lab Smp Id: WAR091217-48 48 Client Smp ID: AR124801
Inj Date : 11-FEB-2010 09:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48 48
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 09:45 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.400	3.400	0.000	6936077	1000.00	904	80.00- 120.00	100.00
3.565	3.565	0.000	8699287	1000.00	920	105.42- 145.42	125.42
3.799	3.799	0.000	9837681	1000.00	915	121.83- 161.83	141.83
3.826	3.826	0.000	10986647	1000.00	915	138.40- 178.40	158.40
3.963	3.963	0.000	10490931	1000.00	907	131.25- 171.25	151.25
Average of Peak Amounts =					912		

Data File: /chem/ecd1a.i/021110.b/016b1601.d

Date : 11-FEB-2010 09:04

Client ID: AR124801

Sample Info: IWAR091217-48 48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

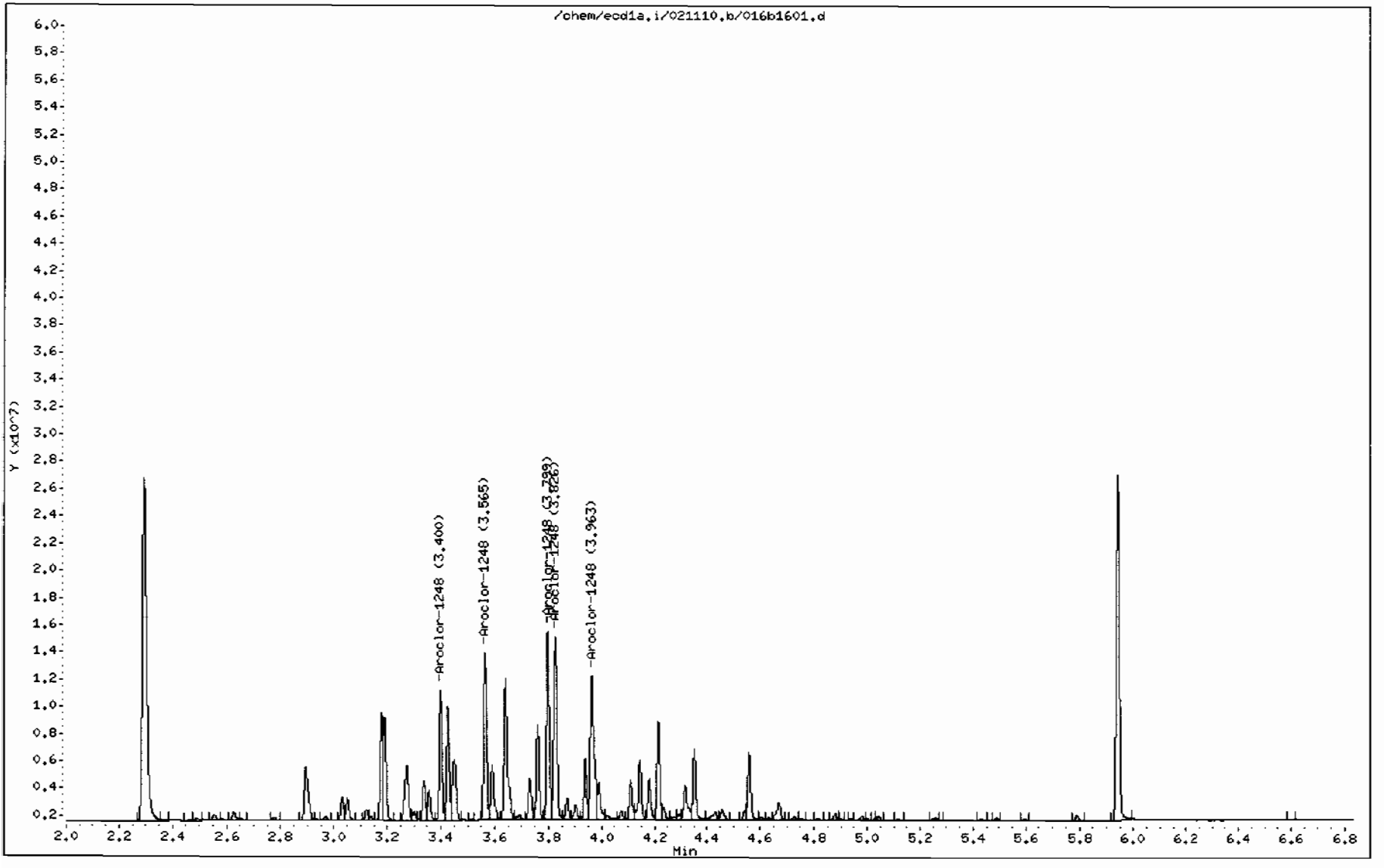

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/041f4101.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 11-FEB-2010 13:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 11-Feb-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 41 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4Cmx					CAS #: 877-09-8		
1.962	1.962	0.000	44533632	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	33390188	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	15417701	1000.00	957	80.00- 120.00	100.00
2.705	2.705	0.000	20182782	1000.00	1020	110.91- 150.91	130.91
2.785	2.786	-0.001	12638305	1000.00	970	61.97- 101.97	81.97
2.824	2.824	0.000	7558453	1000.00	971	29.02- 69.02	49.02
3.034	3.035	-0.001	9745748	1000.00	972	43.21- 83.21	63.21
Average of Peak Amounts =					978		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	20119986	1000.00	1060	80.00- 120.00	100.00
3.922	3.924	-0.002	30406524	1000.00	1070	131.13- 171.13	151.13
4.152	4.154	-0.002	18123617	1000.00	1060	70.08- 110.08	90.08
4.295	4.296	-0.001	19480990	1000.00	1090	76.82- 116.82	96.82
4.474	4.475	-0.001	42671481	1000.00	1100	192.09- 232.09	212.09
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/021110.b/041f4101.d
Date : 11-FEB-2010 13:59
Client ID: AR166004
Sample Info: IWAR100203-60 04

Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

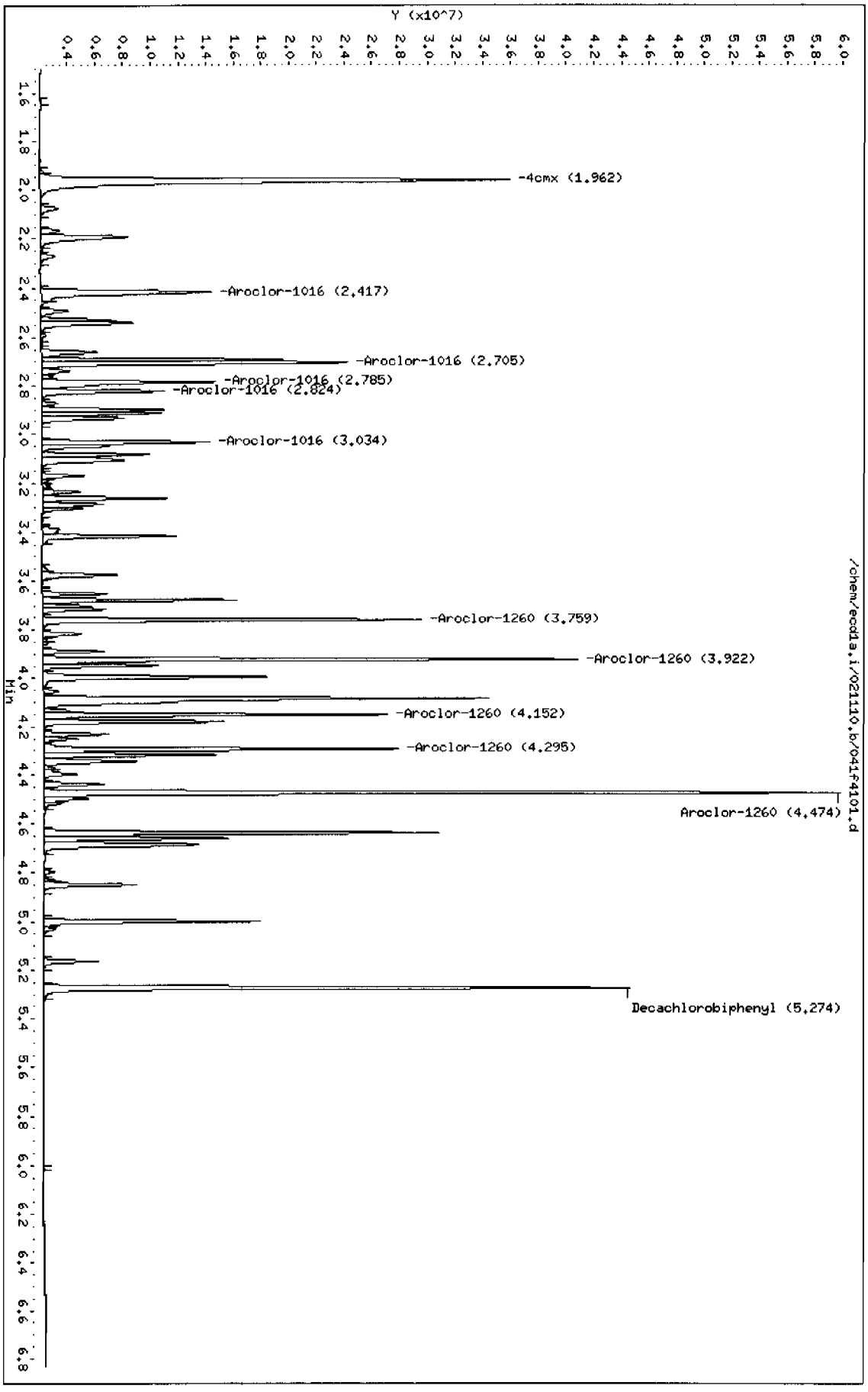

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/041b4101.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 11-FEB-2010 13:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 11-Feb-2010 14:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 41 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	28251817	100.000	98.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	20842332	100.000	96.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.189	3.190	-0.001	12136535	1000.00	976	80.00- 120.00	100.00(M)
3.273	3.274	-0.001	7885509	1000.00	925	44.97- 84.97	64.97
3.336	3.337	-0.001	4854387	1000.00	924	20.00- 60.00	40.00
3.563	3.564	-0.001	6230767	1000.00	926	31.34- 71.34	51.34
3.639	3.640	-0.001	5804457	1000.00	918	27.83- 67.83	47.83
Average of Peak Amounts -					934		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	12875144	1000.00	1020	80.00- 120.00	100.00
4.454	4.455	-0.001	15626067	1000.00	1040	101.37- 141.37	121.37
4.720	4.721	-0.001	11908223	1000.00	1020	72.49- 112.49	92.49
4.894	4.895	-0.001	12306280	1000.00	1020	75.58- 115.58	95.58
5.041	5.042	-0.001	27241559	1000.00	1050	191.58- 231.58	211.58
Average of Peak Amounts -					1.03e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/041b4101.d

Date : 11-FEB-2010 13:59

Client ID: AR166004

Sample Info: IWAR100203-60 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

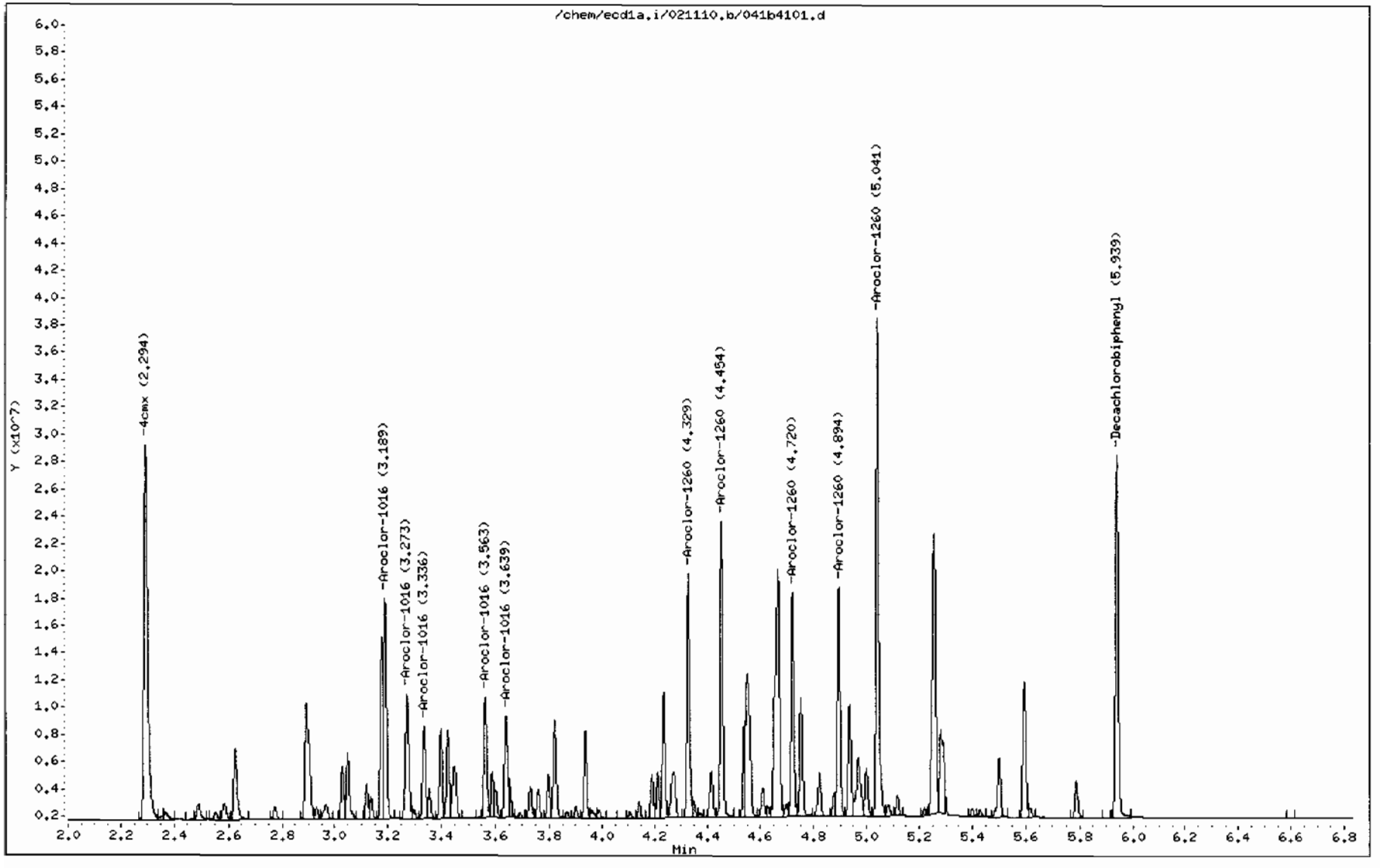

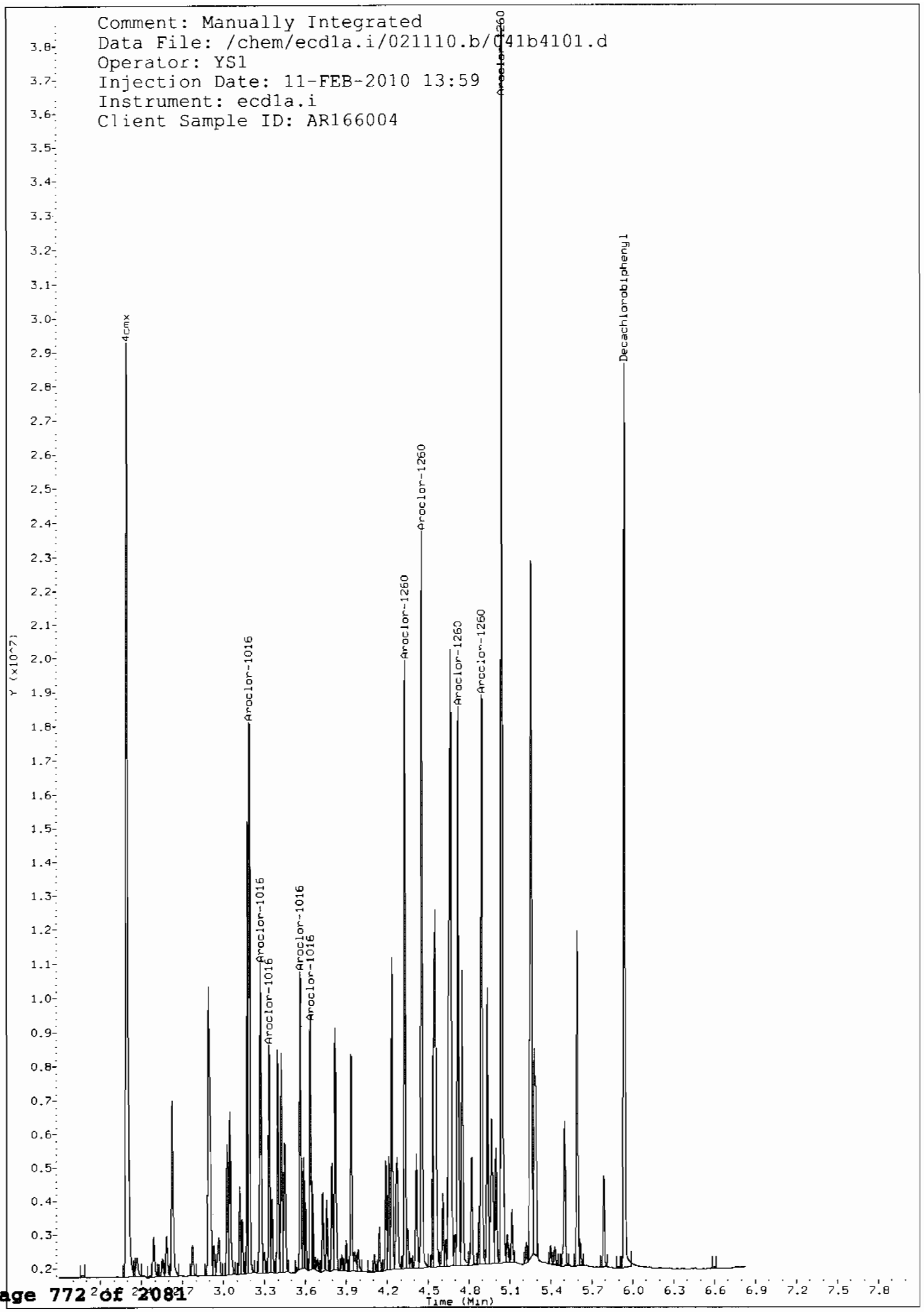
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/041b4101.d
Operator: YS1
Injection Date: 11-FEB-2010 13:59
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^2)
Time (Min)

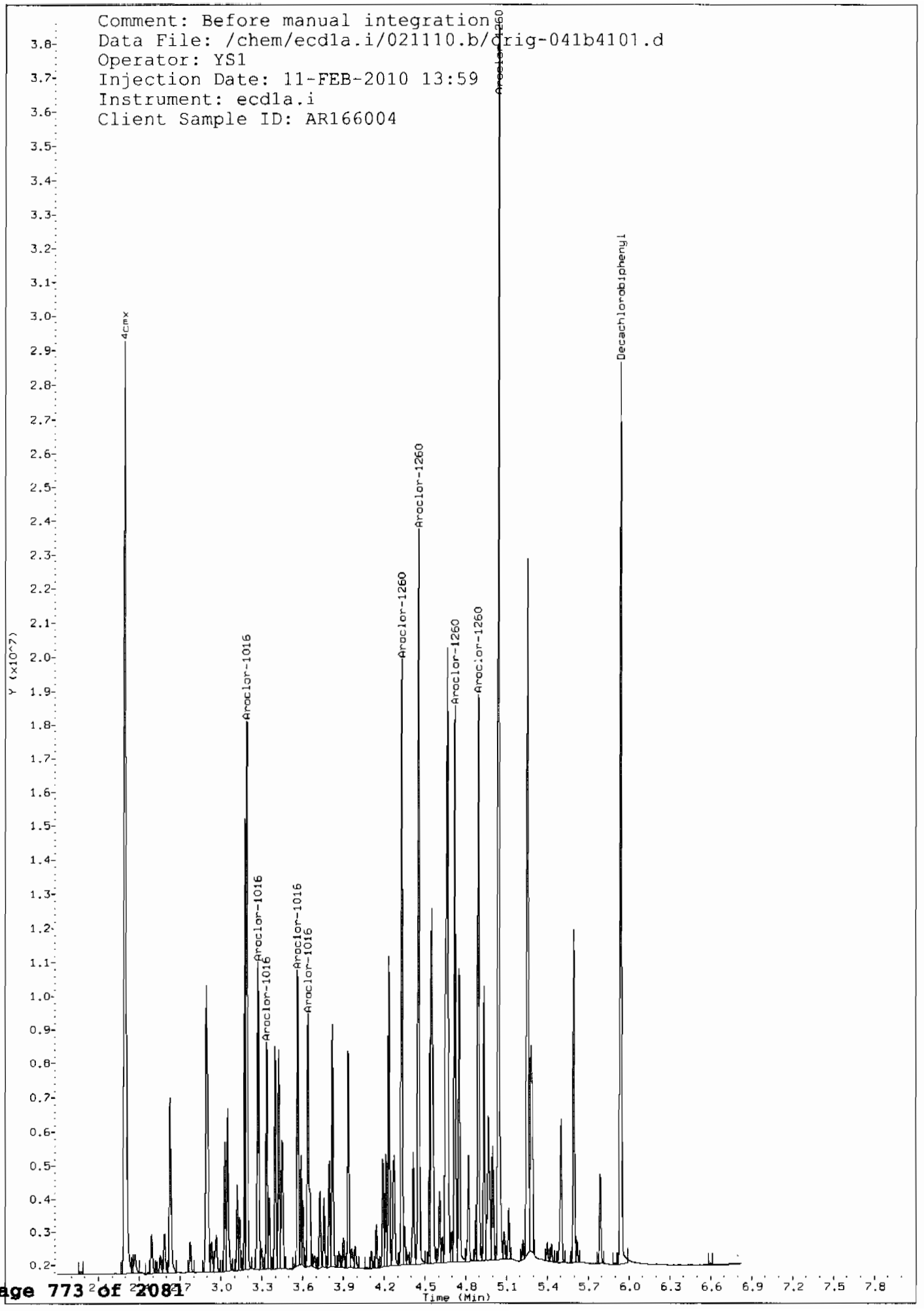
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Operator: YS1
Injection Date: 11-FEB-2010 13:59
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/053f5301.d
Lab Smp Id: WAR100203-60 05 Client Smp ID: AR166005
Inj Date : 11-FEB-2010 16:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	44448738	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	32372227	100.000	97.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	15384834	1000.00	955	80.00- 120.00	100.00
2.705	2.705	0.000	19723223	1000.00	997	108.20- 148.20	128.20
2.786	2.786	0.000	12610788	1000.00	968	61.97- 101.97	81.97
2.823	2.824	-0.001	7597044	1000.00	976	29.38- 69.38	49.38
3.034	3.035	-0.001	9627379	1000.00	960	42.58- 82.58	62.58
Average of Peak Amounts =					971		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	20163698	1000.00	1060	80.00- 120.00	100.00
3.922	3.924	-0.002	30122749	1000.00	1060	129.39- 169.39	149.39
4.152	4.154	-0.002	17936661	1000.00	1050	68.96- 108.96	88.96
4.295	4.296	-0.001	18821490	1000.00	1050	73.34- 113.34	93.34
4.474	4.475	-0.001	41846605	1000.00	1080	187.53- 227.53	207.53
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecdia.i/021110.b/053f5301.d
Date : 11-FEB-2010 16:26
Client ID: AR166005
Sample Info: |WAR100203-60 05
Column phase: CLP1

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

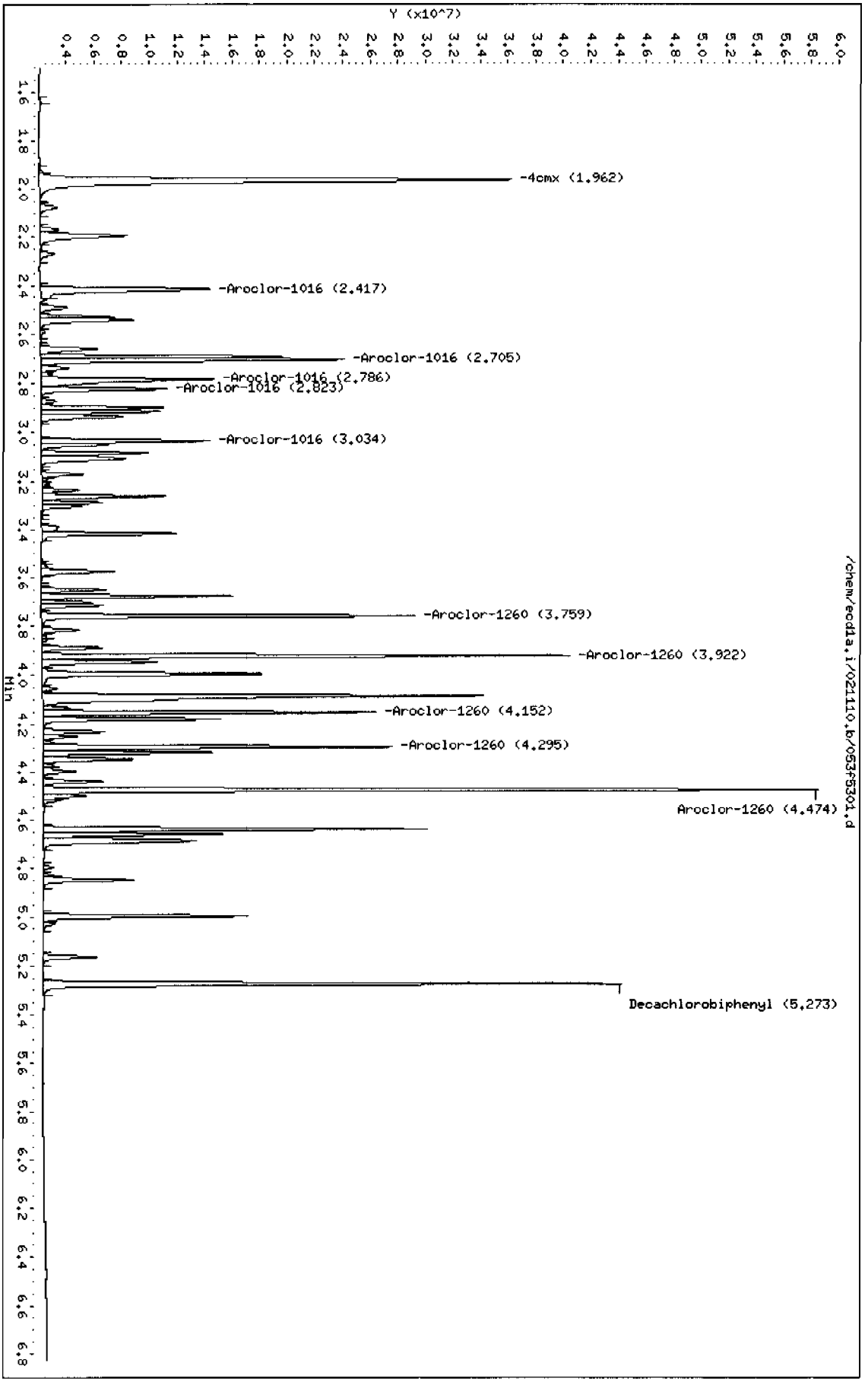

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/053b5301.d
Lab Smp Id: WAR100203-60 05 Client Smp ID: AR166005
Inj Date : 11-FEB-2010 16:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 53 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.293	2.294	-0.001	28296331	100.000	98.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	20210079	100.000	94.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.190	0.000	11752588	1000.00	945	80.00- 120.00	100.00
3.272	3.274	-0.002	7925933	1000.00	930	47.44- 87.44	67.44
3.336	3.337	-0.001	4861568	1000.00	925	21.37- 61.37	41.37
3.563	3.564	-0.001	6425703	1000.00	954	34.67- 74.67	54.67
3.638	3.640	-0.002	5899021	1000.00	933	30.19- 70.19	50.19
Average of Peak Amounts =					938		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	12748817	1000.00	1010	80.00- 120.00	100.00
4.454	4.455	-0.001	15400912	1000.00	1020	100.80- 140.80	120.80
4.719	4.721	-0.002	11718690	1000.00	1010	71.92- 111.92	91.92
4.893	4.895	-0.002	12136482	1000.00	1010	75.20- 115.20	95.20
5.040	5.042	-0.002	26752597	1000.00	1040	189.84- 229.84	209.84
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/021110.b/053b5301.d

Date : 11-FEB-2010 16:26

Client ID: AR166005

Sample Info: IWAR100203-60 05

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

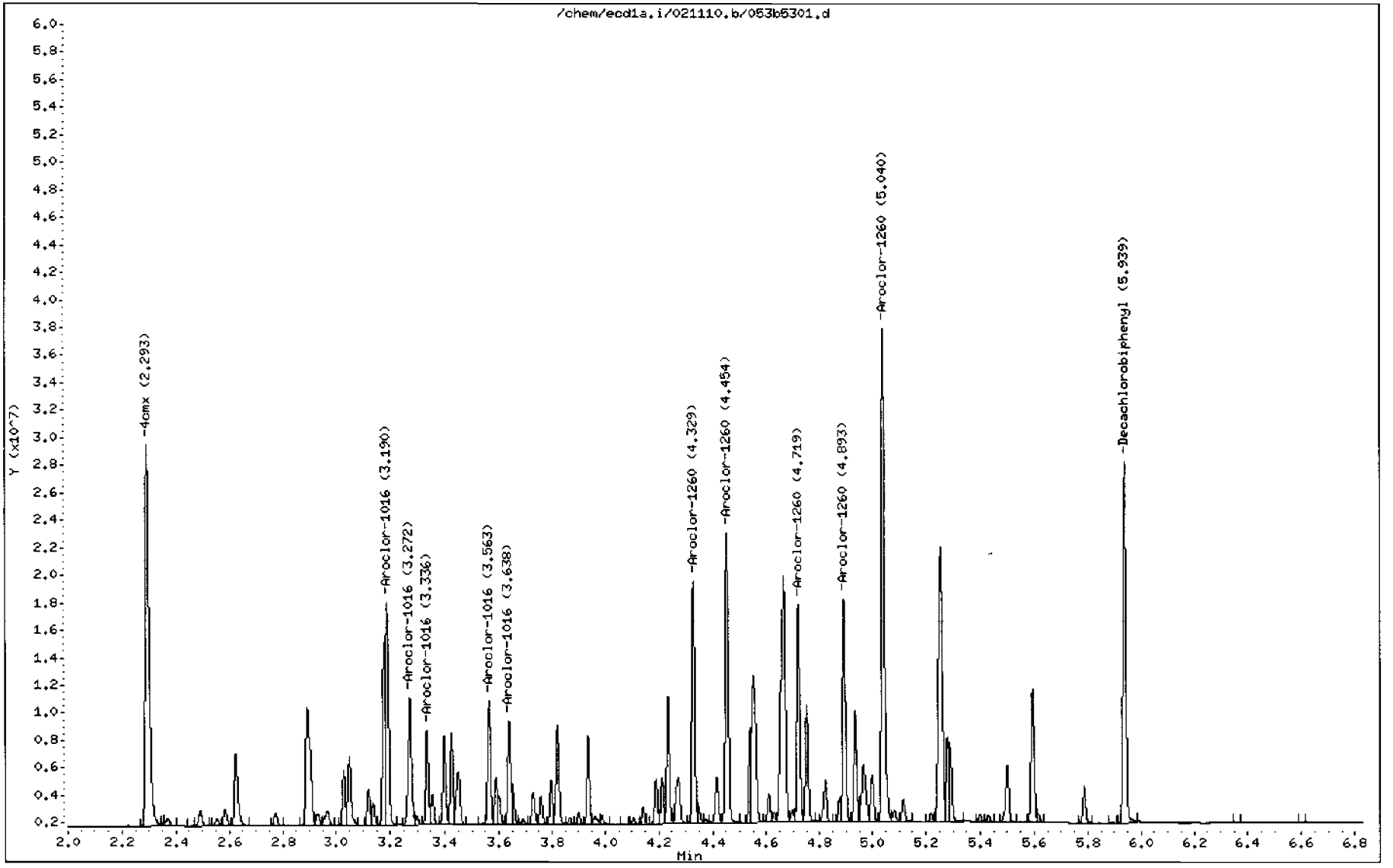

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/063f6301.d
Lab Smp Id: WAR100203-60 06 Client Smp ID: AR166006
Inj Date : 11-FEB-2010 18:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 63 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	43473420	100.000	99.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32551650	100.000	97.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	14670768	1000.00	911	80.00- 120.00	100.00
2.705	2.705	0.000	19413394	1000.00	981	112.33- 152.33	132.33
2.785	2.786	-0.001	12409380	1000.00	953	64.59- 104.59	84.59
2.823	2.824	-0.001	7474666	1000.00	960	30.95- 70.95	50.95
3.033	3.035	-0.002	9497975	1000.00	948	44.74- 84.74	64.74
Average of Peak Amounts =					951		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	19886462	1000.00	1040	80.00- 120.00	100.00
3.922	3.924	-0.002	29823794	1000.00	1050	129.97- 169.97	149.97
4.152	4.154	-0.002	17865326	1000.00	1050	69.84- 109.84	89.84
4.295	4.296	-0.001	18725540	1000.00	1050	74.16- 114.16	94.16
4.474	4.475	-0.001	41814099	1000.00	1080	190.26- 230.26	210.26
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd1a.i/021110.b/063f6301.d
Date : 11-FEB-2010 18:28
Client ID: AR166006
Sample Info: IWAR100203-60 06

Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

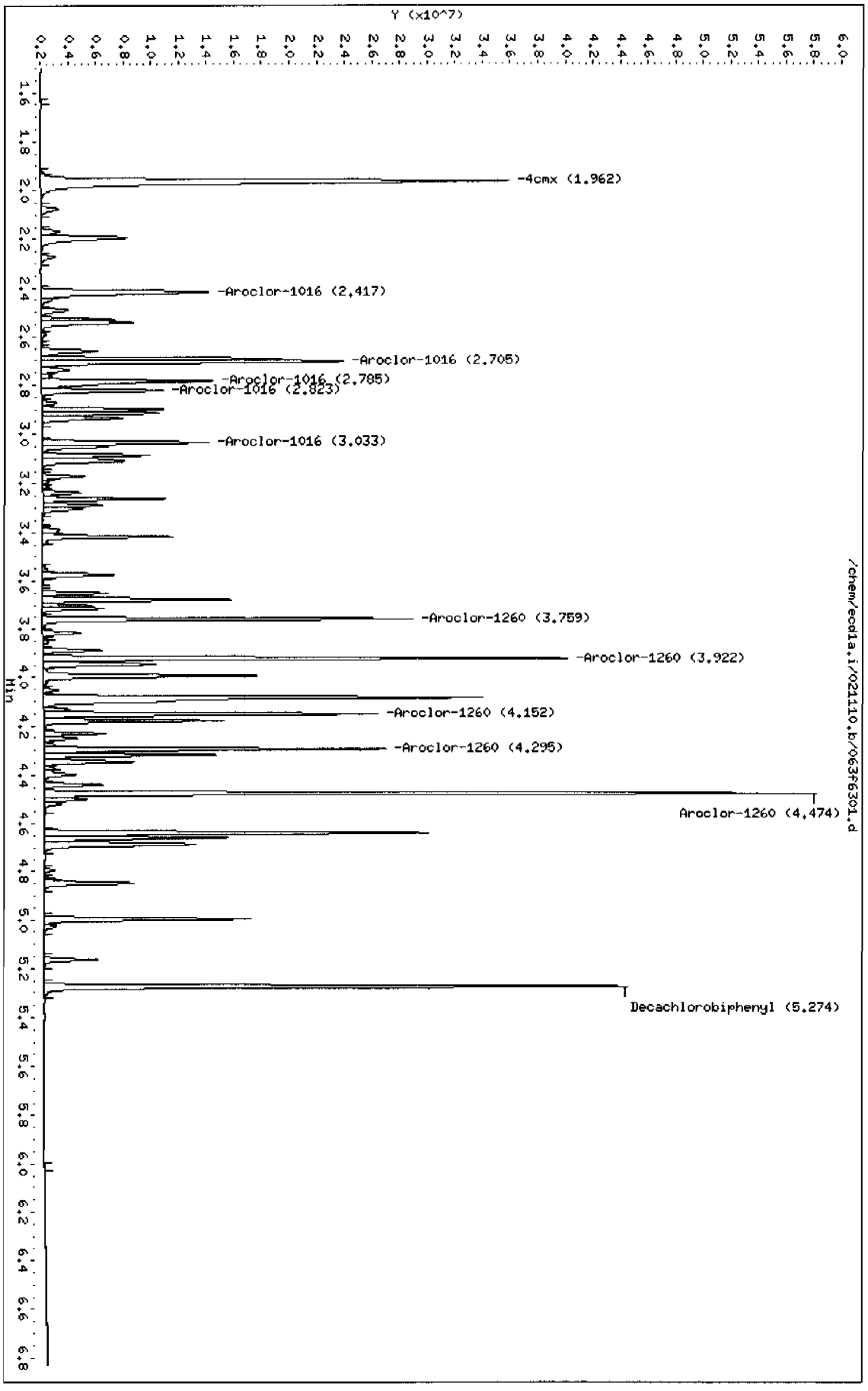

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/063b6301.d
Lab Smp Id: WAR100203-60 06 Client Smp ID: AR166006
Inj Date : 11-FEB-2010 18:28
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 06
Misc Info :
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 63 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	27720539	100.000	96.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	20581845	100.000	95.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.190	0.000	11730474	1000.00	944	80.00- 120.00	100.00(M)
3.272	3.274	-0.002	7797700	1000.00	915	46.47- 86.47	66.47
3.336	3.337	-0.001	4820709	1000.00	918	21.10- 61.10	41.10
3.563	3.564	-0.001	6116647	1000.00	908	32.14- 72.14	52.14
3.638	3.640	-0.002	5692008	1000.00	900	28.52- 68.52	48.52
Average of Peak Amounts =					917		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	12653249	1000.00	1000	80.00- 120.00	100.00
4.454	4.455	-0.001	15351314	1000.00	1020	101.32- 141.32	121.32
4.720	4.721	-0.001	11677224	1000.00	1000	72.29- 112.29	92.29
4.894	4.895	-0.001	12150048	1000.00	1010	76.02- 116.02	96.02
5.041	5.042	-0.001	26887303	1000.00	1040	192.49- 232.49	212.49
Average of Peak Amounts =					1.02e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/0630630l.d
Date : 11-FEB-2010 18:28
Client ID: AR166006
Sample Info: IWAR100203-60 06

Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

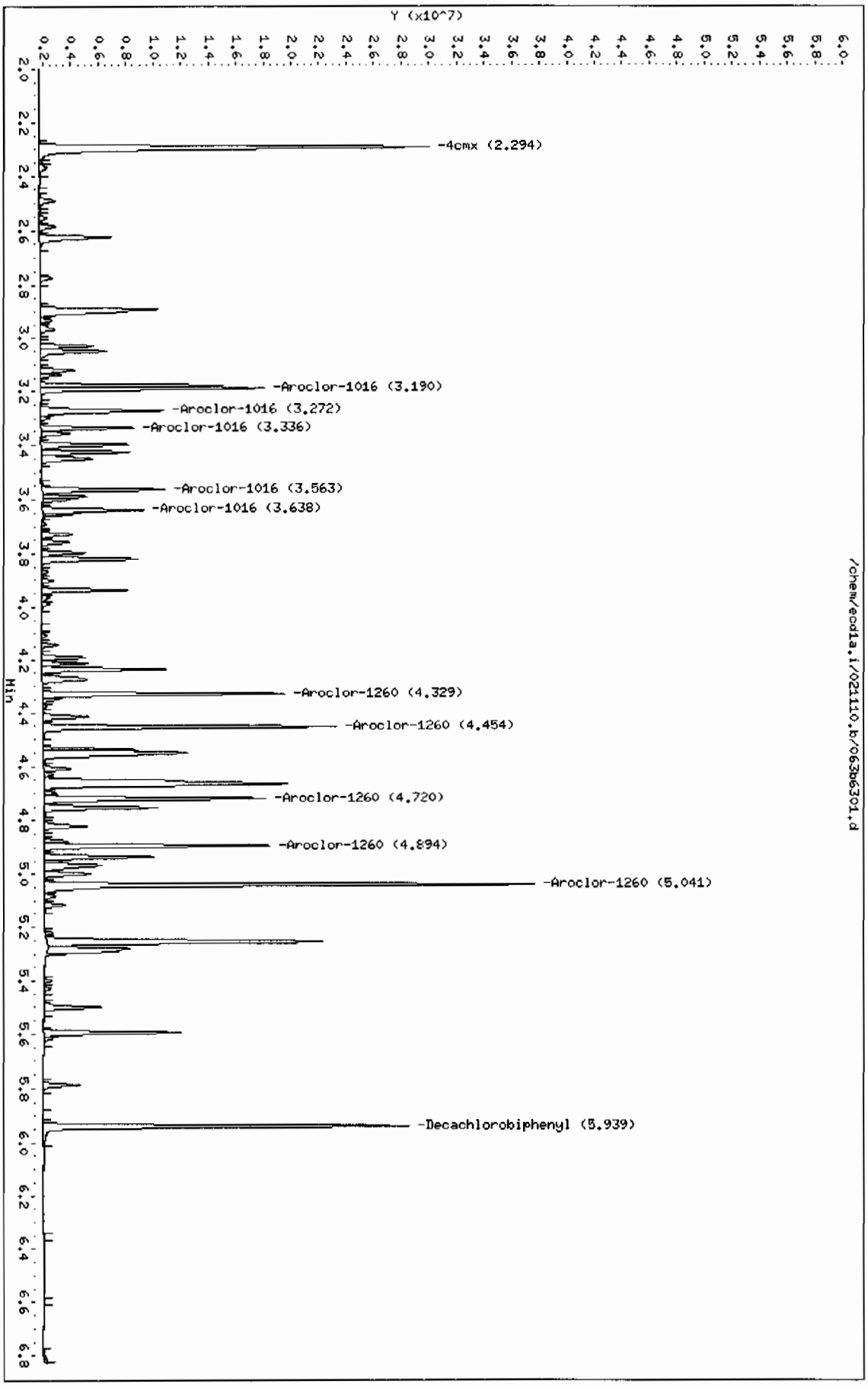

Page 1

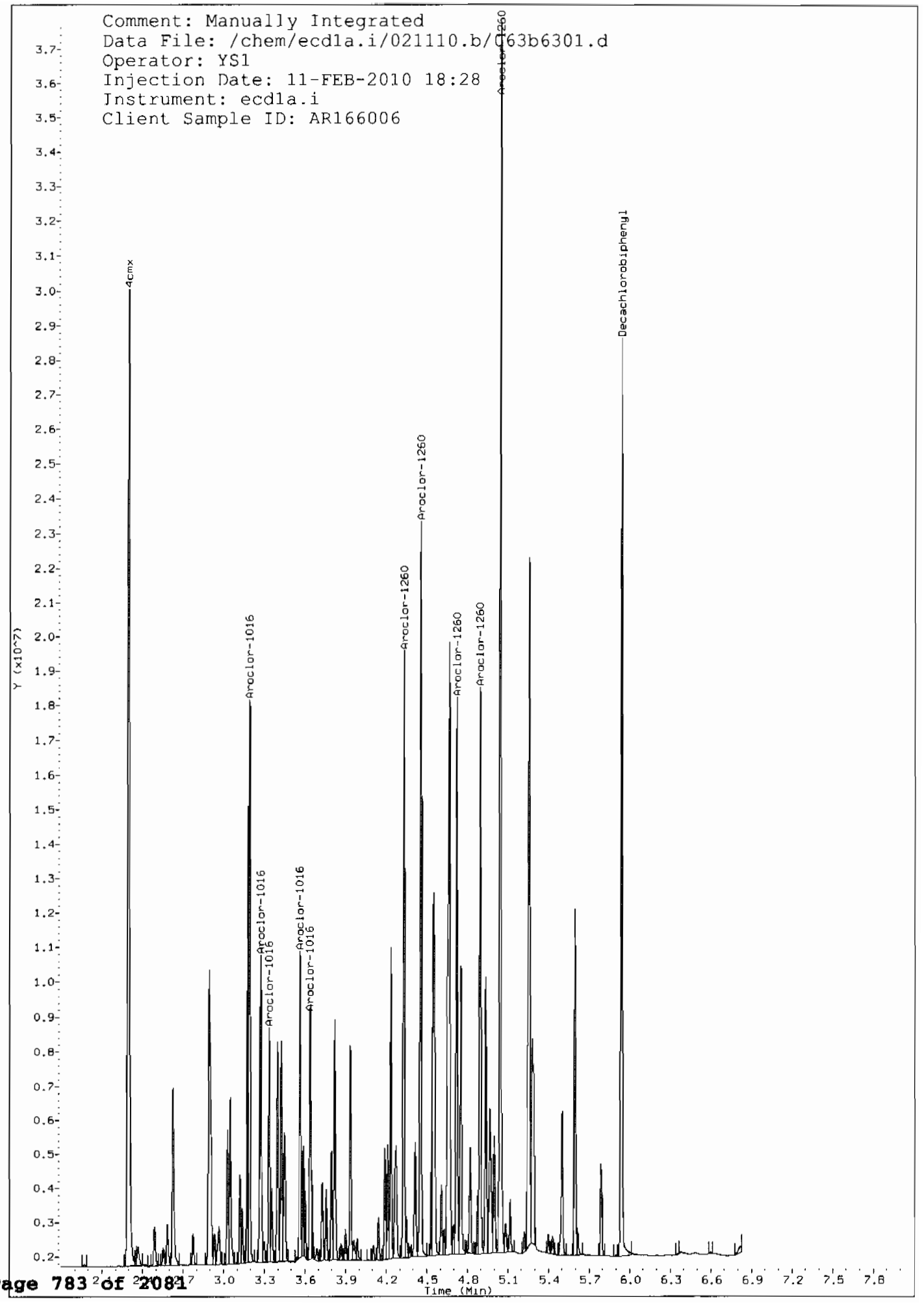
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/C63b6301.d
Operator: YS1
Injection Date: 11-FEB-2010 18:28
Instrument: ecd1a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

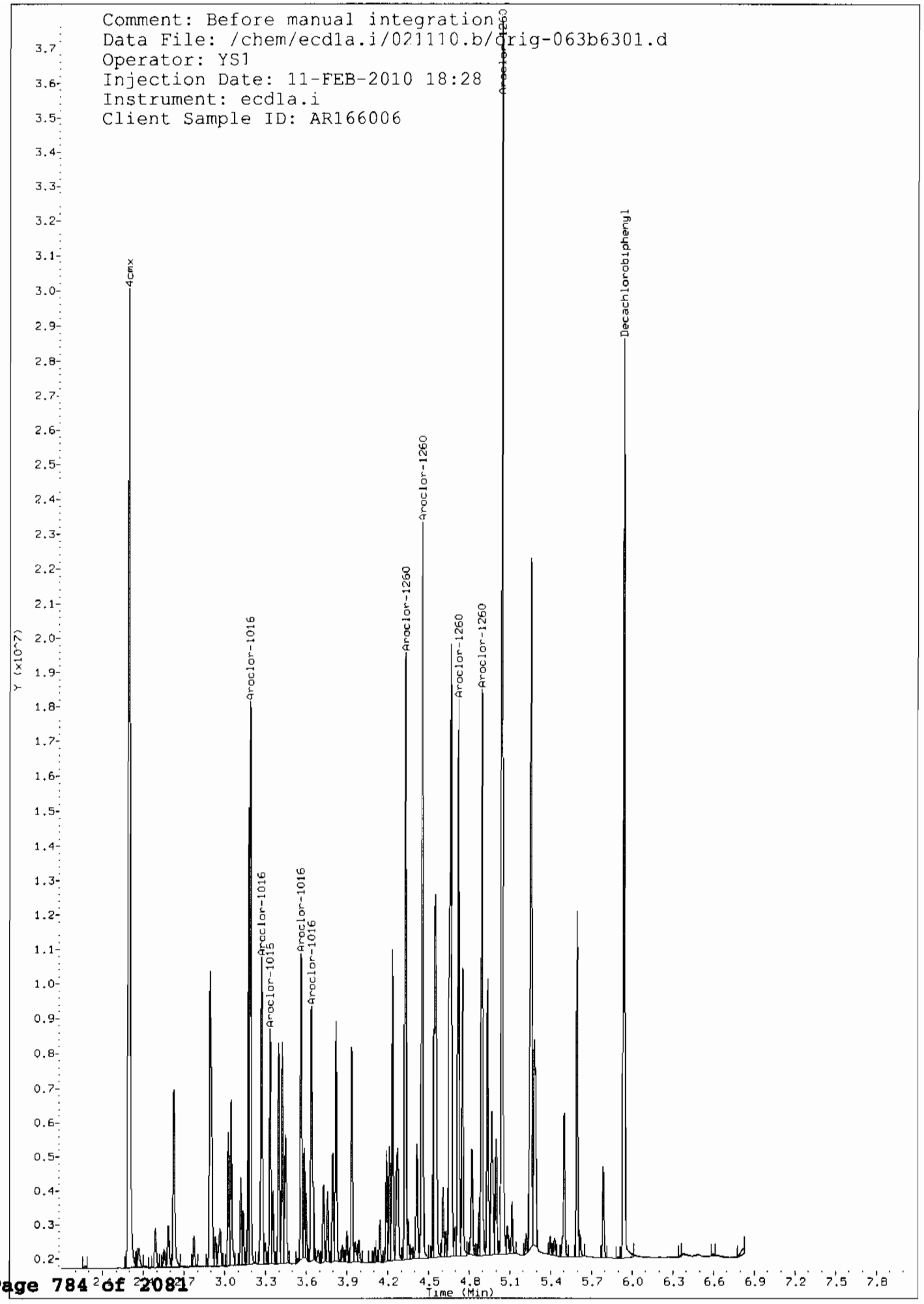
Comment: Before manual integration
Data File: /chem/ecd1a.i/021110.b/orig-063b6301.d
Operator: YS1
Injection Date: 11-FEB-2010 18:28
Instrument: ecd1a.i
Client Sample ID: AR166006
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1015
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PIBLK01	WAR100105-99	01/28/10	0916	1.97	5.28
02	ZZZZZ	ZZZZZ	01/28/10	0927		
03	AR125401	WAR091216-54	01/28/10	0937		
04	AR124201	WAR091217-42	01/28/10	0948		
05	AR124801	WAR091217-48	01/28/10	0958		
06	AR123201	WAR100104-32	01/28/10	1009		
07	AR122101	WAR100104-21	01/28/10	1019		
08	AR126201	WAR100104-62	01/28/10	1030		
09	ZZZZZ	ZZZZZ	01/28/10	1040		
10	AR166001	WAR100128-01	01/28/10	1051	1.97	5.28
11	AR166002	WAR100128-02	01/28/10	1101	1.97	5.28
12	AR166003	WAR100128-03	01/28/10	1112	1.97	5.28
13	AR166004	WAR100128-04	01/28/10	1122	1.97	5.28
14	AR166005	IAR100104-01	01/28/10	1134	1.97	5.28
15	AR166001	WAR100104-60	01/28/10	1144	1.97	5.28
16	ZZZZZ	ZZZZZ	01/28/10	1155		
17	DDTANALOGSTD	WAR091219-DD	01/28/10	1205		
18	AR126801	WAR100128-05	01/28/10	1218		
19	AR126802	WAR100128-06	01/28/10	1229		
20	AR126803	WAR100128-07	01/28/10	1239		
21	AR126804	WAR100128-08	01/28/10	1250		
22	AR126805	IAR100104-05	01/28/10	1300		
23	AR126801	WAR100107-68	01/28/10	1311		
24	PIBLK02	WAR100105-99	01/28/10	1321	1.97	5.28
25	ZZZZZ	ZZZZZ	01/28/10	1332	1.97	5.28
26	ZZZZZ	ZZZZZ	01/28/10	1342	1.97	5.28
27	ZZZZZ	ZZZZZ	01/28/10	1353	1.97	5.28
28	ZZZZZ	ZZZZZ	01/28/10	1405	1.97	5.28
29	ZZZZZ	ZZZZZ	01/28/10	1418	1.97	5.28
30	ZZZZZ	ZZZZZ	01/28/10	1430	1.97	5.28
31	ZZZZZ	ZZZZZ	01/28/10	1443	1.97	5.28
32	AR166002	WAR100104-60	01/28/10	1456	1.97	5.28

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PIBLK01	WAR100105-99	01/28/10	0916	2.30	5.94
02	ZZZZZ	ZZZZZ	01/28/10	0927		
03	AR125401	WAR091216-54	01/28/10	0937		
04	AR124201	WAR091217-42	01/28/10	0948		
05	AR124801	WAR091217-48	01/28/10	0958		
06	AR123201	WAR100104-32	01/28/10	1009		
07	AR122101	WAR100104-21	01/28/10	1019		
08	AR126201	WAR100104-62	01/28/10	1030		
09	ZZZZZ	ZZZZZ	01/28/10	1040		
10	AR166001	WAR100128-01	01/28/10	1051	2.30	5.94
11	AR166002	WAR100128-02	01/28/10	1101	2.30	5.94
12	AR166003	WAR100128-03	01/28/10	1112	2.30	5.95
13	AR166004	WAR100128-04	01/28/10	1122	2.30	5.95
14	AR166005	IAR100104-01	01/28/10	1134	2.30	5.95
15	AR166001	WAR100104-60	01/28/10	1144	2.30	5.94
16	ZZZZZ	ZZZZZ	01/28/10	1155		
17	DDTANALOGSTD	WAR091219-DD	01/28/10	1205		
18	AR126801	WAR100128-05	01/28/10	1218		
19	AR126802	WAR100128-06	01/28/10	1229		
20	AR126803	WAR100128-07	01/28/10	1239		
21	AR126804	WAR100128-08	01/28/10	1250		
22	AR126805	IAR100104-05	01/28/10	1300		
23	AR126801	WAR100107-68	01/28/10	1311		
24	PIBLK02	WAR100105-99	01/28/10	1321	2.30	5.94
25	ZZZZZ	ZZZZZ	01/28/10	1332	2.30	5.94
26	ZZZZZ	ZZZZZ	01/28/10	1342	2.30	5.94
27	ZZZZZ	ZZZZZ	01/28/10	1353	2.30	5.94
28	ZZZZZ	ZZZZZ	01/28/10	1405	2.30	5.94
29	ZZZZZ	ZZZZZ	01/28/10	1418	2.30	5.94
30	ZZZZZ	ZZZZZ	01/28/10	1430	2.30	5.94
31	ZZZZZ	ZZZZZ	01/28/10	1443	2.30	5.94
32	AR166002	WAR100104-60	01/28/10	1456	2.30	5.94

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/09/10 02/09/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/09/10	0645	1.96	5.27
02	AR166001	WAR100203-60	02/09/10	0656	1.96	5.28
03	ZZZZZ	ZZZZZ	02/09/10	0706		
04	AR124201	WAR091217-42	02/09/10	0717		
05	AR124801	WAR091217-48	02/09/10	0727		
06	AR123201	WAR100104-32	02/09/10	0738		
07	AR122101	WAR100104-21	02/09/10	0748		
08	ZZZZZ	ZZZZZ	02/09/10	0759		
09	AR126201	WAR100104-62	02/09/10	0809		
10	AR126801	WAR100107-68	02/09/10	0820		
11	AR125401	WAR100209-01	02/09/10	0836		
12	AR125402	WAR100209-02	02/09/10	0847		
13	AR125403	WAR100209-03	02/09/10	0857		
14	AR125404	WAR100209-04	02/09/10	0908		
15	AR125405	IAR091027-01	02/09/10	0918		
16	AR125401	WAR091216-54	02/09/10	0929		
17	DDTANALOGSTD	WAR091219-DD	02/09/10	0939		
18	PIBLK02	WAR100105-99	02/09/10	0950	1.96	5.28
19	ZZZZZ	ZZZZZ	02/09/10	1000	1.96	5.28
20	ZZZZZ	ZZZZZ	02/09/10	1011	1.96	5.28
21	ZZZZZ	ZZZZZ	02/09/10	1021	1.96	5.28
22	ZZZZZ	ZZZZZ	02/09/10	1032	1.96	5.28
23	ZZZZZ	ZZZZZ	02/09/10	1044	1.96	5.27
24	ZZZZZ	ZZZZZ	02/09/10	1057	1.96	5.27
25	ZZZZZ	ZZZZZ	02/09/10	1110	1.96	5.27
26	AR166002	WAR100203-60	02/09/10	1122	1.96	5.27
27	PIBLK03	WAR100105-99	02/09/10	1133	1.96	5.27
28	ZZZZZ	ZZZZZ	02/09/10	1143	1.96	5.27
29	ZZZZZ	ZZZZZ	02/09/10	1156	1.97	5.27
30	ZZZZZ	ZZZZZ	02/09/10	1208	1.96	5.28
31	ZZZZZ	ZZZZZ	02/09/10	1221	1.96	5.27
32	ZZZZZ	ZZZZZ	02/09/10	1233	1.96	5.27

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/09/10 02/09/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/09/10	0645	2.29	5.94
02	AR166001	WAR100203-60	02/09/10	0656	2.29	5.94
03	ZZZZZ	ZZZZZ	02/09/10	0706		
04	AR124201	WAR091217-42	02/09/10	0717		
05	AR124801	WAR091217-48	02/09/10	0727		
06	AR123201	WAR100104-32	02/09/10	0738		
07	AR122101	WAR100104-21	02/09/10	0748		
08	ZZZZZ	ZZZZZ	02/09/10	0759		
09	AR126201	WAR100104-62	02/09/10	0809		
10	AR126801	WAR100107-68	02/09/10	0820		
11	AR125401	WAR100209-01	02/09/10	0836		
12	AR125402	WAR100209-02	02/09/10	0847		
13	AR125403	WAR100209-03	02/09/10	0857		
14	AR125404	WAR100209-04	02/09/10	0908		
15	AR125405	IAR091027-01	02/09/10	0918		
16	AR125401	WAR091216-54	02/09/10	0929		
17	DDTANALOGSTD	WAR091219-DD	02/09/10	0939		
18	PIBLK02	WAR100105-99	02/09/10	0950	2.29	5.94
19	ZZZZZ	ZZZZZ	02/09/10	1000	2.29	5.94
20	ZZZZZ	ZZZZZ	02/09/10	1011	2.29	5.94
21	ZZZZZ	ZZZZZ	02/09/10	1021	2.29	5.94
22	ZZZZZ	ZZZZZ	02/09/10	1032	2.29	5.94
23	ZZZZZ	ZZZZZ	02/09/10	1044	2.29	5.94
24	ZZZZZ	ZZZZZ	02/09/10	1057	2.29	5.94
25	ZZZZZ	ZZZZZ	02/09/10	1110	2.29	5.94
26	AR166002	WAR100203-60	02/09/10	1122	2.29	5.94
27	PIBLK03	WAR100105-99	02/09/10	1133	2.29	5.94
28	ZZZZZ	ZZZZZ	02/09/10	1143	2.29	5.94
29	ZZZZZ	ZZZZZ	02/09/10	1156	2.30	5.94
30	ZZZZZ	ZZZZZ	02/09/10	1208	2.29	5.94
31	ZZZZZ	ZZZZZ	02/09/10	1221	2.29	5.94
32	ZZZZZ	ZZZZZ	02/09/10	1233	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/10/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/10/10	2048	1.96	5.28
02	AR166001	WAR100210-01	02/10/10	2058	1.96	5.28
03	AR166002	WAR100210-02	02/10/10	2109	1.96	5.28
04	AR166003	WAR100210-03	02/10/10	2119	1.96	5.28
05	AR166004	WAR100210-04	02/10/10	2130	1.96	5.28
06	AR166005	IAR100104-01	02/10/10	2140	1.96	5.28
07	AR166001	WAR100203-60	02/10/10	2151	1.96	5.28
08	AR124201	WAR100210-05	02/10/10	2201		
09	AR124202	WAR100210-06	02/10/10	2212		
10	AR124203	WAR100210-07	02/10/10	2222		
11	AR124204	WAR100210-08	02/10/10	2233		
12	AR124205	IAR091111-01	02/10/10	2243		
13	AR124201	WAR091217-42	02/10/10	2254		
14	AR124801	WAR100210-09	02/10/10	2304		
15	AR124802	WAR100210-10	02/10/10	2315		
16	AR124803	WAR100210-11	02/10/10	2325		
17	AR124804	WAR100210-12	02/10/10	2336		
18	AR124805	IAR091027-02	02/10/10	2346		
19	AR124801	WAR091217-48	02/10/10	2357		
20	PIBLK02	WAR100105-99	02/11/10	0007	1.96	5.28
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/10/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/10/10	2048	2.29	5.95
02	AR166001	WAR100210-01	02/10/10	2058	2.29	5.94
03	AR166002	WAR100210-02	02/10/10	2109	2.29	5.94
04	AR166003	WAR100210-03	02/10/10	2119	2.29	5.94
05	AR166004	WAR100210-04	02/10/10	2130	2.29	5.94
06	AR166005	IAR100104-01	02/10/10	2140	2.29	5.94
07	AR166001	WAR100203-60	02/10/10	2151	2.29	5.94
08	AR124201	WAR100210-05	02/10/10	2201		
09	AR124202	WAR100210-06	02/10/10	2212		
10	AR124203	WAR100210-07	02/10/10	2222		
11	AR124204	WAR100210-08	02/10/10	2233		
12	AR124205	IAR091111-01	02/10/10	2243		
13	AR124201	WAR091217-42	02/10/10	2254		
14	AR124801	WAR100210-09	02/10/10	2304		
15	AR124802	WAR100210-10	02/10/10	2315		
16	AR124803	WAR100210-11	02/10/10	2325		
17	AR124804	WAR100210-12	02/10/10	2336		
18	AR124805	IAR091027-02	02/10/10	2346		
19	AR124801	WAR091217-48	02/10/10	2357		
20	PIBLK02	WAR100105-99	02/11/10	0007	2.29	5.94
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/11/10	0614	1.96	5.27
02	AR166001	WAR100203-60	02/11/10	0625	1.96	5.27
03	AR125401	WAR091216-54	02/11/10	0635		
04	AR124201	WAR091217-42	02/11/10	0646		
05	ZZZZZ	ZZZZZ	02/11/10	0656		
06	AR123201	WAR100104-32	02/11/10	0719		
07	ZZZZZ	ZZZZZ	02/11/10	0730		
08	AR122101	WAR100104-21	02/11/10	0740		
09	AR126201	WAR100104-62	02/11/10	0751		
10	AR126801	WAR100107-68	02/11/10	0801		
11	AR124801	WAR100211-01	02/11/10	0812		
12	AR124802	WAR100211-02	02/11/10	0822		
13	AR124803	WAR100211-03	02/11/10	0833		
14	AR124804	WAR100211-04	02/11/10	0844		
15	AR124805	IAR100211-01	02/11/10	0854		
16	AR124801	WAR091217-48	02/11/10	0904		
17	DDTANALOGSTD	WAR091219-DD	02/11/10	0915		
18	PIBLK02	WAR100105-99	02/11/10	0926	1.96	5.28
19	ZZZZZ	ZZZZZ	02/11/10	0936	1.96	5.28
20	ZZZZZ	ZZZZZ	02/11/10	0947	1.96	5.28
21	ZZZZZ	ZZZZZ	02/11/10	0957	1.96	5.28
22	ZZZZZ	ZZZZZ	02/11/10	1010	1.96	5.28
23	ZZZZZ	ZZZZZ	02/11/10	1022	1.96	5.27
24	AR166002	WAR100203-60	02/11/10	1035	1.96	5.27
25	PIBLK03	WAR100105-99	02/11/10	1045	1.96	5.28
26	ZZZZZ	ZZZZZ	02/11/10	1056	1.96	5.28
27	ZZZZZ	ZZZZZ	02/11/10	1109	1.96	5.27
28	ZZZZZ	ZZZZZ	02/11/10	1121	1.96	5.27
29	ZZZZZ	ZZZZZ	02/11/10	1134	1.96	5.27
30	ZZZZZ	ZZZZZ	02/11/10	1146	1.96	5.27
31	ZZZZZ	ZZZZZ	02/11/10	1159	1.96	5.27
32	PIBLK04	WAR100105-99	02/11/10	1212	1.96	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/11/10	1222		
02	ZZZZZ	ZZZZZ	02/11/10	1235	1.96	5.27
03	ZZZZZ	ZZZZZ	02/11/10	1247	1.96	5.27
04	ZZZZZ	ZZZZZ	02/11/10	1300		
05	AR166003	WAR100203-60	02/11/10	1312	1.96	5.27
06	PIBLK05	WAR100105-99	02/11/10	1323	1.96	5.27
07	ZZZZZ	ZZZZZ	02/11/10	1333		
08	ZZZZZ	ZZZZZ	02/11/10	1346		
09	AR166004	WAR100203-60	02/11/10	1359	1.96	5.27
10	PIBLK06	WAR100105-99	02/11/10	1409	1.96	5.27
11	PBLK01	1202038652	02/11/10	1420	1.96	5.27
12	PBLK01LCS	1202038653	02/11/10	1433	1.96	5.27
13	ZZZZZ	ZZZZZ	02/11/10	1445	1.96	5.27
14	ZZZZZ	ZZZZZ	02/11/10	1458	1.96	5.27
15	ZZZZZ	ZZZZZ	02/11/10	1510	1.96	5.27
16	ZZZZZ	ZZZZZ	02/11/10	1523	1.96	5.27
17	ZZZZZ	ZZZZZ	02/11/10	1536	1.96	5.27
18	ZZZZZ	ZZZZZ	02/11/10	1548	1.96	5.27
19	ZZZZZ	ZZZZZ	02/11/10	1601	1.96	5.27
20	ZZZZZ	ZZZZZ	02/11/10	1614	1.96	5.27
21	AR166005	WAR100203-60	02/11/10	1626	1.96	5.27
22	PIBLK07	WAR100105-99	02/11/10	1637	1.96	5.27
23	RE15-10-8061	245979013	02/11/10	1647	1.96	5.28
24	RE15-10-8063	245979014	02/11/10	1700	1.96	5.27
25	RE15-10-8062	245979015	02/11/10	1713	1.96	5.27
26	ZZZZZ	ZZZZZ	02/11/10	1725	1.96	5.27
27	ZZZZZ	ZZZZZ	02/11/10	1738	1.96	5.27
28	ZZZZZ	ZZZZZ	02/11/10	1751	1.96	5.27
29	ZZZZZ	ZZZZZ	02/11/10	1803	1.96	5.27
30	ZZZZZ	ZZZZZ	02/11/10	1816	1.96	5.27
31	AR166006	WAR100203-60	02/11/10	1828	1.96	5.27
32	PIBLK08	WAR100105-99	02/11/10	1839	1.96	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/11/10	0614	2.29	5.94
02	AR166001	WAR100203-60	02/11/10	0625	2.29	5.94
03	AR125401	WAR091216-54	02/11/10	0635		
04	AR124201	WAR091217-42	02/11/10	0646		
05	ZZZZZ	ZZZZZ	02/11/10	0656		
06	AR123201	WAR100104-32	02/11/10	0719		
07	ZZZZZ	ZZZZZ	02/11/10	0730		
08	AR122101	WAR100104-21	02/11/10	0740		
09	AR126201	WAR100104-62	02/11/10	0751		
10	AR126801	WAR100107-68	02/11/10	0801		
11	AR124801	WAR100211-01	02/11/10	0812		
12	AR124802	WAR100211-02	02/11/10	0822		
13	AR124803	WAR100211-03	02/11/10	0833		
14	AR124804	WAR100211-04	02/11/10	0844		
15	AR124805	IAR100211-01	02/11/10	0854		
16	AR124801	WAR091217-48	02/11/10	0904		
17	DDTANALOGSTD	WAR091219-DD	02/11/10	0915		
18	PIBLK02	WAR100105-99	02/11/10	0926	2.29	5.94
19	ZZZZZ	ZZZZZ	02/11/10	0936	2.29	5.94
20	ZZZZZ	ZZZZZ	02/11/10	0947	2.29	5.94
21	ZZZZZ	ZZZZZ	02/11/10	0957	2.29	5.94
22	ZZZZZ	ZZZZZ	02/11/10	1010	2.29	5.94
23	ZZZZZ	ZZZZZ	02/11/10	1022	2.29	5.94
24	AR166002	WAR100203-60	02/11/10	1035	2.29	5.94
25	PIBLK03	WAR100105-99	02/11/10	1045	2.29	5.94
26	ZZZZZ	ZZZZZ	02/11/10	1056	2.29	5.94
27	ZZZZZ	ZZZZZ	02/11/10	1109	2.29	5.94
28	ZZZZZ	ZZZZZ	02/11/10	1121	2.29	5.94
29	ZZZZZ	ZZZZZ	02/11/10	1134	2.29	5.94
30	ZZZZZ	ZZZZZ	02/11/10	1146	2.29	5.94
31	ZZZZZ	ZZZZZ	02/11/10	1159	2.29	5.94
32	PIBLK04	WAR100105-99	02/11/10	1212	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1514

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 02/10/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/11/10	1222		
02	ZZZZZ	ZZZZZ	02/11/10	1235	2.29	5.94
03	ZZZZZ	ZZZZZ	02/11/10	1247	2.29	5.94
04	ZZZZZ	ZZZZZ	02/11/10	1300		
05	AR166003	WAR100203-60	02/11/10	1312	2.29	5.94
06	PIBLK05	WAR100105-99	02/11/10	1323	2.29	5.94
07	ZZZZZ	ZZZZZ	02/11/10	1333		
08	ZZZZZ	ZZZZZ	02/11/10	1346		
09	AR166004	WAR100203-60	02/11/10	1359	2.29	5.94
10	PIBLK06	WAR100105-99	02/11/10	1409	2.29	5.94
11	PBLK01	1202038652	02/11/10	1420	2.29	5.94
12	PBLK01LCS	1202038653	02/11/10	1433	2.29	5.94
13	ZZZZZ	ZZZZZ	02/11/10	1445	2.29	5.94
14	ZZZZZ	ZZZZZ	02/11/10	1458	2.29	5.94
15	ZZZZZ	ZZZZZ	02/11/10	1510	2.29	5.94
16	ZZZZZ	ZZZZZ	02/11/10	1523	2.29	5.94
17	ZZZZZ	ZZZZZ	02/11/10	1536	2.29	5.94
18	ZZZZZ	ZZZZZ	02/11/10	1548	2.29	5.94
19	ZZZZZ	ZZZZZ	02/11/10	1601	2.29	5.94
20	ZZZZZ	ZZZZZ	02/11/10	1614	2.29	5.94
21	AR166005	WAR100203-60	02/11/10	1626	2.29	5.94
22	PIBLK07	WAR100105-99	02/11/10	1637	2.29	5.94
23	RE15-10-8061	245979013	02/11/10	1647	2.30	5.94
24	RE15-10-8063	245979014	02/11/10	1700	2.29	5.94
25	RE15-10-8062	245979015	02/11/10	1713	2.29	5.94
26	ZZZZZ	ZZZZZ	02/11/10	1725	2.29	5.94
27	ZZZZZ	ZZZZZ	02/11/10	1738	2.29	5.94
28	ZZZZZ	ZZZZZ	02/11/10	1751	2.29	5.94
29	ZZZZZ	ZZZZZ	02/11/10	1803	2.29	5.94
30	ZZZZZ	ZZZZZ	02/11/10	1816	2.29	5.94
31	AR166006	WAR100203-60	02/11/10	1828	2.29	5.94
32	PIBLK08	WAR100105-99	02/11/10	1839	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10-1514 **Client ID:** LCS for batch 951296

Lab Sample ID: 1202038653

Data File: 044f4401.d **Data File:** 044b4401.d
Inst: ECD1A.I_1 **Inst:** ECD1A.I_2
Column: CLP1 **Column:** CLP2
Analyzed: 11-FEB-10 14:33 **Analyzed:** 11-FEB-10 14:33

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.76
Column 1	1	2.42	2.39 – 2.45	21.8		ug/kg	
	2	2.7	2.68 – 2.74	22.3		ug/kg	
	3	2.79	2.76 – 2.82	21.8		ug/kg	
	4	2.82	2.79 – 2.85	21.7		ug/kg	
	5	3.03	3 – 3.06	21.7		ug/kg	
					21.9		
Column 2	1	3.19	3.16 – 3.22	21.9		ug/kg	
	2	3.27	3.24 – 3.3	21.1		ug/kg	
	3	3.34	3.31 – 3.37	20.6		ug/kg	
	4	3.56	3.53 – 3.59	21		ug/kg	
	5	3.64	3.61 – 3.67	20.6		ug/kg	
					21.1		
Aroclor-1260							3.46
Column 1	1	3.76	3.73 – 3.79	25		ug/kg	
	2	3.92	3.89 – 3.95	25.4		ug/kg	
	3	4.15	4.12 – 4.18	25.5		ug/kg	
	4	4.29	4.27 – 4.33	26.2		ug/kg	
	5	4.47	4.45 – 4.51	26.8		ug/kg	
					25.8		
Column 2	1	4.33	4.3 – 4.36	24.2		ug/kg	
	2	4.45	4.43 – 4.49	24.6		ug/kg	
	3	4.72	4.69 – 4.75	24.6		ug/kg	
	4	4.89	4.86 – 4.92	24.9		ug/kg	
	5	5.04	5.01 – 5.07	26		ug/kg	
					24.9		

Identification Summary

SDG Number: 10-1514 **Client ID:** RE15-10-8061

Lab Sample ID: 245979013

Data File: 055f5501.d **Data File:** 055b5501.d
Inst: ECD1A.I_1 **Inst:** ECD1A.I_2
Column: CLP1 **Column:** CLP2
Analyzed: 11-FEB-10 16:47 **Analyzed:** 11-FEB-10 16:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							27.5
Column 1	1	3.26	3.23 – 3.29	29.1		ug/kg	
	2	3.42	3.39 – 3.45	15.5		ug/kg	
	3	3.66	3.62 – 3.68	28.3		ug/kg	
	4	3.82	3.79 – 3.85	6.04		ug/kg	
	5	3.92	3.9 – 3.96	37		ug/kg	
					23.2		
Column 2	1	3.4	3.37 – 3.43	9.18		ug/kg	
	2	3.82	3.79 – 3.85	26.3		ug/kg	
	3	3.94	3.91 – 3.97	17.7		ug/kg	
	4	4.23	4.18 – 4.24	25.3		ug/kg	
	5	4.35	4.32 – 4.38	9.37		ug/kg	
					17.6		
Aroclor-1260							.74
Column 1	1	3.76	3.73 – 3.79	27.2		ug/kg	
	2	3.92	3.89 – 3.95	25.5		ug/kg	
	3	4.15	4.12 – 4.18	41.4		ug/kg	
	4	4.29	4.27 – 4.33	51.9		ug/kg	
	5	4.48	4.45 – 4.51	25.9		ug/kg	
					34.4		
Column 2	1	4.33	4.3 – 4.36	33.6		ug/kg	
	2	4.46	4.43 – 4.49	20.4		ug/kg	
	3	4.72	4.69 – 4.75	46.8		ug/kg	
	4	4.9	4.86 – 4.92	51.1		ug/kg	
	5	5.04	5.01 – 5.07	21.3		ug/kg	
					34.6		

Identification Summary

SDG Number: 10–1514 **Client ID:** RE15–10–8061

Lab Sample ID: 245979013

Data File:	055f5501.d	**Data File:**	055b5501.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	11–FEB–10 16:47	**Analyzed:**	11–FEB–10 16:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1268							5.91
Column 1	1	4.66	4.63 – 4.69	84.6		ug/kg	
	2	4.68	4.65 – 4.71	87.7		ug/kg	
	3	4.8	4.77 – 4.83	93.1		ug/kg	
	4	5	4.97 – 5.03	97		ug/kg	
	5	5.17	5.14 – 5.2	124		ug/kg	
					97.3		
Column 2	1	5.26	5.22 – 5.28	73.3		ug/kg	
	2	5.28	5.25 – 5.31	84.4		ug/kg	
	3	5.43	5.4 – 5.46	86.3		ug/kg	
	4	5.6	5.57 – 5.63	92.2		ug/kg	
	5	5.79	5.76 – 5.82	122		ug/kg	
					91.7		

Identification Summary

SDG Number: 10–1514 **Client ID:** RE15–10–8063

Lab Sample ID: 245979014

Data File:	056f5601.d	**Data File:**	056b5601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	11–FEB–10 17:00	**Analyzed:**	11–FEB–10 17:00

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							41
Column 1	1	3.26	3.23 – 3.29	1.64		ug/kg	
	2	3.42	3.39 – 3.45	3.11		ug/kg	
	3	3.65	3.62 – 3.68	3.21		ug/kg	
	4	3.81	3.79 – 3.85	5.56		ug/kg	
	5	3.92	3.9 – 3.96	7.01		ug/kg	
					4.11		
Column 2	1	3.4	3.37 – 3.43	.623		ug/kg	
	2	3.82	3.79 – 3.85	1.53		ug/kg	
	3	3.94	3.91 – 3.97	3.08		ug/kg	
	4	4.21	4.18 – 4.24	3.26		ug/kg	
	5	4.35	4.32 – 4.38	5.06		ug/kg	
					2.71		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1514**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202038652**				
Client Sample:	**QC for batch 951296**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 951296**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951299**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/11/2010 14:20**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/10/2010 21:22**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**043f4301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	043b4301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1
11100-14-4	Aroclor-1268	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/021110.b/043f4301-1.d
Lab Smp Id: 1202038652 Client Smp ID: PBLK01
Inj Date : 11-FEB-2010 14:20
Operator : YS1 Inst ID: ecdla.i
Smp Info : |1202038652|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecdla.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 43 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.962	0.002	57952146	132.562	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	49631389	148.797	5.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/043f4301-1.d

Date : 11-FEB-2010 14:20

Client ID: PBLK01

Sample Info: |12020386521|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

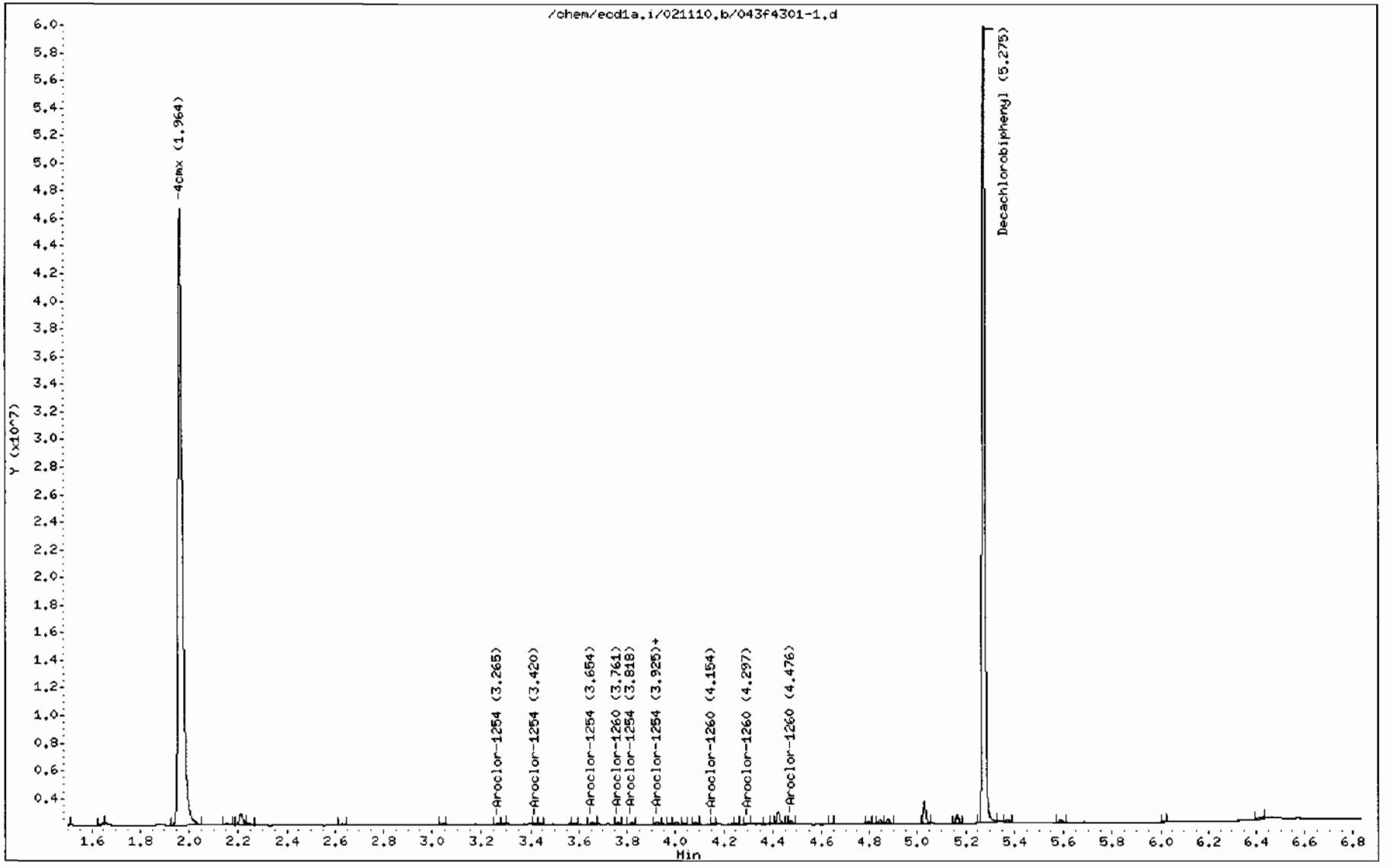

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/043b4301-1.d
Lab Smp Id: 1202038652 Client Smp ID: PBLK01
Inj Date : 11-FEB-2010 14:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038652|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 43 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.294	0.001	37224733	129.743	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.941	0.000	31033734	144.280	4.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021110.b/043b4301-1.d

Date : 11-FEB-2010 14:20

Client ID: PBLK01

Sample Info: |12020386521|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

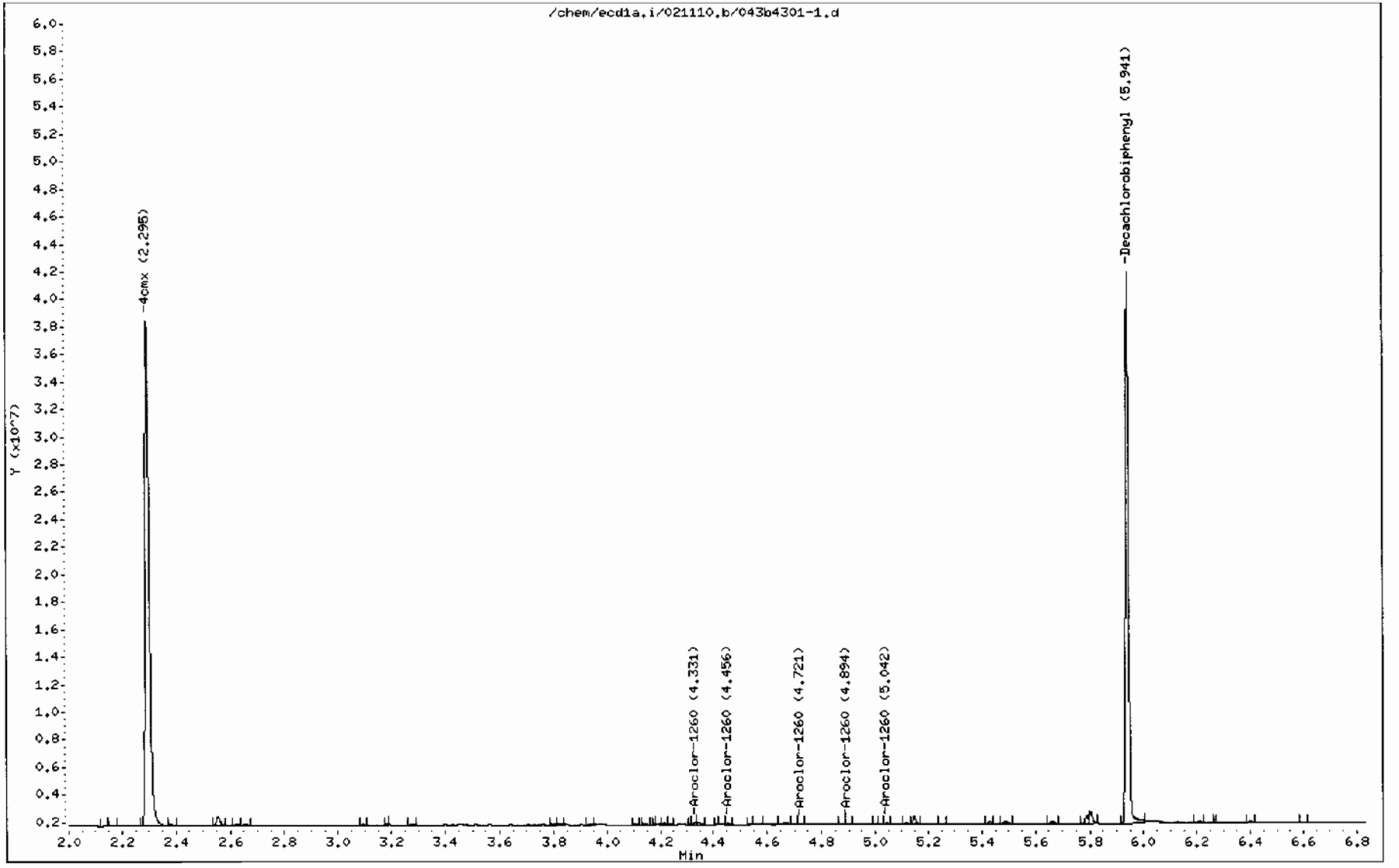

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1514			**Matrix:**	SOIL
Lab Sample ID:	1202038653				
Client Sample:	QC for batch 951296	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 951296	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951299	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/11/2010 14:33	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/10/2010 21:22	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	044f4401-1.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401-1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		21.9	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		25.8	ug/kg	1.11	3.33	1
11100-14-4	Aroclor-1268	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/044f4401-1.d
Lab Smp Id: 1202038653 Client Smp ID: PBLK01LCS
Inj Date : 11-FEB-2010 14:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038653|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 44 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	55925125	127.925	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.272	5.275	-0.003	46820369	140.370	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	10542930	654.491	21.8	80.00- 120.00	100.00
2.705	2.705	0.000	13213069	667.913	22.3	112.33- 152.33	125.33
2.786	2.786	0.000	8510200	653.354	21.8	64.59- 104.59	80.72
2.823	2.824	-0.001	5077807	652.549	21.8	30.95- 70.95	48.16

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.033	3.035	-0.002	6523083	650.847	21.7	44.74- 84.74	61.87
Average of Peak Concentrations =					21.9		
7 Aroclor 1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	14247109	748.656	25.0	80.00- 120.00	100.00
3.921	3.924	-0.003	21579907	761.104	25.4	129.97- 169.97	151.47
4.151	4.154	-0.003	13026430	764.255	25.5	69.84- 109.84	91.43
4.294	4.296	-0.002	14072005	786.490	26.2	74.16- 114.16	98.77
4.474	4.475	-0.001	31212865	803.409	26.8	190.26- 230.26	219.08
Average of Peak Concentrations =					25.8		

Data File: /chem/ecd1a.i/021110.b/044f4401-1.d

Date : 11-FEB-2010 14:33

Client ID: PBLK01LCS

Sample Info: 1120203865311

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

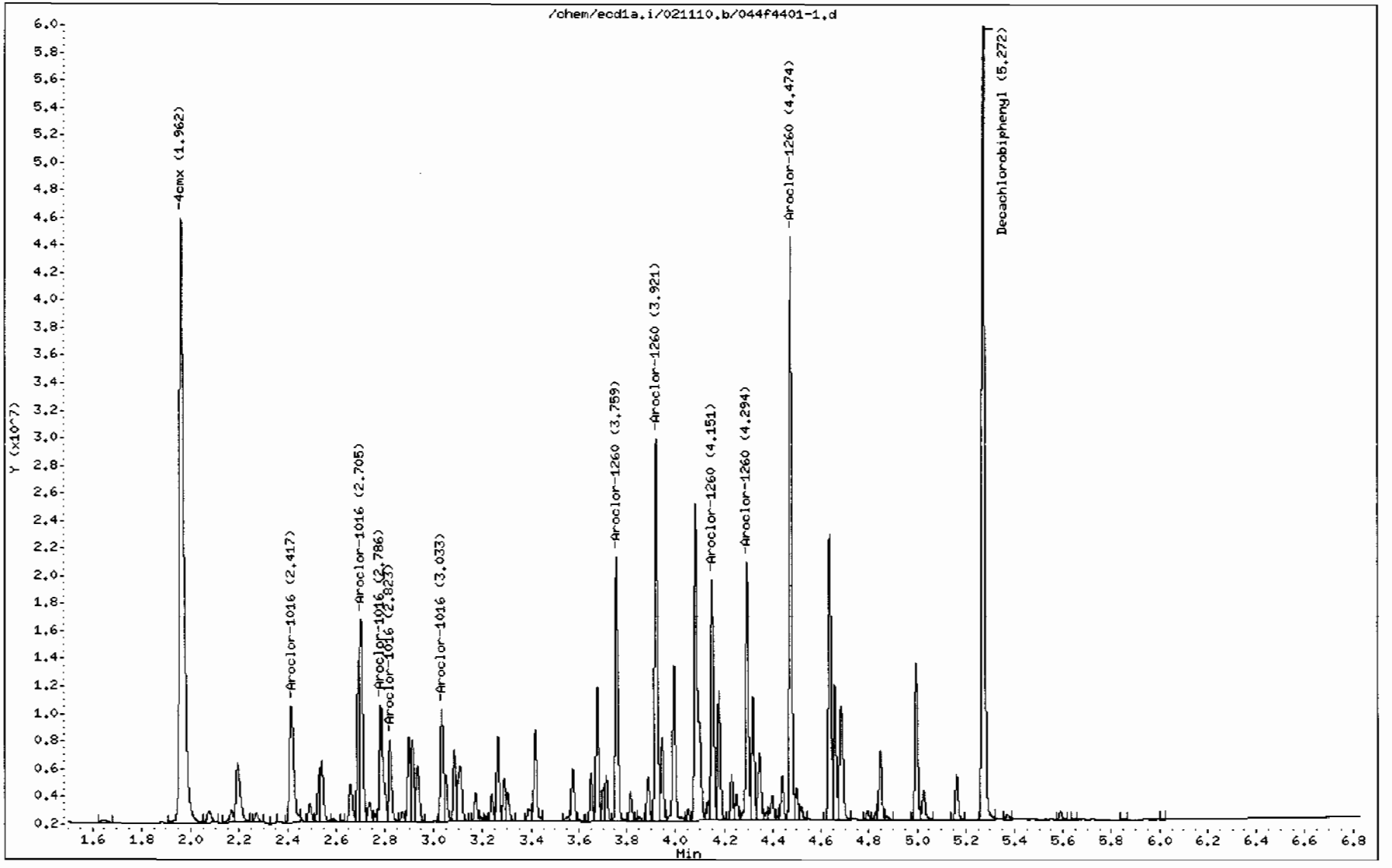

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/044b4401-1.d
Lab Smp Id: 1202038653 Client Smp ID: PBLK01LCS
Inj Date : 11-FEB-2010 14:33
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038653|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:41 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 44 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 245514.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	35816508	124.835	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.939	5.941	-0.002	29502665	137.161	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.189	3.190	-0.001	8161378	656.575	21.9	80.00- 120.00	100.00(M)
3.272	3.274	-0.002	5402647	634.036	21.1	46.60- 86.60	66.20
3.336	3.337	-0.001	3246461	617.933	20.6	21.35- 61.35	39.78
3.562	3.564	-0.002	4244219	630.451	21.0	32.46- 72.46	52.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.638	3.640	-0.002	3914834	619.027	20.6	29.42- 69.42	47.97
Average of Peak Concentrations					21.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	9143268	726.091	24.2	80.00- 120.00	100.00
4.453	4.455	-0.002	11139712	739.342	24.6	102.02- 142.02	121.84
4.720	4.721	-0.001	8589647	739.342	24.6	72.44- 112.44	93.95
4.893	4.895	-0.002	8977372	746.246	24.9	75.48- 115.48	98.19
5.041	5.042	-0.001	20181460	781.505	26.0	192.44- 232.44	220.72
Average of Peak Concentrations					24.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/044b4401-1.d

Date : 11-FEB-2010 14:33

Client ID: PBLK01LCS

Sample Info: |1202038653|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

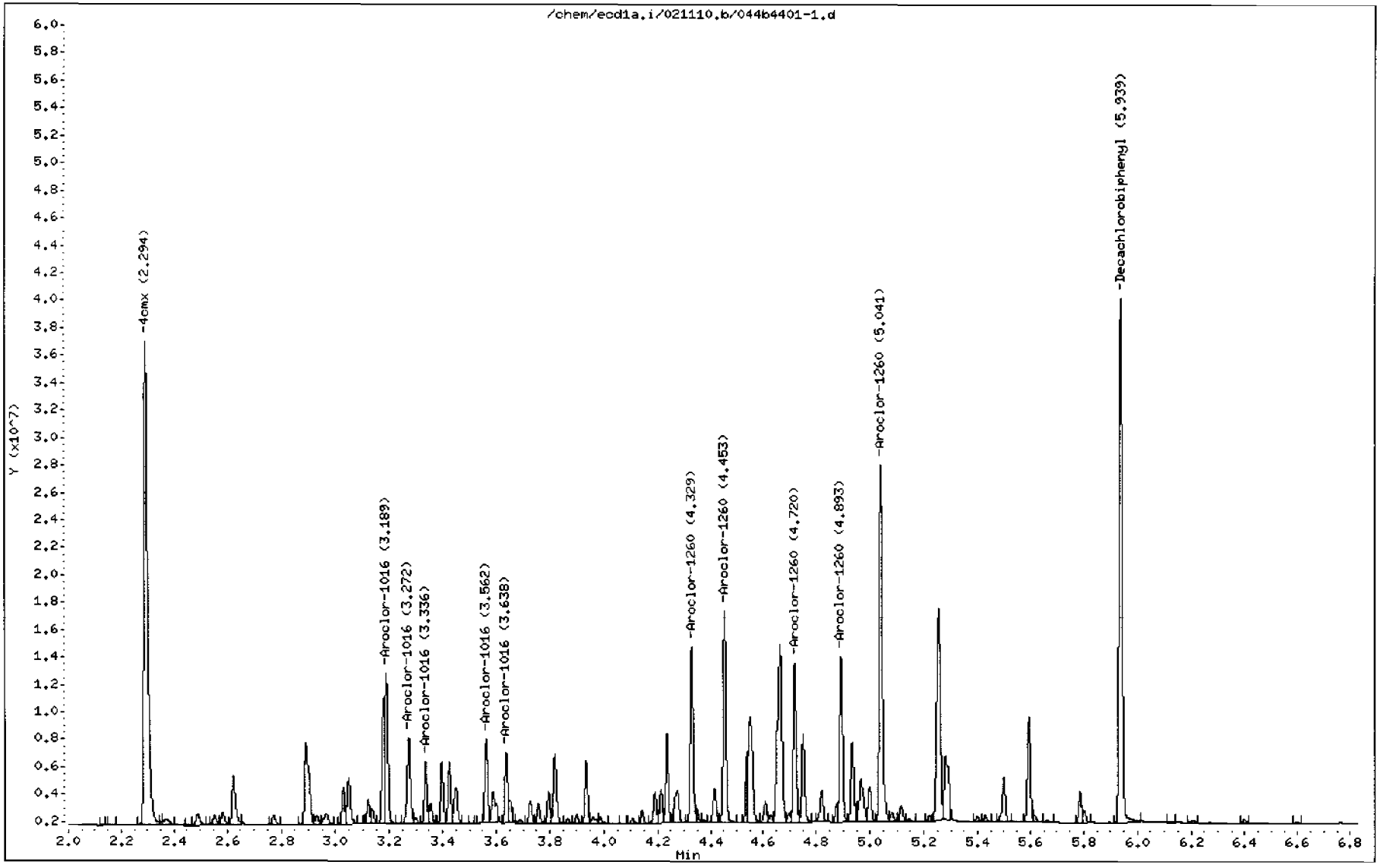

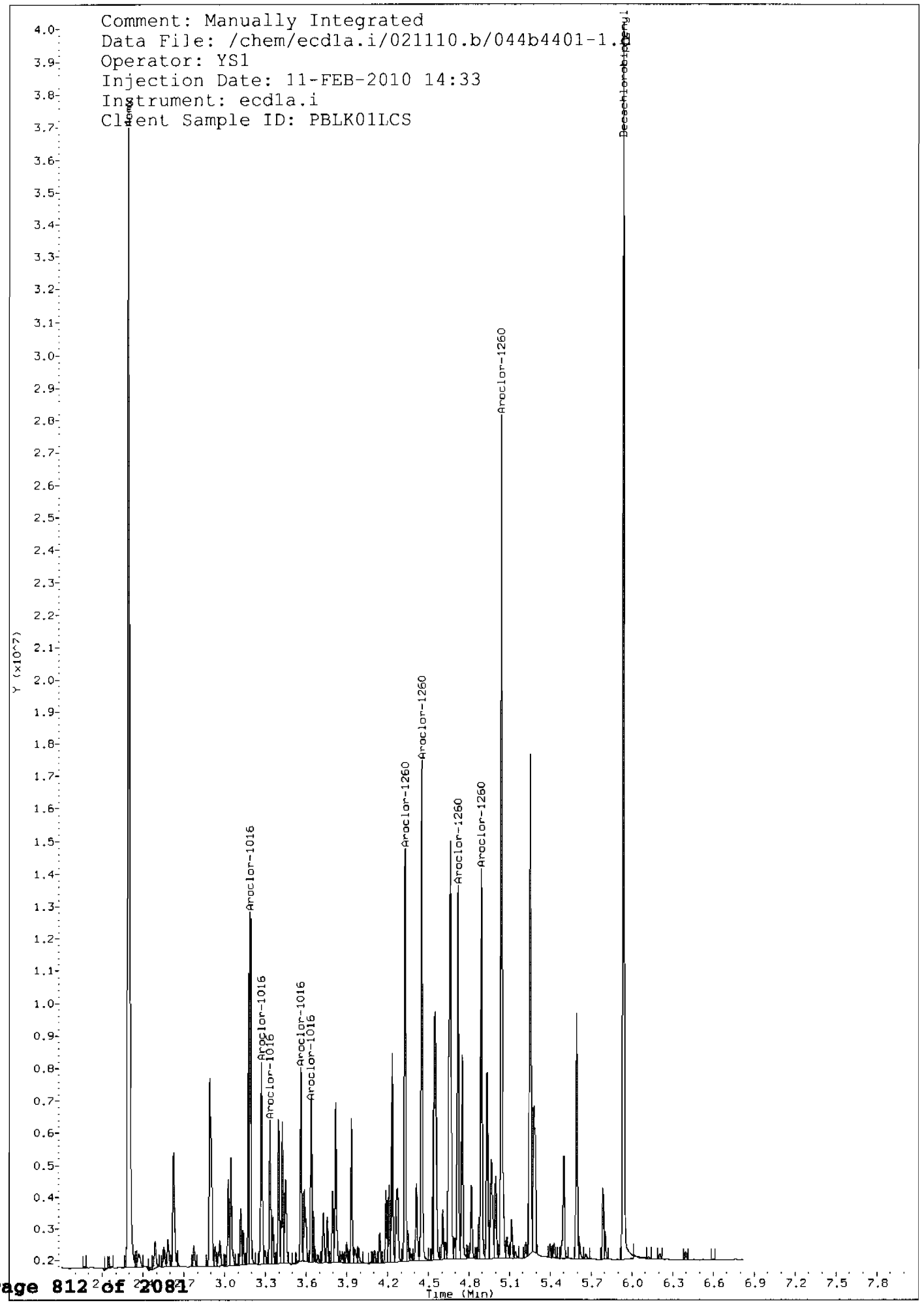
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021110.b/044b4401-1.D
Operator: YS1
Injection Date: 11-FEB-2010 14:33
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Y (x10^7)
Time (Min)

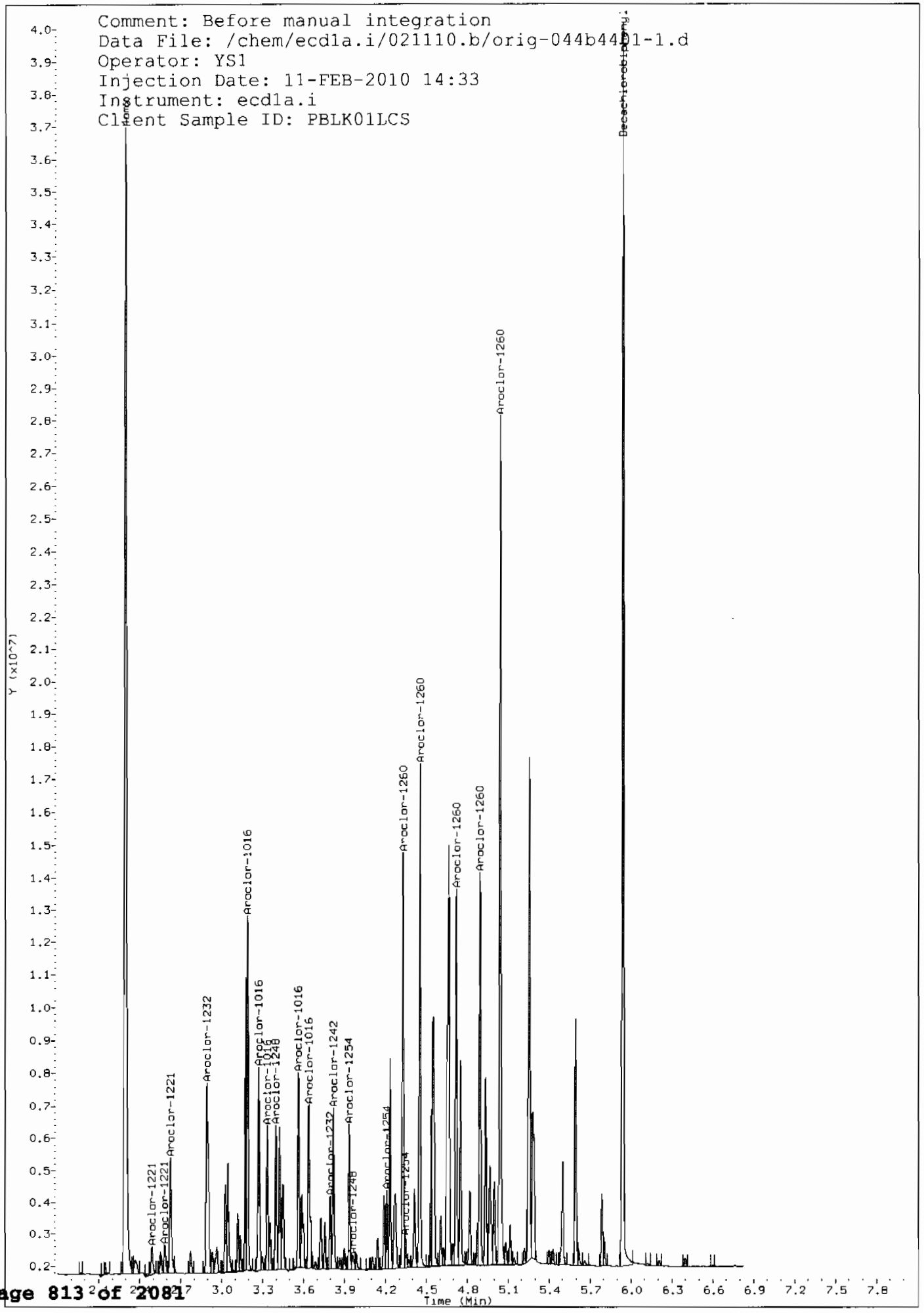
Comment: Before manual integration
Data File: /chem/ecd1a.i/021110.b/orig-044b4401-1.d
Operator: YS1
Injection Date: 11-FEB-2010 14:33
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012810a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
C01f0101.d	WAR100105-99 01	YS1	28-JAN-2010 09:16	012810a		1.0		CLEAN
C02f0201.d	WAR100104-60 01	YS1	28-JAN-2010 09:27	012810a		1.0		DUSE RE-I-CAL
C03f0301.d	WAR091216-54	YS1	28-JAN-2010 09:37	012810a		1.0		PASSED ON BOTH COLUMNS
C04f0401.d	WAR091217-42	YS1	28-JAN-2010 09:48	012810a		1.0		PASSED ON BOTH COLUMNS
C05f0501.d	WAR091217-48	YS1	28-JAN-2010 09:58	012810a		1.0		PASSED ON BOTH COLUMNS
C06f0601.d	WAR100104-32	YS1	28-JAN-2010 10:09	012810a		1.0		PATTERN ONLY
C07f0701.d	WAR100104-21	YS1	28-JAN-2010 10:19	012810a		1.0		PATTERN ONLY
C08f0801.d	WAR100104-62	YS1	28-JAN-2010 10:30	012810a		1.0		PATTERN ONLY
C09f0901.d	WAR100107-68	YS1	28-JAN-2010 10:40	012810a		1.0		DUSE RE-I-CAL
C10f1001.d	WAR100128-01 60	YS1	28-JAN-2010 10:51	012810a		1.0		AR1660 I-CAL LEVEL 1
C11f1101.d	WAR100128-02 60	YS1	28-JAN-2010 11:01	012810a		1.0		AR1660 I-CAL LEVEL 2
C12f1201.d	WAR100128-03 60	YS1	28-JAN-2010 11:12	012810a		1.0		AR1660 I-CAL LEVEL 3
C13f1301.d	WAR100128-04 60	YS1	28-JAN-2010 11:22	012810a		1.0		AR1660 I-CAL LEVEL 4
C14f1401.d	WAR100104-01-01	YS1	28-JAN-2010 11:34	012810a		1.0		AR1660 I-CAL LEVEL 5
C15f1501.d	WAR100104-60 01	YS1	28-JAN-2010 11:44	012810a		1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012810a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100122-68	YS1	28-JAN-2010 11:55		012810a	1.0		DUSE RE-ICAL
017f1701.d	WAR091219-DDT	YS1	28-JAN-2010 12:05		012810a	1.0		DDT ANALOG STANDARD
018f1801.d	WAR100128-05 68	YS1	28-JAN-2010 12:18		012810a	1.0		AR1268 I-CAL LEVEL 1
019f1901.d	WAR100128-06 68	YS1	28-JAN-2010 12:29		012810a	1.0		AR1268 I-CAL LEVEL 2
020f2001.d	WAR100128-07 68	YS1	28-JAN-2010 12:39		012810a	1.0		AR1268 I-CAL LEVEL 3
021f2101.d	WAR100128-08 68	YS1	28-JAN-2010 12:50		012810a	1.0		AR1268 I-CAL LEVEL 4
022f2201.d	IAR100104-05	YS1	28-JAN-2010 13:00		012810a	1.0		AR1268 I-CAL LEVEL 5
023f2301.d	WAR100107-68	YS1	28-JAN-2010 13:11		012810a	1.0		PASSED ON BOTH COLUMNS
024f2401.d	WAR100105-99 02	YS1	28-JAN-2010 13:21		012810a	1.0		CLEAN
025f2501.d	1202026135	YS1	28-JAN-2010 13:32	945965	245586	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	1202026136	YS1	28-JAN-2010 13:42	945965	245586	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245586001	YS1	28-JAN-2010 13:53	945965	245586	250.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202026137	YS1	28-JAN-2010 14:05	945965	245586	250.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	1202026138	YS1	28-JAN-2010 14:18	945965	245586	250.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	245586002	YS1	28-JAN-2010 14:30	945965	245586	50.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245586003	YS1	28-JAN-2010 14:43	945965	245586	1.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	WAR100104-60 02	YS1	28-JAN-2010 14:56		012810a	1.0		PASSED ON BOTH COLUMNS
033f3301.d	WAR091216-54 02	YS1	28-JAN-2010 15:06		012810a	1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR091217-42 02	YS1	28-JAN-2010 15:16		012810a	1.0		PASSED ON BOTH COLUMNS
035f3501.d	WAR091217-48 02	YS1	28-JAN-2010 15:27		012810a	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR100104-32 02	YS1	28-JAN-2010 15:38		012810a	1.0		PATTERN ONLY
037f3701.d	WAR100104-21 02	YS1	28-JAN-2010 15:48		012810a	1.0		PATTERN ONLY
038f3801.d	WAR100104-62 02	YS1	28-JAN-2010 15:58		012810a	1.0		PATTERN ONLY
039f3901.d	WAR100122-68 02	YS1	28-JAN-2010 16:09		012810a	1.0		PASSED ON BOTH COLUMNS

040f4001.d	WAR100105-99 03	YS1	28-JAN-2010 16:19		012810a		1.0		CLEAN
041f4101.d	245096008	YS1	28-JAN-2010 16:30	944883	10-1299		20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	245096009	YS1	28-JAN-2010 16:43	944883	10-1299		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	245096010	YS1	28-JAN-2010 16:55	944883	10-1299		20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	245096011	YS1	28-JAN-2010 17:08	944883	10-1299		20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	245099015	YS1	28-JAN-2010 17:20	944883	10-1301		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	245114003	YS1	28-JAN-2010 17:33	944883	10-1324		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	1202023863	YS1	28-JAN-2010 17:45	944883	10-1324		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	1202023864	YS1	28-JAN-2010 17:58	944883	10-1324		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	245114004	YS1	28-JAN-2010 18:11	944883	10-1324		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	245114005	YS1	28-JAN-2010 18:23	944883	10-1324		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	WAR100104-60 03	YS1	28-JAN-2010 18:38		012810a		1.0		PASSED ON BOTH COLUMNS
052f5201.d	WAR100105-99 04	YS1	28-JAN-2010 18:50		012810a		1.0		CLEAN
053f5301.d	245114006	YS1	28-JAN-2010 19:03	944883	10-1324		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	WAR100104-60 04	YS1	28-JAN-2010 19:17		012810a		1.0		PASSED ON BOTH COLUMNS
055f5501.d	WAR100105-99 05	YS1	28-JAN-2010 19:30		012810a		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202026131	YS1	28-JAN-2010 19:42	945963	10-1372	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	1202026132	YS1	28-JAN-2010 19:55	945963	10-1372	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	245376001	YS1	28-JAN-2010 20:08	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	245376002	YS1	28-JAN-2010 20:20	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	245376003	YS1	28-JAN-2010 20:33	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	245376004	YS1	28-JAN-2010 20:45	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	245376005	YS1	28-JAN-2010 20:58	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	245376006	YS1	28-JAN-2010 21:10	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	245376007	YS1	28-JAN-2010 21:23	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	245381002	YS1	28-JAN-2010 21:36	945963	10-1380		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100104-60 05	YS1	28-JAN-2010 21:48		012810a		1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100105-99 06	YS1	28-JAN-2010 22:01		012810a		1.0		CLEAN
068f6801.d	245384001	YS1	28-JAN-2010 22:13	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202026133	YS1	28-JAN-2010 22:26	945963	10-1382		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	1202026134	YS1	28-JAN-2010 22:39	945963	10-1382		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	245384002	YS1	28-JAN-2010 22:51	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	245384003	YS1	28-JAN-2010 23:04	945963	10-1382		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	245384004	YS1	28-JAN-2010 23:16	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	245384005	YS1	28-JAN-2010 23:29	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	245384006	YS1	28-JAN-2010 23:41	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	245384007	YS1	28-JAN-2010 23:54	945963	10-1382	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	245384008	YS1	29-JAN-2010 00:07	945963	10-1382	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100104-60 06	YS1	29-JAN-2010 00:19		012810a	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100105-99 07	YS1	29-JAN-2010 00:32		012810a	1.0		CLEAN
080f8001.d	245384012	YS1	29-JAN-2010 00:45	945963	10-1382	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	WAR100104-60 07	YS1	29-JAN-2010 00:57		012810a	1.0		PASSED ON BOTH COLUMNS
082f8201.d	WAR100105-99 08	YS1	29-JAN-2010 01:10		012810a	1.0		CLEAN
083f8301.d	1202026309	YS1	29-JAN-2010 01:22	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	1202026310	YS1	29-JAN-2010 01:35	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	1202026313	YS1	29-JAN-2010 01:48	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	245309001	YS1	29-JAN-2010 02:00	946042	EUI-7483	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	1202026311	YS1	29-JAN-2010 02:13	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	1202026312	YS1	29-JAN-2010 02:25	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

089f8901.d	WAR100104-60 08	YS1	29-JAN-2010 02:38		012810a	1.0	PASSED ON BOTH COLUMNS
090f9001.d	WAR100105-99 09	YS1	29-JAN-2010 02:51		012810a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/10/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/020910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	09-FEB-2010 06:45		020910	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	09-FEB-2010 06:56		020910	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091216-54	YS1	09-FEB-2010 07:06		020910	1.0		DUSE RE I-CAL
004f0401.d	WAR091217-42	YS1	09-FEB-2010 07:17		020910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	09-FEB-2010 07:27		020910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	09-FEB-2010 07:38		020910	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-21	YS1	09-FEB-2010 07:48		020910	1.0		PATTERN ONLY
008f0801.d	WAR091216-54	YS1	09-FEB-2010 07:59		020910	1.0		DUSE RE I-CAL
009f0901.d	WAR100104-62	YS1	09-FEB-2010 08:09		020910	1.0		PATTERN ONLY
010f1001.d	WAR100107-68	YS1	09-FEB-2010 08:20		020910	1.0		PATTERN ONLY
011f1101.d	WAR100209-01 54	YS1	09-FEB-2010 08:36		020910	1.0		AR1254 I-CAL LEVEL 1
012f1201.d	WAR100209-02 54	YS1	09-FEB-2010 08:47		020910	1.0		AR1254 I-CAL LEVEL 2
013f1301.d	WAR100209-03 54	YS1	09-FEB-2010 08:57		020910	1.0		AR1254 I-CAL LEVEL 3
014f1401.d	WAR100209-04 54	YS1	09-FEB-2010 09:08		020910	1.0		AR1254 I-CAL LEVEL 4
015f1501.d	IAR091027-01 54	YS1	09-FEB-2010 09:18		020910	1.0		AR1254 I-CAL LEVEL 5

Instrument Batch: /chem/ecd1a.i/020910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091216-54	YS1	09-FEB-2010 09:29		020910	1.0		PASSED ON BOTH COLUMNS
017f1701.d	WAR091219-DDT	YS1	09-FEB-2010 09:39		020910	1.0		DDT NALOG STANDARD
018f1801.d	WAR100105-99 02	YS1	09-FEB-2010 09:50		020910	1.0		CLEAN
019f1901.d	1202035442	YS1	09-FEB-2010 10:00	949973	EUI-7474R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1202035443	YS1	09-FEB-2010 10:11	949973	EUI-7474R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	1202035446	YS1	09-FEB-2010 10:21	949973	EUI-7474R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	245764002	YS1	09-FEB-2010 10:32	949973	EUI-7494	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	246214001	YS1	09-FEB-2010 10:44	949973	EUI-7474R	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	1202035444	YS1	09-FEB-2010 10:57	949973	EUI-7474R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	1202035445	YS1	09-FEB-2010 11:10	949973	EUI-7474R	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	WAR100203-60 02	YS1	09-FEB-2010 11:22		020910	1.0		PASSED ON BOTH COLUMNS (20%)
027f2701.d	WAR100105-99 03	YS1	09-FEB-2010 11:33		020910	1.0		CLEAN
028f2801.d	246228003	YS1	09-FEB-2010 11:43	949561	10020	5.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	246228004	YS1	09-FEB-2010 11:56	949561	10020	1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	246228007	YS1	09-FEB-2010 12:08	949561	10020	10.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	246228009	YS1	09-FEB-2010 12:21	949561	10020	5.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	246228010	YS1	09-FEB-2010 12:33	949561	10020	1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	246228011	YS1	09-FEB-2010 12:46	949561	10020	5.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	WAR100203-60 02	YS1	09-FEB-2010 12:59		020910	1.0		PASSED ON BOTH COLUMNS(20%)
035f3501.d	WAR100105-99 04	YS1	09-FEB-2010 13:11		020910	1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/020910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	246228012	YS1	09-FEB-2010 13:24	949561	10020	10.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	246228013	YS1	09-FEB-2010 13:36	949561	10020	20.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	246228014	YS1	09-FEB-2010 13:49	949561	10020	10.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	246228015	YS1	09-FEB-2010 14:02	949561	10020	10.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	246228016	YS1	09-FEB-2010 14:14	949561	10020	1.0	WSRS	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	WAR100203-60 04	YS1	09-FEB-2010 14:27		020910	1.0		PASSED ON BOTH COLUMNS
042f4201.d	WAR100203-60 05	YS1	09-FEB-2010 14:40		020910	1.0		PASSED ON BOTH COLUMNS
043f4301.d	WAR100105-99 05	YS1	09-FEB-2010 14:52		020910	1.0		CLEAN
044f4401.d	1202034863	YS1	09-FEB-2010 15:05	949770	NY-330_WW	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	1202034864	YS1	09-FEB-2010 15:17	949770	NY-330_WW	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	1202034872	YS1	09-FEB-2010 15:30	949770	NY-330_WW	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	1245427030	YS1	09-FEB-2010 15:43	949770	NY-330_WW	1.0	PTQA	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	1202034871	YS1	09-FEB-2010 15:55	949770	NY-330_WW	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100203-60 06	YS1	09-FEB-2010 16:08		020910	1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100105-99 06	YS1	09-FEB-2010 16:20		020910	1.0		CLEAN
051f5101.d	1202035447	YS1	09-FEB-2010 16:33	949976	SP4012	1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
052f5201.d	1202035448	YS1	09-FEB-2010 16:46	949976	SP4012	1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
053f5301.d	245480001	YS1	09-FEB-2010 16:58	949976	SP4012	10.0	ORNL	RR AFTER MORE SULFUR CLEAN
054f5401.d	245480002	YS1	09-FEB-2010 17:11	949976	SP4012	10.0	ORNL	UPLOAD BOTH COLUMNS, USE FRONT
055f5501.d	245480003	YS1	09-FEB-2010 17:24	949976	SP4012	10.0	ORNL	UPLOAD BOTH COLUMNS, USE FRONT

Instrument Batch: /chem/ecd1a.i/020910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245826001	YS1	09-FEB-2010 17:36	949976	245826	5.0	BWXT	UPLOAD BOTH COLUMNS, USE FRONT
057f5701.d	246099002	YS1	09-FEB-2010 17:49	949976	SP4006	1.0	ORNL	UPLOAD BOTH COLUMNS, USE FRONT
058f5801.d	246171001	YS1	09-FEB-2010 18:01	949976	246171	1.0	MECP	UPLOAD BOTH COLUMNS, USE FRONT
059f5901.d	1202035449	YS1	09-FEB-2010 18:14	949976	246171	1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
060f6001.d	1202035450	YS1	09-FEB-2010 18:27	949976	246171	1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
061f6101.d	WAR100203-60 07	YS1	09-FEB-2010 18:41		020910	1.0		PASSED ON BOTH COLUMNS
062f6201.d	WAR100105-99 07	YS1	09-FEB-2010 18:54		020910	1.0		CLEAN
063f6301.d	246376001	YS1	09-FEB-2010 19:06	949976	SP4011	1.0	ORNL	UPLOAD BOTH COLUMNS, USE FRONT
064f6401.d	WAR100203-60 08	YS1	09-FEB-2010 19:21		020910	1.0		PASSED ON BOTH COLUMNS

|065f6501.d |WAR10C105-99 08 |YS1 |09-FEB-2010 19:34 | 020910 | 1.0| CLEAN |

Instrument Batch: /chem/ecd1a.i/020910.b

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/11/2010 METHOD: ECD1-F-8082-021010C.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/021010c.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	10-FEB-2010 20:48		021010c	1.0		CLEAN
002f0201.d	WAR100210-01 60	YS1	10-FEB-2010 20:58		021010c	1.0		AR1660 I-CAL LEVEL 1
003f0301.d	WAR100210-02 60	YS1	10-FEB-2010 21:09		021010c	1.0		AR1660 I-CAL LEVEL 2
004f0401.d	WAR100210-03 60	YS1	10-FEB-2010 21:19		021010c	1.0		AR1660 I-CAL LEVEL 3
005f0501.d	WAR100210-04 60	YS1	10-FEB-2010 21:30		021010c	1.0		AR1660 I-CAL LEVEL 4
006f0601.d	IAR100104-01	YS1	10-FEB-2010 21:40		021010c	1.0		AR1660 I-CAL LEVEL 5
007f0701.d	WAR100203-60 01	YS1	10-FEB-2010 21:51		021010c	1.0		PASSED ON BOTH COLUMNS
008f0801.d	WAR100210-05 42	YS1	10-FEB-2010 22:01		021010c	1.0		AR1242 I-CAL LEVEL 1
009f0901.d	WAR100210-06 42	YS1	10-FEB-2010 22:12		021010c	1.0		AR1242 I-CAL LEVEL 2
010f1001.d	WAR100210-07 42	YS1	10-FEB-2010 22:22		021010c	1.0		AR1242 I-CAL LEVEL 3
011f1101.d	WAR100210-08 42	YS1	10-FEB-2010 22:33		021010c	1.0		AR1242 I-CAL LEVEL 4
012f1201.d	IAR091111-01	YS1	10-FEB-2010 22:43		021010c	1.0		AR1242 I-CAL LEVEL 5
013f1301.d	WAR091217-42	YS1	10-FEB-2010 22:54		021010c	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100210-09 48	YS1	10-FEB-2010 23:04		021010c	1.0		DUSE
015f1501.d	WAR100210-10 48	YS1	10-FEB-2010 23:15		021010c	1.0		DUSE

Instrument Batch: /chem/ecd1a.i/021010c.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100210-11 48	YS1	10-FEB-2010 23:25	021010c	1.0	DUSE
017f1701.d	WAR100210-12 48	YS1	10-FEB-2010 23:36	021010c	1.0	DUSE
018f1801.d	1AR091027-02	YS1	10-FEB-2010 23:46	021010c	1.0	DUSE
019f1901.d	WAR091217-48	YS1	10-FEB-2010 23:57	021010c	1.0	DUSE
020f2001.d	WAR100105-99 02	YS1	11-FEB-2010 00:07	021010c	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/12/2010 METHOD: ECD1-F-8082-021110.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/021110.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	11-FEB-2010 06:14	021110		1.0	CLEAN	
002f0201.d	WAR100203-60 01	YS1	11-FEB-2010 06:25	021110		1.0	PASSED ON BOTH COLUMNS	
003f0301.d	WAR091216-54	YS1	11-FEB-2010 06:35	021110		1.0	PASSED ON BOTH COLUMNS	
004f0401.d	WAR091217-42	YS1	11-FEB-2010 06:46	021110		1.0	PASSED ON BOTH COLUMNS	
005f0501.d	1248-4 old	YS1	11-FEB-2010 06:56	021110		1.0	AR1248 SCREEN DUSE	
006f0601.d	WAR100104-32	YS1	11-FEB-2010 07:19	021110		1.0	PATTERN ONLY	
007f0701.d	1248-4	YS1	11-FEB-2010 07:30	021110		1.0	AR1248 SCREEN DUSE	
008f0801.d	WAR100104-21	YS1	11-FEB-2010 07:40	021110		1.0	PATTERN ONLY	
009f0901.d	WAR100104-62	YS1	11-FEB-2010 07:51	021110		1.0	PATTERN ONLY	
010f1001.d	WAR100107-68	YS1	11-FEB-2010 08:01	021110		1.0	PASSED ON BOTH COLUMNS	
011f1101.d	WAR100211-01 48	YS1	11-FEB-2010 08:12	021110		1.0	AR1248 I-CAL LEVEL 1	
012f1201.d	WAR100211-02 48	YS1	11-FEB-2010 08:22	021110		1.0	AR1248 I-CAL LEVEL 2	
013f1301.d	WAR100211-03 48	YS1	11-FEB-2010 08:33	021110		1.0	AR1248 I-CAL LEVEL 3	
014f1401.d	WAR100211-04 48	YS1	11-FEB-2010 08:44	021110		1.0	AR1248 I-CAL LEVEL 4	
015f1501.d	IAR100211-01	YS1	11-FEB-2010 08:54	021110		1.0	AR1248 I-CAL LEVEL 5	

Instrument Batch: /chem/ecd1a.i/021110.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091217-48 48	YS1	11-FEB-2010 09:04		021110		1.0		PASSED ON BOTH COLUMNS
017f1701.d	WAR091219-DDT	YS1	11-FEB-2010 09:15		021110		1.0		DDT ANALOG STANDARD
018f1801.d	WAR100105-99 02	YS1	11-FEB-2010 09:26		021110		1.0		CLEAN
019f1901.d	1202038145	YS1	11-FEB-2010 09:36	951079	245514		1.0	QC A	DUSE
020f2001.d	1202038146	YS1	11-FEB-2010 09:47	951079	245514		1.0	QC A	DUSE
021f2101.d	245514001	YS1	11-FEB-2010 09:57	951079	245514		1.0	WSRB	DUSE CONFIRMATION ONLY PER CLIENT
022f2201.d	1202038147	YS1	11-FEB-2010 10:10	951079	245514		1.0	QC A	DUSE
023f2301.d	1202038148	YS1	11-FEB-2010 10:22	951079	245514		1.0	QC A	DUSE
024f2401.d	WAR100203-60 02	YS1	11-FEB-2010 10:35		021110		1.0		PASSED ON BOTH COLUMNS
025f2501.d	WAR100105-99 03	YS1	11-FEB-2010 10:45		021110		1.0		CLEAN
026f2601.d	1202039050	YS1	11-FEB-2010 10:56		EUI-7500		1.0		UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	1202039051	YS1	11-FEB-2010 11:09		EUI-7500		1.0		UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202039058	YS1	11-FEB-2010 11:21		EUI-7500		1.0		UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	246565001	YS1	11-FEB-2010 11:34	951451	EUI-7500		1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	1202039052	YS1	11-FEB-2010 11:46	951451	65001MS1		1.0	QC A	DUSE RR 200X
031f3101.d	1202039053	YS1	11-FEB-2010 11:59	951451	65001MSD1		1.0	QC A	DUSE RR 200X
032f3201.d	WAR100105-99 04	YS1	11-FEB-2010 12:12		021110		1.0		CLEAN
033f3301.d	246570001	YS1	11-FEB-2010 12:22	951451	EUI-7501		200.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	246570002	YS1	11-FEB-2010 12:35		EUI-7501		200.0		UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	246570003	YS1	11-FEB-2010 12:47		EUI-7501		200.0		UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/021110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	246640001	YS1	11-FEB-2010 13:00		EUI-7503	200.0		UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	WAR100203-60 03	YS1	11-FEB-2010 13:12		021110	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100105-99 05	YS1	11-FEB-2010 13:23		021110	1.0		CLEAN
039f3901.d	1202039052	YS1	11-FEB-2010 13:33	951451	EUI-7501	200.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202039053	YS1	11-FEB-2010 13:46	951451	EUI-7501	200.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	WAR100203-60 04	YS1	11-FEB-2010 13:59		021110		1.0	PASSED ON BOTH COLUMNS
042f4201.d	WAR100105-99 06	YS1	11-FEB-2010 14:09		021110		1.0	CLEAN
043f4301.d	1202038652	YS1	11-FEB-2010 14:20	951299	10-1505		1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	1202038653	YS1	11-FEB-2010 14:33	951299	10-1505		1.0 QC A	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	245935001	YS1	11-FEB-2010 14:45	951299	10-1505		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	245935002	YS1	11-FEB-2010 14:58	951299	10-1505		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	245935003	YS1	11-FEB-2010 15:10	951299	10-1505		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	245935004	YS1	11-FEB-2010 15:23	951299	10-1505		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	245935005	YS1	11-FEB-2010 15:36	951299	10-1505		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	245935006	YS1	11-FEB-2010 15:48	951299	10-1505		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	245935008	YS1	11-FEB-2010 16:01	951299	10-1505		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	245935009	YS1	11-FEB-2010 16:14	951299	10-1505		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	WAR100203-60 05	YS1	11-FEB-2010 16:26		021110		1.0	PASSED ON BOTH COLUMNS
054f5401.d	WAR100105-99 07	YS1	11-FEB-2010 16:37		021110		1.0	CLEAN
055f5501.d	245979013	YS1	11-FEB-2010 16:47	951299	10-1514		1.0 LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/021110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245979014	YS1	11-FEB-2010 17:00	951299	10-1514	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	245979015	YS1	11-FEB-2010 17:13	951299	10-1514	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	245994001	YS1	11-FEB-2010 17:25	951299	10-1516	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	1202038654	YS1	11-FEB-2010 17:38	951299	10-1516	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	1202038655	YS1	11-FEB-2010 17:51	951299	10-1516	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	245994002	YS1	11-FEB-2010 18:03	951299	10-1516	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	245994003	YS1	11-FEB-2010 18:16	951299	10-1516	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	WAR100203-60 06	YS1	11-FEB-2010 18:28		021110	1.0		PASSED ON BOTH COLUMNS
064f6401.d	WAR100105-99 08	YS1	11-FEB-2010 18:39		021110	1.0		CLEAN

065f6500.d	1202037852	YS1	11-FEB-2010 18:49	950925	245515	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1202037853	YS1	11-FEB-2010 19:02	950925	245515	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	245515001	YS1	11-FEB-2010 19:15	950925	245515	1.0	WSRB	DUSE RR 20X
068f6801.d	245515002	YS1	11-FEB-2010 19:27	950925	245515	1.0	WSRB	DUSE RR 5X
069f6901.d	245515003	YS1	11-FEB-2010 19:40	950925	245515	1.0	WSRB	DUSE RR
070f7001.d	245515004	YS1	11-FEB-2010 19:53	950925	245515	1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	245515005	YS1	11-FEB-2010 20:05	950925	245515	1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	245515006	YS1	11-FEB-2010 20:18	950925	245515	1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	245515007	YS1	11-FEB-2010 20:31	950925	245515	1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	245515008	YS1	11-FEB-2010 20:43	950925	245515	1.0	WSRB	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	WAR100203-60 07	YS1	11-FEB-2010 20:56		021110	1.0		PASSED ON BOTH COLUMNS

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/059b5901.d
Lab Smp Id: 1202038654 Client Smp ID: RE15-10-8122MS
Inj Date : 11-FEB-2010 17:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038654|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 59 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	33227908	115.812	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.938	5.941	-0.003	28377504	131.930	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.190	0.000	7548542	607.273	23.7	80.00- 120.00	100.00(M)
3.273	3.274	-0.001	5220008	612.602	23.9	46.60- 86.60	69.15
3.336	3.337	-0.001	3134932	596.704	23.3	21.35- 61.35	41.53
3.563	3.564	-0.001	4178448	620.682	24.2	32.46- 72.46	55.35

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.638	3.640	-0.002	3825888	604.963	23.6	38.93- 78.93	61.97
Average of Peak Concentrations =					23.7		
7 Aroclor-1260					CAS #: 11096-82-5		
4.328	4.330	-0.002	9243632	734.061	28.7	80.00- 120.00	100.00
4.453	4.455	-0.002	11347991	753.165	29.4	102.02- 142.02	122.77
4.719	4.721	-0.002	8692026	748.154	29.2	72.44- 112.44	94.03
4.893	4.895	-0.002	8906923	740.389	28.9	75.48- 115.48	96.36
5.040	5.042	-0.002	20112741	778.844	30.4	192.44- 232.44	217.58
Average of Peak Concentrations =					29.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/059b5901.d

Page 1

Date : 11-FEB-2010 17:38

Client ID: RE15-10-8122MS

Instrument: ecd1a.i

Sample Info: |1202038654|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

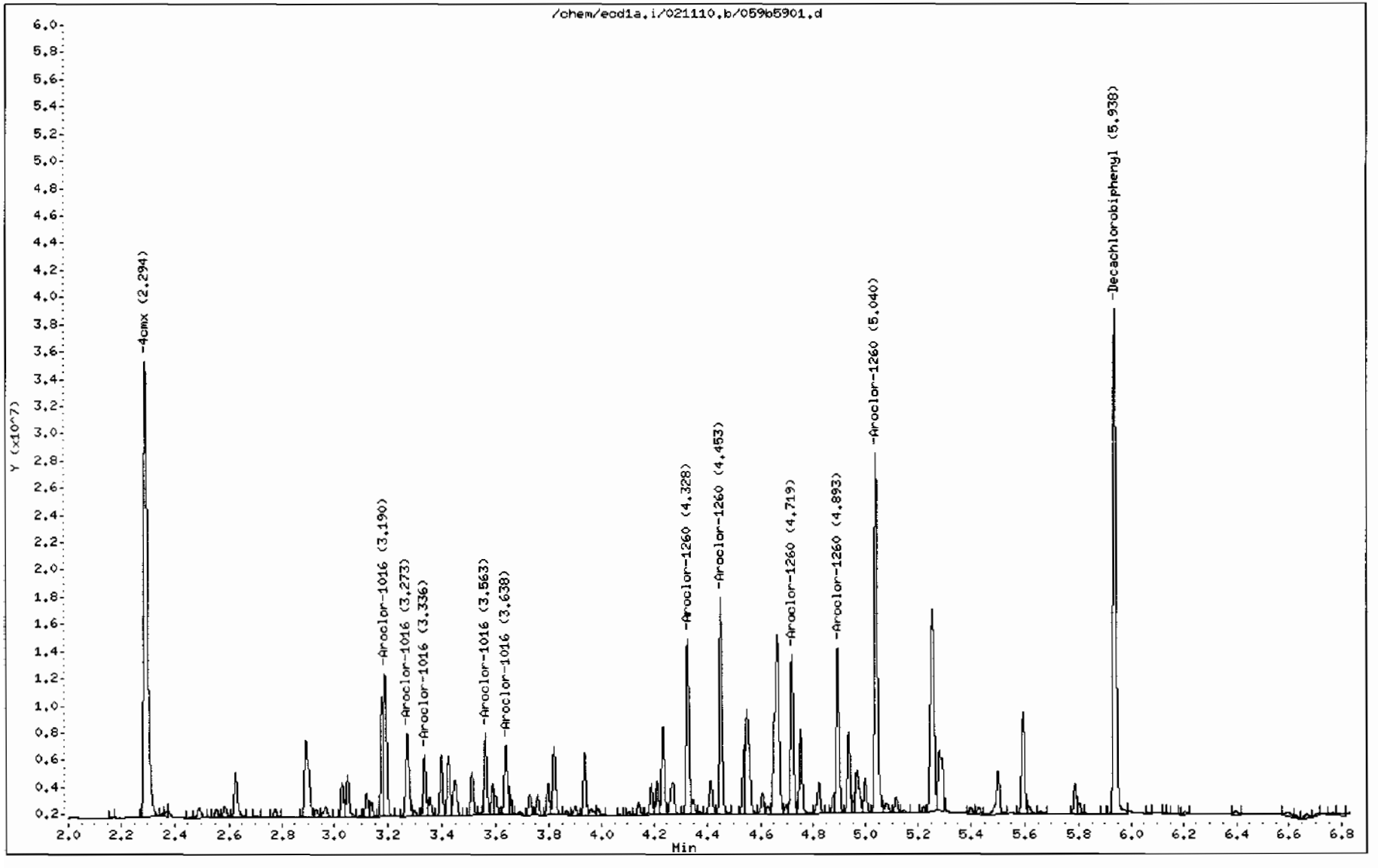

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/059f5901.d
Lab Smp Id: 1202038654 Client Smp ID: RE15-10-8122MS
Inj Date : 11-FEB-2010 17:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038654|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 59 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.10000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.962	0.002	52180049	119.359	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	45494756	136.396	5.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.418	0.000	9702444	602.315	23.5	80.00- 120.00	100.00
2.705	2.705	0.000	12364455	625.016	24.4	107.74- 147.74	127.44
2.786	2.786	0.000	8206438	630.033	24.6	62.06- 102.06	84.58
2.823	2.824	-0.001	4797044	616.468	24.1	29.56- 69.56	49.44

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.033	3.035	-0.002	6374552	636.027	24.8	44.36- 84.36	65.70
Average of Peak Concentrations =					24.3		
7 Aroclor-1260					CAS #: 11096-82-5		
3.758	3.760	-0.002	14213694	746.900	29.2	80.00- 120.00	100.00
3.922	3.924	-0.002	21749241	767.076	30.0	130.55- 170.55	153.02
4.151	4.154	-0.003	13052842	765.805	29.9	69.92- 109.92	91.83
4.294	4.296	-0.002	13412693	749.641	29.3	76.48- 116.48	94.36
4.473	4.475	-0.002	31130200	801.281	31.3	190.91- 230.91	219.02
Average of Peak Concentrations =					29.9		

Data File: /chem/ecd1a.i/021110.b/059f5901.d
Date : 11-FEB-2010 17:38
Client ID: RE15-10-8122MS
Sample Info: 1120203865411
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

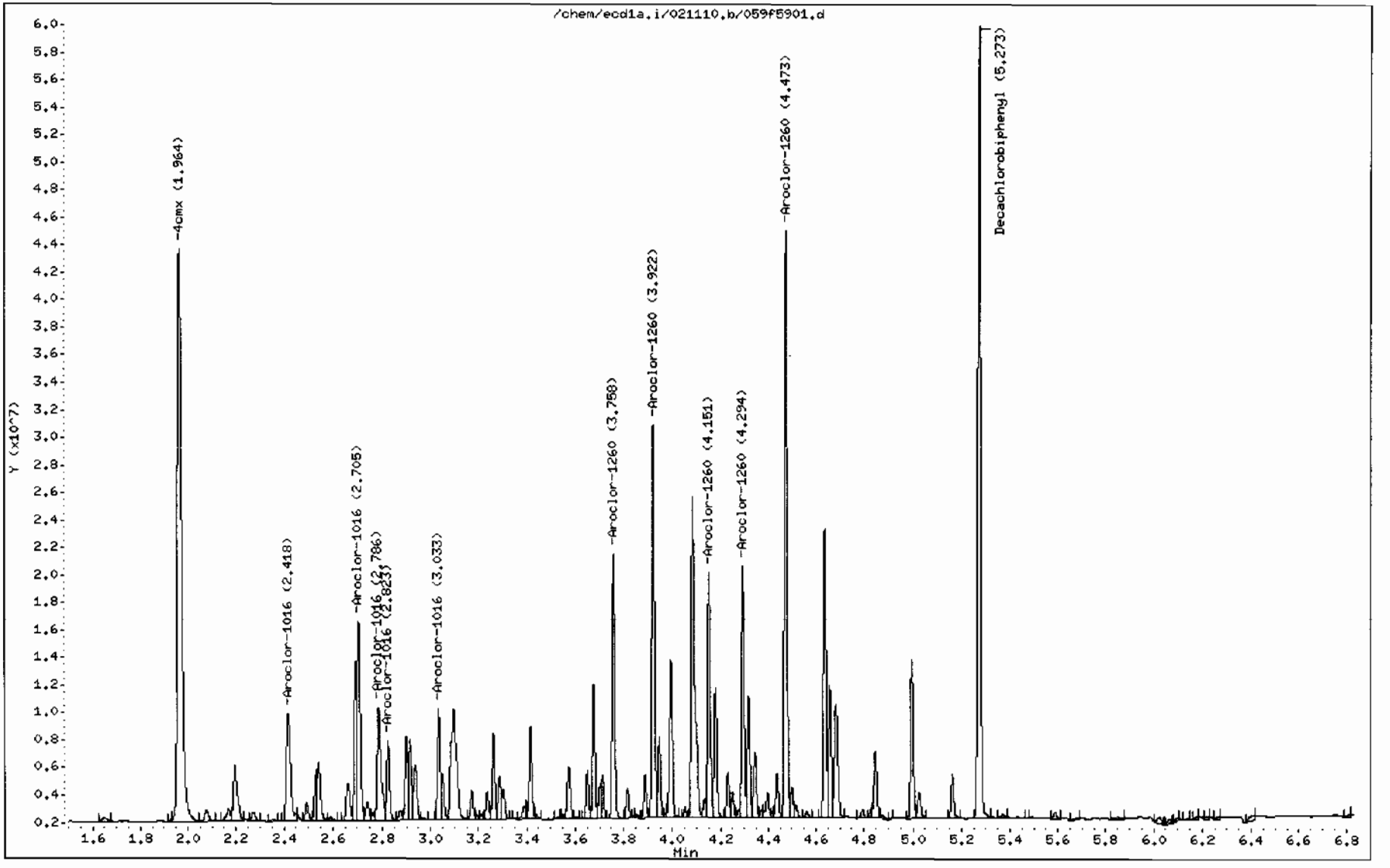

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/060b6001.d
Lab Smp Id: 1202038655 Client Smp ID: RE15-10-8122MSD
Inj Date : 11-FEB-2010 17:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038655|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SO1L|MSD|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-B-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 60 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.292	2.294	-0.002	30694699	106.983	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.941	-0.001	25097604	116.682	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.189	3.190	-0.001	7020813	564.818	22.1	80.00- 120.00	100.00(M)
3.272	3.274	-0.002	4810303	564.521	22.1	46.60- 86.60	68.51
3.336	3.337	-0.001	2868758	546.040	21.4	21.35- 61.35	40.86
3.563	3.564	-0.001	3782571	561.877	22.0	32.46- 72.46	53.88

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.638	3.640	-0.002	3487259	551.418	21.6	38.93- 78.93	60.11
Average of Peak Concentrations =					21.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.329	4.330	-0.001	8250050	655.158	25.6	80.00- 120.00	100.00
4.454	4.455	-0.001	10078748	668.926	26.2	102.02- 142.02	122.17
4.720	4.721	-0.001	7709838	663.614	26.0	72.44- 112.44	93.45
4.894	4.895	-0.001	7948327	660.706	25.9	75.48- 115.48	96.34
5.041	5.042	-0.001	17752424	687.443	26.9	192.44- 232.44	215.18
Average of Peak Concentrations =					26.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021110.b/060b6001.d

Date : 11-FEB-2010 17:51

Client ID: RE15-10-8122MSD

Sample Info: 1120203865511

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

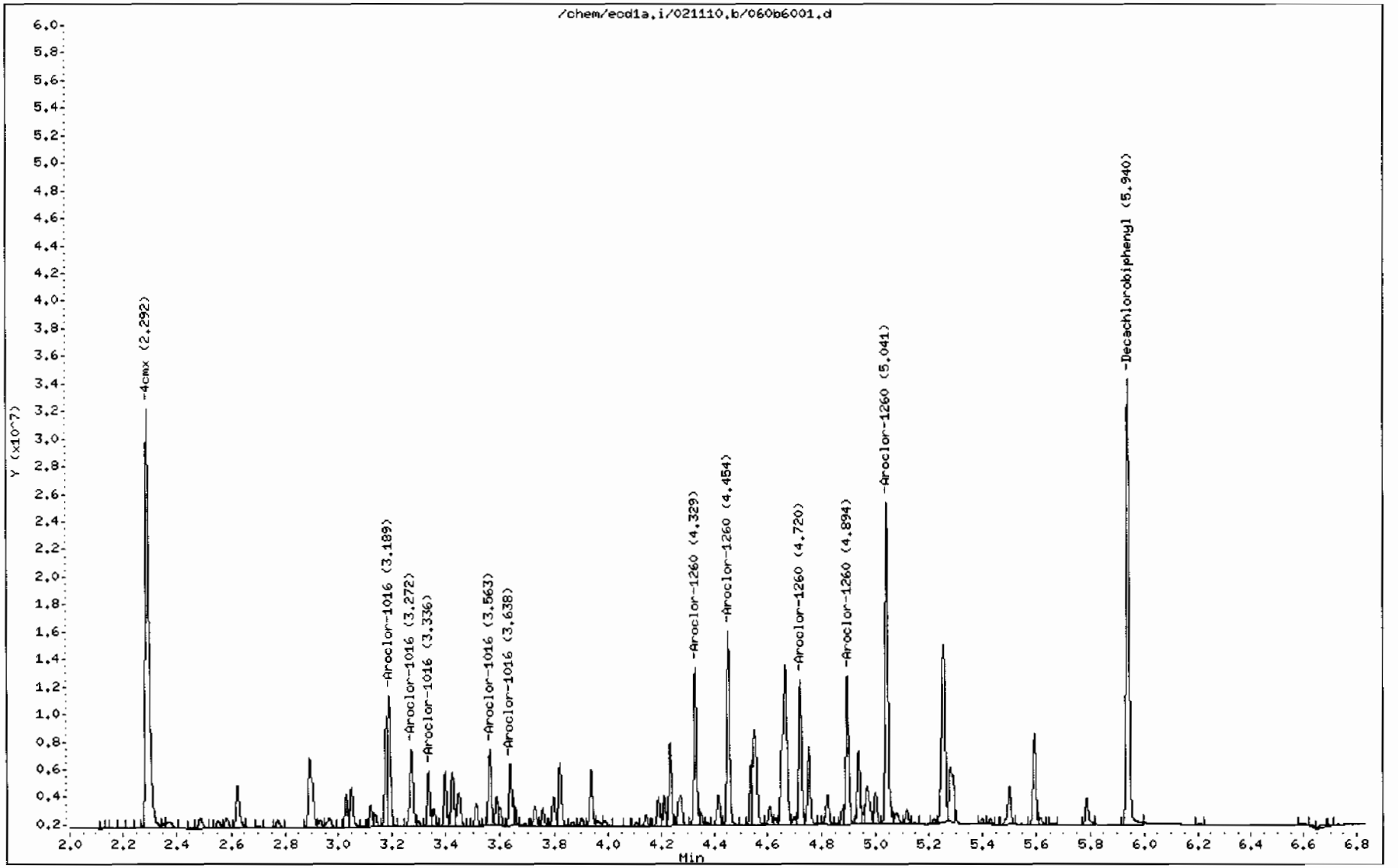

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021110.b/060f6001.d
Lab Smp Id: 1202038655 Client Smp ID: RE15-10-8122MSD
Inj Date : 11-FEB-2010 17:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202038655|1|
Misc Info : |ECD82P_1S|951299|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/021110.b/ECD1-F-8082-021110.m
Meth Date : 12-Feb-2010 07:00 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 60 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1516.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	14.92870	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.961	1.962	-0.001	47847702	109.449	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.273	5.275	-0.002	39946971	119.763	4.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	9089881	564.288	22.1	80.00- 120.00	100.00
2.704	2.705	-0.001	11669389	589.881	23.1	107.74- 147.74	128.38
2.785	2.786	-0.001	7445572	571.619	22.4	62.06- 102.06	81.91
2.822	2.824	-0.002	4360354	560.349	21.9	29.56- 69.56	47.97

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.033	3.035	-0.002	5866525	585.338	22.9	44.36- 84.36	64.54
Average of Peak Concentrations =					22.5		
7 Aroclor-1260					CAS #: 11096-82-5		
3.759	3.760	-0.001	12804280	672.839	26.3	80.00- 120.00	100.00
3.922	3.924	-0.002	19455220	686.168	26.8	130.55- 170.55	151.94
4.152	4.154	-0.002	11669407	684.639	26.8	69.92- 109.92	91.14
4.295	4.296	-0.001	12164544	679.881	26.6	76.48- 116.48	95.00
4.474	4.475	-0.001	27616502	710.839	27.8	190.91- 230.91	215.68
Average of Peak Concentrations					26.9		

Data File: /chem/ecd1a.i/021110.b/060f6001.d

Page 1

Date : 11-FEB-2010 17:51

Client ID: RE15-10-8122MSD

Instrument: ecd1a.i

Sample Info: |1202038655|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

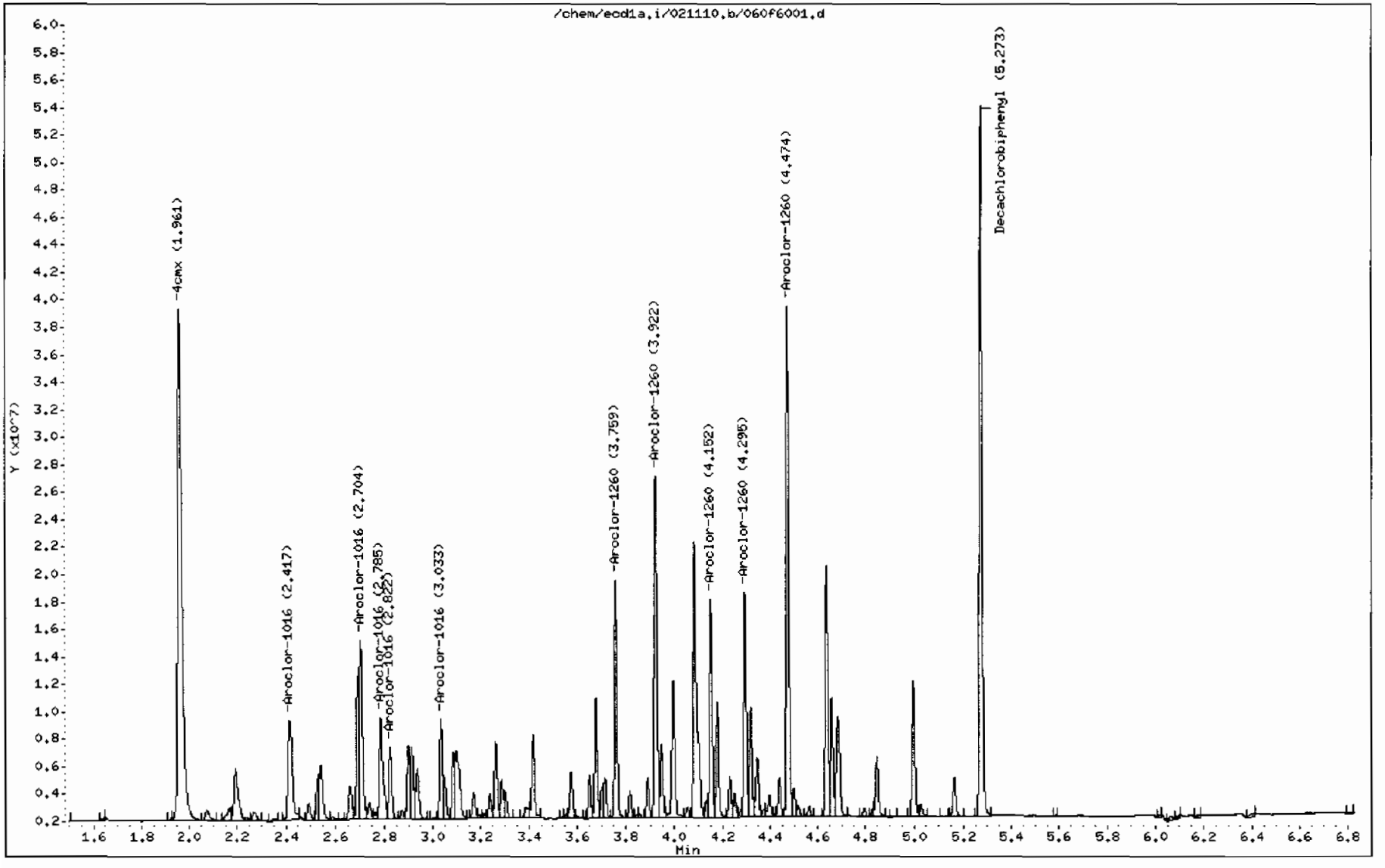

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 951296 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202038652 MB	10–FEB–2010 21:22:00	30	H2SO4/KMi2		2	9	1	0.03333
1202038653 LCS	10–FEB–2010 21:22:00	30	H2SO4/KMi2		2	9	1	0.03333
245935001	10–FEB–2010 21:22:00	30.15	H2SO4/KMi2		2	9	1	0.03317
245935002	10–FEB–2010 21:22:00	30.13	H2SO4/KMi2		2	9	1	0.03319
245935003	10–FEB–2010 21:22:00	30.05	H2SO4/KMi2		2	9	1	0.03328
245935004	10–FEB–2010 21:22:00	30.07	H2SO4/KMi2		2	9	1	0.03326
245935005	10–FEB–2010 21:22:00	30.04	H2SO4/KMi2		2	9	1	0.03329
245935006	10–FEB–2010 21:22:00	30.06	H2SO4/KMi2		2	9	1	0.03327
245935008	10–FEB–2010 21:22:00	30.16	H2SO4/KMi2		2	9	1	0.03316
245935009	10–FEB–2010 21:22:00	30.12	H2SO4/KMi2		2	9	1	0.0332
245979013	10–FEB–2010 21:22:00	30.13	H2SO4/KMi2		2	9	1	0.03319
245979014	10–FEB–2010 21:22:00	30.02	H2SO4/KMi2		2	9	1	0.03331
245979015	10–FEB–2010 21:22:00	30.19	H2SO4/KMi2		2	9	1	0.03312
245994001	10–FEB–2010 21:22:00	30.03	H2SO4/KMi2		2	9	1	0.0333
1202038654 MS (245994001)	10–FEB–2010 21:22:00	30.1	H2SO4/KMi2		2	9	1	0.03322
1202038655 MSD (245994001)	10–FEB–2010 21:22:00	30.03	H2SO4/KMi2		2	9	1	0.0333
245994002	10–FEB–2010 21:22:00	30.19	H2SO4/KMi2		2	9	1	0.03312
245994003	10–FEB–2010 21:22:00	30.02	H2SO4/KMi2		2	9	1	0.03331

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202038653	PCB Laboratory Control	WE100126–07	1	mL
MS	1202038654	PCB Laboratory Control	WE100126–07	1	mL
MSD	1202038655	PCB Laboratory Control	WE100126–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100127–15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/10/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1514

Sample Analysis

Sample ID	Client ID
245979001	RE15-10-7980
245979002	RE15-10-7958
245979003	RE15-10-7960
245979004	RE15-10-7979
245979005	RE15-10-7972
245979006	RE15-10-7957
245979007	RE15-10-7974
245979008	RE15-10-7961
245979009	RE15-10-7971
245979010	RE15-10-7966
245979011	RE15-10-7959
245979012	RE15-10-7969
245979013	RE15-10-8061
245979014	RE15-10-8063
245979015	RE15-10-8062
1202032610	Method Blank (MB) **ICP**
1202032615	Laboratory Control Sample (LCS)
1202032612	245979001(RE15-10-7980L) Serial Dilution (SD)
1202032611	245979001(RE15-10-7980D) Sample Duplicate (DUP)
1202032613	245979001(RE15-10-7980S) Matrix Spike (MS)

1202032614	245979001(RE15-10-7980SD) Matrix Spike Duplicate (MSD)
1202032619	Method Blank (MB) **ICP-MS**
1202032624	Laboratory Control Sample (LCS)
1202032621	245979001(RE15-10-7980L) Serial Dilution (SD)
1202032620	245979001(RE15-10-7980D) Sample Duplicate (DUP)
1202032622	245979001(RE15-10-7980S) Matrix Spike (MS)
1202032623	245979001(RE15-10-7980SD) Matrix Spike Duplicate (MSD)
1202039198	Method Blank (MB) **CVAA**
1202039199	Laboratory Control Sample (LCS)
1202039206	245979001(RE15-10-7980L) Serial Dilution (SD)
1202039200	245979001(RE15-10-7980D) Sample Duplicate (DUP)
1202039201	245979001(RE15-10-7980S) Matrix Spike (MS)
1202039207	245979001(RE15-10-7980SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	948764, 948769 and 951518
Prep Batch :	948763, 948768 and 951517
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria for all applicable analytes except copper. These samples, 245979004 (RE15-10-7979), 245979005 (RE15-10-7972), 245979007 (RE15-10-7974), 245979014 (RE15-10-8063) and 245979015 (RE15-10-8062), were rerun for copper because the CCB failed for that analyte and those samples did not contain copper at greater than 10X or less than the PQL.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 245979001 (RE15-10-7980).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, magnesium, potassium and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, magnesium, uranium and selenium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of uranium, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of chromium, beryllium and uranium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The sample 245979006 (RE15-10-7957) required dilutions for copper, lead and zinc because copper and zinc were over range which affects lead. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 793840 and 796114. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979001 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7980 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 95.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3980000	ug/Kg		6430	18900	18900	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-36-0	Antimony	729	ug/Kg	J	312	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-38-2	Arsenic	1.51	mg/kg		0.195	0.973	0.973	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-39-3	Barium	46000	ug/Kg		94.6	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-41-7	Beryllium	0.554	mg/kg	*	0.0195	0.0973	0.0973	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-43-9	Cadmium	473	ug/Kg	U	94.6	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-70-2	Calcium	1490000	ug/Kg	N	7570	23700	23700	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-47-3	Chromium	16000	ug/Kg	*	142	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-48-4	Cobalt	3590	ug/Kg		142	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-50-8	Copper	3610	ug/Kg		284	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-89-6	Iron	11500000	ug/Kg		7570	23700	23700	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-92-1	Lead	7910	ug/Kg		237	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-95-4	Magnesium	791000	ug/Kg	N	8040	28400	28400	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-96-5	Manganese	214000	ug/Kg		189	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7439-97-6	Mercury	16.2	ug/kg		4.26	12.5	12.5	1	AV	JXL1	02/18/10 13:25	021810S1-4	951518
7440-02-0	Nickel	3.79	mg/kg		0.0973	0.389	0.389	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-09-7	Potassium	628000	ug/Kg	N	6060	23700	23700	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7782-49-2	Selenium	0.973	mg/kg	UN	0.486	0.973	0.973	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-22-4	Silver	473	ug/Kg	U	94.6	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-23-5	Sodium	244000	ug/Kg		6620	23700	23700	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-28-0	Thallium	0.0949	mg/kg	J	0.0584	0.195	0.195	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-61-1	Uranium	0.641	mg/kg	*N	0.0128	0.0389	0.0389	2	MS	PRB	02/25/10 20:28	100225-3	948769
7440-62-2	Vanadium	8750	ug/Kg		94.6	473	473	1	P	JWJ	02/20/10 03:07	021910A-1	948764
7440-66-6	Zinc	42700	ug/Kg		312	946	946	1	P	JWJ	02/20/10 03:07	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.554	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.539	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.502	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979002 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7958 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 80

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10200000	ug/Kg		7800	23000	23000	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-36-0	Antimony	6770	ug/Kg		379	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-38-2	Arsenic	6.14	mg/kg		0.235	1.17	1.17	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-39-3	Barium	121000	ug/Kg		115	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-41-7	Beryllium	4.31	mg/kg	*	0.0235	0.117	0.117	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-43-9	Cadmium	574	ug/Kg	U	115	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-70-2	Calcium	3530000	ug/Kg	N	9180	28700	28700	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-47-3	Chromium	13100	ug/Kg	*	172	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-48-4	Cobalt	3400	ug/Kg		172	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-50-8	Copper	622000	ug/Kg		344	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-89-6	Iron	13400000	ug/Kg		9180	28700	28700	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-92-1	Lead	283000	ug/Kg		287	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-95-4	Magnesium	1610000	ug/Kg	N	9750	34400	34400	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-96-5	Manganese	172000	ug/Kg		230	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7439-97-6	Mercury	11.9	ug/kg	J	5.05	14.8	14.8	1	AV	JXL1	02/18/10 14:15	021810S1-4	951518
7440-02-0	Nickel	11.9	mg/kg		0.117	0.469	0.469	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-09-7	Potassium	1070000	ug/Kg	N	7340	28700	28700	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7782-49-2	Selenium	1.17	mg/kg	UN	0.587	1.17	1.17	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-22-4	Silver	438	ug/Kg	J	115	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-23-5	Sodium	63600	ug/Kg		8030	28700	28700	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-28-0	Thallium	0.262	mg/kg		0.0704	0.235	0.235	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-61-1	Uranium	515	mg/kg	*N	0.0155	0.0469	0.0469	2	MS	PRB	02/25/10 21:09	100225-3	948769
7440-62-2	Vanadium	22700	ug/Kg		115	574	574	1	P	JWJ	02/20/10 03:33	021910A-1	948764
7440-66-6	Zinc	91300	ug/Kg		379	1150	1150	1	P	JWJ	02/20/10 03:33	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.542	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.53	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.503	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979003 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7960 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 93.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2560000	ug/Kg		6740	19800	19800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-36-0	Antimony	4100	ug/Kg		327	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-38-2	Arsenic	1.44	mg/kg		0.207	1.03	1.03	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-39-3	Barium	44800	ug/Kg		99.1	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-41-7	Beryllium	4.02	mg/kg	*	0.0207	0.103	0.103	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-43-9	Cadmium	495	ug/Kg	U	99.1	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-70-2	Calcium	989000	ug/Kg	N	7920	24800	24800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-47-3	Chromium	11500	ug/Kg	*	149	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-48-4	Cobalt	16500	ug/Kg		149	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-50-8	Copper	187000	ug/Kg		297	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-89-6	Iron	10800000	ug/Kg		7920	24800	24800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-92-1	Lead	257000	ug/Kg		248	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-95-4	Magnesium	452000	ug/Kg	N	8420	29700	29700	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-96-5	Manganese	249000	ug/Kg		198	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7439-97-6	Mercury	12.5	ug/kg	U	4.25	12.5	12.5	1	AV	JXL1	02/18/10 14:17	021810S1-4	951518
7440-02-0	Nickel	4	mg/kg		0.103	0.414	0.414	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-09-7	Potassium	436000	ug/Kg	N	6340	24800	24800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7782-49-2	Selenium	1.03	mg/kg	UN	0.517	1.03	1.03	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-22-4	Silver	495	ug/Kg	U	99.1	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-23-5	Sodium	142000	ug/Kg		6930	24800	24800	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-28-0	Thallium	0.207	mg/kg	U	0.0621	0.207	0.207	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-61-1	Uranium	143	mg/kg	*N	0.0137	0.0414	0.0414	2	MS	PRB	02/25/10 21:14	100225-3	948769
7440-62-2	Vanadium	7130	ug/Kg		99.1	495	495	1	P	JWJ	02/20/10 03:37	021910A-1	948764
7440-66-6	Zinc	53200	ug/Kg		327	991	991	1	P	JWJ	02/20/10 03:37	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.541	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.518	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.515	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979004 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7979 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4860000	ug/Kg		8090	23800	23800	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-36-0	Antimony	780	ug/Kg	J	393	1190	1190	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-38-2	Arsenic	1.75	mg/kg		0.266	1.33	1.33	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-39-3	Barium	71300	ug/Kg		119	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-41-7	Beryllium	0.793	mg/kg	*	0.0266	0.133	0.133	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-43-9	Cadmium	595	ug/Kg	U	119	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-70-2	Calcium	1130000	ug/Kg	N	9520	29700	29700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-47-3	Chromium	18300	ug/Kg	*	178	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-48-4	Cobalt	4710	ug/Kg		178	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-50-8	Copper	20300	ug/Kg		357	1190	1190	1	P	JWJ	02/21/10 05:21	022010C-2	948764
7439-89-6	Iron	11200000	ug/Kg		9520	29700	29700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7439-92-1	Lead	64200	ug/Kg		297	1190	1190	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7439-95-4	Magnesium	1050000	ug/Kg	N	10100	35700	35700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7439-96-5	Manganese	269000	ug/Kg		238	1190	1190	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7439-97-6	Mercury	13.5	ug/kg	U	4.59	13.5	13.5	1	AV	JXL1	02/18/10 14:19	021810S1-4	951518
7440-02-0	Nickel	4.77	mg/kg		0.133	0.531	0.531	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-09-7	Potassium	1110000	ug/Kg	N	7610	29700	29700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7782-49-2	Selenium	1.33	mg/kg	UN	0.664	1.33	1.33	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-22-4	Silver	595	ug/Kg	U	119	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-23-5	Sodium	47900	ug/Kg		8330	29700	29700	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-28-0	Thallium	0.102	mg/kg	J	0.0797	0.266	0.266	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-61-1	Uranium	11.4	mg/kg	*N	0.0175	0.0531	0.0531	2	MS	PRB	02/25/10 21:20	100225-3	948769
7440-62-2	Vanadium	22400	ug/Kg		119	595	595	1	P	JWJ	02/20/10 03:41	021910A-1	948764
7440-66-6	Zinc	27700	ug/Kg		393	1190	1190	1	P	JWJ	02/20/10 03:41	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.567	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.508	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.599	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979005 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7972 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4470000	ug/Kg		7180	21100	21100	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-36-0	Antimony	1060	ug/Kg	U	348	1060	1060	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-38-2	Arsenic	1.76	mg/kg		0.214	1.07	1.07	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-39-3	Barium	52600	ug/Kg		106	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-41-7	Beryllium	0.503	mg/kg	*	0.0214	0.107	0.107	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-43-9	Cadmium	528	ug/Kg	U	106	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-70-2	Calcium	952000	ug/Kg	N	8450	26400	26400	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-47-3	Chromium	9120	ug/Kg	*	158	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-48-4	Cobalt	7200	ug/Kg		158	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-50-8	Copper	6670	ug/Kg		317	1060	1060	1	P	JWJ	02/21/10 05:25	022010C-2	948764
7439-89-6	Iron	10200000	ug/Kg		8450	26400	26400	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7439-92-1	Lead	7570	ug/Kg		264	1060	1060	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7439-95-4	Magnesium	691000	ug/Kg	N	8970	31700	31700	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7439-96-5	Manganese	205000	ug/Kg		211	1060	1060	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7439-97-6	Mercury	15.4	ug/kg		4.36	12.8	12.8	1	AV	JXL1	02/18/10 14:21	021810S1-4	951518
7440-02-0	Nickel	4.32	mg/kg		0.107	0.428	0.428	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-09-7	Potassium	544000	ug/Kg	N	6760	26400	26400	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7782-49-2	Selenium	1.07	mg/kg	UN	0.535	1.07	1.07	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-22-4	Silver	528	ug/Kg	U	106	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-23-5	Sodium	159000	ug/Kg		7390	26400	26400	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-28-0	Thallium	0.214	mg/kg	U	0.0642	0.214	0.214	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-61-1	Uranium	8.19	mg/kg	*N	0.0141	0.0428	0.0428	2	MS	PRB	02/25/10 21:26	100225-3	948769
7440-62-2	Vanadium	6720	ug/Kg		106	528	528	1	P	JWJ	02/20/10 03:44	021910A-1	948764
7440-66-6	Zinc	29700	ug/Kg		348	1060	1060	1	P	JWJ	02/20/10 03:44	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.512	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.513	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979006 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7957 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2540000	ug/Kg		8650	25400	25400	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-36-0	Antimony	7900	ug/Kg		420	1270	1270	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-38-2	Arsenic	1.84	mg/kg		0.234	1.17	1.17	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-39-3	Barium	97900	ug/Kg		127	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-41-7	Beryllium	7.22	mg/kg	*	0.0234	0.117	0.117	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-43-9	Cadmium	636	ug/Kg	U	127	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-70-2	Calcium	1880000	ug/Kg	N	10200	31800	31800	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-47-3	Chromium	11700	ug/Kg	*	191	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-48-4	Cobalt	2690	ug/Kg		191	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-50-8	Copper	36400000	ug/Kg		19100	63600	63600	50	P	JWJ	02/21/10 05:39	022010C-2	948764
7439-89-6	Iron	8340000	ug/Kg		10200	31800	31800	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7439-92-1	Lead	473000	ug/Kg		15900	63600	63600	50	P	JWJ	02/21/10 05:39	022010C-2	948764
7439-95-4	Magnesium	707000	ug/Kg	N	10800	38200	38200	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7439-96-5	Manganese	122000	ug/Kg		254	1270	1270	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7439-97-6	Mercury	13.3	ug/kg	U	4.51	13.3	13.3	1	AV	JXLJ	02/18/10 14:23	021810S1-4	951518
7440-02-0	Nickel	7.12	mg/kg		0.117	0.468	0.468	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-09-7	Potassium	492000	ug/Kg	N	8140	31800	31800	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7782-49-2	Selenium	1.17	mg/kg	UN	0.585	1.17	1.17	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-22-4	Silver	6950	ug/Kg		127	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-23-5	Sodium	118000	ug/Kg		8900	31800	31800	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-28-0	Thallium	0.234	mg/kg	U	0.0702	0.234	0.234	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-61-1	Uranium	364	mg/kg	*N	0.0155	0.0468	0.0468	2	MS	PRB	02/25/10 21:32	100225-3	948769
7440-62-2	Vanadium	14700	ug/Kg		127	636	636	1	P	JWJ	02/20/10 03:48	021910A-1	948764
7440-66-6	Zinc	13300000	ug/Kg		21000	63600	63600	50	P	JWJ	02/21/10 05:39	022010C-2	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.509	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.553	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.585	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979007 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7974 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 94.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3250000	ug/Kg		6710	19700	19700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-36-0	Antimony	987	ug/Kg	U	326	987	987	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-38-2	Arsenic	2.13	mg/kg		0.201	1	1	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-39-3	Barium	28000	ug/Kg		98.7	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-41-7	Beryllium	0.412	mg/kg	*	0.0201	0.1	0.1	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-43-9	Cadmium	494	ug/Kg	U	98.7	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-70-2	Calcium	784000	ug/Kg	N	7900	24700	24700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-47-3	Chromium	15000	ug/Kg	*	148	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-48-4	Cobalt	3330	ug/Kg		148	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-50-8	Copper	2520	ug/Kg		296	987	987	1	P	JWJ	02/21/10 05:28	022010C-2	948764
7439-89-6	Iron	7760000	ug/Kg		7900	24700	24700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7439-92-1	Lead	4120	ug/Kg		247	987	987	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7439-95-4	Magnesium	567000	ug/Kg	N	8390	29600	29600	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7439-96-5	Manganese	224000	ug/Kg		197	987	987	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7439-97-6	Mercury	12.7	ug/kg		4.18	12.3	12.3	1	AV	JXL1	02/18/10 14:25	021810S1-4	951518
7440-02-0	Nickel	3.83	mg/kg		0.1	0.402	0.402	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-09-7	Potassium	454000	ug/Kg	N	6320	24700	24700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7782-49-2	Selenium	1	mg/kg	UN	0.502	1	1	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-22-4	Silver	494	ug/Kg	U	98.7	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-23-5	Sodium	120000	ug/Kg		6910	24700	24700	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-28-0	Thallium	0.201	mg/kg	U	0.0602	0.201	0.201	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-61-1	Uranium	0.622	mg/kg	*N	0.0133	0.0402	0.0402	2	MS	PRB	02/25/10 21:37	100225-3	948769
7440-62-2	Vanadium	6500	ug/Kg		98.7	494	494	1	P	JWJ	02/20/10 03:52	021910A-1	948764
7440-66-6	Zinc	20300	ug/Kg		326	987	987	1	P	JWJ	02/20/10 03:52	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.534	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.515	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979008 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7961 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3710000	ug/Kg		7310	21500	21500	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-36-0	Antimony	1910	ug/Kg		355	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-38-2	Arsenic	1.78	mg/kg		0.233	1.16	1.16	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-39-3	Barium	46500	ug/Kg		108	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-41-7	Beryllium	1.66	mg/kg	*	0.0233	0.116	0.116	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-43-9	Cadmium	538	ug/Kg	U	108	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-70-2	Calcium	1030000	ug/Kg	N	8600	26900	26900	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-47-3	Chromium	8570	ug/Kg	*	161	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-48-4	Cobalt	4990	ug/Kg		161	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-50-8	Copper	531000	ug/Kg		323	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-89-6	Iron	9470000	ug/Kg		8600	26900	26900	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-92-1	Lead	166000	ug/Kg		269	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-95-4	Magnesium	692000	ug/Kg	N	9140	32300	32300	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-96-5	Manganese	199000	ug/Kg		215	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7439-97-6	Mercury	14.1	ug/kg	U	4.78	14.1	14.1	1	AV	JXL1	02/18/10 14:27	021810S1-4	951518
7440-02-0	Nickel	8.02	mg/kg		0.116	0.465	0.465	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-09-7	Potassium	700000	ug/Kg	N	6880	26900	26900	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7782-49-2	Selenium	1.16	mg/kg	UN	0.581	1.16	1.16	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-22-4	Silver	129	ug/Kg	J	108	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-23-5	Sodium	42100	ug/Kg		7530	26900	26900	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-28-0	Thallium	0.0891	mg/kg	J	0.0698	0.233	0.233	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-61-1	Uranium	49.3	mg/kg	*N	0.0153	0.0465	0.0465	2	MS	PRB	02/25/10 21:55	100225-3	948769
7440-62-2	Vanadium	14600	ug/Kg		108	538	538	1	P	JWJ	02/20/10 03:56	021910A-1	948764
7440-66-6	Zinc	43600	ug/Kg		355	1080	1080	1	P	JWJ	02/20/10 03:56	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.545	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.504	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.5	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979009 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7971 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5600000	ug/Kg		8800	25900	25900	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-36-0	Antimony	1490	ug/Kg		427	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-38-2	Arsenic	1.4	mg/kg		0.264	1.32	1.32	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-39-3	Barium	70500	ug/Kg		129	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-41-7	Beryllium	0.885	mg/kg	*	0.0264	0.132	0.132	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-43-9	Cadmium	647	ug/Kg	U	129	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-70-2	Calcium	2010000	ug/Kg	N	10300	32300	32300	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-47-3	Chromium	9150	ug/Kg	*	194	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-48-4	Cobalt	4270	ug/Kg		194	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-50-8	Copper	1010000	ug/Kg		388	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-89-6	Iron	9970000	ug/Kg		10300	32300	32300	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-92-1	Lead	155000	ug/Kg		323	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-95-4	Magnesium	952000	ug/Kg	N	11000	38800	38800	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-96-5	Manganese	246000	ug/Kg		259	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7439-97-6	Mercury	6.71	ug/kg	J	4.59	13.5	13.5	1	AV	JXL1	02/18/10 14:33	021810S1-4	951518
7440-02-0	Nickel	3.4	mg/kg		0.132	0.528	0.528	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-09-7	Potassium	820000	ug/Kg	N	8280	32300	32300	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7782-49-2	Selenium	1.32	mg/kg	UN	0.659	1.32	1.32	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-22-4	Silver	313	ug/Kg	J	129	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-23-5	Sodium	64300	ug/Kg		9050	32300	32300	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-28-0	Thallium	0.264	mg/kg	U	0.0791	0.264	0.264	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-61-1	Uranium	45.9	mg/kg	*N	0.0174	0.0528	0.0528	2	MS	PRB	02/25/10 22:00	100225-3	948769
7440-62-2	Vanadium	19400	ug/Kg		129	647	647	1	P	JWJ	02/20/10 04:07	021910A-1	948764
7440-66-6	Zinc	42600	ug/Kg		427	1290	1290	1	P	JWJ	02/20/10 04:07	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.512	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979010 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7966 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1180000	ug/Kg		7150	21000	21000	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-36-0	Antimony	434	ug/Kg	J	347	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-38-2	Arsenic	0.796	mg/kg	J	0.214	1.07	1.07	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-39-3	Barium	20300	ug/Kg		105	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-41-7	Beryllium	1.59	mg/kg	*	0.0214	0.107	0.107	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-43-9	Cadmium	526	ug/Kg	U	105	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-70-2	Calcium	395000	ug/Kg	N	8410	26300	26300	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-47-3	Chromium	8430	ug/Kg	*	158	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-48-4	Cobalt	4860	ug/Kg		158	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-50-8	Copper	1410000	ug/Kg		315	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-89-6	Iron	7360000	ug/Kg		8410	26300	26300	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-92-1	Lead	6660	ug/Kg		263	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-95-4	Magnesium	213000	ug/Kg	N	8930	31500	31500	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-96-5	Manganese	205000	ug/Kg		210	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7439-97-6	Mercury	11.8	ug/Kg	U	4.02	11.8	11.8	1	AV	JXL1	02/18/10 14:35	021810S1-4	951518
7440-02-0	Nickel	3.61	mg/kg		0.107	0.428	0.428	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-09-7	Potassium	285000	ug/Kg	N	6730	26300	26300	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7782-49-2	Selenium	1.07	mg/kg	UN	0.535	1.07	1.07	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-22-4	Silver	526	ug/Kg	U	105	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-23-5	Sodium	166000	ug/Kg		7360	26300	26300	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-28-0	Thallium	0.214	mg/kg	U	0.0642	0.214	0.214	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-61-1	Uranium	11.2	mg/kg	*N	0.0141	0.0428	0.0428	2	MS	PRB	02/25/10 22:06	100225-3	948769
7440-62-2	Vanadium	3220	ug/Kg		105	526	526	1	P	JWJ	02/20/10 04:10	021910A-1	948764
7440-66-6	Zinc	39900	ug/Kg		347	1050	1050	1	P	JWJ	02/20/10 04:10	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.526	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.561	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979011 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7959 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4330000	ug/Kg		7730	22700	22700	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-36-0	Antimony	9560	ug/Kg		375	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-38-2	Arsenic	4.42	mg/kg		0.243	1.22	1.22	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-39-3	Barium	56700	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-41-7	Beryllium	7.52	mg/kg	*	0.0243	0.122	0.122	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-43-9	Cadmium	568	ug/Kg	U	114	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-70-2	Calcium	1190000	ug/Kg	N	9090	28400	28400	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-47-3	Chromium	11900	ug/Kg	*	170	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-48-4	Cobalt	3700	ug/Kg		170	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-50-8	Copper	618000	ug/Kg		341	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-89-6	Iron	7080000	ug/Kg		9090	28400	28400	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-92-1	Lead	777000	ug/Kg		284	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-95-4	Magnesium	602000	ug/Kg	N	9660	34100	34100	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-96-5	Manganese	156000	ug/Kg		227	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7439-97-6	Mercury	13.4	ug/kg	U	4.56	13.4	13.4	1	AV	JXL1	02/18/10 14:37	021810S1-4	951518
7440-02-0	Nickel	5.5	mg/kg		0.122	0.486	0.486	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-09-7	Potassium	499000	ug/Kg	N	7270	28400	28400	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7782-49-2	Selenium	1.22	mg/kg	UN	0.608	1.22	1.22	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-22-4	Silver	1050	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-23-5	Sodium	53700	ug/Kg		7960	28400	28400	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-28-0	Thallium	0.243	mg/kg	U	0.0729	0.243	0.243	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-61-1	Uranium	249	mg/kg	*N	0.016	0.0486	0.0486	2	MS	PRB	02/25/10 22:12	100225-3	948769
7440-62-2	Vanadium	11300	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:14	021910A-1	948764
7440-66-6	Zinc	90600	ug/Kg		375	1140	1140	1	P	JWJ	02/20/10 04:14	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.556	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.52	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.565	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979012 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7969 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.4

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5250000	ug/Kg		7390	21700	21700	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-36-0	Antimony	1630	ug/Kg		359	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-38-2	Arsenic	1.4	mg/kg		0.196	0.981	0.981	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-39-3	Barium	162000	ug/Kg		109	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-41-7	Beryllium	0.623	mg/kg	*	0.0196	0.0981	0.0981	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-43-9	Cadmium	543	ug/Kg	U	109	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-70-2	Calcium	1670000	ug/Kg	N	8690	27200	27200	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-47-3	Chromium	55800	ug/Kg	*	163	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-48-4	Cobalt	3450	ug/Kg		163	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-50-8	Copper	103000	ug/Kg		326	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-89-6	Iron	9300000	ug/Kg		8690	27200	27200	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-92-1	Lead	406000	ug/Kg		272	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-95-4	Magnesium	1260000	ug/Kg	N	9240	32600	32600	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-96-5	Manganese	248000	ug/Kg		217	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7439-97-6	Mercury	11.4	ug/kg	U	3.89	11.4	11.4	1	AV	JXL1	02/18/10 14:39	021810S1-4	951518
7440-02-0	Nickel	4.41	mg/kg		0.0981	0.392	0.392	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-09-7	Potassium	770000	ug/Kg	N	6950	27200	27200	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7782-49-2	Selenium	0.981	mg/kg	UN	0.49	0.981	0.981	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-22-4	Silver	167	ug/Kg	J	109	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-23-5	Sodium	59200	ug/Kg		7610	27200	27200	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-28-0	Thallium	0.0879	mg/kg	J	0.0588	0.196	0.196	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-61-1	Uranium	5.37	mg/kg	*N	0.0129	0.0392	0.0392	2	MS	PRB	02/25/10 22:18	100225-3	948769
7440-62-2	Vanadium	15800	ug/Kg		109	543	543	1	P	JWJ	02/20/10 04:18	021910A-1	948764
7440-66-6	Zinc	39000	ug/Kg		359	1090	1090	1	P	JWJ	02/20/10 04:18	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.509	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.564	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.58	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979013 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8061 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7460000	ug/Kg		7730	22700	22700	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-36-0	Antimony	7380	ug/Kg		375	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-38-2	Arsenic	2	mg/kg		0.226	1.13	1.13	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-39-3	Barium	108000	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-41-7	Beryllium	2.99	mg/kg	*	0.0226	0.113	0.113	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-43-9	Cadmium	568	ug/Kg	U	114	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-70-2	Calcium	3270000	ug/Kg	N	9090	28400	28400	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-47-3	Chromium	11300	ug/Kg	*	170	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-48-4	Cobalt	2890	ug/Kg		170	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-50-8	Copper	547000	ug/Kg		341	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-89-6	Iron	10600000	ug/Kg		9090	28400	28400	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-92-1	Lead	294000	ug/Kg		284	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-95-4	Magnesium	1250000	ug/Kg	N	9660	34100	34100	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-96-5	Manganese	151000	ug/Kg		227	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7439-97-6	Mercury	10	ug/kg	J	4.21	12.4	12.4	1	AV	JXL1	02/18/10 14:41	021810S1-4	951518
7440-02-0	Nickel	6.79	mg/kg		0.113	0.452	0.452	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-09-7	Potassium	777000	ug/Kg	N	7270	28400	28400	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7782-49-2	Selenium	1.13	mg/kg	UN	0.565	1.13	1.13	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-22-4	Silver	513	ug/Kg	J	114	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-23-5	Sodium	52200	ug/Kg		7960	28400	28400	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-28-0	Thallium	0.085	mg/kg	J	0.0678	0.226	0.226	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-61-1	Uranium	80.1	mg/kg	*N	0.0149	0.0452	0.0452	2	MS	PRB	02/25/10 22:23	100225-3	948769
7440-62-2	Vanadium	18400	ug/Kg		114	568	568	1	P	JWJ	02/20/10 04:22	021910A-1	948764
7440-66-6	Zinc	86900	ug/Kg		375	1140	1140	1	P	JWJ	02/20/10 04:22	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.516	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.569	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979014 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8063 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5600000	ug/Kg		8070	23700	23700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-36-0	Antimony	1560	ug/Kg		391	1190	1190	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-38-2	Arsenic	2.82	mg/kg		0.232	1.16	1.16	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-39-3	Barium	67500	ug/Kg		119	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-41-7	Beryllium	16.7	mg/kg	*	0.0232	0.116	0.116	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-43-9	Cadmium	593	ug/Kg	U	119	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-70-2	Calcium	1350000	ug/Kg	N	9490	29700	29700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-47-3	Chromium	15200	ug/Kg	*	178	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-48-4	Cobalt	4540	ug/Kg		178	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-50-8	Copper	17600	ug/Kg		356	1190	1190	1	P	JWJ	02/21/10 05:32	022010C-2	948764
7439-89-6	Iron	11300000	ug/Kg		9490	29700	29700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7439-92-1	Lead	158000	ug/Kg		297	1190	1190	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7439-95-4	Magnesium	1110000	ug/Kg	N	10100	35600	35600	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7439-96-5	Manganese	265000	ug/Kg		237	1190	1190	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7439-97-6	Mercury	12.8	ug/kg	U	4.34	12.8	12.8	1	AV	JXL1	02/18/10 14:43	021810S1-4	951518
7440-02-0	Nickel	8.57	mg/kg		0.116	0.465	0.465	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-09-7	Potassium	978000	ug/Kg	N	7590	29700	29700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7782-49-2	Selenium	1.16	mg/kg	UN	0.581	1.16	1.16	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-22-4	Silver	593	ug/Kg	U	119	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-23-5	Sodium	52300	ug/Kg		8300	29700	29700	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-28-0	Thallium	0.0725	mg/kg	J	0.0697	0.232	0.232	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-61-1	Uranium	803	mg/kg	*N	0.0153	0.0465	0.0465	2	MS	PRB	02/25/10 22:29	100225-3	948769
7440-62-2	Vanadium	22700	ug/Kg		119	593	593	1	P	JWJ	02/20/10 04:25	021910A-1	948764
7440-66-6	Zinc	24200	ug/Kg		391	1190	1190	1	P	JWJ	02/20/10 04:25	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.528	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.577	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245979015 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8062 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 90.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1260000	ug/Kg		6960	20500	20500	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-36-0	Antimony	448	ug/Kg	J	338	1020	1020	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-38-2	Arsenic	0.561	mg/kg	J	0.215	1.07	1.07	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-39-3	Barium	21300	ug/Kg		102	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-41-7	Beryllium	0.353	mg/kg	*	0.0215	0.107	0.107	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-43-9	Cadmium	511	ug/Kg	U	102	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-70-2	Calcium	640000	ug/Kg	N	8180	25600	25600	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-47-3	Chromium	11000	ug/Kg	*	153	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-48-4	Cobalt	5860	ug/Kg		153	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-50-8	Copper	6170	ug/Kg		307	1020	1020	1	P	JWJ	02/21/10 05:36	022010C-2	948764
7439-89-6	Iron	9250000	ug/Kg		8180	25600	25600	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7439-92-1	Lead	8280	ug/Kg		256	1020	1020	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7439-95-4	Magnesium	238000	ug/Kg	N	8690	30700	30700	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7439-96-5	Manganese	226000	ug/Kg		205	1020	1020	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7439-97-6	Mercury	12.1	ug/kg	U	4.1	12.1	12.1	1	AV	JXL1	02/18/10 14:45	021810S1-4	951518
7440-02-0	Nickel	3.04	mg/kg		0.107	0.43	0.43	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-09-7	Potassium	310000	ug/Kg	N	6550	25600	25600	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7782-49-2	Selenium	1.07	mg/kg	UN	0.537	1.07	1.07	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-22-4	Silver	511	ug/Kg	U	102	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-23-5	Sodium	180000	ug/Kg		7160	25600	25600	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-28-0	Thallium	0.215	mg/kg	U	0.0645	0.215	0.215	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-61-1	Uranium	6.98	mg/kg	*N	0.0142	0.043	0.043	2	MS	PRB	02/25/10 22:35	100225-3	948769
7440-62-2	Vanadium	3700	ug/Kg		102	511	511	1	P	JWJ	02/20/10 04:29	021910A-1	948764
7440-66-6	Zinc	45900	ug/Kg		338	1020	1020	1	P	JWJ	02/20/10 04:29	021910A-1	948764

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948764	948763	SW846 3050B	0.54	g	50	mL	02/10/10	FGA
948769	948768	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
951518	951517	SW846 7471A Prep	0.55	g	30	mL	02/17/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	90.0 – 110.0	AV	18-FEB-10 09:57	021810S1-4
	Aluminum	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Antimony	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Cadmium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Copper	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Potassium	2560	ug/L	2500	ug/L	102.4	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Silver	262	ug/L	250	ug/L	104.9	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Sodium	2570	ug/L	2500	ug/L	102.8	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Zinc	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19-FEB-10 16:40	021910A-1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	20-FEB-10 21:07	022010C-2
	Lead	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20-FEB-10 21:07	022010C-2
	Zinc	475	ug/L	500	ug/L	95	90.0 – 110.0	P	20-FEB-10 21:07	022010C-2
	Arsenic	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	25-FEB-10 18:09	100225-3
	Beryllium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	25-FEB-10 18:09	100225-3
	Nickel	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	25-FEB-10 18:09	100225-3
	Selenium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25-FEB-10 18:09	100225-3
	Thallium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	25-FEB-10 18:09	100225-3
	Uranium	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	25-FEB-10 18:09	100225-3
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	18-FEB-10 10:03	021810S1-4
	Aluminum	5300	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Barium	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Calcium	5280	ug/L	5000	ug/L	105.6	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Chromium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Cobalt	505	ug/L	500	ug/L	101	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Copper	507	ug/L	500	ug/L	101.5	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Iron	5350	ug/L	5000	ug/L	107.1	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Lead	510	ug/L	500	ug/L	102	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Magnesium	5420	ug/L	5000	ug/L	108.5	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Manganese	516	ug/L	500	ug/L	103.1	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Potassium	5360	ug/L	5000	ug/L	107.2	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Zinc	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	20-FEB-10 21:30	022010C-2
	Lead	508	ug/L	500	ug/L	101.5	90.0 - 110.0	P	20-FEB-10 21:30	022010C-2
	Zinc	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	20-FEB-10 21:30	022010C-2
	Arsenic	48.4	ug/L	50	ug/L	96.8	90.0 - 110.0	MS	25-FEB-10 18:38	100225-3
	Beryllium	51	ug/L	50	ug/L	102.1	90.0 - 110.0	MS	25-FEB-10 18:38	100225-3
	Nickel	51	ug/L	50	ug/L	102	90.0 - 110.0	MS	25-FEB-10 18:38	100225-3
	Selenium	49.7	ug/L	50	ug/L	99.3	90.0 - 110.0	MS	25-FEB-10 18:38	100225-3
	Thallium	48.5	ug/L	50	ug/L	97	90.0 - 110.0	MS	25-FEB-10 18:38	100225-3
	Uranium	52	ug/L	50	ug/L	104.1	90.0 - 110.0	MS	25-FEB-10 18:38	100225-3
CCV02										
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 - 120.0	AV	18-FEB-10 10:27	021810S1-4
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Calcium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Cobalt	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Iron	5390	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Lead	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Magnesium	5440	ug/L	5000	ug/L	108.8	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Manganese	515	ug/L	500	ug/L	103	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Potassium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Silver	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20-FEB-10 22:12	022010C-2
	Lead	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	20-FEB-10 22:12	022010C-2
	Zinc	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	20-FEB-10 22:12	022010C-2
	Arsenic	48.9	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	25-FEB-10 18:55	100225-3
	Beryllium	52.7	ug/L	50	ug/L	105.3	90.0 – 110.0	MS	25-FEB-10 18:55	100225-3
	Nickel	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	25-FEB-10 18:55	100225-3
	Selenium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	25-FEB-10 18:55	100225-3
	Thallium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	25-FEB-10 18:55	100225-3
	Uranium	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	25-FEB-10 18:55	100225-3
CCV03										
	Mercury	5.22	ug/L	5	ug/L	104.5	80.0 – 120.0	AV	18-FEB-10 10:51	021810S1-4
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Antimony	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Copper	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Iron	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Lead	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Magnesium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Sodium	10500	ug/L	10000	ug/L	105.5	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-FEB-10 17:52	021910A-1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-FEB-10 23:26	022010C-2
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-FEB-10 23:26	022010C-2
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-FEB-10 23:26	022010C-2
	Arsenic	46.7	ug/L	50	ug/L	93.5	90.0 – 110.0	MS	25-FEB-10 20:04	100225-3
	Beryllium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	25-FEB-10 20:04	100225-3
	Nickel	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	25-FEB-10 20:04	100225-3
	Selenium	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	25-FEB-10 20:04	100225-3
	Thallium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	25-FEB-10 20:04	100225-3
	Uranium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	25-FEB-10 20:04	100225-3
CCV04										
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	18-FEB-10 11:15	021810S1-4
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Antimony	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Barium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Lead	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Magnesium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Potassium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	21-FEB-10 00:03	022010C-2
	Lead	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	21-FEB-10 00:03	022010C-2
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	21-FEB-10 00:03	022010C-2
	Arsenic	47.2	ug/L	50	ug/L	94.4	90.0 – 110.0	MS	25-FEB-10 20:57	100225-3
	Beryllium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25-FEB-10 20:57	100225-3
	Nickel	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	25-FEB-10 20:57	100225-3
	Selenium	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	25-FEB-10 20:57	100225-3
	Thallium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	25-FEB-10 20:57	100225-3
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25-FEB-10 20:57	100225-3
CCV05										
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	18-FEB-10 11:39	021810S1-4
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Cadmium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Calcium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Cobalt	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	475	ug/L	500	ug/L	95	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Magnesium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Manganese	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Silver	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 18:57	021910A–1
	Copper	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	21–FEB–10 00:40	022010C–2
	Lead	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	21–FEB–10 00:40	022010C–2
	Zinc	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	21–FEB–10 00:40	022010C–2
	Arsenic	47.7	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	25–FEB–10 21:43	100225–3
	Beryllium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	25–FEB–10 21:43	100225–3
	Nickel	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	25–FEB–10 21:43	100225–3
	Selenium	47.3	ug/L	50	ug/L	94.5	90.0 – 110.0	MS	25–FEB–10 21:43	100225–3
	Thallium	47.3	ug/L	50	ug/L	94.5	90.0 – 110.0	MS	25–FEB–10 21:43	100225–3
	Uranium	52.1	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	25–FEB–10 21:43	100225–3
CCV06										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	18–FEB–10 12:03	021810S1–4
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Antimony	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Cadmium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Calcium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Lead	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Silver	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Sodium	9920	ug/L	10000	ug/L	99.2	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Zinc	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19–FEB–10 19:26	021910A–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	21–FEB–10 01:19	022010C–2
	Lead	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	21–FEB–10 01:19	022010C–2
	Zinc	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	21–FEB–10 01:19	022010C–2
	Arsenic	47.4	ug/L	50	ug/L	94.8	90.0 – 110.0	MS	25–FEB–10 22:41	100225–3
	Beryllium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	25–FEB–10 22:41	100225–3
	Nickel	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	25–FEB–10 22:41	100225–3
	Selenium	46.6	ug/L	50	ug/L	93.3	90.0 – 110.0	MS	25–FEB–10 22:41	100225–3
	Thallium	47.5	ug/L	50	ug/L	95.1	90.0 – 110.0	MS	25–FEB–10 22:41	100225–3
	Uranium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	25–FEB–10 22:41	100225–3
CCV07										
	Mercury	5.07	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	18–FEB–10 12:26	021810S1–4
	Aluminum	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Antimony	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Barium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Cadmium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Cobalt	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Copper	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Lead	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Magnesium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Potassium	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	477	ug/L	500	ug/L	95.4	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Vanadium	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Zinc	478	ug/L	500	ug/L	95.6	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Copper	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	21-FEB-10 02:00	022010C-2
	Lead	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	21-FEB-10 02:00	022010C-2
	Zinc	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	21-FEB-10 02:00	022010C-2
CCV08										
	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 - 120.0	AV	18-FEB-10 12:50	021810S1-4
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Antimony	480	ug/L	500	ug/L	96	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Barium	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Cadmium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Calcium	4980	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Chromium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Cobalt	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Copper	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Lead	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Magnesium	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Silver	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Vanadium	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	19-FEB-10 20:35	021910A-1
	Copper	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	21-FEB-10 02:37	022010C-2
	Lead	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	21-FEB-10 02:37	022010C-2
	Zinc	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	21-FEB-10 02:37	022010C-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV09										
	Mercury	4.93	ug/L	5	ug/L	98.6	80.0 – 120.0	AV	18-FEB-10 13:07	021810S1-4
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Antimony	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Barium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Cadmium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Cobalt	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Copper	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Lead	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Magnesium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Manganese	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Vanadium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Zinc	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	21-FEB-10 03:16	022010C-2
	Lead	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	21-FEB-10 03:16	022010C-2
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	21-FEB-10 03:16	022010C-2
CCV10										
	Mercury	4.88	ug/L	5	ug/L	97.6	80.0 – 120.0	AV	18-FEB-10 13:31	021810S1-4
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Cadmium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Calcium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	478	ug/L	500	ug/L	95.5	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Iron	5030	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Lead	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Magnesium	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Silver	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	19-FEB-10 21:52	021910A-1
	Copper	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	21-FEB-10 03:57	022010C-2
	Lead	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	21-FEB-10 03:57	022010C-2
	Zinc	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	21-FEB-10 03:57	022010C-2
CCV11										
	Mercury	2.33	ug/L	5	ug/L	46.5	80.0 - 120.0	AV	18-FEB-10 13:54	021810S1-4
	Aluminum	4880	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Antimony	474	ug/L	500	ug/L	94.9	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Chromium	477	ug/L	500	ug/L	95.5	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Cobalt	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Copper	473	ug/L	500	ug/L	94.7	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Lead	474	ug/L	500	ug/L	94.9	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Magnesium	4950	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Manganese	491	ug/L	500	ug/L	98.1	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Potassium	4820	ug/L	5000	ug/L	96.3	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 - 110.0	P	19-FEB-10 22:28	021910A-1
	Copper	495	ug/L	500	ug/L	98.9	90.0 - 110.0	P	21-FEB-10 04:37	022010C-2
	Lead	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	21-FEB-10 04:37	022010C-2
	Zinc	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	21-FEB-10 04:37	022010C-2
CCV12										
	Mercury	5.32	ug/L	5	ug/L	106.5	80.0 - 120.0	AV	18-FEB-10 14:05	021810S1-4
	Aluminum	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Antimony	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Cadmium	482	ug/L	500	ug/L	96.3	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Chromium	477	ug/L	500	ug/L	95.3	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Copper	475	ug/L	500	ug/L	95.1	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Lead	474	ug/L	500	ug/L	94.9	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Magnesium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Manganese	490	ug/L	500	ug/L	98	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Potassium	4900	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Silver	481	ug/L	500	ug/L	96.2	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 - 110.0	P	19-FEB-10 23:05	021910A-1
	Copper	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	21-FEB-10 05:13	022010C-2
	Lead	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	21-FEB-10 05:13	022010C-2
	Zinc	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	21-FEB-10 05:13	022010C-2
CCV13										
	Mercury	5.09	ug/L	5	ug/L	101.9	80.0 - 120.0	AV	18-FEB-10 14:29	021810S1-4
	Aluminum	4790	ug/L	5000	ug/L	95.9	90.0 - 110.0	P	19-FEB-10 23:38	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	466	ug/L	500	ug/L	93.1	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Barium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Calcium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Chromium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Cobalt	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Copper	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Iron	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Lead	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Magnesium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Potassium	4760	ug/L	5000	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Silver	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Vanadium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Copper	490	ug/L	500	ug/L	98	90.0 – 110.0	P	21-FEB-10 05:43	022010C-2
	Lead	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	21-FEB-10 05:43	022010C-2
	Zinc	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	21-FEB-10 05:43	022010C-2
CCV14										
	Mercury	4.97	ug/L	5	ug/L	99.4	80.0 – 120.0	AV	18-FEB-10 14:47	021810S1-4
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Cadmium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Calcium	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Chromium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	475	ug/L	500	ug/L	95	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Magnesium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Manganese	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Potassium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Silver	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Zinc	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
CCV15										
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Antimony	470	ug/L	500	ug/L	94	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Barium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Calcium	4790	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Chromium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Cobalt	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Copper	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Lead	470	ug/L	500	ug/L	94	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Magnesium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Manganese	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Potassium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Silver	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Vanadium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
CCV16										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	20-FEB-10 01:35	021910A-1
	Antimony	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	20-FEB-10 01:35	021910A-1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20-FEB-10 01:35	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Lead	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Potassium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Vanadium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
CCV17										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Antimony	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Barium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Cadmium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Chromium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Copper	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Lead	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Magnesium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Potassium	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Zinc	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
CCV18										
	Aluminum	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Barium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Cadmium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Calcium	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Chromium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Cobalt	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Copper	469	ug/L	500	ug/L	93.7	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Lead	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Manganese	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Potassium	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Sodium	9790	ug/L	10000	ug/L	97.9	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Vanadium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
	Zinc	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	20-FEB-10 02:52	021910A-1
CCV19										
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1
	Antimony	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1
	Barium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1
	Cadmium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1
	Chromium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1
	Cobalt	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1
	Copper	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1
	Iron	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	20-FEB-10 03:26	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	20–FEB–10 03:26	021910A–1
	Magnesium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	20–FEB–10 03:26	021910A–1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–FEB–10 03:26	021910A–1
	Potassium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	20–FEB–10 03:26	021910A–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	20–FEB–10 03:26	021910A–1
	Sodium	9950	ug/L	10000	ug/L	99.5	90.0 – 110.0	P	20–FEB–10 03:26	021910A–1
	Vanadium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	20–FEB–10 03:26	021910A–1
	Zinc	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	20–FEB–10 03:26	021910A–1
CCV20										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Antimony	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Barium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Copper	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Lead	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Magnesium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Potassium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Silver	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Vanadium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
	Zinc	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20–FEB–10 03:59	021910A–1
CCV21										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	20–FEB–10 04:33	021910A–1
	Antimony	460	ug/L	500	ug/L	92	90.0 – 110.0	P	20–FEB–10 04:33	021910A–1
	Barium	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	20–FEB–10 04:33	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	469	ug/L	500	ug/L	93.8	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Calcium	4870	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Chromium	464	ug/L	500	ug/L	92.7	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Cobalt	467	ug/L	500	ug/L	93.5	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Copper	467	ug/L	500	ug/L	93.4	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Iron	4990	ug/L	5000	ug/L	99.7	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Lead	466	ug/L	500	ug/L	93.2	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Magnesium	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Manganese	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Potassium	4860	ug/L	5000	ug/L	97.3	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Silver	470	ug/L	500	ug/L	94	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Vanadium	467	ug/L	500	ug/L	93.5	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1
	Zinc	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	20-FEB-10 04:33	021910A-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS3,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.218	ug/L	.2	ug/L	109	70.0 – 130.0	AV	18-FEB-10 10:01	021810S1-4
	Nickel	2.09	ug/L	2	ug/L	104.5	70.0 – 130.0	MS	25-FEB-10 18:21	100225-3
	Thallium	1.09	ug/L	1	ug/L	109.2	70.0 – 130.0	MS	25-FEB-10 18:21	100225-3
	Beryllium	.542	ug/L	.5	ug/L	108.4	70.0 – 130.0	MS	25-FEB-10 18:21	100225-3
	Uranium	.218	ug/L	.2	ug/L	109	70.0 – 130.0	MS	25-FEB-10 18:21	100225-3
	Selenium	5.37	ug/L	5	ug/L	107.3	70.0 – 130.0	MS	25-FEB-10 18:21	100225-3
	Arsenic	5.88	ug/L	5	ug/L	117.7	70.0 – 130.0	MS	25-FEB-10 18:21	100225-3
PQL01										
	Aluminum	198	ug/L	200	ug/L	98.8	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Iron	101	ug/L	100	ug/L	100.9	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Lead	10.5	ug/L	10	ug/L	105.2	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Magnesium	305	ug/L	300	ug/L	101.7	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Manganese	10.3	ug/L	10	ug/L	102.7	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Potassium	157	ug/L	150	ug/L	104.4	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Silver	4.8	ug/L	5	ug/L	96.1	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Sodium	312	ug/L	300	ug/L	104	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Antimony	10.8	ug/L	10	ug/L	108.3	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Barium	4.87	ug/L	5	ug/L	97.4	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Cadmium	5	ug/L	5	ug/L	99.9	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Chromium	5.48	ug/L	5	ug/L	109.5	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Cobalt	4.54	ug/L	5	ug/L	90.9	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Copper	10.1	ug/L	10	ug/L	100.7	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Vanadium	5.03	ug/L	5	ug/L	100.5	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Zinc	9.76	ug/L	10	ug/L	97.6	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Calcium	188	ug/L	200	ug/L	94.2	70.0 – 130.0	P	19-FEB-10 16:47	021910A-1
	Lead	8.54	ug/L	10	ug/L	85.4	70.0 – 130.0	P	20-FEB-10 21:14	022010C-2
	Copper	10.7	ug/L	10	ug/L	106.7	70.0 – 130.0	P	20-FEB-10 21:14	022010C-2
	Zinc	10.5	ug/L	10	ug/L	104.8	70.0 – 130.0	P	20-FEB-10 21:14	022010C-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	-0.129	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 09:59	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 16:44	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 16:44	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 16:44	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 16:44	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 16:44	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 16:44	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 21:10	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 21:10	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 21:10	022010C-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	25-FEB-10 18:15	100225-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	25-FEB-10 18:15	100225-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	25-FEB-10 18:15	100225-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	25-FEB-10 18:15	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	25-FEB-10 18:15	100225-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	25-FEB-10 18:15	100225-3
CCB01										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 10:05	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 17:07	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 17:07	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result µg/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:07	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:07	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 17:07	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 17:07	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 17:07	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 17:07	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 17:07	021910A-1
	Lead	5.21	+/-10	J	2.5	10.0	SOL	P	19-FEB-10 17:07	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 17:07	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 17:07	021910A-1
	Potassium	80.96	+/-250	J	64.0	250	SOL	P	19-FEB-10 17:07	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:07	021910A-1
	Sodium	72.13	+/-250	J	70.0	250	SOL	P	19-FEB-10 17:07	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:07	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 17:07	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 21:34	022010C-2
	Lead	6.22	+/-10	J	2.5	10.0	SOL	P	20-FEB-10 21:34	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 21:34	022010C-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	25-FEB-10 18:44	100225-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	25-FEB-10 18:44	100225-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	25-FEB-10 18:44	100225-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	25-FEB-10 18:44	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	25-FEB-10 18:44	100225-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	25-FEB-10 18:44	100225-3
CCB02										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 10:29	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 17:25	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 17:25	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:25	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:25	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 17:25	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 17:25	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–FEB–10 22:16	022010C–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–FEB–10 22:16	022010C–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–FEB–10 22:16	022010C–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	25–FEB–10 19:01	100225–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	25–FEB–10 19:01	100225–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	25–FEB–10 19:01	100225–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	25–FEB–10 19:01	100225–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	25–FEB–10 19:01	100225–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	25–FEB–10 19:01	100225–3
CCB03										
	Mercury	–0.08	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 10:53	021810S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 17:55	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:55	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:55	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:55	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:55	021910A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 17:55	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 17:55	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 17:55	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 17:55	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 17:55	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:55	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 17:55	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:55	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 17:55	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 23:30	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 23:30	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 23:30	022010C-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	25-FEB-10 20:10	100225-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	25-FEB-10 20:10	100225-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	25-FEB-10 20:10	100225-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	25-FEB-10 20:10	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	25-FEB-10 20:10	100225-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	25-FEB-10 20:10	100225-3
CCB04										
	Mercury	-0.106	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 11:17	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 18:28	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 18:28	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 18:28	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 18:28	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.04	+/-10	J	2.0	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 18:28	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 18:28	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 00:07	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 00:07	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 00:07	022010C-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	25-FEB-10 21:03	100225-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	25-FEB-10 21:03	100225-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	25-FEB-10 21:03	100225-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	25-FEB-10 21:03	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	25-FEB-10 21:03	100225-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	25-FEB-10 21:03	100225-3
CCB05										
	Mercury	-0.154	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 11:41	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 19:01	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 19:01	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 19:01	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 19:01	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 19:01	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 19:01	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 00:44	022010C-2
	Lead	-2.8	+/-10	J	2.5	10.0	SOL	P	21-FEB-10 00:44	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 00:44	022010C-2
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	25-FEB-10 21:49	100225-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	25-FEB-10 21:49	100225-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	25-FEB-10 21:49	100225-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	25-FEB-10 21:49	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	25-FEB-10 21:49	100225-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	25-FEB-10 21:49	100225-3
CCB06										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 12:05	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 19:30	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 19:30	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:30	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:30	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 19:30	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 19:30	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 19:30	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 19:30	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 19:30	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 19:30	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 19:30	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 19:30	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 19:30	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:30	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 19:30	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:30	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 19:30	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	21–FEB–10 01:23	022010C–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	21–FEB–10 01:23	022010C–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	21–FEB–10 01:23	022010C–2
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	25–FEB–10 22:46	100225–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	25–FEB–10 22:46	100225–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	25–FEB–10 22:46	100225–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	25–FEB–10 22:46	100225–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	25–FEB–10 22:46	100225–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	25–FEB–10 22:46	100225–3
CCB07										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:28	021810S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 20:02	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 20:02	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	21–FEB–10 02:03	022010C–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	21–FEB–10 02:03	022010C–2
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	21–FEB–10 02:03	022010C–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB08										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 12:52	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 20:39	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 20:39	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 20:39	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 20:39	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 20:39	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 20:39	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 02:40	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 02:40	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 02:40	022010C-2
CCB09										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 13:09	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 21:12	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 21:12	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 21:12	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 21:12	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 21:12	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 21:12	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 21:12	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 21:12	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 21:12	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 21:12	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 21:12	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 03:20	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 03:20	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 03:20	022010C-2
CCB10										
	Mercury	-0.083	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 13:33	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 21:55	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 21:55	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:55	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:55	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 21:55	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 21:55	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 21:55	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 21:55	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 21:55	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 21:55	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 21:55	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 21:55	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 21:55	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:55	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 21:55	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:55	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 21:55	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 04:00	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 04:00	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 04:00	022010C-2
CCB11										
	Mercury	-0.241	+/-.2		0.068	0.2	SOL	AV	18-FEB-10 13:56	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 22:32	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 22:32	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 22:32	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 22:32	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 22:32	021910A-1
	Lead	-3.7	+/-10	J	2.5	10.0	SOL	P	19-FEB-10 22:32	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 22:32	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 22:32	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 22:32	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 22:32	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 22:32	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 04:41	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 04:41	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 04:41	022010C-2
CCB12										
	Mercury	-0.094	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 14:08	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 23:09	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:09	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 23:09	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 23:09	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 23:09	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 23:09	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 23:09	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 05:17	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 05:17	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 05:17	022010C-2
CCB13										
	Mercury	-0.091	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 14:31	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 23:41	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 23:41	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 23:41	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 23:41	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 23:41	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 23:41	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 05:47	022010C-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 05:47	022010C-2
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 05:47	022010C-2
CCB14										
	Mercury	-0.111	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 14:49	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 00:15	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 00:15	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 00:15	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 00:15	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 00:15	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 00:15	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 00:15	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 00:15	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 00:15	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 00:15	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 00:15	021910A-1
CCB15										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 00:51	021910A-1
	Antimony	-4.24	+/-10	J	3.3	10.0	SOL	P	20-FEB-10 00:51	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 00:51	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 00:51	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–FEB–10 00:51	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–FEB–10 00:51	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–FEB–10 00:51	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–FEB–10 00:51	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–FEB–10 00:51	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–FEB–10 00:51	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–FEB–10 00:51	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–FEB–10 00:51	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–FEB–10 00:51	021910A–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–FEB–10 01:38	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–FEB–10 01:38	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 01:38	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 01:38	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–FEB–10 01:38	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–FEB–10 01:38	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–FEB–10 01:38	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–FEB–10 01:38	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–FEB–10 01:38	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–FEB–10 01:38	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–FEB–10 01:38	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–FEB–10 01:38	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–FEB–10 01:38	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 01:38	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–FEB–10 01:38	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 01:38	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–FEB–10 01:38	021910A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB17										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 02:19	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 02:19	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 02:19	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 02:19	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 02:19	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 02:19	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 02:19	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 02:19	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 02:19	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 02:19	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 02:19	021910A-1
CCB18										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 02:56	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 02:56	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:56	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:56	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 02:56	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 02:56	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 02:56	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 02:56	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 02:56	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 02:56	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 02:56	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 02:56	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 02:56	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:56	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 02:56	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:56	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 02:56	021910A-1
CCB19										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 03:29	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 03:29	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 03:29	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 03:29	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 03:29	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 03:29	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 03:29	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 03:29	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 03:29	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 03:29	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 03:29	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 03:29	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 03:29	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 03:29	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 03:29	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 03:29	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 03:29	021910A-1
CCB20										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 04:03	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 04:03	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 04:03	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 04:03	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 04:03	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 04:03	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 04:03	021910A-1
	Copper	18.29	+/-10		3.0	10.0	SOL	P	20-FEB-10 04:03	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 04:03	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 04:03	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 04:03	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 04:03	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 04:03	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 04:03	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 04:03	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 04:03	021910A-1
	Zinc	6.49	+/-10	J	3.3	10.0	SOL	P	20-FEB-10 04:03	021910A-1
CCB21										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 04:36	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 04:36	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 04:36	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 04:36	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 04:36	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 04:36	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 04:36	021910A-1
	Copper	4.67	+/-10	J	3.0	10.0	SOL	P	20-FEB-10 04:36	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 04:36	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 04:36	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 04:36	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 04:36	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 04:36	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 04:36	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 04:36	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 04:36	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 04:36	021910A-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1514

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032610								
	Aluminum	5920	ug/Kg	+/–17400	U	P	5920	17400
	Antimony	287	ug/Kg	+/–871	U	P	287	871
	Barium	87.1	ug/Kg	+/–436	U	P	87.1	436
	Calcium	6970	ug/Kg	+/–21800	U	P	6970	21800
	Cobalt	131	ug/Kg	+/–436	U	P	131	436
	Iron	6970	ug/Kg	+/–21800	U	P	6970	21800
	Magnesium	7400	ug/Kg	+/–26100	U	P	7400	26100
	Potassium	5570	ug/Kg	+/–21800	U	P	5570	21800
	Sodium	6100	ug/Kg	+/–21800	U	P	6100	21800
	Zinc	287	ug/Kg	+/–871	U	P	287	871
	Vanadium	87.1	ug/Kg	+/–436	U	P	87.1	436
	Silver	87.1	ug/Kg	+/–436	U	P	87.1	436
	Manganese	174	ug/Kg	+/–871	U	P	174	871
	Lead	218	ug/Kg	+/–871	U	P	218	871
	Copper	261	ug/Kg	+/–871	U	P	261	871
	Chromium	293	ug/Kg	+/–436	J	P	131	436
	Cadmium	87.1	ug/Kg	+/–436	U	P	87.1	436
1202032619								
	Arsenic	0.181	mg/kg	+/–0.904	U	MS	0.181	0.904
	Nickel	0.0904	mg/kg	+/–0.362	U	MS	0.0904	0.362
	Selenium	0.452	mg/kg	+/–0.904	U	MS	0.452	0.904
	Uranium	0.0119	mg/kg	+/–0.0362	U	MS	0.0119	0.0362
	Thallium	0.0543	mg/kg	+/–0.181	U	MS	0.0543	0.181
	Beryllium	0.0181	mg/kg	+/–0.0904	U	MS	0.0181	0.0904
1202039198								
	Mercury	–11.2	ug/kg	+/–11.9	J	AV	4.06	11.9

METALS
–4–
Interference Check Sample

SDG No: 10–1514

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	515000	ug/L	500000	ug/L	103	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Antimony	–14.6	ug/L					19–FEB–10 16:51	021910A–1
	Barium	7.73	ug/L					19–FEB–10 16:51	021910A–1
	Cadmium	–6.35	ug/L					19–FEB–10 16:51	021910A–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Chromium	–0.312	ug/L					19–FEB–10 16:51	021910A–1
	Cobalt	2.17	ug/L					19–FEB–10 16:51	021910A–1
	Copper	–2.01	ug/L					19–FEB–10 16:51	021910A–1
	Iron	191000	ug/L	200000	ug/L	95.7	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Lead	7.77	ug/L					19–FEB–10 16:51	021910A–1
	Magnesium	494000	ug/L	500000	ug/L	98.8	80.0 – 120.0	19–FEB–10 16:51	021910A–1
	Manganese	8.98	ug/L					19–FEB–10 16:51	021910A–1
	Potassium	–20.1	ug/L					19–FEB–10 16:51	021910A–1
	Silver	–6.6	ug/L					19–FEB–10 16:51	021910A–1
	Sodium	30.3	ug/L					19–FEB–10 16:51	021910A–1
	Vanadium	–3.3	ug/L					19–FEB–10 16:51	021910A–1
	Zinc	–9.41	ug/L					19–FEB–10 16:51	021910A–1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Antimony	505	ug/L	500	ug/L	101	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Barium	503	ug/L	500	ug/L	101	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Cadmium	459	ug/L	500	ug/L	91.9	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Chromium	489	ug/L	500	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Cobalt	435	ug/L	500	ug/L	87.1	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Copper	543	ug/L	500	ug/L	109	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Lead	484	ug/L	500	ug/L	96.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1
	Magnesium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	19–FEB–10 16:54	021910A–1

METALS
-4-
Interference Check Sample

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	489	ug/L	500	ug/L	97.8	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Potassium	5060	ug/L	5000	ug/L	101	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Silver	257	ug/L	250	ug/L	103	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Sodium	5160	ug/L	5000	ug/L	103	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Vanadium	520	ug/L	500	ug/L	104	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Zinc	466	ug/L	500	ug/L	93.3	80.0 - 120.0	19-FEB-10 16:54	021910A-1

METALS
–4–
Interference Check Sample

SDG No: 10–1514

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Copper	–0.461	ug/L					20–FEB–10 21:18	022010C–2
	Lead	4.99	ug/L					20–FEB–10 21:18	022010C–2
	Zinc	–9.25	ug/L					20–FEB–10 21:18	022010C–2
ICSAB01									
	Copper	527	ug/L	500	ug/L	105	80.0 – 120.0	20–FEB–10 21:20	022010C–2
	Lead	472	ug/L	500	ug/L	94.4	80.0 – 120.0	20–FEB–10 21:20	022010C–2
	Zinc	454	ug/L	500	ug/L	90.8	80.0 – 120.0	20–FEB–10 21:20	022010C–2

METALS
-4-
Interference Check Sample

SDG No: 10-1514

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	1.17	ug/L					25-FEB-10 18:26	100225-3
	Beryllium	0.048	ug/L					25-FEB-10 18:26	100225-3
	Nickel	3.19	ug/L					25-FEB-10 18:26	100225-3
	Selenium	1.83	ug/L					25-FEB-10 18:26	100225-3
	Thallium	0.023	ug/L					25-FEB-10 18:26	100225-3
	Uranium	-0.021	ug/L					25-FEB-10 18:26	100225-3
ICSAB01									
	Arsenic	21.0	ug/L	20	ug/L	105	80.0 - 120.0	25-FEB-10 18:32	100225-3
	Beryllium	16.3	ug/L	20	ug/L	81.5	80.0 - 120.0	25-FEB-10 18:32	100225-3
	Nickel	21.5	ug/L	23.31	ug/L	92.2	80.0 - 120.0	25-FEB-10 18:32	100225-3
	Selenium	20.9	ug/L	20	ug/L	105	80.0 - 120.0	25-FEB-10 18:32	100225-3
	Thallium	19.4	ug/L	20	ug/L	97	80.0 - 120.0	25-FEB-10 18:32	100225-3
	Uranium	22.3	ug/L	20	ug/L	112	80.0 - 120.0	25-FEB-10 18:32	100225-3

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1514 **Client ID** RE15-10-7980S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.4

Sample ID: 245979001 **Spike ID:** 1202032613

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		7090000		3980000		488000	637	N/A	P
Antimony	ug/Kg	75-125	41300		729	J	48800	83.1		P
Barium	ug/Kg	75-125	93900		46000		48800	98.3		P
Cadmium	ug/Kg	75-125	46500		94.6	U	48800	95.3		P
Calcium	ug/Kg	75-125	1830000		1490000		488000	68.9	N	P
Chromium	ug/Kg	75-125	55500		16000		48800	80.9		P
Cobalt	ug/Kg	75-125	49300		3590		48800	93.7		P
Copper	ug/Kg	75-125	52500		3610		48800	100		P
Iron	ug/Kg		12200000		11500000		488000	133	N/A	P
Lead	ug/Kg	75-125	54600		7910		48800	95.7		P
Magnesium	ug/Kg	75-125	1540000		791000		488000	154	N	P
Manganese	ug/Kg		265000		214000		48800	103	N/A	P
Potassium	ug/Kg	75-125	1240000		628000		488000	126	N	P
Silver	ug/Kg	75-125	46800		94.6	U	48800	95.9		P
Sodium	ug/Kg	75-125	691000		244000		488000	91.6		P
Vanadium	ug/Kg	75-125	56800		8750		48800	98.4		P
Zinc	ug/Kg	75-125	89400		42700		48800	95.6		P

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1514 **Client ID** RE15-10-7980SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.4

Sample ID: 245979001 **Spike ID:** 1202032614

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		6670000		3980000		497000	541	N/A	P
Antimony	ug/Kg	75-125	42800		729	J	49700	84.5		P
Barium	ug/Kg	75-125	94300		46000		49700	97.1		P
Cadmium	ug/Kg	75-125	47300		94.6	U	49700	95.1		P
Calcium	ug/Kg	75-125	1740000		1490000		497000	49.1	N	P
Chromium	ug/Kg	75-125	56400		16000		49700	81.2		P
Cobalt	ug/Kg	75-125	49800		3590		49700	93		P
Copper	ug/Kg	75-125	53200		3610		49700	99.7		P
Iron	ug/Kg		11600000		11500000		497000	15.6	N/A	P
Lead	ug/Kg	75-125	55300		7910		49700	95.2		P
Magnesium	ug/Kg	75-125	1430000		791000		497000	128	N	P
Manganese	ug/Kg		276000		214000		49700	124	N/A	P
Potassium	ug/Kg	75-125	1200000		628000		497000	114		P
Silver	ug/Kg	75-125	47700		94.6	U	49700	95.9		P
Sodium	ug/Kg	75-125	678000		244000		497000	87.4		P
Vanadium	ug/Kg	75-125	57200		8750		49700	97.5		P
Zinc	ug/Kg	75-125	88800		42700		49700	92.6		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1514 **Client ID** RE15-10-7980S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.4

Sample ID: 245979001 **Spike ID:** 1202032622

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	7.69		1.51		7.64	80.9		MS
Beryllium	mg/kg	75-125	4.39		0.554		4.77	80.3		MS
Nickel	mg/kg	75-125	8.39		3.79		4.77	96.3		MS
Selenium	mg/kg	75-125	1.33		0.486	U	1.91	58.9	N	MS
Thallium	mg/kg	75-125	8.36		0.0949	J	9.55	86.6		MS
Uranium	mg/kg	75-125	5.24		0.641		4.77	96.4		MS

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1514 **Client ID** RE15-10-7980SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.4

Sample ID: 245979001 **Spike ID:** 1202032623

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	8.4		1.51		7.88	87.3		MS
Beryllium	mg/kg	75-125	4.46		0.554		4.93	79.3		MS
Nickel	mg/kg	75-125	8.4		3.79		4.93	93.6		MS
Selenium	mg/kg	75-125	1.44		0.486	U	1.97	62.6	N	MS
Thallium	mg/kg	75-125	8.82		0.0949	J	9.85	88.5		MS
Uranium	mg/kg	75-125	6.84		0.641		4.93	126	N	MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1514 **Client ID** RE15–10–7980S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.4

Sample ID: 245979001 **Spike ID:** 1202039201

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	144		16.2		112	115		AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1514 **Client ID** RE15-10-7980SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 95.4

Sample ID: 245979001 **Spike ID:** 1202039207

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	144		16.2		110	116		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7980D

Sample ID: 245979001 **Duplicate ID:** 1202032611 **Percent Solids for Dup:** 95.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20%	3980000		3770000		5.48		P
Antimony	ug/Kg	+/-982	729	J	571	J	24.4		P
Barium	ug/Kg	+/-20%	46000		40200		13.4		P
Cadmium	ug/Kg		94.6	U	98.2	U			P
Calcium	ug/Kg	+/-20%	1490000		1540000		3.21		P
Chromium	ug/Kg	+/-20%	16000		9100		55	*	P
Cobalt	ug/Kg	+/-20%	3590		2940		20		P
Copper	ug/Kg	+/-982	3610		3560		1.4		P
Iron	ug/Kg	+/-20%	11500000		12300000		6.34		P
Lead	ug/Kg	+/-20%	7910		8180		3.44		P
Magnesium	ug/Kg	+/-20%	791000		778000		1.61		P
Manganese	ug/Kg	+/-20%	214000		229000		6.56		P
Potassium	ug/Kg	+/-20%	628000		622000		1.05		P
Silver	ug/Kg		94.6	U	98.2	U			P
Sodium	ug/Kg	+/-20%	244000		232000		4.98		P
Vanadium	ug/Kg	+/-20%	8750		8870		1.28		P
Zinc	ug/Kg	+/-20%	42700		43400		1.57		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1514

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7980SD

Sample ID: 1202032613 **Duplicate ID:** 1202032614 **Percent Solids for Dup:** 95.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	7090000		6670000		6.07		P
Antimony	ug/Kg	+/–20	41300		42800		3.49		P
Barium	ug/Kg	+/–20	93900		94300		.352		P
Cadmium	ug/Kg	+/–20	46500		47300		1.69		P
Calcium	ug/Kg	+/–20	1830000		1740000		5.18		P
Chromium	ug/Kg	+/–20	55500		56400		1.65		P
Cobalt	ug/Kg	+/–20	49300		49800		.98		P
Copper	ug/Kg	+/–20	52500		53200		1.27		P
Iron	ug/Kg	+/–20	12200000		11600000		4.8		P
Lead	ug/Kg	+/–20	54600		55300		1.22		P
Magnesium	ug/Kg	+/–20	1540000		1430000		7.79		P
Manganese	ug/Kg	+/–20	265000		276000		4.2		P
Potassium	ug/Kg	+/–20	1240000		1200000		3.68		P
Silver	ug/Kg	+/–20	46800		47700		1.9		P
Sodium	ug/Kg	+/–20	691000		678000		1.79		P
Vanadium	ug/Kg	+/–20	56800		57200		.806		P
Zinc	ug/Kg	+/–20	89400		88800		.705		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7980D

Sample ID: 245979001 **Duplicate ID:** 1202032620 **Percent Solids for Dup:** 95.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-.997	1.51		1.28		16.2		MS
Beryllium	mg/kg	+/-.0997	0.554		0.442		22.3	*	MS
Nickel	mg/kg	+/-20%	3.79		3.15		18.3		MS
Selenium	mg/kg		0.486	U	0.498	U			MS
Thallium	mg/kg		0.0949	J	0.0598	U	200		MS
Uranium	mg/kg	+/-20%	0.641		0.878		31.2	*	MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7980SD

Sample ID: 1202032622 **Duplicate ID:** 1202032623 **Percent Solids for Dup:** 95.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/-20	7.69		8.4		8.75		MS
Beryllium	mg/kg	+/-20	4.39		4.46		1.72		MS
Nickel	mg/kg	+/-20	8.39		8.4		.183		MS
Selenium	mg/kg	+/-20	1.33		1.44		7.98		MS
Thallium	mg/kg	+/-20	8.36		8.82		5.3		MS
Uranium	mg/kg	+/-20	5.24		6.84		26.5	*	MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1514

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7980D

Sample ID: 245979001 **Duplicate ID:** 1202039200 **Percent Solids for Dup:** 95.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–11	16.2		19.7		19.5		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1514

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-7980SD

Sample ID: 1202039201 **Duplicate ID:** 1202039207 **Percent Solids for Dup:** 95.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-20	144		144		.0309		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1514

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032615								
	Aluminum	ug/Kg	10500000	8620000		82.1	56-144	P
	Antimony	ug/Kg	173000	138000		79.9	71-130	P
	Barium	ug/Kg	198000	191000		96.2	80-120	P
	Cadmium	ug/Kg	60700	59700		98.3	81-120	P
	Calcium	ug/Kg	9870000	9830000		99.6	83-117	P
	Chromium	ug/Kg	236000	245000		104	80-120	P
	Cobalt	ug/Kg	91200	94000		103	81-120	P
	Copper	ug/Kg	174000	182000		104	81-118	P
	Iron	ug/Kg	18000000	18700000		104	51-149	P
	Lead	ug/Kg	86000	83600		97.3	79-121	P
	Magnesium	ug/Kg	4000000	3820000		95.6	79-122	P
	Manganese	ug/Kg	558000	582000		104	81-119	P
	Potassium	ug/Kg	4300000	3910000		91	74-127	P
	Silver	ug/Kg	30100	30400		101	66-134	P
	Sodium	ug/Kg	1020000	994000		97.5	74-127	P
	Vanadium	ug/Kg	115000	124000		107	79-121	P
	Zinc	ug/Kg	594000	584000		98.3	80-121	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1514

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032624								
	Arsenic	mg/kg	104	96.3		92.6	78-123	MS
	Beryllium	mg/kg	77.6	79.4		102	84-116	MS
	Nickel	mg/kg	134	125		93.3	78-123	MS
	Selenium	mg/kg	286	266		93	77-123	MS
	Thallium	mg/kg	121	111		91.9	78-122	MS
	Uranium	mg/kg	2.13	1.7		79.8	73-127	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1514

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202039199								
	Mercury	ug/kg	5150	5810		113	71.6-128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1514 **Client ID** RE15-10-7980L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245979001 **Serial Dilution ID:** 1202032612

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	42000		43400		3.21		10	P
Antimony	7.71	J	16.5	U	100			P
Barium	486		487		.103		10	P
Cadmium	1	U	5	U				P
Calcium	15800		15900		.316		10	P
Chromium	169		171		.888		10	P
Cobalt	37.9		38.1		.528			P
Copper	38.2		36.5	J	4.58			P
Iron	122000		125000		2.46		10	P
Lead	83.6		69		17.5			P
Magnesium	8350		8600		2.99		10	P
Manganese	2270		2310		1.54		10	P
Potassium	6640		6800		2.41		10	P
Silver	1	U	5	U				P
Sodium	2580		2640		2.13			P
Vanadium	92.5		93		.541		10	P
Zinc	452		453		.221		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1514 **Client ID** RE15-10-7980L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245979001 **Serial Dilution ID:** 1202032621

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	7.77		5.8	J	25.4			MS
Beryllium	2.85		3.02		5.96			MS
Nickel	19.5		22.4		14.9			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.488	J	1.5	U	100			MS
Uranium	3.3		3.26		1.21			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1514 **Client ID** RE15-10-7980L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245979001 **Serial Dilution ID:** 1202039206

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.259		.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948763						
1202032610	MB for batch 948763	MB	S	10-FEB-10	.574g	50mL	
1202032615	LCS for batch 948763	LCS	S	10-FEB-10	.525g	50mL	
1202032613	RE15-10-7980S	MS	S	10-FEB-10	.537g	50mL	
1202032614	RE15-10-7980SD	MSD	S	10-FEB-10	.527g	50mL	
1202032611	RE15-10-7980D	DUP	S	10-FEB-10	.534g	50mL	
245979001	RE15-10-7980	SAMPLE	S	10-FEB-10	.554g	50mL	
245979002	RE15-10-7958	SAMPLE	S	10-FEB-10	.542g	50mL	
245979003	RE15-10-7960	SAMPLE	S	10-FEB-10	.541g	50mL	
245979004	RE15-10-7979	SAMPLE	S	10-FEB-10	.567g	50mL	
245979005	RE15-10-7972	SAMPLE	S	10-FEB-10	.519g	50mL	
245979006	RE15-10-7957	SAMPLE	S	10-FEB-10	.509g	50mL	
245979007	RE15-10-7974	SAMPLE	S	10-FEB-10	.534g	50mL	
245979008	RE15-10-7961	SAMPLE	S	10-FEB-10	.545g	50mL	
245979009	RE15-10-7971	SAMPLE	S	10-FEB-10	.522g	50mL	
245979010	RE15-10-7966	SAMPLE	S	10-FEB-10	.526g	50mL	
245979011	RE15-10-7959	SAMPLE	S	10-FEB-10	.556g	50mL	
245979012	RE15-10-7969	SAMPLE	S	10-FEB-10	.509g	50mL	
245979013	RE15-10-8061	SAMPLE	S	10-FEB-10	.516g	50mL	
245979014	RE15-10-8063	SAMPLE	S	10-FEB-10	.517g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245979015	RE15-10-8062	SAMPLE	S	10-FEB-10	.54g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948768						
1202032619	MB for batch 948768	MB	S	10-FEB-10	.553g	50mL	
1202032624	LCS for batch 948768	LCS	S	10-FEB-10	.52g	50mL	
1202032622	RE15-10-7980S	MS	S	10-FEB-10	.549g	50mL	
1202032623	RE15-10-7980SD	MSD	S	10-FEB-10	.532g	50mL	
1202032620	RE15-10-7980D	DUP	S	10-FEB-10	.526g	50mL	
245979001	RE15-10-7980	SAMPLE	S	10-FEB-10	.539g	50mL	
245979002	RE15-10-7958	SAMPLE	S	10-FEB-10	.53g	50mL	
245979003	RE15-10-7960	SAMPLE	S	10-FEB-10	.518g	50mL	
245979004	RE15-10-7979	SAMPLE	S	10-FEB-10	.508g	50mL	
245979005	RE15-10-7972	SAMPLE	S	10-FEB-10	.512g	50mL	
245979006	RE15-10-7957	SAMPLE	S	10-FEB-10	.553g	50mL	
245979007	RE15-10-7974	SAMPLE	S	10-FEB-10	.525g	50mL	
245979008	RE15-10-7961	SAMPLE	S	10-FEB-10	.504g	50mL	
245979009	RE15-10-7971	SAMPLE	S	10-FEB-10	.512g	50mL	
245979010	RE15-10-7966	SAMPLE	S	10-FEB-10	.517g	50mL	
245979011	RE15-10-7959	SAMPLE	S	10-FEB-10	.52g	50mL	
245979012	RE15-10-7969	SAMPLE	S	10-FEB-10	.564g	50mL	
245979013	RE15-10-8061	SAMPLE	S	10-FEB-10	.519g	50mL	
245979014	RE15-10-8063	SAMPLE	S	10-FEB-10	.528g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245979015	RE15-10-8062	SAMPLE	S	10-FEB-10	.514g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	951517						
1202039198	MB for batch 951517	MB	S	17-FEB-10	.503g	30mL	
1202039199	LCS for batch 951517	LCS	S	17-FEB-10	.2g	30mL	
1202039201	RE15-10-7980S	MS	S	17-FEB-10	.564g	30mL	
1202039207	RE15-10-7980SD	MSD	S	17-FEB-10	.572g	30mL	
1202039200	RE15-10-7980D	DUP	S	17-FEB-10	.574g	30mL	
245979001	RE15-10-7980	SAMPLE	S	17-FEB-10	.502g	30mL	
245979002	RE15-10-7958	SAMPLE	S	17-FEB-10	.503g	30mL	
245979003	RE15-10-7960	SAMPLE	S	17-FEB-10	.515g	30mL	
245979004	RE15-10-7979	SAMPLE	S	17-FEB-10	.599g	30mL	
245979005	RE15-10-7972	SAMPLE	S	17-FEB-10	.513g	30mL	
245979006	RE15-10-7957	SAMPLE	S	17-FEB-10	.585g	30mL	
245979007	RE15-10-7974	SAMPLE	S	17-FEB-10	.515g	30mL	
245979008	RE15-10-7961	SAMPLE	S	17-FEB-10	.5g	30mL	
245979009	RE15-10-7971	SAMPLE	S	17-FEB-10	.6g	30mL	
245979010	RE15-10-7966	SAMPLE	S	17-FEB-10	.561g	30mL	
245979011	RE15-10-7959	SAMPLE	S	17-FEB-10	.565g	30mL	
245979012	RE15-10-7969	SAMPLE	S	17-FEB-10	.58g	30mL	
245979013	RE15-10-8061	SAMPLE	S	17-FEB-10	.569g	30mL	
245979014	RE15-10-8063	SAMPLE	S	17-FEB-10	.577g	30mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245979015	RE15-10-8062	SAMPLE	S	17-FEB-10	.55g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 18–FEB–10 **End Date:** 18–FEB–10

Client Sdg: 10–1514
Method AV
Data File: 021810S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:45															X									
S0.2	1	09:47															X									
S0.5	1	09:49															X									
S2.0	1	09:51															X									
S5.0	1	09:53															X									
S10	1	09:55															X									
ICV01	1	09:57															X									
ICB01	1	09:59															X									
CRDL01	1	10:01															X									
CCV01	1	10:03															X									
CCB01	1	10:05															X									
ZZZZZZ	1	10:07																								
ZZZZZZ	10	10:09																								
ZZZZZZ	1	10:11																								
ZZZZZZ	1	10:13																								
ZZZZZZ	1	10:15																								
ZZZZZZ	1	10:17																								
ZZZZZZ	5	10:19																								
ZZZZZZ	1	10:21																								
ZZZZZZ	1	10:23																								
ZZZZZZ	1	10:25																								
CCV02	1	10:27															X									
CCB02	1	10:29															X									
ZZZZZZ	1	10:31																								
ZZZZZZ	1	10:33																								
ZZZZZZ	1	10:35																								
ZZZZZZ	1	10:37																								
ZZZZZZ	1	10:39																								
ZZZZZZ	1	10:41																								
ZZZZZZ	1	10:43																								
ZZZZZZ	1	10:45																								
ZZZZZZ	1	10:47																								
ZZZZZZ	1	10:49																								
CCV03	1	10:51															X									
CCB03	1	10:53															X									
ZZZZZZ	1	10:55																								
ZZZZZZ	1	10:57																								
ZZZZZZ	10	10:59																								
ZZZZZZ	1	11:01																								
ZZZZZZ	1	11:03																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:05																							
ZZZZZZ	1	11:07																							
ZZZZZZ	5	11:09																							
ZZZZZZ	1	11:11																							
ZZZZZZ	1	11:13																							
CCV04	1	11:15													X										
CCB04	1	11:17													X										
ZZZZZZ	1	11:19																							
ZZZZZZ	1	11:21																							
ZZZZZZ	1	11:23																							
ZZZZZZ	1	11:25																							
ZZZZZZ	1	11:27																							
ZZZZZZ	1	11:29																							
ZZZZZZ	1	11:31																							
ZZZZZZ	1	11:33																							
ZZZZZZ	1	11:35																							
ZZZZZZ	1	11:37																							
CCV05	1	11:39													X										
CCB05	1	11:41													X										
ZZZZZZ	1	11:43																							
ZZZZZZ	1	11:45																							
ZZZZZZ	1	11:47																							
ZZZZZZ	1	11:49																							
ZZZZZZ	1	11:51																							
ZZZZZZ	1	11:53																							
ZZZZZZ	1	11:55																							
ZZZZZZ	1	11:57																							
ZZZZZZ	10	11:59																							
ZZZZZZ	1	12:01																							
CCV06	1	12:03													X										
CCB06	1	12:05													X										
ZZZZZZ	1	12:07																							
ZZZZZZ	1	12:09																							
ZZZZZZ	1	12:11																							
ZZZZZZ	1	12:12																							
ZZZZZZ	1	12:14																							
ZZZZZZ	1	12:16																							
ZZZZZZ	1	12:18																							
ZZZZZZ	1	12:20																							
ZZZZZZ	1	12:22																							

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	12:24																								
CCV07	1	12:26															X									
CCB07	1	12:28															X									
ZZZZZZ	1	12:30																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:34																								
ZZZZZZ	1	12:36																								
ZZZZZZ	5	12:38																								
ZZZZZZ	1	12:40																								
ZZZZZZ	1	12:42																								
ZZZZZZ	1	12:44																								
ZZZZZZ	1	12:46																								
ZZZZZZ	1	12:48																								
CCV08	1	12:50															X									
CCB08	1	12:52															X									
ZZZZZZ	1	12:54																								
ZZZZZZ	1	12:56																								
ZZZZZZ	1	12:58																								
CCV09	1	13:07															X									
CCB09	1	13:09															X									
ZZZZZZ	50	13:11																								
ZZZZZZ	10	13:13																								
ZZZZZZ	200	13:15																								
ZZZZZZ	1	13:17																								
ZZZZZZ	200	13:19																								
1202039198	1	13:21															X									
1202039199	10	13:23															X									
245979001	1	13:25															X									
1202039200	1	13:27															X									
1202039201	1	13:29															X									
CCV10	1	13:31															X									
CCB10	1	13:33															X									
ZZZZZZ	1	13:35																								
ZZZZZZ	5	13:37																								
ZZZZZZ	1	13:39																								
ZZZZZZ	1	13:41																								
ZZZZZZ	1	13:43																								
ZZZZZZ	1	13:45																								
ZZZZZZ	1	13:47																								
ZZZZZZ	1	13:49																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	13:50																							
ZZZZZZ	1	13:52																							
CCV11	1	13:54													X										
CCB11	1	13:56													X										
CCV12	1	14:05													X										
CCB12	1	14:08													X										
ZZZZZZ	400	14:09																							
1202039207	1	14:11													X										
1202039206	5	14:13													X										
245979002	1	14:15													X										
245979003	1	14:17													X										
245979004	1	14:19													X										
245979005	1	14:21													X										
245979006	1	14:23													X										
245979007	1	14:25													X										
245979008	1	14:27													X										
CCV13	1	14:29													X										
CCB13	1	14:31													X										
245979009	1	14:33													X										
245979010	1	14:35													X										
245979011	1	14:37													X										
245979012	1	14:39													X										
245979013	1	14:41													X										
245979014	1	14:43													X										
245979015	1	14:45													X										
CCV14	1	14:47													X										
CCB14	1	14:49													X										

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 25-FEB-10 **End Date:** 25-FEB-10

Client Sdg: 10-1514
Method MS
Data File: 100225-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	17:52			X		X											X		X			X	X		
S10	1	17:58			X		X											X		X			X	X		
S100	1	18:04			X		X											X		X			X	X		
ICV01	1	18:09			X		X											X		X			X	X		
ICB01	1	18:15			X		X											X		X			X	X		
CRDL01	1	18:21			X		X											X		X			X	X		
ICSA01	1	18:26			X		X											X		X			X	X		
ICSAB01	1	18:32			X		X											X		X			X	X		
CCV01	1	18:38			X		X											X		X			X	X		
CCB01	1	18:44			X		X											X		X			X	X		
LR01	1	18:49			X		X											X		X			X	X		
CCV02	1	18:55			X		X											X		X			X	X		
CCB02	1	19:01			X		X											X		X			X	X		
ZZZZZZ	1	19:07																								
ZZZZZZ	1	19:12																								
ZZZZZZ	1	19:18																								
ZZZZZZ	1	19:24																								
ZZZZZZ	1	19:30																								
ZZZZZZ	1	19:35																								
ZZZZZZ	1	19:41																								
ZZZZZZ	1	19:47																								
ZZZZZZ	1	19:53																								
ZZZZZZ	1	19:58																								
CCV03	1	20:04			X		X											X		X			X	X		
CCB03	1	20:10			X		X											X		X			X	X		
1202032619	2	20:17			X		X											X		X			X	X		
1202032624	40	20:23			X		X											X		X			X	X		
245979001	2	20:28			X		X											X		X			X	X		
1202032620	2	20:34			X		X											X		X			X	X		
1202032622	2	20:40			X		X											X		X			X	X		
1202032623	2	20:46			X		X											X		X			X	X		
1202032621	10	20:51			X		X											X		X			X	X		
CCV04	1	20:57			X		X											X		X			X	X		
CCB04	1	21:03			X		X											X		X			X	X		
245979002	2	21:09			X		X											X		X			X	X		
245979003	2	21:14			X		X											X		X			X	X		
245979004	2	21:20			X		X											X		X			X	X		
245979005	2	21:26			X		X											X		X			X	X		
245979006	2	21:32			X		X											X		X			X	X		
245979007	2	21:37			X		X											X		X			X	X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	21:43			X		X											X		X			X	X		
CCB05	1	21:49			X		X											X		X			X	X		
245979008	2	21:55			X		X											X		X			X	X		
245979009	2	22:00			X		X											X		X			X	X		
245979010	2	22:06			X		X											X		X			X	X		
245979011	2	22:12			X		X											X		X			X	X		
245979012	2	22:18			X		X											X		X			X	X		
245979013	2	22:23			X		X											X		X			X	X		
245979014	2	22:29			X		X											X		X			X	X		
245979015	2	22:35			X		X											X		X			X	X		
CCV06	1	22:41			X		X											X		X			X	X		
CCB06	1	22:46			X		X											X		X			X	X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 19–FEB–10 **End Date:** 20–FEB–10

Client Sdg: 10–1514
Method P
Data File: 021910A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	16:28		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	16:30	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	16:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	16:38	X						X				X		X							X				
ICV01	1	16:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	16:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	16:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	16:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	16:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	16:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	16:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	17:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	17:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	17:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	17:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	17:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:30																								
ZZZZZZ	1	17:34																								
ZZZZZZ	1	17:37																								
ZZZZZZ	1	17:41																								
ZZZZZZ	1	17:44																								
ZZZZZZ	1	17:48																								
CCV03	1	17:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	17:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:59																								
ZZZZZZ	1	18:03																								
ZZZZZZ	1	18:06																								
ZZZZZZ	1	18:09																								
ZZZZZZ	1	18:13																								
ZZZZZZ	1	18:17																								
ZZZZZZ	5	18:20																								
CCV04	1	18:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	18:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:31																								
ZZZZZZ	1	18:35																								
ZZZZZZ	1	18:39																								
ZZZZZZ	1	18:42																								
ZZZZZZ	1	18:46																								
ZZZZZZ	1	18:50																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	18:53																							
CCV05	1	18:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	19:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:04																							
ZZZZZZ	1	19:08																							
ZZZZZZ	1	19:12																							
ZZZZZZ	1	19:15																							
ZZZZZZ	1	19:19																							
ZZZZZZ	1	19:23																							
CCV06	1	19:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	19:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:34																							
ZZZZZZ	1	19:37																							
ZZZZZZ	1	19:40																							
ZZZZZZ	1	19:44																							
ZZZZZZ	1	19:48																							
ZZZZZZ	1	19:51																							
ZZZZZZ	5	19:55																							
CCV07	1	19:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	20:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:06																							
ZZZZZZ	1	20:10																							
ZZZZZZ	1	20:13																							
ZZZZZZ	1	20:17																							
ZZZZZZ	1	20:21																							
ZZZZZZ	1	20:24																							
ZZZZZZ	1	20:28																							
ZZZZZZ	1	20:32																							
CCV08	1	20:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	20:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:43																							
ZZZZZZ	1	20:46																							
ZZZZZZ	1	20:50																							
ZZZZZZ	1	20:53																							
ZZZZZZ	1	20:57																							
ZZZZZZ	5	21:01																							
ZZZZZZ	1	21:04																							
CCV09	1	21:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	21:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:19																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	21:23																								
ZZZZZZ	1	21:26																								
ZZZZZZ	1	21:30																								
ZZZZZZ	1	21:33																								
ZZZZZZ	1	21:37																								
ZZZZZZ	5	21:41																								
ZZZZZZ	1	21:44																								
ZZZZZZ	1	21:48																								
CCV10	1	21:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	21:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:59																								
ZZZZZZ	1	22:03																								
ZZZZZZ	1	22:06																								
ZZZZZZ	1	22:10																								
ZZZZZZ	1	22:14																								
ZZZZZZ	1	22:17																								
ZZZZZZ	1	22:21																								
ZZZZZZ	1	22:25																								
CCV11	1	22:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	22:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:36																								
ZZZZZZ	1	22:39																								
ZZZZZZ	1	22:43																								
ZZZZZZ	1	22:47																								
ZZZZZZ	1	22:50																								
ZZZZZZ	1	22:54																								
ZZZZZZ	1	22:58																								
ZZZZZZ	1	23:01																								
CCV12	1	23:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	23:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:12																								
ZZZZZZ	1	23:16																								
ZZZZZZ	1	23:19																								
ZZZZZZ	1	23:23																								
ZZZZZZ	1	23:26																								
ZZZZZZ	1	23:30																								
ZZZZZZ	5	23:34																								
CCV13	1	23:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB13	1	23:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:45																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	23:49																							
ZZZZZZ	1	23:52																							
ZZZZZZ	1	23:56																							
ZZZZZZ	1	00:00																							
ZZZZZZ	1	00:03																							
ZZZZZZ	1	00:07																							
CCV14	1	00:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB14	1	00:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	00:18																							
ZZZZZZ	1	00:22																							
ZZZZZZ	1	00:26																							
ZZZZZZ	1	00:29																							
ZZZZZZ	1	00:33																							
ZZZZZZ	1	00:37																							
ZZZZZZ	1	00:40																							
ZZZZZZ	1	00:44																							
CCV15	1	00:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB15	1	00:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	01:03																							
ZZZZZZ	1	01:07																							
ZZZZZZ	1	01:10																							
ZZZZZZ	1	01:13																							
ZZZZZZ	1	01:17																							
ZZZZZZ	1	01:21																							
ZZZZZZ	5	01:24																							
ZZZZZZ	1	01:27																							
ZZZZZZ	1	01:31																							
CCV16	1	01:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB16	1	01:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	01:42																							
ZZZZZZ	1	01:46																							
ZZZZZZ	1	01:49																							
ZZZZZZ	1	01:53																							
ZZZZZZ	1	01:57																							
ZZZZZZ	1	02:00																							
ZZZZZZ	1	02:04																							
ZZZZZZ	1	02:08																							
ZZZZZZ	1	02:11																							
CCV17	1	02:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB17	1	02:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	02:22																								
ZZZZZZ	1	02:26																								
ZZZZZZ	1	02:30																								
ZZZZZZ	1	02:33																								
ZZZZZZ	1	02:37																								
ZZZZZZ	1	02:41																								
ZZZZZZ	1	02:44																								
ZZZZZZ	1	02:48																								
CCV18	1	02:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB18	1	02:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032610	1	03:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032615	1	03:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979001	1	03:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032611	1	03:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032613	1	03:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032614	1	03:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032612	5	03:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV19	1	03:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB19	1	03:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979002	1	03:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979003	1	03:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979004	1	03:41	X	X		X		X	X	X	X		X	X	X	X			X		X	X			X	X
245979005	1	03:44	X	X		X		X	X	X	X		X	X	X	X			X		X	X			X	X
245979006	1	03:48	X	X		X		X	X	X	X		X		X	X			X		X	X			X	
245979007	1	03:52	X	X		X		X	X	X	X		X	X	X	X			X		X	X			X	X
245979008	1	03:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV20	1	03:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB20	1	04:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979009	1	04:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979010	1	04:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979011	1	04:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979012	1	04:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979013	1	04:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245979014	1	04:25	X	X		X		X	X	X	X		X	X	X	X			X		X	X			X	X
245979015	1	04:29	X	X		X		X	X	X	X		X	X	X	X			X		X	X			X	X
CCV21	1	04:33	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB21	1	04:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 20–FEB–10 **End Date:** 21–FEB–10

Client Sdg: 10–1514
Method P
Data File: 022010C–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	20:51										X		X												X
S0.1	1	20:54										X		X												X
S0.5	1	20:57										X		X												X
SCAL	1	21:01										X		X												X
S10	1	21:04																								
ICV01	1	21:07										X		X												X
ICB01	1	21:10										X		X												X
PQL01	1	21:14										X		X												X
ICSA01	1	21:18										X		X												X
ICSAB01	1	21:20										X		X												X
LR01	1	21:23										X		X												X
LR02	1	21:26										X		X												X
CCV01	1	21:30										X		X												X
CCB01	1	21:34										X		X												X
CCV02	1	22:12										X		X												X
CCB02	1	22:16										X		X												X
ZZZZZZ	1	22:58																								
ZZZZZZ	1	23:01																								
ZZZZZZ	1	23:04																								
ZZZZZZ	1	23:08																								
ZZZZZZ	1	23:12																								
ZZZZZZ	1	23:15																								
ZZZZZZ	5	23:19																								
ZZZZZZ	1	23:23																								
CCV03	1	23:26										X		X												X
CCB03	1	23:30										X		X												X
ZZZZZZ	1	23:34																								
ZZZZZZ	1	23:37																								
ZZZZZZ	1	23:41																								
ZZZZZZ	1	23:45																								
ZZZZZZ	1	23:48																								
ZZZZZZ	1	23:52																								
ZZZZZZ	1	23:56																								
ZZZZZZ	1	23:59																								
CCV04	1	00:03										X		X												X
CCB04	1	00:07										X		X												X
ZZZZZZ	1	00:10																								
ZZZZZZ	1	00:14																								
ZZZZZZ	1	00:18																								
ZZZZZZ	1	00:21																								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	00:25																						
ZZZZZZ	1	00:29																						
ZZZZZZ	1	00:32																						
ZZZZZZ	1	00:36																						
CCV05	1	00:40								X		X												X
CCB05	1	00:44								X		X												X
ZZZZZZ	1	00:47																						
ZZZZZZ	1	00:51																						
ZZZZZZ	1	00:54																						
ZZZZZZ	1	00:57																						
ZZZZZZ	1	01:01																						
ZZZZZZ	1	01:05																						
ZZZZZZ	5	01:08																						
ZZZZZZ	1	01:12																						
ZZZZZZ	1	01:16																						
CCV06	1	01:19								X		X												X
CCB06	1	01:23								X		X												X
ZZZZZZ	1	01:27																						
ZZZZZZ	1	01:30																						
ZZZZZZ	1	01:34																						
ZZZZZZ	1	01:38																						
ZZZZZZ	1	01:41																						
ZZZZZZ	1	01:45																						
ZZZZZZ	1	01:49																						
ZZZZZZ	1	01:52																						
ZZZZZZ	1	01:56																						
CCV07	1	02:00								X		X												X
CCB07	1	02:03								X		X												X
ZZZZZZ	1	02:07																						
ZZZZZZ	1	02:11																						
ZZZZZZ	1	02:15																						
ZZZZZZ	1	02:18																						
ZZZZZZ	1	02:22																						
ZZZZZZ	1	02:26																						
ZZZZZZ	1	02:29																						
ZZZZZZ	1	02:33																						
CCV08	1	02:37								X		X												X
CCB08	1	02:40								X		X												X
ZZZZZZ	1	02:44																						
ZZZZZZ	1	02:47																						

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	02:50																								
ZZZZZZ	1	02:54																								
ZZZZZZ	1	02:58																								
ZZZZZZ	1	03:01																								
ZZZZZZ	5	03:05																								
ZZZZZZ	1	03:09																								
ZZZZZZ	1	03:12																								
CCV09	1	03:16										X		X												X
CCB09	1	03:20										X		X												X
ZZZZZZ	1	03:23																								
ZZZZZZ	1	03:27																								
ZZZZZZ	1	03:31																								
ZZZZZZ	1	03:35																								
ZZZZZZ	1	03:38																								
ZZZZZZ	1	03:42																								
ZZZZZZ	1	03:46																								
ZZZZZZ	1	03:49																								
ZZZZZZ	1	03:53																								
CCV10	1	03:57										X		X												X
CCB10	1	04:00										X		X												X
ZZZZZZ	1	04:04																								
ZZZZZZ	1	04:08																								
ZZZZZZ	1	04:11																								
ZZZZZZ	1	04:15																								
ZZZZZZ	1	04:19																								
ZZZZZZ	1	04:22																								
ZZZZZZ	5	04:26																								
ZZZZZZ	1	04:30																								
ZZZZZZ	1	04:33																								
CCV11	1	04:37										X		X												X
CCB11	1	04:41										X		X												X
ZZZZZZ	1	04:44																								
ZZZZZZ	1	04:48																								
ZZZZZZ	1	04:52																								
ZZZZZZ	1	04:55																								
ZZZZZZ	1	04:59																								
ZZZZZZ	1	05:03																								
ZZZZZZ	1	05:06																								
ZZZZZZ	1	05:10																								
CCV12	1	05:13										X		X												X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCB12	1	05:17									X		X												X
245979004	1	05:21									X														
245979005	1	05:25									X														
245979007	1	05:28									X														
245979014	1	05:32									X														
245979015	1	05:36									X														
245979006	50	05:39									X		X												X
CCV13	1	05:43									X		X												X
CCB13	1	05:47									X		X												X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1514

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1514

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1514

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1514

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1514

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA I

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10

Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

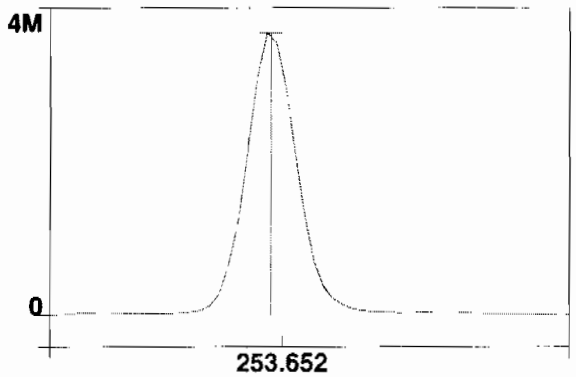

Intensity: 3672376.8 cps
Conc:

1

==========

Analysis Begun

Start Time: 2/19/2010 16:24:40 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 15:19:26**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/19/2010 16:24:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56379.0	56379.0	99.8	%	16:25:17
1	Al 396.153Radial†	16.2	16.2	[0.00]	µg/L	16:25:17
1	Ca 317.933Radial†	214.7	215.2	[0.00]	µg/L	16:25:38
1	Fe 238.204 Radial†	18.4	18.4	[0.00]	µg/L	16:25:38

1	K 766.490 Radial†	170.1	170.5	[0.00]	µg/L	16:25:17
1	Mg 279.077 IEC†	12.4	12.5	[0.00]	µg/L	16:25:38
1	Na 589.592 Radial†	471.3	472.3	[0.00]	µg/L	16:25:17
1	Sr 421.552†	12.0	12.0	[0.00]	µg/L	16:25:17
1	Sc 361.383	1972868.2	1972868.2	100.50	%	16:26:40
1	Y 371.029	1358545.8	1358545.8	100.43	%	16:26:40
1	Ag 328.068†	-377.9	-376.0	[0.00]	µg/L	16:26:45
1	As 188.979†	2.0	2.0	[0.00]	µg/L	16:27:06
1	B 249.677†	379.3	377.5	[0.00]	µg/L	16:27:06
1	Ba 233.527†	-13.3	-13.3	[0.00]	µg/L	16:27:06
1	Be 313.107†	-2914.6	-2900.2	[0.00]	µg/L	16:26:45
1	Cd 226.502†	-140.3	-139.6	[0.00]	µg/L	16:27:06
1	Co 228.616†	-4.5	-4.5	[0.00]	µg/L	16:27:06
1	Cr 267.716†	-50.8	-50.6	[0.00]	µg/L	16:26:45
1	Cu 324.752†	2545.0	2532.4	[0.00]	µg/L	16:26:45
1	Mn 257.610†	-255.0	-253.7	[0.00]	µg/L	16:27:06
1	Mo 202.031†	-2.4	-2.3	[0.00]	µg/L	16:27:06
1	Ni 231.604†	320.7	319.1	[0.00]	µg/L	16:27:06
1	P 214.914†	15.8	15.8	[0.00]	µg/L	16:27:06
1	Pb 220.353†	88.6	88.2	[0.00]	µg/L	16:27:06
1	S 181.975 Axial†	19.1	19.1	[0.00]	µg/L	16:27:06
1	Sb 206.836†	17.4	17.3	[0.00]	µg/L	16:27:06
1	Se 196.026†	20.3	20.2	[0.00]	µg/L	16:27:06
1	SiO2†	1396.5	1389.6	[0.00]	µg/L	16:26:45
1	Si 251.611†	308.1	306.6	[0.00]	µg/L	16:27:06
1	Sn 189.927†	0.6	0.6	[0.00]	µg/L	16:27:06
1	Ti 334.940†	185.3	184.3	[0.00]	µg/L	16:26:45
1	Tl 190.801†	-23.5	-23.3	[0.00]	µg/L	16:27:06
1	U 409.014†	-92.6	-92.1	[0.00]	µg/L	16:26:45
1	V 292.402†	-67.1	-66.8	[0.00]	µg/L	16:26:45
1	Zn 213.857†	537.3	534.6	[0.00]	µg/L	16:27:06
2	Sc RADIAL	56755.6	56755.6	100	%	16:25:43
2	Al 396.153Radial†	-1.8	-1.8	[0.00]	µg/L	16:25:43
2	Ca 317.933Radial†	215.5	214.5	[0.00]	µg/L	16:26:04
2	Fe 238.204 Radial†	16.5	16.4	[0.00]	µg/L	16:26:04
2	K 766.490 Radial†	182.5	181.6	[0.00]	µg/L	16:25:43
2	Mg 279.077 IEC†	11.4	11.3	[0.00]	µg/L	16:26:04
2	Na 589.592 Radial†	457.5	455.4	[0.00]	µg/L	16:25:43
2	Sr 421.552†	48.2	48.0	[0.00]	µg/L	16:25:43
2	Sc 361.383	1966863.7	1966863.7	100.19	%	16:27:12
2	Y 371.029	1355430.0	1355430.0	100.20	%	16:27:12
2	Ag 328.068†	-456.1	-455.2	[0.00]	µg/L	16:27:17
2	As 188.979†	1.0	0.9	[0.00]	µg/L	16:27:38
2	B 249.677†	393.1	392.3	[0.00]	µg/L	16:27:38
2	Ba 233.527†	-22.9	-22.8	[0.00]	µg/L	16:27:38
2	Be 313.107†	-2829.8	-2824.4	[0.00]	µg/L	16:27:17
2	Cd 226.502†	-143.7	-143.4	[0.00]	µg/L	16:27:38
2	Co 228.616†	5.2	5.2	[0.00]	µg/L	16:27:38
2	Cr 267.716†	-56.7	-56.6	[0.00]	µg/L	16:27:17
2	Cu 324.752†	2525.9	2521.0	[0.00]	µg/L	16:27:17
2	Mn 257.610†	-246.3	-245.8	[0.00]	µg/L	16:27:38
2	Mo 202.031†	-7.2	-7.2	[0.00]	µg/L	16:27:38
2	Ni 231.604†	311.9	311.3	[0.00]	µg/L	16:27:38
2	P 214.914†	14.8	14.8	[0.00]	µg/L	16:27:38
2	Pb 220.353†	93.7	93.5	[0.00]	µg/L	16:27:38
2	S 181.975 Axial†	14.7	14.7	[0.00]	µg/L	16:27:38
2	Sb 206.836†	27.4	27.4	[0.00]	µg/L	16:27:38
2	Se 196.026†	17.0	16.9	[0.00]	µg/L	16:27:38
2	SiO2†	1365.2	1362.6	[0.00]	µg/L	16:27:17
2	Si 251.611†	311.7	311.1	[0.00]	µg/L	16:27:38
2	Sn 189.927†	0.1	0.1	[0.00]	µg/L	16:27:38
2	Ti 334.940†	147.4	147.1	[0.00]	µg/L	16:27:17
2	Tl 190.801†	-23.8	-23.8	[0.00]	µg/L	16:27:38
2	U 409.014†	-39.1	-39.0	[0.00]	µg/L	16:27:17
2	V 292.402†	-66.7	-66.6	[0.00]	µg/L	16:27:17
2	Zn 213.857†	535.6	534.6	[0.00]	µg/L	16:27:38
3	Sc RADIAL	56352.2	56352.2	99.7	%	16:26:09
3	Al 396.153Radial†	7.7	7.7	[0.00]	µg/L	16:26:09
3	Ca 317.933Radial†	203.6	204.1	[0.00]	µg/L	16:26:29
3	Fe 238.204 Radial†	14.9	14.9	[0.00]	µg/L	16:26:29
3	K 766.490 Radial†	142.5	142.8	[0.00]	µg/L	16:26:09

3	Mg 279.077 IEC†	14.6	14.7	[0.00]	µg/L	16:26:29
3	Na 589.592 Radial†	487.6	488.9	[0.00]	µg/L	16:26:09
3	Sr 421.552†	26.3	26.4	[0.00]	µg/L	16:26:09
3	Sc 361.383	1949627.5	1949627.5	99.313	%	16:27:44
3	Y 371.029	1344291.5	1344291.5	99.374	%	16:27:44
3	Ag 328.068†	-371.1	-373.6	[0.00]	µg/L	16:27:50
3	As 188.979†	-4.3	-4.4	[0.00]	µg/L	16:28:10
3	B 249.677†	380.0	382.6	[0.00]	µg/L	16:28:10
3	Ba 233.527†	-15.0	-15.1	[0.00]	µg/L	16:28:10
3	Be 313.107†	-2823.0	-2842.5	[0.00]	µg/L	16:27:50
3	Cd 226.502†	-141.0	-142.0	[0.00]	µg/L	16:28:10
3	Co 228.616†	5.0	5.1	[0.00]	µg/L	16:28:10
3	Cr 267.716†	-43.6	-43.9	[0.00]	µg/L	16:27:50
3	Cu 324.752†	2560.1	2577.8	[0.00]	µg/L	16:27:50
3	Mn 257.610†	-266.7	-268.5	[0.00]	µg/L	16:28:10
3	Mo 202.031†	-6.5	-6.5	[0.00]	µg/L	16:28:10
3	Ni 231.604†	304.5	306.6	[0.00]	µg/L	16:28:10
3	P 214.914†	15.4	15.5	[0.00]	µg/L	16:28:10
3	Pb 220.353†	90.5	91.1	[0.00]	µg/L	16:28:10
3	S 181.975 Axial†	22.9	23.0	[0.00]	µg/L	16:28:10
3	Sb 206.836†	22.7	22.8	[0.00]	µg/L	16:28:10
3	Se 196.026†	20.7	20.8	[0.00]	µg/L	16:28:10
3	SiO2†	1412.7	1422.5	[0.00]	µg/L	16:27:50
3	Si 251.611†	312.1	314.3	[0.00]	µg/L	16:28:10
3	Sn 189.927†	0.4	0.4	[0.00]	µg/L	16:28:10
3	Ti 334.940†	192.3	193.6	[0.00]	µg/L	16:27:50
3	Tl 190.801†	-19.9	-20.0	[0.00]	µg/L	16:28:10
3	U 409.014†	-99.5	-100.1	[0.00]	µg/L	16:27:50
3	V 292.402†	-0.9	-0.9	[0.00]	µg/L	16:27:50
3	Zn 213.857†	530.3	534.0	[0.00]	µg/L	16:28:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1963119.8	12064.22	0.61%	100.00	%
Sc RADIAL	56495.6	225.58	0.40%	100	%
Y 371.029	1352755.8	7494.01	0.55%	100.00	%
Ag 328.068†	-401.6	46.42	11.56%	[0.00]	µg/L
Al 396.153Radial†	7.4	9.00	122.22%	[0.00]	µg/L
As 188.979†	-0.5	3.42	746.44%	[0.00]	µg/L
B 249.677†	384.1	7.56	1.97%	[0.00]	µg/L
Ba 233.527†	-17.1	5.08	29.78%	[0.00]	µg/L
Be 313.107†	-2855.7	39.56	1.39%	[0.00]	µg/L
Ca 317.933Radial†	211.3	6.18	2.93%	[0.00]	µg/L
Cd 226.502†	-141.7	1.91	1.35%	[0.00]	µg/L
Co 228.616†	1.9	5.56	287.58%	[0.00]	µg/L
Cr 267.716†	-50.4	6.37	12.65%	[0.00]	µg/L
Cu 324.752†	2543.7	30.02	1.18%	[0.00]	µg/L
Fe 238.204 Radial†	16.6	1.77	10.70%	[0.00]	µg/L
K 766.490 Radial†	165.0	19.97	12.10%	[0.00]	µg/L
Mg 279.077 IEC†	12.8	1.69	13.22%	[0.00]	µg/L
Mn 257.610†	-256.0	11.55	4.51%	[0.00]	µg/L
Mo 202.031†	-5.3	2.62	48.99%	[0.00]	µg/L
Na 589.592 Radial†	472.2	16.73	3.54%	[0.00]	µg/L
Ni 231.604†	312.3	6.29	2.01%	[0.00]	µg/L
P 214.914†	15.3	0.52	3.38%	[0.00]	µg/L
Pb 220.353†	90.9	2.66	2.92%	[0.00]	µg/L
S 181.975 Axial†	18.9	4.16	21.98%	[0.00]	µg/L
Sb 206.836†	22.5	5.03	22.34%	[0.00]	µg/L
Se 196.026†	19.3	2.09	10.80%	[0.00]	µg/L
SiO2†	1391.6	29.99	2.16%	[0.00]	µg/L
Si 251.611†	310.6	3.86	1.24%	[0.00]	µg/L
Sn 189.927†	0.4	0.26	71.28%	[0.00]	µg/L
Sr 421.552†	28.8	18.10	62.83%	[0.00]	µg/L
Ti 334.940†	175.0	24.62	14.06%	[0.00]	µg/L
Tl 190.801†	-22.4	2.06	9.20%	[0.00]	µg/L
U 409.014†	-77.1	33.23	43.11%	[0.00]	µg/L
V 292.402†	-44.8	37.98	84.87%	[0.00]	µg/L
Zn 213.857†	534.4	0.37	0.07%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/19/2010 16:28:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56547.7	56547.7	100	%	16:28:54
1	K 766.490 Radial†	1729.4	1562.9	[1000]	µg/L	16:28:54
1	Sr 421.552†	10915.2	10876.4	[100]	µg/L	16:28:54
1	Sc 361.383	1958657.5	1958657.5	99.773	%	16:29:16
1	Y 371.029	1350548.9	1350548.9	99.837	%	16:29:16
1	Ag 328.068†	13553.9	13986.4	[100]	µg/L	16:29:22
1	As 188.979†	59.6	60.2	[100]	µg/L	16:29:42
1	B 249.677†	2836.9	2459.2	[100]	µg/L	16:29:22
1	Ba 233.527†	4355.0	4382.0	[100]	µg/L	16:29:22
1	Be 313.107†	171130.8	174376.3	[100]	µg/L	16:29:16
1	Cd 226.502†	4124.2	4275.2	[100]	µg/L	16:29:22
1	Co 228.616†	2298.0	2301.3	[100]	µg/L	16:29:42
1	Cr 267.716†	5258.9	5321.2	[100]	µg/L	16:29:22
1	Cu 324.752†	18781.5	16280.6	[100]	µg/L	16:29:22
1	Mn 257.610†	33738.0	34070.9	[100]	µg/L	16:29:22
1	Mo 202.031†	1103.1	1111.0	[100]	µg/L	16:29:42
1	Ni 231.604†	2464.7	2158.0	[100]	µg/L	16:29:22
1	P 214.914†	279.5	264.8	[500]	µg/L	16:29:42
1	Pb 220.353†	532.5	442.7	[100]	µg/L	16:29:42
1	S 181.975 Axial†	65.4	46.6	[200]	µg/L	16:29:42
1	Sb 206.836†	134.3	112.1	[100]	µg/L	16:29:42
1	Se 196.026†	91.1	72.0	[100]	µg/L	16:29:42
1	SiO2†	6958.0	5582.3	[1069.5]	µg/L	16:29:22
1	Si 251.611†	7026.5	6731.9	[500]	µg/L	16:29:22
1	Sn 189.927†	255.8	256.0	[100]	µg/L	16:29:42
1	Ti 334.940†	46558.0	46489.0	[100]	µg/L	16:29:22
1	Tl 190.801†	54.5	77.1	[100]	µg/L	16:29:42
1	U 409.014†	1252.7	1332.6	[100]	µg/L	16:29:22
1	V 292.402†	10759.4	10828.7	[100]	µg/L	16:29:22
1	Zn 213.857†	5084.1	4561.2	[100]	µg/L	16:29:22
2	Sc RADIAL	56202.9	56202.9	99.5	%	16:29:00
2	K 766.490 Radial†	1727.4	1571.4	[1000]	µg/L	16:29:00
2	Sr 421.552†	10846.6	10874.3	[100]	µg/L	16:29:00
2	Sc 361.383	1969774.0	1969774.0	100.34	%	16:29:48
2	Y 371.029	1358589.1	1358589.1	100.43	%	16:29:48
2	Ag 328.068†	13626.3	13981.9	[100]	µg/L	16:29:54
2	As 188.979†	59.0	59.2	[100]	µg/L	16:30:15
2	B 249.677†	2870.2	2476.3	[100]	µg/L	16:29:54
2	Ba 233.527†	4352.8	4355.2	[100]	µg/L	16:29:54
2	Be 313.107†	172207.8	174481.8	[100]	µg/L	16:29:48
2	Cd 226.502†	4144.1	4271.8	[100]	µg/L	16:29:54
2	Co 228.616†	2299.6	2289.9	[100]	µg/L	16:30:15
2	Cr 267.716†	5267.7	5300.2	[100]	µg/L	16:29:54
2	Cu 324.752†	18798.4	16191.1	[100]	µg/L	16:29:54
2	Mn 257.610†	33750.8	33892.8	[100]	µg/L	16:29:54
2	Mo 202.031†	1093.5	1095.1	[100]	µg/L	16:30:15
2	Ni 231.604†	2441.8	2121.3	[100]	µg/L	16:29:54
2	P 214.914†	278.5	262.2	[500]	µg/L	16:30:15
2	Pb 220.353†	534.1	441.4	[100]	µg/L	16:30:15
2	S 181.975 Axial†	68.1	49.0	[200]	µg/L	16:30:15
2	Sb 206.836†	141.3	118.3	[100]	µg/L	16:30:15
2	Se 196.026†	84.6	65.0	[100]	µg/L	16:30:15
2	SiO2†	6950.3	5535.3	[1069.5]	µg/L	16:29:54
2	Si 251.611†	7046.5	6712.0	[500]	µg/L	16:29:54
2	Sn 189.927†	257.8	256.5	[100]	µg/L	16:30:15
2	Ti 334.940†	46408.5	46076.6	[100]	µg/L	16:29:54
2	Tl 190.801†	53.9	76.1	[100]	µg/L	16:30:15
2	U 409.014†	1326.1	1398.7	[100]	µg/L	16:29:54
2	V 292.402†	10708.8	10717.4	[100]	µg/L	16:29:54

2	Zn 213.857†	5067.8	4516.3	[100]	µg/L	16:29:54
3	Sc RADIAL	55976.7	55976.7	99.1	%	16:29:05
3	K 766.490 Radial†	1714.6	1565.5	[1000]	µg/L	16:29:05
3	Sr 421.552†	10778.8	10849.9	[100]	µg/L	16:29:05
3	Sc 361.383	1959694.8	1959694.8	99.826	%	16:30:21
3	Y 371.029	1350466.2	1350466.2	99.831	%	16:30:21
3	Ag 328.068†	13514.1	13939.3	[100]	µg/L	16:30:27
3	As 188.979†	60.6	61.1	[100]	µg/L	16:30:47
3	B 249.677†	2823.5	2444.3	[100]	µg/L	16:30:27
3	Ba 233.527†	4346.0	4370.6	[100]	µg/L	16:30:27
3	Be 313.107†	170786.2	173940.4	[100]	µg/L	16:30:21
3	Cd 226.502†	4105.4	4254.3	[100]	µg/L	16:30:27
3	Co 228.616†	2321.1	2323.2	[100]	µg/L	16:30:47
3	Cr 267.716†	5182.0	5241.4	[100]	µg/L	16:30:27
3	Cu 324.752†	18775.8	16264.9	[100]	µg/L	16:30:27
3	Mn 257.610†	33438.9	33753.4	[100]	µg/L	16:30:27
3	Mo 202.031†	1103.0	1110.3	[100]	µg/L	16:30:47
3	Ni 231.604†	2473.4	2165.4	[100]	µg/L	16:30:27
3	P 214.914†	282.4	267.5	[500]	µg/L	16:30:47
3	Pb 220.353†	529.2	439.2	[100]	µg/L	16:30:47
3	S 181.975 Axial†	72.1	53.3	[200]	µg/L	16:30:47
3	Sb 206.836†	136.5	114.2	[100]	µg/L	16:30:47
3	Se 196.026†	86.4	67.3	[100]	µg/L	16:30:47
3	SiO2†	6918.8	5539.3	[1069.5]	µg/L	16:30:27
3	Si 251.611†	6976.1	6677.7	[500]	µg/L	16:30:27
3	Sn 189.927†	259.9	260.0	[100]	µg/L	16:30:47
3	Ti 334.940†	46135.2	46040.8	[100]	µg/L	16:30:27
3	Tl 190.801†	63.1	85.5	[100]	µg/L	16:30:47
3	U 409.014†	1279.4	1358.7	[100]	µg/L	16:30:27
3	V 292.402†	10662.6	10726.0	[100]	µg/L	16:30:27
3	Zn 213.857†	5060.1	4534.5	[100]	µg/L	16:30:27

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1962708.8	6140.62	0.31%	99.979	%
Sc RADIAL	56242.4	287.56	0.51%	99.6	%
Y 371.029	1353201.4	4666.07	0.34%	100.03	%
Ag 328.068†	13969.2	25.98	0.19%	[100]	µg/L
As 188.979†	60.2	0.95	1.58%	[100]	µg/L
B 249.677†	2459.9	16.02	0.65%	[100]	µg/L
Ba 233.527†	4369.3	13.48	0.31%	[100]	µg/L
Be 313.107†	174266.2	287.04	0.16%	[100]	µg/L
Cd 226.502†	4267.1	11.24	0.26%	[100]	µg/L
Co 228.616†	2304.8	16.95	0.74%	[100]	µg/L
Cr 267.716†	5287.6	41.38	0.78%	[100]	µg/L
Cu 324.752†	16245.5	47.76	0.29%	[100]	µg/L
K 766.490 Radial†	1566.6	4.37	0.28%	[1000]	µg/L
Mn 257.610†	33905.7	159.14	0.47%	[100]	µg/L
Mo 202.031†	1105.5	8.97	0.81%	[100]	µg/L
Ni 231.604†	2148.2	23.63	1.10%	[100]	µg/L
P 214.914†	264.9	2.64	1.00%	[500]	µg/L
Pb 220.353†	441.1	1.78	0.40%	[100]	µg/L
S 181.975 Axial†	49.6	3.39	6.83%	[200]	µg/L
Sb 206.836†	114.9	3.15	2.74%	[100]	µg/L
Se 196.026†	68.1	3.58	5.25%	[100]	µg/L
SiO2†	5552.3	26.07	0.47%	[1069.5]	µg/L
Si 251.611†	6707.2	27.43	0.41%	[500]	µg/L
Sn 189.927†	257.5	2.17	0.84%	[100]	µg/L
Sr 421.552†	10866.8	14.72	0.14%	[100]	µg/L
Ti 334.940†	46202.1	249.08	0.54%	[100]	µg/L
Tl 190.801†	79.6	5.19	6.52%	[100]	µg/L
U 409.014†	1363.3	33.25	2.44%	[100]	µg/L
V 292.402†	10757.4	61.94	0.58%	[100]	µg/L
Zn 213.857†	4537.3	22.62	0.50%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/19/2010 16:30:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56525.4	56525.4	100	%	16:31:29
1	Al 396.153Radial†	7453.5	7442.2	[5000]	µg/L	16:31:29
1	Ca 317.933Radial†	6221.9	6007.4	[5000]	µg/L	16:31:49
1	K 766.490 Radial†	7933.1	7763.9	[5000]	µg/L	16:31:29
1	Mg 279.077 IEC†	599.2	586.0	[5000]	µg/L	16:31:49
1	Sr 421.552†	54754.2	54696.6	[500]	µg/L	16:31:29
1	Sc 361.383	1991566.8	1991566.8	101.45	%	16:32:53
1	Y 371.029	1367918.2	1367918.2	101.12	%	16:32:53
1	Ag 328.068†	68503.2	67926.3	[500]	µg/L	16:32:58
1	As 188.979†	299.0	295.2	[500]	µg/L	16:33:19
1	B 249.677†	12863.6	12295.7	[500]	µg/L	16:32:58
1	Ba 233.527†	21495.8	21205.8	[500]	µg/L	16:32:58
1	Be 313.107†	866518.5	856997.1	[500]	µg/L	16:32:53
1	Cd 226.502†	20677.7	20524.0	[500]	µg/L	16:32:58
1	Co 228.616†	11538.9	11372.2	[500]	µg/L	16:32:58
1	Cr 267.716†	25928.5	25608.5	[500]	µg/L	16:32:58
1	Cu 324.752†	81773.4	78061.6	[500]	µg/L	16:32:58
1	Mn 257.610†	167098.7	164967.9	[500]	µg/L	16:32:53
1	Mo 202.031†	5532.6	5459.0	[500]	µg/L	16:33:19
1	Ni 231.604†	10768.1	10301.9	[500]	µg/L	16:32:58
1	P 214.914†	1359.0	1324.3	[2500]	µg/L	16:33:19
1	Pb 220.353†	2302.4	2178.6	[500]	µg/L	16:33:19
1	S 181.975 Axial†	272.4	249.5	[1000]	µg/L	16:33:19
1	Sb 206.836†	599.4	568.4	[500]	µg/L	16:33:19
1	Se 196.026†	396.8	371.8	[500]	µg/L	16:33:19
1	SiO2†	29409.8	27598.2	[5347.5]	µg/L	16:32:58
1	Si 251.611†	34329.7	33528.7	[2500]	µg/L	16:32:58
1	Sn 189.927†	1299.8	1280.9	[500]	µg/L	16:33:19
1	Ti 334.940†	233565.9	230054.7	[500]	µg/L	16:32:53
1	Tl 190.801†	385.4	402.3	[500]	µg/L	16:33:19
1	U 409.014†	6215.4	6203.7	[500]	µg/L	16:32:58
1	V 292.402†	53048.0	52335.0	[500]	µg/L	16:32:58
1	Zn 213.857†	22866.4	22005.3	[500]	µg/L	16:32:58
2	Sc RADIAL	57277.6	57277.6	101	%	16:31:55
2	Al 396.153Radial†	7395.5	7287.2	[5000]	µg/L	16:31:55
2	Ca 317.933Radial†	6211.2	5915.2	[5000]	µg/L	16:32:15
2	K 766.490 Radial†	7980.6	7706.7	[5000]	µg/L	16:31:55
2	Mg 279.077 IEC†	604.0	583.0	[5000]	µg/L	16:32:15
2	Sr 421.552†	54765.5	53989.0	[500]	µg/L	16:31:55
2	Sc 361.383	1976796.7	1976796.7	100.70	%	16:33:26
2	Y 371.029	1357513.2	1357513.2	100.35	%	16:33:26
2	Ag 328.068†	68789.6	68715.3	[500]	µg/L	16:33:31
2	As 188.979†	285.8	284.2	[500]	µg/L	16:33:52
2	B 249.677†	12976.0	12502.1	[500]	µg/L	16:33:31
2	Ba 233.527†	21626.4	21493.9	[500]	µg/L	16:33:31
2	Be 313.107†	874707.4	871511.2	[500]	µg/L	16:33:26
2	Cd 226.502†	20785.1	20783.0	[500]	µg/L	16:33:31
2	Co 228.616†	11579.6	11497.5	[500]	µg/L	16:33:31
2	Cr 267.716†	26128.8	25998.4	[500]	µg/L	16:33:31
2	Cu 324.752†	82210.9	79098.3	[500]	µg/L	16:33:31
2	Mn 257.610†	168624.9	167714.3	[500]	µg/L	16:33:26
2	Mo 202.031†	5307.9	5276.5	[500]	µg/L	16:33:52
2	Ni 231.604†	10841.5	10454.2	[500]	µg/L	16:33:31
2	P 214.914†	1330.2	1305.6	[2500]	µg/L	16:33:52
2	Pb 220.353†	2234.1	2127.7	[500]	µg/L	16:33:52
2	S 181.975 Axial†	262.6	241.9	[1000]	µg/L	16:33:52
2	Sb 206.836†	590.7	564.1	[500]	µg/L	16:33:52
2	Se 196.026†	389.5	367.5	[500]	µg/L	16:33:52
2	SiO2†	29539.9	27943.9	[5347.5]	µg/L	16:33:31

2	Si 251.611†	34501.4	33952.0	[2500]	µg/L	16:33:31
2	Sn 189.927†	1233.2	1224.3	[500]	µg/L	16:33:52
2	Ti 334.940†	235746.0	233939.9	[500]	µg/L	16:33:26
2	Tl 190.801†	379.0	398.8	[500]	µg/L	16:33:52
2	U 409.014†	6274.1	6307.8	[500]	µg/L	16:33:31
2	V 292.402†	53430.8	53105.9	[500]	µg/L	16:33:31
2	Zn 213.857†	22993.9	22300.4	[500]	µg/L	16:33:31
3	Sc RADIAL	57058.8	57058.8	101	%	16:32:20
3	Al 396.153Radial†	7492.8	7411.5	[5000]	µg/L	16:32:20
3	Ca 317.933Radial†	6205.9	5933.4	[5000]	µg/L	16:32:41
3	K 766.490 Radial†	8033.0	7788.8	[5000]	µg/L	16:32:20
3	Mg 279.077 IEC†	601.3	582.5	[5000]	µg/L	16:32:41
3	Sr 421.552†	55478.9	54902.6	[500]	µg/L	16:32:20
3	Sc 361.383	1973452.3	1973452.3	100.53	%	16:33:59
3	Y 371.029	1355765.1	1355765.1	100.22	%	16:33:59
3	Ag 328.068†	62917.4	62989.6	[500]	µg/L	16:34:05
3	As 188.979†	237.6	236.8	[500]	µg/L	16:34:25
3	B 249.677†	11812.4	11366.4	[500]	µg/L	16:34:05
3	Ba 233.527†	19002.6	18920.2	[500]	µg/L	16:34:05
3	Be 313.107†	778040.5	776822.6	[500]	µg/L	16:33:59
3	Cd 226.502†	18161.8	18208.4	[500]	µg/L	16:34:05
3	Co 228.616†	9999.7	9945.4	[500]	µg/L	16:34:05
3	Cr 267.716†	21799.1	21735.4	[500]	µg/L	16:34:05
3	Cu 324.752†	71681.4	68762.3	[500]	µg/L	16:34:05
3	Mn 257.610†	150744.1	150210.9	[500]	µg/L	16:33:59
3	Mo 202.031†	4242.5	4225.7	[500]	µg/L	16:34:25
3	Ni 231.604†	9432.3	9070.6	[500]	µg/L	16:34:05
3	P 214.914†	1083.7	1062.7	[2500]	µg/L	16:34:25
3	Pb 220.353†	1851.4	1750.7	[500]	µg/L	16:34:25
3	S 181.975 Axial†	228.1	208.0	[1000]	µg/L	16:34:25
3	Sb 206.836†	487.0	461.9	[500]	µg/L	16:34:25
3	Se 196.026†	331.3	310.2	[500]	µg/L	16:34:25
3	SiO2†	26534.1	25003.6	[5347.5]	µg/L	16:34:05
3	Si 251.611†	30910.4	30437.9	[2500]	µg/L	16:34:05
3	Sn 189.927†	970.3	964.9	[500]	µg/L	16:34:25
3	Ti 334.940†	207765.1	206502.3	[500]	µg/L	16:33:59
3	Tl 190.801†	318.1	338.8	[500]	µg/L	16:34:25
3	U 409.014†	5271.8	5321.3	[500]	µg/L	16:34:05
3	V 292.402†	45729.0	45534.4	[500]	µg/L	16:34:05
3	Zn 213.857†	20028.6	19389.3	[500]	µg/L	16:34:05

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1980605.3	9639.15	0.49%	100.89	%
Sc RADIAL	56953.9	386.91	0.68%	101	%
Y 371.029	1360398.8	6570.38	0.48%	100.57	%
Ag 328.068†	66543.7	3103.16	4.66%	[500]	µg/L
Al 396.153Radial†	7380.3	82.09	1.11%	[5000]	µg/L
As 188.979†	272.1	31.03	11.41%	[500]	µg/L
B 249.677†	12054.7	604.97	5.02%	[500]	µg/L
Ba 233.527†	20540.0	1410.14	6.87%	[500]	µg/L
Be 313.107†	835110.3	50997.60	6.11%	[500]	µg/L
Ca 317.933Radial†	5952.0	48.84	0.82%	[5000]	µg/L
Cd 226.502†	19838.5	1417.61	7.15%	[500]	µg/L
Co 228.616†	10938.4	862.20	7.88%	[500]	µg/L
Cr 267.716†	24447.5	2356.79	9.64%	[500]	µg/L
Cu 324.752†	75307.4	5691.88	7.56%	[500]	µg/L
K 766.490 Radial†	7753.1	42.12	0.54%	[5000]	µg/L
Mg 279.077 IEC†	583.8	1.92	0.33%	[5000]	µg/L
Mn 257.610†	160964.4	9413.47	5.85%	[500]	µg/L
Mo 202.031†	4987.0	665.66	13.35%	[500]	µg/L
Ni 231.604†	9942.2	758.69	7.63%	[500]	µg/L
P 214.914†	1230.9	145.94	11.86%	[2500]	µg/L
Pb 220.353†	2019.0	233.71	11.58%	[500]	µg/L
S 181.975 Axial†	233.1	22.09	9.48%	[1000]	µg/L
Sb 206.836†	531.5	60.25	11.34%	[500]	µg/L
Se 196.026†	349.9	34.37	9.82%	[500]	µg/L
SiO2†	26848.6	1607.13	5.99%	[5347.5]	µg/L
Si 251.611†	32639.5	1918.39	5.88%	[2500]	µg/L

Sn 189.927†	1156.7	168.51	14.57%	[500] µg/L
Sr 421.552†	54529.4	479.17	0.88%	[500] µg/L
Ti 334.940†	223499.0	14847.21	6.64%	[500] µg/L
Tl 190.801†	380.0	35.70	9.40%	[500] µg/L
U 409.014†	5944.2	542.02	9.12%	[500] µg/L
V 292.402†	50325.1	4166.77	8.28%	[500] µg/L
Zn 213.857†	21231.7	1602.33	7.55%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/19/2010 16:34:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57422.3	57422.3	102	%	16:35:07
1	Al 396.153Radial†	14869.0	14621.7	[10000]	µg/L	16:35:07
1	Ca 317.933Radial†	12244.2	11835.4	[10000]	µg/L	16:35:27
1	Fe 238.204 Radial†	1337.9	1299.7	[10000]	µg/L	16:35:27
1	K 766.490 Radial†	15761.0	15341.7	[10000]	µg/L	16:35:07
1	Mg 279.077 IEC†	1192.0	1159.9	[10000]	µg/L	16:35:27
1	Na 589.592 Radial†	34164.4	33140.9	[10000]	µg/L	16:35:07
1	Sr 421.552†	110392.2	108581.9	[1000]	µg/L	16:35:07
1	Sc 361.383	1976099.1	1976099.1	100.66	%	16:36:31
1	Y 371.029	1355904.7	1355904.7	100.23	%	16:36:31
1	Ag 328.068†	139743.4	139227.2	[1000]	µg/L	16:36:37
1	As 188.979†	605.1	601.6	[1000]	µg/L	16:36:57
1	B 249.677†	26002.4	25447.4	[1000]	µg/L	16:36:37
1	Ba 233.527†	43710.4	43440.4	[1000]	µg/L	16:36:37
1	Be 313.107†	1745428.1	1736819.7	[1000]	µg/L	16:36:31
1	Cd 226.502†	41933.9	41800.2	[1000]	µg/L	16:36:37
1	Co 228.616†	23253.7	23099.0	[1000]	µg/L	16:36:37
1	Cr 267.716†	53002.6	52704.8	[1000]	µg/L	16:36:37
1	Cu 324.752†	163999.7	160378.8	[1000]	µg/L	16:36:37
1	Mn 257.610†	334533.8	332592.5	[1000]	µg/L	16:36:37
1	Mo 202.031†	11127.7	11059.9	[1000]	µg/L	16:36:57
1	Ni 231.604†	21437.9	20984.7	[1000]	µg/L	16:36:37
1	P 214.914†	2747.0	2713.6	[5000]	µg/L	16:36:57
1	Pb 220.353†	4519.4	4398.7	[1000]	µg/L	16:36:57
1	S 181.975 Axial†	537.0	514.5	[2000]	µg/L	16:36:57
1	Sb 206.836†	1201.1	1170.7	[1000]	µg/L	16:36:57
1	Se 196.026†	778.4	754.0	[1000]	µg/L	16:36:57
1	SiO2†	57839.1	56067.6	[10695]	µg/L	16:36:37
1	Si 251.611†	68811.8	68049.2	[5000]	µg/L	16:36:37
1	Sn 189.927†	2603.2	2585.7	[1000]	µg/L	16:36:57
1	Ti 334.940†	470528.6	467263.1	[1000]	µg/L	16:36:31
1	Tl 190.801†	793.2	810.4	[1000]	µg/L	16:36:57
1	U 409.014†	12617.6	12611.8	[1000]	µg/L	16:36:37
1	V 292.402†	108523.0	107854.9	[1000]	µg/L	16:36:37
1	Zn 213.857†	45321.2	44489.2	[1000]	µg/L	16:36:37
2	Sc RADIAL	58102.6	58102.6	103	%	16:35:33
2	Al 396.153Radial†	14960.9	14539.8	[10000]	µg/L	16:35:33
2	Ca 317.933Radial†	12189.3	11640.9	[10000]	µg/L	16:35:53
2	Fe 238.204 Radial†	1332.7	1279.3	[10000]	µg/L	16:35:53
2	K 766.490 Radial†	15805.1	15203.0	[10000]	µg/L	16:35:33
2	Mg 279.077 IEC†	1183.6	1138.1	[10000]	µg/L	16:35:53
2	Na 589.592 Radial†	34301.4	32880.5	[10000]	µg/L	16:35:33
2	Sr 421.552†	111111.1	108009.2	[1000]	µg/L	16:35:33
2	Sc 361.383	1983646.2	1983646.2	101.05	%	16:37:04
2	Y 371.029	1360206.5	1360206.5	100.55	%	16:37:04
2	Ag 328.068†	139094.6	138056.9	[1000]	µg/L	16:37:10
2	As 188.979†	587.5	581.9	[1000]	µg/L	16:37:30
2	B 249.677†	25898.4	25246.3	[1000]	µg/L	16:37:10
2	Ba 233.527†	43616.3	43182.0	[1000]	µg/L	16:37:10
2	Be 313.107†	1746219.5	1731005.6	[1000]	µg/L	16:37:04
2	Cd 226.502†	41774.2	41483.6	[1000]	µg/L	16:37:10
2	Co 228.616†	23185.1	22943.2	[1000]	µg/L	16:37:10
2	Cr 267.716†	52660.4	52165.9	[1000]	µg/L	16:37:10
2	Cu 324.752†	163246.9	159013.9	[1000]	µg/L	16:37:10
2	Mn 257.610†	333323.0	330129.8	[1000]	µg/L	16:37:10
2	Mo 202.031†	10856.0	10749.0	[1000]	µg/L	16:37:30
2	Ni 231.604†	21396.9	20863.1	[1000]	µg/L	16:37:10
2	P 214.914†	2695.8	2652.5	[5000]	µg/L	16:37:30
2	Pb 220.353†	4439.8	4303.0	[1000]	µg/L	16:37:30

2	S 181.975 Axial†	528.4	504.0	[2000]	µg/L	16:37:30
2	Sb 206.836†	1179.2	1144.5	[1000]	µg/L	16:37:30
2	Se 196.026†	773.9	746.5	[1000]	µg/L	16:37:30
2	SiO2†	57827.3	55837.4	[10695]	µg/L	16:37:10
2	Si 251.611†	68760.8	67738.7	[5000]	µg/L	16:37:10
2	Sn 189.927†	2530.7	2504.2	[1000]	µg/L	16:37:30
2	Ti 334.940†	470622.3	465577.3	[1000]	µg/L	16:37:04
2	Tl 190.801†	781.8	796.1	[1000]	µg/L	16:37:30
2	U 409.014†	12629.7	12576.1	[1000]	µg/L	16:37:10
2	V 292.402†	108044.3	106971.0	[1000]	µg/L	16:37:10
2	Zn 213.857†	45147.6	44146.0	[1000]	µg/L	16:37:10
3	Sc RADIAL	57759.7	57759.7	102	%	16:35:59
3	Al 396.153Radial†	14873.5	14540.6	[10000]	µg/L	16:35:59
3	Ca 317.933Radial†	12176.6	11698.9	[10000]	µg/L	16:36:19
3	Fe 238.204 Radial†	1332.4	1286.7	[10000]	µg/L	16:36:19
3	K 766.490 Radial†	15741.4	15231.9	[10000]	µg/L	16:35:59
3	Mg 279.077 IEC†	1190.1	1151.2	[10000]	µg/L	16:36:19
3	Na 589.592 Radial†	34189.4	32969.0	[10000]	µg/L	16:35:59
3	Sr 421.552†	110552.5	108104.4	[1000]	µg/L	16:35:59
3	Sc 361.383	1985078.6	1985078.6	101.12	%	16:37:37
3	Y 371.029	1363323.6	1363323.6	100.78	%	16:37:37
3	Ag 328.068†	130033.0	128996.2	[1000]	µg/L	16:37:43
3	As 188.979†	504.5	499.3	[1000]	µg/L	16:38:03
3	B 249.677†	23878.6	23230.3	[1000]	µg/L	16:37:43
3	Ba 233.527†	39125.7	38709.9	[1000]	µg/L	16:37:43
3	Be 313.107†	1611138.8	1596172.2	[1000]	µg/L	16:37:37
3	Cd 226.502†	37509.7	37236.5	[1000]	µg/L	16:37:43
3	Co 228.616†	20554.3	20325.0	[1000]	µg/L	16:37:43
3	Cr 267.716†	45522.8	45069.6	[1000]	µg/L	16:37:43
3	Cu 324.752†	146020.7	141861.7	[1000]	µg/L	16:37:43
3	Mn 257.610†	295756.2	292740.6	[1000]	µg/L	16:37:43
3	Mo 202.031†	9074.4	8979.3	[1000]	µg/L	16:38:03
3	Ni 231.604†	18944.4	18422.5	[1000]	µg/L	16:37:43
3	P 214.914†	2295.1	2254.3	[5000]	µg/L	16:38:03
3	Pb 220.353†	3820.6	3687.4	[1000]	µg/L	16:38:03
3	S 181.975 Axial†	464.0	439.9	[2000]	µg/L	16:38:03
3	Sb 206.836†	1004.3	970.7	[1000]	µg/L	16:38:03
3	Se 196.026†	672.5	645.8	[1000]	µg/L	16:38:03
3	SiO2†	52945.1	50967.8	[10695]	µg/L	16:37:43
3	Si 251.611†	62859.1	61853.1	[5000]	µg/L	16:37:43
3	Sn 189.927†	2084.7	2061.2	[1000]	µg/L	16:38:03
3	Ti 334.940†	431690.8	426740.5	[1000]	µg/L	16:37:37
3	Tl 190.801†	695.2	709.9	[1000]	µg/L	16:38:03
3	U 409.014†	11027.6	10982.7	[1000]	µg/L	16:37:43
3	V 292.402†	95350.9	94340.9	[1000]	µg/L	16:37:43
3	Zn 213.857†	40251.0	39271.3	[1000]	µg/L	16:37:43

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1981608.0	4824.30	0.24%	100.94	%
Sc RADIAL	57761.5	340.17	0.59%	102	%
Y 371.029	1359811.6	3725.20	0.27%	100.52	%
Ag 328.068†	135426.8	5599.70	4.13%	[1000]	µg/L
Al 396.153Radial†	14567.3	47.07	0.32%	[10000]	µg/L
As 188.979†	560.9	54.25	9.67%	[1000]	µg/L
B 249.677†	24641.4	1226.12	4.98%	[1000]	µg/L
Ba 233.527†	41777.5	2659.67	6.37%	[1000]	µg/L
Be 313.107†	1687999.2	79577.59	4.71%	[1000]	µg/L
Ca 317.933Radial†	11725.1	99.83	0.85%	[10000]	µg/L
Cd 226.502†	40173.4	2548.40	6.34%	[1000]	µg/L
Co 228.616†	22122.4	1558.58	7.05%	[1000]	µg/L
Cr 267.716†	49980.1	4261.16	8.53%	[1000]	µg/L
Cu 324.752†	153751.5	10319.43	6.71%	[1000]	µg/L
Fe 238.204 Radial†	1288.5	10.35	0.80%	[10000]	µg/L
K 766.490 Radial†	15258.9	73.17	0.48%	[10000]	µg/L
Mg 279.077 IEC†	1149.7	11.01	0.96%	[10000]	µg/L
Mn 257.610†	318487.6	22331.56	7.01%	[1000]	µg/L
Mo 202.031†	10262.8	1122.29	10.94%	[1000]	µg/L
Na 589.592 Radial†	32996.8	132.37	0.40%	[10000]	µg/L

Ni 231.604†	20090.1	1445.49	7.20%	[1000]	µg/L
P 214.914†	2540.1	249.38	9.82%	[5000]	µg/L
Pb 220.353†	4129.7	386.03	9.35%	[1000]	µg/L
S 181.975 Axial†	486.1	40.36	8.30%	[2000]	µg/L
Sb 206.836†	1095.3	108.69	9.92%	[1000]	µg/L
Se 196.026†	715.4	60.44	8.45%	[1000]	µg/L
SiO2†	54290.9	2880.22	5.31%	[10695]	µg/L
Si 251.611†	65880.3	3491.15	5.30%	[5000]	µg/L
Sn 189.927†	2383.7	282.23	11.84%	[1000]	µg/L
Sr 421.552†	108231.8	306.90	0.28%	[1000]	µg/L
Ti 334.940†	453193.6	22924.60	5.06%	[1000]	µg/L
Tl 190.801†	772.1	54.39	7.04%	[1000]	µg/L
U 409.014†	12056.9	930.42	7.72%	[1000]	µg/L
V 292.402†	103055.6	7560.10	7.34%	[1000]	µg/L
Zn 213.857†	42635.5	2918.50	6.85%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/19/2010 16:38:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57539.5	57539.5	102	%	16:38:46
1	Al 396.153Radial†	72990.6	71659.1	[50000]	µg/L	16:38:46
1	Ca 317.933Radial†	59650.4	58357.0	[50000]	µg/L	16:38:46
1	Fe 238.204 Radial†	2601.5	2537.7	[20000]	µg/L	16:39:06
1	Mg 279.077 IEC†	5707.4	5591.1	[50000]	µg/L	16:39:06
1	Na 589.592 Radial†	66487.5	64809.1	[20000]	µg/L	16:38:46
1	Sc 361.383	1991346.9	1991346.9	101.44	%	16:40:10
1	Y 371.029	1361642.8	1361642.8	100.66	%	16:40:10
2	Sc RADIAL	57692.4	57692.4	102	%	16:39:12
2	Al 396.153Radial†	73669.2	72133.7	[50000]	µg/L	16:39:12
2	Ca 317.933Radial†	60236.2	58775.4	[50000]	µg/L	16:39:12
2	Fe 238.204 Radial†	2575.9	2505.9	[20000]	µg/L	16:39:32
2	Mg 279.077 IEC†	5682.3	5551.6	[50000]	µg/L	16:39:32
2	Na 589.592 Radial†	66913.0	65052.7	[20000]	µg/L	16:39:12
2	Sc 361.383	1994513.8	1994513.8	101.60	%	16:40:18
2	Y 371.029	1362831.0	1362831.0	100.74	%	16:40:18
3	Sc RADIAL	57518.8	57518.8	102	%	16:39:38
3	Al 396.153Radial†	72963.9	71658.6	[50000]	µg/L	16:39:38
3	Ca 317.933Radial†	59707.9	58434.6	[50000]	µg/L	16:39:38
3	Fe 238.204 Radial†	2595.7	2533.0	[20000]	µg/L	16:39:58
3	Mg 279.077 IEC†	5726.3	5611.7	[50000]	µg/L	16:39:58
3	Na 589.592 Radial†	66483.6	64828.8	[20000]	µg/L	16:39:38
3	Sc 361.383	1986414.7	1986414.7	101.19	%	16:40:26
3	Y 371.029	1358035.0	1358035.0	100.39	%	16:40:26

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1990758.5	4081.49	0.21%	101.41	%
Sc RADIAL	57583.6	94.84	0.16%	102	%
Y 371.029	1360836.3	2497.65	0.18%	100.60	%
Al 396.153Radial†	71817.1	274.12	0.38%	[50000]	µg/L
Ca 317.933Radial†	58522.3	222.58	0.38%	[50000]	µg/L
Fe 238.204 Radial†	2525.5	17.19	0.68%	[20000]	µg/L
Mg 279.077 IEC†	5584.8	30.54	0.55%	[50000]	µg/L
Na 589.592 Radial†	64896.9	135.34	0.21%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	135.0	0.00000	0.999971	
Al 396.153Radial	3	Lin Thru 0	0.0	1.437	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	0.5579	0.00000	0.999904	
B 249.677	3	Lin Thru 0	0.0	24.54	0.00000	0.999963	
Ba 233.527	3	Lin Thru 0	0.0	41.65	0.00000	0.999968	
Be 313.107	3	Lin Thru 0	0.0	1685	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.171	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	40.09	0.00000	0.999971	
Co 228.616	3	Lin Thru 0	0.0	22.08	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	49.79	0.00000	0.999947	
Cu 324.752	3	Lin Thru 0	0.0	153.2	0.00000	0.999952	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1268	0.00000	0.999967	
K 766.490 Radial	3	Lin Thru 0	0.0	1.531	0.00000	0.999977	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1119	0.00000	0.999975	
Mn 257.610	3	Lin Thru 0	0.0	319.3	0.00000	0.999976	
Mo 202.031	3	Lin Thru 0	0.0	10.21	0.00000	0.999909	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.256	0.00000	0.999977	

Ni 231.604	3	Lin Thru 0	0.0	20.06	0.00000	0.999972
P 214.914	3	Lin Thru 0	0.0	0.5051	0.00000	0.999914
Pb 220.353	3	Lin Thru 0	0.0	4.114	0.00000	0.999940
S 181.975 Axial	3	Lin Thru 0	0.0	0.2411	0.00000	0.999862
Sb 206.836	3	Lin Thru 0	0.0	1.089	0.00000	0.999918
Se 196.026	3	Lin Thru 0	0.0	0.7120	0.00000	0.999954
SiO2	3	Lin Thru 0	0.0	5.066	0.00000	0.999988
Si 251.611	3	Lin Thru 0	0.0	13.15	0.00000	0.999992
Sn 189.927	3	Lin Thru 0	0.0	2.371	0.00000	0.999901
Sr 421.552	3	Lin Thru 0	0.0	108.4	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	452.0	0.00000	0.999983
Tl 190.801	3	Lin Thru 0	0.0	0.7699	0.00000	0.999976
U 409.014	3	Lin Thru 0	0.0	12.04	0.00000	0.999914
V 292.402	3	Lin Thru 0	0.0	102.6	0.00000	0.999947
Zn 213.857	3	Lin Thru 0	0.0	42.62	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/19/2010 16:40:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57359.3	57359.3	102	%			16:41:09
1	Al 396.153Radial†	7610.3	7488.4	5197.5	µg/L	5197.5	ppb	16:41:09
1	Ca 317.933Radial†	6222.8	5917.8	5054.9	µg/L	5054.9	ppb	16:41:29
1	Fe 238.204 Radial†	692.6	665.6	5260.8	µg/L	5260.8	ppb	16:41:29
1	K 766.490 Radial†	4130.5	3903.3	2549.3	µg/L	2549.3	ppb	16:41:09
1	Mg 279.077 IEC†	619.9	597.8	5347.7	µg/L	5347.7	ppb	16:41:29
1	Na 589.592 Radial†	9010.6	8402.7	2580.8	µg/L	2580.8	ppb	16:41:09
1	Sr 421.552†	58315.4	57408.5	529.60	µg/L	529.60	ppb	16:41:09
1	Sc 361.383	2000166.2	2000166.2	101.89	%			16:42:33
1	Y 371.029	1374985.6	1374985.6	101.64	%			16:42:33
1	Ag 328.068†	36064.6	35798.3	269.00	µg/L	269.00	ppb	16:42:38
1	As 188.979†	291.8	286.8	513.02	µg/L	513.02	ppb	16:42:59
1	B 249.677†	13712.5	13074.4	530.96	µg/L	530.96	ppb	16:42:38
1	Ba 233.527†	22228.0	21833.3	525.11	µg/L	525.11	ppb	16:42:38
1	Be 313.107†	460753.1	455074.9	269.89	µg/L	269.89	ppb	16:42:33
1	Cd 226.502†	21063.9	20815.4	519.08	µg/L	519.08	ppb	16:42:38
1	Co 228.616†	11897.3	11675.0	528.19	µg/L	528.19	ppb	16:42:38
1	Cr 267.716†	25972.0	25541.3	513.34	µg/L	513.34	ppb	16:42:38
1	Cu 324.752†	84959.1	80841.8	528.42	µg/L	528.42	ppb	16:42:38
1	Mn 257.610†	174009.6	171042.6	536.11	µg/L	536.11	ppb	16:42:33
1	Mo 202.031†	5977.0	5871.6	575.18	µg/L	575.18	ppb	16:42:59
1	Ni 231.604†	11001.5	10485.4	522.13	µg/L	522.13	ppb	16:42:38
1	P 214.914†	1396.3	1355.1	2632.9	µg/L	2632.9	ppb	16:42:59
1	Pb 220.353†	2319.9	2186.0	531.70	µg/L	531.70	ppb	16:42:59
1	S 181.975 Axial†	667.0	635.7	2636.3	µg/L	2636.3	ppb	16:42:59
1	Sb 206.836†	616.3	582.4	537.83	µg/L	537.83	ppb	16:42:59
1	Se 196.026†	1971.6	1915.8	2698.7	µg/L	2698.7	ppb	16:42:59
1	SiO2†	55895.4	53468.6	10554	µg/L	10554	ppb	16:42:38
1	Si 251.611†	66312.0	64773.2	4924.2	µg/L	4924.2	ppb	16:42:38
1	Sn 189.927†	1397.6	1371.4	578.38	µg/L	578.38	ppb	16:42:59
1	Ti 334.940†	236505.6	231950.1	512.78	µg/L	512.78	ppb	16:42:33
1	Tl 190.801†	406.2	421.1	553.15	µg/L	553.15	ppb	16:42:59
1	U 409.014†	6233.6	6195.2	513.68	µg/L	513.68	ppb	16:42:38
1	V 292.402†	55272.1	54293.1	535.87	µg/L	535.87	ppb	16:42:38
1	Zn 213.857†	23721.8	22748.1	529.99	µg/L	529.99	ppb	16:42:38
2	Sc RADIAL	57362.6	57362.6	102	%			16:41:35
2	Al 396.153Radial†	7570.2	7448.5	5170.1	µg/L	5170.1	ppb	16:41:35
2	Ca 317.933Radial†	6248.3	5942.6	5076.0	µg/L	5076.0	ppb	16:41:55
2	Fe 238.204 Radial†	687.3	660.3	5219.2	µg/L	5219.2	ppb	16:41:55
2	K 766.490 Radial†	4135.1	3907.6	2552.1	µg/L	2552.1	ppb	16:41:35
2	Mg 279.077 IEC†	628.6	606.2	5423.0	µg/L	5423.0	ppb	16:41:55
2	Na 589.592 Radial†	8905.8	8299.0	2549.0	µg/L	2549.0	ppb	16:41:35
2	Sr 421.552†	58283.1	57373.4	529.28	µg/L	529.28	ppb	16:41:35
2	Sc 361.383	1991588.3	1991588.3	101.45	%			16:43:06
2	Y 371.029	1369085.3	1369085.3	101.21	%			16:43:06
2	Ag 328.068†	36279.5	36162.5	271.74	µg/L	271.74	ppb	16:43:12
2	As 188.979†	284.2	280.6	501.89	µg/L	501.89	ppb	16:43:32
2	B 249.677†	13841.7	13259.7	538.55	µg/L	538.55	ppb	16:43:12
2	Ba 233.527†	22542.4	22237.3	534.82	µg/L	534.82	ppb	16:43:12
2	Be 313.107†	458487.5	454789.4	269.72	µg/L	269.72	ppb	16:43:06
2	Cd 226.502†	21330.8	21167.6	527.88	µg/L	527.88	ppb	16:43:12
2	Co 228.616†	12048.7	11874.5	537.21	µg/L	537.21	ppb	16:43:12
2	Cr 267.716†	26258.5	25933.5	521.22	µg/L	521.22	ppb	16:43:12
2	Cu 324.752†	85756.0	81986.4	535.89	µg/L	535.89	ppb	16:43:12
2	Mn 257.610†	173215.7	170995.8	535.95	µg/L	535.95	ppb	16:43:06
2	Mo 202.031†	5783.7	5706.4	559.00	µg/L	559.00	ppb	16:43:32
2	Ni 231.604†	11147.8	10676.1	531.63	µg/L	531.63	ppb	16:43:12
2	P 214.914†	1350.6	1315.9	2554.3	µg/L	2554.3	ppb	16:43:32
2	Pb 220.353†	2269.2	2145.8	521.87	µg/L	521.87	ppb	16:43:32

2	S 181.975 Axial†	662.1	633.7	2628.1 µg/L	2628.1 ppb	16:43:32
2	Sb 206.836†	597.3	566.3	522.67 µg/L	522.67 ppb	16:43:32
2	Se 196.026†	1939.9	1892.9	2666.3 µg/L	2666.3 ppb	16:43:32
2	SiO2†	56544.0	54344.2	10727 µg/L	10727 ppb	16:43:12
2	Si 251.611†	67028.2	65759.4	4999.2 µg/L	4999.2 ppb	16:43:12
2	Sn 189.927†	1346.2	1326.5	559.48 µg/L	559.48 ppb	16:43:32
2	Ti 334.940†	235243.5	231705.8	512.24 µg/L	512.24 ppb	16:43:06
2	Tl 190.801†	411.2	427.8	561.75 µg/L	561.75 ppb	16:43:32
2	U 409.014†	6266.1	6253.6	518.55 µg/L	518.55 ppb	16:43:12
2	V 292.402†	55774.5	55022.0	542.87 µg/L	542.87 ppb	16:43:12
2	Zn 213.857†	24005.0	23127.4	538.84 µg/L	538.84 ppb	16:43:12
3	Sc RADIAL	57314.4	57314.4	101 %		16:42:01
3	Al 396.153Radial†	7617.9	7501.8	5209.5 µg/L	5209.5 ppb	16:42:01
3	Ca 317.933Radial†	6192.6	5892.9	5033.6 µg/L	5033.6 ppb	16:42:21
3	Fe 238.204 Radial†	680.9	654.6	5172.6 µg/L	5172.6 ppb	16:42:21
3	K 766.490 Radial†	4172.6	3948.0	2578.5 µg/L	2578.5 ppb	16:42:01
3	Mg 279.077 IEC†	617.9	596.2	5331.5 µg/L	5331.5 ppb	16:42:21
3	Na 589.592 Radial†	9012.1	8411.2	2583.4 µg/L	2583.4 ppb	16:42:01
3	Sr 421.552†	58397.5	57534.4	530.76 µg/L	530.76 ppb	16:42:01
3	Sc 361.383	1985318.4	1985318.4	101.13 %		16:43:39
3	Y 371.029	1365549.9	1365549.9	100.95 %		16:43:39
3	Ag 328.068†	32686.9	32723.0	245.69 µg/L	245.69 ppb	16:43:45
3	As 188.979†	231.6	229.5	410.45 µg/L	410.45 ppb	16:44:05
3	B 249.677†	12281.0	11759.6	477.28 µg/L	477.28 ppb	16:43:45
3	Ba 233.527†	19297.0	19098.3	459.31 µg/L	459.31 ppb	16:43:45
3	Be 313.107†	404356.4	402690.8	238.83 µg/L	238.83 ppb	16:43:39
3	Cd 226.502†	18203.2	18141.4	452.33 µg/L	452.33 ppb	16:43:45
3	Co 228.616†	10166.3	10050.7	454.63 µg/L	454.63 ppb	16:43:45
3	Cr 267.716†	21411.9	21222.9	426.55 µg/L	426.55 ppb	16:43:45
3	Cu 324.752†	73007.3	69647.2	455.34 µg/L	455.34 ppb	16:43:45
3	Mn 257.610†	153334.3	151875.9	476.08 µg/L	476.08 ppb	16:43:39
3	Mo 202.031†	4566.2	4520.5	442.87 µg/L	442.87 ppb	16:44:05
3	Ni 231.604†	9424.8	9007.0	448.52 µg/L	448.52 ppb	16:43:45
3	P 214.914†	1102.1	1074.4	2083.0 µg/L	2083.0 ppb	16:44:05
3	Pb 220.353†	1863.1	1751.3	425.87 µg/L	425.87 ppb	16:44:05
3	S 181.975 Axial†	551.5	526.4	2182.8 µg/L	2182.8 ppb	16:44:05
3	Sb 206.836†	493.8	465.8	429.60 µg/L	429.60 ppb	16:44:05
3	Se 196.026†	1594.6	1557.5	2195.3 µg/L	2195.3 ppb	16:44:05
3	SiO2†	49563.2	47617.5	9399.1 µg/L	9399.1 ppb	16:43:45
3	Si 251.611†	58584.7	57619.0	4380.3 µg/L	4380.3 ppb	16:43:45
3	Sn 189.927†	1053.3	1041.2	439.13 µg/L	439.13 ppb	16:44:05
3	Ti 334.940†	205922.2	203444.7	449.72 µg/L	449.72 ppb	16:43:39
3	Tl 190.801†	337.8	356.4	468.42 µg/L	468.42 ppb	16:44:05
3	U 409.014†	5226.1	5244.7	434.73 µg/L	434.73 ppb	16:43:45
3	V 292.402†	46549.8	46074.1	454.46 µg/L	454.46 ppb	16:43:45
3	Zn 213.857†	20360.6	19598.5	456.55 µg/L	456.55 ppb	16:43:45

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992357.6	101.49	%	0.380				0.37%
Sc RADIAL	57345.5	102	%	0.0				0.05%
Y 371.029	1369873.6	101.27	%	0.352				0.35%
Ag 328.068†	34894.6	262.14	µg/L	14.318	262.14	ppb	14.318	5.46%
QC value within limits for Ag 328.068 Recovery = 104.86%								
Al 396.153Radial†	7479.5	5192.4	µg/L	20.22	5192.4	ppb	20.22	0.39%
QC value within limits for Al 396.153Radial Recovery = 103.85%								
As 188.979†	265.6	475.12	µg/L	56.284	475.12	ppb	56.284	11.85%
QC value within limits for As 188.979 Recovery = 95.02%								
B 249.677†	12697.9	515.59	µg/L	33.400	515.59	ppb	33.400	6.48%
QC value within limits for B 249.677 Recovery = 103.12%								
Ba 233.527†	21056.3	506.41	µg/L	41.083	506.41	ppb	41.083	8.11%
QC value within limits for Ba 233.527 Recovery = 101.28%								
Be 313.107†	437518.4	259.48	µg/L	17.887	259.48	ppb	17.887	6.89%
QC value within limits for Be 313.107 Recovery = 103.79%								
Ca 317.933Radial†	5917.8	5054.8	µg/L	21.22	5054.8	ppb	21.22	0.42%
QC value within limits for Ca 317.933Radial Recovery = 101.10%								
Cd 226.502†	20041.5	499.76	µg/L	41.316	499.76	ppb	41.316	8.27%
QC value within limits for Cd 226.502 Recovery = 99.95%								
Co 228.616†	11200.1	506.67	µg/L	45.295	506.67	ppb	45.295	8.94%

```
   QC value within limits for Co 228.616  Recovery = 101.33%
Cr 267.716†            24232.6      487.04 µg/L        52.530      487.04 ppb         52.530  10.79%
   QC value within limits for Cr 267.716  Recovery = 97.41%
Cu 324.752†            77491.8      506.55 µg/L        44.507      506.55 ppb         44.507   8.79%
   QC value within limits for Cu 324.752  Recovery = 101.31%
Fe 238.204 Radial†       660.2      5217.6 µg/L         44.12      5217.6 ppb          44.12   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.35%
K 766.490 Radial†       3919.6      2560.0 µg/L         16.09      2560.0 ppb          16.09   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          600.1      5367.4 µg/L         48.83      5367.4 ppb          48.83   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.35%
Mn 257.610†           164638.1      516.05 µg/L        34.615      516.05 ppb         34.615   6.71%
   QC value within limits for Mn 257.610  Recovery = 103.21%
Mo 202.031†             5366.2      525.68 µg/L        72.174      525.68 ppb         72.174  13.73%
   QC value within limits for Mo 202.031  Recovery = 105.14%
Na 589.592 Radial†      8371.0      2571.1 µg/L         19.18      2571.1 ppb          19.18   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 102.84%
Ni 231.604†            10056.2      500.76 µg/L        45.489      500.76 ppb         45.489   9.08%
   QC value within limits for Ni 231.604  Recovery = 100.15%
P 214.914†              1248.5      2423.4 µg/L        297.40      2423.4 ppb         297.40  12.27%
   QC value within limits for P 214.914  Recovery = 96.94%
Pb 220.353†             2027.7      493.15 µg/L        58.472      493.15 ppb         58.472  11.86%
   QC value within limits for Pb 220.353  Recovery = 98.63%
S 181.975 Axial†         598.6      2482.4 µg/L        259.45      2482.4 ppb         259.45  10.45%
   QC value within limits for S 181.975 Axial  Recovery = 99.30%
Sb 206.836†              538.2      496.70 µg/L        58.600      496.70 ppb         58.600  11.80%
   QC value within limits for Sb 206.836  Recovery = 99.34%
Se 196.026†             1788.7      2520.1 µg/L        281.74      2520.1 ppb         281.74  11.18%
   QC value within limits for Se 196.026  Recovery = 100.81%
SiO2†                  51810.1       10227 µg/L         721.9       10227 ppb          721.9   7.06%
   QC value within limits for SiO2  Recovery = 95.62%
Si 251.611†            62717.2      4767.9 µg/L        337.74      4767.9 ppb         337.74   7.08%
   QC value within limits for Si 251.611  Recovery = 95.36%
Sn 189.927†             1246.4      525.66 µg/L        75.534      525.66 ppb         75.534  14.37%
   QC value within limits for Sn 189.927  Recovery = 105.13%
Sr 421.552†            57438.8      529.88 µg/L         0.781      529.88 ppb          0.781   0.15%
   QC value within limits for Sr 421.552  Recovery = 105.98%
Ti 334.940†           222366.9      491.58 µg/L        36.251      491.58 ppb         36.251   7.37%
   QC value within limits for Ti 334.940  Recovery = 98.32%
Tl 190.801†              401.7      527.77 µg/L        51.582      527.77 ppb         51.582   9.77%
   QC value within limits for Tl 190.801  Recovery = 105.55%
U 409.014†              5897.8      488.99 µg/L        47.052      488.99 ppb         47.052   9.62%
   QC value within limits for U 409.014  Recovery = 97.80%
V 292.402†             51796.4      511.07 µg/L        49.146      511.07 ppb         49.146   9.62%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†            21824.7      508.46 µg/L        45.173      508.46 ppb         45.173   8.88%
   QC value within limits for Zn 213.857  Recovery = 101.69%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/19/2010 16:44:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56443.8	56443.8	99.9	%			16:44:48
1	Al 396.153Radial†	-10.1	-17.4	-12.137	µg/L	-12.137	ppb	16:44:48
1	Ca 317.933Radial†	199.6	-11.5	-9.8207	µg/L	-9.8207	ppb	16:45:08
1	Fe 238.204 Radial†	15.6	-0.9	-7.1871	µg/L	-7.1871	ppb	16:45:08
1	K 766.490 Radial†	171.4	6.6	4.2945	µg/L	4.2945	ppb	16:44:48
1	Mg 279.077 IEC†	7.6	-5.2	-46.321	µg/L	-46.321	ppb	16:45:08
1	Na 589.592 Radial†	489.1	17.3	5.3226	µg/L	5.3226	ppb	16:44:48
1	Sr 421.552†	79.0	50.3	0.4638	µg/L	0.4638	ppb	16:44:48
1	Sc 361.383	1989449.1	1989449.1	101.34	%			16:46:10
1	Y 371.029	1372109.7	1372109.7	101.43	%			16:46:10
1	Ag 328.068†	-456.4	-48.7	-0.3594	µg/L	-0.3594	ppb	16:46:15
1	As 188.979†	-5.3	-4.7	-8.4993	µg/L	-8.4993	ppb	16:46:36
1	B 249.677†	407.4	17.9	0.7343	µg/L	0.7343	ppb	16:46:36
1	Ba 233.527†	-5.2	11.9	0.2870	µg/L	0.2870	ppb	16:46:36
1	Be 313.107†	-2754.2	138.0	0.0819	µg/L	0.0819	ppb	16:46:15
1	Cd 226.502†	-144.4	-0.8	-0.0195	µg/L	-0.0195	ppb	16:46:36
1	Co 228.616†	1.0	-1.0	-0.0431	µg/L	-0.0431	ppb	16:46:36
1	Cr 267.716†	-33.7	17.2	0.3447	µg/L	0.3447	ppb	16:46:36
1	Cu 324.752†	2574.7	-3.1	-0.0214	µg/L	-0.0214	ppb	16:46:15
1	Mn 257.610†	-226.6	32.4	0.1025	µg/L	0.1025	ppb	16:46:36
1	Mo 202.031†	0.9	6.2	0.6075	µg/L	0.6075	ppb	16:46:36
1	Ni 231.604†	309.9	-6.6	-0.3281	µg/L	-0.3281	ppb	16:46:36
1	P 214.914†	11.4	-4.0	-7.9899	µg/L	-7.9899	ppb	16:46:36
1	Pb 220.353†	88.4	-3.8	-0.9074	µg/L	-0.9074	ppb	16:46:36
1	S 181.975 Axial†	15.3	-3.9	-15.967	µg/L	-15.967	ppb	16:46:36
1	Sb 206.836†	19.9	-2.9	-2.6187	µg/L	-2.6187	ppb	16:46:36
1	Se 196.026†	12.9	-6.6	-9.2715	µg/L	-9.2715	ppb	16:46:36
1	SiO2†	1429.0	18.5	3.6472	µg/L	3.6472	ppb	16:46:15
1	Si 251.611†	332.7	17.7	1.3429	µg/L	1.3429	ppb	16:46:36
1	Sn 189.927†	3.4	3.0	1.2548	µg/L	1.2548	ppb	16:46:36
1	Ti 334.940†	214.5	36.6	0.0844	µg/L	0.0844	ppb	16:46:15
1	Tl 190.801†	-23.3	-0.6	-0.8230	µg/L	-0.8230	ppb	16:46:36
1	U 409.014†	-112.1	-33.5	-2.7841	µg/L	-2.7841	ppb	16:46:15
1	V 292.402†	-13.0	31.9	0.3124	µg/L	0.3124	ppb	16:46:15
1	Zn 213.857†	555.4	13.6	0.3246	µg/L	0.3246	ppb	16:46:36
2	Sc RADIAL	56635.2	56635.2	100	%			16:45:14
2	Al 396.153Radial†	-10.1	-17.4	-12.141	µg/L	-12.141	ppb	16:45:14
2	Ca 317.933Radial†	187.9	-23.8	-20.367	µg/L	-20.367	ppb	16:45:34
2	Fe 238.204 Radial†	16.3	-0.3	-2.5827	µg/L	-2.5827	ppb	16:45:34
2	K 766.490 Radial†	218.4	52.9	34.520	µg/L	34.520	ppb	16:45:14
2	Mg 279.077 IEC†	12.4	-0.5	-4.1392	µg/L	-4.1392	ppb	16:45:34
2	Na 589.592 Radial†	513.9	40.5	12.430	µg/L	12.430	ppb	16:45:14
2	Sr 421.552†	58.4	29.4	0.2715	µg/L	0.2715	ppb	16:45:14
2	Sc 361.383	1983608.7	1983608.7	101.04	%			16:46:42
2	Y 371.029	1367482.8	1367482.8	101.09	%			16:46:42
2	Ag 328.068†	-443.4	-37.3	-0.2763	µg/L	-0.2763	ppb	16:46:47
2	As 188.979†	-2.8	-2.3	-4.1149	µg/L	-4.1149	ppb	16:47:08
2	B 249.677†	412.0	23.6	0.9621	µg/L	0.9621	ppb	16:47:08
2	Ba 233.527†	-18.2	-0.9	-0.0219	µg/L	-0.0219	ppb	16:47:08
2	Be 313.107†	-2703.5	180.2	0.1068	µg/L	0.1068	ppb	16:46:47
2	Cd 226.502†	-127.6	15.4	0.3840	µg/L	0.3840	ppb	16:47:08
2	Co 228.616†	7.3	5.3	0.2405	µg/L	0.2405	ppb	16:47:08
2	Cr 267.716†	-58.8	-7.8	-0.1569	µg/L	-0.1569	ppb	16:47:08
2	Cu 324.752†	2608.4	37.7	0.2459	µg/L	0.2459	ppb	16:46:47
2	Mn 257.610†	-227.1	31.2	0.0977	µg/L	0.0977	ppb	16:47:08
2	Mo 202.031†	0.0	5.4	0.5248	µg/L	0.5248	ppb	16:47:08
2	Ni 231.604†	305.0	-10.5	-0.5251	µg/L	-0.5251	ppb	16:47:08
2	P 214.914†	15.6	0.1	0.1534	µg/L	0.1534	ppb	16:47:08
2	Pb 220.353†	82.8	-8.9	-2.1787	µg/L	-2.1787	ppb	16:47:08

2	S 181.975 Axial†	18.3	-0.8	-3.3922 µg/L	-3.3922 ppb		16:47:08
2	Sb 206.836†	21.7	-1.0	-0.9259 µg/L	-0.9259 ppb		16:47:08
2	Se 196.026†	16.5	-3.0	-4.1629 µg/L	-4.1629 ppb		16:47:08
2	SiO2†	1450.1	43.5	8.5888 µg/L	8.5888 ppb		16:46:47
2	Si 251.611†	323.7	9.8	0.7431 µg/L	0.7431 ppb		16:47:08
2	Sn 189.927†	7.2	6.8	2.8541 µg/L	2.8541 ppb		16:47:08
2	Ti 334.940†	275.2	97.3	0.2152 µg/L	0.2152 ppb		16:46:47
2	Tl 190.801†	-21.7	1.0	1.2441 µg/L	1.2441 ppb		16:47:08
2	U 409.014†	-34.6	42.8	3.5596 µg/L	3.5596 ppb		16:46:47
2	V 292.402†	-47.6	-2.4	-0.0159 µg/L	-0.0159 ppb		16:46:47
2	Zn 213.857†	557.8	17.6	0.4155 µg/L	0.4155 ppb		16:47:08
3	Sc RADIAL	56103.5	56103.5	99.3 %			16:45:39
3	Al 396.153Radial†	-12.8	-20.2	-14.109 µg/L	-14.109 ppb		16:45:39
3	Ca 317.933Radial†	191.0	-18.9	-16.130 µg/L	-16.130 ppb		16:46:00
3	Fe 238.204 Radial†	17.4	1.0	7.6890 µg/L	7.6890 ppb		16:46:00
3	K 766.490 Radial†	173.9	10.1	6.6116 µg/L	6.6116 ppb		16:45:39
3	Mg 279.077 IEC†	10.0	-2.8	-24.916 µg/L	-24.916 ppb		16:46:00
3	Na 589.592 Radial†	509.0	40.4	12.402 µg/L	12.402 ppb		16:45:39
3	Sr 421.552†	51.1	22.6	0.2086 µg/L	0.2086 ppb		16:45:39
3	Sc 361.383	1979825.1	1979825.1	100.85 %			16:47:14
3	Y 371.029	1367032.8	1367032.8	101.06 %			16:47:14
3	Ag 328.068†	-365.2	39.5	0.2926 µg/L	0.2926 ppb		16:47:20
3	As 188.979†	6.4	6.8	12.172 µg/L	12.172 ppb		16:47:40
3	B 249.677†	398.6	11.1	0.4486 µg/L	0.4486 ppb		16:47:40
3	Ba 233.527†	-12.4	4.8	0.1152 µg/L	0.1152 ppb		16:47:40
3	Be 313.107†	-2652.0	226.1	0.1341 µg/L	0.1341 ppb		16:47:20
3	Cd 226.502†	-131.0	11.8	0.2924 µg/L	0.2924 ppb		16:47:40
3	Co 228.616†	3.8	1.9	0.0848 µg/L	0.0848 ppb		16:47:40
3	Cr 267.716†	-32.1	18.5	0.3716 µg/L	0.3716 ppb		16:47:40
3	Cu 324.752†	2543.2	-22.0	-0.1426 µg/L	-0.1426 ppb		16:47:20
3	Mn 257.610†	-230.0	28.0	0.0896 µg/L	0.0896 ppb		16:47:40
3	Mo 202.031†	7.5	12.8	1.2495 µg/L	1.2495 ppb		16:47:40
3	Ni 231.604†	307.7	-7.2	-0.3603 µg/L	-0.3603 ppb		16:47:40
3	P 214.914†	16.4	0.9	1.7842 µg/L	1.7842 ppb		16:47:40
3	Pb 220.353†	91.4	-0.3	-0.0769 µg/L	-0.0769 ppb		16:47:40
3	S 181.975 Axial†	16.1	-2.9	-12.216 µg/L	-12.216 ppb		16:47:40
3	Sb 206.836†	18.4	-4.3	-3.9156 µg/L	-3.9156 ppb		16:47:40
3	Se 196.026†	19.5	-0.0	0.0313 µg/L	0.0313 ppb		16:47:40
3	SiO2†	1408.7	5.2	1.0280 µg/L	1.0280 ppb		16:47:20
3	Si 251.611†	328.7	15.3	1.1614 µg/L	1.1614 ppb		16:47:40
3	Sn 189.927†	7.2	6.8	2.8616 µg/L	2.8616 ppb		16:47:40
3	Ti 334.940†	264.4	87.1	0.1944 µg/L	0.1944 ppb		16:47:20
3	Tl 190.801†	-17.8	4.8	6.2130 µg/L	6.2130 ppb		16:47:40
3	U 409.014†	44.4	121.1	10.062 µg/L	10.062 ppb		16:47:20
3	V 292.402†	-48.6	-3.5	-0.0118 µg/L	-0.0118 ppb		16:47:20
3	Zn 213.857†	546.8	7.8	0.1863 µg/L	0.1863 ppb		16:47:40

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984294.3	101.08	%	0.247				0.24%
Sc RADIAL	56394.2	99.8	%	0.48				0.48%
Y 371.029	1368875.1	101.19	%	0.208				0.21%
Ag 328.068†	-15.5	-0.1144	µg/L	0.35487	-0.1144	ppb	0.35487	310.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.4	-12.796	µg/L	1.1373	-12.796	ppb	1.1373	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1476	µg/L	10.89157	-0.1476	ppb	10.89157	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.5	0.7150	µg/L	0.25726	0.7150	ppb	0.25726	35.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1268	µg/L	0.15478	0.1268	ppb	0.15478	122.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.4	0.1076	µg/L	0.02612	0.1076	ppb	0.02612	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.1	-15.439	µg/L	5.3071	-15.439	ppb	5.3071	34.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.8	0.2189	µg/L	0.21153	0.2189	ppb	0.21153	96.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0941	µg/L	0.14201	0.0941	ppb	0.14201	150.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.3      0.1865 µg/L       0.29770      0.1865 ppb        0.29770 159.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.2      0.0273 µg/L       0.19878      0.0273 ppb        0.19878 728.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -0.6936 µg/L       7.61586     -0.6936 ppb        7.61586 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          23.2      15.142 µg/L       16.8219      15.142 ppb        16.8219 111.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8     -25.125 µg/L       21.0915     -25.125 ppb        21.0915  83.94%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.6      0.0966 µg/L       0.00647      0.0966 ppb        0.00647   6.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.1      0.7939 µg/L       0.39671      0.7939 ppb        0.39671  49.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         32.7      10.051 µg/L        4.0953      10.051 ppb         4.0953  40.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.1     -0.4045 µg/L       0.10569     -0.4045 ppb        0.10569  26.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.0     -2.0175 µg/L       5.23620     -2.0175 ppb        5.23620 259.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.3     -1.0543 µg/L       1.05859     -1.0543 ppb        1.05859 100.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.5     -10.525 µg/L        6.4558     -10.525 ppb         6.4558  61.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.7     -2.4867 µg/L       1.49921     -2.4867 ppb        1.49921  60.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.2     -4.4677 µg/L       4.65886     -4.4677 ppb        4.65886 104.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      22.4      4.4213 µg/L       3.83941      4.4213 ppb        3.83941  86.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                14.2      1.0825 µg/L       0.30758      1.0825 ppb        0.30758  28.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.5      2.3235 µg/L       0.92554      2.3235 ppb        0.92554  39.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                34.1      0.3146 µg/L       0.13296      0.3146 ppb        0.13296  42.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.7      0.1647 µg/L       0.07028      0.1647 ppb        0.07028  42.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.7      2.2114 µg/L       3.61632      2.2114 ppb        3.61632 163.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.5      3.6126 µg/L       6.42347      3.6126 ppb        6.42347 177.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  8.7      0.0949 µg/L       0.18839      0.0949 ppb        0.18839 198.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                13.0      0.3088 µg/L       0.11540      0.3088 ppb        0.11540  37.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/19/2010 16:47:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56282.3	56282.3	99.6	%			16:48:22
1	Al 396.153Radial†	298.2	292.0	202.91	µg/L	202.91	ppb	16:48:22
1	Ca 317.933Radial†	429.4	219.7	187.68	µg/L	187.68	ppb	16:48:43
1	Fe 238.204 Radial†	29.6	13.1	103.39	µg/L	103.39	ppb	16:48:43
1	K 766.490 Radial†	342.0	178.3	116.45	µg/L	116.45	ppb	16:48:22
1	Mg 279.077 IEC†	44.3	31.6	282.85	µg/L	282.85	ppb	16:48:43
1	Na 589.592 Radial†	1474.0	1007.4	309.41	µg/L	309.41	ppb	16:48:22
1	Sr 421.552†	600.8	574.3	5.2980	µg/L	5.2980	ppb	16:48:22
1	Sc 361.383	1977761.8	1977761.8	100.75	%			16:49:45
1	Y 371.029	1365399.5	1365399.5	100.93	%			16:49:45
1	Ag 328.068†	258.4	658.1	4.9148	µg/L	4.9148	ppb	16:49:50
1	As 188.979†	15.7	16.1	28.782	µg/L	28.782	ppb	16:50:11
1	B 249.677†	1617.1	1221.0	49.720	µg/L	49.720	ppb	16:49:50
1	Ba 233.527†	202.7	218.3	5.2492	µg/L	5.2492	ppb	16:50:11
1	Be 313.107†	5999.9	8811.2	5.2276	µg/L	5.2276	ppb	16:49:50
1	Cd 226.502†	69.7	210.9	5.2540	µg/L	5.2540	ppb	16:50:11
1	Co 228.616†	98.7	96.0	4.3479	µg/L	4.3479	ppb	16:50:11
1	Cr 267.716†	241.4	290.0	5.8279	µg/L	5.8279	ppb	16:49:50
1	Cu 324.752†	4202.8	1627.9	10.640	µg/L	10.640	ppb	16:49:50
1	Mn 257.610†	3188.0	3420.5	10.714	µg/L	10.714	ppb	16:49:50
1	Mo 202.031†	99.0	103.6	10.146	µg/L	10.146	ppb	16:50:11
1	Ni 231.604†	418.0	102.5	5.1075	µg/L	5.1075	ppb	16:50:11
1	P 214.914†	98.6	82.5	162.32	µg/L	162.32	ppb	16:50:11
1	Pb 220.353†	137.2	45.3	10.965	µg/L	10.965	ppb	16:50:11
1	S 181.975 Axial†	42.3	23.0	95.542	µg/L	95.542	ppb	16:50:11
1	Sb 206.836†	37.6	14.8	13.659	µg/L	13.659	ppb	16:50:11
1	Se 196.026†	37.4	17.8	24.952	µg/L	24.952	ppb	16:50:11
1	SiO2†	2505.0	1094.9	216.12	µg/L	216.12	ppb	16:49:50
1	Si 251.611†	1649.6	1326.8	100.86	µg/L	100.86	ppb	16:50:11
1	Sn 189.927†	23.4	22.9	9.6771	µg/L	9.6771	ppb	16:50:11
1	Ti 334.940†	2480.4	2287.0	5.0399	µg/L	5.0399	ppb	16:49:50
1	Tl 190.801†	-7.5	15.0	19.606	µg/L	19.606	ppb	16:50:11
1	U 409.014†	617.0	689.5	57.259	µg/L	57.259	ppb	16:49:50
1	V 292.402†	481.6	522.7	5.2575	µg/L	5.2575	ppb	16:49:50
1	Zn 213.857†	992.7	450.9	10.519	µg/L	10.519	ppb	16:50:11
2	Sc RADIAL	56210.7	56210.7	99.5	%			16:48:48
2	Al 396.153Radial†	273.4	267.4	185.81	µg/L	185.81	ppb	16:48:48
2	Ca 317.933Radial†	426.2	217.1	185.45	µg/L	185.45	ppb	16:49:08
2	Fe 238.204 Radial†	28.4	12.0	94.492	µg/L	94.492	ppb	16:49:08
2	K 766.490 Radial†	411.4	248.5	162.28	µg/L	162.28	ppb	16:48:48
2	Mg 279.077 IEC†	50.3	37.8	337.62	µg/L	337.62	ppb	16:49:08
2	Na 589.592 Radial†	1464.1	999.4	306.94	µg/L	306.94	ppb	16:48:48
2	Sr 421.552†	574.2	548.3	5.0581	µg/L	5.0581	ppb	16:48:48
2	Sc 361.383	1972692.6	1972692.6	100.49	%			16:50:17
2	Y 371.029	1361966.2	1361966.2	100.68	%			16:50:17
2	Ag 328.068†	270.6	670.9	5.0087	µg/L	5.0087	ppb	16:50:23
2	As 188.979†	17.9	18.3	32.707	µg/L	32.707	ppb	16:50:43
2	B 249.677†	1623.8	1231.8	50.165	µg/L	50.165	ppb	16:50:23
2	Ba 233.527†	197.6	213.7	5.1395	µg/L	5.1395	ppb	16:50:43
2	Be 313.107†	5881.6	8708.7	5.1667	µg/L	5.1667	ppb	16:50:23
2	Cd 226.502†	72.2	213.5	5.3190	µg/L	5.3190	ppb	16:50:43
2	Co 228.616†	112.6	110.1	4.9856	µg/L	4.9856	ppb	16:50:43
2	Cr 267.716†	212.6	261.9	5.2641	µg/L	5.2641	ppb	16:50:23
2	Cu 324.752†	4135.5	1571.7	10.273	µg/L	10.273	ppb	16:50:23
2	Mn 257.610†	3139.9	3380.7	10.586	µg/L	10.586	ppb	16:50:23
2	Mo 202.031†	100.4	105.3	10.314	µg/L	10.314	ppb	16:50:43
2	Ni 231.604†	409.7	95.3	4.7480	µg/L	4.7480	ppb	16:50:43
2	P 214.914†	98.3	82.5	162.33	µg/L	162.33	ppb	16:50:43
2	Pb 220.353†	137.5	45.9	11.123	µg/L	11.123	ppb	16:50:43

2	S 181.975 Axial†	44.4	25.2	104.52 µg/L	104.52 ppb	16:50:43
2	Sb 206.836†	32.9	10.2	9.4639 µg/L	9.4639 ppb	16:50:43
2	Se 196.026†	35.2	15.7	21.973 µg/L	21.973 ppb	16:50:43
2	SiO2†	2523.6	1119.7	221.02 µg/L	221.02 ppb	16:50:23
2	Si 251.611†	1635.2	1316.7	100.10 µg/L	100.10 ppb	16:50:43
2	Sn 189.927†	26.0	25.5	10.767 µg/L	10.767 ppb	16:50:43
2	Ti 334.940†	2526.0	2338.7	5.1499 µg/L	5.1499 ppb	16:50:23
2	Tl 190.801†	-4.6	17.8	23.319 µg/L	23.319 ppb	16:50:43
2	U 409.014†	591.4	665.6	55.280 µg/L	55.280 ppb	16:50:23
2	V 292.402†	473.1	515.6	5.1847 µg/L	5.1847 ppb	16:50:23
2	Zn 213.857†	977.2	438.1	10.216 µg/L	10.216 ppb	16:50:43
3	Sc RADIAL	56270.8	56270.8	99.6 %		16:49:14
3	Al 396.153Radial†	299.9	293.7	204.14 µg/L	204.14 ppb	16:49:14
3	Ca 317.933Radial†	434.4	224.8	192.04 µg/L	192.04 ppb	16:49:35
3	Fe 238.204 Radial†	29.7	13.3	104.87 µg/L	104.87 ppb	16:49:35
3	K 766.490 Radial†	455.9	292.7	191.16 µg/L	191.16 ppb	16:49:14
3	Mg 279.077 IEC†	45.6	33.0	295.03 µg/L	295.03 ppb	16:49:35
3	Na 589.592 Radial†	1506.5	1040.3	319.53 µg/L	319.53 ppb	16:49:14
3	Sr 421.552†	597.6	571.2	5.2696 µg/L	5.2696 ppb	16:49:14
3	Sc 361.383	1984220.0	1984220.0	101.07 %		16:50:49
3	Y 371.029	1369121.2	1369121.2	101.21 %		16:50:49
3	Ag 328.068†	201.6	601.1	4.4889 µg/L	4.4889 ppb	16:50:55
3	As 188.979†	12.2	12.5	22.435 µg/L	22.435 ppb	16:51:15
3	B 249.677†	1528.3	1127.9	45.924 µg/L	45.924 ppb	16:50:55
3	Ba 233.527†	159.9	175.2	4.2153 µg/L	4.2153 ppb	16:51:15
3	Be 313.107†	4886.5	7690.3	4.5625 µg/L	4.5625 ppb	16:50:55
3	Cd 226.502†	36.1	177.4	4.4177 µg/L	4.4177 ppb	16:51:15
3	Co 228.616†	97.9	94.9	4.2983 µg/L	4.2983 ppb	16:51:15
3	Cr 267.716†	217.3	265.4	5.3332 µg/L	5.3332 ppb	16:50:55
3	Cu 324.752†	4009.3	1423.0	9.3030 µg/L	9.3030 ppb	16:50:55
3	Mn 257.610†	2806.1	3032.2	9.4977 µg/L	9.4977 ppb	16:50:55
3	Mo 202.031†	85.5	90.0	8.8152 µg/L	8.8152 ppb	16:51:15
3	Ni 231.604†	395.2	78.7	3.9181 µg/L	3.9181 ppb	16:51:15
3	P 214.914†	81.4	65.2	128.29 µg/L	128.29 ppb	16:51:15
3	Pb 220.353†	131.5	39.1	9.4710 µg/L	9.4710 ppb	16:51:15
3	S 181.975 Axial†	39.1	19.8	81.981 µg/L	81.981 ppb	16:51:15
3	Sb 206.836†	33.0	10.1	9.3652 µg/L	9.3652 ppb	16:51:15
3	Se 196.026†	36.9	17.2	24.099 µg/L	24.099 ppb	16:51:15
3	SiO2†	2440.0	1022.5	201.82 µg/L	201.82 ppb	16:50:55
3	Si 251.611†	1427.0	1101.2	83.718 µg/L	83.718 ppb	16:51:15
3	Sn 189.927†	23.7	23.1	9.7555 µg/L	9.7555 ppb	16:51:15
3	Ti 334.940†	2205.8	2007.3	4.4203 µg/L	4.4203 ppb	16:50:55
3	Tl 190.801†	-9.0	13.5	17.705 µg/L	17.705 ppb	16:51:15
3	U 409.014†	550.5	621.7	51.630 µg/L	51.630 ppb	16:50:55
3	V 292.402†	420.4	460.6	4.6353 µg/L	4.6353 ppb	16:50:55
3	Zn 213.857†	910.8	366.7	8.5490 µg/L	8.5490 ppb	16:51:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1978224.8	100.77	%	0.294				0.29%
Sc RADIAL	56254.6	99.6	%	0.07				0.07%
Y 371.029	1365495.6	100.94	%	0.265				0.26%
Ag 328.068†	643.3	4.8041	µg/L	0.27699	4.8041	ppb	0.27699	5.77%
QC value within limits for Ag 328.068 Recovery = 96.08%								
Al 396.153Radial†	284.4	197.62	µg/L	10.244	197.62	ppb	10.244	5.18%
QC value within limits for Al 396.153Radial Recovery = 98.81%								
As 188.979†	15.6	27.975	µg/L	5.1834	27.975	ppb	5.1834	18.53%
QC value within limits for As 188.979 Recovery = 93.25%								
B 249.677†	1193.6	48.603	µg/L	2.3307	48.603	ppb	2.3307	4.80%
QC value within limits for B 249.677 Recovery = 97.21%								
Ba 233.527†	202.4	4.8680	µg/L	0.56789	4.8680	ppb	0.56789	11.67%
QC value within limits for Ba 233.527 Recovery = 97.36%								
Be 313.107†	8403.4	4.9856	µg/L	0.36766	4.9856	ppb	0.36766	7.37%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	220.5	188.39	µg/L	3.356	188.39	ppb	3.356	1.78%
QC value within limits for Ca 317.933Radial Recovery = 94.19%								
Cd 226.502†	200.6	4.9969	µg/L	0.50267	4.9969	ppb	0.50267	10.06%
QC value within limits for Cd 226.502 Recovery = 99.94%								
Co 228.616†	100.4	4.5440	µg/L	0.38331	4.5440	ppb	0.38331	8.44%

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   QC value within limits for Co 228.616  Recovery = 90.88%
Cr 267.716†              272.4      5.4751 µg/L       0.30749      5.4751 ppb        0.30749   5.62%
   QC value within limits for Cr 267.716  Recovery = 109.50%
Cu 324.752†             1540.9      10.072 µg/L        0.6909      10.072 ppb         0.6909   6.86%
   QC value within limits for Cu 324.752  Recovery = 100.72%
Fe 238.204 Radial†        12.8      100.92 µg/L         5.613      100.92 ppb          5.613   5.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.92%
K 766.490 Radial†        239.8      156.63 µg/L        37.674      156.63 ppb         37.674  24.05%
   QC value within limits for K 766.490 Radial  Recovery = 104.42%
Mg 279.077 IEC†           34.1      305.17 µg/L        28.759      305.17 ppb         28.759   9.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.72%
Mn 257.610†             3277.8      10.266 µg/L        0.6682      10.266 ppb         0.6682   6.51%
   QC value within limits for Mn 257.610  Recovery = 102.66%
Mo 202.031†               99.6      9.7581 µg/L       0.82093      9.7581 ppb        0.82093   8.41%
   QC value within limits for Mo 202.031  Recovery = 97.58%
Na 589.592 Radial†      1015.7      311.96 µg/L         6.671      311.96 ppb          6.671   2.14%
   QC value within limits for Na 589.592 Radial  Recovery = 103.99%
Ni 231.604†               92.2      4.5912 µg/L       0.61004      4.5912 ppb        0.61004  13.29%
   QC value within limits for Ni 231.604  Recovery = 91.82%
P 214.914†                76.7      150.98 µg/L        19.653      150.98 ppb         19.653  13.02%
   QC value within limits for P 214.914  Recovery = 100.65%
Pb 220.353†               43.4      10.520 µg/L        0.9115      10.520 ppb         0.9115   8.67%
   QC value within limits for Pb 220.353  Recovery = 105.20%
S 181.975 Axial†          22.7      94.016 µg/L       11.3485      94.016 ppb        11.3485  12.07%
   QC value within limits for S 181.975 Axial  Recovery = 94.02%
Sb 206.836†               11.7      10.829 µg/L        2.4509      10.829 ppb         2.4509  22.63%
   QC value within limits for Sb 206.836  Recovery = 108.29%
Se 196.026†               16.9      23.675 µg/L        1.5343      23.675 ppb         1.5343   6.48%
   QC value within limits for Se 196.026  Recovery = 78.92%
SiO2†                   1079.0      212.99 µg/L         9.975      212.99 ppb          9.975   4.68%
   QC value within limits for SiO2  Recovery = 99.99%
Si 251.611†             1248.2      94.893 µg/L        9.6851      94.893 ppb         9.6851  10.21%
   QC value within limits for Si 251.611  Recovery = 94.89%
Sn 189.927†               23.8      10.067 µg/L        0.6079      10.067 ppb         0.6079   6.04%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†              564.6      5.2086 µg/L       0.13109      5.2086 ppb        0.13109   2.52%
   QC value within limits for Sr 421.552  Recovery = 104.17%
Ti 334.940†             2211.0      4.8701 µg/L       0.39334      4.8701 ppb        0.39334   8.08%
   QC value within limits for Ti 334.940  Recovery = 97.40%
Tl 190.801†               15.4      20.210 µg/L        2.8552      20.210 ppb         2.8552  14.13%
   QC value within limits for Tl 190.801  Recovery = 101.05%
U 409.014†               659.0      54.723 µg/L        2.8553      54.723 ppb         2.8553   5.22%
   QC value within limits for U 409.014  Recovery = 109.45%
V 292.402†               499.7      5.0258 µg/L       0.34018      5.0258 ppb        0.34018   6.77%
   QC value within limits for V 292.402  Recovery = 100.52%
Zn 213.857†              418.6      9.7614 µg/L       1.06081      9.7614 ppb        1.06081  10.87%
   QC value within limits for Zn 213.857  Recovery = 97.61%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/19/2010 16:51:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55393.6	55393.6	98.0	%			16:52:06
1	Al 396.153Radial†	724194.0	738594.2	513810	µg/L	513810	ppb	16:52:00
1	Ca 317.933Radial†	560588.9	571530.4	488190	µg/L	488190	ppb	16:52:00
1	Fe 238.204 Radial†	23830.6	24288.1	191560	µg/L	191560	ppb	16:52:06
1	K 766.490 Radial†	115.1	-47.6	-31.114	µg/L	-31.114	ppb	16:52:06
1	Mg 279.077 IEC†	54305.7	55373.3	494780	µg/L	494780	ppb	16:52:06
1	Na 589.592 Radial†	579.7	119.1	36.566	µg/L	36.566	ppb	16:52:06
1	Sr 421.552†	417.7	397.2	3.6640	µg/L	3.6640	ppb	16:52:06
1	Sc 361.383	1850788.2	1850788.2	94.278	%			16:52:38
1	Y 371.029	1267800.9	1267800.9	93.720	%			16:52:38
1	Ag 328.068†	-2693.6	-2455.5	-6.2926	µg/L	-6.2926	ppb	16:52:44
1	As 188.979†	-3.5	-3.2	-20.025	µg/L	-20.025	ppb	16:53:05
1	B 249.677†	871.2	539.9	-77.949	µg/L	-77.949	ppb	16:52:44
1	Ba 233.527†	294.9	329.9	7.8736	µg/L	7.8736	ppb	16:53:05
1	Be 313.107†	-3450.2	-803.9	-0.4876	µg/L	-0.4876	ppb	16:52:44
1	Cd 226.502†	449.3	618.2	-6.2337	µg/L	-6.2337	ppb	16:53:05
1	Co 228.616†	61.1	62.9	2.7806	µg/L	2.7806	ppb	16:53:05
1	Cr 267.716†	-66.1	-19.8	-0.4132	µg/L	-0.4132	ppb	16:53:05
1	Cu 324.752†	-1734.2	-4383.2	-1.9848	µg/L	-1.9848	ppb	16:52:44
1	Mn 257.610†	821.6	1127.5	9.2085	µg/L	9.2085	ppb	16:52:44
1	Mo 202.031†	-118.4	-120.2	-4.4913	µg/L	-4.4913	ppb	16:53:05
1	Ni 231.604†	163.0	-139.5	-4.4672	µg/L	-4.4672	ppb	16:53:05
1	P 214.914†	72.2	61.2	116.25	µg/L	116.25	ppb	16:53:05
1	Pb 220.353†	39.4	-49.1	9.0511	µg/L	9.0511	ppb	16:53:05
1	S 181.975 Axial†	32.2	15.3	63.310	µg/L	63.310	ppb	16:53:05
1	Sb 206.836†	57.5	38.5	-7.3305	µg/L	-7.3305	ppb	16:53:05
1	Se 196.026†	11.6	-7.0	-62.783	µg/L	-62.783	ppb	16:53:05
1	SiO2†	1235.7	-80.9	-15.963	µg/L	-15.963	ppb	16:53:05
1	Si 251.611†	441.8	157.9	12.007	µg/L	12.007	ppb	16:53:05
1	Sn 189.927†	-66.4	-70.8	5.6696	µg/L	5.6696	ppb	16:53:05
1	Ti 334.940†	11832.7	12375.9	-3.9147	µg/L	-3.9147	ppb	16:52:44
1	Tl 190.801†	-42.3	-22.5	-8.4040	µg/L	-8.4040	ppb	16:53:05
1	U 409.014†	-59.0	14.5	-55.197	µg/L	-55.197	ppb	16:52:44
1	V 292.402†	-2553.4	-2663.6	-3.5017	µg/L	-3.5017	ppb	16:52:44
1	Zn 213.857†	1634.5	1199.3	-8.9501	µg/L	-8.9501	ppb	16:53:05
2	Sc RADIAL	55011.0	55011.0	97.4	%			16:52:17
2	Al 396.153Radial†	723719.7	743244.2	517040	µg/L	517040	ppb	16:52:11
2	Ca 317.933Radial†	561511.7	576454.6	492400	µg/L	492400	ppb	16:52:11
2	Fe 238.204 Radial†	23613.9	24234.6	191140	µg/L	191140	ppb	16:52:17
2	K 766.490 Radial†	128.3	-33.2	-21.699	µg/L	-21.699	ppb	16:52:17
2	Mg 279.077 IEC†	53736.1	55173.5	492990	µg/L	492990	ppb	16:52:17
2	Na 589.592 Radial†	541.6	84.0	25.796	µg/L	25.796	ppb	16:52:17
2	Sr 421.552†	414.5	396.8	3.6609	µg/L	3.6609	ppb	16:52:17
2	Sc 361.383	1848725.6	1848725.6	94.173	%			16:53:11
2	Y 371.029	1266302.7	1266302.7	93.609	%			16:53:11
2	Ag 328.068†	-2764.2	-2533.7	-6.8956	µg/L	-6.8956	ppb	16:53:16
2	As 188.979†	-19.7	-20.5	-51.199	µg/L	-51.199	ppb	16:53:37
2	B 249.677†	821.6	488.3	-79.833	µg/L	-79.833	ppb	16:53:16
2	Ba 233.527†	289.2	324.1	7.7351	µg/L	7.7351	ppb	16:53:37
2	Be 313.107†	-3507.9	-869.3	-0.5266	µg/L	-0.5266	ppb	16:53:16
2	Cd 226.502†	439.6	608.5	-6.4301	µg/L	-6.4301	ppb	16:53:37
2	Co 228.616†	46.3	47.3	2.0733	µg/L	2.0733	ppb	16:53:37
2	Cr 267.716†	-55.1	-8.1	-0.1798	µg/L	-0.1798	ppb	16:53:37
2	Cu 324.752†	-1747.2	-4399.1	-2.1470	µg/L	-2.1470	ppb	16:53:16
2	Mn 257.610†	693.8	992.7	8.8018	µg/L	8.8018	ppb	16:53:16
2	Mo 202.031†	-103.9	-105.0	-3.0206	µg/L	-3.0206	ppb	16:53:37
2	Ni 231.604†	140.3	-163.4	-5.6612	µg/L	-5.6612	ppb	16:53:37
2	P 214.914†	95.8	86.4	167.33	µg/L	167.33	ppb	16:53:37
2	Pb 220.353†	25.6	-63.7	5.6987	µg/L	5.6987	ppb	16:53:37

2	S 181.975 Axial†	46.7	30.7	127.27 µg/L	127.27 ppb	16:53:37
2	Sb 206.836†	44.2	24.4	-20.582 µg/L	-20.582 ppb	16:53:37
2	Se 196.026†	15.1	-3.2	-58.240 µg/L	-58.240 ppb	16:53:37
2	SiO2†	1212.8	-103.8	-20.481 µg/L	-20.481 ppb	16:53:37
2	Si 251.611†	449.3	166.5	12.657 µg/L	12.657 ppb	16:53:37
2	Sn 189.927†	-68.4	-73.0	4.5450 µg/L	4.5450 ppb	16:53:37
2	Ti 334.940†	12102.5	12676.3	-3.0417 µg/L	-3.0417 ppb	16:53:16
2	Tl 190.801†	-37.0	-17.0	-1.3751 µg/L	-1.3751 ppb	16:53:37
2	U 409.014†	-33.8	41.2	-53.185 µg/L	-53.185 ppb	16:53:16
2	V 292.402†	-2512.7	-2623.4	-3.1453 µg/L	-3.1453 ppb	16:53:16
2	Zn 213.857†	1609.3	1174.4	-9.4073 µg/L	-9.4073 ppb	16:53:37
3	Sc RADIAL	55087.9	55087.9	97.5 %		16:52:28
3	Al 396.153Radial†	720131.5	738527.0	513760 µg/L	513760 ppb	16:52:23
3	Ca 317.933Radial†	556178.1	570179.9	487040 µg/L	487040 ppb	16:52:23
3	Fe 238.204 Radial†	23691.3	24280.2	191500 µg/L	191500 ppb	16:52:28
3	K 766.490 Radial†	149.7	-11.5	-7.5099 µg/L	-7.5099 ppb	16:52:28
3	Mg 279.077 IEC†	53963.6	55329.8	494390 µg/L	494390 ppb	16:52:28
3	Na 589.592 Radial†	551.3	93.2	28.624 µg/L	28.624 ppb	16:52:28
3	Sr 421.552†	418.9	400.8	3.6974 µg/L	3.6974 ppb	16:52:28
3	Sc 361.383	1849927.7	1849927.7	94.234 %		16:53:43
3	Y 371.029	1267002.1	1267002.1	93.661 %		16:53:43
3	Ag 328.068†	-2734.1	-2499.7	-6.6223 µg/L	-6.6223 ppb	16:53:49
3	As 188.979†	-9.3	-9.4	-31.056 µg/L	-31.056 ppb	16:54:09
3	B 249.677†	848.6	516.3	-78.878 µg/L	-78.878 ppb	16:53:49
3	Ba 233.527†	283.0	317.4	7.5725 µg/L	7.5725 ppb	16:54:09
3	Be 313.107†	-3473.1	-829.9	-0.5033 µg/L	-0.5033 ppb	16:53:49
3	Cd 226.502†	443.2	612.0	-6.3822 µg/L	-6.3822 ppb	16:54:09
3	Co 228.616†	37.7	38.1	1.6569 µg/L	1.6569 ppb	16:54:09
3	Cr 267.716†	-62.9	-16.3	-0.3442 µg/L	-0.3442 ppb	16:54:09
3	Cu 324.752†	-1721.6	-4370.7	-1.9119 µg/L	-1.9119 ppb	16:53:49
3	Mn 257.610†	731.2	1032.0	8.9167 µg/L	8.9167 ppb	16:53:49
3	Mo 202.031†	-107.8	-109.1	-3.4029 µg/L	-3.4029 ppb	16:54:09
3	Ni 231.604†	145.6	-157.8	-5.3810 µg/L	-5.3810 ppb	16:54:09
3	P 214.914†	108.6	100.0	193.00 µg/L	193.00 ppb	16:54:09
3	Pb 220.353†	37.4	-51.2	8.5535 µg/L	8.5535 ppb	16:54:09
3	S 181.975 Axial†	37.1	20.4	84.584 µg/L	84.584 ppb	16:54:09
3	Sb 206.836†	48.6	29.0	-15.889 µg/L	-15.889 ppb	16:54:09
3	Se 196.026†	35.7	18.5	-26.410 µg/L	-26.410 ppb	16:54:09
3	SiO2†	1232.2	-83.9	-16.565 µg/L	-16.565 ppb	16:54:09
3	Si 251.611†	426.5	142.0	10.792 µg/L	10.792 ppb	16:54:09
3	Sn 189.927†	-55.5	-59.3	10.507 µg/L	10.507 ppb	16:54:09
3	Ti 334.940†	12184.3	12754.8	-3.0642 µg/L	-3.0642 ppb	16:53:49
3	Tl 190.801†	-36.8	-16.7	-0.7208 µg/L	-0.7208 ppb	16:54:09
3	U 409.014†	-97.2	-26.0	-58.491 µg/L	-58.491 ppb	16:53:49
3	V 292.402†	-2526.9	-2636.8	-3.2422 µg/L	-3.2422 ppb	16:53:49
3	Zn 213.857†	1595.9	1159.1	-9.8646 µg/L	-9.8646 ppb	16:54:09

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1849813.8	94.228	%	0.0528				0.06%
Sc RADIAL	55164.1	97.6	%	0.36				0.37%
Y 371.029	1267035.2	93.663	%	0.0554				0.06%
Ag 328.068†	-2496.3	-6.6035	µg/L	0.30193	-6.6035	ppb	0.30193	4.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	740121.8	514870	µg/L	1881.2	514870	ppb	1881.2	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.97%								
As 188.979†	-11.0	-34.093	µg/L	15.8073	-34.093	ppb	15.8073	46.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	514.9	-78.887	µg/L	0.9419	-78.887	ppb	0.9419	1.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	323.8	7.7271	µg/L	0.15071	7.7271	ppb	0.15071	1.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-834.4	-0.5058	µg/L	0.01964	-0.5058	ppb	0.01964	3.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	572721.6	489210	µg/L	2821.0	489210	ppb	2821.0	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	612.9	-6.3487	µg/L	0.10242	-6.3487	ppb	0.10242	1.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	49.4	2.1702	µg/L	0.56812	2.1702	ppb	0.56812	26.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.7     -0.3124 µg/L       0.11992     -0.3124 ppb        0.11992  38.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -4384.3     -2.0146 µg/L       0.12034     -2.0146 ppb        0.12034   5.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     24267.6      191400 µg/L         227.6      191400 ppb          227.6   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.70%
K 766.490 Radial†        -30.8     -20.107 µg/L       11.8821     -20.107 ppb        11.8821  59.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        55292.2      494060 µg/L         938.7      494060 ppb          938.7   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.81%
Mn 257.610†             1050.7      8.9756 µg/L       0.20969      8.9756 ppb        0.20969   2.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -111.4     -3.6383 µg/L       0.76308     -3.6383 ppb        0.76308  20.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        98.7      30.329 µg/L        5.5836      30.329 ppb         5.5836  18.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -153.6     -5.1698 µg/L       0.62439     -5.1698 ppb        0.62439  12.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                82.5      158.86 µg/L        39.068      158.86 ppb         39.068  24.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -54.7      7.7677 µg/L       1.80905      7.7677 ppb        1.80905  23.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          22.1      91.723 µg/L       32.5738      91.723 ppb        32.5738  35.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               30.6     -14.600 µg/L        6.7191     -14.600 ppb         6.7191  46.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.8     -49.144 µg/L       19.8190     -49.144 ppb        19.8190  40.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -89.5     -17.670 µg/L        2.4533     -17.670 ppb         2.4533  13.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              155.5      11.818 µg/L        0.9466      11.818 ppb         0.9466   8.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -67.7      6.9072 µg/L       3.16787      6.9072 ppb        3.16787  45.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              398.3      3.6741 µg/L       0.02024      3.6741 ppb        0.02024   0.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            12602.3     -3.3402 µg/L       0.49765     -3.3402 ppb        0.49765  14.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -18.7     -3.4999 µg/L       4.25960     -3.4999 ppb        4.25960 121.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 9.9     -55.624 µg/L        2.6789     -55.624 ppb         2.6789   4.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2641.3     -3.2964 µg/L       0.18427     -3.2964 ppb        0.18427   5.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1177.6     -9.4073 µg/L       0.45728     -9.4073 ppb        0.45728   4.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/19/2010 16:54:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55797.0	55797.0	98.8	%			16:54:58
1	Al 396.153Radial†	721688.4	730717.2	508320	µg/L	508320	ppb	16:54:53
1	Ca 317.933Radial†	559165.5	565955.4	483430	µg/L	483430	ppb	16:54:53
1	Fe 238.204 Radial†	23697.0	23977.1	189110	µg/L	189110	ppb	16:54:58
1	K 766.490 Radial†	7825.4	7758.4	5067.1	µg/L	5067.1	ppb	16:54:58
1	Mg 279.077 IEC†	54011.0	54674.5	488540	µg/L	488540	ppb	16:54:58
1	Na 589.592 Radial†	17079.2	16820.9	5166.4	µg/L	5166.4	ppb	16:54:58
1	Sr 421.552†	53653.0	54296.0	500.89	µg/L	500.89	ppb	16:54:58
1	Sc 361.383	1843700.1	1843700.1	93.917	%			16:55:33
1	Y 371.029	1261744.6	1261744.6	93.272	%			16:55:33
1	Ag 328.068†	30366.5	32735.0	257.65	µg/L	257.65	ppb	16:55:33
1	As 188.979†	267.3	285.0	495.71	µg/L	495.71	ppb	16:55:53
1	B 249.677†	12776.1	13219.5	440.90	µg/L	440.90	ppb	16:55:33
1	Ba 233.527†	19707.5	21001.1	505.07	µg/L	505.07	ppb	16:55:33
1	Be 313.107†	381967.5	409563.9	242.87	µg/L	242.87	ppb	16:55:33
1	Cd 226.502†	18000.5	19308.2	460.62	µg/L	460.62	ppb	16:55:33
1	Co 228.616†	9028.5	9611.4	434.60	µg/L	434.60	ppb	16:55:53
1	Cr 267.716†	22814.5	24342.6	489.24	µg/L	489.24	ppb	16:55:33
1	Cu 324.752†	76830.3	79263.0	543.67	µg/L	543.67	ppb	16:55:33
1	Mn 257.610†	145121.7	154777.5	490.29	µg/L	490.29	ppb	16:55:33
1	Mo 202.031†	4771.3	5085.6	505.20	µg/L	505.20	ppb	16:55:53
1	Ni 231.604†	8362.6	8591.9	430.24	µg/L	430.24	ppb	16:55:53
1	P 214.914†	1320.9	1391.1	2699.5	µg/L	2699.5	ppb	16:55:53
1	Pb 220.353†	1871.2	1901.4	483.01	µg/L	483.01	ppb	16:55:53
1	S 181.975 Axial†	648.6	671.7	2785.4	µg/L	2785.4	ppb	16:55:53
1	Sb 206.836†	575.1	589.8	502.04	µg/L	502.04	ppb	16:55:53
1	Se 196.026†	1623.8	1709.6	2348.3	µg/L	2348.3	ppb	16:55:53
1	SiO2†	53672.2	55757.1	11006	µg/L	11006	ppb	16:55:33
1	Si 251.611†	64106.8	67948.4	5165.6	µg/L	5165.6	ppb	16:55:33
1	Sn 189.927†	1083.9	1153.7	521.63	µg/L	521.63	ppb	16:55:53
1	Ti 334.940†	229038.7	243698.9	508.24	µg/L	508.24	ppb	16:55:33
1	Tl 190.801†	288.9	330.0	454.77	µg/L	454.77	ppb	16:55:53
1	U 409.014†	5773.2	6224.2	461.36	µg/L	461.36	ppb	16:55:33
1	V 292.402†	47456.1	50574.7	520.63	µg/L	520.63	ppb	16:55:33
1	Zn 213.857†	20837.2	21652.5	468.58	µg/L	468.58	ppb	16:55:33
2	Sc RADIAL	55348.5	55348.5	98.0	%			16:55:10
2	Al 396.153Radial†	722041.1	736998.6	512690	µg/L	512690	ppb	16:55:04
2	Ca 317.933Radial†	559699.2	571088.2	487810	µg/L	487810	ppb	16:55:04
2	Fe 238.204 Radial†	23398.1	23866.4	188240	µg/L	188240	ppb	16:55:10
2	K 766.490 Radial†	7752.4	7748.1	5060.4	µg/L	5060.4	ppb	16:55:10
2	Mg 279.077 IEC†	53665.0	54764.4	489350	µg/L	489350	ppb	16:55:10
2	Na 589.592 Radial†	16898.5	16776.6	5152.8	µg/L	5152.8	ppb	16:55:10
2	Sr 421.552†	53220.9	54295.2	500.88	µg/L	500.88	ppb	16:55:10
2	Sc 361.383	1828346.4	1828346.4	93.135	%			16:56:01
2	Y 371.029	1251250.1	1251250.1	92.496	%			16:56:01
2	Ag 328.068†	30001.6	32614.7	256.69	µg/L	256.69	ppb	16:56:01
2	As 188.979†	258.0	277.4	481.82	µg/L	481.82	ppb	16:56:21
2	B 249.677†	12695.1	13246.8	442.46	µg/L	442.46	ppb	16:56:01
2	Ba 233.527†	19356.4	20800.3	500.24	µg/L	500.24	ppb	16:56:01
2	Be 313.107†	377037.1	407685.5	241.76	µg/L	241.76	ppb	16:56:01
2	Cd 226.502†	17698.0	19144.3	456.64	µg/L	456.64	ppb	16:56:01
2	Co 228.616†	8995.7	9656.8	436.67	µg/L	436.67	ppb	16:56:21
2	Cr 267.716†	22554.0	24266.9	487.72	µg/L	487.72	ppb	16:56:01
2	Cu 324.752†	76157.1	79227.2	543.32	µg/L	543.32	ppb	16:56:01
2	Mn 257.610†	143300.8	154120.0	488.08	µg/L	488.08	ppb	16:56:01
2	Mo 202.031†	4737.2	5091.8	505.77	µg/L	505.77	ppb	16:56:21
2	Ni 231.604†	8356.6	8660.3	433.64	µg/L	433.64	ppb	16:56:21
2	P 214.914†	1314.8	1396.4	2712.1	µg/L	2712.1	ppb	16:56:21
2	Pb 220.353†	1869.4	1916.2	486.89	µg/L	486.89	ppb	16:56:21

2	S 181.975 Axial†	642.4	670.8	2782.0 µg/L	2782.0 ppb	16:56:21
2	Sb 206.836†	578.7	598.8	509.94 µg/L	509.94 ppb	16:56:21
2	Se 196.026†	1633.2	1734.3	2378.6 µg/L	2378.6 ppb	16:56:21
2	SiO2†	52972.0	55485.1	10952 µg/L	10952 ppb	16:56:01
2	Si 251.611†	63354.2	67713.7	5147.7 µg/L	5147.7 ppb	16:56:01
2	Sn 189.927†	1076.4	1155.4	522.48 µg/L	522.48 ppb	16:56:21
2	Ti 334.940†	226229.7	242730.8	506.11 µg/L	506.11 ppb	16:56:01
2	Tl 190.801†	294.9	339.0	466.26 µg/L	466.26 ppb	16:56:21
2	U 409.014†	5629.0	6121.0	452.64 µg/L	452.64 ppb	16:56:01
2	V 292.402†	46870.5	50370.2	518.52 µg/L	518.52 ppb	16:56:01
2	Zn 213.857†	20535.2	21514.5	465.32 µg/L	465.32 ppb	16:56:01
3	Sc RADIAL	55847.7	55847.7	98.9 %		16:55:21
3	Al 396.153Radial†	722897.9	731277.0	508700 µg/L	508700 ppb	16:55:15
3	Ca 317.933Radial†	559752.9	566035.4	483500 µg/L	483500 ppb	16:55:15
3	Fe 238.204 Radial†	23698.6	23957.0	188960 µg/L	188960 ppb	16:55:21
3	K 766.490 Radial†	7809.0	7734.7	5051.6 µg/L	5051.6 ppb	16:55:21
3	Mg 279.077 IEC†	54100.9	54715.7	488910 µg/L	488910 ppb	16:55:21
3	Na 589.592 Radial†	17037.2	16762.7	5148.5 µg/L	5148.5 ppb	16:55:21
3	Sr 421.552†	53557.3	54149.8	499.54 µg/L	499.54 ppb	16:55:21
3	Sc 361.383	1849513.8	1849513.8	94.213 %		16:56:29
3	Y 371.029	1265200.0	1265200.0	93.528 %		16:56:29
3	Ag 328.068†	30278.1	32539.5	256.19 µg/L	256.19 ppb	16:56:29
3	As 188.979†	249.4	265.2	460.15 µg/L	460.15 ppb	16:56:49
3	B 249.677†	12838.9	13243.4	441.96 µg/L	441.96 ppb	16:56:29
3	Ba 233.527†	19684.2	20910.3	502.89 µg/L	502.89 ppb	16:56:29
3	Be 313.107†	381877.8	408190.3	242.06 µg/L	242.06 ppb	16:56:29
3	Cd 226.502†	18049.5	19299.9	460.44 µg/L	460.44 ppb	16:56:29
3	Co 228.616†	9068.2	9623.2	435.15 µg/L	435.15 ppb	16:56:49
3	Cr 267.716†	22913.2	24371.1	489.81 µg/L	489.81 ppb	16:56:29
3	Cu 324.752†	76676.5	78842.6	540.91 µg/L	540.91 ppb	16:56:29
3	Mn 257.610†	145122.9	154293.0	488.74 µg/L	488.74 ppb	16:56:29
3	Mo 202.031†	4785.3	5084.6	505.09 µg/L	505.09 ppb	16:56:49
3	Ni 231.604†	8413.0	8617.4	431.51 µg/L	431.51 ppb	16:56:49
3	P 214.914†	1336.0	1402.7	2723.0 µg/L	2723.0 ppb	16:56:49
3	Pb 220.353†	1874.0	1898.2	482.26 µg/L	482.26 ppb	16:56:49
3	S 181.975 Axial†	650.5	671.5	2784.8 µg/L	2784.8 ppb	16:56:49
3	Sb 206.836†	579.0	592.1	504.11 µg/L	504.11 ppb	16:56:49
3	Se 196.026†	1645.5	1727.2	2372.2 µg/L	2372.2 ppb	16:56:49
3	SiO2†	53612.6	55514.2	10958 µg/L	10958 ppb	16:56:29
3	Si 251.611†	64125.9	67754.2	5150.8 µg/L	5150.8 ppb	16:56:29
3	Sn 189.927†	1079.8	1145.8	518.33 µg/L	518.33 ppb	16:56:49
3	Ti 334.940†	228839.3	242720.7	506.05 µg/L	506.05 ppb	16:56:29
3	Tl 190.801†	301.0	341.8	470.11 µg/L	470.11 ppb	16:56:49
3	U 409.014†	5634.4	6057.5	447.53 µg/L	447.53 ppb	16:56:29
3	V 292.402†	47572.3	50539.2	520.25 µg/L	520.25 ppb	16:56:29
3	Zn 213.857†	20782.8	21525.0	465.57 µg/L	465.57 ppb	16:56:29

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1840520.1	93.755	%	0.5571				0.59%
Sc RADIAL	55664.4	98.5	%	0.49				0.49%
Y 371.029	1259398.2	93.099	%	0.5370				0.58%
Ag 328.068†	32629.7	256.85	µg/L	0.742	256.85	ppb	0.742	0.29%
QC value within limits for Ag 328.068 Recovery = 102.74%								
Al 396.153Radial†	732997.6	509900	µg/L	2418.3	509900	ppb	2418.3	0.47%
QC value within limits for Al 396.153Radial Recovery = 101.98%								
As 188.979†	275.9	479.23	µg/L	17.921	479.23	ppb	17.921	3.74%
QC value within limits for As 188.979 Recovery = 95.85%								
B 249.677†	13236.6	441.77	µg/L	0.799	441.77	ppb	0.799	0.18%
QC value within limits for B 249.677 Recovery = 88.35%								
Ba 233.527†	20903.9	502.73	µg/L	2.416	502.73	ppb	2.416	0.48%
QC value within limits for Ba 233.527 Recovery = 100.55%								
Be 313.107†	408479.9	242.23	µg/L	0.577	242.23	ppb	0.577	0.24%
QC value within limits for Be 313.107 Recovery = 96.89%								
Ca 317.933Radial†	567693.0	484910	µg/L	2511.8	484910	ppb	2511.8	0.52%
QC value within limits for Ca 317.933Radial Recovery = 96.98%								
Cd 226.502†	19250.8	459.23	µg/L	2.249	459.23	ppb	2.249	0.49%
QC value within limits for Cd 226.502 Recovery = 91.85%								
Co 228.616†	9630.5	435.47	µg/L	1.070	435.47	ppb	1.070	0.25%

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   QC value within limits for Co 228.616  Recovery = 87.09%
Cr 267.716†            24326.8      488.92 µg/L         1.082      488.92 ppb          1.082   0.22%
   QC value within limits for Cr 267.716  Recovery = 97.78%
Cu 324.752†            79110.9      542.63 µg/L         1.505      542.63 ppb          1.505   0.28%
   QC value within limits for Cu 324.752  Recovery = 108.53%
Fe 238.204 Radial†     23933.5      188770 µg/L         465.0      188770 ppb          465.0   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.39%
K 766.490 Radial†       7747.0      5059.7 µg/L          7.77      5059.7 ppb           7.77   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 101.19%
Mg 279.077 IEC†        54718.2      488940 µg/L         403.0      488940 ppb          403.0   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.79%
Mn 257.610†           154396.8      489.04 µg/L         1.134      489.04 ppb          1.134   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.81%
Mo 202.031†             5087.3      505.36 µg/L         0.362      505.36 ppb          0.362   0.07%
   QC value within limits for Mo 202.031  Recovery = 101.07%
Na 589.592 Radial†     16786.7      5155.9 µg/L          9.34      5155.9 ppb           9.34   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 103.12%
Ni 231.604†             8623.2      431.80 µg/L         1.714      431.80 ppb          1.714   0.40%
   QC value within limits for Ni 231.604  Recovery = 86.36%
P 214.914†              1396.7      2711.6 µg/L         11.77      2711.6 ppb          11.77   0.43%
   QC value within limits for P 214.914  Recovery = 108.46%
Pb 220.353†             1905.3      484.05 µg/L         2.482      484.05 ppb          2.482   0.51%
   QC value within limits for Pb 220.353  Recovery = 96.81%
S 181.975 Axial†         671.3      2784.0 µg/L          1.83      2784.0 ppb           1.83   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 111.36%
Sb 206.836†              593.6      505.36 µg/L         4.096      505.36 ppb          4.096   0.81%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†             1723.7      2366.3 µg/L         15.98      2366.3 ppb          15.98   0.68%
   QC value within limits for Se 196.026  Recovery = 94.65%
SiO2†                  55585.5       10972 µg/L          29.5       10972 ppb           29.5   0.27%
   QC value within limits for SiO2  Recovery = 102.59%
Si 251.611†            67805.4      5154.7 µg/L          9.54      5154.7 ppb           9.54   0.19%
   QC value within limits for Si 251.611  Recovery = 103.09%
Sn 189.927†             1151.6      520.81 µg/L         2.193      520.81 ppb          2.193   0.42%
   QC value within limits for Sn 189.927  Recovery = 104.16%
Sr 421.552†            54247.0      500.44 µg/L         0.776      500.44 ppb          0.776   0.16%
   QC value within limits for Sr 421.552  Recovery = 100.09%
Ti 334.940†           243050.1      506.80 µg/L         1.249      506.80 ppb          1.249   0.25%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              337.0      463.71 µg/L         7.981      463.71 ppb          7.981   1.72%
   QC value within limits for Tl 190.801  Recovery = 92.74%
U 409.014†              6134.3      453.84 µg/L         6.995      453.84 ppb          6.995   1.54%
   QC value within limits for U 409.014  Recovery = 90.77%
V 292.402†             50494.7      519.80 µg/L         1.121      519.80 ppb          1.121   0.22%
   QC value within limits for V 292.402  Recovery = 103.96%
Zn 213.857†            21564.0      466.49 µg/L         1.813      466.49 ppb          1.813   0.39%
   QC value within limits for Zn 213.857  Recovery = 93.30%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/19/2010 16:56:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54748.6	54748.6	96.9	%			16:57:39
1	Al 396.153Radial†	706292.1	728823.1	507010	µg/L	507010	ppb	16:57:34
1	Ca 317.933Radial†	550897.7	568266.0	485400	µg/L	485400	ppb	16:57:34
1	Fe 238.204 Radial†	56162.0	57937.6	456950	µg/L	456950	ppb	16:57:39
1	K 766.490 Radial†	115.4	-45.9	-29.969	µg/L	-29.969	ppb	16:57:39
1	Mg 279.077 IEC†	52280.8	53936.3	481650	µg/L	481650	ppb	16:57:39
1	Na 589.592 Radial†	1551701.3	1600745.1	491660	µg/L	491660	ppb	16:57:34
1	Sr 421.552†	596.5	586.7	5.4124	µg/L	5.4124	ppb	16:57:39
1	Sc 361.383	1808982.1	1808982.1	92.148	%			16:58:15
1	Y 371.029	1229275.2	1229275.2	90.872	%			16:58:15
1	Ag 328.068†	-4982.3	-5005.2	-8.7931	µg/L	-8.7931	ppb	16:58:15
1	As 188.979†	-19.3	-20.5	-35.405	µg/L	-35.405	ppb	16:58:35
1	B 249.677†	1469.8	1210.9	-189.08	µg/L	-189.08	ppb	16:58:15
1	Ba 233.527†	599.8	668.0	15.898	µg/L	15.898	ppb	16:58:35
1	Be 313.107†	-11244.2	-9346.6	-5.5617	µg/L	-5.5617	ppb	16:58:15
1	Cd 226.502†	1210.5	1455.3	-15.352	µg/L	-15.352	ppb	16:58:15
1	Co 228.616†	210.6	226.6	10.160	µg/L	10.160	ppb	16:58:35
1	Cr 267.716†	45.2	99.4	1.9489	µg/L	1.9489	ppb	16:58:35
1	Cu 324.752†	-9617.8	-12981.1	-21.218	µg/L	-21.218	ppb	16:58:15
1	Mn 257.610†	-6155.9	-6424.4	21.370	µg/L	21.370	ppb	16:58:15
1	Mo 202.031†	-225.9	-239.8	-6.1197	µg/L	-6.1197	ppb	16:58:35
1	Ni 231.604†	48.3	-259.9	-7.0295	µg/L	-7.0295	ppb	16:58:35
1	P 214.914†	306.6	317.4	411.96	µg/L	411.96	ppb	16:58:35
1	Pb 220.353†	156.6	79.1	15.477	µg/L	15.477	ppb	16:58:35
1	S 181.975 Axial†	35.4	19.5	80.955	µg/L	80.955	ppb	16:58:35
1	Sb 206.836†	57.1	39.4	-6.4292	µg/L	-6.4292	ppb	16:58:35
1	Se 196.026†	-157.5	-190.2	417.62	µg/L	417.62	ppb	16:58:35
1	SiO2†	1118.3	-178.0	-35.141	µg/L	-35.141	ppb	16:58:35
1	Si 251.611†	-300.1	-636.3	-48.374	µg/L	-48.374	ppb	16:58:35
1	Sn 189.927†	-47.4	-51.8	-16.141	µg/L	-16.141	ppb	16:58:35
1	Ti 334.940†	15981.4	17168.1	7.6569	µg/L	7.6569	ppb	16:58:15
1	Tl 190.801†	-58.7	-41.3	21.254	µg/L	21.254	ppb	16:58:35
1	U 409.014†	152808.3	165905.7	13691	µg/L	13691	ppb	16:58:15
1	V 292.402†	-7264.4	-7838.6	-8.4612	µg/L	-8.4612	ppb	16:58:15
1	Zn 213.857†	2986.9	2707.0	14.661	µg/L	14.661	ppb	16:58:35
2	Sc RADIAL	54627.5	54627.5	96.7	%			16:57:51
2	Al 396.153Radial†	705003.9	729106.1	507210	µg/L	507210	ppb	16:57:46
2	Ca 317.933Radial†	548288.5	566827.4	484170	µg/L	484170	ppb	16:57:46
2	Fe 238.204 Radial†	56104.2	58006.2	457490	µg/L	457490	ppb	16:57:51
2	K 766.490 Radial†	75.8	-86.6	-56.548	µg/L	-56.548	ppb	16:57:51
2	Mg 279.077 IEC†	52084.5	53852.8	480900	µg/L	480900	ppb	16:57:51
2	Na 589.592 Radial†	1549659.8	1602182.6	492100	µg/L	492100	ppb	16:57:46
2	Sr 421.552†	580.4	571.4	5.2714	µg/L	5.2714	ppb	16:57:51
2	Sc 361.383	1809663.3	1809663.3	92.183	%			16:58:42
2	Y 371.029	1230302.7	1230302.7	90.948	%			16:58:42
2	Ag 328.068†	-5024.4	-5048.9	-9.0852	µg/L	-9.0852	ppb	16:58:42
2	As 188.979†	-32.4	-34.7	-60.833	µg/L	-60.833	ppb	16:59:03
2	B 249.677†	1435.1	1172.6	-190.92	µg/L	-190.92	ppb	16:58:42
2	Ba 233.527†	598.4	666.2	15.855	µg/L	15.855	ppb	16:59:03
2	Be 313.107†	-11290.0	-9391.7	-5.5890	µg/L	-5.5890	ppb	16:58:42
2	Cd 226.502†	1204.3	1448.1	-15.591	µg/L	-15.591	ppb	16:58:42
2	Co 228.616†	198.7	213.6	9.5711	µg/L	9.5711	ppb	16:59:03
2	Cr 267.716†	78.1	135.1	2.6649	µg/L	2.6649	ppb	16:59:03
2	Cu 324.752†	-9599.6	-12957.4	-20.988	µg/L	-20.988	ppb	16:58:42
2	Mn 257.610†	-6316.5	-6596.2	20.934	µg/L	20.934	ppb	16:58:42
2	Mo 202.031†	-200.5	-212.1	-3.3875	µg/L	-3.3875	ppb	16:59:03
2	Ni 231.604†	53.6	-254.2	-6.7348	µg/L	-6.7348	ppb	16:59:03
2	P 214.914†	301.0	311.1	399.21	µg/L	399.21	ppb	16:59:03
2	Pb 220.353†	148.3	69.9	13.245	µg/L	13.245	ppb	16:59:03

2	S 181.975 Axial†	35.1	19.1	79.229 µg/L	79.229 ppb	16:59:03
2	Sb 206.836†	43.8	25.1	-19.483 µg/L	-19.483 ppb	16:59:03
2	Se 196.026†	-176.5	-210.8	391.20 µg/L	391.20 ppb	16:59:03
2	SiO2†	1119.0	-177.7	-35.076 µg/L	-35.076 ppb	16:59:03
2	Si 251.611†	-359.8	-700.9	-53.283 µg/L	-53.283 ppb	16:59:03
2	Sn 189.927†	-47.7	-52.1	-16.412 µg/L	-16.412 ppb	16:59:03
2	Ti 334.940†	16565.0	17794.7	9.0824 µg/L	9.0824 ppb	16:58:42
2	Tl 190.801†	-50.4	-32.3	33.191 µg/L	33.191 ppb	16:59:03
2	U 409.014†	152895.7	165938.1	13694 µg/L	13694 ppb	16:58:42
2	V 292.402†	-7309.1	-7884.1	-8.8154 µg/L	-8.8154 ppb	16:58:42
2	Zn 213.857†	2986.8	2705.7	14.646 µg/L	14.646 ppb	16:59:03
3	Sc RADIAL	54733.6	54733.6	96.9 %		16:58:03
3	Al 396.153Radial†	704918.4	727604.3	506160 µg/L	506160 ppb	16:57:58
3	Ca 317.933Radial†	547195.5	564600.0	482270 µg/L	482270 ppb	16:57:58
3	Fe 238.204 Radial†	56342.5	58139.8	458540 µg/L	458540 ppb	16:58:03
3	K 766.490 Radial†	150.9	-9.2	-6.0382 µg/L	-6.0382 ppb	16:58:03
3	Mg 279.077 IEC†	52432.2	54107.4	483180 µg/L	483180 ppb	16:58:03
3	Na 589.592 Radial†	1551864.9	1601351.6	491840 µg/L	491840 ppb	16:57:58
3	Sr 421.552†	544.2	532.9	4.9161 µg/L	4.9161 ppb	16:58:03
3	Sc 361.383	1803530.5	1803530.5	91.871 %		16:59:10
3	Y 371.029	1226225.3	1226225.3	90.646 %		16:59:10
3	Ag 328.068†	-4992.7	-5032.9	-8.8937 µg/L	-8.8937 ppb	16:59:10
3	As 188.979†	-17.9	-19.1	-32.607 µg/L	-32.607 ppb	16:59:30
3	B 249.677†	1429.0	1171.3	-191.53 µg/L	-191.53 ppb	16:59:10
3	Ba 233.527†	596.4	666.2	15.857 µg/L	15.857 ppb	16:59:30
3	Be 313.107†	-11247.7	-9387.3	-5.5855 µg/L	-5.5855 ppb	16:59:10
3	Cd 226.502†	1240.2	1491.6	-14.625 µg/L	-14.625 ppb	16:59:10
3	Co 228.616†	217.8	235.1	10.551 µg/L	10.551 ppb	16:59:30
3	Cr 267.716†	61.4	117.2	2.3057 µg/L	2.3057 ppb	16:59:30
3	Cu 324.752†	-9496.4	-12880.5	-20.340 µg/L	-20.340 ppb	16:59:10
3	Mn 257.610†	-6307.3	-6609.4	20.942 µg/L	20.942 ppb	16:59:10
3	Mo 202.031†	-204.7	-217.5	-3.8705 µg/L	-3.8705 ppb	16:59:30
3	Ni 231.604†	57.2	-250.1	-6.5186 µg/L	-6.5186 ppb	16:59:30
3	P 214.914†	280.7	290.2	356.64 µg/L	356.64 ppb	16:59:30
3	Pb 220.353†	147.7	69.8	13.118 µg/L	13.118 ppb	16:59:30
3	S 181.975 Axial†	25.1	8.4	34.818 µg/L	34.818 ppb	16:59:30
3	Sb 206.836†	38.6	19.5	-24.434 µg/L	-24.434 ppb	16:59:30
3	Se 196.026†	-161.9	-195.6	413.95 µg/L	413.95 ppb	16:59:30
3	SiO2†	1115.5	-177.4	-35.018 µg/L	-35.018 ppb	16:59:30
3	Si 251.611†	-321.2	-660.2	-50.191 µg/L	-50.191 ppb	16:59:30
3	Sn 189.927†	-41.2	-45.3	-13.350 µg/L	-13.350 ppb	16:59:30
3	Ti 334.940†	15494.0	16690.0	6.4283 µg/L	6.4283 ppb	16:59:10
3	Tl 190.801†	-51.2	-33.3	32.056 µg/L	32.056 ppb	16:59:30
3	U 409.014†	152493.7	166064.5	13704 µg/L	13704 ppb	16:59:10
3	V 292.402†	-7191.9	-7783.6	-7.7057 µg/L	-7.7057 ppb	16:59:10
3	Zn 213.857†	2972.0	2700.6	14.345 µg/L	14.345 ppb	16:59:30

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807392.0	92.067	%	0.1712				0.19%
Sc RADIAL	54703.2	96.8	%	0.12				0.12%
Y 371.029	1228601.0	90.822	%	0.1568				0.17%
Ag 328.068†	-5029.0	-8.9240	µg/L	0.14840	-8.9240	ppb	0.14840	1.66%
Al 396.153Radial†	728511.2	506790	µg/L	555.2	506790	ppb	555.2	0.11%
QC value within limits for Al 396.153Radial Recovery = 101.36%								
As 188.979†	-24.8	-42.948	µg/L	15.5521	-42.948	ppb	15.5521	36.21%
B 249.677†	1184.9	-190.51	µg/L	1.274	-190.51	ppb	1.274	0.67%
Ba 233.527†	666.8	15.870	µg/L	0.0245	15.870	ppb	0.0245	0.15%
Be 313.107†	-9375.2	-5.5787	µg/L	0.01486	-5.5787	ppb	0.01486	0.27%
Ca 317.933Radial†	566564.5	483950	µg/L	1577.8	483950	ppb	1577.8	0.33%
QC value within limits for Ca 317.933Radial Recovery = 96.79%								
Cd 226.502†	1465.0	-15.189	µg/L	0.5033	-15.189	ppb	0.5033	3.31%
Co 228.616†	225.1	10.094	µg/L	0.4933	10.094	ppb	0.4933	4.89%
Cr 267.716†	117.2	2.3065	µg/L	0.35801	2.3065	ppb	0.35801	15.52%
Cu 324.752†	-12939.7	-20.849	µg/L	0.4554	-20.849	ppb	0.4554	2.18%
Fe 238.204 Radial†	58027.9	457660	µg/L	810.7	457660	ppb	810.7	0.18%
QC value within limits for Fe 238.204 Radial Recovery = 91.53%								
K 766.490 Radial†	-47.2	-30.852	µg/L	25.2666	-30.852	ppb	25.2666	81.90%
Mg 279.077 IEC†	53965.5	481910	µg/L	1159.2	481910	ppb	1159.2	0.24%

QC value within limits for Mg 279.077 IEC Recovery = 96.38%

Mn 257.610†	-6543.3	21.082 µg/L	0.2497	21.082 ppb	0.2497	1.18%
Mo 202.031†	-223.1	-4.4592 µg/L	1.45813	-4.4592 ppb	1.45813	32.70%
Na 589.592 Radial†	1601426.4	491870 µg/L	221.6	491870 ppb	221.6	0.05%

QC value within limits for Na 589.592 Radial Recovery = 98.37%

Ni 231.604†	-254.7	-6.7610 µg/L	0.25647	-6.7610 ppb	0.25647	3.79%
P 214.914†	306.2	389.27 µg/L	28.970	389.27 ppb	28.970	7.44%
Pb 220.353†	72.9	13.947 µg/L	1.3271	13.947 ppb	1.3271	9.52%
S 181.975 Axial†	15.7	65.000 µg/L	26.1534	65.000 ppb	26.1534	40.24%
Sb 206.836†	28.0	-16.782 µg/L	9.3013	-16.782 ppb	9.3013	55.42%
Se 196.026†	-198.8	407.59 µg/L	14.310	407.59 ppb	14.310	3.51%
SiO2†	-177.7	-35.078 µg/L	0.0614	-35.078 ppb	0.0614	0.18%
Si 251.611†	-665.8	-50.616 µg/L	2.4820	-50.616 ppb	2.4820	4.90%
Sn 189.927†	-49.7	-15.301 µg/L	1.6952	-15.301 ppb	1.6952	11.08%
Sr 421.552†	563.7	5.2000 µg/L	0.25572	5.2000 ppb	0.25572	4.92%
Ti 334.940†	17217.6	7.7225 µg/L	1.32825	7.7225 ppb	1.32825	17.20%
Tl 190.801†	-35.6	28.834 µg/L	6.5890	28.834 ppb	6.5890	22.85%
U 409.014†	165969.4	13696 µg/L	7.0	13696 ppb	7.0	0.05%

QC value within limits for U 409.014 Recovery = 91.31%

V 292.402†	-7835.4	-8.3274 µg/L	0.56678	-8.3274 ppb	0.56678	6.81%
Zn 213.857†	2704.4	14.551 µg/L	0.1785	14.551 ppb	0.1785	1.23%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/19/2010 16:59:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56692.7	56692.7	100	%			17:00:22
1	Al 396.153Radial†	410.3	401.6	67.150	µg/L	67.150	ppb	17:00:22
1	Ca 317.933Radial†	313.1	100.7	86.030	µg/L	86.030	ppb	17:00:42
1	Fe 238.204 Radial†	6.3	-10.3	125.34	µg/L	125.34	ppb	17:00:42
1	K 766.490 Radial†	452848.2	451108.7	294630	µg/L	294630	ppb	17:00:16
1	Mg 279.077 IEC†	-3.5	-16.3	27.924	µg/L	27.924	ppb	17:00:42
1	Na 589.592 Radial†	1202.8	726.5	223.13	µg/L	223.13	ppb	17:00:22
1	Sr 421.552†	1055792.8	1052093.2	9705.7	µg/L	9705.7	ppb	17:00:16
1	Sc 361.383	1927950.9	1927950.9	98.209	%			17:02:14
1	Y 371.029	1317313.5	1317313.5	97.380	%			17:02:14
1	Ag 328.068†	-7740.8	-7480.4	13.019	µg/L	13.019	ppb	17:02:19
1	As 188.979†	5373.1	5471.6	9786.3	µg/L	9786.3	ppb	17:02:19
1	B 249.677†	122177.3	124021.9	5094.8	µg/L	5094.8	ppb	17:02:14
1	Ba 233.527†	611336.6	622505.5	14963	µg/L	14963	ppb	17:02:14
1	Be 313.107†	4884950.3	4976915.5	2949.9	µg/L	2949.9	ppb	17:02:03
1	Cd 226.502†	386911.9	394111.5	9839.4	µg/L	9839.4	ppb	17:02:14
1	Co 228.616†	210861.9	214706.5	9711.7	µg/L	9711.7	ppb	17:02:14
1	Cr 267.716†	1221432.5	1243763.8	24988	µg/L	24988	ppb	17:02:14
1	Cu 324.752†	3142243.6	3197019.5	20869	µg/L	20869	ppb	17:02:14
1	Mn 257.610†	3084343.0	3140862.5	9835.7	µg/L	9835.7	ppb	17:02:14
1	Mo 202.031†	103586.6	105481.5	10329	µg/L	10329	ppb	17:02:14
1	Ni 231.604†	195607.8	198863.7	9901.7	µg/L	9901.7	ppb	17:02:14
1	P 214.914†	7737.6	7863.4	13522	µg/L	13522	ppb	17:02:19
1	Pb 220.353†	104065.3	105872.7	25731	µg/L	25731	ppb	17:02:14
1	S 181.975 Axial†	12812.3	13027.1	54023	µg/L	54023	ppb	17:02:19
1	Sb 206.836†	11529.6	11717.4	10643	µg/L	10643	ppb	17:02:19
1	Se 196.026†	6981.3	7089.4	9956.3	µg/L	9956.3	ppb	17:02:19
1	SiO2†	509789.5	517697.3	102190	µg/L	102190	ppb	17:02:14
1	Si 251.611†	616246.3	627177.0	47679	µg/L	47679	ppb	17:02:14
1	Sn 189.927†	24747.6	25198.7	10627	µg/L	10627	ppb	17:02:19
1	Ti 334.940†	4520614.2	4602902.5	10183	µg/L	10183	ppb	17:02:03
1	Tl 190.801†	7250.0	7404.6	9714.3	µg/L	9714.3	ppb	17:02:19
1	U 409.014†	894.0	987.4	82.040	µg/L	82.040	ppb	17:02:14
1	V 292.402†	1045223.3	1064334.6	10510	µg/L	10510	ppb	17:02:14
1	Zn 213.857†	624777.0	635639.6	14836	µg/L	14836	ppb	17:02:14
2	Sc RADIAL	56901.4	56901.4	101	%			17:00:54
2	Al 396.153Radial†	358.9	349.0	41.120	µg/L	41.120	ppb	17:00:54
2	Ca 317.933Radial†	305.5	92.1	78.637	µg/L	78.637	ppb	17:01:14
2	Fe 238.204 Radial†	4.4	-12.2	99.290	µg/L	99.290	ppb	17:01:14
2	K 766.490 Radial†	456232.0	452813.9	295740	µg/L	295740	ppb	17:00:48
2	Mg 279.077 IEC†	1.4	-11.4	63.333	µg/L	63.333	ppb	17:01:14
2	Na 589.592 Radial†	1121.5	641.3	196.97	µg/L	196.97	ppb	17:00:54
2	Sr 421.552†	1064137.7	1056521.3	9746.6	µg/L	9746.6	ppb	17:00:48
2	Sc 361.383	1930719.4	1930719.4	98.350	%			17:02:38
2	Y 371.029	1320362.0	1320362.0	97.605	%			17:02:38
2	Ag 328.068†	-7077.0	-6794.2	14.570	µg/L	14.570	ppb	17:02:44
2	As 188.979†	5081.0	5166.8	9240.9	µg/L	9240.9	ppb	17:02:44
2	B 249.677†	118618.7	120225.2	4937.5	µg/L	4937.5	ppb	17:02:38
2	Ba 233.527†	584914.6	594747.4	14296	µg/L	14296	ppb	17:02:38
2	Be 313.107†	4840646.5	4924735.5	2919.0	µg/L	2919.0	ppb	17:02:28
2	Cd 226.502†	369934.9	376284.7	9394.3	µg/L	9394.3	ppb	17:02:38
2	Co 228.616†	200219.4	203577.5	9207.4	µg/L	9207.4	ppb	17:02:38
2	Cr 267.716†	1146054.0	1165336.9	23412	µg/L	23412	ppb	17:02:38
2	Cu 324.752†	2987260.6	3034847.6	19810	µg/L	19810	ppb	17:02:38
2	Mn 257.610†	2933156.9	2982635.7	9340.2	µg/L	9340.2	ppb	17:02:38
2	Mo 202.031†	98580.4	100240.0	9816.1	µg/L	9816.1	ppb	17:02:38
2	Ni 231.604†	185684.1	188487.9	9385.1	µg/L	9385.1	ppb	17:02:38
2	P 214.914†	7168.5	7273.5	12452	µg/L	12452	ppb	17:02:44
2	Pb 220.353†	100296.4	101888.6	24763	µg/L	24763	ppb	17:02:38

2	S 181.975 Axial†	12172.5	12357.8	51247	µg/L	51247 ppb	17:02:44
2	Sb 206.836†	10777.5	10935.8	9934.7	µg/L	9934.7 ppb	17:02:44
2	Se 196.026†	6594.7	6686.0	9389.7	µg/L	9389.7 ppb	17:02:44
2	SiO2†	493318.0	500205.0	98734	µg/L	98734 ppb	17:02:38
2	Si 251.611†	596653.2	606355.3	46096	µg/L	46096 ppb	17:02:38
2	Sn 189.927†	22590.4	22969.2	9686.4	µg/L	9686.4 ppb	17:02:44
2	Ti 334.940†	4476920.0	4551874.4	10070	µg/L	10070 ppb	17:02:28
2	Tl 190.801†	7064.0	7204.9	9453.5	µg/L	9453.5 ppb	17:02:44
2	U 409.014†	804.4	895.0	74.370	µg/L	74.370 ppb	17:02:38
2	V 292.402†	992711.5	1009415.4	9966.7	µg/L	9966.7 ppb	17:02:38
2	Zn 213.857†	595571.0	605031.1	14122	µg/L	14122 ppb	17:02:38
3	Sc RADIAL	56734.5	56734.5	100	%		17:01:26
3	Al 396.153Radial†	382.8	373.8	92.098	µg/L	92.098 ppb	17:01:26
3	Ca 317.933Radial†	337.7	125.0	106.77	µg/L	106.77 ppb	17:01:46
3	Fe 238.204 Radial†	8.1	-8.5	96.137	µg/L	96.137 ppb	17:01:46
3	K 766.490 Radial†	455344.2	453262.2	296030	µg/L	296030 ppb	17:01:20
3	Mg 279.077 IEC†	6.4	-6.4	80.021	µg/L	80.021 ppb	17:01:46
3	Na 589.592 Radial†	1058.9	582.2	178.83	µg/L	178.83 ppb	17:01:26
3	Sr 421.552†	1062613.5	1058110.9	9761.2	µg/L	9761.2 ppb	17:01:20
3	Sc 361.383	1951531.6	1951531.6	99.410	%		17:03:03
3	Y 371.029	1334759.8	1334759.8	98.670	%		17:03:03
3	Ag 328.068†	-5952.6	-5586.4	12.490	µg/L	12.490 ppb	17:03:09
3	As 188.979†	4352.3	4378.6	7831.5	µg/L	7831.5 ppb	17:03:09
3	B 249.677†	103961.3	104194.4	4277.3	µg/L	4277.3 ppb	17:03:03
3	Ba 233.527†	498513.8	501491.0	12054	µg/L	12054 ppb	17:03:03
3	Be 313.107†	4199873.9	4227668.5	2505.9	µg/L	2505.9 ppb	17:02:53
3	Cd 226.502†	314684.6	316694.9	7906.5	µg/L	7906.5 ppb	17:03:03
3	Co 228.616†	168522.5	169521.2	7666.6	µg/L	7666.6 ppb	17:03:03
3	Cr 267.716†	945201.2	950864.3	19103	µg/L	19103 ppb	17:03:03
3	Cu 324.752†	2517755.9	2530162.7	16516	µg/L	16516 ppb	17:03:03
3	Mn 257.610†	2467371.4	2482278.7	7773.3	µg/L	7773.3 ppb	17:03:03
3	Mo 202.031†	82974.3	83472.3	8174.1	µg/L	8174.1 ppb	17:03:03
3	Ni 231.604†	156258.3	156873.9	7811.0	µg/L	7811.0 ppb	17:03:03
3	P 214.914†	6005.8	6026.1	10305	µg/L	10305 ppb	17:03:09
3	Pb 220.353†	86464.2	86886.7	21117	µg/L	21117 ppb	17:03:03
3	S 181.975 Axial†	10331.9	10374.4	43022	µg/L	43022 ppb	17:03:09
3	Sb 206.836†	9128.5	9160.2	8326.6	µg/L	8326.6 ppb	17:03:09
3	Se 196.026†	5645.3	5659.5	7948.1	µg/L	7948.1 ppb	17:03:09
3	SiO2†	429530.2	430689.2	85012	µg/L	85012 ppb	17:03:03
3	Si 251.611†	519223.8	521996.3	39683	µg/L	39683 ppb	17:03:03
3	Sn 189.927†	18770.5	18881.6	7962.6	µg/L	7962.6 ppb	17:03:09
3	Ti 334.940†	3882788.8	3905669.8	8640.2	µg/L	8640.2 ppb	17:02:53
3	Tl 190.801†	6222.6	6282.0	8241.0	µg/L	8241.0 ppb	17:03:09
3	U 409.014†	704.1	785.3	65.252	µg/L	65.252 ppb	17:03:03
3	V 292.402†	832909.4	837900.0	8272.7	µg/L	8272.7 ppb	17:03:03
3	Zn 213.857†	505033.0	507497.5	11846	µg/L	11846 ppb	17:03:03

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1936734.0	98.656	%	0.6566				0.67%
Sc RADIAL	56776.2	100	%	0.2				0.19%
Y 371.029	1324145.1	97.885	%	0.6888				0.70%
Ag 328.068†	-6620.3	13.360	µg/L	1.0808	13.360	ppb	1.0808	8.09%
Al 396.153Radial†	374.8	66.790	µg/L	25.4910	66.790	ppb	25.4910	38.17%
As 188.979†	5005.6	8952.9	µg/L	1008.74	8952.9	ppb	1008.74	11.27%
QC value less than the lower limit for As 188.979 Recovery = 89.53%								
B 249.677†	116147.2	4769.9	µg/L	433.79	4769.9	ppb	433.79	9.09%
QC value within limits for B 249.677 Recovery = 95.40%								
Ba 233.527†	572914.6	13771	µg/L	1524.0	13771	ppb	1524.0	11.07%
QC value within limits for Ba 233.527 Recovery = 91.81%								
Be 313.107†	4709773.2	2791.6	µg/L	247.95	2791.6	ppb	247.95	8.88%
QC value within limits for Be 313.107 Recovery = 93.05%								
Ca 317.933Radial†	105.9	90.480	µg/L	14.5864	90.480	ppb	14.5864	16.12%
Cd 226.502†	362363.7	9046.7	µg/L	1012.25	9046.7	ppb	1012.25	11.19%
QC value within limits for Cd 226.502 Recovery = 90.47%								
Co 228.616†	195935.1	8861.9	µg/L	1065.42	8861.9	ppb	1065.42	12.02%
QC value less than the lower limit for Co 228.616 Recovery = 88.62%								
Cr 267.716†	1119988.3	22501	µg/L	3046.1	22501	ppb	3046.1	13.54%
QC value within limits for Cr 267.716 Recovery = 90.00%								

Cu 324.752†	2920676.6	19065 µg/L	2270.1	19065 ppb	2270.1	11.91%
QC value within limits for Cu 324.752 Recovery = 95.32%						
Fe 238.204 Radial†	-10.3	106.92 µg/L	16.029	106.92 ppb	16.029	14.99%
K 766.490 Radial†	452395.0	295470 µg/L	742.1	295470 ppb	742.1	0.25%
QC value within limits for K 766.490 Radial Recovery = 98.49%						
Mg 279.077 IEC†	-11.4	57.093 µg/L	26.6031	57.093 ppb	26.6031	46.60%
Mn 257.610†	2868592.3	8983.1 µg/L	1076.57	8983.1 ppb	1076.57	11.98%
QC value less than the lower limit for Mn 257.610 Recovery = 89.83%						
Mo 202.031†	96398.0	9439.9 µg/L	1125.82	9439.9 ppb	1125.82	11.93%
QC value within limits for Mo 202.031 Recovery = 94.40%						
Na 589.592 Radial†	650.0	199.64 µg/L	22.270	199.64 ppb	22.270	11.15%
Ni 231.604†	181408.5	9032.6 µg/L	1089.03	9032.6 ppb	1089.03	12.06%
QC value within limits for Ni 231.604 Recovery = 90.33%						
P 214.914†	7054.3	12093 µg/L	1638.4	12093 ppb	1638.4	13.55%
QC value less than the lower limit for P 214.914 Recovery = 80.62%						
Pb 220.353†	98216.0	23870 µg/L	2433.1	23870 ppb	2433.1	10.19%
QC value within limits for Pb 220.353 Recovery = 95.48%						
S 181.975 Axial†	11919.8	49431 µg/L	5721.0	49431 ppb	5721.0	11.57%
QC value within limits for S 181.975 Axial Recovery = 98.86%						
Sb 206.836†	10604.5	9634.7 µg/L	1186.86	9634.7 ppb	1186.86	12.32%
QC value within limits for Sb 206.836 Recovery = 96.35%						
Se 196.026†	6478.3	9098.0 µg/L	1035.37	9098.0 ppb	1035.37	11.38%
QC value within limits for Se 196.026 Recovery = 90.98%						
SiO2†	482863.9	95311 µg/L	9084.4	95311 ppb	9084.4	9.53%
QC value less than the lower limit for SiO2 Recovery = 89.08%						
Si 251.611†	585176.2	44486 µg/L	4234.2	44486 ppb	4234.2	9.52%
QC value less than the lower limit for Si 251.611 Recovery = 88.97%						
Sn 189.927†	22349.8	9425.3 µg/L	1351.08	9425.3 ppb	1351.08	14.33%
QC value within limits for Sn 189.927 Recovery = 94.25%						
Sr 421.552†	1055575.2	9737.8 µg/L	28.77	9737.8 ppb	28.77	0.30%
QC value within limits for Sr 421.552 Recovery = 97.38%						
Ti 334.940†	4353482.3	9630.9 µg/L	859.79	9630.9 ppb	859.79	8.93%
QC value within limits for Ti 334.940 Recovery = 96.31%						
Tl 190.801†	6963.8	9136.3 µg/L	786.19	9136.3 ppb	786.19	8.61%
QC value within limits for Tl 190.801 Recovery = 91.36%						
U 409.014†	889.2	73.887 µg/L	8.4048	73.887 ppb	8.4048	11.38%
V 292.402†	970550.0	9583.0 µg/L	1166.76	9583.0 ppb	1166.76	12.18%
QC value within limits for V 292.402 Recovery = 95.83%						
Zn 213.857†	582722.8	13601 µg/L	1561.6	13601 ppb	1561.6	11.48%
QC value within limits for Zn 213.857 Recovery = 90.67%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:03:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55888.6	55888.6	98.9	%			17:03:56
1	Al 396.153Radial†	7603.9	7679.1	5330.8	µg/L	5330.8	ppb	17:03:56
1	Ca 317.933Radial†	6396.5	6254.7	5342.6	µg/L	5342.6	ppb	17:04:16
1	Fe 238.204 Radial†	693.3	684.2	5407.8	µg/L	5407.8	ppb	17:04:16
1	K 766.490 Radial†	8387.1	8313.2	5429.5	µg/L	5429.5	ppb	17:03:56
1	Mg 279.077 IEC†	619.4	613.3	5485.4	µg/L	5485.4	ppb	17:04:16
1	Na 589.592 Radial†	35135.8	35045.3	10764	µg/L	10764	ppb	17:03:56
1	Sr 421.552†	55695.8	56272.0	519.12	µg/L	519.12	ppb	17:03:56
1	Sc 361.383	1985726.3	1985726.3	101.15	%			17:05:20
1	Y 371.029	1365771.7	1365771.7	100.96	%			17:05:20
1	Ag 328.068†	70288.8	69890.2	521.53	µg/L	521.53	ppb	17:05:25
1	As 188.979†	301.3	298.4	533.72	µg/L	533.72	ppb	17:05:46
1	B 249.677†	13549.7	13011.4	528.34	µg/L	528.34	ppb	17:05:25
1	Ba 233.527†	22064.2	21830.1	525.03	µg/L	525.03	ppb	17:05:25
1	Be 313.107†	895757.0	888415.0	527.08	µg/L	527.08	ppb	17:05:20
1	Cd 226.502†	21255.4	21155.1	527.55	µg/L	527.55	ppb	17:05:25
1	Co 228.616†	11817.8	11681.3	528.41	µg/L	528.41	ppb	17:05:25
1	Cr 267.716†	26786.8	26532.2	533.24	µg/L	533.24	ppb	17:05:25
1	Cu 324.752†	84423.2	80918.4	528.94	µg/L	528.94	ppb	17:05:25
1	Mn 257.610†	172694.5	170984.5	535.94	µg/L	535.94	ppb	17:05:20
1	Mo 202.031†	5634.1	5575.3	546.17	µg/L	546.17	ppb	17:05:46
1	Ni 231.604†	11061.6	10623.3	529.01	µg/L	529.01	ppb	17:05:25
1	P 214.914†	1393.6	1362.4	2646.9	µg/L	2646.9	ppb	17:05:46
1	Pb 220.353†	2366.1	2248.2	546.74	µg/L	546.74	ppb	17:05:46
1	S 181.975 Axial†	286.4	264.2	1095.6	µg/L	1095.6	ppb	17:05:46
1	Sb 206.836†	624.5	594.8	548.51	µg/L	548.51	ppb	17:05:46
1	Se 196.026†	403.3	379.4	541.16	µg/L	541.16	ppb	17:05:46
1	SiO2†	30463.6	28725.2	5670.0	µg/L	5670.0	ppb	17:05:25
1	Si 251.611†	35537.3	34822.1	2647.2	µg/L	2647.2	ppb	17:05:25
1	Sn 189.927†	1316.6	1301.2	548.79	µg/L	548.79	ppb	17:05:46
1	Ti 334.940†	242343.4	239409.4	529.28	µg/L	529.28	ppb	17:05:20
1	Tl 190.801†	396.9	414.8	545.11	µg/L	545.11	ppb	17:05:46
1	U 409.014†	6392.8	6397.1	530.42	µg/L	530.42	ppb	17:05:25
1	V 292.402†	54586.5	54009.9	532.97	µg/L	532.97	ppb	17:05:25
1	Zn 213.857†	23680.6	22876.6	532.96	µg/L	532.96	ppb	17:05:25
2	Sc RADIAL	56411.2	56411.2	99.9	%			17:04:22
2	Al 396.153Radial†	7635.5	7639.5	5303.6	µg/L	5303.6	ppb	17:04:22
2	Ca 317.933Radial†	6387.4	6185.7	5283.7	µg/L	5283.7	ppb	17:04:42
2	Fe 238.204 Radial†	694.2	678.6	5363.5	µg/L	5363.5	ppb	17:04:42
2	K 766.490 Radial†	8367.7	8215.3	5365.5	µg/L	5365.5	ppb	17:04:22
2	Mg 279.077 IEC†	620.5	608.6	5443.2	µg/L	5443.2	ppb	17:04:42
2	Na 589.592 Radial†	35309.3	34889.9	10716	µg/L	10716	ppb	17:04:22
2	Sr 421.552†	56012.6	56067.6	517.23	µg/L	517.23	ppb	17:04:22
2	Sc 361.383	1973301.2	1973301.2	100.52	%			17:05:53
2	Y 371.029	1356327.8	1356327.8	100.26	%			17:05:53
2	Ag 328.068†	69539.4	69582.3	519.23	µg/L	519.23	ppb	17:05:58
2	As 188.979†	297.6	296.5	530.36	µg/L	530.36	ppb	17:06:19
2	B 249.677†	13399.5	12946.2	525.71	µg/L	525.71	ppb	17:05:58
2	Ba 233.527†	21880.7	21784.8	523.94	µg/L	523.94	ppb	17:05:58
2	Be 313.107†	883505.0	881802.2	523.15	µg/L	523.15	ppb	17:05:53
2	Cd 226.502†	20975.5	21009.0	523.90	µg/L	523.90	ppb	17:05:58
2	Co 228.616†	11661.3	11599.2	524.68	µg/L	524.68	ppb	17:05:58
2	Cr 267.716†	26502.8	26416.4	530.91	µg/L	530.91	ppb	17:05:58
2	Cu 324.752†	83587.4	80612.4	526.94	µg/L	526.94	ppb	17:05:58
2	Mn 257.610†	170657.8	170033.3	532.96	µg/L	532.96	ppb	17:05:53
2	Mo 202.031†	5420.5	5397.9	528.80	µg/L	528.80	ppb	17:06:19
2	Ni 231.604†	10882.8	10514.3	523.58	µg/L	523.58	ppb	17:05:58
2	P 214.914†	1342.7	1320.4	2563.7	µg/L	2563.7	ppb	17:06:19
2	Pb 220.353†	2290.9	2188.1	532.08	µg/L	532.08	ppb	17:06:19

2	S 181.975 Axial†	275.7	255.3	1058.7 µg/L	1058.7 ppb	17:06:19
2	Sb 206.836†	598.1	572.5	527.76 µg/L	527.76 ppb	17:06:19
2	Se 196.026†	397.1	375.7	535.95 µg/L	535.95 ppb	17:06:19
2	SiO2†	30055.7	28509.0	5627.3 µg/L	5627.3 ppb	17:05:58
2	Si 251.611†	35203.5	34711.2	2638.8 µg/L	2638.8 ppb	17:05:58
2	Sn 189.927†	1262.7	1255.8	529.63 µg/L	529.63 ppb	17:06:19
2	Ti 334.940†	239137.9	237729.0	525.56 µg/L	525.56 ppb	17:05:53
2	Tl 190.801†	378.8	399.3	524.92 µg/L	524.92 ppb	17:06:19
2	U 409.014†	6362.6	6406.8	531.24 µg/L	531.24 ppb	17:05:58
2	V 292.402†	53891.1	53657.8	529.39 µg/L	529.39 ppb	17:05:58
2	Zn 213.857†	23377.3	22722.3	529.37 µg/L	529.37 ppb	17:05:58
3	Sc RADIAL	56975.5	56975.5	101 %		17:04:48
3	Al 396.153Radial†	7635.5	7563.8	5253.0 µg/L	5253.0 ppb	17:04:48
3	Ca 317.933Radial†	6375.4	6110.4	5219.4 µg/L	5219.4 ppb	17:05:08
3	Fe 238.204 Radial†	692.0	669.6	5290.9 µg/L	5290.9 ppb	17:05:08
3	K 766.490 Radial†	8336.4	8101.2	5291.0 µg/L	5291.0 ppb	17:04:48
3	Mg 279.077 IEC†	615.1	597.1	5339.2 µg/L	5339.2 ppb	17:05:08
3	Na 589.592 Radial†	35286.2	34516.8	10602 µg/L	10602 ppb	17:04:48
3	Sr 421.552†	56155.5	55653.7	513.41 µg/L	513.41 ppb	17:04:48
3	Sc 361.383	1965301.5	1965301.5	100.11 %		17:06:26
3	Y 371.029	1350670.0	1350670.0	99.846 %		17:06:26
3	Ag 328.068†	64381.3	64711.5	482.70 µg/L	482.70 ppb	17:06:32
3	As 188.979†	245.8	246.0	440.05 µg/L	440.05 ppb	17:06:52
3	B 249.677†	12272.2	11874.4	481.93 µg/L	481.93 ppb	17:06:32
3	Ba 233.527†	19548.8	19544.2	470.02 µg/L	470.02 ppb	17:06:32
3	Be 313.107†	784667.9	786652.6	466.70 µg/L	466.70 ppb	17:06:26
3	Cd 226.502†	18615.7	18736.7	467.18 µg/L	467.18 ppb	17:06:32
3	Co 228.616†	10218.5	10205.2	461.59 µg/L	461.59 ppb	17:06:32
3	Cr 267.716†	22418.3	22443.7	451.08 µg/L	451.08 ppb	17:06:32
3	Cu 324.752†	73939.9	71314.0	466.24 µg/L	466.24 ppb	17:06:32
3	Mn 257.610†	152452.7	152539.5	478.17 µg/L	478.17 ppb	17:06:26
3	Mo 202.031†	4381.2	4381.7	429.29 µg/L	429.29 ppb	17:06:52
3	Ni 231.604†	9646.8	9323.7	464.30 µg/L	464.30 ppb	17:06:32
3	P 214.914†	1099.4	1082.8	2098.1 µg/L	2098.1 ppb	17:06:52
3	Pb 220.353†	1951.4	1858.2	451.78 µg/L	451.78 ppb	17:06:52
3	S 181.975 Axial†	236.4	217.2	900.67 µg/L	900.67 ppb	17:06:52
3	Sb 206.836†	506.2	483.2	445.02 µg/L	445.02 ppb	17:06:52
3	Se 196.026†	341.1	321.4	459.63 µg/L	459.63 ppb	17:06:52
3	SiO2†	27392.4	25970.5	5126.2 µg/L	5126.2 ppb	17:06:32
3	Si 251.611†	31876.5	31530.5	2397.0 µg/L	2397.0 ppb	17:06:32
3	Sn 189.927†	1001.9	1000.4	421.93 µg/L	421.93 ppb	17:06:52
3	Ti 334.940†	211018.2	210609.0	465.58 µg/L	465.58 ppb	17:06:26
3	Tl 190.801†	333.8	355.8	467.83 µg/L	467.83 ppb	17:06:52
3	U 409.014†	5451.1	5522.1	457.75 µg/L	457.75 ppb	17:06:32
3	V 292.402†	46793.0	46785.8	461.39 µg/L	461.39 ppb	17:06:32
3	Zn 213.857†	20591.5	20034.3	466.68 µg/L	466.68 ppb	17:06:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1974776.3	100.59	%	0.524				0.52%
Sc RADIAL	56425.1	99.9	%	0.96				0.96%
Y 371.029	1357589.8	100.36	%	0.564				0.56%
Ag 328.068†	68061.3	507.82	µg/L	21.786	507.82	ppb	21.786	4.29%
QC value within limits for Ag 328.068 Recovery = 101.56%								
Al 396.153Radial†	7627.5	5295.8	µg/L	39.51	5295.8	ppb	39.51	0.75%
QC value within limits for Al 396.153Radial Recovery = 105.92%								
As 188.979†	280.3	501.38	µg/L	53.136	501.38	ppb	53.136	10.60%
QC value within limits for As 188.979 Recovery = 100.28%								
B 249.677†	12610.7	512.00	µg/L	26.067	512.00	ppb	26.067	5.09%
QC value within limits for B 249.677 Recovery = 102.40%								
Ba 233.527†	21053.0	506.33	µg/L	31.447	506.33	ppb	31.447	6.21%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	852289.9	505.65	µg/L	33.780	505.65	ppb	33.780	6.68%
QC value within limits for Be 313.107 Recovery = 101.13%								
Ca 317.933Radial†	6183.6	5281.9	µg/L	61.64	5281.9	ppb	61.64	1.17%
QC value within limits for Ca 317.933Radial Recovery = 105.64%								
Cd 226.502†	20300.3	506.21	µg/L	33.851	506.21	ppb	33.851	6.69%
QC value within limits for Cd 226.502 Recovery = 101.24%								
Co 228.616†	11161.9	504.89	µg/L	37.550	504.89	ppb	37.550	7.44%

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   QC value within limits for Co 228.616  Recovery = 100.98%
Cr 267.716†            25130.8      505.07 µg/L        46.779      505.07 ppb         46.779   9.26%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†            77614.9      507.37 µg/L        35.640      507.37 ppb         35.640   7.02%
   QC value within limits for Cu 324.752  Recovery = 101.47%
Fe 238.204 Radial†       677.5      5354.0 µg/L         59.03      5354.0 ppb          59.03   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.08%
K 766.490 Radial†       8209.9      5362.0 µg/L         69.32      5362.0 ppb          69.32   1.29%
   QC value within limits for K 766.490 Radial  Recovery = 107.24%
Mg 279.077 IEC†          606.3      5422.6 µg/L         75.22      5422.6 ppb          75.22   1.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.45%
Mn 257.610†           164519.1      515.69 µg/L        32.527      515.69 ppb         32.527   6.31%
   QC value within limits for Mn 257.610  Recovery = 103.14%
Mo 202.031†             5118.3      501.42 µg/L        63.069      501.42 ppb         63.069  12.58%
   QC value within limits for Mo 202.031  Recovery = 100.28%
Na 589.592 Radial†     34817.3       10694 µg/L          83.4       10694 ppb           83.4   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 106.94%
Ni 231.604†            10153.8      505.63 µg/L        35.893      505.63 ppb         35.893   7.10%
   QC value within limits for Ni 231.604  Recovery = 101.13%
P 214.914†              1255.2      2436.2 µg/L        295.76      2436.2 ppb         295.76  12.14%
   QC value within limits for P 214.914  Recovery = 97.45%
Pb 220.353†             2098.2      510.20 µg/L        51.120      510.20 ppb         51.120  10.02%
   QC value within limits for Pb 220.353  Recovery = 102.04%
S 181.975 Axial†         245.6      1018.3 µg/L        103.55      1018.3 ppb         103.55  10.17%
   QC value within limits for S 181.975 Axial  Recovery = 101.83%
Sb 206.836†              550.2      507.10 µg/L        54.752      507.10 ppb         54.752  10.80%
   QC value within limits for Sb 206.836  Recovery = 101.42%
Se 196.026†              358.8      512.25 µg/L        45.639      512.25 ppb         45.639   8.91%
   QC value within limits for Se 196.026  Recovery = 102.45%
SiO2†                  27734.9      5474.5 µg/L        302.37      5474.5 ppb         302.37   5.52%
   QC value within limits for SiO2  Recovery = 102.38%
Si 251.611†            33688.0      2561.0 µg/L        142.10      2561.0 ppb         142.10   5.55%
   QC value within limits for Si 251.611  Recovery = 102.44%
Sn 189.927†             1185.8      500.11 µg/L        68.387      500.11 ppb         68.387  13.67%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†            55997.8      516.59 µg/L         2.906      516.59 ppb          2.906   0.56%
   QC value within limits for Sr 421.552  Recovery = 103.32%
Ti 334.940†           229249.1      506.81 µg/L        35.755      506.81 ppb         35.755   7.05%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              390.0      512.62 µg/L        40.080      512.62 ppb         40.080   7.82%
   QC value within limits for Tl 190.801  Recovery = 102.52%
U 409.014†              6108.7      506.47 µg/L        42.195      506.47 ppb         42.195   8.33%
   QC value within limits for U 409.014  Recovery = 101.29%
V 292.402†             51484.5      507.91 µg/L        40.335      507.91 ppb         40.335   7.94%
   QC value within limits for V 292.402  Recovery = 101.58%
Zn 213.857†            21877.7      509.67 µg/L        37.277      509.67 ppb         37.277   7.31%
   QC value within limits for Zn 213.857  Recovery = 101.93%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:07:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55412.9	55412.9	98.1	%			17:07:34
1	Al 396.153Radial†	37.8	31.1	21.627	µg/L	21.627	ppb	17:07:34
1	Ca 317.933Radial†	224.1	17.2	14.719	µg/L	14.719	ppb	17:07:55
1	Fe 238.204 Radial†	17.2	1.0	7.9128	µg/L	7.9128	ppb	17:07:55
1	K 766.490 Radial†	263.9	104.0	67.945	µg/L	67.945	ppb	17:07:34
1	Mg 279.077 IEC†	16.1	3.6	31.922	µg/L	31.922	ppb	17:07:55
1	Na 589.592 Radial†	689.0	230.2	70.711	µg/L	70.711	ppb	17:07:34
1	Sr 421.552†	101.9	75.1	0.6926	µg/L	0.6926	ppb	17:07:34
1	Sc 361.383	1951828.9	1951828.9	99.425	%			17:08:57
1	Y 371.029	1347100.7	1347100.7	99.582	%			17:08:57
1	Ag 328.068†	-411.9	-12.6	-0.0884	µg/L	-0.0884	ppb	17:09:02
1	As 188.979†	1.0	1.5	2.6447	µg/L	2.6447	ppb	17:09:23
1	B 249.677†	547.2	166.2	6.7725	µg/L	6.7725	ppb	17:09:02
1	Ba 233.527†	13.0	30.1	0.7248	µg/L	0.7248	ppb	17:09:23
1	Be 313.107†	-2489.6	351.6	0.2085	µg/L	0.2085	ppb	17:09:02
1	Cd 226.502†	-106.1	35.0	0.8724	µg/L	0.8724	ppb	17:09:23
1	Co 228.616†	8.3	6.4	0.2907	µg/L	0.2907	ppb	17:09:23
1	Cr 267.716†	3.3	53.7	1.0792	µg/L	1.0792	ppb	17:09:02
1	Cu 324.752†	2832.8	305.4	1.9949	µg/L	1.9949	ppb	17:09:02
1	Mn 257.610†	-94.7	160.8	0.5033	µg/L	0.5033	ppb	17:09:23
1	Mo 202.031†	11.2	16.6	1.6267	µg/L	1.6267	ppb	17:09:23
1	Ni 231.604†	329.4	19.0	0.9450	µg/L	0.9450	ppb	17:09:23
1	P 214.914†	17.5	2.3	4.3252	µg/L	4.3252	ppb	17:09:23
1	Pb 220.353†	117.3	27.1	6.5756	µg/L	6.5756	ppb	17:09:23
1	S 181.975 Axial†	13.9	-5.0	-20.708	µg/L	-20.708	ppb	17:09:23
1	Sb 206.836†	24.4	2.0	1.8677	µg/L	1.8677	ppb	17:09:23
1	Se 196.026†	8.1	-11.2	-15.713	µg/L	-15.713	ppb	17:09:23
1	SiO2†	1498.4	115.5	22.804	µg/L	22.804	ppb	17:09:02
1	Si 251.611†	397.1	88.7	6.7465	µg/L	6.7465	ppb	17:09:23
1	Sn 189.927†	7.9	7.6	3.2082	µg/L	3.2082	ppb	17:09:23
1	Ti 334.940†	420.5	247.9	0.5462	µg/L	0.5462	ppb	17:09:02
1	Tl 190.801†	-26.0	-3.7	-4.8506	µg/L	-4.8506	ppb	17:09:23
1	U 409.014†	-2.4	74.7	6.2026	µg/L	6.2026	ppb	17:09:02
1	V 292.402†	29.6	74.5	0.7487	µg/L	0.7487	ppb	17:09:02
1	Zn 213.857†	624.2	93.4	2.1827	µg/L	2.1827	ppb	17:09:23
2	Sc RADIAL	55845.1	55845.1	98.8	%			17:08:00
2	Al 396.153Radial†	15.5	8.3	5.7389	µg/L	5.7389	ppb	17:08:00
2	Ca 317.933Radial†	229.7	21.1	18.050	µg/L	18.050	ppb	17:08:21
2	Fe 238.204 Radial†	18.3	1.9	15.065	µg/L	15.065	ppb	17:08:21
2	K 766.490 Radial†	268.0	106.2	69.336	µg/L	69.336	ppb	17:08:00
2	Mg 279.077 IEC†	18.8	6.2	55.616	µg/L	55.616	ppb	17:08:21
2	Na 589.592 Radial†	718.0	254.2	78.078	µg/L	78.078	ppb	17:08:00
2	Sr 421.552†	118.8	91.4	0.8433	µg/L	0.8433	ppb	17:08:00
2	Sc 361.383	1967750.3	1967750.3	100.24	%			17:09:29
2	Y 371.029	1358640.9	1358640.9	100.44	%			17:09:29
2	Ag 328.068†	-328.6	73.7	0.5515	µg/L	0.5515	ppb	17:09:34
2	As 188.979†	0.4	0.9	1.5587	µg/L	1.5587	ppb	17:09:55
2	B 249.677†	564.6	179.1	7.2933	µg/L	7.2933	ppb	17:09:34
2	Ba 233.527†	22.7	39.7	0.9547	µg/L	0.9547	ppb	17:09:55
2	Be 313.107†	-2501.6	360.0	0.2134	µg/L	0.2134	ppb	17:09:34
2	Cd 226.502†	-111.0	30.9	0.7694	µg/L	0.7694	ppb	17:09:55
2	Co 228.616†	5.7	3.7	0.1688	µg/L	0.1688	ppb	17:09:55
2	Cr 267.716†	-17.2	33.2	0.6680	µg/L	0.6680	ppb	17:09:34
2	Cu 324.752†	2799.6	249.3	1.6293	µg/L	1.6293	ppb	17:09:34
2	Mn 257.610†	-100.4	155.9	0.4879	µg/L	0.4879	ppb	17:09:55
2	Mo 202.031†	11.5	16.9	1.6521	µg/L	1.6521	ppb	17:09:55
2	Ni 231.604†	309.9	-3.2	-0.1576	µg/L	-0.1576	ppb	17:09:55
2	P 214.914†	22.6	7.2	14.217	µg/L	14.217	ppb	17:09:55
2	Pb 220.353†	112.5	21.3	5.1809	µg/L	5.1809	ppb	17:09:55

2	S 181.975 Axial†	17.8	-1.2	-5.0873 µg/L	-5.0873 ppb	17:09:55
2	Sb 206.836†	28.6	6.1	5.5939 µg/L	5.5939 ppb	17:09:55
2	Se 196.026†	12.5	-6.8	-9.5638 µg/L	-9.5638 ppb	17:09:55
2	SiO2†	1499.4	104.3	20.597 µg/L	20.597 ppb	17:09:34
2	Si 251.611†	402.2	90.6	6.8889 µg/L	6.8889 ppb	17:09:55
2	Sn 189.927†	9.5	9.2	3.8641 µg/L	3.8641 ppb	17:09:55
2	Ti 334.940†	469.3	293.2	0.6444 µg/L	0.6444 ppb	17:09:34
2	Tl 190.801†	-20.6	1.9	2.4344 µg/L	2.4344 ppb	17:09:55
2	U 409.014†	-26.6	50.5	4.1927 µg/L	4.1927 ppb	17:09:34
2	V 292.402†	21.3	66.0	0.6641 µg/L	0.6641 ppb	17:09:34
2	Zn 213.857†	610.2	74.4	1.7390 µg/L	1.7390 ppb	17:09:55
3	Sc RADIAL	55020.8	55020.8	97.4 %		17:08:26
3	Al 396.153Radial†	25.2	18.5	12.855 µg/L	12.855 ppb	17:08:26
3	Ca 317.933Radial†	219.3	13.9	11.843 µg/L	11.843 ppb	17:08:46
3	Fe 238.204 Radial†	16.8	0.7	5.5902 µg/L	5.5902 ppb	17:08:46
3	K 766.490 Radial†	318.2	161.7	105.61 µg/L	105.61 ppb	17:08:26
3	Mg 279.077 IEC†	14.2	1.7	15.617 µg/L	15.617 ppb	17:08:46
3	Na 589.592 Radial†	674.2	220.1	67.603 µg/L	67.603 ppb	17:08:26
3	Sr 421.552†	108.4	82.5	0.7609 µg/L	0.7609 ppb	17:08:26
3	Sc 361.383	1948909.4	1948909.4	99.276 %		17:10:01
3	Y 371.029	1346308.2	1346308.2	99.523 %		17:10:01
3	Ag 328.068†	-352.8	46.2	0.3442 µg/L	0.3442 ppb	17:10:07
3	As 188.979†	-1.2	-0.7	-1.3112 µg/L	-1.3112 ppb	17:10:27
3	B 249.677†	510.9	130.5	5.3165 µg/L	5.3165 ppb	17:10:07
3	Ba 233.527†	13.0	30.2	0.7245 µg/L	0.7245 ppb	17:10:27
3	Be 313.107†	-2546.8	290.3	0.1721 µg/L	0.1721 ppb	17:10:07
3	Cd 226.502†	-112.3	28.5	0.7115 µg/L	0.7115 ppb	17:10:27
3	Co 228.616†	15.8	14.0	0.6325 µg/L	0.6325 ppb	17:10:27
3	Cr 267.716†	5.2	55.6	1.1178 µg/L	1.1178 ppb	17:10:07
3	Cu 324.752†	2793.0	269.6	1.7608 µg/L	1.7608 ppb	17:10:07
3	Mn 257.610†	-128.7	126.3	0.3957 µg/L	0.3957 ppb	17:10:27
3	Mo 202.031†	14.1	19.5	1.9140 µg/L	1.9140 ppb	17:10:27
3	Ni 231.604†	312.1	2.0	0.1004 µg/L	0.1004 ppb	17:10:27
3	P 214.914†	16.0	0.8	1.3809 µg/L	1.3809 ppb	17:10:27
3	Pb 220.353†	106.0	15.9	3.8630 µg/L	3.8630 ppb	17:10:27
3	S 181.975 Axial†	14.2	-4.6	-19.132 µg/L	-19.132 ppb	17:10:27
3	Sb 206.836†	16.0	-6.4	-5.8776 µg/L	-5.8776 ppb	17:10:27
3	Se 196.026†	18.1	-1.1	-1.5391 µg/L	-1.5391 ppb	17:10:27
3	SiO2†	1473.7	92.8	18.326 µg/L	18.326 ppb	17:10:07
3	Si 251.611†	414.5	106.9	8.1279 µg/L	8.1279 ppb	17:10:27
3	Sn 189.927†	10.6	10.3	4.3488 µg/L	4.3488 ppb	17:10:27
3	Ti 334.940†	439.9	268.1	0.5920 µg/L	0.5920 ppb	17:10:07
3	Tl 190.801†	-23.3	-1.1	-1.4129 µg/L	-1.4129 ppb	17:10:27
3	U 409.014†	-71.7	4.9	0.4060 µg/L	0.4060 ppb	17:10:07
3	V 292.402†	-20.7	23.9	0.2511 µg/L	0.2511 ppb	17:10:07
3	Zn 213.857†	601.7	71.7	1.6777 µg/L	1.6777 ppb	17:10:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1956162.9	99.646	%	0.5166				0.52%
Sc RADIAL	55426.3	98.1	%	0.73				0.74%
Y 371.029	1350683.2	99.847	%	0.5103				0.51%
Ag 328.068†	35.8	0.2691	µg/L	0.32647	0.2691	ppb	0.32647	121.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.3	13.407	µg/L	7.9584	13.407	ppb	7.9584	59.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.9641	µg/L	2.04391	0.9641	ppb	2.04391	212.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	158.6	6.4608	µg/L	1.02461	6.4608	ppb	1.02461	15.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	33.3	0.8013	µg/L	0.13279	0.8013	ppb	0.13279	16.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.0	0.1980	µg/L	0.02257	0.1980	ppb	0.02257	11.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	17.4	14.871	µg/L	3.1063	14.871	ppb	3.1063	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.5	0.7844	µg/L	0.08148	0.7844	ppb	0.08148	10.39%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.3640	µg/L	0.24037	0.3640	ppb	0.24037	66.04%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.5      0.9550 µg/L       0.24930      0.9550 ppb        0.24930  26.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             274.8      1.7950 µg/L       0.18518      1.7950 ppb        0.18518  10.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.2      9.5227 µg/L       4.93823      9.5227 ppb        4.93823  51.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       124.0      80.963 µg/L       21.3541      80.963 ppb        21.3541  26.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.8      34.385 µg/L       20.1131      34.385 ppb        20.1131  58.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             147.7      0.4623 µg/L       0.05817      0.4623 ppb        0.05817  12.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              17.7      1.7309 µg/L       0.15903      1.7309 ppb        0.15903   9.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      234.8      72.131 µg/L        5.3801      72.131 ppb         5.3801   7.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.9      0.2959 µg/L       0.57673      0.2959 ppb        0.57673 194.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.4      6.6410 µg/L       6.72404      6.6410 ppb        6.72404 101.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.4      5.2065 µg/L       1.35647      5.2065 ppb        1.35647  26.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.6     -14.976 µg/L        8.5998     -14.976 ppb         8.5998  57.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.6      0.5280 µg/L       5.85192      0.5280 ppb        5.85192 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.4     -8.9385 µg/L       7.10744     -8.9385 ppb        7.10744  79.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    104.2      20.576 µg/L        2.2394      20.576 ppb         2.2394  10.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              95.4      7.2544 µg/L       0.75977      7.2544 ppb        0.75977  10.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.0      3.8070 µg/L       0.57241      3.8070 ppb        0.57241  15.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              83.0      0.7656 µg/L       0.07544      0.7656 ppb        0.07544   9.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             269.7      0.5942 µg/L       0.04915      0.5942 ppb        0.04915   8.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.0     -1.2763 µg/L       3.64442     -1.2763 ppb        3.64442 285.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               43.4      3.6004 µg/L       2.94331      3.6004 ppb        2.94331  81.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               54.8      0.5546 µg/L       0.26626      0.5546 ppb        0.26626  48.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.8      1.8665 µg/L       0.27558      1.8665 ppb        0.27558  14.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/19/2010 17:18:12 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 16:28:12**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR2 **Date Collected: 2/19/2010 17:18:14**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57089.6	57089.6	101	%			17:18:49
1	Al 396.153Radial†	-10.5	-17.7	-12.364	µg/L	-12.364	ppb	17:18:49
1	Ca 317.933Radial†	228.9	15.3	13.039	µg/L	13.039	ppb	17:19:09
1	Fe 238.204 Radial†	8.4	-8.2	43.697	µg/L	43.697	ppb	17:19:09

1	K 766.490 Radial†	220.7	53.4	34.889 µg/L	34.889 ppb	17:18:49
1	Mg 279.077 IEC†	10.1	-2.8	-24.911 µg/L	-24.911 ppb	17:19:09
1	Na 589.592 Radial†	602.0	123.6	37.957 µg/L	37.957 ppb	17:18:49
1	Sr 421.552†	60.8	31.4	0.2896 µg/L	0.2896 ppb	17:18:49
1	Sc 361.383	1992980.4	1992980.4	101.52 %		17:20:12
1	Y 371.029	1370801.5	1370801.5	101.33 %		17:20:12
1	Ag 328.068†	-413.2	-5.4	-0.0402 µg/L	-0.0402 ppb	17:20:18
1	As 188.979†	2879.0	2836.3	5083.5 µg/L	5083.5 ppb	17:20:38
1	B 249.677†	863.8	466.7	19.057 µg/L	19.057 ppb	17:20:18
1	Ba 233.527†	-3.1	14.0	0.3366 µg/L	0.3366 ppb	17:20:38
1	Be 313.107†	-2634.3	260.8	0.1545 µg/L	0.1545 ppb	17:20:18
1	Cd 226.502†	-101.6	41.6	1.0480 µg/L	1.0480 ppb	17:20:38
1	Co 228.616†	114754.7	113033.4	5119.0 µg/L	5119.0 ppb	17:20:18
1	Cr 267.716†	-18.5	32.2	0.6465 µg/L	0.6465 ppb	17:20:18
1	Cu 324.752†	1806.3	-764.5	-4.9994 µg/L	-4.9994 ppb	17:20:18
1	Mn 257.610†	-157.7	100.7	0.3076 µg/L	0.3076 ppb	17:20:38
1	Mo 202.031†	8.0	13.2	1.2927 µg/L	1.2927 ppb	17:20:38
1	Ni 231.604†	383.1	65.0	-2.8550 µg/L	-2.8550 ppb	17:20:38
1	P 214.914†	5661.5	5561.4	11011 µg/L	11011 ppb	17:20:18
1	Pb 220.353†	103.9	11.4	2.7844 µg/L	2.7844 ppb	17:20:38
1	S 181.975 Axial†	11.6	-7.5	-31.222 µg/L	-31.222 ppb	17:20:38
1	Sb 206.836†	26.1	3.2	2.9217 µg/L	2.9217 ppb	17:20:38
1	Se 196.026†	15.5	-4.1	-5.9032 µg/L	-5.9032 ppb	17:20:38
1	SiO2†	426908.6	419120.7	82729 µg/L	82729 ppb	17:20:12
1	Si 251.611†	511420.1	503446.9	38273 µg/L	38273 ppb	17:20:12
1	Sn 189.927†	7.7	7.2	3.0305 µg/L	3.0305 ppb	17:20:38
1	Ti 334.940†	600.4	416.4	0.9232 µg/L	0.9232 ppb	17:20:18
1	Tl 190.801†	0.4	22.7	12.314 µg/L	12.314 ppb	17:20:38
1	U 409.014†	-95.3	-16.8	-1.3899 µg/L	-1.3899 ppb	17:20:18
1	V 292.402†	13.1	57.7	0.5647 µg/L	0.5647 ppb	17:20:18
1	Zn 213.857†	632.3	88.4	2.0732 µg/L	2.0732 ppb	17:20:38
2	Sc RADIAL	56165.6	56165.6	99.4 %		17:19:15
2	Al 396.153Radial†	-6.9	-14.3	-9.9617 µg/L	-9.9617 ppb	17:19:15
2	Ca 317.933Radial†	216.0	6.0	5.1201 µg/L	5.1201 ppb	17:19:35
2	Fe 238.204 Radial†	7.6	-8.9	36.342 µg/L	36.342 ppb	17:19:35
2	K 766.490 Radial†	221.8	58.1	37.930 µg/L	37.930 ppb	17:19:15
2	Mg 279.077 IEC†	7.5	-5.3	-47.450 µg/L	-47.450 ppb	17:19:35
2	Na 589.592 Radial†	593.1	124.4	38.204 µg/L	38.204 ppb	17:19:15
2	Sr 421.552†	33.6	5.0	0.0462 µg/L	0.0462 ppb	17:19:15
2	Sc 361.383	2021073.3	2021073.3	102.95 %		17:20:45
2	Y 371.029	1388832.8	1388832.8	102.67 %		17:20:45
2	Ag 328.068†	-393.4	19.5	0.1414 µg/L	0.1414 ppb	17:20:50
2	As 188.979†	2798.9	2719.1	4873.4 µg/L	4873.4 ppb	17:21:11
2	B 249.677†	844.8	436.4	17.824 µg/L	17.824 ppb	17:20:50
2	Ba 233.527†	-4.8	12.4	0.2992 µg/L	0.2992 ppb	17:21:11
2	Be 313.107†	-2671.8	260.5	0.1543 µg/L	0.1543 ppb	17:20:50
2	Cd 226.502†	-106.1	38.6	0.9740 µg/L	0.9740 ppb	17:21:11
2	Co 228.616†	114007.7	110736.6	5015.0 µg/L	5015.0 ppb	17:20:50
2	Cr 267.716†	-23.2	27.9	0.5600 µg/L	0.5600 ppb	17:20:50
2	Cu 324.752†	1789.0	-806.1	-5.2714 µg/L	-5.2714 ppb	17:20:50
2	Mn 257.610†	-160.2	100.4	0.3070 µg/L	0.3070 ppb	17:21:11
2	Mo 202.031†	1.7	7.0	0.6793 µg/L	0.6793 ppb	17:21:11
2	Ni 231.604†	365.6	42.8	-3.8392 µg/L	-3.8392 ppb	17:21:11
2	P 214.914†	5616.7	5440.3	10772 µg/L	10772 ppb	17:20:50
2	Pb 220.353†	110.3	16.2	3.9509 µg/L	3.9509 ppb	17:21:11
2	S 181.975 Axial†	18.6	-0.9	-3.7186 µg/L	-3.7186 ppb	17:21:11
2	Sb 206.836†	25.8	2.5	2.3409 µg/L	2.3409 ppb	17:21:11
2	Se 196.026†	13.5	-6.2	-8.8057 µg/L	-8.8057 ppb	17:21:11
2	SiO2†	425202.9	411618.8	81248 µg/L	81248 ppb	17:20:45
2	Si 251.611†	509536.8	494615.4	37602 µg/L	37602 ppb	17:20:45
2	Sn 189.927†	2.6	2.2	0.9156 µg/L	0.9156 ppb	17:21:11
2	Ti 334.940†	589.0	397.1	0.8822 µg/L	0.8822 ppb	17:20:50
2	Tl 190.801†	0.9	23.3	13.383 µg/L	13.383 ppb	17:21:11
2	U 409.014†	-89.3	-9.7	-0.7935 µg/L	-0.7935 ppb	17:20:50
2	V 292.402†	-20.8	24.5	0.2365 µg/L	0.2365 ppb	17:20:50
2	Zn 213.857†	620.1	67.9	1.5977 µg/L	1.5977 ppb	17:21:11
3	Sc RADIAL	56192.1	56192.1	99.5 %		17:19:41
3	Al 396.153Radial†	-3.6	-11.0	-7.6627 µg/L	-7.6627 ppb	17:19:41
3	Ca 317.933Radial†	218.7	8.6	7.3845 µg/L	7.3845 ppb	17:20:01
3	Fe 238.204 Radial†	9.7	-6.8	38.692 µg/L	38.692 ppb	17:20:01
3	K 766.490 Radial†	214.2	50.4	32.899 µg/L	32.899 ppb	17:19:41

3	Mg 279.077 IEC†	13.9	1.2	10.769 µg/L	10.769 ppb	17:20:01
3	Na 589.592 Radial†	600.0	131.0	40.239 µg/L	40.239 ppb	17:19:41
3	Sr 421.552†	67.6	39.2	0.3616 µg/L	0.3616 ppb	17:19:41
3	Sc 361.383	1998637.7	1998637.7	101.81 %		17:21:17
3	Y 371.029	1373104.8	1373104.8	101.50 %		17:21:17
3	Ag 328.068†	-417.7	-8.6	-0.0666 µg/L	-0.0666 ppb	17:21:23
3	As 188.979†	2369.6	2327.9	4172.3 µg/L	4172.3 ppb	17:21:43
3	B 249.677†	832.0	433.0	17.679 µg/L	17.679 ppb	17:21:23
3	Ba 233.527†	-4.2	12.9	0.3111 µg/L	0.3111 ppb	17:21:43
3	Be 313.107†	-2497.8	402.3	0.2384 µg/L	0.2384 ppb	17:21:23
3	Cd 226.502†	-118.0	25.8	0.6517 µg/L	0.6517 ppb	17:21:43
3	Co 228.616†	98118.9	96373.3	4364.5 µg/L	4364.5 ppb	17:21:23
3	Cr 267.716†	-6.1	44.4	0.8924 µg/L	0.8924 ppb	17:21:23
3	Cu 324.752†	1945.6	-632.7	-4.1375 µg/L	-4.1375 ppb	17:21:23
3	Mn 257.610†	-181.8	77.4	0.2349 µg/L	0.2349 ppb	17:21:43
3	Mo 202.031†	-0.1	5.3	0.5134 µg/L	0.5134 ppb	17:21:43
3	Ni 231.604†	349.6	31.0	-3.6536 µg/L	-3.6536 ppb	17:21:43
3	P 214.914†	4913.6	4810.9	9525.5 µg/L	9525.5 ppb	17:21:23
3	Pb 220.353†	106.2	13.4	3.2602 µg/L	3.2602 ppb	17:21:43
3	S 181.975 Axial†	19.1	-0.2	-0.8917 µg/L	-0.8917 ppb	17:21:43
3	Sb 206.836†	17.0	-5.8	-5.3639 µg/L	-5.3639 ppb	17:21:43
3	Se 196.026†	14.4	-5.1	-7.3641 µg/L	-7.3641 ppb	17:21:43
3	SiO2†	388378.1	380084.6	75024 µg/L	75024 ppb	17:21:17
3	Si 251.611†	465723.5	457136.5	34752 µg/L	34752 ppb	17:21:17
3	Sn 189.927†	7.2	6.7	2.8419 µg/L	2.8419 ppb	17:21:43
3	Ti 334.940†	599.4	413.7	0.9146 µg/L	0.9146 ppb	17:21:23
3	Tl 190.801†	-3.1	19.4	10.494 µg/L	10.494 ppb	17:21:43
3	U 409.014†	-33.0	44.6	3.7148 µg/L	3.7148 ppb	17:21:23
3	V 292.402†	-34.4	11.0	0.1103 µg/L	0.1103 ppb	17:21:23
3	Zn 213.857†	609.9	64.6	1.5181 µg/L	1.5181 ppb	17:21:43

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004230.5	102.09	%	0.757				0.74%
Sc RADIAL	56482.4	100.0	%	0.93				0.93%
Y 371.029	1377579.7	101.84	%	0.725				0.71%
Ag 328.068†	1.8	0.0115	µg/L	0.11324	0.0115	ppb	0.11324	983.61%
Al 396.153Radial†	-14.3	-9.9961	µg/L	2.35074	-9.9961	ppb	2.35074	23.52%
As 188.979†	2627.8	4709.7	µg/L	477.13	4709.7	ppb	477.13	10.13%
B 249.677†	445.4	18.187	µg/L	0.7573	18.187	ppb	0.7573	4.16%
Ba 233.527†	13.1	0.3156	µg/L	0.01910	0.3156	ppb	0.01910	6.05%
Be 313.107†	307.9	0.1824	µg/L	0.04852	0.1824	ppb	0.04852	26.60%
Ca 317.933Radial†	10.0	8.5144	µg/L	4.07847	8.5144	ppb	4.07847	47.90%
Cd 226.502†	35.4	0.8912	µg/L	0.21072	0.8912	ppb	0.21072	23.64%
Co 228.616†	106714.5	4832.9	µg/L	408.90	4832.9	ppb	408.90	8.46%
Cr 267.716†	34.8	0.6996	µg/L	0.17243	0.6996	ppb	0.17243	24.65%
Cu 324.752†	-734.4	-4.8027	µg/L	0.59198	-4.8027	ppb	0.59198	12.33%
Fe 238.204 Radial†	-8.0	39.577	µg/L	3.7566	39.577	ppb	3.7566	9.49%
K 766.490 Radial†	54.0	35.239	µg/L	2.5339	35.239	ppb	2.5339	7.19%
Mg 279.077 IEC†	-2.3	-20.531	µg/L	29.3558	-20.531	ppb	29.3558	142.98%
Mn 257.610†	92.8	0.2832	µg/L	0.04179	0.2832	ppb	0.04179	14.76%
Mo 202.031†	8.5	0.8285	µg/L	0.41049	0.8285	ppb	0.41049	49.55%
Na 589.592 Radial†	126.3	38.800	µg/L	1.2520	38.800	ppb	1.2520	3.23%
Ni 231.604†	46.3	-3.4493	µg/L	0.52296	-3.4493	ppb	0.52296	15.16%
P 214.914†	5270.9	10436	µg/L	797.7	10436	ppb	797.7	7.64%
Pb 220.353†	13.7	3.3319	µg/L	0.58655	3.3319	ppb	0.58655	17.60%
S 181.975 Axial†	-2.9	-11.944	µg/L	16.7551	-11.944	ppb	16.7551	140.28%
Sb 206.836†	-0.0	-0.0338	µg/L	4.62516	-0.0338	ppb	4.62516	>999.9%
Se 196.026†	-5.1	-7.3577	µg/L	1.45126	-7.3577	ppb	1.45126	19.72%
SiO2†	403608.1	79667	µg/L	4088.7	79667	ppb	4088.7	5.13%
Si 251.611†	485066.3	36876	µg/L	1869.2	36876	ppb	1869.2	5.07%
Sn 189.927†	5.4	2.2626	µg/L	1.17039	2.2626	ppb	1.17039	51.73%
Sr 421.552†	25.2	0.2325	µg/L	0.16530	0.2325	ppb	0.16530	71.11%
Ti 334.940†	409.0	0.9067	µg/L	0.02163	0.9067	ppb	0.02163	2.39%
Tl 190.801†	21.8	12.064	µg/L	1.4608	12.064	ppb	1.4608	12.11%
U 409.014†	6.0	0.5104	µg/L	2.79101	0.5104	ppb	2.79101	546.79%
V 292.402†	31.1	0.3038	µg/L	0.23456	0.3038	ppb	0.23456	77.20%
Zn 213.857†	73.7	1.7297	µg/L	0.30016	1.7297	ppb	0.30016	17.35%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:21:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55997.1	55997.1	99.1	%			17:22:28
1	Al 396.153Radial†	7484.4	7543.7	5236.5	µg/L	5236.5	ppb	17:22:28
1	Ca 317.933Radial†	6284.2	6128.9	5235.2	µg/L	5235.2	ppb	17:22:48
1	Fe 238.204 Radial†	689.0	678.6	5363.5	µg/L	5363.5	ppb	17:22:48
1	K 766.490 Radial†	8069.9	7976.8	5209.8	µg/L	5209.8	ppb	17:22:28
1	Mg 279.077 IEC†	607.2	599.8	5365.3	µg/L	5365.3	ppb	17:22:48
1	Na 589.592 Radial†	34612.1	34448.1	10580	µg/L	10580	ppb	17:22:28
1	Sr 421.552†	55249.7	55712.7	513.96	µg/L	513.96	ppb	17:22:28
1	Sc 361.383	1941292.6	1941292.6	98.888	%			17:23:51
1	Y 371.029	1335522.5	1335522.5	98.726	%			17:23:51
1	Ag 328.068†	70158.7	71349.1	532.40	µg/L	532.40	ppb	17:23:57
1	As 188.979†	304.1	308.0	550.96	µg/L	550.96	ppb	17:24:18
1	B 249.677†	13216.5	12981.0	527.15	µg/L	527.15	ppb	17:23:57
1	Ba 233.527†	22082.2	22347.5	537.47	µg/L	537.47	ppb	17:23:57
1	Be 313.107†	881057.8	893819.8	530.28	µg/L	530.28	ppb	17:23:51
1	Cd 226.502†	21234.9	21615.4	539.04	µg/L	539.04	ppb	17:23:57
1	Co 228.616†	11841.2	11972.4	541.59	µg/L	541.59	ppb	17:23:57
1	Cr 267.716†	26708.5	27059.1	543.83	µg/L	543.83	ppb	17:23:57
1	Cu 324.752†	83577.2	81973.2	535.82	µg/L	535.82	ppb	17:23:57
1	Mn 257.610†	169839.0	172004.6	539.13	µg/L	539.13	ppb	17:23:51
1	Mo 202.031†	5552.9	5620.6	550.61	µg/L	550.61	ppb	17:24:18
1	Ni 231.604†	11057.1	10869.0	541.24	µg/L	541.24	ppb	17:23:57
1	P 214.914†	1373.5	1373.6	2668.4	µg/L	2668.4	ppb	17:24:18
1	Pb 220.353†	2326.6	2261.9	550.03	µg/L	550.03	ppb	17:24:18
1	S 181.975 Axial†	279.6	263.8	1093.9	µg/L	1093.9	ppb	17:24:18
1	Sb 206.836†	611.1	595.5	549.07	µg/L	549.07	ppb	17:24:18
1	Se 196.026†	411.0	396.3	565.02	µg/L	565.02	ppb	17:24:18
1	SiO2†	30336.5	29286.0	5780.7	µg/L	5780.7	ppb	17:23:57
1	Si 251.611†	35486.6	35575.0	2704.5	µg/L	2704.5	ppb	17:23:57
1	Sn 189.927†	1307.2	1321.6	557.36	µg/L	557.36	ppb	17:24:18
1	Ti 334.940†	237204.0	239696.0	529.92	µg/L	529.92	ppb	17:23:51
1	Tl 190.801†	383.1	409.8	538.64	µg/L	538.64	ppb	17:24:18
1	U 409.014†	6443.7	6593.3	546.74	µg/L	546.74	ppb	17:23:57
1	V 292.402†	54369.9	55025.9	542.94	µg/L	542.94	ppb	17:23:57
1	Zn 213.857†	23470.8	23200.3	540.50	µg/L	540.50	ppb	17:23:57
2	Sc RADIAL	55374.2	55374.2	98.0	%			17:22:54
2	Al 396.153Radial†	7516.3	7661.2	5318.8	µg/L	5318.8	ppb	17:22:54
2	Ca 317.933Radial†	6316.8	6233.4	5324.5	µg/L	5324.5	ppb	17:23:14
2	Fe 238.204 Radial†	689.1	686.5	5425.5	µg/L	5425.5	ppb	17:23:14
2	K 766.490 Radial†	8078.4	8077.0	5275.2	µg/L	5275.2	ppb	17:22:54
2	Mg 279.077 IEC†	616.4	616.1	5510.0	µg/L	5510.0	ppb	17:23:14
2	Na 589.592 Radial†	34699.9	34930.4	10729	µg/L	10729	ppb	17:22:54
2	Sr 421.552†	55215.6	56305.0	519.42	µg/L	519.42	ppb	17:22:54
2	Sc 361.383	1972008.9	1972008.9	100.45	%			17:24:25
2	Y 371.029	1357440.8	1357440.8	100.35	%			17:24:25
2	Ag 328.068†	69394.0	69482.8	518.48	µg/L	518.48	ppb	17:24:30
2	As 188.979†	292.5	291.6	521.69	µg/L	521.69	ppb	17:24:51
2	B 249.677†	13098.0	12654.8	513.80	µg/L	513.80	ppb	17:24:30
2	Ba 233.527†	21766.9	21685.9	521.56	µg/L	521.56	ppb	17:24:30
2	Be 313.107†	875557.6	874466.7	518.80	µg/L	518.80	ppb	17:24:25
2	Cd 226.502†	20934.5	20981.8	523.22	µg/L	523.22	ppb	17:24:30
2	Co 228.616†	11674.3	11619.7	525.62	µg/L	525.62	ppb	17:24:30
2	Cr 267.716†	26349.4	26281.0	528.19	µg/L	528.19	ppb	17:24:30
2	Cu 324.752†	82762.2	79845.4	521.94	µg/L	521.94	ppb	17:24:30
2	Mn 257.610†	168819.9	168315.0	527.58	µg/L	527.58	ppb	17:24:25
2	Mo 202.031†	5374.4	5355.5	524.65	µg/L	524.65	ppb	17:24:51
2	Ni 231.604†	10896.7	10535.3	524.62	µg/L	524.62	ppb	17:24:30
2	P 214.914†	1349.1	1327.7	2578.5	µg/L	2578.5	ppb	17:24:51
2	Pb 220.353†	2255.8	2154.7	523.94	µg/L	523.94	ppb	17:24:51

2	S 181.975 Axial†	273.6	253.5	1051.2 µg/L	1051.2 ppb	17:24:51
2	Sb 206.836†	597.1	571.9	527.15 µg/L	527.15 ppb	17:24:51
2	Se 196.026†	399.0	377.9	539.15 µg/L	539.15 ppb	17:24:51
2	SiO2†	30015.2	28488.3	5623.2 µg/L	5623.2 ppb	17:24:30
2	Si 251.611†	35058.2	34589.5	2629.6 µg/L	2629.6 ppb	17:24:30
2	Sn 189.927†	1256.6	1250.5	527.41 µg/L	527.41 ppb	17:24:51
2	Ti 334.940†	235686.9	234449.5	518.30 µg/L	518.30 ppb	17:24:25
2	Tl 190.801†	379.7	400.4	526.29 µg/L	526.29 ppb	17:24:51
2	U 409.014†	6398.7	6446.9	534.56 µg/L	534.56 ppb	17:24:30
2	V 292.402†	53704.7	53507.4	527.90 µg/L	527.90 ppb	17:24:30
2	Zn 213.857†	23141.6	22502.9	524.22 µg/L	524.22 ppb	17:24:30
3	Sc RADIAL	55679.0	55679.0	98.6 %		17:23:19
3	Al 396.153Radial†	7596.6	7700.7	5348.4 µg/L	5348.4 ppb	17:23:19
3	Ca 317.933Radial†	6283.1	6164.0	5265.1 µg/L	5265.1 ppb	17:23:40
3	Fe 238.204 Radial†	686.1	679.6	5369.7 µg/L	5369.7 ppb	17:23:40
3	K 766.490 Radial†	8154.7	8109.3	5296.3 µg/L	5296.3 ppb	17:23:19
3	Mg 279.077 IEC†	612.2	608.4	5439.6 µg/L	5439.6 ppb	17:23:40
3	Na 589.592 Radial†	34975.0	35015.8	10755 µg/L	10755 ppb	17:23:19
3	Sr 421.552†	55908.1	56699.3	523.06 µg/L	523.06 ppb	17:23:19
3	Sc 361.383	1952535.0	1952535.0	99.461 %		17:24:58
3	Y 371.029	1343624.0	1343624.0	99.325 %		17:24:58
3	Ag 328.068†	63360.5	64105.6	478.17 µg/L	478.17 ppb	17:25:04
3	As 188.979†	241.7	243.4	435.49 µg/L	435.49 ppb	17:25:24
3	B 249.677†	11843.3	11523.4	467.57 µg/L	467.57 ppb	17:25:04
3	Ba 233.527†	19104.2	19224.8	462.34 µg/L	462.34 ppb	17:25:04
3	Be 313.107†	780835.5	787924.2	467.46 µg/L	467.46 ppb	17:24:58
3	Cd 226.502†	18231.2	18471.7	460.55 µg/L	460.55 ppb	17:25:04
3	Co 228.616†	10034.6	10087.0	456.23 µg/L	456.23 ppb	17:25:04
3	Cr 267.716†	21902.6	22071.8	443.60 µg/L	443.60 ppb	17:25:04
3	Cu 324.752†	72242.1	70090.0	458.26 µg/L	458.26 ppb	17:25:04
3	Mn 257.610†	151408.5	152485.3	478.01 µg/L	478.01 ppb	17:24:58
3	Mo 202.031†	4271.9	4300.4	421.32 µg/L	421.32 ppb	17:25:24
3	Ni 231.604†	9447.8	9186.7	457.48 µg/L	457.48 ppb	17:25:04
3	P 214.914†	1083.3	1073.8	2080.9 µg/L	2080.9 ppb	17:25:24
3	Pb 220.353†	1873.7	1793.0	435.92 µg/L	435.92 ppb	17:25:24
3	S 181.975 Axial†	233.8	216.1	896.36 µg/L	896.36 ppb	17:25:24
3	Sb 206.836†	489.4	469.6	432.51 µg/L	432.51 ppb	17:25:24
3	Se 196.026†	332.8	315.3	451.15 µg/L	451.15 ppb	17:25:24
3	SiO2†	26947.7	25702.2	5073.3 µg/L	5073.3 ppb	17:25:04
3	Si 251.611†	31277.9	31136.9	2367.1 µg/L	2367.1 ppb	17:25:04
3	Sn 189.927†	976.9	981.8	414.09 µg/L	414.09 ppb	17:25:24
3	Ti 334.940†	208555.8	209511.3	463.14 µg/L	463.14 ppb	17:24:58
3	Tl 190.801†	319.8	343.9	452.38 µg/L	452.38 ppb	17:25:24
3	U 409.014†	5254.4	5360.0	444.27 µg/L	444.27 ppb	17:25:04
3	V 292.402†	45815.6	46108.8	454.70 µg/L	454.70 ppb	17:25:04
3	Zn 213.857†	20168.8	19743.8	459.90 µg/L	459.90 ppb	17:25:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1955278.8	99.601	%	0.7916				0.79%
Sc RADIAL	55683.5	98.6	%	0.55				0.56%
Y 371.029	1345529.1	99.466	%	0.8193				0.82%
Ag 328.068†	68312.5	509.69	µg/L	28.165	509.69	ppb	28.165	5.53%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	7635.2	5301.2	µg/L	57.98	5301.2	ppb	57.98	1.09%
QC value within limits for Al 396.153Radial Recovery = 106.02%								
As 188.979†	281.0	502.71	µg/L	60.027	502.71	ppb	60.027	11.94%
QC value within limits for As 188.979 Recovery = 100.54%								
B 249.677†	12386.4	502.84	µg/L	31.261	502.84	ppb	31.261	6.22%
QC value within limits for B 249.677 Recovery = 100.57%								
Ba 233.527†	21086.1	507.12	µg/L	39.588	507.12	ppb	39.588	7.81%
QC value within limits for Ba 233.527 Recovery = 101.42%								
Be 313.107†	852070.2	505.52	µg/L	33.453	505.52	ppb	33.453	6.62%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	6175.4	5274.9	µg/L	45.45	5274.9	ppb	45.45	0.86%
QC value within limits for Ca 317.933Radial Recovery = 105.50%								
Cd 226.502†	20356.3	507.61	µg/L	41.509	507.61	ppb	41.509	8.18%
QC value within limits for Cd 226.502 Recovery = 101.52%								
Co 228.616†	11226.4	507.82	µg/L	45.380	507.82	ppb	45.380	8.94%

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   QC value within limits for Co 228.616  Recovery = 101.56%
Cr 267.716†            25137.3      505.21 µg/L        53.922      505.21 ppb         53.922  10.67%
   QC value within limits for Cr 267.716  Recovery = 101.04%
Cu 324.752†            77302.9      505.34 µg/L        41.362      505.34 ppb         41.362   8.19%
   QC value within limits for Cu 324.752  Recovery = 101.07%
Fe 238.204 Radial†       681.6      5386.2 µg/L         34.14      5386.2 ppb          34.14   0.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.72%
K 766.490 Radial†       8054.3      5260.4 µg/L         45.13      5260.4 ppb          45.13   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 105.21%
Mg 279.077 IEC†          608.1      5438.3 µg/L         72.33      5438.3 ppb          72.33   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.77%
Mn 257.610†           164268.3      514.91 µg/L        32.475      514.91 ppb         32.475   6.31%
   QC value within limits for Mn 257.610  Recovery = 102.98%
Mo 202.031†             5092.2      498.86 µg/L        68.394      498.86 ppb         68.394  13.71%
   QC value within limits for Mo 202.031  Recovery = 99.77%
Na 589.592 Radial†     34798.1       10688 µg/L          94.0       10688 ppb           94.0   0.88%
   QC value within limits for Na 589.592 Radial  Recovery = 106.88%
Ni 231.604†            10197.0      507.78 µg/L        44.349      507.78 ppb         44.349   8.73%
   QC value within limits for Ni 231.604  Recovery = 101.56%
P 214.914†              1258.3      2442.6 µg/L        316.42      2442.6 ppb         316.42  12.95%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             2069.8      503.29 µg/L        59.790      503.29 ppb         59.790  11.88%
   QC value within limits for Pb 220.353  Recovery = 100.66%
S 181.975 Axial†         244.5      1013.8 µg/L        103.94      1013.8 ppb         103.94  10.25%
   QC value within limits for S 181.975 Axial  Recovery = 101.38%
Sb 206.836†              545.7      502.91 µg/L        61.945      502.91 ppb         61.945  12.32%
   QC value within limits for Sb 206.836  Recovery = 100.58%
Se 196.026†              363.2      518.44 µg/L        59.692      518.44 ppb         59.692  11.51%
   QC value within limits for Se 196.026  Recovery = 103.69%
SiO2†                  27825.5      5492.4 µg/L        371.40      5492.4 ppb         371.40   6.76%
   QC value within limits for SiO2  Recovery = 102.71%
Si 251.611†            33767.1      2567.0 µg/L        177.17      2567.0 ppb         177.17   6.90%
   QC value within limits for Si 251.611  Recovery = 102.68%
Sn 189.927†             1184.6      499.62 µg/L        75.568      499.62 ppb         75.568  15.13%
   QC value within limits for Sn 189.927  Recovery = 99.92%
Sr 421.552†            56239.0      518.81 µg/L         4.581      518.81 ppb          4.581   0.88%
   QC value within limits for Sr 421.552  Recovery = 103.76%
Ti 334.940†           227885.6      503.79 µg/L        35.678      503.79 ppb         35.678   7.08%
   QC value within limits for Ti 334.940  Recovery = 100.76%
Tl 190.801†              384.7      505.77 µg/L        46.646      505.77 ppb         46.646   9.22%
   QC value within limits for Tl 190.801  Recovery = 101.15%
U 409.014†              6133.4      508.52 µg/L        55.977      508.52 ppb         55.977  11.01%
   QC value within limits for U 409.014  Recovery = 101.70%
V 292.402†             51547.4      508.51 µg/L        47.203      508.51 ppb         47.203   9.28%
   QC value within limits for V 292.402  Recovery = 101.70%
Zn 213.857†            21815.7      508.21 µg/L        42.623      508.21 ppb         42.623   8.39%
   QC value within limits for Zn 213.857  Recovery = 101.64%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:25:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55715.1	55715.1	98.6	%			17:26:06
1	Al 396.153Radial†	9.9	2.7	1.8794	µg/L	1.8794	ppb	17:26:06
1	Ca 317.933Radial†	200.0	-8.4	-7.2065	µg/L	-7.2065	ppb	17:26:26
1	Fe 238.204 Radial†	18.1	1.8	14.281	µg/L	14.281	ppb	17:26:26
1	K 766.490 Radial†	190.3	28.0	18.262	µg/L	18.262	ppb	17:26:06
1	Mg 279.077 IEC†	10.8	-1.8	-16.403	µg/L	-16.403	ppb	17:26:26
1	Na 589.592 Radial†	566.5	102.3	31.414	µg/L	31.414	ppb	17:26:06
1	Sr 421.552†	8.2	-20.5	-0.1895	µg/L	-0.1895	ppb	17:26:06
1	Sc 361.383	1953458.7	1953458.7	99.508	%			17:27:28
1	Y 371.029	1347989.6	1347989.6	99.648	%			17:27:28
1	Ag 328.068†	-445.9	-46.5	-0.3428	µg/L	-0.3428	ppb	17:27:34
1	As 188.979†	1.8	2.2	4.0261	µg/L	4.0261	ppb	17:27:54
1	B 249.677†	402.6	20.4	0.8246	µg/L	0.8246	ppb	17:27:54
1	Ba 233.527†	-7.2	9.9	0.2372	µg/L	0.2372	ppb	17:27:54
1	Be 313.107†	-2535.3	307.9	0.1827	µg/L	0.1827	ppb	17:27:34
1	Cd 226.502†	-139.8	1.2	0.0290	µg/L	0.0290	ppb	17:27:54
1	Co 228.616†	8.7	6.8	0.3065	µg/L	0.3065	ppb	17:27:54
1	Cr 267.716†	-42.4	7.8	0.1560	µg/L	0.1560	ppb	17:27:34
1	Cu 324.752†	2642.5	111.8	0.7321	µg/L	0.7321	ppb	17:27:34
1	Mn 257.610†	-204.1	50.9	0.1618	µg/L	0.1618	ppb	17:27:54
1	Mo 202.031†	-2.0	3.3	0.3242	µg/L	0.3242	ppb	17:27:54
1	Ni 231.604†	314.6	3.8	0.1900	µg/L	0.1900	ppb	17:27:54
1	P 214.914†	18.8	3.5	6.8616	µg/L	6.8616	ppb	17:27:54
1	Pb 220.353†	98.3	7.8	1.8853	µg/L	1.8853	ppb	17:27:54
1	S 181.975 Axial†	15.5	-3.4	-14.112	µg/L	-14.112	ppb	17:27:54
1	Sb 206.836†	26.9	4.5	4.1739	µg/L	4.1739	ppb	17:27:54
1	Se 196.026†	12.3	-7.0	-9.7684	µg/L	-9.7684	ppb	17:27:54
1	SiO2†	1515.6	131.5	25.955	µg/L	25.955	ppb	17:27:34
1	Si 251.611†	416.0	107.4	8.1665	µg/L	8.1665	ppb	17:27:54
1	Sn 189.927†	2.2	1.9	0.7860	µg/L	0.7860	ppb	17:27:54
1	Ti 334.940†	256.5	82.7	0.1842	µg/L	0.1842	ppb	17:27:34
1	Tl 190.801†	-25.3	-3.1	-3.9679	µg/L	-3.9679	ppb	17:27:54
1	U 409.014†	32.9	110.1	9.1492	µg/L	9.1492	ppb	17:27:34
1	V 292.402†	-29.6	15.0	0.1604	µg/L	0.1604	ppb	17:27:34
1	Zn 213.857†	546.5	14.8	0.3443	µg/L	0.3443	ppb	17:27:54
2	Sc RADIAL	55504.2	55504.2	98.2	%			17:26:32
2	Al 396.153Radial†	11.6	4.4	3.0699	µg/L	3.0699	ppb	17:26:32
2	Ca 317.933Radial†	200.3	-7.4	-6.2839	µg/L	-6.2839	ppb	17:26:52
2	Fe 238.204 Radial†	17.9	1.6	12.645	µg/L	12.645	ppb	17:26:52
2	K 766.490 Radial†	201.9	40.6	26.491	µg/L	26.491	ppb	17:26:32
2	Mg 279.077 IEC†	10.5	-2.1	-19.078	µg/L	-19.078	ppb	17:26:52
2	Na 589.592 Radial†	562.4	100.3	30.804	µg/L	30.804	ppb	17:26:32
2	Sr 421.552†	36.5	8.4	0.0774	µg/L	0.0774	ppb	17:26:32
2	Sc 361.383	1950778.5	1950778.5	99.371	%			17:28:00
2	Y 371.029	1346193.0	1346193.0	99.515	%			17:28:00
2	Ag 328.068†	-396.0	3.1	0.0257	µg/L	0.0257	ppb	17:28:06
2	As 188.979†	1.1	1.6	2.8532	µg/L	2.8532	ppb	17:28:26
2	B 249.677†	390.0	8.3	0.3322	µg/L	0.3322	ppb	17:28:26
2	Ba 233.527†	-6.8	10.2	0.2452	µg/L	0.2452	ppb	17:28:26
2	Be 313.107†	-2616.4	222.8	0.1321	µg/L	0.1321	ppb	17:28:06
2	Cd 226.502†	-139.8	1.0	0.0242	µg/L	0.0242	ppb	17:28:26
2	Co 228.616†	3.7	1.8	0.0803	µg/L	0.0803	ppb	17:28:26
2	Cr 267.716†	-54.5	-4.5	-0.0900	µg/L	-0.0900	ppb	17:28:06
2	Cu 324.752†	2637.6	110.5	0.7233	µg/L	0.7233	ppb	17:28:06
2	Mn 257.610†	-213.1	41.5	0.1325	µg/L	0.1325	ppb	17:28:26
2	Mo 202.031†	-0.0	5.3	0.5204	µg/L	0.5204	ppb	17:28:26
2	Ni 231.604†	311.7	1.3	0.0651	µg/L	0.0651	ppb	17:28:26
2	P 214.914†	7.2	-8.1	-16.019	µg/L	-16.019	ppb	17:28:26
2	Pb 220.353†	96.7	6.4	1.5474	µg/L	1.5474	ppb	17:28:26

2	S 181.975 Axial†	17.4	-1.4	-5.8210 µg/L	-5.8210 ppb	17:28:26
2	Sb 206.836†	19.7	-2.6	-2.3998 µg/L	-2.3998 ppb	17:28:26
2	Se 196.026†	15.0	-4.2	-5.8108 µg/L	-5.8108 ppb	17:28:26
2	SiO2†	1459.9	77.6	15.313 µg/L	15.313 ppb	17:28:06
2	Si 251.611†	412.0	104.0	7.9062 µg/L	7.9062 ppb	17:28:26
2	Sn 189.927†	7.8	7.4	3.1294 µg/L	3.1294 ppb	17:28:26
2	Ti 334.940†	270.4	97.1	0.2161 µg/L	0.2161 ppb	17:28:06
2	Tl 190.801†	-21.2	1.0	1.3155 µg/L	1.3155 ppb	17:28:26
2	U 409.014†	-29.9	47.0	3.9019 µg/L	3.9019 ppb	17:28:06
2	V 292.402†	-11.1	33.5	0.3361 µg/L	0.3361 ppb	17:28:06
2	Zn 213.857†	544.6	13.6	0.3180 µg/L	0.3180 ppb	17:28:26
3	Sc RADIAL	55576.2	55576.2	98.4 %		17:26:57
3	Al 396.153Radial†	-4.2	-11.6	-8.0814 µg/L	-8.0814 ppb	17:26:57
3	Ca 317.933Radial†	198.4	-9.6	-8.1878 µg/L	-8.1878 ppb	17:27:18
3	Fe 238.204 Radial†	17.1	0.8	6.2197 µg/L	6.2197 ppb	17:27:18
3	K 766.490 Radial†	182.5	20.5	13.397 µg/L	13.397 ppb	17:26:57
3	Mg 279.077 IEC†	14.4	1.8	16.514 µg/L	16.514 ppb	17:27:18
3	Na 589.592 Radial†	564.0	101.1	31.056 µg/L	31.056 ppb	17:26:57
3	Sr 421.552†	84.4	57.0	0.5260 µg/L	0.5260 ppb	17:26:57
3	Sc 361.383	1984583.7	1984583.7	101.09 %		17:28:32
3	Y 371.029	1368650.9	1368650.9	101.18 %		17:28:32
3	Ag 328.068†	-463.7	-57.1	-0.4221 µg/L	-0.4221 ppb	17:28:38
3	As 188.979†	1.5	1.9	3.4901 µg/L	3.4901 ppb	17:28:58
3	B 249.677†	385.7	-2.6	-0.1102 µg/L	-0.1102 ppb	17:28:58
3	Ba 233.527†	-8.4	8.8	0.2107 µg/L	0.2107 ppb	17:28:58
3	Be 313.107†	-2606.1	277.8	0.1648 µg/L	0.1648 ppb	17:28:38
3	Cd 226.502†	-137.9	5.3	0.1312 µg/L	0.1312 ppb	17:28:58
3	Co 228.616†	11.7	9.7	0.4385 µg/L	0.4385 ppb	17:28:58
3	Cr 267.716†	-56.0	-5.0	-0.1002 µg/L	-0.1002 ppb	17:28:38
3	Cu 324.752†	2581.0	9.4	0.0621 µg/L	0.0621 ppb	17:28:38
3	Mn 257.610†	-221.0	37.4	0.1174 µg/L	0.1174 ppb	17:28:58
3	Mo 202.031†	2.7	8.0	0.7835 µg/L	0.7835 ppb	17:28:58
3	Ni 231.604†	311.4	-4.3	-0.2151 µg/L	-0.2151 ppb	17:28:58
3	P 214.914†	14.9	-0.6	-1.1261 µg/L	-1.1261 ppb	17:28:58
3	Pb 220.353†	89.4	-2.5	-0.6244 µg/L	-0.6244 ppb	17:28:58
3	S 181.975 Axial†	14.9	-4.2	-17.388 µg/L	-17.388 ppb	17:28:58
3	Sb 206.836†	22.0	-0.7	-0.6331 µg/L	-0.6331 ppb	17:28:58
3	Se 196.026†	16.1	-3.3	-4.6875 µg/L	-4.6875 ppb	17:28:58
3	SiO2†	1488.2	80.6	15.904 µg/L	15.904 ppb	17:28:38
3	Si 251.611†	405.3	90.2	6.8609 µg/L	6.8609 ppb	17:28:58
3	Sn 189.927†	5.4	5.0	2.0931 µg/L	2.0931 ppb	17:28:58
3	Ti 334.940†	242.9	65.3	0.1429 µg/L	0.1429 ppb	17:28:38
3	Tl 190.801†	-20.1	2.5	3.3063 µg/L	3.3063 ppb	17:28:58
3	U 409.014†	41.4	118.0	9.8042 µg/L	9.8042 ppb	17:28:38
3	V 292.402†	-37.8	7.4	0.0885 µg/L	0.0885 ppb	17:28:38
3	Zn 213.857†	537.5	-2.8	-0.0653 µg/L	-0.0653 ppb	17:28:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962940.3	99.991	%	0.9572				0.96%
Sc RADIAL	55598.5	98.4	%	0.19				0.19%
Y 371.029	1354277.8	100.11	%	0.923				0.92%
Ag 328.068†	-33.5	-0.2464	µg/L	0.23900	-0.2464	ppb	0.23900	96.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.5	-1.0440	µg/L	6.12354	-1.0440	ppb	6.12354	586.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.4565	µg/L	0.58720	3.4565	ppb	0.58720	16.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.7	0.3489	µg/L	0.46764	0.3489	ppb	0.46764	134.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.2310	µg/L	0.01805	0.2310	ppb	0.01805	7.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.5	0.1599	µg/L	0.02562	0.1599	ppb	0.02562	16.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.5	-7.2261	µg/L	0.95208	-7.2261	ppb	0.95208	13.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	2.5	0.0615	µg/L	0.06046	0.0615	ppb	0.06046	98.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.1	0.2751	µg/L	0.18114	0.2751	ppb	0.18114	65.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.6     -0.0114 µg/L       0.14502     -0.0114 ppb        0.14502 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                77.3      0.5058 µg/L       0.38426      0.5058 ppb        0.38426  75.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4      11.049 µg/L        4.2612      11.049 ppb         4.2612  38.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.7      19.384 µg/L        6.6186      19.384 ppb         6.6186  34.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.7     -6.3222 µg/L      19.82205     -6.3222 ppb       19.82205 313.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                43.3      0.1372 µg/L       0.02261      0.1372 ppb        0.02261  16.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.5      0.5427 µg/L       0.23045      0.5427 ppb        0.23045  42.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.2      31.091 µg/L        0.3066      31.091 ppb         0.3066   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.3      0.0133 µg/L       0.20747      0.0133 ppb        0.20747 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.7     -3.4277 µg/L      11.61243     -3.4277 ppb       11.61243 338.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.9      0.9361 µg/L       1.36196      0.9361 ppb        1.36196 145.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.0     -12.440 µg/L        5.9620     -12.440 ppb         5.9620  47.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.3803 µg/L       3.40201      0.3803 ppb        3.40201 894.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.8     -6.7556 µg/L       2.66893     -6.7556 ppb        2.66893  39.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      96.5      19.057 µg/L        5.9811      19.057 ppb         5.9811  31.38%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               100.6      7.6446 µg/L       0.69104      7.6446 ppb        0.69104   9.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.8      2.0028 µg/L       1.17429      2.0028 ppb        1.17429  58.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                15.0      0.1380 µg/L       0.36157      0.1380 ppb        0.36157 262.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                81.7      0.1811 µg/L       0.03671      0.1811 ppb        0.03671  20.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.2      0.2179 µg/L       3.75923      0.2179 ppb        3.75923 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 91.7      7.6184 µg/L       3.23526      7.6184 ppb        3.23526  42.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.6      0.1950 µg/L       0.12739      0.1950 ppb        0.12739  65.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 8.5      0.1990 µg/L       0.22924      0.1990 ppb        0.22924 115.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56387.7	56387.7	99.8	%			17:52:51
1	Al 396.153Radial†	7516.2	7523.2	5222.3	µg/L	5222.3	ppb	17:52:51
1	Ca 317.933Radial†	6203.6	6004.2	5128.7	µg/L	5128.7	ppb	17:53:12
1	Fe 238.204 Radial†	678.6	663.3	5242.5	µg/L	5242.5	ppb	17:53:12
1	K 766.490 Radial†	8065.5	7916.0	5170.1	µg/L	5170.1	ppb	17:52:51
1	Mg 279.077 IEC†	612.7	601.1	5376.4	µg/L	5376.4	ppb	17:53:12
1	Na 589.592 Radial†	34827.6	34422.1	10573	µg/L	10573	ppb	17:52:51
1	Sr 421.552†	55284.5	55361.6	510.72	µg/L	510.72	ppb	17:52:51
1	Sc 361.383	1961302.2	1961302.2	99.907	%			17:54:15
1	Y 371.029	1346537.9	1346537.9	99.540	%			17:54:15
1	Ag 328.068†	69774.1	70240.4	524.12	µg/L	524.12	ppb	17:54:21
1	As 188.979†	301.3	302.0	540.22	µg/L	540.22	ppb	17:54:41
1	B 249.677†	13080.8	12708.8	516.10	µg/L	516.10	ppb	17:54:21
1	Ba 233.527†	21956.6	21994.0	528.97	µg/L	528.97	ppb	17:54:21
1	Be 313.107†	883536.0	887210.5	526.36	µg/L	526.36	ppb	17:54:15
1	Cd 226.502†	21042.7	21203.9	528.78	µg/L	528.78	ppb	17:54:21
1	Co 228.616†	11741.3	11750.3	531.54	µg/L	531.54	ppb	17:54:21
1	Cr 267.716†	26482.6	26557.5	533.75	µg/L	533.75	ppb	17:54:21
1	Cu 324.752†	83088.9	80622.2	526.99	µg/L	526.99	ppb	17:54:21
1	Mn 257.610†	170434.3	170848.3	535.50	µg/L	535.50	ppb	17:54:15
1	Mo 202.031†	5552.2	5562.7	544.93	µg/L	544.93	ppb	17:54:41
1	Ni 231.604†	10987.8	10685.6	532.11	µg/L	532.11	ppb	17:54:21
1	P 214.914†	1368.8	1354.8	2632.0	µg/L	2632.0	ppb	17:54:41
1	Pb 220.353†	2310.1	2221.3	540.17	µg/L	540.17	ppb	17:54:41
1	S 181.975 Axial†	278.0	259.3	1075.2	µg/L	1075.2	ppb	17:54:41
1	Sb 206.836†	616.4	594.4	548.12	µg/L	548.12	ppb	17:54:41
1	Se 196.026†	407.1	388.1	553.19	µg/L	553.19	ppb	17:54:41
1	SiO2†	29956.0	28592.2	5643.7	µg/L	5643.7	ppb	17:54:21
1	Si 251.611†	34932.9	34654.6	2634.5	µg/L	2634.5	ppb	17:54:21
1	Sn 189.927†	1295.2	1296.1	546.62	µg/L	546.62	ppb	17:54:41
1	Ti 334.940†	237959.8	238005.3	526.18	µg/L	526.18	ppb	17:54:15
1	Tl 190.801†	387.6	410.3	539.25	µg/L	539.25	ppb	17:54:41
1	U 409.014†	6411.5	6494.5	538.55	µg/L	538.55	ppb	17:54:21
1	V 292.402†	54050.9	54145.8	534.27	µg/L	534.27	ppb	17:54:21
1	Zn 213.857†	23288.3	22775.5	530.59	µg/L	530.59	ppb	17:54:21
2	Sc RADIAL	56513.7	56513.7	100	%			17:53:17
2	Al 396.153Radial†	7511.3	7501.5	5207.6	µg/L	5207.6	ppb	17:53:17
2	Ca 317.933Radial†	6229.5	6016.2	5139.0	µg/L	5139.0	ppb	17:53:38
2	Fe 238.204 Radial†	684.9	668.1	5280.5	µg/L	5280.5	ppb	17:53:38
2	K 766.490 Radial†	8100.3	7932.7	5181.0	µg/L	5181.0	ppb	17:53:17
2	Mg 279.077 IEC†	601.5	588.5	5263.5	µg/L	5263.5	ppb	17:53:38
2	Na 589.592 Radial†	34828.0	34344.7	10549	µg/L	10549	ppb	17:53:17
2	Sr 421.552†	55539.3	55492.7	511.93	µg/L	511.93	ppb	17:53:17
2	Sc 361.383	1968482.8	1968482.8	100.27	%			17:54:48
2	Y 371.029	1351706.6	1351706.6	99.922	%			17:54:48
2	Ag 328.068†	69757.2	69968.7	522.10	µg/L	522.10	ppb	17:54:54
2	As 188.979†	290.5	290.2	519.13	µg/L	519.13	ppb	17:55:15
2	B 249.677†	13075.3	12655.5	513.91	µg/L	513.91	ppb	17:54:54
2	Ba 233.527†	21957.1	21914.4	527.05	µg/L	527.05	ppb	17:54:54
2	Be 313.107†	886040.3	886482.1	525.93	µg/L	525.93	ppb	17:54:48
2	Cd 226.502†	21056.7	21141.0	527.21	µg/L	527.21	ppb	17:54:54
2	Co 228.616†	11735.1	11701.2	529.30	µg/L	529.30	ppb	17:54:54
2	Cr 267.716†	26499.8	26477.9	532.15	µg/L	532.15	ppb	17:54:54
2	Cu 324.752†	83008.4	80238.5	524.49	µg/L	524.49	ppb	17:54:54
2	Mn 257.610†	171057.7	170847.6	535.50	µg/L	535.50	ppb	17:54:48
2	Mo 202.031†	5398.9	5389.5	527.98	µg/L	527.98	ppb	17:55:15
2	Ni 231.604†	11020.6	10678.2	531.74	µg/L	531.74	ppb	17:54:54
2	P 214.914†	1347.0	1328.0	2579.1	µg/L	2579.1	ppb	17:55:15
2	Pb 220.353†	2257.9	2160.8	525.43	µg/L	525.43	ppb	17:55:15

2	S 181.975 Axial†	275.1	255.4	1059.1 µg/L	1059.1 ppb	17:55:15
2	Sb 206.836†	599.1	574.9	529.97 µg/L	529.97 ppb	17:55:15
2	Se 196.026†	397.7	377.3	538.13 µg/L	538.13 ppb	17:55:15
2	SiO2†	29922.8	28449.7	5615.6 µg/L	5615.6 ppb	17:54:54
2	Si 251.611†	35029.2	34623.1	2632.1 µg/L	2632.1 ppb	17:54:54
2	Sn 189.927†	1263.5	1259.7	531.25 µg/L	531.25 ppb	17:55:15
2	Ti 334.940†	238598.7	237773.6	525.67 µg/L	525.67 ppb	17:54:48
2	Tl 190.801†	380.1	401.4	527.72 µg/L	527.72 ppb	17:55:15
2	U 409.014†	6311.3	6371.2	528.30 µg/L	528.30 ppb	17:54:54
2	V 292.402†	54031.0	53928.5	532.01 µg/L	532.01 ppb	17:54:54
2	Zn 213.857†	23199.9	22602.3	526.54 µg/L	526.54 ppb	17:54:54
3	Sc RADIAL	56302.2	56302.2	99.7 %		17:53:43
3	Al 396.153Radial†	7458.4	7476.7	5192.5 µg/L	5192.5 ppb	17:53:43
3	Ca 317.933Radial†	6210.0	6020.1	5142.2 µg/L	5142.2 ppb	17:54:03
3	Fe 238.204 Radial†	676.1	661.8	5229.6 µg/L	5229.6 ppb	17:54:03
3	K 766.490 Radial†	8076.1	7938.9	5185.0 µg/L	5185.0 ppb	17:53:43
3	Mg 279.077 IEC†	611.6	600.9	5372.7 µg/L	5372.7 ppb	17:54:03
3	Na 589.592 Radial†	34581.8	34228.4	10513 µg/L	10513 ppb	17:53:43
3	Sr 421.552†	55197.9	55358.8	510.69 µg/L	510.69 ppb	17:53:43
3	Sc 361.383	1973873.7	1973873.7	100.55 %		17:55:22
3	Y 371.029	1355653.4	1355653.4	100.21 %		17:55:22
3	Ag 328.068†	63217.1	63274.3	471.97 µg/L	471.97 ppb	17:55:27
3	As 188.979†	239.4	238.6	426.79 µg/L	426.79 ppb	17:55:48
3	B 249.677†	11772.4	11324.2	459.52 µg/L	459.52 ppb	17:55:27
3	Ba 233.527†	19082.8	18995.9	456.84 µg/L	456.84 ppb	17:55:27
3	Be 313.107†	789189.1	787745.2	467.35 µg/L	467.35 ppb	17:55:22
3	Cd 226.502†	18227.9	18270.3	455.54 µg/L	455.54 ppb	17:55:27
3	Co 228.616†	10065.9	10009.1	452.70 µg/L	452.70 ppb	17:55:27
3	Cr 267.716†	21831.4	21762.8	437.39 µg/L	437.39 ppb	17:55:27
3	Cu 324.752†	71769.6	68834.9	450.04 µg/L	450.04 ppb	17:55:27
3	Mn 257.610†	152925.4	152348.2	477.56 µg/L	477.56 ppb	17:55:22
3	Mo 202.031†	4301.6	4283.5	419.66 µg/L	419.66 ppb	17:55:48
3	Ni 231.604†	9432.0	9068.3	451.58 µg/L	451.58 ppb	17:55:27
3	P 214.914†	1090.2	1068.9	2072.2 µg/L	2072.2 ppb	17:55:48
3	Pb 220.353†	1884.4	1783.2	433.56 µg/L	433.56 ppb	17:55:48
3	S 181.975 Axial†	236.4	216.2	896.48 µg/L	896.48 ppb	17:55:48
3	Sb 206.836†	488.0	462.9	426.39 µg/L	426.39 ppb	17:55:48
3	Se 196.026†	334.6	313.5	448.33 µg/L	448.33 ppb	17:55:48
3	SiO2†	26642.0	25105.3	4955.5 µg/L	4955.5 ppb	17:55:27
3	Si 251.611†	30980.1	30500.6	2318.7 µg/L	2318.7 ppb	17:55:27
3	Sn 189.927†	986.2	980.5	413.54 µg/L	413.54 ppb	17:55:48
3	Ti 334.940†	210724.4	209401.3	462.90 µg/L	462.90 ppb	17:55:22
3	Tl 190.801†	331.8	352.3	463.31 µg/L	463.31 ppb	17:55:48
3	U 409.014†	5301.6	5349.8	443.44 µg/L	443.44 ppb	17:55:27
3	V 292.402†	45830.4	45625.5	449.95 µg/L	449.95 ppb	17:55:27
3	Zn 213.857†	20052.4	19408.7	452.08 µg/L	452.08 ppb	17:55:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1967886.2	100.24	%	0.321				0.32%
Sc RADIAL	56401.2	99.8	%	0.19				0.19%
Y 371.029	1351299.3	99.892	%	0.3379				0.34%
Ag 328.068†	67827.8	506.07	µg/L	29.542	506.07	ppb	29.542	5.84%
QC value within limits for Ag 328.068 Recovery = 101.21%								
Al 396.153Radial†	7500.4	5207.5	µg/L	14.90	5207.5	ppb	14.90	0.29%
QC value within limits for Al 396.153Radial Recovery = 104.15%								
As 188.979†	276.9	495.38	µg/L	60.328	495.38	ppb	60.328	12.18%
QC value within limits for As 188.979 Recovery = 99.08%								
B 249.677†	12229.5	496.51	µg/L	32.053	496.51	ppb	32.053	6.46%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	20968.1	504.29	µg/L	41.100	504.29	ppb	41.100	8.15%
QC value within limits for Ba 233.527 Recovery = 100.86%								
Be 313.107†	853812.6	506.55	µg/L	33.945	506.55	ppb	33.945	6.70%
QC value within limits for Be 313.107 Recovery = 101.31%								
Ca 317.933Radial†	6013.5	5136.6	µg/L	7.07	5136.6	ppb	7.07	0.14%
QC value within limits for Ca 317.933Radial Recovery = 102.73%								
Cd 226.502†	20205.1	503.85	µg/L	41.841	503.85	ppb	41.841	8.30%
QC value within limits for Cd 226.502 Recovery = 100.77%								
Co 228.616†	11153.5	504.51	µg/L	44.882	504.51	ppb	44.882	8.90%

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   QC value within limits for Co 228.616  Recovery = 100.90%
Cr 267.716†            24932.7      501.10 µg/L        55.174      501.10 ppb         55.174  11.01%
   QC value within limits for Cr 267.716  Recovery = 100.22%
Cu 324.752†            76565.2      500.51 µg/L        43.720      500.51 ppb         43.720   8.74%
   QC value within limits for Cu 324.752  Recovery = 100.10%
Fe 238.204 Radial†       664.4      5250.8 µg/L        26.46      5250.8 ppb          26.46   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.02%
K 766.490 Radial†       7929.2      5178.7 µg/L         7.74      5178.7 ppb           7.74   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 103.57%
Mg 279.077 IEC†          596.8      5337.6 µg/L        64.15      5337.6 ppb          64.15   1.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.75%
Mn 257.610†           164681.4      516.19 µg/L        33.451      516.19 ppb         33.451   6.48%
   QC value within limits for Mn 257.610  Recovery = 103.24%
Mo 202.031†            5078.6      497.52 µg/L        67.959      497.52 ppb         67.959  13.66%
   QC value within limits for Mo 202.031  Recovery = 99.50%
Na 589.592 Radial†     34331.7       10545 µg/L         29.9       10545 ppb           29.9   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 105.45%
Ni 231.604†            10144.1      505.14 µg/L        46.388      505.14 ppb         46.388   9.18%
   QC value within limits for Ni 231.604  Recovery = 101.03%
P 214.914†              1250.6      2427.8 µg/L        309.09      2427.8 ppb         309.09  12.73%
   QC value within limits for P 214.914  Recovery = 97.11%
Pb 220.353†             2055.1      499.72 µg/L        57.768      499.72 ppb         57.768  11.56%
   QC value within limits for Pb 220.353  Recovery = 99.94%
S 181.975 Axial†         243.6      1010.2 µg/L        98.85      1010.2 ppb          98.85   9.79%
   QC value within limits for S 181.975 Axial  Recovery = 101.02%
Sb 206.836†              544.1      501.49 µg/L        65.671      501.49 ppb         65.671  13.10%
   QC value within limits for Sb 206.836  Recovery = 100.30%
Se 196.026†              359.6      513.22 µg/L        56.697      513.22 ppb         56.697  11.05%
   QC value within limits for Se 196.026  Recovery = 102.64%
SiO2†                  27382.4      5404.9 µg/L        389.50      5404.9 ppb         389.50   7.21%
   QC value within limits for SiO2  Recovery = 101.07%
Si 251.611†            33259.5      2528.4 µg/L        181.64      2528.4 ppb         181.64   7.18%
   QC value within limits for Si 251.611  Recovery = 101.14%
Sn 189.927†             1178.7      497.14 µg/L        72.805      497.14 ppb         72.805  14.64%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†            55404.3      511.11 µg/L         0.706      511.11 ppb          0.706   0.14%
   QC value within limits for Sr 421.552  Recovery = 102.22%
Ti 334.940†           228393.4      504.92 µg/L        36.389      504.92 ppb         36.389   7.21%
   QC value within limits for Ti 334.940  Recovery = 100.98%
Tl 190.801†              388.0      510.09 µg/L        40.923      510.09 ppb         40.923   8.02%
   QC value within limits for Tl 190.801  Recovery = 102.02%
U 409.014†              6071.8      503.43 µg/L        52.204      503.43 ppb         52.204  10.37%
   QC value within limits for U 409.014  Recovery = 100.69%
V 292.402†             51233.3      505.41 µg/L        48.044      505.41 ppb         48.044   9.51%
   QC value within limits for V 292.402  Recovery = 101.08%
Zn 213.857†            21595.5      503.07 µg/L        44.204      503.07 ppb         44.204   8.79%
   QC value within limits for Zn 213.857  Recovery = 100.61%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:55:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55016.4	55016.4	97.4	%			17:56:30
1	Al 396.153Radial†	-25.6	-33.6	-23.423	µg/L	-23.423	ppb	17:56:30
1	Ca 317.933Radial†	188.9	-17.3	-14.738	µg/L	-14.738	ppb	17:56:51
1	Fe 238.204 Radial†	16.8	0.7	5.5284	µg/L	5.5284	ppb	17:56:51
1	K 766.490 Radial†	203.2	43.7	28.526	µg/L	28.526	ppb	17:56:30
1	Mg 279.077 IEC†	6.2	-6.4	-57.504	µg/L	-57.504	ppb	17:56:51
1	Na 589.592 Radial†	507.1	48.5	14.906	µg/L	14.906	ppb	17:56:30
1	Sr 421.552†	39.0	11.2	0.1037	µg/L	0.1037	ppb	17:56:30
1	Sc 361.383	1965901.2	1965901.2	100.14	%			17:57:53
1	Y 371.029	1354342.9	1354342.9	100.12	%			17:57:53
1	Ag 328.068†	-375.0	27.2	0.2015	µg/L	0.2015	ppb	17:57:58
1	As 188.979†	2.9	3.3	5.9435	µg/L	5.9435	ppb	17:58:19
1	B 249.677†	389.1	4.4	0.1765	µg/L	0.1765	ppb	17:58:19
1	Ba 233.527†	-21.5	-4.4	-0.1059	µg/L	-0.1059	ppb	17:58:19
1	Be 313.107†	-2713.7	145.8	0.0865	µg/L	0.0865	ppb	17:57:58
1	Cd 226.502†	-132.8	9.1	0.2255	µg/L	0.2255	ppb	17:58:19
1	Co 228.616†	-6.2	-8.1	-0.3659	µg/L	-0.3659	ppb	17:58:19
1	Cr 267.716†	-50.1	0.4	0.0078	µg/L	0.0078	ppb	17:57:58
1	Cu 324.752†	2544.7	-2.7	-0.0168	µg/L	-0.0168	ppb	17:57:58
1	Mn 257.610†	-245.9	10.5	0.0359	µg/L	0.0359	ppb	17:58:19
1	Mo 202.031†	3.8	9.1	0.8915	µg/L	0.8915	ppb	17:58:19
1	Ni 231.604†	300.7	-12.0	-0.5990	µg/L	-0.5990	ppb	17:58:19
1	P 214.914†	17.4	2.0	4.0305	µg/L	4.0305	ppb	17:58:19
1	Pb 220.353†	97.4	6.3	1.5269	µg/L	1.5269	ppb	17:58:19
1	S 181.975 Axial†	17.7	-1.2	-5.1360	µg/L	-5.1360	ppb	17:58:19
1	Sb 206.836†	24.8	2.2	2.0583	µg/L	2.0583	ppb	17:58:19
1	Se 196.026†	12.5	-6.8	-9.5059	µg/L	-9.5059	ppb	17:58:19
1	SiO2†	1426.2	32.7	6.4463	µg/L	6.4463	ppb	17:57:58
1	Si 251.611†	326.4	15.3	1.1636	µg/L	1.1636	ppb	17:58:19
1	Sn 189.927†	4.0	3.6	1.5081	µg/L	1.5081	ppb	17:58:19
1	Ti 334.940†	201.4	26.1	0.0620	µg/L	0.0620	ppb	17:57:58
1	Tl 190.801†	-21.5	0.9	1.1647	µg/L	1.1647	ppb	17:58:19
1	U 409.014†	-51.8	25.4	2.1068	µg/L	2.1068	ppb	17:57:58
1	V 292.402†	-46.0	-1.1	-0.0014	µg/L	-0.0014	ppb	17:57:58
1	Zn 213.857†	533.4	-1.7	-0.0344	µg/L	-0.0344	ppb	17:58:19
2	Sc RADIAL	55682.3	55682.3	98.6	%			17:56:56
2	Al 396.153Radial†	-28.9	-36.6	-25.497	µg/L	-25.497	ppb	17:56:56
2	Ca 317.933Radial†	190.4	-18.1	-15.487	µg/L	-15.487	ppb	17:57:17
2	Fe 238.204 Radial†	16.8	0.5	4.1171	µg/L	4.1171	ppb	17:57:17
2	K 766.490 Radial†	223.9	62.2	40.619	µg/L	40.619	ppb	17:56:56
2	Mg 279.077 IEC†	9.9	-2.8	-25.072	µg/L	-25.072	ppb	17:57:17
2	Na 589.592 Radial†	519.3	54.7	16.798	µg/L	16.798	ppb	17:56:56
2	Sr 421.552†	32.7	4.3	0.0401	µg/L	0.0401	ppb	17:56:56
2	Sc 361.383	1957019.5	1957019.5	99.689	%			17:58:25
2	Y 371.029	1350334.7	1350334.7	99.821	%			17:58:25
2	Ag 328.068†	-377.0	23.5	0.1757	µg/L	0.1757	ppb	17:58:30
2	As 188.979†	-0.8	-0.3	-0.5788	µg/L	-0.5788	ppb	17:58:51
2	B 249.677†	388.0	5.1	0.2060	µg/L	0.2060	ppb	17:58:51
2	Ba 233.527†	-16.1	0.9	0.0215	µg/L	0.0215	ppb	17:58:51
2	Be 313.107†	-2677.7	169.6	0.1006	µg/L	0.1006	ppb	17:58:30
2	Cd 226.502†	-142.7	-1.4	-0.0367	µg/L	-0.0367	ppb	17:58:51
2	Co 228.616†	7.4	5.5	0.2501	µg/L	0.2501	ppb	17:58:51
2	Cr 267.716†	-33.3	17.0	0.3420	µg/L	0.3420	ppb	17:58:30
2	Cu 324.752†	2564.5	28.8	0.1884	µg/L	0.1884	ppb	17:58:30
2	Mn 257.610†	-244.8	10.4	0.0341	µg/L	0.0341	ppb	17:58:51
2	Mo 202.031†	-1.9	3.5	0.3412	µg/L	0.3412	ppb	17:58:51
2	Ni 231.604†	305.0	-6.4	-0.3187	µg/L	-0.3187	ppb	17:58:51
2	P 214.914†	15.9	0.6	1.2381	µg/L	1.2381	ppb	17:58:51
2	Pb 220.353†	85.8	-4.9	-1.1822	µg/L	-1.1822	ppb	17:58:51

2	S 181.975 Axial†	16.3	-2.6	-10.626 µg/L	-10.626 ppb	17:58:51
2	Sb 206.836†	25.7	3.2	2.9825 µg/L	2.9825 ppb	17:58:51
2	Se 196.026†	18.4	-0.8	-1.1281 µg/L	-1.1281 ppb	17:58:51
2	SiO2†	1461.8	74.8	14.763 µg/L	14.763 ppb	17:58:30
2	Si 251.611†	344.9	35.3	2.6849 µg/L	2.6849 ppb	17:58:51
2	Sn 189.927†	-1.0	-1.4	-0.5943 µg/L	-0.5943 ppb	17:58:51
2	Ti 334.940†	216.4	42.0	0.0947 µg/L	0.0947 ppb	17:58:30
2	Tl 190.801†	-19.8	2.5	3.2612 µg/L	3.2612 ppb	17:58:51
2	U 409.014†	-50.4	26.6	2.2066 µg/L	2.2066 ppb	17:58:30
2	V 292.402†	-18.0	26.7	0.2662 µg/L	0.2662 ppb	17:58:30
2	Zn 213.857†	535.3	2.5	0.0614 µg/L	0.0614 ppb	17:58:51
3	Sc RADIAL	55053.2	55053.2	97.4 %		17:57:22
3	Al 396.153Radial†	-40.3	-48.7	-33.898 µg/L	-33.898 ppb	17:57:22
3	Ca 317.933Radial†	188.9	-17.4	-14.892 µg/L	-14.892 ppb	17:57:42
3	Fe 238.204 Radial†	16.1	-0.0	-0.3068 µg/L	-0.3068 ppb	17:57:42
3	K 766.490 Radial†	212.7	53.3	34.793 µg/L	34.793 ppb	17:57:22
3	Mg 279.077 IEC†	19.0	6.7	59.990 µg/L	59.990 ppb	17:57:42
3	Na 589.592 Radial†	541.5	83.5	25.652 µg/L	25.652 ppb	17:57:22
3	Sr 421.552†	50.1	22.6	0.2082 µg/L	0.2082 ppb	17:57:22
3	Sc 361.383	1965248.8	1965248.8	100.11 %		17:58:57
3	Y 371.029	1354189.1	1354189.1	100.11 %		17:58:57
3	Ag 328.068†	-450.0	-47.9	-0.3524 µg/L	-0.3524 ppb	17:59:03
3	As 188.979†	0.1	0.6	1.0726 µg/L	1.0726 ppb	17:59:23
3	B 249.677†	379.0	-5.5	-0.2247 µg/L	-0.2247 ppb	17:59:23
3	Ba 233.527†	-9.6	7.5	0.1800 µg/L	0.1800 ppb	17:59:23
3	Be 313.107†	-2642.2	216.4	0.1284 µg/L	0.1284 ppb	17:59:03
3	Cd 226.502†	-137.1	4.7	0.1164 µg/L	0.1164 ppb	17:59:23
3	Co 228.616†	5.7	3.7	0.1693 µg/L	0.1693 ppb	17:59:23
3	Cr 267.716†	-63.8	-13.4	-0.2679 µg/L	-0.2679 ppb	17:59:03
3	Cu 324.752†	2541.3	-5.2	-0.0342 µg/L	-0.0342 ppb	17:59:03
3	Mn 257.610†	-242.2	14.1	0.0418 µg/L	0.0418 ppb	17:59:23
3	Mo 202.031†	-0.6	4.8	0.4652 µg/L	0.4652 ppb	17:59:23
3	Ni 231.604†	301.2	-11.4	-0.5704 µg/L	-0.5704 ppb	17:59:23
3	P 214.914†	21.9	6.6	13.019 µg/L	13.019 ppb	17:59:23
3	Pb 220.353†	81.2	-9.9	-2.4060 µg/L	-2.4060 ppb	17:59:23
3	S 181.975 Axial†	14.0	-4.9	-20.443 µg/L	-20.443 ppb	17:59:23
3	Sb 206.836†	27.7	5.2	4.7514 µg/L	4.7514 ppb	17:59:23
3	Se 196.026†	17.1	-2.2	-3.1763 µg/L	-3.1763 ppb	17:59:23
3	SiO2†	1412.3	19.2	3.7961 µg/L	3.7961 ppb	17:59:03
3	Si 251.611†	335.9	24.9	1.8933 µg/L	1.8933 ppb	17:59:23
3	Sn 189.927†	3.9	3.5	1.4733 µg/L	1.4733 ppb	17:59:23
3	Ti 334.940†	206.9	31.6	0.0650 µg/L	0.0650 ppb	17:59:03
3	Tl 190.801†	-23.3	-0.9	-1.1798 µg/L	-1.1798 ppb	17:59:23
3	U 409.014†	2.6	79.6	6.6183 µg/L	6.6183 ppb	17:59:03
3	V 292.402†	-4.6	40.2	0.4016 µg/L	0.4016 ppb	17:59:03
3	Zn 213.857†	533.9	-1.1	-0.0271 µg/L	-0.0271 ppb	17:59:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962723.2	99.980	%	0.2522				0.25%
Sc RADIAL	55250.6	97.8	%	0.66				0.68%
Y 371.029	1352955.6	100.01	%	0.168				0.17%
Ag 328.068†	0.9	0.0083	µg/L	0.31265	0.0083	ppb	0.31265	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-39.7	-27.606	µg/L	5.5466	-27.606	ppb	5.5466	20.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	2.1458	µg/L	3.39103	2.1458	ppb	3.39103	158.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.3	0.0526	µg/L	0.24059	0.0526	ppb	0.24059	457.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.3	0.0318	µg/L	0.14326	0.0318	ppb	0.14326	449.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	177.3	0.1052	µg/L	0.02132	0.1052	ppb	0.02132	20.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.6	-15.039	µg/L	0.3955	-15.039	ppb	0.3955	2.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.1	0.1017	µg/L	0.13173	0.1017	ppb	0.13173	129.53%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0179	µg/L	0.33479	0.0179	ppb	0.33479	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.4      0.0273 µg/L       0.30543      0.0273 ppb        0.30543 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 7.0      0.0458 µg/L       0.12379      0.0458 ppb        0.12379 270.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.1129 µg/L       3.04443      3.1129 ppb        3.04443  97.80%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          53.0     34.646 µg/L        6.0478     34.646 ppb         6.0478  17.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.5284 µg/L      60.67961     -7.5284 ppb       60.67961 806.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.7      0.0373 µg/L       0.00401      0.0373 ppb        0.00401  10.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.8      0.5659 µg/L       0.28866      0.5659 ppb        0.28866  51.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         62.2     19.119 µg/L        5.7369     19.119 ppb         5.7369  30.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.0     -0.4960 µg/L       0.15424     -0.4960 ppb        0.15424  31.09%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.1      6.0957 µg/L       6.15582      6.0957 ppb        6.15582 100.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.8     -0.6871 µg/L       2.01265     -0.6871 ppb        2.01265 292.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.9    -12.068 µg/L        7.7546    -12.068 ppb         7.7546  64.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      3.2641 µg/L       1.36846      3.2641 ppb        1.36846  41.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.3     -4.6035 µg/L       4.36743     -4.6035 ppb        4.36743  94.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      42.2      8.3350 µg/L       5.72201      8.3350 ppb        5.72201  68.65%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                25.2      1.9139 µg/L       0.76087      1.9139 ppb        0.76087  39.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.7957 µg/L       1.20387      0.7957 ppb        1.20387 151.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.7      0.1173 µg/L       0.08487      0.1173 ppb        0.08487  72.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                33.2      0.0739 µg/L       0.01807      0.0739 ppb        0.01807  24.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.8      1.0820 µg/L       2.22165      1.0820 ppb        2.22165 205.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.9      3.6439 µg/L       2.57643      3.6439 ppb        2.57643  70.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 21.9      0.2221 µg/L       0.20505      0.2221 ppb        0.20505  92.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -0.1      0.0000 µg/L       0.05335      0.0000 ppb        0.05335 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:24:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58110.7	58110.7	103	%			18:24:59
1	Al 396.153Radial†	7350.7	7139.0	4955.6	µg/L	4955.6	ppb	18:24:59
1	Ca 317.933Radial†	6185.2	5802.1	4956.0	µg/L	4956.0	ppb	18:25:20
1	Fe 238.204 Radial†	675.1	639.8	5056.7	µg/L	5056.7	ppb	18:25:20
1	K 766.490 Radial†	7936.4	7550.9	4931.6	µg/L	4931.6	ppb	18:24:59
1	Mg 279.077 IEC†	594.2	564.9	5052.6	µg/L	5052.6	ppb	18:25:20
1	Na 589.592 Radial†	33978.9	32562.3	10001	µg/L	10001	ppb	18:24:59
1	Sr 421.552†	54344.8	52805.6	487.14	µg/L	487.14	ppb	18:24:59
1	Sc 361.383	2010503.2	2010503.2	102.41	%			18:26:23
1	Y 371.029	1378737.8	1378737.8	101.92	%			18:26:23
1	Ag 328.068†	69160.3	67932.0	506.90	µg/L	506.90	ppb	18:26:28
1	As 188.979†	303.0	296.3	530.04	µg/L	530.04	ppb	18:26:49
1	B 249.677†	13059.0	12367.1	502.24	µg/L	502.24	ppb	18:26:28
1	Ba 233.527†	21831.0	21333.5	513.08	µg/L	513.08	ppb	18:26:28
1	Be 313.107†	864886.0	847358.1	502.72	µg/L	502.72	ppb	18:26:23
1	Cd 226.502†	21036.3	20682.2	515.78	µg/L	515.78	ppb	18:26:28
1	Co 228.616†	11703.6	11425.8	516.87	µg/L	516.87	ppb	18:26:28
1	Cr 267.716†	26284.2	25715.1	516.82	µg/L	516.82	ppb	18:26:28
1	Cu 324.752†	82127.8	77648.4	507.55	µg/L	507.55	ppb	18:26:28
1	Mn 257.610†	166823.1	163147.4	511.37	µg/L	511.37	ppb	18:26:23
1	Mo 202.031†	5448.5	5325.4	521.69	µg/L	521.69	ppb	18:26:49
1	Ni 231.604†	10977.7	10406.6	518.22	µg/L	518.22	ppb	18:26:28
1	P 214.914†	1361.9	1314.4	2554.1	µg/L	2554.1	ppb	18:26:49
1	Pb 220.353†	2277.9	2133.2	518.76	µg/L	518.76	ppb	18:26:49
1	S 181.975 Axial†	276.1	250.7	1039.6	µg/L	1039.6	ppb	18:26:49
1	Sb 206.836†	598.0	561.4	517.60	µg/L	517.60	ppb	18:26:49
1	Se 196.026†	404.7	375.8	535.75	µg/L	535.75	ppb	18:26:49
1	SiO2†	29945.4	27848.1	5496.8	µg/L	5496.8	ppb	18:26:28
1	Si 251.611†	34979.9	33844.9	2573.0	µg/L	2573.0	ppb	18:26:28
1	Sn 189.927†	1294.8	1263.9	533.06	µg/L	533.06	ppb	18:26:49
1	Ti 334.940†	232405.2	226752.9	501.31	µg/L	501.31	ppb	18:26:23
1	Tl 190.801†	387.3	400.5	526.22	µg/L	526.22	ppb	18:26:49
1	U 409.014†	6254.1	6183.8	512.77	µg/L	512.77	ppb	18:26:28
1	V 292.402†	53539.0	52322.0	516.23	µg/L	516.23	ppb	18:26:28
1	Zn 213.857†	23135.9	22056.3	513.84	µg/L	513.84	ppb	18:26:28
2	Sc RADIAL	57983.0	57983.0	103	%			18:25:25
2	Al 396.153Radial†	7301.1	7106.5	4933.3	µg/L	4933.3	ppb	18:25:25
2	Ca 317.933Radial†	6156.7	5787.5	4943.6	µg/L	4943.6	ppb	18:25:45
2	Fe 238.204 Radial†	670.2	636.5	5030.5	µg/L	5030.5	ppb	18:25:45
2	K 766.490 Radial†	7863.7	7497.0	4896.4	µg/L	4896.4	ppb	18:25:25
2	Mg 279.077 IEC†	585.6	557.7	4988.7	µg/L	4988.7	ppb	18:25:45
2	Na 589.592 Radial†	33805.3	32465.9	9971.7	µg/L	9971.7	ppb	18:25:25
2	Sr 421.552†	54068.8	52653.0	485.73	µg/L	485.73	ppb	18:25:25
2	Sc 361.383	2038047.8	2038047.8	103.82	%			18:26:56
2	Y 371.029	1399253.6	1399253.6	103.44	%			18:26:56
2	Ag 328.068†	68906.4	66774.7	498.26	µg/L	498.26	ppb	18:27:02
2	As 188.979†	291.3	281.1	502.79	µg/L	502.79	ppb	18:27:22
2	B 249.677†	13031.9	12168.7	494.15	µg/L	494.15	ppb	18:27:02
2	Ba 233.527†	21788.4	21004.4	505.16	µg/L	505.16	ppb	18:27:02
2	Be 313.107†	871938.9	842738.2	499.98	µg/L	499.98	ppb	18:26:56
2	Cd 226.502†	20959.6	20330.7	507.01	µg/L	507.01	ppb	18:27:02
2	Co 228.616†	11663.7	11232.9	508.13	µg/L	508.13	ppb	18:27:02
2	Cr 267.716†	26195.8	25283.1	508.13	µg/L	508.13	ppb	18:27:02
2	Cu 324.752†	81865.7	76312.2	498.82	µg/L	498.82	ppb	18:27:02
2	Mn 257.610†	168150.2	162224.2	508.48	µg/L	508.48	ppb	18:26:56
2	Mo 202.031†	5330.8	5140.1	503.54	µg/L	503.54	ppb	18:27:22
2	Ni 231.604†	10880.8	10168.4	506.35	µg/L	506.35	ppb	18:27:02
2	P 214.914†	1337.9	1273.4	2473.4	µg/L	2473.4	ppb	18:27:22
2	Pb 220.353†	2238.1	2064.9	502.11	µg/L	502.11	ppb	18:27:22

2	S 181.975 Axial†	271.4	242.5	1005.7 µg/L	1005.7 ppb	18:27:22
2	Sb 206.836†	590.8	546.6	503.85 µg/L	503.85 ppb	18:27:22
2	Se 196.026†	401.0	366.9	523.19 µg/L	523.19 ppb	18:27:22
2	SiO2†	29842.8	27354.0	5399.3 µg/L	5399.3 ppb	18:27:02
2	Si 251.611†	34939.6	33344.4	2534.9 µg/L	2534.9 ppb	18:27:02
2	Sn 189.927†	1259.4	1212.7	511.46 µg/L	511.46 ppb	18:27:22
2	Ti 334.940†	233999.5	225221.6	497.93 µg/L	497.93 ppb	18:26:56
2	Tl 190.801†	377.0	385.6	506.75 µg/L	506.75 ppb	18:27:22
2	U 409.014†	6252.8	6100.0	505.82 µg/L	505.82 ppb	18:27:02
2	V 292.402†	53301.3	51386.4	506.94 µg/L	506.94 ppb	18:27:02
2	Zn 213.857†	23074.0	21691.3	505.35 µg/L	505.35 ppb	18:27:02
3	Sc RADIAL	58101.7	58101.7	103 %		18:25:51
3	Al 396.153Radial†	7325.2	7115.3	4941.3 µg/L	4941.3 ppb	18:25:51
3	Ca 317.933Radial†	6167.8	5786.1	4942.3 µg/L	4942.3 ppb	18:26:11
3	Fe 238.204 Radial†	673.8	638.6	5046.3 µg/L	5046.3 ppb	18:26:11
3	K 766.490 Radial†	7958.4	7573.4	4946.3 µg/L	4946.3 ppb	18:25:51
3	Mg 279.077 IEC†	598.9	569.5	5092.5 µg/L	5092.5 ppb	18:26:11
3	Na 589.592 Radial†	33931.7	32521.6	9988.8 µg/L	9988.8 ppb	18:25:51
3	Sr 421.552†	54158.1	52632.2	485.54 µg/L	485.54 ppb	18:25:51
3	Sc 361.383	2006960.6	2006960.6	102.23 %		18:27:29
3	Y 371.029	1377064.8	1377064.8	101.80 %		18:27:29
3	Ag 328.068†	63249.3	62269.2	464.47 µg/L	464.47 ppb	18:27:35
3	As 188.979†	239.9	235.1	420.56 µg/L	420.56 ppb	18:27:55
3	B 249.677†	11912.9	11268.6	457.34 µg/L	457.34 ppb	18:27:35
3	Ba 233.527†	19263.5	18859.7	453.56 µg/L	453.56 ppb	18:27:35
3	Be 313.107†	784759.4	770472.5	457.11 µg/L	457.11 ppb	18:27:29
3	Cd 226.502†	18434.4	18173.4	453.14 µg/L	453.14 ppb	18:27:35
3	Co 228.616†	10122.4	9899.4	447.75 µg/L	447.75 ppb	18:27:35
3	Cr 267.716†	21992.5	21562.5	433.36 µg/L	433.36 ppb	18:27:35
3	Cu 324.752†	71871.2	67757.5	442.99 µg/L	442.99 ppb	18:27:35
3	Mn 257.610†	152131.1	149063.9	467.26 µg/L	467.26 ppb	18:27:29
3	Mo 202.031†	4313.3	4224.4	413.87 µg/L	413.87 ppb	18:27:55
3	Ni 231.604†	9585.0	9063.2	451.33 µg/L	451.33 ppb	18:27:35
3	P 214.914†	1100.5	1061.1	2057.6 µg/L	2057.6 ppb	18:27:55
3	Pb 220.353†	1891.6	1759.4	427.76 µg/L	427.76 ppb	18:27:55
3	S 181.975 Axial†	229.0	205.1	850.35 µg/L	850.35 ppb	18:27:55
3	Sb 206.836†	491.8	458.5	422.37 µg/L	422.37 ppb	18:27:55
3	Se 196.026†	337.5	310.8	444.41 µg/L	444.41 ppb	18:27:55
3	SiO2†	27007.5	25025.9	4939.8 µg/L	4939.8 ppb	18:27:35
3	Si 251.611†	31393.7	30397.3	2310.9 µg/L	2310.9 ppb	18:27:35
3	Sn 189.927†	994.9	972.8	410.27 µg/L	410.27 ppb	18:27:55
3	Ti 334.940†	209196.0	204451.2	451.97 µg/L	451.97 ppb	18:27:29
3	Tl 190.801†	327.6	342.9	450.86 µg/L	450.86 ppb	18:27:55
3	U 409.014†	5293.3	5254.7	435.59 µg/L	435.59 ppb	18:27:35
3	V 292.402†	45934.6	44975.9	443.54 µg/L	443.54 ppb	18:27:35
3	Zn 213.857†	20247.3	19270.6	448.88 µg/L	448.88 ppb	18:27:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2018503.9	102.82	%	0.867				0.84%
Sc RADIAL	58065.1	103	%	0.1				0.12%
Y 371.029	1385018.8	102.38	%	0.913				0.89%
Ag 328.068†	65658.6	489.88	µg/L	22.418	489.88	ppb	22.418	4.58%
QC value within limits for Ag 328.068 Recovery = 97.98%								
Al 396.153Radial†	7120.3	4943.4	µg/L	11.28	4943.4	ppb	11.28	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	270.8	484.46	µg/L	56.991	484.46	ppb	56.991	11.76%
QC value within limits for As 188.979 Recovery = 96.89%								
B 249.677†	11934.8	484.58	µg/L	23.933	484.58	ppb	23.933	4.94%
QC value within limits for B 249.677 Recovery = 96.92%								
Ba 233.527†	20399.2	490.60	µg/L	32.321	490.60	ppb	32.321	6.59%
QC value within limits for Ba 233.527 Recovery = 98.12%								
Be 313.107†	820189.6	486.60	µg/L	25.580	486.60	ppb	25.580	5.26%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 317.933Radial†	5791.9	4947.3	µg/L	7.57	4947.3	ppb	7.57	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.95%								
Cd 226.502†	19728.8	491.98	µg/L	33.915	491.98	ppb	33.915	6.89%
QC value within limits for Cd 226.502 Recovery = 98.40%								
Co 228.616†	10852.7	490.92	µg/L	37.639	490.92	ppb	37.639	7.67%

```
   QC value within limits for Co 228.616  Recovery = 98.18%
Cr 267.716†            24186.9      486.10 µg/L        45.880      486.10 ppb         45.880   9.44%
   QC value within limits for Cr 267.716  Recovery = 97.22%
Cu 324.752†            73906.0      483.12 µg/L        35.030      483.12 ppb         35.030   7.25%
   QC value within limits for Cu 324.752  Recovery = 96.62%
Fe 238.204 Radial†       638.3      5044.5 µg/L         13.19      5044.5 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.89%
K 766.490 Radial†       7540.4      4924.8 µg/L         25.64      4924.8 ppb          25.64   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 98.50%
Mg 279.077 IEC†          564.0      5044.6 µg/L         52.37      5044.6 ppb          52.37   1.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.89%
Mn 257.610†           158145.2      495.70 µg/L        24.672      495.70 ppb         24.672   4.98%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†             4896.7      479.70 µg/L        57.728      479.70 ppb         57.728  12.03%
   QC value within limits for Mo 202.031  Recovery = 95.94%
Na 589.592 Radial†     32516.6      9987.3 µg/L         14.87      9987.3 ppb          14.87   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 99.87%
Ni 231.604†             9879.4      491.97 µg/L        35.688      491.97 ppb         35.688   7.25%
   QC value within limits for Ni 231.604  Recovery = 98.39%
P 214.914†              1216.3      2361.7 µg/L        266.42      2361.7 ppb         266.42  11.28%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1985.8      482.88 µg/L        48.455      482.88 ppb         48.455  10.03%
   QC value within limits for Pb 220.353  Recovery = 96.58%
S 181.975 Axial†         232.7      965.19 µg/L       100.884      965.19 ppb        100.884  10.45%
   QC value within limits for S 181.975 Axial  Recovery = 96.52%
Sb 206.836†              522.2      481.27 µg/L        51.474      481.27 ppb         51.474  10.70%
   QC value within limits for Sb 206.836  Recovery = 96.25%
Se 196.026†              351.2      501.12 µg/L        49.509      501.12 ppb         49.509   9.88%
   QC value within limits for Se 196.026  Recovery = 100.22%
SiO2†                  26742.7      5278.7 µg/L        297.49      5278.7 ppb         297.49   5.64%
   QC value within limits for SiO2  Recovery = 98.71%
Si 251.611†            32528.9      2472.9 µg/L        141.62      2472.9 ppb         141.62   5.73%
   QC value within limits for Si 251.611  Recovery = 98.92%
Sn 189.927†             1149.8      484.93 µg/L        65.553      484.93 ppb         65.553  13.52%
   QC value within limits for Sn 189.927  Recovery = 96.99%
Sr 421.552†            52696.9      486.14 µg/L         0.873      486.14 ppb          0.873   0.18%
   QC value within limits for Sr 421.552  Recovery = 97.23%
Ti 334.940†           218808.6      483.73 µg/L        27.562      483.73 ppb         27.562   5.70%
   QC value within limits for Ti 334.940  Recovery = 96.75%
Tl 190.801†              376.3      494.61 µg/L        39.121      494.61 ppb         39.121   7.91%
   QC value within limits for Tl 190.801  Recovery = 98.92%
U 409.014†              5846.2      484.73 µg/L        42.700      484.73 ppb         42.700   8.81%
   QC value within limits for U 409.014  Recovery = 96.95%
V 292.402†             49561.4      488.90 µg/L        39.562      488.90 ppb         39.562   8.09%
   QC value within limits for V 292.402  Recovery = 97.78%
Zn 213.857†            21006.1      489.36 µg/L        35.308      489.36 ppb         35.308   7.22%
   QC value within limits for Zn 213.857  Recovery = 97.87%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 18:28:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56920.6	56920.6	101	%			18:28:38
1	Al 396.153Radial†	-0.3	-7.6	-5.3346	µg/L	-5.3346	ppb	18:28:38
1	Ca 317.933Radial†	189.5	-23.2	-19.841	µg/L	-19.841	ppb	18:28:58
1	Fe 238.204 Radial†	19.4	2.7	21.377	µg/L	21.377	ppb	18:28:58
1	K 766.490 Radial†	221.6	55.0	35.912	µg/L	35.912	ppb	18:28:38
1	Mg 279.077 IEC†	10.8	-2.1	-18.380	µg/L	-18.380	ppb	18:28:58
1	Na 589.592 Radial†	498.2	22.3	6.8542	µg/L	6.8542	ppb	18:28:38
1	Sr 421.552†	54.9	25.7	0.2367	µg/L	0.2367	ppb	18:28:38
1	Sc 361.383	2032515.3	2032515.3	103.53	%			18:30:00
1	Y 371.029	1398820.8	1398820.8	103.41	%			18:30:00
1	Ag 328.068†	-457.1	-39.8	-0.2911	µg/L	-0.2911	ppb	18:30:06
1	As 188.979†	5.6	5.9	10.594	µg/L	10.594	ppb	18:30:26
1	B 249.677†	410.3	12.1	0.4845	µg/L	0.4845	ppb	18:30:26
1	Ba 233.527†	49.3	64.6	1.5526	µg/L	1.5526	ppb	18:30:26
1	Be 313.107†	-2857.0	96.2	0.0570	µg/L	0.0570	ppb	18:30:06
1	Cd 226.502†	-101.1	44.0	1.0963	µg/L	1.0963	ppb	18:30:26
1	Co 228.616†	28.1	25.2	1.1408	µg/L	1.1408	ppb	18:30:26
1	Cr 267.716†	-32.9	18.6	0.3731	µg/L	0.3731	ppb	18:30:06
1	Cu 324.752†	2585.0	-47.0	-0.3039	µg/L	-0.3039	ppb	18:30:06
1	Mn 257.610†	1142.9	1359.9	4.2620	µg/L	4.2620	ppb	18:30:26
1	Mo 202.031†	8.1	13.2	1.2945	µg/L	1.2945	ppb	18:30:26
1	Ni 231.604†	338.7	14.7	0.7339	µg/L	0.7339	ppb	18:30:26
1	P 214.914†	15.9	0.0	0.2437	µg/L	0.2437	ppb	18:30:26
1	Pb 220.353†	99.8	5.5	1.3339	µg/L	1.3339	ppb	18:30:26
1	S 181.975 Axial†	18.1	-1.5	-6.0253	µg/L	-6.0253	ppb	18:30:26
1	Sb 206.836†	22.7	-0.5	-0.4788	µg/L	-0.4788	ppb	18:30:26
1	Se 196.026†	18.0	-1.9	-2.6538	µg/L	-2.6538	ppb	18:30:26
1	SiO2†	1447.9	6.9	1.3541	µg/L	1.3541	ppb	18:30:06
1	Si 251.611†	659.6	326.5	24.820	µg/L	24.820	ppb	18:30:26
1	Sn 189.927†	38.3	36.6	15.441	µg/L	15.441	ppb	18:30:26
1	Ti 334.940†	321.1	135.1	0.3001	µg/L	0.3001	ppb	18:30:06
1	Tl 190.801†	-21.1	2.0	2.6395	µg/L	2.6395	ppb	18:30:26
1	U 409.014†	-28.7	49.4	4.1035	µg/L	4.1035	ppb	18:30:06
1	V 292.402†	-3.2	41.6	0.4232	µg/L	0.4232	ppb	18:30:06
1	Zn 213.857†	618.9	63.4	1.4848	µg/L	1.4848	ppb	18:30:26
2	Sc RADIAL	56709.3	56709.3	100	%			18:29:04
2	Al 396.153Radial†	-16.5	-23.8	-16.528	µg/L	-16.528	ppb	18:29:04
2	Ca 317.933Radial†	196.4	-15.6	-13.311	µg/L	-13.311	ppb	18:29:24
2	Fe 238.204 Radial†	19.1	2.4	18.992	µg/L	18.992	ppb	18:29:24
2	K 766.490 Radial†	204.3	38.5	25.150	µg/L	25.150	ppb	18:29:04
2	Mg 279.077 IEC†	11.8	-1.1	-9.6092	µg/L	-9.6092	ppb	18:29:24
2	Na 589.592 Radial†	485.8	11.8	3.6148	µg/L	3.6148	ppb	18:29:04
2	Sr 421.552†	30.8	1.9	0.0174	µg/L	0.0174	ppb	18:29:04
2	Sc 361.383	2017506.8	2017506.8	102.77	%			18:30:32
2	Y 371.029	1389281.0	1389281.0	102.70	%			18:30:32
2	Ag 328.068†	-439.2	-25.7	-0.1831	µg/L	-0.1831	ppb	18:30:38
2	As 188.979†	-2.8	-2.2	-4.0102	µg/L	-4.0102	ppb	18:30:58
2	B 249.677†	382.6	-11.8	-0.4899	µg/L	-0.4899	ppb	18:30:58
2	Ba 233.527†	4.3	21.2	0.5118	µg/L	0.5118	ppb	18:30:58
2	Be 313.107†	-2101.4	811.0	0.4800	µg/L	0.4800	ppb	18:30:38
2	Cd 226.502†	-138.5	6.9	0.1705	µg/L	0.1705	ppb	18:30:58
2	Co 228.616†	11.1	8.8	0.3922	µg/L	0.3922	ppb	18:30:58
2	Cr 267.716†	4.0	54.3	1.0911	µg/L	1.0911	ppb	18:30:38
2	Cu 324.752†	2748.4	130.6	0.8552	µg/L	0.8552	ppb	18:30:38
2	Mn 257.610†	83.5	337.3	1.0592	µg/L	1.0592	ppb	18:30:58
2	Mo 202.031†	-7.8	-2.2	-0.2192	µg/L	-0.2192	ppb	18:30:58
2	Ni 231.604†	324.9	3.8	0.1884	µg/L	0.1884	ppb	18:30:58
2	P 214.914†	13.0	-2.7	-5.2676	µg/L	-5.2676	ppb	18:30:58
2	Pb 220.353†	93.0	-0.4	-0.1127	µg/L	-0.1127	ppb	18:30:58

2	S 181.975 Axial†	20.2	0.7	2.8524	µg/L	2.8524 ppb	18:30:58
2	Sb 206.836†	24.9	1.7	1.5373	µg/L	1.5373 ppb	18:30:58
2	Se 196.026†	20.3	0.5	0.7192	µg/L	0.7192 ppb	18:30:58
2	SiO2†	1642.6	206.7	40.802	µg/L	40.802 ppb	18:30:38
2	Si 251.611†	453.6	130.8	9.9406	µg/L	9.9406 ppb	18:30:58
2	Sn 189.927†	19.1	18.2	7.6779	µg/L	7.6779 ppb	18:30:58
2	Ti 334.940†	1831.1	1606.7	3.5550	µg/L	3.5550 ppb	18:30:38
2	Tl 190.801†	-20.6	2.3	3.0926	µg/L	3.0926 ppb	18:30:58
2	U 409.014†	-17.3	60.3	5.0059	µg/L	5.0059 ppb	18:30:38
2	V 292.402†	54.7	98.0	0.9631	µg/L	0.9631 ppb	18:30:38
2	Zn 213.857†	549.1	-0.1	-0.0060	µg/L	-0.0060 ppb	18:30:58
3	Sc RADIAL	57463.0	57463.0	102	%		18:29:29
3	Al 396.153Radial†	-41.0	-47.6	-33.158	µg/L	-33.158 ppb	18:29:29
3	Ca 317.933Radial†	194.3	-20.2	-17.244	µg/L	-17.244 ppb	18:29:50
3	Fe 238.204 Radial†	18.7	1.8	14.201	µg/L	14.201 ppb	18:29:50
3	K 766.490 Radial†	178.1	10.2	6.6395	µg/L	6.6395 ppb	18:29:29
3	Mg 279.077 IEC†	8.7	-4.2	-37.957	µg/L	-37.957 ppb	18:29:50
3	Na 589.592 Radial†	506.8	26.1	8.0102	µg/L	8.0102 ppb	18:29:29
3	Sr 421.552†	42.9	13.3	0.1232	µg/L	0.1232 ppb	18:29:29
3	Sc 361.383	2013891.9	2013891.9	102.59	%		18:31:04
3	Y 371.029	1385497.7	1385497.7	102.42	%		18:31:04
3	Ag 328.068†	-434.1	-21.6	-0.1566	µg/L	-0.1566 ppb	18:31:10
3	As 188.979†	1.4	1.8	3.2592	µg/L	3.2592 ppb	18:31:31
3	B 249.677†	380.8	-12.9	-0.5336	µg/L	-0.5336 ppb	18:31:31
3	Ba 233.527†	-7.5	9.7	0.2343	µg/L	0.2343 ppb	18:31:31
3	Be 313.107†	-2627.4	294.5	0.1745	µg/L	0.1745 ppb	18:31:10
3	Cd 226.502†	-139.2	6.0	0.1475	µg/L	0.1475 ppb	18:31:31
3	Co 228.616†	-2.4	-4.2	-0.1927	µg/L	-0.1927 ppb	18:31:31
3	Cr 267.716†	-21.1	29.8	0.5980	µg/L	0.5980 ppb	18:31:10
3	Cu 324.752†	2619.6	9.8	0.0659	µg/L	0.0659 ppb	18:31:10
3	Mn 257.610†	-3.1	253.0	0.7956	µg/L	0.7956 ppb	18:31:31
3	Mo 202.031†	1.5	6.8	0.6637	µg/L	0.6637 ppb	18:31:31
3	Ni 231.604†	309.6	-10.5	-0.5253	µg/L	-0.5253 ppb	18:31:31
3	P 214.914†	10.7	-4.9	-9.6506	µg/L	-9.6506 ppb	18:31:31
3	Pb 220.353†	92.1	-1.1	-0.2804	µg/L	-0.2804 ppb	18:31:31
3	S 181.975 Axial†	20.6	1.2	4.9214	µg/L	4.9214 ppb	18:31:31
3	Sb 206.836†	22.0	-1.0	-0.9299	µg/L	-0.9299 ppb	18:31:31
3	Se 196.026†	22.4	2.6	3.6800	µg/L	3.6800 ppb	18:31:31
3	SiO2†	1531.3	101.1	19.951	µg/L	19.951 ppb	18:31:10
3	Si 251.611†	470.6	148.1	11.258	µg/L	11.258 ppb	18:31:31
3	Sn 189.927†	15.7	14.9	6.2845	µg/L	6.2845 ppb	18:31:31
3	Ti 334.940†	545.2	356.5	0.7913	µg/L	0.7913 ppb	18:31:10
3	Tl 190.801†	-18.8	4.0	5.2381	µg/L	5.2381 ppb	18:31:31
3	U 409.014†	-62.1	16.5	1.3714	µg/L	1.3714 ppb	18:31:10
3	V 292.402†	-10.9	34.2	0.3425	µg/L	0.3425 ppb	18:31:10
3	Zn 213.857†	537.6	-10.4	-0.2395	µg/L	-0.2395 ppb	18:31:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2021304.7	102.96	%	0.503				0.49%
Sc RADIAL	57030.9	101	%	0.7				0.68%
Y 371.029	1391199.8	102.84	%	0.508				0.49%
Ag 328.068†	-29.0	-0.2103	µg/L	0.07128	-0.2103	ppb	0.07128	33.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-26.3	-18.340	µg/L	14.0000	-18.340	ppb	14.0000	76.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	3.2809	µg/L	7.30195	3.2809	ppb	7.30195	222.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-4.2	-0.1797	µg/L	0.57561	-0.1797	ppb	0.57561	320.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	31.9	0.7662	µg/L	0.69500	0.7662	ppb	0.69500	90.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	400.6	0.2372	µg/L	0.21833	0.2372	ppb	0.21833	92.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.7	-16.799	µg/L	3.2876	-16.799	ppb	3.2876	19.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.0	0.4714	µg/L	0.54127	0.4714	ppb	0.54127	114.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.9	0.4468	µg/L	0.66842	0.4468	ppb	0.66842	149.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                34.2      0.6874 µg/L       0.36726      0.6874 ppb        0.36726  53.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                31.1      0.2057 µg/L       0.59207      0.2057 ppb        0.59207 287.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3      18.190 µg/L        3.6545      18.190 ppb         3.6545  20.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          34.6      22.567 µg/L       14.8062      22.567 ppb        14.8062  65.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.5     -21.982 µg/L       14.5132     -21.982 ppb        14.5132  66.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               650.0      2.0389 µg/L       1.92974      2.0389 ppb        1.92974  94.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.9      0.5797 µg/L       0.76032      0.5797 ppb        0.76032 131.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         20.1      6.1597 µg/L       2.27853      6.1597 ppb        2.27853  36.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.7      0.1323 µg/L       0.63148      0.1323 ppb        0.63148 477.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -4.8915 µg/L       4.95786     -4.8915 ppb        4.95786 101.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.3      0.3136 µg/L       0.88754      0.3136 ppb        0.88754 283.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.1      0.5829 µg/L       5.81558      0.5829 ppb        5.81558 997.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.0      0.0429 µg/L       1.31372      0.0429 ppb        1.31372 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.4      0.5818 µg/L       3.16914      0.5818 ppb        3.16914 544.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     104.9      20.702 µg/L       19.7346      20.702 ppb        19.7346  95.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               201.8      15.340 µg/L        8.2366      15.340 ppb         8.2366  53.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                23.3      9.8010 µg/L       4.93347      9.8010 ppb        4.93347  50.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.6      0.1258 µg/L       0.10971      0.1258 ppb        0.10971  87.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               699.4      1.5488 µg/L       1.75468      1.5488 ppb        1.75468 113.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      3.6567 µg/L       1.38813      3.6567 ppb        1.38813  37.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 42.1      3.4936 µg/L       1.89246      3.4936 ppb        1.89246  54.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 57.9      0.5763 µg/L       0.33743      0.5763 ppb        0.33743  58.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                17.6      0.4131 µg/L       0.93546      0.4131 ppb        0.93546 226.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:57:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58333.6	58333.6	103	%			18:58:00
1	Al 396.153Radial†	7365.1	7125.7	4946.5	µg/L	4946.5	ppb	18:58:00
1	Ca 317.933Radial†	6192.0	5785.6	4942.0	µg/L	4942.0	ppb	18:58:20
1	Fe 238.204 Radial†	674.6	636.7	5032.7	µg/L	5032.7	ppb	18:58:20
1	K 766.490 Radial†	7915.6	7501.2	4899.2	µg/L	4899.2	ppb	18:58:00
1	Mg 279.077 IEC†	598.6	566.9	5070.8	µg/L	5070.8	ppb	18:58:20
1	Na 589.592 Radial†	33942.4	32400.8	9951.7	µg/L	9951.7	ppb	18:58:00
1	Sr 421.552†	54192.3	52456.0	483.91	µg/L	483.91	ppb	18:58:00
1	Sc 361.383	2038441.2	2038441.2	103.84	%			18:59:24
1	Y 371.029	1399434.4	1399434.4	103.45	%			18:59:24
1	Ag 328.068†	68624.6	66490.5	496.15	µg/L	496.15	ppb	18:59:29
1	As 188.979†	294.5	284.1	508.19	µg/L	508.19	ppb	18:59:50
1	B 249.677†	12921.2	12059.6	489.70	µg/L	489.70	ppb	18:59:29
1	Ba 233.527†	21646.3	20863.5	501.78	µg/L	501.78	ppb	18:59:29
1	Be 313.107†	864552.3	835462.4	495.66	µg/L	495.66	ppb	18:59:24
1	Cd 226.502†	20886.7	20256.6	505.16	µg/L	505.16	ppb	18:59:29
1	Co 228.616†	11617.5	11186.3	506.03	µg/L	506.03	ppb	18:59:29
1	Cr 267.716†	26041.8	25130.0	505.06	µg/L	505.06	ppb	18:59:29
1	Cu 324.752†	81610.2	76051.0	497.12	µg/L	497.12	ppb	18:59:29
1	Mn 257.610†	166517.1	160620.2	503.45	µg/L	503.45	ppb	18:59:24
1	Mo 202.031†	5420.2	5225.2	511.88	µg/L	511.88	ppb	18:59:50
1	Ni 231.604†	10851.5	10138.2	504.85	µg/L	504.85	ppb	18:59:29
1	P 214.914†	1356.9	1291.4	2509.3	µg/L	2509.3	ppb	18:59:50
1	Pb 220.353†	2274.9	2099.9	510.66	µg/L	510.66	ppb	18:59:50
1	S 181.975 Axial†	272.1	243.1	1008.0	µg/L	1008.0	ppb	18:59:50
1	Sb 206.836†	600.9	556.2	512.79	µg/L	512.79	ppb	18:59:50
1	Se 196.026†	401.3	367.2	523.52	µg/L	523.52	ppb	18:59:50
1	SiO2†	29690.3	27201.7	5369.3	µg/L	5369.3	ppb	18:59:29
1	Si 251.611†	34620.8	33030.9	2511.1	µg/L	2511.1	ppb	18:59:29
1	Sn 189.927†	1274.6	1227.1	517.53	µg/L	517.53	ppb	18:59:50
1	Ti 334.940†	232175.5	223421.5	493.94	µg/L	493.94	ppb	18:59:24
1	Tl 190.801†	380.4	388.7	510.84	µg/L	510.84	ppb	18:59:50
1	U 409.014†	6240.2	6086.8	504.71	µg/L	504.71	ppb	18:59:29
1	V 292.402†	53236.3	51313.9	506.29	µg/L	506.29	ppb	18:59:29
1	Zn 213.857†	23013.8	21629.0	503.89	µg/L	503.89	ppb	18:59:29
2	Sc RADIAL	58344.7	58344.7	103	%			18:58:26
2	Al 396.153Radial†	7317.7	7078.4	4913.9	µg/L	4913.9	ppb	18:58:26
2	Ca 317.933Radial†	6132.7	5727.0	4891.9	µg/L	4891.9	ppb	18:58:46
2	Fe 238.204 Radial†	665.9	628.2	4965.5	µg/L	4965.5	ppb	18:58:46
2	K 766.490 Radial†	7920.4	7504.4	4901.2	µg/L	4901.2	ppb	18:58:26
2	Mg 279.077 IEC†	590.4	558.9	4999.2	µg/L	4999.2	ppb	18:58:46
2	Na 589.592 Radial†	33811.9	32268.1	9910.9	µg/L	9910.9	ppb	18:58:26
2	Sr 421.552†	54099.6	52356.2	482.99	µg/L	482.99	ppb	18:58:26
2	Sc 361.383	2035256.6	2035256.6	103.67	%			18:59:57
2	Y 371.029	1396273.2	1396273.2	103.22	%			18:59:57
2	Ag 328.068†	68425.9	66402.2	495.48	µg/L	495.48	ppb	19:00:03
2	As 188.979†	292.9	282.9	506.17	µg/L	506.17	ppb	19:00:23
2	B 249.677†	12903.7	12062.2	489.84	µg/L	489.84	ppb	19:00:03
2	Ba 233.527†	21596.0	20847.7	501.39	µg/L	501.39	ppb	19:00:03
2	Be 313.107†	862338.3	834629.7	495.17	µg/L	495.17	ppb	18:59:57
2	Cd 226.502†	20772.6	20178.1	503.20	µg/L	503.20	ppb	19:00:03
2	Co 228.616†	11542.6	11131.5	503.54	µg/L	503.54	ppb	19:00:03
2	Cr 267.716†	25954.2	25084.7	504.15	µg/L	504.15	ppb	19:00:03
2	Cu 324.752†	81509.2	76076.5	497.28	µg/L	497.28	ppb	19:00:03
2	Mn 257.610†	166351.9	160711.8	503.73	µg/L	503.73	ppb	18:59:57
2	Mo 202.031†	5270.1	5088.7	498.51	µg/L	498.51	ppb	19:00:23
2	Ni 231.604†	10791.0	10096.2	502.76	µg/L	502.76	ppb	19:00:03
2	P 214.914†	1323.9	1261.6	2450.2	µg/L	2450.2	ppb	19:00:23
2	Pb 220.353†	2210.1	2040.8	496.26	µg/L	496.26	ppb	19:00:23

2	S 181.975 Axial†	270.0	241.5	1001.5 µg/L	1001.5 ppb	19:00:23
2	Sb 206.836†	587.9	544.6	501.96 µg/L	501.96 ppb	19:00:23
2	Se 196.026†	392.6	359.4	512.48 µg/L	512.48 ppb	19:00:23
2	SiO2†	29616.5	27175.2	5364.0 µg/L	5364.0 ppb	19:00:03
2	Si 251.611†	34657.6	33118.5	2517.7 µg/L	2517.7 ppb	19:00:03
2	Sn 189.927†	1231.7	1187.7	500.91 µg/L	500.91 ppb	19:00:23
2	Ti 334.940†	231864.1	223470.9	494.05 µg/L	494.05 ppb	18:59:57
2	Tl 190.801†	372.5	381.7	501.72 µg/L	501.72 ppb	19:00:23
2	U 409.014†	6180.9	6038.9	500.75 µg/L	500.75 ppb	19:00:03
2	V 292.402†	53024.3	51189.7	504.96 µg/L	504.96 ppb	19:00:03
2	Zn 213.857†	22918.2	21571.5	502.56 µg/L	502.56 ppb	19:00:03
3	Sc RADIAL	58456.7	58456.7	103 %		18:58:52
3	Al 396.153Radial†	7314.1	7061.4	4904.0 µg/L	4904.0 ppb	18:58:52
3	Ca 317.933Radial†	6160.3	5742.4	4905.0 µg/L	4905.0 ppb	18:59:12
3	Fe 238.204 Radial†	669.3	630.3	4980.2 µg/L	4980.2 ppb	18:59:12
3	K 766.490 Radial†	7905.3	7475.1	4882.1 µg/L	4882.1 ppb	18:58:52
3	Mg 279.077 IEC†	592.0	559.3	5000.9 µg/L	5000.9 ppb	18:59:12
3	Na 589.592 Radial†	33692.4	32089.9	9856.2 µg/L	9856.2 ppb	18:58:52
3	Sr 421.552†	53981.8	52142.0	481.02 µg/L	481.02 ppb	18:58:52
3	Sc 361.383	2047612.7	2047612.7	104.30 %		19:00:30
3	Y 371.029	1406490.5	1406490.5	103.97 %		19:00:30
3	Ag 328.068†	63103.6	60901.3	454.27 µg/L	454.27 ppb	19:00:36
3	As 188.979†	237.6	228.3	408.38 µg/L	408.38 ppb	19:00:57
3	B 249.677†	11765.8	10896.1	442.18 µg/L	442.18 ppb	19:00:36
3	Ba 233.527†	19176.1	18401.9	442.55 µg/L	442.55 ppb	19:00:36
3	Be 313.107†	782724.7	753282.0	446.91 µg/L	446.91 ppb	19:00:30
3	Cd 226.502†	18400.9	17783.3	443.41 µg/L	443.41 ppb	19:00:36
3	Co 228.616†	10109.3	9690.2	438.29 µg/L	438.29 ppb	19:00:36
3	Cr 267.716†	21969.5	21113.3	424.34 µg/L	424.34 ppb	19:00:36
3	Cu 324.752†	71747.0	66242.7	433.09 µg/L	433.09 ppb	19:00:36
3	Mn 257.610†	151555.7	145557.9	456.28 µg/L	456.28 ppb	19:00:30
3	Mo 202.031†	4263.1	4092.5	400.95 µg/L	400.95 ppb	19:00:57
3	Ni 231.604†	9465.5	8762.6	436.35 µg/L	436.35 ppb	19:00:36
3	P 214.914†	1103.2	1042.4	2021.3 µg/L	2021.3 ppb	19:00:57
3	Pb 220.353†	1887.4	1718.6	417.83 µg/L	417.83 ppb	19:00:57
3	S 181.975 Axial†	232.4	203.9	845.45 µg/L	845.45 ppb	19:00:57
3	Sb 206.836†	490.6	447.9	412.47 µg/L	412.47 ppb	19:00:57
3	Se 196.026†	335.5	302.3	432.38 µg/L	432.38 ppb	19:00:57
3	SiO2†	26801.6	24304.1	4797.3 µg/L	4797.3 ppb	19:00:36
3	Si 251.611†	31212.7	29614.1	2251.3 µg/L	2251.3 ppb	19:00:36
3	Sn 189.927†	987.7	946.6	399.24 µg/L	399.24 ppb	19:00:57
3	Ti 334.940†	208406.1	199631.3	441.31 µg/L	441.31 ppb	19:00:30
3	Tl 190.801†	322.4	331.5	435.96 µg/L	435.96 ppb	19:00:57
3	U 409.014†	5296.2	5154.8	427.29 µg/L	427.29 ppb	19:00:36
3	V 292.402†	45829.3	43982.9	433.72 µg/L	433.72 ppb	19:00:36
3	Zn 213.857†	20142.3	18776.7	437.38 µg/L	437.38 ppb	19:00:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2040436.8	103.94	%	0.327				0.31%
Sc RADIAL	58378.3	103	%	0.1				0.12%
Y 371.029	1400732.7	103.55	%	0.387				0.37%
Ag 328.068†	64598.0	481.97	µg/L	23.988	481.97	ppb	23.988	4.98%
QC value within limits for Ag 328.068 Recovery = 96.39%								
Al 396.153Radial†	7088.5	4921.5	µg/L	22.23	4921.5	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	265.1	474.24	µg/L	57.051	474.24	ppb	57.051	12.03%
QC value within limits for As 188.979 Recovery = 94.85%								
B 249.677†	11672.6	473.91	µg/L	27.477	473.91	ppb	27.477	5.80%
QC value within limits for B 249.677 Recovery = 94.78%								
Ba 233.527†	20037.7	481.91	µg/L	34.084	481.91	ppb	34.084	7.07%
QC value within limits for Ba 233.527 Recovery = 96.38%								
Be 313.107†	807791.4	479.25	µg/L	28.007	479.25	ppb	28.007	5.84%
QC value within limits for Be 313.107 Recovery = 95.85%								
Ca 317.933Radial†	5751.7	4913.0	µg/L	25.95	4913.0	ppb	25.95	0.53%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	19406.0	483.92	µg/L	35.100	483.92	ppb	35.100	7.25%
QC value within limits for Cd 226.502 Recovery = 96.78%								
Co 228.616†	10669.3	482.62	µg/L	38.414	482.62	ppb	38.414	7.96%

QC value within limits for Co 228.616 Recovery = 96.52%

Cr 267.716†	23776.0	477.85 µg/L	46.344	477.85 ppb	46.344	9.70%

QC value within limits for Cr 267.716 Recovery = 95.57%

Cu 324.752†	72790.1	475.83 µg/L	37.014	475.83 ppb	37.014	7.78%

QC value within limits for Cu 324.752 Recovery = 95.17%

Fe 238.204 Radial†	631.7	4992.8 µg/L	35.34	4992.8 ppb	35.34	0.71%

QC value within limits for Fe 238.204 Radial Recovery = 99.86%

K 766.490 Radial†	7493.6	4894.2 µg/L	10.48	4894.2 ppb	10.48	0.21%

QC value within limits for K 766.490 Radial Recovery = 97.88%

Mg 279.077 IEC†	561.7	5023.6 µg/L	40.85	5023.6 ppb	40.85	0.81%

QC value within limits for Mg 279.077 IEC Recovery = 100.47%

Mn 257.610†	155630.0	487.82 µg/L	27.316	487.82 ppb	27.316	5.60%

QC value within limits for Mn 257.610 Recovery = 97.56%

Mo 202.031†	4802.1	470.44 µg/L	60.553	470.44 ppb	60.553	12.87%

QC value within limits for Mo 202.031 Recovery = 94.09%

Na 589.592 Radial†	32252.9	9906.3 µg/L	47.92	9906.3 ppb	47.92	0.48%

QC value within limits for Na 589.592 Radial Recovery = 99.06%

Ni 231.604†	9665.7	481.32 µg/L	38.955	481.32 ppb	38.955	8.09%

QC value within limits for Ni 231.604 Recovery = 96.26%

P 214.914†	1198.4	2326.9 µg/L	266.31	2326.9 ppb	266.31	11.44%

QC value within limits for P 214.914 Recovery = 93.08%

Pb 220.353†	1953.1	474.92 µg/L	49.957	474.92 ppb	49.957	10.52%

QC value within limits for Pb 220.353 Recovery = 94.98%

S 181.975 Axial†	229.5	951.68 µg/L	92.053	951.68 ppb	92.053	9.67%

QC value within limits for S 181.975 Axial Recovery = 95.17%

Sb 206.836†	516.2	475.74 µg/L	55.061	475.74 ppb	55.061	11.57%

QC value within limits for Sb 206.836 Recovery = 95.15%

Se 196.026†	343.0	489.46 µg/L	49.737	489.46 ppb	49.737	10.16%

QC value within limits for Se 196.026 Recovery = 97.89%

SiO2†	26227.0	5176.9 µg/L	328.72	5176.9 ppb	328.72	6.35%

QC value within limits for SiO2 Recovery = 96.81%

Si 251.611†	31921.2	2426.7 µg/L	151.93	2426.7 ppb	151.93	6.26%

QC value within limits for Si 251.611 Recovery = 97.07%

Sn 189.927†	1120.5	472.56 µg/L	64.040	472.56 ppb	64.040	13.55%

QC value within limits for Sn 189.927 Recovery = 94.51%

Sr 421.552†	52318.1	482.64 µg/L	1.480	482.64 ppb	1.480	0.31%

QC value within limits for Sr 421.552 Recovery = 96.53%

Ti 334.940†	215507.9	476.43 µg/L	30.416	476.43 ppb	30.416	6.38%

QC value within limits for Ti 334.940 Recovery = 95.29%

Tl 190.801†	367.3	482.84 µg/L	40.853	482.84 ppb	40.853	8.46%

QC value within limits for Tl 190.801 Recovery = 96.57%

U 409.014†	5760.1	477.59 µg/L	43.602	477.59 ppb	43.602	9.13%

QC value within limits for U 409.014 Recovery = 95.52%

V 292.402†	48828.8	481.66 µg/L	41.521	481.66 ppb	41.521	8.62%

QC value within limits for V 292.402 Recovery = 96.33%

Zn 213.857†	20659.1	481.28 µg/L	38.019	481.28 ppb	38.019	7.90%

QC value within limits for Zn 213.857 Recovery = 96.26%

All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:01:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57423.2	57423.2	102	%			19:01:39
1	Al 396.153Radial†	-18.9	-25.9	-18.036	µg/L	-18.036	ppb	19:01:39
1	Ca 317.933Radial†	194.6	-19.8	-16.907	µg/L	-16.907	ppb	19:02:00
1	Fe 238.204 Radial†	20.3	3.4	26.844	µg/L	26.844	ppb	19:02:00
1	K 766.490 Radial†	169.3	1.6	1.0514	µg/L	1.0514	ppb	19:01:39
1	Mg 279.077 IEC†	10.7	-2.3	-20.795	µg/L	-20.795	ppb	19:02:00
1	Na 589.592 Radial†	537.1	56.3	17.279	µg/L	17.279	ppb	19:01:39
1	Sr 421.552†	21.5	-7.7	-0.0709	µg/L	-0.0709	ppb	19:01:39
1	Sc 361.383	2013251.1	2013251.1	102.55	%			19:03:02
1	Y 371.029	1385844.0	1385844.0	102.45	%			19:03:02
1	Ag 328.068†	-425.6	-13.4	-0.0944	µg/L	-0.0944	ppb	19:03:07
1	As 188.979†	1.0	1.5	2.6013	µg/L	2.6013	ppb	19:03:28
1	B 249.677†	361.7	-31.5	-1.2963	µg/L	-1.2963	ppb	19:03:28
1	Ba 233.527†	-6.9	10.3	0.2492	µg/L	0.2492	ppb	19:03:28
1	Be 313.107†	-2769.2	155.5	0.0922	µg/L	0.0922	ppb	19:03:07
1	Cd 226.502†	-136.0	9.0	0.2223	µg/L	0.2223	ppb	19:03:28
1	Co 228.616†	7.0	4.9	0.2213	µg/L	0.2213	ppb	19:03:28
1	Cr 267.716†	-45.7	5.9	0.1181	µg/L	0.1181	ppb	19:03:07
1	Cu 324.752†	2554.2	-53.2	-0.3432	µg/L	-0.3432	ppb	19:03:07
1	Mn 257.610†	-168.0	92.2	0.2930	µg/L	0.2930	ppb	19:03:28
1	Mo 202.031†	-4.8	0.6	0.0615	µg/L	0.0615	ppb	19:03:28
1	Ni 231.604†	318.0	-2.3	-0.1132	µg/L	-0.1132	ppb	19:03:28
1	P 214.914†	14.8	-0.9	-1.7488	µg/L	-1.7488	ppb	19:03:28
1	Pb 220.353†	84.3	-8.7	-2.1358	µg/L	-2.1358	ppb	19:03:28
1	S 181.975 Axial†	16.4	-2.9	-12.184	µg/L	-12.184	ppb	19:03:28
1	Sb 206.836†	29.7	6.4	5.9047	µg/L	5.9047	ppb	19:03:28
1	Se 196.026†	21.6	1.7	2.5321	µg/L	2.5321	ppb	19:03:28
1	SiO2†	1445.6	18.1	3.5679	µg/L	3.5679	ppb	19:03:07
1	Si 251.611†	358.6	39.1	2.9715	µg/L	2.9715	ppb	19:03:28
1	Sn 189.927†	6.5	5.9	2.5018	µg/L	2.5018	ppb	19:03:28
1	Ti 334.940†	319.2	136.2	0.3026	µg/L	0.3026	ppb	19:03:07
1	Tl 190.801†	-23.1	-0.1	-0.1533	µg/L	-0.1533	ppb	19:03:28
1	U 409.014†	95.4	170.1	14.129	µg/L	14.129	ppb	19:03:07
1	V 292.402†	4.5	49.1	0.4975	µg/L	0.4975	ppb	19:03:07
1	Zn 213.857†	525.8	-21.7	-0.5072	µg/L	-0.5072	ppb	19:03:28
2	Sc RADIAL	57351.0	57351.0	102	%			19:02:05
2	Al 396.153Radial†	0.6	-6.8	-4.7217	µg/L	-4.7217	ppb	19:02:05
2	Ca 317.933Radial†	191.9	-22.2	-18.945	µg/L	-18.945	ppb	19:02:26
2	Fe 238.204 Radial†	16.4	-0.4	-2.9277	µg/L	-2.9277	ppb	19:02:26
2	K 766.490 Radial†	226.8	58.4	38.151	µg/L	38.151	ppb	19:02:05
2	Mg 279.077 IEC†	4.7	-8.2	-72.904	µg/L	-72.904	ppb	19:02:26
2	Na 589.592 Radial†	474.9	-4.4	-1.3380	µg/L	-1.3380	ppb	19:02:05
2	Sr 421.552†	49.2	19.7	0.1813	µg/L	0.1813	ppb	19:02:05
2	Sc 361.383	2012182.2	2012182.2	102.50	%			19:03:34
2	Y 371.029	1385686.0	1385686.0	102.43	%			19:03:34
2	Ag 328.068†	-448.4	-35.9	-0.2659	µg/L	-0.2659	ppb	19:03:39
2	As 188.979†	-1.5	-1.0	-1.7378	µg/L	-1.7378	ppb	19:04:00
2	B 249.677†	352.5	-40.3	-1.6393	µg/L	-1.6393	ppb	19:04:00
2	Ba 233.527†	-10.2	7.1	0.1714	µg/L	0.1714	ppb	19:04:00
2	Be 313.107†	-2906.5	20.0	0.0117	µg/L	0.0117	ppb	19:03:39
2	Cd 226.502†	-139.6	5.4	0.1354	µg/L	0.1354	ppb	19:04:00
2	Co 228.616†	8.8	6.6	0.3005	µg/L	0.3005	ppb	19:04:00
2	Cr 267.716†	-48.8	2.8	0.0565	µg/L	0.0565	ppb	19:03:39
2	Cu 324.752†	2585.7	-21.1	-0.1382	µg/L	-0.1382	ppb	19:03:39
2	Mn 257.610†	-165.3	94.7	0.2992	µg/L	0.2992	ppb	19:04:00
2	Mo 202.031†	-0.6	4.7	0.4624	µg/L	0.4624	ppb	19:04:00
2	Ni 231.604†	304.3	-15.4	-0.7700	µg/L	-0.7700	ppb	19:04:00
2	P 214.914†	20.3	4.4	8.7926	µg/L	8.7926	ppb	19:04:00
2	Pb 220.353†	93.2	-0.0	-0.0043	µg/L	-0.0043	ppb	19:04:00

2	S 181.975 Axial†	10.8	-8.4	-34.884 µg/L	-34.884 ppb	19:04:00
2	Sb 206.836†	19.1	-3.9	-3.5666 µg/L	-3.5666 ppb	19:04:00
2	Se 196.026†	15.1	-4.6	-6.4360 µg/L	-6.4360 ppb	19:04:00
2	SiO2†	1460.9	33.7	6.6594 µg/L	6.6594 ppb	19:03:39
2	Si 251.611†	358.4	39.0	2.9639 µg/L	2.9639 ppb	19:04:00
2	Sn 189.927†	4.7	4.2	1.7676 µg/L	1.7676 ppb	19:04:00
2	Ti 334.940†	408.1	223.1	0.4990 µg/L	0.4990 ppb	19:03:39
2	Tl 190.801†	-23.8	-0.9	-1.1422 µg/L	-1.1422 ppb	19:04:00
2	U 409.014†	-63.7	15.0	1.2443 µg/L	1.2443 ppb	19:03:39
2	V 292.402†	-44.3	1.5	0.0193 µg/L	0.0193 ppb	19:03:39
2	Zn 213.857†	528.3	-19.0	-0.4374 µg/L	-0.4374 ppb	19:04:00
3	Sc RADIAL	57190.0	57190.0	101 %		19:02:31
3	Al 396.153Radial†	-22.6	-29.7	-20.673 µg/L	-20.673 ppb	19:02:31
3	Ca 317.933Radial†	189.8	-23.8	-20.291 µg/L	-20.291 ppb	19:02:51
3	Fe 238.204 Radial†	18.6	1.8	13.987 µg/L	13.987 ppb	19:02:51
3	K 766.490 Radial†	197.7	30.3	19.782 µg/L	19.782 ppb	19:02:31
3	Mg 279.077 IEC†	10.1	-2.9	-25.784 µg/L	-25.784 ppb	19:02:51
3	Na 589.592 Radial†	485.7	7.6	2.3466 µg/L	2.3466 ppb	19:02:31
3	Sr 421.552†	55.0	25.5	0.2351 µg/L	0.2351 ppb	19:02:31
3	Sc 361.383	2000057.1	2000057.1	101.88 %		19:04:06
3	Y 371.029	1377155.5	1377155.5	101.80 %		19:04:06
3	Ag 328.068†	-451.3	-41.4	-0.3043 µg/L	-0.3043 ppb	19:04:11
3	As 188.979†	5.3	5.6	10.113 µg/L	10.113 ppb	19:04:32
3	B 249.677†	349.5	-41.1	-1.6816 µg/L	-1.6816 ppb	19:04:32
3	Ba 233.527†	-13.8	3.6	0.0860 µg/L	0.0860 ppb	19:04:32
3	Be 313.107†	-2997.1	-86.1	-0.0512 µg/L	-0.0512 ppb	19:04:11
3	Cd 226.502†	-137.9	6.3	0.1551 µg/L	0.1551 ppb	19:04:32
3	Co 228.616†	6.6	4.6	0.2062 µg/L	0.2062 ppb	19:04:32
3	Cr 267.716†	-22.6	28.2	0.5656 µg/L	0.5656 ppb	19:04:11
3	Cu 324.752†	2587.8	-3.8	-0.0226 µg/L	-0.0226 ppb	19:04:11
3	Mn 257.610†	-159.2	99.8	0.3153 µg/L	0.3153 ppb	19:04:32
3	Mo 202.031†	2.5	7.8	0.7608 µg/L	0.7608 ppb	19:04:32
3	Ni 231.604†	316.7	-1.4	-0.0722 µg/L	-0.0722 ppb	19:04:32
3	P 214.914†	14.3	-1.3	-2.5898 µg/L	-2.5898 ppb	19:04:32
3	Pb 220.353†	83.5	-8.9	-2.1741 µg/L	-2.1741 ppb	19:04:32
3	S 181.975 Axial†	16.2	-3.0	-12.393 µg/L	-12.393 ppb	19:04:32
3	Sb 206.836†	23.0	0.1	0.0887 µg/L	0.0887 ppb	19:04:32
3	Se 196.026†	9.9	-9.6	-13.418 µg/L	-13.418 ppb	19:04:32
3	SiO2†	1462.5	43.9	8.6651 µg/L	8.6651 ppb	19:04:11
3	Si 251.611†	360.6	43.4	3.2962 µg/L	3.2962 ppb	19:04:32
3	Sn 189.927†	6.4	5.9	2.4731 µg/L	2.4731 ppb	19:04:32
3	Ti 334.940†	309.8	129.0	0.2871 µg/L	0.2871 ppb	19:04:11
3	Tl 190.801†	-25.4	-2.6	-3.3285 µg/L	-3.3285 ppb	19:04:32
3	U 409.014†	-45.5	32.4	2.6931 µg/L	2.6931 ppb	19:04:11
3	V 292.402†	-23.1	22.0	0.2263 µg/L	0.2263 ppb	19:04:11
3	Zn 213.857†	527.6	-16.5	-0.3862 µg/L	-0.3862 ppb	19:04:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008496.8	102.31	%	0.373				0.36%
Sc RADIAL	57321.4	101	%	0.2				0.21%
Y 371.029	1382895.2	102.23	%	0.367				0.36%
Ag 328.068†	-30.2	-0.2215	µg/L	0.11176	-0.2215	ppb	0.11176	50.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-20.8	-14.477	µg/L	8.5505	-14.477	ppb	8.5505	59.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	3.6588	µg/L	5.99568	3.6588	ppb	5.99568	163.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.6	-1.5391	µg/L	0.21127	-1.5391	ppb	0.21127	13.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.1689	µg/L	0.08165	0.1689	ppb	0.08165	48.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	29.8	0.0176	µg/L	0.07185	0.0176	ppb	0.07185	409.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-21.9	-18.714	µg/L	1.7037	-18.714	ppb	1.7037	9.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1709	µg/L	0.04557	0.1709	ppb	0.04557	26.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.2427	µg/L	0.05064	0.2427	ppb	0.05064	20.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.3      0.2467 µg/L       0.27783      0.2467 ppb        0.27783 112.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -26.0     -0.1680 µg/L       0.16236     -0.1680 ppb        0.16236  96.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.6      12.634 µg/L       14.9319      12.634 ppb        14.9319 118.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          30.1      19.662 µg/L       18.5502      19.662 ppb        18.5502  94.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.5     -39.828 µg/L       28.7536     -39.828 ppb        28.7536  72.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                95.6      0.3025 µg/L       0.01153      0.3025 ppb        0.01153   3.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.4      0.4283 µg/L       0.35090      0.4283 ppb        0.35090  81.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         19.8      6.0958 µg/L       9.85836      6.0958 ppb        9.85836 161.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.4     -0.3185 µg/L       0.39156     -0.3185 ppb        0.39156 122.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.7      1.4847 µg/L       6.34276      1.4847 ppb        6.34276 427.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9     -1.4381 µg/L       1.24182     -1.4381 ppb        1.24182  86.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.8     -19.820 µg/L       13.0459     -19.820 ppb        13.0459  65.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.9      0.8090 µg/L       4.77653      0.8090 ppb        4.77653 590.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.2     -5.7739 µg/L       7.99551     -5.7739 ppb        7.99551 138.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      31.9      6.2974 µg/L       2.56780      6.2974 ppb        2.56780  40.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                40.5      3.0772 µg/L       0.18971      3.0772 ppb        0.18971   6.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      2.2475 µg/L       0.41585      2.2475 ppb        0.41585  18.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.5      0.1152 µg/L       0.16339      0.1152 ppb        0.16339 141.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               162.8      0.3629 µg/L       0.11813      0.3629 ppb        0.11813  32.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.5413 µg/L       1.62481     -1.5413 ppb        1.62481 105.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 72.5      6.0222 µg/L       7.05819      6.0222 ppb        7.05819 117.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 24.2      0.2477 µg/L       0.23982      0.2477 ppb        0.23982  96.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -19.1     -0.4436 µg/L       0.06072     -0.4436 ppb        0.06072  13.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 19:26:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58011.2	58011.2	103	%			19:27:24
1	Al 396.153Radial†	7306.1	7107.9	4934.0	µg/L	4934.0	ppb	19:27:24
1	Ca 317.933Radial†	6126.5	5755.1	4915.9	µg/L	4915.9	ppb	19:27:44
1	Fe 238.204 Radial†	670.2	636.1	5027.8	µg/L	5027.8	ppb	19:27:44
1	K 766.490 Radial†	7850.1	7480.0	4885.3	µg/L	4885.3	ppb	19:27:24
1	Mg 279.077 IEC†	589.4	561.2	5020.1	µg/L	5020.1	ppb	19:27:44
1	Na 589.592 Radial†	33642.4	32291.3	9918.0	µg/L	9918.0	ppb	19:27:24
1	Sr 421.552†	53727.7	52295.2	482.43	µg/L	482.43	ppb	19:27:24
1	Sc 361.383	2023941.6	2023941.6	103.10	%			19:28:48
1	Y 371.029	1390155.2	1390155.2	102.76	%			19:28:48
1	Ag 328.068†	68263.9	66614.1	497.07	µg/L	497.07	ppb	19:28:53
1	As 188.979†	297.5	289.1	517.08	µg/L	517.08	ppb	19:29:14
1	B 249.677†	12754.8	11987.3	486.76	µg/L	486.76	ppb	19:28:53
1	Ba 233.527†	21527.5	20897.6	502.60	µg/L	502.60	ppb	19:28:53
1	Be 313.107†	859738.4	836757.9	496.43	µg/L	496.43	ppb	19:28:48
1	Cd 226.502†	20670.0	20190.5	503.51	µg/L	503.51	ppb	19:28:53
1	Co 228.616†	11554.6	11205.5	506.90	µg/L	506.90	ppb	19:28:53
1	Cr 267.716†	25881.7	25154.3	505.55	µg/L	505.55	ppb	19:28:53
1	Cu 324.752†	81255.0	76269.5	498.55	µg/L	498.55	ppb	19:28:53
1	Mn 257.610†	166147.8	161410.9	505.93	µg/L	505.93	ppb	19:28:48
1	Mo 202.031†	5454.8	5296.3	518.83	µg/L	518.83	ppb	19:29:14
1	Ni 231.604†	10745.9	10110.7	503.47	µg/L	503.47	ppb	19:28:53
1	P 214.914†	1361.8	1305.6	2537.4	µg/L	2537.4	ppb	19:29:14
1	Pb 220.353†	2266.4	2107.4	512.48	µg/L	512.48	ppb	19:29:14
1	S 181.975 Axial†	273.5	246.4	1021.7	µg/L	1021.7	ppb	19:29:14
1	Sb 206.836†	610.7	569.8	525.42	µg/L	525.42	ppb	19:29:14
1	Se 196.026†	395.7	364.5	519.83	µg/L	519.83	ppb	19:29:14
1	SiO2†	29524.0	27245.2	5377.9	µg/L	5377.9	ppb	19:28:53
1	Si 251.611†	34545.7	33196.9	2523.7	µg/L	2523.7	ppb	19:28:53
1	Sn 189.927†	1282.8	1243.9	524.60	µg/L	524.60	ppb	19:29:14
1	Ti 334.940†	231474.2	224343.1	495.98	µg/L	495.98	ppb	19:28:48
1	Tl 190.801†	382.2	393.1	516.55	µg/L	516.55	ppb	19:29:14
1	U 409.014†	6240.4	6130.0	508.31	µg/L	508.31	ppb	19:28:53
1	V 292.402†	52860.7	51317.0	506.38	µg/L	506.38	ppb	19:28:53
1	Zn 213.857†	22851.7	21630.6	503.94	µg/L	503.94	ppb	19:28:53
2	Sc RADIAL	58208.4	58208.4	103	%			19:27:50
2	Al 396.153Radial†	7271.3	7050.0	4894.0	µg/L	4894.0	ppb	19:27:50
2	Ca 317.933Radial†	6163.6	5771.0	4929.4	µg/L	4929.4	ppb	19:28:10
2	Fe 238.204 Radial†	675.5	639.1	5051.0	µg/L	5051.0	ppb	19:28:10
2	K 766.490 Radial†	7866.0	7469.5	4878.5	µg/L	4878.5	ppb	19:27:50
2	Mg 279.077 IEC†	590.4	560.2	5010.8	µg/L	5010.8	ppb	19:28:10
2	Na 589.592 Radial†	33660.4	32197.8	9889.3	µg/L	9889.3	ppb	19:27:50
2	Sr 421.552†	53698.2	52089.4	480.53	µg/L	480.53	ppb	19:27:50
2	Sc 361.383	2026589.1	2026589.1	103.23	%			19:29:21
2	Y 371.029	1392880.6	1392880.6	102.97	%			19:29:21
2	Ag 328.068†	68809.4	67056.0	500.36	µg/L	500.36	ppb	19:29:27
2	As 188.979†	296.8	288.0	515.16	µg/L	515.16	ppb	19:29:47
2	B 249.677†	12885.4	12097.7	491.25	µg/L	491.25	ppb	19:29:27
2	Ba 233.527†	21677.5	21015.6	505.43	µg/L	505.43	ppb	19:29:27
2	Be 313.107†	865418.2	841170.5	499.05	µg/L	499.05	ppb	19:29:21
2	Cd 226.502†	20826.2	20315.7	506.63	µg/L	506.63	ppb	19:29:27
2	Co 228.616†	11598.5	11233.3	508.15	µg/L	508.15	ppb	19:29:27
2	Cr 267.716†	26109.2	25341.9	509.31	µg/L	509.31	ppb	19:29:27
2	Cu 324.752†	81892.1	76783.6	501.90	µg/L	501.90	ppb	19:29:27
2	Mn 257.610†	167199.4	162219.0	508.46	µg/L	508.46	ppb	19:29:21
2	Mo 202.031†	5288.0	5127.7	502.33	µg/L	502.33	ppb	19:29:47
2	Ni 231.604†	10828.5	10177.0	506.78	µg/L	506.78	ppb	19:29:27
2	P 214.914†	1324.9	1268.1	2462.5	µg/L	2462.5	ppb	19:29:47
2	Pb 220.353†	2219.6	2059.1	500.70	µg/L	500.70	ppb	19:29:47

2	S 181.975 Axial†	269.0	241.6	1001.9 µg/L	1001.9 ppb	19:29:47
2	Sb 206.836†	585.9	545.1	502.40 µg/L	502.40 ppb	19:29:47
2	Se 196.026†	401.2	369.3	526.64 µg/L	526.64 ppb	19:29:47
2	SiO2†	29674.8	27353.9	5399.3 µg/L	5399.3 ppb	19:29:27
2	Si 251.611†	34681.9	33285.1	2530.4 µg/L	2530.4 ppb	19:29:27
2	Sn 189.927†	1240.2	1201.0	506.52 µg/L	506.52 ppb	19:29:47
2	Ti 334.940†	232768.0	225303.0	498.10 µg/L	498.10 ppb	19:29:21
2	Tl 190.801†	370.9	381.6	501.66 µg/L	501.66 ppb	19:29:47
2	U 409.014†	6213.7	6096.2	505.50 µg/L	505.50 ppb	19:29:27
2	V 292.402†	53162.8	51542.6	508.46 µg/L	508.46 ppb	19:29:27
2	Zn 213.857†	22978.8	21724.8	506.12 µg/L	506.12 ppb	19:29:27
3	Sc RADIAL	57939.2	57939.2	103 %		19:28:16
3	Al 396.153Radial†	7262.7	7074.4	4912.9 µg/L	4912.9 ppb	19:28:16
3	Ca 317.933Radial†	6172.6	5807.6	4960.7 µg/L	4960.7 ppb	19:28:36
3	Fe 238.204 Radial†	672.1	638.8	5047.6 µg/L	5047.6 ppb	19:28:36
3	K 766.490 Radial†	7867.0	7506.0	4902.3 µg/L	4902.3 ppb	19:28:16
3	Mg 279.077 IEC†	596.5	568.8	5086.0 µg/L	5086.0 ppb	19:28:36
3	Na 589.592 Radial†	33675.5	32364.3	9940.5 µg/L	9940.5 ppb	19:28:16
3	Sr 421.552†	53684.5	52318.1	482.64 µg/L	482.64 ppb	19:28:16
3	Sc 361.383	2019244.9	2019244.9	102.86 %		19:29:54
3	Y 371.029	1386733.2	1386733.2	102.51 %		19:29:54
3	Ag 328.068†	63032.4	61682.0	460.10 µg/L	460.10 ppb	19:30:00
3	As 188.979†	244.2	237.9	425.60 µg/L	425.60 ppb	19:30:20
3	B 249.677†	11714.9	11005.2	446.60 µg/L	446.60 ppb	19:30:00
3	Ba 233.527†	19107.8	18593.8	447.17 µg/L	447.17 ppb	19:30:00
3	Be 313.107†	780455.8	761618.7	451.85 µg/L	451.85 ppb	19:29:54
3	Cd 226.502†	18286.2	17919.6	446.80 µg/L	446.80 ppb	19:30:00
3	Co 228.616†	10093.7	9811.2	443.77 µg/L	443.77 ppb	19:30:00
3	Cr 267.716†	21917.3	21358.4	429.26 µg/L	429.26 ppb	19:30:00
3	Cu 324.752†	71787.5	67248.4	439.66 µg/L	439.66 ppb	19:30:00
3	Mn 257.610†	151706.1	147745.4	463.13 µg/L	463.13 ppb	19:29:54
3	Mo 202.031†	4317.7	4203.0	411.78 µg/L	411.78 ppb	19:30:20
3	Ni 231.604†	9445.6	8870.7	441.74 µg/L	441.74 ppb	19:30:00
3	P 214.914†	1095.4	1049.6	2035.1 µg/L	2035.1 ppb	19:30:20
3	Pb 220.353†	1899.2	1755.5	426.81 µg/L	426.81 ppb	19:30:20
3	S 181.975 Axial†	229.2	203.9	845.45 µg/L	845.45 ppb	19:30:20
3	Sb 206.836†	491.4	455.2	419.32 µg/L	419.32 ppb	19:30:20
3	Se 196.026†	335.0	306.4	438.20 µg/L	438.20 ppb	19:30:20
3	SiO2†	26768.8	24633.2	4862.3 µg/L	4862.3 ppb	19:30:00
3	Si 251.611†	31095.2	29920.3	2274.6 µg/L	2274.6 ppb	19:30:00
3	Sn 189.927†	986.7	958.9	404.42 µg/L	404.42 ppb	19:30:20
3	Ti 334.940†	208387.6	202420.4	447.48 µg/L	447.48 ppb	19:29:54
3	Tl 190.801†	323.7	337.1	443.33 µg/L	443.33 ppb	19:30:20
3	U 409.014†	5278.3	5208.6	431.75 µg/L	431.75 ppb	19:30:00
3	V 292.402†	45791.0	44563.0	439.48 µg/L	439.48 ppb	19:30:00
3	Zn 213.857†	20107.0	19013.7	442.90 µg/L	442.90 ppb	19:30:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2023258.5	103.06	%	0.189				0.18%
Sc RADIAL	58052.9	103	%	0.2				0.24%
Y 371.029	1389923.0	102.75	%	0.228				0.22%
Ag 328.068†	65117.4	485.84	µg/L	22.354	485.84	ppb	22.354	4.60%
QC value within limits for Ag 328.068 Recovery = 97.17%								
Al 396.153Radial†	7077.4	4913.6	µg/L	19.97	4913.6	ppb	19.97	0.41%
QC value within limits for Al 396.153Radial Recovery = 98.27%								
As 188.979†	271.6	485.95	µg/L	52.268	485.95	ppb	52.268	10.76%
QC value within limits for As 188.979 Recovery = 97.19%								
B 249.677†	11696.7	474.87	µg/L	24.588	474.87	ppb	24.588	5.18%
QC value within limits for B 249.677 Recovery = 94.97%								
Ba 233.527†	20169.0	485.07	µg/L	32.850	485.07	ppb	32.850	6.77%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	813182.4	482.44	µg/L	26.525	482.44	ppb	26.525	5.50%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	5777.9	4935.4	µg/L	22.97	4935.4	ppb	22.97	0.47%
QC value within limits for Ca 317.933Radial Recovery = 98.71%								
Cd 226.502†	19475.3	485.65	µg/L	33.674	485.65	ppb	33.674	6.93%
QC value within limits for Cd 226.502 Recovery = 97.13%								
Co 228.616†	10750.0	486.27	µg/L	36.817	486.27	ppb	36.817	7.57%

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   QC value within limits for Co 228.616  Recovery = 97.25%
Cr 267.716†            23951.5      481.37 µg/L        45.169      481.37 ppb         45.169   9.38%
   QC value within limits for Cr 267.716  Recovery = 96.27%
Cu 324.752†            73433.8      480.04 µg/L        35.005      480.04 ppb         35.005   7.29%
   QC value within limits for Cu 324.752  Recovery = 96.01%
Fe 238.204 Radial†       638.0      5042.1 µg/L         12.53      5042.1 ppb          12.53   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.84%
K 766.490 Radial†       7485.2      4888.7 µg/L         12.26      4888.7 ppb          12.26   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 97.77%
Mg 279.077 IEC†          563.4      5039.0 µg/L         41.01      5039.0 ppb          41.01   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.78%
Mn 257.610†           157125.1      492.51 µg/L        25.470      492.51 ppb         25.470   5.17%
   QC value within limits for Mn 257.610  Recovery = 98.50%
Mo 202.031†             4875.7      477.65 µg/L        57.638      477.65 ppb         57.638  12.07%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     32284.4      9915.9 µg/L         25.63      9915.9 ppb          25.63   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.16%
Ni 231.604†             9719.5      484.00 µg/L        36.636      484.00 ppb         36.636   7.57%
   QC value within limits for Ni 231.604  Recovery = 96.80%
P 214.914†              1207.8      2345.0 µg/L        270.98      2345.0 ppb         270.98  11.56%
   QC value within limits for P 214.914  Recovery = 93.80%
Pb 220.353†             1974.0      480.00 µg/L        46.437      480.00 ppb         46.437   9.67%
   QC value within limits for Pb 220.353  Recovery = 96.00%
S 181.975 Axial†         230.6      956.35 µg/L        96.547      956.35 ppb         96.547  10.10%
   QC value within limits for S 181.975 Axial  Recovery = 95.63%
Sb 206.836†              523.4      482.38 µg/L        55.814      482.38 ppb         55.814  11.57%
   QC value within limits for Sb 206.836  Recovery = 96.48%
Se 196.026†              346.8      494.89 µg/L        49.212      494.89 ppb         49.212   9.94%
   QC value within limits for Se 196.026  Recovery = 98.98%
SiO2†                  26410.8      5213.1 µg/L        304.05      5213.1 ppb         304.05   5.83%
   QC value within limits for SiO2  Recovery = 97.49%
Si 251.611†            32134.1      2442.9 µg/L        145.79      2442.9 ppb         145.79   5.97%
   QC value within limits for Si 251.611  Recovery = 97.72%
Sn 189.927†             1134.6      478.51 µg/L        64.799      478.51 ppb         64.799  13.54%
   QC value within limits for Sn 189.927  Recovery = 95.70%
Sr 421.552†            52234.2      481.87 µg/L         1.162      481.87 ppb          1.162   0.24%
   QC value within limits for Sr 421.552  Recovery = 96.37%
Ti 334.940†           217355.5      480.52 µg/L        28.636      480.52 ppb         28.636   5.96%
   QC value within limits for Ti 334.940  Recovery = 96.10%
Tl 190.801†              370.6      487.18 µg/L        38.702      487.18 ppb         38.702   7.94%
   QC value within limits for Tl 190.801  Recovery = 97.44%
U 409.014†              5811.6      481.85 µg/L        43.409      481.85 ppb         43.409   9.01%
   QC value within limits for U 409.014  Recovery = 96.37%
V 292.402†             49140.8      484.77 µg/L        39.238      484.77 ppb         39.238   8.09%
   QC value within limits for V 292.402  Recovery = 96.95%
Zn 213.857†            20789.7      484.32 µg/L        35.886      484.32 ppb         35.886   7.41%
   QC value within limits for Zn 213.857  Recovery = 96.86%
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:30:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57803.7	57803.7	102	%			19:31:04
1	Al 396.153Radial†	-10.0	-17.1	-11.924	µg/L	-11.924	ppb	19:31:04
1	Ca 317.933Radial†	196.7	-19.1	-16.278	µg/L	-16.278	ppb	19:31:24
1	Fe 238.204 Radial†	20.4	3.4	26.456	µg/L	26.456	ppb	19:31:24
1	K 766.490 Radial†	206.4	36.8	24.007	µg/L	24.007	ppb	19:31:04
1	Mg 279.077 IEC†	12.2	-0.9	-8.3904	µg/L	-8.3904	ppb	19:31:24
1	Na 589.592 Radial†	467.0	-15.7	-4.8300	µg/L	-4.8300	ppb	19:31:04
1	Sr 421.552†	46.6	16.7	0.1542	µg/L	0.1542	ppb	19:31:04
1	Sc 361.383	2025799.3	2025799.3	103.19	%			19:32:26
1	Y 371.029	1395690.7	1395690.7	103.17	%			19:32:26
1	Ag 328.068†	-418.9	-4.3	-0.0299	µg/L	-0.0299	ppb	19:32:32
1	As 188.979†	5.7	6.0	10.690	µg/L	10.690	ppb	19:32:52
1	B 249.677†	346.4	-48.5	-1.9903	µg/L	-1.9903	ppb	19:32:52
1	Ba 233.527†	-10.1	7.3	0.1761	µg/L	0.1761	ppb	19:32:52
1	Be 313.107†	-2840.4	103.2	0.0611	µg/L	0.0611	ppb	19:32:32
1	Cd 226.502†	-141.4	4.7	0.1130	µg/L	0.1130	ppb	19:32:52
1	Co 228.616†	3.9	1.9	0.0851	µg/L	0.0851	ppb	19:32:52
1	Cr 267.716†	-52.3	-0.3	-0.0059	µg/L	-0.0059	ppb	19:32:32
1	Cu 324.752†	2589.2	-34.6	-0.2223	µg/L	-0.2223	ppb	19:32:32
1	Mn 257.610†	-125.9	134.0	0.4234	µg/L	0.4234	ppb	19:32:52
1	Mo 202.031†	-3.8	1.7	0.1637	µg/L	0.1637	ppb	19:32:52
1	Ni 231.604†	312.5	-9.5	-0.4735	µg/L	-0.4735	ppb	19:32:52
1	P 214.914†	19.0	3.1	6.0665	µg/L	6.0665	ppb	19:32:52
1	Pb 220.353†	87.4	-6.2	-1.5170	µg/L	-1.5170	ppb	19:32:52
1	S 181.975 Axial†	16.2	-3.2	-13.428	µg/L	-13.428	ppb	19:32:52
1	Sb 206.836†	17.3	-5.7	-5.2171	µg/L	-5.2171	ppb	19:32:52
1	Se 196.026†	14.6	-5.2	-7.2159	µg/L	-7.2159	ppb	19:32:52
1	SiO2†	1457.3	20.6	4.0713	µg/L	4.0713	ppb	19:32:32
1	Si 251.611†	367.4	45.4	3.4484	µg/L	3.4484	ppb	19:32:52
1	Sn 189.927†	2.9	2.5	1.0388	µg/L	1.0388	ppb	19:32:52
1	Ti 334.940†	320.1	135.2	0.2995	µg/L	0.2995	ppb	19:32:32
1	Tl 190.801†	-20.2	2.8	3.6951	µg/L	3.6951	ppb	19:32:52
1	U 409.014†	5.9	82.8	6.8777	µg/L	6.8777	ppb	19:32:32
1	V 292.402†	-40.7	5.3	0.0634	µg/L	0.0634	ppb	19:32:32
1	Zn 213.857†	538.4	-12.7	-0.2952	µg/L	-0.2952	ppb	19:32:52
2	Sc RADIAL	57446.2	57446.2	102	%			19:31:29
2	Al 396.153Radial†	-13.6	-20.7	-14.413	µg/L	-14.413	ppb	19:31:29
2	Ca 317.933Radial†	196.2	-18.3	-15.615	µg/L	-15.615	ppb	19:31:50
2	Fe 238.204 Radial†	16.6	-0.3	-2.1967	µg/L	-2.1967	ppb	19:31:50
2	K 766.490 Radial†	247.6	78.5	51.300	µg/L	51.300	ppb	19:31:29
2	Mg 279.077 IEC†	10.6	-2.4	-21.567	µg/L	-21.567	ppb	19:31:50
2	Na 589.592 Radial†	483.2	3.0	0.9277	µg/L	0.9277	ppb	19:31:29
2	Sr 421.552†	2.4	-26.4	-0.2440	µg/L	-0.2440	ppb	19:31:29
2	Sc 361.383	2031745.9	2031745.9	103.50	%			19:32:58
2	Y 371.029	1401392.4	1401392.4	103.60	%			19:32:58
2	Ag 328.068†	-396.7	18.3	0.1368	µg/L	0.1368	ppb	19:33:04
2	As 188.979†	0.2	0.6	1.1375	µg/L	1.1375	ppb	19:33:24
2	B 249.677†	348.5	-47.4	-1.9319	µg/L	-1.9319	ppb	19:33:24
2	Ba 233.527†	-17.3	0.3	0.0083	µg/L	0.0083	ppb	19:33:24
2	Be 313.107†	-2882.3	70.8	0.0419	µg/L	0.0419	ppb	19:33:04
2	Cd 226.502†	-137.7	8.6	0.2144	µg/L	0.2144	ppb	19:33:24
2	Co 228.616†	-1.5	-3.4	-0.1547	µg/L	-0.1547	ppb	19:33:24
2	Cr 267.716†	-68.0	-15.3	-0.3078	µg/L	-0.3078	ppb	19:33:04
2	Cu 324.752†	2609.0	-22.8	-0.1493	µg/L	-0.1493	ppb	19:33:04
2	Mn 257.610†	-117.6	142.3	0.4463	µg/L	0.4463	ppb	19:33:24
2	Mo 202.031†	-2.4	3.0	0.2951	µg/L	0.2951	ppb	19:33:24
2	Ni 231.604†	312.9	-10.0	-0.4983	µg/L	-0.4983	ppb	19:33:24
2	P 214.914†	11.5	-4.2	-8.3725	µg/L	-8.3725	ppb	19:33:24
2	Pb 220.353†	83.2	-10.5	-2.5612	µg/L	-2.5612	ppb	19:33:24

2	S 181.975 Axial†	19.8	0.2	0.8387	µg/L	0.8387 ppb	19:33:24
2	Sb 206.836†	25.4	2.1	1.9038	µg/L	1.9038 ppb	19:33:24
2	Se 196.026†	16.0	-3.9	-5.4218	µg/L	-5.4218 ppb	19:33:24
2	SiO2†	1425.4	-14.3	-2.8218	µg/L	-2.8218 ppb	19:33:04
2	Si 251.611†	386.0	62.4	4.7401	µg/L	4.7401 ppb	19:33:24
2	Sn 189.927†	-0.4	-0.8	-0.3347	µg/L	-0.3347 ppb	19:33:24
2	Ti 334.940†	346.5	159.8	0.3550	µg/L	0.3550 ppb	19:33:04
2	Tl 190.801†	-19.1	3.9	5.0976	µg/L	5.0976 ppb	19:33:24
2	U 409.014†	-2.7	74.5	6.1922	µg/L	6.1922 ppb	19:33:04
2	V 292.402†	-29.1	16.7	0.1702	µg/L	0.1702 ppb	19:33:04
2	Zn 213.857†	529.8	-22.5	-0.5234	µg/L	-0.5234 ppb	19:33:24
3	Sc RADIAL	56634.0	56634.0	100	%		19:31:55
3	Al 396.153Radial†	3.4	-4.0	-2.7853	µg/L	-2.7853 ppb	19:31:55
3	Ca 317.933Radial†	194.5	-17.2	-14.719	µg/L	-14.719 ppb	19:32:16
3	Fe 238.204 Radial†	18.7	2.1	16.416	µg/L	16.416 ppb	19:32:16
3	K 766.490 Radial†	165.0	-0.4	-0.2546	µg/L	-0.2546 ppb	19:31:55
3	Mg 279.077 IEC†	11.4	-1.4	-12.921	µg/L	-12.921 ppb	19:32:16
3	Na 589.592 Radial†	499.6	26.2	8.0527	µg/L	8.0527 ppb	19:31:55
3	Sr 421.552†	20.0	-8.9	-0.0818	µg/L	-0.0818 ppb	19:31:55
3	Sc 361.383	2031784.6	2031784.6	103.50	%		19:33:30
3	Y 371.029	1401143.1	1401143.1	103.58	%		19:33:30
3	Ag 328.068†	-447.4	-30.7	-0.2248	µg/L	-0.2248 ppb	19:33:36
3	As 188.979†	-3.2	-2.6	-4.7006	µg/L	-4.7006 ppb	19:33:57
3	B 249.677†	355.0	-41.1	-1.6835	µg/L	-1.6835 ppb	19:33:57
3	Ba 233.527†	-12.0	5.5	0.1329	µg/L	0.1329 ppb	19:33:57
3	Be 313.107†	-2752.0	196.7	0.1167	µg/L	0.1167 ppb	19:33:36
3	Cd 226.502†	-133.4	12.8	0.3163	µg/L	0.3163 ppb	19:33:57
3	Co 228.616†	5.6	3.5	0.1593	µg/L	0.1593 ppb	19:33:57
3	Cr 267.716†	-3.9	46.6	0.9367	µg/L	0.9367 ppb	19:33:36
3	Cu 324.752†	2597.8	-33.7	-0.2180	µg/L	-0.2180 ppb	19:33:36
3	Mn 257.610†	-109.9	149.9	0.4720	µg/L	0.4720 ppb	19:33:57
3	Mo 202.031†	-0.0	5.3	0.5227	µg/L	0.5227 ppb	19:33:57
3	Ni 231.604†	321.2	-2.0	-0.0983	µg/L	-0.0983 ppb	19:33:57
3	P 214.914†	15.7	-0.2	-0.3967	µg/L	-0.3967 ppb	19:33:57
3	Pb 220.353†	93.0	-1.1	-0.2629	µg/L	-0.2629 ppb	19:33:57
3	S 181.975 Axial†	17.9	-1.7	-6.9059	µg/L	-6.9059 ppb	19:33:57
3	Sb 206.836†	24.5	1.2	1.0976	µg/L	1.0976 ppb	19:33:57
3	Se 196.026†	13.0	-6.8	-9.4419	µg/L	-9.4419 ppb	19:33:57
3	SiO2†	1471.5	30.2	5.9619	µg/L	5.9619 ppb	19:33:36
3	Si 251.611†	378.8	55.4	4.2091	µg/L	4.2091 ppb	19:33:57
3	Sn 189.927†	1.2	0.8	0.3212	µg/L	0.3212 ppb	19:33:57
3	Ti 334.940†	295.3	110.3	0.2447	µg/L	0.2447 ppb	19:33:36
3	Tl 190.801†	-22.9	0.3	0.3574	µg/L	0.3574 ppb	19:33:57
3	U 409.014†	-14.1	63.5	5.2725	µg/L	5.2725 ppb	19:33:36
3	V 292.402†	-25.9	19.7	0.2057	µg/L	0.2057 ppb	19:33:36
3	Zn 213.857†	530.6	-21.8	-0.5098	µg/L	-0.5098 ppb	19:33:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2029776.6	103.40	%	0.175				0.17%
Sc RADIAL	57294.7	101	%	1.1				1.05%
Y 371.029	1399408.7	103.45	%	0.238				0.23%
Ag 328.068†	-5.5	-0.0393	µg/L	0.18096	-0.0393	ppb	0.18096	460.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.9	-9.7076	µg/L	6.12268	-9.7076	ppb	6.12268	63.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	2.3757	µg/L	7.76979	2.3757	ppb	7.76979	327.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.7	-1.8686	µg/L	0.16289	-1.8686	ppb	0.16289	8.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.4	0.1057	µg/L	0.08714	0.1057	ppb	0.08714	82.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.6	0.0732	µg/L	0.03884	0.0732	ppb	0.03884	53.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.2	-15.537	µg/L	0.7823	-15.537	ppb	0.7823	5.04%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.7	0.2146	µg/L	0.10166	0.2146	ppb	0.10166	47.38%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0299	µg/L	0.16412	0.0299	ppb	0.16412	548.91%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.3      0.2077 µg/L       0.64914      0.2077 ppb        0.64914 312.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -30.4     -0.1965 µg/L       0.04097     -0.1965 ppb        0.04097  20.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.7      13.558 µg/L       14.5386      13.558 ppb        14.5386 107.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          38.3      25.017 µg/L       25.7921      25.017 ppb        25.7921 103.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.6     -14.293 µg/L        6.6944     -14.293 ppb         6.6944  46.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               142.1      0.4473 µg/L       0.02431      0.4473 ppb        0.02431   5.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.3      0.3272 µg/L       0.18162      0.3272 ppb        0.18162  55.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          4.5      1.3835 µg/L       6.45342      1.3835 ppb        6.45342 466.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.2     -0.3567 µg/L       0.22417     -0.3567 ppb        0.22417  62.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.5     -0.9009 µg/L       7.23268     -0.9009 ppb        7.23268 802.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9     -1.4470 µg/L       1.15074     -1.4470 ppb        1.15074  79.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.6     -6.4984 µg/L       7.14204     -6.4984 ppb        7.14204 109.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.8     -0.7386 µg/L       3.89940     -0.7386 ppb        3.89940 527.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.3     -7.3599 µg/L       2.01391     -7.3599 ppb        2.01391  27.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      12.2      2.4038 µg/L       4.62317      2.4038 ppb        4.62317 192.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                54.4      4.1325 µg/L       0.64925      4.1325 ppb        0.64925  15.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.3418 µg/L       0.68701      0.3418 ppb        0.68701 201.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.2     -0.0572 µg/L       0.20025     -0.0572 ppb        0.20025 350.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               135.1      0.2997 µg/L       0.05511      0.2997 ppb        0.05511  18.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.3      3.0500 µg/L       2.43504      3.0500 ppb        2.43504  79.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 73.6      6.1141 µg/L       0.80544      6.1141 ppb        0.80544  13.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 13.9      0.1464 µg/L       0.07408      0.1464 ppb        0.07408  50.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -19.0     -0.4428 µg/L       0.12799     -0.4428 ppb        0.12799  28.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 42
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 19:59:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58617.0	58617.0	104	%			19:59:42
1	Al 396.153Radial†	7256.0	6986.0	4849.5	µg/L	4849.5	ppb	19:59:42
1	Ca 317.933Radial†	6123.5	5690.6	4860.8	µg/L	4860.8	ppb	20:00:02
1	Fe 238.204 Radial†	667.2	626.5	4951.5	µg/L	4951.5	ppb	20:00:02
1	K 766.490 Radial†	7829.5	7381.2	4820.8	µg/L	4820.8	ppb	19:59:42
1	Mg 279.077 IEC†	588.8	554.6	4961.1	µg/L	4961.1	ppb	20:00:02
1	Na 589.592 Radial†	33301.2	31623.9	9713.1	µg/L	9713.1	ppb	19:59:42
1	Sr 421.552†	53397.7	51436.4	474.51	µg/L	474.51	ppb	19:59:42
1	Sc 361.383	2068511.8	2068511.8	105.37	%			20:01:05
1	Y 371.029	1423469.8	1423469.8	105.23	%			20:01:05
1	Ag 328.068†	67922.0	64862.9	484.01	µg/L	484.01	ppb	20:01:11
1	As 188.979†	296.0	281.4	503.36	µg/L	503.36	ppb	20:01:31
1	B 249.677†	12790.0	11754.2	477.28	µg/L	477.28	ppb	20:01:11
1	Ba 233.527†	21499.5	20421.1	491.13	µg/L	491.13	ppb	20:01:11
1	Be 313.107†	867694.3	826340.4	490.25	µg/L	490.25	ppb	20:01:05
1	Cd 226.502†	20783.9	19866.6	495.43	µg/L	495.43	ppb	20:01:11
1	Co 228.616†	11539.6	10949.8	495.33	µg/L	495.33	ppb	20:01:11
1	Cr 267.716†	25939.4	24668.1	495.77	µg/L	495.77	ppb	20:01:11
1	Cu 324.752†	80834.9	74172.6	484.85	µg/L	484.85	ppb	20:01:11
1	Mn 257.610†	167548.2	159267.5	499.21	µg/L	499.21	ppb	20:01:05
1	Mo 202.031†	5432.8	5161.4	505.62	µg/L	505.62	ppb	20:01:31
1	Ni 231.604†	10817.5	9954.0	495.67	µg/L	495.67	ppb	20:01:11
1	P 214.914†	1353.6	1269.3	2466.8	µg/L	2466.8	ppb	20:01:31
1	Pb 220.353†	2262.0	2055.8	499.95	µg/L	499.95	ppb	20:01:31
1	S 181.975 Axial†	272.7	239.9	994.69	µg/L	994.69	ppb	20:01:31
1	Sb 206.836†	591.4	538.8	496.84	µg/L	496.84	ppb	20:01:31
1	Se 196.026†	402.1	362.3	516.51	µg/L	516.51	ppb	20:01:31
1	SiO2†	29474.8	26581.5	5246.8	µg/L	5246.8	ppb	20:01:11
1	Si 251.611†	34348.3	32287.6	2454.6	µg/L	2454.6	ppb	20:01:11
1	Sn 189.927†	1273.6	1208.3	509.59	µg/L	509.59	ppb	20:01:31
1	Ti 334.940†	232532.4	220509.7	487.50	µg/L	487.50	ppb	20:01:05
1	Tl 190.801†	380.7	383.7	504.27	µg/L	504.27	ppb	20:01:31
1	U 409.014†	6183.0	5945.1	492.96	µg/L	492.96	ppb	20:01:11
1	V 292.402†	52726.6	50084.9	494.22	µg/L	494.22	ppb	20:01:11
1	Zn 213.857†	22867.3	21167.8	493.14	µg/L	493.14	ppb	20:01:11
2	Sc RADIAL	58636.6	58636.6	104	%			20:00:07
2	Al 396.153Radial†	7235.2	6963.6	4834.1	µg/L	4834.1	ppb	20:00:07
2	Ca 317.933Radial†	6136.1	5700.8	4869.5	µg/L	4869.5	ppb	20:00:28
2	Fe 238.204 Radial†	670.0	629.0	4971.2	µg/L	4971.2	ppb	20:00:28
2	K 766.490 Radial†	7740.8	7293.1	4763.3	µg/L	4763.3	ppb	20:00:07
2	Mg 279.077 IEC†	589.3	554.9	4963.5	µg/L	4963.5	ppb	20:00:28
2	Na 589.592 Radial†	33169.7	31486.4	9670.8	µg/L	9670.8	ppb	20:00:07
2	Sr 421.552†	53167.6	51197.6	472.31	µg/L	472.31	ppb	20:00:07
2	Sc 361.383	2055969.6	2055969.6	104.73	%			20:01:39
2	Y 371.029	1414871.3	1414871.3	104.59	%			20:01:39
2	Ag 328.068†	68170.5	65493.4	488.71	µg/L	488.71	ppb	20:01:44
2	As 188.979†	286.1	273.7	489.56	µg/L	489.56	ppb	20:02:05
2	B 249.677†	12871.2	11905.8	483.46	µg/L	483.46	ppb	20:01:44
2	Ba 233.527†	21540.4	20584.7	495.07	µg/L	495.07	ppb	20:01:44
2	Be 313.107†	866432.8	830159.5	492.52	µg/L	492.52	ppb	20:01:39
2	Cd 226.502†	20792.6	19995.3	498.64	µg/L	498.64	ppb	20:01:44
2	Co 228.616†	11548.2	11024.7	498.71	µg/L	498.71	ppb	20:01:44
2	Cr 267.716†	25975.2	24852.5	499.48	µg/L	499.48	ppb	20:01:44
2	Cu 324.752†	80962.2	74762.1	488.70	µg/L	488.70	ppb	20:01:44
2	Mn 257.610†	167284.8	159986.0	501.46	µg/L	501.46	ppb	20:01:39
2	Mo 202.031†	5294.1	5060.4	495.73	µg/L	495.73	ppb	20:02:05
2	Ni 231.604†	10791.2	9991.5	497.54	µg/L	497.54	ppb	20:01:44
2	P 214.914†	1329.3	1253.9	2435.7	µg/L	2435.7	ppb	20:02:05
2	Pb 220.353†	2213.3	2022.4	491.80	µg/L	491.80	ppb	20:02:05

2	S 181.975 Axial†	269.1	238.0	986.93 µg/L	986.93 ppb	20:02:05
2	Sb 206.836†	582.9	534.0	492.29 µg/L	492.29 ppb	20:02:05
2	Se 196.026†	393.7	356.6	508.59 µg/L	508.59 ppb	20:02:05
2	SiO2†	29657.1	26926.2	5314.9 µg/L	5314.9 ppb	20:01:44
2	Si 251.611†	34634.6	32759.9	2490.5 µg/L	2490.5 ppb	20:01:44
2	Sn 189.927†	1234.0	1177.9	496.78 µg/L	496.78 ppb	20:02:05
2	Ti 334.940†	231981.3	221329.7	489.32 µg/L	489.32 ppb	20:01:39
2	Tl 190.801†	381.4	386.5	507.93 µg/L	507.93 ppb	20:02:05
2	U 409.014†	6098.6	5900.3	489.23 µg/L	489.23 ppb	20:01:44
2	V 292.402†	52826.1	50485.1	498.06 µg/L	498.06 ppb	20:01:44
2	Zn 213.857†	22870.8	21303.6	496.31 µg/L	496.31 ppb	20:01:44
3	Sc RADIAL	59033.7	59033.7	104 %		20:00:33
3	Al 396.153Radial†	7290.5	6969.7	4840.1 µg/L	4840.1 ppb	20:00:33
3	Ca 317.933Radial†	6120.4	5646.0	4822.7 µg/L	4822.7 ppb	20:00:54
3	Fe 238.204 Radial†	666.4	621.2	4908.6 µg/L	4908.6 ppb	20:00:54
3	K 766.490 Radial†	7821.9	7320.6	4781.2 µg/L	4781.2 ppb	20:00:33
3	Mg 279.077 IEC†	587.2	549.1	4910.3 µg/L	4910.3 ppb	20:00:54
3	Na 589.592 Radial†	33485.2	31573.4	9697.6 µg/L	9697.6 ppb	20:00:33
3	Sr 421.552†	53913.2	51566.5	475.71 µg/L	475.71 ppb	20:00:33
3	Sc 361.383	2033065.7	2033065.7	103.56 %		20:02:12
3	Y 371.029	1398835.6	1398835.6	103.41 %		20:02:12
3	Ag 328.068†	63294.2	61518.2	458.88 µg/L	458.88 ppb	20:02:18
3	As 188.979†	245.5	237.5	424.87 µg/L	424.87 ppb	20:02:38
3	B 249.677†	11858.0	11065.9	449.15 µg/L	449.15 ppb	20:02:18
3	Ba 233.527†	19323.7	18676.0	449.14 µg/L	449.14 ppb	20:02:18
3	Be 313.107†	782866.8	758788.6	450.18 µg/L	450.18 ppb	20:02:12
3	Cd 226.502†	18556.4	18059.6	450.32 µg/L	450.32 ppb	20:02:18
3	Co 228.616†	10216.8	9863.3	446.13 µg/L	446.13 ppb	20:02:18
3	Cr 267.716†	22173.2	21460.7	431.32 µg/L	431.32 ppb	20:02:18
3	Cu 324.752†	72319.8	67287.9	439.90 µg/L	439.90 ppb	20:02:18
3	Mn 257.610†	151992.9	147019.7	460.85 µg/L	460.85 ppb	20:02:12
3	Mo 202.031†	4312.9	4169.9	408.53 µg/L	408.53 ppb	20:02:38
3	Ni 231.604†	9615.9	8972.7	446.82 µg/L	446.82 ppb	20:02:18
3	P 214.914†	1099.8	1046.6	2029.2 µg/L	2029.2 ppb	20:02:38
3	Pb 220.353†	1898.6	1742.3	423.60 µg/L	423.60 ppb	20:02:38
3	S 181.975 Axial†	229.2	202.4	839.15 µg/L	839.15 ppb	20:02:38
3	Sb 206.836†	490.6	451.2	415.60 µg/L	415.60 ppb	20:02:38
3	Se 196.026†	342.7	311.6	445.29 µg/L	445.29 ppb	20:02:38
3	SiO2†	27143.6	24818.1	4898.8 µg/L	4898.8 ppb	20:02:18
3	Si 251.611†	31477.2	30083.6	2287.0 µg/L	2287.0 ppb	20:02:18
3	Sn 189.927†	996.2	961.5	405.52 µg/L	405.52 ppb	20:02:38
3	Ti 334.940†	208374.6	201030.6	444.41 µg/L	444.41 ppb	20:02:12
3	Tl 190.801†	320.5	331.9	436.49 µg/L	436.49 ppb	20:02:38
3	U 409.014†	5350.1	5243.1	434.64 µg/L	434.64 ppb	20:02:18
3	V 292.402†	46198.8	44654.1	440.34 µg/L	440.34 ppb	20:02:18
3	Zn 213.857†	20325.7	19092.0	444.73 µg/L	444.73 ppb	20:02:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2052515.7	104.55	%	0.916				0.88%
Sc RADIAL	58762.4	104	%	0.4				0.40%
Y 371.029	1412392.2	104.41	%	0.924				0.89%
Ag 328.068†	63958.2	477.20	µg/L	16.037	477.20	ppb	16.037	3.36%
QC value within limits for Ag 328.068 Recovery = 95.44%								
Al 396.153Radial†	6973.1	4841.2	µg/L	7.74	4841.2	ppb	7.74	0.16%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	264.2	472.59	µg/L	41.905	472.59	ppb	41.905	8.87%
QC value within limits for As 188.979 Recovery = 94.52%								
B 249.677†	11575.3	469.96	µg/L	18.288	469.96	ppb	18.288	3.89%
QC value within limits for B 249.677 Recovery = 93.99%								
Ba 233.527†	19893.9	478.45	µg/L	25.456	478.45	ppb	25.456	5.32%
QC value within limits for Ba 233.527 Recovery = 95.69%								
Be 313.107†	805096.2	477.65	µg/L	23.819	477.65	ppb	23.819	4.99%
QC value within limits for Be 313.107 Recovery = 95.53%								
Ca 317.933Radial†	5679.2	4851.0	µg/L	24.88	4851.0	ppb	24.88	0.51%
QC value within limits for Ca 317.933Radial Recovery = 97.02%								
Cd 226.502†	19307.2	481.46	µg/L	27.019	481.46	ppb	27.019	5.61%
QC value within limits for Cd 226.502 Recovery = 96.29%								
Co 228.616†	10612.6	480.06	µg/L	29.431	480.06	ppb	29.431	6.13%

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   QC value within limits for Co 228.616  Recovery = 96.01%
Cr 267.716†            23660.4      475.52 µg/L        38.328      475.52 ppb         38.328   8.06%
   QC value within limits for Cr 267.716  Recovery = 95.10%
Cu 324.752†            72074.2      471.15 µg/L        27.129      471.15 ppb         27.129   5.76%
   QC value within limits for Cu 324.752  Recovery = 94.23%
Fe 238.204 Radial†       625.5      4943.8 µg/L         32.02      4943.8 ppb          32.02   0.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.88%
K 766.490 Radial†       7331.7      4788.4 µg/L         29.43      4788.4 ppb          29.43   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 95.77%
Mg 279.077 IEC†          552.9      4944.9 µg/L         30.07      4944.9 ppb          30.07   0.61%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.90%
Mn 257.610†           155424.4      487.17 µg/L        22.824      487.17 ppb         22.824   4.68%
   QC value within limits for Mn 257.610  Recovery = 97.43%
Mo 202.031†             4797.2      469.96 µg/L        53.431      469.96 ppb         53.431  11.37%
   QC value within limits for Mo 202.031  Recovery = 93.99%
Na 589.592 Radial†     31561.2      9693.8 µg/L         21.36      9693.8 ppb          21.36   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 96.94%
Ni 231.604†             9639.4      480.01 µg/L        28.762      480.01 ppb         28.762   5.99%
   QC value within limits for Ni 231.604  Recovery = 96.00%
P 214.914†              1189.9      2310.6 µg/L        244.20      2310.6 ppb         244.20  10.57%
   QC value within limits for P 214.914  Recovery = 92.42%
Pb 220.353†             1940.2      471.78 µg/L        41.928      471.78 ppb         41.928   8.89%
   QC value within limits for Pb 220.353  Recovery = 94.36%
S 181.975 Axial†         226.7      940.25 µg/L        87.646      940.25 ppb         87.646   9.32%
   QC value within limits for S 181.975 Axial  Recovery = 94.03%
Sb 206.836†              508.0      468.24 µg/L        45.646      468.24 ppb         45.646   9.75%
   QC value within limits for Sb 206.836  Recovery = 93.65%
Se 196.026†              343.5      490.13 µg/L        39.036      490.13 ppb         39.036   7.96%
   QC value within limits for Se 196.026  Recovery = 98.03%
SiO2†                  26108.6      5153.5 µg/L        223.20      5153.5 ppb         223.20   4.33%
   QC value within limits for SiO2  Recovery = 96.37%
Si 251.611†            31710.4      2410.7 µg/L        108.59      2410.7 ppb         108.59   4.50%
   QC value within limits for Si 251.611  Recovery = 96.43%
Sn 189.927†             1115.9      470.63 µg/L        56.748      470.63 ppb         56.748  12.06%
   QC value within limits for Sn 189.927  Recovery = 94.13%
Sr 421.552†            51400.1      474.17 µg/L         1.726      474.17 ppb          1.726   0.36%
   QC value within limits for Sr 421.552  Recovery = 94.83%
Ti 334.940†           214290.0      473.74 µg/L        25.417      473.74 ppb         25.417   5.37%
   QC value within limits for Ti 334.940  Recovery = 94.75%
Tl 190.801†              367.4      482.89 µg/L        40.230      482.89 ppb         40.230   8.33%
   QC value within limits for Tl 190.801  Recovery = 96.58%
U 409.014†              5696.1      472.28 µg/L        32.647      472.28 ppb         32.647   6.91%
   QC value within limits for U 409.014  Recovery = 94.46%
V 292.402†             48408.1      477.54 µg/L        32.275      477.54 ppb         32.275   6.76%
   QC value within limits for V 292.402  Recovery = 95.51%
Zn 213.857†            20521.1      478.06 µg/L        28.907      478.06 ppb         28.907   6.05%
   QC value within limits for Zn 213.857  Recovery = 95.61%
All analyte(s) passed QC.
```

Sequence No.: 43
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 20:02:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57569.4	57569.4	102	%			20:03:20
1	Al 396.153Radial†	-22.6	-29.5	-20.579	µg/L	-20.579	ppb	20:03:20
1	Ca 317.933Radial†	198.2	-16.8	-14.330	µg/L	-14.330	ppb	20:03:40
1	Fe 238.204 Radial†	19.4	2.5	19.506	µg/L	19.506	ppb	20:03:40
1	K 766.490 Radial†	193.2	24.6	16.060	µg/L	16.060	ppb	20:03:20
1	Mg 279.077 IEC†	17.4	4.2	37.678	µg/L	37.678	ppb	20:03:40
1	Na 589.592 Radial†	507.7	26.1	8.0056	µg/L	8.0056	ppb	20:03:20
1	Sr 421.552†	69.4	39.3	0.3627	µg/L	0.3627	ppb	20:03:20
1	Sc 361.383	2028233.3	2028233.3	103.32	%			20:04:43
1	Y 371.029	1400221.9	1400221.9	103.51	%			20:04:43
1	Ag 328.068†	-425.8	-10.5	-0.0759	µg/L	-0.0759	ppb	20:04:48
1	As 188.979†	-0.0	0.4	0.7754	µg/L	0.7754	ppb	20:05:09
1	B 249.677†	384.2	-12.2	-0.5097	µg/L	-0.5097	ppb	20:05:09
1	Ba 233.527†	-8.4	9.0	0.2158	µg/L	0.2158	ppb	20:05:09
1	Be 313.107†	-2721.5	221.5	0.1313	µg/L	0.1313	ppb	20:04:48
1	Cd 226.502†	-138.1	8.0	0.1973	µg/L	0.1973	ppb	20:05:09
1	Co 228.616†	11.2	8.9	0.4024	µg/L	0.4024	ppb	20:05:09
1	Cr 267.716†	-77.7	-24.8	-0.4982	µg/L	-0.4982	ppb	20:04:48
1	Cu 324.752†	2603.6	-23.7	-0.1519	µg/L	-0.1519	ppb	20:04:48
1	Mn 257.610†	-163.1	98.1	0.3084	µg/L	0.3084	ppb	20:05:09
1	Mo 202.031†	7.5	12.6	1.2358	µg/L	1.2358	ppb	20:05:09
1	Ni 231.604†	299.1	-22.9	-1.1403	µg/L	-1.1403	ppb	20:05:09
1	P 214.914†	14.2	-1.6	-3.2353	µg/L	-3.2353	ppb	20:05:09
1	Pb 220.353†	90.8	-3.0	-0.7394	µg/L	-0.7394	ppb	20:05:09
1	S 181.975 Axial†	13.4	-5.9	-24.623	µg/L	-24.623	ppb	20:05:09
1	Sb 206.836†	25.4	2.1	1.9281	µg/L	1.9281	ppb	20:05:09
1	Se 196.026†	24.1	4.0	5.6292	µg/L	5.6292	ppb	20:05:09
1	SiO2†	1495.3	55.8	11.008	µg/L	11.008	ppb	20:04:48
1	Si 251.611†	422.4	98.2	7.4686	µg/L	7.4686	ppb	20:05:09
1	Sn 189.927†	3.5	3.0	1.2550	µg/L	1.2550	ppb	20:05:09
1	Ti 334.940†	384.2	196.9	0.4323	µg/L	0.4323	ppb	20:04:48
1	Tl 190.801†	-27.9	-4.6	-5.9805	µg/L	-5.9805	ppb	20:05:09
1	U 409.014†	2.8	79.8	6.6302	µg/L	6.6302	ppb	20:04:48
1	V 292.402†	-37.2	8.7	0.1027	µg/L	0.1027	ppb	20:04:48
1	Zn 213.857†	546.8	-5.1	-0.1177	µg/L	-0.1177	ppb	20:05:09
2	Sc RADIAL	57517.3	57517.3	102	%			20:03:46
2	Al 396.153Radial†	-0.6	-7.9	-5.5362	µg/L	-5.5362	ppb	20:03:46
2	Ca 317.933Radial†	193.6	-21.1	-17.995	µg/L	-17.995	ppb	20:04:06
2	Fe 238.204 Radial†	17.2	0.3	2.2760	µg/L	2.2760	ppb	20:04:06
2	K 766.490 Radial†	220.4	51.5	33.663	µg/L	33.663	ppb	20:03:46
2	Mg 279.077 IEC†	7.2	-5.8	-51.579	µg/L	-51.579	ppb	20:04:06
2	Na 589.592 Radial†	510.7	29.4	9.0386	µg/L	9.0386	ppb	20:03:46
2	Sr 421.552†	54.5	24.8	0.2285	µg/L	0.2285	ppb	20:03:46
2	Sc 361.383	2037744.1	2037744.1	103.80	%			20:05:15
2	Y 371.029	1408689.0	1408689.0	104.13	%			20:05:15
2	Ag 328.068†	-451.1	-32.9	-0.2433	µg/L	-0.2433	ppb	20:05:20
2	As 188.979†	-1.3	-0.8	-1.5061	µg/L	-1.5061	ppb	20:05:41
2	B 249.677†	373.4	-24.4	-0.9937	µg/L	-0.9937	ppb	20:05:41
2	Ba 233.527†	-11.7	5.8	0.1389	µg/L	0.1389	ppb	20:05:41
2	Be 313.107†	-2676.0	277.7	0.1647	µg/L	0.1647	ppb	20:05:20
2	Cd 226.502†	-133.2	13.4	0.3334	µg/L	0.3334	ppb	20:05:41
2	Co 228.616†	1.8	-0.2	-0.0098	µg/L	-0.0098	ppb	20:05:41
2	Cr 267.716†	-26.9	24.5	0.4922	µg/L	0.4922	ppb	20:05:20
2	Cu 324.752†	2624.5	-15.4	-0.0999	µg/L	-0.0999	ppb	20:05:20
2	Mn 257.610†	-174.3	88.1	0.2782	µg/L	0.2782	ppb	20:05:41
2	Mo 202.031†	-0.9	4.5	0.4383	µg/L	0.4383	ppb	20:05:41
2	Ni 231.604†	325.1	0.9	0.0446	µg/L	0.0446	ppb	20:05:41
2	P 214.914†	14.3	-1.6	-3.1937	µg/L	-3.1937	ppb	20:05:41
2	Pb 220.353†	89.5	-4.7	-1.1490	µg/L	-1.1490	ppb	20:05:41

2	S 181.975 Axial†	14.0	-5.5	-22.637 µg/L	-22.637 ppb	20:05:41
2	Sb 206.836†	15.2	-7.8	-7.1701 µg/L	-7.1701 ppb	20:05:41
2	Se 196.026†	20.1	0.0	0.0726 µg/L	0.0726 ppb	20:05:41
2	SiO2†	1557.2	108.6	21.433 µg/L	21.433 ppb	20:05:20
2	Si 251.611†	433.2	106.7	8.1144 µg/L	8.1144 ppb	20:05:41
2	Sn 189.927†	-0.5	-0.9	-0.3787 µg/L	-0.3787 ppb	20:05:41
2	Ti 334.940†	337.5	150.1	0.3359 µg/L	0.3359 ppb	20:05:20
2	Tl 190.801†	-19.6	3.5	4.5946 µg/L	4.5946 ppb	20:05:41
2	U 409.014†	-41.0	37.6	3.1255 µg/L	3.1255 ppb	20:05:20
2	V 292.402†	-37.8	8.4	0.0896 µg/L	0.0896 ppb	20:05:20
2	Zn 213.857†	536.8	-17.3	-0.4029 µg/L	-0.4029 ppb	20:05:41
3	Sc RADIAL	57101.8	57101.8	101 %		20:04:12
3	Al 396.153Radial†	-30.6	-37.6	-26.198 µg/L	-26.198 ppb	20:04:12
3	Ca 317.933Radial†	202.0	-11.4	-9.7154 µg/L	-9.7154 ppb	20:04:32
3	Fe 238.204 Radial†	16.6	-0.1	-0.8955 µg/L	-0.8955 ppb	20:04:32
3	K 766.490 Radial†	248.0	80.4	52.520 µg/L	52.520 ppb	20:04:12
3	Mg 279.077 IEC†	11.1	-1.9	-16.608 µg/L	-16.608 ppb	20:04:32
3	Na 589.592 Radial†	462.4	-14.7	-4.5060 µg/L	-4.5060 ppb	20:04:12
3	Sr 421.552†	86.8	57.1	0.5266 µg/L	0.5266 ppb	20:04:12
3	Sc 361.383	2024969.7	2024969.7	103.15 %		20:05:47
3	Y 371.029	1398302.4	1398302.4	103.37 %		20:05:47
3	Ag 328.068†	-423.6	-9.1	-0.0674 µg/L	-0.0674 ppb	20:05:53
3	As 188.979†	-1.6	-1.1	-1.9285 µg/L	-1.9285 ppb	20:06:13
3	B 249.677†	379.2	-16.5	-0.6717 µg/L	-0.6717 ppb	20:06:13
3	Ba 233.527†	0.7	17.8	0.4269 µg/L	0.4269 ppb	20:06:13
3	Be 313.107†	-2714.8	223.8	0.1327 µg/L	0.1327 ppb	20:05:53
3	Cd 226.502†	-132.0	13.7	0.3404 µg/L	0.3404 ppb	20:06:13
3	Co 228.616†	-1.2	-3.1	-0.1385 µg/L	-0.1385 ppb	20:06:13
3	Cr 267.716†	-33.0	18.3	0.3686 µg/L	0.3686 ppb	20:05:53
3	Cu 324.752†	2577.7	-44.8	-0.2926 µg/L	-0.2926 ppb	20:05:53
3	Mn 257.610†	-197.2	64.8	0.2036 µg/L	0.2036 ppb	20:06:13
3	Mo 202.031†	6.7	11.8	1.1572 µg/L	1.1572 ppb	20:06:13
3	Ni 231.604†	298.5	-22.9	-1.1431 µg/L	-1.1431 ppb	20:06:13
3	P 214.914†	13.3	-2.5	-4.8521 µg/L	-4.8521 ppb	20:06:13
3	Pb 220.353†	83.9	-9.6	-2.3299 µg/L	-2.3299 ppb	20:06:13
3	S 181.975 Axial†	20.3	0.8	3.2471 µg/L	3.2471 ppb	20:06:13
3	Sb 206.836†	24.6	1.3	1.2371 µg/L	1.2371 ppb	20:06:13
3	Se 196.026†	22.2	2.2	3.1385 µg/L	3.1385 ppb	20:06:13
3	SiO2†	1561.1	121.8	24.043 µg/L	24.043 ppb	20:05:53
3	Si 251.611†	451.8	127.4	9.6851 µg/L	9.6851 ppb	20:06:13
3	Sn 189.927†	2.9	2.4	1.0100 µg/L	1.0100 ppb	20:06:13
3	Ti 334.940†	371.5	185.1	0.4107 µg/L	0.4107 ppb	20:05:53
3	Tl 190.801†	-21.0	2.0	2.6499 µg/L	2.6499 ppb	20:06:13
3	U 409.014†	-27.8	50.1	4.1641 µg/L	4.1641 ppb	20:05:53
3	V 292.402†	-46.3	-0.1	0.0127 µg/L	0.0127 ppb	20:05:53
3	Zn 213.857†	547.9	-3.2	-0.0687 µg/L	-0.0687 ppb	20:06:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2030315.7	103.42	%	0.338				0.33%
Sc RADIAL	57396.2	102	%	0.5				0.45%
Y 371.029	1402404.4	103.67	%	0.409				0.39%
Ag 328.068†	-17.5	-0.1289	µg/L	0.09924	-0.1289	ppb	0.09924	77.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-25.0	-17.437	µg/L	10.6828	-17.437	ppb	10.6828	61.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.8864	µg/L	1.45458	-0.8864	ppb	1.45458	164.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.7	-0.7250	µg/L	0.24636	-0.7250	ppb	0.24636	33.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.8	0.2605	µg/L	0.14916	0.2605	ppb	0.14916	57.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	241.0	0.1429	µg/L	0.01888	0.1429	ppb	0.01888	13.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.4	-14.013	µg/L	4.1488	-14.013	ppb	4.1488	29.61%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.2904	µg/L	0.08067	0.2904	ppb	0.08067	27.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.9	0.0847	µg/L	0.28258	0.0847	ppb	0.28258	333.70%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.0      0.1209 µg/L       0.53966      0.1209 ppb        0.53966 446.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -27.9     -0.1815 µg/L       0.09969     -0.1815 ppb        0.09969  54.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      6.9622 µg/L      10.97852      6.9622 ppb       10.97852 157.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          52.2      34.081 µg/L       18.2334      34.081 ppb        18.2334  53.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -10.170 µg/L       44.9756     -10.170 ppb        44.9756 442.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                83.7      0.2634 µg/L       0.05392      0.2634 ppb        0.05392  20.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.6      0.9437 µg/L       0.43952      0.9437 ppb        0.43952  46.57%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         13.6      4.1794 µg/L       7.53951      4.1794 ppb        7.53951 180.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -15.0     -0.7463 µg/L       0.68489     -0.7463 ppb        0.68489  91.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.9     -3.7603 µg/L       0.94573     -3.7603 ppb        0.94573  25.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.8     -1.4061 µg/L       0.82584     -1.4061 ppb        0.82584  58.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -14.671 µg/L       15.5492     -14.671 ppb        15.5492 105.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.5     -1.3350 µg/L       5.06517     -1.3350 ppb        5.06517 379.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      2.9468 µg/L       2.78328      2.9468 ppb        2.78328  94.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      95.4      18.828 µg/L        6.8971      18.828 ppb         6.8971  36.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               110.8      8.4227 µg/L       1.13993      8.4227 ppb        1.13993  13.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.5      0.6288 µg/L       0.88102      0.6288 ppb        0.88102 140.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                40.4      0.3726 µg/L       0.14931      0.3726 ppb        0.14931  40.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               177.4      0.3930 µg/L       0.05061      0.3930 ppb        0.05061  12.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.3      0.4213 µg/L       5.62878      0.4213 ppb        5.62878 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 55.8      4.6399 µg/L       1.80015      4.6399 ppb        1.80015  38.80%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  5.7      0.0683 µg/L       0.04863      0.0683 ppb        0.04863  71.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -8.5     -0.1964 µg/L       0.18047     -0.1964 ppb        0.18047  91.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 52
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 20:35:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57811.0	57811.0	102	%			20:36:24
1	Al 396.153Radial†	7388.1	7212.6	5006.8	µg/L	5006.8	ppb	20:36:24
1	Ca 317.933Radial†	6190.3	5838.2	4986.9	µg/L	4986.9	ppb	20:36:45
1	Fe 238.204 Radial†	686.3	654.2	5170.0	µg/L	5170.0	ppb	20:36:45
1	K 766.490 Radial†	7863.0	7519.2	4910.9	µg/L	4910.9	ppb	20:36:24
1	Mg 279.077 IEC†	595.3	569.0	5089.2	µg/L	5089.2	ppb	20:36:45
1	Na 589.592 Radial†	33730.1	32490.4	9979.2	µg/L	9979.2	ppb	20:36:24
1	Sr 421.552†	54087.0	52827.6	487.34	µg/L	487.34	ppb	20:36:24
1	Sc 361.383	2027762.0	2027762.0	103.29	%			20:37:48
1	Y 371.029	1396189.5	1396189.5	103.21	%			20:37:48
1	Ag 328.068†	68163.2	66391.9	495.42	µg/L	495.42	ppb	20:37:54
1	As 188.979†	292.5	283.7	507.44	µg/L	507.44	ppb	20:38:14
1	B 249.677†	12787.8	11996.0	487.04	µg/L	487.04	ppb	20:37:54
1	Ba 233.527†	21558.1	20888.0	502.36	µg/L	502.36	ppb	20:37:54
1	Be 313.107†	866205.3	841447.6	499.21	µg/L	499.21	ppb	20:37:48
1	Cd 226.502†	20872.3	20348.6	507.44	µg/L	507.44	ppb	20:37:54
1	Co 228.616†	11546.5	11176.4	505.59	µg/L	505.59	ppb	20:37:54
1	Cr 267.716†	26035.2	25255.6	507.58	µg/L	507.58	ppb	20:37:54
1	Cu 324.752†	80912.1	75789.0	495.43	µg/L	495.43	ppb	20:37:54
1	Mn 257.610†	167567.2	162481.4	509.30	µg/L	509.30	ppb	20:37:48
1	Mo 202.031†	5499.7	5329.7	522.12	µg/L	522.12	ppb	20:38:14
1	Ni 231.604†	10852.6	10194.3	507.64	µg/L	507.64	ppb	20:37:54
1	P 214.914†	1371.9	1312.8	2552.0	µg/L	2552.0	ppb	20:38:14
1	Pb 220.353†	2293.7	2129.7	517.93	µg/L	517.93	ppb	20:38:14
1	S 181.975 Axial†	271.3	243.7	1010.7	µg/L	1010.7	ppb	20:38:14
1	Sb 206.836†	610.9	568.9	524.60	µg/L	524.60	ppb	20:38:14
1	Se 196.026†	405.3	373.1	532.19	µg/L	532.19	ppb	20:38:14
1	SiO2†	29562.8	27228.8	5374.6	µg/L	5374.6	ppb	20:37:54
1	Si 251.611†	34535.5	33124.0	2518.1	µg/L	2518.1	ppb	20:37:54
1	Sn 189.927†	1288.7	1247.3	526.02	µg/L	526.02	ppb	20:38:14
1	Ti 334.940†	232020.0	224448.5	496.21	µg/L	496.21	ppb	20:37:48
1	Tl 190.801†	381.3	391.6	514.57	µg/L	514.57	ppb	20:38:14
1	U 409.014†	6126.5	6008.3	498.17	µg/L	498.17	ppb	20:37:54
1	V 292.402†	52790.3	51152.2	504.81	µg/L	504.81	ppb	20:37:54
1	Zn 213.857†	22965.6	21699.1	505.52	µg/L	505.52	ppb	20:37:54
2	Sc RADIAL	57688.1	57688.1	102	%			20:36:50
2	Al 396.153Radial†	7347.5	7188.2	4990.2	µg/L	4990.2	ppb	20:36:50
2	Ca 317.933Radial†	6170.4	5831.6	4981.2	µg/L	4981.2	ppb	20:37:11
2	Fe 238.204 Radial†	679.7	649.0	5129.7	µg/L	5129.7	ppb	20:37:11
2	K 766.490 Radial†	7862.4	7534.9	4921.2	µg/L	4921.2	ppb	20:36:50
2	Mg 279.077 IEC†	586.2	561.2	5019.8	µg/L	5019.8	ppb	20:37:11
2	Na 589.592 Radial†	33629.0	32461.7	9970.4	µg/L	9970.4	ppb	20:36:50
2	Sr 421.552†	53906.2	52763.0	486.75	µg/L	486.75	ppb	20:36:50
2	Sc 361.383	2033079.9	2033079.9	103.56	%			20:38:21
2	Y 371.029	1400966.0	1400966.0	103.56	%			20:38:21
2	Ag 328.068†	68767.8	66803.0	498.49	µg/L	498.49	ppb	20:38:27
2	As 188.979†	289.6	280.1	501.07	µg/L	501.07	ppb	20:38:48
2	B 249.677†	12962.6	12132.4	492.63	µg/L	492.63	ppb	20:38:27
2	Ba 233.527†	21784.9	21052.3	506.31	µg/L	506.31	ppb	20:38:27
2	Be 313.107†	868836.4	841794.7	499.42	µg/L	499.42	ppb	20:38:21
2	Cd 226.502†	21029.8	20447.8	509.92	µg/L	509.92	ppb	20:38:27
2	Co 228.616†	11697.0	11292.5	510.83	µg/L	510.83	ppb	20:38:27
2	Cr 267.716†	26246.5	25393.7	510.36	µg/L	510.36	ppb	20:38:27
2	Cu 324.752†	81619.6	76267.2	498.55	µg/L	498.55	ppb	20:38:27
2	Mn 257.610†	168162.1	162631.5	509.76	µg/L	509.76	ppb	20:38:21
2	Mo 202.031†	5295.6	5118.8	501.46	µg/L	501.46	ppb	20:38:48
2	Ni 231.604†	10929.3	10240.9	509.96	µg/L	509.96	ppb	20:38:27
2	P 214.914†	1331.9	1270.7	2468.1	µg/L	2468.1	ppb	20:38:48
2	Pb 220.353†	2225.5	2057.9	500.41	µg/L	500.41	ppb	20:38:48

2	S 181.975 Axial†	269.1	240.9	999.11 µg/L	999.11 ppb	20:38:48
2	Sb 206.836†	587.1	544.4	501.78 µg/L	501.78 ppb	20:38:48
2	Se 196.026†	397.3	364.3	519.74 µg/L	519.74 ppb	20:38:48
2	SiO2†	29990.1	27566.6	5441.3 µg/L	5441.3 ppb	20:38:27
2	Si 251.611†	34935.7	33422.9	2540.9 µg/L	2540.9 ppb	20:38:27
2	Sn 189.927†	1242.7	1199.6	505.90 µg/L	505.90 ppb	20:38:48
2	Ti 334.940†	232729.3	224545.8	496.43 µg/L	496.43 ppb	20:38:21
2	Tl 190.801†	371.6	381.2	501.12 µg/L	501.12 ppb	20:38:48
2	U 409.014†	6316.5	6176.2	512.13 µg/L	512.13 ppb	20:38:27
2	V 292.402†	53367.3	51575.7	508.79 µg/L	508.79 ppb	20:38:27
2	Zn 213.857†	23160.5	21829.2	508.56 µg/L	508.56 ppb	20:38:27
3	Sc RADIAL	57760.3	57760.3	102 %		20:37:16
3	Al 396.153Radial†	7302.7	7135.4	4955.4 µg/L	4955.4 ppb	20:37:16
3	Ca 317.933Radial†	6153.2	5807.2	4960.4 µg/L	4960.4 ppb	20:37:37
3	Fe 238.204 Radial†	676.8	645.4	5100.0 µg/L	5100.0 ppb	20:37:37
3	K 766.490 Radial†	7938.5	7599.7	4963.5 µg/L	4963.5 ppb	20:37:16
3	Mg 279.077 IEC†	588.7	563.0	5033.9 µg/L	5033.9 ppb	20:37:37
3	Na 589.592 Radial†	33538.1	32331.6	9930.4 µg/L	9930.4 ppb	20:37:16
3	Sr 421.552†	53805.7	52598.9	485.23 µg/L	485.23 ppb	20:37:16
3	Sc 361.383	2033958.3	2033958.3	103.61 %		20:38:55
3	Y 371.029	1400977.3	1400977.3	103.56 %		20:38:55
3	Ag 328.068†	62963.6	61172.3	456.31 µg/L	456.31 ppb	20:39:00
3	As 188.979†	248.4	240.2	429.67 µg/L	429.67 ppb	20:39:21
3	B 249.677†	11744.3	10951.1	444.37 µg/L	444.37 ppb	20:39:00
3	Ba 233.527†	19280.0	18625.6	447.93 µg/L	447.93 ppb	20:39:00
3	Be 313.107†	786101.6	761579.0	451.83 µg/L	451.83 ppb	20:38:55
3	Cd 226.502†	18540.5	18036.5	449.72 µg/L	449.72 ppb	20:39:00
3	Co 228.616†	10152.5	9797.0	443.12 µg/L	443.12 ppb	20:39:00
3	Cr 267.716†	22048.4	21330.9	428.71 µg/L	428.71 ppb	20:39:00
3	Cu 324.752†	71642.8	66603.9	435.46 µg/L	435.46 ppb	20:39:00
3	Mn 257.610†	152739.1	147675.5	462.92 µg/L	462.92 ppb	20:38:55
3	Mo 202.031†	4325.4	4180.1	409.54 µg/L	409.54 ppb	20:39:21
3	Ni 231.604†	9564.0	8918.6	444.13 µg/L	444.13 ppb	20:39:00
3	P 214.914†	1113.3	1059.1	2054.4 µg/L	2054.4 ppb	20:39:21
3	Pb 220.353†	1908.3	1750.9	425.71 µg/L	425.71 ppb	20:39:21
3	S 181.975 Axial†	235.9	208.8	865.74 µg/L	865.74 ppb	20:39:21
3	Sb 206.836†	489.0	449.5	414.04 µg/L	414.04 ppb	20:39:21
3	Se 196.026†	343.4	312.2	446.46 µg/L	446.46 ppb	20:39:21
3	SiO2†	26970.8	24639.8	4863.6 µg/L	4863.6 ppb	20:39:00
3	Si 251.611†	31321.6	29920.1	2274.6 µg/L	2274.6 ppb	20:39:00
3	Sn 189.927†	1005.3	969.9	409.06 µg/L	409.06 ppb	20:39:21
3	Ti 334.940†	209022.0	201567.2	445.59 µg/L	445.59 ppb	20:38:55
3	Tl 190.801†	324.2	335.3	441.01 µg/L	441.01 ppb	20:39:21
3	U 409.014†	5266.4	5160.0	427.71 µg/L	427.71 ppb	20:39:00
3	V 292.402†	45851.9	44299.7	436.90 µg/L	436.90 ppb	20:39:00
3	Zn 213.857†	20248.2	19008.5	442.78 µg/L	442.78 ppb	20:39:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031600.1	103.49	%	0.171				0.17%
Sc RADIAL	57753.1	102	%	0.1				0.11%
Y 371.029	1399377.6	103.45	%	0.204				0.20%
Ag 328.068†	64789.1	483.41	µg/L	23.516	483.41	ppb	23.516	4.86%
QC value within limits for Ag 328.068 Recovery = 96.68%								
Al 396.153Radial†	7178.8	4984.1	µg/L	26.23	4984.1	ppb	26.23	0.53%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	268.0	479.39	µg/L	43.175	479.39	ppb	43.175	9.01%
QC value within limits for As 188.979 Recovery = 95.88%								
B 249.677†	11693.1	474.68	µg/L	26.400	474.68	ppb	26.400	5.56%
QC value within limits for B 249.677 Recovery = 94.94%								
Ba 233.527†	20188.6	485.53	µg/L	32.628	485.53	ppb	32.628	6.72%
QC value within limits for Ba 233.527 Recovery = 97.11%								
Be 313.107†	814940.4	483.49	µg/L	27.416	483.49	ppb	27.416	5.67%
QC value within limits for Be 313.107 Recovery = 96.70%								
Ca 317.933Radial†	5825.7	4976.2	µg/L	13.94	4976.2	ppb	13.94	0.28%
QC value within limits for Ca 317.933Radial Recovery = 99.52%								
Cd 226.502†	19610.9	489.02	µg/L	34.065	489.02	ppb	34.065	6.97%
QC value within limits for Cd 226.502 Recovery = 97.80%								
Co 228.616†	10755.3	486.52	µg/L	37.669	486.52	ppb	37.669	7.74%

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   QC value within limits for Co 228.616  Recovery = 97.30%
Cr 267.716†            23993.4      482.21 µg/L        46.358      482.21 ppb        46.358   9.61%
   QC value within limits for Cr 267.716  Recovery = 96.44%
Cu 324.752†            72886.7      476.48 µg/L        35.555      476.48 ppb        35.555   7.46%
   QC value within limits for Cu 324.752  Recovery = 95.30%
Fe 238.204 Radial†       649.5      5133.2 µg/L         35.15      5133.2 ppb         35.15   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.66%
K 766.490 Radial†       7551.3      4931.9 µg/L         27.89      4931.9 ppb         27.89   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.64%
Mg 279.077 IEC†          564.4      5047.6 µg/L         36.69      5047.6 ppb         36.69   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.95%
Mn 257.610†           157596.1      494.00 µg/L        26.909      494.00 ppb        26.909   5.45%
   QC value within limits for Mn 257.610  Recovery = 98.80%
Mo 202.031†             4876.2      477.70 µg/L        59.931      477.70 ppb        59.931  12.55%
   QC value within limits for Mo 202.031  Recovery = 95.54%
Na 589.592 Radial†     32427.9      9960.0 µg/L         26.00      9960.0 ppb         26.00   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.60%
Ni 231.604†             9784.6      487.24 µg/L        37.359      487.24 ppb        37.359   7.67%
   QC value within limits for Ni 231.604  Recovery = 97.45%
P 214.914†              1214.2      2358.2 µg/L        266.40      2358.2 ppb        266.40  11.30%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†             1979.5      481.35 µg/L        48.976      481.35 ppb        48.976  10.17%
   QC value within limits for Pb 220.353  Recovery = 96.27%
S 181.975 Axial†         231.1      958.52 µg/L        80.559      958.52 ppb        80.559   8.40%
   QC value within limits for S 181.975 Axial  Recovery = 95.85%
Sb 206.836†              520.9      480.14 µg/L        58.372      480.14 ppb        58.372  12.16%
   QC value within limits for Sb 206.836  Recovery = 96.03%
Se 196.026†              349.9      499.46 µg/L        46.321      499.46 ppb        46.321   9.27%
   QC value within limits for Se 196.026  Recovery = 99.89%
SiO2†                  26478.4      5226.5 µg/L        316.05      5226.5 ppb        316.05   6.05%
   QC value within limits for SiO2  Recovery = 97.74%
Si 251.611†            32155.7      2444.5 µg/L        147.62      2444.5 ppb        147.62   6.04%
   QC value within limits for Si 251.611  Recovery = 97.78%
Sn 189.927†             1138.9      480.33 µg/L        62.530      480.33 ppb        62.530  13.02%
   QC value within limits for Sn 189.927  Recovery = 96.07%
Sr 421.552†            52729.8      486.44 µg/L         1.088      486.44 ppb         1.088   0.22%
   QC value within limits for Sr 421.552  Recovery = 97.29%
Ti 334.940†           216853.8      479.41 µg/L        29.286      479.41 ppb        29.286   6.11%
   QC value within limits for Ti 334.940  Recovery = 95.88%
Tl 190.801†              369.4      485.57 µg/L        39.170      485.57 ppb        39.170   8.07%
   QC value within limits for Tl 190.801  Recovery = 97.11%
U 409.014†              5781.5      479.34 µg/L        45.254      479.34 ppb        45.254   9.44%
   QC value within limits for U 409.014  Recovery = 95.87%
V 292.402†             49009.2      483.50 µg/L        40.407      483.50 ppb        40.407   8.36%
   QC value within limits for V 292.402  Recovery = 96.70%
Zn 213.857†            20845.6      485.62 µg/L        37.132      485.62 ppb        37.132   7.65%
   QC value within limits for Zn 213.857  Recovery = 97.12%
All analyte(s) passed QC.
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Sequence No.: 53
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 20:39:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57162.5	57162.5	101	%			20:40:03
1	Al 396.153Radial†	-20.6	-27.7	-19.312	µg/L	-19.312	ppb	20:40:03
1	Ca 317.933Radial†	195.3	-18.2	-15.572	µg/L	-15.572	ppb	20:40:24
1	Fe 238.204 Radial†	18.3	1.6	12.247	µg/L	12.247	ppb	20:40:24
1	K 766.490 Radial†	190.9	23.7	15.502	µg/L	15.502	ppb	20:40:03
1	Mg 279.077 IEC†	9.0	-3.9	-34.969	µg/L	-34.969	ppb	20:40:24
1	Na 589.592 Radial†	476.5	-1.2	-0.3760	µg/L	-0.3760	ppb	20:40:03
1	Sr 421.552†	42.5	13.2	0.1218	µg/L	0.1218	ppb	20:40:03
1	Sc 361.383	2005809.0	2005809.0	102.17	%			20:41:26
1	Y 371.029	1386566.9	1386566.9	102.50	%			20:41:26
1	Ag 328.068†	-356.9	52.3	0.3879	µg/L	0.3879	ppb	20:41:31
1	As 188.979†	-5.8	-5.3	-9.4245	µg/L	-9.4245	ppb	20:41:52
1	B 249.677†	364.0	-27.9	-1.1423	µg/L	-1.1423	ppb	20:41:52
1	Ba 233.527†	-8.2	9.1	0.2179	µg/L	0.2179	ppb	20:41:52
1	Be 313.107†	-2726.8	187.0	0.1108	µg/L	0.1108	ppb	20:41:31
1	Cd 226.502†	-147.9	-3.1	-0.0778	µg/L	-0.0778	ppb	20:41:52
1	Co 228.616†	7.1	5.0	0.2268	µg/L	0.2268	ppb	20:41:52
1	Cr 267.716†	-43.6	7.7	0.1543	µg/L	0.1543	ppb	20:41:31
1	Cu 324.752†	2639.9	39.9	0.2624	µg/L	0.2624	ppb	20:41:31
1	Mn 257.610†	-151.5	107.7	0.3403	µg/L	0.3403	ppb	20:41:52
1	Mo 202.031†	6.4	11.6	1.1391	µg/L	1.1391	ppb	20:41:52
1	Ni 231.604†	316.5	-2.6	-0.1301	µg/L	-0.1301	ppb	20:41:52
1	P 214.914†	12.1	-3.5	-7.0029	µg/L	-7.0029	ppb	20:41:52
1	Pb 220.353†	81.5	-11.1	-2.7059	µg/L	-2.7059	ppb	20:41:52
1	S 181.975 Axial†	13.5	-5.7	-23.814	µg/L	-23.814	ppb	20:41:52
1	Sb 206.836†	24.3	1.2	1.1646	µg/L	1.1646	ppb	20:41:52
1	Se 196.026†	7.0	-12.5	-17.428	µg/L	-17.428	ppb	20:41:52
1	SiO2†	1501.0	77.5	15.292	µg/L	15.292	ppb	20:41:31
1	Si 251.611†	421.6	102.0	7.7577	µg/L	7.7577	ppb	20:41:52
1	Sn 189.927†	1.5	1.1	0.4747	µg/L	0.4747	ppb	20:41:52
1	Ti 334.940†	398.8	215.3	0.4788	µg/L	0.4788	ppb	20:41:31
1	Tl 190.801†	-25.8	-2.8	-3.6663	µg/L	-3.6663	ppb	20:41:52
1	U 409.014†	-80.7	-1.9	-0.1586	µg/L	-0.1586	ppb	20:41:31
1	V 292.402†	-54.6	-8.7	-0.0740	µg/L	-0.0740	ppb	20:41:31
1	Zn 213.857†	530.1	-15.6	-0.3645	µg/L	-0.3645	ppb	20:41:52
2	Sc RADIAL	57110.3	57110.3	101	%			20:40:29
2	Al 396.153Radial†	-14.1	-21.4	-14.870	µg/L	-14.870	ppb	20:40:29
2	Ca 317.933Radial†	198.8	-14.6	-12.455	µg/L	-12.455	ppb	20:40:49
2	Fe 238.204 Radial†	16.0	-0.7	-5.6974	µg/L	-5.6974	ppb	20:40:49
2	K 766.490 Radial†	221.1	53.7	35.087	µg/L	35.087	ppb	20:40:29
2	Mg 279.077 IEC†	11.7	-1.2	-10.895	µg/L	-10.895	ppb	20:40:49
2	Na 589.592 Radial†	429.7	-47.1	-14.471	µg/L	-14.471	ppb	20:40:29
2	Sr 421.552†	18.0	-11.0	-0.1015	µg/L	-0.1015	ppb	20:40:29
2	Sc 361.383	2018163.8	2018163.8	102.80	%			20:41:58
2	Y 371.029	1394669.2	1394669.2	103.10	%			20:41:58
2	Ag 328.068†	-380.5	31.5	0.2331	µg/L	0.2331	ppb	20:42:03
2	As 188.979†	-3.5	-2.9	-5.2309	µg/L	-5.2309	ppb	20:42:24
2	B 249.677†	356.6	-37.3	-1.5164	µg/L	-1.5164	ppb	20:42:24
2	Ba 233.527†	0.7	17.8	0.4272	µg/L	0.4272	ppb	20:42:24
2	Be 313.107†	-2645.1	282.8	0.1677	µg/L	0.1677	ppb	20:42:03
2	Cd 226.502†	-142.5	3.0	0.0759	µg/L	0.0759	ppb	20:42:24
2	Co 228.616†	8.4	6.3	0.2840	µg/L	0.2840	ppb	20:42:24
2	Cr 267.716†	-35.6	15.8	0.3172	µg/L	0.3172	ppb	20:42:03
2	Cu 324.752†	2611.1	-3.9	-0.0261	µg/L	-0.0261	ppb	20:42:03
2	Mn 257.610†	-153.4	106.8	0.3340	µg/L	0.3340	ppb	20:42:24
2	Mo 202.031†	1.6	6.9	0.6745	µg/L	0.6745	ppb	20:42:24
2	Ni 231.604†	310.9	-9.9	-0.4961	µg/L	-0.4961	ppb	20:42:24
2	P 214.914†	14.4	-1.3	-2.5139	µg/L	-2.5139	ppb	20:42:24
2	Pb 220.353†	85.6	-7.7	-1.8763	µg/L	-1.8763	ppb	20:42:24

2	S 181.975 Axial†	16.1	-3.2	-13.393 µg/L	-13.393 ppb	20:42:24
2	Sb 206.836†	24.8	1.7	1.5353 µg/L	1.5353 ppb	20:42:24
2	Se 196.026†	18.4	-1.4	-1.9764 µg/L	-1.9764 ppb	20:42:24
2	SiO2†	1495.4	63.0	12.440 µg/L	12.440 ppb	20:42:03
2	Si 251.611†	417.9	95.9	7.2895 µg/L	7.2895 ppb	20:42:24
2	Sn 189.927†	7.5	6.9	2.9027 µg/L	2.9027 ppb	20:42:24
2	Ti 334.940†	363.4	178.5	0.3955 µg/L	0.3955 ppb	20:42:03
2	Tl 190.801†	-20.3	2.6	3.4259 µg/L	3.4259 ppb	20:42:24
2	U 409.014†	-48.9	29.5	2.4528 µg/L	2.4528 ppb	20:42:03
2	V 292.402†	-44.8	1.2	0.0192 µg/L	0.0192 ppb	20:42:03
2	Zn 213.857†	537.2	-11.8	-0.2740 µg/L	-0.2740 ppb	20:42:24
3	Sc RADIAL	56287.1	56287.1	99.6 %		20:40:55
3	Al 396.153Radial†	-17.5	-24.9	-17.369 µg/L	-17.369 ppb	20:40:55
3	Ca 317.933Radial†	205.6	-4.9	-4.1718 µg/L	-4.1718 ppb	20:41:15
3	Fe 238.204 Radial†	18.7	2.2	17.059 µg/L	17.059 ppb	20:41:15
3	K 766.490 Radial†	216.2	52.0	33.972 µg/L	33.972 ppb	20:40:55
3	Mg 279.077 IEC†	14.3	1.5	13.643 µg/L	13.643 ppb	20:41:15
3	Na 589.592 Radial†	474.9	4.5	1.3843 µg/L	1.3843 ppb	20:40:55
3	Sr 421.552†	69.4	40.8	0.3766 µg/L	0.3766 ppb	20:40:55
3	Sc 361.383	2011137.2	2011137.2	102.45 %		20:42:30
3	Y 371.029	1391137.6	1391137.6	102.84 %		20:42:30
3	Ag 328.068†	-401.5	9.7	0.0756 µg/L	0.0756 ppb	20:42:35
3	As 188.979†	-0.8	-0.3	-0.5665 µg/L	-0.5665 ppb	20:42:56
3	B 249.677†	346.6	-45.8	-1.8768 µg/L	-1.8768 ppb	20:42:56
3	Ba 233.527†	-8.1	9.2	0.2209 µg/L	0.2209 ppb	20:42:56
3	Be 313.107†	-2811.5	111.4	0.0659 µg/L	0.0659 ppb	20:42:35
3	Cd 226.502†	-144.9	0.2	0.0027 µg/L	0.0027 ppb	20:42:56
3	Co 228.616†	2.5	0.5	0.0230 µg/L	0.0230 ppb	20:42:56
3	Cr 267.716†	-35.3	16.0	0.3209 µg/L	0.3209 ppb	20:42:35
3	Cu 324.752†	2596.5	-9.2	-0.0576 µg/L	-0.0576 ppb	20:42:35
3	Mn 257.610†	-144.2	115.3	0.3628 µg/L	0.3628 ppb	20:42:56
3	Mo 202.031†	5.0	10.2	1.0037 µg/L	1.0037 ppb	20:42:56
3	Ni 231.604†	304.8	-14.8	-0.7372 µg/L	-0.7372 ppb	20:42:56
3	P 214.914†	12.9	-2.8	-5.4792 µg/L	-5.4792 ppb	20:42:56
3	Pb 220.353†	85.3	-7.7	-1.8682 µg/L	-1.8682 ppb	20:42:56
3	S 181.975 Axial†	20.2	0.8	3.1941 µg/L	3.1941 ppb	20:42:56
3	Sb 206.836†	18.9	-4.0	-3.6766 µg/L	-3.6766 ppb	20:42:56
3	Se 196.026†	18.1	-1.7	-2.3416 µg/L	-2.3416 ppb	20:42:56
3	SiO2†	1495.2	67.9	13.403 µg/L	13.403 ppb	20:42:35
3	Si 251.611†	434.6	113.6	8.6363 µg/L	8.6363 ppb	20:42:56
3	Sn 189.927†	2.2	1.8	0.7385 µg/L	0.7385 ppb	20:42:56
3	Ti 334.940†	476.2	289.8	0.6400 µg/L	0.6400 ppb	20:42:35
3	Tl 190.801†	-22.5	0.4	0.5912 µg/L	0.5912 ppb	20:42:56
3	U 409.014†	-60.8	17.7	1.4714 µg/L	1.4714 ppb	20:42:35
3	V 292.402†	-1.0	43.8	0.4391 µg/L	0.4391 ppb	20:42:35
3	Zn 213.857†	528.9	-18.1	-0.4235 µg/L	-0.4235 ppb	20:42:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2011703.4	102.47	%	0.316				0.31%
Sc RADIAL	56853.3	101	%	0.9				0.86%
Y 371.029	1390791.2	102.81	%	0.300				0.29%
Ag 328.068†	31.2	0.2322	µg/L	0.15616	0.2322	ppb	0.15616	67.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-24.7	-17.184	µg/L	2.2266	-17.184	ppb	2.2266	12.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-5.0740	µg/L	4.43112	-5.0740	ppb	4.43112	87.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.0	-1.5118	µg/L	0.36725	-1.5118	ppb	0.36725	24.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.0	0.2887	µg/L	0.11995	0.2887	ppb	0.11995	41.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.7	0.1148	µg/L	0.05103	0.1148	ppb	0.05103	44.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-12.6	-10.733	µg/L	5.8919	-10.733	ppb	5.8919	54.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	0.1	0.0002	µg/L	0.07690	0.0002	ppb	0.07690	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.9	0.1779	µg/L	0.13721	0.1779	ppb	0.13721	77.12%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              13.1      0.2641 µg/L       0.09516      0.2641 ppb        0.09516  36.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               9.0      0.0596 µg/L       0.17639      0.0596 ppb        0.17639 296.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.0      7.8695 µg/L      11.99309      7.8695 ppb       11.99309 152.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        43.2      28.187 µg/L       10.9995      28.187 ppb        10.9995  39.02%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -10.740 µg/L       24.3062     -10.740 ppb        24.3062 226.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             109.9      0.3457 µg/L       0.01513      0.3457 ppb        0.01513   4.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.6      0.9391 µg/L       0.23895      0.9391 ppb        0.23895  25.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -14.6     -4.4874 µg/L       8.69036     -4.4874 ppb        8.69036 193.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -9.1     -0.4545 µg/L       0.30571     -0.4545 ppb        0.30571  67.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.5     -4.9987 µg/L       2.28274     -4.9987 ppb        2.28274  45.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -8.8     -2.1501 µg/L       0.48133     -2.1501 ppb        0.48133  22.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.7     -11.337 µg/L       13.6207     -11.337 ppb        13.6207 120.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.4     -0.3256 µg/L       2.90798     -0.3256 ppb        2.90798 893.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.2     -7.2486 µg/L       8.81736     -7.2486 ppb        8.81736 121.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    69.5      13.712 µg/L        1.4510      13.712 ppb         1.4510  10.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             103.8      7.8945 µg/L       0.68372      7.8945 ppb        0.68372   8.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.3      1.3720 µg/L       1.33219      1.3720 ppb        1.33219  97.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              14.3      0.1323 µg/L       0.23923      0.1323 ppb        0.23923 180.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             227.9      0.5048 µg/L       0.12431      0.5048 ppb        0.12431  24.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.1      0.1169 µg/L       3.56976      0.1169 ppb        3.56976 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               15.1      1.2552 µg/L       1.31907      1.2552 ppb        1.31907 105.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               12.1      0.1281 µg/L       0.27331      0.1281 ppb        0.27331 213.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -15.2     -0.3540 µg/L       0.07531     -0.3540 ppb        0.07531  21.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 21:08:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58780.4	58780.4	104	%			21:08:58
1	Al 396.153Radial†	7195.1	6908.1	4795.0	µg/L	4795.0	ppb	21:08:58
1	Ca 317.933Radial†	6074.4	5627.0	4806.5	µg/L	4806.5	ppb	21:09:18
1	Fe 238.204 Radial†	666.1	623.6	4928.9	µg/L	4928.9	ppb	21:09:18
1	K 766.490 Radial†	7823.5	7354.4	4803.3	µg/L	4803.3	ppb	21:08:58
1	Mg 279.077 IEC†	587.1	551.5	4933.1	µg/L	4933.1	ppb	21:09:18
1	Na 589.592 Radial†	33229.4	31465.6	9664.4	µg/L	9664.4	ppb	21:08:58
1	Sr 421.552†	53405.2	51300.6	473.26	µg/L	473.26	ppb	21:08:58
1	Sc 361.383	2031693.4	2031693.4	103.49	%			21:10:22
1	Y 371.029	1400531.0	1400531.0	103.53	%			21:10:22
1	Ag 328.068†	67476.4	65600.6	489.51	µg/L	489.51	ppb	21:10:27
1	As 188.979†	292.3	282.9	506.06	µg/L	506.06	ppb	21:10:48
1	B 249.677†	12687.3	11875.0	482.23	µg/L	482.23	ppb	21:10:27
1	Ba 233.527†	21301.5	20599.6	495.43	µg/L	495.43	ppb	21:10:27
1	Be 313.107†	857576.3	831487.1	493.30	µg/L	493.30	ppb	21:10:22
1	Cd 226.502†	20668.3	20112.4	501.57	µg/L	501.57	ppb	21:10:27
1	Co 228.616†	11438.4	11050.4	499.89	µg/L	499.89	ppb	21:10:27
1	Cr 267.716†	25764.0	24944.8	501.33	µg/L	501.33	ppb	21:10:27
1	Cu 324.752†	80279.0	75025.7	490.41	µg/L	490.41	ppb	21:10:27
1	Mn 257.610†	165571.7	160239.4	502.25	µg/L	502.25	ppb	21:10:22
1	Mo 202.031†	5439.6	5261.4	515.41	µg/L	515.41	ppb	21:10:48
1	Ni 231.604†	10750.1	10074.9	501.70	µg/L	501.70	ppb	21:10:27
1	P 214.914†	1349.1	1288.2	2503.9	µg/L	2503.9	ppb	21:10:48
1	Pb 220.353†	2254.8	2087.7	507.72	µg/L	507.72	ppb	21:10:48
1	S 181.975 Axial†	277.5	249.2	1033.4	µg/L	1033.4	ppb	21:10:48
1	Sb 206.836†	587.9	545.6	503.19	µg/L	503.19	ppb	21:10:48
1	Se 196.026†	400.3	367.5	523.81	µg/L	523.81	ppb	21:10:48
1	SiO2†	29116.0	26741.7	5278.5	µg/L	5278.5	ppb	21:10:27
1	Si 251.611†	33907.1	32452.1	2467.1	µg/L	2467.1	ppb	21:10:27
1	Sn 189.927†	1278.1	1234.6	520.67	µg/L	520.67	ppb	21:10:48
1	Ti 334.940†	229666.3	221739.6	490.22	µg/L	490.22	ppb	21:10:22
1	Tl 190.801†	374.5	384.2	504.96	µg/L	504.96	ppb	21:10:48
1	U 409.014†	6113.1	5983.9	496.19	µg/L	496.19	ppb	21:10:27
1	V 292.402†	52349.3	50627.2	499.60	µg/L	499.60	ppb	21:10:27
1	Zn 213.857†	22683.3	21383.2	498.16	µg/L	498.16	ppb	21:10:27
2	Sc RADIAL	57808.7	57808.7	102	%			21:09:24
2	Al 396.153Radial†	7047.8	6880.4	4776.2	µg/L	4776.2	ppb	21:09:24
2	Ca 317.933Radial†	6096.5	5746.7	4908.7	µg/L	4908.7	ppb	21:09:44
2	Fe 238.204 Radial†	663.6	632.0	4994.7	µg/L	4994.7	ppb	21:09:44
2	K 766.490 Radial†	7642.6	7304.0	4770.4	µg/L	4770.4	ppb	21:09:24
2	Mg 279.077 IEC†	579.2	553.3	4948.6	µg/L	4948.6	ppb	21:09:44
2	Na 589.592 Radial†	32775.0	31558.4	9692.9	µg/L	9692.9	ppb	21:09:24
2	Sr 421.552†	52410.5	51191.2	472.25	µg/L	472.25	ppb	21:09:24
2	Sc 361.383	2049495.0	2049495.0	104.40	%			21:10:55
2	Y 371.029	1411660.7	1411660.7	104.35	%			21:10:55
2	Ag 328.068†	67550.5	65105.2	485.82	µg/L	485.82	ppb	21:11:01
2	As 188.979†	289.6	277.9	497.13	µg/L	497.13	ppb	21:11:21
2	B 249.677†	12725.6	11805.1	479.34	µg/L	479.34	ppb	21:11:01
2	Ba 233.527†	21349.4	20466.7	492.23	µg/L	492.23	ppb	21:11:01
2	Be 313.107†	866033.8	832390.8	493.84	µg/L	493.84	ppb	21:10:55
2	Cd 226.502†	20727.2	19995.3	498.64	µg/L	498.64	ppb	21:11:01
2	Co 228.616†	11460.7	10975.7	496.49	µg/L	496.49	ppb	21:11:01
2	Cr 267.716†	25871.8	24831.8	499.06	µg/L	499.06	ppb	21:11:01
2	Cu 324.752†	80404.8	74472.4	486.81	µg/L	486.81	ppb	21:11:01
2	Mn 257.610†	167118.2	160331.1	502.55	µg/L	502.55	ppb	21:10:55
2	Mo 202.031†	5254.1	5038.0	493.54	µg/L	493.54	ppb	21:11:21
2	Ni 231.604†	10763.2	9997.2	497.83	µg/L	497.83	ppb	21:11:01
2	P 214.914†	1302.2	1232.0	2392.5	µg/L	2392.5	ppb	21:11:21
2	Pb 220.353†	2211.3	2027.1	492.93	µg/L	492.93	ppb	21:11:21

2	S 181.975 Axial†	268.4	238.1	987.50 µg/L	987.50 ppb	21:11:21
2	Sb 206.836†	582.5	535.4	493.50 µg/L	493.50 ppb	21:11:21
2	Se 196.026†	387.4	351.8	501.93 µg/L	501.93 ppb	21:11:21
2	SiO2†	29211.0	26588.3	5248.2 µg/L	5248.2 ppb	21:11:01
2	Si 251.611†	34096.5	32348.9	2459.2 µg/L	2459.2 ppb	21:11:01
2	Sn 189.927†	1232.7	1180.4	497.82 µg/L	497.82 ppb	21:11:21
2	Ti 334.940†	231940.6	221990.5	490.78 µg/L	490.78 ppb	21:10:55
2	Tl 190.801†	370.0	376.8	495.24 µg/L	495.24 ppb	21:11:21
2	U 409.014†	6104.7	5924.5	491.24 µg/L	491.24 ppb	21:11:01
2	V 292.402†	52450.2	50284.5	496.09 µg/L	496.09 ppb	21:11:01
2	Zn 213.857†	22753.7	21260.4	495.30 µg/L	495.30 ppb	21:11:01
3	Sc RADIAL	57645.3	57645.3	102 %		21:09:50
3	Al 396.153Radial†	7101.7	6952.7	4828.5 µg/L	4828.5 ppb	21:09:50
3	Ca 317.933Radial†	6127.9	5794.4	4949.5 µg/L	4949.5 ppb	21:10:10
3	Fe 238.204 Radial†	665.9	636.0	5025.6 µg/L	5025.6 ppb	21:10:10
3	K 766.490 Radial†	7687.0	7368.7	4812.6 µg/L	4812.6 ppb	21:09:50
3	Mg 279.077 IEC†	588.9	564.4	5046.2 µg/L	5046.2 ppb	21:10:10
3	Na 589.592 Radial†	32797.2	31670.9	9727.5 µg/L	9727.5 ppb	21:09:50
3	Sr 421.552†	52594.3	51516.6	475.25 µg/L	475.25 ppb	21:09:50
3	Sc 361.383	2043330.2	2043330.2	104.09 %		21:11:28
3	Y 371.029	1408836.0	1408836.0	104.15 %		21:11:28
3	Ag 328.068†	61712.7	59691.8	445.28 µg/L	445.28 ppb	21:11:34
3	As 188.979†	240.0	231.0	413.29 µg/L	413.29 ppb	21:11:54
3	B 249.677†	11528.4	10691.7	433.82 µg/L	433.82 ppb	21:11:34
3	Ba 233.527†	18793.6	18072.9	434.64 µg/L	434.64 ppb	21:11:34
3	Be 313.107†	773952.6	746427.0	442.84 µg/L	442.84 ppb	21:11:28
3	Cd 226.502†	18104.4	17535.4	437.21 µg/L	437.21 ppb	21:11:34
3	Co 228.616†	9919.4	9528.1	430.96 µg/L	430.96 ppb	21:11:34
3	Cr 267.716†	21628.5	20829.9	418.64 µg/L	418.64 ppb	21:11:34
3	Cu 324.752†	70293.2	64990.1	424.92 µg/L	424.92 ppb	21:11:34
3	Mn 257.610†	150318.2	144673.6	453.51 µg/L	453.51 ppb	21:11:28
3	Mo 202.031†	4250.4	4088.9	400.60 µg/L	400.60 ppb	21:11:54
3	Ni 231.604†	9317.9	8639.7	430.24 µg/L	430.24 ppb	21:11:34
3	P 214.914†	1076.0	1018.4	1974.8 µg/L	1974.8 ppb	21:11:54
3	Pb 220.353†	1875.8	1711.2	416.06 µg/L	416.06 ppb	21:11:54
3	S 181.975 Axial†	231.3	203.3	842.98 µg/L	842.98 ppb	21:11:54
3	Sb 206.836†	484.5	443.0	408.08 µg/L	408.08 ppb	21:11:54
3	Se 196.026†	334.8	302.4	432.47 µg/L	432.47 ppb	21:11:54
3	SiO2†	26265.0	23842.4	4706.2 µg/L	4706.2 ppb	21:11:34
3	Si 251.611†	30430.4	28925.2	2199.0 µg/L	2199.0 ppb	21:11:34
3	Sn 189.927†	990.4	951.2	401.15 µg/L	401.15 ppb	21:11:54
3	Ti 334.940†	205711.5	197461.3	436.51 µg/L	436.51 ppb	21:11:28
3	Tl 190.801†	323.8	333.4	438.43 µg/L	438.43 ppb	21:11:54
3	U 409.014†	5199.4	5072.4	420.44 µg/L	420.44 ppb	21:11:34
3	V 292.402†	45058.2	43334.2	427.38 µg/L	427.38 ppb	21:11:34
3	Zn 213.857†	19790.2	18479.0	430.43 µg/L	430.43 ppb	21:11:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2041506.2	103.99	%	0.460				0.44%
Sc RADIAL	58078.1	103	%	1.1				1.06%
Y 371.029	1407009.2	104.01	%	0.428				0.41%
Ag 328.068†	63465.9	473.53	µg/L	24.543	473.53	ppb	24.543	5.18%
QC value within limits for Ag 328.068 Recovery = 94.71%								
Al 396.153Radial†	6913.7	4799.9	µg/L	26.45	4799.9	ppb	26.45	0.55%
QC value within limits for Al 396.153Radial Recovery = 96.00%								
As 188.979†	263.9	472.16	µg/L	51.179	472.16	ppb	51.179	10.84%
QC value within limits for As 188.979 Recovery = 94.43%								
B 249.677†	11457.3	465.13	µg/L	27.155	465.13	ppb	27.155	5.84%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	19713.1	474.10	µg/L	34.210	474.10	ppb	34.210	7.22%
QC value within limits for Ba 233.527 Recovery = 94.82%								
Be 313.107†	803435.0	476.66	µg/L	29.291	476.66	ppb	29.291	6.15%
QC value within limits for Be 313.107 Recovery = 95.33%								
Ca 317.933Radial†	5722.7	4888.2	µg/L	73.67	4888.2	ppb	73.67	1.51%
QC value within limits for Ca 317.933Radial Recovery = 97.76%								
Cd 226.502†	19214.4	479.14	µg/L	36.339	479.14	ppb	36.339	7.58%
QC value within limits for Cd 226.502 Recovery = 95.83%								
Co 228.616†	10518.1	475.78	µg/L	38.855	475.78	ppb	38.855	8.17%

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   QC value within limits for Co 228.616  Recovery = 95.16%
Cr 267.716†            23535.5      473.01 µg/L        47.102      473.01 ppb         47.102   9.96%
   QC value within limits for Cr 267.716  Recovery = 94.60%
Cu 324.752†            71496.1      467.38 µg/L        36.817      467.38 ppb         36.817   7.88%
   QC value within limits for Cu 324.752  Recovery = 93.48%
Fe 238.204 Radial†       630.5      4983.1 µg/L         49.36      4983.1 ppb          49.36   0.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.66%
K 766.490 Radial†       7342.4      4795.4 µg/L         22.20      4795.4 ppb          22.20   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 95.91%
Mg 279.077 IEC†          556.4      4976.0 µg/L         61.30      4976.0 ppb          61.30   1.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.52%
Mn 257.610†           155081.3      486.10 µg/L        28.223      486.10 ppb         28.223   5.81%
   QC value within limits for Mn 257.610  Recovery = 97.22%
Mo 202.031†             4796.1      469.85 µg/L        60.963      469.85 ppb         60.963  12.97%
   QC value within limits for Mo 202.031  Recovery = 93.97%
Na 589.592 Radial†     31564.9      9695.0 µg/L         31.58      9695.0 ppb          31.58   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.95%
Ni 231.604†             9570.6      476.59 µg/L        40.187      476.59 ppb         40.187   8.43%
   QC value within limits for Ni 231.604  Recovery = 95.32%
P 214.914†              1179.5      2290.4 µg/L        278.94      2290.4 ppb         278.94  12.18%
   QC value within limits for P 214.914  Recovery = 91.62%
Pb 220.353†             1942.0      472.24 µg/L        49.211      472.24 ppb         49.211  10.42%
   QC value within limits for Pb 220.353  Recovery = 94.45%
S 181.975 Axial†         230.2      954.62 µg/L        99.373      954.62 ppb         99.373  10.41%
   QC value within limits for S 181.975 Axial  Recovery = 95.46%
Sb 206.836†              508.0      468.26 µg/L        52.337      468.26 ppb         52.337  11.18%
   QC value within limits for Sb 206.836  Recovery = 93.65%
Se 196.026†              340.5      486.07 µg/L        47.691      486.07 ppb         47.691   9.81%
   QC value within limits for Se 196.026  Recovery = 97.21%
SiO2†                  25724.1      5077.6 µg/L        322.02      5077.6 ppb         322.02   6.34%
   QC value within limits for SiO2  Recovery = 94.95%
Si 251.611†            31242.1      2375.1 µg/L        152.58      2375.1 ppb         152.58   6.42%
   QC value within limits for Si 251.611  Recovery = 95.00%
Sn 189.927†             1122.0      473.21 µg/L        63.445      473.21 ppb         63.445  13.41%
   QC value within limits for Sn 189.927  Recovery = 94.64%
Sr 421.552†            51336.1      473.58 µg/L         1.527      473.58 ppb          1.527   0.32%
   QC value within limits for Sr 421.552  Recovery = 94.72%
Ti 334.940†           213730.5      472.50 µg/L        31.174      472.50 ppb         31.174   6.60%
   QC value within limits for Ti 334.940  Recovery = 94.50%
Tl 190.801†              364.8      479.54 µg/L        35.938      479.54 ppb         35.938   7.49%
   QC value within limits for Tl 190.801  Recovery = 95.91%
U 409.014†              5660.3      469.29 µg/L        42.377      469.29 ppb         42.377   9.03%
   QC value within limits for U 409.014  Recovery = 93.86%
V 292.402†             48082.0      474.36 µg/L        40.718      474.36 ppb         40.718   8.58%
   QC value within limits for V 292.402  Recovery = 94.87%
Zn 213.857†            20374.2      474.63 µg/L        38.303      474.63 ppb         38.303   8.07%
   QC value within limits for Zn 213.857  Recovery = 94.93%
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 21:12:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57648.5	57648.5	102	%			21:12:37
1	Al 396.153Radial†	-14.7	-21.7	-15.138	µg/L	-15.138	ppb	21:12:37
1	Ca 317.933Radial†	203.7	-11.6	-9.9121	µg/L	-9.9121	ppb	21:12:58
1	Fe 238.204 Radial†	16.4	-0.5	-4.2458	µg/L	-4.2458	ppb	21:12:58
1	K 766.490 Radial†	239.5	69.8	45.559	µg/L	45.559	ppb	21:12:37
1	Mg 279.077 IEC†	8.9	-4.1	-36.403	µg/L	-36.403	ppb	21:12:58
1	Na 589.592 Radial†	512.1	29.6	9.0983	µg/L	9.0983	ppb	21:12:37
1	Sr 421.552†	48.1	18.3	0.1688	µg/L	0.1688	ppb	21:12:37
1	Sc 361.383	2024672.5	2024672.5	103.14	%			21:14:00
1	Y 371.029	1400432.3	1400432.3	103.52	%			21:14:00
1	Ag 328.068†	-413.0	1.2	0.0111	µg/L	0.0111	ppb	21:14:05
1	As 188.979†	-0.7	-0.3	-0.4624	µg/L	-0.4624	ppb	21:14:26
1	B 249.677†	378.7	-16.9	-0.6888	µg/L	-0.6888	ppb	21:14:26
1	Ba 233.527†	-12.8	4.6	0.1123	µg/L	0.1123	ppb	21:14:26
1	Be 313.107†	-2775.1	164.9	0.0978	µg/L	0.0978	ppb	21:14:05
1	Cd 226.502†	-135.5	10.3	0.2573	µg/L	0.2573	ppb	21:14:26
1	Co 228.616†	7.3	5.2	0.2337	µg/L	0.2337	ppb	21:14:26
1	Cr 267.716†	-69.0	-16.5	-0.3312	µg/L	-0.3312	ppb	21:14:05
1	Cu 324.752†	2629.4	5.8	0.0370	µg/L	0.0370	ppb	21:14:05
1	Mn 257.610†	-259.5	4.4	0.0146	µg/L	0.0146	ppb	21:14:26
1	Mo 202.031†	0.2	5.6	0.5442	µg/L	0.5442	ppb	21:14:26
1	Ni 231.604†	315.8	-6.1	-0.3065	µg/L	-0.3065	ppb	21:14:26
1	P 214.914†	22.8	6.8	13.475	µg/L	13.475	ppb	21:14:26
1	Pb 220.353†	88.5	-5.2	-1.2633	µg/L	-1.2633	ppb	21:14:26
1	S 181.975 Axial†	14.4	-5.0	-20.717	µg/L	-20.717	ppb	21:14:26
1	Sb 206.836†	29.4	6.0	5.5139	µg/L	5.5139	ppb	21:14:26
1	Se 196.026†	18.0	-1.8	-2.5508	µg/L	-2.5508	ppb	21:14:26
1	SiO2†	1453.6	17.9	3.5281	µg/L	3.5281	ppb	21:14:05
1	Si 251.611†	344.2	23.1	1.7570	µg/L	1.7570	ppb	21:14:26
1	Sn 189.927†	6.9	6.3	2.6452	µg/L	2.6452	ppb	21:14:26
1	Ti 334.940†	260.8	77.8	0.1748	µg/L	0.1748	ppb	21:14:05
1	Tl 190.801†	-22.9	0.2	0.2097	µg/L	0.2097	ppb	21:14:26
1	U 409.014†	13.7	90.4	7.5095	µg/L	7.5095	ppb	21:14:05
1	V 292.402†	-3.7	41.2	0.4118	µg/L	0.4118	ppb	21:14:05
1	Zn 213.857†	548.2	-2.9	-0.0641	µg/L	-0.0641	ppb	21:14:26
2	Sc RADIAL	57532.9	57532.9	102	%			21:13:03
2	Al 396.153Radial†	12.0	4.4	3.0811	µg/L	3.0811	ppb	21:13:03
2	Ca 317.933Radial†	199.1	-15.8	-13.477	µg/L	-13.477	ppb	21:13:24
2	Fe 238.204 Radial†	16.8	-0.1	-0.4573	µg/L	-0.4573	ppb	21:13:24
2	K 766.490 Radial†	217.9	49.0	32.018	µg/L	32.018	ppb	21:13:03
2	Mg 279.077 IEC†	13.2	0.1	1.1462	µg/L	1.1462	ppb	21:13:24
2	Na 589.592 Radial†	531.4	49.6	15.230	µg/L	15.230	ppb	21:13:03
2	Sr 421.552†	44.8	15.2	0.1403	µg/L	0.1403	ppb	21:13:03
2	Sc 361.383	2034376.0	2034376.0	103.63	%			21:14:32
2	Y 371.029	1406950.8	1406950.8	104.01	%			21:14:32
2	Ag 328.068†	-398.7	16.9	0.1249	µg/L	0.1249	ppb	21:14:37
2	As 188.979†	3.7	4.1	7.2905	µg/L	7.2905	ppb	21:14:58
2	B 249.677†	367.6	-29.4	-1.1995	µg/L	-1.1995	ppb	21:14:58
2	Ba 233.527†	-11.7	5.8	0.1382	µg/L	0.1382	ppb	21:14:58
2	Be 313.107†	-2725.4	225.8	0.1339	µg/L	0.1339	ppb	21:14:37
2	Cd 226.502†	-127.6	18.5	0.4618	µg/L	0.4618	ppb	21:14:58
2	Co 228.616†	1.0	-1.0	-0.0440	µg/L	-0.0440	ppb	21:14:58
2	Cr 267.716†	-41.5	10.4	0.2082	µg/L	0.2082	ppb	21:14:37
2	Cu 324.752†	2590.3	-44.1	-0.2880	µg/L	-0.2880	ppb	21:14:37
2	Mn 257.610†	-252.5	12.4	0.0387	µg/L	0.0387	ppb	21:14:58
2	Mo 202.031†	-1.6	3.8	0.3741	µg/L	0.3741	ppb	21:14:58
2	Ni 231.604†	312.0	-11.3	-0.5640	µg/L	-0.5640	ppb	21:14:58
2	P 214.914†	12.2	-3.6	-7.0402	µg/L	-7.0402	ppb	21:14:58
2	Pb 220.353†	83.5	-10.4	-2.5295	µg/L	-2.5295	ppb	21:14:58

2	S 181.975 Axial†	19.3	-0.3	-1.1792 µg/L	-1.1792 ppb	21:14:58
2	Sb 206.836†	27.7	4.2	3.8619 µg/L	3.8619 ppb	21:14:58
2	Se 196.026†	19.1	-0.8	-1.1798 µg/L	-1.1798 ppb	21:14:58
2	SiO2†	1460.9	18.1	3.5783 µg/L	3.5783 ppb	21:14:37
2	Si 251.611†	357.2	34.1	2.5907 µg/L	2.5907 ppb	21:14:58
2	Sn 189.927†	1.7	1.3	0.5463 µg/L	0.5463 ppb	21:14:58
2	Ti 334.940†	290.1	104.9	0.2318 µg/L	0.2318 ppb	21:14:37
2	Tl 190.801†	-21.1	2.0	2.6077 µg/L	2.6077 ppb	21:14:58
2	U 409.014†	-69.8	9.7	0.8107 µg/L	0.8107 ppb	21:14:37
2	V 292.402†	-49.8	-3.3	-0.0276 µg/L	-0.0276 ppb	21:14:37
2	Zn 213.857†	547.2	-6.4	-0.1467 µg/L	-0.1467 ppb	21:14:58
3	Sc RADIAL	57754.3	57754.3	102 %		21:13:29
3	Al 396.153Radial†	-7.4	-14.6	-10.181 µg/L	-10.181 ppb	21:13:29
3	Ca 317.933Radial†	198.7	-16.9	-14.434 µg/L	-14.434 ppb	21:13:50
3	Fe 238.204 Radial†	15.1	-1.8	-14.173 µg/L	-14.173 ppb	21:13:50
3	K 766.490 Radial†	210.2	40.6	26.521 µg/L	26.521 ppb	21:13:29
3	Mg 279.077 IEC†	12.2	-0.9	-7.7282 µg/L	-7.7282 ppb	21:13:50
3	Na 589.592 Radial†	514.7	31.3	9.6113 µg/L	9.6113 ppb	21:13:29
3	Sr 421.552†	36.6	7.0	0.0646 µg/L	0.0646 ppb	21:13:29
3	Sc 361.383	2036784.5	2036784.5	103.75 %		21:15:04
3	Y 371.029	1408626.3	1408626.3	104.13 %		21:15:04
3	Ag 328.068†	-389.3	26.4	0.1980 µg/L	0.1980 ppb	21:15:10
3	As 188.979†	1.3	1.8	3.1417 µg/L	3.1417 ppb	21:15:30
3	B 249.677†	362.6	-34.7	-1.4060 µg/L	-1.4060 ppb	21:15:30
3	Ba 233.527†	-7.2	10.1	0.2434 µg/L	0.2434 ppb	21:15:30
3	Be 313.107†	-2768.8	187.1	0.1110 µg/L	0.1110 ppb	21:15:10
3	Cd 226.502†	-144.7	2.2	0.0556 µg/L	0.0556 ppb	21:15:30
3	Co 228.616†	-8.3	-9.9	-0.4480 µg/L	-0.4480 ppb	21:15:30
3	Cr 267.716†	-54.9	-2.5	-0.0503 µg/L	-0.0503 ppb	21:15:10
3	Cu 324.752†	2622.8	-15.8	-0.1051 µg/L	-0.1051 ppb	21:15:10
3	Mn 257.610†	-264.4	1.2	0.0020 µg/L	0.0020 ppb	21:15:30
3	Mo 202.031†	-0.5	4.9	0.4803 µg/L	0.4803 ppb	21:15:30
3	Ni 231.604†	316.5	-7.3	-0.3620 µg/L	-0.3620 ppb	21:15:30
3	P 214.914†	15.2	-0.7	-1.2959 µg/L	-1.2959 ppb	21:15:30
3	Pb 220.353†	89.8	-4.4	-1.0668 µg/L	-1.0668 ppb	21:15:30
3	S 181.975 Axial†	20.3	0.6	2.6598 µg/L	2.6598 ppb	21:15:30
3	Sb 206.836†	20.9	-2.4	-2.1959 µg/L	-2.1959 ppb	21:15:30
3	Se 196.026†	19.2	-0.8	-1.1695 µg/L	-1.1695 ppb	21:15:30
3	SiO2†	1478.1	33.0	6.5234 µg/L	6.5234 ppb	21:15:10
3	Si 251.611†	346.7	23.5	1.7856 µg/L	1.7856 ppb	21:15:30
3	Sn 189.927†	2.2	1.7	0.7297 µg/L	0.7297 ppb	21:15:30
3	Ti 334.940†	181.9	0.3	0.0010 µg/L	0.0010 ppb	21:15:10
3	Tl 190.801†	-25.3	-2.0	-2.6178 µg/L	-2.6178 ppb	21:15:30
3	U 409.014†	-25.5	52.5	4.3661 µg/L	4.3661 ppb	21:15:10
3	V 292.402†	9.1	53.5	0.5276 µg/L	0.5276 ppb	21:15:10
3	Zn 213.857†	536.2	-17.6	-0.4107 µg/L	-0.4107 ppb	21:15:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031944.3	103.51	%	0.327				0.32%
Sc RADIAL	57645.2	102	%	0.2				0.19%
Y 371.029	1405336.4	103.89	%	0.320				0.31%
Ag 328.068†	14.8	0.1113	µg/L	0.09420	0.1113	ppb	0.09420	84.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.6	-7.4128	µg/L	9.41994	-7.4128	ppb	9.41994	127.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.3232	µg/L	3.87965	3.3232	ppb	3.87965	116.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-27.0	-1.0981	µg/L	0.36915	-1.0981	ppb	0.36915	33.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.1646	µg/L	0.06947	0.1646	ppb	0.06947	42.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	192.6	0.1142	µg/L	0.01827	0.1142	ppb	0.01827	15.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-14.8	-12.608	µg/L	2.3832	-12.608	ppb	2.3832	18.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.3	0.2582	µg/L	0.20309	0.2582	ppb	0.20309	78.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.9	-0.0861	µg/L	0.34278	-0.0861	ppb	0.34278	398.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.9     -0.0578 µg/L       0.26977     -0.0578 ppb        0.26977 467.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -18.1     -0.1187 µg/L       0.16294     -0.1187 ppb        0.16294 137.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -6.2921 µg/L       7.08315     -6.2921 ppb        7.08315 112.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        53.1      34.699 µg/L        9.7985      34.699 ppb         9.7985  28.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -14.328 µg/L       19.6256     -14.328 ppb        19.6256 136.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               6.0      0.0185 µg/L       0.01862      0.0185 ppb        0.01862 100.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.8      0.4662 µg/L       0.08595      0.4662 ppb        0.08595  18.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       36.8      11.313 µg/L        3.4017      11.313 ppb         3.4017  30.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.2     -0.4108 µg/L       0.13551     -0.4108 ppb        0.13551  32.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.8      1.7128 µg/L      10.58316      1.7128 ppb       10.58316 617.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.7     -1.6199 µg/L       0.79389     -1.6199 ppb        0.79389  49.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -6.4120 µg/L      12.53600     -6.4120 ppb       12.53600 195.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.6      2.3933 µg/L       4.05930      2.3933 ppb        4.05930 169.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.2     -1.6333 µg/L       0.79453     -1.6333 ppb        0.79453  48.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    23.0      4.5433 µg/L       1.71504      4.5433 ppb        1.71504  37.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              26.9      2.0444 µg/L       0.47330      2.0444 ppb        0.47330  23.15%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.1      1.3071 µg/L       1.16248      1.3071 ppb        1.16248  88.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              13.5      0.1246 µg/L       0.05381      0.1246 ppb        0.05381  43.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              61.0      0.1359 µg/L       0.12021      0.1359 ppb        0.12021  88.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.0      0.0665 µg/L       2.61569      0.0665 ppb        2.61569 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               50.9      4.2288 µg/L       3.35151      4.2288 ppb        3.35151  79.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               30.5      0.3039 µg/L       0.29290      0.3039 ppb        0.29290  96.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -9.0     -0.2072 µg/L       0.18103     -0.2072 ppb        0.18103  87.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 21:52:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58294.3	58294.3	103	%			21:52:41
1	Al 396.153Radial†	7182.0	6953.0	4826.2	µg/L	4826.2	ppb	21:52:41
1	Ca 317.933Radial†	6144.9	5744.1	4906.5	µg/L	4906.5	ppb	21:53:01
1	Fe 238.204 Radial†	674.3	636.9	5034.3	µg/L	5034.3	ppb	21:53:01
1	K 766.490 Radial†	7708.3	7305.5	4771.3	µg/L	4771.3	ppb	21:52:41
1	Mg 279.077 IEC†	585.5	554.7	4961.5	µg/L	4961.5	ppb	21:53:01
1	Na 589.592 Radial†	33172.0	31676.2	9729.1	µg/L	9729.1	ppb	21:52:41
1	Sr 421.552†	53074.5	51408.1	474.25	µg/L	474.25	ppb	21:52:41
1	Sc 361.383	2038801.4	2038801.4	103.86	%			21:54:04
1	Y 371.029	1405502.7	1405502.7	103.90	%			21:54:04
1	Ag 328.068†	68855.2	66700.9	497.72	µg/L	497.72	ppb	21:54:10
1	As 188.979†	301.6	290.9	520.35	µg/L	520.35	ppb	21:54:30
1	B 249.677†	12936.2	12071.9	490.21	µg/L	490.21	ppb	21:54:10
1	Ba 233.527†	21777.9	20986.5	504.73	µg/L	504.73	ppb	21:54:10
1	Be 313.107†	877883.1	848151.2	503.19	µg/L	503.19	ppb	21:54:04
1	Cd 226.502†	21105.9	20464.1	510.33	µg/L	510.33	ppb	21:54:10
1	Co 228.616†	11658.9	11224.2	507.74	µg/L	507.74	ppb	21:54:10
1	Cr 267.716†	26274.1	25349.1	509.46	µg/L	509.46	ppb	21:54:10
1	Cu 324.752†	81876.3	76293.3	498.70	µg/L	498.70	ppb	21:54:10
1	Mn 257.610†	169788.5	163741.9	513.23	µg/L	513.23	ppb	21:54:04
1	Mo 202.031†	5498.7	5299.9	519.19	µg/L	519.19	ppb	21:54:30
1	Ni 231.604†	10915.6	10198.1	507.83	µg/L	507.83	ppb	21:54:10
1	P 214.914†	1366.5	1300.5	2527.2	µg/L	2527.2	ppb	21:54:30
1	Pb 220.353†	2295.3	2119.1	515.34	µg/L	515.34	ppb	21:54:30
1	S 181.975 Axial†	270.9	241.9	1003.1	µg/L	1003.1	ppb	21:54:30
1	Sb 206.836†	593.9	549.4	506.62	µg/L	506.62	ppb	21:54:30
1	Se 196.026†	409.1	374.6	534.08	µg/L	534.08	ppb	21:54:30
1	SiO2†	29747.3	27251.5	5379.1	µg/L	5379.1	ppb	21:54:10
1	Si 251.611†	34761.7	33160.6	2520.9	µg/L	2520.9	ppb	21:54:10
1	Sn 189.927†	1289.3	1241.1	523.40	µg/L	523.40	ppb	21:54:30
1	Ti 334.940†	235226.3	226319.5	500.36	µg/L	500.36	ppb	21:54:04
1	Tl 190.801†	380.7	389.0	511.20	µg/L	511.20	ppb	21:54:30
1	U 409.014†	6210.9	6057.5	502.28	µg/L	502.28	ppb	21:54:10
1	V 292.402†	53474.0	51533.7	508.50	µg/L	508.50	ppb	21:54:10
1	Zn 213.857†	23135.3	21742.1	506.54	µg/L	506.54	ppb	21:54:10
2	Sc RADIAL	58681.1	58681.1	104	%			21:53:06
2	Al 396.153Radial†	7270.0	6991.8	4853.5	µg/L	4853.5	ppb	21:53:06
2	Ca 317.933Radial†	6085.0	5647.1	4823.6	µg/L	4823.6	ppb	21:53:27
2	Fe 238.204 Radial†	670.2	628.7	4969.3	µg/L	4969.3	ppb	21:53:27
2	K 766.490 Radial†	7805.0	7349.3	4800.0	µg/L	4800.0	ppb	21:53:06
2	Mg 279.077 IEC†	586.2	551.6	4933.9	µg/L	4933.9	ppb	21:53:27
2	Na 589.592 Radial†	33396.3	31680.3	9730.4	µg/L	9730.4	ppb	21:53:06
2	Sr 421.552†	53644.8	51618.1	476.18	µg/L	476.18	ppb	21:53:06
2	Sc 361.383	2035611.6	2035611.6	103.69	%			21:54:38
2	Y 371.029	1402256.7	1402256.7	103.66	%			21:54:38
2	Ag 328.068†	68542.9	66503.5	496.25	µg/L	496.25	ppb	21:54:43
2	As 188.979†	295.1	285.0	509.86	µg/L	509.86	ppb	21:55:04
2	B 249.677†	12897.2	12053.8	489.51	µg/L	489.51	ppb	21:54:43
2	Ba 233.527†	21658.8	20904.6	502.76	µg/L	502.76	ppb	21:54:43
2	Be 313.107†	876936.1	848562.5	503.44	µg/L	503.44	ppb	21:54:38
2	Cd 226.502†	20999.3	20393.1	508.57	µg/L	508.57	ppb	21:54:43
2	Co 228.616†	11591.9	11177.2	505.60	µg/L	505.60	ppb	21:54:43
2	Cr 267.716†	26197.4	25314.8	508.77	µg/L	508.77	ppb	21:54:43
2	Cu 324.752†	81474.1	76028.9	496.97	µg/L	496.97	ppb	21:54:43
2	Mn 257.610†	169436.5	163658.6	512.96	µg/L	512.96	ppb	21:54:38
2	Mo 202.031†	5362.1	5176.5	507.10	µg/L	507.10	ppb	21:55:04
2	Ni 231.604†	10886.7	10186.7	507.26	µg/L	507.26	ppb	21:54:43
2	P 214.914†	1342.5	1279.3	2485.4	µg/L	2485.4	ppb	21:55:04
2	Pb 220.353†	2248.7	2077.6	505.24	µg/L	505.24	ppb	21:55:04

2	S 181.975 Axial†	273.9	245.2	1016.8 µg/L	1016.8 ppb	21:55:04
2	Sb 206.836†	581.9	538.7	496.67 µg/L	496.67 ppb	21:55:04
2	Se 196.026†	397.7	364.2	519.29 µg/L	519.29 ppb	21:55:04
2	SiO2†	29634.0	27187.2	5366.4 µg/L	5366.4 ppb	21:54:43
2	Si 251.611†	34631.9	33087.9	2515.4 µg/L	2515.4 ppb	21:54:43
2	Sn 189.927†	1251.2	1206.2	508.72 µg/L	508.72 ppb	21:55:04
2	Ti 334.940†	234968.5	226425.8	500.59 µg/L	500.59 ppb	21:54:38
2	Tl 190.801†	379.2	388.0	510.01 µg/L	510.01 ppb	21:55:04
2	U 409.014†	6096.3	5956.3	493.89 µg/L	493.89 ppb	21:54:43
2	V 292.402†	53226.6	51375.9	506.85 µg/L	506.85 ppb	21:54:43
2	Zn 213.857†	23007.5	21653.8	504.47 µg/L	504.47 ppb	21:54:43
3	Sc RADIAL	57886.6	57886.6	102 %		21:53:32
3	Al 396.153Radial†	7257.6	7075.9	4913.9 µg/L	4913.9 ppb	21:53:32
3	Ca 317.933Radial†	6157.6	5798.4	4952.8 µg/L	4952.8 ppb	21:53:53
3	Fe 238.204 Radial†	675.4	642.6	5077.7 µg/L	5077.7 ppb	21:53:53
3	K 766.490 Radial†	7760.4	7409.0	4838.9 µg/L	4838.9 ppb	21:53:32
3	Mg 279.077 IEC†	588.1	561.1	5017.3 µg/L	5017.3 ppb	21:53:53
3	Na 589.592 Radial†	33284.0	32012.0	9832.3 µg/L	9832.3 ppb	21:53:32
3	Sr 421.552†	53489.2	52175.1	481.32 µg/L	481.32 ppb	21:53:32
3	Sc 361.383	2029490.9	2029490.9	103.38 %		21:55:11
3	Y 371.029	1398933.7	1398933.7	103.41 %		21:55:11
3	Ag 328.068†	63112.5	61450.2	458.38 µg/L	458.38 ppb	21:55:16
3	As 188.979†	245.3	237.8	425.38 µg/L	425.38 ppb	21:55:37
3	B 249.677†	11837.4	11066.1	449.07 µg/L	449.07 ppb	21:55:16
3	Ba 233.527†	19154.5	18545.2	446.00 µg/L	446.00 ppb	21:55:16
3	Be 313.107†	788293.6	765369.5	454.08 µg/L	454.08 ppb	21:55:11
3	Cd 226.502†	18488.3	18025.4	449.44 µg/L	449.44 ppb	21:55:16
3	Co 228.616†	10118.0	9785.2	442.59 µg/L	442.59 ppb	21:55:16
3	Cr 267.716†	22060.3	21389.3	429.88 µg/L	429.88 ppb	21:55:16
3	Cu 324.752†	71764.5	66873.8	437.22 µg/L	437.22 ppb	21:55:16
3	Mn 257.610†	153169.4	148416.2	465.24 µg/L	465.24 ppb	21:55:11
3	Mo 202.031†	4341.5	4204.8	411.96 µg/L	411.96 ppb	21:55:37
3	Ni 231.604†	9550.0	8925.4	444.46 µg/L	444.46 ppb	21:55:16
3	P 214.914†	1104.5	1053.0	2042.0 µg/L	2042.0 ppb	21:55:37
3	Pb 220.353†	1894.1	1741.3	423.37 µg/L	423.37 ppb	21:55:37
3	S 181.975 Axial†	230.7	204.2	846.98 µg/L	846.98 ppb	21:55:37
3	Sb 206.836†	492.3	453.7	417.96 µg/L	417.96 ppb	21:55:37
3	Se 196.026†	339.0	308.6	441.39 µg/L	441.39 ppb	21:55:37
3	SiO2†	26881.8	24611.1	4857.9 µg/L	4857.9 ppb	21:55:16
3	Si 251.611†	31176.8	29846.6	2269.0 µg/L	2269.0 ppb	21:55:16
3	Sn 189.927†	996.0	963.1	406.17 µg/L	406.17 ppb	21:55:37
3	Ti 334.940†	209447.8	202423.1	447.49 µg/L	447.49 ppb	21:55:11
3	Tl 190.801†	327.8	339.5	446.42 µg/L	446.42 ppb	21:55:37
3	U 409.014†	5220.1	5126.5	424.93 µg/L	424.93 ppb	21:55:16
3	V 292.402†	46012.1	44552.1	439.38 µg/L	439.38 ppb	21:55:16
3	Zn 213.857†	20191.8	18997.1	442.51 µg/L	442.51 ppb	21:55:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2034634.6	103.64	%	0.241				0.23%
Sc RADIAL	58287.3	103	%	0.7				0.68%
Y 371.029	1402231.0	103.66	%	0.243				0.23%
Ag 328.068†	64884.9	484.12	µg/L	22.300	484.12	ppb	22.300	4.61%
QC value within limits for Ag 328.068 Recovery = 96.82%								
Al 396.153Radial†	7006.9	4864.5	µg/L	44.88	4864.5	ppb	44.88	0.92%
QC value within limits for Al 396.153Radial Recovery = 97.29%								
As 188.979†	271.2	485.20	µg/L	52.069	485.20	ppb	52.069	10.73%
QC value within limits for As 188.979 Recovery = 97.04%								
B 249.677†	11730.6	476.26	µg/L	23.552	476.26	ppb	23.552	4.95%
QC value within limits for B 249.677 Recovery = 95.25%								
Ba 233.527†	20145.4	484.50	µg/L	33.355	484.50	ppb	33.355	6.88%
QC value within limits for Ba 233.527 Recovery = 96.90%								
Be 313.107†	820694.4	486.90	µg/L	28.425	486.90	ppb	28.425	5.84%
QC value within limits for Be 313.107 Recovery = 97.38%								
Ca 317.933Radial†	5729.8	4894.3	µg/L	65.45	4894.3	ppb	65.45	1.34%
QC value within limits for Ca 317.933Radial Recovery = 97.89%								
Cd 226.502†	19627.6	489.45	µg/L	34.658	489.45	ppb	34.658	7.08%
QC value within limits for Cd 226.502 Recovery = 97.89%								
Co 228.616†	10728.9	485.31	µg/L	37.015	485.31	ppb	37.015	7.63%

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   QC value within limits for Co 228.616  Recovery = 97.06%
Cr 267.716†            24017.7      482.70 µg/L        45.746      482.70 ppb         45.746   9.48%
   QC value within limits for Cr 267.716  Recovery = 96.54%
Cu 324.752†            73065.3      477.63 µg/L        35.005      477.63 ppb         35.005   7.33%
   QC value within limits for Cu 324.752  Recovery = 95.53%
Fe 238.204 Radial†       636.1      5027.1 µg/L         54.54      5027.1 ppb          54.54   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.54%
K 766.490 Radial†       7354.6      4803.4 µg/L         33.93      4803.4 ppb          33.93   0.71%
   QC value within limits for K 766.490 Radial  Recovery = 96.07%
Mg 279.077 IEC†          555.8      4970.9 µg/L         42.48      4970.9 ppb          42.48   0.85%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.42%
Mn 257.610†           158605.5      497.15 µg/L        27.629      497.15 ppb         27.629   5.56%
   QC value within limits for Mn 257.610  Recovery = 99.43%
Mo 202.031†             4893.7      479.42 µg/L        58.734      479.42 ppb         58.734  12.25%
   QC value within limits for Mo 202.031  Recovery = 95.88%
Na 589.592 Radial†     31789.5      9763.9 µg/L         59.18      9763.9 ppb          59.18   0.61%
   QC value within limits for Na 589.592 Radial  Recovery = 97.64%
Ni 231.604†             9770.1      486.52 µg/L        36.423      486.52 ppb         36.423   7.49%
   QC value within limits for Ni 231.604  Recovery = 97.30%
P 214.914†              1210.9      2351.5 µg/L        268.87      2351.5 ppb         268.87  11.43%
   QC value within limits for P 214.914  Recovery = 94.06%
Pb 220.353†             1979.3      481.31 µg/L        50.440      481.31 ppb         50.440  10.48%
   QC value within limits for Pb 220.353  Recovery = 96.26%
S 181.975 Axial†         230.4      955.62 µg/L        94.337      955.62 ppb         94.337   9.87%
   QC value within limits for S 181.975 Axial  Recovery = 95.56%
Sb 206.836†              513.9      473.75 µg/L        48.569      473.75 ppb         48.569  10.25%
   QC value within limits for Sb 206.836  Recovery = 94.75%
Se 196.026†              349.1      498.25 µg/L        49.795      498.25 ppb         49.795   9.99%
   QC value within limits for Se 196.026  Recovery = 99.65%
SiO2†                  26349.9      5201.1 µg/L        297.31      5201.1 ppb         297.31   5.72%
   QC value within limits for SiO2  Recovery = 97.26%
Si 251.611†            32031.7      2435.1 µg/L        143.89      2435.1 ppb         143.89   5.91%
   QC value within limits for Si 251.611  Recovery = 97.40%
Sn 189.927†             1136.8      479.43 µg/L        63.868      479.43 ppb         63.868  13.32%
   QC value within limits for Sn 189.927  Recovery = 95.89%
Sr 421.552†            51733.8      477.25 µg/L         3.657      477.25 ppb          3.657   0.77%
   QC value within limits for Sr 421.552  Recovery = 95.45%
Ti 334.940†           218389.5      482.81 µg/L        30.592      482.81 ppb         30.592   6.34%
   QC value within limits for Ti 334.940  Recovery = 96.56%
Tl 190.801†              372.2      489.21 µg/L        37.063      489.21 ppb         37.063   7.58%
   QC value within limits for Tl 190.801  Recovery = 97.84%
U 409.014†              5713.4      473.70 µg/L        42.447      473.70 ppb         42.447   8.96%
   QC value within limits for U 409.014  Recovery = 94.74%
V 292.402†             49153.9      484.91 µg/L        39.441      484.91 ppb         39.441   8.13%
   QC value within limits for V 292.402  Recovery = 96.98%
Zn 213.857†            20797.7      484.50 µg/L        36.387      484.50 ppb         36.387   7.51%
   QC value within limits for Zn 213.857  Recovery = 96.90%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 21:55:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56008.4	56008.4	99.1	%			21:56:19
1	Al 396.153Radial†	-22.0	-29.6	-20.580	µg/L	-20.580	ppb	21:56:19
1	Ca 317.933Radial†	199.9	-9.6	-8.2382	µg/L	-8.2382	ppb	21:56:40
1	Fe 238.204 Radial†	17.9	1.5	11.526	µg/L	11.526	ppb	21:56:40
1	K 766.490 Radial†	220.6	57.6	37.606	µg/L	37.606	ppb	21:56:19
1	Mg 279.077 IEC†	11.6	-1.1	-9.8037	µg/L	-9.8037	ppb	21:56:40
1	Na 589.592 Radial†	493.3	25.4	7.7861	µg/L	7.7861	ppb	21:56:19
1	Sr 421.552†	76.4	48.2	0.4449	µg/L	0.4449	ppb	21:56:19
1	Sc 361.383	2005725.5	2005725.5	102.17	%			21:57:41
1	Y 371.029	1388119.7	1388119.7	102.61	%			21:57:41
1	Ag 328.068†	-414.5	-4.1	-0.0292	µg/L	-0.0292	ppb	21:57:47
1	As 188.979†	-0.2	0.2	0.3889	µg/L	0.3889	ppb	21:58:07
1	B 249.677†	373.9	-18.2	-0.7465	µg/L	-0.7465	ppb	21:58:07
1	Ba 233.527†	-14.8	2.6	0.0623	µg/L	0.0623	ppb	21:58:07
1	Be 313.107†	-2754.8	159.4	0.0946	µg/L	0.0946	ppb	21:57:47
1	Cd 226.502†	-146.2	-1.4	-0.0360	µg/L	-0.0360	ppb	21:58:07
1	Co 228.616†	0.9	-1.0	-0.0474	µg/L	-0.0474	ppb	21:58:07
1	Cr 267.716†	-37.0	14.2	0.2854	µg/L	0.2854	ppb	21:57:47
1	Cu 324.752†	2573.5	-24.9	-0.1610	µg/L	-0.1610	ppb	21:57:47
1	Mn 257.610†	-199.9	60.3	0.1908	µg/L	0.1908	ppb	21:58:07
1	Mo 202.031†	0.2	5.5	0.5418	µg/L	0.5418	ppb	21:58:07
1	Ni 231.604†	310.8	-8.1	-0.4047	µg/L	-0.4047	ppb	21:58:07
1	P 214.914†	12.5	-3.1	-6.0711	µg/L	-6.0711	ppb	21:58:07
1	Pb 220.353†	85.5	-7.3	-1.7723	µg/L	-1.7723	ppb	21:58:07
1	S 181.975 Axial†	18.2	-1.2	-4.7784	µg/L	-4.7784	ppb	21:58:07
1	Sb 206.836†	26.7	3.7	3.3830	µg/L	3.3830	ppb	21:58:07
1	Se 196.026†	14.0	-5.6	-7.7903	µg/L	-7.7903	ppb	21:58:07
1	SiO2†	1480.0	57.0	11.258	µg/L	11.258	ppb	21:57:47
1	Si 251.611†	360.8	42.5	3.2304	µg/L	3.2304	ppb	21:58:07
1	Sn 189.927†	5.1	4.6	1.9521	µg/L	1.9521	ppb	21:58:07
1	Ti 334.940†	260.5	80.0	0.1775	µg/L	0.1775	ppb	21:57:47
1	Tl 190.801†	-26.0	-3.1	-4.0069	µg/L	-4.0069	ppb	21:58:07
1	U 409.014†	-86.5	-7.5	-0.6279	µg/L	-0.6279	ppb	21:57:47
1	V 292.402†	-37.7	7.9	0.0821	µg/L	0.0821	ppb	21:57:47
1	Zn 213.857†	552.4	6.2	0.1486	µg/L	0.1486	ppb	21:58:07
2	Sc RADIAL	57173.7	57173.7	101	%			21:56:45
2	Al 396.153Radial†	-31.7	-38.7	-26.934	µg/L	-26.934	ppb	21:56:45
2	Ca 317.933Radial†	191.8	-21.7	-18.545	µg/L	-18.545	ppb	21:57:05
2	Fe 238.204 Radial†	17.2	0.4	3.3000	µg/L	3.3000	ppb	21:57:05
2	K 766.490 Radial†	225.8	58.1	37.968	µg/L	37.968	ppb	21:56:45
2	Mg 279.077 IEC†	9.7	-3.2	-28.801	µg/L	-28.801	ppb	21:57:05
2	Na 589.592 Radial†	447.5	-30.0	-9.2124	µg/L	-9.2124	ppb	21:56:45
2	Sr 421.552†	50.5	21.1	0.1949	µg/L	0.1949	ppb	21:56:45
2	Sc 361.383	2026912.1	2026912.1	103.25	%			21:58:13
2	Y 371.029	1401779.3	1401779.3	103.62	%			21:58:13
2	Ag 328.068†	-380.0	33.5	0.2477	µg/L	0.2477	ppb	21:58:19
2	As 188.979†	-0.5	-0.1	-0.1267	µg/L	-0.1267	ppb	21:58:39
2	B 249.677†	375.7	-20.3	-0.8273	µg/L	-0.8273	ppb	21:58:39
2	Ba 233.527†	-18.4	-0.7	-0.0176	µg/L	-0.0176	ppb	21:58:39
2	Be 313.107†	-2695.7	244.9	0.1452	µg/L	0.1452	ppb	21:58:19
2	Cd 226.502†	-138.0	8.1	0.2002	µg/L	0.2002	ppb	21:58:39
2	Co 228.616†	2.7	0.7	0.0322	µg/L	0.0322	ppb	21:58:39
2	Cr 267.716†	-33.8	17.6	0.3538	µg/L	0.3538	ppb	21:58:19
2	Cu 324.752†	2615.0	-11.1	-0.0717	µg/L	-0.0717	ppb	21:58:19
2	Mn 257.610†	-217.0	45.8	0.1451	µg/L	0.1451	ppb	21:58:39
2	Mo 202.031†	-0.5	4.9	0.4797	µg/L	0.4797	ppb	21:58:39
2	Ni 231.604†	315.6	-6.7	-0.3341	µg/L	-0.3341	ppb	21:58:39
2	P 214.914†	6.6	-9.0	-17.706	µg/L	-17.706	ppb	21:58:39
2	Pb 220.353†	96.0	2.0	0.4801	µg/L	0.4801	ppb	21:58:39

2	S 181.975 Axial†	17.3	-2.2	-9.1795 µg/L	-9.1795 ppb	21:58:39
2	Sb 206.836†	20.9	-2.3	-2.0746 µg/L	-2.0746 ppb	21:58:39
2	Se 196.026†	11.9	-7.8	-10.865 µg/L	-10.865 ppb	21:58:39
2	SiO2†	1472.8	34.8	6.8766 µg/L	6.8766 ppb	21:58:19
2	Si 251.611†	396.0	72.9	5.5446 µg/L	5.5446 ppb	21:58:39
2	Sn 189.927†	5.5	5.0	2.0997 µg/L	2.0997 ppb	21:58:39
2	Ti 334.940†	289.3	105.2	0.2346 µg/L	0.2346 ppb	21:58:19
2	Tl 190.801†	-22.0	1.1	1.4215 µg/L	1.4215 ppb	21:58:39
2	U 409.014†	-13.9	63.6	5.2886 µg/L	5.2886 ppb	21:58:19
2	V 292.402†	-61.5	-14.8	-0.1337 µg/L	-0.1337 ppb	21:58:19
2	Zn 213.857†	550.0	-1.7	-0.0370 µg/L	-0.0370 ppb	21:58:39
3	Sc RADIAL	56372.6	56372.6	99.8 %		21:57:11
3	Al 396.153Radial†	-29.3	-36.7	-25.549 µg/L	-25.549 ppb	21:57:11
3	Ca 317.933Radial†	191.2	-19.7	-16.825 µg/L	-16.825 ppb	21:57:31
3	Fe 238.204 Radial†	16.1	-0.4	-3.3964 µg/L	-3.3964 ppb	21:57:31
3	K 766.490 Radial†	211.8	47.3	30.861 µg/L	30.861 ppb	21:57:11
3	Mg 279.077 IEC†	13.6	0.8	7.2890 µg/L	7.2890 ppb	21:57:31
3	Na 589.592 Radial†	501.0	29.9	9.1712 µg/L	9.1712 ppb	21:57:11
3	Sr 421.552†	52.9	24.2	0.2232 µg/L	0.2232 ppb	21:57:11
3	Sc 361.383	2000712.7	2000712.7	101.91 %		21:58:46
3	Y 371.029	1384703.1	1384703.1	102.36 %		21:58:46
3	Ag 328.068†	-421.1	-11.6	-0.0829 µg/L	-0.0829 ppb	21:58:51
3	As 188.979†	1.5	1.9	3.3848 µg/L	3.3848 ppb	21:59:12
3	B 249.677†	368.1	-22.9	-0.9332 µg/L	-0.9332 ppb	21:59:12
3	Ba 233.527†	-8.4	8.8	0.2121 µg/L	0.2121 ppb	21:59:12
3	Be 313.107†	-2743.0	164.2	0.0974 µg/L	0.0974 ppb	21:58:51
3	Cd 226.502†	-139.1	5.2	0.1301 µg/L	0.1301 ppb	21:59:12
3	Co 228.616†	11.1	9.0	0.4061 µg/L	0.4061 ppb	21:59:12
3	Cr 267.716†	-57.8	-6.4	-0.1274 µg/L	-0.1274 ppb	21:58:51
3	Cu 324.752†	2614.2	21.4	0.1392 µg/L	0.1392 ppb	21:58:51
3	Mn 257.610†	-214.3	45.7	0.1425 µg/L	0.1425 ppb	21:59:12
3	Mo 202.031†	-1.4	4.0	0.3871 µg/L	0.3871 ppb	21:59:12
3	Ni 231.604†	307.7	-10.4	-0.5197 µg/L	-0.5197 ppb	21:59:12
3	P 214.914†	8.3	-7.2	-14.189 µg/L	-14.189 ppb	21:59:12
3	Pb 220.353†	80.5	-12.0	-2.9118 µg/L	-2.9118 ppb	21:59:12
3	S 181.975 Axial†	16.3	-2.9	-12.028 µg/L	-12.028 ppb	21:59:12
3	Sb 206.836†	20.6	-2.3	-2.1004 µg/L	-2.1004 ppb	21:59:12
3	Se 196.026†	16.0	-3.6	-5.0557 µg/L	-5.0557 ppb	21:59:12
3	SiO2†	1465.4	46.3	9.1427 µg/L	9.1427 ppb	21:58:51
3	Si 251.611†	387.9	70.0	5.3210 µg/L	5.3210 ppb	21:59:12
3	Sn 189.927†	6.0	5.5	2.3403 µg/L	2.3403 ppb	21:59:12
3	Ti 334.940†	247.3	67.7	0.1488 µg/L	0.1488 ppb	21:58:51
3	Tl 190.801†	-19.0	3.7	4.8315 µg/L	4.8315 ppb	21:59:12
3	U 409.014†	-77.0	1.6	0.1327 µg/L	0.1327 ppb	21:58:51
3	V 292.402†	6.4	51.0	0.4995 µg/L	0.4995 ppb	21:58:51
3	Zn 213.857†	535.6	-8.9	-0.2068 µg/L	-0.2068 ppb	21:59:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2011116.8	102.44	%	0.708				0.69%
Sc RADIAL	56518.2	100	%	1.1				1.05%
Y 371.029	1391534.0	102.87	%	0.668				0.65%
Ag 328.068†	5.9	0.0452	µg/L	0.17741	0.0452	ppb	0.17741	392.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-35.0	-24.355	µg/L	3.3414	-24.355	ppb	3.3414	13.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	1.2156	µg/L	1.89611	1.2156	ppb	1.89611	155.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.5	-0.8357	µg/L	0.09366	-0.8357	ppb	0.09366	11.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.6	0.0856	µg/L	0.11658	0.0856	ppb	0.11658	136.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.5	0.1124	µg/L	0.02848	0.1124	ppb	0.02848	25.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.0	-14.536	µg/L	5.5217	-14.536	ppb	5.5217	37.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.0	0.0981	µg/L	0.12132	0.0981	ppb	0.12132	123.63%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.9	0.1303	µg/L	0.24215	0.1303	ppb	0.24215	185.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.5      0.1706 µg/L       0.26030      0.1706 ppb        0.26030 152.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -4.9     -0.0312 µg/L       0.15414     -0.0312 ppb        0.15414 494.08%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      3.8100 µg/L       7.47451      3.8100 ppb        7.47451 196.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          54.3     35.478 µg/L        4.0031     35.478 ppb         4.0031  11.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2    -10.439 µg/L       18.0534    -10.439 ppb        18.0534 172.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.6      0.1594 µg/L       0.02719      0.1594 ppb        0.02719  17.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.8      0.4696 µg/L       0.07785      0.4696 ppb        0.07785  16.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          8.4      2.5817 µg/L      10.23739      2.5817 ppb       10.23739 396.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.4     -0.4195 µg/L       0.09366     -0.4195 ppb        0.09366  22.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.4    -12.655 µg/L        5.9671    -12.655 ppb         5.9671  47.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.8     -1.4013 µg/L       1.72611     -1.4013 ppb        1.72611 123.18%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -8.6621 µg/L       3.65257     -8.6621 ppb        3.65257  42.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.3     -0.2640 µg/L       3.15844     -0.2640 ppb        3.15844 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.6     -7.9035 µg/L       2.90606     -7.9035 ppb        2.90606  36.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      46.1      9.0923 µg/L       2.19093      9.0923 ppb        2.19093  24.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                61.8      4.6987 µg/L       1.27646      4.6987 ppb        1.27646  27.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.1      2.1307 µg/L       0.19595      2.1307 ppb        0.19595   9.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.2      0.2877 µg/L       0.13693      0.2877 ppb        0.13693  47.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.3      0.1870 µg/L       0.04366      0.1870 ppb        0.04366  23.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.6      0.7487 µg/L       4.45745      0.7487 ppb        4.45745 595.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 19.2      1.5978 µg/L       3.21889      1.5978 ppb        3.21889 201.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 14.7      0.1493 µg/L       0.32188      0.1493 ppb        0.32188 215.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -1.5     -0.0317 µg/L       0.17777     -0.0317 ppb        0.17777 560.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 22:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58682.4	58682.4	104	%			22:29:23
1	Al 396.153Radial†	7235.9	6958.9	4830.4	µg/L	4830.4	ppb	22:29:23
1	Ca 317.933Radial†	6077.6	5639.8	4817.4	µg/L	4817.4	ppb	22:29:43
1	Fe 238.204 Radial†	662.2	621.0	4908.0	µg/L	4908.0	ppb	22:29:43
1	K 766.490 Radial†	7780.1	7325.2	4784.2	µg/L	4784.2	ppb	22:29:23
1	Mg 279.077 IEC†	583.1	548.5	4906.8	µg/L	4906.8	ppb	22:29:43
1	Na 589.592 Radial†	33228.8	31518.4	9680.7	µg/L	9680.7	ppb	22:29:23
1	Sr 421.552†	53197.3	51186.2	472.20	µg/L	472.20	ppb	22:29:23
1	Sc 361.383	2035190.2	2035190.2	103.67	%			22:30:47
1	Y 371.029	1401651.0	1401651.0	103.61	%			22:30:47
1	Ag 328.068†	68081.1	66071.8	493.02	µg/L	493.02	ppb	22:30:52
1	As 188.979†	298.1	288.0	515.28	µg/L	515.28	ppb	22:31:13
1	B 249.677†	12768.6	11932.3	484.58	µg/L	484.58	ppb	22:30:52
1	Ba 233.527†	21458.8	20716.0	498.23	µg/L	498.23	ppb	22:30:52
1	Be 313.107†	860925.6	833294.1	494.38	µg/L	494.38	ppb	22:30:47
1	Cd 226.502†	20758.8	20165.3	502.89	µg/L	502.89	ppb	22:30:52
1	Co 228.616†	11490.7	11081.9	501.31	µg/L	501.31	ppb	22:30:52
1	Cr 267.716†	25945.3	25076.9	503.99	µg/L	503.99	ppb	22:30:52
1	Cu 324.752†	81109.4	75693.4	494.77	µg/L	494.77	ppb	22:30:52
1	Mn 257.610†	166674.7	161028.4	504.72	µg/L	504.72	ppb	22:30:47
1	Mo 202.031†	5452.5	5264.8	515.74	µg/L	515.74	ppb	22:31:13
1	Ni 231.604†	10771.6	10077.8	501.84	µg/L	501.84	ppb	22:30:52
1	P 214.914†	1361.8	1298.2	2523.1	µg/L	2523.1	ppb	22:31:13
1	Pb 220.353†	2268.4	2097.1	509.99	µg/L	509.99	ppb	22:31:13
1	S 181.975 Axial†	268.9	240.4	997.00	µg/L	997.00	ppb	22:31:13
1	Sb 206.836†	597.4	553.7	510.63	µg/L	510.63	ppb	22:31:13
1	Se 196.026†	391.9	358.7	511.47	µg/L	511.47	ppb	22:31:13
1	SiO2†	29507.1	27070.6	5343.4	µg/L	5343.4	ppb	22:30:52
1	Si 251.611†	34360.3	32832.9	2496.0	µg/L	2496.0	ppb	22:30:52
1	Sn 189.927†	1270.7	1225.3	516.77	µg/L	516.77	ppb	22:31:13
1	Ti 334.940†	231793.7	223410.4	493.92	µg/L	493.92	ppb	22:30:47
1	Tl 190.801†	377.5	386.5	507.97	µg/L	507.97	ppb	22:31:13
1	U 409.014†	6219.6	6076.5	503.89	µg/L	503.89	ppb	22:30:52
1	V 292.402†	52782.3	50957.9	502.84	µg/L	502.84	ppb	22:30:52
1	Zn 213.857†	22807.5	21465.4	500.08	µg/L	500.08	ppb	22:30:52
2	Sc RADIAL	58445.8	58445.8	103	%			22:29:48
2	Al 396.153Radial†	7285.7	7035.2	4883.8	µg/L	4883.8	ppb	22:29:48
2	Ca 317.933Radial†	6104.1	5689.2	4859.6	µg/L	4859.6	ppb	22:30:09
2	Fe 238.204 Radial†	671.9	632.9	5002.2	µg/L	5002.2	ppb	22:30:09
2	K 766.490 Radial†	7782.7	7358.0	4805.7	µg/L	4805.7	ppb	22:29:48
2	Mg 279.077 IEC†	586.2	553.8	4953.4	µg/L	4953.4	ppb	22:30:09
2	Na 589.592 Radial†	33236.1	31654.9	9722.6	µg/L	9722.6	ppb	22:29:48
2	Sr 421.552†	53434.9	51623.1	476.23	µg/L	476.23	ppb	22:29:48
2	Sc 361.383	2040505.4	2040505.4	103.94	%			22:31:20
2	Y 371.029	1405592.5	1405592.5	103.91	%			22:31:20
2	Ag 328.068†	67790.7	65621.3	489.67	µg/L	489.67	ppb	22:31:25
2	As 188.979†	293.5	282.9	506.01	µg/L	506.01	ppb	22:31:46
2	B 249.677†	12709.5	11843.4	480.90	µg/L	480.90	ppb	22:31:25
2	Ba 233.527†	21391.2	20597.0	495.37	µg/L	495.37	ppb	22:31:25
2	Be 313.107†	866523.4	836516.5	496.29	µg/L	496.29	ppb	22:31:20
2	Cd 226.502†	20685.6	20042.8	499.82	µg/L	499.82	ppb	22:31:25
2	Co 228.616†	11439.3	11003.5	497.74	µg/L	497.74	ppb	22:31:25
2	Cr 267.716†	25899.7	24967.8	501.80	µg/L	501.80	ppb	22:31:25
2	Cu 324.752†	80721.9	75116.8	491.02	µg/L	491.02	ppb	22:31:25
2	Mn 257.610†	167447.7	161353.3	505.75	µg/L	505.75	ppb	22:31:20
2	Mo 202.031†	5299.9	5104.2	500.03	µg/L	500.03	ppb	22:31:46
2	Ni 231.604†	10731.8	10012.5	498.59	µg/L	498.59	ppb	22:31:25
2	P 214.914†	1332.5	1266.7	2460.8	µg/L	2460.8	ppb	22:31:46
2	Pb 220.353†	2217.0	2041.9	496.54	µg/L	496.54	ppb	22:31:46

2	S 181.975 Axial†	267.7	238.6	989.64 µg/L	989.64 ppb	22:31:46
2	Sb 206.836†	589.1	544.2	501.70 µg/L	501.70 ppb	22:31:46
2	Se 196.026†	397.6	363.2	517.93 µg/L	517.93 ppb	22:31:46
2	SiO2†	29480.5	26970.9	5323.7 µg/L	5323.7 ppb	22:31:25
2	Si 251.611†	34410.2	32794.6	2493.1 µg/L	2493.1 ppb	22:31:25
2	Sn 189.927†	1238.8	1191.5	502.49 µg/L	502.49 ppb	22:31:46
2	Ti 334.940†	233343.5	224319.0	495.93 µg/L	495.93 ppb	22:31:20
2	Tl 190.801†	367.3	375.8	494.02 µg/L	494.02 ppb	22:31:46
2	U 409.014†	6220.8	6061.9	502.66 µg/L	502.66 ppb	22:31:25
2	V 292.402†	52607.1	50656.7	499.78 µg/L	499.78 ppb	22:31:25
2	Zn 213.857†	22751.7	21354.5	497.50 µg/L	497.50 ppb	22:31:25
3	Sc RADIAL	58365.6	58365.6	103 %		22:30:14
3	Al 396.153Radial†	7315.7	7074.0	4912.7 µg/L	4912.7 ppb	22:30:14
3	Ca 317.933Radial†	6114.6	5707.4	4875.1 µg/L	4875.1 ppb	22:30:35
3	Fe 238.204 Radial†	676.6	638.4	5044.0 µg/L	5044.0 ppb	22:30:35
3	K 766.490 Radial†	7852.7	7436.1	4856.6 µg/L	4856.6 ppb	22:30:14
3	Mg 279.077 IEC†	588.1	556.4	4975.0 µg/L	4975.0 ppb	22:30:35
3	Na 589.592 Radial†	33380.9	31839.2	9779.2 µg/L	9779.2 ppb	22:30:14
3	Sr 421.552†	53545.1	51800.8	477.87 µg/L	477.87 ppb	22:30:14
3	Sc 361.383	2043729.2	2043729.2	104.11 %		22:31:53
3	Y 371.029	1408593.8	1408593.8	104.13 %		22:31:53
3	Ag 328.068†	63043.1	60958.1	454.71 µg/L	454.71 ppb	22:31:59
3	As 188.979†	236.2	227.4	406.78 µg/L	406.78 ppb	22:32:19
3	B 249.677†	11737.4	10890.3	441.92 µg/L	441.92 ppb	22:31:59
3	Ba 233.527†	19144.9	18406.8	442.67 µg/L	442.67 ppb	22:31:59
3	Be 313.107†	787482.0	759277.6	450.47 µg/L	450.47 ppb	22:31:53
3	Cd 226.502†	18429.0	17843.8	444.91 µg/L	444.91 ppb	22:31:59
3	Co 228.616†	10101.0	9700.6	438.75 µg/L	438.75 ppb	22:31:59
3	Cr 267.716†	22032.4	21213.7	426.35 µg/L	426.35 ppb	22:31:59
3	Cu 324.752†	71814.1	66437.9	434.37 µg/L	434.37 ppb	22:31:59
3	Mn 257.610†	153006.9	147227.9	461.52 µg/L	461.52 ppb	22:31:53
3	Mo 202.031†	4291.5	4127.6	404.39 µg/L	404.39 ppb	22:32:19
3	Ni 231.604†	9506.0	8818.7	439.15 µg/L	439.15 ppb	22:31:59
3	P 214.914†	1088.9	1030.6	1997.8 µg/L	1997.8 ppb	22:32:19
3	Pb 220.353†	1879.9	1714.8	416.92 µg/L	416.92 ppb	22:32:19
3	S 181.975 Axial†	233.9	205.7	853.14 µg/L	853.14 ppb	22:32:19
3	Sb 206.836†	487.4	445.7	410.48 µg/L	410.48 ppb	22:32:19
3	Se 196.026†	334.7	302.2	432.42 µg/L	432.42 ppb	22:32:19
3	SiO2†	26915.4	24462.2	4828.5 µg/L	4828.5 ppb	22:31:59
3	Si 251.611†	31276.8	29732.5	2260.3 µg/L	2260.3 ppb	22:31:59
3	Sn 189.927†	992.2	952.7	401.80 µg/L	401.80 ppb	22:32:19
3	Ti 334.940†	210120.3	201657.6	445.80 µg/L	445.80 ppb	22:31:53
3	Tl 190.801†	321.4	331.1	435.55 µg/L	435.55 ppb	22:32:19
3	U 409.014†	5208.6	5080.2	421.09 µg/L	421.09 ppb	22:31:59
3	V 292.402†	46007.3	44237.5	436.24 µg/L	436.24 ppb	22:31:59
3	Zn 213.857†	20128.9	18800.6	437.93 µg/L	437.93 ppb	22:31:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2039808.3	103.91	%	0.220				0.21%
Sc RADIAL	58497.9	104	%	0.3				0.28%
Y 371.029	1405279.1	103.88	%	0.257				0.25%
Ag 328.068†	64217.1	479.13	µg/L	21.214	479.13	ppb	21.214	4.43%
QC value within limits for Ag 328.068 Recovery = 95.83%								
Al 396.153Radial†	7022.7	4875.6	µg/L	41.78	4875.6	ppb	41.78	0.86%
QC value within limits for Al 396.153Radial Recovery = 97.51%								
As 188.979†	266.1	476.03	µg/L	60.144	476.03	ppb	60.144	12.63%
QC value within limits for As 188.979 Recovery = 95.21%								
B 249.677†	11555.3	469.13	µg/L	23.641	469.13	ppb	23.641	5.04%
QC value within limits for B 249.677 Recovery = 93.83%								
Ba 233.527†	19906.6	478.76	µg/L	31.281	478.76	ppb	31.281	6.53%
QC value within limits for Ba 233.527 Recovery = 95.75%								
Be 313.107†	809696.0	480.38	µg/L	25.921	480.38	ppb	25.921	5.40%
QC value within limits for Be 313.107 Recovery = 96.08%								
Ca 317.933Radial†	5678.8	4850.7	µg/L	29.85	4850.7	ppb	29.85	0.62%
QC value within limits for Ca 317.933Radial Recovery = 97.01%								
Cd 226.502†	19350.6	482.54	µg/L	32.625	482.54	ppb	32.625	6.76%
QC value within limits for Cd 226.502 Recovery = 96.51%								
Co 228.616†	10595.3	479.27	µg/L	35.131	479.27	ppb	35.131	7.33%

```
   QC value within limits for Co 228.616  Recovery = 95.85%
Cr 267.716†            23752.8      477.38 µg/L        44.202      477.38 ppb         44.202   9.26%
   QC value within limits for Cr 267.716  Recovery = 95.48%
Cu 324.752†            72416.0      473.39 µg/L        33.839      473.39 ppb         33.839   7.15%
   QC value within limits for Cu 324.752  Recovery = 94.68%
Fe 238.204 Radial†       630.7      4984.7 µg/L         69.64      4984.7 ppb          69.64   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.69%
K 766.490 Radial†       7373.1      4815.5 µg/L         37.19      4815.5 ppb          37.19   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.31%
Mg 279.077 IEC†          552.9      4945.1 µg/L         34.85      4945.1 ppb          34.85   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.90%
Mn 257.610†           156536.5      490.66 µg/L        25.244      490.66 ppb         25.244   5.14%
   QC value within limits for Mn 257.610  Recovery = 98.13%
Mo 202.031†             4832.2      473.39 µg/L        60.270      473.39 ppb         60.270  12.73%
   QC value within limits for Mo 202.031  Recovery = 94.68%
Na 589.592 Radial†     31670.8      9727.5 µg/L         49.45      9727.5 ppb          49.45   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 97.27%
Ni 231.604†             9636.3      479.86 µg/L        35.292      479.86 ppb         35.292   7.35%
   QC value within limits for Ni 231.604  Recovery = 95.97%
P 214.914†              1198.5      2327.3 µg/L        286.98      2327.3 ppb         286.98  12.33%
   QC value within limits for P 214.914  Recovery = 93.09%
Pb 220.353†             1951.3      474.48 µg/L        50.304      474.48 ppb         50.304  10.60%
   QC value within limits for Pb 220.353  Recovery = 94.90%
S 181.975 Axial†         228.3      946.59 µg/L        81.017      946.59 ppb         81.017   8.56%
   QC value within limits for S 181.975 Axial  Recovery = 94.66%
Sb 206.836†              514.5      474.27 µg/L        55.421      474.27 ppb         55.421  11.69%
   QC value within limits for Sb 206.836  Recovery = 94.85%
Se 196.026†              341.4      487.28 µg/L        47.618      487.28 ppb         47.618   9.77%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†                  26167.9      5165.2 µg/L        291.74      5165.2 ppb         291.74   5.65%
   QC value within limits for SiO2  Recovery = 96.59%
Si 251.611†            31786.7      2416.5 µg/L        135.25      2416.5 ppb         135.25   5.60%
   QC value within limits for Si 251.611  Recovery = 96.66%
Sn 189.927†             1123.2      473.68 µg/L        62.666      473.68 ppb         62.666  13.23%
   QC value within limits for Sn 189.927  Recovery = 94.74%
Sr 421.552†            51536.7      475.43 µg/L         2.918      475.43 ppb          2.918   0.61%
   QC value within limits for Sr 421.552  Recovery = 95.09%
Ti 334.940†           216462.3      478.55 µg/L        28.383      478.55 ppb         28.383   5.93%
   QC value within limits for Ti 334.940  Recovery = 95.71%
Tl 190.801†              364.5      479.18 µg/L        38.424      479.18 ppb         38.424   8.02%
   QC value within limits for Tl 190.801  Recovery = 95.84%
U 409.014†              5739.5      475.88 µg/L        47.453      475.88 ppb         47.453   9.97%
   QC value within limits for U 409.014  Recovery = 95.18%
V 292.402†             48617.4      479.62 µg/L        37.602      479.62 ppb         37.602   7.84%
   QC value within limits for V 292.402  Recovery = 95.92%
Zn 213.857†            20540.2      478.50 µg/L        35.162      478.50 ppb         35.162   7.35%
   QC value within limits for Zn 213.857  Recovery = 95.70%
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 22:32:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57585.6	57585.6	102	%			22:33:01
1	Al 396.153Radial†	5.3	-2.2	-1.5487	µg/L	-1.5487	ppb	22:33:01
1	Ca 317.933Radial†	199.5	-15.5	-13.282	µg/L	-13.282	ppb	22:33:21
1	Fe 238.204 Radial†	20.4	3.4	26.948	µg/L	26.948	ppb	22:33:21
1	K 766.490 Radial†	158.3	-9.7	-6.3145	µg/L	-6.3145	ppb	22:33:01
1	Mg 279.077 IEC†	8.9	-4.1	-36.991	µg/L	-36.991	ppb	22:33:21
1	Na 589.592 Radial†	494.2	12.6	3.8754	µg/L	3.8754	ppb	22:33:01
1	Sr 421.552†	59.2	29.3	0.2704	µg/L	0.2704	ppb	22:33:01
1	Sc 361.383	2051484.5	2051484.5	104.50	%			22:34:23
1	Y 371.029	1418561.0	1418561.0	104.86	%			22:34:23
1	Ag 328.068†	-445.9	-25.1	-0.1823	µg/L	-0.1823	ppb	22:34:29
1	As 188.979†	-1.0	-0.5	-0.8315	µg/L	-0.8315	ppb	22:34:50
1	B 249.677†	342.4	-56.5	-2.3170	µg/L	-2.3170	ppb	22:34:50
1	Ba 233.527†	-1.6	15.5	0.3732	µg/L	0.3732	ppb	22:34:50
1	Be 313.107†	-2684.5	286.8	0.1700	µg/L	0.1700	ppb	22:34:29
1	Cd 226.502†	-134.7	12.8	0.3141	µg/L	0.3141	ppb	22:34:50
1	Co 228.616†	5.1	3.0	0.1333	µg/L	0.1333	ppb	22:34:50
1	Cr 267.716†	-65.0	-11.8	-0.2372	µg/L	-0.2372	ppb	22:34:29
1	Cu 324.752†	2592.8	-62.6	-0.4051	µg/L	-0.4051	ppb	22:34:29
1	Mn 257.610†	-124.4	137.0	0.4341	µg/L	0.4341	ppb	22:34:50
1	Mo 202.031†	5.4	10.5	1.0332	µg/L	1.0332	ppb	22:34:50
1	Ni 231.604†	295.9	-29.2	-1.4535	µg/L	-1.4535	ppb	22:34:50
1	P 214.914†	14.2	-1.7	-3.4035	µg/L	-3.4035	ppb	22:34:50
1	Pb 220.353†	72.1	-21.9	-5.3315	µg/L	-5.3315	ppb	22:34:50
1	S 181.975 Axial†	15.1	-4.5	-18.600	µg/L	-18.600	ppb	22:34:50
1	Sb 206.836†	20.6	-2.8	-2.5618	µg/L	-2.5618	ppb	22:34:50
1	Se 196.026†	11.2	-8.6	-11.983	µg/L	-11.983	ppb	22:34:50
1	SiO2†	1533.6	76.0	14.992	µg/L	14.992	ppb	22:34:29
1	Si 251.611†	415.1	86.5	6.5795	µg/L	6.5795	ppb	22:34:50
1	Sn 189.927†	6.3	5.6	2.3743	µg/L	2.3743	ppb	22:34:50
1	Ti 334.940†	459.3	264.5	0.5877	µg/L	0.5877	ppb	22:34:29
1	Tl 190.801†	-16.4	6.7	8.6669	µg/L	8.6669	ppb	22:34:50
1	U 409.014†	-23.7	54.4	4.5141	µg/L	4.5141	ppb	22:34:29
1	V 292.402†	-14.3	31.1	0.3185	µg/L	0.3185	ppb	22:34:29
1	Zn 213.857†	548.1	-9.9	-0.2254	µg/L	-0.2254	ppb	22:34:50
2	Sc RADIAL	57789.7	57789.7	102	%			22:33:27
2	Al 396.153Radial†	21.4	13.5	9.3709	µg/L	9.3709	ppb	22:33:27
2	Ca 317.933Radial†	195.9	-19.7	-16.863	µg/L	-16.863	ppb	22:33:47
2	Fe 238.204 Radial†	20.7	3.6	28.742	µg/L	28.742	ppb	22:33:47
2	K 766.490 Radial†	226.2	56.1	36.646	µg/L	36.646	ppb	22:33:27
2	Mg 279.077 IEC†	16.1	2.9	26.324	µg/L	26.324	ppb	22:33:47
2	Na 589.592 Radial†	490.2	7.0	2.1478	µg/L	2.1478	ppb	22:33:27
2	Sr 421.552†	22.7	-6.6	-0.0609	µg/L	-0.0609	ppb	22:33:27
2	Sc 361.383	2059030.4	2059030.4	104.89	%			22:34:56
2	Y 371.029	1423097.5	1423097.5	105.20	%			22:34:56
2	Ag 328.068†	-410.0	10.7	0.0820	µg/L	0.0820	ppb	22:35:01
2	As 188.979†	0.0	0.5	0.8834	µg/L	0.8834	ppb	22:35:22
2	B 249.677†	341.5	-58.6	-2.4029	µg/L	-2.4029	ppb	22:35:22
2	Ba 233.527†	-2.3	14.9	0.3573	µg/L	0.3573	ppb	22:35:22
2	Be 313.107†	-2672.8	307.4	0.1821	µg/L	0.1821	ppb	22:35:01
2	Cd 226.502†	-134.9	13.0	0.3213	µg/L	0.3213	ppb	22:35:22
2	Co 228.616†	2.8	0.8	0.0344	µg/L	0.0344	ppb	22:35:22
2	Cr 267.716†	-81.2	-27.0	-0.5422	µg/L	-0.5422	ppb	22:35:01
2	Cu 324.752†	2590.0	-74.3	-0.4813	µg/L	-0.4813	ppb	22:35:01
2	Mn 257.610†	-125.4	136.4	0.4300	µg/L	0.4300	ppb	22:35:22
2	Mo 202.031†	10.9	15.7	1.5422	µg/L	1.5422	ppb	22:35:22
2	Ni 231.604†	311.0	-15.8	-0.7893	µg/L	-0.7893	ppb	22:35:22
2	P 214.914†	11.5	-4.4	-8.6739	µg/L	-8.6739	ppb	22:35:22
2	Pb 220.353†	84.7	-10.2	-2.4785	µg/L	-2.4785	ppb	22:35:22

2	S 181.975 Axial†	13.6	-5.9	-24.609	µg/L	-24.609 ppb	22:35:22
2	Sb 206.836†	20.6	-2.9	-2.6273	µg/L	-2.6273 ppb	22:35:22
2	Se 196.026†	13.7	-6.2	-8.6858	µg/L	-8.6858 ppb	22:35:22
2	SiO2†	1497.0	35.7	7.0424	µg/L	7.0424 ppb	22:35:01
2	Si 251.611†	415.0	85.0	6.4614	µg/L	6.4614 ppb	22:35:22
2	Sn 189.927†	-0.4	-0.8	-0.3270	µg/L	-0.3270 ppb	22:35:22
2	Ti 334.940†	561.8	360.6	0.7953	µg/L	0.7953 ppb	22:35:01
2	Tl 190.801†	-23.2	0.3	0.4055	µg/L	0.4055 ppb	22:35:22
2	U 409.014†	-36.1	42.7	3.5443	µg/L	3.5443 ppb	22:35:01
2	V 292.402†	-37.1	9.3	0.1087	µg/L	0.1087 ppb	22:35:01
2	Zn 213.857†	547.0	-12.9	-0.3007	µg/L	-0.3007 ppb	22:35:22
3	Sc RADIAL	58397.7	58397.7	103	%		22:33:53
3	Al 396.153Radial†	22.9	14.8	10.265	µg/L	10.265 ppb	22:33:53
3	Ca 317.933Radial†	200.0	-17.8	-15.186	µg/L	-15.186 ppb	22:34:13
3	Fe 238.204 Radial†	19.3	2.1	16.862	µg/L	16.862 ppb	22:34:13
3	K 766.490 Radial†	136.3	-33.1	-21.647	µg/L	-21.647 ppb	22:33:53
3	Mg 279.077 IEC†	14.6	1.3	11.823	µg/L	11.823 ppb	22:34:13
3	Na 589.592 Radial†	421.2	-64.8	-19.889	µg/L	-19.889 ppb	22:33:53
3	Sr 421.552†	64.0	33.2	0.3059	µg/L	0.3059 ppb	22:33:53
3	Sc 361.383	2079286.4	2079286.4	105.92	%		22:35:28
3	Y 371.029	1436370.2	1436370.2	106.18	%		22:35:28
3	Ag 328.068†	-401.1	23.0	0.1715	µg/L	0.1715 ppb	22:35:33
3	As 188.979†	-1.6	-1.1	-1.9606	µg/L	-1.9606 ppb	22:35:54
3	B 249.677†	336.5	-66.4	-2.7154	µg/L	-2.7154 ppb	22:35:54
3	Ba 233.527†	1.7	18.7	0.4487	µg/L	0.4487 ppb	22:35:54
3	Be 313.107†	-2775.1	235.6	0.1396	µg/L	0.1396 ppb	22:35:33
3	Cd 226.502†	-139.5	10.0	0.2455	µg/L	0.2455 ppb	22:35:54
3	Co 228.616†	10.9	8.4	0.3796	µg/L	0.3796 ppb	22:35:54
3	Cr 267.716†	-70.2	-15.9	-0.3195	µg/L	-0.3195 ppb	22:35:33
3	Cu 324.752†	2569.1	-118.2	-0.7690	µg/L	-0.7690 ppb	22:35:33
3	Mn 257.610†	-151.1	113.3	0.3567	µg/L	0.3567 ppb	22:35:54
3	Mo 202.031†	3.0	8.2	0.8026	µg/L	0.8026 ppb	22:35:54
3	Ni 231.604†	308.0	-21.5	-1.0742	µg/L	-1.0742 ppb	22:35:54
3	P 214.914†	13.2	-2.9	-5.5667	µg/L	-5.5667 ppb	22:35:54
3	Pb 220.353†	82.0	-13.5	-3.2847	µg/L	-3.2847 ppb	22:35:54
3	S 181.975 Axial†	14.9	-4.9	-20.286	µg/L	-20.286 ppb	22:35:54
3	Sb 206.836†	22.1	-1.6	-1.4644	µg/L	-1.4644 ppb	22:35:54
3	Se 196.026†	20.9	0.5	0.6738	µg/L	0.6738 ppb	22:35:54
3	SiO2†	1489.3	14.6	2.8738	µg/L	2.8738 ppb	22:35:33
3	Si 251.611†	397.3	64.5	4.9030	µg/L	4.9030 ppb	22:35:54
3	Sn 189.927†	6.3	5.5	2.3325	µg/L	2.3325 ppb	22:35:54
3	Ti 334.940†	437.9	238.4	0.5262	µg/L	0.5262 ppb	22:35:33
3	Tl 190.801†	-21.4	2.1	2.7949	µg/L	2.7949 ppb	22:35:54
3	U 409.014†	-23.5	54.9	4.5578	µg/L	4.5578 ppb	22:35:33
3	V 292.402†	-40.4	6.6	0.0767	µg/L	0.0767 ppb	22:35:33
3	Zn 213.857†	544.4	-20.4	-0.4742	µg/L	-0.4742 ppb	22:35:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2063267.1	105.10	%	0.732				0.70%
Sc RADIAL	57924.4	103	%	0.7				0.73%
Y 371.029	1426009.6	105.42	%	0.684				0.65%
Ag 328.068†	2.9	0.0237	µg/L	0.18398	0.0237	ppb	0.18398	775.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.7	6.0290	µg/L	6.57768	6.0290	ppb	6.57768	109.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.6362	µg/L	1.43200	-0.6362	ppb	1.43200	225.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-60.5	-2.4784	µg/L	0.20968	-2.4784	ppb	0.20968	8.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.4	0.3931	µg/L	0.04879	0.3931	ppb	0.04879	12.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	276.6	0.1639	µg/L	0.02189	0.1639	ppb	0.02189	13.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.7	-15.110	µg/L	1.7919	-15.110	ppb	1.7919	11.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.9	0.2936	µg/L	0.04185	0.2936	ppb	0.04185	14.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.0	0.1824	µg/L	0.17774	0.1824	ppb	0.17774	97.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -18.2     -0.3663 µg/L       0.15776     -0.3663 ppb        0.15776  43.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -85.1     -0.5518 µg/L       0.19193     -0.5518 ppb        0.19193  34.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.1      24.184 µg/L        6.4042      24.184 ppb         6.4042  26.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          4.4      2.8948 µg/L      30.21809      2.8948 ppb       30.21809 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.0      0.3851 µg/L      33.17092      0.3851 ppb       33.17092 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              128.9      0.4069 µg/L       0.04360      0.4069 ppb        0.04360  10.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.5      1.1260 µg/L       0.37846      1.1260 ppb        0.37846  33.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -15.0     -4.6218 µg/L      13.24967     -4.6218 ppb       13.24967 286.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -22.2     -1.1057 µg/L       0.33322     -1.1057 ppb        0.33322  30.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -3.0     -5.8814 µg/L       2.64922     -5.8814 ppb        2.64922  45.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -15.2     -3.6982 µg/L       1.47080     -3.6982 ppb        1.47080  39.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.1     -21.165 µg/L        3.0996     -21.165 ppb         3.0996  14.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.4     -2.2178 µg/L       0.65333     -2.2178 ppb        0.65333  29.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.8     -6.6652 µg/L       6.56608     -6.6652 ppb        6.56608  98.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     42.1      8.3028 µg/L       6.15672      8.3028 ppb        6.15672  74.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.7      5.9813 µg/L       0.93570      5.9813 ppb        0.93570  15.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.5      1.4599 µg/L       1.54769      1.4599 ppb        1.54769 106.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               18.6      0.1718 µg/L       0.20227      0.1718 ppb        0.20227 117.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              287.8      0.6364 µg/L       0.14099      0.6364 ppb        0.14099  22.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.0      3.9558 µg/L       4.25132      3.9558 ppb        4.25132 107.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                50.6      4.2054 µg/L       0.57295      4.2054 ppb        0.57295  13.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                15.7      0.1680 µg/L       0.13134      0.1680 ppb        0.13134  78.20%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.4     -0.3334 µg/L       0.12760     -0.3334 ppb        0.12760  38.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 23:05:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57547.7	57547.7	102	%			23:06:14
1	Al 396.153Radial†	7371.7	7229.5	5018.7	µg/L	5018.7	ppb	23:06:14
1	Ca 317.933Radial†	6105.6	5782.7	4939.5	µg/L	4939.5	ppb	23:06:34
1	Fe 238.204 Radial†	677.8	648.8	5128.1	µg/L	5128.1	ppb	23:06:34
1	K 766.490 Radial†	7884.7	7575.6	4947.8	µg/L	4947.8	ppb	23:06:14
1	Mg 279.077 IEC†	592.4	568.8	5087.4	µg/L	5087.4	ppb	23:06:34
1	Na 589.592 Radial†	33515.4	32430.5	9960.8	µg/L	9960.8	ppb	23:06:14
1	Sr 421.552†	53729.8	52718.8	486.34	µg/L	486.34	ppb	23:06:14
1	Sc 361.383	2017392.3	2017392.3	102.76	%			23:07:38
1	Y 371.029	1390584.4	1390584.4	102.80	%			23:07:38
1	Ag 328.068†	68163.9	66731.8	497.94	µg/L	497.94	ppb	23:07:43
1	As 188.979†	293.3	285.9	511.44	µg/L	511.44	ppb	23:08:04
1	B 249.677†	12721.2	11994.8	487.02	µg/L	487.02	ppb	23:07:43
1	Ba 233.527†	21407.2	20848.3	501.41	µg/L	501.41	ppb	23:07:43
1	Be 313.107†	853098.2	833003.6	494.20	µg/L	494.20	ppb	23:07:38
1	Cd 226.502†	20695.3	20280.2	505.74	µg/L	505.74	ppb	23:07:43
1	Co 228.616†	11453.9	11143.8	504.11	µg/L	504.11	ppb	23:07:43
1	Cr 267.716†	25823.0	25178.7	506.03	µg/L	506.03	ppb	23:07:43
1	Cu 324.752†	81137.5	76410.9	499.48	µg/L	499.48	ppb	23:07:43
1	Mn 257.610†	165189.1	161001.2	504.66	µg/L	504.66	ppb	23:07:38
1	Mo 202.031†	5400.3	5260.4	515.32	µg/L	515.32	ppb	23:08:04
1	Ni 231.604†	10765.7	10163.7	506.12	µg/L	506.12	ppb	23:07:43
1	P 214.914†	1337.7	1286.4	2499.1	µg/L	2499.1	ppb	23:08:04
1	Pb 220.353†	2230.8	2079.9	505.79	µg/L	505.79	ppb	23:08:04
1	S 181.975 Axial†	266.5	240.4	997.09	µg/L	997.09	ppb	23:08:04
1	Sb 206.836†	602.9	564.2	520.17	µg/L	520.17	ppb	23:08:04
1	Se 196.026†	387.5	357.8	510.54	µg/L	510.54	ppb	23:08:04
1	SiO2†	29659.8	27470.3	5422.3	µg/L	5422.3	ppb	23:07:43
1	Si 251.611†	34569.1	33328.5	2533.7	µg/L	2533.7	ppb	23:07:43
1	Sn 189.927†	1265.3	1230.9	519.12	µg/L	519.12	ppb	23:08:04
1	Ti 334.940†	230288.9	223918.6	495.03	µg/L	495.03	ppb	23:07:38
1	Tl 190.801†	382.1	394.2	517.92	µg/L	517.92	ppb	23:08:04
1	U 409.014†	6115.9	6028.5	499.86	µg/L	499.86	ppb	23:07:43
1	V 292.402†	52555.8	51186.7	505.09	µg/L	505.09	ppb	23:07:43
1	Zn 213.857†	22705.6	21560.3	502.26	µg/L	502.26	ppb	23:07:43
2	Sc RADIAL	58133.5	58133.5	103	%			23:06:40
2	Al 396.153Radial†	7400.2	7184.4	4987.5	µg/L	4987.5	ppb	23:06:40
2	Ca 317.933Radial†	6079.1	5696.6	4865.9	µg/L	4865.9	ppb	23:07:00
2	Fe 238.204 Radial†	666.8	631.5	4990.8	µg/L	4990.8	ppb	23:07:00
2	K 766.490 Radial†	7854.7	7468.4	4877.7	µg/L	4877.7	ppb	23:06:40
2	Mg 279.077 IEC†	586.6	557.3	4984.4	µg/L	4984.4	ppb	23:07:00
2	Na 589.592 Radial†	33547.1	32129.7	9868.4	µg/L	9868.4	ppb	23:06:40
2	Sr 421.552†	53696.2	52154.6	481.13	µg/L	481.13	ppb	23:06:40
2	Sc 361.383	2020250.9	2020250.9	102.91	%			23:08:11
2	Y 371.029	1392254.8	1392254.8	102.92	%			23:08:11
2	Ag 328.068†	67963.7	66443.4	495.79	µg/L	495.79	ppb	23:08:17
2	As 188.979†	286.3	278.7	498.54	µg/L	498.54	ppb	23:08:37
2	B 249.677†	12735.8	11991.5	486.95	µg/L	486.95	ppb	23:08:17
2	Ba 233.527†	21372.1	20784.7	499.88	µg/L	499.88	ppb	23:08:17
2	Be 313.107†	852994.2	831727.9	493.45	µg/L	493.45	ppb	23:08:11
2	Cd 226.502†	20623.3	20181.8	503.29	µg/L	503.29	ppb	23:08:17
2	Co 228.616†	11402.9	11078.5	501.14	µg/L	501.14	ppb	23:08:17
2	Cr 267.716†	25758.8	25080.8	504.07	µg/L	504.07	ppb	23:08:17
2	Cu 324.752†	80891.5	76060.2	497.17	µg/L	497.17	ppb	23:08:17
2	Mn 257.610†	165915.6	161479.7	506.14	µg/L	506.14	ppb	23:08:11
2	Mo 202.031†	5271.3	5127.6	502.32	µg/L	502.32	ppb	23:08:37
2	Ni 231.604†	10727.4	10111.7	503.53	µg/L	503.53	ppb	23:08:17
2	P 214.914†	1325.0	1272.2	2471.2	µg/L	2471.2	ppb	23:08:37
2	Pb 220.353†	2215.0	2061.4	501.27	µg/L	501.27	ppb	23:08:37

2	S 181.975 Axial†	262.8	236.5	980.60 µg/L	980.60 ppb	23:08:37
2	Sb 206.836†	582.8	543.8	501.33 µg/L	501.33 ppb	23:08:37
2	Se 196.026†	386.4	356.2	508.06 µg/L	508.06 ppb	23:08:37
2	SiO2†	29491.0	27265.4	5381.8 µg/L	5381.8 ppb	23:08:17
2	Si 251.611†	34394.7	33111.4	2517.2 µg/L	2517.2 ppb	23:08:17
2	Sn 189.927†	1226.1	1191.1	502.33 µg/L	502.33 ppb	23:08:37
2	Ti 334.940†	230974.1	224267.3	495.81 µg/L	495.81 ppb	23:08:11
2	Tl 190.801†	376.6	388.4	510.38 µg/L	510.38 ppb	23:08:37
2	U 409.014†	6158.6	6061.5	502.63 µg/L	502.63 ppb	23:08:17
2	V 292.402†	52563.5	51121.8	504.34 µg/L	504.34 ppb	23:08:17
2	Zn 213.857†	22699.7	21523.3	501.42 µg/L	501.42 ppb	23:08:17
3	Sc RADIAL	58082.9	58082.9	103 %		23:07:06
3	Al 396.153Radial†	7360.7	7152.2	4967.1 µg/L	4967.1 ppb	23:07:06
3	Ca 317.933Radial†	6119.1	5740.6	4903.5 µg/L	4903.5 ppb	23:07:26
3	Fe 238.204 Radial†	671.6	636.7	5030.6 µg/L	5030.6 ppb	23:07:26
3	K 766.490 Radial†	7857.6	7477.9	4883.9 µg/L	4883.9 ppb	23:07:06
3	Mg 279.077 IEC†	592.2	563.2	5035.7 µg/L	5035.7 ppb	23:07:26
3	Na 589.592 Radial†	33558.5	32169.2	9880.5 µg/L	9880.5 ppb	23:07:06
3	Sr 421.552†	53798.8	52299.8	482.47 µg/L	482.47 ppb	23:07:06
3	Sc 361.383	2030492.5	2030492.5	103.43 %		23:08:44
3	Y 371.029	1399481.5	1399481.5	103.45 %		23:08:44
3	Ag 328.068†	61967.1	60312.6	449.89 µg/L	449.89 ppb	23:08:50
3	As 188.979†	236.7	229.3	410.26 µg/L	410.26 ppb	23:09:10
3	B 249.677†	11514.3	10748.1	436.11 µg/L	436.11 ppb	23:08:50
3	Ba 233.527†	18722.2	18118.1	435.73 µg/L	435.73 ppb	23:08:50
3	Be 313.107†	776418.3	753512.1	447.04 µg/L	447.04 ppb	23:08:44
3	Cd 226.502†	17928.8	17475.6	435.72 µg/L	435.72 ppb	23:08:50
3	Co 228.616†	9860.5	9531.4	431.09 µg/L	431.09 ppb	23:08:50
3	Cr 267.716†	21552.8	20888.1	419.81 µg/L	419.81 ppb	23:08:50
3	Cu 324.752†	70553.7	65668.9	429.35 µg/L	429.35 ppb	23:08:50
3	Mn 257.610†	151097.3	146339.8	458.73 µg/L	458.73 ppb	23:08:44
3	Mo 202.031†	4274.6	4138.1	405.42 µg/L	405.42 ppb	23:09:10
3	Ni 231.604†	9262.5	8642.8	430.39 µg/L	430.39 ppb	23:08:50
3	P 214.914†	1088.9	1037.4	2012.0 µg/L	2012.0 ppb	23:09:10
3	Pb 220.353†	1862.8	1710.1	415.78 µg/L	415.78 ppb	23:09:10
3	S 181.975 Axial†	230.4	203.8	845.05 µg/L	845.05 ppb	23:09:10
3	Sb 206.836†	487.9	449.2	413.81 µg/L	413.81 ppb	23:09:10
3	Se 196.026†	331.1	300.8	430.27 µg/L	430.27 ppb	23:09:10
3	SiO2†	26594.8	24320.8	4800.6 µg/L	4800.6 ppb	23:08:50
3	Si 251.611†	30776.4	29444.6	2238.4 µg/L	2238.4 ppb	23:08:50
3	Sn 189.927†	980.5	947.6	399.66 µg/L	399.66 ppb	23:09:10
3	Ti 334.940†	208127.5	201046.7	444.44 µg/L	444.44 ppb	23:08:44
3	Tl 190.801†	323.3	335.0	440.57 µg/L	440.57 ppb	23:09:10
3	U 409.014†	5266.7	5169.0	428.47 µg/L	428.47 ppb	23:08:50
3	V 292.402†	44963.5	43516.4	429.21 µg/L	429.21 ppb	23:08:50
3	Zn 213.857†	19740.8	18551.4	432.13 µg/L	432.13 ppb	23:08:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2022711.9	103.04	%	0.351				0.34%
Sc RADIAL	57921.3	103	%	0.6				0.56%
Y 371.029	1394106.9	103.06	%	0.350				0.34%
Ag 328.068†	64495.9	481.20	µg/L	27.143	481.20	ppb	27.143	5.64%
QC value within limits for Ag 328.068 Recovery = 96.24%								
Al 396.153Radial†	7188.7	4991.1	µg/L	25.95	4991.1	ppb	25.95	0.52%
QC value within limits for Al 396.153Radial Recovery = 99.82%								
As 188.979†	264.6	473.41	µg/L	55.075	473.41	ppb	55.075	11.63%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	11578.1	470.03	µg/L	29.369	470.03	ppb	29.369	6.25%
QC value within limits for B 249.677 Recovery = 94.01%								
Ba 233.527†	19917.0	479.01	µg/L	37.487	479.01	ppb	37.487	7.83%
QC value within limits for Ba 233.527 Recovery = 95.80%								
Be 313.107†	806081.2	478.23	µg/L	27.011	478.23	ppb	27.011	5.65%
QC value within limits for Be 313.107 Recovery = 95.65%								
Ca 317.933Radial†	5740.0	4903.0	µg/L	36.79	4903.0	ppb	36.79	0.75%
QC value within limits for Ca 317.933Radial Recovery = 98.06%								
Cd 226.502†	19312.5	481.58	µg/L	39.737	481.58	ppb	39.737	8.25%
QC value within limits for Cd 226.502 Recovery = 96.32%								
Co 228.616†	10584.5	478.78	µg/L	41.325	478.78	ppb	41.325	8.63%

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   QC value within limits for Co 228.616  Recovery = 95.76%
Cr 267.716†            23715.8      476.64 µg/L        49.224      476.64 ppb         49.224  10.33%
   QC value within limits for Cr 267.716  Recovery = 95.33%
Cu 324.752†            72713.4      475.34 µg/L        39.841      475.34 ppb         39.841   8.38%
   QC value within limits for Cu 324.752  Recovery = 95.07%
Fe 238.204 Radial†       639.0      5049.9 µg/L         70.60      5049.9 ppb          70.60   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.00%
K 766.490 Radial†       7507.3      4903.1 µg/L         38.76      4903.1 ppb          38.76   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 98.06%
Mg 279.077 IEC†          563.1      5035.8 µg/L         51.50      5035.8 ppb          51.50   1.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.72%
Mn 257.610†           156273.5      489.84 µg/L        26.952      489.84 ppb         26.952   5.50%
   QC value within limits for Mn 257.610  Recovery = 97.97%
Mo 202.031†             4842.0      474.35 µg/L        60.048      474.35 ppb         60.048  12.66%
   QC value within limits for Mo 202.031  Recovery = 94.87%
Na 589.592 Radial†     32243.1      9903.3 µg/L         50.20      9903.3 ppb          50.20   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 99.03%
Ni 231.604†             9639.4      480.01 µg/L        42.993      480.01 ppb         42.993   8.96%
   QC value within limits for Ni 231.604  Recovery = 96.00%
P 214.914†              1198.7      2327.4 µg/L        273.57      2327.4 ppb         273.57  11.75%
   QC value within limits for P 214.914  Recovery = 93.10%
Pb 220.353†             1950.4      474.28 µg/L        50.715      474.28 ppb         50.715  10.69%
   QC value within limits for Pb 220.353  Recovery = 94.86%
S 181.975 Axial†         226.9      940.92 µg/L        83.427      940.92 ppb         83.427   8.87%
   QC value within limits for S 181.975 Axial  Recovery = 94.09%
Sb 206.836†              519.1      478.43 µg/L        56.755      478.43 ppb         56.755  11.86%
   QC value within limits for Sb 206.836  Recovery = 95.69%
Se 196.026†              338.2      482.96 µg/L        45.644      482.96 ppb         45.644   9.45%
   QC value within limits for Se 196.026  Recovery = 96.59%
SiO2†                  26352.2      5201.6 µg/L        347.84      5201.6 ppb         347.84   6.69%
   QC value within limits for SiO2  Recovery = 97.27%
Si 251.611†            31961.5      2429.8 µg/L        165.91      2429.8 ppb         165.91   6.83%
   QC value within limits for Si 251.611  Recovery = 97.19%
Sn 189.927†             1123.2      473.71 µg/L        64.673      473.71 ppb         64.673  13.65%
   QC value within limits for Sn 189.927  Recovery = 94.74%
Sr 421.552†            52391.1      483.32 µg/L         2.703      483.32 ppb          2.703   0.56%
   QC value within limits for Sr 421.552  Recovery = 96.66%
Ti 334.940†           216410.9      478.43 µg/L        29.438      478.43 ppb         29.438   6.15%
   QC value within limits for Ti 334.940  Recovery = 95.69%
Tl 190.801†              372.5      489.62 µg/L        42.649      489.62 ppb         42.649   8.71%
   QC value within limits for Tl 190.801  Recovery = 97.92%
U 409.014†              5753.0      476.99 µg/L        42.039      476.99 ppb         42.039   8.81%
   QC value within limits for U 409.014  Recovery = 95.40%
V 292.402†             48608.3      479.54 µg/L        43.595      479.54 ppb         43.595   9.09%
   QC value within limits for V 292.402  Recovery = 95.91%
Zn 213.857†            20545.0      478.60 µg/L        40.255      478.60 ppb         40.255   8.41%
   QC value within limits for Zn 213.857  Recovery = 95.72%
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 23:09:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57057.7	57057.7	101	%			23:09:52
1	Al 396.153Radial†	16.4	8.9	6.1575	µg/L	6.1575	ppb	23:09:52
1	Ca 317.933Radial†	206.6	-6.7	-5.7540	µg/L	-5.7540	ppb	23:10:13
1	Fe 238.204 Radial†	21.4	4.6	36.351	µg/L	36.351	ppb	23:10:13
1	K 766.490 Radial†	188.9	22.0	14.383	µg/L	14.383	ppb	23:09:52
1	Mg 279.077 IEC†	12.9	-0.0	-0.3283	µg/L	-0.3283	ppb	23:10:13
1	Na 589.592 Radial†	447.3	-29.3	-8.9850	µg/L	-8.9850	ppb	23:09:52
1	Sr 421.552†	72.3	42.8	0.3950	µg/L	0.3950	ppb	23:09:52
1	Sc 361.383	2009889.0	2009889.0	102.38	%			23:11:15
1	Y 371.029	1389446.2	1389446.2	102.71	%			23:11:15
1	Ag 328.068†	-351.8	58.0	0.4309	µg/L	0.4309	ppb	23:11:20
1	As 188.979†	-0.6	-0.1	-0.1425	µg/L	-0.1425	ppb	23:11:41
1	B 249.677†	354.2	-38.1	-1.5742	µg/L	-1.5742	ppb	23:11:41
1	Ba 233.527†	3.5	20.5	0.4911	µg/L	0.4911	ppb	23:11:41
1	Be 313.107†	-2657.6	259.9	0.1538	µg/L	0.1538	ppb	23:11:20
1	Cd 226.502†	-137.1	7.8	0.1907	µg/L	0.1907	ppb	23:11:41
1	Co 228.616†	3.7	1.7	0.0748	µg/L	0.0748	ppb	23:11:41
1	Cr 267.716†	-72.7	-20.6	-0.4139	µg/L	-0.4139	ppb	23:11:20
1	Cu 324.752†	2570.7	-32.8	-0.2093	µg/L	-0.2093	ppb	23:11:20
1	Mn 257.610†	-93.2	165.0	0.5214	µg/L	0.5214	ppb	23:11:41
1	Mo 202.031†	3.5	8.8	0.8615	µg/L	0.8615	ppb	23:11:41
1	Ni 231.604†	315.5	-4.1	-0.2065	µg/L	-0.2065	ppb	23:11:41
1	P 214.914†	6.9	-8.6	-17.030	µg/L	-17.030	ppb	23:11:41
1	Pb 220.353†	80.2	-12.6	-3.0691	µg/L	-3.0691	ppb	23:11:41
1	S 181.975 Axial†	13.9	-5.3	-22.180	µg/L	-22.180	ppb	23:11:41
1	Sb 206.836†	21.7	-1.3	-1.1333	µg/L	-1.1333	ppb	23:11:41
1	Se 196.026†	18.3	-1.4	-1.9095	µg/L	-1.9095	ppb	23:11:41
1	SiO2†	1515.1	88.3	17.432	µg/L	17.432	ppb	23:11:20
1	Si 251.611†	427.0	106.4	8.0899	µg/L	8.0899	ppb	23:11:41
1	Sn 189.927†	4.7	4.2	1.7607	µg/L	1.7607	ppb	23:11:41
1	Ti 334.940†	771.1	578.1	1.2789	µg/L	1.2789	ppb	23:11:20
1	Tl 190.801†	-21.8	1.1	1.4577	µg/L	1.4577	ppb	23:11:41
1	U 409.014†	-16.0	61.5	5.1011	µg/L	5.1011	ppb	23:11:20
1	V 292.402†	-58.9	-12.8	-0.1096	µg/L	-0.1096	ppb	23:11:20
1	Zn 213.857†	542.3	-4.8	-0.1123	µg/L	-0.1123	ppb	23:11:41
2	Sc RADIAL	57071.4	57071.4	101	%			23:10:18
2	Al 396.153Radial†	8.3	0.9	0.5821	µg/L	0.5821	ppb	23:10:18
2	Ca 317.933Radial†	214.5	1.1	0.8983	µg/L	0.8983	ppb	23:10:39
2	Fe 238.204 Radial†	18.1	1.4	10.777	µg/L	10.777	ppb	23:10:39
2	K 766.490 Radial†	267.4	99.8	65.151	µg/L	65.151	ppb	23:10:18
2	Mg 279.077 IEC†	10.1	-2.8	-24.932	µg/L	-24.932	ppb	23:10:39
2	Na 589.592 Radial†	432.3	-44.2	-13.583	µg/L	-13.583	ppb	23:10:18
2	Sr 421.552†	50.5	21.2	0.1956	µg/L	0.1956	ppb	23:10:18
2	Sc 361.383	2020781.7	2020781.7	102.94	%			23:11:47
2	Y 371.029	1396749.0	1396749.0	103.25	%			23:11:47
2	Ag 328.068†	-396.9	16.1	0.1175	µg/L	0.1175	ppb	23:11:52
2	As 188.979†	0.7	1.2	2.0940	µg/L	2.0940	ppb	23:12:13
2	B 249.677†	344.3	-49.7	-2.0296	µg/L	-2.0296	ppb	23:12:13
2	Ba 233.527†	10.9	27.7	0.6639	µg/L	0.6639	ppb	23:12:13
2	Be 313.107†	-2676.0	256.0	0.1515	µg/L	0.1515	ppb	23:11:52
2	Cd 226.502†	-146.1	-0.3	-0.0086	µg/L	-0.0086	ppb	23:12:13
2	Co 228.616†	4.5	2.5	0.1093	µg/L	0.1093	ppb	23:12:13
2	Cr 267.716†	-64.9	-12.7	-0.2549	µg/L	-0.2549	ppb	23:11:52
2	Cu 324.752†	2583.3	-34.1	-0.2211	µg/L	-0.2211	ppb	23:11:52
2	Mn 257.610†	33.5	288.6	0.9061	µg/L	0.9061	ppb	23:12:13
2	Mo 202.031†	-0.1	5.2	0.5097	µg/L	0.5097	ppb	23:12:13
2	Ni 231.604†	310.4	-10.8	-0.5376	µg/L	-0.5376	ppb	23:12:13
2	P 214.914†	14.3	-1.5	-2.8930	µg/L	-2.8930	ppb	23:12:13
2	Pb 220.353†	90.6	-3.0	-0.7206	µg/L	-0.7206	ppb	23:12:13

2	S 181.975 Axial†	16.0	-3.4	-13.920	µg/L	-13.920 ppb	23:12:13
2	Sb 206.836†	23.1	-0.0	-0.0297	µg/L	-0.0297 ppb	23:12:13
2	Se 196.026†	15.7	-4.0	-5.6316	µg/L	-5.6316 ppb	23:12:13
2	SiO2†	1556.9	120.9	23.873	µg/L	23.873 ppb	23:11:52
2	Si 251.611†	460.7	136.9	10.406	µg/L	10.406 ppb	23:12:13
2	Sn 189.927†	-0.9	-1.2	-0.5120	µg/L	-0.5120 ppb	23:12:13
2	Ti 334.940†	740.4	544.2	1.2058	µg/L	1.2058 ppb	23:11:52
2	Tl 190.801†	-24.4	-1.3	-1.6505	µg/L	-1.6505 ppb	23:12:13
2	U 409.014†	-55.3	23.4	1.9414	µg/L	1.9414 ppb	23:11:52
2	V 292.402†	-83.3	-36.2	-0.3461	µg/L	-0.3461 ppb	23:11:52
2	Zn 213.857†	542.3	-7.6	-0.1746	µg/L	-0.1746 ppb	23:12:13
3	Sc RADIAL	57024.4	57024.4	101	%		23:10:44
3	Al 396.153Radial†	28.2	20.6	14.312	µg/L	14.312 ppb	23:10:44
3	Ca 317.933Radial†	203.6	-9.6	-8.1744	µg/L	-8.1744 ppb	23:11:04
3	Fe 238.204 Radial†	19.9	3.1	24.715	µg/L	24.715 ppb	23:11:04
3	K 766.490 Radial†	255.2	87.8	57.354	µg/L	57.354 ppb	23:10:44
3	Mg 279.077 IEC†	13.0	0.1	0.7509	µg/L	0.7509 ppb	23:11:04
3	Na 589.592 Radial†	480.3	3.7	1.1222	µg/L	1.1222 ppb	23:10:44
3	Sr 421.552†	41.1	11.9	0.1098	µg/L	0.1098 ppb	23:10:44
3	Sc 361.383	2015035.0	2015035.0	102.64	%		23:12:19
3	Y 371.029	1393345.2	1393345.2	103.00	%		23:12:19
3	Ag 328.068†	-399.3	12.6	0.0933	µg/L	0.0933 ppb	23:12:25
3	As 188.979†	1.9	2.3	4.1656	µg/L	4.1656 ppb	23:12:45
3	B 249.677†	334.7	-58.0	-2.3782	µg/L	-2.3782 ppb	23:12:45
3	Ba 233.527†	-4.7	12.5	0.2988	µg/L	0.2988 ppb	23:12:45
3	Be 313.107†	-2569.3	352.6	0.2090	µg/L	0.2090 ppb	23:12:25
3	Cd 226.502†	-138.5	6.8	0.1657	µg/L	0.1657 ppb	23:12:45
3	Co 228.616†	7.6	5.5	0.2480	µg/L	0.2480 ppb	23:12:45
3	Cr 267.716†	-72.8	-20.5	-0.4127	µg/L	-0.4127 ppb	23:12:25
3	Cu 324.752†	2608.3	-2.6	-0.0135	µg/L	-0.0135 ppb	23:12:25
3	Mn 257.610†	-109.2	149.6	0.4717	µg/L	0.4717 ppb	23:12:45
3	Mo 202.031†	8.3	13.4	1.3150	µg/L	1.3150 ppb	23:12:45
3	Ni 231.604†	307.9	-12.4	-0.6185	µg/L	-0.6185 ppb	23:12:45
3	P 214.914†	9.6	-6.0	-11.945	µg/L	-11.945 ppb	23:12:45
3	Pb 220.353†	89.3	-3.9	-0.9624	µg/L	-0.9624 ppb	23:12:45
3	S 181.975 Axial†	17.3	-2.1	-8.6936	µg/L	-8.6936 ppb	23:12:45
3	Sb 206.836†	27.2	4.0	3.6685	µg/L	3.6685 ppb	23:12:45
3	Se 196.026†	14.5	-5.2	-7.2537	µg/L	-7.2537 ppb	23:12:45
3	SiO2†	1511.8	81.3	16.045	µg/L	16.045 ppb	23:12:25
3	Si 251.611†	407.9	86.8	6.5981	µg/L	6.5981 ppb	23:12:45
3	Sn 189.927†	1.5	1.1	0.4522	µg/L	0.4522 ppb	23:12:45
3	Ti 334.940†	528.4	339.7	0.7514	µg/L	0.7514 ppb	23:12:25
3	Tl 190.801†	-23.3	-0.4	-0.4507	µg/L	-0.4507 ppb	23:12:45
3	U 409.014†	10.8	87.6	7.2739	µg/L	7.2739 ppb	23:12:25
3	V 292.402†	-68.0	-21.5	-0.1901	µg/L	-0.1901 ppb	23:12:25
3	Zn 213.857†	544.0	-4.4	-0.1013	µg/L	-0.1013 ppb	23:12:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2015235.2	102.65	%	0.278				0.27%
Sc RADIAL	57051.2	101	%	0.0				0.04%
Y 371.029	1393180.1	102.99	%	0.270				0.26%
Ag 328.068†	28.9	0.2139	µg/L	0.18832	0.2139	ppb	0.18832	88.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.1	7.0174	µg/L	6.90546	7.0174	ppb	6.90546	98.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	2.0390	µg/L	2.15458	2.0390	ppb	2.15458	105.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.6	-1.9940	µg/L	0.40322	-1.9940	ppb	0.40322	20.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.2	0.4846	µg/L	0.18261	0.4846	ppb	0.18261	37.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	289.5	0.1714	µg/L	0.03254	0.1714	ppb	0.03254	18.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.1	-4.3434	µg/L	4.69799	-4.3434	ppb	4.69799	108.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.8	0.1159	µg/L	0.10856	0.1159	ppb	0.10856	93.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.2	0.1440	µg/L	0.09170	0.1440	ppb	0.09170	63.66%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.9     -0.3605 µg/L       0.09147     -0.3605 ppb        0.09147  25.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -23.2     -0.1480 µg/L       0.11660     -0.1480 ppb        0.11660  78.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.0      23.948 µg/L       12.8041      23.948 ppb        12.8041  53.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         69.9      45.629 µg/L       27.3393      45.629 ppb        27.3393  59.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.9     -8.1699 µg/L      14.52675     -8.1699 ppb       14.52675 177.81%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              201.0      0.6331 µg/L       0.23777      0.6331 ppb        0.23777  37.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.1      0.8954 µg/L       0.40369      0.8954 ppb        0.40369  45.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -23.3     -7.1485 µg/L       7.52241     -7.1485 ppb        7.52241 105.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -9.1     -0.4542 µg/L       0.21833     -0.4542 ppb        0.21833  48.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.4     -10.623 µg/L        7.1608     -10.623 ppb         7.1608  67.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -6.5     -1.5841 µg/L       1.29178     -1.5841 ppb        1.29178  81.55%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.6     -14.931 µg/L        6.7999     -14.931 ppb         6.7999  45.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.9      0.8352 µg/L       2.51500      0.8352 ppb        2.51500 301.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.6     -4.9316 µg/L       2.73998     -4.9316 ppb        2.73998  55.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     96.8      19.116 µg/L        4.1770      19.116 ppb         4.1770  21.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              110.0      8.3647 µg/L       1.91884      8.3647 ppb        1.91884  22.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.4      0.5669 µg/L       1.14067      0.5669 ppb        1.14067 201.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               25.3      0.2335 µg/L       0.14633      0.2335 ppb        0.14633  62.68%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              487.4      1.0787 µg/L       0.28581      1.0787 ppb        0.28581  26.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.2     -0.2145 µg/L       1.56752     -0.2145 ppb        1.56752 730.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                57.5      4.7722 µg/L       2.68141      4.7722 ppb        2.68141  56.19%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -23.5     -0.2153 µg/L       0.12024     -0.2153 ppb        0.12024  55.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -5.6     -0.1294 µg/L       0.03957     -0.1294 ppb        0.03957  30.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 23:38:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58933.2	58933.2	104	%			23:38:44
1	Al 396.153Radial†	7172.7	6868.7	4768.0	µg/L	4768.0	ppb	23:38:44
1	Ca 317.933Radial†	6050.3	5588.8	4773.8	µg/L	4773.8	ppb	23:39:05
1	Fe 238.204 Radial†	660.6	616.7	4874.3	µg/L	4874.3	ppb	23:39:05
1	K 766.490 Radial†	7705.1	7221.5	4716.5	µg/L	4716.5	ppb	23:38:44
1	Mg 279.077 IEC†	575.7	539.0	4821.5	µg/L	4821.5	ppb	23:39:05
1	Na 589.592 Radial†	32864.9	31033.3	9531.7	µg/L	9531.7	ppb	23:38:44
1	Sr 421.552†	52837.3	50623.1	467.01	µg/L	467.01	ppb	23:38:44
1	Sc 361.383	2065679.1	2065679.1	105.22	%			23:40:08
1	Y 371.029	1422719.1	1422719.1	105.17	%			23:40:08
1	Ag 328.068†	67697.4	64737.9	483.06	µg/L	483.06	ppb	23:40:14
1	As 188.979†	294.5	280.3	501.52	µg/L	501.52	ppb	23:40:34
1	B 249.677†	12750.6	11733.4	476.47	µg/L	476.47	ppb	23:40:14
1	Ba 233.527†	21308.0	20267.1	487.43	µg/L	487.43	ppb	23:40:14
1	Be 313.107†	854737.7	815156.4	483.62	µg/L	483.62	ppb	23:40:08
1	Cd 226.502†	20617.6	19735.6	492.16	µg/L	492.16	ppb	23:40:14
1	Co 228.616†	11380.5	10813.6	489.17	µg/L	489.17	ppb	23:40:14
1	Cr 267.716†	25607.5	24386.5	490.11	µg/L	490.11	ppb	23:40:14
1	Cu 324.752†	80271.0	73741.8	482.03	µg/L	482.03	ppb	23:40:14
1	Mn 257.610†	165524.3	157562.1	493.86	µg/L	493.86	ppb	23:40:08
1	Mo 202.031†	5363.7	5102.7	499.88	µg/L	499.88	ppb	23:40:34
1	Ni 231.604†	10686.1	9843.2	490.16	µg/L	490.16	ppb	23:40:14
1	P 214.914†	1327.8	1246.5	2422.0	µg/L	2422.0	ppb	23:40:34
1	Pb 220.353†	2236.8	2034.8	494.83	µg/L	494.83	ppb	23:40:34
1	S 181.975 Axial†	262.8	230.9	957.37	µg/L	957.37	ppb	23:40:34
1	Sb 206.836†	589.0	537.3	495.44	µg/L	495.44	ppb	23:40:34
1	Se 196.026†	400.2	361.0	514.73	µg/L	514.73	ppb	23:40:34
1	SiO2†	29290.4	26444.6	5219.8	µg/L	5219.8	ppb	23:40:14
1	Si 251.611†	34183.1	32175.3	2446.0	µg/L	2446.0	ppb	23:40:14
1	Sn 189.927†	1265.3	1202.1	506.97	µg/L	506.97	ppb	23:40:34
1	Ti 334.940†	230200.3	218596.0	483.28	µg/L	483.28	ppb	23:40:08
1	Tl 190.801†	374.1	377.9	496.67	µg/L	496.67	ppb	23:40:34
1	U 409.014†	6143.3	5915.4	490.51	µg/L	490.51	ppb	23:40:14
1	V 292.402†	52287.8	49736.5	490.76	µg/L	490.76	ppb	23:40:14
1	Zn 213.857†	22608.6	20951.7	488.11	µg/L	488.11	ppb	23:40:14
2	Sc RADIAL	58655.2	58655.2	104	%			23:39:10
2	Al 396.153Radial†	7191.3	6919.2	4803.2	µg/L	4803.2	ppb	23:39:10
2	Ca 317.933Radial†	6069.1	5634.4	4812.8	µg/L	4812.8	ppb	23:39:31
2	Fe 238.204 Radial†	666.1	625.0	4940.0	µg/L	4940.0	ppb	23:39:31
2	K 766.490 Radial†	7748.2	7298.0	4766.4	µg/L	4766.4	ppb	23:39:10
2	Mg 279.077 IEC†	586.1	551.7	4934.9	µg/L	4934.9	ppb	23:39:31
2	Na 589.592 Radial†	32986.9	31300.2	9613.6	µg/L	9613.6	ppb	23:39:10
2	Sr 421.552†	52917.2	50940.1	469.93	µg/L	469.93	ppb	23:39:10
2	Sc 361.383	2055118.2	2055118.2	104.69	%			23:40:41
2	Y 371.029	1414341.2	1414341.2	104.55	%			23:40:41
2	Ag 328.068†	67915.5	65276.8	487.08	µg/L	487.08	ppb	23:40:47
2	As 188.979†	287.6	275.2	492.28	µg/L	492.28	ppb	23:41:07
2	B 249.677†	12834.8	11876.1	482.26	µg/L	482.26	ppb	23:40:47
2	Ba 233.527†	21308.2	20371.4	489.94	µg/L	489.94	ppb	23:40:47
2	Be 313.107†	849714.5	814532.3	483.24	µg/L	483.24	ppb	23:40:41
2	Cd 226.502†	20625.5	19843.8	494.86	µg/L	494.86	ppb	23:40:47
2	Co 228.616†	11438.4	10924.5	494.18	µg/L	494.18	ppb	23:40:47
2	Cr 267.716†	25732.1	24630.5	495.02	µg/L	495.02	ppb	23:40:47
2	Cu 324.752†	80507.6	74359.9	486.07	µg/L	486.07	ppb	23:40:47
2	Mn 257.610†	164393.1	157290.0	493.02	µg/L	493.02	ppb	23:40:41
2	Mo 202.031†	5257.3	5027.3	492.49	µg/L	492.49	ppb	23:41:07
2	Ni 231.604†	10714.5	9922.5	494.11	µg/L	494.11	ppb	23:40:47
2	P 214.914†	1313.8	1239.6	2407.7	µg/L	2407.7	ppb	23:41:07
2	Pb 220.353†	2207.0	2017.3	490.55	µg/L	490.55	ppb	23:41:07

2	S 181.975 Axial†	267.9	237.0	982.86 µg/L	982.86 ppb	23:41:07
2	Sb 206.836†	582.2	533.6	491.91 µg/L	491.91 ppb	23:41:07
2	Se 196.026†	397.8	360.7	514.34 µg/L	514.34 ppb	23:41:07
2	SiO2†	29503.7	26791.4	5288.3 µg/L	5288.3 ppb	23:40:47
2	Si 251.611†	34392.7	32542.5	2473.9 µg/L	2473.9 ppb	23:40:47
2	Sn 189.927†	1234.4	1178.7	497.12 µg/L	497.12 ppb	23:41:07
2	Ti 334.940†	228997.4	218571.2	483.22 µg/L	483.22 ppb	23:40:41
2	Tl 190.801†	370.8	376.5	494.87 µg/L	494.87 ppb	23:41:07
2	U 409.014†	6076.5	5881.5	487.69 µg/L	487.69 ppb	23:40:47
2	V 292.402†	52388.9	50088.4	494.15 µg/L	494.15 ppb	23:40:47
2	Zn 213.857†	22671.2	21121.9	492.07 µg/L	492.07 ppb	23:40:47
3	Sc RADIAL	58551.8	58551.8	104 %		23:39:36
3	Al 396.153Radial†	7184.9	6925.2	4809.2 µg/L	4809.2 ppb	23:39:36
3	Ca 317.933Radial†	6057.4	5633.4	4811.9 µg/L	4811.9 ppb	23:39:56
3	Fe 238.204 Radial†	667.5	627.4	4957.8 µg/L	4957.8 ppb	23:39:56
3	K 766.490 Radial†	7791.0	7352.4	4802.0 µg/L	4802.0 ppb	23:39:36
3	Mg 279.077 IEC†	578.1	545.0	4873.1 µg/L	4873.1 ppb	23:39:56
3	Na 589.592 Radial†	32965.6	31335.8	9624.6 µg/L	9624.6 ppb	23:39:36
3	Sr 421.552†	53009.1	51118.7	471.58 µg/L	471.58 ppb	23:39:36
3	Sc 361.383	2030006.9	2030006.9	103.41 %		23:41:15
3	Y 371.029	1398396.5	1398396.5	103.37 %		23:41:15
3	Ag 328.068†	62848.2	61179.0	456.33 µg/L	456.33 ppb	23:41:20
3	As 188.979†	242.8	235.2	420.85 µg/L	420.85 ppb	23:41:41
3	B 249.677†	11717.7	10947.4	444.28 µg/L	444.28 ppb	23:41:20
3	Ba 233.527†	19024.3	18414.6	442.86 µg/L	442.86 ppb	23:41:20
3	Be 313.107†	777937.3	755160.5	448.02 µg/L	448.02 ppb	23:41:15
3	Cd 226.502†	18249.9	17790.3	443.59 µg/L	443.59 ppb	23:41:20
3	Co 228.616†	9984.8	9653.8	436.64 µg/L	436.64 ppb	23:41:20
3	Cr 267.716†	21785.9	21118.4	424.44 µg/L	424.44 ppb	23:41:20
3	Cu 324.752†	71113.2	66226.3	432.98 µg/L	432.98 ppb	23:41:20
3	Mn 257.610†	151288.3	146559.5	459.42 µg/L	459.42 ppb	23:41:15
3	Mo 202.031†	4272.3	4136.8	405.29 µg/L	405.29 ppb	23:41:41
3	Ni 231.604†	9405.6	8783.4	437.39 µg/L	437.39 ppb	23:41:20
3	P 214.914†	1080.9	1030.0	1996.9 µg/L	1996.9 ppb	23:41:41
3	Pb 220.353†	1868.0	1715.5	417.08 µg/L	417.08 ppb	23:41:41
3	S 181.975 Axial†	230.6	204.1	846.44 µg/L	846.44 ppb	23:41:41
3	Sb 206.836†	482.8	444.4	409.38 µg/L	409.38 ppb	23:41:41
3	Se 196.026†	339.5	309.0	441.86 µg/L	441.86 ppb	23:41:41
3	SiO2†	26761.7	24488.4	4833.7 µg/L	4833.7 ppb	23:41:20
3	Si 251.611†	31061.3	29727.3	2259.9 µg/L	2259.9 ppb	23:41:20
3	Sn 189.927†	989.8	956.8	403.51 µg/L	403.51 ppb	23:41:41
3	Ti 334.940†	208298.2	201259.9	444.92 µg/L	444.92 ppb	23:41:15
3	Tl 190.801†	325.8	337.5	443.78 µg/L	443.78 ppb	23:41:41
3	U 409.014†	5294.0	5196.7	430.78 µg/L	430.78 ppb	23:41:20
3	V 292.402†	45485.4	44031.4	434.23 µg/L	434.23 ppb	23:41:20
3	Zn 213.857†	19944.3	18752.8	436.83 µg/L	436.83 ppb	23:41:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2050268.1	104.44	%	0.933				0.89%
Sc RADIAL	58713.4	104	%	0.3				0.34%
Y 371.029	1411818.9	104.37	%	0.913				0.88%
Ag 328.068†	63731.2	475.49	µg/L	16.711	475.49	ppb	16.711	3.51%
QC value within limits for Ag 328.068 Recovery = 95.10%								
Al 396.153Radial†	6904.4	4793.5	µg/L	22.30	4793.5	ppb	22.30	0.47%
QC value within limits for Al 396.153Radial Recovery = 95.87%								
As 188.979†	263.6	471.55	µg/L	44.146	471.55	ppb	44.146	9.36%
QC value within limits for As 188.979 Recovery = 94.31%								
B 249.677†	11519.0	467.67	µg/L	20.459	467.67	ppb	20.459	4.37%
QC value within limits for B 249.677 Recovery = 93.53%								
Ba 233.527†	19684.4	473.41	µg/L	26.489	473.41	ppb	26.489	5.60%
QC value within limits for Ba 233.527 Recovery = 94.68%								
Be 313.107†	794949.7	471.63	µg/L	20.444	471.63	ppb	20.444	4.33%
QC value within limits for Be 313.107 Recovery = 94.33%								
Ca 317.933Radial†	5618.9	4799.5	µg/L	22.25	4799.5	ppb	22.25	0.46%
QC value within limits for Ca 317.933Radial Recovery = 95.99%								
Cd 226.502†	19123.2	476.87	µg/L	28.857	476.87	ppb	28.857	6.05%
QC value within limits for Cd 226.502 Recovery = 95.37%								
Co 228.616†	10464.0	473.33	µg/L	31.873	473.33	ppb	31.873	6.73%

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   QC value within limits for Co 228.616  Recovery = 94.67%
Cr 267.716†            23378.5      469.86 µg/L        39.409      469.86 ppb         39.409   8.39%
   QC value within limits for Cr 267.716  Recovery = 93.97%
Cu 324.752†            71442.7      467.02 µg/L        29.553      467.02 ppb         29.553   6.33%
   QC value within limits for Cu 324.752  Recovery = 93.40%
Fe 238.204 Radial†       623.1      4924.0 µg/L         44.00      4924.0 ppb          44.00   0.89%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.48%
K 766.490 Radial†       7290.6      4761.6 µg/L         42.97      4761.6 ppb          42.97   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 95.23%
Mg 279.077 IEC†          545.2      4876.5 µg/L         56.74      4876.5 ppb          56.74   1.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.53%
Mn 257.610†           153803.9      482.10 µg/L        19.647      482.10 ppb         19.647   4.08%
   QC value within limits for Mn 257.610  Recovery = 96.42%
Mo 202.031†             4755.6      465.89 µg/L        52.605      465.89 ppb         52.605  11.29%
   QC value within limits for Mo 202.031  Recovery = 93.18%
Na 589.592 Radial†     31223.1      9590.0 µg/L         50.77      9590.0 ppb          50.77   0.53%
   QC value within limits for Na 589.592 Radial  Recovery = 95.90%
Ni 231.604†             9516.4      473.89 µg/L        31.667      473.89 ppb         31.667   6.68%
   QC value within limits for Ni 231.604  Recovery = 94.78%
P 214.914†              1172.0      2275.5 µg/L        241.44      2275.5 ppb         241.44  10.61%
   QC value within limits for P 214.914  Recovery = 91.02%
Pb 220.353†             1922.5      467.49 µg/L        43.705      467.49 ppb         43.705   9.35%
   QC value within limits for Pb 220.353  Recovery = 93.50%
S 181.975 Axial†         224.0      928.89 µg/L        72.531      928.89 ppb         72.531   7.81%
   QC value within limits for S 181.975 Axial  Recovery = 92.89%
Sb 206.836†              505.1      465.58 µg/L        48.696      465.58 ppb         48.696  10.46%
   QC value within limits for Sb 206.836  Recovery = 93.12%
Se 196.026†              343.6      490.31 µg/L        41.963      490.31 ppb         41.963   8.56%
   QC value within limits for Se 196.026  Recovery = 98.06%
SiO2†                  25908.1      5113.9 µg/L        245.09      5113.9 ppb         245.09   4.79%
   QC value within limits for SiO2  Recovery = 95.63%
Si 251.611†            31481.7      2393.3 µg/L        116.35      2393.3 ppb         116.35   4.86%
   QC value within limits for Si 251.611  Recovery = 95.73%
Sn 189.927†             1112.5      469.20 µg/L        57.103      469.20 ppb         57.103  12.17%
   QC value within limits for Sn 189.927  Recovery = 93.84%
Sr 421.552†            50894.0      469.50 µg/L         2.316      469.50 ppb          2.316   0.49%
   QC value within limits for Sr 421.552  Recovery = 93.90%
Ti 334.940†           212809.0      470.47 µg/L        22.126      470.47 ppb         22.126   4.70%
   QC value within limits for Ti 334.940  Recovery = 94.09%
Tl 190.801†              364.0      478.44 µg/L        30.031      478.44 ppb         30.031   6.28%
   QC value within limits for Tl 190.801  Recovery = 95.69%
U 409.014†              5664.5      469.66 µg/L        33.698      469.66 ppb         33.698   7.17%
   QC value within limits for U 409.014  Recovery = 93.93%
V 292.402†             47952.1      473.05 µg/L        33.659      473.05 ppb         33.659   7.12%
   QC value within limits for V 292.402  Recovery = 94.61%
Zn 213.857†            20275.5      472.34 µg/L        30.816      472.34 ppb         30.816   6.52%
   QC value within limits for Zn 213.857  Recovery = 94.47%
All analyte(s) passed QC.
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Sequence No.: 40
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 23:41:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57547.6	57547.6	102	%			23:42:23
1	Al 396.153Radial†	-1.4	-8.7	-6.0778	µg/L	-6.0778	ppb	23:42:23
1	Ca 317.933Radial†	191.7	-23.1	-19.737	µg/L	-19.737	ppb	23:42:44
1	Fe 238.204 Radial†	21.1	4.1	32.654	µg/L	32.654	ppb	23:42:44
1	K 766.490 Radial†	165.3	-2.7	-1.7690	µg/L	-1.7690	ppb	23:42:23
1	Mg 279.077 IEC†	11.7	-1.3	-11.537	µg/L	-11.537	ppb	23:42:44
1	Na 589.592 Radial†	440.0	-40.2	-12.347	µg/L	-12.347	ppb	23:42:23
1	Sr 421.552†	45.4	15.8	0.1455	µg/L	0.1455	ppb	23:42:23
1	Sc 361.383	2025376.1	2025376.1	103.17	%			23:43:46
1	Y 371.029	1400619.9	1400619.9	103.54	%			23:43:46
1	Ag 328.068†	-387.9	25.6	0.1905	µg/L	0.1905	ppb	23:43:52
1	As 188.979†	3.0	3.4	6.1195	µg/L	6.1195	ppb	23:44:12
1	B 249.677†	384.0	-11.9	-0.5018	µg/L	-0.5018	ppb	23:44:12
1	Ba 233.527†	-6.8	10.5	0.2521	µg/L	0.2521	ppb	23:44:12
1	Be 313.107†	-2612.9	323.1	0.1915	µg/L	0.1915	ppb	23:43:52
1	Cd 226.502†	-141.9	4.1	0.0989	µg/L	0.0989	ppb	23:44:12
1	Co 228.616†	3.8	1.7	0.0784	µg/L	0.0784	ppb	23:44:12
1	Cr 267.716†	-41.3	10.3	0.2069	µg/L	0.2069	ppb	23:43:52
1	Cu 324.752†	2636.8	12.0	0.0831	µg/L	0.0831	ppb	23:43:52
1	Mn 257.610†	-183.1	78.6	0.2509	µg/L	0.2509	ppb	23:44:12
1	Mo 202.031†	1.9	7.2	0.7037	µg/L	0.7037	ppb	23:44:12
1	Ni 231.604†	312.1	-9.8	-0.4894	µg/L	-0.4894	ppb	23:44:12
1	P 214.914†	15.4	-0.4	-0.8055	µg/L	-0.8055	ppb	23:44:12
1	Pb 220.353†	81.0	-12.4	-3.0222	µg/L	-3.0222	ppb	23:44:12
1	S 181.975 Axial†	19.0	-0.6	-2.3481	µg/L	-2.3481	ppb	23:44:12
1	Sb 206.836†	24.9	1.6	1.5059	µg/L	1.5059	ppb	23:44:12
1	Se 196.026†	12.4	-7.3	-10.123	µg/L	-10.123	ppb	23:44:12
1	SiO2†	1526.4	87.9	17.344	µg/L	17.344	ppb	23:43:52
1	Si 251.611†	435.0	111.0	8.4402	µg/L	8.4402	ppb	23:44:12
1	Sn 189.927†	-0.2	-0.5	-0.2289	µg/L	-0.2289	ppb	23:44:12
1	Ti 334.940†	503.8	313.2	0.6936	µg/L	0.6936	ppb	23:43:52
1	Tl 190.801†	-22.9	0.2	0.2896	µg/L	0.2896	ppb	23:44:12
1	U 409.014†	-102.1	-21.9	-1.8209	µg/L	-1.8209	ppb	23:43:52
1	V 292.402†	-63.4	-16.7	-0.1546	µg/L	-0.1546	ppb	23:43:52
1	Zn 213.857†	538.6	-12.3	-0.2886	µg/L	-0.2886	ppb	23:44:12
2	Sc RADIAL	57798.1	57798.1	102	%			23:42:49
2	Al 396.153Radial†	5.4	-2.1	-1.4497	µg/L	-1.4497	ppb	23:42:49
2	Ca 317.933Radial†	194.8	-20.8	-17.777	µg/L	-17.777	ppb	23:43:10
2	Fe 238.204 Radial†	20.3	3.3	25.779	µg/L	25.779	ppb	23:43:10
2	K 766.490 Radial†	162.9	-5.7	-3.7508	µg/L	-3.7508	ppb	23:42:49
2	Mg 279.077 IEC†	8.4	-4.6	-41.335	µg/L	-41.335	ppb	23:43:10
2	Na 589.592 Radial†	457.2	-25.3	-7.7599	µg/L	-7.7599	ppb	23:42:49
2	Sr 421.552†	36.3	6.7	0.0620	µg/L	0.0620	ppb	23:42:49
2	Sc 361.383	2035896.6	2035896.6	103.71	%			23:44:18
2	Y 371.029	1407783.4	1407783.4	104.07	%			23:44:18
2	Ag 328.068†	-402.1	13.9	0.1050	µg/L	0.1050	ppb	23:44:24
2	As 188.979†	-1.1	-0.6	-1.0482	µg/L	-1.0482	ppb	23:44:44
2	B 249.677†	374.8	-22.8	-0.9407	µg/L	-0.9407	ppb	23:44:44
2	Ba 233.527†	-9.4	8.0	0.1913	µg/L	0.1913	ppb	23:44:44
2	Be 313.107†	-2792.0	163.5	0.0968	µg/L	0.0968	ppb	23:44:24
2	Cd 226.502†	-137.1	9.5	0.2331	µg/L	0.2331	ppb	23:44:44
2	Co 228.616†	1.5	-0.5	-0.0215	µg/L	-0.0215	ppb	23:44:44
2	Cr 267.716†	-40.1	11.7	0.2356	µg/L	0.2356	ppb	23:44:24
2	Cu 324.752†	2541.9	-92.7	-0.6013	µg/L	-0.6013	ppb	23:44:24
2	Mn 257.610†	-190.3	72.5	0.2320	µg/L	0.2320	ppb	23:44:44
2	Mo 202.031†	5.7	10.8	1.0589	µg/L	1.0589	ppb	23:44:44
2	Ni 231.604†	305.7	-17.6	-0.8764	µg/L	-0.8764	ppb	23:44:44
2	P 214.914†	12.5	-3.3	-6.5291	µg/L	-6.5291	ppb	23:44:44
2	Pb 220.353†	85.8	-8.2	-1.9875	µg/L	-1.9875	ppb	23:44:44

2	S 181.975 Axial†	16.3	-3.2	-13.230	µg/L	-13.230 ppb	23:44:44
2	Sb 206.836†	26.4	3.0	2.7276	µg/L	2.7276 ppb	23:44:44
2	Se 196.026†	20.4	0.4	0.6560	µg/L	0.6560 ppb	23:44:44
2	SiO2†	1530.3	84.0	16.587	µg/L	16.587 ppb	23:44:24
2	Si 251.611†	449.2	122.5	9.3160	µg/L	9.3160 ppb	23:44:44
2	Sn 189.927†	-1.2	-1.5	-0.6475	µg/L	-0.6475 ppb	23:44:44
2	Ti 334.940†	469.3	277.5	0.6169	µg/L	0.6169 ppb	23:44:24
2	Tl 190.801†	-24.4	-1.2	-1.5053	µg/L	-1.5053 ppb	23:44:44
2	U 409.014†	-67.9	11.6	0.9594	µg/L	0.9594 ppb	23:44:24
2	V 292.402†	-41.5	4.7	0.0586	µg/L	0.0586 ppb	23:44:24
2	Zn 213.857†	546.7	-7.3	-0.1650	µg/L	-0.1650 ppb	23:44:44
3	Sc RADIAL	57486.1	57486.1	102	%		23:43:15
3	Al 396.153Radial†	2.0	-5.4	-3.7529	µg/L	-3.7529 ppb	23:43:15
3	Ca 317.933Radial†	200.6	-14.1	-12.036	µg/L	-12.036 ppb	23:43:35
3	Fe 238.204 Radial†	17.7	0.8	6.3556	µg/L	6.3556 ppb	23:43:35
3	K 766.490 Radial†	216.4	47.7	31.167	µg/L	31.167 ppb	23:43:15
3	Mg 279.077 IEC†	6.5	-6.4	-57.568	µg/L	-57.568 ppb	23:43:35
3	Na 589.592 Radial†	420.3	-59.2	-18.174	µg/L	-18.174 ppb	23:43:15
3	Sr 421.552†	30.1	0.8	0.0074	µg/L	0.0074 ppb	23:43:15
3	Sc 361.383	1964292.0	1964292.0	100.06	%		23:44:51
3	Y 371.029	1357553.0	1357553.0	100.35	%		23:44:51
3	Ag 328.068†	-383.4	18.4	0.1374	µg/L	0.1374 ppb	23:44:56
3	As 188.979†	-5.4	-5.0	-8.9160	µg/L	-8.9160 ppb	23:45:17
3	B 249.677†	373.9	-10.5	-0.4295	µg/L	-0.4295 ppb	23:45:17
3	Ba 233.527†	-7.1	10.0	0.2394	µg/L	0.2394 ppb	23:45:17
3	Be 313.107†	-2709.5	147.8	0.0874	µg/L	0.0874 ppb	23:44:56
3	Cd 226.502†	-142.4	-0.7	-0.0174	µg/L	-0.0174 ppb	23:45:17
3	Co 228.616†	-3.1	-5.1	-0.2307	µg/L	-0.2307 ppb	23:45:17
3	Cr 267.716†	-49.1	1.3	0.0253	µg/L	0.0253 ppb	23:44:56
3	Cu 324.752†	2593.7	48.4	0.3169	µg/L	0.3169 ppb	23:44:56
3	Mn 257.610†	-207.6	48.5	0.1551	µg/L	0.1551 ppb	23:45:17
3	Mo 202.031†	1.3	6.7	0.6547	µg/L	0.6547 ppb	23:45:17
3	Ni 231.604†	309.4	-3.1	-0.1565	µg/L	-0.1565 ppb	23:45:17
3	P 214.914†	5.6	-9.8	-19.330	µg/L	-19.330 ppb	23:45:17
3	Pb 220.353†	81.6	-9.4	-2.2754	µg/L	-2.2754 ppb	23:45:17
3	S 181.975 Axial†	12.5	-6.4	-26.518	µg/L	-26.518 ppb	23:45:17
3	Sb 206.836†	22.0	-0.5	-0.4249	µg/L	-0.4249 ppb	23:45:17
3	Se 196.026†	18.6	-0.7	-0.9267	µg/L	-0.9267 ppb	23:45:17
3	SiO2†	1531.7	139.2	27.479	µg/L	27.479 ppb	23:44:56
3	Si 251.611†	452.1	141.2	10.737	µg/L	10.737 ppb	23:45:17
3	Sn 189.927†	7.1	6.7	2.8200	µg/L	2.8200 ppb	23:45:17
3	Ti 334.940†	532.4	357.1	0.7943	µg/L	0.7943 ppb	23:44:56
3	Tl 190.801†	-22.2	0.2	0.2118	µg/L	0.2118 ppb	23:45:17
3	U 409.014†	-79.2	-2.0	-0.1697	µg/L	-0.1697 ppb	23:44:56
3	V 292.402†	-34.8	10.0	0.1029	µg/L	0.1029 ppb	23:44:56
3	Zn 213.857†	540.4	5.7	0.1371	µg/L	0.1371 ppb	23:45:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008521.6	102.31	%	1.969				1.92%
Sc RADIAL	57610.6	102	%	0.3				0.29%
Y 371.029	1388652.1	102.65	%	2.008				1.96%
Ag 328.068†	19.3	0.1443	µg/L	0.04319	0.1443	ppb	0.04319	29.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.4	-3.7601	µg/L	2.31405	-3.7601	ppb	2.31405	61.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.7	-1.2816	µg/L	7.52046	-1.2816	ppb	7.52046	586.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-15.0	-0.6240	µg/L	0.27664	-0.6240	ppb	0.27664	44.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.2276	µg/L	0.03206	0.2276	ppb	0.03206	14.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	211.5	0.1252	µg/L	0.05757	0.1252	ppb	0.05757	45.96%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.3	-16.516	µg/L	4.0022	-16.516	ppb	4.0022	24.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.3	0.1049	µg/L	0.12539	0.1049	ppb	0.12539	119.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.3	-0.0580	µg/L	0.15776	-0.0580	ppb	0.15776	272.20%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.8      0.1559 µg/L       0.11402      0.1559 ppb        0.11402  73.11%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -10.7     -0.0671 µg/L       0.47717     -0.0671 ppb        0.47717 711.16%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.7      21.596 µg/L       13.6390      21.596 ppb        13.6390  63.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         13.1      8.5489 µg/L      19.61253      8.5489 ppb       19.61253 229.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.1     -36.813 µg/L       23.3462     -36.813 ppb        23.3462  63.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               66.5      0.2127 µg/L       0.05073      0.2127 ppb        0.05073  23.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.2      0.8058 µg/L       0.22057      0.8058 ppb        0.22057  27.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -41.5     -12.761 µg/L        5.2196     -12.761 ppb         5.2196  40.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -10.2     -0.5074 µg/L       0.36031     -0.5074 ppb        0.36031  71.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.5     -8.8883 µg/L       9.48496     -8.8883 ppb        9.48496 106.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.0     -2.4284 µg/L       0.53406     -2.4284 ppb        0.53406  21.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.4     -14.032 µg/L       12.1051     -14.032 ppb        12.1051  86.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.4      1.2695 µg/L       1.58945      1.2695 ppb        1.58945 125.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.5     -3.4645 µg/L       5.82027     -3.4645 ppb        5.82027 168.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    103.7      20.470 µg/L        6.0817      20.470 ppb         6.0817  29.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              124.9      9.4978 µg/L       1.15926      9.4978 ppb        1.15926  12.21%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.6      0.6479 µg/L       1.89274      0.6479 ppb        1.89274 292.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                7.8      0.0716 µg/L       0.06954      0.0716 ppb        0.06954  97.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              315.9      0.7016 µg/L       0.08900      0.7016 ppb        0.08900  12.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.3     -0.3347 µg/L       1.01457     -0.3347 ppb        1.01457 303.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -4.1     -0.3437 µg/L       1.39832     -0.3437 ppb        1.39832 406.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -0.7      0.0023 µg/L       0.13766      0.0023 ppb        0.13766 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -4.6     -0.1055 µg/L       0.21899     -0.1055 ppb        0.21899 207.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 00:11:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58495.3	58495.3	104	%			00:11:57
1	Al 396.153Radial†	7275.8	7019.8	4872.8	µg/L	4872.8	ppb	00:11:57
1	Ca 317.933Radial†	6094.1	5674.5	4847.1	µg/L	4847.1	ppb	00:12:17
1	Fe 238.204 Radial†	674.0	634.4	5014.2	µg/L	5014.2	ppb	00:12:17
1	K 766.490 Radial†	7834.8	7402.0	4834.4	µg/L	4834.4	ppb	00:11:57
1	Mg 279.077 IEC†	587.5	554.6	4960.6	µg/L	4960.6	ppb	00:12:17
1	Na 589.592 Radial†	33367.7	31754.9	9753.3	µg/L	9753.3	ppb	00:11:57
1	Sr 421.552†	53573.5	51713.3	477.06	µg/L	477.06	ppb	00:11:57
1	Sc 361.383	2020504.2	2020504.2	102.92	%			00:13:20
1	Y 371.029	1392503.8	1392503.8	102.94	%			00:13:20
1	Ag 328.068†	67829.9	66305.1	494.76	µg/L	494.76	ppb	00:13:26
1	As 188.979†	291.8	283.9	507.92	µg/L	507.92	ppb	00:13:46
1	B 249.677†	12705.1	11960.1	485.66	µg/L	485.66	ppb	00:13:26
1	Ba 233.527†	21334.1	20745.3	498.93	µg/L	498.93	ppb	00:13:26
1	Be 313.107†	855250.3	833816.1	494.69	µg/L	494.69	ppb	00:13:20
1	Cd 226.502†	20577.0	20134.3	502.11	µg/L	502.11	ppb	00:13:26
1	Co 228.616†	11416.8	11090.6	501.70	µg/L	501.70	ppb	00:13:26
1	Cr 267.716†	25735.9	25055.4	503.56	µg/L	503.56	ppb	00:13:26
1	Cu 324.752†	80726.9	75890.5	496.07	µg/L	496.07	ppb	00:13:26
1	Mn 257.610†	165547.7	161102.0	504.96	µg/L	504.96	ppb	00:13:20
1	Mo 202.031†	5395.3	5247.4	514.05	µg/L	514.05	ppb	00:13:46
1	Ni 231.604†	10712.3	10095.7	502.74	µg/L	502.74	ppb	00:13:26
1	P 214.914†	1349.5	1295.8	2518.2	µg/L	2518.2	ppb	00:13:46
1	Pb 220.353†	2240.4	2085.9	507.24	µg/L	507.24	ppb	00:13:46
1	S 181.975 Axial†	268.4	241.8	1002.8	µg/L	1002.8	ppb	00:13:46
1	Sb 206.836†	592.4	553.1	510.01	µg/L	510.01	ppb	00:13:46
1	Se 196.026†	394.8	364.3	519.55	µg/L	519.55	ppb	00:13:46
1	SiO2†	29413.1	27186.2	5366.2	µg/L	5366.2	ppb	00:13:26
1	Si 251.611†	34213.2	32930.9	2503.5	µg/L	2503.5	ppb	00:13:26
1	Sn 189.927†	1263.6	1227.4	517.63	µg/L	517.63	ppb	00:13:46
1	Ti 334.940†	230295.2	223579.5	494.29	µg/L	494.29	ppb	00:13:20
1	Tl 190.801†	373.5	385.3	506.39	µg/L	506.39	ppb	00:13:46
1	U 409.014†	6182.0	6083.5	504.45	µg/L	504.45	ppb	00:13:26
1	V 292.402†	52430.3	50986.0	503.11	µg/L	503.11	ppb	00:13:26
1	Zn 213.857†	22695.0	21516.0	501.26	µg/L	501.26	ppb	00:13:26
2	Sc RADIAL	58164.1	58164.1	103	%			00:12:22
2	Al 396.153Radial†	7244.5	7029.4	4879.7	µg/L	4879.7	ppb	00:12:22
2	Ca 317.933Radial†	6067.7	5682.4	4853.7	µg/L	4853.7	ppb	00:12:43
2	Fe 238.204 Radial†	667.4	631.7	4992.7	µg/L	4992.7	ppb	00:12:43
2	K 766.490 Radial†	7786.9	7398.6	4832.1	µg/L	4832.1	ppb	00:12:22
2	Mg 279.077 IEC†	580.9	551.4	4931.8	µg/L	4931.8	ppb	00:12:43
2	Na 589.592 Radial†	33199.0	31774.5	9759.3	µg/L	9759.3	ppb	00:12:22
2	Sr 421.552†	53351.0	51791.8	477.79	µg/L	477.79	ppb	00:12:22
2	Sc 361.383	2017307.7	2017307.7	102.76	%			00:13:54
2	Y 371.029	1389972.7	1389972.7	102.75	%			00:13:54
2	Ag 328.068†	67617.4	66202.7	493.99	µg/L	493.99	ppb	00:13:59
2	As 188.979†	286.9	279.6	500.24	µg/L	500.24	ppb	00:14:20
2	B 249.677†	12631.0	11907.6	483.52	µg/L	483.52	ppb	00:13:59
2	Ba 233.527†	21192.2	20640.0	496.40	µg/L	496.40	ppb	00:13:59
2	Be 313.107†	854328.0	834235.2	494.93	µg/L	494.93	ppb	00:13:54
2	Cd 226.502†	20477.0	20068.6	500.47	µg/L	500.47	ppb	00:13:59
2	Co 228.616†	11357.5	11050.5	499.87	µg/L	499.87	ppb	00:13:59
2	Cr 267.716†	25604.8	24967.4	501.79	µg/L	501.79	ppb	00:13:59
2	Cu 324.752†	80320.9	75619.6	494.30	µg/L	494.30	ppb	00:13:59
2	Mn 257.610†	165128.0	160948.4	504.48	µg/L	504.48	ppb	00:13:54
2	Mo 202.031†	5230.2	5095.1	499.13	µg/L	499.13	ppb	00:14:20
2	Ni 231.604†	10662.1	10063.4	501.12	µg/L	501.12	ppb	00:13:59
2	P 214.914†	1301.8	1251.5	2430.4	µg/L	2430.4	ppb	00:14:20
2	Pb 220.353†	2192.9	2043.0	496.80	µg/L	496.80	ppb	00:14:20

2	S 181.975 Axial†	268.0	241.9	1003.0 µg/L	1003.0 ppb	00:14:20
2	Sb 206.836†	578.4	540.3	498.09 µg/L	498.09 ppb	00:14:20
2	Se 196.026†	399.2	369.2	526.33 µg/L	526.33 ppb	00:14:20
2	SiO2†	29319.7	27140.6	5357.2 µg/L	5357.2 ppb	00:13:59
2	Si 251.611†	34159.9	32931.7	2503.5 µg/L	2503.5 ppb	00:13:59
2	Sn 189.927†	1221.8	1188.6	501.28 µg/L	501.28 ppb	00:14:20
2	Ti 334.940†	230062.0	223707.1	494.58 µg/L	494.58 ppb	00:13:54
2	Tl 190.801†	373.6	386.0	507.26 µg/L	507.26 ppb	00:14:20
2	U 409.014†	6125.2	6037.8	500.65 µg/L	500.65 ppb	00:13:59
2	V 292.402†	52229.4	50871.2	501.86 µg/L	501.86 ppb	00:13:59
2	Zn 213.857†	22546.9	21406.9	498.71 µg/L	498.71 ppb	00:13:59
3	Sc RADIAL	58068.4	58068.4	103 %		00:12:48
3	Al 396.153Radial†	7248.7	7045.1	4892.5 µg/L	4892.5 ppb	00:12:48
3	Ca 317.933Radial†	6088.4	5712.2	4879.3 µg/L	4879.3 ppb	00:13:09
3	Fe 238.204 Radial†	668.4	633.7	5007.6 µg/L	5007.6 ppb	00:13:09
3	K 766.490 Radial†	7806.9	7430.5	4853.0 µg/L	4853.0 ppb	00:12:48
3	Mg 279.077 IEC†	584.4	555.8	4969.8 µg/L	4969.8 ppb	00:13:09
3	Na 589.592 Radial†	33245.1	31872.5	9789.4 µg/L	9789.4 ppb	00:12:48
3	Sr 421.552†	53412.1	51936.7	479.12 µg/L	479.12 ppb	00:12:48
3	Sc 361.383	2011218.9	2011218.9	102.45 %		00:14:27
3	Y 371.029	1385879.0	1385879.0	102.45 %		00:14:27
3	Ag 328.068†	62228.2	61141.6	456.06 µg/L	456.06 ppb	00:14:32
3	As 188.979†	237.7	232.5	415.86 µg/L	415.86 ppb	00:14:53
3	B 249.677†	11569.4	10908.5	442.67 µg/L	442.67 ppb	00:14:32
3	Ba 233.527†	18816.1	18383.2	442.10 µg/L	442.10 ppb	00:14:32
3	Be 313.107†	768494.1	752971.0	446.72 µg/L	446.72 ppb	00:14:27
3	Cd 226.502†	18036.8	17747.1	442.50 µg/L	442.50 ppb	00:14:32
3	Co 228.616†	9906.3	9667.5	437.26 µg/L	437.26 ppb	00:14:32
3	Cr 267.716†	21624.7	21157.9	425.23 µg/L	425.23 ppb	00:14:32
3	Cu 324.752†	70588.2	66356.3	433.84 µg/L	433.84 ppb	00:14:32
3	Mn 257.610†	149342.5	146027.0	457.75 µg/L	457.75 ppb	00:14:27
3	Mo 202.031†	4263.9	4167.3	408.28 µg/L	408.28 ppb	00:14:53
3	Ni 231.604†	9345.6	8809.8	438.71 µg/L	438.71 ppb	00:14:32
3	P 214.914†	1086.2	1044.9	2026.3 µg/L	2026.3 ppb	00:14:53
3	Pb 220.353†	1863.8	1728.2	420.19 µg/L	420.19 ppb	00:14:53
3	S 181.975 Axial†	229.4	205.0	850.21 µg/L	850.21 ppb	00:14:53
3	Sb 206.836†	484.1	450.0	414.58 µg/L	414.58 ppb	00:14:53
3	Se 196.026†	338.7	311.3	445.02 µg/L	445.02 ppb	00:14:53
3	SiO2†	26542.8	24516.4	4839.2 µg/L	4839.2 ppb	00:14:32
3	Si 251.611†	30699.8	29655.0	2254.4 µg/L	2254.4 ppb	00:14:32
3	Sn 189.927†	978.7	954.9	402.73 µg/L	402.73 ppb	00:14:53
3	Ti 334.940†	205585.5	200493.8	443.22 µg/L	443.22 ppb	00:14:27
3	Tl 190.801†	326.8	341.4	448.83 µg/L	448.83 ppb	00:14:53
3	U 409.014†	5206.1	5158.7	427.62 µg/L	427.62 ppb	00:14:32
3	V 292.402†	45148.9	44113.9	435.06 µg/L	435.06 ppb	00:14:32
3	Zn 213.857†	19811.4	18803.2	438.00 µg/L	438.00 ppb	00:14:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2016343.6	102.71	%	0.240				0.23%
Sc RADIAL	58242.6	103	%	0.4				0.38%
Y 371.029	1389451.8	102.71	%	0.247				0.24%
Ag 328.068†	64549.8	481.60	µg/L	22.120	481.60	ppb	22.120	4.59%
QC value within limits for Ag 328.068 Recovery = 96.32%								
Al 396.153Radial†	7031.4	4881.7	µg/L	10.03	4881.7	ppb	10.03	0.21%
QC value within limits for Al 396.153Radial Recovery = 97.63%								
As 188.979†	265.3	474.68	µg/L	51.082	474.68	ppb	51.082	10.76%
QC value within limits for As 188.979 Recovery = 94.94%								
B 249.677†	11592.1	470.62	µg/L	24.223	470.62	ppb	24.223	5.15%
QC value within limits for B 249.677 Recovery = 94.12%								
Ba 233.527†	19922.8	479.15	µg/L	32.105	479.15	ppb	32.105	6.70%
QC value within limits for Ba 233.527 Recovery = 95.83%								
Be 313.107†	807007.4	478.78	µg/L	27.763	478.78	ppb	27.763	5.80%
QC value within limits for Be 313.107 Recovery = 95.76%								
Ca 317.933Radial†	5689.7	4860.0	µg/L	17.00	4860.0	ppb	17.00	0.35%
QC value within limits for Ca 317.933Radial Recovery = 97.20%								
Cd 226.502†	19316.7	481.69	µg/L	33.948	481.69	ppb	33.948	7.05%
QC value within limits for Cd 226.502 Recovery = 96.34%								
Co 228.616†	10602.9	479.61	µg/L	36.687	479.61	ppb	36.687	7.65%

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   QC value within limits for Co 228.616  Recovery = 95.92%
Cr 267.716†            23726.9      476.86 µg/L        44.718      476.86 ppb         44.718   9.38%
   QC value within limits for Cr 267.716  Recovery = 95.37%
Cu 324.752†            72622.1      474.73 µg/L        35.431      474.73 ppb         35.431   7.46%
   QC value within limits for Cu 324.752  Recovery = 94.95%
Fe 238.204 Radial†       633.3      5004.8 µg/L         11.00      5004.8 ppb          11.00   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.10%
K 766.490 Radial†       7410.4      4839.8 µg/L         11.44      4839.8 ppb          11.44   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 96.80%
Mg 279.077 IEC†          553.9      4954.1 µg/L         19.83      4954.1 ppb          19.83   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.08%
Mn 257.610†           156025.8      489.06 µg/L        27.118      489.06 ppb         27.118   5.54%
   QC value within limits for Mn 257.610  Recovery = 97.81%
Mo 202.031†             4836.6      473.82 µg/L        57.249      473.82 ppb         57.249  12.08%
   QC value within limits for Mo 202.031  Recovery = 94.76%
Na 589.592 Radial†     31800.6      9767.3 µg/L         19.36      9767.3 ppb          19.36   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.67%
Ni 231.604†             9656.3      480.86 µg/L        36.510      480.86 ppb         36.510   7.59%
   QC value within limits for Ni 231.604  Recovery = 96.17%
P 214.914†              1197.4      2325.0 µg/L        262.35      2325.0 ppb         262.35  11.28%
   QC value within limits for P 214.914  Recovery = 93.00%
Pb 220.353†             1952.4      474.75 µg/L        47.533      474.75 ppb         47.533  10.01%
   QC value within limits for Pb 220.353  Recovery = 94.95%
S 181.975 Axial†         229.6      952.01 µg/L        88.159      952.01 ppb         88.159   9.26%
   QC value within limits for S 181.975 Axial  Recovery = 95.20%
Sb 206.836†              514.5      474.22 µg/L        51.996      474.22 ppb         51.996  10.96%
   QC value within limits for Sb 206.836  Recovery = 94.84%
Se 196.026†              348.2      496.97 µg/L        45.117      496.97 ppb         45.117   9.08%
   QC value within limits for Se 196.026  Recovery = 99.39%
SiO2†                  26281.1      5187.5 µg/L        301.68      5187.5 ppb         301.68   5.82%
   QC value within limits for SiO2  Recovery = 97.01%
Si 251.611†            31839.2      2420.5 µg/L        143.80      2420.5 ppb         143.80   5.94%
   QC value within limits for Si 251.611  Recovery = 96.82%
Sn 189.927†             1123.6      473.88 µg/L        62.160      473.88 ppb         62.160  13.12%
   QC value within limits for Sn 189.927  Recovery = 94.78%
Sr 421.552†            51813.9      477.99 µg/L         1.046      477.99 ppb          1.046   0.22%
   QC value within limits for Sr 421.552  Recovery = 95.60%
Ti 334.940†           215926.8      477.36 µg/L        29.568      477.36 ppb         29.568   6.19%
   QC value within limits for Ti 334.940  Recovery = 95.47%
Tl 190.801†              370.9      487.50 µg/L        33.487      487.50 ppb         33.487   6.87%
   QC value within limits for Tl 190.801  Recovery = 97.50%
U 409.014†              5760.0      477.57 µg/L        43.307      477.57 ppb         43.307   9.07%
   QC value within limits for U 409.014  Recovery = 95.51%
V 292.402†             48657.0      480.01 µg/L        38.933      480.01 ppb         38.933   8.11%
   QC value within limits for V 292.402  Recovery = 96.00%
Zn 213.857†            20575.4      479.32 µg/L        35.812      479.32 ppb         35.812   7.47%
   QC value within limits for Zn 213.857  Recovery = 95.86%
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 00:15:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57056.3	57056.3	101	%			00:15:35
1	Al 396.153Radial†	-5.7	-13.0	-9.0953	µg/L	-9.0953	ppb	00:15:35
1	Ca 317.933Radial†	199.5	-13.7	-11.700	µg/L	-11.700	ppb	00:15:56
1	Fe 238.204 Radial†	14.5	-2.2	-17.610	µg/L	-17.610	ppb	00:15:56
1	K 766.490 Radial†	191.3	24.5	15.994	µg/L	15.994	ppb	00:15:35
1	Mg 279.077 IEC†	9.0	-4.0	-35.339	µg/L	-35.339	ppb	00:15:56
1	Na 589.592 Radial†	412.2	-64.1	-19.680	µg/L	-19.680	ppb	00:15:35
1	Sr 421.552†	75.5	46.0	0.4243	µg/L	0.4243	ppb	00:15:35
1	Sc 361.383	2008840.8	2008840.8	102.33	%			00:16:58
1	Y 371.029	1388623.1	1388623.1	102.65	%			00:16:58
1	Ag 328.068†	-495.1	-82.3	-0.6122	µg/L	-0.6122	ppb	00:17:03
1	As 188.979†	1.4	1.8	3.2409	µg/L	3.2409	ppb	00:17:24
1	B 249.677†	357.5	-34.8	-1.4084	µg/L	-1.4084	ppb	00:17:24
1	Ba 233.527†	-3.8	13.4	0.3201	µg/L	0.3201	ppb	00:17:24
1	Be 313.107†	-2686.9	229.9	0.1363	µg/L	0.1363	ppb	00:17:03
1	Cd 226.502†	-151.5	-6.3	-0.1567	µg/L	-0.1567	ppb	00:17:24
1	Co 228.616†	6.7	4.7	0.2106	µg/L	0.2106	ppb	00:17:24
1	Cr 267.716†	-69.9	-17.9	-0.3598	µg/L	-0.3598	ppb	00:17:03
1	Cu 324.752†	2549.4	-52.3	-0.3440	µg/L	-0.3440	ppb	00:17:03
1	Mn 257.610†	-144.8	114.5	0.3577	µg/L	0.3577	ppb	00:17:24
1	Mo 202.031†	5.0	10.2	0.9987	µg/L	0.9987	ppb	00:17:24
1	Ni 231.604†	311.5	-7.9	-0.3967	µg/L	-0.3967	ppb	00:17:24
1	P 214.914†	18.1	2.3	4.6226	µg/L	4.6226	ppb	00:17:24
1	Pb 220.353†	83.5	-9.3	-2.2681	µg/L	-2.2681	ppb	00:17:24
1	S 181.975 Axial†	18.6	-0.8	-3.3405	µg/L	-3.3405	ppb	00:17:24
1	Sb 206.836†	18.3	-4.6	-4.2360	µg/L	-4.2360	ppb	00:17:24
1	Se 196.026†	16.5	-3.2	-4.5054	µg/L	-4.5054	ppb	00:17:24
1	SiO2†	1509.7	83.8	16.538	µg/L	16.538	ppb	00:17:03
1	Si 251.611†	412.2	92.2	7.0101	µg/L	7.0101	ppb	00:17:24
1	Sn 189.927†	-2.7	-3.0	-1.2771	µg/L	-1.2771	ppb	00:17:24
1	Ti 334.940†	427.2	242.5	0.5390	µg/L	0.5390	ppb	00:17:03
1	Tl 190.801†	-23.5	-0.6	-0.7502	µg/L	-0.7502	ppb	00:17:24
1	U 409.014†	-41.7	36.3	3.0222	µg/L	3.0222	ppb	00:17:03
1	V 292.402†	-73.7	-27.3	-0.2578	µg/L	-0.2578	ppb	00:17:03
1	Zn 213.857†	537.9	-8.8	-0.2008	µg/L	-0.2008	ppb	00:17:24
2	Sc RADIAL	56628.6	56628.6	100	%			00:16:01
2	Al 396.153Radial†	-23.8	-31.1	-21.684	µg/L	-21.684	ppb	00:16:01
2	Ca 317.933Radial†	190.0	-21.7	-18.526	µg/L	-18.526	ppb	00:16:22
2	Fe 238.204 Radial†	16.6	0.0	0.0975	µg/L	0.0975	ppb	00:16:22
2	K 766.490 Radial†	188.5	23.1	15.080	µg/L	15.080	ppb	00:16:01
2	Mg 279.077 IEC†	14.7	1.8	16.142	µg/L	16.142	ppb	00:16:22
2	Na 589.592 Radial†	445.7	-27.5	-8.4523	µg/L	-8.4523	ppb	00:16:01
2	Sr 421.552†	15.4	-13.4	-0.1235	µg/L	-0.1235	ppb	00:16:01
2	Sc 361.383	1991140.0	1991140.0	101.43	%			00:17:30
2	Y 371.029	1378067.0	1378067.0	101.87	%			00:17:30
2	Ag 328.068†	-374.9	32.0	0.2384	µg/L	0.2384	ppb	00:17:36
2	As 188.979†	-3.9	-3.4	-6.0385	µg/L	-6.0385	ppb	00:17:56
2	B 249.677†	366.4	-22.9	-0.9328	µg/L	-0.9328	ppb	00:17:56
2	Ba 233.527†	-6.8	10.4	0.2489	µg/L	0.2489	ppb	00:17:56
2	Be 313.107†	-2761.1	133.5	0.0790	µg/L	0.0790	ppb	00:17:36
2	Cd 226.502†	-138.2	5.4	0.1343	µg/L	0.1343	ppb	00:17:56
2	Co 228.616†	14.9	12.8	0.5784	µg/L	0.5784	ppb	00:17:56
2	Cr 267.716†	-45.7	5.3	0.1061	µg/L	0.1061	ppb	00:17:36
2	Cu 324.752†	2564.5	-15.4	-0.1003	µg/L	-0.1003	ppb	00:17:36
2	Mn 257.610†	-172.2	86.3	0.2696	µg/L	0.2696	ppb	00:17:56
2	Mo 202.031†	4.0	9.3	0.9125	µg/L	0.9125	ppb	00:17:56
2	Ni 231.604†	306.1	-10.5	-0.5258	µg/L	-0.5258	ppb	00:17:56
2	P 214.914†	17.2	1.7	3.2781	µg/L	3.2781	ppb	00:17:56
2	Pb 220.353†	79.4	-12.7	-3.0846	µg/L	-3.0846	ppb	00:17:56

2	S 181.975 Axial†	22.9	3.7	15.206 µg/L	15.206 ppb	00:17:56
2	Sb 206.836†	25.4	2.6	2.3565 µg/L	2.3565 ppb	00:17:56
2	Se 196.026†	16.1	-3.4	-4.8007 µg/L	-4.8007 ppb	00:17:56
2	SiO2†	1536.5	123.4	24.348 µg/L	24.348 ppb	00:17:36
2	Si 251.611†	406.5	90.2	6.8569 µg/L	6.8569 ppb	00:17:56
2	Sn 189.927†	-2.0	-2.3	-0.9755 µg/L	-0.9755 ppb	00:17:56
2	Ti 334.940†	398.9	218.2	0.4812 µg/L	0.4812 ppb	00:17:36
2	Tl 190.801†	-17.7	5.0	6.4456 µg/L	6.4456 ppb	00:17:56
2	U 409.014†	-11.0	66.2	5.5016 µg/L	5.5016 ppb	00:17:36
2	V 292.402†	-26.4	18.7	0.1952 µg/L	0.1952 ppb	00:17:36
2	Zn 213.857†	540.6	-1.4	-0.0317 µg/L	-0.0317 ppb	00:17:56
3	Sc RADIAL	56386.6	56386.6	99.8 %		00:16:27
3	Al 396.153Radial†	-18.3	-25.7	-17.898 µg/L	-17.898 ppb	00:16:27
3	Ca 317.933Radial†	197.1	-13.7	-11.741 µg/L	-11.741 ppb	00:16:48
3	Fe 238.204 Radial†	19.4	2.9	22.756 µg/L	22.756 ppb	00:16:48
3	K 766.490 Radial†	199.6	35.1	22.894 µg/L	22.894 ppb	00:16:27
3	Mg 279.077 IEC†	15.6	2.8	24.950 µg/L	24.950 ppb	00:16:48
3	Na 589.592 Radial†	462.1	-9.2	-2.8236 µg/L	-2.8236 ppb	00:16:27
3	Sr 421.552†	51.7	23.0	0.2125 µg/L	0.2125 ppb	00:16:27
3	Sc 361.383	1995333.6	1995333.6	101.64 %		00:18:02
3	Y 371.029	1380514.8	1380514.8	102.05 %		00:18:02
3	Ag 328.068†	-373.2	34.4	0.2561 µg/L	0.2561 ppb	00:18:08
3	As 188.979†	-0.3	0.2	0.3744 µg/L	0.3744 ppb	00:18:28
3	B 249.677†	338.5	-51.1	-2.0934 µg/L	-2.0934 ppb	00:18:28
3	Ba 233.527†	-17.0	0.3	0.0083 µg/L	0.0083 ppb	00:18:28
3	Be 313.107†	-2731.8	168.0	0.0995 µg/L	0.0995 ppb	00:18:08
3	Cd 226.502†	-130.2	13.6	0.3366 µg/L	0.3366 ppb	00:18:28
3	Co 228.616†	7.4	5.3	0.2410 µg/L	0.2410 ppb	00:18:28
3	Cr 267.716†	-49.5	1.6	0.0327 µg/L	0.0327 ppb	00:18:08
3	Cu 324.752†	2599.8	14.1	0.0952 µg/L	0.0952 ppb	00:18:08
3	Mn 257.610†	-188.3	70.8	0.2236 µg/L	0.2236 ppb	00:18:28
3	Mo 202.031†	4.4	9.6	0.9457 µg/L	0.9457 ppb	00:18:28
3	Ni 231.604†	301.9	-15.3	-0.7614 µg/L	-0.7614 ppb	00:18:28
3	P 214.914†	17.4	1.7	3.4379 µg/L	3.4379 ppb	00:18:28
3	Pb 220.353†	92.5	0.1	0.0084 µg/L	0.0084 ppb	00:18:28
3	S 181.975 Axial†	14.4	-4.7	-19.657 µg/L	-19.657 ppb	00:18:28
3	Sb 206.836†	16.6	-6.2	-5.6848 µg/L	-5.6848 ppb	00:18:28
3	Se 196.026†	17.0	-2.6	-3.6602 µg/L	-3.6602 ppb	00:18:28
3	SiO2†	1524.8	108.6	21.436 µg/L	21.436 ppb	00:18:08
3	Si 251.611†	420.8	103.3	7.8556 µg/L	7.8556 ppb	00:18:28
3	Sn 189.927†	3.5	3.0	1.2790 µg/L	1.2790 ppb	00:18:28
3	Ti 334.940†	371.5	190.5	0.4192 µg/L	0.4192 ppb	00:18:08
3	Tl 190.801†	-23.3	-0.5	-0.6374 µg/L	-0.6374 ppb	00:18:28
3	U 409.014†	4.2	81.2	6.7421 µg/L	6.7421 ppb	00:18:08
3	V 292.402†	-47.4	-1.9	-0.0016 µg/L	-0.0016 ppb	00:18:08
3	Zn 213.857†	527.4	-15.5	-0.3632 µg/L	-0.3632 ppb	00:18:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1998438.2	101.80	%	0.471				0.46%
Sc RADIAL	56690.5	100	%	0.6				0.60%
Y 371.029	1382401.7	102.19	%	0.408				0.40%
Ag 328.068†	-5.3	-0.0392	µg/L	0.49630	-0.0392	ppb	0.49630	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-23.3	-16.226	µg/L	6.4588	-16.226	ppb	6.4588	39.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.8077	µg/L	4.75129	-0.8077	ppb	4.75129	588.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-36.2	-1.4782	µg/L	0.58347	-1.4782	ppb	0.58347	39.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.0	0.1924	µg/L	0.16342	0.1924	ppb	0.16342	84.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	177.1	0.1049	µg/L	0.02898	0.1049	ppb	0.02898	27.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.4	-13.989	µg/L	3.9293	-13.989	ppb	3.9293	28.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.2	0.1047	µg/L	0.24795	0.1047	ppb	0.24795	236.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.6	0.3433	µg/L	0.20414	0.3433	ppb	0.20414	59.46%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.7     -0.0736 µg/L       0.25050     -0.0736 ppb        0.25050 340.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -17.9     -0.1164 µg/L       0.22003     -0.1164 ppb        0.22003 189.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       0.2      1.7476 µg/L      20.23351      1.7476 ppb       20.23351 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       27.5      17.989 µg/L        4.2723      17.989 ppb        4.2723  23.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          0.2      1.9176 µg/L      32.56432      1.9176 ppb       32.56432 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             90.5      0.2836 µg/L       0.06812      0.2836 ppb        0.06812  24.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              9.7      0.9523 µg/L       0.04345      0.9523 ppb        0.04345   4.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -33.6     -10.319 µg/L        8.5817     -10.319 ppb        8.5817  83.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -11.3     -0.5613 µg/L       0.18493     -0.5613 ppb        0.18493  32.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               1.9      3.7795 µg/L       0.73449      3.7795 ppb        0.73449  19.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -7.3     -1.7814 µg/L       1.60289     -1.7814 ppb        1.60289  89.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -0.6     -2.5970 µg/L      17.44338     -2.5970 ppb       17.44338 671.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -2.8     -2.5214 µg/L       4.28609     -2.5214 ppb        4.28609 169.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -3.1     -4.3221 µg/L       0.59194     -4.3221 ppb        0.59194  13.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                  105.2      20.774 µg/L        3.9468      20.774 ppb        3.9468  19.00%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             95.2      7.2409 µg/L       0.53785      7.2409 ppb        0.53785   7.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -0.8     -0.3245 µg/L       1.39688     -0.3245 ppb        1.39688 430.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             18.5      0.1711 µg/L       0.27628      0.1711 ppb        0.27628 161.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            217.1      0.4798 µg/L       0.05992      0.4798 ppb        0.05992  12.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              1.3      1.6860 µg/L       4.12231      1.6860 ppb        4.12231 244.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              61.2      5.0886 µg/L       1.89405      5.0886 ppb        1.89405  37.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -3.5     -0.0214 µg/L       0.22712     -0.0214 ppb        0.22712 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -8.6     -0.1986 µg/L       0.16575     -0.1986 ppb        0.16575  83.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 00:47:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57680.8	57680.8	102	%			00:48:39
1	Al 396.153Radial†	7133.8	6979.9	4845.1	µg/L	4845.1	ppb	00:48:39
1	Ca 317.933Radial†	5914.0	5581.2	4767.4	µg/L	4767.4	ppb	00:48:59
1	Fe 238.204 Radial†	654.8	624.7	4937.8	µg/L	4937.8	ppb	00:48:59
1	K 766.490 Radial†	7645.5	7323.4	4783.0	µg/L	4783.0	ppb	00:48:39
1	Mg 279.077 IEC†	575.8	551.2	4930.2	µg/L	4930.2	ppb	00:48:59
1	Na 589.592 Radial†	32886.8	31738.9	9748.4	µg/L	9748.4	ppb	00:48:39
1	Sr 421.552†	52443.7	51337.3	473.59	µg/L	473.59	ppb	00:48:39
1	Sc 361.383	1998798.8	1998798.8	101.82	%			00:50:03
1	Y 371.029	1378207.5	1378207.5	101.88	%			00:50:03
1	Ag 328.068†	66637.6	65849.7	491.34	µg/L	491.34	ppb	00:50:09
1	As 188.979†	282.6	278.0	497.33	µg/L	497.33	ppb	00:50:29
1	B 249.677†	12419.9	11814.0	479.73	µg/L	479.73	ppb	00:50:09
1	Ba 233.527†	20853.3	20498.1	492.99	µg/L	492.99	ppb	00:50:09
1	Be 313.107†	838271.9	826164.3	490.15	µg/L	490.15	ppb	00:50:03
1	Cd 226.502†	20064.0	19847.5	494.95	µg/L	494.95	ppb	00:50:09
1	Co 228.616†	11129.1	10928.5	494.36	µg/L	494.36	ppb	00:50:09
1	Cr 267.716†	25151.7	24753.2	497.48	µg/L	497.48	ppb	00:50:09
1	Cu 324.752†	79271.1	75312.4	492.29	µg/L	492.29	ppb	00:50:09
1	Mn 257.610†	162448.2	159804.4	500.89	µg/L	500.89	ppb	00:50:03
1	Mo 202.031†	5294.5	5205.3	509.92	µg/L	509.92	ppb	00:50:29
1	Ni 231.604†	10454.5	9955.6	495.75	µg/L	495.75	ppb	00:50:09
1	P 214.914†	1305.3	1266.6	2460.9	µg/L	2460.9	ppb	00:50:29
1	Pb 220.353†	2196.1	2066.0	502.42	µg/L	502.42	ppb	00:50:29
1	S 181.975 Axial†	267.3	243.6	1010.3	µg/L	1010.3	ppb	00:50:29
1	Sb 206.836†	581.4	548.5	505.86	µg/L	505.86	ppb	00:50:29
1	Se 196.026†	385.1	358.9	511.83	µg/L	511.83	ppb	00:50:29
1	SiO2†	28708.0	26803.9	5290.7	µg/L	5290.7	ppb	00:50:09
1	Si 251.611†	33429.9	32522.5	2472.4	µg/L	2472.4	ppb	00:50:09
1	Sn 189.927†	1243.8	1221.2	515.04	µg/L	515.04	ppb	00:50:29
1	Ti 334.940†	226045.2	221835.2	490.44	µg/L	490.44	ppb	00:50:03
1	Tl 190.801†	368.0	383.9	504.49	µg/L	504.49	ppb	00:50:29
1	U 409.014†	6013.1	5982.8	496.10	µg/L	496.10	ppb	00:50:09
1	V 292.402†	51239.9	50370.0	497.04	µg/L	497.04	ppb	00:50:09
1	Zn 213.857†	22107.9	21178.9	493.39	µg/L	493.39	ppb	00:50:09
2	Sc RADIAL	57446.6	57446.6	102	%			00:49:05
2	Al 396.153Radial†	7123.3	6998.0	4858.0	µg/L	4858.0	ppb	00:49:05
2	Ca 317.933Radial†	5925.8	5616.4	4797.4	µg/L	4797.4	ppb	00:49:25
2	Fe 238.204 Radial†	661.1	633.6	5007.9	µg/L	5007.9	ppb	00:49:25
2	K 766.490 Radial†	7669.9	7377.9	4818.6	µg/L	4818.6	ppb	00:49:05
2	Mg 279.077 IEC†	576.8	554.4	4959.0	µg/L	4959.0	ppb	00:49:25
2	Na 589.592 Radial†	32906.4	31889.5	9794.6	µg/L	9794.6	ppb	00:49:05
2	Sr 421.552†	52430.7	51534.0	475.41	µg/L	475.41	ppb	00:49:05
2	Sc 361.383	2011817.0	2011817.0	102.48	%			00:50:36
2	Y 371.029	1386935.5	1386935.5	102.53	%			00:50:36
2	Ag 328.068†	66849.6	65633.1	489.73	µg/L	489.73	ppb	00:50:42
2	As 188.979†	282.7	276.3	494.28	µg/L	494.28	ppb	00:51:02
2	B 249.677†	12474.1	11788.0	478.63	µg/L	478.63	ppb	00:50:42
2	Ba 233.527†	20922.4	20433.0	491.42	µg/L	491.42	ppb	00:50:42
2	Be 313.107†	842885.5	825338.6	489.66	µg/L	489.66	ppb	00:50:36
2	Cd 226.502†	20129.6	19784.0	493.36	µg/L	493.36	ppb	00:50:42
2	Co 228.616†	11190.9	10918.1	493.88	µg/L	493.88	ppb	00:50:42
2	Cr 267.716†	25222.6	24662.5	495.66	µg/L	495.66	ppb	00:50:42
2	Cu 324.752†	79511.5	75043.1	490.54	µg/L	490.54	ppb	00:50:42
2	Mn 257.610†	163207.5	159513.0	499.98	µg/L	499.98	ppb	00:50:36
2	Mo 202.031†	5169.2	5049.4	494.66	µg/L	494.66	ppb	00:51:02
2	Ni 231.604†	10507.6	9940.9	495.03	µg/L	495.03	ppb	00:50:42
2	P 214.914†	1281.4	1235.1	2398.2	µg/L	2398.2	ppb	00:51:02
2	Pb 220.353†	2169.3	2025.8	492.61	µg/L	492.61	ppb	00:51:02

2	S 181.975 Axial†	262.8	237.5	984.82 µg/L	984.82 ppb	00:51:02
2	Sb 206.836†	574.2	537.8	495.81 µg/L	495.81 ppb	00:51:02
2	Se 196.026†	380.5	352.0	502.22 µg/L	502.22 ppb	00:51:02
2	SiO2†	28844.1	26754.4	5281.0 µg/L	5281.0 ppb	00:50:42
2	Si 251.611†	33597.6	32473.7	2468.7 µg/L	2468.7 ppb	00:50:42
2	Sn 189.927†	1203.8	1174.3	495.24 µg/L	495.24 ppb	00:51:02
2	Ti 334.940†	227246.5	221570.9	489.85 µg/L	489.85 ppb	00:50:36
2	Tl 190.801†	367.9	381.4	501.31 µg/L	501.31 ppb	00:51:02
2	U 409.014†	6070.9	6001.1	497.61 µg/L	497.61 ppb	00:50:42
2	V 292.402†	51518.3	50316.0	496.40 µg/L	496.40 ppb	00:50:42
2	Zn 213.857†	22203.3	21131.5	492.28 µg/L	492.28 ppb	00:50:42
3	Sc RADIAL	57389.7	57389.7	102 %		00:49:31
3	Al 396.153Radial†	7091.9	6974.1	4843.3 µg/L	4843.3 ppb	00:49:31
3	Ca 317.933Radial†	5913.0	5609.6	4791.6 µg/L	4791.6 ppb	00:49:51
3	Fe 238.204 Radial†	660.4	633.5	5005.4 µg/L	5005.4 ppb	00:49:51
3	K 766.490 Radial†	7625.7	7341.9	4795.1 µg/L	4795.1 ppb	00:49:31
3	Mg 279.077 IEC†	577.2	555.4	4965.8 µg/L	4965.8 ppb	00:49:51
3	Na 589.592 Radial†	32787.2	31804.2	9768.4 µg/L	9768.4 ppb	00:49:31
3	Sr 421.552†	52453.5	51607.5	476.09 µg/L	476.09 ppb	00:49:31
3	Sc 361.383	2005009.8	2005009.8	102.13 %		00:51:09
3	Y 371.029	1382509.8	1382509.8	102.20 %		00:51:09
3	Ag 328.068†	61434.7	60552.8	451.66 µg/L	451.66 ppb	00:51:15
3	As 188.979†	236.3	231.8	414.69 µg/L	414.69 ppb	00:51:35
3	B 249.677†	11353.7	10732.4	435.49 µg/L	435.49 ppb	00:51:15
3	Ba 233.527†	18464.6	18095.9	435.19 µg/L	435.19 ppb	00:51:15
3	Be 313.107†	758877.8	745878.5	442.52 µg/L	442.52 ppb	00:51:09
3	Cd 226.502†	17660.6	17433.4	434.67 µg/L	434.67 ppb	00:51:15
3	Co 228.616†	9736.6	9531.2	431.09 µg/L	431.09 ppb	00:51:15
3	Cr 267.716†	21236.0	20842.7	418.90 µg/L	418.90 ppb	00:51:15
3	Cu 324.752†	69572.6	65575.3	428.74 µg/L	428.74 ppb	00:51:15
3	Mn 257.610†	147391.1	144567.7	453.18 µg/L	453.18 ppb	00:51:09
3	Mo 202.031†	4191.8	4109.6	402.63 µg/L	402.63 ppb	00:51:35
3	Ni 231.604†	9146.6	8643.2	430.41 µg/L	430.41 ppb	00:51:15
3	P 214.914†	1064.5	1026.9	1991.2 µg/L	1991.2 ppb	00:51:35
3	Pb 220.353†	1834.2	1705.0	414.53 µg/L	414.53 ppb	00:51:35
3	S 181.975 Axial†	225.9	202.2	838.51 µg/L	838.51 ppb	00:51:35
3	Sb 206.836†	475.8	443.4	408.45 µg/L	408.45 ppb	00:51:35
3	Se 196.026†	322.7	296.7	424.53 µg/L	424.53 ppb	00:51:35
3	SiO2†	26010.4	24075.4	4752.2 µg/L	4752.2 ppb	00:51:15
3	Si 251.611†	30176.9	29235.7	2222.6 µg/L	2222.6 ppb	00:51:15
3	Sn 189.927†	963.9	943.4	397.88 µg/L	397.88 ppb	00:51:35
3	Ti 334.940†	203236.7	198815.5	439.51 µg/L	439.51 ppb	00:51:09
3	Tl 190.801†	315.2	331.0	435.27 µg/L	435.27 ppb	00:51:35
3	U 409.014†	5104.0	5074.4	420.62 µg/L	420.62 ppb	00:51:15
3	V 292.402†	44361.2	43479.1	428.81 µg/L	428.81 ppb	00:51:15
3	Zn 213.857†	19393.6	18454.0	429.85 µg/L	429.85 ppb	00:51:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2005208.6	102.14	%	0.332				0.32%
Sc RADIAL	57505.7	102	%	0.3				0.27%
Y 371.029	1382550.9	102.20	%	0.323				0.32%
Ag 328.068†	64011.9	477.58	µg/L	22.458	477.58	ppb	22.458	4.70%
QC value within limits for Ag 328.068 Recovery = 95.52%								
Al 396.153Radial†	6984.0	4848.8	µg/L	8.02	4848.8	ppb	8.02	0.17%
QC value within limits for Al 396.153Radial Recovery = 96.98%								
As 188.979†	262.0	468.77	µg/L	46.859	468.77	ppb	46.859	10.00%
QC value within limits for As 188.979 Recovery = 93.75%								
B 249.677†	11444.8	464.62	µg/L	25.234	464.62	ppb	25.234	5.43%
QC value within limits for B 249.677 Recovery = 92.92%								
Ba 233.527†	19675.7	473.20	µg/L	32.924	473.20	ppb	32.924	6.96%
QC value within limits for Ba 233.527 Recovery = 94.64%								
Be 313.107†	799127.1	474.11	µg/L	27.359	474.11	ppb	27.359	5.77%
QC value within limits for Be 313.107 Recovery = 94.82%								
Ca 317.933Radial†	5602.4	4785.5	µg/L	15.94	4785.5	ppb	15.94	0.33%
QC value within limits for Ca 317.933Radial Recovery = 95.71%								
Cd 226.502†	19021.6	474.33	µg/L	34.355	474.33	ppb	34.355	7.24%
QC value within limits for Cd 226.502 Recovery = 94.87%								
Co 228.616†	10459.3	473.11	µg/L	36.391	473.11	ppb	36.391	7.69%

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   QC value within limits for Co 228.616  Recovery = 94.62%
Cr 267.716†            23419.4      470.68 µg/L        44.854      470.68 ppb         44.854   9.53%
   QC value within limits for Cr 267.716  Recovery = 94.14%
Cu 324.752†            71976.9      470.52 µg/L        36.196      470.52 ppb         36.196   7.69%
   QC value within limits for Cu 324.752  Recovery = 94.10%
Fe 238.204 Radial†       630.6      4983.7 µg/L         39.75      4983.7 ppb          39.75   0.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.67%
K 766.490 Radial†       7347.8      4798.9 µg/L         18.10      4798.9 ppb          18.10   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 95.98%
Mg 279.077 IEC†          553.6      4951.7 µg/L         18.91      4951.7 ppb          18.91   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.03%
Mn 257.610†           154628.4      484.69 µg/L        27.286      484.69 ppb         27.286   5.63%
   QC value within limits for Mn 257.610  Recovery = 96.94%
Mo 202.031†             4788.1      469.07 µg/L        58.045      469.07 ppb         58.045  12.37%
   QC value within limits for Mo 202.031  Recovery = 93.81%
Na 589.592 Radial†     31810.9      9770.5 µg/L         23.19      9770.5 ppb          23.19   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 97.70%
Ni 231.604†             9513.2      473.73 µg/L        37.519      473.73 ppb         37.519   7.92%
   QC value within limits for Ni 231.604  Recovery = 94.75%
P 214.914†              1176.2      2283.4 µg/L        255.03      2283.4 ppb         255.03  11.17%
   QC value within limits for P 214.914  Recovery = 91.34%
Pb 220.353†             1932.3      469.85 µg/L        48.159      469.85 ppb         48.159  10.25%
   QC value within limits for Pb 220.353  Recovery = 93.97%
S 181.975 Axial†         227.8      944.55 µg/L        92.712      944.55 ppb         92.712   9.82%
   QC value within limits for S 181.975 Axial  Recovery = 94.45%
Sb 206.836†              509.9      470.04 µg/L        53.574      470.04 ppb         53.574  11.40%
   QC value within limits for Sb 206.836  Recovery = 94.01%
Se 196.026†              335.8      479.53 µg/L        47.869      479.53 ppb         47.869   9.98%
   QC value within limits for Se 196.026  Recovery = 95.91%
SiO2†                  25877.9      5108.0 µg/L        308.17      5108.0 ppb         308.17   6.03%
   QC value within limits for SiO2  Recovery = 95.52%
Si 251.611†            31410.7      2387.9 µg/L        143.20      2387.9 ppb         143.20   6.00%
   QC value within limits for Si 251.611  Recovery = 95.52%
Sn 189.927†             1113.0      469.39 µg/L        62.710      469.39 ppb         62.710  13.36%
   QC value within limits for Sn 189.927  Recovery = 93.88%
Sr 421.552†            51492.9      475.03 µg/L         1.289      475.03 ppb          1.289   0.27%
   QC value within limits for Sr 421.552  Recovery = 95.01%
Ti 334.940†           214073.8      473.26 µg/L        29.235      473.26 ppb         29.235   6.18%
   QC value within limits for Ti 334.940  Recovery = 94.65%
Tl 190.801†              365.4      480.35 µg/L        39.078      480.35 ppb         39.078   8.14%
   QC value within limits for Tl 190.801  Recovery = 96.07%
U 409.014†              5686.1      471.44 µg/L        44.023      471.44 ppb         44.023   9.34%
   QC value within limits for U 409.014  Recovery = 94.29%
V 292.402†             48055.1      474.09 µg/L        39.211      474.09 ppb         39.211   8.27%
   QC value within limits for V 292.402  Recovery = 94.82%
Zn 213.857†            20254.8      471.84 µg/L        36.370      471.84 ppb         36.370   7.71%
   QC value within limits for Zn 213.857  Recovery = 94.37%
All analyte(s) passed QC.
```

Sequence No.: 59
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 00:51:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56488.2	56488.2	100.0	%			00:52:18
1	Al 396.153Radial†	-18.6	-26.0	-18.107	µg/L	-18.107	ppb	00:52:18
1	Ca 317.933Radial†	192.4	-18.9	-16.133	µg/L	-16.133	ppb	00:52:38
1	Fe 238.204 Radial†	16.4	-0.2	-1.6233	µg/L	-1.6233	ppb	00:52:38
1	K 766.490 Radial†	221.8	56.9	37.153	µg/L	37.153	ppb	00:52:18
1	Mg 279.077 IEC†	8.8	-4.0	-35.707	µg/L	-35.707	ppb	00:52:38
1	Na 589.592 Radial†	433.2	-39.0	-11.968	µg/L	-11.968	ppb	00:52:18
1	Sr 421.552†	40.3	11.5	0.1064	µg/L	0.1064	ppb	00:52:18
1	Sc 361.383	2011763.6	2011763.6	102.48	%			00:53:40
1	Y 371.029	1389612.5	1389612.5	102.72	%			00:53:40
1	Ag 328.068†	-405.0	6.4	0.0485	µg/L	0.0485	ppb	00:53:46
1	As 188.979†	-2.6	-2.1	-3.6986	µg/L	-3.6986	ppb	00:54:07
1	B 249.677†	338.6	-53.8	-2.1896	µg/L	-2.1896	ppb	00:54:07
1	Ba 233.527†	-17.8	-0.3	-0.0074	µg/L	-0.0074	ppb	00:54:07
1	Be 313.107†	-2736.0	185.9	0.1102	µg/L	0.1102	ppb	00:53:46
1	Cd 226.502†	-129.0	15.8	0.3934	µg/L	0.3934	ppb	00:54:07
1	Co 228.616†	3.6	1.6	0.0719	µg/L	0.0719	ppb	00:54:07
1	Cr 267.716†	-27.0	24.0	0.4825	µg/L	0.4825	ppb	00:53:46
1	Cu 324.752†	2575.9	-30.1	-0.1968	µg/L	-0.1968	ppb	00:53:46
1	Mn 257.610†	-211.1	50.0	0.1578	µg/L	0.1578	ppb	00:54:07
1	Mo 202.031†	3.9	9.1	0.8918	µg/L	0.8918	ppb	00:54:07
1	Ni 231.604†	299.2	-20.4	-1.0177	µg/L	-1.0177	ppb	00:54:07
1	P 214.914†	16.5	0.8	1.5471	µg/L	1.5471	ppb	00:54:07
1	Pb 220.353†	89.4	-3.7	-0.9118	µg/L	-0.9118	ppb	00:54:07
1	S 181.975 Axial†	16.3	-3.0	-12.644	µg/L	-12.644	ppb	00:54:07
1	Sb 206.836†	16.5	-6.4	-5.8254	µg/L	-5.8254	ppb	00:54:07
1	Se 196.026†	19.5	-0.3	-0.4212	µg/L	-0.4212	ppb	00:54:07
1	SiO2†	1433.8	7.5	1.4845	µg/L	1.4845	ppb	00:53:46
1	Si 251.611†	372.9	53.3	4.0520	µg/L	4.0520	ppb	00:54:07
1	Sn 189.927†	5.9	5.4	2.2728	µg/L	2.2728	ppb	00:54:07
1	Ti 334.940†	341.2	157.9	0.3518	µg/L	0.3518	ppb	00:53:46
1	Tl 190.801†	-19.9	3.0	3.8843	µg/L	3.8843	ppb	00:54:07
1	U 409.014†	-22.2	55.4	4.6027	µg/L	4.6027	ppb	00:53:46
1	V 292.402†	-31.2	14.3	0.1517	µg/L	0.1517	ppb	00:53:46
1	Zn 213.857†	529.8	-17.4	-0.4012	µg/L	-0.4012	ppb	00:54:07
2	Sc RADIAL	56775.7	56775.7	100	%			00:52:44
2	Al 396.153Radial†	-27.8	-35.0	-24.366	µg/L	-24.366	ppb	00:52:44
2	Ca 317.933Radial†	192.4	-19.9	-16.957	µg/L	-16.957	ppb	00:53:04
2	Fe 238.204 Radial†	16.1	-0.6	-4.4224	µg/L	-4.4224	ppb	00:53:04
2	K 766.490 Radial†	175.7	9.8	6.4327	µg/L	6.4327	ppb	00:52:44
2	Mg 279.077 IEC†	7.4	-5.5	-48.709	µg/L	-48.709	ppb	00:53:04
2	Na 589.592 Radial†	453.4	-21.0	-6.4575	µg/L	-6.4575	ppb	00:52:44
2	Sr 421.552†	44.2	15.2	0.1399	µg/L	0.1399	ppb	00:52:44
2	Sc 361.383	2015962.5	2015962.5	102.69	%			00:54:13
2	Y 371.029	1393418.5	1393418.5	103.01	%			00:54:13
2	Ag 328.068†	-401.2	10.9	0.0831	µg/L	0.0831	ppb	00:54:18
2	As 188.979†	0.0	0.5	0.8602	µg/L	0.8602	ppb	00:54:39
2	B 249.677†	354.8	-38.6	-1.5728	µg/L	-1.5728	ppb	00:54:39
2	Ba 233.527†	-18.1	-0.5	-0.0119	µg/L	-0.0119	ppb	00:54:39
2	Be 313.107†	-2690.3	235.9	0.1399	µg/L	0.1399	ppb	00:54:18
2	Cd 226.502†	-130.3	14.8	0.3705	µg/L	0.3705	ppb	00:54:39
2	Co 228.616†	-6.6	-8.4	-0.3796	µg/L	-0.3796	ppb	00:54:39
2	Cr 267.716†	-46.8	4.9	0.0977	µg/L	0.0977	ppb	00:54:18
2	Cu 324.752†	2528.8	-81.2	-0.5308	µg/L	-0.5308	ppb	00:54:18
2	Mn 257.610†	-226.2	35.7	0.1133	µg/L	0.1133	ppb	00:54:39
2	Mo 202.031†	4.6	9.8	0.9608	µg/L	0.9608	ppb	00:54:39
2	Ni 231.604†	319.0	-1.7	-0.0830	µg/L	-0.0830	ppb	00:54:39
2	P 214.914†	9.1	-6.5	-12.859	µg/L	-12.859	ppb	00:54:39
2	Pb 220.353†	88.2	-5.0	-1.2233	µg/L	-1.2233	ppb	00:54:39

2	S 181.975 Axial†	16.9	-2.4	-10.103 µg/L	-10.103 ppb	00:54:39
2	Sb 206.836†	17.9	-5.1	-4.6769 µg/L	-4.6769 ppb	00:54:39
2	Se 196.026†	19.1	-0.7	-1.0024 µg/L	-1.0024 ppb	00:54:39
2	SiO2†	1449.7	20.2	3.9814 µg/L	3.9814 ppb	00:54:18
2	Si 251.611†	376.1	55.6	4.2260 µg/L	4.2260 ppb	00:54:39
2	Sn 189.927†	1.7	1.3	0.5477 µg/L	0.5477 ppb	00:54:39
2	Ti 334.940†	343.0	159.0	0.3552 µg/L	0.3552 ppb	00:54:18
2	Tl 190.801†	-24.1	-1.1	-1.4493 µg/L	-1.4493 ppb	00:54:39
2	U 409.014†	10.4	87.2	7.2508 µg/L	7.2508 ppb	00:54:18
2	V 292.402†	-4.1	40.8	0.4119 µg/L	0.4119 ppb	00:54:18
2	Zn 213.857†	527.1	-21.2	-0.4921 µg/L	-0.4921 ppb	00:54:39
3	Sc RADIAL	56920.7	56920.7	101 %		00:53:10
3	Al 396.153Radial†	-15.3	-22.6	-15.701 µg/L	-15.701 ppb	00:53:10
3	Ca 317.933Radial†	197.5	-15.2	-12.988 µg/L	-12.988 ppb	00:53:30
3	Fe 238.204 Radial†	18.8	2.1	16.556 µg/L	16.556 ppb	00:53:30
3	K 766.490 Radial†	185.2	18.8	12.279 µg/L	12.279 ppb	00:53:10
3	Mg 279.077 IEC†	8.5	-4.4	-39.105 µg/L	-39.105 ppb	00:53:30
3	Na 589.592 Radial†	423.4	-52.0	-15.967 µg/L	-15.967 ppb	00:53:10
3	Sr 421.552†	41.9	12.7	0.1176 µg/L	0.1176 ppb	00:53:10
3	Sc 361.383	2014852.2	2014852.2	102.64 %		00:54:45
3	Y 371.029	1393456.2	1393456.2	103.01 %		00:54:45
3	Ag 328.068†	-422.8	-10.3	-0.0785 µg/L	-0.0785 ppb	00:54:50
3	As 188.979†	-1.5	-1.0	-1.7460 µg/L	-1.7460 ppb	00:55:11
3	B 249.677†	333.7	-59.0	-2.4128 µg/L	-2.4128 ppb	00:55:11
3	Ba 233.527†	-13.4	4.0	0.0947 µg/L	0.0947 ppb	00:55:11
3	Be 313.107†	-2699.8	225.2	0.1336 µg/L	0.1336 ppb	00:54:50
3	Cd 226.502†	-145.5	-0.0	-0.0031 µg/L	-0.0031 ppb	00:55:11
3	Co 228.616†	6.4	4.3	0.1940 µg/L	0.1940 ppb	00:55:11
3	Cr 267.716†	-55.0	-3.2	-0.0651 µg/L	-0.0651 ppb	00:54:50
3	Cu 324.752†	2622.6	11.6	0.0778 µg/L	0.0778 ppb	00:54:50
3	Mn 257.610†	-221.2	40.5	0.1307 µg/L	0.1307 ppb	00:55:11
3	Mo 202.031†	-7.2	-1.7	-0.1630 µg/L	-0.1630 ppb	00:55:11
3	Ni 231.604†	311.0	-9.4	-0.4674 µg/L	-0.4674 ppb	00:55:11
3	P 214.914†	6.6	-8.9	-17.650 µg/L	-17.650 ppb	00:55:11
3	Pb 220.353†	81.8	-11.3	-2.7554 µg/L	-2.7554 ppb	00:55:11
3	S 181.975 Axial†	13.5	-5.8	-23.870 µg/L	-23.870 ppb	00:55:11
3	Sb 206.836†	20.6	-2.4	-2.2216 µg/L	-2.2216 ppb	00:55:11
3	Se 196.026†	20.8	1.0	1.4345 µg/L	1.4345 ppb	00:55:11
3	SiO2†	1432.2	3.9	0.7640 µg/L	0.7640 ppb	00:54:50
3	Si 251.611†	389.1	68.5	5.2078 µg/L	5.2078 ppb	00:55:11
3	Sn 189.927†	1.8	1.4	0.5816 µg/L	0.5816 ppb	00:55:11
3	Ti 334.940†	265.2	83.4	0.1873 µg/L	0.1873 ppb	00:54:50
3	Tl 190.801†	-21.9	1.1	1.4257 µg/L	1.4257 ppb	00:55:11
3	U 409.014†	48.0	123.8	10.285 µg/L	10.285 ppb	00:54:50
3	V 292.402†	-96.7	-49.4	-0.4704 µg/L	-0.4704 ppb	00:54:50
3	Zn 213.857†	520.4	-27.3	-0.6376 µg/L	-0.6376 ppb	00:55:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2014192.7	102.60	%	0.111				0.11%
Sc RADIAL	56728.2	100	%	0.4				0.39%
Y 371.029	1392162.4	102.91	%	0.163				0.16%
Ag 328.068†	2.3	0.0177	µg/L	0.08511	0.0177	ppb	0.08511	481.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-27.9	-19.391	µg/L	4.4734	-19.391	ppb	4.4734	23.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-1.5281	µg/L	2.28722	-1.5281	ppb	2.28722	149.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-50.5	-2.0584	µg/L	0.43510	-2.0584	ppb	0.43510	21.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.0	0.0252	µg/L	0.06031	0.0252	ppb	0.06031	239.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	215.7	0.1279	µg/L	0.01565	0.1279	ppb	0.01565	12.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.0	-15.359	µg/L	2.0946	-15.359	ppb	2.0946	13.64%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.2	0.2536	µg/L	0.22259	0.2536	ppb	0.22259	87.77%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.8	-0.0379	µg/L	0.30216	-0.0379	ppb	0.30216	797.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.5      0.1717 µg/L       0.28121      0.1717 ppb        0.28121 163.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -33.3     -0.2166 µg/L       0.30479     -0.2166 ppb        0.30479 140.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.5035 µg/L      11.39025      3.5035 ppb       11.39025 325.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          28.5      18.621 µg/L       16.3129      18.621 ppb        16.3129  87.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.6     -41.174 µg/L        6.7433     -41.174 ppb         6.7433  16.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                42.1      0.1339 µg/L       0.02244      0.1339 ppb        0.02244  16.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.7      0.5632 µg/L       0.62984      0.5632 ppb        0.62984 111.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -37.3     -11.464 µg/L        4.7748     -11.464 ppb         4.7748  41.65%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.5     -0.5227 µg/L       0.46980     -0.5227 ppb        0.46980  89.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.9     -9.6539 µg/L       9.99179     -9.6539 ppb        9.99179 103.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.7     -1.6302 µg/L       0.98682     -1.6302 ppb        0.98682  60.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.7     -15.539 µg/L        7.3261     -15.539 ppb         7.3261  47.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.6     -4.2413 µg/L       1.84093     -4.2413 ppb        1.84093  43.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.0      0.0037 µg/L       1.27280      0.0037 ppb        1.27280 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      10.5      2.0766 µg/L       1.68846      2.0766 ppb        1.68846  81.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                59.1      4.4953 µg/L       0.62314      4.4953 ppb        0.62314  13.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      1.1340 µg/L       0.98634      1.1340 ppb        0.98634  86.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.1      0.1213 µg/L       0.01704      0.1213 ppb        0.01704  14.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               133.4      0.2981 µg/L       0.09597      0.2981 ppb        0.09597  32.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.2869 µg/L       2.66947      1.2869 ppb        2.66947 207.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 88.8      7.3795 µg/L       2.84332      7.3795 ppb        2.84332  38.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  1.9      0.0311 µg/L       0.45339      0.0311 ppb        0.45339 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -22.0     -0.5103 µg/L       0.11927     -0.5103 ppb        0.11927  23.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 01:35:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57419.3	57419.3	102	%			01:35:43
1	Al 396.153Radial†	7273.3	7148.9	4962.6	µg/L	4962.6	ppb	01:35:43
1	Ca 317.933Radial†	6076.2	5767.2	4926.2	µg/L	4926.2	ppb	01:36:04
1	Fe 238.204 Radial†	668.4	641.0	5066.5	µg/L	5066.5	ppb	01:36:04
1	K 766.490 Radial†	7761.6	7471.8	4879.9	µg/L	4879.9	ppb	01:35:43
1	Mg 279.077 IEC†	582.0	559.9	5007.8	µg/L	5007.8	ppb	01:36:04
1	Na 589.592 Radial†	33078.6	32074.2	9851.4	µg/L	9851.4	ppb	01:35:43
1	Sr 421.552†	53197.6	52313.0	482.60	µg/L	482.60	ppb	01:35:43
1	Sc 361.383	2034231.0	2034231.0	103.62	%			01:37:07
1	Y 371.029	1401078.9	1401078.9	103.57	%			01:37:07
1	Ag 328.068†	68051.1	66073.8	493.05	µg/L	493.05	ppb	01:37:13
1	As 188.979†	299.7	289.7	518.21	µg/L	518.21	ppb	01:37:33
1	B 249.677†	12790.8	11959.5	485.61	µg/L	485.61	ppb	01:37:13
1	Ba 233.527†	21540.3	20804.3	500.35	µg/L	500.35	ppb	01:37:13
1	Be 313.107†	870171.9	842608.7	499.90	µg/L	499.90	ppb	01:37:07
1	Cd 226.502†	20795.1	20209.8	503.98	µg/L	503.98	ppb	01:37:13
1	Co 228.616†	11522.6	11117.9	502.92	µg/L	502.92	ppb	01:37:13
1	Cr 267.716†	26000.3	25141.8	505.29	µg/L	505.29	ppb	01:37:13
1	Cu 324.752†	80889.6	75518.2	493.65	µg/L	493.65	ppb	01:37:13
1	Mn 257.610†	168584.1	162946.9	510.74	µg/L	510.74	ppb	01:37:07
1	Mo 202.031†	5412.4	5228.5	512.20	µg/L	512.20	ppb	01:37:33
1	Ni 231.604†	10820.3	10129.7	504.43	µg/L	504.43	ppb	01:37:13
1	P 214.914†	1337.7	1275.6	2478.4	µg/L	2478.4	ppb	01:37:33
1	Pb 220.353†	2251.8	2082.1	506.35	µg/L	506.35	ppb	01:37:33
1	S 181.975 Axial†	270.9	242.5	1005.8	µg/L	1005.8	ppb	01:37:33
1	Sb 206.836†	601.8	558.3	514.73	µg/L	514.73	ppb	01:37:33
1	Se 196.026†	390.4	357.4	509.98	µg/L	509.98	ppb	01:37:33
1	SiO2†	29586.8	27161.0	5361.2	µg/L	5361.2	ppb	01:37:13
1	Si 251.611†	34523.3	33005.8	2509.2	µg/L	2509.2	ppb	01:37:13
1	Sn 189.927†	1266.8	1222.1	515.41	µg/L	515.41	ppb	01:37:33
1	Ti 334.940†	234198.4	225836.4	499.28	µg/L	499.28	ppb	01:37:07
1	Tl 190.801†	376.7	385.9	507.24	µg/L	507.24	ppb	01:37:33
1	U 409.014†	6139.1	6001.6	497.64	µg/L	497.64	ppb	01:37:13
1	V 292.402†	52802.2	51001.1	503.24	µg/L	503.24	ppb	01:37:13
1	Zn 213.857†	22812.8	21480.9	500.43	µg/L	500.43	ppb	01:37:13
2	Sc RADIAL	57564.5	57564.5	102	%			01:36:09
2	Al 396.153Radial†	7306.8	7163.8	4973.1	µg/L	4973.1	ppb	01:36:09
2	Ca 317.933Radial†	6109.1	5784.4	4940.9	µg/L	4940.9	ppb	01:36:30
2	Fe 238.204 Radial†	668.9	639.9	5057.7	µg/L	5057.7	ppb	01:36:30
2	K 766.490 Radial†	7818.3	7508.2	4903.7	µg/L	4903.7	ppb	01:36:09
2	Mg 279.077 IEC†	583.3	559.6	5005.7	µg/L	5005.7	ppb	01:36:30
2	Na 589.592 Radial†	33360.3	32268.7	9911.1	µg/L	9911.1	ppb	01:36:09
2	Sr 421.552†	53650.5	52625.5	485.48	µg/L	485.48	ppb	01:36:09
2	Sc 361.383	2011414.2	2011414.2	102.46	%			01:37:40
2	Y 371.029	1384320.1	1384320.1	102.33	%			01:37:40
2	Ag 328.068†	68129.8	66895.6	499.17	µg/L	499.17	ppb	01:37:46
2	As 188.979†	297.3	290.6	519.94	µg/L	519.94	ppb	01:38:07
2	B 249.677†	12762.8	12072.3	490.22	µg/L	490.22	ppb	01:37:46
2	Ba 233.527†	21511.3	21011.9	505.34	µg/L	505.34	ppb	01:37:46
2	Be 313.107†	857165.5	839440.6	498.02	µg/L	498.02	ppb	01:37:40
2	Cd 226.502†	20769.1	20412.1	509.04	µg/L	509.04	ppb	01:37:46
2	Co 228.616†	11488.3	11210.5	507.12	µg/L	507.12	ppb	01:37:46
2	Cr 267.716†	25975.8	25402.5	510.53	µg/L	510.53	ppb	01:37:46
2	Cu 324.752†	81008.6	76519.8	500.18	µg/L	500.18	ppb	01:37:46
2	Mn 257.610†	166212.0	162477.3	509.27	µg/L	509.27	ppb	01:37:40
2	Mo 202.031†	5296.2	5174.4	506.90	µg/L	506.90	ppb	01:38:07
2	Ni 231.604†	10788.5	10217.2	508.78	µg/L	508.78	ppb	01:37:46
2	P 214.914†	1313.4	1266.5	2459.7	µg/L	2459.7	ppb	01:38:07
2	Pb 220.353†	2218.7	2074.5	504.46	µg/L	504.46	ppb	01:38:07

2	S 181.975 Axial†	267.5	242.1	1004.0 µg/L	1004.0 ppb	01:38:07
2	Sb 206.836†	586.7	550.1	507.05 µg/L	507.05 ppb	01:38:07
2	Se 196.026†	392.7	363.9	519.07 µg/L	519.07 ppb	01:38:07
2	SiO2†	29613.1	27510.6	5430.2 µg/L	5430.2 ppb	01:37:46
2	Si 251.611†	34507.3	33368.1	2536.7 µg/L	2536.7 ppb	01:37:46
2	Sn 189.927†	1242.9	1212.7	511.45 µg/L	511.45 ppb	01:38:07
2	Ti 334.940†	231607.9	225872.0	499.36 µg/L	499.36 ppb	01:37:40
2	Tl 190.801†	376.6	389.9	512.47 µg/L	512.47 ppb	01:38:07
2	U 409.014†	6139.7	6069.4	503.27 µg/L	503.27 ppb	01:37:46
2	V 292.402†	52801.4	51578.4	508.85 µg/L	508.85 ppb	01:37:46
2	Zn 213.857†	22800.3	21718.5	505.97 µg/L	505.97 ppb	01:37:46
3	Sc RADIAL	57244.6	57244.6	101 %		01:36:35
3	Al 396.153Radial†	7255.4	7153.1	4967.6 µg/L	4967.6 ppb	01:36:35
3	Ca 317.933Radial†	6126.1	5834.7	4983.8 µg/L	4983.8 ppb	01:36:56
3	Fe 238.204 Radial†	671.1	645.7	5102.4 µg/L	5102.4 ppb	01:36:56
3	K 766.490 Radial†	7862.8	7594.9	4960.4 µg/L	4960.4 ppb	01:36:35
3	Mg 279.077 IEC†	592.0	571.5	5109.9 µg/L	5109.9 ppb	01:36:56
3	Na 589.592 Radial†	33278.2	32370.6	9942.4 µg/L	9942.4 ppb	01:36:35
3	Sr 421.552†	53507.0	52778.1	486.89 µg/L	486.89 ppb	01:36:35
3	Sc 361.383	2007877.4	2007877.4	102.28 %		01:38:14
3	Y 371.029	1383889.0	1383889.0	102.30 %		01:38:14
3	Ag 328.068†	63051.4	62047.6	462.82 µg/L	462.82 ppb	01:38:20
3	As 188.979†	242.2	237.3	424.54 µg/L	424.54 ppb	01:38:40
3	B 249.677†	11794.6	11147.5	452.38 µg/L	452.38 ppb	01:38:20
3	Ba 233.527†	19114.6	18705.6	449.86 µg/L	449.86 ppb	01:38:20
3	Be 313.107†	777323.4	762851.8	452.59 µg/L	452.59 ppb	01:38:14
3	Cd 226.502†	18378.3	18110.4	451.56 µg/L	451.56 ppb	01:38:20
3	Co 228.616†	10053.9	9827.9	444.52 µg/L	444.52 ppb	01:38:20
3	Cr 267.716†	21927.7	21489.3	431.89 µg/L	431.89 ppb	01:38:20
3	Cu 324.752†	71363.4	67228.9	439.54 µg/L	439.54 ppb	01:38:20
3	Mn 257.610†	151239.3	148124.0	464.33 µg/L	464.33 ppb	01:38:14
3	Mo 202.031†	4315.7	4224.8	413.91 µg/L	413.91 ppb	01:38:40
3	Ni 231.604†	9486.5	8962.7	446.32 µg/L	446.32 ppb	01:38:20
3	P 214.914†	1092.4	1052.7	2041.2 µg/L	2041.2 ppb	01:38:40
3	Pb 220.353†	1885.6	1752.6	426.13 µg/L	426.13 ppb	01:38:40
3	S 181.975 Axial†	228.9	204.8	849.49 µg/L	849.49 ppb	01:38:40
3	Sb 206.836†	488.5	455.1	419.26 µg/L	419.26 ppb	01:38:40
3	Se 196.026†	335.3	308.5	441.24 µg/L	441.24 ppb	01:38:40
3	SiO2†	26932.2	24940.3	4922.9 µg/L	4922.9 ppb	01:38:20
3	Si 251.611†	31223.7	30217.1	2297.2 µg/L	2297.2 ppb	01:38:20
3	Sn 189.927†	1002.7	980.0	413.30 µg/L	413.30 ppb	01:38:40
3	Ti 334.940†	208100.4	203286.6	449.39 µg/L	449.39 ppb	01:38:14
3	Tl 190.801†	327.4	342.5	450.33 µg/L	450.33 ppb	01:38:40
3	U 409.014†	5238.9	5199.2	430.96 µg/L	430.96 ppb	01:38:20
3	V 292.402†	45692.1	44718.3	441.02 µg/L	441.02 ppb	01:38:20
3	Zn 213.857†	20094.2	19111.9	445.18 µg/L	445.18 ppb	01:38:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2017840.8	102.79	%	0.729				0.71%
Sc RADIAL	57409.5	102	%	0.3				0.28%
Y 371.029	1389762.7	102.74	%	0.725				0.71%
Ag 328.068†	65005.7	485.01	µg/L	19.462	485.01	ppb	19.462	4.01%
QC value within limits for Ag 328.068 Recovery = 97.00%								
Al 396.153Radial†	7155.3	4967.8	µg/L	5.22	4967.8	ppb	5.22	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.36%								
As 188.979†	272.5	487.56	µg/L	54.586	487.56	ppb	54.586	11.20%
QC value within limits for As 188.979 Recovery = 97.51%								
B 249.677†	11726.4	476.07	µg/L	20.645	476.07	ppb	20.645	4.34%
QC value within limits for B 249.677 Recovery = 95.21%								
Ba 233.527†	20174.0	485.18	µg/L	30.696	485.18	ppb	30.696	6.33%
QC value within limits for Ba 233.527 Recovery = 97.04%								
Be 313.107†	814967.0	483.50	µg/L	26.792	483.50	ppb	26.792	5.54%
QC value within limits for Be 313.107 Recovery = 96.70%								
Ca 317.933Radial†	5795.4	4950.3	µg/L	29.95	4950.3	ppb	29.95	0.60%
QC value within limits for Ca 317.933Radial Recovery = 99.01%								
Cd 226.502†	19577.4	488.19	µg/L	31.826	488.19	ppb	31.826	6.52%
QC value within limits for Cd 226.502 Recovery = 97.64%								
Co 228.616†	10718.8	484.85	µg/L	34.993	484.85	ppb	34.993	7.22%

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   QC value within limits for Co 228.616  Recovery = 96.97%
Cr 267.716†            24011.2      482.57 µg/L        43.969      482.57 ppb         43.969   9.11%
   QC value within limits for Cr 267.716  Recovery = 96.51%
Cu 324.752†            73089.0      477.79 µg/L        33.284      477.79 ppb         33.284   6.97%
   QC value within limits for Cu 324.752  Recovery = 95.56%
Fe 238.204 Radial†       642.2      5075.5 µg/L         23.69      5075.5 ppb          23.69   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.51%
K 766.490 Radial†       7525.0      4914.7 µg/L         41.31      4914.7 ppb          41.31   0.84%
   QC value within limits for K 766.490 Radial  Recovery = 98.29%
Mg 279.077 IEC†          563.7      5041.1 µg/L         59.58      5041.1 ppb          59.58   1.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.82%
Mn 257.610†           157849.4      494.78 µg/L        26.384      494.78 ppb         26.384   5.33%
   QC value within limits for Mn 257.610  Recovery = 98.96%
Mo 202.031†             4875.9      477.67 µg/L        55.281      477.67 ppb         55.281  11.57%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     32237.8      9901.6 µg/L         46.24      9901.6 ppb          46.24   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 99.02%
Ni 231.604†             9769.8      486.51 µg/L        34.873      486.51 ppb         34.873   7.17%
   QC value within limits for Ni 231.604  Recovery = 97.30%
P 214.914†              1198.3      2326.4 µg/L        247.17      2326.4 ppb         247.17  10.62%
   QC value within limits for P 214.914  Recovery = 93.06%
Pb 220.353†             1969.8      478.98 µg/L        45.779      478.98 ppb         45.779   9.56%
   QC value within limits for Pb 220.353  Recovery = 95.80%
S 181.975 Axial†         229.8      953.10 µg/L        89.732      953.10 ppb         89.732   9.41%
   QC value within limits for S 181.975 Axial  Recovery = 95.31%
Sb 206.836†              521.2      480.34 µg/L        53.042      480.34 ppb         53.042  11.04%
   QC value within limits for Sb 206.836  Recovery = 96.07%
Se 196.026†              343.3      490.10 µg/L        42.553      490.10 ppb         42.553   8.68%
   QC value within limits for Se 196.026  Recovery = 98.02%
SiO2†                  26537.3      5238.1 µg/L        275.17      5238.1 ppb         275.17   5.25%
   QC value within limits for SiO2  Recovery = 97.95%
Si 251.611†            32197.0      2447.7 µg/L        131.08      2447.7 ppb         131.08   5.36%
   QC value within limits for Si 251.611  Recovery = 97.91%
Sn 189.927†             1138.3      480.05 µg/L        57.847      480.05 ppb         57.847  12.05%
   QC value within limits for Sn 189.927  Recovery = 96.01%
Sr 421.552†            52572.2      484.99 µg/L         2.187      484.99 ppb          2.187   0.45%
   QC value within limits for Sr 421.552  Recovery = 97.00%
Ti 334.940†           218331.7      482.68 µg/L        28.828      482.68 ppb         28.828   5.97%
   QC value within limits for Ti 334.940  Recovery = 96.54%
Tl 190.801†              372.8      490.01 µg/L        34.467      490.01 ppb         34.467   7.03%
   QC value within limits for Tl 190.801  Recovery = 98.00%
U 409.014†              5756.7      477.29 µg/L        40.220      477.29 ppb         40.220   8.43%
   QC value within limits for U 409.014  Recovery = 95.46%
V 292.402†             49099.3      484.37 µg/L        37.644      484.37 ppb         37.644   7.77%
   QC value within limits for V 292.402  Recovery = 96.87%
Zn 213.857†            20770.4      483.86 µg/L        33.610      483.86 ppb         33.610   6.95%
   QC value within limits for Zn 213.857  Recovery = 96.77%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 01:38:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57135.1	57135.1	101	%			01:39:22
1	Al 396.153Radial†	34.8	27.0	18.768	µg/L	18.768	ppb	01:39:22
1	Ca 317.933Radial†	207.1	-6.4	-5.4954	µg/L	-5.4954	ppb	01:39:43
1	Fe 238.204 Radial†	23.1	6.3	49.660	µg/L	49.660	ppb	01:39:43
1	K 766.490 Radial†	205.9	38.7	25.245	µg/L	25.245	ppb	01:39:22
1	Mg 279.077 IEC†	7.2	-5.7	-51.077	µg/L	-51.077	ppb	01:39:43
1	Na 589.592 Radial†	453.8	-23.5	-7.2226	µg/L	-7.2226	ppb	01:39:22
1	Sr 421.552†	70.3	40.7	0.3759	µg/L	0.3759	ppb	01:39:22
1	Sc 361.383	2042257.0	2042257.0	104.03	%			01:40:45
1	Y 371.029	1411266.5	1411266.5	104.33	%			01:40:45
1	Ag 328.068†	-373.7	42.4	0.3160	µg/L	0.3160	ppb	01:40:50
1	As 188.979†	2.2	2.5	4.5612	µg/L	4.5612	ppb	01:41:11
1	B 249.677†	379.7	-19.2	-0.8084	µg/L	-0.8084	ppb	01:41:11
1	Ba 233.527†	13.4	30.0	0.7187	µg/L	0.7187	ppb	01:41:11
1	Be 313.107†	-2631.9	325.8	0.1929	µg/L	0.1929	ppb	01:40:50
1	Cd 226.502†	-140.5	6.6	0.1583	µg/L	0.1583	ppb	01:41:11
1	Co 228.616†	13.2	10.8	0.4861	µg/L	0.4861	ppb	01:41:11
1	Cr 267.716†	-53.6	-1.2	-0.0241	µg/L	-0.0241	ppb	01:40:50
1	Cu 324.752†	2611.5	-33.4	-0.2113	µg/L	-0.2113	ppb	01:40:50
1	Mn 257.610†	14.5	269.9	0.8539	µg/L	0.8539	ppb	01:41:11
1	Mo 202.031†	2.8	8.0	0.7888	µg/L	0.7888	ppb	01:41:11
1	Ni 231.604†	315.0	-9.6	-0.4765	µg/L	-0.4765	ppb	01:41:11
1	P 214.914†	6.3	-9.3	-18.376	µg/L	-18.376	ppb	01:41:11
1	Pb 220.353†	88.8	-5.6	-1.3648	µg/L	-1.3648	ppb	01:41:11
1	S 181.975 Axial†	16.7	-2.9	-11.978	µg/L	-11.978	ppb	01:41:11
1	Sb 206.836†	22.2	-1.1	-1.0285	µg/L	-1.0285	ppb	01:41:11
1	Se 196.026†	21.8	1.7	2.5009	µg/L	2.5009	ppb	01:41:11
1	SiO2†	1521.5	71.0	14.008	µg/L	14.008	ppb	01:40:50
1	Si 251.611†	464.1	135.5	10.301	µg/L	10.301	ppb	01:41:11
1	Sn 189.927†	2.6	2.1	0.8882	µg/L	0.8882	ppb	01:41:11
1	Ti 334.940†	768.8	564.0	1.2516	µg/L	1.2516	ppb	01:40:50
1	Tl 190.801†	-21.5	1.7	2.2435	µg/L	2.2435	ppb	01:41:11
1	U 409.014†	-79.9	0.2	0.0140	µg/L	0.0140	ppb	01:40:50
1	V 292.402†	-69.0	-21.6	-0.1984	µg/L	-0.1984	ppb	01:40:50
1	Zn 213.857†	544.5	-11.0	-0.2547	µg/L	-0.2547	ppb	01:41:11
2	Sc RADIAL	57590.6	57590.6	102	%			01:39:48
2	Al 396.153Radial†	40.9	32.7	22.776	µg/L	22.776	ppb	01:39:48
2	Ca 317.933Radial†	207.8	-7.4	-6.3495	µg/L	-6.3495	ppb	01:40:09
2	Fe 238.204 Radial†	20.9	3.9	30.891	µg/L	30.891	ppb	01:40:09
2	K 766.490 Radial†	147.6	-20.2	-13.199	µg/L	-13.199	ppb	01:39:48
2	Mg 279.077 IEC†	10.5	-2.5	-22.537	µg/L	-22.537	ppb	01:40:09
2	Na 589.592 Radial†	425.0	-55.2	-16.966	µg/L	-16.966	ppb	01:39:48
2	Sr 421.552†	29.7	0.4	0.0032	µg/L	0.0032	ppb	01:39:48
2	Sc 361.383	2039883.2	2039883.2	103.91	%			01:41:17
2	Y 371.029	1409921.3	1409921.3	104.23	%			01:41:17
2	Ag 328.068†	-373.1	42.5	0.3150	µg/L	0.3150	ppb	01:41:22
2	As 188.979†	-3.5	-2.9	-5.1760	µg/L	-5.1760	ppb	01:41:43
2	B 249.677†	359.3	-38.4	-1.5807	µg/L	-1.5807	ppb	01:41:43
2	Ba 233.527†	-1.7	15.4	0.3695	µg/L	0.3695	ppb	01:41:43
2	Be 313.107†	-2593.5	359.8	0.2130	µg/L	0.2130	ppb	01:41:22
2	Cd 226.502†	-142.2	4.9	0.1169	µg/L	0.1169	ppb	01:41:43
2	Co 228.616†	13.6	11.1	0.5020	µg/L	0.5020	ppb	01:41:43
2	Cr 267.716†	-56.9	-4.4	-0.0888	µg/L	-0.0888	ppb	01:41:22
2	Cu 324.752†	2578.4	-62.4	-0.4030	µg/L	-0.4030	ppb	01:41:22
2	Mn 257.610†	-100.9	158.9	0.5026	µg/L	0.5026	ppb	01:41:43
2	Mo 202.031†	-3.5	2.0	0.1992	µg/L	0.1992	ppb	01:41:43
2	Ni 231.604†	312.1	-12.0	-0.5974	µg/L	-0.5974	ppb	01:41:43
2	P 214.914†	8.1	-7.5	-14.853	µg/L	-14.853	ppb	01:41:43
2	Pb 220.353†	89.5	-4.8	-1.1656	µg/L	-1.1656	ppb	01:41:43

2	S 181.975 Axial†	19.3	-0.4	-1.5228 µg/L	-1.5228 ppb	01:41:43
2	Sb 206.836†	15.6	-7.5	-6.8664 µg/L	-6.8664 ppb	01:41:43
2	Se 196.026†	20.8	0.7	1.1221 µg/L	1.1221 ppb	01:41:43
2	SiO2†	1543.7	94.1	18.568 µg/L	18.568 ppb	01:41:22
2	Si 251.611†	427.6	100.9	7.6718 µg/L	7.6718 ppb	01:41:43
2	Sn 189.927†	4.2	3.6	1.5286 µg/L	1.5286 ppb	01:41:43
2	Ti 334.940†	818.7	612.8	1.3574 µg/L	1.3574 ppb	01:41:22
2	Tl 190.801†	-26.6	-3.2	-4.1746 µg/L	-4.1746 ppb	01:41:43
2	U 409.014†	-39.9	38.7	3.2106 µg/L	3.2106 ppb	01:41:22
2	V 292.402†	-78.3	-30.6	-0.2901 µg/L	-0.2901 ppb	01:41:22
2	Zn 213.857†	543.6	-11.2	-0.2603 µg/L	-0.2603 ppb	01:41:43
3	Sc RADIAL	57858.1	57858.1	102 %		01:40:14
3	Al 396.153Radial†	22.7	14.8	10.295 µg/L	10.295 ppb	01:40:14
3	Ca 317.933Radial†	203.2	-12.8	-10.971 µg/L	-10.971 ppb	01:40:34
3	Fe 238.204 Radial†	18.8	1.8	13.850 µg/L	13.850 ppb	01:40:34
3	K 766.490 Radial†	204.6	34.8	22.747 µg/L	22.747 ppb	01:40:14
3	Mg 279.077 IEC†	12.5	-0.6	-5.2130 µg/L	-5.2130 ppb	01:40:34
3	Na 589.592 Radial†	471.2	-12.1	-3.7085 µg/L	-3.7085 ppb	01:40:14
3	Sr 421.552†	56.0	25.9	0.2389 µg/L	0.2389 ppb	01:40:14
3	Sc 361.383	2024319.1	2024319.1	103.12 %		01:41:49
3	Y 371.029	1399185.8	1399185.8	103.43 %		01:41:49
3	Ag 328.068†	-371.4	41.4	0.3087 µg/L	0.3087 ppb	01:41:54
3	As 188.979†	-3.1	-2.5	-4.5057 µg/L	-4.5057 ppb	01:42:15
3	B 249.677†	362.3	-32.8	-1.3442 µg/L	-1.3442 ppb	01:42:15
3	Ba 233.527†	3.3	20.3	0.4872 µg/L	0.4872 ppb	01:42:15
3	Be 313.107†	-2633.5	301.8	0.1788 µg/L	0.1788 ppb	01:41:54
3	Cd 226.502†	-140.5	5.4	0.1335 µg/L	0.1335 ppb	01:42:15
3	Co 228.616†	9.3	7.1	0.3187 µg/L	0.3187 ppb	01:42:15
3	Cr 267.716†	-65.5	-13.1	-0.2632 µg/L	-0.2632 ppb	01:41:54
3	Cu 324.752†	2611.5	-11.2	-0.0709 µg/L	-0.0709 ppb	01:41:54
3	Mn 257.610†	-129.8	130.1	0.4095 µg/L	0.4095 ppb	01:42:15
3	Mo 202.031†	1.2	6.5	0.6372 µg/L	0.6372 ppb	01:42:15
3	Ni 231.604†	315.4	-6.5	-0.3221 µg/L	-0.3221 ppb	01:42:15
3	P 214.914†	8.2	-7.4	-14.525 µg/L	-14.525 ppb	01:42:15
3	Pb 220.353†	92.1	-1.6	-0.3905 µg/L	-0.3905 ppb	01:42:15
3	S 181.975 Axial†	16.0	-3.4	-14.142 µg/L	-14.142 ppb	01:42:15
3	Sb 206.836†	29.1	5.7	5.2807 µg/L	5.2807 ppb	01:42:15
3	Se 196.026†	15.7	-4.1	-5.7582 µg/L	-5.7582 ppb	01:42:15
3	SiO2†	1504.9	67.8	13.386 µg/L	13.386 ppb	01:41:54
3	Si 251.611†	417.2	93.9	7.1408 µg/L	7.1408 ppb	01:42:15
3	Sn 189.927†	6.9	6.3	2.6486 µg/L	2.6486 ppb	01:42:15
3	Ti 334.940†	558.7	366.7	0.8115 µg/L	0.8115 ppb	01:41:54
3	Tl 190.801†	-25.8	-2.7	-3.4593 µg/L	-3.4593 ppb	01:42:15
3	U 409.014†	-73.9	5.4	0.4508 µg/L	0.4508 ppb	01:41:54
3	V 292.402†	-26.6	19.0	0.1913 µg/L	0.1913 ppb	01:41:54
3	Zn 213.857†	538.1	-12.6	-0.2940 µg/L	-0.2940 ppb	01:42:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2035486.5	103.69	%	0.496				0.48%
Sc RADIAL	57527.9	102	%	0.6				0.64%
Y 371.029	1406791.2	103.99	%	0.489				0.47%
Ag 328.068†	42.1	0.3132	µg/L	0.00393	0.3132	ppb	0.00393	1.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.9	17.280	µg/L	6.3721	17.280	ppb	6.3721	36.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.7068	µg/L	5.43858	-1.7068	ppb	5.43858	318.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.1	-1.2444	µg/L	0.39571	-1.2444	ppb	0.39571	31.80%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.9	0.5252	µg/L	0.17766	0.5252	ppb	0.17766	33.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	329.1	0.1949	µg/L	0.01720	0.1949	ppb	0.01720	8.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.9	-7.6052	µg/L	2.94566	-7.6052	ppb	2.94566	38.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.6	0.1362	µg/L	0.02082	0.1362	ppb	0.02082	15.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.7	0.4356	µg/L	0.10158	0.4356	ppb	0.10158	23.32%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.2     -0.1253 µg/L       0.12371     -0.1253 ppb        0.12371  98.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -35.7     -0.2284 µg/L       0.16671     -0.2284 ppb        0.16671  73.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.0      31.467 µg/L       17.9117      31.467 ppb        17.9117  56.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          17.8      11.597 µg/L       21.5107      11.597 ppb        21.5107 185.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.9     -26.276 µg/L       23.1597     -26.276 ppb        23.1597  88.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               186.3      0.5887 µg/L       0.23433      0.5887 ppb        0.23433  39.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.5      0.5417 µg/L       0.30616      0.5417 ppb        0.30616  56.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -30.3     -9.2991 µg/L       6.86854     -9.2991 ppb        6.86854  73.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.3     -0.4653 µg/L       0.13799     -0.4653 ppb        0.13799  29.66%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.1     -15.918 µg/L        2.1350     -15.918 ppb         2.1350  13.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.0     -0.9736 µg/L       0.51474     -0.9736 ppb        0.51474  52.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.2     -9.2142 µg/L       6.74825     -9.2142 ppb        6.74825  73.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.0     -0.8714 µg/L       6.07511     -0.8714 ppb        6.07511 697.16%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.6     -0.7117 µg/L       4.42438     -0.7117 ppb        4.42438 621.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      77.6      15.321 µg/L        2.8290      15.321 ppb         2.8290  18.47%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               110.1      8.3713 µg/L       1.69231      8.3713 ppb        1.69231  20.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.0      1.6885 µg/L       0.89104      1.6885 ppb        0.89104  52.77%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.3      0.2060 µg/L       0.18848      0.2060 ppb        0.18848  91.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               514.5      1.1402 µg/L       0.28950      1.1402 ppb        0.28950  25.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.4     -1.7968 µg/L       3.51725     -1.7968 ppb        3.51725 195.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 14.8      1.2252 µg/L       1.73329      1.2252 ppb        1.73329 141.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -11.1     -0.0991 µg/L       0.25565     -0.0991 ppb        0.25565 258.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -11.6     -0.2697 µg/L       0.02125     -0.2697 ppb        0.02125   7.88%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 02:15:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58191.5	58191.5	103	%			02:16:09
1	Al 396.153Radial†	7258.5	7039.6	4886.5	µg/L	4886.5	ppb	02:16:09
1	Ca 317.933Radial†	6140.0	5749.8	4911.3	µg/L	4911.3	ppb	02:16:30
1	Fe 238.204 Radial†	671.6	635.5	5022.8	µg/L	5022.8	ppb	02:16:30
1	K 766.490 Radial†	7817.3	7424.5	4849.1	µg/L	4849.1	ppb	02:16:09
1	Mg 279.077 IEC†	585.2	555.3	4967.5	µg/L	4967.5	ppb	02:16:30
1	Na 589.592 Radial†	33349.1	31905.1	9799.4	µg/L	9799.4	ppb	02:16:09
1	Sr 421.552†	53529.5	51940.7	479.16	µg/L	479.16	ppb	02:16:09
1	Sc 361.383	2025495.0	2025495.0	103.18	%			02:17:34
1	Y 371.029	1393522.4	1393522.4	103.01	%			02:17:34
1	Ag 328.068†	68051.7	66357.7	495.15	µg/L	495.15	ppb	02:17:39
1	As 188.979†	294.2	285.6	510.95	µg/L	510.95	ppb	02:18:00
1	B 249.677†	12740.6	11964.1	485.82	µg/L	485.82	ppb	02:17:39
1	Ba 233.527†	21431.5	20788.6	499.97	µg/L	499.97	ppb	02:17:39
1	Be 313.107†	860224.1	836589.2	496.33	µg/L	496.33	ppb	02:17:34
1	Cd 226.502†	20683.9	20188.6	503.46	µg/L	503.46	ppb	02:17:39
1	Co 228.616†	11485.2	11129.6	503.47	µg/L	503.47	ppb	02:17:39
1	Cr 267.716†	25878.1	25131.6	505.09	µg/L	505.09	ppb	02:17:39
1	Cu 324.752†	80890.3	75855.5	495.84	µg/L	495.84	ppb	02:17:39
1	Mn 257.610†	166534.0	161661.6	506.71	µg/L	506.71	ppb	02:17:34
1	Mo 202.031†	5429.0	5267.2	515.99	µg/L	515.99	ppb	02:18:00
1	Ni 231.604†	10805.9	10160.8	505.98	µg/L	505.98	ppb	02:17:39
1	P 214.914†	1357.1	1300.0	2526.6	µg/L	2526.6	ppb	02:18:00
1	Pb 220.353†	2263.0	2102.4	511.26	µg/L	511.26	ppb	02:18:00
1	S 181.975 Axial†	272.8	245.5	1018.0	µg/L	1018.0	ppb	02:18:00
1	Sb 206.836†	595.8	554.9	511.72	µg/L	511.72	ppb	02:18:00
1	Se 196.026†	396.0	364.5	519.78	µg/L	519.78	ppb	02:18:00
1	SiO2†	29444.9	27146.6	5358.4	µg/L	5358.4	ppb	02:17:39
1	Si 251.611†	34240.6	32875.6	2499.3	µg/L	2499.3	ppb	02:17:39
1	Sn 189.927†	1272.4	1232.8	519.94	µg/L	519.94	ppb	02:18:00
1	Ti 334.940†	231319.8	224021.3	495.27	µg/L	495.27	ppb	02:17:34
1	Tl 190.801†	376.6	387.4	509.16	µg/L	509.16	ppb	02:18:00
1	U 409.014†	6214.7	6100.4	505.85	µg/L	505.85	ppb	02:17:39
1	V 292.402†	52685.7	51108.0	504.32	µg/L	504.32	ppb	02:17:39
1	Zn 213.857†	22801.0	21564.4	502.38	µg/L	502.38	ppb	02:17:39
2	Sc RADIAL	57525.9	57525.9	102	%			02:16:35
2	Al 396.153Radial†	7277.8	7140.1	4956.8	µg/L	4956.8	ppb	02:16:35
2	Ca 317.933Radial†	6126.2	5805.2	4958.7	µg/L	4958.7	ppb	02:16:56
2	Fe 238.204 Radial†	672.0	643.4	5085.2	µg/L	5085.2	ppb	02:16:56
2	K 766.490 Radial†	7755.8	7451.9	4867.0	µg/L	4867.0	ppb	02:16:35
2	Mg 279.077 IEC†	585.5	562.2	5028.2	µg/L	5028.2	ppb	02:16:56
2	Na 589.592 Radial†	33351.3	32281.8	9915.1	µg/L	9915.1	ppb	02:16:35
2	Sr 421.552†	53616.1	52627.1	485.49	µg/L	485.49	ppb	02:16:35
2	Sc 361.383	2033969.0	2033969.0	103.61	%			02:18:07
2	Y 371.029	1400420.2	1400420.2	103.52	%			02:18:07
2	Ag 328.068†	67959.2	65993.6	492.44	µg/L	492.44	ppb	02:18:12
2	As 188.979†	284.5	275.1	492.09	µg/L	492.09	ppb	02:18:33
2	B 249.677†	12757.5	11929.0	484.35	µg/L	484.35	ppb	02:18:12
2	Ba 233.527†	21433.3	20703.8	497.93	µg/L	497.93	ppb	02:18:12
2	Be 313.107†	861320.1	834173.5	494.90	µg/L	494.90	ppb	02:18:07
2	Cd 226.502†	20662.3	20084.3	500.85	µg/L	500.85	ppb	02:18:12
2	Co 228.616†	11498.8	11096.3	501.95	µg/L	501.95	ppb	02:18:12
2	Cr 267.716†	25809.5	24960.9	501.66	µg/L	501.66	ppb	02:18:12
2	Cu 324.752†	80678.2	75324.2	492.38	µg/L	492.38	ppb	02:18:12
2	Mn 257.610†	166428.8	160887.6	504.30	µg/L	504.30	ppb	02:18:07
2	Mo 202.031†	5249.7	5072.2	496.89	µg/L	496.89	ppb	02:18:33
2	Ni 231.604†	10769.8	10082.3	502.07	µg/L	502.07	ppb	02:18:12
2	P 214.914†	1313.2	1252.1	2431.7	µg/L	2431.7	ppb	02:18:33
2	Pb 220.353†	2202.4	2034.8	494.79	µg/L	494.79	ppb	02:18:33

2	S 181.975 Axial†	266.6	238.4	988.63 µg/L	988.63 ppb	02:18:33
2	Sb 206.836†	585.1	542.2	499.79 µg/L	499.79 ppb	02:18:33
2	Se 196.026†	381.2	348.6	497.62 µg/L	497.62 ppb	02:18:33
2	SiO2†	29426.7	27010.1	5331.4 µg/L	5331.4 ppb	02:18:12
2	Si 251.611†	34259.9	32755.9	2490.2 µg/L	2490.2 ppb	02:18:12
2	Sn 189.927†	1228.0	1184.9	499.71 µg/L	499.71 ppb	02:18:33
2	Ti 334.940†	231705.0	223459.0	494.02 µg/L	494.02 ppb	02:18:07
2	Tl 190.801†	373.9	383.2	503.72 µg/L	503.72 ppb	02:18:33
2	U 409.014†	6182.0	6043.8	501.14 µg/L	501.14 ppb	02:18:12
2	V 292.402†	52588.6	50801.6	501.18 µg/L	501.18 ppb	02:18:12
2	Zn 213.857†	22745.5	21418.8	498.98 µg/L	498.98 ppb	02:18:12
3	Sc RADIAL	58138.8	58138.8	103 %		02:17:01
3	Al 396.153Radial†	7248.0	7035.8	4886.2 µg/L	4886.2 ppb	02:17:01
3	Ca 317.933Radial†	6114.0	5729.9	4894.4 µg/L	4894.4 ppb	02:17:22
3	Fe 238.204 Radial†	673.1	637.5	5037.6 µg/L	5037.6 ppb	02:17:22
3	K 766.490 Radial†	7762.5	7378.1	4818.8 µg/L	4818.8 ppb	02:17:01
3	Mg 279.077 IEC†	580.3	551.1	4927.8 µg/L	4927.8 ppb	02:17:22
3	Na 589.592 Radial†	33225.8	31814.5	9771.6 µg/L	9771.6 ppb	02:17:01
3	Sr 421.552†	53434.2	51895.1	478.74 µg/L	478.74 ppb	02:17:01
3	Sc 361.383	2035150.5	2035150.5	103.67 %		02:18:40
3	Y 371.029	1400317.4	1400317.4	103.52 %		02:18:40
3	Ag 328.068†	62831.2	61009.0	455.07 µg/L	455.07 ppb	02:18:46
3	As 188.979†	237.9	229.9	411.33 µg/L	411.33 ppb	02:19:06
3	B 249.677†	11656.1	10859.4	440.65 µg/L	440.65 ppb	02:18:46
3	Ba 233.527†	18986.2	18331.2	440.85 µg/L	440.85 ppb	02:18:46
3	Be 313.107†	781601.2	756793.4	448.99 µg/L	448.99 ppb	02:18:40
3	Cd 226.502†	18258.6	17754.0	442.67 µg/L	442.67 ppb	02:18:46
3	Co 228.616†	10012.1	9655.8	436.73 µg/L	436.73 ppb	02:18:46
3	Cr 267.716†	21830.8	21108.5	424.24 µg/L	424.24 ppb	02:18:46
3	Cu 324.752†	71151.5	66089.5	432.10 µg/L	432.10 ppb	02:18:46
3	Mn 257.610†	151802.1	146685.3	459.82 µg/L	459.82 ppb	02:18:40
3	Mo 202.031†	4279.7	4133.6	404.98 µg/L	404.98 ppb	02:19:06
3	Ni 231.604†	9441.2	8794.7	437.96 µg/L	437.96 ppb	02:18:46
3	P 214.914†	1100.1	1045.9	2028.4 µg/L	2028.4 ppb	02:19:06
3	Pb 220.353†	1872.9	1715.6	417.12 µg/L	417.12 ppb	02:19:06
3	S 181.975 Axial†	229.9	202.8	841.16 µg/L	841.16 ppb	02:19:06
3	Sb 206.836†	490.6	450.8	415.21 µg/L	415.21 ppb	02:19:06
3	Se 196.026†	333.9	302.7	433.15 µg/L	433.15 ppb	02:19:06
3	SiO2†	26613.4	24279.9	4792.5 µg/L	4792.5 ppb	02:18:46
3	Si 251.611†	30927.8	29522.5	2244.4 µg/L	2244.4 ppb	02:18:46
3	Sn 189.927†	990.4	955.0	402.76 µg/L	402.76 ppb	02:19:06
3	Ti 334.940†	208593.4	201035.6	444.42 µg/L	444.42 ppb	02:18:40
3	Tl 190.801†	322.5	333.4	438.55 µg/L	438.55 ppb	02:19:06
3	U 409.014†	5231.2	5123.1	424.65 µg/L	424.65 ppb	02:18:46
3	V 292.402†	45492.3	43926.9	433.21 µg/L	433.21 ppb	02:18:46
3	Zn 213.857†	19973.8	18732.5	436.34 µg/L	436.34 ppb	02:18:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2031538.2	103.49	%	0.268				0.26%
Sc RADIAL	57952.1	103	%	0.7				0.64%
Y 371.029	1398086.7	103.35	%	0.292				0.28%
Ag 328.068†	64453.4	480.89	µg/L	22.399	480.89	ppb	22.399	4.66%
QC value within limits for Ag 328.068 Recovery = 96.18%								
Al 396.153Radial†	7071.8	4909.8	µg/L	40.70	4909.8	ppb	40.70	0.83%
QC value within limits for Al 396.153Radial Recovery = 98.20%								
As 188.979†	263.5	471.46	µg/L	52.918	471.46	ppb	52.918	11.22%
QC value within limits for As 188.979 Recovery = 94.29%								
B 249.677†	11584.2	470.27	µg/L	25.661	470.27	ppb	25.661	5.46%
QC value within limits for B 249.677 Recovery = 94.05%								
Ba 233.527†	19941.2	479.59	µg/L	33.559	479.59	ppb	33.559	7.00%
QC value within limits for Ba 233.527 Recovery = 95.92%								
Be 313.107†	809185.4	480.07	µg/L	26.927	480.07	ppb	26.927	5.61%
QC value within limits for Be 313.107 Recovery = 96.01%								
Ca 317.933Radial†	5761.6	4921.5	µg/L	33.35	4921.5	ppb	33.35	0.68%
QC value within limits for Ca 317.933Radial Recovery = 98.43%								
Cd 226.502†	19342.3	482.33	µg/L	34.369	482.33	ppb	34.369	7.13%
QC value within limits for Cd 226.502 Recovery = 96.47%								
Co 228.616†	10627.2	480.71	µg/L	38.101	480.71	ppb	38.101	7.93%

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   QC value within limits for Co 228.616  Recovery = 96.14%
Cr 267.716†            23733.6      476.99 µg/L        45.720      476.99 ppb         45.720   9.58%
   QC value within limits for Cr 267.716  Recovery = 95.40%
Cu 324.752†            72423.1      473.44 µg/L        35.846      473.44 ppb         35.846   7.57%
   QC value within limits for Cu 324.752  Recovery = 94.69%
Fe 238.204 Radial†       638.8      5048.5 µg/L         32.63      5048.5 ppb          32.63   0.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.97%
K 766.490 Radial†       7418.2      4844.9 µg/L         24.37      4844.9 ppb          24.37   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 96.90%
Mg 279.077 IEC†          556.2      4974.5 µg/L         50.53      4974.5 ppb          50.53   1.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.49%
Mn 257.610†           156411.5      490.28 µg/L        26.404      490.28 ppb         26.404   5.39%
   QC value within limits for Mn 257.610  Recovery = 98.06%
Mo 202.031†             4824.3      472.62 µg/L        59.353      472.62 ppb         59.353  12.56%
   QC value within limits for Mo 202.031  Recovery = 94.52%
Na 589.592 Radial†     32000.5      9828.7 µg/L         76.12      9828.7 ppb          76.12   0.77%
   QC value within limits for Na 589.592 Radial  Recovery = 98.29%
Ni 231.604†             9679.3      482.00 µg/L        38.193      482.00 ppb         38.193   7.92%
   QC value within limits for Ni 231.604  Recovery = 96.40%
P 214.914†              1199.3      2328.9 µg/L        264.54      2328.9 ppb         264.54  11.36%
   QC value within limits for P 214.914  Recovery = 93.16%
Pb 220.353†             1950.9      474.39 µg/L        50.276      474.39 ppb         50.276  10.60%
   QC value within limits for Pb 220.353  Recovery = 94.88%
S 181.975 Axial†         228.9      949.25 µg/L        94.750      949.25 ppb         94.750   9.98%
   QC value within limits for S 181.975 Axial  Recovery = 94.93%
Sb 206.836†              516.0      475.58 µg/L        52.614      475.58 ppb         52.614  11.06%
   QC value within limits for Sb 206.836  Recovery = 95.12%
Se 196.026†              338.6      483.52 µg/L        45.006      483.52 ppb         45.006   9.31%
   QC value within limits for Se 196.026  Recovery = 96.70%
SiO2†                   26145.5      5160.8 µg/L        319.20      5160.8 ppb         319.20   6.19%
   QC value within limits for SiO2  Recovery = 96.51%
Si 251.611†             31718.0      2411.3 µg/L        144.62      2411.3 ppb         144.62   6.00%
   QC value within limits for Si 251.611  Recovery = 96.45%
Sn 189.927†             1124.2      474.14 µg/L        62.634      474.14 ppb         62.634  13.21%
   QC value within limits for Sn 189.927  Recovery = 94.83%
Sr 421.552†             52154.3      481.13 µg/L         3.783      481.13 ppb          3.783   0.79%
   QC value within limits for Sr 421.552  Recovery = 96.23%
Ti 334.940†            216172.0      477.91 µg/L        29.003      477.91 ppb         29.003   6.07%
   QC value within limits for Ti 334.940  Recovery = 95.58%
Tl 190.801†              368.0      483.81 µg/L        39.291      483.81 ppb         39.291   8.12%
   QC value within limits for Tl 190.801  Recovery = 96.76%
U 409.014†              5755.8      477.21 µg/L        45.578      477.21 ppb         45.578   9.55%
   QC value within limits for U 409.014  Recovery = 95.44%
V 292.402†              48612.2      479.57 µg/L        40.178      479.57 ppb         40.178   8.38%
   QC value within limits for V 292.402  Recovery = 95.91%
Zn 213.857†             20571.9      479.23 µg/L        37.184      479.23 ppb         37.184   7.76%
   QC value within limits for Zn 213.857  Recovery = 95.85%
All analyte(s) passed QC.
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Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 02:19:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57729.5	57729.5	102	%			02:19:48
1	Al 396.153Radial†	-17.4	-24.4	-17.001	µg/L	-17.001	ppb	02:19:48
1	Ca 317.933Radial†	191.9	-23.5	-20.043	µg/L	-20.043	ppb	02:20:08
1	Fe 238.204 Radial†	17.5	0.5	4.2213	µg/L	4.2213	ppb	02:20:08
1	K 766.490 Radial†	216.3	46.7	30.488	µg/L	30.488	ppb	02:19:48
1	Mg 279.077 IEC†	10.2	-2.8	-25.466	µg/L	-25.466	ppb	02:20:08
1	Na 589.592 Radial†	458.8	-23.2	-7.1181	µg/L	-7.1181	ppb	02:19:48
1	Sr 421.552†	41.6	11.9	0.1101	µg/L	0.1101	ppb	02:19:48
1	Sc 361.383	2012982.2	2012982.2	102.54	%			02:21:10
1	Y 371.029	1391221.6	1391221.6	102.84	%			02:21:10
1	Ag 328.068†	-376.4	34.5	0.2577	µg/L	0.2577	ppb	02:21:16
1	As 188.979†	0.9	1.3	2.4043	µg/L	2.4043	ppb	02:21:36
1	B 249.677†	358.4	-34.6	-1.4130	µg/L	-1.4130	ppb	02:21:36
1	Ba 233.527†	-13.7	3.8	0.0906	µg/L	0.0906	ppb	02:21:36
1	Be 313.107†	-2822.7	102.9	0.0610	µg/L	0.0610	ppb	02:21:16
1	Cd 226.502†	-143.6	1.7	0.0414	µg/L	0.0414	ppb	02:21:36
1	Co 228.616†	13.0	10.8	0.4870	µg/L	0.4870	ppb	02:21:36
1	Cr 267.716†	-60.0	-8.1	-0.1624	µg/L	-0.1624	ppb	02:21:16
1	Cu 324.752†	2581.5	-26.2	-0.1706	µg/L	-0.1706	ppb	02:21:16
1	Mn 257.610†	-191.2	69.6	0.2195	µg/L	0.2195	ppb	02:21:36
1	Mo 202.031†	-1.0	4.3	0.4238	µg/L	0.4238	ppb	02:21:36
1	Ni 231.604†	317.8	-2.4	-0.1193	µg/L	-0.1193	ppb	02:21:36
1	P 214.914†	18.9	3.1	6.0757	µg/L	6.0757	ppb	02:21:36
1	Pb 220.353†	86.2	-6.9	-1.6658	µg/L	-1.6658	ppb	02:21:36
1	S 181.975 Axial†	19.7	0.2	0.9452	µg/L	0.9452	ppb	02:21:36
1	Sb 206.836†	20.5	-2.5	-2.3172	µg/L	-2.3172	ppb	02:21:36
1	Se 196.026†	16.0	-3.7	-5.2215	µg/L	-5.2215	ppb	02:21:36
1	SiO2†	1492.0	63.5	12.534	µg/L	12.534	ppb	02:21:16
1	Si 251.611†	376.6	56.7	4.3078	µg/L	4.3078	ppb	02:21:36
1	Sn 189.927†	2.4	2.0	0.8365	µg/L	0.8365	ppb	02:21:36
1	Ti 334.940†	324.8	141.7	0.3151	µg/L	0.3151	ppb	02:21:16
1	Tl 190.801†	-19.9	3.0	3.8867	µg/L	3.8867	ppb	02:21:36
1	U 409.014†	-83.1	-4.0	-0.3304	µg/L	-0.3304	ppb	02:21:16
1	V 292.402†	-22.0	23.3	0.2303	µg/L	0.2303	ppb	02:21:16
1	Zn 213.857†	530.6	-16.9	-0.3954	µg/L	-0.3954	ppb	02:21:36
2	Sc RADIAL	57608.9	57608.9	102	%			02:20:14
2	Al 396.153Radial†	0.7	-6.7	-4.6630	µg/L	-4.6630	ppb	02:20:14
2	Ca 317.933Radial†	197.8	-17.3	-14.771	µg/L	-14.771	ppb	02:20:34
2	Fe 238.204 Radial†	16.4	-0.5	-4.1892	µg/L	-4.1892	ppb	02:20:34
2	K 766.490 Radial†	195.3	26.6	17.353	µg/L	17.353	ppb	02:20:14
2	Mg 279.077 IEC†	10.5	-2.5	-22.571	µg/L	-22.571	ppb	02:20:34
2	Na 589.592 Radial†	494.6	12.8	3.9451	µg/L	3.9451	ppb	02:20:14
2	Sr 421.552†	24.5	-4.7	-0.0437	µg/L	-0.0437	ppb	02:20:14
2	Sc 361.383	2039746.3	2039746.3	103.90	%			02:21:42
2	Y 371.029	1408964.2	1408964.2	104.16	%			02:21:42
2	Ag 328.068†	-401.8	14.9	0.1084	µg/L	0.1084	ppb	02:21:48
2	As 188.979†	-0.4	0.1	0.2035	µg/L	0.2035	ppb	02:22:08
2	B 249.677†	347.9	-49.3	-2.0073	µg/L	-2.0073	ppb	02:22:08
2	Ba 233.527†	-12.4	5.1	0.1221	µg/L	0.1221	ppb	02:22:08
2	Be 313.107†	-2753.3	205.8	0.1220	µg/L	0.1220	ppb	02:21:48
2	Cd 226.502†	-138.7	8.2	0.2052	µg/L	0.2052	ppb	02:22:08
2	Co 228.616†	10.5	8.2	0.3693	µg/L	0.3693	ppb	02:22:08
2	Cr 267.716†	-54.4	-2.0	-0.0396	µg/L	-0.0396	ppb	02:21:48
2	Cu 324.752†	2596.8	-44.5	-0.2909	µg/L	-0.2909	ppb	02:21:48
2	Mn 257.610†	-173.0	89.5	0.2807	µg/L	0.2807	ppb	02:22:08
2	Mo 202.031†	-1.2	4.2	0.4087	µg/L	0.4087	ppb	02:22:08
2	Ni 231.604†	312.3	-11.8	-0.5894	µg/L	-0.5894	ppb	02:22:08
2	P 214.914†	10.7	-5.1	-9.9877	µg/L	-9.9877	ppb	02:22:08
2	Pb 220.353†	88.9	-5.4	-1.3052	µg/L	-1.3052	ppb	02:22:08

2	S 181.975 Axial†	16.4	-3.2	-13.188	µg/L	-13.188 ppb	02:22:08
2	Sb 206.836†	18.9	-4.3	-3.9396	µg/L	-3.9396 ppb	02:22:08
2	Se 196.026†	15.1	-4.7	-6.6360	µg/L	-6.6360 ppb	02:22:08
2	SiO2†	1508.6	60.3	11.907	µg/L	11.907 ppb	02:21:48
2	Si 251.611†	367.0	42.6	3.2357	µg/L	3.2357 ppb	02:22:08
2	Sn 189.927†	0.9	0.5	0.1899	µg/L	0.1899 ppb	02:22:08
2	Ti 334.940†	306.0	119.5	0.2658	µg/L	0.2658 ppb	02:21:48
2	Tl 190.801†	-25.9	-2.5	-3.3006	µg/L	-3.3006 ppb	02:22:08
2	U 409.014†	-67.0	12.6	1.0522	µg/L	1.0522 ppb	02:21:48
2	V 292.402†	-80.4	-32.6	-0.3143	µg/L	-0.3143 ppb	02:21:48
2	Zn 213.857†	571.4	15.5	0.3686	µg/L	0.3686 ppb	02:22:08
3	Sc RADIAL	57056.8	57056.8	101	%		02:20:39
3	Al 396.153Radial†	10.1	2.7	1.8492	µg/L	1.8492 ppb	02:20:39
3	Ca 317.933Radial†	194.0	-19.2	-16.395	µg/L	-16.395 ppb	02:21:00
3	Fe 238.204 Radial†	18.0	1.2	9.8270	µg/L	9.8270 ppb	02:21:00
3	K 766.490 Radial†	183.0	16.2	10.602	µg/L	10.602 ppb	02:20:39
3	Mg 279.077 IEC†	7.4	-5.5	-49.112	µg/L	-49.112 ppb	02:21:00
3	Na 589.592 Radial†	427.2	-49.2	-15.115	µg/L	-15.115 ppb	02:20:39
3	Sr 421.552†	45.7	16.5	0.1520	µg/L	0.1520 ppb	02:20:39
3	Sc 361.383	2026055.5	2026055.5	103.21	%		02:22:14
3	Y 371.029	1399581.3	1399581.3	103.46	%		02:22:14
3	Ag 328.068†	-331.7	80.2	0.5939	µg/L	0.5939 ppb	02:22:20
3	As 188.979†	3.2	3.6	6.4530	µg/L	6.4530 ppb	02:22:41
3	B 249.677†	343.3	-51.5	-2.1037	µg/L	-2.1037 ppb	02:22:41
3	Ba 233.527†	-10.3	7.1	0.1709	µg/L	0.1709 ppb	02:22:41
3	Be 313.107†	-2694.2	245.2	0.1455	µg/L	0.1455 ppb	02:22:20
3	Cd 226.502†	-134.3	11.6	0.2871	µg/L	0.2871 ppb	02:22:41
3	Co 228.616†	-3.8	-5.6	-0.2528	µg/L	-0.2528 ppb	02:22:41
3	Cr 267.716†	-51.6	0.4	0.0084	µg/L	0.0084 ppb	02:22:20
3	Cu 324.752†	2562.7	-60.6	-0.3944	µg/L	-0.3944 ppb	02:22:20
3	Mn 257.610†	-154.6	106.3	0.3360	µg/L	0.3360 ppb	02:22:41
3	Mo 202.031†	-7.3	-1.7	-0.1657	µg/L	-0.1657 ppb	02:22:41
3	Ni 231.604†	302.2	-19.6	-0.9746	µg/L	-0.9746 ppb	02:22:41
3	P 214.914†	5.7	-9.8	-19.450	µg/L	-19.450 ppb	02:22:41
3	Pb 220.353†	86.4	-7.2	-1.7506	µg/L	-1.7506 ppb	02:22:41
3	S 181.975 Axial†	17.5	-2.0	-8.2198	µg/L	-8.2198 ppb	02:22:41
3	Sb 206.836†	25.0	1.7	1.5508	µg/L	1.5508 ppb	02:22:41
3	Se 196.026†	15.6	-4.2	-5.8230	µg/L	-5.8230 ppb	02:22:41
3	SiO2†	1484.7	47.0	9.2857	µg/L	9.2857 ppb	02:22:20
3	Si 251.611†	397.1	74.1	5.6334	µg/L	5.6334 ppb	02:22:41
3	Sn 189.927†	-1.7	-2.0	-0.8540	µg/L	-0.8540 ppb	02:22:41
3	Ti 334.940†	284.1	100.3	0.2254	µg/L	0.2254 ppb	02:22:20
3	Tl 190.801†	-25.2	-2.0	-2.5688	µg/L	-2.5688 ppb	02:22:41
3	U 409.014†	-12.8	64.7	5.3749	µg/L	5.3749 ppb	02:22:20
3	V 292.402†	-61.2	-14.6	-0.1365	µg/L	-0.1365 ppb	02:22:20
3	Zn 213.857†	539.8	-11.4	-0.2593	µg/L	-0.2593 ppb	02:22:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2026261.4	103.22	%	0.682				0.66%
Sc RADIAL	57465.1	102	%	0.6				0.62%
Y 371.029	1399922.4	103.49	%	0.656				0.63%
Ag 328.068†	43.2	0.3200	µg/L	0.24871	0.3200	ppb	0.24871	77.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.5	-6.6051	µg/L	9.57422	-6.6051	ppb	9.57422	144.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.7	3.0203	µg/L	3.16995	3.0203	ppb	3.16995	104.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.1	-1.8413	µg/L	0.37408	-1.8413	ppb	0.37408	20.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1278	µg/L	0.04049	0.1278	ppb	0.04049	31.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	184.7	0.1095	µg/L	0.04361	0.1095	ppb	0.04361	39.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-20.0	-17.070	µg/L	2.7003	-17.070	ppb	2.7003	15.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.2	0.1779	µg/L	0.12511	0.1779	ppb	0.12511	70.33%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.4	0.2012	µg/L	0.39754	0.2012	ppb	0.39754	197.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.2     -0.0645 µg/L       0.08809     -0.0645 ppb        0.08809 136.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -43.8     -0.2853 µg/L       0.11199     -0.2853 ppb        0.11199  39.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.2864 µg/L       7.05469      3.2864 ppb        7.05469 214.66%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.8      19.481 µg/L       10.1120      19.481 ppb        10.1120  51.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.6     -32.383 µg/L       14.5597     -32.383 ppb        14.5597  44.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                88.5      0.2787 µg/L       0.05831      0.2787 ppb        0.05831  20.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.3      0.2223 µg/L       0.33607      0.2223 ppb        0.33607 151.21%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -19.8     -6.0959 µg/L       9.57098     -6.0959 ppb        9.57098 157.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -11.3     -0.5611 µg/L       0.42835     -0.5611 ppb        0.42835  76.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.9     -7.7874 µg/L      12.90433     -7.7874 ppb       12.90433 165.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.5     -1.5739 µg/L       0.23649     -1.5739 ppb        0.23649  15.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.6     -6.8209 µg/L       7.16966     -6.8209 ppb        7.16966 105.11%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.7     -1.5686 µg/L       2.82072     -1.5686 ppb        2.82072 179.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.2     -5.8935 µg/L       0.70989     -5.8935 ppb        0.70989  12.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      57.0      11.242 µg/L        1.7233      11.242 ppb         1.7233  15.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                57.8      4.3923 µg/L       1.20111      4.3923 ppb        1.20111  27.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.1      0.0575 µg/L       0.85300      0.0575 ppb        0.85300 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.9      0.0728 µg/L       0.10305      0.0728 ppb        0.10305 141.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               120.5      0.2688 µg/L       0.04493      0.2688 ppb        0.04493  16.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.5     -0.6609 µg/L       3.95533     -0.6609 ppb        3.95533 598.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.5      2.0322 µg/L       2.97621      2.0322 ppb        2.97621 146.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -8.0     -0.0735 µg/L       0.27772     -0.0735 ppb        0.27772 377.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -4.3     -0.0954 µg/L       0.40752     -0.0954 ppb        0.40752 427.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 02:52:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57778.9	57778.9	102	%			02:52:53
1	Al 396.153Radial†	7177.2	7010.4	4866.2	µg/L	4866.2	ppb	02:52:53
1	Ca 317.933Radial†	6047.9	5702.3	4870.8	µg/L	4870.8	ppb	02:53:13
1	Fe 238.204 Radial†	658.6	627.4	4959.3	µg/L	4959.3	ppb	02:53:13
1	K 766.490 Radial†	7804.5	7466.2	4876.3	µg/L	4876.3	ppb	02:52:53
1	Mg 279.077 IEC†	585.8	559.9	5008.7	µg/L	5008.7	ppb	02:53:13
1	Na 589.592 Radial†	33121.9	31914.1	9802.2	µg/L	9802.2	ppb	02:52:53
1	Sr 421.552†	53091.4	51883.4	478.63	µg/L	478.63	ppb	02:52:53
1	Sc 361.383	2030998.9	2030998.9	103.46	%			02:54:17
1	Y 371.029	1396044.5	1396044.5	103.20	%			02:54:17
1	Ag 328.068†	67683.5	65823.0	491.16	µg/L	491.16	ppb	02:54:22
1	As 188.979†	296.3	286.8	513.10	µg/L	513.10	ppb	02:54:43
1	B 249.677†	12699.3	11890.8	482.85	µg/L	482.85	ppb	02:54:22
1	Ba 233.527†	21375.0	20677.7	497.30	µg/L	497.30	ppb	02:54:22
1	Be 313.107†	857944.5	832126.4	493.68	µg/L	493.68	ppb	02:54:17
1	Cd 226.502†	20640.1	20092.0	501.05	µg/L	501.05	ppb	02:54:22
1	Co 228.616†	11461.7	11076.7	501.07	µg/L	501.07	ppb	02:54:22
1	Cr 267.716†	25782.3	24971.0	501.86	µg/L	501.86	ppb	02:54:22
1	Cu 324.752†	80287.7	75060.7	490.65	µg/L	490.65	ppb	02:54:22
1	Mn 257.610†	165991.6	160699.9	503.69	µg/L	503.69	ppb	02:54:17
1	Mo 202.031†	5430.4	5254.2	514.71	µg/L	514.71	ppb	02:54:43
1	Ni 231.604†	10718.9	10048.3	500.37	µg/L	500.37	ppb	02:54:22
1	P 214.914†	1351.1	1290.6	2508.6	µg/L	2508.6	ppb	02:54:43
1	Pb 220.353†	2248.7	2082.6	506.47	µg/L	506.47	ppb	02:54:43
1	S 181.975 Axial†	272.2	244.2	1012.5	µg/L	1012.5	ppb	02:54:43
1	Sb 206.836†	592.0	549.8	507.00	µg/L	507.00	ppb	02:54:43
1	Se 196.026†	388.2	355.9	507.59	µg/L	507.59	ppb	02:54:43
1	SiO2†	29272.1	26902.2	5310.2	µg/L	5310.2	ppb	02:54:22
1	Si 251.611†	34157.2	32705.0	2486.3	µg/L	2486.3	ppb	02:54:22
1	Sn 189.927†	1270.8	1227.9	517.88	µg/L	517.88	ppb	02:54:43
1	Ti 334.940†	230923.5	223030.7	493.08	µg/L	493.08	ppb	02:54:17
1	Tl 190.801†	376.5	386.3	507.72	µg/L	507.72	ppb	02:54:43
1	U 409.014†	6085.3	5959.0	494.11	µg/L	494.11	ppb	02:54:22
1	V 292.402†	52388.6	50682.5	500.13	µg/L	500.13	ppb	02:54:22
1	Zn 213.857†	22700.3	21407.2	498.73	µg/L	498.73	ppb	02:54:22
2	Sc RADIAL	58158.4	58158.4	103	%			02:53:19
2	Al 396.153Radial†	7224.7	7010.8	4866.8	µg/L	4866.8	ppb	02:53:19
2	Ca 317.933Radial†	6073.8	5688.9	4859.3	µg/L	4859.3	ppb	02:53:39
2	Fe 238.204 Radial†	662.2	626.7	4953.3	µg/L	4953.3	ppb	02:53:39
2	K 766.490 Radial†	7816.2	7427.7	4851.2	µg/L	4851.2	ppb	02:53:19
2	Mg 279.077 IEC†	574.8	545.5	4879.7	µg/L	4879.7	ppb	02:53:39
2	Na 589.592 Radial†	33298.8	31874.5	9790.0	µg/L	9790.0	ppb	02:53:19
2	Sr 421.552†	53574.0	52013.4	479.83	µg/L	479.83	ppb	02:53:19
2	Sc 361.383	2037555.9	2037555.9	103.79	%			02:54:50
2	Y 371.029	1399097.7	1399097.7	103.43	%			02:54:50
2	Ag 328.068†	67259.2	65203.7	486.54	µg/L	486.54	ppb	02:54:56
2	As 188.979†	290.0	279.8	500.56	µg/L	500.56	ppb	02:55:16
2	B 249.677†	12600.4	11755.9	477.35	µg/L	477.35	ppb	02:54:56
2	Ba 233.527†	21207.5	20449.8	491.82	µg/L	491.82	ppb	02:54:56
2	Be 313.107†	859645.5	831096.6	493.07	µg/L	493.07	ppb	02:54:50
2	Cd 226.502†	20457.8	19852.1	495.07	µg/L	495.07	ppb	02:54:56
2	Co 228.616†	11348.6	10932.1	494.51	µg/L	494.51	ppb	02:54:56
2	Cr 267.716†	25564.2	24680.7	496.03	µg/L	496.03	ppb	02:54:56
2	Cu 324.752†	79737.8	74281.1	485.56	µg/L	485.56	ppb	02:54:56
2	Mn 257.610†	166111.1	160298.7	502.44	µg/L	502.44	ppb	02:54:50
2	Mo 202.031†	5301.7	5113.4	500.92	µg/L	500.92	ppb	02:55:16
2	Ni 231.604†	10626.3	9925.8	494.27	µg/L	494.27	ppb	02:54:56
2	P 214.914†	1334.2	1270.1	2468.4	µg/L	2468.4	ppb	02:55:16
2	Pb 220.353†	2244.0	2071.1	503.65	µg/L	503.65	ppb	02:55:16

2	S 181.975 Axial†	269.2	240.4	996.95 µg/L	996.95 ppb	02:55:16
2	Sb 206.836†	588.7	544.7	502.19 µg/L	502.19 ppb	02:55:16
2	Se 196.026†	385.7	352.3	502.58 µg/L	502.58 ppb	02:55:16
2	SiO2†	29167.5	26710.4	5272.3 µg/L	5272.3 ppb	02:54:56
2	Si 251.611†	34083.7	32527.9	2472.8 µg/L	2472.8 ppb	02:54:56
2	Sn 189.927†	1246.0	1200.1	506.11 µg/L	506.11 ppb	02:55:16
2	Ti 334.940†	231277.2	222653.1	492.25 µg/L	492.25 ppb	02:54:50
2	Tl 190.801†	375.0	383.7	504.32 µg/L	504.32 ppb	02:55:16
2	U 409.014†	6056.2	5912.1	490.22 µg/L	490.22 ppb	02:54:56
2	V 292.402†	51969.3	50115.5	494.48 µg/L	494.48 ppb	02:54:56
2	Zn 213.857†	22511.2	21154.4	492.84 µg/L	492.84 ppb	02:54:56
3	Sc RADIAL	58341.4	58341.4	103 %		02:53:45
3	Al 396.153Radial†	7271.4	7034.0	4884.9 µg/L	4884.9 ppb	02:53:45
3	Ca 317.933Radial†	6070.5	5667.2	4840.8 µg/L	4840.8 ppb	02:54:05
3	Fe 238.204 Radial†	660.3	622.8	4921.1 µg/L	4921.1 ppb	02:54:05
3	K 766.490 Radial†	7852.0	7438.6	4858.3 µg/L	4858.3 ppb	02:53:45
3	Mg 279.077 IEC†	578.9	547.8	4898.1 µg/L	4898.1 ppb	02:54:05
3	Na 589.592 Radial†	33319.4	31793.0	9765.0 µg/L	9765.0 ppb	02:53:45
3	Sr 421.552†	53503.5	51781.9	477.70 µg/L	477.70 ppb	02:53:45
3	Sc 361.383	2039180.7	2039180.7	103.87 %		02:55:23
3	Y 371.029	1402235.0	1402235.0	103.66 %		02:55:23
3	Ag 328.068†	62788.7	60848.3	453.87 µg/L	453.87 ppb	02:55:29
3	As 188.979†	243.4	234.8	420.07 µg/L	420.07 ppb	02:55:49
3	B 249.677†	11678.3	10858.5	440.68 µg/L	440.68 ppb	02:55:29
3	Ba 233.527†	19039.6	18346.5	441.22 µg/L	441.22 ppb	02:55:29
3	Be 313.107†	781655.7	755355.9	448.14 µg/L	448.14 ppb	02:55:23
3	Cd 226.502†	18319.3	17777.6	443.27 µg/L	443.27 ppb	02:55:29
3	Co 228.616†	10001.6	9626.6	435.41 µg/L	435.41 ppb	02:55:29
3	Cr 267.716†	21863.4	21098.3	424.03 µg/L	424.03 ppb	02:55:29
3	Cu 324.752†	70894.7	65706.7	429.58 µg/L	429.58 ppb	02:55:29
3	Mn 257.610†	151475.0	146081.0	457.91 µg/L	457.91 ppb	02:55:23
3	Mo 202.031†	4274.8	4120.7	403.71 µg/L	403.71 ppb	02:55:49
3	Ni 231.604†	9456.9	8791.9	437.82 µg/L	437.82 ppb	02:55:29
3	P 214.914†	1100.7	1044.3	2025.7 µg/L	2025.7 ppb	02:55:49
3	Pb 220.353†	1870.3	1709.6	415.65 µg/L	415.65 ppb	02:55:49
3	S 181.975 Axial†	230.3	202.7	840.78 µg/L	840.78 ppb	02:55:49
3	Sb 206.836†	489.3	448.5	413.15 µg/L	413.15 ppb	02:55:49
3	Se 196.026†	329.1	297.5	425.57 µg/L	425.57 ppb	02:55:49
3	SiO2†	26787.9	24397.1	4815.7 µg/L	4815.7 ppb	02:55:29
3	Si 251.611†	31152.2	29679.6	2256.3 µg/L	2256.3 ppb	02:55:29
3	Sn 189.927†	988.9	951.7	401.36 µg/L	401.36 ppb	02:55:49
3	Ti 334.940†	208613.5	200657.3	443.59 µg/L	443.59 ppb	02:55:23
3	Tl 190.801†	320.9	331.3	435.70 µg/L	435.70 ppb	02:55:49
3	U 409.014†	5241.3	5122.9	424.66 µg/L	424.66 ppb	02:55:29
3	V 292.402†	45594.8	43938.9	433.30 µg/L	433.30 ppb	02:55:29
3	Zn 213.857†	20007.8	18727.1	436.23 µg/L	436.23 ppb	02:55:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2035911.8	103.71	%	0.221				0.21%
Sc RADIAL	58092.9	103	%	0.5				0.49%
Y 371.029	1399125.7	103.43	%	0.229				0.22%
Ag 328.068†	63958.3	477.19	µg/L	20.325	477.19	ppb	20.325	4.26%
QC value within limits for Ag 328.068 Recovery = 95.44%								
Al 396.153Radial†	7018.4	4872.7	µg/L	10.63	4872.7	ppb	10.63	0.22%
QC value within limits for Al 396.153Radial Recovery = 97.45%								
As 188.979†	267.1	477.91	µg/L	50.481	477.91	ppb	50.481	10.56%
QC value within limits for As 188.979 Recovery = 95.58%								
B 249.677†	11501.7	466.96	µg/L	22.928	466.96	ppb	22.928	4.91%
QC value within limits for B 249.677 Recovery = 93.39%								
Ba 233.527†	19824.7	476.78	µg/L	30.920	476.78	ppb	30.920	6.49%
QC value within limits for Ba 233.527 Recovery = 95.36%								
Be 313.107†	806193.0	478.30	µg/L	26.121	478.30	ppb	26.121	5.46%
QC value within limits for Be 313.107 Recovery = 95.66%								
Ca 317.933Radial†	5686.1	4857.0	µg/L	15.11	4857.0	ppb	15.11	0.31%
QC value within limits for Ca 317.933Radial Recovery = 97.14%								
Cd 226.502†	19240.6	479.80	µg/L	31.772	479.80	ppb	31.772	6.62%
QC value within limits for Cd 226.502 Recovery = 95.96%								
Co 228.616†	10545.1	477.00	µg/L	36.168	477.00	ppb	36.168	7.58%

```
   QC value within limits for Co 228.616  Recovery = 95.40%
Cr 267.716†            23583.3      473.97 µg/L        43.347      473.97 ppb        43.347   9.15%
   QC value within limits for Cr 267.716  Recovery = 94.79%
Cu 324.752†            71682.8      468.59 µg/L        33.881      468.59 ppb        33.881   7.23%
   QC value within limits for Cu 324.752  Recovery = 93.72%
Fe 238.204 Radial†       625.7      4944.6 µg/L         20.51      4944.6 ppb         20.51   0.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.89%
K 766.490 Radial†       7444.2      4861.9 µg/L         12.95      4861.9 ppb         12.95   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 97.24%
Mg 279.077 IEC†          551.1      4928.8 µg/L         69.77      4928.8 ppb         69.77   1.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.58%
Mn 257.610†           155693.2      488.02 µg/L        26.077      488.02 ppb        26.077   5.34%
   QC value within limits for Mn 257.610  Recovery = 97.60%
Mo 202.031†             4829.4      473.12 µg/L        60.499      473.12 ppb        60.499  12.79%
   QC value within limits for Mo 202.031  Recovery = 94.62%
Na 589.592 Radial†     31860.6      9785.7 µg/L         18.96      9785.7 ppb         18.96   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 97.86%
Ni 231.604†             9588.7      477.49 µg/L        34.492      477.49 ppb        34.492   7.22%
   QC value within limits for Ni 231.604  Recovery = 95.50%
P 214.914†              1201.7      2334.2 µg/L        267.92      2334.2 ppb        267.92  11.48%
   QC value within limits for P 214.914  Recovery = 93.37%
Pb 220.353†             1954.4      475.26 µg/L        51.638      475.26 ppb        51.638  10.87%
   QC value within limits for Pb 220.353  Recovery = 95.05%
S 181.975 Axial†         229.1      950.08 µg/L        94.971      950.08 ppb        94.971  10.00%
   QC value within limits for S 181.975 Axial  Recovery = 95.01%
Sb 206.836†              514.3      474.11 µg/L        52.847      474.11 ppb        52.847  11.15%
   QC value within limits for Sb 206.836  Recovery = 94.82%
Se 196.026†              335.3      478.58 µg/L        45.974      478.58 ppb        45.974   9.61%
   QC value within limits for Se 196.026  Recovery = 95.72%
SiO2†                  26003.2      5132.7 µg/L        275.21      5132.7 ppb        275.21   5.36%
   QC value within limits for SiO2  Recovery = 95.98%
Si 251.611†            31637.5      2405.1 µg/L        129.08      2405.1 ppb        129.08   5.37%
   QC value within limits for Si 251.611  Recovery = 96.21%
Sn 189.927†             1126.6      475.12 µg/L        64.145      475.12 ppb        64.145  13.50%
   QC value within limits for Sn 189.927  Recovery = 95.02%
Sr 421.552†            51892.9      478.72 µg/L         1.071      478.72 ppb         1.071   0.22%
   QC value within limits for Sr 421.552  Recovery = 95.74%
Ti 334.940†           215447.0      476.30 µg/L        28.336      476.30 ppb        28.336   5.95%
   QC value within limits for Ti 334.940  Recovery = 95.26%
Tl 190.801†              367.1      482.58 µg/L        40.632      482.58 ppb        40.632   8.42%
   QC value within limits for Tl 190.801  Recovery = 96.52%
U 409.014†              5664.7      469.66 µg/L        39.026      469.66 ppb        39.026   8.31%
   QC value within limits for U 409.014  Recovery = 93.93%
V 292.402†             48245.6      475.97 µg/L        37.061      475.97 ppb        37.061   7.79%
   QC value within limits for V 292.402  Recovery = 95.19%
Zn 213.857†            20429.6      475.93 µg/L        34.508      475.93 ppb        34.508   7.25%
   QC value within limits for Zn 213.857  Recovery = 95.19%
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 02:56:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57797.0	57797.0	102	%			02:56:32
1	Al 396.153Radial†	-18.6	-25.6	-17.793	µg/L	-17.793	ppb	02:56:32
1	Ca 317.933Radial†	197.3	-18.4	-15.728	µg/L	-15.728	ppb	02:56:53
1	Fe 238.204 Radial†	15.7	-1.2	-9.3829	µg/L	-9.3829	ppb	02:56:53
1	K 766.490 Radial†	213.7	43.9	28.650	µg/L	28.650	ppb	02:56:32
1	Mg 279.077 IEC†	12.1	-1.0	-8.6191	µg/L	-8.6191	ppb	02:56:53
1	Na 589.592 Radial†	440.5	-41.6	-12.790	µg/L	-12.790	ppb	02:56:32
1	Sr 421.552†	27.6	-1.8	-0.0168	µg/L	-0.0168	ppb	02:56:32
1	Sc 361.383	2019763.4	2019763.4	102.89	%			02:57:55
1	Y 371.029	1394395.1	1394395.1	103.08	%			02:57:55
1	Ag 328.068†	-428.5	-14.9	-0.1108	µg/L	-0.1108	ppb	02:58:00
1	As 188.979†	3.2	3.6	6.4604	µg/L	6.4604	ppb	02:58:21
1	B 249.677†	345.7	-48.1	-1.9571	µg/L	-1.9571	ppb	02:58:21
1	Ba 233.527†	-7.5	9.8	0.2351	µg/L	0.2351	ppb	02:58:21
1	Be 313.107†	-2773.4	160.1	0.0949	µg/L	0.0949	ppb	02:58:00
1	Cd 226.502†	-133.3	12.2	0.3043	µg/L	0.3043	ppb	02:58:21
1	Co 228.616†	9.1	6.9	0.3106	µg/L	0.3106	ppb	02:58:21
1	Cr 267.716†	-55.1	-3.2	-0.0637	µg/L	-0.0637	ppb	02:58:00
1	Cu 324.752†	2556.7	-58.7	-0.3847	µg/L	-0.3847	ppb	02:58:00
1	Mn 257.610†	-101.9	157.0	0.4906	µg/L	0.4906	ppb	02:58:21
1	Mo 202.031†	3.2	8.5	0.8317	µg/L	0.8317	ppb	02:58:21
1	Ni 231.604†	320.3	-1.0	-0.0526	µg/L	-0.0526	ppb	02:58:21
1	P 214.914†	10.2	-5.5	-10.790	µg/L	-10.790	ppb	02:58:21
1	Pb 220.353†	86.8	-6.6	-1.5953	µg/L	-1.5953	ppb	02:58:21
1	S 181.975 Axial†	18.7	-0.7	-3.1006	µg/L	-3.1006	ppb	02:58:21
1	Sb 206.836†	29.9	6.6	6.0348	µg/L	6.0348	ppb	02:58:21
1	Se 196.026†	20.1	0.2	0.3109	µg/L	0.3109	ppb	02:58:21
1	SiO2†	1515.1	81.0	15.993	µg/L	15.993	ppb	02:58:00
1	Si 251.611†	385.4	64.0	4.8661	µg/L	4.8661	ppb	02:58:21
1	Sn 189.927†	0.7	0.3	0.1230	µg/L	0.1230	ppb	02:58:21
1	Ti 334.940†	395.1	208.9	0.4627	µg/L	0.4627	ppb	02:58:00
1	Tl 190.801†	-24.8	-1.8	-2.2803	µg/L	-2.2803	ppb	02:58:21
1	U 409.014†	-77.7	1.6	0.1342	µg/L	0.1342	ppb	02:58:00
1	V 292.402†	-44.4	1.6	0.0211	µg/L	0.0211	ppb	02:58:00
1	Zn 213.857†	537.8	-11.7	-0.2724	µg/L	-0.2724	ppb	02:58:21
2	Sc RADIAL	57642.5	57642.5	102	%			02:56:58
2	Al 396.153Radial†	-20.1	-27.1	-18.856	µg/L	-18.856	ppb	02:56:58
2	Ca 317.933Radial†	196.6	-18.6	-15.885	µg/L	-15.885	ppb	02:57:19
2	Fe 238.204 Radial†	19.3	2.3	18.316	µg/L	18.316	ppb	02:57:19
2	K 766.490 Radial†	201.7	32.7	21.375	µg/L	21.375	ppb	02:56:58
2	Mg 279.077 IEC†	10.8	-2.2	-19.593	µg/L	-19.593	ppb	02:57:19
2	Na 589.592 Radial†	453.9	-27.3	-8.3799	µg/L	-8.3799	ppb	02:56:58
2	Sr 421.552†	25.2	-4.1	-0.0375	µg/L	-0.0375	ppb	02:56:58
2	Sc 361.383	2027859.8	2027859.8	103.30	%			02:58:27
2	Y 371.029	1399825.6	1399825.6	103.48	%			02:58:27
2	Ag 328.068†	-424.6	-9.5	-0.0690	µg/L	-0.0690	ppb	02:58:33
2	As 188.979†	2.0	2.4	4.3033	µg/L	4.3033	ppb	02:58:53
2	B 249.677†	336.8	-58.1	-2.3763	µg/L	-2.3763	ppb	02:58:53
2	Ba 233.527†	-13.7	3.8	0.0917	µg/L	0.0917	ppb	02:58:53
2	Be 313.107†	-2692.7	249.0	0.1477	µg/L	0.1477	ppb	02:58:33
2	Cd 226.502†	-141.2	5.0	0.1216	µg/L	0.1216	ppb	02:58:53
2	Co 228.616†	9.9	7.6	0.3463	µg/L	0.3463	ppb	02:58:53
2	Cr 267.716†	-51.7	0.3	0.0065	µg/L	0.0065	ppb	02:58:33
2	Cu 324.752†	2533.1	-91.5	-0.5949	µg/L	-0.5949	ppb	02:58:33
2	Mn 257.610†	-127.3	132.8	0.4190	µg/L	0.4190	ppb	02:58:53
2	Mo 202.031†	3.8	9.0	0.8817	µg/L	0.8817	ppb	02:58:53
2	Ni 231.604†	300.9	-21.1	-1.0511	µg/L	-1.0511	ppb	02:58:53
2	P 214.914†	7.1	-8.5	-16.768	µg/L	-16.768	ppb	02:58:53
2	Pb 220.353†	95.0	1.0	0.2385	µg/L	0.2385	ppb	02:58:53

2	S 181.975 Axial†	17.1	-2.4	-9.8306 µg/L	-9.8306 ppb	02:58:53
2	Sb 206.836†	23.8	0.5	0.5058 µg/L	0.5058 ppb	02:58:53
2	Se 196.026†	9.3	-10.3	-14.342 µg/L	-14.342 ppb	02:58:53
2	SiO2†	1508.3	68.6	13.543 µg/L	13.543 ppb	02:58:33
2	Si 251.611†	392.3	69.1	5.2542 µg/L	5.2542 ppb	02:58:53
2	Sn 189.927†	-0.3	-0.7	-0.2923 µg/L	-0.2923 ppb	02:58:53
2	Ti 334.940†	273.6	89.9	0.2001 µg/L	0.2001 ppb	02:58:33
2	Tl 190.801†	-17.5	5.4	7.0375 µg/L	7.0375 ppb	02:58:53
2	U 409.014†	31.4	107.5	8.9278 µg/L	8.9278 ppb	02:58:33
2	V 292.402†	-45.0	1.2	0.0295 µg/L	0.0295 ppb	02:58:33
2	Zn 213.857†	538.1	-13.5	-0.3105 µg/L	-0.3105 ppb	02:58:53
3	Sc RADIAL	57449.4	57449.4	102 %		02:57:24
3	Al 396.153Radial†	-3.1	-10.4	-7.2490 µg/L	-7.2490 ppb	02:57:24
3	Ca 317.933Radial†	193.8	-20.7	-17.700 µg/L	-17.700 ppb	02:57:45
3	Fe 238.204 Radial†	17.5	0.6	4.7494 µg/L	4.7494 ppb	02:57:45
3	K 766.490 Radial†	196.8	28.5	18.638 µg/L	18.638 ppb	02:57:24
3	Mg 279.077 IEC†	11.8	-1.2	-10.946 µg/L	-10.946 ppb	02:57:45
3	Na 589.592 Radial†	497.8	17.4	5.3388 µg/L	5.3388 ppb	02:57:24
3	Sr 421.552†	57.9	28.1	0.2593 µg/L	0.2593 ppb	02:57:24
3	Sc 361.383	2031544.4	2031544.4	103.49 %		02:58:59
3	Y 371.029	1402983.3	1402983.3	103.71 %		02:58:59
3	Ag 328.068†	-467.8	-50.5	-0.3723 µg/L	-0.3723 ppb	02:59:05
3	As 188.979†	-1.6	-1.0	-1.8804 µg/L	-1.8804 ppb	02:59:25
3	B 249.677†	355.7	-40.4	-1.6496 µg/L	-1.6496 ppb	02:59:25
3	Ba 233.527†	-1.9	15.3	0.3669 µg/L	0.3669 ppb	02:59:25
3	Be 313.107†	-2737.7	210.2	0.1246 µg/L	0.1246 ppb	02:59:05
3	Cd 226.502†	-133.7	12.5	0.3107 µg/L	0.3107 ppb	02:59:25
3	Co 228.616†	4.2	2.1	0.0944 µg/L	0.0944 ppb	02:59:25
3	Cr 267.716†	-52.7	-0.6	-0.0118 µg/L	-0.0118 ppb	02:59:05
3	Cu 324.752†	2546.1	-83.4	-0.5436 µg/L	-0.5436 ppb	02:59:05
3	Mn 257.610†	-143.3	117.5	0.3691 µg/L	0.3691 ppb	02:59:25
3	Mo 202.031†	0.8	6.1	0.6010 µg/L	0.6010 ppb	02:59:25
3	Ni 231.604†	314.6	-8.4	-0.4179 µg/L	-0.4179 ppb	02:59:25
3	P 214.914†	16.4	0.5	1.0733 µg/L	1.0733 ppb	02:59:25
3	Pb 220.353†	98.4	4.1	0.9979 µg/L	0.9979 ppb	02:59:25
3	S 181.975 Axial†	24.1	4.4	18.096 µg/L	18.096 ppb	02:59:25
3	Sb 206.836†	19.5	-3.6	-3.3228 µg/L	-3.3228 ppb	02:59:25
3	Se 196.026†	18.7	-1.2	-1.6748 µg/L	-1.6748 ppb	02:59:25
3	SiO2†	1502.9	60.7	11.980 µg/L	11.980 ppb	02:59:05
3	Si 251.611†	387.6	63.9	4.8591 µg/L	4.8591 ppb	02:59:25
3	Sn 189.927†	1.2	0.8	0.3328 µg/L	0.3328 ppb	02:59:25
3	Ti 334.940†	348.7	161.9	0.3587 µg/L	0.3587 ppb	02:59:05
3	Tl 190.801†	-24.4	-1.2	-1.4964 µg/L	-1.4964 ppb	02:59:25
3	U 409.014†	5.3	82.2	6.8272 µg/L	6.8272 ppb	02:59:05
3	V 292.402†	-26.0	19.6	0.2032 µg/L	0.2032 ppb	02:59:05
3	Zn 213.857†	528.6	-23.6	-0.5511 µg/L	-0.5511 ppb	02:59:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2026389.2	103.22	%	0.307				0.30%
Sc RADIAL	57629.6	102	%	0.3				0.30%
Y 371.029	1399068.0	103.42	%	0.321				0.31%
Ag 328.068†	-24.9	-0.1840	µg/L	0.16437	-0.1840	ppb	0.16437	89.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-21.0	-14.633	µg/L	6.4165	-14.633	ppb	6.4165	43.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.7	2.9611	µg/L	4.32938	2.9611	ppb	4.32938	146.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.9	-1.9943	µg/L	0.36477	-1.9943	ppb	0.36477	18.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.2312	µg/L	0.13766	0.2312	ppb	0.13766	59.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	206.4	0.1224	µg/L	0.02650	0.1224	ppb	0.02650	21.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.2	-16.438	µg/L	1.0961	-16.438	ppb	1.0961	6.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.9	0.2456	µg/L	0.10738	0.2456	ppb	0.10738	43.73%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.5	0.2505	µg/L	0.13628	0.2505	ppb	0.13628	54.41%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.1     -0.0230 µg/L       0.03639     -0.0230 ppb        0.03639 158.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -77.9     -0.5078 µg/L       0.10960     -0.5078 ppb        0.10960  21.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.6      4.5608 µg/L      13.85041      4.5608 ppb       13.85041 303.68%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          35.0      22.888 µg/L        5.1747      22.888 ppb         5.1747  22.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.5     -13.053 µg/L        5.7821     -13.053 ppb         5.7821  44.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               135.8      0.4262 µg/L       0.06109      0.4262 ppb        0.06109  14.33%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.9      0.7715 µg/L       0.14973      0.7715 ppb        0.14973  19.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -17.2     -5.2772 µg/L       9.45446     -5.2772 ppb        9.45446 179.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.2     -0.5072 µg/L       0.50520     -0.5072 ppb        0.50520  99.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.5     -8.8283 µg/L       9.08113     -8.8283 ppb        9.08113 102.86%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.5     -0.1196 µg/L       1.33315     -0.1196 ppb        1.33315 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      1.7217 µg/L      14.57468      1.7217 ppb       14.57468 846.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.2      1.0726 µg/L       4.70446      1.0726 ppb        4.70446 438.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.7     -5.2353 µg/L       7.94886     -5.2353 ppb        7.94886 151.83%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      70.1      13.839 µg/L        2.0231      13.839 ppb         2.0231  14.62%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                65.7      4.9931 µg/L       0.22609      4.9931 ppb        0.22609   4.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.1      0.0545 µg/L       0.31812      0.0545 ppb        0.31812 583.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.4      0.0683 µg/L       0.16570      0.0683 ppb        0.16570 242.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               153.6      0.3405 µg/L       0.13222      0.3405 ppb        0.13222  38.83%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.8      1.0869 µg/L       5.16822      1.0869 ppb        5.16822 475.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 63.7      5.2964 µg/L       4.59230      5.2964 ppb        4.59230  86.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  7.5      0.0846 µg/L       0.10279      0.0846 ppb        0.10279 121.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -16.3     -0.3780 µg/L       0.15110     -0.3780 ppb        0.15110  39.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/20/2010 03:01:04
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502

Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022010.SIF
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Sequence No.: 1
Sample ID: 1202032610|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 227
Date Collected: 2/20/2010 03:01:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032610|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56156.7	56156.7	99.4	%			03:01:44
1	Al 396.153Radial†	24.3	17.1	11.846	µg/L	11.846	ppb	03:01:44
1	Ca 317.933Radial†	222.9	13.0	11.121	µg/L	11.121	ppb	03:02:05
1	Fe 238.204 Radial†	23.3	6.8	53.882	µg/L	53.882	ppb	03:02:05
1	K 766.490 Radial†	226.6	63.0	41.134	µg/L	41.134	ppb	03:01:44
1	Mg 279.077 IEC†	8.9	-3.8	-34.164	µg/L	-34.164	ppb	03:02:05
1	Na 589.592 Radial†	438.0	-31.6	-9.6981	µg/L	-9.6981	ppb	03:01:44
1	Sr 421.552†	63.1	34.7	0.3203	µg/L	0.3203	ppb	03:01:44
1	Sc 361.383	1964058.6	1964058.6	100.05	%			03:03:06
1	Y 371.029	1353992.1	1353992.1	100.09	%			03:03:06
1	Ag 328.068†	-420.0	-18.2	-0.1265	µg/L	-0.1265	ppb	03:03:12
1	As 188.979†	-6.1	-5.7	-10.190	µg/L	-10.190	ppb	03:03:32
1	B 249.677†	356.3	-28.0	-1.1640	µg/L	-1.1640	ppb	03:03:32
1	Ba 233.527†	3.9	20.9	0.5040	µg/L	0.5040	ppb	03:03:32
1	Be 313.107†	-2524.6	332.3	0.1969	µg/L	0.1969	ppb	03:03:12
1	Cd 226.502†	-127.8	14.0	0.3427	µg/L	0.3427	ppb	03:03:32
1	Co 228.616†	6.2	4.2	0.1904	µg/L	0.1904	ppb	03:03:32
1	Cr 267.716†	114.3	164.6	3.3075	µg/L	3.3075	ppb	03:03:12
1	Cu 324.752†	2692.3	147.3	0.9691	µg/L	0.9691	ppb	03:03:12
1	Mn 257.610†	307.2	563.1	1.7719	µg/L	1.7719	ppb	03:03:32
1	Mo 202.031†	3.0	8.3	0.8155	µg/L	0.8155	ppb	03:03:32
1	Ni 231.604†	321.3	8.8	0.4375	µg/L	0.4375	ppb	03:03:32
1	P 214.914†	13.7	-1.7	-3.4108	µg/L	-3.4108	ppb	03:03:32
1	Pb 220.353†	91.8	0.8	0.1889	µg/L	0.1889	ppb	03:03:32
1	S 181.975 Axial†	13.9	-5.1	-20.944	µg/L	-20.944	ppb	03:03:32
1	Sb 206.836†	19.3	-3.2	-2.9739	µg/L	-2.9739	ppb	03:03:32
1	Se 196.026†	16.0	-3.4	-4.5448	µg/L	-4.5448	ppb	03:03:32
1	SiO2†	1746.5	354.1	69.893	µg/L	69.893	ppb	03:03:12
1	Si 251.611†	754.4	443.4	33.708	µg/L	33.708	ppb	03:03:32
1	Sn 189.927†	4.6	4.3	1.7888	µg/L	1.7888	ppb	03:03:32
1	Ti 334.940†	631.9	456.6	1.0129	µg/L	1.0129	ppb	03:03:12
1	Tl 190.801†	-24.5	-2.1	-2.7127	µg/L	-2.7127	ppb	03:03:32
1	U 409.014†	-22.6	54.5	4.5207	µg/L	4.5207	ppb	03:03:12
1	V 292.402†	33.2	77.9	0.7843	µg/L	0.7843	ppb	03:03:12
1	Zn 213.857†	676.4	141.7	3.3207	µg/L	3.3207	ppb	03:03:32
2	Sc RADIAL	55918.0	55918.0	99.0	%			03:02:10
2	Al 396.153Radial†	19.1	12.0	8.3237	µg/L	8.3237	ppb	03:02:10
2	Ca 317.933Radial†	225.1	16.1	13.786	µg/L	13.786	ppb	03:02:30
2	Fe 238.204 Radial†	24.0	7.6	60.201	µg/L	60.201	ppb	03:02:30
2	K 766.490 Radial†	214.8	52.0	33.975	µg/L	33.975	ppb	03:02:10
2	Mg 279.077 IEC†	7.5	-5.2	-46.586	µg/L	-46.586	ppb	03:02:30
2	Na 589.592 Radial†	469.3	1.9	0.5866	µg/L	0.5866	ppb	03:02:10
2	Sr 421.552†	80.2	52.2	0.4813	µg/L	0.4813	ppb	03:02:10
2	Sc 361.383	1977036.3	1977036.3	100.71	%			03:03:38
2	Y 371.029	1362497.9	1362497.9	100.72	%			03:03:38
2	Ag 328.068†	-438.4	-33.7	-0.2479	µg/L	-0.2479	ppb	03:03:44
2	As 188.979†	-4.3	-3.9	-6.8984	µg/L	-6.8984	ppb	03:04:05

2	B 249.677†	357.1	-29.5	-1.2290 µg/L	-1.2290 ppb	03:04:05
2	Ba 233.527†	3.4	20.5	0.4913 µg/L	0.4913 ppb	03:04:05
2	Be 313.107†	-2484.1	389.0	0.2306 µg/L	0.2306 ppb	03:03:44
2	Cd 226.502†	-141.5	1.2	0.0221 µg/L	0.0221 ppb	03:04:05
2	Co 228.616†	6.7	4.7	0.2132 µg/L	0.2132 ppb	03:04:05
2	Cr 267.716†	120.3	169.8	3.4109 µg/L	3.4109 ppb	03:03:44
2	Cu 324.752†	2689.4	126.8	0.8359 µg/L	0.8359 ppb	03:03:44
2	Mn 257.610†	263.8	517.9	1.6318 µg/L	1.6318 ppb	03:04:05
2	Mo 202.031†	-3.4	2.0	0.1969 µg/L	0.1969 ppb	03:04:05
2	Ni 231.604†	313.5	-1.1	-0.0543 µg/L	-0.0543 ppb	03:04:05
2	P 214.914†	14.2	-1.2	-2.4729 µg/L	-2.4729 ppb	03:04:05
2	Pb 220.353†	84.2	-7.4	-1.7919 µg/L	-1.7919 ppb	03:04:05
2	S 181.975 Axial†	23.6	4.5	18.841 µg/L	18.841 ppb	03:04:05
2	Sb 206.836†	21.2	-1.5	-1.3974 µg/L	-1.3974 ppb	03:04:05
2	Se 196.026†	19.7	0.2	0.5207 µg/L	0.5207 ppb	03:04:05
2	SiO2†	1788.3	384.1	75.815 µg/L	75.815 ppb	03:03:44
2	Si 251.611†	765.2	449.2	34.149 µg/L	34.149 ppb	03:04:05
2	Sn 189.927†	6.8	6.4	2.6660 µg/L	2.6660 ppb	03:04:05
2	Ti 334.940†	585.4	406.2	0.9026 µg/L	0.9026 ppb	03:03:44
2	Tl 190.801†	-20.2	2.3	3.0030 µg/L	3.0030 ppb	03:04:05
2	U 409.014†	-75.4	2.3	0.1783 µg/L	0.1783 ppb	03:03:44
2	V 292.402†	-73.6	-28.3	-0.2594 µg/L	-0.2594 ppb	03:03:44
2	Zn 213.857†	682.0	142.8	3.3492 µg/L	3.3492 ppb	03:04:05
3	Sc RADIAL	56062.0	56062.0	99.2 %		03:02:36
3	Al 396.153Radial†	1.8	-5.5	-3.8550 µg/L	-3.8550 ppb	03:02:36
3	Ca 317.933Radial†	221.0	11.4	9.7540 µg/L	9.7540 ppb	03:02:56
3	Fe 238.204 Radial†	24.2	7.8	61.780 µg/L	61.780 ppb	03:02:56
3	K 766.490 Radial†	234.1	70.9	46.293 µg/L	46.293 ppb	03:02:36
3	Mg 279.077 IEC†	10.4	-2.3	-20.922 µg/L	-20.922 ppb	03:02:56
3	Na 589.592 Radial†	445.4	-23.4	-7.1827 µg/L	-7.1827 ppb	03:02:36
3	Sr 421.552†	114.2	86.3	0.7964 µg/L	0.7964 ppb	03:02:36
3	Sc 361.383	1965675.5	1965675.5	100.13 %		03:04:11
3	Y 371.029	1354197.3	1354197.3	100.11 %		03:04:11
3	Ag 328.068†	-442.7	-40.6	-0.2949 µg/L	-0.2949 ppb	03:04:16
3	As 188.979†	-0.1	0.4	0.6688 µg/L	0.6688 ppb	03:04:37
3	B 249.677†	355.3	-29.3	-1.2195 µg/L	-1.2195 ppb	03:04:37
3	Ba 233.527†	1.1	18.2	0.4378 µg/L	0.4378 ppb	03:04:37
3	Be 313.107†	-2477.1	381.8	0.2263 µg/L	0.2263 ppb	03:04:16
3	Cd 226.502†	-132.0	9.8	0.2381 µg/L	0.2381 ppb	03:04:37
3	Co 228.616†	9.3	7.4	0.3318 µg/L	0.3318 ppb	03:04:37
3	Cr 267.716†	118.3	168.5	3.3844 µg/L	3.3844 ppb	03:04:16
3	Cu 324.752†	2680.0	132.8	0.8755 µg/L	0.8755 ppb	03:04:16
3	Mn 257.610†	244.2	499.9	1.5746 µg/L	1.5746 ppb	03:04:37
3	Mo 202.031†	-2.3	3.1	0.3048 µg/L	0.3048 ppb	03:04:37
3	Ni 231.604†	319.1	6.3	0.3144 µg/L	0.3144 ppb	03:04:37
3	P 214.914†	12.7	-2.7	-5.4212 µg/L	-5.4212 ppb	03:04:37
3	Pb 220.353†	90.1	-1.0	-0.2484 µg/L	-0.2484 ppb	03:04:37
3	S 181.975 Axial†	20.2	1.2	4.9912 µg/L	4.9912 ppb	03:04:37
3	Sb 206.836†	26.0	3.5	3.1847 µg/L	3.1847 ppb	03:04:37
3	Se 196.026†	19.5	0.1	0.3949 µg/L	0.3949 ppb	03:04:37
3	SiO2†	1805.6	411.6	81.253 µg/L	81.253 ppb	03:04:16
3	Si 251.611†	767.6	455.9	34.662 µg/L	34.662 ppb	03:04:37
3	Sn 189.927†	9.5	9.1	3.8366 µg/L	3.8366 ppb	03:04:37
3	Ti 334.940†	584.6	408.8	0.9061 µg/L	0.9061 ppb	03:04:16
3	Tl 190.801†	-24.1	-1.6	-2.1172 µg/L	-2.1172 ppb	03:04:37
3	U 409.014†	-48.7	28.4	2.3517 µg/L	2.3517 ppb	03:04:16
3	V 292.402†	-18.6	26.2	0.2754 µg/L	0.2754 ppb	03:04:16
3	Zn 213.857†	661.3	126.0	2.9519 µg/L	2.9519 ppb	03:04:37

Mean Data: 1202032610|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1968923.5	100.30	%	0.360				0.36%
Sc RADIAL	56045.6	99.2	%	0.21				0.21%
Y 371.029	1356895.8	100.31	%	0.359				0.36%
Ag 328.068†	-30.8	-0.2231	µg/L	0.08687	-0.2231	ppb	0.08687	38.94%
Al 396.153Radial†	7.8	5.4383	µg/L	8.23872	5.4383	ppb	8.23872	151.49%
As 188.979†	-3.1	-5.4732	µg/L	5.56784	-5.4732	ppb	5.56784	101.73%
B 249.677†	-28.9	-1.2041	µg/L	0.03512	-1.2041	ppb	0.03512	2.92%
Ba 233.527†	19.9	0.4777	µg/L	0.03515	0.4777	ppb	0.03515	7.36%

Be 313.107†	367.7	0.2179	µg/L	0.01835	0.2179	ppb	0.01835	8.42%
Ca 317.933Radial†	13.5	11.554	µg/L	2.0507	11.554	ppb	2.0507	17.75%
Cd 226.502†	8.3	0.2010	µg/L	0.16351	0.2010	ppb	0.16351	81.37%
Co 228.616†	5.4	0.2451	µg/L	0.07591	0.2451	ppb	0.07591	30.97%
Cr 267.716†	167.7	3.3676	µg/L	0.05372	3.3676	ppb	0.05372	1.60%
Cu 324.752†	135.6	0.8935	µg/L	0.06839	0.8935	ppb	0.06839	7.65%
Fe 238.204 Radial†	7.4	58.621	µg/L	4.1792	58.621	ppb	4.1792	7.13%
K 766.490 Radial†	62.0	40.467	µg/L	6.1861	40.467	ppb	6.1861	15.29%
Mg 279.077 IEC†	-3.8	-33.890	µg/L	12.8342	-33.890	ppb	12.8342	37.87%
Mn 257.610†	527.0	1.6594	µg/L	0.10152	1.6594	ppb	0.10152	6.12%
Mo 202.031†	4.5	0.4391	µg/L	0.33039	0.4391	ppb	0.33039	75.25%
Na 589.592 Radial†	-17.7	-5.4314	µg/L	5.36134	-5.4314	ppb	5.36134	98.71%
Ni 231.604†	4.7	0.2325	µg/L	0.25588	0.2325	ppb	0.25588	110.04%
P 214.914†	-1.9	-3.7683	µg/L	1.50633	-3.7683	ppb	1.50633	39.97%
Pb 220.353†	-2.5	-0.6171	µg/L	1.04061	-0.6171	ppb	1.04061	168.62%
S 181.975 Axial†	0.2	0.9629	µg/L	20.19632	0.9629	ppb	20.19632	>999.9%
Sb 206.836†	-0.4	-0.3955	µg/L	3.19919	-0.3955	ppb	3.19919	808.83%
Se 196.026†	-1.0	-1.2097	µg/L	2.88893	-1.2097	ppb	2.88893	238.81%
SiO2†	383.3	75.653	µg/L	5.6817	75.653	ppb	5.6817	7.51%
Si 251.611†	449.5	34.173	µg/L	0.4775	34.173	ppb	0.4775	1.40%
Sn 189.927†	6.6	2.7638	µg/L	1.02743	2.7638	ppb	1.02743	37.17%
Sr 421.552†	57.7	0.5327	µg/L	0.24217	0.5327	ppb	0.24217	45.46%
Ti 334.940†	423.9	0.9405	µg/L	0.06272	0.9405	ppb	0.06272	6.67%
Tl 190.801†	-0.5	-0.6090	µg/L	3.14219	-0.6090	ppb	3.14219	515.99%
U 409.014†	28.4	2.3502	µg/L	2.17122	2.3502	ppb	2.17122	92.38%
V 292.402†	25.3	0.2668	µg/L	0.52190	0.2668	ppb	0.52190	195.64%
Zn 213.857†	136.8	3.2072	µg/L	0.22161	3.2072	ppb	0.22161	6.91%

Sequence No.: 2
Sample ID: 1202032615|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 228
Date Collected: 2/20/2010 03:04:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032615|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57187.6	57187.6	101	%			03:05:25
1	Al 396.153Radial†	131625.2	130025.0	90441	µg/L	90441	ppb	03:05:20
1	Ca 317.933Radial†	122663.1	120967.5	103330	µg/L	103330	ppb	03:05:20
1	Fe 238.204 Radial†	25104.4	24784.1	195490	µg/L	195490	ppb	03:05:25
1	K 766.490 Radial†	63874.1	62936.2	41105	µg/L	41105	ppb	03:05:20
1	Mg 279.077 IEC†	4556.3	4488.3	39921	µg/L	39921	ppb	03:05:25
1	Na 589.592 Radial†	34858.0	33964.0	10432	µg/L	10432	ppb	03:05:20
1	Sr 421.552†	256056.6	252929.3	2333.3	µg/L	2333.3	ppb	03:05:20
1	Sc 361.383	1971434.5	1971434.5	100.42	%			03:06:00
1	Y 371.029	1386605.5	1386605.5	102.50	%			03:06:00
1	Ag 328.068†	39830.0	40063.7	317.38	µg/L	317.38	ppb	03:06:06
1	As 188.979†	639.1	636.8	1146.3	µg/L	1146.3	ppb	03:06:26
1	B 249.677†	39578.2	39027.1	1492.7	µg/L	1492.7	ppb	03:06:06
1	Ba 233.527†	83081.8	82748.5	1988.8	µg/L	1988.8	ppb	03:06:06
1	Be 313.107†	1415324.4	1412210.9	836.03	µg/L	836.03	ppb	03:06:00
1	Cd 226.502†	25790.0	25822.9	623.39	µg/L	623.39	ppb	03:06:06
1	Co 228.616†	21991.8	21897.1	980.52	µg/L	980.52	ppb	03:06:06
1	Cr 267.716†	127672.3	127184.3	2555.3	µg/L	2555.3	ppb	03:06:06
1	Cu 324.752†	290473.2	286704.4	1898.6	µg/L	1898.6	ppb	03:06:06
1	Mn 257.610†	1962464.8	1954444.0	6144.8	µg/L	6144.8	ppb	03:06:00
1	Mo 202.031†	5607.3	5589.0	554.74	µg/L	554.74	ppb	03:06:26
1	Ni 231.604†	29128.0	28692.8	1431.7	µg/L	1431.7	ppb	03:06:06
1	P 214.914†	4466.3	4432.2	8461.8	µg/L	8461.8	ppb	03:06:26
1	Pb 220.353†	3733.8	3627.1	877.79	µg/L	877.79	ppb	03:06:26
1	S 181.975 Axial†	1000.4	977.3	4052.7	µg/L	4052.7	ppb	03:06:26
1	Sb 206.836†	1648.2	1618.7	1457.1	µg/L	1457.1	ppb	03:06:26
1	Se 196.026†	2184.1	2155.6	3497.2	µg/L	3497.2	ppb	03:06:26
1	SiO2†	329859.4	327076.6	64561	µg/L	64561	ppb	03:06:06
1	Si 251.611†	405135.4	403116.1	30646	µg/L	30646	ppb	03:06:00
1	Sn 189.927†	2748.6	2736.6	1137.4	µg/L	1137.4	ppb	03:06:26
1	Ti 334.940†	2533034.4	2522176.1	5578.1	µg/L	5578.1	ppb	03:06:00
1	Tl 190.801†	936.7	955.1	1335.6	µg/L	1335.6	ppb	03:06:26
1	U 409.014†	-1315.3	-1232.6	-135.89	µg/L	-135.89	ppb	03:06:06
1	V 292.402†	129459.0	128957.8	1289.7	µg/L	1289.7	ppb	03:06:06
1	Zn 213.857†	262341.6	260700.7	6095.5	µg/L	6095.5	ppb	03:06:06
2	Sc RADIAL	57119.8	57119.8	101	%			03:05:36
2	Al 396.153Radial†	131997.4	130547.7	90805	µg/L	90805	ppb	03:05:31
2	Ca 317.933Radial†	122916.4	121362.0	103660	µg/L	103660	ppb	03:05:31
2	Fe 238.204 Radial†	25160.7	24869.2	196160	µg/L	196160	ppb	03:05:36
2	K 766.490 Radial†	63988.6	63124.4	41228	µg/L	41228	ppb	03:05:31
2	Mg 279.077 IEC†	4581.3	4518.5	40189	µg/L	40189	ppb	03:05:36
2	Na 589.592 Radial†	34934.5	34080.6	10468	µg/L	10468	ppb	03:05:31
2	Sr 421.552†	256608.4	253775.6	2341.1	µg/L	2341.1	ppb	03:05:31
2	Sc 361.383	1981158.8	1981158.8	100.92	%			03:06:34
2	Y 371.029	1392697.8	1392697.8	102.95	%			03:06:34
2	Ag 328.068†	40172.1	40207.9	318.54	µg/L	318.54	ppb	03:06:40
2	As 188.979†	637.0	631.6	1137.0	µg/L	1137.0	ppb	03:07:00
2	B 249.677†	39966.9	39218.8	1500.2	µg/L	1500.2	ppb	03:06:40
2	Ba 233.527†	83961.2	83213.8	2000.0	µg/L	2000.0	ppb	03:06:40
2	Be 313.107†	1408650.6	1398680.2	828.02	µg/L	828.02	ppb	03:06:34
2	Cd 226.502†	26042.1	25946.7	626.41	µg/L	626.41	ppb	03:06:40
2	Co 228.616†	22241.2	22036.8	986.96	µg/L	986.96	ppb	03:06:40
2	Cr 267.716†	128939.1	127815.5	2568.0	µg/L	2568.0	ppb	03:06:40
2	Cu 324.752†	293001.0	287789.4	1905.8	µg/L	1905.8	ppb	03:06:40
2	Mn 257.610†	1953466.4	1935935.6	6086.9	µg/L	6086.9	ppb	03:06:34
2	Mo 202.031†	5626.0	5580.1	553.90	µg/L	553.90	ppb	03:07:00
2	Ni 231.604†	29383.2	28803.3	1437.2	µg/L	1437.2	ppb	03:06:40
2	P 214.914†	4498.2	4441.9	8479.9	µg/L	8479.9	ppb	03:07:00
2	Pb 220.353†	3768.2	3642.9	881.61	µg/L	881.61	ppb	03:07:00

2	S 181.975 Axial†	1011.7	983.6	4078.9	µg/L	4078.9 ppb	03:07:00
2	Sb 206.836†	1649.1	1611.6	1450.3	µg/L	1450.3 ppb	03:07:00
2	Se 196.026†	2177.4	2138.3	3474.3	µg/L	3474.3 ppb	03:07:00
2	SiO2†	333060.4	328636.2	64869	µg/L	64869 ppb	03:06:40
2	Si 251.611†	403639.0	399653.1	30382	µg/L	30382 ppb	03:06:34
2	Sn 189.927†	2751.9	2726.5	1133.1	µg/L	1133.1 ppb	03:07:00
2	Ti 334.940†	2520940.4	2497811.6	5524.2	µg/L	5524.2 ppb	03:06:34
2	Tl 190.801†	938.5	952.4	1331.3	µg/L	1331.3 ppb	03:07:00
2	U 409.014†	-1369.3	-1279.8	-139.92	µg/L	-139.92 ppb	03:06:40
2	V 292.402†	130885.7	129738.7	1297.4	µg/L	1297.4 ppb	03:06:40
2	Zn 213.857†	265168.2	262219.4	6131.1	µg/L	6131.1 ppb	03:06:40
3	Sc RADIAL	56905.9	56905.9	101	%		03:05:47
3	Al 396.153Radial†	130845.4	129894.7	90350	µg/L	90350 ppb	03:05:42
3	Ca 317.933Radial†	121390.8	120304.3	102760	µg/L	102760 ppb	03:05:42
3	Fe 238.204 Radial†	25144.7	24946.8	196770	µg/L	196770 ppb	03:05:47
3	K 766.490 Radial†	63326.4	62704.9	40954	µg/L	40954 ppb	03:05:42
3	Mg 279.077 IEC†	4577.2	4531.4	40304	µg/L	40304 ppb	03:05:47
3	Na 589.592 Radial†	34657.0	33934.9	10423	µg/L	10423 ppb	03:05:42
3	Sr 421.552†	253842.3	251983.3	2324.6	µg/L	2324.6 ppb	03:05:42
3	Sc 361.383	1975185.6	1975185.6	100.61	%		03:07:08
3	Y 371.029	1388866.8	1388866.8	102.67	%		03:07:08
3	Ag 328.068†	40280.8	40436.4	320.34	µg/L	320.34 ppb	03:07:13
3	As 188.979†	629.4	626.0	1127.0	µg/L	1127.0 ppb	03:07:34
3	B 249.677†	40076.2	39447.2	1509.2	µg/L	1509.2 ppb	03:07:13
3	Ba 233.527†	84270.8	83773.1	2013.5	µg/L	2013.5 ppb	03:07:13
3	Be 313.107†	1411322.6	1405557.0	832.09	µg/L	832.09 ppb	03:07:08
3	Cd 226.502†	26119.4	26101.5	630.21	µg/L	630.21 ppb	03:07:13
3	Co 228.616†	22315.9	22177.6	993.27	µg/L	993.27 ppb	03:07:13
3	Cr 267.716†	129249.3	128510.1	2582.0	µg/L	2582.0 ppb	03:07:13
3	Cu 324.752†	293854.8	289516.0	1917.2	µg/L	1917.2 ppb	03:07:13
3	Mn 257.610†	1953241.4	1941565.7	6104.6	µg/L	6104.6 ppb	03:07:08
3	Mo 202.031†	5593.7	5564.9	552.42	µg/L	552.42 ppb	03:07:34
3	Ni 231.604†	29492.4	28999.9	1447.0	µg/L	1447.0 ppb	03:07:13
3	P 214.914†	4464.0	4421.4	8437.4	µg/L	8437.4 ppb	03:07:34
3	Pb 220.353†	3730.4	3616.7	875.16	µg/L	875.16 ppb	03:07:34
3	S 181.975 Axial†	997.5	972.4	4032.7	µg/L	4032.7 ppb	03:07:34
3	Sb 206.836†	1637.6	1605.1	1444.3	µg/L	1444.3 ppb	03:07:34
3	Se 196.026†	2148.2	2115.7	3444.5	µg/L	3444.5 ppb	03:07:34
3	SiO2†	333898.9	330467.7	65230	µg/L	65230 ppb	03:07:13
3	Si 251.611†	404461.4	401680.0	30536	µg/L	30536 ppb	03:07:08
3	Sn 189.927†	2732.1	2715.0	1128.2	µg/L	1128.2 ppb	03:07:34
3	Ti 334.940†	2527363.3	2511749.4	5555.0	µg/L	5555.0 ppb	03:07:08
3	Tl 190.801†	935.0	951.7	1330.9	µg/L	1330.9 ppb	03:07:34
3	U 409.014†	-1254.7	-1170.0	-130.83	µg/L	-130.83 ppb	03:07:13
3	V 292.402†	131453.2	130695.0	1306.9	µg/L	1306.9 ppb	03:07:13
3	Zn 213.857†	265841.2	263682.9	6165.3	µg/L	6165.3 ppb	03:07:13

Mean Data: 1202032615|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1975926.3	100.65	%	0.250				0.25%
Sc RADIAL	57071.1	101	%	0.3				0.26%
Y 371.029	1389390.0	102.71	%	0.228				0.22%
Ag 328.068†	40236.0	318.75	µg/L	1.488	318.75	ppb	1.488	0.47%
Al 396.153Radial†	130155.8	90532	µg/L	240.4	90532	ppb	240.4	0.27%
As 188.979†	631.5	1136.8	µg/L	9.64	1136.8	ppb	9.64	0.85%
B 249.677†	39231.0	1500.7	µg/L	8.26	1500.7	ppb	8.26	0.55%
Ba 233.527†	83245.1	2000.8	µg/L	12.33	2000.8	ppb	12.33	0.62%
Be 313.107†	1405482.7	832.05	µg/L	4.005	832.05	ppb	4.005	0.48%
Ca 317.933Radial†	120877.9	103250	µg/L	456.6	103250	ppb	456.6	0.44%
Cd 226.502†	25957.0	626.67	µg/L	3.417	626.67	ppb	3.417	0.55%
Co 228.616†	22037.2	986.92	µg/L	6.374	986.92	ppb	6.374	0.65%
Cr 267.716†	127836.6	2568.4	µg/L	13.33	2568.4	ppb	13.33	0.52%
Cu 324.752†	288003.3	1907.2	µg/L	9.34	1907.2	ppb	9.34	0.49%
Fe 238.204 Radial†	24866.7	196140	µg/L	642.1	196140	ppb	642.1	0.33%
K 766.490 Radial†	62921.8	41095	µg/L	137.2	41095	ppb	137.2	0.33%
Mg 279.077 IEC†	4512.7	40138	µg/L	196.9	40138	ppb	196.9	0.49%
Mn 257.610†	1943981.8	6112.1	µg/L	29.66	6112.1	ppb	29.66	0.49%
Mo 202.031†	5578.0	553.69	µg/L	1.173	553.69	ppb	1.173	0.21%
Na 589.592 Radial†	33993.2	10441	µg/L	23.7	10441	ppb	23.7	0.23%

Ni 231.604†	28832.0	1438.6 µg/L	7.75	1438.6 ppb	7.75	0.54%
P 214.914†	4431.8	8459.7 µg/L	21.31	8459.7 ppb	21.31	0.25%
Pb 220.353†	3628.9	878.19 µg/L	3.245	878.19 ppb	3.245	0.37%
S 181.975 Axial†	977.8	4054.8 µg/L	23.18	4054.8 ppb	23.18	0.57%
Sb 206.836†	1611.8	1450.5 µg/L	6.40	1450.5 ppb	6.40	0.44%
Se 196.026†	2136.5	3472.0 µg/L	26.40	3472.0 ppb	26.40	0.76%
SiO2†	328726.8	64886 µg/L	335.0	64886 ppb	335.0	0.52%
Si 251.611†	401483.1	30522 µg/L	132.3	30522 ppb	132.3	0.43%
Sn 189.927†	2726.1	1132.9 µg/L	4.60	1132.9 ppb	4.60	0.41%
Sr 421.552†	252896.1	2333.0 µg/L	8.27	2333.0 ppb	8.27	0.35%
Ti 334.940†	2510579.0	5552.4 µg/L	27.05	5552.4 ppb	27.05	0.49%
Tl 190.801†	953.1	1332.6 µg/L	2.59	1332.6 ppb	2.59	0.19%
U 409.014†	-1227.5	-135.54 µg/L	4.556	-135.54 ppb	4.556	3.36%
V 292.402†	129797.1	1298.0 µg/L	8.58	1298.0 ppb	8.58	0.66%
Zn 213.857†	262201.0	6130.6 µg/L	34.89	6130.6 ppb	34.89	0.57%

Sequence No.: 3
Sample ID: 245979001|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 229
Date Collected: 2/20/2010 03:07:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979001|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57199.5	57199.5	101	%			03:08:16
1	Al 396.153Radial†	61475.0	60711.1	42234	µg/L	42234	ppb	03:08:16
1	Ca 317.933Radial†	19025.5	18580.1	15871	µg/L	15871	ppb	03:08:16
1	Fe 238.204 Radial†	15765.8	15555.2	122680	µg/L	122680	ppb	03:08:16
1	K 766.490 Radial†	10529.8	10235.2	6684.8	µg/L	6684.8	ppb	03:08:16
1	Mg 279.077 IEC†	975.7	950.8	8368.2	µg/L	8368.2	ppb	03:08:37
1	Na 589.592 Radial†	8956.0	8373.6	2571.9	µg/L	2571.9	ppb	03:08:16
1	Sr 421.552†	13240.5	13048.8	120.38	µg/L	120.38	ppb	03:08:16
1	Sc 361.383	2007320.2	2007320.2	102.25	%			03:09:42
1	Y 371.029	1465215.3	1465215.3	108.31	%			03:09:42
1	Ag 328.068†	-1900.5	-1457.0	-2.5386	µg/L	-2.5386	ppb	03:09:47
1	As 188.979†	15.2	15.3	33.656	µg/L	33.656	ppb	03:10:08
1	B 249.677†	984.9	579.1	-40.137	µg/L	-40.137	ppb	03:09:47
1	Ba 233.527†	21081.3	20634.2	495.51	µg/L	495.51	ppb	03:09:47
1	Be 313.107†	11851.2	14445.9	7.6422	µg/L	7.6422	ppb	03:09:47
1	Cd 226.502†	302.3	437.3	-2.8602	µg/L	-2.8602	ppb	03:10:08
1	Co 228.616†	1008.9	984.7	39.504	µg/L	39.504	ppb	03:10:08
1	Cr 267.716†	8787.2	8644.1	173.67	µg/L	173.67	ppb	03:09:47
1	Cu 324.752†	6011.3	3335.2	38.823	µg/L	38.823	ppb	03:09:47
1	Mn 257.610†	744170.8	728040.5	2295.9	µg/L	2295.9	ppb	03:09:42
1	Mo 202.031†	105.9	108.9	15.328	µg/L	15.328	ppb	03:10:08
1	Ni 231.604†	2284.5	1921.8	97.344	µg/L	97.344	ppb	03:10:08
1	P 214.914†	277.0	255.6	416.31	µg/L	416.31	ppb	03:10:08
1	Pb 220.353†	464.5	363.4	86.179	µg/L	86.179	ppb	03:10:08
1	S 181.975 Axial†	161.1	138.6	574.74	µg/L	574.74	ppb	03:10:08
1	Sb 206.836†	29.1	6.0	2.3066	µg/L	2.3066	ppb	03:10:08
1	Se 196.026†	-60.7	-78.7	212.90	µg/L	212.90	ppb	03:10:08
1	SiO2†	308111.2	299935.2	59203	µg/L	59203	ppb	03:09:42
1	Si 251.611†	369377.4	360933.3	27439	µg/L	27439	ppb	03:09:42
1	Sn 189.927†	10.3	9.7	-8.0618	µg/L	-8.0618	ppb	03:10:08
1	Ti 334.940†	1130229.6	1105167.4	2444.5	µg/L	2444.5	ppb	03:09:42
1	Tl 190.801†	-55.7	-32.1	7.8118	µg/L	7.8118	ppb	03:10:08
1	U 409.014†	-2401.8	-2271.8	-206.77	µg/L	-206.77	ppb	03:09:42
1	V 292.402†	8311.0	8172.7	94.371	µg/L	94.371	ppb	03:09:47
1	Zn 213.857†	20922.5	19927.4	460.76	µg/L	460.76	ppb	03:09:47
2	Sc RADIAL	57062.8	57062.8	101	%			03:08:42
2	Al 396.153Radial†	61549.1	60930.0	42386	µg/L	42386	ppb	03:08:42
2	Ca 317.933Radial†	19006.4	18606.3	15893	µg/L	15893	ppb	03:08:42
2	Fe 238.204 Radial†	15754.3	15581.1	122890	µg/L	122890	ppb	03:08:42
2	K 766.490 Radial†	10498.1	10228.8	6680.6	µg/L	6680.6	ppb	03:08:42
2	Mg 279.077 IEC†	978.5	956.0	8414.1	µg/L	8414.1	ppb	03:09:03
2	Na 589.592 Radial†	9051.1	8489.0	2607.3	µg/L	2607.3	ppb	03:08:42
2	Sr 421.552†	13254.6	13094.1	120.79	µg/L	120.79	ppb	03:08:42
2	Sc 361.383	1990866.0	1990866.0	101.41	%			03:10:15
2	Y 371.029	1455070.6	1455070.6	107.56	%			03:10:15
2	Ag 328.068†	-1904.2	-1476.0	-2.6584	µg/L	-2.6584	ppb	03:10:21
2	As 188.979†	19.9	20.1	42.291	µg/L	42.291	ppb	03:10:42
2	B 249.677†	959.3	561.8	-40.942	µg/L	-40.942	ppb	03:10:21
2	Ba 233.527†	21159.3	20881.5	501.45	µg/L	501.45	ppb	03:10:21
2	Be 313.107†	11880.5	14570.6	7.7097	µg/L	7.7097	ppb	03:10:21
2	Cd 226.502†	299.4	436.9	-2.8933	µg/L	-2.8933	ppb	03:10:42
2	Co 228.616†	995.5	979.7	39.241	µg/L	39.241	ppb	03:10:42
2	Cr 267.716†	8845.7	8772.8	176.26	µg/L	176.26	ppb	03:10:21
2	Cu 324.752†	6040.1	3412.2	39.354	µg/L	39.354	ppb	03:10:21
2	Mn 257.610†	742284.4	732195.4	2308.9	µg/L	2308.9	ppb	03:10:15
2	Mo 202.031†	106.2	110.1	15.448	µg/L	15.448	ppb	03:10:42
2	Ni 231.604†	2264.1	1920.2	97.266	µg/L	97.266	ppb	03:10:42
2	P 214.914†	270.7	251.6	408.24	µg/L	408.24	ppb	03:10:42
2	Pb 220.353†	457.0	359.7	85.298	µg/L	85.298	ppb	03:10:42

2	S 181.975 Axial†	169.3	148.0	613.90 µg/L	613.90 ppb	03:10:42
2	Sb 206.836†	38.0	14.9	10.514 µg/L	10.514 ppb	03:10:42
2	Se 196.026†	-60.9	-79.3	212.49 µg/L	212.49 ppb	03:10:42
2	SiO2†	307264.2	301590.3	59530 µg/L	59530 ppb	03:10:15
2	Si 251.611†	368579.0	363131.6	27606 µg/L	27606 ppb	03:10:15
2	Sn 189.927†	10.9	10.4	-7.8183 µg/L	-7.8183 ppb	03:10:42
2	Ti 334.940†	1128864.1	1112956.4	2461.7 µg/L	2461.7 ppb	03:10:15
2	Tl 190.801†	-48.2	-25.1	17.146 µg/L	17.146 ppb	03:10:42
2	U 409.014†	-2407.3	-2296.7	-208.87 µg/L	-208.87 ppb	03:10:15
2	V 292.402†	8371.5	8299.5	95.636 µg/L	95.636 ppb	03:10:21
2	Zn 213.857†	20992.9	20165.9	466.34 µg/L	466.34 ppb	03:10:21
3	Sc RADIAL	57541.1	57541.1	102 %		03:09:08
3	Al 396.153Radial†	60737.9	59626.9	41479 µg/L	41479 ppb	03:09:08
3	Ca 317.933Radial†	18748.6	18196.7	15543 µg/L	15543 ppb	03:09:08
3	Fe 238.204 Radial†	15536.2	15237.3	120180 µg/L	120180 ppb	03:09:08
3	K 766.490 Radial†	10378.4	10024.8	6547.4 µg/L	6547.4 ppb	03:09:08
3	Mg 279.077 IEC†	971.2	940.7	8280.6 µg/L	8280.6 ppb	03:09:28
3	Na 589.592 Radial†	8923.9	8289.5	2546.1 µg/L	2546.1 ppb	03:09:08
3	Sr 421.552†	13069.1	12802.8	118.11 µg/L	118.11 ppb	03:09:08
3	Sc 361.383	2028567.7	2028567.7	103.33 %		03:10:50
3	Y 371.029	1474442.3	1474442.3	109.00 %		03:10:50
3	Ag 328.068†	-1753.0	-1294.8	-1.5383 µg/L	-1.5383 ppb	03:10:55
3	As 188.979†	7.7	7.9	20.297 µg/L	20.297 ppb	03:11:15
3	B 249.677†	932.9	518.7	-41.315 µg/L	-41.315 ppb	03:10:55
3	Ba 233.527†	19807.0	19185.0	460.71 µg/L	460.71 ppb	03:10:55
3	Be 313.107†	10715.1	13225.1	6.9661 µg/L	6.9661 ppb	03:10:55
3	Cd 226.502†	261.0	394.2	-3.6622 µg/L	-3.6622 ppb	03:11:15
3	Co 228.616†	912.5	881.1	35.075 µg/L	35.075 ppb	03:11:15
3	Cr 267.716†	8066.1	7856.3	157.84 µg/L	157.84 ppb	03:10:55
3	Cu 324.752†	5729.3	3000.7	36.292 µg/L	36.292 ppb	03:10:55
3	Mn 257.610†	718302.1	695383.4	2193.3 µg/L	2193.3 ppb	03:10:50
3	Mo 202.031†	100.8	102.9	14.642 µg/L	14.642 ppb	03:11:15
3	Ni 231.604†	2093.6	1713.7	86.941 µg/L	86.941 ppb	03:11:15
3	P 214.914†	247.7	224.3	356.48 µg/L	356.48 ppb	03:11:15
3	Pb 220.353†	439.5	334.4	79.190 µg/L	79.190 ppb	03:11:15
3	S 181.975 Axial†	160.5	136.3	565.40 µg/L	565.40 ppb	03:11:15
3	Sb 206.836†	38.2	14.5	10.307 µg/L	10.307 ppb	03:11:15
3	Se 196.026†	-42.9	-60.8	231.30 µg/L	231.30 ppb	03:11:15
3	SiO2†	299856.9	288791.0	57004 µg/L	57004 ppb	03:10:50
3	Si 251.611†	359433.4	347526.3	26420 µg/L	26420 ppb	03:10:50
3	Sn 189.927†	10.6	9.8	-7.7607 µg/L	-7.7607 ppb	03:11:15
3	Ti 334.940†	1082731.2	1047623.9	2317.2 µg/L	2317.2 ppb	03:10:50
3	Tl 190.801†	-52.1	-28.0	11.234 µg/L	11.234 ppb	03:11:15
3	U 409.014†	-2278.5	-2127.9	-194.45 µg/L	-194.45 ppb	03:10:50
3	V 292.402†	7703.7	7499.9	87.490 µg/L	87.490 ppb	03:10:55
3	Zn 213.857†	19667.6	18498.7	427.41 µg/L	427.41 ppb	03:10:55

Mean Data: 245979001|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008918.0	102.33	%	0.963				0.94%
Sc RADIAL	57267.8	101	%	0.4				0.43%
Y 371.029	1464909.4	108.29	%	0.716				0.66%
Ag 328.068†	-1409.3	-2.2451	µg/L	0.61503	-2.2451	ppb	0.61503	27.39%
Al 396.153Radial†	60422.7	42033	µg/L	485.4	42033	ppb	485.4	1.15%
As 188.979†	14.4	32.081	µg/L	11.0813	32.081	ppb	11.0813	34.54%
B 249.677†	553.2	-40.798	µg/L	0.6020	-40.798	ppb	0.6020	1.48%
Ba 233.527†	20233.6	485.89	µg/L	22.009	485.89	ppb	22.009	4.53%
Be 313.107†	14080.5	7.4393	µg/L	0.41119	7.4393	ppb	0.41119	5.53%
Ca 317.933Radial†	18461.0	15769	µg/L	195.8	15769	ppb	195.8	1.24%
Cd 226.502†	422.8	-3.1386	µg/L	0.45376	-3.1386	ppb	0.45376	14.46%
Co 228.616†	948.5	37.940	µg/L	2.4846	37.940	ppb	2.4846	6.55%
Cr 267.716†	8424.4	169.25	µg/L	9.969	169.25	ppb	9.969	5.89%
Cu 324.752†	3249.3	38.156	µg/L	1.6365	38.156	ppb	1.6365	4.29%
Fe 238.204 Radial†	15457.9	121920	µg/L	1509.8	121920	ppb	1509.8	1.24%
K 766.490 Radial†	10163.0	6637.6	µg/L	78.15	6637.6	ppb	78.15	1.18%
Mg 279.077 IEC†	949.2	8354.3	µg/L	67.83	8354.3	ppb	67.83	0.81%
Mn 257.610†	718539.8	2266.0	µg/L	63.33	2266.0	ppb	63.33	2.79%
Mo 202.031†	107.3	15.139	µg/L	0.4348	15.139	ppb	0.4348	2.87%
Na 589.592 Radial†	8384.0	2575.1	µg/L	30.75	2575.1	ppb	30.75	1.19%

Ni 231.604†	1851.9	93.850 µg/L	5.9841	93.850 ppb	5.9841	6.38%
P 214.914†	243.8	393.68 µg/L	32.466	393.68 ppb	32.466	8.25%
Pb 220.353†	352.5	83.556 µg/L	3.8063	83.556 ppb	3.8063	4.56%
S 181.975 Axial†	141.0	584.68 µg/L	25.735	584.68 ppb	25.735	4.40%
Sb 206.836†	11.8	7.7093 µg/L	4.67998	7.7093 ppb	4.67998	60.71%
Se 196.026†	-72.9	218.90 µg/L	10.742	218.90 ppb	10.742	4.91%
SiO2†	296772.2	58579 µg/L	1374.1	58579 ppb	1374.1	2.35%
Si 251.611†	357197.1	27155 µg/L	642.2	27155 ppb	642.2	2.36%
Sn 189.927†	10.0	-7.8803 µg/L	0.15984	-7.8803 ppb	0.15984	2.03%
Sr 421.552†	12981.9	119.76 µg/L	1.446	119.76 ppb	1.446	1.21%
Ti 334.940†	1088582.5	2407.8 µg/L	78.94	2407.8 ppb	78.94	3.28%
Tl 190.801†	-28.4	12.064 µg/L	4.7220	12.064 ppb	4.7220	39.14%
U 409.014†	-2232.1	-203.36 µg/L	7.790	-203.36 ppb	7.790	3.83%
V 292.402†	7990.7	92.499 µg/L	4.3835	92.499 ppb	4.3835	4.74%
Zn 213.857†	19530.6	451.50 µg/L	21.050	451.50 ppb	21.050	4.66%

Sequence No.: 4
Sample ID: 1202032611|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 230
Date Collected: 2/20/2010 03:11:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032611|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58485.8	58485.8	104	%			03:11:57
1	Al 396.153Radial†	56411.0	54484.1	37902	µg/L	37902	ppb	03:11:57
1	Ca 317.933Radial†	19115.2	18253.5	15592	µg/L	15592	ppb	03:11:57
1	Fe 238.204 Radial†	16320.3	15748.4	124210	µg/L	124210	ppb	03:11:57
1	K 766.490 Radial†	10066.1	9558.6	6242.9	µg/L	6242.9	ppb	03:11:57
1	Mg 279.077 IEC†	931.1	886.6	7792.2	µg/L	7792.2	ppb	03:12:17
1	Na 589.592 Radial†	8377.4	7620.2	2340.5	µg/L	2340.5	ppb	03:11:57
1	Sr 421.552†	12436.6	11984.6	110.56	µg/L	110.56	ppb	03:11:57
1	Sc 361.383	2015543.9	2015543.9	102.67	%			03:13:22
1	Y 371.029	1469086.7	1469086.7	108.60	%			03:13:22
1	Ag 328.068†	-1799.4	-1351.0	-1.6795	µg/L	-1.6795	ppb	03:13:27
1	As 188.979†	15.0	15.1	33.462	µg/L	33.462	ppb	03:13:48
1	B 249.677†	884.2	477.1	-45.216	µg/L	-45.216	ppb	03:13:27
1	Ba 233.527†	17603.7	17162.9	412.17	µg/L	412.17	ppb	03:13:27
1	Be 313.107†	11420.4	13979.0	7.3217	µg/L	7.3217	ppb	03:13:27
1	Cd 226.502†	304.5	438.2	-3.0449	µg/L	-3.0449	ppb	03:13:48
1	Co 228.616†	823.3	800.0	30.898	µg/L	30.898	ppb	03:13:48
1	Cr 267.716†	4750.3	4677.2	93.990	µg/L	93.990	ppb	03:13:27
1	Cu 324.752†	5593.9	2904.7	36.225	µg/L	36.225	ppb	03:13:27
1	Mn 257.610†	761341.3	741795.0	2339.1	µg/L	2339.1	ppb	03:13:22
1	Mo 202.031†	93.9	96.8	14.201	µg/L	14.201	ppb	03:13:48
1	Ni 231.604†	1571.7	1218.5	62.312	µg/L	62.312	ppb	03:13:48
1	P 214.914†	273.7	251.2	405.43	µg/L	405.43	ppb	03:13:48
1	Pb 220.353†	466.1	363.0	85.771	µg/L	85.771	ppb	03:13:48
1	S 181.975 Axial†	162.1	138.9	576.19	µg/L	576.19	ppb	03:13:48
1	Sb 206.836†	26.9	3.7	1.1335	µg/L	1.1335	ppb	03:13:48
1	Se 196.026†	-63.2	-80.9	214.53	µg/L	214.53	ppb	03:13:48
1	SiO2†	296410.1	287309.0	56711	µg/L	56711	ppb	03:13:22
1	Si 251.611†	355294.3	345742.6	26284	µg/L	26284	ppb	03:13:22
1	Sn 189.927†	2.7	2.3	-11.448	µg/L	-11.448	ppb	03:13:48
1	Ti 334.940†	1187767.5	1156698.8	2558.5	µg/L	2558.5	ppb	03:13:22
1	Tl 190.801†	-56.7	-32.8	7.9919	µg/L	7.9919	ppb	03:13:48
1	U 409.014†	-2099.0	-1967.3	-181.67	µg/L	-181.67	ppb	03:13:22
1	V 292.402†	7986.9	7823.9	90.985	µg/L	90.985	ppb	03:13:27
1	Zn 213.857†	20318.3	19255.4	445.11	µg/L	445.11	ppb	03:13:27
2	Sc RADIAL	57280.1	57280.1	101	%			03:12:23
2	Al 396.153Radial†	56146.9	55370.5	38518	µg/L	38518	ppb	03:12:23
2	Ca 317.933Radial†	18878.4	18408.6	15724	µg/L	15724	ppb	03:12:23
2	Fe 238.204 Radial†	16155.8	15917.9	125540	µg/L	125540	ppb	03:12:23
2	K 766.490 Radial†	10012.6	9710.5	6342.1	µg/L	6342.1	ppb	03:12:23
2	Mg 279.077 IEC†	937.2	911.5	8013.5	µg/L	8013.5	ppb	03:12:43
2	Na 589.592 Radial†	8272.1	7686.6	2360.9	µg/L	2360.9	ppb	03:12:23
2	Sr 421.552†	12303.3	12106.0	111.68	µg/L	111.68	ppb	03:12:23
2	Sc 361.383	2009553.3	2009553.3	102.37	%			03:13:56
2	Y 371.029	1465536.2	1465536.2	108.34	%			03:13:56
2	Ag 328.068†	-1868.5	-1423.7	-2.1294	µg/L	-2.1294	ppb	03:14:01
2	As 188.979†	15.7	15.8	34.726	µg/L	34.726	ppb	03:14:22
2	B 249.677†	885.6	481.0	-45.751	µg/L	-45.751	ppb	03:14:01
2	Ba 233.527†	17819.3	17424.6	418.45	µg/L	418.45	ppb	03:14:01
2	Be 313.107†	11605.3	14192.9	7.4393	µg/L	7.4393	ppb	03:14:01
2	Cd 226.502†	324.7	458.9	-2.6806	µg/L	-2.6806	ppb	03:14:22
2	Co 228.616†	826.7	805.7	31.105	µg/L	31.105	ppb	03:14:22
2	Cr 267.716†	4810.6	4749.9	95.451	µg/L	95.451	ppb	03:14:01
2	Cu 324.752†	5586.0	2913.2	36.466	µg/L	36.466	ppb	03:14:01
2	Mn 257.610†	766168.2	748720.8	2361.0	µg/L	2361.0	ppb	03:13:56
2	Mo 202.031†	98.5	101.6	14.722	µg/L	14.722	ppb	03:14:22
2	Ni 231.604†	1563.1	1214.6	62.138	µg/L	62.138	ppb	03:14:22
2	P 214.914†	284.2	262.3	426.44	µg/L	426.44	ppb	03:14:22
2	Pb 220.353†	458.0	356.5	84.184	µg/L	84.184	ppb	03:14:22

2	S 181.975 Axial†	157.8	135.2	560.60 µg/L	560.60 ppb	03:14:22
2	Sb 206.836†	38.7	15.3	11.778 µg/L	11.778 ppb	03:14:22
2	Se 196.026†	-52.5	-70.6	232.34 µg/L	232.34 ppb	03:14:22
2	SiO2†	298062.2	289783.5	57199 µg/L	57199 ppb	03:13:56
2	Si 251.611†	357088.5	348526.9	26496 µg/L	26496 ppb	03:13:56
2	Sn 189.927†	2.4	2.0	-11.685 µg/L	-11.685 ppb	03:14:22
2	Ti 334.940†	1195527.1	1167727.7	2582.9 µg/L	2582.9 ppb	03:13:56
2	Tl 190.801†	-54.1	-30.5	11.530 µg/L	11.530 ppb	03:14:22
2	U 409.014†	-2287.1	-2157.2	-197.64 µg/L	-197.64 ppb	03:13:56
2	V 292.402†	8033.5	7892.7	91.803 µg/L	91.803 ppb	03:14:01
2	Zn 213.857†	20503.7	19495.5	450.67 µg/L	450.67 ppb	03:14:01
3	Sc RADIAL	57636.1	57636.1	102 %		03:12:49
3	Al 396.153Radial†	56682.5	55553.5	38646 µg/L	38646 ppb	03:12:49
3	Ca 317.933Radial†	19053.4	18465.1	15773 µg/L	15773 ppb	03:12:49
3	Fe 238.204 Radial†	16300.0	15960.9	125880 µg/L	125880 ppb	03:12:49
3	K 766.490 Radial†	10179.1	9812.7	6408.8 µg/L	6408.8 ppb	03:12:49
3	Mg 279.077 IEC†	937.5	906.2	7965.4 µg/L	7965.4 ppb	03:13:09
3	Na 589.592 Radial†	8397.7	7759.3	2383.2 µg/L	2383.2 ppb	03:12:49
3	Sr 421.552†	12451.5	12176.3	112.33 µg/L	112.33 ppb	03:12:49
3	Sc 361.383	2000289.5	2000289.5	101.89 %		03:14:29
3	Y 371.029	1456705.6	1456705.6	107.68 %		03:14:29
3	Ag 328.068†	-1819.1	-1383.7	-1.8358 µg/L	-1.8358 ppb	03:14:35
3	As 188.979†	11.1	11.3	26.799 µg/L	26.799 ppb	03:14:55
3	B 249.677†	855.1	455.1	-46.996 µg/L	-46.996 ppb	03:14:35
3	Ba 233.527†	16891.8	16595.0	398.53 µg/L	398.53 ppb	03:14:35
3	Be 313.107†	10720.1	13376.6	6.9845 µg/L	6.9845 ppb	03:14:35
3	Cd 226.502†	269.4	406.1	-4.0405 µg/L	-4.0405 ppb	03:14:55
3	Co 228.616†	744.2	728.4	27.765 µg/L	27.765 ppb	03:14:55
3	Cr 267.716†	4450.2	4417.9	88.781 µg/L	88.781 ppb	03:14:35
3	Cu 324.752†	5497.3	2851.4	36.110 µg/L	36.110 ppb	03:14:35
3	Mn 257.610†	741698.3	728171.9	2296.7 µg/L	2296.7 ppb	03:14:29
3	Mo 202.031†	79.8	83.7	12.977 µg/L	12.977 ppb	03:14:55
3	Ni 231.604†	1451.8	1112.5	57.054 µg/L	57.054 ppb	03:14:55
3	P 214.914†	245.1	225.2	352.75 µg/L	352.75 ppb	03:14:55
3	Pb 220.353†	438.9	339.8	80.119 µg/L	80.119 ppb	03:14:55
3	S 181.975 Axial†	148.7	127.0	526.85 µg/L	526.85 ppb	03:14:55
3	Sb 206.836†	30.5	7.4	4.5382 µg/L	4.5382 ppb	03:14:55
3	Se 196.026†	-50.7	-69.0	235.56 µg/L	235.56 ppb	03:14:55
3	SiO2†	291581.6	284771.8	56210 µg/L	56210 ppb	03:14:29
3	Si 251.611†	349676.0	342867.7	26065 µg/L	26065 ppb	03:14:29
3	Sn 189.927†	0.7	0.3	-12.419 µg/L	-12.419 ppb	03:14:55
3	Ti 334.940†	1154205.6	1132582.9	2505.1 µg/L	2505.1 ppb	03:14:29
3	Tl 190.801†	-49.3	-26.0	16.524 µg/L	16.524 ppb	03:14:55
3	U 409.014†	-2166.6	-2049.2	-188.72 µg/L	-188.72 ppb	03:14:29
3	V 292.402†	7612.4	7515.7	88.149 µg/L	88.149 ppb	03:14:35
3	Zn 213.857†	19532.6	18635.2	430.50 µg/L	430.50 ppb	03:14:35

Mean Data: 1202032611|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008462.2	102.31	%	0.391				0.38%
Sc RADIAL	57800.7	102	%	1.1				1.07%
Y 371.029	1463776.2	108.21	%	0.471				0.44%
Ag 328.068†	-1386.1	-1.8815	µg/L	0.22841	-1.8815	ppb	0.22841	12.14%
Al 396.153Radial†	55136.0	38355	µg/L	397.9	38355	ppb	397.9	1.04%
As 188.979†	14.1	31.662	µg/L	4.2590	31.662	ppb	4.2590	13.45%
B 249.677†	471.1	-45.988	µg/L	0.9130	-45.988	ppb	0.9130	1.99%
Ba 233.527†	17060.8	409.72	µg/L	10.185	409.72	ppb	10.185	2.49%
Be 313.107†	13849.5	7.2485	µg/L	0.23608	7.2485	ppb	0.23608	3.26%
Ca 317.933Radial†	18375.7	15696	µg/L	93.6	15696	ppb	93.6	0.60%
Cd 226.502†	434.4	-3.2554	µg/L	0.70394	-3.2554	ppb	0.70394	21.62%
Co 228.616†	778.0	29.923	µg/L	1.8712	29.923	ppb	1.8712	6.25%
Cr 267.716†	4615.0	92.741	µg/L	3.5060	92.741	ppb	3.5060	3.78%
Cu 324.752†	2889.7	36.267	µg/L	0.1818	36.267	ppb	0.1818	0.50%
Fe 238.204 Radial†	15875.7	125210	µg/L	886.2	125210	ppb	886.2	0.71%
K 766.490 Radial†	9693.9	6331.3	µg/L	83.49	6331.3	ppb	83.49	1.32%
Mg 279.077 IEC†	901.4	7923.7	µg/L	116.39	7923.7	ppb	116.39	1.47%
Mn 257.610†	739562.6	2332.3	µg/L	32.70	2332.3	ppb	32.70	1.40%
Mo 202.031†	94.0	13.967	µg/L	0.8955	13.967	ppb	0.8955	6.41%
Na 589.592 Radial†	7688.7	2361.5	µg/L	21.37	2361.5	ppb	21.37	0.90%

Ni 231.604†	1181.9	60.501	µg/L	2.9864	60.501	ppb	2.9864	4.94%
P 214.914†	246.2	394.87	µg/L	37.962	394.87	ppb	37.962	9.61%
Pb 220.353†	353.1	83.358	µg/L	2.9148	83.358	ppb	2.9148	3.50%
S 181.975 Axial†	133.7	554.55	µg/L	25.221	554.55	ppb	25.221	4.55%
Sb 206.836†	8.8	5.8164	µg/L	5.43597	5.8164	ppb	5.43597	93.46%
Se 196.026†	-73.5	227.48	µg/L	11.326	227.48	ppb	11.326	4.98%
SiO2†	287288.1	56707	µg/L	494.6	56707	ppb	494.6	0.87%
Si 251.611†	345712.4	26282	µg/L	215.1	26282	ppb	215.1	0.82%
Sn 189.927†	1.5	-11.851	µg/L	0.5064	-11.851	ppb	0.5064	4.27%
Sr 421.552†	12089.0	111.52	µg/L	0.894	111.52	ppb	0.894	0.80%
Ti 334.940†	1152336.5	2548.8	µg/L	39.76	2548.8	ppb	39.76	1.56%
Tl 190.801†	-29.8	12.015	µg/L	4.2867	12.015	ppb	4.2867	35.68%
U 409.014†	-2057.9	-189.34	µg/L	8.002	-189.34	ppb	8.002	4.23%
V 292.402†	7744.1	90.312	µg/L	1.9174	90.312	ppb	1.9174	2.12%
Zn 213.857†	19128.7	442.09	µg/L	10.421	442.09	ppb	10.421	2.36%

Sequence No.: 5
Sample ID: 1202032613|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 231
Date Collected: 2/20/2010 03:15:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032613|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57218.5	57218.5	101	%			03:15:38
1	Al 396.153Radial†	106676.9	105321.8	73257	µg/L	73257	ppb	03:15:38
1	Ca 317.933Radial†	22579.4	22082.9	18863	µg/L	18863	ppb	03:15:59
1	Fe 238.204 Radial†	16160.3	15939.5	125720	µg/L	125720	ppb	03:15:59
1	K 766.490 Radial†	20081.0	19662.3	12842	µg/L	12842	ppb	03:15:38
1	Mg 279.077 IEC†	1833.9	1797.9	15945	µg/L	15945	ppb	03:15:59
1	Na 589.592 Radial†	23968.5	23193.5	7123.7	µg/L	7123.7	ppb	03:15:38
1	Sr 421.552†	65733.2	64873.9	598.47	µg/L	598.47	ppb	03:15:38
1	Sc 361.383	2012327.1	2012327.1	102.51	%			03:17:04
1	Y 371.029	1482553.7	1482553.7	109.60	%			03:17:04
1	Ag 328.068†	64736.0	63554.7	482.48	µg/L	482.48	ppb	03:17:10
1	As 188.979†	298.7	291.8	528.40	µg/L	528.40	ppb	03:17:30
1	B 249.677†	13041.4	12338.4	438.21	µg/L	438.21	ppb	03:17:10
1	Ba 233.527†	41674.3	40672.3	977.46	µg/L	977.46	ppb	03:17:10
1	Be 313.107†	865048.5	846751.3	501.29	µg/L	501.29	ppb	03:17:04
1	Cd 226.502†	20267.1	19913.2	482.99	µg/L	482.99	ppb	03:17:10
1	Co 228.616†	11763.5	11473.9	513.18	µg/L	513.18	ppb	03:17:10
1	Cr 267.716†	29491.9	28821.1	579.24	µg/L	579.24	ppb	03:17:10
1	Cu 324.752†	85543.2	80907.6	545.60	µg/L	545.60	ppb	03:17:10
1	Mn 257.610†	887841.1	866386.8	2729.2	µg/L	2729.2	ppb	03:17:04
1	Mo 202.031†	5156.2	5035.4	497.88	µg/L	497.88	ppb	03:17:30
1	Ni 231.604†	11538.2	10943.7	546.56	µg/L	546.56	ppb	03:17:10
1	P 214.914†	563.0	533.9	927.94	µg/L	927.94	ppb	03:17:30
1	Pb 220.353†	2542.8	2389.7	580.37	µg/L	580.37	ppb	03:17:30
1	S 181.975 Axial†	1410.9	1357.5	5629.5	µg/L	5629.5	ppb	03:17:30
1	Sb 206.836†	511.2	476.2	437.05	µg/L	437.05	ppb	03:17:30
1	Se 196.026†	313.2	286.2	726.01	µg/L	726.01	ppb	03:17:30
1	SiO2†	351285.4	341303.9	67369	µg/L	67369	ppb	03:17:04
1	Si 251.611†	421433.8	410817.8	31231	µg/L	31231	ppb	03:17:04
1	Sn 189.927†	1253.6	1222.5	503.95	µg/L	503.95	ppb	03:17:30
1	Ti 334.940†	1531151.2	1493535.0	3303.1	µg/L	3303.1	ppb	03:17:04
1	Tl 190.801†	317.8	332.4	492.22	µg/L	492.22	ppb	03:17:30
1	U 409.014†	3815.7	3799.5	297.05	µg/L	297.05	ppb	03:17:04
1	V 292.402†	60132.1	58706.4	592.37	µg/L	592.37	ppb	03:17:10
1	Zn 213.857†	41583.5	40032.2	929.07	µg/L	929.07	ppb	03:17:10
2	Sc RADIAL	58340.8	58340.8	103	%			03:16:04
2	Al 396.153Radial†	107186.7	103789.4	72191	µg/L	72191	ppb	03:16:04
2	Ca 317.933Radial†	22642.5	21715.1	18549	µg/L	18549	ppb	03:16:25
2	Fe 238.204 Radial†	16210.5	15681.2	123690	µg/L	123690	ppb	03:16:25
2	K 766.490 Radial†	20102.7	19301.9	12606	µg/L	12606	ppb	03:16:04
2	Mg 279.077 IEC†	1836.6	1765.7	15659	µg/L	15659	ppb	03:16:25
2	Na 589.592 Radial†	24150.4	22914.4	7038.0	µg/L	7038.0	ppb	03:16:04
2	Sr 421.552†	66150.4	64029.5	590.68	µg/L	590.68	ppb	03:16:04
2	Sc 361.383	2016110.2	2016110.2	102.70	%			03:17:39
2	Y 371.029	1484305.6	1484305.6	109.72	%			03:17:39
2	Ag 328.068†	64988.5	63682.0	483.30	µg/L	483.30	ppb	03:17:44
2	As 188.979†	294.2	287.0	519.58	µg/L	519.58	ppb	03:18:05
2	B 249.677†	13111.1	12382.3	441.06	µg/L	441.06	ppb	03:17:44
2	Ba 233.527†	41722.6	40643.1	976.76	µg/L	976.76	ppb	03:17:44
2	Be 313.107†	868335.3	848368.1	502.25	µg/L	502.25	ppb	03:17:39
2	Cd 226.502†	20269.3	19878.2	482.35	µg/L	482.35	ppb	03:17:44
2	Co 228.616†	11822.6	11510.0	514.79	µg/L	514.79	ppb	03:17:44
2	Cr 267.716†	29593.3	28865.9	580.14	µg/L	580.14	ppb	03:17:44
2	Cu 324.752†	86120.4	81313.1	547.96	µg/L	547.96	ppb	03:17:44
2	Mn 257.610†	891219.8	868051.5	2734.1	µg/L	2734.1	ppb	03:17:39
2	Mo 202.031†	5090.4	4962.0	490.61	µg/L	490.61	ppb	03:18:05
2	Ni 231.604†	11593.8	10976.8	548.17	µg/L	548.17	ppb	03:17:44
2	P 214.914†	555.3	525.3	911.86	µg/L	911.86	ppb	03:18:05
2	Pb 220.353†	2499.3	2342.7	568.94	µg/L	568.94	ppb	03:18:05

2	S 181.975 Axial†	1404.6	1348.8	5593.3 µg/L	5593.3 ppb	03:18:05
2	Sb 206.836†	499.2	463.6	425.34 µg/L	425.34 ppb	03:18:05
2	Se 196.026†	304.2	276.9	707.72 µg/L	707.72 ppb	03:18:05
2	SiO2†	352301.2	341649.9	67437 µg/L	67437 ppb	03:17:39
2	Si 251.611†	422762.7	411340.4	31271 µg/L	31271 ppb	03:17:39
2	Sn 189.927†	1230.6	1197.8	493.72 µg/L	493.72 ppb	03:18:05
2	Ti 334.940†	1536725.6	1496160.1	3308.9 µg/L	3308.9 ppb	03:17:39
2	Tl 190.801†	323.2	337.1	498.10 µg/L	498.10 ppb	03:18:05
2	U 409.014†	3744.0	3722.7	290.98 µg/L	290.98 ppb	03:17:39
2	V 292.402†	60218.2	58680.2	591.82 µg/L	591.82 ppb	03:17:44
2	Zn 213.857†	41643.4	40014.5	928.76 µg/L	928.76 ppb	03:17:44
3	Sc RADIAL	57922.3	57922.3	103 %		03:16:30
3	Al 396.153Radial†	106693.9	104058.6	72380 µg/L	72380 ppb	03:16:30
3	Ca 317.933Radial†	22751.5	21979.9	18775 µg/L	18775 ppb	03:16:50
3	Fe 238.204 Radial†	16276.7	15859.2	125090 µg/L	125090 ppb	03:16:50
3	K 766.490 Radial†	20079.2	19419.6	12683 µg/L	12683 ppb	03:16:30
3	Mg 279.077 IEC†	1845.5	1787.2	15849 µg/L	15849 ppb	03:16:50
3	Na 589.592 Radial†	24051.7	22987.1	7060.3 µg/L	7060.3 ppb	03:16:30
3	Sr 421.552†	65819.9	64169.9	591.98 µg/L	591.98 ppb	03:16:30
3	Sc 361.383	2001800.6	2001800.6	101.97 %		03:18:13
3	Y 371.029	1472159.0	1472159.0	108.83 %		03:18:13
3	Ag 328.068†	63138.6	62320.2	473.09 µg/L	473.09 ppb	03:18:19
3	As 188.979†	274.7	269.9	489.13 µg/L	489.13 ppb	03:18:39
3	B 249.677†	12579.1	11951.9	422.73 µg/L	422.73 ppb	03:18:19
3	Ba 233.527†	39551.2	38804.1	932.55 µg/L	932.55 ppb	03:18:19
3	Be 313.107†	838772.9	825421.0	488.67 µg/L	488.67 ppb	03:18:13
3	Cd 226.502†	19406.2	19172.9	464.57 µg/L	464.57 ppb	03:18:19
3	Co 228.616†	11143.9	10926.6	488.54 µg/L	488.54 ppb	03:18:19
3	Cr 267.716†	27636.0	27152.3	545.70 µg/L	545.70 ppb	03:18:19
3	Cu 324.752†	81300.9	77186.2	521.22 µg/L	521.22 ppb	03:18:19
3	Mn 257.610†	863885.2	847448.4	2669.8 µg/L	2669.8 ppb	03:18:13
3	Mo 202.031†	4634.5	4550.2	450.34 µg/L	450.34 ppb	03:18:39
3	Ni 231.604†	10945.0	10421.2	520.53 µg/L	520.53 ppb	03:18:19
3	P 214.914†	501.1	476.0	815.47 µg/L	815.47 ppb	03:18:39
3	Pb 220.353†	2313.8	2178.1	528.82 µg/L	528.82 ppb	03:18:39
3	S 181.975 Axial†	1314.4	1270.1	5266.9 µg/L	5266.9 ppb	03:18:39
3	Sb 206.836†	475.0	443.3	406.43 µg/L	406.43 ppb	03:18:39
3	Se 196.026†	302.7	277.5	712.21 µg/L	712.21 ppb	03:18:39
3	SiO2†	342971.3	334952.5	66115 µg/L	66115 ppb	03:18:13
3	Si 251.611†	411602.6	403338.5	30663 µg/L	30663 ppb	03:18:13
3	Sn 189.927†	1129.8	1107.6	455.54 µg/L	455.54 ppb	03:18:39
3	Ti 334.940†	1481950.3	1453139.6	3213.7 µg/L	3213.7 ppb	03:18:13
3	Tl 190.801†	298.3	314.9	468.45 µg/L	468.45 ppb	03:18:39
3	U 409.014†	3625.6	3632.7	283.29 µg/L	283.29 ppb	03:18:13
3	V 292.402†	56572.0	55523.6	560.82 µg/L	560.82 ppb	03:18:19
3	Zn 213.857†	39635.2	38334.9	889.44 µg/L	889.44 ppb	03:18:19

Mean Data: 1202032613|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2010079.3	102.39	%	0.378				0.37%
Sc RADIAL	57827.2	102	%	1.0				0.98%
Y 371.029	1479672.8	109.38	%	0.485				0.44%
Ag 328.068†	63185.6	479.62	µg/L	5.670	479.62	ppb	5.670	1.18%
Al 396.153Radial†	104390.0	72609	µg/L	568.9	72609	ppb	568.9	0.78%
As 188.979†	282.9	512.37	µg/L	20.605	512.37	ppb	20.605	4.02%
B 249.677†	12224.2	434.00	µg/L	9.864	434.00	ppb	9.864	2.27%
Ba 233.527†	40039.8	962.26	µg/L	25.727	962.26	ppb	25.727	2.67%
Be 313.107†	840180.1	497.40	µg/L	7.581	497.40	ppb	7.581	1.52%
Ca 317.933Radial†	21926.0	18729	µg/L	162.1	18729	ppb	162.1	0.87%
Cd 226.502†	19654.8	476.64	µg/L	10.454	476.64	ppb	10.454	2.19%
Co 228.616†	11303.5	505.50	µg/L	14.716	505.50	ppb	14.716	2.91%
Cr 267.716†	28279.8	568.36	µg/L	19.627	568.36	ppb	19.627	3.45%
Cu 324.752†	79802.3	538.26	µg/L	14.805	538.26	ppb	14.805	2.75%
Fe 238.204 Radial†	15826.6	124830	µg/L	1042.6	124830	ppb	1042.6	0.84%
K 766.490 Radial†	19461.3	12710	µg/L	120.0	12710	ppb	120.0	0.94%
Mg 279.077 IEC†	1783.6	15818	µg/L	145.8	15818	ppb	145.8	0.92%
Mn 257.610†	860628.9	2711.0	µg/L	35.80	2711.0	ppb	35.80	1.32%
Mo 202.031†	4849.2	479.61	µg/L	25.606	479.61	ppb	25.606	5.34%
Na 589.592 Radial†	23031.7	7074.0	µg/L	44.48	7074.0	ppb	44.48	0.63%

Ni 231.604†	10780.5	538.42 µg/L	15.516	538.42 ppb	15.516	2.88%
P 214.914†	511.8	885.09 µg/L	60.827	885.09 ppb	60.827	6.87%
Pb 220.353†	2303.5	559.38 µg/L	27.071	559.38 ppb	27.071	4.84%
S 181.975 Axial†	1325.4	5496.6 µg/L	199.73	5496.6 ppb	199.73	3.63%
Sb 206.836†	461.0	422.94 µg/L	15.448	422.94 ppb	15.448	3.65%
Se 196.026†	280.2	715.32 µg/L	9.530	715.32 ppb	9.530	1.33%
SiO2†	339302.1	66974 µg/L	744.3	66974 ppb	744.3	1.11%
Si 251.611†	408498.9	31055 µg/L	340.3	31055 ppb	340.3	1.10%
Sn 189.927†	1176.0	484.40 µg/L	25.516	484.40 ppb	25.516	5.27%
Sr 421.552†	64357.8	593.71 µg/L	4.174	593.71 ppb	4.174	0.70%
Ti 334.940†	1480944.9	3275.2 µg/L	53.35	3275.2 ppb	53.35	1.63%
Tl 190.801†	328.1	486.26 µg/L	15.701	486.26 ppb	15.701	3.23%
U 409.014†	3718.3	290.44 µg/L	6.900	290.44 ppb	6.900	2.38%
V 292.402†	57636.8	581.67 µg/L	18.057	581.67 ppb	18.057	3.10%
Zn 213.857†	39460.5	915.76 µg/L	22.791	915.76 ppb	22.791	2.49%

Sequence No.: 6
Sample ID: 1202032614|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 232
Date Collected: 2/20/2010 03:18:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032614|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58185.7	58185.7	103	%			03:19:21
1	Al 396.153Radial†	98909.7	96029.5	66793	µg/L	66793	ppb	03:19:21
1	Ca 317.933Radial†	21217.0	20389.4	17416	µg/L	17416	ppb	03:19:42
1	Fe 238.204 Radial†	15233.6	14774.5	116540	µg/L	116540	ppb	03:19:42
1	K 766.490 Radial†	19093.8	18374.2	12001	µg/L	12001	ppb	03:19:21
1	Mg 279.077 IEC†	1680.8	1619.2	14357	µg/L	14357	ppb	03:19:42
1	Na 589.592 Radial†	23285.5	22137.0	6799.2	µg/L	6799.2	ppb	03:19:21
1	Sr 421.552†	63652.3	61774.6	569.88	µg/L	569.88	ppb	03:19:21
1	Sc 361.383	1996633.2	1996633.2	101.71	%			03:20:48
1	Y 371.029	1467748.1	1467748.1	108.50	%			03:20:48
1	Ag 328.068†	64129.6	63454.8	481.11	µg/L	481.11	ppb	03:20:53
1	As 188.979†	293.9	289.4	523.59	µg/L	523.59	ppb	03:21:14
1	B 249.677†	12807.6	12208.4	437.70	µg/L	437.70	ppb	03:20:53
1	Ba 233.527†	40507.2	39844.3	957.57	µg/L	957.57	ppb	03:20:53
1	Be 313.107†	857085.2	845554.7	500.60	µg/L	500.60	ppb	03:20:48
1	Cd 226.502†	19955.3	19762.0	480.26	µg/L	480.26	ppb	03:20:53
1	Co 228.616†	11527.3	11331.9	506.82	µg/L	506.82	ppb	03:20:53
1	Cr 267.716†	29078.0	28640.3	575.60	µg/L	575.60	ppb	03:20:53
1	Cu 324.752†	84394.2	80433.9	541.23	µg/L	541.23	ppb	03:20:53
1	Mn 257.610†	903274.5	888369.1	2796.9	µg/L	2796.9	ppb	03:20:48
1	Mo 202.031†	5075.4	4995.5	493.62	µg/L	493.62	ppb	03:21:14
1	Ni 231.604†	11378.1	10874.8	543.01	µg/L	543.01	ppb	03:20:53
1	P 214.914†	548.2	523.6	913.47	µg/L	913.47	ppb	03:21:14
1	Pb 220.353†	2480.7	2348.2	570.25	µg/L	570.25	ppb	03:21:14
1	S 181.975 Axial†	1378.6	1336.5	5542.6	µg/L	5542.6	ppb	03:21:14
1	Sb 206.836†	517.1	485.9	446.03	µg/L	446.03	ppb	03:21:14
1	Se 196.026†	307.7	283.3	698.60	µg/L	698.60	ppb	03:21:14
1	SiO2†	345135.1	337950.5	66707	µg/L	66707	ppb	03:20:48
1	Si 251.611†	413911.0	406652.9	30915	µg/L	30915	ppb	03:20:48
1	Sn 189.927†	1233.5	1212.4	500.49	µg/L	500.49	ppb	03:21:14
1	Ti 334.940†	1501918.5	1476533.8	3265.6	µg/L	3265.6	ppb	03:20:48
1	Tl 190.801†	331.5	348.3	511.17	µg/L	511.17	ppb	03:21:14
1	U 409.014†	3759.5	3773.5	296.26	µg/L	296.26	ppb	03:20:48
1	V 292.402†	58802.1	57859.8	583.00	µg/L	583.00	ppb	03:20:53
1	Zn 213.857†	40049.7	38843.1	901.72	µg/L	901.72	ppb	03:20:53
2	Sc RADIAL	58313.1	58313.1	103	%			03:19:47
2	Al 396.153Radial†	99486.0	96377.9	67036	µg/L	67036	ppb	03:19:47
2	Ca 317.933Radial†	21245.4	20372.0	17401	µg/L	17401	ppb	03:20:08
2	Fe 238.204 Radial†	15278.1	14785.4	116620	µg/L	116620	ppb	03:20:08
2	K 766.490 Radial†	19186.7	18423.7	12033	µg/L	12033	ppb	03:19:47
2	Mg 279.077 IEC†	1681.5	1616.2	14331	µg/L	14331	ppb	03:20:08
2	Na 589.592 Radial†	23381.9	22180.9	6812.7	µg/L	6812.7	ppb	03:19:47
2	Sr 421.552†	63974.2	61951.5	571.51	µg/L	571.51	ppb	03:19:47
2	Sc 361.383	1999212.3	1999212.3	101.84	%			03:21:22
2	Y 371.029	1469469.3	1469469.3	108.63	%			03:21:22
2	Ag 328.068†	64639.4	63874.0	484.24	µg/L	484.24	ppb	03:21:28
2	As 188.979†	290.7	285.9	517.39	µg/L	517.39	ppb	03:21:48
2	B 249.677†	12926.6	12309.1	441.76	µg/L	441.76	ppb	03:21:28
2	Ba 233.527†	40846.4	40126.0	964.34	µg/L	964.34	ppb	03:21:28
2	Be 313.107†	860841.6	848156.2	502.14	µg/L	502.14	ppb	03:21:22
2	Cd 226.502†	20077.5	19856.7	482.61	µg/L	482.61	ppb	03:21:28
2	Co 228.616†	11627.2	11415.4	510.58	µg/L	510.58	ppb	03:21:28
2	Cr 267.716†	29331.3	28852.2	579.86	µg/L	579.86	ppb	03:21:28
2	Cu 324.752†	84920.7	80843.8	543.92	µg/L	543.92	ppb	03:21:28
2	Mn 257.610†	907945.9	891810.4	2807.7	µg/L	2807.7	ppb	03:21:22
2	Mo 202.031†	5038.2	4952.6	489.42	µg/L	489.42	ppb	03:21:48
2	Ni 231.604†	11496.1	10976.3	548.06	µg/L	548.06	ppb	03:21:28
2	P 214.914†	547.9	522.7	911.27	µg/L	911.27	ppb	03:21:48
2	Pb 220.353†	2478.8	2343.1	569.02	µg/L	569.02	ppb	03:21:48

2	S 181.975 Axial†	1375.7	1331.9	5523.3 µg/L	5523.3 ppb	03:21:48
2	Sb 206.836†	500.8	469.3	430.65 µg/L	430.65 ppb	03:21:48
2	Se 196.026†	302.3	277.5	690.79 µg/L	690.79 ppb	03:21:48
2	SiO2†	345879.4	338243.5	66765 µg/L	66765 ppb	03:21:22
2	Si 251.611†	415092.3	407287.9	30963 µg/L	30963 ppb	03:21:22
2	Sn 189.927†	1233.3	1210.6	499.72 µg/L	499.72 ppb	03:21:48
2	Ti 334.940†	1508738.3	1481325.5	3276.2 µg/L	3276.2 ppb	03:21:22
2	Tl 190.801†	322.4	339.0	499.25 µg/L	499.25 ppb	03:21:48
2	U 409.014†	3765.9	3775.0	296.37 µg/L	296.37 ppb	03:21:22
2	V 292.402†	59237.3	58212.6	586.42 µg/L	586.42 ppb	03:21:28
2	Zn 213.857†	40381.2	39117.8	908.14 µg/L	908.14 ppb	03:21:28
3	Sc RADIAL	57961.2	57961.2	103 %		03:20:13
3	Al 396.153Radial†	99337.5	96818.4	67343 µg/L	67343 ppb	03:20:13
3	Ca 317.933Radial†	21286.4	20536.9	17542 µg/L	17542 ppb	03:20:34
3	Fe 238.204 Radial†	15249.2	14847.0	117110 µg/L	117110 ppb	03:20:34
3	K 766.490 Radial†	19077.3	18430.0	12037 µg/L	12037 ppb	03:20:13
3	Mg 279.077 IEC†	1678.5	1623.3	14392 µg/L	14392 ppb	03:20:34
3	Na 589.592 Radial†	23346.9	22284.4	6844.5 µg/L	6844.5 ppb	03:20:13
3	Sr 421.552†	63842.4	62199.3	573.80 µg/L	573.80 ppb	03:20:13
3	Sc 361.383	1980531.4	1980531.4	100.89 %		03:21:56
3	Y 371.029	1452227.1	1452227.1	107.35 %		03:21:56
3	Ag 328.068†	62634.2	62485.2	473.79 µg/L	473.79 ppb	03:22:02
3	As 188.979†	264.4	262.5	475.52 µg/L	475.52 ppb	03:22:22
3	B 249.677†	12428.7	11935.3	426.22 µg/L	426.22 ppb	03:22:02
3	Ba 233.527†	38650.0	38327.3	921.10 µg/L	921.10 ppb	03:22:02
3	Be 313.107†	822760.4	818383.0	484.51 µg/L	484.51 ppb	03:21:56
3	Cd 226.502†	19151.8	19125.1	464.28 µg/L	464.28 ppb	03:22:02
3	Co 228.616†	10955.3	10857.0	485.51 µg/L	485.51 ppb	03:22:02
3	Cr 267.716†	27345.3	27155.3	545.76 µg/L	545.76 ppb	03:22:02
3	Cu 324.752†	80399.3	77148.7	519.86 µg/L	519.86 ppb	03:22:02
3	Mn 257.610†	871004.9	863603.6	2719.4 µg/L	2719.4 ppb	03:21:56
3	Mo 202.031†	4564.1	4529.4	447.99 µg/L	447.99 ppb	03:22:22
3	Ni 231.604†	10789.5	10382.3	518.49 µg/L	518.49 ppb	03:22:02
3	P 214.914†	486.6	467.0	802.58 µg/L	802.58 ppb	03:22:22
3	Pb 220.353†	2284.9	2173.9	527.82 µg/L	527.82 ppb	03:22:22
3	S 181.975 Axial†	1287.3	1257.1	5213.1 µg/L	5213.1 ppb	03:22:22
3	Sb 206.836†	476.7	450.0	412.69 µg/L	412.69 ppb	03:22:22
3	Se 196.026†	304.1	282.1	698.48 µg/L	698.48 ppb	03:22:22
3	SiO2†	333368.2	329045.8	64949 µg/L	64949 ppb	03:21:56
3	Si 251.611†	399813.9	395988.4	30104 µg/L	30104 ppb	03:21:56
3	Sn 189.927†	1109.8	1099.7	452.89 µg/L	452.89 ppb	03:22:22
3	Ti 334.940†	1439163.0	1426335.8	3154.5 µg/L	3154.5 ppb	03:21:56
3	Tl 190.801†	302.6	322.3	476.29 µg/L	476.29 ppb	03:22:22
3	U 409.014†	3584.9	3630.5	284.29 µg/L	284.29 ppb	03:21:56
3	V 292.402†	55671.1	55226.4	556.97 µg/L	556.97 ppb	03:22:02
3	Zn 213.857†	38243.0	37372.4	867.33 µg/L	867.33 ppb	03:22:02

Mean Data: 1202032614|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992125.6	101.48	%	0.516				0.51%
Sc RADIAL	58153.3	103	%	0.3				0.31%
Y 371.029	1463148.2	108.16	%	0.702				0.65%
Ag 328.068†	63271.3	479.72	µg/L	5.362	479.72	ppb	5.362	1.12%
Al 396.153Radial†	96408.6	67057	µg/L	275.5	67057	ppb	275.5	0.41%
As 188.979†	279.3	505.50	µg/L	26.147	505.50	ppb	26.147	5.17%
B 249.677†	12150.9	435.23	µg/L	8.061	435.23	ppb	8.061	1.85%
Ba 233.527†	39432.6	947.67	µg/L	23.255	947.67	ppb	23.255	2.45%
Be 313.107†	837364.6	495.75	µg/L	9.761	495.75	ppb	9.761	1.97%
Ca 317.933Radial†	20432.8	17453	µg/L	77.4	17453	ppb	77.4	0.44%
Cd 226.502†	19581.3	475.72	µg/L	9.973	475.72	ppb	9.973	2.10%
Co 228.616†	11201.4	500.97	µg/L	13.521	500.97	ppb	13.521	2.70%
Cr 267.716†	28215.9	567.07	µg/L	18.581	567.07	ppb	18.581	3.28%
Cu 324.752†	79475.5	535.00	µg/L	13.179	535.00	ppb	13.179	2.46%
Fe 238.204 Radial†	14802.3	116760	µg/L	308.2	116760	ppb	308.2	0.26%
K 766.490 Radial†	18409.3	12023	µg/L	19.9	12023	ppb	19.9	0.17%
Mg 279.077 IEC†	1619.6	14360	µg/L	30.9	14360	ppb	30.9	0.21%
Mn 257.610†	881261.0	2774.6	µg/L	48.15	2774.6	ppb	48.15	1.74%
Mo 202.031†	4825.8	477.01	µg/L	25.219	477.01	ppb	25.219	5.29%
Na 589.592 Radial†	22200.8	6818.8	µg/L	23.24	6818.8	ppb	23.24	0.34%

Ni 231.604†	10744.5	536.52 µg/L	15.817	536.52 ppb	15.817	2.95%
P 214.914†	504.4	875.77 µg/L	63.395	875.77 ppb	63.395	7.24%
Pb 220.353†	2288.4	555.70 µg/L	24.149	555.70 ppb	24.149	4.35%
S 181.975 Axial†	1308.5	5426.3 µg/L	184.89	5426.3 ppb	184.89	3.41%
Sb 206.836†	468.4	429.79 µg/L	16.690	429.79 ppb	16.690	3.88%
Se 196.026†	281.0	695.96 µg/L	4.475	695.96 ppb	4.475	0.64%
SiO2†	335079.9	66140 µg/L	1031.9	66140 ppb	1031.9	1.56%
Si 251.611†	403309.7	30660 µg/L	482.6	30660 ppb	482.6	1.57%
Sn 189.927†	1174.3	484.37 µg/L	27.260	484.37 ppb	27.260	5.63%
Sr 421.552†	61975.1	571.73 µg/L	1.968	571.73 ppb	1.968	0.34%
Ti 334.940†	1461398.4	3232.1 µg/L	67.38	3232.1 ppb	67.38	2.08%
Tl 190.801†	336.5	495.57 µg/L	17.727	495.57 ppb	17.727	3.58%
U 409.014†	3726.3	292.31 µg/L	6.944	292.31 ppb	6.944	2.38%
V 292.402†	57099.6	575.46 µg/L	16.108	575.46 ppb	16.108	2.80%
Zn 213.857†	38444.4	892.39 µg/L	21.943	892.39 ppb	21.943	2.46%

Sequence No.: 7
Sample ID: 1202032612|948764|5
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 233
Date Collected: 2/20/2010 03:22:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032612|948764|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56445.7	56445.7	99.9	%			03:23:04
1	Al 396.153Radial†	12554.7	12558.5	8736.3	µg/L	8736.3	ppb	03:23:04
1	Ca 317.933Radial†	3945.8	3738.1	3193.0	µg/L	3193.0	ppb	03:23:24
1	Fe 238.204 Radial†	3210.9	3197.1	25216	µg/L	25216	ppb	03:23:24
1	K 766.490 Radial†	2270.6	2107.6	1376.5	µg/L	1376.5	ppb	03:23:04
1	Mg 279.077 IEC†	210.7	198.1	1743.9	µg/L	1743.9	ppb	03:23:24
1	Na 589.592 Radial†	2210.7	1740.5	534.58	µg/L	534.58	ppb	03:23:04
1	Sr 421.552†	2732.8	2706.4	24.967	µg/L	24.967	ppb	03:23:04
1	Sc 361.383	2013598.9	2013598.9	102.57	%			03:24:27
1	Y 371.029	1403759.1	1403759.1	103.77	%			03:24:27
1	Ag 328.068†	-724.8	-305.0	-0.5647	µg/L	-0.5647	ppb	03:24:33
1	As 188.979†	1.3	1.7	4.3753	µg/L	4.3753	ppb	03:24:54
1	B 249.677†	505.4	108.6	-8.6760	µg/L	-8.6760	ppb	03:24:33
1	Ba 233.527†	4257.4	4167.7	100.08	µg/L	100.08	ppb	03:24:33
1	Be 313.107†	272.9	3121.8	1.6633	µg/L	1.6633	ppb	03:24:33
1	Cd 226.502†	-48.1	94.8	-0.4665	µg/L	-0.4665	ppb	03:24:54
1	Co 228.616†	209.4	202.2	8.1233	µg/L	8.1233	ppb	03:24:54
1	Cr 267.716†	1768.4	1774.5	35.651	µg/L	35.651	ppb	03:24:33
1	Cu 324.752†	3221.5	597.0	7.4021	µg/L	7.4021	ppb	03:24:33
1	Mn 257.610†	152646.6	149075.9	470.12	µg/L	470.12	ppb	03:24:27
1	Mo 202.031†	22.5	27.3	3.6325	µg/L	3.6325	ppb	03:24:54
1	Ni 231.604†	722.6	392.2	19.867	µg/L	19.867	ppb	03:24:54
1	P 214.914†	57.3	40.6	61.952	µg/L	61.952	ppb	03:24:54
1	Pb 220.353†	164.9	69.8	16.536	µg/L	16.536	ppb	03:24:54
1	S 181.975 Axial†	49.4	29.2	121.17	µg/L	121.17	ppb	03:24:54
1	Sb 206.836†	26.4	3.3	2.3654	µg/L	2.3654	ppb	03:24:54
1	Se 196.026†	-7.8	-26.9	28.617	µg/L	28.617	ppb	03:24:54
1	SiO2†	63320.8	60341.8	11911	µg/L	11911	ppb	03:24:33
1	Si 251.611†	74978.1	72787.8	5533.5	µg/L	5533.5	ppb	03:24:33
1	Sn 189.927†	4.0	3.5	-1.0231	µg/L	-1.0231	ppb	03:24:54
1	Ti 334.940†	230744.1	224784.5	497.18	µg/L	497.18	ppb	03:24:27
1	Tl 190.801†	-28.3	-5.2	3.3920	µg/L	3.3920	ppb	03:24:54
1	U 409.014†	-510.4	-420.5	-38.635	µg/L	-38.635	ppb	03:24:33
1	V 292.402†	1643.7	1647.3	19.087	µg/L	19.087	ppb	03:24:33
1	Zn 213.857†	4706.4	4054.0	93.722	µg/L	93.722	ppb	03:24:33
2	Sc RADIAL	57265.4	57265.4	101	%			03:23:30
2	Al 396.153Radial†	12559.5	12383.3	8614.5	µg/L	8614.5	ppb	03:23:30
2	Ca 317.933Radial†	3944.7	3680.4	3143.7	µg/L	3143.7	ppb	03:23:50
2	Fe 238.204 Radial†	3195.7	3136.2	24735	µg/L	24735	ppb	03:23:50
2	K 766.490 Radial†	2247.8	2052.6	1340.6	µg/L	1340.6	ppb	03:23:30
2	Mg 279.077 IEC†	205.9	190.3	1674.9	µg/L	1674.9	ppb	03:23:50
2	Na 589.592 Radial†	2206.1	1704.3	523.46	µg/L	523.46	ppb	03:23:30
2	Sr 421.552†	2736.4	2670.8	24.639	µg/L	24.639	ppb	03:23:30
2	Sc 361.383	2015162.2	2015162.2	102.65	%			03:25:00
2	Y 371.029	1404073.0	1404073.0	103.79	%			03:25:00
2	Ag 328.068†	-710.5	-290.6	-0.4867	µg/L	-0.4867	ppb	03:25:06
2	As 188.979†	2.9	3.3	7.1879	µg/L	7.1879	ppb	03:25:26
2	B 249.677†	497.2	100.2	-8.7658	µg/L	-8.7658	ppb	03:25:06
2	Ba 233.527†	4296.2	4202.3	100.92	µg/L	100.92	ppb	03:25:06
2	Be 313.107†	204.4	3054.8	1.6223	µg/L	1.6223	ppb	03:25:06
2	Cd 226.502†	-63.9	79.4	-0.7958	µg/L	-0.7958	ppb	03:25:26
2	Co 228.616†	212.6	205.2	8.2506	µg/L	8.2506	ppb	03:25:26
2	Cr 267.716†	1765.3	1770.0	35.562	µg/L	35.562	ppb	03:25:06
2	Cu 324.752†	3267.4	639.3	7.6114	µg/L	7.6114	ppb	03:25:06
2	Mn 257.610†	153923.5	150204.3	473.59	µg/L	473.59	ppb	03:25:00
2	Mo 202.031†	16.2	21.1	3.0100	µg/L	3.0100	ppb	03:25:26
2	Ni 231.604†	711.8	381.1	19.307	µg/L	19.307	ppb	03:25:26
2	P 214.914†	63.1	46.2	73.356	µg/L	73.356	ppb	03:25:26
2	Pb 220.353†	148.5	53.7	12.624	µg/L	12.624	ppb	03:25:26

2	S 181.975 Axial†	47.0	26.9	111.52 µg/L	111.52 ppb	03:25:26
2	Sb 206.836†	24.9	1.7	0.9437 µg/L	0.9437 ppb	03:25:26
2	Se 196.026†	3.7	-15.7	43.164 µg/L	43.164 ppb	03:25:26
2	SiO2†	63514.0	60482.2	11938 µg/L	11938 ppb	03:25:06
2	Si 251.611†	75139.6	72888.4	5541.1 µg/L	5541.1 ppb	03:25:06
2	Sn 189.927†	4.2	3.7	-0.8737 µg/L	-0.8737 ppb	03:25:26
2	Ti 334.940†	232557.9	226377.0	500.71 µg/L	500.71 ppb	03:25:00
2	Tl 190.801†	-25.5	-2.5	6.8652 µg/L	6.8652 ppb	03:25:26
2	U 409.014†	-539.7	-448.7	-40.910 µg/L	-40.910 ppb	03:25:06
2	V 292.402†	1670.7	1672.3	19.267 µg/L	19.267 ppb	03:25:06
2	Zn 213.857†	4738.6	4081.9	94.405 µg/L	94.405 ppb	03:25:06
3	Sc RADIAL	56550.3	56550.3	100 %		03:23:56
3	Al 396.153Radial†	12466.8	12447.4	8659.0 µg/L	8659.0 ppb	03:23:56
3	Ca 317.933Radial†	3930.8	3715.8	3173.9 µg/L	3173.9 ppb	03:24:16
3	Fe 238.204 Radial†	3188.9	3169.3	24996 µg/L	24996 ppb	03:24:16
3	K 766.490 Radial†	2259.4	2092.3	1366.5 µg/L	1366.5 ppb	03:23:56
3	Mg 279.077 IEC†	210.9	197.9	1742.4 µg/L	1742.4 ppb	03:24:16
3	Na 589.592 Radial†	2176.6	1702.3	522.84 µg/L	522.84 ppb	03:23:56
3	Sr 421.552†	2713.2	2681.8	24.740 µg/L	24.740 ppb	03:23:56
3	Sc 361.383	2005681.0	2005681.0	102.17 %		03:25:33
3	Y 371.029	1395392.0	1395392.0	103.15 %		03:25:33
3	Ag 328.068†	-726.0	-309.0	-0.6186 µg/L	-0.6186 ppb	03:25:39
3	As 188.979†	-1.4	-0.9	-0.3230 µg/L	-0.3230 ppb	03:25:59
3	B 249.677†	452.0	58.3	-10.618 µg/L	-10.618 ppb	03:25:39
3	Ba 233.527†	3849.1	3784.5	90.882 µg/L	90.882 ppb	03:25:39
3	Be 313.107†	-21.6	2834.6	1.5070 µg/L	1.5070 ppb	03:25:39
3	Cd 226.502†	-66.5	76.6	-0.8972 µg/L	-0.8972 ppb	03:25:59
3	Co 228.616†	169.6	164.1	6.4717 µg/L	6.4717 ppb	03:25:59
3	Cr 267.716†	1532.5	1550.4	31.149 µg/L	31.149 ppb	03:25:39
3	Cu 324.752†	3130.4	520.2	6.8700 µg/L	6.8700 ppb	03:25:39
3	Mn 257.610†	142310.8	139547.0	440.25 µg/L	440.25 ppb	03:25:33
3	Mo 202.031†	16.3	21.3	3.0353 µg/L	3.0353 ppb	03:25:59
3	Ni 231.604†	655.4	329.2	16.725 µg/L	16.725 ppb	03:25:59
3	P 214.914†	58.5	42.0	64.894 µg/L	64.894 ppb	03:25:59
3	Pb 220.353†	145.8	51.8	12.152 µg/L	12.152 ppb	03:25:59
3	S 181.975 Axial†	39.7	19.9	82.546 µg/L	82.546 ppb	03:25:59
3	Sb 206.836†	20.4	-2.6	-2.9577 µg/L	-2.9577 ppb	03:25:59
3	Se 196.026†	3.2	-16.2	43.144 µg/L	43.144 ppb	03:25:59
3	SiO2†	58016.4	55393.7	10934 µg/L	10934 ppb	03:25:39
3	Si 251.611†	68547.3	66782.1	5076.9 µg/L	5076.9 ppb	03:25:39
3	Sn 189.927†	-1.5	-1.9	-3.2638 µg/L	-3.2638 ppb	03:25:59
3	Ti 334.940†	212677.1	207989.0	460.03 µg/L	460.03 ppb	03:25:33
3	Tl 190.801†	-29.8	-6.8	0.8573 µg/L	0.8573 ppb	03:25:59
3	U 409.014†	-561.2	-472.2	-42.899 µg/L	-42.899 ppb	03:25:39
3	V 292.402†	1475.5	1488.9	17.499 µg/L	17.499 ppb	03:25:39
3	Zn 213.857†	4245.0	3620.5	83.576 µg/L	83.576 ppb	03:25:39

Mean Data: 1202032612|948764|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2011480.7	102.46	%	0.259				0.25%
Sc RADIAL	56753.8	100	%	0.8				0.79%
Y 371.029	1401074.7	103.57	%	0.364				0.35%
Ag 328.068†	-301.5	-0.5566	µg/L	0.06632	-0.5566	ppb	0.06632	11.91%
Al 396.153Radial†	12463.1	8669.9	µg/L	61.64	8669.9	ppb	61.64	0.71%
As 188.979†	1.4	3.7467	µg/L	3.79468	3.7467	ppb	3.79468	101.28%
B 249.677†	89.0	-9.3534	µg/L	1.09649	-9.3534	ppb	1.09649	11.72%
Ba 233.527†	4051.5	97.294	µg/L	5.5685	97.294	ppb	5.5685	5.72%
Be 313.107†	3003.7	1.5975	µg/L	0.08102	1.5975	ppb	0.08102	5.07%
Ca 317.933Radial†	3711.4	3170.2	µg/L	24.83	3170.2	ppb	24.83	0.78%
Cd 226.502†	83.6	-0.7199	µg/L	0.22518	-0.7199	ppb	0.22518	31.28%
Co 228.616†	190.5	7.6152	µg/L	0.99235	7.6152	ppb	0.99235	13.03%
Cr 267.716†	1698.3	34.121	µg/L	2.5739	34.121	ppb	2.5739	7.54%
Cu 324.752†	585.5	7.2945	µg/L	0.38222	7.2945	ppb	0.38222	5.24%
Fe 238.204 Radial†	3167.5	24982	µg/L	240.6	24982	ppb	240.6	0.96%
K 766.490 Radial†	2084.1	1361.2	µg/L	18.55	1361.2	ppb	18.55	1.36%
Mg 279.077 IEC†	195.5	1720.4	µg/L	39.40	1720.4	ppb	39.40	2.29%
Mn 257.610†	146275.7	461.32	µg/L	18.330	461.32	ppb	18.330	3.97%
Mo 202.031†	23.2	3.2259	µg/L	0.35230	3.2259	ppb	0.35230	10.92%
Na 589.592 Radial†	1715.7	526.96	µg/L	6.608	526.96	ppb	6.608	1.25%

Ni 231.604†	367.5	18.633 µg/L	1.6761	18.633 ppb	1.6761	9.00%
P 214.914†	42.9	66.734 µg/L	5.9209	66.734 ppb	5.9209	8.87%
Pb 220.353†	58.4	13.771 µg/L	2.4067	13.771 ppb	2.4067	17.48%
S 181.975 Axial†	25.3	105.08 µg/L	20.100	105.08 ppb	20.100	19.13%
Sb 206.836†	0.8	0.1171 µg/L	2.75613	0.1171 ppb	2.75613	>999.9%
Se 196.026†	-19.6	38.308 µg/L	8.3932	38.308 ppb	8.3932	21.91%
SiO2†	58739.2	11594 µg/L	572.1	11594 ppb	572.1	4.93%
Si 251.611†	70819.4	5383.8 µg/L	265.84	5383.8 ppb	265.84	4.94%
Sn 189.927†	1.8	-1.7202 µg/L	1.33889	-1.7202 ppb	1.33889	77.83%
Sr 421.552†	2686.3	24.782 µg/L	0.1679	24.782 ppb	0.1679	0.68%
Ti 334.940†	219716.8	485.97 µg/L	22.539	485.97 ppb	22.539	4.64%
Tl 190.801†	-4.8	3.7048 µg/L	3.01614	3.7048 ppb	3.01614	81.41%
U 409.014†	-447.1	-40.815 µg/L	2.1335	-40.815 ppb	2.1335	5.23%
V 292.402†	1602.8	18.618 µg/L	0.9731	18.618 ppb	0.9731	5.23%
Zn 213.857†	3918.8	90.568 µg/L	6.0642	90.568 ppb	6.0642	6.70%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 03:26:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57212.4	57212.4	101	%			03:26:48
1	Al 396.153Radial†	7221.7	7123.9	4945.0	µg/L	4945.0	ppb	03:26:48
1	Ca 317.933Radial†	6039.9	5752.9	4914.0	µg/L	4914.0	ppb	03:27:08
1	Fe 238.204 Radial†	657.7	632.9	5002.2	µg/L	5002.2	ppb	03:27:08
1	K 766.490 Radial†	7773.6	7511.3	4905.7	µg/L	4905.7	ppb	03:26:48
1	Mg 279.077 IEC†	576.7	556.7	4979.8	µg/L	4979.8	ppb	03:27:08
1	Na 589.592 Radial†	33112.9	32225.8	9897.9	µg/L	9897.9	ppb	03:26:48
1	Sr 421.552†	53038.4	52345.0	482.89	µg/L	482.89	ppb	03:26:48
1	Sc 361.383	1993765.6	1993765.6	101.56	%			03:28:12
1	Y 371.029	1370868.6	1370868.6	101.34	%			03:28:12
1	Ag 328.068†	67894.2	67252.3	501.83	µg/L	501.83	ppb	03:28:17
1	As 188.979†	294.5	290.4	519.53	µg/L	519.53	ppb	03:28:38
1	B 249.677†	12704.9	12125.5	492.42	µg/L	492.42	ppb	03:28:17
1	Ba 233.527†	21371.5	21060.1	506.50	µg/L	506.50	ppb	03:28:17
1	Be 313.107†	858170.6	847835.6	503.00	µg/L	503.00	ppb	03:28:12
1	Cd 226.502†	20638.2	20462.7	510.31	µg/L	510.31	ppb	03:28:17
1	Co 228.616†	11463.8	11285.7	510.52	µg/L	510.52	ppb	03:28:17
1	Cr 267.716†	25860.6	25513.5	512.76	µg/L	512.76	ppb	03:28:17
1	Cu 324.752†	80857.6	77071.1	503.77	µg/L	503.77	ppb	03:28:17
1	Mn 257.610†	165802.5	163510.0	512.50	µg/L	512.50	ppb	03:28:12
1	Mo 202.031†	5403.2	5325.5	521.70	µg/L	521.70	ppb	03:28:38
1	Ni 231.604†	10742.0	10264.6	511.14	µg/L	511.14	ppb	03:28:17
1	P 214.914†	1331.2	1295.4	2516.7	µg/L	2516.7	ppb	03:28:38
1	Pb 220.353†	2234.6	2109.3	512.96	µg/L	512.96	ppb	03:28:38
1	S 181.975 Axial†	268.2	245.1	1016.5	µg/L	1016.5	ppb	03:28:38
1	Sb 206.836†	589.8	558.2	514.73	µg/L	514.73	ppb	03:28:38
1	Se 196.026†	384.8	359.5	512.76	µg/L	512.76	ppb	03:28:38
1	SiO2†	29369.4	27526.4	5433.4	µg/L	5433.4	ppb	03:28:17
1	Si 251.611†	34262.4	33425.1	2541.0	µg/L	2541.0	ppb	03:28:17
1	Sn 189.927†	1265.3	1245.4	525.25	µg/L	525.25	ppb	03:28:38
1	Ti 334.940†	231373.3	227641.8	503.28	µg/L	503.28	ppb	03:28:12
1	Tl 190.801†	368.3	385.0	506.09	µg/L	506.09	ppb	03:28:38
1	U 409.014†	6173.2	6155.4	510.42	µg/L	510.42	ppb	03:28:17
1	V 292.402†	52648.4	51883.9	511.94	µg/L	511.94	ppb	03:28:17
1	Zn 213.857†	22714.9	21831.3	508.61	µg/L	508.61	ppb	03:28:17
2	Sc RADIAL	56871.2	56871.2	101	%			03:27:14
2	Al 396.153Radial†	7239.9	7184.7	4987.7	µg/L	4987.7	ppb	03:27:14
2	Ca 317.933Radial†	6035.7	5784.6	4941.1	µg/L	4941.1	ppb	03:27:34
2	Fe 238.204 Radial†	663.2	642.2	5076.0	µg/L	5076.0	ppb	03:27:34
2	K 766.490 Radial†	7823.4	7606.8	4968.1	µg/L	4968.1	ppb	03:27:14
2	Mg 279.077 IEC†	581.9	565.2	5055.8	µg/L	5055.8	ppb	03:27:34
2	Na 589.592 Radial†	33213.9	32522.4	9989.0	µg/L	9989.0	ppb	03:27:14
2	Sr 421.552†	53190.1	52810.0	487.18	µg/L	487.18	ppb	03:27:14
2	Sc 361.383	1999572.7	1999572.7	101.86	%			03:28:45
2	Y 371.029	1373816.0	1373816.0	101.56	%			03:28:45
2	Ag 328.068†	68063.4	67224.2	501.62	µg/L	501.62	ppb	03:28:51
2	As 188.979†	288.8	284.0	508.01	µg/L	508.01	ppb	03:29:11
2	B 249.677†	12733.1	12116.8	492.02	µg/L	492.02	ppb	03:28:51
2	Ba 233.527†	21363.0	20990.6	504.84	µg/L	504.84	ppb	03:28:51
2	Be 313.107†	853526.9	840822.5	498.84	µg/L	498.84	ppb	03:28:45
2	Cd 226.502†	20623.9	20389.6	508.47	µg/L	508.47	ppb	03:28:51
2	Co 228.616†	11432.5	11222.2	507.64	µg/L	507.64	ppb	03:28:51
2	Cr 267.716†	25860.5	25439.4	511.28	µg/L	511.28	ppb	03:28:51
2	Cu 324.752†	80870.5	76852.5	502.36	µg/L	502.36	ppb	03:28:51
2	Mn 257.610†	165122.7	162368.4	508.93	µg/L	508.93	ppb	03:28:45
2	Mo 202.031†	5264.3	5173.7	506.83	µg/L	506.83	ppb	03:29:11
2	Ni 231.604†	10725.6	10217.7	508.81	µg/L	508.81	ppb	03:28:51
2	P 214.914†	1324.3	1284.9	2495.8	µg/L	2495.8	ppb	03:29:11
2	Pb 220.353†	2219.0	2087.7	507.64	µg/L	507.64	ppb	03:29:11

2	S 181.975 Axial†	264.5	240.7	998.16 µg/L	998.16 ppb	03:29:11
2	Sb 206.836†	577.8	544.8	502.20 µg/L	502.20 ppb	03:29:11
2	Se 196.026†	382.7	356.5	508.58 µg/L	508.58 ppb	03:29:11
2	SiO2†	29379.5	27452.4	5418.7 µg/L	5418.7 ppb	03:28:51
2	Si 251.611†	34314.2	33378.0	2537.5 µg/L	2537.5 ppb	03:28:51
2	Sn 189.927†	1240.0	1217.0	513.28 µg/L	513.28 ppb	03:29:11
2	Ti 334.940†	230411.4	226035.9	499.72 µg/L	499.72 ppb	03:28:45
2	Tl 190.801†	372.8	388.4	510.44 µg/L	510.44 ppb	03:29:11
2	U 409.014†	6254.7	6217.7	515.59 µg/L	515.59 ppb	03:28:51
2	V 292.402†	52664.6	51749.3	510.53 µg/L	510.53 ppb	03:28:51
2	Zn 213.857†	22716.4	21767.8	507.12 µg/L	507.12 ppb	03:28:51
3	Sc RADIAL	56633.2	56633.2	100 %		03:27:40
3	Al 396.153Radial†	7184.6	7159.8	4972.3 µg/L	4972.3 ppb	03:27:40
3	Ca 317.933Radial†	6039.8	5813.9	4966.1 µg/L	4966.1 ppb	03:28:00
3	Fe 238.204 Radial†	658.2	640.0	5057.1 µg/L	5057.1 ppb	03:28:00
3	K 766.490 Radial†	7744.9	7561.1	4938.3 µg/L	4938.3 ppb	03:27:40
3	Mg 279.077 IEC†	579.6	565.4	5055.2 µg/L	5055.2 ppb	03:28:00
3	Na 589.592 Radial†	32940.6	32388.4	9947.9 µg/L	9947.9 ppb	03:27:40
3	Sr 421.552†	52798.4	52641.3	485.62 µg/L	485.62 ppb	03:27:40
3	Sc 361.383	1995369.2	1995369.2	101.64 %		03:29:18
3	Y 371.029	1372396.7	1372396.7	101.45 %		03:29:18
3	Ag 328.068†	62762.1	62149.3	463.57 µg/L	463.57 ppb	03:29:24
3	As 188.979†	237.8	234.4	419.40 µg/L	419.40 ppb	03:29:44
3	B 249.677†	11637.0	11064.8	449.03 µg/L	449.03 ppb	03:29:24
3	Ba 233.527†	18864.8	18577.0	446.77 µg/L	446.77 ppb	03:29:24
3	Be 313.107†	780539.5	770780.0	457.29 µg/L	457.29 ppb	03:29:18
3	Cd 226.502†	18108.9	17957.9	447.76 µg/L	447.76 ppb	03:29:24
3	Co 228.616†	9930.0	9767.6	441.78 µg/L	441.78 ppb	03:29:24
3	Cr 267.716†	21775.0	21473.5	431.57 µg/L	431.57 ppb	03:29:24
3	Cu 324.752†	71176.3	67482.2	441.19 µg/L	441.19 ppb	03:29:24
3	Mn 257.610†	151372.1	149181.6	467.63 µg/L	467.63 ppb	03:29:18
3	Mo 202.031†	4263.6	4200.0	411.48 µg/L	411.48 ppb	03:29:44
3	Ni 231.604†	9362.5	8898.8	443.14 µg/L	443.14 ppb	03:29:24
3	P 214.914†	1081.8	1048.9	2033.5 µg/L	2033.5 ppb	03:29:44
3	Pb 220.353†	1856.2	1735.3	421.89 µg/L	421.89 ppb	03:29:44
3	S 181.975 Axial†	226.1	203.5	843.90 µg/L	843.90 ppb	03:29:44
3	Sb 206.836†	481.4	451.1	415.55 µg/L	415.55 ppb	03:29:44
3	Se 196.026†	325.5	300.9	430.53 µg/L	430.53 ppb	03:29:44
3	SiO2†	26607.2	24785.6	4892.3 µg/L	4892.3 ppb	03:29:24
3	Si 251.611†	30917.4	30107.1	2288.8 µg/L	2288.8 ppb	03:29:24
3	Sn 189.927†	968.6	952.6	401.75 µg/L	401.75 ppb	03:29:44
3	Ti 334.940†	209100.9	205546.4	454.39 µg/L	454.39 ppb	03:29:18
3	Tl 190.801†	325.7	342.9	450.90 µg/L	450.90 ppb	03:29:44
3	U 409.014†	5326.0	5317.0	440.75 µg/L	440.75 ppb	03:29:24
3	V 292.402†	45458.5	44768.6	441.50 µg/L	441.50 ppb	03:29:24
3	Zn 213.857†	19829.7	18974.8	441.98 µg/L	441.98 ppb	03:29:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1996235.8	101.69	%	0.153				0.15%
Sc RADIAL	56905.6	101	%	0.5				0.51%
Y 371.029	1372360.4	101.45	%	0.109				0.11%
Ag 328.068†	65541.9	489.01	µg/L	22.025	489.01	ppb	22.025	4.50%
QC value within limits for Ag 328.068 Recovery = 97.80%								
Al 396.153Radial†	7156.1	4968.3	µg/L	21.59	4968.3	ppb	21.59	0.43%
QC value within limits for Al 396.153Radial Recovery = 99.37%								
As 188.979†	269.6	482.31	µg/L	54.785	482.31	ppb	54.785	11.36%
QC value within limits for As 188.979 Recovery = 96.46%								
B 249.677†	11769.0	477.82	µg/L	24.940	477.82	ppb	24.940	5.22%
QC value within limits for B 249.677 Recovery = 95.56%								
Ba 233.527†	20209.2	486.04	µg/L	34.017	486.04	ppb	34.017	7.00%
QC value within limits for Ba 233.527 Recovery = 97.21%								
Be 313.107†	819812.7	486.38	µg/L	25.278	486.38	ppb	25.278	5.20%
QC value within limits for Be 313.107 Recovery = 97.28%								
Ca 317.933Radial†	5783.8	4940.4	µg/L	26.03	4940.4	ppb	26.03	0.53%
QC value within limits for Ca 317.933Radial Recovery = 98.81%								
Cd 226.502†	19603.4	488.85	µg/L	35.593	488.85	ppb	35.593	7.28%
QC value within limits for Cd 226.502 Recovery = 97.77%								
Co 228.616†	10758.5	486.65	µg/L	38.886	486.65	ppb	38.886	7.99%

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   QC value within limits for Co 228.616  Recovery = 97.33%
Cr 267.716†            24142.1      485.20 µg/L        46.451      485.20 ppb        46.451   9.57%
   QC value within limits for Cr 267.716  Recovery = 97.04%
Cu 324.752†            73801.9      482.44 µg/L        35.731      482.44 ppb        35.731   7.41%
   QC value within limits for Cu 324.752  Recovery = 96.49%
Fe 238.204 Radial†       638.4      5045.1 µg/L         38.32      5045.1 ppb         38.32   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.90%
K 766.490 Radial†       7559.7      4937.4 µg/L         31.20      4937.4 ppb         31.20   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 98.75%
Mg 279.077 IEC†          562.4      5030.3 µg/L         43.71      5030.3 ppb         43.71   0.87%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.61%
Mn 257.610†           158353.4      496.36 µg/L        24.937      496.36 ppb        24.937   5.02%
   QC value within limits for Mn 257.610  Recovery = 99.27%
Mo 202.031†             4899.7      480.00 µg/L        59.804      480.00 ppb        59.804  12.46%
   QC value within limits for Mo 202.031  Recovery = 96.00%
Na 589.592 Radial†     32378.9      9945.0 µg/L         45.62      9945.0 ppb         45.62   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 99.45%
Ni 231.604†             9793.7      487.70 µg/L        38.604      487.70 ppb        38.604   7.92%
   QC value within limits for Ni 231.604  Recovery = 97.54%
P 214.914†              1209.7      2348.7 µg/L        273.13      2348.7 ppb        273.13  11.63%
   QC value within limits for P 214.914  Recovery = 93.95%
Pb 220.353†             1977.4      480.83 µg/L        51.115      480.83 ppb        51.115  10.63%
   QC value within limits for Pb 220.353  Recovery = 96.17%
S 181.975 Axial†         229.8      952.84 µg/L        94.793      952.84 ppb        94.793   9.95%
   QC value within limits for S 181.975 Axial  Recovery = 95.28%
Sb 206.836†              518.0      477.49 µg/L        54.007      477.49 ppb        54.007  11.31%
   QC value within limits for Sb 206.836  Recovery = 95.50%
Se 196.026†              339.0      483.96 µg/L        46.317      483.96 ppb        46.317   9.57%
   QC value within limits for Se 196.026  Recovery = 96.79%
SiO2†                  26588.1      5248.2 µg/L        308.22      5248.2 ppb        308.22   5.87%
   QC value within limits for SiO2  Recovery = 98.14%
Si 251.611†            32303.4      2455.8 µg/L        144.61      2455.8 ppb        144.61   5.89%
   QC value within limits for Si 251.611  Recovery = 98.23%
Sn 189.927†             1138.4      480.09 µg/L        68.112      480.09 ppb        68.112  14.19%
   QC value within limits for Sn 189.927  Recovery = 96.02%
Sr 421.552†            52598.8      485.23 µg/L         2.171      485.23 ppb         2.171   0.45%
   QC value within limits for Sr 421.552  Recovery = 97.05%
Ti 334.940†           219741.4      485.80 µg/L        27.255      485.80 ppb        27.255   5.61%
   QC value within limits for Ti 334.940  Recovery = 97.16%
Tl 190.801†              372.1      489.14 µg/L        33.189      489.14 ppb        33.189   6.79%
   QC value within limits for Tl 190.801  Recovery = 97.83%
U 409.014†              5896.7      488.92 µg/L        41.795      488.92 ppb        41.795   8.55%
   QC value within limits for U 409.014  Recovery = 97.78%
V 292.402†             49467.3      487.99 µg/L        40.268      487.99 ppb        40.268   8.25%
   QC value within limits for V 292.402  Recovery = 97.60%
Zn 213.857†            20858.0      485.90 µg/L        38.044      485.90 ppb        38.044   7.83%
   QC value within limits for Zn 213.857  Recovery = 97.18%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 03:29:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56695.0	56695.0	100	%			03:30:26
1	Al 396.153Radial†	1.6	-5.8	-4.0734	µg/L	-4.0734	ppb	03:30:26
1	Ca 317.933Radial†	197.4	-14.5	-12.410	µg/L	-12.410	ppb	03:30:46
1	Fe 238.204 Radial†	19.7	3.1	24.221	µg/L	24.221	ppb	03:30:46
1	K 766.490 Radial†	142.7	-22.8	-14.871	µg/L	-14.871	ppb	03:30:26
1	Mg 279.077 IEC†	10.8	-2.1	-18.332	µg/L	-18.332	ppb	03:30:46
1	Na 589.592 Radial†	435.4	-38.3	-11.758	µg/L	-11.758	ppb	03:30:26
1	Sr 421.552†	60.5	31.5	0.2906	µg/L	0.2906	ppb	03:30:26
1	Sc 361.383	2006882.6	2006882.6	102.23	%			03:31:48
1	Y 371.029	1386009.6	1386009.6	102.46	%			03:31:48
1	Ag 328.068†	-395.2	15.0	0.1118	µg/L	0.1118	ppb	03:31:54
1	As 188.979†	2.1	2.5	4.4637	µg/L	4.4637	ppb	03:32:14
1	B 249.677†	396.3	3.5	0.1302	µg/L	0.1302	ppb	03:31:54
1	Ba 233.527†	-11.0	6.3	0.1505	µg/L	0.1505	ppb	03:32:14
1	Be 313.107†	-2589.8	322.4	0.1912	µg/L	0.1912	ppb	03:31:54
1	Cd 226.502†	-144.9	-0.0	-0.0041	µg/L	-0.0041	ppb	03:32:14
1	Co 228.616†	4.0	2.0	0.0920	µg/L	0.0920	ppb	03:32:14
1	Cr 267.716†	-36.6	14.6	0.2923	µg/L	0.2923	ppb	03:31:54
1	Cu 324.752†	2522.6	-76.2	-0.4938	µg/L	-0.4938	ppb	03:31:54
1	Mn 257.610†	-176.4	83.5	0.2654	µg/L	0.2654	ppb	03:32:14
1	Mo 202.031†	8.6	13.8	1.3521	µg/L	1.3521	ppb	03:32:14
1	Ni 231.604†	312.5	-6.7	-0.3335	µg/L	-0.3335	ppb	03:32:14
1	P 214.914†	10.1	-5.4	-10.701	µg/L	-10.701	ppb	03:32:14
1	Pb 220.353†	78.0	-14.6	-3.5690	µg/L	-3.5690	ppb	03:32:14
1	S 181.975 Axial†	15.8	-3.5	-14.406	µg/L	-14.406	ppb	03:32:14
1	Sb 206.836†	16.9	-5.9	-5.4181	µg/L	-5.4181	ppb	03:32:14
1	Se 196.026†	15.6	-4.0	-5.5583	µg/L	-5.5583	ppb	03:32:14
1	SiO2†	1460.5	37.1	7.3190	µg/L	7.3190	ppb	03:31:54
1	Si 251.611†	391.4	72.2	5.4895	µg/L	5.4895	ppb	03:32:14
1	Sn 189.927†	2.0	1.6	0.6628	µg/L	0.6628	ppb	03:32:14
1	Ti 334.940†	266.4	85.6	0.1905	µg/L	0.1905	ppb	03:31:54
1	Tl 190.801†	-25.4	-2.5	-3.1841	µg/L	-3.1841	ppb	03:32:14
1	U 409.014†	57.5	133.3	11.074	µg/L	11.074	ppb	03:31:54
1	V 292.402†	-58.5	-12.5	-0.0959	µg/L	-0.0959	ppb	03:31:54
1	Zn 213.857†	534.9	-11.1	-0.2594	µg/L	-0.2594	ppb	03:32:14
2	Sc RADIAL	57182.6	57182.6	101	%			03:30:52
2	Al 396.153Radial†	7.2	-0.3	-0.1987	µg/L	-0.1987	ppb	03:30:52
2	Ca 317.933Radial†	203.6	-10.1	-8.6346	µg/L	-8.6346	ppb	03:31:12
2	Fe 238.204 Radial†	16.9	0.1	0.7221	µg/L	0.7221	ppb	03:31:12
2	K 766.490 Radial†	233.7	65.9	43.029	µg/L	43.029	ppb	03:30:52
2	Mg 279.077 IEC†	7.9	-5.0	-44.666	µg/L	-44.666	ppb	03:31:12
2	Na 589.592 Radial†	448.7	-28.9	-8.8827	µg/L	-8.8827	ppb	03:30:52
2	Sr 421.552†	21.0	-8.0	-0.0741	µg/L	-0.0741	ppb	03:30:52
2	Sc 361.383	2021110.7	2021110.7	102.95	%			03:32:21
2	Y 371.029	1395982.9	1395982.9	103.20	%			03:32:21
2	Ag 328.068†	-384.4	28.3	0.2109	µg/L	0.2109	ppb	03:32:26
2	As 188.979†	-3.3	-2.8	-4.9386	µg/L	-4.9386	ppb	03:32:47
2	B 249.677†	352.5	-41.7	-1.7012	µg/L	-1.7012	ppb	03:32:26
2	Ba 233.527†	-10.3	7.1	0.1709	µg/L	0.1709	ppb	03:32:47
2	Be 313.107†	-2633.9	297.4	0.1763	µg/L	0.1763	ppb	03:32:26
2	Cd 226.502†	-139.1	6.5	0.1628	µg/L	0.1628	ppb	03:32:47
2	Co 228.616†	10.2	8.0	0.3594	µg/L	0.3594	ppb	03:32:47
2	Cr 267.716†	-42.0	9.6	0.1935	µg/L	0.1935	ppb	03:32:26
2	Cu 324.752†	2554.9	-62.2	-0.4056	µg/L	-0.4056	ppb	03:32:26
2	Mn 257.610†	-152.5	107.8	0.3396	µg/L	0.3396	ppb	03:32:47
2	Mo 202.031†	-2.4	3.0	0.2950	µg/L	0.2950	ppb	03:32:47
2	Ni 231.604†	319.3	-2.2	-0.1083	µg/L	-0.1083	ppb	03:32:47
2	P 214.914†	13.4	-2.3	-4.5724	µg/L	-4.5724	ppb	03:32:47
2	Pb 220.353†	94.8	1.2	0.2888	µg/L	0.2888	ppb	03:32:47

2	S 181.975 Axial†	18.1	-1.4	-5.5998 µg/L	-5.5998 ppb	03:32:47
2	Sb 206.836†	23.2	0.1	0.0647 µg/L	0.0647 ppb	03:32:47
2	Se 196.026†	24.7	4.7	6.5863 µg/L	6.5863 ppb	03:32:47
2	SiO2†	1505.1	70.4	13.886 µg/L	13.886 ppb	03:32:26
2	Si 251.611†	417.6	94.9	7.2178 µg/L	7.2178 ppb	03:32:47
2	Sn 189.927†	-1.5	-1.8	-0.7598 µg/L	-0.7598 ppb	03:32:47
2	Ti 334.940†	414.1	227.2	0.5060 µg/L	0.5060 ppb	03:32:26
2	Tl 190.801†	-23.3	-0.2	-0.2608 µg/L	-0.2608 ppb	03:32:47
2	U 409.014†	-64.5	14.4	1.2004 µg/L	1.2004 ppb	03:32:26
2	V 292.402†	-20.8	24.5	0.2433 µg/L	0.2433 ppb	03:32:26
2	Zn 213.857†	539.6	-10.3	-0.2380 µg/L	-0.2380 ppb	03:32:47
3	Sc RADIAL	56943.0	56943.0	101 %		03:31:18
3	Al 396.153Radial†	-25.3	-32.5	-22.602 µg/L	-22.602 ppb	03:31:18
3	Ca 317.933Radial†	204.8	-8.1	-6.8895 µg/L	-6.8895 ppb	03:31:38
3	Fe 238.204 Radial†	14.5	-2.2	-17.407 µg/L	-17.407 ppb	03:31:38
3	K 766.490 Radial†	204.3	37.7	24.623 µg/L	24.623 ppb	03:31:18
3	Mg 279.077 IEC†	7.7	-5.2	-46.333 µg/L	-46.333 ppb	03:31:38
3	Na 589.592 Radial†	373.5	-101.7	-31.221 µg/L	-31.221 ppb	03:31:18
3	Sr 421.552†	7.3	-21.5	-0.1986 µg/L	-0.1986 ppb	03:31:18
3	Sc 361.383	2010796.9	2010796.9	102.43 %		03:32:53
3	Y 371.029	1388039.3	1388039.3	102.61 %		03:32:53
3	Ag 328.068†	-449.1	-36.8	-0.2718 µg/L	-0.2718 ppb	03:32:58
3	As 188.979†	0.2	0.6	1.1509 µg/L	1.1509 ppb	03:33:19
3	B 249.677†	382.5	-10.7	-0.4284 µg/L	-0.4284 ppb	03:32:58
3	Ba 233.527†	-6.8	10.5	0.2515 µg/L	0.2515 ppb	03:33:19
3	Be 313.107†	-2704.1	215.7	0.1279 µg/L	0.1279 ppb	03:32:58
3	Cd 226.502†	-146.2	-1.0	-0.0243 µg/L	-0.0243 ppb	03:33:19
3	Co 228.616†	0.0	-1.9	-0.0868 µg/L	-0.0868 ppb	03:33:19
3	Cr 267.716†	-30.6	20.5	0.4124 µg/L	0.4124 ppb	03:32:58
3	Cu 324.752†	2556.5	-47.8	-0.3146 µg/L	-0.3146 ppb	03:32:58
3	Mn 257.610†	-191.0	69.6	0.2174 µg/L	0.2174 ppb	03:33:19
3	Mo 202.031†	3.1	8.4	0.8194 µg/L	0.8194 ppb	03:33:19
3	Ni 231.604†	313.6	-6.2	-0.3090 µg/L	-0.3090 ppb	03:33:19
3	P 214.914†	12.1	-3.5	-6.9606 µg/L	-6.9606 ppb	03:33:19
3	Pb 220.353†	85.6	-7.4	-1.7980 µg/L	-1.7980 ppb	03:33:19
3	S 181.975 Axial†	15.6	-3.7	-15.522 µg/L	-15.522 ppb	03:33:19
3	Sb 206.836†	19.5	-3.4	-3.1307 µg/L	-3.1307 ppb	03:33:19
3	Se 196.026†	9.7	-9.9	-13.896 µg/L	-13.896 ppb	03:33:19
3	SiO2†	1506.4	79.1	15.615 µg/L	15.615 ppb	03:32:58
3	Si 251.611†	419.5	98.9	7.5182 µg/L	7.5182 ppb	03:33:19
3	Sn 189.927†	3.1	2.6	1.1022 µg/L	1.1022 ppb	03:33:19
3	Ti 334.940†	352.5	169.1	0.3777 µg/L	0.3777 ppb	03:32:58
3	Tl 190.801†	-19.2	3.6	4.6850 µg/L	4.6850 ppb	03:33:19
3	U 409.014†	-44.2	33.9	2.8206 µg/L	2.8206 ppb	03:32:58
3	V 292.402†	-14.6	30.5	0.3051 µg/L	0.3051 ppb	03:32:58
3	Zn 213.857†	534.4	-12.7	-0.2922 µg/L	-0.2922 ppb	03:33:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012930.1	102.54	%	0.374				0.37%
Sc RADIAL	56940.2	101	%	0.4				0.43%
Y 371.029	1390010.6	102.75	%	0.390				0.38%
Ag 328.068†	2.1	0.0169	µg/L	0.25497	0.0169	ppb	0.25497	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.9	-8.9581	µg/L	11.97390	-8.9581	ppb	11.97390	133.67%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.2253	µg/L	4.76902	0.2253	ppb	4.76902	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.6664	µg/L	0.93864	-0.6664	ppb	0.93864	140.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.1910	µg/L	0.05341	0.1910	ppb	0.05341	27.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	278.5	0.1651	µg/L	0.03313	0.1651	ppb	0.03313	20.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-10.9	-9.3112	µg/L	2.82155	-9.3112	ppb	2.82155	30.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.8	0.0448	µg/L	0.10272	0.0448	ppb	0.10272	229.28%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.7	0.1215	µg/L	0.22455	0.1215	ppb	0.22455	184.76%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.9      0.2994 µg/L       0.10965      0.2994 ppb        0.10965  36.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -62.0     -0.4047 µg/L       0.08965     -0.4047 ppb        0.08965  22.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      2.5122 µg/L      20.87142      2.5122 ppb       20.87142 830.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          26.9      17.594 µg/L       29.5833      17.594 ppb        29.5833 168.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.1     -36.444 µg/L       15.7073     -36.444 ppb        15.7073  43.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                87.0      0.2742 µg/L       0.06156      0.2742 ppb        0.06156  22.45%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.4      0.8222 µg/L       0.52855      0.8222 ppb        0.52855  64.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -56.3     -17.287 µg/L       12.1524     -17.287 ppb        12.1524  70.30%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.0     -0.2503 µg/L       0.12354     -0.2503 ppb        0.12354  49.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.8     -7.4113 µg/L       3.08897     -7.4113 ppb        3.08897  41.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.0     -1.6927 µg/L       1.93107     -1.6927 ppb        1.93107 114.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.9     -11.843 µg/L        5.4352     -11.843 ppb         5.4352  45.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.1     -2.8280 µg/L       2.75388     -2.8280 ppb        2.75388  97.38%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.1     -4.2894 µg/L      10.30003     -4.2894 ppb       10.30003 240.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      62.2      12.274 µg/L        4.3770      12.274 ppb         4.3770  35.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                88.7      6.7418 µg/L       1.09492      6.7418 ppb        1.09492  16.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.8      0.3350 µg/L       0.97332      0.3350 ppb        0.97332 290.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.6      0.0060 µg/L       0.25423      0.0060 ppb        0.25423 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               160.6      0.3581 µg/L       0.15867      0.3581 ppb        0.15867  44.31%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.3      0.4134 µg/L       3.97762      0.4134 ppb        3.97762 962.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 60.6      5.0316 µg/L       5.29514      5.0316 ppb        5.29514 105.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 14.2      0.1508 µg/L       0.21593      0.1508 ppb        0.21593 143.17%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -11.4     -0.2632 µg/L       0.02732     -0.2632 ppb        0.02732  10.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: 245979002|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 234
Date Collected: 2/20/2010 03:33:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979002|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58144.1	58144.1	103	%			03:34:08
1	Al 396.153Radial†	130496.6	126789.4	88201	µg/L	88201	ppb	03:34:08
1	Ca 317.933Radial†	37275.5	36007.4	30757	µg/L	30757	ppb	03:34:28
1	Fe 238.204 Radial†	15264.7	14815.3	116850	µg/L	116850	ppb	03:34:28
1	K 766.490 Radial†	14782.3	14198.2	9273.1	µg/L	9273.1	ppb	03:34:08
1	Mg 279.077 IEC†	1639.0	1579.7	13996	µg/L	13996	ppb	03:34:28
1	Na 589.592 Radial†	2340.7	1802.1	553.51	µg/L	553.51	ppb	03:34:28
1	Sr 421.552†	19696.1	19108.9	176.28	µg/L	176.28	ppb	03:34:08
1	Sc 361.383	1991682.4	1991682.4	101.45	%			03:35:34
1	Y 371.029	1389568.2	1389568.2	102.72	%			03:35:34
1	Ag 328.068†	-1101.1	-683.7	3.5027	µg/L	3.5027	ppb	03:35:40
1	As 188.979†	18.6	18.8	38.878	µg/L	38.878	ppb	03:36:00
1	B 249.677†	1552.9	1146.5	-14.055	µg/L	-14.055	ppb	03:35:40
1	Ba 233.527†	45426.9	44792.6	1075.7	µg/L	1075.7	ppb	03:35:40
1	Be 313.107†	303085.4	301594.6	178.19	µg/L	178.19	ppb	03:35:34
1	Cd 226.502†	339.7	476.5	-1.2403	µg/L	-1.2403	ppb	03:36:00
1	Co 228.616†	792.7	779.4	30.870	µg/L	30.870	ppb	03:36:00
1	Cr 267.716†	5855.5	5821.9	117.05	µg/L	117.05	ppb	03:35:40
1	Cu 324.752†	854623.2	839823.4	5498.2	µg/L	5498.2	ppb	03:35:34
1	Mn 257.610†	487617.2	480880.3	1520.9	µg/L	1520.9	ppb	03:35:34
1	Mo 202.031†	57.1	61.7	10.479	µg/L	10.479	ppb	03:36:00
1	Ni 231.604†	1913.7	1573.9	79.937	µg/L	79.937	ppb	03:36:00
1	P 214.914†	1065.9	1035.3	1402.1	µg/L	1402.1	ppb	03:36:00
1	Pb 220.353†	10668.1	10424.1	2519.2	µg/L	2519.2	ppb	03:35:40
1	S 181.975 Axial†	134.4	113.5	470.67	µg/L	470.67	ppb	03:36:00
1	Sb 206.836†	100.7	76.8	66.586	µg/L	66.586	ppb	03:36:00
1	Se 196.026†	-52.2	-70.7	198.94	µg/L	198.94	ppb	03:36:00
1	SiO2†	271815.8	266526.1	52609	µg/L	52609	ppb	03:35:34
1	Si 251.611†	325789.0	320806.2	24388	µg/L	24388	ppb	03:35:34
1	Sn 189.927†	118.6	116.5	38.187	µg/L	38.187	ppb	03:36:00
1	Ti 334.940†	973849.1	959708.2	2122.5	µg/L	2122.5	ppb	03:35:34
1	Tl 190.801†	-48.0	-24.9	19.975	µg/L	19.975	ppb	03:36:00
1	U 409.014†	69947.1	69021.1	5716.5	µg/L	5716.5	ppb	03:35:34
1	V 292.402†	18976.4	18749.0	202.74	µg/L	202.74	ppb	03:35:40
1	Zn 213.857†	36457.5	35400.3	815.01	µg/L	815.01	ppb	03:35:40
2	Sc RADIAL	58254.9	58254.9	103	%			03:34:34
2	Al 396.153Radial†	131772.0	127785.1	88894	µg/L	88894	ppb	03:34:34
2	Ca 317.933Radial†	37371.9	36032.0	30778	µg/L	30778	ppb	03:34:54
2	Fe 238.204 Radial†	15301.9	14823.2	116910	µg/L	116910	ppb	03:34:54
2	K 766.490 Radial†	14889.6	14275.0	9323.2	µg/L	9323.2	ppb	03:34:34
2	Mg 279.077 IEC†	1652.6	1589.8	14086	µg/L	14086	ppb	03:34:54
2	Na 589.592 Radial†	2373.6	1829.7	561.98	µg/L	561.98	ppb	03:34:54
2	Sr 421.552†	19862.7	19234.0	177.44	µg/L	177.44	ppb	03:34:34
2	Sc 361.383	2022669.8	2022669.8	103.03	%			03:36:08
2	Y 371.029	1411663.2	1411663.2	104.35	%			03:36:08
2	Ag 328.068†	-1122.5	-687.9	3.4589	µg/L	3.4589	ppb	03:36:14
2	As 188.979†	18.3	18.2	37.746	µg/L	37.746	ppb	03:36:35
2	B 249.677†	1529.0	1099.8	-15.993	µg/L	-15.993	ppb	03:36:14
2	Ba 233.527†	45647.5	44320.6	1064.3	µg/L	1064.3	ppb	03:36:14
2	Be 313.107†	307690.9	301487.8	178.13	µg/L	178.13	ppb	03:36:08
2	Cd 226.502†	338.2	470.0	-1.4127	µg/L	-1.4127	ppb	03:36:35
2	Co 228.616†	803.5	777.9	30.811	µg/L	30.811	ppb	03:36:35
2	Cr 267.716†	5859.6	5737.5	115.35	µg/L	115.35	ppb	03:36:14
2	Cu 324.752†	867016.6	838946.8	5492.5	µg/L	5492.5	ppb	03:36:08
2	Mn 257.610†	495162.0	480839.8	1520.7	µg/L	1520.7	ppb	03:36:08
2	Mo 202.031†	70.2	73.5	11.636	µg/L	11.636	ppb	03:36:35
2	Ni 231.604†	1912.8	1544.2	78.453	µg/L	78.453	ppb	03:36:35
2	P 214.914†	1053.6	1007.2	1347.3	µg/L	1347.3	ppb	03:36:35
2	Pb 220.353†	10693.6	10287.9	2486.2	µg/L	2486.2	ppb	03:36:14

2	S 181.975 Axial†	125.7	103.1	427.42 µg/L	427.42 ppb	03:36:35
2	Sb 206.836†	95.4	70.1	60.509 µg/L	60.509 ppb	03:36:35
2	Se 196.026†	-49.9	-67.7	203.23 µg/L	203.23 ppb	03:36:35
2	SiO2†	275707.2	266198.5	52544 µg/L	52544 ppb	03:36:08
2	Si 251.611†	330645.3	320600.0	24373 µg/L	24373 ppb	03:36:08
2	Sn 189.927†	121.8	117.9	38.748 µg/L	38.748 ppb	03:36:35
2	Ti 334.940†	988005.8	958742.6	2120.3 µg/L	2120.3 ppb	03:36:08
2	Tl 190.801†	-57.7	-33.6	8.7497 µg/L	8.7497 ppb	03:36:35
2	U 409.014†	70911.3	68900.7	5706.4 µg/L	5706.4 ppb	03:36:08
2	V 292.402†	19005.9	18491.1	200.23 µg/L	200.23 ppb	03:36:14
2	Zn 213.857†	36539.8	34929.6	803.98 µg/L	803.98 ppb	03:36:14
3	Sc RADIAL	58812.2	58812.2	104 %		03:35:00
3	Al 396.153Radial†	133088.1	127838.5	88931 µg/L	88931 ppb	03:35:00
3	Ca 317.933Radial†	37557.0	35866.4	30636 µg/L	30636 ppb	03:35:20
3	Fe 238.204 Radial†	15372.7	14750.6	116340 µg/L	116340 ppb	03:35:20
3	K 766.490 Radial†	15092.8	14333.3	9361.3 µg/L	9361.3 ppb	03:35:00
3	Mg 279.077 IEC†	1657.5	1579.4	13994 µg/L	13994 ppb	03:35:20
3	Na 589.592 Radial†	2347.4	1782.7	547.54 µg/L	547.54 ppb	03:35:20
3	Sr 421.552†	20072.6	19253.1	177.61 µg/L	177.61 ppb	03:35:00
3	Sc 361.383	2023702.1	2023702.1	103.09 %		03:36:43
3	Y 371.029	1410769.4	1410769.4	104.29 %		03:36:43
3	Ag 328.068†	-964.7	-534.2	4.4950 µg/L	4.4950 ppb	03:36:49
3	As 188.979†	16.4	16.3	34.403 µg/L	34.403 ppb	03:37:09
3	B 249.677†	1504.9	1075.7	-16.687 µg/L	-16.687 ppb	03:36:49
3	Ba 233.527†	43483.5	42198.9	1013.4 µg/L	1013.4 ppb	03:36:49
3	Be 313.107†	293716.0	287778.9	170.03 µg/L	170.03 ppb	03:36:43
3	Cd 226.502†	284.1	417.3	-2.6704 µg/L	-2.6704 ppb	03:37:09
3	Co 228.616†	714.7	691.4	27.102 µg/L	27.102 ppb	03:37:09
3	Cr 267.716†	5524.6	5409.6	108.76 µg/L	108.76 ppb	03:36:49
3	Cu 324.752†	830559.4	803151.8	5258.7 µg/L	5258.7 ppb	03:36:43
3	Mn 257.610†	474412.1	460465.9	1456.9 µg/L	1456.9 ppb	03:36:43
3	Mo 202.031†	68.9	72.2	11.492 µg/L	11.492 ppb	03:37:09
3	Ni 231.604†	1736.2	1371.9	69.862 µg/L	69.862 ppb	03:37:09
3	P 214.914†	977.2	932.6	1224.7 µg/L	1224.7 ppb	03:37:09
3	Pb 220.353†	10299.2	9899.9	2392.6 µg/L	2392.6 ppb	03:36:49
3	S 181.975 Axial†	117.9	95.4	395.79 µg/L	395.79 ppb	03:37:09
3	Sb 206.836†	83.5	58.5	49.939 µg/L	49.939 ppb	03:37:09
3	Se 196.026†	-36.9	-55.1	219.55 µg/L	219.55 ppb	03:37:09
3	SiO2†	266383.3	257017.2	50732 µg/L	50732 ppb	03:36:43
3	Si 251.611†	319560.1	309683.0	23543 µg/L	23543 ppb	03:36:43
3	Sn 189.927†	109.5	105.8	33.723 µg/L	33.723 ppb	03:37:09
3	Ti 334.940†	941295.1	912941.1	2019.0 µg/L	2019.0 ppb	03:36:43
3	Tl 190.801†	-45.2	-21.4	22.987 µg/L	22.987 ppb	03:37:09
3	U 409.014†	67545.0	65600.1	5432.3 µg/L	5432.3 ppb	03:36:43
3	V 292.402†	17961.7	17468.7	189.90 µg/L	189.90 ppb	03:36:49
3	Zn 213.857†	34946.7	33366.1	767.74 µg/L	767.74 ppb	03:36:49

Mean Data: 245979002|948764|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012684.8	102.52	%	0.927				0.90%
Sc RADIAL	58403.7	103	%	0.6				0.61%
Y 371.029	1404000.3	103.79	%	0.925				0.89%
Ag 328.068†	-635.2	3.8189	µg/L	0.58595	3.8189	ppb	0.58595	15.34%
Al 396.153Radial†	127471.0	88675	µg/L	411.0	88675	ppb	411.0	0.46%
As 188.979†	17.8	37.009	µg/L	2.3266	37.009	ppb	2.3266	6.29%
B 249.677†	1107.4	-15.578	µg/L	1.3643	-15.578	ppb	1.3643	8.76%
Ba 233.527†	43770.7	1051.1	µg/L	33.18	1051.1	ppb	33.18	3.16%
Be 313.107†	296953.8	175.45	µg/L	4.693	175.45	ppb	4.693	2.68%
Ca 317.933Radial†	35968.6	30724	µg/L	76.3	30724	ppb	76.3	0.25%
Cd 226.502†	454.6	-1.7744	µg/L	0.78069	-1.7744	ppb	0.78069	44.00%
Co 228.616†	749.6	29.594	µg/L	2.1589	29.594	ppb	2.1589	7.29%
Cr 267.716†	5656.3	113.72	µg/L	4.379	113.72	ppb	4.379	3.85%
Cu 324.752†	827307.3	5416.5	µg/L	136.62	5416.5	ppb	136.62	2.52%
Fe 238.204 Radial†	14796.4	116700	µg/L	314.4	116700	ppb	314.4	0.27%
K 766.490 Radial†	14268.8	9319.2	µg/L	44.26	9319.2	ppb	44.26	0.47%
Mg 279.077 IEC†	1583.0	14025	µg/L	52.9	14025	ppb	52.9	0.38%
Mn 257.610†	474062.0	1499.5	µg/L	36.91	1499.5	ppb	36.91	2.46%
Mo 202.031†	69.1	11.202	µg/L	0.6304	11.202	ppb	0.6304	5.63%
Na 589.592 Radial†	1804.8	554.34	µg/L	7.253	554.34	ppb	7.253	1.31%

Ni 231.604†	1496.7	76.084	µg/L	5.4395	76.084	ppb	5.4395	7.15%
P 214.914†	991.7	1324.7	µg/L	90.83	1324.7	ppb	90.83	6.86%
Pb 220.353†	10204.0	2466.0	µg/L	65.70	2466.0	ppb	65.70	2.66%
S 181.975 Axial†	104.0	431.30	µg/L	37.591	431.30	ppb	37.591	8.72%
Sb 206.836†	68.5	59.011	µg/L	8.4240	59.011	ppb	8.4240	14.28%
Se 196.026†	-64.5	207.24	µg/L	10.876	207.24	ppb	10.876	5.25%
SiO2†	263247.3	51962	µg/L	1065.5	51962	ppb	1065.5	2.05%
Si 251.611†	317029.8	24101	µg/L	483.7	24101	ppb	483.7	2.01%
Sn 189.927†	113.4	36.886	µg/L	2.7535	36.886	ppb	2.7535	7.46%
Sr 421.552†	19198.7	177.11	µg/L	0.723	177.11	ppb	0.723	0.41%
Ti 334.940†	943797.3	2087.3	µg/L	59.12	2087.3	ppb	59.12	2.83%
Tl 190.801†	-26.6	17.237	µg/L	7.5032	17.237	ppb	7.5032	43.53%
U 409.014†	67840.6	5618.4	µg/L	161.24	5618.4	ppb	161.24	2.87%
V 292.402†	18236.3	197.62	µg/L	6.807	197.62	ppb	6.807	3.44%
Zn 213.857†	34565.3	795.58	µg/L	24.729	795.58	ppb	24.729	3.11%

Sequence No.: 11
Sample ID: 245979003|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 235
Date Collected: 2/20/2010 03:37:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979003|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57848.0	57848.0	102	%			03:37:51
1	Al 396.153Radial†	37824.2	36932.5	25692	µg/L	25692	ppb	03:37:51
1	Ca 317.933Radial†	12129.0	11634.2	9937.7	µg/L	9937.7	ppb	03:38:11
1	Fe 238.204 Radial†	14082.6	13736.8	108340	µg/L	108340	ppb	03:37:51
1	K 766.490 Radial†	7013.6	6684.7	4365.9	µg/L	4365.9	ppb	03:37:51
1	Mg 279.077 IEC†	546.0	520.4	4535.9	µg/L	4535.9	ppb	03:38:11
1	Na 589.592 Radial†	5265.6	4670.3	1434.5	µg/L	1434.5	ppb	03:37:51
1	Sr 421.552†	7275.3	7076.4	65.281	µg/L	65.281	ppb	03:37:51
1	Sc 361.383	2029116.7	2029116.7	103.36	%			03:39:16
1	Y 371.029	1466049.5	1466049.5	108.38	%			03:39:16
1	Ag 328.068†	-1331.8	-886.9	0.6470	µg/L	0.6470	ppb	03:39:22
1	As 188.979†	13.3	13.3	29.670	µg/L	29.670	ppb	03:39:42
1	B 249.677†	1239.2	814.8	-23.133	µg/L	-23.133	ppb	03:39:22
1	Ba 233.527†	19808.6	19181.4	460.60	µg/L	460.60	ppb	03:39:22
1	Be 313.107†	30247.2	32119.1	18.069	µg/L	18.069	ppb	03:39:22
1	Cd 226.502†	220.9	355.4	-3.3038	µg/L	-3.3038	ppb	03:39:42
1	Co 228.616†	4043.5	3910.1	171.65	µg/L	171.65	ppb	03:39:42
1	Cr 267.716†	6074.5	5927.3	119.09	µg/L	119.09	ppb	03:39:22
1	Cu 324.752†	302156.4	289785.1	1906.6	µg/L	1906.6	ppb	03:39:16
1	Mn 257.610†	832649.4	805823.6	2537.7	µg/L	2537.7	ppb	03:39:16
1	Mo 202.031†	87.6	90.1	12.936	µg/L	12.936	ppb	03:39:42
1	Ni 231.604†	1887.0	1513.3	76.636	µg/L	76.636	ppb	03:39:42
1	P 214.914†	407.6	379.0	470.35	µg/L	470.35	ppb	03:39:42
1	Pb 220.353†	11282.6	10824.7	2624.1	µg/L	2624.1	ppb	03:39:22
1	S 181.975 Axial†	69.0	47.8	198.22	µg/L	198.22	ppb	03:39:42
1	Sb 206.836†	77.0	52.0	45.684	µg/L	45.684	ppb	03:39:42
1	Se 196.026†	-33.2	-51.4	217.04	µg/L	217.04	ppb	03:39:42
1	SiO2†	224018.8	215341.1	42506	µg/L	42506	ppb	03:39:16
1	Si 251.611†	268274.0	259237.8	19708	µg/L	19708	ppb	03:39:16
1	Sn 189.927†	41.9	40.2	5.8872	µg/L	5.8872	ppb	03:39:42
1	Ti 334.940†	1218400.2	1178596.7	2607.1	µg/L	2607.1	ppb	03:39:16
1	Tl 190.801†	-55.4	-31.2	10.075	µg/L	10.075	ppb	03:39:42
1	U 409.014†	17108.6	16629.2	1366.0	µg/L	1366.0	ppb	03:39:16
1	V 292.402†	6241.7	6083.4	73.814	µg/L	73.814	ppb	03:39:22
1	Zn 213.857†	24955.8	23609.7	545.13	µg/L	545.13	ppb	03:39:22
2	Sc RADIAL	57183.0	57183.0	101	%			03:38:17
2	Al 396.153Radial†	37619.3	37159.7	25850	µg/L	25850	ppb	03:38:17
2	Ca 317.933Radial†	12156.9	11799.5	10079	µg/L	10079	ppb	03:38:37
2	Fe 238.204 Radial†	13970.6	13786.1	108730	µg/L	108730	ppb	03:38:17
2	K 766.490 Radial†	6982.6	6733.6	4397.8	µg/L	4397.8	ppb	03:38:17
2	Mg 279.077 IEC†	547.0	527.6	4599.4	µg/L	4599.4	ppb	03:38:37
2	Na 589.592 Radial†	5221.6	4686.6	1439.5	µg/L	1439.5	ppb	03:38:17
2	Sr 421.552†	7219.1	7103.5	65.531	µg/L	65.531	ppb	03:38:17
2	Sc 361.383	2023703.1	2023703.1	103.09	%			03:39:50
2	Y 371.029	1462729.8	1462729.8	108.13	%			03:39:50
2	Ag 328.068†	-1300.0	-859.5	0.8664	µg/L	0.8664	ppb	03:39:56
2	As 188.979†	5.0	5.3	15.261	µg/L	15.261	ppb	03:40:16
2	B 249.677†	1197.8	777.8	-24.843	µg/L	-24.843	ppb	03:39:56
2	Ba 233.527†	19704.1	19131.3	459.39	µg/L	459.39	ppb	03:39:56
2	Be 313.107†	29885.3	31846.4	17.903	µg/L	17.903	ppb	03:39:56
2	Cd 226.502†	236.4	371.1	-2.9563	µg/L	-2.9563	ppb	03:40:16
2	Co 228.616†	4015.8	3893.6	170.87	µg/L	170.87	ppb	03:40:16
2	Cr 267.716†	6044.4	5913.8	118.82	µg/L	118.82	ppb	03:39:56
2	Cu 324.752†	302610.9	291007.9	1914.7	µg/L	1914.7	ppb	03:39:50
2	Mn 257.610†	835527.8	810770.8	2553.2	µg/L	2553.2	ppb	03:39:50
2	Mo 202.031†	87.5	90.2	12.966	µg/L	12.966	ppb	03:40:16
2	Ni 231.604†	1889.5	1520.6	77.004	µg/L	77.004	ppb	03:40:16
2	P 214.914†	401.6	374.3	459.82	µg/L	459.82	ppb	03:40:16
2	Pb 220.353†	11244.1	10816.5	2622.1	µg/L	2622.1	ppb	03:39:56

2	S 181.975 Axial†	64.4	43.6	180.72 µg/L	180.72 ppb	03:40:16
2	Sb 206.836†	73.1	48.4	42.373 µg/L	42.373 ppb	03:40:16
2	Se 196.026†	-36.8	-55.0	212.94 µg/L	212.94 ppb	03:40:16
2	SiO2†	224402.9	216293.4	42693 µg/L	42693 ppb	03:39:50
2	Si 251.611†	268680.7	260326.7	19791 µg/L	19791 ppb	03:39:50
2	Sn 189.927†	41.8	40.2	5.8663 µg/L	5.8663 ppb	03:40:16
2	Ti 334.940†	1221055.1	1184325.5	2619.8 µg/L	2619.8 ppb	03:39:50
2	Tl 190.801†	-51.1	-27.2	15.492 µg/L	15.492 ppb	03:40:16
2	U 409.014†	17121.3	16685.9	1370.6 µg/L	1370.6 ppb	03:39:50
2	V 292.402†	6095.9	5958.2	72.644 µg/L	72.644 ppb	03:39:56
2	Zn 213.857†	24911.2	23631.0	545.59 µg/L	545.59 ppb	03:39:56
3	Sc RADIAL	57807.8	57807.8	102 %		03:38:43
3	Al 396.153Radial†	38095.8	37223.7	25895 µg/L	25895 ppb	03:38:43
3	Ca 317.933Radial†	12131.3	11644.6	9946.6 µg/L	9946.6 ppb	03:39:03
3	Fe 238.204 Radial†	14159.7	13821.7	109010 µg/L	109010 ppb	03:38:43
3	K 766.490 Radial†	7123.1	6796.4	4438.9 µg/L	4438.9 ppb	03:38:43
3	Mg 279.077 IEC†	547.0	521.8	4547.4 µg/L	4547.4 ppb	03:39:03
3	Na 589.592 Radial†	5284.7	4692.5	1441.3 µg/L	1441.3 ppb	03:38:43
3	Sr 421.552†	7366.9	7170.8	66.152 µg/L	66.152 ppb	03:38:43
3	Sc 361.383	2013239.5	2013239.5	102.55 %		03:40:24
3	Y 371.029	1451404.4	1451404.4	107.29 %		03:40:24
3	Ag 328.068†	-1227.0	-794.8	1.3433 µg/L	1.3433 ppb	03:40:30
3	As 188.979†	10.7	10.9	25.353 µg/L	25.353 ppb	03:40:50
3	B 249.677†	1146.9	734.2	-26.779 µg/L	-26.779 ppb	03:40:30
3	Ba 233.527†	18703.8	18255.2	438.36 µg/L	438.36 ppb	03:40:30
3	Be 313.107†	27944.9	30104.9	16.910 µg/L	16.910 ppb	03:40:30
3	Cd 226.502†	196.5	333.3	-3.9374 µg/L	-3.9374 ppb	03:40:50
3	Co 228.616†	3652.3	3559.4	155.96 µg/L	155.96 ppb	03:40:50
3	Cr 267.716†	5636.8	5546.9	111.44 µg/L	111.44 ppb	03:40:30
3	Cu 324.752†	290591.1	280813.1	1848.2 µg/L	1848.2 ppb	03:40:24
3	Mn 257.610†	800517.5	780844.6	2459.5 µg/L	2459.5 ppb	03:40:24
3	Mo 202.031†	78.1	81.5	12.126 µg/L	12.126 ppb	03:40:50
3	Ni 231.604†	1726.6	1371.3	69.585 µg/L	69.585 ppb	03:40:50
3	P 214.914†	359.4	335.2	389.15 µg/L	389.15 ppb	03:40:50
3	Pb 220.353†	10801.0	10441.2	2531.0 µg/L	2531.0 ppb	03:40:30
3	S 181.975 Axial†	63.0	42.4	176.03 µg/L	176.03 ppb	03:40:50
3	Sb 206.836†	65.7	41.6	36.178 µg/L	36.178 ppb	03:40:50
3	Se 196.026†	-34.6	-53.0	216.59 µg/L	216.59 ppb	03:40:50
3	SiO2†	217283.1	210482.2	41546 µg/L	41546 ppb	03:40:24
3	Si 251.611†	260168.4	253380.9	19263 µg/L	19263 ppb	03:40:24
3	Sn 189.927†	34.4	33.1	2.8440 µg/L	2.8440 ppb	03:40:50
3	Ti 334.940†	1164502.6	1135337.3	2511.4 µg/L	2511.4 ppb	03:40:24
3	Tl 190.801†	-51.1	-27.5	13.869 µg/L	13.869 ppb	03:40:50
3	U 409.014†	16327.1	15997.7	1313.4 µg/L	1313.4 ppb	03:40:24
3	V 292.402†	5748.8	5650.4	69.595 µg/L	69.595 ppb	03:40:30
3	Zn 213.857†	23641.7	22518.8	519.63 µg/L	519.63 ppb	03:40:30

Mean Data: 245979003|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2022019.7	103.00	%	0.411				0.40%
Sc RADIAL	57613.0	102	%	0.7				0.65%
Y 371.029	1460061.2	107.93	%	0.568				0.53%
Ag 328.068†	-847.1	0.9522	µg/L	0.35603	0.9522	ppb	0.35603	37.39%
Al 396.153Radial†	37105.3	25812	µg/L	106.5	25812	ppb	106.5	0.41%
As 188.979†	9.9	23.428	µg/L	7.3950	23.428	ppb	7.3950	31.56%
B 249.677†	775.6	-24.918	µg/L	1.8238	-24.918	ppb	1.8238	7.32%
Ba 233.527†	18856.0	452.78	µg/L	12.508	452.78	ppb	12.508	2.76%
Be 313.107†	31356.8	17.628	µg/L	0.6266	17.628	ppb	0.6266	3.55%
Ca 317.933Radial†	11692.8	9987.7	µg/L	79.08	9987.7	ppb	79.08	0.79%
Cd 226.502†	353.2	-3.3992	µg/L	0.49748	-3.3992	ppb	0.49748	14.64%
Co 228.616†	3787.7	166.16	µg/L	8.839	166.16	ppb	8.839	5.32%
Cr 267.716†	5796.0	116.45	µg/L	4.337	116.45	ppb	4.337	3.72%
Cu 324.752†	287202.0	1889.8	µg/L	36.30	1889.8	ppb	36.30	1.92%
Fe 238.204 Radial†	13781.5	108700	µg/L	336.1	108700	ppb	336.1	0.31%
K 766.490 Radial†	6738.2	4400.9	µg/L	36.59	4400.9	ppb	36.59	0.83%
Mg 279.077 IEC†	523.2	4560.9	µg/L	33.85	4560.9	ppb	33.85	0.74%
Mn 257.610†	799146.3	2516.8	µg/L	50.20	2516.8	ppb	50.20	1.99%
Mo 202.031†	87.3	12.676	µg/L	0.4768	12.676	ppb	0.4768	3.76%
Na 589.592 Radial†	4683.2	1438.4	µg/L	3.53	1438.4	ppb	3.53	0.25%

Ni 231.604†	1468.4	74.408	µg/L	4.1811	74.408	ppb	4.1811	5.62%
P 214.914†	362.8	439.77	µg/L	44.159	439.77	ppb	44.159	10.04%
Pb 220.353†	10694.2	2592.4	µg/L	53.17	2592.4	ppb	53.17	2.05%
S 181.975 Axial†	44.6	184.99	µg/L	11.693	184.99	ppb	11.693	6.32%
Sb 206.836†	47.3	41.411	µg/L	4.8253	41.411	ppb	4.8253	11.65%
Se 196.026†	-53.2	215.52	µg/L	2.247	215.52	ppb	2.247	1.04%
SiO2†	214038.9	42248	µg/L	615.2	42248	ppb	615.2	1.46%
Si 251.611†	257648.4	19587	µg/L	284.0	19587	ppb	284.0	1.45%
Sn 189.927†	37.9	4.8658	µg/L	1.75098	4.8658	ppb	1.75098	35.99%
Sr 421.552†	7116.9	65.655	µg/L	0.4486	65.655	ppb	0.4486	0.68%
Ti 334.940†	1166086.5	2579.4	µg/L	59.25	2579.4	ppb	59.25	2.30%
Tl 190.801†	-28.6	13.146	µg/L	2.7803	13.146	ppb	2.7803	21.15%
U 409.014†	16437.6	1350.0	µg/L	31.77	1350.0	ppb	31.77	2.35%
V 292.402†	5897.4	72.018	µg/L	2.1784	72.018	ppb	2.1784	3.02%
Zn 213.857†	23253.2	536.78	µg/L	14.859	536.78	ppb	14.859	2.77%

Sequence No.: 12
Sample ID: 245979004|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 236
Date Collected: 2/20/2010 03:41:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979004|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58483.6	58483.6	104	%			03:41:32
1	Al 396.153Radial†	60408.7	58347.9	40590	µg/L	40590	ppb	03:41:32
1	Ca 317.933Radial†	11627.6	11021.1	9414.0	µg/L	9414.0	ppb	03:41:52
1	Fe 238.204 Radial†	12239.6	11806.9	93121	µg/L	93121	ppb	03:41:52
1	K 766.490 Radial†	14864.0	14193.8	9270.2	µg/L	9270.2	ppb	03:41:32
1	Mg 279.077 IEC†	1033.7	985.8	8711.8	µg/L	8711.8	ppb	03:41:52
1	Na 589.592 Radial†	1860.6	1325.1	407.01	µg/L	407.01	ppb	03:41:32
1	Sr 421.552†	12859.2	12393.3	114.33	µg/L	114.33	ppb	03:41:32
1	Sc 361.383	2006929.5	2006929.5	102.23	%			03:42:56
1	Y 371.029	1403429.3	1403429.3	103.75	%			03:42:56
1	Ag 328.068†	-1539.6	-1104.4	-1.1303	µg/L	-1.1303	ppb	03:43:02
1	As 188.979†	15.0	15.1	32.031	µg/L	32.031	ppb	03:43:22
1	B 249.677†	957.1	552.1	-25.841	µg/L	-25.841	ppb	03:43:02
1	Ba 233.527†	25723.6	25179.2	604.80	µg/L	604.80	ppb	03:43:02
1	Be 313.107†	13598.3	16157.2	8.2703	µg/L	8.2703	ppb	03:43:02
1	Cd 226.502†	270.8	406.5	-0.3030	µg/L	-0.3030	ppb	03:43:22
1	Co 228.616†	1097.3	1071.4	41.295	µg/L	41.295	ppb	03:43:22
1	Cr 267.716†	7875.5	7754.0	155.85	µg/L	155.85	ppb	03:43:02
1	Cu 324.752†	27305.4	24165.6	170.68	µg/L	170.68	ppb	03:43:02
1	Mn 257.610†	736938.9	721108.1	2270.2	µg/L	2270.2	ppb	03:42:56
1	Mo 202.031†	-10.2	-4.6	3.0884	µg/L	3.0884	ppb	03:43:22
1	Ni 231.604†	1963.7	1608.5	81.335	µg/L	81.335	ppb	03:43:22
1	P 214.914†	401.0	376.9	665.56	µg/L	665.56	ppb	03:43:22
1	Pb 220.353†	2435.0	2291.0	555.29	µg/L	555.29	ppb	03:43:22
1	S 181.975 Axial†	133.1	111.3	461.35	µg/L	461.35	ppb	03:43:22
1	Sb 206.836†	33.2	9.9	6.5302	µg/L	6.5302	ppb	03:43:22
1	Se 196.026†	-33.5	-52.1	170.88	µg/L	170.88	ppb	03:43:22
1	SiO2†	272716.8	265372.0	52381	µg/L	52381	ppb	03:42:56
1	Si 251.611†	326847.4	319401.9	24282	µg/L	24282	ppb	03:42:56
1	Sn 189.927†	-21.2	-21.1	-17.861	µg/L	-17.861	ppb	03:43:22
1	Ti 334.940†	1600075.5	1564972.1	3461.5	µg/L	3461.5	ppb	03:42:56
1	Tl 190.801†	-58.5	-34.9	9.5622	µg/L	9.5622	ppb	03:43:22
1	U 409.014†	362.6	431.8	22.359	µg/L	22.359	ppb	03:43:02
1	V 292.402†	18778.4	18413.2	190.79	µg/L	190.79	ppb	03:43:02
1	Zn 213.857†	11073.4	10297.2	236.06	µg/L	236.06	ppb	03:43:02
2	Sc RADIAL	57971.6	57971.6	103	%			03:41:58
2	Al 396.153Radial†	60462.1	58915.4	40985	µg/L	40985	ppb	03:41:58
2	Ca 317.933Radial†	11719.6	11209.9	9575.3	µg/L	9575.3	ppb	03:42:18
2	Fe 238.204 Radial†	12334.2	12003.6	94672	µg/L	94672	ppb	03:42:18
2	K 766.490 Radial†	14926.2	14381.2	9392.6	µg/L	9392.6	ppb	03:41:58
2	Mg 279.077 IEC†	1043.2	1003.8	8871.6	µg/L	8871.6	ppb	03:42:18
2	Na 589.592 Radial†	1781.2	1263.6	388.12	µg/L	388.12	ppb	03:41:58
2	Sr 421.552†	12882.6	12525.8	115.55	µg/L	115.55	ppb	03:41:58
2	Sc 361.383	2012069.2	2012069.2	102.49	%			03:43:29
2	Y 371.029	1406632.9	1406632.9	103.98	%			03:43:29
2	Ag 328.068†	-1578.2	-1138.2	-1.2837	µg/L	-1.2837	ppb	03:43:35
2	As 188.979†	14.3	14.4	30.823	µg/L	30.823	ppb	03:43:55
2	B 249.677†	945.1	537.9	-27.224	µg/L	-27.224	ppb	03:43:35
2	Ba 233.527†	25948.5	25334.3	608.53	µg/L	608.53	ppb	03:43:35
2	Be 313.107†	13644.7	16168.5	8.2684	µg/L	8.2684	ppb	03:43:35
2	Cd 226.502†	265.7	400.9	-0.6202	µg/L	-0.6202	ppb	03:43:55
2	Co 228.616†	1079.9	1051.7	40.356	µg/L	40.356	ppb	03:43:55
2	Cr 267.716†	7962.1	7818.8	157.16	µg/L	157.16	ppb	03:43:35
2	Cu 324.752†	27443.4	24232.0	171.33	µg/L	171.33	ppb	03:43:35
2	Mn 257.610†	743574.2	725740.6	2284.9	µg/L	2284.9	ppb	03:43:29
2	Mo 202.031†	1.8	7.1	4.2900	µg/L	4.2900	ppb	03:43:55
2	Ni 231.604†	1955.9	1596.0	80.733	µg/L	80.733	ppb	03:43:55
2	P 214.914†	395.1	370.2	650.98	µg/L	650.98	ppb	03:43:55
2	Pb 220.353†	2410.3	2260.7	547.91	µg/L	547.91	ppb	03:43:55

2	S 181.975 Axial†	131.3	109.1	452.55 µg/L	452.55 ppb	03:43:55
2	Sb 206.836†	36.7	13.3	9.6544 µg/L	9.6544 ppb	03:43:55
2	Se 196.026†	-41.0	-59.3	164.88 µg/L	164.88 ppb	03:43:55
2	SiO2†	275166.2	267080.4	52718 µg/L	52718 ppb	03:43:29
2	Si 251.611†	329852.4	321517.2	24442 µg/L	24442 ppb	03:43:29
2	Sn 189.927†	-17.8	-17.8	-16.578 µg/L	-16.578 ppb	03:43:55
2	Ti 334.940†	1614642.0	1575186.1	3484.1 µg/L	3484.1 ppb	03:43:29
2	Tl 190.801†	-61.3	-37.5	6.6885 µg/L	6.6885 ppb	03:43:55
2	U 409.014†	373.5	441.5	22.937 µg/L	22.937 ppb	03:43:35
2	V 292.402†	18812.8	18399.8	190.86 µg/L	190.86 ppb	03:43:35
2	Zn 213.857†	11127.3	10322.2	236.56 µg/L	236.56 ppb	03:43:35
3	Sc RADIAL	57961.2	57961.2	103 %		03:42:24
3	Al 396.153Radial†	60616.4	59076.3	41097 µg/L	41097 ppb	03:42:24
3	Ca 317.933Radial†	11588.1	11083.8	9467.5 µg/L	9467.5 ppb	03:42:44
3	Fe 238.204 Radial†	12196.4	11871.4	93630 µg/L	93630 ppb	03:42:44
3	K 766.490 Radial†	14936.4	14393.7	9400.8 µg/L	9400.8 ppb	03:42:24
3	Mg 279.077 IEC†	1037.9	998.8	8828.3 µg/L	8828.3 ppb	03:42:44
3	Na 589.592 Radial†	1859.6	1340.4	411.69 µg/L	411.69 ppb	03:42:24
3	Sr 421.552†	12952.1	12595.7	116.20 µg/L	116.20 ppb	03:42:24
3	Sc 361.383	2008712.8	2008712.8	102.32 %		03:44:03
3	Y 371.029	1403869.7	1403869.7	103.78 %		03:44:03
3	Ag 328.068†	-1501.1	-1065.4	-0.8651 µg/L	-0.8651 ppb	03:44:08
3	As 188.979†	10.9	11.1	24.807 µg/L	24.807 ppb	03:44:29
3	B 249.677†	928.1	522.9	-27.307 µg/L	-27.307 ppb	03:44:08
3	Ba 233.527†	24864.4	24317.1	584.09 µg/L	584.09 ppb	03:44:08
3	Be 313.107†	12854.0	15417.9	7.8660 µg/L	7.8660 ppb	03:44:08
3	Cd 226.502†	238.4	374.7	-1.1624 µg/L	-1.1624 ppb	03:44:29
3	Co 228.616†	998.0	973.4	37.049 µg/L	37.049 ppb	03:44:29
3	Cr 267.716†	7488.6	7369.0	148.12 µg/L	148.12 ppb	03:44:08
3	Cu 324.752†	26358.2	23216.2	164.56 µg/L	164.56 ppb	03:44:08
3	Mn 257.610†	720275.4	704182.9	2217.3 µg/L	2217.3 ppb	03:44:03
3	Mo 202.031†	-3.0	2.4	3.7957 µg/L	3.7957 ppb	03:44:29
3	Ni 231.604†	1801.9	1448.7	73.381 µg/L	73.381 ppb	03:44:29
3	P 214.914†	364.8	341.2	595.30 µg/L	595.30 ppb	03:44:29
3	Pb 220.353†	2269.0	2126.6	515.37 µg/L	515.37 ppb	03:44:29
3	S 181.975 Axial†	125.7	103.9	431.06 µg/L	431.06 ppb	03:44:29
3	Sb 206.836†	29.7	6.5	3.4743 µg/L	3.4743 ppb	03:44:29
3	Se 196.026†	-46.2	-64.5	154.77 µg/L	154.77 ppb	03:44:29
3	SiO2†	268935.4	261439.6	51605 µg/L	51605 ppb	03:44:03
3	Si 251.611†	322627.5	314993.9	23946 µg/L	23946 ppb	03:44:03
3	Sn 189.927†	-10.8	-10.9	-13.602 µg/L	-13.602 ppb	03:44:29
3	Ti 334.940†	1559672.5	1524096.6	3371.1 µg/L	3371.1 ppb	03:44:03
3	Tl 190.801†	-54.6	-30.9	13.797 µg/L	13.797 ppb	03:44:29
3	U 409.014†	306.8	376.9	17.724 µg/L	17.724 ppb	03:44:08
3	V 292.402†	17915.9	17554.0	182.46 µg/L	182.46 ppb	03:44:08
3	Zn 213.857†	10638.1	9862.2	225.87 µg/L	225.87 ppb	03:44:08

Mean Data: 245979004|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2009237.2	102.35	%	0.133				0.13%
Sc RADIAL	58138.8	103	%	0.5				0.51%
Y 371.029	1404644.0	103.84	%	0.128				0.12%
Ag 328.068†	-1102.7	-1.0930	µg/L	0.21179	-1.0930	ppb	0.21179	19.38%
Al 396.153Radial†	58779.9	40890	µg/L	266.2	40890	ppb	266.2	0.65%
As 188.979†	13.5	29.220	µg/L	3.8693	29.220	ppb	3.8693	13.24%
B 249.677†	537.6	-26.790	µg/L	0.8237	-26.790	ppb	0.8237	3.07%
Ba 233.527†	24943.5	599.14	µg/L	13.165	599.14	ppb	13.165	2.20%
Be 313.107†	15914.5	8.1349	µg/L	0.23289	8.1349	ppb	0.23289	2.86%
Ca 317.933Radial†	11104.9	9485.6	µg/L	82.14	9485.6	ppb	82.14	0.87%
Cd 226.502†	394.0	-0.6952	µg/L	0.43460	-0.6952	ppb	0.43460	62.51%
Co 228.616†	1032.2	39.567	µg/L	2.2305	39.567	ppb	2.2305	5.64%
Cr 267.716†	7647.3	153.71	µg/L	4.886	153.71	ppb	4.886	3.18%
Cu 324.752†	23871.3	168.86	µg/L	3.739	168.86	ppb	3.739	2.21%
Fe 238.204 Radial†	11894.0	93808	µg/L	790.6	93808	ppb	790.6	0.84%
K 766.490 Radial†	14322.9	9354.5	µg/L	73.16	9354.5	ppb	73.16	0.78%
Mg 279.077 IEC†	996.1	8803.9	µg/L	82.69	8803.9	ppb	82.69	0.94%
Mn 257.610†	717010.5	2257.5	µg/L	35.58	2257.5	ppb	35.58	1.58%
Mo 202.031†	1.6	3.7247	µg/L	0.60396	3.7247	ppb	0.60396	16.22%
Na 589.592 Radial†	1309.7	402.27	µg/L	12.477	402.27	ppb	12.477	3.10%

Ni 231.604†	1551.1	78.483 µg/L	4.4289	78.483 ppb	4.4289	5.64%
P 214.914†	362.8	637.28 µg/L	37.081	637.28 ppb	37.081	5.82%
Pb 220.353†	2226.1	539.52 µg/L	21.244	539.52 ppb	21.244	3.94%
S 181.975 Axial†	108.1	448.32 µg/L	15.582	448.32 ppb	15.582	3.48%
Sb 206.836†	9.9	6.5530 µg/L	3.09010	6.5530 ppb	3.09010	47.16%
Se 196.026†	-58.6	163.51 µg/L	8.142	163.51 ppb	8.142	4.98%
SiO2†	264630.7	52235 µg/L	571.0	52235 ppb	571.0	1.09%
Si 251.611†	318637.7	24223 µg/L	253.0	24223 ppb	253.0	1.04%
Sn 189.927†	-16.6	-16.014 µg/L	2.1851	-16.014 ppb	2.1851	13.65%
Sr 421.552†	12505.0	115.36 µg/L	0.949	115.36 ppb	0.949	0.82%
Ti 334.940†	1554751.6	3438.9 µg/L	59.81	3438.9 ppb	59.81	1.74%
Tl 190.801†	-34.4	10.016 µg/L	3.5760	10.016 ppb	3.5760	35.70%
U 409.014†	416.7	21.007 µg/L	2.8574	21.007 ppb	2.8574	13.60%
V 292.402†	18122.3	188.04 µg/L	4.829	188.04 ppb	4.829	2.57%
Zn 213.857†	10160.5	232.83 µg/L	6.035	232.83 ppb	6.035	2.59%

Sequence No.: 13
Sample ID: 245979005|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 237
Date Collected: 2/20/2010 03:44:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979005|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57072.3	57072.3	101	%			03:45:11
1	Al 396.153Radial†	62112.3	61477.3	42767	µg/L	42767	ppb	03:45:11
1	Ca 317.933Radial†	10973.0	10650.8	9097.7	µg/L	9097.7	ppb	03:45:31
1	Fe 238.204 Radial†	12514.1	12371.1	97571	µg/L	97571	ppb	03:45:31
1	K 766.490 Radial†	8226.4	7978.3	5210.8	µg/L	5210.8	ppb	03:45:11
1	Mg 279.077 IEC†	771.3	750.6	6605.5	µg/L	6605.5	ppb	03:45:31
1	Na 589.592 Radial†	5449.0	4921.8	1511.7	µg/L	1511.7	ppb	03:45:11
1	Sr 421.552†	9199.0	9077.2	83.739	µg/L	83.739	ppb	03:45:11
1	Sc 361.383	2016909.2	2016909.2	102.74	%			03:46:36
1	Y 371.029	1457847.5	1457847.5	107.77	%			03:46:36
1	Ag 328.068†	-1598.1	-1153.9	-2.0518	µg/L	-2.0518	ppb	03:46:41
1	As 188.979†	11.8	11.9	26.539	µg/L	26.539	ppb	03:47:02
1	B 249.677†	850.4	443.6	-32.691	µg/L	-32.691	ppb	03:46:41
1	Ba 233.527†	21675.6	21114.6	507.00	µg/L	507.00	ppb	03:46:41
1	Be 313.107†	9054.9	11669.1	6.3763	µg/L	6.3763	ppb	03:46:41
1	Cd 226.502†	187.6	324.3	-2.8744	µg/L	-2.8744	ppb	03:47:02
1	Co 228.616†	1684.2	1637.4	71.149	µg/L	71.149	ppb	03:47:02
1	Cr 267.716†	4479.0	4409.9	88.608	µg/L	88.608	ppb	03:46:41
1	Cu 324.752†	10599.7	7773.3	64.302	µg/L	64.302	ppb	03:46:41
1	Mn 257.610†	642223.4	625351.8	1971.0	µg/L	1971.0	ppb	03:46:36
1	Mo 202.031†	62.4	66.1	10.178	µg/L	10.178	ppb	03:47:02
1	Ni 231.604†	1607.1	1251.9	63.588	µg/L	63.588	ppb	03:47:02
1	P 214.914†	315.6	291.8	505.69	µg/L	505.69	ppb	03:47:02
1	Pb 220.353†	407.8	306.0	73.039	µg/L	73.039	ppb	03:47:02
1	S 181.975 Axial†	44.9	24.8	102.73	µg/L	102.73	ppb	03:47:02
1	Sb 206.836†	31.9	8.5	6.1416	µg/L	6.1416	ppb	03:47:02
1	Se 196.026†	-41.7	-59.9	174.04	µg/L	174.04	ppb	03:47:02
1	SiO2†	299949.8	290558.8	57353	µg/L	57353	ppb	03:46:36
1	Si 251.611†	359694.4	349791.1	26592	µg/L	26592	ppb	03:46:36
1	Sn 189.927†	36.6	35.3	5.2012	µg/L	5.2012	ppb	03:47:02
1	Ti 334.940†	669886.2	651845.8	1441.6	µg/L	1441.6	ppb	03:46:36
1	Tl 190.801†	-44.0	-20.5	10.080	µg/L	10.080	ppb	03:47:02
1	U 409.014†	-970.9	-868.0	-86.232	µg/L	-86.232	ppb	03:46:36
1	V 292.402†	5523.7	5421.2	64.494	µg/L	64.494	ppb	03:46:41
1	Zn 213.857†	13353.2	12462.7	287.02	µg/L	287.02	ppb	03:46:41
2	Sc RADIAL	57534.9	57534.9	102	%			03:45:37
2	Al 396.153Radial†	61645.0	60524.1	42104	µg/L	42104	ppb	03:45:37
2	Ca 317.933Radial†	10950.6	10541.5	9004.4	µg/L	9004.4	ppb	03:45:57
2	Fe 238.204 Radial†	12525.6	12282.8	96875	µg/L	96875	ppb	03:45:57
2	K 766.490 Radial†	8167.5	7855.0	5130.2	µg/L	5130.2	ppb	03:45:37
2	Mg 279.077 IEC†	763.3	736.6	6481.1	µg/L	6481.1	ppb	03:45:57
2	Na 589.592 Radial†	5454.9	4884.2	1500.1	µg/L	1500.1	ppb	03:45:37
2	Sr 421.552†	9121.0	8927.5	82.357	µg/L	82.357	ppb	03:45:37
2	Sc 361.383	2022120.2	2022120.2	103.01	%			03:47:10
2	Y 371.029	1461972.4	1461972.4	108.07	%			03:47:10
2	Ag 328.068†	-1615.8	-1167.1	-2.1887	µg/L	-2.1887	ppb	03:47:15
2	As 188.979†	16.1	16.1	33.974	µg/L	33.974	ppb	03:47:36
2	B 249.677†	867.0	457.6	-31.757	µg/L	-31.757	ppb	03:47:15
2	Ba 233.527†	21710.5	21094.1	506.51	µg/L	506.51	ppb	03:47:15
2	Be 313.107†	9012.4	11605.1	6.3410	µg/L	6.3410	ppb	03:47:15
2	Cd 226.502†	172.2	308.9	-3.1824	µg/L	-3.1824	ppb	03:47:36
2	Co 228.616†	1654.5	1604.3	69.666	µg/L	69.666	ppb	03:47:36
2	Cr 267.716†	4473.7	4393.5	88.279	µg/L	88.279	ppb	03:47:15
2	Cu 324.752†	10563.0	7711.0	63.799	µg/L	63.799	ppb	03:47:15
2	Mn 257.610†	640417.6	621987.8	1960.4	µg/L	1960.4	ppb	03:47:10
2	Mo 202.031†	55.4	59.1	9.4716	µg/L	9.4716	ppb	03:47:36
2	Ni 231.604†	1572.1	1213.9	61.685	µg/L	61.685	ppb	03:47:36
2	P 214.914†	306.3	282.0	486.76	µg/L	486.76	ppb	03:47:36
2	Pb 220.353†	411.2	308.3	73.577	µg/L	73.577	ppb	03:47:36

2	S 181.975 Axial†	42.6	22.4	92.811 µg/L	92.811 ppb	03:47:36
2	Sb 206.836†	27.6	4.3	2.2478 µg/L	2.2478 ppb	03:47:36
2	Se 196.026†	-44.5	-62.5	168.70 µg/L	168.70 ppb	03:47:36
2	SiO2†	299407.9	289280.4	57100 µg/L	57100 ppb	03:47:10
2	Si 251.611†	359108.2	348319.7	26480 µg/L	26480 ppb	03:47:10
2	Sn 189.927†	37.2	35.7	5.4604 µg/L	5.4604 ppb	03:47:36
2	Ti 334.940†	668318.2	648643.3	1434.6 µg/L	1434.6 ppb	03:47:10
2	Tl 190.801†	-46.2	-22.4	7.3232 µg/L	7.3232 ppb	03:47:36
2	U 409.014†	-927.3	-823.2	-82.408 µg/L	-82.408 ppb	03:47:10
2	V 292.402†	5615.1	5496.0	65.139 µg/L	65.139 ppb	03:47:15
2	Zn 213.857†	13306.9	12384.2	285.23 µg/L	285.23 ppb	03:47:15
3	Sc RADIAL	58050.0	58050.0	103 %		03:46:03
3	Al 396.153Radial†	62413.3	60734.8	42250 µg/L	42250 ppb	03:46:03
3	Ca 317.933Radial†	10966.0	10461.1	8935.6 µg/L	8935.6 ppb	03:46:23
3	Fe 238.204 Radial†	12590.3	12236.6	96510 µg/L	96510 ppb	03:46:23
3	K 766.490 Radial†	8225.7	7840.5	5120.7 µg/L	5120.7 ppb	03:46:03
3	Mg 279.077 IEC†	776.3	742.7	6535.8 µg/L	6535.8 ppb	03:46:23
3	Na 589.592 Radial†	5478.3	4859.4	1492.5 µg/L	1492.5 ppb	03:46:03
3	Sr 421.552†	9197.8	8922.7	82.313 µg/L	82.313 ppb	03:46:03
3	Sc 361.383	2011624.6	2011624.6	102.47 %		03:47:44
3	Y 371.029	1450802.6	1450802.6	107.25 %		03:47:44
3	Ag 328.068†	-1508.1	-1070.2	-1.5182 µg/L	-1.5182 ppb	03:47:49
3	As 188.979†	10.0	10.2	23.424 µg/L	23.424 ppb	03:48:10
3	B 249.677†	859.8	454.9	-31.686 µg/L	-31.686 ppb	03:47:49
3	Ba 233.527†	20550.7	20072.3	481.97 µg/L	481.97 ppb	03:47:49
3	Be 313.107†	8232.7	10889.9	5.9366 µg/L	5.9366 ppb	03:47:49
3	Cd 226.502†	144.1	282.3	-3.8094 µg/L	-3.8094 ppb	03:48:10
3	Co 228.616†	1509.6	1471.3	63.753 µg/L	63.753 ppb	03:48:10
3	Cr 267.716†	4137.2	4087.8	82.136 µg/L	82.136 ppb	03:47:49
3	Cu 324.752†	10120.6	7332.8	61.280 µg/L	61.280 ppb	03:47:49
3	Mn 257.610†	617170.5	602545.1	1899.5 µg/L	1899.5 ppb	03:47:44
3	Mo 202.031†	57.6	61.5	9.6931 µg/L	9.6931 ppb	03:48:10
3	Ni 231.604†	1470.6	1122.8	57.146 µg/L	57.146 ppb	03:48:10
3	P 214.914†	288.2	265.9	455.50 µg/L	455.50 ppb	03:48:10
3	Pb 220.353†	387.3	287.0	68.428 µg/L	68.428 ppb	03:48:10
3	S 181.975 Axial†	37.8	17.9	74.373 µg/L	74.373 ppb	03:48:10
3	Sb 206.836†	26.2	3.0	1.1649 µg/L	1.1649 ppb	03:48:10
3	Se 196.026†	-32.7	-51.3	183.42 µg/L	183.42 ppb	03:48:10
3	SiO2†	291423.7	283005.2	55862 µg/L	55862 ppb	03:47:44
3	Si 251.611†	349079.5	340351.7	25874 µg/L	25874 ppb	03:47:44
3	Sn 189.927†	35.9	34.7	5.0533 µg/L	5.0533 ppb	03:48:10
3	Ti 334.940†	640437.7	624820.3	1381.9 µg/L	1381.9 ppb	03:47:44
3	Tl 190.801†	-46.6	-23.1	5.7574 µg/L	5.7574 ppb	03:48:10
3	U 409.014†	-857.8	-760.0	-77.103 µg/L	-77.103 ppb	03:47:44
3	V 292.402†	5199.7	5119.1	61.416 µg/L	61.416 ppb	03:47:49
3	Zn 213.857†	12654.2	11814.7	271.91 µg/L	271.91 ppb	03:47:49

Mean Data: 245979005|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2016884.7	102.74	%	0.267				0.26%
Sc RADIAL	57552.4	102	%	0.9				0.85%
Y 371.029	1456874.1	107.70	%	0.418				0.39%
Ag 328.068†	-1130.4	-1.9195	µg/L	0.35427	-1.9195	ppb	0.35427	18.46%
Al 396.153Radial†	60912.1	42374	µg/L	348.3	42374	ppb	348.3	0.82%
As 188.979†	12.7	27.979	µg/L	5.4208	27.979	ppb	5.4208	19.37%
B 249.677†	452.0	-32.045	µg/L	0.5611	-32.045	ppb	0.5611	1.75%
Ba 233.527†	20760.3	498.49	µg/L	14.311	498.49	ppb	14.311	2.87%
Be 313.107†	11388.1	6.2180	µg/L	0.24431	6.2180	ppb	0.24431	3.93%
Ca 317.933Radial†	10551.2	9012.6	µg/L	81.36	9012.6	ppb	81.36	0.90%
Cd 226.502†	305.2	-3.2887	µg/L	0.47647	-3.2887	ppb	0.47647	14.49%
Co 228.616†	1571.0	68.190	µg/L	3.9128	68.190	ppb	3.9128	5.74%
Cr 267.716†	4297.1	86.341	µg/L	3.6456	86.341	ppb	3.6456	4.22%
Cu 324.752†	7605.7	63.127	µg/L	1.6195	63.127	ppb	1.6195	2.57%
Fe 238.204 Radial†	12296.8	96985	µg/L	539.0	96985	ppb	539.0	0.56%
K 766.490 Radial†	7891.2	5153.9	µg/L	49.47	5153.9	ppb	49.47	0.96%
Mg 279.077 IEC†	743.3	6540.8	µg/L	62.33	6540.8	ppb	62.33	0.95%
Mn 257.610†	616628.3	1943.6	µg/L	38.61	1943.6	ppb	38.61	1.99%
Mo 202.031†	62.2	9.7809	µg/L	0.36129	9.7809	ppb	0.36129	3.69%
Na 589.592 Radial†	4888.4	1501.5	µg/L	9.65	1501.5	ppb	9.65	0.64%

Ni 231.604†	1196.2	60.806	µg/L	3.3092	60.806	ppb	3.3092	5.44%
P 214.914†	279.9	482.65	µg/L	25.348	482.65	ppb	25.348	5.25%
Pb 220.353†	300.4	71.681	µg/L	2.8303	71.681	ppb	2.8303	3.95%
S 181.975 Axial†	21.7	89.973	µg/L	14.3919	89.973	ppb	14.3919	16.00%
Sb 206.836†	5.3	3.1848	µg/L	2.61731	3.1848	ppb	2.61731	82.18%
Se 196.026†	-57.9	175.39	µg/L	7.452	175.39	ppb	7.452	4.25%
SiO2†	287614.8	56771	µg/L	798.0	56771	ppb	798.0	1.41%
Si 251.611†	346154.2	26315	µg/L	386.1	26315	ppb	386.1	1.47%
Sn 189.927†	35.2	5.2383	µg/L	0.20605	5.2383	ppb	0.20605	3.93%
Sr 421.552†	8975.8	82.803	µg/L	0.8106	82.803	ppb	0.8106	0.98%
Ti 334.940†	641769.8	1419.4	µg/L	32.67	1419.4	ppb	32.67	2.30%
Tl 190.801†	-22.0	7.7202	µg/L	2.18841	7.7202	ppb	2.18841	28.35%
U 409.014†	-817.0	-81.914	µg/L	4.5842	-81.914	ppb	4.5842	5.60%
V 292.402†	5345.4	63.683	µg/L	1.9895	63.683	ppb	1.9895	3.12%
Zn 213.857†	12220.6	281.39	µg/L	8.258	281.39	ppb	8.258	2.93%

Sequence No.: 14
Sample ID: 245979006|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 238
Date Collected: 2/20/2010 03:48:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979006|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56405.0	56405.0	99.8	%			03:48:52
1	Al 396.153Radial†	28660.5	28699.2	19965	µg/L	19965	ppb	03:48:52
1	Ca 317.933Radial†	17494.7	17311.5	14787	µg/L	14787	ppb	03:48:52
1	Fe 238.204 Radial†	8349.2	8346.0	65825	µg/L	65825	ppb	03:49:12
1	K 766.490 Radial†	6073.7	5918.5	3865.5	µg/L	3865.5	ppb	03:48:52
1	Mg 279.077 IEC†	642.8	631.0	5570.1	µg/L	5570.1	ppb	03:49:12
1	Na 589.592 Radial†	3450.7	2984.1	916.53	µg/L	916.53	ppb	03:48:52
1	Sr 421.552†	8335.5	8320.1	76.754	µg/L	76.754	ppb	03:48:52
1	Sc 361.383	2007660.9	2007660.9	102.27	%			03:50:27
1	Y 371.029	1398505.2	1398505.2	103.38	%			03:50:27
1	Ag 328.068†	6887.7	7136.5	57.762	µg/L	57.762	ppb	03:50:32
1	As 188.979†	12.0	12.2	24.981	µg/L	24.981	ppb	03:50:53
1	B 249.677†	859.0	455.8	-15.610	µg/L	-15.610	ppb	03:50:32
1	Ba 233.527†	34975.3	34216.4	821.64	µg/L	821.64	ppb	03:50:32
1	Be 313.107†	235777.6	233402.4	137.87	µg/L	137.87	ppb	03:50:27
1	Cd 226.502†	191.8	329.3	0.8602	µg/L	0.8602	ppb	03:50:53
1	Co 228.616†	631.0	615.1	24.271	µg/L	24.271	ppb	03:50:53
1	Cr 267.716†	5020.7	4959.7	99.689	µg/L	99.689	ppb	03:50:32
1	Cu 324.752†	39115038.2	38244706.0	249650	µg/L	249650	ppb	03:50:19
1	Mn 257.610†	326038.1	319060.8	1007.7	µg/L	1007.7	ppb	03:50:27
1	Mo 202.031†	19.0	23.9	4.8394	µg/L	4.8394	ppb	03:50:53
1	Ni 231.604†	2087.6	1728.9	87.008	µg/L	87.008	ppb	03:50:53
1	P 214.914†	3822.7	3722.6	-19027	µg/L	-19027	ppb	03:50:27
1	Pb 220.353†	18631.6	18127.3	3982.7	µg/L	3982.7	ppb	03:50:32
1	S 181.975 Axial†	80.0	59.3	245.73	µg/L	245.73	ppb	03:50:53
1	Sb 206.836†	102.7	78.0	69.204	µg/L	69.204	ppb	03:50:53
1	Se 196.026†	-12.3	-31.3	126.80	µg/L	126.80	ppb	03:50:53
1	SiO2†	145263.9	140649.6	27762	µg/L	27762	ppb	03:50:32
1	Si 251.611†	176196.6	171977.0	13074	µg/L	13074	ppb	03:50:27
1	Sn 189.927†	1764.9	1725.4	721.19	µg/L	721.19	ppb	03:50:53
1	Ti 334.940†	794561.0	776758.2	1718.2	µg/L	1718.2	ppb	03:50:27
1	Tl 190.801†	-38.2	-14.9	11.431	µg/L	11.431	ppb	03:50:53
1	U 409.014†	24210.6	23750.6	1963.2	µg/L	1963.2	ppb	03:50:32
1	V 292.402†	11893.9	11674.8	123.82	µg/L	123.82	ppb	03:50:32
1	Zn 213.857†	3225449.2	3153356.4	73576	µg/L	73576	ppb	03:50:27
2	Sc RADIAL	56941.2	56941.2	101	%			03:49:18
2	Al 396.153Radial†	28983.7	28749.5	20000	µg/L	20000	ppb	03:49:18
2	Ca 317.933Radial†	17692.8	17343.1	14814	µg/L	14814	ppb	03:49:18
2	Fe 238.204 Radial†	8360.0	8278.0	65288	µg/L	65288	ppb	03:49:38
2	K 766.490 Radial†	6122.9	5910.1	3860.0	µg/L	3860.0	ppb	03:49:18
2	Mg 279.077 IEC†	643.6	625.7	5523.6	µg/L	5523.6	ppb	03:49:38
2	Na 589.592 Radial†	3551.6	3051.6	937.27	µg/L	937.27	ppb	03:49:18
2	Sr 421.552†	8471.2	8376.1	77.271	µg/L	77.271	ppb	03:49:18
2	Sc 361.383	1994207.2	1994207.2	101.58	%			03:51:10
2	Y 371.029	1390053.2	1390053.2	102.76	%			03:51:10
2	Ag 328.068†	6719.4	7016.3	56.823	µg/L	56.823	ppb	03:51:16
2	As 188.979†	8.4	8.7	18.594	µg/L	18.594	ppb	03:51:36
2	B 249.677†	884.1	486.2	-14.095	µg/L	-14.095	ppb	03:51:16
2	Ba 233.527†	34333.6	33815.4	812.01	µg/L	812.01	ppb	03:51:16
2	Be 313.107†	233862.4	233072.5	137.68	µg/L	137.68	ppb	03:51:10
2	Cd 226.502†	173.1	312.1	0.4905	µg/L	0.4905	ppb	03:51:36
2	Co 228.616†	616.1	604.5	23.800	µg/L	23.800	ppb	03:51:36
2	Cr 267.716†	4905.7	4879.6	98.079	µg/L	98.079	ppb	03:51:16
2	Cu 324.752†	39367818.7	38751576.9	252960	µg/L	252960	ppb	03:51:02
2	Mn 257.610†	323437.6	318651.6	1006.3	µg/L	1006.3	ppb	03:51:10
2	Mo 202.031†	16.3	21.4	4.5784	µg/L	4.5784	ppb	03:51:36
2	Ni 231.604†	2014.0	1670.3	84.078	µg/L	84.078	ppb	03:51:36
2	P 214.914†	3730.7	3657.2	-19506	µg/L	-19506	ppb	03:51:10
2	Pb 220.353†	18313.4	17937.0	3930.9	µg/L	3930.9	ppb	03:51:16

2	S 181.975 Axial†	79.4	59.3	245.79 µg/L	245.79 ppb	03:51:36
2	Sb 206.836†	100.8	76.7	68.090 µg/L	68.090 ppb	03:51:36
2	Se 196.026†	-15.8	-34.9	120.35 µg/L	120.35 ppb	03:51:36
2	SiO2†	143249.5	139624.9	27560 µg/L	27560 ppb	03:51:16
2	Si 251.611†	174869.4	171832.7	13063 µg/L	13063 ppb	03:51:10
2	Sn 189.927†	1699.4	1672.5	698.93 µg/L	698.93 ppb	03:51:36
2	Ti 334.940†	787741.7	775286.7	1714.9 µg/L	1714.9 ppb	03:51:10
2	Tl 190.801†	-37.9	-15.0	11.250 µg/L	11.250 ppb	03:51:36
2	U 409.014†	23655.0	23363.3	1931.1 µg/L	1931.1 ppb	03:51:16
2	V 292.402†	11579.9	11444.1	121.47 µg/L	121.47 ppb	03:51:16
2	Zn 213.857†	3208730.8	3158176.0	73684 µg/L	73684 ppb	03:51:10
3	Sc RADIAL	56555.3	56555.3	100 %		03:49:43
3	Al 396.153Radial†	28853.0	28815.2	20045 µg/L	20045 ppb	03:49:43
3	Ca 317.933Radial†	17569.2	17339.4	14811 µg/L	14811 ppb	03:49:43
3	Fe 238.204 Radial†	8340.0	8314.6	65577 µg/L	65577 ppb	03:50:04
3	K 766.490 Radial†	6121.3	5949.8	3885.9 µg/L	3885.9 ppb	03:49:43
3	Mg 279.077 IEC†	646.4	632.8	5586.7 µg/L	5586.7 ppb	03:50:04
3	Na 589.592 Radial†	3492.2	3016.4	926.46 µg/L	926.46 ppb	03:49:43
3	Sr 421.552†	8409.3	8371.6	77.229 µg/L	77.229 ppb	03:49:43
3	Sc 361.383	2016093.1	2016093.1	102.70 %		03:51:53
3	Y 371.029	1402122.4	1402122.4	103.65 %		03:51:53
3	Ag 328.068†	5769.2	6019.2	49.322 µg/L	49.322 ppb	03:51:59
3	As 188.979†	10.9	11.1	22.909 µg/L	22.909 ppb	03:52:19
3	B 249.677†	748.5	344.7	-20.043 µg/L	-20.043 ppb	03:51:59
3	Ba 233.527†	28849.7	28108.7	674.98 µg/L	674.98 ppb	03:51:59
3	Be 313.107†	201841.8	199394.1	117.78 µg/L	117.78 ppb	03:51:53
3	Cd 226.502†	79.3	218.9	-1.8940 µg/L	-1.8940 ppb	03:52:19
3	Co 228.616†	421.9	408.9	15.468 µg/L	15.468 ppb	03:52:19
3	Cr 267.716†	4003.6	3948.8	79.370 µg/L	79.370 ppb	03:51:59
3	Cu 324.752†	36011306.5	35062557.1	228880 µg/L	228880 ppb	03:51:45
3	Mn 257.610†	281695.9	274550.3	868.26 µg/L	868.26 ppb	03:51:53
3	Mo 202.031†	8.3	13.4	3.8031 µg/L	3.8031 ppb	03:52:19
3	Ni 231.604†	1505.1	1153.2	58.315 µg/L	58.315 ppb	03:52:19
3	P 214.914†	3261.1	3160.1	-17951 µg/L	-17951 ppb	03:51:53
3	Pb 220.353†	15814.7	15308.2	3332.8 µg/L	3332.8 ppb	03:51:59
3	S 181.975 Axial†	61.2	40.7	168.79 µg/L	168.79 ppb	03:52:19
3	Sb 206.836†	80.4	55.8	49.060 µg/L	49.060 ppb	03:52:19
3	Se 196.026†	5.7	-13.7	150.83 µg/L	150.83 ppb	03:52:19
3	SiO2†	122272.3	117667.9	23226 µg/L	23226 ppb	03:51:59
3	Si 251.611†	155116.9	150730.5	11459 µg/L	11459 ppb	03:51:53
3	Sn 189.927†	1183.5	1152.0	479.43 µg/L	479.43 ppb	03:52:19
3	Ti 334.940†	678573.7	660569.0	1461.1 µg/L	1461.1 ppb	03:51:53
3	Tl 190.801†	-31.0	-7.8	17.404 µg/L	17.404 ppb	03:52:19
3	U 409.014†	19597.3	19159.5	1581.8 µg/L	1581.8 ppb	03:51:59
3	V 292.402†	9587.2	9380.1	100.98 µg/L	100.98 ppb	03:51:59
3	Zn 213.857†	2940183.3	2862394.9	66784 µg/L	66784 ppb	03:51:53

Mean Data: 245979006|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2005987.1	102.18	%	0.562				0.55%
Sc RADIAL	56633.8	100	%	0.5				0.49%
Y 371.029	1396893.6	103.26	%	0.458				0.44%
Ag 328.068†	6724.0	54.636	µg/L	4.6257	54.636	ppb	4.6257	8.47%
Al 396.153Radial†	28754.6	20003	µg/L	40.5	20003	ppb	40.5	0.20%
As 188.979†	10.7	22.162	µg/L	3.2584	22.162	ppb	3.2584	14.70%
B 249.677†	428.9	-16.582	µg/L	3.0908	-16.582	ppb	3.0908	18.64%
Ba 233.527†	32046.9	769.54	µg/L	82.041	769.54	ppb	82.041	10.66%
Be 313.107†	221956.3	131.11	µg/L	11.541	131.11	ppb	11.541	8.80%
Ca 317.933Radial†	17331.3	14804	µg/L	14.7	14804	ppb	14.7	0.10%
Cd 226.502†	286.8	-0.1811	µg/L	1.49488	-0.1811	ppb	1.49488	825.36%
Co 228.616†	542.8	21.180	µg/L	4.9522	21.180	ppb	4.9522	23.38%
Cr 267.716†	4596.0	92.379	µg/L	11.2951	92.379	ppb	11.2951	12.23%
Cu 324.752†	37352946.7	243830	µg/L	13052.8	243830	ppb	13052.8	5.35%
Fe 238.204 Radial†	8312.9	65563	µg/L	268.6	65563	ppb	268.6	0.41%
K 766.490 Radial†	5926.1	3870.5	µg/L	13.69	3870.5	ppb	13.69	0.35%
Mg 279.077 IEC†	629.9	5560.1	µg/L	32.73	5560.1	ppb	32.73	0.59%
Mn 257.610†	304087.6	960.75	µg/L	80.107	960.75	ppb	80.107	8.34%
Mo 202.031†	19.6	4.4070	µg/L	0.53901	4.4070	ppb	0.53901	12.23%
Na 589.592 Radial†	3017.3	926.75	µg/L	10.372	926.75	ppb	10.372	1.12%

Ni 231.604†	1517.4	76.467	µg/L	15.7881	76.467	ppb	15.7881	20.65%
P 214.914†	3513.3	-18828	µg/L	796.4	-18828	ppb	796.4	4.23%
Pb 220.353†	17124.1	3748.8	µg/L	361.20	3748.8	ppb	361.20	9.64%
S 181.975 Axial†	53.1	220.10	µg/L	44.436	220.10	ppb	44.436	20.19%
Sb 206.836†	70.2	62.118	µg/L	11.3228	62.118	ppb	11.3228	18.23%
Se 196.026†	-26.6	132.66	µg/L	16.062	132.66	ppb	16.062	12.11%
SiO2†	132647.5	26183	µg/L	2562.6	26183	ppb	2562.6	9.79%
Si 251.611†	164846.7	12532	µg/L	929.4	12532	ppb	929.4	7.42%
Sn 189.927†	1516.6	633.18	µg/L	133.620	633.18	ppb	133.620	21.10%
Sr 421.552†	8356.0	77.085	µg/L	0.2870	77.085	ppb	0.2870	0.37%
Ti 334.940†	737538.0	1631.4	µg/L	147.47	1631.4	ppb	147.47	9.04%
Tl 190.801†	-12.6	13.362	µg/L	3.5022	13.362	ppb	3.5022	26.21%
U 409.014†	22091.1	1825.4	µg/L	211.55	1825.4	ppb	211.55	11.59%
V 292.402†	10833.0	115.42	µg/L	12.565	115.42	ppb	12.565	10.89%
Zn 213.857†	3057975.8	71348	µg/L	3953.3	71348	ppb	3953.3	5.54%

Sequence No.: 15
Sample ID: 245979007|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 239
Date Collected: 2/20/2010 03:52:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979007|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58121.8	58121.8	103	%			03:53:01
1	Al 396.153Radial†	48634.9	47266.8	32881	µg/L	32881	ppb	03:53:01
1	Ca 317.933Radial†	9803.7	9318.2	7959.4	µg/L	7959.4	ppb	03:53:21
1	Fe 238.204 Radial†	10295.2	9990.6	78796	µg/L	78796	ppb	03:53:21
1	K 766.490 Radial†	7377.7	7006.3	4575.9	µg/L	4575.9	ppb	03:53:01
1	Mg 279.077 IEC†	688.5	656.4	5783.4	µg/L	5783.4	ppb	03:53:21
1	Na 589.592 Radial†	4557.6	3957.9	1215.6	µg/L	1215.6	ppb	03:53:01
1	Sr 421.552†	7413.6	7177.4	66.213	µg/L	66.213	ppb	03:53:01
1	Sc 361.383	2028152.6	2028152.6	103.31	%			03:54:26
1	Y 371.029	1476538.9	1476538.9	109.15	%			03:54:26
1	Ag 328.068†	-1445.0	-997.0	-2.0381	µg/L	-2.0381	ppb	03:54:31
1	As 188.979†	20.6	20.4	40.662	µg/L	40.662	ppb	03:54:52
1	B 249.677†	707.5	300.6	-28.613	µg/L	-28.613	ppb	03:54:31
1	Ba 233.527†	12429.3	12047.8	289.34	µg/L	289.34	ppb	03:54:31
1	Be 313.107†	7488.0	10103.6	5.4952	µg/L	5.4952	ppb	03:54:31
1	Cd 226.502†	135.7	273.1	-2.0057	µg/L	-2.0057	ppb	03:54:52
1	Co 228.616†	873.7	843.8	35.469	µg/L	35.469	ppb	03:54:52
1	Cr 267.716†	7966.3	7761.2	155.92	µg/L	155.92	ppb	03:54:31
1	Cu 324.752†	14678.8	11664.4	87.092	µg/L	87.092	ppb	03:54:31
1	Mn 257.610†	756375.9	732378.7	2303.7	µg/L	2303.7	ppb	03:54:26
1	Mo 202.031†	32.3	36.6	6.5756	µg/L	6.5756	ppb	03:54:52
1	Ni 231.604†	2141.9	1760.9	88.760	µg/L	88.760	ppb	03:54:52
1	P 214.914†	230.2	207.5	348.34	µg/L	348.34	ppb	03:54:52
1	Pb 220.353†	277.9	178.0	42.151	µg/L	42.151	ppb	03:54:52
1	S 181.975 Axial†	41.1	20.8	86.277	µg/L	86.277	ppb	03:54:52
1	Sb 206.836†	34.5	10.9	7.6287	µg/L	7.6287	ppb	03:54:52
1	Se 196.026†	-23.4	-41.9	149.06	µg/L	149.06	ppb	03:54:52
1	SiO2†	268607.7	258603.2	51045	µg/L	51045	ppb	03:54:26
1	Si 251.611†	321970.9	311336.3	23668	µg/L	23668	ppb	03:54:26
1	Sn 189.927†	6.9	6.3	-5.0896	µg/L	-5.0896	ppb	03:54:52
1	Ti 334.940†	614656.3	594772.2	1315.4	µg/L	1315.4	ppb	03:54:26
1	Tl 190.801†	-40.1	-16.4	12.283	µg/L	12.283	ppb	03:54:52
1	U 409.014†	-2175.7	-2028.8	-180.00	µg/L	-180.00	ppb	03:54:26
1	V 292.402†	6111.4	5960.2	67.569	µg/L	67.569	ppb	03:54:31
1	Zn 213.857†	10264.1	9400.6	215.97	µg/L	215.97	ppb	03:54:31
2	Sc RADIAL	58462.5	58462.5	103	%			03:53:27
2	Al 396.153Radial†	48973.2	47318.3	32917	µg/L	32917	ppb	03:53:27
2	Ca 317.933Radial†	9812.9	9271.5	7919.5	µg/L	7919.5	ppb	03:53:47
2	Fe 238.204 Radial†	10282.5	9919.9	78239	µg/L	78239	ppb	03:53:47
2	K 766.490 Radial†	7475.6	7059.1	4610.4	µg/L	4610.4	ppb	03:53:27
2	Mg 279.077 IEC†	682.3	646.6	5695.7	µg/L	5695.7	ppb	03:53:47
2	Na 589.592 Radial†	4547.6	3922.4	1204.7	µg/L	1204.7	ppb	03:53:27
2	Sr 421.552†	7404.6	7126.7	65.744	µg/L	65.744	ppb	03:53:27
2	Sc 361.383	2018754.7	2018754.7	102.83	%			03:55:00
2	Y 371.029	1469203.2	1469203.2	108.61	%			03:55:00
2	Ag 328.068†	-1442.4	-1001.1	-2.1052	µg/L	-2.1052	ppb	03:55:05
2	As 188.979†	14.5	14.6	30.283	µg/L	30.283	ppb	03:55:26
2	B 249.677†	701.3	297.9	-28.433	µg/L	-28.433	ppb	03:55:05
2	Ba 233.527†	12432.3	12106.8	290.75	µg/L	290.75	ppb	03:55:05
2	Be 313.107†	7601.5	10247.7	5.5793	µg/L	5.5793	ppb	03:55:05
2	Cd 226.502†	140.7	278.5	-1.8079	µg/L	-1.8079	ppb	03:55:26
2	Co 228.616†	858.0	832.4	34.948	µg/L	34.948	ppb	03:55:26
2	Cr 267.716†	8006.5	7836.2	157.43	µg/L	157.43	ppb	03:55:05
2	Cu 324.752†	14059.0	11127.8	83.512	µg/L	83.512	ppb	03:55:05
2	Mn 257.610†	754244.9	733714.6	2307.8	µg/L	2307.8	ppb	03:55:00
2	Mo 202.031†	31.1	35.6	6.4599	µg/L	6.4599	ppb	03:55:26
2	Ni 231.604†	2112.3	1741.8	87.800	µg/L	87.800	ppb	03:55:26
2	P 214.914†	238.5	216.6	367.22	µg/L	367.22	ppb	03:55:26
2	Pb 220.353†	281.8	183.1	43.403	µg/L	43.403	ppb	03:55:26

2	S 181.975 Axial†	46.6	26.4	109.47	µg/L	109.47 ppb	03:55:26
2	Sb 206.836†	28.8	5.5	2.6260	µg/L	2.6260 ppb	03:55:26
2	Se 196.026†	-32.1	-50.5	135.61	µg/L	135.61 ppb	03:55:26
2	SiO2†	268096.9	259316.9	51186	µg/L	51186 ppb	03:55:00
2	Si 251.611†	321416.0	312247.5	23738	µg/L	23738 ppb	03:55:00
2	Sn 189.927†	8.1	7.5	-4.5613	µg/L	-4.5613 ppb	03:55:26
2	Ti 334.940†	613530.1	596446.8	1319.1	µg/L	1319.1 ppb	03:55:00
2	Tl 190.801†	-43.3	-19.7	7.9555	µg/L	7.9555 ppb	03:55:26
2	U 409.014†	-2120.7	-1985.2	-176.29	µg/L	-176.29 ppb	03:55:00
2	V 292.402†	6054.0	5932.0	67.235	µg/L	67.235 ppb	03:55:05
2	Zn 213.857†	9971.3	9162.1	210.41	µg/L	210.41 ppb	03:55:05
3	Sc RADIAL	58144.7	58144.7	103	%		03:53:53
3	Al 396.153Radial†	48843.7	47451.1	33009	µg/L	33009 ppb	03:53:53
3	Ca 317.933Radial†	9809.6	9320.1	7961.0	µg/L	7961.0 ppb	03:54:13
3	Fe 238.204 Radial†	10300.0	9991.3	78801	µg/L	78801 ppb	03:54:13
3	K 766.490 Radial†	7452.7	7076.4	4621.7	µg/L	4621.7 ppb	03:53:53
3	Mg 279.077 IEC†	685.7	653.5	5756.8	µg/L	5756.8 ppb	03:54:13
3	Na 589.592 Radial†	4597.8	3995.2	1227.1	µg/L	1227.1 ppb	03:53:53
3	Sr 421.552†	7388.1	7149.8	65.958	µg/L	65.958 ppb	03:53:53
3	Sc 361.383	2034150.8	2034150.8	103.62	%		03:55:33
3	Y 371.029	1476749.9	1476749.9	109.17	%		03:55:33
3	Ag 328.068†	-1345.3	-896.8	-1.3272	µg/L	-1.3272 ppb	03:55:39
3	As 188.979†	12.7	12.7	26.909	µg/L	26.909 ppb	03:56:00
3	B 249.677†	688.7	280.5	-29.459	µg/L	-29.459 ppb	03:55:39
3	Ba 233.527†	11649.9	11260.1	270.42	µg/L	270.42 ppb	03:55:39
3	Be 313.107†	6657.0	9280.2	5.0303	µg/L	5.0303 ppb	03:55:39
3	Cd 226.502†	110.9	248.8	-2.6236	µg/L	-2.6236 ppb	03:56:00
3	Co 228.616†	765.4	736.7	30.750	µg/L	30.750 ppb	03:56:00
3	Cr 267.716†	7297.0	7092.6	142.49	µg/L	142.49 ppb	03:55:39
3	Cu 324.752†	12944.0	9948.3	75.891	µg/L	75.891 ppb	03:55:39
3	Mn 257.610†	726466.3	701354.6	2206.6	µg/L	2206.6 ppb	03:55:33
3	Mo 202.031†	25.6	30.1	5.9385	µg/L	5.9385 ppb	03:56:00
3	Ni 231.604†	1921.5	1542.0	77.854	µg/L	77.854 ppb	03:56:00
3	P 214.914†	211.7	188.9	312.76	µg/L	312.76 ppb	03:56:00
3	Pb 220.353†	268.2	167.9	39.709	µg/L	39.709 ppb	03:56:00
3	S 181.975 Axial†	42.2	21.8	90.206	µg/L	90.206 ppb	03:56:00
3	Sb 206.836†	23.8	0.5	-1.7882	µg/L	-1.7882 ppb	03:56:00
3	Se 196.026†	-19.7	-38.4	154.13	µg/L	154.13 ppb	03:56:00
3	SiO2†	261490.6	250968.0	49538	µg/L	49538 ppb	03:55:33
3	Si 251.611†	313162.7	301916.7	22952	µg/L	22952 ppb	03:55:33
3	Sn 189.927†	9.3	8.6	-4.1498	µg/L	-4.1498 ppb	03:56:00
3	Ti 334.940†	587348.3	566663.5	1253.3	µg/L	1253.3 ppb	03:55:33
3	Tl 190.801†	-33.5	-9.9	19.837	µg/L	19.837 ppb	03:56:00
3	U 409.014†	-2076.8	-1927.2	-171.56	µg/L	-171.56 ppb	03:55:33
3	V 292.402†	5612.8	5461.5	62.683	µg/L	62.683 ppb	03:55:39
3	Zn 213.857†	9172.9	8318.2	190.64	µg/L	190.64 ppb	03:55:39

Mean Data: 245979007|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2027019.4	103.26	%	0.395				0.38%
Sc RADIAL	58243.0	103	%	0.3				0.33%
Y 371.029	1474164.0	108.97	%	0.318				0.29%
Ag 328.068†	-964.9	-1.8235	µg/L	0.43111	-1.8235	ppb	0.43111	23.64%
Al 396.153Radial†	47345.4	32936	µg/L	66.2	32936	ppb	66.2	0.20%
As 188.979†	15.9	32.618	µg/L	7.1679	32.618	ppb	7.1679	21.98%
B 249.677†	293.0	-28.835	µg/L	0.5480	-28.835	ppb	0.5480	1.90%
Ba 233.527†	11804.9	283.50	µg/L	11.353	283.50	ppb	11.353	4.00%
Be 313.107†	9877.2	5.3683	µg/L	0.29574	5.3683	ppb	0.29574	5.51%
Ca 317.933Radial†	9303.3	7946.6	µg/L	23.50	7946.6	ppb	23.50	0.30%
Cd 226.502†	266.8	-2.1457	µg/L	0.42549	-2.1457	ppb	0.42549	19.83%
Co 228.616†	804.3	33.722	µg/L	2.5875	33.722	ppb	2.5875	7.67%
Cr 267.716†	7563.3	151.95	µg/L	8.225	151.95	ppb	8.225	5.41%
Cu 324.752†	10913.5	82.165	µg/L	5.7208	82.165	ppb	5.7208	6.96%
Fe 238.204 Radial†	9967.3	78612	µg/L	323.3	78612	ppb	323.3	0.41%
K 766.490 Radial†	7047.3	4602.7	µg/L	23.83	4602.7	ppb	23.83	0.52%
Mg 279.077 IEC†	652.1	5745.3	µg/L	44.96	5745.3	ppb	44.96	0.78%
Mn 257.610†	722482.7	2272.7	µg/L	57.31	2272.7	ppb	57.31	2.52%
Mo 202.031†	34.1	6.3247	µg/L	0.33938	6.3247	ppb	0.33938	5.37%
Na 589.592 Radial†	3958.5	1215.8	µg/L	11.18	1215.8	ppb	11.18	0.92%

Ni 231.604†	1681.6	84.804	µg/L	6.0383	84.804	ppb	6.0383	7.12%
P 214.914†	204.4	342.77	µg/L	27.653	342.77	ppb	27.653	8.07%
Pb 220.353†	176.4	41.755	µg/L	1.8787	41.755	ppb	1.8787	4.50%
S 181.975 Axial†	23.0	95.317	µg/L	12.4111	95.317	ppb	12.4111	13.02%
Sb 206.836†	5.6	2.8222	µg/L	4.71149	2.8222	ppb	4.71149	166.94%
Se 196.026†	-43.6	146.27	µg/L	9.573	146.27	ppb	9.573	6.55%
SiO2†	256296.0	50589	µg/L	913.5	50589	ppb	913.5	1.81%
Si 251.611†	308500.1	23453	µg/L	434.8	23453	ppb	434.8	1.85%
Sn 189.927†	7.4	-4.6002	µg/L	0.47111	-4.6002	ppb	0.47111	10.24%
Sr 421.552†	7151.3	65.972	µg/L	0.2344	65.972	ppb	0.2344	0.36%
Ti 334.940†	585960.8	1295.9	µg/L	37.02	1295.9	ppb	37.02	2.86%
Tl 190.801†	-15.4	13.358	µg/L	6.0135	13.358	ppb	6.0135	45.02%
U 409.014†	-1980.4	-175.95	µg/L	4.232	-175.95	ppb	4.232	2.41%
V 292.402†	5784.6	65.829	µg/L	2.7295	65.829	ppb	2.7295	4.15%
Zn 213.857†	8960.3	205.67	µg/L	13.312	205.67	ppb	13.312	6.47%

Sequence No.: 16
Sample ID: 245979008|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 240
Date Collected: 2/20/2010 03:56:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979008|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57070.8	57070.8	101	%			03:56:42
1	Al 396.153Radial†	50139.9	49627.2	34523	µg/L	34523	ppb	03:56:42
1	Ca 317.933Radial†	11521.1	11193.7	9561.4	µg/L	9561.4	ppb	03:57:03
1	Fe 238.204 Radial†	11292.7	11162.3	88037	µg/L	88037	ppb	03:57:03
1	K 766.490 Radial†	10231.7	9963.6	6507.4	µg/L	6507.4	ppb	03:56:42
1	Mg 279.077 IEC†	750.4	730.0	6431.2	µg/L	6431.2	ppb	03:57:03
1	Na 589.592 Radial†	1777.6	1287.5	395.44	µg/L	395.44	ppb	03:56:42
1	Sr 421.552†	9117.2	8996.6	82.995	µg/L	82.995	ppb	03:56:42
1	Sc 361.383	2002442.8	2002442.8	102.00	%			03:58:07
1	Y 371.029	1400680.0	1400680.0	103.54	%			03:58:07
1	Ag 328.068†	-1126.4	-702.7	1.1793	µg/L	1.1793	ppb	03:58:13
1	As 188.979†	7.2	7.5	18.123	µg/L	18.123	ppb	03:58:33
1	B 249.677†	1037.0	632.5	-20.029	µg/L	-20.029	ppb	03:58:13
1	Ba 233.527†	18576.5	18228.8	437.85	µg/L	437.85	ppb	03:58:13
1	Be 313.107†	39858.4	41931.4	24.060	µg/L	24.060	ppb	03:58:13
1	Cd 226.502†	260.1	396.6	-0.0045	µg/L	-0.0045	ppb	03:58:33
1	Co 228.616†	1192.4	1167.0	48.326	µg/L	48.326	ppb	03:58:33
1	Cr 267.716†	4073.9	4044.3	81.311	µg/L	81.311	ppb	03:58:13
1	Cu 324.752†	782238.5	764333.6	5001.4	µg/L	5001.4	ppb	03:58:07
1	Mn 257.610†	609171.4	597464.8	1882.4	µg/L	1882.4	ppb	03:58:07
1	Mo 202.031†	27.3	32.1	6.4894	µg/L	6.4894	ppb	03:58:33
1	Ni 231.604†	1366.9	1027.7	52.310	µg/L	52.310	ppb	03:58:33
1	P 214.914†	429.2	405.4	214.50	µg/L	214.50	ppb	03:58:33
1	Pb 220.353†	6671.4	6449.5	1557.2	µg/L	1557.2	ppb	03:58:13
1	S 181.975 Axial†	140.4	118.7	492.34	µg/L	492.34	ppb	03:58:33
1	Sb 206.836†	46.5	23.1	19.521	µg/L	19.521	ppb	03:58:33
1	Se 196.026†	-31.4	-50.1	161.78	µg/L	161.78	ppb	03:58:33
1	SiO2†	267490.6	260846.2	51488	µg/L	51488	ppb	03:58:07
1	Si 251.611†	320451.0	313847.5	23859	µg/L	23859	ppb	03:58:07
1	Sn 189.927†	44.2	42.9	9.4266	µg/L	9.4266	ppb	03:58:33
1	Ti 334.940†	1000975.2	981143.5	2170.1	µg/L	2170.1	ppb	03:58:07
1	Tl 190.801†	-51.5	-28.1	5.1726	µg/L	5.1726	ppb	03:58:33
1	U 409.014†	9360.7	9254.0	756.04	µg/L	756.04	ppb	03:58:13
1	V 292.402†	13252.1	13036.6	138.42	µg/L	138.42	ppb	03:58:13
1	Zn 213.857†	19025.5	18117.5	412.25	µg/L	412.25	ppb	03:58:13
2	Sc RADIAL	56913.0	56913.0	101	%			03:57:08
2	Al 396.153Radial†	50067.5	49693.0	34569	µg/L	34569	ppb	03:57:08
2	Ca 317.933Radial†	11536.6	11240.8	9601.6	µg/L	9601.6	ppb	03:57:29
2	Fe 238.204 Radial†	11304.5	11205.0	88374	µg/L	88374	ppb	03:57:29
2	K 766.490 Radial†	10231.3	9991.3	6525.5	µg/L	6525.5	ppb	03:57:08
2	Mg 279.077 IEC†	749.7	731.3	6442.8	µg/L	6442.8	ppb	03:57:29
2	Na 589.592 Radial†	1748.9	1263.9	388.20	µg/L	388.20	ppb	03:57:08
2	Sr 421.552†	9059.3	8964.0	82.694	µg/L	82.694	ppb	03:57:08
2	Sc 361.383	1993522.8	1993522.8	101.55	%			03:58:41
2	Y 371.029	1394436.7	1394436.7	103.08	%			03:58:41
2	Ag 328.068†	-1146.3	-727.2	1.0191	µg/L	1.0191	ppb	03:58:46
2	As 188.979†	4.9	5.3	14.043	µg/L	14.043	ppb	03:59:07
2	B 249.677†	1010.4	610.9	-21.085	µg/L	-21.085	ppb	03:58:46
2	Ba 233.527†	18575.8	18309.6	439.79	µg/L	439.79	ppb	03:58:46
2	Be 313.107†	39755.6	42005.0	24.109	µg/L	24.109	ppb	03:58:46
2	Cd 226.502†	256.2	394.0	-0.1084	µg/L	-0.1084	ppb	03:59:07
2	Co 228.616†	1171.8	1152.0	47.677	µg/L	47.677	ppb	03:59:07
2	Cr 267.716†	4052.3	4040.8	81.241	µg/L	81.241	ppb	03:58:46
2	Cu 324.752†	773767.4	759423.0	4969.4	µg/L	4969.4	ppb	03:58:41
2	Mn 257.610†	601908.7	592985.0	1868.4	µg/L	1868.4	ppb	03:58:41
2	Mo 202.031†	34.4	39.2	7.1943	µg/L	7.1943	ppb	03:59:07
2	Ni 231.604†	1363.0	1029.8	52.424	µg/L	52.424	ppb	03:59:07
2	P 214.914†	414.5	392.9	192.87	µg/L	192.87	ppb	03:59:07
2	Pb 220.353†	6657.7	6465.3	1561.0	µg/L	1561.0	ppb	03:58:46

2	S 181.975 Axial†	142.0	120.9	501.52 µg/L	501.52 ppb	03:59:07
2	Sb 206.836†	45.4	22.2	18.700 µg/L	18.700 ppb	03:59:07
2	Se 196.026†	-35.3	-54.1	157.08 µg/L	157.08 ppb	03:59:07
2	SiO2†	264575.6	259149.0	51153 µg/L	51153 ppb	03:58:41
2	Si 251.611†	316781.6	311639.8	23691 µg/L	23691 ppb	03:58:41
2	Sn 189.927†	47.3	46.2	10.781 µg/L	10.781 ppb	03:59:07
2	Ti 334.940†	989439.9	974175.0	2154.7 µg/L	2154.7 ppb	03:58:41
2	Tl 190.801†	-55.5	-32.3	-0.4181 µg/L	-0.4181 ppb	03:59:07
2	U 409.014†	9495.4	9427.6	770.42 µg/L	770.42 ppb	03:58:46
2	V 292.402†	13198.6	13042.0	138.53 µg/L	138.53 ppb	03:58:46
2	Zn 213.857†	18935.6	18112.4	412.16 µg/L	412.16 ppb	03:58:46
3	Sc RADIAL	57135.7	57135.7	101 %		03:57:34
3	Al 396.153Radial†	50173.4	49604.0	34507 µg/L	34507 ppb	03:57:34
3	Ca 317.933Radial†	11520.3	11180.0	9549.7 µg/L	9549.7 ppb	03:57:55
3	Fe 238.204 Radial†	11263.1	11120.3	87706 µg/L	87706 ppb	03:57:55
3	K 766.490 Radial†	10246.7	9966.9	6509.6 µg/L	6509.6 ppb	03:57:34
3	Mg 279.077 IEC†	749.7	728.5	6417.8 µg/L	6417.8 ppb	03:57:55
3	Na 589.592 Radial†	1765.7	1273.7	391.22 µg/L	391.22 ppb	03:57:34
3	Sr 421.552†	9082.0	8951.4	82.578 µg/L	82.578 ppb	03:57:34
3	Sc 361.383	1991224.3	1991224.3	101.43 %		03:59:14
3	Y 371.029	1391669.6	1391669.6	102.88 %		03:59:14
3	Ag 328.068†	-1080.3	-663.4	1.4060 µg/L	1.4060 ppb	03:59:20
3	As 188.979†	5.1	5.5	14.380 µg/L	14.380 ppb	03:59:41
3	B 249.677†	973.7	575.8	-22.173 µg/L	-22.173 ppb	03:59:20
3	Ba 233.527†	17668.2	17435.9	418.80 µg/L	418.80 ppb	03:59:20
3	Be 313.107†	37376.5	39704.6	22.772 µg/L	22.772 ppb	03:59:20
3	Cd 226.502†	208.5	347.2	-1.2050 µg/L	-1.2050 ppb	03:59:41
3	Co 228.616†	1067.8	1050.8	43.249 µg/L	43.249 ppb	03:59:41
3	Cr 267.716†	3813.2	3809.8	76.596 µg/L	76.596 ppb	03:59:20
3	Cu 324.752†	751123.8	737978.6	4829.3 µg/L	4829.3 ppb	03:59:14
3	Mn 257.610†	582596.0	574629.2	1810.9 µg/L	1810.9 ppb	03:59:14
3	Mo 202.031†	22.2	27.2	5.9992 µg/L	5.9992 ppb	03:59:41
3	Ni 231.604†	1243.6	913.7	46.633 µg/L	46.633 ppb	03:59:41
3	P 214.914†	385.8	365.0	153.00 µg/L	153.00 ppb	03:59:41
3	Pb 220.353†	6425.5	6243.8	1507.5 µg/L	1507.5 ppb	03:59:20
3	S 181.975 Axial†	128.8	108.0	447.93 µg/L	447.93 ppb	03:59:41
3	Sb 206.836†	41.3	18.2	15.065 µg/L	15.065 ppb	03:59:41
3	Se 196.026†	-27.8	-46.7	165.66 µg/L	165.66 ppb	03:59:41
3	SiO2†	258688.1	253645.4	50066 µg/L	50066 ppb	03:59:14
3	Si 251.611†	309693.2	305011.5	23188 µg/L	23188 ppb	03:59:14
3	Sn 189.927†	42.9	41.9	9.0326 µg/L	9.0326 ppb	03:59:41
3	Ti 334.940†	954354.0	940709.0	2080.7 µg/L	2080.7 ppb	03:59:14
3	Tl 190.801†	-42.9	-19.9	14.727 µg/L	14.727 ppb	03:59:41
3	U 409.014†	8846.5	8798.7	718.26 µg/L	718.26 ppb	03:59:20
3	V 292.402†	12492.0	12360.5	131.73 µg/L	131.73 ppb	03:59:20
3	Zn 213.857†	18070.0	17280.6	392.93 µg/L	392.93 ppb	03:59:20

Mean Data: 245979008|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1995730.0	101.66	%	0.302				0.30%
Sc RADIAL	57039.8	101	%	0.2				0.20%
Y 371.029	1395595.4	103.17	%	0.341				0.33%
Ag 328.068†	-697.8	1.2014	µg/L	0.19440	1.2014	ppb	0.19440	16.18%
Al 396.153Radial†	49641.4	34533	µg/L	32.1	34533	ppb	32.1	0.09%
As 188.979†	6.1	15.515	µg/L	2.2645	15.515	ppb	2.2645	14.60%
B 249.677†	606.4	-21.096	µg/L	1.0718	-21.096	ppb	1.0718	5.08%
Ba 233.527†	17991.4	432.15	µg/L	11.597	432.15	ppb	11.597	2.68%
Be 313.107†	41213.7	23.647	µg/L	0.7581	23.647	ppb	0.7581	3.21%
Ca 317.933Radial†	11204.8	9570.9	µg/L	27.23	9570.9	ppb	27.23	0.28%
Cd 226.502†	379.3	-0.4393	µg/L	0.66516	-0.4393	ppb	0.66516	151.42%
Co 228.616†	1123.3	46.417	µg/L	2.7631	46.417	ppb	2.7631	5.95%
Cr 267.716†	3965.0	79.716	µg/L	2.7022	79.716	ppb	2.7022	3.39%
Cu 324.752†	753911.7	4933.4	µg/L	91.52	4933.4	ppb	91.52	1.86%
Fe 238.204 Radial†	11162.5	88039	µg/L	334.1	88039	ppb	334.1	0.38%
K 766.490 Radial†	9973.9	6514.1	µg/L	9.86	6514.1	ppb	9.86	0.15%
Mg 279.077 IEC†	729.9	6430.6	µg/L	12.49	6430.6	ppb	12.49	0.19%
Mn 257.610†	588359.7	1853.9	µg/L	37.92	1853.9	ppb	37.92	2.05%
Mo 202.031†	32.8	6.5610	µg/L	0.60075	6.5610	ppb	0.60075	9.16%
Na 589.592 Radial†	1275.0	391.62	µg/L	3.635	391.62	ppb	3.635	0.93%

Ni 231.604†	990.4	50.456	µg/L	3.3112	50.456	ppb	3.3112	6.56%
P 214.914†	387.8	186.79	µg/L	31.197	186.79	ppb	31.197	16.70%
Pb 220.353†	6386.2	1541.9	µg/L	29.85	1541.9	ppb	29.85	1.94%
S 181.975 Axial†	115.9	480.59	µg/L	28.663	480.59	ppb	28.663	5.96%
Sb 206.836†	21.2	17.762	µg/L	2.3713	17.762	ppb	2.3713	13.35%
Se 196.026†	-50.3	161.51	µg/L	4.294	161.51	ppb	4.294	2.66%
SiO2†	257880.2	50902	µg/L	743.0	50902	ppb	743.0	1.46%
Si 251.611†	310166.3	23579	µg/L	349.6	23579	ppb	349.6	1.48%
Sn 189.927†	43.7	9.7468	µg/L	0.91723	9.7468	ppb	0.91723	9.41%
Sr 421.552†	8970.7	82.756	µg/L	0.2149	82.756	ppb	0.2149	0.26%
Ti 334.940†	965342.5	2135.2	µg/L	47.82	2135.2	ppb	47.82	2.24%
Tl 190.801†	-26.8	6.4939	µg/L	7.65866	6.4939	ppb	7.65866	117.94%
U 409.014†	9160.1	748.24	µg/L	26.940	748.24	ppb	26.940	3.60%
V 292.402†	12813.0	136.23	µg/L	3.891	136.23	ppb	3.891	2.86%
Zn 213.857†	17836.8	405.78	µg/L	11.128	405.78	ppb	11.128	2.74%

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 03:59:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57426.7	57426.7	102	%			04:00:29
1	Al 396.153Radial†	7218.5	7094.1	4924.3	µg/L	4924.3	ppb	04:00:29
1	Ca 317.933Radial†	6083.3	5773.4	4931.5	µg/L	4931.5	ppb	04:00:49
1	Fe 238.204 Radial†	671.4	643.9	5089.5	µg/L	5089.5	ppb	04:00:49
1	K 766.490 Radial†	7883.6	7590.8	4957.7	µg/L	4957.7	ppb	04:00:29
1	Mg 279.077 IEC†	587.7	565.3	5056.8	µg/L	5056.8	ppb	04:00:49
1	Na 589.592 Radial†	33426.8	32412.7	9955.3	µg/L	9955.3	ppb	04:00:29
1	Sr 421.552†	53052.5	52163.5	481.22	µg/L	481.22	ppb	04:00:29
1	Sc 361.383	1985493.4	1985493.4	101.14	%			04:01:52
1	Y 371.029	1363768.3	1363768.3	100.81	%			04:01:52
1	Ag 328.068†	68349.1	67980.5	507.26	µg/L	507.26	ppb	04:01:58
1	As 188.979†	293.5	290.6	519.93	µg/L	519.93	ppb	04:02:18
1	B 249.677†	12768.0	12240.0	497.04	µg/L	497.04	ppb	04:01:58
1	Ba 233.527†	21442.9	21218.4	510.31	µg/L	510.31	ppb	04:01:58
1	Be 313.107†	858847.4	852025.1	505.49	µg/L	505.49	ppb	04:01:52
1	Cd 226.502†	20617.9	20527.2	511.91	µg/L	511.91	ppb	04:01:58
1	Co 228.616†	11486.6	11355.3	513.67	µg/L	513.67	ppb	04:01:58
1	Cr 267.716†	25858.4	25617.4	514.85	µg/L	514.85	ppb	04:01:58
1	Cu 324.752†	84659.4	81161.7	530.49	µg/L	530.49	ppb	04:01:58
1	Mn 257.610†	165795.5	164183.3	514.62	µg/L	514.62	ppb	04:01:52
1	Mo 202.031†	5396.3	5340.9	523.20	µg/L	523.20	ppb	04:02:18
1	Ni 231.604†	10805.2	10371.1	516.45	µg/L	516.45	ppb	04:01:58
1	P 214.914†	1325.8	1295.5	2514.1	µg/L	2514.1	ppb	04:02:18
1	Pb 220.353†	2249.2	2132.9	518.63	µg/L	518.63	ppb	04:02:18
1	S 181.975 Axial†	274.2	252.1	1045.6	µg/L	1045.6	ppb	04:02:18
1	Sb 206.836†	595.5	566.3	522.18	µg/L	522.18	ppb	04:02:18
1	Se 196.026†	385.8	362.2	516.65	µg/L	516.65	ppb	04:02:18
1	SiO2†	29520.0	27795.8	5486.5	µg/L	5486.5	ppb	04:01:58
1	Si 251.611†	34379.0	33681.0	2560.5	µg/L	2560.5	ppb	04:01:58
1	Sn 189.927†	1266.3	1251.6	527.86	µg/L	527.86	ppb	04:02:18
1	Ti 334.940†	232157.7	229366.6	507.09	µg/L	507.09	ppb	04:01:52
1	Tl 190.801†	372.0	390.2	512.85	µg/L	512.85	ppb	04:02:18
1	U 409.014†	6238.1	6244.9	517.85	µg/L	517.85	ppb	04:01:58
1	V 292.402†	52927.7	52376.0	516.77	µg/L	516.77	ppb	04:01:58
1	Zn 213.857†	23107.1	22312.3	519.81	µg/L	519.81	ppb	04:01:58
2	Sc RADIAL	57318.5	57318.5	101	%			04:00:55
2	Al 396.153Radial†	7265.9	7154.2	4966.4	µg/L	4966.4	ppb	04:00:55
2	Ca 317.933Radial†	6070.5	5772.1	4930.4	µg/L	4930.4	ppb	04:01:15
2	Fe 238.204 Radial†	667.2	641.0	5066.3	µg/L	5066.3	ppb	04:01:15
2	K 766.490 Radial†	7850.7	7573.1	4946.1	µg/L	4946.1	ppb	04:00:55
2	Mg 279.077 IEC†	585.3	564.1	5045.6	µg/L	5045.6	ppb	04:01:15
2	Na 589.592 Radial†	33548.6	32594.8	10011	µg/L	10011	ppb	04:00:55
2	Sr 421.552†	53531.7	52734.4	486.48	µg/L	486.48	ppb	04:00:55
2	Sc 361.383	1991232.4	1991232.4	101.43	%			04:02:26
2	Y 371.029	1369046.9	1369046.9	101.20	%			04:02:26
2	Ag 328.068†	68408.0	67843.8	506.22	µg/L	506.22	ppb	04:02:31
2	As 188.979†	284.9	281.3	503.26	µg/L	503.26	ppb	04:02:52
2	B 249.677†	12771.6	12207.2	495.71	µg/L	495.71	ppb	04:02:31
2	Ba 233.527†	21353.0	21068.6	506.71	µg/L	506.71	ppb	04:02:31
2	Be 313.107†	850864.9	841707.9	499.37	µg/L	499.37	ppb	04:02:26
2	Cd 226.502†	20593.0	20443.9	509.83	µg/L	509.83	ppb	04:02:31
2	Co 228.616†	11431.2	11267.8	509.71	µg/L	509.71	ppb	04:02:31
2	Cr 267.716†	25835.1	25520.8	512.91	µg/L	512.91	ppb	04:02:31
2	Cu 324.752†	84326.3	80592.1	526.77	µg/L	526.77	ppb	04:02:31
2	Mn 257.610†	164333.3	162269.3	508.62	µg/L	508.62	ppb	04:02:26
2	Mo 202.031†	5272.6	5203.5	509.75	µg/L	509.75	ppb	04:02:52
2	Ni 231.604†	10690.2	10226.9	509.26	µg/L	509.26	ppb	04:02:31
2	P 214.914†	1303.2	1269.5	2462.8	µg/L	2462.8	ppb	04:02:52
2	Pb 220.353†	2209.7	2087.5	507.58	µg/L	507.58	ppb	04:02:52

2	S 181.975 Axial†	260.6	238.0	986.98 µg/L	986.98 ppb	04:02:52
2	Sb 206.836†	582.7	552.0	508.84 µg/L	508.84 ppb	04:02:52
2	Se 196.026†	380.6	356.0	507.87 µg/L	507.87 ppb	04:02:52
2	SiO2†	29428.6	27621.5	5452.1 µg/L	5452.1 ppb	04:02:31
2	Si 251.611†	34321.9	33526.7	2548.8 µg/L	2548.8 ppb	04:02:31
2	Sn 189.927†	1229.6	1211.9	511.09 µg/L	511.09 ppb	04:02:52
2	Ti 334.940†	229786.1	226366.9	500.45 µg/L	500.45 ppb	04:02:26
2	Tl 190.801†	370.1	387.2	508.94 µg/L	508.94 ppb	04:02:52
2	U 409.014†	6161.5	6151.6	510.10 µg/L	510.10 ppb	04:02:31
2	V 292.402†	52715.6	52016.1	513.15 µg/L	513.15 ppb	04:02:31
2	Zn 213.857†	23047.8	22188.0	516.94 µg/L	516.94 ppb	04:02:31
3	Sc RADIAL	56945.3	56945.3	101 %		04:01:20
3	Al 396.153Radial†	7238.8	7174.3	4982.3 µg/L	4982.3 ppb	04:01:20
3	Ca 317.933Radial†	6073.3	5814.0	4966.2 µg/L	4966.2 ppb	04:01:41
3	Fe 238.204 Radial†	662.1	640.3	5059.8 µg/L	5059.8 ppb	04:01:41
3	K 766.490 Radial†	7826.8	7600.1	4963.7 µg/L	4963.7 ppb	04:01:20
3	Mg 279.077 IEC†	586.4	569.0	5087.6 µg/L	5087.6 ppb	04:01:41
3	Na 589.592 Radial†	33485.4	32748.8	10059 µg/L	10059 ppb	04:01:20
3	Sr 421.552†	53575.1	53123.2	490.07 µg/L	490.07 ppb	04:01:20
3	Sc 361.383	1996433.2	1996433.2	101.70 %		04:02:59
3	Y 371.029	1372867.0	1372867.0	101.49 %		04:02:59
3	Ag 328.068†	63362.6	62706.9	467.73 µg/L	467.73 ppb	04:03:04
3	As 188.979†	241.2	237.7	425.16 µg/L	425.16 ppb	04:03:25
3	B 249.677†	11707.2	11127.7	451.60 µg/L	451.60 ppb	04:03:04
3	Ba 233.527†	19089.5	18788.0	451.84 µg/L	451.84 ppb	04:03:04
3	Be 313.107†	782632.2	772428.6	458.27 µg/L	458.27 ppb	04:02:59
3	Cd 226.502†	18237.1	18074.5	450.67 µg/L	450.67 ppb	04:03:04
3	Co 228.616†	10050.7	9881.0	446.91 µg/L	446.91 ppb	04:03:04
3	Cr 267.716†	22079.8	21761.7	437.37 µg/L	437.37 ppb	04:03:04
3	Cu 324.752†	75048.3	71252.3	465.80 µg/L	465.80 ppb	04:03:04
3	Mn 257.610†	151648.5	149374.0	468.24 µg/L	468.24 ppb	04:02:59
3	Mo 202.031†	4322.6	4255.8	416.95 µg/L	416.95 ppb	04:03:25
3	Ni 231.604†	9413.4	8944.0	445.39 µg/L	445.39 ppb	04:03:04
3	P 214.914†	1089.1	1055.6	2044.3 µg/L	2044.3 ppb	04:03:25
3	Pb 220.353†	1882.4	1760.0	427.87 µg/L	427.87 ppb	04:03:25
3	S 181.975 Axial†	234.6	211.8	878.23 µg/L	878.23 ppb	04:03:25
3	Sb 206.836†	486.5	455.9	419.96 µg/L	419.96 ppb	04:03:25
3	Se 196.026†	336.7	311.8	445.77 µg/L	445.77 ppb	04:03:25
3	SiO2†	26846.9	25007.4	4936.1 µg/L	4936.1 ppb	04:03:04
3	Si 251.611†	31144.8	30314.5	2304.6 µg/L	2304.6 ppb	04:03:04
3	Sn 189.927†	997.0	980.0	413.32 µg/L	413.32 ppb	04:03:25
3	Ti 334.940†	209947.1	206268.8	455.99 µg/L	455.99 ppb	04:02:59
3	Tl 190.801†	327.4	344.4	452.86 µg/L	452.86 ppb	04:03:25
3	U 409.014†	5388.8	5376.0	445.65 µg/L	445.65 ppb	04:03:04
3	V 292.402†	45944.6	45222.7	445.99 µg/L	445.99 ppb	04:03:04
3	Zn 213.857†	20419.0	19543.8	455.28 µg/L	455.28 ppb	04:03:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1991053.0	101.42	%	0.279				0.27%
Sc RADIAL	57230.1	101	%	0.4				0.44%
Y 371.029	1368560.7	101.17	%	0.338				0.33%
Ag 328.068†	66177.1	493.74	µg/L	22.527	493.74	ppb	22.527	4.56%
QC value within limits for Ag 328.068 Recovery = 98.75%								
Al 396.153Radial†	7140.9	4957.6	µg/L	29.97	4957.6	ppb	29.97	0.60%
QC value within limits for Al 396.153Radial Recovery = 99.15%								
As 188.979†	269.9	482.78	µg/L	50.595	482.78	ppb	50.595	10.48%
QC value within limits for As 188.979 Recovery = 96.56%								
B 249.677†	11858.3	481.45	µg/L	25.861	481.45	ppb	25.861	5.37%
QC value within limits for B 249.677 Recovery = 96.29%								
Ba 233.527†	20358.3	489.62	µg/L	32.768	489.62	ppb	32.768	6.69%
QC value within limits for Ba 233.527 Recovery = 97.92%								
Be 313.107†	822053.9	487.71	µg/L	25.679	487.71	ppb	25.679	5.27%
QC value within limits for Be 313.107 Recovery = 97.54%								
Ca 317.933Radial†	5786.5	4942.7	µg/L	20.36	4942.7	ppb	20.36	0.41%
QC value within limits for Ca 317.933Radial Recovery = 98.85%								
Cd 226.502†	19681.9	490.80	µg/L	34.773	490.80	ppb	34.773	7.08%
QC value within limits for Cd 226.502 Recovery = 98.16%								
Co 228.616†	10834.7	490.10	µg/L	37.451	490.10	ppb	37.451	7.64%

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   QC value within limits for Co 228.616  Recovery = 98.02%
Cr 267.716†          24300.0      488.38 µg/L       44.187      488.38 ppb        44.187   9.05%
   QC value within limits for Cr 267.716  Recovery = 97.68%
Cu 324.752†          77668.7      507.69 µg/L       36.321      507.69 ppb        36.321   7.15%
   QC value within limits for Cu 324.752  Recovery = 101.54%
Fe 238.204 Radial†     641.8      5071.9 µg/L        15.62      5071.9 ppb         15.62   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.44%
K 766.490 Radial†      7588.0      4955.8 µg/L         8.96      4955.8 ppb          8.96   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 99.12%
Mg 279.077 IEC†        566.1      5063.3 µg/L        21.75      5063.3 ppb         21.75   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.27%
Mn 257.610†         158608.9      497.16 µg/L       25.226      497.16 ppb        25.226   5.07%
   QC value within limits for Mn 257.610  Recovery = 99.43%
Mo 202.031†           4933.4      483.30 µg/L       57.854      483.30 ppb        57.854  11.97%
   QC value within limits for Mo 202.031  Recovery = 96.66%
Na 589.592 Radial†    32585.4       10008 µg/L         51.7       10008 ppb          51.7   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 100.08%
Ni 231.604†           9847.3      490.37 µg/L       39.119      490.37 ppb        39.119   7.98%
   QC value within limits for Ni 231.604  Recovery = 98.07%
P 214.914†            1206.9      2340.4 µg/L       257.73      2340.4 ppb        257.73  11.01%
   QC value within limits for P 214.914  Recovery = 93.62%
Pb 220.353†           1993.5      484.70 µg/L       49.519      484.70 ppb        49.519  10.22%
   QC value within limits for Pb 220.353  Recovery = 96.94%
S 181.975 Axial†       234.0      970.28 µg/L       84.934      970.28 ppb        84.934   8.75%
   QC value within limits for S 181.975 Axial  Recovery = 97.03%
Sb 206.836†            524.7      483.66 µg/L       55.566      483.66 ppb        55.566  11.49%
   QC value within limits for Sb 206.836  Recovery = 96.73%
Se 196.026†            343.3      490.09 µg/L       38.639      490.09 ppb        38.639   7.88%
   QC value within limits for Se 196.026  Recovery = 98.02%
SiO2†                26808.2      5291.6 µg/L       308.32      5291.6 ppb        308.32   5.83%
   QC value within limits for SiO2  Recovery = 98.95%
Si 251.611†          32507.4      2471.3 µg/L       144.49      2471.3 ppb        144.49   5.85%
   QC value within limits for Si 251.611  Recovery = 98.85%
Sn 189.927†           1147.8      484.09 µg/L       61.859      484.09 ppb        61.859  12.78%
   QC value within limits for Sn 189.927  Recovery = 96.82%
Sr 421.552†          52673.7      485.92 µg/L        4.453      485.92 ppb         4.453   0.92%
   QC value within limits for Sr 421.552  Recovery = 97.18%
Ti 334.940†         220667.4      487.84 µg/L       27.786      487.84 ppb        27.786   5.70%
   QC value within limits for Ti 334.940  Recovery = 97.57%
Tl 190.801†            373.9      491.55 µg/L       33.565      491.55 ppb        33.565   6.83%
   QC value within limits for Tl 190.801  Recovery = 98.31%
U 409.014†            5924.2      491.20 µg/L       39.635      491.20 ppb        39.635   8.07%
   QC value within limits for U 409.014  Recovery = 98.24%
V 292.402†           49871.6      491.97 µg/L       39.863      491.97 ppb        39.863   8.10%
   QC value within limits for V 292.402  Recovery = 98.39%
Zn 213.857†          21348.0      497.34 µg/L       36.457      497.34 ppb        36.457   7.33%
   QC value within limits for Zn 213.857  Recovery = 99.47%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 04:03:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56500.8	56500.8	100	%			04:04:07
1	Al 396.153Radial†	-15.8	-23.2	-16.144	µg/L	-16.144	ppb	04:04:07
1	Ca 317.933Radial†	190.5	-20.8	-17.771	µg/L	-17.771	ppb	04:04:28
1	Fe 238.204 Radial†	21.5	5.0	39.073	µg/L	39.073	ppb	04:04:28
1	K 766.490 Radial†	236.4	71.4	46.649	µg/L	46.649	ppb	04:04:07
1	Mg 279.077 IEC†	11.1	-1.7	-15.181	µg/L	-15.181	ppb	04:04:28
1	Na 589.592 Radial†	426.1	-46.1	-14.162	µg/L	-14.162	ppb	04:04:07
1	Sr 421.552†	33.0	4.2	0.0385	µg/L	0.0385	ppb	04:04:07
1	Sc 361.383	2010137.0	2010137.0	102.40	%			04:05:29
1	Y 371.029	1387621.1	1387621.1	102.58	%			04:05:29
1	Ag 328.068†	-435.9	-24.1	-0.1744	µg/L	-0.1744	ppb	04:05:35
1	As 188.979†	4.4	4.8	8.5816	µg/L	8.5816	ppb	04:05:56
1	B 249.677†	358.1	-34.4	-1.4217	µg/L	-1.4217	ppb	04:05:56
1	Ba 233.527†	-6.3	10.9	0.2619	µg/L	0.2619	ppb	04:05:56
1	Be 313.107†	-2732.9	186.8	0.1107	µg/L	0.1107	ppb	04:05:35
1	Cd 226.502†	-140.3	4.7	0.1129	µg/L	0.1129	ppb	04:05:56
1	Co 228.616†	3.4	1.4	0.0634	µg/L	0.0634	ppb	04:05:56
1	Cr 267.716†	-67.7	-15.8	-0.3168	µg/L	-0.3168	ppb	04:05:35
1	Cu 324.752†	5546.8	2873.3	18.761	µg/L	18.761	ppb	04:05:35
1	Mn 257.610†	-143.2	116.2	0.3696	µg/L	0.3696	ppb	04:05:56
1	Mo 202.031†	3.3	8.5	0.8381	µg/L	0.8381	ppb	04:05:56
1	Ni 231.604†	313.7	-6.0	-0.2988	µg/L	-0.2988	ppb	04:05:56
1	P 214.914†	12.4	-3.3	-8.4267	µg/L	-8.4267	ppb	04:05:56
1	Pb 220.353†	98.7	5.4	1.2891	µg/L	1.2891	ppb	04:05:56
1	S 181.975 Axial†	18.5	-0.8	-3.4151	µg/L	-3.4151	ppb	04:05:56
1	Sb 206.836†	18.8	-4.2	-3.8116	µg/L	-3.8116	ppb	04:05:56
1	Se 196.026†	9.7	-9.8	-13.663	µg/L	-13.663	ppb	04:05:56
1	SiO2†	1459.3	33.6	6.6406	µg/L	6.6406	ppb	04:05:35
1	Si 251.611†	383.4	63.8	4.8509	µg/L	4.8509	ppb	04:05:56
1	Sn 189.927†	6.2	5.6	2.3731	µg/L	2.3731	ppb	04:05:56
1	Ti 334.940†	372.4	188.7	0.4183	µg/L	0.4183	ppb	04:05:35
1	Tl 190.801†	-17.9	4.9	6.3684	µg/L	6.3684	ppb	04:05:56
1	U 409.014†	-66.4	12.2	1.0097	µg/L	1.0097	ppb	04:05:35
1	V 292.402†	-16.0	29.1	0.2952	µg/L	0.2952	ppb	04:05:35
1	Zn 213.857†	836.4	282.4	6.5959	µg/L	6.5959	ppb	04:05:56
2	Sc RADIAL	56703.0	56703.0	100	%			04:04:33
2	Al 396.153Radial†	-13.8	-21.1	-14.689	µg/L	-14.689	ppb	04:04:33
2	Ca 317.933Radial†	198.3	-13.7	-11.661	µg/L	-11.661	ppb	04:04:53
2	Fe 238.204 Radial†	20.5	3.9	30.733	µg/L	30.733	ppb	04:04:53
2	K 766.490 Radial†	227.3	61.5	40.177	µg/L	40.177	ppb	04:04:33
2	Mg 279.077 IEC†	12.6	-0.3	-2.8170	µg/L	-2.8170	ppb	04:04:53
2	Na 589.592 Radial†	474.7	0.7	0.2225	µg/L	0.2225	ppb	04:04:33
2	Sr 421.552†	34.8	5.9	0.0543	µg/L	0.0543	ppb	04:04:33
2	Sc 361.383	1997360.2	1997360.2	101.74	%			04:06:02
2	Y 371.029	1378194.4	1378194.4	101.88	%			04:06:02
2	Ag 328.068†	-429.2	-20.3	-0.1474	µg/L	-0.1474	ppb	04:06:07
2	As 188.979†	-2.5	-2.0	-3.5650	µg/L	-3.5650	ppb	04:06:28
2	B 249.677†	338.9	-51.1	-2.0986	µg/L	-2.0986	ppb	04:06:28
2	Ba 233.527†	-8.7	8.5	0.2041	µg/L	0.2041	ppb	04:06:28
2	Be 313.107†	-2649.3	251.8	0.1494	µg/L	0.1494	ppb	04:06:07
2	Cd 226.502†	-130.2	13.7	0.3388	µg/L	0.3388	ppb	04:06:28
2	Co 228.616†	-2.9	-4.8	-0.2152	µg/L	-0.2152	ppb	04:06:28
2	Cr 267.716†	-55.7	-4.4	-0.0878	µg/L	-0.0878	ppb	04:06:07
2	Cu 324.752†	5400.5	2764.2	18.047	µg/L	18.047	ppb	04:06:07
2	Mn 257.610†	-168.8	90.1	0.2864	µg/L	0.2864	ppb	04:06:28
2	Mo 202.031†	2.8	8.1	0.7924	µg/L	0.7924	ppb	04:06:28
2	Ni 231.604†	305.0	-12.6	-0.6270	µg/L	-0.6270	ppb	04:06:28
2	P 214.914†	15.7	0.1	-1.7078	µg/L	-1.7078	ppb	04:06:28
2	Pb 220.353†	93.9	1.3	0.2927	µg/L	0.2927	ppb	04:06:28

2	S 181.975 Axial†	18.9	-0.4	-1.6490 µg/L	-1.6490 ppb	04:06:28
2	Sb 206.836†	23.2	0.3	0.2543 µg/L	0.2543 ppb	04:06:28
2	Se 196.026†	11.6	-7.9	-10.992 µg/L	-10.992 ppb	04:06:28
2	SiO2†	1481.5	64.5	12.736 µg/L	12.736 ppb	04:06:07
2	Si 251.611†	402.7	85.2	6.4771 µg/L	6.4771 ppb	04:06:28
2	Sn 189.927†	2.6	2.2	0.9332 µg/L	0.9332 ppb	04:06:28
2	Ti 334.940†	300.4	120.2	0.2659 µg/L	0.2659 ppb	04:06:07
2	Tl 190.801†	-20.8	1.9	2.5161 µg/L	2.5161 ppb	04:06:28
2	U 409.014†	-61.5	16.6	1.3776 µg/L	1.3776 ppb	04:06:07
2	V 292.402†	-34.5	10.8	0.1162 µg/L	0.1162 ppb	04:06:07
2	Zn 213.857†	833.7	285.0	6.6600 µg/L	6.6600 ppb	04:06:28
3	Sc RADIAL	57227.9	57227.9	101 %		04:04:59
3	Al 396.153Radial†	-2.5	-9.8	-6.8631 µg/L	-6.8631 ppb	04:04:59
3	Ca 317.933Radial†	194.5	-19.3	-16.459 µg/L	-16.459 ppb	04:05:19
3	Fe 238.204 Radial†	17.6	0.8	5.9762 µg/L	5.9762 ppb	04:05:19
3	K 766.490 Radial†	294.3	125.5	81.983 µg/L	81.983 ppb	04:04:59
3	Mg 279.077 IEC†	10.7	-2.3	-20.489 µg/L	-20.489 ppb	04:05:19
3	Na 589.592 Radial†	407.9	-69.5	-21.356 µg/L	-21.356 ppb	04:04:59
3	Sr 421.552†	56.5	27.0	0.2491 µg/L	0.2491 ppb	04:04:59
3	Sc 361.383	1996749.8	1996749.8	101.71 %		04:06:34
3	Y 371.029	1377817.7	1377817.7	101.85 %		04:06:34
3	Ag 328.068†	-403.9	4.5	0.0346 µg/L	0.0346 ppb	04:06:39
3	As 188.979†	0.7	1.1	1.9927 µg/L	1.9927 ppb	04:07:00
3	B 249.677†	344.6	-45.3	-1.8503 µg/L	-1.8503 ppb	04:07:00
3	Ba 233.527†	-12.1	5.1	0.1237 µg/L	0.1237 ppb	04:07:00
3	Be 313.107†	-2797.2	105.6	0.0626 µg/L	0.0626 ppb	04:06:39
3	Cd 226.502†	-138.4	5.6	0.1387 µg/L	0.1387 ppb	04:07:00
3	Co 228.616†	3.7	1.7	0.0776 µg/L	0.0776 ppb	04:07:00
3	Cr 267.716†	-21.3	29.4	0.5909 µg/L	0.5909 ppb	04:06:39
3	Cu 324.752†	5401.3	2766.6	18.060 µg/L	18.060 ppb	04:06:39
3	Mn 257.610†	-166.2	92.6	0.2917 µg/L	0.2917 ppb	04:07:00
3	Mo 202.031†	1.8	7.1	0.6970 µg/L	0.6970 ppb	04:07:00
3	Ni 231.604†	318.5	0.8	0.0396 µg/L	0.0396 ppb	04:07:00
3	P 214.914†	19.9	4.2	6.3706 µg/L	6.3706 ppb	04:07:00
3	Pb 220.353†	93.5	1.0	0.2041 µg/L	0.2041 ppb	04:07:00
3	S 181.975 Axial†	13.6	-5.5	-22.904 µg/L	-22.904 ppb	04:07:00
3	Sb 206.836†	19.9	-2.9	-2.6813 µg/L	-2.6813 ppb	04:07:00
3	Se 196.026†	15.4	-4.1	-5.7675 µg/L	-5.7675 ppb	04:07:00
3	SiO2†	1474.2	57.8	11.412 µg/L	11.412 ppb	04:06:39
3	Si 251.611†	381.8	64.7	4.9209 µg/L	4.9209 ppb	04:07:00
3	Sn 189.927†	-0.0	-0.4	-0.1715 µg/L	-0.1715 ppb	04:07:00
3	Ti 334.940†	282.7	102.9	0.2290 µg/L	0.2290 ppb	04:06:39
3	Tl 190.801†	-25.7	-2.9	-3.7622 µg/L	-3.7622 ppb	04:07:00
3	U 409.014†	7.8	84.8	7.0457 µg/L	7.0457 ppb	04:06:39
3	V 292.402†	-36.5	8.8	0.1009 µg/L	0.1009 ppb	04:06:39
3	Zn 213.857†	813.7	265.6	6.2024 µg/L	6.2024 ppb	04:07:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2001415.7	101.95	%	0.385				0.38%
Sc RADIAL	56810.6	101	%	0.7				0.66%
Y 371.029	1381211.0	102.10	%	0.411				0.40%
Ag 328.068†	-13.3	-0.0957	µg/L	0.11368	-0.0957	ppb	0.11368	118.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.0	-12.566	µg/L	4.9918	-12.566	ppb	4.9918	39.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	2.3364	µg/L	6.08056	2.3364	ppb	6.08056	260.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-43.6	-1.7902	µg/L	0.34242	-1.7902	ppb	0.34242	19.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.1965	µg/L	0.06937	0.1965	ppb	0.06937	35.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.4	0.1075	µg/L	0.04347	0.1075	ppb	0.04347	40.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.9	-15.297	µg/L	3.2165	-15.297	ppb	3.2165	21.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.0	0.1968	µg/L	0.12366	0.1968	ppb	0.12366	62.85%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.5	-0.0247	µg/L	0.16506	-0.0247	ppb	0.16506	667.21%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                3.1      0.0621 µg/L       0.47204      0.0621 ppb        0.47204 760.45%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             2801.4      18.289 µg/L        0.4086      18.289 ppb         0.4086   2.23%
   QC value greater than the upper limit for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.2      25.261 µg/L       17.2137      25.261 ppb        17.2137  68.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         86.2      56.269 µg/L       22.5026      56.269 ppb        22.5026  39.99%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.4     -12.829 µg/L        9.0679     -12.829 ppb         9.0679  70.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               99.6      0.3159 µg/L       0.04660      0.3159 ppb        0.04660  14.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                7.9      0.7759 µg/L       0.07199      0.7759 ppb        0.07199   9.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -38.3     -11.765 µg/L       10.9874     -11.765 ppb        10.9874  93.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -5.9     -0.2954 µg/L       0.33330     -0.2954 ppb        0.33330 112.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.3     -1.2546 µg/L       7.40904     -1.2546 ppb        7.40904 590.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.6      0.5953 µg/L       0.60248      0.5953 ppb        0.60248 101.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.2     -9.3228 µg/L      11.79497     -9.3228 ppb       11.79497 126.52%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.3     -2.0796 µg/L       2.09869     -2.0796 ppb        2.09869 100.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -7.3     -10.141 µg/L        4.0159     -10.141 ppb         4.0159  39.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     52.0      10.263 µg/L        3.2060      10.263 ppb         3.2060  31.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               71.2      5.4163 µg/L       0.91934      5.4163 ppb        0.91934  16.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.5      1.0449 µg/L       1.27600      1.0449 ppb        1.27600 122.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               12.4      0.1140 µg/L       0.11729      0.1140 ppb        0.11729 102.92%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              137.3      0.3044 µg/L       0.10036      0.3044 ppb        0.10036  32.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.3      1.7074 µg/L       5.11349      1.7074 ppb        5.11349 299.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                37.9      3.1443 µg/L       3.38366      3.1443 ppb        3.38366 107.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                16.3      0.1707 µg/L       0.10804      0.1707 ppb        0.10804  63.27%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              277.7      6.4861 µg/L       0.24779      6.4861 ppb        0.24779   3.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 19
Sample ID: 245979009|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 241
Date Collected: 2/20/2010 04:07:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979009|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57698.6	57698.6	102	%			04:07:48
1	Al 396.153Radial†	63158.7	61834.5	43015	µg/L	43015	ppb	04:07:48
1	Ca 317.933Radial†	18745.7	18143.6	15498	µg/L	15498	ppb	04:07:48
1	Fe 238.204 Radial†	10017.9	9792.4	77233	µg/L	77233	ppb	04:08:08
1	K 766.490 Radial†	10071.6	9696.7	6333.1	µg/L	6333.1	ppb	04:07:48
1	Mg 279.077 IEC†	866.5	835.6	7386.8	µg/L	7386.8	ppb	04:08:08
1	Na 589.592 Radial†	2110.4	1594.2	489.66	µg/L	489.66	ppb	04:07:48
1	Sr 421.552†	10379.9	10134.6	93.494	µg/L	93.494	ppb	04:07:48
1	Sc 361.383	2010912.1	2010912.1	102.43	%			04:09:13
1	Y 371.029	1436259.9	1436259.9	106.17	%			04:09:13
1	Ag 328.068†	-898.7	-475.7	2.2568	µg/L	2.2568	ppb	04:09:19
1	As 188.979†	20.9	20.9	41.119	µg/L	41.119	ppb	04:09:40
1	B 249.677†	822.6	418.9	-23.109	µg/L	-23.109	ppb	04:09:19
1	Ba 233.527†	23751.0	23203.6	557.30	µg/L	557.30	ppb	04:09:19
1	Be 313.107†	14221.0	16738.8	9.2112	µg/L	9.2112	ppb	04:09:19
1	Cd 226.502†	73.0	213.0	-3.3688	µg/L	-3.3688	ppb	04:09:40
1	Co 228.616†	869.3	846.7	34.384	µg/L	34.384	ppb	04:09:40
1	Cr 267.716†	3634.8	3598.8	72.370	µg/L	72.370	ppb	04:09:19
1	Cu 324.752†	1242489.3	1210416.0	7911.7	µg/L	7911.7	ppb	04:09:13
1	Mn 257.610†	625013.6	610415.2	1921.5	µg/L	1921.5	ppb	04:09:13
1	Mo 202.031†	16.4	21.3	5.0215	µg/L	5.0215	ppb	04:09:40
1	Ni 231.604†	1270.6	928.1	47.223	µg/L	47.223	ppb	04:09:40
1	P 214.914†	1428.1	1378.9	1847.0	µg/L	1847.0	ppb	04:09:19
1	Pb 220.353†	5314.3	5097.1	1219.6	µg/L	1219.6	ppb	04:09:19
1	S 181.975 Axial†	70.0	49.4	204.92	µg/L	204.92	ppb	04:09:40
1	Sb 206.836†	44.1	20.6	16.751	µg/L	16.751	ppb	04:09:40
1	Se 196.026†	-32.8	-51.3	128.11	µg/L	128.11	ppb	04:09:40
1	SiO2†	273304.0	265417.0	52390	µg/L	52390	ppb	04:09:13
1	Si 251.611†	327620.7	319523.7	24291	µg/L	24291	ppb	04:09:13
1	Sn 189.927†	276.2	269.2	106.10	µg/L	106.10	ppb	04:09:40
1	Ti 334.940†	879297.1	858224.3	1898.2	µg/L	1898.2	ppb	04:09:13
1	Tl 190.801†	-53.1	-29.5	5.4854	µg/L	5.4854	ppb	04:09:40
1	U 409.014†	66506.9	65003.3	5389.1	µg/L	5389.1	ppb	04:09:13
1	V 292.402†	14536.1	14235.3	153.61	µg/L	153.61	ppb	04:09:19
1	Zn 213.857†	15968.0	15054.1	336.17	µg/L	336.17	ppb	04:09:19
2	Sc RADIAL	57884.4	57884.4	102	%			04:08:14
2	Al 396.153Radial†	64002.8	62459.9	43450	µg/L	43450	ppb	04:08:14
2	Ca 317.933Radial†	18903.0	18238.3	15579	µg/L	15579	ppb	04:08:14
2	Fe 238.204 Radial†	10035.1	9777.8	77117	µg/L	77117	ppb	04:08:34
2	K 766.490 Radial†	10137.3	9729.1	6354.2	µg/L	6354.2	ppb	04:08:14
2	Mg 279.077 IEC†	861.7	828.2	7320.6	µg/L	7320.6	ppb	04:08:34
2	Na 589.592 Radial†	2163.2	1639.1	503.43	µg/L	503.43	ppb	04:08:14
2	Sr 421.552†	10527.3	10245.9	94.520	µg/L	94.520	ppb	04:08:14
2	Sc 361.383	2013624.4	2013624.4	102.57	%			04:09:48
2	Y 371.029	1439716.0	1439716.0	106.43	%			04:09:48
2	Ag 328.068†	-898.2	-474.1	2.2576	µg/L	2.2576	ppb	04:09:53
2	As 188.979†	17.9	17.9	35.718	µg/L	35.718	ppb	04:10:14
2	B 249.677†	782.6	378.9	-24.683	µg/L	-24.683	ppb	04:09:53
2	Ba 233.527†	23559.1	22985.3	552.06	µg/L	552.06	ppb	04:09:53
2	Be 313.107†	14048.6	16551.9	9.0970	µg/L	9.0970	ppb	04:09:53
2	Cd 226.502†	81.3	221.0	-3.1563	µg/L	-3.1563	ppb	04:10:14
2	Co 228.616†	859.4	835.9	33.878	µg/L	33.878	ppb	04:10:14
2	Cr 267.716†	3630.3	3589.6	72.186	µg/L	72.186	ppb	04:09:53
2	Cu 324.752†	1250007.5	1216111.8	7948.9	µg/L	7948.9	ppb	04:09:48
2	Mn 257.610†	628050.2	612553.8	1928.2	µg/L	1928.2	ppb	04:09:48
2	Mo 202.031†	20.8	25.7	5.4430	µg/L	5.4430	ppb	04:10:14
2	Ni 231.604†	1271.6	927.4	47.187	µg/L	47.187	ppb	04:10:14
2	P 214.914†	1429.9	1378.7	1843.0	µg/L	1843.0	ppb	04:09:53
2	Pb 220.353†	5270.8	5047.7	1207.5	µg/L	1207.5	ppb	04:09:53

2	S 181.975 Axial†	72.1	51.4	212.98 µg/L	212.98 ppb	04:10:14
2	Sb 206.836†	34.0	10.7	7.6662 µg/L	7.6662 ppb	04:10:14
2	Se 196.026†	-27.0	-45.6	135.78 µg/L	135.78 ppb	04:10:14
2	SiO2†	275058.4	266767.9	52657 µg/L	52657 ppb	04:09:48
2	Si 251.611†	329682.3	321102.8	24411 µg/L	24411 ppb	04:09:48
2	Sn 189.927†	266.3	259.2	101.88 µg/L	101.88 ppb	04:10:14
2	Ti 334.940†	884483.8	862124.7	1906.9 µg/L	1906.9 ppb	04:09:48
2	Tl 190.801†	-52.0	-28.3	7.1153 µg/L	7.1153 ppb	04:10:14
2	U 409.014†	66928.1	65326.5	5415.9 µg/L	5415.9 ppb	04:09:48
2	V 292.402†	14487.8	14169.1	152.98 µg/L	152.98 ppb	04:09:53
2	Zn 213.857†	15871.2	14938.7	333.41 µg/L	333.41 ppb	04:09:53
3	Sc RADIAL	57677.3	57677.3	102 %		04:08:40
3	Al 396.153Radial†	63708.1	62395.5	43406 µg/L	43406 ppb	04:08:40
3	Ca 317.933Radial†	18789.8	18193.6	15541 µg/L	15541 ppb	04:08:40
3	Fe 238.204 Radial†	9983.5	9762.4	76996 µg/L	76996 ppb	04:09:00
3	K 766.490 Radial†	10082.8	9711.2	6342.5 µg/L	6342.5 ppb	04:08:40
3	Mg 279.077 IEC†	864.2	833.7	7369.6 µg/L	7369.6 ppb	04:09:00
3	Na 589.592 Radial†	2140.9	1624.8	499.06 µg/L	499.06 ppb	04:08:40
3	Sr 421.552†	10475.1	10231.7	94.389 µg/L	94.389 ppb	04:08:40
3	Sc 361.383	2002081.6	2002081.6	101.98 %		04:10:22
3	Y 371.029	1428656.7	1428656.7	105.61 %		04:10:22
3	Ag 328.068†	-818.7	-401.2	2.7354 µg/L	2.7354 ppb	04:10:27
3	As 188.979†	20.2	20.3	40.020 µg/L	40.020 ppb	04:10:48
3	B 249.677†	781.3	382.0	-24.500 µg/L	-24.500 ppb	04:10:27
3	Ba 233.527†	22337.3	21919.6	526.46 µg/L	526.46 ppb	04:10:27
3	Be 313.107†	13106.3	15706.9	8.6283 µg/L	8.6283 ppb	04:10:27
3	Cd 226.502†	46.2	187.0	-3.9951 µg/L	-3.9951 ppb	04:10:48
3	Co 228.616†	777.9	760.8	30.657 µg/L	30.657 ppb	04:10:48
3	Cr 267.716†	3378.1	3362.8	67.624 µg/L	67.624 ppb	04:10:27
3	Cu 324.752†	1195932.8	1170115.4	7648.6 µg/L	7648.6 ppb	04:10:22
3	Mn 257.610†	600502.9	589072.7	1854.6 µg/L	1854.6 ppb	04:10:22
3	Mo 202.031†	16.4	21.4	5.0248 µg/L	5.0248 ppb	04:10:48
3	Ni 231.604†	1166.9	831.9	42.427 µg/L	42.427 ppb	04:10:48
3	P 214.914†	1344.1	1302.6	1724.1 µg/L	1724.1 ppb	04:10:27
3	Pb 220.353†	5085.1	4895.2	1171.2 µg/L	1171.2 ppb	04:10:27
3	S 181.975 Axial†	65.0	44.8	185.64 µg/L	185.64 ppb	04:10:48
3	Sb 206.836†	36.5	13.3	10.137 µg/L	10.137 ppb	04:10:48
3	Se 196.026†	-23.0	-41.8	140.78 µg/L	140.78 ppb	04:10:48
3	SiO2†	265048.1	258498.5	51024 µg/L	51024 ppb	04:10:22
3	Si 251.611†	317660.9	311168.4	23656 µg/L	23656 ppb	04:10:22
3	Sn 189.927†	251.4	246.1	96.364 µg/L	96.364 ppb	04:10:48
3	Ti 334.940†	839673.1	823157.5	1820.7 µg/L	1820.7 ppb	04:10:22
3	Tl 190.801†	-45.2	-21.9	14.123 µg/L	14.123 ppb	04:10:48
3	U 409.014†	63696.4	62533.9	5183.9 µg/L	5183.9 ppb	04:10:22
3	V 292.402†	13539.1	13320.3	144.44 µg/L	144.44 ppb	04:10:27
3	Zn 213.857†	15089.6	14261.6	318.03 µg/L	318.03 ppb	04:10:27

Mean Data: 245979009|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008872.7	102.33	%	0.307				0.30%
Sc RADIAL	57753.5	102	%	0.2				0.20%
Y 371.029	1434877.5	106.07	%	0.418				0.39%
Ag 328.068†	-450.3	2.4166	µg/L	0.27608	2.4166	ppb	0.27608	11.42%
Al 396.153Radial†	62230.0	43290	µg/L	239.3	43290	ppb	239.3	0.55%
As 188.979†	19.7	38.953	µg/L	2.8541	38.953	ppb	2.8541	7.33%
B 249.677†	393.3	-24.098	µg/L	0.8606	-24.098	ppb	0.8606	3.57%
Ba 233.527†	22702.9	545.28	µg/L	16.502	545.28	ppb	16.502	3.03%
Be 313.107†	16332.5	8.9788	µg/L	0.30886	8.9788	ppb	0.30886	3.44%
Ca 317.933Radial†	18191.8	15539	µg/L	40.5	15539	ppb	40.5	0.26%
Cd 226.502†	207.0	-3.5067	µg/L	0.43607	-3.5067	ppb	0.43607	12.44%
Co 228.616†	814.5	32.973	µg/L	2.0218	32.973	ppb	2.0218	6.13%
Cr 267.716†	3517.1	70.726	µg/L	2.6887	70.726	ppb	2.6887	3.80%
Cu 324.752†	1198881.1	7836.4	µg/L	163.68	7836.4	ppb	163.68	2.09%
Fe 238.204 Radial†	9777.5	77115	µg/L	118.5	77115	ppb	118.5	0.15%
K 766.490 Radial†	9712.3	6343.3	µg/L	10.61	6343.3	ppb	10.61	0.17%
Mg 279.077 IEC†	832.5	7359.0	µg/L	34.35	7359.0	ppb	34.35	0.47%
Mn 257.610†	604013.9	1901.4	µg/L	40.67	1901.4	ppb	40.67	2.14%
Mo 202.031†	22.8	5.1631	µg/L	0.24242	5.1631	ppb	0.24242	4.70%
Na 589.592 Radial†	1619.4	497.38	µg/L	7.036	497.38	ppb	7.036	1.41%

Ni 231.604†	895.8	45.612 µg/L	2.7583	45.612 ppb	2.7583	6.05%
P 214.914†	1353.4	1804.7 µg/L	69.85	1804.7 ppb	69.85	3.87%
Pb 220.353†	5013.3	1199.4 µg/L	25.18	1199.4 ppb	25.18	2.10%
S 181.975 Axial†	48.5	201.18 µg/L	14.048	201.18 ppb	14.048	6.98%
Sb 206.836†	14.9	11.518 µg/L	4.6970	11.518 ppb	4.6970	40.78%
Se 196.026†	-46.3	134.89 µg/L	6.379	134.89 ppb	6.379	4.73%
SiO2†	263561.1	52024 µg/L	875.6	52024 ppb	875.6	1.68%
Si 251.611†	317265.0	24119 µg/L	405.8	24119 ppb	405.8	1.68%
Sn 189.927†	258.2	101.45 µg/L	4.884	101.45 ppb	4.884	4.81%
Sr 421.552†	10204.1	94.134 µg/L	0.5586	94.134 ppb	0.5586	0.59%
Ti 334.940†	847835.5	1875.3 µg/L	47.48	1875.3 ppb	47.48	2.53%
Tl 190.801†	-26.6	8.9080 µg/L	4.58955	8.9080 ppb	4.58955	51.52%
U 409.014†	64287.9	5329.7 µg/L	126.90	5329.7 ppb	126.90	2.38%
V 292.402†	13908.3	150.35 µg/L	5.122	150.35 ppb	5.122	3.41%
Zn 213.857†	14751.5	329.20 µg/L	9.773	329.20 ppb	9.773	2.97%

Sequence No.: 20
Sample ID: 245979010|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 242
Date Collected: 2/20/2010 04:10:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979010|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57504.5	57504.5	102	%			04:11:30
1	Al 396.153Radial†	16376.1	16081.4	11187	µg/L	11187	ppb	04:11:30
1	Ca 317.933Radial†	4675.8	4382.5	3743.4	µg/L	3743.4	ppb	04:11:52
1	Fe 238.204 Radial†	9029.0	8854.0	69832	µg/L	69832	ppb	04:11:30
1	K 766.490 Radial†	4398.6	4156.5	2714.7	µg/L	2714.7	ppb	04:11:30
1	Mg 279.077 IEC†	243.7	226.6	1950.4	µg/L	1950.4	ppb	04:11:52
1	Na 589.592 Radial†	5686.4	5114.4	1570.9	µg/L	1570.9	ppb	04:11:30
1	Sr 421.552†	3125.9	3042.2	28.065	µg/L	28.065	ppb	04:11:30
1	Sc 361.383	2017481.3	2017481.3	102.77	%			04:12:57
1	Y 371.029	1478864.1	1478864.1	109.32	%			04:12:57
1	Ag 328.068†	-1102.1	-670.8	-0.4190	µg/L	-0.4190	ppb	04:13:03
1	As 188.979†	6.5	6.7	15.920	µg/L	15.920	ppb	04:13:23
1	B 249.677†	663.6	261.6	-25.643	µg/L	-25.643	ppb	04:13:03
1	Ba 233.527†	8438.2	8227.9	197.57	µg/L	197.57	ppb	04:13:03
1	Be 313.107†	5476.1	8184.3	4.3382	µg/L	4.3382	ppb	04:13:03
1	Cd 226.502†	124.1	262.5	-1.2896	µg/L	-1.2896	ppb	04:13:03
1	Co 228.616†	1164.4	1131.1	48.385	µg/L	48.385	ppb	04:13:23
1	Cr 267.716†	4165.2	4103.4	82.432	µg/L	82.432	ppb	04:13:03
1	Cu 324.752†	2145671.5	2085312.3	13622	µg/L	13622	ppb	04:12:57
1	Mn 257.610†	646305.8	629146.9	1979.4	µg/L	1979.4	ppb	04:12:57
1	Mo 202.031†	44.8	49.0	7.4475	µg/L	7.4475	ppb	04:13:23
1	Ni 231.604†	1463.9	1112.1	56.287	µg/L	56.287	ppb	04:13:23
1	P 214.914†	477.3	449.1	-601.58	µg/L	-601.58	ppb	04:13:03
1	Pb 220.353†	482.9	378.9	67.264	µg/L	67.264	ppb	04:13:23
1	S 181.975 Axial†	17.5	-1.9	-7.9377	µg/L	-7.9377	ppb	04:13:23
1	Sb 206.836†	28.2	5.0	3.3708	µg/L	3.3708	ppb	04:13:23
1	Se 196.026†	-35.2	-53.5	112.85	µg/L	112.85	ppb	04:13:23
1	SiO2†	158808.1	153137.4	30227	µg/L	30227	ppb	04:13:03
1	Si 251.611†	193844.8	188311.0	14316	µg/L	14316	ppb	04:12:57
1	Sn 189.927†	12.2	11.5	-2.3922	µg/L	-2.3922	ppb	04:13:23
1	Ti 334.940†	633306.9	616067.3	1362.8	µg/L	1362.8	ppb	04:12:57
1	Tl 190.801†	-41.5	-18.0	6.7586	µg/L	6.7586	ppb	04:13:23
1	U 409.014†	-1188.9	-1079.8	-99.648	µg/L	-99.648	ppb	04:12:57
1	V 292.402†	2359.9	2341.0	31.167	µg/L	31.167	ppb	04:13:03
1	Zn 213.857†	18702.3	17664.0	388.82	µg/L	388.82	ppb	04:13:03
2	Sc RADIAL	57353.0	57353.0	102	%			04:11:58
2	Al 396.153Radial†	16439.9	16186.7	11260	µg/L	11260	ppb	04:11:58
2	Ca 317.933Radial†	4703.9	4422.3	3777.5	µg/L	3777.5	ppb	04:12:18
2	Fe 238.204 Radial†	9030.4	8878.9	70028	µg/L	70028	ppb	04:11:58
2	K 766.490 Radial†	4365.0	4134.8	2700.5	µg/L	2700.5	ppb	04:11:58
2	Mg 279.077 IEC†	257.6	240.9	2078.2	µg/L	2078.2	ppb	04:12:18
2	Na 589.592 Radial†	5695.0	5137.6	1578.0	µg/L	1578.0	ppb	04:11:58
2	Sr 421.552†	3152.8	3076.9	28.385	µg/L	28.385	ppb	04:11:58
2	Sc 361.383	2018126.3	2018126.3	102.80	%			04:13:31
2	Y 371.029	1478731.0	1478731.0	109.31	%			04:13:31
2	Ag 328.068†	-1119.1	-687.0	-0.5275	µg/L	-0.5275	ppb	04:13:37
2	As 188.979†	6.1	6.4	15.344	µg/L	15.344	ppb	04:13:57
2	B 249.677†	657.3	255.2	-26.006	µg/L	-26.006	ppb	04:13:37
2	Ba 233.527†	8402.2	8190.3	196.67	µg/L	196.67	ppb	04:13:37
2	Be 313.107†	5469.8	8176.4	4.3344	µg/L	4.3344	ppb	04:13:37
2	Cd 226.502†	76.0	215.6	-2.4810	µg/L	-2.4810	ppb	04:13:37
2	Co 228.616†	1145.4	1112.3	47.536	µg/L	47.536	ppb	04:13:57
2	Cr 267.716†	4160.1	4097.1	82.306	µg/L	82.306	ppb	04:13:37
2	Cu 324.752†	2143100.5	2082144.0	13601	µg/L	13601	ppb	04:13:31
2	Mn 257.610†	646257.6	628899.1	1978.6	µg/L	1978.6	ppb	04:13:31
2	Mo 202.031†	39.5	43.8	6.9453	µg/L	6.9453	ppb	04:13:57
2	Ni 231.604†	1450.0	1098.1	55.592	µg/L	55.592	ppb	04:13:57
2	P 214.914†	479.4	451.0	-595.75	µg/L	-595.75	ppb	04:13:37
2	Pb 220.353†	469.9	366.1	64.175	µg/L	64.175	ppb	04:13:57

2	S 181.975 Axial†	16.9	-2.5	-10.398	µg/L	-10.398 ppb	04:13:57
2	Sb 206.836†	32.9	9.5	7.5298	µg/L	7.5298 ppb	04:13:57
2	Se 196.026†	-21.8	-40.5	131.61	µg/L	131.61 ppb	04:13:57
2	SiO2†	158669.1	152952.8	30191	µg/L	30191 ppb	04:13:37
2	Si 251.611†	193582.3	187995.4	14292	µg/L	14292 ppb	04:13:31
2	Sn 189.927†	6.7	6.1	-4.6439	µg/L	-4.6439 ppb	04:13:57
2	Ti 334.940†	632442.7	615029.7	1360.5	µg/L	1360.5 ppb	04:13:31
2	Tl 190.801†	-35.3	-12.0	14.509	µg/L	14.509 ppb	04:13:57
2	U 409.014†	-1215.6	-1105.4	-101.80	µg/L	-101.80 ppb	04:13:31
2	V 292.402†	2346.5	2327.3	31.049	µg/L	31.049 ppb	04:13:37
2	Zn 213.857†	18618.3	17576.4	386.78	µg/L	386.78 ppb	04:13:37
3	Sc RADIAL	57549.4	57549.4	102	%		04:12:24
3	Al 396.153Radial†	16495.9	16186.5	11260	µg/L	11260 ppb	04:12:24
3	Ca 317.933Radial†	4701.3	4403.9	3761.7	µg/L	3761.7 ppb	04:12:44
3	Fe 238.204 Radial†	9074.2	8891.4	70127	µg/L	70127 ppb	04:12:24
3	K 766.490 Radial†	4429.0	4182.9	2731.9	µg/L	2731.9 ppb	04:12:24
3	Mg 279.077 IEC†	255.8	238.3	2055.0	µg/L	2055.0 ppb	04:12:44
3	Na 589.592 Radial†	5733.3	5156.1	1583.7	µg/L	1583.7 ppb	04:12:24
3	Sr 421.552†	3189.1	3101.9	28.616	µg/L	28.616 ppb	04:12:24
3	Sc 361.383	2024692.3	2024692.3	103.14	%		04:14:05
3	Y 371.029	1477931.0	1477931.0	109.25	%		04:14:05
3	Ag 328.068†	-1044.0	-610.6	0.0347	µg/L	0.0347 ppb	04:14:11
3	As 188.979†	7.8	8.0	18.235	µg/L	18.235 ppb	04:14:31
3	B 249.677†	596.4	194.1	-28.558	µg/L	-28.558 ppb	04:14:11
3	Ba 233.527†	7951.2	7726.4	185.53	µg/L	185.53 ppb	04:14:11
3	Be 313.107†	4857.8	7565.8	4.0015	µg/L	4.0015 ppb	04:14:11
3	Cd 226.502†	93.0	231.8	-2.0940	µg/L	-2.0940 ppb	04:14:11
3	Co 228.616†	1038.1	1004.6	42.823	µg/L	42.823 ppb	04:14:31
3	Cr 267.716†	3843.0	3776.5	75.866	µg/L	75.866 ppb	04:14:11
3	Cu 324.752†	2045575.7	1980824.3	12940	µg/L	12940 ppb	04:14:05
3	Mn 257.610†	615987.5	597510.8	1880.4	µg/L	1880.4 ppb	04:14:05
3	Mo 202.031†	40.6	44.7	7.0421	µg/L	7.0421 ppb	04:14:31
3	Ni 231.604†	1320.3	967.8	49.101	µg/L	49.101 ppb	04:14:31
3	P 214.914†	431.6	403.1	-620.78	µg/L	-620.78 ppb	04:14:11
3	Pb 220.353†	443.1	338.7	58.611	µg/L	58.611 ppb	04:14:31
3	S 181.975 Axial†	16.7	-2.7	-11.338	µg/L	-11.338 ppb	04:14:31
3	Sb 206.836†	26.1	2.8	1.4894	µg/L	1.4894 ppb	04:14:31
3	Se 196.026†	-21.1	-39.8	132.86	µg/L	132.86 ppb	04:14:31
3	SiO2†	151635.6	145632.7	28746	µg/L	28746 ppb	04:14:11
3	Si 251.611†	186730.5	180741.2	13740	µg/L	13740 ppb	04:14:05
3	Sn 189.927†	18.7	17.8	0.2447	µg/L	0.2447 ppb	04:14:31
3	Ti 334.940†	598294.1	579924.5	1282.8	µg/L	1282.8 ppb	04:14:05
3	Tl 190.801†	-36.6	-13.1	12.036	µg/L	12.036 ppb	04:14:31
3	U 409.014†	-1197.4	-1083.9	-100.03	µg/L	-100.03 ppb	04:14:05
3	V 292.402†	2199.3	2177.2	29.586	µg/L	29.586 ppb	04:14:11
3	Zn 213.857†	17619.1	16548.9	363.77	µg/L	363.77 ppb	04:14:11

Mean Data: 245979010|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2020100.0	102.90	%	0.203				0.20%
Sc RADIAL	57469.0	102	%	0.2				0.18%
Y 371.029	1478508.7	109.30	%	0.037				0.03%
Ag 328.068†	-656.1	-0.3039	µg/L	0.29825	-0.3039	ppb	0.29825	98.14%
Al 396.153Radial†	16151.5	11236	µg/L	42.2	11236	ppb	42.2	0.38%
As 188.979†	7.1	16.499	µg/L	1.5300	16.499	ppb	1.5300	9.27%
B 249.677†	237.0	-26.735	µg/L	1.5885	-26.735	ppb	1.5885	5.94%
Ba 233.527†	8048.2	193.25	µg/L	6.707	193.25	ppb	6.707	3.47%
Be 313.107†	7975.5	4.2247	µg/L	0.19326	4.2247	ppb	0.19326	4.57%
Ca 317.933Radial†	4402.9	3760.9	µg/L	17.03	3760.9	ppb	17.03	0.45%
Cd 226.502†	236.6	-1.9549	µg/L	0.60773	-1.9549	ppb	0.60773	31.09%
Co 228.616†	1082.7	46.248	µg/L	2.9967	46.248	ppb	2.9967	6.48%
Cr 267.716†	3992.3	80.201	µg/L	3.7553	80.201	ppb	3.7553	4.68%
Cu 324.752†	2049426.9	13387	µg/L	387.9	13387	ppb	387.9	2.90%
Fe 238.204 Radial†	8874.8	69995	µg/L	150.0	69995	ppb	150.0	0.21%
K 766.490 Radial†	4158.1	2715.7	µg/L	15.74	2715.7	ppb	15.74	0.58%
Mg 279.077 IEC†	235.2	2027.9	µg/L	68.09	2027.9	ppb	68.09	3.36%
Mn 257.610†	618519.0	1946.1	µg/L	56.96	1946.1	ppb	56.96	2.93%
Mo 202.031†	45.8	7.1450	µg/L	0.26643	7.1450	ppb	0.26643	3.73%
Na 589.592 Radial†	5136.0	1577.5	µg/L	6.42	1577.5	ppb	6.42	0.41%

Ni 231.604†	1059.4	53.660	µg/L	3.9632	53.660	ppb	3.9632	7.39%
P 214.914†	434.4	-606.04	µg/L	13.100	-606.04	ppb	13.100	2.16%
Pb 220.353†	361.2	63.350	µg/L	4.3854	63.350	ppb	4.3854	6.92%
S 181.975 Axial†	-2.4	-9.8911	µg/L	1.75583	-9.8911	ppb	1.75583	17.75%
Sb 206.836†	5.8	4.1300	µg/L	3.09094	4.1300	ppb	3.09094	74.84%
Se 196.026†	-44.6	125.77	µg/L	11.207	125.77	ppb	11.207	8.91%
SiO2†	150574.3	29721	µg/L	844.9	29721	ppb	844.9	2.84%
Si 251.611†	185682.5	14116	µg/L	325.5	14116	ppb	325.5	2.31%
Sn 189.927†	11.8	-2.2638	µg/L	2.44679	-2.2638	ppb	2.44679	108.08%
Sr 421.552†	3073.7	28.355	µg/L	0.2765	28.355	ppb	0.2765	0.98%
Ti 334.940†	603673.8	1335.4	µg/L	45.52	1335.4	ppb	45.52	3.41%
Tl 190.801†	-14.4	11.101	µg/L	3.9589	11.101	ppb	3.9589	35.66%
U 409.014†	-1089.7	-100.50	µg/L	1.150	-100.50	ppb	1.150	1.14%
V 292.402†	2281.8	30.601	µg/L	0.8805	30.601	ppb	0.8805	2.88%
Zn 213.857†	17263.1	379.79	µg/L	13.913	379.79	ppb	13.913	3.66%

Sequence No.: 21
Sample ID: 245979011|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 243
Date Collected: 2/20/2010 04:14:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979011|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57506.9	57506.9	102	%			04:15:13
1	Al 396.153Radial†	55292.3	54312.6	37783	µg/L	37783	ppb	04:15:13
1	Ca 317.933Radial†	12696.1	12261.6	10474	µg/L	10474	ppb	04:15:33
1	Fe 238.204 Radial†	8042.7	7884.7	62187	µg/L	62187	ppb	04:15:33
1	K 766.490 Radial†	6976.2	6688.5	4368.4	µg/L	4368.4	ppb	04:15:13
1	Mg 279.077 IEC†	617.8	594.1	5244.3	µg/L	5244.3	ppb	04:15:33
1	Na 589.592 Radial†	2052.1	1543.9	474.18	µg/L	474.18	ppb	04:15:13
1	Sr 421.552†	6785.6	6637.5	61.232	µg/L	61.232	ppb	04:15:13
1	Sc 361.383	2008952.0	2008952.0	102.33	%			04:16:38
1	Y 371.029	1405752.3	1405752.3	103.92	%			04:16:38
1	Ag 328.068†	212.5	609.3	9.0317	µg/L	9.0317	ppb	04:16:44
1	As 188.979†	20.9	20.9	40.530	µg/L	40.530	ppb	04:17:04
1	B 249.677†	844.0	440.6	-14.322	µg/L	-14.322	ppb	04:16:44
1	Ba 233.527†	21560.3	21085.5	506.37	µg/L	506.37	ppb	04:16:44
1	Be 313.107†	75081.0	76223.8	44.523	µg/L	44.523	ppb	04:16:38
1	Cd 226.502†	148.0	286.3	0.1699	µg/L	0.1699	ppb	04:17:04
1	Co 228.616†	844.1	822.9	33.344	µg/L	33.344	ppb	04:17:04
1	Cr 267.716†	5372.7	5300.5	106.52	µg/L	106.52	ppb	04:16:44
1	Cu 324.752†	860763.0	838581.8	5482.5	µg/L	5482.5	ppb	04:16:38
1	Mn 257.610†	448122.2	438154.8	1380.1	µg/L	1380.1	ppb	04:16:38
1	Mo 202.031†	30.6	35.2	5.8138	µg/L	5.8138	ppb	04:17:04
1	Ni 231.604†	1470.1	1124.3	56.808	µg/L	56.808	ppb	04:17:04
1	P 214.914†	591.1	562.3	496.39	µg/L	496.39	ppb	04:17:04
1	Pb 220.353†	29180.2	28423.6	6897.5	µg/L	6897.5	ppb	04:16:44
1	S 181.975 Axial†	103.7	82.4	341.77	µg/L	341.77	ppb	04:17:04
1	Sb 206.836†	123.7	98.4	88.232	µg/L	88.232	ppb	04:17:04
1	Se 196.026†	-22.7	-41.5	104.05	µg/L	104.05	ppb	04:17:04
1	SiO2†	218873.9	212488.9	41943	µg/L	41943	ppb	04:16:38
1	Si 251.611†	262101.9	255811.7	19447	µg/L	19447	ppb	04:16:38
1	Sn 189.927†	115.5	112.5	41.380	µg/L	41.380	ppb	04:17:04
1	Ti 334.940†	870147.0	850120.4	1880.4	µg/L	1880.4	ppb	04:16:38
1	Tl 190.801†	-49.4	-25.9	2.0043	µg/L	2.0043	ppb	04:17:04
1	U 409.014†	28464.2	27891.9	2308.1	µg/L	2308.1	ppb	04:16:44
1	V 292.402†	9518.6	9346.2	101.08	µg/L	101.08	ppb	04:16:44
1	Zn 213.857†	36281.9	34919.8	806.95	µg/L	806.95	ppb	04:16:44
2	Sc RADIAL	57664.3	57664.3	102	%			04:15:39
2	Al 396.153Radial†	56033.8	54890.7	38185	µg/L	38185	ppb	04:15:39
2	Ca 317.933Radial†	12789.8	12319.3	10523	µg/L	10523	ppb	04:15:59
2	Fe 238.204 Radial†	8094.6	7914.0	62418	µg/L	62418	ppb	04:15:59
2	K 766.490 Radial†	7071.0	6762.7	4416.9	µg/L	4416.9	ppb	04:15:39
2	Mg 279.077 IEC†	626.7	601.2	5306.8	µg/L	5306.8	ppb	04:15:59
2	Na 589.592 Radial†	2083.6	1569.2	481.97	µg/L	481.97	ppb	04:15:39
2	Sr 421.552†	6856.6	6688.8	61.706	µg/L	61.706	ppb	04:15:39
2	Sc 361.383	2008349.8	2008349.8	102.30	%			04:17:12
2	Y 371.029	1407093.7	1407093.7	104.02	%			04:17:12
2	Ag 328.068†	256.5	652.3	9.3651	µg/L	9.3651	ppb	04:17:18
2	As 188.979†	21.7	21.7	41.944	µg/L	41.944	ppb	04:17:38
2	B 249.677†	841.0	437.9	-14.551	µg/L	-14.551	ppb	04:17:18
2	Ba 233.527†	21528.8	21061.1	505.78	µg/L	505.78	ppb	04:17:18
2	Be 313.107†	75633.6	76786.0	44.852	µg/L	44.852	ppb	04:17:12
2	Cd 226.502†	129.3	268.1	-0.3118	µg/L	-0.3118	ppb	04:17:38
2	Co 228.616†	857.7	836.5	33.937	µg/L	33.937	ppb	04:17:38
2	Cr 267.716†	5359.1	5288.7	106.28	µg/L	106.28	ppb	04:17:18
2	Cu 324.752†	866000.1	843953.2	5517.6	µg/L	5517.6	ppb	04:17:12
2	Mn 257.610†	450686.3	440792.4	1388.4	µg/L	1388.4	ppb	04:17:12
2	Mo 202.031†	34.0	38.6	6.1545	µg/L	6.1545	ppb	04:17:38
2	Ni 231.604†	1463.6	1118.3	56.513	µg/L	56.513	ppb	04:17:38
2	P 214.914†	588.4	559.8	487.52	µg/L	487.52	ppb	04:17:38
2	Pb 220.353†	29196.7	28448.2	6903.5	µg/L	6903.5	ppb	04:17:18

2	S 181.975 Axial†	97.8	76.7	317.89 µg/L	317.89 ppb	04:17:38
2	Sb 206.836†	122.6	97.4	87.316 µg/L	87.316 ppb	04:17:38
2	Se 196.026†	-22.5	-41.4	104.84 µg/L	104.84 ppb	04:17:38
2	SiO2†	220231.0	213879.6	42217 µg/L	42217 ppb	04:17:12
2	Si 251.611†	263588.5	257341.6	19564 µg/L	19564 ppb	04:17:12
2	Sn 189.927†	105.9	103.2	37.428 µg/L	37.428 ppb	04:17:38
2	Ti 334.940†	875092.4	855209.4	1891.7 µg/L	1891.7 ppb	04:17:12
2	Tl 190.801†	-48.1	-24.6	3.8435 µg/L	3.8435 ppb	04:17:38
2	U 409.014†	28471.4	27907.3	2309.3 µg/L	2309.3 ppb	04:17:18
2	V 292.402†	9514.0	9344.5	101.09 µg/L	101.09 ppb	04:17:18
2	Zn 213.857†	36367.6	35014.1	809.09 µg/L	809.09 ppb	04:17:18
3	Sc RADIAL	57824.9	57824.9	102 %		04:16:05
3	Al 396.153Radial†	56245.9	54945.5	38223 µg/L	38223 ppb	04:16:05
3	Ca 317.933Radial†	12791.9	12286.6	10495 µg/L	10495 ppb	04:16:25
3	Fe 238.204 Radial†	8112.9	7909.8	62384 µg/L	62384 ppb	04:16:25
3	K 766.490 Radial†	7044.5	6717.6	4387.4 µg/L	4387.4 ppb	04:16:05
3	Mg 279.077 IEC†	631.0	603.7	5329.5 µg/L	5329.5 ppb	04:16:25
3	Na 589.592 Radial†	2019.6	1501.0	461.02 µg/L	461.02 ppb	04:16:05
3	Sr 421.552†	6876.2	6689.3	61.710 µg/L	61.710 ppb	04:16:05
3	Sc 361.383	1992621.1	1992621.1	101.50 %		04:17:46
3	Y 371.029	1395866.0	1395866.0	103.19 %		04:17:46
3	Ag 328.068†	255.1	652.9	9.3341 µg/L	9.3341 ppb	04:17:51
3	As 188.979†	18.8	19.0	37.137 µg/L	37.137 ppb	04:18:12
3	B 249.677†	833.4	436.9	-14.584 µg/L	-14.584 ppb	04:17:51
3	Ba 233.527†	20463.6	20177.8	484.57 µg/L	484.57 ppb	04:17:51
3	Be 313.107†	71907.1	73698.2	43.049 µg/L	43.049 ppb	04:17:46
3	Cd 226.502†	111.8	251.8	-0.7168 µg/L	-0.7168 ppb	04:18:12
3	Co 228.616†	766.8	753.5	30.343 µg/L	30.343 ppb	04:18:12
3	Cr 267.716†	5018.1	4994.1	100.36 µg/L	100.36 ppb	04:17:51
3	Cu 324.752†	829145.1	814325.6	5324.2 µg/L	5324.2 ppb	04:17:46
3	Mn 257.610†	430377.5	424261.6	1336.7 µg/L	1336.7 ppb	04:17:46
3	Mo 202.031†	26.1	31.1	5.4168 µg/L	5.4168 ppb	04:18:12
3	Ni 231.604†	1378.0	1045.3	52.876 µg/L	52.876 ppb	04:18:12
3	P 214.914†	545.3	521.8	432.88 µg/L	432.88 ppb	04:18:12
3	Pb 220.353†	28123.2	27615.9	6701.6 µg/L	6701.6 ppb	04:17:51
3	S 181.975 Axial†	97.2	76.8	318.54 µg/L	318.54 ppb	04:18:12
3	Sb 206.836†	109.8	85.7	76.652 µg/L	76.652 ppb	04:18:12
3	Se 196.026†	-14.8	-33.9	115.26 µg/L	115.26 ppb	04:18:12
3	SiO2†	212490.8	207953.2	41047 µg/L	41047 ppb	04:17:46
3	Si 251.611†	254384.2	250307.3	19029 µg/L	19029 ppb	04:17:46
3	Sn 189.927†	100.9	99.0	35.678 µg/L	35.678 ppb	04:18:12
3	Ti 334.940†	832513.7	820013.1	1813.8 µg/L	1813.8 ppb	04:17:46
3	Tl 190.801†	-40.2	-17.2	12.387 µg/L	12.387 ppb	04:18:12
3	U 409.014†	26756.3	26437.3	2187.2 µg/L	2187.2 ppb	04:17:51
3	V 292.402†	8909.1	8822.0	95.852 µg/L	95.852 ppb	04:17:51
3	Zn 213.857†	34655.4	33607.9	776.43 µg/L	776.43 ppb	04:17:51

Mean Data: 245979011|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2003307.7	102.05	%	0.472				0.46%
Sc RADIAL	57665.4	102	%	0.3				0.28%
Y 371.029	1402904.0	103.71	%	0.453				0.44%
Ag 328.068†	638.2	9.2436	µg/L	0.18414	9.2436	ppb	0.18414	1.99%
Al 396.153Radial†	54716.3	38063	µg/L	243.9	38063	ppb	243.9	0.64%
As 188.979†	20.5	39.870	µg/L	2.4707	39.870	ppb	2.4707	6.20%
B 249.677†	438.5	-14.486	µg/L	0.1429	-14.486	ppb	0.1429	0.99%
Ba 233.527†	20774.8	498.90	µg/L	12.421	498.90	ppb	12.421	2.49%
Be 313.107†	75569.3	44.141	µg/L	0.9601	44.141	ppb	0.9601	2.18%
Ca 317.933Radial†	12289.2	10497	µg/L	24.7	10497	ppb	24.7	0.24%
Cd 226.502†	268.7	-0.2862	µg/L	0.44390	-0.2862	ppb	0.44390	155.10%
Co 228.616†	804.3	32.541	µg/L	1.9267	32.541	ppb	1.9267	5.92%
Cr 267.716†	5194.5	104.39	µg/L	3.488	104.39	ppb	3.488	3.34%
Cu 324.752†	832286.9	5441.4	µg/L	103.03	5441.4	ppb	103.03	1.89%
Fe 238.204 Radial†	7902.8	62330	µg/L	124.9	62330	ppb	124.9	0.20%
K 766.490 Radial†	6722.9	4390.9	µg/L	24.42	4390.9	ppb	24.42	0.56%
Mg 279.077 IEC†	599.7	5293.5	µg/L	44.16	5293.5	ppb	44.16	0.83%
Mn 257.610†	434402.9	1368.4	µg/L	27.81	1368.4	ppb	27.81	2.03%
Mo 202.031†	35.0	5.7950	µg/L	0.36922	5.7950	ppb	0.36922	6.37%
Na 589.592 Radial†	1538.0	472.39	µg/L	10.593	472.39	ppb	10.593	2.24%

Ni 231.604†	1095.9	55.399	µg/L	2.1900	55.399	ppb	2.1900	3.95%
P 214.914†	548.0	472.26	µg/L	34.398	472.26	ppb	34.398	7.28%
Pb 220.353†	28162.6	6834.2	µg/L	114.87	6834.2	ppb	114.87	1.68%
S 181.975 Axial†	78.6	326.07	µg/L	13.606	326.07	ppb	13.606	4.17%
Sb 206.836†	93.8	84.067	µg/L	6.4374	84.067	ppb	6.4374	7.66%
Se 196.026†	-38.9	108.05	µg/L	6.255	108.05	ppb	6.255	5.79%
SiO2†	211440.6	41736	µg/L	611.7	41736	ppb	611.7	1.47%
Si 251.611†	254486.9	19347	µg/L	281.2	19347	ppb	281.2	1.45%
Sn 189.927†	104.9	38.162	µg/L	2.9210	38.162	ppb	2.9210	7.65%
Sr 421.552†	6671.9	61.549	µg/L	0.2747	61.549	ppb	0.2747	0.45%
Ti 334.940†	841781.0	1862.0	µg/L	42.08	1862.0	ppb	42.08	2.26%
Tl 190.801†	-22.6	6.0782	µg/L	5.54033	6.0782	ppb	5.54033	91.15%
U 409.014†	27412.1	2268.2	µg/L	70.15	2268.2	ppb	70.15	3.09%
V 292.402†	9170.9	99.342	µg/L	3.0225	99.342	ppb	3.0225	3.04%
Zn 213.857†	34513.9	797.49	µg/L	18.271	797.49	ppb	18.271	2.29%

Sequence No.: 22
Sample ID: 245979012|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 244
Date Collected: 2/20/2010 04:18:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979012|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57678.3	57678.3	102	%			04:18:54
1	Al 396.153Radial†	70740.4	69282.5	48197	µg/L	48197	ppb	04:18:54
1	Ca 317.933Radial†	18579.2	17986.9	15364	µg/L	15364	ppb	04:18:54
1	Fe 238.204 Radial†	11124.1	10879.4	85806	µg/L	85806	ppb	04:19:14
1	K 766.490 Radial†	11211.6	10816.7	7064.6	µg/L	7064.6	ppb	04:18:54
1	Mg 279.077 IEC†	1352.5	1311.9	11636	µg/L	11636	ppb	04:19:14
1	Na 589.592 Radial†	2263.6	1745.0	535.96	µg/L	535.96	ppb	04:18:54
1	Sr 421.552†	13026.1	12730.2	117.44	µg/L	117.44	ppb	04:18:54
1	Sc 361.383	2001023.3	2001023.3	101.93	%			04:20:18
1	Y 371.029	1411607.1	1411607.1	104.35	%			04:20:18
1	Ag 328.068†	-1048.8	-627.3	1.6506	µg/L	1.6506	ppb	04:20:24
1	As 188.979†	10.0	10.3	22.598	µg/L	22.598	ppb	04:20:44
1	B 249.677†	792.2	393.0	-27.920	µg/L	-27.920	ppb	04:20:24
1	Ba 233.527†	63950.0	62755.8	1506.8	µg/L	1506.8	ppb	04:20:24
1	Be 313.107†	52390.6	54254.0	31.294	µg/L	31.294	ppb	04:20:24
1	Cd 226.502†	283.5	419.8	1.0517	µg/L	1.0517	ppb	04:20:44
1	Co 228.616†	853.4	835.3	32.867	µg/L	32.867	ppb	04:20:44
1	Cr 267.716†	26467.6	26016.6	522.64	µg/L	522.64	ppb	04:20:24
1	Cu 324.752†	151472.4	146059.5	965.33	µg/L	965.33	ppb	04:20:24
1	Mn 257.610†	746317.8	732437.0	2304.6	µg/L	2304.6	ppb	04:20:18
1	Mo 202.031†	15.9	20.9	5.3090	µg/L	5.3090	ppb	04:20:44
1	Ni 231.604†	6008.3	5582.1	279.34	µg/L	279.34	ppb	04:20:24
1	P 214.914†	868.1	836.3	1499.4	µg/L	1499.4	ppb	04:20:44
1	Pb 220.353†	15923.1	15530.6	3772.2	µg/L	3772.2	ppb	04:20:24
1	S 181.975 Axial†	226.3	203.0	841.99	µg/L	841.99	ppb	04:20:44
1	Sb 206.836†	39.3	16.1	7.5620	µg/L	7.5620	ppb	04:20:44
1	Se 196.026†	-34.4	-53.0	145.38	µg/L	145.38	ppb	04:20:44
1	SiO2†	280482.1	273777.6	54040	µg/L	54040	ppb	04:20:18
1	Si 251.611†	336402.7	329719.9	25066	µg/L	25066	ppb	04:20:18
1	Sn 189.927†	26.7	25.9	3.0563	µg/L	3.0563	ppb	04:20:44
1	Ti 334.940†	1095696.2	1074766.4	2376.9	µg/L	2376.9	ppb	04:20:18
1	Tl 190.801†	-48.1	-24.8	13.449	µg/L	13.449	ppb	04:20:44
1	U 409.014†	10706.7	10580.9	866.25	µg/L	866.25	ppb	04:20:24
1	V 292.402†	14088.7	13866.5	147.37	µg/L	147.37	ppb	04:20:24
1	Zn 213.857†	16678.3	15828.0	363.84	µg/L	363.84	ppb	04:20:24
2	Sc RADIAL	57801.6	57801.6	102	%			04:19:20
2	Al 396.153Radial†	71204.2	69588.0	48409	µg/L	48409	ppb	04:19:20
2	Ca 317.933Radial†	18654.0	18021.3	15393	µg/L	15393	ppb	04:19:20
2	Fe 238.204 Radial†	11104.0	10836.6	85468	µg/L	85468	ppb	04:19:40
2	K 766.490 Radial†	11234.8	10816.0	7064.1	µg/L	7064.1	ppb	04:19:20
2	Mg 279.077 IEC†	1349.5	1306.2	11585	µg/L	11585	ppb	04:19:40
2	Na 589.592 Radial†	2299.2	1775.0	545.19	µg/L	545.19	ppb	04:19:20
2	Sr 421.552†	13081.4	12757.0	117.69	µg/L	117.69	ppb	04:19:20
2	Sc 361.383	2002245.6	2002245.6	101.99	%			04:20:52
2	Y 371.029	1412317.4	1412317.4	104.40	%			04:20:52
2	Ag 328.068†	-1094.6	-671.6	1.3063	µg/L	1.3063	ppb	04:20:57
2	As 188.979†	6.8	7.1	16.867	µg/L	16.867	ppb	04:21:18
2	B 249.677†	797.9	398.2	-27.529	µg/L	-27.529	ppb	04:20:57
2	Ba 233.527†	64451.8	63209.4	1517.7	µg/L	1517.7	ppb	04:20:57
2	Be 313.107†	52936.1	54757.4	31.591	µg/L	31.591	ppb	04:20:57
2	Cd 226.502†	276.1	412.4	0.9085	µg/L	0.9085	ppb	04:21:18
2	Co 228.616†	854.0	835.4	32.866	µg/L	32.866	ppb	04:21:18
2	Cr 267.716†	26596.6	26127.2	524.86	µg/L	524.86	ppb	04:20:57
2	Cu 324.752†	152278.2	146758.8	969.85	µg/L	969.85	ppb	04:20:57
2	Mn 257.610†	749498.9	735109.0	2312.9	µg/L	2312.9	ppb	04:20:52
2	Mo 202.031†	26.1	30.9	6.2734	µg/L	6.2734	ppb	04:21:18
2	Ni 231.604†	6087.8	5656.5	283.04	µg/L	283.04	ppb	04:20:57
2	P 214.914†	863.4	831.2	1489.2	µg/L	1489.2	ppb	04:21:18
2	Pb 220.353†	16014.0	15610.2	3791.5	µg/L	3791.5	ppb	04:20:57

2	S 181.975 Axial†	227.9	204.6	848.27 µg/L	848.27 ppb	04:21:18
2	Sb 206.836†	48.2	24.8	15.539 µg/L	15.539 ppb	04:21:18
2	Se 196.026†	-37.9	-56.5	139.63 µg/L	139.63 ppb	04:21:18
2	SiO2†	281395.5	274505.2	54184 µg/L	54184 ppb	04:20:52
2	Si 251.611†	337186.7	330287.1	25109 µg/L	25109 ppb	04:20:52
2	Sn 189.927†	31.7	30.7	5.1454 µg/L	5.1454 ppb	04:21:18
2	Ti 334.940†	1098493.4	1076852.7	2381.6 µg/L	2381.6 ppb	04:20:52
2	Tl 190.801†	-52.2	-28.8	8.3073 µg/L	8.3073 ppb	04:21:18
2	U 409.014†	10830.8	10696.2	875.87 µg/L	875.87 ppb	04:20:57
2	V 292.402†	14180.6	13948.3	148.14 µg/L	148.14 ppb	04:20:57
2	Zn 213.857†	16776.3	15914.1	365.86 µg/L	365.86 ppb	04:20:57
3	Sc RADIAL	57657.6	57657.6	102 %		04:19:46
3	Al 396.153Radial†	71090.2	69650.2	48452 µg/L	48452 ppb	04:19:46
3	Ca 317.933Radial†	18619.8	18033.3	15404 µg/L	15404 ppb	04:19:46
3	Fe 238.204 Radial†	11088.1	10848.1	85559 µg/L	85559 ppb	04:20:06
3	K 766.490 Radial†	11324.7	10931.5	7139.6 µg/L	7139.6 ppb	04:19:46
3	Mg 279.077 IEC†	1347.8	1307.8	11599 µg/L	11599 ppb	04:20:06
3	Na 589.592 Radial†	2319.6	1800.7	553.07 µg/L	553.07 ppb	04:19:46
3	Sr 421.552†	13062.1	12770.1	117.81 µg/L	117.81 ppb	04:19:46
3	Sc 361.383	2009363.9	2009363.9	102.36 %		04:21:25
3	Y 371.029	1414937.6	1414937.6	104.60 %		04:21:25
3	Ag 328.068†	-1045.1	-619.4	1.6473 µg/L	1.6473 ppb	04:21:31
3	As 188.979†	8.6	8.8	19.953 µg/L	19.953 ppb	04:21:51
3	B 249.677†	793.0	390.6	-27.938 µg/L	-27.938 ppb	04:21:31
3	Ba 233.527†	61448.9	60051.7	1441.9 µg/L	1441.9 ppb	04:21:31
3	Be 313.107†	49806.1	51515.6	29.700 µg/L	29.700 ppb	04:21:31
3	Cd 226.502†	226.7	363.2	-0.3456 µg/L	-0.3456 ppb	04:21:51
3	Co 228.616†	778.9	759.0	29.584 µg/L	29.584 ppb	04:21:51
3	Cr 267.716†	25022.6	24497.1	492.11 µg/L	492.11 ppb	04:21:31
3	Cu 324.752†	144440.8	138572.8	916.43 µg/L	916.43 ppb	04:21:31
3	Mn 257.610†	727310.3	710827.7	2236.9 µg/L	2236.9 ppb	04:21:25
3	Mo 202.031†	24.2	29.0	6.0943 µg/L	6.0943 ppb	04:21:51
3	Ni 231.604†	5745.1	5300.5	265.30 µg/L	265.30 ppb	04:21:31
3	P 214.914†	778.6	745.3	1324.7 µg/L	1324.7 ppb	04:21:51
3	Pb 220.353†	15476.9	15029.8	3650.6 µg/L	3650.6 ppb	04:21:31
3	S 181.975 Axial†	212.1	188.3	780.87 µg/L	780.87 ppb	04:21:51
3	Sb 206.836†	55.1	31.3	21.859 µg/L	21.859 ppb	04:21:51
3	Se 196.026†	-20.7	-39.6	163.61 µg/L	163.61 ppb	04:21:51
3	SiO2†	275872.4	268131.9	52926 µg/L	52926 ppb	04:21:25
3	Si 251.611†	330713.5	322791.7	24539 µg/L	24539 ppb	04:21:25
3	Sn 189.927†	19.9	19.1	0.2333 µg/L	0.2333 ppb	04:21:51
3	Ti 334.940†	1062988.1	1038349.1	2296.4 µg/L	2296.4 ppb	04:21:25
3	Tl 190.801†	-39.5	-16.2	23.539 µg/L	23.539 ppb	04:21:51
3	U 409.014†	10125.5	9969.5	815.48 µg/L	815.48 ppb	04:21:31
3	V 292.402†	13414.9	13150.9	140.24 µg/L	140.24 ppb	04:21:31
3	Zn 213.857†	15996.7	15094.2	346.78 µg/L	346.78 ppb	04:21:31

Mean Data: 245979012|948764|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004211.0	102.09	%	0.229				0.22%
Sc RADIAL	57712.5	102	%	0.1				0.13%
Y 371.029	1412954.1	104.45	%	0.130				0.12%
Ag 328.068†	-639.4	1.5347	µg/L	0.19788	1.5347	ppb	0.19788	12.89%
Al 396.153Radial†	69506.9	48353	µg/L	136.9	48353	ppb	136.9	0.28%
As 188.979†	8.7	19.806	µg/L	2.8687	19.806	ppb	2.8687	14.48%
B 249.677†	393.9	-27.796	µg/L	0.2311	-27.796	ppb	0.2311	0.83%
Ba 233.527†	62005.6	1488.8	µg/L	40.99	1488.8	ppb	40.99	2.75%
Be 313.107†	53509.0	30.862	µg/L	1.0172	30.862	ppb	1.0172	3.30%
Ca 317.933Radial†	18013.8	15387	µg/L	20.5	15387	ppb	20.5	0.13%
Cd 226.502†	398.4	0.5382	µg/L	0.76873	0.5382	ppb	0.76873	142.83%
Co 228.616†	809.9	31.772	µg/L	1.8952	31.772	ppb	1.8952	5.96%
Cr 267.716†	25547.0	513.20	µg/L	18.299	513.20	ppb	18.299	3.57%
Cu 324.752†	143797.0	950.53	µg/L	29.625	950.53	ppb	29.625	3.12%
Fe 238.204 Radial†	10854.7	85611	µg/L	175.0	85611	ppb	175.0	0.20%
K 766.490 Radial†	10854.7	7089.4	µg/L	43.43	7089.4	ppb	43.43	0.61%
Mg 279.077 IEC†	1308.7	11606	µg/L	26.2	11606	ppb	26.2	0.23%
Mn 257.610†	726124.6	2284.8	µg/L	41.70	2284.8	ppb	41.70	1.83%
Mo 202.031†	26.9	5.8922	µg/L	0.51299	5.8922	ppb	0.51299	8.71%
Na 589.592 Radial†	1773.6	544.74	µg/L	8.567	544.74	ppb	8.567	1.57%

Ni 231.604†	5513.0	275.89	µg/L	9.358	275.89	ppb	9.358	3.39%
P 214.914†	804.3	1437.8	µg/L	98.04	1437.8	ppb	98.04	6.82%
Pb 220.353†	15390.2	3738.1	µg/L	76.39	3738.1	ppb	76.39	2.04%
S 181.975 Axial†	198.6	823.71	µg/L	37.234	823.71	ppb	37.234	4.52%
Sb 206.836†	24.1	14.987	µg/L	7.1647	14.987	ppb	7.1647	47.81%
Se 196.026†	-49.7	149.54	µg/L	12.517	149.54	ppb	12.517	8.37%
SiO2†	272138.2	53717	µg/L	688.6	53717	ppb	688.6	1.28%
Si 251.611†	327599.6	24905	µg/L	317.3	24905	ppb	317.3	1.27%
Sn 189.927†	25.2	2.8117	µg/L	2.46515	2.8117	ppb	2.46515	87.68%
Sr 421.552†	12752.4	117.64	µg/L	0.188	117.64	ppb	0.188	0.16%
Ti 334.940†	1063322.8	2351.6	µg/L	47.90	2351.6	ppb	47.90	2.04%
Tl 190.801†	-23.3	15.099	µg/L	7.7488	15.099	ppb	7.7488	51.32%
U 409.014†	10415.6	852.53	µg/L	32.448	852.53	ppb	32.448	3.81%
V 292.402†	13655.2	145.25	µg/L	4.353	145.25	ppb	4.353	3.00%
Zn 213.857†	15612.1	358.83	µg/L	10.481	358.83	ppb	10.481	2.92%

Sequence No.: 23
Sample ID: 245979013|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 245
Date Collected: 2/20/2010 04:22:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979013|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	58012.3	58012.3	103	%			04:22:33
1	Al 396.153Radial†	97118.6	94572.2	65789	µg/L	65789	ppb	04:22:33
1	Ca 317.933Radial†	34911.8	33787.8	28861	µg/L	28861	ppb	04:22:33
1	Fe 238.204 Radial†	12211.0	11875.2	93659	µg/L	93659	ppb	04:22:54
1	K 766.490 Radial†	10958.7	10507.2	6862.4	µg/L	6862.4	ppb	04:22:33
1	Mg 279.077 IEC†	1302.2	1255.3	11121	µg/L	11121	ppb	04:22:54
1	Na 589.592 Radial†	2035.4	1510.0	463.79	µg/L	463.79	ppb	04:22:33
1	Sr 421.552†	17339.3	16857.2	155.51	µg/L	155.51	ppb	04:22:33
1	Sc 361.383	2008209.4	2008209.4	102.30	%			04:23:59
1	Y 371.029	1402256.5	1402256.5	103.66	%			04:23:59
1	Ag 328.068†	-727.7	-309.8	4.5793	µg/L	4.5793	ppb	04:24:05
1	As 188.979†	17.4	17.5	35.247	µg/L	35.247	ppb	04:24:25
1	B 249.677†	1262.5	850.0	-14.064	µg/L	-14.064	ppb	04:24:05
1	Ba 233.527†	41013.5	40109.7	963.19	µg/L	963.19	ppb	04:24:05
1	Be 313.107†	193047.3	191568.6	113.05	µg/L	113.05	ppb	04:23:59
1	Cd 226.502†	263.0	398.8	-0.5687	µg/L	-0.5687	ppb	04:24:25
1	Co 228.616†	675.2	658.1	26.243	µg/L	26.243	ppb	04:24:25
1	Cr 267.716†	5119.3	5054.7	101.62	µg/L	101.62	ppb	04:24:05
1	Cu 324.752†	765870.2	746130.7	4883.4	µg/L	4883.4	ppb	04:23:59
1	Mn 257.610†	437260.9	427699.2	1351.4	µg/L	1351.4	ppb	04:23:59
1	Mo 202.031†	72.9	76.7	11.066	µg/L	11.066	ppb	04:24:25
1	Ni 231.604†	1729.1	1378.0	69.874	µg/L	69.874	ppb	04:24:25
1	P 214.914†	751.3	719.1	853.02	µg/L	853.02	ppb	04:24:25
1	Pb 220.353†	11189.7	10847.5	2622.7	µg/L	2622.7	ppb	04:24:05
1	S 181.975 Axial†	124.3	102.6	425.36	µg/L	425.36	ppb	04:24:25
1	Sb 206.836†	102.0	77.2	67.336	µg/L	67.336	ppb	04:24:25
1	Se 196.026†	-42.2	-60.6	152.96	µg/L	152.96	ppb	04:24:25
1	SiO2†	294959.1	286944.9	56639	µg/L	56639	ppb	04:23:59
1	Si 251.611†	353517.7	345269.7	26248	µg/L	26248	ppb	04:23:59
1	Sn 189.927†	105.7	102.9	34.590	µg/L	34.590	ppb	04:24:25
1	Ti 334.940†	790432.6	772510.3	1708.5	µg/L	1708.5	ppb	04:23:59
1	Tl 190.801†	-45.6	-22.2	14.321	µg/L	14.321	ppb	04:24:25
1	U 409.014†	71602.2	70071.7	5807.1	µg/L	5807.1	ppb	04:23:59
1	V 292.402†	15440.9	15138.9	164.90	µg/L	164.90	ppb	04:24:05
1	Zn 213.857†	35005.4	33685.0	777.07	µg/L	777.07	ppb	04:24:05
2	Sc RADIAL	58299.0	58299.0	103	%			04:22:59
2	Al 396.153Radial†	97965.1	94927.4	66036	µg/L	66036	ppb	04:22:59
2	Ca 317.933Radial†	35252.2	33950.5	29000	µg/L	29000	ppb	04:22:59
2	Fe 238.204 Radial†	12207.0	11812.9	93168	µg/L	93168	ppb	04:23:20
2	K 766.490 Radial†	11012.1	10506.5	6862.0	µg/L	6862.0	ppb	04:22:59
2	Mg 279.077 IEC†	1302.1	1249.0	11065	µg/L	11065	ppb	04:23:20
2	Na 589.592 Radial†	2020.7	1486.0	456.43	µg/L	456.43	ppb	04:22:59
2	Sr 421.552†	17568.0	16995.8	156.79	µg/L	156.79	ppb	04:22:59
2	Sc 361.383	1998022.7	1998022.7	101.78	%			04:24:34
2	Y 371.029	1395622.0	1395622.0	103.17	%			04:24:34
2	Ag 328.068†	-801.3	-385.7	4.0050	µg/L	4.0050	ppb	04:24:39
2	As 188.979†	19.7	19.9	39.458	µg/L	39.458	ppb	04:25:00
2	B 249.677†	1250.6	844.6	-14.025	µg/L	-14.025	ppb	04:24:39
2	Ba 233.527†	41428.9	40722.3	977.90	µg/L	977.90	ppb	04:24:39
2	Be 313.107†	193103.4	192585.9	113.65	µg/L	113.65	ppb	04:24:34
2	Cd 226.502†	272.4	409.3	-0.2499	µg/L	-0.2499	ppb	04:25:00
2	Co 228.616†	676.0	662.3	26.416	µg/L	26.416	ppb	04:25:00
2	Cr 267.716†	5193.9	5153.5	103.60	µg/L	103.60	ppb	04:24:39
2	Cu 324.752†	765393.7	749479.5	4905.2	µg/L	4905.2	ppb	04:24:34
2	Mn 257.610†	436841.6	429466.5	1356.8	µg/L	1356.8	ppb	04:24:34
2	Mo 202.031†	77.0	81.0	11.473	µg/L	11.473	ppb	04:25:00
2	Ni 231.604†	1732.5	1389.9	70.460	µg/L	70.460	ppb	04:25:00
2	P 214.914†	750.2	721.7	856.40	µg/L	856.40	ppb	04:25:00
2	Pb 220.353†	11272.1	10984.2	2655.9	µg/L	2655.9	ppb	04:24:39

2	S 181.975 Axial†	125.3	104.2	432.17 µg/L	432.17 ppb	04:25:00
2	Sb 206.836†	98.8	74.5	64.869 µg/L	64.869 ppb	04:25:00
2	Se 196.026†	-28.8	-47.6	169.75 µg/L	169.75 ppb	04:25:00
2	SiO2†	294781.6	288240.6	56895 µg/L	56895 ppb	04:24:34
2	Si 251.611†	353275.7	346793.8	26364 µg/L	26364 ppb	04:24:34
2	Sn 189.927†	109.6	107.3	36.469 µg/L	36.469 ppb	04:25:00
2	Ti 334.940†	790181.6	776203.1	1716.7 µg/L	1716.7 ppb	04:24:34
2	Tl 190.801†	-49.9	-26.6	8.7118 µg/L	8.7118 ppb	04:25:00
2	U 409.014†	71560.2	70387.3	5833.4 µg/L	5833.4 ppb	04:24:34
2	V 292.402†	15664.5	15435.6	167.77 µg/L	167.77 ppb	04:24:39
2	Zn 213.857†	35303.3	34152.2	788.01 µg/L	788.01 ppb	04:24:39
3	Sc RADIAL	58692.2	58692.2	104 %		04:23:25
3	Al 396.153Radial†	97068.2	93428.1	64993 µg/L	64993 ppb	04:23:25
3	Ca 317.933Radial†	34968.2	33448.2	28571 µg/L	28571 ppb	04:23:25
3	Fe 238.204 Radial†	12118.9	11648.8	91873 µg/L	91873 ppb	04:23:45
3	K 766.490 Radial†	10954.2	10379.2	6778.8 µg/L	6778.8 ppb	04:23:25
3	Mg 279.077 IEC†	1291.3	1230.2	10898 µg/L	10898 ppb	04:23:45
3	Na 589.592 Radial†	2041.5	1492.9	458.54 µg/L	458.54 ppb	04:23:25
3	Sr 421.552†	17396.2	16716.4	154.21 µg/L	154.21 ppb	04:23:25
3	Sc 361.383	2020409.2	2020409.2	102.92 %		04:25:08
3	Y 371.029	1409179.2	1409179.2	104.17 %		04:25:08
3	Ag 328.068†	-654.7	-234.6	4.9548 µg/L	4.9548 ppb	04:25:14
3	As 188.979†	16.1	16.1	32.715 µg/L	32.715 ppb	04:25:34
3	B 249.677†	1209.5	791.1	-15.546 µg/L	-15.546 ppb	04:25:14
3	Ba 233.527†	38584.1	37507.1	900.69 µg/L	900.69 ppb	04:25:14
3	Be 313.107†	184121.2	181756.1	107.26 µg/L	107.26 ppb	04:25:08
3	Cd 226.502†	226.8	362.1	-1.2903 µg/L	-1.2903 ppb	04:25:34
3	Co 228.616†	616.2	596.8	23.668 µg/L	23.668 ppb	04:25:34
3	Cr 267.716†	4770.9	4686.0	94.207 µg/L	94.207 ppb	04:25:14
3	Cu 324.752†	731886.2	708589.6	4638.1 µg/L	4638.1 ppb	04:25:08
3	Mn 257.610†	418748.7	407131.0	1286.7 µg/L	1286.7 ppb	04:25:08
3	Mo 202.031†	66.1	69.6	10.306 µg/L	10.306 ppb	04:25:34
3	Ni 231.604†	1579.0	1221.9	62.072 µg/L	62.072 ppb	04:25:34
3	P 214.914†	675.9	641.4	726.28 µg/L	726.28 ppb	04:25:34
3	Pb 220.353†	10649.3	10256.4	2479.8 µg/L	2479.8 ppb	04:25:14
3	S 181.975 Axial†	115.9	93.7	388.52 µg/L	388.52 ppb	04:25:34
3	Sb 206.836†	97.1	71.9	62.537 µg/L	62.537 ppb	04:25:34
3	Se 196.026†	-29.2	-47.7	166.45 µg/L	166.45 ppb	04:25:34
3	SiO2†	285140.3	275663.5	54412 µg/L	54412 ppb	04:25:08
3	Si 251.611†	341552.6	331557.2	25206 µg/L	25206 ppb	04:25:08
3	Sn 189.927†	102.3	99.0	33.103 µg/L	33.103 ppb	04:25:34
3	Ti 334.940†	750894.9	729428.0	1613.2 µg/L	1613.2 ppb	04:25:08
3	Tl 190.801†	-40.9	-17.3	18.901 µg/L	18.901 ppb	04:25:34
3	U 409.014†	67930.5	66081.4	5475.8 µg/L	5475.8 ppb	04:25:08
3	V 292.402†	14429.6	14065.2	153.86 µg/L	153.86 ppb	04:25:14
3	Zn 213.857†	33053.1	31581.5	728.24 µg/L	728.24 ppb	04:25:14

Mean Data: 245979013|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008880.4	102.33	%	0.571				0.56%
Sc RADIAL	58334.5	103	%	0.6				0.59%
Y 371.029	1402352.6	103.67	%	0.501				0.48%
Ag 328.068†	-310.0	4.5130	µg/L	0.47832	4.5130	ppb	0.47832	10.60%
Al 396.153Radial†	94309.2	65606	µg/L	545.0	65606	ppb	545.0	0.83%
As 188.979†	17.8	35.807	µg/L	3.4058	35.807	ppb	3.4058	9.51%
B 249.677†	828.6	-14.545	µg/L	0.8673	-14.545	ppb	0.8673	5.96%
Ba 233.527†	39446.4	947.26	µg/L	40.997	947.26	ppb	40.997	4.33%
Be 313.107†	188636.9	111.32	µg/L	3.528	111.32	ppb	3.528	3.17%
Ca 317.933Radial†	33728.8	28810	µg/L	218.9	28810	ppb	218.9	0.76%
Cd 226.502†	390.1	-0.7030	µg/L	0.53303	-0.7030	ppb	0.53303	75.83%
Co 228.616†	639.1	25.443	µg/L	1.5392	25.443	ppb	1.5392	6.05%
Cr 267.716†	4964.7	99.810	µg/L	4.9530	99.810	ppb	4.9530	4.96%
Cu 324.752†	734733.3	4808.9	µg/L	148.31	4808.9	ppb	148.31	3.08%
Fe 238.204 Radial†	11778.9	92900	µg/L	922.6	92900	ppb	922.6	0.99%
K 766.490 Radial†	10464.3	6834.4	µg/L	48.11	6834.4	ppb	48.11	0.70%
Mg 279.077 IEC†	1244.8	11028	µg/L	116.0	11028	ppb	116.0	1.05%
Mn 257.610†	421432.3	1331.6	µg/L	38.99	1331.6	ppb	38.99	2.93%
Mo 202.031†	75.8	10.948	µg/L	0.5925	10.948	ppb	0.5925	5.41%
Na 589.592 Radial†	1496.3	459.59	µg/L	3.791	459.59	ppb	3.791	0.82%

Ni 231.604†	1329.9	67.469 µg/L	4.6829	67.469 ppb	4.6829	6.94%
P 214.914†	694.1	811.90 µg/L	74.170	811.90 ppb	74.170	9.14%
Pb 220.353†	10696.0	2586.2 µg/L	93.58	2586.2 ppb	93.58	3.62%
S 181.975 Axial†	100.2	415.35 µg/L	23.483	415.35 ppb	23.483	5.65%
Sb 206.836†	74.5	64.914 µg/L	2.3997	64.914 ppb	2.3997	3.70%
Se 196.026†	-52.0	163.05 µg/L	8.895	163.05 ppb	8.895	5.46%
SiO2†	283616.3	55982 µg/L	1365.5	55982 ppb	1365.5	2.44%
Si 251.611†	341206.9	25939 µg/L	637.9	25939 ppb	637.9	2.46%
Sn 189.927†	103.1	34.720 µg/L	1.6867	34.720 ppb	1.6867	4.86%
Sr 421.552†	16856.5	155.50 µg/L	1.289	155.50 ppb	1.289	0.83%
Ti 334.940†	759380.5	1679.5 µg/L	57.52	1679.5 ppb	57.52	3.43%
Tl 190.801†	-22.1	13.978 µg/L	5.1033	13.978 ppb	5.1033	36.51%
U 409.014†	68846.8	5705.4 µg/L	199.27	5705.4 ppb	199.27	3.49%
V 292.402†	14879.9	162.17 µg/L	7.344	162.17 ppb	7.344	4.53%
Zn 213.857†	33139.5	764.44 µg/L	31.825	764.44 ppb	31.825	4.16%

Sequence No.: 24
Sample ID: 245979014|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 246
Date Collected: 2/20/2010 04:25:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979014|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57797.3	57797.3	102	%			04:26:16
1	Al 396.153Radial†	69545.2	67971.6	47285	µg/L	47285	ppb	04:26:16
1	Ca 317.933Radial†	13994.4	13468.0	11504	µg/L	11504	ppb	04:26:36
1	Fe 238.204 Radial†	12484.7	12187.0	96118	µg/L	96118	ppb	04:26:36
1	K 766.490 Radial†	13083.3	12623.6	8244.7	µg/L	8244.7	ppb	04:26:16
1	Mg 279.077 IEC†	1110.5	1072.7	9485.9	µg/L	9485.9	ppb	04:26:36
1	Na 589.592 Radial†	1980.0	1463.2	449.42	µg/L	449.42	ppb	04:26:16
1	Sr 421.552†	13338.1	13008.9	120.01	µg/L	120.01	ppb	04:26:16
1	Sc 361.383	2022388.7	2022388.7	103.02	%			04:27:40
1	Y 371.029	1414635.7	1414635.7	104.57	%			04:27:40
1	Ag 328.068†	-1557.1	-1109.9	-0.9639	µg/L	-0.9639	ppb	04:27:46
1	As 188.979†	16.7	16.6	34.784	µg/L	34.784	ppb	04:28:06
1	B 249.677†	911.7	500.8	-29.535	µg/L	-29.535	ppb	04:27:46
1	Ba 233.527†	24692.4	23985.9	576.16	µg/L	576.16	ppb	04:27:46
1	Be 313.107†	12345.1	14839.0	7.6510	µg/L	7.6510	ppb	04:27:46
1	Cd 226.502†	239.5	374.1	-1.4576	µg/L	-1.4576	ppb	04:28:06
1	Co 228.616†	1046.1	1013.5	39.569	µg/L	39.569	ppb	04:28:06
1	Cr 267.716†	6611.5	6468.1	130.03	µg/L	130.03	ppb	04:27:46
1	Cu 324.752†	25510.8	22219.4	158.40	µg/L	158.40	ppb	04:27:46
1	Mn 257.610†	738520.0	717132.7	2258.1	µg/L	2258.1	ppb	04:27:40
1	Mo 202.031†	9.8	14.8	5.1063	µg/L	5.1063	ppb	04:28:06
1	Ni 231.604†	1812.5	1447.0	73.327	µg/L	73.327	ppb	04:28:06
1	P 214.914†	291.5	267.6	450.15	µg/L	450.15	ppb	04:28:06
1	Pb 220.353†	5791.0	5530.3	1343.1	µg/L	1343.1	ppb	04:27:46
1	S 181.975 Axial†	94.4	72.7	301.53	µg/L	301.53	ppb	04:28:06
1	Sb 206.836†	41.0	17.3	13.425	µg/L	13.425	ppb	04:28:06
1	Se 196.026†	-36.7	-54.9	173.88	µg/L	173.88	ppb	04:28:06
1	SiO2†	294840.1	284807.9	56217	µg/L	56217	ppb	04:27:40
1	Si 251.611†	352976.4	342321.3	26024	µg/L	26024	ppb	04:27:40
1	Sn 189.927†	12.8	12.0	-4.1084	µg/L	-4.1084	ppb	04:28:06
1	Ti 334.940†	1413108.5	1371520.4	3033.5	µg/L	3033.5	ppb	04:27:40
1	Tl 190.801†	-56.2	-32.2	9.9727	µg/L	9.9727	ppb	04:28:06
1	U 409.014†	-239.1	-155.0	-26.942	µg/L	-26.942	ppb	04:27:46
1	V 292.402†	19217.2	18698.7	193.83	µg/L	193.83	ppb	04:27:46
1	Zn 213.857†	9838.0	9015.3	205.85	µg/L	205.85	ppb	04:27:46
2	Sc RADIAL	57381.0	57381.0	102	%			04:26:42
2	Al 396.153Radial†	69455.2	68376.2	47566	µg/L	47566	ppb	04:26:42
2	Ca 317.933Radial†	13774.9	13351.1	11404	µg/L	11404	ppb	04:27:02
2	Fe 238.204 Radial†	12296.0	12089.8	95352	µg/L	95352	ppb	04:27:02
2	K 766.490 Radial†	13105.9	12738.7	8319.9	µg/L	8319.9	ppb	04:26:42
2	Mg 279.077 IEC†	1090.7	1061.0	9382.5	µg/L	9382.5	ppb	04:27:02
2	Na 589.592 Radial†	1950.4	1448.1	444.79	µg/L	444.79	ppb	04:26:42
2	Sr 421.552†	13307.5	13073.3	120.60	µg/L	120.60	ppb	04:26:42
2	Sc 361.383	2009199.4	2009199.4	102.35	%			04:28:14
2	Y 371.029	1404912.2	1404912.2	103.86	%			04:28:14
2	Ag 328.068†	-1567.1	-1129.6	-1.1354	µg/L	-1.1354	ppb	04:28:19
2	As 188.979†	7.5	7.8	18.967	µg/L	18.967	ppb	04:28:40
2	B 249.677†	879.0	474.7	-30.194	µg/L	-30.194	ppb	04:28:19
2	Ba 233.527†	24923.6	24369.0	585.37	µg/L	585.37	ppb	04:28:19
2	Be 313.107†	12443.9	15014.2	7.7454	µg/L	7.7454	ppb	04:28:19
2	Cd 226.502†	227.6	364.1	-1.6212	µg/L	-1.6212	ppb	04:28:40
2	Co 228.616†	1050.5	1024.5	40.015	µg/L	40.015	ppb	04:28:40
2	Cr 267.716†	6703.9	6600.5	132.69	µg/L	132.69	ppb	04:28:19
2	Cu 324.752†	25712.1	22578.7	160.64	µg/L	160.64	ppb	04:28:19
2	Mn 257.610†	739473.5	722770.2	2275.7	µg/L	2275.7	ppb	04:28:14
2	Mo 202.031†	11.8	16.9	5.2748	µg/L	5.2748	ppb	04:28:40
2	Ni 231.604†	1804.8	1451.1	73.519	µg/L	73.519	ppb	04:28:40
2	P 214.914†	285.2	263.3	441.98	µg/L	441.98	ppb	04:28:40
2	Pb 220.353†	5857.0	5631.7	1367.8	µg/L	1367.8	ppb	04:28:19

2	S 181.975 Axial†	92.0	70.9	294.21 µg/L	294.21 ppb	04:28:40
2	Sb 206.836†	42.3	18.8	14.834 µg/L	14.834 ppb	04:28:40
2	Se 196.026†	-35.7	-54.2	172.90 µg/L	172.90 ppb	04:28:40
2	SiO2†	294950.1	286794.1	56609 µg/L	56609 ppb	04:28:14
2	Si 251.611†	353338.2	344924.0	26222 µg/L	26222 ppb	04:28:14
2	Sn 189.927†	5.4	4.9	-7.0416 µg/L	-7.0416 ppb	04:28:40
2	Ti 334.940†	1415520.3	1382881.3	3058.7 µg/L	3058.7 ppb	04:28:14
2	Tl 190.801†	-55.2	-31.5	11.092 µg/L	11.092 ppb	04:28:40
2	U 409.014†	-312.2	-228.0	-32.889 µg/L	-32.889 ppb	04:28:19
2	V 292.402†	19454.1	19052.7	197.19 µg/L	197.19 ppb	04:28:19
2	Zn 213.857†	9984.8	9221.4	210.72 µg/L	210.72 ppb	04:28:19
3	Sc RADIAL	58320.2	58320.2	103 %		04:27:08
3	Al 396.153Radial†	69493.6	67312.0	46826 µg/L	46826 ppb	04:27:08
3	Ca 317.933Radial†	13822.0	13178.3	11257 µg/L	11257 ppb	04:27:28
3	Fe 238.204 Radial†	12327.3	11925.0	94052 µg/L	94052 ppb	04:27:28
3	K 766.490 Radial†	13065.2	12491.5	8158.4 µg/L	8158.4 ppb	04:27:08
3	Mg 279.077 IEC†	1095.4	1048.3	9269.7 µg/L	9269.7 ppb	04:27:28
3	Na 589.592 Radial†	1930.1	1397.5	429.24 µg/L	429.24 ppb	04:27:08
3	Sr 421.552†	13291.1	12846.5	118.51 µg/L	118.51 ppb	04:27:08
3	Sc 361.383	2025623.0	2025623.0	103.18 %		04:28:47
3	Y 371.029	1415552.9	1415552.9	104.64 %		04:28:47
3	Ag 328.068†	-1488.1	-1040.6	-0.6534 µg/L	-0.6534 ppb	04:28:52
3	As 188.979†	6.8	7.0	17.482 µg/L	17.482 ppb	04:29:13
3	B 249.677†	813.1	403.9	-32.422 µg/L	-32.422 ppb	04:28:52
3	Ba 233.527†	23381.9	22677.5	544.73 µg/L	544.73 ppb	04:28:52
3	Be 313.107†	11322.8	13829.2	7.1001 µg/L	7.1001 ppb	04:28:52
3	Cd 226.502†	202.4	337.8	-2.1375 µg/L	-2.1375 ppb	04:29:13
3	Co 228.616†	945.4	914.3	35.342 µg/L	35.342 ppb	04:29:13
3	Cr 267.716†	6152.1	6012.7	120.87 µg/L	120.87 ppb	04:28:52
3	Cu 324.752†	24255.8	20963.6	149.91 µg/L	149.91 ppb	04:28:52
3	Mn 257.610†	713050.6	691304.5	2177.0 µg/L	2177.0 ppb	04:28:47
3	Mo 202.031†	3.3	8.6	4.4120 µg/L	4.4120 ppb	04:29:13
3	Ni 231.604†	1656.8	1293.3	65.645 µg/L	65.645 ppb	04:29:13
3	P 214.914†	262.7	239.2	396.36 µg/L	396.36 ppb	04:29:13
3	Pb 220.353†	5586.3	5323.0	1292.8 µg/L	1292.8 ppb	04:28:52
3	S 181.975 Axial†	85.3	63.7	264.31 µg/L	264.31 ppb	04:29:13
3	Sb 206.836†	38.4	14.7	11.186 µg/L	11.186 ppb	04:29:13
3	Se 196.026†	-29.3	-47.7	178.57 µg/L	178.57 ppb	04:29:13
3	SiO2†	286666.4	276429.3	54564 µg/L	54564 ppb	04:28:47
3	Si 251.611†	343320.2	332416.0	25271 µg/L	25271 ppb	04:28:47
3	Sn 189.927†	8.2	7.6	-5.7930 µg/L	-5.7930 ppb	04:29:13
3	Ti 334.940†	1356034.1	1314016.9	2906.3 µg/L	2906.3 ppb	04:28:47
3	Tl 190.801†	-52.4	-28.4	13.235 µg/L	13.235 ppb	04:29:13
3	U 409.014†	-371.7	-283.2	-37.288 µg/L	-37.288 ppb	04:28:52
3	V 292.402†	18078.0	17564.9	182.50 µg/L	182.50 ppb	04:28:52
3	Zn 213.857†	9383.0	8559.0	195.30 µg/L	195.30 ppb	04:28:52

Mean Data: 245979014|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019070.4	102.85	%	0.443				0.43%
Sc RADIAL	57832.8	102	%	0.8				0.81%
Y 371.029	1411700.3	104.36	%	0.436				0.42%
Ag 328.068†	-1093.3	-0.9176	µg/L	0.24428	-0.9176	ppb	0.24428	26.62%
Al 396.153Radial†	67886.6	47226	µg/L	373.7	47226	ppb	373.7	0.79%
As 188.979†	10.5	23.744	µg/L	9.5893	23.744	ppb	9.5893	40.39%
B 249.677†	459.8	-30.717	µg/L	1.5127	-30.717	ppb	1.5127	4.92%
Ba 233.527†	23677.5	568.75	µg/L	21.307	568.75	ppb	21.307	3.75%
Be 313.107†	14560.8	7.4989	µg/L	0.34851	7.4989	ppb	0.34851	4.65%
Ca 317.933Radial†	13332.5	11388	µg/L	124.5	11388	ppb	124.5	1.09%
Cd 226.502†	358.7	-1.7387	µg/L	0.35485	-1.7387	ppb	0.35485	20.41%
Co 228.616†	984.1	38.308	µg/L	2.5787	38.308	ppb	2.5787	6.73%
Cr 267.716†	6360.4	127.86	µg/L	6.198	127.86	ppb	6.198	4.85%
Cu 324.752†	21920.6	156.32	µg/L	5.656	156.32	ppb	5.656	3.62%
Fe 238.204 Radial†	12067.2	95174	µg/L	1044.4	95174	ppb	1044.4	1.10%
K 766.490 Radial†	12617.9	8241.0	µg/L	80.80	8241.0	ppb	80.80	0.98%
Mg 279.077 IEC†	1060.7	9379.4	µg/L	108.14	9379.4	ppb	108.14	1.15%
Mn 257.610†	710402.5	2236.9	µg/L	52.66	2236.9	ppb	52.66	2.35%
Mo 202.031†	13.4	4.9310	µg/L	0.45733	4.9310	ppb	0.45733	9.27%
Na 589.592 Radial†	1436.3	441.15	µg/L	10.570	441.15	ppb	10.570	2.40%

Ni 231.604†	1397.1	70.830	µg/L	4.4919	70.830	ppb	4.4919	6.34%
P 214.914†	256.7	429.50	µg/L	28.983	429.50	ppb	28.983	6.75%
Pb 220.353†	5495.0	1334.5	µg/L	38.23	1334.5	ppb	38.23	2.86%
S 181.975 Axial†	69.1	286.69	µg/L	19.719	286.69	ppb	19.719	6.88%
Sb 206.836†	17.0	13.148	µg/L	1.8394	13.148	ppb	1.8394	13.99%
Se 196.026†	-52.3	175.12	µg/L	3.029	175.12	ppb	3.029	1.73%
SiO2†	282677.1	55797	µg/L	1085.8	55797	ppb	1085.8	1.95%
Si 251.611†	339887.1	25839	µg/L	501.7	25839	ppb	501.7	1.94%
Sn 189.927†	8.2	-5.6476	µg/L	1.47199	-5.6476	ppb	1.47199	26.06%
Sr 421.552†	12976.2	119.71	µg/L	1.078	119.71	ppb	1.078	0.90%
Ti 334.940†	1356139.5	2999.5	µg/L	81.67	2999.5	ppb	81.67	2.72%
Tl 190.801†	-30.7	11.433	µg/L	1.6579	11.433	ppb	1.6579	14.50%
U 409.014†	-222.1	-32.373	µg/L	5.1922	-32.373	ppb	5.1922	16.04%
V 292.402†	18438.8	191.18	µg/L	7.697	191.18	ppb	7.697	4.03%
Zn 213.857†	8931.9	203.96	µg/L	7.882	203.96	ppb	7.882	3.86%

Sequence No.: 25
Sample ID: 245979015|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 247
Date Collected: 2/20/2010 04:29:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979015|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56521.6	56521.6	100	%			04:29:55
1	Al 396.153Radial†	17670.6	17655.1	12282	µg/L	12282	ppb	04:29:55
1	Ca 317.933Radial†	7579.9	7365.2	6291.2	µg/L	6291.2	ppb	04:29:55
1	Fe 238.204 Radial†	11498.8	11477.0	90519	µg/L	90519	ppb	04:29:55
1	K 766.490 Radial†	4843.7	4676.5	3054.3	µg/L	3054.3	ppb	04:29:55
1	Mg 279.077 IEC†	284.5	271.5	2330.0	µg/L	2330.0	ppb	04:30:15
1	Na 589.592 Radial†	6183.4	5708.3	1753.3	µg/L	1753.3	ppb	04:29:55
1	Sr 421.552†	3520.2	3489.8	32.194	µg/L	32.194	ppb	04:29:55
1	Sc 361.383	2020503.8	2020503.8	102.92	%			04:31:20
1	Y 371.029	1500507.4	1500507.4	110.92	%			04:31:20
1	Ag 328.068†	-1456.8	-1013.8	-1.6349	µg/L	-1.6349	ppb	04:31:25
1	As 188.979†	6.4	6.7	16.892	µg/L	16.892	ppb	04:31:46
1	B 249.677†	711.3	307.0	-34.544	µg/L	-34.544	ppb	04:31:25
1	Ba 233.527†	9057.5	8817.3	211.73	µg/L	211.73	ppb	04:31:25
1	Be 313.107†	6822.9	9484.8	4.9605	µg/L	4.9605	ppb	04:31:25
1	Cd 226.502†	175.7	312.4	-2.3653	µg/L	-2.3653	ppb	04:31:25
1	Co 228.616†	1452.9	1409.7	60.184	µg/L	60.184	ppb	04:31:46
1	Cr 267.716†	5629.5	5520.0	110.89	µg/L	110.89	ppb	04:31:25
1	Cu 324.752†	11438.5	8569.9	68.522	µg/L	68.522	ppb	04:31:25
1	Mn 257.610†	732318.3	711775.9	2240.9	µg/L	2240.9	ppb	04:31:20
1	Mo 202.031†	56.4	60.2	9.3305	µg/L	9.3305	ppb	04:31:46
1	Ni 231.604†	1782.7	1419.8	71.875	µg/L	71.875	ppb	04:31:25
1	P 214.914†	431.2	403.6	723.32	µg/L	723.32	ppb	04:31:46
1	Pb 220.353†	458.9	354.9	83.541	µg/L	83.541	ppb	04:31:46
1	S 181.975 Axial†	22.9	3.3	13.648	µg/L	13.648	ppb	04:31:46
1	Sb 206.836†	30.2	6.8	4.5675	µg/L	4.5675	ppb	04:31:46
1	Se 196.026†	-35.4	-53.7	168.09	µg/L	168.09	ppb	04:31:46
1	SiO2†	158676.4	152778.3	30156	µg/L	30156	ppb	04:31:25
1	Si 251.611†	192987.1	187195.5	14231	µg/L	14231	ppb	04:31:20
1	Sn 189.927†	16.8	15.9	-2.6884	µg/L	-2.6884	ppb	04:31:46
1	Ti 334.940†	816876.1	793501.1	1755.3	µg/L	1755.3	ppb	04:31:20
1	Tl 190.801†	-54.6	-30.7	-2.6139	µg/L	-2.6139	ppb	04:31:46
1	U 409.014†	-1372.8	-1256.7	-117.38	µg/L	-117.38	ppb	04:31:20
1	V 292.402†	2717.5	2685.0	37.013	µg/L	37.013	ppb	04:31:25
1	Zn 213.857†	20848.8	19722.3	457.87	µg/L	457.87	ppb	04:31:25
2	Sc RADIAL	56808.5	56808.5	101	%			04:30:21
2	Al 396.153Radial†	17789.9	17684.6	12302	µg/L	12302	ppb	04:30:21
2	Ca 317.933Radial†	7556.1	7303.2	6238.3	µg/L	6238.3	ppb	04:30:21
2	Fe 238.204 Radial†	11543.9	11463.7	90414	µg/L	90414	ppb	04:30:21
2	K 766.490 Radial†	4790.9	4599.6	3004.1	µg/L	3004.1	ppb	04:30:21
2	Mg 279.077 IEC†	286.4	272.0	2334.3	µg/L	2334.3	ppb	04:30:41
2	Na 589.592 Radial†	6222.8	5716.3	1755.7	µg/L	1755.7	ppb	04:30:21
2	Sr 421.552†	3523.9	3475.7	32.064	µg/L	32.064	ppb	04:30:21
2	Sc 361.383	2006868.7	2006868.7	102.23	%			04:31:53
2	Y 371.029	1487407.3	1487407.3	109.95	%			04:31:53
2	Ag 328.068†	-1454.9	-1021.6	-1.7010	µg/L	-1.7010	ppb	04:31:59
2	As 188.979†	12.5	12.7	27.610	µg/L	27.610	ppb	04:32:20
2	B 249.677†	708.0	308.4	-34.428	µg/L	-34.428	ppb	04:31:59
2	Ba 233.527†	9078.2	8897.4	213.65	µg/L	213.65	ppb	04:31:59
2	Be 313.107†	6804.0	9511.4	4.9770	µg/L	4.9770	ppb	04:31:59
2	Cd 226.502†	168.2	306.2	-2.5075	µg/L	-2.5075	ppb	04:31:59
2	Co 228.616†	1413.2	1380.5	58.863	µg/L	58.863	ppb	04:32:20
2	Cr 267.716†	5621.5	5549.3	111.48	µg/L	111.48	ppb	04:31:59
2	Cu 324.752†	11297.9	8507.9	68.102	µg/L	68.102	ppb	04:31:59
2	Mn 257.610†	726771.1	711183.8	2239.0	µg/L	2239.0	ppb	04:31:53
2	Mo 202.031†	55.2	59.4	9.2500	µg/L	9.2500	ppb	04:32:20
2	Ni 231.604†	1787.1	1435.8	72.673	µg/L	72.673	ppb	04:31:59
2	P 214.914†	422.1	397.6	711.57	µg/L	711.57	ppb	04:32:20
2	Pb 220.353†	459.6	358.6	84.455	µg/L	84.455	ppb	04:32:20

2	S 181.975 Axial†	20.6	1.2	5.0762 µg/L	5.0762 ppb	04:32:20
2	Sb 206.836†	32.0	8.8	6.3736 µg/L	6.3736 ppb	04:32:20
2	Se 196.026†	-42.3	-60.7	157.99 µg/L	157.99 ppb	04:32:20
2	SiO2†	158711.4	153860.0	30370 µg/L	30370 ppb	04:31:59
2	Si 251.611†	191243.6	186763.9	14198 µg/L	14198 ppb	04:31:53
2	Sn 189.927†	20.6	19.8	-1.0342 µg/L	-1.0342 ppb	04:32:20
2	Ti 334.940†	810470.6	792627.6	1753.4 µg/L	1753.4 ppb	04:31:53
2	Tl 190.801†	-47.5	-24.1	5.9258 µg/L	5.9258 ppb	04:32:20
2	U 409.014†	-1412.7	-1304.8	-121.36 µg/L	-121.36 ppb	04:31:53
2	V 292.402†	2663.8	2650.5	36.660 µg/L	36.660 ppb	04:31:59
2	Zn 213.857†	20811.7	19823.6	460.25 µg/L	460.25 ppb	04:31:59
3	Sc RADIAL	56752.9	56752.9	100 %		04:30:47
3	Al 396.153Radial†	17760.8	17673.0	12294 µg/L	12294 ppb	04:30:47
3	Ca 317.933Radial†	7556.4	7310.9	6244.8 µg/L	6244.8 ppb	04:30:47
3	Fe 238.204 Radial†	11522.7	11453.9	90337 µg/L	90337 ppb	04:30:47
3	K 766.490 Radial†	4811.8	4625.0	3020.6 µg/L	3020.6 ppb	04:30:47
3	Mg 279.077 IEC†	283.3	269.2	2309.6 µg/L	2309.6 ppb	04:31:07
3	Na 589.592 Radial†	6275.7	5775.1	1773.8 µg/L	1773.8 ppb	04:30:47
3	Sr 421.552†	3532.2	3487.4	32.172 µg/L	32.172 ppb	04:30:47
3	Sc 361.383	2019092.0	2019092.0	102.85 %		04:32:27
3	Y 371.029	1493197.6	1493197.6	110.38 %		04:32:27
3	Ag 328.068†	-1291.4	-854.0	-0.4768 µg/L	-0.4768 ppb	04:32:33
3	As 188.979†	7.5	7.8	18.864 µg/L	18.864 ppb	04:32:53
3	B 249.677†	706.8	303.1	-34.622 µg/L	-34.622 ppb	04:32:33
3	Ba 233.527†	8569.3	8348.8	200.47 µg/L	200.47 ppb	04:32:33
3	Be 313.107†	6009.7	8698.8	4.5267 µg/L	4.5267 ppb	04:32:33
3	Cd 226.502†	149.1	286.6	-2.9955 µg/L	-2.9955 ppb	04:32:33
3	Co 228.616†	1283.3	1245.8	52.940 µg/L	52.940 ppb	04:32:53
3	Cr 267.716†	5151.6	5059.2	101.63 µg/L	101.63 ppb	04:32:33
3	Cu 324.752†	10776.1	7933.6	64.343 µg/L	64.343 ppb	04:32:33
3	Mn 257.610†	700982.9	681806.7	2147.0 µg/L	2147.0 ppb	04:32:27
3	Mo 202.031†	47.6	51.6	8.4856 µg/L	8.4856 ppb	04:32:53
3	Ni 231.604†	1643.4	1285.5	65.191 µg/L	65.191 ppb	04:32:33
3	P 214.914†	384.6	358.6	634.68 µg/L	634.68 ppb	04:32:53
3	Pb 220.353†	421.8	319.1	74.868 µg/L	74.868 ppb	04:32:53
3	S 181.975 Axial†	24.7	5.0	20.880 µg/L	20.880 ppb	04:32:53
3	Sb 206.836†	27.4	4.2	2.2030 µg/L	2.2030 ppb	04:32:53
3	Se 196.026†	-32.4	-50.8	171.69 µg/L	171.69 ppb	04:32:53
3	SiO2†	150225.7	144669.7	28556 µg/L	28556 ppb	04:32:33
3	Si 251.611†	186604.5	181120.9	13769 µg/L	13769 ppb	04:32:27
3	Sn 189.927†	14.0	13.2	-3.8199 µg/L	-3.8199 ppb	04:32:53
3	Ti 334.940†	776324.6	754628.7	1669.3 µg/L	1669.3 ppb	04:32:27
3	Tl 190.801†	-43.1	-19.5	10.817 µg/L	10.817 ppb	04:32:53
3	U 409.014†	-1461.0	-1343.4	-124.55 µg/L	-124.55 ppb	04:32:27
3	V 292.402†	2484.0	2459.8	34.761 µg/L	34.761 ppb	04:32:33
3	Zn 213.857†	19582.8	18505.5	429.37 µg/L	429.37 ppb	04:32:33

Mean Data: 245979015|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2015488.2	102.67	%	0.382				0.37%
Sc RADIAL	56694.3	100	%	0.3				0.27%
Y 371.029	1493704.1	110.42	%	0.485				0.44%
Ag 328.068†	-963.1	-1.2709	µg/L	0.68848	-1.2709	ppb	0.68848	54.17%
Al 396.153Radial†	17670.9	12293	µg/L	10.3	12293	ppb	10.3	0.08%
As 188.979†	9.0	21.122	µg/L	5.7046	21.122	ppb	5.7046	27.01%
B 249.677†	306.2	-34.531	µg/L	0.0975	-34.531	ppb	0.0975	0.28%
Ba 233.527†	8687.8	208.62	µg/L	7.116	208.62	ppb	7.116	3.41%
Be 313.107†	9231.6	4.8214	µg/L	0.25533	4.8214	ppb	0.25533	5.30%
Ca 317.933Radial†	7326.4	6258.1	µg/L	28.84	6258.1	ppb	28.84	0.46%
Cd 226.502†	301.8	-2.6228	µg/L	0.33050	-2.6228	ppb	0.33050	12.60%
Co 228.616†	1345.3	57.329	µg/L	3.8584	57.329	ppb	3.8584	6.73%
Cr 267.716†	5376.1	108.00	µg/L	5.523	108.00	ppb	5.523	5.11%
Cu 324.752†	8337.1	66.989	µg/L	2.3009	66.989	ppb	2.3009	3.43%
Fe 238.204 Radial†	11464.9	90424	µg/L	91.4	90424	ppb	91.4	0.10%
K 766.490 Radial†	4633.7	3026.3	µg/L	25.59	3026.3	ppb	25.59	0.85%
Mg 279.077 IEC†	270.9	2324.6	µg/L	13.20	2324.6	ppb	13.20	0.57%
Mn 257.610†	701588.8	2209.0	µg/L	53.67	2209.0	ppb	53.67	2.43%
Mo 202.031†	57.0	9.0221	µg/L	0.46634	9.0221	ppb	0.46634	5.17%
Na 589.592 Radial†	5733.2	1760.9	µg/L	11.20	1760.9	ppb	11.20	0.64%

Ni 231.604†	1380.4	69.913 µg/L	4.1087	69.913 ppb	4.1087	5.88%
P 214.914†	386.6	689.86 µg/L	48.142	689.86 ppb	48.142	6.98%
Pb 220.353†	344.2	80.955 µg/L	5.2912	80.955 ppb	5.2912	6.54%
S 181.975 Axial†	3.2	13.201 µg/L	7.9112	13.201 ppb	7.9112	59.93%
Sb 206.836†	6.6	4.3813 µg/L	2.09150	4.3813 ppb	2.09150	47.74%
Se 196.026†	-55.1	165.92 µg/L	7.098	165.92 ppb	7.098	4.28%
SiO2†	150436.0	29694 µg/L	991.5	29694 ppb	991.5	3.34%
Si 251.611†	185026.8	14066 µg/L	257.7	14066 ppb	257.7	1.83%
Sn 189.927†	16.3	-2.5142 µg/L	1.40099	-2.5142 ppb	1.40099	55.72%
Sr 421.552†	3484.3	32.143 µg/L	0.0695	32.143 ppb	0.0695	0.22%
Ti 334.940†	780252.5	1726.0 µg/L	49.10	1726.0 ppb	49.10	2.84%
Tl 190.801†	-24.8	4.7095 µg/L	6.79733	4.7095 ppb	6.79733	144.33%
U 409.014†	-1301.6	-121.09 µg/L	3.594	-121.09 ppb	3.594	2.97%
V 292.402†	2598.5	36.145 µg/L	1.2109	36.145 ppb	1.2109	3.35%
Zn 213.857†	19350.5	449.17 µg/L	17.183	449.17 ppb	17.183	3.83%

Sequence No.: 26
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 04:33:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56716.6	56716.6	100	%			04:33:42
1	Al 396.153Radial†	7309.2	7273.4	5049.5	µg/L	5049.5	ppb	04:33:42
1	Ca 317.933Radial†	6117.5	5882.4	5024.7	µg/L	5024.7	ppb	04:34:02
1	Fe 238.204 Radial†	669.3	650.1	5137.6	µg/L	5137.6	ppb	04:34:02
1	K 766.490 Radial†	7852.2	7656.6	5000.6	µg/L	5000.6	ppb	04:33:42
1	Mg 279.077 IEC†	583.8	568.7	5086.3	µg/L	5086.3	ppb	04:34:02
1	Na 589.592 Radial†	33581.3	32978.2	10129	µg/L	10129	ppb	04:33:42
1	Sr 421.552†	53712.7	53474.6	493.31	µg/L	493.31	ppb	04:33:42
1	Sc 361.383	2057581.8	2057581.8	104.81	%			04:35:06
1	Y 371.029	1415488.7	1415488.7	104.64	%			04:35:06
1	Ag 328.068†	67158.7	64477.1	481.13	µg/L	481.13	ppb	04:35:11
1	As 188.979†	295.7	282.6	505.46	µg/L	505.46	ppb	04:35:32
1	B 249.677†	12570.6	11609.4	471.27	µg/L	471.27	ppb	04:35:11
1	Ba 233.527†	21092.0	20140.8	484.39	µg/L	484.39	ppb	04:35:11
1	Be 313.107†	840789.4	805045.1	477.62	µg/L	477.62	ppb	04:35:06
1	Cd 226.502†	20261.5	19473.0	485.58	µg/L	485.58	ppb	04:35:11
1	Co 228.616†	11305.1	10784.2	487.85	µg/L	487.85	ppb	04:35:11
1	Cr 267.716†	25367.7	24253.4	487.44	µg/L	487.44	ppb	04:35:11
1	Cu 324.752†	80514.9	74274.8	485.54	µg/L	485.54	ppb	04:35:11
1	Mn 257.610†	162898.9	155676.3	487.98	µg/L	487.98	ppb	04:35:06
1	Mo 202.031†	5349.6	5109.3	500.53	µg/L	500.53	ppb	04:35:32
1	Ni 231.604†	10577.2	9779.3	486.98	µg/L	486.98	ppb	04:35:11
1	P 214.914†	1328.9	1252.6	2433.5	µg/L	2433.5	ppb	04:35:32
1	Pb 220.353†	2243.1	2049.2	498.33	µg/L	498.33	ppb	04:35:32
1	S 181.975 Axial†	266.7	235.5	976.57	µg/L	976.57	ppb	04:35:32
1	Sb 206.836†	584.9	535.6	493.87	µg/L	493.87	ppb	04:35:32
1	Se 196.026†	394.7	357.3	509.84	µg/L	509.84	ppb	04:35:32
1	SiO2†	28956.8	26235.8	5178.6	µg/L	5178.6	ppb	04:35:11
1	Si 251.611†	33732.5	31873.2	2423.1	µg/L	2423.1	ppb	04:35:11
1	Sn 189.927†	1252.0	1194.1	503.61	µg/L	503.61	ppb	04:35:32
1	Ti 334.940†	226602.2	216024.0	477.57	µg/L	477.57	ppb	04:35:06
1	Tl 190.801†	370.9	376.2	494.42	µg/L	494.42	ppb	04:35:32
1	U 409.014†	6035.7	5835.7	483.83	µg/L	483.83	ppb	04:35:11
1	V 292.402†	51816.2	49482.1	488.30	µg/L	488.30	ppb	04:35:11
1	Zn 213.857†	22427.6	20863.6	486.02	µg/L	486.02	ppb	04:35:11
2	Sc RADIAL	57768.9	57768.9	102	%			04:34:08
2	Al 396.153Radial†	7186.3	7020.6	4873.8	µg/L	4873.8	ppb	04:34:08
2	Ca 317.933Radial†	6012.9	5669.1	4842.4	µg/L	4842.4	ppb	04:34:28
2	Fe 238.204 Radial†	659.5	628.4	4966.7	µg/L	4966.7	ppb	04:34:28
2	K 766.490 Radial†	7701.4	7366.6	4811.3	µg/L	4811.3	ppb	04:34:08
2	Mg 279.077 IEC†	576.1	550.6	4924.8	µg/L	4924.8	ppb	04:34:28
2	Na 589.592 Radial†	33062.7	31861.8	9786.1	µg/L	9786.1	ppb	04:34:08
2	Sr 421.552†	52835.4	51642.1	476.41	µg/L	476.41	ppb	04:34:08
2	Sc 361.383	2050935.4	2050935.4	104.47	%			04:35:39
2	Y 371.029	1412139.6	1412139.6	104.39	%			04:35:39
2	Ag 328.068†	67198.1	64722.5	482.94	µg/L	482.94	ppb	04:35:45
2	As 188.979†	281.0	269.4	481.96	µg/L	481.96	ppb	04:36:05
2	B 249.677†	12564.6	11642.5	472.71	µg/L	472.71	ppb	04:35:45
2	Ba 233.527†	20994.9	20113.0	483.73	µg/L	483.73	ppb	04:35:45
2	Be 313.107†	846460.4	813072.9	482.38	µg/L	482.38	ppb	04:35:39
2	Cd 226.502†	20329.9	19601.1	488.80	µg/L	488.80	ppb	04:35:45
2	Co 228.616†	11285.7	10800.6	488.57	µg/L	488.57	ppb	04:35:45
2	Cr 267.716†	25389.2	24352.5	489.43	µg/L	489.43	ppb	04:35:45
2	Cu 324.752†	80623.3	74627.4	487.82	µg/L	487.82	ppb	04:35:45
2	Mn 257.610†	163524.2	156778.5	491.42	µg/L	491.42	ppb	04:35:39
2	Mo 202.031†	5216.7	4998.6	489.69	µg/L	489.69	ppb	04:36:05
2	Ni 231.604†	10542.4	9778.6	486.94	µg/L	486.94	ppb	04:35:45
2	P 214.914†	1294.7	1223.9	2376.4	µg/L	2376.4	ppb	04:36:05
2	Pb 220.353†	2188.1	2003.5	487.18	µg/L	487.18	ppb	04:36:05

2	S 181.975 Axial†	265.7	235.4	976.00 µg/L	976.00 ppb	04:36:05
2	Sb 206.836†	577.1	529.9	488.51 µg/L	488.51 ppb	04:36:05
2	Se 196.026†	384.4	348.6	497.40 µg/L	497.40 ppb	04:36:05
2	SiO2†	28986.6	26353.9	5201.9 µg/L	5201.9 ppb	04:35:45
2	Si 251.611†	33771.3	32014.6	2433.8 µg/L	2433.8 ppb	04:35:45
2	Sn 189.927†	1216.2	1163.8	490.80 µg/L	490.80 ppb	04:36:05
2	Ti 334.940†	227991.3	218054.3	482.07 µg/L	482.07 ppb	04:35:39
2	Tl 190.801†	361.9	368.8	484.79 µg/L	484.79 ppb	04:36:05
2	U 409.014†	6052.9	5870.9	486.79 µg/L	486.79 ppb	04:35:45
2	V 292.402†	51831.3	49656.8	489.91 µg/L	489.91 ppb	04:35:45
2	Zn 213.857†	22400.8	20907.3	487.06 µg/L	487.06 ppb	04:35:45
3	Sc RADIAL	58380.8	58380.8	103 %		04:34:34
3	Al 396.153Radial†	7127.6	6890.0	4784.9 µg/L	4784.9 ppb	04:34:34
3	Ca 317.933Radial†	5971.9	5567.8	4755.9 µg/L	4755.9 ppb	04:34:54
3	Fe 238.204 Radial†	652.3	614.7	4857.1 µg/L	4857.1 ppb	04:34:54
3	K 766.490 Radial†	7730.4	7315.7	4778.0 µg/L	4778.0 ppb	04:34:34
3	Mg 279.077 IEC†	570.5	539.2	4821.8 µg/L	4821.8 ppb	04:34:54
3	Na 589.592 Radial†	32825.0	31292.8	9611.4 µg/L	9611.4 ppb	04:34:34
3	Sr 421.552†	52349.1	50629.9	467.07 µg/L	467.07 ppb	04:34:34
3	Sc 361.383	2067153.9	2067153.9	105.30 %		04:36:12
3	Y 371.029	1423556.1	1423556.1	105.23 %		04:36:12
3	Ag 328.068†	62436.5	59695.9	445.27 µg/L	445.27 ppb	04:36:18
3	As 188.979†	242.9	231.1	413.46 µg/L	413.46 ppb	04:36:38
3	B 249.677†	11600.5	10632.5	431.49 µg/L	431.49 ppb	04:36:18
3	Ba 233.527†	18793.8	17865.1	429.65 µg/L	429.65 ppb	04:36:18
3	Be 313.107†	774598.8	738471.2	438.12 µg/L	438.12 ppb	04:36:12
3	Cd 226.502†	18092.7	17323.8	431.95 µg/L	431.95 ppb	04:36:18
3	Co 228.616†	9919.0	9417.9	425.97 µg/L	425.97 ppb	04:36:18
3	Cr 267.716†	21648.0	20608.9	414.20 µg/L	414.20 ppb	04:36:18
3	Cu 324.752†	71593.7	65446.8	427.88 µg/L	427.88 ppb	04:36:18
3	Mn 257.610†	150444.4	143128.9	448.66 µg/L	448.66 ppb	04:36:12
3	Mo 202.031†	4281.2	4071.1	398.85 µg/L	398.85 ppb	04:36:38
3	Ni 231.604†	9375.2	8591.1	427.82 µg/L	427.82 ppb	04:36:18
3	P 214.914†	1092.8	1022.5	1982.5 µg/L	1982.5 ppb	04:36:38
3	Pb 220.353†	1883.3	1697.5	412.73 µg/L	412.73 ppb	04:36:38
3	S 181.975 Axial†	234.1	203.4	843.53 µg/L	843.53 ppb	04:36:38
3	Sb 206.836†	477.9	431.3	397.40 µg/L	397.40 ppb	04:36:38
3	Se 196.026†	329.4	293.5	419.87 µg/L	419.87 ppb	04:36:38
3	SiO2†	26475.1	23751.2	4688.2 µg/L	4688.2 ppb	04:36:18
3	Si 251.611†	30684.8	28829.9	2191.7 µg/L	2191.7 ppb	04:36:18
3	Sn 189.927†	982.9	933.0	393.50 µg/L	393.50 ppb	04:36:38
3	Ti 334.940†	207167.6	196566.4	434.54 µg/L	434.54 ppb	04:36:12
3	Tl 190.801†	317.4	323.8	425.88 µg/L	425.88 ppb	04:36:38
3	U 409.014†	5213.2	5027.9	416.78 µg/L	416.78 ppb	04:36:18
3	V 292.402†	45246.3	43013.9	424.21 µg/L	424.21 ppb	04:36:18
3	Zn 213.857†	19812.2	18280.7	425.81 µg/L	425.81 ppb	04:36:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2058557.1	104.86	%	0.415				0.40%
Sc RADIAL	57622.1	102	%	1.5				1.46%
Y 371.029	1417061.5	104.75	%	0.434				0.41%
Ag 328.068†	62965.2	469.78	µg/L	21.243	469.78	ppb	21.243	4.52%
QC value within limits for Ag 328.068 Recovery = 93.96%								
Al 396.153Radial†	7061.3	4902.7	µg/L	134.65	4902.7	ppb	134.65	2.75%
QC value within limits for Al 396.153Radial Recovery = 98.05%								
As 188.979†	261.0	466.96	µg/L	47.798	466.96	ppb	47.798	10.24%
QC value within limits for As 188.979 Recovery = 93.39%								
B 249.677†	11294.8	458.49	µg/L	23.397	458.49	ppb	23.397	5.10%
QC value within limits for B 249.677 Recovery = 91.70%								
Ba 233.527†	19373.0	465.92	µg/L	31.419	465.92	ppb	31.419	6.74%
QC value within limits for Ba 233.527 Recovery = 93.18%								
Be 313.107†	785529.7	466.04	µg/L	24.295	466.04	ppb	24.295	5.21%
QC value within limits for Be 313.107 Recovery = 93.21%								
Ca 317.933Radial†	5706.4	4874.3	µg/L	137.21	4874.3	ppb	137.21	2.81%
QC value within limits for Ca 317.933Radial Recovery = 97.49%								
Cd 226.502†	18799.3	468.78	µg/L	31.932	468.78	ppb	31.932	6.81%
QC value within limits for Cd 226.502 Recovery = 93.76%								
Co 228.616†	10334.2	467.46	µg/L	35.935	467.46	ppb	35.935	7.69%

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   QC value within limits for Co 228.616  Recovery = 93.49%
Cr 267.716†            23071.6      463.69 µg/L        42.872      463.69 ppb        42.872   9.25%
   QC value within limits for Cr 267.716  Recovery = 92.74%
Cu 324.752†            71449.7      467.08 µg/L        33.969      467.08 ppb        33.969   7.27%
   QC value within limits for Cu 324.752  Recovery = 93.42%
Fe 238.204 Radial†       631.1      4987.1 µg/L        141.37      4987.1 ppb        141.37   2.83%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.74%
K 766.490 Radial†       7446.3      4863.3 µg/L        120.08      4863.3 ppb        120.08   2.47%
   QC value within limits for K 766.490 Radial  Recovery = 97.27%
Mg 279.077 IEC†          552.8      4944.3 µg/L        133.31      4944.3 ppb        133.31   2.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.89%
Mn 257.610†           151861.3      476.02 µg/L        23.755      476.02 ppb        23.755   4.99%
   QC value within limits for Mn 257.610  Recovery = 95.20%
Mo 202.031†             4726.3      463.02 µg/L        55.841      463.02 ppb        55.841  12.06%
   QC value within limits for Mo 202.031  Recovery = 92.60%
Na 589.592 Radial†     32044.3      9842.2 µg/L        263.34      9842.2 ppb        263.34   2.68%
   QC value within limits for Na 589.592 Radial  Recovery = 98.42%
Ni 231.604†             9383.0      467.25 µg/L        34.146      467.25 ppb        34.146   7.31%
   QC value within limits for Ni 231.604  Recovery = 93.45%
P 214.914†              1166.3      2264.1 µg/L        245.54      2264.1 ppb        245.54  10.84%
   QC value within limits for P 214.914  Recovery = 90.57%
Pb 220.353†             1916.7      466.08 µg/L        46.539      466.08 ppb        46.539   9.99%
   QC value within limits for Pb 220.353  Recovery = 93.22%
S 181.975 Axial†         224.8      932.03 µg/L        76.647      932.03 ppb        76.647   8.22%
   QC value within limits for S 181.975 Axial  Recovery = 93.20%
Sb 206.836†              498.9      459.93 µg/L        54.216      459.93 ppb        54.216  11.79%
   QC value within limits for Sb 206.836  Recovery = 91.99%
Se 196.026†              333.1      475.70 µg/L        48.752      475.70 ppb        48.752  10.25%
   QC value within limits for Se 196.026  Recovery = 95.14%
SiO2†                  25446.9      5022.9 µg/L        290.12      5022.9 ppb        290.12   5.78%
   QC value within limits for SiO2  Recovery = 93.93%
Si 251.611†            30905.9      2349.5 µg/L        136.78      2349.5 ppb        136.78   5.82%
   QC value within limits for Si 251.611  Recovery = 93.98%
Sn 189.927†             1097.0      462.64 µg/L        60.215      462.64 ppb        60.215  13.02%
   QC value within limits for Sn 189.927  Recovery = 92.53%
Sr 421.552†            51915.5      478.93 µg/L        13.302      478.93 ppb        13.302   2.78%
   QC value within limits for Sr 421.552  Recovery = 95.79%
Ti 334.940†           210214.9      464.73 µg/L        26.238      464.73 ppb        26.238   5.65%
   QC value within limits for Ti 334.940  Recovery = 92.95%
Tl 190.801†              356.3      468.36 µg/L        37.106      468.36 ppb        37.106   7.92%
   QC value within limits for Tl 190.801  Recovery = 93.67%
U 409.014†              5578.1      462.47 µg/L        39.597      462.47 ppb        39.597   8.56%
   QC value within limits for U 409.014  Recovery = 92.49%
V 292.402†             47384.3      467.48 µg/L        37.475      467.48 ppb        37.475   8.02%
   QC value within limits for V 292.402  Recovery = 93.50%
Zn 213.857†            20017.2      466.30 µg/L        35.069      466.30 ppb        35.069   7.52%
   QC value within limits for Zn 213.857  Recovery = 93.26%
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 04:36:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57868.7	57868.7	102	%			04:37:20
1	Al 396.153Radial†	7.5	-0.0	-0.0160	µg/L	-0.0160	ppb	04:37:20
1	Ca 317.933Radial†	209.9	-6.4	-5.4517	µg/L	-5.4517	ppb	04:37:41
1	Fe 238.204 Radial†	19.3	2.3	17.774	µg/L	17.774	ppb	04:37:41
1	K 766.490 Radial†	202.6	32.8	21.423	µg/L	21.423	ppb	04:37:20
1	Mg 279.077 IEC†	12.1	-1.0	-8.5745	µg/L	-8.5745	ppb	04:37:41
1	Na 589.592 Radial†	385.3	-96.1	-29.506	µg/L	-29.506	ppb	04:37:20
1	Sr 421.552†	42.2	12.4	0.1147	µg/L	0.1147	ppb	04:37:20
1	Sc 361.383	2034662.5	2034662.5	103.64	%			04:38:43
1	Y 371.029	1405941.1	1405941.1	103.93	%			04:38:43
1	Ag 328.068†	-460.1	-42.3	-0.3132	µg/L	-0.3132	ppb	04:38:48
1	As 188.979†	2.0	2.4	4.2696	µg/L	4.2696	ppb	04:39:09
1	B 249.677†	355.2	-41.5	-1.6997	µg/L	-1.6997	ppb	04:39:09
1	Ba 233.527†	-12.2	5.3	0.1260	µg/L	0.1260	ppb	04:39:09
1	Be 313.107†	-2636.1	312.3	0.1852	µg/L	0.1852	ppb	04:38:48
1	Cd 226.502†	-135.5	11.0	0.2707	µg/L	0.2707	ppb	04:39:09
1	Co 228.616†	-2.6	-4.5	-0.2026	µg/L	-0.2026	ppb	04:39:09
1	Cr 267.716†	-51.0	1.2	0.0237	µg/L	0.0237	ppb	04:38:48
1	Cu 324.752†	3400.7	737.4	4.8160	µg/L	4.8160	ppb	04:38:48
1	Mn 257.610†	-140.3	120.6	0.3804	µg/L	0.3804	ppb	04:39:09
1	Mo 202.031†	0.5	5.8	0.5696	µg/L	0.5696	ppb	04:39:09
1	Ni 231.604†	295.2	-27.6	-1.3739	µg/L	-1.3739	ppb	04:39:09
1	P 214.914†	15.9	-0.0	-0.5043	µg/L	-0.5043	ppb	04:39:09
1	Pb 220.353†	92.4	-1.8	-0.4555	µg/L	-0.4555	ppb	04:39:09
1	S 181.975 Axial†	17.7	-1.9	-7.8103	µg/L	-7.8103	ppb	04:39:09
1	Sb 206.836†	32.6	9.0	8.2319	µg/L	8.2319	ppb	04:39:09
1	Se 196.026†	16.7	-3.2	-4.4102	µg/L	-4.4102	ppb	04:39:09
1	SiO2†	1490.5	46.5	9.1802	µg/L	9.1802	ppb	04:38:48
1	Si 251.611†	377.7	53.8	4.0900	µg/L	4.0900	ppb	04:39:09
1	Sn 189.927†	6.9	6.3	2.6659	µg/L	2.6659	ppb	04:39:09
1	Ti 334.940†	416.0	226.3	0.5013	µg/L	0.5013	ppb	04:38:48
1	Tl 190.801†	-23.4	-0.2	-0.2155	µg/L	-0.2155	ppb	04:39:09
1	U 409.014†	-34.3	44.0	3.6550	µg/L	3.6550	ppb	04:38:48
1	V 292.402†	-60.8	-13.9	-0.1248	µg/L	-0.1248	ppb	04:38:48
1	Zn 213.857†	578.0	23.2	0.5432	µg/L	0.5432	ppb	04:39:09
2	Sc RADIAL	57050.3	57050.3	101	%			04:37:46
2	Al 396.153Radial†	10.3	2.8	1.9655	µg/L	1.9655	ppb	04:37:46
2	Ca 317.933Radial†	190.1	-23.1	-19.696	µg/L	-19.696	ppb	04:38:07
2	Fe 238.204 Radial†	19.1	2.3	18.208	µg/L	18.208	ppb	04:38:07
2	K 766.490 Radial†	193.4	26.5	17.319	µg/L	17.319	ppb	04:37:46
2	Mg 279.077 IEC†	11.7	-1.3	-11.434	µg/L	-11.434	ppb	04:38:07
2	Na 589.592 Radial†	407.2	-69.0	-21.193	µg/L	-21.193	ppb	04:37:46
2	Sr 421.552†	60.4	31.1	0.2865	µg/L	0.2865	ppb	04:37:46
2	Sc 361.383	2015478.6	2015478.6	102.67	%			04:39:15
2	Y 371.029	1392709.4	1392709.4	102.95	%			04:39:15
2	Ag 328.068†	-386.4	25.3	0.1904	µg/L	0.1904	ppb	04:39:20
2	As 188.979†	0.5	1.0	1.7383	µg/L	1.7383	ppb	04:39:41
2	B 249.677†	349.2	-44.1	-1.8040	µg/L	-1.8040	ppb	04:39:41
2	Ba 233.527†	-11.2	6.1	0.1478	µg/L	0.1478	ppb	04:39:41
2	Be 313.107†	-2630.4	293.6	0.1740	µg/L	0.1740	ppb	04:39:20
2	Cd 226.502†	-143.8	1.6	0.0383	µg/L	0.0383	ppb	04:39:41
2	Co 228.616†	2.9	0.9	0.0388	µg/L	0.0388	ppb	04:39:41
2	Cr 267.716†	-22.4	28.5	0.5731	µg/L	0.5731	ppb	04:39:20
2	Cu 324.752†	3346.7	716.1	4.6767	µg/L	4.6767	ppb	04:39:20
2	Mn 257.610†	-139.2	120.4	0.3799	µg/L	0.3799	ppb	04:39:41
2	Mo 202.031†	1.7	7.0	0.6903	µg/L	0.6903	ppb	04:39:41
2	Ni 231.604†	313.1	-7.4	-0.3687	µg/L	-0.3687	ppb	04:39:41
2	P 214.914†	15.5	-0.2	-0.9256	µg/L	-0.9256	ppb	04:39:41
2	Pb 220.353†	81.1	-11.9	-2.9128	µg/L	-2.9128	ppb	04:39:41

2	S 181.975 Axial†	13.3	-6.0	-24.770 µg/L	-24.770 ppb		04:39:41
2	Sb 206.836†	19.5	-3.5	-3.2179 µg/L	-3.2179 ppb		04:39:41
2	Se 196.026†	13.1	-6.6	-9.1464 µg/L	-9.1464 ppb		04:39:41
2	SiO2†	1501.6	71.0	14.010 µg/L	14.010 ppb		04:39:20
2	Si 251.611†	429.3	107.5	8.1710 µg/L	8.1710 ppb		04:39:41
2	Sn 189.927†	3.9	3.4	1.4512 µg/L	1.4512 ppb		04:39:41
2	Ti 334.940†	431.1	244.8	0.5422 µg/L	0.5422 ppb		04:39:20
2	Tl 190.801†	-22.6	0.3	0.4497 µg/L	0.4497 ppb		04:39:41
2	U 409.014†	-32.9	45.0	3.7386 µg/L	3.7386 ppb		04:39:20
2	V 292.402†	-10.8	34.2	0.3461 µg/L	0.3461 ppb		04:39:20
2	Zn 213.857†	583.1	33.6	0.7813 µg/L	0.7813 ppb		04:39:41
3	Sc RADIAL	57317.4	57317.4	101 %			04:38:12
3	Al 396.153Radial†	5.7	-1.7	-1.2299 µg/L	-1.2299 ppb		04:38:12
3	Ca 317.933Radial†	192.8	-21.3	-18.157 µg/L	-18.157 ppb		04:38:33
3	Fe 238.204 Radial†	19.7	2.8	22.062 µg/L	22.062 ppb		04:38:33
3	K 766.490 Radial†	185.6	17.9	11.716 µg/L	11.716 ppb		04:38:12
3	Mg 279.077 IEC†	11.0	-1.9	-17.262 µg/L	-17.262 ppb		04:38:33
3	Na 589.592 Radial†	390.9	-86.9	-26.704 µg/L	-26.704 ppb		04:38:12
3	Sr 421.552†	10.3	-18.6	-0.1719 µg/L	-0.1719 ppb		04:38:12
3	Sc 361.383	2020687.3	2020687.3	102.93 %			04:39:47
3	Y 371.029	1396523.9	1396523.9	103.24 %			04:39:47
3	Ag 328.068†	-374.4	37.8	0.2835 µg/L	0.2835 ppb		04:39:52
3	As 188.979†	-1.7	-1.2	-2.0783 µg/L	-2.0783 ppb		04:40:13
3	B 249.677†	340.7	-53.1	-2.1776 µg/L	-2.1776 ppb		04:40:13
3	Ba 233.527†	-13.5	4.0	0.0956 µg/L	0.0956 ppb		04:40:13
3	Be 313.107†	-2789.4	145.8	0.0864 µg/L	0.0864 ppb		04:39:52
3	Cd 226.502†	-134.6	10.9	0.2684 µg/L	0.2684 ppb		04:40:13
3	Co 228.616†	8.2	6.0	0.2722 µg/L	0.2722 ppb		04:40:13
3	Cr 267.716†	-47.7	4.0	0.0803 µg/L	0.0803 ppb		04:39:52
3	Cu 324.752†	3330.8	692.2	4.5215 µg/L	4.5215 ppb		04:39:52
3	Mn 257.610†	-141.0	119.1	0.3764 µg/L	0.3764 ppb		04:40:13
3	Mo 202.031†	3.1	8.3	0.8178 µg/L	0.8178 ppb		04:40:13
3	Ni 231.604†	307.1	-14.0	-0.6974 µg/L	-0.6974 ppb		04:40:13
3	P 214.914†	0.2	-15.2	-30.533 µg/L	-30.533 ppb		04:40:13
3	Pb 220.353†	89.7	-3.8	-0.9249 µg/L	-0.9249 ppb		04:40:13
3	S 181.975 Axial†	18.4	-1.1	-4.5446 µg/L	-4.5446 ppb		04:40:13
3	Sb 206.836†	19.8	-3.3	-2.9723 µg/L	-2.9723 ppb		04:40:13
3	Se 196.026†	15.7	-4.1	-5.6852 µg/L	-5.6852 ppb		04:40:13
3	SiO2†	1501.0	66.7	13.168 µg/L	13.168 ppb		04:39:52
3	Si 251.611†	397.4	75.4	5.7347 µg/L	5.7347 ppb		04:40:13
3	Sn 189.927†	-0.6	-0.9	-0.3868 µg/L	-0.3868 ppb		04:40:13
3	Ti 334.940†	314.3	130.3	0.2893 µg/L	0.2893 ppb		04:39:52
3	Tl 190.801†	-20.9	2.1	2.6816 µg/L	2.6816 ppb		04:40:13
3	U 409.014†	-117.6	-37.1	-3.0878 µg/L	-3.0878 ppb		04:39:52
3	V 292.402†	-18.5	26.8	0.2670 µg/L	0.2670 ppb		04:39:52
3	Zn 213.857†	566.8	16.2	0.3767 µg/L	0.3767 ppb		04:40:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2023609.5	103.08	%	0.505				0.49%
Sc RADIAL	57412.1	102	%	0.7				0.73%
Y 371.029	1398391.5	103.37	%	0.503				0.49%
Ag 328.068†	6.9	0.0536	µg/L	0.32100	0.0536	ppb	0.32100	599.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.4	0.2399	µg/L	1.61301	0.2399	ppb	1.61301	672.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	1.3099	µg/L	3.19557	1.3099	ppb	3.19557	243.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-46.2	-1.8938	µg/L	0.25126	-1.8938	ppb	0.25126	13.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.1231	µg/L	0.02620	0.1231	ppb	0.02620	21.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	250.6	0.1485	µg/L	0.05410	0.1485	ppb	0.05410	36.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.9	-14.435	µg/L	7.8175	-14.435	ppb	7.8175	54.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.1925	µg/L	0.13350	0.1925	ppb	0.13350	69.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.8	0.0362	µg/L	0.23741	0.0362	ppb	0.23741	656.28%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.2      0.2257 µg/L       0.30217      0.2257 ppb        0.30217 133.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               715.2      4.6714 µg/L       0.14734      4.6714 ppb        0.14734   3.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.5      19.348 µg/L        2.3603     19.348 ppb         2.3603  12.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          25.8      16.819 µg/L        4.8727     16.819 ppb         4.8727  28.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.4     -12.423 µg/L        4.4273    -12.423 ppb         4.4273  35.64%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               120.0      0.3789 µg/L       0.00216      0.3789 ppb        0.00216   0.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.1      0.6926 µg/L       0.12410      0.6926 ppb        0.12410  17.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -84.0     -25.801 µg/L        4.2294    -25.801 ppb         4.2294  16.39%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -16.3      -0.8133 µg/L       0.51249     -0.8133 ppb        0.51249  63.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.1     -10.654 µg/L       17.2168    -10.654 ppb        17.2168 161.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9      -1.4311 µg/L       1.30451     -1.4311 ppb        1.30451  91.16%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.0     -12.375 µg/L       10.8578    -12.375 ppb        10.8578  87.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.7      0.6805 µg/L       6.54083      0.6805 ppb        6.54083 961.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.6      -6.4139 µg/L       2.45079     -6.4139 ppb        2.45079  38.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      61.4      12.119 µg/L        2.5799     12.119 ppb         2.5799  21.29%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                78.9      5.9986 µg/L       2.05324      5.9986 ppb        2.05324  34.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.0      1.2434 µg/L       1.53692      1.2434 ppb        1.53692 123.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.3      0.0764 µg/L       0.23160      0.0764 ppb        0.23160 303.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               200.5      0.4443 µg/L       0.13574      0.4443 ppb        0.13574  30.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.7      0.9720 µg/L       1.51750      0.9720 ppb        1.51750 156.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 17.3      1.4352 µg/L       3.91732      1.4352 ppb        3.91732 272.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 15.7      0.1628 µg/L       0.25219      0.1628 ppb        0.25219 154.94%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.3      0.5671 µg/L       0.20334      0.5671 ppb        0.20334  35.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

2/20/2010 20:49:28 Hg ReAlign... Actual peak offset (nm): -0.001
Drift (nm): 0.000 Slit adjustment: 0

Analysis Begun

Start Time: 2/20/2010 20:51:18 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022010.SIF
Batch ID:
Results Data Set: 022010C
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/20/2010 20:51:20**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	58448.9	58448.9	99.0	%	20:51:55
1	Al 396.153Radial†	-15.2	-15.4	[0.00]	µg/L	20:51:55
1	Ca 317.933Radial†	194.3	196.3	[0.00]	µg/L	20:52:16
1	Fe 238.204 Radial†	14.6	14.8	[0.00]	µg/L	20:52:16
1	K 766.490 Radial†	192.6	194.5	[0.00]	µg/L	20:51:55
1	Mg 279.077 IEC†	11.9	12.1	[0.00]	µg/L	20:52:16
1	Na 589.592 Radial†	440.9	445.4	[0.00]	µg/L	20:51:55
1	Sr 421.552†	28.8	29.1	[0.00]	µg/L	20:51:55
1	Sc 361.383	2094656.1	2094656.1	99.763	%	20:53:17
1	Y 371.029	1452202.2	1452202.2	99.774	%	20:53:17
1	Ag 328.068†	-422.6	-423.6	[0.00]	µg/L	20:53:23
1	As 188.979†	-2.8	-2.8	[0.00]	µg/L	20:53:43
1	B 249.677†	330.9	331.7	[0.00]	µg/L	20:53:43
1	Ba 233.527†	-14.5	-14.5	[0.00]	µg/L	20:53:43
1	Be 313.107†	-3741.6	-3750.5	[0.00]	µg/L	20:53:23
1	Cd 226.502†	-132.1	-132.4	[0.00]	µg/L	20:53:43
1	Co 228.616†	6.5	6.6	[0.00]	µg/L	20:53:43
1	Cr 267.716†	-54.3	-54.4	[0.00]	µg/L	20:53:23
1	Cu 324.752†	2873.7	2880.5	[0.00]	µg/L	20:53:23
1	Mn 257.610†	-298.2	-298.9	[0.00]	µg/L	20:53:43
1	Mo 202.031†	-6.3	-6.3	[0.00]	µg/L	20:53:43
1	Ni 231.604†	310.1	310.8	[0.00]	µg/L	20:53:43
1	P 214.914†	17.5	17.6	[0.00]	µg/L	20:53:43
1	Pb 220.353†	108.8	109.0	[0.00]	µg/L	20:53:43
1	S 181.975 Axial†	18.2	18.3	[0.00]	µg/L	20:53:43
1	Sb 206.836†	23.7	23.7	[0.00]	µg/L	20:53:43
1	Se 196.026†	14.2	14.2	[0.00]	µg/L	20:53:43
1	SiO2†	1469.0	1472.4	[0.00]	µg/L	20:53:23
1	Si 251.611†	284.2	284.9	[0.00]	µg/L	20:53:43
1	Sn 189.927†	4.2	4.2	[0.00]	µg/L	20:53:43
1	Ti 334.940†	162.5	162.9	[0.00]	µg/L	20:53:23
1	Tl 190.801†	-20.4	-20.4	[0.00]	µg/L	20:53:43
1	U 409.014†	-4.3	-4.3	[0.00]	µg/L	20:53:23
1	V 292.402†	-116.7	-117.0	[0.00]	µg/L	20:53:23
1	Zn 213.857†	500.3	501.5	[0.00]	µg/L	20:53:43
2	Sc RADIAL	59409.4	59409.4	101	%	20:52:21
2	Al 396.153Radial†	-5.5	-5.5	[0.00]	µg/L	20:52:21
2	Ca 317.933Radial†	197.9	196.6	[0.00]	µg/L	20:52:41
2	Fe 238.204 Radial†	14.4	14.3	[0.00]	µg/L	20:52:41
2	K 766.490 Radial†	231.7	230.3	[0.00]	µg/L	20:52:21
2	Mg 279.077 IEC†	13.5	13.4	[0.00]	µg/L	20:52:41
2	Na 589.592 Radial†	487.2	484.2	[0.00]	µg/L	20:52:21
2	Sr 421.552†	70.6	70.1	[0.00]	µg/L	20:52:21

2	Sc 361.383	2104522.3	2104522.3	100.23	%	20:53:49
2	Y 371.029	1458624.5	1458624.5	100.22	%	20:53:49
2	Ag 328.068†	-484.5	-483.4	[0.00]	µg/L	20:53:55
2	As 188.979†	3.1	3.1	[0.00]	µg/L	20:54:15
2	B 249.677†	331.7	330.9	[0.00]	µg/L	20:54:15
2	Ba 233.527†	-22.2	-22.1	[0.00]	µg/L	20:54:15
2	Be 313.107†	-3797.7	-3788.9	[0.00]	µg/L	20:53:55
2	Cd 226.502†	-140.2	-139.8	[0.00]	µg/L	20:54:15
2	Co 228.616†	0.9	0.9	[0.00]	µg/L	20:54:15
2	Cr 267.716†	-48.3	-48.2	[0.00]	µg/L	20:53:55
2	Cu 324.752†	2909.8	2903.1	[0.00]	µg/L	20:53:55
2	Mn 257.610†	-303.5	-302.8	[0.00]	µg/L	20:54:15
2	Mo 202.031†	-2.0	-2.0	[0.00]	µg/L	20:54:15
2	Ni 231.604†	308.7	307.9	[0.00]	µg/L	20:54:15
2	P 214.914†	12.7	12.7	[0.00]	µg/L	20:54:15
2	Pb 220.353†	87.0	86.8	[0.00]	µg/L	20:54:15
2	S 181.975 Axial†	16.8	16.7	[0.00]	µg/L	20:54:15
2	Sb 206.836†	26.2	26.1	[0.00]	µg/L	20:54:15
2	Se 196.026†	14.8	14.8	[0.00]	µg/L	20:54:15
2	SiO2†	1489.6	1486.1	[0.00]	µg/L	20:53:55
2	Si 251.611†	290.6	289.9	[0.00]	µg/L	20:54:15
2	Sn 189.927†	7.4	7.4	[0.00]	µg/L	20:54:15
2	Ti 334.940†	137.6	137.3	[0.00]	µg/L	20:53:55
2	Tl 190.801†	-26.8	-26.7	[0.00]	µg/L	20:54:15
2	U 409.014†	30.6	30.5	[0.00]	µg/L	20:53:55
2	V 292.402†	-76.2	-76.0	[0.00]	µg/L	20:53:55
2	Zn 213.857†	503.0	501.9	[0.00]	µg/L	20:54:15
3	Sc RADIAL	59272.8	59272.8	100	%	20:52:47
3	Al 396.153Radial†	-5.2	-5.2	[0.00]	µg/L	20:52:47
3	Ca 317.933Radial†	186.7	186.0	[0.00]	µg/L	20:53:07
3	Fe 238.204 Radial†	17.1	17.0	[0.00]	µg/L	20:53:07
3	K 766.490 Radial†	171.1	170.4	[0.00]	µg/L	20:52:47
3	Mg 279.077 IEC†	10.8	10.8	[0.00]	µg/L	20:53:07
3	Na 589.592 Radial†	493.5	491.6	[0.00]	µg/L	20:52:47
3	Sr 421.552†	25.0	24.9	[0.00]	µg/L	20:52:47
3	Sc 361.383	2099721.0	2099721.0	100.00	%	20:54:21
3	Y 371.029	1455632.1	1455632.1	100.01	%	20:54:21
3	Ag 328.068†	-482.4	-482.3	[0.00]	µg/L	20:54:27
3	As 188.979†	-1.1	-1.1	[0.00]	µg/L	20:54:48
3	B 249.677†	313.8	313.8	[0.00]	µg/L	20:54:48
3	Ba 233.527†	-18.4	-18.4	[0.00]	µg/L	20:54:48
3	Be 313.107†	-3737.3	-3737.2	[0.00]	µg/L	20:54:27
3	Cd 226.502†	-137.6	-137.6	[0.00]	µg/L	20:54:48
3	Co 228.616†	0.3	0.3	[0.00]	µg/L	20:54:48
3	Cr 267.716†	-39.6	-39.6	[0.00]	µg/L	20:54:27
3	Cu 324.752†	2825.7	2825.6	[0.00]	µg/L	20:54:27
3	Mn 257.610†	-306.0	-306.0	[0.00]	µg/L	20:54:48
3	Mo 202.031†	-1.7	-1.7	[0.00]	µg/L	20:54:48
3	Ni 231.604†	307.2	307.2	[0.00]	µg/L	20:54:48
3	P 214.914†	18.5	18.5	[0.00]	µg/L	20:54:48
3	Pb 220.353†	88.6	88.6	[0.00]	µg/L	20:54:48
3	S 181.975 Axial†	16.9	16.9	[0.00]	µg/L	20:54:48
3	Sb 206.836†	16.5	16.5	[0.00]	µg/L	20:54:48
3	Se 196.026†	16.0	16.0	[0.00]	µg/L	20:54:48
3	SiO2†	1494.7	1494.6	[0.00]	µg/L	20:54:27
3	Si 251.611†	305.8	305.8	[0.00]	µg/L	20:54:48
3	Sn 189.927†	2.5	2.5	[0.00]	µg/L	20:54:48
3	Ti 334.940†	124.8	124.8	[0.00]	µg/L	20:54:27
3	Tl 190.801†	-19.6	-19.6	[0.00]	µg/L	20:54:48
3	U 409.014†	-28.5	-28.5	[0.00]	µg/L	20:54:27
3	V 292.402†	-95.1	-95.0	[0.00]	µg/L	20:54:27
3	Zn 213.857†	502.5	502.5	[0.00]	µg/L	20:54:48

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2099633.2	4933.68	0.23%	100.00	%
Sc RADIAL	59043.7	519.64	0.88%	100	%
Y 371.029	1455486.3	3213.62	0.22%	100.00	%
Ag 328.068†	-463.1	34.20	7.39%	[0.00]	µg/L

Al 396.153Radial†	-8.7	5.81	66.78%	[0.00]	µg/L
As 188.979†	-0.3	3.05	>999.9%	[0.00]	µg/L
B 249.677†	325.5	10.09	3.10%	[0.00]	µg/L
Ba 233.527†	-18.4	3.82	20.83%	[0.00]	µg/L
Be 313.107†	-3758.9	26.86	0.71%	[0.00]	µg/L
Ca 317.933Radial†	193.0	6.04	3.13%	[0.00]	µg/L
Cd 226.502†	-136.6	3.80	2.78%	[0.00]	µg/L
Co 228.616†	2.6	3.47	135.12%	[0.00]	µg/L
Cr 267.716†	-47.4	7.44	15.70%	[0.00]	µg/L
Cu 324.752†	2869.7	39.84	1.39%	[0.00]	µg/L
Fe 238.204 Radial†	15.4	1.44	9.38%	[0.00]	µg/L
K 766.490 Radial†	198.4	30.11	15.18%	[0.00]	µg/L
Mg 279.077 IEC†	12.1	1.31	10.86%	[0.00]	µg/L
Mn 257.610†	-302.6	3.56	1.18%	[0.00]	µg/L
Mo 202.031†	-3.3	2.62	78.84%	[0.00]	µg/L
Na 589.592 Radial†	473.7	24.82	5.24%	[0.00]	µg/L
Ni 231.604†	308.6	1.90	0.62%	[0.00]	µg/L
P 214.914†	16.2	3.12	19.25%	[0.00]	µg/L
Pb 220.353†	94.8	12.36	13.04%	[0.00]	µg/L
S 181.975 Axial†	17.3	0.84	4.84%	[0.00]	µg/L
Sb 206.836†	22.1	5.03	22.74%	[0.00]	µg/L
Se 196.026†	15.0	0.89	5.93%	[0.00]	µg/L
SiO2†	1484.4	11.19	0.75%	[0.00]	µg/L
Si 251.611†	293.5	10.90	3.71%	[0.00]	µg/L
Sn 189.927†	4.7	2.49	52.70%	[0.00]	µg/L
Sr 421.552†	41.4	24.99	60.43%	[0.00]	µg/L
Ti 334.940†	141.7	19.43	13.72%	[0.00]	µg/L
Tl 190.801†	-22.2	3.89	17.52%	[0.00]	µg/L
U 409.014†	-0.8	29.68	>999.9%	[0.00]	µg/L
V 292.402†	-96.0	20.49	21.35%	[0.00]	µg/L
Zn 213.857†	501.9	0.52	0.10%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/20/2010 20:54:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	60231.0	60231.0	102	%	20:55:32
1	K 766.490 Radial†	1682.2	1450.6	[1000]	µg/L	20:55:32
1	Sr 421.552†	9970.9	9733.0	[100]	µg/L	20:55:32
1	Sc 361.383	2095468.6	2095468.6	99.802	%	20:55:54
1	Y 371.029	1450728.0	1450728.0	99.673	%	20:55:54
1	Ag 328.068†	12683.7	13172.0	[100]	µg/L	20:55:59
1	As 188.979†	57.2	57.6	[100]	µg/L	20:56:20
1	B 249.677†	2642.3	2322.1	[100]	µg/L	20:55:59
1	Ba 233.527†	3983.6	4009.9	[100]	µg/L	20:55:59
1	Be 313.107†	158762.4	162836.8	[100]	µg/L	20:55:54
1	Cd 226.502†	3804.5	3948.7	[100]	µg/L	20:55:59
1	Co 228.616†	2135.7	2137.4	[100]	µg/L	20:56:20
1	Cr 267.716†	4838.6	4895.6	[100]	µg/L	20:55:59
1	Cu 324.752†	17911.4	15077.2	[100]	µg/L	20:55:59
1	Mn 257.610†	30916.6	31280.6	[100]	µg/L	20:55:59
1	Mo 202.031†	1002.9	1008.2	[100]	µg/L	20:56:20
1	Ni 231.604†	2295.0	1990.9	[100]	µg/L	20:55:59
1	P 214.914†	265.2	249.5	[500]	µg/L	20:56:20
1	Pb 220.353†	494.0	400.2	[100]	µg/L	20:56:20
1	S 181.975 Axial†	61.7	44.5	[200]	µg/L	20:56:20
1	Sb 206.836†	129.9	108.1	[100]	µg/L	20:56:20
1	Se 196.026†	89.9	75.1	[100]	µg/L	20:56:20
1	SiO2†	6595.6	5124.3	[1069.5]	µg/L	20:55:59
1	Si 251.611†	6540.9	6260.3	[500]	µg/L	20:55:59
1	Sn 189.927†	237.5	233.3	[100]	µg/L	20:56:20
1	Ti 334.940†	42581.6	42524.6	[100]	µg/L	20:55:59
1	Tl 190.801†	56.8	79.2	[100]	µg/L	20:56:20
1	U 409.014†	1187.9	1191.0	[100]	µg/L	20:55:59
1	V 292.402†	9838.9	9954.5	[100]	µg/L	20:55:59
1	Zn 213.857†	4771.0	4278.6	[100]	µg/L	20:55:59
2	Sc RADIAL	59982.5	59982.5	102	%	20:55:38
2	K 766.490 Radial†	1686.9	1462.2	[1000]	µg/L	20:55:38
2	Sr 421.552†	10019.9	9821.7	[100]	µg/L	20:55:38
2	Sc 361.383	2083683.4	2083683.4	99.240	%	20:56:26
2	Y 371.029	1443727.8	1443727.8	99.192	%	20:56:26
2	Ag 328.068†	12701.4	13261.8	[100]	µg/L	20:56:32
2	As 188.979†	56.0	56.8	[100]	µg/L	20:56:52
2	B 249.677†	2666.9	2361.8	[100]	µg/L	20:56:32
2	Ba 233.527†	4011.6	4060.6	[100]	µg/L	20:56:32
2	Be 313.107†	157999.5	162967.8	[100]	µg/L	20:56:26
2	Cd 226.502†	3841.7	4007.7	[100]	µg/L	20:56:32
2	Co 228.616†	2125.8	2139.5	[100]	µg/L	20:56:52
2	Cr 267.716†	4835.1	4919.5	[100]	µg/L	20:56:32
2	Cu 324.752†	17997.2	15265.2	[100]	µg/L	20:56:32
2	Mn 257.610†	31096.9	31637.5	[100]	µg/L	20:56:32
2	Mo 202.031†	1001.9	1012.9	[100]	µg/L	20:56:52
2	Ni 231.604†	2288.5	1997.4	[100]	µg/L	20:56:32
2	P 214.914†	261.1	246.8	[500]	µg/L	20:56:52
2	Pb 220.353†	494.2	403.2	[100]	µg/L	20:56:52
2	S 181.975 Axial†	64.6	47.8	[200]	µg/L	20:56:52
2	Sb 206.836†	132.3	111.2	[100]	µg/L	20:56:52
2	Se 196.026†	97.4	83.1	[100]	µg/L	20:56:52
2	SiO2†	6674.6	5241.3	[1069.5]	µg/L	20:56:32
2	Si 251.611†	6587.1	6344.0	[500]	µg/L	20:56:32
2	Sn 189.927†	239.4	236.5	[100]	µg/L	20:56:52
2	Ti 334.940†	42771.3	42957.0	[100]	µg/L	20:56:32
2	Tl 190.801†	48.9	71.5	[100]	µg/L	20:56:52
2	U 409.014†	1202.1	1212.1	[100]	µg/L	20:56:32
2	V 292.402†	9871.9	10043.4	[100]	µg/L	20:56:32

2	Zn 213.857†	4797.5	4332.3	[100]	µg/L	20:56:32
3	Sc RADIAL	59501.1	59501.1	101	%	20:55:43
3	K 766.490 Radial†	1557.1	1346.7	[1000]	µg/L	20:55:43
3	Sr 421.552†	9925.5	9807.9	[100]	µg/L	20:55:43
3	Sc 361.383	2088502.3	2088502.3	99.470	%	20:56:59
3	Y 371.029	1446604.0	1446604.0	99.390	%	20:56:59
3	Ag 328.068†	12678.4	13209.1	[100]	µg/L	20:57:04
3	As 188.979†	53.4	54.0	[100]	µg/L	20:57:25
3	B 249.677†	2669.0	2357.8	[100]	µg/L	20:57:04
3	Ba 233.527†	4010.7	4050.4	[100]	µg/L	20:57:04
3	Be 313.107†	158721.9	163326.7	[100]	µg/L	20:56:59
3	Cd 226.502†	3816.9	3973.9	[100]	µg/L	20:57:04
3	Co 228.616†	2149.2	2158.1	[100]	µg/L	20:57:25
3	Cr 267.716†	4805.9	4879.0	[100]	µg/L	20:57:04
3	Cu 324.752†	17911.9	15137.7	[100]	µg/L	20:57:04
3	Mn 257.610†	30979.9	31447.6	[100]	µg/L	20:57:04
3	Mo 202.031†	1008.1	1016.8	[100]	µg/L	20:57:25
3	Ni 231.604†	2297.0	2000.6	[100]	µg/L	20:57:04
3	P 214.914†	271.5	256.7	[500]	µg/L	20:57:25
3	Pb 220.353†	500.0	407.9	[100]	µg/L	20:57:25
3	S 181.975 Axial†	61.2	44.3	[200]	µg/L	20:57:25
3	Sb 206.836†	132.0	110.6	[100]	µg/L	20:57:25
3	Se 196.026†	88.5	74.0	[100]	µg/L	20:57:25
3	SiO2†	6602.5	5153.3	[1069.5]	µg/L	20:57:04
3	Si 251.611†	6582.4	6324.0	[500]	µg/L	20:57:04
3	Sn 189.927†	244.2	240.8	[100]	µg/L	20:57:25
3	Ti 334.940†	42614.4	42699.8	[100]	µg/L	20:57:04
3	Tl 190.801†	48.8	71.3	[100]	µg/L	20:57:25
3	U 409.014†	1112.7	1119.4	[100]	µg/L	20:57:04
3	V 292.402†	9933.7	10082.7	[100]	µg/L	20:57:04
3	Zn 213.857†	4763.3	4286.7	[100]	µg/L	20:57:04

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2089218.1	5925.11	0.28%	99.504	%
Sc RADIAL	59904.9	371.08	0.62%	101	%
Y 371.029	1447019.9	3518.57	0.24%	99.418	%
Ag 328.068†	13214.3	45.11	0.34%	[100]	µg/L
As 188.979†	56.1	1.92	3.42%	[100]	µg/L
B 249.677†	2347.2	21.88	0.93%	[100]	µg/L
Ba 233.527†	4040.3	26.83	0.66%	[100]	µg/L
Be 313.107†	163043.7	253.62	0.16%	[100]	µg/L
Cd 226.502†	3976.8	29.62	0.74%	[100]	µg/L
Co 228.616†	2145.0	11.38	0.53%	[100]	µg/L
Cr 267.716†	4898.0	20.38	0.42%	[100]	µg/L
Cu 324.752†	15160.0	95.96	0.63%	[100]	µg/L
K 766.490 Radial†	1419.8	63.57	4.48%	[1000]	µg/L
Mn 257.610†	31455.2	178.57	0.57%	[100]	µg/L
Mo 202.031†	1012.6	4.27	0.42%	[100]	µg/L
Ni 231.604†	1996.3	4.90	0.25%	[100]	µg/L
P 214.914†	251.0	5.13	2.04%	[500]	µg/L
Pb 220.353†	403.8	3.87	0.96%	[100]	µg/L
S 181.975 Axial†	45.5	1.97	4.34%	[200]	µg/L
Sb 206.836†	109.9	1.64	1.49%	[100]	µg/L
Se 196.026†	77.4	5.00	6.46%	[100]	µg/L
SiO2†	5173.0	60.92	1.18%	[1069.5]	µg/L
Si 251.611†	6309.4	43.68	0.69%	[500]	µg/L
Sn 189.927†	236.8	3.76	1.59%	[100]	µg/L
Sr 421.552†	9787.5	47.74	0.49%	[100]	µg/L
Ti 334.940†	42727.1	217.52	0.51%	[100]	µg/L
Tl 190.801†	74.0	4.49	6.07%	[100]	µg/L
U 409.014†	1174.2	48.60	4.14%	[100]	µg/L
V 292.402†	10026.9	65.68	0.66%	[100]	µg/L
Zn 213.857†	4299.2	28.95	0.67%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/20/2010 20:57:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59227.0	59227.0	100	%	20:58:07
1	Al 396.153Radial†	6666.8	6654.8	[5000]	µg/L	20:58:07
1	Ca 317.933Radial†	5603.4	5393.1	[5000]	µg/L	20:58:27
1	K 766.490 Radial†	7261.7	7040.9	[5000]	µg/L	20:58:07
1	Mg 279.077 IEC†	541.6	527.8	[5000]	µg/L	20:58:27
1	Sr 421.552†	49363.8	49169.6	[500]	µg/L	20:58:07
1	Sc 361.383	2099306.9	2099306.9	99.984	%	20:59:31
1	Y 371.029	1449551.5	1449551.5	99.592	%	20:59:31
1	Ag 328.068†	64806.3	65279.5	[500]	µg/L	20:59:36
1	As 188.979†	279.4	279.8	[500]	µg/L	20:59:57
1	B 249.677†	12233.8	11910.2	[500]	µg/L	20:59:36
1	Ba 233.527†	20099.7	20121.1	[500]	µg/L	20:59:36
1	Be 313.107†	809214.8	813099.4	[500]	µg/L	20:59:31
1	Cd 226.502†	19527.9	19667.6	[500]	µg/L	20:59:36
1	Co 228.616†	10750.6	10749.7	[500]	µg/L	20:59:36
1	Cr 267.716†	24287.6	24338.8	[500]	µg/L	20:59:36
1	Cu 324.752†	76692.9	73835.1	[500]	µg/L	20:59:36
1	Mn 257.610†	155162.7	155489.4	[500]	µg/L	20:59:31
1	Mo 202.031†	5073.3	5077.4	[500]	µg/L	20:59:57
1	Ni 231.604†	10161.8	9854.7	[500]	µg/L	20:59:36
1	P 214.914†	1287.2	1271.2	[2500]	µg/L	20:59:57
1	Pb 220.353†	2118.6	2024.2	[500]	µg/L	20:59:57
1	S 181.975 Axial†	259.5	242.2	[1000]	µg/L	20:59:57
1	Sb 206.836†	567.7	545.7	[500]	µg/L	20:59:57
1	Se 196.026†	378.9	363.9	[500]	µg/L	20:59:57
1	SiO2†	27719.4	26239.3	[5347.5]	µg/L	20:59:36
1	Si 251.611†	32170.8	31882.3	[2500]	µg/L	20:59:36
1	Sn 189.927†	1201.7	1197.2	[500]	µg/L	20:59:57
1	Ti 334.940†	216326.3	216218.2	[500]	µg/L	20:59:31
1	Tl 190.801†	355.8	378.1	[500]	µg/L	20:59:57
1	U 409.014†	5849.8	5851.5	[500]	µg/L	20:59:36
1	V 292.402†	49629.9	49733.6	[500]	µg/L	20:59:36
1	Zn 213.857†	21637.6	21139.1	[500]	µg/L	20:59:36
2	Sc RADIAL	59249.3	59249.3	100	%	20:58:33
2	Al 396.153Radial†	6692.0	6677.5	[5000]	µg/L	20:58:33
2	Ca 317.933Radial†	5642.9	5430.4	[5000]	µg/L	20:58:53
2	K 766.490 Radial†	7335.0	7111.1	[5000]	µg/L	20:58:33
2	Mg 279.077 IEC†	536.3	522.3	[5000]	µg/L	20:58:53
2	Sr 421.552†	49509.2	49296.1	[500]	µg/L	20:58:33
2	Sc 361.383	2102625.9	2102625.9	100.14	%	21:00:04
2	Y 371.029	1453568.6	1453568.6	99.868	%	21:00:04
2	Ag 328.068†	64581.7	64952.9	[500]	µg/L	21:00:10
2	As 188.979†	273.0	272.9	[500]	µg/L	21:00:30
2	B 249.677†	12164.5	11821.7	[500]	µg/L	21:00:10
2	Ba 233.527†	20007.1	19996.9	[500]	µg/L	21:00:10
2	Be 313.107†	811385.9	813989.9	[500]	µg/L	21:00:04
2	Cd 226.502†	19386.0	19495.0	[500]	µg/L	21:00:10
2	Co 228.616†	10648.4	10630.7	[500]	µg/L	21:00:10
2	Cr 267.716†	24137.7	24150.7	[500]	µg/L	21:00:10
2	Cu 324.752†	76382.2	73403.7	[500]	µg/L	21:00:10
2	Mn 257.610†	155515.3	155596.5	[500]	µg/L	21:00:04
2	Mo 202.031†	4982.5	4978.7	[500]	µg/L	21:00:30
2	Ni 231.604†	10088.0	9765.0	[500]	µg/L	21:00:10
2	P 214.914†	1259.9	1241.9	[2500]	µg/L	21:00:30
2	Pb 220.353†	2119.2	2021.4	[500]	µg/L	21:00:30
2	S 181.975 Axial†	255.2	237.5	[1000]	µg/L	21:00:30
2	Sb 206.836†	559.7	536.8	[500]	µg/L	21:00:30
2	Se 196.026†	381.8	366.3	[500]	µg/L	21:00:30
2	SiO2†	27683.2	26159.4	[5347.5]	µg/L	21:00:10

2	Si 251.611†	32044.2	31705.0	[2500]	µg/L	21:00:10
2	Sn 189.927†	1175.2	1168.8	[500]	µg/L	21:00:30
2	Ti 334.940†	216499.2	216049.4	[500]	µg/L	21:00:04
2	Tl 190.801†	350.4	372.1	[500]	µg/L	21:00:30
2	U 409.014†	5757.2	5749.7	[500]	µg/L	21:00:10
2	V 292.402†	49422.0	49447.7	[500]	µg/L	21:00:10
2	Zn 213.857†	21443.5	20911.1	[500]	µg/L	21:00:10
3	Sc RADIAL	59262.1	59262.1	100	%	20:58:59
3	Al 396.153Radial†	6698.8	6682.8	[5000]	µg/L	20:58:59
3	Ca 317.933Radial†	5625.0	5411.3	[5000]	µg/L	20:59:19
3	K 766.490 Radial†	7351.8	7126.3	[5000]	µg/L	20:58:59
3	Mg 279.077 IEC†	539.1	525.0	[5000]	µg/L	20:59:19
3	Sr 421.552†	49542.1	49318.1	[500]	µg/L	20:58:59
3	Sc 361.383	2090574.9	2090574.9	99.569	%	21:00:37
3	Y 371.029	1444442.1	1444442.1	99.241	%	21:00:37
3	Ag 328.068†	60634.2	61360.1	[500]	µg/L	21:00:43
3	As 188.979†	231.6	232.9	[500]	µg/L	21:01:03
3	B 249.677†	11315.3	11038.8	[500]	µg/L	21:00:43
3	Ba 233.527†	18100.7	18197.5	[500]	µg/L	21:00:43
3	Be 313.107†	745374.2	752362.7	[500]	µg/L	21:00:37
3	Cd 226.502†	17553.6	17766.2	[500]	µg/L	21:00:43
3	Co 228.616†	9546.1	9584.9	[500]	µg/L	21:00:43
3	Cr 267.716†	21031.8	21170.4	[500]	µg/L	21:00:43
3	Cu 324.752†	68692.8	66120.7	[500]	µg/L	21:00:43
3	Mn 257.610†	143478.9	144403.2	[500]	µg/L	21:00:37
3	Mo 202.031†	4102.3	4123.4	[500]	µg/L	21:01:03
3	Ni 231.604†	9076.4	8807.1	[500]	µg/L	21:00:43
3	P 214.914†	1065.5	1053.9	[2500]	µg/L	21:01:03
3	Pb 220.353†	1816.3	1729.4	[500]	µg/L	21:01:03
3	S 181.975 Axial†	223.3	207.0	[1000]	µg/L	21:01:03
3	Sb 206.836†	475.1	455.1	[500]	µg/L	21:01:03
3	Se 196.026†	322.0	308.4	[500]	µg/L	21:01:03
3	SiO2†	25559.9	24186.3	[5347.5]	µg/L	21:00:43
3	Si 251.611†	29523.2	29357.6	[2500]	µg/L	21:00:43
3	Sn 189.927†	956.6	956.0	[500]	µg/L	21:01:03
3	Ti 334.940†	198087.6	198804.3	[500]	µg/L	21:00:37
3	Tl 190.801†	309.7	333.2	[500]	µg/L	21:01:03
3	U 409.014†	5157.8	5180.9	[500]	µg/L	21:00:43
3	V 292.402†	43891.6	44177.8	[500]	µg/L	21:00:43
3	Zn 213.857†	19304.6	18886.3	[500]	µg/L	21:00:43

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2097502.5	6224.83	0.30%	99.899	%
Sc RADIAL	59246.1	17.79	0.03%	100	%
Y 371.029	1449187.4	4574.13	0.32%	99.567	%
Ag 328.068†	63864.1	2174.72	3.41%	[500]	µg/L
Al 396.153Radial†	6671.7	14.86	0.22%	[5000]	µg/L
As 188.979†	261.9	25.31	9.66%	[500]	µg/L
B 249.677†	11590.2	479.57	4.14%	[500]	µg/L
Ba 233.527†	19438.5	1076.57	5.54%	[500]	µg/L
Be 313.107†	793150.7	35326.24	4.45%	[500]	µg/L
Ca 317.933Radial†	5411.6	18.66	0.34%	[5000]	µg/L
Cd 226.502†	18976.3	1051.48	5.54%	[500]	µg/L
Co 228.616†	10321.8	640.94	6.21%	[500]	µg/L
Cr 267.716†	23220.0	1777.48	7.65%	[500]	µg/L
Cu 324.752†	71119.9	4334.73	6.09%	[500]	µg/L
K 766.490 Radial†	7092.8	45.59	0.64%	[5000]	µg/L
Mg 279.077 IEC†	525.1	2.76	0.52%	[5000]	µg/L
Mn 257.610†	151829.7	6431.77	4.24%	[500]	µg/L
Mo 202.031†	4726.5	524.65	11.10%	[500]	µg/L
Ni 231.604†	9475.6	580.65	6.13%	[500]	µg/L
P 214.914†	1189.0	117.88	9.91%	[2500]	µg/L
Pb 220.353†	1925.0	169.42	8.80%	[500]	µg/L
S 181.975 Axial†	228.9	19.12	8.35%	[1000]	µg/L
Sb 206.836†	512.5	49.94	9.74%	[500]	µg/L
Se 196.026†	346.2	32.75	9.46%	[500]	µg/L
SiO2†	25528.3	1162.94	4.56%	[5347.5]	µg/L
Si 251.611†	30981.6	1409.26	4.55%	[2500]	µg/L

Sn 189.927†	1107.3	131.83	11.90%	[500]	µg/L
Sr 421.552†	49261.3	80.10	0.16%	[500]	µg/L
Ti 334.940†	210357.3	10005.59	4.76%	[500]	µg/L
Tl 190.801†	361.1	24.36	6.75%	[500]	µg/L
U 409.014†	5594.0	361.39	6.46%	[500]	µg/L
V 292.402†	47786.3	3128.37	6.55%	[500]	µg/L
Zn 213.857†	20312.1	1240.06	6.11%	[500]	µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/20/2010 21:01:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	60156.6	60156.6	102	%	21:01:46
1	Al 396.153Radial†	14096.5	13844.4	[10000]	µg/L	21:01:46
1	Ca 317.933Radial†	11567.0	11160.1	[10000]	µg/L	21:02:07
1	Fe 238.204 Radial†	1237.6	1199.3	[10000]	µg/L	21:02:07
1	K 766.490 Radial†	15035.1	14558.6	[10000]	µg/L	21:01:46
1	Mg 279.077 IEC†	1108.9	1076.3	[10000]	µg/L	21:02:07
1	Na 589.592 Radial†	32632.6	31555.2	[10000]	µg/L	21:01:46
1	Sr 421.552†	104229.5	102259.9	[1000]	µg/L	21:01:46
1	Sc 361.383	2088573.1	2088573.1	99.473	%	21:03:10
1	Y 371.029	1441916.2	1441916.2	99.068	%	21:03:10
1	Ag 328.068†	135179.9	136358.8	[1000]	µg/L	21:03:16
1	As 188.979†	579.2	582.6	[1000]	µg/L	21:03:37
1	B 249.677†	25141.1	24948.8	[1000]	µg/L	21:03:16
1	Ba 233.527†	41576.8	41815.3	[1000]	µg/L	21:03:16
1	Be 313.107†	1685742.4	1698428.1	[1000]	µg/L	21:03:10
1	Cd 226.502†	40328.7	40678.9	[1000]	µg/L	21:03:16
1	Co 228.616†	22041.9	22156.0	[1000]	µg/L	21:03:16
1	Cr 267.716†	50424.8	50739.2	[1000]	µg/L	21:03:16
1	Cu 324.752†	157161.0	155123.5	[1000]	µg/L	21:03:16
1	Mn 257.610†	319858.7	321855.1	[1000]	µg/L	21:03:16
1	Mo 202.031†	10542.0	10601.1	[1000]	µg/L	21:03:37
1	Ni 231.604†	20518.2	20318.2	[1000]	µg/L	21:03:16
1	P 214.914†	2655.9	2653.7	[5000]	µg/L	21:03:37
1	Pb 220.353†	4343.8	4272.0	[1000]	µg/L	21:03:37
1	S 181.975 Axial†	519.8	505.3	[2000]	µg/L	21:03:37
1	Sb 206.836†	1178.1	1162.2	[1000]	µg/L	21:03:37
1	Se 196.026†	767.3	756.3	[1000]	µg/L	21:03:37
1	SiO2†	55621.0	54431.1	[10695]	µg/L	21:03:16
1	Si 251.611†	65937.9	65993.6	[5000]	µg/L	21:03:16
1	Sn 189.927†	2486.5	2495.0	[1000]	µg/L	21:03:37
1	Ti 334.940†	449191.9	451429.0	[1000]	µg/L	21:03:10
1	Tl 190.801†	752.0	778.2	[1000]	µg/L	21:03:37
1	U 409.014†	12111.5	12176.4	[1000]	µg/L	21:03:16
1	V 292.402†	103704.6	104349.8	[1000]	µg/L	21:03:16
1	Zn 213.857†	43749.1	43478.8	[1000]	µg/L	21:03:16
2	Sc RADIAL	59483.2	59483.2	101	%	21:02:12
2	Al 396.153Radial†	14015.6	13920.7	[10000]	µg/L	21:02:12
2	Ca 317.933Radial†	11589.5	11310.9	[10000]	µg/L	21:02:33
2	Fe 238.204 Radial†	1247.6	1223.0	[10000]	µg/L	21:02:33
2	K 766.490 Radial†	15007.8	14698.5	[10000]	µg/L	21:02:12
2	Mg 279.077 IEC†	1115.7	1095.4	[10000]	µg/L	21:02:33
2	Na 589.592 Radial†	32442.9	31729.5	[10000]	µg/L	21:02:12
2	Sr 421.552†	103196.7	102392.9	[1000]	µg/L	21:02:12
2	Sc 361.383	2076936.3	2076936.3	98.919	%	21:03:44
2	Y 371.029	1433096.3	1433096.3	98.462	%	21:03:44
2	Ag 328.068†	135646.8	137592.3	[1000]	µg/L	21:03:49
2	As 188.979†	580.7	587.4	[1000]	µg/L	21:04:10
2	B 249.677†	25220.2	25170.4	[1000]	µg/L	21:03:49
2	Ba 233.527†	41800.5	42275.7	[1000]	µg/L	21:03:49
2	Be 313.107†	1674002.4	1696054.8	[1000]	µg/L	21:03:44
2	Cd 226.502†	40550.0	41129.7	[1000]	µg/L	21:03:49
2	Co 228.616†	22185.4	22425.3	[1000]	µg/L	21:03:49
2	Cr 267.716†	50687.7	51289.0	[1000]	µg/L	21:03:49
2	Cu 324.752†	157816.1	156671.0	[1000]	µg/L	21:03:49
2	Mn 257.610†	320975.4	324785.6	[1000]	µg/L	21:03:49
2	Mo 202.031†	10422.5	10539.8	[1000]	µg/L	21:04:10
2	Ni 231.604†	20570.4	20486.6	[1000]	µg/L	21:03:49
2	P 214.914†	2634.0	2646.5	[5000]	µg/L	21:04:10
2	Pb 220.353†	4295.5	4247.7	[1000]	µg/L	21:04:10

2	S 181.975 Axial†	519.1	507.5	[2000]	µg/L	21:04:10
2	Sb 206.836†	1162.4	1153.0	[1000]	µg/L	21:04:10
2	Se 196.026†	774.3	767.8	[1000]	µg/L	21:04:10
2	SiO2†	55947.2	55074.2	[10695]	µg/L	21:03:49
2	Si 251.611†	66408.5	66840.7	[5000]	µg/L	21:03:49
2	Sn 189.927†	2453.5	2475.6	[1000]	µg/L	21:04:10
2	Ti 334.940†	446354.9	451091.1	[1000]	µg/L	21:03:44
2	Tl 190.801†	749.5	779.9	[1000]	µg/L	21:04:10
2	U 409.014†	12159.8	12293.4	[1000]	µg/L	21:03:49
2	V 292.402†	104178.5	105413.0	[1000]	µg/L	21:03:49
2	Zn 213.857†	43897.6	43875.3	[1000]	µg/L	21:03:49
3	Sc RADIAL	60224.9	60224.9	102	%	21:02:38
3	Al 396.153Radial†	14209.8	13939.8	[10000]	µg/L	21:02:38
3	Ca 317.933Radial†	11532.6	11113.4	[10000]	µg/L	21:02:59
3	Fe 238.204 Radial†	1240.6	1200.9	[10000]	µg/L	21:02:59
3	K 766.490 Radial†	15145.7	14650.3	[10000]	µg/L	21:02:38
3	Mg 279.077 IEC†	1110.7	1076.8	[10000]	µg/L	21:02:59
3	Na 589.592 Radial†	32889.7	31770.9	[10000]	µg/L	21:02:38
3	Sr 421.552†	104952.1	102852.3	[1000]	µg/L	21:02:38
3	Sc 361.383	2086636.2	2086636.2	99.381	%	21:04:17
3	Y 371.029	1440282.4	1440282.4	98.955	%	21:04:17
3	Ag 328.068†	131729.1	133012.8	[1000]	µg/L	21:04:23
3	As 188.979†	516.9	520.4	[1000]	µg/L	21:04:43
3	B 249.677†	24365.3	24191.6	[1000]	µg/L	21:04:23
3	Ba 233.527†	39525.4	39790.0	[1000]	µg/L	21:04:23
3	Be 313.107†	1611957.3	1625756.5	[1000]	µg/L	21:04:17
3	Cd 226.502†	38378.8	38754.4	[1000]	µg/L	21:04:23
3	Co 228.616†	20799.7	20926.7	[1000]	µg/L	21:04:23
3	Cr 267.716†	46683.3	47021.4	[1000]	µg/L	21:04:23
3	Cu 324.752†	148756.8	146813.6	[1000]	µg/L	21:04:23
3	Mn 257.610†	301499.5	303680.0	[1000]	µg/L	21:04:23
3	Mo 202.031†	9131.4	9191.6	[1000]	µg/L	21:04:43
3	Ni 231.604†	19364.3	19176.2	[1000]	µg/L	21:04:23
3	P 214.914†	2348.3	2346.7	[5000]	µg/L	21:04:43
3	Pb 220.353†	3904.7	3834.3	[1000]	µg/L	21:04:43
3	S 181.975 Axial†	468.4	454.0	[2000]	µg/L	21:04:43
3	Sb 206.836†	1038.9	1023.2	[1000]	µg/L	21:04:43
3	Se 196.026†	703.1	692.5	[1000]	µg/L	21:04:43
3	SiO2†	53682.7	52532.6	[10695]	µg/L	21:04:23
3	Si 251.611†	63568.9	63671.4	[5000]	µg/L	21:04:23
3	Sn 189.927†	2128.2	2136.7	[1000]	µg/L	21:04:43
3	Ti 334.940†	428580.9	431108.8	[1000]	µg/L	21:04:17
3	Tl 190.801†	679.5	705.9	[1000]	µg/L	21:04:43
3	U 409.014†	11258.4	11329.3	[1000]	µg/L	21:04:23
3	V 292.402†	96976.6	97676.7	[1000]	µg/L	21:04:23
3	Zn 213.857†	41296.0	41051.3	[1000]	µg/L	21:04:23

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2084048.5	6235.06	0.30%	99.258	%
Sc RADIAL	59954.9	409.94	0.68%	102	%
Y 371.029	1438431.6	4692.20	0.33%	98.828	%
Ag 328.068†	135654.6	2369.59	1.75%	[1000]	µg/L
Al 396.153Radial†	13901.6	50.49	0.36%	[10000]	µg/L
As 188.979†	563.4	37.36	6.63%	[1000]	µg/L
B 249.677†	24770.2	513.22	2.07%	[1000]	µg/L
Ba 233.527†	41293.7	1322.42	3.20%	[1000]	µg/L
Be 313.107†	1673413.1	41288.92	2.47%	[1000]	µg/L
Ca 317.933Radial†	11194.8	103.22	0.92%	[10000]	µg/L
Cd 226.502†	40187.7	1261.54	3.14%	[1000]	µg/L
Co 228.616†	21836.0	798.93	3.66%	[1000]	µg/L
Cr 267.716†	49683.2	2321.51	4.67%	[1000]	µg/L
Cu 324.752†	152869.4	5301.19	3.47%	[1000]	µg/L
Fe 238.204 Radial†	1207.7	13.26	1.10%	[10000]	µg/L
K 766.490 Radial†	14635.8	71.07	0.49%	[10000]	µg/L
Mg 279.077 IEC†	1082.8	10.87	1.00%	[10000]	µg/L
Mn 257.610†	316773.6	11433.63	3.61%	[1000]	µg/L
Mo 202.031†	10110.8	796.66	7.88%	[1000]	µg/L
Na 589.592 Radial†	31685.2	114.46	0.36%	[10000]	µg/L

Ni 231.604†	19993.7	712.91	3.57%	[1000]	µg/L
P 214.914†	2549.0	175.19	6.87%	[5000]	µg/L
Pb 220.353†	4118.0	246.02	5.97%	[1000]	µg/L
S 181.975 Axial†	488.9	30.24	6.18%	[2000]	µg/L
Sb 206.836†	1112.8	77.72	6.98%	[1000]	µg/L
Se 196.026†	738.9	40.56	5.49%	[1000]	µg/L
SiO2†	54012.7	1321.46	2.45%	[10695]	µg/L
Si 251.611†	65501.9	1640.90	2.51%	[5000]	µg/L
Sn 189.927†	2369.1	201.49	8.50%	[1000]	µg/L
Sr 421.552†	102501.7	310.79	0.30%	[1000]	µg/L
Ti 334.940†	444542.9	11635.57	2.62%	[1000]	µg/L
Tl 190.801†	754.7	42.24	5.60%	[1000]	µg/L
U 409.014†	11933.0	526.12	4.41%	[1000]	µg/L
V 292.402†	102479.8	4193.48	4.09%	[1000]	µg/L
Zn 213.857†	42801.8	1528.90	3.57%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/20/2010 21:04:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59919.1	59919.1	101	%	21:05:25
1	Al 396.153Radial†	67636.3	66656.8	[50000]	µg/L	21:05:25
1	Ca 317.933Radial†	55352.9	54351.2	[50000]	µg/L	21:05:25
1	Fe 238.204 Radial†	2357.4	2307.6	[20000]	µg/L	21:05:45
1	Mg 279.077 IEC†	5199.4	5111.3	[50000]	µg/L	21:05:45
1	Na 589.592 Radial†	61841.3	60464.1	[20000]	µg/L	21:05:25
1	Sc 361.383	2083386.2	2083386.2	99.226	%	21:06:49
1	Y 371.029	1430016.9	1430016.9	98.250	%	21:06:49
2	Sc RADIAL	59375.6	59375.6	101	%	21:05:51
2	Al 396.153Radial†	67037.3	66671.2	[50000]	µg/L	21:05:51
2	Ca 317.933Radial†	54848.8	54349.2	[50000]	µg/L	21:05:51
2	Fe 238.204 Radial†	2348.8	2320.3	[20000]	µg/L	21:06:11
2	Mg 279.077 IEC†	5193.5	5152.4	[50000]	µg/L	21:06:11
2	Na 589.592 Radial†	61435.9	60618.8	[20000]	µg/L	21:05:51
2	Sc 361.383	2076508.3	2076508.3	98.899	%	21:06:57
2	Y 371.029	1426990.7	1426990.7	98.042	%	21:06:57
3	Sc RADIAL	59694.5	59694.5	101	%	21:06:17
3	Al 396.153Radial†	67735.8	67006.1	[50000]	µg/L	21:06:17
3	Ca 317.933Radial†	55463.3	54665.7	[50000]	µg/L	21:06:17
3	Fe 238.204 Radial†	2338.4	2297.5	[20000]	µg/L	21:06:37
3	Mg 279.077 IEC†	5179.3	5110.8	[50000]	µg/L	21:06:37
3	Na 589.592 Radial†	61946.4	60797.3	[20000]	µg/L	21:06:17
3	Sc 361.383	2085817.8	2085817.8	99.342	%	21:07:05
3	Y 371.029	1433003.8	1433003.8	98.455	%	21:07:05

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2081904.1	4828.46	0.23%	99.156	%
Sc RADIAL	59663.1	273.11	0.46%	101	%
Y 371.029	1430003.8	3006.55	0.21%	98.249	%
Al 396.153Radial†	66778.0	197.64	0.30%	[50000]	µg/L
Ca 317.933Radial†	54455.4	182.14	0.33%	[50000]	µg/L
Fe 238.204 Radial†	2308.5	11.43	0.49%	[20000]	µg/L
Mg 279.077 IEC†	5124.8	23.86	0.47%	[50000]	µg/L
Na 589.592 Radial†	60626.7	166.76	0.28%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	134.1	0.00000	0.999722	
Al 396.153Radial	3	Lin Thru 0	0.0	1.338	0.00000	0.999969	
As 188.979	3	Lin Thru 0	0.0	0.5555	0.00000	0.999594	
B 249.677	3	Lin Thru 0	0.0	24.44	0.00000	0.999658	
Ba 233.527	3	Lin Thru 0	0.0	40.81	0.00000	0.999721	
Be 313.107	3	Lin Thru 0	0.0	1656	0.00000	0.999779	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.090	0.00000	0.999986	
Cd 226.502	3	Lin Thru 0	0.0	39.74	0.00000	0.999749	
Co 228.616	3	Lin Thru 0	0.0	21.60	0.00000	0.999758	
Cr 267.716	3	Lin Thru 0	0.0	49.03	0.00000	0.999653	
Cu 324.752	3	Lin Thru 0	0.0	150.8	0.00000	0.999606	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1165	0.00000	0.999831	
K 766.490 Radial	3	Lin Thru 0	0.0	1.454	0.00000	0.999922	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1027	0.00000	0.999940	
Mn 257.610	3	Lin Thru 0	0.0	314.2	0.00000	0.999862	
Mo 202.031	3	Lin Thru 0	0.0	9.980	0.00000	0.999655	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.059	0.00000	0.999839	

Ni 231.604	3	Lin Thru 0	0.0	19.79	0.00000	0.999779
P 214.914	3	Lin Thru 0	0.0	0.5030	0.00000	0.999633
Pb 220.353	3	Lin Thru 0	0.0	4.064	0.00000	0.999655
S 181.975 Axial	3	Lin Thru 0	0.0	0.2412	0.00000	0.999657
Sb 206.836	3	Lin Thru 0	0.0	1.095	0.00000	0.999490
Se 196.026	3	Lin Thru 0	0.0	0.7300	0.00000	0.999665
SiO2	3	Lin Thru 0	0.0	4.994	0.00000	0.999753
Si 251.611	3	Lin Thru 0	0.0	12.96	0.00000	0.999761
Sn 189.927	3	Lin Thru 0	0.0	2.338	0.00000	0.999653
Sr 421.552	3	Lin Thru 0	0.0	101.7	0.00000	0.999873
Ti 334.940	3	Lin Thru 0	0.0	439.7	0.00000	0.999764
Tl 190.801	3	Lin Thru 0	0.0	0.7481	0.00000	0.999851
U 409.014	3	Lin Thru 0	0.0	11.78	0.00000	0.999683
V 292.402	3	Lin Thru 0	0.0	101.1	0.00000	0.999629
Zn 213.857	3	Lin Thru 0	0.0	42.37	0.00000	0.999790

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/20/2010 21:07:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59298.2	59298.2	100	%			21:07:47
1	Al 396.153Radial†	6742.2	6722.0	5014.4	µg/L	5014.4	ppb	21:07:47
1	Ca 317.933Radial†	5609.2	5392.1	4946.0	µg/L	4946.0	ppb	21:08:08
1	Fe 238.204 Radial†	610.2	592.2	5093.8	µg/L	5093.8	ppb	21:08:08
1	K 766.490 Radial†	3647.7	3433.7	2361.1	µg/L	2361.1	ppb	21:07:47
1	Mg 279.077 IEC†	537.6	523.2	5095.7	µg/L	5095.7	ppb	21:08:08
1	Na 589.592 Radial†	8072.8	7564.4	2473.0	µg/L	2473.0	ppb	21:07:47
1	Sr 421.552†	51335.1	51073.4	502.32	µg/L	502.32	ppb	21:07:47
1	Sc 361.383	2093410.3	2093410.3	99.704	%			21:09:11
1	Y 371.029	1444904.7	1444904.7	99.273	%			21:09:11
1	Ag 328.068†	32149.4	32708.1	247.53	µg/L	247.53	ppb	21:09:17
1	As 188.979†	267.3	268.4	482.08	µg/L	482.08	ppb	21:09:37
1	B 249.677†	12545.6	12257.4	499.56	µg/L	499.56	ppb	21:09:17
1	Ba 233.527†	20210.0	20288.4	498.06	µg/L	498.06	ppb	21:09:17
1	Be 313.107†	410657.7	415637.3	250.84	µg/L	250.84	ppb	21:09:11
1	Cd 226.502†	19282.1	19476.0	489.99	µg/L	489.99	ppb	21:09:17
1	Co 228.616†	10782.3	10811.8	500.12	µg/L	500.12	ppb	21:09:17
1	Cr 267.716†	23531.4	23648.8	482.60	µg/L	482.60	ppb	21:09:17
1	Cu 324.752†	77386.4	74746.7	496.54	µg/L	496.54	ppb	21:09:17
1	Mn 257.610†	155171.3	155935.1	496.84	µg/L	496.84	ppb	21:09:11
1	Mo 202.031†	5279.5	5298.5	531.08	µg/L	531.08	ppb	21:09:37
1	Ni 231.604†	9881.0	9601.7	484.73	µg/L	484.73	ppb	21:09:17
1	P 214.914†	1282.8	1270.4	2478.8	µg/L	2478.8	ppb	21:09:37
1	Pb 220.353†	2131.1	2042.7	502.90	µg/L	502.90	ppb	21:09:37
1	S 181.975 Axial†	604.4	588.9	2441.3	µg/L	2441.3	ppb	21:09:37
1	Sb 206.836†	547.4	526.9	483.83	µg/L	483.83	ppb	21:09:37
1	Se 196.026†	1866.4	1856.9	2551.9	µg/L	2551.9	ppb	21:09:37
1	SiO2†	52341.1	51012.3	10215	µg/L	10215	ppb	21:09:17
1	Si 251.611†	61706.4	61596.3	4754.2	µg/L	4754.2	ppb	21:09:17
1	Sn 189.927†	1246.3	1245.3	532.55	µg/L	532.55	ppb	21:09:37
1	Ti 334.940†	208718.0	209196.8	475.47	µg/L	475.47	ppb	21:09:11
1	Tl 190.801†	355.4	378.7	511.90	µg/L	511.90	ppb	21:09:37
1	U 409.014†	5449.2	5466.1	462.86	µg/L	462.86	ppb	21:09:17
1	V 292.402†	49021.9	49263.7	493.60	µg/L	493.60	ppb	21:09:17
1	Zn 213.857†	21386.8	20948.4	490.93	µg/L	490.93	ppb	21:09:17
2	Sc RADIAL	58520.2	58520.2	99.1	%			21:08:13
2	Al 396.153Radial†	6708.2	6776.9	5055.6	µg/L	5055.6	ppb	21:08:13
2	Ca 317.933Radial†	5585.4	5442.4	4992.1	µg/L	4992.1	ppb	21:08:34
2	Fe 238.204 Radial†	606.9	596.9	5134.9	µg/L	5134.9	ppb	21:08:34
2	K 766.490 Radial†	3713.9	3548.7	2440.2	µg/L	2440.2	ppb	21:08:13
2	Mg 279.077 IEC†	536.0	528.7	5148.9	µg/L	5148.9	ppb	21:08:34
2	Na 589.592 Radial†	8041.1	7639.3	2497.5	µg/L	2497.5	ppb	21:08:13
2	Sr 421.552†	50922.5	51336.7	504.91	µg/L	504.91	ppb	21:08:13
2	Sc 361.383	2092537.1	2092537.1	99.662	%			21:09:44
2	Y 371.029	1445744.5	1445744.5	99.331	%			21:09:44
2	Ag 328.068†	32120.3	32692.3	247.42	µg/L	247.42	ppb	21:09:50
2	As 188.979†	260.5	261.7	470.04	µg/L	470.04	ppb	21:10:10
2	B 249.677†	12595.0	12312.2	501.78	µg/L	501.78	ppb	21:09:50
2	Ba 233.527†	20197.1	20283.9	497.95	µg/L	497.95	ppb	21:09:50
2	Be 313.107†	410209.2	415359.2	250.67	µg/L	250.67	ppb	21:09:44
2	Cd 226.502†	19361.4	19563.7	492.19	µg/L	492.19	ppb	21:09:50
2	Co 228.616†	10832.8	10867.0	502.67	µg/L	502.67	ppb	21:09:50
2	Cr 267.716†	23645.5	23773.1	485.14	µg/L	485.14	ppb	21:09:50
2	Cu 324.752†	77350.7	74743.3	496.52	µg/L	496.52	ppb	21:09:50
2	Mn 257.610†	154859.2	155686.9	496.05	µg/L	496.05	ppb	21:09:44
2	Mo 202.031†	5189.9	5210.9	522.30	µg/L	522.30	ppb	21:10:10
2	Ni 231.604†	9855.9	9580.7	483.67	µg/L	483.67	ppb	21:09:50
2	P 214.914†	1266.5	1254.6	2447.1	µg/L	2447.1	ppb	21:10:10
2	Pb 220.353†	2092.1	2004.4	493.46	µg/L	493.46	ppb	21:10:10

2	S 181.975 Axial†	602.7	587.5	2435.3 µg/L	2435.3 ppb	21:10:10
2	Sb 206.836†	541.9	521.7	478.88 µg/L	478.88 ppb	21:10:10
2	Se 196.026†	1842.6	1833.9	2520.3 µg/L	2520.3 ppb	21:10:10
2	SiO2†	52485.3	51178.9	10249 µg/L	10249 ppb	21:09:50
2	Si 251.611†	61901.1	61817.5	4771.3 µg/L	4771.3 ppb	21:09:50
2	Sn 189.927†	1223.9	1223.3	523.17 µg/L	523.17 ppb	21:10:10
2	Ti 334.940†	208285.0	208849.7	474.68 µg/L	474.68 ppb	21:09:44
2	Tl 190.801†	366.2	389.6	526.51 µg/L	526.51 ppb	21:10:10
2	U 409.014†	5476.2	5495.5	465.35 µg/L	465.35 ppb	21:09:50
2	V 292.402†	49179.3	49442.1	495.31 µg/L	495.31 ppb	21:09:50
2	Zn 213.857†	21439.3	21010.1	492.38 µg/L	492.38 ppb	21:09:50
3	Sc RADIAL	59096.0	59096.0	100 %		21:08:39
3	Al 396.153Radial†	6747.8	6750.6	5037.7 µg/L	5037.7 ppb	21:08:39
3	Ca 317.933Radial†	5596.7	5398.8	4952.1 µg/L	4952.1 ppb	21:08:59
3	Fe 238.204 Radial†	606.6	590.7	5080.1 µg/L	5080.1 ppb	21:08:59
3	K 766.490 Radial†	3696.9	3495.2	2403.4 µg/L	2403.4 ppb	21:08:39
3	Mg 279.077 IEC†	535.3	522.7	5089.9 µg/L	5089.9 ppb	21:08:59
3	Na 589.592 Radial†	8071.9	7591.0	2481.7 µg/L	2481.7 ppb	21:08:39
3	Sr 421.552†	51459.2	51372.3	505.26 µg/L	505.26 ppb	21:08:39
3	Sc 361.383	2094405.8	2094405.8	99.751 %		21:10:18
3	Y 371.029	1447263.1	1447263.1	99.435 %		21:10:18
3	Ag 328.068†	30096.5	30634.8	231.71 µg/L	231.71 ppb	21:10:23
3	As 188.979†	226.6	227.4	408.55 µg/L	408.55 ppb	21:10:44
3	B 249.677†	11723.3	11427.1	465.50 µg/L	465.50 ppb	21:10:23
3	Ba 233.527†	18382.6	18446.8	452.83 µg/L	452.83 ppb	21:10:23
3	Be 313.107†	380739.4	385448.5	232.62 µg/L	232.62 ppb	21:10:18
3	Cd 226.502†	17489.2	17669.5	444.48 µg/L	444.48 ppb	21:10:23
3	Co 228.616†	9671.7	9693.2	448.32 µg/L	448.32 ppb	21:10:23
3	Cr 267.716†	20510.3	20608.9	420.57 µg/L	420.57 ppb	21:10:23
3	Cu 324.752†	69854.0	67158.6	446.20 µg/L	446.20 ppb	21:10:23
3	Mn 257.610†	144167.2	144829.6	461.49 µg/L	461.49 ppb	21:10:18
3	Mo 202.031†	4313.1	4327.2	433.76 µg/L	433.76 ppb	21:10:44
3	Ni 231.604†	8882.5	8596.0	433.97 µg/L	433.97 ppb	21:10:23
3	P 214.914†	1071.9	1058.4	2061.0 µg/L	2061.0 ppb	21:10:44
3	Pb 220.353†	1818.3	1728.0	425.34 µg/L	425.34 ppb	21:10:44
3	S 181.975 Axial†	531.7	515.7	2137.7 µg/L	2137.7 ppb	21:10:44
3	Sb 206.836†	466.9	445.9	409.02 µg/L	409.02 ppb	21:10:44
3	Se 196.026†	1609.6	1598.6	2197.9 µg/L	2197.9 ppb	21:10:44
3	SiO2†	48374.9	47011.3	9414.0 µg/L	9414.0 ppb	21:10:23
3	Si 251.611†	57002.4	56851.1	4388.0 µg/L	4388.0 ppb	21:10:23
3	Sn 189.927†	1010.2	1008.0	431.08 µg/L	431.08 ppb	21:10:44
3	Ti 334.940†	192169.6	192507.6	437.51 µg/L	437.51 ppb	21:10:18
3	Tl 190.801†	325.3	348.3	470.89 µg/L	470.89 ppb	21:10:44
3	U 409.014†	4809.6	4822.4	408.23 µg/L	408.23 ppb	21:10:23
3	V 292.402†	43652.8	43857.8	439.18 µg/L	439.18 ppb	21:10:23
3	Zn 213.857†	19288.3	18834.5	441.35 µg/L	441.35 ppb	21:10:23

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2093451.0	99.706	%	0.0445				0.04%
Sc RADIAL	58971.5	99.9	%	0.68				0.68%
Y 371.029	1445970.8	99.346	%	0.0821				0.08%
Ag 328.068†	32011.7	242.22	µg/L	9.104	242.22	ppb	9.104	3.76%
QC value within limits for Ag 328.068 Recovery = 96.89%								
Al 396.153Radial†	6749.8	5035.9	µg/L	20.68	5035.9	ppb	20.68	0.41%
QC value within limits for Al 396.153Radial Recovery = 100.72%								
As 188.979†	252.5	453.56	µg/L	39.442	453.56	ppb	39.442	8.70%
QC value within limits for As 188.979 Recovery = 90.71%								
B 249.677†	11998.9	488.95	µg/L	20.337	488.95	ppb	20.337	4.16%
QC value within limits for B 249.677 Recovery = 97.79%								
Ba 233.527†	19673.0	482.95	µg/L	26.080	482.95	ppb	26.080	5.40%
QC value within limits for Ba 233.527 Recovery = 96.59%								
Be 313.107†	405481.7	244.71	µg/L	10.470	244.71	ppb	10.470	4.28%
QC value within limits for Be 313.107 Recovery = 97.88%								
Ca 317.933Radial†	5411.1	4963.4	µg/L	25.04	4963.4	ppb	25.04	0.50%
QC value within limits for Ca 317.933Radial Recovery = 99.27%								
Cd 226.502†	18903.1	475.55	µg/L	26.932	475.55	ppb	26.932	5.66%
QC value within limits for Cd 226.502 Recovery = 95.11%								
Co 228.616†	10457.3	483.70	µg/L	30.670	483.70	ppb	30.670	6.34%

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   QC value within limits for Co 228.616  Recovery = 96.74%
Cr 267.716†            22676.9      462.77 µg/L        36.566      462.77 ppb         36.566   7.90%
   QC value within limits for Cr 267.716  Recovery = 92.55%
Cu 324.752†            72216.2      479.75 µg/L        29.057      479.75 ppb         29.057   6.06%
   QC value within limits for Cu 324.752  Recovery = 95.95%
Fe 238.204 Radial†       593.3      5102.9 µg/L         28.53      5102.9 ppb          28.53   0.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.06%
K 766.490 Radial†       3492.6      2401.5 µg/L         39.58      2401.5 ppb          39.58   1.65%
   QC value within limits for K 766.490 Radial  Recovery = 96.06%
Mg 279.077 IEC†          524.9      5111.5 µg/L         32.52      5111.5 ppb          32.52   0.64%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.23%
Mn 257.610†           152150.5      484.79 µg/L        20.187      484.79 ppb         20.187   4.16%
   QC value within limits for Mn 257.610  Recovery = 96.96%
Mo 202.031†            4945.5      495.71 µg/L        53.833      495.71 ppb         53.833  10.86%
   QC value within limits for Mo 202.031  Recovery = 99.14%
Na 589.592 Radial†      7598.3      2484.1 µg/L         12.42      2484.1 ppb          12.42   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 99.36%
Ni 231.604†            9259.5      467.46 µg/L        29.007      467.46 ppb         29.007   6.21%
   QC value within limits for Ni 231.604  Recovery = 93.49%
P 214.914†             1194.5      2329.0 µg/L        232.60      2329.0 ppb         232.60   9.99%
   QC value within limits for P 214.914  Recovery = 93.16%
Pb 220.353†            1925.0      473.90 µg/L        42.315      473.90 ppb         42.315   8.93%
   QC value within limits for Pb 220.353  Recovery = 94.78%
S 181.975 Axial†        564.0      2338.1 µg/L        173.55      2338.1 ppb         173.55   7.42%
   QC value within limits for S 181.975 Axial  Recovery = 93.52%
Sb 206.836†             498.2      457.24 µg/L        41.837      457.24 ppb         41.837   9.15%
   QC value within limits for Sb 206.836  Recovery = 91.45%
Se 196.026†            1763.1      2423.4 µg/L        195.88      2423.4 ppb         195.88   8.08%
   QC value within limits for Se 196.026  Recovery = 96.94%
SiO2†                 49734.2      9959.3 µg/L        472.51      9959.3 ppb         472.51   4.74%
   QC value within limits for SiO2  Recovery = 93.12%
Si 251.611†           60088.3      4637.8 µg/L        216.55      4637.8 ppb         216.55   4.67%
   QC value within limits for Si 251.611  Recovery = 92.76%
Sn 189.927†            1158.9      495.60 µg/L        56.074      495.60 ppb         56.074  11.31%
   QC value within limits for Sn 189.927  Recovery = 99.12%
Sr 421.552†           51260.8      504.16 µg/L         1.605      504.16 ppb          1.605   0.32%
   QC value within limits for Sr 421.552  Recovery = 100.83%
Ti 334.940†          203518.0      462.56 µg/L        21.689      462.56 ppb         21.689   4.69%
   QC value within limits for Ti 334.940  Recovery = 92.51%
Tl 190.801†             372.2      503.10 µg/L        28.835      503.10 ppb         28.835   5.73%
   QC value within limits for Tl 190.801  Recovery = 100.62%
U 409.014†             5261.3      445.48 µg/L        32.282      445.48 ppb         32.282   7.25%
   QC value less than the lower limit for U 409.014  Recovery = 89.10%
V 292.402†            47521.2      476.03 µg/L        31.929      476.03 ppb         31.929   6.71%
   QC value within limits for V 292.402  Recovery = 95.21%
Zn 213.857†           20264.3      474.89 µg/L        29.056      474.89 ppb         29.056   6.12%
   QC value within limits for Zn 213.857  Recovery = 94.98%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/20/2010 21:10:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58564.9	58564.9	99.2	%			21:11:26
1	Al 396.153Radial†	-6.1	2.5	1.8721	µg/L	1.8721	ppb	21:11:26
1	Ca 317.933Radial†	199.2	7.8	7.1783	µg/L	7.1783	ppb	21:11:47
1	Fe 238.204 Radial†	17.4	2.1	18.159	µg/L	18.159	ppb	21:11:47
1	K 766.490 Radial†	203.0	6.2	4.2821	µg/L	4.2821	ppb	21:11:26
1	Mg 279.077 IEC†	7.5	-4.6	-44.441	µg/L	-44.441	ppb	21:11:47
1	Na 589.592 Radial†	519.5	50.0	16.342	µg/L	16.342	ppb	21:11:26
1	Sr 421.552†	55.6	14.7	0.1441	µg/L	0.1441	ppb	21:11:26
1	Sc 361.383	2085452.9	2085452.9	99.325	%			21:12:48
1	Y 371.029	1444872.9	1444872.9	99.271	%			21:12:48
1	Ag 328.068†	-369.2	91.4	0.6816	µg/L	0.6816	ppb	21:12:54
1	As 188.979†	3.0	3.3	6.0043	µg/L	6.0043	ppb	21:13:15
1	B 249.677†	395.3	72.5	2.9550	µg/L	2.9550	ppb	21:13:15
1	Ba 233.527†	-4.0	14.3	0.3502	µg/L	0.3502	ppb	21:13:15
1	Be 313.107†	-3487.7	247.5	0.1493	µg/L	0.1493	ppb	21:12:54
1	Cd 226.502†	-128.3	7.4	0.1844	µg/L	0.1844	ppb	21:13:15
1	Co 228.616†	5.6	3.1	0.1421	µg/L	0.1421	ppb	21:13:15
1	Cr 267.716†	-37.4	9.7	0.1985	µg/L	0.1985	ppb	21:12:54
1	Cu 324.752†	2887.5	37.4	0.2505	µg/L	0.2505	ppb	21:12:54
1	Mn 257.610†	-248.0	52.8	0.1724	µg/L	0.1724	ppb	21:13:15
1	Mo 202.031†	6.8	10.2	1.0191	µg/L	1.0191	ppb	21:13:15
1	Ni 231.604†	312.7	6.2	0.3110	µg/L	0.3110	ppb	21:13:15
1	P 214.914†	1.1	-15.2	-30.169	µg/L	-30.169	ppb	21:13:15
1	Pb 220.353†	95.1	1.0	0.2452	µg/L	0.2452	ppb	21:13:15
1	S 181.975 Axial†	16.9	-0.3	-1.2677	µg/L	-1.2677	ppb	21:13:15
1	Sb 206.836†	21.3	-0.7	-0.6239	µg/L	-0.6239	ppb	21:13:15
1	Se 196.026†	12.1	-2.8	-3.7521	µg/L	-3.7521	ppb	21:13:15
1	SiO2†	1508.7	34.5	6.9110	µg/L	6.9110	ppb	21:12:54
1	Si 251.611†	341.0	49.8	3.8443	µg/L	3.8443	ppb	21:13:15
1	Sn 189.927†	3.8	-0.9	-0.3913	µg/L	-0.3913	ppb	21:13:15
1	Ti 334.940†	281.1	141.4	0.3252	µg/L	0.3252	ppb	21:12:54
1	Tl 190.801†	-21.8	0.2	0.3385	µg/L	0.3385	ppb	21:13:15
1	U 409.014†	19.5	20.4	1.7315	µg/L	1.7315	ppb	21:12:54
1	V 292.402†	-116.7	-21.5	-0.2000	µg/L	-0.2000	ppb	21:12:54
1	Zn 213.857†	524.7	26.3	0.6208	µg/L	0.6208	ppb	21:13:15
2	Sc RADIAL	58481.1	58481.1	99.0	%			21:11:52
2	Al 396.153Radial†	-24.1	-15.6	-11.699	µg/L	-11.699	ppb	21:11:52
2	Ca 317.933Radial†	197.0	5.9	5.4176	µg/L	5.4176	ppb	21:12:12
2	Fe 238.204 Radial†	14.7	-0.6	-4.7257	µg/L	-4.7257	ppb	21:12:12
2	K 766.490 Radial†	178.6	-18.0	-12.399	µg/L	-12.399	ppb	21:11:52
2	Mg 279.077 IEC†	12.4	0.5	4.6624	µg/L	4.6624	ppb	21:12:12
2	Na 589.592 Radial†	494.5	25.5	8.3432	µg/L	8.3432	ppb	21:11:52
2	Sr 421.552†	30.4	-10.7	-0.1050	µg/L	-0.1050	ppb	21:11:52
2	Sc 361.383	2081054.4	2081054.4	99.115	%			21:13:21
2	Y 371.029	1441674.9	1441674.9	99.051	%			21:13:21
2	Ag 328.068†	-383.8	75.9	0.5684	µg/L	0.5684	ppb	21:13:26
2	As 188.979†	4.6	5.0	8.9367	µg/L	8.9367	ppb	21:13:47
2	B 249.677†	377.6	55.4	2.2708	µg/L	2.2708	ppb	21:13:47
2	Ba 233.527†	-14.7	3.5	0.0865	µg/L	0.0865	ppb	21:13:47
2	Be 313.107†	-3395.4	333.2	0.2011	µg/L	0.2011	ppb	21:13:26
2	Cd 226.502†	-146.1	-10.8	-0.2704	µg/L	-0.2704	ppb	21:13:47
2	Co 228.616†	14.9	12.4	0.5763	µg/L	0.5763	ppb	21:13:47
2	Cr 267.716†	-38.0	9.1	0.1857	µg/L	0.1857	ppb	21:13:26
2	Cu 324.752†	2936.4	92.9	0.6156	µg/L	0.6156	ppb	21:13:26
2	Mn 257.610†	-256.0	44.3	0.1401	µg/L	0.1401	ppb	21:13:47
2	Mo 202.031†	2.5	5.8	0.5834	µg/L	0.5834	ppb	21:13:47
2	Ni 231.604†	315.1	9.3	0.4672	µg/L	0.4672	ppb	21:13:47
2	P 214.914†	17.3	1.2	2.3923	µg/L	2.3923	ppb	21:13:47
2	Pb 220.353†	90.5	-3.5	-0.8520	µg/L	-0.8520	ppb	21:13:47

2	S 181.975 Axial†	20.2	3.1	12.918 µg/L	12.918 ppb		21:13:47
2	Sb 206.836†	23.6	1.7	1.5439 µg/L	1.5439 ppb		21:13:47
2	Se 196.026†	13.3	-1.6	-2.1637 µg/L	-2.1637 ppb		21:13:47
2	SiO2†	1438.6	-32.9	-6.5928 µg/L	-6.5928 ppb		21:13:26
2	Si 251.611†	330.0	39.4	3.0397 µg/L	3.0397 ppb		21:13:47
2	Sn 189.927†	2.0	-2.7	-1.1480 µg/L	-1.1480 ppb		21:13:47
2	Ti 334.940†	279.5	140.3	0.3189 µg/L	0.3189 ppb		21:13:26
2	Tl 190.801†	-29.6	-7.7	-10.244 µg/L	-10.244 ppb		21:13:47
2	U 409.014†	-34.5	-34.1	-2.8921 µg/L	-2.8921 ppb		21:13:26
2	V 292.402†	-60.5	35.0	0.3474 µg/L	0.3474 ppb		21:13:26
2	Zn 213.857†	528.7	31.5	0.7408 µg/L	0.7408 ppb		21:13:47
3	Sc RADIAL	58246.0	58246.0	98.6 %			21:12:18
3	Al 396.153Radial†	-18.3	-9.9	-7.3904 µg/L	-7.3904 ppb		21:12:18
3	Ca 317.933Radial†	194.4	4.1	3.7831 µg/L	3.7831 ppb		21:12:38
3	Fe 238.204 Radial†	16.3	1.1	9.6301 µg/L	9.6301 ppb		21:12:38
3	K 766.490 Radial†	228.7	33.5	23.010 µg/L	23.010 ppb		21:12:18
3	Mg 279.077 IEC†	15.5	3.6	34.925 µg/L	34.925 ppb		21:12:38
3	Na 589.592 Radial†	490.9	23.9	7.8279 µg/L	7.8279 ppb		21:12:18
3	Sr 421.552†	30.7	-10.2	-0.1003 µg/L	-0.1003 ppb		21:12:18
3	Sc 361.383	2087627.0	2087627.0	99.428 %			21:13:53
3	Y 371.029	1446373.3	1446373.3	99.374 %			21:13:53
3	Ag 328.068†	-400.9	59.9	0.4476 µg/L	0.4476 ppb		21:13:58
3	As 188.979†	-4.1	-3.9	-6.9926 µg/L	-6.9926 ppb		21:14:19
3	B 249.677†	385.6	62.3	2.5452 µg/L	2.5452 ppb		21:14:19
3	Ba 233.527†	-12.3	6.0	0.1471 µg/L	0.1471 ppb		21:14:19
3	Be 313.107†	-3568.2	170.1	0.1026 µg/L	0.1026 ppb		21:13:58
3	Cd 226.502†	-143.3	-7.5	-0.1900 µg/L	-0.1900 ppb		21:14:19
3	Co 228.616†	10.0	7.5	0.3489 µg/L	0.3489 ppb		21:14:19
3	Cr 267.716†	-23.2	24.1	0.4908 µg/L	0.4908 ppb		21:13:58
3	Cu 324.752†	2910.0	57.0	0.3793 µg/L	0.3793 ppb		21:13:58
3	Mn 257.610†	-265.6	35.5	0.1128 µg/L	0.1128 ppb		21:14:19
3	Mo 202.031†	3.3	6.7	0.6685 µg/L	0.6685 ppb		21:14:19
3	Ni 231.604†	308.4	1.5	0.0748 µg/L	0.0748 ppb		21:14:19
3	P 214.914†	9.7	-6.5	-13.002 µg/L	-13.002 ppb		21:14:19
3	Pb 220.353†	90.1	-4.2	-1.0268 µg/L	-1.0268 ppb		21:14:19
3	S 181.975 Axial†	17.9	0.7	2.7428 µg/L	2.7428 ppb		21:14:19
3	Sb 206.836†	25.1	3.1	2.8622 µg/L	2.8622 ppb		21:14:19
3	Se 196.026†	18.3	3.4	4.6867 µg/L	4.6867 ppb		21:14:19
3	SiO2†	1440.1	-36.0	-7.2055 µg/L	-7.2055 ppb		21:13:58
3	Si 251.611†	331.4	39.7	3.0667 µg/L	3.0667 ppb		21:14:19
3	Sn 189.927†	1.7	-3.0	-1.2716 µg/L	-1.2716 ppb		21:14:19
3	Ti 334.940†	276.4	136.3	0.3074 µg/L	0.3074 ppb		21:13:58
3	Tl 190.801†	-22.2	-0.1	-0.1300 µg/L	-0.1300 ppb		21:14:19
3	U 409.014†	-28.2	-27.6	-2.3446 µg/L	-2.3446 ppb		21:13:58
3	V 292.402†	-98.1	-2.7	-0.0214 µg/L	-0.0214 ppb		21:13:58
3	Zn 213.857†	526.3	27.4	0.6421 µg/L	0.6421 ppb		21:14:19

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2084711.4	99.289	%	0.1595				0.16%
Sc RADIAL	58430.7	99.0	%	0.28				0.28%
Y 371.029	1444307.0	99.232	%	0.1649				0.17%
Ag 328.068†	75.8	0.5659	µg/L	0.11703	0.5659	ppb	0.11703	20.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.7	-5.7391	µg/L	6.93458	-5.7391	ppb	6.93458	120.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	2.6495	µg/L	8.47799	2.6495	ppb	8.47799	319.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	63.4	2.5903	µg/L	0.34433	2.5903	ppb	0.34433	13.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.1946	µg/L	0.13811	0.1946	ppb	0.13811	70.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	250.2	0.1510	µg/L	0.04926	0.1510	ppb	0.04926	32.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.0	5.4596	µg/L	1.69798	5.4596	ppb	1.69798	31.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.6	-0.0920	µg/L	0.24271	-0.0920	ppb	0.24271	263.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.7	0.3558	µg/L	0.21721	0.3558	ppb	0.21721	61.06%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.3      0.2916 µg/L       0.17257      0.2916 ppb        0.17257  59.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                62.4      0.4151 µg/L       0.18513      0.4151 ppb        0.18513  44.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.6878 µg/L      11.56524      7.6878 ppb       11.56524 150.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           7.2      4.9642 µg/L      17.71413      4.9642 ppb       17.71413 356.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -1.6181 µg/L      40.05410     -1.6181 ppb       40.05410 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                44.2      0.1418 µg/L       0.02981      0.1418 ppb        0.02981  21.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.6      0.7570 µg/L       0.23098      0.7570 ppb        0.23098  30.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         33.2      10.838 µg/L        4.7739      10.838 ppb         4.7739  44.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.6      0.2844 µg/L       0.19756      0.2844 ppb        0.19756  69.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.8     -13.593 µg/L      16.2889     -13.593 ppb       16.2889 119.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.2     -0.5445 µg/L       0.68946     -0.5445 ppb        0.68946 126.61%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.2      4.7978 µg/L       7.31276      4.7978 ppb        7.31276 152.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      1.2607 µg/L       1.76022      1.2607 ppb        1.76022 139.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.3     -0.4097 µg/L       4.48454     -0.4097 ppb        4.48454 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -11.5     -2.2958 µg/L       7.97915     -2.2958 ppb        7.97915 347.56%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                43.0      3.3169 µg/L       0.45696      3.3169 ppb        0.45696  13.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.2     -0.9370 µg/L       0.47656     -0.9370 ppb        0.47656  50.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.1     -0.0204 µg/L       0.14247     -0.0204 ppb        0.14247 698.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               139.3      0.3171 µg/L       0.00903      0.3171 ppb        0.00903   2.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.5     -3.3451 µg/L       5.97899     -3.3451 ppb        5.97899 178.74%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -13.8     -1.1684 µg/L       2.52625     -1.1684 ppb        2.52625 216.21%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  3.6      0.0420 µg/L       0.27913      0.0420 ppb        0.27913 664.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                28.4      0.6679 µg/L       0.06403      0.6679 ppb        0.06403   9.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/20/2010 21:14:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58458.4	58458.4	99.0	%			21:15:01
1	Al 396.153Radial†	258.8	270.1	201.71	µg/L	201.71	ppb	21:15:01
1	Ca 317.933Radial†	411.5	222.6	204.21	µg/L	204.21	ppb	21:15:21
1	Fe 238.204 Radial†	27.1	12.0	103.29	µg/L	103.29	ppb	21:15:21
1	K 766.490 Radial†	436.6	242.6	166.81	µg/L	166.81	ppb	21:15:01
1	Mg 279.077 IEC†	43.2	31.6	307.43	µg/L	307.43	ppb	21:15:21
1	Na 589.592 Radial†	1411.3	951.7	311.14	µg/L	311.14	ppb	21:15:01
1	Sr 421.552†	548.2	512.4	5.0393	µg/L	5.0393	ppb	21:15:01
1	Sc 361.383	2076756.1	2076756.1	98.910	%			21:16:24
1	Y 371.029	1438554.1	1438554.1	98.837	%			21:16:24
1	Ag 328.068†	275.7	741.9	5.5767	µg/L	5.5767	ppb	21:16:29
1	As 188.979†	18.9	19.4	34.854	µg/L	34.854	ppb	21:16:50
1	B 249.677†	1544.9	1236.4	50.536	µg/L	50.536	ppb	21:16:29
1	Ba 233.527†	188.0	208.4	5.1169	µg/L	5.1169	ppb	21:16:50
1	Be 313.107†	4586.8	8396.2	5.0689	µg/L	5.0689	ppb	21:16:29
1	Cd 226.502†	48.0	185.1	4.6526	µg/L	4.6526	ppb	21:16:50
1	Co 228.616†	122.0	120.8	5.5928	µg/L	5.5928	ppb	21:16:50
1	Cr 267.716†	187.5	237.0	4.8358	µg/L	4.8358	ppb	21:16:29
1	Cu 324.752†	4427.8	1606.9	10.674	µg/L	10.674	ppb	21:16:29
1	Mn 257.610†	2956.6	3291.7	10.479	µg/L	10.479	ppb	21:16:29
1	Mo 202.031†	101.5	106.0	10.621	µg/L	10.621	ppb	21:16:50
1	Ni 231.604†	423.2	119.2	6.0200	µg/L	6.0200	ppb	21:16:50
1	P 214.914†	87.1	71.9	141.87	µg/L	141.87	ppb	21:16:50
1	Pb 220.353†	128.7	35.3	8.6690	µg/L	8.6690	ppb	21:16:50
1	S 181.975 Axial†	42.4	25.6	106.10	µg/L	106.10	ppb	21:16:50
1	Sb 206.836†	34.3	12.6	11.564	µg/L	11.564	ppb	21:16:50
1	Se 196.026†	35.5	20.9	28.580	µg/L	28.580	ppb	21:16:50
1	SiO2†	2540.4	1084.0	217.07	µg/L	217.07	ppb	21:16:29
1	Si 251.611†	1606.9	1331.0	102.73	µg/L	102.73	ppb	21:16:29
1	Sn 189.927†	22.6	18.1	7.7813	µg/L	7.7813	ppb	21:16:50
1	Ti 334.940†	2333.3	2217.4	5.0222	µg/L	5.0222	ppb	21:16:29
1	Tl 190.801†	-10.0	12.1	16.365	µg/L	16.365	ppb	21:16:50
1	U 409.014†	545.1	551.8	46.805	µg/L	46.805	ppb	21:16:29
1	V 292.402†	448.5	549.4	5.5885	µg/L	5.5885	ppb	21:16:29
1	Zn 213.857†	962.3	470.9	11.048	µg/L	11.048	ppb	21:16:50
2	Sc RADIAL	58637.7	58637.7	99.3	%			21:15:27
2	Al 396.153Radial†	246.9	257.3	192.14	µg/L	192.14	ppb	21:15:27
2	Ca 317.933Radial†	420.8	230.7	211.63	µg/L	211.63	ppb	21:15:48
2	Fe 238.204 Radial†	27.6	12.4	106.26	µg/L	106.26	ppb	21:15:48
2	K 766.490 Radial†	399.5	203.9	140.19	µg/L	140.19	ppb	21:15:27
2	Mg 279.077 IEC†	42.6	30.8	299.94	µg/L	299.94	ppb	21:15:48
2	Na 589.592 Radial†	1434.6	970.9	317.40	µg/L	317.40	ppb	21:15:27
2	Sr 421.552†	537.3	499.6	4.9139	µg/L	4.9139	ppb	21:15:27
2	Sc 361.383	2073118.3	2073118.3	98.737	%			21:16:56
2	Y 371.029	1436197.3	1436197.3	98.675	%			21:16:56
2	Ag 328.068†	299.5	766.4	5.7589	µg/L	5.7589	ppb	21:17:01
2	As 188.979†	16.0	16.4	29.570	µg/L	29.570	ppb	21:17:22
2	B 249.677†	1526.7	1220.7	49.891	µg/L	49.891	ppb	21:17:01
2	Ba 233.527†	192.5	213.4	5.2381	µg/L	5.2381	ppb	21:17:22
2	Be 313.107†	4573.1	8390.5	5.0654	µg/L	5.0654	ppb	21:17:01
2	Cd 226.502†	52.5	189.8	4.7698	µg/L	4.7698	ppb	21:17:22
2	Co 228.616†	96.1	94.7	4.3852	µg/L	4.3852	ppb	21:17:22
2	Cr 267.716†	195.6	245.5	5.0105	µg/L	5.0105	ppb	21:17:01
2	Cu 324.752†	4459.6	1646.9	10.939	µg/L	10.939	ppb	21:17:01
2	Mn 257.610†	2958.3	3298.7	10.502	µg/L	10.502	ppb	21:17:01
2	Mo 202.031†	92.6	97.1	9.7325	µg/L	9.7325	ppb	21:17:22
2	Ni 231.604†	412.3	109.0	5.5035	µg/L	5.5035	ppb	21:17:22
2	P 214.914†	88.8	73.7	145.61	µg/L	145.61	ppb	21:17:22
2	Pb 220.353†	131.8	38.7	9.4863	µg/L	9.4863	ppb	21:17:22

2	S 181.975 Axial†	44.5	27.8	115.16 µg/L	115.16 ppb	21:17:22
2	Sb 206.836†	32.0	10.3	9.4435 µg/L	9.4435 ppb	21:17:22
2	Se 196.026†	37.8	23.3	31.877 µg/L	31.877 ppb	21:17:22
2	SiO2†	2511.2	1059.0	212.06 µg/L	212.06 ppb	21:17:01
2	Si 251.611†	1616.7	1343.8	103.72 µg/L	103.72 ppb	21:17:01
2	Sn 189.927†	29.7	25.3	10.859 µg/L	10.859 ppb	21:17:22
2	Ti 334.940†	2319.7	2207.8	5.0010 µg/L	5.0010 ppb	21:17:01
2	Tl 190.801†	-8.6	13.5	18.179 µg/L	18.179 ppb	21:17:22
2	U 409.014†	590.2	598.5	50.764 µg/L	50.764 ppb	21:17:01
2	V 292.402†	431.8	533.3	5.4276 µg/L	5.4276 ppb	21:17:01
2	Zn 213.857†	954.9	465.2	10.915 µg/L	10.915 ppb	21:17:22
3	Sc RADIAL	58244.5	58244.5	98.6 %		21:15:53
3	Al 396.153Radial†	267.7	280.0	209.15 µg/L	209.15 ppb	21:15:53
3	Ca 317.933Radial†	418.2	231.0	211.88 µg/L	211.88 ppb	21:16:13
3	Fe 238.204 Radial†	28.1	13.1	112.44 µg/L	112.44 ppb	21:16:13
3	K 766.490 Radial†	422.6	230.0	158.15 µg/L	158.15 ppb	21:15:53
3	Mg 279.077 IEC†	45.9	34.4	334.98 µg/L	334.98 ppb	21:16:13
3	Na 589.592 Radial†	1426.0	971.9	317.74 µg/L	317.74 ppb	21:15:53
3	Sr 421.552†	551.3	517.5	5.0897 µg/L	5.0897 ppb	21:15:53
3	Sc 361.383	2071181.4	2071181.4	98.645 %		21:17:28
3	Y 371.029	1436162.0	1436162.0	98.672 %		21:17:28
3	Ag 328.068†	234.7	701.0	5.2665 µg/L	5.2665 ppb	21:17:34
3	As 188.979†	15.6	16.1	28.992 µg/L	28.992 ppb	21:17:54
3	B 249.677†	1459.8	1154.4	47.175 µg/L	47.175 ppb	21:17:34
3	Ba 233.527†	162.7	183.3	4.5003 µg/L	4.5003 ppb	21:17:54
3	Be 313.107†	3897.6	7710.0	4.6546 µg/L	4.6546 ppb	21:17:34
3	Cd 226.502†	24.5	161.4	4.0536 µg/L	4.0536 ppb	21:17:54
3	Co 228.616†	87.0	85.6	3.9641 µg/L	3.9641 ppb	21:17:54
3	Cr 267.716†	185.3	235.2	4.7995 µg/L	4.7995 ppb	21:17:34
3	Cu 324.752†	4376.3	1566.7	10.408 µg/L	10.408 ppb	21:17:34
3	Mn 257.610†	2707.4	3047.2	9.7012 µg/L	9.7012 ppb	21:17:34
3	Mo 202.031†	93.8	98.4	9.8684 µg/L	9.8684 ppb	21:17:54
3	Ni 231.604†	397.4	94.2	4.7570 µg/L	4.7570 ppb	21:17:54
3	P 214.914†	76.6	61.4	121.13 µg/L	121.13 ppb	21:17:54
3	Pb 220.353†	123.5	30.4	7.4641 µg/L	7.4641 ppb	21:17:54
3	S 181.975 Axial†	39.0	22.3	92.294 µg/L	92.294 ppb	21:17:54
3	Sb 206.836†	27.8	6.1	5.6139 µg/L	5.6139 ppb	21:17:54
3	Se 196.026†	47.6	33.2	45.482 µg/L	45.482 ppb	21:17:54
3	SiO2†	2440.9	990.1	198.26 µg/L	198.26 ppb	21:17:34
3	Si 251.611†	1532.4	1259.9	97.245 µg/L	97.245 ppb	21:17:34
3	Sn 189.927†	23.1	18.7	8.0229 µg/L	8.0229 ppb	21:17:54
3	Ti 334.940†	2183.5	2071.9	4.6891 µg/L	4.6891 ppb	21:17:34
3	Tl 190.801†	-5.3	16.9	22.678 µg/L	22.678 ppb	21:17:54
3	U 409.014†	509.5	517.3	43.867 µg/L	43.867 ppb	21:17:34
3	V 292.402†	361.2	462.2	4.7178 µg/L	4.7178 ppb	21:17:34
3	Zn 213.857†	893.4	403.7	9.4663 µg/L	9.4663 ppb	21:17:54

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2073685.3	98.764	%	0.1348				0.14%
Sc RADIAL	58446.8	99.0	%	0.33				0.34%
Y 371.029	1436971.1	98.728	%	0.0942				0.10%
Ag 328.068†	736.4	5.5340	µg/L	0.24894	5.5340	ppb	0.24894	4.50%
QC value within limits for Ag 328.068 Recovery = 110.68%								
Al 396.153Radial†	269.1	201.00	µg/L	8.529	201.00	ppb	8.529	4.24%
QC value within limits for Al 396.153Radial Recovery = 100.50%								
As 188.979†	17.3	31.138	µg/L	3.2305	31.138	ppb	3.2305	10.37%
QC value within limits for As 188.979 Recovery = 103.79%								
B 249.677†	1203.9	49.200	µg/L	1.7837	49.200	ppb	1.7837	3.63%
QC value within limits for B 249.677 Recovery = 98.40%								
Ba 233.527†	201.7	4.9518	µg/L	0.39562	4.9518	ppb	0.39562	7.99%
QC value within limits for Ba 233.527 Recovery = 99.04%								
Be 313.107†	8165.6	4.9297	µg/L	0.23820	4.9297	ppb	0.23820	4.83%
QC value within limits for Be 313.107 Recovery = 98.59%								
Ca 317.933Radial†	228.1	209.24	µg/L	4.355	209.24	ppb	4.355	2.08%
QC value within limits for Ca 317.933Radial Recovery = 104.62%								
Cd 226.502†	178.8	4.4920	µg/L	0.38420	4.4920	ppb	0.38420	8.55%
QC value within limits for Cd 226.502 Recovery = 89.84%								
Co 228.616†	100.4	4.6474	µg/L	0.84542	4.6474	ppb	0.84542	18.19%

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   QC value within limits for Co 228.616  Recovery = 92.95%
Cr 267.716†              239.2      4.8819 µg/L       0.11286      4.8819 ppb        0.11286   2.31%
   QC value within limits for Cr 267.716  Recovery = 97.64%
Cu 324.752†             1606.8      10.674 µg/L        0.2654      10.674 ppb         0.2654   2.49%
   QC value within limits for Cu 324.752  Recovery = 106.74%
Fe 238.204 Radial†        12.5      107.33 µg/L         4.670      107.33 ppb          4.670   4.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.33%
K 766.490 Radial†        225.5      155.05 µg/L        13.579      155.05 ppb         13.579   8.76%
   QC value within limits for K 766.490 Radial  Recovery = 103.37%
Mg 279.077 IEC†           32.3      314.12 µg/L        18.454      314.12 ppb         18.454   5.87%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.71%
Mn 257.610†             3212.5      10.228 µg/L        0.4560      10.228 ppb         0.4560   4.46%
   QC value within limits for Mn 257.610  Recovery = 102.28%
Mo 202.031†              100.5      10.074 µg/L        0.4788      10.074 ppb         0.4788   4.75%
   QC value within limits for Mo 202.031  Recovery = 100.74%
Na 589.592 Radial†       964.8      315.43 µg/L         3.714      315.43 ppb          3.714   1.18%
   QC value within limits for Na 589.592 Radial  Recovery = 105.14%
Ni 231.604†              107.5      5.4268 µg/L       0.63497      5.4268 ppb        0.63497  11.70%
   QC value within limits for Ni 231.604  Recovery = 108.54%
P 214.914†                69.0      136.20 µg/L        13.187      136.20 ppb         13.187   9.68%
   QC value within limits for P 214.914  Recovery = 90.80%
Pb 220.353†               34.8      8.5398 µg/L       1.01723      8.5398 ppb        1.01723  11.91%
   QC value within limits for Pb 220.353  Recovery = 85.40%
S 181.975 Axial†          25.2      104.52 µg/L        11.515      104.52 ppb         11.515  11.02%
   QC value within limits for S 181.975 Axial  Recovery = 104.52%
Sb 206.836†                9.6      8.8738 µg/L       3.01568      8.8738 ppb        3.01568  33.98%
   QC value within limits for Sb 206.836  Recovery = 88.74%
Se 196.026†               25.8      35.313 µg/L        8.9596      35.313 ppb         8.9596  25.37%
   QC value within limits for Se 196.026  Recovery = 117.71%
SiO2†                   1044.4      209.13 µg/L         9.740      209.13 ppb          9.740   4.66%
   QC value within limits for SiO2  Recovery = 98.18%
Si 251.611†             1311.6      101.23 µg/L         3.489      101.23 ppb          3.489   3.45%
   QC value within limits for Si 251.611  Recovery = 101.23%
Sn 189.927†               20.7      8.8878 µg/L       1.71151      8.8878 ppb        1.71151  19.26%
   QC value within limits for Sn 189.927  Recovery = 88.88%
Sr 421.552†              509.8      5.0143 µg/L       0.09056      5.0143 ppb        0.09056   1.81%
   QC value within limits for Sr 421.552  Recovery = 100.29%
Ti 334.940†             2165.7      4.9041 µg/L       0.18646      4.9041 ppb        0.18646   3.80%
   QC value within limits for Ti 334.940  Recovery = 98.08%
Tl 190.801†               14.2      19.074 µg/L        3.2505      19.074 ppb         3.2505  17.04%
   QC value within limits for Tl 190.801  Recovery = 95.37%
U 409.014†               555.9      47.145 µg/L        3.4611      47.145 ppb         3.4611   7.34%
   QC value within limits for U 409.014  Recovery = 94.29%
V 292.402†               515.0      5.2446 µg/L       0.46328      5.2446 ppb        0.46328   8.83%
   QC value within limits for V 292.402  Recovery = 104.89%
Zn 213.857†              446.6      10.477 µg/L        0.8775      10.477 ppb         0.8775   8.38%
   QC value within limits for Zn 213.857  Recovery = 104.77%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/20/2010 21:18:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56819.2	56819.2	96.2	%			21:18:45
1	Al 396.153Radial†	663448.7	689430.9	515410	µg/L	515410	ppb	21:18:39
1	Ca 317.933Radial†	515921.4	535926.3	491590	µg/L	491590	ppb	21:18:39
1	Fe 238.204 Radial†	21482.2	22307.8	191490	µg/L	191490	ppb	21:18:45
1	K 766.490 Radial†	168.1	-23.7	-16.325	µg/L	-16.325	ppb	21:18:45
1	Mg 279.077 IEC†	48942.9	50846.9	494700	µg/L	494700	ppb	21:18:45
1	Na 589.592 Radial†	575.8	124.6	40.751	µg/L	40.751	ppb	21:18:45
1	Sr 421.552†	383.3	356.9	3.5102	µg/L	3.5102	ppb	21:18:45
1	Sc 361.383	1959635.9	1959635.9	93.332	%			21:19:18
1	Y 371.029	1348760.4	1348760.4	92.667	%			21:19:18
1	Ag 328.068†	-2471.8	-2185.3	-4.4145	µg/L	-4.4145	ppb	21:19:23
1	As 188.979†	-17.6	-18.6	-47.859	µg/L	-47.859	ppb	21:19:44
1	B 249.677†	807.2	539.4	-77.855	µg/L	-77.855	ppb	21:19:23
1	Ba 233.527†	259.9	296.8	7.2241	µg/L	7.2241	ppb	21:19:44
1	Be 313.107†	-4248.7	-793.4	-0.4893	µg/L	-0.4893	ppb	21:19:23
1	Cd 226.502†	409.4	575.2	-7.1705	µg/L	-7.1705	ppb	21:19:44
1	Co 228.616†	58.0	59.6	2.6931	µg/L	2.6931	ppb	21:19:44
1	Cr 267.716†	-77.6	-35.8	-0.7464	µg/L	-0.7464	ppb	21:19:44
1	Cu 324.752†	-1129.5	-4079.9	-0.4461	µg/L	-0.4461	ppb	21:19:23
1	Mn 257.610†	950.3	1320.7	9.8767	µg/L	9.8767	ppb	21:19:23
1	Mo 202.031†	-96.1	-99.6	-2.7058	µg/L	-2.7058	ppb	21:19:44
1	Ni 231.604†	172.4	-124.0	-3.7785	µg/L	-3.7785	ppb	21:19:44
1	P 214.914†	82.2	71.9	138.26	µg/L	138.26	ppb	21:19:44
1	Pb 220.353†	25.6	-67.3	4.5259	µg/L	4.5259	ppb	21:19:44
1	S 181.975 Axial†	39.8	25.4	105.27	µg/L	105.27	ppb	21:19:44
1	Sb 206.836†	45.7	26.9	-18.388	µg/L	-18.388	ppb	21:19:44
1	Se 196.026†	17.5	3.7	-48.894	µg/L	-48.894	ppb	21:19:44
1	SiO2†	1279.5	-113.5	-22.734	µg/L	-22.734	ppb	21:19:44
1	Si 251.611†	453.4	192.2	14.837	µg/L	14.837	ppb	21:19:44
1	Sn 189.927†	-65.6	-75.0	3.4240	µg/L	3.4240	ppb	21:19:44
1	Ti 334.940†	11042.3	11689.5	-4.6455	µg/L	-4.6455	ppb	21:19:23
1	Tl 190.801†	-36.3	-16.7	-1.6599	µg/L	-1.6599	ppb	21:19:44
1	U 409.014†	-77.2	-82.0	-63.564	µg/L	-63.564	ppb	21:19:23
1	V 292.402†	-2625.3	-2716.9	-4.4225	µg/L	-4.4225	ppb	21:19:23
1	Zn 213.857†	1555.9	1165.1	-9.5890	µg/L	-9.5890	ppb	21:19:44
2	Sc RADIAL	57074.7	57074.7	96.7	%			21:18:56
2	Al 396.153Radial†	663732.9	686639.5	513330	µg/L	513330	ppb	21:18:51
2	Ca 317.933Radial†	516332.9	533952.7	489780	µg/L	489780	ppb	21:18:51
2	Fe 238.204 Radial†	21585.3	22314.6	191550	µg/L	191550	ppb	21:18:56
2	K 766.490 Radial†	149.3	-43.9	-30.192	µg/L	-30.192	ppb	21:18:56
2	Mg 279.077 IEC†	49168.6	50852.8	494760	µg/L	494760	ppb	21:18:56
2	Na 589.592 Radial†	578.5	124.8	40.785	µg/L	40.785	ppb	21:18:56
2	Sr 421.552†	373.8	345.3	3.3960	µg/L	3.3960	ppb	21:18:56
2	Sc 361.383	1939757.2	1939757.2	92.386	%			21:19:50
2	Y 371.029	1335581.2	1335581.2	91.762	%			21:19:50
2	Ag 328.068†	-2478.6	-2219.8	-4.6699	µg/L	-4.6699	ppb	21:19:56
2	As 188.979†	-10.5	-11.1	-34.286	µg/L	-34.286	ppb	21:20:16
2	B 249.677†	780.0	518.8	-78.730	µg/L	-78.730	ppb	21:19:56
2	Ba 233.527†	269.1	309.6	7.5380	µg/L	7.5380	ppb	21:20:16
2	Be 313.107†	-4253.7	-845.4	-0.5216	µg/L	-0.5216	ppb	21:19:56
2	Cd 226.502†	422.3	593.7	-6.7140	µg/L	-6.7140	ppb	21:20:16
2	Co 228.616†	53.2	55.0	2.4766	µg/L	2.4766	ppb	21:20:16
2	Cr 267.716†	-89.6	-49.6	-1.0286	µg/L	-1.0286	ppb	21:20:16
2	Cu 324.752†	-1145.7	-4109.9	-0.6368	µg/L	-0.6368	ppb	21:19:56
2	Mn 257.610†	927.9	1306.9	9.8383	µg/L	9.8383	ppb	21:19:56
2	Mo 202.031†	-107.8	-113.3	-4.0775	µg/L	-4.0775	ppb	21:20:16
2	Ni 231.604†	141.2	-155.8	-5.3889	µg/L	-5.3889	ppb	21:20:16
2	P 214.914†	85.2	76.0	145.79	µg/L	145.79	ppb	21:20:16
2	Pb 220.353†	31.0	-61.3	5.8949	µg/L	5.8949	ppb	21:20:16

2	S 181.975 Axial†	38.7	24.6	102.13	µg/L	102.13 ppb	21:20:16
2	Sb 206.836†	47.0	28.7	-16.542	µg/L	-16.542 ppb	21:20:16
2	Se 196.026†	20.1	6.8	-44.081	µg/L	-44.081 ppb	21:20:16
2	SiO2†	1274.3	-105.0	-21.030	µg/L	-21.030 ppb	21:20:16
2	Si 251.611†	460.3	204.7	15.801	µg/L	15.801 ppb	21:20:16
2	Sn 189.927†	-76.9	-87.9	-2.0815	µg/L	-2.0815 ppb	21:20:16
2	Ti 334.940†	11870.4	12707.1	-2.3645	µg/L	-2.3645 ppb	21:19:56
2	Tl 190.801†	-46.1	-27.7	-16.388	µg/L	-16.388 ppb	21:20:16
2	U 409.014†	-49.4	-52.7	-60.971	µg/L	-60.971 ppb	21:19:56
2	V 292.402†	-2622.2	-2742.3	-4.6756	µg/L	-4.6756 ppb	21:19:56
2	Zn 213.857†	1556.5	1182.8	-9.1685	µg/L	-9.1685 ppb	21:20:16
3	Sc RADIAL	57166.4	57166.4	96.8	%		21:19:07
3	Al 396.153Radial†	665337.5	687194.8	513740	µg/L	513740 ppb	21:19:02
3	Ca 317.933Radial†	517835.0	534646.9	490410	µg/L	490410 ppb	21:19:02
3	Fe 238.204 Radial†	21673.8	22370.2	192030	µg/L	192030 ppb	21:19:07
3	K 766.490 Radial†	176.2	-16.4	-11.291	µg/L	-11.291 ppb	21:19:07
3	Mg 279.077 IEC†	49234.8	50839.6	494630	µg/L	494630 ppb	21:19:07
3	Na 589.592 Radial†	555.4	100.0	32.681	µg/L	32.681 ppb	21:19:07
3	Sr 421.552†	387.4	358.7	3.5283	µg/L	3.5283 ppb	21:19:07
3	Sc 361.383	1950951.0	1950951.0	92.919	%		21:20:22
3	Y 371.029	1342787.4	1342787.4	92.257	%		21:20:22
3	Ag 328.068†	-2511.8	-2240.1	-4.7858	µg/L	-4.7858 ppb	21:20:28
3	As 188.979†	-10.9	-11.5	-35.015	µg/L	-35.015 ppb	21:20:49
3	B 249.677†	758.6	490.9	-80.121	µg/L	-80.121 ppb	21:20:28
3	Ba 233.527†	269.1	308.0	7.4991	µg/L	7.4991 ppb	21:20:49
3	Be 313.107†	-4316.3	-886.4	-0.5454	µg/L	-0.5454 ppb	21:20:28
3	Cd 226.502†	437.0	606.9	-6.4355	µg/L	-6.4355 ppb	21:20:49
3	Co 228.616†	51.8	53.2	2.3986	µg/L	2.3986 ppb	21:20:49
3	Cr 267.716†	-94.8	-54.6	-1.1309	µg/L	-1.1309 ppb	21:20:49
3	Cu 324.752†	-1114.5	-4069.1	-0.3003	µg/L	-0.3003 ppb	21:20:28
3	Mn 257.610†	923.5	1296.5	9.8735	µg/L	9.8735 ppb	21:20:28
3	Mo 202.031†	-100.1	-104.4	-3.1665	µg/L	-3.1665 ppb	21:20:49
3	Ni 231.604†	153.4	-143.5	-4.7588	µg/L	-4.7588 ppb	21:20:49
3	P 214.914†	98.0	89.2	171.81	µg/L	171.81 ppb	21:20:49
3	Pb 220.353†	26.1	-66.7	4.5588	µg/L	4.5588 ppb	21:20:49
3	S 181.975 Axial†	32.5	17.7	73.342	µg/L	73.342 ppb	21:20:49
3	Sb 206.836†	50.2	31.9	-13.690	µg/L	-13.690 ppb	21:20:49
3	Se 196.026†	16.4	2.7	-48.480	µg/L	-48.480 ppb	21:20:49
3	SiO2†	1286.5	-99.8	-19.991	µg/L	-19.991 ppb	21:20:49
3	Si 251.611†	421.6	160.2	12.361	µg/L	12.361 ppb	21:20:49
3	Sn 189.927†	-53.7	-62.5	8.7246	µg/L	8.7246 ppb	21:20:49
3	Ti 334.940†	10959.8	11653.4	-4.7408	µg/L	-4.7408 ppb	21:20:28
3	Tl 190.801†	-49.9	-31.5	-21.446	µg/L	-21.446 ppb	21:20:49
3	U 409.014†	-70.3	-74.9	-62.961	µg/L	-62.961 ppb	21:20:28
3	V 292.402†	-2559.7	-2658.7	-3.7882	µg/L	-3.7882 ppb	21:20:28
3	Zn 213.857†	1572.6	1190.5	-9.0051	µg/L	-9.0051 ppb	21:20:49

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1950114.7	92.879	%	0.4746				0.51%
Sc RADIAL	57020.1	96.6	%	0.30				0.32%
Y 371.029	1342376.4	92.229	%	0.4534				0.49%
Ag 328.068†	-2215.0	-4.6234	µg/L	0.18995	-4.6234	ppb	0.18995	4.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	687755.1	514160	µg/L	1104.7	514160	ppb	1104.7	0.21%
QC value within limits for Al 396.153Radial Recovery = 102.83%								
As 188.979†	-13.7	-39.053	µg/L	7.6348	-39.053	ppb	7.6348	19.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	516.4	-78.902	µg/L	1.1426	-78.902	ppb	1.1426	1.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	304.8	7.4204	µg/L	0.17114	7.4204	ppb	0.17114	2.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-841.7	-0.5188	µg/L	0.02819	-0.5188	ppb	0.02819	5.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	534842.0	490590	µg/L	918.3	490590	ppb	918.3	0.19%
QC value within limits for Ca 317.933Radial Recovery = 98.12%								
Cd 226.502†	591.9	-6.7733	µg/L	0.37107	-6.7733	ppb	0.37107	5.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	55.9	2.5228	µg/L	0.15258	2.5228	ppb	0.15258	6.05%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -46.7     -0.9686 µg/L      0.19914     -0.9686 ppb       0.19914  20.56%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†          -4086.3     -0.4611 µg/L      0.16874     -0.4611 ppb       0.16874  36.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    22330.9      191690 µg/L        293.9      191690 ppb         293.9   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.85%
K 766.490 Radial†       -28.0     -19.269 µg/L       9.7882     -19.269 ppb        9.7882  50.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       50846.4      494690 µg/L         64.9      494690 ppb          64.9   0.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.94%
Mn 257.610†            1308.0      9.8628 µg/L      0.02134      9.8628 ppb       0.02134   0.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -105.8     -3.3166 µg/L      0.69809     -3.3166 ppb       0.69809  21.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      116.5      38.072 µg/L       4.6692      38.072 ppb        4.6692  12.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†            -141.1     -4.6421 µg/L      0.81155     -4.6421 ppb       0.81155  17.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               79.0      151.96 µg/L       17.606      151.96 ppb         17.606  11.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -65.1      4.9932 µg/L      0.78104      4.9932 ppb       0.78104  15.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         22.6      93.582 µg/L       17.5980      93.582 ppb       17.5980  18.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              29.2     -16.207 µg/L       2.3667     -16.207 ppb        2.3667  14.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.4     -47.151 µg/L       2.6675     -47.151 ppb        2.6675   5.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                  -106.1     -21.252 µg/L       1.3852     -21.252 ppb        1.3852   6.52%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             185.7      14.333 µg/L       1.7743      14.333 ppb        1.7743  12.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -75.2      3.3557 µg/L      5.40337      3.3557 ppb       5.40337 161.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             353.6      3.4782 µg/L      0.07176      3.4782 ppb       0.07176   2.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           12016.7     -3.9169 µg/L      1.34528     -3.9169 ppb       1.34528  34.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -25.3     -13.165 µg/L      10.2795     -13.165 ppb       10.2795  78.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -69.8     -62.498 µg/L       1.3566     -62.498 ppb        1.3566   2.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2706.0     -4.2954 µg/L      0.45718     -4.2954 ppb       0.45718  10.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1179.5     -9.2542 µg/L      0.30128     -9.2542 ppb       0.30128   3.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/20/2010 21:20:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56972.6	56972.6	96.5	%			21:21:37
1	Al 396.153Radial†	667700.7	691981.7	517310	µg/L	517310	ppb	21:21:32
1	Ca 317.933Radial†	516453.9	535035.1	490770	µg/L	490770	ppb	21:21:32
1	Fe 238.204 Radial†	21548.4	22316.4	191580	µg/L	191580	ppb	21:21:37
1	K 766.490 Radial†	7197.7	7261.0	4992.8	µg/L	4992.8	ppb	21:21:37
1	Mg 279.077 IEC†	49172.8	50948.3	495690	µg/L	495690	ppb	21:21:37
1	Na 589.592 Radial†	15775.0	15874.7	5189.9	µg/L	5189.9	ppb	21:21:37
1	Sr 421.552†	48706.0	50435.2	496.04	µg/L	496.04	ppb	21:21:37
1	Sc 361.383	1950890.0	1950890.0	92.916	%			21:22:11
1	Y 371.029	1344114.6	1344114.6	92.348	%			21:22:11
1	Ag 328.068†	28700.0	31351.3	249.04	µg/L	249.04	ppb	21:22:17
1	As 188.979†	248.2	267.4	465.90	µg/L	465.90	ppb	21:22:37
1	B 249.677†	12106.5	12704.0	420.50	µg/L	420.50	ppb	21:22:17
1	Ba 233.527†	18309.4	19723.7	484.19	µg/L	484.19	ppb	21:22:17
1	Be 313.107†	362856.0	394280.4	237.93	µg/L	237.93	ppb	21:22:11
1	Cd 226.502†	17002.7	18435.6	442.66	µg/L	442.66	ppb	21:22:17
1	Co 228.616†	8513.4	9159.9	423.51	µg/L	423.51	ppb	21:22:37
1	Cr 267.716†	21301.8	22973.3	468.81	µg/L	468.81	ppb	21:22:17
1	Cu 324.752†	72110.4	74738.7	522.41	µg/L	522.41	ppb	21:22:17
1	Mn 257.610†	135669.4	146316.0	471.39	µg/L	471.39	ppb	21:22:17
1	Mo 202.031†	4462.9	4806.5	488.87	µg/L	488.87	ppb	21:22:37
1	Ni 231.604†	7948.6	8246.0	418.73	µg/L	418.73	ppb	21:22:37
1	P 214.914†	1244.6	1323.2	2578.9	µg/L	2578.9	ppb	21:22:37
1	Pb 220.353†	1768.6	1808.7	466.25	µg/L	466.25	ppb	21:22:37
1	S 181.975 Axial†	619.0	648.9	2689.6	µg/L	2689.6	ppb	21:22:37
1	Sb 206.836†	562.9	583.7	492.74	µg/L	492.74	ppb	21:22:37
1	Se 196.026†	1589.8	1696.0	2269.0	µg/L	2269.0	ppb	21:22:37
1	SiO2†	50384.2	52741.3	10561	µg/L	10561	ppb	21:22:17
1	Si 251.611†	59987.1	64267.2	4960.4	µg/L	4960.4	ppb	21:22:17
1	Sn 189.927†	1013.7	1086.3	500.15	µg/L	500.15	ppb	21:22:37
1	Ti 334.940†	209590.3	225428.5	481.39	µg/L	481.39	ppb	21:22:17
1	Tl 190.801†	283.8	327.6	464.12	µg/L	464.12	ppb	21:22:37
1	U 409.014†	5253.6	5654.9	423.32	µg/L	423.32	ppb	21:22:17
1	V 292.402†	44010.3	47461.8	497.33	µg/L	497.33	ppb	21:22:17
1	Zn 213.857†	19739.7	20742.8	449.69	µg/L	449.69	ppb	21:22:17
2	Sc RADIAL	56486.9	56486.9	95.7	%			21:21:49
2	Al 396.153Radial†	665996.8	696150.6	520430	µg/L	520430	ppb	21:21:43
2	Ca 317.933Radial†	513896.2	536963.7	492540	µg/L	492540	ppb	21:21:43
2	Fe 238.204 Radial†	21339.9	22290.4	191350	µg/L	191350	ppb	21:21:49
2	K 766.490 Radial†	7195.3	7322.5	5035.1	µg/L	5035.1	ppb	21:21:49
2	Mg 279.077 IEC†	48865.9	51065.6	496840	µg/L	496840	ppb	21:21:49
2	Na 589.592 Radial†	15574.5	15805.8	5167.4	µg/L	5167.4	ppb	21:21:49
2	Sr 421.552†	48292.5	50437.0	496.06	µg/L	496.06	ppb	21:21:49
2	Sc 361.383	1928851.3	1928851.3	91.866	%			21:22:43
2	Y 371.029	1328576.4	1328576.4	91.281	%			21:22:43
2	Ag 328.068†	28877.8	31897.8	253.16	µg/L	253.16	ppb	21:22:50
2	As 188.979†	236.8	258.0	449.02	µg/L	449.02	ppb	21:23:10
2	B 249.677†	12225.8	12982.8	432.03	µg/L	432.03	ppb	21:22:50
2	Ba 233.527†	18385.3	20031.5	491.75	µg/L	491.75	ppb	21:22:50
2	Be 313.107†	358164.9	393636.0	237.53	µg/L	237.53	ppb	21:22:43
2	Cd 226.502†	17066.4	18714.0	449.70	µg/L	449.70	ppb	21:22:50
2	Co 228.616†	8445.4	9190.6	424.91	µg/L	424.91	ppb	21:23:10
2	Cr 267.716†	21470.0	23418.3	477.89	µg/L	477.89	ppb	21:22:50
2	Cu 324.752†	72376.8	75915.4	530.18	µg/L	530.18	ppb	21:22:50
2	Mn 257.610†	136127.7	148483.1	478.21	µg/L	478.21	ppb	21:22:50
2	Mo 202.031†	4432.6	4828.4	491.06	µg/L	491.06	ppb	21:23:10
2	Ni 231.604†	7911.3	8303.2	421.62	µg/L	421.62	ppb	21:23:10
2	P 214.914†	1258.9	1354.2	2640.7	µg/L	2640.7	ppb	21:23:10
2	Pb 220.353†	1783.3	1846.5	475.72	µg/L	475.72	ppb	21:23:10

2	S 181.975 Axial†	612.4	649.3	2691.5 µg/L	2691.5 ppb	21:23:10
2	Sb 206.836†	545.5	571.7	481.62 µg/L	481.62 ppb	21:23:10
2	Se 196.026†	1567.3	1691.1	2260.1 µg/L	2260.1 ppb	21:23:10
2	SiO2†	50752.3	53761.5	10766 µg/L	10766 ppb	21:22:50
2	Si 251.611†	60354.6	65404.9	5048.2 µg/L	5048.2 ppb	21:22:50
2	Sn 189.927†	1012.7	1097.7	505.18 µg/L	505.18 ppb	21:23:10
2	Ti 334.940†	211110.8	229661.0	490.95 µg/L	490.95 ppb	21:22:50
2	Tl 190.801†	268.4	314.3	446.50 µg/L	446.50 ppb	21:23:10
2	U 409.014†	5240.2	5704.9	427.49 µg/L	427.49 ppb	21:22:50
2	V 292.402†	44336.8	48358.4	506.22 µg/L	506.22 ppb	21:22:50
2	Zn 213.857†	19816.0	21068.6	457.30 µg/L	457.30 ppb	21:22:50
3	Sc RADIAL	56093.4	56093.4	95.0 %		21:22:00
3	Al 396.153Radial†	664211.5	699155.3	522670 µg/L	522670 ppb	21:21:54
3	Ca 317.933Radial†	511912.6	538644.4	494080 µg/L	494080 ppb	21:21:54
3	Fe 238.204 Radial†	21142.1	22238.7	190910 µg/L	190910 ppb	21:22:00
3	K 766.490 Radial†	7140.4	7317.6	5031.7 µg/L	5031.7 ppb	21:22:00
3	Mg 279.077 IEC†	48557.1	51098.9	497160 µg/L	497160 ppb	21:22:00
3	Na 589.592 Radial†	15560.1	15904.8	5199.7 µg/L	5199.7 ppb	21:22:00
3	Sr 421.552†	47868.4	50344.8	495.15 µg/L	495.15 ppb	21:22:00
3	Sc 361.383	1926645.3	1926645.3	91.761 %		21:23:16
3	Y 371.029	1326726.5	1326726.5	91.153 %		21:23:16
3	Ag 328.068†	28729.6	31772.3	252.18 µg/L	252.18 ppb	21:23:22
3	As 188.979†	238.4	260.1	452.54 µg/L	452.54 ppb	21:23:43
3	B 249.677†	12156.5	12922.5	429.79 µg/L	429.79 ppb	21:23:22
3	Ba 233.527†	18270.9	19929.7	489.25 µg/L	489.25 ppb	21:23:22
3	Be 313.107†	358197.5	394117.9	237.83 µg/L	237.83 ppb	21:23:16
3	Cd 226.502†	16931.2	18588.0	446.58 µg/L	446.58 ppb	21:23:22
3	Co 228.616†	8424.2	9178.0	424.34 µg/L	424.34 ppb	21:23:43
3	Cr 267.716†	21333.0	23295.8	475.39 µg/L	475.39 ppb	21:23:22
3	Cu 324.752†	72177.6	75788.5	529.28 µg/L	529.28 ppb	21:23:22
3	Mn 257.610†	135165.3	147604.0	475.34 µg/L	475.34 ppb	21:23:22
3	Mo 202.031†	4456.1	4859.5	494.16 µg/L	494.16 ppb	21:23:43
3	Ni 231.604†	7868.4	8266.2	419.75 µg/L	419.75 ppb	21:23:43
3	P 214.914†	1244.4	1339.9	2613.3 µg/L	2613.3 ppb	21:23:43
3	Pb 220.353†	1772.3	1836.6	473.45 µg/L	473.45 ppb	21:23:43
3	S 181.975 Axial†	608.5	645.8	2677.1 µg/L	2677.1 ppb	21:23:43
3	Sb 206.836†	554.9	582.6	491.50 µg/L	491.50 ppb	21:23:43
3	Se 196.026†	1574.7	1701.1	2271.9 µg/L	2271.9 ppb	21:23:43
3	SiO2†	50447.2	53492.3	10712 µg/L	10712 ppb	21:23:22
3	Si 251.611†	60006.1	65100.4	5024.7 µg/L	5024.7 ppb	21:23:22
3	Sn 189.927†	988.8	1072.9	494.66 µg/L	494.66 ppb	21:23:43
3	Ti 334.940†	209795.6	228490.8	488.29 µg/L	488.29 ppb	21:23:22
3	Tl 190.801†	270.5	317.0	450.03 µg/L	450.03 ppb	21:23:43
3	U 409.014†	5253.4	5725.9	429.24 µg/L	429.24 ppb	21:23:22
3	V 292.402†	44112.1	48168.7	504.31 µg/L	504.31 ppb	21:23:22
3	Zn 213.857†	19695.1	20961.5	454.79 µg/L	454.79 ppb	21:23:22

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1935462.2	92.181	%	0.6385				0.69%
Sc RADIAL	56517.6	95.7	%	0.75				0.78%
Y 371.029	1333139.1	91.594	%	0.6561				0.72%
Ag 328.068†	31673.8	251.46	µg/L	2.154	251.46	ppb	2.154	0.86%
QC value within limits for Ag 328.068 Recovery = 100.58%								
Al 396.153Radial†	695762.5	520140	µg/L	2693.2	520140	ppb	2693.2	0.52%
QC value within limits for Al 396.153Radial Recovery = 104.03%								
As 188.979†	261.8	455.82	µg/L	8.904	455.82	ppb	8.904	1.95%
QC value within limits for As 188.979 Recovery = 91.16%								
B 249.677†	12869.8	427.44	µg/L	6.116	427.44	ppb	6.116	1.43%
QC value within limits for B 249.677 Recovery = 85.49%								
Ba 233.527†	19895.0	488.39	µg/L	3.851	488.39	ppb	3.851	0.79%
QC value within limits for Ba 233.527 Recovery = 97.68%								
Be 313.107†	394011.4	237.76	µg/L	0.204	237.76	ppb	0.204	0.09%
QC value within limits for Be 313.107 Recovery = 95.11%								
Ca 317.933Radial†	536881.0	492460	µg/L	1656.6	492460	ppb	1656.6	0.34%
QC value within limits for Ca 317.933Radial Recovery = 98.49%								
Cd 226.502†	18579.2	446.31	µg/L	3.524	446.31	ppb	3.524	0.79%
QC value within limits for Cd 226.502 Recovery = 89.26%								
Co 228.616†	9176.2	424.25	µg/L	0.705	424.25	ppb	0.705	0.17%

QC value within limits for Co 228.616 Recovery = 84.85%

Cr 267.716†	23229.2	474.03 µg/L	4.691	474.03 ppb	4.691	0.99%

QC value within limits for Cr 267.716 Recovery = 94.81%

Cu 324.752†	75480.9	527.29 µg/L	4.252	527.29 ppb	4.252	0.81%

QC value within limits for Cu 324.752 Recovery = 105.46%

Fe 238.204 Radial†	22281.8	191280 µg/L	339.4	191280 ppb	339.4	0.18%

QC value within limits for Fe 238.204 Radial Recovery = 95.64%

K 766.490 Radial†	7300.4	5019.9 µg/L	23.52	5019.9 ppb	23.52	0.47%

QC value within limits for K 766.490 Radial Recovery = 100.40%

Mg 279.077 IEC†	51037.6	496560 µg/L	770.4	496560 ppb	770.4	0.16%

QC value within limits for Mg 279.077 IEC Recovery = 99.31%

Mn 257.610†	147467.7	474.98 µg/L	3.426	474.98 ppb	3.426	0.72%

QC value within limits for Mn 257.610 Recovery = 95.00%

Mo 202.031†	4831.5	491.36 µg/L	2.654	491.36 ppb	2.654	0.54%

QC value within limits for Mo 202.031 Recovery = 98.27%

Na 589.592 Radial†	15861.8	5185.7 µg/L	16.60	5185.7 ppb	16.60	0.32%

QC value within limits for Na 589.592 Radial Recovery = 103.71%

Ni 231.604†	8271.8	420.03 µg/L	1.463	420.03 ppb	1.463	0.35%

QC value within limits for Ni 231.604 Recovery = 84.01%

P 214.914†	1339.1	2611.0 µg/L	30.99	2611.0 ppb	30.99	1.19%

QC value within limits for P 214.914 Recovery = 104.44%

Pb 220.353†	1830.6	471.81 µg/L	4.941	471.81 ppb	4.941	1.05%

QC value within limits for Pb 220.353 Recovery = 94.36%

S 181.975 Axial†	648.0	2686.1 µg/L	7.86	2686.1 ppb	7.86	0.29%

QC value within limits for S 181.975 Axial Recovery = 107.44%

Sb 206.836†	579.3	488.62 µg/L	6.092	488.62 ppb	6.092	1.25%

QC value within limits for Sb 206.836 Recovery = 97.72%

Se 196.026†	1696.1	2267.0 µg/L	6.15	2267.0 ppb	6.15	0.27%

QC value within limits for Se 196.026 Recovery = 90.68%

SiO2†	53331.7	10680 µg/L	105.9	10680 ppb	105.9	0.99%

QC value within limits for SiO2 Recovery = 99.86%

Si 251.611†	64924.2	5011.1 µg/L	45.46	5011.1 ppb	45.46	0.91%

QC value within limits for Si 251.611 Recovery = 100.22%

Sn 189.927†	1085.6	500.00 µg/L	5.263	500.00 ppb	5.263	1.05%

QC value within limits for Sn 189.927 Recovery = 100.00%

Sr 421.552†	50405.7	495.75 µg/L	0.519	495.75 ppb	0.519	0.10%

QC value within limits for Sr 421.552 Recovery = 99.15%

Ti 334.940†	227860.1	486.88 µg/L	4.936	486.88 ppb	4.936	1.01%

QC value within limits for Ti 334.940 Recovery = 97.38%

Tl 190.801†	319.7	453.55 µg/L	9.321	453.55 ppb	9.321	2.06%

QC value within limits for Tl 190.801 Recovery = 90.71%

U 409.014†	5695.2	426.69 µg/L	3.040	426.69 ppb	3.040	0.71%

QC value within limits for U 409.014 Recovery = 85.34%

V 292.402†	47996.3	502.62 µg/L	4.677	502.62 ppb	4.677	0.93%

QC value within limits for V 292.402 Recovery = 100.52%

Zn 213.857†	20924.3	453.93 µg/L	3.877	453.93 ppb	3.877	0.85%

QC value within limits for Zn 213.857 Recovery = 90.79%

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/20/2010 21:23:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56319.3	56319.3	95.4	%			21:24:32
1	Al 396.153Radial†	661176.1	693168.0	518210	µg/L	518210	ppb	21:24:27
1	Ca 317.933Radial†	511430.3	535976.8	491630	µg/L	491630	ppb	21:24:27
1	Fe 238.204 Radial†	51860.2	54353.5	466580	µg/L	466580	ppb	21:24:32
1	K 766.490 Radial†	33.2	-163.6	-112.50	µg/L	-112.50	ppb	21:24:32
1	Mg 279.077 IEC†	48662.4	51004.2	495930	µg/L	495930	ppb	21:24:32
1	Na 589.592 Radial†	1456053.1	1526013.2	498900	µg/L	498900	ppb	21:24:27
1	Sr 421.552†	539.0	523.7	5.1507	µg/L	5.1507	ppb	21:24:32
1	Sc 361.383	1911423.8	1911423.8	91.036	%			21:25:07
1	Y 371.029	1306810.1	1306810.1	89.785	%			21:25:07
1	Ag 328.068†	-4548.6	-4533.3	-4.9291	µg/L	-4.9291	ppb	21:25:12
1	As 188.979†	-17.6	-19.1	-32.763	µg/L	-32.763	ppb	21:25:33
1	B 249.677†	1331.4	1137.0	-196.95	µg/L	-196.95	ppb	21:25:12
1	Ba 233.527†	550.5	623.1	15.131	µg/L	15.131	ppb	21:25:33
1	Be 313.107†	-11562.8	-8942.5	-5.4150	µg/L	-5.4150	ppb	21:25:12
1	Cd 226.502†	1148.5	1398.2	-17.553	µg/L	-17.553	ppb	21:25:12
1	Co 228.616†	198.0	214.9	9.8562	µg/L	9.8562	ppb	21:25:33
1	Cr 267.716†	1.5	49.0	0.9514	µg/L	0.9514	ppb	21:25:33
1	Cu 324.752†	-8413.1	-12111.2	-15.485	µg/L	-15.485	ppb	21:25:12
1	Mn 257.610†	-5482.5	-5719.8	23.991	µg/L	23.991	ppb	21:25:07
1	Mo 202.031†	-187.8	-203.0	-2.6104	µg/L	-2.6104	ppb	21:25:33
1	Ni 231.604†	63.7	-238.7	-6.0095	µg/L	-6.0095	ppb	21:25:33
1	P 214.914†	259.3	268.6	312.54	µg/L	312.54	ppb	21:25:33
1	Pb 220.353†	137.1	55.8	10.569	µg/L	10.569	ppb	21:25:33
1	S 181.975 Axial†	31.6	17.4	72.183	µg/L	72.183	ppb	21:25:33
1	Sb 206.836†	36.0	17.4	-27.203	µg/L	-27.203	ppb	21:25:33
1	Se 196.026†	-135.6	-163.9	472.01	µg/L	472.01	ppb	21:25:33
1	SiO2†	1118.5	-255.7	-51.211	µg/L	-51.211	ppb	21:25:33
1	Si 251.611†	-273.7	-594.2	-45.863	µg/L	-45.863	ppb	21:25:33
1	Sn 189.927†	-53.7	-63.8	-20.924	µg/L	-20.924	ppb	21:25:33
1	Ti 334.940†	15108.6	16454.6	6.0720	µg/L	6.0720	ppb	21:25:12
1	Tl 190.801†	-47.7	-30.2	35.804	µg/L	35.804	ppb	21:25:33
1	U 409.014†	144507.5	158737.3	13376	µg/L	13376	ppb	21:25:12
1	V 292.402†	-7150.1	-7758.1	-7.9850	µg/L	-7.9850	ppb	21:25:12
1	Zn 213.857†	2868.1	2648.5	12.380	µg/L	12.380	ppb	21:25:33
2	Sc RADIAL	56307.2	56307.2	95.4	%			21:24:44
2	Al 396.153Radial†	660050.3	692136.2	517440	µg/L	517440	ppb	21:24:39
2	Ca 317.933Radial†	509132.0	533681.9	489530	µg/L	489530	ppb	21:24:39
2	Fe 238.204 Radial†	51640.2	54134.4	464700	µg/L	464700	ppb	21:24:44
2	K 766.490 Radial†	93.5	-100.3	-68.978	µg/L	-68.978	ppb	21:24:44
2	Mg 279.077 IEC†	48394.2	50734.0	493310	µg/L	493310	ppb	21:24:44
2	Na 589.592 Radial†	1453903.8	1524087.1	498270	µg/L	498270	ppb	21:24:39
2	Sr 421.552†	530.3	514.7	5.0620	µg/L	5.0620	ppb	21:24:44
2	Sc 361.383	1899083.9	1899083.9	90.448	%			21:25:39
2	Y 371.029	1299144.4	1299144.4	89.258	%			21:25:39
2	Ag 328.068†	-4569.6	-4589.1	-5.4734	µg/L	-5.4734	ppb	21:25:45
2	As 188.979†	-29.7	-32.6	-57.152	µg/L	-57.152	ppb	21:26:06
2	B 249.677†	1359.0	1177.1	-194.33	µg/L	-194.33	ppb	21:25:45
2	Ba 233.527†	547.5	623.6	15.141	µg/L	15.141	ppb	21:26:06
2	Be 313.107†	-11635.7	-9105.6	-5.5135	µg/L	-5.5135	ppb	21:25:45
2	Cd 226.502†	1224.3	1490.1	-15.026	µg/L	-15.026	ppb	21:25:45
2	Co 228.616†	198.8	217.3	9.9633	µg/L	9.9633	ppb	21:26:06
2	Cr 267.716†	-2.4	44.7	0.8631	µg/L	0.8631	ppb	21:26:06
2	Cu 324.752†	-8395.8	-12152.1	-16.018	µg/L	-16.018	ppb	21:25:45
2	Mn 257.610†	-5392.3	-5659.2	24.039	µg/L	24.039	ppb	21:25:39
2	Mo 202.031†	-191.0	-207.9	-3.1681	µg/L	-3.1681	ppb	21:26:06
2	Ni 231.604†	67.1	-234.4	-5.8181	µg/L	-5.8181	ppb	21:26:06
2	P 214.914†	286.9	301.0	378.33	µg/L	378.33	ppb	21:26:06
2	Pb 220.353†	141.4	61.5	11.934	µg/L	11.934	ppb	21:26:06

2	S 181.975 Axial†	26.3	11.8	48.887 µg/L	48.887 ppb	21:26:06
2	Sb 206.836†	32.3	13.6	-30.568 µg/L	-30.568 ppb	21:26:06
2	Se 196.026†	-161.8	-193.9	428.79 µg/L	428.79 ppb	21:26:06
2	SiO2†	1124.4	-241.3	-48.318 µg/L	-48.318 ppb	21:26:06
2	Si 251.611†	-285.4	-609.1	-47.011 µg/L	-47.011 ppb	21:26:06
2	Sn 189.927†	-49.2	-59.2	-19.057 µg/L	-19.057 ppb	21:26:06
2	Ti 334.940†	15009.5	16452.9	6.2422 µg/L	6.2422 ppb	21:25:45
2	Tl 190.801†	-46.2	-28.8	37.585 µg/L	37.585 ppb	21:26:06
2	U 409.014†	144309.1	159549.3	13445 µg/L	13445 ppb	21:25:45
2	V 292.402†	-7245.7	-7914.8	-9.6891 µg/L	-9.6891 ppb	21:25:45
2	Zn 213.857†	2873.8	2675.3	13.249 µg/L	13.249 ppb	21:26:06
3	Sc RADIAL	56293.2	56293.2	95.3 %		21:24:56
3	Al 396.153Radial†	663696.2	696133.0	520420 µg/L	520420 ppb	21:24:50
3	Ca 317.933Radial†	512414.1	537257.6	492810 µg/L	492810 ppb	21:24:50
3	Fe 238.204 Radial†	51778.0	54292.5	466060 µg/L	466060 ppb	21:24:56
3	K 766.490 Radial†	127.5	-64.6	-44.448 µg/L	-44.448 ppb	21:24:56
3	Mg 279.077 IEC†	48568.4	50929.4	495210 µg/L	495210 ppb	21:24:56
3	Na 589.592 Radial†	1463081.6	1534093.7	501540 µg/L	501540 ppb	21:24:50
3	Sr 421.552†	546.3	531.6	5.2284 µg/L	5.2284 ppb	21:24:56
3	Sc 361.383	1897183.6	1897183.6	90.358 %		21:26:12
3	Y 371.029	1297152.7	1297152.7	89.122 %		21:26:12
3	Ag 328.068†	-4551.0	-4573.6	-5.2757 µg/L	-5.2757 ppb	21:26:18
3	As 188.979†	-29.1	-31.9	-56.001 µg/L	-56.001 ppb	21:26:39
3	B 249.677†	1366.1	1186.4	-194.65 µg/L	-194.65 ppb	21:26:18
3	Ba 233.527†	566.2	645.0	15.663 µg/L	15.663 ppb	21:26:39
3	Be 313.107†	-11542.1	-9014.9	-5.4586 µg/L	-5.4586 ppb	21:26:18
3	Cd 226.502†	1196.3	1460.6	-15.924 µg/L	-15.924 ppb	21:26:18
3	Co 228.616†	193.4	211.4	9.6922 µg/L	9.6922 ppb	21:26:39
3	Cr 267.716†	-23.2	21.8	0.3941 µg/L	0.3941 ppb	21:26:39
3	Cu 324.752†	-8442.9	-12213.6	-16.237 µg/L	-16.237 ppb	21:26:18
3	Mn 257.610†	-5234.6	-5490.6	24.680 µg/L	24.680 ppb	21:26:12
3	Mo 202.031†	-201.3	-219.4	-4.2764 µg/L	-4.2764 ppb	21:26:39
3	Ni 231.604†	61.8	-240.2	-6.0921 µg/L	-6.0921 ppb	21:26:39
3	P 214.914†	283.4	297.4	371.05 µg/L	371.05 ppb	21:26:39
3	Pb 220.353†	126.8	45.5	8.0375 µg/L	8.0375 ppb	21:26:39
3	S 181.975 Axial†	36.6	23.3	96.417 µg/L	96.417 ppb	21:26:39
3	Sb 206.836†	40.4	22.6	-22.620 µg/L	-22.620 ppb	21:26:39
3	Se 196.026†	-154.3	-185.8	441.00 µg/L	441.00 ppb	21:26:39
3	SiO2†	1148.6	-213.2	-42.702 µg/L	-42.702 ppb	21:26:39
3	Si 251.611†	-280.9	-604.4	-46.648 µg/L	-46.648 ppb	21:26:39
3	Sn 189.927†	-44.9	-54.4	-16.967 µg/L	-16.967 ppb	21:26:39
3	Ti 334.940†	14850.0	16293.0	5.7807 µg/L	5.7807 ppb	21:26:18
3	Tl 190.801†	-56.3	-40.1	22.746 µg/L	22.746 ppb	21:26:39
3	U 409.014†	144838.3	160294.9	13508 µg/L	13508 ppb	21:26:18
3	V 292.402†	-7286.7	-7968.3	-10.002 µg/L	-10.002 ppb	21:26:18
3	Zn 213.857†	2875.2	2680.1	13.192 µg/L	13.192 ppb	21:26:39

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1902563.7	90.614	%	0.3682				0.41%
Sc RADIAL	56306.6	95.4	%	0.02				0.02%
Y 371.029	1301035.8	89.388	%	0.3503				0.39%
Ag 328.068†	-4565.3	-5.2261	µg/L	0.27555	-5.2261	ppb	0.27555	5.27%
Al 396.153Radial†	693812.4	518690	µg/L	1551.2	518690	ppb	1551.2	0.30%
QC value within limits for Al 396.153Radial Recovery = 103.74%								
As 188.979†	-27.9	-48.639	µg/L	13.7607	-48.639	ppb	13.7607	28.29%
B 249.677†	1166.8	-195.31	µg/L	1.428	-195.31	ppb	1.428	0.73%
Ba 233.527†	630.6	15.312	µg/L	0.3045	15.312	ppb	0.3045	1.99%
Be 313.107†	-9021.0	-5.4624	µg/L	0.04935	-5.4624	ppb	0.04935	0.90%
Ca 317.933Radial†	535638.8	491320	µg/L	1661.8	491320	ppb	1661.8	0.34%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	1449.6	-16.168	µg/L	1.2808	-16.168	ppb	1.2808	7.92%
Co 228.616†	214.5	9.8373	µg/L	0.13654	9.8373	ppb	0.13654	1.39%
Cr 267.716†	38.5	0.7362	µg/L	0.29954	0.7362	ppb	0.29954	40.69%
Cu 324.752†	-12159.0	-15.913	µg/L	0.3867	-15.913	ppb	0.3867	2.43%
Fe 238.204 Radial†	54260.1	465780	µg/L	970.6	465780	ppb	970.6	0.21%
QC value within limits for Fe 238.204 Radial Recovery = 93.16%								
K 766.490 Radial†	-109.5	-75.310	µg/L	34.4673	-75.310	ppb	34.4673	45.77%
Mg 279.077 IEC†	50889.2	494820	µg/L	1356.9	494820	ppb	1356.9	0.27%

QC value within limits for Mg 279.077 IEC Recovery = 98.96%

Mn 257.610†	-5623.2	24.237 µg/L	0.3846	24.237 ppb	0.3846	1.59%
Mo 202.031†	-210.1	-3.3516 µg/L	0.84803	-3.3516 ppb	0.84803	25.30%
Na 589.592 Radial†	1528064.7	499570 µg/L	1735.8	499570 ppb	1735.8	0.35%

QC value within limits for Na 589.592 Radial Recovery = 99.91%

Ni 231.604†	-237.8	-5.9732 µg/L	0.14058	-5.9732 ppb	0.14058	2.35%
P 214.914†	289.0	353.97 µg/L	36.063	353.97 ppb	36.063	10.19%
Pb 220.353†	54.3	10.180 µg/L	1.9773	10.180 ppb	1.9773	19.42%
S 181.975 Axial†	17.5	72.496 µg/L	23.7669	72.496 ppb	23.7669	32.78%
Sb 206.836†	17.9	-26.797 µg/L	3.9894	-26.797 ppb	3.9894	14.89%
Se 196.026†	-181.2	447.27 µg/L	22.280	447.27 ppb	22.280	4.98%
SiO2†	-236.8	-47.410 µg/L	4.3267	-47.410 ppb	4.3267	9.13%
Si 251.611†	-602.6	-46.507 µg/L	0.5872	-46.507 ppb	0.5872	1.26%
Sn 189.927†	-59.1	-18.983 µg/L	1.9794	-18.983 ppb	1.9794	10.43%
Sr 421.552†	523.3	5.1470 µg/L	0.08328	5.1470 ppb	0.08328	1.62%
Ti 334.940†	16400.2	6.0316 µg/L	0.23335	6.0316 ppb	0.23335	3.87%
Tl 190.801†	-33.0	32.045 µg/L	8.1022	32.045 ppb	8.1022	25.28%
U 409.014†	159527.2	13443 µg/L	66.1	13443 ppb	66.1	0.49%

QC value less than the lower limit for U 409.014 Recovery = 89.62%

V 292.402†	-7880.4	-9.2255 µg/L	1.08567	-9.2255 ppb	1.08567	11.77%
Zn 213.857†	2668.0	12.941 µg/L	0.4861	12.941 ppb	0.4861	3.76%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/20/2010 21:26:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57570.1	57570.1	97.5	%			21:27:31
1	Al 396.153Radial†	354.6	372.3	71.948	µg/L	71.948	ppb	21:27:31
1	Ca 317.933Radial†	323.0	138.3	126.90	µg/L	126.90	ppb	21:27:51
1	Fe 238.204 Radial†	20.9	6.1	254.03	µg/L	254.03	ppb	21:27:51
1	K 766.490 Radial†	426369.9	437085.3	300550	µg/L	300550	ppb	21:27:25
1	Mg 279.077 IEC†	3.4	-8.6	85.087	µg/L	85.087	ppb	21:27:51
1	Na 589.592 Radial†	1212.7	770.0	251.74	µg/L	251.74	ppb	21:27:31
1	Sr 421.552†	975982.4	1000923.2	9844.3	µg/L	9844.3	ppb	21:27:25
1	Sc 361.383	2029765.1	2029765.1	96.672	%			21:29:22
1	Y 371.029	1394099.3	1394099.3	95.782	%			21:29:22
1	Ag 328.068†	-7470.5	-7264.5	12.428	µg/L	12.428	ppb	21:29:28
1	As 188.979†	5223.9	5404.0	9707.6	µg/L	9707.6	ppb	21:29:28
1	B 249.677†	116739.4	120432.3	4965.6	µg/L	4965.6	ppb	21:29:22
1	Ba 233.527†	575109.5	594924.2	14597	µg/L	14597	ppb	21:29:22
1	Be 313.107†	4646470.7	4810169.2	2901.2	µg/L	2901.2	ppb	21:29:12
1	Cd 226.502†	368833.4	381665.9	9613.5	µg/L	9613.5	ppb	21:29:22
1	Co 228.616†	198549.2	205381.1	9498.2	µg/L	9498.2	ppb	21:29:22
1	Cr 267.716†	1152796.9	1192525.5	24327	µg/L	24327	ppb	21:29:22
1	Cu 324.752†	2973051.4	3072519.3	20382	µg/L	20382	ppb	21:29:22
1	Mn 257.610†	2913350.0	3013935.2	9593.8	µg/L	9593.8	ppb	21:29:22
1	Mo 202.031†	96941.9	100282.1	10048	µg/L	10048	ppb	21:29:22
1	Ni 231.604†	185082.7	191144.9	9649.0	µg/L	9649.0	ppb	21:29:22
1	P 214.914†	7533.3	7776.4	13467	µg/L	13467	ppb	21:29:28
1	Pb 220.353†	99093.8	102410.0	25193	µg/L	25193	ppb	21:29:22
1	S 181.975 Axial†	12552.0	12966.8	53750	µg/L	53750	ppb	21:29:28
1	Sb 206.836†	11176.0	11538.6	10423	µg/L	10423	ppb	21:29:28
1	Se 196.026†	6976.8	7202.0	9866.5	µg/L	9866.5	ppb	21:29:28
1	SiO2†	482128.7	497240.0	99573	µg/L	99573	ppb	21:29:22
1	Si 251.611†	581728.1	601458.7	46423	µg/L	46423	ppb	21:29:22
1	Sn 189.927†	24049.3	24872.4	10636	µg/L	10636	ppb	21:29:28
1	Ti 334.940†	4256383.8	4402754.3	10014	µg/L	10014	ppb	21:29:12
1	Tl 190.801†	6983.3	7245.9	9779.9	µg/L	9779.9	ppb	21:29:28
1	U 409.014†	901.5	933.3	79.184	µg/L	79.184	ppb	21:29:22
1	V 292.402†	986603.2	1020659.8	10230	µg/L	10230	ppb	21:29:22
1	Zn 213.857†	597835.2	617911.8	14508	µg/L	14508	ppb	21:29:22
2	Sc RADIAL	57078.6	57078.6	96.7	%			21:28:03
2	Al 396.153Radial†	352.3	373.1	76.000	µg/L	76.000	ppb	21:28:03
2	Ca 317.933Radial†	312.2	129.9	119.19	µg/L	119.19	ppb	21:28:23
2	Fe 238.204 Radial†	17.3	2.5	220.00	µg/L	220.00	ppb	21:28:23
2	K 766.490 Radial†	423893.6	438289.0	301380	µg/L	301380	ppb	21:27:57
2	Mg 279.077 IEC†	2.7	-9.3	75.162	µg/L	75.162	ppb	21:28:23
2	Na 589.592 Radial†	1105.5	669.8	218.98	µg/L	218.98	ppb	21:28:03
2	Sr 421.552†	969342.4	1002673.6	9861.5	µg/L	9861.5	ppb	21:27:57
2	Sc 361.383	2028163.4	2028163.4	96.596	%			21:29:47
2	Y 371.029	1393408.8	1393408.8	95.735	%			21:29:47
2	Ag 328.068†	-7099.6	-6886.6	14.057	µg/L	14.057	ppb	21:29:53
2	As 188.979†	5031.0	5208.6	9356.2	µg/L	9356.2	ppb	21:29:53
2	B 249.677†	115607.6	119355.9	4920.7	µg/L	4920.7	ppb	21:29:47
2	Ba 233.527†	566441.9	586420.9	14388	µg/L	14388	ppb	21:29:47
2	Be 313.107†	4612573.7	4778873.4	2882.4	µg/L	2882.4	ppb	21:29:37
2	Cd 226.502†	363199.7	376134.9	9474.2	µg/L	9474.2	ppb	21:29:47
2	Co 228.616†	194824.0	201686.7	9327.1	µg/L	9327.1	ppb	21:29:47
2	Cr 267.716†	1125042.3	1164734.7	23760	µg/L	23760	ppb	21:29:47
2	Cu 324.752†	2916624.0	3016532.2	20010	µg/L	20010	ppb	21:29:47
2	Mn 257.610†	2861035.9	2962157.5	9429.0	µg/L	9429.0	ppb	21:29:47
2	Mo 202.031†	95232.3	98591.5	9878.5	µg/L	9878.5	ppb	21:29:47
2	Ni 231.604†	181755.8	187852.0	9482.8	µg/L	9482.8	ppb	21:29:47
2	P 214.914†	7167.0	7403.3	12755	µg/L	12755	ppb	21:29:53
2	Pb 220.353†	97865.0	101218.9	24900	µg/L	24900	ppb	21:29:47

2	S 181.975 Axial†	12058.1	12465.7	51673	µg/L	51673 ppb	21:29:53
2	Sb 206.836†	10663.3	11016.9	9950.7	µg/L	9950.7 ppb	21:29:53
2	Se 196.026†	6714.4	6936.0	9502.0	µg/L	9502.0 ppb	21:29:53
2	SiO2†	477940.5	493298.1	98783	µg/L	98783 ppb	21:29:47
2	Si 251.611†	576641.4	596667.9	46053	µg/L	46053 ppb	21:29:47
2	Sn 189.927†	22523.4	23312.4	9969.1	µg/L	9969.1 ppb	21:29:53
2	Ti 334.940†	4224180.4	4372893.1	9945.7	µg/L	9945.7 ppb	21:29:37
2	Tl 190.801†	6829.2	7092.1	9573.7	µg/L	9573.7 ppb	21:29:53
2	U 409.014†	845.2	875.8	74.310	µg/L	74.310 ppb	21:29:47
2	V 292.402†	968239.1	1002454.5	10047	µg/L	10047 ppb	21:29:47
2	Zn 213.857†	587539.9	607742.1	14269	µg/L	14269 ppb	21:29:47
3	Sc RADIAL	57562.2	57562.2	97.5	%		21:28:35
3	Al 396.153Radial†	336.7	354.1	87.622	µg/L	87.622 ppb	21:28:35
3	Ca 317.933Radial†	297.4	112.1	102.83	µg/L	102.83 ppb	21:28:55
3	Fe 238.204 Radial†	19.3	4.4	210.74	µg/L	210.74 ppb	21:28:55
3	K 766.490 Radial†	428234.2	439057.3	301900	µg/L	301900 ppb	21:28:29
3	Mg 279.077 IEC†	-0.2	-12.3	25.060	µg/L	25.060 ppb	21:28:55
3	Na 589.592 Radial†	1027.6	580.3	189.73	µg/L	189.73 ppb	21:28:35
3	Sr 421.552†	980045.3	1005227.6	9886.6	µg/L	9886.6 ppb	21:28:29
3	Sc 361.383	2036165.2	2036165.2	96.977	%		21:30:12
3	Y 371.029	1397984.2	1397984.2	96.049	%		21:30:12
3	Ag 328.068†	-6111.9	-5839.3	13.309	µg/L	13.309 ppb	21:30:17
3	As 188.979†	4468.8	4608.3	8278.2	µg/L	8278.2 ppb	21:30:17
3	B 249.677†	105724.6	108694.6	4478.9	µg/L	4478.9 ppb	21:30:12
3	Ba 233.527†	502450.4	518130.2	12713	µg/L	12713 ppb	21:30:12
3	Be 313.107†	4258535.6	4395034.4	2650.9	µg/L	2650.9 ppb	21:30:02
3	Cd 226.502†	321177.4	331325.2	8345.4	µg/L	8345.4 ppb	21:30:12
3	Co 228.616†	170352.2	175659.6	8122.5	µg/L	8122.5 ppb	21:30:12
3	Cr 267.716†	960792.7	990788.3	20212	µg/L	20212 ppb	21:30:12
3	Cu 324.752†	2556467.1	2633283.3	17468	µg/L	17468 ppb	21:30:12
3	Mn 257.610†	2509934.7	2588472.7	8239.5	µg/L	8239.5 ppb	21:30:12
3	Mo 202.031†	83435.6	86039.6	8620.8	µg/L	8620.8 ppb	21:30:12
3	Ni 231.604†	158831.9	163474.1	8252.2	µg/L	8252.2 ppb	21:30:12
3	P 214.914†	6202.0	6379.0	10964	µg/L	10964 ppb	21:30:17
3	Pb 220.353†	88046.6	90696.3	22311	µg/L	22311 ppb	21:30:12
3	S 181.975 Axial†	10674.1	10989.5	45554	µg/L	45554 ppb	21:30:17
3	Sb 206.836†	9290.3	9557.8	8638.2	µg/L	8638.2 ppb	21:30:17
3	Se 196.026†	5942.3	6112.6	8374.1	µg/L	8374.1 ppb	21:30:17
3	SiO2†	432835.4	444842.6	89080	µg/L	89080 ppb	21:30:12
3	Si 251.611†	522227.7	538212.2	41541	µg/L	41541 ppb	21:30:12
3	Sn 189.927†	19231.9	19826.6	8478.5	µg/L	8478.5 ppb	21:30:17
3	Ti 334.940†	3898845.7	4020232.3	9143.6	µg/L	9143.6 ppb	21:30:02
3	Tl 190.801†	6234.2	6450.8	8708.6	µg/L	8708.6 ppb	21:30:17
3	U 409.014†	735.3	758.9	64.395	µg/L	64.395 ppb	21:30:12
3	V 292.402†	844854.5	871284.9	8731.9	µg/L	8731.9 ppb	21:30:12
3	Zn 213.857†	517334.3	532957.9	12514	µg/L	12514 ppb	21:30:12

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031364.6	96.749	%	0.2017				0.21%
Sc RADIAL	57403.6	97.2	%	0.48				0.49%
Y 371.029	1395164.1	95.856	%	0.1695				0.18%
Ag 328.068†	-6663.5	13.265	µg/L	0.8152	13.265	ppb	0.8152	6.15%
Al 396.153Radial†	366.5	78.523	µg/L	8.1361	78.523	ppb	8.1361	10.36%
As 188.979†	5073.6	9114.0	µg/L	744.83	9114.0	ppb	744.83	8.17%
QC value within limits for As 188.979 Recovery = 91.14%								
B 249.677†	116160.9	4788.4	µg/L	269.00	4788.4	ppb	269.00	5.62%
QC value within limits for B 249.677 Recovery = 95.77%								
Ba 233.527†	566491.8	13899	µg/L	1033.1	13899	ppb	1033.1	7.43%
QC value within limits for Ba 233.527 Recovery = 92.66%								
Be 313.107†	4661359.0	2811.5	µg/L	139.43	2811.5	ppb	139.43	4.96%
QC value within limits for Be 313.107 Recovery = 93.72%								
Ca 317.933Radial†	126.8	116.31	µg/L	12.291	116.31	ppb	12.291	10.57%
Cd 226.502†	363042.0	9144.4	µg/L	695.42	9144.4	ppb	695.42	7.60%
QC value within limits for Cd 226.502 Recovery = 91.44%								
Co 228.616†	194242.5	8982.6	µg/L	749.77	8982.6	ppb	749.77	8.35%
QC value less than the lower limit for Co 228.616 Recovery = 89.83%								
Cr 267.716†	1116016.2	22766	µg/L	2230.3	22766	ppb	2230.3	9.80%
QC value within limits for Cr 267.716 Recovery = 91.06%								

Cu 324.752†	2907444.9	19287 µg/L	1585.9	19287 ppb	1585.9	8.22%
QC value within limits for Cu 324.752 Recovery = 96.43%						
Fe 238.204 Radial†	4.4	228.26 µg/L	22.796	228.26 ppb	22.796	9.99%
K 766.490 Radial†	438143.9	301280 µg/L	683.5	301280 ppb	683.5	0.23%
QC value within limits for K 766.490 Radial Recovery = 100.43%						
Mg 279.077 IEC†	-10.1	61.770 µg/L	32.1767	61.770 ppb	32.1767	52.09%
Mn 257.610†	2854855.1	9087.5 µg/L	738.94	9087.5 ppb	738.94	8.13%
QC value within limits for Mn 257.610 Recovery = 90.87%						
Mo 202.031†	94971.1	9515.7 µg/L	779.62	9515.7 ppb	779.62	8.19%
QC value within limits for Mo 202.031 Recovery = 95.16%						
Na 589.592 Radial†	673.4	220.15 µg/L	31.021	220.15 ppb	31.021	14.09%
Ni 231.604†	180823.7	9128.0 µg/L	763.01	9128.0 ppb	763.01	8.36%
QC value within limits for Ni 231.604 Recovery = 91.28%						
P 214.914†	7186.3	12395 µg/L	1289.4	12395 ppb	1289.4	10.40%
QC value less than the lower limit for P 214.914 Recovery = 82.64%						
Pb 220.353†	98108.4	24135 µg/L	1585.8	24135 ppb	1585.8	6.57%
QC value within limits for Pb 220.353 Recovery = 96.54%						
S 181.975 Axial†	12140.7	50326 µg/L	4261.0	50326 ppb	4261.0	8.47%
QC value within limits for S 181.975 Axial Recovery = 100.65%						
Sb 206.836†	10704.4	9670.7 µg/L	924.95	9670.7 ppb	924.95	9.56%
QC value within limits for Sb 206.836 Recovery = 96.71%						
Se 196.026†	6750.2	9247.5 µg/L	778.07	9247.5 ppb	778.07	8.41%
QC value within limits for Se 196.026 Recovery = 92.48%						
SiO2†	478460.3	95812 µg/L	5843.4	95812 ppb	5843.4	6.10%
QC value less than the lower limit for SiO2 Recovery = 89.54%						
Si 251.611†	578779.6	44672 µg/L	2717.9	44672 ppb	2717.9	6.08%
QC value less than the lower limit for Si 251.611 Recovery = 89.34%						
Sn 189.927†	22670.5	9694.6 µg/L	1104.76	9694.6 ppb	1104.76	11.40%
QC value within limits for Sn 189.927 Recovery = 96.95%						
Sr 421.552†	1002941.5	9864.1 µg/L	21.29	9864.1 ppb	21.29	0.22%
QC value within limits for Sr 421.552 Recovery = 98.64%						
Ti 334.940†	4265293.2	9701.0 µg/L	483.88	9701.0 ppb	483.88	4.99%
QC value within limits for Ti 334.940 Recovery = 97.01%						
Tl 190.801†	6929.6	9354.1 µg/L	568.44	9354.1 ppb	568.44	6.08%
QC value within limits for Tl 190.801 Recovery = 93.54%						
U 409.014†	856.0	72.629 µg/L	7.5363	72.629 ppb	7.5363	10.38%
V 292.402†	964799.7	9669.7 µg/L	817.32	9669.7 ppb	817.32	8.45%
QC value within limits for V 292.402 Recovery = 96.70%						
Zn 213.857†	586203.9	13764 µg/L	1089.0	13764 ppb	1089.0	7.91%
QC value within limits for Zn 213.857 Recovery = 91.76%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 21:30:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58258.0	58258.0	98.7	%			21:31:05
1	Al 396.153Radial†	6918.0	7020.0	5237.2	µg/L	5237.2	ppb	21:31:26
1	Ca 317.933Radial†	5814.9	5700.3	5228.7	µg/L	5228.7	ppb	21:31:26
1	Fe 238.204 Radial†	617.1	610.0	5247.5	µg/L	5247.5	ppb	21:31:26
1	K 766.490 Radial†	7653.7	7558.5	5197.4	µg/L	5197.4	ppb	21:31:05
1	Mg 279.077 IEC†	556.5	552.0	5375.6	µg/L	5375.6	ppb	21:31:26
1	Na 589.592 Radial†	31918.2	31874.9	10421	µg/L	10421	ppb	21:31:05
1	Sr 421.552†	49932.5	50564.6	497.31	µg/L	497.31	ppb	21:31:05
1	Sc 361.383	2055342.0	2055342.0	97.891	%			21:32:29
1	Y 371.029	1419555.7	1419555.7	97.531	%			21:32:29
1	Ag 328.068†	65831.4	67713.1	508.83	µg/L	508.83	ppb	21:32:35
1	As 188.979†	283.8	290.2	521.31	µg/L	521.31	ppb	21:32:55
1	B 249.677†	12674.3	12621.9	514.45	µg/L	514.45	ppb	21:32:35
1	Ba 233.527†	20512.3	20972.7	514.87	µg/L	514.87	ppb	21:32:35
1	Be 313.107†	822161.1	843637.0	509.31	µg/L	509.31	ppb	21:32:29
1	Cd 226.502†	19793.2	20356.3	512.15	µg/L	512.15	ppb	21:32:35
1	Co 228.616†	10945.4	11178.7	517.03	µg/L	517.03	ppb	21:32:35
1	Cr 267.716†	24904.8	25488.8	520.14	µg/L	520.14	ppb	21:32:35
1	Cu 324.752†	79044.9	77878.5	517.33	µg/L	517.33	ppb	21:32:35
1	Mn 257.610†	158354.9	162069.9	516.37	µg/L	516.37	ppb	21:32:29
1	Mo 202.031†	5194.6	5309.9	532.23	µg/L	532.23	ppb	21:32:55
1	Ni 231.604†	10266.4	10179.0	513.89	µg/L	513.89	ppb	21:32:35
1	P 214.914†	1294.8	1306.5	2548.2	µg/L	2548.2	ppb	21:32:55
1	Pb 220.353†	2218.3	2171.4	534.48	µg/L	534.48	ppb	21:32:55
1	S 181.975 Axial†	265.9	254.3	1054.3	µg/L	1054.3	ppb	21:32:55
1	Sb 206.836†	579.1	569.4	522.22	µg/L	522.22	ppb	21:32:55
1	Se 196.026†	398.8	392.4	545.68	µg/L	545.68	ppb	21:32:55
1	SiO2†	28465.2	27594.2	5525.8	µg/L	5525.8	ppb	21:32:35
1	Si 251.611†	33015.0	33432.9	2580.5	µg/L	2580.5	ppb	21:32:35
1	Sn 189.927†	1221.3	1242.9	531.57	µg/L	531.57	ppb	21:32:55
1	Ti 334.940†	221072.4	225694.7	512.98	µg/L	512.98	ppb	21:32:29
1	Tl 190.801†	353.3	383.1	518.22	µg/L	518.22	ppb	21:32:55
1	U 409.014†	5936.1	6064.7	513.62	µg/L	513.62	ppb	21:32:35
1	V 292.402†	50601.0	51787.4	518.73	µg/L	518.73	ppb	21:32:35
1	Zn 213.857†	22201.9	22178.4	519.77	µg/L	519.77	ppb	21:32:35
2	Sc RADIAL	58528.4	58528.4	99.1	%			21:31:31
2	Al 396.153Radial†	6911.1	6980.7	5207.8	µg/L	5207.8	ppb	21:31:52
2	Ca 317.933Radial†	5816.8	5675.0	5205.5	µg/L	5205.5	ppb	21:31:52
2	Fe 238.204 Radial†	621.0	611.1	5256.9	µg/L	5256.9	ppb	21:31:52
2	K 766.490 Radial†	7645.9	7514.9	5167.3	µg/L	5167.3	ppb	21:31:31
2	Mg 279.077 IEC†	562.3	555.2	5406.9	µg/L	5406.9	ppb	21:31:52
2	Na 589.592 Radial†	32154.9	31964.3	10450	µg/L	10450	ppb	21:31:31
2	Sr 421.552†	50256.5	50657.6	498.23	µg/L	498.23	ppb	21:31:31
2	Sc 361.383	2049002.3	2049002.3	97.589	%			21:33:02
2	Y 371.029	1415800.4	1415800.4	97.273	%			21:33:02
2	Ag 328.068†	66395.3	68499.1	514.72	µg/L	514.72	ppb	21:33:08
2	As 188.979†	281.3	288.5	518.30	µg/L	518.30	ppb	21:33:29
2	B 249.677†	12746.7	12736.2	519.12	µg/L	519.12	ppb	21:33:08
2	Ba 233.527†	20498.4	21023.3	516.12	µg/L	516.12	ppb	21:33:08
2	Be 313.107†	822769.6	846859.1	511.26	µg/L	511.26	ppb	21:33:02
2	Cd 226.502†	19891.6	20519.7	516.26	µg/L	516.26	ppb	21:33:08
2	Co 228.616†	10978.0	11246.7	520.17	µg/L	520.17	ppb	21:33:08
2	Cr 267.716†	24873.7	25535.7	521.10	µg/L	521.10	ppb	21:33:08
2	Cu 324.752†	79277.4	78366.6	520.57	µg/L	520.57	ppb	21:33:08
2	Mn 257.610†	158426.5	162643.8	518.20	µg/L	518.20	ppb	21:33:02
2	Mo 202.031†	5139.8	5270.1	528.25	µg/L	528.25	ppb	21:33:29
2	Ni 231.604†	10369.8	10317.4	520.88	µg/L	520.88	ppb	21:33:08
2	P 214.914†	1278.0	1293.4	2521.8	µg/L	2521.8	ppb	21:33:29
2	Pb 220.353†	2203.0	2162.6	532.31	µg/L	532.31	ppb	21:33:29

2	S 181.975 Axial†	260.6	249.8	1035.3 µg/L	1035.3 ppb	21:33:29
2	Sb 206.836†	590.6	583.1	534.60 µg/L	534.60 ppb	21:33:29
2	Se 196.026†	385.9	380.5	529.28 µg/L	529.28 ppb	21:33:29
2	SiO2†	28603.4	27825.8	5572.1 µg/L	5572.1 ppb	21:33:08
2	Si 251.611†	33225.8	33753.3	2605.2 µg/L	2605.2 ppb	21:33:08
2	Sn 189.927†	1218.5	1243.9	531.99 µg/L	531.99 ppb	21:33:29
2	Ti 334.940†	221391.6	226720.5	515.31 µg/L	515.31 ppb	21:33:02
2	Tl 190.801†	360.6	391.8	529.83 µg/L	529.83 ppb	21:33:29
2	U 409.014†	6004.7	6153.9	521.19 µg/L	521.19 ppb	21:33:08
2	V 292.402†	50812.9	52164.5	522.44 µg/L	522.44 ppb	21:33:08
2	Zn 213.857†	22254.7	22302.7	522.67 µg/L	522.67 ppb	21:33:08
3	Sc RADIAL	58868.7	58868.7	99.7 %		21:31:57
3	Al 396.153Radial†	6921.4	6950.7	5187.3 µg/L	5187.3 ppb	21:32:17
3	Ca 317.933Radial†	5823.1	5647.5	5180.2 µg/L	5180.2 ppb	21:32:17
3	Fe 238.204 Radial†	618.4	604.9	5202.2 µg/L	5202.2 ppb	21:32:17
3	K 766.490 Radial†	7742.9	7567.5	5203.6 µg/L	5203.6 ppb	21:31:57
3	Mg 279.077 IEC†	559.2	548.8	5343.2 µg/L	5343.2 ppb	21:32:17
3	Na 589.592 Radial†	32419.4	32042.1	10475 µg/L	10475 ppb	21:31:57
3	Sr 421.552†	50911.5	51021.5	501.81 µg/L	501.81 ppb	21:31:57
3	Sc 361.383	2043315.4	2043315.4	97.318 %		21:33:36
3	Y 371.029	1411646.9	1411646.9	96.988 %		21:33:36
3	Ag 328.068†	61998.6	64170.5	482.04 µg/L	482.04 ppb	21:33:41
3	As 188.979†	234.6	241.3	433.58 µg/L	433.58 ppb	21:34:02
3	B 249.677†	11861.3	11862.8	483.31 µg/L	483.31 ppb	21:33:41
3	Ba 233.527†	18520.3	19049.1	467.64 µg/L	467.64 ppb	21:33:41
3	Be 313.107†	758581.3	783248.1	472.86 µg/L	472.86 ppb	21:33:36
3	Cd 226.502†	17923.1	18553.7	466.74 µg/L	466.74 ppb	21:33:41
3	Co 228.616†	9807.5	10075.2	465.93 µg/L	465.93 ppb	21:33:41
3	Cr 267.716†	21574.8	22216.8	453.38 µg/L	453.38 ppb	21:33:41
3	Cu 324.752†	71081.7	70171.1	466.20 µg/L	466.20 ppb	21:33:41
3	Mn 257.610†	146406.7	150744.5	480.32 µg/L	480.32 ppb	21:33:36
3	Mo 202.031†	4257.5	4378.1	438.87 µg/L	438.87 ppb	21:34:02
3	Ni 231.604†	9243.2	9189.3	463.93 µg/L	463.93 ppb	21:33:41
3	P 214.914†	1085.3	1099.0	2139.6 µg/L	2139.6 ppb	21:34:02
3	Pb 220.353†	1894.5	1852.0	455.77 µg/L	455.77 ppb	21:34:02
3	S 181.975 Axial†	233.0	222.1	920.81 µg/L	920.81 ppb	21:34:02
3	Sb 206.836†	504.5	496.2	454.65 µg/L	454.65 ppb	21:34:02
3	Se 196.026†	333.2	327.4	456.46 µg/L	456.46 ppb	21:34:02
3	SiO2†	26341.3	25582.9	5123.0 µg/L	5123.0 ppb	21:33:41
3	Si 251.611†	30488.1	31034.9	2395.4 µg/L	2395.4 ppb	21:33:41
3	Sn 189.927†	988.1	1010.6	432.21 µg/L	432.21 ppb	21:34:02
3	Ti 334.940†	202773.8	208221.0	473.24 µg/L	473.24 ppb	21:33:36
3	Tl 190.801†	315.1	346.0	468.23 µg/L	468.23 ppb	21:34:02
3	U 409.014†	5246.0	5391.4	456.49 µg/L	456.49 ppb	21:33:41
3	V 292.402†	45024.2	46361.1	464.12 µg/L	464.12 ppb	21:33:41
3	Zn 213.857†	19886.7	19932.9	467.08 µg/L	467.08 ppb	21:33:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2049219.9	97.599	%	0.2865				0.29%
Sc RADIAL	58551.7	99.2	%	0.52				0.52%
Y 371.029	1415667.7	97.264	%	0.2718				0.28%
Ag 328.068†	66794.3	501.86	µg/L	17.414	501.86	ppb	17.414	3.47%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	6983.8	5210.8	µg/L	25.08	5210.8	ppb	25.08	0.48%
QC value within limits for Al 396.153Radial Recovery = 104.22%								
As 188.979†	273.3	491.06	µg/L	49.809	491.06	ppb	49.809	10.14%
QC value within limits for As 188.979 Recovery = 98.21%								
B 249.677†	12407.0	505.63	µg/L	19.468	505.63	ppb	19.468	3.85%
QC value within limits for B 249.677 Recovery = 101.13%								
Ba 233.527†	20348.4	499.54	µg/L	27.638	499.54	ppb	27.638	5.53%
QC value within limits for Ba 233.527 Recovery = 99.91%								
Be 313.107†	824581.4	497.81	µg/L	21.631	497.81	ppb	21.631	4.35%
QC value within limits for Be 313.107 Recovery = 99.56%								
Ca 317.933Radial†	5674.3	5204.8	µg/L	24.26	5204.8	ppb	24.26	0.47%
QC value within limits for Ca 317.933Radial Recovery = 104.10%								
Cd 226.502†	19809.9	498.39	µg/L	27.480	498.39	ppb	27.480	5.51%
QC value within limits for Cd 226.502 Recovery = 99.68%								
Co 228.616†	10833.5	501.05	µg/L	30.448	501.05	ppb	30.448	6.08%

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   QC value within limits for Co 228.616  Recovery = 100.21%
Cr 267.716†            24413.8      498.21 µg/L        38.826      498.21 ppb         38.826   7.79%
   QC value within limits for Cr 267.716  Recovery = 99.64%
Cu 324.752†            75472.1      501.37 µg/L        30.500      501.37 ppb         30.500   6.08%
   QC value within limits for Cu 324.752  Recovery = 100.27%
Fe 238.204 Radial†       608.7      5235.5 µg/L         29.27      5235.5 ppb          29.27   0.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.71%
K 766.490 Radial†       7547.0      5189.4 µg/L         19.38      5189.4 ppb          19.38   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 103.79%
Mg 279.077 IEC†          552.0      5375.2 µg/L         31.85      5375.2 ppb          31.85   0.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.50%
Mn 257.610†           158486.1      504.97 µg/L        21.363      504.97 ppb         21.363   4.23%
   QC value within limits for Mn 257.610  Recovery = 100.99%
Mo 202.031†             4986.1      499.78 µg/L        52.790      499.78 ppb         52.790  10.56%
   QC value within limits for Mo 202.031  Recovery = 99.96%
Na 589.592 Radial†     31960.4       10449 µg/L          27.3       10449 ppb           27.3   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 104.49%
Ni 231.604†             9895.2      499.57 µg/L        31.060      499.57 ppb         31.060   6.22%
   QC value within limits for Ni 231.604  Recovery = 99.91%
P 214.914†              1233.0      2403.2 µg/L        228.67      2403.2 ppb         228.67   9.52%
   QC value within limits for P 214.914  Recovery = 96.13%
Pb 220.353†             2062.0      507.52 µg/L        44.832      507.52 ppb         44.832   8.83%
   QC value within limits for Pb 220.353  Recovery = 101.50%
S 181.975 Axial†         242.1      1003.5 µg/L         72.21      1003.5 ppb          72.21   7.20%
   QC value within limits for S 181.975 Axial  Recovery = 100.35%
Sb 206.836†              549.6      503.82 µg/L        43.033      503.82 ppb         43.033   8.54%
   QC value within limits for Sb 206.836  Recovery = 100.76%
Se 196.026†              366.7      510.47 µg/L        47.489      510.47 ppb         47.489   9.30%
   QC value within limits for Se 196.026  Recovery = 102.09%
SiO2†                  27001.0      5407.0 µg/L        247.02      5407.0 ppb         247.02   4.57%
   QC value within limits for SiO2  Recovery = 101.11%
Si 251.611†            32740.4      2527.0 µg/L        114.67      2527.0 ppb         114.67   4.54%
   QC value within limits for Si 251.611  Recovery = 101.08%
Sn 189.927†             1165.8      498.59 µg/L        57.483      498.59 ppb         57.483  11.53%
   QC value within limits for Sn 189.927  Recovery = 99.72%
Sr 421.552†            50747.9      499.12 µg/L         2.375      499.12 ppb          2.375   0.48%
   QC value within limits for Sr 421.552  Recovery = 99.82%
Ti 334.940†           220212.1      500.51 µg/L        23.646      500.51 ppb         23.646   4.72%
   QC value within limits for Ti 334.940  Recovery = 100.10%
Tl 190.801†              373.6      505.43 µg/L        32.736      505.43 ppb         32.736   6.48%
   QC value within limits for Tl 190.801  Recovery = 101.09%
U 409.014†              5870.0      497.10 µg/L        35.374      497.10 ppb         35.374   7.12%
   QC value within limits for U 409.014  Recovery = 99.42%
V 292.402†             50104.4      501.77 µg/L        32.656      501.77 ppb         32.656   6.51%
   QC value within limits for V 292.402  Recovery = 100.35%
Zn 213.857†            21471.3      503.17 µg/L        31.289      503.17 ppb         31.289   6.22%
   QC value within limits for Zn 213.857  Recovery = 100.63%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 21:34:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57134.4	57134.4	96.8	%			21:34:44
1	Al 396.153Radial†	12.3	21.4	15.996	µg/L	15.996	ppb	21:34:44
1	Ca 317.933Radial†	226.6	41.2	37.828	µg/L	37.828	ppb	21:35:04
1	Fe 238.204 Radial†	16.2	1.4	11.796	µg/L	11.796	ppb	21:35:04
1	K 766.490 Radial†	325.0	137.5	94.513	µg/L	94.513	ppb	21:34:44
1	Mg 279.077 IEC†	13.3	1.6	15.841	µg/L	15.841	ppb	21:35:04
1	Na 589.592 Radial†	736.3	287.2	93.896	µg/L	93.896	ppb	21:34:44
1	Sr 421.552†	116.9	79.5	0.7816	µg/L	0.7816	ppb	21:34:44
1	Sc 361.383	2053403.3	2053403.3	97.798	%			21:36:06
1	Y 371.029	1422840.1	1422840.1	97.757	%			21:36:06
1	Ag 328.068†	-371.1	83.7	0.6280	µg/L	0.6280	ppb	21:36:12
1	As 188.979†	1.0	1.3	2.3692	µg/L	2.3692	ppb	21:36:33
1	B 249.677†	518.8	205.0	8.3831	µg/L	8.3831	ppb	21:36:33
1	Ba 233.527†	8.6	27.1	0.6651	µg/L	0.6651	ppb	21:36:33
1	Be 313.107†	-3351.1	332.3	0.2005	µg/L	0.2005	ppb	21:36:12
1	Cd 226.502†	-120.3	13.6	0.3419	µg/L	0.3419	ppb	21:36:33
1	Co 228.616†	13.8	11.5	0.5347	µg/L	0.5347	ppb	21:36:33
1	Cr 267.716†	20.8	68.7	1.4014	µg/L	1.4014	ppb	21:36:12
1	Cu 324.752†	3165.9	367.4	2.4389	µg/L	2.4389	ppb	21:36:12
1	Mn 257.610†	-152.9	146.3	0.4665	µg/L	0.4665	ppb	21:36:33
1	Mo 202.031†	9.9	13.5	1.3512	µg/L	1.3512	ppb	21:36:33
1	Ni 231.604†	324.4	23.0	1.1634	µg/L	1.1634	ppb	21:36:33
1	P 214.914†	16.0	0.2	0.1011	µg/L	0.1011	ppb	21:36:33
1	Pb 220.353†	124.8	32.8	8.0675	µg/L	8.0675	ppb	21:36:33
1	S 181.975 Axial†	18.1	1.2	4.8561	µg/L	4.8561	ppb	21:36:33
1	Sb 206.836†	24.5	3.0	2.7028	µg/L	2.7028	ppb	21:36:33
1	Se 196.026†	24.5	10.1	13.821	µg/L	13.821	ppb	21:36:33
1	SiO2†	1544.0	94.4	18.894	µg/L	18.894	ppb	21:36:12
1	Si 251.611†	374.6	89.6	6.9122	µg/L	6.9122	ppb	21:36:33
1	Sn 189.927†	7.1	2.6	1.0956	µg/L	1.0956	ppb	21:36:33
1	Ti 334.940†	371.2	237.9	0.5404	µg/L	0.5404	ppb	21:36:12
1	Tl 190.801†	-25.6	-4.0	-5.3134	µg/L	-5.3134	ppb	21:36:33
1	U 409.014†	9.7	10.7	0.9049	µg/L	0.9049	ppb	21:36:12
1	V 292.402†	-51.3	43.5	0.4466	µg/L	0.4466	ppb	21:36:12
1	Zn 213.857†	599.8	111.4	2.6177	µg/L	2.6177	ppb	21:36:33
2	Sc RADIAL	57584.4	57584.4	97.5	%			21:35:10
2	Al 396.153Radial†	5.4	14.3	10.634	µg/L	10.634	ppb	21:35:10
2	Ca 317.933Radial†	220.2	32.8	30.087	µg/L	30.087	ppb	21:35:30
2	Fe 238.204 Radial†	17.5	2.6	21.985	µg/L	21.985	ppb	21:35:30
2	K 766.490 Radial†	218.9	26.1	17.917	µg/L	17.917	ppb	21:35:10
2	Mg 279.077 IEC†	14.6	2.9	27.793	µg/L	27.793	ppb	21:35:30
2	Na 589.592 Radial†	662.7	205.7	67.259	µg/L	67.259	ppb	21:35:10
2	Sr 421.552†	77.0	37.6	0.3694	µg/L	0.3694	ppb	21:35:10
2	Sc 361.383	2045860.3	2045860.3	97.439	%			21:36:38
2	Y 371.029	1417907.7	1417907.7	97.418	%			21:36:38
2	Ag 328.068†	-375.1	78.2	0.5885	µg/L	0.5885	ppb	21:36:44
2	As 188.979†	4.9	5.3	9.5965	µg/L	9.5965	ppb	21:37:05
2	B 249.677†	501.2	188.9	7.7183	µg/L	7.7183	ppb	21:37:05
2	Ba 233.527†	10.7	29.3	0.7188	µg/L	0.7188	ppb	21:37:05
2	Be 313.107†	-3374.8	295.3	0.1781	µg/L	0.1781	ppb	21:36:44
2	Cd 226.502†	-126.7	6.5	0.1622	µg/L	0.1622	ppb	21:37:05
2	Co 228.616†	12.3	10.1	0.4656	µg/L	0.4656	ppb	21:37:05
2	Cr 267.716†	18.2	66.1	1.3478	µg/L	1.3478	ppb	21:36:44
2	Cu 324.752†	3217.3	432.2	2.8698	µg/L	2.8698	ppb	21:36:44
2	Mn 257.610†	-152.8	145.8	0.4659	µg/L	0.4659	ppb	21:37:05
2	Mo 202.031†	5.9	9.4	0.9444	µg/L	0.9444	ppb	21:37:05
2	Ni 231.604†	307.6	7.0	0.3538	µg/L	0.3538	ppb	21:37:05
2	P 214.914†	10.7	-5.3	-10.805	µg/L	-10.805	ppb	21:37:05
2	Pb 220.353†	109.4	17.5	4.3032	µg/L	4.3032	ppb	21:37:05

2	S 181.975 Axial†	16.6	-0.3	-1.1655 µg/L	-1.1655 ppb		21:37:05
2	Sb 206.836†	26.1	4.6	4.2202 µg/L	4.2202 ppb		21:37:05
2	Se 196.026†	17.6	3.0	4.1962 µg/L	4.1962 ppb		21:37:05
2	SiO2†	1544.4	100.6	20.146 µg/L	20.146 ppb		21:36:44
2	Si 251.611†	389.3	106.0	8.1841 µg/L	8.1841 ppb		21:37:05
2	Sn 189.927†	5.7	1.2	0.5057 µg/L	0.5057 ppb		21:37:05
2	Ti 334.940†	442.3	312.3	0.7085 µg/L	0.7085 ppb		21:36:44
2	Tl 190.801†	-22.1	-0.4	-0.5366 µg/L	-0.5366 ppb		21:37:05
2	U 409.014†	77.1	79.9	6.7734 µg/L	6.7734 ppb		21:36:44
2	V 292.402†	-36.4	58.6	0.5998 µg/L	0.5998 ppb		21:36:44
2	Zn 213.857†	604.7	118.6	2.7914 µg/L	2.7914 ppb		21:37:05
3	Sc RADIAL	57348.8	57348.8	97.1 %			21:35:36
3	Al 396.153Radial†	9.1	18.1	13.478 µg/L	13.478 ppb		21:35:36
3	Ca 317.933Radial†	222.5	36.1	33.128 µg/L	33.128 ppb		21:35:56
3	Fe 238.204 Radial†	17.6	2.7	23.399 µg/L	23.399 ppb		21:35:56
3	K 766.490 Radial†	272.0	81.6	56.131 µg/L	56.131 ppb		21:35:36
3	Mg 279.077 IEC†	15.3	3.6	35.472 µg/L	35.472 ppb		21:35:56
3	Na 589.592 Radial†	697.9	244.8	80.020 µg/L	80.020 ppb		21:35:36
3	Sr 421.552†	63.5	24.0	0.2364 µg/L	0.2364 ppb		21:35:36
3	Sc 361.383	2060878.4	2060878.4	98.154 %			21:37:11
3	Y 371.029	1428093.8	1428093.8	98.118 %			21:37:11
3	Ag 328.068†	-406.7	48.8	0.3697 µg/L	0.3697 ppb		21:37:16
3	As 188.979†	1.3	1.6	2.9013 µg/L	2.9013 ppb		21:37:37
3	B 249.677†	493.4	177.2	7.2381 µg/L	7.2381 ppb		21:37:37
3	Ba 233.527†	24.8	43.6	1.0692 µg/L	1.0692 ppb		21:37:37
3	Be 313.107†	-3499.3	193.8	0.1168 µg/L	0.1168 ppb		21:37:16
3	Cd 226.502†	-123.2	11.1	0.2773 µg/L	0.2773 ppb		21:37:37
3	Co 228.616†	10.7	8.3	0.3869 µg/L	0.3869 ppb		21:37:37
3	Cr 267.716†	-11.0	36.2	0.7393 µg/L	0.7393 ppb		21:37:16
3	Cu 324.752†	3123.2	312.2	2.0741 µg/L	2.0741 ppb		21:37:16
3	Mn 257.610†	-179.2	120.0	0.3838 µg/L	0.3838 ppb		21:37:37
3	Mo 202.031†	14.4	18.0	1.8034 µg/L	1.8034 ppb		21:37:37
3	Ni 231.604†	318.5	15.8	0.8000 µg/L	0.8000 ppb		21:37:37
3	P 214.914†	11.5	-4.5	-9.0965 µg/L	-9.0965 ppb		21:37:37
3	Pb 220.353†	118.2	25.6	6.2932 µg/L	6.2932 ppb		21:37:37
3	S 181.975 Axial†	15.5	-1.5	-6.0762 µg/L	-6.0762 ppb		21:37:37
3	Sb 206.836†	24.7	3.1	2.8299 µg/L	2.8299 ppb		21:37:37
3	Se 196.026†	19.1	4.5	6.1770 µg/L	6.1770 ppb		21:37:37
3	SiO2†	1494.4	38.1	7.6305 µg/L	7.6305 ppb		21:37:16
3	Si 251.611†	382.0	95.7	7.3845 µg/L	7.3845 ppb		21:37:37
3	Sn 189.927†	8.3	3.8	1.6138 µg/L	1.6138 ppb		21:37:37
3	Ti 334.940†	379.8	245.3	0.5555 µg/L	0.5555 ppb		21:37:16
3	Tl 190.801†	-21.3	0.6	0.7731 µg/L	0.7731 ppb		21:37:37
3	U 409.014†	46.7	48.4	4.0995 µg/L	4.0995 ppb		21:37:16
3	V 292.402†	-29.8	65.7	0.6722 µg/L	0.6722 ppb		21:37:16
3	Zn 213.857†	587.7	96.8	2.2748 µg/L	2.2748 ppb		21:37:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2053380.7	97.797	%	0.3576				0.37%
Sc RADIAL	57355.9	97.1	%	0.38				0.39%
Y 371.029	1422947.2	97.764	%	0.3500				0.36%
Ag 328.068†	70.2	0.5287	µg/L	0.13915	0.5287	ppb	0.13915	26.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.9	13.369	µg/L	2.6826	13.369	ppb	2.6826	20.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	4.9557	µg/L	4.02788	4.9557	ppb	4.02788	81.28%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	190.4	7.7798	µg/L	0.57496	7.7798	ppb	0.57496	7.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	33.3	0.8177	µg/L	0.21948	0.8177	ppb	0.21948	26.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	273.8	0.1651	µg/L	0.04331	0.1651	ppb	0.04331	26.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	36.7	33.681	µg/L	3.8999	33.681	ppb	3.8999	11.58%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.2605	µg/L	0.09104	0.2605	ppb	0.09104	34.95%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.0	0.4624	µg/L	0.07393	0.4624	ppb	0.07393	15.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                57.0      1.1628 µg/L       0.36776      1.1628 ppb        0.36776  31.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               370.6      2.4609 µg/L       0.39832      2.4609 ppb        0.39832  16.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.2      19.060 µg/L        6.3305     19.060 ppb         6.3305  33.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          81.7      56.187 µg/L       38.2981     56.187 ppb        38.2981  68.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.7      26.369 µg/L        9.8923     26.369 ppb         9.8923  37.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               137.4       0.4387 µg/L       0.04758      0.4387 ppb        0.04758  10.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.6       1.3663 µg/L       0.42970      1.3663 ppb        0.42970  31.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        245.9      80.392 µg/L       13.3222     80.392 ppb        13.3222  16.57%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.3       0.7724 µg/L       0.40552      0.7724 ppb        0.40552  52.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.2      -6.6003 µg/L       5.86613     -6.6003 ppb        5.86613  88.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                25.3       6.2213 µg/L       1.88319      6.2213 ppb        1.88319  30.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.2      -0.7952 µg/L       5.47556     -0.7952 ppb        5.47556 688.55%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.6       3.2510 µg/L       0.84177      3.2510 ppb        0.84177  25.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.9       8.0648 µg/L       5.08269      8.0648 ppb        5.08269  63.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      77.7      15.557 µg/L        6.8931     15.557 ppb         6.8931  44.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                97.1       7.4936 µg/L       0.64290      7.4936 ppb        0.64290   8.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.5       1.0717 µg/L       0.55441      1.0717 ppb        0.55441  51.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                47.0       0.4625 µg/L       0.28430      0.4625 ppb        0.28430  61.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               265.1       0.6015 µg/L       0.09301      0.6015 ppb        0.09301  15.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.3      -1.6923 µg/L       3.20365     -1.6923 ppb        3.20365 189.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 46.3       3.9259 µg/L       2.93808      3.9259 ppb        2.93808  74.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 55.9       0.5728 µg/L       0.11519      0.5728 ppb        0.11519  20.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               108.9       2.5613 µg/L       0.26286      2.5613 ppb        0.26286  10.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/20/2010 22:12:52 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022010.SIF
Batch ID:
Results Data Set: 022010C
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/20/2010 19:48:18**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/20/2010 22:12:55**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56823.3	56823.3	96.2	%			22:13:29
1	Al 396.153Radial†	6779.6	7053.2	5262.2	µg/L	5262.2	ppb	22:13:29
1	Ca 317.933Radial†	5656.2	5684.2	5213.9	µg/L	5213.9	ppb	22:13:49
1	Fe 238.204 Radial†	612.3	620.8	5340.4	µg/L	5340.4	ppb	22:13:49

1	K 766.490 Radial†	7360.7	7449.9	5122.7 µg/L	5122.7 ppb	22:13:29
1	Mg 279.077 IEC†	551.2	560.7	5460.5 µg/L	5460.5 ppb	22:13:49
1	Na 589.592 Radial†	31464.7	32220.5	10534 µg/L	10534 ppb	22:13:29
1	Sr 421.552†	49272.3	51156.2	503.13 µg/L	503.13 ppb	22:13:29
1	Sc 361.383	2061302.8	2061302.8	98.174 %		22:14:53
1	Y 371.029	1421783.1	1421783.1	97.684 %		22:14:53
1	Ag 328.068†	65899.8	67588.3	507.89 µg/L	507.89 ppb	22:14:58
1	As 188.979†	280.7	286.2	514.11 µg/L	514.11 ppb	22:15:19
1	B 249.677†	12356.0	12260.3	499.60 µg/L	499.60 ppb	22:14:58
1	Ba 233.527†	20373.0	20770.2	509.90 µg/L	509.90 ppb	22:14:58
1	Be 313.107†	828097.3	847254.8	511.50 µg/L	511.50 ppb	22:14:53
1	Cd 226.502†	19746.1	20249.9	509.46 µg/L	509.46 ppb	22:14:58
1	Co 228.616†	10940.2	11141.1	515.28 µg/L	515.28 ppb	22:14:58
1	Cr 267.716†	24642.8	25148.5	513.20 µg/L	513.20 ppb	22:14:58
1	Cu 324.752†	78467.9	77057.3	511.90 µg/L	511.90 ppb	22:14:58
1	Mn 257.610†	159108.4	162369.6	517.34 µg/L	517.34 ppb	22:14:53
1	Mo 202.031†	5106.6	5204.9	521.71 µg/L	521.71 ppb	22:15:19
1	Ni 231.604†	10301.1	10184.0	514.15 µg/L	514.15 ppb	22:14:58
1	P 214.914†	1277.0	1284.6	2505.0 µg/L	2505.0 ppb	22:15:19
1	Pb 220.353†	2145.9	2091.0	514.68 µg/L	514.68 ppb	22:15:19
1	S 181.975 Axial†	265.3	253.0	1048.6 µg/L	1048.6 ppb	22:15:19
1	Sb 206.836†	574.3	562.9	516.17 µg/L	516.17 ppb	22:15:19
1	Se 196.026†	386.2	378.4	526.66 µg/L	526.66 ppb	22:15:19
1	SiO2†	28213.4	27253.6	5457.6 µg/L	5457.6 ppb	22:14:58
1	Si 251.611†	32765.5	33081.2	2553.3 µg/L	2553.3 ppb	22:14:58
1	Sn 189.927†	1207.9	1225.7	524.19 µg/L	524.19 ppb	22:15:19
1	Ti 334.940†	222142.4	226131.6	513.96 µg/L	513.96 ppb	22:14:53
1	Tl 190.801†	360.7	389.7	527.00 µg/L	527.00 ppb	22:15:19
1	U 409.014†	6010.5	6123.0	518.56 µg/L	518.56 ppb	22:14:58
1	V 292.402†	50504.7	51539.9	516.20 µg/L	516.20 ppb	22:14:58
1	Zn 213.857†	21927.1	21832.9	511.62 µg/L	511.62 ppb	22:14:58
2	Sc RADIAL	57242.8	57242.8	96.9 %		22:13:55
2	Al 396.153Radial†	6869.5	7094.3	5292.9 µg/L	5292.9 ppb	22:13:55
2	Ca 317.933Radial†	5669.5	5654.9	5187.0 µg/L	5187.0 ppb	22:14:15
2	Fe 238.204 Radial†	613.7	617.6	5312.2 µg/L	5312.2 ppb	22:14:15
2	K 766.490 Radial†	7451.6	7487.6	5148.6 µg/L	5148.6 ppb	22:13:55
2	Mg 279.077 IEC†	551.2	556.5	5419.6 µg/L	5419.6 ppb	22:14:15
2	Na 589.592 Radial†	31655.2	32177.4	10520 µg/L	10520 ppb	22:13:55
2	Sr 421.552†	49674.6	51196.1	503.52 µg/L	503.52 ppb	22:13:55
2	Sc 361.383	2034508.7	2034508.7	96.898 %		22:15:26
2	Y 371.029	1404777.1	1404777.1	96.516 %		22:15:26
2	Ag 328.068†	65111.9	67659.3	508.42 µg/L	508.42 ppb	22:15:32
2	As 188.979†	276.9	286.0	513.83 µg/L	513.83 ppb	22:15:52
2	B 249.677†	12217.6	12283.2	500.55 µg/L	500.55 ppb	22:15:32
2	Ba 233.527†	20109.4	20771.4	509.94 µg/L	509.94 ppb	22:15:32
2	Be 313.107†	818478.3	848436.6	512.21 µg/L	512.21 ppb	22:15:26
2	Cd 226.502†	19476.7	20236.8	509.13 µg/L	509.13 ppb	22:15:32
2	Co 228.616†	10743.6	11085.0	512.68 µg/L	512.68 ppb	22:15:32
2	Cr 267.716†	24304.7	25130.1	512.82 µg/L	512.82 ppb	22:15:32
2	Cu 324.752†	77516.2	77127.8	512.36 µg/L	512.36 ppb	22:15:32
2	Mn 257.610†	157296.9	162634.5	518.18 µg/L	518.18 ppb	22:15:26
2	Mo 202.031†	5051.7	5216.7	522.90 µg/L	522.90 ppb	22:15:52
2	Ni 231.604†	10117.7	10132.9	511.57 µg/L	511.57 ppb	22:15:32
2	P 214.914†	1275.0	1299.5	2534.8 µg/L	2534.8 ppb	22:15:52
2	Pb 220.353†	2141.4	2115.2	520.65 µg/L	520.65 ppb	22:15:52
2	S 181.975 Axial†	252.7	243.5	1009.5 µg/L	1009.5 ppb	22:15:52
2	Sb 206.836†	565.0	561.0	514.48 µg/L	514.48 ppb	22:15:52
2	Se 196.026†	378.8	376.0	523.29 µg/L	523.29 ppb	22:15:52
2	SiO2†	27857.1	27264.4	5459.7 µg/L	5459.7 ppb	22:15:32
2	Si 251.611†	32373.2	33116.0	2556.0 µg/L	2556.0 ppb	22:15:32
2	Sn 189.927†	1189.0	1222.4	522.77 µg/L	522.77 ppb	22:15:52
2	Ti 334.940†	219896.1	226793.3	515.47 µg/L	515.47 ppb	22:15:26
2	Tl 190.801†	352.9	386.4	522.65 µg/L	522.65 ppb	22:15:52
2	U 409.014†	5845.5	6033.3	510.95 µg/L	510.95 ppb	22:15:32
2	V 292.402†	49914.5	51608.3	516.88 µg/L	516.88 ppb	22:15:32
2	Zn 213.857†	21654.1	21845.3	511.92 µg/L	511.92 ppb	22:15:32
3	Sc RADIAL	57543.1	57543.1	97.5 %		22:14:20
3	Al 396.153Radial†	6877.7	7065.8	5273.5 µg/L	5273.5 ppb	22:14:20
3	Ca 317.933Radial†	5660.8	5615.5	5150.9 µg/L	5150.9 ppb	22:14:41
3	Fe 238.204 Radial†	610.5	611.1	5255.2 µg/L	5255.2 ppb	22:14:41
3	K 766.490 Radial†	7434.8	7430.3	5109.2 µg/L	5109.2 ppb	22:14:20

3	Mg 279.077 IEC†	551.8	554.1	5395.2 µg/L	5395.2 ppb	22:14:41
3	Na 589.592 Radial†	31802.3	32157.9	10513 µg/L	10513 ppb	22:14:20
3	Sr 421.552†	49999.8	51262.3	504.18 µg/L	504.18 ppb	22:14:20
3	Sc 361.383	2052108.6	2052108.6	97.737 %		22:15:59
3	Y 371.029	1416657.7	1416657.7	97.332 %		22:15:59
3	Ag 328.068†	61547.1	63435.6	476.51 µg/L	476.51 ppb	22:16:05
3	As 188.979†	236.3	242.1	434.90 µg/L	434.90 ppb	22:16:25
3	B 249.677†	11462.5	11402.5	464.44 µg/L	464.44 ppb	22:16:05
3	Ba 233.527†	18301.3	18743.5	460.13 µg/L	460.13 ppb	22:16:05
3	Be 313.107†	763518.1	784959.2	473.89 µg/L	473.89 ppb	22:15:59
3	Cd 226.502†	17660.5	18206.1	457.98 µg/L	457.98 ppb	22:16:05
3	Co 228.616†	9679.7	9901.3	457.87 µg/L	457.87 ppb	22:16:05
3	Cr 267.716†	21297.1	21837.7	445.64 µg/L	445.64 ppb	22:16:05
3	Cu 324.752†	70165.8	68921.1	457.92 µg/L	457.92 ppb	22:16:05
3	Mn 257.610†	147281.8	150995.3	481.12 µg/L	481.12 ppb	22:15:59
3	Mo 202.031†	4169.8	4269.7	428.01 µg/L	428.01 ppb	22:16:25
3	Ni 231.604†	9147.2	9050.4	456.92 µg/L	456.92 ppb	22:16:05
3	P 214.914†	1082.1	1090.9	2124.3 µg/L	2124.3 ppb	22:16:25
3	Pb 220.353†	1845.5	1793.4	441.36 µg/L	441.36 ppb	22:16:25
3	S 181.975 Axial†	228.0	216.0	895.36 µg/L	895.36 ppb	22:16:25
3	Sb 206.836†	479.1	468.0	428.82 µg/L	428.82 ppb	22:16:25
3	Se 196.026†	334.4	327.1	456.22 µg/L	456.22 ppb	22:16:25
3	SiO2†	25891.7	25006.9	5007.7 µg/L	5007.7 ppb	22:16:05
3	Si 251.611†	29967.0	30367.5	2343.9 µg/L	2343.9 ppb	22:16:05
3	Sn 189.927†	968.4	986.2	421.77 µg/L	421.77 ppb	22:16:25
3	Ti 334.940†	203768.6	208345.9	473.52 µg/L	473.52 ppb	22:15:59
3	Tl 190.801†	308.0	337.4	456.71 µg/L	456.71 ppb	22:16:25
3	U 409.014†	5292.0	5415.3	458.52 µg/L	458.52 ppb	22:16:05
3	V 292.402†	44442.9	45568.1	456.18 µg/L	456.18 ppb	22:16:05
3	Zn 213.857†	19577.7	19529.1	457.59 µg/L	457.59 ppb	22:16:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2049306.7	97.603	%	0.6484				0.66%
Sc RADIAL	57203.1	96.9	%	0.61				0.63%
Y 371.029	1414406.0	97.178	%	0.5994				0.62%
Ag 328.068†	66227.7	497.61	µg/L	18.269	497.61	ppb	18.269	3.67%
QC value within limits for Ag 328.068 Recovery = 99.52%								
Al 396.153Radial†	7071.1	5276.2	µg/L	15.52	5276.2	ppb	15.52	0.29%
QC value within limits for Al 396.153Radial Recovery = 105.52%								
As 188.979†	271.4	487.62	µg/L	45.651	487.62	ppb	45.651	9.36%
QC value within limits for As 188.979 Recovery = 97.52%								
B 249.677†	11982.0	488.19	µg/L	20.577	488.19	ppb	20.577	4.21%
QC value within limits for B 249.677 Recovery = 97.64%								
Ba 233.527†	20095.0	493.32	µg/L	28.745	493.32	ppb	28.745	5.83%
QC value within limits for Ba 233.527 Recovery = 98.66%								
Be 313.107†	826883.5	499.20	µg/L	21.921	499.20	ppb	21.921	4.39%
QC value within limits for Be 313.107 Recovery = 99.84%								
Ca 317.933Radial†	5651.5	5183.9	µg/L	31.64	5183.9	ppb	31.64	0.61%
QC value within limits for Ca 317.933Radial Recovery = 103.68%								
Cd 226.502†	19564.3	492.19	µg/L	29.625	492.19	ppb	29.625	6.02%
QC value within limits for Cd 226.502 Recovery = 98.44%								
Co 228.616†	10709.1	495.28	µg/L	32.420	495.28	ppb	32.420	6.55%
QC value within limits for Co 228.616 Recovery = 99.06%								
Cr 267.716†	24038.8	490.55	µg/L	38.896	490.55	ppb	38.896	7.93%
QC value within limits for Cr 267.716 Recovery = 98.11%								
Cu 324.752†	74368.7	494.06	µg/L	31.302	494.06	ppb	31.302	6.34%
QC value within limits for Cu 324.752 Recovery = 98.81%								
Fe 238.204 Radial†	616.5	5302.6	µg/L	43.37	5302.6	ppb	43.37	0.82%
QC value within limits for Fe 238.204 Radial Recovery = 106.05%								
K 766.490 Radial†	7456.0	5126.8	µg/L	20.03	5126.8	ppb	20.03	0.39%
QC value within limits for K 766.490 Radial Recovery = 102.54%								
Mg 279.077 IEC†	557.1	5425.1	µg/L	33.00	5425.1	ppb	33.00	0.61%
QC value within limits for Mg 279.077 IEC Recovery = 108.50%								
Mn 257.610†	158666.5	505.55	µg/L	21.156	505.55	ppb	21.156	4.18%
QC value within limits for Mn 257.610 Recovery = 101.11%								
Mo 202.031†	4897.1	490.87	µg/L	54.446	490.87	ppb	54.446	11.09%
QC value within limits for Mo 202.031 Recovery = 98.17%								
Na 589.592 Radial†	32185.2	10522	µg/L	10.5	10522	ppb	10.5	0.10%

```
   QC value within limits for Na 589.592 Radial  Recovery = 105.22%
Ni 231.604†            9789.1      494.21 µg/L        32.319      494.21 ppb        32.319   6.54%
   QC value within limits for Ni 231.604  Recovery = 98.84%
P 214.914†             1225.0      2388.0 µg/L       228.90      2388.0 ppb        228.90   9.59%
   QC value within limits for P 214.914  Recovery = 95.52%
Pb 220.353†            1999.9      492.23 µg/L        44.158      492.23 ppb        44.158   8.97%
   QC value within limits for Pb 220.353  Recovery = 98.45%
S 181.975 Axial†        237.5      984.47 µg/L        79.605      984.47 ppb        79.605   8.09%
   QC value within limits for S 181.975 Axial  Recovery = 98.45%
Sb 206.836†             530.6      486.49 µg/L        49.951      486.49 ppb        49.951  10.27%
   QC value within limits for Sb 206.836  Recovery = 97.30%
Se 196.026†             360.5      502.06 µg/L        39.734      502.06 ppb        39.734   7.91%
   QC value within limits for Se 196.026  Recovery = 100.41%
SiO2†                 26508.3      5308.3 µg/L       260.37      5308.3 ppb        260.37   4.90%
   QC value within limits for SiO2  Recovery = 99.27%
Si 251.611†           32188.2      2484.4 µg/L       121.71      2484.4 ppb        121.71   4.90%
   QC value within limits for Si 251.611  Recovery = 99.38%
Sn 189.927†            1144.7      489.58 µg/L        58.731      489.58 ppb        58.731  12.00%
   QC value within limits for Sn 189.927  Recovery = 97.92%
Sr 421.552†           51204.9      503.61 µg/L         0.527      503.61 ppb         0.527   0.10%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†          220423.6      500.98 µg/L        23.800      500.98 ppb        23.800   4.75%
   QC value within limits for Ti 334.940  Recovery = 100.20%
Tl 190.801†             371.1      502.12 µg/L        39.384      502.12 ppb        39.384   7.84%
   QC value within limits for Tl 190.801  Recovery = 100.42%
U 409.014†             5857.2      496.01 µg/L        32.692      496.01 ppb        32.692   6.59%
   QC value within limits for U 409.014  Recovery = 99.20%
V 292.402†            49572.1      496.42 µg/L        34.850      496.42 ppb        34.850   7.02%
   QC value within limits for V 292.402  Recovery = 99.28%
Zn 213.857†           21069.1      493.71 µg/L        31.280      493.71 ppb        31.280   6.34%
   QC value within limits for Zn 213.857  Recovery = 98.74%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 22:16:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56690.7	56690.7	96.0	%			22:17:07
1	Al 396.153Radial†	-16.2	-8.1	-6.0850	µg/L	-6.0850	ppb	22:17:07
1	Ca 317.933Radial†	187.6	2.4	2.1692	µg/L	2.1692	ppb	22:17:28
1	Fe 238.204 Radial†	14.2	-0.6	-4.8794	µg/L	-4.8794	ppb	22:17:28
1	K 766.490 Radial†	253.3	65.4	45.004	µg/L	45.004	ppb	22:17:07
1	Mg 279.077 IEC†	12.1	0.6	5.4377	µg/L	5.4377	ppb	22:17:28
1	Na 589.592 Radial†	501.2	48.3	15.796	µg/L	15.796	ppb	22:17:07
1	Sr 421.552†	52.2	13.1	0.1284	µg/L	0.1284	ppb	22:17:07
1	Sc 361.383	2044523.0	2044523.0	97.375	%			22:18:29
1	Y 371.029	1416244.4	1416244.4	97.304	%			22:18:29
1	Ag 328.068†	-376.8	76.2	0.5704	µg/L	0.5704	ppb	22:18:35
1	As 188.979†	-0.4	-0.1	-0.2510	µg/L	-0.2510	ppb	22:18:55
1	B 249.677†	369.4	53.8	2.2047	µg/L	2.2047	ppb	22:18:55
1	Ba 233.527†	-7.2	10.9	0.2687	µg/L	0.2687	ppb	22:18:55
1	Be 313.107†	-3638.5	22.2	0.0133	µg/L	0.0133	ppb	22:18:35
1	Cd 226.502†	-132.8	0.2	0.0051	µg/L	0.0051	ppb	22:18:55
1	Co 228.616†	-1.0	-3.6	-0.1674	µg/L	-0.1674	ppb	22:18:55
1	Cr 267.716†	-58.2	-12.3	-0.2514	µg/L	-0.2514	ppb	22:18:35
1	Cu 324.752†	2937.3	146.8	0.9729	µg/L	0.9729	ppb	22:18:35
1	Mn 257.610†	-281.5	13.5	0.0420	µg/L	0.0420	ppb	22:18:55
1	Mo 202.031†	1.3	4.7	0.4660	µg/L	0.4660	ppb	22:18:55
1	Ni 231.604†	297.6	-3.0	-0.1533	µg/L	-0.1533	ppb	22:18:55
1	P 214.914†	18.1	2.4	4.5665	µg/L	4.5665	ppb	22:18:55
1	Pb 220.353†	93.5	1.2	0.2968	µg/L	0.2968	ppb	22:18:55
1	S 181.975 Axial†	14.8	-2.1	-8.7907	µg/L	-8.7907	ppb	22:18:55
1	Sb 206.836†	30.0	8.7	7.9428	µg/L	7.9428	ppb	22:18:55
1	Se 196.026†	14.1	-0.5	-0.6684	µg/L	-0.6684	ppb	22:18:55
1	SiO2†	1435.5	-10.3	-2.0535	µg/L	-2.0535	ppb	22:18:35
1	Si 251.611†	314.0	28.9	2.2323	µg/L	2.2323	ppb	22:18:55
1	Sn 189.927†	3.1	-1.5	-0.6542	µg/L	-0.6542	ppb	22:18:55
1	Ti 334.940†	250.4	115.5	0.2624	µg/L	0.2624	ppb	22:18:35
1	Tl 190.801†	-18.8	3.0	3.9540	µg/L	3.9540	ppb	22:18:55
1	U 409.014†	-2.3	-1.6	-0.1352	µg/L	-0.1352	ppb	22:18:35
1	V 292.402†	-60.1	34.3	0.3418	µg/L	0.3418	ppb	22:18:35
1	Zn 213.857†	516.6	28.6	0.6744	µg/L	0.6744	ppb	22:18:55
2	Sc RADIAL	56718.4	56718.4	96.1	%			22:17:33
2	Al 396.153Radial†	-2.8	5.8	4.3005	µg/L	4.3005	ppb	22:17:33
2	Ca 317.933Radial†	197.7	12.8	11.737	µg/L	11.737	ppb	22:17:53
2	Fe 238.204 Radial†	14.6	-0.2	-1.3875	µg/L	-1.3875	ppb	22:17:53
2	K 766.490 Radial†	188.2	-2.4	-1.6769	µg/L	-1.6769	ppb	22:17:33
2	Mg 279.077 IEC†	9.3	-2.4	-23.345	µg/L	-23.345	ppb	22:17:53
2	Na 589.592 Radial†	507.7	54.8	17.905	µg/L	17.905	ppb	22:17:33
2	Sr 421.552†	60.1	21.2	0.2085	µg/L	0.2085	ppb	22:17:33
2	Sc 361.383	2044848.8	2044848.8	97.391	%			22:19:01
2	Y 371.029	1415277.2	1415277.2	97.237	%			22:19:01
2	Ag 328.068†	-435.9	15.6	0.1141	µg/L	0.1141	ppb	22:19:07
2	As 188.979†	-3.2	-3.0	-5.3653	µg/L	-5.3653	ppb	22:19:28
2	B 249.677†	353.2	37.2	1.5224	µg/L	1.5224	ppb	22:19:28
2	Ba 233.527†	-16.0	1.9	0.0468	µg/L	0.0468	ppb	22:19:28
2	Be 313.107†	-3616.2	45.8	0.0275	µg/L	0.0275	ppb	22:19:07
2	Cd 226.502†	-134.3	-1.3	-0.0313	µg/L	-0.0313	ppb	22:19:28
2	Co 228.616†	4.9	2.5	0.1147	µg/L	0.1147	ppb	22:19:28
2	Cr 267.716†	-54.1	-8.2	-0.1673	µg/L	-0.1673	ppb	22:19:07
2	Cu 324.752†	2929.6	138.3	0.9174	µg/L	0.9174	ppb	22:19:07
2	Mn 257.610†	-256.9	38.8	0.1242	µg/L	0.1242	ppb	22:19:28
2	Mo 202.031†	2.4	5.8	0.5761	µg/L	0.5761	ppb	22:19:28
2	Ni 231.604†	311.6	11.4	0.5740	µg/L	0.5740	ppb	22:19:28
2	P 214.914†	13.7	-2.1	-4.3406	µg/L	-4.3406	ppb	22:19:28
2	Pb 220.353†	88.8	-3.6	-0.8839	µg/L	-0.8839	ppb	22:19:28

2	S 181.975 Axial†	18.1	1.3	5.3479 µg/L	5.3479 ppb	22:19:28
2	Sb 206.836†	27.3	5.9	5.3724 µg/L	5.3724 ppb	22:19:28
2	Se 196.026†	22.0	7.6	10.407 µg/L	10.407 ppb	22:19:28
2	SiO2†	1478.5	33.7	6.7532 µg/L	6.7532 ppb	22:19:07
2	Si 251.611†	336.0	51.4	3.9704 µg/L	3.9704 ppb	22:19:28
2	Sn 189.927†	3.9	-0.7	-0.3194 µg/L	-0.3194 ppb	22:19:28
2	Ti 334.940†	256.3	121.5	0.2784 µg/L	0.2784 ppb	22:19:07
2	Tl 190.801†	-24.9	-3.3	-4.4510 µg/L	-4.4510 ppb	22:19:28
2	U 409.014†	-17.4	-17.1	-1.4524 µg/L	-1.4524 ppb	22:19:07
2	V 292.402†	-124.6	-32.0	-0.3138 µg/L	-0.3138 ppb	22:19:07
2	Zn 213.857†	518.6	30.5	0.7183 µg/L	0.7183 ppb	22:19:28
3	Sc RADIAL	56709.5	56709.5	96.0 %		22:17:59
3	Al 396.153Radial†	-10.8	-2.5	-1.8802 µg/L	-1.8802 ppb	22:17:59
3	Ca 317.933Radial†	198.6	13.8	12.681 µg/L	12.681 ppb	22:18:19
3	Fe 238.204 Radial†	14.2	-0.6	-5.3099 µg/L	-5.3099 ppb	22:18:19
3	K 766.490 Radial†	198.2	8.0	5.4794 µg/L	5.4794 ppb	22:17:59
3	Mg 279.077 IEC†	6.9	-4.9	-47.572 µg/L	-47.572 ppb	22:18:19
3	Na 589.592 Radial†	542.6	91.2	29.809 µg/L	29.809 ppb	22:17:59
3	Sr 421.552†	36.4	-3.4	-0.0338 µg/L	-0.0338 ppb	22:17:59
3	Sc 361.383	2051656.6	2051656.6	97.715 %		22:19:34
3	Y 371.029	1420449.0	1420449.0	97.593 %		22:19:34
3	Ag 328.068†	-390.0	64.0	0.4781 µg/L	0.4781 ppb	22:19:39
3	As 188.979†	3.1	3.4	6.1846 µg/L	6.1846 ppb	22:20:00
3	B 249.677†	351.8	34.5	1.4159 µg/L	1.4159 ppb	22:20:00
3	Ba 233.527†	-5.4	12.9	0.3153 µg/L	0.3153 ppb	22:20:00
3	Be 313.107†	-3585.3	89.7	0.0540 µg/L	0.0540 ppb	22:19:39
3	Cd 226.502†	-132.5	1.0	0.0254 µg/L	0.0254 ppb	22:20:00
3	Co 228.616†	0.5	-2.0	-0.0950 µg/L	-0.0950 ppb	22:20:00
3	Cr 267.716†	-26.6	20.2	0.4113 µg/L	0.4113 ppb	22:19:39
3	Cu 324.752†	2896.9	95.0	0.6292 µg/L	0.6292 ppb	22:19:39
3	Mn 257.610†	-277.2	18.9	0.0613 µg/L	0.0613 ppb	22:20:00
3	Mo 202.031†	0.9	4.2	0.4244 µg/L	0.4244 ppb	22:20:00
3	Ni 231.604†	316.1	14.9	0.7517 µg/L	0.7517 ppb	22:20:00
3	P 214.914†	9.2	-6.8	-13.569 µg/L	-13.569 ppb	22:20:00
3	Pb 220.353†	72.8	-20.3	-4.9887 µg/L	-4.9887 ppb	22:20:00
3	S 181.975 Axial†	17.0	0.1	0.5553 µg/L	0.5553 ppb	22:20:00
3	Sb 206.836†	21.1	-0.5	-0.4646 µg/L	-0.4646 ppb	22:20:00
3	Se 196.026†	13.9	-0.8	-1.0457 µg/L	-1.0457 ppb	22:20:00
3	SiO2†	1463.4	13.2	2.6405 µg/L	2.6405 ppb	22:19:39
3	Si 251.611†	318.4	32.3	2.4907 µg/L	2.4907 ppb	22:20:00
3	Sn 189.927†	0.9	-3.8	-1.6168 µg/L	-1.6168 ppb	22:20:00
3	Ti 334.940†	280.5	145.4	0.3348 µg/L	0.3348 ppb	22:19:39
3	Tl 190.801†	-23.1	-1.5	-1.9664 µg/L	-1.9664 ppb	22:20:00
3	U 409.014†	-89.3	-90.6	-7.6908 µg/L	-7.6908 ppb	22:19:39
3	V 292.402†	-84.2	9.9	0.0933 µg/L	0.0933 ppb	22:19:39
3	Zn 213.857†	513.7	23.8	0.5608 µg/L	0.5608 ppb	22:20:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2047009.5	97.494	%	0.1918				0.20%
Sc RADIAL	56706.2	96.0	%	0.02				0.02%
Y 371.029	1417323.5	97.378	%	0.1889				0.19%
Ag 328.068†	51.9	0.3875	µg/L	0.24123	0.3875	ppb	0.24123	62.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.6	-1.2215	µg/L	5.22398	-1.2215	ppb	5.22398	427.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.1894	µg/L	5.78751	0.1894	ppb	5.78751	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	41.9	1.7144	µg/L	0.42800	1.7144	ppb	0.42800	24.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.6	0.2103	µg/L	0.14350	0.2103	ppb	0.14350	68.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	52.6	0.0316	µg/L	0.02066	0.0316	ppb	0.02066	65.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.7	8.8624	µg/L	5.81566	8.8624	ppb	5.81566	65.62%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-0.0	-0.0003	µg/L	0.02873	-0.0003	ppb	0.02873	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.1	-0.0493	µg/L	0.14653	-0.0493	ppb	0.14653	297.51%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.1     -0.0025 µg/L       0.36078     -0.0025 ppb        0.36078 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               126.7      0.8399 µg/L       0.18449      0.8399 ppb        0.18449  21.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.8589 µg/L       2.15113     -3.8589 ppb        2.15113  55.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          23.7      16.269 µg/L       25.1413      16.269 ppb        25.1413 154.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.2     -21.826 µg/L       26.5375     -21.826 ppb        26.5375 121.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.7      0.0758 µg/L       0.04301      0.0758 ppb        0.04301  56.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.9      0.4888 µg/L       0.07837      0.4888 ppb        0.07837  16.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         64.8      21.170 µg/L        7.5553      21.170 ppb         7.5553  35.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.7      0.3908 µg/L       0.47949      0.3908 ppb        0.47949 122.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.2     -4.4478 µg/L       9.06832     -4.4478 ppb        9.06832 203.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.6     -1.8586 µg/L       2.77430     -1.8586 ppb        2.77430 149.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.2     -0.9625 µg/L       7.19044     -0.9625 ppb        7.19044 747.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.7      4.2835 µg/L       4.30813      4.2835 ppb        4.30813 100.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      2.8976 µg/L       6.50604      2.8976 ppb        6.50604 224.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      12.2      2.4467 µg/L       4.40657      2.4467 ppb        4.40657 180.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                37.5      2.8978 µg/L       0.93785      2.8978 ppb        0.93785  32.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.0     -0.8635 µg/L       0.67354     -0.8635 ppb        0.67354  78.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.3      0.1010 µg/L       0.12347      0.1010 ppb        0.12347 122.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               127.5      0.2918 µg/L       0.03803      0.2918 ppb        0.03803  13.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.8211 µg/L       4.31796     -0.8211 ppb        4.31796 525.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -36.4     -3.0928 µg/L       4.03610     -3.0928 ppb        4.03610 130.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  4.1      0.0404 µg/L       0.33099      0.0404 ppb        0.33099 818.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                27.7      0.6512 µg/L       0.08127      0.6512 ppb        0.08127  12.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 23:26:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56330.5	56330.5	95.4	%			23:27:25
1	Al 396.153Radial†	6838.9	7177.0	5354.4	µg/L	5354.4	ppb	23:27:25
1	Ca 317.933Radial†	5704.4	5786.2	5307.4	µg/L	5307.4	ppb	23:27:45
1	Fe 238.204 Radial†	620.2	634.6	5459.0	µg/L	5459.0	ppb	23:27:45
1	K 766.490 Radial†	7410.1	7568.7	5204.3	µg/L	5204.3	ppb	23:27:25
1	Mg 279.077 IEC†	556.6	571.3	5564.0	µg/L	5564.0	ppb	23:27:45
1	Na 589.592 Radial†	31622.1	32671.4	10681	µg/L	10681	ppb	23:27:25
1	Sr 421.552†	49311.4	51645.1	507.94	µg/L	507.94	ppb	23:27:25
1	Sc 361.383	2042292.5	2042292.5	97.269	%			23:28:48
1	Y 371.029	1408589.0	1408589.0	96.778	%			23:28:48
1	Ag 328.068†	66253.9	68577.2	515.32	µg/L	515.32	ppb	23:28:54
1	As 188.979†	289.0	297.4	534.28	µg/L	534.28	ppb	23:29:15
1	B 249.677†	12397.5	12420.1	506.09	µg/L	506.09	ppb	23:28:54
1	Ba 233.527†	20472.6	21065.8	517.16	µg/L	517.16	ppb	23:28:54
1	Be 313.107†	830688.1	857769.9	517.84	µg/L	517.84	ppb	23:28:48
1	Cd 226.502†	19841.6	20535.2	516.63	µg/L	516.63	ppb	23:28:54
1	Co 228.616†	11022.5	11329.4	524.00	µg/L	524.00	ppb	23:28:54
1	Cr 267.716†	24858.5	25603.8	522.49	µg/L	522.49	ppb	23:28:54
1	Cu 324.752†	78561.6	77897.6	517.49	µg/L	517.49	ppb	23:28:54
1	Mn 257.610†	159582.8	164365.9	523.70	µg/L	523.70	ppb	23:28:48
1	Mo 202.031†	5208.8	5358.4	537.10	µg/L	537.10	ppb	23:29:15
1	Ni 231.604†	10332.3	10313.8	520.70	µg/L	520.70	ppb	23:28:54
1	P 214.914†	1319.5	1340.3	2615.5	µg/L	2615.5	ppb	23:29:15
1	Pb 220.353†	2190.2	2156.9	530.93	µg/L	530.93	ppb	23:29:15
1	S 181.975 Axial†	264.7	254.8	1056.2	µg/L	1056.2	ppb	23:29:15
1	Sb 206.836†	575.3	569.3	522.18	µg/L	522.18	ppb	23:29:15
1	Se 196.026†	384.2	380.0	529.08	µg/L	529.08	ppb	23:29:15
1	SiO2†	28510.0	27826.0	5572.2	µg/L	5572.2	ppb	23:28:54
1	Si 251.611†	33161.7	33799.3	2608.7	µg/L	2608.7	ppb	23:28:54
1	Sn 189.927†	1234.2	1264.1	540.63	µg/L	540.63	ppb	23:29:15
1	Ti 334.940†	223294.7	229422.4	521.44	µg/L	521.44	ppb	23:28:48
1	Tl 190.801†	358.9	391.2	529.11	µg/L	529.11	ppb	23:29:15
1	U 409.014†	5987.0	6155.9	521.32	µg/L	521.32	ppb	23:28:54
1	V 292.402†	50717.1	52237.1	523.26	µg/L	523.26	ppb	23:28:54
1	Zn 213.857†	22060.8	22178.3	519.72	µg/L	519.72	ppb	23:28:54
2	Sc RADIAL	57430.1	57430.1	97.3	%			23:27:51
2	Al 396.153Radial†	6965.0	7169.4	5349.0	µg/L	5349.0	ppb	23:27:51
2	Ca 317.933Radial†	5725.6	5693.5	5222.5	µg/L	5222.5	ppb	23:28:11
2	Fe 238.204 Radial†	620.1	622.1	5351.7	µg/L	5351.7	ppb	23:28:11
2	K 766.490 Radial†	7476.9	7488.6	5149.3	µg/L	5149.3	ppb	23:27:51
2	Mg 279.077 IEC†	557.8	561.4	5467.4	µg/L	5467.4	ppb	23:28:11
2	Na 589.592 Radial†	32080.0	32507.6	10628	µg/L	10628	ppb	23:27:51
2	Sr 421.552†	50471.1	51847.8	509.93	µg/L	509.93	ppb	23:27:51
2	Sc 361.383	2054918.9	2054918.9	97.870	%			23:29:22
2	Y 371.029	1416762.5	1416762.5	97.339	%			23:29:22
2	Ag 328.068†	66701.2	68615.7	515.60	µg/L	515.60	ppb	23:29:27
2	As 188.979†	276.9	283.2	508.74	µg/L	508.74	ppb	23:29:48
2	B 249.677†	12524.2	12471.3	508.23	µg/L	508.23	ppb	23:29:27
2	Ba 233.527†	20631.2	21098.5	517.96	µg/L	517.96	ppb	23:29:27
2	Be 313.107†	832869.8	854751.6	516.02	µg/L	516.02	ppb	23:29:22
2	Cd 226.502†	19978.0	20549.3	517.00	µg/L	517.00	ppb	23:29:27
2	Co 228.616†	11072.2	11310.5	523.11	µg/L	523.11	ppb	23:29:27
2	Cr 267.716†	24957.6	25548.0	521.35	µg/L	521.35	ppb	23:29:27
2	Cu 324.752†	79210.4	78064.3	518.58	µg/L	518.58	ppb	23:29:27
2	Mn 257.610†	160168.0	163955.8	522.39	µg/L	522.39	ppb	23:29:22
2	Mo 202.031†	5111.5	5226.0	523.83	µg/L	523.83	ppb	23:29:48
2	Ni 231.604†	10393.7	10311.2	520.57	µg/L	520.57	ppb	23:29:27
2	P 214.914†	1303.1	1315.2	2565.2	µg/L	2565.2	ppb	23:29:48
2	Pb 220.353†	2156.7	2108.8	519.05	µg/L	519.05	ppb	23:29:48

2	S 181.975 Axial†	264.6	253.0	1048.9 µg/L	1048.9 ppb	23:29:48
2	Sb 206.836†	578.6	569.0	521.72 µg/L	521.72 ppb	23:29:48
2	Se 196.026†	377.1	370.3	515.54 µg/L	515.54 ppb	23:29:48
2	SiO2†	28873.1	28017.0	5610.4 µg/L	5610.4 ppb	23:29:27
2	Si 251.611†	33504.9	33940.4	2619.6 µg/L	2619.6 ppb	23:29:27
2	Sn 189.927†	1199.8	1221.2	522.28 µg/L	522.28 ppb	23:29:48
2	Ti 334.940†	223897.9	228628.2	519.64 µg/L	519.64 ppb	23:29:22
2	Tl 190.801†	354.0	383.9	519.36 µg/L	519.36 ppb	23:29:48
2	U 409.014†	6049.5	6181.9	523.56 µg/L	523.56 ppb	23:29:27
2	V 292.402†	51068.6	52275.8	523.53 µg/L	523.53 ppb	23:29:27
2	Zn 213.857†	22196.3	22177.3	519.71 µg/L	519.71 ppb	23:29:27
3	Sc RADIAL	56802.4	56802.4	96.2 %		23:28:16
3	Al 396.153Radial†	6911.2	7192.5	5368.1 µg/L	5368.1 ppb	23:28:16
3	Ca 317.933Radial†	5728.6	5761.7	5285.0 µg/L	5285.0 ppb	23:28:37
3	Fe 238.204 Radial†	622.1	631.2	5428.7 µg/L	5428.7 ppb	23:28:37
3	K 766.490 Radial†	7497.5	7594.9	5222.4 µg/L	5222.4 ppb	23:28:16
3	Mg 279.077 IEC†	558.5	568.5	5534.8 µg/L	5534.8 ppb	23:28:37
3	Na 589.592 Radial†	31884.2	32668.5	10680 µg/L	10680 ppb	23:28:16
3	Sr 421.552†	49822.6	51747.1	508.94 µg/L	508.94 ppb	23:28:16
3	Sc 361.383	2052647.1	2052647.1	97.762 %		23:29:55
3	Y 371.029	1416680.5	1416680.5	97.334 %		23:29:55
3	Ag 328.068†	62677.9	64575.7	485.09 µg/L	485.09 ppb	23:30:01
3	As 188.979†	239.9	245.7	441.47 µg/L	441.47 ppb	23:30:21
3	B 249.677†	11686.2	11628.2	473.60 µg/L	473.60 ppb	23:30:01
3	Ba 233.527†	18696.5	19142.8	469.94 µg/L	469.94 ppb	23:30:01
3	Be 313.107†	776698.6	798236.4	481.90 µg/L	481.90 ppb	23:29:55
3	Cd 226.502†	18058.3	18608.3	468.10 µg/L	468.10 ppb	23:30:01
3	Co 228.616†	9890.6	10114.5	467.73 µg/L	467.73 ppb	23:30:01
3	Cr 267.716†	21790.7	22336.9	455.83 µg/L	455.83 ppb	23:30:01
3	Cu 324.752†	71427.3	70192.6	466.38 µg/L	466.38 ppb	23:30:01
3	Mn 257.610†	149598.9	153325.9	488.56 µg/L	488.56 ppb	23:29:55
3	Mo 202.031†	4266.2	4367.2	437.78 µg/L	437.78 ppb	23:30:21
3	Ni 231.604†	9355.9	9261.4	467.58 µg/L	467.58 ppb	23:30:01
3	P 214.914†	1099.2	1108.1	2157.6 µg/L	2157.6 ppb	23:30:21
3	Pb 220.353†	1893.0	1841.5	453.20 µg/L	453.20 ppb	23:30:21
3	S 181.975 Axial†	234.1	222.2	920.91 µg/L	920.91 ppb	23:30:21
3	Sb 206.836†	487.3	476.4	436.43 µg/L	436.43 ppb	23:30:21
3	Se 196.026†	335.0	327.7	457.35 µg/L	457.35 ppb	23:30:21
3	SiO2†	26605.4	25730.0	5152.4 µg/L	5152.4 ppb	23:30:01
3	Si 251.611†	30897.0	31310.7	2416.7 µg/L	2416.7 ppb	23:30:01
3	Sn 189.927†	988.5	1006.4	430.43 µg/L	430.43 ppb	23:30:21
3	Ti 334.940†	207641.6	212253.0	482.39 µg/L	482.39 ppb	23:29:55
3	Tl 190.801†	318.3	347.8	470.71 µg/L	470.71 ppb	23:30:21
3	U 409.014†	5235.3	5355.9	453.44 µg/L	453.44 ppb	23:30:01
3	V 292.402†	45428.0	46563.9	466.15 µg/L	466.15 ppb	23:30:01
3	Zn 213.857†	19978.4	19933.7	467.07 µg/L	467.07 ppb	23:30:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2049952.8	97.634	%	0.3206				0.33%
Sc RADIAL	56854.3	96.3	%	0.93				0.97%
Y 371.029	1414010.7	97.150	%	0.3226				0.33%
Ag 328.068†	67256.2	505.34	µg/L	17.531	505.34	ppb	17.531	3.47%
QC value within limits for Ag 328.068 Recovery = 101.07%								
Al 396.153Radial†	7179.6	5357.2	µg/L	9.85	5357.2	ppb	9.85	0.18%
QC value within limits for Al 396.153Radial Recovery = 107.14%								
As 188.979†	275.4	494.83	µg/L	47.944	494.83	ppb	47.944	9.69%
QC value within limits for As 188.979 Recovery = 98.97%								
B 249.677†	12173.2	495.97	µg/L	19.407	495.97	ppb	19.407	3.91%
QC value within limits for B 249.677 Recovery = 99.19%								
Ba 233.527†	20435.7	501.69	µg/L	27.500	501.69	ppb	27.500	5.48%
QC value within limits for Ba 233.527 Recovery = 100.34%								
Be 313.107†	836919.3	505.26	µg/L	20.244	505.26	ppb	20.244	4.01%
QC value within limits for Be 313.107 Recovery = 101.05%								
Ca 317.933Radial†	5747.1	5271.6	µg/L	44.03	5271.6	ppb	44.03	0.84%
QC value within limits for Ca 317.933Radial Recovery = 105.43%								
Cd 226.502†	19897.6	500.58	µg/L	28.130	500.58	ppb	28.130	5.62%
QC value within limits for Cd 226.502 Recovery = 100.12%								
Co 228.616†	10918.1	504.95	µg/L	32.233	504.95	ppb	32.233	6.38%

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   QC value within limits for Co 228.616  Recovery = 100.99%
Cr 267.716†          24496.3      499.89 µg/L       38.162      499.89 ppb        38.162   7.63%
   QC value within limits for Cr 267.716  Recovery = 99.98%
Cu 324.752†          75384.8      500.82 µg/L       29.831      500.82 ppb        29.831   5.96%
   QC value within limits for Cu 324.752  Recovery = 100.16%
Fe 238.204 Radial†     629.3      5413.1 µg/L        55.31      5413.1 ppb         55.31   1.02%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.26%
K 766.490 Radial†     7550.7      5192.0 µg/L        38.08      5192.0 ppb         38.08   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 103.84%
Mg 279.077 IEC†        567.1      5522.1 µg/L        49.58      5522.1 ppb         49.58   0.90%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.44%
Mn 257.610†         160549.2      511.55 µg/L       19.922      511.55 ppb        19.922   3.89%
   QC value within limits for Mn 257.610  Recovery = 102.31%
Mo 202.031†          4983.8      499.57 µg/L       53.921      499.57 ppb        53.921  10.79%
   QC value within limits for Mo 202.031  Recovery = 99.91%
Na 589.592 Radial†    32615.8       10663 µg/L         30.7       10663 ppb          30.7   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 106.63%
Ni 231.604†           9962.1      502.95 µg/L       30.630      502.95 ppb        30.630   6.09%
   QC value within limits for Ni 231.604  Recovery = 100.59%
P 214.914†            1254.5      2446.1 µg/L       251.15      2446.1 ppb        251.15  10.27%
   QC value within limits for P 214.914  Recovery = 97.84%
Pb 220.353†           2035.7      501.06 µg/L       41.871      501.06 ppb        41.871   8.36%
   QC value within limits for Pb 220.353  Recovery = 100.21%
S 181.975 Axial†       243.3      1008.7 µg/L        76.11      1008.7 ppb         76.11   7.55%
   QC value within limits for S 181.975 Axial  Recovery = 100.87%
Sb 206.836†            538.2      493.45 µg/L       49.373      493.45 ppb        49.373  10.01%
   QC value within limits for Sb 206.836  Recovery = 98.69%
Se 196.026†            359.3      500.66 µg/L       38.110      500.66 ppb        38.110   7.61%
   QC value within limits for Se 196.026  Recovery = 100.13%
SiO2†                 27191.0      5445.0 µg/L       254.09      5445.0 ppb        254.09   4.67%
   QC value within limits for SiO2  Recovery = 101.82%
Si 251.611†           33016.8      2548.4 µg/L       114.17      2548.4 ppb        114.17   4.48%
   QC value within limits for Si 251.611  Recovery = 101.93%
Sn 189.927†           1163.9      497.78 µg/L       59.044      497.78 ppb        59.044  11.86%
   QC value within limits for Sn 189.927  Recovery = 99.56%
Sr 421.552†           51746.7      508.94 µg/L        0.997      508.94 ppb         0.997   0.20%
   QC value within limits for Sr 421.552  Recovery = 101.79%
Ti 334.940†          223434.5      507.83 µg/L       22.043      507.83 ppb        22.043   4.34%
   QC value within limits for Ti 334.940  Recovery = 101.57%
Tl 190.801†            374.3      506.39 µg/L       31.287      506.39 ppb        31.287   6.18%
   QC value within limits for Tl 190.801  Recovery = 101.28%
U 409.014†            5897.9      499.44 µg/L       39.850      499.44 ppb        39.850   7.98%
   QC value within limits for U 409.014  Recovery = 99.89%
V 292.402†           50358.9      504.31 µg/L       33.052      504.31 ppb        33.052   6.55%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†          21429.8      502.16 µg/L       30.396      502.16 ppb        30.396   6.05%
   QC value within limits for Zn 213.857  Recovery = 100.43%
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 23:30:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56597.7	56597.7	95.9	%			23:31:03
1	Al 396.153Radial†	-0.8	7.9	5.8734	µg/L	5.8734	ppb	23:31:03
1	Ca 317.933Radial†	191.2	6.5	5.9558	µg/L	5.9558	ppb	23:31:24
1	Fe 238.204 Radial†	15.7	1.0	8.6808	µg/L	8.6808	ppb	23:31:24
1	K 766.490 Radial†	217.3	28.3	19.449	µg/L	19.449	ppb	23:31:03
1	Mg 279.077 IEC†	10.6	-1.0	-9.7422	µg/L	-9.7422	ppb	23:31:24
1	Na 589.592 Radial†	461.3	7.5	2.4505	µg/L	2.4505	ppb	23:31:03
1	Sr 421.552†	47.1	7.7	0.0761	µg/L	0.0761	ppb	23:31:03
1	Sc 361.383	2058481.8	2058481.8	98.040	%			23:32:26
1	Y 371.029	1425545.5	1425545.5	97.943	%			23:32:26
1	Ag 328.068†	-373.6	82.0	0.6126	µg/L	0.6126	ppb	23:32:31
1	As 188.979†	3.1	3.5	6.2164	µg/L	6.2164	ppb	23:32:52
1	B 249.677†	369.7	51.6	2.1077	µg/L	2.1077	ppb	23:32:52
1	Ba 233.527†	-15.2	2.8	0.0697	µg/L	0.0697	ppb	23:32:52
1	Be 313.107†	-3583.9	103.3	0.0623	µg/L	0.0623	ppb	23:32:31
1	Cd 226.502†	-146.6	-13.0	-0.3259	µg/L	-0.3259	ppb	23:32:52
1	Co 228.616†	0.9	-1.6	-0.0753	µg/L	-0.0753	ppb	23:32:52
1	Cr 267.716†	-55.1	-8.9	-0.1806	µg/L	-0.1806	ppb	23:32:31
1	Cu 324.752†	2905.9	94.2	0.6262	µg/L	0.6262	ppb	23:32:31
1	Mn 257.610†	-228.1	69.9	0.2241	µg/L	0.2241	ppb	23:32:52
1	Mo 202.031†	1.7	5.0	0.5026	µg/L	0.5026	ppb	23:32:52
1	Ni 231.604†	328.5	26.5	1.3383	µg/L	1.3383	ppb	23:32:52
1	P 214.914†	13.1	-2.9	-5.8038	µg/L	-5.8038	ppb	23:32:52
1	Pb 220.353†	89.3	-3.7	-0.9092	µg/L	-0.9092	ppb	23:32:52
1	S 181.975 Axial†	15.1	-1.8	-7.6484	µg/L	-7.6484	ppb	23:32:52
1	Sb 206.836†	26.8	5.2	4.7642	µg/L	4.7642	ppb	23:32:52
1	Se 196.026†	12.5	-2.2	-3.0313	µg/L	-3.0313	ppb	23:32:52
1	SiO2†	1531.2	77.4	15.504	µg/L	15.504	ppb	23:32:31
1	Si 251.611†	394.6	108.9	8.4067	µg/L	8.4067	ppb	23:32:52
1	Sn 189.927†	5.0	0.4	0.1651	µg/L	0.1651	ppb	23:32:52
1	Ti 334.940†	275.6	139.5	0.3181	µg/L	0.3181	ppb	23:32:31
1	Tl 190.801†	-21.0	0.8	1.1068	µg/L	1.1068	ppb	23:32:52
1	U 409.014†	-38.0	-38.0	-3.2223	µg/L	-3.2223	ppb	23:32:31
1	V 292.402†	-90.1	4.1	0.0416	µg/L	0.0416	ppb	23:32:31
1	Zn 213.857†	513.1	21.5	0.4997	µg/L	0.4997	ppb	23:32:52
2	Sc RADIAL	56998.6	56998.6	96.5	%			23:31:29
2	Al 396.153Radial†	-15.5	-7.3	-5.4832	µg/L	-5.4832	ppb	23:31:29
2	Ca 317.933Radial†	194.2	8.2	7.4814	µg/L	7.4814	ppb	23:31:49
2	Fe 238.204 Radial†	16.5	1.8	15.072	µg/L	15.072	ppb	23:31:49
2	K 766.490 Radial†	187.3	-4.4	-3.0096	µg/L	-3.0096	ppb	23:31:29
2	Mg 279.077 IEC†	14.0	2.4	23.405	µg/L	23.405	ppb	23:31:49
2	Na 589.592 Radial†	531.6	76.9	25.147	µg/L	25.147	ppb	23:31:29
2	Sr 421.552†	61.0	21.9	0.2150	µg/L	0.2150	ppb	23:31:29
2	Sc 361.383	2043982.4	2043982.4	97.350	%			23:32:58
2	Y 371.029	1414969.6	1414969.6	97.216	%			23:32:58
2	Ag 328.068†	-456.0	-5.3	-0.0372	µg/L	-0.0372	ppb	23:33:03
2	As 188.979†	4.4	4.8	8.5664	µg/L	8.5664	ppb	23:33:24
2	B 249.677†	375.8	60.6	2.4698	µg/L	2.4698	ppb	23:33:24
2	Ba 233.527†	-13.9	4.1	0.0996	µg/L	0.0996	ppb	23:33:24
2	Be 313.107†	-3641.4	18.3	0.0110	µg/L	0.0110	ppb	23:33:03
2	Cd 226.502†	-141.8	-9.0	-0.2292	µg/L	-0.2292	ppb	23:33:24
2	Co 228.616†	10.2	7.9	0.3668	µg/L	0.3668	ppb	23:33:24
2	Cr 267.716†	-34.4	12.0	0.2456	µg/L	0.2456	ppb	23:33:03
2	Cu 324.752†	2865.3	73.6	0.4901	µg/L	0.4901	ppb	23:33:03
2	Mn 257.610†	-238.1	58.0	0.1857	µg/L	0.1857	ppb	23:33:24
2	Mo 202.031†	2.0	5.3	0.5356	µg/L	0.5356	ppb	23:33:24
2	Ni 231.604†	301.1	0.6	0.0326	µg/L	0.0326	ppb	23:33:24
2	P 214.914†	16.4	0.6	1.1371	µg/L	1.1371	ppb	23:33:24
2	Pb 220.353†	86.5	-6.0	-1.4750	µg/L	-1.4750	ppb	23:33:24

2	S 181.975 Axial†	16.4	-0.4	-1.8512	µg/L	-1.8512 ppb	23:33:24
2	Sb 206.836†	26.0	4.6	4.2209	µg/L	4.2209 ppb	23:33:24
2	Se 196.026†	17.1	2.6	3.5596	µg/L	3.5596 ppb	23:33:24
2	SiO2†	1535.1	92.5	18.530	µg/L	18.530 ppb	23:33:03
2	Si 251.611†	409.0	126.6	9.7715	µg/L	9.7715 ppb	23:33:24
2	Sn 189.927†	3.7	-0.9	-0.3803	µg/L	-0.3803 ppb	23:33:24
2	Ti 334.940†	243.7	108.6	0.2453	µg/L	0.2453 ppb	23:33:03
2	Tl 190.801†	-24.0	-2.4	-3.2418	µg/L	-3.2418 ppb	23:33:24
2	U 409.014†	31.8	33.4	2.8340	µg/L	2.8340 ppb	23:33:03
2	V 292.402†	-76.9	17.0	0.1780	µg/L	0.1780 ppb	23:33:03
2	Zn 213.857†	520.4	32.6	0.7660	µg/L	0.7660 ppb	23:33:24
3	Sc RADIAL	56938.6	56938.6	96.4	%		23:31:55
3	Al 396.153Radial†	-11.1	-2.8	-2.0917	µg/L	-2.0917 ppb	23:31:55
3	Ca 317.933Radial†	197.6	12.0	10.967	µg/L	10.967 ppb	23:32:15
3	Fe 238.204 Radial†	14.8	0.0	0.0818	µg/L	0.0818 ppb	23:32:15
3	K 766.490 Radial†	158.3	-34.3	-23.568	µg/L	-23.568 ppb	23:31:55
3	Mg 279.077 IEC†	16.9	5.4	52.591	µg/L	52.591 ppb	23:32:15
3	Na 589.592 Radial†	520.3	65.8	21.512	µg/L	21.512 ppb	23:31:55
3	Sr 421.552†	35.8	-4.2	-0.0417	µg/L	-0.0417 ppb	23:31:55
3	Sc 361.383	2054454.8	2054454.8	97.848	%		23:33:30
3	Y 371.029	1422965.1	1422965.1	97.766	%		23:33:30
3	Ag 328.068†	-440.4	13.0	0.1001	µg/L	0.1001 ppb	23:33:35
3	As 188.979†	1.9	2.2	4.0082	µg/L	4.0082 ppb	23:33:56
3	B 249.677†	364.8	47.3	1.9353	µg/L	1.9353 ppb	23:33:56
3	Ba 233.527†	-14.0	4.1	0.1006	µg/L	0.1006 ppb	23:33:56
3	Be 313.107†	-3655.9	22.6	0.0135	µg/L	0.0135 ppb	23:33:35
3	Cd 226.502†	-153.0	-19.7	-0.4965	µg/L	-0.4965 ppb	23:33:56
3	Co 228.616†	2.8	0.3	0.0153	µg/L	0.0153 ppb	23:33:56
3	Cr 267.716†	-24.7	22.2	0.4529	µg/L	0.4529 ppb	23:33:35
3	Cu 324.752†	2916.6	111.0	0.7362	µg/L	0.7362 ppb	23:33:35
3	Mn 257.610†	-230.1	67.4	0.2123	µg/L	0.2123 ppb	23:33:56
3	Mo 202.031†	1.4	4.7	0.4718	µg/L	0.4718 ppb	23:33:56
3	Ni 231.604†	303.9	2.0	0.0999	µg/L	0.0999 ppb	23:33:56
3	P 214.914†	13.0	-2.9	-5.9281	µg/L	-5.9281 ppb	23:33:56
3	Pb 220.353†	84.4	-8.5	-2.1070	µg/L	-2.1070 ppb	23:33:56
3	S 181.975 Axial†	15.7	-1.3	-5.1940	µg/L	-5.1940 ppb	23:33:56
3	Sb 206.836†	20.6	-1.0	-0.9220	µg/L	-0.9220 ppb	23:33:56
3	Se 196.026†	18.0	3.4	4.5710	µg/L	4.5710 ppb	23:33:56
3	SiO2†	1537.6	87.0	17.424	µg/L	17.424 ppb	23:33:35
3	Si 251.611†	429.7	145.6	11.239	µg/L	11.239 ppb	23:33:56
3	Sn 189.927†	2.1	-2.5	-1.0841	µg/L	-1.0841 ppb	23:33:56
3	Ti 334.940†	313.1	178.3	0.4016	µg/L	0.4016 ppb	23:33:35
3	Tl 190.801†	-19.0	2.9	3.8293	µg/L	3.8293 ppb	23:33:56
3	U 409.014†	57.0	59.0	5.0081	µg/L	5.0081 ppb	23:33:35
3	V 292.402†	-48.7	46.2	0.4673	µg/L	0.4673 ppb	23:33:35
3	Zn 213.857†	511.5	20.8	0.4860	µg/L	0.4860 ppb	23:33:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2052306.3	97.746	%	0.3565				0.36%
Sc RADIAL	56845.0	96.3	%	0.37				0.38%
Y 371.029	1421160.1	97.642	%	0.3789				0.39%
Ag 328.068†	29.9	0.2252	µg/L	0.34250	0.2252	ppb	0.34250	152.10%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.7	-0.5672	µg/L	5.82978	-0.5672	ppb	5.82978	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.5	6.2637	µg/L	2.27951	6.2637	ppb	2.27951	36.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	53.2	2.1709	µg/L	0.27277	2.1709	ppb	0.27277	12.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.7	0.0899	µg/L	0.01757	0.0899	ppb	0.01757	19.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	48.1	0.0289	µg/L	0.02891	0.0289	ppb	0.02891	100.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.9	8.1348	µg/L	2.56885	8.1348	ppb	2.56885	31.58%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-13.9	-0.3505	µg/L	0.13534	-0.3505	ppb	0.13534	38.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.2	0.1023	µg/L	0.23353	0.1023	ppb	0.23353	228.35%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.5      0.1726 µg/L       0.32301      0.1726 ppb        0.32301 187.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                92.9      0.6175 µg/L       0.12327      0.6175 ppb        0.12327  19.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9448 µg/L       7.52214      7.9448 ppb        7.52214  94.68%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -3.5     -2.3760 µg/L      21.51560     -2.3760 ppb       21.51560 905.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.3      22.085 µg/L       31.1877      22.085 ppb        31.1877 141.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                65.1      0.2074 µg/L       0.01965      0.2074 ppb        0.01965   9.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.0      0.5033 µg/L       0.03194      0.5033 ppb        0.03194   6.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         50.1      16.370 µg/L       12.1907      16.370 ppb        12.1907  74.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.7      0.4903 µg/L       0.73516      0.4903 ppb        0.73516 149.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.7     -3.5316 µg/L       4.04367     -3.5316 ppb        4.04367 114.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.1     -1.4971 µg/L       0.59924     -1.4971 ppb        0.59924  40.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.2     -4.8979 µg/L       2.90991     -4.8979 ppb        2.90991  59.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.9      2.6877 µg/L       3.13784      2.6877 ppb        3.13784 116.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.2      1.6998 µg/L       4.12830      1.6998 ppb        4.12830 242.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      85.7      17.153 µg/L        1.5311      17.153 ppb         1.5311   8.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               127.0      9.8056 µg/L       1.41621      9.8056 ppb        1.41621  14.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.0     -0.4331 µg/L       0.62629     -0.4331 ppb        0.62629 144.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.5      0.0831 µg/L       0.12853      0.0831 ppb        0.12853 154.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               142.1      0.3217 µg/L       0.07819      0.3217 ppb        0.07819  24.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.4      0.5648 µg/L       3.56656      0.5648 ppb        3.56656 631.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 18.2      1.5399 µg/L       4.26509      1.5399 ppb        4.26509 276.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 22.5      0.2290 µg/L       0.21738      0.2290 ppb        0.21738  94.94%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.9      0.5839 µg/L       0.15784      0.5839 ppb        0.15784  27.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 00:03:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57415.5	57415.5	97.2	%			00:04:07
1	Al 396.153Radial†	6854.0	7057.1	5264.9	µg/L	5264.9	ppb	00:04:07
1	Ca 317.933Radial†	5695.7	5664.2	5195.6	µg/L	5195.6	ppb	00:04:27
1	Fe 238.204 Radial†	613.4	615.4	5293.7	µg/L	5293.7	ppb	00:04:27
1	K 766.490 Radial†	7454.4	7467.4	5134.7	µg/L	5134.7	ppb	00:04:07
1	Mg 279.077 IEC†	554.3	557.9	5433.5	µg/L	5433.5	ppb	00:04:27
1	Na 589.592 Radial†	31689.3	32114.3	10499	µg/L	10499	ppb	00:04:07
1	Sr 421.552†	49564.2	50928.4	500.89	µg/L	500.89	ppb	00:04:07
1	Sc 361.383	2064117.9	2064117.9	98.309	%			00:05:31
1	Y 371.029	1426502.9	1426502.9	98.009	%			00:05:31
1	Ag 328.068†	66769.1	68381.1	513.84	µg/L	513.84	ppb	00:05:36
1	As 188.979†	285.7	290.9	522.63	µg/L	522.63	ppb	00:05:57
1	B 249.677†	12494.0	12383.5	504.67	µg/L	504.67	ppb	00:05:36
1	Ba 233.527†	20677.2	21051.4	516.81	µg/L	516.81	ppb	00:05:36
1	Be 313.107†	826682.0	844664.8	509.93	µg/L	509.93	ppb	00:05:31
1	Cd 226.502†	20017.2	20498.2	515.72	µg/L	515.72	ppb	00:05:36
1	Co 228.616†	11069.1	11257.0	520.65	µg/L	520.65	ppb	00:05:36
1	Cr 267.716†	25065.6	25544.3	521.28	µg/L	521.28	ppb	00:05:36
1	Cu 324.752†	79232.5	77726.1	516.33	µg/L	516.33	ppb	00:05:36
1	Mn 257.610†	158863.3	161899.2	515.84	µg/L	515.84	ppb	00:05:31
1	Mo 202.031†	5190.0	5282.6	529.50	µg/L	529.50	ppb	00:05:57
1	Ni 231.604†	10438.8	10309.8	520.50	µg/L	520.50	ppb	00:05:36
1	P 214.914†	1302.3	1308.4	2552.2	µg/L	2552.2	ppb	00:05:57
1	Pb 220.353†	2189.3	2132.1	524.82	µg/L	524.82	ppb	00:05:57
1	S 181.975 Axial†	266.9	254.2	1053.7	µg/L	1053.7	ppb	00:05:57
1	Sb 206.836†	573.6	561.4	514.82	µg/L	514.82	ppb	00:05:57
1	Se 196.026†	389.5	381.2	530.42	µg/L	530.42	ppb	00:05:57
1	SiO2†	28760.8	27771.2	5561.2	µg/L	5561.2	ppb	00:05:36
1	Si 251.611†	33414.9	33696.3	2600.8	µg/L	2600.8	ppb	00:05:36
1	Sn 189.927†	1225.9	1242.3	531.29	µg/L	531.29	ppb	00:05:57
1	Ti 334.940†	221942.7	225619.8	512.80	µg/L	512.80	ppb	00:05:31
1	Tl 190.801†	360.6	389.0	526.07	µg/L	526.07	ppb	00:05:57
1	U 409.014†	6053.7	6158.6	521.59	µg/L	521.59	ppb	00:05:36
1	V 292.402†	51256.8	52234.8	523.15	µg/L	523.15	ppb	00:05:36
1	Zn 213.857†	22169.6	22049.1	516.69	µg/L	516.69	ppb	00:05:36
2	Sc RADIAL	57827.3	57827.3	97.9	%			00:04:33
2	Al 396.153Radial†	6893.7	7047.4	5258.0	µg/L	5258.0	ppb	00:04:33
2	Ca 317.933Radial†	5700.5	5627.4	5161.8	µg/L	5161.8	ppb	00:04:53
2	Fe 238.204 Radial†	615.8	613.3	5275.8	µg/L	5275.8	ppb	00:04:53
2	K 766.490 Radial†	7531.6	7491.7	5151.4	µg/L	5151.4	ppb	00:04:33
2	Mg 279.077 IEC†	548.6	548.1	5337.6	µg/L	5337.6	ppb	00:04:53
2	Na 589.592 Radial†	31949.3	32147.6	10510	µg/L	10510	ppb	00:04:33
2	Sr 421.552†	50012.1	51022.7	501.82	µg/L	501.82	ppb	00:04:33
2	Sc 361.383	2071786.3	2071786.3	98.674	%			00:06:04
2	Y 371.029	1431109.7	1431109.7	98.325	%			00:06:04
2	Ag 328.068†	66150.2	67502.5	507.24	µg/L	507.24	ppb	00:06:10
2	As 188.979†	278.9	283.0	508.37	µg/L	508.37	ppb	00:06:30
2	B 249.677†	12317.5	12157.6	495.43	µg/L	495.43	ppb	00:06:10
2	Ba 233.527†	20441.0	20734.1	509.02	µg/L	509.02	ppb	00:06:10
2	Be 313.107†	826922.1	841795.6	508.20	µg/L	508.20	ppb	00:06:04
2	Cd 226.502†	19844.2	20247.5	509.41	µg/L	509.41	ppb	00:06:10
2	Co 228.616†	10939.6	11084.1	512.64	µg/L	512.64	ppb	00:06:10
2	Cr 267.716†	24768.4	25148.7	513.20	µg/L	513.20	ppb	00:06:10
2	Cu 324.752†	78472.6	76657.6	509.24	µg/L	509.24	ppb	00:06:10
2	Mn 257.610†	159085.5	161526.3	514.65	µg/L	514.65	ppb	00:06:04
2	Mo 202.031†	5075.5	5147.1	515.92	µg/L	515.92	ppb	00:06:30
2	Ni 231.604†	10303.5	10133.4	511.59	µg/L	511.59	ppb	00:06:10
2	P 214.914†	1279.9	1280.9	2498.0	µg/L	2498.0	ppb	00:06:30
2	Pb 220.353†	2143.2	2077.3	511.29	µg/L	511.29	ppb	00:06:30

2	S 181.975 Axial†	263.1	249.3	1033.4 µg/L	1033.4 ppb	00:06:30
2	Sb 206.836†	565.6	551.1	505.33 µg/L	505.33 ppb	00:06:30
2	Se 196.026†	378.1	368.2	512.59 µg/L	512.59 ppb	00:06:30
2	SiO2†	28495.1	27393.7	5485.6 µg/L	5485.6 ppb	00:06:10
2	Si 251.611†	33093.1	33244.4	2565.9 µg/L	2565.9 ppb	00:06:10
2	Sn 189.927†	1196.1	1207.5	516.40 µg/L	516.40 ppb	00:06:30
2	Ti 334.940†	222052.0	224895.0	511.16 µg/L	511.16 ppb	00:06:04
2	Tl 190.801†	352.9	379.9	513.94 µg/L	513.94 ppb	00:06:30
2	U 409.014†	6014.3	6095.9	516.27 µg/L	516.27 ppb	00:06:10
2	V 292.402†	50766.2	51544.5	516.20 µg/L	516.20 ppb	00:06:10
2	Zn 213.857†	21962.1	21755.3	509.81 µg/L	509.81 ppb	00:06:10
3	Sc RADIAL	57722.0	57722.0	97.8 %		00:04:59
3	Al 396.153Radial†	6896.4	7063.0	5271.3 µg/L	5271.3 ppb	00:04:59
3	Ca 317.933Radial†	5715.0	5652.9	5185.2 µg/L	5185.2 ppb	00:05:19
3	Fe 238.204 Radial†	613.9	612.6	5268.1 µg/L	5268.1 ppb	00:05:19
3	K 766.490 Radial†	7377.9	7348.5	5052.9 µg/L	5052.9 ppb	00:04:59
3	Mg 279.077 IEC†	557.1	557.8	5430.6 µg/L	5430.6 ppb	00:05:19
3	Na 589.592 Radial†	31767.7	32021.4	10469 µg/L	10469 ppb	00:04:59
3	Sr 421.552†	49751.5	50849.4	500.11 µg/L	500.11 ppb	00:04:59
3	Sc 361.383	2057993.8	2057993.8	98.017 %		00:06:37
3	Y 371.029	1421787.4	1421787.4	97.685 %		00:06:37
3	Ag 328.068†	62121.2	63841.2	479.58 µg/L	479.58 ppb	00:06:43
3	As 188.979†	240.0	245.1	440.36 µg/L	440.36 ppb	00:07:03
3	B 249.677†	11580.9	11489.7	468.01 µg/L	468.01 ppb	00:06:43
3	Ba 233.527†	18574.3	18968.5	465.66 µg/L	465.66 ppb	00:06:43
3	Be 313.107†	767265.6	786548.6	474.85 µg/L	474.85 ppb	00:06:37
3	Cd 226.502†	17953.0	18452.8	464.20 µg/L	464.20 ppb	00:06:43
3	Co 228.616†	9804.2	10000.0	462.44 µg/L	462.44 ppb	00:06:43
3	Cr 267.716†	21658.9	22144.5	451.90 µg/L	451.90 ppb	00:06:43
3	Cu 324.752†	70892.5	69457.1	461.47 µg/L	461.47 ppb	00:06:43
3	Mn 257.610†	148137.6	151437.4	482.53 µg/L	482.53 ppb	00:06:37
3	Mo 202.031†	4229.1	4318.0	432.85 µg/L	432.85 ppb	00:07:03
3	Ni 231.604†	9286.8	9166.0	462.76 µg/L	462.76 ppb	00:06:43
3	P 214.914†	1094.8	1100.7	2143.4 µg/L	2143.4 ppb	00:07:03
3	Pb 220.353†	1866.2	1809.2	445.24 µg/L	445.24 ppb	00:07:03
3	S 181.975 Axial†	233.3	220.8	915.15 µg/L	915.15 ppb	00:07:03
3	Sb 206.836†	488.7	476.5	436.51 µg/L	436.51 ppb	00:07:03
3	Se 196.026†	335.8	327.6	456.89 µg/L	456.89 ppb	00:07:03
3	SiO2†	26439.5	25490.1	5104.4 µg/L	5104.4 ppb	00:06:43
3	Si 251.611†	30590.6	30916.1	2386.2 µg/L	2386.2 ppb	00:06:43
3	Sn 189.927†	983.9	999.0	427.28 µg/L	427.28 ppb	00:07:03
3	Ti 334.940†	205015.2	209021.6	475.05 µg/L	475.05 ppb	00:06:37
3	Tl 190.801†	319.1	347.7	470.58 µg/L	470.58 ppb	00:07:03
3	U 409.014†	5267.4	5374.7	455.06 µg/L	455.06 ppb	00:06:43
3	V 292.402†	45133.8	46142.9	461.92 µg/L	461.92 ppb	00:06:43
3	Zn 213.857†	19842.4	19742.0	462.58 µg/L	462.58 ppb	00:06:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2064632.7	98.333	%	0.3291				0.33%
Sc RADIAL	57654.9	97.6	%	0.36				0.37%
Y 371.029	1426466.7	98.006	%	0.3203				0.33%
Ag 328.068†	66574.9	500.22	µg/L	18.180	500.22	ppb	18.180	3.63%
QC value within limits for Ag 328.068 Recovery = 100.04%								
Al 396.153Radial†	7055.8	5264.8	µg/L	6.66	5264.8	ppb	6.66	0.13%
QC value within limits for Al 396.153Radial Recovery = 105.30%								
As 188.979†	273.0	490.46	µg/L	43.965	490.46	ppb	43.965	8.96%
QC value within limits for As 188.979 Recovery = 98.09%								
B 249.677†	12010.3	489.37	µg/L	19.067	489.37	ppb	19.067	3.90%
QC value within limits for B 249.677 Recovery = 97.87%								
Ba 233.527†	20251.3	497.16	µg/L	27.560	497.16	ppb	27.560	5.54%
QC value within limits for Ba 233.527 Recovery = 99.43%								
Be 313.107†	824336.3	497.66	µg/L	19.775	497.66	ppb	19.775	3.97%
QC value within limits for Be 313.107 Recovery = 99.53%								
Ca 317.933Radial†	5648.2	5180.9	µg/L	17.30	5180.9	ppb	17.30	0.33%
QC value within limits for Ca 317.933Radial Recovery = 103.62%								
Cd 226.502†	19732.8	496.44	µg/L	28.102	496.44	ppb	28.102	5.66%
QC value within limits for Cd 226.502 Recovery = 99.29%								
Co 228.616†	10780.4	498.58	µg/L	31.549	498.58	ppb	31.549	6.33%

```
   QC value within limits for Co 228.616  Recovery = 99.72%
Cr 267.716†            24279.2      495.46 µg/L        37.938      495.46 ppb         37.938   7.66%
   QC value within limits for Cr 267.716  Recovery = 99.09%
Cu 324.752†            74613.6      495.68 µg/L        29.835      495.68 ppb         29.835   6.02%
   QC value within limits for Cu 324.752  Recovery = 99.14%
Fe 238.204 Radial†       613.8      5279.2 µg/L        13.10      5279.2 ppb          13.10   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.58%
K 766.490 Radial†       7435.8      5113.0 µg/L        52.69      5113.0 ppb          52.69   1.03%
   QC value within limits for K 766.490 Radial  Recovery = 102.26%
Mg 279.077 IEC†          554.6      5400.6 µg/L        54.55      5400.6 ppb          54.55   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.01%
Mn 257.610†           158287.7      504.34 µg/L        18.896      504.34 ppb         18.896   3.75%
   QC value within limits for Mn 257.610  Recovery = 100.87%
Mo 202.031†             4915.9      492.75 µg/L        52.321      492.75 ppb         52.321  10.62%
   QC value within limits for Mo 202.031  Recovery = 98.55%
Na 589.592 Radial†     32094.4       10493 µg/L         21.4       10493 ppb           21.4   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 104.93%
Ni 231.604†             9869.7      498.28 µg/L        31.083      498.28 ppb         31.083   6.24%
   QC value within limits for Ni 231.604  Recovery = 99.66%
P 214.914†              1230.0      2397.9 µg/L       221.99      2397.9 ppb         221.99   9.26%
   QC value within limits for P 214.914  Recovery = 95.91%
Pb 220.353†             2006.2      493.78 µg/L        42.581      493.78 ppb         42.581   8.62%
   QC value within limits for Pb 220.353  Recovery = 98.76%
S 181.975 Axial†         241.4      1000.8 µg/L        74.84      1000.8 ppb          74.84   7.48%
   QC value within limits for S 181.975 Axial  Recovery = 100.08%
Sb 206.836†              529.6      485.55 µg/L        42.736      485.55 ppb         42.736   8.80%
   QC value within limits for Sb 206.836  Recovery = 97.11%
Se 196.026†              359.0      499.97 µg/L        38.354      499.97 ppb         38.354   7.67%
   QC value within limits for Se 196.026  Recovery = 99.99%
SiO2†                  26885.0      5383.7 µg/L       244.85      5383.7 ppb         244.85   4.55%
   QC value within limits for SiO2  Recovery = 100.68%
Si 251.611†            32618.9      2517.6 µg/L       115.15      2517.6 ppb         115.15   4.57%
   QC value within limits for Si 251.611  Recovery = 100.71%
Sn 189.927†             1149.6      491.66 µg/L        56.249      491.66 ppb         56.249  11.44%
   QC value within limits for Sn 189.927  Recovery = 98.33%
Sr 421.552†            50933.5      500.94 µg/L         0.853      500.94 ppb          0.853   0.17%
   QC value within limits for Sr 421.552  Recovery = 100.19%
Ti 334.940†           219845.5      499.67 µg/L        21.337      499.67 ppb         21.337   4.27%
   QC value within limits for Ti 334.940  Recovery = 99.93%
Tl 190.801†              372.2      503.53 µg/L        29.173      503.53 ppb         29.173   5.79%
   QC value within limits for Tl 190.801  Recovery = 100.71%
U 409.014†              5876.4      497.64 µg/L        36.969      497.64 ppb         36.969   7.43%
   QC value within limits for U 409.014  Recovery = 99.53%
V 292.402†             49974.1      500.42 µg/L        33.528      500.42 ppb         33.528   6.70%
   QC value within limits for V 292.402  Recovery = 100.08%
Zn 213.857†            21182.1      496.36 µg/L        29.454      496.36 ppb         29.454   5.93%
   QC value within limits for Zn 213.857  Recovery = 99.27%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 00:07:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56827.9	56827.9	96.2	%			00:07:46
1	Al 396.153Radial†	-11.9	-3.7	-2.7798	µg/L	-2.7798	ppb	00:07:46
1	Ca 317.933Radial†	191.0	5.4	4.9932	µg/L	4.9932	ppb	00:08:07
1	Fe 238.204 Radial†	17.6	2.9	25.038	µg/L	25.038	ppb	00:08:07
1	K 766.490 Radial†	227.0	37.5	25.770	µg/L	25.770	ppb	00:07:46
1	Mg 279.077 IEC†	5.0	-6.9	-67.444	µg/L	-67.444	ppb	00:08:07
1	Na 589.592 Radial†	474.5	19.3	6.3097	µg/L	6.3097	ppb	00:07:46
1	Sr 421.552†	52.2	12.9	0.1264	µg/L	0.1264	ppb	00:07:46
1	Sc 361.383	2048811.8	2048811.8	97.580	%			00:09:08
1	Y 371.029	1421637.4	1421637.4	97.674	%			00:09:08
1	Ag 328.068†	-402.5	50.6	0.3802	µg/L	0.3802	ppb	00:09:14
1	As 188.979†	0.1	0.4	0.6624	µg/L	0.6624	ppb	00:09:35
1	B 249.677†	345.4	28.5	1.1536	µg/L	1.1536	ppb	00:09:35
1	Ba 233.527†	-7.9	10.2	0.2511	µg/L	0.2511	ppb	00:09:35
1	Be 313.107†	-3529.5	141.9	0.0854	µg/L	0.0854	ppb	00:09:14
1	Cd 226.502†	-133.2	0.1	-0.0004	µg/L	-0.0004	ppb	00:09:35
1	Co 228.616†	2.6	0.1	0.0041	µg/L	0.0041	ppb	00:09:35
1	Cr 267.716†	-21.2	25.7	0.5236	µg/L	0.5236	ppb	00:09:14
1	Cu 324.752†	2883.1	84.9	0.5666	µg/L	0.5666	ppb	00:09:14
1	Mn 257.610†	-43.8	257.7	0.8263	µg/L	0.8263	ppb	00:09:35
1	Mo 202.031†	5.7	9.2	0.9218	µg/L	0.9218	ppb	00:09:35
1	Ni 231.604†	304.8	3.8	0.1904	µg/L	0.1904	ppb	00:09:35
1	P 214.914†	18.0	2.2	4.3058	µg/L	4.3058	ppb	00:09:35
1	Pb 220.353†	88.6	-4.0	-0.9893	µg/L	-0.9893	ppb	00:09:35
1	S 181.975 Axial†	19.6	2.8	11.780	µg/L	11.780	ppb	00:09:35
1	Sb 206.836†	20.5	-1.1	-1.0267	µg/L	-1.0267	ppb	00:09:35
1	Se 196.026†	17.3	2.7	3.8268	µg/L	3.8268	ppb	00:09:35
1	SiO2†	1591.3	146.4	29.313	µg/L	29.313	ppb	00:09:14
1	Si 251.611†	446.5	164.0	12.660	µg/L	12.660	ppb	00:09:35
1	Sn 189.927†	4.9	0.3	0.1048	µg/L	0.1048	ppb	00:09:35
1	Ti 334.940†	476.1	346.2	0.7928	µg/L	0.7928	ppb	00:09:14
1	Tl 190.801†	-23.9	-2.3	-3.0080	µg/L	-3.0080	ppb	00:09:35
1	U 409.014†	-26.8	-26.7	-2.2692	µg/L	-2.2692	ppb	00:09:14
1	V 292.402†	-78.6	15.5	0.1620	µg/L	0.1620	ppb	00:09:14
1	Zn 213.857†	511.1	21.8	0.5155	µg/L	0.5155	ppb	00:09:35
2	Sc RADIAL	56976.7	56976.7	96.5	%			00:08:12
2	Al 396.153Radial†	1.1	9.8	7.3287	µg/L	7.3287	ppb	00:08:12
2	Ca 317.933Radial†	188.1	2.0	1.7975	µg/L	1.7975	ppb	00:08:32
2	Fe 238.204 Radial†	17.2	2.4	20.850	µg/L	20.850	ppb	00:08:32
2	K 766.490 Radial†	220.2	29.8	20.496	µg/L	20.496	ppb	00:08:12
2	Mg 279.077 IEC†	13.3	1.7	16.748	µg/L	16.748	ppb	00:08:32
2	Na 589.592 Radial†	450.8	-6.5	-2.1321	µg/L	-2.1321	ppb	00:08:12
2	Sr 421.552†	23.3	-17.2	-0.1691	µg/L	-0.1691	ppb	00:08:12
2	Sc 361.383	2061213.2	2061213.2	98.170	%			00:09:41
2	Y 371.029	1429644.0	1429644.0	98.224	%			00:09:41
2	Ag 328.068†	-411.8	43.6	0.3297	µg/L	0.3297	ppb	00:09:46
2	As 188.979†	-3.2	-3.0	-5.4202	µg/L	-5.4202	ppb	00:10:07
2	B 249.677†	353.3	34.4	1.3935	µg/L	1.3935	ppb	00:10:07
2	Ba 233.527†	-7.9	10.3	0.2534	µg/L	0.2534	ppb	00:10:07
2	Be 313.107†	-3550.5	142.2	0.0855	µg/L	0.0855	ppb	00:09:46
2	Cd 226.502†	-138.6	-4.6	-0.1171	µg/L	-0.1171	ppb	00:10:07
2	Co 228.616†	3.1	0.6	0.0277	µg/L	0.0277	ppb	00:10:07
2	Cr 267.716†	-79.6	-33.6	-0.6859	µg/L	-0.6859	ppb	00:09:46
2	Cu 324.752†	2945.2	130.4	0.8681	µg/L	0.8681	ppb	00:09:46
2	Mn 257.610†	-43.7	258.0	0.8234	µg/L	0.8234	ppb	00:10:07
2	Mo 202.031†	0.2	3.6	0.3577	µg/L	0.3577	ppb	00:10:07
2	Ni 231.604†	309.5	6.7	0.3374	µg/L	0.3374	ppb	00:10:07
2	P 214.914†	9.6	-6.4	-12.836	µg/L	-12.836	ppb	00:10:07
2	Pb 220.353†	93.2	0.2	0.0620	µg/L	0.0620	ppb	00:10:07

2	S 181.975 Axial†	17.6	0.7	2.8242 µg/L	2.8242 ppb	00:10:07
2	Sb 206.836†	18.1	-3.7	-3.3805 µg/L	-3.3805 ppb	00:10:07
2	Se 196.026†	21.2	6.6	9.0772 µg/L	9.0772 ppb	00:10:07
2	SiO2†	1578.3	123.3	24.690 µg/L	24.690 ppb	00:09:46
2	Si 251.611†	447.3	162.1	12.510 µg/L	12.510 ppb	00:10:07
2	Sn 189.927†	4.9	0.3	0.1188 µg/L	0.1188 ppb	00:10:07
2	Ti 334.940†	549.0	417.6	0.9484 µg/L	0.9484 ppb	00:09:46
2	Tl 190.801†	-26.3	-4.5	-6.0444 µg/L	-6.0444 ppb	00:10:07
2	U 409.014†	-155.2	-157.4	-13.356 µg/L	-13.356 ppb	00:09:46
2	V 292.402†	-52.5	42.5	0.4101 µg/L	0.4101 ppb	00:09:46
2	Zn 213.857†	521.8	29.6	0.6944 µg/L	0.6944 ppb	00:10:07
3	Sc RADIAL	57148.0	57148.0	96.8 %		00:08:38
3	Al 396.153Radial†	-21.0	-13.0	-9.7230 µg/L	-9.7230 ppb	00:08:38
3	Ca 317.933Radial†	205.2	19.0	17.463 µg/L	17.463 ppb	00:08:58
3	Fe 238.204 Radial†	16.0	1.1	9.7862 µg/L	9.7862 ppb	00:08:58
3	K 766.490 Radial†	172.9	-19.7	-13.576 µg/L	-13.576 ppb	00:08:38
3	Mg 279.077 IEC†	11.6	-0.1	-1.3133 µg/L	-1.3133 ppb	00:08:58
3	Na 589.592 Radial†	491.4	34.0	11.119 µg/L	11.119 ppb	00:08:38
3	Sr 421.552†	45.6	5.8	0.0568 µg/L	0.0568 ppb	00:08:38
3	Sc 361.383	2058859.2	2058859.2	98.058 %		00:10:13
3	Y 371.029	1427504.8	1427504.8	98.078 %		00:10:13
3	Ag 328.068†	-407.6	47.4	0.3542 µg/L	0.3542 ppb	00:10:19
3	As 188.979†	-1.6	-1.4	-2.4452 µg/L	-2.4452 ppb	00:10:39
3	B 249.677†	345.6	27.0	1.1001 µg/L	1.1001 ppb	00:10:39
3	Ba 233.527†	-10.8	7.3	0.1793 µg/L	0.1793 ppb	00:10:39
3	Be 313.107†	-3550.4	138.1	0.0831 µg/L	0.0831 ppb	00:10:19
3	Cd 226.502†	-138.9	-5.0	-0.1281 µg/L	-0.1281 ppb	00:10:39
3	Co 228.616†	9.2	6.8	0.3141 µg/L	0.3141 ppb	00:10:39
3	Cr 267.716†	-26.7	20.2	0.4110 µg/L	0.4110 ppb	00:10:19
3	Cu 324.752†	2907.8	95.6	0.6357 µg/L	0.6357 ppb	00:10:19
3	Mn 257.610†	-111.8	188.6	0.6017 µg/L	0.6017 ppb	00:10:39
3	Mo 202.031†	-0.0	3.3	0.3311 µg/L	0.3311 ppb	00:10:39
3	Ni 231.604†	300.3	-2.4	-0.1200 µg/L	-0.1200 ppb	00:10:39
3	P 214.914†	13.4	-2.5	-5.1026 µg/L	-5.1026 ppb	00:10:39
3	Pb 220.353†	89.9	-3.1	-0.7731 µg/L	-0.7731 ppb	00:10:39
3	S 181.975 Axial†	17.6	0.6	2.6706 µg/L	2.6706 ppb	00:10:39
3	Sb 206.836†	21.6	-0.1	-0.0875 µg/L	-0.0875 ppb	00:10:39
3	Se 196.026†	20.9	6.3	8.6805 µg/L	8.6805 ppb	00:10:39
3	SiO2†	1581.5	128.5	25.723 µg/L	25.723 ppb	00:10:19
3	Si 251.611†	427.7	142.6	11.006 µg/L	11.006 ppb	00:10:39
3	Sn 189.927†	4.2	-0.4	-0.1884 µg/L	-0.1884 ppb	00:10:39
3	Ti 334.940†	552.9	422.2	0.9607 µg/L	0.9607 ppb	00:10:19
3	Tl 190.801†	-20.1	1.7	2.2786 µg/L	2.2786 ppb	00:10:39
3	U 409.014†	-1.8	-1.1	-0.0980 µg/L	-0.0980 ppb	00:10:19
3	V 292.402†	-97.2	-3.2	-0.0267 µg/L	-0.0267 ppb	00:10:19
3	Zn 213.857†	515.9	24.1	0.5685 µg/L	0.5685 ppb	00:10:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2056294.7	97.936	%	0.3137				0.32%
Sc RADIAL	56984.2	96.5	%	0.27				0.28%
Y 371.029	1426262.1	97.992	%	0.2848				0.29%
Ag 328.068†	47.2	0.3547	µg/L	0.02525	0.3547	ppb	0.02525	7.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.3	-1.7247	µg/L	8.57468	-1.7247	ppb	8.57468	497.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.3	-2.4010	µg/L	3.04154	-2.4010	ppb	3.04154	126.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.0	1.2158	µg/L	0.15625	1.2158	ppb	0.15625	12.85%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.3	0.2279	µg/L	0.04213	0.2279	ppb	0.04213	18.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	140.7	0.0847	µg/L	0.00138	0.0847	ppb	0.00138	1.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.8	8.0845	µg/L	8.27760	8.0845	ppb	8.27760	102.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.2	-0.0819	µg/L	0.07074	-0.0819	ppb	0.07074	86.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.5	0.1153	µg/L	0.17258	0.1153	ppb	0.17258	149.65%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.1      0.0829 µg/L       0.66815      0.0829 ppb        0.66815 805.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              103.6      0.6901 µg/L       0.15793      0.6901 ppb        0.15793  22.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.2      18.558 µg/L        7.8801      18.558 ppb         7.8801  42.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         15.8      10.897 µg/L       21.3573      10.897 ppb        21.3573 196.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.8     -17.336 µg/L       44.3242     -17.336 ppb        44.3242 255.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              234.8      0.7505 µg/L       0.12888      0.7505 ppb        0.12888  17.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.4      0.5369 µg/L       0.33365      0.5369 ppb        0.33365  62.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        15.6      5.0989 µg/L       6.70808      5.0989 ppb        6.70808 131.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                2.7      0.1359 µg/L       0.23349      0.1359 ppb        0.23349 171.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.2     -4.5444 µg/L       8.58475     -4.5444 ppb        8.58475 188.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.3     -0.5668 µg/L       0.55518     -0.5668 ppb        0.55518  97.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.4      5.7582 µg/L       5.21534      5.7582 ppb        5.21534  90.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.6     -1.4982 µg/L       1.69637     -1.4982 ppb        1.69637 113.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.2      7.1948 µg/L       2.92353      7.1948 ppb        2.92353  40.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    132.7      26.575 µg/L        2.4263      26.575 ppb         2.4263   9.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              156.2      12.059 µg/L        0.9143      12.059 ppb         0.9143   7.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.0      0.0117 µg/L       0.17349      0.0117 ppb        0.17349 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                0.5      0.0047 µg/L       0.15451      0.0047 ppb        0.15451 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              395.3      0.9007 µg/L       0.09358      0.9007 ppb        0.09358  10.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.7     -2.2579 µg/L       4.21187     -2.2579 ppb        4.21187 186.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -61.7     -5.2412 µg/L       7.11135     -5.2412 ppb        7.11135 135.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                18.3      0.1818 µg/L       0.21908      0.1818 ppb        0.21908 120.51%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               25.2      0.5928 µg/L       0.09190      0.5928 ppb        0.09190  15.50%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 00:40:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57881.2	57881.2	98.0	%			00:40:54
1	Al 396.153Radial†	6874.3	7021.1	5238.1	µg/L	5238.1	ppb	00:40:54
1	Ca 317.933Radial†	5664.1	5584.9	5122.8	µg/L	5122.8	ppb	00:41:15
1	Fe 238.204 Radial†	610.6	607.5	5225.8	µg/L	5225.8	ppb	00:41:15
1	K 766.490 Radial†	7410.5	7360.9	5061.5	µg/L	5061.5	ppb	00:40:54
1	Mg 279.077 IEC†	547.1	546.0	5317.3	µg/L	5317.3	ppb	00:41:15
1	Na 589.592 Radial†	31642.9	31804.7	10398	µg/L	10398	ppb	00:40:54
1	Sr 421.552†	49374.6	50324.8	494.96	µg/L	494.96	ppb	00:40:54
1	Sc 361.383	2058449.1	2058449.1	98.039	%			00:42:18
1	Y 371.029	1422350.2	1422350.2	97.723	%			00:42:18
1	Ag 328.068†	65498.8	67272.4	505.50	µg/L	505.50	ppb	00:42:24
1	As 188.979†	278.6	284.5	511.07	µg/L	511.07	ppb	00:42:45
1	B 249.677†	12182.9	12101.1	493.14	µg/L	493.14	ppb	00:42:24
1	Ba 233.527†	20217.2	20640.0	506.71	µg/L	506.71	ppb	00:42:24
1	Be 313.107†	813128.2	833155.6	502.98	µg/L	502.98	ppb	00:42:18
1	Cd 226.502†	19525.0	20052.3	504.49	µg/L	504.49	ppb	00:42:24
1	Co 228.616†	10814.6	11028.4	510.08	µg/L	510.08	ppb	00:42:24
1	Cr 267.716†	24537.6	25075.9	511.72	µg/L	511.72	ppb	00:42:24
1	Cu 324.752†	77653.4	76337.4	507.11	µg/L	507.11	ppb	00:42:24
1	Mn 257.610†	156762.6	160201.6	510.43	µg/L	510.43	ppb	00:42:18
1	Mo 202.031†	5112.7	5218.3	523.05	µg/L	523.05	ppb	00:42:45
1	Ni 231.604†	10181.2	10076.3	508.71	µg/L	508.71	ppb	00:42:24
1	P 214.914†	1284.0	1293.5	2523.3	µg/L	2523.3	ppb	00:42:45
1	Pb 220.353†	2131.2	2079.0	511.75	µg/L	511.75	ppb	00:42:45
1	S 181.975 Axial†	258.7	246.5	1022.0	µg/L	1022.0	ppb	00:42:45
1	Sb 206.836†	562.1	551.2	505.59	µg/L	505.59	ppb	00:42:45
1	Se 196.026†	376.8	369.3	514.08	µg/L	514.08	ppb	00:42:45
1	SiO2†	28192.4	27272.0	5461.2	µg/L	5461.2	ppb	00:42:24
1	Si 251.611†	32691.3	33051.9	2551.1	µg/L	2551.1	ppb	00:42:24
1	Sn 189.927†	1202.0	1221.3	522.33	µg/L	522.33	ppb	00:42:45
1	Ti 334.940†	218714.5	222948.7	506.73	µg/L	506.73	ppb	00:42:18
1	Tl 190.801†	360.0	389.5	526.64	µg/L	526.64	ppb	00:42:45
1	U 409.014†	5957.1	6077.0	514.68	µg/L	514.68	ppb	00:42:24
1	V 292.402†	50130.9	51229.9	513.13	µg/L	513.13	ppb	00:42:24
1	Zn 213.857†	21705.2	21637.6	507.05	µg/L	507.05	ppb	00:42:24
2	Sc RADIAL	57384.3	57384.3	97.2	%			00:41:20
2	Al 396.153Radial†	6807.4	7013.0	5232.4	µg/L	5232.4	ppb	00:41:20
2	Ca 317.933Radial†	5637.9	5607.9	5143.9	µg/L	5143.9	ppb	00:41:41
2	Fe 238.204 Radial†	607.5	609.7	5244.8	µg/L	5244.8	ppb	00:41:41
2	K 766.490 Radial†	7386.7	7401.9	5089.7	µg/L	5089.7	ppb	00:41:20
2	Mg 279.077 IEC†	550.0	553.8	5393.5	µg/L	5393.5	ppb	00:41:41
2	Na 589.592 Radial†	31475.5	31912.0	10433	µg/L	10433	ppb	00:41:20
2	Sr 421.552†	49051.1	50428.2	495.97	µg/L	495.97	ppb	00:41:20
2	Sc 361.383	2075281.0	2075281.0	98.840	%			00:42:52
2	Y 371.029	1432661.4	1432661.4	98.432	%			00:42:52
2	Ag 328.068†	65552.1	66784.5	501.84	µg/L	501.84	ppb	00:42:57
2	As 188.979†	275.4	278.9	501.05	µg/L	501.05	ppb	00:43:18
2	B 249.677†	12290.4	12109.1	493.45	µg/L	493.45	ppb	00:42:57
2	Ba 233.527†	20250.0	20506.0	503.42	µg/L	503.42	ppb	00:42:57
2	Be 313.107†	815905.2	829238.2	500.62	µg/L	500.62	ppb	00:42:52
2	Cd 226.502†	19614.8	19981.6	502.71	µg/L	502.71	ppb	00:42:57
2	Co 228.616†	10794.9	10919.0	505.00	µg/L	505.00	ppb	00:42:57
2	Cr 267.716†	24518.7	24853.8	507.19	µg/L	507.19	ppb	00:42:57
2	Cu 324.752†	77695.4	75737.4	503.13	µg/L	503.13	ppb	00:42:57
2	Mn 257.610†	156827.5	158970.4	506.51	µg/L	506.51	ppb	00:42:52
2	Mo 202.031†	5025.0	5087.3	509.92	µg/L	509.92	ppb	00:43:18
2	Ni 231.604†	10201.7	10012.8	505.50	µg/L	505.50	ppb	00:42:57
2	P 214.914†	1256.2	1254.7	2446.5	µg/L	2446.5	ppb	00:43:18
2	Pb 220.353†	2112.1	2042.1	502.65	µg/L	502.65	ppb	00:43:18

2	S 181.975 Axial†	257.4	243.1	1007.6 µg/L	1007.6 ppb	00:43:18
2	Sb 206.836†	561.0	545.5	500.16 µg/L	500.16 ppb	00:43:18
2	Se 196.026†	373.0	362.4	504.55 µg/L	504.55 ppb	00:43:18
2	SiO2†	28219.5	27066.3	5420.0 µg/L	5420.0 ppb	00:42:57
2	Si 251.611†	32775.0	32866.0	2536.7 µg/L	2536.7 ppb	00:42:57
2	Sn 189.927†	1183.0	1192.2	509.88 µg/L	509.88 ppb	00:43:18
2	Ti 334.940†	219319.0	221750.9	504.00 µg/L	504.00 ppb	00:42:52
2	Tl 190.801†	346.1	372.4	503.80 µg/L	503.80 ppb	00:43:18
2	U 409.014†	5900.4	5970.4	505.63 µg/L	505.63 ppb	00:42:57
2	V 292.402†	50215.4	50900.7	509.75 µg/L	509.75 ppb	00:42:57
2	Zn 213.857†	21723.0	21476.0	503.25 µg/L	503.25 ppb	00:42:57
3	Sc RADIAL	57362.8	57362.8	97.2 %		00:41:46
3	Al 396.153Radial†	6816.6	7025.1	5243.1 µg/L	5243.1 ppb	00:41:46
3	Ca 317.933Radial†	5637.3	5609.5	5145.4 µg/L	5145.4 ppb	00:42:07
3	Fe 238.204 Radial†	607.4	609.8	5244.1 µg/L	5244.1 ppb	00:42:07
3	K 766.490 Radial†	7349.2	7366.2	5065.1 µg/L	5065.1 ppb	00:41:46
3	Mg 279.077 IEC†	550.3	554.3	5396.8 µg/L	5396.8 ppb	00:42:07
3	Na 589.592 Radial†	31396.3	31842.5	10410 µg/L	10410 ppb	00:41:46
3	Sr 421.552†	48853.4	50243.6	494.16 µg/L	494.16 ppb	00:41:46
3	Sc 361.383	2057125.1	2057125.1	97.975 %		00:43:25
3	Y 371.029	1420790.7	1420790.7	97.616 %		00:43:25
3	Ag 328.068†	61278.1	63007.4	473.31 µg/L	473.31 ppb	00:43:31
3	As 188.979†	237.3	242.5	435.64 µg/L	435.64 ppb	00:43:51
3	B 249.677†	11357.0	11266.2	458.87 µg/L	458.87 ppb	00:43:31
3	Ba 233.527†	18273.7	18669.6	458.32 µg/L	458.32 ppb	00:43:31
3	Be 313.107†	755469.0	774838.7	467.78 µg/L	467.78 ppb	00:43:25
3	Cd 226.502†	17664.9	18166.6	456.99 µg/L	456.99 ppb	00:43:31
3	Co 228.616†	9661.2	9858.3	455.89 µg/L	455.89 ppb	00:43:31
3	Cr 267.716†	21236.1	21722.3	443.29 µg/L	443.29 ppb	00:43:31
3	Cu 324.752†	69937.5	68513.0	455.21 µg/L	455.21 ppb	00:43:31
3	Mn 257.610†	145958.9	149277.5	475.65 µg/L	475.65 ppb	00:43:25
3	Mo 202.031†	4159.4	4248.6	425.90 µg/L	425.90 ppb	00:43:51
3	Ni 231.604†	9107.2	8986.7	453.71 µg/L	453.71 ppb	00:43:31
3	P 214.914†	1072.9	1078.8	2100.5 µg/L	2100.5 ppb	00:43:51
3	Pb 220.353†	1836.4	1779.6	437.96 µg/L	437.96 ppb	00:43:51
3	S 181.975 Axial†	229.3	216.7	898.33 µg/L	898.33 ppb	00:43:51
3	Sb 206.836†	477.3	465.1	426.09 µg/L	426.09 ppb	00:43:51
3	Se 196.026†	334.1	326.0	454.62 µg/L	454.62 ppb	00:43:51
3	SiO2†	25997.3	25050.1	5016.3 µg/L	5016.3 ppb	00:43:31
3	Si 251.611†	30110.7	30439.3	2349.4 µg/L	2349.4 ppb	00:43:31
3	Sn 189.927†	967.9	983.2	420.48 µg/L	420.48 ppb	00:43:51
3	Ti 334.940†	201941.0	205972.2	468.12 µg/L	468.12 ppb	00:43:25
3	Tl 190.801†	313.7	342.4	463.38 µg/L	463.38 ppb	00:43:51
3	U 409.014†	5162.9	5270.3	446.21 µg/L	446.21 ppb	00:43:31
3	V 292.402†	44408.7	45422.3	454.70 µg/L	454.70 ppb	00:43:31
3	Zn 213.857†	19499.7	19400.7	454.58 µg/L	454.58 ppb	00:43:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2063618.4	98.285	%	0.4821				0.49%
Sc RADIAL	57542.8	97.5	%	0.50				0.51%
Y 371.029	1425267.4	97.924	%	0.4432				0.45%
Ag 328.068†	65688.1	493.55	µg/L	17.625	493.55	ppb	17.625	3.57%
QC value within limits for Ag 328.068 Recovery = 98.71%								
Al 396.153Radial†	7019.7	5237.9	µg/L	5.39	5237.9	ppb	5.39	0.10%
QC value within limits for Al 396.153Radial Recovery = 104.76%								
As 188.979†	268.6	482.59	µg/L	40.964	482.59	ppb	40.964	8.49%
QC value within limits for As 188.979 Recovery = 96.52%								
B 249.677†	11825.5	481.82	µg/L	19.878	481.82	ppb	19.878	4.13%
QC value within limits for B 249.677 Recovery = 96.36%								
Ba 233.527†	19938.5	489.48	µg/L	27.038	489.48	ppb	27.038	5.52%
QC value within limits for Ba 233.527 Recovery = 97.90%								
Be 313.107†	812410.8	490.46	µg/L	19.679	490.46	ppb	19.679	4.01%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	5600.8	5137.4	µg/L	12.66	5137.4	ppb	12.66	0.25%
QC value within limits for Ca 317.933Radial Recovery = 102.75%								
Cd 226.502†	19400.1	488.06	µg/L	26.928	488.06	ppb	26.928	5.52%
QC value within limits for Cd 226.502 Recovery = 97.61%								
Co 228.616†	10601.9	490.32	µg/L	29.930	490.32	ppb	29.930	6.10%

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   QC value within limits for Co 228.616  Recovery = 98.06%
Cr 267.716†            23884.0      487.40 µg/L        38.266      487.40 ppb         38.266   7.85%
   QC value within limits for Cr 267.716  Recovery = 97.48%
Cu 324.752†            73529.3      488.48 µg/L        28.885      488.48 ppb         28.885   5.91%
   QC value within limits for Cu 324.752  Recovery = 97.70%
Fe 238.204 Radial†       609.0      5238.2 µg/L         10.73      5238.2 ppb          10.73   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.76%
K 766.490 Radial†       7376.3      5072.1 µg/L         15.33      5072.1 ppb          15.33   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 101.44%
Mg 279.077 IEC†          551.4      5369.2 µg/L         45.00      5369.2 ppb          45.00   0.84%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.38%
Mn 257.610†           156149.8      497.53 µg/L        19.046      497.53 ppb         19.046   3.83%
   QC value within limits for Mn 257.610  Recovery = 99.51%
Mo 202.031†             4851.4      486.29 µg/L        52.714      486.29 ppb         52.714  10.84%
   QC value within limits for Mo 202.031  Recovery = 97.26%
Na 589.592 Radial†     31853.1       10414 µg/L          17.8       10414 ppb           17.8   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 104.14%
Ni 231.604†             9691.9      489.31 µg/L        30.871      489.31 ppb         30.871   6.31%
   QC value within limits for Ni 231.604  Recovery = 97.86%
P 214.914†              1209.0      2356.7 µg/L        225.22      2356.7 ppb         225.22   9.56%
   QC value within limits for P 214.914  Recovery = 94.27%
Pb 220.353†             1966.9      484.12 µg/L        40.236      484.12 ppb         40.236   8.31%
   QC value within limits for Pb 220.353  Recovery = 96.82%
S 181.975 Axial†         235.4      975.97 µg/L        67.623      975.97 ppb         67.623   6.93%
   QC value within limits for S 181.975 Axial  Recovery = 97.60%
Sb 206.836†              520.6      477.28 µg/L        44.414      477.28 ppb         44.414   9.31%
   QC value within limits for Sb 206.836  Recovery = 95.46%
Se 196.026†              352.6      491.09 µg/L        31.935      491.09 ppb         31.935   6.50%
   QC value within limits for Se 196.026  Recovery = 98.22%
SiO2†                  26462.8      5299.2 µg/L        245.85      5299.2 ppb         245.85   4.64%
   QC value within limits for SiO2  Recovery = 99.10%
Si 251.611†            32119.1      2479.1 µg/L        112.51      2479.1 ppb         112.51   4.54%
   QC value within limits for Si 251.611  Recovery = 99.16%
Sn 189.927†             1132.2      484.23 µg/L        55.558      484.23 ppb         55.558  11.47%
   QC value within limits for Sn 189.927  Recovery = 96.85%
Sr 421.552†            50332.2      495.03 µg/L         0.910      495.03 ppb          0.910   0.18%
   QC value within limits for Sr 421.552  Recovery = 99.01%
Ti 334.940†           216890.6      492.95 µg/L        21.551      492.95 ppb         21.551   4.37%
   QC value within limits for Ti 334.940  Recovery = 98.59%
Tl 190.801†              368.1      497.94 µg/L        32.034      497.94 ppb         32.034   6.43%
   QC value within limits for Tl 190.801  Recovery = 99.59%
U 409.014†              5772.6      488.84 µg/L        37.191      488.84 ppb         37.191   7.61%
   QC value within limits for U 409.014  Recovery = 97.77%
V 292.402†             49184.3      492.53 µg/L        32.800      492.53 ppb         32.800   6.66%
   QC value within limits for V 292.402  Recovery = 98.51%
Zn 213.857†            20838.1      488.30 µg/L        29.259      488.30 ppb         29.259   5.99%
   QC value within limits for Zn 213.857  Recovery = 97.66%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 00:44:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56896.4	56896.4	96.4	%			00:44:34
1	Al 396.153Radial†	-29.0	-21.4	-16.015	µg/L	-16.015	ppb	00:44:34
1	Ca 317.933Radial†	186.7	0.8	0.7488	µg/L	0.7488	ppb	00:44:55
1	Fe 238.204 Radial†	16.7	2.0	17.106	µg/L	17.106	ppb	00:44:55
1	K 766.490 Radial†	181.9	-9.6	-6.5992	µg/L	-6.5992	ppb	00:44:34
1	Mg 279.077 IEC†	9.8	-1.9	-18.464	µg/L	-18.464	ppb	00:44:55
1	Na 589.592 Radial†	456.3	-0.2	-0.0705	µg/L	-0.0705	ppb	00:44:34
1	Sr 421.552†	51.5	12.0	0.1185	µg/L	0.1185	ppb	00:44:34
1	Sc 361.383	2073373.1	2073373.1	98.749	%			00:45:57
1	Y 371.029	1437404.4	1437404.4	98.758	%			00:45:57
1	Ag 328.068†	-433.1	24.5	0.1815	µg/L	0.1815	ppb	00:46:02
1	As 188.979†	4.2	4.5	8.0821	µg/L	8.0821	ppb	00:46:23
1	B 249.677†	342.9	21.7	0.8791	µg/L	0.8791	ppb	00:46:23
1	Ba 233.527†	-15.6	2.6	0.0632	µg/L	0.0632	ppb	00:46:23
1	Be 313.107†	-3530.6	183.6	0.1108	µg/L	0.1108	ppb	00:46:02
1	Cd 226.502†	-146.9	-12.2	-0.3078	µg/L	-0.3078	ppb	00:46:23
1	Co 228.616†	3.0	0.5	0.0217	µg/L	0.0217	ppb	00:46:23
1	Cr 267.716†	-64.7	-18.2	-0.3707	µg/L	-0.3707	ppb	00:46:02
1	Cu 324.752†	2872.3	39.0	0.2609	µg/L	0.2609	ppb	00:46:02
1	Mn 257.610†	-233.0	66.7	0.2152	µg/L	0.2152	ppb	00:46:23
1	Mo 202.031†	5.1	8.5	0.8533	µg/L	0.8533	ppb	00:46:23
1	Ni 231.604†	305.4	0.6	0.0317	µg/L	0.0317	ppb	00:46:23
1	P 214.914†	12.9	-3.1	-6.2855	µg/L	-6.2855	ppb	00:46:23
1	Pb 220.353†	84.7	-9.0	-2.2213	µg/L	-2.2213	ppb	00:46:23
1	S 181.975 Axial†	17.8	0.7	2.8936	µg/L	2.8936	ppb	00:46:23
1	Sb 206.836†	20.5	-1.4	-1.2500	µg/L	-1.2500	ppb	00:46:23
1	Se 196.026†	13.2	-1.6	-2.1416	µg/L	-2.1416	ppb	00:46:23
1	SiO2†	1510.2	44.9	8.9960	µg/L	8.9960	ppb	00:46:02
1	Si 251.611†	398.1	109.7	8.4643	µg/L	8.4643	ppb	00:46:23
1	Sn 189.927†	3.6	-1.1	-0.4635	µg/L	-0.4635	ppb	00:46:23
1	Ti 334.940†	199.4	60.3	0.1385	µg/L	0.1385	ppb	00:46:02
1	Tl 190.801†	-19.6	2.4	3.2210	µg/L	3.2210	ppb	00:46:23
1	U 409.014†	-43.8	-43.6	-3.7052	µg/L	-3.7052	ppb	00:46:02
1	V 292.402†	-130.2	-35.8	-0.3505	µg/L	-0.3505	ppb	00:46:02
1	Zn 213.857†	511.9	16.4	0.3872	µg/L	0.3872	ppb	00:46:23
2	Sc RADIAL	56812.6	56812.6	96.2	%			00:45:00
2	Al 396.153Radial†	-8.2	0.1	0.1128	µg/L	0.1128	ppb	00:45:00
2	Ca 317.933Radial†	185.7	0.0	0.0285	µg/L	0.0285	ppb	00:45:21
2	Fe 238.204 Radial†	13.6	-1.2	-10.584	µg/L	-10.584	ppb	00:45:21
2	K 766.490 Radial†	174.4	-17.1	-11.774	µg/L	-11.774	ppb	00:45:00
2	Mg 279.077 IEC†	7.5	-4.3	-42.175	µg/L	-42.175	ppb	00:45:21
2	Na 589.592 Radial†	444.6	-11.7	-3.8255	µg/L	-3.8255	ppb	00:45:00
2	Sr 421.552†	46.5	7.0	0.0689	µg/L	0.0689	ppb	00:45:00
2	Sc 361.383	2065404.0	2065404.0	98.370	%			00:46:29
2	Y 371.029	1431739.7	1431739.7	98.368	%			00:46:29
2	Ag 328.068†	-456.2	-0.7	-0.0036	µg/L	-0.0036	ppb	00:46:34
2	As 188.979†	1.1	1.4	2.5097	µg/L	2.5097	ppb	00:46:55
2	B 249.677†	343.1	23.3	0.9591	µg/L	0.9591	ppb	00:46:55
2	Ba 233.527†	-18.7	-0.7	-0.0162	µg/L	-0.0162	ppb	00:46:55
2	Be 313.107†	-3596.1	103.2	0.0622	µg/L	0.0622	ppb	00:46:34
2	Cd 226.502†	-131.1	3.3	0.0844	µg/L	0.0844	ppb	00:46:55
2	Co 228.616†	7.9	5.5	0.2517	µg/L	0.2517	ppb	00:46:55
2	Cr 267.716†	-76.0	-29.9	-0.6087	µg/L	-0.6087	ppb	00:46:34
2	Cu 324.752†	2833.6	10.9	0.0706	µg/L	0.0706	ppb	00:46:34
2	Mn 257.610†	-227.8	71.0	0.2262	µg/L	0.2262	ppb	00:46:55
2	Mo 202.031†	-4.7	-1.5	-0.1461	µg/L	-0.1461	ppb	00:46:55
2	Ni 231.604†	306.0	2.4	0.1232	µg/L	0.1232	ppb	00:46:55
2	P 214.914†	10.9	-5.1	-10.181	µg/L	-10.181	ppb	00:46:55
2	Pb 220.353†	78.8	-14.6	-3.6015	µg/L	-3.6015	ppb	00:46:55

2	S 181.975 Axial†	17.3	0.3	1.2946 µg/L	1.2946 ppb	00:46:55
2	Sb 206.836†	25.4	3.7	3.4016 µg/L	3.4016 ppb	00:46:55
2	Se 196.026†	17.0	2.3	3.1238 µg/L	3.1238 ppb	00:46:55
2	SiO2†	1516.5	57.3	11.468 µg/L	11.468 ppb	00:46:34
2	Si 251.611†	398.3	111.4	8.5984 µg/L	8.5984 ppb	00:46:55
2	Sn 189.927†	4.2	-0.4	-0.1825 µg/L	-0.1825 ppb	00:46:55
2	Ti 334.940†	291.1	154.2	0.3541 µg/L	0.3541 ppb	00:46:34
2	Tl 190.801†	-18.8	3.1	4.1166 µg/L	4.1166 ppb	00:46:55
2	U 409.014†	6.1	7.0	0.5913 µg/L	0.5913 ppb	00:46:34
2	V 292.402†	-62.1	32.9	0.3220 µg/L	0.3220 ppb	00:46:34
2	Zn 213.857†	508.8	15.3	0.3633 µg/L	0.3633 ppb	00:46:55
3	Sc RADIAL	56934.4	56934.4	96.4 %		00:45:26
3	Al 396.153Radial†	-15.3	-7.1	-5.3436 µg/L	-5.3436 ppb	00:45:26
3	Ca 317.933Radial†	188.9	2.9	2.6763 µg/L	2.6763 ppb	00:45:47
3	Fe 238.204 Radial†	15.5	0.7	6.2831 µg/L	6.2831 ppb	00:45:47
3	K 766.490 Radial†	197.0	5.9	4.0896 µg/L	4.0896 ppb	00:45:26
3	Mg 279.077 IEC†	15.3	3.8	36.639 µg/L	36.639 ppb	00:45:47
3	Na 589.592 Radial†	443.2	-14.0	-4.5928 µg/L	-4.5928 ppb	00:45:26
3	Sr 421.552†	51.4	11.9	0.1174 µg/L	0.1174 ppb	00:45:26
3	Sc 361.383	2075668.4	2075668.4	98.859 %		00:47:01
3	Y 371.029	1439968.1	1439968.1	98.934 %		00:47:01
3	Ag 328.068†	-392.6	66.0	0.4947 µg/L	0.4947 ppb	00:47:07
3	As 188.979†	-4.5	-4.3	-7.7675 µg/L	-7.7675 ppb	00:47:27
3	B 249.677†	338.1	16.6	0.6735 µg/L	0.6735 ppb	00:47:27
3	Ba 233.527†	-15.2	3.0	0.0732 µg/L	0.0732 ppb	00:47:27
3	Be 313.107†	-3468.6	250.2	0.1510 µg/L	0.1510 ppb	00:47:07
3	Cd 226.502†	-140.5	-5.5	-0.1398 µg/L	-0.1398 ppb	00:47:27
3	Co 228.616†	-1.4	-4.0	-0.1860 µg/L	-0.1860 ppb	00:47:27
3	Cr 267.716†	-67.3	-20.7	-0.4221 µg/L	-0.4221 ppb	00:47:07
3	Cu 324.752†	2855.7	18.9	0.1264 µg/L	0.1264 ppb	00:47:07
3	Mn 257.610†	-240.4	59.4	0.1885 µg/L	0.1885 ppb	00:47:27
3	Mo 202.031†	2.3	5.6	0.5634 µg/L	0.5634 ppb	00:47:27
3	Ni 231.604†	304.7	-0.4	-0.0189 µg/L	-0.0189 ppb	00:47:27
3	P 214.914†	9.0	-7.1	-14.198 µg/L	-14.198 ppb	00:47:27
3	Pb 220.353†	83.4	-10.4	-2.5635 µg/L	-2.5635 ppb	00:47:27
3	S 181.975 Axial†	18.2	1.1	4.7095 µg/L	4.7095 ppb	00:47:27
3	Sb 206.836†	19.4	-2.5	-2.2840 µg/L	-2.2840 ppb	00:47:27
3	Se 196.026†	23.9	9.2	12.607 µg/L	12.607 ppb	00:47:27
3	SiO2†	1508.4	41.5	8.3010 µg/L	8.3010 ppb	00:47:07
3	Si 251.611†	400.3	111.4	8.5957 µg/L	8.5957 ppb	00:47:27
3	Sn 189.927†	-0.3	-5.1	-2.1635 µg/L	-2.1635 ppb	00:47:27
3	Ti 334.940†	221.9	82.8	0.1855 µg/L	0.1855 ppb	00:47:07
3	Tl 190.801†	-20.4	1.6	2.1244 µg/L	2.1244 ppb	00:47:27
3	U 409.014†	-38.3	-38.0	-3.2256 µg/L	-3.2256 ppb	00:47:07
3	V 292.402†	-60.6	34.7	0.3442 µg/L	0.3442 ppb	00:47:07
3	Zn 213.857†	511.1	15.1	0.3541 µg/L	0.3541 ppb	00:47:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2071481.9	98.659	%	0.2566				0.26%
Sc RADIAL	56881.2	96.3	%	0.11				0.11%
Y 371.029	1436370.7	98.687	%	0.2893				0.29%
Ag 328.068†	29.9	0.2242	µg/L	0.25188	0.2242	ppb	0.25188	112.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.5	-7.0820	µg/L	8.20331	-7.0820	ppb	8.20331	115.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.9414	µg/L	8.04035	0.9414	ppb	8.04035	854.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	20.5	0.8372	µg/L	0.14733	0.8372	ppb	0.14733	17.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.6	0.0401	µg/L	0.04900	0.0401	ppb	0.04900	122.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	179.0	0.1080	µg/L	0.04449	0.1080	ppb	0.04449	41.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.3	1.1512	µg/L	1.36898	1.1512	ppb	1.36898	118.91%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.8	-0.1211	µg/L	0.19680	-0.1211	ppb	0.19680	162.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.6	0.0291	µg/L	0.21895	0.0291	ppb	0.21895	751.75%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -22.9     -0.4672 µg/L       0.12520     -0.4672 ppb        0.12520  26.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               22.9      0.1526 µg/L       0.09782      0.1526 ppb        0.09782  64.09%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      4.2682 µg/L      13.95442      4.2682 ppb       13.95442 326.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -6.9     -4.7612 µg/L       8.08983     -4.7612 ppb        8.08983 169.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -7.9998 µg/L      40.43557     -7.9998 ppb       40.43557 505.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               65.7      0.2099 µg/L       0.01941      0.2099 ppb        0.01941   9.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.2      0.4235 µg/L       0.51419      0.4235 ppb        0.51419 121.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -8.7     -2.8296 µg/L       2.42002     -2.8296 ppb        2.42002  85.53%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.9      0.0453 µg/L       0.07199      0.0453 ppb        0.07199 158.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.1     -10.222 µg/L        3.9565     -10.222 ppb         3.9565  38.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -11.4     -2.7954 µg/L       0.71873     -2.7954 ppb        0.71873  25.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.7      2.9659 µg/L       1.70856      2.9659 ppb        1.70856  57.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.1     -0.0442 µg/L       3.02857     -0.0442 ppb        3.02857 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.3      4.5299 µg/L       7.47441      4.5299 ppb        7.47441 165.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     47.9      9.5882 µg/L       1.66428      9.5882 ppb        1.66428  17.36%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              110.8      8.5528 µg/L       0.07667      8.5528 ppb        0.07667   0.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.2     -0.9365 µg/L       1.07188     -0.9365 ppb        1.07188 114.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.3      0.1016 µg/L       0.02835      0.1016 ppb        0.02835  27.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               99.1      0.2260 µg/L       0.11335      0.2260 ppb        0.11335  50.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.4      3.1540 µg/L       0.99778      3.1540 ppb        0.99778  31.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -24.9     -2.1132 µg/L       2.35439     -2.1132 ppb        2.35439 111.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                10.6      0.1052 µg/L       0.39487      0.1052 ppb        0.39487 375.26%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               15.6      0.3682 µg/L       0.01710      0.3682 ppb        0.01710   4.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 01:19:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57636.1	57636.1	97.6	%			01:20:30
1	Al 396.153Radial†	6955.2	7133.7	5322.3	µg/L	5322.3	ppb	01:20:30
1	Ca 317.933Radial†	5685.4	5631.3	5165.4	µg/L	5165.4	ppb	01:20:50
1	Fe 238.204 Radial†	615.3	615.0	5290.1	µg/L	5290.1	ppb	01:20:50
1	K 766.490 Radial†	7506.3	7491.2	5151.1	µg/L	5151.1	ppb	01:20:30
1	Mg 279.077 IEC†	551.1	552.5	5380.5	µg/L	5380.5	ppb	01:20:50
1	Na 589.592 Radial†	31863.0	32167.5	10516	µg/L	10516	ppb	01:20:30
1	Sr 421.552†	49924.1	51102.0	502.60	µg/L	502.60	ppb	01:20:30
1	Sc 361.383	2075657.0	2075657.0	98.858	%			01:21:54
1	Y 371.029	1434036.8	1434036.8	98.526	%			01:21:54
1	Ag 328.068†	66183.0	67410.6	506.56	µg/L	506.56	ppb	01:21:59
1	As 188.979†	286.3	289.9	520.90	µg/L	520.90	ppb	01:22:20
1	B 249.677†	12361.7	12179.0	496.30	µg/L	496.30	ppb	01:21:59
1	Ba 233.527†	20502.0	20757.1	509.58	µg/L	509.58	ppb	01:21:59
1	Be 313.107†	830255.8	843605.1	509.29	µg/L	509.29	ppb	01:21:54
1	Cd 226.502†	19831.6	20197.3	508.14	µg/L	508.14	ppb	01:21:59
1	Co 228.616†	10974.0	11098.2	513.30	µg/L	513.30	ppb	01:21:59
1	Cr 267.716†	24826.6	25160.8	513.45	µg/L	513.45	ppb	01:21:59
1	Cu 324.752†	78508.8	76546.0	508.50	µg/L	508.50	ppb	01:21:59
1	Mn 257.610†	159314.6	161457.4	514.43	µg/L	514.43	ppb	01:21:54
1	Mo 202.031†	5193.0	5256.3	526.87	µg/L	526.87	ppb	01:22:20
1	Ni 231.604†	10307.1	10117.5	510.79	µg/L	510.79	ppb	01:21:59
1	P 214.914†	1307.2	1306.0	2548.2	µg/L	2548.2	ppb	01:22:20
1	Pb 220.353†	2173.4	2103.7	517.85	µg/L	517.85	ppb	01:22:20
1	S 181.975 Axial†	261.2	246.9	1023.5	µg/L	1023.5	ppb	01:22:20
1	Sb 206.836†	583.8	568.4	521.31	µg/L	521.31	ppb	01:22:20
1	Se 196.026†	386.2	375.7	522.89	µg/L	522.89	ppb	01:22:20
1	SiO2†	28521.1	27366.1	5480.1	µg/L	5480.1	ppb	01:21:59
1	Si 251.611†	33186.5	33276.3	2568.4	µg/L	2568.4	ppb	01:21:59
1	Sn 189.927†	1222.7	1232.1	526.92	µg/L	526.92	ppb	01:22:20
1	Ti 334.940†	223276.9	225714.3	513.02	µg/L	513.02	ppb	01:21:54
1	Tl 190.801†	359.4	385.8	521.78	µg/L	521.78	ppb	01:22:20
1	U 409.014†	6011.0	6081.2	515.02	µg/L	515.02	ppb	01:21:59
1	V 292.402†	50817.6	51500.6	515.85	µg/L	515.85	ppb	01:21:59
1	Zn 213.857†	22006.4	21758.7	509.89	µg/L	509.89	ppb	01:21:59
2	Sc RADIAL	57890.5	57890.5	98.0	%			01:20:56
2	Al 396.153Radial†	6993.2	7141.2	5328.0	µg/L	5328.0	ppb	01:20:56
2	Ca 317.933Radial†	5738.6	5659.9	5191.6	µg/L	5191.6	ppb	01:21:16
2	Fe 238.204 Radial†	613.0	609.8	5246.0	µg/L	5246.0	ppb	01:21:16
2	K 766.490 Radial†	7519.6	7471.0	5137.2	µg/L	5137.2	ppb	01:20:56
2	Mg 279.077 IEC†	551.3	550.2	5358.8	µg/L	5358.8	ppb	01:21:16
2	Na 589.592 Radial†	31933.6	32096.1	10493	µg/L	10493	ppb	01:20:56
2	Sr 421.552†	50192.0	51150.5	503.08	µg/L	503.08	ppb	01:20:56
2	Sc 361.383	2072531.3	2072531.3	98.709	%			01:22:27
2	Y 371.029	1429823.2	1429823.2	98.237	%			01:22:27
2	Ag 328.068†	66103.9	67431.4	506.72	µg/L	506.72	ppb	01:22:33
2	As 188.979†	277.5	281.4	505.61	µg/L	505.61	ppb	01:22:53
2	B 249.677†	12413.4	12250.2	499.24	µg/L	499.24	ppb	01:22:33
2	Ba 233.527†	20489.7	20776.0	510.05	µg/L	510.05	ppb	01:22:33
2	Be 313.107†	828998.8	843598.2	509.29	µg/L	509.29	ppb	01:22:27
2	Cd 226.502†	19821.6	20217.4	508.65	µg/L	508.65	ppb	01:22:33
2	Co 228.616†	10976.1	11117.0	514.16	µg/L	514.16	ppb	01:22:33
2	Cr 267.716†	24910.7	25283.9	515.96	µg/L	515.96	ppb	01:22:33
2	Cu 324.752†	78735.1	76895.0	510.81	µg/L	510.81	ppb	01:22:33
2	Mn 257.610†	159177.7	161561.8	514.76	µg/L	514.76	ppb	01:22:27
2	Mo 202.031†	5127.8	5198.2	521.04	µg/L	521.04	ppb	01:22:53
2	Ni 231.604†	10379.5	10206.6	515.29	µg/L	515.29	ppb	01:22:33
2	P 214.914†	1289.7	1290.4	2516.8	µg/L	2516.8	ppb	01:22:53
2	Pb 220.353†	2157.1	2090.5	514.57	µg/L	514.57	ppb	01:22:53

2	S 181.975 Axial†	264.1	250.2	1037.3 µg/L	1037.3 ppb	01:22:53
2	Sb 206.836†	566.2	551.5	505.71 µg/L	505.71 ppb	01:22:53
2	Se 196.026†	387.9	378.0	525.91 µg/L	525.91 ppb	01:22:53
2	SiO2†	28684.0	27574.7	5521.9 µg/L	5521.9 ppb	01:22:33
2	Si 251.611†	33340.4	33482.8	2584.3 µg/L	2584.3 ppb	01:22:33
2	Sn 189.927†	1212.7	1223.9	523.41 µg/L	523.41 ppb	01:22:53
2	Ti 334.940†	223296.3	226074.6	513.84 µg/L	513.84 ppb	01:22:27
2	Tl 190.801†	354.0	380.9	515.26 µg/L	515.26 ppb	01:22:53
2	U 409.014†	6031.4	6111.0	517.55 µg/L	517.55 ppb	01:22:33
2	V 292.402†	50925.7	51687.6	517.65 µg/L	517.65 ppb	01:22:33
2	Zn 213.857†	22096.6	21883.6	512.82 µg/L	512.82 ppb	01:22:33
3	Sc RADIAL	57793.0	57793.0	97.9 %		01:21:22
3	Al 396.153Radial†	6955.2	7114.4	5309.8 µg/L	5309.8 ppb	01:21:22
3	Ca 317.933Radial†	5739.0	5670.2	5201.1 µg/L	5201.1 ppb	01:21:42
3	Fe 238.204 Radial†	613.9	611.8	5261.7 µg/L	5261.7 ppb	01:21:42
3	K 766.490 Radial†	7386.3	7347.8	5052.5 µg/L	5052.5 ppb	01:21:22
3	Mg 279.077 IEC†	556.3	556.2	5415.4 µg/L	5415.4 ppb	01:21:42
3	Na 589.592 Radial†	31872.6	32088.7	10491 µg/L	10491 ppb	01:21:22
3	Sr 421.552†	50014.9	51055.9	502.15 µg/L	502.15 ppb	01:21:22
3	Sc 361.383	2076428.2	2076428.2	98.895 %		01:23:00
3	Y 371.029	1433371.9	1433371.9	98.481 %		01:23:00
3	Ag 328.068†	62511.2	63673.0	478.32 µg/L	478.32 ppb	01:23:06
3	As 188.979†	238.5	241.4	433.77 µg/L	433.77 ppb	01:23:27
3	B 249.677†	11652.4	11457.1	466.68 µg/L	466.68 ppb	01:23:06
3	Ba 233.527†	18718.0	18945.5	465.09 µg/L	465.09 ppb	01:23:06
3	Be 313.107†	772345.2	784735.3	473.75 µg/L	473.75 ppb	01:23:00
3	Cd 226.502†	18085.5	18424.2	463.47 µg/L	463.47 ppb	01:23:06
3	Co 228.616†	9919.7	10028.0	463.73 µg/L	463.73 ppb	01:23:06
3	Cr 267.716†	21781.1	22071.9	450.42 µg/L	450.42 ppb	01:23:06
3	Cu 324.752†	71348.5	69276.2	460.27 µg/L	460.27 ppb	01:23:06
3	Mn 257.610†	148951.7	150918.9	480.88 µg/L	480.88 ppb	01:23:00
3	Mo 202.031†	4236.6	4287.2	429.77 µg/L	429.77 ppb	01:23:27
3	Ni 231.604†	9327.2	9122.8	460.57 µg/L	460.57 ppb	01:23:06
3	P 214.914†	1090.2	1086.2	2114.7 µg/L	2114.7 ppb	01:23:27
3	Pb 220.353†	1869.4	1795.6	441.88 µg/L	441.88 ppb	01:23:27
3	S 181.975 Axial†	227.0	212.2	879.58 µg/L	879.58 ppb	01:23:27
3	Sb 206.836†	485.3	468.6	429.29 µg/L	429.29 ppb	01:23:27
3	Se 196.026†	335.4	324.2	452.18 µg/L	452.18 ppb	01:23:27
3	SiO2†	26683.7	25497.5	5105.9 µg/L	5105.9 ppb	01:23:06
3	Si 251.611†	30858.0	30909.4	2385.7 µg/L	2385.7 ppb	01:23:06
3	Sn 189.927†	995.4	1001.8	428.44 µg/L	428.44 ppb	01:23:27
3	Ti 334.940†	207019.0	209190.9	475.44 µg/L	475.44 ppb	01:23:00
3	Tl 190.801†	310.6	336.3	455.30 µg/L	455.30 ppb	01:23:27
3	U 409.014†	5280.5	5340.3	452.14 µg/L	452.14 ppb	01:23:06
3	V 292.402†	45436.2	46040.0	460.87 µg/L	460.87 ppb	01:23:06
3	Zn 213.857†	19912.3	19632.9	460.02 µg/L	460.02 ppb	01:23:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2074872.2	98.821	%	0.0983				0.10%
Sc RADIAL	57773.2	97.8	%	0.22				0.22%
Y 371.029	1432410.6	98.415	%	0.1556				0.16%
Ag 328.068†	66171.7	497.20	µg/L	16.352	497.20	ppb	16.352	3.29%
QC value within limits for Ag 328.068 Recovery = 99.44%								
Al 396.153Radial†	7129.8	5320.0	µg/L	9.29	5320.0	ppb	9.29	0.17%
QC value within limits for Al 396.153Radial Recovery = 106.40%								
As 188.979†	270.9	486.76	µg/L	46.523	486.76	ppb	46.523	9.56%
QC value within limits for As 188.979 Recovery = 97.35%								
B 249.677†	11962.1	487.40	µg/L	18.010	487.40	ppb	18.010	3.69%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	20159.5	494.91	µg/L	25.822	494.91	ppb	25.822	5.22%
QC value within limits for Ba 233.527 Recovery = 98.98%								
Be 313.107†	823979.5	497.44	µg/L	20.518	497.44	ppb	20.518	4.12%
QC value within limits for Be 313.107 Recovery = 99.49%								
Ca 317.933Radial†	5653.8	5186.0	µg/L	18.52	5186.0	ppb	18.52	0.36%
QC value within limits for Ca 317.933Radial Recovery = 103.72%								
Cd 226.502†	19613.0	493.42	µg/L	25.937	493.42	ppb	25.937	5.26%
QC value within limits for Cd 226.502 Recovery = 98.68%								
Co 228.616†	10747.8	497.07	µg/L	28.869	497.07	ppb	28.869	5.81%

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   QC value within limits for Co 228.616  Recovery = 99.41%
Cr 267.716†            24172.2      493.28 µg/L        37.135      493.28 ppb        37.135   7.53%
   QC value within limits for Cr 267.716  Recovery = 98.66%
Cu 324.752†            74239.0      493.19 µg/L        28.534      493.19 ppb        28.534   5.79%
   QC value within limits for Cu 324.752  Recovery = 98.64%
Fe 238.204 Radial†       612.2      5265.9 µg/L         22.35      5265.9 ppb         22.35   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.32%
K 766.490 Radial†       7436.7      5113.6 µg/L         53.38      5113.6 ppb         53.38   1.04%
   QC value within limits for K 766.490 Radial  Recovery = 102.27%
Mg 279.077 IEC†          553.0      5384.9 µg/L         28.57      5384.9 ppb         28.57   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.70%
Mn 257.610†           157979.4      503.36 µg/L        19.466      503.36 ppb        19.466   3.87%
   QC value within limits for Mn 257.610  Recovery = 100.67%
Mo 202.031†             4913.9      492.56 µg/L        54.457      492.56 ppb        54.457  11.06%
   QC value within limits for Mo 202.031  Recovery = 98.51%
Na 589.592 Radial†     32117.4       10500 µg/L          14.2       10500 ppb          14.2   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 105.00%
Ni 231.604†             9815.6      495.55 µg/L        30.373      495.55 ppb        30.373   6.13%
   QC value within limits for Ni 231.604  Recovery = 99.11%
P 214.914†              1227.5      2393.2 µg/L        241.73      2393.2 ppb        241.73  10.10%
   QC value within limits for P 214.914  Recovery = 95.73%
Pb 220.353†             1996.6      491.43 µg/L        42.943      491.43 ppb        42.943   8.74%
   QC value within limits for Pb 220.353  Recovery = 98.29%
S 181.975 Axial†         236.5      980.13 µg/L        87.356      980.13 ppb        87.356   8.91%
   QC value within limits for S 181.975 Axial  Recovery = 98.01%
Sb 206.836†              529.5      485.44 µg/L        49.251      485.44 ppb        49.251  10.15%
   QC value within limits for Sb 206.836  Recovery = 97.09%
Se 196.026†              359.3      500.33 µg/L        41.727      500.33 ppb        41.727   8.34%
   QC value within limits for Se 196.026  Recovery = 100.07%
SiO2†                  26812.8      5369.3 µg/L        229.06      5369.3 ppb        229.06   4.27%
   QC value within limits for SiO2  Recovery = 100.41%
Si 251.611†            32556.2      2512.8 µg/L        110.36      2512.8 ppb        110.36   4.39%
   QC value within limits for Si 251.611  Recovery = 100.51%
Sn 189.927†             1152.6      492.92 µg/L        55.871      492.92 ppb        55.871  11.33%
   QC value within limits for Sn 189.927  Recovery = 98.58%
Sr 421.552†            51102.8      502.61 µg/L         0.465      502.61 ppb         0.465   0.09%
   QC value within limits for Sr 421.552  Recovery = 100.52%
Ti 334.940†           220326.6      500.77 µg/L        21.940      500.77 ppb        21.940   4.38%
   QC value within limits for Ti 334.940  Recovery = 100.15%
Tl 190.801†              367.7      497.45 µg/L        36.643      497.45 ppb        36.643   7.37%
   QC value within limits for Tl 190.801  Recovery = 99.49%
U 409.014†              5844.2      494.91 µg/L        37.055      494.91 ppb        37.055   7.49%
   QC value within limits for U 409.014  Recovery = 98.98%
V 292.402†             49742.7      498.12 µg/L        32.277      498.12 ppb        32.277   6.48%
   QC value within limits for V 292.402  Recovery = 99.62%
Zn 213.857†            21091.7      494.24 µg/L        29.675      494.24 ppb        29.675   6.00%
   QC value within limits for Zn 213.857  Recovery = 98.85%
All analyte(s) passed QC.
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Sequence No.: 41
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 01:23:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57129.8	57129.8	96.8	%			01:24:09
1	Al 396.153Radial†	3.2	12.0	8.9366	µg/L	8.9366	ppb	01:24:09
1	Ca 317.933Radial†	192.3	5.7	5.2506	µg/L	5.2506	ppb	01:24:30
1	Fe 238.204 Radial†	17.3	2.5	21.504	µg/L	21.504	ppb	01:24:30
1	K 766.490 Radial†	212.2	21.0	14.420	µg/L	14.420	ppb	01:24:09
1	Mg 279.077 IEC†	9.8	-1.9	-18.972	µg/L	-18.972	ppb	01:24:30
1	Na 589.592 Radial†	489.8	32.5	10.633	µg/L	10.633	ppb	01:24:09
1	Sr 421.552†	6.3	-34.9	-0.3429	µg/L	-0.3429	ppb	01:24:09
1	Sc 361.383	2077058.7	2077058.7	98.925	%			01:25:32
1	Y 371.029	1438364.8	1438364.8	98.824	%			01:25:32
1	Ag 328.068†	-347.2	112.2	0.8415	µg/L	0.8415	ppb	01:25:37
1	As 188.979†	2.3	2.6	4.7000	µg/L	4.7000	ppb	01:25:58
1	B 249.677†	352.1	30.5	1.2354	µg/L	1.2354	ppb	01:25:58
1	Ba 233.527†	4.8	23.2	0.5684	µg/L	0.5684	ppb	01:25:58
1	Be 313.107†	-3477.9	243.1	0.1465	µg/L	0.1465	ppb	01:25:37
1	Cd 226.502†	-133.7	1.5	0.0354	µg/L	0.0354	ppb	01:25:58
1	Co 228.616†	5.5	3.0	0.1376	µg/L	0.1376	ppb	01:25:58
1	Cr 267.716†	-47.0	-0.2	-0.0030	µg/L	-0.0030	ppb	01:25:37
1	Cu 324.752†	2876.2	37.7	0.2534	µg/L	0.2534	ppb	01:25:37
1	Mn 257.610†	-147.7	153.3	0.4915	µg/L	0.4915	ppb	01:25:58
1	Mo 202.031†	-1.7	1.6	0.1627	µg/L	0.1627	ppb	01:25:58
1	Ni 231.604†	317.1	11.9	0.5999	µg/L	0.5999	ppb	01:25:58
1	P 214.914†	13.0	-3.1	-6.1302	µg/L	-6.1302	ppb	01:25:58
1	Pb 220.353†	88.2	-5.6	-1.3909	µg/L	-1.3909	ppb	01:25:58
1	S 181.975 Axial†	15.8	-1.3	-5.4652	µg/L	-5.4652	ppb	01:25:58
1	Sb 206.836†	21.9	0.0	0.0189	µg/L	0.0189	ppb	01:25:58
1	Se 196.026†	18.3	3.5	4.8552	µg/L	4.8552	ppb	01:25:58
1	SiO2†	1541.9	74.2	14.860	µg/L	14.860	ppb	01:25:37
1	Si 251.611†	473.0	184.6	14.252	µg/L	14.252	ppb	01:25:58
1	Sn 189.927†	5.2	0.5	0.2135	µg/L	0.2135	ppb	01:25:58
1	Ti 334.940†	513.3	377.2	0.8596	µg/L	0.8596	ppb	01:25:37
1	Tl 190.801†	-22.3	-0.3	-0.4006	µg/L	-0.4006	ppb	01:25:58
1	U 409.014†	31.3	32.4	2.7423	µg/L	2.7423	ppb	01:25:37
1	V 292.402†	-45.8	49.8	0.4988	µg/L	0.4988	ppb	01:25:37
1	Zn 213.857†	524.6	28.4	0.6672	µg/L	0.6672	ppb	01:25:58
2	Sc RADIAL	56868.8	56868.8	96.3	%			01:24:35
2	Al 396.153Radial†	4.8	13.7	10.252	µg/L	10.252	ppb	01:24:35
2	Ca 317.933Radial†	196.9	11.5	10.524	µg/L	10.524	ppb	01:24:56
2	Fe 238.204 Radial†	16.0	1.2	10.470	µg/L	10.470	ppb	01:24:56
2	K 766.490 Radial†	155.2	-37.2	-25.608	µg/L	-25.608	ppb	01:24:35
2	Mg 279.077 IEC†	10.3	-1.4	-13.855	µg/L	-13.855	ppb	01:24:56
2	Na 589.592 Radial†	436.5	-20.5	-6.6996	µg/L	-6.6996	ppb	01:24:35
2	Sr 421.552†	18.4	-22.3	-0.2189	µg/L	-0.2189	ppb	01:24:35
2	Sc 361.383	2075497.9	2075497.9	98.851	%			01:26:04
2	Y 371.029	1437390.5	1437390.5	98.757	%			01:26:04
2	Ag 328.068†	-446.0	11.9	0.0879	µg/L	0.0879	ppb	01:26:10
2	As 188.979†	-1.8	-1.6	-2.8461	µg/L	-2.8461	ppb	01:26:30
2	B 249.677†	362.2	40.9	1.6698	µg/L	1.6698	ppb	01:26:30
2	Ba 233.527†	1.7	20.1	0.4913	µg/L	0.4913	ppb	01:26:30
2	Be 313.107†	-3468.2	250.3	0.1509	µg/L	0.1509	ppb	01:26:10
2	Cd 226.502†	-148.9	-14.1	-0.3545	µg/L	-0.3545	ppb	01:26:30
2	Co 228.616†	8.2	5.7	0.2649	µg/L	0.2649	ppb	01:26:30
2	Cr 267.716†	-33.9	13.1	0.2673	µg/L	0.2673	ppb	01:26:10
2	Cu 324.752†	2841.3	4.6	0.0322	µg/L	0.0322	ppb	01:26:10
2	Mn 257.610†	-155.1	145.7	0.4657	µg/L	0.4657	ppb	01:26:30
2	Mo 202.031†	3.3	6.6	0.6658	µg/L	0.6658	ppb	01:26:30
2	Ni 231.604†	314.3	9.3	0.4718	µg/L	0.4718	ppb	01:26:30
2	P 214.914†	6.9	-9.3	-18.519	µg/L	-18.519	ppb	01:26:30
2	Pb 220.353†	82.7	-11.1	-2.7391	µg/L	-2.7391	ppb	01:26:30

2	S 181.975 Axial†	19.7	2.6	10.963 µg/L	10.963 ppb	01:26:30
2	Sb 206.836†	27.9	6.1	5.5563 µg/L	5.5563 ppb	01:26:30
2	Se 196.026†	13.3	-1.5	-2.0829 µg/L	-2.0829 ppb	01:26:30
2	SiO2†	1549.9	83.6	16.733 µg/L	16.733 ppb	01:26:10
2	Si 251.611†	476.7	188.7	14.566 µg/L	14.566 ppb	01:26:30
2	Sn 189.927†	2.0	-2.7	-1.1388 µg/L	-1.1388 ppb	01:26:30
2	Ti 334.940†	506.7	370.9	0.8449 µg/L	0.8449 ppb	01:26:10
2	Tl 190.801†	-21.4	0.6	0.7474 µg/L	0.7474 ppb	01:26:30
2	U 409.014†	-9.6	-8.9	-0.7605 µg/L	-0.7605 ppb	01:26:10
2	V 292.402†	-117.8	-23.2	-0.2234 µg/L	-0.2234 ppb	01:26:10
2	Zn 213.857†	523.8	27.9	0.6576 µg/L	0.6576 ppb	01:26:30
3	Sc RADIAL	57048.5	57048.5	96.6 %		01:25:01
3	Al 396.153Radial†	-7.7	0.8	0.5641 µg/L	0.5641 ppb	01:25:01
3	Ca 317.933Radial†	194.3	8.1	7.4721 µg/L	7.4721 ppb	01:25:22
3	Fe 238.204 Radial†	15.3	0.5	4.1055 µg/L	4.1055 ppb	01:25:22
3	K 766.490 Radial†	188.7	-3.1	-2.1461 µg/L	-2.1461 ppb	01:25:01
3	Mg 279.077 IEC†	10.3	-1.4	-13.342 µg/L	-13.342 ppb	01:25:22
3	Na 589.592 Radial†	464.0	6.5	2.1154 µg/L	2.1154 ppb	01:25:01
3	Sr 421.552†	36.7	-3.4	-0.0333 µg/L	-0.0333 ppb	01:25:01
3	Sc 361.383	2073475.7	2073475.7	98.754 %		01:26:36
3	Y 371.029	1437389.9	1437389.9	98.757 %		01:26:36
3	Ag 328.068†	-395.7	62.5	0.4707 µg/L	0.4707 ppb	01:26:42
3	As 188.979†	1.0	1.3	2.3836 µg/L	2.3836 ppb	01:27:02
3	B 249.677†	357.5	36.5	1.4904 µg/L	1.4904 ppb	01:27:02
3	Ba 233.527†	-7.1	11.1	0.2745 µg/L	0.2745 ppb	01:27:02
3	Be 313.107†	-3512.1	202.4	0.1219 µg/L	0.1219 ppb	01:26:42
3	Cd 226.502†	-130.9	4.1	0.1034 µg/L	0.1034 ppb	01:27:02
3	Co 228.616†	6.3	3.8	0.1738 µg/L	0.1738 ppb	01:27:02
3	Cr 267.716†	-68.5	-22.0	-0.4472 µg/L	-0.4472 ppb	01:26:42
3	Cu 324.752†	2820.3	-13.9	-0.0915 µg/L	-0.0915 ppb	01:26:42
3	Mn 257.610†	-178.7	121.6	0.3883 µg/L	0.3883 ppb	01:27:02
3	Mo 202.031†	4.1	7.5	0.7505 µg/L	0.7505 ppb	01:27:02
3	Ni 231.604†	318.8	14.2	0.7155 µg/L	0.7155 ppb	01:27:02
3	P 214.914†	5.9	-10.2	-20.374 µg/L	-20.374 ppb	01:27:02
3	Pb 220.353†	83.4	-10.4	-2.5468 µg/L	-2.5468 ppb	01:27:02
3	S 181.975 Axial†	15.1	-2.1	-8.5153 µg/L	-8.5153 ppb	01:27:02
3	Sb 206.836†	15.7	-6.2	-5.6783 µg/L	-5.6783 ppb	01:27:02
3	Se 196.026†	16.7	2.0	2.7080 µg/L	2.7080 ppb	01:27:02
3	SiO2†	1566.8	102.2	20.467 µg/L	20.467 ppb	01:26:42
3	Si 251.611†	490.6	203.2	15.685 µg/L	15.685 ppb	01:27:02
3	Sn 189.927†	4.2	-0.5	-0.2088 µg/L	-0.2088 ppb	01:27:02
3	Ti 334.940†	557.3	422.6	0.9624 µg/L	0.9624 ppb	01:26:42
3	Tl 190.801†	-19.3	2.7	3.5890 µg/L	3.5890 ppb	01:27:02
3	U 409.014†	-42.1	-41.8	-3.5508 µg/L	-3.5508 ppb	01:26:42
3	V 292.402†	-27.0	68.7	0.6809 µg/L	0.6809 ppb	01:26:42
3	Zn 213.857†	522.7	27.4	0.6431 µg/L	0.6431 ppb	01:27:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2075344.1	98.843	%	0.0856				0.09%
Sc RADIAL	57015.7	96.6	%	0.23				0.23%
Y 371.029	1437715.1	98.779	%	0.0387				0.04%
Ag 328.068†	62.2	0.4667	µg/L	0.37681	0.4667	ppb	0.37681	80.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.8	6.5842	µg/L	5.25483	6.5842	ppb	5.25483	79.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	1.4125	µg/L	3.86565	1.4125	ppb	3.86565	273.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	36.0	1.4652	µg/L	0.21830	1.4652	ppb	0.21830	14.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.1	0.4447	µg/L	0.15242	0.4447	ppb	0.15242	34.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	232.0	0.1398	µg/L	0.01562	0.1398	ppb	0.01562	11.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.4	7.7489	µg/L	2.64750	7.7489	ppb	2.64750	34.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-2.8	-0.0719	µg/L	0.24711	-0.0719	ppb	0.24711	343.83%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.2	0.1921	µg/L	0.06559	0.1921	ppb	0.06559	34.14%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.0     -0.0610 µg/L       0.36078     -0.0610 ppb        0.36078 591.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 9.5      0.0647 µg/L       0.17472      0.0647 ppb        0.17472 270.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4      12.026 µg/L        8.8029      12.026 ppb         8.8029  73.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -6.5     -4.4446 µg/L      20.11276     -4.4446 ppb       20.11276 452.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.6     -15.390 µg/L        3.1127     -15.390 ppb         3.1127  20.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               140.2      0.4485 µg/L       0.05370      0.4485 ppb        0.05370  11.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.2      0.5263 µg/L       0.31773      0.5263 ppb        0.31773  60.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          6.2      2.0162 µg/L       8.66669      2.0162 ppb        8.66669 429.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                11.8      0.5957 µg/L       0.12191      0.5957 ppb        0.12191  20.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.5     -15.008 µg/L        7.7439     -15.008 ppb         7.7439  51.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.1     -2.2256 µg/L       0.72927     -2.2256 ppb        0.72927  32.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.2     -1.0058 µg/L      10.47692     -1.0058 ppb       10.47692 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.0     -0.0344 µg/L       5.61753     -0.0344 ppb        5.61753 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.3      1.8267 µg/L       3.55200      1.8267 ppb        3.55200 194.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      86.7      17.354 µg/L        2.8546      17.354 ppb         2.8546  16.45%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               192.2      14.834 µg/L        0.7534      14.834 ppb         0.7534   5.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.9     -0.3780 µg/L       0.69187     -0.3780 ppb        0.69187 183.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -20.2     -0.1984 µg/L       0.15585     -0.1984 ppb        0.15585  78.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               390.3      0.8890 µg/L       0.06401      0.8890 ppb        0.06401   7.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.3120 µg/L       2.05385      1.3120 ppb        2.05385 156.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -6.1     -0.5230 µg/L       3.15324     -0.5230 ppb        3.15324 602.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 31.7      0.3188 µg/L       0.47826      0.3188 ppb        0.47826 150.02%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                27.9      0.6560 µg/L       0.01214      0.6560 ppb        0.01214   1.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 02:00:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58016.3	58016.3	98.3	%			02:00:53
1	Al 396.153Radial†	6803.2	6932.4	5171.9	µg/L	5171.9	ppb	02:00:53
1	Ca 317.933Radial†	5589.6	5495.6	5040.9	µg/L	5040.9	ppb	02:01:13
1	Fe 238.204 Radial†	602.8	598.1	5144.9	µg/L	5144.9	ppb	02:01:13
1	K 766.490 Radial†	7436.0	7369.3	5067.3	µg/L	5067.3	ppb	02:00:53
1	Mg 279.077 IEC†	544.7	542.3	5281.5	µg/L	5281.5	ppb	02:01:13
1	Na 589.592 Radial†	31370.9	31452.7	10283	µg/L	10283	ppb	02:00:53
1	Sr 421.552†	49036.1	49863.0	490.41	µg/L	490.41	ppb	02:00:53
1	Sc 361.383	2078272.5	2078272.5	98.983	%			02:02:17
1	Y 371.029	1433440.7	1433440.7	98.485	%			02:02:17
1	Ag 328.068†	64786.8	65915.9	495.32	µg/L	495.32	ppb	02:02:23
1	As 188.979†	280.3	283.4	509.17	µg/L	509.17	ppb	02:02:43
1	B 249.677†	12026.2	11824.3	481.84	µg/L	481.84	ppb	02:02:23
1	Ba 233.527†	20064.6	20289.2	498.10	µg/L	498.10	ppb	02:02:23
1	Be 313.107†	813725.5	825847.9	498.57	µg/L	498.57	ppb	02:02:17
1	Cd 226.502†	19380.6	19716.4	496.05	µg/L	496.05	ppb	02:02:23
1	Co 228.616†	10781.0	10889.2	503.63	µg/L	503.63	ppb	02:02:23
1	Cr 267.716†	24292.9	24590.0	501.80	µg/L	501.80	ppb	02:02:23
1	Cu 324.752†	76665.5	74583.8	495.46	µg/L	495.46	ppb	02:02:23
1	Mn 257.610†	156372.6	158282.4	504.31	µg/L	504.31	ppb	02:02:17
1	Mo 202.031†	5113.1	5169.0	518.11	µg/L	518.11	ppb	02:02:43
1	Ni 231.604†	10116.6	9912.0	500.41	µg/L	500.41	ppb	02:02:23
1	P 214.914†	1294.4	1291.5	2520.6	µg/L	2520.6	ppb	02:02:43
1	Pb 220.353†	2152.3	2079.6	511.92	µg/L	511.92	ppb	02:02:43
1	S 181.975 Axial†	258.7	244.1	1011.7	µg/L	1011.7	ppb	02:02:43
1	Sb 206.836†	565.3	549.0	503.57	µg/L	503.57	ppb	02:02:43
1	Se 196.026†	369.3	358.1	498.48	µg/L	498.48	ppb	02:02:43
1	SiO2†	27924.0	26726.6	5352.0	µg/L	5352.0	ppb	02:02:23
1	Si 251.611†	32437.5	32477.3	2506.7	µg/L	2506.7	ppb	02:02:23
1	Sn 189.927†	1201.8	1209.4	517.23	µg/L	517.23	ppb	02:02:43
1	Ti 334.940†	219148.3	221259.1	502.89	µg/L	502.89	ppb	02:02:17
1	Tl 190.801†	350.0	375.8	508.35	µg/L	508.35	ppb	02:02:43
1	U 409.014†	5831.0	5891.7	498.96	µg/L	498.96	ppb	02:02:23
1	V 292.402†	49752.9	50360.3	504.44	µg/L	504.44	ppb	02:02:23
1	Zn 213.857†	21494.0	21213.0	497.09	µg/L	497.09	ppb	02:02:23
2	Sc RADIAL	57936.0	57936.0	98.1	%			02:01:19
2	Al 396.153Radial†	6835.4	6974.8	5203.8	µg/L	5203.8	ppb	02:01:19
2	Ca 317.933Radial†	5608.9	5523.1	5066.2	µg/L	5066.2	ppb	02:01:39
2	Fe 238.204 Radial†	606.6	602.8	5185.0	µg/L	5185.0	ppb	02:01:39
2	K 766.490 Radial†	7367.3	7309.7	5026.3	µg/L	5026.3	ppb	02:01:19
2	Mg 279.077 IEC†	548.9	547.3	5330.3	µg/L	5330.3	ppb	02:01:39
2	Na 589.592 Radial†	31392.3	31518.8	10304	µg/L	10304	ppb	02:01:19
2	Sr 421.552†	49150.2	50048.6	492.24	µg/L	492.24	ppb	02:01:19
2	Sc 361.383	2100300.4	2100300.4	100.03	%			02:02:50
2	Y 371.029	1448333.3	1448333.3	99.509	%			02:02:50
2	Ag 328.068†	65725.2	66167.5	497.21	µg/L	497.21	ppb	02:02:56
2	As 188.979†	280.5	280.7	504.24	µg/L	504.24	ppb	02:03:16
2	B 249.677†	12285.8	11956.4	487.23	µg/L	487.23	ppb	02:02:56
2	Ba 233.527†	20311.3	20323.2	498.93	µg/L	498.93	ppb	02:02:56
2	Be 313.107†	819773.3	823271.7	497.02	µg/L	497.02	ppb	02:02:50
2	Cd 226.502†	19666.7	19797.1	498.07	µg/L	498.07	ppb	02:02:56
2	Co 228.616†	10904.5	10898.5	504.06	µg/L	504.06	ppb	02:02:56
2	Cr 267.716†	24664.1	24703.7	504.12	µg/L	504.12	ppb	02:02:56
2	Cu 324.752†	77879.1	74984.7	498.13	µg/L	498.13	ppb	02:02:56
2	Mn 257.610†	157557.9	157810.4	502.81	µg/L	502.81	ppb	02:02:50
2	Mo 202.031†	5068.1	5069.8	508.18	µg/L	508.18	ppb	02:03:16
2	Ni 231.604†	10256.2	9944.3	502.05	µg/L	502.05	ppb	02:02:56
2	P 214.914†	1262.7	1246.1	2429.9	µg/L	2429.9	ppb	02:03:16
2	Pb 220.353†	2137.8	2042.3	502.71	µg/L	502.71	ppb	02:03:16

2	S 181.975 Axial†	254.1	236.7	981.19 µg/L	981.19 ppb	02:03:16
2	Sb 206.836†	565.3	543.1	497.96 µg/L	497.96 ppb	02:03:16
2	Se 196.026†	389.1	374.0	520.38 µg/L	520.38 ppb	02:03:16
2	SiO2†	28333.6	26840.2	5374.8 µg/L	5374.8 ppb	02:02:56
2	Si 251.611†	32968.1	32664.1	2521.1 µg/L	2521.1 ppb	02:02:56
2	Sn 189.927†	1191.0	1185.9	507.18 µg/L	507.18 ppb	02:03:16
2	Ti 334.940†	220546.4	220334.7	500.79 µg/L	500.79 ppb	02:02:50
2	Tl 190.801†	351.4	373.6	505.31 µg/L	505.31 ppb	02:03:16
2	U 409.014†	5875.4	5874.3	497.48 µg/L	497.48 ppb	02:02:56
2	V 292.402†	50411.1	50491.1	505.66 µg/L	505.66 ppb	02:02:56
2	Zn 213.857†	21824.0	21315.1	499.49 µg/L	499.49 ppb	02:02:56
3	Sc RADIAL	57472.6	57472.6	97.3 %		02:01:45
3	Al 396.153Radial†	6756.7	6950.1	5187.1 µg/L	5187.1 ppb	02:01:45
3	Ca 317.933Radial†	5572.1	5531.4	5073.8 µg/L	5073.8 ppb	02:02:05
3	Fe 238.204 Radial†	601.6	602.6	5182.7 µg/L	5182.7 ppb	02:02:05
3	K 766.490 Radial†	7219.7	7218.6	4963.7 µg/L	4963.7 ppb	02:01:45
3	Mg 279.077 IEC†	540.4	543.1	5287.9 µg/L	5287.9 ppb	02:02:05
3	Na 589.592 Radial†	31182.9	31561.5	10318 µg/L	10318 ppb	02:01:45
3	Sr 421.552†	48567.8	49854.1	490.33 µg/L	490.33 ppb	02:01:45
3	Sc 361.383	2097522.4	2097522.4	99.899 %		02:03:24
3	Y 371.029	1447759.9	1447759.9	99.469 %		02:03:24
3	Ag 328.068†	62305.7	62831.5	472.00 µg/L	472.00 ppb	02:03:29
3	As 188.979†	242.2	242.7	436.07 µg/L	436.07 ppb	02:03:50
3	B 249.677†	11525.4	11211.5	456.67 µg/L	456.67 ppb	02:03:29
3	Ba 233.527†	18622.1	18659.2	458.07 µg/L	458.07 ppb	02:03:29
3	Be 313.107†	768316.6	772848.6	466.58 µg/L	466.58 ppb	02:03:24
3	Cd 226.502†	17987.1	18141.8	456.37 µg/L	456.37 ppb	02:03:29
3	Co 228.616†	9836.6	9843.9	455.22 µg/L	455.22 ppb	02:03:29
3	Cr 267.716†	21805.7	21875.0	446.40 µg/L	446.40 ppb	02:03:29
3	Cu 324.752†	71131.3	68333.1	454.01 µg/L	454.01 ppb	02:03:29
3	Mn 257.610†	148169.2	148620.9	473.56 µg/L	473.56 ppb	02:03:24
3	Mo 202.031†	4240.4	4248.0	425.83 µg/L	425.83 ppb	02:03:50
3	Ni 231.604†	9332.7	9033.5	456.07 µg/L	456.07 ppb	02:03:29
3	P 214.914†	1086.1	1070.9	2084.9 µg/L	2084.9 ppb	02:03:50
3	Pb 220.353†	1870.1	1777.2	437.37 µg/L	437.37 ppb	02:03:50
3	S 181.975 Axial†	230.1	213.1	883.28 µg/L	883.28 ppb	02:03:50
3	Sb 206.836†	483.6	461.9	423.20 µg/L	423.20 ppb	02:03:50
3	Se 196.026†	336.4	321.7	448.75 µg/L	448.75 ppb	02:03:50
3	SiO2†	26495.3	25037.6	5013.8 µg/L	5013.8 ppb	02:03:29
3	Si 251.611†	30642.3	30379.6	2344.8 µg/L	2344.8 ppb	02:03:29
3	Sn 189.927†	982.2	978.4	418.46 µg/L	418.46 ppb	02:03:50
3	Ti 334.940†	205524.3	205589.5	467.25 µg/L	467.25 ppb	02:03:24
3	Tl 190.801†	316.3	338.8	458.58 µg/L	458.58 ppb	02:03:50
3	U 409.014†	5367.3	5373.5	454.98 µg/L	454.98 ppb	02:03:29
3	V 292.402†	45385.6	45527.3	455.75 µg/L	455.75 ppb	02:03:29
3	Zn 213.857†	19811.8	19329.8	452.91 µg/L	452.91 ppb	02:03:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2092031.7	99.638	%	0.5714				0.57%
Sc RADIAL	57808.3	97.9	%	0.50				0.51%
Y 371.029	1443177.9	99.154	%	0.5797				0.58%
Ag 328.068†	64971.6	488.18	µg/L	14.041	488.18	ppb	14.041	2.88%
QC value within limits for Ag 328.068 Recovery = 97.64%								
Al 396.153Radial†	6952.4	5187.6	µg/L	15.95	5187.6	ppb	15.95	0.31%
QC value within limits for Al 396.153Radial Recovery = 103.75%								
As 188.979†	268.9	483.16	µg/L	40.859	483.16	ppb	40.859	8.46%
QC value within limits for As 188.979 Recovery = 96.63%								
B 249.677†	11664.1	475.25	µg/L	16.314	475.25	ppb	16.314	3.43%
QC value within limits for B 249.677 Recovery = 95.05%								
Ba 233.527†	19757.2	485.03	µg/L	23.356	485.03	ppb	23.356	4.82%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	807322.8	487.39	µg/L	18.040	487.39	ppb	18.040	3.70%
QC value within limits for Be 313.107 Recovery = 97.48%								
Ca 317.933Radial†	5516.7	5060.3	µg/L	17.19	5060.3	ppb	17.19	0.34%
QC value within limits for Ca 317.933Radial Recovery = 101.21%								
Cd 226.502†	19218.4	483.50	µg/L	23.511	483.50	ppb	23.511	4.86%
QC value within limits for Cd 226.502 Recovery = 96.70%								
Co 228.616†	10543.9	487.64	µg/L	28.074	487.64	ppb	28.074	5.76%

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   QC value within limits for Co 228.616  Recovery = 97.53%
Cr 267.716†            23722.9      484.11 µg/L        32.674      484.11 ppb         32.674   6.75%
   QC value within limits for Cr 267.716  Recovery = 96.82%
Cu 324.752†            72633.9      482.53 µg/L        24.741      482.53 ppb         24.741   5.13%
   QC value within limits for Cu 324.752  Recovery = 96.51%
Fe 238.204 Radial†       601.2      5170.9 µg/L         22.55      5170.9 ppb          22.55   0.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.42%
K 766.490 Radial†       7299.2      5019.1 µg/L         52.18      5019.1 ppb          52.18   1.04%
   QC value within limits for K 766.490 Radial  Recovery = 100.38%
Mg 279.077 IEC†          544.3      5299.9 µg/L         26.51      5299.9 ppb          26.51   0.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.00%
Mn 257.610†           154904.6      493.56 µg/L        17.337      493.56 ppb         17.337   3.51%
   QC value within limits for Mn 257.610  Recovery = 98.71%
Mo 202.031†             4828.9      484.04 µg/L        50.653      484.04 ppb         50.653  10.46%
   QC value within limits for Mo 202.031  Recovery = 96.81%
Na 589.592 Radial†     31511.0       10302 µg/L          17.9       10302 ppb           17.9   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 103.02%
Ni 231.604†             9629.9      486.17 µg/L        26.086      486.17 ppb         26.086   5.37%
   QC value within limits for Ni 231.604  Recovery = 97.23%
P 214.914†              1202.9      2345.2 µg/L        229.87      2345.2 ppb         229.87   9.80%
   QC value within limits for P 214.914  Recovery = 93.81%
Pb 220.353†             1966.4      484.00 µg/L        40.648      484.00 ppb         40.648   8.40%
   QC value within limits for Pb 220.353  Recovery = 96.80%
S 181.975 Axial†         231.3      958.73 µg/L        67.105      958.73 ppb         67.105   7.00%
   QC value within limits for S 181.975 Axial  Recovery = 95.87%
Sb 206.836†              518.0      474.91 µg/L        44.871      474.91 ppb         44.871   9.45%
   QC value within limits for Sb 206.836  Recovery = 94.98%
Se 196.026†              351.3      489.20 µg/L        36.704      489.20 ppb         36.704   7.50%
   QC value within limits for Se 196.026  Recovery = 97.84%
SiO2†                  26201.4      5246.9 µg/L        202.16      5246.9 ppb         202.16   3.85%
   QC value within limits for SiO2  Recovery = 98.12%
Si 251.611†            31840.3      2457.5 µg/L         97.90      2457.5 ppb          97.90   3.98%
   QC value within limits for Si 251.611  Recovery = 98.30%
Sn 189.927†             1124.6      480.96 µg/L        54.359      480.96 ppb         54.359  11.30%
   QC value within limits for Sn 189.927  Recovery = 96.19%
Sr 421.552†            49921.9      490.99 µg/L         1.080      490.99 ppb          1.080   0.22%
   QC value within limits for Sr 421.552  Recovery = 98.20%
Ti 334.940†           215727.8      490.31 µg/L        19.996      490.31 ppb         19.996   4.08%
   QC value within limits for Ti 334.940  Recovery = 98.06%
Tl 190.801†              362.7      490.75 µg/L        27.898      490.75 ppb         27.898   5.68%
   QC value within limits for Tl 190.801  Recovery = 98.15%
U 409.014†              5713.2      483.81 µg/L        24.975      483.81 ppb         24.975   5.16%
   QC value within limits for U 409.014  Recovery = 96.76%
V 292.402†             48792.9      488.62 µg/L        28.471      488.62 ppb         28.471   5.83%
   QC value within limits for V 292.402  Recovery = 97.72%
Zn 213.857†            20619.3      483.16 µg/L        26.228      483.16 ppb         26.228   5.43%
   QC value within limits for Zn 213.857  Recovery = 96.63%
All analyte(s) passed QC.
```

Sequence No.: 52
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 02:03:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57517.3	57517.3	97.4	%			02:04:32
1	Al 396.153Radial†	-10.6	-2.2	-1.6313	µg/L	-1.6313	ppb	02:04:32
1	Ca 317.933Radial†	181.1	-7.1	-6.4780	µg/L	-6.4780	ppb	02:04:53
1	Fe 238.204 Radial†	15.1	0.1	1.0423	µg/L	1.0423	ppb	02:04:53
1	K 766.490 Radial†	275.7	84.6	58.171	µg/L	58.171	ppb	02:04:32
1	Mg 279.077 IEC†	17.0	5.3	52.016	µg/L	52.016	ppb	02:04:53
1	Na 589.592 Radial†	432.6	-29.6	-9.6762	µg/L	-9.6762	ppb	02:04:32
1	Sr 421.552†	14.5	-26.5	-0.2608	µg/L	-0.2608	ppb	02:04:32
1	Sc 361.383	2097014.1	2097014.1	99.875	%			02:05:55
1	Y 371.029	1452757.0	1452757.0	99.812	%			02:05:55
1	Ag 328.068†	-422.9	39.7	0.2980	µg/L	0.2980	ppb	02:06:00
1	As 188.979†	4.4	4.7	8.5045	µg/L	8.5045	ppb	02:06:21
1	B 249.677†	356.9	31.9	1.3039	µg/L	1.3039	ppb	02:06:21
1	Ba 233.527†	-8.6	9.8	0.2399	µg/L	0.2399	ppb	02:06:21
1	Be 313.107†	-3581.4	173.0	0.1043	µg/L	0.1043	ppb	02:06:00
1	Cd 226.502†	-136.4	0.1	0.0015	µg/L	0.0015	ppb	02:06:21
1	Co 228.616†	2.8	0.2	0.0091	µg/L	0.0091	ppb	02:06:21
1	Cr 267.716†	-44.7	2.7	0.0543	µg/L	0.0543	ppb	02:06:00
1	Cu 324.752†	2817.5	-48.7	-0.3227	µg/L	-0.3227	ppb	02:06:00
1	Mn 257.610†	-246.1	56.2	0.1769	µg/L	0.1769	ppb	02:06:21
1	Mo 202.031†	4.9	8.2	0.8218	µg/L	0.8218	ppb	02:06:21
1	Ni 231.604†	301.7	-6.6	-0.3323	µg/L	-0.3323	ppb	02:06:21
1	P 214.914†	11.7	-4.5	-9.0031	µg/L	-9.0031	ppb	02:06:21
1	Pb 220.353†	88.8	-5.8	-1.4217	µg/L	-1.4217	ppb	02:06:21
1	S 181.975 Axial†	18.4	1.1	4.5996	µg/L	4.5996	ppb	02:06:21
1	Sb 206.836†	31.8	9.7	8.8827	µg/L	8.8827	ppb	02:06:21
1	Se 196.026†	19.0	4.0	5.4505	µg/L	5.4505	ppb	02:06:21
1	SiO2†	1533.5	51.0	10.220	µg/L	10.220	ppb	02:06:00
1	Si 251.611†	416.7	123.7	9.5476	µg/L	9.5476	ppb	02:06:21
1	Sn 189.927†	0.9	-3.8	-1.6263	µg/L	-1.6263	ppb	02:06:21
1	Ti 334.940†	344.8	203.6	0.4588	µg/L	0.4588	ppb	02:06:00
1	Tl 190.801†	-21.3	0.9	1.2407	µg/L	1.2407	ppb	02:06:21
1	U 409.014†	-110.5	-109.9	-9.3273	µg/L	-9.3273	ppb	02:06:00
1	V 292.402†	-70.9	25.0	0.2446	µg/L	0.2446	ppb	02:06:00
1	Zn 213.857†	516.1	14.8	0.3489	µg/L	0.3489	ppb	02:06:21
2	Sc RADIAL	58127.4	58127.4	98.4	%			02:04:58
2	Al 396.153Radial†	2.2	10.9	8.1529	µg/L	8.1529	ppb	02:04:58
2	Ca 317.933Radial†	186.9	-3.1	-2.8447	µg/L	-2.8447	ppb	02:05:19
2	Fe 238.204 Radial†	17.6	2.5	21.642	µg/L	21.642	ppb	02:05:19
2	K 766.490 Radial†	172.8	-22.9	-15.723	µg/L	-15.723	ppb	02:04:58
2	Mg 279.077 IEC†	7.3	-4.7	-45.425	µg/L	-45.425	ppb	02:05:19
2	Na 589.592 Radial†	455.4	-11.1	-3.6281	µg/L	-3.6281	ppb	02:04:58
2	Sr 421.552†	24.2	-16.8	-0.1647	µg/L	-0.1647	ppb	02:04:58
2	Sc 361.383	2094113.4	2094113.4	99.737	%			02:06:27
2	Y 371.029	1450930.3	1450930.3	99.687	%			02:06:27
2	Ag 328.068†	-415.6	46.4	0.3532	µg/L	0.3532	ppb	02:06:32
2	As 188.979†	-1.4	-1.1	-1.9523	µg/L	-1.9523	ppb	02:06:53
2	B 249.677†	343.9	19.4	0.7814	µg/L	0.7814	ppb	02:06:53
2	Ba 233.527†	-7.4	10.9	0.2685	µg/L	0.2685	ppb	02:06:53
2	Be 313.107†	-3506.3	243.4	0.1468	µg/L	0.1468	ppb	02:06:32
2	Cd 226.502†	-134.8	1.5	0.0349	µg/L	0.0349	ppb	02:06:53
2	Co 228.616†	12.8	10.2	0.4733	µg/L	0.4733	ppb	02:06:53
2	Cr 267.716†	-40.1	7.2	0.1469	µg/L	0.1469	ppb	02:06:32
2	Cu 324.752†	2839.1	-23.2	-0.1506	µg/L	-0.1506	ppb	02:06:32
2	Mn 257.610†	-242.3	59.6	0.1944	µg/L	0.1944	ppb	02:06:53
2	Mo 202.031†	5.5	8.8	0.8831	µg/L	0.8831	ppb	02:06:53
2	Ni 231.604†	311.1	3.3	0.1651	µg/L	0.1651	ppb	02:06:53
2	P 214.914†	6.1	-10.1	-20.066	µg/L	-20.066	ppb	02:06:53
2	Pb 220.353†	87.5	-7.1	-1.7360	µg/L	-1.7360	ppb	02:06:53

2	S 181.975 Axial†	13.8	-3.4	-14.185 µg/L	-14.185 ppb	02:06:53
2	Sb 206.836†	27.2	5.1	4.6888 µg/L	4.6888 ppb	02:06:53
2	Se 196.026†	17.0	2.1	2.9364 µg/L	2.9364 ppb	02:06:53
2	SiO2†	1558.7	78.4	15.702 µg/L	15.702 ppb	02:06:32
2	Si 251.611†	411.8	119.4	9.2140 µg/L	9.2140 ppb	02:06:53
2	Sn 189.927†	5.2	0.5	0.1899 µg/L	0.1899 ppb	02:06:53
2	Ti 334.940†	360.0	219.3	0.5023 µg/L	0.5023 ppb	02:06:32
2	Tl 190.801†	-22.2	-0.0	-0.0136 µg/L	-0.0136 ppb	02:06:53
2	U 409.014†	-74.9	-74.4	-6.3131 µg/L	-6.3131 ppb	02:06:32
2	V 292.402†	-8.2	87.8	0.8714 µg/L	0.8714 ppb	02:06:32
2	Zn 213.857†	504.7	4.1	0.0972 µg/L	0.0972 ppb	02:06:53
3	Sc RADIAL	57528.6	57528.6	97.4 %		02:05:24
3	Al 396.153Radial†	-12.0	-3.6	-2.7112 µg/L	-2.7112 ppb	02:05:24
3	Ca 317.933Radial†	190.4	2.4	2.2357 µg/L	2.2357 ppb	02:05:44
3	Fe 238.204 Radial†	16.0	1.1	9.2703 µg/L	9.2703 ppb	02:05:44
3	K 766.490 Radial†	235.2	43.0	29.565 µg/L	29.565 ppb	02:05:24
3	Mg 279.077 IEC†	10.5	-1.3	-12.298 µg/L	-12.298 ppb	02:05:44
3	Na 589.592 Radial†	465.3	3.8	1.2538 µg/L	1.2538 ppb	02:05:24
3	Sr 421.552†	22.5	-18.3	-0.1798 µg/L	-0.1798 ppb	02:05:24
3	Sc 361.383	2084159.3	2084159.3	99.263 %		02:06:59
3	Y 371.029	1442314.0	1442314.0	99.095 %		02:06:59
3	Ag 328.068†	-428.7	31.2	0.2375 µg/L	0.2375 ppb	02:07:04
3	As 188.979†	0.1	0.3	0.6305 µg/L	0.6305 ppb	02:07:25
3	B 249.677†	346.3	23.3	0.9497 µg/L	0.9497 ppb	02:07:25
3	Ba 233.527†	-10.8	7.4	0.1835 µg/L	0.1835 ppb	02:07:25
3	Be 313.107†	-3475.8	257.3	0.1552 µg/L	0.1552 ppb	02:07:04
3	Cd 226.502†	-147.3	-11.8	-0.2973 µg/L	-0.2973 ppb	02:07:25
3	Co 228.616†	4.5	2.0	0.0917 µg/L	0.0917 ppb	02:07:25
3	Cr 267.716†	-60.3	-13.3	-0.2713 µg/L	-0.2713 ppb	02:07:04
3	Cu 324.752†	2859.1	10.7	0.0720 µg/L	0.0720 ppb	02:07:04
3	Mn 257.610†	-235.8	65.0	0.2087 µg/L	0.2087 ppb	02:07:25
3	Mo 202.031†	-8.4	-5.2	-0.5199 µg/L	-0.5199 ppb	02:07:25
3	Ni 231.604†	310.5	4.2	0.2128 µg/L	0.2128 ppb	02:07:25
3	P 214.914†	15.8	-0.3	-0.5548 µg/L	-0.5548 ppb	02:07:25
3	Pb 220.353†	83.9	-10.3	-2.5204 µg/L	-2.5204 ppb	02:07:25
3	S 181.975 Axial†	14.0	-3.2	-13.304 µg/L	-13.304 ppb	02:07:25
3	Sb 206.836†	25.0	3.1	2.8200 µg/L	2.8200 ppb	02:07:25
3	Se 196.026†	16.0	1.1	1.5337 µg/L	1.5337 ppb	02:07:25
3	SiO2†	1532.7	59.6	11.941 µg/L	11.941 ppb	02:07:04
3	Si 251.611†	443.3	153.1	11.814 µg/L	11.814 ppb	02:07:25
3	Sn 189.927†	4.0	-0.7	-0.3131 µg/L	-0.3131 ppb	02:07:25
3	Ti 334.940†	327.5	188.3	0.4292 µg/L	0.4292 ppb	02:07:04
3	Tl 190.801†	-20.5	1.6	2.0986 µg/L	2.0986 ppb	02:07:25
3	U 409.014†	-45.9	-45.5	-3.8585 µg/L	-3.8585 ppb	02:07:04
3	V 292.402†	-37.5	58.2	0.5683 µg/L	0.5683 ppb	02:07:04
3	Zn 213.857†	515.9	17.7	0.4180 µg/L	0.4180 ppb	02:07:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2091762.3	99.625	%	0.3211				0.32%
Sc RADIAL	57724.5	97.8	%	0.59				0.60%
Y 371.029	1448667.1	99.531	%	0.3832				0.38%
Ag 328.068†	39.1	0.2962	µg/L	0.05791	0.2962	ppb	0.05791	19.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.7	1.2701	µg/L	5.98503	1.2701	ppb	5.98503	471.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	2.3942	µg/L	5.44692	2.3942	ppb	5.44692	227.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.9	1.0116	µg/L	0.26671	1.0116	ppb	0.26671	26.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.4	0.2306	µg/L	0.04322	0.2306	ppb	0.04322	18.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	224.5	0.1354	µg/L	0.02730	0.1354	ppb	0.02730	20.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.6	-2.3624	µg/L	4.37682	-2.3624	ppb	4.37682	185.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.4	-0.0870	µg/L	0.18292	-0.0870	ppb	0.18292	210.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.1914	µg/L	0.24766	0.1914	ppb	0.24766	129.41%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.2     -0.0234 µg/L       0.21961     -0.0234 ppb        0.21961 939.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -20.4     -0.1338 µg/L       0.19788     -0.1338 ppb        0.19788 147.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      10.651 µg/L       10.3689      10.651 ppb        10.3689  97.35%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          34.9      24.004 µg/L       37.2596      24.004 ppb        37.2596 155.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -1.9023 µg/L      49.54493     -1.9023 ppb       49.54493 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                60.3      0.1933 µg/L       0.01592      0.1933 ppb        0.01592   8.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.9      0.3950 µg/L       0.79290      0.3950 ppb        0.79290 200.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -12.3     -4.0169 µg/L       5.47535     -4.0169 ppb        5.47535 136.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.3      0.0152 µg/L       0.30189      0.0152 ppb        0.30189 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.0     -9.8746 µg/L       9.78475     -9.8746 ppb        9.78475  99.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.7     -1.8927 µg/L       0.56585     -1.8927 ppb        0.56585  29.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.8     -7.6299 µg/L      10.60018     -7.6299 ppb       10.60018 138.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.0      5.4638 µg/L       3.10480      5.4638 ppb        3.10480  56.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.4      3.3069 µg/L       1.98452      3.3069 ppb        1.98452  60.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      63.0      12.621 µg/L        2.8032      12.621 ppb         2.8032  22.21%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               132.0      10.192 µg/L        1.4149      10.192 ppb         1.4149  13.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.4     -0.5831 µg/L       0.93774     -0.5831 ppb        0.93774 160.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -20.5     -0.2018 µg/L       0.05167     -0.2018 ppb        0.05167  25.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               203.7      0.4634 µg/L       0.03675      0.4634 ppb        0.03675   7.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.8      1.1086 µg/L       1.06227      1.1086 ppb        1.06227  95.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -76.6     -6.4996 µg/L       2.73915     -6.4996 ppb        2.73915  42.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 57.0      0.5614 µg/L       0.31343      0.5614 ppb        0.31343  55.83%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.2      0.2880 µg/L       0.16888      0.2880 ppb        0.16888  58.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/21/2010 02:37:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57377.2	57377.2	97.2	%			02:37:36
1	Al 396.153Radial†	6735.9	6940.3	5177.9	µg/L	5177.9	ppb	02:37:36
1	Ca 317.933Radial†	5600.4	5570.1	5109.3	µg/L	5109.3	ppb	02:37:57
1	Fe 238.204 Radial†	602.7	604.8	5202.7	µg/L	5202.7	ppb	02:37:57
1	K 766.490 Radial†	7251.0	7263.2	4994.3	µg/L	4994.3	ppb	02:37:36
1	Mg 279.077 IEC†	540.0	543.6	5293.9	µg/L	5293.9	ppb	02:37:57
1	Na 589.592 Radial†	30929.5	31354.0	10251	µg/L	10251	ppb	02:37:36
1	Sr 421.552†	48431.7	49796.9	489.76	µg/L	489.76	ppb	02:37:36
1	Sc 361.383	2098021.8	2098021.8	99.923	%			02:39:01
1	Y 371.029	1446111.2	1446111.2	99.356	%			02:39:01
1	Ag 328.068†	65119.9	65633.1	493.20	µg/L	493.20	ppb	02:39:06
1	As 188.979†	280.3	280.8	504.54	µg/L	504.54	ppb	02:39:27
1	B 249.677†	12177.8	11861.7	483.34	µg/L	483.34	ppb	02:39:06
1	Ba 233.527†	20088.3	20122.1	494.00	µg/L	494.00	ppb	02:39:06
1	Be 313.107†	822706.5	827097.2	499.33	µg/L	499.33	ppb	02:39:01
1	Cd 226.502†	19540.4	19692.0	495.42	µg/L	495.42	ppb	02:39:06
1	Co 228.616†	10811.6	10817.3	500.30	µg/L	500.30	ppb	02:39:06
1	Cr 267.716†	24471.0	24537.2	500.72	µg/L	500.72	ppb	02:39:06
1	Cu 324.752†	77142.2	74331.7	493.80	µg/L	493.80	ppb	02:39:06
1	Mn 257.610†	158119.4	158543.4	505.15	µg/L	505.15	ppb	02:39:01
1	Mo 202.031†	5130.4	5137.7	514.97	µg/L	514.97	ppb	02:39:27
1	Ni 231.604†	10155.1	9854.3	497.50	µg/L	497.50	ppb	02:39:06
1	P 214.914†	1301.6	1286.3	2510.5	µg/L	2510.5	ppb	02:39:27
1	Pb 220.353†	2168.3	2075.2	510.83	µg/L	510.83	ppb	02:39:27
1	S 181.975 Axial†	263.7	246.6	1022.1	µg/L	1022.1	ppb	02:39:27
1	Sb 206.836†	577.4	555.8	509.70	µg/L	509.70	ppb	02:39:27
1	Se 196.026†	385.4	370.7	515.90	µg/L	515.90	ppb	02:39:27
1	SiO2†	27993.2	26530.3	5312.7	µg/L	5312.7	ppb	02:39:06
1	Si 251.611†	32511.5	32243.0	2488.6	µg/L	2488.6	ppb	02:39:06
1	Sn 189.927†	1219.0	1215.3	519.73	µg/L	519.73	ppb	02:39:27
1	Ti 334.940†	220795.3	220823.2	501.90	µg/L	501.90	ppb	02:39:01
1	Tl 190.801†	359.2	381.7	516.24	µg/L	516.24	ppb	02:39:27
1	U 409.014†	5872.9	5878.1	497.80	µg/L	497.80	ppb	02:39:06
1	V 292.402†	49956.8	50091.2	501.76	µg/L	501.76	ppb	02:39:06
1	Zn 213.857†	21636.6	21151.2	495.65	µg/L	495.65	ppb	02:39:06
2	Sc RADIAL	57493.2	57493.2	97.4	%			02:38:02
2	Al 396.153Radial†	6730.2	6920.4	5163.2	µg/L	5163.2	ppb	02:38:02
2	Ca 317.933Radial†	5607.5	5565.8	5105.3	µg/L	5105.3	ppb	02:38:23
2	Fe 238.204 Radial†	599.5	600.3	5163.4	µg/L	5163.4	ppb	02:38:23
2	K 766.490 Radial†	7235.0	7231.7	4972.7	µg/L	4972.7	ppb	02:38:02
2	Mg 279.077 IEC†	549.4	552.1	5376.7	µg/L	5376.7	ppb	02:38:23
2	Na 589.592 Radial†	30985.2	31347.1	10248	µg/L	10248	ppb	02:38:02
2	Sr 421.552†	48559.0	49827.1	490.06	µg/L	490.06	ppb	02:38:02
2	Sc 361.383	2099879.4	2099879.4	100.01	%			02:39:34
2	Y 371.029	1448354.5	1448354.5	99.510	%			02:39:34
2	Ag 328.068†	65212.4	65667.9	493.46	µg/L	493.46	ppb	02:39:39
2	As 188.979†	283.1	283.4	509.10	µg/L	509.10	ppb	02:40:00
2	B 249.677†	12220.4	11893.5	484.66	µg/L	484.66	ppb	02:39:39
2	Ba 233.527†	20211.9	20227.9	496.59	µg/L	496.59	ppb	02:39:39
2	Be 313.107†	825290.6	828952.6	500.45	µg/L	500.45	ppb	02:39:34
2	Cd 226.502†	19555.6	19690.0	495.38	µg/L	495.38	ppb	02:39:39
2	Co 228.616†	10842.5	10838.6	501.28	µg/L	501.28	ppb	02:39:39
2	Cr 267.716†	24495.5	24540.0	500.78	µg/L	500.78	ppb	02:39:39
2	Cu 324.752†	77358.5	74479.7	494.78	µg/L	494.78	ppb	02:39:39
2	Mn 257.610†	158360.4	158644.4	505.46	µg/L	505.46	ppb	02:39:34
2	Mo 202.031†	5060.8	5063.5	507.54	µg/L	507.54	ppb	02:40:00
2	Ni 231.604†	10224.6	9914.7	500.55	µg/L	500.55	ppb	02:39:39
2	P 214.914†	1283.3	1266.9	2471.6	µg/L	2471.6	ppb	02:40:00
2	Pb 220.353†	2127.5	2032.5	500.29	µg/L	500.29	ppb	02:40:00

2	S 181.975 Axial†	261.6	244.2	1012.4 µg/L	1012.4 ppb	02:40:00
2	Sb 206.836†	555.1	532.9	488.75 µg/L	488.75 ppb	02:40:00
2	Se 196.026†	388.5	373.4	519.45 µg/L	519.45 ppb	02:40:00
2	SiO2†	28163.3	26675.6	5341.8 µg/L	5341.8 ppb	02:39:39
2	Si 251.611†	32643.3	32345.9	2496.6 µg/L	2496.6 ppb	02:39:39
2	Sn 189.927†	1187.0	1182.2	505.59 µg/L	505.59 ppb	02:40:00
2	Ti 334.940†	220997.1	220829.5	501.91 µg/L	501.91 ppb	02:39:34
2	Tl 190.801†	348.7	370.9	501.71 µg/L	501.71 ppb	02:40:00
2	U 409.014†	5890.1	5890.1	498.83 µg/L	498.83 ppb	02:39:39
2	V 292.402†	50027.5	50117.6	501.96 µg/L	501.96 ppb	02:39:39
2	Zn 213.857†	21721.2	21216.7	497.18 µg/L	497.18 ppb	02:39:39
3	Sc RADIAL	58022.1	58022.1	98.3 %		02:38:28
3	Al 396.153Radial†	6797.6	6926.0	5169.1 µg/L	5169.1 ppb	02:38:28
3	Ca 317.933Radial†	5614.0	5519.8	5063.1 µg/L	5063.1 ppb	02:38:49
3	Fe 238.204 Radial†	603.3	598.5	5147.3 µg/L	5147.3 ppb	02:38:49
3	K 766.490 Radial†	7323.7	7254.2	4988.1 µg/L	4988.1 ppb	02:38:28
3	Mg 279.077 IEC†	545.0	542.6	5282.5 µg/L	5282.5 ppb	02:38:49
3	Na 589.592 Radial†	31197.4	31272.9	10224 µg/L	10224 ppb	02:38:28
3	Sr 421.552†	48893.6	49713.1	488.94 µg/L	488.94 ppb	02:38:28
3	Sc 361.383	2094918.7	2094918.7	99.775 %		02:40:07
3	Y 371.029	1445516.4	1445516.4	99.315 %		02:40:07
3	Ag 328.068†	61673.9	62275.8	467.83 µg/L	467.83 ppb	02:40:13
3	As 188.979†	239.7	240.5	432.13 µg/L	432.13 ppb	02:40:33
3	B 249.677†	11436.9	11137.2	453.63 µg/L	453.63 ppb	02:40:13
3	Ba 233.527†	18556.3	18616.4	457.01 µg/L	457.01 ppb	02:40:13
3	Be 313.107†	769146.1	774635.8	467.66 µg/L	467.66 ppb	02:40:07
3	Cd 226.502†	17900.9	18077.8	454.76 µg/L	454.76 ppb	02:40:13
3	Co 228.616†	9816.3	9835.9	454.85 µg/L	454.85 ppb	02:40:13
3	Cr 267.716†	21534.7	21630.5	441.41 µg/L	441.41 ppb	02:40:13
3	Cu 324.752†	70376.9	67665.6	449.57 µg/L	449.57 ppb	02:40:13
3	Mn 257.610†	148134.2	148770.2	474.03 µg/L	474.03 ppb	02:40:07
3	Mo 202.031†	4229.6	4242.4	425.27 µg/L	425.27 ppb	02:40:33
3	Ni 231.604†	9247.0	8959.1	452.31 µg/L	452.31 ppb	02:40:13
3	P 214.914†	1097.8	1084.0	2111.4 µg/L	2111.4 ppb	02:40:33
3	Pb 220.353†	1856.3	1765.7	434.55 µg/L	434.55 ppb	02:40:33
3	S 181.975 Axial†	226.4	209.6	869.04 µg/L	869.04 ppb	02:40:33
3	Sb 206.836†	484.5	463.5	424.65 µg/L	424.65 ppb	02:40:33
3	Se 196.026†	336.6	322.4	449.55 µg/L	449.55 ppb	02:40:33
3	SiO2†	26233.0	24807.6	4967.7 µg/L	4967.7 ppb	02:40:13
3	Si 251.611†	30318.9	30093.6	2322.7 µg/L	2322.7 ppb	02:40:13
3	Sn 189.927†	981.0	978.5	418.50 µg/L	418.50 ppb	02:40:33
3	Ti 334.940†	205030.8	205350.6	466.71 µg/L	466.71 ppb	02:40:07
3	Tl 190.801†	314.8	337.8	457.15 µg/L	457.15 ppb	02:40:33
3	U 409.014†	5205.9	5218.4	441.83 µg/L	441.83 ppb	02:40:13
3	V 292.402†	45040.0	45237.3	452.85 µg/L	452.85 ppb	02:40:13
3	Zn 213.857†	19757.6	19300.1	452.23 µg/L	452.23 ppb	02:40:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2097606.7	99.903	%	0.1194				0.12%
Sc RADIAL	57630.8	97.6	%	0.58				0.60%
Y 371.029	1446660.7	99.394	%	0.1028				0.10%
Ag 328.068†	64525.6	484.83	µg/L	14.720	484.83	ppb	14.720	3.04%
QC value within limits for Ag 328.068 Recovery = 96.97%								
Al 396.153Radial†	6928.9	5170.1	µg/L	7.40	5170.1	ppb	7.40	0.14%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	268.2	481.92	µg/L	43.181	481.92	ppb	43.181	8.96%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	11630.8	473.88	µg/L	17.545	473.88	ppb	17.545	3.70%
QC value within limits for B 249.677 Recovery = 94.78%								
Ba 233.527†	19655.5	482.53	µg/L	22.139	482.53	ppb	22.139	4.59%
QC value within limits for Ba 233.527 Recovery = 96.51%								
Be 313.107†	810228.6	489.14	µg/L	18.617	489.14	ppb	18.617	3.81%
QC value within limits for Be 313.107 Recovery = 97.83%								
Ca 317.933Radial†	5551.9	5092.6	µg/L	25.55	5092.6	ppb	25.55	0.50%
QC value within limits for Ca 317.933Radial Recovery = 101.85%								
Cd 226.502†	19153.3	481.85	µg/L	23.461	481.85	ppb	23.461	4.87%
QC value within limits for Cd 226.502 Recovery = 96.37%								
Co 228.616†	10497.3	485.48	µg/L	26.530	485.48	ppb	26.530	5.46%

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   QC value within limits for Co 228.616  Recovery = 97.10%
Cr 267.716†            23569.3      480.97 µg/L        34.259      480.97 ppb         34.259   7.12%
   QC value within limits for Cr 267.716  Recovery = 96.19%
Cu 324.752†            72159.0      479.38 µg/L        25.821      479.38 ppb         25.821   5.39%
   QC value within limits for Cu 324.752  Recovery = 95.88%
Fe 238.204 Radial†       601.2      5171.2 µg/L         28.51      5171.2 ppb          28.51   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.42%
K 766.490 Radial†       7249.7      4985.0 µg/L         11.14      4985.0 ppb          11.14   0.22%
   QC value within limits for K 766.490 Radial  Recovery = 99.70%
Mg 279.077 IEC†          546.1      5317.7 µg/L         51.40      5317.7 ppb          51.40   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.35%
Mn 257.610†           155319.3      494.88 µg/L        18.056      494.88 ppb         18.056   3.65%
   QC value within limits for Mn 257.610  Recovery = 98.98%
Mo 202.031†             4814.5      482.60 µg/L        49.785      482.60 ppb         49.785  10.32%
   QC value within limits for Mo 202.031  Recovery = 96.52%
Na 589.592 Radial†     31324.7       10241 µg/L          14.7       10241 ppb           14.7   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 102.41%
Ni 231.604†             9576.0      483.45 µg/L        27.013      483.45 ppb         27.013   5.59%
   QC value within limits for Ni 231.604  Recovery = 96.69%
P 214.914†              1212.4      2364.5 µg/L        220.04      2364.5 ppb         220.04   9.31%
   QC value within limits for P 214.914  Recovery = 94.58%
Pb 220.353†             1957.8      481.89 µg/L        41.334      481.89 ppb         41.334   8.58%
   QC value within limits for Pb 220.353  Recovery = 96.38%
S 181.975 Axial†         233.5      967.86 µg/L        85.720      967.86 ppb         85.720   8.86%
   QC value within limits for S 181.975 Axial  Recovery = 96.79%
Sb 206.836†              517.4      474.37 µg/L        44.310      474.37 ppb         44.310   9.34%
   QC value within limits for Sb 206.836  Recovery = 94.87%
Se 196.026†              355.5      494.97 µg/L        39.374      494.97 ppb         39.374   7.95%
   QC value within limits for Se 196.026  Recovery = 98.99%
SiO2†                  26004.5      5207.4 µg/L        208.08      5207.4 ppb         208.08   4.00%
   QC value within limits for SiO2  Recovery = 97.38%
Si 251.611†            31560.8      2436.0 µg/L         98.15      2436.0 ppb          98.15   4.03%
   QC value within limits for Si 251.611  Recovery = 97.44%
Sn 189.927†             1125.3      481.27 µg/L        54.820      481.27 ppb         54.820  11.39%
   QC value within limits for Sn 189.927  Recovery = 96.25%
Sr 421.552†            49779.0      489.59 µg/L         0.581      489.59 ppb          0.581   0.12%
   QC value within limits for Sr 421.552  Recovery = 97.92%
Ti 334.940†           215667.7      490.17 µg/L        20.320      490.17 ppb         20.320   4.15%
   QC value within limits for Ti 334.940  Recovery = 98.03%
Tl 190.801†              363.4      491.70 µg/L        30.794      491.70 ppb         30.794   6.26%
   QC value within limits for Tl 190.801  Recovery = 98.34%
U 409.014†              5662.2      479.49 µg/L        32.617      479.49 ppb         32.617   6.80%
   QC value within limits for U 409.014  Recovery = 95.90%
V 292.402†             48482.0      485.52 µg/L        28.295      485.52 ppb         28.295   5.83%
   QC value within limits for V 292.402  Recovery = 97.10%
Zn 213.857†            20556.0      481.69 µg/L        25.518      481.69 ppb         25.518   5.30%
   QC value within limits for Zn 213.857  Recovery = 96.34%
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/21/2010 02:40:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57583.8	57583.8	97.5	%			02:41:18
1	Al 396.153Radial†	15.1	24.2	18.089	µg/L	18.089	ppb	02:41:18
1	Ca 317.933Radial†	186.5	-1.8	-1.6127	µg/L	-1.6127	ppb	02:41:38
1	Fe 238.204 Radial†	18.1	3.1	26.922	µg/L	26.922	ppb	02:41:38
1	K 766.490 Radial†	196.7	3.3	2.2687	µg/L	2.2687	ppb	02:41:18
1	Mg 279.077 IEC†	15.7	4.0	38.686	µg/L	38.686	ppb	02:41:38
1	Na 589.592 Radial†	471.3	9.6	3.1322	µg/L	3.1322	ppb	02:41:18
1	Sr 421.552†	71.4	31.9	0.3135	µg/L	0.3135	ppb	02:41:18
1	Sc 361.383	2107882.2	2107882.2	100.39	%			02:42:41
1	Y 371.029	1457472.0	1457472.0	100.14	%			02:42:41
1	Ag 328.068†	-355.8	108.7	0.8127	µg/L	0.8127	ppb	02:42:46
1	As 188.979†	-1.4	-1.1	-1.9225	µg/L	-1.9225	ppb	02:43:07
1	B 249.677†	341.3	14.5	0.5781	µg/L	0.5781	ppb	02:43:07
1	Ba 233.527†	-7.0	11.4	0.2789	µg/L	0.2789	ppb	02:43:07
1	Be 313.107†	-3675.1	98.1	0.0592	µg/L	0.0592	ppb	02:42:46
1	Cd 226.502†	-141.4	-4.2	-0.1088	µg/L	-0.1088	ppb	02:43:07
1	Co 228.616†	7.3	4.8	0.2195	µg/L	0.2195	ppb	02:43:07
1	Cr 267.716†	-51.9	-4.3	-0.0878	µg/L	-0.0878	ppb	02:42:46
1	Cu 324.752†	2891.5	10.5	0.0734	µg/L	0.0734	ppb	02:42:46
1	Mn 257.610†	-150.7	152.5	0.4873	µg/L	0.4873	ppb	02:43:07
1	Mo 202.031†	-2.8	0.5	0.0534	µg/L	0.0534	ppb	02:43:07
1	Ni 231.604†	310.9	1.0	0.0524	µg/L	0.0524	ppb	02:43:07
1	P 214.914†	13.8	-2.5	-4.9422	µg/L	-4.9422	ppb	02:43:07
1	Pb 220.353†	92.6	-2.5	-0.6217	µg/L	-0.6217	ppb	02:43:07
1	S 181.975 Axial†	16.0	-1.4	-5.8209	µg/L	-5.8209	ppb	02:43:07
1	Sb 206.836†	27.0	4.7	4.3295	µg/L	4.3295	ppb	02:43:07
1	Se 196.026†	15.2	0.1	0.2118	µg/L	0.2118	ppb	02:43:07
1	SiO2†	1525.3	34.9	6.9923	µg/L	6.9923	ppb	02:42:46
1	Si 251.611†	373.5	78.5	6.0589	µg/L	6.0589	ppb	02:43:07
1	Sn 189.927†	-0.7	-5.4	-2.3047	µg/L	-2.3047	ppb	02:43:07
1	Ti 334.940†	249.9	107.3	0.2409	µg/L	0.2409	ppb	02:42:46
1	Tl 190.801†	-25.0	-2.7	-3.5993	µg/L	-3.5993	ppb	02:43:07
1	U 409.014†	-40.8	-39.9	-3.3887	µg/L	-3.3887	ppb	02:42:46
1	V 292.402†	-95.0	1.3	0.0130	µg/L	0.0130	ppb	02:42:46
1	Zn 213.857†	509.7	5.7	0.1315	µg/L	0.1315	ppb	02:43:07
2	Sc RADIAL	57661.8	57661.8	97.7	%			02:41:44
2	Al 396.153Radial†	-5.1	3.5	2.5947	µg/L	2.5947	ppb	02:41:44
2	Ca 317.933Radial†	188.3	-0.1	-0.1298	µg/L	-0.1298	ppb	02:42:04
2	Fe 238.204 Radial†	16.1	1.1	9.0929	µg/L	9.0929	ppb	02:42:04
2	K 766.490 Radial†	221.1	28.0	19.262	µg/L	19.262	ppb	02:41:44
2	Mg 279.077 IEC†	9.8	-2.0	-19.680	µg/L	-19.680	ppb	02:42:04
2	Na 589.592 Radial†	438.6	-24.6	-8.0312	µg/L	-8.0312	ppb	02:41:44
2	Sr 421.552†	21.9	-18.9	-0.1861	µg/L	-0.1861	ppb	02:41:44
2	Sc 361.383	2088666.9	2088666.9	99.478	%			02:43:13
2	Y 371.029	1445652.0	1445652.0	99.324	%			02:43:13
2	Ag 328.068†	-442.1	18.7	0.1418	µg/L	0.1418	ppb	02:43:18
2	As 188.979†	-2.4	-2.2	-3.9040	µg/L	-3.9040	ppb	02:43:39
2	B 249.677†	352.6	29.0	1.1802	µg/L	1.1802	ppb	02:43:39
2	Ba 233.527†	-8.7	9.6	0.2348	µg/L	0.2348	ppb	02:43:39
2	Be 313.107†	-3617.3	122.5	0.0739	µg/L	0.0739	ppb	02:43:18
2	Cd 226.502†	-141.8	-6.0	-0.1516	µg/L	-0.1516	ppb	02:43:39
2	Co 228.616†	5.6	3.1	0.1443	µg/L	0.1443	ppb	02:43:39
2	Cr 267.716†	-45.8	1.3	0.0268	µg/L	0.0268	ppb	02:43:18
2	Cu 324.752†	2907.6	53.1	0.3536	µg/L	0.3536	ppb	02:43:18
2	Mn 257.610†	-145.0	156.8	0.5010	µg/L	0.5010	ppb	02:43:39
2	Mo 202.031†	5.2	8.5	0.8529	µg/L	0.8529	ppb	02:43:39
2	Ni 231.604†	309.8	2.8	0.1420	µg/L	0.1420	ppb	02:43:39
2	P 214.914†	12.5	-3.7	-7.4397	µg/L	-7.4397	ppb	02:43:39
2	Pb 220.353†	83.3	-11.0	-2.7169	µg/L	-2.7169	ppb	02:43:39

2	S 181.975 Axial†	14.7	-2.5	-10.513 µg/L	-10.513 ppb	02:43:39
2	Sb 206.836†	29.7	7.8	7.1143 µg/L	7.1143 ppb	02:43:39
2	Se 196.026†	12.0	-2.9	-3.9797 µg/L	-3.9797 ppb	02:43:39
2	SiO2†	1476.7	0.1	0.0198 µg/L	0.0198 ppb	02:43:18
2	Si 251.611†	368.7	77.1	5.9524 µg/L	5.9524 ppb	02:43:39
2	Sn 189.927†	3.2	-1.5	-0.6607 µg/L	-0.6607 ppb	02:43:39
2	Ti 334.940†	253.4	113.1	0.2588 µg/L	0.2588 ppb	02:43:18
2	Tl 190.801†	-22.9	-0.8	-1.0279 µg/L	-1.0279 ppb	02:43:39
2	U 409.014†	2.5	3.3	0.2780 µg/L	0.2780 ppb	02:43:18
2	V 292.402†	-69.9	25.8	0.2628 µg/L	0.2628 ppb	02:43:18
2	Zn 213.857†	522.2	23.0	0.5425 µg/L	0.5425 ppb	02:43:39
3	Sc RADIAL	57594.0	57594.0	97.5 %		02:42:10
3	Al 396.153Radial†	0.3	9.0	6.7301 µg/L	6.7301 ppb	02:42:10
3	Ca 317.933Radial†	197.0	9.0	8.2470 µg/L	8.2470 ppb	02:42:30
3	Fe 238.204 Radial†	12.9	-2.2	-18.514 µg/L	-18.514 ppb	02:42:30
3	K 766.490 Radial†	186.2	-7.5	-5.1374 µg/L	-5.1374 ppb	02:42:10
3	Mg 279.077 IEC†	11.0	-0.8	-7.3537 µg/L	-7.3537 ppb	02:42:30
3	Na 589.592 Radial†	465.0	3.0	0.9910 µg/L	0.9910 ppb	02:42:10
3	Sr 421.552†	49.2	9.0	0.0890 µg/L	0.0890 ppb	02:42:10
3	Sc 361.383	2091576.3	2091576.3	99.616 %		02:43:45
3	Y 371.029	1447072.2	1447072.2	99.422 %		02:43:45
3	Ag 328.068†	-443.6	17.8	0.1308 µg/L	0.1308 ppb	02:43:50
3	As 188.979†	1.1	1.4	2.5375 µg/L	2.5375 ppb	02:44:11
3	B 249.677†	359.1	35.0	1.4407 µg/L	1.4407 ppb	02:44:11
3	Ba 233.527†	-8.4	9.9	0.2431 µg/L	0.2431 ppb	02:44:11
3	Be 313.107†	-3647.7	97.1	0.0586 µg/L	0.0586 ppb	02:43:50
3	Cd 226.502†	-142.6	-6.5	-0.1625 µg/L	-0.1625 ppb	02:44:11
3	Co 228.616†	1.0	-1.5	-0.0717 µg/L	-0.0717 ppb	02:44:11
3	Cr 267.716†	-39.1	8.2	0.1667 µg/L	0.1667 ppb	02:43:50
3	Cu 324.752†	2871.8	13.1	0.0843 µg/L	0.0843 ppb	02:43:50
3	Mn 257.610†	-169.6	132.3	0.4189 µg/L	0.4189 ppb	02:44:11
3	Mo 202.031†	2.3	5.7	0.5669 µg/L	0.5669 ppb	02:44:11
3	Ni 231.604†	308.3	0.9	0.0450 µg/L	0.0450 ppb	02:44:11
3	P 214.914†	9.6	-6.6	-13.197 µg/L	-13.197 ppb	02:44:11
3	Pb 220.353†	95.4	1.0	0.2429 µg/L	0.2429 ppb	02:44:11
3	S 181.975 Axial†	14.7	-2.5	-10.332 µg/L	-10.332 ppb	02:44:11
3	Sb 206.836†	19.2	-2.8	-2.5403 µg/L	-2.5403 ppb	02:44:11
3	Se 196.026†	13.8	-1.2	-1.6582 µg/L	-1.6582 ppb	02:44:11
3	SiO2†	1518.9	40.3	8.0743 µg/L	8.0743 ppb	02:43:50
3	Si 251.611†	392.2	100.2	7.7354 µg/L	7.7354 ppb	02:44:11
3	Sn 189.927†	-0.8	-5.5	-2.3524 µg/L	-2.3524 ppb	02:44:11
3	Ti 334.940†	259.2	118.5	0.2702 µg/L	0.2702 ppb	02:43:50
3	Tl 190.801†	-25.5	-3.4	-4.4847 µg/L	-4.4847 ppb	02:44:11
3	U 409.014†	10.5	11.3	0.9632 µg/L	0.9632 ppb	02:43:50
3	V 292.402†	-112.5	-16.9	-0.1640 µg/L	-0.1640 ppb	02:43:50
3	Zn 213.857†	518.7	18.8	0.4446 µg/L	0.4446 ppb	02:44:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2096041.8	99.829	%	0.4933				0.49%
Sc RADIAL	57613.2	97.6	%	0.07				0.07%
Y 371.029	1450065.4	99.628	%	0.4434				0.45%
Ag 328.068†	48.4	0.3618	µg/L	0.39056	0.3618	ppb	0.39056	107.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.2	9.1381	µg/L	8.02305	9.1381	ppb	8.02305	87.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-1.0964	µg/L	3.29926	-1.0964	ppb	3.29926	300.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	26.1	1.0663	µg/L	0.44245	1.0663	ppb	0.44245	41.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.3	0.2523	µg/L	0.02346	0.2523	ppb	0.02346	9.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.9	0.0639	µg/L	0.00870	0.0639	ppb	0.00870	13.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.1682	µg/L	5.31639	2.1682	ppb	5.31639	245.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.6	-0.1410	µg/L	0.02838	-0.1410	ppb	0.02838	20.13%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0974	µg/L	0.15115	0.0974	ppb	0.15115	155.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.7      0.0352 µg/L       0.12743      0.0352 ppb        0.12743 361.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                25.6      0.1704 µg/L       0.15874      0.1704 ppb        0.15874  93.14%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      5.8337 µg/L      22.89244      5.8337 ppb       22.89244 392.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           7.9      5.4645 µg/L      12.50980      5.4645 ppb       12.50980 228.93%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      3.8840 µg/L      30.76296      3.8840 ppb       30.76296 792.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               147.2      0.4691 µg/L       0.04398      0.4691 ppb        0.04398   9.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.9      0.4911 µg/L       0.40510      0.4911 ppb        0.40510  82.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -4.0     -1.3027 µg/L       5.92462     -1.3027 ppb        5.92462 454.80%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.6      0.0798 µg/L       0.05397      0.0798 ppb        0.05397  67.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.3     -8.5263 µg/L       4.23323     -8.5263 ppb        4.23323  49.65%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.2     -1.0319 µg/L       1.52191     -1.0319 ppb        1.52191 147.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -8.8886 µg/L       2.65825     -8.8886 ppb        2.65825  29.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.2      2.9678 µg/L       4.96928      2.9678 ppb        4.96928 167.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -1.8087 µg/L       2.09982     -1.8087 ppb        2.09982 116.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      25.1      5.0288 µg/L       4.37154      5.0288 ppb        4.37154  86.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                85.3      6.5823 µg/L       1.00011      6.5823 ppb        1.00011  15.19%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.1     -1.7726 µg/L       0.96321     -1.7726 ppb        0.96321  54.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.3      0.0721 µg/L       0.25021      0.0721 ppb        0.25021 346.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               113.0      0.2566 µg/L       0.01476      0.2566 ppb        0.01476   5.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.3     -3.0373 µg/L       1.79562     -3.0373 ppb        1.79562  59.12%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -8.4     -0.7158 µg/L       2.33997     -0.7158 ppb        2.33997 326.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  3.4      0.0373 µg/L       0.21443      0.0373 ppb        0.21443 575.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.8      0.3729 µg/L       0.21469      0.3729 ppb        0.21469  57.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 72
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/21/2010 03:16:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58780.1	58780.1	99.6	%			03:17:14
1	Al 396.153Radial†	6771.9	6810.9	5081.3	µg/L	5081.3	ppb	03:17:14
1	Ca 317.933Radial†	5581.2	5413.2	4965.3	µg/L	4965.3	ppb	03:17:34
1	Fe 238.204 Radial†	597.4	584.7	5029.4	µg/L	5029.4	ppb	03:17:34
1	K 766.490 Radial†	7336.3	7170.8	4930.8	µg/L	4930.8	ppb	03:17:14
1	Mg 279.077 IEC†	544.5	534.8	5208.7	µg/L	5208.7	ppb	03:17:34
1	Na 589.592 Radial†	31243.8	30910.2	10105	µg/L	10105	ppb	03:17:14
1	Sr 421.552†	48814.8	48992.3	481.85	µg/L	481.85	ppb	03:17:14
1	Sc 361.383	2103212.2	2103212.2	100.17	%			03:18:37
1	Y 371.029	1451433.5	1451433.5	99.722	%			03:18:37
1	Ag 328.068†	64829.4	65182.2	489.80	µg/L	489.80	ppb	03:18:43
1	As 188.979†	279.0	278.8	500.92	µg/L	500.92	ppb	03:19:03
1	B 249.677†	12131.8	11785.7	480.31	µg/L	480.31	ppb	03:18:43
1	Ba 233.527†	20072.3	20056.5	492.38	µg/L	492.38	ppb	03:18:43
1	Be 313.107†	812693.7	815069.6	492.07	µg/L	492.07	ppb	03:18:37
1	Cd 226.502†	19401.3	19504.9	490.73	µg/L	490.73	ppb	03:18:43
1	Co 228.616†	10732.0	10711.2	495.40	µg/L	495.40	ppb	03:18:43
1	Cr 267.716†	24288.3	24294.3	495.77	µg/L	495.77	ppb	03:18:43
1	Cu 324.752†	76695.4	73695.2	489.55	µg/L	489.55	ppb	03:18:43
1	Mn 257.610†	156156.3	156193.1	497.65	µg/L	497.65	ppb	03:18:37
1	Mo 202.031†	5085.0	5079.7	509.16	µg/L	509.16	ppb	03:19:03
1	Ni 231.604†	10120.5	9794.7	494.49	µg/L	494.49	ppb	03:18:43
1	P 214.914†	1281.0	1262.6	2463.6	µg/L	2463.6	ppb	03:19:03
1	Pb 220.353†	2142.4	2044.0	503.15	µg/L	503.15	ppb	03:19:03
1	S 181.975 Axial†	255.0	237.2	983.40	µg/L	983.40	ppb	03:19:03
1	Sb 206.836†	558.7	535.6	491.31	µg/L	491.31	ppb	03:19:03
1	Se 196.026†	380.5	364.8	507.51	µg/L	507.51	ppb	03:19:03
1	SiO2†	27964.6	26432.6	5293.1	µg/L	5293.1	ppb	03:18:43
1	Si 251.611†	32472.9	32124.1	2479.5	µg/L	2479.5	ppb	03:18:43
1	Sn 189.927†	1197.2	1190.4	509.13	µg/L	509.13	ppb	03:19:03
1	Ti 334.940†	218058.4	217545.7	494.45	µg/L	494.45	ppb	03:18:37
1	Tl 190.801†	351.1	372.8	504.17	µg/L	504.17	ppb	03:19:03
1	U 409.014†	5775.7	5766.6	488.37	µg/L	488.37	ppb	03:18:43
1	V 292.402†	49656.7	49668.2	497.49	µg/L	497.49	ppb	03:18:43
1	Zn 213.857†	21553.3	21014.7	492.46	µg/L	492.46	ppb	03:18:43
2	Sc RADIAL	58126.7	58126.7	98.4	%			03:17:40
2	Al 396.153Radial†	6696.3	6810.7	5081.2	µg/L	5081.2	ppb	03:17:40
2	Ca 317.933Radial†	5617.4	5513.1	5057.0	µg/L	5057.0	ppb	03:18:00
2	Fe 238.204 Radial†	600.3	594.3	5112.5	µg/L	5112.5	ppb	03:18:00
2	K 766.490 Radial†	7298.6	7215.4	4961.4	µg/L	4961.4	ppb	03:17:40
2	Mg 279.077 IEC†	542.3	538.7	5246.6	µg/L	5246.6	ppb	03:18:00
2	Na 589.592 Radial†	31001.1	31016.4	10140	µg/L	10140	ppb	03:17:40
2	Sr 421.552†	48358.5	49080.1	482.71	µg/L	482.71	ppb	03:17:40
2	Sc 361.383	2106051.0	2106051.0	100.31	%			03:19:11
2	Y 371.029	1452532.7	1452532.7	99.797	%			03:19:11
2	Ag 328.068†	65181.5	65445.9	491.79	µg/L	491.79	ppb	03:19:16
2	As 188.979†	276.3	275.7	495.36	µg/L	495.36	ppb	03:19:37
2	B 249.677†	12206.6	11844.0	482.66	µg/L	482.66	ppb	03:19:16
2	Ba 233.527†	20200.9	20157.7	494.87	µg/L	494.87	ppb	03:19:16
2	Be 313.107†	814693.9	815970.2	492.61	µg/L	492.61	ppb	03:19:11
2	Cd 226.502†	19570.4	19647.4	494.31	µg/L	494.31	ppb	03:19:16
2	Co 228.616†	10803.4	10767.9	498.02	µg/L	498.02	ppb	03:19:16
2	Cr 267.716†	24448.9	24421.8	498.37	µg/L	498.37	ppb	03:19:16
2	Cu 324.752†	77156.8	74052.0	491.93	µg/L	491.93	ppb	03:19:16
2	Mn 257.610†	156187.4	156014.0	497.09	µg/L	497.09	ppb	03:19:11
2	Mo 202.031†	5052.6	5040.6	505.24	µg/L	505.24	ppb	03:19:37
2	Ni 231.604†	10198.6	9858.9	497.73	µg/L	497.73	ppb	03:19:16
2	P 214.914†	1282.9	1262.8	2463.7	µg/L	2463.7	ppb	03:19:37
2	Pb 220.353†	2119.9	2018.7	496.90	µg/L	496.90	ppb	03:19:37

2	S 181.975 Axial†	260.0	241.9	1002.7 µg/L	1002.7 ppb	03:19:37
2	Sb 206.836†	561.3	537.5	492.88 µg/L	492.88 ppb	03:19:37
2	Se 196.026†	370.5	354.4	493.33 µg/L	493.33 ppb	03:19:37
2	SiO2†	28226.7	26656.3	5337.9 µg/L	5337.9 ppb	03:19:16
2	Si 251.611†	32807.7	32414.2	2501.8 µg/L	2501.8 ppb	03:19:16
2	Sn 189.927†	1184.5	1176.2	503.03 µg/L	503.03 ppb	03:19:37
2	Ti 334.940†	218640.3	217832.4	495.10 µg/L	495.10 ppb	03:19:11
2	Tl 190.801†	351.2	372.4	503.63 µg/L	503.63 ppb	03:19:37
2	U 409.014†	5893.8	5876.6	497.69 µg/L	497.69 ppb	03:19:16
2	V 292.402†	50043.4	49986.9	500.63 µg/L	500.63 ppb	03:19:16
2	Zn 213.857†	21682.9	21114.8	494.80 µg/L	494.80 ppb	03:19:16
3	Sc RADIAL	58480.8	58480.8	99.0 %		03:18:05
3	Al 396.153Radial†	6751.8	6825.5	5094.0 µg/L	5094.0 ppb	03:18:05
3	Ca 317.933Radial†	5600.9	5461.8	5009.9 µg/L	5009.9 ppb	03:18:26
3	Fe 238.204 Radial†	599.0	589.3	5068.6 µg/L	5068.6 ppb	03:18:26
3	K 766.490 Radial†	7352.7	7225.1	4968.1 µg/L	4968.1 ppb	03:18:05
3	Mg 279.077 IEC†	539.0	532.1	5181.1 µg/L	5181.1 ppb	03:18:26
3	Na 589.592 Radial†	31112.1	30937.9	10114 µg/L	10114 ppb	03:18:05
3	Sr 421.552†	48679.1	49106.3	482.97 µg/L	482.97 ppb	03:18:05
3	Sc 361.383	2111088.1	2111088.1	100.55 %		03:19:44
3	Y 371.029	1457436.3	1457436.3	100.13 %		03:19:44
3	Ag 328.068†	61753.3	61881.4	464.87 µg/L	464.87 ppb	03:19:49
3	As 188.979†	237.7	236.7	425.23 µg/L	425.23 ppb	03:20:10
3	B 249.677†	11516.7	11128.7	453.33 µg/L	453.33 ppb	03:19:49
3	Ba 233.527†	18496.0	18414.0	452.05 µg/L	452.05 ppb	03:19:49
3	Be 313.107†	766109.7	765711.6	462.27 µg/L	462.27 ppb	03:19:44
3	Cd 226.502†	17927.4	17966.7	451.97 µg/L	451.97 ppb	03:19:49
3	Co 228.616†	9812.7	9756.9	451.20 µg/L	451.20 ppb	03:19:49
3	Cr 267.716†	21609.3	21539.4	439.55 µg/L	439.55 ppb	03:19:49
3	Cu 324.752†	70519.4	67267.0	446.92 µg/L	446.92 ppb	03:19:49
3	Mn 257.610†	147252.4	146756.0	467.61 µg/L	467.61 ppb	03:19:44
3	Mo 202.031†	4231.0	4211.3	422.15 µg/L	422.15 ppb	03:20:10
3	Ni 231.604†	9264.2	8905.3	449.59 µg/L	449.59 ppb	03:19:49
3	P 214.914†	1083.3	1061.2	2066.2 µg/L	2066.2 ppb	03:20:10
3	Pb 220.353†	1866.2	1761.3	433.46 µg/L	433.46 ppb	03:20:10
3	S 181.975 Axial†	236.4	217.9	903.06 µg/L	903.06 ppb	03:20:10
3	Sb 206.836†	481.7	457.0	418.72 µg/L	418.72 ppb	03:20:10
3	Se 196.026†	338.8	322.0	448.94 µg/L	448.94 ppb	03:20:10
3	SiO2†	26287.6	24660.6	4938.3 µg/L	4938.3 ppb	03:19:49
3	Si 251.611†	30522.1	30063.0	2320.4 µg/L	2320.4 ppb	03:19:49
3	Sn 189.927†	978.0	968.0	414.00 µg/L	414.00 ppb	03:20:10
3	Ti 334.940†	204439.1	203188.2	461.80 µg/L	461.80 ppb	03:19:44
3	Tl 190.801†	315.6	336.1	454.90 µg/L	454.90 ppb	03:20:10
3	U 409.014†	5237.1	5209.5	441.08 µg/L	441.08 ppb	03:19:49
3	V 292.402†	45091.9	44943.3	449.90 µg/L	449.90 ppb	03:19:49
3	Zn 213.857†	19803.6	19194.2	449.76 µg/L	449.76 ppb	03:19:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2106783.7	100.34	%	0.190				0.19%
Sc RADIAL	58462.5	99.0	%	0.55				0.56%
Y 371.029	1453800.8	99.884	%	0.2196				0.22%
Ag 328.068†	64169.8	482.15	µg/L	15.001	482.15	ppb	15.001	3.11%
QC value within limits for Ag 328.068 Recovery = 96.43%								
Al 396.153Radial†	6815.7	5085.5	µg/L	7.35	5085.5	ppb	7.35	0.14%
QC value within limits for Al 396.153Radial Recovery = 101.71%								
As 188.979†	263.7	473.84	µg/L	42.188	473.84	ppb	42.188	8.90%
QC value within limits for As 188.979 Recovery = 94.77%								
B 249.677†	11586.1	472.10	µg/L	16.299	472.10	ppb	16.299	3.45%
QC value within limits for B 249.677 Recovery = 94.42%								
Ba 233.527†	19542.7	479.77	µg/L	24.037	479.77	ppb	24.037	5.01%
QC value within limits for Ba 233.527 Recovery = 95.95%								
Be 313.107†	798917.1	482.32	µg/L	17.362	482.32	ppb	17.362	3.60%
QC value within limits for Be 313.107 Recovery = 96.46%								
Ca 317.933Radial†	5462.7	5010.7	µg/L	45.81	5010.7	ppb	45.81	0.91%
QC value within limits for Ca 317.933Radial Recovery = 100.21%								
Cd 226.502†	19039.7	479.00	µg/L	23.477	479.00	ppb	23.477	4.90%
QC value within limits for Cd 226.502 Recovery = 95.80%								
Co 228.616†	10412.0	481.54	µg/L	26.306	481.54	ppb	26.306	5.46%

```
   QC value within limits for Co 228.616  Recovery = 96.31%
Cr 267.716†            23418.5      477.90 µg/L        33.231      477.90 ppb         33.231   6.95%
   QC value within limits for Cr 267.716  Recovery = 95.58%
Cu 324.752†            71671.4      476.13 µg/L        25.330      476.13 ppb         25.330   5.32%
   QC value within limits for Cu 324.752  Recovery = 95.23%
Fe 238.204 Radial†       589.4      5070.2 µg/L         41.55      5070.2 ppb          41.55   0.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.40%
K 766.490 Radial†       7203.8      4953.4 µg/L         19.90      4953.4 ppb          19.90   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 99.07%
Mg 279.077 IEC†          535.2      5212.1 µg/L         32.92      5212.1 ppb          32.92   0.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.24%
Mn 257.610†           152987.7      487.45 µg/L        17.180      487.45 ppb         17.180   3.52%
   QC value within limits for Mn 257.610  Recovery = 97.49%
Mo 202.031†             4777.2      478.85 µg/L        49.141      478.85 ppb         49.141  10.26%
   QC value within limits for Mo 202.031  Recovery = 95.77%
Na 589.592 Radial†     30954.8       10120 µg/L          18.0       10120 ppb           18.0   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.20%
Ni 231.604†             9519.6      480.61 µg/L        26.906      480.61 ppb         26.906   5.60%
   QC value within limits for Ni 231.604  Recovery = 96.12%
P 214.914†              1195.5      2331.2 µg/L        229.45      2331.2 ppb         229.45   9.84%
   QC value within limits for P 214.914  Recovery = 93.25%
Pb 220.353†             1941.3      477.84 µg/L        38.558      477.84 ppb         38.558   8.07%
   QC value within limits for Pb 220.353  Recovery = 95.57%
S 181.975 Axial†         232.3      963.07 µg/L        52.861      963.07 ppb         52.861   5.49%
   QC value within limits for S 181.975 Axial  Recovery = 96.31%
Sb 206.836†              510.0      467.64 µg/L        42.373      467.64 ppb         42.373   9.06%
   QC value within limits for Sb 206.836  Recovery = 93.53%
Se 196.026†              347.1      483.26 µg/L        30.554      483.26 ppb         30.554   6.32%
   QC value within limits for Se 196.026  Recovery = 96.65%
SiO2†                  25916.5      5189.8 µg/L        218.95      5189.8 ppb         218.95   4.22%
   QC value within limits for SiO2  Recovery = 97.05%
Si 251.611†            31533.8      2433.9 µg/L         98.95      2433.9 ppb          98.95   4.07%
   QC value within limits for Si 251.611  Recovery = 97.36%
Sn 189.927†             1111.5      475.39 µg/L        53.246      475.39 ppb         53.246  11.20%
   QC value within limits for Sn 189.927  Recovery = 95.08%
Sr 421.552†            49059.5      482.51 µg/L         0.587      482.51 ppb          0.587   0.12%
   QC value within limits for Sr 421.552  Recovery = 96.50%
Ti 334.940†           212855.4      483.79 µg/L        19.042      483.79 ppb         19.042   3.94%
   QC value within limits for Ti 334.940  Recovery = 96.76%
Tl 190.801†              360.4      487.57 µg/L        28.293      487.57 ppb         28.293   5.80%
   QC value within limits for Tl 190.801  Recovery = 97.51%
U 409.014†              5617.6      475.71 µg/L        30.354      475.71 ppb         30.354   6.38%
   QC value within limits for U 409.014  Recovery = 95.14%
V 292.402†             48199.5      482.67 µg/L        28.425      482.67 ppb         28.425   5.89%
   QC value within limits for V 292.402  Recovery = 96.53%
Zn 213.857†            20441.3      479.01 µg/L        25.354      479.01 ppb         25.354   5.29%
   QC value within limits for Zn 213.857  Recovery = 95.80%
All analyte(s) passed QC.
```

Sequence No.: 73
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/21/2010 03:20:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57796.8	57796.8	97.9	%			03:20:54
1	Al 396.153Radial†	-27.4	-19.3	-14.417	µg/L	-14.417	ppb	03:20:54
1	Ca 317.933Radial†	192.4	3.6	3.2827	µg/L	3.2827	ppb	03:21:14
1	Fe 238.204 Radial†	16.3	1.2	10.495	µg/L	10.495	ppb	03:21:14
1	K 766.490 Radial†	195.3	1.2	0.8088	µg/L	0.8088	ppb	03:20:54
1	Mg 279.077 IEC†	12.1	0.3	2.4570	µg/L	2.4570	ppb	03:21:14
1	Na 589.592 Radial†	418.9	-45.8	-14.971	µg/L	-14.971	ppb	03:20:54
1	Sr 421.552†	26.8	-13.9	-0.1370	µg/L	-0.1370	ppb	03:20:54
1	Sc 361.383	2099269.8	2099269.8	99.983	%			03:22:16
1	Y 371.029	1452643.4	1452643.4	99.805	%			03:22:16
1	Ag 328.068†	-420.9	42.1	0.3139	µg/L	0.3139	ppb	03:22:22
1	As 188.979†	-6.1	-5.8	-10.485	µg/L	-10.485	ppb	03:22:42
1	B 249.677†	354.1	28.7	1.1701	µg/L	1.1701	ppb	03:22:42
1	Ba 233.527†	-17.2	1.2	0.0280	µg/L	0.0280	ppb	03:22:42
1	Be 313.107†	-3602.5	155.7	0.0938	µg/L	0.0938	ppb	03:22:22
1	Cd 226.502†	-129.8	6.8	0.1691	µg/L	0.1691	ppb	03:22:42
1	Co 228.616†	4.5	2.0	0.0907	µg/L	0.0907	ppb	03:22:42
1	Cr 267.716†	-28.7	18.7	0.3814	µg/L	0.3814	ppb	03:22:22
1	Cu 324.752†	2910.5	41.3	0.2752	µg/L	0.2752	ppb	03:22:22
1	Mn 257.610†	-158.2	144.3	0.4607	µg/L	0.4607	ppb	03:22:42
1	Mo 202.031†	5.3	8.6	0.8621	µg/L	0.8621	ppb	03:22:42
1	Ni 231.604†	308.6	-0.0	-0.0006	µg/L	-0.0006	ppb	03:22:42
1	P 214.914†	18.5	2.3	4.5368	µg/L	4.5368	ppb	03:22:42
1	Pb 220.353†	93.1	-1.7	-0.4110	µg/L	-0.4110	ppb	03:22:42
1	S 181.975 Axial†	13.1	-4.2	-17.367	µg/L	-17.367	ppb	03:22:42
1	Sb 206.836†	22.7	0.6	0.5416	µg/L	0.5416	ppb	03:22:42
1	Se 196.026†	15.6	0.7	0.9289	µg/L	0.9289	ppb	03:22:42
1	SiO2†	1589.4	105.3	21.083	µg/L	21.083	ppb	03:22:22
1	Si 251.611†	433.0	139.5	10.769	µg/L	10.769	ppb	03:22:42
1	Sn 189.927†	2.8	-1.9	-0.8334	µg/L	-0.8334	ppb	03:22:42
1	Ti 334.940†	409.8	268.2	0.6099	µg/L	0.6099	ppb	03:22:22
1	Tl 190.801†	-26.4	-4.2	-5.6298	µg/L	-5.6298	ppb	03:22:42
1	U 409.014†	-104.8	-104.1	-8.8362	µg/L	-8.8362	ppb	03:22:22
1	V 292.402†	-114.5	-18.5	-0.1837	µg/L	-0.1837	ppb	03:22:22
1	Zn 213.857†	522.6	20.7	0.4877	µg/L	0.4877	ppb	03:22:42
2	Sc RADIAL	57635.8	57635.8	97.6	%			03:21:20
2	Al 396.153Radial†	-3.7	4.9	3.6309	µg/L	3.6309	ppb	03:21:20
2	Ca 317.933Radial†	186.9	-1.6	-1.4238	µg/L	-1.4238	ppb	03:21:40
2	Fe 238.204 Radial†	18.8	3.9	33.093	µg/L	33.093	ppb	03:21:40
2	K 766.490 Radial†	202.7	9.3	6.3913	µg/L	6.3913	ppb	03:21:20
2	Mg 279.077 IEC†	12.4	0.6	5.6794	µg/L	5.6794	ppb	03:21:40
2	Na 589.592 Radial†	456.6	-6.0	-1.9559	µg/L	-1.9559	ppb	03:21:20
2	Sr 421.552†	70.5	30.9	0.3035	µg/L	0.3035	ppb	03:21:20
2	Sc 361.383	2093057.7	2093057.7	99.687	%			03:22:48
2	Y 371.029	1448630.2	1448630.2	99.529	%			03:22:48
2	Ag 328.068†	-390.1	71.8	0.5419	µg/L	0.5419	ppb	03:22:54
2	As 188.979†	-4.3	-4.0	-7.2433	µg/L	-7.2433	ppb	03:23:14
2	B 249.677†	363.4	39.1	1.5820	µg/L	1.5820	ppb	03:23:14
2	Ba 233.527†	-13.9	4.4	0.1089	µg/L	0.1089	ppb	03:23:14
2	Be 313.107†	-3624.3	123.2	0.0743	µg/L	0.0743	ppb	03:22:54
2	Cd 226.502†	-147.3	-11.2	-0.2845	µg/L	-0.2845	ppb	03:23:14
2	Co 228.616†	8.1	5.5	0.2556	µg/L	0.2556	ppb	03:23:14
2	Cr 267.716†	-31.0	16.3	0.3336	µg/L	0.3336	ppb	03:22:54
2	Cu 324.752†	2908.0	47.4	0.3193	µg/L	0.3193	ppb	03:22:54
2	Mn 257.610†	-163.4	138.7	0.4456	µg/L	0.4456	ppb	03:23:14
2	Mo 202.031†	4.4	7.7	0.7763	µg/L	0.7763	ppb	03:23:14
2	Ni 231.604†	313.9	6.3	0.3172	µg/L	0.3172	ppb	03:23:14
2	P 214.914†	12.7	-3.5	-6.9064	µg/L	-6.9064	ppb	03:23:14
2	Pb 220.353†	86.2	-8.3	-2.0488	µg/L	-2.0488	ppb	03:23:14

2	S 181.975 Axial†	16.9	-0.3	-1.2490 µg/L	-1.2490 ppb		03:23:14
2	Sb 206.836†	24.2	2.1	1.9550 µg/L	1.9550 ppb		03:23:14
2	Se 196.026†	15.7	0.8	1.1757 µg/L	1.1757 ppb		03:23:14
2	SiO2†	1560.6	81.1	16.250 µg/L	16.250 ppb		03:22:54
2	Si 251.611†	434.9	142.8	11.019 µg/L	11.019 ppb		03:23:14
2	Sn 189.927†	7.4	2.8	1.1751 µg/L	1.1751 ppb		03:23:14
2	Ti 334.940†	270.8	130.0	0.2952 µg/L	0.2952 ppb		03:22:54
2	Tl 190.801†	-23.5	-1.3	-1.7449 µg/L	-1.7449 ppb		03:23:14
2	U 409.014†	12.0	12.8	1.0822 µg/L	1.0822 ppb		03:22:54
2	V 292.402†	-35.9	60.0	0.6055 µg/L	0.6055 ppb		03:22:54
2	Zn 213.857†	523.7	23.4	0.5483 µg/L	0.5483 ppb		03:23:14
3	Sc RADIAL	57534.0	57534.0	97.4 %			03:21:46
3	Al 396.153Radial†	-12.7	-4.3	-3.2564 µg/L	-3.2564 ppb		03:21:46
3	Ca 317.933Radial†	187.7	-0.4	-0.3487 µg/L	-0.3487 ppb		03:22:06
3	Fe 238.204 Radial†	17.4	2.4	20.771 µg/L	20.771 ppb		03:22:06
3	K 766.490 Radial†	128.8	-66.2	-45.514 µg/L	-45.514 ppb		03:21:46
3	Mg 279.077 IEC†	14.1	2.4	23.552 µg/L	23.552 ppb		03:22:06
3	Na 589.592 Radial†	452.3	-9.5	-3.1061 µg/L	-3.1061 ppb		03:21:46
3	Sr 421.552†	23.1	-17.7	-0.1739 µg/L	-0.1739 ppb		03:21:46
3	Sc 361.383	2108483.6	2108483.6	100.42 %			03:23:20
3	Y 371.029	1458182.9	1458182.9	100.19 %			03:23:20
3	Ag 328.068†	-394.1	70.7	0.5318 µg/L	0.5318 ppb		03:23:26
3	As 188.979†	4.1	4.4	7.8351 µg/L	7.8351 ppb		03:23:47
3	B 249.677†	349.6	22.7	0.9164 µg/L	0.9164 ppb		03:23:47
3	Ba 233.527†	-8.0	10.3	0.2542 µg/L	0.2542 ppb		03:23:47
3	Be 313.107†	-3555.2	218.6	0.1318 µg/L	0.1318 ppb		03:23:26
3	Cd 226.502†	-139.9	-2.7	-0.0698 µg/L	-0.0698 ppb		03:23:47
3	Co 228.616†	-3.6	-6.2	-0.2873 µg/L	-0.2873 ppb		03:23:47
3	Cr 267.716†	-72.0	-24.3	-0.4956 µg/L	-0.4956 ppb		03:23:26
3	Cu 324.752†	2886.2	4.3	0.0315 µg/L	0.0315 ppb		03:23:26
3	Mn 257.610†	-190.4	112.9	0.3613 µg/L	0.3613 ppb		03:23:47
3	Mo 202.031†	3.2	6.5	0.6517 µg/L	0.6517 ppb		03:23:47
3	Ni 231.604†	330.5	20.4	1.0338 µg/L	1.0338 ppb		03:23:47
3	P 214.914†	14.3	-2.0	-4.0587 µg/L	-4.0587 ppb		03:23:47
3	Pb 220.353†	94.7	-0.5	-0.1285 µg/L	-0.1285 ppb		03:23:47
3	S 181.975 Axial†	19.4	2.1	8.5354 µg/L	8.5354 ppb		03:23:47
3	Sb 206.836†	19.1	-3.1	-2.7977 µg/L	-2.7977 ppb		03:23:47
3	Se 196.026†	21.9	6.8	9.3560 µg/L	9.3560 ppb		03:23:47
3	SiO2†	1563.4	72.5	14.510 µg/L	14.510 ppb		03:23:26
3	Si 251.611†	446.2	150.8	11.639 µg/L	11.639 ppb		03:23:47
3	Sn 189.927†	0.5	-4.3	-1.8220 µg/L	-1.8220 ppb		03:23:47
3	Ti 334.940†	379.4	236.1	0.5351 µg/L	0.5351 ppb		03:23:26
3	Tl 190.801†	-24.3	-1.9	-2.5628 µg/L	-2.5628 ppb		03:23:47
3	U 409.014†	28.0	28.7	2.4304 µg/L	2.4304 ppb		03:23:26
3	V 292.402†	-48.9	47.3	0.4768 µg/L	0.4768 ppb		03:23:26
3	Zn 213.857†	514.5	10.4	0.2378 µg/L	0.2378 ppb		03:23:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2100270.4	100.03	%	0.370				0.37%
Sc RADIAL	57655.5	97.6	%	0.22				0.23%
Y 371.029	1453152.2	99.840	%	0.3296				0.33%
Ag 328.068†	61.6	0.4625	µg/L	0.12882	0.4625	ppb	0.12882	27.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.2	-4.6809	µg/L	9.10797	-4.6809	ppb	9.10797	194.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-3.2978	µg/L	9.77670	-3.2978	ppb	9.77670	296.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.2	1.2229	µg/L	0.33593	1.2229	ppb	0.33593	27.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1304	µg/L	0.11460	0.1304	ppb	0.11460	87.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	165.8	0.1000	µg/L	0.02926	0.1000	ppb	0.02926	29.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.5	0.5034	µg/L	2.46620	0.5034	ppb	2.46620	489.91%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-2.4	-0.0617	µg/L	0.22690	-0.0617	ppb	0.22690	367.47%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0197	µg/L	0.27831	0.0197	ppb	0.27831	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.6      0.0731 µg/L       0.49313      0.0731 ppb        0.49313 674.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                31.0      0.2087 µg/L       0.15498      0.2087 ppb        0.15498  74.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.5      21.453 µg/L       11.3142      21.453 ppb        11.3142  52.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -18.6     -12.771 µg/L       28.4931     -12.771 ppb        28.4931 223.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      10.563 µg/L       11.3640      10.563 ppb        11.3640 107.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               132.0      0.4226 µg/L       0.05355      0.4226 ppb        0.05355  12.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.6      0.7634 µg/L       0.10576      0.7634 ppb        0.10576  13.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -20.4     -6.6776 µg/L       7.20511     -6.6776 ppb        7.20511 107.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.9      0.4501 µg/L       0.52984      0.4501 ppb        0.52984 117.71%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.1     -2.1428 µg/L       5.95731     -2.1428 ppb        5.95731 278.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.5     -0.8627 µg/L       1.03678     -0.8627 ppb        1.03678 120.17%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.8     -3.3601 µg/L      13.07954     -3.3601 ppb       13.07954 389.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.1004 µg/L       2.44056     -0.1004 ppb        2.44056 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.8      3.8202 µg/L       4.79574      3.8202 ppb        4.79574 125.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      86.3      17.281 µg/L        3.4054      17.281 ppb         3.4054  19.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               144.4      11.142 µg/L        0.4479      11.142 ppb         0.4479   4.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.2     -0.4935 µg/L       1.52721     -0.4935 ppb        1.52721 309.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.3     -0.0025 µg/L       0.26564     -0.0025 ppb        0.26564 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               211.4      0.4801 µg/L       0.16443      0.4801 ppb        0.16443  34.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.5     -3.3125 µg/L       2.04811     -3.3125 ppb        2.04811  61.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -20.9     -1.7745 µg/L       6.15265     -1.7745 ppb        6.15265 346.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 29.6      0.2995 µg/L       0.42344      0.2995 ppb        0.42344 141.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                18.2      0.4246 µg/L       0.16456      0.4246 ppb        0.16456  38.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 83
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/21/2010 03:57:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58531.6	58531.6	99.1	%			03:57:43
1	Al 396.153Radial†	6849.9	6918.5	5161.6	µg/L	5161.6	ppb	03:57:43
1	Ca 317.933Radial†	5659.2	5515.8	5059.4	µg/L	5059.4	ppb	03:58:04
1	Fe 238.204 Radial†	605.6	595.5	5122.2	µg/L	5122.2	ppb	03:58:04
1	K 766.490 Radial†	7356.2	7222.2	4966.1	µg/L	4966.1	ppb	03:57:43
1	Mg 279.077 IEC†	551.3	544.0	5298.2	µg/L	5298.2	ppb	03:58:04
1	Na 589.592 Radial†	31454.5	31256.0	10218	µg/L	10218	ppb	03:57:43
1	Sr 421.552†	49251.0	49640.5	488.22	µg/L	488.22	ppb	03:57:43
1	Sc 361.383	2078184.7	2078184.7	98.978	%			03:59:08
1	Y 371.029	1433368.9	1433368.9	98.480	%			03:59:08
1	Ag 328.068†	64859.1	65991.6	495.88	µg/L	495.88	ppb	03:59:13
1	As 188.979†	279.1	282.3	507.09	µg/L	507.09	ppb	03:59:34
1	B 249.677†	12180.7	11980.9	488.26	µg/L	488.26	ppb	03:59:13
1	Ba 233.527†	20061.6	20287.0	498.04	µg/L	498.04	ppb	03:59:13
1	Be 313.107†	816218.6	828401.4	500.11	µg/L	500.11	ppb	03:59:08
1	Cd 226.502†	19471.2	19808.8	498.37	µg/L	498.37	ppb	03:59:13
1	Co 228.616†	10753.9	10862.3	502.39	µg/L	502.39	ppb	03:59:13
1	Cr 267.716†	24286.7	24584.8	501.70	µg/L	501.70	ppb	03:59:13
1	Cu 324.752†	76889.7	74813.5	496.99	µg/L	496.99	ppb	03:59:13
1	Mn 257.610†	156764.4	158684.9	505.59	µg/L	505.59	ppb	03:59:08
1	Mo 202.031†	5084.8	5140.6	515.26	µg/L	515.26	ppb	03:59:34
1	Ni 231.604†	10149.9	9946.1	502.13	µg/L	502.13	ppb	03:59:13
1	P 214.914†	1283.4	1280.4	2498.4	µg/L	2498.4	ppb	03:59:34
1	Pb 220.353†	2143.9	2071.3	509.85	µg/L	509.85	ppb	03:59:34
1	S 181.975 Axial†	262.6	248.0	1028.0	µg/L	1028.0	ppb	03:59:34
1	Sb 206.836†	565.7	549.4	503.91	µg/L	503.91	ppb	03:59:34
1	Se 196.026†	374.8	363.7	506.11	µg/L	506.11	ppb	03:59:34
1	SiO2†	28064.9	26870.1	5380.8	µg/L	5380.8	ppb	03:59:13
1	Si 251.611†	32532.1	32574.4	2514.2	µg/L	2514.2	ppb	03:59:13
1	Sn 189.927†	1199.2	1206.8	516.14	µg/L	516.14	ppb	03:59:34
1	Ti 334.940†	219415.9	221538.8	503.53	µg/L	503.53	ppb	03:59:08
1	Tl 190.801†	356.3	382.2	516.94	µg/L	516.94	ppb	03:59:34
1	U 409.014†	5914.5	5976.3	506.15	µg/L	506.15	ppb	03:59:13
1	V 292.402†	49736.8	50346.1	504.28	µg/L	504.28	ppb	03:59:13
1	Zn 213.857†	21565.6	21286.3	498.81	µg/L	498.81	ppb	03:59:13
2	Sc RADIAL	58001.6	58001.6	98.2	%			03:58:09
2	Al 396.153Radial†	6804.9	6935.9	5174.8	µg/L	5174.8	ppb	03:58:09
2	Ca 317.933Radial†	5627.9	5536.1	5078.0	µg/L	5078.0	ppb	03:58:30
2	Fe 238.204 Radial†	605.8	601.3	5172.7	µg/L	5172.7	ppb	03:58:30
2	K 766.490 Radial†	7363.4	7297.3	5017.8	µg/L	5017.8	ppb	03:58:09
2	Mg 279.077 IEC†	538.4	536.0	5219.6	µg/L	5219.6	ppb	03:58:30
2	Na 589.592 Radial†	31265.6	31353.6	10250	µg/L	10250	ppb	03:58:09
2	Sr 421.552†	48850.9	49687.3	488.68	µg/L	488.68	ppb	03:58:09
2	Sc 361.383	2093473.1	2093473.1	99.707	%			03:59:41
2	Y 371.029	1443918.1	1443918.1	99.205	%			03:59:41
2	Ag 328.068†	64902.3	65556.4	492.61	µg/L	492.61	ppb	03:59:47
2	As 188.979†	272.6	273.6	491.61	µg/L	491.61	ppb	04:00:07
2	B 249.677†	12163.5	11873.8	483.85	µg/L	483.85	ppb	03:59:47
2	Ba 233.527†	20122.1	20199.7	495.90	µg/L	495.90	ppb	03:59:47
2	Be 313.107†	819369.0	825538.9	498.39	µg/L	498.39	ppb	03:59:41
2	Cd 226.502†	19513.4	19707.4	495.81	µg/L	495.81	ppb	03:59:47
2	Co 228.616†	10777.9	10807.0	499.82	µg/L	499.82	ppb	03:59:47
2	Cr 267.716†	24288.9	24407.8	498.08	µg/L	498.08	ppb	03:59:47
2	Cu 324.752†	76932.2	74288.9	493.51	µg/L	493.51	ppb	03:59:47
2	Mn 257.610†	157419.2	158185.0	504.00	µg/L	504.00	ppb	03:59:41
2	Mo 202.031†	5028.5	5046.6	505.84	µg/L	505.84	ppb	04:00:07
2	Ni 231.604†	10146.8	9868.0	498.19	µg/L	498.19	ppb	03:59:47
2	P 214.914†	1277.2	1264.7	2467.4	µg/L	2467.4	ppb	04:00:07
2	Pb 220.353†	2126.9	2038.3	501.73	µg/L	501.73	ppb	04:00:07

2	S 181.975 Axial†	259.8	243.3	1008.3 µg/L	1008.3 ppb	04:00:07
2	Sb 206.836†	563.4	543.0	497.93 µg/L	497.93 ppb	04:00:07
2	Se 196.026†	368.6	354.7	494.02 µg/L	494.02 ppb	04:00:07
2	SiO2†	28163.2	26761.7	5359.0 µg/L	5359.0 ppb	03:59:47
2	Si 251.611†	32625.6	32428.1	2502.9 µg/L	2502.9 ppb	03:59:47
2	Sn 189.927†	1185.8	1184.6	506.61 µg/L	506.61 ppb	04:00:07
2	Ti 334.940†	219851.1	220356.4	500.85 µg/L	500.85 ppb	03:59:41
2	Tl 190.801†	352.4	375.7	508.14 µg/L	508.14 ppb	04:00:07
2	U 409.014†	5890.2	5908.3	500.37 µg/L	500.37 ppb	03:59:47
2	V 292.402†	49698.7	49940.9	500.19 µg/L	500.19 ppb	03:59:47
2	Zn 213.857†	21597.0	21158.6	495.83 µg/L	495.83 ppb	03:59:47
3	Sc RADIAL	58382.6	58382.6	98.9 %		03:58:35
3	Al 396.153Radial†	6839.6	6925.7	5168.8 µg/L	5168.8 ppb	03:58:35
3	Ca 317.933Radial†	5616.8	5487.4	5033.4 µg/L	5033.4 ppb	03:58:56
3	Fe 238.204 Radial†	606.1	597.5	5139.2 µg/L	5139.2 ppb	03:58:56
3	K 766.490 Radial†	7430.3	7316.1	5030.7 µg/L	5030.7 ppb	03:58:35
3	Mg 279.077 IEC†	537.6	531.6	5176.0 µg/L	5176.0 ppb	03:58:56
3	Na 589.592 Radial†	31457.3	31339.8	10246 µg/L	10246 ppb	03:58:35
3	Sr 421.552†	49308.1	49825.1	490.04 µg/L	490.04 ppb	03:58:35
3	Sc 361.383	2082026.1	2082026.1	99.161 %		04:00:14
3	Y 371.029	1432610.6	1432610.6	98.428 %		04:00:14
3	Ag 328.068†	61695.5	62680.3	470.86 µg/L	470.86 ppb	04:00:20
3	As 188.979†	243.5	245.8	441.69 µg/L	441.69 ppb	04:00:40
3	B 249.677†	11511.1	11283.0	459.61 µg/L	459.61 ppb	04:00:20
3	Ba 233.527†	18525.0	18700.0	459.06 µg/L	459.06 ppb	04:00:20
3	Be 313.107†	764443.3	774666.8	467.68 µg/L	467.68 ppb	04:00:14
3	Cd 226.502†	17844.5	18132.0	456.13 µg/L	456.13 ppb	04:00:20
3	Co 228.616†	9779.8	9860.0	455.97 µg/L	455.97 ppb	04:00:20
3	Cr 267.716†	21572.1	21801.9	444.91 µg/L	444.91 ppb	04:00:20
3	Cu 324.752†	70371.5	68096.9	452.43 µg/L	452.43 ppb	04:00:20
3	Mn 257.610†	147534.0	149084.2	475.03 µg/L	475.03 ppb	04:00:14
3	Mo 202.031†	4225.9	4265.0	427.53 µg/L	427.53 ppb	04:00:40
3	Ni 231.604†	9252.4	9022.0	455.49 µg/L	455.49 ppb	04:00:20
3	P 214.914†	1092.6	1085.6	2114.3 µg/L	2114.3 ppb	04:00:40
3	Pb 220.353†	1874.9	1796.0	442.00 µg/L	442.00 ppb	04:00:40
3	S 181.975 Axial†	233.3	218.0	903.54 µg/L	903.54 ppb	04:00:40
3	Sb 206.836†	488.8	470.9	431.40 µg/L	431.40 ppb	04:00:40
3	Se 196.026†	335.7	323.5	451.24 µg/L	451.24 ppb	04:00:40
3	SiO2†	26279.0	25016.8	5009.6 µg/L	5009.6 ppb	04:00:20
3	Si 251.611†	30568.4	30533.4	2356.7 µg/L	2356.7 ppb	04:00:20
3	Sn 189.927†	987.4	991.1	423.85 µg/L	423.85 ppb	04:00:40
3	Ti 334.940†	204246.0	205831.6	467.81 µg/L	467.81 ppb	04:00:14
3	Tl 190.801†	319.6	344.5	466.20 µg/L	466.20 ppb	04:00:40
3	U 409.014†	5223.0	5267.9	446.03 µg/L	446.03 ppb	04:00:20
3	V 292.402†	44899.0	45374.7	454.24 µg/L	454.24 ppb	04:00:20
3	Zn 213.857†	19708.6	19373.3	453.95 µg/L	453.95 ppb	04:00:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2084561.3	99.282	%	0.3788				0.38%
Sc RADIAL	58305.3	98.7	%	0.46				0.47%
Y 371.029	1436632.6	98.705	%	0.4343				0.44%
Ag 328.068†	64742.8	486.45	µg/L	13.603	486.45	ppb	13.603	2.80%
QC value within limits for Ag 328.068 Recovery = 97.29%								
Al 396.153Radial†	6926.7	5168.4	µg/L	6.59	5168.4	ppb	6.59	0.13%
QC value within limits for Al 396.153Radial Recovery = 103.37%								
As 188.979†	267.2	480.13	µg/L	34.176	480.13	ppb	34.176	7.12%
QC value within limits for As 188.979 Recovery = 96.03%								
B 249.677†	11712.6	477.24	µg/L	15.426	477.24	ppb	15.426	3.23%
QC value within limits for B 249.677 Recovery = 95.45%								
Ba 233.527†	19728.9	484.33	µg/L	21.911	484.33	ppb	21.911	4.52%
QC value within limits for Ba 233.527 Recovery = 96.87%								
Be 313.107†	809535.7	488.73	µg/L	18.250	488.73	ppb	18.250	3.73%
QC value within limits for Be 313.107 Recovery = 97.75%								
Ca 317.933Radial†	5513.1	5057.0	µg/L	22.43	5057.0	ppb	22.43	0.44%
QC value within limits for Ca 317.933Radial Recovery = 101.14%								
Cd 226.502†	19216.0	483.44	µg/L	23.684	483.44	ppb	23.684	4.90%
QC value within limits for Cd 226.502 Recovery = 96.69%								
Co 228.616†	10509.8	486.06	µg/L	26.092	486.06	ppb	26.092	5.37%

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   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            23598.2      481.56 µg/L        31.793      481.56 ppb         31.793   6.60%
   QC value within limits for Cr 267.716  Recovery = 96.31%
Cu 324.752†            72399.8      480.98 µg/L        24.780      480.98 ppb         24.780   5.15%
   QC value within limits for Cu 324.752  Recovery = 96.20%
Fe 238.204 Radial†       598.1      5144.7 µg/L         25.68      5144.7 ppb          25.68   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.89%
K 766.490 Radial†       7278.5      5004.8 µg/L         34.17      5004.8 ppb          34.17   0.68%
   QC value within limits for K 766.490 Radial  Recovery = 100.10%
Mg 279.077 IEC†          537.2      5231.3 µg/L         61.92      5231.3 ppb          61.92   1.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.63%
Mn 257.610†           155318.0      494.87 µg/L        17.202      494.87 ppb         17.202   3.48%
   QC value within limits for Mn 257.610  Recovery = 98.97%
Mo 202.031†             4817.4      482.88 µg/L        48.163      482.88 ppb         48.163   9.97%
   QC value within limits for Mo 202.031  Recovery = 96.58%
Na 589.592 Radial†     31316.5       10238 µg/L          17.3       10238 ppb           17.3   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 102.38%
Ni 231.604†             9612.0      485.27 µg/L        25.870      485.27 ppb         25.870   5.33%
   QC value within limits for Ni 231.604  Recovery = 97.05%
P 214.914†              1210.2      2360.0 µg/L        213.38      2360.0 ppb         213.38   9.04%
   QC value within limits for P 214.914  Recovery = 94.40%
Pb 220.353†             1968.5      484.53 µg/L        37.054      484.53 ppb         37.054   7.65%
   QC value within limits for Pb 220.353  Recovery = 96.91%
S 181.975 Axial†         236.4      979.95 µg/L        66.905      979.95 ppb         66.905   6.83%
   QC value within limits for S 181.975 Axial  Recovery = 98.00%
Sb 206.836†              521.1      477.75 µg/L        40.248      477.75 ppb         40.248   8.42%
   QC value within limits for Sb 206.836  Recovery = 95.55%
Se 196.026†              347.3      483.79 µg/L        28.829      483.79 ppb         28.829   5.96%
   QC value within limits for Se 196.026  Recovery = 96.76%
SiO2†                   26216.2      5249.8 µg/L        208.28      5249.8 ppb         208.28   3.97%
   QC value within limits for SiO2  Recovery = 98.17%
Si 251.611†             31845.3      2457.9 µg/L         87.87      2457.9 ppb          87.87   3.58%
   QC value within limits for Si 251.611  Recovery = 98.32%
Sn 189.927†             1127.5      482.20 µg/L        50.753      482.20 ppb         50.753  10.53%
   QC value within limits for Sn 189.927  Recovery = 96.44%
Sr 421.552†            49717.6      488.98 µg/L         0.944      488.98 ppb          0.944   0.19%
   QC value within limits for Sr 421.552  Recovery = 97.80%
Ti 334.940†           215908.9      490.73 µg/L        19.891      490.73 ppb         19.891   4.05%
   QC value within limits for Ti 334.940  Recovery = 98.15%
Tl 190.801†              367.5      497.09 µg/L        27.116      497.09 ppb         27.116   5.45%
   QC value within limits for Tl 190.801  Recovery = 99.42%
U 409.014†              5717.5      484.18 µg/L        33.165      484.18 ppb         33.165   6.85%
   QC value within limits for U 409.014  Recovery = 96.84%
V 292.402†             48553.9      486.24 µg/L        27.788      486.24 ppb         27.788   5.71%
   QC value within limits for V 292.402  Recovery = 97.25%
Zn 213.857†            20606.1      482.86 µg/L        25.084      482.86 ppb         25.084   5.19%
   QC value within limits for Zn 213.857  Recovery = 96.57%
All analyte(s) passed QC.
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Sequence No.: 84
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/21/2010 04:00:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57441.3	57441.3	97.3	%			04:01:25
1	Al 396.153Radial†	-7.6	0.9	0.6454	µg/L	0.6454	ppb	04:01:25
1	Ca 317.933Radial†	192.3	4.7	4.2670	µg/L	4.2670	ppb	04:01:46
1	Fe 238.204 Radial†	15.5	0.5	4.3286	µg/L	4.3286	ppb	04:01:46
1	K 766.490 Radial†	224.6	32.5	22.339	µg/L	22.339	ppb	04:01:25
1	Mg 279.077 IEC†	14.6	2.9	28.439	µg/L	28.439	ppb	04:01:46
1	Na 589.592 Radial†	441.6	-19.8	-6.4739	µg/L	-6.4739	ppb	04:01:25
1	Sr 421.552†	34.9	-5.4	-0.0536	µg/L	-0.0536	ppb	04:01:25
1	Sc 361.383	2089247.2	2089247.2	99.505	%			04:02:48
1	Y 371.029	1444417.0	1444417.0	99.239	%			04:02:48
1	Ag 328.068†	-419.0	42.0	0.3153	µg/L	0.3153	ppb	04:02:54
1	As 188.979†	-1.8	-1.5	-2.7849	µg/L	-2.7849	ppb	04:03:14
1	B 249.677†	359.8	36.1	1.4756	µg/L	1.4756	ppb	04:03:14
1	Ba 233.527†	-4.3	14.0	0.3445	µg/L	0.3445	ppb	04:03:14
1	Be 313.107†	-3624.0	116.9	0.0704	µg/L	0.0704	ppb	04:02:54
1	Cd 226.502†	-139.2	-3.3	-0.0840	µg/L	-0.0840	ppb	04:03:14
1	Co 228.616†	3.2	0.7	0.0312	µg/L	0.0312	ppb	04:03:14
1	Cr 267.716†	-32.4	14.8	0.3017	µg/L	0.3017	ppb	04:02:54
1	Cu 324.752†	2922.7	67.5	0.4485	µg/L	0.4485	ppb	04:02:54
1	Mn 257.610†	-217.3	84.1	0.2673	µg/L	0.2673	ppb	04:03:14
1	Mo 202.031†	5.1	8.4	0.8441	µg/L	0.8441	ppb	04:03:14
1	Ni 231.604†	305.3	-1.8	-0.0898	µg/L	-0.0898	ppb	04:03:14
1	P 214.914†	20.8	4.6	9.1410	µg/L	9.1410	ppb	04:03:14
1	Pb 220.353†	87.9	-6.5	-1.5905	µg/L	-1.5905	ppb	04:03:14
1	S 181.975 Axial†	16.2	-1.0	-4.0930	µg/L	-4.0930	ppb	04:03:14
1	Sb 206.836†	24.9	2.9	2.6935	µg/L	2.6935	ppb	04:03:14
1	Se 196.026†	17.4	2.5	3.4033	µg/L	3.4033	ppb	04:03:14
1	SiO2†	1568.8	92.2	18.455	µg/L	18.455	ppb	04:02:54
1	Si 251.611†	409.7	118.2	9.1234	µg/L	9.1234	ppb	04:03:14
1	Sn 189.927†	3.5	-1.2	-0.5196	µg/L	-0.5196	ppb	04:03:14
1	Ti 334.940†	379.6	239.8	0.5432	µg/L	0.5432	ppb	04:02:54
1	Tl 190.801†	-25.6	-3.5	-4.7094	µg/L	-4.7094	ppb	04:03:14
1	U 409.014†	20.4	21.3	1.8073	µg/L	1.8073	ppb	04:02:54
1	V 292.402†	-72.1	23.5	0.2422	µg/L	0.2422	ppb	04:02:54
1	Zn 213.857†	523.4	24.1	0.5663	µg/L	0.5663	ppb	04:03:14
2	Sc RADIAL	57470.5	57470.5	97.3	%			04:01:51
2	Al 396.153Radial†	14.8	23.9	17.835	µg/L	17.835	ppb	04:01:51
2	Ca 317.933Radial†	197.9	10.3	9.4490	µg/L	9.4490	ppb	04:02:12
2	Fe 238.204 Radial†	17.2	2.3	19.681	µg/L	19.681	ppb	04:02:12
2	K 766.490 Radial†	177.8	-15.7	-10.824	µg/L	-10.824	ppb	04:01:51
2	Mg 279.077 IEC†	11.9	0.2	1.6851	µg/L	1.6851	ppb	04:02:12
2	Na 589.592 Radial†	453.0	-8.3	-2.7180	µg/L	-2.7180	ppb	04:01:51
2	Sr 421.552†	12.1	-28.9	-0.2843	µg/L	-0.2843	ppb	04:01:51
2	Sc 361.383	2076688.9	2076688.9	98.907	%			04:03:20
2	Y 371.029	1437032.1	1437032.1	98.732	%			04:03:20
2	Ag 328.068†	-445.3	13.0	0.0963	µg/L	0.0963	ppb	04:03:26
2	As 188.979†	-0.9	-0.6	-1.1369	µg/L	-1.1369	ppb	04:03:46
2	B 249.677†	358.1	36.6	1.4874	µg/L	1.4874	ppb	04:03:46
2	Ba 233.527†	-6.9	11.4	0.2787	µg/L	0.2787	ppb	04:03:46
2	Be 313.107†	-3636.5	82.2	0.0495	µg/L	0.0495	ppb	04:03:26
2	Cd 226.502†	-143.8	-8.8	-0.2251	µg/L	-0.2251	ppb	04:03:46
2	Co 228.616†	5.0	2.5	0.1131	µg/L	0.1131	ppb	04:03:46
2	Cr 267.716†	-45.0	1.9	0.0389	µg/L	0.0389	ppb	04:03:26
2	Cu 324.752†	2804.5	-34.2	-0.2241	µg/L	-0.2241	ppb	04:03:26
2	Mn 257.610†	-207.6	92.7	0.2975	µg/L	0.2975	ppb	04:03:46
2	Mo 202.031†	1.2	4.6	0.4571	µg/L	0.4571	ppb	04:03:46
2	Ni 231.604†	292.7	-12.7	-0.6422	µg/L	-0.6422	ppb	04:03:46
2	P 214.914†	19.0	3.0	5.9336	µg/L	5.9336	ppb	04:03:46
2	Pb 220.353†	85.0	-8.8	-2.1663	µg/L	-2.1663	ppb	04:03:46

2	S 181.975 Axial†	18.3	1.2	4.8871 µg/L	4.8871 ppb	04:03:46
2	Sb 206.836†	24.8	2.9	2.6738 µg/L	2.6738 ppb	04:03:46
2	Se 196.026†	14.2	-0.6	-0.8387 µg/L	-0.8387 ppb	04:03:46
2	SiO2†	1527.9	60.4	12.095 µg/L	12.095 ppb	04:03:26
2	Si 251.611†	422.9	134.1	10.349 µg/L	10.349 ppb	04:03:46
2	Sn 189.927†	-1.5	-6.2	-2.6583 µg/L	-2.6583 ppb	04:03:46
2	Ti 334.940†	355.5	217.8	0.4954 µg/L	0.4954 ppb	04:03:26
2	Tl 190.801†	-23.4	-1.4	-1.9341 µg/L	-1.9341 ppb	04:03:46
2	U 409.014†	-47.5	-47.3	-4.0174 µg/L	-4.0174 ppb	04:03:26
2	V 292.402†	-118.3	-23.6	-0.2312 µg/L	-0.2312 ppb	04:03:26
2	Zn 213.857†	519.4	23.2	0.5506 µg/L	0.5506 ppb	04:03:46
3	Sc RADIAL	56797.0	56797.0	96.2 %		04:02:17
3	Al 396.153Radial†	5.5	14.4	10.722 µg/L	10.722 ppb	04:02:17
3	Ca 317.933Radial†	187.7	2.2	1.9881 µg/L	1.9881 ppb	04:02:38
3	Fe 238.204 Radial†	16.3	1.5	13.221 µg/L	13.221 ppb	04:02:38
3	K 766.490 Radial†	214.2	24.2	16.672 µg/L	16.672 ppb	04:02:17
3	Mg 279.077 IEC†	10.4	-1.3	-12.504 µg/L	-12.504 ppb	04:02:38
3	Na 589.592 Radial†	462.5	7.1	2.3266 µg/L	2.3266 ppb	04:02:17
3	Sr 421.552†	35.6	-4.3	-0.0427 µg/L	-0.0427 ppb	04:02:17
3	Sc 361.383	2074832.4	2074832.4	98.819 %		04:03:52
3	Y 371.029	1434371.9	1434371.9	98.549 %		04:03:52
3	Ag 328.068†	-365.5	93.3	0.6979 µg/L	0.6979 ppb	04:03:58
3	As 188.979†	-5.3	-5.1	-9.2346 µg/L	-9.2346 ppb	04:04:19
3	B 249.677†	349.0	27.6	1.1238 µg/L	1.1238 ppb	04:04:19
3	Ba 233.527†	-9.8	8.4	0.2068 µg/L	0.2068 ppb	04:04:19
3	Be 313.107†	-3548.7	167.8	0.1011 µg/L	0.1011 ppb	04:03:58
3	Cd 226.502†	-144.8	-9.9	-0.2507 µg/L	-0.2507 ppb	04:04:19
3	Co 228.616†	2.0	-0.6	-0.0279 µg/L	-0.0279 ppb	04:04:19
3	Cr 267.716†	-50.7	-4.0	-0.0805 µg/L	-0.0805 ppb	04:03:58
3	Cu 324.752†	2862.7	27.2	0.1824 µg/L	0.1824 ppb	04:03:58
3	Mn 257.610†	-204.3	95.8	0.3072 µg/L	0.3072 ppb	04:04:19
3	Mo 202.031†	5.1	8.4	0.8454 µg/L	0.8454 ppb	04:04:19
3	Ni 231.604†	308.6	3.6	0.1825 µg/L	0.1825 ppb	04:04:19
3	P 214.914†	16.7	0.7	1.3578 µg/L	1.3578 ppb	04:04:19
3	Pb 220.353†	94.9	1.2	0.3068 µg/L	0.3068 ppb	04:04:19
3	S 181.975 Axial†	12.0	-5.2	-21.512 µg/L	-21.512 ppb	04:04:19
3	Sb 206.836†	19.3	-2.6	-2.3556 µg/L	-2.3556 ppb	04:04:19
3	Se 196.026†	19.2	4.4	6.0846 µg/L	6.0846 ppb	04:04:19
3	SiO2†	1583.3	117.9	23.601 µg/L	23.601 ppb	04:03:58
3	Si 251.611†	425.5	137.1	10.579 µg/L	10.579 ppb	04:04:19
3	Sn 189.927†	0.3	-4.4	-1.8947 µg/L	-1.8947 ppb	04:04:19
3	Ti 334.940†	379.1	242.0	0.5514 µg/L	0.5514 ppb	04:03:58
3	Tl 190.801†	-22.9	-0.9	-1.2027 µg/L	-1.2027 ppb	04:04:19
3	U 409.014†	-108.6	-109.1	-9.2614 µg/L	-9.2614 ppb	04:03:58
3	V 292.402†	-76.6	18.5	0.1812 µg/L	0.1812 ppb	04:03:58
3	Zn 213.857†	521.4	25.7	0.6063 µg/L	0.6063 ppb	04:04:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2080256.2	99.077	%	0.3735				0.38%
Sc RADIAL	57236.3	96.9	%	0.64				0.67%
Y 371.029	1438607.0	98.840	%	0.3576				0.36%
Ag 328.068†	49.4	0.3698	µg/L	0.30447	0.3698	ppb	0.30447	82.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.0	9.7341	µg/L	8.63711	9.7341	ppb	8.63711	88.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.3855	µg/L	4.27954	-4.3855	ppb	4.27954	97.58%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	33.5	1.3623	µg/L	0.20661	1.3623	ppb	0.20661	15.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.3	0.2767	µg/L	0.06884	0.2767	ppb	0.06884	24.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	122.3	0.0736	µg/L	0.02597	0.0736	ppb	0.02597	35.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.7	5.2347	µg/L	3.82345	5.2347	ppb	3.82345	73.04%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-7.4	-0.1866	µg/L	0.08976	-0.1866	ppb	0.08976	48.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.8	0.0388	µg/L	0.07080	0.0388	ppb	0.07080	182.35%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.2      0.0867 µg/L       0.19555      0.0867 ppb        0.19555 225.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                20.2      0.1356 µg/L       0.33876      0.1356 ppb        0.33876 249.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4      12.410 µg/L        7.7081      12.410 ppb         7.7081  62.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          13.7      9.3956 µg/L      17.73884      9.3956 ppb       17.73884 188.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.6      5.8733 µg/L      20.79015      5.8733 ppb       20.79015 353.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                90.9      0.2907 µg/L       0.02084      0.2907 ppb        0.02084   7.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.1      0.7155 µg/L       0.22382      0.7155 ppb        0.22382  31.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -7.0     -2.2884 µg/L       4.41591     -2.2884 ppb        4.41591 192.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.6     -0.1832 µg/L       0.42017     -0.1832 ppb        0.42017 229.40%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.8      5.4775 µg/L       3.91159      5.4775 ppb        3.91159  71.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.7     -1.1500 µg/L       1.29405     -1.1500 ppb        1.29405 112.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.7     -6.9061 µg/L      13.42273     -6.9061 ppb       13.42273 194.36%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.1      1.0039 µg/L       2.90946      1.0039 ppb        2.90946 289.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      2.8831 µg/L       3.49084      2.8831 ppb        3.49084 121.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      90.1      18.050 µg/L        5.7635      18.050 ppb         5.7635  31.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               129.8      10.017 µg/L        0.7824      10.017 ppb         0.7824   7.81%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.0     -1.6909 µg/L       1.08381     -1.6909 ppb        1.08381  64.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.9     -0.1269 µg/L       0.13648     -0.1269 ppb        0.13648 107.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               233.2      0.5300 µg/L       0.03026      0.5300 ppb        0.03026   5.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.0     -2.6154 µg/L       1.84993     -2.6154 ppb        1.84993  70.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -45.0     -3.8238 µg/L       5.53688     -3.8238 ppb        5.53688 144.80%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  6.2      0.0641 µg/L       0.25756      0.0641 ppb        0.25756 402.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.4      0.5744 µg/L       0.02872      0.5744 ppb        0.02872   5.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 94
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/21/2010 04:37:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57964.9	57964.9	98.2	%			04:37:58
1	Al 396.153Radial†	6913.1	7050.5	5260.1	µg/L	5260.1	ppb	04:37:58
1	Ca 317.933Radial†	5687.1	5600.0	5136.7	µg/L	5136.7	ppb	04:38:18
1	Fe 238.204 Radial†	614.5	610.5	5251.5	µg/L	5251.5	ppb	04:38:18
1	K 766.490 Radial†	7414.7	7354.3	5057.0	µg/L	5057.0	ppb	04:37:58
1	Mg 279.077 IEC†	548.6	546.7	5324.7	µg/L	5324.7	ppb	04:38:18
1	Na 589.592 Radial†	31704.4	31820.8	10403	µg/L	10403	ppb	04:37:58
1	Sr 421.552†	49681.0	50564.2	497.31	µg/L	497.31	ppb	04:37:58
1	Sc 361.383	2069155.9	2069155.9	98.548	%			04:39:22
1	Y 371.029	1425908.0	1425908.0	97.968	%			04:39:22
1	Ag 328.068†	65357.2	66783.0	501.84	µg/L	501.84	ppb	04:39:27
1	As 188.979†	280.3	284.7	511.46	µg/L	511.46	ppb	04:39:48
1	B 249.677†	12206.9	12061.2	491.49	µg/L	491.49	ppb	04:39:27
1	Ba 233.527†	20189.2	20504.9	503.39	µg/L	503.39	ppb	04:39:27
1	Be 313.107†	826325.3	842255.4	508.48	µg/L	508.48	ppb	04:39:22
1	Cd 226.502†	19572.7	19997.6	503.12	µg/L	503.12	ppb	04:39:27
1	Co 228.616†	10789.7	10946.0	506.25	µg/L	506.25	ppb	04:39:27
1	Cr 267.716†	24426.4	24833.6	506.77	µg/L	506.77	ppb	04:39:27
1	Cu 324.752†	77626.2	75899.9	504.21	µg/L	504.21	ppb	04:39:27
1	Mn 257.610†	158635.8	161275.0	513.85	µg/L	513.85	ppb	04:39:22
1	Mo 202.031†	5131.9	5210.8	522.30	µg/L	522.30	ppb	04:39:48
1	Ni 231.604†	10210.5	10052.3	507.50	µg/L	507.50	ppb	04:39:27
1	P 214.914†	1283.1	1285.8	2508.3	µg/L	2508.3	ppb	04:39:48
1	Pb 220.353†	2149.5	2086.4	513.57	µg/L	513.57	ppb	04:39:48
1	S 181.975 Axial†	261.1	247.7	1026.7	µg/L	1026.7	ppb	04:39:48
1	Sb 206.836†	574.2	560.5	514.08	µg/L	514.08	ppb	04:39:48
1	Se 196.026†	379.6	370.2	515.30	µg/L	515.30	ppb	04:39:48
1	SiO2†	28169.6	27100.1	5426.8	µg/L	5426.8	ppb	04:39:27
1	Si 251.611†	32706.2	32894.4	2538.9	µg/L	2538.9	ppb	04:39:27
1	Sn 189.927†	1208.2	1221.3	522.30	µg/L	522.30	ppb	04:39:48
1	Ti 334.940†	222251.4	225383.4	512.27	µg/L	512.27	ppb	04:39:22
1	Tl 190.801†	350.6	377.9	511.34	µg/L	511.34	ppb	04:39:48
1	U 409.014†	5939.7	6028.0	510.51	µg/L	510.51	ppb	04:39:27
1	V 292.402†	50117.0	50951.2	510.35	µg/L	510.35	ppb	04:39:27
1	Zn 213.857†	21719.0	21536.9	504.69	µg/L	504.69	ppb	04:39:27
2	Sc RADIAL	57814.6	57814.6	97.9	%			04:38:23
2	Al 396.153Radial†	6911.7	7067.3	5272.7	µg/L	5272.7	ppb	04:38:23
2	Ca 317.933Radial†	5643.7	5570.7	5109.8	µg/L	5109.8	ppb	04:38:44
2	Fe 238.204 Radial†	607.3	604.9	5203.2	µg/L	5203.2	ppb	04:38:44
2	K 766.490 Radial†	7463.7	7424.0	5104.9	µg/L	5104.9	ppb	04:38:23
2	Mg 279.077 IEC†	547.3	546.8	5325.6	µg/L	5325.6	ppb	04:38:44
2	Na 589.592 Radial†	31789.2	31991.3	10459	µg/L	10459	ppb	04:38:23
2	Sr 421.552†	49729.4	50745.1	499.09	µg/L	499.09	ppb	04:38:23
2	Sc 361.383	2054866.1	2054866.1	97.868	%			04:39:55
2	Y 371.029	1416211.9	1416211.9	97.302	%			04:39:55
2	Ag 328.068†	65765.1	67661.0	508.44	µg/L	508.44	ppb	04:40:00
2	As 188.979†	284.8	291.3	523.29	µg/L	523.29	ppb	04:40:21
2	B 249.677†	12331.8	12275.0	500.28	µg/L	500.28	ppb	04:40:00
2	Ba 233.527†	20384.3	20846.7	511.79	µg/L	511.79	ppb	04:40:00
2	Be 313.107†	820134.1	841760.3	508.18	µg/L	508.18	ppb	04:39:55
2	Cd 226.502†	19703.9	20269.7	509.98	µg/L	509.98	ppb	04:40:00
2	Co 228.616†	10913.3	11148.5	515.62	µg/L	515.62	ppb	04:40:00
2	Cr 267.716†	24753.9	25340.6	517.12	µg/L	517.12	ppb	04:40:00
2	Cu 324.752†	78171.4	77004.7	511.53	µg/L	511.53	ppb	04:40:00
2	Mn 257.610†	157417.9	161150.0	513.44	µg/L	513.44	ppb	04:39:55
2	Mo 202.031†	5099.5	5213.9	522.61	µg/L	522.61	ppb	04:40:21
2	Ni 231.604†	10303.9	10219.8	515.95	µg/L	515.95	ppb	04:40:00
2	P 214.914†	1287.9	1299.7	2535.3	µg/L	2535.3	ppb	04:40:21
2	Pb 220.353†	2146.9	2098.9	516.64	µg/L	516.64	ppb	04:40:21

2	S 181.975 Axial†	263.5	251.9	1044.3 µg/L	1044.3 ppb	04:40:21
2	Sb 206.836†	562.9	553.1	507.20 µg/L	507.20 ppb	04:40:21
2	Se 196.026†	377.4	370.7	515.82 µg/L	515.82 ppb	04:40:21
2	SiO2†	28431.4	27566.4	5520.2 µg/L	5520.2 ppb	04:40:00
2	Si 251.611†	33078.6	33505.8	2586.1 µg/L	2586.1 ppb	04:40:00
2	Sn 189.927†	1202.5	1224.0	523.45 µg/L	523.45 ppb	04:40:21
2	Ti 334.940†	220660.0	225325.6	512.14 µg/L	512.14 ppb	04:39:55
2	Tl 190.801†	355.5	385.5	521.43 µg/L	521.43 ppb	04:40:21
2	U 409.014†	5987.7	6118.9	518.23 µg/L	518.23 ppb	04:40:00
2	V 292.402†	50621.8	51820.7	518.98 µg/L	518.98 ppb	04:40:00
2	Zn 213.857†	21911.5	21886.9	512.90 µg/L	512.90 ppb	04:40:00
3	Sc RADIAL	57362.1	57362.1	97.2 %		04:38:49
3	Al 396.153Radial†	6856.4	7066.1	5273.6 µg/L	5273.6 ppb	04:38:49
3	Ca 317.933Radial†	5638.3	5610.6	5146.4 µg/L	5146.4 ppb	04:39:10
3	Fe 238.204 Radial†	606.5	608.9	5236.9 µg/L	5236.9 ppb	04:39:10
3	K 766.490 Radial†	7344.3	7361.2	5061.7 µg/L	5061.7 ppb	04:38:49
3	Mg 279.077 IEC†	542.4	546.2	5318.2 µg/L	5318.2 ppb	04:39:10
3	Na 589.592 Radial†	31621.8	32075.1	10486 µg/L	10486 ppb	04:38:49
3	Sr 421.552†	49451.5	50859.8	500.22 µg/L	500.22 ppb	04:38:49
3	Sc 361.383	2057021.9	2057021.9	97.971 %		04:40:28
3	Y 371.029	1418757.6	1418757.6	97.477 %		04:40:28
3	Ag 328.068†	62793.8	64557.7	484.98 µg/L	484.98 ppb	04:40:34
3	As 188.979†	241.5	246.8	443.44 µg/L	443.44 ppb	04:40:54
3	B 249.677†	11721.9	11639.2	474.16 µg/L	474.16 ppb	04:40:34
3	Ba 233.527†	18891.4	19301.1	473.82 µg/L	473.82 ppb	04:40:34
3	Be 313.107†	776167.5	796004.7	480.56 µg/L	480.56 ppb	04:40:28
3	Cd 226.502†	18199.0	18712.6	470.75 µg/L	470.75 ppb	04:40:34
3	Co 228.616†	10016.1	10221.0	472.67 µg/L	472.67 ppb	04:40:34
3	Cr 267.716†	22039.0	22543.0	460.03 µg/L	460.03 ppb	04:40:34
3	Cu 324.752†	71851.0	70469.7	468.19 µg/L	468.19 ppb	04:40:34
3	Mn 257.610†	149112.3	152503.8	485.93 µg/L	485.93 ppb	04:40:28
3	Mo 202.031†	4266.6	4358.3	436.89 µg/L	436.89 ppb	04:40:54
3	Ni 231.604†	9453.2	9340.4	471.56 µg/L	471.56 ppb	04:40:34
3	P 214.914†	1097.5	1104.0	2149.3 µg/L	2149.3 ppb	04:40:54
3	Pb 220.353†	1877.4	1821.5	448.26 µg/L	448.26 ppb	04:40:54
3	S 181.975 Axial†	229.7	217.2	900.37 µg/L	900.37 ppb	04:40:54
3	Sb 206.836†	490.3	478.3	438.20 µg/L	438.20 ppb	04:40:54
3	Se 196.026†	329.7	321.6	448.64 µg/L	448.64 ppb	04:40:54
3	SiO2†	26745.6	25815.3	5169.5 µg/L	5169.5 ppb	04:40:34
3	Si 251.611†	31019.8	31368.9	2421.2 µg/L	2421.2 ppb	04:40:34
3	Sn 189.927†	998.1	1014.0	433.68 µg/L	433.68 ppb	04:40:54
3	Ti 334.940†	207732.3	211893.8	481.59 µg/L	481.59 ppb	04:40:28
3	Tl 190.801†	316.4	345.2	467.20 µg/L	467.20 ppb	04:40:54
3	U 409.014†	5319.5	5430.5	459.81 µg/L	459.81 ppb	04:40:34
3	V 292.402†	46017.1	47066.3	471.10 µg/L	471.10 ppb	04:40:34
3	Zn 213.857†	20132.5	20047.6	469.75 µg/L	469.75 ppb	04:40:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2060348.0	98.129	%	0.3669				0.37%
Sc RADIAL	57713.9	97.7	%	0.53				0.54%
Y 371.029	1420292.5	97.582	%	0.3454				0.35%
Ag 328.068†	66333.9	498.42	µg/L	12.096	498.42	ppb	12.096	2.43%
QC value within limits for Ag 328.068 Recovery = 99.68%								
Al 396.153Radial†	7061.3	5268.8	µg/L	7.53	5268.8	ppb	7.53	0.14%
QC value within limits for Al 396.153Radial Recovery = 105.38%								
As 188.979†	274.3	492.73	µg/L	43.091	492.73	ppb	43.091	8.75%
QC value within limits for As 188.979 Recovery = 98.55%								
B 249.677†	11991.8	488.64	µg/L	13.290	488.64	ppb	13.290	2.72%
QC value within limits for B 249.677 Recovery = 97.73%								
Ba 233.527†	20217.6	496.33	µg/L	19.941	496.33	ppb	19.941	4.02%
QC value within limits for Ba 233.527 Recovery = 99.27%								
Be 313.107†	826673.4	499.07	µg/L	16.035	499.07	ppb	16.035	3.21%
QC value within limits for Be 313.107 Recovery = 99.81%								
Ca 317.933Radial†	5593.8	5130.9	µg/L	18.99	5130.9	ppb	18.99	0.37%
QC value within limits for Ca 317.933Radial Recovery = 102.62%								
Cd 226.502†	19660.0	494.61	µg/L	20.951	494.61	ppb	20.951	4.24%
QC value within limits for Cd 226.502 Recovery = 98.92%								
Co 228.616†	10771.8	498.18	µg/L	22.588	498.18	ppb	22.588	4.53%

```
   QC value within limits for Co 228.616  Recovery = 99.64%
Cr 267.716†            24239.1      494.64 µg/L        30.414      494.64 ppb         30.414   6.15%
   QC value within limits for Cr 267.716  Recovery = 98.93%
Cu 324.752†            74458.1      494.64 µg/L        23.202      494.64 ppb         23.202   4.69%
   QC value within limits for Cu 324.752  Recovery = 98.93%
Fe 238.204 Radial†       608.1      5230.5 µg/L         24.79      5230.5 ppb          24.79   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.61%
K 766.490 Radial†       7379.9      5074.5 µg/L         26.39      5074.5 ppb          26.39   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 101.49%
Mg 279.077 IEC†          546.6      5322.8 µg/L          4.03      5322.8 ppb           4.03   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.46%
Mn 257.610†           158309.6      504.41 µg/L        16.005      504.41 ppb         16.005   3.17%
   QC value within limits for Mn 257.610  Recovery = 100.88%
Mo 202.031†             4927.7      493.93 µg/L        49.404      493.93 ppb         49.404  10.00%
   QC value within limits for Mo 202.031  Recovery = 98.79%
Na 589.592 Radial†     31962.4       10449 µg/L          42.4       10449 ppb           42.4   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 104.49%
Ni 231.604†             9870.8      498.34 µg/L        23.572      498.34 ppb         23.572   4.73%
   QC value within limits for Ni 231.604  Recovery = 99.67%
P 214.914†              1229.8      2397.6 µg/L        215.46      2397.6 ppb         215.46   8.99%
   QC value within limits for P 214.914  Recovery = 95.91%
Pb 220.353†             2002.3      492.82 µg/L        38.621      492.82 ppb         38.621   7.84%
   QC value within limits for Pb 220.353  Recovery = 98.56%
S 181.975 Axial†         238.9      990.46 µg/L        78.518      990.46 ppb         78.518   7.93%
   QC value within limits for S 181.975 Axial  Recovery = 99.05%
Sb 206.836†              530.6      486.49 µg/L        41.964      486.49 ppb         41.964   8.63%
   QC value within limits for Sb 206.836  Recovery = 97.30%
Se 196.026†              354.1      493.25 µg/L        38.637      493.25 ppb         38.637   7.83%
   QC value within limits for Se 196.026  Recovery = 98.65%
SiO2†                   26827.3      5372.2 µg/L        181.61      5372.2 ppb         181.61   3.38%
   QC value within limits for SiO2  Recovery = 100.46%
Si 251.611†             32589.7      2515.4 µg/L         84.95      2515.4 ppb          84.95   3.38%
   QC value within limits for Si 251.611  Recovery = 100.62%
Sn 189.927†             1153.1      493.15 µg/L        51.500      493.15 ppb         51.500  10.44%
   QC value within limits for Sn 189.927  Recovery = 98.63%
Sr 421.552†            50723.1      498.87 µg/L         1.466      498.87 ppb          1.466   0.29%
   QC value within limits for Sr 421.552  Recovery = 99.77%
Ti 334.940†           220867.6      502.00 µg/L        17.675      502.00 ppb         17.675   3.52%
   QC value within limits for Ti 334.940  Recovery = 100.40%
Tl 190.801†              369.5      499.99 µg/L        28.843      499.99 ppb         28.843   5.77%
   QC value within limits for Tl 190.801  Recovery = 100.00%
U 409.014†              5859.1      496.18 µg/L        31.738      496.18 ppb         31.738   6.40%
   QC value within limits for U 409.014  Recovery = 99.24%
V 292.402†             49946.1      500.15 µg/L        25.519      500.15 ppb         25.519   5.10%
   QC value within limits for V 292.402  Recovery = 100.03%
Zn 213.857†            21157.2      495.78 µg/L        22.910      495.78 ppb         22.910   4.62%
   QC value within limits for Zn 213.857  Recovery = 99.16%
All analyte(s) passed QC.
```

Sequence No.: 95
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/21/2010 04:41:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56543.1	56543.1	95.8	%			04:41:39
1	Al 396.153Radial†	16.4	25.9	19.323	µg/L	19.323	ppb	04:41:39
1	Ca 317.933Radial†	191.1	6.5	5.9961	µg/L	5.9961	ppb	04:42:00
1	Fe 238.204 Radial†	15.9	1.2	10.459	µg/L	10.459	ppb	04:42:00
1	K 766.490 Radial†	206.5	17.2	11.838	µg/L	11.838	ppb	04:41:39
1	Mg 279.077 IEC†	9.9	-1.7	-17.011	µg/L	-17.011	ppb	04:42:00
1	Na 589.592 Radial†	429.1	-25.6	-8.3809	µg/L	-8.3809	ppb	04:41:39
1	Sr 421.552†	49.3	10.1	0.0994	µg/L	0.0994	ppb	04:41:39
1	Sc 361.383	2062096.5	2062096.5	98.212	%			04:43:02
1	Y 371.029	1426184.8	1426184.8	97.987	%			04:43:02
1	Ag 328.068†	-446.8	8.2	0.0637	µg/L	0.0637	ppb	04:43:08
1	As 188.979†	-3.5	-3.3	-5.9658	µg/L	-5.9658	ppb	04:43:28
1	B 249.677†	365.3	46.5	1.8963	µg/L	1.8963	ppb	04:43:28
1	Ba 233.527†	-8.8	9.4	0.2299	µg/L	0.2299	ppb	04:43:28
1	Be 313.107†	-3676.7	15.3	0.0092	µg/L	0.0092	ppb	04:43:08
1	Cd 226.502†	-137.4	-3.3	-0.0843	µg/L	-0.0843	ppb	04:43:28
1	Co 228.616†	12.3	10.0	0.4608	µg/L	0.4608	ppb	04:43:28
1	Cr 267.716†	-36.4	10.3	0.2112	µg/L	0.2112	ppb	04:43:08
1	Cu 324.752†	2873.8	56.3	0.3752	µg/L	0.3752	ppb	04:43:08
1	Mn 257.610†	-253.7	44.3	0.1431	µg/L	0.1431	ppb	04:43:28
1	Mo 202.031†	0.4	3.8	0.3785	µg/L	0.3785	ppb	04:43:28
1	Ni 231.604†	313.7	10.8	0.5454	µg/L	0.5454	ppb	04:43:28
1	P 214.914†	15.3	-0.7	-1.3834	µg/L	-1.3834	ppb	04:43:28
1	Pb 220.353†	88.9	-4.3	-1.0521	µg/L	-1.0521	ppb	04:43:28
1	S 181.975 Axial†	17.6	0.6	2.3928	µg/L	2.3928	ppb	04:43:28
1	Sb 206.836†	21.9	0.2	0.2120	µg/L	0.2120	ppb	04:43:28
1	Se 196.026†	12.2	-2.6	-3.4707	µg/L	-3.4707	ppb	04:43:28
1	SiO2†	1520.6	63.9	12.797	µg/L	12.797	ppb	04:43:08
1	Si 251.611†	411.2	125.1	9.6575	µg/L	9.6575	ppb	04:43:28
1	Sn 189.927†	4.7	0.1	0.0465	µg/L	0.0465	ppb	04:43:28
1	Ti 334.940†	201.2	63.2	0.1451	µg/L	0.1451	ppb	04:43:08
1	Tl 190.801†	-20.2	1.7	2.2429	µg/L	2.2429	ppb	04:43:28
1	U 409.014†	-0.4	0.4	0.0310	µg/L	0.0310	ppb	04:43:08
1	V 292.402†	-69.7	25.0	0.2519	µg/L	0.2519	ppb	04:43:08
1	Zn 213.857†	525.3	32.9	0.7748	µg/L	0.7748	ppb	04:43:28
2	Sc RADIAL	56472.5	56472.5	95.6	%			04:42:05
2	Al 396.153Radial†	-17.1	-9.2	-6.8488	µg/L	-6.8488	ppb	04:42:05
2	Ca 317.933Radial†	181.4	-3.3	-2.9956	µg/L	-2.9956	ppb	04:42:26
2	Fe 238.204 Radial†	16.5	1.9	16.256	µg/L	16.256	ppb	04:42:26
2	K 766.490 Radial†	152.6	-38.8	-26.684	µg/L	-26.684	ppb	04:42:05
2	Mg 279.077 IEC†	13.1	1.6	15.303	µg/L	15.303	ppb	04:42:26
2	Na 589.592 Radial†	410.4	-44.6	-14.578	µg/L	-14.578	ppb	04:42:05
2	Sr 421.552†	48.0	8.8	0.0868	µg/L	0.0868	ppb	04:42:05
2	Sc 361.383	2042281.2	2042281.2	97.268	%			04:43:34
2	Y 371.029	1412201.8	1412201.8	97.026	%			04:43:34
2	Ag 328.068†	-387.2	65.1	0.4881	µg/L	0.4881	ppb	04:43:40
2	As 188.979†	-0.0	0.3	0.5058	µg/L	0.5058	ppb	04:44:00
2	B 249.677†	367.4	52.2	2.1271	µg/L	2.1271	ppb	04:44:00
2	Ba 233.527†	-11.9	6.1	0.1492	µg/L	0.1492	ppb	04:44:00
2	Be 313.107†	-3710.0	-55.3	-0.0335	µg/L	-0.0335	ppb	04:43:40
2	Cd 226.502†	-147.1	-14.7	-0.3700	µg/L	-0.3700	ppb	04:44:00
2	Co 228.616†	0.9	-1.7	-0.0768	µg/L	-0.0768	ppb	04:44:00
2	Cr 267.716†	-57.8	-12.1	-0.2461	µg/L	-0.2461	ppb	04:43:40
2	Cu 324.752†	2864.0	74.7	0.4976	µg/L	0.4976	ppb	04:43:40
2	Mn 257.610†	-248.4	47.2	0.1517	µg/L	0.1517	ppb	04:44:00
2	Mo 202.031†	-0.6	2.7	0.2695	µg/L	0.2695	ppb	04:44:00
2	Ni 231.604†	310.3	10.3	0.5233	µg/L	0.5233	ppb	04:44:00
2	P 214.914†	14.8	-1.0	-2.1192	µg/L	-2.1192	ppb	04:44:00
2	Pb 220.353†	80.0	-12.5	-3.0809	µg/L	-3.0809	ppb	04:44:00

2	S 181.975 Axial†	15.8	-1.1	-4.4797 µg/L	-4.4797 ppb	04:44:00
2	Sb 206.836†	33.5	12.3	11.234 µg/L	11.234 ppb	04:44:00
2	Se 196.026†	18.1	3.6	4.9333 µg/L	4.9333 ppb	04:44:00
2	SiO2†	1533.7	92.3	18.488 µg/L	18.488 ppb	04:43:40
2	Si 251.611†	440.4	159.2	12.290 µg/L	12.290 ppb	04:44:00
2	Sn 189.927†	-0.2	-4.9	-2.0967 µg/L	-2.0967 ppb	04:44:00
2	Ti 334.940†	207.3	71.4	0.1612 µg/L	0.1612 ppb	04:43:40
2	Tl 190.801†	-26.3	-4.8	-6.3839 µg/L	-6.3839 ppb	04:44:00
2	U 409.014†	-83.7	-85.3	-7.2418 µg/L	-7.2418 ppb	04:43:40
2	V 292.402†	-68.9	25.2	0.2451 µg/L	0.2451 ppb	04:43:40
2	Zn 213.857†	519.9	32.5	0.7629 µg/L	0.7629 ppb	04:44:00
3	Sc RADIAL	56862.9	56862.9	96.3 %		04:42:31
3	Al 396.153Radial†	-8.1	0.3	0.2104 µg/L	0.2104 ppb	04:42:31
3	Ca 317.933Radial†	190.4	4.7	4.3022 µg/L	4.3022 ppb	04:42:52
3	Fe 238.204 Radial†	14.9	0.0	0.3978 µg/L	0.3978 ppb	04:42:52
3	K 766.490 Radial†	214.1	23.9	16.449 µg/L	16.449 ppb	04:42:31
3	Mg 279.077 IEC†	13.2	1.6	15.396 µg/L	15.396 ppb	04:42:52
3	Na 589.592 Radial†	391.0	-67.7	-22.148 µg/L	-22.148 ppb	04:42:31
3	Sr 421.552†	44.8	5.1	0.0503 µg/L	0.0503 ppb	04:42:31
3	Sc 361.383	2056881.8	2056881.8	97.964 %		04:44:06
3	Y 371.029	1422943.5	1422943.5	97.764 %		04:44:06
3	Ag 328.068†	-440.1	13.9	0.1045 µg/L	0.1045 ppb	04:44:12
3	As 188.979†	-0.3	-0.0	-0.0738 µg/L	-0.0738 ppb	04:44:32
3	B 249.677†	361.1	43.1	1.7614 µg/L	1.7614 ppb	04:44:32
3	Ba 233.527†	-11.3	6.8	0.1674 µg/L	0.1674 ppb	04:44:32
3	Be 313.107†	-3729.3	-47.9	-0.0291 µg/L	-0.0291 ppb	04:44:12
3	Cd 226.502†	-140.3	-6.6	-0.1664 µg/L	-0.1664 ppb	04:44:32
3	Co 228.616†	1.4	-1.1	-0.0530 µg/L	-0.0530 ppb	04:44:32
3	Cr 267.716†	-64.2	-18.2	-0.3701 µg/L	-0.3701 ppb	04:44:12
3	Cu 324.752†	2921.0	112.0	0.7432 µg/L	0.7432 ppb	04:44:12
3	Mn 257.610†	-242.6	54.9	0.1742 µg/L	0.1742 ppb	04:44:32
3	Mo 202.031†	-2.0	1.3	0.1319 µg/L	0.1319 ppb	04:44:32
3	Ni 231.604†	306.1	3.9	0.1949 µg/L	0.1949 ppb	04:44:32
3	P 214.914†	14.7	-1.2	-2.5049 µg/L	-2.5049 ppb	04:44:32
3	Pb 220.353†	92.8	-0.1	-0.0199 µg/L	-0.0199 ppb	04:44:32
3	S 181.975 Axial†	18.9	2.0	8.1060 µg/L	8.1060 ppb	04:44:32
3	Sb 206.836†	22.2	0.5	0.4763 µg/L	0.4763 ppb	04:44:32
3	Se 196.026†	9.2	-5.6	-7.6504 µg/L	-7.6504 ppb	04:44:32
3	SiO2†	1589.1	137.7	27.576 µg/L	27.576 ppb	04:44:12
3	Si 251.611†	444.8	160.5	12.391 µg/L	12.391 ppb	04:44:32
3	Sn 189.927†	-1.6	-6.3	-2.7023 µg/L	-2.7023 ppb	04:44:32
3	Ti 334.940†	267.4	131.3	0.2974 µg/L	0.2974 ppb	04:44:12
3	Tl 190.801†	-27.4	-5.7	-7.6763 µg/L	-7.6763 ppb	04:44:32
3	U 409.014†	-4.5	-3.8	-0.3223 µg/L	-0.3223 ppb	04:44:12
3	V 292.402†	-79.4	15.0	0.1483 µg/L	0.1483 ppb	04:44:12
3	Zn 213.857†	521.2	30.1	0.7084 µg/L	0.7084 ppb	04:44:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2053753.1	97.815	%	0.4892				0.50%
Sc RADIAL	56626.2	95.9	%	0.35				0.37%
Y 371.029	1420443.4	97.592	%	0.5029				0.52%
Ag 328.068†	29.1	0.2188	µg/L	0.23416	0.2188	ppb	0.23416	107.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.7	4.2282	µg/L	13.54068	4.2282	ppb	13.54068	320.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.8446	µg/L	3.58081	-1.8446	ppb	3.58081	194.13%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	47.3	1.9283	µg/L	0.18494	1.9283	ppb	0.18494	9.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.1822	µg/L	0.04230	0.1822	ppb	0.04230	23.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-29.3	-0.0178	µg/L	0.02345	-0.0178	ppb	0.02345	131.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.7	2.4342	µg/L	4.77804	2.4342	ppb	4.77804	196.29%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-8.2	-0.2069	µg/L	0.14710	-0.2069	ppb	0.14710	71.10%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.4	0.1103	µg/L	0.30374	0.1103	ppb	0.30374	275.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.6     -0.1350 µg/L       0.30617     -0.1350 ppb        0.30617 226.76%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                81.0      0.5387 µg/L       0.18741      0.5387 ppb        0.18741  34.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1      9.0375 µg/L       8.02395      9.0375 ppb        8.02395  88.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           0.8      0.5343 µg/L      23.68411      0.5343 ppb       23.68411 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      4.5626 µg/L      18.68331      4.5626 ppb       18.68331 409.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.8      0.1563 µg/L       0.01607      0.1563 ppb        0.01607  10.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.6      0.2599 µg/L       0.12360      0.2599 ppb        0.12360  47.55%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -46.0     -15.036 µg/L        6.8948     -15.036 ppb         6.8948  45.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.3      0.4212 µg/L       0.19631      0.4212 ppb        0.19631  46.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.0     -2.0025 µg/L       0.56978     -2.0025 ppb        0.56978  28.45%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.6     -1.3843 µg/L       1.55731     -1.3843 ppb        1.55731 112.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.5      2.0064 µg/L       6.30177      2.0064 ppb        6.30177 314.09%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.3      3.9741 µg/L       6.28860      3.9741 ppb        6.28860 158.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.5     -2.0626 µg/L       6.40889     -2.0626 ppb        6.40889 310.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      98.0      19.620 µg/L        7.4543      19.620 ppb         7.4543  37.99%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               148.3      11.446 µg/L        1.5496      11.446 ppb         1.5496  13.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.7     -1.5841 µg/L       1.44430     -1.5841 ppb        1.44430  91.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.0      0.0788 µg/L       0.02553      0.0788 ppb        0.02553  32.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                88.6      0.2012 µg/L       0.08369      0.2012 ppb        0.08369  41.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.9     -3.9391 µg/L       5.39263     -3.9391 ppb        5.39263 136.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -29.6     -2.5110 µg/L       4.10075     -2.5110 ppb        4.10075 163.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 21.7      0.2151 µg/L       0.05796      0.2151 ppb        0.05796  26.94%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.9      0.7487 µg/L       0.03540      0.7487 ppb        0.03540   4.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 104
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/21/2010 05:13:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57715.1	57715.1	97.7	%			05:14:33
1	Al 396.153Radial†	6823.7	6989.5	5214.5	µg/L	5214.5	ppb	05:14:33
1	Ca 317.933Radial†	5675.7	5613.4	5149.0	µg/L	5149.0	ppb	05:14:54
1	Fe 238.204 Radial†	615.4	614.2	5283.5	µg/L	5283.5	ppb	05:14:54
1	K 766.490 Radial†	7342.0	7312.6	5028.3	µg/L	5028.3	ppb	05:14:33
1	Mg 279.077 IEC†	550.2	550.8	5364.3	µg/L	5364.3	ppb	05:14:54
1	Na 589.592 Radial†	31323.7	31571.0	10321	µg/L	10321	ppb	05:14:33
1	Sr 421.552†	48997.6	50084.1	492.59	µg/L	492.59	ppb	05:14:33
1	Sc 361.383	2076836.9	2076836.9	98.914	%			05:15:57
1	Y 371.029	1433327.7	1433327.7	98.478	%			05:15:57
1	Ag 328.068†	65704.5	66888.9	502.63	µg/L	502.63	ppb	05:16:03
1	As 188.979†	285.2	288.6	518.58	µg/L	518.58	ppb	05:16:23
1	B 249.677†	12264.9	12074.0	492.00	µg/L	492.00	ppb	05:16:03
1	Ba 233.527†	20332.2	20573.7	505.08	µg/L	505.08	ppb	05:16:03
1	Be 313.107†	827186.2	840024.6	507.13	µg/L	507.13	ppb	05:15:57
1	Cd 226.502†	19698.9	20051.7	504.47	µg/L	504.47	ppb	05:16:03
1	Co 228.616†	10865.7	10982.4	507.94	µg/L	507.94	ppb	05:16:03
1	Cr 267.716†	24672.4	24990.6	509.98	µg/L	509.98	ppb	05:16:03
1	Cu 324.752†	77904.6	75890.0	504.15	µg/L	504.15	ppb	05:16:03
1	Mn 257.610†	158845.8	160891.9	512.63	µg/L	512.63	ppb	05:15:57
1	Mo 202.031†	5164.6	5224.6	523.68	µg/L	523.68	ppb	05:16:23
1	Ni 231.604†	10256.2	10060.1	507.89	µg/L	507.89	ppb	05:16:03
1	P 214.914†	1303.5	1301.6	2539.7	µg/L	2539.7	ppb	05:16:23
1	Pb 220.353†	2162.5	2091.4	514.82	µg/L	514.82	ppb	05:16:23
1	S 181.975 Axial†	270.3	255.9	1060.9	µg/L	1060.9	ppb	05:16:23
1	Sb 206.836†	571.6	555.8	509.75	µg/L	509.75	ppb	05:16:23
1	Se 196.026†	385.1	374.3	521.01	µg/L	521.01	ppb	05:16:23
1	SiO2†	28196.8	27021.9	5411.2	µg/L	5411.2	ppb	05:16:03
1	Si 251.611†	32774.2	32840.4	2534.7	µg/L	2534.7	ppb	05:16:03
1	Sn 189.927†	1220.4	1229.0	525.62	µg/L	525.62	ppb	05:16:23
1	Ti 334.940†	221535.0	223825.0	508.72	µg/L	508.72	ppb	05:15:57
1	Tl 190.801†	360.0	386.2	522.28	µg/L	522.28	ppb	05:16:23
1	U 409.014†	5944.5	6010.5	509.03	µg/L	509.03	ppb	05:16:03
1	V 292.402†	50425.3	51074.8	511.59	µg/L	511.59	ppb	05:16:03
1	Zn 213.857†	21846.8	21584.7	505.81	µg/L	505.81	ppb	05:16:03
2	Sc RADIAL	57887.0	57887.0	98.0	%			05:14:59
2	Al 396.153Radial†	6870.6	7016.6	5235.0	µg/L	5235.0	ppb	05:14:59
2	Ca 317.933Radial†	5706.7	5627.7	5162.1	µg/L	5162.1	ppb	05:15:20
2	Fe 238.204 Radial†	612.9	609.8	5245.3	µg/L	5245.3	ppb	05:15:20
2	K 766.490 Radial†	7424.5	7374.5	5070.8	µg/L	5070.8	ppb	05:14:59
2	Mg 279.077 IEC†	548.2	547.1	5328.0	µg/L	5328.0	ppb	05:15:20
2	Na 589.592 Radial†	31777.8	31939.1	10442	µg/L	10442	ppb	05:14:59
2	Sr 421.552†	49774.8	50728.1	498.92	µg/L	498.92	ppb	05:14:59
2	Sc 361.383	2088394.2	2088394.2	99.465	%			05:16:30
2	Y 371.029	1440290.3	1440290.3	98.956	%			05:16:30
2	Ag 328.068†	66184.1	67003.4	503.50	µg/L	503.50	ppb	05:16:36
2	As 188.979†	281.3	283.1	508.69	µg/L	508.69	ppb	05:16:57
2	B 249.677†	12377.6	12118.7	493.85	µg/L	493.85	ppb	05:16:36
2	Ba 233.527†	20532.5	20661.3	507.23	µg/L	507.23	ppb	05:16:36
2	Be 313.107†	831332.2	839565.0	506.85	µg/L	506.85	ppb	05:16:30
2	Cd 226.502†	19908.3	20152.0	507.00	µg/L	507.00	ppb	05:16:36
2	Co 228.616†	10980.5	11037.1	510.47	µg/L	510.47	ppb	05:16:36
2	Cr 267.716†	24859.8	25041.0	511.00	µg/L	511.00	ppb	05:16:36
2	Cu 324.752†	78479.0	76031.6	505.08	µg/L	505.08	ppb	05:16:36
2	Mn 257.610†	159744.3	160906.5	512.67	µg/L	512.67	ppb	05:16:30
2	Mo 202.031†	5106.6	5137.4	514.95	µg/L	514.95	ppb	05:16:57
2	Ni 231.604†	10327.7	10074.7	508.63	µg/L	508.63	ppb	05:16:36
2	P 214.914†	1292.3	1283.1	2502.7	µg/L	2502.7	ppb	05:16:57
2	Pb 220.353†	2158.6	2075.5	510.87	µg/L	510.87	ppb	05:16:57

2	S 181.975 Axial†	261.0	245.1	1016.2 µg/L	1016.2 ppb	05:16:57
2	Sb 206.836†	569.3	550.2	504.55 µg/L	504.55 ppb	05:16:57
2	Se 196.026†	376.6	363.6	506.26 µg/L	506.26 ppb	05:16:57
2	SiO2†	28510.0	27179.0	5442.6 µg/L	5442.6 ppb	05:16:36
2	Si 251.611†	33140.3	33025.1	2549.0 µg/L	2549.0 ppb	05:16:36
2	Sn 189.927†	1200.6	1202.4	514.22 µg/L	514.22 ppb	05:16:57
2	Ti 334.940†	222690.1	223746.9	508.55 µg/L	508.55 ppb	05:16:30
2	Tl 190.801†	349.7	373.9	505.80 µg/L	505.80 ppb	05:16:57
2	U 409.014†	5927.3	5959.9	504.74 µg/L	504.74 ppb	05:16:36
2	V 292.402†	50860.6	51230.3	513.06 µg/L	513.06 ppb	05:16:36
2	Zn 213.857†	22041.2	21657.9	507.53 µg/L	507.53 ppb	05:16:36
3	Sc RADIAL	57725.8	57725.8	97.8 %		05:15:25
3	Al 396.153Radial†	6858.8	7024.1	5242.3 µg/L	5242.3 ppb	05:15:25
3	Ca 317.933Radial†	5683.1	5619.8	5154.9 µg/L	5154.9 ppb	05:15:45
3	Fe 238.204 Radial†	612.2	610.8	5252.8 µg/L	5252.8 ppb	05:15:45
3	K 766.490 Radial†	7424.5	7395.6	5085.4 µg/L	5085.4 ppb	05:15:25
3	Mg 279.077 IEC†	549.0	549.4	5349.4 µg/L	5349.4 ppb	05:15:45
3	Na 589.592 Radial†	31771.3	32022.9	10469 µg/L	10469 ppb	05:15:25
3	Sr 421.552†	49771.8	50866.8	500.29 µg/L	500.29 ppb	05:15:25
3	Sc 361.383	2093359.2	2093359.2	99.701 %		05:17:04
3	Y 371.029	1444139.0	1444139.0	99.220 %		05:17:04
3	Ag 328.068†	62461.5	63111.8	474.12 µg/L	474.12 ppb	05:17:09
3	As 188.979†	244.7	245.8	441.56 µg/L	441.56 ppb	05:17:30
3	B 249.677†	11651.7	11361.1	462.75 µg/L	462.75 ppb	05:17:09
3	Ba 233.527†	18747.0	18821.5	462.05 µg/L	462.05 ppb	05:17:09
3	Be 313.107†	782254.4	788357.7	475.94 µg/L	475.94 ppb	05:17:04
3	Cd 226.502†	18147.6	18338.6	461.32 µg/L	461.32 ppb	05:17:09
3	Co 228.616†	9942.4	9969.6	461.03 µg/L	461.03 ppb	05:17:09
3	Cr 267.716†	21932.0	22045.1	449.87 µg/L	449.87 ppb	05:17:09
3	Cu 324.752†	71414.0	68758.3	456.84 µg/L	456.84 ppb	05:17:09
3	Mn 257.610†	150548.7	151302.5	482.10 µg/L	482.10 ppb	05:17:04
3	Mo 202.031†	4270.2	4286.3	429.67 µg/L	429.67 ppb	05:17:30
3	Ni 231.604†	9425.7	9145.3	461.72 µg/L	461.72 ppb	05:17:09
3	P 214.914†	1097.9	1084.9	2112.5 µg/L	2112.5 ppb	05:17:30
3	Pb 220.353†	1876.3	1787.1	439.80 µg/L	439.80 ppb	05:17:30
3	S 181.975 Axial†	234.8	218.2	904.52 µg/L	904.52 ppb	05:17:30
3	Sb 206.836†	482.3	461.6	422.95 µg/L	422.95 ppb	05:17:30
3	Se 196.026†	341.4	327.4	456.70 µg/L	456.70 ppb	05:17:30
3	SiO2†	26546.5	25141.7	5034.6 µg/L	5034.6 ppb	05:17:09
3	Si 251.611†	30745.5	30544.1	2357.5 µg/L	2357.5 ppb	05:17:09
3	Sn 189.927†	995.3	993.5	424.91 µg/L	424.91 ppb	05:17:30
3	Ti 334.940†	208641.3	209125.0	475.29 µg/L	475.29 ppb	05:17:04
3	Tl 190.801†	313.7	336.8	456.04 µg/L	456.04 ppb	05:17:30
3	U 409.014†	5413.2	5430.1	459.77 µg/L	459.77 ppb	05:17:09
3	V 292.402†	45717.1	45950.1	459.98 µg/L	459.98 ppb	05:17:09
3	Zn 213.857†	20113.1	19671.5	460.94 µg/L	460.94 ppb	05:17:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2086196.8	99.360	%	0.4038				0.41%
Sc RADIAL	57776.0	97.9	%	0.16				0.17%
Y 371.029	1439252.3	98.885	%	0.3765				0.38%
Ag 328.068†	65668.0	493.42	µg/L	16.716	493.42	ppb	16.716	3.39%
QC value within limits for Ag 328.068 Recovery = 98.68%								
Al 396.153Radial†	7010.1	5230.6	µg/L	14.38	5230.6	ppb	14.38	0.27%
QC value within limits for Al 396.153Radial Recovery = 104.61%								
As 188.979†	272.5	489.61	µg/L	41.906	489.61	ppb	41.906	8.56%
QC value within limits for As 188.979 Recovery = 97.92%								
B 249.677†	11851.3	482.87	µg/L	17.444	482.87	ppb	17.444	3.61%
QC value within limits for B 249.677 Recovery = 96.57%								
Ba 233.527†	20018.9	491.46	µg/L	25.486	491.46	ppb	25.486	5.19%
QC value within limits for Ba 233.527 Recovery = 98.29%								
Be 313.107†	822649.1	496.64	µg/L	17.929	496.64	ppb	17.929	3.61%
QC value within limits for Be 313.107 Recovery = 99.33%								
Ca 317.933Radial†	5620.3	5155.3	µg/L	6.59	5155.3	ppb	6.59	0.13%
QC value within limits for Ca 317.933Radial Recovery = 103.11%								
Cd 226.502†	19514.1	490.93	µg/L	25.675	490.93	ppb	25.675	5.23%
QC value within limits for Cd 226.502 Recovery = 98.19%								
Co 228.616†	10663.0	493.15	µg/L	27.841	493.15	ppb	27.841	5.65%

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   QC value within limits for Co 228.616  Recovery = 98.63%
Cr 267.716†            24025.5      490.28 µg/L        35.001      490.28 ppb        35.001   7.14%
   QC value within limits for Cr 267.716  Recovery = 98.06%
Cu 324.752†            73560.0      488.69 µg/L        27.589      488.69 ppb        27.589   5.65%
   QC value within limits for Cu 324.752  Recovery = 97.74%
Fe 238.204 Radial†       611.6      5260.5 µg/L         20.24      5260.5 ppb         20.24   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.21%
K 766.490 Radial†       7360.9      5061.5 µg/L         29.67      5061.5 ppb         29.67   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 101.23%
Mg 279.077 IEC†          549.1      5347.2 µg/L         18.28      5347.2 ppb         18.28   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.94%
Mn 257.610†           157700.3      502.47 µg/L        17.638      502.47 ppb        17.638   3.51%
   QC value within limits for Mn 257.610  Recovery = 100.49%
Mo 202.031†             4882.8      489.43 µg/L        51.941      489.43 ppb        51.941  10.61%
   QC value within limits for Mo 202.031  Recovery = 97.89%
Na 589.592 Radial†     31844.3       10411 µg/L          78.6       10411 ppb          78.6   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 104.11%
Ni 231.604†             9760.0      492.75 µg/L        26.874      492.75 ppb        26.874   5.45%
   QC value within limits for Ni 231.604  Recovery = 98.55%
P 214.914†              1223.2      2385.0 µg/L        236.67      2385.0 ppb        236.67   9.92%
   QC value within limits for P 214.914  Recovery = 95.40%
Pb 220.353†             1984.7      488.50 µg/L        42.217      488.50 ppb        42.217   8.64%
   QC value within limits for Pb 220.353  Recovery = 97.70%
S 181.975 Axial†         239.8      993.85 µg/L        80.534      993.85 ppb        80.534   8.10%
   QC value within limits for S 181.975 Axial  Recovery = 99.39%
Sb 206.836†              522.6      479.08 µg/L        48.679      479.08 ppb        48.679  10.16%
   QC value within limits for Sb 206.836  Recovery = 95.82%
Se 196.026†              355.1      494.66 µg/L        33.689      494.66 ppb        33.689   6.81%
   QC value within limits for Se 196.026  Recovery = 98.93%
SiO2†                  26447.5      5296.1 µg/L        227.01      5296.1 ppb        227.01   4.29%
   QC value within limits for SiO2  Recovery = 99.04%
Si 251.611†            32136.6      2480.4 µg/L        106.68      2480.4 ppb        106.68   4.30%
   QC value within limits for Si 251.611  Recovery = 99.22%
Sn 189.927†             1141.7      488.25 µg/L        55.148      488.25 ppb        55.148  11.29%
   QC value within limits for Sn 189.927  Recovery = 97.65%
Sr 421.552†            50559.7      497.27 µg/L         4.107      497.27 ppb         4.107   0.83%
   QC value within limits for Sr 421.552  Recovery = 99.45%
Ti 334.940†           218899.0      497.52 µg/L        19.252      497.52 ppb        19.252   3.87%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†              365.6      494.71 µg/L        34.488      494.71 ppb        34.488   6.97%
   QC value within limits for Tl 190.801  Recovery = 98.94%
U 409.014†              5800.2      491.18 µg/L        27.281      491.18 ppb        27.281   5.55%
   QC value within limits for U 409.014  Recovery = 98.24%
V 292.402†             49418.4      494.88 µg/L        30.230      494.88 ppb        30.230   6.11%
   QC value within limits for V 292.402  Recovery = 98.98%
Zn 213.857†            20971.4      491.43 µg/L        26.419      491.43 ppb        26.419   5.38%
   QC value within limits for Zn 213.857  Recovery = 98.29%
All analyte(s) passed QC.
```

Sequence No.: 105
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/21/2010 05:17:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57729.0	57729.0	97.8	%			05:18:14
1	Al 396.153Radial†	4.8	13.6	10.127	µg/L	10.127	ppb	05:18:14
1	Ca 317.933Radial†	198.2	9.8	8.9659	µg/L	8.9659	ppb	05:18:35
1	Fe 238.204 Radial†	16.3	1.2	10.720	µg/L	10.720	ppb	05:18:35
1	K 766.490 Radial†	193.9	-0.0	-0.0248	µg/L	-0.0248	ppb	05:18:14
1	Mg 279.077 IEC†	13.7	1.9	18.342	µg/L	18.342	ppb	05:18:35
1	Na 589.592 Radial†	433.4	-30.4	-9.9415	µg/L	-9.9415	ppb	05:18:14
1	Sr 421.552†	32.4	-8.2	-0.0807	µg/L	-0.0807	ppb	05:18:14
1	Sc 361.383	2098624.4	2098624.4	99.952	%			05:19:36
1	Y 371.029	1452781.0	1452781.0	99.814	%			05:19:36
1	Ag 328.068†	-398.7	64.2	0.4817	µg/L	0.4817	ppb	05:19:42
1	As 188.979†	1.5	1.8	3.1645	µg/L	3.1645	ppb	05:20:02
1	B 249.677†	344.3	19.0	0.7704	µg/L	0.7704	ppb	05:20:02
1	Ba 233.527†	-9.3	9.1	0.2228	µg/L	0.2228	ppb	05:20:02
1	Be 313.107†	-3553.7	203.5	0.1228	µg/L	0.1228	ppb	05:19:42
1	Cd 226.502†	-128.3	8.2	0.2051	µg/L	0.2051	ppb	05:20:02
1	Co 228.616†	3.0	0.4	0.0196	µg/L	0.0196	ppb	05:20:02
1	Cr 267.716†	-38.1	9.3	0.1897	µg/L	0.1897	ppb	05:19:42
1	Cu 324.752†	2877.5	9.2	0.0625	µg/L	0.0625	ppb	05:19:42
1	Mn 257.610†	-199.0	103.4	0.3300	µg/L	0.3300	ppb	05:20:02
1	Mo 202.031†	8.2	11.6	1.1580	µg/L	1.1580	ppb	05:20:02
1	Ni 231.604†	307.5	-1.0	-0.0496	µg/L	-0.0496	ppb	05:20:02
1	P 214.914†	16.3	0.0	0.0498	µg/L	0.0498	ppb	05:20:02
1	Pb 220.353†	92.4	-2.4	-0.5803	µg/L	-0.5803	ppb	05:20:02
1	S 181.975 Axial†	18.8	1.6	6.4668	µg/L	6.4668	ppb	05:20:02
1	Sb 206.836†	27.4	5.3	4.8486	µg/L	4.8486	ppb	05:20:02
1	Se 196.026†	16.5	1.5	2.0251	µg/L	2.0251	ppb	05:20:02
1	SiO2†	1514.9	31.3	6.2619	µg/L	6.2619	ppb	05:19:42
1	Si 251.611†	382.7	89.3	6.8942	µg/L	6.8942	ppb	05:20:02
1	Sn 189.927†	2.1	-2.6	-1.1035	µg/L	-1.1035	ppb	05:20:02
1	Ti 334.940†	291.6	150.1	0.3401	µg/L	0.3401	ppb	05:19:42
1	Tl 190.801†	-23.8	-1.6	-2.1665	µg/L	-2.1665	ppb	05:20:02
1	U 409.014†	-10.2	-9.4	-0.8008	µg/L	-0.8008	ppb	05:19:42
1	V 292.402†	-67.8	28.1	0.2881	µg/L	0.2881	ppb	05:19:42
1	Zn 213.857†	523.3	21.6	0.5089	µg/L	0.5089	ppb	05:20:02
2	Sc RADIAL	57613.8	57613.8	97.6	%			05:18:40
2	Al 396.153Radial†	-13.4	-5.0	-3.7848	µg/L	-3.7848	ppb	05:18:40
2	Ca 317.933Radial†	200.5	12.5	11.509	µg/L	11.509	ppb	05:19:00
2	Fe 238.204 Radial†	16.9	2.0	16.904	µg/L	16.904	ppb	05:19:00
2	K 766.490 Radial†	189.5	-4.2	-2.8923	µg/L	-2.8923	ppb	05:18:40
2	Mg 279.077 IEC†	13.6	1.9	18.162	µg/L	18.162	ppb	05:19:00
2	Na 589.592 Radial†	408.3	-55.3	-18.074	µg/L	-18.074	ppb	05:18:40
2	Sr 421.552†	43.2	2.9	0.0288	µg/L	0.0288	ppb	05:18:40
2	Sc 361.383	2103203.5	2103203.5	100.17	%			05:20:08
2	Y 371.029	1456446.8	1456446.8	100.07	%			05:20:08
2	Ag 328.068†	-420.3	43.5	0.3281	µg/L	0.3281	ppb	05:20:14
2	As 188.979†	-1.9	-1.7	-2.9917	µg/L	-2.9917	ppb	05:20:35
2	B 249.677†	351.1	25.0	1.0133	µg/L	1.0133	ppb	05:20:35
2	Ba 233.527†	-17.0	1.4	0.0358	µg/L	0.0358	ppb	05:20:35
2	Be 313.107†	-3666.0	99.1	0.0597	µg/L	0.0597	ppb	05:20:14
2	Cd 226.502†	-147.2	-10.3	-0.2621	µg/L	-0.2621	ppb	05:20:35
2	Co 228.616†	9.6	7.0	0.3263	µg/L	0.3263	ppb	05:20:35
2	Cr 267.716†	-57.9	-10.4	-0.2123	µg/L	-0.2123	ppb	05:20:14
2	Cu 324.752†	2849.8	-24.7	-0.1616	µg/L	-0.1616	ppb	05:20:14
2	Mn 257.610†	-214.5	88.4	0.2830	µg/L	0.2830	ppb	05:20:35
2	Mo 202.031†	3.2	6.5	0.6538	µg/L	0.6538	ppb	05:20:35
2	Ni 231.604†	312.8	3.6	0.1814	µg/L	0.1814	ppb	05:20:35
2	P 214.914†	11.3	-4.9	-9.8466	µg/L	-9.8466	ppb	05:20:35
2	Pb 220.353†	93.2	-1.7	-0.4174	µg/L	-0.4174	ppb	05:20:35

2	S 181.975 Axial†	13.2	-4.1	-17.020 µg/L	-17.020 ppb	05:20:35
2	Sb 206.836†	31.5	9.3	8.5171 µg/L	8.5171 ppb	05:20:35
2	Se 196.026†	19.3	4.3	5.8638 µg/L	5.8638 ppb	05:20:35
2	SiO2†	1539.7	52.7	10.557 µg/L	10.557 ppb	05:20:14
2	Si 251.611†	389.2	95.0	7.3361 µg/L	7.3361 ppb	05:20:35
2	Sn 189.927†	3.1	-1.6	-0.6955 µg/L	-0.6955 ppb	05:20:35
2	Ti 334.940†	249.8	107.7	0.2438 µg/L	0.2438 ppb	05:20:14
2	Tl 190.801†	-21.9	0.4	0.5007 µg/L	0.5007 ppb	05:20:35
2	U 409.014†	-8.3	-7.5	-0.6403 µg/L	-0.6403 ppb	05:20:14
2	V 292.402†	-56.0	40.1	0.4025 µg/L	0.4025 ppb	05:20:14
2	Zn 213.857†	517.7	14.9	0.3482 µg/L	0.3482 ppb	05:20:35
3	Sc RADIAL	57496.3	57496.3	97.4 %		05:19:06
3	Al 396.153Radial†	-1.1	7.5	5.6113 µg/L	5.6113 ppb	05:19:06
3	Ca 317.933Radial†	199.5	11.9	10.874 µg/L	10.874 ppb	05:19:26
3	Fe 238.204 Radial†	14.8	-0.2	-1.6305 µg/L	-1.6305 ppb	05:19:26
3	K 766.490 Radial†	207.0	14.2	9.7708 µg/L	9.7708 ppb	05:19:06
3	Mg 279.077 IEC†	11.7	-0.1	-0.8004 µg/L	-0.8004 ppb	05:19:26
3	Na 589.592 Radial†	449.3	-12.3	-4.0192 µg/L	-4.0192 ppb	05:19:06
3	Sr 421.552†	64.6	25.0	0.2460 µg/L	0.2460 ppb	05:19:06
3	Sc 361.383	2090561.1	2090561.1	99.568 %		05:20:41
3	Y 371.029	1448573.1	1448573.1	99.525 %		05:20:41
3	Ag 328.068†	-390.4	71.1	0.5319 µg/L	0.5319 ppb	05:20:46
3	As 188.979†	-2.1	-1.8	-3.2999 µg/L	-3.2999 ppb	05:21:07
3	B 249.677†	348.8	24.9	1.0178 µg/L	1.0178 ppb	05:21:07
3	Ba 233.527†	-15.6	2.7	0.0669 µg/L	0.0669 ppb	05:21:07
3	Be 313.107†	-3609.8	133.4	0.0804 µg/L	0.0804 ppb	05:20:46
3	Cd 226.502†	-138.1	-2.1	-0.0526 µg/L	-0.0526 ppb	05:21:07
3	Co 228.616†	-3.3	-5.9	-0.2726 µg/L	-0.2726 ppb	05:21:07
3	Cr 267.716†	-45.8	1.4	0.0290 µg/L	0.0290 ppb	05:20:46
3	Cu 324.752†	2819.1	-38.4	-0.2547 µg/L	-0.2547 ppb	05:20:46
3	Mn 257.610†	-226.9	74.7	0.2375 µg/L	0.2375 ppb	05:21:07
3	Mo 202.031†	4.2	7.5	0.7506 µg/L	0.7506 ppb	05:21:07
3	Ni 231.604†	301.0	-6.3	-0.3190 µg/L	-0.3190 ppb	05:21:07
3	P 214.914†	3.6	-12.7	-25.156 µg/L	-25.156 ppb	05:21:07
3	Pb 220.353†	80.5	-13.9	-3.4169 µg/L	-3.4169 ppb	05:21:07
3	S 181.975 Axial†	16.0	-1.2	-5.0402 µg/L	-5.0402 ppb	05:21:07
3	Sb 206.836†	21.7	-0.3	-0.2963 µg/L	-0.2963 ppb	05:21:07
3	Se 196.026†	21.9	7.0	9.5315 µg/L	9.5315 ppb	05:21:07
3	SiO2†	1537.2	59.4	11.904 µg/L	11.904 ppb	05:20:46
3	Si 251.611†	396.7	104.9	8.0935 µg/L	8.0935 ppb	05:21:07
3	Sn 189.927†	1.8	-2.9	-1.2526 µg/L	-1.2526 ppb	05:21:07
3	Ti 334.940†	324.1	183.8	0.4183 µg/L	0.4183 ppb	05:20:46
3	Tl 190.801†	-24.9	-2.8	-3.7735 µg/L	-3.7735 ppb	05:21:07
3	U 409.014†	-32.7	-32.1	-2.7206 µg/L	-2.7206 ppb	05:20:46
3	V 292.402†	-67.5	28.2	0.2814 µg/L	0.2814 ppb	05:20:46
3	Zn 213.857†	513.7	14.0	0.3318 µg/L	0.3318 ppb	05:21:07

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2097463.0	99.897	%	0.3048				0.31%
Sc RADIAL	57613.0	97.6	%	0.20				0.20%
Y 371.029	1452600.3	99.802	%	0.2707				0.27%
Ag 328.068†	59.6	0.4472	µg/L	0.10622	0.4472	ppb	0.10622	23.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	3.9846	µg/L	7.09730	3.9846	ppb	7.09730	178.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-1.0424	µg/L	3.64649	-1.0424	ppb	3.64649	349.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	22.9	0.9338	µg/L	0.14157	0.9338	ppb	0.14157	15.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.4	0.1085	µg/L	0.10024	0.1085	ppb	0.10024	92.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.3	0.0876	µg/L	0.03213	0.0876	ppb	0.03213	36.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	11.4	10.450	µg/L	1.3237	10.450	ppb	1.3237	12.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.4	-0.0365	µg/L	0.23400	-0.0365	ppb	0.23400	640.85%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.5	0.0244	µg/L	0.29947	0.0244	ppb	0.29947	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.1      0.0021 µg/L       0.20235      0.0021 ppb        0.20235 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -18.0     -0.1179 µg/L       0.16308     -0.1179 ppb        0.16308 138.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.0      8.6644 µg/L       9.43654      8.6644 ppb        9.43654 108.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          3.3      2.2845 µg/L       6.63990      2.2845 ppb        6.63990 290.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.2     11.901 µg/L       11.0002      11.901 ppb        11.0002  92.43%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               88.8      0.2835 µg/L       0.04626      0.2835 ppb        0.04626  16.32%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.5      0.8541 µg/L       0.26755      0.8541 ppb        0.26755  31.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -32.7     -10.678 µg/L        7.0565     -10.678 ppb         7.0565  66.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -1.2     -0.0624 µg/L       0.25041     -0.0624 ppb        0.25041 401.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.9     -11.651 µg/L       12.6995     -11.651 ppb        12.6995 109.00%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -6.0     -1.4715 µg/L       1.68673     -1.4715 ppb        1.68673 114.62%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.3     -5.1978 µg/L      11.74417     -5.1978 ppb       11.74417 225.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.8      4.3565 µg/L       4.42725      4.3565 ppb        4.42725 101.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.2      5.8068 µg/L       3.75354      5.8068 ppb        3.75354  64.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     47.8      9.5744 µg/L       2.94659      9.5744 ppb        2.94659  30.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               96.4      7.4413 µg/L       0.60650      7.4413 ppb        0.60650   8.15%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.4     -1.0172 µg/L       0.28840     -1.0172 ppb        0.28840  28.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                6.6      0.0647 µg/L       0.16628      0.0647 ppb        0.16628 257.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              147.2      0.3340 µg/L       0.08740      0.3340 ppb        0.08740  26.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.4     -1.8131 µg/L       2.15888     -1.8131 ppb        2.15888 119.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -16.3     -1.3872 µg/L       1.15748     -1.3872 ppb        1.15748  83.44%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                32.1      0.3240 µg/L       0.06804      0.3240 ppb        0.06804  21.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               16.8      0.3963 µg/L       0.09787      0.3963 ppb        0.09787  24.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 106
Sample ID: 245979004|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 426
Date Collected: 2/21/2010 05:21:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979004|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58448.7	58448.7	99.0	%			05:21:54
1	Al 396.153Radial†	57491.0	58085.0	43424	µg/L	43424	ppb	05:21:54
1	Ca 317.933Radial†	10905.8	10823.9	9928.4	µg/L	9928.4	ppb	05:22:14
1	Fe 238.204 Radial†	11252.7	11351.8	97447	µg/L	97447	ppb	05:22:14
1	K 766.490 Radial†	14064.0	14008.8	9632.7	µg/L	9632.7	ppb	05:21:54
1	Mg 279.077 IEC†	980.3	978.2	9416.2	µg/L	9416.2	ppb	05:22:14
1	Na 589.592 Radial†	1839.8	1384.8	452.73	µg/L	452.73	ppb	05:21:54
1	Sr 421.552†	11929.6	12009.6	118.12	µg/L	118.12	ppb	05:21:54
1	Sc 361.383	2079675.0	2079675.0	99.049	%			05:23:18
1	Y 371.029	1455708.6	1455708.6	100.02	%			05:23:18
1	Ag 328.068†	-1442.4	-993.1	-0.0754	µg/L	-0.0754	ppb	05:23:24
1	As 188.979†	11.9	12.3	27.269	µg/L	27.269	ppb	05:23:44
1	B 249.677†	953.1	636.8	-24.549	µg/L	-24.549	ppb	05:23:24
1	Ba 233.527†	24668.0	24923.0	611.08	µg/L	611.08	ppb	05:23:24
1	Be 313.107†	11963.4	15837.1	8.2306	µg/L	8.2306	ppb	05:23:24
1	Cd 226.502†	258.2	397.3	-0.9354	µg/L	-0.9354	ppb	05:23:44
1	Co 228.616†	1034.9	1042.2	40.953	µg/L	40.953	ppb	05:23:44
1	Cr 267.716†	7510.6	7630.1	155.72	µg/L	155.72	ppb	05:23:24
1	Cu 324.752†	26552.5	23937.6	172.33	µg/L	172.33	ppb	05:23:24
1	Mn 257.610†	699591.3	706607.7	2261.8	µg/L	2261.8	ppb	05:23:18
1	Mo 202.031†	-0.5	2.9	3.9894	µg/L	3.9894	ppb	05:23:44
1	Ni 231.604†	1874.0	1583.4	81.232	µg/L	81.232	ppb	05:23:44
1	P 214.914†	374.1	361.4	635.07	µg/L	635.07	ppb	05:23:44
1	Pb 220.353†	2314.8	2242.2	550.10	µg/L	550.10	ppb	05:23:44
1	S 181.975 Axial†	129.5	113.4	470.10	µg/L	470.10	ppb	05:23:44
1	Sb 206.836†	31.1	9.3	5.8468	µg/L	5.8468	ppb	05:23:44
1	Se 196.026†	-40.6	-56.0	178.46	µg/L	178.46	ppb	05:23:44
1	SiO2†	281043.0	282255.7	56522	µg/L	56522	ppb	05:23:18
1	Si 251.611†	336289.7	339223.5	26182	µg/L	26182	ppb	05:23:18
1	Sn 189.927†	-16.0	-20.9	-18.240	µg/L	-18.240	ppb	05:23:44
1	Ti 334.940†	1524997.7	1539491.1	3500.8	µg/L	3500.8	ppb	05:23:18
1	Tl 190.801†	-58.5	-36.9	6.6890	µg/L	6.6890	ppb	05:23:44
1	U 409.014†	353.8	358.0	16.230	µg/L	16.230	ppb	05:23:24
1	V 292.402†	18017.5	18286.4	192.75	µg/L	192.75	ppb	05:23:24
1	Zn 213.857†	10735.3	10336.4	238.17	µg/L	238.17	ppb	05:23:24
2	Sc RADIAL	58501.7	58501.7	99.1	%			05:22:20
2	Al 396.153Radial†	57519.8	58061.4	43406	µg/L	43406	ppb	05:22:20
2	Ca 317.933Radial†	10913.8	10821.9	9926.5	µg/L	9926.5	ppb	05:22:40
2	Fe 238.204 Radial†	11265.7	11354.7	97472	µg/L	97472	ppb	05:22:40
2	K 766.490 Radial†	14053.2	13985.0	9616.3	µg/L	9616.3	ppb	05:22:20
2	Mg 279.077 IEC†	985.7	982.7	9460.6	µg/L	9460.6	ppb	05:22:40
2	Na 589.592 Radial†	1818.9	1362.0	445.29	µg/L	445.29	ppb	05:22:20
2	Sr 421.552†	11925.4	11994.5	117.97	µg/L	117.97	ppb	05:22:20
2	Sc 361.383	2098288.6	2098288.6	99.936	%			05:23:52
2	Y 371.029	1470133.4	1470133.4	101.01	%			05:23:52
2	Ag 328.068†	-1545.5	-1083.3	-0.7522	µg/L	-0.7522	ppb	05:23:57
2	As 188.979†	6.6	6.9	17.601	µg/L	17.601	ppb	05:24:18
2	B 249.677†	969.2	644.4	-24.251	µg/L	-24.251	ppb	05:23:57
2	Ba 233.527†	24880.0	24914.3	610.86	µg/L	610.86	ppb	05:23:57
2	Be 313.107†	11996.6	15763.1	8.1859	µg/L	8.1859	ppb	05:23:57
2	Cd 226.502†	254.2	391.0	-1.0965	µg/L	-1.0965	ppb	05:24:18
2	Co 228.616†	1030.4	1028.5	40.318	µg/L	40.318	ppb	05:24:18
2	Cr 267.716†	7573.3	7625.6	155.63	µg/L	155.63	ppb	05:23:57
2	Cu 324.752†	26739.0	23886.4	172.00	µg/L	172.00	ppb	05:23:57
2	Mn 257.610†	707033.8	707789.5	2265.6	µg/L	2265.6	ppb	05:23:52
2	Mo 202.031†	2.5	5.9	4.2903	µg/L	4.2903	ppb	05:24:18
2	Ni 231.604†	1869.0	1561.6	80.131	µg/L	80.131	ppb	05:24:18
2	P 214.914†	380.2	364.2	640.66	µg/L	640.66	ppb	05:24:18
2	Pb 220.353†	2308.6	2215.3	543.46	µg/L	543.46	ppb	05:24:18

2	S 181.975 Axial†	124.2	107.0	443.64 µg/L	443.64 ppb	05:24:18
2	Sb 206.836†	30.8	8.7	5.3440 µg/L	5.3440 ppb	05:24:18
2	Se 196.026†	-36.0	-51.1	185.22 µg/L	185.22 ppb	05:24:18
2	SiO2†	283524.6	282221.9	56515 µg/L	56515 ppb	05:23:52
2	Si 251.611†	339370.0	339293.9	26188 µg/L	26188 ppb	05:23:52
2	Sn 189.927†	-19.5	-24.3	-19.702 µg/L	-19.702 ppb	05:24:18
2	Ti 334.940†	1538741.0	1539585.4	3501.0 µg/L	3501.0 ppb	05:23:52
2	Tl 190.801†	-55.7	-33.5	11.249 µg/L	11.249 ppb	05:24:18
2	U 409.014†	378.7	379.7	18.070 µg/L	18.070 ppb	05:23:57
2	V 292.402†	18102.0	18209.6	192.00 µg/L	192.00 ppb	05:23:57
2	Zn 213.857†	10841.3	10346.3	238.41 µg/L	238.41 ppb	05:23:57
3	Sc RADIAL	58674.0	58674.0	99.4 %		05:22:46
3	Al 396.153Radial†	57675.6	58047.7	43396 µg/L	43396 ppb	05:22:46
3	Ca 317.933Radial†	10858.4	10733.8	9845.7 µg/L	9845.7 ppb	05:23:06
3	Fe 238.204 Radial†	11243.3	11298.8	96992 µg/L	96992 ppb	05:23:06
3	K 766.490 Radial†	14193.4	14084.4	9684.7 µg/L	9684.7 ppb	05:22:46
3	Mg 279.077 IEC†	980.3	974.4	9380.0 µg/L	9380.0 ppb	05:23:06
3	Na 589.592 Radial†	1789.9	1327.5	433.99 µg/L	433.99 ppb	05:22:46
3	Sr 421.552†	11997.9	12032.2	118.34 µg/L	118.34 ppb	05:22:46
3	Sc 361.383	2092040.7	2092040.7	99.638 %		05:24:25
3	Y 371.029	1465594.0	1465594.0	100.69 %		05:24:25
3	Ag 328.068†	-1459.7	-1001.9	-0.2193 µg/L	-0.2193 ppb	05:24:30
3	As 188.979†	3.6	3.8	12.037 µg/L	12.037 ppb	05:24:51
3	B 249.677†	943.9	621.9	-24.932 µg/L	-24.932 ppb	05:24:30
3	Ba 233.527†	24015.2	24120.7	591.40 µg/L	591.40 ppb	05:24:30
3	Be 313.107†	11580.8	15381.7	7.9856 µg/L	7.9856 ppb	05:24:30
3	Cd 226.502†	217.1	354.5	-1.9654 µg/L	-1.9654 ppb	05:24:51
3	Co 228.616†	967.0	967.9	37.678 µg/L	37.678 ppb	05:24:51
3	Cr 267.716†	7246.7	7320.4	149.40 µg/L	149.40 ppb	05:24:30
3	Cu 324.752†	25988.5	23213.1	167.47 µg/L	167.47 ppb	05:24:30
3	Mn 257.610†	691184.4	693995.4	2221.6 µg/L	2221.6 ppb	05:24:25
3	Mo 202.031†	5.1	8.5	4.5325 µg/L	4.5325 ppb	05:24:51
3	Ni 231.604†	1767.3	1465.1	75.250 µg/L	75.250 ppb	05:24:51
3	P 214.914†	352.8	337.8	588.98 µg/L	588.98 ppb	05:24:51
3	Pb 220.353†	2220.6	2133.9	523.46 µg/L	523.46 ppb	05:24:51
3	S 181.975 Axial†	119.8	103.0	426.76 µg/L	426.76 ppb	05:24:51
3	Sb 206.836†	32.5	10.5	7.0756 µg/L	7.0756 ppb	05:24:51
3	Se 196.026†	-26.0	-41.1	197.62 µg/L	197.62 ppb	05:24:51
3	SiO2†	278366.1	277892.0	55648 µg/L	55648 ppb	05:24:25
3	Si 251.611†	332964.3	333879.2	25770 µg/L	25770 ppb	05:24:25
3	Sn 189.927†	-19.1	-23.9	-19.489 µg/L	-19.489 ppb	05:24:51
3	Ti 334.940†	1499521.0	1504821.5	3422.0 µg/L	3422.0 ppb	05:24:25
3	Tl 190.801†	-58.0	-35.9	7.0137 µg/L	7.0137 ppb	05:24:51
3	U 409.014†	327.2	329.1	13.847 µg/L	13.847 ppb	05:24:30
3	V 292.402†	17372.7	17531.7	185.22 µg/L	185.22 ppb	05:24:30
3	Zn 213.857†	10472.4	10008.5	230.49 µg/L	230.49 ppb	05:24:30

Mean Data: 245979004|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2090001.4	99.541	%	0.4512				0.45%
Sc RADIAL	58541.5	99.1	%	0.20				0.20%
Y 371.029	1463812.0	100.57	%	0.507				0.50%
Ag 328.068†	-1026.1	-0.3490	µg/L	0.35653	-0.3490	ppb	0.35653	102.16%
Al 396.153Radial†	58064.7	43409	µg/L	14.1	43409	ppb	14.1	0.03%
As 188.979†	7.7	18.969	µg/L	7.7077	18.969	ppb	7.7077	40.63%
B 249.677†	634.3	-24.577	µg/L	0.3415	-24.577	ppb	0.3415	1.39%
Ba 233.527†	24652.7	604.45	µg/L	11.298	604.45	ppb	11.298	1.87%
Be 313.107†	15660.6	8.1341	µg/L	0.13046	8.1341	ppb	0.13046	1.60%
Ca 317.933Radial†	10793.2	9900.2	µg/L	47.18	9900.2	ppb	47.18	0.48%
Cd 226.502†	380.9	-1.3324	µg/L	0.55405	-1.3324	ppb	0.55405	41.58%
Co 228.616†	1012.9	39.649	µg/L	1.7368	39.649	ppb	1.7368	4.38%
Cr 267.716†	7525.3	153.58	µg/L	3.623	153.58	ppb	3.623	2.36%
Cu 324.752†	23679.0	170.60	µg/L	2.720	170.60	ppb	2.720	1.59%
Fe 238.204 Radial†	11335.1	97304	µg/L	270.3	97304	ppb	270.3	0.28%
K 766.490 Radial†	14026.1	9644.6	µg/L	35.71	9644.6	ppb	35.71	0.37%
Mg 279.077 IEC†	978.4	9418.9	µg/L	40.37	9418.9	ppb	40.37	0.43%
Mn 257.610†	702797.5	2249.7	µg/L	24.37	2249.7	ppb	24.37	1.08%
Mo 202.031†	5.7	4.2708	µg/L	0.27209	4.2708	ppb	0.27209	6.37%
Na 589.592 Radial†	1358.1	444.00	µg/L	9.436	444.00	ppb	9.436	2.13%

Ni 231.604†	1536.7	78.871	µg/L	3.1836	78.871	ppb	3.1836	4.04%
P 214.914†	354.5	621.57	µg/L	28.364	621.57	ppb	28.364	4.56%
Pb 220.353†	2197.1	539.01	µg/L	13.866	539.01	ppb	13.866	2.57%
S 181.975 Axial†	107.8	446.83	µg/L	21.846	446.83	ppb	21.846	4.89%
Sb 206.836†	9.5	6.0888	µg/L	0.89083	6.0888	ppb	0.89083	14.63%
Se 196.026†	-49.4	187.10	µg/L	9.720	187.10	ppb	9.720	5.19%
SiO2†	280789.9	56228	µg/L	502.6	56228	ppb	502.6	0.89%
Si 251.611†	337465.5	26047	µg/L	239.7	26047	ppb	239.7	0.92%
Sn 189.927†	-23.0	-19.144	µg/L	0.7899	-19.144	ppb	0.7899	4.13%
Sr 421.552†	12012.1	118.14	µg/L	0.187	118.14	ppb	0.187	0.16%
Ti 334.940†	1527966.0	3474.6	µg/L	45.59	3474.6	ppb	45.59	1.31%
Tl 190.801†	-35.4	8.3171	µg/L	2.54403	8.3171	ppb	2.54403	30.59%
U 409.014†	355.6	16.049	µg/L	2.1171	16.049	ppb	2.1171	13.19%
V 292.402†	18009.2	189.99	µg/L	4.148	189.99	ppb	4.148	2.18%
Zn 213.857†	10230.4	235.69	µg/L	4.504	235.69	ppb	4.504	1.91%

Sequence No.: 107
Sample ID: 245979005|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 427
Date Collected: 2/21/2010 05:25:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979005|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58521.1	58521.1	99.1	%			05:25:33
1	Al 396.153Radial†	59026.7	59562.6	44528	µg/L	44528	ppb	05:25:33
1	Ca 317.933Radial†	10293.6	10192.6	9349.3	µg/L	9349.3	ppb	05:25:54
1	Fe 238.204 Radial†	11598.3	11686.5	100320	µg/L	100320	ppb	05:25:54
1	K 766.490 Radial†	7800.2	7671.4	5275.0	µg/L	5275.0	ppb	05:25:33
1	Mg 279.077 IEC†	726.5	720.9	6908.9	µg/L	6908.9	ppb	05:25:54
1	Na 589.592 Radial†	5272.6	4846.0	1584.3	µg/L	1584.3	ppb	05:25:33
1	Sr 421.552†	8497.3	8531.8	83.912	µg/L	83.912	ppb	05:25:33
1	Sc 361.383	2117520.5	2117520.5	100.85	%			05:26:59
1	Y 371.029	1529663.0	1529663.0	105.10	%			05:26:59
1	Ag 328.068†	-1558.9	-1082.6	-1.4129	µg/L	-1.4129	ppb	05:27:04
1	As 188.979†	15.6	15.7	33.601	µg/L	33.601	ppb	05:27:25
1	B 249.677†	805.6	473.3	-32.846	µg/L	-32.846	ppb	05:27:04
1	Ba 233.527†	20325.8	20172.4	494.43	µg/L	494.43	ppb	05:27:04
1	Be 313.107†	7507.8	11203.2	6.2122	µg/L	6.2122	ppb	05:27:04
1	Cd 226.502†	187.2	322.2	-3.1674	µg/L	-3.1674	ppb	05:27:25
1	Co 228.616†	1585.2	1569.3	69.635	µg/L	69.635	ppb	05:27:25
1	Cr 267.716†	4213.0	4224.8	86.193	µg/L	86.193	ppb	05:27:04
1	Cu 324.752†	10298.1	7341.4	62.643	µg/L	62.643	ppb	05:27:04
1	Mn 257.610†	615918.1	611017.9	1958.0	µg/L	1958.0	ppb	05:26:59
1	Mo 202.031†	55.9	58.7	9.6980	µg/L	9.6980	ppb	05:27:25
1	Ni 231.604†	1530.6	1209.0	62.322	µg/L	62.322	ppb	05:27:25
1	P 214.914†	305.0	286.2	495.50	µg/L	495.50	ppb	05:27:25
1	Pb 220.353†	383.4	285.4	68.872	µg/L	68.872	ppb	05:27:25
1	S 181.975 Axial†	44.0	26.3	109.22	µg/L	109.22	ppb	05:27:25
1	Sb 206.836†	30.1	7.7	5.3621	µg/L	5.3621	ppb	05:27:25
1	Se 196.026†	-35.4	-50.1	196.75	µg/L	196.75	ppb	05:27:25
1	SiO2†	311188.5	307075.4	61492	µg/L	61492	ppb	05:26:59
1	Si 251.611†	372589.1	369148.2	28492	µg/L	28492	ppb	05:26:59
1	Sn 189.927†	30.1	25.1	0.8178	µg/L	0.8178	ppb	05:27:25
1	Ti 334.940†	644821.3	639232.6	1453.5	µg/L	1453.5	ppb	05:26:59
1	Tl 190.801†	-43.5	-20.9	9.3153	µg/L	9.3153	ppb	05:27:25
1	U 409.014†	-930.5	-921.9	-92.751	µg/L	-92.751	ppb	05:26:59
1	V 292.402†	5204.2	5256.3	63.965	µg/L	63.965	ppb	05:27:04
1	Zn 213.857†	12686.0	12076.9	279.51	µg/L	279.51	ppb	05:27:04
2	Sc RADIAL	59021.3	59021.3	100.0	%			05:25:59
2	Al 396.153Radial†	59588.6	59619.9	44571	µg/L	44571	ppb	05:25:59
2	Ca 317.933Radial†	10295.9	10106.8	9270.6	µg/L	9270.6	ppb	05:26:20
2	Fe 238.204 Radial†	11567.6	11556.6	99205	µg/L	99205	ppb	05:26:20
2	K 766.490 Radial†	7872.2	7676.7	5278.7	µg/L	5278.7	ppb	05:25:59
2	Mg 279.077 IEC†	723.2	711.4	6818.1	µg/L	6818.1	ppb	05:26:20
2	Na 589.592 Radial†	5313.8	4842.1	1583.0	µg/L	1583.0	ppb	05:25:59
2	Sr 421.552†	8492.1	8453.9	83.146	µg/L	83.146	ppb	05:25:59
2	Sc 361.383	2091093.0	2091093.0	99.593	%			05:27:32
2	Y 371.029	1510666.5	1510666.5	103.79	%			05:27:32
2	Ag 328.068†	-1537.4	-1080.5	-1.4600	µg/L	-1.4600	ppb	05:27:38
2	As 188.979†	15.0	15.3	32.857	µg/L	32.857	ppb	05:27:58
2	B 249.677†	817.3	495.1	-31.370	µg/L	-31.370	ppb	05:27:38
2	Ba 233.527†	20516.7	20618.8	505.37	µg/L	505.37	ppb	05:27:38
2	Be 313.107†	7583.0	11372.9	6.3169	µg/L	6.3169	ppb	05:27:38
2	Cd 226.502†	182.2	319.6	-3.1072	µg/L	-3.1072	ppb	05:27:58
2	Co 228.616†	1585.4	1589.3	70.576	µg/L	70.576	ppb	05:27:58
2	Cr 267.716†	4250.3	4315.1	88.035	µg/L	88.035	ppb	05:27:38
2	Cu 324.752†	10456.6	7629.6	64.400	µg/L	64.400	ppb	05:27:38
2	Mn 257.610†	605587.3	608363.2	1949.4	µg/L	1949.4	ppb	05:27:32
2	Mo 202.031†	65.6	69.1	10.698	µg/L	10.698	ppb	05:27:58
2	Ni 231.604†	1512.2	1209.8	62.343	µg/L	62.343	ppb	05:27:58
2	P 214.914†	305.7	290.7	505.09	µg/L	505.09	ppb	05:27:58
2	Pb 220.353†	397.3	304.1	73.527	µg/L	73.527	ppb	05:27:58

2	S 181.975 Axial†	41.1	24.0	99.305 µg/L	99.305 ppb	05:27:58
2	Sb 206.836†	29.6	7.6	5.2679 µg/L	5.2679 ppb	05:27:58
2	Se 196.026†	-41.3	-56.4	185.15 µg/L	185.15 ppb	05:27:58
2	SiO2†	306183.1	305949.2	61267 µg/L	61267 ppb	05:27:32
2	Si 251.611†	366188.9	367390.9	28357 µg/L	28357 ppb	05:27:32
2	Sn 189.927†	35.1	30.5	3.2310 µg/L	3.2310 ppb	05:27:58
2	Ti 334.940†	634160.6	636608.9	1447.5 µg/L	1447.5 ppb	05:27:32
2	Tl 190.801†	-49.6	-27.5	0.1928 µg/L	0.1928 ppb	05:27:58
2	U 409.014†	-943.8	-946.9	-94.707 µg/L	-94.707 ppb	05:27:32
2	V 292.402†	5256.3	5373.8	65.007 µg/L	65.007 ppb	05:27:38
2	Zn 213.857†	12769.8	12320.0	285.31 µg/L	285.31 ppb	05:27:38
3	Sc RADIAL	58800.1	58800.1	99.6 %		05:26:25
3	Al 396.153Radial†	59289.4	59543.6	44514 µg/L	44514 ppb	05:26:25
3	Ca 317.933Radial†	10294.5	10144.2	9304.9 µg/L	9304.9 ppb	05:26:46
3	Fe 238.204 Radial†	11567.1	11599.7	99575 µg/L	99575 ppb	05:26:46
3	K 766.490 Radial†	7887.7	7722.0	5309.7 µg/L	5309.7 ppb	05:26:25
3	Mg 279.077 IEC†	725.4	716.3	6865.2 µg/L	6865.2 ppb	05:26:46
3	Na 589.592 Radial†	5313.8	4862.1	1589.5 µg/L	1589.5 ppb	05:26:25
3	Sr 421.552†	8503.0	8496.8	83.568 µg/L	83.568 ppb	05:26:25
3	Sc 361.383	2097742.9	2097742.9	99.910 %		05:28:06
3	Y 371.029	1515441.1	1515441.1	104.12 %		05:28:06
3	Ag 328.068†	-1432.5	-970.7	-0.6346 µg/L	-0.6346 ppb	05:28:12
3	As 188.979†	7.1	7.4	18.511 µg/L	18.511 ppb	05:28:32
3	B 249.677†	816.5	491.8	-31.705 µg/L	-31.705 ppb	05:28:12
3	Ba 233.527†	19735.7	19771.9	484.61 µg/L	484.61 ppb	05:28:12
3	Be 313.107†	7114.3	10879.6	6.0319 µg/L	6.0319 ppb	05:28:12
3	Cd 226.502†	154.6	291.4	-3.8624 µg/L	-3.8624 ppb	05:28:32
3	Co 228.616†	1463.6	1462.3	64.766 µg/L	64.766 ppb	05:28:32
3	Cr 267.716†	4049.8	4100.8	83.663 µg/L	83.663 ppb	05:28:12
3	Cu 324.752†	10194.5	7333.9	62.490 µg/L	62.490 ppb	05:28:12
3	Mn 257.610†	594930.7	595769.3	1909.4 µg/L	1909.4 ppb	05:28:06
3	Mo 202.031†	59.6	63.0	10.096 µg/L	10.096 ppb	05:28:32
3	Ni 231.604†	1452.4	1145.1	59.087 µg/L	59.087 ppb	05:28:32
3	P 214.914†	273.9	257.9	439.80 µg/L	439.80 ppb	05:28:32
3	Pb 220.353†	378.2	283.8	68.500 µg/L	68.500 ppb	05:28:32
3	S 181.975 Axial†	41.3	24.0	99.479 µg/L	99.479 ppb	05:28:32
3	Sb 206.836†	30.2	8.2	5.7968 µg/L	5.7968 ppb	05:28:32
3	Se 196.026†	-31.0	-46.0	200.40 µg/L	200.40 ppb	05:28:32
3	SiO2†	303234.6	302023.5	60480 µg/L	60480 ppb	05:28:06
3	Si 251.611†	362819.8	362853.2	28006 µg/L	28006 ppb	05:28:06
3	Sn 189.927†	32.3	27.7	1.9804 µg/L	1.9804 ppb	05:28:32
3	Ti 334.940†	621349.1	621767.3	1413.7 µg/L	1413.7 ppb	05:28:06
3	Tl 190.801†	-43.3	-21.1	8.3925 µg/L	8.3925 ppb	05:28:32
3	U 409.014†	-922.0	-922.0	-92.656 µg/L	-92.656 ppb	05:28:06
3	V 292.402†	5004.4	5104.9	62.378 µg/L	62.378 ppb	05:28:12
3	Zn 213.857†	12336.6	11845.8	274.11 µg/L	274.11 ppb	05:28:12

Mean Data: 245979005|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2102118.8	100.12	%	0.655				0.65%
Sc RADIAL	58780.8	99.6	%	0.42				0.43%
Y 371.029	1518590.2	104.34	%	0.679				0.65%
Ag 328.068†	-1044.6	-1.1692	µg/L	0.46354	-1.1692	ppb	0.46354	39.65%
Al 396.153Radial†	59575.4	44538	µg/L	29.7	44538	ppb	29.7	0.07%
As 188.979†	12.8	28.323	µg/L	8.5055	28.323	ppb	8.5055	30.03%
B 249.677†	486.7	-31.973	µg/L	0.7738	-31.973	ppb	0.7738	2.42%
Ba 233.527†	20187.7	494.80	µg/L	10.385	494.80	ppb	10.385	2.10%
Be 313.107†	11151.9	6.1870	µg/L	0.14418	6.1870	ppb	0.14418	2.33%
Ca 317.933Radial†	10147.9	9308.3	µg/L	39.42	9308.3	ppb	39.42	0.42%
Cd 226.502†	311.1	-3.3790	µg/L	0.41971	-3.3790	ppb	0.41971	12.42%
Co 228.616†	1540.3	68.326	µg/L	3.1188	68.326	ppb	3.1188	4.56%
Cr 267.716†	4213.6	85.964	µg/L	2.1949	85.964	ppb	2.1949	2.55%
Cu 324.752†	7434.9	63.178	µg/L	1.0612	63.178	ppb	1.0612	1.68%
Fe 238.204 Radial†	11614.2	99700	µg/L	567.8	99700	ppb	567.8	0.57%
K 766.490 Radial†	7690.0	5287.8	µg/L	19.09	5287.8	ppb	19.09	0.36%
Mg 279.077 IEC†	716.2	6864.1	µg/L	45.42	6864.1	ppb	45.42	0.66%
Mn 257.610†	605050.1	1938.9	µg/L	25.96	1938.9	ppb	25.96	1.34%
Mo 202.031†	63.6	10.164	µg/L	0.5032	10.164	ppb	0.5032	4.95%
Na 589.592 Radial†	4850.0	1585.6	µg/L	3.46	1585.6	ppb	3.46	0.22%

Ni 231.604†	1188.0	61.250 µg/L	1.8738	61.250 ppb	1.8738	3.06%
P 214.914†	278.3	480.13 µg/L	35.255	480.13 ppb	35.255	7.34%
Pb 220.353†	291.1	70.300 µg/L	2.8013	70.300 ppb	2.8013	3.98%
S 181.975 Axial†	24.8	102.67 µg/L	5.674	102.67 ppb	5.674	5.53%
Sb 206.836†	7.8	5.4756 µg/L	0.28210	5.4756 ppb	0.28210	5.15%
Se 196.026†	-50.8	194.10 µg/L	7.965	194.10 ppb	7.965	4.10%
SiO2†	305016.0	61080 µg/L	531.1	61080 ppb	531.1	0.87%
Si 251.611†	366464.1	28285 µg/L	250.7	28285 ppb	250.7	0.89%
Sn 189.927†	27.8	2.0097 µg/L	1.20689	2.0097 ppb	1.20689	60.05%
Sr 421.552†	8494.2	83.542 µg/L	0.3838	83.542 ppb	0.3838	0.46%
Ti 334.940†	632536.3	1438.2 µg/L	21.42	1438.2 ppb	21.42	1.49%
Tl 190.801†	-23.2	5.9668 µg/L	5.02172	5.9668 ppb	5.02172	84.16%
U 409.014†	-930.3	-93.371 µg/L	1.1581	-93.371 ppb	1.1581	1.24%
V 292.402†	5245.0	63.783 µg/L	1.3238	63.783 ppb	1.3238	2.08%
Zn 213.857†	12080.9	279.64 µg/L	5.598	279.64 ppb	5.598	2.00%

Sequence No.: 108
Sample ID: 245979007|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 428
Date Collected: 2/21/2010 05:28:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979007|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58529.3	58529.3	99.1	%			05:29:14
1	Al 396.153Radial†	46500.4	46917.8	35075	µg/L	35075	ppb	05:29:14
1	Ca 317.933Radial†	9193.7	9081.6	8330.2	µg/L	8330.2	ppb	05:29:34
1	Fe 238.204 Radial†	9465.9	9533.7	81840	µg/L	81840	ppb	05:29:34
1	K 766.490 Radial†	7097.4	6961.4	4786.7	µg/L	4786.7	ppb	05:29:14
1	Mg 279.077 IEC†	654.5	648.1	6220.8	µg/L	6220.8	ppb	05:29:34
1	Na 589.592 Radial†	4461.8	4027.3	1316.6	µg/L	1316.6	ppb	05:29:14
1	Sr 421.552†	6806.8	6825.2	67.128	µg/L	67.128	ppb	05:29:14
1	Sc 361.383	2110487.7	2110487.7	100.52	%			05:30:38
1	Y 371.029	1534171.0	1534171.0	105.41	%			05:30:38
1	Ag 328.068†	-1401.9	-931.5	-1.4130	µg/L	-1.4130	ppb	05:30:44
1	As 188.979†	16.8	17.0	34.924	µg/L	34.924	ppb	05:31:05
1	B 249.677†	700.6	371.5	-27.257	µg/L	-27.257	ppb	05:30:44
1	Ba 233.527†	11804.8	11762.5	288.35	µg/L	288.35	ppb	05:30:44
1	Be 313.107†	6133.2	9860.5	5.4434	µg/L	5.4434	ppb	05:30:44
1	Cd 226.502†	144.3	280.1	-2.1111	µg/L	-2.1111	ppb	05:31:05
1	Co 228.616†	826.4	819.5	35.148	µg/L	35.148	ppb	05:31:05
1	Cr 267.716†	7575.3	7583.7	154.70	µg/L	154.70	ppb	05:30:44
1	Cu 324.752†	5008.1	2112.6	25.390	µg/L	25.390	ppb	05:30:44
1	Mn 257.610†	726517.0	723083.0	2312.3	µg/L	2312.3	ppb	05:30:38
1	Mo 202.031†	30.2	33.4	6.4566	µg/L	6.4566	ppb	05:31:05
1	Ni 231.604†	2056.7	1737.4	88.828	µg/L	88.828	ppb	05:31:05
1	P 214.914†	221.6	204.3	348.31	µg/L	348.31	ppb	05:31:05
1	Pb 220.353†	268.7	172.6	41.452	µg/L	41.452	ppb	05:31:05
1	S 181.975 Axial†	41.2	23.6	98.030	µg/L	98.030	ppb	05:31:05
1	Sb 206.836†	27.7	5.4	2.5310	µg/L	2.5310	ppb	05:31:05
1	Se 196.026†	-29.9	-44.7	154.48	µg/L	154.48	ppb	05:31:05
1	SiO2†	278711.5	275793.6	55228	µg/L	55228	ppb	05:30:38
1	Si 251.611†	333365.1	331357.0	25575	µg/L	25575	ppb	05:30:38
1	Sn 189.927†	1.1	-3.6	-9.5579	µg/L	-9.5579	ppb	05:31:05
1	Ti 334.940†	593820.9	590625.1	1342.9	µg/L	1342.9	ppb	05:30:38
1	Tl 190.801†	-42.4	-19.9	7.8011	µg/L	7.8011	ppb	05:31:05
1	U 409.014†	-2086.9	-2075.4	-188.01	µg/L	-188.01	ppb	05:30:38
1	V 292.402†	5758.5	5824.8	67.451	µg/L	67.451	ppb	05:30:44
1	Zn 213.857†	7953.0	7410.2	170.23	µg/L	170.23	ppb	05:30:44
2	Sc RADIAL	58889.2	58889.2	99.7	%			05:29:40
2	Al 396.153Radial†	46715.4	46846.6	35022	µg/L	35022	ppb	05:29:40
2	Ca 317.933Radial†	9204.7	9035.9	8288.3	µg/L	8288.3	ppb	05:30:00
2	Fe 238.204 Radial†	9480.2	9489.7	81462	µg/L	81462	ppb	05:30:00
2	K 766.490 Radial†	7130.2	6950.5	4779.3	µg/L	4779.3	ppb	05:29:40
2	Mg 279.077 IEC†	648.8	638.4	6126.1	µg/L	6126.1	ppb	05:30:00
2	Na 589.592 Radial†	4442.5	3980.4	1301.3	µg/L	1301.3	ppb	05:29:40
2	Sr 421.552†	6843.3	6819.9	67.075	µg/L	67.075	ppb	05:29:40
2	Sc 361.383	2108212.2	2108212.2	100.41	%			05:31:13
2	Y 371.029	1533069.7	1533069.7	105.33	%			05:31:13
2	Ag 328.068†	-1451.6	-982.6	-1.8113	µg/L	-1.8113	ppb	05:31:18
2	As 188.979†	19.0	19.3	38.943	µg/L	38.943	ppb	05:31:39
2	B 249.677†	730.2	401.8	-25.820	µg/L	-25.820	ppb	05:31:18
2	Ba 233.527†	11890.0	11860.0	290.74	µg/L	290.74	ppb	05:31:18
2	Be 313.107†	6122.2	9856.1	5.4414	µg/L	5.4414	ppb	05:31:18
2	Cd 226.502†	135.5	271.6	-2.2838	µg/L	-2.2838	ppb	05:31:39
2	Co 228.616†	816.1	810.2	34.719	µg/L	34.719	ppb	05:31:39
2	Cr 267.716†	7651.9	7668.2	156.42	µg/L	156.42	ppb	05:31:18
2	Cu 324.752†	5077.6	2187.2	25.832	µg/L	25.832	ppb	05:31:18
2	Mn 257.610†	724261.0	721616.3	2307.6	µg/L	2307.6	ppb	05:31:13
2	Mo 202.031†	25.7	29.0	5.9971	µg/L	5.9971	ppb	05:31:39
2	Ni 231.604†	2061.8	1744.7	89.192	µg/L	89.192	ppb	05:31:39
2	P 214.914†	236.1	218.9	377.69	µg/L	377.69	ppb	05:31:39
2	Pb 220.353†	271.0	175.1	42.092	µg/L	42.092	ppb	05:31:39

2	S 181.975 Axial†	41.8	24.3	100.79 µg/L	100.79 ppb	05:31:39
2	Sb 206.836†	22.3	0.1	-2.3831 µg/L	-2.3831 ppb	05:31:39
2	Se 196.026†	-38.6	-53.4	141.66 µg/L	141.66 ppb	05:31:39
2	SiO2†	277836.6	275221.6	55113 µg/L	55113 ppb	05:31:13
2	Si 251.611†	332665.4	331018.2	25549 µg/L	25549 ppb	05:31:13
2	Sn 189.927†	4.0	-0.7	-8.3142 µg/L	-8.3142 ppb	05:31:39
2	Ti 334.940†	592338.3	589786.2	1341.0 µg/L	1341.0 ppb	05:31:13
2	Tl 190.801†	-40.9	-18.5	9.5857 µg/L	9.5857 ppb	05:31:39
2	U 409.014†	-2137.7	-2128.3	-192.44 µg/L	-192.44 ppb	05:31:13
2	V 292.402†	5845.9	5918.2	68.326 µg/L	68.326 ppb	05:31:18
2	Zn 213.857†	8018.0	7483.4	171.98 µg/L	171.98 ppb	05:31:18
3	Sc RADIAL	58486.1	58486.1	99.1 %		05:30:06
3	Al 396.153Radial†	46732.8	47187.0	35277 µg/L	35277 ppb	05:30:06
3	Ca 317.933Radial†	9179.8	9074.4	8323.6 µg/L	8323.6 ppb	05:30:26
3	Fe 238.204 Radial†	9485.0	9560.0	82066 µg/L	82066 ppb	05:30:26
3	K 766.490 Radial†	7070.0	6939.0	4771.4 µg/L	4771.4 ppb	05:30:06
3	Mg 279.077 IEC†	652.7	646.9	6208.1 µg/L	6208.1 ppb	05:30:26
3	Na 589.592 Radial†	4454.1	4022.8	1315.2 µg/L	1315.2 ppb	05:30:06
3	Sr 421.552†	6859.9	6883.9	67.705 µg/L	67.705 ppb	05:30:06
3	Sc 361.383	2084380.0	2084380.0	99.274 %		05:31:46
3	Y 371.029	1513434.6	1513434.6	103.98 %		05:31:46
3	Ag 328.068†	-1351.7	-898.5	-1.1626 µg/L	-1.1626 ppb	05:31:52
3	As 188.979†	14.0	14.4	30.173 µg/L	30.173 ppb	05:32:12
3	B 249.677†	676.8	356.3	-28.010 µg/L	-28.010 ppb	05:31:52
3	Ba 233.527†	11277.5	11378.4	278.93 µg/L	278.93 ppb	05:31:52
3	Be 313.107†	5608.2	9408.1	5.1868 µg/L	5.1868 ppb	05:31:52
3	Cd 226.502†	113.6	251.0	-2.8765 µg/L	-2.8765 ppb	05:32:12
3	Co 228.616†	751.1	754.1	32.207 µg/L	32.207 ppb	05:32:12
3	Cr 267.716†	7157.2	7257.0	148.03 µg/L	148.03 ppb	05:31:52
3	Cu 324.752†	4932.9	2099.3	25.333 µg/L	25.333 ppb	05:31:52
3	Mn 257.610†	696152.8	701549.7	2243.8 µg/L	2243.8 ppb	05:31:46
3	Mo 202.031†	24.6	28.1	5.9321 µg/L	5.9321 ppb	05:32:12
3	Ni 231.604†	1882.9	1588.1	81.285 µg/L	81.285 ppb	05:32:12
3	P 214.914†	209.1	194.4	328.61 µg/L	328.61 ppb	05:32:12
3	Pb 220.353†	253.6	160.7	38.530 µg/L	38.530 ppb	05:32:12
3	S 181.975 Axial†	31.4	14.3	59.459 µg/L	59.459 ppb	05:32:12
3	Sb 206.836†	28.5	6.6	3.7075 µg/L	3.7075 ppb	05:32:12
3	Se 196.026†	-19.2	-34.3	169.43 µg/L	169.43 ppb	05:32:12
3	SiO2†	269223.7	269709.4	54010 µg/L	54010 ppb	05:31:46
3	Si 251.611†	322168.4	324232.4	25025 µg/L	25025 ppb	05:31:46
3	Sn 189.927†	5.5	0.9	-7.6875 µg/L	-7.6875 ppb	05:32:12
3	Ti 334.940†	567385.4	571395.8	1299.2 µg/L	1299.2 ppb	05:31:46
3	Tl 190.801†	-38.3	-16.3	12.034 µg/L	12.034 ppb	05:32:12
3	U 409.014†	-2009.2	-2023.2	-183.61 µg/L	-183.61 ppb	05:31:46
3	V 292.402†	5526.5	5662.9	65.861 µg/L	65.861 ppb	05:31:52
3	Zn 213.857†	7678.2	7232.4	166.06 µg/L	166.06 ppb	05:31:52

Mean Data: 245979007|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2101026.6	100.07	%	0.689				0.69%
Sc RADIAL	58634.9	99.3	%	0.37				0.38%
Y 371.029	1526891.8	104.91	%	0.802				0.76%
Ag 328.068†	-937.5	-1.4623	µg/L	0.32717	-1.4623	ppb	0.32717	22.37%
Al 396.153Radial†	46983.8	35125	µg/L	134.2	35125	ppb	134.2	0.38%
As 188.979†	16.9	34.680	µg/L	4.3902	34.680	ppb	4.3902	12.66%
B 249.677†	376.5	-27.029	µg/L	1.1127	-27.029	ppb	1.1127	4.12%
Ba 233.527†	11666.9	286.01	µg/L	6.242	286.01	ppb	6.242	2.18%
Be 313.107†	9708.2	5.3572	µg/L	0.14759	5.3572	ppb	0.14759	2.75%
Ca 317.933Radial†	9063.9	8314.0	µg/L	22.54	8314.0	ppb	22.54	0.27%
Cd 226.502†	267.6	-2.4238	µg/L	0.40143	-2.4238	ppb	0.40143	16.56%
Co 228.616†	794.6	34.025	µg/L	1.5886	34.025	ppb	1.5886	4.67%
Cr 267.716†	7502.9	153.05	µg/L	4.430	153.05	ppb	4.430	2.89%
Cu 324.752†	2133.0	25.518	µg/L	0.2734	25.518	ppb	0.2734	1.07%
Fe 238.204 Radial†	9527.8	81789	µg/L	305.2	81789	ppb	305.2	0.37%
K 766.490 Radial†	6950.3	4779.2	µg/L	7.67	4779.2	ppb	7.67	0.16%
Mg 279.077 IEC†	644.5	6185.0	µg/L	51.44	6185.0	ppb	51.44	0.83%
Mn 257.610†	715416.4	2287.9	µg/L	38.27	2287.9	ppb	38.27	1.67%
Mo 202.031†	30.1	6.1286	µg/L	0.28594	6.1286	ppb	0.28594	4.67%
Na 589.592 Radial†	4010.2	1311.0	µg/L	8.46	1311.0	ppb	8.46	0.65%

Ni 231.604†	1690.1	86.435	µg/L	4.4635	86.435	ppb	4.4635	5.16%
P 214.914†	205.9	351.54	µg/L	24.701	351.54	ppb	24.701	7.03%
Pb 220.353†	169.5	40.691	µg/L	1.8990	40.691	ppb	1.8990	4.67%
S 181.975 Axial†	20.8	86.093	µg/L	23.1073	86.093	ppb	23.1073	26.84%
Sb 206.836†	4.0	1.2851	µg/L	3.23080	1.2851	ppb	3.23080	251.40%
Se 196.026†	-44.2	155.19	µg/L	13.900	155.19	ppb	13.900	8.96%
SiO2†	273574.9	54784	µg/L	672.8	54784	ppb	672.8	1.23%
Si 251.611†	328869.2	25383	µg/L	310.2	25383	ppb	310.2	1.22%
Sn 189.927†	-1.1	-8.5199	µg/L	0.95200	-8.5199	ppb	0.95200	11.17%
Sr 421.552†	6843.0	67.303	µg/L	0.3494	67.303	ppb	0.3494	0.52%
Ti 334.940†	583935.7	1327.7	µg/L	24.72	1327.7	ppb	24.72	1.86%
Tl 190.801†	-18.3	9.8071	µg/L	2.12537	9.8071	ppb	2.12537	21.67%
U 409.014†	-2075.6	-188.02	µg/L	4.417	-188.02	ppb	4.417	2.35%
V 292.402†	5802.0	67.212	µg/L	1.2495	67.212	ppb	1.2495	1.86%
Zn 213.857†	7375.3	169.42	µg/L	3.042	169.42	ppb	3.042	1.80%

Sequence No.: 109
Sample ID: 245979014|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 429
Date Collected: 2/21/2010 05:32:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979014|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58282.9	58282.9	98.7	%			05:32:54
1	Al 396.153Radial†	65605.9	66470.9	49693	µg/L	49693	ppb	05:32:54
1	Ca 317.933Radial†	12907.1	12882.6	11817	µg/L	11817	ppb	05:33:14
1	Fe 238.204 Radial†	11357.5	11490.3	98636	µg/L	98636	ppb	05:33:14
1	K 766.490 Radial†	12300.0	12262.2	8431.7	µg/L	8431.7	ppb	05:32:54
1	Mg 279.077 IEC†	1024.3	1025.6	9876.9	µg/L	9876.9	ppb	05:33:14
1	Na 589.592 Radial†	1931.4	1482.9	484.79	µg/L	484.79	ppb	05:32:54
1	Sr 421.552†	12181.0	12298.7	120.96	µg/L	120.96	ppb	05:32:54
1	Sc 361.383	2104175.5	2104175.5	100.22	%			05:34:19
1	Y 371.029	1473358.4	1473358.4	101.23	%			05:34:19
1	Ag 328.068†	-1516.4	-1050.1	-0.4155	µg/L	-0.4155	ppb	05:34:24
1	As 188.979†	13.5	13.7	29.845	µg/L	29.845	ppb	05:34:45
1	B 249.677†	881.4	554.0	-28.595	µg/L	-28.595	ppb	05:34:24
1	Ba 233.527†	23503.0	23470.6	575.49	µg/L	575.49	ppb	05:34:24
1	Be 313.107†	10926.8	14662.1	7.6877	µg/L	7.6877	ppb	05:34:24
1	Cd 226.502†	215.2	351.3	-2.2327	µg/L	-2.2327	ppb	05:34:45
1	Co 228.616†	997.2	992.4	39.561	µg/L	39.561	ppb	05:34:45
1	Cr 267.716†	6331.6	6365.3	129.93	µg/L	129.93	ppb	05:34:24
1	Cu 324.752†	23357.5	20437.4	149.28	µg/L	149.28	ppb	05:34:24
1	Mn 257.610†	704648.1	703429.5	2251.8	µg/L	2251.8	ppb	05:34:19
1	Mo 202.031†	8.9	12.2	4.9684	µg/L	4.9684	ppb	05:34:45
1	Ni 231.604†	1756.7	1444.2	74.218	µg/L	74.218	ppb	05:34:45
1	P 214.914†	275.9	259.0	435.01	µg/L	435.01	ppb	05:34:45
1	Pb 220.353†	5562.3	5455.5	1341.1	µg/L	1341.1	ppb	05:34:24
1	S 181.975 Axial†	87.5	70.0	290.14	µg/L	290.14	ppb	05:34:45
1	Sb 206.836†	30.4	8.2	5.0133	µg/L	5.0133	ppb	05:34:45
1	Se 196.026†	-38.4	-53.3	184.42	µg/L	184.42	ppb	05:34:45
1	SiO2†	298734.9	296605.6	59396	µg/L	59396	ppb	05:34:19
1	Si 251.611†	357598.5	356533.1	27518	µg/L	27518	ppb	05:34:19
1	Sn 189.927†	13.4	8.7	-5.6836	µg/L	-5.6836	ppb	05:34:45
1	Ti 334.940†	1350120.6	1347064.4	3063.2	µg/L	3063.2	ppb	05:34:19
1	Tl 190.801†	-53.7	-31.4	10.611	µg/L	10.611	ppb	05:34:45
1	U 409.014†	-279.9	-278.5	-38.065	µg/L	-38.065	ppb	05:34:24
1	V 292.402†	18383.1	18439.4	194.30	µg/L	194.30	ppb	05:34:24
1	Zn 213.857†	9455.1	8932.7	205.03	µg/L	205.03	ppb	05:34:24
2	Sc RADIAL	58421.4	58421.4	98.9	%			05:33:20
2	Al 396.153Radial†	65762.0	66471.2	49693	µg/L	49693	ppb	05:33:20
2	Ca 317.933Radial†	12967.4	12912.6	11844	µg/L	11844	ppb	05:33:40
2	Fe 238.204 Radial†	11381.0	11486.9	98606	µg/L	98606	ppb	05:33:40
2	K 766.490 Radial†	12353.4	12286.6	8448.5	µg/L	8448.5	ppb	05:33:20
2	Mg 279.077 IEC†	1030.3	1029.2	9911.9	µg/L	9911.9	ppb	05:33:40
2	Na 589.592 Radial†	1902.5	1449.1	473.74	µg/L	473.74	ppb	05:33:20
2	Sr 421.552†	12232.4	12321.3	121.18	µg/L	121.18	ppb	05:33:20
2	Sc 361.383	2110774.5	2110774.5	100.53	%			05:34:52
2	Y 371.029	1478057.6	1478057.6	101.55	%			05:34:52
2	Ag 328.068†	-1492.6	-1021.6	-0.2086	µg/L	-0.2086	ppb	05:34:58
2	As 188.979†	8.4	8.6	20.590	µg/L	20.590	ppb	05:35:19
2	B 249.677†	879.7	549.6	-28.762	µg/L	-28.762	ppb	05:34:58
2	Ba 233.527†	23420.8	23315.5	571.69	µg/L	571.69	ppb	05:34:58
2	Be 313.107†	10758.4	14460.5	7.5689	µg/L	7.5689	ppb	05:34:58
2	Cd 226.502†	221.6	357.1	-2.0866	µg/L	-2.0866	ppb	05:35:19
2	Co 228.616†	998.8	990.9	39.508	µg/L	39.508	ppb	05:35:19
2	Cr 267.716†	6289.8	6304.0	128.68	µg/L	128.68	ppb	05:34:58
2	Cu 324.752†	23299.6	20306.9	148.41	µg/L	148.41	ppb	05:34:58
2	Mn 257.610†	704226.7	700812.1	2243.5	µg/L	2243.5	ppb	05:34:52
2	Mo 202.031†	2.9	6.2	4.3705	µg/L	4.3705	ppb	05:35:19
2	Ni 231.604†	1727.1	1409.4	72.456	µg/L	72.456	ppb	05:35:19
2	P 214.914†	284.7	267.0	450.83	µg/L	450.83	ppb	05:35:19
2	Pb 220.353†	5536.4	5412.4	1330.5	µg/L	1330.5	ppb	05:34:58

2	S 181.975 Axial†	82.3	64.5	267.56 µg/L	267.56 ppb	05:35:19
2	Sb 206.836†	45.4	23.0	18.540 µg/L	18.540 ppb	05:35:19
2	Se 196.026†	-40.9	-55.7	181.00 µg/L	181.00 ppb	05:35:19
2	SiO2†	298993.5	295930.9	59260 µg/L	59260 ppb	05:34:52
2	Si 251.611†	357895.3	355712.7	27455 µg/L	27455 ppb	05:34:52
2	Sn 189.927†	10.8	6.0	-6.8195 µg/L	-6.8195 ppb	05:35:19
2	Ti 334.940†	1350954.6	1343682.2	3055.5 µg/L	3055.5 ppb	05:34:52
2	Tl 190.801†	-53.2	-30.7	11.399 µg/L	11.399 ppb	05:35:19
2	U 409.014†	-353.4	-350.8	-44.196 µg/L	-44.196 ppb	05:34:58
2	V 292.402†	18384.3	18383.3	193.72 µg/L	193.72 ppb	05:34:58
2	Zn 213.857†	9420.2	8868.6	203.52 µg/L	203.52 ppb	05:34:58
3	Sc RADIAL	58734.9	58734.9	99.5 %		05:33:46
3	Al 396.153Radial†	66103.6	66459.8	49685 µg/L	49685 ppb	05:33:46
3	Ca 317.933Radial†	12920.9	12795.9	11737 µg/L	11737 ppb	05:34:06
3	Fe 238.204 Radial†	11360.1	11404.4	97899 µg/L	97899 ppb	05:34:06
3	K 766.490 Radial†	12361.2	12227.7	8408.0 µg/L	8408.0 ppb	05:33:46
3	Mg 279.077 IEC†	1029.6	1022.9	9851.5 µg/L	9851.5 ppb	05:34:06
3	Na 589.592 Radial†	1924.3	1460.7	477.54 µg/L	477.54 ppb	05:33:46
3	Sr 421.552†	12311.7	12335.0	121.32 µg/L	121.32 ppb	05:33:46
3	Sc 361.383	2091888.7	2091888.7	99.631 %		05:35:26
3	Y 371.029	1464237.6	1464237.6	100.60 %		05:35:26
3	Ag 328.068†	-1491.4	-1033.8	-0.3669 µg/L	-0.3669 ppb	05:35:31
3	As 188.979†	6.5	6.8	17.281 µg/L	17.281 ppb	05:35:52
3	B 249.677†	865.1	542.8	-28.677 µg/L	-28.677 ppb	05:35:31
3	Ba 233.527†	22988.9	23092.3	566.21 µg/L	566.21 ppb	05:35:31
3	Be 313.107†	10334.7	14131.9	7.3907 µg/L	7.3907 ppb	05:35:31
3	Cd 226.502†	189.9	327.2	-2.7606 µg/L	-2.7606 ppb	05:35:52
3	Co 228.616†	945.0	946.0	37.536 µg/L	37.536 ppb	05:35:52
3	Cr 267.716†	6102.2	6172.2	125.99 µg/L	125.99 ppb	05:35:31
3	Cu 324.752†	22880.1	20095.0	146.91 µg/L	146.91 ppb	05:35:31
3	Mn 257.610†	687771.4	690620.2	2211.0 µg/L	2211.0 ppb	05:35:26
3	Mo 202.031†	3.9	7.2	4.4423 µg/L	4.4423 ppb	05:35:52
3	Ni 231.604†	1650.8	1348.3	69.363 µg/L	69.363 ppb	05:35:52
3	P 214.914†	267.5	252.2	422.26 µg/L	422.26 ppb	05:35:52
3	Pb 220.353†	5477.6	5403.1	1328.3 µg/L	1328.3 ppb	05:35:31
3	S 181.975 Axial†	87.8	70.8	293.53 µg/L	293.53 ppb	05:35:52
3	Sb 206.836†	34.0	12.0	8.5353 µg/L	8.5353 ppb	05:35:52
3	Se 196.026†	-30.0	-45.1	193.73 µg/L	193.73 ppb	05:35:52
3	SiO2†	293315.3	292916.8	58657 µg/L	58657 ppb	05:35:26
3	Si 251.611†	351164.9	352171.5	27182 µg/L	27182 ppb	05:35:26
3	Sn 189.927†	9.2	4.5	-7.4032 µg/L	-7.4032 ppb	05:35:52
3	Ti 334.940†	1315562.0	1320290.7	3002.3 µg/L	3002.3 ppb	05:35:26
3	Tl 190.801†	-50.7	-28.6	13.506 µg/L	13.506 ppb	05:35:52
3	U 409.014†	-285.8	-286.1	-38.599 µg/L	-38.599 ppb	05:35:31
3	V 292.402†	17871.5	18033.7	190.18 µg/L	190.18 ppb	05:35:31
3	Zn 213.857†	9223.7	8755.9	200.92 µg/L	200.92 ppb	05:35:31

Mean Data: 245979014|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2102279.6	100.13	%	0.456				0.46%
Sc RADIAL	58479.7	99.0	%	0.39				0.40%
Y 371.029	1471884.5	101.13	%	0.483				0.48%
Ag 328.068†	-1035.1	-0.3304	µg/L	0.10820	-0.3304	ppb	0.10820	32.75%
Al 396.153Radial†	66467.3	49690	µg/L	4.9	49690	ppb	4.9	0.01%
As 188.979†	9.7	22.572	µg/L	6.5122	22.572	ppb	6.5122	28.85%
B 249.677†	548.8	-28.678	µg/L	0.0837	-28.678	ppb	0.0837	0.29%
Ba 233.527†	23292.8	571.13	µg/L	4.664	571.13	ppb	4.664	0.82%
Be 313.107†	14418.1	7.5491	µg/L	0.14949	7.5491	ppb	0.14949	1.98%
Ca 317.933Radial†	12863.7	11799	µg/L	55.6	11799	ppb	55.6	0.47%
Cd 226.502†	345.2	-2.3600	µg/L	0.35457	-2.3600	ppb	0.35457	15.02%
Co 228.616†	976.5	38.868	µg/L	1.1541	38.868	ppb	1.1541	2.97%
Cr 267.716†	6280.5	128.20	µg/L	2.014	128.20	ppb	2.014	1.57%
Cu 324.752†	20279.8	148.20	µg/L	1.201	148.20	ppb	1.201	0.81%
Fe 238.204 Radial†	11460.5	98380	µg/L	417.5	98380	ppb	417.5	0.42%
K 766.490 Radial†	12258.8	8429.4	µg/L	20.33	8429.4	ppb	20.33	0.24%
Mg 279.077 IEC†	1025.9	9880.1	µg/L	30.33	9880.1	ppb	30.33	0.31%
Mn 257.610†	698287.3	2235.4	µg/L	21.60	2235.4	ppb	21.60	0.97%
Mo 202.031†	8.5	4.5937	µg/L	0.32649	4.5937	ppb	0.32649	7.11%
Na 589.592 Radial†	1464.2	478.69	µg/L	5.615	478.69	ppb	5.615	1.17%

Ni 231.604†	1400.6	72.012	µg/L	2.4576	72.012	ppb	2.4576	3.41%
P 214.914†	259.4	436.03	µg/L	14.312	436.03	ppb	14.312	3.28%
Pb 220.353†	5423.6	1333.3	µg/L	6.86	1333.3	ppb	6.86	0.51%
S 181.975 Axial†	68.5	283.74	µg/L	14.116	283.74	ppb	14.116	4.97%
Sb 206.836†	14.4	10.696	µg/L	7.0175	10.696	ppb	7.0175	65.61%
Se 196.026†	-51.4	186.38	µg/L	6.590	186.38	ppb	6.590	3.54%
SiO2†	295151.1	59104	µg/L	393.3	59104	ppb	393.3	0.67%
Si 251.611†	354805.7	27385	µg/L	178.9	27385	ppb	178.9	0.65%
Sn 189.927†	6.4	-6.6354	µg/L	0.87447	-6.6354	ppb	0.87447	13.18%
Sr 421.552†	12318.3	121.15	µg/L	0.181	121.15	ppb	0.181	0.15%
Ti 334.940†	1337012.5	3040.3	µg/L	33.16	3040.3	ppb	33.16	1.09%
Tl 190.801†	-30.2	11.839	µg/L	1.4965	11.839	ppb	1.4965	12.64%
U 409.014†	-305.1	-40.287	µg/L	3.3959	-40.287	ppb	3.3959	8.43%
V 292.402†	18285.4	192.73	µg/L	2.228	192.73	ppb	2.228	1.16%
Zn 213.857†	8852.4	203.16	µg/L	2.080	203.16	ppb	2.080	1.02%

Sequence No.: 110
Sample ID: 245979015|948764|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 430
Date Collected: 2/21/2010 05:36:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979015|948764|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56839.6	56839.6	96.3	%			05:36:34
1	Al 396.153Radial†	17329.9	18010.6	13464	µg/L	13464	ppb	05:36:34
1	Ca 317.933Radial†	7090.3	7172.3	6578.9	µg/L	6578.9	ppb	05:36:34
1	Fe 238.204 Radial†	10615.2	11011.4	94526	µg/L	94526	ppb	05:36:34
1	K 766.490 Radial†	4853.6	4843.4	3330.4	µg/L	3330.4	ppb	05:36:34
1	Mg 279.077 IEC†	271.2	269.7	2523.4	µg/L	2523.4	ppb	05:36:54
1	Na 589.592 Radial†	6492.8	6270.8	2050.1	µg/L	2050.1	ppb	05:36:34
1	Sr 421.552†	3282.4	3368.3	33.128	µg/L	33.128	ppb	05:36:34
1	Sc 361.383	2074829.6	2074829.6	98.819	%			05:37:58
1	Y 371.029	1537573.6	1537573.6	105.64	%			05:37:58
1	Ag 328.068†	-1367.5	-920.7	-0.7421	µg/L	-0.7421	ppb	05:38:04
1	As 188.979†	7.1	7.5	18.604	µg/L	18.604	ppb	05:38:24
1	B 249.677†	702.6	385.5	-33.372	µg/L	-33.372	ppb	05:38:04
1	Ba 233.527†	8795.1	8918.6	218.60	µg/L	218.60	ppb	05:38:04
1	Be 313.107†	5589.3	9415.0	4.9944	µg/L	4.9944	ppb	05:38:04
1	Cd 226.502†	169.7	308.3	-2.8502	µg/L	-2.8502	ppb	05:38:04
1	Co 228.616†	1386.7	1400.7	61.074	µg/L	61.074	ppb	05:38:24
1	Cr 267.716†	5403.5	5515.5	112.50	µg/L	112.50	ppb	05:38:04
1	Cu 324.752†	10027.4	7277.6	61.414	µg/L	61.414	ppb	05:38:04
1	Mn 257.610†	704580.0	713305.5	2283.0	µg/L	2283.0	ppb	05:37:58
1	Mo 202.031†	51.3	55.3	9.1293	µg/L	9.1293	ppb	05:38:24
1	Ni 231.604†	1722.8	1434.7	73.661	µg/L	73.661	ppb	05:38:04
1	P 214.914†	419.7	408.4	734.21	µg/L	734.21	ppb	05:38:24
1	Pb 220.353†	444.8	355.3	84.635	µg/L	84.635	ppb	05:38:24
1	S 181.975 Axial†	21.9	4.8	19.970	µg/L	19.970	ppb	05:38:24
1	Sb 206.836†	31.1	9.4	6.8256	µg/L	6.8256	ppb	05:38:24
1	Se 196.026†	-35.8	-51.2	184.11	µg/L	184.11	ppb	05:38:24
1	SiO2†	170151.7	170701.3	34183	µg/L	34183	ppb	05:38:04
1	Si 251.611†	206022.1	208191.5	16069	µg/L	16069	ppb	05:37:58
1	Sn 189.927†	19.6	15.1	-3.3625	µg/L	-3.3625	ppb	05:38:24
1	Ti 334.940†	788910.4	798199.7	1815.3	µg/L	1815.3	ppb	05:37:58
1	Tl 190.801†	-46.2	-24.5	5.8143	µg/L	5.8143	ppb	05:38:24
1	U 409.014†	-1445.1	-1461.6	-137.57	µg/L	-137.57	ppb	05:37:58
1	V 292.402†	2495.9	2621.7	37.233	µg/L	37.233	ppb	05:38:04
1	Zn 213.857†	20233.2	19973.2	466.35	µg/L	466.35	ppb	05:38:04
2	Sc RADIAL	57901.7	57901.7	98.1	%			05:37:00
2	Al 396.153Radial†	17644.9	18001.6	13458	µg/L	13458	ppb	05:37:00
2	Ca 317.933Radial†	7226.5	7176.0	6582.3	µg/L	6582.3	ppb	05:37:00
2	Fe 238.204 Radial†	10814.9	11012.8	94538	µg/L	94538	ppb	05:37:00
2	K 766.490 Radial†	4985.1	4885.0	3359.0	µg/L	3359.0	ppb	05:37:00
2	Mg 279.077 IEC†	265.2	258.3	2412.9	µg/L	2412.9	ppb	05:37:20
2	Na 589.592 Radial†	6538.4	6193.6	2024.9	µg/L	2024.9	ppb	05:37:00
2	Sr 421.552†	3329.9	3354.2	32.989	µg/L	32.989	ppb	05:37:00
2	Sc 361.383	2080443.4	2080443.4	99.086	%			05:38:32
2	Y 371.029	1541950.4	1541950.4	105.94	%			05:38:32
2	Ag 328.068†	-1363.0	-912.5	-0.6774	µg/L	-0.6774	ppb	05:38:38
2	As 188.979†	8.6	8.9	21.194	µg/L	21.194	ppb	05:38:58
2	B 249.677†	719.9	401.0	-32.744	µg/L	-32.744	ppb	05:38:38
2	Ba 233.527†	8743.4	8842.4	216.73	µg/L	216.73	ppb	05:38:38
2	Be 313.107†	5612.4	9423.0	5.0007	µg/L	5.0007	ppb	05:38:38
2	Cd 226.502†	156.0	294.1	-3.2108	µg/L	-3.2108	ppb	05:38:38
2	Co 228.616†	1370.0	1380.1	60.127	µg/L	60.127	ppb	05:38:58
2	Cr 267.716†	5402.2	5499.4	112.17	µg/L	112.17	ppb	05:38:38
2	Cu 324.752†	9905.3	7127.0	60.417	µg/L	60.417	ppb	05:38:38
2	Mn 257.610†	704474.3	711274.9	2276.6	µg/L	2276.6	ppb	05:38:32
2	Mo 202.031†	48.5	52.3	8.8296	µg/L	8.8296	ppb	05:38:58
2	Ni 231.604†	1724.2	1431.5	73.498	µg/L	73.498	ppb	05:38:38
2	P 214.914†	420.4	408.0	733.55	µg/L	733.55	ppb	05:38:58
2	Pb 220.353†	431.8	341.0	81.127	µg/L	81.127	ppb	05:38:58

2	S 181.975 Axial†	23.8	6.7	27.755 µg/L	27.755 ppb	05:38:58
2	Sb 206.836†	29.7	7.8	5.3832 µg/L	5.3832 ppb	05:38:58
2	Se 196.026†	-36.9	-52.2	182.86 µg/L	182.86 ppb	05:38:58
2	SiO2†	169058.2	169133.2	33869 µg/L	33869 ppb	05:38:38
2	Si 251.611†	206340.2	207949.9	16050 µg/L	16050 ppb	05:38:32
2	Sn 189.927†	24.0	19.5	-1.4896 µg/L	-1.4896 ppb	05:38:58
2	Ti 334.940†	789408.1	796547.8	1811.6 µg/L	1811.6 ppb	05:38:32
2	Tl 190.801†	-44.8	-22.9	7.8301 µg/L	7.8301 ppb	05:38:58
2	U 409.014†	-1460.7	-1473.4	-138.58 µg/L	-138.58 ppb	05:38:32
2	V 292.402†	2540.9	2660.4	37.612 µg/L	37.612 ppb	05:38:38
2	Zn 213.857†	20102.7	19786.1	461.94 µg/L	461.94 ppb	05:38:38
3	Sc RADIAL	57496.5	57496.5	97.4 %		05:37:26
3	Al 396.153Radial†	17634.9	18118.2	13545 µg/L	13545 ppb	05:37:26
3	Ca 317.933Radial†	7247.3	7249.4	6649.6 µg/L	6649.6 ppb	05:37:26
3	Fe 238.204 Radial†	10788.5	11063.4	94972 µg/L	94972 ppb	05:37:26
3	K 766.490 Radial†	4937.3	4871.8	3349.9 µg/L	3349.9 ppb	05:37:26
3	Mg 279.077 IEC†	264.0	259.0	2419.4 µg/L	2419.4 ppb	05:37:46
3	Na 589.592 Radial†	6609.7	6313.8	2064.2 µg/L	2064.2 ppb	05:37:26
3	Sr 421.552†	3353.6	3402.5	33.464 µg/L	33.464 ppb	05:37:26
3	Sc 361.383	2079575.0	2079575.0	99.045 %		05:39:06
3	Y 371.029	1536406.2	1536406.2	105.56 %		05:39:06
3	Ag 328.068†	-1287.3	-836.6	-0.0895 µg/L	-0.0895 ppb	05:39:11
3	As 188.979†	7.3	7.6	18.850 µg/L	18.850 ppb	05:39:32
3	B 249.677†	694.3	375.5	-34.026 µg/L	-34.026 ppb	05:39:11
3	Ba 233.527†	8383.9	8483.1	207.93 µg/L	207.93 ppb	05:39:11
3	Be 313.107†	4999.4	8806.5	4.6497 µg/L	4.6497 ppb	05:39:11
3	Cd 226.502†	137.2	275.1	-3.7388 µg/L	-3.7388 ppb	05:39:11
3	Co 228.616†	1260.6	1270.1	55.153 µg/L	55.153 ppb	05:39:32
3	Cr 267.716†	5051.1	5147.2	104.99 µg/L	104.99 ppb	05:39:11
3	Cu 324.752†	9699.4	6923.2	59.126 µg/L	59.126 ppb	05:39:11
3	Mn 257.610†	685633.3	692549.0	2217.0 µg/L	2217.0 ppb	05:39:06
3	Mo 202.031†	43.7	47.5	8.3658 µg/L	8.3658 ppb	05:39:32
3	Ni 231.604†	1679.5	1387.0	71.264 µg/L	71.264 ppb	05:39:11
3	P 214.914†	383.7	371.2	660.03 µg/L	660.03 ppb	05:39:32
3	Pb 220.353†	418.2	327.4	77.754 µg/L	77.754 ppb	05:39:32
3	S 181.975 Axial†	17.1	-0.0	-0.0173 µg/L	-0.0173 ppb	05:39:32
3	Sb 206.836†	23.0	1.2	-0.6341 µg/L	-0.6341 ppb	05:39:32
3	Se 196.026†	-32.4	-47.7	190.20 µg/L	190.20 ppb	05:39:32
3	SiO2†	163479.5	163571.9	32755 µg/L	32755 ppb	05:39:11
3	Si 251.611†	201927.0	203581.1	15713 µg/L	15713 ppb	05:39:06
3	Sn 189.927†	16.7	12.1	-4.6865 µg/L	-4.6865 ppb	05:39:32
3	Ti 334.940†	764649.5	771883.1	1755.5 µg/L	1755.5 ppb	05:39:06
3	Tl 190.801†	-43.3	-21.5	9.1046 µg/L	9.1046 ppb	05:39:32
3	U 409.014†	-1378.7	-1391.2	-131.67 µg/L	-131.67 ppb	05:39:06
3	V 292.402†	2459.1	2578.9	36.844 µg/L	36.844 ppb	05:39:11
3	Zn 213.857†	19368.8	19053.7	444.65 µg/L	444.65 ppb	05:39:11

Mean Data: 245979015|948764|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2078282.7	98.983	%	0.1439				0.15%
Sc RADIAL	57412.6	97.2	%	0.91				0.93%
Y 371.029	1538643.4	105.71	%	0.201				0.19%
Ag 328.068†	-889.9	-0.5030	µg/L	0.35954	-0.5030	ppb	0.35954	71.48%
Al 396.153Radial†	18043.4	13489	µg/L	48.5	13489	ppb	48.5	0.36%
As 188.979†	8.0	19.549	µg/L	1.4300	19.549	ppb	1.4300	7.31%
B 249.677†	387.4	-33.381	µg/L	0.6410	-33.381	ppb	0.6410	1.92%
Ba 233.527†	8748.0	214.42	µg/L	5.700	214.42	ppb	5.700	2.66%
Be 313.107†	9214.8	4.8816	µg/L	0.20085	4.8816	ppb	0.20085	4.11%
Ca 317.933Radial†	7199.2	6603.6	µg/L	39.86	6603.6	ppb	39.86	0.60%
Cd 226.502†	292.5	-3.2666	µg/L	0.44692	-3.2666	ppb	0.44692	13.68%
Co 228.616†	1350.3	58.785	µg/L	3.1803	58.785	ppb	3.1803	5.41%
Cr 267.716†	5387.4	109.89	µg/L	4.245	109.89	ppb	4.245	3.86%
Cu 324.752†	7109.3	60.319	µg/L	1.1473	60.319	ppb	1.1473	1.90%
Fe 238.204 Radial†	11029.2	94678	µg/L	254.0	94678	ppb	254.0	0.27%
K 766.490 Radial†	4866.7	3346.4	µg/L	14.62	3346.4	ppb	14.62	0.44%
Mg 279.077 IEC†	262.3	2451.9	µg/L	62.00	2451.9	ppb	62.00	2.53%
Mn 257.610†	705709.8	2258.9	µg/L	36.39	2258.9	ppb	36.39	1.61%
Mo 202.031†	51.7	8.7749	µg/L	0.38465	8.7749	ppb	0.38465	4.38%
Na 589.592 Radial†	6259.4	2046.4	µg/L	19.91	2046.4	ppb	19.91	0.97%

Ni 231.604†	1417.7	72.808	µg/L	1.3397	72.808	ppb	1.3397	1.84%
P 214.914†	395.9	709.26	µg/L	42.639	709.26	ppb	42.639	6.01%
Pb 220.353†	341.2	81.172	µg/L	3.4404	81.172	ppb	3.4404	4.24%
S 181.975 Axial†	3.8	15.903	µg/L	14.3259	15.903	ppb	14.3259	90.09%
Sb 206.836†	6.1	3.8583	µg/L	3.95677	3.8583	ppb	3.95677	102.55%
Se 196.026†	-50.3	185.72	µg/L	3.925	185.72	ppb	3.925	2.11%
SiO2†	167802.1	33603	µg/L	750.2	33603	ppb	750.2	2.23%
Si 251.611†	206574.2	15944	µg/L	200.3	15944	ppb	200.3	1.26%
Sn 189.927†	15.6	-3.1795	µg/L	1.60626	-3.1795	ppb	1.60626	50.52%
Sr 421.552†	3375.0	33.194	µg/L	0.2443	33.194	ppb	0.2443	0.74%
Ti 334.940†	788876.9	1794.1	µg/L	33.52	1794.1	ppb	33.52	1.87%
Tl 190.801†	-23.0	7.5830	µg/L	1.65902	7.5830	ppb	1.65902	21.88%
U 409.014†	-1442.1	-135.94	µg/L	3.736	-135.94	ppb	3.736	2.75%
V 292.402†	2620.3	37.230	µg/L	0.3842	37.230	ppb	0.3842	1.03%
Zn 213.857†	19604.3	457.65	µg/L	11.471	457.65	ppb	11.471	2.51%

Sequence No.: 111
Sample ID: 245979006|948764|50
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 431
Date Collected: 2/21/2010 05:39:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245979006|948764|50

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57900.3	57900.3	98.1	%			05:40:14
1	Al 396.153Radial†	548.4	568.0	424.60	µg/L	424.60	ppb	05:40:14
1	Ca 317.933Radial†	531.3	348.8	319.94	µg/L	319.94	ppb	05:40:34
1	Fe 238.204 Radial†	173.9	161.9	1390.0	µg/L	1390.0	ppb	05:40:34
1	K 766.490 Radial†	317.2	125.1	85.990	µg/L	85.990	ppb	05:40:14
1	Mg 279.077 IEC†	17.6	5.8	55.411	µg/L	55.411	ppb	05:40:34
1	Na 589.592 Radial†	479.4	15.2	4.9638	µg/L	4.9638	ppb	05:40:14
1	Sr 421.552†	227.9	191.0	1.8790	µg/L	1.8790	ppb	05:40:14
1	Sc 361.383	2084189.6	2084189.6	99.264	%			05:41:37
1	Y 371.029	1443701.6	1443701.6	99.190	%			05:41:37
1	Ag 328.068†	-292.2	168.8	1.3620	µg/L	1.3620	ppb	05:41:42
1	As 188.979†	-3.3	-3.1	-5.5000	µg/L	-5.5000	ppb	05:42:03
1	B 249.677†	322.2	-0.8	-0.7565	µg/L	-0.7565	ppb	05:42:03
1	Ba 233.527†	674.6	698.0	17.108	µg/L	17.108	ppb	05:42:03
1	Be 313.107†	951.3	4717.2	2.8353	µg/L	2.8353	ppb	05:41:42
1	Cd 226.502†	-144.3	-8.8	-0.3756	µg/L	-0.3756	ppb	05:42:03
1	Co 228.616†	6.7	4.1	0.1168	µg/L	0.1168	ppb	05:42:03
1	Cr 267.716†	54.8	102.6	2.0941	µg/L	2.0941	ppb	05:41:42
1	Cu 324.752†	872156.2	875749.0	5809.5	µg/L	5809.5	ppb	05:41:37
1	Mn 257.610†	6321.6	6671.0	21.417	µg/L	21.417	ppb	05:41:42
1	Mo 202.031†	1.1	4.5	0.4993	µg/L	0.4993	ppb	05:42:03
1	Ni 231.604†	344.0	37.9	1.9320	µg/L	1.9320	ppb	05:42:03
1	P 214.914†	99.8	84.3	-446.65	µg/L	-446.65	ppb	05:41:42
1	Pb 220.353†	446.8	355.3	77.576	µg/L	77.576	ppb	05:42:03
1	S 181.975 Axial†	17.6	0.5	1.9620	µg/L	1.9620	ppb	05:42:03
1	Sb 206.836†	29.4	7.5	6.7748	µg/L	6.7748	ppb	05:42:03
1	Se 196.026†	11.7	-3.2	-0.7088	µg/L	-0.7088	ppb	05:42:03
1	SiO2†	4599.0	3148.7	630.53	µg/L	630.53	ppb	05:41:42
1	Si 251.611†	4084.0	3820.7	294.89	µg/L	294.89	ppb	05:41:42
1	Sn 189.927†	39.7	35.2	14.926	µg/L	14.926	ppb	05:42:03
1	Ti 334.940†	15828.0	15803.6	35.944	µg/L	35.944	ppb	05:41:42
1	Tl 190.801†	-20.5	1.5	2.7183	µg/L	2.7183	ppb	05:42:03
1	U 409.014†	508.2	512.7	43.294	µg/L	43.294	ppb	05:41:42
1	V 292.402†	141.4	238.5	2.5762	µg/L	2.5762	ppb	05:41:42
1	Zn 213.857†	90872.3	91043.7	2139.3	µg/L	2139.3	ppb	05:41:42
2	Sc RADIAL	57694.1	57694.1	97.7	%			05:40:40
2	Al 396.153Radial†	553.0	574.6	429.58	µg/L	429.58	ppb	05:40:40
2	Ca 317.933Radial†	515.5	334.6	306.87	µg/L	306.87	ppb	05:41:00
2	Fe 238.204 Radial†	176.8	165.6	1421.3	µg/L	1421.3	ppb	05:41:00
2	K 766.490 Radial†	288.3	96.6	66.458	µg/L	66.458	ppb	05:40:40
2	Mg 279.077 IEC†	22.6	11.0	106.00	µg/L	106.00	ppb	05:41:00
2	Na 589.592 Radial†	527.9	66.6	21.760	µg/L	21.760	ppb	05:40:40
2	Sr 421.552†	190.5	153.6	1.5110	µg/L	1.5110	ppb	05:40:40
2	Sc 361.383	2083162.4	2083162.4	99.216	%			05:42:09
2	Y 371.029	1441419.4	1441419.4	99.034	%			05:42:09
2	Ag 328.068†	-249.3	211.8	1.6860	µg/L	1.6860	ppb	05:42:15
2	As 188.979†	-1.1	-0.8	-1.3535	µg/L	-1.3535	ppb	05:42:35
2	B 249.677†	318.8	-4.1	-0.9085	µg/L	-0.9085	ppb	05:42:35
2	Ba 233.527†	669.0	692.6	16.978	µg/L	16.978	ppb	05:42:35
2	Be 313.107†	790.9	4556.0	2.7381	µg/L	2.7381	ppb	05:42:15
2	Cd 226.502†	-148.2	-12.8	-0.4804	µg/L	-0.4804	ppb	05:42:35
2	Co 228.616†	27.2	24.8	1.0753	µg/L	1.0753	ppb	05:42:35
2	Cr 267.716†	36.1	83.8	1.7103	µg/L	1.7103	ppb	05:42:15
2	Cu 324.752†	871681.6	875703.9	5809.2	µg/L	5809.2	ppb	05:42:09
2	Mn 257.610†	6305.1	6657.5	21.376	µg/L	21.376	ppb	05:42:15
2	Mo 202.031†	-5.7	-2.4	-0.1873	µg/L	-0.1873	ppb	05:42:35
2	Ni 231.604†	353.2	47.4	2.4107	µg/L	2.4107	ppb	05:42:35
2	P 214.914†	70.4	54.7	-505.43	µg/L	-505.43	ppb	05:42:15
2	Pb 220.353†	447.8	356.6	77.873	µg/L	77.873	ppb	05:42:35

2	S 181.975 Axial†	17.2	-0.0	-0.0153 µg/L	-0.0153 ppb	05:42:35
2	Sb 206.836†	28.6	6.7	6.1081 µg/L	6.1081 ppb	05:42:35
2	Se 196.026†	2.3	-12.7	-13.708 µg/L	-13.708 ppb	05:42:35
2	SiO2†	4564.9	3116.6	624.11 µg/L	624.11 ppb	05:42:15
2	Si 251.611†	4066.0	3804.7	293.66 µg/L	293.66 ppb	05:42:15
2	Sn 189.927†	31.1	26.6	11.250 µg/L	11.250 ppb	05:42:35
2	Ti 334.940†	15590.6	15572.2	35.414 µg/L	35.414 ppb	05:42:15
2	Tl 190.801†	-22.9	-0.9	-0.5582 µg/L	-0.5582 ppb	05:42:35
2	U 409.014†	499.0	503.7	42.527 µg/L	42.527 ppb	05:42:15
2	V 292.402†	155.3	252.5	2.7120 µg/L	2.7120 ppb	05:42:15
2	Zn 213.857†	90393.6	90606.4	2128.9 µg/L	2128.9 ppb	05:42:15
3	Sc RADIAL	57532.6	57532.6	97.4 %		05:41:05
3	Al 396.153Radial†	537.2	560.0	418.66 µg/L	418.66 ppb	05:41:05
3	Ca 317.933Radial†	525.3	346.2	317.51 µg/L	317.51 ppb	05:41:26
3	Fe 238.204 Radial†	176.0	165.2	1418.1 µg/L	1418.1 ppb	05:41:26
3	K 766.490 Radial†	354.7	165.6	113.88 µg/L	113.88 ppb	05:41:05
3	Mg 279.077 IEC†	21.9	10.4	99.550 µg/L	99.550 ppb	05:41:26
3	Na 589.592 Radial†	511.9	51.6	16.872 µg/L	16.872 ppb	05:41:05
3	Sr 421.552†	203.1	167.0	1.6427 µg/L	1.6427 ppb	05:41:05
3	Sc 361.383	2072515.1	2072515.1	98.708 %		05:42:41
3	Y 371.029	1435925.7	1435925.7	98.656 %		05:42:41
3	Ag 328.068†	-272.6	186.9	1.5023 µg/L	1.5023 ppb	05:42:47
3	As 188.979†	3.8	4.1	7.4808 µg/L	7.4808 ppb	05:43:08
3	B 249.677†	333.9	12.8	-0.2145 µg/L	-0.2145 ppb	05:43:08
3	Ba 233.527†	579.4	605.3	14.838 µg/L	14.838 ppb	05:43:08
3	Be 313.107†	510.9	4276.4	2.5702 µg/L	2.5702 ppb	05:42:47
3	Cd 226.502†	-140.5	-5.7	-0.3025 µg/L	-0.3025 ppb	05:43:08
3	Co 228.616†	15.2	12.9	0.5257 µg/L	0.5257 ppb	05:43:08
3	Cr 267.716†	10.8	58.3	1.1904 µg/L	1.1904 ppb	05:42:47
3	Cu 324.752†	828877.8	836853.6	5551.5 µg/L	5551.5 ppb	05:42:41
3	Mn 257.610†	5733.3	6110.9	19.636 µg/L	19.636 ppb	05:42:47
3	Mo 202.031†	-11.8	-8.6	-0.8087 µg/L	-0.8087 ppb	05:43:08
3	Ni 231.604†	339.8	35.6	1.8151 µg/L	1.8151 ppb	05:43:08
3	P 214.914†	76.2	61.0	-465.75 µg/L	-465.75 ppb	05:42:47
3	Pb 220.353†	403.7	314.2	67.903 µg/L	67.903 ppb	05:43:08
3	S 181.975 Axial†	17.4	0.3	1.2474 µg/L	1.2474 ppb	05:43:08
3	Sb 206.836†	17.2	-4.6	-4.2981 µg/L	-4.2981 ppb	05:43:08
3	Se 196.026†	14.2	-0.6	2.8330 µg/L	2.8330 ppb	05:43:08
3	SiO2†	4367.0	2939.7	588.68 µg/L	588.68 ppb	05:42:47
3	Si 251.611†	3828.4	3584.9	276.70 µg/L	276.70 ppb	05:42:47
3	Sn 189.927†	31.2	26.9	11.349 µg/L	11.349 ppb	05:43:08
3	Ti 334.940†	14389.7	14436.3	32.831 µg/L	32.831 ppb	05:42:47
3	Tl 190.801†	-21.3	0.7	1.4746 µg/L	1.4746 ppb	05:43:08
3	U 409.014†	317.2	322.2	27.123 µg/L	27.123 ppb	05:42:47
3	V 292.402†	186.2	284.7	3.0073 µg/L	3.0073 ppb	05:42:47
3	Zn 213.857†	83885.7	84481.3	1984.8 µg/L	1984.8 ppb	05:42:47

Mean Data: 245979006|948764|50

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2079955.7	99.063	%	0.3079				0.31%
Sc RADIAL	57709.0	97.7	%	0.31				0.32%
Y 371.029	1440348.9	98.960	%	0.2746				0.28%
Ag 328.068†	189.2	1.5168	µg/L	0.16247	1.5168	ppb	0.16247	10.71%
Al 396.153Radial†	567.5	424.28	µg/L	5.464	424.28	ppb	5.464	1.29%
As 188.979†	0.1	0.2091	µg/L	6.63000	0.2091	ppb	6.63000	>999.9%
B 249.677†	2.6	-0.6265	µg/L	0.36480	-0.6265	ppb	0.36480	58.23%
Ba 233.527†	665.3	16.308	µg/L	1.2747	16.308	ppb	1.2747	7.82%
Be 313.107†	4516.6	2.7145	µg/L	0.13409	2.7145	ppb	0.13409	4.94%
Ca 317.933Radial†	343.2	314.78	µg/L	6.949	314.78	ppb	6.949	2.21%
Cd 226.502†	-9.1	-0.3862	µg/L	0.08946	-0.3862	ppb	0.08946	23.17%
Co 228.616†	13.9	0.5726	µg/L	0.48099	0.5726	ppb	0.48099	84.00%
Cr 267.716†	81.6	1.6649	µg/L	0.45354	1.6649	ppb	0.45354	27.24%
Cu 324.752†	862768.9	5723.4	µg/L	148.88	5723.4	ppb	148.88	2.60%
Fe 238.204 Radial†	164.2	1409.8	µg/L	17.23	1409.8	ppb	17.23	1.22%
K 766.490 Radial†	129.1	88.777	µg/L	23.8348	88.777	ppb	23.8348	26.85%
Mg 279.077 IEC†	9.1	86.988	µg/L	27.5355	86.988	ppb	27.5355	31.65%
Mn 257.610†	6479.8	20.810	µg/L	1.0167	20.810	ppb	1.0167	4.89%
Mo 202.031†	-2.2	-0.1656	µg/L	0.65424	-0.1656	ppb	0.65424	395.15%
Na 589.592 Radial†	44.4	14.532	µg/L	8.6390	14.532	ppb	8.6390	59.45%

Ni 231.604†	40.3	2.0526	µg/L	0.31559	2.0526	ppb	0.31559	15.38%
P 214.914†	66.7	-472.61	µg/L	29.982	-472.61	ppb	29.982	6.34%
Pb 220.353†	342.0	74.451	µg/L	5.6720	74.451	ppb	5.6720	7.62%
S 181.975 Axial†	0.3	1.0647	µg/L	1.00124	1.0647	ppb	1.00124	94.04%
Sb 206.836†	3.2	2.8616	µg/L	6.20947	2.8616	ppb	6.20947	216.99%
Se 196.026†	-5.5	-3.8614	µg/L	8.70970	-3.8614	ppb	8.70970	225.56%
SiO2†	3068.3	614.44	µg/L	22.542	614.44	ppb	22.542	3.67%
Si 251.611†	3736.8	288.42	µg/L	10.168	288.42	ppb	10.168	3.53%
Sn 189.927†	29.6	12.508	µg/L	2.0944	12.508	ppb	2.0944	16.74%
Sr 421.552†	170.6	1.6776	µg/L	0.18643	1.6776	ppb	0.18643	11.11%
Ti 334.940†	15270.7	34.730	µg/L	1.6656	34.730	ppb	1.6656	4.80%
Tl 190.801†	0.4	1.2116	µg/L	1.65402	1.2116	ppb	1.65402	136.52%
U 409.014†	446.2	37.648	µg/L	9.1232	37.648	ppb	9.1232	24.23%
V 292.402†	258.6	2.7652	µg/L	0.22040	2.7652	ppb	0.22040	7.97%
Zn 213.857†	88710.5	2084.3	µg/L	86.35	2084.3	ppb	86.35	4.14%

Sequence No.: 112
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 05:43:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58165.4	58165.4	98.5	%			05:43:56
1	Al 396.153Radial†	6804.3	6915.8	5159.5	µg/L	5159.5	ppb	05:43:56
1	Ca 317.933Radial†	5591.0	5482.5	5028.9	µg/L	5028.9	ppb	05:44:17
1	Fe 238.204 Radial†	606.2	599.9	5160.9	µg/L	5160.9	ppb	05:44:17
1	K 766.490 Radial†	7336.7	7249.1	4984.6	µg/L	4984.6	ppb	05:43:56
1	Mg 279.077 IEC†	545.4	541.5	5273.9	µg/L	5273.9	ppb	05:44:17
1	Na 589.592 Radial†	31345.9	31345.5	10248	µg/L	10248	ppb	05:43:56
1	Sr 421.552†	49056.5	49755.9	489.36	µg/L	489.36	ppb	05:43:56
1	Sc 361.383	2074843.9	2074843.9	98.819	%			05:45:21
1	Y 371.029	1431203.5	1431203.5	98.332	%			05:45:21
1	Ag 328.068†	66126.8	67380.0	506.30	µg/L	506.30	ppb	05:45:26
1	As 188.979†	283.7	287.4	516.33	µg/L	516.33	ppb	05:45:47
1	B 249.677†	12359.1	12181.3	496.46	µg/L	496.46	ppb	05:45:26
1	Ba 233.527†	20474.0	20737.0	509.09	µg/L	509.09	ppb	05:45:26
1	Be 313.107†	819041.5	832585.8	502.64	µg/L	502.64	ppb	05:45:21
1	Cd 226.502†	19912.5	20287.0	510.41	µg/L	510.41	ppb	05:45:26
1	Co 228.616†	10950.1	11078.3	512.39	µg/L	512.39	ppb	05:45:26
1	Cr 267.716†	24782.6	25126.1	512.74	µg/L	512.74	ppb	05:45:26
1	Cu 324.752†	78421.6	76488.9	508.10	µg/L	508.10	ppb	05:45:26
1	Mn 257.610†	157143.3	159323.3	507.62	µg/L	507.62	ppb	05:45:21
1	Mo 202.031†	5136.6	5201.3	521.35	µg/L	521.35	ppb	05:45:47
1	Ni 231.604†	10354.4	10169.4	513.41	µg/L	513.41	ppb	05:45:26
1	P 214.914†	1302.9	1302.2	2540.7	µg/L	2540.7	ppb	05:45:47
1	Pb 220.353†	2146.6	2077.5	511.36	µg/L	511.36	ppb	05:45:47
1	S 181.975 Axial†	264.7	250.5	1038.5	µg/L	1038.5	ppb	05:45:47
1	Sb 206.836†	565.4	550.1	504.47	µg/L	504.47	ppb	05:45:47
1	Se 196.026†	386.9	376.5	523.79	µg/L	523.79	ppb	05:45:47
1	SiO2†	28397.7	27252.5	5457.3	µg/L	5457.3	ppb	05:45:26
1	Si 251.611†	32950.7	33050.9	2551.0	µg/L	2551.0	ppb	05:45:26
1	Sn 189.927†	1231.2	1241.2	530.84	µg/L	530.84	ppb	05:45:47
1	Ti 334.940†	219483.3	221963.9	504.50	µg/L	504.50	ppb	05:45:21
1	Tl 190.801†	358.3	384.8	520.35	µg/L	520.35	ppb	05:45:47
1	U 409.014†	6017.5	6090.1	515.81	µg/L	515.81	ppb	05:45:26
1	V 292.402†	50587.6	51288.0	513.69	µg/L	513.69	ppb	05:45:26
1	Zn 213.857†	22088.4	21850.3	512.06	µg/L	512.06	ppb	05:45:26
2	Sc RADIAL	57977.3	57977.3	98.2	%			05:44:23
2	Al 396.153Radial†	6792.9	6926.5	5167.7	µg/L	5167.7	ppb	05:44:23
2	Ca 317.933Radial†	5641.4	5552.2	5092.8	µg/L	5092.8	ppb	05:44:43
2	Fe 238.204 Radial†	608.3	604.1	5196.4	µg/L	5196.4	ppb	05:44:43
2	K 766.490 Radial†	7312.8	7248.9	4984.5	µg/L	4984.5	ppb	05:44:23
2	Mg 279.077 IEC†	549.6	547.6	5333.2	µg/L	5333.2	ppb	05:44:43
2	Na 589.592 Radial†	31347.2	31450.1	10282	µg/L	10282	ppb	05:44:23
2	Sr 421.552†	49082.9	49944.4	491.21	µg/L	491.21	ppb	05:44:23
2	Sc 361.383	2082140.4	2082140.4	99.167	%			05:45:54
2	Y 371.029	1436667.9	1436667.9	98.707	%			05:45:54
2	Ag 328.068†	65536.9	66550.6	500.08	µg/L	500.08	ppb	05:46:00
2	As 188.979†	281.0	283.6	509.58	µg/L	509.58	ppb	05:46:20
2	B 249.677†	12242.5	12019.9	489.83	µg/L	489.83	ppb	05:46:00
2	Ba 233.527†	20246.7	20435.2	501.68	µg/L	501.68	ppb	05:46:00
2	Be 313.107†	819648.1	830293.1	501.26	µg/L	501.26	ppb	05:45:54
2	Cd 226.502†	19671.9	19973.8	502.52	µg/L	502.52	ppb	05:46:00
2	Co 228.616†	10845.7	10934.2	505.71	µg/L	505.71	ppb	05:46:00
2	Cr 267.716†	24557.7	24811.4	506.32	µg/L	506.32	ppb	05:46:00
2	Cu 324.752†	77805.6	75589.5	502.14	µg/L	502.14	ppb	05:46:00
2	Mn 257.610†	157346.0	158970.5	506.50	µg/L	506.50	ppb	05:45:54
2	Mo 202.031†	5076.7	5122.7	513.47	µg/L	513.47	ppb	05:46:20
2	Ni 231.604†	10218.9	9996.1	504.66	µg/L	504.66	ppb	05:46:00
2	P 214.914†	1292.8	1287.4	2511.6	µg/L	2511.6	ppb	05:46:20
2	Pb 220.353†	2145.4	2068.6	509.19	µg/L	509.19	ppb	05:46:20

2	S 181.975 Axial†	263.7	248.7	1030.7 µg/L	1030.7 ppb	05:46:20
2	Sb 206.836†	573.3	556.0	509.81 µg/L	509.81 ppb	05:46:20
2	Se 196.026†	383.8	372.0	517.66 µg/L	517.66 ppb	05:46:20
2	SiO2†	28154.0	26906.1	5388.0 µg/L	5388.0 ppb	05:46:00
2	Si 251.611†	32737.2	32718.7	2525.3 µg/L	2525.3 ppb	05:46:00
2	Sn 189.927†	1198.0	1203.4	514.66 µg/L	514.66 ppb	05:46:20
2	Ti 334.940†	219609.8	221313.2	503.01 µg/L	503.01 ppb	05:45:54
2	Tl 190.801†	351.4	376.6	509.37 µg/L	509.37 ppb	05:46:20
2	U 409.014†	5856.5	5906.4	500.21 µg/L	500.21 ppb	05:46:00
2	V 292.402†	50172.3	50689.8	507.68 µg/L	507.68 ppb	05:46:00
2	Zn 213.857†	21849.1	21530.7	504.56 µg/L	504.56 ppb	05:46:00
3	Sc RADIAL	58036.6	58036.6	98.3 %		05:44:49
3	Al 396.153Radial†	6841.3	6968.8	5200.9 µg/L	5200.9 ppb	05:44:49
3	Ca 317.933Radial†	5600.8	5505.1	5049.6 µg/L	5049.6 ppb	05:45:09
3	Fe 238.204 Radial†	608.0	603.2	5187.8 µg/L	5187.8 ppb	05:45:09
3	K 766.490 Radial†	7297.8	7226.0	4968.7 µg/L	4968.7 ppb	05:44:49
3	Mg 279.077 IEC†	541.8	539.1	5248.8 µg/L	5248.8 ppb	05:45:09
3	Na 589.592 Radial†	31476.9	31549.3	10314 µg/L	10314 ppb	05:44:49
3	Sr 421.552†	49311.8	50126.1	493.00 µg/L	493.00 ppb	05:44:49
3	Sc 361.383	2088751.0	2088751.0	99.482 %		05:46:27
3	Y 371.029	1441637.0	1441637.0	99.048 %		05:46:27
3	Ag 328.068†	62471.2	63259.8	475.23 µg/L	475.23 ppb	05:46:33
3	As 188.979†	249.3	250.8	450.72 µg/L	450.72 ppb	05:46:54
3	B 249.677†	11619.8	11354.9	462.54 µg/L	462.54 ppb	05:46:33
3	Ba 233.527†	18784.9	18901.2	464.01 µg/L	464.01 ppb	05:46:33
3	Be 313.107†	777060.4	784867.6	473.83 µg/L	473.83 ppb	05:46:27
3	Cd 226.502†	18163.0	18394.2	462.73 µg/L	462.73 ppb	05:46:33
3	Co 228.616†	9934.6	9983.8	461.69 µg/L	461.69 ppb	05:46:33
3	Cr 267.716†	21954.5	22116.3	451.33 µg/L	451.33 ppb	05:46:33
3	Cu 324.752†	71650.9	69154.4	459.45 µg/L	459.45 ppb	05:46:33
3	Mn 257.610†	149424.9	150506.0	479.56 µg/L	479.56 ppb	05:46:27
3	Mo 202.031†	4275.7	4301.3	431.17 µg/L	431.17 ppb	05:46:54
3	Ni 231.604†	9414.2	9154.7	462.19 µg/L	462.19 ppb	05:46:33
3	P 214.914†	1107.8	1097.3	2137.0 µg/L	2137.0 ppb	05:46:54
3	Pb 220.353†	1877.5	1792.5	441.12 µg/L	441.12 ppb	05:46:54
3	S 181.975 Axial†	232.2	216.1	895.89 µg/L	895.89 ppb	05:46:54
3	Sb 206.836†	486.3	466.7	427.62 µg/L	427.62 ppb	05:46:54
3	Se 196.026†	343.3	330.1	460.26 µg/L	460.26 ppb	05:46:54
3	SiO2†	26558.5	25212.5	5048.8 µg/L	5048.8 ppb	05:46:33
3	Si 251.611†	30748.7	30615.4	2363.0 µg/L	2363.0 ppb	05:46:33
3	Sn 189.927†	998.8	999.3	427.36 µg/L	427.36 ppb	05:46:54
3	Ti 334.940†	207333.7	208272.2	473.36 µg/L	473.36 ppb	05:46:27
3	Tl 190.801†	316.8	340.7	461.18 µg/L	461.18 ppb	05:46:54
3	U 409.014†	5369.3	5398.0	457.06 µg/L	457.06 ppb	05:46:33
3	V 292.402†	45728.0	46062.3	461.10 µg/L	461.10 ppb	05:46:33
3	Zn 213.857†	20090.4	19693.1	461.45 µg/L	461.45 ppb	05:46:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2081911.8	99.156	%	0.3313				0.33%
Sc RADIAL	58059.8	98.3	%	0.16				0.17%
Y 371.029	1436502.8	98.696	%	0.3586				0.36%
Ag 328.068†	65730.1	493.87	µg/L	16.442	493.87	ppb	16.442	3.33%
QC value within limits for Ag 328.068 Recovery = 98.77%								
Al 396.153Radial†	6937.0	5176.0	µg/L	21.95	5176.0	ppb	21.95	0.42%
QC value within limits for Al 396.153Radial Recovery = 103.52%								
As 188.979†	274.0	492.21	µg/L	36.089	492.21	ppb	36.089	7.33%
QC value within limits for As 188.979 Recovery = 98.44%								
B 249.677†	11852.0	482.94	µg/L	17.977	482.94	ppb	17.977	3.72%
QC value within limits for B 249.677 Recovery = 96.59%								
Ba 233.527†	20024.5	491.59	µg/L	24.175	491.59	ppb	24.175	4.92%
QC value within limits for Ba 233.527 Recovery = 98.32%								
Be 313.107†	815915.5	492.58	µg/L	16.247	492.58	ppb	16.247	3.30%
QC value within limits for Be 313.107 Recovery = 98.52%								
Ca 317.933Radial†	5513.2	5057.1	µg/L	32.63	5057.1	ppb	32.63	0.65%
QC value within limits for Ca 317.933Radial Recovery = 101.14%								
Cd 226.502†	19551.7	491.89	µg/L	25.558	491.89	ppb	25.558	5.20%
QC value within limits for Cd 226.502 Recovery = 98.38%								
Co 228.616†	10665.4	493.27	µg/L	27.546	493.27	ppb	27.546	5.58%

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   QC value within limits for Co 228.616  Recovery = 98.65%
Cr 267.716†            24017.9      490.13 µg/L        33.757      490.13 ppb         33.757   6.89%
   QC value within limits for Cr 267.716  Recovery = 98.03%
Cu 324.752†            73744.3      489.90 µg/L        26.535      489.90 ppb         26.535   5.42%
   QC value within limits for Cu 324.752  Recovery = 97.98%
Fe 238.204 Radial†       602.4      5181.7 µg/L         18.51      5181.7 ppb          18.51   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.63%
K 766.490 Radial†       7241.3      4979.3 µg/L          9.13      4979.3 ppb           9.13   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 99.59%
Mg 279.077 IEC†          542.7      5285.3 µg/L         43.32      5285.3 ppb          43.32   0.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.71%
Mn 257.610†           156266.6      497.90 µg/L        15.888      497.90 ppb         15.888   3.19%
   QC value within limits for Mn 257.610  Recovery = 99.58%
Mo 202.031†             4875.1      488.66 µg/L        49.948      488.66 ppb         49.948  10.22%
   QC value within limits for Mo 202.031  Recovery = 97.73%
Na 589.592 Radial†     31448.3       10281 µg/L          33.3       10281 ppb           33.3   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 102.81%
Ni 231.604†             9773.4      493.42 µg/L        27.400      493.42 ppb         27.400   5.55%
   QC value within limits for Ni 231.604  Recovery = 98.68%
P 214.914†              1229.0      2396.4 µg/L        225.17      2396.4 ppb         225.17   9.40%
   QC value within limits for P 214.914  Recovery = 95.86%
Pb 220.353†             1979.5      487.22 µg/L        39.939      487.22 ppb         39.939   8.20%
   QC value within limits for Pb 220.353  Recovery = 97.44%
S 181.975 Axial†         238.4      988.36 µg/L        80.175      988.36 ppb         80.175   8.11%
   QC value within limits for S 181.975 Axial  Recovery = 98.84%
Sb 206.836†              524.3      480.63 µg/L        45.990      480.63 ppb         45.990   9.57%
   QC value within limits for Sb 206.836  Recovery = 96.13%
Se 196.026†              359.5      500.57 µg/L        35.042      500.57 ppb         35.042   7.00%
   QC value within limits for Se 196.026  Recovery = 100.11%
SiO2†                  26457.0      5298.0 µg/L        218.61      5298.0 ppb         218.61   4.13%
   QC value within limits for SiO2  Recovery = 99.08%
Si 251.611†            32128.3      2479.8 µg/L        101.94      2479.8 ppb         101.94   4.11%
   QC value within limits for Si 251.611  Recovery = 99.19%
Sn 189.927†             1148.0      490.95 µg/L        55.661      490.95 ppb         55.661  11.34%
   QC value within limits for Sn 189.927  Recovery = 98.19%
Sr 421.552†            49942.1      491.19 µg/L         1.820      491.19 ppb          1.820   0.37%
   QC value within limits for Sr 421.552  Recovery = 98.24%
Ti 334.940†           217183.1      493.62 µg/L        17.565      493.62 ppb         17.565   3.56%
   QC value within limits for Ti 334.940  Recovery = 98.72%
Tl 190.801†              367.4      496.97 µg/L        31.476      496.97 ppb         31.476   6.33%
   QC value within limits for Tl 190.801  Recovery = 99.39%
U 409.014†              5798.2      491.02 µg/L        30.429      491.02 ppb         30.429   6.20%
   QC value within limits for U 409.014  Recovery = 98.20%
V 292.402†             49346.7      494.15 µg/L        28.785      494.15 ppb         28.785   5.83%
   QC value within limits for V 292.402  Recovery = 98.83%
Zn 213.857†            21024.7      492.69 µg/L        27.312      492.69 ppb         27.312   5.54%
   QC value within limits for Zn 213.857  Recovery = 98.54%
All analyte(s) passed QC.
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Sequence No.: 113
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 05:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58090.5	58090.5	98.4	%			05:47:36
1	Al 396.153Radial†	-6.6	2.0	1.5002	µg/L	1.5002	ppb	05:47:36
1	Ca 317.933Radial†	188.3	-1.5	-1.4193	µg/L	-1.4193	ppb	05:47:57
1	Fe 238.204 Radial†	14.9	-0.3	-2.1623	µg/L	-2.1623	ppb	05:47:57
1	K 766.490 Radial†	178.0	-17.5	-12.036	µg/L	-12.036	ppb	05:47:36
1	Mg 279.077 IEC†	10.9	-1.0	-9.3960	µg/L	-9.3960	ppb	05:47:57
1	Na 589.592 Radial†	446.6	-19.8	-6.4711	µg/L	-6.4711	ppb	05:47:36
1	Sr 421.552†	44.3	3.6	0.0357	µg/L	0.0357	ppb	05:47:36
1	Sc 361.383	2098037.5	2098037.5	99.924	%			05:48:58
1	Y 371.029	1453573.3	1453573.3	99.869	%			05:48:58
1	Ag 328.068†	-399.2	63.6	0.4746	µg/L	0.4746	ppb	05:49:04
1	As 188.979†	1.5	1.8	3.2125	µg/L	3.2125	ppb	05:49:24
1	B 249.677†	355.9	30.7	1.2554	µg/L	1.2554	ppb	05:49:24
1	Ba 233.527†	-13.0	5.4	0.1321	µg/L	0.1321	ppb	05:49:24
1	Be 313.107†	-3655.7	100.4	0.0604	µg/L	0.0604	ppb	05:49:04
1	Cd 226.502†	-141.5	-5.0	-0.1254	µg/L	-0.1254	ppb	05:49:24
1	Co 228.616†	6.5	4.0	0.1832	µg/L	0.1832	ppb	05:49:24
1	Cr 267.716†	-54.9	-7.6	-0.1540	µg/L	-0.1540	ppb	05:49:04
1	Cu 324.752†	3013.7	146.2	0.9697	µg/L	0.9697	ppb	05:49:04
1	Mn 257.610†	-220.5	81.9	0.2608	µg/L	0.2608	ppb	05:49:24
1	Mo 202.031†	-0.8	2.5	0.2493	µg/L	0.2493	ppb	05:49:24
1	Ni 231.604†	313.0	4.6	0.2322	µg/L	0.2322	ppb	05:49:24
1	P 214.914†	7.3	-8.9	-17.854	µg/L	-17.854	ppb	05:49:24
1	Pb 220.353†	91.6	-3.1	-0.7762	µg/L	-0.7762	ppb	05:49:24
1	S 181.975 Axial†	17.7	0.5	1.8837	µg/L	1.8837	ppb	05:49:24
1	Sb 206.836†	24.4	2.3	2.1369	µg/L	2.1369	ppb	05:49:24
1	Se 196.026†	18.5	3.5	4.8174	µg/L	4.8174	ppb	05:49:24
1	SiO2†	1544.9	61.7	12.349	µg/L	12.349	ppb	05:49:04
1	Si 251.611†	390.4	97.2	7.5007	µg/L	7.5007	ppb	05:49:24
1	Sn 189.927†	2.8	-1.9	-0.8028	µg/L	-0.8028	ppb	05:49:24
1	Ti 334.940†	351.8	210.4	0.4793	µg/L	0.4793	ppb	05:49:04
1	Tl 190.801†	-26.4	-4.2	-5.5535	µg/L	-5.5535	ppb	05:49:24
1	U 409.014†	42.6	43.4	3.6855	µg/L	3.6855	ppb	05:49:04
1	V 292.402†	-95.0	1.0	0.0147	µg/L	0.0147	ppb	05:49:04
1	Zn 213.857†	541.1	39.5	0.9308	µg/L	0.9308	ppb	05:49:24
2	Sc RADIAL	57504.2	57504.2	97.4	%			05:48:02
2	Al 396.153Radial†	-6.1	2.4	1.7680	µg/L	1.7680	ppb	05:48:02
2	Ca 317.933Radial†	186.3	-1.7	-1.5389	µg/L	-1.5389	ppb	05:48:22
2	Fe 238.204 Radial†	17.2	2.3	19.622	µg/L	19.622	ppb	05:48:22
2	K 766.490 Radial†	220.8	28.3	19.456	µg/L	19.456	ppb	05:48:02
2	Mg 279.077 IEC†	13.6	1.9	18.188	µg/L	18.188	ppb	05:48:22
2	Na 589.592 Radial†	433.1	-29.0	-9.4915	µg/L	-9.4915	ppb	05:48:02
2	Sr 421.552†	31.3	-9.2	-0.0902	µg/L	-0.0902	ppb	05:48:02
2	Sc 361.383	2097112.8	2097112.8	99.880	%			05:49:30
2	Y 371.029	1452487.5	1452487.5	99.794	%			05:49:30
2	Ag 328.068†	-426.4	36.2	0.2723	µg/L	0.2723	ppb	05:49:36
2	As 188.979†	-5.1	-4.9	-8.7510	µg/L	-8.7510	ppb	05:49:57
2	B 249.677†	360.1	35.1	1.4256	µg/L	1.4256	ppb	05:49:57
2	Ba 233.527†	-12.4	6.0	0.1466	µg/L	0.1466	ppb	05:49:57
2	Be 313.107†	-3514.1	240.6	0.1449	µg/L	0.1449	ppb	05:49:36
2	Cd 226.502†	-151.2	-14.8	-0.3744	µg/L	-0.3744	ppb	05:49:57
2	Co 228.616†	13.8	11.2	0.5193	µg/L	0.5193	ppb	05:49:57
2	Cr 267.716†	-50.5	-3.2	-0.0646	µg/L	-0.0646	ppb	05:49:36
2	Cu 324.752†	3024.9	158.8	1.0560	µg/L	1.0560	ppb	05:49:36
2	Mn 257.610†	-76.6	225.8	0.7208	µg/L	0.7208	ppb	05:49:57
2	Mo 202.031†	4.1	7.5	0.7481	µg/L	0.7481	ppb	05:49:57
2	Ni 231.604†	302.8	-5.4	-0.2750	µg/L	-0.2750	ppb	05:49:57
2	P 214.914†	22.8	6.6	13.092	µg/L	13.092	ppb	05:49:57
2	Pb 220.353†	88.4	-6.3	-1.5482	µg/L	-1.5482	ppb	05:49:57

2	S 181.975 Axial†	13.2	-4.0	-16.742 µg/L	-16.742 ppb	05:49:57
2	Sb 206.836†	22.0	-0.1	-0.0418 µg/L	-0.0418 ppb	05:49:57
2	Se 196.026†	15.1	0.1	0.1933 µg/L	0.1933 ppb	05:49:57
2	SiO2†	1538.0	55.5	11.105 µg/L	11.105 ppb	05:49:36
2	Si 251.611†	422.1	129.0	9.9596 µg/L	9.9596 ppb	05:49:57
2	Sn 189.927†	6.5	1.8	0.7671 µg/L	0.7671 ppb	05:49:57
2	Ti 334.940†	557.7	416.7	0.9463 µg/L	0.9463 ppb	05:49:36
2	Tl 190.801†	-22.4	-0.2	-0.2449 µg/L	-0.2449 ppb	05:49:57
2	U 409.014†	-75.6	-74.9	-6.3578 µg/L	-6.3578 ppb	05:49:36
2	V 292.402†	-83.1	12.8	0.1280 µg/L	0.1280 ppb	05:49:36
2	Zn 213.857†	548.9	47.6	1.1221 µg/L	1.1221 ppb	05:49:57
3	Sc RADIAL	57238.3	57238.3	96.9 %		05:48:28
3	Al 396.153Radial†	-31.7	-24.0	-17.932 µg/L	-17.932 ppb	05:48:28
3	Ca 317.933Radial†	197.3	10.6	9.6893 µg/L	9.6893 ppb	05:48:48
3	Fe 238.204 Radial†	17.8	3.0	25.775 µg/L	25.775 ppb	05:48:48
3	K 766.490 Radial†	214.1	22.5	15.479 µg/L	15.479 ppb	05:48:28
3	Mg 279.077 IEC†	13.6	1.9	18.784 µg/L	18.784 ppb	05:48:48
3	Na 589.592 Radial†	431.9	-28.2	-9.2169 µg/L	-9.2169 ppb	05:48:28
3	Sr 421.552†	25.4	-15.2	-0.1493 µg/L	-0.1493 ppb	05:48:28
3	Sc 361.383	2093698.1	2093698.1	99.717 %		05:50:03
3	Y 371.029	1451067.7	1451067.7	99.696 %		05:50:03
3	Ag 328.068†	-465.1	-3.3	-0.0228 µg/L	-0.0228 ppb	05:50:08
3	As 188.979†	1.9	2.2	3.9927 µg/L	3.9927 ppb	05:50:29
3	B 249.677†	358.7	34.3	1.3885 µg/L	1.3885 ppb	05:50:29
3	Ba 233.527†	-11.3	7.0	0.1724 µg/L	0.1724 ppb	05:50:29
3	Be 313.107†	-3523.2	225.6	0.1361 µg/L	0.1361 ppb	05:50:08
3	Cd 226.502†	-140.2	-4.0	-0.1022 µg/L	-0.1022 ppb	05:50:29
3	Co 228.616†	7.3	4.8	0.2220 µg/L	0.2220 ppb	05:50:29
3	Cr 267.716†	-58.6	-11.4	-0.2315 µg/L	-0.2315 ppb	05:50:08
3	Cu 324.752†	2971.1	109.8	0.7319 µg/L	0.7319 ppb	05:50:08
3	Mn 257.610†	-198.5	103.5	0.3322 µg/L	0.3322 ppb	05:50:29
3	Mo 202.031†	8.1	11.5	1.1505 µg/L	1.1505 ppb	05:50:29
3	Ni 231.604†	311.5	3.7	0.1873 µg/L	0.1873 ppb	05:50:29
3	P 214.914†	5.1	-11.1	-22.283 µg/L	-22.283 ppb	05:50:29
3	Pb 220.353†	85.7	-8.8	-2.1678 µg/L	-2.1678 ppb	05:50:29
3	S 181.975 Axial†	16.6	-0.6	-2.4873 µg/L	-2.4873 ppb	05:50:29
3	Sb 206.836†	19.6	-2.4	-2.1956 µg/L	-2.1956 ppb	05:50:29
3	Se 196.026†	12.9	-2.1	-2.8216 µg/L	-2.8216 ppb	05:50:29
3	SiO2†	1499.7	19.5	3.9132 µg/L	3.9132 ppb	05:50:08
3	Si 251.611†	400.1	107.7	8.3095 µg/L	8.3095 ppb	05:50:29
3	Sn 189.927†	-0.8	-5.5	-2.3683 µg/L	-2.3683 ppb	05:50:29
3	Ti 334.940†	329.6	188.8	0.4281 µg/L	0.4281 ppb	05:50:08
3	Tl 190.801†	-27.4	-5.3	-7.0252 µg/L	-7.0252 ppb	05:50:29
3	U 409.014†	-88.9	-88.4	-7.5064 µg/L	-7.5064 ppb	05:50:08
3	V 292.402†	-90.6	5.2	0.0545 µg/L	0.0545 ppb	05:50:08
3	Zn 213.857†	527.4	27.0	0.6327 µg/L	0.6327 ppb	05:50:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2096282.8	99.840	%	0.1089				0.11%
Sc RADIAL	57611.0	97.6	%	0.74				0.76%
Y 371.029	1452376.1	99.786	%	0.0863				0.09%
Ag 328.068†	32.2	0.2414	µg/L	0.25017	0.2414	ppb	0.25017	103.63%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.5	-4.8878	µg/L	11.29711	-4.8878	ppb	11.29711	231.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.3	-0.5152	µg/L	7.14300	-0.5152	ppb	7.14300	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	33.3	1.3565	µg/L	0.08951	1.3565	ppb	0.08951	6.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.1	0.1504	µg/L	0.02044	0.1504	ppb	0.02044	13.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	188.9	0.1138	µg/L	0.04644	0.1138	ppb	0.04644	40.80%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.2437	µg/L	6.44835	2.2437	ppb	6.44835	287.40%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-7.9	-0.2007	µg/L	0.15092	-0.2007	ppb	0.15092	75.21%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.7	0.3082	µg/L	0.18386	0.3082	ppb	0.18386	59.66%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.4     -0.1500 µg/L       0.08354     -0.1500 ppb        0.08354  55.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               138.3      0.9192 µg/L       0.16782      0.9192 ppb        0.16782  18.26%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.7      14.411 µg/L       14.6793      14.411 ppb        14.6793 101.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          11.1      7.6329 µg/L      17.14951      7.6329 ppb       17.14951 224.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9      9.1918 µg/L      16.10027      9.1918 ppb       16.10027 175.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               137.1      0.4379 µg/L       0.24755      0.4379 ppb        0.24755  56.53%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.1      0.7160 µg/L       0.45145      0.7160 ppb        0.45145  63.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -25.7     -8.3932 µg/L       1.67024     -8.3932 ppb        1.67024  19.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.0      0.0482 µg/L       0.28075      0.0482 ppb        0.28075 582.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.5     -9.0150 µg/L      19.27319     -9.0150 ppb       19.27319 213.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.1     -1.4974 µg/L       0.69717     -1.4974 ppb        0.69717  46.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.4     -5.7819 µg/L       9.74014     -5.7819 ppb        9.74014 168.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.0335 µg/L       2.16627     -0.0335 ppb        2.16627 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.5      0.7297 µg/L       3.84769      0.7297 ppb        3.84769 527.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      45.6      9.1223 µg/L       4.55380      9.1223 ppb        4.55380  49.92%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               111.3      8.5900 µg/L       1.25322      8.5900 ppb        1.25322  14.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.9     -0.8013 µg/L       1.56771     -0.8013 ppb        1.56771 195.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.9     -0.0679 µg/L       0.09445     -0.0679 ppb        0.09445 139.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               272.0      0.6179 µg/L       0.28552      0.6179 ppb        0.28552  46.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.2     -4.2745 µg/L       3.56650     -4.2745 ppb        3.56650  83.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -40.0     -3.3929 µg/L       6.15694     -3.3929 ppb        6.15694 181.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  6.3      0.0658 µg/L       0.05748      0.0658 ppb        0.05748  87.39%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                38.1      0.8952 µg/L       0.24664      0.8952 ppb        0.24664  27.55%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 11:13:55
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.6314
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	604.8	604.813	12.736	2.1
	Mg	24.0	23048.2	23048.183	431.946	1.9
	Co	58.9	15820.4	15820.356	204.312	1.3
	Rh	102.9	48331.0	48331.027	581.662	1.2
	In	114.9	74225.8	74225.758	973.246	1.3
	Pb	208.0	46154.8	46154.846	481.702	1.0
⌈>	Ba	137.9	50694.6	50694.646	676.987	1.3
⌊	Ba++	69.0	871.2	0.017	0.000	2.5
⌈>	Ce	139.9	65986.0	65986.047	291.490	0.4
⌊	CeO	155.9	1622.9	0.025	0.000	1.8
	Bkgd	220.0	1.7	1.700	0.570	33.5

Current Optimization File Data

Current Value	Description
1.07	Nebulizer Gas Flow
6.50	Lens Voltage
1450.00	ICP RF Power
-1855.00	Analog Stage Voltage
1350.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	25	6.8	765.7
Co	59	25	8.3	14164.4
In	115	25	9.5	92786.0

ICPMS#3 Instrument Tuning Report

File Name: 100225.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	582	2060	0.645
Be	9.0	9.0	2052	2060	0.635
Mg	24.0	24.0	5702	2110	0.587
Mg	25.0	25.0	5916	2020	0.642
Mg	26.0	25.9	6198	2140	0.689
Co	58.9	58.9	14205	2115	0.631
Rh	102.9	103.0	24909	2165	0.647
In	114.9	114.9	27835	2180	0.651
Ce	139.9	139.9	33910	2220	0.619
Pb	206.0	206.0	49992	2280	0.644
Pb	207.0	207.0	50296	2310	0.678
Pb	208.0	208.0	50474	2300	0.649
U	238.1	238.0	57839	2340	0.680

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 17:52:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\Blank.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		4	
	Be	9		ug/L		2	
	B	11		ug/L		132	
	Na	23		ug/L		3334	
	Mg	24		ug/L		333	
	Al	27		ug/L		667	
	P	31		ug/L		1342	
	K	39		ug/L		44069	
	Ca	43		ug/L		27	
>	Sc	45		ug/L		169119	
	Ti	47		ug/L		44	
	V	51		ug/L		-1805	
	Cr	52		ug/L		1697	
	Cr	53		ug/L		12160	
	Mn	55		ug/L		111	
	Fe	57		ug/L		573	
	Co	59		ug/L		12	
	Ni	60		ug/L		22	
	Cu	63		ug/L		128	
	Cu	65		ug/L		61	
	Zn	66		ug/L		141	
	Zn	67		ug/L		2214	
	Zn	68		ug/L		230	
>	Ge	74		ug/L		80044	
	As	75		ug/L		36	
	Se	77		ug/L		1130	
	Se	82		ug/L		8	
	Kr	83		ug/L		19	
	Sr	88		ug/L		191	
	Y	89		ug/L		5	
	Zr	90		ug/L		126	
	Mo	98		ug/L		65	
	Ag	107		ug/L		10	
	Cd	111		ug/L		2	
	Cd	114		ug/L		11	
>	In	115		ug/L		72081	
	Sn	120		ug/L		83	
	Sb	121		ug/L		72	
	Sb	123		ug/L		58	
	Ba	135		ug/L		14	
	Ba	137		ug/L		19	
	Ho	165		ug/L		3	
>	Lu	175		ug/L		148095	
	Tl	205		ug/L		583	
	Pb	208		ug/L		116	
	Th	232		ug/L		324	
	U	238		ug/L		282	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	
Be	9	Linear Thru Zero	
B	11	Linear Thru Zero	
Na	23	Linear Thru Zero	
Mg	24	Linear Thru Zero	
Al	27	Linear Thru Zero	
P	31	Linear Thru Zero	
K	39	Linear Thru Zero	
Ca	43	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	
V	51	Linear Thru Zero	
Cr	52	Linear Thru Zero	
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	
Fe	57	Linear Thru Zero	
Co	59	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	
Zn	66	Linear Thru Zero	
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	
Mo	98	Linear Thru Zero	
Ag	107	Linear Thru Zero	
Cd	111	Linear Thru Zero	
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	
Sb	121	Linear Thru Zero	
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
Th	232	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 17:58:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\Standard 1.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	3.464	1057	0.006
	Be	9	10.000	ug/L	4.955	568	0.003
	B	11	20.000	ug/L	4.919	1480	0.008
	Na	23	1000.000	ug/L	0.500	570502	3.445
	Mg	24	1000.000	ug/L	10.833	468269	2.843
	Al	27	1000.000	ug/L	8.770	600065	3.641
	P	31	1000.000	ug/L	1.156	39835	0.234
	K	39	1000.000	ug/L	4.826	889573	5.141
	Ca	43	1000.000	ug/L	4.059	2001	0.012
>	Sc	45		ug/L		164662	164662.252
	Ti	47	10.000	ug/L	2.448	1237	0.007
	V	51	10.000	ug/L	10.057	10039	0.072
	Cr	52	10.000	ug/L	2.065	13212	0.070
	Cr	53		ug/L		11190	-0.004
	Mn	55	10.000	ug/L	1.875	15998	0.097
	Fe	57	1000.000	ug/L	1.683	30179	0.180
	Co	59	10.000	ug/L	1.434	11308	0.069
	Ni	60	10.000	ug/L	1.363	2409	0.015
	Cu	63		ug/L		6077	0.036
	Cu	65	10.000	ug/L	3.300	3216	0.019
	Zn	66	10.000	ug/L	4.740	2122	0.025
	Zn	67		ug/L		2393	0.002
	Zn	68		ug/L		1776	0.019
>	Ge	74		ug/L		79743	79742.542
	As	75	10.000	ug/L	6.845	2487	0.031
	Se	77		ug/L		1194	0.001
	Se	82	10.000	ug/L	10.280	253	0.003
	Kr	83		ug/L		15	-0.000
	Sr	88	10.000	ug/L	0.418	32210	0.441
	Y	89		ug/L		8	0.000
	Zr	90	10.000	ug/L	4.053	14534	0.198
	Mo	98	10.000	ug/L	2.672	8597	0.117
	Ag	107	10.000	ug/L	1.033	17086	0.235
	Cd	111	10.000	ug/L	2.193	4225	0.058
	Cd	114		ug/L		10245	0.141
>	In	115		ug/L		72615	72615.438
	Sn	120	10.000	ug/L	1.696	17526	0.240
	Sb	121	10.000	ug/L	6.240	10716	0.146
	Sb	123		ug/L		8241	0.113
	Ba	135		ug/L		3605	0.024
	Ba	137	10.000	ug/L	0.975	6365	0.042
	Ho	165		ug/L		2	-0.000
>	Lu	175		ug/L		151788	151787.770
	Tl	205	10.000	ug/L	0.845	70177	0.458
	Pb	208	10.000	ug/L	0.734	80948	0.533
	Th	232	10.000	ug/L	5.309	86210	0.565
	U	238	10.000	ug/L	0.661	98357	0.646

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 18:04:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\Standard 2.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.973**	**ug/L**	1.647	9835	0.062
	Be	9	**99.936**	**ug/L**	1.844	5103	0.032
	B	11	**199.846**	**ug/L**	2.126	12151	0.076
	Na	23	**9997.104**	**ug/L**	4.441	5288399	33.471
	Mg	24	**9990.937**	**ug/L**	7.034	4111687	26.044
	Al	27	**9991.835**	**ug/L**	2.628	5313598	33.637
	P	31	**10000.887**	**ug/L**	1.709	374269	2.361
	K	39	**9991.317**	**ug/L**	3.051	7505903	47.262
	Ca	43	**9998.464**	**ug/L**	2.063	18673	0.118
>	Sc	45		**ug/L**		157981	157981.123
	Ti	47	**99.984**	**ug/L**	1.475	11317	0.071
	V	51	**99.947**	**ug/L**	2.681	105692	0.680
	Cr	52	**100.012**	**ug/L**	1.662	113877	0.711
	Cr	53		**ug/L**		20934	0.061
	Mn	55	**100.009**	**ug/L**	1.810	153994	0.974
	Fe	57	**10000.255**	**ug/L**	0.690	285489	1.804
	Co	59	**99.987**	**ug/L**	0.459	107034	0.677
	Ni	60	**99.993**	**ug/L**	1.147	22762	0.144
	Cu	63		**ug/L**		56122	0.355
	Cu	65	**99.981**	**ug/L**	1.470	29756	0.188
	Zn	66	**99.975**	**ug/L**	0.805	19291	0.243
	Zn	67		**ug/L**		5336	0.040
	Zn	68		**ug/L**		15187	0.189
>	Ge	74		**ug/L**		78968	78967.819
	As	75	**100.027**	**ug/L**	1.152	24968	0.316
	Se	77		**ug/L**		2950	0.023
	Se	82	**100.072**	**ug/L**	2.653	2613	0.033
	Kr	83		**ug/L**		23	0.000
	Sr	88	**99.991**	**ug/L**	0.867	312246	4.369
	Y	89		**ug/L**		28	0.000
	Zr	90	**100.175**	**ug/L**	2.617	172064	2.408
	Mo	98	**100.024**	**ug/L**	1.164	86111	1.204
	Ag	107	**99.989**	**ug/L**	1.534	166203	2.327
	Cd	111	**99.983**	**ug/L**	1.382	40836	0.572
	Cd	114		**ug/L**		98934	1.385
>	In	115		**ug/L**		71441	71440.511
	Sn	120	**100.001**	**ug/L**	1.018	171809	2.404
	Sb	121	**100.126**	**ug/L**	3.285	120050	1.679
	Sb	123		**ug/L**		92495	1.293
	Ba	135		**ug/L**		35592	0.232
	Ba	137	**99.986**	**ug/L**	1.653	63304	0.412
	Ho	165		**ug/L**		4	0.000
>	Lu	175		**ug/L**		153476	153476.373
	Tl	205	**99.978**	**ug/L**	1.433	688858	4.483
	Pb	208	**99.978**	**ug/L**	0.428	799839	5.211
	Th	232	**100.036**	**ug/L**	0.076	900398	5.865
	U	238	**99.981**	**ug/L**	1.178	973082	6.340

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 18:09:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 1.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.747**	**ug/L**	1.446	5260	0.032
	Be	9	**50.837**	**ug/L**	2.058	2735	0.016
	B	11	**104.184**	**ug/L**	3.408	6735	0.040
	Na	23	**5235.841**	**ug/L**	8.688	2920260	17.530
	Mg	24	**4593.109**	**ug/L**	4.488	1993120	11.973
	Al	27	**5209.836**	**ug/L**	8.964	2920269	17.538
	P	31	**4853.614**	**ug/L**	1.754	192014	1.146
	K	39	**5107.539**	**ug/L**	8.693	4060903	24.160
	Ca	43	**4979.023**	**ug/L**	2.291	9809	0.059
>	Sc	45		**ug/L**		166405	166404.978
	Ti	47	**48.757**	**ug/L**	2.451	5836	0.035
	V	51	**49.004**	**ug/L**	1.573	53685	0.333
	Cr	52	**49.891**	**ug/L**	2.248	60668	0.355
	Cr	53		**ug/L**		15390	0.021
	Mn	55	**50.181**	**ug/L**	0.991	81441	0.489
	Fe	57	**4875.275**	**ug/L**	1.544	146871	0.879
	Co	59	**49.455**	**ug/L**	0.599	55770	0.335
	Ni	60	**50.622**	**ug/L**	1.119	12148	0.073
	Cu	63		**ug/L**		30267	0.181
	Cu	65	**50.268**	**ug/L**	1.249	15792	0.095
	Zn	66	**52.139**	**ug/L**	2.288	10533	0.126
	Zn	67		**ug/L**		3830	0.019
	Zn	68		**ug/L**		8269	0.098
>	Ge	74		**ug/L**		82146	82146.035
	As	75	**48.397**	**ug/L**	1.444	12586	0.153
	Se	77		**ug/L**		1977	0.010
	Se	82	**51.770**	**ug/L**	3.177	1411	0.017
	Kr	83		**ug/L**		21	0.000
	Sr	88	**51.925**	**ug/L**	1.490	166411	2.269
	Y	89		**ug/L**		12	0.000
	Zr	90	**45.520**	**ug/L**	5.727	80333	1.094
	Mo	98	**48.964**	**ug/L**	1.748	43269	0.590
	Ag	107	**50.972**	**ug/L**	1.258	86925	1.186
	Cd	111	**50.431**	**ug/L**	0.527	21129	0.288
	Cd	114		**ug/L**		51661	0.705
>	In	115		**ug/L**		73270	73270.397
	Sn	120	**50.024**	**ug/L**	0.827	88204	1.203
	Sb	121	**49.168**	**ug/L**	6.517	60495	0.824
	Sb	123		**ug/L**		46470	0.633
	Ba	135		**ug/L**		18532	0.120
	Ba	137	**50.970**	**ug/L**	2.141	32531	0.210
	Ho	165		**ug/L**		9	0.000
>	Lu	175		**ug/L**		154680	154679.640
	Tl	205	**49.086**	**ug/L**	1.733	340989	2.201
	Pb	208	**50.772**	**ug/L**	1.600	409397	2.646
	Th	232	**51.978**	**ug/L**	1.144	471698	3.047
	U	238	**53.142**	**ug/L**	1.906	521320	3.370

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.495				
	Be	9	101.675				
	B	11	104.184				
	Na	23	104.717				
	Mg	24	91.862				
	Al	27	103.165				
	P	31	97.072				
	K	39	102.151				
	Ca	43	99.580				
>	Sc	45		98.4			
	Ti	47	97.513				
	V	51	98.009				
	Cr	52	99.782				
	Cr	53					
	Mn	55	100.362				
	Fe	57	97.505				
	Co	59	98.910				
	Ni	60	101.244				
	Cu	63					
	Cu	65	100.535				
	Zn	66	104.278				
	Zn	67					
	Zn	68					
>	Ge	74		102.6			
	As	75	96.794				
	Se	77					
	Se	82	103.539				
	Kr	83					
	Sr	88	103.851				
	Y	89					
	Zr	90	91.040				
	Mo	98	97.928				
	Ag	107	101.943				
	Cd	111	100.862				
	Cd	114					
>	In	115		101.7			
	Sn	120	100.049				
	Sb	121	98.336				
	Sb	123					
	Ba	135					
	Ba	137	101.940				
	Ho	165					
>	Lu	175		104.4			
	Tl	205	98.171				
	Pb	208	101.544				
	Th	232	103.957				
	U	238	106.284				

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 18:15:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 2.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.009**	ug/L	119.195	3	-0.000
	Be	9	**-0.024**	ug/L	43.326	1	-0.000
	B	11	**4.952**	ug/L	16.965	451	0.002
	Na	23	**3.557**	ug/L	29.834	5334	0.012
	Mg	24	**0.005**	ug/L	26355.797	333	0.000
	Al	27	**0.008**	ug/L	26217.083	667	0.000
	P	31	**-1.090**	ug/L	125.350	1296	-0.000
	K	39	**-3.260**	ug/L	213.826	41394	-0.015
	Ca	43	**6.717**	ug/L	70.293	41	0.000
>	Sc	45		ug/L		168740	168739.752
	Ti	47	**-0.005**	ug/L	1009.472	44	-0.000
	V	51	**0.381**	ug/L	228.189	-1365	0.003
	Cr	52	**-0.204**	ug/L	16.865	1448	-0.001
	Cr	53		ug/L		9655	-0.015
	Mn	55	**0.000**	ug/L	7310.269	111	0.000
	Fe	57	**-0.330**	ug/L	171.466	562	-0.000
	Co	59	**-0.000**	ug/L	866.464	11	-0.000
	Ni	60	**-0.015**	ug/L	120.474	18	-0.000
	Cu	63		ug/L		122	-0.000
	Cu	65	**0.010**	ug/L	257.888	64	0.000
	Zn	66	**-0.051**	ug/L	92.934	135	-0.000
	Zn	67		ug/L		2085	-0.002
	Zn	68		ug/L		205	-0.000
>	Ge	74		ug/L		81950	81949.537
	As	75	**0.403**	ug/L	100.265	142	0.001
	Se	77		ug/L		981	-0.002
	Se	82	**0.943**	ug/L	44.293	34	0.000
	Kr	83		ug/L		17	-0.000
	Sr	88	**-0.001**	ug/L	635.702	194	-0.000
	Y	89		ug/L		8	0.000
	Zr	90	**0.351**	ug/L	6.803	753	0.008
	Mo	98	**0.219**	ug/L	18.408	261	0.003
	Ag	107	**0.004**	ug/L	44.688	17	0.000
	Cd	111	**-0.003**	ug/L	207.332	1	-0.000
	Cd	114		ug/L		9	-0.000
>	In	115		ug/L		74001	74001.371
	Sn	120	**0.060**	ug/L	22.497	191	0.001
	Sb	121	**1.003**	ug/L	9.543	1317	0.017
	Sb	123		ug/L		1018	0.013
	Ba	135		ug/L		10	-0.000
	Ba	137	**0.003**	ug/L	320.503	22	0.000
	Ho	165		ug/L		4	0.000
>	Lu	175		ug/L		154950	154950.226
	Tl	205	**0.171**	ug/L	24.353	1796	0.008
	Pb	208	**0.002**	ug/L	67.055	139	0.000
	Th	232	**0.266**	ug/L	9.536	2757	0.016
	U	238	**0.009**	ug/L	22.743	378	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			102.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			102.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.6		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 18:21:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 3.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.027**	**ug/L**	1.441	1156	0.007
	Be	9	**0.542**	**ug/L**	23.134	31	0.000
	B	11	**18.151**	**ug/L**	4.600	1291	0.007
	Na	23	**265.706**	**ug/L**	14.360	152486	0.890
	Mg	24	**20.590**	**ug/L**	16.847	9336	0.054
	Al	27	**36.611**	**ug/L**	23.459	21350	0.123
	P	31	**47.990**	**ug/L**	2.310	3232	0.011
	K	39	**338.075**	**ug/L**	8.706	312052	1.599
	Ca	43	**208.087**	**ug/L**	2.417	439	0.002
>	Sc	45		**ug/L**		167760	167759.949
	Ti	47	**8.536**	**ug/L**	2.653	1066	0.006
	V	51	**11.132**	**ug/L**	11.373	10912	0.076
	Cr	52	**10.597**	**ug/L**	3.066	14316	0.075
	Cr	53		**ug/L**		11373	-0.004
	Mn	55	**5.607**	**ug/L**	1.927	9271	0.055
	Fe	57	**103.818**	**ug/L**	2.296	3710	0.019
	Co	59	**1.083**	**ug/L**	3.209	1242	0.007
	Ni	60	**2.089**	**ug/L**	4.327	526	0.003
	Cu	63		**ug/L**		739	0.004
	Cu	65	**1.036**	**ug/L**	5.582	388	0.002
	Zn	66	**11.213**	**ug/L**	1.020	2362	0.027
	Zn	67		**ug/L**		2431	0.002
	Zn	68		**ug/L**		1940	0.021
>	Ge	74		**ug/L**		81549	81548.923
	As	75	**5.884**	**ug/L**	6.370	1551	0.019
	Se	77		**ug/L**		1076	-0.001
	Se	82	**5.365**	**ug/L**	7.220	153	0.002
	Kr	83		**ug/L**		18	-0.000
	Sr	88	**11.273**	**ug/L**	0.865	36443	0.493
	Y	89		**ug/L**		9	0.000
	Zr	90	**1.990**	**ug/L**	1.995	3650	0.048
	Mo	98	**0.629**	**ug/L**	0.756	624	0.008
	Ag	107	**1.046**	**ug/L**	1.690	1801	0.024
	Cd	111	**1.076**	**ug/L**	2.738	455	0.006
	Cd	114		**ug/L**		1135	0.015
>	In	115		**ug/L**		73604	73603.780
	Sn	120	**5.323**	**ug/L**	1.296	9504	0.128
	Sb	121	**3.175**	**ug/L**	4.466	3993	0.053
	Sb	123		**ug/L**		3117	0.042
	Ba	135		**ug/L**		805	0.005
	Ba	137	**2.135**	**ug/L**	5.727	1378	0.009
	Ho	165		**ug/L**		6	0.000
>	Lu	175		**ug/L**		154351	154351.217
	Tl	205	**1.092**	**ug/L**	2.557	8170	0.049
	Pb	208	**2.202**	**ug/L**	0.966	17832	0.115
	Th	232	**0.998**	**ug/L**	8.007	9378	0.059
	U	238	**0.218**	**ug/L**	5.943	2424	0.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	110.275				
	Be	9	108.374				
	B	11	121.009				
	Na	23	106.282				
	Mg	24	137.267				
	Al	27	122.038				
	P	31	95.981				
	K	39	112.692				
	Ca	43	104.044				
>	Sc	45		99.2			
	Ti	47	85.363				
	V	51	111.325				
	Cr	52	105.973				
	Cr	53					
	Mn	55	112.136				
	Fe	57	103.818				
	Co	59	108.288				
	Ni	60	104.438				
	Cu	63					
	Cu	65	103.596				
	Zn	66	112.131				
	Zn	67					
	Zn	68					
>	Ge	74		101.9			
	As	75	117.672				
	Se	77					
	Se	82	107.303				
	Kr	83					
	Sr	88	112.730				
	Y	89					
	Zr	90	99.516				
	Mo	98	125.894				
	Ag	107	104.595				
	Cd	111	107.559				
	Cd	114					
>	In	115		102.1			
	Sn	120	106.465				
	Sb	121	105.849				
	Sb	123					
	Ba	135					
	Ba	137	106.752				
	Ho	165					
>	Lu	175		104.2			
	Tl	205	109.220				
	Pb	208	110.077				
	Th	232	99.793				
	U	238	108.881				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Mg	24CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 18:26:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 4.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.063**	**ug/L**	37.026	8	0.000
	Be	9	**0.048**	**ug/L**	159.518	3	0.000
	B	11	**1.688**	**ug/L**	16.301	174	0.001
	Na	23	**93010.452**	**ug/L**	5.085	38103079	311.407
	Mg	24	**81373.301**	**ug/L**	4.498	25964480	212.123
	Al	27	**98264.180**	**ug/L**	4.889	40469013	330.797
	P	31	**97552.705**	**ug/L**	0.478	2820772	23.031
	K	39	**100146.467**	**ug/L**	5.061	58043842	473.719
	Ca	43	**96310.187**	**ug/L**	0.504	139233	1.137
>	Sc	45		**ug/L**		122424	122423.802
	Ti	47	**1693.795**	**ug/L**	0.166	148040	1.209
	V	51	**1.503**	**ug/L**	47.964	-49	0.010
	Cr	52	**3.188**	**ug/L**	3.531	4003	0.023
	Cr	53		**ug/L**		7775	-0.008
	Mn	55	**6.405**	**ug/L**	2.559	7720	0.062
	Fe	57	**107361.094**	**ug/L**	0.682	2371203	19.364
	Co	59	**0.249**	**ug/L**	4.006	215	0.002
	Ni	60	**3.186**	**ug/L**	8.176	577	0.005
	Cu	63		**ug/L**		1032	0.008
	Cu	65	**2.843**	**ug/L**	2.769	699	0.005
	Zn	66	**2.982**	**ug/L**	10.232	603	0.007
	Zn	67		**ug/L**		1725	-0.002
	Zn	68		**ug/L**		274	0.001
>	Ge	74		**ug/L**		66986	66986.442
	As	75	**1.174**	**ug/L**	79.186	275	0.004
	Se	77		**ug/L**		1188	0.004
	Se	82	**1.827**	**ug/L**	49.339	47	0.001
	Kr	83		**ug/L**		72	0.001
	Sr	88	**2.632**	**ug/L**	2.516	7284	0.115
	Y	89		**ug/L**		67	0.001
	Zr	90	**4.732**	**ug/L**	61.404	7064	0.114
	Mo	98	**1903.589**	**ug/L**	0.586	1419566	22.921
	Ag	107	**0.114**	**ug/L**	16.463	172	0.003
	Cd	111	**0.486**	**ug/L**	35.155	173	0.003
	Cd	114		**ug/L**		2028	0.033
>	In	115		**ug/L**		61934	61933.565
	Sn	120	**0.297**	**ug/L**	7.057	513	0.007
	Sb	121	**0.568**	**ug/L**	19.001	650	0.010
	Sb	123		**ug/L**		494	0.007
	Ba	135		**ug/L**		236	0.002
	Ba	137	**0.732**	**ug/L**	8.852	406	0.003
	Ho	165		**ug/L**		2464	0.019
>	Lu	175		**ug/L**		128966	128966.434
	Tl	205	**0.023**	**ug/L**	3.448	643	0.001
	Pb	208	**0.213**	**ug/L**	3.175	1530	0.011
	Th	232	**0.332**	**ug/L**	32.763	2776	0.019
	U	238	**-0.021**	**ug/L**	5.553	72	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	93.010				
	Mg	24	81.373				
	Al	27	98.264				
	P	31	97.553				
	K	39	100.146				
	Ca	43	96.310				
>	Sc	45			72.4		
	Ti	47	84.690				
	V	51					
	Cr	52	96.607				
	Cr	53					
	Mn	55	110.431				
	Fe	57	107.361				
	Co	59	105.803				
	Ni	60	96.243				
	Cu	63					
	Cu	65	85.111				
	Zn	66	79.313				
	Zn	67					
	Zn	68					
>	Ge	74			83.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	88.906				
	Y	89					
	Zr	90					
	Mo	98	95.179				
	Ag	107					
	Cd	111	109.399				
	Cd	114					
>	In	115			85.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	91.736				
	Ho	165					
>	Lu	175			87.1		
	Tl	205					
	Pb	208	112.603				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Sc 45 Int Std for QC	Sc	45
QC Std 4	Zr	90ICSA is out of limits

QC Action

QC Action Line: Continue

Sample ID: QC Std 4
Report Date/Time: Thursday, February 25, 2010 18:29:35
Page 3

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 18:32:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 5.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.859**	**ug/L**	0.702	1282	0.010
	Be	9	**16.290**	**ug/L**	3.267	643	0.005
	B	11	**17.446**	**ug/L**	3.511	905	0.007
	Na	23	**96075.880**	**ug/L**	6.991	39167411	321.670
	Mg	24	**82409.091**	**ug/L**	1.988	26196305	214.823
	Al	27	**91151.271**	**ug/L**	2.559	37422958	306.852
	P	31	**97597.700**	**ug/L**	1.939	2809811	23.042
	K	39	**98037.385**	**ug/L**	3.328	56527772	463.743
	Ca	43	**95969.257**	**ug/L**	1.387	138124	1.133
>	Sc	45		**ug/L**		121898	121898.008
	Ti	47	**1674.768**	**ug/L**	1.485	145719	1.195
	V	51	**24.136**	**ug/L**	4.071	18693	0.164
	Cr	52	**26.356**	**ug/L**	1.417	24053	0.187
	Cr	53		**ug/L**		9765	0.008
	Mn	55	**29.279**	**ug/L**	1.820	34839	0.285
	Fe	57	**107653.768**	**ug/L**	1.980	2366581	19.416
	Co	59	**20.257**	**ug/L**	0.947	16738	0.137
	Ni	60	**21.496**	**ug/L**	2.768	3787	0.031
	Cu	63		**ug/L**		8415	0.068
	Cu	65	**19.292**	**ug/L**	1.951	4465	0.036
	Zn	66	**17.306**	**ug/L**	2.450	2947	0.042
	Zn	67		**ug/L**		2070	0.003
	Zn	68		**ug/L**		2391	0.033
>	Ge	74		**ug/L**		67372	67371.536
	As	75	**20.960**	**ug/L**	2.159	4488	0.066
	Se	77		**ug/L**		1452	0.007
	Se	82	**20.899**	**ug/L**	5.739	471	0.007
	Kr	83		**ug/L**		64	0.001
	Sr	88	**22.069**	**ug/L**	0.558	61451	0.964
	Y	89		**ug/L**		62	0.001
	Zr	90	**18.686**	**ug/L**	0.894	28658	0.449
	Mo	98	**1859.480**	**ug/L**	0.747	1423123	22.390
	Ag	107	**18.209**	**ug/L**	0.440	26942	0.424
	Cd	111	**18.807**	**ug/L**	2.999	6837	0.108
	Cd	114		**ug/L**		18238	0.287
>	In	115		**ug/L**		63558	63558.455
	Sn	120	**19.380**	**ug/L**	0.754	29689	0.466
	Sb	121	**20.353**	**ug/L**	2.305	21754	0.341
	Sb	123		**ug/L**		16638	0.261
	Ba	135		**ug/L**		6432	0.051
	Ba	137	**21.492**	**ug/L**	0.863	11271	0.089
	Ho	165		**ug/L**		2434	0.019
>	Lu	175		**ug/L**		126929	126928.803
	Tl	205	**19.392**	**ug/L**	0.888	110890	0.870
	Pb	208	**20.118**	**ug/L**	1.136	133196	1.049
	Th	232	**20.535**	**ug/L**	1.380	153111	1.204
	U	238	**22.322**	**ug/L**	0.312	179909	1.415

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	0.9998
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	84.296				
	Be	9	81.452				
	B	11	87.230				
	Na	23	96.076				
	Mg	24	82.409				
	Al	27	91.151				
	P	31	97.598				
	K	39	98.037				
	Ca	43	95.969				
>	Sc	45		72.1			
	Ti	47	83.738				
	V	51	120.682				
	Cr	52	113.116				
	Cr	53					
	Mn	55	113.486				
	Fe	57	107.654				
	Co	59	100.110				
	Ni	60	92.219				
	Cu	63					
	Cu	65	82.658				
	Zn	66	72.838				
	Zn	67					
	Zn	68					
>	Ge	74		84.2			
	As	75	104.799				
	Se	77					
	Se	82	104.494				
	Kr	83					
	Sr	88	96.121				
	Y	89					
	Zr	90	93.430				
	Mo	98	92.974				
	Ag	107	91.046				
	Cd	111	91.994				
	Cd	114					
>	In	115		88.2			
	Sn	120	96.900				
	Sb	121	101.766				
	Sb	123					
	Ba	135					
	Ba	137	103.337				
	Ho	165					
>	Lu	175		85.7			
	Tl	205	96.959				
	Pb	208	99.649				
	Th	232	102.676				
	U	238	111.612				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 5	V	51	ICSAB is out of limits
QC Std 5	Zn	66	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 18:38:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.522**	ug/L	4.092	4583	0.028
	Be	9	**51.034**	ug/L	1.609	2727	0.016
	B	11	**95.453**	ug/L	0.110	6141	0.036
	Na	23	**4791.865**	ug/L	5.624	2654177	16.044
	Mg	24	**4690.629**	ug/L	6.318	2020570	12.227
	Al	27	**5271.682**	ug/L	1.925	2933867	17.747
	P	31	**4773.354**	ug/L	0.909	187591	1.127
	K	39	**5539.481**	ug/L	5.875	4375623	26.203
	Ca	43	**4978.563**	ug/L	2.551	9743	0.059
>	Sc	45		ug/L		165289	165289.432
	Ti	47	**48.194**	ug/L	1.968	5730	0.034
	V	51	**48.989**	ug/L	4.535	53312	0.333
	Cr	52	**49.808**	ug/L	0.762	60163	0.354
	Cr	53		ug/L		14772	0.017
	Mn	55	**50.791**	ug/L	0.524	81874	0.495
	Fe	57	**4923.425**	ug/L	0.341	147331	0.888
	Co	59	**50.247**	ug/L	1.432	56280	0.340
	Ni	60	**51.011**	ug/L	1.931	12158	0.073
	Cu	63		ug/L		30140	0.182
	Cu	65	**50.833**	ug/L	0.918	15860	0.096
	Zn	66	**53.485**	ug/L	1.072	10843	0.130
	Zn	67		ug/L		3812	0.019
	Zn	68		ug/L		8366	0.099
>	Ge	74		ug/L		82445	82444.742
	As	75	**48.405**	ug/L	1.464	12632	0.153
	Se	77		ug/L		1912	0.009
	Se	82	**49.647**	ug/L	2.609	1357	0.016
	Kr	83		ug/L		17	-0.000
	Sr	88	**52.241**	ug/L	0.469	170196	2.282
	Y	89		ug/L		16	0.000
	Zr	90	**41.002**	ug/L	11.008	73605	0.986
	Mo	98	**49.496**	ug/L	1.288	44458	0.596
	Ag	107	**49.781**	ug/L	0.808	86299	1.159
	Cd	111	**50.524**	ug/L	0.962	21520	0.289
	Cd	114		ug/L		52074	0.699
>	In	115		ug/L		74484	74483.530
	Sn	120	**49.993**	ug/L	0.232	89607	1.202
	Sb	121	**48.877**	ug/L	5.758	61127	0.819
	Sb	123		ug/L		46809	0.627
	Ba	135		ug/L		18469	0.121
	Ba	137	**51.805**	ug/L	0.088	32521	0.214
	Ho	165		ug/L		10	0.000
>	Lu	175		ug/L		152076	152076.285
	Tl	205	**48.513**	ug/L	0.784	331475	2.176
	Pb	208	**50.274**	ug/L	0.985	398580	2.620
	Th	232	**51.371**	ug/L	0.669	458357	3.012
	U	238	**52.037**	ug/L	1.053	502153	3.300

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	89.044				
	Be	9	102.068				
	B	11	95.453				
	Na	23	95.837				
	Mg	24	93.813				
	Al	27	104.390				
	P	31	95.467				
	K	39	110.790				
	Ca	43	99.571				
>	Sc	45		97.7			
	Ti	47	96.388				
	V	51	97.977				
	Cr	52	99.616				
	Cr	53					
	Mn	55	101.582				
	Fe	57	98.469				
	Co	59	100.494				
	Ni	60	102.022				
	Cu	63					
	Cu	65	101.666				
	Zn	66	106.970				
	Zn	67					
	Zn	68					
>	Ge	74		103.0			
	As	75	96.810				
	Se	77					
	Se	82	99.294				
	Kr	83					
	Sr	88	104.482				
	Y	89					
	Zr	90	82.004				
	Mo	98	98.993				
	Ag	107	99.562				
	Cd	111	101.048				
	Cd	114					
>	In	115		103.3			
	Sn	120	99.986				
	Sb	121	97.754				
	Sb	123					
	Ba	135					
	Ba	137	103.611				
	Ho	165					
>	Lu	175		102.7			
	Tl	205	97.025				
	Pb	208	100.549				
	Th	232	102.741				
	U	238	104.075				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	K	39	CCV is out of limits (+/- 10%)
QC Std 6	Zr	90	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 18:44:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.023**	**ug/L**	39.070	2	-0.000
	Be	9	**0.011**	**ug/L**	420.139	3	0.000
	B	11	**2.973**	**ug/L**	32.302	335	0.001
	Na	23	**4.377**	**ug/L**	120.340	6001	0.015
	Mg	24	**0.689**	**ug/L**	181.578	667	0.002
	Al	27	**-0.611**	**ug/L**	158.692	333	-0.002
	P	31	**-2.918**	**ug/L**	90.671	1270	-0.001
	K	39	**-1.968**	**ug/L**	127.494	44068	-0.009
	Ca	43	**1.505**	**ug/L**	426.361	31	0.000
>	Sc	45		**ug/L**		175406	175406.186
	Ti	47	**0.435**	**ug/L**	17.807	100	0.000
	V	51	**0.893**	**ug/L**	91.533	-797	0.006
	Cr	52	**0.152**	**ug/L**	37.239	1950	0.001
	Cr	53		**ug/L**		9563	-0.017
	Mn	55	**-0.006**	**ug/L**	67.289	106	-0.000
	Fe	57	**1.915**	**ug/L**	59.603	655	0.000
	Co	59	**0.001**	**ug/L**	221.408	13	0.000
	Ni	60	**-0.005**	**ug/L**	88.058	22	-0.000
	Cu	63		**ug/L**		129	-0.000
	Cu	65	**0.006**	**ug/L**	95.834	66	0.000
	Zn	66	**-0.055**	**ug/L**	151.991	139	-0.000
	Zn	67		**ug/L**		2063	-0.003
	Zn	68		**ug/L**		196	-0.001
>	Ge	74		**ug/L**		85009	85009.051
	As	75	**0.511**	**ug/L**	64.232	175	0.002
	Se	77		**ug/L**		1036	-0.002
	Se	82	**0.793**	**ug/L**	29.404	31	0.000
	Kr	83		**ug/L**		16	-0.000
	Sr	88	**-0.001**	**ug/L**	562.708	198	-0.000
	Y	89		**ug/L**		5	-0.000
	Zr	90	**0.322**	**ug/L**	4.882	714	0.008
	Mo	98	**0.291**	**ug/L**	9.434	331	0.003
	Ag	107	**0.003**	**ug/L**	93.548	15	0.000
	Cd	111	**-0.003**	**ug/L**	32.094	1	-0.000
	Cd	114		**ug/L**		9	-0.000
>	In	115		**ug/L**		75173	75173.427
	Sn	120	**0.047**	**ug/L**	9.696	171	0.001
	Sb	121	**0.791**	**ug/L**	6.206	1071	0.013
	Sb	123		**ug/L**		810	0.010
	Ba	135		**ug/L**		12	-0.000
	Ba	137	**0.001**	**ug/L**	464.184	20	0.000
	Ho	165		**ug/L**		4	0.000
>	Lu	175		**ug/L**		153862	153861.819
	Tl	205	**0.147**	**ug/L**	30.585	1613	0.007
	Pb	208	**0.003**	**ug/L**	41.641	145	0.000
	Th	232	**0.252**	**ug/L**	4.686	2606	0.015
	U	238	**0.007**	**ug/L**	53.832	364	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			103.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			106.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			104.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			103.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, February 25, 2010 18:49:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 10.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**856.067**	**ug/L**	0.298	66155	0.533
	Be	9	**878.339**	**ug/L**	1.833	35231	0.284
	B	11	**1.294**	**ug/L**	28.151	158	0.000
	Na	23	**46706.458**	**ug/L**	2.629	19417404	156.377
	Mg	24	**42219.572**	**ug/L**	1.079	13664838	110.057
	Al	27	**46441.742**	**ug/L**	1.312	19411800	156.342
	P	31	**22541.878**	**ug/L**	1.745	661752	5.322
	K	39	**50100.173**	**ug/L**	3.527	29455084	236.987
	Ca	43	**48713.820**	**ug/L**	0.702	71437	0.575
>	Sc	45		**ug/L**		124158	124157.766
	Ti	47	**45.067**	**ug/L**	3.094	4026	0.032
	V	51	**990.139**	**ug/L**	1.648	834673	6.733
	Cr	52	**984.083**	**ug/L**	1.375	869503	6.993
	Cr	53		**ug/L**		105156	0.775
	Mn	55	**965.936**	**ug/L**	0.812	1168094	9.407
	Fe	57	**47016.443**	**ug/L**	0.634	1053262	8.480
	Co	59	**901.927**	**ug/L**	0.446	758752	6.111
	Ni	60	**888.180**	**ug/L**	1.246	158769	1.279
	Cu	63		**ug/L**		368810	2.970
	Cu	65	**834.104**	**ug/L**	1.355	194794	1.569
	Zn	66	**1947.136**	**ug/L**	1.004	319286	4.724
	Zn	67		**ug/L**		58532	0.839
	Zn	68		**ug/L**		264927	3.918
>	Ge	74		**ug/L**		67569	67568.767
	As	75	**896.085**	**ug/L**	0.235	191125	2.828
	Se	77		**ug/L**		9184	0.122
	Se	82	**465.184**	**ug/L**	1.290	10367	0.153
	Kr	83		**ug/L**		24	0.000
	Sr	88	**906.895**	**ug/L**	1.113	2486017	39.622
	Y	89		**ug/L**		68	0.001
	Zr	90	**436.796**	**ug/L**	0.180	658848	10.499
	Mo	98	**922.156**	**ug/L**	0.110	696724	11.104
	Ag	107	**229.644**	**ug/L**	0.841	335330	5.344
	Cd	111	**945.970**	**ug/L**	1.202	339353	5.409
	Cd	114		**ug/L**		803573	12.808
>	In	115		**ug/L**		62742	62741.886
	Sn	120	**906.543**	**ug/L**	0.846	1367475	21.795
	Sb	121	**236.287**	**ug/L**	2.462	248610	3.961
	Sb	123		**ug/L**		190124	3.029
	Ba	135		**ug/L**		299035	2.266
	Ba	137	**965.632**	**ug/L**	0.964	525755	3.984
	Ho	165		**ug/L**		34	0.000
>	Lu	175		**ug/L**		131987	131987.318
	Tl	205	**461.633**	**ug/L**	1.299	2733036	20.702
	Pb	208	**4855.844**	**ug/L**	1.088	33406579	253.081
	Th	232	**2496.484**	**ug/L**	1.097	19319275	146.355
	U	238	**5327.679**	**ug/L**	1.519	44593822	337.829

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	85.607				
	Be	9	87.834				
	B	11					
	Na	23	93.413				
	Mg	24	84.439				
	Al	27	92.883				
	P	31	90.168				
	K	39	100.200				
	Ca	43	97.428				
>	Sc	45		73.4			
	Ti	47					
	V	51	99.014				
	Cr	52	98.408				
	Cr	53					
	Mn	55	96.594				
	Fe	57	94.033				
	Co	59	90.193				
	Ni	60	88.818				
	Cu	63					
	Cu	65	83.410				
	Zn	66	77.885				
	Zn	67					
	Zn	68					
>	Ge	74		84.4			
	As	75	89.609				
	Se	77					
	Se	82	93.037				
	Kr	83					
	Sr	88	90.689				
	Y	89					
	Zr	90	87.359				
	Mo	98	92.216				
	Ag	107	91.857				
	Cd	111	94.597				
	Cd	114					
>	In	115		87.0			
	Sn	120	90.654				
	Sb	121	94.515				
	Sb	123					
	Ba	135					
	Ba	137	96.563				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	92.327				
	Pb	208	97.117				
	Th	232	99.859				
	U	238	106.554				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Be	9	LRS is out of limits (+/- 10%)
QC Std 10	Mg	24	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)

Sample ID: QC Std 10
Report Date/Time: Thursday, February 25, 2010 18:52:32
Page 3

QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Zr	90LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, February 25, 2010 18:55:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 11.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**45.339**	**ug/L**	2.169	4526	0.028
	Be	9	**52.646**	**ug/L**	2.053	2727	0.017
	B	11	**99.680**	**ug/L**	4.261	6210	0.038
	Na	23	**5274.640**	**ug/L**	5.716	2833783	17.660
	Mg	24	**4890.389**	**ug/L**	10.798	2041921	12.748
	Al	27	**5383.259**	**ug/L**	10.235	2903271	18.122
	P	31	**4861.536**	**ug/L**	2.814	185239	1.148
	K	39	**5436.387**	**ug/L**	1.685	4162426	25.716
	Ca	43	**5051.611**	**ug/L**	0.336	9585	0.060
>	Sc	45		**ug/L**		160262	160261.935
	Ti	47	**47.750**	**ug/L**	2.221	5505	0.034
	V	51	**49.376**	**ug/L**	2.916	52110	0.336
	Cr	52	**49.742**	**ug/L**	2.165	58259	0.353
	Cr	53		**ug/L**		14041	0.016
	Mn	55	**50.034**	**ug/L**	1.391	78204	0.487
	Fe	57	**4909.811**	**ug/L**	1.398	142472	0.886
	Co	59	**49.714**	**ug/L**	0.355	53994	0.337
	Ni	60	**51.209**	**ug/L**	1.810	11836	0.074
	Cu	63		**ug/L**		29348	0.182
	Cu	65	**50.680**	**ug/L**	1.393	15331	0.095
	Zn	66	**53.396**	**ug/L**	2.494	10466	0.130
	Zn	67		**ug/L**		3760	0.020
	Zn	68		**ug/L**		8187	0.100
>	Ge	74		**ug/L**		79722	79721.683
	As	75	**48.940**	**ug/L**	0.980	12348	0.154
	Se	77		**ug/L**		1886	0.010
	Se	82	**54.389**	**ug/L**	1.328	1437	0.018
	Kr	83		**ug/L**		17	-0.000
	Sr	88	**52.286**	**ug/L**	1.680	164575	2.284
	Y	89		**ug/L**		13	0.000
	Zr	90	**53.728**	**ug/L**	4.195	93019	1.291
	Mo	98	**50.524**	**ug/L**	1.087	43854	0.608
	Ag	107	**50.093**	**ug/L**	0.309	83932	1.166
	Cd	111	**51.180**	**ug/L**	0.437	21068	0.293
	Cd	114		**ug/L**		50919	0.707
>	In	115		**ug/L**		71984	71984.014
	Sn	120	**50.858**	**ug/L**	1.567	88085	1.223
	Sb	121	**51.391**	**ug/L**	2.809	62120	0.862
	Sb	123		**ug/L**		47661	0.661
	Ba	135		**ug/L**		17709	0.118
	Ba	137	**51.051**	**ug/L**	1.733	31579	0.211
	Ho	165		**ug/L**		9	0.000
>	Lu	175		**ug/L**		149833	149833.016
	Tl	205	**48.867**	**ug/L**	1.697	329008	2.191
	Pb	208	**50.497**	**ug/L**	1.226	394500	2.632
	Th	232	**52.676**	**ug/L**	0.667	463046	3.088
	U	238	**52.850**	**ug/L**	1.367	502489	3.351

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	90.678				
	Be	9	105.293				
	B	11	99.680				
	Na	23	105.493				
	Mg	24	97.808				
	Al	27	106.599				
	P	31	97.231				
	K	39	108.728				
	Ca	43	101.032				
>	Sc	45			94.8		
	Ti	47	95.499				
	V	51	98.751				
	Cr	52	99.484				
	Cr	53					
	Mn	55	100.068				
	Fe	57	98.196				
	Co	59	99.428				
	Ni	60	102.419				
	Cu	63					
	Cu	65	101.360				
	Zn	66	106.793				
	Zn	67					
	Zn	68					
>	Ge	74			99.6		
	As	75	97.880				
	Se	77					
	Se	82	108.779				
	Kr	83					
	Sr	88	104.571				
	Y	89					
	Zr	90	107.455				
	Mo	98	101.049				
	Ag	107	100.187				
	Cd	111	102.361				
	Cd	114					
>	In	115			99.9		
	Sn	120	101.716				
	Sb	121	102.781				
	Sb	123					
	Ba	135					
	Ba	137	102.102				
	Ho	165					
>	Lu	175			101.2		
	Tl	205	97.734				
	Pb	208	100.995				
	Th	232	105.352				
	U	238	105.700				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, February 25, 2010 19:01:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 12.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.038**	ug/L	80.716	8	0.000
	Be	9	**0.006**	ug/L	168.529	2	0.000
	B	11	**2.912**	ug/L	26.408	318	0.001
	Na	23	**-0.564**	ug/L	313.821	3000	-0.002
	Mg	24	**2.277**	ug/L	115.364	1333	0.006
	Al	27	**1.192**	ug/L	227.426	1333	0.004
	P	31	**-3.580**	ug/L	17.852	1193	-0.001
	K	39	**-7.699**	ug/L	47.772	37717	-0.036
	Ca	43	**2.081**	ug/L	147.390	31	0.000
>	Sc	45		ug/L		168266	168265.856
	Ti	47	**0.102**	ug/L	98.987	56	0.000
	V	51	**0.747**	ug/L	70.479	-942	0.005
	Cr	52	**0.342**	ug/L	0.494	2097	0.002
	Cr	53		ug/L		9115	-0.018
	Mn	55	**-0.001**	ug/L	387.126	108	-0.000
	Fe	57	**0.620**	ug/L	107.180	589	0.000
	Co	59	**0.008**	ug/L	27.660	20	0.000
	Ni	60	**0.013**	ug/L	144.384	25	0.000
	Cu	63		ug/L		139	0.000
	Cu	65	**0.043**	ug/L	36.514	75	0.000
	Zn	66	**-0.069**	ug/L	205.899	132	-0.000
	Zn	67		ug/L		2112	-0.002
	Zn	68		ug/L		208	-0.000
>	Ge	74		ug/L		82528	82527.552
	As	75	**0.093**	ug/L	701.314	60	0.000
	Se	77		ug/L		921	-0.003
	Se	82	**1.242**	ug/L	9.234	42	0.000
	Kr	83		ug/L		16	-0.000
	Sr	88	**0.005**	ug/L	87.915	210	0.000
	Y	89		ug/L		6	0.000
	Zr	90	**0.543**	ug/L	5.969	1087	0.013
	Mo	98	**0.547**	ug/L	13.249	549	0.007
	Ag	107	**0.007**	ug/L	23.075	22	0.000
	Cd	111	**0.010**	ug/L	28.605	6	0.000
	Cd	114		ug/L		10	-0.000
>	In	115		ug/L		73442	73441.855
	Sn	120	**0.303**	ug/L	15.432	618	0.007
	Sb	121	**1.275**	ug/L	6.863	1642	0.021
	Sb	123		ug/L		1245	0.016
	Ba	135		ug/L		13	-0.000
	Ba	137	**0.007**	ug/L	45.422	23	0.000
	Ho	165		ug/L		2	-0.000
>	Lu	175		ug/L		149262	149262.304
	Tl	205	**0.289**	ug/L	21.839	2517	0.013
	Pb	208	**0.017**	ug/L	9.307	252	0.001
	Th	232	**0.478**	ug/L	5.159	4508	0.028
	U	238	**0.048**	ug/L	8.499	735	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			99.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			103.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			101.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.8		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 12	Mo	98CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 20:04:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.471**	ug/L	0.245	4767	0.028
	Be	9	**52.981**	ug/L	1.107	2947	0.017
	B	11	**94.993**	ug/L	4.820	6361	0.036
	Na	23	**5121.689**	ug/L	7.474	2953521	17.148
	Mg	24	**4655.406**	ug/L	9.806	2088599	12.136
	Al	27	**5497.510**	ug/L	3.675	3185439	18.507
	P	31	**4845.035**	ug/L	3.167	198205	1.144
	K	39	**5124.952**	ug/L	4.085	4216571	24.242
	Ca	43	**4931.807**	ug/L	3.169	10048	0.058
>	Sc	45		ug/L		172065	172064.745
	Ti	47	**48.688**	ug/L	2.002	6025	0.035
	V	51	**49.379**	ug/L	0.905	55942	0.336
	Cr	52	**49.562**	ug/L	1.997	62331	0.352
	Cr	53		ug/L		15168	0.016
	Mn	55	**49.745**	ug/L	1.380	83478	0.484
	Fe	57	**4891.489**	ug/L	0.722	152379	0.882
	Co	59	**49.352**	ug/L	0.889	57548	0.334
	Ni	60	**50.303**	ug/L	1.066	12483	0.072
	Cu	63		ug/L		31020	0.180
	Cu	65	**50.278**	ug/L	0.554	16331	0.095
	Zn	66	**53.122**	ug/L	1.719	11156	0.129
	Zn	67		ug/L		4045	0.020
	Zn	68		ug/L		8601	0.098
>	Ge	74		ug/L		85418	85418.194
	As	75	**46.724**	ug/L	0.970	12635	0.147
	Se	77		ug/L		1960	0.009
	Se	82	**48.655**	ug/L	5.430	1380	0.016
	Kr	83		ug/L		22	0.000
	Sr	88	**52.157**	ug/L	1.074	173768	2.279
	Y	89		ug/L		13	0.000
	Zr	90	**47.836**	ug/L	3.167	87723	1.150
	Mo	98	**48.994**	ug/L	2.472	45005	0.590
	Ag	107	**49.573**	ug/L	1.354	87875	1.154
	Cd	111	**50.943**	ug/L	0.591	22189	0.291
	Cd	114		ug/L		53623	0.704
>	In	115		ug/L		76170	76170.386
	Sn	120	**49.921**	ug/L	2.623	91497	1.200
	Sb	121	**47.416**	ug/L	7.612	60655	0.795
	Sb	123		ug/L		46398	0.608
	Ba	135		ug/L		18724	0.120
	Ba	137	**50.651**	ug/L	1.309	32704	0.209
	Ho	165		ug/L		10	0.000
>	Lu	175		ug/L		156440	156439.554
	Tl	205	**47.993**	ug/L	0.328	337317	2.152
	Pb	208	**49.743**	ug/L	0.513	405682	2.593
	Th	232	**50.148**	ug/L	1.992	460430	2.940
	U	238	**52.033**	ug/L	1.053	516358	3.299

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	88.943				
	Be	9	105.962				
	B	11	94.993				
	Na	23	102.434				
	Mg	24	93.108				
	Al	27	108.862				
	P	31	96.901				
	K	39	102.499				
	Ca	43	98.636				
>	Sc	45		101.7			
	Ti	47	97.377				
	V	51	98.759				
	Cr	52	99.124				
	Cr	53					
	Mn	55	99.491				
	Fe	57	97.830				
	Co	59	98.704				
	Ni	60	100.607				
	Cu	63					
	Cu	65	100.556				
	Zn	66	106.244				
	Zn	67					
	Zn	68					
>	Ge	74		106.7			
	As	75	93.448				
	Se	77					
	Se	82	97.309				
	Kr	83					
	Sr	88	104.315				
	Y	89					
	Zr	90	95.672				
	Mo	98	97.989				
	Ag	107	99.147				
	Cd	111	101.885				
	Cd	114					
>	In	115		105.7			
	Sn	120	99.841				
	Sb	121	94.833				
	Sb	123					
	Ba	135					
	Ba	137	101.302				
	Ho	165					
>	Lu	175		105.6			
	Tl	205	95.986				
	Pb	208	99.486				
	Th	232	100.296				
	U	238	104.066				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 20:10:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.014**	**ug/L**	228.122	6	0.000
	Be	9	**-0.001**	**ug/L**	1339.622	2	-0.000
	B	11	**2.923**	**ug/L**	19.038	332	0.001
	Na	23	**-0.193**	**ug/L**	1356.460	3334	-0.001
	Mg	24	**0.696**	**ug/L**	361.484	667	0.002
	Al	27	**1.657**	**ug/L**	58.987	1667	0.006
	P	31	**-4.365**	**ug/L**	28.784	1209	-0.001
	K	39	**-2.693**	**ug/L**	317.032	43400	-0.013
	Ca	43	**4.715**	**ug/L**	108.684	38	0.000
>	Sc	45		**ug/L**		175027	175027.448
	Ti	47	**0.004**	**ug/L**	996.257	46	0.000
	V	51	**0.128**	**ug/L**	100.585	-1716	0.001
	Cr	52	**0.018**	**ug/L**	110.660	1778	0.000
	Cr	53		**ug/L**		9526	-0.017
	Mn	55	**-0.003**	**ug/L**	237.541	110	-0.000
	Fe	57	**0.087**	**ug/L**	2467.118	596	0.000
	Co	59	**0.006**	**ug/L**	19.486	20	0.000
	Ni	60	**-0.016**	**ug/L**	76.045	19	-0.000
	Cu	63		**ug/L**		128	-0.000
	Cu	65	**0.025**	**ug/L**	107.968	72	0.000
	Zn	66	**-0.123**	**ug/L**	55.807	126	-0.000
	Zn	67		**ug/L**		2159	-0.002
	Zn	68		**ug/L**		219	-0.000
>	Ge	74		**ug/L**		85718	85717.625
	As	75	**0.324**	**ug/L**	134.568	127	0.001
	Se	77		**ug/L**		927	-0.003
	Se	82	**0.830**	**ug/L**	17.309	32	0.000
	Kr	83		**ug/L**		17	-0.000
	Sr	88	**0.002**	**ug/L**	66.099	210	0.000
	Y	89		**ug/L**		7	0.000
	Zr	90	**0.422**	**ug/L**	3.460	907	0.010
	Mo	98	**0.187**	**ug/L**	26.032	240	0.002
	Ag	107	**0.005**	**ug/L**	69.530	20	0.000
	Cd	111	**0.006**	**ug/L**	199.717	5	0.000
	Cd	114		**ug/L**		12	0.000
>	In	115		**ug/L**		76194	76193.532
	Sn	120	**0.063**	**ug/L**	4.620	203	0.002
	Sb	121	**0.818**	**ug/L**	10.226	1120	0.014
	Sb	123		**ug/L**		847	0.010
	Ba	135		**ug/L**		15	0.000
	Ba	137	**0.004**	**ug/L**	127.049	22	0.000
	Ho	165		**ug/L**		3	-0.000
>	Lu	175		**ug/L**		154884	154884.294
	Tl	205	**0.121**	**ug/L**	30.709	1448	0.005
	Pb	208	**0.009**	**ug/L**	9.112	193	0.000
	Th	232	**0.249**	**ug/L**	8.098	2596	0.015
	U	238	**0.012**	**ug/L**	15.257	411	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			103.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			107.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			105.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.6		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202032619
Sample Date/Time: Thursday, February 25, 2010 20:17:28
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\1202032619.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.010**	**ug/L**	137.626	3	-0.000
	Be	9	**0.059**	**ug/L**	122.394	5	0.000
	B	11	**0.677**	**ug/L**	5.181	179	0.000
	Na	23	**5.098**	**ug/L**	49.968	6335	0.017
	Mg	24	**4.509**	**ug/L**	161.359	2334	0.012
	Al	27	**7.437**	**ug/L**	59.908	5001	0.025
	P	31	**15.881**	**ug/L**	11.853	2010	0.004
	K	39	**7.697**	**ug/L**	124.254	51093	0.036
	Ca	43	**11.993**	**ug/L**	97.641	52	0.000
>	Sc	45		**ug/L**		172027	172027.401
	Ti	47	**0.521**	**ug/L**	19.005	109	0.000
	V	51	**1.143**	**ug/L**	51.864	-497	0.008
	Cr	52	**0.131**	**ug/L**	50.736	1886	0.001
	Cr	53		**ug/L**		7215	-0.030
	Mn	55	**0.590**	**ug/L**	3.339	1101	0.006
	Fe	57	**29.228**	**ug/L**	3.960	1490	0.005
	Co	59	**0.057**	**ug/L**	9.920	78	0.000
	Ni	60	**0.246**	**ug/L**	6.629	83	0.000
	Cu	63		**ug/L**		323	0.001
	Cu	65	**0.323**	**ug/L**	13.238	167	0.001
	Zn	66	**1.245**	**ug/L**	8.833	391	0.003
	Zn	67		**ug/L**		1656	-0.007
	Zn	68		**ug/L**		376	0.002
>	Ge	74		**ug/L**		81634	81634.452
	As	75	**-0.211**	**ug/L**	133.666	-17	-0.001
	Se	77		**ug/L**		644	-0.006
	Se	82	**0.014**	**ug/L**	3081.639	9	0.000
	Kr	83		**ug/L**		19	0.000
	Sr	88	**0.095**	**ug/L**	7.160	513	0.004
	Y	89		**ug/L**		40	0.000
	Zr	90	**1.470**	**ug/L**	3.987	2808	0.035
	Mo	98	**0.133**	**ug/L**	4.390	190	0.002
	Ag	107	**0.026**	**ug/L**	23.367	56	0.001
	Cd	111	**0.049**	**ug/L**	19.244	23	0.000
	Cd	114		**ug/L**		47	0.000
>	In	115		**ug/L**		75685	75685.152
	Sn	120	**1.040**	**ug/L**	4.009	1978	0.025
	Sb	121	**0.245**	**ug/L**	8.080	387	0.004
	Sb	123		**ug/L**		291	0.003
	Ba	135		**ug/L**		123	0.001
	Ba	137	**0.322**	**ug/L**	4.474	225	0.001
	Ho	165		**ug/L**		6	0.000
>	Lu	175		**ug/L**		154582	154582.471
	Tl	205	**0.041**	**ug/L**	1.317	891	0.002
	Pb	208	**0.047**	**ug/L**	2.941	502	0.002
	Th	232	**0.180**	**ug/L**	2.484	1970	0.011
	U	238	**-0.010**	**ug/L**	15.977	193	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			101.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			102.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			105.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.4		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202032624
Sample Date/Time: Thursday, February 25, 2010 20:23:11
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948769|40|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\1202032624.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.170**	ug/L	4.059	236	0.001
	Be	9	**20.646**	ug/L	3.787	1144	0.007
	B	11	**32.987**	ug/L	2.938	2286	0.013
	Na	23	**226.088**	ug/L	9.138	132952	0.757
	Mg	24	**974.474**	ug/L	4.231	435204	2.540
	Al	27	**3019.499**	ug/L	13.544	1740283	10.165
	P	31	**180.854**	ug/L	2.478	8669	0.043
	K	39	**1125.086**	ug/L	4.366	955624	5.322
	Ca	43	**2513.826**	ug/L	1.507	5110	0.030
>	Sc	45		ug/L		171197	171197.414
	Ti	47	**109.078**	ug/L	1.419	13374	0.078
	V	51	**22.371**	ug/L	2.068	24219	0.152
	Cr	52	**54.960**	ug/L	0.837	68581	0.391
	Cr	53		ug/L		15405	0.018
	Mn	55	**132.916**	ug/L	2.069	221743	1.294
	Fe	57	**4215.417**	ug/L	0.650	130737	0.760
	Co	59	**22.513**	ug/L	2.769	26124	0.153
	Ni	60	**32.522**	ug/L	2.815	8038	0.047
	Cu	63		ug/L		25559	0.149
	Cu	65	**41.971**	ug/L	1.219	13574	0.079
	Zn	66	**154.071**	ug/L	0.742	31504	0.374
	Zn	67		ug/L		7190	0.058
	Zn	68		ug/L		24232	0.286
>	Ge	74		ug/L		83894	83894.159
	As	75	**25.044**	ug/L	3.271	6670	0.079
	Se	77		ug/L		2281	0.013
	Se	82	**69.190**	ug/L	1.070	1922	0.023
	Kr	83		ug/L		18	-0.000
	Sr	88	**56.939**	ug/L	1.097	186416	2.488
	Y	89		ug/L		9684	0.129
	Zr	90	**3.422**	ug/L	3.578	6290	0.082
	Mo	98	**12.063**	ug/L	1.296	10942	0.145
	Ag	107	**5.291**	ug/L	1.290	9227	0.123
	Cd	111	**14.918**	ug/L	1.487	6388	0.085
	Cd	114		ug/L		15688	0.209
>	In	115		ug/L		74863	74863.101
	Sn	120	**8.286**	ug/L	2.220	15001	0.199
	Sb	121	**12.892**	ug/L	2.526	16256	0.216
	Sb	123		ug/L		12285	0.163
	Ba	135		ug/L		17340	0.112
	Ba	137	**48.058**	ug/L	2.410	30811	0.198
	Ho	165		ug/L		989	0.006
>	Lu	175		ug/L		155365	155364.738
	Tl	205	**28.897**	ug/L	0.305	201938	1.296
	Pb	208	**21.343**	ug/L	1.020	172908	1.112
	Th	232	**1.857**	ug/L	10.331	17288	0.109
	U	238	**0.442**	ug/L	1.528	4647	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			101.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			104.8		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			103.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.9		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979001
Sample Date/Time: Thursday, February 25, 2010 20:28:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979001.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**42.583**	**ug/L**	0.850	4228	0.027
	Be	9	**2.846**	**ug/L**	6.328	148	0.001
	B	11	**5.775**	**ug/L**	5.127	475	0.002
	Na	23	**1096.332**	**ug/L**	7.863	587889	3.671
	Mg	24	**4176.583**	**ug/L**	1.710	1735791	10.887
	Al	27	**28312.603**	**ug/L**	4.472	15196278	95.312
	P	31	**141.046**	**ug/L**	1.742	6573	0.033
	K	39	**4539.391**	**ug/L**	7.701	3461920	21.473
	Ca	43	**6086.675**	**ug/L**	4.190	11477	0.072
>	Sc	45		**ug/L**		159386	159385.532
	Ti	47	**744.981**	**ug/L**	0.438	84794	0.532
	V	51	**47.824**	**ug/L**	3.159	50146	0.325
	Cr	52	**21.810**	**ug/L**	1.926	26305	0.155
	Cr	53		**ug/L**		7954	-0.022
	Mn	55	**829.570**	**ug/L**	1.078	1287938	8.079
	Fe	57	**43982.876**	**ug/L**	1.084	1264828	7.933
	Co	59	**12.732**	**ug/L**	0.563	13761	0.086
	Ni	60	**19.476**	**ug/L**	0.878	4489	0.028
	Cu	63		**ug/L**		8667	0.054
	Cu	65	**15.406**	**ug/L**	0.937	4675	0.029
	Zn	66	**124.966**	**ug/L**	2.004	23300	0.303
	Zn	67		**ug/L**		5700	0.047
	Zn	68		**ug/L**		19978	0.259
>	Ge	74		**ug/L**		76419	76418.656
	As	75	**7.773**	**ug/L**	4.932	1909	0.025
	Se	77		**ug/L**		560	-0.007
	Se	82	**1.057**	**ug/L**	47.550	34	0.000
	Kr	83		**ug/L**		47	0.000
	Sr	88	**54.088**	**ug/L**	0.707	167943	2.363
	Y	89		**ug/L**		253509	3.572
	Zr	90	**91.632**	**ug/L**	5.058	156541	2.203
	Mo	98	**4.701**	**ug/L**	0.769	4083	0.057
	Ag	107	**0.381**	**ug/L**	3.083	639	0.009
	Cd	111	**0.929**	**ug/L**	19.482	379	0.005
	Cd	114		**ug/L**		142	0.002
>	In	115		**ug/L**		70988	70987.824
	Sn	120	**2.154**	**ug/L**	2.243	3759	0.052
	Sb	121	**0.432**	**ug/L**	9.158	586	0.007
	Sb	123		**ug/L**		414	0.005
	Ba	135		**ug/L**		80231	0.513
	Ba	137	**218.825**	**ug/L**	1.483	141198	0.903
	Ho	165		**ug/L**		26905	0.172
>	Lu	175		**ug/L**		156440	156440.388
	Tl	205	**0.488**	**ug/L**	8.102	4030	0.022
	Pb	208	**34.434**	**ug/L**	1.301	280814	1.795
	Th	232	**25.089**	**ug/L**	1.762	230361	1.471
	U	238	**3.295**	**ug/L**	1.198	32982	0.209

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			94.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			95.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			105.6		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	MassOut of Limits Message
Ti 47 Upper, S, EEETi	47Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202032620
Sample Date/Time: Thursday, February 25, 2010 20:34:38
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\1202032620.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.973**	**ug/L**	2.714	3743	0.024
	Be	9	**2.220**	**ug/L**	1.547	115	0.001
	B	11	**5.051**	**ug/L**	10.111	428	0.002
	Na	23	**1014.049**	**ug/L**	4.991	540386	3.395
	Mg	24	**3279.833**	**ug/L**	4.383	1352503	8.550
	Al	27	**24610.512**	**ug/L**	3.511	13112314	82.849
	P	31	**116.979**	**ug/L**	2.912	5626	0.028
	K	39	**3847.849**	**ug/L**	8.032	2920466	18.201
	Ca	43	**5734.368**	**ug/L**	2.011	10738	0.068
>	Sc	45		**ug/L**		158212	158211.952
	Ti	47	**696.600**	**ug/L**	1.813	78712	0.497
	V	51	**40.313**	**ug/L**	3.923	41694	0.274
	Cr	52	**17.143**	**ug/L**	3.240	20863	0.122
	Cr	53		**ug/L**		7054	-0.027
	Mn	55	**712.299**	**ug/L**	1.652	1097753	6.937
	Fe	57	**38709.416**	**ug/L**	2.010	1105119	6.982
	Co	59	**18.134**	**ug/L**	1.403	19452	0.123
	Ni	60	**15.815**	**ug/L**	1.738	3622	0.023
	Cu	63		**ug/L**		7126	0.044
	Cu	65	**12.687**	**ug/L**	0.612	3832	0.024
	Zn	66	**122.400**	**ug/L**	1.860	22787	0.297
	Zn	67		**ug/L**		5426	0.044
	Zn	68		**ug/L**		19192	0.249
>	Ge	74		**ug/L**		76307	76306.788
	As	75	**6.446**	**ug/L**	3.154	1587	0.020
	Se	77		**ug/L**		512	-0.007
	Se	82	**0.646**	**ug/L**	14.966	24	0.000
	Kr	83		**ug/L**		36	0.000
	Sr	88	**45.666**	**ug/L**	1.100	142307	1.995
	Y	89		**ug/L**		250961	3.523
	Zr	90	**90.564**	**ug/L**	0.501	155216	2.177
	Mo	98	**4.556**	**ug/L**	1.660	3972	0.055
	Ag	107	**0.342**	**ug/L**	2.792	576	0.008
	Cd	111	**0.704**	**ug/L**	9.570	289	0.004
	Cd	114		**ug/L**		107	0.001
>	In	115		**ug/L**		71242	71241.997
	Sn	120	**2.680**	**ug/L**	0.289	4672	0.064
	Sb	121	**0.307**	**ug/L**	6.530	438	0.005
	Sb	123		**ug/L**		331	0.004
	Ba	135		**ug/L**		66047	0.419
	Ba	137	**179.504**	**ug/L**	0.950	116576	0.741
	Ho	165		**ug/L**		26058	0.166
>	Lu	175		**ug/L**		157417	157416.754
	Tl	205	**0.294**	**ug/L**	2.467	2692	0.013
	Pb	208	**29.415**	**ug/L**	0.083	241460	1.533
	Th	232	**23.577**	**ug/L**	0.903	217935	1.382
	U	238	**4.406**	**ug/L**	1.759	44273	0.279

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			93.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			95.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			98.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			106.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202032622
Sample Date/Time: Thursday, February 25, 2010 20:40:23
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\1202032622.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**66.997**	**ug/L**	3.006	6609	0.042
	Be	9	**22.968**	**ug/L**	4.643	1177	0.007
	B	11	**42.601**	**ug/L**	4.424	2694	0.016
	Na	23	**1890.749**	**ug/L**	8.517	1006432	6.330
	Mg	24	**4934.640**	**ug/L**	9.458	2035733	12.864
	Al	27	**32566.686**	**ug/L**	0.851	17368631	109.633
	P	31	**877.472**	**ug/L**	0.733	34083	0.207
	K	39	**5619.961**	**ug/L**	12.852	4247028	26.584
	Ca	43	**7515.300**	**ug/L**	3.092	14080	0.089
>	Sc	45		**ug/L**		158436	158435.876
	Ti	47	**843.970**	**ug/L**	1.350	95490	0.602
	V	51	**75.207**	**ug/L**	3.288	79375	0.511
	Cr	52	**46.109**	**ug/L**	1.119	53510	0.328
	Cr	53		**ug/L**		10465	-0.006
	Mn	55	**1660.486**	**ug/L**	1.303	2562369	16.172
	Fe	57	**45867.571**	**ug/L**	0.917	1311197	8.273
	Co	59	**37.418**	**ug/L**	0.584	40177	0.254
	Ni	60	**43.917**	**ug/L**	2.650	10034	0.063
	Cu	63		**ug/L**		19823	0.124
	Cu	65	**34.965**	**ug/L**	0.640	10475	0.066
	Zn	66	**154.945**	**ug/L**	1.811	28792	0.376
	Zn	67		**ug/L**		6580	0.059
	Zn	68		**ug/L**		24647	0.320
>	Ge	74		**ug/L**		76262	76261.543
	As	75	**40.279**	**ug/L**	0.589	9729	0.127
	Se	77		**ug/L**		647	-0.006
	Se	82	**6.963**	**ug/L**	5.840	183	0.002
	Kr	83		**ug/L**		43	0.000
	Sr	88	**80.080**	**ug/L**	1.348	248854	3.499
	Y	89		**ug/L**		269265	3.788
	Zr	90	**135.675**	**ug/L**	2.552	231855	3.261
	Mo	98	**26.882**	**ug/L**	1.881	23070	0.324
	Ag	107	**22.374**	**ug/L**	1.462	37020	0.521
	Cd	111	**5.329**	**ug/L**	2.265	2167	0.030
	Cd	114		**ug/L**		4441	0.062
>	In	115		**ug/L**		71088	71088.499
	Sn	120	**18.987**	**ug/L**	1.871	32523	0.456
	Sb	121	**52.225**	**ug/L**	0.739	62302	0.876
	Sb	123		**ug/L**		47754	0.671
	Ba	135		**ug/L**		107071	0.684
	Ba	137	**292.023**	**ug/L**	0.640	188607	1.205
	Ho	165		**ug/L**		29054	0.186
>	Lu	175		**ug/L**		156561	156561.121
	Tl	205	**43.791**	**ug/L**	1.041	308070	1.964
	Pb	208	**128.772**	**ug/L**	0.624	1050950	6.711
	Th	232	**49.480**	**ug/L**	0.460	454506	2.901
	U	238	**27.459**	**ug/L**	1.170	272935	1.741

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.7			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	MassOut of Limits Message
Ti 47 Upper, S, EEE Ti	47Sample is out of limits (over linear range)_
Mn 55 Upper, S, EEIMn	55Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1202032623
Sample Date/Time: Thursday, February 25, 2010 20:46:08
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\1202032623.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**71.663**	ug/L	3.102	6926	0.045
	Be	9	**22.642**	ug/L	4.894	1137	0.007
	B	11	**44.162**	ug/L	4.632	2733	0.017
	Na	23	**1825.231**	ug/L	4.542	951341	6.111
	Mg	24	**5845.467**	ug/L	9.341	2363334	15.238
	Al	27	**38532.748**	ug/L	5.331	20132518	129.717
	P	31	**872.147**	ug/L	2.802	33204	0.206
	K	39	**6474.159**	ug/L	5.190	4791866	30.624
	Ca	43	**7431.646**	ug/L	1.315	13647	0.088
>	Sc	45		ug/L		155251	155251.139
	Ti	47	**863.101**	ug/L	1.022	95684	0.616
	V	51	**81.978**	ug/L	2.659	84910	0.557
	Cr	52	**51.806**	ug/L	1.224	58718	0.368
	Cr	53		ug/L		11152	-0.000
	Mn	55	**818.536**	ug/L	0.475	1237778	7.972
	Fe	57	**50823.237**	ug/L	1.109	1423702	9.166
	Co	59	**34.406**	ug/L	1.991	36198	0.233
	Ni	60	**42.635**	ug/L	3.311	9546	0.061
	Cu	63		ug/L		20942	0.134
	Cu	65	**37.728**	ug/L	3.002	11067	0.071
	Zn	66	**226.563**	ug/L	3.655	41646	0.550
	Zn	67		ug/L		8765	0.088
	Zn	68		ug/L		35489	0.467
>	Ge	74		ug/L		75586	75585.696
	As	75	**42.602**	ug/L	2.603	10193	0.134
	Se	77		ug/L		640	-0.006
	Se	82	**7.308**	ug/L	4.992	190	0.002
	Kr	83		ug/L		39	0.000
	Sr	88	**82.348**	ug/L	1.147	249232	3.598
	Y	89		ug/L		257471	3.720
	Zr	90	**136.950**	ug/L	0.850	228001	3.292
	Mo	98	**28.068**	ug/L	1.637	23462	0.338
	Ag	107	**22.964**	ug/L	1.682	37015	0.534
	Cd	111	**5.623**	ug/L	3.759	2228	0.032
	Cd	114		ug/L		4451	0.064
>	In	115		ug/L		69233	69232.545
	Sn	120	**18.220**	ug/L	2.546	30402	0.438
	Sb	121	**49.153**	ug/L	2.371	57105	0.824
	Sb	123		ug/L		43298	0.625
	Ba	135		ug/L		82562	0.550
	Ba	137	**236.151**	ug/L	0.630	146228	0.974
	Ho	165		ug/L		27395	0.183
>	Lu	175		ug/L		150086	150086.215
	Tl	205	**44.744**	ug/L	1.477	301778	2.007
	Pb	208	**129.282**	ug/L	1.674	1011401	6.738
	Th	232	**50.990**	ug/L	2.392	448977	2.989
	U	238	**34.730**	ug/L	2.057	330852	2.202

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEETi	47	Sample is out of limits (over linear range)_
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202032621
Sample Date/Time: Thursday, February 25, 2010 20:51:53
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948769|10|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\1202032621.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**9.515**	**ug/L**	3.188	939	0.006
	Be	9	**0.604**	**ug/L**	8.076	33	0.000
	B	11	**2.514**	**ug/L**	26.250	274	0.001
	Na	23	**201.022**	**ug/L**	8.527	109420	0.673
	Mg	24	**956.621**	**ug/L**	4.813	394386	2.494
	Al	27	**6346.484**	**ug/L**	4.514	3375817	21.365
	P	31	**24.373**	**ug/L**	5.978	2163	0.006
	K	39	**1023.225**	**ug/L**	8.149	804761	4.840
	Ca	43	**1335.850**	**ug/L**	4.096	2518	0.016
>	Sc	45		**ug/L**		157934	157934.376
	Ti	47	**159.154**	**ug/L**	1.358	17986	0.114
	V	51	**10.804**	**ug/L**	1.772	9915	0.073
	Cr	52	**4.171**	**ug/L**	1.532	6265	0.030
	Cr	53		**ug/L**		6522	-0.031
	Mn	55	**175.227**	**ug/L**	0.659	269608	1.707
	Fe	57	**9570.222**	**ug/L**	1.921	273068	1.726
	Co	59	**2.793**	**ug/L**	3.919	3000	0.019
	Ni	60	**4.477**	**ug/L**	4.021	1039	0.006
	Cu	63		**ug/L**		2133	0.013
	Cu	65	**3.769**	**ug/L**	0.547	1177	0.007
	Zn	66	**31.421**	**ug/L**	2.469	6070	0.076
	Zn	67		**ug/L**		2627	0.006
	Zn	68		**ug/L**		4860	0.060
>	Ge	74		**ug/L**		77857	77857.134
	As	75	**1.156**	**ug/L**	8.370	319	0.004
	Se	77		**ug/L**		600	-0.006
	Se	82	**0.503**	**ug/L**	80.269	21	0.000
	Kr	83		**ug/L**		16	-0.000
	Sr	88	**11.221**	**ug/L**	0.713	34681	0.490
	Y	89		**ug/L**		53354	0.758
	Zr	90	**16.334**	**ug/L**	7.229	27761	0.393
	Mo	98	**0.956**	**ug/L**	4.927	874	0.012
	Ag	107	**0.064**	**ug/L**	5.292	114	0.001
	Cd	111	**0.158**	**ug/L**	13.932	65	0.001
	Cd	114		**ug/L**		41	0.000
>	In	115		**ug/L**		70361	70361.422
	Sn	120	**0.457**	**ug/L**	2.175	854	0.011
	Sb	121	**0.113**	**ug/L**	10.988	203	0.002
	Sb	123		**ug/L**		161	0.001
	Ba	135		**ug/L**		16203	0.110
	Ba	137	**46.765**	**ug/L**	1.919	28427	0.193
	Ho	165		**ug/L**		5291	0.036
>	Lu	175		**ug/L**		147245	147244.545
	Tl	205	**0.099**	**ug/L**	9.051	1235	0.004
	Pb	208	**7.213**	**ug/L**	1.834	55468	0.376
	Th	232	**5.139**	**ug/L**	2.976	44693	0.301
	U	238	**0.652**	**ug/L**	2.241	6368	0.041

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			93.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			97.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			99.4		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	MassOut of Limits Message
Ti 47 Upper, S, EEETi	47Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 20:57:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**42.546**	ug/L	2.512	4426	0.026
	Be	9	**51.772**	ug/L	6.322	2794	0.017
	B	11	**91.364**	ug/L	0.821	5944	0.035
	Na	23	**4688.830**	ug/L	6.090	2624243	15.699
	Mg	24	**4238.260**	ug/L	4.437	1844597	11.048
	Al	27	**5192.576**	ug/L	1.875	2920269	17.480
	P	31	**4874.422**	ug/L	1.555	193518	1.151
	K	39	**5604.310**	ug/L	10.841	4466993	26.510
	Ca	43	**4943.412**	ug/L	2.320	9773	0.058
>	Sc	45		ug/L		166995	166994.501
	Ti	47	**48.541**	ug/L	1.400	5830	0.035
	V	51	**50.688**	ug/L	2.798	55788	0.345
	Cr	52	**50.543**	ug/L	1.811	61661	0.359
	Cr	53		ug/L		14429	0.015
	Mn	55	**49.815**	ug/L	0.600	81127	0.485
	Fe	57	**4906.697**	ug/L	0.491	148344	0.885
	Co	59	**49.359**	ug/L	0.480	55860	0.334
	Ni	60	**50.744**	ug/L	1.580	12219	0.073
	Cu	63		ug/L		30240	0.180
	Cu	65	**50.344**	ug/L	1.699	15869	0.095
	Zn	66	**52.448**	ug/L	2.325	10836	0.127
	Zn	67		ug/L		3827	0.018
	Zn	68		ug/L		8457	0.098
>	Ge	74		ug/L		84021	84021.278
	As	75	**47.214**	ug/L	1.401	12556	0.149
	Se	77		ug/L		1929	0.009
	Se	82	**47.911**	ug/L	3.160	1336	0.016
	Kr	83		ug/L		15	-0.000
	Sr	88	**52.241**	ug/L	0.867	169006	2.282
	Y	89		ug/L		11	0.000
	Zr	90	**50.959**	ug/L	1.749	90711	1.225
	Mo	98	**49.434**	ug/L	1.388	44092	0.595
	Ag	107	**50.318**	ug/L	0.786	86632	1.171
	Cd	111	**51.833**	ug/L	0.554	21922	0.296
	Cd	114		ug/L		52549	0.710
>	In	115		ug/L		73965	73965.378
	Sn	120	**49.269**	ug/L	1.673	87686	1.185
	Sb	121	**47.800**	ug/L	4.838	59378	0.801
	Sb	123		ug/L		45587	0.615
	Ba	135		ug/L		18128	0.121
	Ba	137	**51.392**	ug/L	1.172	31660	0.212
	Ho	165		ug/L		9	0.000
>	Lu	175		ug/L		149273	149272.986
	Tl	205	**48.008**	ug/L	1.293	321967	2.153
	Pb	208	**50.186**	ug/L	1.336	390555	2.616
	Th	232	**49.919**	ug/L	1.830	437301	2.926
	U	238	**52.097**	ug/L	2.183	493392	3.304

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	85.092				
	Be	9	103.544				
	B	11	91.364				
	Na	23	93.777				
	Mg	24	84.765				
	Al	27	102.823				
	P	31	97.488				
	K	39	112.086				
	Ca	43	98.868				
>	Sc	45		98.7			
	Ti	47	97.082				
	V	51	101.376				
	Cr	52	101.086				
	Cr	53					
	Mn	55	99.631				
	Fe	57	98.134				
	Co	59	98.718				
	Ni	60	101.488				
	Cu	63					
	Cu	65	100.687				
	Zn	66	104.896				
	Zn	67					
	Zn	68					
>	Ge	74		105.0			
	As	75	94.429				
	Se	77					
	Se	82	95.823				
	Kr	83					
	Sr	88	104.483				
	Y	89					
	Zr	90	101.917				
	Mo	98	98.868				
	Ag	107	100.636				
	Cd	111	103.666				
	Cd	114					
>	In	115		102.6			
	Sn	120	98.539				
	Sb	121	95.600				
	Sb	123					
	Ba	135					
	Ba	137	102.784				
	Ho	165					
>	Lu	175		100.8			
	Tl	205	96.015				
	Pb	208	100.373				
	Th	232	99.838				
	U	238	104.195				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)
QC Std 6	Mg	24CCV is out of limits (+/- 10%)
QC Std 6	K	39CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 21:03:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.005**	**ug/L**	350.746	5	0.000
	Be	9	**-0.007**	**ug/L**	154.682	2	-0.000
	B	11	**2.367**	**ug/L**	31.642	291	0.001
	Na	23	**-0.123**	**ug/L**	3268.784	3334	-0.000
	Mg	24	**0.727**	**ug/L**	353.394	667	0.002
	Al	27	**0.551**	**ug/L**	312.542	1000	0.002
	P	31	**-5.787**	**ug/L**	54.240	1136	-0.001
	K	39	**-12.664**	**ug/L**	71.551	34710	-0.060
	Ca	43	**1.660**	**ug/L**	89.504	31	0.000
>	Sc	45		**ug/L**		172894	172894.000
	Ti	47	**0.016**	**ug/L**	354.255	47	0.000
	V	51	**1.071**	**ug/L**	20.814	-586	0.007
	Cr	52	**0.373**	**ug/L**	11.748	2192	0.003
	Cr	53		**ug/L**		8586	-0.022
	Mn	55	**0.006**	**ug/L**	15.099	124	0.000
	Fe	57	**-0.988**	**ug/L**	13.815	555	-0.000
	Co	59	**0.003**	**ug/L**	115.651	15	0.000
	Ni	60	**-0.010**	**ug/L**	147.112	20	-0.000
	Cu	63		**ug/L**		130	-0.000
	Cu	65	**-0.010**	**ug/L**	21.628	59	-0.000
	Zn	66	**-0.093**	**ug/L**	25.642	130	-0.000
	Zn	67		**ug/L**		2029	-0.004
	Zn	68		**ug/L**		208	-0.000
>	Ge	74		**ug/L**		84180	84180.141
	As	75	**-0.214**	**ug/L**	58.443	-19	-0.001
	Se	77		**ug/L**		885	-0.004
	Se	82	**0.573**	**ug/L**	30.562	25	0.000
	Kr	83		**ug/L**		17	-0.000
	Sr	88	**-0.004**	**ug/L**	26.744	184	-0.000
	Y	89		**ug/L**		8	0.000
	Zr	90	**0.411**	**ug/L**	8.057	861	0.010
	Mo	98	**0.151**	**ug/L**	25.270	201	0.002
	Ag	107	**0.006**	**ug/L**	9.494	21	0.000
	Cd	111	**0.009**	**ug/L**	124.706	6	0.000
	Cd	114		**ug/L**		10	-0.000
>	In	115		**ug/L**		74021	74021.188
	Sn	120	**0.041**	**ug/L**	12.977	159	0.001
	Sb	121	**0.747**	**ug/L**	10.136	1000	0.013
	Sb	123		**ug/L**		791	0.010
	Ba	135		**ug/L**		16	0.000
	Ba	137	**0.004**	**ug/L**	116.390	22	0.000
	Ho	165		**ug/L**		3	-0.000
>	Lu	175		**ug/L**		148318	148317.901
	Tl	205	**0.070**	**ug/L**	37.777	1050	0.003
	Pb	208	**0.011**	**ug/L**	18.053	201	0.001
	Th	232	**0.185**	**ug/L**	9.669	1933	0.011
	U	238	**0.013**	**ug/L**	22.939	402	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			102.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			105.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			102.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979002
Sample Date/Time: Thursday, February 25, 2010 21:09:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979002.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.269**	**ug/L**	0.409	9190	0.062
	Be	9	**18.366**	**ug/L**	5.534	883	0.006
	B	11	**23.012**	**ug/L**	6.272	1419	0.009
	Na	23	**283.588**	**ug/L**	21.066	143736	0.949
	Mg	24	**15460.460**	**ug/L**	5.077	5988831	40.302
	Al	27	**141265.528**	**ug/L**	1.292	70711985	475.557
	P	31	**347.007**	**ug/L**	1.422	13364	0.082
	K	39	**12849.347**	**ug/L**	3.012	9072734	60.781
	Ca	43	**23177.074**	**ug/L**	1.277	40715	0.274
>	Sc	45		**ug/L**		148697	148696.582
	Ti	47	**729.108**	**ug/L**	1.101	77433	0.520
	V	51	**187.623**	**ug/L**	0.546	188146	1.276
	Cr	52	**91.835**	**ug/L**	1.824	98551	0.653
	Cr	53		**ug/L**		15731	0.034
	Mn	55	**490.356**	**ug/L**	1.788	710404	4.776
	Fe	57	**100922.000**	**ug/L**	0.526	2707225	18.202
	Co	59	**16.147**	**ug/L**	0.826	16279	0.109
	Ni	60	**50.841**	**ug/L**	1.243	10903	0.073
	Cu	63		**ug/L**		287590	1.933
	Cu	65	**530.230**	**ug/L**	0.054	148324	0.997
	Zn	66	**232.201**	**ug/L**	2.876	38951	0.563
	Zn	67		**ug/L**		8567	0.097
	Zn	68		**ug/L**		35298	0.509
>	Ge	74		**ug/L**		68977	68976.959
	As	75	**26.156**	**ug/L**	0.679	5725	0.083
	Se	77		**ug/L**		604	-0.005
	Se	82	**-4.428**	**ug/L**	17.899	-93	-0.001
	Kr	83		**ug/L**		136	0.002
	Sr	88	**169.730**	**ug/L**	1.087	476114	7.416
	Y	89		**ug/L**		81505	1.270
	Zr	90	**121.403**	**ug/L**	1.149	187392	2.918
	Mo	98	**2.628**	**ug/L**	1.365	2089	0.032
	Ag	107	**1.222**	**ug/L**	0.949	1833	0.028
	Cd	111	**1.481**	**ug/L**	9.435	546	0.008
	Cd	114		**ug/L**		779	0.012
>	In	115		**ug/L**		64191	64190.591
	Sn	120	**1.385**	**ug/L**	3.050	2212	0.033
	Sb	121	**2.644**	**ug/L**	1.158	2909	0.044
	Sb	123		**ug/L**		2185	0.033
	Ba	135		**ug/L**		192517	1.537
	Ba	137	**658.081**	**ug/L**	1.452	340151	2.715
	Ho	165		**ug/L**		9644	0.077
>	Lu	175		**ug/L**		125311	125311.220
	Tl	205	**1.116**	**ug/L**	0.593	6764	0.050
	Pb	208	**523.128**	**ug/L**	1.597	3415861	27.265
	Th	232	**45.022**	**ug/L**	0.756	331015	2.639
	U	238	**2194.648**	**ug/L**	1.338	17434721	139.163

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245979003
Sample Date/Time: Thursday, February 25, 2010 21:14:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979003.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.328**	**ug/L**	6.699	1963	0.013
	Be	9	**19.434**	**ug/L**	3.507	974	0.006
	B	11	**6.065**	**ug/L**	8.080	479	0.002
	Na	23	**713.433**	**ug/L**	4.053	373148	2.389
	Mg	24	**2213.454**	**ug/L**	4.127	894150	5.770
	Al	27	**18717.638**	**ug/L**	4.283	9763693	63.011
	P	31	**180.487**	**ug/L**	1.430	7834	0.043
	K	39	**2863.679**	**ug/L**	4.291	2138742	13.546
	Ca	43	**4174.380**	**ug/L**	3.139	7666	0.049
>	Sc	45		**ug/L**		154966	154966.371
	Ti	47	**628.882**	**ug/L**	1.695	69602	0.449
	V	51	**26.759**	**ug/L**	3.257	26556	0.182
	Cr	52	**23.706**	**ug/L**	1.043	27661	0.168
	Cr	53		**ug/L**		7344	-0.024
	Mn	55	**990.359**	**ug/L**	1.457	1494796	9.645
	Fe	57	**32235.081**	**ug/L**	1.397	901473	5.814
	Co	59	**78.160**	**ug/L**	1.918	82061	0.530
	Ni	60	**19.314**	**ug/L**	3.476	4328	0.028
	Cu	63		**ug/L**		393021	2.536
	Cu	65	**715.835**	**ug/L**	1.858	208626	1.346
	Zn	66	**213.309**	**ug/L**	1.734	39436	0.517
	Zn	67		**ug/L**		8181	0.080
	Zn	68		**ug/L**		32445	0.424
>	Ge	74		**ug/L**		75962	75962.250
	As	75	**6.945**	**ug/L**	7.130	1700	0.022
	Se	77		**ug/L**		477	-0.008
	Se	82	**0.139**	**ug/L**	127.173	11	0.000
	Kr	83		**ug/L**		42	0.000
	Sr	88	**32.033**	**ug/L**	0.526	98223	1.400
	Y	89		**ug/L**		204239	2.916
	Zr	90	**76.284**	**ug/L**	1.923	128527	1.834
	Mo	98	**4.156**	**ug/L**	1.849	3568	0.050
	Ag	107	**0.978**	**ug/L**	2.014	1602	0.023
	Cd	111	**1.309**	**ug/L**	4.036	526	0.007
	Cd	114		**ug/L**		716	0.010
>	In	115		**ug/L**		70046	70045.898
	Sn	120	**5.822**	**ug/L**	2.235	9882	0.140
	Sb	121	**9.978**	**ug/L**	2.403	11788	0.167
	Sb	123		**ug/L**		8969	0.127
	Ba	135		**ug/L**		87935	0.576
	Ba	137	**246.841**	**ug/L**	0.161	155399	1.018
	Ho	165		**ug/L**		19531	0.128
>	Lu	175		**ug/L**		152588	152588.498
	Tl	205	**0.173**	**ug/L**	1.782	1782	0.008
	Pb	208	**825.607**	**ug/L**	1.390	6566584	43.030
	Th	232	**21.620**	**ug/L**	1.544	193754	1.267
	U	238	**689.421**	**ug/L**	2.579	6672110	43.716

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			94.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			103.0		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979004
Sample Date/Time: Thursday, February 25, 2010 21:20:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979004.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.918**	**ug/L**	3.059	2098	0.014
	Be	9	**2.985**	**ug/L**	13.626	150	0.001
	B	11	**7.536**	**ug/L**	11.139	560	0.003
	Na	23	**284.551**	**ug/L**	9.433	149110	0.953
	Mg	24	**3691.560**	**ug/L**	11.164	1474668	9.623
	Al	27	**30810.735**	**ug/L**	4.254	15913596	103.721
	P	31	**237.544**	**ug/L**	4.189	9830	0.056
	K	39	**5958.426**	**ug/L**	4.079	4365471	28.185
	Ca	43	**4139.709**	**ug/L**	0.505	7531	0.049
>	Sc	45		**ug/L**		153558	153557.633
	Ti	47	**820.623**	**ug/L**	0.196	89979	0.586
	V	51	**58.134**	**ug/L**	1.674	59076	0.395
	Cr	52	**24.362**	**ug/L**	1.418	28127	0.173
	Cr	53		**ug/L**		7344	-0.024
	Mn	55	**766.489**	**ug/L**	1.002	1146199	7.465
	Fe	57	**26181.645**	**ug/L**	1.390	725430	4.722
	Co	59	**15.280**	**ug/L**	2.016	15909	0.104
	Ni	60	**17.964**	**ug/L**	0.778	3991	0.026
	Cu	63		**ug/L**		32276	0.210
	Cu	65	**58.546**	**ug/L**	1.436	16957	0.110
	Zn	66	**94.982**	**ug/L**	4.049	17288	0.230
	Zn	67		**ug/L**		4542	0.033
	Zn	68		**ug/L**		14623	0.193
>	Ge	74		**ug/L**		74532	74532.188
	As	75	**6.578**	**ug/L**	4.907	1581	0.021
	Se	77		**ug/L**		455	-0.008
	Se	82	**-0.015**	**ug/L**	2308.179	7	-0.000
	Kr	83		**ug/L**		32	0.000
	Sr	88	**57.460**	**ug/L**	0.982	169786	2.510
	Y	89		**ug/L**		84938	1.257
	Zr	90	**52.974**	**ug/L**	1.031	86145	1.273
	Mo	98	**1.192**	**ug/L**	4.292	1031	0.014
	Ag	107	**0.231**	**ug/L**	2.476	373	0.005
	Cd	111	**0.917**	**ug/L**	10.877	356	0.005
	Cd	114		**ug/L**		531	0.008
>	In	115		**ug/L**		67556	67556.138
	Sn	120	**1.001**	**ug/L**	1.437	1704	0.024
	Sb	121	**0.620**	**ug/L**	5.864	770	0.010
	Sb	123		**ug/L**		565	0.008
	Ba	135		**ug/L**		87686	0.616
	Ba	137	**261.503**	**ug/L**	0.798	153640	1.079
	Ho	165		**ug/L**		9243	0.065
>	Lu	175		**ug/L**		142387	142386.526
	Tl	205	**0.383**	**ug/L**	1.253	3008	0.017
	Pb	208	**213.060**	**ug/L**	0.620	1581421	11.104
	Th	232	**23.761**	**ug/L**	0.802	198678	1.393
	U	238	**42.882**	**ug/L**	0.400	387411	2.719

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			90.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ti 47 Upper, S, EEE	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979005
Sample Date/Time: Thursday, February 25, 2010 21:26:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979005.125

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**27.138**	**ug/L**	2.189	2614	0.017
	Be	9	**2.349**	**ug/L**	11.514	119	0.001
	B	11	**4.941**	**ug/L**	10.024	411	0.002
	Na	23	**750.187**	**ug/L**	4.453	390945	2.512
	Mg	24	**3349.685**	**ug/L**	5.607	1348465	8.732
	Al	27	**31106.928**	**ug/L**	7.965	16161768	104.719
	P	31	**160.765**	**ug/L**	3.965	7092	0.038
	K	39	**3923.801**	**ug/L**	6.161	2906930	18.561
	Ca	43	**4044.845**	**ug/L**	6.004	7403	0.048
>	Sc	45		**ug/L**		154569	154569.084
	Ti	47	**587.202**	**ug/L**	2.419	64845	0.419
	V	51	**32.684**	**ug/L**	2.772	32718	0.222
	Cr	52	**21.005**	**ug/L**	1.936	24619	0.149
	Cr	53		**ug/L**		6930	-0.027
	Mn	55	**669.313**	**ug/L**	0.832	1007771	6.519
	Fe	57	**31963.675**	**ug/L**	0.914	891458	5.765
	Co	59	**25.745**	**ug/L**	3.415	26955	0.174
	Ni	60	**20.160**	**ug/L**	3.954	4504	0.029
	Cu	63		**ug/L**		17910	0.115
	Cu	65	**32.683**	**ug/L**	1.377	9554	0.061
	Zn	66	**86.525**	**ug/L**	3.260	15598	0.210
	Zn	67		**ug/L**		4157	0.029
	Zn	68		**ug/L**		13294	0.177
>	Ge	74		**ug/L**		73735	73735.334
	As	75	**8.238**	**ug/L**	3.865	1952	0.026
	Se	77		**ug/L**		478	-0.008
	Se	82	**0.238**	**ug/L**	160.347	13	0.000
	Kr	83		**ug/L**		40	0.000
	Sr	88	**38.625**	**ug/L**	2.335	114721	1.688
	Y	89		**ug/L**		245873	3.623
	Zr	90	**68.565**	**ug/L**	5.482	112051	1.648
	Mo	98	**3.101**	**ug/L**	3.174	2597	0.037
	Ag	107	**0.294**	**ug/L**	9.985	472	0.007
	Cd	111	**0.528**	**ug/L**	7.637	207	0.003
	Cd	114		**ug/L**		53	0.001
>	In	115		**ug/L**		67903	67902.581
	Sn	120	**4.020**	**ug/L**	2.626	6638	0.097
	Sb	121	**0.761**	**ug/L**	5.646	934	0.013
	Sb	123		**ug/L**		708	0.010
	Ba	135		**ug/L**		73451	0.491
	Ba	137	**208.922**	**ug/L**	4.168	128892	0.862
	Ho	165		**ug/L**		26562	0.178
>	Lu	175		**ug/L**		149686	149685.929
	Tl	205	**0.220**	**ug/L**	5.978	2063	0.010
	Pb	208	**203.541**	**ug/L**	3.882	1586210	10.608
	Th	232	**25.094**	**ug/L**	3.260	220341	1.471
	U	238	**38.262**	**ug/L**	3.859	363016	2.426

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.4		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			101.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979006
Sample Date/Time: Thursday, February 25, 2010 21:32:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979006.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.138**	ug/L	5.190	1814	0.012
	Be	9	**30.853**	ug/L	7.542	1516	0.010
	B	11	**6.250**	ug/L	11.421	481	0.002
	Na	23	**340.841**	ug/L	6.300	176418	1.141
	Mg	24	**3931.693**	ug/L	2.837	1559123	10.249
	Al	27	**14103.974**	ug/L	4.689	7224181	47.480
	P	31	**1076.414**	ug/L	2.773	39854	0.254
	K	39	**2474.789**	ug/L	6.460	1817856	11.706
	Ca	43	**7763.731**	ug/L	3.319	13956	0.092
>	Sc	45		ug/L		152045	152045.302
	Ti	47	**508.556**	ug/L	0.963	55234	0.363
	V	51	**41.422**	ug/L	3.301	41220	0.282
	Cr	52	**39.990**	ug/L	3.627	44745	0.284
	Cr	53		ug/L		9678	-0.008
	Mn	55	**495.369**	ug/L	2.334	733805	4.824
	Fe	57	**20531.195**	ug/L	1.213	563475	3.703
	Co	59	**11.138**	ug/L	1.849	11482	0.075
	Ni	60	**30.421**	ug/L	2.322	6677	0.044
	Cu	63		ug/L		11551292	75.993
	Cu	65	**21222.066**	ug/L	2.116	6066488	39.909
	Zn	66	**165.636**	ug/L	3.911	31597	0.402
	Zn	67		ug/L		6894	0.060
	Zn	68		ug/L		26548	0.336
>	Ge	74		ug/L		78348	78348.499
	As	75	**7.867**	ug/L	1.802	1980	0.025
	Se	77		ug/L		488	-0.008
	Se	82	**0.323**	ug/L	70.706	16	0.000
	Kr	83		ug/L		26	0.000
	Sr	88	**31.373**	ug/L	0.828	94880	1.371
	Y	89		ug/L		87872	1.272
	Zr	90	**31.832**	ug/L	4.868	52963	0.765
	Mo	98	**1.661**	ug/L	2.675	1444	0.020
	Ag	107	**7.886**	ug/L	1.818	12687	0.184
	Cd	111	**2.100**	ug/L	4.248	832	0.012
	Cd	114		ug/L		1690	0.024
>	In	115		ug/L		69090	69090.305
	Sn	120	**46.120**	ug/L	1.812	76686	1.109
	Sb	121	**19.054**	ug/L	1.321	22139	0.319
	Sb	123		ug/L		16796	0.242
	Ba	135		ug/L		99224	0.668
	Ba	137	**286.224**	ug/L	0.901	175290	1.181
	Ho	165		ug/L		9301	0.063
>	Lu	175		ug/L		148454	148453.982
	Tl	205	**0.076**	ug/L	3.770	1091	0.003
	Pb	208	**2695.110**	ug/L	0.447	20852337	140.466
	Th	232	**13.605**	ug/L	0.451	118737	0.798
	U	238	**1554.844**	ug/L	1.703	14632971	98.593

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			89.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			97.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			95.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.2		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_
	Cu	65	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245979007
Sample Date/Time: Thursday, February 25, 2010 21:37:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979007.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.761**	ug/L	5.705	2190	0.014
	Be	9	**2.052**	ug/L	16.303	109	0.001
	B	11	**4.064**	ug/L	10.153	376	0.002
	Na	23	**645.023**	ug/L	9.055	351973	2.160
	Mg	24	**3248.746**	ug/L	8.255	1366507	8.469
	Al	27	**28194.869**	ug/L	7.317	15318664	94.915
	P	31	**130.352**	ug/L	1.335	6255	0.031
	K	39	**3602.946**	ug/L	0.727	2795255	17.043
	Ca	43	**3915.813**	ug/L	0.682	7495	0.046
>	Sc	45		ug/L		161544	161544.339
	Ti	47	**528.188**	ug/L	0.304	60940	0.377
	V	51	**37.491**	ug/L	1.345	39464	0.255
	Cr	52	**20.895**	ug/L	2.150	25617	0.148
	Cr	53		ug/L		7484	-0.026
	Mn	55	**509.050**	ug/L	0.511	800965	4.958
	Fe	57	**22905.885**	ug/L	0.749	667851	4.131
	Co	59	**18.716**	ug/L	2.350	20489	0.127
	Ni	60	**19.080**	ug/L	3.500	4455	0.027
	Cu	63		ug/L		8032	0.049
	Cu	65	**13.985**	ug/L	6.198	4302	0.026
	Zn	66	**59.644**	ug/L	2.237	11196	0.145
	Zn	67		ug/L		3384	0.017
	Zn	68		ug/L		9279	0.119
>	Ge	74		ug/L		76474	76474.355
	As	75	**10.611**	ug/L	0.723	2595	0.033
	Se	77		ug/L		522	-0.007
	Se	82	**0.271**	ug/L	21.763	15	0.000
	Kr	83		ug/L		40	0.000
	Sr	88	**35.098**	ug/L	1.723	107865	1.533
	Y	89		ug/L		277302	3.948
	Zr	90	**79.054**	ug/L	3.395	133677	1.900
	Mo	98	**1.871**	ug/L	4.649	1645	0.023
	Ag	107	**0.303**	ug/L	4.379	505	0.007
	Cd	111	**0.570**	ug/L	10.375	231	0.003
	Cd	114		ug/L		57	0.001
>	In	115		ug/L		70241	70241.381
	Sn	120	**1.742**	ug/L	0.846	3022	0.042
	Sb	121	**0.398**	ug/L	2.068	539	0.007
	Sb	123		ug/L		440	0.005
	Ba	135		ug/L		50393	0.331
	Ba	137	**142.116**	ug/L	1.145	89192	0.586
	Ho	165		ug/L		30214	0.199
>	Lu	175		ug/L		152078	152077.891
	Tl	205	**0.244**	ug/L	2.634	2263	0.011
	Pb	208	**18.661**	ug/L	1.383	148051	0.973
	Th	232	**27.948**	ug/L	0.463	249508	1.638
	U	238	**3.099**	ug/L	1.277	30172	0.196

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			95.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			102.7		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 21:43:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**39.092**	**ug/L**	2.739	3980	0.024
	Be	9	**51.921**	**ug/L**	5.237	2742	0.017
	B	11	**83.823**	**ug/L**	5.856	5345	0.032
	Na	23	**4443.672**	**ug/L**	16.081	2434531	14.878
	Mg	24	**4089.608**	**ug/L**	1.120	1742516	10.661
	Al	27	**5470.114**	**ug/L**	7.228	3008659	18.415
	P	31	**4915.622**	**ug/L**	2.461	190964	1.161
	K	39	**5290.656**	**ug/L**	1.614	4131969	25.026
	Ca	43	**4888.074**	**ug/L**	1.533	9458	0.058
>	Sc	45		**ug/L**		163417	163416.711
	Ti	47	**49.057**	**ug/L**	2.168	5766	0.035
	V	51	**51.772**	**ug/L**	1.224	55793	0.352
	Cr	52	**50.971**	**ug/L**	2.486	60835	0.362
	Cr	53		**ug/L**		13959	0.014
	Mn	55	**49.778**	**ug/L**	1.786	79339	0.485
	Fe	57	**4846.434**	**ug/L**	1.580	143381	0.874
	Co	59	**48.688**	**ug/L**	1.294	53917	0.330
	Ni	60	**49.917**	**ug/L**	0.956	11764	0.072
	Cu	63		**ug/L**		29867	0.182
	Cu	65	**50.853**	**ug/L**	1.791	15686	0.096
	Zn	66	**51.445**	**ug/L**	2.603	10586	0.125
	Zn	67		**ug/L**		3871	0.019
	Zn	68		**ug/L**		8276	0.096
>	Ge	74		**ug/L**		83652	83652.065
	As	75	**47.650**	**ug/L**	2.192	12620	0.150
	Se	77		**ug/L**		1840	0.008
	Se	82	**47.254**	**ug/L**	4.805	1312	0.016
	Kr	83		**ug/L**		15	-0.000
	Sr	88	**52.152**	**ug/L**	0.713	165694	2.279
	Y	89		**ug/L**		51	0.001
	Zr	90	**51.297**	**ug/L**	2.143	89669	1.233
	Mo	98	**50.586**	**ug/L**	0.966	44309	0.609
	Ag	107	**50.601**	**ug/L**	0.537	85546	1.178
	Cd	111	**51.901**	**ug/L**	1.417	21554	0.297
	Cd	114		**ug/L**		52103	0.717
>	In	115		**ug/L**		72641	72640.738
	Sn	120	**49.758**	**ug/L**	0.868	86986	1.196
	Sb	121	**48.999**	**ug/L**	5.587	59780	0.821
	Sb	123		**ug/L**		45495	0.625
	Ba	135		**ug/L**		18045	0.122
	Ba	137	**51.606**	**ug/L**	1.937	31617	0.213
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		148458	148457.747
	Tl	205	**47.249**	**ug/L**	1.714	315057	2.119
	Pb	208	**50.084**	**ug/L**	2.131	387482	2.610
	Th	232	**50.234**	**ug/L**	0.402	437549	2.945
	U	238	**52.053**	**ug/L**	1.575	490138	3.301

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	78.185				
	Be	9	103.842				
	B	11	83.823				
	Na	23	88.873				
	Mg	24	81.792				
	Al	27	108.319				
	P	31	98.312				
	K	39	105.813				
	Ca	43	97.761				
>	Sc	45		96.6			
	Ti	47	98.114				
	V	51	103.545				
	Cr	52	101.942				
	Cr	53					
	Mn	55	99.555				
	Fe	57	96.929				
	Co	59	97.376				
	Ni	60	99.833				
	Cu	63					
	Cu	65	101.707				
	Zn	66	102.891				
	Zn	67					
	Zn	68					
>	Ge	74		104.5			
	As	75	95.299				
	Se	77					
	Se	82	94.509				
	Kr	83					
	Sr	88	104.303				
	Y	89					
	Zr	90	102.594				
	Mo	98	101.173				
	Ag	107	101.203				
	Cd	111	103.803				
	Cd	114					
>	In	115		100.8			
	Sn	120	99.516				
	Sb	121	97.998				
	Sb	123					
	Ba	135					
	Ba	137	103.212				
	Ho	165					
>	Lu	175		100.2			
	Tl	205	94.497				
	Pb	208	100.168				
	Th	232	100.467				
	U	238	104.107				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Li	7CCV is out of limits (+/- 10%)
QC Std 6	B	11CCV is out of limits (+/- 10%)
QC Std 6	Na	23CCV is out of limits (+/- 10%)
QC Std 6	Mg	24CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 21:49:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.015**	ug/L	108.513	6	0.000
	Be	9	**-0.005**	ug/L	439.129	2	-0.000
	B	11	**2.118**	ug/L	25.164	261	0.001
	Na	23	**-0.412**	ug/L	1607.980	3001	-0.001
	Mg	24	**0.801**	ug/L	168.421	667	0.002
	Al	27	**2.497**	ug/L	147.252	2000	0.008
	P	31	**-5.061**	ug/L	27.602	1104	-0.001
	K	39	**-3.843**	ug/L	83.243	39722	-0.018
	Ca	43	**5.938**	ug/L	104.124	38	0.000
>	Sc	45		ug/L		163780	163779.967
	Ti	47	**0.026**	ug/L	333.138	46	0.000
	V	51	**1.526**	ug/L	22.981	-52	0.010
	Cr	52	**-0.120**	ug/L	22.871	1503	-0.001
	Cr	53		ug/L		8014	-0.023
	Mn	55	**0.028**	ug/L	55.066	152	0.000
	Fe	57	**0.736**	ug/L	149.094	577	0.000
	Co	59	**0.008**	ug/L	35.318	20	0.000
	Ni	60	**0.009**	ug/L	172.234	23	0.000
	Cu	63		ug/L		485	0.002
	Cu	65	**0.643**	ug/L	8.039	257	0.001
	Zn	66	**-0.034**	ug/L	311.421	139	-0.000
	Zn	67		ug/L		2092	-0.002
	Zn	68		ug/L		211	-0.000
>	Ge	74		ug/L		82458	82458.131
	As	75	**0.416**	ug/L	59.329	145	0.001
	Se	77		ug/L		805	-0.004
	Se	82	**0.569**	ug/L	67.675	24	0.000
	Kr	83		ug/L		14	-0.000
	Sr	88	**0.009**	ug/L	57.346	217	0.000
	Y	89		ug/L		11	0.000
	Zr	90	**0.389**	ug/L	6.234	790	0.009
	Mo	98	**0.168**	ug/L	7.237	208	0.002
	Ag	107	**0.008**	ug/L	41.611	23	0.000
	Cd	111	**0.003**	ug/L	295.569	3	0.000
	Cd	114		ug/L		11	0.000
>	In	115		ug/L		71071	71070.712
	Sn	120	**0.048**	ug/L	4.959	164	0.001
	Sb	121	**0.633**	ug/L	1.338	826	0.011
	Sb	123		ug/L		622	0.008
	Ba	135		ug/L		14	0.000
	Ba	137	**0.023**	ug/L	85.755	32	0.000
	Ho	165		ug/L		3	0.000
>	Lu	175		ug/L		143020	143019.725
	Tl	205	**0.065**	ug/L	37.107	979	0.003
	Pb	208	**0.030**	ug/L	45.467	334	0.002
	Th	232	**0.127**	ug/L	5.639	1375	0.007
	U	238	**0.027**	ug/L	37.349	519	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979008
Sample Date/Time: Thursday, February 25, 2010 21:55:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979008.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**137.819**	**ug/L**	2.413	13634	0.086
	Be	9	**7.145**	**ug/L**	3.021	369	0.002
	B	11	**9.823**	**ug/L**	8.923	718	0.004
	Na	23	**471.011**	**ug/L**	10.913	253578	1.577
	Mg	24	**6578.690**	**ug/L**	1.164	2727172	17.149
	Al	27	**41754.408**	**ug/L**	8.762	22308272	140.562
	P	31	**215.592**	**ug/L**	0.303	9353	0.051
	K	39	**7114.855**	**ug/L**	0.836	5390849	33.655
	Ca	43	**4052.684**	**ug/L**	3.883	7627	0.048
>	Sc	45		**ug/L**		158975	158975.129
	Ti	47	**657.466**	**ug/L**	0.160	74644	0.469
	V	51	**55.388**	**ug/L**	2.113	58171	0.377
	Cr	52	**23.771**	**ug/L**	1.081	28444	0.169
	Cr	53		**ug/L**		7793	-0.023
	Mn	55	**988.311**	**ug/L**	1.048	1530034	9.625
	Fe	57	**24561.334**	**ug/L**	3.187	704315	4.430
	Co	59	**17.571**	**ug/L**	2.386	18929	0.119
	Ni	60	**34.504**	**ug/L**	3.352	7913	0.050
	Cu	63		**ug/L**		593720	3.735
	Cu	65	**1065.037**	**ug/L**	1.351	318374	2.003
	Zn	66	**269.253**	**ug/L**	3.601	49102	0.653
	Zn	67		**ug/L**		9993	0.106
	Zn	68		**ug/L**		39856	0.529
>	Ge	74		**ug/L**		75028	75028.418
	As	75	**7.663**	**ug/L**	1.942	1848	0.024
	Se	77		**ug/L**		498	-0.007
	Se	82	**0.256**	**ug/L**	39.837	14	0.000
	Kr	83		**ug/L**		41	0.000
	Sr	88	**42.304**	**ug/L**	0.904	126305	1.848
	Y	89		**ug/L**		177762	2.605
	Zr	90	**102.516**	**ug/L**	0.242	168263	2.464
	Mo	98	**2.700**	**ug/L**	3.206	2281	0.033
	Ag	107	**0.871**	**ug/L**	4.030	1391	0.020
	Cd	111	**1.265**	**ug/L**	5.677	496	0.007
	Cd	114		**ug/L**		664	0.010
>	In	115		**ug/L**		68235	68234.560
	Sn	120	**3.798**	**ug/L**	0.687	6308	0.091
	Sb	121	**4.050**	**ug/L**	2.133	4702	0.068
	Sb	123		**ug/L**		3595	0.052
	Ba	135		**ug/L**		83031	0.575
	Ba	137	**244.396**	**ug/L**	2.293	145564	1.008
	Ho	165		**ug/L**		17078	0.118
>	Lu	175		**ug/L**		144352	144351.671
	Tl	205	**0.383**	**ug/L**	3.505	3046	0.017
	Pb	208	**456.758**	**ug/L**	1.059	3436844	23.806
	Th	232	**23.908**	**ug/L**	1.117	202662	1.402
	U	238	**211.960**	**ug/L**	1.056	1940251	13.440

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			94.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			97.5		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_
	Cu	65	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245979009
Sample Date/Time: Thursday, February 25, 2010 22:00:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979009.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**15.503**	ug/L	1.397	1503	0.010
	Be	9	**3.356**	ug/L	13.657	170	0.001
	B	11	**5.014**	ug/L	3.906	418	0.002
	Na	23	**195.570**	ug/L	9.074	104717	0.655
	Mg	24	**2320.457**	ug/L	4.541	939605	6.049
	Al	27	**24016.592**	ug/L	2.222	12558177	80.850
	P	31	**102.151**	ug/L	7.843	4981	0.024
	K	39	**3168.980**	ug/L	3.088	2368860	14.990
	Ca	43	**2911.648**	ug/L	1.004	5366	0.034
>	Sc	45		ug/L		155345	155345.449
	Ti	47	**422.184**	ug/L	2.167	46863	0.301
	V	51	**32.689**	ug/L	1.190	32874	0.222
	Cr	52	**14.927**	ug/L	2.246	18039	0.106
	Cr	53		ug/L		6437	-0.030
	Mn	55	**310.463**	ug/L	0.444	469837	3.024
	Fe	57	**16282.642**	ug/L	0.230	456728	2.937
	Co	59	**9.285**	ug/L	1.246	9783	0.063
	Ni	60	**12.893**	ug/L	2.974	2903	0.019
	Cu	63		ug/L		213890	1.376
	Cu	65	**388.471**	ug/L	0.402	113544	0.731
	Zn	66	**89.320**	ug/L	2.202	16418	0.217
	Zn	67		ug/L		4216	0.028
	Zn	68		ug/L		13307	0.174
>	Ge	74		ug/L		75185	75185.218
	As	75	**5.303**	ug/L	5.987	1293	0.017
	Se	77		ug/L		425	-0.008
	Se	82	**-0.025**	ug/L	1120.735	7	-0.000
	Kr	83		ug/L		33	0.000
	Sr	88	**28.050**	ug/L	0.833	83522	1.226
	Y	89		ug/L		75077	1.104
	Zr	90	**39.701**	ug/L	4.317	65038	0.954
	Mo	98	**1.516**	ug/L	3.998	1303	0.018
	Ag	107	**1.566**	ug/L	2.496	2487	0.036
	Cd	111	**0.533**	ug/L	9.188	209	0.003
	Cd	114		ug/L		253	0.004
>	In	115		ug/L		68007	68007.067
	Sn	120	**3.681**	ug/L	2.559	6097	0.088
	Sb	121	**1.663**	ug/L	0.675	1964	0.028
	Sb	123		ug/L		1525	0.022
	Ba	135		ug/L		47360	0.335
	Ba	137	**142.094**	ug/L	0.346	82779	0.586
	Ho	165		ug/L		7795	0.055
>	Lu	175		ug/L		141184	141183.951
	Tl	205	**0.174**	ug/L	5.450	1656	0.008
	Pb	208	**310.794**	ug/L	0.753	2286974	16.198
	Th	232	**13.656**	ug/L	2.138	113346	0.801
	U	238	**173.898**	ug/L	1.966	1556586	11.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979010
Sample Date/Time: Thursday, February 25, 2010 22:06:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979010.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**13.218**	ug/L	2.415	1279	0.008
	Be	9	**7.444**	ug/L	8.789	374	0.002
	B	11	**1.596**	ug/L	13.139	215	0.001
	Na	23	**717.220**	ug/L	10.952	374534	2.401
	Mg	24	**1499.877**	ug/L	6.482	607029	3.910
	Al	27	**13062.019**	ug/L	4.795	6823027	43.972
	P	31	**243.710**	ug/L	1.158	10151	0.058
	K	39	**2168.610**	ug/L	2.325	1630837	10.258
	Ca	43	**2865.014**	ug/L	2.666	5268	0.034
>	Sc	45		ug/L		155011	155010.867
	Ti	47	**534.980**	ug/L	1.018	59238	0.382
	V	51	**18.415**	ug/L	4.849	17769	0.125
	Cr	52	**14.320**	ug/L	2.496	17330	0.102
	Cr	53		ug/L		6057	-0.033
	Mn	55	**791.971**	ug/L	1.019	1195720	7.713
	Fe	57	**25153.864**	ug/L	2.345	703452	4.537
	Co	59	**20.580**	ug/L	2.184	21621	0.139
	Ni	60	**16.875**	ug/L	2.366	3785	0.024
	Cu	63		ug/L		23141	0.149
	Cu	65	**42.352**	ug/L	1.259	12400	0.080
	Zn	66	**113.331**	ug/L	2.688	20854	0.275
	Zn	67		ug/L		4885	0.037
	Zn	68		ug/L		16903	0.221
>	Ge	74		ug/L		75410	75410.408
	As	75	**3.722**	ug/L	2.668	919	0.012
	Se	77		ug/L		451	-0.008
	Se	82	**0.479**	ug/L	116.685	19	0.000
	Kr	83		ug/L		33	0.000
	Sr	88	**22.000**	ug/L	0.256	65686	0.961
	Y	89		ug/L		302309	4.437
	Zr	90	**66.546**	ug/L	4.618	109201	1.600
	Mo	98	**2.437**	ug/L	4.253	2063	0.029
	Ag	107	**0.307**	ug/L	6.670	496	0.007
	Cd	111	**0.713**	ug/L	11.870	280	0.004
	Cd	114		ug/L		173	0.002
>	In	115		ug/L		68154	68154.492
	Sn	120	**5.082**	ug/L	1.324	8406	0.122
	Sb	121	**2.435**	ug/L	1.653	2851	0.041
	Sb	123		ug/L		2145	0.031
	Ba	135		ug/L		49053	0.327
	Ba	137	**139.110**	ug/L	1.915	86092	0.574
	Ho	165		ug/L		30456	0.203
>	Lu	175		ug/L		149976	149976.195
	Tl	205	**0.102**	ug/L	4.772	1276	0.005
	Pb	208	**58.254**	ug/L	0.475	455509	3.036
	Th	232	**23.685**	ug/L	0.184	208578	1.389
	U	238	**52.362**	ug/L	0.988	498177	3.320

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	0.9998
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			94.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			101.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979011
Sample Date/Time: Thursday, February 25, 2010 22:12:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979011.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**26.082**	**ug/L**	6.903	2443	0.016
	Be	9	**30.923**	**ug/L**	4.607	1503	0.010
	B	11	**6.787**	**ug/L**	4.143	506	0.003
	Na	23	**392.759**	**ug/L**	3.679	200736	1.315
	Mg	24	**2885.070**	**ug/L**	6.689	1130824	7.521
	Al	27	**31013.722**	**ug/L**	4.897	15702820	104.405
	P	31	**382.847**	**ug/L**	4.188	14787	0.090
	K	39	**4333.989**	**ug/L**	5.124	3120127	20.501
	Ca	43	**5505.540**	**ug/L**	0.769	9799	0.065
>	Sc	45		**ug/L**		150363	150362.518
	Ti	47	**607.643**	**ug/L**	1.735	65262	0.434
	V	51	**37.925**	**ug/L**	2.318	37185	0.258
	Cr	52	**29.494**	**ug/L**	1.791	33030	0.210
	Cr	53		**ug/L**		7692	-0.021
	Mn	55	**612.692**	**ug/L**	1.295	897439	5.967
	Fe	57	**22144.335**	**ug/L**	1.614	601100	3.994
	Co	59	**15.703**	**ug/L**	1.784	16005	0.106
	Ni	60	**22.629**	**ug/L**	2.834	4916	0.033
	Cu	63		**ug/L**		2548770	16.951
	Cu	65	**4548.554**	**ug/L**	0.350	1286185	8.554
	Zn	66	**324.830**	**ug/L**	1.456	58571	0.788
	Zn	67		**ug/L**		11420	0.126
	Zn	68		**ug/L**		47567	0.639
>	Ge	74		**ug/L**		74179	74178.942
	As	75	**18.164**	**ug/L**	0.447	4286	0.057
	Se	77		**ug/L**		430	-0.008
	Se	82	**-0.131**	**ug/L**	459.846	4	-0.000
	Kr	83		**ug/L**		33	0.000
	Sr	88	**48.781**	**ug/L**	1.331	144847	2.131
	Y	89		**ug/L**		111729	1.646
	Zr	90	**48.733**	**ug/L**	6.153	79559	1.171
	Mo	98	**2.198**	**ug/L**	4.315	1858	0.026
	Ag	107	**1.782**	**ug/L**	0.999	2825	0.041
	Cd	111	**1.296**	**ug/L**	6.444	505	0.007
	Cd	114		**ug/L**		976	0.014
>	In	115		**ug/L**		67896	67895.946
	Sn	120	**7.604**	**ug/L**	1.887	12486	0.183
	Sb	121	**27.331**	**ug/L**	0.817	31172	0.458
	Sb	123		**ug/L**		23558	0.346
	Ba	135		**ug/L**		117937	0.834
	Ba	137	**357.524**	**ug/L**	0.574	208488	1.475
	Ho	165		**ug/L**		11468	0.081
>	Lu	175		**ug/L**		141358	141357.921
	Tl	205	**0.256**	**ug/L**	2.377	2180	0.011
	Pb	208	**5060.228**	**ug/L**	0.110	37280597	263.734
	Th	232	**18.524**	**ug/L**	0.832	153823	1.086
	U	238	**1022.927**	**ug/L**	2.052	9169910	64.864

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			88.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			95.5		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_
	Cu	65	Sample is out of limits (over linear range)
	Pb	208	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245979012
Sample Date/Time: Thursday, February 25, 2010 22:18:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979012.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**28.247**	ug/L	4.683	2711	0.018
	Be	9	**3.176**	ug/L	15.202	160	0.001
	B	11	**8.133**	ug/L	8.927	598	0.003
	Na	23	**263.213**	ug/L	8.756	138672	0.881
	Mg	24	**5595.147**	ug/L	1.262	2247421	14.585
	Al	27	**50388.812**	ug/L	2.117	26136238	169.629
	P	31	**178.181**	ug/L	2.940	7706	0.042
	K	39	**6941.627**	ug/L	2.926	5099818	32.836
	Ca	43	**5705.382**	ug/L	2.603	10404	0.067
>	Sc	45		ug/L		154091	154091.005
	Ti	47	**942.419**	ug/L	2.094	103695	0.673
	V	51	**75.443**	ug/L	2.943	77440	0.513
	Cr	52	**33.322**	ug/L	2.307	38043	0.237
	Cr	53		ug/L		8306	-0.018
	Mn	55	**710.909**	ug/L	2.138	1067153	6.924
	Fe	57	**33599.655**	ug/L	0.780	934221	6.060
	Co	59	**14.840**	ug/L	3.007	15499	0.101
	Ni	60	**22.483**	ug/L	1.317	5007	0.032
	Cu	63		ug/L		28001	0.181
	Cu	65	**51.685**	ug/L	1.710	15031	0.097
	Zn	66	**74.200**	ug/L	1.026	13475	0.180
	Zn	67		ug/L		3921	0.025
	Zn	68		ug/L		11948	0.158
>	Ge	74		ug/L		74120	74120.252
	As	75	**7.130**	ug/L	2.550	1702	0.023
	Se	77		ug/L		450	-0.008
	Se	82	**-0.462**	ug/L	34.281	-4	-0.000
	Kr	83		ug/L		40	0.000
	Sr	88	**68.442**	ug/L	0.184	198924	2.990
	Y	89		ug/L		97925	1.473
	Zr	90	**63.141**	ug/L	3.520	101023	1.518
	Mo	98	**1.176**	ug/L	4.444	1001	0.014
	Ag	107	**0.278**	ug/L	4.123	438	0.006
	Cd	111	**0.610**	ug/L	9.106	234	0.003
	Cd	114		ug/L		237	0.003
>	In	115		ug/L		66465	66464.730
	Sn	120	**0.977**	ug/L	3.438	1637	0.023
	Sb	121	**0.927**	ug/L	3.275	1099	0.016
	Sb	123		ug/L		876	0.012
	Ba	135		ug/L		98430	0.712
	Ba	137	**303.127**	ug/L	0.712	172838	1.250
	Ho	165		ug/L		10542	0.076
>	Lu	175		ug/L		138211	138211.123
	Tl	205	**0.448**	ug/L	1.782	3320	0.020
	Pb	208	**406.098**	ug/L	1.007	2924903	21.165
	Th	232	**27.013**	ug/L	0.709	219206	1.584
	U	238	**27.396**	ug/L	0.488	240335	1.737

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.1		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.2		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245979013
Sample Date/Time: Thursday, February 25, 2010 22:23:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979013.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**31.902**	**ug/L**	3.660	2999	0.020
	Be	9	**13.210**	**ug/L**	10.273	645	0.004
	B	11	**5.577**	**ug/L**	3.836	439	0.002
	Na	23	**322.282**	**ug/L**	11.252	165969	1.079
	Mg	24	**6396.875**	**ug/L**	6.492	2514665	16.675
	Al	27	**38921.699**	**ug/L**	2.091	19768759	131.026
	P	31	**821.214**	**ug/L**	2.057	30454	0.194
	K	39	**5442.212**	**ug/L**	6.175	3922156	25.743
	Ca	43	**8498.993**	**ug/L**	1.060	15166	0.100
>	Sc	45		**ug/L**		150887	150886.968
	Ti	47	**817.776**	**ug/L**	0.704	88105	0.584
	V	51	**70.586**	**ug/L**	3.099	70824	0.480
	Cr	52	**40.703**	**ug/L**	2.310	45157	0.289
	Cr	53		**ug/L**		9228	-0.011
	Mn	55	**854.283**	**ug/L**	0.842	1255434	8.320
	Fe	57	**37663.782**	**ug/L**	1.182	1025366	6.793
	Co	59	**13.333**	**ug/L**	2.054	13638	0.090
	Ni	60	**30.033**	**ug/L**	2.777	6542	0.043
	Cu	63		**ug/L**		191564	1.269
	Cu	65	**356.234**	**ug/L**	1.386	101121	0.670
	Zn	66	**157.100**	**ug/L**	2.514	28263	0.381
	Zn	67		**ug/L**		6821	0.065
	Zn	68		**ug/L**		25303	0.340
>	Ge	74		**ug/L**		73847	73846.530
	As	75	**8.863**	**ug/L**	8.505	2096	0.028
	Se	77		**ug/L**		450	-0.008
	Se	82	**-0.154**	**ug/L**	283.690	4	-0.000
	Kr	83		**ug/L**		37	0.000
	Sr	88	**57.663**	**ug/L**	0.810	167380	2.519
	Y	89		**ug/L**		131594	1.983
	Zr	90	**55.867**	**ug/L**	1.075	89252	1.343
	Mo	98	**1.398**	**ug/L**	4.541	1177	0.017
	Ag	107	**1.343**	**ug/L**	3.600	2083	0.031
	Cd	111	**1.447**	**ug/L**	4.230	551	0.008
	Cd	114		**ug/L**		984	0.015
>	In	115		**ug/L**		66371	66370.605
	Sn	120	**3.429**	**ug/L**	0.663	5548	0.082
	Sb	121	**2.157**	**ug/L**	3.914	2467	0.036
	Sb	123		**ug/L**		1826	0.027
	Ba	135		**ug/L**		222286	1.589
	Ba	137	**675.878**	**ug/L**	0.203	390103	2.788
	Ho	165		**ug/L**		13973	0.100
>	Lu	175		**ug/L**		139905	139904.924
	Tl	205	**0.376**	**ug/L**	1.547	2911	0.017
	Pb	208	**2242.611**	**ug/L**	1.301	16352299	116.882
	Th	232	**22.297**	**ug/L**	0.631	183186	1.307
	U	238	**354.282**	**ug/L**	1.034	3143220	22.465

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	0.9998
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	0.9999
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			89.2		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.5		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 245979014
Sample Date/Time: Thursday, February 25, 2010 22:29:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979014.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.626**	**ug/L**	2.609	3803	0.026
	Be	9	**71.970**	**ug/L**	5.108	3411	0.023
	B	11	**17.058**	**ug/L**	0.900	1068	0.006
	Na	23	**295.715**	**ug/L**	3.368	148098	0.990
	Mg	24	**4962.920**	**ug/L**	2.429	1897960	12.937
	Al	27	**54262.635**	**ug/L**	2.986	26788964	182.670
	P	31	**575.320**	**ug/L**	2.606	21086	0.136
	K	39	**4784.600**	**ug/L**	4.055	3357013	22.632
	Ca	43	**12366.021**	**ug/L**	0.874	21439	0.146
>	Sc	45		**ug/L**		146666	146666.189
	Ti	47	**631.539**	**ug/L**	2.097	66150	0.451
	V	51	**62.789**	**ug/L**	4.041	61064	0.427
	Cr	52	**58.470**	**ug/L**	3.375	62418	0.416
	Cr	53		**ug/L**		11096	0.004
	Mn	55	**664.872**	**ug/L**	2.462	949810	6.475
	Fe	57	**33828.007**	**ug/L**	1.830	895347	6.101
	Co	59	**11.336**	**ug/L**	0.417	11275	0.077
	Ni	60	**36.872**	**ug/L**	0.448	7805	0.053
	Cu	63		**ug/L**		3212820	21.906
	Cu	65	**5883.873**	**ug/L**	1.445	1622802	11.065
	Zn	66	**379.672**	**ug/L**	2.552	67331	0.921
	Zn	67		**ug/L**		13198	0.153
	Zn	68		**ug/L**		56407	0.770
>	Ge	74		**ug/L**		72984	72983.739
	As	75	**12.143**	**ug/L**	5.356	2832	0.038
	Se	77		**ug/L**		439	-0.008
	Se	82	**-0.602**	**ug/L**	13.502	-7	-0.000
	Kr	83		**ug/L**		46	0.000
	Sr	88	**72.926**	**ug/L**	1.478	213485	3.186
	Y	89		**ug/L**		105024	1.569
	Zr	90	**59.992**	**ug/L**	2.227	96649	1.442
	Mo	98	**5.342**	**ug/L**	1.614	4367	0.064
	Ag	107	**3.976**	**ug/L**	0.651	6205	0.093
	Cd	111	**3.190**	**ug/L**	7.291	1222	0.018
	Cd	114		**ug/L**		2603	0.039
>	In	115		**ug/L**		66963	66962.935
	Sn	120	**9.272**	**ug/L**	2.375	14999	0.223
	Sb	121	**11.810**	**ug/L**	1.276	13324	0.198
	Sb	123		**ug/L**		10154	0.151
	Ba	135		**ug/L**		157423	1.155
	Ba	137	**491.363**	**ug/L**	2.238	276381	2.027
	Ho	165		**ug/L**		11050	0.081
>	Lu	175		**ug/L**		136374	136374.239
	Tl	205	**0.312**	**ug/L**	3.051	2443	0.014
	Pb	208	**1217.792**	**ug/L**	2.303	8652783	63.470
	Th	232	**21.766**	**ug/L**	1.242	174287	1.276
	U	238	**3455.959**	**ug/L**	0.886	29885294	219.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			86.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			91.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			92.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Al	27	Sample is out of limits (over linear range)
	Ti	47	Sample is out of limits (over linear range)_
	Cu	65	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 245979015
Sample Date/Time: Thursday, February 25, 2010 22:35:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948769|2|prb
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\245979015.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.511**	ug/L	4.414	999	0.007
	Be	9	**1.641**	ug/L	6.553	82	0.001
	B	11	**1.106**	ug/L	33.720	183	0.000
	Na	23	**630.494**	ug/L	4.326	324319	2.111
	Mg	24	**1002.058**	ug/L	6.036	397115	2.612
	Al	27	**7701.010**	ug/L	4.335	3946953	25.925
	P	31	**249.854**	ug/L	1.732	10180	0.059
	K	39	**1517.630**	ug/L	10.793	1129068	7.179
	Ca	43	**2173.747**	ug/L	1.716	3927	0.026
>	Sc	45		ug/L		152085	152084.632
	Ti	47	**497.143**	ug/L	1.004	54010	0.355
	V	51	**12.825**	ug/L	5.058	11632	0.087
	Cr	52	**11.482**	ug/L	3.388	13940	0.082
	Cr	53		ug/L		5934	-0.033
	Mn	55	**711.991**	ug/L	1.429	1054854	6.934
	Fe	57	**22937.966**	ug/L	1.334	629528	4.137
	Co	59	**18.849**	ug/L	2.685	19424	0.128
	Ni	60	**14.150**	ug/L	4.026	3115	0.020
	Cu	63		ug/L		17058	0.111
	Cu	65	**31.249**	ug/L	1.860	8989	0.059
	Zn	66	**108.635**	ug/L	2.489	20075	0.264
	Zn	67		ug/L		4749	0.035
	Zn	68		ug/L		16150	0.210
>	Ge	74		ug/L		75717	75716.774
	As	75	**2.610**	ug/L	7.927	656	0.008
	Se	77		ug/L		465	-0.008
	Se	82	**0.908**	ug/L	56.069	30	0.000
	Kr	83		ug/L		26	0.000
	Sr	88	**15.348**	ug/L	1.450	46051	0.671
	Y	89		ug/L		284818	4.163
	Zr	90	**55.237**	ug/L	9.001	91103	1.328
	Mo	98	**2.287**	ug/L	2.622	1946	0.028
	Ag	107	**0.262**	ug/L	2.891	426	0.006
	Cd	111	**0.565**	ug/L	7.013	223	0.003
	Cd	114		ug/L		118	0.002
>	In	115		ug/L		68419	68418.512
	Sn	120	**6.025**	ug/L	2.673	9994	0.145
	Sb	121	**0.966**	ug/L	6.591	1176	0.016
	Sb	123		ug/L		920	0.013
	Ba	135		ug/L		31584	0.210
	Ba	137	**89.759**	ug/L	1.429	55574	0.370
	Ho	165		ug/L		28969	0.193
>	Lu	175		ug/L		150015	150014.727
	Tl	205	**0.033**	ug/L	11.500	812	0.001
	Pb	208	**42.764**	ug/L	0.350	334466	2.229
	Th	232	**21.150**	ug/L	0.503	186311	1.240
	U	238	**32.488**	ug/L	1.470	309214	2.060

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			89.9		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			94.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			94.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			101.3		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Ti	47	Sample is out of limits (over linear range)_

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 22:41:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.881**	**ug/L**	3.340	3710	0.024
	Be	9	**51.259**	**ug/L**	4.826	2605	0.017
	B	11	**80.935**	**ug/L**	2.963	4970	0.031
	Na	23	**4352.936**	**ug/L**	17.619	2294166	14.574
	Mg	24	**4085.276**	**ug/L**	7.059	1674296	10.649
	Al	27	**5253.224**	**ug/L**	7.122	2780885	17.684
	P	31	**4856.354**	**ug/L**	2.724	181480	1.147
	K	39	**5415.482**	**ug/L**	4.226	4067671	25.617
	Ca	43	**4847.234**	**ug/L**	3.328	9022	0.057
>	Sc	45		**ug/L**		157187	157186.614
	Ti	47	**50.023**	**ug/L**	2.035	5654	0.036
	V	51	**51.804**	**ug/L**	3.822	53702	0.352
	Cr	52	**49.886**	**ug/L**	4.005	57305	0.354
	Cr	53		**ug/L**		13223	0.012
	Mn	55	**48.711**	**ug/L**	1.900	74677	0.474
	Fe	57	**4787.935**	**ug/L**	0.669	136272	0.864
	Co	59	**48.555**	**ug/L**	2.006	51721	0.329
	Ni	60	**48.628**	**ug/L**	0.843	11024	0.070
	Cu	63		**ug/L**		28091	0.178
	Cu	65	**50.189**	**ug/L**	0.626	14893	0.094
	Zn	66	**51.982**	**ug/L**	1.816	10172	0.126
	Zn	67		**ug/L**		3725	0.019
	Zn	68		**ug/L**		7988	0.098
>	Ge	74		**ug/L**		79563	79562.791
	As	75	**47.400**	**ug/L**	1.425	11941	0.150
	Se	77		**ug/L**		1725	0.008
	Se	82	**46.634**	**ug/L**	3.069	1232	0.015
	Kr	83		**ug/L**		18	-0.000
	Sr	88	**51.544**	**ug/L**	0.724	157024	2.252
	Y	89		**ug/L**		50	0.001
	Zr	90	**51.388**	**ug/L**	1.353	86144	1.235
	Mo	98	**50.071**	**ug/L**	1.084	42057	0.603
	Ag	107	**49.919**	**ug/L**	1.154	80933	1.162
	Cd	111	**51.607**	**ug/L**	1.421	20554	0.295
	Cd	114		**ug/L**		49417	0.709
>	In	115		**ug/L**		69650	69649.660
	Sn	120	**49.359**	**ug/L**	0.555	82731	1.187
	Sb	121	**48.333**	**ug/L**	5.427	56530	0.810
	Sb	123		**ug/L**		43511	0.623
	Ba	135		**ug/L**		17055	0.121
	Ba	137	**51.655**	**ug/L**	1.439	30049	0.213
	Ho	165		**ug/L**		13	0.000
>	Lu	175		**ug/L**		140935	140934.837
	Tl	205	**47.529**	**ug/L**	0.889	300942	2.131
	Pb	208	**49.999**	**ug/L**	0.433	367352	2.606
	Th	232	**50.284**	**ug/L**	1.604	415881	2.948
	U	238	**52.040**	**ug/L**	0.993	465332	3.300

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	75.762				
	Be	9	102.518				
	B	11	80.935				
	Na	23	87.059				
	Mg	24	81.706				
	Al	27	104.024				
	P	31	97.127				
	K	39	108.310				
	Ca	43	96.945				
>	Sc	45		92.9			
	Ti	47	100.046				
	V	51	103.608				
	Cr	52	99.772				
	Cr	53					
	Mn	55	97.422				
	Fe	57	95.759				
	Co	59	97.109				
	Ni	60	97.256				
	Cu	63					
	Cu	65	100.377				
	Zn	66	103.963				
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
	As	75	94.800				
	Se	77					
	Se	82	93.268				
	Kr	83					
	Sr	88	103.089				
	Y	89					
	Zr	90	102.776				
	Mo	98	100.142				
	Ag	107	99.839				
	Cd	111	103.213				
	Cd	114					
>	In	115		96.6			
	Sn	120	98.718				
	Sb	121	96.666				
	Sb	123					
	Ba	135					
	Ba	137	103.310				
	Ho	165					
>	Lu	175		95.2			
	Tl	205	95.057				
	Pb	208	99.998				
	Th	232	100.567				
	U	238	104.079				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Li	7	CCV is out of limits (+/- 10%)
QC Std 6	B	11	CCV is out of limits (+/- 10%)
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 22:46:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.009**	**ug/L**	280.249	5	0.000
	Be	9	**0.061**	**ug/L**	55.000	5	0.000
	B	11	**1.904**	**ug/L**	40.378	239	0.001
	Na	23	**1.037**	**ug/L**	381.651	3667	0.003
	Mg	24	**0.856**	**ug/L**	163.141	667	0.002
	Al	27	**1.948**	**ug/L**	146.582	1667	0.007
	P	31	**-2.952**	**ug/L**	36.189	1147	-0.001
	K	39	**-8.737**	**ug/L**	74.187	34709	-0.041
	Ca	43	**8.424**	**ug/L**	27.528	41	0.000
>	Sc	45		**ug/L**		158357	158357.445
	Ti	47	**0.075**	**ug/L**	100.375	50	0.000
	V	51	**1.849**	**ug/L**	15.024	303	0.013
	Cr	52	**-0.217**	**ug/L**	13.824	1344	-0.002
	Cr	53		**ug/L**		7519	-0.024
	Mn	55	**0.039**	**ug/L**	34.901	164	0.000
	Fe	57	**3.007**	**ug/L**	49.345	623	0.001
	Co	59	**0.014**	**ug/L**	16.824	26	0.000
	Ni	60	**0.016**	**ug/L**	109.280	24	0.000
	Cu	63		**ug/L**		316	0.001
	Cu	65	**0.360**	**ug/L**	4.510	165	0.001
	Zn	66	**0.029**	**ug/L**	316.425	145	0.000
	Zn	67		**ug/L**		2080	-0.001
	Zn	68		**ug/L**		235	0.000
>	Ge	74		**ug/L**		79173	79172.932
	As	75	**0.076**	**ug/L**	449.227	54	0.000
	Se	77		**ug/L**		770	-0.004
	Se	82	**0.410**	**ug/L**	104.404	19	0.000
	Kr	83		**ug/L**		15	-0.000
	Sr	88	**0.010**	**ug/L**	69.108	215	0.000
	Y	89		**ug/L**		15	0.000
	Zr	90	**0.411**	**ug/L**	3.272	804	0.010
	Mo	98	**0.148**	**ug/L**	2.537	186	0.002
	Ag	107	**0.012**	**ug/L**	49.020	29	0.000
	Cd	111	**0.012**	**ug/L**	28.780	6	0.000
	Cd	114		**ug/L**		22	0.000
>	In	115		**ug/L**		69077	69077.220
	Sn	120	**0.049**	**ug/L**	20.776	160	0.001
	Sb	121	**0.608**	**ug/L**	2.866	773	0.010
	Sb	123		**ug/L**		609	0.008
	Ba	135		**ug/L**		19	0.000
	Ba	137	**0.018**	**ug/L**	102.083	28	0.000
	Ho	165		**ug/L**		2	-0.000
>	Lu	175		**ug/L**		139288	139288.166
	Tl	205	**0.049**	**ug/L**	42.492	855	0.002
	Pb	208	**0.042**	**ug/L**	61.795	417	0.002
	Th	232	**0.125**	**ug/L**	7.242	1324	0.007
	U	238	**0.042**	**ug/L**	36.477	639	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9998
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	0.9999
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			93.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			98.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			95.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.1		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/18/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021810S1.SIF Results Data Set Name: 021810S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/18/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0046	0.0046	09:45:19	No
2			0.0045	0.0045	09:45:54	No
Mean:			0.0046			
SD :			0.0001			
%RSD:			2.6075			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/18/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0019	0.0065	09:47:17	No
2			0.0017	0.0063	09:47:51	No
Mean:			0.0018			
SD :			0.0001			
%RSD:			7.2627			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00908
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/18/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0052	0.0098	09:49:14	No
2			0.0054	0.0099	09:49:48	No
Mean:			0.0053			
SD :			0.0001			
%RSD:			2.3316			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99797 Slope: 0.01065
Intercept : -0.00012

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/18/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0209	0.0255	09:51:13	No
2			0.0210	0.0255	09:51:49	No
Mean:			0.0210			
SD :			0.0000			
%RSD:			0.1449			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99989 Slope: 0.01053
Intercept : -0.00009

==========
Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/18/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0521	0.0567	09:53:13	No
2			0.0519	0.0564	09:53:49	No
Mean:			0.0520			
SD :			0.0002			
%RSD:			0.3044			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01042
Intercept : -0.00003

==========
Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/18/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1014	0.1060	09:55:15	No
2			0.1009	0.1054	09:55:50	No
Mean:			0.1011			
SD :			0.0004			
%RSD:			0.3679			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99989 Slope: 0.01014
Intercept : 0.00028

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0046	---	----	----	----
S0.2	0.0018	0.200	0.152	0.0001	7.3
S0.5	0.0053	0.500	0.494	0.0001	2.3
S2.0	0.0210	2.000	2.039	0.0000	0.1
S5.0	0.0520	5.000	5.098	0.0002	0.3
S10	0.1011	10.000	9.944	0.0004	0.4

Correlation Coefficient: 0.99989 Slope: 0.01014 Intercept: 0.0003

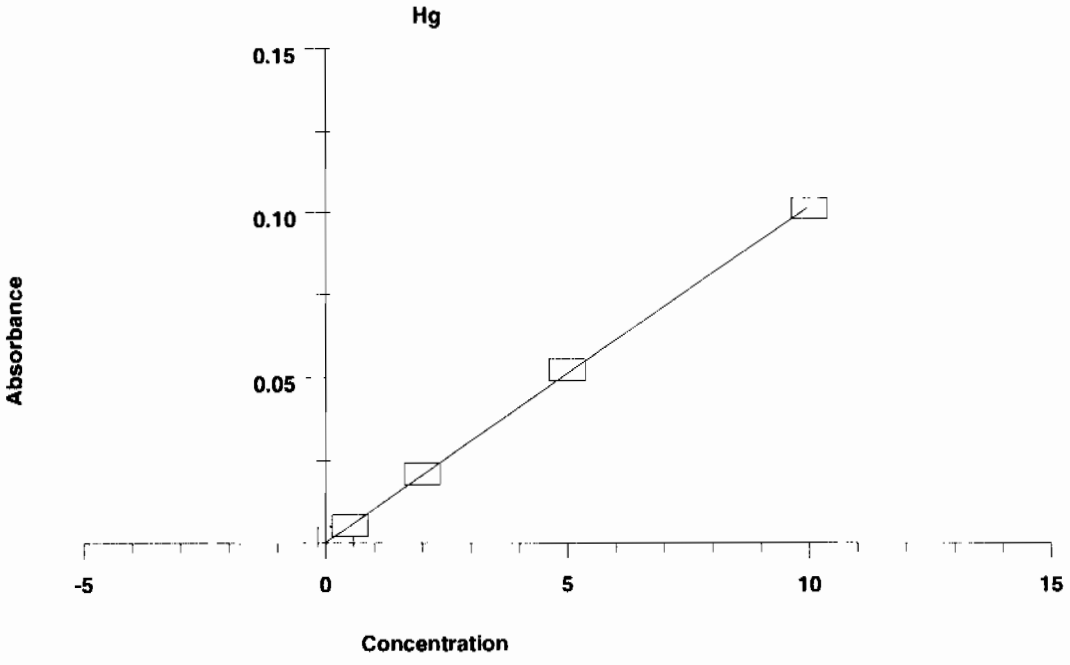

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/18/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.154	5.154	0.0525	0.0571	09:57:18	No
2	5.108	5.108	0.0521	0.0566	09:57:53	No
Mean:	5.131	5.131	0.0523			
SD :	0.0323	0.0323	0.0003			
%RSD:	0.6	0.6	0.6260			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/18/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.120	-0.120	-0.0009	0.0036	09:59:15	No
2	-0.138	-0.138	-0.0011	0.0034	09:59:50	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0127	0.0127	0.0001			
%RSD:	9.9	9.9	12.5442			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/18/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0026	0.0071	10:01:12	No
2	0.211	0.211	0.0024	0.0070	10:01:47	No
Mean:	0.218	0.218	0.0025			
SD :	0.0095	0.0095	0.0001			
%RSD:	4.3	4.3	3.8605			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.040	5.040	0.0514	0.0559	10:03:12	No
2	5.078	5.078	0.0518	0.0563	10:03:46	No
Mean:	5.059	5.059	0.0516			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5390			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0001	0.0044	10:05:14	No
2	-0.052	-0.052	-0.0003	0.0043	10:05:49	No
Mean:	-0.046	-0.046	-0.0002			
SD :	0.0083	0.0083	0.0001			
%RSD:	18.0	18.0	43.9084			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/18/2010
Sample ID: 1202037115|i||950565|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0005	0.0041	10:07:15	No
2	-0.088	-0.088	-0.0006	0.0039	10:07:50	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0102	0.0102	0.0001			
%RSD:	12.7	12.7	19.1745			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/18/2010
Sample ID: 1202037116|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.092	4.092	0.0418	0.0463	10:09:15	No
2	3.952	3.952	0.0404	0.0449	10:09:50	No
Mean:	4.022	4.022	0.0411			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.5	2.5	2.4475			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/18/2010
Sample ID: 245969001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.246	0.246	0.0028	0.0073	10:11:18	No
2	0.244	0.244	0.0027	0.0073	10:11:53	No
Mean:	0.245	0.245	0.0028			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.8	0.8	0.7089			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/18/2010
Sample ID: 1202037117|i|||DUP

%RSD: 1.2 1.2 1.1178

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/18/2010
Sample ID: 245969004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.121	0.121	0.0015	0.0061	10:25:06	No
2	0.086	0.086	0.0011	0.0057	10:25:41	No
Mean:	0.103	0.103	0.0013			
SD :	0.0247	0.0247	0.0003			
%RSD:	23.9	23.9	18.9148			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.046	5.046	0.0515	0.0560	10:27:06	No
2	5.089	5.089	0.0519	0.0565	10:27:40	No
Mean:	5.068	5.068	0.0517			
SD :	0.0301	0.0301	0.0003			
%RSD:	0.6	0.6	0.5903			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0004	0.0042	10:29:09	No
2	-0.067	-0.067	-0.0004	0.0042	10:29:44	No
Mean:	-0.065	-0.065	-0.0004			
SD :	0.0021	0.0021	0.0000			
%RSD:	3.3	3.3	5.6045			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/18/2010
Sample ID: 245969005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0017	0.0063	10:31:09	No
2	0.120	0.120	0.0015	0.0061	10:31:44	No
Mean:	0.130	0.130	0.0016			
SD :	0.0141	0.0141	0.0001			
%RSD:	10.8	10.8	8.9311			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/18/2010
Sample ID: 245969006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.096	0.096	0.0012	0.0058	10:33:07	No
2	0.085	0.085	0.0011	0.0057	10:33:42	No
Mean:	0.090	0.090	0.0012			
SD :	0.0078	0.0078	0.0001			
%RSD:	8.6	8.6	6.6265			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/18/2010
Sample ID: 245969007|i|||

%RSD: 3.1 3.1 2.4888

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/18/2010
Sample ID: 245969013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0028	0.0073	10:47:09	No
2	0.224	0.224	0.0025	0.0071	10:47:44	No
Mean:	0.234	0.234	0.0027			
SD :	0.0147	0.0147	0.0001			
%RSD:	6.3	6.3	5.6188			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/18/2010
Sample ID: 245969014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.144	0.144	0.0017	0.0063	10:49:12	No
2	0.132	0.132	0.0016	0.0062	10:49:47	No
Mean:	0.138	0.138	0.0017			
SD :	0.0087	0.0087	0.0001			
%RSD:	6.3	6.3	5.2634			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.163	5.163	0.0526	0.0572	10:51:15	No
2	5.285	5.285	0.0539	0.0584	10:51:50	No
Mean:	5.224	5.224	0.0533			
SD :	0.0865	0.0865	0.0009			
%RSD:	1.7	1.7	1.6467			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0005	0.0041	10:53:18	No
2	-0.083	-0.083	-0.0006	0.0040	10:53:53	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0044	0.0044	0.0000			
%RSD:	5.4	5.4	8.2472			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/18/2010
Sample ID: 245969015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.223	0.223	0.0025	0.0071	10:55:17	No
2	0.204	0.204	0.0023	0.0069	10:55:51	No
Mean:	0.213	0.213	0.0024			
SD :	0.0132	0.0132	0.0001			
%RSD:	6.2	6.2	5.4733			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/18/2010
Sample ID: 1202039079|i||951467|MB

%RSD: 1.1 1.1 1.0627

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/18/2010
Sample ID: 1202039087|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.127	-0.127	-0.0010	0.0035	11:08:50	No
2	-0.131	-0.131	-0.0011	0.0035	11:09:24	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0029	0.0029	0.0000			
%RSD:	2.2	2.2	2.8265			

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/18/2010
Sample ID: 246285002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.103	0.103	0.0013	0.0059	11:10:48	No
2	0.090	0.090	0.0012	0.0058	11:11:23	No
Mean:	0.097	0.097	0.0013			
SD :	0.0086	0.0086	0.0001			
%RSD:	8.9	8.9	6.9719			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/18/2010
Sample ID: 246285003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.328	0.328	0.0036	0.0082	11:12:47	No
2	0.310	0.310	0.0034	0.0080	11:13:23	No
Mean:	0.319	0.319	0.0035			
SD :	0.0125	0.0125	0.0001			
%RSD:	3.9	3.9	3.6171			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.195	5.195	0.0530	0.0575	11:14:47	No
2	5.107	5.107	0.0521	0.0566	11:15:22	No
Mean:	5.151	5.151	0.0525			
SD :	0.0627	0.0627	0.0006			
%RSD:	1.2	1.2	1.2114			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.105	-0.105	-0.0008	0.0038	11:16:50	No
2	-0.107	-0.107	-0.0008	0.0037	11:17:25	No
Mean:	-0.106	-0.106	-0.0008			
SD :	0.0020	0.0020	0.0000			
%RSD:	1.9	1.9	2.5083			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/18/2010
Sample ID: 246285004|i|||

%RSD: 2.1 2.1 1.9191

==========

Element: Hg Seq. No.: 54 AS Loc.: 48 Date: 02/18/2010
Sample ID: 246285010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.122	0.122	0.0015	0.0061	11:30:55	No
2	0.119	0.119	0.0015	0.0060	11:31:30	No
Mean:	0.121	0.121	0.0015			
SD :	0.0026	0.0026	0.0000			
%RSD:	2.2	2.2	1.7555			

==========

Element: Hg Seq. No.: 55 AS Loc.: 49 Date: 02/18/2010
Sample ID: 246285011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0000	0.0046	11:32:50	No
2	-0.033	-0.033	-0.0001	0.0045	11:33:24	No
Mean:	-0.028	-0.028	0.0000			
SD :	0.0065	0.0065	0.0001			
%RSD:	22.9	22.9	658.9645			

==========

Element: Hg Seq. No.: 56 AS Loc.: 50 Date: 02/18/2010
Sample ID: 246291001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.580	0.580	0.0062	0.0107	11:34:44	No
2	0.579	0.579	0.0061	0.0107	11:35:19	No
Mean:	0.579	0.579	0.0062			
SD :	0.0007	0.0007	0.0000			
%RSD:	0.1	0.1	0.1126			

==========

Element: Hg Seq. No.: 57 AS Loc.: 51 Date: 02/18/2010
Sample ID: 246291002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.075	-0.075	-0.0005	0.0041	11:36:41	No
2	-0.092	-0.092	-0.0007	0.0039	11:37:16	No
Mean:	-0.084	-0.084	-0.0006			
SD :	0.0120	0.0120	0.0001			
%RSD:	14.3	14.3	21.3135			

==========

Element: Hg Seq. No.: 58 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.997	4.997	0.0510	0.0555	11:38:40	No
2	5.018	5.018	0.0512	0.0557	11:39:15	No
Mean:	5.007	5.007	0.0511			
SD :	0.0152	0.0152	0.0002			
%RSD:	0.3	0.3	0.3010			

QC value within specified limits.

==========

Element: Hg Seq. No.: 59 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.154	-0.154	-0.0013	0.0033	11:40:43	No
2	-0.153	-0.153	-0.0013	0.0033	11:41:18	No
Mean:	-0.154	-0.154	-0.0013			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.7	0.7	0.8705			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/18/2010
Sample ID: 246291003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.117	1.117	0.0116	0.0162	11:42:43	No
2	1.113	1.113	0.0116	0.0161	11:43:18	No
Mean:	1.115	1.115	0.0116			
SD :	0.0031	0.0031	0.0000			
%RSD:	0.3	0.3	0.2711			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/18/2010
Sample ID: 246291004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.954	0.954	0.0099	0.0145	11:44:40	No
2	0.930	0.930	0.0097	0.0143	11:45:15	No
Mean:	0.942	0.942	0.0098			
SD :	0.0168	0.0168	0.0002			
%RSD:	1.8	1.8	1.7363			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/18/2010
Sample ID: 246291005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0005	0.0050	11:46:37	No
2	0.013	0.013	0.0004	0.0050	11:47:12	No
Mean:	0.016	0.016	0.0004			
SD :	0.0038	0.0038	0.0000			
%RSD:	24.1	24.1	8.8365			

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/18/2010
Sample ID: 246291006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0001	0.0047	11:48:34	No
2	-0.026	-0.026	0.0000	0.0046	11:49:09	No
Mean:	-0.020	-0.020	0.0001			
SD :	0.0078	0.0078	0.0001			
%RSD:	38.5	38.5	110.3645			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/18/2010
Sample ID: 246291007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0002	0.0043	11:50:33	No
2	-0.052	-0.052	-0.0003	0.0043	11:51:08	No
Mean:	-0.050	-0.050	-0.0002			
SD :	0.0027	0.0027	0.0000			

```
%RSD:        5.5         5.5   11.9973

==========================================================================================
Element: Hg    Seq. No.: 65       AS Loc.: 57   Date: 02/18/2010
Sample ID: 246291008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.378     0.378    0.0041     0.0087   11:52:32  No
 2        0.374     0.374    0.0041     0.0086   11:53:06  No
Mean:     0.376     0.376    0.0041
SD  :    0.0033    0.0033    0.0000
%RSD:       0.9       0.9    0.8199

==========================================================================================
Element: Hg    Seq. No.: 66       AS Loc.: 58   Date: 02/18/2010
Sample ID: 246291009|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        1.880     1.880    0.0193     0.0239   11:54:30  No
 2        1.884     1.884    0.0194     0.0239   11:55:05  No
Mean:     1.882     1.882    0.0194
SD  :    0.0028    0.0028    0.0000
%RSD:       0.1       0.1    0.1449

==========================================================================================
Element: Hg    Seq. No.: 67       AS Loc.: 59   Date: 02/18/2010
Sample ID: 1202039184|i||951512|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.178    -0.178   -0.0015     0.0030   11:56:29  No
 2      -0.189    -0.189   -0.0016     0.0029   11:57:04  No
Mean:   -0.183    -0.183   -0.0016
SD  :    0.0082    0.0082    0.0001
%RSD:       4.5       4.5    5.2496

==========================================================================================
Element: Hg    Seq. No.: 68       AS Loc.: 60   Date: 02/18/2010
Sample ID: 1202039185|i|10||LCS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.043     4.043    0.0413     0.0458   11:58:29  No
 2        4.136     4.136    0.0422     0.0468   11:59:04  No
Mean:     4.090     4.090    0.0418
SD  :    0.0663    0.0663    0.0007
%RSD:       1.6       1.6    1.6101

==========================================================================================
Element: Hg    Seq. No.: 69       AS Loc.: 61   Date: 02/18/2010
Sample ID: 245960001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.131     0.131    0.0016     0.0062   12:00:31  No
 2        0.129     0.129    0.0016     0.0061   12:01:06  No
Mean:     0.130     0.130    0.0016
SD  :    0.0018    0.0018    0.0000
%RSD:       1.4       1.4    1.1554

==========================================================================================
Element: Hg    Seq. No.: 70       AS Loc.: 7    Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
```

#	µg/L	µg/L	Signal	Height		Stored
1	5.033	5.033	0.0513	0.0559	12:02:32	No
2	4.998	4.998	0.0510	0.0555	12:03:07	No
Mean:	5.015	5.015	0.0511			
SD :	0.0249	0.0249	0.0003			
%RSD:	0.5	0.5	0.4945			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0002	0.0047	12:04:35	No
2	-0.004	-0.004	0.0002	0.0048	12:05:09	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0053	0.0053	0.0001			
%RSD:	65.8	65.8	27.7211			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 02/18/2010
Sample ID: 245960002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.081	0.081	0.0011	0.0057	12:06:35	No
2	0.068	0.068	0.0010	0.0055	12:07:10	No
Mean:	0.074	0.074	0.0010			
SD :	0.0085	0.0085	0.0001			
%RSD:	11.4	11.4	8.3596			

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 02/18/2010
Sample ID: 245960003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0023	0.0068	12:08:32	No
2	0.194	0.194	0.0022	0.0068	12:09:06	No
Mean:	0.195	0.195	0.0023			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.5	0.5	0.3972			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 02/18/2010
Sample ID: 245960004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.164	0.164	0.0019	0.0065	12:10:26	No
2	0.162	0.162	0.0019	0.0065	12:11:01	No
Mean:	0.163	0.163	0.0019			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.6	0.6	0.5000			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 02/18/2010
Sample ID: 245960005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0022	0.0068	12:12:22	No
2	0.173	0.173	0.0020	0.0066	12:12:57	No
Mean:	0.181	0.181	0.0021			
SD :	0.0112	0.0112	0.0001			

#	µg/L	µg/L	Signal	Height		Stored
1	0.170	0.170	0.0020	0.0066	12:24:01	No
2	0.165	0.165	0.0020	0.0065	12:24:36	No
Mean:	0.168	0.168	0.0020			
SD :	0.0032	0.0032	0.0000			
%RSD:	1.9	1.9	1.6534			

==========

Element: Hg Seq. No.: 82 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0515	0.0560	12:26:01	No
2	5.085	5.085	0.0519	0.0564	12:26:36	No
Mean:	5.066	5.066	0.0517			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5371			

QC value within specified limits.

==========

Element: Hg Seq. No.: 83 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0002	0.0047	12:28:04	No
2	-0.005	-0.005	0.0002	0.0048	12:28:39	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0034	0.0034	0.0000			
%RSD:	43.5	43.5	17.5315			

QC value within specified limits.

==========

Element: Hg Seq. No.: 84 AS Loc.: 72 Date: 02/18/2010
Sample ID: 246470001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.300	9.300	0.0946	0.0992	12:30:05	No
2	9.140	9.140	0.0930	0.0975	12:30:40	No
Mean:	9.220	9.220	0.0938			
SD :	0.1128	0.1128	0.0011			
%RSD:	1.2	1.2	1.2200			

==========

Element: Hg Seq. No.: 85 AS Loc.: 73 Date: 02/18/2010
Sample ID: 1202039186|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.013	9.013	0.0917	0.0962	12:32:04	No
2	9.029	9.029	0.0918	0.0964	12:32:39	No
Mean:	9.021	9.021	0.0918			
SD :	0.0110	0.0110	0.0001			
%RSD:	0.1	0.1	0.1221			

==========

Element: Hg Seq. No.: 86 AS Loc.: 74 Date: 02/18/2010
Sample ID: 1202039187|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	12.91	12.91	0.1312	0.1358	12:34:03	No

Sample absorbance is greater than that of the highest standard.

2	12.95	12.95	0.1316	0.1362	12:34:37	No

Sample absorbance is greater than that of the highest standard.

```
 2        14.03     14.03    0.1426     0.1471   12:44:30  No
Sample absorbance is greater than that of the highest standard.
Mean:     14.03     14.03    0.1426
SD  :    0.0063    0.0063    0.0001
%RSD:
Sample absorbance is greater than that of the highest standard.

==================================================================================
Element: Hg    Seq. No.: 92       AS Loc.: 80   Date: 02/18/2010
Sample ID: 246470005|i|||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        160.5     160.5    1.6280  1  1.6326   12:45:50  No
Sample absorbance is greater than that of the highest standard.
 2        148.3     148.3    1.5041  1  1.5087   12:46:24  No
Sample absorbance is greater than that of the highest standard.
Mean:     154.4     154.4    1.5661
SD  :     8.640     8.640    0.0876
%RSD:       5.6       5.6    5.5956
Sample absorbance is greater than that of the highest standard.

==================================================================================
Element: Hg    Seq. No.: 93       AS Loc.: 81   Date: 02/18/2010
Sample ID: 246470006|i|||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.699     0.699    0.0074  -  0.0119   12:47:45  No
 2        1.028     1.028    0.0107     0.0153   12:48:20  No
Mean:     0.864     0.864    0.0090
SD  :    0.2332    0.2332    0.0024
%RSD:      27.0      27.0   26.1783

==================================================================================
Element: Hg    Seq. No.: 94       AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        4.963     4.963    0.0506     0.0552   12:49:44  No
 2        5.078     5.078    0.0518     0.0563   12:50:19  No
Mean:     5.020     5.020    0.0512
SD  :    0.0809    0.0809    0.0008
%RSD:       1.6       1.6    1.6030
QC value within specified limits.

==================================================================================
Element: Hg    Seq. No.: 95       AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.001     0.001    0.0003     0.0049   12:51:47  No
 2        0.006     0.006    0.0003     0.0049   12:52:21  No
Mean:     0.004     0.004    0.0003
SD  :    0.0038    0.0038    0.0000
%RSD:      98.6      98.6   12.0691
QC value within specified limits.

==================================================================================
Element: Hg    Seq. No.: 96       AS Loc.: 82   Date: 02/18/2010
Sample ID: 246470007|i|||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.659     0.659    0.0070     0.0115   12:53:45  No
```

```
 2        0.662     0.662    0.0070     0.0116   12:54:20  No
Mean:     0.661     0.661    0.0070
SD  :    0.0024    0.0024    0.0000
%RSD:       0.4       0.4    0.3540

==========================================================================================
Element: Hg    Seq. No.: 97       AS Loc.: 83   Date: 02/18/2010
Sample ID: 246470008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       132.4     132.4    1.3427     1.3473   12:55:41  No
Sample absorbance is greater than that of the highest standard.
 2       129.8     129.8    1.3168     1.3214   12:56:15  No
Sample absorbance is greater than that of the highest standard.
Mean:    131.1     131.1    1.3298
SD  :    1.806     1.806    0.0183
%RSD:      1.4       1.4    1.3772
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 98       AS Loc.: 84   Date: 02/18/2010
Sample ID: 1202039198|i||951518|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.258    -0.258   -0.0023  -  0.0022   12:57:37  No
 2      -0.212    -0.212   -0.0019     0.0027   12:58:12  No
Mean:   -0.235    -0.235   -0.0021
SD  :   0.0325    0.0325    0.0003
%RSD:     13.8      13.8   15.6227

==========================================================================================
Element: Hg    Seq. No.: 99       AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       4.855     4.855    0.0495     0.0541   13:07:12  No
 2       5.001     5.001    0.0510     0.0556   13:07:48  No
Mean:    4.928     4.928    0.0503
SD  :   0.1032    0.1032    0.0010
%RSD:      2.1       2.1    2.0829
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 100      AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.060    -0.060   -0.0003     0.0042   13:09:15  No
 2      -0.064    -0.064   -0.0004     0.0042   13:09:50  No
Mean:   -0.062    -0.062   -0.0004
SD  :   0.0033    0.0033    0.0000
%RSD:      5.3       5.3    9.4330
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 101      AS Loc.: 77   Date: 02/18/2010
Sample ID: 246470002|i|50||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       1.359     1.359    0.0141     0.0186   13:11:17  No
 2       1.328     1.328    0.0137     0.0183   13:11:52  No
Mean:    1.343     1.343    0.0139
```

```
SD  :    0.0218    0.0218    0.0002
%RSD:       1.6       1.6    1.5872

==================================================================================
Element: Hg    Seq. No.: 102      AS Loc.: 79   Date: 02/18/2010
Sample ID: 246470004|i|10||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       1.372     1.372     0.0142     0.0188   13:13:15  No
 2       1.328     1.328     0.0137     0.0183   13:13:50  No
Mean:    1.350     1.350     0.0140
SD  :   0.0315    0.0315     0.0003
%RSD:      2.3       2.3     2.2847

==================================================================================
Element: Hg    Seq. No.: 103      AS Loc.: 80   Date: 02/18/2010
Sample ID: 246470005|i|200||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      13.93     13.93     0.1416     0.1461   13:15:10  No
Sample absorbance is greater than that of the highest standard.
 2      13.63     13.63     0.1385     0.1431   13:15:45  No
Sample absorbance is greater than that of the highest standard.
Mean:   13.78     13.78     0.1401
SD  :  0.2113    0.2113     0.0021
%RSD:      1.5       1.5     1.5300
Sample absorbance is greater than that of the highest standard.

==================================================================================
Element: Hg    Seq. No.: 104      AS Loc.: 81   Date: 02/18/2010
Sample ID: 246470006|i|||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       1.213     1.213     0.0126     0.0171   13:17:06  No
 2       1.173     1.173     0.0122     0.0167   13:17:41  No
Mean:    1.193     1.193     0.0124
SD  :   0.0279    0.0279     0.0003
%RSD:      2.3       2.3     2.2899

==================================================================================
Element: Hg    Seq. No.: 105      AS Loc.: 83   Date: 02/18/2010
Sample ID: 246470008|i|200||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       2.161     2.161     0.0222     0.0268   13:19:01  No
 2       2.078     2.078     0.0214     0.0259   13:19:37  No
Mean:    2.119     2.119     0.0218
SD  :   0.0586    0.0586     0.0006
%RSD:      2.8       2.8     2.7291

==================================================================================
Element: Hg    Seq. No.: 106      AS Loc.: 84   Date: 02/18/2010
Sample ID: 1202039198|i||951518|MB
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.190    -0.190    -0.0017     0.0029   13:20:58  No
 2      -0.186    -0.186    -0.0016     0.0029   13:21:33  No
Mean:   -0.188    -0.188    -0.0016
SD  :   0.0028    0.0028     0.0000
%RSD:      1.5       1.5     1.7488

==================================================================================
```

Element: Hg Seq. No.: 107 AS Loc.: 85 Date: 02/18/2010
Sample ID: 1202039199|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.945	3.945	0.0403	0.0449	13:22:55	No
2	3.805	3.805	0.0389	0.0434	13:23:30	No
Mean:	3.875	3.875	0.0396			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.6	2.6	2.5383			

Element: Hg Seq. No.: 108 AS Loc.: 86 Date: 02/18/2010
Sample ID: 245979001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.254	0.254	0.0029	0.0074	13:24:53	No
2	0.263	0.263	0.0029	0.0075	13:25:27	No
Mean:	0.259	0.259	0.0029			
SD :	0.0062	0.0062	0.0001			
%RSD:	2.4	2.4	2.1631			

Element: Hg Seq. No.: 109 AS Loc.: 87 Date: 02/18/2010
Sample ID: 1202039200|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.361	0.361	0.0039	0.0085	13:26:50	No
2	0.359	0.359	0.0039	0.0085	13:27:25	No
Mean:	0.360	0.360	0.0039			
SD :	0.0014	0.0014	0.0000			
%RSD:	0.4	0.4	0.3697			

Element: Hg Seq. No.: 110 AS Loc.: 88 Date: 02/18/2010
Sample ID: 1202039201|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.614	2.614	0.0268	0.0313	13:28:49	No
2	2.549	2.549	0.0261	0.0307	13:29:24	No
Mean:	2.581	2.581	0.0265			
SD :	0.0456	0.0456	0.0005			
%RSD:	1.8	1.8	1.7476			

Element: Hg Seq. No.: 111 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.837	4.837	0.0493	0.0539	13:30:49	No
2	4.919	4.919	0.0502	0.0547	13:31:24	No
Mean:	4.878	4.878	0.0497			
SD :	0.0586	0.0586	0.0006			
%RSD:	1.2	1.2	1.1946			

QC value within specified limits.

Element: Hg Seq. No.: 112 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.084	-0.084	-0.0006	0.0040	13:32:52	No

2	-0.081	-0.081	-0.0005	0.0040	13:33:28	No
Mean:	-0.082	-0.082	-0.0006			
SD :	0.0023	0.0023	0.0000			
%RSD:	2.8	2.8	4.2405			

QC value within specified limits.

==========

Element: Hg Seq. No.: 113 AS Loc.: 89 Date: 02/18/2010
Sample ID: 1202039207|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.588	2.588	0.0265	0.0311	13:34:54	No
2	2.636	2.636	0.0270	0.0316	13:35:28	No
Mean:	2.612	2.612	0.0268			
SD :	0.0337	0.0337	0.0003			
%RSD:	1.3	1.3	1.2787			

==========

Element: Hg Seq. No.: 114 AS Loc.: 90 Date: 02/18/2010
Sample ID: 1202039206|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.181	-0.181	-0.0016	0.0030	13:36:52	No
2	-0.194	-0.194	-0.0017	0.0029	13:37:27	No
Mean:	-0.187	-0.187	-0.0016			
SD :	0.0087	0.0087	0.0001			
%RSD:	4.7	4.7	5.4633			

==========

Element: Hg Seq. No.: 115 AS Loc.: 91 Date: 02/18/2010
Sample ID: 245979002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.175	0.175	0.0021	0.0066	13:38:53	No
2	0.163	0.163	0.0019	0.0065	13:39:27	No
Mean:	0.169	0.169	0.0020			
SD :	0.0091	0.0091	0.0001			
%RSD:	5.4	5.4	4.6298			

==========

Element: Hg Seq. No.: 116 AS Loc.: 92 Date: 02/18/2010
Sample ID: 245979003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.163	-0.163	-0.0014	0.0032	13:40:50	No
2	-0.207	-0.207	-0.0018	0.0027	13:41:24	No
Mean:	-0.185	-0.185	-0.0016			
SD :	0.0313	0.0313	0.0003			
%RSD:	16.9	16.9	19.8151			

==========

Element: Hg Seq. No.: 117 AS Loc.: 93 Date: 02/18/2010
Sample ID: 245979004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.191	-0.191	-0.0017	0.0029	13:42:43	No
2	-0.198	-0.198	-0.0017	0.0028	13:43:18	No
Mean:	-0.194	-0.194	-0.0017			
SD :	0.0050	0.0050	0.0001			
%RSD:	2.6	2.6	2.9823			

==========

Element: Hg Seq. No.: 118 AS Loc.: 94 Date: 02/18/2010
Sample ID: 245979005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.056	-0.056	-0.0003	0.0043	13:44:38	No
2	-0.058	-0.058	-0.0003	0.0043	13:45:13	No
Mean:	-0.057	-0.057	-0.0003			
SD :	0.0012	0.0012	0.0000			
%RSD:	2.2	2.2	4.2318			

Element: Hg Seq. No.: 119 AS Loc.: 95 Date: 02/18/2010
Sample ID: 245979006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.153	-0.153	-0.0013	0.0033	13:46:33	No
2	-0.166	-0.166	-0.0014	0.0032	13:47:08	No
Mean:	-0.159	-0.159	-0.0013			
SD :	0.0092	0.0092	0.0001			
%RSD:	5.8	5.8	6.9882			

Element: Hg Seq. No.: 120 AS Loc.: 96 Date: 02/18/2010
Sample ID: 245979007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.049	-0.049	-0.0002	0.0043	13:48:28	No
2	-0.051	-0.051	-0.0002	0.0043	13:49:03	No
Mean:	-0.050	-0.050	-0.0002			
SD :	0.0010	0.0010	0.0000			
%RSD:	2.1	2.1	4.5799			

Element: Hg Seq. No.: 121 AS Loc.: 97 Date: 02/18/2010
Sample ID: 245979008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.235	-0.235	-0.0021	0.0025	13:50:24	No
2	-0.230	-0.230	-0.0021	0.0025	13:50:59	No
Mean:	-0.233	-0.233	-0.0021			
SD :	0.0034	0.0034	0.0000			
%RSD:	1.5	1.5	1.6542			

Element: Hg Seq. No.: 122 AS Loc.: 98 Date: 02/18/2010
Sample ID: 245979009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0009	0.0036	13:52:20	No
2	-0.123	-0.123	-0.0010	0.0036	13:52:55	No
Mean:	-0.121	-0.121	-0.0010			
SD :	0.0027	0.0027	0.0000			
%RSD:	2.2	2.2	2.8459			

Element: Hg Seq. No.: 123 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.340	2.340	0.0240	0.0286	13:54:19	No
2	2.314	2.314	0.0237	0.0283	13:54:55	No

Mean:	2.327	2.327	0.0239
SD :	0.0187	0.0187	0.0002
%RSD:	0.8	0.8	0.7933

QC failed, value less than lower limit for Hg.
Current analysis method being continued.

==========

Element: Hg Seq. No.: 124 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.244	-0.244	-0.0022	0.0024	13:56:23	No
2	-0.237	-0.237	-0.0021	0.0024	13:56:57	No
Mean:	-0.241	-0.241	-0.0022			
SD :	0.0044	0.0044	0.0000			
%RSD:	1.8	1.8	2.0728			

==========

Element: Hg Seq. No.: 125 AS Loc.: 7 Date: 02/18/2010
Sample ID: Sample007

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.253	5.253	0.0535	0.0581	14:00:37	No
2	5.259	5.259	0.0536	0.0582	14:01:12	No
Mean:	5.256	5.256	0.0536			
SD :	0.0047	0.0047	0.0000			
%RSD:						

Element: Hg Seq. No.: 126 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.315	5.315	0.0542	0.0587	14:05:21	No
2	5.331	5.331	0.0543	0.0589	14:05:57	No
Mean:	5.323	5.323	0.0543			
SD :	0.0113	0.0113	0.0001			
%RSD:	0.2	0.2	0.2119			

QC value within specified limits.

Element: Hg Seq. No.: 127 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0006	0.0039	14:07:24	No
2	-0.098	-0.098	-0.0007	0.0038	14:08:00	No
Mean:	-0.094	-0.094	-0.0007			
SD :	0.0052	0.0052	0.0001			
%RSD:	5.6	5.6	7.8415			

QC value within specified limits.

Element: Hg Seq. No.: 128 AS Loc.: 80 Date: 02/18/2010
Sample ID: 246470005|i|400|951512|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	6.212	6.212	0.0633	0.0678	14:09:24	No
2	6.240	6.240	0.0636	0.0681	14:09:59	No
Mean:	6.226	6.226	0.0634			
SD :	0.0200	0.0200	0.0002			
%RSD:	0.3	0.3	0.3204			

Element: Hg Seq. No.: 129 AS Loc.: 89 Date: 02/18/2010
Sample ID: 1202039207|i||951518|MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.609	2.609	0.0267	0.0313	14:11:22	No
2	2.628	2.628	0.0269	0.0315	14:11:57	No
Mean:	2.619	2.619	0.0268			
SD :	0.0134	0.0134	0.0001			
%RSD:	0.5	0.5	0.5075			

Element: Hg Seq. No.: 130 AS Loc.: 90 Date: 02/18/2010
Sample ID: 1202039206|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0006	0.0040	14:13:22	No
2	-0.084	-0.084	-0.0006	0.0040	14:13:57	No
Mean:	-0.085	-0.085	-0.0006			
SD :	0.0010	0.0010	0.0000			
%RSD:	1.1	1.1	1.6625			

Element: Hg Seq. No.: 131 AS Loc.: 91 Date: 02/18/2010
Sample ID: 245979002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.170	0.170	0.0020	0.0066	14:15:22	No

2	0.151	0.151	0.0018	0.0064	14:15:57	No
Mean:	0.160	0.160	0.0019			
SD :	0.0131	0.0131	0.0001			
%RSD:	8.2	8.2	6.9997			

==========

Element: Hg Seq. No.: 132 AS Loc.: 92 Date: 02/18/2010
Sample ID: 245979003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0006	0.0052	14:17:20	No
2	0.022	0.022	0.0005	0.0051	14:17:54	No
Mean:	0.027	0.027	0.0006			
SD :	0.0063	0.0063	0.0001			
%RSD:	23.4	23.4	11.6164			

==========

Element: Hg Seq. No.: 133 AS Loc.: 93 Date: 02/18/2010
Sample ID: 245979004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0004	0.0050	14:19:13	No
2	-0.003	-0.003	0.0002	0.0048	14:19:48	No
Mean:	0.007	0.007	0.0003			
SD :	0.0140	0.0140	0.0001			
%RSD:	202.1	202.1	40.9006			

==========

Element: Hg Seq. No.: 134 AS Loc.: 94 Date: 02/18/2010
Sample ID: 245979005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.238	0.238	0.0027	0.0073	14:21:09	No
2	0.242	0.242	0.0027	0.0073	14:21:44	No
Mean:	0.240	0.240	0.0027			
SD :	0.0026	0.0026	0.0000			
%RSD:	1.1	1.1	0.9715			

==========

Element: Hg Seq. No.: 135 AS Loc.: 95 Date: 02/18/2010
Sample ID: 245979006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.064	0.064	0.0009	0.0055	14:23:04	No
2	0.045	0.045	0.0007	0.0053	14:23:39	No
Mean:	0.055	0.055	0.0008			
SD :	0.0130	0.0130	0.0001			
%RSD:	23.8	23.8	15.8757			

==========

Element: Hg Seq. No.: 136 AS Loc.: 96 Date: 02/18/2010
Sample ID: 245979007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0024	0.0070	14:24:59	No
2	0.202	0.202	0.0023	0.0069	14:25:34	No
Mean:	0.207	0.207	0.0024			
SD :	0.0074	0.0074	0.0001			
%RSD:	3.6	3.6	3.1601			

==========

Element: Hg Seq. No.: 137 AS Loc.: 97 Date: 02/18/2010

Sample ID: 245979008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0002	0.0044	14:26:55	No
2	-0.066	-0.066	-0.0004	0.0042	14:27:30	No
Mean:	-0.054	-0.054	-0.0003			
SD :	0.0172	0.0172	0.0002			
%RSD:	31.6	31.6	63.5355			

Element: Hg Seq. No.: 138 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.087	5.087	0.0519	0.0564	14:28:54	No
2	5.101	5.101	0.0520	0.0566	14:29:29	No
Mean:	5.094	5.094	0.0519			
SD :	0.0098	0.0098	0.0001			
%RSD:	0.2	0.2	0.1911			

QC value within specified limits.

Element: Hg Seq. No.: 139 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0007	0.0039	14:30:56	No
2	-0.088	-0.088	-0.0006	0.0039	14:31:32	No
Mean:	-0.091	-0.091	-0.0006			
SD :	0.0043	0.0043	0.0000			
%RSD:	4.7	4.7	6.7349			

QC value within specified limits.

Element: Hg Seq. No.: 140 AS Loc.: 98 Date: 02/18/2010
Sample ID: 245979009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0015	0.0060	14:32:57	No
2	0.081	0.081	0.0011	0.0057	14:33:32	No
Mean:	0.099	0.099	0.0013			
SD :	0.0257	0.0257	0.0003			
%RSD:	25.9	25.9	20.2774			

Element: Hg Seq. No.: 141 AS Loc.: 99 Date: 02/18/2010
Sample ID: 245979010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.036	0.036	0.0006	0.0052	14:34:54	No
2	0.039	0.039	0.0007	0.0052	14:35:28	No
Mean:	0.038	0.038	0.0007			
SD :	0.0024	0.0024	0.0000			
%RSD:	6.3	6.3	3.6823			

Element: Hg Seq. No.: 142 AS Loc.: 100 Date: 02/18/2010
Sample ID: 245979011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.080	-0.080	-0.0005	0.0040	14:36:50	No

2	-0.092	-0.092	-0.0007	0.0039	14:37:25	No
Mean:	-0.086	-0.086	-0.0006			
SD :	0.0087	0.0087	0.0001			
%RSD:	10.1	10.1	14.8098			

==========

Element: Hg Seq. No.: 143 AS Loc.: 101 Date: 02/18/2010
Sample ID: 245979012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.121	-0.121	-0.0010	0.0036	14:38:48	No
2	-0.130	-0.130	-0.0010	0.0035	14:39:23	No
Mean:	-0.125	-0.125	-0.0010			
SD :	0.0058	0.0058	0.0001			
%RSD:	4.7	4.7	5.9459			

==========

Element: Hg Seq. No.: 144 AS Loc.: 102 Date: 02/18/2010
Sample ID: 245979013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.173	0.173	0.0020	0.0066	14:40:46	No
2	0.151	0.151	0.0018	0.0064	14:41:21	No
Mean:	0.162	0.162	0.0019			
SD :	0.0154	0.0154	0.0002			
%RSD:	9.5	9.5	8.1041			

==========

Element: Hg Seq. No.: 145 AS Loc.: 103 Date: 02/18/2010
Sample ID: 245979014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.075	-0.075	-0.0005	0.0041	14:42:45	No
2	-0.078	-0.078	-0.0005	0.0040	14:43:20	No
Mean:	-0.077	-0.077	-0.0005			
SD :	0.0021	0.0021	0.0000			
%RSD:	2.8	2.8	4.3162			

==========

Element: Hg Seq. No.: 146 AS Loc.: 104 Date: 02/18/2010
Sample ID: 245979015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0007	0.0052	14:44:45	No
2	0.029	0.029	0.0006	0.0051	14:45:20	No
Mean:	0.033	0.033	0.0006			
SD :	0.0057	0.0057	0.0001			
%RSD:	17.3	17.3	9.4840			

==========

Element: Hg Seq. No.: 147 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.935	4.935	0.0503	0.0549	14:46:45	No
2	5.008	5.008	0.0511	0.0556	14:47:20	No
Mean:	4.971	4.971	0.0507			
SD :	0.0515	0.0515	0.0005			
%RSD:	1.0	1.0	1.0306			

QC value within specified limits.

==========

Element: Hg Seq. No.: 148 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0009	0.0036	14:48:48	No
2	-0.103	-0.103	-0.0008	0.0038	14:49:23	No
Mean:	-0.111	-0.111	-0.0008			
SD :	0.0110	0.0110	0.0001			
%RSD:	9.9	9.9	13.1689			

QC value within specified limits.

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948763

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032615	UI062540-I	.525	g
MS	1202032613	UI100120-01	.25	mL
MS	1202032613	UI100120-06	.25	mL
MSD	1202032614	UI100120-01	.25	mL
MSD	1202032614	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032610		SW846 3050B	10-FEB-2010 13:30	0.574 g	50 mL	87.10801	SOIL
LCS	1202032615		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245979001		SW846 3050B	10-FEB-2010 13:30	0.554 g	50 mL	90.25271	SOIL
DUP	1202032611	245979001	SW846 3050B	10-FEB-2010 13:30	0.534 g	50 mL	93.63296	SOIL
SDILT	1202032612	245979001	SW846 3050B	10-FEB-2010 13:30	0.554 g	50 mL	90.25271	SOIL
MS	1202032613	245979001	SW846 3050B	10-FEB-2010 13:30	0.537 g	50 mL	93.10987	SOIL
MSD	1202032614	245979001	SW846 3050B	10-FEB-2010 13:30	0.527 g	50 mL	94.87666	SOIL
SAMPLE	245979002		SW846 3050B	10-FEB-2010 13:30	0.542 g	50 mL	92.25092	SOIL
SAMPLE	245979003		SW846 3050B	10-FEB-2010 13:30	0.541 g	50 mL	92.42144	SOIL
SAMPLE	245979004		SW846 3050B	10-FEB-2010 13:30	0.567 g	50 mL	88.18342	SOIL
SAMPLE	245979005		SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245979006		SW846 3050B	10-FEB-2010 13:30	0.509 g	50 mL	98.23183	SOIL
SAMPLE	245979007		SW846 3050B	10-FEB-2010 13:30	0.534 g	50 mL	93.63296	SOIL
SAMPLE	245979008		SW846 3050B	10-FEB-2010 13:30	0.545 g	50 mL	91.74312	SOIL
SAMPLE	245979009		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245979010		SW846 3050B	10-FEB-2010 13:30	0.526 g	50 mL	95.05703	SOIL
SAMPLE	245979011		SW846 3050B	10-FEB-2010 13:30	0.556 g	50 mL	89.92806	SOIL
SAMPLE	245979012		SW846 3050B	10-FEB-2010 13:30	0.509 g	50 mL	98.23183	SOIL
SAMPLE	245979013		SW846 3050B	10-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245979014		SW846 3050B	10-FEB-2010 13:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245979015		SW846 3050B	10-FEB-2010 13:30	0.54 g	50 mL	92.59259	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1264396	1.25 mL	Nitric Acid CONC.

Comments Brown,clumpy soil.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948768

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032624	UI062540-MS	.52	g
MS	1202032622	UI091015-A	.5	mL
MS	1202032622	UI091015-B	.5	mL
MSD	1202032623	UI091015-A	.5	mL
MSD	1202032623	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032619		SW846 3050B	10-FEB-2010 13:30	0.553 g	50 mL	90.41591	SOIL
LCS	1202032624		SW846 3050B	10-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
SAMPLE	245979001		SW846 3050B	10-FEB-2010 13:30	0.539 g	50 mL	92.76438	SOIL
DUP	1202032620	245979001	SW846 3050B	10-FEB-2010 13:30	0.526 g	50 mL	95.05703	SOIL
SDILT	1202032621	245979001	SW846 3050B	10-FEB-2010 13:30	0.539 g	50 mL	92.76438	SOIL
MS	1202032622	245979001	SW846 3050B	10-FEB-2010 13:30	0.549 g	50 mL	91.07468	SOIL
MSD	1202032623	245979001	SW846 3050B	10-FEB-2010 13:30	0.532 g	50 mL	93.98496	SOIL
SAMPLE	245979002		SW846 3050B	10-FEB-2010 13:30	0.53 g	50 mL	94.33962	SOIL
SAMPLE	245979003		SW846 3050B	10-FEB-2010 13:30	0.518 g	50 mL	96.5251	SOIL
SAMPLE	245979004		SW846 3050B	10-FEB-2010 13:30	0.508 g	50 mL	98.4252	SOIL
SAMPLE	245979005		SW846 3050B	10-FEB-2010 13:30	0.512 g	50 mL	97.65625	SOIL
SAMPLE	245979006		SW846 3050B	10-FEB-2010 13:30	0.553 g	50 mL	90.41591	SOIL
SAMPLE	245979007		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245979008		SW846 3050B	10-FEB-2010 13:30	0.504 g	50 mL	99.20635	SOIL
SAMPLE	245979009		SW846 3050B	10-FEB-2010 13:30	0.512 g	50 mL	97.65625	SOIL
SAMPLE	245979010		SW846 3050B	10-FEB-2010 13:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245979011		SW846 3050B	10-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
SAMPLE	245979012		SW846 3050B	10-FEB-2010 13:30	0.564 g	50 mL	88.65248	SOIL
SAMPLE	245979013		SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245979014		SW846 3050B	10-FEB-2010 13:30	0.528 g	50 mL	94.69697	SOIL
SAMPLE	245979015		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1264396	5 mL	Nitric Acid CONC.

Comments Brown,clumpy,soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 951517

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202039199	UI031809A	.2	g
MS	1202039201	WHG100217-14	.3	mL
MSD	1202039207	WHG100217-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202039198		SW846 7471A Prep	17-FEB-2010 19:30	0.503 g	30 mL	59.64215	SOIL
LCS	1202039199		SW846 7471A Prep	17-FEB-2010 19:30	0.2 g	30 mL	150	SOIL
SAMPLE	245979001		SW846 7471A Prep	17-FEB-2010 19:30	0.502 g	30 mL	59.76096	SOIL
DUP	1202039200	245979001	SW846 7471A Prep	17-FEB-2010 19:30	0.574 g	30 mL	52.26481	SOIL
MS	1202039201	245979001	SW846 7471A Prep	17-FEB-2010 19:30	0.564 g	30 mL	53.19149	SOIL
MSD	1202039207	245979001	SW846 7471A Prep	17-FEB-2010 19:30	0.572 g	30 mL	52.44755	SOIL
SDILT	1202039206	245979001	SW846 7471A Prep	17-FEB-2010 19:30	0.502 g	30 mL	59.76096	SOIL
SAMPLE	245979002		SW846 7471A Prep	17-FEB-2010 19:30	0.503 g	30 mL	59.64215	SOIL
SAMPLE	245979003		SW846 7471A Prep	17-FEB-2010 19:30	0.515 g	30 mL	58.25243	SOIL
SAMPLE	245979004		SW846 7471A Prep	17-FEB-2010 19:30	0.599 g	30 mL	50.08347	SOIL
SAMPLE	245979005		SW846 7471A Prep	17-FEB-2010 19:30	0.513 g	30 mL	58.47953	SOIL
SAMPLE	245979006		SW846 7471A Prep	17-FEB-2010 19:30	0.585 g	30 mL	51.28205	SOIL
SAMPLE	245979007		SW846 7471A Prep	17-FEB-2010 19:30	0.515 g	30 mL	58.25243	SOIL
SAMPLE	245979008		SW846 7471A Prep	17-FEB-2010 19:30	0.5 g	30 mL	60	SOIL
SAMPLE	245979009		SW846 7471A Prep	17-FEB-2010 19:30	0.6 g	30 mL	50	SOIL
SAMPLE	245979010		SW846 7471A Prep	17-FEB-2010 19:30	0.561 g	30 mL	53.47594	SOIL
SAMPLE	245979011		SW846 7471A Prep	17-FEB-2010 19:30	0.565 g	30 mL	53.09735	SOIL
SAMPLE	245979012		SW846 7471A Prep	17-FEB-2010 19:30	0.58 g	30 mL	51.72414	SOIL
SAMPLE	245979013		SW846 7471A Prep	17-FEB-2010 19:30	0.569 g	30 mL	52.72408	SOIL
SAMPLE	245979014		SW846 7471A Prep	17-FEB-2010 19:30	0.577 g	30 mL	51.99307	SOIL
SAMPLE	245979015		SW846 7471A Prep	17-FEB-2010 19:30	0.55 g	30 mL	54.54545	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent
WHG100217-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100217-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100217-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100217-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100217-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100217-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments Sample 245979001 is a dry light brown soil.
Digestion Start Date: 17-FEB-10 19:30
Digestion End Date: 17-FEB-10 20:00

DER Report No.: 793840
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
21-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
948764	See Below		

Potentially affected work order(s)(SDG): 245979(10-1514)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:

1. Failed Recovery for MS/PS:

   QC 1202032613MS

2. Failed RPD for DUP:

   QC 1202032611DUP

3. Failed Recovery for MSD/PSD:

   QC 1202032614MSD

DER Disposition:

1. The matrix spike recovery failed outside of the control limits for calcium, potassium and magnesium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

2. The sample and sample duplicate % RPD failed outside the control limits for calcium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

3. The matrix spike duplicate recovery failed outside of the control limits for calcium and magnesium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jerry Wigfall 21-FEB-10

Data Validator/Group Leader:

Louise Smith 23-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
26-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
948769	See Below		

Potentially affected work order(s)(SDG): 245979(10-1514)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:

1. Failed Recovery for MS/PS:

   QC 1202032622MS

2. Failed RPD for DUP:

   QC 1202032620DUP

3. Failed RPD for MS/MSD, or PS/PSD:

   QC 1202032623MSD

4. Failed Recovery for MSD/PSD:

   QC 1202032623MSD

DER Disposition:

The matrix spike failed outside of the control limits for Se. The matrix spike duplicate failed outside of the control limits for Se and U. The matrix spike duplicate % RPD failed outside of the control limits for U. The sample and sample duplicate % RPD failed outside the control limits for Be and U. These failures were due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Paul Boyd 26-FEB-10

Data Validator/Group Leader:

Samantha Jacobs 27-FEB-10

Standard Logbook

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				

Description: Mercury Source Standard #1 1,000 mg/L

Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID:	UHG1167641-02	**Opened:**	13-AUG-09	**Amount :**	100 mL
Name:	MHGSTOCK2	**Received:**	13-AUG-09	**Catalog Number :**	AHG1KN-100
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	4905530
Employee:	Bryan Davis			**Solvent :**	3% HNO3
Supplier:	Ricca Chemical Company				

Description: Mercury Source Standard #2 1,000 mg/L

Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID:	UI031809A	**Opened:**	18-MAR-09	**Catalog Number :**	540
Name:	METALSOILSRM	**Received:**	18-MAR-09	**Lot Number :**	D061-540
Type:	Source Material	**Expires:**	10-OCT-10		
Employee:	Jamie Johnson				
Supplier:	ERA				

Description: Metals LCS Soil SRM

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Carnello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100217-49.2 **Opened:** 19-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 20-FEB-10 **Lot Number :** 1018879
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100217-49.3 **Opened:** 20-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 15-AUG-10 **Lot Number :** 1018879
Employee: Louise Smith **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100217-01 **Opened:** 17-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 17-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 18-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 18-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG100217-07 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100217-08 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100217-09 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100217-10 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100217-11 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100217-12 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-14 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100219-42 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100219-43 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100219-44 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100219-45 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100219-46 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100219-47 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100220-42 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100220-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100220-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100220-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100220-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100220-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100220-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100220-43 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100220-44 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100220-45 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100220-46 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100220-47 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100224-04B **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100225-04 **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100225-04A **Opened:** 25-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-05 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100225-06 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100225-07 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL

Standard Logbook

Description: ICPMS ICSAB

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-70 **Opened:** 25-FEB-10 **Balance Id :** 40245216

Name: ICPMS LINEAR RANGE ST **Received:** 25-FEB-10 **Pipet Id :** 1758088

Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768

Employee: Paul Boyd

Supplier: 02SI

Description: ICPMS LINEAR RANGE STANDARD

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Standard Logbook

Serial ID: 1270010 **Opened:** 15-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1514-1

Sample Analysis

Sample ID	Client ID
245981001	RE15-10-8083
1202032557	Method Blank (MB) **ICP**
1202032558	Laboratory Control Sample (LCS)
1202032561	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032559	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032560	246000001(RE15-10-8124S) Matrix Spike (MS)
1202032562	Method Blank (MB) **ICP-MS**
1202032563	Laboratory Control Sample (LCS)
1202032566	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032564	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032565	246000001(RE15-10-8124S) Matrix Spike (MS)
1202033203	Method Blank (MB) **CVAA**
1202033204	Laboratory Control Sample (LCS)
1202033207	246056001(RE15-10-8233L) Serial Dilution (SD)
1202033205	246056001(RE15-10-8233D) Sample Duplicate (DUP)
1202033206	246056001(RE15-10-8233S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch: 948737, 948740 and 949020

Prep Batch :	948730, 948739 and 949018
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 246000001 (RE15-10-8124) and 246056001 (RE15-10-8233).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of thallium, as indicated by the "N" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 797043. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1514-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245981001 **BASIS:** As Received **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8083 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 04:51	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:34	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 04:51	100224-2	948740
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:03	021110B-1	948737
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 20:03	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:34	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:03	021110B-1	948737
7439-96-5	Manganese	1	ug/L	J	1	5	5	1	MS	BAJ	02/25/10 15:34	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXLI	02/05/10 10:05	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-09-7	Potassium	194	ug/L		50	150	150	1	P	HSC	02/11/10 20:03	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-23-5	Sodium	103	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/28/10 14:36	100228-5	948740
7440-61-1	Uranium	0.640	ug/L		0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:27	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:03	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:03	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	4.96	ug/L	5	ug/L	99.1	90.0 – 110.0	AV	05-FEB-10 09:17	020510W1-6
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Arsenic	450	ug/L	500	ug/L	89.9	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Calcium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Cobalt	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Copper	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Nickel	485	ug/L	500	ug/L	97	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Potassium	2410	ug/L	2500	ug/L	96.3	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Selenium	2440	ug/L	2500	ug/L	97.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Silver	253	ug/L	250	ug/L	101.2	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Sodium	2390	ug/L	2500	ug/L	95.6	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	25-FEB-10 01:03	100224-2
	Cadmium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	25-FEB-10 01:03	100224-2
	Beryllium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	25-FEB-10 14:19	100225-3
	Lead	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	25-FEB-10 14:19	100225-3
	Manganese	54.5	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	25-FEB-10 14:19	100225-3
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25-FEB-10 16:01	100225-4
	Thallium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	28-FEB-10 11:42	100228-5
CCV01										
	Mercury	4.99	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	05-FEB-10 09:22	020510W1-6
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Arsenic	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Calcium	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Magnesium	5010	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Nickel	485	ug/L	500	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Selenium	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Silver	485	ug/L	500	ug/L	97	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Antimony	51.3	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	25-FEB-10 01:33	100224-2
	Cadmium	50.8	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	25-FEB-10 01:33	100224-2
	Beryllium	53.6	ug/L	50	ug/L	107.1	90.0 - 110.0	MS	25-FEB-10 14:32	100225-3
	Lead	54.1	ug/L	50	ug/L	108.2	90.0 - 110.0	MS	25-FEB-10 14:32	100225-3
	Manganese	54.4	ug/L	50	ug/L	108.9	90.0 - 110.0	MS	25-FEB-10 14:32	100225-3
	Uranium	51.8	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	25-FEB-10 16:10	100225-4
	Thallium	54	ug/L	50	ug/L	108	90.0 - 110.0	MS	28-FEB-10 11:57	100228-5
CCV02										
	Mercury	4.93	ug/L	5	ug/L	98.5	80.0 - 120.0	AV	05-FEB-10 09:45	020510W1-6
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Arsenic	521	ug/L	500	ug/L	104.2	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Calcium	5160	ug/L	5000	ug/L	103.3	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Chromium	513	ug/L	500	ug/L	102.6	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Cobalt	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Copper	513	ug/L	500	ug/L	102.7	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Magnesium	5300	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1514–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Selenium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Silver	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Vanadium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Zinc	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Antimony	54	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	25–FEB–10 01:52	100224–2
	Cadmium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	25–FEB–10 01:52	100224–2
	Beryllium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	25–FEB–10 14:56	100225–3
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	25–FEB–10 14:56	100225–3
	Manganese	55.1	ug/L	50	ug/L	110.2	90.0 – 110.0	MS	25–FEB–10 14:56	100225–3
	Uranium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	25–FEB–10 16:24	100225–4
	Thallium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	28–FEB–10 12:20	100228–5
CCV03										
	Mercury	5.05	ug/L	5	ug/L	101	80.0 – 120.0	AV	05–FEB–10 10:08	020510W1–6
	Aluminum	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Arsenic	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Barium	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Chromium	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Copper	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Nickel	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Selenium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Silver	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Sodium	9790	ug/L	10000	ug/L	98	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Zinc	466	ug/L	500	ug/L	93.2	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Antimony	51.2	ug/L	50	ug/L	102.4	90.0 - 110.0	MS	25-FEB-10 03:06	100224-2
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	25-FEB-10 03:06	100224-2
	Beryllium	54.2	ug/L	50	ug/L	108.4	90.0 - 110.0	MS	25-FEB-10 15:23	100225-3
	Lead	54.4	ug/L	50	ug/L	108.8	90.0 - 110.0	MS	25-FEB-10 15:23	100225-3
	Manganese	54.4	ug/L	50	ug/L	108.8	90.0 - 110.0	MS	25-FEB-10 15:23	100225-3
	Uranium	50.3	ug/L	50	ug/L	100.6	90.0 - 110.0	MS	25-FEB-10 16:36	100225-4
	Thallium	53.7	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	28-FEB-10 12:42	100228-5
CCV04										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 - 120.0	AV	05-FEB-10 10:32	020510W1-6
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Arsenic	462	ug/L	500	ug/L	92.4	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Barium	460	ug/L	500	ug/L	92.1	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Chromium	459	ug/L	500	ug/L	91.9	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Cobalt	462	ug/L	500	ug/L	92.3	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Copper	455	ug/L	500	ug/L	91.1	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Iron	4820	ug/L	5000	ug/L	96.5	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Nickel	461	ug/L	500	ug/L	92.1	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Selenium	461	ug/L	500	ug/L	92.2	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Silver	465	ug/L	500	ug/L	93	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Vanadium	462	ug/L	500	ug/L	92.4	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 - 110.0	P	11-FEB-10 16:37	021110B-1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	25-FEB-10 04:01	100224-2
	Cadmium	50.5	ug/L	50	ug/L	101	90.0 - 110.0	MS	25-FEB-10 04:01	100224-2
	Beryllium	51.7	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	25-FEB-10 15:50	100225-3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1514–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Manganese	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Thallium	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	28–FEB–10 13:06	100228–5
CCV05										
	Aluminum	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Calcium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Copper	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Magnesium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Nickel	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Potassium	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Selenium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Zinc	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Cadmium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Thallium	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	28–FEB–10 13:29	100228–5
CCV06										
	Aluminum	4740	ug/L	5000	ug/L	94.8	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Arsenic	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Barium	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Chromium	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Cobalt	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	467	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Nickel	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Potassium	4740	ug/L	5000	ug/L	94.7	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Selenium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Sodium	9440	ug/L	10000	ug/L	94.4	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Vanadium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Zinc	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Antimony	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	25-FEB-10 05:34	100224-2
	Cadmium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	25-FEB-10 05:34	100224-2
	Thallium	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	28-FEB-10 13:51	100228-5
CCV07										
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Arsenic	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Barium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Calcium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Chromium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Nickel	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Potassium	4790	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Selenium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Sodium	9540	ug/L	10000	ug/L	95.4	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	52	ug/L	50	ug/L	104	90.0 - 110.0	MS	28-FEB-10 14:10	100228-5
CCV08										
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Arsenic	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Barium	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Nickel	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Potassium	5010	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Selenium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Silver	495	ug/L	500	ug/L	99	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	28-FEB-10 14:39	100228-5
CCV09										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Arsenic	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Calcium	4970	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Nickel	495	ug/L	500	ug/L	98.9	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Selenium	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Silver	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Zinc	490	ug/L	500	ug/L	98	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Thallium	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	28-FEB-10 14:58	100228-5
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Arsenic	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Calcium	4850	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Cobalt	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Nickel	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Selenium	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Silver	490	ug/L	500	ug/L	98	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
CCV11										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Arsenic	470	ug/L	500	ug/L	94	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Barium	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Chromium	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Copper	472	ug/L	500	ug/L	94.3	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Magnesium	4910	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Nickel	472	ug/L	500	ug/L	94.5	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Potassium	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Selenium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Silver	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Vanadium	475	ug/L	500	ug/L	94.9	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Zinc	470	ug/L	500	ug/L	93.9	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.191	ug/L	.2	ug/L	95.5	70.0 – 130.0	AV	05-FEB-10 09:20	020510W1-6
	Antimony	3.37	ug/L	3	ug/L	112.3	70.0 – 130.0	MS	25-FEB-10 01:15	100224-2
	Cadmium	1.11	ug/L	1	ug/L	111.1	70.0 – 130.0	MS	25-FEB-10 01:15	100224-2
	Lead	2.55	ug/L	2	ug/L	127.6	70.0 – 130.0	MS	25-FEB-10 14:24	100225-3
	Beryllium	.557	ug/L	.5	ug/L	111.4	70.0 – 130.0	MS	25-FEB-10 14:24	100225-3
	Manganese	6.28	ug/L	5	ug/L	125.5	70.0 – 130.0	MS	25-FEB-10 14:24	100225-3
	Uranium	.244	ug/L	.2	ug/L	122	70.0 – 130.0	MS	25-FEB-10 16:05	100225-4
	Thallium	1.27	ug/L	1	ug/L	126.6	70.0 – 130.0	MS	28-FEB-10 11:48	100228-5
PQL01										
	Zinc	9.38	ug/L	10	ug/L	93.8	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Copper	9.86	ug/L	10	ug/L	98.6	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Cobalt	4.65	ug/L	5	ug/L	93.1	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Chromium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Barium	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Arsenic	28.6	ug/L	30	ug/L	95.5	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Sodium	294	ug/L	300	ug/L	98	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Silver	5.04	ug/L	5	ug/L	100.7	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Potassium	185	ug/L	150	ug/L	123.1	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Calcium	200	ug/L	200	ug/L	100	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Aluminum	201	ug/L	200	ug/L	100.5	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Iron	119	ug/L	100	ug/L	118.9	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Nickel	4.56	ug/L	5	ug/L	91.2	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Magnesium	304	ug/L	300	ug/L	101.5	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Vanadium	5.04	ug/L	5	ug/L	100.9	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Selenium	28.7	ug/L	30	ug/L	95.7	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 09:18	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 14:30	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 14:30	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 14:30	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 14:30	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 14:30	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 14:30	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 14:30	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 01:09	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 01:09	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 14:22	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 14:22	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 14:22	100225-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	25-FEB-10 16:03	100225-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 11:45	100228-5
CCB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 09:24	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 14:53	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 14:53	021110B-1
	Chromium	1.23	+/-5	J	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Iron	39.3	+/-100	J	30.0	100	LIQ	P	11-FEB-10 14:53	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 14:53	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Potassium	77.71	+/-150	J	50.0	150	LIQ	P	11-FEB-10 14:53	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 14:53	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 01:40	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 01:40	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 14:34	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 14:34	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 14:34	100225-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	25-FEB-10 16:12	100225-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 12:01	100228-5
CCB02										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 09:47	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 15:19	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 15:19	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 15:19	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 15:19	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Potassium	56.33	+/-150	J	50.0	150	LIQ	P	11-FEB-10 15:19	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 15:19	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 01:58	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 01:58	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 14:59	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 14:59	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 14:59	100225-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	25-FEB-10 16:25	100225-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 12:23	100228-5
CCB03										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 10:10	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 16:01	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 16:01	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 16:01	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 16:01	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 16:01	021110B-1
	Selenium	-5.29	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Sodium	186.28	+/-300	J	100	300	LIQ	P	11-FEB-10 16:01	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 03:12	100224-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 03:12	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 15:26	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 15:26	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 15:26	100225-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	25-FEB-10 16:37	100225-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 12:45	100228-5
CCB04										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 10:34	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 16:41	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 16:41	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 16:41	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 16:41	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 16:41	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Sodium	121.62	+/-300	J	100	300	LIQ	P	11-FEB-10 16:41	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 04:07	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 04:07	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 15:52	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 15:52	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 15:52	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 13:09	100228-5

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 17:02	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 17:02	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 17:02	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 17:02	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 17:02	021110B-1
	Selenium	-6.0	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 17:02	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 05:03	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 05:03	100224-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 13:32	100228-5
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 17:31	021110B-1
	Arsenic	-8.04	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 17:31	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 17:31	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 17:31	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 17:31	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 17:31	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 05:40	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 05:40	100224-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 13:54	100228-5
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 18:07	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 18:07	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 18:07	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 18:07	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 18:07	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 18:07	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Thallium	0.304	+/-1	J	0.3	1.0	LIQ	MS	28-FEB-10 14:13	100228-5
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 18:36	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 18:36	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 18:36	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 18:36	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 18:36	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 18:36	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 14:42	100228-5
CCB09										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 19:16	021110B-1
	Arsenic	-6.17	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 19:16	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 19:16	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 19:16	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 19:16	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 19:16	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Thallium	0.778	+/-1	J	0.3	1.0	LIQ	MS	28-FEB-10 15:01	100228-5

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 19:45	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 19:45	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 19:45	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 19:45	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 19:45	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 19:45	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 19:45	021110B-1
CCB11										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 20:10	021110B-1
	Arsenic	-6.48	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 20:10	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 20:10	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 20:10	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 20:10	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 20:10	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1514-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 20:10	021110B-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1514–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032557								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Barium	1	ug/L	+/–5	U	P	1	5
	Chromium	1	ug/L	+/–5	U	P	1	5
	Iron	30	ug/L	+/–100	U	P	30	100
	Copper	3	ug/L	+/–10	U	P	3	10
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Silver	1	ug/L	+/–5	U	P	1	5
	Selenium	5	ug/L	+/–30	U	P	5	30
	Potassium	50	ug/L	+/–150	U	P	50	150
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
1202032562								
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202033203								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Arsenic	-47.9	ug/L					11-FEB-10 14:37	021110B-1
	Barium	7.7	ug/L					11-FEB-10 14:37	021110B-1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Chromium	-0.331	ug/L					11-FEB-10 14:37	021110B-1
	Cobalt	1.88	ug/L					11-FEB-10 14:37	021110B-1
	Copper	-2.75	ug/L					11-FEB-10 14:37	021110B-1
	Iron	180000	ug/L	200000	ug/L	90.2	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Magnesium	469000	ug/L	500000	ug/L	93.8	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Nickel	-5.64	ug/L					11-FEB-10 14:37	021110B-1
	Potassium	-12.0	ug/L					11-FEB-10 14:37	021110B-1
	Selenium	-29.8	ug/L					11-FEB-10 14:37	021110B-1
	Silver	-8.02	ug/L					11-FEB-10 14:37	021110B-1
	Sodium	25.0	ug/L					11-FEB-10 14:37	021110B-1
	Vanadium	0.707	ug/L					11-FEB-10 14:37	021110B-1
	Zinc	-9.27	ug/L					11-FEB-10 14:37	021110B-1
ICSAB01									
	Aluminum	493000	ug/L	500000	ug/L	98.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Arsenic	460	ug/L	500	ug/L	92	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Barium	479	ug/L	500	ug/L	95.8	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Calcium	467000	ug/L	500000	ug/L	93.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Chromium	467	ug/L	500	ug/L	93.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Cobalt	417	ug/L	500	ug/L	83.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Copper	516	ug/L	500	ug/L	103	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Iron	181000	ug/L	200000	ug/L	90.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Magnesium	472000	ug/L	500000	ug/L	94.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Nickel	412	ug/L	500	ug/L	82.4	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Potassium	4870	ug/L	5000	ug/L	97.4	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Selenium	2240	ug/L	2500	ug/L	89.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1

METALS
–4–
Interference Check Sample

SDG No: 10–1514–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	244	ug/L	250	ug/L	97.7	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Sodium	4900	ug/L	5000	ug/L	98.1	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Vanadium	496	ug/L	500	ug/L	99.1	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Zinc	442	ug/L	500	ug/L	88.4	80.0 – 120.0	11–FEB–10 14:40	021110B–1

METALS
-4-
Interference Check Sample

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.383	ug/L					25-FEB-10 01:21	100224-2
	Cadmium	0.506	ug/L					25-FEB-10 01:21	100224-2
ICSAB01									
	Antimony	21.2	ug/L	20	ug/L	106	80.0 - 120.0	25-FEB-10 01:27	100224-2
	Cadmium	19.9	ug/L	20.44	ug/L	97.4	80.0 - 120.0	25-FEB-10 01:27	100224-2

METALS
-4-
Interference Check Sample

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.089	ug/L					25-FEB-10 14:27	100225-3
	Lead	0.239	ug/L					25-FEB-10 14:27	100225-3
	Manganese	6.37	ug/L					25-FEB-10 14:27	100225-3
ICSAB01									
	Beryllium	19.8	ug/L	20	ug/L	98.9	80.0 - 120.0	25-FEB-10 14:29	100225-3
	Lead	22.0	ug/L	20.19	ug/L	109	80.0 - 120.0	25-FEB-10 14:29	100225-3
	Manganese	28.5	ug/L	25.8	ug/L	110	80.0 - 120.0	25-FEB-10 14:29	100225-3

METALS
-4-
Interference Check Sample

SDG No: 10-1514-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	-0.001	ug/L					25-FEB-10 16:07	100225-4
ICSAB01									
	Uranium	23.4	ug/L	20	ug/L	117	80.0 - 120.0	25-FEB-10 16:08	100225-4

METALS
–4–
Interference Check Sample

SDG No: 10–1514–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.013	ug/L					28–FEB–10 11:51	100228–5
ICSAB01									
	Thallium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	28–FEB–10 11:54	100228–5

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1514-1 **Client ID** RE15-10-8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032560

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	4880		68	U	5000	97.2		P
Arsenic	ug/L	75-125	488		5	U	500	97.5		P
Barium	ug/L	75-125	489		1	U	500	97.7		P
Calcium	ug/L	75-125	4830		59.5	J	5000	95.3		P
Chromium	ug/L	75-125	487		1.31	J	500	97.2		P
Cobalt	ug/L	75-125	479		1	U	500	95.8		P
Copper	ug/L	75-125	490		3	U	500	97.9		P
Iron	ug/L	75-125	4890		34.7	J	5000	97.1		P
Magnesium	ug/L	75-125	4910		85	U	5000	97.7		P
Nickel	ug/L	75-125	489		1.5	U	500	97.9		P
Potassium	ug/L	75-125	5000		181		5000	96.3		P
Selenium	ug/L	75-125	470		5	U	500	94.1		P
Silver	ug/L	75-125	483		1	U	500	96.5		P
Sodium	ug/L	75-125	5010		200	J	5000	96.3		P
Vanadium	ug/L	75-125	493		1	U	500	98.5		P
Zinc	ug/L	75-125	475		3.3	U	500	94.6		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1514–1 **Client ID** RE15–10–8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032565

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	196		1	U	200	98		MS
Beryllium	ug/L	75–125	47.7		0.1	U	50	95.3		MS
Cadmium	ug/L	75–125	10.3		0.11	U	10	102		MS
Lead	ug/L	75–125	42.2		0.5	U	40	105		MS
Manganese	ug/L	75–125	48.9		1	U	50	96.6		MS
Thallium	ug/L	75–125	75		0.3	U	100	74.9	N	MS
Uranium	ug/L	75–125	49.5		0.05	U	50	98.9		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1514-1 **Client ID** RE15-10-8233S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246056001 **Spike ID:** 1202033206

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	1.5		0.066	U	2	75		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1514–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8124D

Sample ID: 246000001 **Duplicate ID:** 1202032559 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L	+/–200	59.5	J	52.6	J	12.4		P
Chromium	ug/L		1.31	J	1	U	200		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		34.7	J	30	U	200		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L	+/–150	181		193		6.09		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	200	J	180	J	10.5		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1514–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8124D

Sample ID: 246000001 **Duplicate ID:** 1202032564 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1514–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8233D

Sample ID: 246056001 **Duplicate ID:** 1202033205 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1514-1

Contract: LANL01004

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032558								
	Copper	ug/L	500	486		97.1	80-120	P
	Iron	ug/L	5000	4930		98.6	80-120	P
	Magnesium	ug/L	5000	4960		99.3	80-120	P
	Nickel	ug/L	500	487		97.4	80-120	P
	Potassium	ug/L	5000	4890		97.9	80-120	P
	Selenium	ug/L	500	481		96.3	80-120	P
	Silver	ug/L	500	481		96.2	80-120	P
	Sodium	ug/L	5000	4940		98.8	80-120	P
	Vanadium	ug/L	500	489		97.8	80-120	P
	Zinc	ug/L	500	474		94.8	80-120	P
	Aluminum	ug/L	5000	4910		98.1	80-120	P
	Arsenic	ug/L	500	487		97.4	80-120	P
	Barium	ug/L	500	486		97.2	80-120	P
	Calcium	ug/L	5000	4880		97.6	80-120	P
	Chromium	ug/L	500	484		96.7	80-120	P
	Cobalt	ug/L	500	475		95.1	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1514-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032563								
	Antimony	ug/L	50	52.3		105	80-120	MS
	Beryllium	ug/L	50	49.6		99.3	80-120	MS
	Cadmium	ug/L	50	48.6		97.1	80-120	MS
	Lead	ug/L	50	52.8		106	80-120	MS
	Manganese	ug/L	50	50.1		100	80-120	MS
	Thallium	ug/L	50	52.3		105	80-120	MS
	Uranium	ug/L	50	50.6		101	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1514-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033204								
	Mercury	ug/L	2	2.01		100	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1514-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032561

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	59.5	J	250	U	100			P
Chromium	1.31	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	34.7	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	181		267	J	47.5			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	200	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1514-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032566

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1	U	5	U				MS
Thallium	.3	U	8.35					MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1514-1 **Client ID** RE15-10-8233L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246056001 **Serial Dilution ID:** 1202033207

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948730							
1202032557	MB for batch 948730	MB	W	10-FEB-10	50mL	50mL	
1202032558	LCS for batch 948730	LCS	W	10-FEB-10	50mL	50mL	
1202032560	RE15-10-8124S	MS	W	10-FEB-10	50mL	50mL	
1202032559	RE15-10-8124D	DUP	W	10-FEB-10	50mL	50mL	
245981001	RE15-10-8083	SAMPLE	W	10-FEB-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948739							
1202032562	MB for batch 948739	MB	W	10-FEB-10	50mL	50mL	
1202032563	LCS for batch 948739	LCS	W	10-FEB-10	50mL	50mL	
1202032565	RE15-10-8124S	MS	W	10-FEB-10	50mL	50mL	
1202032564	RE15-10-8124D	DUP	W	10-FEB-10	50mL	50mL	
245981001	RE15-10-8083	SAMPLE	W	10-FEB-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1514-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949018						
1202033203	MB for batch 949018	MB	W	04-FEB-10	20mL	20mL	
1202033204	LCS for batch 949018	LCS	W	04-FEB-10	20mL	20mL	
1202033206	RE15-10-8233S	MS	W	04-FEB-10	20mL	20mL	
1202033205	RE15-10-8233D	DUP	W	04-FEB-10	20mL	20mL	
245981001	RE15-10-8083	SAMPLE	W	04-FEB-10	20mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25-FEB-10 **End Date:** 25-FEB-10

Client Sdg: 10-1514-1
Method MS
Data File: 100224-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:45		X				X																		
S10	1	00:51		X				X																		
S100	1	00:57		X				X																		
ICV01	1	01:03		X				X																		
ICB01	1	01:09		X				X																		
CRDL01	1	01:15		X				X																		
ICSA01	1	01:21		X				X																		
ICSAB01	1	01:27		X				X																		
CCV01	1	01:33		X				X																		
CCB01	1	01:40		X				X																		
LR01	1	01:46		X				X																		
CCV02	1	01:52		X				X																		
CCB02	1	01:58		X				X																		
ZZZZZZ	1	02:04																								
ZZZZZZ	1	02:10																								
ZZZZZZ	1	02:16																								
ZZZZZZ	1	02:23																								
ZZZZZZ	1	02:29																								
ZZZZZZ	1	02:35																								
ZZZZZZ	1	02:41																								
ZZZZZZ	1	02:47																								
ZZZZZZ	1	02:54																								
ZZZZZZ	1	03:00																								
CCV03	1	03:06		X				X																		
CCB03	1	03:12		X				X																		
ZZZZZZ	1	03:18																								
ZZZZZZ	1	03:24																								
ZZZZZZ	1	03:31																								
ZZZZZZ	1	03:37																								
ZZZZZZ	1	03:43																								
ZZZZZZ	1	03:49																								
ZZZZZZ	5	03:55																								
CCV04	1	04:01		X				X																		
CCB04	1	04:07		X				X																		
1202032562	1	04:14		X				X																		
1202032563	1	04:20		X				X																		
ZZZZZZ	1	04:26																								
ZZZZZZ	1	04:32																								
ZZZZZZ	1	04:38																								
ZZZZZZ	1	04:45																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
245981001	1	04:51		X				X																	
CCV05	1	04:57		X				X																	
CCB05	1	05:03		X				X																	
ZZZZZZ	1	05:09																							
1202032564	1	05:15		X				X																	
1202032565	1	05:22		X				X																	
1202032566	5	05:28		X				X																	
CCV06	1	05:34		X				X																	
CCB06	1	05:40		X				X																	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1514–1
Method MS
Data File: 100225–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:12					X							X		X										
S10	1	14:14					X							X		X										
S100	1	14:17					X							X		X										
ICV01	1	14:19					X							X		X										
ICB01	1	14:22					X							X		X										
CRDL01	1	14:24					X							X		X										
ICSA01	1	14:27					X							X		X										
ICSAB01	1	14:29					X							X		X										
CCV01	1	14:32					X							X		X										
CCB01	1	14:34					X							X		X										
ZZZZZZ	1	14:37																								
ZZZZZZ	1	14:40																								
ZZZZZZ	1	14:42																								
ZZZZZZ	1	14:46																								
ZZZZZZ	1	14:49																								
ZZZZZZ	1	14:51																								
ZZZZZZ	5	14:54																								
CCV02	1	14:56					X							X		X										
CCB02	1	14:59					X							X		X										
ZZZZZZ	1	15:02																								
ZZZZZZ	1	15:04																								
ZZZZZZ	1	15:07																								
ZZZZZZ	1	15:10																								
1202032562	1	15:13					X							X		X										
1202032563	1	15:15					X							X		X										
ZZZZZZ	1	15:18																								
ZZZZZZ	1	15:21																								
CCV03	1	15:23					X							X		X										
CCB03	1	15:26					X							X		X										
ZZZZZZ	1	15:28																								
ZZZZZZ	1	15:31																								
245981001	1	15:34					X							X		X										
ZZZZZZ	1	15:37																								
1202032564	1	15:39					X							X		X										
1202032565	1	15:42					X							X		X										
1202032566	5	15:44					X							X		X										
ZZZZZZ	5	15:47																								
CCV04	1	15:50					X							X		X										
CCB04	1	15:52					X							X		X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1514–1
Method MS
Data File: 100225–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:57																						X		
S10	1	15:58																						X		
S100	1	16:00																						X		
ICV01	1	16:01																						X		
ICB01	1	16:03																						X		
CRDL01	1	16:05																						X		
ICSA01	1	16:07																						X		
ICSAB01	1	16:08																						X		
CCV01	1	16:10																						X		
CCB01	1	16:12																						X		
1202032562	1	16:13																						X		
1202032563	1	16:15																						X		
ZZZZZZ	1	16:17																								
ZZZZZZ	1	16:18																								
ZZZZZZ	1	16:20																								
ZZZZZZ	1	16:22																								
CCV02	1	16:24																						X		
CCB02	1	16:25																						X		
245981001	1	16:27																						X		
ZZZZZZ	1	16:29																								
1202032564	1	16:30																						X		
1202032565	1	16:32																						X		
1202032566	5	16:34																						X		
CCV03	1	16:36																						X		
CCB03	1	16:37																						X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 28-FEB-10 **End Date:** 28-FEB-10

Client Sdg: 10-1514-1
Method MS
Data File: 100228-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:32																					X			
S10	1	11:35																					X			
S100	1	11:38																					X			
ICV01	1	11:42																					X			
ICB01	1	11:45																					X			
CRDL01	1	11:48																					X			
ICSA01	1	11:51																					X			
ICSAB01	1	11:54																					X			
CCV01	1	11:57																					X			
CCB01	1	12:01																					X			
ZZZZZZ	1	12:04																								
ZZZZZZ	1	12:07																								
ZZZZZZ	1	12:10																								
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:16																								
CCV02	1	12:20																					X			
CCB02	1	12:23																					X			
ZZZZZZ	1	12:26																								
ZZZZZZ	1	12:29																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:36																								
ZZZZZZ	5	12:39																								
CCV03	1	12:42																					X			
CCB03	1	12:45																					X			
ZZZZZZ	1	12:50																								
ZZZZZZ	1	12:53																								
ZZZZZZ	1	12:57																								
ZZZZZZ	1	13:00																								
ZZZZZZ	1	13:03																								
CCV04	1	13:06																					X			
CCB04	1	13:09																					X			
ZZZZZZ	1	13:13																								
ZZZZZZ	1	13:16																								
ZZZZZZ	1	13:19																								
ZZZZZZ	5	13:22																								
ZZZZZZ	1	13:25																								
CCV05	1	13:29																					X			
CCB05	1	13:32																					X			
ZZZZZZ	1	13:35																								
ZZZZZZ	1	13:38																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	13:41																								
ZZZZZZ	1	13:45																								
ZZZZZZ	1	13:48																								
CCV06	1	13:51																				X				
CCB06	1	13:54																				X				
ZZZZZZ	1	13:57																								
ZZZZZZ	1	14:01																								
ZZZZZZ	1	14:04																								
ZZZZZZ	5	14:07																								
CCV07	1	14:10																				X				
CCB07	1	14:13																				X				
1202032562	1	14:17																				X				
1202032563	1	14:20																				X				
ZZZZZZ	1	14:23																								
ZZZZZZ	1	14:26																								
ZZZZZZ	1	14:30																								
ZZZZZZ	1	14:33																								
245981001	1	14:36																				X				
CCV08	1	14:39																				X				
CCB08	1	14:42																				X				
ZZZZZZ	1	14:46																								
1202032564	1	14:49																				X				
1202032565	1	14:52																				X				
1202032566	5	14:55																				X				
CCV09	1	14:58																				X				
CCB09	1	15:01																				X				

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 05–FEB–10 **End Date:** 05–FEB–10

Client Sdg: 10–1514–1
Method AV
Data File: 020510W1–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:05															X									
S0.2	1	09:07															X									
S0.5	1	09:09															X									
S2.0	1	09:11															X									
S5.0	1	09:13															X									
S10.0	1	09:15															X									
ICV01	1	09:17															X									
ICB01	1	09:18															X									
CRDL01	1	09:20															X									
CCV01	1	09:22															X									
CCB01	1	09:24															X									
ZZZZZZ	1	09:26																								
ZZZZZZ	1	09:28																								
ZZZZZZ	1	09:30																								
ZZZZZZ	1	09:32																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:40																								
ZZZZZZ	5	09:42																								
1202033203	1	09:43															X									
CCV02	1	09:45															X									
CCB02	1	09:47															X									
1202033204	1	09:49															X									
ZZZZZZ	1	09:51																								
ZZZZZZ	1	09:53																								
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:57																								
ZZZZZZ	1	09:59																								
ZZZZZZ	1	10:01																								
ZZZZZZ	1	10:03																								
245981001	1	10:05															X									
ZZZZZZ	1	10:07																								
CCV03	1	10:08															X									
CCB03	1	10:10															X									
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
1202033205	1	10:16															X									
1202033206	1	10:18															X									
1202033207	5	10:20															X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	10:22																								
ZZZZZZ	1	10:24																								
ZZZZZZ	1	10:26																								
ZZZZZZ	1	10:28																								
ZZZZZZ	1	10:30																								
CCV04	1	10:32														X										
CCB04	1	10:34														X										

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 11-FEB-10 **End Date:** 11-FEB-10

Client Sdg: 10-1514-1
Method P
Data File: 021110B-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	14:14			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	14:17	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	14:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	14:24	X						X				X		X							X				
ICV01	1	14:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	14:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	14:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	14:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	14:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	14:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	14:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	14:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	14:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	15:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR04	1	15:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	15:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	15:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:23																								
ZZZZZZ	1	15:26																								
ZZZZZZ	1	15:30																								
ZZZZZZ	1	15:34																								
ZZZZZZ	1	15:38																								
ZZZZZZ	5	15:42																								
ZZZZZZ	1	15:45																								
ZZZZZZ	1	15:49																								
ZZZZZZ	1	15:53																								
CCV03	1	15:57	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	16:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	16:04																								
ZZZZZZ	1	16:08																								
ZZZZZZ	1	16:12																								
ZZZZZZ	1	16:16																								
ZZZZZZ	1	16:20																								
ZZZZZZ	1	16:24																								
ZZZZZZ	1	16:28																								
ZZZZZZ	1	16:31																								
ZZZZZZ	1	16:34																								
CCV04	1	16:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	16:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCV05	1	16:58	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB05	1	17:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:06																								
ZZZZZZ	1	17:09																								
ZZZZZZ	1	17:13																								
ZZZZZZ	1	17:16																								
ZZZZZZ	1	17:20																								
ZZZZZZ	5	17:24																								
CCV06	1	17:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB06	1	17:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:35																								
ZZZZZZ	1	17:38																								
ZZZZZZ	1	17:42																								
ZZZZZZ	1	17:45																								
ZZZZZZ	1	17:49																								
ZZZZZZ	1	17:53																								
ZZZZZZ	1	17:56																								
ZZZZZZ	1	18:00																								
CCV07	1	18:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB07	1	18:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:11																								
ZZZZZZ	1	18:14																								
ZZZZZZ	1	18:18																								
ZZZZZZ	1	18:21																								
ZZZZZZ	1	18:25																								
ZZZZZZ	5	18:29																								
CCV08	1	18:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB08	1	18:36	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:40																								
ZZZZZZ	1	18:43																								
ZZZZZZ	1	18:47																								
ZZZZZZ	1	18:50																								
ZZZZZZ	1	18:54																								
ZZZZZZ	1	18:58																								
ZZZZZZ	1	19:01																								
ZZZZZZ	1	19:05																								
ZZZZZZ	1	19:08																								
CCV09	1	19:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB09	1	19:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032557	1	19:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
1202032558	1	19:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:27																								
1202032559	1	19:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032560	1	19:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032561	5	19:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV10	1	19:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB10	1	19:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:48																								
ZZZZZZ	1	19:52																								
ZZZZZZ	1	19:55																								
ZZZZZZ	1	19:59																								
245981001	1	20:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV11	1	20:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB11	1	20:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1514-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1514-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1514-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LAN1.01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1514-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1514-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1514-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10

Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

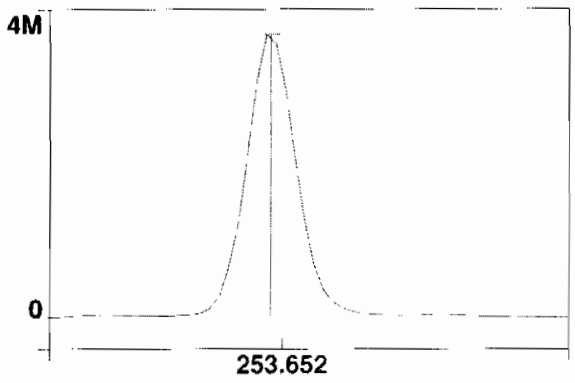

Intensity: 3672376.8 cps
Conc:

1

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Analysis Begun

Start Time: 2/11/2010 14:10:46 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/11/2010 14:10:48**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54739.4	54739.4	100	%	14:11:23
1	Al 396.153Radial†	-13.9	-13.8	[0.00]	µg/L	14:11:23
1	Ca 317.933Radial†	181.9	181.3	[0.00]	µg/L	14:11:43
1	Fe 238.204 Radial†	15.3	15.3	[0.00]	µg/L	14:11:43
1	K 766.490 Radial†	133.4	133.0	[0.00]	µg/L	14:11:23
1	Mg 279.077 IEC†	7.8	7.8	[0.00]	µg/L	14:11:43
1	Na 589.592 Radial†	544.1	542.5	[0.00]	µg/L	14:11:23
1	Sr 421.552†	47.1	46.9	[0.00]	µg/L	14:11:23
1	Sc 361.383	1911885.3	1911885.3	100.11	%	14:12:45
1	Y 371.029	1310700.1	1310700.1	100.06	%	14:12:45
1	Ag 328.068†	-547.3	-546.7	[0.00]	µg/L	14:12:50
1	As 188.979†	3.5	3.5	[0.00]	µg/L	14:13:11
1	B 249.677†	353.5	353.1	[0.00]	µg/L	14:13:11
1	Ba 233.527†	-32.2	-32.2	[0.00]	µg/L	14:13:11
1	Be 313.107†	-3446.9	-3443.2	[0.00]	µg/L	14:12:50
1	Cd 226.502†	-153.7	-153.5	[0.00]	µg/L	14:13:11
1	Co 228.616†	-1.3	-1.3	[0.00]	µg/L	14:13:11
1	Cr 267.716†	-55.4	-55.3	[0.00]	µg/L	14:12:50
1	Cu 324.752†	2504.0	2501.3	[0.00]	µg/L	14:12:50
1	Mn 257.610†	-239.6	-239.4	[0.00]	µg/L	14:13:11
1	Mo 202.031†	-2.8	-2.8	[0.00]	µg/L	14:13:11
1	Ni 231.604†	307.9	307.6	[0.00]	µg/L	14:13:11
1	P 214.914†	26.2	26.2	[0.00]	µg/L	14:13:11
1	Pb 220.353†	91.7	91.6	[0.00]	µg/L	14:13:11
1	S 181.975 Axial†	15.4	15.3	[0.00]	µg/L	14:13:11
1	Sb 206.836†	28.4	28.4	[0.00]	µg/L	14:13:11
1	Se 196.026†	16.7	16.7	[0.00]	µg/L	14:13:11
1	SiO2†	1235.3	1234.0	[0.00]	µg/L	14:12:50
1	Si 251.611†	309.0	308.7	[0.00]	µg/L	14:13:11
1	Sn 189.927†	-0.7	-0.7	[0.00]	µg/L	14:13:11
1	Ti 334.940†	89.4	89.3	[0.00]	µg/L	14:12:50
1	Tl 190.801†	-23.5	-23.5	[0.00]	µg/L	14:13:11
1	U 409.014†	-77.0	-76.9	[0.00]	µg/L	14:12:50
1	V 292.402†	-41.9	-41.9	[0.00]	µg/L	14:12:50
1	Zn 213.857†	474.5	474.0	[0.00]	µg/L	14:13:11
2	Sc RADIAL	54665.4	54665.4	100	%	14:11:49
2	Al 396.153Radial†	-1.2	-1.2	[0.00]	µg/L	14:11:49
2	Ca 317.933Radial†	175.4	175.1	[0.00]	µg/L	14:12:09
2	Fe 238.204 Radial†	14.9	14.8	[0.00]	µg/L	14:12:09
2	K 766.490 Radial†	144.1	143.8	[0.00]	µg/L	14:11:49
2	Mg 279.077 IEC†	11.1	11.1	[0.00]	µg/L	14:12:09
2	Na 589.592 Radial†	552.5	551.5	[0.00]	µg/L	14:11:49
2	Sr 421.552†	33.2	33.1	[0.00]	µg/L	14:11:49
2	Sc 361.383	1909838.0	1909838.0	100.000	%	14:13:17
2	Y 371.029	1310179.5	1310179.5	100.02	%	14:13:17
2	Ag 328.068†	-580.2	-580.2	[0.00]	µg/L	14:13:23
2	As 188.979†	-0.5	-0.5	[0.00]	µg/L	14:13:43

2	B 249.677†	311.8	311.8	[0.00]	µg/L	14:13:43
2	Ba 233.527†	-19.4	-19.4	[0.00]	µg/L	14:13:43
2	Be 313.107†	-3440.2	-3440.2	[0.00]	µg/L	14:13:23
2	Cd 226.502†	-136.8	-136.8	[0.00]	µg/L	14:13:43
2	Co 228.616†	-8.2	-8.2	[0.00]	µg/L	14:13:43
2	Cr 267.716†	-44.6	-44.6	[0.00]	µg/L	14:13:23
2	Cu 324.752†	2529.2	2529.2	[0.00]	µg/L	14:13:23
2	Mn 257.610†	-247.4	-247.4	[0.00]	µg/L	14:13:43
2	Mo 202.031†	-8.7	-8.7	[0.00]	µg/L	14:13:43
2	Ni 231.604†	295.5	295.5	[0.00]	µg/L	14:13:43
2	P 214.914†	27.9	27.9	[0.00]	µg/L	14:13:43
2	Pb 220.353†	98.3	98.3	[0.00]	µg/L	14:13:43
2	S 181.975 Axial†	16.8	16.8	[0.00]	µg/L	14:13:43
2	Sb 206.836†	27.6	27.6	[0.00]	µg/L	14:13:43
2	Se 196.026†	12.1	12.1	[0.00]	µg/L	14:13:43
2	SiO2†	1235.5	1235.5	[0.00]	µg/L	14:13:23
2	Si 251.611†	316.0	316.0	[0.00]	µg/L	14:13:43
2	Sn 189.927†	-2.2	-2.2	[0.00]	µg/L	14:13:43
2	Ti 334.940†	132.2	132.2	[0.00]	µg/L	14:13:23
2	Tl 190.801†	-27.5	-27.5	[0.00]	µg/L	14:13:43
2	U 409.014†	-52.6	-52.6	[0.00]	µg/L	14:13:23
2	V 292.402†	-46.9	-46.9	[0.00]	µg/L	14:13:23
2	Zn 213.857†	476.6	476.6	[0.00]	µg/L	14:13:43
3	Sc RADIAL	54318.4	54318.4	99.5	%	14:12:15
3	Al 396.153Radial†	-15.3	-15.3	[0.00]	µg/L	14:12:15
3	Ca 317.933Radial†	180.2	181.0	[0.00]	µg/L	14:12:35
3	Fe 238.204 Radial†	13.3	13.4	[0.00]	µg/L	14:12:35
3	K 766.490 Radial†	107.9	108.4	[0.00]	µg/L	14:12:15
3	Mg 279.077 IEC†	14.9	15.0	[0.00]	µg/L	14:12:35
3	Na 589.592 Radial†	529.1	531.6	[0.00]	µg/L	14:12:15
3	Sr 421.552†	38.4	38.6	[0.00]	µg/L	14:12:15
3	Sc 361.383	1907796.9	1907796.9	99.893	%	14:13:49
3	Y 371.029	1308876.2	1308876.2	99.920	%	14:13:49
3	Ag 328.068†	-566.0	-566.6	[0.00]	µg/L	14:13:55
3	As 188.979†	0.4	0.4	[0.00]	µg/L	14:14:15
3	B 249.677†	329.2	329.5	[0.00]	µg/L	14:14:15
3	Ba 233.527†	-26.4	-26.4	[0.00]	µg/L	14:14:15
3	Be 313.107†	-3434.3	-3437.9	[0.00]	µg/L	14:13:55
3	Cd 226.502†	-135.9	-136.0	[0.00]	µg/L	14:14:15
3	Co 228.616†	-17.0	-17.0	[0.00]	µg/L	14:14:15
3	Cr 267.716†	-57.1	-57.2	[0.00]	µg/L	14:13:55
3	Cu 324.752†	2425.2	2427.8	[0.00]	µg/L	14:13:55
3	Mn 257.610†	-245.3	-245.6	[0.00]	µg/L	14:14:15
3	Mo 202.031†	-11.1	-11.1	[0.00]	µg/L	14:14:15
3	Ni 231.604†	303.1	303.5	[0.00]	µg/L	14:14:15
3	P 214.914†	28.8	28.8	[0.00]	µg/L	14:14:15
3	Pb 220.353†	101.6	101.7	[0.00]	µg/L	14:14:15
3	S 181.975 Axial†	12.3	12.3	[0.00]	µg/L	14:14:15
3	Sb 206.836†	24.9	25.0	[0.00]	µg/L	14:14:15
3	Se 196.026†	18.7	18.7	[0.00]	µg/L	14:14:15
3	SiO2†	1279.2	1280.6	[0.00]	µg/L	14:13:55
3	Si 251.611†	313.6	313.9	[0.00]	µg/L	14:14:15
3	Sn 189.927†	0.3	0.3	[0.00]	µg/L	14:14:15
3	Ti 334.940†	126.8	126.9	[0.00]	µg/L	14:13:55
3	Tl 190.801†	-21.9	-21.9	[0.00]	µg/L	14:14:15
3	U 409.014†	-31.2	-31.3	[0.00]	µg/L	14:13:55
3	V 292.402†	-43.8	-43.9	[0.00]	µg/L	14:13:55
3	Zn 213.857†	475.5	476.0	[0.00]	µg/L	14:14:15

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1909840.1	2044.21	0.11%	100.00	%
Sc RADIAL	54574.4	224.80	0.41%	100	%
Y 371.029	1309918.6	939.52	0.07%	100.00	%
Ag 328.068†	-564.5	16.85	2.98%	[0.00]	µg/L
Al 396.153Radial†	-10.1	7.73	76.30%	[0.00]	µg/L
As 188.979†	1.1	2.09	182.38%	[0.00]	µg/L
B 249.677†	331.5	20.73	6.25%	[0.00]	µg/L
Ba 233.527†	-26.0	6.39	24.57%	[0.00]	µg/L

Be 313.107†	-3440.4	2.66	0.08%	[0.00]	µg/L
Ca 317.933Radial†	179.2	3.51	1.96%	[0.00]	µg/L
Cd 226.502†	-142.1	9.89	6.96%	[0.00]	µg/L
Co 228.616†	-8.8	7.85	88.83%	[0.00]	µg/L
Cr 267.716†	-52.4	6.82	13.02%	[0.00]	µg/L
Cu 324.752†	2486.1	52.42	2.11%	[0.00]	µg/L
Fe 238.204 Radial†	14.5	1.00	6.90%	[0.00]	µg/L
K 766.490 Radial†	128.4	18.15	14.13%	[0.00]	µg/L
Mg 279.077 IEC†	11.3	3.62	32.14%	[0.00]	µg/L
Mn 257.610†	-244.1	4.19	1.72%	[0.00]	µg/L
Mo 202.031†	-7.5	4.31	57.15%	[0.00]	µg/L
Na 589.592 Radial†	541.9	9.97	1.84%	[0.00]	µg/L
Ni 231.604†	302.2	6.13	2.03%	[0.00]	µg/L
P 214.914†	27.6	1.32	4.77%	[0.00]	µg/L
Pb 220.353†	97.2	5.13	5.27%	[0.00]	µg/L
S 181.975 Axial†	14.8	2.33	15.71%	[0.00]	µg/L
Sb 206.836†	27.0	1.78	6.62%	[0.00]	µg/L
Se 196.026†	15.8	3.37	21.27%	[0.00]	µg/L
SiO2†	1250.0	26.45	2.12%	[0.00]	µg/L
Si 251.611†	312.9	3.77	1.21%	[0.00]	µg/L
Sn 189.927†	-0.9	1.29	148.06%	[0.00]	µg/L
Sr 421.552†	39.6	6.94	17.54%	[0.00]	µg/L
Ti 334.940†	116.1	23.40	20.15%	[0.00]	µg/L
Tl 190.801†	-24.3	2.88	11.85%	[0.00]	µg/L
U 409.014†	-53.6	22.84	42.60%	[0.00]	µg/L
V 292.402†	-44.2	2.52	5.69%	[0.00]	µg/L
Zn 213.857†	475.5	1.38	0.29%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/11/2010 14:14:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55015.9	55015.9	101	%	14:15:00
1	K 766.490 Radial†	1529.6	1388.9	[1000]	µg/L	14:15:00
1	Sr 421.552†	9551.7	9435.5	[100]	µg/L	14:15:00
1	Sc 361.383	1906987.6	1906987.6	99.851	%	14:15:21
1	Y 371.029	1308080.3	1308080.3	99.860	%	14:15:21
1	Ag 328.068†	12337.2	12920.2	[100]	µg/L	14:15:27
1	As 188.979†	60.2	59.1	[100]	µg/L	14:15:48
1	B 249.677†	2597.7	2270.1	[100]	µg/L	14:15:27
1	Ba 233.527†	3962.5	3994.4	[100]	µg/L	14:15:27
1	Be 313.107†	151975.4	155643.2	[100]	µg/L	14:15:21
1	Cd 226.502†	3678.8	3826.5	[100]	µg/L	14:15:27
1	Co 228.616†	2095.6	2107.6	[100]	µg/L	14:15:48
1	Cr 267.716†	4700.6	4760.0	[100]	µg/L	14:15:27
1	Cu 324.752†	17516.6	15056.7	[100]	µg/L	14:15:27
1	Mn 257.610†	30035.0	30324.0	[100]	µg/L	14:15:27
1	Mo 202.031†	993.1	1002.1	[100]	µg/L	14:15:48
1	Ni 231.604†	2238.0	1939.1	[100]	µg/L	14:15:27
1	P 214.914†	275.5	248.3	[500]	µg/L	14:15:48
1	Pb 220.353†	495.9	399.5	[100]	µg/L	14:15:48
1	S 181.975 Axial†	61.0	46.2	[200]	µg/L	14:15:48
1	Sb 206.836†	127.3	100.5	[100]	µg/L	14:15:48
1	Se 196.026†	83.6	67.8	[100]	µg/L	14:15:48
1	SiO2†	6362.3	5121.8	[1069.5]	µg/L	14:15:27
1	Si 251.611†	6526.8	6223.6	[500]	µg/L	14:15:27
1	Sn 189.927†	236.7	237.9	[100]	µg/L	14:15:48
1	Ti 334.940†	41818.8	41765.2	[100]	µg/L	14:15:27
1	Tl 190.801†	52.7	77.0	[100]	µg/L	14:15:48
1	U 409.014†	1125.7	1181.0	[100]	µg/L	14:15:27
1	V 292.402†	9619.3	9677.9	[100]	µg/L	14:15:27
1	Zn 213.857†	4700.1	4231.6	[100]	µg/L	14:15:27
2	Sc RADIAL	55171.2	55171.2	101	%	14:15:05
2	K 766.490 Radial†	1577.1	1431.6	[1000]	µg/L	14:15:05
2	Sr 421.552†	9725.8	9581.1	[100]	µg/L	14:15:05
2	Sc 361.383	1919566.1	1919566.1	100.51	%	14:15:54
2	Y 371.029	1316225.3	1316225.3	100.48	%	14:15:54
2	Ag 328.068†	12296.8	12799.1	[100]	µg/L	14:16:00
2	As 188.979†	55.3	53.9	[100]	µg/L	14:16:20
2	B 249.677†	2620.3	2275.6	[100]	µg/L	14:16:00
2	Ba 233.527†	3925.8	3931.9	[100]	µg/L	14:16:00
2	Be 313.107†	153476.8	156139.6	[100]	µg/L	14:15:54
2	Cd 226.502†	3613.9	3737.7	[100]	µg/L	14:16:00
2	Co 228.616†	2078.6	2076.9	[100]	µg/L	14:16:20
2	Cr 267.716†	4668.3	4697.0	[100]	µg/L	14:16:00
2	Cu 324.752†	17487.1	14912.4	[100]	µg/L	14:16:00
2	Mn 257.610†	29867.9	29960.6	[100]	µg/L	14:16:00
2	Mo 202.031†	997.0	999.5	[100]	µg/L	14:16:20
2	Ni 231.604†	2232.7	1919.2	[100]	µg/L	14:16:00
2	P 214.914†	277.4	248.4	[500]	µg/L	14:16:20
2	Pb 220.353†	494.0	394.3	[100]	µg/L	14:16:20
2	S 181.975 Axial†	66.3	51.1	[200]	µg/L	14:16:20
2	Sb 206.836†	134.2	106.6	[100]	µg/L	14:16:20
2	Se 196.026†	81.0	64.7	[100]	µg/L	14:16:20
2	SiO2†	6316.5	5034.4	[1069.5]	µg/L	14:16:00
2	Si 251.611†	6524.6	6178.6	[500]	µg/L	14:16:00
2	Sn 189.927†	229.9	229.6	[100]	µg/L	14:16:20
2	Ti 334.940†	41713.2	41385.8	[100]	µg/L	14:16:00
2	Tl 190.801†	46.9	70.9	[100]	µg/L	14:16:20
2	U 409.014†	1094.4	1142.5	[100]	µg/L	14:16:00
2	V 292.402†	9634.9	9630.3	[100]	µg/L	14:16:00

2	Zn 213.857†	4683.2	4183.9	[100]	µg/L	14:16:00
3	Sc RADIAL	54696.3	54696.3	100	%	14:15:11
3	K 766.490 Radial†	1613.5	1481.5	[1000]	µg/L	14:15:11
3	Sr 421.552†	9663.0	9601.9	[100]	µg/L	14:15:11
3	Sc 361.383	1914175.0	1914175.0	100.23	%	14:16:26
3	Y 371.029	1314459.8	1314459.8	100.35	%	14:16:26
3	Ag 328.068†	12311.6	12848.2	[100]	µg/L	14:16:32
3	As 188.979†	52.2	51.0	[100]	µg/L	14:16:53
3	B 249.677†	2607.8	2270.5	[100]	µg/L	14:16:32
3	Ba 233.527†	3927.0	3944.1	[100]	µg/L	14:16:32
3	Be 313.107†	152121.7	155217.6	[100]	µg/L	14:16:26
3	Cd 226.502†	3649.8	3783.7	[100]	µg/L	14:16:32
3	Co 228.616†	2092.3	2096.4	[100]	µg/L	14:16:53
3	Cr 267.716†	4695.0	4736.7	[100]	µg/L	14:16:32
3	Cu 324.752†	17403.9	14878.4	[100]	µg/L	14:16:32
3	Mn 257.610†	29812.0	29988.6	[100]	µg/L	14:16:32
3	Mo 202.031†	994.2	999.5	[100]	µg/L	14:16:53
3	Ni 231.604†	2238.0	1930.8	[100]	µg/L	14:16:32
3	P 214.914†	276.9	248.7	[500]	µg/L	14:16:53
3	Pb 220.353†	496.4	398.1	[100]	µg/L	14:16:53
3	S 181.975 Axial†	63.6	48.7	[200]	µg/L	14:16:53
3	Sb 206.836†	131.7	104.5	[100]	µg/L	14:16:53
3	Se 196.026†	85.1	69.1	[100]	µg/L	14:16:53
3	SiO2†	6274.4	5010.2	[1069.5]	µg/L	14:16:32
3	Si 251.611†	6506.8	6179.2	[500]	µg/L	14:16:32
3	Sn 189.927†	233.2	233.5	[100]	µg/L	14:16:53
3	Ti 334.940†	41628.8	41418.4	[100]	µg/L	14:16:32
3	Tl 190.801†	52.0	76.1	[100]	µg/L	14:16:53
3	U 409.014†	1167.9	1218.9	[100]	µg/L	14:16:32
3	V 292.402†	9645.5	9667.9	[100]	µg/L	14:16:32
3	Zn 213.857†	4697.5	4211.3	[100]	µg/L	14:16:32

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1913576.2	6310.61	0.33%	100.20	%
Sc RADIAL	54961.1	242.12	0.44%	101	%
Y 371.029	1312921.8	4284.80	0.33%	100.23	%
Ag 328.068†	12855.8	60.90	0.47%	[100]	µg/L
As 188.979†	54.7	4.13	7.55%	[100]	µg/L
B 249.677†	2272.1	3.07	0.13%	[100]	µg/L
Ba 233.527†	3956.8	33.13	0.84%	[100]	µg/L
Be 313.107†	155666.8	461.42	0.30%	[100]	µg/L
Cd 226.502†	3782.6	44.38	1.17%	[100]	µg/L
Co 228.616†	2093.6	15.54	0.74%	[100]	µg/L
Cr 267.716†	4731.2	31.87	0.67%	[100]	µg/L
Cu 324.752†	14949.2	94.66	0.63%	[100]	µg/L
K 766.490 Radial†	1434.0	46.37	3.23%	[1000]	µg/L
Mn 257.610†	30091.1	202.22	0.67%	[100]	µg/L
Mo 202.031†	1000.4	1.54	0.15%	[100]	µg/L
Ni 231.604†	1929.7	10.00	0.52%	[100]	µg/L
P 214.914†	248.5	0.19	0.08%	[500]	µg/L
Pb 220.353†	397.3	2.68	0.67%	[100]	µg/L
S 181.975 Axial†	48.7	2.45	5.03%	[200]	µg/L
Sb 206.836†	103.8	3.08	2.97%	[100]	µg/L
Se 196.026†	67.2	2.24	3.33%	[100]	µg/L
SiO2†	5055.5	58.67	1.16%	[1069.5]	µg/L
Si 251.611†	6193.8	25.84	0.42%	[500]	µg/L
Sn 189.927†	233.7	4.16	1.78%	[100]	µg/L
Sr 421.552†	9539.5	90.63	0.95%	[100]	µg/L
Ti 334.940†	41523.1	210.28	0.51%	[100]	µg/L
Tl 190.801†	74.7	3.29	4.41%	[100]	µg/L
U 409.014†	1180.8	38.20	3.23%	[100]	µg/L
V 292.402†	9658.7	25.07	0.26%	[100]	µg/L
Zn 213.857†	4209.0	23.92	0.57%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/11/2010 14:17:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56431.2	56431.2	103	%	14:17:36
1	Al 396.153Radial†	6754.1	6542.0	[5000]	µg/L	14:17:36
1	Ca 317.933Radial†	5471.1	5111.9	[5000]	µg/L	14:17:56
1	K 766.490 Radial†	7121.7	6759.0	[5000]	µg/L	14:17:36
1	Mg 279.077 IEC†	566.8	536.8	[5000]	µg/L	14:17:56
1	Sr 421.552†	48100.9	46478.6	[500]	µg/L	14:17:36
1	Sc 361.383	1949267.7	1949267.7	102.06	%	14:18:59
1	Y 371.029	1332062.2	1332062.2	101.69	%	14:18:59
1	Ag 328.068†	62715.3	62011.3	[500]	µg/L	14:19:05
1	As 188.979†	268.2	261.6	[500]	µg/L	14:19:26
1	B 249.677†	11715.5	11147.1	[500]	µg/L	14:19:05
1	Ba 233.527†	19296.1	18931.8	[500]	µg/L	14:19:05
1	Be 313.107†	765143.4	753107.4	[500]	µg/L	14:18:59
1	Cd 226.502†	18181.3	17955.7	[500]	µg/L	14:19:05
1	Co 228.616†	10302.5	10103.0	[500]	µg/L	14:19:05
1	Cr 267.716†	23080.8	22666.4	[500]	µg/L	14:19:05
1	Cu 324.752†	74689.8	70693.0	[500]	µg/L	14:19:05
1	Mn 257.610†	147455.4	144716.9	[500]	µg/L	14:18:59
1	Mo 202.031†	4948.3	4855.8	[500]	µg/L	14:19:26
1	Ni 231.604†	9587.6	9091.5	[500]	µg/L	14:19:05
1	P 214.914†	1227.3	1174.8	[2500]	µg/L	14:19:26
1	Pb 220.353†	2024.6	1886.4	[500]	µg/L	14:19:26
1	S 181.975 Axial†	257.2	237.2	[1000]	µg/L	14:19:26
1	Sb 206.836†	565.6	527.2	[500]	µg/L	14:19:26
1	Se 196.026†	349.8	326.9	[500]	µg/L	14:19:26
1	SiO2†	26268.6	24487.3	[5347.5]	µg/L	14:19:05
1	Si 251.611†	30925.0	29986.6	[2500]	µg/L	14:19:05
1	Sn 189.927†	1150.8	1128.4	[500]	µg/L	14:19:26
1	Ti 334.940†	210237.3	205868.8	[500]	µg/L	14:18:59
1	Tl 190.801†	342.7	360.1	[500]	µg/L	14:19:26
1	U 409.014†	5574.8	5515.7	[500]	µg/L	14:19:05
1	V 292.402†	47320.5	46407.6	[500]	µg/L	14:19:05
1	Zn 213.857†	20885.0	19987.0	[500]	µg/L	14:19:05
2	Sc RADIAL	56400.3	56400.3	103	%	14:18:02
2	Al 396.153Radial†	6776.8	6567.5	[5000]	µg/L	14:18:02
2	Ca 317.933Radial†	5446.0	5090.5	[5000]	µg/L	14:18:22
2	K 766.490 Radial†	7209.5	6847.7	[5000]	µg/L	14:18:02
2	Mg 279.077 IEC†	558.9	529.5	[5000]	µg/L	14:18:22
2	Sr 421.552†	48009.1	46415.3	[500]	µg/L	14:18:02
2	Sc 361.383	1969776.8	1969776.8	103.14	%	14:19:33
2	Y 371.029	1347212.9	1347212.9	102.85	%	14:19:33
2	Ag 328.068†	63263.2	61902.7	[500]	µg/L	14:19:38
2	As 188.979†	264.1	254.9	[500]	µg/L	14:19:59
2	B 249.677†	11833.7	11142.2	[500]	µg/L	14:19:38
2	Ba 233.527†	19517.7	18949.8	[500]	µg/L	14:19:38
2	Be 313.107†	769998.9	750009.7	[500]	µg/L	14:19:33
2	Cd 226.502†	18459.9	18040.3	[500]	µg/L	14:19:38
2	Co 228.616†	10435.6	10126.9	[500]	µg/L	14:19:38
2	Cr 267.716†	23319.3	22662.1	[500]	µg/L	14:19:38
2	Cu 324.752†	75284.2	70507.3	[500]	µg/L	14:19:38
2	Mn 257.610†	148076.6	143815.0	[500]	µg/L	14:19:33
2	Mo 202.031†	4926.4	4784.1	[500]	µg/L	14:19:59
2	Ni 231.604†	9732.8	9134.4	[500]	µg/L	14:19:38
2	P 214.914†	1225.6	1160.7	[2500]	µg/L	14:19:59
2	Pb 220.353†	2028.4	1869.5	[500]	µg/L	14:19:59
2	S 181.975 Axial†	257.8	235.1	[1000]	µg/L	14:19:59
2	Sb 206.836†	552.2	508.4	[500]	µg/L	14:19:59
2	Se 196.026†	361.1	334.3	[500]	µg/L	14:19:59
2	SiO2†	26477.9	24422.2	[5347.5]	µg/L	14:19:38

2	Si 251.611†	31253.2	29989.4	[2500]	µg/L	14:19:38
2	Sn 189.927†	1150.3	1116.1	[500]	µg/L	14:19:59
2	Ti 334.940†	211105.1	204565.4	[500]	µg/L	14:19:33
2	Tl 190.801†	338.9	352.9	[500]	µg/L	14:19:59
2	U 409.014†	5592.5	5475.9	[500]	µg/L	14:19:38
2	V 292.402†	47778.9	46369.3	[500]	µg/L	14:19:38
2	Zn 213.857†	21066.0	19949.5	[500]	µg/L	14:19:38
3	Sc RADIAL	56116.0	56116.0	103	%	14:18:27
3	Al 396.153Radial†	6776.6	6600.6	[5000]	µg/L	14:18:27
3	Ca 317.933Radial†	5474.8	5145.3	[5000]	µg/L	14:18:48
3	K 766.490 Radial†	7167.4	6842.1	[5000]	µg/L	14:18:27
3	Mg 279.077 IEC†	570.0	543.0	[5000]	µg/L	14:18:48
3	Sr 421.552†	47985.8	46628.0	[500]	µg/L	14:18:27
3	Sc 361.383	1956384.8	1956384.8	102.44	%	14:20:06
3	Y 371.029	1336938.7	1336938.7	102.06	%	14:20:06
3	Ag 328.068†	58992.1	58153.2	[500]	µg/L	14:20:12
3	As 188.979†	227.0	220.5	[500]	µg/L	14:20:32
3	B 249.677†	10983.9	10391.2	[500]	µg/L	14:20:12
3	Ba 233.527†	17692.5	17297.6	[500]	µg/L	14:20:12
3	Be 313.107†	719301.4	705628.8	[500]	µg/L	14:20:06
3	Cd 226.502†	16595.4	16342.7	[500]	µg/L	14:20:12
3	Co 228.616†	9342.2	9128.8	[500]	µg/L	14:20:12
3	Cr 267.716†	20357.4	19925.5	[500]	µg/L	14:20:12
3	Cu 324.752†	68152.8	64045.2	[500]	µg/L	14:20:12
3	Mn 257.610†	138782.6	135724.9	[500]	µg/L	14:20:06
3	Mo 202.031†	4112.2	4021.9	[500]	µg/L	14:20:32
3	Ni 231.604†	8700.9	8191.7	[500]	µg/L	14:20:12
3	P 214.914†	1052.8	1000.2	[2500]	µg/L	14:20:32
3	Pb 220.353†	1780.7	1641.2	[500]	µg/L	14:20:32
3	S 181.975 Axial†	220.4	200.3	[1000]	µg/L	14:20:32
3	Sb 206.836†	483.7	445.3	[500]	µg/L	14:20:32
3	Se 196.026†	314.2	290.9	[500]	µg/L	14:20:32
3	SiO2†	24349.5	22520.2	[5347.5]	µg/L	14:20:12
3	Si 251.611†	28634.1	27640.0	[2500]	µg/L	14:20:12
3	Sn 189.927†	946.2	924.5	[500]	µg/L	14:20:32
3	Ti 334.940†	196408.6	191619.7	[500]	µg/L	14:20:06
3	Tl 190.801†	311.8	328.7	[500]	µg/L	14:20:32
3	U 409.014†	4970.2	4905.6	[500]	µg/L	14:20:12
3	V 292.402†	42533.9	41566.2	[500]	µg/L	14:20:12
3	Zn 213.857†	18957.2	18030.7	[500]	µg/L	14:20:12

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1958476.4	10413.33	0.53%	102.55	%
Sc RADIAL	56315.8	173.75	0.31%	103	%
Y 371.029	1338737.9	7733.97	0.58%	102.20	%
Ag 328.068†	60689.0	2196.81	3.62%	[500]	µg/L
Al 396.153Radial†	6570.0	29.39	0.45%	[5000]	µg/L
As 188.979†	245.7	22.07	8.99%	[500]	µg/L
B 249.677†	10893.5	435.04	3.99%	[500]	µg/L
Ba 233.527†	18393.1	948.76	5.16%	[500]	µg/L
Be 313.107†	736248.6	26562.75	3.61%	[500]	µg/L
Ca 317.933Radial†	5115.9	27.60	0.54%	[5000]	µg/L
Cd 226.502†	17446.2	956.62	5.48%	[500]	µg/L
Co 228.616†	9786.2	569.47	5.82%	[500]	µg/L
Cr 267.716†	21751.3	1581.21	7.27%	[500]	µg/L
Cu 324.752†	68415.2	3785.63	5.53%	[500]	µg/L
K 766.490 Radial†	6816.2	49.68	0.73%	[5000]	µg/L
Mg 279.077 IEC†	536.5	6.79	1.26%	[5000]	µg/L
Mn 257.610†	141419.0	4951.74	3.50%	[500]	µg/L
Mo 202.031†	4553.9	462.10	10.15%	[500]	µg/L
Ni 231.604†	8805.9	532.32	6.04%	[500]	µg/L
P 214.914†	1111.9	97.02	8.73%	[2500]	µg/L
Pb 220.353†	1799.0	136.97	7.61%	[500]	µg/L
S 181.975 Axial†	224.2	20.73	9.24%	[1000]	µg/L
Sb 206.836†	493.6	42.92	8.69%	[500]	µg/L
Se 196.026†	317.4	23.20	7.31%	[500]	µg/L
SiO2†	23809.9	1117.40	4.69%	[5347.5]	µg/L
Si 251.611†	29205.3	1355.64	4.64%	[2500]	µg/L

Sn 189.927†	1056.3	114.33	10.82%	[500] µg/L
Sr 421.552†	46507.3	109.22	0.23%	[500] µg/L
Ti 334.940†	200684.6	7877.46	3.93%	[500] µg/L
Tl 190.801†	347.2	16.45	4.74%	[500] µg/L
U 409.014†	5299.1	341.35	6.44%	[500] µg/L
V 292.402†	44781.0	2784.22	6.22%	[500] µg/L
Zn 213.857†	19322.4	1118.82	5.79%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 14:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54624.1	54624.1	100	%	14:21:14
1	Al 396.153Radial†	13945.5	13943.0	[10000]	µg/L	14:21:14
1	Ca 317.933Radial†	11091.0	10901.8	[10000]	µg/L	14:21:34
1	Fe 238.204 Radial†	1237.7	1222.1	[10000]	µg/L	14:21:34
1	K 766.490 Radial†	14553.2	14411.5	[10000]	µg/L	14:21:14
1	Mg 279.077 IEC†	1145.5	1133.2	[10000]	µg/L	14:21:34
1	Na 589.592 Radial†	32001.3	31430.3	[10000]	µg/L	14:21:14
1	Sr 421.552†	98763.5	98634.1	[1000]	µg/L	14:21:14
1	Sc 361.383	1918837.7	1918837.7	100.47	%	14:22:38
1	Y 371.029	1309873.4	1309873.4	99.997	%	14:22:38
1	Ag 328.068†	129789.4	129745.3	[1000]	µg/L	14:22:44
1	As 188.979†	545.1	541.4	[1000]	µg/L	14:23:05
1	B 249.677†	24100.3	23655.8	[1000]	µg/L	14:22:44
1	Ba 233.527†	40021.0	39859.3	[1000]	µg/L	14:22:44
1	Be 313.107†	1583359.7	1579375.6	[1000]	µg/L	14:22:38
1	Cd 226.502†	37676.7	37642.1	[1000]	µg/L	14:22:44
1	Co 228.616†	21224.5	21133.9	[1000]	µg/L	14:22:44
1	Cr 267.716†	47864.2	47692.2	[1000]	µg/L	14:22:44
1	Cu 324.752†	152208.7	149008.9	[1000]	µg/L	14:22:44
1	Mn 257.610†	300264.6	299100.8	[1000]	µg/L	14:22:44
1	Mo 202.031†	10059.0	10019.4	[1000]	µg/L	14:23:05
1	Ni 231.604†	19417.1	19023.9	[1000]	µg/L	14:22:44
1	P 214.914†	2522.7	2483.2	[5000]	µg/L	14:23:05
1	Pb 220.353†	4095.0	3978.6	[1000]	µg/L	14:23:05
1	S 181.975 Axial†	497.7	480.5	[2000]	µg/L	14:23:05
1	Sb 206.836†	1108.7	1076.5	[1000]	µg/L	14:23:05
1	Se 196.026†	705.0	685.9	[1000]	µg/L	14:23:05
1	SiO2†	52879.3	51381.3	[10695]	µg/L	14:22:44
1	Si 251.611†	63553.1	62942.2	[5000]	µg/L	14:22:44
1	Sn 189.927†	2343.4	2333.3	[1000]	µg/L	14:23:05
1	Ti 334.940†	431168.6	429030.7	[1000]	µg/L	14:22:38
1	Tl 190.801†	726.4	747.3	[1000]	µg/L	14:23:05
1	U 409.014†	11460.5	11460.4	[1000]	µg/L	14:22:44
1	V 292.402†	98389.1	97972.0	[1000]	µg/L	14:22:44
1	Zn 213.857†	42248.3	41574.6	[1000]	µg/L	14:22:44
2	Sc RADIAL	55757.6	55757.6	102	%	14:21:40
2	Al 396.153Radial†	13857.6	13573.7	[10000]	µg/L	14:21:40
2	Ca 317.933Radial†	11113.5	10698.5	[10000]	µg/L	14:22:00
2	Fe 238.204 Radial†	1242.3	1201.4	[10000]	µg/L	14:22:00
2	K 766.490 Radial†	14434.4	13999.7	[10000]	µg/L	14:21:40
2	Mg 279.077 IEC†	1155.1	1119.3	[10000]	µg/L	14:22:00
2	Na 589.592 Radial†	31736.9	30521.6	[10000]	µg/L	14:21:40
2	Sr 421.552†	98177.9	96055.0	[1000]	µg/L	14:21:40
2	Sc 361.383	1912891.8	1912891.8	100.16	%	14:23:11
2	Y 371.029	1304958.7	1304958.7	99.621	%	14:23:11
2	Ag 328.068†	130617.7	130973.8	[1000]	µg/L	14:23:17
2	As 188.979†	550.1	548.1	[1000]	µg/L	14:23:38
2	B 249.677†	24305.4	23935.1	[1000]	µg/L	14:23:17
2	Ba 233.527†	40326.4	40288.1	[1000]	µg/L	14:23:17
2	Be 313.107†	1586929.2	1587837.9	[1000]	µg/L	14:23:11
2	Cd 226.502†	37959.2	38040.8	[1000]	µg/L	14:23:17
2	Co 228.616†	21379.4	21354.1	[1000]	µg/L	14:23:17
2	Cr 267.716†	48340.5	48315.7	[1000]	µg/L	14:23:17
2	Cu 324.752†	153521.9	150790.9	[1000]	µg/L	14:23:17
2	Mn 257.610†	303225.9	302986.3	[1000]	µg/L	14:23:17
2	Mo 202.031†	10012.5	10004.1	[1000]	µg/L	14:23:38
2	Ni 231.604†	19568.5	19235.1	[1000]	µg/L	14:23:17
2	P 214.914†	2513.0	2481.4	[5000]	µg/L	14:23:38
2	Pb 220.353†	4075.3	3971.6	[1000]	µg/L	14:23:38

2	S 181.975 Axial†	494.3	478.7	[2000]	µg/L	14:23:38
2	Sb 206.836†	1106.5	1077.8	[1000]	µg/L	14:23:38
2	Se 196.026†	715.1	698.1	[1000]	µg/L	14:23:38
2	SiO2†	53340.3	52005.2	[10695]	µg/L	14:23:17
2	Si 251.611†	64000.9	63585.9	[5000]	µg/L	14:23:17
2	Sn 189.927†	2345.0	2342.2	[1000]	µg/L	14:23:38
2	Ti 334.940†	432325.2	431519.3	[1000]	µg/L	14:23:11
2	Tl 190.801†	726.1	749.2	[1000]	µg/L	14:23:38
2	U 409.014†	11741.1	11776.0	[1000]	µg/L	14:23:17
2	V 292.402†	99181.6	99067.5	[1000]	µg/L	14:23:17
2	Zn 213.857†	42614.4	42070.9	[1000]	µg/L	14:23:17
3	Sc RADIAL	54875.2	54875.2	101	%	14:22:06
3	Al 396.153Radial†	13886.4	13820.4	[10000]	µg/L	14:22:06
3	Ca 317.933Radial†	11079.2	10839.4	[10000]	µg/L	14:22:26
3	Fe 238.204 Radial†	1232.3	1211.0	[10000]	µg/L	14:22:26
3	K 766.490 Radial†	14321.1	14114.2	[10000]	µg/L	14:22:06
3	Mg 279.077 IEC†	1147.7	1130.1	[10000]	µg/L	14:22:26
3	Na 589.592 Radial†	31806.0	31089.8	[10000]	µg/L	14:22:06
3	Sr 421.552†	97911.9	97335.8	[1000]	µg/L	14:22:06
3	Sc 361.383	1943388.7	1943388.7	101.76	%	14:23:44
3	Y 371.029	1326037.1	1326037.1	101.23	%	14:23:44
3	Ag 328.068†	122308.3	120761.4	[1000]	µg/L	14:23:50
3	As 188.979†	468.8	459.6	[1000]	µg/L	14:24:11
3	B 249.677†	22603.8	21882.1	[1000]	µg/L	14:23:50
3	Ba 233.527†	36855.9	36245.6	[1000]	µg/L	14:23:50
3	Be 313.107†	1492194.6	1469875.4	[1000]	µg/L	14:23:44
3	Cd 226.502†	34480.3	34027.2	[1000]	µg/L	14:23:50
3	Co 228.616†	19338.4	19013.4	[1000]	µg/L	14:23:50
3	Cr 267.716†	42475.6	41794.7	[1000]	µg/L	14:23:50
3	Cu 324.752†	139121.1	134233.4	[1000]	µg/L	14:23:50
3	Mn 257.610†	272803.2	268337.9	[1000]	µg/L	14:23:50
3	Mo 202.031†	8402.4	8264.9	[1000]	µg/L	14:24:11
3	Ni 231.604†	17696.7	17089.1	[1000]	µg/L	14:23:50
3	P 214.914†	2160.3	2095.4	[5000]	µg/L	14:24:11
3	Pb 220.353†	3557.4	3398.8	[1000]	µg/L	14:24:11
3	S 181.975 Axial†	437.7	415.3	[2000]	µg/L	14:24:11
3	Sb 206.836†	957.8	914.3	[1000]	µg/L	14:24:11
3	Se 196.026†	625.8	599.2	[1000]	µg/L	14:24:11
3	SiO2†	49204.0	47104.6	[10695]	µg/L	14:23:50
3	Si 251.611†	59050.8	57718.6	[5000]	µg/L	14:23:50
3	Sn 189.927†	1920.9	1888.6	[1000]	µg/L	14:24:11
3	Ti 334.940†	404515.4	397416.1	[1000]	µg/L	14:23:44
3	Tl 190.801†	655.3	668.3	[1000]	µg/L	14:24:11
3	U 409.014†	10336.6	10211.8	[1000]	µg/L	14:23:50
3	V 292.402†	89071.2	87577.8	[1000]	µg/L	14:23:50
3	Zn 213.857†	38626.6	37484.3	[1000]	µg/L	14:23:50

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1925039.4	16166.66	0.84%	100.80	%
Sc RADIAL	55085.6	595.31	1.08%	101	%
Y 371.029	1313623.1	11028.13	0.84%	100.28	%
Ag 328.068†	127160.2	5575.45	4.38%	[1000]	µg/L
Al 396.153Radial†	13779.0	188.09	1.37%	[10000]	µg/L
As 188.979†	516.3	49.27	9.54%	[1000]	µg/L
B 249.677†	23157.7	1113.46	4.81%	[1000]	µg/L
Ba 233.527†	38797.7	2220.52	5.72%	[1000]	µg/L
Be 313.107†	1545696.3	65799.01	4.26%	[1000]	µg/L
Ca 317.933Radial†	10813.2	104.13	0.96%	[10000]	µg/L
Cd 226.502†	36570.0	2211.18	6.05%	[1000]	µg/L
Co 228.616†	20500.4	1292.54	6.30%	[1000]	µg/L
Cr 267.716†	45934.2	3598.42	7.83%	[1000]	µg/L
Cu 324.752†	144677.7	9088.85	6.28%	[1000]	µg/L
Fe 238.204 Radial†	1211.5	10.32	0.85%	[10000]	µg/L
K 766.490 Radial†	14175.1	212.58	1.50%	[10000]	µg/L
Mg 279.077 IEC†	1127.5	7.31	0.65%	[10000]	µg/L
Mn 257.610†	290141.7	18982.26	6.54%	[1000]	µg/L
Mo 202.031†	9429.5	1008.55	10.70%	[1000]	µg/L
Na 589.592 Radial†	31013.9	459.06	1.48%	[10000]	µg/L

Ni 231.604†	18449.4	1182.78	6.41%	[1000]	µg/L
P 214.914†	2353.3	223.38	9.49%	[5000]	µg/L
Pb 220.353†	3783.0	332.79	8.80%	[1000]	µg/L
S 181.975 Axial†	458.2	37.14	8.10%	[2000]	µg/L
Sb 206.836†	1022.9	94.00	9.19%	[1000]	µg/L
Se 196.026†	661.1	53.94	8.16%	[1000]	µg/L
SiO2†	50163.7	2667.59	5.32%	[10695]	µg/L
Si 251.611†	61415.6	3217.81	5.24%	[5000]	µg/L
Sn 189.927†	2188.0	259.31	11.85%	[1000]	µg/L
Sr 421.552†	97341.6	1289.53	1.32%	[1000]	µg/L
Ti 334.940†	419322.0	19011.87	4.53%	[1000]	µg/L
Tl 190.801†	721.6	46.19	6.40%	[1000]	µg/L
U 409.014†	11149.4	827.15	7.42%	[1000]	µg/L
V 292.402†	94872.5	6341.05	6.68%	[1000]	µg/L
Zn 213.857†	40376.6	2517.08	6.23%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 14:24:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55734.1	55734.1	102	%	14:24:53
1	Al 396.153Radial†	68477.1	67062.5	[50000]	µg/L	14:24:53
1	Ca 317.933Radial†	54301.8	52992.8	[50000]	µg/L	14:24:53
1	Fe 238.204 Radial†	2420.6	2355.7	[20000]	µg/L	14:25:13
1	Mg 279.077 IEC†	5505.9	5380.1	[50000]	µg/L	14:25:13
1	Na 589.592 Radial†	62235.4	60398.5	[20000]	µg/L	14:24:53
1	Sc 361.383	1922257.7	1922257.7	100.65	%	14:26:17
1	Y 371.029	1306511.6	1306511.6	99.740	%	14:26:17
2	Sc RADIAL	55997.4	55997.4	103	%	14:25:19
2	Al 396.153Radial†	68696.2	66960.7	[50000]	µg/L	14:25:19
2	Ca 317.933Radial†	54670.5	53102.1	[50000]	µg/L	14:25:19
2	Fe 238.204 Radial†	2419.7	2343.7	[20000]	µg/L	14:25:39
2	Mg 279.077 IEC†	5512.9	5361.5	[50000]	µg/L	14:25:39
2	Na 589.592 Radial†	62504.6	60374.4	[20000]	µg/L	14:25:19
2	Sc 361.383	1943938.9	1943938.9	101.79	%	14:26:25
2	Y 371.029	1321297.0	1321297.0	100.87	%	14:26:25
3	Sc RADIAL	56208.4	56208.4	103	%	14:25:45
3	Al 396.153Radial†	69051.1	67053.9	[50000]	µg/L	14:25:45
3	Ca 317.933Radial†	54933.8	53157.7	[50000]	µg/L	14:25:45
3	Fe 238.204 Radial†	2417.0	2332.2	[20000]	µg/L	14:26:05
3	Mg 279.077 IEC†	5516.6	5344.9	[50000]	µg/L	14:26:05
3	Na 589.592 Radial†	62899.5	60529.1	[20000]	µg/L	14:25:45
3	Sc 361.383	1959647.9	1959647.9	102.61	%	14:26:33
3	Y 371.029	1332766.9	1332766.9	101.74	%	14:26:33

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1941948.2	18774.43	0.97%	101.68	%
Sc RADIAL	55979.9	237.64	0.42%	103	%
Y 371.029	1320191.8	13162.49	1.00%	100.78	%
Al 396.153Radial†	67025.7	56.44	0.08%	[50000]	µg/L
Ca 317.933Radial†	53084.2	83.91	0.16%	[50000]	µg/L
Fe 238.204 Radial†	2343.9	11.76	0.50%	[20000]	µg/L
Mg 279.077 IEC†	5362.2	17.57	0.33%	[50000]	µg/L
Na 589.592 Radial†	60434.0	83.23	0.14%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	126.0	0.00000	0.999831	
Al 396.153Radial	3	Lin Thru 0	0.0	1.342	0.00000	0.999984	
As 188.979	3	Lin Thru 0	0.0	0.5116	0.00000	0.999791	
B 249.677	3	Lin Thru 0	0.0	22.88	0.00000	0.999715	
Ba 233.527	3	Lin Thru 0	0.0	38.40	0.00000	0.999779	
Be 313.107	3	Lin Thru 0	0.0	1531	0.00000	0.999818	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.062	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	36.25	0.00000	0.999822	
Co 228.616	3	Lin Thru 0	0.0	20.32	0.00000	0.999831	
Cr 267.716	3	Lin Thru 0	0.0	45.46	0.00000	0.999766	
Cu 324.752	3	Lin Thru 0	0.0	143.2	0.00000	0.999754	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1180	0.00000	0.999910	
K 766.490 Radial	3	Lin Thru 0	0.0	1.407	0.00000	0.999880	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1075	0.00000	0.999952	
Mn 257.610	3	Lin Thru 0	0.0	288.8	0.00000	0.999942	
Mo 202.031	3	Lin Thru 0	0.0	9.370	0.00000	0.999888	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.038	0.00000	0.999945	

Ni 231.604	3	Lin Thru 0	0.0	18.29	0.00000	0.999821
P 214.914	3	Lin Thru 0	0.0	0.4657	0.00000	0.999737
Pb 220.353	3	Lin Thru 0	0.0	3.748	0.00000	0.999792
S 181.975 Axial	3	Lin Thru 0	0.0	0.2282	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	1.016	0.00000	0.999901
Se 196.026	3	Lin Thru 0	0.0	0.6559	0.00000	0.999870
SiO2	3	Lin Thru 0	0.0	4.643	0.00000	0.999791
Si 251.611	3	Lin Thru 0	0.0	12.16	0.00000	0.999805
Sn 189.927	3	Lin Thru 0	0.0	2.174	0.00000	0.999882
Sr 421.552	3	Lin Thru 0	0.0	96.47	0.00000	0.999840
Ti 334.940	3	Lin Thru 0	0.0	415.7	0.00000	0.999852
Tl 190.801	3	Lin Thru 0	0.0	0.7164	0.00000	0.999879
U 409.014	3	Lin Thru 0	0.0	11.05	0.00000	0.999783
V 292.402	3	Lin Thru 0	0.0	93.83	0.00000	0.999742
Zn 213.857	3	Lin Thru 0	0.0	40.05	0.00000	0.999841

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 14:26:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56175.2	56175.2	103	%			14:27:15
1	Al 396.153Radial†	6827.4	6643.0	4939.9	µg/L	4939.9	ppb	14:27:35
1	Ca 317.933Radial†	5504.7	5168.7	4866.7	µg/L	4866.7	ppb	14:27:35
1	Fe 238.204 Radial†	619.4	587.3	4988.2	µg/L	4988.2	ppb	14:27:35
1	K 766.490 Radial†	3573.7	3343.4	2376.5	µg/L	2376.5	ppb	14:27:15
1	Mg 279.077 IEC†	579.7	551.9	5140.1	µg/L	5140.1	ppb	14:27:35
1	Na 589.592 Radial†	7985.2	7215.8	2375.5	µg/L	2375.5	ppb	14:27:15
1	Sr 421.552†	49736.5	48279.6	500.47	µg/L	500.47	ppb	14:27:15
1	Sc 361.383	1963746.6	1963746.6	102.82	%			14:28:38
1	Y 371.029	1343456.9	1343456.9	102.56	%			14:28:38
1	Ag 328.068†	32402.4	32077.4	258.20	µg/L	258.20	ppb	14:28:44
1	As 188.979†	252.0	244.0	475.79	µg/L	475.79	ppb	14:29:05
1	B 249.677†	12299.6	11630.5	506.47	µg/L	506.47	ppb	14:28:44
1	Ba 233.527†	19805.3	19287.7	503.14	µg/L	503.14	ppb	14:28:44
1	Be 313.107†	400944.5	393378.7	256.71	µg/L	256.71	ppb	14:28:38
1	Cd 226.502†	18448.5	18084.2	498.85	µg/L	498.85	ppb	14:28:44
1	Co 228.616†	10564.7	10283.6	505.57	µg/L	505.57	ppb	14:28:44
1	Cr 267.716†	22885.3	22309.5	491.04	µg/L	491.04	ppb	14:28:44
1	Cu 324.752†	76882.1	72285.6	505.62	µg/L	505.62	ppb	14:28:44
1	Mn 257.610†	151694.6	147774.6	512.18	µg/L	512.18	ppb	14:28:38
1	Mo 202.031†	5332.7	5193.9	554.49	µg/L	554.49	ppb	14:29:05
1	Ni 231.604†	9713.9	9145.0	499.47	µg/L	499.47	ppb	14:28:44
1	P 214.914†	1269.4	1206.9	2543.7	µg/L	2543.7	ppb	14:29:05
1	Pb 220.353†	2051.9	1898.4	506.85	µg/L	506.85	ppb	14:29:05
1	S 181.975 Axial†	610.0	578.4	2534.1	µg/L	2534.1	ppb	14:29:05
1	Sb 206.836†	565.9	523.4	518.27	µg/L	518.27	ppb	14:29:05
1	Se 196.026†	1740.7	1677.1	2564.5	µg/L	2564.5	ppb	14:29:05
1	SiO2†	50702.0	48060.2	10350	µg/L	10350	ppb	14:28:44
1	Si 251.611†	60656.9	58679.0	4823.7	µg/L	4823.7	ppb	14:28:44
1	Sn 189.927†	1247.6	1214.2	558.50	µg/L	558.50	ppb	14:29:05
1	Ti 334.940†	209346.8	203483.9	489.14	µg/L	489.14	ppb	14:28:38
1	Tl 190.801†	364.1	378.4	534.06	µg/L	534.06	ppb	14:29:05
1	U 409.014†	5596.2	5496.2	496.62	µg/L	496.62	ppb	14:28:44
1	V 292.402†	48924.8	47626.0	514.07	µg/L	514.07	ppb	14:28:44
1	Zn 213.857†	21567.2	20499.6	508.35	µg/L	508.35	ppb	14:28:44
2	Sc RADIAL	56033.1	56033.1	103	%			14:27:40
2	Al 396.153Radial†	6802.0	6635.1	4934.1	µg/L	4934.1	ppb	14:28:01
2	Ca 317.933Radial†	5475.3	5153.6	4852.4	µg/L	4852.4	ppb	14:28:01
2	Fe 238.204 Radial†	614.3	583.8	4958.8	µg/L	4958.8	ppb	14:28:01
2	K 766.490 Radial†	3641.5	3418.3	2429.7	µg/L	2429.7	ppb	14:27:40
2	Mg 279.077 IEC†	579.8	553.4	5154.4	µg/L	5154.4	ppb	14:28:01
2	Na 589.592 Radial†	8029.7	7278.8	2396.2	µg/L	2396.2	ppb	14:27:40
2	Sr 421.552†	50111.3	48767.2	505.53	µg/L	505.53	ppb	14:27:40
2	Sc 361.383	1959108.8	1959108.8	102.58	%			14:29:12
2	Y 371.029	1337906.1	1337906.1	102.14	%			14:29:12
2	Ag 328.068†	32371.7	32122.1	258.56	µg/L	258.56	ppb	14:29:17
2	As 188.979†	250.3	242.8	473.56	µg/L	473.56	ppb	14:29:38
2	B 249.677†	12349.9	11707.8	509.86	µg/L	509.86	ppb	14:29:17
2	Ba 233.527†	19859.1	19385.7	505.69	µg/L	505.69	ppb	14:29:17
2	Be 313.107†	397767.3	391204.5	255.29	µg/L	255.29	ppb	14:29:12
2	Cd 226.502†	18445.9	18124.1	499.96	µg/L	499.96	ppb	14:29:17
2	Co 228.616†	10616.9	10358.7	509.26	µg/L	509.26	ppb	14:29:17
2	Cr 267.716†	22880.0	22357.0	492.09	µg/L	492.09	ppb	14:29:17
2	Cu 324.752†	76966.8	72545.1	507.43	µg/L	507.43	ppb	14:29:17
2	Mn 257.610†	150503.7	146962.9	509.37	µg/L	509.37	ppb	14:29:12
2	Mo 202.031†	5249.3	5124.9	547.12	µg/L	547.12	ppb	14:29:38
2	Ni 231.604†	9710.9	9164.5	500.53	µg/L	500.53	ppb	14:29:17
2	P 214.914†	1234.6	1175.9	2476.8	µg/L	2476.8	ppb	14:29:38
2	Pb 220.353†	2014.2	1866.4	498.27	µg/L	498.27	ppb	14:29:38

2	S 181.975 Axial†	603.9	573.9	2514.5 µg/L	2514.5 ppb	14:29:38
2	Sb 206.836†	552.1	511.3	506.22 µg/L	506.22 ppb	14:29:38
2	Se 196.026†	1718.6	1659.6	2537.7 µg/L	2537.7 ppb	14:29:38
2	SiO2†	50804.5	48276.9	10397 µg/L	10397 ppb	14:29:17
2	Si 251.611†	60707.2	58867.6	4839.2 µg/L	4839.2 ppb	14:29:17
2	Sn 189.927†	1227.9	1197.9	551.01 µg/L	551.01 ppb	14:29:38
2	Ti 334.940†	208068.6	202719.9	487.30 µg/L	487.30 ppb	14:29:12
2	Tl 190.801†	356.4	371.7	524.72 µg/L	524.72 ppb	14:29:38
2	U 409.014†	5657.2	5568.6	503.18 µg/L	503.18 ppb	14:29:17
2	V 292.402†	48911.7	47725.9	515.09 µg/L	515.09 ppb	14:29:17
2	Zn 213.857†	21491.7	20475.7	507.74 µg/L	507.74 ppb	14:29:17
3	Sc RADIAL	55710.7	55710.7	102 %		14:28:06
3	Al 396.153Radial†	6837.6	6708.3	4990.5 µg/L	4990.5 ppb	14:28:27
3	Ca 317.933Radial†	5503.3	5211.9	4907.4 µg/L	4907.4 ppb	14:28:27
3	Fe 238.204 Radial†	619.1	592.0	5027.4 µg/L	5027.4 ppb	14:28:27
3	K 766.490 Radial†	3604.3	3402.4	2418.4 µg/L	2418.4 ppb	14:28:06
3	Mg 279.077 IEC†	577.0	553.9	5157.4 µg/L	5157.4 ppb	14:28:27
3	Na 589.592 Radial†	7999.1	7294.1	2401.2 µg/L	2401.2 ppb	14:28:06
3	Sr 421.552†	49756.2	48701.8	504.85 µg/L	504.85 ppb	14:28:06
3	Sc 361.383	1966591.1	1966591.1	102.97 %		14:29:45
3	Y 371.029	1344829.1	1344829.1	102.67 %		14:29:45
3	Ag 328.068†	30447.1	30133.0	242.44 µg/L	242.44 ppb	14:29:51
3	As 188.979†	212.1	204.8	399.46 µg/L	399.46 ppb	14:30:11
3	B 249.677†	11543.9	10879.3	473.52 µg/L	473.52 ppb	14:29:51
3	Ba 233.527†	18235.3	17735.1	462.62 µg/L	462.62 ppb	14:29:51
3	Be 313.107†	376544.4	369118.7	240.88 µg/L	240.88 ppb	14:29:45
3	Cd 226.502†	16808.4	16465.5	454.14 µg/L	454.14 ppb	14:29:51
3	Co 228.616†	9616.6	9347.9	459.50 µg/L	459.50 ppb	14:29:51
3	Cr 267.716†	20282.2	19749.2	434.69 µg/L	434.69 ppb	14:29:51
3	Cu 324.752†	70054.3	65546.6	458.56 µg/L	458.56 ppb	14:29:51
3	Mn 257.610†	142833.7	138956.0	481.65 µg/L	481.65 ppb	14:29:45
3	Mo 202.031†	4404.7	4285.1	457.51 µg/L	457.51 ppb	14:30:11
3	Ni 231.604†	8886.0	8327.4	454.82 µg/L	454.82 ppb	14:29:51
3	P 214.914†	1057.7	999.5	2101.9 µg/L	2101.9 ppb	14:30:11
3	Pb 220.353†	1779.9	1631.4	435.46 µg/L	435.46 ppb	14:30:11
3	S 181.975 Axial†	527.5	497.5	2179.7 µg/L	2179.7 ppb	14:30:11
3	Sb 206.836†	492.5	451.4	446.41 µg/L	446.41 ppb	14:30:11
3	Se 196.026†	1501.7	1442.5	2207.0 µg/L	2207.0 ppb	14:30:11
3	SiO2†	47105.5	44496.1	9582.5 µg/L	9582.5 ppb	14:29:51
3	Si 251.611†	56262.5	54326.1	4465.9 µg/L	4465.9 ppb	14:29:51
3	Sn 189.927†	1018.6	990.0	455.40 µg/L	455.40 ppb	14:30:11
3	Ti 334.940†	196112.8	190337.3	457.51 µg/L	457.51 ppb	14:29:45
3	Tl 190.801†	328.3	343.2	484.58 µg/L	484.58 ppb	14:30:11
3	U 409.014†	4922.5	4834.1	436.66 µg/L	436.66 ppb	14:29:51
3	V 292.402†	44109.1	42880.5	462.56 µg/L	462.56 ppb	14:29:51
3	Zn 213.857†	19646.9	18604.4	461.29 µg/L	461.29 ppb	14:29:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1963148.8	102.79	%	0.198				0.19%
Sc RADIAL	55973.0	103	%	0.4				0.43%
Y 371.029	1342064.0	102.45	%	0.280				0.27%
Ag 328.068†	31444.2	253.06	µg/L	9.205	253.06	ppb	9.205	3.64%
QC value within limits for Ag 328.068 Recovery = 101.23%								
Al 396.153Radial†	6662.1	4954.8	µg/L	31.04	4954.8	ppb	31.04	0.63%
QC value within limits for Al 396.153Radial Recovery = 99.10%								
As 188.979†	230.5	449.61	µg/L	43.438	449.61	ppb	43.438	9.66%
QC value less than the lower limit for As 188.979 Recovery = 89.92%								
B 249.677†	11405.9	496.62	µg/L	20.071	496.62	ppb	20.071	4.04%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	18802.8	490.48	µg/L	24.164	490.48	ppb	24.164	4.93%
QC value within limits for Ba 233.527 Recovery = 98.10%								
Be 313.107†	384567.3	250.96	µg/L	8.759	250.96	ppb	8.759	3.49%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	5178.1	4875.5	µg/L	28.51	4875.5	ppb	28.51	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.51%								
Cd 226.502†	17558.0	484.32	µg/L	26.137	484.32	ppb	26.137	5.40%
QC value within limits for Cd 226.502 Recovery = 96.86%								
Co 228.616†	9996.7	491.44	µg/L	27.727	491.44	ppb	27.727	5.64%

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   QC value within limits for Co 228.616  Recovery = 98.29%
Cr 267.716†            21471.9      472.61 µg/L        32.838      472.61 ppb         32.838   6.95%
   QC value within limits for Cr 267.716  Recovery = 94.52%
Cu 324.752†            70125.8      490.54 µg/L        27.712      490.54 ppb         27.712   5.65%
   QC value within limits for Cu 324.752  Recovery = 98.11%
Fe 238.204 Radial†       587.7      4991.5 µg/L         34.44      4991.5 ppb          34.44   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.83%
K 766.490 Radial†       3388.1      2408.2 µg/L         28.04      2408.2 ppb          28.04   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.33%
Mg 279.077 IEC†          553.1      5150.6 µg/L          9.21      5150.6 ppb           9.21   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.01%
Mn 257.610†           144564.5      501.06 µg/L        16.874      501.06 ppb         16.874   3.37%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†             4868.0      519.70 µg/L        53.991      519.70 ppb         53.991  10.39%
   QC value within limits for Mo 202.031  Recovery = 103.94%
Na 589.592 Radial†      7262.9      2391.0 µg/L         13.66      2391.0 ppb          13.66   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†             8879.0      484.94 µg/L        26.089      484.94 ppb         26.089   5.38%
   QC value within limits for Ni 231.604  Recovery = 96.99%
P 214.914†              1127.4      2374.2 µg/L        238.13      2374.2 ppb         238.13  10.03%
   QC value within limits for P 214.914  Recovery = 94.97%
Pb 220.353†             1798.7      480.19 µg/L        38.976      480.19 ppb         38.976   8.12%
   QC value within limits for Pb 220.353  Recovery = 96.04%
S 181.975 Axial†         549.9      2409.5 µg/L        199.20      2409.5 ppb         199.20   8.27%
   QC value within limits for S 181.975 Axial  Recovery = 96.38%
Sb 206.836†              495.4      490.30 µg/L        38.486      490.30 ppb         38.486   7.85%
   QC value within limits for Sb 206.836  Recovery = 98.06%
Se 196.026†             1593.1      2436.4 µg/L        199.13      2436.4 ppb         199.13   8.17%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†                  46944.4       10110 µg/L         457.2       10110 ppb          457.2   4.52%
   QC value within limits for SiO2  Recovery = 94.53%
Si 251.611†            57290.9      4709.6 µg/L        211.21      4709.6 ppb         211.21   4.48%
   QC value within limits for Si 251.611  Recovery = 94.19%
Sn 189.927†             1134.1      521.64 µg/L        57.487      521.64 ppb         57.487  11.02%
   QC value within limits for Sn 189.927  Recovery = 104.33%
Sr 421.552†            48582.8      503.62 µg/L         2.743      503.62 ppb          2.743   0.54%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           198847.0      477.98 µg/L        17.751      477.98 ppb         17.751   3.71%
   QC value within limits for Ti 334.940  Recovery = 95.60%
Tl 190.801†              364.4      514.45 µg/L        26.290      514.45 ppb         26.290   5.11%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†              5299.6      478.82 µg/L        36.655      478.82 ppb         36.655   7.66%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†             46077.4      497.24 µg/L        30.036      497.24 ppb         30.036   6.04%
   QC value within limits for V 292.402  Recovery = 99.45%
Zn 213.857†            19859.9      492.46 µg/L        26.995      492.46 ppb         26.995   5.48%
   QC value within limits for Zn 213.857  Recovery = 98.49%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 14:30:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55908.8	55908.8	102	%			14:30:53
1	Al 396.153Radial†	-5.0	5.2	3.8899	µg/L	3.8899	ppb	14:30:53
1	Ca 317.933Radial†	192.7	9.0	8.4299	µg/L	8.4299	ppb	14:31:14
1	Fe 238.204 Radial†	14.3	-0.6	-4.9645	µg/L	-4.9645	ppb	14:31:14
1	K 766.490 Radial†	107.9	-23.1	-16.426	µg/L	-16.426	ppb	14:30:53
1	Mg 279.077 IEC†	15.7	4.0	37.295	µg/L	37.295	ppb	14:31:14
1	Na 589.592 Radial†	574.2	18.7	6.1420	µg/L	6.1420	ppb	14:30:53
1	Sr 421.552†	57.3	16.3	0.1694	µg/L	0.1694	ppb	14:30:53
1	Sc 361.383	1944300.1	1944300.1	101.80	%			14:32:16
1	Y 371.029	1332393.9	1332393.9	101.72	%			14:32:16
1	Ag 328.068†	-508.2	65.3	0.5177	µg/L	0.5177	ppb	14:32:21
1	As 188.979†	2.4	1.2	2.3247	µg/L	2.3247	ppb	14:32:42
1	B 249.677†	341.3	3.8	0.1701	µg/L	0.1701	ppb	14:32:42
1	Ba 233.527†	-14.2	12.0	0.3135	µg/L	0.3135	ppb	14:32:42
1	Be 313.107†	-3420.4	80.6	0.0526	µg/L	0.0526	ppb	14:32:21
1	Cd 226.502†	-141.7	2.9	0.0816	µg/L	0.0816	ppb	14:32:42
1	Co 228.616†	-8.8	0.2	0.0094	µg/L	0.0094	ppb	14:32:42
1	Cr 267.716†	-52.4	0.9	0.0196	µg/L	0.0196	ppb	14:32:21
1	Cu 324.752†	2516.4	-14.3	-0.1006	µg/L	-0.1006	ppb	14:32:21
1	Mn 257.610†	-222.7	25.3	0.0856	µg/L	0.0856	ppb	14:32:42
1	Mo 202.031†	-0.2	7.3	0.7799	µg/L	0.7799	ppb	14:32:42
1	Ni 231.604†	301.0	-6.6	-0.3591	µg/L	-0.3591	ppb	14:32:42
1	P 214.914†	32.4	4.2	8.9740	µg/L	8.9740	ppb	14:32:42
1	Pb 220.353†	88.6	-10.1	-2.7035	µg/L	-2.7035	ppb	14:32:42
1	S 181.975 Axial†	16.5	1.4	6.0966	µg/L	6.0966	ppb	14:32:42
1	Sb 206.836†	22.8	-4.6	-4.5144	µg/L	-4.5144	ppb	14:32:42
1	Se 196.026†	21.7	5.5	8.3158	µg/L	8.3158	ppb	14:32:42
1	SiO2†	1261.7	-10.7	-2.2937	µg/L	-2.2937	ppb	14:32:21
1	Si 251.611†	339.4	20.5	1.6875	µg/L	1.6875	ppb	14:32:42
1	Sn 189.927†	1.1	2.0	0.9031	µg/L	0.9031	ppb	14:32:42
1	Ti 334.940†	148.3	29.6	0.0683	µg/L	0.0683	ppb	14:32:21
1	Tl 190.801†	-21.8	2.8	3.9713	µg/L	3.9713	ppb	14:32:42
1	U 409.014†	-33.0	21.2	1.9223	µg/L	1.9223	ppb	14:32:21
1	V 292.402†	-53.1	-7.9	-0.0767	µg/L	-0.0767	ppb	14:32:21
1	Zn 213.857†	482.8	-1.3	-0.0325	µg/L	-0.0325	ppb	14:32:42
2	Sc RADIAL	55881.3	55881.3	102	%			14:31:19
2	Al 396.153Radial†	-15.6	-5.1	-3.7901	µg/L	-3.7901	ppb	14:31:19
2	Ca 317.933Radial†	181.6	-1.8	-1.6610	µg/L	-1.6610	ppb	14:31:40
2	Fe 238.204 Radial†	14.4	-0.5	-4.0234	µg/L	-4.0234	ppb	14:31:40
2	K 766.490 Radial†	165.7	33.4	23.714	µg/L	23.714	ppb	14:31:19
2	Mg 279.077 IEC†	9.4	-2.1	-19.910	µg/L	-19.910	ppb	14:31:40
2	Na 589.592 Radial†	521.5	-32.6	-10.727	µg/L	-10.727	ppb	14:31:19
2	Sr 421.552†	60.7	19.7	0.2040	µg/L	0.2040	ppb	14:31:19
2	Sc 361.383	1964760.3	1964760.3	102.88	%			14:32:48
2	Y 371.029	1347613.8	1347613.8	102.88	%			14:32:48
2	Ag 328.068†	-518.5	60.5	0.4799	µg/L	0.4799	ppb	14:32:53
2	As 188.979†	-1.3	-2.4	-4.7694	µg/L	-4.7694	ppb	14:33:14
2	B 249.677†	344.7	3.6	0.1600	µg/L	0.1600	ppb	14:33:14
2	Ba 233.527†	-16.3	10.1	0.2637	µg/L	0.2637	ppb	14:33:14
2	Be 313.107†	-3298.7	234.0	0.1527	µg/L	0.1527	ppb	14:32:53
2	Cd 226.502†	-133.3	12.6	0.3477	µg/L	0.3477	ppb	14:33:14
2	Co 228.616†	-4.9	4.1	0.2028	µg/L	0.2028	ppb	14:33:14
2	Cr 267.716†	-12.9	39.8	0.8752	µg/L	0.8752	ppb	14:32:53
2	Cu 324.752†	2529.4	-27.4	-0.1918	µg/L	-0.1918	ppb	14:32:53
2	Mn 257.610†	-202.1	47.7	0.1654	µg/L	0.1654	ppb	14:33:14
2	Mo 202.031†	1.2	8.7	0.9303	µg/L	0.9303	ppb	14:33:14
2	Ni 231.604†	305.7	-5.0	-0.2753	µg/L	-0.2753	ppb	14:33:14
2	P 214.914†	24.2	-4.1	-8.8167	µg/L	-8.8167	ppb	14:33:14
2	Pb 220.353†	97.8	-2.1	-0.5597	µg/L	-0.5597	ppb	14:33:14

2	S 181.975 Axial†	15.1	-0.1	-0.5770	µg/L	-0.5770 ppb	14:33:14
2	Sb 206.836†	27.2	-0.5	-0.4890	µg/L	-0.4890 ppb	14:33:14
2	Se 196.026†	14.7	-1.6	-2.3575	µg/L	-2.3575 ppb	14:33:14
2	SiO2†	1242.8	-41.9	-9.0338	µg/L	-9.0338 ppb	14:32:53
2	Si 251.611†	360.2	37.3	3.0664	µg/L	3.0664 ppb	14:33:14
2	Sn 189.927†	0.7	1.6	0.7280	µg/L	0.7280 ppb	14:33:14
2	Ti 334.940†	261.8	138.4	0.3344	µg/L	0.3344 ppb	14:32:53
2	Tl 190.801†	-26.1	-1.1	-1.5598	µg/L	-1.5598 ppb	14:33:14
2	U 409.014†	-15.1	39.0	3.5273	µg/L	3.5273 ppb	14:32:53
2	V 292.402†	-42.6	2.8	0.0426	µg/L	0.0426 ppb	14:32:53
2	Zn 213.857†	491.7	2.4	0.0627	µg/L	0.0627 ppb	14:33:14
3	Sc RADIAL	56329.8	56329.8	103	%		14:31:45
3	Al 396.153Radial†	2.8	12.8	9.5317	µg/L	9.5317 ppb	14:31:45
3	Ca 317.933Radial†	174.0	-10.6	-9.9765	µg/L	-9.9765 ppb	14:32:05
3	Fe 238.204 Radial†	15.1	0.1	1.1942	µg/L	1.1942 ppb	14:32:05
3	K 766.490 Radial†	116.0	-16.0	-11.375	µg/L	-11.375 ppb	14:31:45
3	Mg 279.077 IEC†	9.4	-2.1	-19.858	µg/L	-19.858 ppb	14:32:05
3	Na 589.592 Radial†	536.5	-22.1	-7.2800	µg/L	-7.2800 ppb	14:31:45
3	Sr 421.552†	17.2	-22.9	-0.2369	µg/L	-0.2369 ppb	14:31:45
3	Sc 361.383	1963041.8	1963041.8	102.79	%		14:33:20
3	Y 371.029	1346546.9	1346546.9	102.80	%		14:33:20
3	Ag 328.068†	-542.7	36.6	0.2929	µg/L	0.2929 ppb	14:33:26
3	As 188.979†	1.8	0.6	1.1689	µg/L	1.1689 ppb	14:33:46
3	B 249.677†	343.0	2.2	0.0978	µg/L	0.0978 ppb	14:33:46
3	Ba 233.527†	-18.5	8.0	0.2082	µg/L	0.2082 ppb	14:33:46
3	Be 313.107†	-3230.6	297.4	0.1942	µg/L	0.1942 ppb	14:33:26
3	Cd 226.502†	-130.1	15.5	0.4281	µg/L	0.4281 ppb	14:33:46
3	Co 228.616†	-21.8	-12.4	-0.6104	µg/L	-0.6104 ppb	14:33:46
3	Cr 267.716†	-41.2	12.3	0.2708	µg/L	0.2708 ppb	14:33:26
3	Cu 324.752†	2546.0	-9.1	-0.0637	µg/L	-0.0637 ppb	14:33:26
3	Mn 257.610†	-170.0	78.8	0.2737	µg/L	0.2737 ppb	14:33:46
3	Mo 202.031†	0.3	7.9	0.8413	µg/L	0.8413 ppb	14:33:46
3	Ni 231.604†	307.9	-2.6	-0.1428	µg/L	-0.1428 ppb	14:33:46
3	P 214.914†	31.7	3.2	7.0023	µg/L	7.0023 ppb	14:33:46
3	Pb 220.353†	97.7	-2.1	-0.5651	µg/L	-0.5651 ppb	14:33:46
3	S 181.975 Axial†	14.0	-1.2	-5.1565	µg/L	-5.1565 ppb	14:33:46
3	Sb 206.836†	18.5	-9.0	-8.8540	µg/L	-8.8540 ppb	14:33:46
3	Se 196.026†	7.7	-8.4	-12.762	µg/L	-12.762 ppb	14:33:46
3	SiO2†	1231.2	-52.2	-11.239	µg/L	-11.239 ppb	14:33:26
3	Si 251.611†	338.7	16.6	1.3655	µg/L	1.3655 ppb	14:33:46
3	Sn 189.927†	2.7	3.5	1.5931	µg/L	1.5931 ppb	14:33:46
3	Ti 334.940†	206.7	84.9	0.2057	µg/L	0.2057 ppb	14:33:26
3	Tl 190.801†	-23.5	1.4	1.9821	µg/L	1.9821 ppb	14:33:46
3	U 409.014†	-82.4	-26.6	-2.4037	µg/L	-2.4037 ppb	14:33:26
3	V 292.402†	-5.0	39.3	0.4238	µg/L	0.4238 ppb	14:33:26
3	Zn 213.857†	490.6	1.7	0.0448	µg/L	0.0448 ppb	14:33:46

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1957367.4	102.49	%	0.594				0.58%
Sc RADIAL	56040.0	103	%	0.5				0.45%
Y 371.029	1342184.9	102.46	%	0.649				0.63%
Ag 328.068†	54.1	0.4302	µg/L	0.12036	0.4302	ppb	0.12036	27.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	3.2105	µg/L	6.68686	3.2105	ppb	6.68686	208.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.4253	µg/L	3.80624	-0.4253	ppb	3.80624	895.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.2	0.1426	µg/L	0.03915	0.1426	ppb	0.03915	27.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.0	0.2618	µg/L	0.05266	0.2618	ppb	0.05266	20.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.1331	µg/L	0.07275	0.1331	ppb	0.07275	54.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.1	-1.0692	µg/L	9.21745	-1.0692	ppb	9.21745	862.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.2858	µg/L	0.18136	0.2858	ppb	0.18136	63.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.7	-0.1327	µg/L	0.42483	-0.1327	ppb	0.42483	320.06%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 17.7      0.3886 µg/L       0.43975      0.3886 ppb        0.43975 113.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -16.9     -0.1187 µg/L       0.06593     -0.1187 ppb        0.06593  55.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          -0.3     -2.5979 µg/L       3.31761     -2.5979 ppb        3.31761 127.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           -1.9     -1.3625 µg/L      21.86298     -1.3625 ppb       21.86298 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             -0.1     -0.8244 µg/L      33.01203     -0.8244 ppb       33.01203 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 50.6      0.1749 µg/L       0.09441      0.1749 ppb        0.09441  53.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                  8.0      0.8505 µg/L       0.07561      0.8505 ppb        0.07561   8.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -12.0     -3.9548 µg/L       8.91231     -3.9548 ppb        8.91231 225.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 -4.7     -0.2590 µg/L       0.10906     -0.2590 ppb        0.10906  42.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                   1.1      2.3865 µg/L       9.75229      2.3865 ppb        9.75229 408.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 -4.8     -1.2761 µg/L       1.23617     -1.2761 ppb        1.23617  96.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             0.0      0.1210 µg/L       5.65896      0.1210 ppb        5.65896 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 -4.7     -4.6191 µg/L       4.18349     -4.6191 ppb        4.18349  90.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 -1.5     -2.2678 µg/L      10.53912     -2.2678 ppb       10.53912 464.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -34.9     -7.5220 µg/L       4.66014     -7.5220 ppb        4.66014  61.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 24.8      2.0398 µg/L       0.90350      2.0398 ppb        0.90350  44.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                  2.3      1.0747 µg/L       0.45737      1.0747 ppb        0.45737  42.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                  4.4      0.0455 µg/L       0.24518      0.0455 ppb        0.24518 539.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 84.3      0.2028 µg/L       0.13307      0.2028 ppb        0.13307  65.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  1.0      1.4645 µg/L       2.80164      1.4645 ppb        2.80164 191.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  11.2      1.0153 µg/L       3.06778      1.0153 ppb        3.06778 302.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  11.4      0.1299 µg/L       0.26143      0.1299 ppb        0.26143 201.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                  0.9      0.0250 µg/L       0.05061      0.0250 ppb        0.05061 202.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/11/2010 14:33:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	54747.4	54747.4	100	%			14:34:28
1	Al 396.153Radial†	273.1	282.4	210.27	µg/L	210.27	ppb	14:34:28
1	Ca 317.933Radial†	397.1	216.7	204.01	µg/L	204.01	ppb	14:34:49
1	Fe 238.204 Radial†	30.8	16.2	137.25	µg/L	137.25	ppb	14:34:49
1	K 766.490 Radial†	363.7	234.1	166.40	µg/L	166.40	ppb	14:34:28
1	Mg 279.077 IEC†	45.5	34.1	317.43	µg/L	317.43	ppb	14:34:49
1	Na 589.592 Radial†	1424.0	877.6	288.92	µg/L	288.92	ppb	14:34:28
1	Sr 421.552†	486.3	445.2	4.6152	µg/L	4.6152	ppb	14:34:28
1	Sc 361.383	1940350.4	1940350.4	101.60	%			14:35:51
1	Y 371.029	1331501.6	1331501.6	101.65	%			14:35:51
1	Ag 328.068†	65.6	629.1	5.0332	µg/L	5.0332	ppb	14:35:56
1	As 188.979†	15.0	13.6	26.557	µg/L	26.557	ppb	14:36:17
1	B 249.677†	1481.9	1127.1	49.194	µg/L	49.194	ppb	14:35:56
1	Ba 233.527†	167.0	190.4	4.9664	µg/L	4.9664	ppb	14:36:17
1	Be 313.107†	4123.9	7499.6	4.8957	µg/L	4.8957	ppb	14:35:56
1	Cd 226.502†	43.2	184.7	5.0837	µg/L	5.0837	ppb	14:36:17
1	Co 228.616†	90.6	98.0	4.8213	µg/L	4.8213	ppb	14:36:17
1	Cr 267.716†	181.4	230.9	5.0824	µg/L	5.0824	ppb	14:36:17
1	Cu 324.752†	4005.0	1456.0	10.189	µg/L	10.189	ppb	14:35:56
1	Mn 257.610†	2747.7	2948.6	10.216	µg/L	10.216	ppb	14:35:56
1	Mo 202.031†	89.7	95.8	10.232	µg/L	10.232	ppb	14:36:17
1	Ni 231.604†	390.7	82.4	4.5019	µg/L	4.5019	ppb	14:36:17
1	P 214.914†	110.5	81.1	173.12	µg/L	173.12	ppb	14:36:17
1	Pb 220.353†	141.4	42.0	11.169	µg/L	11.169	ppb	14:36:17
1	S 181.975 Axial†	37.1	21.7	95.029	µg/L	95.029	ppb	14:36:17
1	Sb 206.836†	32.7	5.2	5.2344	µg/L	5.2344	ppb	14:36:17
1	Se 196.026†	25.6	9.4	14.367	µg/L	14.367	ppb	14:36:17
1	SiO2†	2267.0	981.4	211.34	µg/L	211.34	ppb	14:35:56
1	Si 251.611†	1501.7	1165.2	95.786	µg/L	95.786	ppb	14:36:17
1	Sn 189.927†	16.7	17.3	7.9752	µg/L	7.9752	ppb	14:36:17
1	Ti 334.940†	2212.8	2061.9	4.9379	µg/L	4.9379	ppb	14:35:56
1	Tl 190.801†	-5.1	19.2	27.011	µg/L	27.011	ppb	14:36:17
1	U 409.014†	558.4	603.3	54.587	µg/L	54.587	ppb	14:35:56
1	V 292.402†	425.6	463.2	5.0996	µg/L	5.0996	ppb	14:35:56
1	Zn 213.857†	892.7	403.1	10.006	µg/L	10.006	ppb	14:36:17
2	Sc RADIAL	54832.7	54832.7	100	%			14:34:54
2	Al 396.153Radial†	256.5	265.4	197.60	µg/L	197.60	ppb	14:34:54
2	Ca 317.933Radial†	389.1	208.2	196.00	µg/L	196.00	ppb	14:35:15
2	Fe 238.204 Radial†	27.3	12.7	107.86	µg/L	107.86	ppb	14:35:15
2	K 766.490 Radial†	367.8	237.7	168.93	µg/L	168.93	ppb	14:34:54
2	Mg 279.077 IEC†	46.2	34.7	322.64	µg/L	322.64	ppb	14:35:15
2	Na 589.592 Radial†	1434.3	885.7	291.57	µg/L	291.57	ppb	14:34:54
2	Sr 421.552†	510.9	468.9	4.8611	µg/L	4.8611	ppb	14:34:54
2	Sc 361.383	1945380.3	1945380.3	101.86	%			14:36:23
2	Y 371.029	1334631.9	1334631.9	101.89	%			14:36:23
2	Ag 328.068†	83.1	646.1	5.1667	µg/L	5.1667	ppb	14:36:29
2	As 188.979†	13.7	12.3	23.962	µg/L	23.962	ppb	14:36:49
2	B 249.677†	1439.6	1081.8	47.230	µg/L	47.230	ppb	14:36:29
2	Ba 233.527†	163.8	186.8	4.8734	µg/L	4.8734	ppb	14:36:49
2	Be 313.107†	4161.3	7525.8	4.9129	µg/L	4.9129	ppb	14:36:29
2	Cd 226.502†	40.3	181.7	5.0056	µg/L	5.0056	ppb	14:36:49
2	Co 228.616†	95.9	103.0	5.0691	µg/L	5.0691	ppb	14:36:49
2	Cr 267.716†	184.6	233.6	5.1411	µg/L	5.1411	ppb	14:36:49
2	Cu 324.752†	3976.5	1417.8	9.9186	µg/L	9.9186	ppb	14:36:29
2	Mn 257.610†	2754.8	2948.6	10.212	µg/L	10.212	ppb	14:36:29
2	Mo 202.031†	93.7	99.6	10.631	µg/L	10.631	ppb	14:36:49
2	Ni 231.604†	392.3	82.9	4.5279	µg/L	4.5279	ppb	14:36:49
2	P 214.914†	107.2	77.6	165.67	µg/L	165.67	ppb	14:36:49
2	Pb 220.353†	143.7	43.9	11.669	µg/L	11.669	ppb	14:36:49

2	S 181.975 Axial†	37.9	22.4	98.282 µg/L	98.282 ppb	14:36:49
2	Sb 206.836†	37.0	9.4	9.3125 µg/L	9.3125 ppb	14:36:49
2	Se 196.026†	40.5	23.9	36.431 µg/L	36.431 ppb	14:36:49
2	SiO2†	2237.3	946.4	203.81 µg/L	203.81 ppb	14:36:29
2	Si 251.611†	1509.6	1169.2	96.111 µg/L	96.111 ppb	14:36:49
2	Sn 189.927†	28.9	29.3	13.482 µg/L	13.482 ppb	14:36:49
2	Ti 334.940†	2191.1	2034.9	4.8725 µg/L	4.8725 ppb	14:36:29
2	Tl 190.801†	-12.7	11.8	16.671 µg/L	16.671 ppb	14:36:49
2	U 409.014†	565.8	609.0	55.113 µg/L	55.113 ppb	14:36:29
2	V 292.402†	429.8	466.2	5.1319 µg/L	5.1319 ppb	14:36:29
2	Zn 213.857†	888.5	396.7	9.8472 µg/L	9.8472 ppb	14:36:49
3	Sc RADIAL	54719.3	54719.3	100 %		14:35:20
3	Al 396.153Radial†	252.3	261.8	194.95 µg/L	194.95 ppb	14:35:20
3	Ca 317.933Radial†	392.4	212.2	199.82 µg/L	199.82 ppb	14:35:41
3	Fe 238.204 Radial†	27.7	13.1	111.51 µg/L	111.51 ppb	14:35:41
3	K 766.490 Radial†	437.0	307.5	218.53 µg/L	218.53 ppb	14:35:20
3	Mg 279.077 IEC†	40.7	29.3	272.95 µg/L	272.95 ppb	14:35:41
3	Na 589.592 Radial†	1460.8	915.0	301.22 µg/L	301.22 ppb	14:35:20
3	Sr 421.552†	523.6	482.7	5.0036 µg/L	5.0036 ppb	14:35:20
3	Sc 361.383	1939953.9	1939953.9	101.58 %		14:36:55
3	Y 371.029	1330294.0	1330294.0	101.56 %		14:36:55
3	Ag 328.068†	50.3	614.0	4.9107 µg/L	4.9107 ppb	14:37:01
3	As 188.979†	19.6	18.1	35.385 µg/L	35.385 ppb	14:37:21
3	B 249.677†	1372.3	1019.5	44.505 µg/L	44.505 ppb	14:37:01
3	Ba 233.527†	145.4	169.2	4.4133 µg/L	4.4133 ppb	14:37:21
3	Be 313.107†	3478.0	6864.4	4.4811 µg/L	4.4811 ppb	14:37:01
3	Cd 226.502†	11.9	153.8	4.2359 µg/L	4.2359 ppb	14:37:21
3	Co 228.616†	75.0	82.7	4.0666 µg/L	4.0666 ppb	14:37:21
3	Cr 267.716†	166.3	216.1	4.7559 µg/L	4.7559 ppb	14:37:21
3	Cu 324.752†	3902.1	1355.5	9.4837 µg/L	9.4837 ppb	14:37:01
3	Mn 257.610†	2548.1	2752.7	9.5360 µg/L	9.5360 ppb	14:37:01
3	Mo 202.031†	79.0	85.3	9.1080 µg/L	9.1080 ppb	14:37:21
3	Ni 231.604†	393.4	85.1	4.6522 µg/L	4.6522 ppb	14:37:21
3	P 214.914†	100.3	71.1	151.77 µg/L	151.77 ppb	14:37:21
3	Pb 220.353†	126.2	27.0	7.1738 µg/L	7.1738 ppb	14:37:21
3	S 181.975 Axial†	34.7	19.3	84.720 µg/L	84.720 ppb	14:37:21
3	Sb 206.836†	29.4	2.0	2.0741 µg/L	2.0741 ppb	14:37:21
3	Se 196.026†	39.6	23.1	35.285 µg/L	35.285 ppb	14:37:21
3	SiO2†	2171.3	887.6	191.15 µg/L	191.15 ppb	14:37:01
3	Si 251.611†	1361.3	1027.3	84.447 µg/L	84.447 ppb	14:37:21
3	Sn 189.927†	21.9	22.4	10.338 µg/L	10.338 ppb	14:37:21
3	Ti 334.940†	2058.9	1910.8	4.5779 µg/L	4.5779 ppb	14:37:01
3	Tl 190.801†	-4.2	20.2	28.271 µg/L	28.271 ppb	14:37:21
3	U 409.014†	515.1	560.7	50.740 µg/L	50.740 ppb	14:37:01
3	V 292.402†	407.9	445.8	4.8980 µg/L	4.8980 ppb	14:37:01
3	Zn 213.857†	822.6	334.3	8.2901 µg/L	8.2901 ppb	14:37:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941894.9	101.68	%	0.158				0.16%
Sc RADIAL	54766.5	100	%	0.1				0.11%
Y 371.029	1332142.5	101.70	%	0.171				0.17%
Ag 328.068†	629.8	5.0369	µg/L	0.12806	5.0369	ppb	0.12806	2.54%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	269.9	200.94	µg/L	8.187	200.94	ppb	8.187	4.07%
QC value within limits for Al 396.153Radial Recovery = 100.47%								
As 188.979†	14.7	28.634	µg/L	5.9881	28.634	ppb	5.9881	20.91%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	1076.2	46.976	µg/L	2.3545	46.976	ppb	2.3545	5.01%
QC value within limits for B 249.677 Recovery = 93.95%								
Ba 233.527†	182.1	4.7510	µg/L	0.29615	4.7510	ppb	0.29615	6.23%
QC value within limits for Ba 233.527 Recovery = 95.02%								
Be 313.107†	7296.6	4.7633	µg/L	0.24448	4.7633	ppb	0.24448	5.13%
QC value within limits for Be 313.107 Recovery = 95.27%								
Ca 317.933Radial†	212.4	199.94	µg/L	4.009	199.94	ppb	4.009	2.00%
QC value within limits for Ca 317.933Radial Recovery = 99.97%								
Cd 226.502†	173.4	4.7751	µg/L	0.46856	4.7751	ppb	0.46856	9.81%
QC value within limits for Cd 226.502 Recovery = 95.50%								
Co 228.616†	94.6	4.6523	µg/L	0.52218	4.6523	ppb	0.52218	11.22%

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   QC value within limits for Co 228.616  Recovery = 93.05%
Cr 267.716†              226.9      4.9931 µg/L       0.20751      4.9931 ppb        0.20751   4.16%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†             1409.7      9.8638 µg/L       0.35593      9.8638 ppb        0.35593   3.61%
   QC value within limits for Cu 324.752  Recovery = 98.64%
Fe 238.204 Radial†        14.0      118.87 µg/L        16.021      118.87 ppb         16.021  13.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 118.87%
K 766.490 Radial†        259.7      184.62 µg/L        29.396      184.62 ppb         29.396  15.92%
   QC value within limits for K 766.490 Radial  Recovery = 123.08%
Mg 279.077 IEC†           32.7      304.34 µg/L        27.307      304.34 ppb         27.307   8.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†             2883.3      9.9880 µg/L       0.39151      9.9880 ppb        0.39151   3.92%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†               93.6      9.9904 µg/L       0.78979      9.9904 ppb        0.78979   7.91%
   QC value within limits for Mo 202.031  Recovery = 99.90%
Na 589.592 Radial†       892.8      293.90 µg/L         6.477      293.90 ppb          6.477   2.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.97%
Ni 231.604†               83.5      4.5606 µg/L       0.08032      4.5606 ppb        0.08032   1.76%
   QC value within limits for Ni 231.604  Recovery = 91.21%
P 214.914†                76.6      163.52 µg/L        10.837      163.52 ppb         10.837   6.63%
   QC value within limits for P 214.914  Recovery = 109.01%
Pb 220.353†               37.6      10.004 µg/L        2.4639      10.004 ppb         2.4639  24.63%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†          21.2      92.677 µg/L        7.0801      92.677 ppb         7.0801   7.64%
   QC value within limits for S 181.975 Axial  Recovery = 92.68%
Sb 206.836†                5.5      5.5403 µg/L       3.62890      5.5403 ppb        3.62890  65.50%
   QC value less than the lower limit for Sb 206.836  Recovery = 55.40%
Se 196.026†               18.8      28.694 µg/L       12.4212      28.694 ppb        12.4212  43.29%
   QC value within limits for Se 196.026  Recovery = 95.65%
SiO2†                    938.5      202.10 µg/L        10.205      202.10 ppb         10.205   5.05%
   QC value within limits for SiO2  Recovery = 94.88%
Si 251.611†             1120.6      92.115 µg/L        6.6423      92.115 ppb         6.6423   7.21%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†               23.0      10.598 µg/L        2.7624      10.598 ppb         2.7624  26.06%
   QC value within limits for Sn 189.927  Recovery = 105.98%
Sr 421.552†              465.6      4.8266 µg/L       0.19650      4.8266 ppb        0.19650   4.07%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†             2002.5      4.7961 µg/L       0.19174      4.7961 ppb        0.19174   4.00%
   QC value within limits for Ti 334.940  Recovery = 95.92%
Tl 190.801†               17.1      23.984 µg/L        6.3650      23.984 ppb         6.3650  26.54%
   QC value within limits for Tl 190.801  Recovery = 119.92%
U 409.014†               591.0      53.480 µg/L        2.3877      53.480 ppb         2.3877   4.46%
   QC value within limits for U 409.014  Recovery = 106.96%
V 292.402†               458.4      5.0431 µg/L       0.12672      5.0431 ppb        0.12672   2.51%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†              378.0      9.3810 µg/L       0.94809      9.3810 ppb        0.94809  10.11%
   QC value within limits for Zn 213.857  Recovery = 93.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/11/2010 14:37:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54929.8	54929.8	101	%			14:38:12
1	Al 396.153Radial†	662864.4	658585.8	490860	µg/L	490860	ppb	14:38:07
1	Ca 317.933Radial†	501017.0	497596.3	468520	µg/L	468520	ppb	14:38:07
1	Fe 238.204 Radial†	21302.2	21149.9	179260	µg/L	179260	ppb	14:38:12
1	K 766.490 Radial†	133.6	4.3	3.0615	µg/L	3.0615	ppb	14:38:12
1	Mg 279.077 IEC†	50419.1	50081.6	465880	µg/L	465880	ppb	14:38:12
1	Na 589.592 Radial†	588.4	42.7	14.053	µg/L	14.053	ppb	14:38:12
1	Sr 421.552†	369.2	327.3	3.3927	µg/L	3.3927	ppb	14:38:12
1	Sc 361.383	1857257.4	1857257.4	97.247	%			14:38:45
1	Y 371.029	1267408.3	1267408.3	96.755	%			14:38:45
1	Ag 328.068†	-2882.1	-2399.2	-7.8752	µg/L	-7.8752	ppb	14:38:51
1	As 188.979†	-10.9	-12.4	-38.129	µg/L	-38.129	ppb	14:39:11
1	B 249.677†	826.3	518.2	-70.891	µg/L	-70.891	ppb	14:38:51
1	Ba 233.527†	265.1	298.7	7.7406	µg/L	7.7406	ppb	14:39:11
1	Be 313.107†	-4111.4	-787.4	-0.5240	µg/L	-0.5240	ppb	14:38:51
1	Cd 226.502†	352.3	504.4	-6.3482	µg/L	-6.3482	ppb	14:39:11
1	Co 228.616†	33.3	43.1	2.0584	µg/L	2.0584	ppb	14:39:11
1	Cr 267.716†	-59.0	-8.3	-0.1945	µg/L	-0.1945	ppb	14:39:11
1	Cu 324.752†	-1400.3	-3926.0	-2.5072	µg/L	-2.5072	ppb	14:38:51
1	Mn 257.610†	37.6	282.8	6.1777	µg/L	6.1777	ppb	14:38:51
1	Mo 202.031†	-107.0	-102.5	-4.1257	µg/L	-4.1257	ppb	14:39:11
1	Ni 231.604†	157.1	-140.7	-5.3633	µg/L	-5.3633	ppb	14:39:11
1	P 214.914†	101.4	76.6	162.80	µg/L	162.80	ppb	14:39:11
1	Pb 220.353†	54.2	-41.5	9.1341	µg/L	9.1341	ppb	14:39:11
1	S 181.975 Axial†	32.3	18.4	80.756	µg/L	80.756	ppb	14:39:11
1	Sb 206.836†	58.1	32.8	-8.6501	µg/L	-8.6501	ppb	14:39:11
1	Se 196.026†	34.1	19.3	-25.969	µg/L	-25.969	ppb	14:39:11
1	SiO2†	1033.7	-187.0	-40.276	µg/L	-40.276	ppb	14:39:11
1	Si 251.611†	428.1	127.4	10.470	µg/L	10.470	ppb	14:39:11
1	Sn 189.927†	-61.0	-61.9	5.0665	µg/L	5.0665	ppb	14:39:11
1	Ti 334.940†	10534.2	10716.3	-3.5463	µg/L	-3.5463	ppb	14:38:51
1	Tl 190.801†	-30.9	-7.5	8.6675	µg/L	8.6675	ppb	14:39:11
1	U 409.014†	-29.2	23.6	-51.357	µg/L	-51.357	ppb	14:38:51
1	V 292.402†	-1857.1	-1865.5	1.1351	µg/L	1.1351	ppb	14:38:51
1	Zn 213.857†	1452.2	1017.8	-9.4487	µg/L	-9.4487	ppb	14:39:11
2	Sc RADIAL	55009.9	55009.9	101	%			14:38:23
2	Al 396.153Radial†	661057.1	655833.6	488810	µg/L	488810	ppb	14:38:18
2	Ca 317.933Radial†	498837.3	494708.8	465800	µg/L	465800	ppb	14:38:18
2	Fe 238.204 Radial†	21470.3	21285.8	180410	µg/L	180410	ppb	14:38:23
2	K 766.490 Radial†	106.0	-23.2	-16.506	µg/L	-16.506	ppb	14:38:23
2	Mg 279.077 IEC†	50738.3	50325.3	468150	µg/L	468150	ppb	14:38:23
2	Na 589.592 Radial†	648.0	101.0	33.250	µg/L	33.250	ppb	14:38:23
2	Sr 421.552†	361.1	318.7	3.3032	µg/L	3.3032	ppb	14:38:23
2	Sc 361.383	1846098.6	1846098.6	96.662	%			14:39:17
2	Y 371.029	1260367.6	1260367.6	96.217	%			14:39:17
2	Ag 328.068†	-2932.2	-2468.9	-8.3594	µg/L	-8.3594	ppb	14:39:23
2	As 188.979†	-14.6	-16.3	-45.537	µg/L	-45.537	ppb	14:39:43
2	B 249.677†	858.5	556.6	-69.813	µg/L	-69.813	ppb	14:39:23
2	Ba 233.527†	262.3	297.4	7.7059	µg/L	7.7059	ppb	14:39:43
2	Be 313.107†	-4105.1	-806.4	-0.5367	µg/L	-0.5367	ppb	14:39:23
2	Cd 226.502†	337.6	491.4	-6.8376	µg/L	-6.8376	ppb	14:39:43
2	Co 228.616†	17.7	27.1	1.2707	µg/L	1.2707	ppb	14:39:43
2	Cr 267.716†	-53.0	-2.4	-0.0661	µg/L	-0.0661	ppb	14:39:43
2	Cu 324.752†	-1461.5	-3998.0	-2.8500	µg/L	-2.8500	ppb	14:39:23
2	Mn 257.610†	43.7	289.4	6.2629	µg/L	6.2629	ppb	14:39:23
2	Mo 202.031†	-104.0	-100.0	-3.8203	µg/L	-3.8203	ppb	14:39:43
2	Ni 231.604†	142.4	-154.9	-6.1246	µg/L	-6.1246	ppb	14:39:43
2	P 214.914†	112.7	89.0	187.84	µg/L	187.84	ppb	14:39:43
2	Pb 220.353†	58.0	-37.2	10.116	µg/L	10.116	ppb	14:39:43

2	S 181.975 Axial†	36.2	22.6	98.941 µg/L	98.941 ppb	14:39:43
2	Sb 206.836†	53.9	28.8	-12.353 µg/L	-12.353 ppb	14:39:43
2	Se 196.026†	26.7	11.8	-35.549 µg/L	-35.549 ppb	14:39:43
2	SiO2†	1052.3	-161.4	-34.761 µg/L	-34.761 ppb	14:39:43
2	Si 251.611†	458.0	160.9	13.230 µg/L	13.230 ppb	14:39:43
2	Sn 189.927†	-63.6	-65.0	3.8069 µg/L	3.8069 ppb	14:39:43
2	Ti 334.940†	10748.6	11003.6	-3.0781 µg/L	-3.0781 ppb	14:39:23
2	Tl 190.801†	-35.3	-12.3	2.2973 µg/L	2.2973 ppb	14:39:43
2	U 409.014†	-80.2	-29.4	-56.150 µg/L	-56.150 ppb	14:39:23
2	V 292.402†	-1894.8	-1916.0	0.7299 µg/L	0.7299 ppb	14:39:23
2	Zn 213.857†	1462.8	1037.8	-9.1272 µg/L	-9.1272 ppb	14:39:43
3	Sc RADIAL	54631.5	54631.5	100 %		14:38:35
3	Al 396.153Radial†	667869.4	667182.1	497270 µg/L	497270 ppb	14:38:29
3	Ca 317.933Radial†	503599.4	502894.4	473510 µg/L	473510 ppb	14:38:29
3	Fe 238.204 Radial†	21467.0	21430.1	181630 µg/L	181630 ppb	14:38:35
3	K 766.490 Radial†	96.7	-31.8	-22.617 µg/L	-22.617 ppb	14:38:35
3	Mg 279.077 IEC†	50895.3	50830.8	472850 µg/L	472850 ppb	14:38:35
3	Na 589.592 Radial†	627.0	84.4	27.800 µg/L	27.800 ppb	14:38:35
3	Sr 421.552†	372.9	333.0	3.4514 µg/L	3.4514 ppb	14:38:35
3	Sc 361.383	1825493.4	1825493.4	95.584 %		14:39:49
3	Y 371.029	1244094.0	1244094.0	94.975 %		14:39:49
3	Ag 328.068†	-2843.3	-2410.2	-7.8207 µg/L	-7.8207 ppb	14:39:55
3	As 188.979†	-21.3	-23.4	-59.893 µg/L	-59.893 ppb	14:40:16
3	B 249.677†	774.3	478.6	-73.863 µg/L	-73.863 ppb	14:39:55
3	Ba 233.527†	257.2	295.1	7.6465 µg/L	7.6465 ppb	14:40:16
3	Be 313.107†	-4046.5	-793.0	-0.5281 µg/L	-0.5281 ppb	14:39:55
3	Cd 226.502†	377.7	537.3	-5.7094 µg/L	-5.7094 ppb	14:40:16
3	Co 228.616†	37.6	48.2	2.3043 µg/L	2.3043 ppb	14:40:16
3	Cr 267.716†	-81.4	-32.7	-0.7334 µg/L	-0.7334 ppb	14:40:16
3	Cu 324.752†	-1475.8	-4030.1	-2.9042 µg/L	-2.9042 ppb	14:39:55
3	Mn 257.610†	50.9	297.4	6.2652 µg/L	6.2652 ppb	14:39:55
3	Mo 202.031†	-108.7	-106.2	-4.4310 µg/L	-4.4310 ppb	14:40:16
3	Ni 231.604†	152.6	-142.5	-5.4329 µg/L	-5.4329 ppb	14:40:16
3	P 214.914†	105.4	82.6	175.78 µg/L	175.78 ppb	14:40:16
3	Pb 220.353†	72.0	-21.8	14.642 µg/L	14.642 ppb	14:40:16
3	S 181.975 Axial†	29.0	15.5	67.783 µg/L	67.783 ppb	14:40:16
3	Sb 206.836†	45.6	20.7	-20.949 µg/L	-20.949 ppb	14:40:16
3	Se 196.026†	33.1	18.8	-27.759 µg/L	-27.759 ppb	14:40:16
3	SiO2†	1033.4	-168.9	-36.378 µg/L	-36.378 ppb	14:40:16
3	Si 251.611†	441.5	149.0	12.252 µg/L	12.252 ppb	14:40:16
3	Sn 189.927†	-53.7	-55.3	8.6518 µg/L	8.6518 ppb	14:40:16
3	Ti 334.940†	10848.2	11233.3	-2.7738 µg/L	-2.7738 ppb	14:39:55
3	Tl 190.801†	-26.7	-3.6	14.470 µg/L	14.470 ppb	14:40:16
3	U 409.014†	-83.2	-33.5	-57.162 µg/L	-57.162 ppb	14:39:55
3	V 292.402†	-1928.3	-1973.2	0.2572 µg/L	0.2572 ppb	14:39:55
3	Zn 213.857†	1454.4	1046.1	-9.2482 µg/L	-9.2482 ppb	14:40:16

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1842949.8	96.498	%	0.8438				0.87%
Sc RADIAL	54857.1	101	%	0.4				0.36%
Y 371.029	1257290.0	95.982	%	0.9129				0.95%
Ag 328.068†	-2426.1	-8.0184	µg/L	0.29656	-8.0184	ppb	0.29656	3.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660533.8	492320	µg/L	4412.2	492320	ppb	4412.2	0.90%
QC value within limits for Al 396.153Radial Recovery = 98.46%								
As 188.979†	-17.4	-47.853	µg/L	11.0657	-47.853	ppb	11.0657	23.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	517.8	-71.522	µg/L	2.0977	-71.522	ppb	2.0977	2.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	297.0	7.6977	µg/L	0.04758	7.6977	ppb	0.04758	0.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-795.6	-0.5296	µg/L	0.00649	-0.5296	ppb	0.00649	1.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	498399.8	469270	µg/L	3908.9	469270	ppb	3908.9	0.83%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	511.0	-6.2984	µg/L	0.56575	-6.2984	ppb	0.56575	8.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	39.5	1.8778	µg/L	0.53996	1.8778	ppb	0.53996	28.75%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.5     -0.3313 µg/L       0.35406     -0.3313 ppb        0.35406 106.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3984.7     -2.7538 µg/L       0.21524     -2.7538 ppb        0.21524   7.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21288.6      180430 µg/L        1187.5      180430 ppb         1187.5   0.66%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.22%
K 766.490 Radial†        -16.9     -12.020 µg/L       13.4139     -12.020 ppb        13.4139 111.59%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        50412.6      468960 µg/L        3555.4      468960 ppb         3555.4   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.79%
Mn 257.610†              289.9      6.2353 µg/L       0.04986      6.2353 ppb        0.04986   0.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -102.9     -4.1257 µg/L       0.30534     -4.1257 ppb        0.30534   7.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        76.0      25.034 µg/L        9.8929      25.034 ppb         9.8929  39.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -146.0     -5.6403 µg/L       0.42090     -5.6403 ppb        0.42090   7.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                82.7      175.47 µg/L        12.518      175.47 ppb         12.518   7.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -33.5      11.297 µg/L        2.9376      11.297 ppb         2.9376  26.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          18.8      82.493 µg/L       15.6511      82.493 ppb        15.6511  18.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               27.4     -13.984 µg/L        6.3094     -13.984 ppb         6.3094  45.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               16.6     -29.759 µg/L        5.0935     -29.759 ppb         5.0935  17.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -172.5     -37.139 µg/L        2.8350     -37.139 ppb         2.8350   7.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              145.8      11.984 µg/L        1.3994      11.984 ppb         1.3994  11.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -60.7      5.8417 µg/L       2.51374      5.8417 ppb        2.51374  43.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              326.3      3.3825 µg/L       0.07464      3.3825 ppb        0.07464   2.21%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            10984.4     -3.1328 µg/L       0.38914     -3.1328 ppb        0.38914  12.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -7.8      8.4783 µg/L       6.08871      8.4783 ppb        6.08871  71.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -13.1     -54.890 µg/L        3.1009     -54.890 ppb         3.1009   5.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -1918.2      0.7074 µg/L       0.43934      0.7074 ppb        0.43934  62.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1033.9     -9.2747 µg/L       0.16235     -9.2747 ppb        0.16235   1.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/11/2010 14:40:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54743.7	54743.7	100	%			14:41:04
1	Al 396.153Radial†	662601.8	660562.7	492330	µg/L	492330	ppb	14:40:59
1	Ca 317.933Radial†	498259.5	496539.4	467520	µg/L	467520	ppb	14:40:59
1	Fe 238.204 Radial†	21341.6	21261.1	180210	µg/L	180210	ppb	14:41:04
1	K 766.490 Radial†	6958.5	6808.5	4839.5	µg/L	4839.5	ppb	14:41:04
1	Mg 279.077 IEC†	50755.9	50587.7	470600	µg/L	470600	ppb	14:41:04
1	Na 589.592 Radial†	15455.3	14865.6	4893.8	µg/L	4893.8	ppb	14:41:04
1	Sr 421.552†	46875.8	46691.2	484.01	µg/L	484.01	ppb	14:41:04
1	Sc 361.383	1846856.3	1846856.3	96.702	%			14:41:38
1	Y 371.029	1258300.6	1258300.6	96.059	%			14:41:38
1	Ag 328.068†	27332.2	28828.8	243.20	µg/L	243.20	ppb	14:41:44
1	As 188.979†	237.2	244.2	462.48	µg/L	462.48	ppb	14:42:04
1	B 249.677†	11716.6	11784.7	421.73	µg/L	421.73	ppb	14:41:44
1	Ba 233.527†	17712.8	18342.8	478.47	µg/L	478.47	ppb	14:41:44
1	Be 313.107†	339671.1	354695.4	231.45	µg/L	231.45	ppb	14:41:38
1	Cd 226.502†	15868.9	16552.3	436.70	µg/L	436.70	ppb	14:41:44
1	Co 228.616†	8171.6	8459.1	415.69	µg/L	415.69	ppb	14:42:04
1	Cr 267.716†	20395.5	21143.4	465.37	µg/L	465.37	ppb	14:41:44
1	Cu 324.752†	70107.6	70012.4	514.10	µg/L	514.10	ppb	14:41:44
1	Mn 257.610†	126842.6	131412.5	460.20	µg/L	460.20	ppb	14:41:44
1	Mo 202.031†	4309.3	4463.8	483.23	µg/L	483.23	ppb	14:42:04
1	Ni 231.604†	7535.7	7490.5	411.39	µg/L	411.39	ppb	14:42:04
1	P 214.914†	1206.8	1220.3	2570.8	µg/L	2570.8	ppb	14:42:04
1	Pb 220.353†	1703.5	1664.4	464.39	µg/L	464.39	ppb	14:42:04
1	S 181.975 Axial†	587.6	592.8	2597.2	µg/L	2597.2	ppb	14:42:04
1	Sb 206.836†	550.1	541.9	495.21	µg/L	495.21	ppb	14:42:04
1	Se 196.026†	1471.2	1505.6	2238.6	µg/L	2238.6	ppb	14:42:04
1	SiO2†	47866.2	48248.6	10391	µg/L	10391	ppb	14:41:44
1	Si 251.611†	57854.9	59515.0	4892.4	µg/L	4892.4	ppb	14:41:44
1	Sn 189.927†	962.7	996.5	492.28	µg/L	492.28	ppb	14:42:04
1	Ti 334.940†	201101.7	207843.8	470.24	µg/L	470.24	ppb	14:41:44
1	Tl 190.801†	278.9	312.7	461.24	µg/L	461.24	ppb	14:42:04
1	U 409.014†	5055.9	5282.0	424.65	µg/L	424.65	ppb	14:41:44
1	V 292.402†	42477.1	43969.9	495.05	µg/L	495.05	ppb	14:41:44
1	Zn 213.857†	19021.9	19195.0	441.47	µg/L	441.47	ppb	14:41:44
2	Sc RADIAL	55060.7	55060.7	101	%			14:41:16
2	Al 396.153Radial†	664887.8	659025.8	491180	µg/L	491180	ppb	14:41:10
2	Ca 317.933Radial†	499367.7	494778.3	465860	µg/L	465860	ppb	14:41:10
2	Fe 238.204 Radial†	21754.5	21547.8	182640	µg/L	182640	ppb	14:41:16
2	K 766.490 Radial†	7103.8	6912.7	4913.5	µg/L	4913.5	ppb	14:41:16
2	Mg 279.077 IEC†	51410.3	50945.0	473920	µg/L	473920	ppb	14:41:16
2	Na 589.592 Radial†	15635.7	14955.7	4923.5	µg/L	4923.5	ppb	14:41:16
2	Sr 421.552†	47418.4	46960.1	486.80	µg/L	486.80	ppb	14:41:16
2	Sc 361.383	1837075.1	1837075.1	96.190	%			14:42:10
2	Y 371.029	1253427.6	1253427.6	95.687	%			14:42:10
2	Ag 328.068†	27052.1	28688.2	242.21	µg/L	242.21	ppb	14:42:16
2	As 188.979†	226.7	234.5	443.77	µg/L	443.77	ppb	14:42:37
2	B 249.677†	11617.2	11745.8	418.76	µg/L	418.76	ppb	14:42:16
2	Ba 233.527†	17456.8	18174.2	474.07	µg/L	474.07	ppb	14:42:16
2	Be 313.107†	337736.8	354554.8	231.36	µg/L	231.36	ppb	14:42:10
2	Cd 226.502†	15582.5	16341.8	430.62	µg/L	430.62	ppb	14:42:16
2	Co 228.616†	8172.6	8505.1	417.96	µg/L	417.96	ppb	14:42:37
2	Cr 267.716†	20089.6	20937.7	460.84	µg/L	460.84	ppb	14:42:16
2	Cu 324.752†	69141.0	69393.5	510.12	µg/L	510.12	ppb	14:42:16
2	Mn 257.610†	124994.1	130189.1	456.15	µg/L	456.15	ppb	14:42:16
2	Mo 202.031†	4295.8	4473.5	484.36	µg/L	484.36	ppb	14:42:37
2	Ni 231.604†	7541.0	7537.5	413.99	µg/L	413.99	ppb	14:42:37
2	P 214.914†	1237.1	1258.5	2651.1	µg/L	2651.1	ppb	14:42:37
2	Pb 220.353†	1701.2	1671.4	466.10	µg/L	466.10	ppb	14:42:37

2	S 181.975 Axial†	598.3	607.2	2660.4 µg/L	2660.4 ppb	14:42:37
2	Sb 206.836†	550.2	545.1	498.59 µg/L	498.59 ppb	14:42:37
2	Se 196.026†	1466.3	1508.6	2247.3 µg/L	2247.3 ppb	14:42:37
2	SiO2†	47231.2	47852.0	10305 µg/L	10305 ppb	14:42:16
2	Si 251.611†	57079.6	59027.6	4852.4 µg/L	4852.4 ppb	14:42:16
2	Sn 189.927†	972.7	1012.1	499.64 µg/L	499.64 ppb	14:42:37
2	Ti 334.940†	198343.7	206083.8	465.72 µg/L	465.72 ppb	14:42:16
2	Tl 190.801†	259.5	294.1	435.56 µg/L	435.56 ppb	14:42:37
2	U 409.014†	4974.7	5225.3	419.28 µg/L	419.28 ppb	14:42:16
2	V 292.402†	41844.6	43546.2	490.82 µg/L	490.82 ppb	14:42:16
2	Zn 213.857†	18719.4	18985.3	435.92 µg/L	435.92 ppb	14:42:16
3	Sc RADIAL	54836.5	54836.5	100 %		14:41:27
3	Al 396.153Radial†	666707.4	663530.3	494540 µg/L	494540 ppb	14:41:21
3	Ca 317.933Radial†	500342.9	497771.9	468680 µg/L	468680 ppb	14:41:21
3	Fe 238.204 Radial†	21386.7	21269.9	180290 µg/L	180290 ppb	14:41:27
3	K 766.490 Radial†	6994.6	6832.8	4856.7 µg/L	4856.7 ppb	14:41:27
3	Mg 279.077 IEC†	50805.9	50551.7	470260 µg/L	470260 ppb	14:41:27
3	Na 589.592 Radial†	15470.0	14854.1	4890.0 µg/L	4890.0 ppb	14:41:27
3	Sr 421.552†	46844.7	46581.2	482.87 µg/L	482.87 ppb	14:41:27
3	Sc 361.383	1833431.9	1833431.9	95.999 %		14:42:43
3	Y 371.029	1252123.0	1252123.0	95.588 %		14:42:43
3	Ag 328.068†	27588.4	29302.7	247.00 µg/L	247.00 ppb	14:42:49
3	As 188.979†	241.1	250.0	473.71 µg/L	473.71 ppb	14:43:09
3	B 249.677†	11855.2	12017.8	431.89 µg/L	431.89 ppb	14:42:49
3	Ba 233.527†	17813.9	18582.3	484.71 µg/L	484.71 ppb	14:42:49
3	Be 313.107†	338767.0	356325.5	232.51 µg/L	232.51 ppb	14:42:43
3	Cd 226.502†	15965.4	16772.9	442.77 µg/L	442.77 ppb	14:42:49
3	Co 228.616†	8119.3	8466.6	416.04 µg/L	416.04 ppb	14:43:09
3	Cr 267.716†	20600.1	21511.0	473.46 µg/L	473.46 ppb	14:42:49
3	Cu 324.752†	70720.9	71182.1	522.28 µg/L	522.28 ppb	14:42:49
3	Mn 257.610†	127685.2	133250.6	466.59 µg/L	466.59 ppb	14:42:49
3	Mo 202.031†	4277.4	4463.2	483.17 µg/L	483.17 ppb	14:43:09
3	Ni 231.604†	7478.0	7487.4	411.22 µg/L	411.22 ppb	14:43:09
3	P 214.914†	1197.0	1219.3	2568.4 µg/L	2568.4 ppb	14:43:09
3	Pb 220.353†	1703.7	1677.5	467.96 µg/L	467.96 ppb	14:43:09
3	S 181.975 Axial†	585.7	595.2	2608.0 µg/L	2608.0 ppb	14:43:09
3	Sb 206.836†	542.2	537.9	491.06 µg/L	491.06 ppb	14:43:09
3	Se 196.026†	1453.1	1497.9	2227.0 µg/L	2227.0 ppb	14:43:09
3	SiO2†	48266.6	49028.1	10558 µg/L	10558 ppb	14:42:49
3	Si 251.611†	58341.2	60459.7	4970.1 µg/L	4970.1 ppb	14:42:49
3	Sn 189.927†	964.4	1005.4	496.36 µg/L	496.36 ppb	14:43:09
3	Ti 334.940†	202865.6	211203.9	478.37 µg/L	478.37 ppb	14:42:49
3	Tl 190.801†	278.4	314.2	463.55 µg/L	463.55 ppb	14:43:09
3	U 409.014†	5159.4	5428.1	437.79 µg/L	437.79 ppb	14:42:49
3	V 292.402†	42697.4	44521.1	500.97 µg/L	500.97 ppb	14:42:49
3	Zn 213.857†	19157.2	19480.1	448.59 µg/L	448.59 ppb	14:42:49

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1839121.1	96.297	%	0.3635				0.38%
Sc RADIAL	54880.3	101	%	0.3				0.30%
Y 371.029	1254617.1	95.778	%	0.2486				0.26%
Ag 328.068†	28939.9	244.14	µg/L	2.532	244.14	ppb	2.532	1.04%
QC value within limits for Ag 328.068 Recovery = 97.66%								
Al 396.153Radial†	661039.6	492680	µg/L	1706.7	492680	ppb	1706.7	0.35%
QC value within limits for Al 396.153Radial Recovery = 98.54%								
As 188.979†	242.9	459.99	µg/L	15.123	459.99	ppb	15.123	3.29%
QC value within limits for As 188.979 Recovery = 92.00%								
B 249.677†	11849.4	424.12	µg/L	6.887	424.12	ppb	6.887	1.62%
QC value within limits for B 249.677 Recovery = 84.82%								
Ba 233.527†	18366.5	479.08	µg/L	5.348	479.08	ppb	5.348	1.12%
QC value within limits for Ba 233.527 Recovery = 95.82%								
Be 313.107†	355191.9	231.77	µg/L	0.640	231.77	ppb	0.640	0.28%
QC value within limits for Be 313.107 Recovery = 92.71%								
Ca 317.933Radial†	496363.2	467360	µg/L	1416.6	467360	ppb	1416.6	0.30%
QC value within limits for Ca 317.933Radial Recovery = 93.47%								
Cd 226.502†	16555.7	436.70	µg/L	6.077	436.70	ppb	6.077	1.39%
QC value within limits for Cd 226.502 Recovery = 87.34%								
Co 228.616†	8476.9	416.56	µg/L	1.225	416.56	ppb	1.225	0.29%

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   QC value within limits for Co 228.616  Recovery = 83.31%
Cr 267.716†            21197.4      466.55 µg/L        6.392      466.55 ppb          6.392   1.37%
   QC value within limits for Cr 267.716  Recovery = 93.31%
Cu 324.752†            70196.0      515.50 µg/L        6.202      515.50 ppb          6.202   1.20%
   QC value within limits for Cu 324.752  Recovery = 103.10%
Fe 238.204 Radial†     21359.6      181050 µg/L       1382.0      181050 ppb         1382.0   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.52%
K 766.490 Radial†       6851.3      4869.9 µg/L        38.72      4869.9 ppb          38.72   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 97.40%
Mg 279.077 IEC†        50694.8      471600 µg/L       2021.9      471600 ppb         2021.9   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.32%
Mn 257.610†           131617.4      460.98 µg/L        5.261      460.98 ppb          5.261   1.14%
   QC value within limits for Mn 257.610  Recovery = 92.20%
Mo 202.031†             4466.8      483.58 µg/L        0.671      483.58 ppb          0.671   0.14%
   QC value within limits for Mo 202.031  Recovery = 96.72%
Na 589.592 Radial†     14891.8      4902.4 µg/L        18.32      4902.4 ppb          18.32   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.05%
Ni 231.604†             7505.2      412.20 µg/L        1.552      412.20 ppb          1.552   0.38%
   QC value within limits for Ni 231.604  Recovery = 82.44%
P 214.914†              1232.7      2596.7 µg/L        47.05      2596.7 ppb          47.05   1.81%
   QC value within limits for P 214.914  Recovery = 103.87%
Pb 220.353†             1671.1      466.15 µg/L        1.785      466.15 ppb          1.785   0.38%
   QC value within limits for Pb 220.353  Recovery = 93.23%
S 181.975 Axial†         598.4      2621.9 µg/L        33.79      2621.9 ppb          33.79   1.29%
   QC value within limits for S 181.975 Axial  Recovery = 104.87%
Sb 206.836†              541.6      494.95 µg/L        3.768      494.95 ppb          3.768   0.76%
   QC value within limits for Sb 206.836  Recovery = 98.99%
Se 196.026†             1504.0      2237.7 µg/L        10.19      2237.7 ppb          10.19   0.46%
   QC value within limits for Se 196.026  Recovery = 89.51%
SiO2†                  48376.2       10418 µg/L        128.9       10418 ppb          128.9   1.24%
   QC value within limits for SiO2  Recovery = 97.41%
Si 251.611†            59667.4      4905.0 µg/L        59.86      4905.0 ppb          59.86   1.22%
   QC value within limits for Si 251.611  Recovery = 98.10%
Sn 189.927†             1004.7      496.10 µg/L        3.686      496.10 ppb          3.686   0.74%
   QC value within limits for Sn 189.927  Recovery = 99.22%
Sr 421.552†            46744.2      484.56 µg/L        2.020      484.56 ppb          2.020   0.42%
   QC value within limits for Sr 421.552  Recovery = 96.91%
Ti 334.940†           208377.1      471.44 µg/L        6.410      471.44 ppb          6.410   1.36%
   QC value within limits for Ti 334.940  Recovery = 94.29%
Tl 190.801†              307.0      453.45 µg/L       15.538      453.45 ppb         15.538   3.43%
   QC value within limits for Tl 190.801  Recovery = 90.69%
U 409.014†              5311.8      427.24 µg/L        9.525      427.24 ppb          9.525   2.23%
   QC value within limits for U 409.014  Recovery = 85.45%
V 292.402†             44012.4      495.61 µg/L        5.099      495.61 ppb          5.099   1.03%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            19220.1      441.99 µg/L        6.349      441.99 ppb          6.349   1.44%
   QC value within limits for Zn 213.857  Recovery = 88.40%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/11/2010 14:43:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54698.7	54698.7	100	%			14:43:59
1	Al 396.153Radial†	649050.7	647585.6	482670	µg/L	482670	ppb	14:43:54
1	Ca 317.933Radial†	489494.3	488202.6	459670	µg/L	459670	ppb	14:43:54
1	Fe 238.204 Radial†	51606.4	51474.6	436280	µg/L	436280	ppb	14:43:59
1	K 766.490 Radial†	59.9	-68.6	-48.776	µg/L	-48.776	ppb	14:43:59
1	Mg 279.077 IEC†	49787.3	49662.9	461710	µg/L	461710	ppb	14:43:59
1	Na 589.592 Radial†	1412387.5	1408635.5	463730	µg/L	463730	ppb	14:43:54
1	Sr 421.552†	535.1	494.4	5.1247	µg/L	5.1247	ppb	14:43:59
1	Sc 361.383	1832827.1	1832827.1	95.968	%			14:44:34
1	Y 371.029	1243371.2	1243371.2	94.920	%			14:44:34
1	Ag 328.068†	-5331.8	-4991.3	-12.516	µg/L	-12.516	ppb	14:44:40
1	As 188.979†	-25.3	-27.5	-52.401	µg/L	-52.401	ppb	14:45:01
1	B 249.677†	1493.7	1225.0	-174.11	µg/L	-174.11	ppb	14:44:40
1	Ba 233.527†	574.9	625.1	16.169	µg/L	16.169	ppb	14:45:01
1	Be 313.107†	-11067.4	-8092.0	-5.2972	µg/L	-5.2972	ppb	14:44:40
1	Cd 226.502†	1038.3	1224.0	-15.542	µg/L	-15.542	ppb	14:44:40
1	Co 228.616†	189.5	206.3	10.066	µg/L	10.066	ppb	14:45:01
1	Cr 267.716†	137.7	195.9	4.2704	µg/L	4.2704	ppb	14:45:01
1	Cu 324.752†	-8795.2	-11650.9	-20.741	µg/L	-20.741	ppb	14:44:40
1	Mn 257.610†	-7006.5	-7056.8	15.101	µg/L	15.101	ppb	14:44:34
1	Mo 202.031†	-203.3	-204.2	-5.2185	µg/L	-5.2185	ppb	14:45:01
1	Ni 231.604†	92.3	-206.0	-5.6060	µg/L	-5.6060	ppb	14:45:01
1	P 214.914†	278.7	262.7	357.28	µg/L	357.28	ppb	14:45:01
1	Pb 220.353†	191.0	101.8	23.594	µg/L	23.594	ppb	14:45:01
1	S 181.975 Axial†	34.6	21.2	93.001	µg/L	93.001	ppb	14:45:01
1	Sb 206.836†	60.3	35.8	-5.1147	µg/L	-5.1147	ppb	14:45:01
1	Se 196.026†	-124.6	-145.7	431.09	µg/L	431.09	ppb	14:45:01
1	SiO2†	971.9	-237.3	-51.105	µg/L	-51.105	ppb	14:45:01
1	Si 251.611†	-251.2	-574.6	-47.235	µg/L	-47.235	ppb	14:45:01
1	Sn 189.927†	-32.5	-33.0	-9.5042	µg/L	-9.5042	ppb	14:45:01
1	Ti 334.940†	13370.7	13816.4	4.0770	µg/L	4.0770	ppb	14:44:40
1	Tl 190.801†	-49.5	-27.3	33.449	µg/L	33.449	ppb	14:45:01
1	U 409.014†	138681.8	144562.6	13000	µg/L	13000	ppb	14:44:40
1	V 292.402†	-5434.6	-5618.7	4.9101	µg/L	4.9101	ppb	14:44:40
1	Zn 213.857†	2732.6	2371.8	12.479	µg/L	12.479	ppb	14:45:01
2	Sc RADIAL	54113.0	54113.0	99.2	%			14:44:11
2	Al 396.153Radial†	645987.5	651505.9	485590	µg/L	485590	ppb	14:44:06
2	Ca 317.933Radial†	485663.6	489625.6	461010	µg/L	461010	ppb	14:44:06
2	Fe 238.204 Radial†	51235.5	51657.9	437830	µg/L	437830	ppb	14:44:11
2	K 766.490 Radial†	83.9	-43.8	-31.167	µg/L	-31.167	ppb	14:44:11
2	Mg 279.077 IEC†	49624.6	50036.5	465180	µg/L	465180	ppb	14:44:11
2	Na 589.592 Radial†	1405673.5	1417117.7	466520	µg/L	466520	ppb	14:44:06
2	Sr 421.552†	505.9	470.7	4.8794	µg/L	4.8794	ppb	14:44:11
2	Sc 361.383	1837825.9	1837825.9	96.229	%			14:45:07
2	Y 371.029	1247268.6	1247268.6	95.217	%			14:45:07
2	Ag 328.068†	-5248.4	-4889.5	-11.624	µg/L	-11.624	ppb	14:45:13
2	As 188.979†	-21.7	-23.6	-44.761	µg/L	-44.761	ppb	14:45:33
2	B 249.677†	1467.3	1193.4	-176.30	µg/L	-176.30	ppb	14:45:13
2	Ba 233.527†	558.0	605.8	15.663	µg/L	15.663	ppb	14:45:33
2	Be 313.107†	-10966.6	-7955.9	-5.2083	µg/L	-5.2083	ppb	14:45:13
2	Cd 226.502†	1019.9	1202.0	-16.327	µg/L	-16.327	ppb	14:45:13
2	Co 228.616†	178.5	194.3	9.4767	µg/L	9.4767	ppb	14:45:33
2	Cr 267.716†	83.6	139.3	3.0246	µg/L	3.0246	ppb	14:45:33
2	Cu 324.752†	-8717.3	-11545.0	-19.786	µg/L	-19.786	ppb	14:45:13
2	Mn 257.610†	-6988.4	-7018.1	15.303	µg/L	15.303	ppb	14:45:07
2	Mo 202.031†	-191.4	-191.4	-3.7840	µg/L	-3.7840	ppb	14:45:33
2	Ni 231.604†	81.9	-217.1	-6.1913	µg/L	-6.1913	ppb	14:45:33
2	P 214.914†	298.0	282.1	398.14	µg/L	398.14	ppb	14:45:33
2	Pb 220.353†	188.3	98.5	22.919	µg/L	22.919	ppb	14:45:33

2	S 181.975 Axial†	34.5	21.1	92.318 µg/L	92.318 ppb		14:45:33
2	Sb 206.836†	49.5	24.4	-16.430 µg/L	-16.430 ppb		14:45:33
2	Se 196.026†	-135.7	-156.8	414.89 µg/L	414.89 ppb		14:45:33
2	SiO2†	995.7	-215.3	-46.357 µg/L	-46.357 ppb		14:45:33
2	Si 251.611†	-242.1	-564.4	-46.400 µg/L	-46.400 ppb		14:45:33
2	Sn 189.927†	-48.8	-49.9	-17.017 µg/L	-17.017 ppb		14:45:33
2	Ti 334.940†	13350.9	13757.9	3.6830 µg/L	3.6830 ppb		14:45:13
2	Tl 190.801†	-50.6	-28.2	32.395 µg/L	32.395 ppb		14:45:33
2	U 409.014†	138028.8	143491.0	12902 µg/L	12902 ppb		14:45:13
2	V 292.402†	-5635.2	-5811.8	2.9425 µg/L	2.9425 ppb		14:45:13
2	Zn 213.857†	2709.5	2340.1	11.417 µg/L	11.417 ppb		14:45:33
3	Sc RADIAL	54398.5	54398.5	99.7 %			14:44:23
3	Al 396.153Radial†	647423.4	649527.5	484110 µg/L	484110 ppb		14:44:18
3	Ca 317.933Radial†	488211.3	489611.2	461000 µg/L	461000 ppb		14:44:18
3	Fe 238.204 Radial†	51015.9	51166.4	433670 µg/L	433670 ppb		14:44:23
3	K 766.490 Radial†	138.6	10.6	7.5591 µg/L	7.5591 ppb		14:44:23
3	Mg 279.077 IEC†	49363.7	49512.1	460310 µg/L	460310 ppb		14:44:23
3	Na 589.592 Radial†	1412371.3	1416397.4	466280 µg/L	466280 ppb		14:44:18
3	Sr 421.552†	507.2	469.3	4.8646 µg/L	4.8646 ppb		14:44:23
3	Sc 361.383	1837461.1	1837461.1	96.210 %			14:45:40
3	Y 371.029	1245635.1	1245635.1	95.093 %			14:45:40
3	Ag 328.068†	-5107.3	-4744.0	-10.729 µg/L	-10.729 ppb		14:45:45
3	As 188.979†	-16.7	-18.5	-34.960 µg/L	-34.960 ppb		14:46:06
3	B 249.677†	1484.3	1211.3	-173.35 µg/L	-173.35 ppb		14:45:45
3	Ba 233.527†	553.8	601.6	15.554 µg/L	15.554 ppb		14:46:06
3	Be 313.107†	-10842.7	-7829.4	-5.1258 µg/L	-5.1258 ppb		14:45:45
3	Cd 226.502†	1000.6	1182.1	-16.404 µg/L	-16.404 ppb		14:45:45
3	Co 228.616†	166.8	182.2	8.8812 µg/L	8.8812 ppb		14:46:06
3	Cr 267.716†	114.6	171.5	3.7340 µg/L	3.7340 ppb		14:46:06
3	Cu 324.752†	-8778.8	-11610.6	-20.823 µg/L	-20.823 ppb		14:45:45
3	Mn 257.610†	-6849.7	-6875.4	15.438 µg/L	15.438 ppb		14:45:40
3	Mo 202.031†	-180.2	-179.7	-2.7014 µg/L	-2.7014 ppb		14:46:06
3	Ni 231.604†	78.6	-220.5	-6.4261 µg/L	-6.4261 ppb		14:46:06
3	P 214.914†	292.5	276.4	389.07 µg/L	389.07 ppb		14:46:06
3	Pb 220.353†	166.9	76.3	17.067 µg/L	17.067 ppb		14:46:06
3	S 181.975 Axial†	27.8	14.1	61.607 µg/L	61.607 ppb		14:46:06
3	Sb 206.836†	44.0	18.8	-21.940 µg/L	-21.940 ppb		14:46:06
3	Se 196.026†	-130.2	-151.2	416.38 µg/L	416.38 ppb		14:46:06
3	SiO2†	1012.2	-197.9	-42.626 µg/L	-42.626 ppb		14:46:06
3	Si 251.611†	-265.6	-588.9	-48.410 µg/L	-48.410 ppb		14:46:06
3	Sn 189.927†	-42.0	-42.7	-13.864 µg/L	-13.864 ppb		14:46:06
3	Ti 334.940†	13514.7	13930.9	4.4846 µg/L	4.4846 ppb		14:45:45
3	Tl 190.801†	-39.7	-17.0	47.407 µg/L	47.407 ppb		14:46:06
3	U 409.014†	138148.6	143644.0	12917 µg/L	12917 ppb		14:45:45
3	V 292.402†	-5603.1	-5779.6	2.8210 µg/L	2.8210 ppb		14:45:45
3	Zn 213.857†	2726.7	2358.5	12.353 µg/L	12.353 ppb		14:46:06

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1836038.0	96.136	%	0.1459				0.15%
Sc RADIAL	54403.4	99.7	%	0.54				0.54%
Y 371.029	1245425.0	95.077	%	0.1494				0.16%
Ag 328.068†	-4875.0	-11.623	µg/L	0.8935	-11.623	ppb	0.8935	7.69%
Al 396.153Radial†	649539.7	484120	µg/L	1461.0	484120	ppb	1461.0	0.30%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	-23.2	-44.041	µg/L	8.7426	-44.041	ppb	8.7426	19.85%
B 249.677†	1209.9	-174.59	µg/L	1.536	-174.59	ppb	1.536	0.88%
Ba 233.527†	610.9	15.795	µg/L	0.3282	15.795	ppb	0.3282	2.08%
Be 313.107†	-7959.1	-5.2104	µg/L	0.08573	-5.2104	ppb	0.08573	1.65%
Ca 317.933Radial†	489146.5	460560	µg/L	769.6	460560	ppb	769.6	0.17%
QC value within limits for Ca 317.933Radial Recovery = 92.11%								
Cd 226.502†	1202.7	-16.091	µg/L	0.4769	-16.091	ppb	0.4769	2.96%
Co 228.616†	194.3	9.4746	µg/L	0.59237	9.4746	ppb	0.59237	6.25%
Cr 267.716†	168.9	3.6764	µg/L	0.62486	3.6764	ppb	0.62486	17.00%
Cu 324.752†	-11602.2	-20.450	µg/L	0.5769	-20.450	ppb	0.5769	2.82%
Fe 238.204 Radial†	51433.0	435930	µg/L	2105.0	435930	ppb	2105.0	0.48%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.19%								
K 766.490 Radial†	-33.9	-24.128	µg/L	28.8197	-24.128	ppb	28.8197	119.44%
Mg 279.077 IEC†	49737.1	462400	µg/L	2510.3	462400	ppb	2510.3	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 92.48%

Mn 257.610†	-6983.5	15.281 µg/L	0.1695	15.281 ppb	0.1695	1.11%
Mo 202.031†	-191.8	-3.9013 µg/L	1.26264	-3.9013 ppb	1.26264	32.36%
Na 589.592 Radial†	1414050.2	465510 µg/L	1548.3	465510 ppb	1548.3	0.33%

QC value within limits for Na 589.592 Radial Recovery = 93.10%

Ni 231.604†	-214.5	-6.0745 µg/L	0.42234	-6.0745 ppb	0.42234	6.95%
P 214.914†	273.7	381.50 µg/L	21.461	381.50 ppb	21.461	5.63%
Pb 220.353†	92.2	21.194 µg/L	3.5893	21.194 ppb	3.5893	16.94%
S 181.975 Axial†	18.8	82.309 µg/L	17.9317	82.309 ppb	17.9317	21.79%
Sb 206.836†	26.4	-14.495 µg/L	8.5779	-14.495 ppb	8.5779	59.18%
Se 196.026†	-151.2	420.79 µg/L	8.956	420.79 ppb	8.956	2.13%
SiO2†	-216.8	-46.696 µg/L	4.2500	-46.696 ppb	4.2500	9.10%
Si 251.611†	-576.0	-47.348 µg/L	1.0098	-47.348 ppb	1.0098	2.13%
Sn 189.927†	-41.9	-13.462 µg/L	3.7726	-13.462 ppb	3.7726	28.02%
Sr 421.552†	478.1	4.9562 µg/L	0.14608	4.9562 ppb	0.14608	2.95%
Ti 334.940†	13835.1	4.0815 µg/L	0.40078	4.0815 ppb	0.40078	9.82%
Tl 190.801†	-24.2	37.750 µg/L	8.3798	37.750 ppb	8.3798	22.20%
U 409.014†	143899.2	12939 µg/L	52.5	12939 ppb	52.5	0.41%

QC value less than the lower limit for U 409.014 Recovery = 86.26%

V 292.402†	-5736.7	3.5579 µg/L	1.17264	3.5579 ppb	1.17264	32.96%
Zn 213.857†	2356.8	12.083 µg/L	0.5800	12.083 ppb	0.5800	4.80%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/11/2010 14:46:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55399.0	55399.0	102	%			14:46:58
1	Al 396.153Radial†	399.7	403.8	92.521	µg/L	92.521	ppb	14:46:58
1	Ca 317.933Radial†	334.1	149.9	141.18	µg/L	141.18	ppb	14:47:18
1	Fe 238.204 Radial†	7.1	-7.5	138.28	µg/L	138.28	ppb	14:47:18
1	K 766.490 Radial†	420398.0	414012.0	294280	µg/L	294280	ppb	14:46:52
1	Mg 279.077 IEC†	6.8	-4.5	128.44	µg/L	128.44	ppb	14:47:18
1	Na 589.592 Radial†	1342.1	780.2	256.86	µg/L	256.86	ppb	14:46:58
1	Sr 421.552†	951196.0	936997.9	9713.1	µg/L	9713.1	ppb	14:46:52
1	Sc 361.383	1973675.2	1973675.2	103.34	%			14:48:49
1	Y 371.029	1341693.6	1341693.6	102.43	%			14:48:49
1	Ag 328.068†	-7295.5	-6495.0	14.834	µg/L	14.834	ppb	14:48:55
1	As 188.979†	5210.7	5041.0	9833.2	µg/L	9833.2	ppb	14:48:55
1	B 249.677†	116645.4	112541.3	4957.2	µg/L	4957.2	ppb	14:48:49
1	Ba 233.527†	564583.2	546348.7	14244	µg/L	14244	ppb	14:48:49
1	Be 313.107†	4590165.2	4445144.6	2899.1	µg/L	2899.1	ppb	14:48:39
1	Cd 226.502†	360765.0	349238.8	9644.6	µg/L	9644.6	ppb	14:48:49
1	Co 228.616†	199452.7	193010.6	9487.0	µg/L	9487.0	ppb	14:48:49
1	Cr 267.716†	1141741.3	1104866.0	24309	µg/L	24309	ppb	14:48:49
1	Cu 324.752†	2993464.1	2894159.5	20216	µg/L	20216	ppb	14:48:49
1	Mn 257.610†	2858381.7	2766176.3	9578.9	µg/L	9578.9	ppb	14:48:49
1	Mo 202.031†	98264.3	95093.6	10148	µg/L	10148	ppb	14:48:49
1	Ni 231.604†	183070.7	176847.4	9657.8	µg/L	9657.8	ppb	14:48:49
1	P 214.914†	7469.6	7200.4	13482	µg/L	13482	ppb	14:48:55
1	Pb 220.353†	97644.4	94389.0	25180	µg/L	25180	ppb	14:48:49
1	S 181.975 Axial†	12516.5	12096.9	53001	µg/L	53001	ppb	14:48:55
1	Sb 206.836†	11239.2	10848.7	10569	µg/L	10569	ppb	14:48:55
1	Se 196.026†	6584.9	6356.1	9690.0	µg/L	9690.0	ppb	14:48:55
1	SiO2†	476520.0	459857.7	99033	µg/L	99033	ppb	14:48:49
1	Si 251.611†	580361.7	561278.0	46140	µg/L	46140	ppb	14:48:49
1	Sn 189.927†	23760.5	22992.8	10575	µg/L	10575	ppb	14:48:55
1	Ti 334.940†	4290484.1	4151599.7	9986.4	µg/L	9986.4	ppb	14:48:39
1	Tl 190.801†	7036.0	6832.7	9632.0	µg/L	9632.0	ppb	14:48:55
1	U 409.014†	835.4	862.0	78.046	µg/L	78.046	ppb	14:48:49
1	V 292.402†	975452.7	943947.6	10194	µg/L	10194	ppb	14:48:49
1	Zn 213.857†	598917.9	579071.4	14385	µg/L	14385	ppb	14:48:49
2	Sc RADIAL	55030.3	55030.3	101	%			14:47:30
2	Al 396.153Radial†	384.6	391.5	90.444	µg/L	90.444	ppb	14:47:30
2	Ca 317.933Radial†	398.0	215.6	202.97	µg/L	202.97	ppb	14:47:50
2	Fe 238.204 Radial†	10.5	-4.0	160.36	µg/L	160.36	ppb	14:47:50
2	K 766.490 Radial†	423060.2	419427.1	298130	µg/L	298130	ppb	14:47:24
2	Mg 279.077 IEC†	11.3	-0.0	164.54	µg/L	164.54	ppb	14:47:50
2	Na 589.592 Radial†	1212.5	660.6	217.48	µg/L	217.48	ppb	14:47:30
2	Sr 421.552†	957912.4	949937.4	9847.2	µg/L	9847.2	ppb	14:47:24
2	Sc 361.383	1973904.3	1973904.3	103.35	%			14:49:14
2	Y 371.029	1342735.7	1342735.7	102.51	%			14:49:14
2	Ag 328.068†	-6836.3	-6049.9	16.075	µg/L	16.075	ppb	14:49:19
2	As 188.979†	5005.3	4841.7	9444.3	µg/L	9444.3	ppb	14:49:19
2	B 249.677†	114403.0	110358.5	4860.1	µg/L	4860.1	ppb	14:49:14
2	Ba 233.527†	548071.4	530309.5	13826	µg/L	13826	ppb	14:49:14
2	Be 313.107†	4469193.3	4327583.5	2822.5	µg/L	2822.5	ppb	14:49:04
2	Cd 226.502†	349367.5	338170.7	9338.9	µg/L	9338.9	ppb	14:49:14
2	Co 228.616†	192536.9	186296.8	9156.8	µg/L	9156.8	ppb	14:49:14
2	Cr 267.716†	1093055.4	1057632.1	23270	µg/L	23270	ppb	14:49:14
2	Cu 324.752†	2898656.7	2802093.0	19573	µg/L	19573	ppb	14:49:14
2	Mn 257.610†	2761508.2	2672125.9	9253.2	µg/L	9253.2	ppb	14:49:14
2	Mo 202.031†	94921.3	91848.1	9802.1	µg/L	9802.1	ppb	14:49:14
2	Ni 231.604†	176871.2	170828.6	9329.1	µg/L	9329.1	ppb	14:49:14
2	P 214.914†	7023.8	6768.2	12612	µg/L	12612	ppb	14:49:19
2	Pb 220.353†	95131.3	91946.6	24529	µg/L	24529	ppb	14:49:14

2	S 181.975 Axial†	12036.4	11630.9	50959	µg/L	50959 ppb	14:49:19
2	Sb 206.836†	10693.6	10319.6	10054	µg/L	10054 ppb	14:49:19
2	Se 196.026†	6359.9	6137.7	9357.1	µg/L	9357.1 ppb	14:49:19
2	SiO2†	465181.8	448834.1	96659	µg/L	96659 ppb	14:49:14
2	Si 251.611†	566752.0	548044.9	45052	µg/L	45052 ppb	14:49:14
2	Sn 189.927†	22166.4	21447.8	9864.4	µg/L	9864.4 ppb	14:49:19
2	Ti 334.940†	4180020.8	4044239.7	9728.1	µg/L	9728.1 ppb	14:49:04
2	Tl 190.801†	6890.0	6690.7	9431.4	µg/L	9431.4 ppb	14:49:19
2	U 409.014†	947.2	970.1	87.818	µg/L	87.818 ppb	14:49:14
2	V 292.402†	941864.4	911339.9	9841.7	µg/L	9841.7 ppb	14:49:14
2	Zn 213.857†	579745.6	560454.1	13922	µg/L	13922 ppb	14:49:14
3	Sc RADIAL	56038.9	56038.9	103	%		14:48:02
3	Al 396.153Radial†	479.5	477.1	179.56	µg/L	179.56 ppb	14:48:02
3	Ca 317.933Radial†	383.6	194.4	183.07	µg/L	183.07 ppb	14:48:22
3	Fe 238.204 Radial†	9.4	-5.4	124.22	µg/L	124.22 ppb	14:48:22
3	K 766.490 Radial†	428756.3	417423.2	296700	µg/L	296700 ppb	14:47:56
3	Mg 279.077 IEC†	6.3	-5.2	95.926	µg/L	95.926 ppb	14:48:22
3	Na 589.592 Radial†	1260.6	685.8	225.77	µg/L	225.77 ppb	14:48:02
3	Sr 421.552†	974533.2	949026.3	9837.8	µg/L	9837.8 ppb	14:47:56
3	Sc 361.383	1967182.2	1967182.2	103.00	%		14:49:39
3	Y 371.029	1337106.2	1337106.2	102.08	%		14:49:39
3	Ag 328.068†	-5873.5	-5137.8	14.957	µg/L	14.957 ppb	14:49:44
3	As 188.979†	4335.2	4207.7	8207.5	µg/L	8207.5 ppb	14:49:44
3	B 249.677†	103256.6	99915.3	4398.2	µg/L	4398.2 ppb	14:49:39
3	Ba 233.527†	483121.0	469064.3	12229	µg/L	12229 ppb	14:49:39
3	Be 313.107†	4064814.3	3949767.9	2576.0	µg/L	2576.0 ppb	14:49:28
3	Cd 226.502†	306350.7	297562.9	8217.4	µg/L	8217.4 ppb	14:49:39
3	Co 228.616†	167417.3	162546.1	7988.6	µg/L	7988.6 ppb	14:49:39
3	Cr 267.716†	928569.1	901554.3	19836	µg/L	19836 ppb	14:49:39
3	Cu 324.752†	2527919.1	2451745.7	17126	µg/L	17126 ppb	14:49:39
3	Mn 257.610†	2402081.4	2332306.4	8076.5	µg/L	8076.5 ppb	14:49:39
3	Mo 202.031†	82713.5	80310.0	8570.8	µg/L	8570.8 ppb	14:49:39
3	Ni 231.604†	153785.8	149000.9	8137.1	µg/L	8137.1 ppb	14:49:39
3	P 214.914†	6020.9	5817.7	10807	µg/L	10807 ppb	14:49:44
3	Pb 220.353†	84806.2	82236.9	21938	µg/L	21938 ppb	14:49:39
3	S 181.975 Axial†	10412.0	10093.6	44224	µg/L	44224 ppb	14:49:44
3	Sb 206.836†	9221.8	8926.1	8701.4	µg/L	8701.4 ppb	14:49:44
3	Se 196.026†	5513.0	5336.4	8135.5	µg/L	8135.5 ppb	14:49:44
3	SiO2†	415353.7	401996.4	86572	µg/L	86572 ppb	14:49:39
3	Si 251.611†	505959.6	490898.3	40354	µg/L	40354 ppb	14:49:39
3	Sn 189.927†	18682.4	18138.7	8342.5	µg/L	8342.5 ppb	14:49:44
3	Ti 334.940†	3801346.2	3690423.2	8877.0	µg/L	8877.0 ppb	14:49:28
3	Tl 190.801†	6155.2	6000.1	8459.0	µg/L	8459.0 ppb	14:49:44
3	U 409.014†	834.8	864.1	78.225	µg/L	78.225 ppb	14:49:39
3	V 292.402†	816284.9	792534.9	8558.2	µg/L	8558.2 ppb	14:49:39
3	Zn 213.857†	507712.5	492437.5	12233	µg/L	12233 ppb	14:49:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1971587.2	103.23	%	0.200				0.19%
Sc RADIAL	55489.4	102	%	0.9				0.92%
Y 371.029	1340511.8	102.34	%	0.229				0.22%
Ag 328.068†	-5894.2	15.288	µg/L	0.6836	15.288	ppb	0.6836	4.47%
Al 396.153Radial†	424.2	120.84	µg/L	50.861	120.84	ppb	50.861	42.09%
As 188.979†	4696.8	9161.7	µg/L	848.90	9161.7	ppb	848.90	9.27%
QC value within limits for As 188.979 Recovery = 91.62%								
B 249.677†	107605.0	4738.5	µg/L	298.66	4738.5	ppb	298.66	6.30%
QC value within limits for B 249.677 Recovery = 94.77%								
Ba 233.527†	515240.8	13433	µg/L	1063.5	13433	ppb	1063.5	7.92%
QC value less than the lower limit for Ba 233.527 Recovery = 89.55%								
Be 313.107†	4240832.0	2765.9	µg/L	168.81	2765.9	ppb	168.81	6.10%
QC value within limits for Be 313.107 Recovery = 92.20%								
Ca 317.933Radial†	186.6	175.74	µg/L	31.540	175.74	ppb	31.540	17.95%
Cd 226.502†	328324.1	9067.0	µg/L	751.45	9067.0	ppb	751.45	8.29%
QC value within limits for Cd 226.502 Recovery = 90.67%								
Co 228.616†	180617.8	8877.5	µg/L	787.27	8877.5	ppb	787.27	8.87%
QC value less than the lower limit for Co 228.616 Recovery = 88.77%								
Cr 267.716†	1021350.8	22472	µg/L	2340.9	22472	ppb	2340.9	10.42%
QC value less than the lower limit for Cr 267.716 Recovery = 89.89%								

Cu 324.752†	2715999.4	18972 µg/L	1630.6	18972 ppb	1630.6	8.59%
QC value within limits for Cu 324.752 Recovery = 94.86%						
Fe 238.204 Radial†	-5.6	140.95 µg/L	18.221	140.95 ppb	18.221	12.93%
K 766.490 Radial†	416954.1	296370 µg/L	1946.1	296370 ppb	1946.1	0.66%
QC value within limits for K 766.490 Radial Recovery = 98.79%						
Mg 279.077 IEC†	-3.2	129.64 µg/L	34.323	129.64 ppb	34.323	26.48%
Mn 257.610†	2590202.9	8969.5 µg/L	790.37	8969.5 ppb	790.37	8.81%
QC value less than the lower limit for Mn 257.610 Recovery = 89.70%						
Mo 202.031†	89083.9	9507.1 µg/L	829.20	9507.1 ppb	829.20	8.72%
QC value within limits for Mo 202.031 Recovery = 95.07%						
Na 589.592 Radial†	708.9	233.37 µg/L	20.762	233.37 ppb	20.762	8.90%
Ni 231.604†	165559.0	9041.3 µg/L	800.17	9041.3 ppb	800.17	8.85%
QC value within limits for Ni 231.604 Recovery = 90.41%						
P 214.914†	6595.5	12300 µg/L	1364.7	12300 ppb	1364.7	11.09%
QC value less than the lower limit for P 214.914 Recovery = 82.00%						
Pb 220.353†	89524.2	23882 µg/L	1714.8	23882 ppb	1714.8	7.18%
QC value within limits for Pb 220.353 Recovery = 95.53%						
S 181.975 Axial†	11273.8	49394 µg/L	4592.8	49394 ppb	4592.8	9.30%
QC value within limits for S 181.975 Axial Recovery = 98.79%						
Sb 206.836†	10031.5	9774.9 µg/L	964.64	9774.9 ppb	964.64	9.87%
QC value within limits for Sb 206.836 Recovery = 97.75%						
Se 196.026†	5943.4	9060.9 µg/L	818.48	9060.9 ppb	818.48	9.03%
QC value within limits for Se 196.026 Recovery = 90.61%						
SiO2†	436896.1	94088 µg/L	6616.3	94088 ppb	6616.3	7.03%
QC value less than the lower limit for SiO2 Recovery = 87.93%						
Si 251.611†	533407.1	43849 µg/L	3074.8	43849 ppb	3074.8	7.01%
QC value less than the lower limit for Si 251.611 Recovery = 87.70%						
Sn 189.927†	20859.8	9594.0 µg/L	1140.59	9594.0 ppb	1140.59	11.89%
QC value within limits for Sn 189.927 Recovery = 95.94%						
Sr 421.552†	945320.6	9799.4 µg/L	74.86	9799.4 ppb	74.86	0.76%
QC value within limits for Sr 421.552 Recovery = 97.99%						
Ti 334.940†	3962087.5	9530.5 µg/L	580.46	9530.5 ppb	580.46	6.09%
QC value within limits for Ti 334.940 Recovery = 95.30%						
Tl 190.801†	6507.8	9174.1 µg/L	627.37	9174.1 ppb	627.37	6.84%
QC value within limits for Tl 190.801 Recovery = 91.74%						
U 409.014†	898.7	81.363 µg/L	5.5909	81.363 ppb	5.5909	6.87%
V 292.402†	882607.5	9531.4 µg/L	861.08	9531.4 ppb	861.08	9.03%
QC value within limits for V 292.402 Recovery = 95.31%						
Zn 213.857†	543987.7	13513 µg/L	1132.6	13513 ppb	1132.6	8.38%
QC value within limits for Zn 213.857 Recovery = 90.09%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 14:49:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56804.1	56804.1	104	%			14:50:31
1	Al 396.153Radial†	6842.1	6583.7	4896.3	µg/L	4896.3	ppb	14:50:31
1	Ca 317.933Radial†	5575.3	5177.3	4874.7	µg/L	4874.7	ppb	14:50:52
1	Fe 238.204 Radial†	620.0	581.2	4936.5	µg/L	4936.5	ppb	14:50:52
1	K 766.490 Radial†	7520.1	7096.5	5044.1	µg/L	5044.1	ppb	14:50:31
1	Mg 279.077 IEC†	574.4	540.6	5034.2	µg/L	5034.2	ppb	14:50:52
1	Na 589.592 Radial†	31573.0	29791.8	9807.5	µg/L	9807.5	ppb	14:50:31
1	Sr 421.552†	48614.5	46666.6	483.75	µg/L	483.75	ppb	14:50:31
1	Sc 361.383	1985086.2	1985086.2	103.94	%			14:51:55
1	Y 371.029	1355705.3	1355705.3	103.50	%			14:51:55
1	Ag 328.068†	63419.1	61579.6	492.20	µg/L	492.20	ppb	14:52:00
1	As 188.979†	283.1	271.2	529.04	µg/L	529.04	ppb	14:52:21
1	B 249.677†	12082.8	11293.3	491.77	µg/L	491.77	ppb	14:52:00
1	Ba 233.527†	19621.7	18904.0	493.12	µg/L	493.12	ppb	14:52:00
1	Be 313.107†	773609.6	747725.8	488.12	µg/L	488.12	ppb	14:51:55
1	Cd 226.502†	18494.8	17935.8	494.76	µg/L	494.76	ppb	14:52:00
1	Co 228.616†	10503.4	10114.1	497.19	µg/L	497.19	ppb	14:52:00
1	Cr 267.716†	23548.0	22707.7	499.79	µg/L	499.79	ppb	14:52:00
1	Cu 324.752†	76174.0	70800.5	495.24	µg/L	495.24	ppb	14:52:00
1	Mn 257.610†	149145.1	143735.7	498.19	µg/L	498.19	ppb	14:51:55
1	Mo 202.031†	5080.3	4895.3	522.62	µg/L	522.62	ppb	14:52:21
1	Ni 231.604†	9759.2	9087.1	496.31	µg/L	496.31	ppb	14:52:00
1	P 214.914†	1255.3	1180.1	2486.8	µg/L	2486.8	ppb	14:52:21
1	Pb 220.353†	2124.3	1946.6	519.63	µg/L	519.63	ppb	14:52:21
1	S 181.975 Axial†	258.7	234.1	1025.7	µg/L	1025.7	ppb	14:52:21
1	Sb 206.836†	589.1	539.9	533.84	µg/L	533.84	ppb	14:52:21
1	Se 196.026†	360.1	330.7	511.73	µg/L	511.73	ppb	14:52:21
1	SiO2†	26768.3	24503.7	5277.0	µg/L	5277.0	ppb	14:52:00
1	Si 251.611†	31600.0	30089.3	2473.5	µg/L	2473.5	ppb	14:52:00
1	Sn 189.927†	1182.0	1138.1	523.47	µg/L	523.47	ppb	14:52:21
1	Ti 334.940†	213092.8	204899.2	492.55	µg/L	492.55	ppb	14:51:55
1	Tl 190.801†	347.4	358.5	506.37	µg/L	506.37	ppb	14:52:21
1	U 409.014†	5696.3	5534.0	500.04	µg/L	500.04	ppb	14:52:00
1	V 292.402†	48064.4	46286.7	499.57	µg/L	499.57	ppb	14:52:00
1	Zn 213.857†	21219.3	19939.4	494.39	µg/L	494.39	ppb	14:52:00
2	Sc RADIAL	56818.7	56818.7	104	%			14:50:57
2	Al 396.153Radial†	6864.1	6603.1	4910.8	µg/L	4910.8	ppb	14:50:57
2	Ca 317.933Radial†	5535.1	5137.3	4837.1	µg/L	4837.1	ppb	14:51:17
2	Fe 238.204 Radial†	615.6	576.8	4899.1	µg/L	4899.1	ppb	14:51:17
2	K 766.490 Radial†	7426.8	7005.0	4979.1	µg/L	4979.1	ppb	14:50:57
2	Mg 279.077 IEC†	575.7	541.7	5044.4	µg/L	5044.4	ppb	14:51:17
2	Na 589.592 Radial†	31604.5	29814.2	9814.9	µg/L	9814.9	ppb	14:50:57
2	Sr 421.552†	48545.6	46588.5	482.94	µg/L	482.94	ppb	14:50:57
2	Sc 361.383	1982851.3	1982851.3	103.82	%			14:52:28
2	Y 371.029	1354649.3	1354649.3	103.41	%			14:52:28
2	Ag 328.068†	64081.0	62286.0	497.83	µg/L	497.83	ppb	14:52:34
2	As 188.979†	276.6	265.3	517.47	µg/L	517.47	ppb	14:52:54
2	B 249.677†	12111.5	11334.1	493.59	µg/L	493.59	ppb	14:52:34
2	Ba 233.527†	19855.9	19150.8	499.56	µg/L	499.56	ppb	14:52:34
2	Be 313.107†	767601.6	742777.9	484.89	µg/L	484.89	ppb	14:52:28
2	Cd 226.502†	18724.1	18176.8	501.42	µg/L	501.42	ppb	14:52:34
2	Co 228.616†	10623.9	10241.5	503.47	µg/L	503.47	ppb	14:52:34
2	Cr 267.716†	23965.4	23135.3	509.20	µg/L	509.20	ppb	14:52:34
2	Cu 324.752†	76944.2	71624.9	501.00	µg/L	501.00	ppb	14:52:34
2	Mn 257.610†	147951.6	142747.9	494.77	µg/L	494.77	ppb	14:52:28
2	Mo 202.031†	5059.8	4881.0	521.09	µg/L	521.09	ppb	14:52:54
2	Ni 231.604†	9897.9	9231.3	504.18	µg/L	504.18	ppb	14:52:34
2	P 214.914†	1254.5	1180.6	2487.4	µg/L	2487.4	ppb	14:52:54
2	Pb 220.353†	2113.7	1938.7	517.51	µg/L	517.51	ppb	14:52:54

2	S 181.975 Axial†	253.9	229.7	1006.6 µg/L	1006.6 ppb	14:52:54
2	Sb 206.836†	570.0	522.0	516.18 µg/L	516.18 ppb	14:52:54
2	Se 196.026†	357.5	328.5	508.28 µg/L	508.28 ppb	14:52:54
2	SiO2†	27016.3	24771.5	5334.7 µg/L	5334.7 ppb	14:52:34
2	Si 251.611†	31927.7	30439.2	2502.3 µg/L	2502.3 ppb	14:52:34
2	Sn 189.927†	1183.2	1140.5	524.61 µg/L	524.61 ppb	14:52:54
2	Ti 334.940†	211586.4	203679.4	489.61 µg/L	489.61 ppb	14:52:28
2	Tl 190.801†	345.3	356.8	503.93 µg/L	503.93 ppb	14:52:54
2	U 409.014†	5694.5	5538.4	500.46 µg/L	500.46 ppb	14:52:34
2	V 292.402†	48494.6	46753.2	504.55 µg/L	504.55 ppb	14:52:34
2	Zn 213.857†	21488.9	20222.1	501.41 µg/L	501.41 ppb	14:52:34
3	Sc RADIAL	57349.9	57349.9	105 %		14:51:23
3	Al 396.153Radial†	6954.4	6628.0	4931.1 µg/L	4931.1 ppb	14:51:23
3	Ca 317.933Radial†	5532.3	5085.5	4788.3 µg/L	4788.3 ppb	14:51:43
3	Fe 238.204 Radial†	617.1	572.8	4864.4 µg/L	4864.4 ppb	14:51:43
3	K 766.490 Radial†	7512.2	7020.2	4989.9 µg/L	4989.9 ppb	14:51:23
3	Mg 279.077 IEC†	569.2	530.4	4937.8 µg/L	4937.8 ppb	14:51:43
3	Na 589.592 Radial†	31885.8	29800.8	9810.5 µg/L	9810.5 ppb	14:51:23
3	Sr 421.552†	49101.8	46686.0	483.95 µg/L	483.95 ppb	14:51:23
3	Sc 361.383	1990626.4	1990626.4	104.23 %		14:53:01
3	Y 371.029	1359542.7	1359542.7	103.79 %		14:53:01
3	Ag 328.068†	60113.1	58238.1	465.39 µg/L	465.39 ppb	14:53:07
3	As 188.979†	235.3	224.6	438.16 µg/L	438.16 ppb	14:53:28
3	B 249.677†	11347.7	10555.7	459.50 µg/L	459.50 ppb	14:53:07
3	Ba 233.527†	18299.9	17583.2	458.65 µg/L	458.65 ppb	14:53:07
3	Be 313.107†	726470.7	700428.5	457.24 µg/L	457.24 ppb	14:53:01
3	Cd 226.502†	17137.6	16584.2	457.44 µg/L	457.44 ppb	14:53:07
3	Co 228.616†	9675.2	9291.3	456.68 µg/L	456.68 ppb	14:53:07
3	Cr 267.716†	21632.8	20807.2	457.96 µg/L	457.96 ppb	14:53:07
3	Cu 324.752†	71181.3	65806.4	460.35 µg/L	460.35 ppb	14:53:07
3	Mn 257.610†	140886.2	135412.6	469.36 µg/L	469.36 ppb	14:53:01
3	Mo 202.031†	4241.7	4077.1	435.30 µg/L	435.30 ppb	14:53:28
3	Ni 231.604†	9011.2	8343.3	455.69 µg/L	455.69 ppb	14:53:07
3	P 214.914†	1075.3	1004.1	2111.2 µg/L	2111.2 ppb	14:53:28
3	Pb 220.353†	1866.0	1693.1	451.84 µg/L	451.84 ppb	14:53:28
3	S 181.975 Axial†	232.5	208.2	912.40 µg/L	912.40 ppb	14:53:28
3	Sb 206.836†	504.7	457.3	451.62 µg/L	451.62 ppb	14:53:28
3	Se 196.026†	310.0	281.6	436.86 µg/L	436.86 ppb	14:53:28
3	SiO2†	25184.9	22912.8	4934.4 µg/L	4934.4 ppb	14:53:07
3	Si 251.611†	29623.3	28108.2	2310.6 µg/L	2310.6 ppb	14:53:07
3	Sn 189.927†	974.4	935.7	430.40 µg/L	430.40 ppb	14:53:28
3	Ti 334.940†	200395.3	192146.5	461.88 µg/L	461.88 ppb	14:53:01
3	Tl 190.801†	314.8	326.3	461.00 µg/L	461.00 ppb	14:53:28
3	U 409.014†	5084.0	4931.3	445.50 µg/L	445.50 ppb	14:53:07
3	V 292.402†	43900.0	42162.6	454.79 µg/L	454.79 ppb	14:53:07
3	Zn 213.857†	19753.8	18476.6	458.11 µg/L	458.11 ppb	14:53:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1986188.0	104.00	%	0.210				0.20%
Sc RADIAL	56990.9	104	%	0.6				0.55%
Y 371.029	1356632.4	103.57	%	0.197				0.19%
Ag 328.068†	60701.2	485.14	µg/L	17.336	485.14	ppb	17.336	3.57%
QC value within limits for Ag 328.068 Recovery = 97.03%								
Al 396.153Radial†	6604.9	4912.7	µg/L	17.49	4912.7	ppb	17.49	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.25%								
As 188.979†	253.7	494.89	µg/L	49.467	494.89	ppb	49.467	10.00%
QC value within limits for As 188.979 Recovery = 98.98%								
B 249.677†	11061.0	481.62	µg/L	19.175	481.62	ppb	19.175	3.98%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	18546.0	483.78	µg/L	21.996	483.78	ppb	21.996	4.55%
QC value within limits for Ba 233.527 Recovery = 96.76%								
Be 313.107†	730310.7	476.75	µg/L	16.971	476.75	ppb	16.971	3.56%
QC value within limits for Be 313.107 Recovery = 95.35%								
Ca 317.933Radial†	5133.4	4833.4	µg/L	43.35	4833.4	ppb	43.35	0.90%
QC value within limits for Ca 317.933Radial Recovery = 96.67%								
Cd 226.502†	17565.6	484.54	µg/L	23.706	484.54	ppb	23.706	4.89%
QC value within limits for Cd 226.502 Recovery = 96.91%								
Co 228.616†	9882.3	485.78	µg/L	25.392	485.78	ppb	25.392	5.23%

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   QC value within limits for Co 228.616  Recovery = 97.16%
Cr 267.716†            22216.8      488.98 µg/L        27.276      488.98 ppb         27.276   5.58%
   QC value within limits for Cr 267.716  Recovery = 97.80%
Cu 324.752†            69410.6      485.53 µg/L        21.996      485.53 ppb         21.996   4.53%
   QC value within limits for Cu 324.752  Recovery = 97.11%
Fe 238.204 Radial†       576.9      4900.0 µg/L         36.10      4900.0 ppb          36.10   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.00%
K 766.490 Radial†       7040.6      5004.4 µg/L         34.84      5004.4 ppb          34.84   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 100.09%
Mg 279.077 IEC†          537.5      5005.5 µg/L         58.81      5005.5 ppb          58.81   1.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.11%
Mn 257.610†           140632.1      487.44 µg/L        15.748      487.44 ppb         15.748   3.23%
   QC value within limits for Mn 257.610  Recovery = 97.49%
Mo 202.031†             4617.8      493.00 µg/L        49.981      493.00 ppb         49.981  10.14%
   QC value within limits for Mo 202.031  Recovery = 98.60%
Na 589.592 Radial†     29802.3      9811.0 µg/L          3.72      9811.0 ppb           3.72   0.04%
   QC value within limits for Na 589.592 Radial  Recovery = 98.11%
Ni 231.604†             8887.2      485.39 µg/L        26.026      485.39 ppb         26.026   5.36%
   QC value within limits for Ni 231.604  Recovery = 97.08%
P 214.914†              1121.6      2361.8 µg/L        217.03      2361.8 ppb         217.03   9.19%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1859.5      496.33 µg/L        38.539      496.33 ppb         38.539   7.76%
   QC value within limits for Pb 220.353  Recovery = 99.27%
S 181.975 Axial†         224.0      981.57 µg/L        60.664      981.57 ppb         60.664   6.18%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†              506.4      500.55 µg/L        43.281      500.55 ppb         43.281   8.65%
   QC value within limits for Sb 206.836  Recovery = 100.11%
Se 196.026†              313.6      485.62 µg/L        42.263      485.62 ppb         42.263   8.70%
   QC value within limits for Se 196.026  Recovery = 97.12%
SiO2†                  24062.6      5182.0 µg/L        216.38      5182.0 ppb         216.38   4.18%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†            29545.6      2428.8 µg/L        103.33      2428.8 ppb         103.33   4.25%
   QC value within limits for Si 251.611  Recovery = 97.15%
Sn 189.927†             1071.4      492.83 µg/L        54.065      492.83 ppb         54.065  10.97%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†            46647.0      483.55 µg/L         0.535      483.55 ppb          0.535   0.11%
   QC value within limits for Sr 421.552  Recovery = 96.71%
Ti 334.940†           200241.7      481.35 µg/L        16.923      481.35 ppb         16.923   3.52%
   QC value within limits for Ti 334.940  Recovery = 96.27%
Tl 190.801†              347.2      490.43 µg/L        25.519      490.43 ppb         25.519   5.20%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†              5334.6      482.00 µg/L        31.611      482.00 ppb         31.611   6.56%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             45067.5      486.30 µg/L        27.408      486.30 ppb         27.408   5.64%
   QC value within limits for V 292.402  Recovery = 97.26%
Zn 213.857†            19546.0      484.64 µg/L        23.239      484.64 ppb         23.239   4.80%
   QC value within limits for Zn 213.857  Recovery = 96.93%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 14:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56199.9	56199.9	103	%			14:54:10
1	Al 396.153Radial†	38.0	47.1	35.072	µg/L	35.072	ppb	14:54:10
1	Ca 317.933Radial†	231.4	45.6	42.930	µg/L	42.930	ppb	14:54:31
1	Fe 238.204 Radial†	23.4	8.2	69.822	µg/L	69.822	ppb	14:54:31
1	K 766.490 Radial†	243.5	108.1	76.828	µg/L	76.828	ppb	14:54:10
1	Mg 279.077 IEC†	18.5	6.7	62.643	µg/L	62.643	ppb	14:54:31
1	Na 589.592 Radial†	743.1	179.7	59.159	µg/L	59.159	ppb	14:54:10
1	Sr 421.552†	105.8	63.2	0.6552	µg/L	0.6552	ppb	14:54:10
1	Sc 361.383	1982476.6	1982476.6	103.80	%			14:55:33
1	Y 371.029	1357413.1	1357413.1	103.63	%			14:55:33
1	Ag 328.068†	-522.2	61.5	0.4946	µg/L	0.4946	ppb	14:55:38
1	As 188.979†	1.8	0.6	1.0901	µg/L	1.0901	ppb	14:55:59
1	B 249.677†	408.1	61.7	2.6625	µg/L	2.6625	ppb	14:55:59
1	Ba 233.527†	2.5	28.5	0.7415	µg/L	0.7415	ppb	14:55:59
1	Be 313.107†	-3213.4	344.8	0.2250	µg/L	0.2250	ppb	14:55:38
1	Cd 226.502†	-134.6	12.5	0.3368	µg/L	0.3368	ppb	14:55:59
1	Co 228.616†	-7.7	1.4	0.0712	µg/L	0.0712	ppb	14:55:59
1	Cr 267.716†	4.1	56.4	1.2401	µg/L	1.2401	ppb	14:55:59
1	Cu 324.752†	2752.9	165.9	1.1688	µg/L	1.1688	ppb	14:55:38
1	Mn 257.610†	-137.5	111.6	0.3934	µg/L	0.3934	ppb	14:55:59
1	Mo 202.031†	2.7	10.2	1.0859	µg/L	1.0859	ppb	14:55:59
1	Ni 231.604†	309.2	-4.3	-0.2339	µg/L	-0.2339	ppb	14:55:59
1	P 214.914†	25.1	-3.5	-7.5860	µg/L	-7.5860	ppb	14:55:59
1	Pb 220.353†	124.3	22.6	6.0147	µg/L	6.0147	ppb	14:55:59
1	S 181.975 Axial†	16.6	1.2	5.2644	µg/L	5.2644	ppb	14:55:59
1	Sb 206.836†	32.4	4.3	4.2069	µg/L	4.2069	ppb	14:55:59
1	Se 196.026†	17.5	1.0	1.6734	µg/L	1.6734	ppb	14:55:59
1	SiO2†	1299.2	1.6	0.3503	µg/L	0.3503	ppb	14:55:38
1	Si 251.611†	379.1	52.3	4.3027	µg/L	4.3027	ppb	14:55:59
1	Sn 189.927†	7.8	8.4	3.8780	µg/L	3.8780	ppb	14:55:59
1	Ti 334.940†	271.8	145.7	0.3462	µg/L	0.3462	ppb	14:55:38
1	Tl 190.801†	-19.8	5.2	7.2432	µg/L	7.2432	ppb	14:55:59
1	U 409.014†	-9.7	44.3	3.9980	µg/L	3.9980	ppb	14:55:38
1	V 292.402†	-10.8	33.8	0.3839	µg/L	0.3839	ppb	14:55:38
1	Zn 213.857†	539.3	44.0	1.0899	µg/L	1.0899	ppb	14:55:59
2	Sc RADIAL	56663.5	56663.5	104	%			14:54:36
2	Al 396.153Radial†	53.4	61.6	45.892	µg/L	45.892	ppb	14:54:36
2	Ca 317.933Radial†	224.0	36.6	34.458	µg/L	34.458	ppb	14:54:57
2	Fe 238.204 Radial†	18.3	3.1	26.399	µg/L	26.399	ppb	14:54:57
2	K 766.490 Radial†	257.1	119.2	84.727	µg/L	84.727	ppb	14:54:36
2	Mg 279.077 IEC†	17.6	5.7	53.162	µg/L	53.162	ppb	14:54:57
2	Na 589.592 Radial†	788.5	217.6	71.620	µg/L	71.620	ppb	14:54:36
2	Sr 421.552†	88.8	46.0	0.4764	µg/L	0.4764	ppb	14:54:36
2	Sc 361.383	1976808.7	1976808.7	103.51	%			14:56:05
2	Y 371.029	1355511.3	1355511.3	103.48	%			14:56:05
2	Ag 328.068†	-510.0	71.8	0.5752	µg/L	0.5752	ppb	14:56:10
2	As 188.979†	1.2	0.0	0.0279	µg/L	0.0279	ppb	14:56:31
2	B 249.677†	396.3	51.4	2.2364	µg/L	2.2364	ppb	14:56:31
2	Ba 233.527†	2.6	28.5	0.7438	µg/L	0.7438	ppb	14:56:31
2	Be 313.107†	-3268.6	282.6	0.1844	µg/L	0.1844	ppb	14:56:10
2	Cd 226.502†	-122.2	24.1	0.6618	µg/L	0.6618	ppb	14:56:31
2	Co 228.616†	-10.0	-0.8	-0.0395	µg/L	-0.0395	ppb	14:56:31
2	Cr 267.716†	5.1	57.3	1.2611	µg/L	1.2611	ppb	14:56:31
2	Cu 324.752†	2702.2	124.6	0.8738	µg/L	0.8738	ppb	14:56:10
2	Mn 257.610†	-107.9	139.8	0.4856	µg/L	0.4856	ppb	14:56:31
2	Mo 202.031†	-1.1	6.4	0.6888	µg/L	0.6888	ppb	14:56:31
2	Ni 231.604†	302.7	-9.7	-0.5298	µg/L	-0.5298	ppb	14:56:31
2	P 214.914†	20.2	-8.1	-17.441	µg/L	-17.441	ppb	14:56:31
2	Pb 220.353†	118.9	17.7	4.7183	µg/L	4.7183	ppb	14:56:31

2	S 181.975 Axial†	14.4	-0.9	-4.1582 µg/L	-4.1582 ppb	14:56:31
2	Sb 206.836†	28.3	0.4	0.3915 µg/L	0.3915 ppb	14:56:31
2	Se 196.026†	9.3	-6.9	-10.429 µg/L	-10.429 ppb	14:56:31
2	SiO2†	1222.9	-68.6	-14.765 µg/L	-14.765 ppb	14:56:10
2	Si 251.611†	359.0	34.0	2.7936 µg/L	2.7936 ppb	14:56:31
2	Sn 189.927†	7.1	7.7	3.5568 µg/L	3.5568 ppb	14:56:31
2	Ti 334.940†	232.6	108.6	0.2576 µg/L	0.2576 ppb	14:56:10
2	Tl 190.801†	-24.5	0.6	0.8244 µg/L	0.8244 ppb	14:56:31
2	U 409.014†	-107.5	-50.2	-4.5523 µg/L	-4.5523 ppb	14:56:10
2	V 292.402†	15.1	58.8	0.6333 µg/L	0.6333 ppb	14:56:10
2	Zn 213.857†	534.3	40.7	1.0126 µg/L	1.0126 ppb	14:56:31
3	Sc RADIAL	56320.6	56320.6	103 %		14:55:02
3	Al 396.153Radial†	8.5	18.4	13.663 µg/L	13.663 ppb	14:55:02
3	Ca 317.933Radial†	216.9	31.1	29.241 µg/L	29.241 ppb	14:55:23
3	Fe 238.204 Radial†	17.6	2.6	21.668 µg/L	21.668 ppb	14:55:23
3	K 766.490 Radial†	236.5	100.7	71.584 µg/L	71.584 ppb	14:55:02
3	Mg 279.077 IEC†	12.2	0.5	5.0859 µg/L	5.0859 ppb	14:55:23
3	Na 589.592 Radial†	760.7	195.3	64.287 µg/L	64.287 ppb	14:55:02
3	Sr 421.552†	71.7	29.9	0.3097 µg/L	0.3097 ppb	14:55:02
3	Sc 361.383	1993913.4	1993913.4	104.40 %		14:56:37
3	Y 371.029	1367504.2	1367504.2	104.40 %		14:56:37
3	Ag 328.068†	-498.3	87.2	0.6944 µg/L	0.6944 ppb	14:56:43
3	As 188.979†	0.4	-0.8	-1.5138 µg/L	-1.5138 ppb	14:57:03
3	B 249.677†	385.9	38.1	1.6564 µg/L	1.6564 ppb	14:57:03
3	Ba 233.527†	1.2	27.2	0.7082 µg/L	0.7082 ppb	14:57:03
3	Be 313.107†	-3126.9	445.4	0.2907 µg/L	0.2907 ppb	14:56:43
3	Cd 226.502†	-117.4	29.7	0.8162 µg/L	0.8162 ppb	14:57:03
3	Co 228.616†	-8.6	0.6	0.0304 µg/L	0.0304 ppb	14:57:03
3	Cr 267.716†	2.0	54.3	1.1938 µg/L	1.1938 ppb	14:57:03
3	Cu 324.752†	2701.6	101.6	0.7126 µg/L	0.7126 ppb	14:56:43
3	Mn 257.610†	-86.5	161.3	0.5611 µg/L	0.5611 ppb	14:57:03
3	Mo 202.031†	5.2	12.5	1.3355 µg/L	1.3355 ppb	14:57:03
3	Ni 231.604†	315.6	0.1	0.0043 µg/L	0.0043 ppb	14:57:03
3	P 214.914†	33.2	4.1	8.8077 µg/L	8.8077 ppb	14:57:03
3	Pb 220.353†	109.3	7.5	2.0114 µg/L	2.0114 ppb	14:57:03
3	S 181.975 Axial†	10.6	-4.7	-20.521 µg/L	-20.521 ppb	14:57:03
3	Sb 206.836†	25.8	-2.2	-2.1813 µg/L	-2.1813 ppb	14:57:03
3	Se 196.026†	17.8	1.2	1.8776 µg/L	1.8776 ppb	14:57:03
3	SiO2†	1292.2	-12.3	-2.6550 µg/L	-2.6550 ppb	14:56:43
3	Si 251.611†	371.3	42.8	3.5163 µg/L	3.5163 ppb	14:57:03
3	Sn 189.927†	-2.0	-1.0	-0.4777 µg/L	-0.4777 ppb	14:57:03
3	Ti 334.940†	313.8	184.5	0.4438 µg/L	0.4438 ppb	14:56:43
3	Tl 190.801†	-24.1	1.2	1.6892 µg/L	1.6892 ppb	14:57:03
3	U 409.014†	-22.6	31.9	2.8863 µg/L	2.8863 ppb	14:56:43
3	V 292.402†	-34.6	11.0	0.1363 µg/L	0.1363 ppb	14:56:43
3	Zn 213.857†	532.5	34.5	0.8590 µg/L	0.8590 ppb	14:57:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984399.6	103.90	%	0.456				0.44%
Sc RADIAL	56394.7	103	%	0.4				0.43%
Y 371.029	1360142.9	103.83	%	0.492				0.47%
Ag 328.068†	73.5	0.5881	µg/L	0.10050	0.5881	ppb	0.10050	17.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.3	31.542	µg/L	16.4016	31.542	ppb	16.4016	52.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1319	µg/L	1.30928	-0.1319	ppb	1.30928	992.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.4	2.1851	µg/L	0.50501	2.1851	ppb	0.50501	23.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	28.1	0.7312	µg/L	0.01993	0.7312	ppb	0.01993	2.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	357.6	0.2334	µg/L	0.05362	0.2334	ppb	0.05362	22.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.7	35.543	µg/L	6.9088	35.543	ppb	6.9088	19.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.1	0.6049	µg/L	0.24471	0.6049	ppb	0.24471	40.45%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0207	µg/L	0.05597	0.0207	ppb	0.05597	270.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                56.0      1.2317 µg/L       0.03444      1.2317 ppb        0.03444   2.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               130.7      0.9184 µg/L       0.23134      0.9184 ppb        0.23134  25.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.6      39.296 µg/L       26.5417      39.296 ppb        26.5417  67.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         109.3      77.713 µg/L        6.6157      77.713 ppb         6.6157   8.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.3      40.297 µg/L       30.8602      40.297 ppb        30.8602  76.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               137.6      0.4800 µg/L       0.08402      0.4800 ppb        0.08402  17.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      1.0367 µg/L       0.32615      1.0367 ppb        0.32615  31.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        197.5      65.022 µg/L        6.2628      65.022 ppb         6.2628   9.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.6     -0.2531 µg/L       0.26755     -0.2531 ppb        0.26755 105.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -5.4063 µg/L      13.25932     -5.4063 ppb       13.25932 245.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.9      4.2482 µg/L       2.04263      4.2482 ppb        2.04263  48.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -6.4715 µg/L      13.04721     -6.4715 ppb       13.04721 201.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.8      0.8057 µg/L       3.21418      0.8057 ppb        3.21418 398.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.5     -2.2926 µg/L       7.04698     -2.2926 ppb        7.04698 307.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -26.4     -5.6898 µg/L       8.00142     -5.6898 ppb        8.00142 140.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                43.0      3.5375 µg/L       0.75475      3.5375 ppb        0.75475  21.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.0      2.3190 µg/L       2.42737      2.3190 ppb        2.42737 104.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                46.3      0.4804 µg/L       0.17278      0.4804 ppb        0.17278  35.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               146.3      0.3492 µg/L       0.09310      0.3492 ppb        0.09310  26.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.3      3.2523 µg/L       3.48319      3.2523 ppb        3.48319 107.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  8.7      0.7773 µg/L       4.64898      0.7773 ppb        4.64898 598.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 34.6      0.3845 µg/L       0.24848      0.3845 ppb        0.24848  64.62%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.7      0.9871 µg/L       0.11756      0.9871 ppb        0.11756  11.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/11/2010 15:08:34 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/11/2010 13:51:13**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR1 **Date Collected: 2/11/2010 15:08:34**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55775.1	55775.1	102	%			15:09:19
1	Al 396.153Radial†	-12.5	-2.1	-1.5477	µg/L	-1.5477	ppb	15:09:19
1	Ca 317.933Radial†	109.7	-71.8	-67.596	µg/L	-67.596	ppb	15:09:39
1	Fe 238.204 Radial†	12.5	-2.2	-18.859	µg/L	-18.859	ppb	15:09:39

1	K 766.490 Radial†	153.1	21.4	15.223 µg/L	15.223 ppb	15:09:19
1	Mg 279.077 IEC†	21.3	9.6	89.132 µg/L	89.132 ppb	15:09:39
1	Na 589.592 Radial†	561.6	7.7	2.5239 µg/L	2.5239 ppb	15:09:19
1	Sr 421.552†	60.6	19.8	0.2050 µg/L	0.2050 ppb	15:09:19
1	Sc 361.383	1979575.8	1979575.8	103.65 %		15:10:41
1	Y 371.029	1359463.7	1359463.7	103.78 %		15:10:41
1	Ag 328.068†	-475.7	105.6	0.7790 µg/L	0.7790 ppb	15:10:47
1	As 188.979†	3.5	2.2	4.2811 µg/L	4.2811 ppb	15:11:08
1	B 249.677†	236.6	-103.2	-4.4890 µg/L	-4.4890 ppb	15:10:47
1	Ba 233.527†	-43.0	-15.5	-0.4185 µg/L	-0.4185 ppb	15:11:08
1	Be 313.107†	-9167.3	-5403.9	-3.5311 µg/L	-3.5311 ppb	15:10:47
1	Cd 226.502†	-304.4	-151.6	-4.1785 µg/L	-4.1785 ppb	15:11:08
1	Co 228.616†	19.8	27.9	1.3617 µg/L	1.3617 ppb	15:11:08
1	Cr 267.716†	233.0	277.1	6.0903 µg/L	6.0903 ppb	15:10:47
1	Cu 324.752†	1310.7	-1221.6	-8.5355 µg/L	-8.5355 ppb	15:10:47
1	Mn 257.610†	14.0	257.6	0.8861 µg/L	0.8861 ppb	15:10:47
1	Mo 202.031†	-13.4	-5.4	-0.5763 µg/L	-0.5763 ppb	15:11:08
1	Ni 231.604†	324.2	10.6	0.5789 µg/L	0.5789 ppb	15:11:08
1	P 214.914†	39.4	10.4	23.307 µg/L	23.307 ppb	15:11:08
1	Pb 220.353†	132.9	31.0	-2.3589 µg/L	-2.3589 ppb	15:11:08
1	S 181.975 Axial†	17.0	1.6	6.9914 µg/L	6.9914 ppb	15:11:08
1	Sb 206.836†	24.0	-3.8	-3.8211 µg/L	-3.8211 ppb	15:11:08
1	Se 196.026†	11.2	-5.0	-7.7508 µg/L	-7.7508 ppb	15:11:08
1	SiO2†	1260.6	-33.8	-7.2860 µg/L	-7.2860 ppb	15:10:47
1	Si 251.611†	175.4	-143.6	-11.809 µg/L	-11.809 ppb	15:11:08
1	Sn 189.927†	6.2	6.9	3.1737 µg/L	3.1737 ppb	15:11:08
1	Ti 334.940†	2413.3	2212.1	5.3130 µg/L	5.3130 ppb	15:10:47
1	Tl 190.801†	-31.2	-5.9	4.3972 µg/L	4.3972 ppb	15:11:08
1	U 409.014†	117155.1	113081.6	10238 µg/L	10238 ppb	15:10:41
1	V 292.402†	-897.2	-821.4	1.8907 µg/L	1.8907 ppb	15:10:47
1	Zn 213.857†	499.8	6.6	0.1728 µg/L	0.1728 ppb	15:11:08
2	Sc RADIAL	55251.0	55251.0	101 %		15:09:44
2	Al 396.153Radial†	-27.7	-17.2	-12.820 µg/L	-12.820 ppb	15:09:44
2	Ca 317.933Radial†	107.7	-72.8	-68.561 µg/L	-68.561 ppb	15:10:05
2	Fe 238.204 Radial†	14.6	-0.1	-0.7560 µg/L	-0.7560 ppb	15:10:05
2	K 766.490 Radial†	163.9	33.5	23.798 µg/L	23.798 ppb	15:09:44
2	Mg 279.077 IEC†	21.5	10.0	92.921 µg/L	92.921 ppb	15:10:05
2	Na 589.592 Radial†	549.7	1.1	0.3683 µg/L	0.3683 ppb	15:09:44
2	Sr 421.552†	65.4	25.1	0.2600 µg/L	0.2600 ppb	15:09:44
2	Sc 361.383	1991488.7	1991488.7	104.28 %		15:11:14
2	Y 371.029	1367480.0	1367480.0	104.39 %		15:11:14
2	Ag 328.068†	-460.8	122.6	0.9153 µg/L	0.9153 ppb	15:11:20
2	As 188.979†	3.4	2.1	4.1976 µg/L	4.1976 ppb	15:11:40
2	B 249.677†	245.3	-96.3	-4.1987 µg/L	-4.1987 ppb	15:11:20
2	Ba 233.527†	-30.4	-3.2	-0.0984 µg/L	-0.0984 ppb	15:11:40
2	Be 313.107†	-9053.1	-5241.5	-3.4251 µg/L	-3.4251 ppb	15:11:20
2	Cd 226.502†	-307.5	-152.7	-4.2119 µg/L	-4.2119 ppb	15:11:40
2	Co 228.616†	2.2	10.9	0.5250 µg/L	0.5250 ppb	15:11:40
2	Cr 267.716†	184.1	229.0	5.0309 µg/L	5.0309 ppb	15:11:20
2	Cu 324.752†	1378.2	-1164.4	-8.1337 µg/L	-8.1337 ppb	15:11:20
2	Mn 257.610†	56.5	298.3	1.0291 µg/L	1.0291 ppb	15:11:20
2	Mo 202.031†	-9.4	-1.5	-0.1584 µg/L	-0.1584 ppb	15:11:40
2	Ni 231.604†	337.2	21.2	1.1562 µg/L	1.1562 ppb	15:11:40
2	P 214.914†	47.1	17.5	38.462 µg/L	38.462 ppb	15:11:40
2	Pb 220.353†	140.3	37.4	-0.6060 µg/L	-0.6060 ppb	15:11:40
2	S 181.975 Axial†	16.6	1.1	4.9128 µg/L	4.9128 ppb	15:11:40
2	Sb 206.836†	18.1	-9.6	-9.5490 µg/L	-9.5490 ppb	15:11:40
2	Se 196.026†	12.7	-3.7	-5.6705 µg/L	-5.6705 ppb	15:11:40
2	SiO2†	1277.1	-25.3	-5.4423 µg/L	-5.4423 ppb	15:11:20
2	Si 251.611†	186.7	-133.8	-10.999 µg/L	-10.999 ppb	15:11:40
2	Sn 189.927†	5.7	6.3	2.9120 µg/L	2.9120 ppb	15:11:40
2	Ti 334.940†	2507.4	2288.5	5.4964 µg/L	5.4964 ppb	15:11:20
2	Tl 190.801†	-28.7	-3.2	8.0207 µg/L	8.0207 ppb	15:11:40
2	U 409.014†	117240.7	112487.6	10184 µg/L	10184 ppb	15:11:14
2	V 292.402†	-895.5	-814.6	1.9102 µg/L	1.9102 ppb	15:11:20
2	Zn 213.857†	510.6	14.1	0.3551 µg/L	0.3551 ppb	15:11:40
3	Sc RADIAL	56112.5	56112.5	103 %		15:10:10
3	Al 396.153Radial†	-19.4	-8.8	-6.5548 µg/L	-6.5548 ppb	15:10:10
3	Ca 317.933Radial†	114.8	-67.5	-63.545 µg/L	-63.545 ppb	15:10:31
3	Fe 238.204 Radial†	16.7	1.7	14.838 µg/L	14.838 ppb	15:10:31
3	K 766.490 Radial†	156.5	23.8	16.907 µg/L	16.907 ppb	15:10:10

3	Mg 279.077 IEC†	18.3	6.5	60.273 µg/L	60.273 ppb	15:10:31
3	Na 589.592 Radial†	544.2	-12.6	-4.1463 µg/L	-4.1463 ppb	15:10:10
3	Sr 421.552†	60.1	18.9	0.1962 µg/L	0.1962 ppb	15:10:10
3	Sc 361.383	1998454.5	1998454.5	104.64 %		15:11:47
3	Y 371.029	1371253.2	1371253.2	104.68 %		15:11:47
3	Ag 328.068†	-504.4	82.5	0.6071 µg/L	0.6071 ppb	15:11:53
3	As 188.979†	2.1	0.9	1.6782 µg/L	1.6782 ppb	15:12:13
3	B 249.677†	284.2	-59.9	-2.6163 µg/L	-2.6163 ppb	15:11:53
3	Ba 233.527†	-15.1	11.6	0.2883 µg/L	0.2883 ppb	15:12:13
3	Be 313.107†	-8272.3	-4465.0	-2.9180 µg/L	-2.9180 ppb	15:11:53
3	Cd 226.502†	-264.9	-111.0	-3.0636 µg/L	-3.0636 ppb	15:12:13
3	Co 228.616†	14.5	22.7	1.1081 µg/L	1.1081 ppb	15:12:13
3	Cr 267.716†	231.8	273.9	6.0206 µg/L	6.0206 ppb	15:11:53
3	Cu 324.752†	1499.3	-1053.3	-7.3552 µg/L	-7.3552 ppb	15:11:53
3	Mn 257.610†	138.5	376.5	1.3032 µg/L	1.3032 ppb	15:11:53
3	Mo 202.031†	-2.6	5.1	0.5398 µg/L	0.5398 ppb	15:12:13
3	Ni 231.604†	337.9	20.7	1.1315 µg/L	1.1315 ppb	15:12:13
3	P 214.914†	49.3	19.5	42.611 µg/L	42.611 ppb	15:12:13
3	Pb 220.353†	138.7	35.4	-0.5823 µg/L	-0.5823 ppb	15:12:13
3	S 181.975 Axial†	15.8	0.3	1.1838 µg/L	1.1838 ppb	15:12:13
3	Sb 206.836†	21.8	-6.1	-6.0924 µg/L	-6.0924 ppb	15:12:13
3	Se 196.026†	12.8	-3.6	-5.5591 µg/L	-5.5591 ppb	15:12:13
3	SiO2†	1308.9	0.8	0.1805 µg/L	0.1805 ppb	15:11:53
3	Si 251.611†	268.0	-56.8	-4.6690 µg/L	-4.6690 ppb	15:12:13
3	Sn 189.927†	4.1	4.8	2.1976 µg/L	2.1976 ppb	15:12:13
3	Ti 334.940†	2521.6	2293.7	5.5115 µg/L	5.5115 ppb	15:11:53
3	Tl 190.801†	-25.5	-0.1	11.785 µg/L	11.785 ppb	15:12:13
3	U 409.014†	111497.5	106607.2	9651.9 µg/L	9651.9 ppb	15:11:47
3	V 292.402†	-762.7	-684.7	2.7514 µg/L	2.7514 ppb	15:11:53
3	Zn 213.857†	523.6	24.8	0.6223 µg/L	0.6223 ppb	15:12:13

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1989839.7	104.19	%	0.500				0.48%
Sc RADIAL	55712.9	102	%	0.8				0.78%
Y 371.029	1366065.6	104.29	%	0.460				0.44%
Ag 328.068†	103.5	0.7671	µg/L	0.15443	0.7671	ppb	0.15443	20.13%
Al 396.153Radial†	-9.4	-6.9743	µg/L	5.64801	-6.9743	ppb	5.64801	80.98%
As 188.979†	1.7	3.3856	µg/L	1.47930	3.3856	ppb	1.47930	43.69%
B 249.677†	-86.4	-3.7680	µg/L	1.00792	-3.7680	ppb	1.00792	26.75%
Ba 233.527†	-2.4	-0.0762	µg/L	0.35392	-0.0762	ppb	0.35392	464.36%
Be 313.107†	-5036.8	-3.2914	µg/L	0.32768	-3.2914	ppb	0.32768	9.96%
Ca 317.933Radial†	-70.7	-66.567	µg/L	2.6618	-66.567	ppb	2.6618	4.00%
Cd 226.502†	-138.4	-3.8180	µg/L	0.65352	-3.8180	ppb	0.65352	17.12%
Co 228.616†	20.5	0.9983	µg/L	0.42901	0.9983	ppb	0.42901	42.97%
Cr 267.716†	260.0	5.7139	µg/L	0.59254	5.7139	ppb	0.59254	10.37%
Cu 324.752†	-1146.4	-8.0081	µg/L	0.60007	-8.0081	ppb	0.60007	7.49%
Fe 238.204 Radial†	-0.2	-1.5922	µg/L	16.86410	-1.5922	ppb	16.86410	>999.9%
K 766.490 Radial†	26.2	18.643	µg/L	4.5435	18.643	ppb	4.5435	24.37%
Mg 279.077 IEC†	8.7	80.775	µg/L	17.8566	80.775	ppb	17.8566	22.11%
Mn 257.610†	310.8	1.0728	µg/L	0.21196	1.0728	ppb	0.21196	19.76%
Mo 202.031†	-0.6	-0.0649	µg/L	0.56388	-0.0649	ppb	0.56388	868.32%
Na 589.592 Radial†	-1.3	-0.4181	µg/L	3.40391	-0.4181	ppb	3.40391	814.20%
Ni 231.604†	17.5	0.9555	µg/L	0.32641	0.9555	ppb	0.32641	34.16%
P 214.914†	15.8	34.793	µg/L	10.1611	34.793	ppb	10.1611	29.20%
Pb 220.353†	34.6	-1.1824	µg/L	1.01895	-1.1824	ppb	1.01895	86.18%
S 181.975 Axial†	1.0	4.3627	µg/L	2.94264	4.3627	ppb	2.94264	67.45%
Sb 206.836†	-6.5	-6.4875	µg/L	2.88435	-6.4875	ppb	2.88435	44.46%
Se 196.026†	-4.1	-6.3268	µg/L	1.23447	-6.3268	ppb	1.23447	19.51%
SiO2†	-19.4	-4.1826	µg/L	3.88938	-4.1826	ppb	3.88938	92.99%
Si 251.611†	-111.4	-9.1588	µg/L	3.90936	-9.1588	ppb	3.90936	42.68%
Sn 189.927†	6.0	2.7611	µg/L	0.50522	2.7611	ppb	0.50522	18.30%
Sr 421.552†	21.3	0.2204	µg/L	0.03458	0.2204	ppb	0.03458	15.69%
Ti 334.940†	2264.8	5.4403	µg/L	0.11049	5.4403	ppb	0.11049	2.03%
Tl 190.801†	-3.0	8.0675	µg/L	3.69388	8.0675	ppb	3.69388	45.79%
U 409.014†	110725.5	10025	µg/L	324.0	10025	ppb	324.0	3.23%
V 292.402†	-773.6	2.1841	µg/L	0.49139	2.1841	ppb	0.49139	22.50%
Zn 213.857†	15.2	0.3834	µg/L	0.22607	0.3834	ppb	0.22607	58.97%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 2/11/2010 15:12:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53713.3	53713.3	98.4	%			15:12:55
1	Al 396.153Radial†	-16.2	-6.3	-4.7161	µg/L	-4.7161	ppb	15:12:55
1	Ca 317.933Radial†	188.0	11.9	11.198	µg/L	11.198	ppb	15:13:15
1	Fe 238.204 Radial†	4.2	-10.3	23.498	µg/L	23.498	ppb	15:13:15
1	K 766.490 Radial†	165.7	39.9	28.393	µg/L	28.393	ppb	15:12:55
1	Mg 279.077 IEC†	10.1	-1.1	-9.7514	µg/L	-9.7514	ppb	15:13:15
1	Na 589.592 Radial†	614.8	82.8	27.252	µg/L	27.252	ppb	15:12:55
1	Sr 421.552†	64.3	25.8	0.2675	µg/L	0.2675	ppb	15:12:55
1	Sc 361.383	1941418.8	1941418.8	101.65	%			15:14:18
1	Y 371.029	1323859.1	1323859.1	101.06	%			15:14:18
1	Ag 328.068†	-525.2	47.9	0.3781	µg/L	0.3781	ppb	15:14:24
1	As 188.979†	-3.1	-4.2	-8.1869	µg/L	-8.1869	ppb	15:14:45
1	B 249.677†	750.9	407.3	17.845	µg/L	17.845	ppb	15:14:24
1	Ba 233.527†	-16.3	10.0	0.2610	µg/L	0.2610	ppb	15:14:45
1	Be 313.107†	-3458.2	38.5	0.0250	µg/L	0.0250	ppb	15:14:24
1	Cd 226.502†	-114.7	29.2	0.8189	µg/L	0.8189	ppb	15:14:45
1	Co 228.616†	107569.3	105828.5	5208.2	µg/L	5208.2	ppb	15:14:24
1	Cr 267.716†	-25.9	26.9	0.5925	µg/L	0.5925	ppb	15:14:45
1	Cu 324.752†	1814.1	-701.5	-4.9124	µg/L	-4.9124	ppb	15:14:24
1	Mn 257.610†	-161.2	85.5	0.2849	µg/L	0.2849	ppb	15:14:45
1	Mo 202.031†	-1.5	6.0	0.6418	µg/L	0.6418	ppb	15:14:45
1	Ni 231.604†	346.8	39.0	-4.0742	µg/L	-4.0742	ppb	15:14:45
1	P 214.914†	5345.7	5231.1	11233	µg/L	11233	ppb	15:14:24
1	Pb 220.353†	111.4	12.4	3.3090	µg/L	3.3090	ppb	15:14:45
1	S 181.975 Axial†	16.5	1.4	5.9830	µg/L	5.9830	ppb	15:14:45
1	Sb 206.836†	21.7	-5.6	-5.5036	µg/L	-5.5036	ppb	15:14:45
1	Se 196.026†	12.6	-3.4	-5.4894	µg/L	-5.4894	ppb	15:14:45
1	SiO2†	400045.4	392288.3	84482	µg/L	84482	ppb	15:14:18
1	Si 251.611†	483396.1	475220.4	39066	µg/L	39066	ppb	15:14:18
1	Sn 189.927†	3.3	4.1	1.8920	µg/L	1.8920	ppb	15:14:45
1	Ti 334.940†	305.9	184.8	0.4456	µg/L	0.4456	ppb	15:14:24
1	Tl 190.801†	-3.7	20.7	11.360	µg/L	11.360	ppb	15:14:45
1	U 409.014†	25.3	78.5	7.1194	µg/L	7.1194	ppb	15:14:24
1	V 292.402†	5.9	50.0	0.5361	µg/L	0.5361	ppb	15:14:24
1	Zn 213.857†	522.6	38.6	0.9665	µg/L	0.9665	ppb	15:14:45
2	Sc RADIAL	54832.8	54832.8	100	%			15:13:21
2	Al 396.153Radial†	1.7	11.8	8.7929	µg/L	8.7929	ppb	15:13:21
2	Ca 317.933Radial†	190.7	10.6	10.005	µg/L	10.005	ppb	15:13:42
2	Fe 238.204 Radial†	3.0	-11.5	14.135	µg/L	14.135	ppb	15:13:42
2	K 766.490 Radial†	204.4	75.0	53.328	µg/L	53.328	ppb	15:13:21
2	Mg 279.077 IEC†	11.2	-0.1	-0.6600	µg/L	-0.6600	ppb	15:13:42
2	Na 589.592 Radial†	630.7	85.9	28.272	µg/L	28.272	ppb	15:13:21
2	Sr 421.552†	34.5	-5.2	-0.0538	µg/L	-0.0538	ppb	15:13:21
2	Sc 361.383	1946646.9	1946646.9	101.93	%			15:14:51
2	Y 371.029	1327034.0	1327034.0	101.31	%			15:14:51
2	Ag 328.068†	-584.6	-9.0	-0.0733	µg/L	-0.0733	ppb	15:14:57
2	As 188.979†	-0.2	-1.3	-2.6409	µg/L	-2.6409	ppb	15:15:17
2	B 249.677†	783.8	437.5	19.174	µg/L	19.174	ppb	15:14:57
2	Ba 233.527†	-20.0	6.4	0.1666	µg/L	0.1666	ppb	15:15:17
2	Be 313.107†	-3481.4	24.9	0.0161	µg/L	0.0161	ppb	15:14:57
2	Cd 226.502†	-101.1	42.9	1.1972	µg/L	1.1972	ppb	15:15:17
2	Co 228.616†	108800.7	106752.3	5253.6	µg/L	5253.6	ppb	15:14:57
2	Cr 267.716†	-17.5	35.2	0.7745	µg/L	0.7745	ppb	15:15:17
2	Cu 324.752†	1718.5	-800.1	-5.6024	µg/L	-5.6024	ppb	15:14:57
2	Mn 257.610†	-163.9	83.3	0.2757	µg/L	0.2757	ppb	15:15:17
2	Mo 202.031†	-3.8	3.8	0.4036	µg/L	0.4036	ppb	15:15:17
2	Ni 231.604†	346.9	38.2	-4.1724	µg/L	-4.1724	ppb	15:15:17
2	P 214.914†	5358.7	5229.8	11230	µg/L	11230	ppb	15:14:57
2	Pb 220.353†	113.9	14.6	3.8918	µg/L	3.8918	ppb	15:15:17

2	S 181.975 Axial†	13.2	-1.8	-7.9889 µg/L	-7.9889 ppb	15:15:17
2	Sb 206.836†	30.6	3.1	3.0533 µg/L	3.0533 ppb	15:15:17
2	Se 196.026†	12.9	-3.2	-5.1244 µg/L	-5.1244 ppb	15:15:17
2	SiO2†	401576.7	392733.7	84577 µg/L	84577 ppb	15:14:51
2	Si 251.611†	485309.6	475820.6	39115 µg/L	39115 ppb	15:14:51
2	Sn 189.927†	3.1	3.9	1.7899 µg/L	1.7899 ppb	15:15:17
2	Ti 334.940†	323.3	201.1	0.4839 µg/L	0.4839 ppb	15:14:57
2	Tl 190.801†	-4.0	20.4	10.781 µg/L	10.781 ppb	15:15:17
2	U 409.014†	85.0	137.0	12.417 µg/L	12.417 ppb	15:14:57
2	V 292.402†	14.9	58.8	0.6334 µg/L	0.6334 ppb	15:14:57
2	Zn 213.857†	510.4	25.2	0.6333 µg/L	0.6333 ppb	15:15:17
3	Sc RADIAL	54620.7	54620.7	100 %		15:13:47
3	Al 396.153Radial†	15.7	25.8	19.227 µg/L	19.227 ppb	15:13:47
3	Ca 317.933Radial†	200.8	21.5	20.218 µg/L	20.218 ppb	15:14:07
3	Fe 238.204 Radial†	4.8	-9.7	21.721 µg/L	21.721 ppb	15:14:07
3	K 766.490 Radial†	161.9	33.3	23.669 µg/L	23.669 ppb	15:13:47
3	Mg 279.077 IEC†	10.5	-0.8	-6.9228 µg/L	-6.9228 ppb	15:14:07
3	Na 589.592 Radial†	616.0	73.6	24.220 µg/L	24.220 ppb	15:13:47
3	Sr 421.552†	73.7	34.1	0.3532 µg/L	0.3532 ppb	15:13:47
3	Sc 361.383	1935972.8	1935972.8	101.37 %		15:15:24
3	Y 371.029	1321116.1	1321116.1	100.85 %		15:15:24
3	Ag 328.068†	-522.4	49.2	0.3871 µg/L	0.3871 ppb	15:15:29
3	As 188.979†	-0.6	-1.7	-3.3886 µg/L	-3.3886 ppb	15:15:50
3	B 249.677†	727.0	385.8	16.903 µg/L	16.903 ppb	15:15:29
3	Ba 233.527†	-11.4	14.8	0.3862 µg/L	0.3862 ppb	15:15:50
3	Be 313.107†	-3553.1	-64.7	-0.0425 µg/L	-0.0425 ppb	15:15:29
3	Cd 226.502†	-114.3	29.4	0.8217 µg/L	0.8217 ppb	15:15:50
3	Co 228.616†	100765.6	99414.3	4892.5 µg/L	4892.5 ppb	15:15:29
3	Cr 267.716†	-15.7	36.9	0.8110 µg/L	0.8110 ppb	15:15:50
3	Cu 324.752†	1744.4	-765.3	-5.3569 µg/L	-5.3569 ppb	15:15:29
3	Mn 257.610†	-168.6	77.8	0.2588 µg/L	0.2588 ppb	15:15:50
3	Mo 202.031†	0.8	8.3	0.8836 µg/L	0.8836 ppb	15:15:50
3	Ni 231.604†	347.2	40.4	-3.6217 µg/L	-3.6217 ppb	15:15:50
3	P 214.914†	4995.9	4900.9	10524 µg/L	10524 ppb	15:15:29
3	Pb 220.353†	111.9	13.2	3.5300 µg/L	3.5300 ppb	15:15:50
3	S 181.975 Axial†	14.6	-0.4	-1.9121 µg/L	-1.9121 ppb	15:15:50
3	Sb 206.836†	26.4	-0.9	-0.9265 µg/L	-0.9265 ppb	15:15:50
3	Se 196.026†	6.2	-9.7	-15.059 µg/L	-15.059 ppb	15:15:50
3	SiO2†	389837.5	383325.3	82551 µg/L	82551 ppb	15:15:24
3	Si 251.611†	470845.5	464176.9	38158 µg/L	38158 ppb	15:15:24
3	Sn 189.927†	2.7	3.6	1.6476 µg/L	1.6476 ppb	15:15:50
3	Ti 334.940†	325.3	204.8	0.4935 µg/L	0.4935 ppb	15:15:29
3	Tl 190.801†	-3.6	20.7	12.467 µg/L	12.467 ppb	15:15:50
3	U 409.014†	27.1	80.3	7.2810 µg/L	7.2810 ppb	15:15:29
3	V 292.402†	-16.9	27.5	0.3000 µg/L	0.3000 ppb	15:15:29
3	Zn 213.857†	508.1	25.7	0.6443 µg/L	0.6443 ppb	15:15:50

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941346.1	101.65	%	0.279				0.27%
Sc RADIAL	54388.9	99.7	%	1.09				1.09%
Y 371.029	1324003.1	101.08	%	0.226				0.22%
Ag 328.068†	29.4	0.2306	µg/L	0.26325	0.2306	ppb	0.26325	114.16%
Al 396.153Radial†	10.4	7.7681	µg/L	12.00458	7.7681	ppb	12.00458	154.54%
As 188.979†	-2.4	-4.7388	µg/L	3.00947	-4.7388	ppb	3.00947	63.51%
B 249.677†	410.2	17.974	µg/L	1.1410	17.974	ppb	1.1410	6.35%
Ba 233.527†	10.4	0.2713	µg/L	0.11018	0.2713	ppb	0.11018	40.61%
Be 313.107†	-0.4	-0.0005	µg/L	0.03663	-0.0005	ppb	0.03663	>999.9%
Ca 317.933Radial†	14.7	13.807	µg/L	5.5841	13.807	ppb	5.5841	40.44%
Cd 226.502†	33.8	0.9459	µg/L	0.21761	0.9459	ppb	0.21761	23.01%
Co 228.616†	103998.4	5118.1	µg/L	196.69	5118.1	ppb	196.69	3.84%
Cr 267.716†	33.0	0.7260	µg/L	0.11700	0.7260	ppb	0.11700	16.12%
Cu 324.752†	-755.6	-5.2906	µg/L	0.34975	-5.2906	ppb	0.34975	6.61%
Fe 238.204 Radial†	-10.5	19.785	µg/L	4.9725	19.785	ppb	4.9725	25.13%
K 766.490 Radial†	49.4	35.130	µg/L	15.9357	35.130	ppb	15.9357	45.36%
Mg 279.077 IEC†	-0.6	-5.7780	µg/L	4.65251	-5.7780	ppb	4.65251	80.52%
Mn 257.610†	82.2	0.2731	µg/L	0.01325	0.2731	ppb	0.01325	4.85%
Mo 202.031†	6.1	0.6430	µg/L	0.24004	0.6430	ppb	0.24004	37.33%
Na 589.592 Radial†	80.7	26.581	µg/L	2.1079	26.581	ppb	2.1079	7.93%

Ni 231.604†	39.2	-3.9561	µg/L	0.29375	-3.9561	ppb	0.29375	7.43%
P 214.914†	5120.6	10995	µg/L	408.6	10995	ppb	408.6	3.72%
Pb 220.353†	13.4	3.5769	µg/L	0.29424	3.5769	ppb	0.29424	8.23%
S 181.975 Axial†	-0.3	-1.3060	µg/L	7.00565	-1.3060	ppb	7.00565	536.41%
Sb 206.836†	-1.1	-1.1256	µg/L	4.28189	-1.1256	ppb	4.28189	380.41%
Se 196.026†	-5.5	-8.5576	µg/L	5.63334	-8.5576	ppb	5.63334	65.83%
SiO2†	389449.1	83870	µg/L	1143.1	83870	ppb	1143.1	1.36%
Si 251.611†	471739.3	38779	µg/L	538.9	38779	ppb	538.9	1.39%
Sn 189.927†	3.8	1.7765	µg/L	0.12277	1.7765	ppb	0.12277	6.91%
Sr 421.552†	18.2	0.1890	µg/L	0.21456	0.1890	ppb	0.21456	113.55%
Ti 334.940†	196.9	0.4743	µg/L	0.02534	0.4743	ppb	0.02534	5.34%
Tl 190.801†	20.6	11.536	µg/L	0.8566	11.536	ppb	0.8566	7.43%
U 409.014†	98.6	8.9390	µg/L	3.01276	8.9390	ppb	3.01276	33.70%
V 292.402†	45.5	0.4899	µg/L	0.17143	0.4899	ppb	0.17143	35.00%
Zn 213.857†	29.8	0.7480	µg/L	0.18929	0.7480	ppb	0.18929	25.31%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54231.5	54231.5	99.4	%			15:16:36
1	Al 396.153Radial†	7106.2	7161.2	5326.1	µg/L	5326.1	ppb	15:16:36
1	Ca 317.933Radial†	5688.9	5545.7	5221.6	µg/L	5221.6	ppb	15:16:56
1	Fe 238.204 Radial†	634.7	624.2	5302.1	µg/L	5302.1	ppb	15:16:56
1	K 766.490 Radial†	7456.0	7374.7	5241.9	µg/L	5241.9	ppb	15:16:36
1	Mg 279.077 IEC†	577.6	570.0	5308.0	µg/L	5308.0	ppb	15:16:56
1	Na 589.592 Radial†	32401.3	32064.3	10556	µg/L	10556	ppb	15:16:36
1	Sr 421.552†	50354.2	50633.0	524.87	µg/L	524.87	ppb	15:16:36
1	Sc 361.383	1899310.9	1899310.9	99.449	%			15:17:59
1	Y 371.029	1297484.4	1297484.4	99.051	%			15:17:59
1	Ag 328.068†	65095.3	66020.7	527.69	µg/L	527.69	ppb	15:18:05
1	As 188.979†	283.8	284.2	554.43	µg/L	554.43	ppb	15:18:26
1	B 249.677†	12153.8	11889.7	517.70	µg/L	517.70	ppb	15:18:05
1	Ba 233.527†	20078.6	20215.9	527.34	µg/L	527.34	ppb	15:18:05
1	Be 313.107†	797857.7	805721.3	525.98	µg/L	525.98	ppb	15:17:59
1	Cd 226.502†	18953.5	19200.7	529.65	µg/L	529.65	ppb	15:18:05
1	Co 228.616†	10779.9	10848.5	533.28	µg/L	533.28	ppb	15:18:05
1	Cr 267.716†	24091.2	24277.1	534.33	µg/L	534.33	ppb	15:18:05
1	Cu 324.752†	77848.6	75794.1	530.18	µg/L	530.18	ppb	15:18:05
1	Mn 257.610†	153606.0	154701.7	536.20	µg/L	536.20	ppb	15:17:59
1	Mo 202.031†	5175.2	5211.4	556.37	µg/L	556.37	ppb	15:18:26
1	Ni 231.604†	10008.1	9761.4	533.14	µg/L	533.14	ppb	15:18:05
1	P 214.914†	1295.2	1274.7	2686.7	µg/L	2686.7	ppb	15:18:26
1	Pb 220.353†	2124.5	2039.1	544.31	µg/L	544.31	ppb	15:18:26
1	S 181.975 Axial†	260.7	247.3	1083.6	µg/L	1083.6	ppb	15:18:26
1	Sb 206.836†	587.4	563.7	557.41	µg/L	557.41	ppb	15:18:26
1	Se 196.026†	370.9	357.1	552.71	µg/L	552.71	ppb	15:18:26
1	SiO2†	27461.3	26363.5	5677.5	µg/L	5677.5	ppb	15:18:05
1	Si 251.611†	32393.9	32260.7	2652.0	µg/L	2652.0	ppb	15:18:05
1	Sn 189.927†	1213.6	1221.2	561.69	µg/L	561.69	ppb	15:18:26
1	Ti 334.940†	219433.8	220534.1	530.14	µg/L	530.14	ppb	15:17:59
1	Tl 190.801†	358.1	384.4	542.92	µg/L	542.92	ppb	15:18:26
1	U 409.014†	5858.6	5944.7	537.16	µg/L	537.16	ppb	15:18:05
1	V 292.402†	49239.4	49556.6	534.84	µg/L	534.84	ppb	15:18:05
1	Zn 213.857†	21646.0	21290.4	527.88	µg/L	527.88	ppb	15:18:05
2	Sc RADIAL	54850.6	54850.6	101	%			15:17:02
2	Al 396.153Radial†	7137.6	7111.8	5289.4	µg/L	5289.4	ppb	15:17:02
2	Ca 317.933Radial†	5661.7	5454.1	5135.3	µg/L	5135.3	ppb	15:17:22
2	Fe 238.204 Radial†	627.5	609.8	5179.7	µg/L	5179.7	ppb	15:17:22
2	K 766.490 Radial†	7509.6	7343.3	5219.6	µg/L	5219.6	ppb	15:17:02
2	Mg 279.077 IEC†	583.7	569.5	5303.7	µg/L	5303.7	ppb	15:17:22
2	Na 589.592 Radial†	32499.9	31794.4	10467	µg/L	10467	ppb	15:17:02
2	Sr 421.552†	50507.4	50213.6	520.52	µg/L	520.52	ppb	15:17:02
2	Sc 361.383	1912998.8	1912998.8	100.17	%			15:18:33
2	Y 371.029	1306161.3	1306161.3	99.713	%			15:18:33
2	Ag 328.068†	65237.5	65694.3	525.07	µg/L	525.07	ppb	15:18:38
2	As 188.979†	280.6	279.0	544.24	µg/L	544.24	ppb	15:18:59
2	B 249.677†	12200.8	11849.2	515.98	µg/L	515.98	ppb	15:18:38
2	Ba 233.527†	20133.5	20126.3	525.01	µg/L	525.01	ppb	15:18:38
2	Be 313.107†	793302.5	795433.1	519.26	µg/L	519.26	ppb	15:18:33
2	Cd 226.502†	18921.4	19032.3	525.02	µg/L	525.02	ppb	15:18:38
2	Co 228.616†	10784.1	10775.1	529.68	µg/L	529.68	ppb	15:18:38
2	Cr 267.716†	24047.5	24060.2	529.56	µg/L	529.56	ppb	15:18:38
2	Cu 324.752†	77783.7	75169.2	525.79	µg/L	525.79	ppb	15:18:38
2	Mn 257.610†	152510.0	152502.3	528.57	µg/L	528.57	ppb	15:18:33
2	Mo 202.031†	5149.2	5148.2	549.62	µg/L	549.62	ppb	15:18:59
2	Ni 231.604†	10009.6	9690.9	529.28	µg/L	529.28	ppb	15:18:38
2	P 214.914†	1298.8	1269.0	2674.9	µg/L	2674.9	ppb	15:18:59
2	Pb 220.353†	2130.1	2029.4	541.73	µg/L	541.73	ppb	15:18:59

2	S 181.975 Axial†	263.5	248.2	1087.5 µg/L	1087.5 ppb	15:18:59
2	Sb 206.836†	579.7	551.8	545.70 µg/L	545.70 ppb	15:18:59
2	Se 196.026†	360.4	343.9	532.32 µg/L	532.32 ppb	15:18:59
2	SiO2†	27531.6	26236.1	5650.1 µg/L	5650.1 ppb	15:18:38
2	Si 251.611†	32505.0	32138.5	2641.9 µg/L	2641.9 ppb	15:18:38
2	Sn 189.927†	1205.3	1204.2	553.89 µg/L	553.89 ppb	15:18:59
2	Ti 334.940†	218053.7	217577.6	523.03 µg/L	523.03 ppb	15:18:33
2	Tl 190.801†	351.0	374.7	529.24 µg/L	529.24 ppb	15:18:59
2	U 409.014†	5767.6	5811.7	525.14 µg/L	525.14 ppb	15:18:38
2	V 292.402†	49305.2	49268.0	531.68 µg/L	531.68 ppb	15:18:38
2	Zn 213.857†	21685.0	21173.7	524.99 µg/L	524.99 ppb	15:18:38
3	Sc RADIAL	55041.7	55041.7	101 %		15:17:27
3	Al 396.153Radial†	7150.5	7100.0	5282.4 µg/L	5282.4 ppb	15:17:27
3	Ca 317.933Radial†	5679.0	5451.7	5133.1 µg/L	5133.1 ppb	15:17:48
3	Fe 238.204 Radial†	630.1	610.3	5182.9 µg/L	5182.9 ppb	15:17:48
3	K 766.490 Radial†	7530.7	7338.3	5216.0 µg/L	5216.0 ppb	15:17:27
3	Mg 279.077 IEC†	585.8	569.6	5302.7 µg/L	5302.7 ppb	15:17:48
3	Na 589.592 Radial†	32646.4	31827.3	10478 µg/L	10478 ppb	15:17:27
3	Sr 421.552†	50673.8	50204.0	520.42 µg/L	520.42 ppb	15:17:27
3	Sc 361.383	1908268.1	1908268.1	99.918 %		15:19:06
3	Y 371.029	1302480.0	1302480.0	99.432 %		15:19:06
3	Ag 328.068†	61722.8	62338.2	498.13 µg/L	498.13 ppb	15:19:11
3	As 188.979†	239.2	238.3	464.88 µg/L	464.88 ppb	15:19:32
3	B 249.677†	11534.0	11212.0	488.05 µg/L	488.05 ppb	15:19:11
3	Ba 233.527†	18616.9	18658.3	486.70 µg/L	486.70 ppb	15:19:11
3	Be 313.107†	758183.0	762248.0	497.60 µg/L	497.60 ppb	15:19:06
3	Cd 226.502†	17482.4	17638.9	486.53 µg/L	486.53 ppb	15:19:11
3	Co 228.616†	9936.5	9953.5	489.22 µg/L	489.22 ppb	15:19:11
3	Cr 267.716†	21502.9	21573.0	474.82 µg/L	474.82 ppb	15:19:11
3	Cu 324.752†	71603.1	69176.0	483.93 µg/L	483.93 ppb	15:19:11
3	Mn 257.610†	146044.9	146409.3	507.47 µg/L	507.47 ppb	15:19:06
3	Mo 202.031†	4268.9	4280.0	456.96 µg/L	456.96 ppb	15:19:32
3	Ni 231.604†	9195.7	8901.1	486.15 µg/L	486.15 ppb	15:19:11
3	P 214.914†	1105.2	1078.5	2268.7 µg/L	2268.7 ppb	15:19:32
3	Pb 220.353†	1828.3	1732.6	462.41 µg/L	462.41 ppb	15:19:32
3	S 181.975 Axial†	232.1	217.5	952.80 µg/L	952.80 ppb	15:19:32
3	Sb 206.836†	493.7	467.1	461.46 µg/L	461.46 ppb	15:19:32
3	Se 196.026†	316.9	301.3	467.33 µg/L	467.33 ppb	15:19:32
3	SiO2†	25842.8	24614.0	5300.8 µg/L	5300.8 ppb	15:19:11
3	Si 251.611†	30435.2	30147.4	2478.3 µg/L	2478.3 ppb	15:19:11
3	Sn 189.927†	977.2	978.9	450.28 µg/L	450.28 ppb	15:19:32
3	Ti 334.940†	207237.8	207292.4	498.29 µg/L	498.29 ppb	15:19:06
3	Tl 190.801†	318.0	342.6	484.22 µg/L	484.22 ppb	15:19:32
3	U 409.014†	5210.6	5268.5	475.96 µg/L	475.96 ppb	15:19:11
3	V 292.402†	44791.7	44872.9	483.94 µg/L	483.94 ppb	15:19:11
3	Zn 213.857†	19890.6	19431.5	481.75 µg/L	481.75 ppb	15:19:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1906859.3	99.844	%	0.3640				0.36%
Sc RADIAL	54707.9	100	%	0.8				0.77%
Y 371.029	1302041.9	99.399	%	0.3325				0.33%
Ag 328.068†	64684.4	516.97	µg/L	16.362	516.97	ppb	16.362	3.16%
QC value within limits for Ag 328.068 Recovery = 103.39%								
Al 396.153Radial†	7124.3	5299.3	µg/L	23.43	5299.3	ppb	23.43	0.44%
QC value within limits for Al 396.153Radial Recovery = 105.99%								
As 188.979†	267.2	521.18	µg/L	49.028	521.18	ppb	49.028	9.41%
QC value within limits for As 188.979 Recovery = 104.24%								
B 249.677†	11650.3	507.24	µg/L	16.645	507.24	ppb	16.645	3.28%
QC value within limits for B 249.677 Recovery = 101.45%								
Ba 233.527†	19666.8	513.02	µg/L	22.823	513.02	ppb	22.823	4.45%
QC value within limits for Ba 233.527 Recovery = 102.60%								
Be 313.107†	787800.8	514.28	µg/L	14.831	514.28	ppb	14.831	2.88%
QC value within limits for Be 313.107 Recovery = 102.86%								
Ca 317.933Radial†	5483.8	5163.4	µg/L	50.50	5163.4	ppb	50.50	0.98%
QC value within limits for Ca 317.933Radial Recovery = 103.27%								
Cd 226.502†	18623.9	513.73	µg/L	23.671	513.73	ppb	23.671	4.61%
QC value within limits for Cd 226.502 Recovery = 102.75%								
Co 228.616†	10525.7	517.39	µg/L	24.470	517.39	ppb	24.470	4.73%

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   QC value within limits for Co 228.616  Recovery = 103.48%
Cr 267.716†            23303.5      512.91 µg/L        33.067      512.91 ppb         33.067   6.45%
   QC value within limits for Cr 267.716  Recovery = 102.58%
Cu 324.752†            73379.7      513.30 µg/L        25.529      513.30 ppb         25.529   4.97%
   QC value within limits for Cu 324.752  Recovery = 102.66%
Fe 238.204 Radial†       614.8      5221.6 µg/L         69.73      5221.6 ppb          69.73   1.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.43%
K 766.490 Radial†       7352.1      5225.8 µg/L         14.03      5225.8 ppb          14.03   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 104.52%
Mg 279.077 IEC†          569.7      5304.8 µg/L          2.78      5304.8 ppb           2.78   0.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.10%
Mn 257.610†           151204.4      524.08 µg/L        14.882      524.08 ppb         14.882   2.84%
   QC value within limits for Mn 257.610  Recovery = 104.82%
Mo 202.031†             4879.9      520.98 µg/L        55.549      520.98 ppb         55.549  10.66%
   QC value within limits for Mo 202.031  Recovery = 104.20%
Na 589.592 Radial†     31895.3       10500 µg/L          48.5       10500 ppb           48.5   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 105.00%
Ni 231.604†             9451.1      516.19 µg/L        26.085      516.19 ppb         26.085   5.05%
   QC value within limits for Ni 231.604  Recovery = 103.24%
P 214.914†              1207.4      2543.4 µg/L        237.97      2543.4 ppb         237.97   9.36%
   QC value within limits for P 214.914  Recovery = 101.74%
Pb 220.353†             1933.7      516.15 µg/L        46.558      516.15 ppb         46.558   9.02%
   QC value within limits for Pb 220.353  Recovery = 103.23%
S 181.975 Axial†         237.7      1041.3 µg/L         76.67      1041.3 ppb          76.67   7.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.13%
Sb 206.836†              527.5      521.52 µg/L        52.346      521.52 ppb         52.346  10.04%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              334.1      517.45 µg/L        44.586      517.45 ppb         44.586   8.62%
   QC value within limits for Se 196.026  Recovery = 103.49%
SiO2†                  25737.9      5542.8 µg/L        210.05      5542.8 ppb         210.05   3.79%
   QC value within limits for SiO2  Recovery = 103.65%
Si 251.611†            31515.5      2590.7 µg/L         97.53      2590.7 ppb          97.53   3.76%
   QC value within limits for Si 251.611  Recovery = 103.63%
Sn 189.927†             1134.8      521.95 µg/L        62.194      521.95 ppb         62.194  11.92%
   QC value within limits for Sn 189.927  Recovery = 104.39%
Sr 421.552†            50350.2      521.94 µg/L         2.539      521.94 ppb          2.539   0.49%
   QC value within limits for Sr 421.552  Recovery = 104.39%
Ti 334.940†           215134.7      517.15 µg/L        16.720      517.15 ppb         16.720   3.23%
   QC value within limits for Ti 334.940  Recovery = 103.43%
Tl 190.801†              367.2      518.79 µg/L        30.715      518.79 ppb         30.715   5.92%
   QC value within limits for Tl 190.801  Recovery = 103.76%
U 409.014†              5675.0      512.76 µg/L        32.426      512.76 ppb         32.426   6.32%
   QC value within limits for U 409.014  Recovery = 102.55%
V 292.402†             47899.1      516.82 µg/L        28.516      516.82 ppb         28.516   5.52%
   QC value within limits for V 292.402  Recovery = 103.36%
Zn 213.857†            20631.8      511.54 µg/L        25.841      511.54 ppb         25.841   5.05%
   QC value within limits for Zn 213.857  Recovery = 102.31%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:19:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53966.4	53966.4	98.9	%			15:20:14
1	Al 396.153Radial†	-26.0	-16.1	-12.005	µg/L	-12.005	ppb	15:20:14
1	Ca 317.933Radial†	184.6	7.5	7.0536	µg/L	7.0536	ppb	15:20:34
1	Fe 238.204 Radial†	14.2	-0.1	-0.8468	µg/L	-0.8468	ppb	15:20:34
1	K 766.490 Radial†	181.9	55.5	39.479	µg/L	39.479	ppb	15:20:14
1	Mg 279.077 IEC†	12.1	1.0	9.1967	µg/L	9.1967	ppb	15:20:34
1	Na 589.592 Radial†	657.2	122.7	40.408	µg/L	40.408	ppb	15:20:14
1	Sr 421.552†	65.1	26.3	0.2722	µg/L	0.2722	ppb	15:20:14
1	Sc 361.383	1911106.6	1911106.6	100.07	%			15:21:36
1	Y 371.029	1309549.6	1309549.6	99.972	%			15:21:36
1	Ag 328.068†	-559.4	5.5	0.0442	µg/L	0.0442	ppb	15:21:42
1	As 188.979†	-3.0	-4.1	-8.0395	µg/L	-8.0395	ppb	15:22:02
1	B 249.677†	346.9	15.2	0.6669	µg/L	0.6669	ppb	15:22:02
1	Ba 233.527†	-26.7	-0.7	-0.0185	µg/L	-0.0185	ppb	15:22:02
1	Be 313.107†	-3454.2	-11.4	-0.0075	µg/L	-0.0075	ppb	15:21:42
1	Cd 226.502†	-139.0	3.2	0.0893	µg/L	0.0893	ppb	15:22:02
1	Co 228.616†	-9.2	-0.3	-0.0170	µg/L	-0.0170	ppb	15:22:02
1	Cr 267.716†	-37.5	14.9	0.3282	µg/L	0.3282	ppb	15:21:42
1	Cu 324.752†	2557.0	69.2	0.4835	µg/L	0.4835	ppb	15:21:42
1	Mn 257.610†	-212.1	32.2	0.1110	µg/L	0.1110	ppb	15:22:02
1	Mo 202.031†	-8.5	-0.9	-0.1000	µg/L	-0.1000	ppb	15:22:02
1	Ni 231.604†	310.7	8.3	0.4558	µg/L	0.4558	ppb	15:22:02
1	P 214.914†	28.4	0.8	1.6386	µg/L	1.6386	ppb	15:22:02
1	Pb 220.353†	104.0	6.7	1.8057	µg/L	1.8057	ppb	15:22:02
1	S 181.975 Axial†	16.5	1.7	7.4394	µg/L	7.4394	ppb	15:22:02
1	Sb 206.836†	29.0	2.0	1.9993	µg/L	1.9993	ppb	15:22:02
1	Se 196.026†	21.9	6.0	9.1749	µg/L	9.1749	ppb	15:22:02
1	SiO2†	1293.6	42.7	9.2028	µg/L	9.2028	ppb	15:21:42
1	Si 251.611†	353.1	40.0	3.2887	µg/L	3.2887	ppb	15:22:02
1	Sn 189.927†	4.9	5.8	2.6719	µg/L	2.6719	ppb	15:22:02
1	Ti 334.940†	159.7	43.4	0.1039	µg/L	0.1039	ppb	15:21:42
1	Tl 190.801†	-23.8	0.5	0.6768	µg/L	0.6768	ppb	15:22:02
1	U 409.014†	-184.4	-130.7	-11.830	µg/L	-11.830	ppb	15:21:42
1	V 292.402†	-35.9	8.3	0.0760	µg/L	0.0760	ppb	15:21:42
1	Zn 213.857†	494.3	18.4	0.4572	µg/L	0.4572	ppb	15:22:02
2	Sc RADIAL	54869.8	54869.8	101	%			15:20:40
2	Al 396.153Radial†	13.7	23.8	17.738	µg/L	17.738	ppb	15:20:40
2	Ca 317.933Radial†	187.7	7.5	7.0950	µg/L	7.0950	ppb	15:21:00
2	Fe 238.204 Radial†	15.7	1.1	9.3064	µg/L	9.3064	ppb	15:21:00
2	K 766.490 Radial†	257.4	127.6	90.719	µg/L	90.719	ppb	15:20:40
2	Mg 279.077 IEC†	16.3	4.9	45.809	µg/L	45.809	ppb	15:21:00
2	Na 589.592 Radial†	606.0	60.8	20.024	µg/L	20.024	ppb	15:20:40
2	Sr 421.552†	22.5	-17.2	-0.1781	µg/L	-0.1781	ppb	15:20:40
2	Sc 361.383	1897412.4	1897412.4	99.349	%			15:22:08
2	Y 371.029	1298760.9	1298760.9	99.148	%			15:22:08
2	Ag 328.068†	-542.2	18.8	0.1523	µg/L	0.1523	ppb	15:22:14
2	As 188.979†	-3.1	-4.3	-8.3435	µg/L	-8.3435	ppb	15:22:34
2	B 249.677†	336.8	7.5	0.3241	µg/L	0.3241	ppb	15:22:34
2	Ba 233.527†	-16.5	9.4	0.2467	µg/L	0.2467	ppb	15:22:34
2	Be 313.107†	-3415.0	3.0	0.0019	µg/L	0.0019	ppb	15:22:14
2	Cd 226.502†	-128.8	12.5	0.3432	µg/L	0.3432	ppb	15:22:34
2	Co 228.616†	-5.7	3.1	0.1511	µg/L	0.1511	ppb	15:22:34
2	Cr 267.716†	-15.6	36.7	0.8074	µg/L	0.8074	ppb	15:22:14
2	Cu 324.752†	2549.9	80.5	0.5637	µg/L	0.5637	ppb	15:22:14
2	Mn 257.610†	-177.5	65.4	0.2260	µg/L	0.2260	ppb	15:22:34
2	Mo 202.031†	-7.3	0.2	0.0178	µg/L	0.0178	ppb	15:22:34
2	Ni 231.604†	306.5	6.3	0.3468	µg/L	0.3468	ppb	15:22:34
2	P 214.914†	31.7	4.3	9.0650	µg/L	9.0650	ppb	15:22:34
2	Pb 220.353†	106.2	9.7	2.5827	µg/L	2.5827	ppb	15:22:34

2	S 181.975 Axial†	17.2	2.5	10.929 µg/L	10.929 ppb		15:22:34
2	Sb 206.836†	25.7	-1.1	-1.0721 µg/L	-1.0721 ppb		15:22:34
2	Se 196.026†	18.6	2.9	4.4089 µg/L	4.4089 ppb		15:22:34
2	SiO2†	1247.0	5.2	1.1103 µg/L	1.1103 ppb		15:22:14
2	Si 251.611†	359.1	48.5	3.9904 µg/L	3.9904 ppb		15:22:34
2	Sn 189.927†	-1.6	-0.8	-0.3440 µg/L	-0.3440 ppb		15:22:34
2	Ti 334.940†	171.3	56.3	0.1319 µg/L	0.1319 ppb		15:22:14
2	Tl 190.801†	-21.8	2.3	3.2311 µg/L	3.2311 ppb		15:22:34
2	U 409.014†	-98.3	-45.3	-4.1055 µg/L	-4.1055 ppb		15:22:14
2	V 292.402†	-5.8	38.4	0.4080 µg/L	0.4080 ppb		15:22:14
2	Zn 213.857†	499.6	27.3	0.6761 µg/L	0.6761 ppb		15:22:34
3	Sc RADIAL	54385.0	54385.0	99.7 %			15:21:06
3	Al 396.153Radial†	-13.7	-3.6	-2.7248 µg/L	-2.7248 ppb		15:21:06
3	Ca 317.933Radial†	185.2	6.7	6.3429 µg/L	6.3429 ppb		15:21:26
3	Fe 238.204 Radial†	16.3	1.8	15.415 µg/L	15.415 ppb		15:21:26
3	K 766.490 Radial†	182.4	54.6	38.797 µg/L	38.797 ppb		15:21:06
3	Mg 279.077 IEC†	9.2	-2.0	-18.753 µg/L	-18.753 ppb		15:21:26
3	Na 589.592 Radial†	592.4	52.6	17.324 µg/L	17.324 ppb		15:21:06
3	Sr 421.552†	-3.5	-43.1	-0.4464 µg/L	-0.4464 ppb		15:21:06
3	Sc 361.383	1884488.6	1884488.6	98.673 %			15:22:40
3	Y 371.029	1291927.9	1291927.9	98.627 %			15:22:40
3	Ag 328.068†	-522.7	34.8	0.2806 µg/L	0.2806 ppb		15:22:46
3	As 188.979†	2.4	1.3	2.4649 µg/L	2.4649 ppb		15:23:06
3	B 249.677†	335.7	8.8	0.3768 µg/L	0.3768 ppb		15:23:06
3	Ba 233.527†	-11.8	14.1	0.3676 µg/L	0.3676 ppb		15:23:06
3	Be 313.107†	-3127.8	270.6	0.1766 µg/L	0.1766 ppb		15:22:46
3	Cd 226.502†	-124.4	16.0	0.4414 µg/L	0.4414 ppb		15:23:06
3	Co 228.616†	7.6	16.5	0.8149 µg/L	0.8149 ppb		15:23:06
3	Cr 267.716†	-23.5	28.6	0.6295 µg/L	0.6295 ppb		15:22:46
3	Cu 324.752†	2622.5	171.7	1.2017 µg/L	1.2017 ppb		15:22:46
3	Mn 257.610†	-142.0	100.2	0.3497 µg/L	0.3497 ppb		15:23:06
3	Mo 202.031†	3.2	10.8	1.1512 µg/L	1.1512 ppb		15:23:06
3	Ni 231.604†	306.2	8.2	0.4462 µg/L	0.4462 ppb		15:23:06
3	P 214.914†	29.6	2.4	5.0144 µg/L	5.0144 ppb		15:23:06
3	Pb 220.353†	103.4	7.6	2.0339 µg/L	2.0339 ppb		15:23:06
3	S 181.975 Axial†	18.5	3.9	17.268 µg/L	17.268 ppb		15:23:06
3	Sb 206.836†	29.4	2.8	2.8126 µg/L	2.8126 ppb		15:23:06
3	Se 196.026†	10.8	-4.9	-7.3717 µg/L	-7.3717 ppb		15:23:06
3	SiO2†	1294.7	62.1	13.372 µg/L	13.372 ppb		15:22:46
3	Si 251.611†	373.7	65.9	5.4177 µg/L	5.4177 ppb		15:23:06
3	Sn 189.927†	0.7	1.6	0.7177 µg/L	0.7177 ppb		15:23:06
3	Ti 334.940†	234.9	122.0	0.2950 µg/L	0.2950 ppb		15:22:46
3	Tl 190.801†	-24.9	-0.9	-1.2684 µg/L	-1.2684 ppb		15:23:06
3	U 409.014†	-88.3	-35.9	-3.2543 µg/L	-3.2543 ppb		15:22:46
3	V 292.402†	2.7	46.9	0.5091 µg/L	0.5091 ppb		15:22:46
3	Zn 213.857†	512.3	43.6	1.0859 µg/L	1.0859 ppb		15:23:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1897669.2	99.363	%	0.6970				0.70%
Sc RADIAL	54407.1	99.7	%	0.83				0.83%
Y 371.029	1300079.5	99.249	%	0.6782				0.68%
Ag 328.068†	19.7	0.1590	µg/L	0.11838	0.1590	ppb	0.11838	74.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	1.0028	µg/L	15.21758	1.0028	ppb	15.21758	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.6394	µg/L	6.15437	-4.6394	ppb	6.15437	132.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	10.5	0.4560	µg/L	0.18460	0.4560	ppb	0.18460	40.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1986	µg/L	0.19747	0.1986	ppb	0.19747	99.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	87.4	0.0570	µg/L	0.10368	0.0570	ppb	0.10368	181.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.3	6.8305	µg/L	0.42277	6.8305	ppb	0.42277	6.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.2913	µg/L	0.18170	0.2913	ppb	0.18170	62.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.4	0.3163	µg/L	0.43987	0.3163	ppb	0.43987	139.05%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                26.7      0.5884 µg/L       0.24227      0.5884 ppb        0.24227  41.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               107.2      0.7496 µg/L       0.39354      0.7496 ppb        0.39354  52.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9581 µg/L       8.21418      7.9581 ppb        8.21418 103.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          79.3      56.332 µg/L       29.7823      56.332 ppb        29.7823  52.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3      12.084 µg/L       32.3776      12.084 ppb        32.3776 267.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                65.9      0.2289 µg/L       0.11938      0.2289 ppb        0.11938  52.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.3      0.3563 µg/L       0.69086      0.3563 ppb        0.69086 193.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         78.7      25.918 µg/L       12.6205      25.918 ppb        12.6205  48.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.6      0.4162 µg/L       0.06037      0.4162 ppb        0.06037  14.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      5.2393 µg/L       3.71831      5.2393 ppb        3.71831  70.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.0      2.1408 µg/L       0.39934      2.1408 ppb        0.39934  18.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.7      11.879 µg/L        4.9829      11.879 ppb         4.9829  41.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.3      1.2466 µg/L       2.04884      1.2466 ppb        2.04884 164.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.4      2.0707 µg/L       8.51747      2.0707 ppb        8.51747 411.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      36.7      7.8950 µg/L       6.23447      7.8950 ppb        6.23447  78.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                51.5      4.2323 µg/L       1.08494      4.2323 ppb        1.08494  25.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.2      1.0152 µg/L       1.52977      1.0152 ppb        1.52977 150.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.3     -0.1174 µg/L       0.36313     -0.1174 ppb        0.36313 309.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.9      0.1769 µg/L       0.10323      0.1769 ppb        0.10323  58.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.6      0.8799 µg/L       2.25661      0.8799 ppb        2.25661 256.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -70.6     -6.3965 µg/L       4.72449     -6.3965 ppb        4.72449  73.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 31.2      0.3310 µg/L       0.22659      0.3310 ppb        0.22659  68.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                29.8      0.7397 µg/L       0.31916      0.7397 ppb        0.31916  43.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:57:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57410.8	57410.8	105	%			15:58:05
1	Al 396.153Radial†	6675.8	6356.1	4727.0	µg/L	4727.0	ppb	15:58:25
1	Ca 317.933Radial†	5505.2	5054.0	4758.7	µg/L	4758.7	ppb	15:58:25
1	Fe 238.204 Radial†	598.7	554.6	4711.3	µg/L	4711.3	ppb	15:58:25
1	K 766.490 Radial†	7251.0	6764.3	4808.0	µg/L	4808.0	ppb	15:58:05
1	Mg 279.077 IEC†	563.5	524.3	4883.2	µg/L	4883.2	ppb	15:58:25
1	Na 589.592 Radial†	31835.2	29720.5	9784.1	µg/L	9784.1	ppb	15:58:05
1	Sr 421.552†	47847.7	45444.2	471.08	µg/L	471.08	ppb	15:58:05
1	Sc 361.383	1983693.6	1983693.6	103.87	%			15:59:29
1	Y 371.029	1353410.2	1353410.2	103.32	%			15:59:29
1	Ag 328.068†	62797.6	61024.1	487.72	µg/L	487.72	ppb	15:59:34
1	As 188.979†	269.1	257.9	503.15	µg/L	503.15	ppb	15:59:55
1	B 249.677†	11717.3	10949.6	476.85	µg/L	476.85	ppb	15:59:34
1	Ba 233.527†	19343.1	18649.0	486.47	µg/L	486.47	ppb	15:59:34
1	Be 313.107†	754921.5	730256.0	476.72	µg/L	476.72	ppb	15:59:29
1	Cd 226.502†	18224.6	17688.2	487.95	µg/L	487.95	ppb	15:59:34
1	Co 228.616†	10367.0	9989.9	491.09	µg/L	491.09	ppb	15:59:34
1	Cr 267.716†	23052.3	22246.4	489.64	µg/L	489.64	ppb	15:59:34
1	Cu 324.752†	74680.1	69413.7	485.52	µg/L	485.52	ppb	15:59:34
1	Mn 257.610†	145483.3	140311.0	486.31	µg/L	486.31	ppb	15:59:29
1	Mo 202.031†	4926.8	4750.9	507.20	µg/L	507.20	ppb	15:59:55
1	Ni 231.604†	9598.3	8938.8	488.20	µg/L	488.20	ppb	15:59:34
1	P 214.914†	1237.2	1163.5	2452.0	µg/L	2452.0	ppb	15:59:55
1	Pb 220.353†	2038.1	1865.0	497.83	µg/L	497.83	ppb	15:59:55
1	S 181.975 Axial†	250.1	226.0	990.17	µg/L	990.17	ppb	15:59:55
1	Sb 206.836†	555.0	507.4	501.78	µg/L	501.78	ppb	15:59:55
1	Se 196.026†	350.7	321.8	497.82	µg/L	497.82	ppb	15:59:55
1	SiO2†	26261.5	24033.7	5175.8	µg/L	5175.8	ppb	15:59:34
1	Si 251.611†	31015.9	29548.3	2429.0	µg/L	2429.0	ppb	15:59:34
1	Sn 189.927†	1145.1	1103.3	507.48	µg/L	507.48	ppb	15:59:55
1	Ti 334.940†	207638.9	199792.4	480.28	µg/L	480.28	ppb	15:59:29
1	Tl 190.801†	339.0	350.7	495.21	µg/L	495.21	ppb	15:59:55
1	U 409.014†	5639.1	5482.7	495.44	µg/L	495.44	ppb	15:59:34
1	V 292.402†	47231.1	45516.9	491.19	µg/L	491.19	ppb	15:59:34
1	Zn 213.857†	20861.0	19608.8	486.21	µg/L	486.21	ppb	15:59:34
2	Sc RADIAL	56826.1	56826.1	104	%			15:58:31
2	Al 396.153Radial†	6645.2	6392.0	4754.0	µg/L	4754.0	ppb	15:58:51
2	Ca 317.933Radial†	5486.3	5089.8	4792.3	µg/L	4792.3	ppb	15:58:51
2	Fe 238.204 Radial†	599.8	561.5	4769.4	µg/L	4769.4	ppb	15:58:51
2	K 766.490 Radial†	7153.6	6741.7	4791.9	µg/L	4791.9	ppb	15:58:31
2	Mg 279.077 IEC†	560.2	526.7	4905.2	µg/L	4905.2	ppb	15:58:51
2	Na 589.592 Radial†	31532.3	29741.0	9790.8	µg/L	9790.8	ppb	15:58:31
2	Sr 421.552†	47455.8	45535.8	472.03	µg/L	472.03	ppb	15:58:31
2	Sc 361.383	1995410.5	1995410.5	104.48	%			16:00:02
2	Y 371.029	1361782.3	1361782.3	103.96	%			16:00:02
2	Ag 328.068†	62246.7	60141.9	480.68	µg/L	480.68	ppb	16:00:08
2	As 188.979†	257.7	245.5	478.82	µg/L	478.82	ppb	16:00:28
2	B 249.677†	11628.5	10798.3	470.20	µg/L	470.20	ppb	16:00:08
2	Ba 233.527†	19125.6	18331.5	478.19	µg/L	478.19	ppb	16:00:08
2	Be 313.107†	755807.0	726835.7	474.48	µg/L	474.48	ppb	16:00:02
2	Cd 226.502†	17996.1	17366.5	479.06	µg/L	479.06	ppb	16:00:08
2	Co 228.616†	10237.6	9807.4	482.11	µg/L	482.11	ppb	16:00:08
2	Cr 267.716†	22930.0	21999.0	484.19	µg/L	484.19	ppb	16:00:08
2	Cu 324.752†	74042.3	68381.0	478.32	µg/L	478.32	ppb	16:00:08
2	Mn 257.610†	145292.8	139306.3	482.84	µg/L	482.84	ppb	16:00:02
2	Mo 202.031†	4851.2	4650.7	496.51	µg/L	496.51	ppb	16:00:28
2	Ni 231.604†	9492.2	8782.9	479.69	µg/L	479.69	ppb	16:00:08
2	P 214.914†	1221.3	1141.3	2405.0	µg/L	2405.0	ppb	16:00:28
2	Pb 220.353†	1997.7	1814.9	484.45	µg/L	484.45	ppb	16:00:28

2	S 181.975 Axial†	253.2	227.5	996.93 µg/L	996.93 ppb	16:00:28
2	Sb 206.836†	551.9	501.3	495.60 µg/L	495.60 ppb	16:00:28
2	Se 196.026†	351.2	320.3	495.61 µg/L	495.61 ppb	16:00:28
2	SiO2†	26072.1	23704.0	5104.8 µg/L	5104.8 ppb	16:00:08
2	Si 251.611†	30669.0	29040.9	2387.3 µg/L	2387.3 ppb	16:00:08
2	Sn 189.927†	1132.5	1084.8	498.96 µg/L	498.96 ppb	16:00:28
2	Ti 334.940†	207816.1	198788.1	477.86 µg/L	477.86 ppb	16:00:02
2	Tl 190.801†	338.3	348.1	491.58 µg/L	491.58 ppb	16:00:28
2	U 409.014†	5511.6	5328.9	481.50 µg/L	481.50 ppb	16:00:08
2	V 292.402†	46887.0	44920.6	484.74 µg/L	484.74 ppb	16:00:08
2	Zn 213.857†	20639.1	19278.4	478.01 µg/L	478.01 ppb	16:00:08
3	Sc RADIAL	56910.2	56910.2	104 %		15:58:57
3	Al 396.153Radial†	6656.6	6393.5	4756.8 µg/L	4756.8 ppb	15:59:17
3	Ca 317.933Radial†	5495.6	5090.9	4793.4 µg/L	4793.4 ppb	15:59:17
3	Fe 238.204 Radial†	602.2	563.0	4781.1 µg/L	4781.1 ppb	15:59:17
3	K 766.490 Radial†	7220.2	6795.5	4830.2 µg/L	4830.2 ppb	15:58:57
3	Mg 279.077 IEC†	560.3	526.1	4897.6 µg/L	4897.6 ppb	15:59:17
3	Na 589.592 Radial†	31637.3	29796.9	9809.2 µg/L	9809.2 ppb	15:58:57
3	Sr 421.552†	47653.8	45658.4	473.30 µg/L	473.30 ppb	15:58:57
3	Sc 361.383	1998435.1	1998435.1	104.64 %		16:00:35
3	Y 371.029	1364968.8	1364968.8	104.20 %		16:00:35
3	Ag 328.068†	58612.3	56578.4	452.09 µg/L	452.09 ppb	16:00:41
3	As 188.979†	224.3	213.2	415.95 µg/L	415.95 ppb	16:01:01
3	B 249.677†	10895.6	10081.1	438.76 µg/L	438.76 ppb	16:00:41
3	Ba 233.527†	17588.9	16835.1	439.14 µg/L	439.14 ppb	16:00:41
3	Be 313.107†	714187.6	685966.5	447.80 µg/L	447.80 ppb	16:00:35
3	Cd 226.502†	16474.5	15886.3	438.17 µg/L	438.17 ppb	16:00:41
3	Co 228.616†	9303.8	8900.2	437.44 µg/L	437.44 ppb	16:00:41
3	Cr 267.716†	20256.0	19410.4	427.22 µg/L	427.22 ppb	16:00:41
3	Cu 324.752†	67621.8	62137.9	434.71 µg/L	434.71 ppb	16:00:41
3	Mn 257.610†	137721.9	131860.5	457.05 µg/L	457.05 ppb	16:00:35
3	Mo 202.031†	4037.0	3865.6	412.72 µg/L	412.72 ppb	16:01:01
3	Ni 231.604†	8629.5	7944.8	433.92 µg/L	433.92 ppb	16:00:41
3	P 214.914†	1036.7	963.1	2025.7 µg/L	2025.7 ppb	16:01:01
3	Pb 220.353†	1739.6	1565.3	417.74 µg/L	417.74 ppb	16:01:01
3	S 181.975 Axial†	221.7	197.0	863.32 µg/L	863.32 ppb	16:01:01
3	Sb 206.836†	474.2	426.2	421.04 µg/L	421.04 ppb	16:01:01
3	Se 196.026†	306.7	277.3	430.08 µg/L	430.08 ppb	16:01:01
3	SiO2†	24196.5	21873.8	4710.6 µg/L	4710.6 ppb	16:00:41
3	Si 251.611†	28513.0	26936.1	2214.3 µg/L	2214.3 ppb	16:00:41
3	Sn 189.927†	924.9	884.8	406.97 µg/L	406.97 ppb	16:01:01
3	Ti 334.940†	195303.4	186529.0	448.37 µg/L	448.37 ppb	16:00:35
3	Tl 190.801†	301.0	311.9	440.85 µg/L	440.85 ppb	16:01:01
3	U 409.014†	4905.4	4741.6	428.33 µg/L	428.33 ppb	16:00:41
3	V 292.402†	42233.7	40405.6	435.79 µg/L	435.79 ppb	16:00:41
3	Zn 213.857†	18819.8	17509.9	434.12 µg/L	434.12 ppb	16:00:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992513.1	104.33	%	0.408				0.39%
Sc RADIAL	57049.0	105	%	0.6				0.55%
Y 371.029	1360053.7	103.83	%	0.456				0.44%
Ag 328.068†	59248.1	473.50	µg/L	18.871	473.50	ppb	18.871	3.99%
QC value within limits for Ag 328.068 Recovery = 94.70%								
Al 396.153Radial†	6380.5	4745.9	µg/L	16.44	4745.9	ppb	16.44	0.35%
QC value within limits for Al 396.153Radial Recovery = 94.92%								
As 188.979†	238.9	465.97	µg/L	44.997	465.97	ppb	44.997	9.66%
QC value within limits for As 188.979 Recovery = 93.19%								
B 249.677†	10609.7	461.94	µg/L	20.345	461.94	ppb	20.345	4.40%
QC value within limits for B 249.677 Recovery = 92.39%								
Ba 233.527†	17938.5	467.93	µg/L	25.276	467.93	ppb	25.276	5.40%
QC value within limits for Ba 233.527 Recovery = 93.59%								
Be 313.107†	714352.7	466.33	µg/L	16.086	466.33	ppb	16.086	3.45%
QC value within limits for Be 313.107 Recovery = 93.27%								
Ca 317.933Radial†	5078.2	4781.5	µg/L	19.75	4781.5	ppb	19.75	0.41%
QC value within limits for Ca 317.933Radial Recovery = 95.63%								
Cd 226.502†	16980.3	468.39	µg/L	26.545	468.39	ppb	26.545	5.67%
QC value within limits for Cd 226.502 Recovery = 93.68%								
Co 228.616†	9565.8	470.21	µg/L	28.733	470.21	ppb	28.733	6.11%

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   QC value within limits for Co 228.616  Recovery = 94.04%
Cr 267.716†          21218.6      467.02 µg/L        34.571      467.02 ppb        34.571   7.40%
   QC value within limits for Cr 267.716  Recovery = 93.40%
Cu 324.752†          66644.2      466.19 µg/L        27.494      466.19 ppb        27.494   5.90%
   QC value within limits for Cu 324.752  Recovery = 93.24%
Fe 238.204 Radial†     559.7      4753.9 µg/L        37.39      4753.9 ppb         37.39   0.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.08%
K 766.490 Radial†     6767.2      4810.1 µg/L        19.19      4810.1 ppb         19.19   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 96.20%
Mg 279.077 IEC†        525.7      4895.3 µg/L        11.18      4895.3 ppb         11.18   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†         137159.3      475.40 µg/L        15.982      475.40 ppb        15.982   3.36%
   QC value within limits for Mn 257.610  Recovery = 95.08%
Mo 202.031†          4422.4      472.14 µg/L        51.737      472.14 ppb        51.737  10.96%
   QC value within limits for Mo 202.031  Recovery = 94.43%
Na 589.592 Radial†   29752.8      9794.7 µg/L        13.02      9794.7 ppb         13.02   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 97.95%
Ni 231.604†          8555.5      467.27 µg/L        29.194      467.27 ppb        29.194   6.25%
   QC value within limits for Ni 231.604  Recovery = 93.45%
P 214.914†           1089.3      2294.2 µg/L       233.77      2294.2 ppb       233.77  10.19%
   QC value within limits for P 214.914  Recovery = 91.77%
Pb 220.353†          1748.4      466.67 µg/L        42.900      466.67 ppb        42.900   9.19%
   QC value within limits for Pb 220.353  Recovery = 93.33%
S 181.975 Axial†      216.9      950.14 µg/L        75.264      950.14 ppb        75.264   7.92%
   QC value within limits for S 181.975 Axial  Recovery = 95.01%
Sb 206.836†           478.3      472.81 µg/L        44.937      472.81 ppb        44.937   9.50%
   QC value within limits for Sb 206.836  Recovery = 94.56%
Se 196.026†           306.5      474.50 µg/L        38.486      474.50 ppb        38.486   8.11%
   QC value within limits for Se 196.026  Recovery = 94.90%
SiO2†               23203.8      4997.1 µg/L       250.58      4997.1 ppb       250.58   5.01%
   QC value within limits for SiO2  Recovery = 93.45%
Si 251.611†         28508.4      2343.5 µg/L       113.86      2343.5 ppb       113.86   4.86%
   QC value within limits for Si 251.611  Recovery = 93.74%
Sn 189.927†          1024.3      471.14 µg/L        55.734      471.14 ppb        55.734  11.83%
   QC value within limits for Sn 189.927  Recovery = 94.23%
Sr 421.552†         45546.1      472.14 µg/L         1.114      472.14 ppb         1.114   0.24%
   QC value within limits for Sr 421.552  Recovery = 94.43%
Ti 334.940†        195036.5      468.84 µg/L        17.764      468.84 ppb        17.764   3.79%
   QC value within limits for Ti 334.940  Recovery = 93.77%
Tl 190.801†           336.9      475.88 µg/L        30.390      475.88 ppb        30.390   6.39%
   QC value within limits for Tl 190.801  Recovery = 95.18%
U 409.014†           5184.4      468.43 µg/L        35.417      468.43 ppb        35.417   7.56%
   QC value within limits for U 409.014  Recovery = 93.69%
V 292.402†          43614.3      470.57 µg/L        30.297      470.57 ppb        30.297   6.44%
   QC value within limits for V 292.402  Recovery = 94.11%
Zn 213.857†         18799.0      466.11 µg/L        28.010      466.11 ppb        28.010   6.01%
   QC value within limits for Zn 213.857  Recovery = 93.22%
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:01:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	55658.0	55658.0	102	%			16:01:44
1	Al 396.153Radial†	-23.0	-12.4	-9.2620	µg/L	-9.2620	ppb	16:01:44
1	Ca 317.933Radial†	208.0	24.8	23.363	µg/L	23.363	ppb	16:02:05
1	Fe 238.204 Radial†	15.4	0.6	5.4204	µg/L	5.4204	ppb	16:02:05
1	K 766.490 Radial†	204.3	71.9	51.110	µg/L	51.110	ppb	16:01:44
1	Mg 279.077 IEC†	10.5	-1.0	-9.0434	µg/L	-9.0434	ppb	16:02:05
1	Na 589.592 Radial†	1039.6	477.5	157.20	µg/L	157.20	ppb	16:01:44
1	Sr 421.552†	56.9	16.2	0.1684	µg/L	0.1684	ppb	16:01:44
1	Sc 361.383	1982189.6	1982189.6	103.79	%			16:03:07
1	Y 371.029	1359337.0	1359337.0	103.77	%			16:03:07
1	Ag 328.068†	-578.1	7.5	0.0622	µg/L	0.0622	ppb	16:03:12
1	As 188.979†	-1.3	-2.4	-4.6084	µg/L	-4.6084	ppb	16:03:33
1	B 249.677†	325.8	-17.5	-0.7693	µg/L	-0.7693	ppb	16:03:33
1	Ba 233.527†	-23.3	3.6	0.0946	µg/L	0.0946	ppb	16:03:33
1	Be 313.107†	-3422.1	143.2	0.0935	µg/L	0.0935	ppb	16:03:12
1	Cd 226.502†	-146.3	1.2	0.0321	µg/L	0.0321	ppb	16:03:33
1	Co 228.616†	-12.7	-3.4	-0.1679	µg/L	-0.1679	ppb	16:03:33
1	Cr 267.716†	-41.9	12.0	0.2649	µg/L	0.2649	ppb	16:03:33
1	Cu 324.752†	2411.8	-162.3	-1.1332	µg/L	-1.1332	ppb	16:03:12
1	Mn 257.610†	-218.3	33.8	0.1180	µg/L	0.1180	ppb	16:03:33
1	Mo 202.031†	-10.7	-2.7	-0.2926	µg/L	-0.2926	ppb	16:03:33
1	Ni 231.604†	299.4	-13.7	-0.7472	µg/L	-0.7472	ppb	16:03:33
1	P 214.914†	42.9	13.7	29.528	µg/L	29.528	ppb	16:03:33
1	Pb 220.353†	92.5	-8.1	-2.1696	µg/L	-2.1696	ppb	16:03:33
1	S 181.975 Axial†	17.6	2.1	9.2574	µg/L	9.2574	ppb	16:03:33
1	Sb 206.836†	23.2	-4.6	-4.4961	µg/L	-4.4961	ppb	16:03:33
1	Se 196.026†	12.0	-4.3	-6.4748	µg/L	-6.4748	ppb	16:03:33
1	SiO2†	1238.2	-57.1	-12.288	µg/L	-12.288	ppb	16:03:12
1	Si 251.611†	320.8	-3.8	-0.3112	µg/L	-0.3112	ppb	16:03:33
1	Sn 189.927†	0.5	1.4	0.6395	µg/L	0.6395	ppb	16:03:33
1	Ti 334.940†	134.1	13.1	0.0325	µg/L	0.0325	ppb	16:03:12
1	Tl 190.801†	-24.9	0.3	0.4630	µg/L	0.4630	ppb	16:03:33
1	U 409.014†	-12.1	41.9	3.7948	µg/L	3.7948	ppb	16:03:12
1	V 292.402†	-10.2	34.4	0.3695	µg/L	0.3695	ppb	16:03:12
1	Zn 213.857†	479.7	-13.4	-0.3280	µg/L	-0.3280	ppb	16:03:33
2	Sc RADIAL	55313.8	55313.8	101	%			16:02:10
2	Al 396.153Radial†	-3.9	6.3	4.7164	µg/L	4.7164	ppb	16:02:10
2	Ca 317.933Radial†	201.6	19.8	18.599	µg/L	18.599	ppb	16:02:30
2	Fe 238.204 Radial†	15.1	0.4	3.5581	µg/L	3.5581	ppb	16:02:30
2	K 766.490 Radial†	165.7	35.0	24.913	µg/L	24.913	ppb	16:02:10
2	Mg 279.077 IEC†	9.2	-2.2	-20.801	µg/L	-20.801	ppb	16:02:30
2	Na 589.592 Radial†	1009.9	454.5	149.64	µg/L	149.64	ppb	16:02:10
2	Sr 421.552†	43.0	2.9	0.0298	µg/L	0.0298	ppb	16:02:10
2	Sc 361.383	2000056.5	2000056.5	104.72	%			16:03:39
2	Y 371.029	1371413.4	1371413.4	104.69	%			16:03:39
2	Ag 328.068†	-539.4	49.5	0.3929	µg/L	0.3929	ppb	16:03:44
2	As 188.979†	2.0	0.8	1.5259	µg/L	1.5259	ppb	16:04:05
2	B 249.677†	333.1	-13.4	-0.5861	µg/L	-0.5861	ppb	16:04:05
2	Ba 233.527†	-19.7	7.2	0.1863	µg/L	0.1863	ppb	16:04:05
2	Be 313.107†	-3284.4	304.2	0.1986	µg/L	0.1986	ppb	16:03:44
2	Cd 226.502†	-141.7	6.9	0.1883	µg/L	0.1883	ppb	16:04:05
2	Co 228.616†	-14.8	-5.3	-0.2603	µg/L	-0.2603	ppb	16:04:05
2	Cr 267.716†	-34.1	19.8	0.4350	µg/L	0.4350	ppb	16:04:05
2	Cu 324.752†	2452.1	-144.6	-1.0097	µg/L	-1.0097	ppb	16:03:44
2	Mn 257.610†	-201.5	51.7	0.1804	µg/L	0.1804	ppb	16:04:05
2	Mo 202.031†	-5.9	1.9	0.2060	µg/L	0.2060	ppb	16:04:05
2	Ni 231.604†	302.4	-13.4	-0.7317	µg/L	-0.7317	ppb	16:04:05
2	P 214.914†	22.4	-6.2	-13.288	µg/L	-13.288	ppb	16:04:05
2	Pb 220.353†	100.3	-1.4	-0.3652	µg/L	-0.3652	ppb	16:04:05

2	S 181.975 Axial†	18.4	2.7	12.047 µg/L	12.047 ppb	16:04:05
2	Sb 206.836†	25.7	-2.4	-2.3521 µg/L	-2.3521 ppb	16:04:05
2	Se 196.026†	11.2	-5.1	-7.8216 µg/L	-7.8216 ppb	16:04:05
2	SiO2†	1221.5	-83.6	-18.000 µg/L	-18.000 ppb	16:03:44
2	Si 251.611†	319.3	-8.0	-0.6538 µg/L	-0.6538 ppb	16:04:05
2	Sn 189.927†	1.8	2.6	1.1983 µg/L	1.1983 ppb	16:04:05
2	Ti 334.940†	170.3	46.5	0.1138 µg/L	0.1138 ppb	16:03:44
2	Tl 190.801†	-24.1	1.2	1.7367 µg/L	1.7367 ppb	16:04:05
2	U 409.014†	-68.4	-11.7	-1.0610 µg/L	-1.0610 ppb	16:03:44
2	V 292.402†	-47.0	-0.7	-0.0056 µg/L	-0.0056 ppb	16:03:44
2	Zn 213.857†	481.8	-15.5	-0.3808 µg/L	-0.3808 ppb	16:04:05
3	Sc RADIAL	56238.4	56238.4	103 %		16:02:36
3	Al 396.153Radial†	-4.5	5.7	4.2549 µg/L	4.2549 ppb	16:02:36
3	Ca 317.933Radial†	217.1	31.6	29.725 µg/L	29.725 ppb	16:02:56
3	Fe 238.204 Radial†	15.6	0.7	5.5166 µg/L	5.5166 ppb	16:02:56
3	K 766.490 Radial†	152.3	19.4	13.755 µg/L	13.755 ppb	16:02:36
3	Mg 279.077 IEC†	9.8	-1.7	-16.008 µg/L	-16.008 ppb	16:02:56
3	Na 589.592 Radial†	1347.3	765.5	252.01 µg/L	252.01 ppb	16:02:36
3	Sr 421.552†	41.3	0.5	0.0055 µg/L	0.0055 ppb	16:02:36
3	Sc 361.383	1997138.2	1997138.2	104.57 %		16:04:11
3	Y 371.029	1369234.6	1369234.6	104.53 %		16:04:11
3	Ag 328.068†	-498.6	87.7	0.6980 µg/L	0.6980 ppb	16:04:16
3	As 188.979†	2.9	1.6	3.1103 µg/L	3.1103 ppb	16:04:37
3	B 249.677†	327.9	-17.9	-0.7818 µg/L	-0.7818 ppb	16:04:37
3	Ba 233.527†	-15.6	11.1	0.2887 µg/L	0.2887 ppb	16:04:37
3	Be 313.107†	-3097.4	478.5	0.3124 µg/L	0.3124 ppb	16:04:16
3	Cd 226.502†	-131.7	16.2	0.4453 µg/L	0.4453 ppb	16:04:37
3	Co 228.616†	-2.6	6.4	0.3136 µg/L	0.3136 ppb	16:04:37
3	Cr 267.716†	-14.7	38.4	0.8440 µg/L	0.8440 ppb	16:04:37
3	Cu 324.752†	2433.5	-159.0	-1.1099 µg/L	-1.1099 ppb	16:04:16
3	Mn 257.610†	-172.9	78.8	0.2743 µg/L	0.2743 ppb	16:04:37
3	Mo 202.031†	-1.7	5.9	0.6314 µg/L	0.6314 ppb	16:04:37
3	Ni 231.604†	302.9	-12.6	-0.6873 µg/L	-0.6873 ppb	16:04:37
3	P 214.914†	28.9	0.0	0.1351 µg/L	0.1351 ppb	16:04:37
3	Pb 220.353†	98.8	-2.7	-0.7118 µg/L	-0.7118 ppb	16:04:37
3	S 181.975 Axial†	19.3	3.6	15.780 µg/L	15.780 ppb	16:04:37
3	Sb 206.836†	32.5	4.1	4.0170 µg/L	4.0170 ppb	16:04:37
3	Se 196.026†	15.5	-1.0	-1.5777 µg/L	-1.5777 ppb	16:04:37
3	SiO2†	1280.0	-25.9	-5.5874 µg/L	-5.5874 ppb	16:04:16
3	Si 251.611†	323.6	-3.4	-0.2805 µg/L	-0.2805 ppb	16:04:37
3	Sn 189.927†	1.4	2.2	1.0236 µg/L	1.0236 ppb	16:04:37
3	Ti 334.940†	204.8	79.7	0.1935 µg/L	0.1935 ppb	16:04:16
3	Tl 190.801†	-25.7	-0.3	-0.3909 µg/L	-0.3909 ppb	16:04:37
3	U 409.014†	-62.9	-6.5	-0.5917 µg/L	-0.5917 ppb	16:04:16
3	V 292.402†	-21.9	23.3	0.2547 µg/L	0.2547 ppb	16:04:16
3	Zn 213.857†	484.0	-12.7	-0.3127 µg/L	-0.3127 ppb	16:04:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1993128.1	104.36	%	0.502				0.48%
Sc RADIAL	55736.7	102	%	0.9				0.84%
Y 371.029	1366661.7	104.33	%	0.491				0.47%
Ag 328.068†	48.2	0.3844	µg/L	0.31802	0.3844	ppb	0.31802	82.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.1	-0.0969	µg/L	7.94054	-0.0969	ppb	7.94054	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.0	0.0093	µg/L	4.07671	0.0093	ppb	4.07671	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.7124	µg/L	0.10959	-0.7124	ppb	0.10959	15.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.1899	µg/L	0.09711	0.1899	ppb	0.09711	51.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.6	0.2015	µg/L	0.10946	0.2015	ppb	0.10946	54.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	25.4	23.896	µg/L	5.5823	23.896	ppb	5.5823	23.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.1	0.2219	µg/L	0.20862	0.2219	ppb	0.20862	94.02%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.8	-0.0382	µg/L	0.30817	-0.0382	ppb	0.30817	806.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              23.4      0.5146 µg/L       0.29767      0.5146 ppb        0.29767  57.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -155.3     -1.0843 µg/L       0.06563     -1.0843 ppb        0.06563   6.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.6      4.8317 µg/L       1.10403      4.8317 ppb        1.10403  22.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.1      29.926 µg/L       19.1758      29.926 ppb        19.1758  64.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -15.284 µg/L        5.9121     -15.284 ppb         5.9121  38.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.8      0.1909 µg/L       0.07866      0.1909 ppb        0.07866  41.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.7      0.1816 µg/L       0.46249      0.1816 ppb        0.46249 254.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       565.9      186.28 µg/L        57.047      186.28 ppb         57.047  30.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -13.2     -0.7220 µg/L       0.03109     -0.7220 ppb        0.03109   4.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      5.4583 µg/L      21.89861      5.4583 ppb       21.89861 401.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.1     -1.0822 µg/L       0.95750     -1.0822 ppb        0.95750  88.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.8      12.362 µg/L        3.2727      12.362 ppb         3.2727  26.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.0     -0.9437 µg/L       4.42784     -0.9437 ppb        4.42784 469.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5     -5.2914 µg/L       3.28586     -5.2914 ppb        3.28586  62.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -55.5     -11.958 µg/L        6.2126     -11.958 ppb         6.2126  51.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -5.1     -0.4151 µg/L       0.20723     -0.4151 ppb        0.20723  49.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.1      0.9538 µg/L       0.28585      0.9538 ppb        0.28585  29.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.6      0.0679 µg/L       0.08784      0.0679 ppb        0.08784 129.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              46.4      0.1133 µg/L       0.08046      0.1133 ppb        0.08046  71.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.6030 µg/L       1.07067      0.6030 ppb        1.07067 177.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                7.9      0.7140 µg/L       2.67833      0.7140 ppb        2.67833 375.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               19.0      0.2062 µg/L       0.19224      0.2062 ppb        0.19224  93.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -13.9     -0.3405 µg/L       0.03570     -0.3405 ppb        0.03570  10.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 16:37:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57270.5	57270.5	105	%			16:38:25
1	Al 396.153Radial†	6958.1	6640.6	4939.3	µg/L	4939.3	ppb	16:38:25
1	Ca 317.933Radial†	5712.0	5263.9	4956.3	µg/L	4956.3	ppb	16:38:46
1	Fe 238.204 Radial†	619.2	575.5	4888.0	µg/L	4888.0	ppb	16:38:46
1	K 766.490 Radial†	7274.3	6803.4	4835.8	µg/L	4835.8	ppb	16:38:25
1	Mg 279.077 IEC†	580.4	541.8	5044.9	µg/L	5044.9	ppb	16:38:46
1	Na 589.592 Radial†	31721.9	29686.7	9772.9	µg/L	9772.9	ppb	16:38:25
1	Sr 421.552†	48411.5	46092.9	477.81	µg/L	477.81	ppb	16:38:25
1	Sc 361.383	2050041.7	2050041.7	107.34	%			16:39:49
1	Y 371.029	1400914.7	1400914.7	106.95	%			16:39:49
1	Ag 328.068†	63102.9	59351.9	474.38	µg/L	474.38	ppb	16:39:55
1	As 188.979†	273.7	253.8	495.14	µg/L	495.14	ppb	16:40:15
1	B 249.677†	11802.0	10663.4	464.23	µg/L	464.23	ppb	16:39:55
1	Ba 233.527†	19451.3	18147.1	473.37	µg/L	473.37	ppb	16:39:55
1	Be 313.107†	769937.6	720722.3	470.49	µg/L	470.49	ppb	16:39:49
1	Cd 226.502†	18413.9	17296.7	477.11	µg/L	477.11	ppb	16:39:55
1	Co 228.616†	10377.6	9676.7	475.69	µg/L	475.69	ppb	16:39:55
1	Cr 267.716†	23222.4	21686.6	477.32	µg/L	477.32	ppb	16:39:55
1	Cu 324.752†	74708.1	67112.7	469.48	µg/L	469.48	ppb	16:39:55
1	Mn 257.610†	148224.3	138331.4	479.47	µg/L	479.47	ppb	16:39:49
1	Mo 202.031†	4976.6	4643.8	495.78	µg/L	495.78	ppb	16:40:15
1	Ni 231.604†	9664.7	8701.5	475.25	µg/L	475.25	ppb	16:39:55
1	P 214.914†	1251.0	1137.8	2398.4	µg/L	2398.4	ppb	16:40:15
1	Pb 220.353†	2064.6	1826.2	487.49	µg/L	487.49	ppb	16:40:15
1	S 181.975 Axial†	253.0	220.8	967.55	µg/L	967.55	ppb	16:40:15
1	Sb 206.836†	561.9	496.5	490.97	µg/L	490.97	ppb	16:40:15
1	Se 196.026†	348.6	308.9	478.47	µg/L	478.47	ppb	16:40:15
1	SiO2†	26407.2	23351.2	5028.8	µg/L	5028.8	ppb	16:39:55
1	Si 251.611†	31109.3	28668.8	2356.7	µg/L	2356.7	ppb	16:39:55
1	Sn 189.927†	1168.8	1089.7	501.23	µg/L	501.23	ppb	16:40:15
1	Ti 334.940†	210704.4	196178.3	471.57	µg/L	471.57	ppb	16:39:49
1	Tl 190.801†	345.6	346.3	489.05	µg/L	489.05	ppb	16:40:15
1	U 409.014†	5635.8	5304.0	479.22	µg/L	479.22	ppb	16:39:55
1	V 292.402†	47452.9	44251.8	477.60	µg/L	477.60	ppb	16:39:55
1	Zn 213.857†	20929.0	19022.1	471.63	µg/L	471.63	ppb	16:39:55
2	Sc RADIAL	57824.5	57824.5	106	%			16:38:51
2	Al 396.153Radial†	6951.6	6571.0	4887.5	µg/L	4887.5	ppb	16:38:51
2	Ca 317.933Radial†	5692.9	5193.8	4890.3	µg/L	4890.3	ppb	16:39:12
2	Fe 238.204 Radial†	614.8	565.7	4804.8	µg/L	4804.8	ppb	16:39:12
2	K 766.490 Radial†	7297.3	6758.7	4804.0	µg/L	4804.0	ppb	16:38:51
2	Mg 279.077 IEC†	578.6	534.8	4980.5	µg/L	4980.5	ppb	16:39:12
2	Na 589.592 Radial†	31791.5	29462.7	9699.2	µg/L	9699.2	ppb	16:38:51
2	Sr 421.552†	48548.0	45779.7	474.56	µg/L	474.56	ppb	16:38:51
2	Sc 361.383	2050967.6	2050967.6	107.39	%			16:40:22
2	Y 371.029	1401478.7	1401478.7	106.99	%			16:40:22
2	Ag 328.068†	63066.7	59291.5	473.89	µg/L	473.89	ppb	16:40:28
2	As 188.979†	260.8	241.7	471.43	µg/L	471.43	ppb	16:40:49
2	B 249.677†	11773.8	10632.2	462.91	µg/L	462.91	ppb	16:40:28
2	Ba 233.527†	19468.8	18155.2	473.58	µg/L	473.58	ppb	16:40:28
2	Be 313.107†	769423.9	719920.1	469.97	µg/L	469.97	ppb	16:40:22
2	Cd 226.502†	18369.5	17247.6	475.77	µg/L	475.77	ppb	16:40:28
2	Co 228.616†	10387.8	9681.8	475.93	µg/L	475.93	ppb	16:40:28
2	Cr 267.716†	23230.7	21684.6	477.27	µg/L	477.27	ppb	16:40:28
2	Cu 324.752†	74607.6	66987.7	468.59	µg/L	468.59	ppb	16:40:28
2	Mn 257.610†	147653.6	137737.6	477.41	µg/L	477.41	ppb	16:40:22
2	Mo 202.031†	4936.1	4604.0	491.53	µg/L	491.53	ppb	16:40:49
2	Ni 231.604†	9650.2	8684.0	474.29	µg/L	474.29	ppb	16:40:28
2	P 214.914†	1239.1	1126.2	2373.7	µg/L	2373.7	ppb	16:40:49
2	Pb 220.353†	2036.6	1799.3	480.30	µg/L	480.30	ppb	16:40:49

2	S 181.975 Axial†	251.7	219.6	962.01 µg/L	962.01 ppb	16:40:49
2	Sb 206.836†	560.6	495.1	489.53 µg/L	489.53 ppb	16:40:49
2	Se 196.026†	352.8	312.7	484.04 µg/L	484.04 ppb	16:40:49
2	SiO2†	26423.9	23355.6	5029.8 µg/L	5029.8 ppb	16:40:28
2	Si 251.611†	31116.7	28662.7	2356.2 µg/L	2356.2 ppb	16:40:28
2	Sn 189.927†	1158.0	1079.2	496.40 µg/L	496.40 ppb	16:40:49
2	Ti 334.940†	210552.3	195948.0	471.02 µg/L	471.02 ppb	16:40:22
2	Tl 190.801†	346.0	346.5	489.25 µg/L	489.25 ppb	16:40:49
2	U 409.014†	5584.5	5253.8	474.70 µg/L	474.70 ppb	16:40:28
2	V 292.402†	47503.1	44278.6	477.84 µg/L	477.84 ppb	16:40:28
2	Zn 213.857†	20951.2	19034.0	471.94 µg/L	471.94 ppb	16:40:28
3	Sc RADIAL	57919.3	57919.3	106 %		16:39:17
3	Al 396.153Radial†	6873.3	6486.5	4826.1 µg/L	4826.1 ppb	16:39:17
3	Ca 317.933Radial†	5675.3	5168.4	4866.3 µg/L	4866.3 ppb	16:39:38
3	Fe 238.204 Radial†	612.6	562.7	4778.5 µg/L	4778.5 ppb	16:39:38
3	K 766.490 Radial†	7223.5	6677.9	4746.6 µg/L	4746.6 ppb	16:39:17
3	Mg 279.077 IEC†	577.0	532.4	4956.6 µg/L	4956.6 ppb	16:39:38
3	Na 589.592 Radial†	31537.3	29174.1	9604.2 µg/L	9604.2 ppb	16:39:17
3	Sr 421.552†	47945.0	45136.6	467.89 µg/L	467.89 ppb	16:39:17
3	Sc 361.383	2047169.0	2047169.0	107.19 %		16:40:56
3	Y 371.029	1398213.9	1398213.9	106.74 %		16:40:56
3	Ag 328.068†	59282.1	55869.9	446.44 µg/L	446.44 ppb	16:41:01
3	As 188.979†	231.4	214.7	418.91 µg/L	418.91 ppb	16:41:22
3	B 249.677†	11101.6	10025.4	436.32 µg/L	436.32 ppb	16:41:01
3	Ba 233.527†	17825.1	16655.3	434.45 µg/L	434.45 ppb	16:41:01
3	Be 313.107†	720453.0	675563.8	441.01 µg/L	441.01 ppb	16:40:56
3	Cd 226.502†	16836.0	15848.7	437.13 µg/L	437.13 ppb	16:41:01
3	Co 228.616†	9439.7	8815.3	433.29 µg/L	433.29 ppb	16:41:01
3	Cr 267.716†	20551.5	19225.2	423.15 µg/L	423.15 ppb	16:41:01
3	Cu 324.752†	68186.1	61125.9	427.64 µg/L	427.64 ppb	16:41:01
3	Mn 257.610†	138984.9	129905.6	450.28 µg/L	450.28 ppb	16:40:56
3	Mo 202.031†	4143.4	3873.0	413.51 µg/L	413.51 ppb	16:41:22
3	Ni 231.604†	8808.1	7915.1	432.30 µg/L	432.30 ppb	16:41:01
3	P 214.914†	1067.2	968.0	2036.9 µg/L	2036.9 ppb	16:41:22
3	Pb 220.353†	1797.4	1579.7	421.60 µg/L	421.60 ppb	16:41:22
3	S 181.975 Axial†	226.2	196.2	859.46 µg/L	859.46 ppb	16:41:22
3	Sb 206.836†	485.7	426.1	420.98 µg/L	420.98 ppb	16:41:22
3	Se 196.026†	307.9	271.4	421.09 µg/L	421.09 ppb	16:41:22
3	SiO2†	24533.6	21637.8	4659.8 µg/L	4659.8 ppb	16:41:01
3	Si 251.611†	28891.7	26640.7	2190.0 µg/L	2190.0 ppb	16:41:01
3	Sn 189.927†	954.7	891.5	410.08 µg/L	410.08 ppb	16:41:22
3	Ti 334.940†	196335.7	183048.9	440.00 µg/L	440.00 ppb	16:40:56
3	Tl 190.801†	308.7	312.2	441.18 µg/L	441.18 ppb	16:41:22
3	U 409.014†	5011.7	4729.1	427.20 µg/L	427.20 ppb	16:41:01
3	V 292.402†	42781.7	39956.1	430.99 µg/L	430.99 ppb	16:41:01
3	Zn 213.857†	19123.4	17365.0	430.51 µg/L	430.51 ppb	16:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2049392.8	107.31	%	0.104				0.10%
Sc RADIAL	57671.4	106	%	0.6				0.61%
Y 371.029	1400202.5	106.89	%	0.133				0.12%
Ag 328.068†	58171.1	464.90	µg/L	15.993	464.90	ppb	15.993	3.44%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	6566.1	4884.3	µg/L	56.67	4884.3	ppb	56.67	1.16%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	236.7	461.83	µg/L	39.012	461.83	ppb	39.012	8.45%
QC value within limits for As 188.979 Recovery = 92.37%								
B 249.677†	10440.3	454.49	µg/L	15.747	454.49	ppb	15.747	3.46%
QC value within limits for B 249.677 Recovery = 90.90%								
Ba 233.527†	17652.5	460.47	µg/L	22.535	460.47	ppb	22.535	4.89%
QC value within limits for Ba 233.527 Recovery = 92.09%								
Be 313.107†	705402.1	460.49	µg/L	16.871	460.49	ppb	16.871	3.66%
QC value within limits for Be 313.107 Recovery = 92.10%								
Ca 317.933Radial†	5208.7	4904.3	µg/L	46.59	4904.3	ppb	46.59	0.95%
QC value within limits for Ca 317.933Radial Recovery = 98.09%								
Cd 226.502†	16797.7	463.34	µg/L	22.703	463.34	ppb	22.703	4.90%
QC value within limits for Cd 226.502 Recovery = 92.67%								
Co 228.616†	9391.3	461.63	µg/L	24.552	461.63	ppb	24.552	5.32%

```
   QC value within limits for Co 228.616  Recovery = 92.33%
Cr 267.716†            20865.4      459.24 µg/L        31.262      459.24 ppb        31.262   6.81%
   QC value within limits for Cr 267.716  Recovery = 91.85%
Cu 324.752†            65075.5      455.24 µg/L        23.902      455.24 ppb        23.902   5.25%
   QC value within limits for Cu 324.752  Recovery = 91.05%
Fe 238.204 Radial†       568.0      4823.8 µg/L         57.17      4823.8 ppb         57.17   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.48%
K 766.490 Radial†       6746.7      4795.5 µg/L         45.22      4795.5 ppb         45.22   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 95.91%
Mg 279.077 IEC†          536.3      4994.0 µg/L         45.66      4994.0 ppb         45.66   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           135324.9      469.05 µg/L        16.289      469.05 ppb        16.289   3.47%
   QC value within limits for Mn 257.610  Recovery = 93.81%
Mo 202.031†            4373.6      466.94 µg/L        46.322      466.94 ppb        46.322   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.39%
Na 589.592 Radial†     29441.2      9692.1 µg/L         84.60      9692.1 ppb         84.60   0.87%
   QC value within limits for Na 589.592 Radial  Recovery = 96.92%
Ni 231.604†            8433.5      460.62 µg/L        24.525      460.62 ppb        24.525   5.32%
   QC value within limits for Ni 231.604  Recovery = 92.12%
P 214.914†             1077.3      2269.6 µg/L        201.96      2269.6 ppb        201.96   8.90%
   QC value within limits for P 214.914  Recovery = 90.79%
Pb 220.353†            1735.0      463.13 µg/L        36.146      463.13 ppb        36.146   7.80%
   QC value within limits for Pb 220.353  Recovery = 92.63%
S 181.975 Axial†        212.2      929.67 µg/L        60.871      929.67 ppb        60.871   6.55%
   QC value within limits for S 181.975 Axial  Recovery = 92.97%
Sb 206.836†             472.6      467.16 µg/L        39.999      467.16 ppb        39.999   8.56%
   QC value within limits for Sb 206.836  Recovery = 93.43%
Se 196.026†             297.7      461.20 µg/L        34.847      461.20 ppb        34.847   7.56%
   QC value within limits for Se 196.026  Recovery = 92.24%
SiO2†                  22781.6      4906.1 µg/L        213.31      4906.1 ppb        213.31   4.35%
   QC value within limits for SiO2  Recovery = 91.75%
Si 251.611†            27990.8      2301.0 µg/L         96.11      2301.0 ppb         96.11   4.18%
   QC value within limits for Si 251.611  Recovery = 92.04%
Sn 189.927†            1020.1      469.24 µg/L        51.288      469.24 ppb        51.288  10.93%
   QC value within limits for Sn 189.927  Recovery = 93.85%
Sr 421.552†            45669.7      473.42 µg/L         5.054      473.42 ppb         5.054   1.07%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           191725.1      460.86 µg/L        18.074      460.86 ppb        18.074   3.92%
   QC value within limits for Ti 334.940  Recovery = 92.17%
Tl 190.801†             335.0      473.16 µg/L        27.695      473.16 ppb        27.695   5.85%
   QC value within limits for Tl 190.801  Recovery = 94.63%
U 409.014†             5095.6      460.37 µg/L        28.818      460.37 ppb        28.818   6.26%
   QC value within limits for U 409.014  Recovery = 92.07%
V 292.402†             42828.8      462.14 µg/L        26.978      462.14 ppb        26.978   5.84%
   QC value within limits for V 292.402  Recovery = 92.43%
Zn 213.857†            18473.7      458.03 µg/L        23.826      458.03 ppb        23.826   5.20%
   QC value within limits for Zn 213.857  Recovery = 91.61%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58584.5	58584.5	107	%			16:42:04
1	Al 396.153Radial†	51.2	57.8	43.068	µg/L	43.068	ppb	16:42:04
1	Ca 317.933Radial†	241.7	46.0	43.344	µg/L	43.344	ppb	16:42:24
1	Fe 238.204 Radial†	14.5	-1.0	-8.1938	µg/L	-8.1938	ppb	16:42:24
1	K 766.490 Radial†	158.2	19.0	13.495	µg/L	13.495	ppb	16:42:04
1	Mg 279.077 IEC†	19.4	6.8	63.641	µg/L	63.641	ppb	16:42:24
1	Na 589.592 Radial†	1003.5	392.9	129.35	µg/L	129.35	ppb	16:42:04
1	Sr 421.552†	45.5	2.9	0.0298	µg/L	0.0298	ppb	16:42:04
1	Sc 361.383	2059865.1	2059865.1	107.86	%			16:43:26
1	Y 371.029	1412010.5	1412010.5	107.79	%			16:43:26
1	Ag 328.068†	-580.2	26.6	0.2127	µg/L	0.2127	ppb	16:43:32
1	As 188.979†	-2.2	-3.1	-6.1457	µg/L	-6.1457	ppb	16:43:52
1	B 249.677†	314.7	-39.7	-1.7298	µg/L	-1.7298	ppb	16:43:52
1	Ba 233.527†	-34.6	-6.1	-0.1574	µg/L	-0.1574	ppb	16:43:52
1	Be 313.107†	-3476.5	217.1	0.1418	µg/L	0.1418	ppb	16:43:32
1	Cd 226.502†	-142.5	10.0	0.2771	µg/L	0.2771	ppb	16:43:52
1	Co 228.616†	-11.6	-1.9	-0.0950	µg/L	-0.0950	ppb	16:43:52
1	Cr 267.716†	-40.1	15.2	0.3343	µg/L	0.3343	ppb	16:43:32
1	Cu 324.752†	2513.6	-155.6	-1.0878	µg/L	-1.0878	ppb	16:43:32
1	Mn 257.610†	-238.3	23.1	0.0765	µg/L	0.0765	ppb	16:43:52
1	Mo 202.031†	-4.7	3.2	0.3434	µg/L	0.3434	ppb	16:43:52
1	Ni 231.604†	310.9	-14.0	-0.7640	µg/L	-0.7640	ppb	16:43:52
1	P 214.914†	32.2	2.3	4.9663	µg/L	4.9663	ppb	16:43:52
1	Pb 220.353†	102.0	-2.6	-0.7002	µg/L	-0.7002	ppb	16:43:52
1	S 181.975 Axial†	19.3	3.1	13.368	µg/L	13.368	ppb	16:43:52
1	Sb 206.836†	23.2	-5.4	-5.3618	µg/L	-5.3618	ppb	16:43:52
1	Se 196.026†	20.8	3.4	5.1089	µg/L	5.1089	ppb	16:43:52
1	SiO2†	1256.8	-84.7	-18.250	µg/L	-18.250	ppb	16:43:32
1	Si 251.611†	299.6	-35.1	-2.8840	µg/L	-2.8840	ppb	16:43:52
1	Sn 189.927†	-1.9	-0.9	-0.4213	µg/L	-0.4213	ppb	16:43:52
1	Ti 334.940†	103.7	-20.0	-0.0524	µg/L	-0.0524	ppb	16:43:32
1	Tl 190.801†	-18.7	7.0	9.7650	µg/L	9.7650	ppb	16:43:52
1	U 409.014†	8.9	61.9	5.6031	µg/L	5.6031	ppb	16:43:32
1	V 292.402†	-13.8	31.5	0.3435	µg/L	0.3435	ppb	16:43:32
1	Zn 213.857†	488.8	-22.3	-0.5552	µg/L	-0.5552	ppb	16:43:52
2	Sc RADIAL	57826.0	57826.0	106	%			16:42:30
2	Al 396.153Radial†	36.0	44.1	32.860	µg/L	32.860	ppb	16:42:30
2	Ca 317.933Radial†	243.6	50.8	47.787	µg/L	47.787	ppb	16:42:50
2	Fe 238.204 Radial†	18.8	3.3	27.831	µg/L	27.831	ppb	16:42:50
2	K 766.490 Radial†	189.0	49.9	35.479	µg/L	35.479	ppb	16:42:30
2	Mg 279.077 IEC†	19.0	6.7	61.954	µg/L	61.954	ppb	16:42:50
2	Na 589.592 Radial†	991.6	394.0	129.71	µg/L	129.71	ppb	16:42:30
2	Sr 421.552†	62.3	19.3	0.1997	µg/L	0.1997	ppb	16:42:30
2	Sc 361.383	2019733.9	2019733.9	105.75	%			16:43:58
2	Y 371.029	1384706.2	1384706.2	105.71	%			16:43:58
2	Ag 328.068†	-558.4	36.5	0.2916	µg/L	0.2916	ppb	16:44:04
2	As 188.979†	-1.6	-2.7	-5.2610	µg/L	-5.2610	ppb	16:44:24
2	B 249.677†	316.8	-31.9	-1.4069	µg/L	-1.4069	ppb	16:44:24
2	Ba 233.527†	-28.3	-0.8	-0.0199	µg/L	-0.0199	ppb	16:44:24
2	Be 313.107†	-3437.1	190.3	0.1243	µg/L	0.1243	ppb	16:44:04
2	Cd 226.502†	-144.6	5.4	0.1447	µg/L	0.1447	ppb	16:44:24
2	Co 228.616†	-10.6	-1.2	-0.0595	µg/L	-0.0595	ppb	16:44:24
2	Cr 267.716†	-44.1	10.7	0.2350	µg/L	0.2350	ppb	16:44:04
2	Cu 324.752†	2441.7	-177.3	-1.2343	µg/L	-1.2343	ppb	16:44:04
2	Mn 257.610†	-221.2	34.9	0.1222	µg/L	0.1222	ppb	16:44:24
2	Mo 202.031†	-2.8	4.9	0.5203	µg/L	0.5203	ppb	16:44:24
2	Ni 231.604†	305.8	-13.1	-0.7134	µg/L	-0.7134	ppb	16:44:24
2	P 214.914†	32.5	3.1	6.8494	µg/L	6.8494	ppb	16:44:24
2	Pb 220.353†	110.5	7.3	1.9444	µg/L	1.9444	ppb	16:44:24

2	S 181.975 Axial†	18.0	2.2	9.5789 µg/L	9.5789 ppb	16:44:24
2	Sb 206.836†	26.9	-1.5	-1.5033 µg/L	-1.5033 ppb	16:44:24
2	Se 196.026†	9.1	-7.3	-11.082 µg/L	-11.082 ppb	16:44:24
2	SiO2†	1234.9	-82.3	-17.728 µg/L	-17.728 ppb	16:44:04
2	Si 251.611†	315.8	-14.3	-1.1723 µg/L	-1.1723 ppb	16:44:24
2	Sn 189.927†	-0.9	0.0	0.0122 µg/L	0.0122 ppb	16:44:24
2	Ti 334.940†	107.0	-14.9	-0.0400 µg/L	-0.0400 ppb	16:44:04
2	Tl 190.801†	-22.2	3.3	4.6398 µg/L	4.6398 ppb	16:44:24
2	U 409.014†	11.6	64.6	5.8396 µg/L	5.8396 ppb	16:44:04
2	V 292.402†	-47.1	0.3	0.0106 µg/L	0.0106 ppb	16:44:04
2	Zn 213.857†	485.9	-16.1	-0.4022 µg/L	-0.4022 ppb	16:44:24
3	Sc RADIAL	58203.8	58203.8	107 %		16:42:56
3	Al 396.153Radial†	16.5	25.6	19.057 µg/L	19.057 ppb	16:42:56
3	Ca 317.933Radial†	234.3	40.6	38.198 µg/L	38.198 ppb	16:43:16
3	Fe 238.204 Radial†	16.0	0.5	4.0830 µg/L	4.0830 ppb	16:43:16
3	K 766.490 Radial†	180.9	41.2	29.300 µg/L	29.300 ppb	16:42:56
3	Mg 279.077 IEC†	18.0	5.6	52.283 µg/L	52.283 ppb	16:43:16
3	Na 589.592 Radial†	920.7	321.4	105.80 µg/L	105.80 ppb	16:42:56
3	Sr 421.552†	52.3	9.5	0.0985 µg/L	0.0985 ppb	16:42:56
3	Sc 361.383	1997484.6	1997484.6	104.59 %		16:44:31
3	Y 371.029	1369124.4	1369124.4	104.52 %		16:44:31
3	Ag 328.068†	-544.9	43.6	0.3481 µg/L	0.3481 ppb	16:44:36
3	As 188.979†	3.1	1.8	3.4746 µg/L	3.4746 ppb	16:44:57
3	B 249.677†	317.2	-28.2	-1.2336 µg/L	-1.2336 ppb	16:44:57
3	Ba 233.527†	-26.0	1.1	0.0301 µg/L	0.0301 ppb	16:44:57
3	Be 313.107†	-3380.0	208.8	0.1363 µg/L	0.1363 ppb	16:44:36
3	Cd 226.502†	-138.7	9.5	0.2617 µg/L	0.2617 ppb	16:44:57
3	Co 228.616†	-17.3	-7.7	-0.3772 µg/L	-0.3772 ppb	16:44:57
3	Cr 267.716†	-57.1	-2.2	-0.0487 µg/L	-0.0487 ppb	16:44:36
3	Cu 324.752†	2481.2	-113.8	-0.7943 µg/L	-0.7943 ppb	16:44:36
3	Mn 257.610†	-222.0	31.9	0.1088 µg/L	0.1088 ppb	16:44:57
3	Mo 202.031†	-5.2	2.6	0.2766 µg/L	0.2766 ppb	16:44:57
3	Ni 231.604†	300.3	-15.1	-0.8254 µg/L	-0.8254 ppb	16:44:57
3	P 214.914†	30.5	1.5	3.4004 µg/L	3.4004 ppb	16:44:57
3	Pb 220.353†	108.4	6.5	1.7342 µg/L	1.7342 ppb	16:44:57
3	S 181.975 Axial†	15.4	-0.1	-0.3301 µg/L	-0.3301 ppb	16:44:57
3	Sb 206.836†	27.4	-0.8	-0.7588 µg/L	-0.7588 ppb	16:44:57
3	Se 196.026†	19.0	2.4	3.5402 µg/L	3.5402 ppb	16:44:57
3	SiO2†	1246.0	-58.7	-12.639 µg/L	-12.639 ppb	16:44:36
3	Si 251.611†	309.0	-17.4	-1.4306 µg/L	-1.4306 ppb	16:44:57
3	Sn 189.927†	-0.1	0.8	0.3816 µg/L	0.3816 ppb	16:44:57
3	Ti 334.940†	122.3	0.8	-0.0015 µg/L	-0.0015 ppb	16:44:36
3	Tl 190.801†	-19.4	5.7	7.9510 µg/L	7.9510 ppb	16:44:57
3	U 409.014†	-119.0	-60.2	-5.4508 µg/L	-5.4508 ppb	16:44:36
3	V 292.402†	-13.3	31.5	0.3324 µg/L	0.3324 ppb	16:44:36
3	Zn 213.857†	491.8	-5.3	-0.1315 µg/L	-0.1315 ppb	16:44:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2025694.5	106.07	%	1.655				1.56%
Sc RADIAL	58204.8	107	%	0.7				0.65%
Y 371.029	1388613.7	106.01	%	1.657				1.56%
Ag 328.068†	35.6	0.2841	µg/L	0.06799	0.2841	ppb	0.06799	23.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.5	31.661	µg/L	12.0501	31.661	ppb	12.0501	38.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-2.6440	µg/L	5.31733	-2.6440	ppb	5.31733	201.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-33.2	-1.4568	µg/L	0.25185	-1.4568	ppb	0.25185	17.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.9	-0.0491	µg/L	0.09709	-0.0491	ppb	0.09709	197.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	205.4	0.1341	µg/L	0.00896	0.1341	ppb	0.00896	6.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	45.8	43.110	µg/L	4.7990	43.110	ppb	4.7990	11.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.3	0.2278	µg/L	0.07242	0.2278	ppb	0.07242	31.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.6	-0.1772	µg/L	0.17409	-0.1772	ppb	0.17409	98.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.9      0.1735 µg/L       0.19876      0.1735 ppb        0.19876 114.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -148.9     -1.0388 µg/L       0.22407     -1.0388 ppb        0.22407  21.57%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9067 µg/L      18.31420      7.9067 ppb       18.31420 231.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          36.7      26.091 µg/L       11.3376      26.091 ppb        11.3376  43.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             6.4      59.293 µg/L        6.1293      59.293 ppb         6.1293  10.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.0      0.1025 µg/L       0.02350      0.1025 ppb        0.02350  22.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.6      0.3801 µg/L       0.12595      0.3801 ppb        0.12595  33.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        369.4      121.62 µg/L        13.704      121.62 ppb         13.704  11.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.0     -0.7676 µg/L       0.05609     -0.7676 ppb        0.05609   7.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.3      5.0720 µg/L       1.72695      5.0720 ppb        1.72695  34.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.7      0.9928 µg/L       1.46997      0.9928 ppb        1.46997 148.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.7      7.5391 µg/L       7.07334      7.5391 ppb        7.07334  93.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.6     -2.5413 µg/L       2.47086     -2.5413 ppb        2.47086  97.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.5     -0.8111 µg/L       8.92964     -0.8111 ppb        8.92964 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -75.3     -16.206 µg/L        3.0998     -16.206 ppb         3.0998  19.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -22.2     -1.8290 µg/L       0.92279     -1.8290 ppb        0.92279  50.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.0     -0.0092 µg/L       0.40185     -0.0092 ppb        0.40185 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.5      0.1093 µg/L       0.08548      0.1093 ppb        0.08548  78.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -11.4     -0.0313 µg/L       0.02652     -0.0313 ppb        0.02652  84.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.3      7.4520 µg/L       2.59879      7.4520 ppb        2.59879  34.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 22.1      1.9973 µg/L       6.45136      1.9973 ppb        6.45136 323.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.9      0.2288 µg/L       0.18906      0.2288 ppb        0.18906  82.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -14.6     -0.3630 µg/L       0.21454     -0.3630 ppb        0.21454  59.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/11/2010 16:58:42 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 2/11/2010 16:58:44**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58304.7	58304.7	107	%			16:59:20
1	Al 396.153Radial†	6786.5	6362.5	4732.0	µg/L	4732.0	ppb	16:59:20
1	Ca 317.933Radial†	5536.9	5003.5	4711.1	µg/L	4711.1	ppb	16:59:40
1	Fe 238.204 Radial†	610.2	556.6	4728.2	µg/L	4728.2	ppb	16:59:40
1	K 766.490 Radial†	7283.7	6689.2	4754.7	µg/L	4754.7	ppb	16:59:20
1	Mg 279.077 IEC†	569.3	521.6	4857.3	µg/L	4857.3	ppb	16:59:40
1	Na 589.592 Radial†	31197.2	28659.4	9434.8	µg/L	9434.8	ppb	16:59:20
1	Sr 421.552†	48428.4	45290.4	469.49	µg/L	469.49	ppb	16:59:20
1	Sc 361.383	2048192.0	2048192.0	107.24	%			17:00:43
1	Y 371.029	1396873.4	1396873.4	106.64	%			17:00:43
1	Ag 328.068†	62792.0	59115.0	472.54	µg/L	472.54	ppb	17:00:49
1	As 188.979†	276.2	256.4	500.17	µg/L	500.17	ppb	17:01:09
1	B 249.677†	11976.6	10836.1	471.87	µg/L	471.87	ppb	17:00:49
1	Ba 233.527†	19779.6	18469.6	481.79	µg/L	481.79	ppb	17:00:49
1	Be 313.107†	782023.1	732639.2	478.28	µg/L	478.28	ppb	17:00:43
1	Cd 226.502†	18757.9	17632.9	486.42	µg/L	486.42	ppb	17:00:49
1	Co 228.616†	10618.7	9910.3	487.18	µg/L	487.18	ppb	17:00:49
1	Cr 267.716†	23605.9	22063.7	485.62	µg/L	485.62	ppb	17:00:49
1	Cu 324.752†	75656.1	68059.5	476.07	µg/L	476.07	ppb	17:00:49
1	Mn 257.610†	150274.2	140367.5	486.51	µg/L	486.51	ppb	17:00:43
1	Mo 202.031†	4970.8	4642.6	495.64	µg/L	495.64	ppb	17:01:09
1	Ni 231.604†	9869.6	8900.8	486.13	µg/L	486.13	ppb	17:00:49
1	P 214.914†	1275.8	1162.0	2449.8	µg/L	2449.8	ppb	17:01:09
1	Pb 220.353†	2092.9	1854.3	494.97	µg/L	494.97	ppb	17:01:09
1	S 181.975 Axial†	258.0	225.7	989.09	µg/L	989.09	ppb	17:01:09
1	Sb 206.836†	558.6	493.9	488.34	µg/L	488.34	ppb	17:01:09
1	Se 196.026†	360.2	320.1	495.20	µg/L	495.20	ppb	17:01:09
1	SiO2†	26598.5	23551.8	5072.0	µg/L	5072.0	ppb	17:00:49
1	Si 251.611†	31394.2	28960.7	2380.7	µg/L	2380.7	ppb	17:00:49
1	Sn 189.927†	1171.7	1093.4	502.93	µg/L	502.93	ppb	17:01:09
1	Ti 334.940†	209687.5	195407.3	469.73	µg/L	469.73	ppb	17:00:43
1	Tl 190.801†	351.0	351.5	496.34	µg/L	496.34	ppb	17:01:09
1	U 409.014†	5705.8	5374.0	485.60	µg/L	485.60	ppb	17:00:49
1	V 292.402†	48262.6	45046.7	486.08	µg/L	486.08	ppb	17:00:49
1	Zn 213.857†	21405.2	19483.8	483.11	µg/L	483.11	ppb	17:00:49
2	Sc RADIAL	57809.4	57809.4	106	%			16:59:45
2	Al 396.153Radial†	6713.1	6347.6	4720.4	µg/L	4720.4	ppb	16:59:45
2	Ca 317.933Radial†	5573.2	5082.2	4785.2	µg/L	4785.2	ppb	17:00:06
2	Fe 238.204 Radial†	613.9	565.0	4800.0	µg/L	4800.0	ppb	17:00:06
2	K 766.490 Radial†	7246.0	6712.1	4770.9	µg/L	4770.9	ppb	16:59:45
2	Mg 279.077 IEC†	566.2	523.3	4873.4	µg/L	4873.4	ppb	17:00:06
2	Na 589.592 Radial†	31072.8	28792.1	9478.5	µg/L	9478.5	ppb	16:59:45
2	Sr 421.552†	48008.7	45282.6	469.41	µg/L	469.41	ppb	16:59:45
2	Sc 361.383	1951160.7	1951160.7	102.16	%			17:01:16
2	Y 371.029	1331856.8	1331856.8	101.67	%			17:01:16
2	Ag 328.068†	64120.5	63327.2	506.22	µg/L	506.22	ppb	17:01:22
2	As 188.979†	277.7	270.7	528.08	µg/L	528.08	ppb	17:01:43

2	B 249.677†	12297.9	11706.0	509.91 µg/L	509.91 ppb	17:01:22
2	Ba 233.527†	20306.8	19902.8	519.17 µg/L	519.17 ppb	17:01:22
2	Be 313.107†	802212.2	788663.9	514.85 µg/L	514.85 ppb	17:01:16
2	Cd 226.502†	19256.8	18991.1	523.92 µg/L	523.92 ppb	17:01:22
2	Co 228.616†	10882.2	10660.6	524.05 µg/L	524.05 ppb	17:01:22
2	Cr 267.716†	24198.0	23738.0	522.47 µg/L	522.47 ppb	17:01:22
2	Cu 324.752†	77364.3	73239.8	512.26 µg/L	512.26 ppb	17:01:22
2	Mn 257.610†	154462.4	151435.4	524.84 µg/L	524.84 ppb	17:01:16
2	Mo 202.031†	4974.0	4876.2	520.57 µg/L	520.57 ppb	17:01:43
2	Ni 231.604†	10143.4	9626.4	525.76 µg/L	525.76 ppb	17:01:22
2	P 214.914†	1278.9	1224.2	2579.9 µg/L	2579.9 ppb	17:01:43
2	Pb 220.353†	2103.7	1962.0	523.68 µg/L	523.68 ppb	17:01:43
2	S 181.975 Axial†	261.1	240.7	1054.7 µg/L	1054.7 ppb	17:01:43
2	Sb 206.836†	565.0	526.1	520.02 µg/L	520.02 ppb	17:01:43
2	Se 196.026†	363.5	340.0	525.72 µg/L	525.72 ppb	17:01:43
2	SiO2†	27321.6	25493.0	5490.1 µg/L	5490.1 ppb	17:01:22
2	Si 251.611†	32162.6	31168.6	2562.2 µg/L	2562.2 ppb	17:01:22
2	Sn 189.927†	1172.7	1148.8	528.40 µg/L	528.40 ppb	17:01:43
2	Ti 334.940†	216025.0	211334.0	508.04 µg/L	508.04 ppb	17:01:16
2	Tl 190.801†	350.8	367.7	519.30 µg/L	519.30 ppb	17:01:43
2	U 409.014†	5846.6	5776.4	522.02 µg/L	522.02 ppb	17:01:22
2	V 292.402†	49557.7	48552.4	523.76 µg/L	523.76 ppb	17:01:22
2	Zn 213.857†	21845.1	20906.9	518.41 µg/L	518.41 ppb	17:01:22
3	Sc RADIAL	58043.7	58043.7	106 %		17:00:11
3	Al 396.153Radial†	6748.6	6355.4	4728.2 µg/L	4728.2 ppb	17:00:11
3	Ca 317.933Radial†	5566.3	5054.5	4759.1 µg/L	4759.1 ppb	17:00:32
3	Fe 238.204 Radial†	616.6	565.2	4800.6 µg/L	4800.6 ppb	17:00:32
3	K 766.490 Radial†	7187.1	6629.1	4711.9 µg/L	4711.9 ppb	17:00:11
3	Mg 279.077 IEC†	562.5	517.6	4819.1 µg/L	4819.1 ppb	17:00:32
3	Na 589.592 Radial†	31179.2	28773.8	9472.4 µg/L	9472.4 ppb	17:00:11
3	Sr 421.552†	48277.8	45352.7	470.13 µg/L	470.13 ppb	17:00:11
3	Sc 361.383	2003631.8	2003631.8	104.91 %		17:01:50
3	Y 371.029	1367447.8	1367447.8	104.39 %		17:01:50
3	Ag 328.068†	59826.0	57590.0	460.26 µg/L	460.26 ppb	17:01:56
3	As 188.979†	236.7	224.5	438.03 µg/L	438.03 ppb	17:02:16
3	B 249.677†	11388.2	10523.6	458.12 µg/L	458.12 ppb	17:01:56
3	Ba 233.527†	18491.5	17651.9	460.45 µg/L	460.45 ppb	17:01:56
3	Be 313.107†	746381.1	714882.8	466.69 µg/L	466.69 ppb	17:01:50
3	Cd 226.502†	17452.2	16777.4	462.78 µg/L	462.78 ppb	17:01:56
3	Co 228.616†	9792.8	9343.2	459.24 µg/L	459.24 ppb	17:01:56
3	Cr 267.716†	21341.5	20394.9	448.89 µg/L	448.89 ppb	17:01:56
3	Cu 324.752†	70171.6	64400.7	450.52 µg/L	450.52 ppb	17:01:56
3	Mn 257.610†	143677.7	137196.1	475.54 µg/L	475.54 ppb	17:01:50
3	Mo 202.031†	4142.0	3955.7	422.34 µg/L	422.34 ppb	17:02:16
3	Ni 231.604†	9135.9	8406.0	459.11 µg/L	459.11 ppb	17:01:56
3	P 214.914†	1088.5	1009.9	2124.6 µg/L	2124.6 ppb	17:02:16
3	Pb 220.353†	1832.8	1649.8	440.26 µg/L	440.26 ppb	17:02:16
3	S 181.975 Axial†	227.5	202.0	885.22 µg/L	885.22 ppb	17:02:16
3	Sb 206.836†	480.8	431.3	425.93 µg/L	425.93 ppb	17:02:16
3	Se 196.026†	317.8	287.1	445.21 µg/L	445.21 ppb	17:02:16
3	SiO2†	25159.1	22731.4	4895.3 µg/L	4895.3 ppb	17:01:56
3	Si 251.611†	29597.8	27899.4	2293.5 µg/L	2293.5 ppb	17:01:56
3	Sn 189.927†	953.9	910.2	418.64 µg/L	418.64 ppb	17:02:16
3	Ti 334.940†	199390.2	189940.4	456.58 µg/L	456.58 ppb	17:01:50
3	Tl 190.801†	316.4	325.9	460.38 µg/L	460.38 ppb	17:02:16
3	U 409.014†	5187.8	4998.6	451.60 µg/L	451.60 ppb	17:01:56
3	V 292.402†	44415.7	42380.8	456.99 µg/L	456.99 ppb	17:01:56
3	Zn 213.857†	19887.4	18480.9	458.23 µg/L	458.23 ppb	17:01:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2000994.9	104.77	%	2.543				2.43%
Sc RADIAL	58052.6	106	%	0.5				0.43%
Y 371.029	1365392.6	104.23	%	2.485				2.38%
Ag 328.068†	60010.7	479.67	µg/L	23.794	479.67	ppb	23.794	4.96%
QC value within limits for Ag 328.068 Recovery = 95.93%								
Al 396.153Radial†	6355.1	4726.8	µg/L	5.90	4726.8	ppb	5.90	0.12%
QC value within limits for Al 396.153Radial Recovery = 94.54%								
As 188.979†	250.5	488.76	µg/L	46.092	488.76	ppb	46.092	9.43%

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   QC value within limits for As 188.979  Recovery = 97.75%
B 249.677†            11021.9      479.97 µg/L        26.827      479.97 ppb        26.827   5.59%
   QC value within limits for B 249.677  Recovery = 95.99%
Ba 233.527†           18674.8      487.13 µg/L        29.727      487.13 ppb        29.727   6.10%
   QC value within limits for Ba 233.527  Recovery = 97.43%
Be 313.107†          745395.3      486.60 µg/L        25.138      486.60 ppb        25.138   5.17%
   QC value within limits for Be 313.107  Recovery = 97.32%
Ca 317.933Radial†      5046.7      4751.8 µg/L         37.61     4751.8 ppb         37.61   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 95.04%
Cd 226.502†           17800.5      491.04 µg/L        30.831      491.04 ppb        30.831   6.28%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            9971.4      490.16 µg/L        32.508      490.16 ppb        32.508   6.63%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†           22065.5      485.66 µg/L        36.788      485.66 ppb        36.788   7.57%
   QC value within limits for Cr 267.716  Recovery = 97.13%
Cu 324.752†           68566.7      479.62 µg/L        31.024      479.62 ppb        31.024   6.47%
   QC value within limits for Cu 324.752  Recovery = 95.92%
Fe 238.204 Radial†      562.3      4776.3 µg/L         41.61     4776.3 ppb         41.61   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.53%
K 766.490 Radial†      6676.8      4745.8 µg/L         30.47     4745.8 ppb         30.47   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 94.92%
Mg 279.077 IEC†         520.8      4849.9 µg/L         27.89     4849.9 ppb         27.89   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.00%
Mn 257.610†          142999.7      495.63 µg/L        25.888      495.63 ppb        25.888   5.22%
   QC value within limits for Mn 257.610  Recovery = 99.13%
Mo 202.031†            4491.5      479.52 µg/L        51.064      479.52 ppb        51.064  10.65%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†    28741.7      9461.9 µg/L         23.68     9461.9 ppb         23.68   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 94.62%
Ni 231.604†            8977.7      490.33 µg/L        33.521      490.33 ppb        33.521   6.84%
   QC value within limits for Ni 231.604  Recovery = 98.07%
P 214.914†             1132.0      2384.7 µg/L        234.53      2384.7 ppb        234.53   9.83%
   QC value within limits for P 214.914  Recovery = 95.39%
Pb 220.353†            1822.0      486.30 µg/L        42.376      486.30 ppb        42.376   8.71%
   QC value within limits for Pb 220.353  Recovery = 97.26%
S 181.975 Axial†        222.8      976.34 µg/L        85.462      976.34 ppb        85.462   8.75%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†             483.8      478.10 µg/L        47.873      478.10 ppb        47.873  10.01%
   QC value within limits for Sb 206.836  Recovery = 95.62%
Se 196.026†             315.7      488.71 µg/L        40.646      488.71 ppb        40.646   8.32%
   QC value within limits for Se 196.026  Recovery = 97.74%
SiO2†                  23925.4      5152.5 µg/L        305.42      5152.5 ppb        305.42   5.93%
   QC value within limits for SiO2  Recovery = 96.35%
Si 251.611†            29342.9      2412.1 µg/L        137.10      2412.1 ppb        137.10   5.68%
   QC value within limits for Si 251.611  Recovery = 96.49%
Sn 189.927†            1050.8      483.32 µg/L        57.445      483.32 ppb        57.445  11.89%
   QC value within limits for Sn 189.927  Recovery = 96.66%
Sr 421.552†            45308.6      469.68 µg/L         0.398      469.68 ppb         0.398   0.08%
   QC value within limits for Sr 421.552  Recovery = 93.94%
Ti 334.940†           198893.9      478.12 µg/L        26.734      478.12 ppb        26.734   5.59%
   QC value within limits for Ti 334.940  Recovery = 95.62%
Tl 190.801†             348.4      492.01 µg/L        29.696      492.01 ppb        29.696   6.04%
   QC value within limits for Tl 190.801  Recovery = 98.40%
U 409.014†             5383.0      486.40 µg/L        35.218      486.40 ppb        35.218   7.24%
   QC value within limits for U 409.014  Recovery = 97.28%
V 292.402†             45326.6      488.94 µg/L        33.478      488.94 ppb        33.478   6.85%
   QC value within limits for V 292.402  Recovery = 97.79%
Zn 213.857†            19623.9      486.59 µg/L        30.241      486.59 ppb        30.241   6.21%
   QC value within limits for Zn 213.857  Recovery = 97.32%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:02:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56368.9	56368.9	103	%			17:03:01
1	Al 396.153Radial†	-30.7	-19.6	-14.585	µg/L	-14.585	ppb	17:03:01
1	Ca 317.933Radial†	198.1	12.6	11.864	µg/L	11.864	ppb	17:03:21
1	Fe 238.204 Radial†	17.2	2.2	18.515	µg/L	18.515	ppb	17:03:21
1	K 766.490 Radial†	209.8	74.8	53.133	µg/L	53.133	ppb	17:03:01
1	Mg 279.077 IEC†	16.1	4.3	39.936	µg/L	39.936	ppb	17:03:21
1	Na 589.592 Radial†	774.1	207.6	68.329	µg/L	68.329	ppb	17:03:01
1	Sr 421.552†	33.0	-7.6	-0.0789	µg/L	-0.0789	ppb	17:03:01
1	Sc 361.383	2029236.5	2029236.5	106.25	%			17:04:24
1	Y 371.029	1388942.8	1388942.8	106.03	%			17:04:24
1	Ag 328.068†	-592.1	7.2	0.0607	µg/L	0.0607	ppb	17:04:29
1	As 188.979†	-0.6	-1.7	-3.3695	µg/L	-3.3695	ppb	17:04:50
1	B 249.677†	324.7	-25.9	-1.1417	µg/L	-1.1417	ppb	17:04:50
1	Ba 233.527†	-22.4	4.9	0.1278	µg/L	0.1278	ppb	17:04:50
1	Be 313.107†	-3566.1	84.2	0.0549	µg/L	0.0549	ppb	17:04:29
1	Cd 226.502†	-151.8	-0.8	-0.0243	µg/L	-0.0243	ppb	17:04:50
1	Co 228.616†	-13.1	-3.5	-0.1727	µg/L	-0.1727	ppb	17:04:50
1	Cr 267.716†	-46.3	8.8	0.1931	µg/L	0.1931	ppb	17:04:50
1	Cu 324.752†	2496.7	-136.3	-0.9495	µg/L	-0.9495	ppb	17:04:29
1	Mn 257.610†	-248.9	9.9	0.0351	µg/L	0.0351	ppb	17:04:50
1	Mo 202.031†	-5.8	2.1	0.2273	µg/L	0.2273	ppb	17:04:50
1	Ni 231.604†	303.7	-16.3	-0.8932	µg/L	-0.8932	ppb	17:04:50
1	P 214.914†	32.7	3.2	6.8843	µg/L	6.8843	ppb	17:04:50
1	Pb 220.353†	96.4	-6.5	-1.7203	µg/L	-1.7203	ppb	17:04:50
1	S 181.975 Axial†	20.6	4.6	20.049	µg/L	20.049	ppb	17:04:50
1	Sb 206.836†	26.8	-1.7	-1.7124	µg/L	-1.7124	ppb	17:04:50
1	Se 196.026†	16.1	-0.6	-0.9715	µg/L	-0.9715	ppb	17:04:50
1	SiO2†	1235.6	-87.2	-18.769	µg/L	-18.769	ppb	17:04:29
1	Si 251.611†	286.6	-43.1	-3.5447	µg/L	-3.5447	ppb	17:04:50
1	Sn 189.927†	-4.0	-2.9	-1.3291	µg/L	-1.3291	ppb	17:04:50
1	Ti 334.940†	152.5	27.4	0.0631	µg/L	0.0631	ppb	17:04:29
1	Tl 190.801†	-22.1	3.5	4.9105	µg/L	4.9105	ppb	17:04:50
1	U 409.014†	-71.0	-13.2	-1.1992	µg/L	-1.1992	ppb	17:04:29
1	V 292.402†	-14.4	30.7	0.3301	µg/L	0.3301	ppb	17:04:29
1	Zn 213.857†	481.1	-22.7	-0.5654	µg/L	-0.5654	ppb	17:04:50
2	Sc RADIAL	56481.9	56481.9	103	%			17:03:27
2	Al 396.153Radial†	9.3	19.1	14.233	µg/L	14.233	ppb	17:03:27
2	Ca 317.933Radial†	192.6	6.9	6.5217	µg/L	6.5217	ppb	17:03:47
2	Fe 238.204 Radial†	14.6	-0.3	-2.9604	µg/L	-2.9604	ppb	17:03:47
2	K 766.490 Radial†	162.5	28.6	20.329	µg/L	20.329	ppb	17:03:27
2	Mg 279.077 IEC†	13.0	1.3	11.979	µg/L	11.979	ppb	17:03:47
2	Na 589.592 Radial†	797.1	228.3	75.169	µg/L	75.169	ppb	17:03:27
2	Sr 421.552†	46.5	5.4	0.0561	µg/L	0.0561	ppb	17:03:27
2	Sc 361.383	2012770.6	2012770.6	105.39	%			17:04:56
2	Y 371.029	1377597.1	1377597.1	105.17	%			17:04:56
2	Ag 328.068†	-578.5	15.6	0.1231	µg/L	0.1231	ppb	17:05:01
2	As 188.979†	2.2	1.0	1.9088	µg/L	1.9088	ppb	17:05:22
2	B 249.677†	310.5	-36.9	-1.6105	µg/L	-1.6105	ppb	17:05:22
2	Ba 233.527†	-26.6	0.8	0.0202	µg/L	0.0202	ppb	17:05:22
2	Be 313.107†	-3607.4	17.5	0.0114	µg/L	0.0114	ppb	17:05:01
2	Cd 226.502†	-140.3	9.0	0.2482	µg/L	0.2482	ppb	17:05:22
2	Co 228.616†	-20.8	-10.9	-0.5380	µg/L	-0.5380	ppb	17:05:22
2	Cr 267.716†	-50.1	4.9	0.1067	µg/L	0.1067	ppb	17:05:22
2	Cu 324.752†	2459.5	-152.4	-1.0650	µg/L	-1.0650	ppb	17:05:01
2	Mn 257.610†	-250.9	6.1	0.0201	µg/L	0.0201	ppb	17:05:22
2	Mo 202.031†	-3.2	4.5	0.4823	µg/L	0.4823	ppb	17:05:22
2	Ni 231.604†	300.2	-17.4	-0.9488	µg/L	-0.9488	ppb	17:05:22
2	P 214.914†	25.9	-3.0	-6.3600	µg/L	-6.3600	ppb	17:05:22
2	Pb 220.353†	99.5	-2.8	-0.7298	µg/L	-0.7298	ppb	17:05:22

2	S 181.975 Axial†	20.2	4.3	19.053	µg/L	19.053 ppb	17:05:22
2	Sb 206.836†	24.6	-3.6	-3.5810	µg/L	-3.5810 ppb	17:05:22
2	Se 196.026†	10.7	-5.7	-8.7427	µg/L	-8.7427 ppb	17:05:22
2	SiO2†	1253.5	-60.7	-13.065	µg/L	-13.065 ppb	17:05:01
2	Si 251.611†	291.0	-36.8	-3.0237	µg/L	-3.0237 ppb	17:05:22
2	Sn 189.927†	-0.9	-0.0	-0.0009	µg/L	-0.0009 ppb	17:05:22
2	Ti 334.940†	142.1	18.7	0.0441	µg/L	0.0441 ppb	17:05:01
2	Tl 190.801†	-21.2	4.2	5.8568	µg/L	5.8568 ppb	17:05:22
2	U 409.014†	-66.1	-9.1	-0.8270	µg/L	-0.8270 ppb	17:05:01
2	V 292.402†	-52.0	-5.1	-0.0519	µg/L	-0.0519 ppb	17:05:01
2	Zn 213.857†	477.8	-22.2	-0.5493	µg/L	-0.5493 ppb	17:05:22
3	Sc RADIAL	56062.3	56062.3	103	%		17:03:53
3	Al 396.153Radial†	-13.3	-2.8	-2.1100	µg/L	-2.1100 ppb	17:03:53
3	Ca 317.933Radial†	193.5	9.2	8.6834	µg/L	8.6834 ppb	17:04:13
3	Fe 238.204 Radial†	13.9	-1.0	-8.5236	µg/L	-8.5236 ppb	17:04:13
3	K 766.490 Radial†	145.6	13.3	9.4734	µg/L	9.4734 ppb	17:03:53
3	Mg 279.077 IEC†	12.4	0.8	7.7063	µg/L	7.7063 ppb	17:04:13
3	Na 589.592 Radial†	762.5	200.4	65.960	µg/L	65.960 ppb	17:03:53
3	Sr 421.552†	41.6	1.0	0.0099	µg/L	0.0099 ppb	17:03:53
3	Sc 361.383	1996457.8	1996457.8	104.54	%		17:05:28
3	Y 371.029	1367454.7	1367454.7	104.39	%		17:05:28
3	Ag 328.068†	-552.2	36.3	0.2878	µg/L	0.2878 ppb	17:05:33
3	As 188.979†	-1.4	-2.4	-4.7806	µg/L	-4.7806 ppb	17:05:54
3	B 249.677†	316.6	-28.6	-1.2466	µg/L	-1.2466 ppb	17:05:54
3	Ba 233.527†	-26.5	0.6	0.0163	µg/L	0.0163 ppb	17:05:54
3	Be 313.107†	-3498.2	94.1	0.0615	µg/L	0.0615 ppb	17:05:33
3	Cd 226.502†	-139.5	8.7	0.2407	µg/L	0.2407 ppb	17:05:54
3	Co 228.616†	-2.0	6.9	0.3417	µg/L	0.3417 ppb	17:05:54
3	Cr 267.716†	-37.2	16.7	0.3684	µg/L	0.3684 ppb	17:05:54
3	Cu 324.752†	2465.1	-128.0	-0.8950	µg/L	-0.8950 ppb	17:05:33
3	Mn 257.610†	-235.5	18.8	0.0637	µg/L	0.0637 ppb	17:05:54
3	Mo 202.031†	0.7	8.2	0.8795	µg/L	0.8795 ppb	17:05:54
3	Ni 231.604†	298.8	-16.4	-0.8963	µg/L	-0.8963 ppb	17:05:54
3	P 214.914†	31.0	2.0	4.4888	µg/L	4.4888 ppb	17:05:54
3	Pb 220.353†	112.9	10.8	2.8917	µg/L	2.8917 ppb	17:05:54
3	S 181.975 Axial†	16.6	1.1	4.7192	µg/L	4.7192 ppb	17:05:54
3	Sb 206.836†	24.2	-3.9	-3.7807	µg/L	-3.7807 ppb	17:05:54
3	Se 196.026†	10.9	-5.4	-8.2970	µg/L	-8.2970 ppb	17:05:54
3	SiO2†	1240.9	-63.0	-13.561	µg/L	-13.561 ppb	17:05:33
3	Si 251.611†	299.0	-26.9	-2.2074	µg/L	-2.2074 ppb	17:05:54
3	Sn 189.927†	0.3	1.1	0.5288	µg/L	0.5288 ppb	17:05:54
3	Ti 334.940†	59.1	-59.6	-0.1438	µg/L	-0.1438 ppb	17:05:33
3	Tl 190.801†	-24.5	0.9	1.2389	µg/L	1.2389 ppb	17:05:54
3	U 409.014†	-14.3	40.0	3.6190	µg/L	3.6190 ppb	17:05:33
3	V 292.402†	-38.2	7.6	0.0916	µg/L	0.0916 ppb	17:05:33
3	Zn 213.857†	475.0	-21.1	-0.5227	µg/L	-0.5227 ppb	17:05:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012821.6	105.39	%	0.858				0.81%
Sc RADIAL	56304.4	103	%	0.4				0.39%
Y 371.029	1377998.2	105.20	%	0.821				0.78%
Ag 328.068†	19.7	0.1572	µg/L	0.11730	0.1572	ppb	0.11730	74.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.1	-0.8207	µg/L	14.45235	-0.8207	ppb	14.45235	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-2.0804	µg/L	3.52609	-2.0804	ppb	3.52609	169.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.5	-1.3329	µg/L	0.24603	-1.3329	ppb	0.24603	18.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0547	µg/L	0.06331	0.0547	ppb	0.06331	115.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.3	0.0426	µg/L	0.02720	0.0426	ppb	0.02720	63.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	9.0232	µg/L	2.68752	9.0232	ppb	2.68752	29.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.7	0.1549	µg/L	0.15521	0.1549	ppb	0.15521	100.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.5	-0.1230	µg/L	0.44196	-0.1230	ppb	0.44196	359.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.1      0.2228 µg/L       0.13336      0.2228 ppb        0.13336  59.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -138.9     -0.9698 µg/L       0.08678     -0.9698 ppb        0.08678   8.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      2.3437 µg/L      14.27846      2.3437 ppb       14.27846 609.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        38.9     27.645 µg/L       22.7308     27.645 ppb        22.7308  82.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1     19.874 µg/L       17.5054     19.874 ppb        17.5054  88.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.6      0.0396 µg/L       0.02217      0.0396 ppb        0.02217  55.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.0      0.5297 µg/L       0.32865      0.5297 ppb        0.32865  62.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      212.1     69.819 µg/L        4.7822     69.819 ppb         4.7822   6.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -16.7     -0.9128 µg/L       0.03120     -0.9128 ppb        0.03120   3.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.7      1.6710 µg/L       7.05748      1.6710 ppb        7.05748 422.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.1472 µg/L       2.42781      0.1472 ppb        2.42781 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.3     14.607 µg/L        8.5775     14.607 ppb         8.5775  58.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.1     -3.0247 µg/L       1.14085     -3.0247 ppb        1.14085  37.72%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9     -6.0037 µg/L       4.36372     -6.0037 ppb        4.36372  72.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -70.3    -15.131 µg/L        3.1599    -15.131 ppb         3.1599  20.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -35.6     -2.9252 µg/L       0.67407     -2.9252 ppb        0.67407  23.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.2671 µg/L       0.95712     -0.2671 ppb        0.95712 358.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -0.4     -0.0043 µg/L       0.06861     -0.0043 ppb        0.06861 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -4.5     -0.0122 µg/L       0.11438     -0.0122 ppb        0.11438 935.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      4.0021 µg/L       2.43930      4.0021 ppb        2.43930  60.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                5.9      0.5309 µg/L       2.68081      0.5309 ppb        2.68081 504.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               11.1      0.1233 µg/L       0.19295      0.1233 ppb        0.19295 156.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.0     -0.5458 µg/L       0.02154     -0.5458 ppb        0.02154   3.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 17:27:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59035.7	59035.7	108	%			17:28:20
1	Al 396.153Radial†	6783.5	6281.0	4671.2	µg/L	4671.2	ppb	17:28:41
1	Ca 317.933Radial†	5601.2	4998.8	4706.7	µg/L	4706.7	ppb	17:28:41
1	Fe 238.204 Radial†	616.0	555.0	4714.2	µg/L	4714.2	ppb	17:28:41
1	K 766.490 Radial†	7145.2	6476.8	4603.7	µg/L	4603.7	ppb	17:28:20
1	Mg 279.077 IEC†	569.6	515.2	4798.3	µg/L	4798.3	ppb	17:28:41
1	Na 589.592 Radial†	30872.0	27997.1	9216.7	µg/L	9216.7	ppb	17:28:20
1	Sr 421.552†	47604.8	43967.8	455.78	µg/L	455.78	ppb	17:28:20
1	Sc 361.383	2041194.6	2041194.6	106.88	%			17:29:44
1	Y 371.029	1394791.7	1394791.7	106.48	%			17:29:44
1	Ag 328.068†	63072.7	59578.4	476.23	µg/L	476.23	ppb	17:29:50
1	As 188.979†	267.6	249.3	486.27	µg/L	486.27	ppb	17:30:10
1	B 249.677†	11989.2	10886.2	474.07	µg/L	474.07	ppb	17:29:50
1	Ba 233.527†	19747.0	18502.3	482.64	µg/L	482.64	ppb	17:29:50
1	Be 313.107†	767703.3	721740.7	471.16	µg/L	471.16	ppb	17:29:44
1	Cd 226.502†	18704.8	17643.2	486.70	µg/L	486.70	ppb	17:29:50
1	Co 228.616†	10605.3	9931.7	488.25	µg/L	488.25	ppb	17:29:50
1	Cr 267.716†	23632.0	22163.6	487.82	µg/L	487.82	ppb	17:29:50
1	Cu 324.752†	76228.6	68837.1	481.50	µg/L	481.50	ppb	17:29:50
1	Mn 257.610†	148178.1	138886.7	481.38	µg/L	481.38	ppb	17:29:44
1	Mo 202.031†	4955.0	4643.6	495.75	µg/L	495.75	ppb	17:30:10
1	Ni 231.604†	9868.1	8930.9	487.78	µg/L	487.78	ppb	17:29:50
1	P 214.914†	1270.5	1161.1	2447.3	µg/L	2447.3	ppb	17:30:10
1	Pb 220.353†	2082.6	1851.4	494.18	µg/L	494.18	ppb	17:30:10
1	S 181.975 Axial†	249.9	219.0	959.68	µg/L	959.68	ppb	17:30:10
1	Sb 206.836†	563.4	500.2	494.49	µg/L	494.49	ppb	17:30:10
1	Se 196.026†	362.5	323.3	500.24	µg/L	500.24	ppb	17:30:10
1	SiO2†	26645.9	23681.2	5099.9	µg/L	5099.9	ppb	17:29:50
1	Si 251.611†	31439.9	29103.8	2392.5	µg/L	2392.5	ppb	17:29:50
1	Sn 189.927†	1158.8	1085.1	499.11	µg/L	499.11	ppb	17:30:10
1	Ti 334.940†	206788.8	193365.5	464.82	µg/L	464.82	ppb	17:29:44
1	Tl 190.801†	353.5	355.1	501.20	µg/L	501.20	ppb	17:30:10
1	U 409.014†	5796.1	5476.7	494.90	µg/L	494.90	ppb	17:29:50
1	V 292.402†	48354.5	45287.0	488.65	µg/L	488.65	ppb	17:29:50
1	Zn 213.857†	21383.2	19531.6	484.30	µg/L	484.30	ppb	17:29:50
2	Sc RADIAL	57479.6	57479.6	105	%			17:28:46
2	Al 396.153Radial†	6775.5	6443.2	4792.2	µg/L	4792.2	ppb	17:29:07
2	Ca 317.933Radial†	5568.2	5107.6	4809.2	µg/L	4809.2	ppb	17:29:07
2	Fe 238.204 Radial†	613.4	567.9	4823.2	µg/L	4823.2	ppb	17:29:07
2	K 766.490 Radial†	7368.3	6867.5	4881.4	µg/L	4881.4	ppb	17:28:46
2	Mg 279.077 IEC†	569.1	529.1	4927.1	µg/L	4927.1	ppb	17:29:07
2	Na 589.592 Radial†	31686.3	29543.0	9725.6	µg/L	9725.6	ppb	17:28:46
2	Sr 421.552†	49060.1	46540.9	482.45	µg/L	482.45	ppb	17:28:46
2	Sc 361.383	2046028.0	2046028.0	107.13	%			17:30:18
2	Y 371.029	1397859.6	1397859.6	106.71	%			17:30:18
2	Ag 328.068†	62181.8	58607.4	468.48	µg/L	468.48	ppb	17:30:23
2	As 188.979†	270.5	251.3	490.33	µg/L	490.33	ppb	17:30:44
2	B 249.677†	11883.0	10760.6	468.51	µg/L	468.51	ppb	17:30:23
2	Ba 233.527†	19447.6	18179.1	474.21	µg/L	474.21	ppb	17:30:23
2	Be 313.107†	766991.4	719379.3	469.62	µg/L	469.62	ppb	17:30:18
2	Cd 226.502†	18417.3	17333.6	478.14	µg/L	478.14	ppb	17:30:23
2	Co 228.616†	10411.2	9727.0	478.18	µg/L	478.18	ppb	17:30:23
2	Cr 267.716†	23232.1	21738.1	478.45	µg/L	478.45	ppb	17:30:23
2	Cu 324.752†	75095.1	67610.5	472.94	µg/L	472.94	ppb	17:30:23
2	Mn 257.610†	147694.9	138108.1	478.69	µg/L	478.69	ppb	17:30:18
2	Mo 202.031†	4924.2	4604.0	491.52	µg/L	491.52	ppb	17:30:44
2	Ni 231.604†	9689.5	8742.4	477.48	µg/L	477.48	ppb	17:30:23
2	P 214.914†	1255.9	1144.7	2412.6	µg/L	2412.6	ppb	17:30:44
2	Pb 220.353†	2059.1	1824.8	487.10	µg/L	487.10	ppb	17:30:44

2	S 181.975 Axial†	252.0	220.4	965.86 µg/L	965.86 ppb	17:30:44
2	Sb 206.836†	552.5	488.7	483.25 µg/L	483.25 ppb	17:30:44
2	Se 196.026†	360.1	320.3	495.71 µg/L	495.71 ppb	17:30:44
2	SiO2†	26270.0	23271.4	5011.6 µg/L	5011.6 ppb	17:30:23
2	Si 251.611†	31001.1	28624.7	2353.1 µg/L	2353.1 ppb	17:30:23
2	Sn 189.927†	1147.6	1072.1	493.14 µg/L	493.14 ppb	17:30:44
2	Ti 334.940†	206329.6	192479.8	462.68 µg/L	462.68 ppb	17:30:18
2	Tl 190.801†	343.3	344.8	486.80 µg/L	486.80 ppb	17:30:44
2	U 409.014†	5690.4	5365.3	484.79 µg/L	484.79 ppb	17:30:23
2	V 292.402†	47623.9	44498.2	480.19 µg/L	480.19 ppb	17:30:23
2	Zn 213.857†	21043.3	19167.1	475.24 µg/L	475.24 ppb	17:30:23
3	Sc RADIAL	58545.2	58545.2	107 %		17:29:12
3	Al 396.153Radial†	6838.5	6384.8	4750.3 µg/L	4750.3 ppb	17:29:33
3	Ca 317.933Radial†	5643.2	5081.3	4784.4 µg/L	4784.4 ppb	17:29:33
3	Fe 238.204 Radial†	621.5	564.8	4796.6 µg/L	4796.6 ppb	17:29:33
3	K 766.490 Radial†	7265.1	6643.9	4722.5 µg/L	4722.5 ppb	17:29:12
3	Mg 279.077 IEC†	574.9	524.6	4884.3 µg/L	4884.3 ppb	17:29:33
3	Na 589.592 Radial†	31113.3	28461.2	9369.5 µg/L	9369.5 ppb	17:29:12
3	Sr 421.552†	48089.7	44788.5	464.29 µg/L	464.29 ppb	17:29:12
3	Sc 361.383	2017377.3	2017377.3	105.63 %		17:30:51
3	Y 371.029	1378304.1	1378304.1	105.22 %		17:30:51
3	Ag 328.068†	59471.1	56865.5	454.46 µg/L	454.46 ppb	17:30:57
3	As 188.979†	229.9	216.5	422.47 µg/L	422.47 ppb	17:31:17
3	B 249.677†	11339.4	10403.4	452.85 µg/L	452.85 ppb	17:30:57
3	Ba 233.527†	18247.7	17301.0	451.29 µg/L	451.29 ppb	17:30:57
3	Be 313.107†	738207.7	702297.7	458.47 µg/L	458.47 ppb	17:30:51
3	Cd 226.502†	17185.8	16411.8	452.68 µg/L	452.68 ppb	17:30:57
3	Co 228.616†	9649.4	9143.9	449.43 µg/L	449.43 ppb	17:30:57
3	Cr 267.716†	20989.9	19923.4	438.52 µg/L	438.52 ppb	17:30:57
3	Cu 324.752†	69862.4	63652.3	445.29 µg/L	445.29 ppb	17:30:57
3	Mn 257.610†	142669.2	135308.3	469.00 µg/L	469.00 ppb	17:30:51
3	Mo 202.031†	4082.7	3872.6	413.47 µg/L	413.47 ppb	17:31:17
3	Ni 231.604†	8980.8	8199.9	447.86 µg/L	447.86 ppb	17:30:57
3	P 214.914†	1067.7	983.2	2067.7 µg/L	2067.7 ppb	17:31:17
3	Pb 220.353†	1798.7	1605.6	428.46 µg/L	428.46 ppb	17:31:17
3	S 181.975 Axial†	223.6	196.9	862.47 µg/L	862.47 ppb	17:31:17
3	Sb 206.836†	480.2	427.6	422.29 µg/L	422.29 ppb	17:31:17
3	Se 196.026†	311.3	278.8	432.49 µg/L	432.49 ppb	17:31:17
3	SiO2†	24862.0	22286.7	4799.6 µg/L	4799.6 ppb	17:30:57
3	Si 251.611†	29262.2	27389.5	2251.6 µg/L	2251.6 ppb	17:30:57
3	Sn 189.927†	942.0	892.7	410.61 µg/L	410.61 ppb	17:31:17
3	Ti 334.940†	197920.3	187254.0	450.12 µg/L	450.12 ppb	17:30:51
3	Tl 190.801†	315.4	322.9	456.18 µg/L	456.18 ppb	17:31:17
3	U 409.014†	5127.6	4907.9	443.39 µg/L	443.39 ppb	17:30:57
3	V 292.402†	43917.4	41620.5	448.79 µg/L	448.79 ppb	17:30:57
3	Zn 213.857†	19595.2	18075.2	448.15 µg/L	448.15 ppb	17:30:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2034866.6	106.55	%	0.803				0.75%
Sc RADIAL	58353.5	107	%	1.5				1.36%
Y 371.029	1390318.5	106.14	%	0.803				0.76%
Ag 328.068†	58350.4	466.39	µg/L	11.039	466.39	ppb	11.039	2.37%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	6369.7	4737.9	µg/L	61.46	4737.9	ppb	61.46	1.30%
QC value within limits for Al 396.153Radial Recovery = 94.76%								
As 188.979†	239.1	466.36	µg/L	38.059	466.36	ppb	38.059	8.16%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	10683.4	465.15	µg/L	11.003	465.15	ppb	11.003	2.37%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	17994.1	469.38	µg/L	16.223	469.38	ppb	16.223	3.46%
QC value within limits for Ba 233.527 Recovery = 93.88%								
Be 313.107†	714472.6	466.42	µg/L	6.926	466.42	ppb	6.926	1.48%
QC value within limits for Be 313.107 Recovery = 93.28%								
Ca 317.933Radial†	5062.6	4766.7	µg/L	53.48	4766.7	ppb	53.48	1.12%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17129.5	472.51	µg/L	17.696	472.51	ppb	17.696	3.75%
QC value within limits for Cd 226.502 Recovery = 94.50%								
Co 228.616†	9600.9	471.95	µg/L	20.142	471.95	ppb	20.142	4.27%

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   QC value within limits for Co 228.616  Recovery = 94.39%
Cr 267.716†            21275.0      468.26 µg/L        26.182      468.26 ppb         26.182   5.59%
   QC value within limits for Cr 267.716  Recovery = 93.65%
Cu 324.752†            66699.9      466.58 µg/L        18.924      466.58 ppb         18.924   4.06%
   QC value within limits for Cu 324.752  Recovery = 93.32%
Fe 238.204 Radial†       562.6      4778.0 µg/L         56.85      4778.0 ppb          56.85   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.56%
K 766.490 Radial†       6662.7      4735.8 µg/L        139.33      4735.8 ppb         139.33   2.94%
   QC value within limits for K 766.490 Radial  Recovery = 94.72%
Mg 279.077 IEC†          523.0      4869.9 µg/L         65.60      4869.9 ppb          65.60   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†           137434.4      476.36 µg/L         6.514      476.36 ppb          6.514   1.37%
   QC value within limits for Mn 257.610  Recovery = 95.27%
Mo 202.031†             4373.4      466.91 µg/L        46.335      466.91 ppb         46.335   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.38%
Na 589.592 Radial†     28667.1      9437.3 µg/L        261.13      9437.3 ppb         261.13   2.77%
   QC value within limits for Na 589.592 Radial  Recovery = 94.37%
Ni 231.604†             8624.4      471.04 µg/L        20.725      471.04 ppb         20.725   4.40%
   QC value within limits for Ni 231.604  Recovery = 94.21%
P 214.914†              1096.3      2309.2 µg/L        209.89      2309.2 ppb         209.89   9.09%
   QC value within limits for P 214.914  Recovery = 92.37%
Pb 220.353†             1760.6      469.91 µg/L        36.070      469.91 ppb         36.070   7.68%
   QC value within limits for Pb 220.353  Recovery = 93.98%
S 181.975 Axial†         212.1      929.34 µg/L        57.991      929.34 ppb         57.991   6.24%
   QC value within limits for S 181.975 Axial  Recovery = 92.93%
Sb 206.836†              472.2      466.68 µg/L        38.846      466.68 ppb         38.846   8.32%
   QC value within limits for Sb 206.836  Recovery = 93.34%
Se 196.026†              307.5      476.15 µg/L        37.872      476.15 ppb         37.872   7.95%
   QC value within limits for Se 196.026  Recovery = 95.23%
SiO2†                  23079.8      4970.4 µg/L        154.36      4970.4 ppb         154.36   3.11%
   QC value within limits for SiO2  Recovery = 92.95%
Si 251.611†            28372.7      2332.4 µg/L         72.71      2332.4 ppb          72.71   3.12%
   QC value within limits for Si 251.611  Recovery = 93.30%
Sn 189.927†             1016.6      467.62 µg/L        49.463      467.62 ppb         49.463  10.58%
   QC value within limits for Sn 189.927  Recovery = 93.52%
Sr 421.552†            45099.0      467.50 µg/L        13.625      467.50 ppb         13.625   2.91%
   QC value within limits for Sr 421.552  Recovery = 93.50%
Ti 334.940†           191033.1      459.21 µg/L         7.946      459.21 ppb          7.946   1.73%
   QC value within limits for Ti 334.940  Recovery = 91.84%
Tl 190.801†              340.9      481.40 µg/L        22.992      481.40 ppb         22.992   4.78%
   QC value within limits for Tl 190.801  Recovery = 96.28%
U 409.014†              5250.0      474.36 µg/L        27.295      474.36 ppb         27.295   5.75%
   QC value within limits for U 409.014  Recovery = 94.87%
V 292.402†             43801.9      472.54 µg/L        21.006      472.54 ppb         21.006   4.45%
   QC value within limits for V 292.402  Recovery = 94.51%
Zn 213.857†            18924.6      469.23 µg/L        18.806      469.23 ppb         18.806   4.01%
   QC value within limits for Zn 213.857  Recovery = 93.85%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:31:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57249.4	57249.4	105	%			17:32:01
1	Al 396.153Radial†	-19.1	-8.1	-6.0314	µg/L	-6.0314	ppb	17:32:01
1	Ca 317.933Radial†	186.6	-1.3	-1.1941	µg/L	-1.1941	ppb	17:32:21
1	Fe 238.204 Radial†	16.2	0.9	8.0275	µg/L	8.0275	ppb	17:32:21
1	K 766.490 Radial†	205.8	67.8	48.166	µg/L	48.166	ppb	17:32:01
1	Mg 279.077 IEC†	11.8	-0.0	-0.3578	µg/L	-0.3578	ppb	17:32:21
1	Na 589.592 Radial†	713.1	137.9	45.390	µg/L	45.390	ppb	17:32:01
1	Sr 421.552†	47.1	5.3	0.0553	µg/L	0.0553	ppb	17:32:01
1	Sc 361.383	2021263.0	2021263.0	105.83	%			17:33:23
1	Y 371.029	1385458.4	1385458.4	105.77	%			17:33:23
1	Ag 328.068†	-548.3	46.5	0.3696	µg/L	0.3696	ppb	17:33:29
1	As 188.979†	-3.1	-4.1	-8.0437	µg/L	-8.0437	ppb	17:33:50
1	B 249.677†	328.8	-20.8	-0.9109	µg/L	-0.9109	ppb	17:33:50
1	Ba 233.527†	-23.9	3.4	0.0895	µg/L	0.0895	ppb	17:33:50
1	Be 313.107†	-3534.2	101.1	0.0660	µg/L	0.0660	ppb	17:33:29
1	Cd 226.502†	-135.6	14.0	0.3833	µg/L	0.3833	ppb	17:33:50
1	Co 228.616†	-7.8	1.5	0.0715	µg/L	0.0715	ppb	17:33:50
1	Cr 267.716†	-39.7	14.9	0.3275	µg/L	0.3275	ppb	17:33:29
1	Cu 324.752†	2441.6	-179.0	-1.2495	µg/L	-1.2495	ppb	17:33:29
1	Mn 257.610†	-227.7	28.9	0.1013	µg/L	0.1013	ppb	17:33:50
1	Mo 202.031†	-11.3	-3.1	-0.3352	µg/L	-0.3352	ppb	17:33:50
1	Ni 231.604†	297.1	-21.4	-1.1721	µg/L	-1.1721	ppb	17:33:50
1	P 214.914†	29.1	-0.1	-0.1206	µg/L	-0.1206	ppb	17:33:50
1	Pb 220.353†	93.1	-9.2	-2.4716	µg/L	-2.4716	ppb	17:33:50
1	S 181.975 Axial†	17.0	1.2	5.2600	µg/L	5.2600	ppb	17:33:50
1	Sb 206.836†	21.2	-7.0	-6.8579	µg/L	-6.8579	ppb	17:33:50
1	Se 196.026†	17.1	0.4	0.5587	µg/L	0.5587	ppb	17:33:50
1	SiO2†	1257.7	-61.7	-13.286	µg/L	-13.286	ppb	17:33:29
1	Si 251.611†	315.2	-15.0	-1.2350	µg/L	-1.2350	ppb	17:33:50
1	Sn 189.927†	-0.7	0.2	0.0875	µg/L	0.0875	ppb	17:33:50
1	Ti 334.940†	99.4	-22.2	-0.0533	µg/L	-0.0533	ppb	17:33:29
1	Tl 190.801†	-25.0	0.6	0.8769	µg/L	0.8769	ppb	17:33:50
1	U 409.014†	-2.8	50.9	4.6107	µg/L	4.6107	ppb	17:33:29
1	V 292.402†	-42.3	4.3	0.0496	µg/L	0.0496	ppb	17:33:29
1	Zn 213.857†	478.9	-23.0	-0.5682	µg/L	-0.5682	ppb	17:33:50
2	Sc RADIAL	57058.0	57058.0	105	%			17:32:27
2	Al 396.153Radial†	-2.2	8.1	5.9887	µg/L	5.9887	ppb	17:32:27
2	Ca 317.933Radial†	185.4	-1.8	-1.6973	µg/L	-1.6973	ppb	17:32:47
2	Fe 238.204 Radial†	16.9	1.6	13.808	µg/L	13.808	ppb	17:32:47
2	K 766.490 Radial†	159.2	23.8	16.947	µg/L	16.947	ppb	17:32:27
2	Mg 279.077 IEC†	16.4	4.4	41.355	µg/L	41.355	ppb	17:32:47
2	Na 589.592 Radial†	724.2	150.8	49.634	µg/L	49.634	ppb	17:32:27
2	Sr 421.552†	-4.4	-43.8	-0.4540	µg/L	-0.4540	ppb	17:32:27
2	Sc 361.383	2001081.9	2001081.9	104.78	%			17:33:56
2	Y 371.029	1372125.9	1372125.9	104.75	%			17:33:56
2	Ag 328.068†	-553.2	36.5	0.2946	µg/L	0.2946	ppb	17:34:01
2	As 188.979†	-0.6	-1.7	-3.3761	µg/L	-3.3761	ppb	17:34:22
2	B 249.677†	320.5	-25.5	-1.1231	µg/L	-1.1231	ppb	17:34:22
2	Ba 233.527†	-11.0	15.5	0.4048	µg/L	0.4048	ppb	17:34:22
2	Be 313.107†	-3526.3	74.9	0.0489	µg/L	0.0489	ppb	17:34:01
2	Cd 226.502†	-133.8	14.4	0.3950	µg/L	0.3950	ppb	17:34:22
2	Co 228.616†	-11.0	-1.6	-0.0801	µg/L	-0.0801	ppb	17:34:22
2	Cr 267.716†	-44.3	10.1	0.2231	µg/L	0.2231	ppb	17:34:01
2	Cu 324.752†	2455.1	-143.0	-0.9967	µg/L	-0.9967	ppb	17:34:01
2	Mn 257.610†	-230.3	24.3	0.0842	µg/L	0.0842	ppb	17:34:22
2	Mo 202.031†	-2.3	5.3	0.5710	µg/L	0.5710	ppb	17:34:22
2	Ni 231.604†	304.4	-11.7	-0.6402	µg/L	-0.6402	ppb	17:34:22
2	P 214.914†	29.3	0.4	0.8548	µg/L	0.8548	ppb	17:34:22
2	Pb 220.353†	101.4	-0.5	-0.1165	µg/L	-0.1165	ppb	17:34:22

2	S 181.975 Axial†	19.4	3.7	16.024 µg/L	16.024 ppb	17:34:22
2	Sb 206.836†	27.6	-0.6	-0.5726 µg/L	-0.5726 ppb	17:34:22
2	Se 196.026†	16.9	0.3	0.5139 µg/L	0.5139 ppb	17:34:22
2	SiO2†	1231.1	-75.1	-16.163 µg/L	-16.163 ppb	17:34:01
2	Si 251.611†	308.3	-18.6	-1.5330 µg/L	-1.5330 ppb	17:34:22
2	Sn 189.927†	-2.5	-1.5	-0.6783 µg/L	-0.6783 ppb	17:34:22
2	Ti 334.940†	155.7	32.5	0.0749 µg/L	0.0749 ppb	17:34:01
2	Tl 190.801†	-24.6	0.8	1.0677 µg/L	1.0677 ppb	17:34:22
2	U 409.014†	-70.7	-13.8	-1.2553 µg/L	-1.2553 ppb	17:34:01
2	V 292.402†	13.1	56.7	0.6099 µg/L	0.6099 ppb	17:34:01
2	Zn 213.857†	482.3	-15.3	-0.3800 µg/L	-0.3800 ppb	17:34:22
3	Sc RADIAL	57391.7	57391.7	105 %		17:32:53
3	Al 396.153Radial†	-24.1	-12.7	-9.5161 µg/L	-9.5161 ppb	17:32:53
3	Ca 317.933Radial†	189.2	0.7	0.6854 µg/L	0.6854 ppb	17:33:13
3	Fe 238.204 Radial†	14.2	-1.0	-8.3318 µg/L	-8.3318 ppb	17:33:13
3	K 766.490 Radial†	170.0	33.2	23.601 µg/L	23.601 ppb	17:32:53
3	Mg 279.077 IEC†	13.6	1.6	15.113 µg/L	15.113 ppb	17:33:13
3	Na 589.592 Radial†	706.7	130.1	42.833 µg/L	42.833 ppb	17:32:53
3	Sr 421.552†	21.4	-19.2	-0.1993 µg/L	-0.1993 ppb	17:32:53
3	Sc 361.383	2035877.5	2035877.5	106.60 %		17:34:28
3	Y 371.029	1396783.1	1396783.1	106.63 %		17:34:28
3	Ag 328.068†	-558.0	41.1	0.3273 µg/L	0.3273 ppb	17:34:33
3	As 188.979†	-5.7	-6.5	-12.714 µg/L	-12.714 ppb	17:34:54
3	B 249.677†	310.2	-40.5	-1.7628 µg/L	-1.7628 ppb	17:34:54
3	Ba 233.527†	-23.8	3.7	0.0975 µg/L	0.0975 ppb	17:34:54
3	Be 313.107†	-3295.5	348.9	0.2278 µg/L	0.2278 ppb	17:34:33
3	Cd 226.502†	-134.4	16.1	0.4439 µg/L	0.4439 ppb	17:34:54
3	Co 228.616†	-16.8	-6.9	-0.3385 µg/L	-0.3385 ppb	17:34:54
3	Cr 267.716†	-31.9	22.4	0.4933 µg/L	0.4933 ppb	17:34:33
3	Cu 324.752†	2431.1	-205.5	-1.4364 µg/L	-1.4364 ppb	17:34:33
3	Mn 257.610†	-224.1	33.9	0.1156 µg/L	0.1156 ppb	17:34:54
3	Mo 202.031†	2.2	9.6	1.0266 µg/L	1.0266 ppb	17:34:54
3	Ni 231.604†	311.7	-9.8	-0.5337 µg/L	-0.5337 ppb	17:34:54
3	P 214.914†	26.4	-2.8	-5.9346 µg/L	-5.9346 ppb	17:34:54
3	Pb 220.353†	98.3	-5.0	-1.3370 µg/L	-1.3370 ppb	17:34:54
3	S 181.975 Axial†	14.7	-1.0	-4.4979 µg/L	-4.4979 ppb	17:34:54
3	Sb 206.836†	25.7	-2.9	-2.8125 µg/L	-2.8125 ppb	17:34:54
3	Se 196.026†	12.1	-4.5	-6.8217 µg/L	-6.8217 ppb	17:34:54
3	SiO2†	1207.8	-117.0	-25.202 µg/L	-25.202 ppb	17:34:33
3	Si 251.611†	320.7	-12.0	-0.9854 µg/L	-0.9854 ppb	17:34:54
3	Sn 189.927†	3.6	4.2	1.9540 µg/L	1.9540 ppb	17:34:54
3	Ti 334.940†	152.2	26.6	0.0629 µg/L	0.0629 ppb	17:34:33
3	Tl 190.801†	-31.1	-4.8	-6.7573 µg/L	-6.7573 ppb	17:34:54
3	U 409.014†	18.4	70.9	6.4223 µg/L	6.4223 ppb	17:34:33
3	V 292.402†	-21.9	23.7	0.2672 µg/L	0.2672 ppb	17:34:33
3	Zn 213.857†	481.8	-23.6	-0.5847 µg/L	-0.5847 ppb	17:34:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019407.5	105.74	%	0.915				0.87%
Sc RADIAL	57233.0	105	%	0.3				0.29%
Y 371.029	1384789.1	105.72	%	0.942				0.89%
Ag 328.068†	41.4	0.3305	µg/L	0.03757	0.3305	ppb	0.03757	11.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-3.1863	µg/L	8.13450	-3.1863	ppb	8.13450	255.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-8.0447	µg/L	4.66908	-8.0447	ppb	4.66908	58.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-28.9	-1.2656	µg/L	0.44348	-1.2656	ppb	0.44348	35.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1973	µg/L	0.17977	0.1973	ppb	0.17977	91.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	175.0	0.1143	µg/L	0.09874	0.1143	ppb	0.09874	86.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.8	-0.7353	µg/L	1.25585	-0.7353	ppb	1.25585	170.79%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.8	0.4074	µg/L	0.03216	0.4074	ppb	0.03216	7.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.4	-0.1157	µg/L	0.20732	-0.1157	ppb	0.20732	179.23%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.8      0.3480 µg/L       0.13629      0.3480 ppb        0.13629  39.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -175.8     -1.2276 µg/L       0.22068     -1.2276 ppb        0.22068  17.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      4.5012 µg/L      11.48343      4.5012 ppb       11.48343 255.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          41.6      29.571 µg/L       16.4438      29.571 ppb        16.4438  55.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.0      18.703 µg/L       21.0870      18.703 ppb        21.0870 112.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                29.0      0.1004 µg/L       0.01570      0.1004 ppb        0.01570  15.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.9      0.4208 µg/L       0.69318      0.4208 ppb        0.69318 164.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        139.6      45.952 µg/L        3.4354      45.952 ppb         3.4354   7.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.3     -0.7820 µg/L       0.34199     -0.7820 ppb        0.34199  43.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.9     -1.7335 µg/L       3.67082     -1.7335 ppb        3.67082 211.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.9     -1.3084 µg/L       1.17784     -1.3084 ppb        1.17784  90.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      5.5955 µg/L      10.26528      5.5955 ppb       10.26528 183.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.5     -3.4143 µg/L       3.18555     -3.4143 ppb        3.18555  93.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -1.9164 µg/L       4.24816     -1.9164 ppb        4.24816 221.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -84.6     -18.217 µg/L        6.2180     -18.217 ppb         6.2180  34.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -15.2     -1.2511 µg/L       0.27411     -1.2511 ppb        0.27411  21.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.0      0.4544 µg/L       1.35398      0.4544 ppb        1.35398 297.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -19.2     -0.1993 µg/L       0.25463     -0.1993 ppb        0.25463 127.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.3      0.0282 µg/L       0.07081      0.0282 ppb        0.07081 251.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.6042 µg/L       4.46370     -1.6042 ppb        4.46370 278.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 36.0      3.2592 µg/L       4.01326      3.2592 ppb        4.01326 123.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.2      0.3089 µg/L       0.28245      0.3089 ppb        0.28245  91.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.6     -0.5110 µg/L       0.11370     -0.5110 ppb        0.11370  22.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:03:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57726.1	57726.1	106	%			18:04:22
1	Al 396.153Radial†	6766.7	6407.4	4765.2	µg/L	4765.2	ppb	18:04:22
1	Ca 317.933Radial†	5597.5	5112.8	4814.0	µg/L	4814.0	ppb	18:04:43
1	Fe 238.204 Radial†	618.0	569.7	4839.6	µg/L	4839.6	ppb	18:04:43
1	K 766.490 Radial†	7228.2	6705.1	4766.0	µg/L	4766.0	ppb	18:04:22
1	Mg 279.077 IEC†	567.3	525.0	4889.6	µg/L	4889.6	ppb	18:04:43
1	Na 589.592 Radial†	31079.1	28840.4	9494.4	µg/L	9494.4	ppb	18:04:22
1	Sr 421.552†	47930.5	45274.1	469.32	µg/L	469.32	ppb	18:04:22
1	Sc 361.383	1995865.2	1995865.2	104.50	%			18:05:46
1	Y 371.029	1362757.5	1362757.5	104.03	%			18:05:46
1	Ag 328.068†	63483.9	61312.1	490.10	µg/L	490.10	ppb	18:05:52
1	As 188.979†	273.1	260.2	507.53	µg/L	507.53	ppb	18:06:12
1	B 249.677†	12082.3	11230.0	489.06	µg/L	489.06	ppb	18:05:52
1	Ba 233.527†	19988.9	19153.3	499.62	µg/L	499.62	ppb	18:05:52
1	Be 313.107†	781981.3	751717.1	490.73	µg/L	490.73	ppb	18:05:46
1	Cd 226.502†	18909.7	18236.8	503.08	µg/L	503.08	ppb	18:05:52
1	Co 228.616†	10693.9	10241.8	503.48	µg/L	503.48	ppb	18:05:52
1	Cr 267.716†	23838.7	22863.6	503.22	µg/L	503.22	ppb	18:05:52
1	Cu 324.752†	76544.4	70759.2	494.94	µg/L	494.94	ppb	18:05:52
1	Mn 257.610†	150825.0	144568.3	501.07	µg/L	501.07	ppb	18:05:46
1	Mo 202.031†	4977.2	4770.3	509.27	µg/L	509.27	ppb	18:06:12
1	Ni 231.604†	9935.5	9205.0	502.75	µg/L	502.75	ppb	18:05:52
1	P 214.914†	1265.8	1183.6	2494.1	µg/L	2494.1	ppb	18:06:12
1	Pb 220.353†	2092.9	1905.5	508.60	µg/L	508.60	ppb	18:06:12
1	S 181.975 Axial†	254.0	228.2	999.80	µg/L	999.80	ppb	18:06:12
1	Sb 206.836†	555.5	504.6	498.91	µg/L	498.91	ppb	18:06:12
1	Se 196.026†	366.1	334.5	517.42	µg/L	517.42	ppb	18:06:12
1	SiO2†	26867.3	24459.3	5267.4	µg/L	5267.4	ppb	18:05:52
1	Si 251.611†	31625.0	29949.0	2462.0	µg/L	2462.0	ppb	18:05:52
1	Sn 189.927†	1151.3	1102.5	507.11	µg/L	507.11	ppb	18:06:12
1	Ti 334.940†	210462.3	201274.9	483.84	µg/L	483.84	ppb	18:05:46
1	Tl 190.801†	351.8	360.9	509.62	µg/L	509.62	ppb	18:06:12
1	U 409.014†	5780.2	5584.7	504.65	µg/L	504.65	ppb	18:05:52
1	V 292.402†	48773.6	46715.6	504.04	µg/L	504.04	ppb	18:05:52
1	Zn 213.857†	21610.6	20203.6	500.98	µg/L	500.98	ppb	18:05:52
2	Sc RADIAL	58137.3	58137.3	107	%			18:04:48
2	Al 396.153Radial†	6794.0	6387.8	4750.7	µg/L	4750.7	ppb	18:04:48
2	Ca 317.933Radial†	5592.3	5070.5	4774.2	µg/L	4774.2	ppb	18:05:09
2	Fe 238.204 Radial†	618.1	565.7	4805.7	µg/L	4805.7	ppb	18:05:09
2	K 766.490 Radial†	7287.3	6712.3	4771.1	µg/L	4771.1	ppb	18:04:48
2	Mg 279.077 IEC†	568.2	522.1	4862.2	µg/L	4862.2	ppb	18:05:09
2	Na 589.592 Radial†	31238.6	28782.3	9475.2	µg/L	9475.2	ppb	18:04:48
2	Sr 421.552†	48291.3	45292.3	469.51	µg/L	469.51	ppb	18:04:48
2	Sc 361.383	2007163.9	2007163.9	105.10	%			18:06:19
2	Y 371.029	1370434.0	1370434.0	104.62	%			18:06:19
2	Ag 328.068†	63627.6	61107.0	488.46	µg/L	488.46	ppb	18:06:25
2	As 188.979†	273.7	259.2	505.75	µg/L	505.75	ppb	18:06:46
2	B 249.677†	12114.9	11196.0	487.59	µg/L	487.59	ppb	18:06:25
2	Ba 233.527†	19979.9	19037.1	496.59	µg/L	496.59	ppb	18:06:25
2	Be 313.107†	784264.0	749676.9	489.40	µg/L	489.40	ppb	18:06:19
2	Cd 226.502†	18871.7	18098.7	499.27	µg/L	499.27	ppb	18:06:25
2	Co 228.616†	10694.5	10184.8	500.67	µg/L	500.67	ppb	18:06:25
2	Cr 267.716†	23892.4	22786.3	501.52	µg/L	501.52	ppb	18:06:25
2	Cu 324.752†	76884.7	70670.6	494.32	µg/L	494.32	ppb	18:06:25
2	Mn 257.610†	151108.1	144025.3	499.18	µg/L	499.18	ppb	18:06:19
2	Mo 202.031†	4921.9	4690.8	500.79	µg/L	500.79	ppb	18:06:46
2	Ni 231.604†	9959.3	9174.2	501.07	µg/L	501.07	ppb	18:06:25
2	P 214.914†	1267.5	1178.4	2483.0	µg/L	2483.0	ppb	18:06:46
2	Pb 220.353†	2074.4	1876.6	500.89	µg/L	500.89	ppb	18:06:46

2	S 181.975 Axial†	247.1	220.3	965.20 µg/L	965.20 ppb	18:06:46
2	Sb 206.836†	553.1	499.3	493.56 µg/L	493.56 ppb	18:06:46
2	Se 196.026†	362.2	328.8	508.76 µg/L	508.76 ppb	18:06:46
2	SiO2†	26954.0	24397.1	5254.0 µg/L	5254.0 ppb	18:06:25
2	Si 251.611†	31693.0	29843.4	2453.3 µg/L	2453.3 ppb	18:06:25
2	Sn 189.927†	1148.2	1093.4	502.92 µg/L	502.92 ppb	18:06:46
2	Ti 334.940†	211069.7	200719.2	482.51 µg/L	482.51 ppb	18:06:19
2	Tl 190.801†	350.2	357.5	504.86 µg/L	504.86 ppb	18:06:46
2	U 409.014†	5713.5	5490.1	496.10 µg/L	496.10 ppb	18:06:25
2	V 292.402†	48839.6	46515.7	501.83 µg/L	501.83 ppb	18:06:25
2	Zn 213.857†	21586.8	20064.5	497.52 µg/L	497.52 ppb	18:06:25
3	Sc RADIAL	57420.7	57420.7	105 %		18:05:14
3	Al 396.153Radial†	6887.1	6555.8	4877.6 µg/L	4877.6 ppb	18:05:14
3	Ca 317.933Radial†	5594.0	5137.6	4837.4 µg/L	4837.4 ppb	18:05:34
3	Fe 238.204 Radial†	619.5	574.3	4877.2 µg/L	4877.2 ppb	18:05:34
3	K 766.490 Radial†	7272.3	6783.4	4821.6 µg/L	4821.6 ppb	18:05:14
3	Mg 279.077 IEC†	569.6	530.1	4935.2 µg/L	4935.2 ppb	18:05:34
3	Na 589.592 Radial†	31447.7	29346.9	9661.1 µg/L	9661.1 ppb	18:05:14
3	Sr 421.552†	48895.8	46432.5	481.33 µg/L	481.33 ppb	18:05:14
3	Sc 361.383	2010251.9	2010251.9	105.26 %		18:06:53
3	Y 371.029	1371909.0	1371909.0	104.73 %		18:06:53
3	Ag 328.068†	59865.9	57440.1	459.05 µg/L	459.05 ppb	18:06:58
3	As 188.979†	229.2	216.7	422.67 µg/L	422.67 ppb	18:07:19
3	B 249.677†	11370.0	10470.6	455.76 µg/L	455.76 ppb	18:06:58
3	Ba 233.527†	18395.6	17502.7	456.55 µg/L	456.55 ppb	18:06:58
3	Be 313.107†	741644.3	708039.7	462.22 µg/L	462.22 ppb	18:06:53
3	Cd 226.502†	17275.3	16554.5	456.62 µg/L	456.62 ppb	18:06:58
3	Co 228.616†	9741.1	9263.3	455.31 µg/L	455.31 ppb	18:06:58
3	Cr 267.716†	21256.7	20247.3	445.64 µg/L	445.64 ppb	18:06:58
3	Cu 324.752†	70381.9	64380.2	450.39 µg/L	450.39 ppb	18:06:58
3	Mn 257.610†	143060.5	136158.7	471.95 µg/L	471.95 ppb	18:06:53
3	Mo 202.031†	4127.0	3928.4	419.43 µg/L	419.43 ppb	18:07:19
3	Ni 231.604†	9089.8	8333.5	455.16 µg/L	455.16 ppb	18:06:58
3	P 214.914†	1084.0	1002.2	2108.1 µg/L	2108.1 ppb	18:07:19
3	Pb 220.353†	1818.2	1630.2	435.03 µg/L	435.03 ppb	18:07:19
3	S 181.975 Axial†	224.4	198.4	869.26 µg/L	869.26 ppb	18:07:19
3	Sb 206.836†	480.4	429.5	424.14 µg/L	424.14 ppb	18:07:19
3	Se 196.026†	313.7	282.2	437.85 µg/L	437.85 ppb	18:07:19
3	SiO2†	25019.5	22519.8	4849.8 µg/L	4849.8 ppb	18:06:58
3	Si 251.611†	29405.8	27624.1	2270.8 µg/L	2270.8 ppb	18:06:58
3	Sn 189.927†	955.0	908.2	417.73 µg/L	417.73 ppb	18:07:19
3	Ti 334.940†	198942.9	188889.6	454.05 µg/L	454.05 ppb	18:06:53
3	Tl 190.801†	316.9	325.4	459.73 µg/L	459.73 ppb	18:07:19
3	U 409.014†	5179.0	4973.9	449.35 µg/L	449.35 ppb	18:06:58
3	V 292.402†	44254.0	42087.7	453.84 µg/L	453.84 ppb	18:06:58
3	Zn 213.857†	19673.0	18214.8	451.59 µg/L	451.59 ppb	18:06:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2004427.0	104.95	%	0.397				0.38%
Sc RADIAL	57761.4	106	%	0.7				0.62%
Y 371.029	1368366.8	104.46	%	0.375				0.36%
Ag 328.068†	59953.1	479.20	µg/L	17.470	479.20	ppb	17.470	3.65%
QC value within limits for Ag 328.068 Recovery = 95.84%								
Al 396.153Radial†	6450.3	4797.9	µg/L	69.48	4797.9	ppb	69.48	1.45%
QC value within limits for Al 396.153Radial Recovery = 95.96%								
As 188.979†	245.3	478.65	µg/L	48.486	478.65	ppb	48.486	10.13%
QC value within limits for As 188.979 Recovery = 95.73%								
B 249.677†	10965.6	477.47	µg/L	18.814	477.47	ppb	18.814	3.94%
QC value within limits for B 249.677 Recovery = 95.49%								
Ba 233.527†	18564.4	484.26	µg/L	24.039	484.26	ppb	24.039	4.96%
QC value within limits for Ba 233.527 Recovery = 96.85%								
Be 313.107†	736477.9	480.78	µg/L	16.091	480.78	ppb	16.091	3.35%
QC value within limits for Be 313.107 Recovery = 96.16%								
Ca 317.933Radial†	5106.9	4808.5	µg/L	31.95	4808.5	ppb	31.95	0.66%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	17630.0	486.32	µg/L	25.796	486.32	ppb	25.796	5.30%
QC value within limits for Cd 226.502 Recovery = 97.26%								
Co 228.616†	9896.7	486.49	µg/L	27.038	486.49	ppb	27.038	5.56%

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   QC value within limits for Co 228.616  Recovery = 97.30%
Cr 267.716†            21965.7      483.46 µg/L        32.763      483.46 ppb         32.763   6.78%
   QC value within limits for Cr 267.716  Recovery = 96.69%
Cu 324.752†            68603.3      479.88 µg/L        25.545      479.88 ppb         25.545   5.32%
   QC value within limits for Cu 324.752  Recovery = 95.98%
Fe 238.204 Radial†       569.9      4840.8 µg/L         35.77      4840.8 ppb          35.77   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.82%
K 766.490 Radial†       6733.6      4786.2 µg/L         30.77      4786.2 ppb          30.77   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 95.72%
Mg 279.077 IEC†          525.8      4895.7 µg/L         36.85      4895.7 ppb          36.85   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           141584.1      490.73 µg/L        16.295      490.73 ppb         16.295   3.32%
   QC value within limits for Mn 257.610  Recovery = 98.15%
Mo 202.031†             4463.2      476.50 µg/L        49.601      476.50 ppb         49.601  10.41%
   QC value within limits for Mo 202.031  Recovery = 95.30%
Na 589.592 Radial†     28989.9      9543.6 µg/L        102.24      9543.6 ppb         102.24   1.07%
   QC value within limits for Na 589.592 Radial  Recovery = 95.44%
Ni 231.604†             8904.3      486.32 µg/L        27.004      486.32 ppb         27.004   5.55%
   QC value within limits for Ni 231.604  Recovery = 97.26%
P 214.914†              1121.4      2361.7 µg/L        219.74      2361.7 ppb         219.74   9.30%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1804.1      481.51 µg/L        40.435      481.51 ppb         40.435   8.40%
   QC value within limits for Pb 220.353  Recovery = 96.30%
S 181.975 Axial†         215.6      944.76 µg/L        67.630      944.76 ppb         67.630   7.16%
   QC value within limits for S 181.975 Axial  Recovery = 94.48%
Sb 206.836†              477.8      472.20 µg/L        41.713      472.20 ppb         41.713   8.83%
   QC value within limits for Sb 206.836  Recovery = 94.44%
Se 196.026†              315.2      488.01 µg/L        43.651      488.01 ppb         43.651   8.94%
   QC value within limits for Se 196.026  Recovery = 97.60%
SiO2†                  23792.0      5123.7 µg/L        237.37      5123.7 ppb         237.37   4.63%
   QC value within limits for SiO2  Recovery = 95.82%
Si 251.611†            29138.9      2395.4 µg/L        107.92      2395.4 ppb         107.92   4.51%
   QC value within limits for Si 251.611  Recovery = 95.81%
Sn 189.927†             1034.7      475.92 µg/L        50.437      475.92 ppb         50.437  10.60%
   QC value within limits for Sn 189.927  Recovery = 95.18%
Sr 421.552†            45666.3      473.38 µg/L         6.879      473.38 ppb          6.879   1.45%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           196961.2      473.47 µg/L        16.830      473.47 ppb         16.830   3.55%
   QC value within limits for Ti 334.940  Recovery = 94.69%
Tl 190.801†              348.0      491.40 µg/L        27.532      491.40 ppb         27.532   5.60%
   QC value within limits for Tl 190.801  Recovery = 98.28%
U 409.014†              5349.6      483.37 µg/L        29.770      483.37 ppb         29.770   6.16%
   QC value within limits for U 409.014  Recovery = 96.67%
V 292.402†             45106.3      486.57 µg/L        28.365      486.57 ppb         28.365   5.83%
   QC value within limits for V 292.402  Recovery = 97.31%
Zn 213.857†            19494.3      483.36 µg/L        27.567      483.36 ppb         27.567   5.70%
   QC value within limits for Zn 213.857  Recovery = 96.67%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:07:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56532.0	56532.0	104	%			18:08:03
1	Al 396.153Radial†	-15.4	-4.8	-3.5570	µg/L	-3.5570	ppb	18:08:03
1	Ca 317.933Radial†	184.3	-1.2	-1.1516	µg/L	-1.1516	ppb	18:08:24
1	Fe 238.204 Radial†	15.7	0.7	5.7821	µg/L	5.7821	ppb	18:08:24
1	K 766.490 Radial†	164.9	30.8	21.873	µg/L	21.873	ppb	18:08:03
1	Mg 279.077 IEC†	16.1	4.2	39.497	µg/L	39.497	ppb	18:08:24
1	Na 589.592 Radial†	629.4	65.8	21.647	µg/L	21.647	ppb	18:08:03
1	Sr 421.552†	25.1	-15.3	-0.1589	µg/L	-0.1589	ppb	18:08:03
1	Sc 361.383	1970116.9	1970116.9	103.16	%			18:09:26
1	Y 371.029	1351478.3	1351478.3	103.17	%			18:09:26
1	Ag 328.068†	-586.1	-3.7	-0.0267	µg/L	-0.0267	ppb	18:09:32
1	As 188.979†	0.4	-0.7	-1.4081	µg/L	-1.4081	ppb	18:09:52
1	B 249.677†	319.9	-21.4	-0.9375	µg/L	-0.9375	ppb	18:09:52
1	Ba 233.527†	-23.6	3.1	0.0818	µg/L	0.0818	ppb	18:09:52
1	Be 313.107†	-3504.0	43.7	0.0286	µg/L	0.0286	ppb	18:09:32
1	Cd 226.502†	-151.5	-4.7	-0.1322	µg/L	-0.1322	ppb	18:09:52
1	Co 228.616†	-11.0	-1.8	-0.0886	µg/L	-0.0886	ppb	18:09:52
1	Cr 267.716†	-63.6	-9.3	-0.2036	µg/L	-0.2036	ppb	18:09:32
1	Cu 324.752†	2393.3	-166.0	-1.1590	µg/L	-1.1590	ppb	18:09:32
1	Mn 257.610†	-254.5	-2.6	-0.0100	µg/L	-0.0100	ppb	18:09:52
1	Mo 202.031†	-8.7	-0.9	-0.0948	µg/L	-0.0948	ppb	18:09:52
1	Ni 231.604†	290.0	-21.0	-1.1506	µg/L	-1.1506	ppb	18:09:52
1	P 214.914†	32.8	4.2	9.1562	µg/L	9.1562	ppb	18:09:52
1	Pb 220.353†	95.7	-4.4	-1.1812	µg/L	-1.1812	ppb	18:09:52
1	S 181.975 Axial†	14.0	-1.2	-5.3162	µg/L	-5.3162	ppb	18:09:52
1	Sb 206.836†	31.3	3.4	3.3775	µg/L	3.3775	ppb	18:09:52
1	Se 196.026†	11.2	-4.9	-7.5535	µg/L	-7.5535	ppb	18:09:52
1	SiO2†	1234.7	-53.1	-11.434	µg/L	-11.434	ppb	18:09:32
1	Si 251.611†	295.0	-26.9	-2.2136	µg/L	-2.2136	ppb	18:09:52
1	Sn 189.927†	1.4	2.3	1.0452	µg/L	1.0452	ppb	18:09:52
1	Ti 334.940†	70.3	-48.0	-0.1186	µg/L	-0.1186	ppb	18:09:32
1	Tl 190.801†	-29.3	-4.1	-5.6836	µg/L	-5.6836	ppb	18:09:52
1	U 409.014†	-64.3	-8.7	-0.7862	µg/L	-0.7862	ppb	18:09:32
1	V 292.402†	-16.1	28.6	0.3039	µg/L	0.3039	ppb	18:09:32
1	Zn 213.857†	475.3	-14.8	-0.3645	µg/L	-0.3645	ppb	18:09:52
2	Sc RADIAL	55658.7	55658.7	102	%			18:08:29
2	Al 396.153Radial†	8.4	18.4	13.722	µg/L	13.722	ppb	18:08:29
2	Ca 317.933Radial†	182.4	-0.3	-0.2942	µg/L	-0.2942	ppb	18:08:50
2	Fe 238.204 Radial†	17.1	2.3	19.276	µg/L	19.276	ppb	18:08:50
2	K 766.490 Radial†	186.5	54.5	38.722	µg/L	38.722	ppb	18:08:29
2	Mg 279.077 IEC†	15.0	3.4	31.500	µg/L	31.500	ppb	18:08:50
2	Na 589.592 Radial†	680.0	124.9	41.106	µg/L	41.106	ppb	18:08:29
2	Sr 421.552†	30.6	-9.6	-0.0993	µg/L	-0.0993	ppb	18:08:29
2	Sc 361.383	2007038.7	2007038.7	105.09	%			18:09:58
2	Y 371.029	1377314.4	1377314.4	105.15	%			18:09:58
2	Ag 328.068†	-493.3	95.1	0.7576	µg/L	0.7576	ppb	18:10:04
2	As 188.979†	-1.7	-2.7	-5.3378	µg/L	-5.3378	ppb	18:10:25
2	B 249.677†	329.1	-18.3	-0.8077	µg/L	-0.8077	ppb	18:10:25
2	Ba 233.527†	-25.2	2.0	0.0533	µg/L	0.0533	ppb	18:10:25
2	Be 313.107†	-3351.2	251.6	0.1643	µg/L	0.1643	ppb	18:10:04
2	Cd 226.502†	-144.2	4.9	0.1335	µg/L	0.1335	ppb	18:10:25
2	Co 228.616†	-14.3	-4.7	-0.2334	µg/L	-0.2334	ppb	18:10:25
2	Cr 267.716†	-47.8	6.9	0.1524	µg/L	0.1524	ppb	18:10:04
2	Cu 324.752†	2466.3	-139.3	-0.9702	µg/L	-0.9702	ppb	18:10:04
2	Mn 257.610†	-245.5	10.5	0.0378	µg/L	0.0378	ppb	18:10:25
2	Mo 202.031†	-7.5	0.4	0.0445	µg/L	0.0445	ppb	18:10:25
2	Ni 231.604†	299.7	-17.0	-0.9313	µg/L	-0.9313	ppb	18:10:25
2	P 214.914†	31.3	2.2	4.7306	µg/L	4.7306	ppb	18:10:25
2	Pb 220.353†	108.5	6.1	1.6290	µg/L	1.6290	ppb	18:10:25

2	S 181.975 Axial†	16.7	1.1	4.8755 µg/L	4.8755 ppb	18:10:25
2	Sb 206.836†	20.8	-7.2	-7.0445 µg/L	-7.0445 ppb	18:10:25
2	Se 196.026†	16.5	-0.1	-0.1477 µg/L	-0.1477 ppb	18:10:25
2	SiO2†	1217.3	-91.6	-19.736 µg/L	-19.736 ppb	18:10:04
2	Si 251.611†	298.1	-29.3	-2.4046 µg/L	-2.4046 ppb	18:10:25
2	Sn 189.927†	0.2	1.0	0.4758 µg/L	0.4758 ppb	18:10:25
2	Ti 334.940†	145.5	22.4	0.0513 µg/L	0.0513 ppb	18:10:04
2	Tl 190.801†	-26.0	-0.5	-0.6548 µg/L	-0.6548 ppb	18:10:25
2	U 409.014†	-106.1	-47.3	-4.2862 µg/L	-4.2862 ppb	18:10:04
2	V 292.402†	-24.2	21.2	0.2243 µg/L	0.2243 ppb	18:10:04
2	Zn 213.857†	472.5	-25.9	-0.6440 µg/L	-0.6440 ppb	18:10:25
3	Sc RADIAL	55952.9	55952.9	103 %		18:08:56
3	Al 396.153Radial†	-23.9	-13.2	-9.8258 µg/L	-9.8258 ppb	18:08:56
3	Ca 317.933Radial†	192.5	8.6	8.1332 µg/L	8.1332 ppb	18:09:16
3	Fe 238.204 Radial†	17.2	2.3	19.451 µg/L	19.451 ppb	18:09:16
3	K 766.490 Radial†	199.1	65.8	46.778 µg/L	46.778 ppb	18:08:56
3	Mg 279.077 IEC†	13.0	1.4	13.321 µg/L	13.321 ppb	18:09:16
3	Na 589.592 Radial†	622.9	65.7	21.628 µg/L	21.628 ppb	18:08:56
3	Sr 421.552†	22.5	-17.6	-0.1825 µg/L	-0.1825 ppb	18:08:56
3	Sc 361.383	1969215.9	1969215.9	103.11 %		18:10:31
3	Y 371.029	1350905.5	1350905.5	103.13 %		18:10:31
3	Ag 328.068†	-575.5	6.4	0.0513 µg/L	0.0513 ppb	18:10:36
3	As 188.979†	-0.8	-1.9	-3.6705 µg/L	-3.6705 ppb	18:10:57
3	B 249.677†	315.0	-25.9	-1.1434 µg/L	-1.1434 ppb	18:10:57
3	Ba 233.527†	-24.5	2.2	0.0583 µg/L	0.0583 ppb	18:10:57
3	Be 313.107†	-3286.5	253.0	0.1652 µg/L	0.1652 ppb	18:10:36
3	Cd 226.502†	-133.6	12.5	0.3430 µg/L	0.3430 ppb	18:10:57
3	Co 228.616†	-14.1	-4.9	-0.2403 µg/L	-0.2403 ppb	18:10:57
3	Cr 267.716†	-66.1	-11.7	-0.2584 µg/L	-0.2584 ppb	18:10:36
3	Cu 324.752†	2477.5	-83.3	-0.5792 µg/L	-0.5792 ppb	18:10:36
3	Mn 257.610†	-225.9	25.1	0.0888 µg/L	0.0888 ppb	18:10:57
3	Mo 202.031†	-9.8	-2.0	-0.2112 µg/L	-0.2112 ppb	18:10:57
3	Ni 231.604†	298.6	-12.6	-0.6902 µg/L	-0.6902 ppb	18:10:57
3	P 214.914†	27.1	-1.4	-2.9216 µg/L	-2.9216 ppb	18:10:57
3	Pb 220.353†	95.5	-4.6	-1.2298 µg/L	-1.2298 ppb	18:10:57
3	S 181.975 Axial†	18.9	3.5	15.355 µg/L	15.355 ppb	18:10:57
3	Sb 206.836†	19.3	-8.3	-8.1417 µg/L	-8.1417 ppb	18:10:57
3	Se 196.026†	11.7	-4.5	-6.8172 µg/L	-6.8172 ppb	18:10:57
3	SiO2†	1221.9	-65.0	-13.993 µg/L	-13.993 ppb	18:10:36
3	Si 251.611†	305.8	-16.3	-1.3398 µg/L	-1.3398 ppb	18:10:57
3	Sn 189.927†	-1.0	-0.1	-0.0571 µg/L	-0.0571 ppb	18:10:57
3	Ti 334.940†	185.2	63.5	0.1517 µg/L	0.1517 ppb	18:10:36
3	Tl 190.801†	-28.1	-3.0	-4.1975 µg/L	-4.1975 ppb	18:10:57
3	U 409.014†	-9.8	44.1	3.9892 µg/L	3.9892 ppb	18:10:36
3	V 292.402†	-52.5	-6.8	-0.0677 µg/L	-0.0677 ppb	18:10:36
3	Zn 213.857†	470.6	-19.2	-0.4765 µg/L	-0.4765 ppb	18:10:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1982123.8	103.78	%	1.130				1.09%
Sc RADIAL	56047.9	103	%	0.8				0.79%
Y 371.029	1359899.4	103.82	%	1.152				1.11%
Ag 328.068†	32.6	0.2608	µg/L	0.43206	0.2608	ppb	0.43206	165.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.1130	µg/L	12.19532	0.1130	ppb	12.19532	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-3.4721	µg/L	1.97235	-3.4721	ppb	1.97235	56.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21.9	-0.9628	µg/L	0.16927	-0.9628	ppb	0.16927	17.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.5	0.0645	µg/L	0.01519	0.0645	ppb	0.01519	23.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.7	0.1193	µg/L	0.07861	0.1193	ppb	0.07861	65.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.2291	µg/L	5.13097	2.2291	ppb	5.13097	230.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.3	0.1147	µg/L	0.23817	0.1147	ppb	0.23817	207.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.8	-0.1875	µg/L	0.08565	-0.1875	ppb	0.08565	45.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -4.7     -0.1032 µg/L       0.22302     -0.1032 ppb        0.22302 216.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -129.5     -0.9028 µg/L       0.29572     -0.9028 ppb        0.29572  32.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      14.837 µg/L        7.8419      14.837 ppb         7.8419  52.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        50.4      35.791 µg/L       12.7089      35.791 ppb        12.7089  35.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.0      28.106 µg/L       13.4141      28.106 ppb        13.4141  47.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.0       0.0389 µg/L       0.04940       0.0389 ppb        0.04940 127.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.8     -0.0872 µg/L       0.12800     -0.0872 ppb        0.12800 146.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       85.4      28.127 µg/L       11.2402      28.127 ppb        11.2402  39.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -16.9     -0.9240 µg/L       0.23026     -0.9240 ppb        0.23026  24.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7       3.6551 µg/L       6.11031       3.6551 ppb        6.11031 167.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.0     -0.2607 µg/L       1.63670     -0.2607 ppb        1.63670 627.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.1       4.9715 µg/L      10.33607       4.9715 ppb       10.33607 207.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.0     -3.9362 µg/L       6.35757     -3.9362 ppb        6.35757 161.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.2     -4.8394 µg/L       4.07986     -4.8394 ppb        4.07986  84.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -69.9     -15.054 µg/L        4.2514     -15.054 ppb         4.2514  28.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -24.2     -1.9860 µg/L       0.56769     -1.9860 ppb        0.56769  28.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.1       0.4880 µg/L       0.55125       0.4880 ppb        0.55125 112.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.2     -0.1469 µg/L       0.04288     -0.1469 ppb        0.04288  29.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              12.6       0.0281 µg/L       0.13664       0.0281 ppb        0.13664 485.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.5     -3.5120 µg/L       2.58356     -3.5120 ppb        2.58356  73.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -4.0     -0.3611 µg/L       4.15405     -0.3611 ppb        4.15405 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               14.4       0.1535 µg/L       0.19568       0.1535 ppb        0.19568 127.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -20.0     -0.4950 µg/L       0.14064     -0.4950 ppb        0.14064  28.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:32:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55441.9	55441.9	102	%			18:33:25
1	Al 396.153Radial†	6917.9	6819.8	5072.2	µg/L	5072.2	ppb	18:33:25
1	Ca 317.933Radial†	5691.9	5423.7	5106.8	µg/L	5106.8	ppb	18:33:45
1	Fe 238.204 Radial†	625.4	601.1	5105.5	µg/L	5105.5	ppb	18:33:45
1	K 766.490 Radial†	7360.4	7116.9	5058.6	µg/L	5058.6	ppb	18:33:25
1	Mg 279.077 IEC†	579.1	558.7	5203.2	µg/L	5203.2	ppb	18:33:45
1	Na 589.592 Radial†	31674.9	30637.4	10086	µg/L	10086	ppb	18:33:25
1	Sr 421.552†	48916.5	48111.6	498.73	µg/L	498.73	ppb	18:33:25
1	Sc 361.383	1949198.7	1949198.7	102.06	%			18:34:49
1	Y 371.029	1332613.7	1332613.7	101.73	%			18:34:49
1	Ag 328.068†	63737.9	63015.4	503.72	µg/L	503.72	ppb	18:34:54
1	As 188.979†	273.4	266.7	520.31	µg/L	520.31	ppb	18:35:15
1	B 249.677†	12085.6	11510.1	501.18	µg/L	501.18	ppb	18:34:54
1	Ba 233.527†	19929.9	19553.5	510.07	µg/L	510.07	ppb	18:34:54
1	Be 313.107†	791453.2	778912.4	508.48	µg/L	508.48	ppb	18:34:49
1	Cd 226.502†	18764.5	18527.7	511.09	µg/L	511.09	ppb	18:34:54
1	Co 228.616†	10683.8	10476.9	515.03	µg/L	515.03	ppb	18:34:54
1	Cr 267.716†	23886.3	23456.4	516.27	µg/L	516.27	ppb	18:34:54
1	Cu 324.752†	77115.4	73072.1	511.13	µg/L	511.13	ppb	18:34:54
1	Mn 257.610†	152507.4	149672.0	518.76	µg/L	518.76	ppb	18:34:49
1	Mo 202.031†	5014.5	4920.8	525.34	µg/L	525.34	ppb	18:35:15
1	Ni 231.604†	9902.4	9400.2	513.41	µg/L	513.41	ppb	18:34:54
1	P 214.914†	1289.3	1235.7	2604.5	µg/L	2604.5	ppb	18:35:15
1	Pb 220.353†	2098.8	1959.2	522.95	µg/L	522.95	ppb	18:35:15
1	S 181.975 Axial†	252.9	233.0	1020.8	µg/L	1020.8	ppb	18:35:15
1	Sb 206.836†	562.5	524.2	518.28	µg/L	518.28	ppb	18:35:15
1	Se 196.026†	361.5	338.4	523.78	µg/L	523.78	ppb	18:35:15
1	SiO2†	26807.5	25016.2	5387.4	µg/L	5387.4	ppb	18:34:54
1	Si 251.611†	31683.4	30730.8	2526.2	µg/L	2526.2	ppb	18:34:54
1	Sn 189.927†	1171.2	1148.4	528.25	µg/L	528.25	ppb	18:35:15
1	Ti 334.940†	213415.9	208990.5	502.38	µg/L	502.38	ppb	18:34:49
1	Tl 190.801†	344.1	361.4	510.53	µg/L	510.53	ppb	18:35:15
1	U 409.014†	5808.1	5744.4	519.06	µg/L	519.06	ppb	18:34:54
1	V 292.402†	48900.4	47957.2	517.47	µg/L	517.47	ppb	18:34:54
1	Zn 213.857†	21532.1	20621.7	511.32	µg/L	511.32	ppb	18:34:54
2	Sc RADIAL	56230.3	56230.3	103	%			18:33:51
2	Al 396.153Radial†	6941.0	6746.8	5018.0	µg/L	5018.0	ppb	18:33:51
2	Ca 317.933Radial†	5664.7	5318.7	5007.9	µg/L	5007.9	ppb	18:34:11
2	Fe 238.204 Radial†	623.7	590.8	5018.6	µg/L	5018.6	ppb	18:34:11
2	K 766.490 Radial†	7345.4	7000.7	4976.0	µg/L	4976.0	ppb	18:33:51
2	Mg 279.077 IEC†	581.5	553.1	5150.5	µg/L	5150.5	ppb	18:34:11
2	Na 589.592 Radial†	31761.7	30284.4	9969.7	µg/L	9969.7	ppb	18:33:51
2	Sr 421.552†	49439.7	47944.2	497.00	µg/L	497.00	ppb	18:33:51
2	Sc 361.383	1968654.4	1968654.4	103.08	%			18:35:22
2	Y 371.029	1345275.7	1345275.7	102.70	%			18:35:22
2	Ag 328.068†	64265.9	62910.5	502.88	µg/L	502.88	ppb	18:35:28
2	As 188.979†	279.7	270.2	527.15	µg/L	527.15	ppb	18:35:48
2	B 249.677†	12199.0	11503.1	500.92	µg/L	500.92	ppb	18:35:28
2	Ba 233.527†	20118.0	19543.0	509.79	µg/L	509.79	ppb	18:35:28
2	Be 313.107†	797156.7	776781.8	507.09	µg/L	507.09	ppb	18:35:22
2	Cd 226.502†	19012.6	18586.7	512.73	µg/L	512.73	ppb	18:35:28
2	Co 228.616†	10795.4	10481.7	515.26	µg/L	515.26	ppb	18:35:28
2	Cr 267.716†	24075.5	23408.6	515.22	µg/L	515.22	ppb	18:35:28
2	Cu 324.752†	77661.1	72854.9	509.61	µg/L	509.61	ppb	18:35:28
2	Mn 257.610†	153284.1	148948.8	516.25	µg/L	516.25	ppb	18:35:22
2	Mo 202.031†	4982.7	4841.3	516.86	µg/L	516.86	ppb	18:35:48
2	Ni 231.604†	10038.8	9436.7	515.40	µg/L	515.40	ppb	18:35:28
2	P 214.914†	1275.2	1209.5	2548.3	µg/L	2548.3	ppb	18:35:48
2	Pb 220.353†	2089.9	1930.2	515.20	µg/L	515.20	ppb	18:35:48

2	S 181.975 Axial†	253.9	231.5	1014.3 µg/L	1014.3 ppb	18:35:48
2	Sb 206.836†	566.6	522.7	516.68 µg/L	516.68 ppb	18:35:48
2	Se 196.026†	362.7	336.1	520.05 µg/L	520.05 ppb	18:35:48
2	SiO2†	27183.9	25121.8	5410.1 µg/L	5410.1 ppb	18:35:28
2	Si 251.611†	31985.4	30716.9	2525.1 µg/L	2525.1 ppb	18:35:28
2	Sn 189.927†	1162.1	1128.3	518.97 µg/L	518.97 ppb	18:35:48
2	Ti 334.940†	214911.2	208374.5	500.90 µg/L	500.90 ppb	18:35:22
2	Tl 190.801†	347.2	361.1	510.11 µg/L	510.11 ppb	18:35:48
2	U 409.014†	5833.8	5713.1	516.25 µg/L	516.25 ppb	18:35:28
2	V 292.402†	49382.2	47951.1	517.33 µg/L	517.33 ppb	18:35:28
2	Zn 213.857†	21765.8	20640.0	511.77 µg/L	511.77 ppb	18:35:28
3	Sc RADIAL	56202.6	56202.6	103 %		18:34:17
3	Al 396.153Radial†	7002.2	6809.5	5066.3 µg/L	5066.3 ppb	18:34:17
3	Ca 317.933Radial†	5645.9	5303.2	4993.3 µg/L	4993.3 ppb	18:34:37
3	Fe 238.204 Radial†	622.2	589.7	5007.8 µg/L	5007.8 ppb	18:34:37
3	K 766.490 Radial†	7390.9	7048.4	5010.0 µg/L	5010.0 ppb	18:34:17
3	Mg 279.077 IEC†	576.6	548.6	5107.8 µg/L	5107.8 ppb	18:34:37
3	Na 589.592 Radial†	31993.1	30524.4	10049 µg/L	10049 ppb	18:34:17
3	Sr 421.552†	49671.5	48193.0	499.58 µg/L	499.58 ppb	18:34:17
3	Sc 361.383	1949854.5	1949854.5	102.10 %		18:35:55
3	Y 371.029	1332440.6	1332440.6	101.72 %		18:35:55
3	Ag 328.068†	60532.1	59854.4	478.35 µg/L	478.35 ppb	18:36:01
3	As 188.979†	230.7	224.8	438.55 µg/L	438.55 ppb	18:36:21
3	B 249.677†	11478.3	10911.2	474.98 µg/L	474.98 ppb	18:36:01
3	Ba 233.527†	18573.8	18218.6	475.23 µg/L	475.23 ppb	18:36:01
3	Be 313.107†	747182.5	735289.5	480.01 µg/L	480.01 ppb	18:35:55
3	Cd 226.502†	17437.8	17222.1	475.04 µg/L	475.04 ppb	18:36:01
3	Co 228.616†	9818.6	9625.9	473.13 µg/L	473.13 ppb	18:36:01
3	Cr 267.716†	21497.4	21108.6	464.60 µg/L	464.60 ppb	18:36:01
3	Cu 324.752†	71198.9	67251.7	470.46 µg/L	470.46 ppb	18:36:01
3	Mn 257.610†	144456.6	141736.2	491.27 µg/L	491.27 ppb	18:35:55
3	Mo 202.031†	4165.5	4087.6	436.42 µg/L	436.42 ppb	18:36:21
3	Ni 231.604†	9187.6	8696.9	475.00 µg/L	475.00 ppb	18:36:01
3	P 214.914†	1084.2	1034.3	2175.1 µg/L	2175.1 ppb	18:36:21
3	Pb 220.353†	1818.3	1683.8	449.34 µg/L	449.34 ppb	18:36:21
3	S 181.975 Axial†	223.4	204.0	893.71 µg/L	893.71 ppb	18:36:21
3	Sb 206.836†	482.5	445.7	440.11 µg/L	440.11 ppb	18:36:21
3	Se 196.026†	316.7	294.4	456.49 µg/L	456.49 ppb	18:36:21
3	SiO2†	25304.0	23534.7	5068.3 µg/L	5068.3 ppb	18:36:01
3	Si 251.611†	29685.2	28763.1	2364.5 µg/L	2364.5 ppb	18:36:01
3	Sn 189.927†	961.6	942.7	433.62 µg/L	433.62 ppb	18:36:21
3	Ti 334.940†	200490.3	196259.8	471.76 µg/L	471.76 ppb	18:35:55
3	Tl 190.801†	316.1	333.9	471.83 µg/L	471.83 ppb	18:36:21
3	U 409.014†	5179.3	5126.6	463.15 µg/L	463.15 ppb	18:36:01
3	V 292.402†	44764.1	43889.7	473.25 µg/L	473.25 ppb	18:36:01
3	Zn 213.857†	19900.8	19016.9	471.49 µg/L	471.49 ppb	18:36:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1955902.5	102.41 %	0.578			0.56%
Sc RADIAL	55958.3	103 %	0.8			0.80%
Y 371.029	1336776.6	102.05 %	0.562			0.55%
Ag 328.068†	61926.8	494.98 µg/L	14.414	494.98 ppb	14.414	2.91%
QC value within limits for Ag 328.068 Recovery = 99.00%						
Al 396.153Radial†	6792.0	5052.2 µg/L	29.77	5052.2 ppb	29.77	0.59%
QC value within limits for Al 396.153Radial Recovery = 101.04%						
As 188.979†	253.9	495.34 µg/L	49.299	495.34 ppb	49.299	9.95%
QC value within limits for As 188.979 Recovery = 99.07%						
B 249.677†	11308.1	492.36 µg/L	15.053	492.36 ppb	15.053	3.06%
QC value within limits for B 249.677 Recovery = 98.47%						
Ba 233.527†	19105.0	498.36 µg/L	20.034	498.36 ppb	20.034	4.02%
QC value within limits for Ba 233.527 Recovery = 99.67%						
Be 313.107†	763661.2	498.53 µg/L	16.055	498.53 ppb	16.055	3.22%
QC value within limits for Be 313.107 Recovery = 99.71%						
Ca 317.933Radial†	5348.5	5036.0 µg/L	61.72	5036.0 ppb	61.72	1.23%
QC value within limits for Ca 317.933Radial Recovery = 100.72%						
Cd 226.502†	18112.2	499.62 µg/L	21.301	499.62 ppb	21.301	4.26%
QC value within limits for Cd 226.502 Recovery = 99.92%						
Co 228.616†	10194.8	501.14 µg/L	24.256	501.14 ppb	24.256	4.84%

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   QC value within limits for Co 228.616  Recovery = 100.23%
Cr 267.716†            22657.9      498.70 µg/L        29.533      498.70 ppb        29.533   5.92%
   QC value within limits for Cr 267.716  Recovery = 99.74%
Cu 324.752†            71059.6      497.07 µg/L        23.052      497.07 ppb        23.052   4.64%
   QC value within limits for Cu 324.752  Recovery = 99.41%
Fe 238.204 Radial†       593.9      5044.0 µg/L         53.59      5044.0 ppb         53.59   1.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.88%
K 766.490 Radial†       7055.3      5014.9 µg/L         41.51      5014.9 ppb         41.51   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 100.30%
Mg 279.077 IEC†          553.5      5153.8 µg/L         47.82      5153.8 ppb         47.82   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.08%
Mn 257.610†           146785.7      508.76 µg/L        15.198      508.76 ppb        15.198   2.99%
   QC value within limits for Mn 257.610  Recovery = 101.75%
Mo 202.031†             4616.6      492.88 µg/L        49.074      492.88 ppb        49.074   9.96%
   QC value within limits for Mo 202.031  Recovery = 98.58%
Na 589.592 Radial†     30482.1       10035 µg/L          59.3       10035 ppb          59.3   0.59%
   QC value within limits for Na 589.592 Radial  Recovery = 100.35%
Ni 231.604†             9177.9      501.27 µg/L        22.771      501.27 ppb        22.771   4.54%
   QC value within limits for Ni 231.604  Recovery = 100.25%
P 214.914†              1159.8      2442.6 µg/L        233.37      2442.6 ppb        233.37   9.55%
   QC value within limits for P 214.914  Recovery = 97.71%
Pb 220.353†             1857.7      495.83 µg/L        40.446      495.83 ppb        40.446   8.16%
   QC value within limits for Pb 220.353  Recovery = 99.17%
S 181.975 Axial†         222.8      976.27 µg/L        71.572      976.27 ppb        71.572   7.33%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†              497.5      491.69 µg/L        44.681      491.69 ppb        44.681   9.09%
   QC value within limits for Sb 206.836  Recovery = 98.34%
Se 196.026†              322.9      500.11 µg/L        37.818      500.11 ppb        37.818   7.56%
   QC value within limits for Se 196.026  Recovery = 100.02%
SiO2†                  24557.5      5288.6 µg/L        191.11      5288.6 ppb        191.11   3.61%
   QC value within limits for SiO2  Recovery = 98.90%
Si 251.611†            30070.3      2471.9 µg/L         93.06      2471.9 ppb         93.06   3.76%
   QC value within limits for Si 251.611  Recovery = 98.88%
Sn 189.927†             1073.1      493.61 µg/L        52.162      493.61 ppb        52.162  10.57%
   QC value within limits for Sn 189.927  Recovery = 98.72%
Sr 421.552†            48082.9      498.44 µg/L         1.315      498.44 ppb         1.315   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.69%
Ti 334.940†           204541.6      491.68 µg/L        17.266      491.68 ppb        17.266   3.51%
   QC value within limits for Ti 334.940  Recovery = 98.34%
Tl 190.801†              352.2      497.49 µg/L        22.222      497.49 ppb        22.222   4.47%
   QC value within limits for Tl 190.801  Recovery = 99.50%
U 409.014†              5528.1      499.49 µg/L        31.500      499.49 ppb        31.500   6.31%
   QC value within limits for U 409.014  Recovery = 99.90%
V 292.402†             46599.3      502.68 µg/L        25.490      502.68 ppb        25.490   5.07%
   QC value within limits for V 292.402  Recovery = 100.54%
Zn 213.857†            20092.9      498.19 µg/L        23.129      498.19 ppb        23.129   4.64%
   QC value within limits for Zn 213.857  Recovery = 99.64%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:36:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56577.3	56577.3	104	%			18:37:06
1	Al 396.153Radial†	-31.7	-20.5	-15.254	µg/L	-15.254	ppb	18:37:06
1	Ca 317.933Radial†	178.1	-7.3	-6.9019	µg/L	-6.9019	ppb	18:37:27
1	Fe 238.204 Radial†	15.3	0.2	1.9399	µg/L	1.9399	ppb	18:37:27
1	K 766.490 Radial†	151.5	17.7	12.611	µg/L	12.611	ppb	18:37:06
1	Mg 279.077 IEC†	8.3	-3.3	-30.287	µg/L	-30.287	ppb	18:37:27
1	Na 589.592 Radial†	633.9	69.6	22.897	µg/L	22.897	ppb	18:37:06
1	Sr 421.552†	44.5	3.3	0.0346	µg/L	0.0346	ppb	18:37:06
1	Sc 361.383	1997175.6	1997175.6	104.57	%			18:38:28
1	Y 371.029	1371834.1	1371834.1	104.73	%			18:38:28
1	Ag 328.068†	-518.3	68.9	0.5460	µg/L	0.5460	ppb	18:38:34
1	As 188.979†	-0.7	-1.8	-3.4701	µg/L	-3.4701	ppb	18:38:54
1	B 249.677†	333.0	-13.0	-0.5696	µg/L	-0.5696	ppb	18:38:54
1	Ba 233.527†	-20.3	6.6	0.1716	µg/L	0.1716	ppb	18:38:54
1	Be 313.107†	-3492.3	100.9	0.0658	µg/L	0.0658	ppb	18:38:34
1	Cd 226.502†	-135.3	12.8	0.3518	µg/L	0.3518	ppb	18:38:54
1	Co 228.616†	-16.0	-6.4	-0.3169	µg/L	-0.3169	ppb	18:38:54
1	Cr 267.716†	-59.9	-4.9	-0.1071	µg/L	-0.1071	ppb	18:38:34
1	Cu 324.752†	2440.0	-152.8	-1.0669	µg/L	-1.0669	ppb	18:38:34
1	Mn 257.610†	-253.9	1.3	0.0061	µg/L	0.0061	ppb	18:38:54
1	Mo 202.031†	-12.2	-4.2	-0.4445	µg/L	-0.4445	ppb	18:38:54
1	Ni 231.604†	302.8	-12.6	-0.6910	µg/L	-0.6910	ppb	18:38:54
1	P 214.914†	25.9	-2.9	-6.0063	µg/L	-6.0063	ppb	18:38:54
1	Pb 220.353†	96.6	-4.8	-1.2749	µg/L	-1.2749	ppb	18:38:54
1	S 181.975 Axial†	16.8	1.3	5.5555	µg/L	5.5555	ppb	18:38:54
1	Sb 206.836†	26.1	-2.0	-1.9561	µg/L	-1.9561	ppb	18:38:54
1	Se 196.026†	17.3	0.7	1.1140	µg/L	1.1140	ppb	18:38:54
1	SiO2†	1249.6	-55.1	-11.856	µg/L	-11.856	ppb	18:38:34
1	Si 251.611†	302.7	-23.4	-1.9253	µg/L	-1.9253	ppb	18:38:54
1	Sn 189.927†	1.0	1.9	0.8554	µg/L	0.8554	ppb	18:38:54
1	Ti 334.940†	152.6	29.8	0.0741	µg/L	0.0741	ppb	18:38:34
1	Tl 190.801†	-22.3	3.0	4.1717	µg/L	4.1717	ppb	18:38:54
1	U 409.014†	-116.8	-58.1	-5.2596	µg/L	-5.2596	ppb	18:38:34
1	V 292.402†	-54.7	-8.1	-0.0953	µg/L	-0.0953	ppb	18:38:34
1	Zn 213.857†	472.6	-23.6	-0.5840	µg/L	-0.5840	ppb	18:38:54
2	Sc RADIAL	55383.9	55383.9	101	%			18:37:32
2	Al 396.153Radial†	-17.3	-7.0	-5.1964	µg/L	-5.1964	ppb	18:37:32
2	Ca 317.933Radial†	188.8	6.9	6.4546	µg/L	6.4546	ppb	18:37:52
2	Fe 238.204 Radial†	14.1	-0.6	-4.8767	µg/L	-4.8767	ppb	18:37:52
2	K 766.490 Radial†	126.5	-3.8	-2.6779	µg/L	-2.6779	ppb	18:37:32
2	Mg 279.077 IEC†	12.6	1.1	10.292	µg/L	10.292	ppb	18:37:52
2	Na 589.592 Radial†	623.8	72.8	23.955	µg/L	23.955	ppb	18:37:32
2	Sr 421.552†	31.5	-8.5	-0.0883	µg/L	-0.0883	ppb	18:37:32
2	Sc 361.383	2013350.1	2013350.1	105.42	%			18:39:00
2	Y 371.029	1381993.5	1381993.5	105.50	%			18:39:00
2	Ag 328.068†	-537.9	54.3	0.4351	µg/L	0.4351	ppb	18:39:06
2	As 188.979†	2.2	1.0	1.8812	µg/L	1.8812	ppb	18:39:26
2	B 249.677†	318.3	-29.5	-1.2874	µg/L	-1.2874	ppb	18:39:26
2	Ba 233.527†	-25.9	1.4	0.0380	µg/L	0.0380	ppb	18:39:26
2	Be 313.107†	-3437.1	180.0	0.1176	µg/L	0.1176	ppb	18:39:06
2	Cd 226.502†	-146.1	3.5	0.0976	µg/L	0.0976	ppb	18:39:26
2	Co 228.616†	-6.0	3.1	0.1553	µg/L	0.1553	ppb	18:39:26
2	Cr 267.716†	-56.6	-1.3	-0.0276	µg/L	-0.0276	ppb	18:39:06
2	Cu 324.752†	2488.4	-125.7	-0.8785	µg/L	-0.8785	ppb	18:39:06
2	Mn 257.610†	-244.3	12.4	0.0419	µg/L	0.0419	ppb	18:39:26
2	Mo 202.031†	-1.5	6.1	0.6511	µg/L	0.6511	ppb	18:39:26
2	Ni 231.604†	301.7	-16.0	-0.8752	µg/L	-0.8752	ppb	18:39:26
2	P 214.914†	26.3	-2.6	-5.5596	µg/L	-5.5596	ppb	18:39:26
2	Pb 220.353†	100.7	-1.7	-0.4405	µg/L	-0.4405	ppb	18:39:26

2	S 181.975 Axial†	19.5	3.7	16.100 µg/L	16.100 ppb	18:39:26
2	Sb 206.836†	25.7	-2.6	-2.5687 µg/L	-2.5687 ppb	18:39:26
2	Se 196.026†	18.4	1.6	2.4087 µg/L	2.4087 ppb	18:39:26
2	SiO2†	1290.6	-25.8	-5.5589 µg/L	-5.5589 ppb	18:39:06
2	Si 251.611†	298.6	-29.7	-2.4388 µg/L	-2.4388 ppb	18:39:26
2	Sn 189.927†	1.6	2.4	1.0965 µg/L	1.0965 ppb	18:39:26
2	Ti 334.940†	143.9	20.4	0.0483 µg/L	0.0483 ppb	18:39:06
2	Tl 190.801†	-19.4	5.9	8.2322 µg/L	8.2322 ppb	18:39:26
2	U 409.014†	-143.2	-82.3	-7.4471 µg/L	-7.4471 ppb	18:39:06
2	V 292.402†	19.9	63.0	0.6686 µg/L	0.6686 ppb	18:39:06
2	Zn 213.857†	478.6	-21.5	-0.5326 µg/L	-0.5326 ppb	18:39:26
3	Sc RADIAL	56905.3	56905.3	104 %		18:37:58
3	Al 396.153Radial†	-1.7	8.5	6.3212 µg/L	6.3212 ppb	18:37:58
3	Ca 317.933Radial†	181.4	-5.2	-4.9145 µg/L	-4.9145 ppb	18:38:18
3	Fe 238.204 Radial†	13.2	-1.8	-15.607 µg/L	-15.607 ppb	18:38:18
3	K 766.490 Radial†	186.8	50.7	36.048 µg/L	36.048 ppb	18:37:58
3	Mg 279.077 IEC†	11.5	-0.3	-2.5813 µg/L	-2.5813 ppb	18:38:18
3	Na 589.592 Radial†	645.3	77.0	25.346 µg/L	25.346 ppb	18:37:58
3	Sr 421.552†	17.2	-23.1	-0.2393 µg/L	-0.2393 ppb	18:37:58
3	Sc 361.383	1996384.7	1996384.7	104.53 %		18:39:32
3	Y 371.029	1369220.3	1369220.3	104.53 %		18:39:32
3	Ag 328.068†	-541.0	47.0	0.3741 µg/L	0.3741 ppb	18:39:38
3	As 188.979†	-1.0	-2.1	-4.0939 µg/L	-4.0939 ppb	18:39:59
3	B 249.677†	333.0	-12.9	-0.5555 µg/L	-0.5555 ppb	18:39:59
3	Ba 233.527†	-17.3	9.5	0.2478 µg/L	0.2478 ppb	18:39:59
3	Be 313.107†	-3308.4	275.5	0.1799 µg/L	0.1799 ppb	18:39:38
3	Cd 226.502†	-144.0	4.4	0.1228 µg/L	0.1228 ppb	18:39:59
3	Co 228.616†	-11.0	-1.7	-0.0836 µg/L	-0.0836 ppb	18:39:59
3	Cr 267.716†	-55.8	-1.0	-0.0220 µg/L	-0.0220 ppb	18:39:38
3	Cu 324.752†	2440.9	-151.0	-1.0572 µg/L	-1.0572 ppb	18:39:38
3	Mn 257.610†	-222.1	31.7	0.1077 µg/L	0.1077 ppb	18:39:59
3	Mo 202.031†	-3.2	4.5	0.4771 µg/L	0.4771 ppb	18:39:59
3	Ni 231.604†	303.2	-12.1	-0.6637 µg/L	-0.6637 ppb	18:39:59
3	P 214.914†	30.5	1.6	3.5034 µg/L	3.5034 ppb	18:39:59
3	Pb 220.353†	89.5	-11.6	-3.0790 µg/L	-3.0790 ppb	18:39:59
3	S 181.975 Axial†	17.8	2.2	9.6185 µg/L	9.6185 ppb	18:39:59
3	Sb 206.836†	27.7	-0.5	-0.4700 µg/L	-0.4700 ppb	18:39:59
3	Se 196.026†	15.0	-1.5	-2.2806 µg/L	-2.2806 ppb	18:39:59
3	SiO2†	1247.6	-56.5	-12.175 µg/L	-12.175 ppb	18:39:38
3	Si 251.611†	300.0	-25.8	-2.1244 µg/L	-2.1244 ppb	18:39:59
3	Sn 189.927†	3.2	3.9	1.8070 µg/L	1.8070 ppb	18:39:59
3	Ti 334.940†	156.9	34.0	0.0818 µg/L	0.0818 ppb	18:39:38
3	Tl 190.801†	-23.6	1.7	2.3286 µg/L	2.3286 ppb	18:39:59
3	U 409.014†	-48.9	6.8	0.6203 µg/L	0.6203 ppb	18:39:38
3	V 292.402†	-14.3	30.6	0.3283 µg/L	0.3283 ppb	18:39:38
3	Zn 213.857†	478.7	-17.6	-0.4352 µg/L	-0.4352 ppb	18:39:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2002303.4	104.84	%	0.501				0.48%
Sc RADIAL	56288.9	103	%	1.5				1.42%
Y 371.029	1374349.3	104.92	%	0.515				0.49%
Ag 328.068†	56.7	0.4517	µg/L	0.08717	0.4517	ppb	0.08717	19.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-4.7097	µg/L	10.79578	-4.7097	ppb	10.79578	229.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.8943	µg/L	3.28450	-1.8943	ppb	3.28450	173.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-18.5	-0.8042	µg/L	0.41854	-0.8042	ppb	0.41854	52.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.8	0.1525	µg/L	0.10621	0.1525	ppb	0.10621	69.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.5	0.1211	µg/L	0.05710	0.1211	ppb	0.05710	47.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-1.7872	µg/L	7.20651	-1.7872	ppb	7.20651	403.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1907	µg/L	0.14008	0.1907	ppb	0.14008	73.44%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0817	µg/L	0.23614	-0.0817	ppb	0.23614	288.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.4     -0.0522 µg/L       0.04756     -0.0522 ppb        0.04756  91.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -143.2     -1.0009 µg/L       0.10608     -1.0009 ppb        0.10608  10.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.7     -6.1811 µg/L       8.84567     -6.1811 ppb        8.84567 143.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          21.6      15.327 µg/L      19.5055      15.327 ppb       19.5055 127.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.5253 µg/L      20.73608     -7.5253 ppb      20.73608 275.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.1      0.0519 µg/L       0.05154      0.0519 ppb        0.05154  99.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.1      0.2279 µg/L       0.58875      0.2279 ppb        0.58875 258.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         73.1      24.066 µg/L        1.2283      24.066 ppb         1.2283   5.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -13.6     -0.7433 µg/L       0.11501     -0.7433 ppb        0.11501  15.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.3     -2.6875 µg/L       5.36613     -2.6875 ppb        5.36613 199.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.0     -1.5981 µg/L       1.34866     -1.5981 ppb        1.34866  84.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.4      10.425 µg/L        5.3180      10.425 ppb         5.3180  51.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.7     -1.6649 µg/L       1.07918     -1.6649 ppb        1.07918  64.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.4141 µg/L       2.42173      0.4141 ppb        2.42173 584.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -45.8     -9.8634 µg/L       3.73124     -9.8634 ppb        3.73124  37.83%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -26.3     -2.1628 µg/L       0.25893     -2.1628 ppb        0.25893  11.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      1.2530 µg/L       0.49474      1.2530 ppb        0.49474  39.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.4     -0.0977 µg/L       0.13720     -0.0977 ppb        0.13720 140.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.1      0.0681 µg/L       0.01753      0.0681 ppb        0.01753  25.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.5      4.9108 µg/L       3.02042      4.9108 ppb        3.02042  61.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -44.5     -4.0288 µg/L       4.17218     -4.0288 ppb        4.17218 103.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.5      0.3005 µg/L       0.38270      0.3005 ppb        0.38270 127.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.9     -0.5173 µg/L       0.07558     -0.5173 ppb        0.07558  14.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55671.1	55671.1	102	%			19:13:03
1	Al 396.153Radial†	7032.4	6904.0	5134.7	µg/L	5134.7	ppb	19:13:03
1	Ca 317.933Radial†	5628.4	5338.4	5026.4	µg/L	5026.4	ppb	19:13:23
1	Fe 238.204 Radial†	628.5	601.6	5110.3	µg/L	5110.3	ppb	19:13:23
1	K 766.490 Radial†	7390.7	7116.7	5058.5	µg/L	5058.5	ppb	19:13:03
1	Mg 279.077 IEC†	581.4	558.7	5202.9	µg/L	5202.9	ppb	19:13:23
1	Na 589.592 Radial†	32145.4	30970.2	10196	µg/L	10196	ppb	19:13:03
1	Sr 421.552†	49522.9	48507.7	502.84	µg/L	502.84	ppb	19:13:03
1	Sc 361.383	1951144.3	1951144.3	102.16	%			19:14:27
1	Y 371.029	1335064.4	1335064.4	101.92	%			19:14:27
1	Ag 328.068†	64845.5	64037.3	511.83	µg/L	511.83	ppb	19:14:32
1	As 188.979†	275.5	268.5	523.78	µg/L	523.78	ppb	19:14:53
1	B 249.677†	12049.2	11462.7	499.11	µg/L	499.11	ppb	19:14:32
1	Ba 233.527†	20008.0	19610.4	511.55	µg/L	511.55	ppb	19:14:32
1	Be 313.107†	795598.6	782196.8	510.62	µg/L	510.62	ppb	19:14:27
1	Cd 226.502†	18839.6	18582.9	512.61	µg/L	512.61	ppb	19:14:32
1	Co 228.616†	10676.1	10458.9	514.13	µg/L	514.13	ppb	19:14:32
1	Cr 267.716†	23927.2	23473.1	516.64	µg/L	516.64	ppb	19:14:32
1	Cu 324.752†	77230.7	73109.7	511.40	µg/L	511.40	ppb	19:14:32
1	Mn 257.610†	153022.2	150027.0	519.99	µg/L	519.99	ppb	19:14:27
1	Mo 202.031†	5147.6	5046.1	538.72	µg/L	538.72	ppb	19:14:53
1	Ni 231.604†	9909.1	9397.1	513.24	µg/L	513.24	ppb	19:14:32
1	P 214.914†	1284.0	1229.2	2590.7	µg/L	2590.7	ppb	19:14:53
1	Pb 220.353†	2100.1	1958.5	522.80	µg/L	522.80	ppb	19:14:53
1	S 181.975 Axial†	260.7	240.4	1053.2	µg/L	1053.2	ppb	19:14:53
1	Sb 206.836†	579.1	539.9	533.92	µg/L	533.92	ppb	19:14:53
1	Se 196.026†	368.4	344.8	533.59	µg/L	533.59	ppb	19:14:53
1	SiO2†	27092.9	25269.3	5441.9	µg/L	5441.9	ppb	19:14:32
1	Si 251.611†	31889.8	30901.8	2540.3	µg/L	2540.3	ppb	19:14:32
1	Sn 189.927†	1200.9	1176.4	541.09	µg/L	541.09	ppb	19:14:53
1	Ti 334.940†	218380.7	213641.7	513.57	µg/L	513.57	ppb	19:14:27
1	Tl 190.801†	350.6	367.5	519.14	µg/L	519.14	ppb	19:14:53
1	U 409.014†	5814.6	5745.1	519.13	µg/L	519.13	ppb	19:14:32
1	V 292.402†	48982.0	47989.3	517.92	µg/L	517.92	ppb	19:14:32
1	Zn 213.857†	21483.0	20552.7	509.59	µg/L	509.59	ppb	19:14:32
2	Sc RADIAL	56100.7	56100.7	103	%			19:13:29
2	Al 396.153Radial†	6945.6	6766.8	5032.6	µg/L	5032.6	ppb	19:13:29
2	Ca 317.933Radial†	5631.2	5298.9	4989.2	µg/L	4989.2	ppb	19:13:49
2	Fe 238.204 Radial†	627.7	596.1	5063.7	µg/L	5063.7	ppb	19:13:49
2	K 766.490 Radial†	7341.2	7013.0	4984.8	µg/L	4984.8	ppb	19:13:29
2	Mg 279.077 IEC†	586.0	558.8	5203.5	µg/L	5203.5	ppb	19:13:49
2	Na 589.592 Radial†	31976.7	30564.8	10062	µg/L	10062	ppb	19:13:29
2	Sr 421.552†	49170.9	47793.6	495.44	µg/L	495.44	ppb	19:13:29
2	Sc 361.383	1954250.3	1954250.3	102.33	%			19:15:00
2	Y 371.029	1335611.5	1335611.5	101.96	%			19:15:00
2	Ag 328.068†	65212.5	64295.1	513.88	µg/L	513.88	ppb	19:15:06
2	As 188.979†	274.4	267.0	520.94	µg/L	520.94	ppb	19:15:26
2	B 249.677†	12164.5	11556.6	503.24	µg/L	503.24	ppb	19:15:06
2	Ba 233.527†	20057.8	19628.0	512.01	µg/L	512.01	ppb	19:15:06
2	Be 313.107†	786582.3	772147.7	504.06	µg/L	504.06	ppb	19:15:00
2	Cd 226.502†	18912.0	18624.4	513.76	µg/L	513.76	ppb	19:15:06
2	Co 228.616†	10732.8	10497.7	516.05	µg/L	516.05	ppb	19:15:06
2	Cr 267.716†	24011.5	23518.2	517.63	µg/L	517.63	ppb	19:15:06
2	Cu 324.752†	77632.9	73382.6	513.30	µg/L	513.30	ppb	19:15:06
2	Mn 257.610†	151747.3	148542.9	514.85	µg/L	514.85	ppb	19:15:00
2	Mo 202.031†	5096.3	4988.0	532.52	µg/L	532.52	ppb	19:15:26
2	Ni 231.604†	9986.9	9457.7	516.55	µg/L	516.55	ppb	19:15:06
2	P 214.914†	1269.9	1213.4	2556.6	µg/L	2556.6	ppb	19:15:26
2	Pb 220.353†	2103.2	1958.2	522.70	µg/L	522.70	ppb	19:15:26

2	S 181.975 Axial†	261.6	240.8	1055.1 µg/L	1055.1 ppb	19:15:26
2	Sb 206.836†	583.1	542.9	536.77 µg/L	536.77 ppb	19:15:26
2	Se 196.026†	358.4	334.4	517.63 µg/L	517.63 ppb	19:15:26
2	SiO2†	27219.9	25351.3	5459.5 µg/L	5459.5 ppb	19:15:06
2	Si 251.611†	32020.8	30980.3	2546.7 µg/L	2546.7 ppb	19:15:06
2	Sn 189.927†	1194.0	1167.7	537.13 µg/L	537.13 ppb	19:15:26
2	Ti 334.940†	216182.4	211153.6	507.58 µg/L	507.58 ppb	19:15:00
2	Tl 190.801†	351.8	368.1	519.85 µg/L	519.85 ppb	19:15:26
2	U 409.014†	5813.7	5735.2	518.24 µg/L	518.24 ppb	19:15:06
2	V 292.402†	49127.5	48055.3	518.57 µg/L	518.57 ppb	19:15:06
2	Zn 213.857†	21549.0	20583.8	510.35 µg/L	510.35 ppb	19:15:06
3	Sc RADIAL	56646.4	56646.4	104 %		19:13:55
3	Al 396.153Radial†	6990.5	6744.9	5018.4 µg/L	5018.4 ppb	19:13:55
3	Ca 317.933Radial†	5597.5	5213.6	4908.9 µg/L	4908.9 ppb	19:14:15
3	Fe 238.204 Radial†	629.8	592.2	5029.2 µg/L	5029.2 ppb	19:14:15
3	K 766.490 Radial†	7441.3	7040.7	5004.5 µg/L	5004.5 ppb	19:13:55
3	Mg 279.077 IEC†	585.3	552.6	5144.3 µg/L	5144.3 ppb	19:14:15
3	Na 589.592 Radial†	32200.7	30481.0	10034 µg/L	10034 ppb	19:13:55
3	Sr 421.552†	49653.3	47797.6	495.48 µg/L	495.48 ppb	19:13:55
3	Sc 361.383	1989206.7	1989206.7	104.16 %		19:15:33
3	Y 371.029	1360871.5	1360871.5	103.89 %		19:15:33
3	Ag 328.068†	60452.0	58604.6	468.29 µg/L	468.29 ppb	19:15:39
3	As 188.979†	231.4	221.0	431.16 µg/L	431.16 ppb	19:15:59
3	B 249.677†	11200.8	10422.4	453.57 µg/L	453.57 ppb	19:15:39
3	Ba 233.527†	18155.6	17457.3	455.37 µg/L	455.37 ppb	19:15:39
3	Be 313.107†	746723.2	720370.4	470.26 µg/L	470.26 ppb	19:15:33
3	Cd 226.502†	17034.9	16497.4	455.02 µg/L	455.02 ppb	19:15:39
3	Co 228.616†	9575.0	9201.8	452.26 µg/L	452.26 ppb	19:15:39
3	Cr 267.716†	20898.9	20117.4	442.78 µg/L	442.78 ppb	19:15:39
3	Cu 324.752†	69759.8	64490.4	451.18 µg/L	451.18 ppb	19:15:39
3	Mn 257.610†	144303.8	138790.3	481.07 µg/L	481.07 ppb	19:15:33
3	Mo 202.031†	4187.5	4027.9	430.06 µg/L	430.06 ppb	19:15:59
3	Ni 231.604†	8969.1	8309.0	453.82 µg/L	453.82 ppb	19:15:39
3	P 214.914†	1074.2	1003.7	2111.2 µg/L	2111.2 ppb	19:15:59
3	Pb 220.353†	1799.2	1630.2	435.08 µg/L	435.08 ppb	19:15:59
3	S 181.975 Axial†	224.9	201.1	880.92 µg/L	880.92 ppb	19:15:59
3	Sb 206.836†	494.9	448.2	442.71 µg/L	442.71 ppb	19:15:59
3	Se 196.026†	304.8	276.8	429.75 µg/L	429.75 ppb	19:15:59
3	SiO2†	24880.7	22637.9	4875.2 µg/L	4875.2 ppb	19:15:39
3	Si 251.611†	29305.2	27823.1	2287.2 µg/L	2287.2 ppb	19:15:39
3	Sn 189.927†	959.0	921.6	423.93 µg/L	423.93 ppb	19:15:59
3	Ti 334.940†	203896.7	195645.3	470.28 µg/L	470.28 ppb	19:15:33
3	Tl 190.801†	305.5	317.6	449.03 µg/L	449.03 ppb	19:15:59
3	U 409.014†	5068.3	4919.7	444.42 µg/L	444.42 ppb	19:15:39
3	V 292.402†	43582.6	41887.9	451.80 µg/L	451.80 ppb	19:15:39
3	Zn 213.857†	19376.0	18127.3	449.39 µg/L	449.39 ppb	19:15:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1964867.1	102.88	%	1.107				1.08%
Sc RADIAL	56139.4	103	%	0.9				0.87%
Y 371.029	1343849.1	102.59	%	1.126				1.10%
Ag 328.068†	62312.3	498.00	µg/L	25.750	498.00	ppb	25.750	5.17%
QC value within limits for Ag 328.068 Recovery = 99.60%								
Al 396.153Radial†	6805.2	5061.9	µg/L	63.45	5061.9	ppb	63.45	1.25%
QC value within limits for Al 396.153Radial Recovery = 101.24%								
As 188.979†	252.2	491.96	µg/L	52.673	491.96	ppb	52.673	10.71%
QC value within limits for As 188.979 Recovery = 98.39%								
B 249.677†	11147.2	485.30	µg/L	27.561	485.30	ppb	27.561	5.68%
QC value within limits for B 249.677 Recovery = 97.06%								
Ba 233.527†	18898.6	492.97	µg/L	32.570	492.97	ppb	32.570	6.61%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	758238.3	494.98	µg/L	21.658	494.98	ppb	21.658	4.38%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	5283.6	4974.8	µg/L	60.06	4974.8	ppb	60.06	1.21%
QC value within limits for Ca 317.933Radial Recovery = 99.50%								
Cd 226.502†	17901.6	493.80	µg/L	33.585	493.80	ppb	33.585	6.80%
QC value within limits for Cd 226.502 Recovery = 98.76%								
Co 228.616†	10052.8	494.14	µg/L	36.289	494.14	ppb	36.289	7.34%

```
   QC value within limits for Co 228.616  Recovery = 98.83%
Cr 267.716†            22369.6      492.35 µg/L        42.929      492.35 ppb         42.929   8.72%
   QC value within limits for Cr 267.716  Recovery = 98.47%
Cu 324.752†            70327.6      491.96 µg/L        35.329      491.96 ppb         35.329   7.18%
   QC value within limits for Cu 324.752  Recovery = 98.39%
Fe 238.204 Radial†       596.7      5067.7 µg/L         40.70      5067.7 ppb          40.70   0.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†       7056.8      5015.9 µg/L         38.15      5015.9 ppb          38.15   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 100.32%
Mg 279.077 IEC†          556.7      5183.6 µg/L         33.98      5183.6 ppb          33.98   0.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.67%
Mn 257.610†           145786.8      505.31 µg/L        21.142      505.31 ppb         21.142   4.18%
   QC value within limits for Mn 257.610  Recovery = 101.06%
Mo 202.031†             4687.4      500.43 µg/L        61.026      500.43 ppb         61.026  12.19%
   QC value within limits for Mo 202.031  Recovery = 100.09%
Na 589.592 Radial†     30672.0       10097 µg/L          86.1       10097 ppb           86.1   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 100.97%
Ni 231.604†             9054.6      494.54 µg/L        35.300      494.54 ppb         35.300   7.14%
   QC value within limits for Ni 231.604  Recovery = 98.91%
P 214.914†              1148.8      2419.5 µg/L        267.56      2419.5 ppb         267.56  11.06%
   QC value within limits for P 214.914  Recovery = 96.78%
Pb 220.353†             1849.0      493.53 µg/L        50.614      493.53 ppb         50.614  10.26%
   QC value within limits for Pb 220.353  Recovery = 98.71%
S 181.975 Axial†         227.4      996.40 µg/L       100.008      996.40 ppb        100.008  10.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†              510.3      504.47 µg/L        53.501      504.47 ppb         53.501  10.61%
   QC value within limits for Sb 206.836  Recovery = 100.89%
Se 196.026†              318.7      493.66 µg/L        55.921      493.66 ppb         55.921  11.33%
   QC value within limits for Se 196.026  Recovery = 98.73%
SiO2†                  24419.5      5258.9 µg/L        332.39      5258.9 ppb         332.39   6.32%
   QC value within limits for SiO2  Recovery = 98.34%
Si 251.611†            29901.8      2458.1 µg/L        148.02      2458.1 ppb         148.02   6.02%
   QC value within limits for Si 251.611  Recovery = 98.32%
Sn 189.927†             1088.6      500.71 µg/L        66.525      500.71 ppb         66.525  13.29%
   QC value within limits for Sn 189.927  Recovery = 100.14%
Sr 421.552†            48033.0      497.92 µg/L         4.262      497.92 ppb          4.262   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.58%
Ti 334.940†           206813.5      497.14 µg/L        23.455      497.14 ppb         23.455   4.72%
   QC value within limits for Ti 334.940  Recovery = 99.43%
Tl 190.801†              351.1      496.01 µg/L        40.687      496.01 ppb         40.687   8.20%
   QC value within limits for Tl 190.801  Recovery = 99.20%
U 409.014†              5466.7      493.93 µg/L        42.881      493.93 ppb         42.881   8.68%
   QC value within limits for U 409.014  Recovery = 98.79%
V 292.402†             45977.5      496.10 µg/L        38.364      496.10 ppb         38.364   7.73%
   QC value within limits for V 292.402  Recovery = 99.22%
Zn 213.857†            19754.6      489.78 µg/L        34.976      489.78 ppb         34.976   7.14%
   QC value within limits for Zn 213.857  Recovery = 97.96%
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55600.7	55600.7	102	%			19:16:41
1	Al 396.153Radial†	-4.5	5.7	4.2256	µg/L	4.2256	ppb	19:16:41
1	Ca 317.933Radial†	176.7	-5.7	-5.4036	µg/L	-5.4036	ppb	19:17:01
1	Fe 238.204 Radial†	16.9	2.1	17.440	µg/L	17.440	ppb	19:17:01
1	K 766.490 Radial†	120.8	-9.9	-7.0161	µg/L	-7.0161	ppb	19:16:41
1	Mg 279.077 IEC†	10.9	-0.6	-5.3345	µg/L	-5.3345	ppb	19:17:01
1	Na 589.592 Radial†	652.7	98.7	32.500	µg/L	32.500	ppb	19:16:41
1	Sr 421.552†	22.7	-17.3	-0.1790	µg/L	-0.1790	ppb	19:16:41
1	Sc 361.383	1934829.6	1934829.6	101.31	%			19:18:03
1	Y 371.029	1327190.7	1327190.7	101.32	%			19:18:03
1	Ag 328.068†	-516.6	54.6	0.4388	µg/L	0.4388	ppb	19:18:09
1	As 188.979†	1.2	0.0	0.0845	µg/L	0.0845	ppb	19:18:29
1	B 249.677†	321.4	-14.2	-0.6284	µg/L	-0.6284	ppb	19:18:29
1	Ba 233.527†	-23.7	2.6	0.0683	µg/L	0.0683	ppb	19:18:29
1	Be 313.107†	-3408.1	76.3	0.0498	µg/L	0.0498	ppb	19:18:09
1	Cd 226.502†	-144.3	-0.3	-0.0100	µg/L	-0.0100	ppb	19:18:29
1	Co 228.616†	-6.0	2.9	0.1456	µg/L	0.1456	ppb	19:18:29
1	Cr 267.716†	-15.9	36.7	0.8069	µg/L	0.8069	ppb	19:18:09
1	Cu 324.752†	2442.5	-75.1	-0.5222	µg/L	-0.5222	ppb	19:18:09
1	Mn 257.610†	-225.9	21.1	0.0756	µg/L	0.0756	ppb	19:18:29
1	Mo 202.031†	-2.6	4.9	0.5275	µg/L	0.5275	ppb	19:18:29
1	Ni 231.604†	310.8	4.6	0.2529	µg/L	0.2529	ppb	19:18:29
1	P 214.914†	22.3	-5.6	-12.052	µg/L	-12.052	ppb	19:18:29
1	Pb 220.353†	97.2	-1.3	-0.3391	µg/L	-0.3391	ppb	19:18:29
1	S 181.975 Axial†	15.8	0.7	3.2436	µg/L	3.2436	ppb	19:18:29
1	Sb 206.836†	30.1	2.8	2.7305	µg/L	2.7305	ppb	19:18:29
1	Se 196.026†	14.9	-1.1	-1.6720	µg/L	-1.6720	ppb	19:18:29
1	SiO2†	1241.8	-24.3	-5.2260	µg/L	-5.2260	ppb	19:18:09
1	Si 251.611†	314.2	-2.7	-0.2249	µg/L	-0.2249	ppb	19:18:29
1	Sn 189.927†	3.0	3.9	1.7687	µg/L	1.7687	ppb	19:18:29
1	Ti 334.940†	129.2	11.4	0.0278	µg/L	0.0278	ppb	19:18:09
1	Tl 190.801†	-22.4	2.2	3.0821	µg/L	3.0821	ppb	19:18:29
1	U 409.014†	-44.2	10.0	0.9045	µg/L	0.9045	ppb	19:18:09
1	V 292.402†	22.3	66.2	0.7146	µg/L	0.7146	ppb	19:18:09
1	Zn 213.857†	480.2	-1.5	-0.0391	µg/L	-0.0391	ppb	19:18:29
2	Sc RADIAL	55841.1	55841.1	102	%			19:17:07
2	Al 396.153Radial†	-0.2	10.0	7.4245	µg/L	7.4245	ppb	19:17:07
2	Ca 317.933Radial†	185.5	2.1	1.9861	µg/L	1.9861	ppb	19:17:27
2	Fe 238.204 Radial†	13.8	-1.1	-8.9579	µg/L	-8.9579	ppb	19:17:27
2	K 766.490 Radial†	118.8	-12.3	-8.7251	µg/L	-8.7251	ppb	19:17:07
2	Mg 279.077 IEC†	12.4	0.9	8.1129	µg/L	8.1129	ppb	19:17:27
2	Na 589.592 Radial†	684.6	127.2	41.869	µg/L	41.869	ppb	19:17:07
2	Sr 421.552†	48.5	7.8	0.0810	µg/L	0.0810	ppb	19:17:07
2	Sc 361.383	1955516.9	1955516.9	102.39	%			19:18:35
2	Y 371.029	1342161.2	1342161.2	102.46	%			19:18:35
2	Ag 328.068†	-513.3	63.2	0.5022	µg/L	0.5022	ppb	19:18:41
2	As 188.979†	-5.0	-6.0	-11.703	µg/L	-11.703	ppb	19:19:01
2	B 249.677†	317.0	-21.8	-0.9495	µg/L	-0.9495	ppb	19:19:01
2	Ba 233.527†	-19.8	6.7	0.1743	µg/L	0.1743	ppb	19:19:01
2	Be 313.107†	-3409.1	110.9	0.0724	µg/L	0.0724	ppb	19:18:41
2	Cd 226.502†	-125.7	19.4	0.5362	µg/L	0.5362	ppb	19:19:01
2	Co 228.616†	-4.9	4.1	0.1998	µg/L	0.1998	ppb	19:19:01
2	Cr 267.716†	-35.7	17.5	0.3848	µg/L	0.3848	ppb	19:18:41
2	Cu 324.752†	2432.5	-110.5	-0.7728	µg/L	-0.7728	ppb	19:18:41
2	Mn 257.610†	-217.1	32.1	0.1097	µg/L	0.1097	ppb	19:19:01
2	Mo 202.031†	-0.2	7.4	0.7857	µg/L	0.7857	ppb	19:19:01
2	Ni 231.604†	307.3	-2.1	-0.1144	µg/L	-0.1144	ppb	19:19:01
2	P 214.914†	26.8	-1.4	-2.9443	µg/L	-2.9443	ppb	19:19:01
2	Pb 220.353†	98.0	-1.5	-0.3841	µg/L	-0.3841	ppb	19:19:01

2	S 181.975 Axial†	16.0	0.8	3.5945 µg/L	3.5945 ppb	19:19:01
2	Sb 206.836†	19.9	-7.6	-7.4359 µg/L	-7.4359 ppb	19:19:01
2	Se 196.026†	24.3	7.9	11.982 µg/L	11.982 ppb	19:19:01
2	SiO2†	1252.6	-26.7	-5.7496 µg/L	-5.7496 ppb	19:18:41
2	Si 251.611†	335.5	14.8	1.2146 µg/L	1.2146 ppb	19:19:01
2	Sn 189.927†	0.8	1.7	0.7658 µg/L	0.7658 ppb	19:19:01
2	Ti 334.940†	159.2	39.3	0.0940 µg/L	0.0940 ppb	19:18:41
2	Tl 190.801†	-19.6	5.1	7.1712 µg/L	7.1712 ppb	19:19:01
2	U 409.014†	-39.3	15.2	1.3764 µg/L	1.3764 ppb	19:18:41
2	V 292.402†	-32.1	12.8	0.1441 µg/L	0.1441 ppb	19:18:41
2	Zn 213.857†	480.1	-6.6	-0.1635 µg/L	-0.1635 ppb	19:19:01
3	Sc RADIAL	54991.0	54991.0	101 %		19:17:32
3	Al 396.153Radial†	-25.8	-15.4	-11.501 µg/L	-11.501 ppb	19:17:32
3	Ca 317.933Radial†	179.1	-1.4	-1.2826 µg/L	-1.2826 ppb	19:17:53
3	Fe 238.204 Radial†	16.1	1.5	12.918 µg/L	12.918 ppb	19:17:53
3	K 766.490 Radial†	157.4	27.8	19.781 µg/L	19.781 ppb	19:17:32
3	Mg 279.077 IEC†	9.1	-2.2	-20.551 µg/L	-20.551 ppb	19:17:53
3	Na 589.592 Radial†	624.4	77.8	25.618 µg/L	25.618 ppb	19:17:32
3	Sr 421.552†	39.8	-0.1	-0.0009 µg/L	-0.0009 ppb	19:17:32
3	Sc 361.383	1967438.1	1967438.1	103.02 %		19:19:07
3	Y 371.029	1348776.4	1348776.4	102.97 %		19:19:07
3	Ag 328.068†	-543.2	37.2	0.2976 µg/L	0.2976 ppb	19:19:13
3	As 188.979†	-2.4	-3.5	-6.8853 µg/L	-6.8853 ppb	19:19:33
3	B 249.677†	305.4	-35.0	-1.5334 µg/L	-1.5334 ppb	19:19:33
3	Ba 233.527†	-26.9	-0.1	-0.0009 µg/L	-0.0009 ppb	19:19:33
3	Be 313.107†	-3287.9	248.8	0.1624 µg/L	0.1624 ppb	19:19:13
3	Cd 226.502†	-133.1	12.9	0.3539 µg/L	0.3539 ppb	19:19:33
3	Co 228.616†	-14.2	-5.0	-0.2450 µg/L	-0.2450 ppb	19:19:33
3	Cr 267.716†	-20.7	32.3	0.7108 µg/L	0.7108 ppb	19:19:13
3	Cu 324.752†	2481.8	-76.9	-0.5355 µg/L	-0.5355 ppb	19:19:13
3	Mn 257.610†	-209.8	40.5	0.1427 µg/L	0.1427 ppb	19:19:33
3	Mo 202.031†	-10.0	-2.2	-0.2320 µg/L	-0.2320 ppb	19:19:33
3	Ni 231.604†	301.2	-9.8	-0.5340 µg/L	-0.5340 ppb	19:19:33
3	P 214.914†	26.0	-2.4	-5.0576 µg/L	-5.0576 ppb	19:19:33
3	Pb 220.353†	96.7	-3.3	-0.8887 µg/L	-0.8887 ppb	19:19:33
3	S 181.975 Axial†	14.9	-0.4	-1.5487 µg/L	-1.5487 ppb	19:19:33
3	Sb 206.836†	32.3	4.4	4.3137 µg/L	4.3137 ppb	19:19:33
3	Se 196.026†	14.2	-2.1	-3.1442 µg/L	-3.1442 ppb	19:19:33
3	SiO2†	1256.2	-30.6	-6.5854 µg/L	-6.5854 ppb	19:19:13
3	Si 251.611†	309.4	-12.5	-1.0288 µg/L	-1.0288 ppb	19:19:33
3	Sn 189.927†	-1.0	-0.1	-0.0403 µg/L	-0.0403 ppb	19:19:33
3	Ti 334.940†	153.9	33.3	0.0816 µg/L	0.0816 ppb	19:19:13
3	Tl 190.801†	-21.2	3.7	5.1463 µg/L	5.1463 ppb	19:19:33
3	U 409.014†	-6.3	47.5	4.3005 µg/L	4.3005 ppb	19:19:13
3	V 292.402†	-20.0	24.8	0.2699 µg/L	0.2699 ppb	19:19:13
3	Zn 213.857†	479.8	-9.8	-0.2409 µg/L	-0.2409 ppb	19:19:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952594.9	102.24	%	0.864				0.84%
Sc RADIAL	55477.6	102	%	0.8				0.79%
Y 371.029	1339376.1	102.25	%	0.844				0.83%
Ag 328.068†	51.7	0.4129	µg/L	0.10471	0.4129	ppb	0.10471	25.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.0498	µg/L	10.13010	0.0498	ppb	10.13010	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-6.1678	µg/L	5.92624	-6.1678	ppb	5.92624	96.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.7	-1.0371	µg/L	0.45878	-1.0371	ppb	0.45878	44.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0805	µg/L	0.08826	0.0805	ppb	0.08826	109.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.3	0.0949	µg/L	0.05957	0.0949	ppb	0.05957	62.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-1.5667	µg/L	3.70306	-1.5667	ppb	3.70306	236.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.7	0.2934	µg/L	0.27809	0.2934	ppb	0.27809	94.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0335	µg/L	0.24267	0.0335	ppb	0.24267	724.80%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.8      0.6341 µg/L       0.22120      0.6341 ppb        0.22120  34.88%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -87.5     -0.6102 µg/L       0.14102     -0.6102 ppb        0.14102  23.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      7.1335 µg/L      14.11778      7.1335 ppb       14.11778 197.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           1.9      1.3465 µg/L      15.98731      1.3465 ppb       15.98731 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -5.9243 µg/L      14.34120     -5.9243 ppb       14.34120 242.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                31.2      0.1094 µg/L       0.03354      0.1094 ppb        0.03354  30.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.3604 µg/L       0.52901      0.3604 ppb        0.52901 146.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.2     33.329 µg/L        8.1571     33.329 ppb         8.1571  24.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.4     -0.1318 µg/L       0.39372     -0.1318 ppb        0.39372 298.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.1     -6.6846 µg/L       4.76680     -6.6846 ppb        4.76680  71.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.0     -0.5373 µg/L       0.30511     -0.5373 ppb        0.30511  56.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      1.7632 µg/L       2.87351      1.7632 ppb        2.87351 162.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.1306 µg/L       6.37594     -0.1306 ppb        6.37594 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.6      2.3884 µg/L       8.34041      2.3884 ppb        8.34041 349.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -27.2     -5.8537 µg/L       0.68563     -5.8537 ppb        0.68563  11.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                -0.2     -0.0130 µg/L       1.13664     -0.0130 ppb        1.13664 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.8314 µg/L       0.90630      0.8314 ppb        0.90630 109.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -3.2     -0.0330 µg/L       0.13293     -0.0330 ppb        0.13293 403.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.0      0.0678 µg/L       0.03518      0.0678 ppb        0.03518  51.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.7      5.1332 µg/L       2.04457      5.1332 ppb        2.04457  39.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.2      2.1938 µg/L       1.83966      2.1938 ppb        1.83966  83.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 34.6      0.3762 µg/L       0.29972      0.3762 ppb        0.29972  79.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -6.0     -0.1478 µg/L       0.10182     -0.1478 ppb        0.10182  68.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: 1202032557|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 2/11/2010 19:19:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032557|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56162.6	56162.6	103	%			19:20:21
1	Al 396.153Radial†	-0.9	9.2	6.8694	µg/L	6.8694	ppb	19:20:21
1	Ca 317.933Radial†	193.4	8.8	8.2949	µg/L	8.2949	ppb	19:20:41
1	Fe 238.204 Radial†	17.5	2.5	21.049	µg/L	21.049	ppb	19:20:41
1	K 766.490 Radial†	140.5	8.2	5.7964	µg/L	5.7964	ppb	19:20:21
1	Mg 279.077 IEC†	14.7	3.0	27.583	µg/L	27.583	ppb	19:20:41
1	Na 589.592 Radial†	619.9	60.5	19.922	µg/L	19.922	ppb	19:20:21
1	Sr 421.552†	24.9	-15.4	-0.1597	µg/L	-0.1597	ppb	19:20:21
1	Sc 361.383	1969009.3	1969009.3	103.10	%			19:21:43
1	Y 371.029	1347307.8	1347307.8	102.85	%			19:21:43
1	Ag 328.068†	-572.7	9.0	0.0759	µg/L	0.0759	ppb	19:21:49
1	As 188.979†	4.3	3.1	5.9676	µg/L	5.9676	ppb	19:22:09
1	B 249.677†	319.3	-21.8	-0.9629	µg/L	-0.9629	ppb	19:22:09
1	Ba 233.527†	-16.2	10.3	0.2702	µg/L	0.2702	ppb	19:22:09
1	Be 313.107†	-3531.0	15.6	0.0101	µg/L	0.0101	ppb	19:21:49
1	Cd 226.502†	-147.1	-0.5	-0.0161	µg/L	-0.0161	ppb	19:22:09
1	Co 228.616†	-17.1	-7.8	-0.3825	µg/L	-0.3825	ppb	19:22:09
1	Cr 267.716†	-24.9	28.2	0.6201	µg/L	0.6201	ppb	19:22:09
1	Cu 324.752†	2344.0	-212.5	-1.4815	µg/L	-1.4815	ppb	19:21:49
1	Mn 257.610†	-173.7	75.6	0.2635	µg/L	0.2635	ppb	19:22:09
1	Mo 202.031†	-7.4	0.3	0.0356	µg/L	0.0356	ppb	19:22:09
1	Ni 231.604†	312.9	1.3	0.0735	µg/L	0.0735	ppb	19:22:09
1	P 214.914†	30.5	2.0	4.4454	µg/L	4.4454	ppb	19:22:09
1	Pb 220.353†	103.9	3.6	0.9614	µg/L	0.9614	ppb	19:22:09
1	S 181.975 Axial†	17.6	2.3	9.8847	µg/L	9.8847	ppb	19:22:09
1	Sb 206.836†	28.0	0.2	0.2152	µg/L	0.2152	ppb	19:22:09
1	Se 196.026†	17.5	1.2	1.8091	µg/L	1.8091	ppb	19:22:09
1	SiO2†	1345.3	54.8	11.812	µg/L	11.812	ppb	19:21:49
1	Si 251.611†	418.6	93.2	7.6584	µg/L	7.6584	ppb	19:22:09
1	Sn 189.927†	-0.5	0.4	0.1929	µg/L	0.1929	ppb	19:22:09
1	Ti 334.940†	191.4	69.5	0.1652	µg/L	0.1652	ppb	19:21:49
1	Tl 190.801†	-19.7	5.2	7.2052	µg/L	7.2052	ppb	19:22:09
1	U 409.014†	-22.0	32.3	2.9184	µg/L	2.9184	ppb	19:21:49
1	V 292.402†	-1.5	42.8	0.4631	µg/L	0.4631	ppb	19:21:49
1	Zn 213.857†	523.7	32.4	0.8081	µg/L	0.8081	ppb	19:22:09
2	Sc RADIAL	57033.0	57033.0	105	%			19:20:47
2	Al 396.153Radial†	-29.2	-17.8	-13.303	µg/L	-13.303	ppb	19:20:47
2	Ca 317.933Radial†	198.1	10.4	9.7767	µg/L	9.7767	ppb	19:21:07
2	Fe 238.204 Radial†	15.7	0.5	4.2922	µg/L	4.2922	ppb	19:21:07
2	K 766.490 Radial†	163.1	27.6	19.636	µg/L	19.636	ppb	19:20:47
2	Mg 279.077 IEC†	8.2	-3.5	-32.175	µg/L	-32.175	ppb	19:21:07
2	Na 589.592 Radial†	627.1	58.2	19.145	µg/L	19.145	ppb	19:20:47
2	Sr 421.552†	15.7	-24.5	-0.2542	µg/L	-0.2542	ppb	19:20:47
2	Sc 361.383	1951926.6	1951926.6	102.20	%			19:22:15
2	Y 371.029	1336400.0	1336400.0	102.02	%			19:22:15
2	Ag 328.068†	-524.4	51.4	0.4117	µg/L	0.4117	ppb	19:22:21
2	As 188.979†	-1.8	-2.9	-5.6797	µg/L	-5.6797	ppb	19:22:41
2	B 249.677†	313.0	-25.2	-1.1037	µg/L	-1.1037	ppb	19:22:41
2	Ba 233.527†	-15.7	10.7	0.2791	µg/L	0.2791	ppb	19:22:41
2	Be 313.107†	-3486.1	29.5	0.0193	µg/L	0.0193	ppb	19:22:21
2	Cd 226.502†	-132.0	13.0	0.3577	µg/L	0.3577	ppb	19:22:41
2	Co 228.616†	-14.0	-4.8	-0.2372	µg/L	-0.2372	ppb	19:22:41
2	Cr 267.716†	-26.4	26.5	0.5835	µg/L	0.5835	ppb	19:22:41
2	Cu 324.752†	2384.5	-153.0	-1.0685	µg/L	-1.0685	ppb	19:22:21
2	Mn 257.610†	-179.0	69.0	0.2407	µg/L	0.2407	ppb	19:22:41
2	Mo 202.031†	-5.7	1.9	0.2054	µg/L	0.2054	ppb	19:22:41
2	Ni 231.604†	320.7	11.6	0.6340	µg/L	0.6340	ppb	19:22:41
2	P 214.914†	24.8	-3.3	-7.0323	µg/L	-7.0323	ppb	19:22:41
2	Pb 220.353†	91.9	-7.2	-1.9278	µg/L	-1.9278	ppb	19:22:41

2	S 181.975 Axial†	19.7	4.5	19.528 µg/L	19.528 ppb	19:22:41
2	Sb 206.836†	24.0	-3.5	-3.4566 µg/L	-3.4566 ppb	19:22:41
2	Se 196.026†	13.6	-2.5	-3.7596 µg/L	-3.7596 ppb	19:22:41
2	SiO2†	1333.2	54.4	11.718 µg/L	11.718 ppb	19:22:21
2	Si 251.611†	413.0	91.2	7.4996 µg/L	7.4996 ppb	19:22:41
2	Sn 189.927†	0.9	1.7	0.7999 µg/L	0.7999 ppb	19:22:41
2	Ti 334.940†	113.7	-4.8	-0.0089 µg/L	-0.0089 ppb	19:22:21
2	Tl 190.801†	-24.7	0.1	0.1231 µg/L	0.1231 ppb	19:22:41
2	U 409.014†	-59.8	-4.9	-0.4425 µg/L	-0.4425 ppb	19:22:21
2	V 292.402†	4.4	48.6	0.5204 µg/L	0.5204 ppb	19:22:21
2	Zn 213.857†	510.3	23.7	0.5934 µg/L	0.5934 ppb	19:22:41
3	Sc RADIAL	55968.5	55968.5	103 %		19:21:13
3	Al 396.153Radial†	-7.1	3.2	2.3751 µg/L	2.3751 ppb	19:21:13
3	Ca 317.933Radial†	199.5	15.4	14.455 µg/L	14.455 ppb	19:21:33
3	Fe 238.204 Radial†	15.7	0.8	6.8156 µg/L	6.8156 ppb	19:21:33
3	K 766.490 Radial†	147.8	15.7	11.190 µg/L	11.190 ppb	19:21:13
3	Mg 279.077 IEC†	15.9	4.2	39.435 µg/L	39.435 ppb	19:21:33
3	Na 589.592 Radial†	631.7	74.1	24.401 µg/L	24.401 ppb	19:21:13
3	Sr 421.552†	49.4	8.6	0.0895 µg/L	0.0895 ppb	19:21:13
3	Sc 361.383	1933204.1	1933204.1	101.22 %		19:22:47
3	Y 371.029	1323935.5	1323935.5	101.07 %		19:22:47
3	Ag 328.068†	-593.9	-22.2	-0.1725 µg/L	-0.1725 ppb	19:22:53
3	As 188.979†	2.3	1.1	2.1309 µg/L	2.1309 ppb	19:23:13
3	B 249.677†	321.0	-14.3	-0.6295 µg/L	-0.6295 ppb	19:23:13
3	Ba 233.527†	-21.8	4.5	0.1184 µg/L	0.1184 ppb	19:23:13
3	Be 313.107†	-3438.4	43.6	0.0285 µg/L	0.0285 ppb	19:22:53
3	Cd 226.502†	-140.8	3.0	0.0822 µg/L	0.0822 ppb	19:23:13
3	Co 228.616†	-13.8	-4.8	-0.2340 µg/L	-0.2340 ppb	19:23:13
3	Cr 267.716†	-34.4	18.4	0.4049 µg/L	0.4049 ppb	19:23:13
3	Cu 324.752†	2432.8	-82.7	-0.5764 µg/L	-0.5764 ppb	19:22:53
3	Mn 257.610†	-182.3	64.0	0.2209 µg/L	0.2209 ppb	19:23:13
3	Mo 202.031†	-4.6	3.0	0.3226 µg/L	0.3226 ppb	19:23:13
3	Ni 231.604†	307.3	1.4	0.0745 µg/L	0.0745 ppb	19:23:13
3	P 214.914†	29.5	1.5	3.2678 µg/L	3.2678 ppb	19:23:13
3	Pb 220.353†	88.5	-9.8	-2.6006 µg/L	-2.6006 ppb	19:23:13
3	S 181.975 Axial†	15.9	0.9	3.7746 µg/L	3.7746 ppb	19:23:13
3	Sb 206.836†	23.1	-4.2	-4.0869 µg/L	-4.0869 ppb	19:23:13
3	Se 196.026†	8.2	-7.7	-11.834 µg/L	-11.834 ppb	19:23:13
3	SiO2†	1331.0	64.9	13.967 µg/L	13.967 ppb	19:22:53
3	Si 251.611†	405.4	87.6	7.2021 µg/L	7.2021 ppb	19:23:13
3	Sn 189.927†	-4.0	-3.1	-1.4085 µg/L	-1.4085 ppb	19:23:13
3	Ti 334.940†	115.8	-1.7	-0.0070 µg/L	-0.0070 ppb	19:22:53
3	Tl 190.801†	-23.4	1.2	1.6907 µg/L	1.6907 ppb	19:23:13
3	U 409.014†	-46.8	7.4	0.6668 µg/L	0.6668 ppb	19:22:53
3	V 292.402†	-2.1	42.2	0.4542 µg/L	0.4542 ppb	19:22:53
3	Zn 213.857†	517.2	35.4	0.8820 µg/L	0.8820 ppb	19:23:13

Mean Data: 1202032557|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1951380.0	102.18	%	0.938				0.92%
Sc RADIAL	56388.0	103	%	1.0				1.01%
Y 371.029	1335881.1	101.98	%	0.893				0.88%
Ag 328.068†	12.8	0.1050	µg/L	0.29320	0.1050	ppb	0.29320	279.21%
Al 396.153Radial†	-1.8	-1.3527	µg/L	10.59010	-1.3527	ppb	10.59010	782.87%
As 188.979†	0.4	0.8062	µg/L	5.93558	0.8062	ppb	5.93558	736.20%
B 249.677†	-20.5	-0.8987	µg/L	0.24350	-0.8987	ppb	0.24350	27.09%
Ba 233.527†	8.5	0.2226	µg/L	0.09033	0.2226	ppb	0.09033	40.59%
Be 313.107†	29.6	0.0193	µg/L	0.00919	0.0193	ppb	0.00919	47.63%
Ca 317.933Radial†	11.5	10.842	µg/L	3.2155	10.842	ppb	3.2155	29.66%
Cd 226.502†	5.2	0.1413	µg/L	0.19380	0.1413	ppb	0.19380	137.20%
Co 228.616†	-5.8	-0.2846	µg/L	0.08480	-0.2846	ppb	0.08480	29.80%
Cr 267.716†	24.4	0.5362	µg/L	0.11516	0.5362	ppb	0.11516	21.48%
Cu 324.752†	-149.4	-1.0421	µg/L	0.45311	-1.0421	ppb	0.45311	43.48%
Fe 238.204 Radial†	1.3	10.719	µg/L	9.0344	10.719	ppb	9.0344	84.29%
K 766.490 Radial†	17.2	12.207	µg/L	6.9755	12.207	ppb	6.9755	57.14%
Mg 279.077 IEC†	1.2	11.614	µg/L	38.3828	11.614	ppb	38.3828	330.48%
Mn 257.610†	69.5	0.2417	µg/L	0.02130	0.2417	ppb	0.02130	8.81%
Mo 202.031†	1.8	0.1879	µg/L	0.14430	0.1879	ppb	0.14430	76.81%
Na 589.592 Radial†	64.3	21.156	µg/L	2.8374	21.156	ppb	2.8374	13.41%

Ni 231.604†	4.8	0.2607 µg/L	0.32337	0.2607 ppb	0.32337	124.06%
P 214.914†	0.1	0.2270 µg/L	6.31420	0.2270 ppb	6.31420	>999.9%
Pb 220.353†	-4.5	-1.1890 µg/L	1.89244	-1.1890 ppb	1.89244	159.16%
S 181.975 Axial†	2.5	11.063 µg/L	7.9427	11.063 ppb	7.9427	71.80%
Sb 206.836†	-2.5	-2.4428 µg/L	2.32335	-2.4428 ppb	2.32335	95.11%
Se 196.026†	-3.0	-4.5949 µg/L	6.85979	-4.5949 ppb	6.85979	149.29%
SiO2†	58.0	12.499 µg/L	1.2722	12.499 ppb	1.2722	10.18%
Si 251.611†	90.7	7.4534 µg/L	0.23165	7.4534 ppb	0.23165	3.11%
Sn 189.927†	-0.3	-0.1385 µg/L	1.14090	-0.1385 ppb	1.14090	823.53%
Sr 421.552†	-10.4	-0.1081 µg/L	0.17752	-0.1081 ppb	0.17752	164.18%
Ti 334.940†	21.0	0.0497 µg/L	0.09997	0.0497 ppb	0.09997	200.99%
Tl 190.801†	2.2	3.0063 µg/L	3.71983	3.0063 ppb	3.71983	123.73%
U 409.014†	11.6	1.0476 µg/L	1.71251	1.0476 ppb	1.71251	163.48%
V 292.402†	44.5	0.4792 µg/L	0.03595	0.4792 ppb	0.03595	7.50%
Zn 213.857†	30.5	0.7612 µg/L	0.14993	0.7612 ppb	0.14993	19.70%

Sequence No.: 41
Sample ID: 1202032558|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 2/11/2010 19:23:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032558|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55855.2	55855.2	102	%			19:23:56
1	Al 396.153Radial†	6859.1	6711.9	4992.3	µg/L	4992.3	ppb	19:24:17
1	Ca 317.933Radial†	5588.0	5280.7	4972.1	µg/L	4972.1	ppb	19:24:17
1	Fe 238.204 Radial†	622.5	593.7	5042.2	µg/L	5042.2	ppb	19:24:17
1	K 766.490 Radial†	7222.5	6928.5	4924.7	µg/L	4924.7	ppb	19:23:56
1	Mg 279.077 IEC†	568.8	544.5	5070.0	µg/L	5070.0	ppb	19:24:17
1	Na 589.592 Radial†	16067.2	15156.9	4989.7	µg/L	4989.7	ppb	19:23:56
1	Sr 421.552†	48385.5	47236.4	489.66	µg/L	489.66	ppb	19:23:56
1	Sc 361.383	1989589.0	1989589.0	104.18	%			19:25:20
1	Y 371.029	1358828.2	1358828.2	103.73	%			19:25:20
1	Ag 328.068†	62403.6	60466.8	483.35	µg/L	483.35	ppb	19:25:26
1	As 188.979†	266.7	254.9	497.19	µg/L	497.19	ppb	19:25:46
1	B 249.677†	11770.1	10966.8	477.43	µg/L	477.43	ppb	19:25:26
1	Ba 233.527†	19609.2	18849.2	491.69	µg/L	491.69	ppb	19:25:26
1	Be 313.107†	765769.4	738515.5	482.11	µg/L	482.11	ppb	19:25:20
1	Cd 226.502†	18133.6	17548.9	484.07	µg/L	484.07	ppb	19:25:26
1	Co 228.616†	10204.7	9804.5	481.95	µg/L	481.95	ppb	19:25:26
1	Cr 267.716†	23258.1	22378.3	492.54	µg/L	492.54	ppb	19:25:26
1	Cu 324.752†	75730.0	70208.4	491.12	µg/L	491.12	ppb	19:25:26
1	Mn 257.610†	147968.6	142281.7	493.17	µg/L	493.17	ppb	19:25:20
1	Mo 202.031†	4884.5	4696.3	501.38	µg/L	501.38	ppb	19:25:46
1	Ni 231.604†	9732.2	9040.0	493.75	µg/L	493.75	ppb	19:25:26
1	P 214.914†	274.6	235.9	460.07	µg/L	460.07	ppb	19:25:46
1	Pb 220.353†	2040.6	1861.6	496.90	µg/L	496.90	ppb	19:25:46
1	S 181.975 Axial†	1213.5	1150.0	5038.6	µg/L	5038.6	ppb	19:25:46
1	Sb 206.836†	565.3	515.7	509.80	µg/L	509.80	ppb	19:25:46
1	Se 196.026†	348.9	319.1	494.37	µg/L	494.37	ppb	19:25:46
1	SiO2†	50535.9	47260.3	10178	µg/L	10178	ppb	19:25:26
1	Si 251.611†	60336.9	57605.6	4735.5	µg/L	4735.5	ppb	19:25:26
1	Sn 189.927†	1211.5	1163.8	535.30	µg/L	535.30	ppb	19:25:46
1	Ti 334.940†	209639.9	201120.8	483.46	µg/L	483.46	ppb	19:25:20
1	Tl 190.801†	344.0	354.5	500.64	µg/L	500.64	ppb	19:25:46
1	U 409.014†	5812.7	5633.3	509.02	µg/L	509.02	ppb	19:25:26
1	V 292.402†	47804.6	45932.7	495.64	µg/L	495.64	ppb	19:25:26
1	Zn 213.857†	20684.3	19379.7	480.43	µg/L	480.43	ppb	19:25:26
2	Sc RADIAL	56621.3	56621.3	104	%			19:24:22
2	Al 396.153Radial†	6761.1	6526.9	4854.4	µg/L	4854.4	ppb	19:24:42
2	Ca 317.933Radial†	5510.9	5132.5	4832.6	µg/L	4832.6	ppb	19:24:42
2	Fe 238.204 Radial†	611.2	574.6	4880.2	µg/L	4880.2	ppb	19:24:42
2	K 766.490 Radial†	7318.8	6925.8	4922.8	µg/L	4922.8	ppb	19:24:22
2	Mg 279.077 IEC†	555.6	524.2	4881.7	µg/L	4881.7	ppb	19:24:42
2	Na 589.592 Radial†	16134.1	15009.0	4941.0	µg/L	4941.0	ppb	19:24:22
2	Sr 421.552†	48688.4	46888.7	486.06	µg/L	486.06	ppb	19:24:22
2	Sc 361.383	1981021.9	1981021.9	103.73	%			19:25:53
2	Y 371.029	1354467.5	1354467.5	103.40	%			19:25:53
2	Ag 328.068†	62083.9	60417.6	482.95	µg/L	482.95	ppb	19:25:59
2	As 188.979†	268.8	258.0	503.27	µg/L	503.27	ppb	19:26:19
2	B 249.677†	11697.0	10945.2	476.57	µg/L	476.57	ppb	19:25:59
2	Ba 233.527†	19543.5	18867.3	492.16	µg/L	492.16	ppb	19:25:59
2	Be 313.107†	766542.7	742439.8	484.67	µg/L	484.67	ppb	19:25:53
2	Cd 226.502†	18043.5	17537.3	483.77	µg/L	483.77	ppb	19:25:59
2	Co 228.616†	10157.9	9801.8	481.81	µg/L	481.81	ppb	19:25:59
2	Cr 267.716†	23124.1	22345.6	491.82	µg/L	491.82	ppb	19:25:59
2	Cu 324.752†	75467.1	70269.3	491.53	µg/L	491.53	ppb	19:25:59
2	Mn 257.610†	148155.6	143076.2	495.91	µg/L	495.91	ppb	19:25:53
2	Mo 202.031†	4832.3	4666.2	498.17	µg/L	498.17	ppb	19:26:19
2	Ni 231.604†	9667.7	9018.1	492.55	µg/L	492.55	ppb	19:25:59
2	P 214.914†	272.2	234.8	457.67	µg/L	457.67	ppb	19:26:19
2	Pb 220.353†	2044.7	1874.1	500.20	µg/L	500.20	ppb	19:26:19

2	S 181.975 Axial†	1199.8	1141.9	5003.1 µg/L	5003.1 ppb	19:26:19
2	Sb 206.836†	565.3	518.0	512.02 µg/L	512.02 ppb	19:26:19
2	Se 196.026†	343.0	314.9	487.68 µg/L	487.68 ppb	19:26:19
2	SiO2†	50279.9	47223.2	10170 µg/L	10170 ppb	19:25:59
2	Si 251.611†	60047.4	57576.9	4733.1 µg/L	4733.1 ppb	19:25:59
2	Sn 189.927†	1201.8	1159.5	533.31 µg/L	533.31 ppb	19:26:19
2	Ti 334.940†	209553.6	201907.8	485.37 µg/L	485.37 ppb	19:25:53
2	Tl 190.801†	347.4	359.2	507.29 µg/L	507.29 ppb	19:26:19
2	U 409.014†	5749.9	5596.9	505.75 µg/L	505.75 ppb	19:25:59
2	V 292.402†	47601.0	45934.8	495.61 µg/L	495.61 ppb	19:25:59
2	Zn 213.857†	20543.3	19329.6	479.20 µg/L	479.20 ppb	19:25:59
3	Sc RADIAL	56667.3	56667.3	104 %		19:24:48
3	Al 396.153Radial†	6785.5	6545.0	4869.0 µg/L	4869.0 ppb	19:25:08
3	Ca 317.933Radial†	5519.1	5136.1	4836.0 µg/L	4836.0 ppb	19:25:08
3	Fe 238.204 Radial†	610.2	573.1	4867.6 µg/L	4867.6 ppb	19:25:08
3	K 766.490 Radial†	7189.7	6795.7	4830.4 µg/L	4830.4 ppb	19:24:48
3	Mg 279.077 IEC†	562.6	530.6	4940.1 µg/L	4940.1 ppb	19:25:08
3	Na 589.592 Radial†	15967.1	14835.5	4883.9 µg/L	4883.9 ppb	19:24:48
3	Sr 421.552†	48078.7	46263.5	479.58 µg/L	479.58 ppb	19:24:48
3	Sc 361.383	1962516.7	1962516.7	102.76 %		19:26:26
3	Y 371.029	1343125.0	1343125.0	102.53 %		19:26:26
3	Ag 328.068†	60804.7	59737.2	477.42 µg/L	477.42 ppb	19:26:32
3	As 188.979†	243.9	236.2	460.84 µg/L	460.84 ppb	19:26:53
3	B 249.677†	11399.3	10761.9	468.53 µg/L	468.53 ppb	19:26:32
3	Ba 233.527†	18655.7	18181.0	474.25 µg/L	474.25 ppb	19:26:32
3	Be 313.107†	740791.3	724347.9	472.86 µg/L	472.86 ppb	19:26:26
3	Cd 226.502†	17306.9	16984.5	468.50 µg/L	468.50 ppb	19:26:32
3	Co 228.616†	9664.7	9414.2	462.72 µg/L	462.72 ppb	19:26:32
3	Cr 267.716†	21731.9	21201.0	466.63 µg/L	466.63 ppb	19:26:32
3	Cu 324.752†	72256.6	67831.0	474.49 µg/L	474.49 ppb	19:26:32
3	Mn 257.610†	143350.8	139747.2	484.37 µg/L	484.37 ppb	19:26:26
3	Mo 202.031†	4322.8	4214.3	449.94 µg/L	449.94 ppb	19:26:53
3	Ni 231.604†	9237.2	8687.0	474.47 µg/L	474.47 ppb	19:26:32
3	P 214.914†	257.0	222.5	432.24 µg/L	432.24 ppb	19:26:53
3	Pb 220.353†	1875.5	1728.0	461.14 µg/L	461.14 ppb	19:26:53
3	S 181.975 Axial†	1113.0	1068.4	4680.8 µg/L	4680.8 ppb	19:26:53
3	Sb 206.836†	514.5	473.7	467.94 µg/L	467.94 ppb	19:26:53
3	Se 196.026†	322.8	298.3	462.30 µg/L	462.30 ppb	19:26:53
3	SiO2†	48695.4	46138.3	9936.1 µg/L	9936.1 ppb	19:26:32
3	Si 251.611†	58040.6	56169.8	4617.4 µg/L	4617.4 ppb	19:26:32
3	Sn 189.927†	1062.2	1034.6	475.87 µg/L	475.87 ppb	19:26:53
3	Ti 334.940†	202050.2	196510.8	472.38 µg/L	472.38 ppb	19:26:26
3	Tl 190.801†	308.7	324.7	458.96 µg/L	458.96 ppb	19:26:53
3	U 409.014†	5501.6	5407.5	488.61 µg/L	488.61 ppb	19:26:32
3	V 292.402†	45248.4	44078.0	475.38 µg/L	475.38 ppb	19:26:32
3	Zn 213.857†	19651.1	18648.0	462.29 µg/L	462.29 ppb	19:26:32

Mean Data: 1202032558|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1977709.2	103.55	%	0.725				0.70%
Sc RADIAL	56381.3	103	%	0.8				0.81%
Y 371.029	1352140.2	103.22	%	0.619				0.60%
Ag 328.068†	60207.2	481.24	µg/L	3.315	481.24	ppb	3.315	0.69%
Al 396.153Radial†	6594.6	4905.2	µg/L	75.76	4905.2	ppb	75.76	1.54%
As 188.979†	249.7	487.10	µg/L	22.947	487.10	ppb	22.947	4.71%
B 249.677†	10891.3	474.18	µg/L	4.912	474.18	ppb	4.912	1.04%
Ba 233.527†	18632.5	486.03	µg/L	10.205	486.03	ppb	10.205	2.10%
Be 313.107†	735101.0	479.88	µg/L	6.212	479.88	ppb	6.212	1.29%
Ca 317.933Radial†	5183.1	4880.2	µg/L	79.59	4880.2	ppb	79.59	1.63%
Cd 226.502†	17356.9	478.78	µg/L	8.903	478.78	ppb	8.903	1.86%
Co 228.616†	9673.5	475.49	µg/L	11.063	475.49	ppb	11.063	2.33%
Cr 267.716†	21975.0	483.67	µg/L	14.755	483.67	ppb	14.755	3.05%
Cu 324.752†	69436.2	485.71	µg/L	9.720	485.71	ppb	9.720	2.00%
Fe 238.204 Radial†	580.5	4930.0	µg/L	97.39	4930.0	ppb	97.39	1.98%
K 766.490 Radial†	6883.3	4892.6	µg/L	53.94	4892.6	ppb	53.94	1.10%
Mg 279.077 IEC†	533.1	4963.9	µg/L	96.41	4963.9	ppb	96.41	1.94%
Mn 257.610†	141701.7	491.15	µg/L	6.025	491.15	ppb	6.025	1.23%
Mo 202.031†	4525.6	483.16	µg/L	28.817	483.16	ppb	28.817	5.96%
Na 589.592 Radial†	15000.5	4938.2	µg/L	52.96	4938.2	ppb	52.96	1.07%

Ni 231.604†	8915.0	486.93	µg/L	10.800	486.93	ppb	10.800	2.22%
P 214.914†	231.1	450.00	µg/L	15.419	450.00	ppb	15.419	3.43%
Pb 220.353†	1821.2	486.08	µg/L	21.661	486.08	ppb	21.661	4.46%
S 181.975 Axial†	1120.1	4907.5	µg/L	197.13	4907.5	ppb	197.13	4.02%
Sb 206.836†	502.5	496.59	µg/L	24.834	496.59	ppb	24.834	5.00%
Se 196.026†	310.8	481.45	µg/L	16.915	481.45	ppb	16.915	3.51%
SiO2†	46873.9	10095	µg/L	137.3	10095	ppb	137.3	1.36%
Si 251.611†	57117.4	4695.3	µg/L	67.47	4695.3	ppb	67.47	1.44%
Sn 189.927†	1119.3	514.83	µg/L	33.750	514.83	ppb	33.750	6.56%
Sr 421.552†	46796.2	485.10	µg/L	5.111	485.10	ppb	5.111	1.05%
Ti 334.940†	199846.5	480.40	µg/L	7.013	480.40	ppb	7.013	1.46%
Tl 190.801†	346.1	488.96	µg/L	26.193	488.96	ppb	26.193	5.36%
U 409.014†	5545.9	501.13	µg/L	10.961	501.13	ppb	10.961	2.19%
V 292.402†	45315.2	488.88	µg/L	11.691	488.88	ppb	11.691	2.39%
Zn 213.857†	19119.1	473.97	µg/L	10.138	473.97	ppb	10.138	2.14%

Sequence No.: 43
Sample ID: 1202032559|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 333
Date Collected: 2/11/2010 19:30:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032559|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55369.8	55369.8	101	%			19:31:10
1	Al 396.153Radial†	27.3	37.1	27.641	µg/L	27.641	ppb	19:31:10
1	Ca 317.933Radial†	243.4	60.7	57.167	µg/L	57.167	ppb	19:31:30
1	Fe 238.204 Radial†	16.5	1.8	15.034	µg/L	15.034	ppb	19:31:30
1	K 766.490 Radial†	376.1	242.3	172.24	µg/L	172.24	ppb	19:31:10
1	Mg 279.077 IEC†	13.4	1.9	17.989	µg/L	17.989	ppb	19:31:30
1	Na 589.592 Radial†	1118.3	560.4	184.47	µg/L	184.47	ppb	19:31:10
1	Sr 421.552†	80.8	40.1	0.4152	µg/L	0.4152	ppb	19:31:10
1	Sc 361.383	1957288.3	1957288.3	102.48	%			19:32:32
1	Y 371.029	1341003.8	1341003.8	102.37	%			19:32:32
1	Ag 328.068†	-492.7	83.8	0.6666	µg/L	0.6666	ppb	19:32:37
1	As 188.979†	-0.9	-2.0	-4.0031	µg/L	-4.0031	ppb	19:32:58
1	B 249.677†	719.9	371.0	16.207	µg/L	16.207	ppb	19:32:37
1	Ba 233.527†	-10.5	15.7	0.4102	µg/L	0.4102	ppb	19:32:58
1	Be 313.107†	-3539.8	-13.5	-0.0090	µg/L	-0.0090	ppb	19:32:37
1	Cd 226.502†	-150.2	-4.4	-0.1235	µg/L	-0.1235	ppb	19:32:58
1	Co 228.616†	-12.4	-3.3	-0.1634	µg/L	-0.1634	ppb	19:32:58
1	Cr 267.716†	-22.0	30.9	0.6806	µg/L	0.6806	ppb	19:32:58
1	Cu 324.752†	2532.9	-14.6	-0.0998	µg/L	-0.0998	ppb	19:32:37
1	Mn 257.610†	-105.5	141.2	0.4903	µg/L	0.4903	ppb	19:32:58
1	Mo 202.031†	-9.0	-1.2	-0.1312	µg/L	-0.1312	ppb	19:32:58
1	Ni 231.604†	309.3	-0.4	-0.0191	µg/L	-0.0191	ppb	19:32:58
1	P 214.914†	35.6	7.1	15.341	µg/L	15.341	ppb	19:32:58
1	Pb 220.353†	89.9	-9.5	-2.5338	µg/L	-2.5338	ppb	19:32:58
1	S 181.975 Axial†	30.4	14.9	65.128	µg/L	65.128	ppb	19:32:58
1	Sb 206.836†	22.5	-5.0	-4.9601	µg/L	-4.9601	ppb	19:32:58
1	Se 196.026†	14.9	-1.3	-1.9004	µg/L	-1.9004	ppb	19:32:58
1	SiO2†	14720.0	13113.1	2824.0	µg/L	2824.0	ppb	19:32:37
1	Si 251.611†	16745.8	16026.9	1317.5	µg/L	1317.5	ppb	19:32:37
1	Sn 189.927†	4.4	5.2	2.3867	µg/L	2.3867	ppb	19:32:58
1	Ti 334.940†	342.8	218.3	0.5247	µg/L	0.5247	ppb	19:32:37
1	Tl 190.801†	-18.4	6.4	8.8912	µg/L	8.8912	ppb	19:32:58
1	U 409.014†	-31.7	22.7	2.0510	µg/L	2.0510	ppb	19:32:37
1	V 292.402†	-35.4	9.7	0.1073	µg/L	0.1073	ppb	19:32:37
1	Zn 213.857†	550.1	61.2	1.5266	µg/L	1.5266	ppb	19:32:58
2	Sc RADIAL	56232.0	56232.0	103	%			19:31:36
2	Al 396.153Radial†	20.5	30.0	22.366	µg/L	22.366	ppb	19:31:36
2	Ca 317.933Radial†	234.1	48.1	45.285	µg/L	45.285	ppb	19:31:56
2	Fe 238.204 Radial†	18.9	3.9	32.938	µg/L	32.938	ppb	19:31:56
2	K 766.490 Radial†	401.7	261.4	185.83	µg/L	185.83	ppb	19:31:36
2	Mg 279.077 IEC†	11.2	-0.4	-3.5186	µg/L	-3.5186	ppb	19:31:56
2	Na 589.592 Radial†	1117.4	542.6	178.63	µg/L	178.63	ppb	19:31:36
2	Sr 421.552†	60.4	19.0	0.1974	µg/L	0.1974	ppb	19:31:36
2	Sc 361.383	1985418.5	1985418.5	103.96	%			19:33:04
2	Y 371.029	1359374.4	1359374.4	103.78	%			19:33:04
2	Ag 328.068†	-475.1	107.5	0.8590	µg/L	0.8590	ppb	19:33:09
2	As 188.979†	-4.1	-5.1	-9.9165	µg/L	-9.9165	ppb	19:33:30
2	B 249.677†	718.8	360.0	15.716	µg/L	15.716	ppb	19:33:09
2	Ba 233.527†	-18.1	8.6	0.2255	µg/L	0.2255	ppb	19:33:30
2	Be 313.107†	-3406.7	163.4	0.1065	µg/L	0.1065	ppb	19:33:09
2	Cd 226.502†	-148.4	-0.7	-0.0227	µg/L	-0.0227	ppb	19:33:30
2	Co 228.616†	-10.8	-1.5	-0.0755	µg/L	-0.0755	ppb	19:33:30
2	Cr 267.716†	-16.3	36.7	0.8072	µg/L	0.8072	ppb	19:33:30
2	Cu 324.752†	2453.0	-126.5	-0.8788	µg/L	-0.8788	ppb	19:33:09
2	Mn 257.610†	-109.7	138.6	0.4845	µg/L	0.4845	ppb	19:33:30
2	Mo 202.031†	-6.5	1.3	0.1397	µg/L	0.1397	ppb	19:33:30
2	Ni 231.604†	303.1	-10.6	-0.5795	µg/L	-0.5795	ppb	19:33:30
2	P 214.914†	27.9	-0.8	-1.7271	µg/L	-1.7271	ppb	19:33:30
2	Pb 220.353†	100.2	-0.8	-0.2107	µg/L	-0.2107	ppb	19:33:30

2	S 181.975 Axial†	24.6	8.8	38.629 µg/L	38.629 ppb	19:33:30
2	Sb 206.836†	25.5	-2.4	-2.3573 µg/L	-2.3573 ppb	19:33:30
2	Se 196.026†	13.5	-2.9	-4.3357 µg/L	-4.3357 ppb	19:33:30
2	SiO2†	14565.5	12761.0	2748.2 µg/L	2748.2 ppb	19:33:09
2	Si 251.611†	16534.1	15591.9	1281.7 µg/L	1281.7 ppb	19:33:09
2	Sn 189.927†	-3.4	-2.4	-1.0908 µg/L	-1.0908 ppb	19:33:30
2	Ti 334.940†	415.8	283.9	0.6838 µg/L	0.6838 ppb	19:33:09
2	Tl 190.801†	-24.3	0.9	1.3234 µg/L	1.3234 ppb	19:33:30
2	U 409.014†	-74.6	-18.1	-1.6482 µg/L	-1.6482 ppb	19:33:09
2	V 292.402†	9.6	53.5	0.5749 µg/L	0.5749 ppb	19:33:09
2	Zn 213.857†	541.1	45.0	1.1253 µg/L	1.1253 ppb	19:33:30
3	Sc RADIAL	56023.2	56023.2	103 %		19:32:01
3	Al 396.153Radial†	23.5	33.0	24.583 µg/L	24.583 ppb	19:32:01
3	Ca 317.933Radial†	244.2	58.7	55.281 µg/L	55.281 ppb	19:32:22
3	Fe 238.204 Radial†	14.9	-0.0	-0.0783 µg/L	-0.0783 ppb	19:32:22
3	K 766.490 Radial†	448.8	308.8	219.46 µg/L	219.46 ppb	19:32:01
3	Mg 279.077 IEC†	9.0	-2.5	-23.358 µg/L	-23.358 ppb	19:32:22
3	Na 589.592 Radial†	1105.2	534.7	176.03 µg/L	176.03 ppb	19:32:01
3	Sr 421.552†	62.1	20.9	0.2170 µg/L	0.2170 ppb	19:32:01
3	Sc 361.383	1953368.2	1953368.2	102.28 %		19:33:36
3	Y 371.029	1335404.5	1335404.5	101.95 %		19:33:36
3	Ag 328.068†	-556.7	20.3	0.1596 µg/L	0.1596 ppb	19:33:41
3	As 188.979†	0.2	-0.9	-1.8467 µg/L	-1.8467 ppb	19:34:02
3	B 249.677†	701.7	354.6	15.499 µg/L	15.499 ppb	19:33:41
3	Ba 233.527†	-16.3	10.1	0.2614 µg/L	0.2614 ppb	19:34:02
3	Be 313.107†	-3559.8	-40.0	-0.0263 µg/L	-0.0263 ppb	19:33:41
3	Cd 226.502†	-146.9	-1.5	-0.0404 µg/L	-0.0404 ppb	19:34:02
3	Co 228.616†	-11.4	-2.3	-0.1134 µg/L	-0.1134 ppb	19:34:02
3	Cr 267.716†	-18.4	34.4	0.7558 µg/L	0.7558 ppb	19:34:02
3	Cu 324.752†	2463.5	-77.5	-0.5416 µg/L	-0.5416 ppb	19:33:41
3	Mn 257.610†	-124.1	122.8	0.4261 µg/L	0.4261 ppb	19:34:02
3	Mo 202.031†	-6.9	0.8	0.0892 µg/L	0.0892 ppb	19:34:02
3	Ni 231.604†	309.7	0.6	0.0333 µg/L	0.0333 ppb	19:34:02
3	P 214.914†	32.7	4.3	9.3269 µg/L	9.3269 ppb	19:34:02
3	Pb 220.353†	89.9	-9.3	-2.4747 µg/L	-2.4747 ppb	19:34:02
3	S 181.975 Axial†	20.7	5.5	23.923 µg/L	23.923 ppb	19:34:02
3	Sb 206.836†	18.4	-9.0	-8.8834 µg/L	-8.8834 ppb	19:34:02
3	Se 196.026†	8.1	-8.0	-12.127 µg/L	-12.127 ppb	19:34:02
3	SiO2†	14525.8	12952.1	2789.3 µg/L	2789.3 ppb	19:33:41
3	Si 251.611†	16428.3	15749.4	1294.7 µg/L	1294.7 ppb	19:33:41
3	Sn 189.927†	-0.7	0.2	0.1014 µg/L	0.1014 ppb	19:34:02
3	Ti 334.940†	337.4	213.7	0.5169 µg/L	0.5169 ppb	19:33:41
3	Tl 190.801†	-27.2	-2.3	-3.2110 µg/L	-3.2110 ppb	19:34:02
3	U 409.014†	-73.9	-18.6	-1.6874 µg/L	-1.6874 ppb	19:33:41
3	V 292.402†	-61.9	-16.4	-0.1736 µg/L	-0.1736 ppb	19:33:41
3	Zn 213.857†	546.4	58.6	1.4662 µg/L	1.4662 ppb	19:34:02

Mean Data: 1202032559|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1965358.3	102.91	%	0.915				0.89%
Sc RADIAL	55875.0	102	%	0.8				0.81%
Y 371.029	1345260.9	102.70	%	0.957				0.93%
Ag 328.068†	70.5	0.5618	µg/L	0.36128	0.5618	ppb	0.36128	64.31%
Al 396.153Radial†	33.4	24.863	µg/L	2.6486	24.863	ppb	2.6486	10.65%
As 188.979†	-2.7	-5.2554	µg/L	4.17812	-5.2554	ppb	4.17812	79.50%
B 249.677†	361.9	15.807	µg/L	0.3629	15.807	ppb	0.3629	2.30%
Ba 233.527†	11.5	0.2990	µg/L	0.09794	0.2990	ppb	0.09794	32.75%
Be 313.107†	36.6	0.0237	µg/L	0.07220	0.0237	ppb	0.07220	304.72%
Ca 317.933Radial†	55.8	52.578	µg/L	6.3860	52.578	ppb	6.3860	12.15%
Cd 226.502†	-2.2	-0.0622	µg/L	0.05384	-0.0622	ppb	0.05384	86.58%
Co 228.616†	-2.4	-0.1174	µg/L	0.04408	-0.1174	ppb	0.04408	37.55%
Cr 267.716†	34.0	0.7479	µg/L	0.06369	0.7479	ppb	0.06369	8.52%
Cu 324.752†	-72.9	-0.5067	µg/L	0.39067	-0.5067	ppb	0.39067	77.10%
Fe 238.204 Radial†	1.9	15.964	µg/L	16.5276	15.964	ppb	16.5276	103.53%
K 766.490 Radial†	270.8	192.51	µg/L	24.311	192.51	ppb	24.311	12.63%
Mg 279.077 IEC†	-0.3	-2.9625	µg/L	20.67888	-2.9625	ppb	20.67888	698.02%
Mn 257.610†	134.2	0.4670	µg/L	0.03550	0.4670	ppb	0.03550	7.60%
Mo 202.031†	0.3	0.0326	µg/L	0.14408	0.0326	ppb	0.14408	442.34%
Na 589.592 Radial†	545.9	179.71	µg/L	4.323	179.71	ppb	4.323	2.41%

Ni 231.604†	-3.5	-0.1884	µg/L	0.33968	-0.1884	ppb	0.33968 180.30%
P 214.914†	3.5	7.6469	µg/L	8.65706	7.6469	ppb	8.65706 113.21%
Pb 220.353†	-6.5	-1.7397	µg/L	1.32454	-1.7397	ppb	1.32454 76.13%
S 181.975 Axial†	9.7	42.560	µg/L	20.8819	42.560	ppb	20.8819 49.07%
Sb 206.836†	-5.5	-5.4003	µg/L	3.28526	-5.4003	ppb	3.28526 60.84%
Se 196.026†	-4.0	-6.1210	µg/L	5.34190	-6.1210	ppb	5.34190 87.27%
SiO2†	12942.1	2787.1	µg/L	37.96	2787.1	ppb	37.96 1.36%
Si 251.611†	15789.4	1298.0	µg/L	18.11	1298.0	ppb	18.11 1.40%
Sn 189.927†	1.0	0.4657	µg/L	1.76718	0.4657	ppb	1.76718 379.43%
Sr 421.552†	26.7	0.2766	µg/L	0.12050	0.2766	ppb	0.12050 43.57%
Ti 334.940†	238.7	0.5751	µg/L	0.09422	0.5751	ppb	0.09422 16.38%
Tl 190.801†	1.7	2.3345	µg/L	6.11411	2.3345	ppb	6.11411 261.90%
U 409.014†	-4.7	-0.4282	µg/L	2.14716	-0.4282	ppb	2.14716 501.43%
V 292.402†	15.6	0.1695	µg/L	0.37811	0.1695	ppb	0.37811 223.01%
Zn 213.857†	54.9	1.3727	µg/L	0.21636	1.3727	ppb	0.21636 15.76%

Sequence No.: 44
Sample ID: 1202032560|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 2/11/2010 19:34:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032560|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56464.8	56464.8	103	%			19:34:44
1	Al 396.153Radial†	6806.1	6588.3	4900.2	µg/L	4900.2	ppb	19:35:04
1	Ca 317.933Radial†	5506.4	5142.9	4842.4	µg/L	4842.4	ppb	19:35:04
1	Fe 238.204 Radial†	611.9	576.9	4899.7	µg/L	4899.7	ppb	19:35:04
1	K 766.490 Radial†	7333.3	6959.3	4946.6	µg/L	4946.6	ppb	19:34:44
1	Mg 279.077 IEC†	557.7	527.7	4914.4	µg/L	4914.4	ppb	19:35:04
1	Na 589.592 Radial†	16217.5	15132.6	4981.7	µg/L	4981.7	ppb	19:34:44
1	Sr 421.552†	47317.0	45693.3	473.66	µg/L	473.66	ppb	19:34:44
1	Sc 361.383	1969504.1	1969504.1	103.12	%			19:36:08
1	Y 371.029	1344490.8	1344490.8	102.64	%			19:36:08
1	Ag 328.068†	61777.8	60470.9	483.38	µg/L	483.38	ppb	19:36:14
1	As 188.979†	267.3	258.0	503.42	µg/L	503.42	ppb	19:36:34
1	B 249.677†	12031.5	11335.6	493.62	µg/L	493.62	ppb	19:36:14
1	Ba 233.527†	19428.6	18866.0	492.13	µg/L	492.13	ppb	19:36:14
1	Be 313.107†	757639.6	738128.1	481.85	µg/L	481.85	ppb	19:36:08
1	Cd 226.502†	17872.8	17473.5	482.01	µg/L	482.01	ppb	19:36:14
1	Co 228.616†	10159.6	9860.7	484.72	µg/L	484.72	ppb	19:36:14
1	Cr 267.716†	23006.4	22361.8	492.18	µg/L	492.18	ppb	19:36:14
1	Cu 324.752†	75411.0	70640.4	494.12	µg/L	494.12	ppb	19:36:14
1	Mn 257.610†	147190.3	142975.5	495.56	µg/L	495.56	ppb	19:36:08
1	Mo 202.031†	4839.3	4700.2	501.80	µg/L	501.80	ppb	19:36:34
1	Ni 231.604†	9637.5	9043.3	493.93	µg/L	493.93	ppb	19:36:14
1	P 214.914†	274.0	238.0	464.37	µg/L	464.37	ppb	19:36:34
1	Pb 220.353†	2045.5	1886.3	503.48	µg/L	503.48	ppb	19:36:34
1	S 181.975 Axial†	1203.8	1152.6	5049.8	µg/L	5049.8	ppb	19:36:34
1	Sb 206.836†	563.5	519.5	513.56	µg/L	513.56	ppb	19:36:34
1	Se 196.026†	338.7	312.6	484.26	µg/L	484.26	ppb	19:36:34
1	SiO2†	63253.8	60087.6	12940	µg/L	12940	ppb	19:36:14
1	Si 251.611†	75809.8	73200.4	6017.4	µg/L	6017.4	ppb	19:36:14
1	Sn 189.927†	1195.5	1160.1	533.61	µg/L	533.61	ppb	19:36:34
1	Ti 334.940†	208361.9	201933.7	485.43	µg/L	485.43	ppb	19:36:08
1	Tl 190.801†	343.5	357.4	504.78	µg/L	504.78	ppb	19:36:34
1	U 409.014†	5786.5	5664.8	511.90	µg/L	511.90	ppb	19:36:14
1	V 292.402†	47433.2	46040.5	496.78	µg/L	496.78	ppb	19:36:14
1	Zn 213.857†	20405.0	19311.3	478.73	µg/L	478.73	ppb	19:36:14
2	Sc RADIAL	56738.3	56738.3	104	%			19:35:10
2	Al 396.153Radial†	6857.8	6606.4	4913.7	µg/L	4913.7	ppb	19:35:30
2	Ca 317.933Radial†	5550.5	5159.7	4858.2	µg/L	4858.2	ppb	19:35:30
2	Fe 238.204 Radial†	618.4	580.3	4928.8	µg/L	4928.8	ppb	19:35:30
2	K 766.490 Radial†	7512.7	7097.8	5045.0	µg/L	5045.0	ppb	19:35:10
2	Mg 279.077 IEC†	561.6	528.9	4925.0	µg/L	4925.0	ppb	19:35:30
2	Na 589.592 Radial†	16499.1	15328.0	5046.0	µg/L	5046.0	ppb	19:35:10
2	Sr 421.552†	48452.7	46565.3	482.70	µg/L	482.70	ppb	19:35:10
2	Sc 361.383	1963144.1	1963144.1	102.79	%			19:36:41
2	Y 371.029	1340072.9	1340072.9	102.30	%			19:36:41
2	Ag 328.068†	61611.8	60503.4	483.66	µg/L	483.66	ppb	19:36:47
2	As 188.979†	260.2	252.0	491.59	µg/L	491.59	ppb	19:37:07
2	B 249.677†	12050.1	11391.4	496.05	µg/L	496.05	ppb	19:36:47
2	Ba 233.527†	19468.1	18965.5	494.72	µg/L	494.72	ppb	19:36:47
2	Be 313.107†	756552.9	739451.1	482.72	µg/L	482.72	ppb	19:36:41
2	Cd 226.502†	17837.5	17495.3	482.61	µg/L	482.61	ppb	19:36:47
2	Co 228.616†	10063.1	9798.7	481.66	µg/L	481.66	ppb	19:36:47
2	Cr 267.716†	23000.6	22428.5	493.65	µg/L	493.65	ppb	19:36:47
2	Cu 324.752†	75255.1	70725.6	494.72	µg/L	494.72	ppb	19:36:47
2	Mn 257.610†	146664.2	142926.0	495.39	µg/L	495.39	ppb	19:36:41
2	Mo 202.031†	4791.0	4668.4	498.41	µg/L	498.41	ppb	19:37:07
2	Ni 231.604†	9624.9	9061.3	494.92	µg/L	494.92	ppb	19:36:47
2	P 214.914†	259.0	224.3	434.79	µg/L	434.79	ppb	19:37:07
2	Pb 220.353†	2029.3	1877.0	500.98	µg/L	500.98	ppb	19:37:07

2	S 181.975 Axial†	1194.9	1147.6	5028.2 µg/L	5028.2 ppb	19:37:07
2	Sb 206.836†	555.9	513.8	507.88 µg/L	507.88 ppb	19:37:07
2	Se 196.026†	334.4	309.5	479.52 µg/L	479.52 ppb	19:37:07
2	SiO2†	63264.3	60296.5	12985 µg/L	12985 ppb	19:36:47
2	Si 251.611†	75806.3	73435.1	6036.7 µg/L	6036.7 ppb	19:36:47
2	Sn 189.927†	1179.8	1148.7	528.34 µg/L	528.34 ppb	19:37:07
2	Ti 334.940†	208026.1	202261.6	486.21 µg/L	486.21 ppb	19:36:41
2	Tl 190.801†	339.5	354.5	500.78 µg/L	500.78 ppb	19:37:07
2	U 409.014†	5762.6	5659.8	511.44 µg/L	511.44 ppb	19:36:47
2	V 292.402†	47518.7	46272.7	499.23 µg/L	499.23 ppb	19:36:47
2	Zn 213.857†	20383.6	19354.6	479.81 µg/L	479.81 ppb	19:36:47
3	Sc RADIAL	56983.3	56983.3	104 %		19:35:36
3	Al 396.153Radial†	6778.1	6501.7	4836.4 µg/L	4836.4 ppb	19:35:56
3	Ca 317.933Radial†	5483.7	5072.7	4776.3 µg/L	4776.3 ppb	19:35:56
3	Fe 238.204 Radial†	610.2	569.9	4840.0 µg/L	4840.0 ppb	19:35:56
3	K 766.490 Radial†	7476.8	7032.3	4998.5 µg/L	4998.5 ppb	19:35:36
3	Mg 279.077 IEC†	558.6	523.7	4875.9 µg/L	4875.9 ppb	19:35:56
3	Na 589.592 Radial†	16463.0	15225.1	5012.2 µg/L	5012.2 ppb	19:35:36
3	Sr 421.552†	48028.2	45958.3	476.41 µg/L	476.41 ppb	19:35:36
3	Sc 361.383	1953228.5	1953228.5	102.27 %		19:37:14
3	Y 371.029	1334981.2	1334981.2	101.91 %		19:37:14
3	Ag 328.068†	60906.6	60118.1	480.49 µg/L	480.49 ppb	19:37:20
3	As 188.979†	246.6	240.0	468.20 µg/L	468.20 ppb	19:37:41
3	B 249.677†	11806.2	11212.5	488.25 µg/L	488.25 ppb	19:37:20
3	Ba 233.527†	18817.3	18425.3	480.63 µg/L	480.63 ppb	19:37:20
3	Be 313.107†	740878.0	727860.9	475.15 µg/L	475.15 ppb	19:37:14
3	Cd 226.502†	17362.9	17119.4	472.23 µg/L	472.23 ppb	19:37:20
3	Co 228.616†	9771.9	9563.6	470.08 µg/L	470.08 ppb	19:37:20
3	Cr 267.716†	22087.4	21649.1	476.50 µg/L	476.50 ppb	19:37:20
3	Cu 324.752†	72706.1	68604.9	479.89 µg/L	479.89 ppb	19:37:20
3	Mn 257.610†	143804.2	140853.9	488.21 µg/L	488.21 ppb	19:37:14
3	Mo 202.031†	4405.4	4315.1	460.70 µg/L	460.70 ppb	19:37:41
3	Ni 231.604†	9285.9	8777.4	479.41 µg/L	479.41 ppb	19:37:20
3	P 214.914†	254.1	220.8	428.19 µg/L	428.19 ppb	19:37:41
3	Pb 220.353†	1906.4	1766.9	471.52 µg/L	471.52 ppb	19:37:41
3	S 181.975 Axial†	1137.3	1097.2	4807.1 µg/L	4807.1 ppb	19:37:41
3	Sb 206.836†	512.2	473.8	468.13 µg/L	468.13 ppb	19:37:41
3	Se 196.026†	311.2	288.4	447.26 µg/L	447.26 ppb	19:37:41
3	SiO2†	61664.2	59044.4	12716 µg/L	12716 ppb	19:37:20
3	Si 251.611†	73998.6	72042.0	5922.2 µg/L	5922.2 ppb	19:37:20
3	Sn 189.927†	1081.7	1058.6	486.89 µg/L	486.89 ppb	19:37:41
3	Ti 334.940†	203268.0	198636.6	477.50 µg/L	477.50 ppb	19:37:14
3	Tl 190.801†	317.8	335.0	473.39 µg/L	473.39 ppb	19:37:41
3	U 409.014†	5643.9	5572.1	503.52 µg/L	503.52 ppb	19:37:20
3	V 292.402†	45704.3	44733.2	482.48 µg/L	482.48 ppb	19:37:20
3	Zn 213.857†	19736.3	18822.4	466.62 µg/L	466.62 ppb	19:37:20

Mean Data: 1202032560|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1961958.9	102.73	%	0.429				0.42%
Sc RADIAL	56728.8	104	%	0.5				0.46%
Y 371.029	1339848.3	102.28	%	0.363				0.36%
Ag 328.068†	60364.1	482.51	µg/L	1.756	482.51	ppb	1.756	0.36%
Al 396.153Radial†	6565.5	4883.4	µg/L	41.27	4883.4	ppb	41.27	0.85%
As 188.979†	250.0	487.74	µg/L	17.922	487.74	ppb	17.922	3.67%
B 249.677†	11313.1	492.64	µg/L	3.992	492.64	ppb	3.992	0.81%
Ba 233.527†	18752.3	489.16	µg/L	7.501	489.16	ppb	7.501	1.53%
Be 313.107†	735146.7	479.91	µg/L	4.141	479.91	ppb	4.141	0.86%
Ca 317.933Radial†	5125.1	4825.6	µg/L	43.45	4825.6	ppb	43.45	0.90%
Cd 226.502†	17362.7	478.95	µg/L	5.826	478.95	ppb	5.826	1.22%
Co 228.616†	9741.0	478.82	µg/L	7.722	478.82	ppb	7.722	1.61%
Cr 267.716†	22146.5	487.44	µg/L	9.508	487.44	ppb	9.508	1.95%
Cu 324.752†	69990.3	489.58	µg/L	8.392	489.58	ppb	8.392	1.71%
Fe 238.204 Radial†	575.7	4889.5	µg/L	45.26	4889.5	ppb	45.26	0.93%
K 766.490 Radial†	7029.8	4996.7	µg/L	49.22	4996.7	ppb	49.22	0.98%
Mg 279.077 IEC†	526.8	4905.1	µg/L	25.83	4905.1	ppb	25.83	0.53%
Mn 257.610†	142251.8	493.05	µg/L	4.198	493.05	ppb	4.198	0.85%
Mo 202.031†	4561.2	486.97	µg/L	22.812	486.97	ppb	22.812	4.68%
Na 589.592 Radial†	15228.6	5013.3	µg/L	32.17	5013.3	ppb	32.17	0.64%

Ni 231.604†	8960.7	489.42 µg/L	8.683	489.42 ppb	8.683	1.77%
P 214.914†	227.7	442.45 µg/L	19.267	442.45 ppb	19.267	4.35%
Pb 220.353†	1843.4	491.99 µg/L	17.777	491.99 ppb	17.777	3.61%
S 181.975 Axial†	1132.5	4961.7 µg/L	134.32	4961.7 ppb	134.32	2.71%
Sb 206.836†	502.4	496.52 µg/L	24.756	496.52 ppb	24.756	4.99%
Se 196.026†	303.5	470.34 µg/L	20.133	470.34 ppb	20.133	4.28%
SiO2†	59809.5	12880 µg/L	144.5	12880 ppb	144.5	1.12%
Si 251.611†	72892.5	5992.1 µg/L	61.31	5992.1 ppb	61.31	1.02%
Sn 189.927†	1122.5	516.28 µg/L	25.587	516.28 ppb	25.587	4.96%
Sr 421.552†	46072.3	477.59 µg/L	4.634	477.59 ppb	4.634	0.97%
Ti 334.940†	200944.0	483.04 µg/L	4.822	483.04 ppb	4.822	1.00%
Tl 190.801†	349.0	492.98 µg/L	17.083	492.98 ppb	17.083	3.47%
U 409.014†	5632.2	508.95 µg/L	4.711	508.95 ppb	4.711	0.93%
V 292.402†	45682.1	492.83 µg/L	9.049	492.83 ppb	9.049	1.84%
Zn 213.857†	19162.7	475.05 µg/L	7.325	475.05 ppb	7.325	1.54%

Sequence No.: 45
Sample ID: 1202032561|948737|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 2/11/2010 19:37:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032561|948737|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55556.9	55556.9	102	%			19:38:23
1	Al 396.153Radial†	-14.4	-4.0	-3.0016	µg/L	-3.0016	ppb	19:38:23
1	Ca 317.933Radial†	193.6	11.0	10.352	µg/L	10.352	ppb	19:38:43
1	Fe 238.204 Radial†	16.0	1.2	10.568	µg/L	10.568	ppb	19:38:43
1	K 766.490 Radial†	200.3	68.3	48.549	µg/L	48.549	ppb	19:38:23
1	Mg 279.077 IEC†	17.4	5.8	54.431	µg/L	54.431	ppb	19:38:43
1	Na 589.592 Radial†	748.0	192.9	63.499	µg/L	63.499	ppb	19:38:23
1	Sr 421.552†	52.3	11.8	0.1221	µg/L	0.1221	ppb	19:38:23
1	Sc 361.383	1967786.0	1967786.0	103.03	%			19:39:45
1	Y 371.029	1347427.9	1347427.9	102.86	%			19:39:45
1	Ag 328.068†	-513.7	65.9	0.5269	µg/L	0.5269	ppb	19:39:51
1	As 188.979†	0.2	-0.9	-1.7879	µg/L	-1.7879	ppb	19:40:11
1	B 249.677†	392.7	49.7	2.1660	µg/L	2.1660	ppb	19:40:11
1	Ba 233.527†	-17.5	9.0	0.2357	µg/L	0.2357	ppb	19:40:11
1	Be 313.107†	-3261.5	274.9	0.1795	µg/L	0.1795	ppb	19:39:51
1	Cd 226.502†	-143.1	3.3	0.0883	µg/L	0.0883	ppb	19:40:11
1	Co 228.616†	-14.2	-4.9	-0.2416	µg/L	-0.2416	ppb	19:40:11
1	Cr 267.716†	-7.4	45.2	0.9940	µg/L	0.9940	ppb	19:40:11
1	Cu 324.752†	2443.8	-114.2	-0.7963	µg/L	-0.7963	ppb	19:39:51
1	Mn 257.610†	-169.1	79.9	0.2761	µg/L	0.2761	ppb	19:40:11
1	Mo 202.031†	-6.4	1.4	0.1476	µg/L	0.1476	ppb	19:40:11
1	Ni 231.604†	306.2	-5.0	-0.2754	µg/L	-0.2754	ppb	19:40:11
1	P 214.914†	36.4	7.7	16.712	µg/L	16.712	ppb	19:40:11
1	Pb 220.353†	91.5	-8.3	-2.2188	µg/L	-2.2188	ppb	19:40:11
1	S 181.975 Axial†	15.5	0.3	1.1200	µg/L	1.1200	ppb	19:40:11
1	Sb 206.836†	23.6	-4.0	-3.9935	µg/L	-3.9935	ppb	19:40:11
1	Se 196.026†	10.4	-5.8	-8.8371	µg/L	-8.8371	ppb	19:40:11
1	SiO2†	4053.3	2683.9	578.00	µg/L	578.00	ppb	19:39:51
1	Si 251.611†	3735.4	3312.5	272.31	µg/L	272.31	ppb	19:39:51
1	Sn 189.927†	1.4	2.2	1.0392	µg/L	1.0392	ppb	19:40:11
1	Ti 334.940†	209.0	86.7	0.2045	µg/L	0.2045	ppb	19:39:51
1	Tl 190.801†	-28.8	-3.6	-5.0793	µg/L	-5.0793	ppb	19:40:11
1	U 409.014†	-114.0	-57.1	-5.1684	µg/L	-5.1684	ppb	19:39:51
1	V 292.402†	0.4	44.6	0.4745	µg/L	0.4745	ppb	19:39:51
1	Zn 213.857†	490.8	0.8	0.0180	µg/L	0.0180	ppb	19:40:11
2	Sc RADIAL	55453.1	55453.1	102	%			19:38:49
2	Al 396.153Radial†	-1.2	8.9	6.6613	µg/L	6.6613	ppb	19:38:49
2	Ca 317.933Radial†	195.9	13.6	12.817	µg/L	12.817	ppb	19:39:09
2	Fe 238.204 Radial†	14.7	0.0	0.0944	µg/L	0.0944	ppb	19:39:09
2	K 766.490 Radial†	238.4	106.2	75.456	µg/L	75.456	ppb	19:38:49
2	Mg 279.077 IEC†	15.6	4.1	37.981	µg/L	37.981	ppb	19:39:09
2	Na 589.592 Radial†	708.0	154.9	51.000	µg/L	51.000	ppb	19:38:49
2	Sr 421.552†	57.2	16.8	0.1737	µg/L	0.1737	ppb	19:38:49
2	Sc 361.383	1975775.5	1975775.5	103.45	%			19:40:18
2	Y 371.029	1355586.5	1355586.5	103.49	%			19:40:18
2	Ag 328.068†	-512.8	68.9	0.5480	µg/L	0.5480	ppb	19:40:23
2	As 188.979†	-0.8	-1.9	-3.7879	µg/L	-3.7879	ppb	19:40:44
2	B 249.677†	398.7	53.9	2.3572	µg/L	2.3572	ppb	19:40:44
2	Ba 233.527†	-16.5	10.0	0.2613	µg/L	0.2613	ppb	19:40:44
2	Be 313.107†	-3291.3	258.9	0.1690	µg/L	0.1690	ppb	19:40:23
2	Cd 226.502†	-132.6	13.9	0.3835	µg/L	0.3835	ppb	19:40:44
2	Co 228.616†	-7.1	2.0	0.0984	µg/L	0.0984	ppb	19:40:44
2	Cr 267.716†	-22.7	30.4	0.6696	µg/L	0.6696	ppb	19:40:44
2	Cu 324.752†	2469.7	-98.8	-0.6905	µg/L	-0.6905	ppb	19:40:23
2	Mn 257.610†	-143.9	105.0	0.3620	µg/L	0.3620	ppb	19:40:44
2	Mo 202.031†	-4.2	3.5	0.3717	µg/L	0.3717	ppb	19:40:44
2	Ni 231.604†	302.9	-9.4	-0.5143	µg/L	-0.5143	ppb	19:40:44
2	P 214.914†	29.9	1.3	2.7919	µg/L	2.7919	ppb	19:40:44
2	Pb 220.353†	97.3	-3.1	-0.8261	µg/L	-0.8261	ppb	19:40:44

2	S 181.975 Axial†	20.0	4.5	19.710 µg/L	19.710 ppb	19:40:44
2	Sb 206.836†	23.7	-4.1	-4.0300 µg/L	-4.0300 ppb	19:40:44
2	Se 196.026†	9.3	-6.9	-10.492 µg/L	-10.492 ppb	19:40:44
2	SiO2†	4038.7	2653.9	571.53 µg/L	571.53 ppb	19:40:23
2	Si 251.611†	3707.4	3270.8	268.87 µg/L	268.87 ppb	19:40:23
2	Sn 189.927†	2.0	2.8	1.2773 µg/L	1.2773 ppb	19:40:44
2	Ti 334.940†	221.6	98.1	0.2331 µg/L	0.2331 ppb	19:40:23
2	Tl 190.801†	-21.6	3.4	4.7965 µg/L	4.7965 ppb	19:40:44
2	U 409.014†	-59.9	-4.3	-0.3880 µg/L	-0.3880 ppb	19:40:23
2	V 292.402†	-21.0	23.9	0.2589 µg/L	0.2589 ppb	19:40:23
2	Zn 213.857†	511.8	19.2	0.4807 µg/L	0.4807 ppb	19:40:44
3	Sc RADIAL	54997.2	54997.2	101 %		19:39:15
3	Al 396.153Radial†	-9.6	0.6	0.4496 µg/L	0.4496 ppb	19:39:15
3	Ca 317.933Radial†	197.1	16.5	15.498 µg/L	15.498 ppb	19:39:35
3	Fe 238.204 Radial†	17.3	2.6	22.415 µg/L	22.415 ppb	19:39:35
3	K 766.490 Radial†	180.6	50.8	36.115 µg/L	36.115 ppb	19:39:15
3	Mg 279.077 IEC†	14.5	3.2	29.331 µg/L	29.331 ppb	19:39:35
3	Na 589.592 Radial†	763.4	215.7	70.994 µg/L	70.994 ppb	19:39:15
3	Sr 421.552†	65.9	25.9	0.2681 µg/L	0.2681 ppb	19:39:15
3	Sc 361.383	1964922.8	1964922.8	102.88 %		19:40:50
3	Y 371.029	1347749.0	1347749.0	102.89 %		19:40:50
3	Ag 328.068†	-485.9	92.3	0.7322 µg/L	0.7322 ppb	19:40:55
3	As 188.979†	0.6	-0.6	-1.1015 µg/L	-1.1015 ppb	19:41:16
3	B 249.677†	385.4	43.2	1.8762 µg/L	1.8762 ppb	19:41:16
3	Ba 233.527†	-20.3	6.2	0.1623 µg/L	0.1623 ppb	19:41:16
3	Be 313.107†	-3155.8	373.1	0.2435 µg/L	0.2435 ppb	19:40:55
3	Cd 226.502†	-137.1	8.9	0.2432 µg/L	0.2432 ppb	19:41:16
3	Co 228.616†	-0.5	8.4	0.4121 µg/L	0.4121 ppb	19:41:16
3	Cr 267.716†	-8.2	44.4	0.9768 µg/L	0.9768 ppb	19:41:16
3	Cu 324.752†	2483.7	-72.0	-0.4999 µg/L	-0.4999 ppb	19:40:55
3	Mn 257.610†	-138.7	109.3	0.3805 µg/L	0.3805 ppb	19:41:16
3	Mo 202.031†	-5.4	2.3	0.2508 µg/L	0.2508 ppb	19:41:16
3	Ni 231.604†	316.9	5.9	0.3198 µg/L	0.3198 ppb	19:41:16
3	P 214.914†	26.0	-2.4	-5.0548 µg/L	-5.0548 ppb	19:41:16
3	Pb 220.353†	90.0	-9.7	-2.5999 µg/L	-2.5999 ppb	19:41:16
3	S 181.975 Axial†	20.6	5.2	22.743 µg/L	22.743 ppb	19:41:16
3	Sb 206.836†	23.9	-3.7	-3.6360 µg/L	-3.6360 ppb	19:41:16
3	Se 196.026†	14.1	-2.1	-3.2432 µg/L	-3.2432 ppb	19:41:16
3	SiO2†	3923.3	2563.3	552.03 µg/L	552.03 ppb	19:40:55
3	Si 251.611†	3574.4	3161.3	259.88 µg/L	259.88 ppb	19:40:55
3	Sn 189.927†	1.0	1.8	0.8318 µg/L	0.8318 ppb	19:41:16
3	Ti 334.940†	247.5	124.4	0.2972 µg/L	0.2972 ppb	19:40:55
3	Tl 190.801†	-20.5	4.4	6.0916 µg/L	6.0916 ppb	19:41:16
3	U 409.014†	-23.0	31.3	2.8278 µg/L	2.8278 ppb	19:40:55
3	V 292.402†	-67.0	-20.9	-0.2134 µg/L	-0.2134 ppb	19:40:55
3	Zn 213.857†	498.6	9.1	0.2239 µg/L	0.2239 ppb	19:41:16

Mean Data: 1202032561|948737|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1969494.8	103.12	%	0.295				0.29%
Sc RADIAL	55335.7	101	%	0.5				0.54%
Y 371.029	1350254.5	103.08	%	0.353				0.34%
Ag 328.068†	75.7	0.6024	µg/L	0.11293	0.6024	ppb	0.11293	18.75%
Al 396.153Radial†	1.8	1.3697	µg/L	4.89673	1.3697	ppb	4.89673	357.50%
As 188.979†	-1.1	-2.2258	µg/L	1.39574	-2.2258	ppb	1.39574	62.71%
B 249.677†	48.9	2.1331	µg/L	0.24218	2.1331	ppb	0.24218	11.35%
Ba 233.527†	8.4	0.2198	µg/L	0.05138	0.2198	ppb	0.05138	23.38%
Be 313.107†	302.3	0.1973	µg/L	0.04034	0.1973	ppb	0.04034	20.44%
Ca 317.933Radial†	13.7	12.889	µg/L	2.5739	12.889	ppb	2.5739	19.97%
Cd 226.502†	8.7	0.2383	µg/L	0.14769	0.2383	ppb	0.14769	61.96%
Co 228.616†	1.8	0.0896	µg/L	0.32695	0.0896	ppb	0.32695	364.74%
Cr 267.716†	40.0	0.8801	µg/L	0.18253	0.8801	ppb	0.18253	20.74%
Cu 324.752†	-95.0	-0.6622	µg/L	0.15020	-0.6622	ppb	0.15020	22.68%
Fe 238.204 Radial†	1.3	11.026	µg/L	11.1673	11.026	ppb	11.1673	101.28%
K 766.490 Radial†	75.1	53.373	µg/L	20.1092	53.373	ppb	20.1092	37.68%
Mg 279.077 IEC†	4.4	40.581	µg/L	12.7501	40.581	ppb	12.7501	31.42%
Mn 257.610†	98.1	0.3395	µg/L	0.05572	0.3395	ppb	0.05572	16.41%
Mo 202.031†	2.4	0.2567	µg/L	0.11216	0.2567	ppb	0.11216	43.69%
Na 589.592 Radial†	187.8	61.831	µg/L	10.1008	61.831	ppb	10.1008	16.34%

Ni 231.604†	-2.9	-0.1566	µg/L	0.42953	-0.1566	ppb	0.42953	274.22%
P 214.914†	2.2	4.8165	µg/L	11.02392	4.8165	ppb	11.02392	228.88%
Pb 220.353†	-7.1	-1.8816	µg/L	0.93377	-1.8816	ppb	0.93377	49.63%
S 181.975 Axial†	3.3	14.524	µg/L	11.7071	14.524	ppb	11.7071	80.60%
Sb 206.836†	-3.9	-3.8865	µg/L	0.21773	-3.8865	ppb	0.21773	5.60%
Se 196.026†	-4.9	-7.5242	µg/L	3.79864	-7.5242	ppb	3.79864	50.49%
SiO2†	2633.7	567.19	µg/L	13.522	567.19	ppb	13.522	2.38%
Si 251.611†	3248.2	267.02	µg/L	6.418	267.02	ppb	6.418	2.40%
Sn 189.927†	2.3	1.0494	µg/L	0.22288	1.0494	ppb	0.22288	21.24%
Sr 421.552†	18.1	0.1880	µg/L	0.07405	0.1880	ppb	0.07405	39.39%
Ti 334.940†	103.1	0.2449	µg/L	0.04745	0.2449	ppb	0.04745	19.37%
Tl 190.801†	1.4	1.9362	µg/L	6.11008	1.9362	ppb	6.11008	315.56%
U 409.014†	-10.0	-0.9095	µg/L	4.02356	-0.9095	ppb	4.02356	442.37%
V 292.402†	15.9	0.1733	µg/L	0.35183	0.1733	ppb	0.35183	203.00%
Zn 213.857†	9.7	0.2409	µg/L	0.23181	0.2409	ppb	0.23181	96.23%

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:41:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56419.4	56419.4	103	%			19:42:04
1	Al 396.153Radial†	6864.6	6650.3	4946.1	µg/L	4946.1	ppb	19:42:25
1	Ca 317.933Radial†	5559.4	5198.4	4894.6	µg/L	4894.6	ppb	19:42:25
1	Fe 238.204 Radial†	616.6	581.9	4942.5	µg/L	4942.5	ppb	19:42:25
1	K 766.490 Radial†	7352.0	6983.2	4963.6	µg/L	4963.6	ppb	19:42:04
1	Mg 279.077 IEC†	570.1	540.2	5030.2	µg/L	5030.2	ppb	19:42:25
1	Na 589.592 Radial†	31600.6	30025.3	9884.4	µg/L	9884.4	ppb	19:42:04
1	Sr 421.552†	48468.4	46843.8	485.59	µg/L	485.59	ppb	19:42:04
1	Sc 361.383	2003108.1	2003108.1	104.88	%			19:43:28
1	Y 371.029	1370730.2	1370730.2	104.64	%			19:43:28
1	Ag 328.068†	64726.1	62276.9	497.74	µg/L	497.74	ppb	19:43:34
1	As 188.979†	267.5	253.9	495.37	µg/L	495.37	ppb	19:43:54
1	B 249.677†	12041.2	11149.1	485.46	µg/L	485.46	ppb	19:43:34
1	Ba 233.527†	19842.7	18944.8	494.19	µg/L	494.19	ppb	19:43:34
1	Be 313.107†	766666.1	734409.3	479.43	µg/L	479.43	ppb	19:43:28
1	Cd 226.502†	18686.6	17958.6	495.39	µg/L	495.39	ppb	19:43:34
1	Co 228.616†	10595.4	10110.9	497.04	µg/L	497.04	ppb	19:43:34
1	Cr 267.716†	23720.3	22668.2	498.92	µg/L	498.92	ppb	19:43:34
1	Cu 324.752†	76984.9	70914.3	496.04	µg/L	496.04	ppb	19:43:34
1	Mn 257.610†	147751.2	141115.8	489.12	µg/L	489.12	ppb	19:43:28
1	Mo 202.031†	5026.0	4799.5	512.40	µg/L	512.40	ppb	19:43:54
1	Ni 231.604†	9826.5	9066.7	495.20	µg/L	495.20	ppb	19:43:34
1	P 214.914†	1254.6	1168.6	2461.8	µg/L	2461.8	ppb	19:43:54
1	Pb 220.353†	2050.1	1857.4	495.79	µg/L	495.79	ppb	19:43:54
1	S 181.975 Axial†	255.6	228.9	1003.0	µg/L	1003.0	ppb	19:43:54
1	Sb 206.836†	570.4	516.9	511.09	µg/L	511.09	ppb	19:43:54
1	Se 196.026†	360.0	327.4	506.74	µg/L	506.74	ppb	19:43:54
1	SiO2†	26928.3	24424.4	5259.9	µg/L	5259.9	ppb	19:43:34
1	Si 251.611†	31785.6	29992.7	2465.6	µg/L	2465.6	ppb	19:43:34
1	Sn 189.927†	1167.3	1113.9	512.34	µg/L	512.34	ppb	19:43:54
1	Ti 334.940†	210971.9	201032.6	483.25	µg/L	483.25	ppb	19:43:28
1	Tl 190.801†	351.0	358.9	506.83	µg/L	506.83	ppb	19:43:54
1	U 409.014†	5847.6	5628.9	508.64	µg/L	508.64	ppb	19:43:34
1	V 292.402†	48650.0	46429.0	501.02	µg/L	501.02	ppb	19:43:34
1	Zn 213.857†	21378.5	19907.5	493.60	µg/L	493.60	ppb	19:43:34
2	Sc RADIAL	57083.7	57083.7	105	%			19:42:30
2	Al 396.153Radial†	6804.1	6515.2	4845.3	µg/L	4845.3	ppb	19:42:51
2	Ca 317.933Radial†	5545.5	5122.6	4823.3	µg/L	4823.3	ppb	19:42:51
2	Fe 238.204 Radial†	613.4	571.9	4857.7	µg/L	4857.7	ppb	19:42:51
2	K 766.490 Radial†	7292.4	6843.5	4864.3	µg/L	4864.3	ppb	19:42:30
2	Mg 279.077 IEC†	572.7	536.3	4994.3	µg/L	4994.3	ppb	19:42:51
2	Na 589.592 Radial†	31703.2	29767.7	9799.6	µg/L	9799.6	ppb	19:42:30
2	Sr 421.552†	48760.9	46577.9	482.83	µg/L	482.83	ppb	19:42:30
2	Sc 361.383	1956478.6	1956478.6	102.44	%			19:44:02
2	Y 371.029	1338013.6	1338013.6	102.14	%			19:44:02
2	Ag 328.068†	63625.9	62673.7	500.90	µg/L	500.90	ppb	19:44:07
2	As 188.979†	268.7	261.1	509.35	µg/L	509.35	ppb	19:44:28
2	B 249.677†	11834.0	11220.4	488.63	µg/L	488.63	ppb	19:44:07
2	Ba 233.527†	19447.5	19009.9	495.89	µg/L	495.89	ppb	19:44:07
2	Be 313.107†	783080.7	767854.0	501.26	µg/L	501.26	ppb	19:44:02
2	Cd 226.502†	18262.0	17968.8	495.68	µg/L	495.68	ppb	19:44:07
2	Co 228.616†	10399.7	10160.6	499.45	µg/L	499.45	ppb	19:44:07
2	Cr 267.716†	23262.6	22760.4	500.95	µg/L	500.95	ppb	19:44:07
2	Cu 324.752†	75552.4	71265.3	498.48	µg/L	498.48	ppb	19:44:07
2	Mn 257.610†	151080.8	147723.5	511.99	µg/L	511.99	ppb	19:44:02
2	Mo 202.031†	4987.4	4876.0	520.56	µg/L	520.56	ppb	19:44:28
2	Ni 231.604†	9658.6	9126.2	498.44	µg/L	498.44	ppb	19:44:07
2	P 214.914†	1238.9	1181.7	2490.0	µg/L	2490.0	ppb	19:44:28
2	Pb 220.353†	2049.2	1903.2	508.02	µg/L	508.02	ppb	19:44:28

2	S 181.975 Axial†	249.6	228.9	1002.7 µg/L	1002.7 ppb	19:44:28
2	Sb 206.836†	564.1	523.7	517.93 µg/L	517.93 ppb	19:44:28
2	Se 196.026†	358.2	333.9	516.45 µg/L	516.45 ppb	19:44:28
2	SiO2†	26483.3	24601.9	5298.2 µg/L	5298.2 ppb	19:44:07
2	Si 251.611†	31145.7	30090.4	2473.6 µg/L	2473.6 ppb	19:44:07
2	Sn 189.927†	1159.9	1133.1	521.19 µg/L	521.19 ppb	19:44:28
2	Ti 334.940†	215458.6	210206.4	505.32 µg/L	505.32 ppb	19:44:02
2	Tl 190.801†	341.6	357.7	505.37 µg/L	505.37 ppb	19:44:28
2	U 409.014†	5729.0	5646.0	510.20 µg/L	510.20 ppb	19:44:07
2	V 292.402†	47728.9	46635.3	503.28 µg/L	503.28 ppb	19:44:07
2	Zn 213.857†	20977.4	20001.8	495.95 µg/L	495.95 ppb	19:44:07
3	Sc RADIAL	57202.6	57202.6	105 %		19:42:56
3	Al 396.153Radial†	6841.2	6537.0	4863.4 µg/L	4863.4 ppb	19:43:17
3	Ca 317.933Radial†	5579.2	5143.7	4843.1 µg/L	4843.1 ppb	19:43:17
3	Fe 238.204 Radial†	619.6	576.6	4896.7 µg/L	4896.7 ppb	19:43:17
3	K 766.490 Radial†	7296.8	6833.1	4856.9 µg/L	4856.9 ppb	19:42:56
3	Mg 279.077 IEC†	570.0	532.5	4957.7 µg/L	4957.7 ppb	19:43:17
3	Na 589.592 Radial†	31651.4	29655.3	9762.6 µg/L	9762.6 ppb	19:42:56
3	Sr 421.552†	48633.6	46359.5	480.57 µg/L	480.57 ppb	19:42:56
3	Sc 361.383	1968483.8	1968483.8	103.07 %		19:44:35
3	Y 371.029	1347474.9	1347474.9	102.87 %		19:44:35
3	Ag 328.068†	60287.4	59055.9	471.87 µg/L	471.87 ppb	19:44:40
3	As 188.979†	225.2	217.3	423.99 µg/L	423.99 ppb	19:45:01
3	B 249.677†	11150.7	10487.1	456.47 µg/L	456.47 ppb	19:44:40
3	Ba 233.527†	17981.9	17472.2	455.76 µg/L	455.76 ppb	19:44:40
3	Be 313.107†	731612.9	713257.7	465.62 µg/L	465.62 ppb	19:44:35
3	Cd 226.502†	16841.2	16481.6	454.60 µg/L	454.60 ppb	19:44:40
3	Co 228.616†	9509.8	9235.4	453.92 µg/L	453.92 ppb	19:44:40
3	Cr 267.716†	20728.9	20163.7	443.80 µg/L	443.80 ppb	19:44:40
3	Cu 324.752†	69473.8	64918.0	454.15 µg/L	454.15 ppb	19:44:40
3	Mn 257.610†	141487.4	137516.4	476.65 µg/L	476.65 ppb	19:44:35
3	Mo 202.031†	4166.6	4050.0	432.41 µg/L	432.41 ppb	19:45:01
3	Ni 231.604†	8868.9	8302.5	453.46 µg/L	453.46 ppb	19:44:40
3	P 214.914†	1068.6	1009.2	2122.7 µg/L	2122.7 ppb	19:45:01
3	Pb 220.353†	1791.6	1641.0	437.94 µg/L	437.94 ppb	19:45:01
3	S 181.975 Axial†	225.5	204.0	893.82 µg/L	893.82 ppb	19:45:01
3	Sb 206.836†	488.9	447.4	442.01 µg/L	442.01 ppb	19:45:01
3	Se 196.026†	320.0	294.7	456.84 µg/L	456.84 ppb	19:45:01
3	SiO2†	24830.7	22841.0	4918.9 µg/L	4918.9 ppb	19:44:40
3	Si 251.611†	29062.2	27883.6	2292.2 µg/L	2292.2 ppb	19:44:40
3	Sn 189.927†	952.2	924.7	425.35 µg/L	425.35 ppb	19:45:01
3	Ti 334.940†	200541.4	194450.9	467.42 µg/L	467.42 ppb	19:44:35
3	Tl 190.801†	313.2	328.1	463.67 µg/L	463.67 ppb	19:45:01
3	U 409.014†	5147.7	5048.0	456.05 µg/L	456.05 ppb	19:44:40
3	V 292.402†	43287.8	42042.5	453.47 µg/L	453.47 ppb	19:44:40
3	Zn 213.857†	19269.8	18220.2	451.73 µg/L	451.73 ppb	19:44:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1976023.5	103.47	%	1.268				1.23%
Sc RADIAL	56901.9	104	%	0.8				0.74%
Y 371.029	1352072.9	103.22	%	1.285				1.25%
Ag 328.068†	61335.5	490.17	µg/L	15.926	490.17	ppb	15.926	3.25%
QC value within limits for Ag 328.068 Recovery = 98.03%								
Al 396.153Radial†	6567.5	4884.9	µg/L	53.78	4884.9	ppb	53.78	1.10%
QC value within limits for Al 396.153Radial Recovery = 97.70%								
As 188.979†	244.1	476.24	µg/L	45.784	476.24	ppb	45.784	9.61%
QC value within limits for As 188.979 Recovery = 95.25%								
B 249.677†	10952.2	476.85	µg/L	17.725	476.85	ppb	17.725	3.72%
QC value within limits for B 249.677 Recovery = 95.37%								
Ba 233.527†	18475.6	481.94	µg/L	22.693	481.94	ppb	22.693	4.71%
QC value within limits for Ba 233.527 Recovery = 96.39%								
Be 313.107†	738507.0	482.10	µg/L	17.970	482.10	ppb	17.970	3.73%
QC value within limits for Be 313.107 Recovery = 96.42%								
Ca 317.933Radial†	5154.9	4853.7	µg/L	36.83	4853.7	ppb	36.83	0.76%
QC value within limits for Ca 317.933Radial Recovery = 97.07%								
Cd 226.502†	17469.7	481.89	µg/L	23.632	481.89	ppb	23.632	4.90%
QC value within limits for Cd 226.502 Recovery = 96.38%								
Co 228.616†	9835.6	483.47	µg/L	25.623	483.47	ppb	25.623	5.30%

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   QC value within limits for Co 228.616  Recovery = 96.69%
Cr 267.716†            21864.1      481.23 µg/L        32.425      481.23 ppb         32.425   6.74%
   QC value within limits for Cr 267.716  Recovery = 96.25%
Cu 324.752†            69032.5      482.89 µg/L        24.920      482.89 ppb         24.920   5.16%
   QC value within limits for Cu 324.752  Recovery = 96.58%
Fe 238.204 Radial†       576.8      4899.0 µg/L         42.44      4899.0 ppb          42.44   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.98%
K 766.490 Radial†       6886.6      4894.9 µg/L         59.56      4894.9 ppb          59.56   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 97.90%
Mg 279.077 IEC†          536.3      4994.1 µg/L         36.28      4994.1 ppb          36.28   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           142118.5      492.59 µg/L        17.923      492.59 ppb         17.923   3.64%
   QC value within limits for Mn 257.610  Recovery = 98.52%
Mo 202.031†             4575.2      488.46 µg/L        48.709      488.46 ppb         48.709   9.97%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†     29816.1      9815.6 µg/L         62.45      9815.6 ppb          62.45   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 98.16%
Ni 231.604†             8831.8      482.37 µg/L        25.085      482.37 ppb         25.085   5.20%
   QC value within limits for Ni 231.604  Recovery = 96.47%
P 214.914†              1119.8      2358.2 µg/L        204.40      2358.2 ppb         204.40   8.67%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†             1800.5      480.58 µg/L        37.434      480.58 ppb         37.434   7.79%
   QC value within limits for Pb 220.353  Recovery = 96.12%
S 181.975 Axial†         220.6      966.52 µg/L        62.959      966.52 ppb         62.959   6.51%
   QC value within limits for S 181.975 Axial  Recovery = 96.65%
Sb 206.836†              496.0      490.35 µg/L        41.996      490.35 ppb         41.996   8.56%
   QC value within limits for Sb 206.836  Recovery = 98.07%
Se 196.026†              318.6      493.35 µg/L        31.983      493.35 ppb         31.983   6.48%
   QC value within limits for Se 196.026  Recovery = 98.67%
SiO2†                  23955.8      5159.0 µg/L        208.79      5159.0 ppb         208.79   4.05%
   QC value within limits for SiO2  Recovery = 96.48%
Si 251.611†            29322.2      2410.4 µg/L        102.50      2410.4 ppb         102.50   4.25%
   QC value within limits for Si 251.611  Recovery = 96.42%
Sn 189.927†             1057.2      486.29 µg/L        52.962      486.29 ppb         52.962  10.89%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†            46593.7      483.00 µg/L         2.514      483.00 ppb          2.514   0.52%
   QC value within limits for Sr 421.552  Recovery = 96.60%
Ti 334.940†           201896.6      485.33 µg/L        19.033      485.33 ppb         19.033   3.92%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†              348.3      491.96 µg/L        24.505      491.96 ppb         24.505   4.98%
   QC value within limits for Tl 190.801  Recovery = 98.39%
U 409.014†              5441.0      491.63 µg/L        30.821      491.63 ppb         30.821   6.27%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†             45035.6      485.92 µg/L        28.129      485.92 ppb         28.129   5.79%
   QC value within limits for V 292.402  Recovery = 97.18%
Zn 213.857†            19376.5      480.43 µg/L        24.881      480.43 ppb         24.881   5.18%
   QC value within limits for Zn 213.857  Recovery = 96.09%
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:45:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56376.8	56376.8	103	%			19:45:43
1	Al 396.153Radial†	-19.0	-8.3	-6.1741	µg/L	-6.1741	ppb	19:45:43
1	Ca 317.933Radial†	190.5	5.3	4.9933	µg/L	4.9933	ppb	19:46:03
1	Fe 238.204 Radial†	14.9	-0.1	-0.5495	µg/L	-0.5495	ppb	19:46:03
1	K 766.490 Radial†	145.1	12.1	8.5950	µg/L	8.5950	ppb	19:45:43
1	Mg 279.077 IEC†	10.6	-1.0	-9.5449	µg/L	-9.5449	ppb	19:46:03
1	Na 589.592 Radial†	582.4	21.9	7.2091	µg/L	7.2091	ppb	19:45:43
1	Sr 421.552†	18.5	-21.6	-0.2243	µg/L	-0.2243	ppb	19:45:43
1	Sc 361.383	1992362.0	1992362.0	104.32	%			19:47:05
1	Y 371.029	1368353.4	1368353.4	104.46	%			19:47:05
1	Ag 328.068†	-598.5	-9.1	-0.0730	µg/L	-0.0730	ppb	19:47:10
1	As 188.979†	-0.0	-1.2	-2.2711	µg/L	-2.2711	ppb	19:47:31
1	B 249.677†	346.6	0.7	0.0326	µg/L	0.0326	ppb	19:47:31
1	Ba 233.527†	-24.2	2.9	0.0744	µg/L	0.0744	ppb	19:47:31
1	Be 313.107†	-3339.3	239.4	0.1563	µg/L	0.1563	ppb	19:47:10
1	Cd 226.502†	-124.4	22.9	0.6311	µg/L	0.6311	ppb	19:47:31
1	Co 228.616†	-16.5	-7.0	-0.3445	µg/L	-0.3445	ppb	19:47:31
1	Cr 267.716†	-47.2	7.2	0.1575	µg/L	0.1575	ppb	19:47:31
1	Cu 324.752†	2430.9	-155.9	-1.0892	µg/L	-1.0892	ppb	19:47:10
1	Mn 257.610†	-240.7	13.4	0.0467	µg/L	0.0467	ppb	19:47:31
1	Mo 202.031†	-8.3	-0.4	-0.0415	µg/L	-0.0415	ppb	19:47:31
1	Ni 231.604†	297.2	-17.3	-0.9473	µg/L	-0.9473	ppb	19:47:31
1	P 214.914†	35.0	6.0	12.897	µg/L	12.897	ppb	19:47:31
1	Pb 220.353†	95.0	-6.2	-1.6460	µg/L	-1.6460	ppb	19:47:31
1	S 181.975 Axial†	14.6	-0.8	-3.7140	µg/L	-3.7140	ppb	19:47:31
1	Sb 206.836†	19.5	-8.3	-8.1804	µg/L	-8.1804	ppb	19:47:31
1	Se 196.026†	15.6	-0.9	-1.2950	µg/L	-1.2950	ppb	19:47:31
1	SiO2†	1248.6	-53.2	-11.446	µg/L	-11.446	ppb	19:47:10
1	Si 251.611†	306.0	-19.6	-1.6096	µg/L	-1.6096	ppb	19:47:31
1	Sn 189.927†	-6.1	-5.0	-2.2944	µg/L	-2.2944	ppb	19:47:31
1	Ti 334.940†	214.1	89.1	0.2152	µg/L	0.2152	ppb	19:47:10
1	Tl 190.801†	-21.4	3.7	5.2299	µg/L	5.2299	ppb	19:47:31
1	U 409.014†	10.3	63.5	5.7486	µg/L	5.7486	ppb	19:47:10
1	V 292.402†	-52.5	-6.1	-0.0596	µg/L	-0.0596	ppb	19:47:10
1	Zn 213.857†	478.7	-16.6	-0.4092	µg/L	-0.4092	ppb	19:47:31
2	Sc RADIAL	56044.6	56044.6	103	%			19:46:09
2	Al 396.153Radial†	-6.3	4.0	2.9768	µg/L	2.9768	ppb	19:46:09
2	Ca 317.933Radial†	183.8	-0.2	-0.1847	µg/L	-0.1847	ppb	19:46:29
2	Fe 238.204 Radial†	14.3	-0.6	-4.7213	µg/L	-4.7213	ppb	19:46:29
2	K 766.490 Radial†	167.1	34.3	24.398	µg/L	24.398	ppb	19:46:09
2	Mg 279.077 IEC†	11.1	-0.4	-4.0659	µg/L	-4.0659	ppb	19:46:29
2	Na 589.592 Radial†	618.2	60.1	19.792	µg/L	19.792	ppb	19:46:09
2	Sr 421.552†	69.0	27.6	0.2866	µg/L	0.2866	ppb	19:46:09
2	Sc 361.383	1989518.4	1989518.4	104.17	%			19:47:37
2	Y 371.029	1365606.7	1365606.7	104.25	%			19:47:37
2	Ag 328.068†	-547.2	39.3	0.3111	µg/L	0.3111	ppb	19:47:43
2	As 188.979†	-3.9	-4.9	-9.5988	µg/L	-9.5988	ppb	19:48:03
2	B 249.677†	322.6	-21.8	-0.9478	µg/L	-0.9478	ppb	19:48:03
2	Ba 233.527†	-14.9	11.7	0.3048	µg/L	0.3048	ppb	19:48:03
2	Be 313.107†	-3365.6	209.6	0.1369	µg/L	0.1369	ppb	19:47:43
2	Cd 226.502†	-135.4	12.1	0.3352	µg/L	0.3352	ppb	19:48:03
2	Co 228.616†	-12.8	-3.4	-0.1669	µg/L	-0.1669	ppb	19:48:03
2	Cr 267.716†	-34.1	19.6	0.4310	µg/L	0.4310	ppb	19:48:03
2	Cu 324.752†	2392.5	-189.4	-1.3239	µg/L	-1.3239	ppb	19:47:43
2	Mn 257.610†	-233.6	19.8	0.0682	µg/L	0.0682	ppb	19:48:03
2	Mo 202.031†	1.3	8.8	0.9388	µg/L	0.9388	ppb	19:48:03
2	Ni 231.604†	308.4	-6.2	-0.3371	µg/L	-0.3371	ppb	19:48:03
2	P 214.914†	38.1	8.9	19.315	µg/L	19.315	ppb	19:48:03
2	Pb 220.353†	86.4	-14.2	-3.7968	µg/L	-3.7968	ppb	19:48:03

2	S 181.975 Axial†	18.4	2.9	12.528 µg/L	12.528 ppb	19:48:03
2	Sb 206.836†	29.9	1.8	1.7421 µg/L	1.7421 ppb	19:48:03
2	Se 196.026†	17.4	0.9	1.3573 µg/L	1.3573 ppb	19:48:03
2	SiO2†	1243.9	-56.0	-12.052 µg/L	-12.052 ppb	19:47:43
2	Si 251.611†	297.9	-26.9	-2.2125 µg/L	-2.2125 ppb	19:48:03
2	Sn 189.927†	-3.7	-2.7	-1.2451 µg/L	-1.2451 ppb	19:48:03
2	Ti 334.940†	113.7	-7.0	-0.0165 µg/L	-0.0165 ppb	19:47:43
2	Tl 190.801†	-21.7	3.4	4.7734 µg/L	4.7734 ppb	19:48:03
2	U 409.014†	-37.3	17.8	1.6161 µg/L	1.6161 ppb	19:47:43
2	V 292.402†	-50.7	-4.5	-0.0381 µg/L	-0.0381 ppb	19:47:43
2	Zn 213.857†	476.3	-18.3	-0.4528 µg/L	-0.4528 ppb	19:48:03
3	Sc RADIAL	56131.1	56131.1	103 %		19:46:34
3	Al 396.153Radial†	10.7	20.5	15.284 µg/L	15.284 ppb	19:46:34
3	Ca 317.933Radial†	181.6	-2.5	-2.4004 µg/L	-2.4004 ppb	19:46:55
3	Fe 238.204 Radial†	13.6	-1.3	-10.669 µg/L	-10.669 ppb	19:46:55
3	K 766.490 Radial†	173.8	40.6	28.846 µg/L	28.846 ppb	19:46:34
3	Mg 279.077 IEC†	10.5	-1.0	-9.5132 µg/L	-9.5132 ppb	19:46:55
3	Na 589.592 Radial†	587.6	29.4	9.6947 µg/L	9.6947 ppb	19:46:34
3	Sr 421.552†	41.1	0.4	0.0044 µg/L	0.0044 ppb	19:46:34
3	Sc 361.383	1993278.2	1993278.2	104.37 %		19:48:09
3	Y 371.029	1367625.5	1367625.5	104.41 %		19:48:09
3	Ag 328.068†	-556.8	31.0	0.2472 µg/L	0.2472 ppb	19:48:15
3	As 188.979†	0.5	-0.7	-1.3924 µg/L	-1.3924 ppb	19:48:35
3	B 249.677†	311.8	-32.7	-1.4217 µg/L	-1.4217 ppb	19:48:35
3	Ba 233.527†	-24.9	2.1	0.0565 µg/L	0.0565 ppb	19:48:35
3	Be 313.107†	-3343.9	236.6	0.1544 µg/L	0.1544 ppb	19:48:15
3	Cd 226.502†	-139.6	8.3	0.2308 µg/L	0.2308 ppb	19:48:35
3	Co 228.616†	-13.5	-4.1	-0.2026 µg/L	-0.2026 ppb	19:48:35
3	Cr 267.716†	-29.8	23.8	0.5241 µg/L	0.5241 ppb	19:48:35
3	Cu 324.752†	2398.4	-188.1	-1.3155 µg/L	-1.3155 ppb	19:48:15
3	Mn 257.610†	-235.9	18.1	0.0616 µg/L	0.0616 ppb	19:48:35
3	Mo 202.031†	-7.4	0.5	0.0513 µg/L	0.0513 ppb	19:48:35
3	Ni 231.604†	308.0	-7.0	-0.3852 µg/L	-0.3852 ppb	19:48:35
3	P 214.914†	25.9	-2.8	-5.9057 µg/L	-5.9057 ppb	19:48:35
3	Pb 220.353†	95.4	-5.8	-1.5343 µg/L	-1.5343 ppb	19:48:35
3	S 181.975 Axial†	16.1	0.6	2.8080 µg/L	2.8080 ppb	19:48:35
3	Sb 206.836†	23.7	-4.2	-4.1849 µg/L	-4.1849 ppb	19:48:35
3	Se 196.026†	19.8	3.2	4.8107 µg/L	4.8107 ppb	19:48:35
3	SiO2†	1250.9	-51.4	-11.079 µg/L	-11.079 ppb	19:48:15
3	Si 251.611†	298.1	-27.3	-2.2426 µg/L	-2.2426 ppb	19:48:35
3	Sn 189.927†	2.3	3.1	1.4084 µg/L	1.4084 ppb	19:48:35
3	Ti 334.940†	175.4	51.9	0.1256 µg/L	0.1256 ppb	19:48:15
3	Tl 190.801†	-26.8	-1.4	-1.9510 µg/L	-1.9510 ppb	19:48:35
3	U 409.014†	-48.8	6.9	0.6237 µg/L	0.6237 ppb	19:48:15
3	V 292.402†	-16.2	28.7	0.3071 µg/L	0.3071 ppb	19:48:15
3	Zn 213.857†	476.7	-18.8	-0.4644 µg/L	-0.4644 ppb	19:48:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1991719.6	104.29	%	0.103				0.10%
Sc RADIAL	56184.2	103	%	0.3				0.31%
Y 371.029	1367195.2	104.37	%	0.109				0.10%
Ag 328.068†	20.4	0.1617	µg/L	0.20583	0.1617	ppb	0.20583	127.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	4.0289	µg/L	10.76761	4.0289	ppb	10.76761	267.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4208	µg/L	4.50578	-4.4208	ppb	4.50578	101.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.9	-0.7790	µg/L	0.74170	-0.7790	ppb	0.74170	95.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.1452	µg/L	0.13851	0.1452	ppb	0.13851	95.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	228.6	0.1492	µg/L	0.01069	0.1492	ppb	0.01069	7.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	0.8027	µg/L	3.79444	0.8027	ppb	3.79444	472.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.5	0.3990	µg/L	0.20768	0.3990	ppb	0.20768	52.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.8	-0.2380	µg/L	0.09392	-0.2380	ppb	0.09392	39.46%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.9      0.3709 µg/L       0.19057      0.3709 ppb        0.19057  51.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -177.8     -1.2429 µg/L       0.13310     -1.2429 ppb        0.13310  10.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -5.3132 µg/L       5.08561     -5.3132 ppb        5.08561  95.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.0      20.613 µg/L       10.6427      20.613 ppb        10.6427  51.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.7080 µg/L       3.15418     -7.7080 ppb        3.15418  40.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                17.1      0.0589 µg/L       0.01100      0.0589 ppb        0.01100  18.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.0      0.3162 µg/L       0.54117      0.3162 ppb        0.54117 171.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         37.2      12.232 µg/L        6.6641      12.232 ppb         6.6641  54.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.2     -0.5566 µg/L       0.33928     -0.5566 ppb        0.33928  60.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.0      8.7689 µg/L      13.10740      8.7689 ppb       13.10740 149.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.7     -2.3257 µg/L       1.27525     -2.3257 ppb        1.27525  54.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.9      3.8739 µg/L       8.17318      3.8739 ppb        8.17318 210.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.6     -3.5411 µg/L       4.99248     -3.5411 ppb        4.99248 140.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      1.6243 µg/L       3.06159      1.6243 ppb        3.06159 188.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -53.5     -11.526 µg/L        0.4912     -11.526 ppb         0.4912   4.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -24.6     -2.0216 µg/L       0.35706     -2.0216 ppb        0.35706  17.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.5     -0.7104 µg/L       1.90848     -0.7104 ppb        1.90848 268.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.1      0.0222 µg/L       0.25591      0.0222 ppb        0.25591 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                44.7      0.1081 µg/L       0.11683      0.1081 ppb        0.11683 108.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.9      2.6841 µg/L       4.02062      2.6841 ppb        4.02062 149.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 29.4      2.6628 µg/L       2.71803      2.6628 ppb        2.71803 102.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  6.0      0.0698 µg/L       0.20578      0.0698 ppb        0.20578 294.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -17.9     -0.4421 µg/L       0.02911     -0.4421 ppb        0.02911   6.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 52
Sample ID: 245981001|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 340
Date Collected: 2/11/2010 20:03:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245981001|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56793.1	56793.1	104	%			20:03:41
1	Al 396.153Radial†	26.1	35.3	26.274	µg/L	26.274	ppb	20:03:41
1	Ca 317.933Radial†	225.2	37.3	35.118	µg/L	35.118	ppb	20:04:01
1	Fe 238.204 Radial†	18.2	3.0	25.387	µg/L	25.387	ppb	20:04:01
1	K 766.490 Radial†	391.5	247.8	176.14	µg/L	176.14	ppb	20:03:41
1	Mg 279.077 IEC†	10.6	-1.1	-9.8636	µg/L	-9.8636	ppb	20:04:01
1	Na 589.592 Radial†	887.4	310.9	102.34	µg/L	102.34	ppb	20:03:41
1	Sr 421.552†	13.1	-27.0	-0.2795	µg/L	-0.2795	ppb	20:03:41
1	Sc 361.383	1981801.4	1981801.4	103.77	%			20:05:03
1	Y 371.029	1358318.8	1358318.8	103.69	%			20:05:03
1	Ag 328.068†	-541.0	43.1	0.3436	µg/L	0.3436	ppb	20:05:09
1	As 188.979†	-0.8	-1.9	-3.7331	µg/L	-3.7331	ppb	20:05:29
1	B 249.677†	675.0	319.1	13.931	µg/L	13.931	ppb	20:05:09
1	Ba 233.527†	-3.2	23.0	0.5976	µg/L	0.5976	ppb	20:05:29
1	Be 313.107†	-3306.5	254.0	0.1657	µg/L	0.1657	ppb	20:05:09
1	Cd 226.502†	-138.0	9.1	0.2481	µg/L	0.2481	ppb	20:05:29
1	Co 228.616†	-12.6	-3.3	-0.1658	µg/L	-0.1658	ppb	20:05:29
1	Cr 267.716†	-29.5	24.0	0.5271	µg/L	0.5271	ppb	20:05:29
1	Cu 324.752†	2499.7	-77.2	-0.5356	µg/L	-0.5356	ppb	20:05:09
1	Mn 257.610†	10.6	254.3	0.8845	µg/L	0.8845	ppb	20:05:29
1	Mo 202.031†	-7.1	0.7	0.0792	µg/L	0.0792	ppb	20:05:29
1	Ni 231.604†	309.4	-4.1	-0.2210	µg/L	-0.2210	ppb	20:05:29
1	P 214.914†	29.9	1.2	2.5531	µg/L	2.5531	ppb	20:05:29
1	Pb 220.353†	98.3	-2.4	-0.6497	µg/L	-0.6497	ppb	20:05:29
1	S 181.975 Axial†	21.3	5.7	25.157	µg/L	25.157	ppb	20:05:29
1	Sb 206.836†	25.4	-2.5	-2.4897	µg/L	-2.4897	ppb	20:05:29
1	Se 196.026†	12.3	-4.0	-5.9562	µg/L	-5.9562	ppb	20:05:29
1	SiO2†	14558.2	12779.6	2752.2	µg/L	2752.2	ppb	20:05:09
1	Si 251.611†	16582.5	15667.5	1287.9	µg/L	1287.9	ppb	20:05:09
1	Sn 189.927†	-1.0	-0.1	-0.0489	µg/L	-0.0489	ppb	20:05:29
1	Ti 334.940†	371.5	241.9	0.5832	µg/L	0.5832	ppb	20:05:09
1	Tl 190.801†	-25.4	-0.2	-0.3008	µg/L	-0.3008	ppb	20:05:29
1	U 409.014†	-20.8	33.6	3.0366	µg/L	3.0366	ppb	20:05:09
1	V 292.402†	-49.5	-3.5	-0.0292	µg/L	-0.0292	ppb	20:05:09
1	Zn 213.857†	562.9	66.9	1.6729	µg/L	1.6729	ppb	20:05:29
2	Sc RADIAL	55931.9	55931.9	102	%			20:04:07
2	Al 396.153Radial†	16.2	26.0	19.354	µg/L	19.354	ppb	20:04:07
2	Ca 317.933Radial†	223.0	38.5	36.204	µg/L	36.204	ppb	20:04:27
2	Fe 238.204 Radial†	19.6	4.6	39.382	µg/L	39.382	ppb	20:04:27
2	K 766.490 Radial†	465.6	325.9	231.65	µg/L	231.65	ppb	20:04:07
2	Mg 279.077 IEC†	12.6	1.0	9.4744	µg/L	9.4744	ppb	20:04:27
2	Na 589.592 Radial†	860.5	297.7	97.999	µg/L	97.999	ppb	20:04:07
2	Sr 421.552†	57.5	16.6	0.1719	µg/L	0.1719	ppb	20:04:07
2	Sc 361.383	1985454.0	1985454.0	103.96	%			20:05:35
2	Y 371.029	1359971.3	1359971.3	103.82	%			20:05:35
2	Ag 328.068†	-561.6	24.3	0.1945	µg/L	0.1945	ppb	20:05:41
2	As 188.979†	2.9	1.6	3.1799	µg/L	3.1799	ppb	20:06:02
2	B 249.677†	662.3	305.7	13.339	µg/L	13.339	ppb	20:05:41
2	Ba 233.527†	-5.0	21.2	0.5526	µg/L	0.5526	ppb	20:06:02
2	Be 313.107†	-3335.1	232.4	0.1516	µg/L	0.1516	ppb	20:05:41
2	Cd 226.502†	-153.7	-5.7	-0.1621	µg/L	-0.1621	ppb	20:06:02
2	Co 228.616†	-16.0	-6.5	-0.3219	µg/L	-0.3219	ppb	20:06:02
2	Cr 267.716†	-17.8	35.3	0.7753	µg/L	0.7753	ppb	20:06:02
2	Cu 324.752†	2474.1	-106.3	-0.7367	µg/L	-0.7367	ppb	20:05:41
2	Mn 257.610†	24.0	267.2	0.9302	µg/L	0.9302	ppb	20:06:02
2	Mo 202.031†	-3.6	4.1	0.4390	µg/L	0.4390	ppb	20:06:02
2	Ni 231.604†	319.5	5.2	0.2826	µg/L	0.2826	ppb	20:06:02
2	P 214.914†	37.0	8.0	17.246	µg/L	17.246	ppb	20:06:02
2	Pb 220.353†	93.2	-7.5	-2.0089	µg/L	-2.0089	ppb	20:06:02

2	S 181.975 Axial†	21.9	6.3	27.476	µg/L	27.476 ppb	20:06:02
2	Sb 206.836†	24.8	-3.1	-3.0450	µg/L	-3.0450 ppb	20:06:02
2	Se 196.026†	14.8	-1.6	-2.3583	µg/L	-2.3583 ppb	20:06:02
2	SiO2†	14539.5	12735.7	2742.7	µg/L	2742.7 ppb	20:05:41
2	Si 251.611†	16429.3	15490.7	1273.4	µg/L	1273.4 ppb	20:05:41
2	Sn 189.927†	3.3	4.0	1.8584	µg/L	1.8584 ppb	20:06:02
2	Ti 334.940†	365.4	235.3	0.5659	µg/L	0.5659 ppb	20:05:41
2	Tl 190.801†	-24.6	0.7	0.9409	µg/L	0.9409 ppb	20:06:02
2	U 409.014†	-41.8	13.4	1.2084	µg/L	1.2084 ppb	20:05:41
2	V 292.402†	-61.7	-15.1	-0.1499	µg/L	-0.1499 ppb	20:05:41
2	Zn 213.857†	572.2	74.9	1.8669	µg/L	1.8669 ppb	20:06:02
3	Sc RADIAL	56225.2	56225.2	103	%		20:04:33
3	Al 396.153Radial†	27.7	37.0	27.581	µg/L	27.581 ppb	20:04:33
3	Ca 317.933Radial†	233.2	47.2	44.451	µg/L	44.451 ppb	20:04:53
3	Fe 238.204 Radial†	16.5	1.5	12.722	µg/L	12.722 ppb	20:04:53
3	K 766.490 Radial†	386.4	246.7	175.34	µg/L	175.34 ppb	20:04:33
3	Mg 279.077 IEC†	14.0	2.3	21.462	µg/L	21.462 ppb	20:04:53
3	Na 589.592 Radial†	895.6	327.4	107.80	µg/L	107.80 ppb	20:04:33
3	Sr 421.552†	42.7	1.9	0.0201	µg/L	0.0201 ppb	20:04:33
3	Sc 361.383	1983866.4	1983866.4	103.88	%		20:06:08
3	Y 371.029	1360017.3	1360017.3	103.82	%		20:06:08
3	Ag 328.068†	-502.5	80.8	0.6411	µg/L	0.6411 ppb	20:06:13
3	As 188.979†	-1.8	-2.9	-5.6702	µg/L	-5.6702 ppb	20:06:34
3	B 249.677†	674.0	317.3	13.863	µg/L	13.863 ppb	20:06:13
3	Ba 233.527†	-9.2	17.1	0.4458	µg/L	0.4458 ppb	20:06:34
3	Be 313.107†	-3370.7	195.6	0.1275	µg/L	0.1275 ppb	20:06:13
3	Cd 226.502†	-144.1	3.4	0.0911	µg/L	0.0911 ppb	20:06:34
3	Co 228.616†	-14.6	-5.2	-0.2580	µg/L	-0.2580 ppb	20:06:34
3	Cr 267.716†	-29.6	23.8	0.5245	µg/L	0.5245 ppb	20:06:34
3	Cu 324.752†	2523.1	-57.1	-0.3972	µg/L	-0.3972 ppb	20:06:13
3	Mn 257.610†	-2.2	242.0	0.8388	µg/L	0.8388 ppb	20:06:34
3	Mo 202.031†	-12.6	-4.6	-0.4926	µg/L	-0.4926 ppb	20:06:34
3	Ni 231.604†	307.7	-6.0	-0.3253	µg/L	-0.3253 ppb	20:06:34
3	P 214.914†	34.7	5.8	12.419	µg/L	12.419 ppb	20:06:34
3	Pb 220.353†	96.5	-4.3	-1.1460	µg/L	-1.1460 ppb	20:06:34
3	S 181.975 Axial†	29.5	13.6	59.636	µg/L	59.636 ppb	20:06:34
3	Sb 206.836†	20.5	-7.2	-7.1094	µg/L	-7.1094 ppb	20:06:34
3	Se 196.026†	23.1	6.4	9.8269	µg/L	9.8269 ppb	20:06:34
3	SiO2†	14301.5	12517.8	2695.8	µg/L	2695.8 ppb	20:06:13
3	Si 251.611†	16255.2	15335.8	1260.7	µg/L	1260.7 ppb	20:06:13
3	Sn 189.927†	1.6	2.4	1.0954	µg/L	1.0954 ppb	20:06:34
3	Ti 334.940†	363.7	234.0	0.5618	µg/L	0.5618 ppb	20:06:13
3	Tl 190.801†	-20.6	4.4	6.1697	µg/L	6.1697 ppb	20:06:34
3	U 409.014†	10.6	63.8	5.7718	µg/L	5.7718 ppb	20:06:13
3	V 292.402†	-56.4	-10.1	-0.1030	µg/L	-0.1030 ppb	20:06:13
3	Zn 213.857†	562.8	66.2	1.6543	µg/L	1.6543 ppb	20:06:34

Mean Data: 245981001|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1983707.3	103.87	%	0.096				0.09%
Sc RADIAL	56316.7	103	%	0.8				0.78%
Y 371.029	1359435.8	103.78	%	0.074				0.07%
Ag 328.068†	49.4	0.3931	µg/L	0.22740	0.3931	ppb	0.22740	57.85%
Al 396.153Radial†	32.7	24.403	µg/L	4.4210	24.403	ppb	4.4210	18.12%
As 188.979†	-1.1	-2.0745	µg/L	4.65234	-2.0745	ppb	4.65234	224.26%
B 249.677†	314.0	13.711	µg/L	0.3243	13.711	ppb	0.3243	2.37%
Ba 233.527†	20.4	0.5320	µg/L	0.07800	0.5320	ppb	0.07800	14.66%
Be 313.107†	227.3	0.1482	µg/L	0.01930	0.1482	ppb	0.01930	13.02%
Ca 317.933Radial†	41.0	38.591	µg/L	5.1038	38.591	ppb	5.1038	13.23%
Cd 226.502†	2.2	0.0590	µg/L	0.20700	0.0590	ppb	0.20700	350.66%
Co 228.616†	-5.0	-0.2486	µg/L	0.07848	-0.2486	ppb	0.07848	31.57%
Cr 267.716†	27.7	0.6090	µg/L	0.14409	0.6090	ppb	0.14409	23.66%
Cu 324.752†	-80.2	-0.5565	µg/L	0.17072	-0.5565	ppb	0.17072	30.68%
Fe 238.204 Radial†	3.0	25.830	µg/L	13.3355	25.830	ppb	13.3355	51.63%
K 766.490 Radial†	273.5	194.38	µg/L	32.279	194.38	ppb	32.279	16.61%
Mg 279.077 IEC†	0.8	7.0243	µg/L	15.80594	7.0243	ppb	15.80594	225.02%
Mn 257.610†	254.5	0.8845	µg/L	0.04570	0.8845	ppb	0.04570	5.17%
Mo 202.031†	0.1	0.0086	µg/L	0.46982	0.0086	ppb	0.46982	>999.9%
Na 589.592 Radial†	312.0	102.71	µg/L	4.909	102.71	ppb	4.909	4.78%

Ni 231.604†	-1.6	-0.0879	µg/L	0.32505	-0.0879	ppb	0.32505 369.82%
P 214.914†	5.0	10.740	µg/L	7.4892	10.740	ppb	7.4892 69.73%
Pb 220.353†	-4.7	-1.2682	µg/L	0.68777	-1.2682	ppb	0.68777 54.23%
S 181.975 Axial†	8.5	37.423	µg/L	19.2718	37.423	ppb	19.2718 51.50%
Sb 206.836†	-4.3	-4.2147	µg/L	2.52220	-4.2147	ppb	2.52220 59.84%
Se 196.026†	0.3	0.5041	µg/L	8.27178	0.5041	ppb	8.27178 >999.9%
SiO2†	12677.7	2730.2	µg/L	30.19	2730.2	ppb	30.19 1.11%
Si 251.611†	15498.0	1274.0	µg/L	13.64	1274.0	ppb	13.64 1.07%
Sn 189.927†	2.1	0.9683	µg/L	0.95997	0.9683	ppb	0.95997 99.14%
Sr 421.552†	-2.8	-0.0291	µg/L	0.22969	-0.0291	ppb	0.22969 788.18%
Ti 334.940†	237.1	0.5703	µg/L	0.01137	0.5703	ppb	0.01137 1.99%
Tl 190.801†	1.6	2.2699	µg/L	3.43390	2.2699	ppb	3.43390 151.28%
U 409.014†	36.9	3.3389	µg/L	2.29669	3.3389	ppb	2.29669 68.79%
V 292.402†	-9.6	-0.0941	µg/L	0.06086	-0.0941	ppb	0.06086 64.70%
Zn 213.857†	69.3	1.7314	µg/L	0.11776	1.7314	ppb	0.11776 6.80%

Sequence No.: 53
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 20:06:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56942.5	56942.5	104	%			20:07:20
1	Al 396.153Radial†	6750.2	6479.6	4819.0	µg/L	4819.0	ppb	20:07:41
1	Ca 317.933Radial†	5453.5	5047.5	4752.6	µg/L	4752.6	ppb	20:07:41
1	Fe 238.204 Radial†	600.4	561.0	4764.9	µg/L	4764.9	ppb	20:07:41
1	K 766.490 Radial†	7140.8	6715.4	4773.3	µg/L	4773.3	ppb	20:07:20
1	Mg 279.077 IEC†	558.8	524.3	4882.8	µg/L	4882.8	ppb	20:07:41
1	Na 589.592 Radial†	31379.2	29532.3	9722.1	µg/L	9722.1	ppb	20:07:20
1	Sr 421.552†	47923.4	45890.8	475.71	µg/L	475.71	ppb	20:07:20
1	Sc 361.383	1997110.3	1997110.3	104.57	%			20:08:44
1	Y 371.029	1366245.8	1366245.8	104.30	%			20:08:44
1	Ag 328.068†	63028.6	60838.9	486.24	µg/L	486.24	ppb	20:08:50
1	As 188.979†	264.1	251.4	490.37	µg/L	490.37	ppb	20:09:10
1	B 249.677†	11700.4	10857.6	472.80	µg/L	472.80	ppb	20:08:50
1	Ba 233.527†	19297.5	18480.3	482.07	µg/L	482.07	ppb	20:08:50
1	Be 313.107†	767522.7	737423.7	481.39	µg/L	481.39	ppb	20:08:44
1	Cd 226.502†	18128.7	17478.6	482.15	µg/L	482.15	ppb	20:08:50
1	Co 228.616†	10328.3	9885.8	485.96	µg/L	485.96	ppb	20:08:50
1	Cr 267.716†	23066.4	22110.8	486.65	µg/L	486.65	ppb	20:08:50
1	Cu 324.752†	74922.7	69162.6	483.78	µg/L	483.78	ppb	20:08:50
1	Mn 257.610†	148210.1	141977.7	492.09	µg/L	492.09	ppb	20:08:44
1	Mo 202.031†	4970.4	4760.7	508.25	µg/L	508.25	ppb	20:09:10
1	Ni 231.604†	9599.0	8877.3	484.85	µg/L	484.85	ppb	20:08:50
1	P 214.914†	1239.8	1158.0	2440.4	µg/L	2440.4	ppb	20:09:10
1	Pb 220.353†	2032.4	1846.4	492.88	µg/L	492.88	ppb	20:09:10
1	S 181.975 Axial†	252.7	226.8	993.68	µg/L	993.68	ppb	20:09:10
1	Sb 206.836†	559.2	507.8	502.18	µg/L	502.18	ppb	20:09:10
1	Se 196.026†	353.9	322.6	499.11	µg/L	499.11	ppb	20:09:10
1	SiO2†	26266.3	23868.5	5140.2	µg/L	5140.2	ppb	20:08:50
1	Si 251.611†	30881.9	29219.5	2402.0	µg/L	2402.0	ppb	20:08:50
1	Sn 189.927†	1160.9	1111.0	511.04	µg/L	511.04	ppb	20:09:10
1	Ti 334.940†	211075.5	201735.7	484.95	µg/L	484.95	ppb	20:08:44
1	Tl 190.801†	335.9	345.5	488.04	µg/L	488.04	ppb	20:09:10
1	U 409.014†	5659.0	5465.3	493.86	µg/L	493.86	ppb	20:08:50
1	V 292.402†	47264.8	45243.6	488.29	µg/L	488.29	ppb	20:08:50
1	Zn 213.857†	20837.6	19451.4	482.30	µg/L	482.30	ppb	20:08:50
2	Sc RADIAL	56409.7	56409.7	103	%			20:07:46
2	Al 396.153Radial†	6758.8	6549.0	4870.9	µg/L	4870.9	ppb	20:08:07
2	Ca 317.933Radial†	5494.9	5136.9	4836.7	µg/L	4836.7	ppb	20:08:07
2	Fe 238.204 Radial†	605.0	570.8	4848.5	µg/L	4848.5	ppb	20:08:07
2	K 766.490 Radial†	7175.4	6813.5	4843.0	µg/L	4843.0	ppb	20:07:46
2	Mg 279.077 IEC†	565.5	535.8	4989.7	µg/L	4989.7	ppb	20:08:07
2	Na 589.592 Radial†	31167.2	29611.2	9748.1	µg/L	9748.1	ppb	20:07:46
2	Sr 421.552†	47693.8	46102.5	477.91	µg/L	477.91	ppb	20:07:46
2	Sc 361.383	1996473.0	1996473.0	104.54	%			20:09:17
2	Y 371.029	1365976.8	1365976.8	104.28	%			20:09:17
2	Ag 328.068†	63356.2	61171.5	488.90	µg/L	488.90	ppb	20:09:23
2	As 188.979†	265.4	252.7	492.96	µg/L	492.96	ppb	20:09:43
2	B 249.677†	11790.3	10947.2	476.67	µg/L	476.67	ppb	20:09:23
2	Ba 233.527†	19374.2	18559.5	484.14	µg/L	484.14	ppb	20:09:23
2	Be 313.107†	761432.1	731831.7	477.74	µg/L	477.74	ppb	20:09:17
2	Cd 226.502†	18272.2	17621.4	486.09	µg/L	486.09	ppb	20:09:23
2	Co 228.616†	10339.5	9899.7	486.64	µg/L	486.64	ppb	20:09:23
2	Cr 267.716†	23187.0	22233.3	489.35	µg/L	489.35	ppb	20:09:23
2	Cu 324.752†	75285.0	69532.0	486.37	µg/L	486.37	ppb	20:09:23
2	Mn 257.610†	147018.2	140882.8	488.30	µg/L	488.30	ppb	20:09:17
2	Mo 202.031†	4907.1	4701.7	501.95	µg/L	501.95	ppb	20:09:43
2	Ni 231.604†	9622.8	8903.0	486.25	µg/L	486.25	ppb	20:09:23
2	P 214.914†	1220.2	1139.7	2400.7	µg/L	2400.7	ppb	20:09:43
2	Pb 220.353†	2020.4	1835.5	489.96	µg/L	489.96	ppb	20:09:43

2	S 181.975 Axial†	249.1	223.5	979.20 µg/L	979.20 ppb	20:09:43
2	Sb 206.836†	560.4	509.1	503.33 µg/L	503.33 ppb	20:09:43
2	Se 196.026†	351.0	319.9	495.14 µg/L	495.14 ppb	20:09:43
2	SiO2†	26327.8	23935.4	5154.6 µg/L	5154.6 ppb	20:09:23
2	Si 251.611†	31017.5	29358.7	2413.4 µg/L	2413.4 ppb	20:09:23
2	Sn 189.927†	1146.8	1097.9	505.00 µg/L	505.00 ppb	20:09:43
2	Ti 334.940†	209321.5	200122.3	481.06 µg/L	481.06 ppb	20:09:17
2	Tl 190.801†	343.4	352.8	498.21 µg/L	498.21 ppb	20:09:43
2	U 409.014†	5590.8	5401.8	488.10 µg/L	488.10 ppb	20:09:23
2	V 292.402†	47490.4	45473.8	490.70 µg/L	490.70 ppb	20:09:23
2	Zn 213.857†	20893.3	19511.1	483.77 µg/L	483.77 ppb	20:09:23
3	Sc RADIAL	57472.2	57472.2	105 %		20:08:12
3	Al 396.153Radial†	6740.6	6410.8	4769.5 µg/L	4769.5 ppb	20:08:33
3	Ca 317.933Radial†	5456.3	5002.0	4709.7 µg/L	4709.7 ppb	20:08:33
3	Fe 238.204 Radial†	608.4	563.2	4782.9 µg/L	4782.9 ppb	20:08:33
3	K 766.490 Radial†	7228.0	6735.1	4787.3 µg/L	4787.3 ppb	20:08:12
3	Mg 279.077 IEC†	560.3	520.7	4848.2 µg/L	4848.2 ppb	20:08:33
3	Na 589.592 Radial†	31427.6	29301.1	9646.0 µg/L	9646.0 ppb	20:08:12
3	Sr 421.552†	48320.2	45844.2	475.23 µg/L	475.23 ppb	20:08:12
3	Sc 361.383	1990939.7	1990939.7	104.25 %		20:09:51
3	Y 371.029	1362789.8	1362789.8	104.04 %		20:09:51
3	Ag 328.068†	59813.6	57941.7	462.97 µg/L	462.97 ppb	20:09:56
3	As 188.979†	228.8	218.3	425.89 µg/L	425.89 ppb	20:10:17
3	B 249.677†	11049.5	10268.0	446.94 µg/L	446.94 ppb	20:09:56
3	Ba 233.527†	17851.9	17150.7	447.37 µg/L	447.37 ppb	20:09:56
3	Be 313.107†	719449.8	693583.9	452.78 µg/L	452.78 ppb	20:09:51
3	Cd 226.502†	16778.6	16237.3	447.87 µg/L	447.87 ppb	20:09:56
3	Co 228.616†	9445.5	9069.5	445.78 µg/L	445.78 ppb	20:09:56
3	Cr 267.716†	20616.8	19829.4	436.45 µg/L	436.45 ppb	20:09:56
3	Cu 324.752†	68837.1	63547.0	444.55 µg/L	444.55 ppb	20:09:56
3	Mn 257.610†	138989.4	133571.8	462.98 µg/L	462.98 ppb	20:09:51
3	Mo 202.031†	4137.7	3976.7	424.58 µg/L	424.58 ppb	20:10:17
3	Ni 231.604†	8822.5	8161.0	445.73 µg/L	445.73 ppb	20:09:56
3	P 214.914†	1060.6	989.8	2082.0 µg/L	2082.0 ppb	20:10:17
3	Pb 220.353†	1778.7	1609.0	429.41 µg/L	429.41 ppb	20:10:17
3	S 181.975 Axial†	221.0	197.1	863.74 µg/L	863.74 ppb	20:10:17
3	Sb 206.836†	483.5	436.9	431.61 µg/L	431.61 ppb	20:10:17
3	Se 196.026†	316.1	287.4	445.59 µg/L	445.59 ppb	20:10:17
3	SiO2†	24611.0	22358.5	4815.0 µg/L	4815.0 ppb	20:09:56
3	Si 251.611†	28930.7	27439.4	2255.7 µg/L	2255.7 ppb	20:09:56
3	Sn 189.927†	943.6	906.1	416.76 µg/L	416.76 ppb	20:10:17
3	Ti 334.940†	196865.3	188730.0	453.67 µg/L	453.67 ppb	20:09:51
3	Tl 190.801†	309.3	321.0	453.52 µg/L	453.52 ppb	20:10:17
3	U 409.014†	5049.6	4897.5	442.45 µg/L	442.45 ppb	20:09:56
3	V 292.402†	42971.8	41265.5	445.08 µg/L	445.08 ppb	20:09:56
3	Zn 213.857†	19124.6	17870.0	443.04 µg/L	443.04 ppb	20:09:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1994841.0	104.45	%	0.178				0.17%
Sc RADIAL	56941.5	104	%	1.0				0.93%
Y 371.029	1365004.1	104.21	%	0.147				0.14%
Ag 328.068†	59984.0	479.37	µg/L	14.264	479.37	ppb	14.264	2.98%
QC value within limits for Ag 328.068 Recovery = 95.87%								
Al 396.153Radial†	6479.8	4819.8	µg/L	50.70	4819.8	ppb	50.70	1.05%
QC value within limits for Al 396.153Radial Recovery = 96.40%								
As 188.979†	240.8	469.74	µg/L	37.997	469.74	ppb	37.997	8.09%
QC value within limits for As 188.979 Recovery = 93.95%								
B 249.677†	10690.9	465.47	µg/L	16.165	465.47	ppb	16.165	3.47%
QC value within limits for B 249.677 Recovery = 93.09%								
Ba 233.527†	18063.5	471.19	µg/L	20.654	471.19	ppb	20.654	4.38%
QC value within limits for Ba 233.527 Recovery = 94.24%								
Be 313.107†	720946.5	470.64	µg/L	15.576	470.64	ppb	15.576	3.31%
QC value within limits for Be 313.107 Recovery = 94.13%								
Ca 317.933Radial†	5062.2	4766.3	µg/L	64.62	4766.3	ppb	64.62	1.36%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17112.5	472.04	µg/L	21.023	472.04	ppb	21.023	4.45%
QC value within limits for Cd 226.502 Recovery = 94.41%								
Co 228.616†	9618.4	472.79	µg/L	23.399	472.79	ppb	23.399	4.95%

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   QC value within limits for Co 228.616  Recovery = 94.56%
Cr 267.716†          21391.1      470.82 µg/L        29.796      470.82 ppb        29.796   6.33%
   QC value within limits for Cr 267.716  Recovery = 94.16%
Cu 324.752†          67413.9      471.57 µg/L        23.430      471.57 ppb        23.430   4.97%
   QC value within limits for Cu 324.752  Recovery = 94.31%
Fe 238.204 Radial†     565.0      4798.8 µg/L         43.99      4798.8 ppb         43.99   0.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.98%
K 766.490 Radial†     6754.7      4801.2 µg/L         36.89      4801.2 ppb         36.89   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.02%
Mg 279.077 IEC†        527.0      4906.9 µg/L         73.74      4906.9 ppb         73.74   1.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.14%
Mn 257.610†         138810.8      481.12 µg/L        15.825      481.12 ppb        15.825   3.29%
   QC value within limits for Mn 257.610  Recovery = 96.22%
Mo 202.031†           4479.7      478.26 µg/L        46.598      478.26 ppb        46.598   9.74%
   QC value within limits for Mo 202.031  Recovery = 95.65%
Na 589.592 Radial†   29481.5      9705.4 µg/L         53.07      9705.4 ppb         53.07   0.55%
   QC value within limits for Na 589.592 Radial  Recovery = 97.05%
Ni 231.604†           8647.1      472.28 µg/L        23.002      472.28 ppb        23.002   4.87%
   QC value within limits for Ni 231.604  Recovery = 94.46%
P 214.914†            1095.8      2307.7 µg/L        196.48      2307.7 ppb        196.48   8.51%
   QC value within limits for P 214.914  Recovery = 92.31%
Pb 220.353†           1763.7      470.75 µg/L        35.831      470.75 ppb        35.831   7.61%
   QC value within limits for Pb 220.353  Recovery = 94.15%
S 181.975 Axial†       215.8      945.54 µg/L        71.212      945.54 ppb        71.212   7.53%
   QC value within limits for S 181.975 Axial  Recovery = 94.55%
Sb 206.836†            484.6      479.04 µg/L        41.080      479.04 ppb        41.080   8.58%
   QC value within limits for Sb 206.836  Recovery = 95.81%
Se 196.026†            310.0      479.95 µg/L        29.823      479.95 ppb        29.823   6.21%
   QC value within limits for Se 196.026  Recovery = 95.99%
SiO2†                23387.4      5036.6 µg/L        192.04      5036.6 ppb        192.04   3.81%
   QC value within limits for SiO2  Recovery = 94.19%
Si 251.611†          28672.5      2357.0 µg/L         87.98      2357.0 ppb         87.98   3.73%
   QC value within limits for Si 251.611  Recovery = 94.28%
Sn 189.927†           1038.3      477.60 µg/L        52.775      477.60 ppb        52.775  11.05%
   QC value within limits for Sn 189.927  Recovery = 95.52%
Sr 421.552†          45945.8      476.28 µg/L         1.427      476.28 ppb         1.427   0.30%
   QC value within limits for Sr 421.552  Recovery = 95.26%
Ti 334.940†         196862.7      473.23 µg/L        17.050      473.23 ppb        17.050   3.60%
   QC value within limits for Ti 334.940  Recovery = 94.65%
Tl 190.801†            339.7      479.92 µg/L        23.425      479.92 ppb        23.425   4.88%
   QC value within limits for Tl 190.801  Recovery = 95.98%
U 409.014†            5254.9      474.80 µg/L        28.164      474.80 ppb        28.164   5.93%
   QC value within limits for U 409.014  Recovery = 94.96%
V 292.402†           43994.3      474.69 µg/L        25.672      474.69 ppb        25.672   5.41%
   QC value within limits for V 292.402  Recovery = 94.94%
Zn 213.857†          18944.2      469.70 µg/L        23.098      469.70 ppb        23.098   4.92%
   QC value within limits for Zn 213.857  Recovery = 93.94%
All analyte(s) passed QC.
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Sequence No.: 54
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 20:10:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56659.4	56659.4	104	%			20:10:59
1	Al 396.153Radial†	-34.5	-23.1	-17.229	µg/L	-17.229	ppb	20:10:59
1	Ca 317.933Radial†	185.2	-0.8	-0.7364	µg/L	-0.7364	ppb	20:11:19
1	Fe 238.204 Radial†	15.5	0.4	3.7111	µg/L	3.7111	ppb	20:11:19
1	K 766.490 Radial†	206.6	70.6	50.163	µg/L	50.163	ppb	20:10:59
1	Mg 279.077 IEC†	8.1	-3.5	-32.649	µg/L	-32.649	ppb	20:11:19
1	Na 589.592 Radial†	618.2	53.6	17.641	µg/L	17.641	ppb	20:10:59
1	Sr 421.552†	7.1	-32.7	-0.3390	µg/L	-0.3390	ppb	20:10:59
1	Sc 361.383	1969865.1	1969865.1	103.14	%			20:12:22
1	Y 371.029	1352232.0	1352232.0	103.23	%			20:12:22
1	Ag 328.068†	-590.3	-7.8	-0.0586	µg/L	-0.0586	ppb	20:12:27
1	As 188.979†	-2.7	-3.7	-7.3059	µg/L	-7.3059	ppb	20:12:48
1	B 249.677†	327.3	-14.1	-0.6180	µg/L	-0.6180	ppb	20:12:48
1	Ba 233.527†	-20.7	5.9	0.1552	µg/L	0.1552	ppb	20:12:48
1	Be 313.107†	-3325.3	216.5	0.1414	µg/L	0.1414	ppb	20:12:27
1	Cd 226.502†	-131.0	15.1	0.4157	µg/L	0.4157	ppb	20:12:48
1	Co 228.616†	-10.2	-1.0	-0.0509	µg/L	-0.0509	ppb	20:12:48
1	Cr 267.716†	-35.9	17.6	0.3870	µg/L	0.3870	ppb	20:12:48
1	Cu 324.752†	2456.0	-104.9	-0.7325	µg/L	-0.7325	ppb	20:12:27
1	Mn 257.610†	-254.6	-2.7	-0.0075	µg/L	-0.0075	ppb	20:12:48
1	Mo 202.031†	-3.1	4.5	0.4855	µg/L	0.4855	ppb	20:12:48
1	Ni 231.604†	302.7	-8.8	-0.4785	µg/L	-0.4785	ppb	20:12:48
1	P 214.914†	28.8	0.3	0.6377	µg/L	0.6377	ppb	20:12:48
1	Pb 220.353†	100.4	0.1	0.0373	µg/L	0.0373	ppb	20:12:48
1	S 181.975 Axial†	15.9	0.6	2.7080	µg/L	2.7080	ppb	20:12:48
1	Sb 206.836†	20.6	-7.0	-6.8374	µg/L	-6.8374	ppb	20:12:48
1	Se 196.026†	19.3	2.8	4.3630	µg/L	4.3630	ppb	20:12:48
1	SiO2†	1240.9	-46.9	-10.106	µg/L	-10.106	ppb	20:12:27
1	Si 251.611†	312.6	-9.8	-0.8084	µg/L	-0.8084	ppb	20:12:48
1	Sn 189.927†	-1.6	-0.7	-0.3378	µg/L	-0.3378	ppb	20:12:48
1	Ti 334.940†	146.3	25.8	0.0645	µg/L	0.0645	ppb	20:12:27
1	Tl 190.801†	-19.3	5.6	7.7671	µg/L	7.7671	ppb	20:12:48
1	U 409.014†	-42.1	12.8	1.1542	µg/L	1.1542	ppb	20:12:27
1	V 292.402†	-0.1	44.1	0.4765	µg/L	0.4765	ppb	20:12:27
1	Zn 213.857†	476.2	-13.8	-0.3400	µg/L	-0.3400	ppb	20:12:48
2	Sc RADIAL	56311.6	56311.6	103	%			20:11:25
2	Al 396.153Radial†	-11.1	-0.7	-0.4964	µg/L	-0.4964	ppb	20:11:25
2	Ca 317.933Radial†	182.9	-1.9	-1.7833	µg/L	-1.7833	ppb	20:11:45
2	Fe 238.204 Radial†	16.1	1.1	8.9693	µg/L	8.9693	ppb	20:11:45
2	K 766.490 Radial†	135.0	2.4	1.7375	µg/L	1.7375	ppb	20:11:25
2	Mg 279.077 IEC†	9.0	-2.6	-24.083	µg/L	-24.083	ppb	20:11:45
2	Na 589.592 Radial†	609.7	49.0	16.131	µg/L	16.131	ppb	20:11:25
2	Sr 421.552†	43.9	3.0	0.0309	µg/L	0.0309	ppb	20:11:25
2	Sc 361.383	1993246.1	1993246.1	104.37	%			20:12:54
2	Y 371.029	1369824.9	1369824.9	104.57	%			20:12:54
2	Ag 328.068†	-496.4	88.9	0.7074	µg/L	0.7074	ppb	20:12:59
2	As 188.979†	-2.4	-3.4	-6.6828	µg/L	-6.6828	ppb	20:13:20
2	B 249.677†	317.7	-27.1	-1.1866	µg/L	-1.1866	ppb	20:13:20
2	Ba 233.527†	-24.2	2.8	0.0739	µg/L	0.0739	ppb	20:13:20
2	Be 313.107†	-3271.8	305.5	0.1995	µg/L	0.1995	ppb	20:12:59
2	Cd 226.502†	-139.8	8.1	0.2223	µg/L	0.2223	ppb	20:13:20
2	Co 228.616†	-3.3	5.7	0.2808	µg/L	0.2808	ppb	20:13:20
2	Cr 267.716†	-45.4	8.9	0.1956	µg/L	0.1956	ppb	20:13:20
2	Cu 324.752†	2435.6	-152.4	-1.0631	µg/L	-1.0631	ppb	20:12:59
2	Mn 257.610†	-234.4	19.5	0.0698	µg/L	0.0698	ppb	20:13:20
2	Mo 202.031†	-9.1	-1.2	-0.1266	µg/L	-0.1266	ppb	20:13:20
2	Ni 231.604†	294.8	-19.7	-1.0788	µg/L	-1.0788	ppb	20:13:20
2	P 214.914†	30.0	1.1	2.4718	µg/L	2.4718	ppb	20:13:20
2	Pb 220.353†	93.1	-8.0	-2.1208	µg/L	-2.1208	ppb	20:13:20

2	S 181.975 Axial†	16.5	1.0	4.2685	µg/L	4.2685 ppb	20:13:20
2	Sb 206.836†	17.7	-10.0	-9.8534	µg/L	-9.8534 ppb	20:13:20
2	Se 196.026†	12.6	-3.8	-5.7175	µg/L	-5.7175 ppb	20:13:20
2	SiO2†	1249.7	-52.6	-11.333	µg/L	-11.333 ppb	20:12:59
2	Si 251.611†	320.2	-6.0	-0.4973	µg/L	-0.4973 ppb	20:13:20
2	Sn 189.927†	2.8	3.5	1.6248	µg/L	1.6248 ppb	20:13:20
2	Ti 334.940†	188.9	64.9	0.1579	µg/L	0.1579 ppb	20:12:59
2	Tl 190.801†	-28.5	-3.0	-4.1956	µg/L	-4.1956 ppb	20:13:20
2	U 409.014†	-69.7	-13.1	-1.1905	µg/L	-1.1905 ppb	20:12:59
2	V 292.402†	-23.7	21.5	0.2285	µg/L	0.2285 ppb	20:12:59
2	Zn 213.857†	474.3	-21.1	-0.5199	µg/L	-0.5199 ppb	20:13:20
3	Sc RADIAL	56279.9	56279.9	103	%		20:11:51
3	Al 396.153Radial†	-12.9	-2.4	-1.8112	µg/L	-1.8112 ppb	20:11:51
3	Ca 317.933Radial†	188.4	3.5	3.3406	µg/L	3.3406 ppb	20:12:11
3	Fe 238.204 Radial†	17.4	2.4	20.436	µg/L	20.436 ppb	20:12:11
3	K 766.490 Radial†	198.2	63.7	45.307	µg/L	45.307 ppb	20:11:51
3	Mg 279.077 IEC†	8.4	-3.1	-29.101	µg/L	-29.101 ppb	20:12:11
3	Na 589.592 Radial†	580.8	21.4	7.0316	µg/L	7.0316 ppb	20:11:51
3	Sr 421.552†	36.6	-4.1	-0.0421	µg/L	-0.0421 ppb	20:11:51
3	Sc 361.383	2002874.1	2002874.1	104.87	%		20:13:26
3	Y 371.029	1375774.7	1375774.7	105.03	%		20:13:26
3	Ag 328.068†	-572.9	18.2	0.1450	µg/L	0.1450 ppb	20:13:32
3	As 188.979†	-1.7	-2.8	-5.4427	µg/L	-5.4427 ppb	20:13:52
3	B 249.677†	315.7	-30.5	-1.3417	µg/L	-1.3417 ppb	20:13:52
3	Ba 233.527†	-28.2	-0.8	-0.0221	µg/L	-0.0221 ppb	20:13:52
3	Be 313.107†	-3166.3	421.2	0.2751	µg/L	0.2751 ppb	20:13:32
3	Cd 226.502†	-127.4	20.6	0.5649	µg/L	0.5649 ppb	20:13:52
3	Co 228.616†	-19.4	-9.7	-0.4770	µg/L	-0.4770 ppb	20:13:52
3	Cr 267.716†	-37.3	16.8	0.3689	µg/L	0.3689 ppb	20:13:52
3	Cu 324.752†	2426.7	-172.1	-1.1996	µg/L	-1.1996 ppb	20:13:32
3	Mn 257.610†	-224.6	30.0	0.1076	µg/L	0.1076 ppb	20:13:52
3	Mo 202.031†	-4.1	3.6	0.3852	µg/L	0.3852 ppb	20:13:52
3	Ni 231.604†	290.3	-25.4	-1.3870	µg/L	-1.3870 ppb	20:13:52
3	P 214.914†	33.5	4.4	9.4816	µg/L	9.4816 ppb	20:13:52
3	Pb 220.353†	90.7	-10.7	-2.8672	µg/L	-2.8672 ppb	20:13:52
3	S 181.975 Axial†	18.5	2.8	12.161	µg/L	12.161 ppb	20:13:52
3	Sb 206.836†	24.3	-3.8	-3.7594	µg/L	-3.7594 ppb	20:13:52
3	Se 196.026†	15.9	-0.7	-0.9888	µg/L	-0.9888 ppb	20:13:52
3	SiO2†	1207.7	-98.4	-21.190	µg/L	-21.190 ppb	20:13:32
3	Si 251.611†	302.6	-24.3	-2.0003	µg/L	-2.0003 ppb	20:13:52
3	Sn 189.927†	0.7	1.5	0.6894	µg/L	0.6894 ppb	20:13:52
3	Ti 334.940†	101.8	-19.1	-0.0435	µg/L	-0.0435 ppb	20:13:32
3	Tl 190.801†	-25.1	0.4	0.5052	µg/L	0.5052 ppb	20:13:52
3	U 409.014†	-6.5	47.4	4.2901	µg/L	4.2901 ppb	20:13:32
3	V 292.402†	-56.7	-9.8	-0.0938	µg/L	-0.0938 ppb	20:13:32
3	Zn 213.857†	464.1	-33.0	-0.8147	µg/L	-0.8147 ppb	20:13:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1988661.8	104.13	%	0.889				0.85%
Sc RADIAL	56417.0	103	%	0.4				0.37%
Y 371.029	1365943.9	104.28	%	0.935				0.90%
Ag 328.068†	33.1	0.2646	µg/L	0.39674	0.2646	ppb	0.39674	149.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.7	-6.5121	µg/L	9.30422	-6.5121	ppb	9.30422	142.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-6.4771	µg/L	0.94849	-6.4771	ppb	0.94849	14.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.9	-1.0488	µg/L	0.38103	-1.0488	ppb	0.38103	36.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.6	0.0690	µg/L	0.08875	0.0690	ppb	0.08875	128.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	314.4	0.2053	µg/L	0.06705	0.2053	ppb	0.06705	32.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.3	0.2736	µg/L	2.70720	0.2736	ppb	2.70720	989.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.6	0.4010	µg/L	0.17178	0.4010	ppb	0.17178	42.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0824	µg/L	0.37989	-0.0824	ppb	0.37989	461.28%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.4      0.3172 µg/L       0.10569      0.3172 ppb        0.10569  33.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -143.1     -0.9984 µg/L       0.24020     -0.9984 ppb        0.24020  24.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.3      11.039 µg/L        8.5525      11.039 ppb         8.5525  77.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        45.6      32.402 µg/L       26.6673      32.402 ppb        26.6673  82.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.1     -28.611 µg/L        4.3042     -28.611 ppb         4.3042  15.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.6      0.0566 µg/L       0.05870      0.0566 ppb        0.05870 103.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.3      0.2480 µg/L       0.32829      0.2480 ppb        0.32829 132.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       41.3      13.602 µg/L        5.7396      13.602 ppb         5.7396  42.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -18.0     -0.9814 µg/L       0.46200     -0.9814 ppb        0.46200  47.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.9      4.1970 µg/L       4.66758      4.1970 ppb        4.66758 111.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.2     -1.6502 µg/L       1.50832     -1.6502 ppb        1.50832  91.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      6.3791 µg/L       5.06750      6.3791 ppb        5.06750  79.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.9     -6.8167 µg/L       3.04704     -6.8167 ppb        3.04704  44.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.5     -0.7811 µg/L       5.04348     -0.7811 ppb        5.04348 645.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -66.0     -14.210 µg/L        6.0766     -14.210 ppb         6.0766  42.76%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -13.4     -1.1020 µg/L       0.79337     -1.1020 ppb        0.79337  71.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.6588 µg/L       0.98163      0.6588 ppb        0.98163 149.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -11.3     -0.1167 µg/L       0.19593     -0.1167 ppb        0.19593 167.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              23.9      0.0596 µg/L       0.10080      0.0596 ppb        0.10080 168.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      1.3589 µg/L       6.02688      1.3589 ppb        6.02688 443.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               15.7      1.4179 µg/L       2.74983      1.4179 ppb        2.74983 193.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               18.6      0.2037 µg/L       0.28596      0.2037 ppb        0.28596 140.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.6     -0.5582 µg/L       0.23967     -0.5582 ppb        0.23967  42.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 24, 2010 13:58:21
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.583
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	8010.6	8010.646	132.493	1.7
	Mg	24.0	80464.0	80463.987	802.940	1.0
	Co	58.9	170262.1	170262.103	1828.524	1.1
	Rh	102.9	306904.0	306903.996	3738.938	1.2
	In	114.9	394981.4	394981.376	4192.916	1.1
	Pb	208.0	384651.8	384651.804	1928.620	0.5
⌈>	Ba	137.9	372209.0	372209.012	2646.026	0.7
⌊	Ba++	69.0	6742.3	0.018	0.000	0.8
⌈>	Ce	139.9	454620.9	454620.904	3860.277	0.8
⌊	CeO	155.9	12716.3	0.028	0.000	1.2
	Bkgd	220.0	18.7	18.700	3.546	19.0

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	8280.1
Co	59	13	6.3	167068.6
In	115	13	7.0	394570.1

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2072	0.636
Be	9.0	9.0	2050	2088	0.616
Mg	24.0	24.0	5687	2100	0.608
Mg	25.0	25.0	5927	2100	0.597
Mg	26.0	26.0	6169	2100	0.611
Co	58.9	58.9	14169	2125	0.599
Rh	102.9	102.9	24868	2180	0.588
In	114.9	114.9	27782	2200	0.587
Ce	139.9	139.9	33866	2220	0.600
Pb	206.0	206.0	49948	2305	0.610
Pb	207.0	207.0	50159	2240	0.654
Pb	208.0	208.0	50451	2265	0.722
U	238.1	238.0	57720	2275	0.768

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 00:45:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Blank.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		116	
	Be	9		ug/L		27	
	B	11		ug/L		596	
	Na	23		ug/L		18679	
	Mg	24		ug/L		4334	
	Al	27		ug/L		7669	
	P	31		ug/L		5857	
	K	39		ug/L		561175	
	Ca	43		ug/L		363	
>	Sc	45		ug/L		466836	
	Ti	47		ug/L		402	
	V	51		ug/L		9348	
	Cr	52		ug/L		4541	
	Cr	53		ug/L		129660	
	Mn	55		ug/L		1656	
	Fe	57		ug/L		6902	
	Co	59		ug/L		147	
	Ni	60		ug/L		140	
	Cu	63		ug/L		473	
	Cu	65		ug/L		257	
	Zn	66		ug/L		698	
	Zn	67		ug/L		15316	
	Zn	68		ug/L		1656	
>	Ge	74		ug/L		572003	
	As	75		ug/L		-744	
	Se	77		ug/L		8264	
	Se	82		ug/L		0	
	Kr	83		ug/L		173	
	Sr	88		ug/L		291	
	Y	89		ug/L		76	
	Mo	98		ug/L		141	
	Ag	107		ug/L		88	
	Cd	111		ug/L		33	
	Cd	114		ug/L		69	
>	In	115		ug/L		379864	
	Sn	120		ug/L		422	
	Sb	121		ug/L		582	
	Sb	123		ug/L		457	
	Ba	135		ug/L		54	
	Ba	137		ug/L		91	
	Ho	165		ug/L		21	
>	Lu	175		ug/L		708476	
	Tl	205		ug/L		2105	
	Pb	208		ug/L		998	
	Bi	209		ug/L		589	
	Th	232		ug/L		830	
	U	238		ug/L		643	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	0.9999
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9998
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 00:51:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 1.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.000**	**ug/L**	1.105	26890	0.057
	Be	9	**10.000**	**ug/L**	4.739	5729	0.012
	B	11	**20.000**	**ug/L**	0.321	12031	0.024
	Na	23	**1000.000**	**ug/L**	2.963	4393258	9.347
	Mg	24	**1000.000**	**ug/L**	10.705	3479543	7.430
	Al	27	**1000.000**	**ug/L**	4.107	5204106	11.105
	P	31	**1000.000**	**ug/L**	1.944	293596	0.615
	K	39	**1000.000**	**ug/L**	4.538	6809758	13.354
	Ca	43	**1000.000**	**ug/L**	3.254	17644	0.037
>	Sc	45		**ug/L**		468066	468065.824
	Ti	47	**10.000**	**ug/L**	0.987	9225	0.019
	V	51	**10.000**	**ug/L**	7.478	106749	0.208
	Cr	52	**10.000**	**ug/L**	3.903	84753	0.171
	Cr	53		**ug/L**		176266	0.099
	Mn	55	**10.000**	**ug/L**	2.802	130192	0.275
	Fe	57	**1000.000**	**ug/L**	3.218	274624	0.572
	Co	59	**10.000**	**ug/L**	0.895	105959	0.226
	Ni	60	**10.000**	**ug/L**	0.801	23096	0.049
	Cu	63		**ug/L**		56074	0.119
	Cu	65	**10.000**	**ug/L**	1.060	27358	0.058
	Zn	66	**10.000**	**ug/L**	2.012	16798	0.028
	Zn	67		**ug/L**		24399	0.016
	Zn	68		**ug/L**		13648	0.021
>	Ge	74		**ug/L**		567866	567865.985
	As	75	**10.000**	**ug/L**	1.836	16324	0.030
	Se	77		**ug/L**		12599	0.008
	Se	82	**10.000**	**ug/L**	1.240	1805	0.003
	Kr	83		**ug/L**		149	-0.000
	Sr	88	**10.000**	**ug/L**	1.351	227001	0.612
	Y	89		**ug/L**		106	0.000
	Mo	98	**10.000**	**ug/L**	1.107	53630	0.144
	Ag	107	**10.000**	**ug/L**	2.532	96282	0.259
	Cd	111	**10.000**	**ug/L**	1.876	22621	0.061
	Cd	114		**ug/L**		53302	0.144
>	In	115		**ug/L**		370762	370762.000
	Sn	120	**10.000**	**ug/L**	1.295	97007	0.261
	Sb	121	**10.000**	**ug/L**	1.532	76721	0.205
	Sb	123		**ug/L**		59935	0.160
	Ba	135		**ug/L**		24863	0.035
	Ba	137	**10.000**	**ug/L**	1.030	44448	0.063
	Ho	165		**ug/L**		31	0.000
>	Lu	175		**ug/L**		703071	703070.874
	Tl	205	**10.000**	**ug/L**	1.004	339248	0.480
	Pb	208	**10.000**	**ug/L**	1.089	600186	0.852
	Bi	209		**ug/L**		399	-0.000
	Th	232	**10.000**	**ug/L**	1.736	730929	1.038
	U	238	**10.000**	**ug/L**	0.633	764002	1.086

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 00:57:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 2.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.000**	ug/L	2.449	264489	0.572
	Be	9	**100.013**	ug/L	2.463	57085	0.123
	B	11	**200.038**	ug/L	4.593	115722	0.249
	Na	23	**10012.267**	ug/L	1.503	49330670	106.666
	Mg	24	**9994.280**	ug/L	2.912	32487077	70.242
	Al	27	**9977.507**	ug/L	5.822	41846838	90.451
	P	31	**9996.741**	ug/L	2.033	2758099	5.952
	K	39	**10004.212**	ug/L	7.305	65060133	139.467
	Ca	43	**9997.043**	ug/L	1.635	166192	0.359
>	Sc	45		ug/L		462373	462373.423
	Ti	47	**99.998**	ug/L	0.744	87343	0.188
	V	51	**99.954**	ug/L	3.260	929215	1.990
	Cr	52	**99.922**	ug/L	0.634	739071	1.589
	Cr	53		ug/L		234272	0.229
	Mn	55	**99.921**	ug/L	1.467	1177738	2.544
	Fe	57	**9998.285**	ug/L	1.799	2606334	5.623
	Co	59	**99.889**	ug/L	1.148	940185	2.033
	Ni	60	**99.956**	ug/L	1.897	217299	0.470
	Cu	63		ug/L		516746	1.117
	Cu	65	**99.972**	ug/L	2.114	260459	0.563
	Zn	66	**100.028**	ug/L	2.779	162696	0.292
	Zn	67		ug/L		45738	0.056
	Zn	68		ug/L		118988	0.211
>	Ge	74		ug/L		555091	555090.637
	As	75	**100.021**	ug/L	0.615	169753	0.307
	Se	77		ug/L		22553	0.026
	Se	82	**100.000**	ug/L	2.418	17642	0.032
	Kr	83		ug/L		176	0.000
	Sr	88	**99.847**	ug/L	2.397	1924500	5.295
	Y	89		ug/L		300	0.001
	Mo	98	**99.989**	ug/L	2.112	518934	1.427
	Ag	107	**99.918**	ug/L	1.456	871308	2.397
	Cd	111	**99.998**	ug/L	1.800	221055	0.608
	Cd	114		ug/L		511858	1.408
>	In	115		ug/L		363514	363514.297
	Sn	120	**99.927**	ug/L	2.597	881818	2.426
	Sb	121	**99.981**	ug/L	1.760	733263	2.016
	Sb	123		ug/L		577455	1.588
	Ba	135		ug/L		238428	0.344
	Ba	137	**99.967**	ug/L	2.692	423069	0.610
	Ho	165		ug/L		44	0.000
>	Lu	175		ug/L		693126	693125.998
	Tl	205	**99.819**	ug/L	1.206	2810893	4.052
	Pb	208	**99.830**	ug/L	3.632	5037257	7.270
	Bi	209		ug/L		848	0.000
	Th	232	**99.839**	ug/L	1.412	6188011	8.928
	U	238	**99.841**	ug/L	2.806	6479656	9.351

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 01:03:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.254**	**ug/L**	1.528	138357	0.293
	Be	9	**51.212**	**ug/L**	3.907	29827	0.063
	B	11	**103.919**	**ug/L**	2.684	61625	0.129
	Na	23	**4509.685**	**ug/L**	8.125	22670943	48.044
	Mg	24	**5347.344**	**ug/L**	7.877	17720997	37.582
	Al	27	**5620.619**	**ug/L**	10.095	24041127	50.954
	P	31	**4774.087**	**ug/L**	1.484	1346497	2.843
	K	39	**5130.417**	**ug/L**	9.736	34293745	71.522
	Ca	43	**4924.759**	**ug/L**	1.318	83672	0.177
>	Sc	45		**ug/L**		471629	471628.507
	Ti	47	**50.265**	**ug/L**	0.852	44987	0.095
	V	51	**51.480**	**ug/L**	3.069	492659	1.025
	Cr	52	**52.523**	**ug/L**	2.178	398384	0.835
	Cr	53		**ug/L**		196456	0.139
	Mn	55	**53.204**	**ug/L**	1.701	640426	1.355
	Fe	57	**4590.215**	**ug/L**	0.475	1224465	2.582
	Co	59	**51.968**	**ug/L**	2.609	498978	1.058
	Ni	60	**51.394**	**ug/L**	1.632	114032	0.241
	Cu	63		**ug/L**		269542	0.571
	Cu	65	**51.228**	**ug/L**	2.806	136262	0.288
	Zn	66	**53.041**	**ug/L**	2.954	87537	0.155
	Zn	67		**ug/L**		33730	0.033
	Zn	68		**ug/L**		63866	0.111
>	Ge	74		**ug/L**		561190	561190.119
	As	75	**48.840**	**ug/L**	3.695	83406	0.150
	Se	77		**ug/L**		16616	0.015
	Se	82	**51.104**	**ug/L**	2.320	9114	0.016
	Kr	83		**ug/L**		151	-0.000
	Sr	88	**54.911**	**ug/L**	2.149	1076141	2.912
	Y	89		**ug/L**		145	0.000
	Mo	98	**49.596**	**ug/L**	0.309	261705	0.708
	Ag	107	**51.305**	**ug/L**	0.925	454836	1.231
	Cd	111	**50.703**	**ug/L**	1.377	113953	0.308
	Cd	114		**ug/L**		265227	0.718
>	In	115		**ug/L**		369463	369462.806
	Sn	120	**51.875**	**ug/L**	1.341	465621	1.259
	Sb	121	**51.410**	**ug/L**	1.168	383561	1.037
	Sb	123		**ug/L**		300315	0.812
	Ba	135		**ug/L**		122938	0.178
	Ba	137	**51.554**	**ug/L**	2.548	217508	0.315
	Ho	165		**ug/L**		64	0.000
>	Lu	175		**ug/L**		690737	690736.635
	Tl	205	**50.995**	**ug/L**	2.545	1431651	2.070
	Pb	208	**54.050**	**ug/L**	1.463	2719376	3.936
	Bi	209		**ug/L**		944	0.001
	Th	232	**52.084**	**ug/L**	1.833	3217656	4.658
	U	238	**53.616**	**ug/L**	0.733	3469103	5.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	102.508				
	Be	9	102.424				
	B	11	103.919				
	Na	23	90.194				
	Mg	24	106.947				
	Al	27	111.299				
	P	31	95.482				
	K	39	102.608				
	Ca	43	98.495				
>	Sc	45		101.0			
	Ti	47	100.531				
	V	51	102.959				
	Cr	52	105.046				
	Cr	53					
	Mn	55	106.409				
	Fe	57	91.804				
	Co	59	103.937				
	Ni	60	102.788				
	Cu	63					
	Cu	65	102.456				
	Zn	66	106.082				
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75	97.681				
	Se	77					
	Se	82	102.207				
	Kr	83					
	Sr	88	109.822				
	Y	89					
	Mo	98	99.192				
	Ag	107	102.610				
	Cd	111	101.405				
	Cd	114					
>	In	115		97.3			
	Sn	120	103.750				
	Sb	121	102.819				
	Sb	123					
	Ba	135					
	Ba	137	103.108				
	Ho	165					
>	Lu	175		97.5			
	Tl	205	101.990				
	Pb	208	108.100				
	Bi	209					
	Th	232	104.169				
	U	238	107.231				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Al	27	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 01:09:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 2.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.021**	ug/L	19.019	172	0.000
	Be	9	**0.008**	ug/L	121.338	32	0.000
	B	11	**4.097**	ug/L	16.405	2984	0.005
	Na	23	**0.870**	ug/L	129.311	23019	0.009
	Mg	24	**-0.105**	ug/L	1050.249	4001	-0.001
	Al	27	**-0.861**	ug/L	96.914	4001	-0.008
	P	31	**0.980**	ug/L	180.971	6126	0.001
	K	39	**1.158**	ug/L	397.345	569148	0.016
	Ca	43	**-0.503**	ug/L	329.039	354	-0.000
>	Sc	45		ug/L		467005	467005.242
	Ti	47	**-0.009**	ug/L	325.615	395	-0.000
	V	51	**-0.308**	ug/L	153.633	6437	-0.006
	Cr	52	**-0.165**	ug/L	44.444	3309	-0.003
	Cr	53		ug/L		125809	-0.008
	Mn	55	**-0.010**	ug/L	32.542	1539	-0.000
	Fe	57	**0.291**	ug/L	190.434	6980	0.000
	Co	59	**0.004**	ug/L	70.690	182	0.000
	Ni	60	**0.004**	ug/L	50.335	150	0.000
	Cu	63		ug/L		487	0.000
	Cu	65	**-0.004**	ug/L	95.984	246	-0.000
	Zn	66	**0.001**	ug/L	1593.283	698	0.000
	Zn	67		ug/L		14449	-0.001
	Zn	68		ug/L		1604	-0.000
>	Ge	74		ug/L		569988	569987.791
	As	75	**-0.179**	ug/L	145.005	-1056	-0.001
	Se	77		ug/L		8396	0.000
	Se	82	**0.091**	ug/L	153.517	17	0.000
	Kr	83		ug/L		156	-0.000
	Sr	88	**0.006**	ug/L	12.878	419	0.000
	Y	89		ug/L		79	0.000
	Mo	98	**0.027**	ug/L	3.432	289	0.000
	Ag	107	**0.006**	ug/L	31.976	141	0.000
	Cd	111	**0.002**	ug/L	466.095	37	0.000
	Cd	114		ug/L		108	0.000
>	In	115		ug/L		378529	378529.037
	Sn	120	**0.012**	ug/L	32.804	534	0.000
	Sb	121	**0.437**	ug/L	10.437	3917	0.009
	Sb	123		ug/L		3199	0.007
	Ba	135		ug/L		72	0.000
	Ba	137	**0.004**	ug/L	36.133	109	0.000
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		707983	707982.913
	Tl	205	**0.158**	ug/L	22.647	6640	0.006
	Pb	208	**0.007**	ug/L	21.254	1362	0.001
	Bi	209		ug/L		584	-0.000
	Th	232	**0.024**	ug/L	5.204	2323	0.002
	U	238	**0.008**	ug/L	26.689	1170	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 01:15:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 3.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.006**	ug/L	2.281	29478	0.063
	Be	9	**0.537**	ug/L	5.699	336	0.001
	B	11	**17.326**	ug/L	3.791	10659	0.022
	Na	23	**239.283**	ug/L	8.349	1207054	2.549
	Mg	24	**15.408**	ug/L	14.004	54772	0.108
	Al	27	**41.259**	ug/L	6.550	182157	0.374
	P	31	**65.019**	ug/L	7.889	23901	0.039
	K	39	**308.141**	ug/L	13.361	2562845	4.296
	Ca	43	**218.114**	ug/L	5.808	4012	0.008
>	Sc	45		ug/L		466658	466658.134
	Ti	47	**8.651**	ug/L	2.543	7993	0.016
	V	51	**10.208**	ug/L	9.674	104042	0.203
	Cr	52	**11.238**	ug/L	4.848	87857	0.179
	Cr	53		ug/L		157299	0.060
	Mn	55	**5.897**	ug/L	2.990	71691	0.150
	Fe	57	**105.485**	ug/L	2.669	34574	0.059
	Co	59	**1.130**	ug/L	3.872	10879	0.023
	Ni	60	**2.182**	ug/L	2.802	4924	0.010
	Cu	63		ug/L		6465	0.013
	Cu	65	**1.120**	ug/L	3.630	3199	0.006
	Zn	66	**11.321**	ug/L	1.546	18871	0.033
	Zn	67		ug/L		20464	0.010
	Zn	68		ug/L		14797	0.024
>	Ge	74		ug/L		550773	550772.701
	As	75	**5.563**	ug/L	3.738	8690	0.017
	Se	77		ug/L		10811	0.005
	Se	82	**5.873**	ug/L	3.974	1028	0.002
	Kr	83		ug/L		145	-0.000
	Sr	88	**12.294**	ug/L	0.262	241551	0.652
	Y	89		ug/L		69	-0.000
	Mo	98	**0.527**	ug/L	4.885	2922	0.008
	Ag	107	**1.067**	ug/L	2.030	9561	0.026
	Cd	111	**1.111**	ug/L	1.215	2532	0.007
	Cd	114		ug/L		5724	0.015
>	In	115		ug/L		370061	370060.601
	Sn	120	**5.583**	ug/L	1.724	50556	0.136
	Sb	121	**3.368**	ug/L	1.093	25697	0.068
	Sb	123		ug/L		20218	0.053
	Ba	135		ug/L		5288	0.007
	Ba	137	**2.158**	ug/L	2.765	9314	0.013
	Ho	165		ug/L		27	0.000
>	Lu	175		ug/L		700109	700108.585
	Tl	205	**1.260**	ug/L	1.742	37884	0.051
	Pb	208	**2.501**	ug/L	1.391	128493	0.182
	Bi	209		ug/L		429	-0.000
	Th	232	**1.296**	ug/L	2.070	81953	0.116
	U	238	**0.284**	ug/L	0.865	19262	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	110.055				
	Be	9	107.409				
	B	11	115.509				
	Na	23	95.713				
	Mg	24	102.717				
	Al	27	137.530				
	P	31	130.038				
	K	39	102.714				
	Ca	43	109.057				
>	Sc	45		100.0			
	Ti	47	86.512				
	V	51	102.076				
	Cr	52	112.379				
	Cr	53					
	Mn	55	117.941				
	Fe	57	105.485				
	Co	59	113.043				
	Ni	60	109.121				
	Cu	63					
	Cu	65	112.029				
	Zn	66	113.212				
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75	111.254				
	Se	77					
	Se	82	117.453				
	Kr	83					
	Sr	88	122.942				
	Y	89					
	Mo	98	105.486				
	Ag	107	106.734				
	Cd	111	111.062				
	Cd	114					
>	In	115		97.4			
	Sn	120	111.664				
	Sb	121	112.266				
	Sb	123					
	Ba	135					
	Ba	137	107.890				
	Ho	165					
>	Lu	175		98.8			
	Tl	205	125.991				
	Pb	208	125.060				
	Bi	209					
	Th	232	129.605				
	U	238	142.033				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	P	31	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 01:21:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 4.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	**ug/L**	10.445	293	0.000
	Be	9	**0.069**	**ug/L**	19.825	59	0.000
	B	11	**1.597**	**ug/L**	19.431	1342	0.002
	Na	23	**76847.089**	**ug/L**	3.522	336523083	818.695
	Mg	24	**85091.727**	**ug/L**	8.994	245740237	598.043
	Al	27	**103851.194**	**ug/L**	11.407	387083249	941.464
	P	31	**82063.023**	**ug/L**	0.909	20088465	48.862
	K	39	**91466.419**	**ug/L**	0.853	524596315	1275.113
	Ca	43	**86955.724**	**ug/L**	1.654	1282259	3.119
>	Sc	45		**ug/L**		411013	411012.564
	Ti	47	**1517.851**	**ug/L**	0.321	1173570	2.854
	V	51	**-0.573**	**ug/L**	51.787	3536	-0.011
	Cr	52	**1.914**	**ug/L**	0.983	16506	0.030
	Cr	53		**ug/L**		118979	0.012
	Mn	55	**6.009**	**ug/L**	1.140	64334	0.153
	Fe	57	**94815.587**	**ug/L**	1.958	21921908	53.325
	Co	59	**0.371**	**ug/L**	5.093	3231	0.008
	Ni	60	**3.499**	**ug/L**	2.633	6881	0.016
	Cu	63		**ug/L**		11210	0.026
	Cu	65	**3.194**	**ug/L**	0.963	7617	0.018
	Zn	66	**4.370**	**ug/L**	5.913	6859	0.013
	Zn	67		**ug/L**		18056	0.010
	Zn	68		**ug/L**		2656	0.003
>	Ge	74		**ug/L**		490891	490890.577
	As	75	**0.176**	**ug/L**	570.093	-374	0.001
	Se	77		**ug/L**		11647	0.009
	Se	82	**-1.193**	**ug/L**	6.261	-186	-0.000
	Kr	83		**ug/L**		452	0.001
	Sr	88	**3.263**	**ug/L**	1.596	57326	0.173
	Y	89		**ug/L**		801	0.002
	Mo	98	**1814.342**	**ug/L**	1.582	8542173	25.899
	Ag	107	**0.140**	**ug/L**	4.308	1188	0.003
	Cd	111	**0.506**	**ug/L**	47.944	1046	0.003
	Cd	114		**ug/L**		14916	0.045
>	In	115		**ug/L**		329854	329854.132
	Sn	120	**0.262**	**ug/L**	2.872	2462	0.006
	Sb	121	**0.383**	**ug/L**	21.682	3049	0.008
	Sb	123		**ug/L**		2369	0.006
	Ba	135		**ug/L**		1601	0.002
	Ba	137	**0.714**	**ug/L**	1.305	2815	0.004
	Ho	165		**ug/L**		13545	0.022
>	Lu	175		**ug/L**		626869	626869.274
	Tl	205	**0.005**	**ug/L**	69.273	1989	0.000
	Pb	208	**0.229**	**ug/L**	0.450	11334	0.017
	Bi	209		**ug/L**		8402	0.013
	Th	232	**0.049**	**ug/L**	38.303	3510	0.004
	U	238	**-0.006**	**ug/L**	5.247	219	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	76.847				
	Mg	24	85.092				
	Al	27	103.851				
	P	31	82.063				
	K	39	91.466				
	Ca	43	86.956				
>	Sc	45		88.0			
	Ti	47	75.893				
	V	51					
	Cr	52	58.005				
	Cr	53					
	Mn	55	103.602				
	Fe	57	94.816				
	Co	59	157.727				
	Ni	60	105.723				
	Cu	63					
	Cu	65	95.623				
	Zn	66	116.221				
	Zn	67					
	Zn	68					
>	Ge	74		85.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	110.235				
	Y	89					
	Mo	98	90.717				
	Ag	107					
	Cd	111	114.002				
	Cd	114					
>	In	115		86.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	89.518				
	Ho	165					
>	Lu	175		88.5			
	Tl	205					
	Pb	208	121.132				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Na	23	ICSA is out of limits
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 01:27:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 5.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.541**	**ug/L**	1.142	41347	0.106
	Be	9	**17.910**	**ug/L**	2.065	8621	0.022
	B	11	**17.544**	**ug/L**	2.456	8996	0.022
	Na	23	**79986.935**	**ug/L**	2.610	331638859	852.145
	Mg	24	**87477.193**	**ug/L**	2.329	239206523	614.808
	Al	27	**104014.873**	**ug/L**	4.416	366730469	942.948
	P	31	**86226.228**	**ug/L**	1.257	19977908	51.341
	K	39	**89267.225**	**ug/L**	4.445	484619607	1244.455
	Ca	43	**89016.291**	**ug/L**	1.517	1242724	3.193
>	Sc	45		**ug/L**		389069	389069.436
	Ti	47	**1547.426**	**ug/L**	0.509	1132579	2.910
	V	51	**21.352**	**ug/L**	2.752	173144	0.425
	Cr	52	**23.295**	**ug/L**	2.523	147846	0.370
	Cr	53		**ug/L**		113519	0.014
	Mn	55	**28.422**	**ug/L**	0.512	282925	0.724
	Fe	57	**99769.769**	**ug/L**	2.675	21831986	56.111
	Co	59	**21.406**	**ug/L**	2.926	169597	0.436
	Ni	60	**22.852**	**ug/L**	1.826	41883	0.107
	Cu	63		**ug/L**		96563	0.247
	Cu	65	**22.637**	**ug/L**	2.014	49801	0.127
	Zn	66	**22.923**	**ug/L**	2.431	33260	0.067
	Zn	67		**ug/L**		18838	0.012
	Zn	68		**ug/L**		21732	0.042
>	Ge	74		**ug/L**		488347	488346.958
	As	75	**20.501**	**ug/L**	3.271	30109	0.063
	Se	77		**ug/L**		11207	0.009
	Se	82	**19.340**	**ug/L**	2.416	3002	0.006
	Kr	83		**ug/L**		429	0.001
	Sr	88	**25.956**	**ug/L**	2.112	455843	1.376
	Y	89		**ug/L**		717	0.002
	Mo	98	**1795.815**	**ug/L**	0.228	8485446	25.635
	Ag	107	**19.454**	**ug/L**	2.322	154561	0.467
	Cd	111	**19.913**	**ug/L**	1.616	40113	0.121
	Cd	114		**ug/L**		104916	0.317
>	In	115		**ug/L**		331007	331007.181
	Sn	120	**21.124**	**ug/L**	1.565	170090	0.513
	Sb	121	**21.156**	**ug/L**	0.969	141717	0.427
	Sb	123		**ug/L**		110137	0.332
	Ba	135		**ug/L**		44251	0.071
	Ba	137	**20.377**	**ug/L**	1.178	77727	0.124
	Ho	165		**ug/L**		13358	0.021
>	Lu	175		**ug/L**		624039	624039.312
	Tl	205	**20.864**	**ug/L**	1.138	530352	0.847
	Pb	208	**21.830**	**ug/L**	0.626	992892	1.590
	Bi	209		**ug/L**		9139	0.014
	Th	232	**22.315**	**ug/L**	1.168	1245990	1.996
	U	238	**22.980**	**ug/L**	0.724	1343671	2.152

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	92.705				
	Be	9	89.548				
	B	11	87.719				
	Na	23	79.987				
	Mg	24	87.477				
	Al	27	104.015				
	P	31	86.226				
	K	39	89.267				
	Ca	43	89.016				
>	Sc	45		83.3			
	Ti	47	77.371				
	V	51	106.760				
	Cr	52	99.977				
	Cr	53					
	Mn	55	110.163				
	Fe	57	99.770				
	Co	59	105.787				
	Ni	60	98.036				
	Cu	63					
	Cu	65	96.989				
	Zn	66	96.476				
	Zn	67					
	Zn	68					
>	Ge	74		85.4			
	As	75	102.506				
	Se	77					
	Se	82	96.699				
	Kr	83					
	Sr	88	113.049				
	Y	89					
	Mo	98	89.791				
	Ag	107	97.271				
	Cd	111	97.402				
	Cd	114					
>	In	115		87.1			
	Sn	120	105.621				
	Sb	121	105.778				
	Sb	123					
	Ba	135					
	Ba	137	97.974				
	Ho	165					
>	Lu	175		88.1			
	Tl	205	104.321				
	Pb	208	108.130				
	Bi	209					
	Th	232	111.574				
	U	238	114.899				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Na	23	ICSAB is out of limits
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 01:33:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.856**	ug/L	2.578	121226	0.291
	Be	9	**51.752**	ug/L	3.240	26620	0.064
	B	11	**98.342**	ug/L	3.613	51527	0.122
	Na	23	**4552.550**	ug/L	15.725	20195760	48.501
	Mg	24	**5042.300**	ug/L	2.663	14768916	35.438
	Al	27	**5207.421**	ug/L	7.037	19690007	47.208
	P	31	**4703.749**	ug/L	3.584	1171450	2.801
	K	39	**4332.637**	ug/L	4.484	25671318	60.400
	Ca	43	**4771.309**	ug/L	3.390	71592	0.171
>	Sc	45		ug/L		416580	416580.161
	Ti	47	**49.205**	ug/L	3.521	38889	0.093
	V	51	**52.394**	ug/L	4.403	442610	1.043
	Cr	52	**52.723**	ug/L	2.378	353165	0.838
	Cr	53		ug/L		173110	0.138
	Mn	55	**53.516**	ug/L	2.938	568853	1.362
	Fe	57	**4645.346**	ug/L	3.429	1094022	2.613
	Co	59	**52.672**	ug/L	3.053	446599	1.072
	Ni	60	**52.519**	ug/L	1.808	102895	0.247
	Cu	63		ug/L		246344	0.590
	Cu	65	**50.727**	ug/L	1.756	119188	0.286
	Zn	66	**51.222**	ug/L	2.930	77548	0.150
	Zn	67		ug/L		29593	0.031
	Zn	68		ug/L		56556	0.107
>	Ge	74		ug/L		514672	514672.218
	As	75	**48.752**	ug/L	2.768	76358	0.150
	Se	77		ug/L		14469	0.014
	Se	82	**50.062**	ug/L	2.082	8188	0.016
	Kr	83		ug/L		141	-0.000
	Sr	88	**53.781**	ug/L	1.710	984550	2.852
	Y	89		ug/L		168	0.000
	Mo	98	**49.077**	ug/L	0.791	241922	0.701
	Ag	107	**51.743**	ug/L	1.540	428488	1.241
	Cd	111	**50.768**	ug/L	0.996	106604	0.309
	Cd	114		ug/L		248527	0.720
>	In	115		ug/L		345156	345156.356
	Sn	120	**51.493**	ug/L	1.373	431744	1.250
	Sb	121	**51.330**	ug/L	1.027	357761	1.035
	Sb	123		ug/L		282382	0.817
	Ba	135		ug/L		115385	0.169
	Ba	137	**49.242**	ug/L	1.246	205400	0.301
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		682807	682807.409
	Tl	205	**49.827**	ug/L	1.117	1383033	2.023
	Pb	208	**53.468**	ug/L	1.497	2659287	3.894
	Bi	209		ug/L		957	0.001
	Th	232	**51.536**	ug/L	1.197	3147381	4.609
	U	238	**51.542**	ug/L	1.737	3296507	4.828

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	101.711				
	Be	9	103.504				
	B	11	98.342				
	Na	23	91.051				
	Mg	24	100.846				
	Al	27	103.117				
	P	31	94.075				
	K	39	86.653				
	Ca	43	95.426				
>	Sc	45		89.2			
	Ti	47	98.410				
	V	51	104.788				
	Cr	52	105.446				
	Cr	53					
	Mn	55	107.032				
	Fe	57	92.907				
	Co	59	105.344				
	Ni	60	105.038				
	Cu	63					
	Cu	65	101.454				
	Zn	66	102.443				
	Zn	67					
	Zn	68					
>	Ge	74		90.0			
	As	75	97.504				
	Se	77					
	Se	82	100.123				
	Kr	83					
	Sr	88	107.563				
	Y	89					
	Mo	98	98.154				
	Ag	107	103.486				
	Cd	111	101.536				
	Cd	114					
>	In	115		90.9			
	Sn	120	102.986				
	Sb	121	102.661				
	Sb	123					
	Ba	135					
	Ba	137	98.484				
	Ho	165					
>	Lu	175		96.4			
	Tl	205	99.655				
	Pb	208	106.936				
	Bi	209					
	Th	232	103.073				
	U	238	103.085				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 01:40:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	**ug/L**	19.141	149	0.000
	Be	9	**0.002**	**ug/L**	728.636	25	0.000
	B	11	**2.533**	**ug/L**	22.205	1848	0.003
	Na	23	**2.396**	**ug/L**	51.756	27360	0.026
	Mg	24	**0.956**	**ug/L**	114.511	6668	0.007
	Al	27	**2.695**	**ug/L**	31.242	17010	0.024
	P	31	**1.126**	**ug/L**	68.843	5507	0.001
	K	39	**5.504**	**ug/L**	74.073	532758	0.077
	Ca	43	**1.125**	**ug/L**	68.383	341	0.000
>	Sc	45		**ug/L**		416774	416774.349
	Ti	47	**0.051**	**ug/L**	49.426	400	0.000
	V	51	**-0.473**	**ug/L**	18.561	4423	-0.009
	Cr	52	**-0.473**	**ug/L**	9.957	914	-0.008
	Cr	53		**ug/L**		108799	-0.017
	Mn	55	**-0.012**	**ug/L**	34.432	1356	-0.000
	Fe	57	**-0.949**	**ug/L**	26.247	5940	-0.001
	Co	59	**0.004**	**ug/L**	38.201	167	0.000
	Ni	60	**0.010**	**ug/L**	18.742	146	0.000
	Cu	63		**ug/L**		387	-0.000
	Cu	65	**0.001**	**ug/L**	229.755	233	0.000
	Zn	66	**-0.024**	**ug/L**	53.198	599	-0.000
	Zn	67		**ug/L**		12866	-0.002
	Zn	68		**ug/L**		1437	-0.000
>	Ge	74		**ug/L**		521240	521240.111
	As	75	**0.221**	**ug/L**	53.128	-323	0.001
	Se	77		**ug/L**		6939	-0.001
	Se	82	**0.016**	**ug/L**	370.605	3	0.000
	Kr	83		**ug/L**		144	-0.000
	Sr	88	**0.005**	**ug/L**	47.801	374	0.000
	Y	89		**ug/L**		70	-0.000
	Mo	98	**0.063**	**ug/L**	5.593	450	0.001
	Ag	107	**0.006**	**ug/L**	14.955	132	0.000
	Cd	111	**0.005**	**ug/L**	128.110	43	0.000
	Cd	114		**ug/L**		91	0.000
>	In	115		**ug/L**		355440	355440.489
	Sn	120	**0.011**	**ug/L**	35.866	490	0.000
	Sb	121	**0.155**	**ug/L**	8.034	1659	0.003
	Sb	123		**ug/L**		1327	0.003
	Ba	135		**ug/L**		62	0.000
	Ba	137	**0.004**	**ug/L**	49.014	105	0.000
	Ho	165		**ug/L**		27	0.000
>	Lu	175		**ug/L**		691627	691626.720
	Tl	205	**0.224**	**ug/L**	18.598	8345	0.009
	Pb	208	**0.006**	**ug/L**	37.321	1281	0.000
	Bi	209		**ug/L**		617	0.000
	Th	232	**0.021**	**ug/L**	5.469	2137	0.002
	U	238	**0.007**	**ug/L**	32.882	1054	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, February 25, 2010 01:46:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 10.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**908.148**	**ug/L**	2.424	1874486	5.194
	Be	9	**951.375**	**ug/L**	1.719	423800	1.174
	B	11	**1.566**	**ug/L**	15.177	1165	0.002
	Na	23	**48963.331**	**ug/L**	5.462	188368267	521.633
	Mg	24	**52502.636**	**ug/L**	11.268	133033673	369.000
	Al	27	**54937.246**	**ug/L**	2.656	179751189	498.034
	P	31	**21975.073**	**ug/L**	2.357	4726633	13.085
	K	39	**47751.459**	**ug/L**	3.116	240644107	665.693
	Ca	43	**47390.870**	**ug/L**	1.958	613793	1.700
>	Sc	45		**ug/L**		361004	361003.669
	Ti	47	**43.749**	**ug/L**	1.635	30006	0.082
	V	51	**904.479**	**ug/L**	2.586	6505041	18.006
	Cr	52	**894.043**	**ug/L**	3.388	5132659	14.214
	Cr	53		**ug/L**		774563	1.869
	Mn	55	**965.413**	**ug/L**	1.448	8874170	24.579
	Fe	57	**49460.687**	**ug/L**	0.018	10047325	27.817
	Co	59	**879.775**	**ug/L**	2.549	6462298	17.907
	Ni	60	**855.509**	**ug/L**	3.761	1450545	4.019
	Cu	63		**ug/L**		3370054	9.337
	Cu	65	**809.449**	**ug/L**	1.865	1645282	4.558
	Zn	66	**2256.169**	**ug/L**	0.467	2956197	6.585
	Zn	67		**ug/L**		473424	1.028
	Zn	68		**ug/L**		1846360	4.111
>	Ge	74		**ug/L**		448846	448845.629
	As	75	**816.633**	**ug/L**	0.627	1125003	2.508
	Se	77		**ug/L**		55858	0.110
	Se	82	**459.331**	**ug/L**	2.018	65518	0.146
	Kr	83		**ug/L**		270	0.000
	Sr	88	**991.112**	**ug/L**	0.957	16759897	52.560
	Y	89		**ug/L**		613	0.002
	Mo	98	**915.334**	**ug/L**	1.384	4166215	13.066
	Ag	107	**211.925**	**ug/L**	0.351	1621230	5.084
	Cd	111	**830.235**	**ug/L**	0.459	1609938	5.049
	Cd	114		**ug/L**		3840458	12.044
>	In	115		**ug/L**		318855	318855.037
	Sn	120	**888.428**	**ug/L**	0.778	6876169	21.565
	Sb	121	**222.617**	**ug/L**	1.988	1431814	4.489
	Sb	123		**ug/L**		1131261	3.547
	Ba	135		**ug/L**		1734671	2.749
	Ba	137	**844.735**	**ug/L**	0.281	3255477	5.159
	Ho	165		**ug/L**		194	0.000
>	Lu	175		**ug/L**		631074	631073.614
	Tl	205	**466.428**	**ug/L**	3.113	11948443	18.934
	Pb	208	**4781.042**	**ug/L**	1.641	219700515	348.163
	Bi	209		**ug/L**		6701	0.010
	Th	232	**2537.017**	**ug/L**	2.540	143156342	226.877
	U	238	**5256.734**	**ug/L**	0.889	310701302	492.353

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	90.815				
	Be	9	95.138				
	B	11					
	Na	23	97.927				
	Mg	24	105.005				
	Al	27	109.874				
	P	31	87.900				
	K	39	95.503				
	Ca	43	94.782				
>	Sc	45		77.3			
	Ti	47					
	V	51	90.448				
	Cr	52	89.404				
	Cr	53					
	Mn	55	96.541				
	Fe	57	98.921				
	Co	59	87.977				
	Ni	60	85.551				
	Cu	63					
	Cu	65	80.945				
	Zn	66	90.247				
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75	81.663				
	Se	77					
	Se	82	91.866				
	Kr	83					
	Sr	88	99.111				
	Y	89					
	Mo	98	91.533				
	Ag	107	84.770				
	Cd	111	83.024				
	Cd	114					
>	In	115		83.9			
	Sn	120	88.843				
	Sb	121	89.047				
	Sb	123					
	Ba	135					
	Ba	137	84.474				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	93.286				
	Pb	208	95.621				
	Bi	209					
	Th	232	101.481				
	U	238	105.135				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	P	31	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	

QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Sb	121LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, February 25, 2010 01:52:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 11.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.196**	**ug/L**	0.675	124156	0.310
	Be	9	**54.193**	**ug/L**	1.593	26794	0.067
	B	11	**102.665**	**ug/L**	4.172	51685	0.128
	Na	23	**4788.488**	**ug/L**	4.856	20434884	51.014
	Mg	24	**5400.192**	**ug/L**	4.677	15194288	37.954
	Al	27	**5449.235**	**ug/L**	5.070	19779169	49.400
	P	31	**4764.081**	**ug/L**	0.169	1140414	2.837
	K	39	**5151.257**	**ug/L**	13.117	29223170	71.813
	Ca	43	**4933.715**	**ug/L**	1.733	71145	0.177
>	Sc	45		**ug/L**		400258	400258.051
	Ti	47	**50.075**	**ug/L**	2.048	38038	0.094
	V	51	**52.375**	**ug/L**	2.015	425346	1.043
	Cr	52	**52.430**	**ug/L**	1.642	337549	0.834
	Cr	53		**ug/L**		165024	0.135
	Mn	55	**54.510**	**ug/L**	0.980	556900	1.388
	Fe	57	**4766.520**	**ug/L**	1.578	1078880	2.681
	Co	59	**53.611**	**ug/L**	1.011	436890	1.091
	Ni	60	**53.600**	**ug/L**	1.754	100915	0.252
	Cu	63		**ug/L**		236140	0.589
	Cu	65	**52.077**	**ug/L**	1.536	117580	0.293
	Zn	66	**52.112**	**ug/L**	1.547	76044	0.152
	Zn	67		**ug/L**		29932	0.034
	Zn	68		**ug/L**		55232	0.108
>	Ge	74		**ug/L**		496057	496057.360
	As	75	**48.906**	**ug/L**	0.967	73856	0.150
	Se	77		**ug/L**		12992	0.012
	Se	82	**49.965**	**ug/L**	2.870	7876	0.016
	Kr	83		**ug/L**		137	-0.000
	Sr	88	**54.271**	**ug/L**	2.485	961158	2.878
	Y	89		**ug/L**		119	0.000
	Mo	98	**49.006**	**ug/L**	3.544	233635	0.700
	Ag	107	**52.610**	**ug/L**	2.993	421432	1.262
	Cd	111	**51.427**	**ug/L**	2.143	104455	0.313
	Cd	114		**ug/L**		244311	0.732
>	In	115		**ug/L**		334023	334023.113
	Sn	120	**52.691**	**ug/L**	3.573	427313	1.279
	Sb	121	**54.043**	**ug/L**	3.070	364319	1.090
	Sb	123		**ug/L**		286486	0.857
	Ba	135		**ug/L**		115314	0.174
	Ba	137	**49.566**	**ug/L**	2.291	200991	0.303
	Ho	165		**ug/L**		59	0.000
>	Lu	175		**ug/L**		663851	663850.793
	Tl	205	**52.389**	**ug/L**	2.109	1413544	2.127
	Pb	208	**55.266**	**ug/L**	1.770	2672392	4.025
	Bi	209		**ug/L**		902	0.001
	Th	232	**53.892**	**ug/L**	1.577	3199837	4.819
	U	238	**55.370**	**ug/L**	0.825	3443184	5.186

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	108.391				
	Be	9	108.386				
	B	11	102.665				
	Na	23	95.770				
	Mg	24	108.004				
	Al	27	107.906				
	P	31	95.282				
	K	39	103.025				
	Ca	43	98.674				
>	Sc	45		85.7			
	Ti	47	100.150				
	V	51	104.750				
	Cr	52	104.861				
	Cr	53					
	Mn	55	109.021				
	Fe	57	95.330				
	Co	59	107.223				
	Ni	60	107.200				
	Cu	63					
	Cu	65	104.154				
	Zn	66	104.223				
	Zn	67					
	Zn	68					
>	Ge	74		86.7			
	As	75	97.812				
	Se	77					
	Se	82	99.930				
	Kr	83					
	Sr	88	108.542				
	Y	89					
	Mo	98	98.011				
	Ag	107	105.220				
	Cd	111	102.854				
	Cd	114					
>	In	115		87.9			
	Sn	120	105.383				
	Sb	121	108.087				
	Sb	123					
	Ba	135					
	Ba	137	99.132				
	Ho	165					
>	Lu	175		93.7			
	Tl	205	104.778				
	Pb	208	110.532				
	Bi	209					
	Th	232	107.784				
	U	238	110.740				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, February 25, 2010 01:58:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 12.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	**ug/L**	10.197	299	0.000
	Be	9	**0.018**	**ug/L**	51.844	33	0.000
	B	11	**2.579**	**ug/L**	15.125	1884	0.003
	Na	23	**1.316**	**ug/L**	84.987	22685	0.014
	Mg	24	**0.489**	**ug/L**	108.302	5334	0.003
	Al	27	**1.173**	**ug/L**	112.531	11338	0.011
	P	31	**1.722**	**ug/L**	86.879	5697	0.001
	K	39	**3.328**	**ug/L**	55.503	524112	0.046
	Ca	43	**0.968**	**ug/L**	59.645	341	0.000
>	Sc	45		**ug/L**		419767	419767.140
	Ti	47	**0.004**	**ug/L**	877.318	365	0.000
	V	51	**-1.017**	**ug/L**	82.790	-111	-0.020
	Cr	52	**-0.487**	**ug/L**	21.332	828	-0.008
	Cr	53		**ug/L**		109105	-0.018
	Mn	55	**-0.010**	**ug/L**	62.129	1378	-0.000
	Fe	57	**-2.374**	**ug/L**	42.893	5645	-0.001
	Co	59	**0.017**	**ug/L**	11.866	281	0.000
	Ni	60	**0.018**	**ug/L**	17.750	162	0.000
	Cu	63		**ug/L**		554	0.000
	Cu	65	**0.028**	**ug/L**	53.165	297	0.000
	Zn	66	**0.008**	**ug/L**	100.614	644	0.000
	Zn	67		**ug/L**		13924	0.000
	Zn	68		**ug/L**		1632	0.000
>	Ge	74		**ug/L**		518179	518178.770
	As	75	**0.331**	**ug/L**	97.478	-143	0.001
	Se	77		**ug/L**		6369	-0.002
	Se	82	**0.194**	**ug/L**	18.296	32	0.000
	Kr	83		**ug/L**		147	-0.000
	Sr	88	**0.016**	**ug/L**	25.521	573	0.001
	Y	89		**ug/L**		59	-0.000
	Mo	98	**0.086**	**ug/L**	12.447	565	0.001
	Ag	107	**0.009**	**ug/L**	7.425	155	0.000
	Cd	111	**0.019**	**ug/L**	49.545	72	0.000
	Cd	114		**ug/L**		158	0.000
>	In	115		**ug/L**		354160	354159.678
	Sn	120	**0.048**	**ug/L**	27.503	801	0.001
	Sb	121	**0.877**	**ug/L**	10.887	6799	0.018
	Sb	123		**ug/L**		5313	0.014
	Ba	135		**ug/L**		88	0.000
	Ba	137	**0.015**	**ug/L**	32.187	150	0.000
	Ho	165		**ug/L**		30	0.000
>	Lu	175		**ug/L**		692811	692811.033
	Tl	205	**0.297**	**ug/L**	15.828	10425	0.012
	Pb	208	**0.072**	**ug/L**	19.153	4624	0.005
	Bi	209		**ug/L**		573	-0.000
	Th	232	**0.062**	**ug/L**	6.357	4669	0.006
	U	238	**0.087**	**ug/L**	17.296	6259	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovi	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 03:06:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.465**	**ug/L**	1.954	118632	0.306
	Be	9	**53.925**	**ug/L**	1.997	25821	0.067
	B	11	**99.750**	**ug/L**	1.592	48652	0.124
	Na	23	**4455.631**	**ug/L**	3.102	18422685	47.468
	Mg	24	**4776.217**	**ug/L**	5.396	13019219	33.568
	Al	27	**5033.646**	**ug/L**	3.899	17701688	45.633
	P	31	**4544.170**	**ug/L**	0.649	1053826	2.706
	K	39	**4592.157**	**ug/L**	5.447	25279389	64.018
	Ca	43	**4816.015**	**ug/L**	1.923	67269	0.173
>	Sc	45		**ug/L**		387700	387700.329
	Ti	47	**49.528**	**ug/L**	3.202	36438	0.093
	V	51	**49.899**	**ug/L**	3.841	392794	0.993
	Cr	52	**51.839**	**ug/L**	1.935	323304	0.824
	Cr	53		**ug/L**		170480	0.162
	Mn	55	**54.104**	**ug/L**	2.127	535329	1.377
	Fe	57	**4692.131**	**ug/L**	2.583	1028649	2.639
	Co	59	**52.684**	**ug/L**	1.709	415824	1.072
	Ni	60	**52.046**	**ug/L**	2.538	94908	0.245
	Cu	63		**ug/L**		227636	0.586
	Cu	65	**51.237**	**ug/L**	1.995	112052	0.288
	Zn	66	**50.843**	**ug/L**	0.318	71998	0.148
	Zn	67		**ug/L**		29748	0.035
	Zn	68		**ug/L**		51891	0.105
>	Ge	74		**ug/L**		481221	481220.561
	As	75	**47.765**	**ug/L**	1.495	69952	0.147
	Se	77		**ug/L**		13474	0.014
	Se	82	**49.353**	**ug/L**	3.993	7546	0.016
	Kr	83		**ug/L**		134	-0.000
	Sr	88	**52.285**	**ug/L**	2.686	918989	2.773
	Y	89		**ug/L**		155	0.000
	Mo	98	**47.993**	**ug/L**	2.726	227104	0.685
	Ag	107	**51.141**	**ug/L**	2.709	406585	1.227
	Cd	111	**49.932**	**ug/L**	3.069	100630	0.304
	Cd	114		**ug/L**		235139	0.709
>	In	115		**ug/L**		331469	331469.489
	Sn	120	**52.088**	**ug/L**	3.245	419230	1.264
	Sb	121	**51.190**	**ug/L**	3.297	342473	1.032
	Sb	123		**ug/L**		271371	0.818
	Ba	135		**ug/L**		110871	0.165
	Ba	137	**48.101**	**ug/L**	0.597	197420	0.294
	Ho	165		**ug/L**		62	0.000
>	Lu	175		**ug/L**		671772	671772.270
	Tl	205	**50.110**	**ug/L**	2.090	1368390	2.034
	Pb	208	**53.590**	**ug/L**	2.298	2621957	3.902
	Bi	209		**ug/L**		848	0.000
	Th	232	**50.971**	**ug/L**	1.947	3062468	4.558
	U	238	**51.964**	**ug/L**	0.543	3270061	4.867

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.929				
	Be	9	107.850				
	B	11	99.750				
	Na	23	89.113				
	Mg	24	95.524				
	Al	27	99.676				
	P	31	90.883				
	K	39	91.843				
	Ca	43	96.320				
>	Sc	45		83.0			
	Ti	47	99.055				
	V	51	99.799				
	Cr	52	103.679				
	Cr	53					
	Mn	55	108.207				
	Fe	57	93.843				
	Co	59	105.369				
	Ni	60	104.092				
	Cu	63					
	Cu	65	102.474				
	Zn	66	101.686				
	Zn	67					
	Zn	68					
>	Ge	74		84.1			
	As	75	95.529				
	Se	77					
	Se	82	98.706				
	Kr	83					
	Sr	88	104.570				
	Y	89					
	Mo	98	95.986				
	Ag	107	102.281				
	Cd	111	99.864				
	Cd	114					
>	In	115		87.3			
	Sn	120	104.176				
	Sb	121	102.380				
	Sb	123					
	Ba	135					
	Ba	137	96.202				
	Ho	165					
>	Lu	175		94.8			
	Tl	205	100.221				
	Pb	208	107.179				
	Bi	209					
	Th	232	101.942				
	U	238	103.927				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 03:12:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.002**	**ug/L**	181.797	93	-0.000
	Be	9	**0.013**	**ug/L**	92.819	29	0.000
	B	11	**2.538**	**ug/L**	12.464	1751	0.003
	Na	23	**0.699**	**ug/L**	252.559	18680	0.007
	Mg	24	**-0.119**	**ug/L**	174.163	3334	-0.001
	Al	27	**0.522**	**ug/L**	164.908	8336	0.005
	P	31	**1.329**	**ug/L**	32.453	5261	0.001
	K	39	**7.771**	**ug/L**	109.355	516903	0.108
	Ca	43	**2.269**	**ug/L**	113.069	339	0.000
>	Sc	45		**ug/L**		394424	394423.568
	Ti	47	**0.008**	**ug/L**	876.599	346	0.000
	V	51	**-1.188**	**ug/L**	23.281	-1433	-0.024
	Cr	52	**-0.577**	**ug/L**	10.875	218	-0.009
	Cr	53		**ug/L**		112822	0.008
	Mn	55	**-0.016**	**ug/L**	16.502	1237	-0.000
	Fe	57	**-2.116**	**ug/L**	7.287	5362	-0.001
	Co	59	**0.004**	**ug/L**	23.457	153	0.000
	Ni	60	**0.003**	**ug/L**	344.680	124	0.000
	Cu	63		**ug/L**		385	-0.000
	Cu	65	**-0.003**	**ug/L**	129.972	211	-0.000
	Zn	66	**-0.014**	**ug/L**	215.355	588	-0.000
	Zn	67		**ug/L**		13821	0.001
	Zn	68		**ug/L**		1600	0.000
>	Ge	74		**ug/L**		497771	497770.977
	As	75	**0.140**	**ug/L**	10.133	-434	0.000
	Se	77		**ug/L**		6583	-0.001
	Se	82	**-0.002**	**ug/L**	3289.256	-0	-0.000
	Kr	83		**ug/L**		151	0.000
	Sr	88	**0.003**	**ug/L**	27.952	314	0.000
	Y	89		**ug/L**		62	-0.000
	Mo	98	**0.020**	**ug/L**	18.977	229	0.000
	Ag	107	**0.003**	**ug/L**	65.382	102	0.000
	Cd	111	**0.007**	**ug/L**	30.382	44	0.000
	Cd	114		**ug/L**		74	0.000
>	In	115		**ug/L**		347292	347291.835
	Sn	120	**0.009**	**ug/L**	15.923	465	0.000
	Sb	121	**0.142**	**ug/L**	15.937	1529	0.003
	Sb	123		**ug/L**		1169	0.002
	Ba	135		**ug/L**		65	0.000
	Ba	137	**-0.000**	**ug/L**	430.105	87	-0.000
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		688217	688216.705
	Tl	205	**0.228**	**ug/L**	22.575	8414	0.009
	Pb	208	**0.005**	**ug/L**	6.134	1229	0.000
	Bi	209		**ug/L**		507	-0.000
	Th	232	**0.025**	**ug/L**	11.434	2360	0.002
	U	238	**0.006**	**ug/L**	7.177	1001	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		84.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:01:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.297**	ug/L	0.876	110710	0.305
	Be	9	**54.146**	ug/L	3.019	24265	0.067
	B	11	**100.480**	ug/L	3.587	45859	0.125
	Na	23	**4171.471**	ug/L	2.958	16138293	44.441
	Mg	24	**4586.782**	ug/L	5.716	11694894	32.237
	Al	27	**5055.741**	ug/L	4.486	16631740	45.833
	P	31	**4577.718**	ug/L	2.256	993543	2.726
	K	39	**4802.389**	ug/L	2.715	24743549	66.949
	Ca	43	**4846.935**	ug/L	0.926	63379	0.174
>	Sc	45		ug/L		362947	362947.495
	Ti	47	**49.047**	ug/L	3.723	33775	0.092
	V	51	**50.336**	ug/L	6.076	370668	1.002
	Cr	52	**51.846**	ug/L	1.989	302704	0.824
	Cr	53		ug/L		167069	0.183
	Mn	55	**53.537**	ug/L	2.899	495800	1.363
	Fe	57	**4713.288**	ug/L	3.470	967035	2.651
	Co	59	**53.158**	ug/L	2.348	392706	1.082
	Ni	60	**52.434**	ug/L	1.328	89505	0.246
	Cu	63		ug/L		213057	0.586
	Cu	65	**51.062**	ug/L	1.162	104532	0.287
	Zn	66	**50.557**	ug/L	2.303	67110	0.148
	Zn	67		ug/L		27645	0.035
	Zn	68		ug/L		49177	0.106
>	Ge	74		ug/L		451139	451139.409
	As	75	**48.399**	ug/L	2.181	66454	0.149
	Se	77		ug/L		13618	0.016
	Se	82	**50.015**	ug/L	0.660	7172	0.016
	Kr	83		ug/L		136	-0.000
	Sr	88	**53.795**	ug/L	2.400	874162	2.853
	Y	89		ug/L		146	0.000
	Mo	98	**48.885**	ug/L	0.506	213906	0.698
	Ag	107	**51.628**	ug/L	1.230	379525	1.239
	Cd	111	**50.511**	ug/L	0.583	94137	0.307
	Cd	114		ug/L		218241	0.712
>	In	115		ug/L		306374	306373.728
	Sn	120	**52.632**	ug/L	1.336	391718	1.278
	Sb	121	**52.095**	ug/L	0.572	322301	1.050
	Sb	123		ug/L		255324	0.832
	Ba	135		ug/L		104261	0.162
	Ba	137	**47.032**	ug/L	1.624	184518	0.287
	Ho	165		ug/L		64	0.000
>	Lu	175		ug/L		642286	642285.524
	Tl	205	**47.409**	ug/L	2.192	1238198	1.924
	Pb	208	**53.506**	ug/L	1.974	2502884	3.896
	Bi	209		ug/L		767	0.000
	Th	232	**50.854**	ug/L	1.982	2920992	4.548
	U	238	**52.228**	ug/L	2.841	3141856	4.892

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.593				
	Be	9	108.292				
	B	11	100.480				
	Na	23	83.429				
	Mg	24	91.736				
	Al	27	100.114				
	P	31	91.554				
	K	39	96.048				
	Ca	43	96.939				
>	Sc	45		77.7			
	Ti	47	98.095				
	V	51	100.671				
	Cr	52	103.692				
	Cr	53					
	Mn	55	107.074				
	Fe	57	94.266				
	Co	59	106.317				
	Ni	60	104.868				
	Cu	63					
	Cu	65	102.124				
	Zn	66	101.114				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.798				
	Se	77					
	Se	82	100.031				
	Kr	83					
	Sr	88	107.591				
	Y	89					
	Mo	98	97.769				
	Ag	107	103.257				
	Cd	111	101.022				
	Cd	114					
>	In	115		80.7			
	Sn	120	105.263				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	94.064				
	Ho	165					
>	Lu	175		90.7			
	Tl	205	94.818				
	Pb	208	107.012				
	Bi	209					
	Th	232	101.709				
	U	238	104.456				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 04:07:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.007**	ug/L	70.600	75	-0.000
	Be	9	**0.001**	ug/L	427.705	21	0.000
	B	11	**2.858**	ug/L	13.649	1735	0.004
	Na	23	**2.439**	ug/L	61.149	23687	0.026
	Mg	24	**-0.394**	ug/L	209.953	2334	-0.003
	Al	27	**0.134**	ug/L	261.103	6335	0.001
	P	31	**1.182**	ug/L	136.933	4755	0.001
	K	39	**5.490**	ug/L	106.207	458943	0.077
	Ca	43	**3.046**	ug/L	45.207	318	0.000
>	Sc	45		ug/L		358890	358890.056
	Ti	47	**0.028**	ug/L	71.080	328	0.000
	V	51	**-1.351**	ug/L	6.580	-2470	-0.027
	Cr	52	**-0.516**	ug/L	15.492	547	-0.008
	Cr	53		ug/L		104474	0.013
	Mn	55	**-0.015**	ug/L	1.320	1138	-0.000
	Fe	57	**-3.066**	ug/L	9.844	4687	-0.002
	Co	59	**0.004**	ug/L	29.358	141	0.000
	Ni	60	**0.018**	ug/L	28.015	139	0.000
	Cu	63		ug/L		370	0.000
	Cu	65	**-0.003**	ug/L	222.559	192	-0.000
	Zn	66	**-0.088**	ug/L	17.806	449	-0.000
	Zn	67		ug/L		12172	-0.001
	Zn	68		ug/L		1411	0.000
>	Ge	74		ug/L		466737	466736.805
	As	75	**0.324**	ug/L	144.041	-140	0.001
	Se	77		ug/L		6273	-0.001
	Se	82	**0.082**	ug/L	142.286	12	0.000
	Kr	83		ug/L		123	-0.000
	Sr	88	**0.003**	ug/L	29.478	298	0.000
	Y	89		ug/L		55	-0.000
	Mo	98	**0.024**	ug/L	22.589	233	0.000
	Ag	107	**0.003**	ug/L	88.056	98	0.000
	Cd	111	**0.002**	ug/L	268.427	32	0.000
	Cd	114		ug/L		77	0.000
>	In	115		ug/L		324681	324681.252
	Sn	120	**0.012**	ug/L	31.440	456	0.000
	Sb	121	**0.144**	ug/L	16.700	1443	0.003
	Sb	123		ug/L		1182	0.002
	Ba	135		ug/L		58	0.000
	Ba	137	**-0.000**	ug/L	774.420	84	-0.000
	Ho	165		ug/L		23	0.000
>	Lu	175		ug/L		664658	664658.160
	Tl	205	**1.290**	ug/L	8.742	36744	0.052
	Pb	208	**0.004**	ug/L	43.036	1148	0.000
	Bi	209		ug/L		514	-0.000
	Th	232	**0.027**	ug/L	8.660	2372	0.002
	U	238	**0.006**	ug/L	26.064	963	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		81.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 04:14:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032562.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	**ug/L**	22.151	128	0.000
	Be	9	**-0.009**	**ug/L**	29.117	17	-0.000
	B	11	**1.401**	**ug/L**	17.463	1134	0.002
	Na	23	**4.350**	**ug/L**	35.523	32371	0.046
	Mg	24	**-0.560**	**ug/L**	68.232	2000	-0.004
	Al	27	**7.783**	**ug/L**	4.956	32704	0.071
	P	31	**6.164**	**ug/L**	43.133	6087	0.004
	K	39	**21.005**	**ug/L**	11.696	561489	0.293
	Ca	43	**30.231**	**ug/L**	3.138	699	0.001
>	Sc	45		**ug/L**		375746	375745.796
	Ti	47	**0.449**	**ug/L**	5.663	641	0.001
	V	51	**-7.066**	**ug/L**	16.943	-45278	-0.141
	Cr	52	**-0.014**	**ug/L**	288.062	3574	-0.000
	Cr	53		**ug/L**		299123	0.519
	Mn	55	**0.270**	**ug/L**	5.227	3919	0.007
	Fe	57	**19.815**	**ug/L**	3.550	9741	0.011
	Co	59	**-0.002**	**ug/L**	64.075	105	-0.000
	Ni	60	**0.059**	**ug/L**	20.296	218	0.000
	Cu	63		**ug/L**		660	0.001
	Cu	65	**0.067**	**ug/L**	16.819	348	0.000
	Zn	66	**1.501**	**ug/L**	2.297	2515	0.004
	Zn	67		**ug/L**		55765	0.097
	Zn	68		**ug/L**		4784	0.008
>	Ge	74		**ug/L**		449040	449040.038
	As	75	**-1.259**	**ug/L**	75.403	-2320	-0.004
	Se	77		**ug/L**		21464	0.033
	Se	82	**0.095**	**ug/L**	50.908	14	0.000
	Kr	83		**ug/L**		116	-0.000
	Sr	88	**0.103**	**ug/L**	3.988	1818	0.005
	Y	89		**ug/L**		82	0.000
	Mo	98	**0.030**	**ug/L**	15.255	234	0.000
	Ag	107	**-0.001**	**ug/L**	75.904	61	-0.000
	Cd	111	**-0.003**	**ug/L**	179.448	20	-0.000
	Cd	114		**ug/L**		35	-0.000
>	In	115		**ug/L**		291215	291215.233
	Sn	120	**0.147**	**ug/L**	3.602	1361	0.004
	Sb	121	**0.093**	**ug/L**	28.490	990	0.002
	Sb	123		**ug/L**		800	0.002
	Ba	135		**ug/L**		131	0.000
	Ba	137	**0.040**	**ug/L**	11.205	230	0.000
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		620339	620338.726
	Tl	205	**0.831**	**ug/L**	3.621	22760	0.034
	Pb	208	**0.012**	**ug/L**	8.330	1401	0.001
	Bi	209		**ug/L**		329	-0.000
	Th	232	**0.032**	**ug/L**	27.318	2528	0.003
	U	238	**-0.006**	**ug/L**	5.233	219	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			80.5		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			78.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			76.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			87.6		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 04:20:19
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032563.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.569**	ug/L	1.851	104603	0.283
	Be	9	**53.487**	ug/L	0.551	24361	0.066
	B	11	**98.988**	ug/L	1.738	45918	0.123
	Na	23	**1723.869**	ug/L	3.011	6784493	18.365
	Mg	24	**1958.303**	ug/L	5.903	5078942	13.763
	Al	27	**2003.800**	ug/L	6.081	6705005	18.165
	P	31	**1877.731**	ug/L	2.492	416782	1.118
	K	39	**1949.349**	ug/L	7.980	10459592	27.175
	Ca	43	**1885.290**	ug/L	1.577	25220	0.068
>	Sc	45		ug/L		368745	368744.994
	Ti	47	**42.497**	ug/L	2.978	29779	0.080
	V	51	**38.420**	ug/L	4.356	289276	0.765
	Cr	52	**47.878**	ug/L	3.131	284186	0.761
	Cr	53		ug/L		324168	0.602
	Mn	55	**50.570**	ug/L	2.495	475927	1.287
	Fe	57	**1870.062**	ug/L	1.803	393191	1.052
	Co	59	**49.544**	ug/L	3.461	371830	1.008
	Ni	60	**48.465**	ug/L	2.757	84051	0.228
	Cu	63		ug/L		202473	0.548
	Cu	65	**47.455**	ug/L	2.259	98703	0.267
	Zn	66	**49.371**	ug/L	2.096	64352	0.144
	Zn	67		ug/L		66996	0.125
	Zn	68		ug/L		49465	0.109
>	Ge	74		ug/L		442864	442864.089
	As	75	**45.802**	ug/L	0.542	61708	0.141
	Se	77		ug/L		25591	0.043
	Se	82	**49.700**	ug/L	0.975	6997	0.016
	Kr	83		ug/L		127	-0.000
	Sr	88	**52.381**	ug/L	1.355	801820	2.778
	Y	89		ug/L		124	0.000
	Mo	98	**48.629**	ug/L	2.407	200393	0.694
	Ag	107	**51.470**	ug/L	2.157	356353	1.235
	Cd	111	**48.569**	ug/L	2.043	85251	0.295
	Cd	114		ug/L		197890	0.685
>	In	115		ug/L		288597	288597.458
	Sn	120	**50.304**	ug/L	2.798	352607	1.221
	Sb	121	**52.327**	ug/L	2.756	304870	1.055
	Sb	123		ug/L		240133	0.831
	Ba	135		ug/L		92888	0.152
	Ba	137	**44.194**	ug/L	2.352	165053	0.270
	Ho	165		ug/L		52	0.000
>	Lu	175		ug/L		611402	611401.608
	Tl	205	**43.929**	ug/L	5.775	1091482	1.783
	Pb	208	**52.668**	ug/L	1.824	2345327	3.835
	Bi	209		ug/L		1852324	3.029
	Th	232	**47.940**	ug/L	2.144	2621285	4.287
	U	238	**49.516**	ug/L	2.470	2835286	4.638

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			79.0		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			77.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			76.0		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			86.3		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245981001
Sample Date/Time: Thursday, February 25, 2010 04:51:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\245981001.229

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.121**	**ug/L**	4.601	346	0.001
	Be	9	**0.005**	**ug/L**	224.575	23	0.000
	B	11	**18.011**	**ug/L**	3.470	8710	0.022
	Na	23	**104.928**	**ug/L**	9.616	425621	1.118
	Mg	24	**5.664**	**ug/L**	25.922	18012	0.040
	Al	27	**38.827**	**ug/L**	7.773	135306	0.352
	P	31	**7.335**	**ug/L**	15.799	6214	0.004
	K	39	**199.486**	**ug/L**	11.545	1463193	2.781
	Ca	43	**53.350**	**ug/L**	14.162	989	0.002
>	Sc	45		**ug/L**		367461	367460.943
	Ti	47	**0.897**	**ug/L**	5.255	936	0.002
	V	51	**-6.404**	**ug/L**	14.677	-39527	-0.127
	Cr	52	**1.390**	**ug/L**	18.731	11685	0.022
	Cr	53		**ug/L**		317706	0.587
	Mn	55	**0.958**	**ug/L**	2.807	10264	0.024
	Fe	57	**25.911**	**ug/L**	2.903	10787	0.015
	Co	59	**0.020**	**ug/L**	2.508	266	0.000
	Ni	60	**0.257**	**ug/L**	3.576	555	0.001
	Cu	63		**ug/L**		3994	0.010
	Cu	65	**0.827**	**ug/L**	2.463	1913	0.005
	Zn	66	**1.145**	**ug/L**	3.794	1954	0.003
	Zn	67		**ug/L**		55258	0.102
	Zn	68		**ug/L**		4258	0.007
>	Ge	74		**ug/L**		428464	428463.805
	As	75	**-2.688**	**ug/L**	38.209	-4088	-0.008
	Se	77		**ug/L**		25662	0.045
	Se	82	**0.139**	**ug/L**	55.344	19	0.000
	Kr	83		**ug/L**		105	-0.000
	Sr	88	**0.221**	**ug/L**	1.939	3480	0.012
	Y	89		**ug/L**		659	0.002
	Mo	98	**0.063**	**ug/L**	5.990	355	0.001
	Ag	107	**0.001**	**ug/L**	116.204	70	0.000
	Cd	111	**0.004**	**ug/L**	73.491	31	0.000
	Cd	114		**ug/L**		50	-0.000
>	In	115		**ug/L**		279158	279158.063
	Sn	120	**0.394**	**ug/L**	4.125	2981	0.010
	Sb	121	**-0.027**	**ug/L**	19.806	276	-0.001
	Sb	123		**ug/L**		243	-0.000
	Ba	135		**ug/L**		720	0.001
	Ba	137	**0.346**	**ug/L**	1.585	1366	0.002
	Ho	165		**ug/L**		75	0.000
>	Lu	175		**ug/L**		609626	609625.755
	Tl	205	**0.240**	**ug/L**	4.147	7739	0.010
	Pb	208	**0.283**	**ug/L**	1.341	13439	0.021
	Bi	209		**ug/L**		276	-0.000
	Th	232	**0.009**	**ug/L**	8.652	1201	0.001
	U	238	**0.602**	**ug/L**	0.797	34941	0.056

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		78.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:57:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.506**	ug/L	0.339	109582	0.306
	Be	9	**54.515**	ug/L	0.898	24094	0.067
	B	11	**99.038**	ug/L	1.385	44587	0.123
	Na	23	**4616.235**	ug/L	9.139	17595928	49.179
	Mg	24	**5036.190**	ug/L	4.456	12664742	35.395
	Al	27	**5078.636**	ug/L	3.934	16474220	46.040
	P	31	**4592.433**	ug/L	3.138	982657	2.734
	K	39	**4762.234**	ug/L	3.561	24180152	66.389
	Ca	43	**4847.075**	ug/L	1.802	62484	0.174
>	Sc	45		ug/L		357833	357833.029
	Ti	47	**49.687**	ug/L	0.710	33742	0.093
	V	51	**50.563**	ug/L	4.728	367223	1.007
	Cr	52	**51.936**	ug/L	2.975	298873	0.826
	Cr	53		ug/L		170179	0.198
	Mn	55	**54.215**	ug/L	1.908	495131	1.380
	Fe	57	**4774.446**	ug/L	3.694	965925	2.685
	Co	59	**53.053**	ug/L	2.866	386422	1.080
	Ni	60	**53.199**	ug/L	1.625	89530	0.250
	Cu	63		ug/L		210242	0.587
	Cu	65	**51.309**	ug/L	2.290	103546	0.289
	Zn	66	**49.773**	ug/L	1.522	66136	0.145
	Zn	67		ug/L		28288	0.036
	Zn	68		ug/L		48867	0.105
>	Ge	74		ug/L		451461	451460.838
	As	75	**48.008**	ug/L	0.832	65967	0.147
	Se	77		ug/L		13698	0.016
	Se	82	**49.592**	ug/L	2.864	7117	0.016
	Kr	83		ug/L		128	-0.000
	Sr	88	**52.768**	ug/L	1.425	855952	2.798
	Y	89		ug/L		149	0.000
	Mo	98	**48.988**	ug/L	3.210	213900	0.699
	Ag	107	**51.362**	ug/L	2.086	376828	1.232
	Cd	111	**50.212**	ug/L	2.678	93390	0.305
	Cd	114		ug/L		216323	0.707
>	In	115		ug/L		305832	305831.645
	Sn	120	**51.900**	ug/L	2.512	385500	1.260
	Sb	121	**52.095**	ug/L	1.504	321698	1.050
	Sb	123		ug/L		251575	0.821
	Ba	135		ug/L		102932	0.163
	Ba	137	**47.701**	ug/L	2.112	184012	0.291
	Ho	165		ug/L		65	0.000
>	Lu	175		ug/L		631515	631515.344
	Tl	205	**46.443**	ug/L	1.654	1192587	1.885
	Pb	208	**54.462**	ug/L	2.067	2505112	3.966
	Bi	209		ug/L		753	0.000
	Th	232	**51.448**	ug/L	0.273	2906226	4.601
	U	238	**52.522**	ug/L	1.676	3106822	4.919

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	107.011				
	Be	9	109.029				
	B	11	99.038				
	Na	23	92.325				
	Mg	24	100.724				
	Al	27	100.567				
	P	31	91.849				
	K	39	95.245				
	Ca	43	96.942				
>	Sc	45		76.7			
	Ti	47	99.375				
	V	51	101.126				
	Cr	52	103.872				
	Cr	53					
	Mn	55	108.431				
	Fe	57	95.489				
	Co	59	106.105				
	Ni	60	106.397				
	Cu	63					
	Cu	65	102.617				
	Zn	66	99.546				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.016				
	Se	77					
	Se	82	99.183				
	Kr	83					
	Sr	88	105.535				
	Y	89					
	Mo	98	97.976				
	Ag	107	102.723				
	Cd	111	100.424				
	Cd	114					
>	In	115		80.5			
	Sn	120	103.799				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	95.401				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	92.886				
	Pb	208	108.923				
	Bi	209					
	Th	232	102.896				
	U	238	105.044				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 05:03:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.012**	**ug/L**	7.011	65	-0.000
	Be	9	**0.018**	**ug/L**	81.045	29	0.000
	B	11	**2.520**	**ug/L**	20.602	1581	0.003
	Na	23	**1.317**	**ug/L**	109.316	19347	0.014
	Mg	24	**-0.261**	**ug/L**	317.906	2667	-0.002
	Al	27	**-0.580**	**ug/L**	91.800	4001	-0.005
	P	31	**0.653**	**ug/L**	186.201	4630	0.000
	K	39	**4.170**	**ug/L**	428.340	451196	0.058
	Ca	43	**1.918**	**ug/L**	39.840	303	0.000
>	Sc	45		**ug/L**		357906	357906.486
	Ti	47	**-0.014**	**ug/L**	177.898	299	-0.000
	V	51	**-1.313**	**ug/L**	9.952	-2185	-0.026
	Cr	52	**-0.637**	**ug/L**	9.607	-145	-0.010
	Cr	53		**ug/L**		103662	0.012
	Mn	55	**-0.012**	**ug/L**	60.588	1158	-0.000
	Fe	57	**-2.516**	**ug/L**	16.303	4785	-0.001
	Co	59	**0.005**	**ug/L**	11.714	149	0.000
	Ni	60	**0.003**	**ug/L**	57.184	112	0.000
	Cu	63		**ug/L**		346	-0.000
	Cu	65	**0.006**	**ug/L**	92.591	210	0.000
	Zn	66	**-0.091**	**ug/L**	4.032	435	-0.000
	Zn	67		**ug/L**		12332	0.000
	Zn	68		**ug/L**		1377	0.000
>	Ge	74		**ug/L**		455989	455989.224
	As	75	**0.415**	**ug/L**	33.315	-11	0.001
	Se	77		**ug/L**		6238	-0.001
	Se	82	**0.102**	**ug/L**	102.734	15	0.000
	Kr	83		**ug/L**		125	-0.000
	Sr	88	**0.004**	**ug/L**	21.231	308	0.000
	Y	89		**ug/L**		59	-0.000
	Mo	98	**0.022**	**ug/L**	28.215	216	0.000
	Ag	107	**0.004**	**ug/L**	88.816	106	0.000
	Cd	111	**0.006**	**ug/L**	78.285	39	0.000
	Cd	114		**ug/L**		85	0.000
>	In	115		**ug/L**		318667	318667.410
	Sn	120	**0.016**	**ug/L**	16.376	477	0.000
	Sb	121	**0.142**	**ug/L**	18.622	1397	0.003
	Sb	123		**ug/L**		1102	0.002
	Ba	135		**ug/L**		65	0.000
	Ba	137	**-0.000**	**ug/L**	3212.883	83	-0.000
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		652645	652644.906
	Tl	205	**1.016**	**ug/L**	10.806	28833	0.041
	Pb	208	**0.005**	**ug/L**	2.478	1156	0.000
	Bi	209		**ug/L**		551	0.000
	Th	232	**0.027**	**ug/L**	8.748	2327	0.002
	U	238	**0.006**	**ug/L**	19.481	960	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			76.7		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			79.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			83.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			92.1		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 05:15:52
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032564.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.124**	**ug/L**	3.159	347	0.001
	Be	9	**-0.001**	**ug/L**	1434.911	21	-0.000
	B	11	**18.592**	**ug/L**	1.446	8852	0.023
	Na	23	**251.160**	**ug/L**	6.598	984201	2.676
	Mg	24	**9.424**	**ug/L**	27.192	27360	0.066
	Al	27	**41.416**	**ug/L**	11.427	142042	0.375
	P	31	**8.631**	**ug/L**	15.302	6409	0.005
	K	39	**182.608**	**ug/L**	5.241	1357995	2.546
	Ca	43	**57.893**	**ug/L**	8.766	1034	0.002
>	Sc	45		**ug/L**		362357	362357.332
	Ti	47	**1.030**	**ug/L**	0.840	1014	0.002
	V	51	**-6.936**	**ug/L**	16.071	-42796	-0.138
	Cr	52	**0.861**	**ug/L**	29.754	8488	0.014
	Cr	53		**ug/L**		307959	0.572
	Mn	55	**0.615**	**ug/L**	0.837	6960	0.016
	Fe	57	**18.038**	**ug/L**	7.781	9033	0.010
	Co	59	**0.004**	**ug/L**	3.140	146	0.000
	Ni	60	**0.110**	**ug/L**	11.094	296	0.001
	Cu	63		**ug/L**		2657	0.006
	Cu	65	**0.543**	**ug/L**	1.168	1308	0.003
	Zn	66	**1.349**	**ug/L**	0.752	2194	0.004
	Zn	67		**ug/L**		53014	0.098
	Zn	68		**ug/L**		4405	0.007
>	Ge	74		**ug/L**		425364	425364.422
	As	75	**-1.587**	**ug/L**	30.338	-2626	-0.005
	Se	77		**ug/L**		24785	0.044
	Se	82	**0.113**	**ug/L**	126.016	15	0.000
	Kr	83		**ug/L**		114	-0.000
	Sr	88	**0.222**	**ug/L**	1.047	3507	0.012
	Y	89		**ug/L**		359	0.001
	Mo	98	**0.012**	**ug/L**	14.229	151	0.000
	Ag	107	**0.011**	**ug/L**	24.348	139	0.000
	Cd	111	**0.001**	**ug/L**	1063.766	26	0.000
	Cd	114		**ug/L**		47	-0.000
>	In	115		**ug/L**		280041	280040.501
	Sn	120	**0.276**	**ug/L**	0.637	2189	0.007
	Sb	121	**0.011**	**ug/L**	90.073	488	0.000
	Sb	123		**ug/L**		386	0.000
	Ba	135		**ug/L**		796	0.001
	Ba	137	**0.345**	**ug/L**	4.685	1343	0.002
	Ho	165		**ug/L**		45	0.000
>	Lu	175		**ug/L**		600179	600178.698
	Tl	205	**0.274**	**ug/L**	4.149	8469	0.011
	Pb	208	**0.137**	**ug/L**	3.445	6828	0.010
	Bi	209		**ug/L**		768	0.000
	Th	232	**0.014**	**ug/L**	11.562	1439	0.001
	U	238	**0.007**	**ug/L**	10.552	920	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			77.6		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			74.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			73.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			84.7		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 05:22:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032565.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.348**	**ug/L**	0.616	100386	0.265
	Be	9	**51.058**	**ug/L**	1.288	23862	0.063
	B	11	**112.113**	**ug/L**	3.218	53293	0.140
	Na	23	**2102.246**	**ug/L**	1.918	8491428	22.396
	Mg	24	**2025.051**	**ug/L**	9.582	5393717	14.232
	Al	27	**2096.404**	**ug/L**	8.492	7192425	19.005
	P	31	**1776.591**	**ug/L**	2.501	404903	1.058
	K	39	**1918.428**	**ug/L**	2.266	10575946	26.744
	Ca	43	**1903.254**	**ug/L**	3.144	26117	0.068
>	Sc	45		**ug/L**		378395	378394.950
	Ti	47	**41.965**	**ug/L**	2.097	30182	0.079
	V	51	**35.766**	**ug/L**	2.849	276914	0.712
	Cr	52	**48.741**	**ug/L**	1.558	296849	0.775
	Cr	53		**ug/L**		334865	0.607
	Mn	55	**47.573**	**ug/L**	2.893	459466	1.211
	Fe	57	**1784.687**	**ug/L**	3.326	385228	1.004
	Co	59	**46.837**	**ug/L**	3.092	360716	0.953
	Ni	60	**45.989**	**ug/L**	2.969	81841	0.216
	Cu	63		**ug/L**		194638	0.514
	Cu	65	**44.187**	**ug/L**	1.800	94328	0.249
	Zn	66	**48.302**	**ug/L**	2.556	61956	0.141
	Zn	67		**ug/L**		65350	0.123
	Zn	68		**ug/L**		47075	0.105
>	Ge	74		**ug/L**		435812	435811.885
	As	75	**69.840**	**ug/L**	2.673	92868	0.214
	Se	77		**ug/L**		25509	0.044
	Se	82	**19.025**	**ug/L**	4.187	2635	0.006
	Kr	83		**ug/L**		139	0.000
	Sr	88	**51.998**	**ug/L**	1.358	767904	2.758
	Y	89		**ug/L**		361	0.001
	Mo	98	**49.210**	**ug/L**	2.112	195647	0.702
	Ag	107	**52.208**	**ug/L**	1.463	348760	1.253
	Cd	111	**10.250**	**ug/L**	2.148	17377	0.062
	Cd	114		**ug/L**		38530	0.138
>	In	115		**ug/L**		278448	278447.753
	Sn	120	**50.999**	**ug/L**	1.680	344926	1.238
	Sb	121	**196.030**	**ug/L**	2.833	1100667	3.953
	Sb	123		**ug/L**		889988	3.196
	Ba	135		**ug/L**		90502	0.147
	Ba	137	**42.890**	**ug/L**	1.118	161441	0.262
	Ho	165		**ug/L**		363	0.001
>	Lu	175		**ug/L**		616160	616160.306
	Tl	205	**58.182**	**ug/L**	9.183	1455510	2.362
	Pb	208	**41.180**	**ug/L**	0.863	1848411	2.999
	Bi	209		**ug/L**		1068	0.001
	Th	232	**46.865**	**ug/L**	2.967	2582182	4.191
	U	238	**47.673**	**ug/L**	3.116	2750697	4.465

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		81.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		76.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 05:28:16
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032566.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.006**	ug/L	54.667	104	0.000
	Be	9	**0.006**	ug/L	35.881	24	0.000
	B	11	**5.792**	ug/L	13.589	3137	0.007
	Na	23	**24.488**	ug/L	2.682	111434	0.261
	Mg	24	**0.719**	ug/L	72.606	5334	0.005
	Al	27	**6.155**	ug/L	11.270	26692	0.056
	P	31	**0.485**	ug/L	351.904	4746	0.000
	K	39	**38.380**	ug/L	33.080	641813	0.535
	Ca	43	**15.310**	ug/L	11.022	491	0.001
>	Sc	45		ug/L		370232	370232.331
	Ti	47	**0.207**	ug/L	11.588	463	0.000
	V	51	**-2.110**	ug/L	32.082	-8236	-0.042
	Cr	52	**0.149**	ug/L	116.356	4463	0.002
	Cr	53		ug/L		162376	0.161
	Mn	55	**0.103**	ug/L	10.337	2279	0.003
	Fe	57	**-0.969**	ug/L	127.725	5267	-0.001
	Co	59	**0.000**	ug/L	2365.380	117	0.000
	Ni	60	**0.023**	ug/L	10.007	152	0.000
	Cu	63		ug/L		665	0.001
	Cu	65	**0.071**	ug/L	8.532	351	0.000
	Zn	66	**0.311**	ug/L	4.184	961	0.001
	Zn	67		ug/L		17816	0.013
	Zn	68		ug/L		2050	0.002
>	Ge	74		ug/L		451489	451488.745
	As	75	**-0.393**	ug/L	65.339	-1130	-0.001
	Se	77		ug/L		12404	0.013
	Se	82	**0.092**	ug/L	176.230	13	0.000
	Kr	83		ug/L		114	-0.000
	Sr	88	**0.043**	ug/L	7.643	920	0.002
	Y	89		ug/L		105	0.000
	Mo	98	**0.011**	ug/L	20.574	161	0.000
	Ag	107	**0.000**	ug/L	504.683	73	0.000
	Cd	111	**-0.002**	ug/L	40.906	22	-0.000
	Cd	114		ug/L		40	-0.000
>	In	115		ug/L		303525	303525.381
	Sn	120	**0.059**	ug/L	8.927	775	0.001
	Sb	121	**0.003**	ug/L	180.420	486	0.000
	Sb	123		ug/L		379	0.000
	Ba	135		ug/L		167	0.000
	Ba	137	**0.056**	ug/L	7.739	299	0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		636269	636269.192
	Tl	205	**3.215**	ug/L	9.914	84931	0.130
	Pb	208	**0.015**	ug/L	2.741	1592	0.001
	Bi	209		ug/L		410	-0.000
	Th	232	**0.013**	ug/L	9.472	1473	0.001
	U	238	**-0.000**	ug/L	1010.928	572	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		79.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		79.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 05:34:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.917**	ug/L	1.868	108597	0.303
	Be	9	**54.344**	ug/L	3.265	24062	0.067
	B	11	**98.597**	ug/L	4.825	44462	0.123
	Na	23	**4364.899**	ug/L	10.122	16677592	46.502
	Mg	24	**5166.651**	ug/L	5.836	13022055	36.312
	Al	27	**5309.819**	ug/L	5.270	17255876	48.136
	P	31	**4490.103**	ug/L	3.876	962807	2.674
	K	39	**4761.044**	ug/L	2.718	24229143	66.373
	Ca	43	**4781.332**	ug/L	1.206	61786	0.172
>	Sc	45		ug/L		358648	358648.450
	Ti	47	**49.162**	ug/L	3.254	33457	0.092
	V	51	**48.521**	ug/L	5.223	353326	0.966
	Cr	52	**51.502**	ug/L	4.424	296952	0.819
	Cr	53		ug/L		159249	0.166
	Mn	55	**53.828**	ug/L	3.683	492501	1.370
	Fe	57	**4662.444**	ug/L	3.954	945190	2.622
	Co	59	**52.524**	ug/L	2.604	383384	1.069
	Ni	60	**51.967**	ug/L	2.640	87643	0.244
	Cu	63		ug/L		208193	0.580
	Cu	65	**51.065**	ug/L	2.197	103281	0.288
	Zn	66	**50.165**	ug/L	2.388	65743	0.146
	Zn	67		ug/L		26546	0.033
	Zn	68		ug/L		48197	0.105
>	Ge	74		ug/L		445320	445319.542
	As	75	**47.833**	ug/L	2.613	64826	0.147
	Se	77		ug/L		13497	0.016
	Se	82	**50.120**	ug/L	1.860	7094	0.016
	Kr	83		ug/L		138	0.000
	Sr	88	**52.759**	ug/L	3.617	862826	2.798
	Y	89		ug/L		136	0.000
	Mo	98	**47.856**	ug/L	2.730	210771	0.683
	Ag	107	**50.495**	ug/L	4.061	373528	1.211
	Cd	111	**49.369**	ug/L	3.327	92594	0.300
	Cd	114		ug/L		215515	0.699
>	In	115		ug/L		308474	308473.645
	Sn	120	**50.731**	ug/L	1.832	380087	1.231
	Sb	121	**50.710**	ug/L	3.139	315747	1.023
	Sb	123		ug/L		248882	0.806
	Ba	135		ug/L		103265	0.162
	Ba	137	**46.919**	ug/L	2.371	183074	0.287
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		638898	638898.483
	Tl	205	**46.584**	ug/L	5.676	1208963	1.891
	Pb	208	**54.008**	ug/L	2.258	2512712	3.933
	Bi	209		ug/L		723	0.000
	Th	232	**50.785**	ug/L	5.054	2899879	4.542
	U	238	**52.456**	ug/L	4.393	3137205	4.913

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.835				
	Be	9	108.687				
	B	11	98.597				
	Na	23	87.298				
	Mg	24	103.333				
	Al	27	105.145				
	P	31	89.802				
	K	39	95.221				
	Ca	43	95.627				
>	Sc	45		76.8			
	Ti	47	98.324				
	V	51	97.043				
	Cr	52	103.003				
	Cr	53					
	Mn	55	107.655				
	Fe	57	93.249				
	Co	59	105.048				
	Ni	60	103.935				
	Cu	63					
	Cu	65	102.130				
	Zn	66	100.329				
	Zn	67					
	Zn	68					
>	Ge	74		77.9			
	As	75	95.665				
	Se	77					
	Se	82	100.239				
	Kr	83					
	Sr	88	105.518				
	Y	89					
	Mo	98	95.711				
	Ag	107	100.990				
	Cd	111	98.739				
	Cd	114					
>	In	115		81.2			
	Sn	120	101.463				
	Sb	121	101.420				
	Sb	123					
	Ba	135					
	Ba	137	93.838				
	Ho	165					
>	Lu	175		90.2			
	Tl	205	93.168				
	Pb	208	108.016				
	Bi	209					
	Th	232	101.570				
	U	238	104.911				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 05:40:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.008**	**ug/L**	35.434	71	-0.000
	Be	9	**0.012**	**ug/L**	44.342	26	0.000
	B	11	**2.894**	**ug/L**	15.369	1738	0.004
	Na	23	**1.175**	**ug/L**	54.758	18679	0.013
	Mg	24	**-0.791**	**ug/L**	27.434	1333	-0.006
	Al	27	**1.002**	**ug/L**	131.615	9003	0.009
	P	31	**-0.273**	**ug/L**	450.430	4404	-0.000
	K	39	**5.024**	**ug/L**	159.839	452058	0.070
	Ca	43	**1.755**	**ug/L**	118.621	299	0.000
>	Sc	45		**ug/L**		355897	355897.204
	Ti	47	**0.024**	**ug/L**	59.762	323	0.000
	V	51	**-1.430**	**ug/L**	43.242	-3078	-0.028
	Cr	52	**-0.546**	**ug/L**	13.221	364	-0.009
	Cr	53		**ug/L**		100757	0.005
	Mn	55	**-0.012**	**ug/L**	22.218	1151	-0.000
	Fe	57	**-2.595**	**ug/L**	49.371	4738	-0.001
	Co	59	**0.003**	**ug/L**	75.329	136	0.000
	Ni	60	**0.006**	**ug/L**	57.367	117	0.000
	Cu	63		**ug/L**		374	0.000
	Cu	65	**0.001**	**ug/L**	1267.111	198	0.000
	Zn	66	**-0.105**	**ug/L**	6.230	414	-0.000
	Zn	67		**ug/L**		11868	-0.001
	Zn	68		**ug/L**		1291	-0.000
>	Ge	74		**ug/L**		453770	453770.256
	As	75	**0.178**	**ug/L**	92.795	-343	0.001
	Se	77		**ug/L**		6176	-0.001
	Se	82	**-0.039**	**ug/L**	402.610	-5	-0.000
	Kr	83		**ug/L**		130	-0.000
	Sr	88	**0.002**	**ug/L**	136.865	273	0.000
	Y	89		**ug/L**		58	-0.000
	Mo	98	**0.027**	**ug/L**	29.378	238	0.000
	Ag	107	**0.004**	**ug/L**	72.977	103	0.000
	Cd	111	**0.006**	**ug/L**	24.325	40	0.000
	Cd	114		**ug/L**		74	0.000
>	In	115		**ug/L**		316780	316780.065
	Sn	120	**0.009**	**ug/L**	42.527	422	0.000
	Sb	121	**0.141**	**ug/L**	22.448	1380	0.003
	Sb	123		**ug/L**		1128	0.002
	Ba	135		**ug/L**		52	0.000
	Ba	137	**-0.002**	**ug/L**	173.345	75	-0.000
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		652981	652980.698
	Tl	205	**2.263**	**ug/L**	3.135	61943	0.092
	Pb	208	**0.005**	**ug/L**	17.380	1143	0.000
	Bi	209		**ug/L**		536	-0.000
	Th	232	**0.025**	**ug/L**	6.004	2231	0.002
	U	238	**0.005**	**ug/L**	19.730	901	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 10:21:12
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.587
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	7667.7	7667.657	92.696	1.2
	Mg	24.0	65438.4	65438.352	810.719	1.2
	Co	58.9	148768.2	148768.250	1242.721	0.8
	Rh	102.9	281248.6	281248.630	3259.965	1.2
	In	114.9	364299.1	364299.123	3937.746	1.1
	Pb	208.0	327198.7	327198.660	900.422	0.3
⌈>	Ba	137.9	337284.3	337284.262	1053.536	0.3
⌊	Ba++	69.0	6381.2	0.019	0.000	1.2
⌈>	Ce	139.9	411857.7	411857.650	5034.814	1.2
⌊	CeO	155.9	10883.8	0.026	0.000	1.5
	Bkgd	220.0	24.6	24.600	6.358	25.8

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	7423.9
Co	59	13	6.3	140852.6
In	115	13	6.8	347281.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2072	0.604
Be	9.0	9.0	2056	2088	0.598
Mg	24.0	24.0	5695	2100	0.591
Mg	25.0	25.0	5935	2100	0.577
Mg	26.0	26.0	6177	2100	0.596
Co	58.9	59.0	14189	2125	0.594
Rh	102.9	102.9	24878	2180	0.579
In	114.9	114.9	27792	2200	0.585
Ce	139.9	139.9	33864	2220	0.581
Pb	206.0	206.0	49948	2305	0.587
Pb	207.0	207.0	50159	2240	0.631
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57732	2275	0.744

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 14:12:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Blank.347

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		25	
>	Sc	45		ug/L		668888	
	Mn	55		ug/L		2291	
>	Lu	175		ug/L		595837	
	Tl	205		ug/L		883	
	Pb	208		ug/L		475	
	U	238		ug/L		204	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Mn	55	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 14:14:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.348

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	0.828	6540	0.010
>	Sc	45		**ug/L**		676851	676850.534
	Mn	55	**10.000**	**ug/L**	1.904	177072	0.258
>	Lu	175		**ug/L**		589758	589757.524
	Tl	205	**10.000**	**ug/L**	0.453	263884	0.446
	Pb	208	**10.000**	**ug/L**	2.877	474859	0.805
	U	238	**10.000**	**ug/L**	0.241	601643	1.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 14:17:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.349

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.022**	**ug/L**	1.049	63615	0.098
>	Sc	45		**ug/L**		645973	645972.524
	Mn	55	**99.878**	**ug/L**	2.401	1486823	2.298
>	Lu	175		**ug/L**		584303	584303.328
	Tl	205	**99.812**	**ug/L**	2.029	2189635	3.747
	Pb	208	**99.844**	**ug/L**	1.355	4061519	6.951
	U	238	**99.831**	**ug/L**	0.936	5089463	8.710

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 14:19:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.350

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.337**	**ug/L**	0.831	31823	0.051
>	Sc	45		**ug/L**		629483	629482.623
	Mn	55	**54.535**	**ug/L**	2.129	791888	1.255
>	Lu	175		**ug/L**		589274	589274.225
	Tl	205	**52.420**	**ug/L**	0.813	1160354	1.968
	Pb	208	**53.310**	**ug/L**	1.745	2187052	3.711
	U	238	**52.301**	**ug/L**	0.705	2689274	4.563

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	102.674				
>	Sc	45		94.1			
	Mn	55	109.069				
>	Lu	175		98.9			
	Tl	205	104.839				
	Pb	208	106.620				
	U	238	104.602				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 14:22:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.002**	**ug/L**	214.675	24	-0.000
>	Sc	45		**ug/L**		654529	654529.493
	Mn	55	**-0.004**	**ug/L**	100.755	2183	-0.000
>	Lu	175		**ug/L**		595331	595330.522
	Tl	205	**0.102**	**ug/L**	6.118	3167	0.004
	Pb	208	**0.003**	**ug/L**	26.105	579	0.000
	U	238	**0.008**	**ug/L**	1.572	602	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.9			
	Mn	55					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 14:24:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.352

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.557**	**ug/L**	9.676	385	0.001
>	Sc	45		**ug/L**		658791	658790.794
	Mn	55	**6.275**	**ug/L**	4.301	97305	0.144
>	Lu	175		**ug/L**		592978	592978.327
	Tl	205	**1.277**	**ug/L**	1.263	29298	0.048
	Pb	208	**2.551**	**ug/L**	2.809	105733	0.178
	U	238	**0.290**	**ug/L**	0.556	15199	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	111.411				
>	Sc	45		98.5			
	Mn	55	125.508				
>	Lu	175		99.5			
	Tl	205	127.675				
	Pb	208	127.538				
	U	238	144.913				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 14:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.089**	**ug/L**	12.417	70	0.000
>	Sc	45		**ug/L**		556722	556721.917
	Mn	55	**6.374**	**ug/L**	2.843	83520	0.147
>	Lu	175		**ug/L**		546173	546173.398
	Tl	205	**0.027**	**ug/L**	7.143	1352	0.001
	Pb	208	**0.239**	**ug/L**	1.772	9511	0.017
	U	238	**-0.001**	**ug/L**	7.538	150	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.2			
	Mn	55	109.892				
>	Lu	175		91.7			
	Tl	205					
	Pb	208	126.313				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 14:29:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.354

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.782**	**ug/L**	1.989	10470	0.019
>	Sc	45		**ug/L**		536856	536856.079
	Mn	55	**28.447**	**ug/L**	1.663	353252	0.655
>	Lu	175		**ug/L**		544762	544762.461
	Tl	205	**21.404**	**ug/L**	1.003	438467	0.803
	Pb	208	**21.975**	**ug/L**	2.109	833709	1.530
	U	238	**23.745**	**ug/L**	0.446	1128817	2.072

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.910				
>	Sc	45		80.3			
	Mn	55	110.258				
>	Lu	175		91.4			
	Tl	205	107.019				
	Pb	208	108.847				
	U	238	118.723				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 14:32:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.355

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.548**	**ug/L**	3.801	31989	0.053
>	Sc	45		**ug/L**		606838	606838.403
	Mn	55	**54.439**	**ug/L**	2.137	762096	1.253
>	Lu	175		**ug/L**		601484	601484.197
	Tl	205	**51.997**	**ug/L**	0.762	1174882	1.952
	Pb	208	**54.077**	**ug/L**	2.248	2264396	3.765
	U	238	**53.307**	**ug/L**	0.482	2797685	4.651

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.095				
>	Sc	45		90.7			
	Mn	55	108.878				
>	Lu	175		100.9			
	Tl	205	103.993				
	Pb	208	108.154				
	U	238	106.613				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 14:34:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.356

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.001**	**ug/L**	739.982	24	-0.000
>	Sc	45		**ug/L**		649200	649199.690
	Mn	55	**-0.021**	**ug/L**	1.269	1911	-0.000
>	Lu	175		**ug/L**		625070	625069.607
	Tl	205	**0.087**	**ug/L**	3.030	2978	0.003
	Pb	208	**0.000**	**ug/L**	61.802	513	0.000
	U	238	**0.005**	**ug/L**	17.144	503	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.1			
	Mn	55					
>	Lu	175		104.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 14:56:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 8.364

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.970**	**ug/L**	1.302	31179	0.052
>	Sc	45		**ug/L**		597786	597786.220
	Mn	55	**55.100**	**ug/L**	1.866	759807	1.268
>	Lu	175		**ug/L**		595134	595133.877
	Tl	205	**52.325**	**ug/L**	0.329	1169829	1.964
	Pb	208	**53.592**	**ug/L**	1.336	2220837	3.731
	U	238	**52.623**	**ug/L**	2.770	2733100	4.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.941				
>	Sc	45		89.4			
	Mn	55	110.199				
>	Lu	175		99.9			
	Tl	205	104.651				
	Pb	208	107.184				
	U	238	105.247				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 14:59:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 9.365

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	1466.131	23	0.000
>	Sc	45		**ug/L**		607338	607337.892
	Mn	55	**0.001**	**ug/L**	693.699	2089	0.000
>	Lu	175		**ug/L**		599774	599774.272
	Tl	205	**0.874**	**ug/L**	1.983	20554	0.033
	Pb	208	**0.003**	**ug/L**	4.189	607	0.000
	U	238	**0.008**	**ug/L**	2.310	641	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Mn	55					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 15:13:21
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.370

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	99.825	21	-0.000
>	Sc	45		ug/L		643470	643470.488
	Mn	55	0.283	ug/L	5.774	6389	0.007
>	Lu	175		ug/L		585134	585134.328
	Tl	205	0.483	ug/L	1.138	11475	0.018
	Pb	208	0.021	ug/L	5.320	1327	0.001
	U	238	-0.000	ug/L	198.800	193	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 15:15:56
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.371

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.625**	**ug/L**	4.308	32048	0.049
>	Sc	45		**ug/L**		656083	656083.082
	Mn	55	**50.137**	**ug/L**	2.054	758987	1.154
>	Lu	175		**ug/L**		589037	589037.009
	Tl	205	**42.034**	**ug/L**	2.037	930318	1.578
	Pb	208	**52.764**	**ug/L**	2.619	2163992	3.673
	U	238	**51.774**	**ug/L**	0.516	2660967	4.517

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.1			
	Mn	55					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:23:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.374

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.183**	**ug/L**	1.937	31055	0.053
>	Sc	45		**ug/L**		582090	582090.176
	Mn	55	**54.374**	**ug/L**	3.736	730010	1.251
>	Lu	175		**ug/L**		593497	593496.547
	Tl	205	**52.300**	**ug/L**	3.630	1165289	1.963
	Pb	208	**54.421**	**ug/L**	2.513	2248095	3.789
	U	238	**53.119**	**ug/L**	0.451	2750767	4.635

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	108.365				
>	Sc	45		87.0			
	Mn	55	108.748				
>	Lu	175		99.6			
	Tl	205	104.601				
	Pb	208	108.842				
	U	238	106.238				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:26:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.375

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.005	ug/L	23.854	26	0.000
>	Sc	45		ug/L		602746	602745.952
	Mn	55	0.003	ug/L	113.169	2105	0.000
>	Lu	175		ug/L		615579	615578.706
	Tl	205	0.490	ug/L	4.079	12233	0.018
	Pb	208	0.001	ug/L	113.914	533	0.000
	U	238	0.006	ug/L	6.248	549	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Mn	55					
>	Lu	175		103.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245981001
Sample Date/Time: Thursday, February 25, 2010 15:34:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\245981001.378

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.003**	**ug/L**	323.930	26	0.000
>	Sc	45		**ug/L**		641204	641204.217
	Mn	55	**1.001**	**ug/L**	3.391	16963	0.023
>	Lu	175		**ug/L**		590828	590827.562
	Tl	205	**0.198**	**ug/L**	3.594	5259	0.007
	Pb	208	**0.306**	**ug/L**	3.934	13045	0.021
	U	238	**0.670**	**ug/L**	0.680	34722	0.058

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.9			
	Mn	55					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 15:39:45
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.380

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.003**	**ug/L**	216.799	22	-0.000
>	Sc	45		**ug/L**		643322	643321.984
	Mn	55	**0.626**	**ug/L**	2.225	11465	0.014
>	Lu	175		**ug/L**		594600	594599.800
	Tl	205	**0.097**	**ug/L**	3.017	3045	0.004
	Pb	208	**0.145**	**ug/L**	1.845	6466	0.010
	U	238	**0.013**	**ug/L**	4.690	878	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 15:42:21
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.381

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.665**	**ug/L**	3.328	29818	0.047
>	Sc	45		**ug/L**		635371	635371.076
	Mn	55	**48.892**	**ug/L**	0.732	717113	1.125
>	Lu	175		**ug/L**		588240	588240.219
	Tl	205	**57.057**	**ug/L**	5.253	1260682	2.142
	Pb	208	**42.232**	**ug/L**	0.828	1729953	2.940
	U	238	**51.407**	**ug/L**	1.109	2638697	4.485

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.0			
	Mn	55					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 15:44:58
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.382

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	11232.568	23	0.000
>	Sc	45		**ug/L**		614367	614367.315
	Mn	55	**0.101**	**ug/L**	4.725	3533	0.002
>	Lu	175		**ug/L**		627621	627620.913
	Tl	205	**2.853**	**ug/L**	3.675	68114	0.107
	Pb	208	**0.023**	**ug/L**	6.465	1516	0.002
	U	238	**0.004**	**ug/L**	2.553	424	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.8			
	Mn	55					
>	Lu	175		105.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:50:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\Ianl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.384

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.732**	**ug/L**	4.848	29509	0.051
>	Sc	45		**ug/L**		579534	579534.140
	Mn	55	**53.551**	**ug/L**	1.178	716125	1.232
>	Lu	175		**ug/L**		613922	613922.104
	Tl	205	**50.004**	**ug/L**	1.850	1153173	1.877
	Pb	208	**52.325**	**ug/L**	1.116	2236872	3.643
	U	238	**51.422**	**ug/L**	0.906	2754482	4.487

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.463				
>	Sc	45		86.6			
	Mn	55	107.101				
>	Lu	175		103.0			
	Tl	205	100.009				
	Pb	208	104.651				
	U	238	102.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:52:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.385

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	176.091	23	0.000
>	Sc	45		**ug/L**		580751	580751.122
	Mn	55	**0.006**	**ug/L**	93.107	2066	0.000
>	Lu	175		**ug/L**		608046	608045.886
	Tl	205	**1.444**	**ug/L**	1.703	33844	0.054
	Pb	208	**0.002**	**ug/L**	22.146	571	0.000
	U	238	**0.007**	**ug/L**	7.541	605	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.8			
	Mn	55					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 15:57:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Blank.386

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		599602	
	U	238		ug/L		354	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 15:58:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.387

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		598286	598285.760
	U	238	10.000	ug/L	1.095	639626	1.069

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 16:00:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.388

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		591647	591647.028
⌊	U	238	**99.816**	**ug/L**	0.480	5330455	9.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 16:01:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.389

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		594744	594744.465
⌊	U	238	**52.109**	**ug/L**	1.185	2797259	4.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.2			
⌊	U	238	104.217				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 16:03:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.390

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		616563	616563.277
	U	238	0.017	ug/L	6.946	1307	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		102.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 16:05:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.391

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		600065	600064.857
⌊	U	238	0.244	ug/L	1.225	13546	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		100.1			
⌊	U	238	121.797				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 16:07:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.392

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		544306	544305.822
	U	238	-0.001	ug/L	6.362	248	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		90.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 16:08:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.393

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		539792	539791.708
⌊	U	238	23.423	ug/L	0.126	1141451	2.114

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		90.0			
⌊	U	238	117.115				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:10:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.394

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		596598	596598.137
	U	238	**51.765**	ug/L	0.946	2787532	4.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.5			
	U	238	103.530				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:12:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.395

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		594162	594161.567
	U	238	0.010	ug/L	6.225	887	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 16:13:44
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.396

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		561602	561602.446
	U	238	-0.000	ug/L	231.891	321	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 16:15:27
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.397

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		570802	570802.292
	U	238	50.564	ug/L	1.023	2605073	4.564

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:24:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.402

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		619346	619345.966
	U	238	**49.089**	**ug/L**	0.403	2744254	4.430

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		103.3			
	U	238	98.177				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:25:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.403

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		622016	622015.783
	U	238	0.010	ug/L	6.333	921	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		103.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245981001
Sample Date/Time: Thursday, February 25, 2010 16:27:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|ba|
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\245981001.404

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		571663	571662.880
	U	238	0.640	ug/L	1.084	33382	0.058

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 16:30:55
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.406

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		587644	587643.561
	U	238	0.010	ug/L	6.425	883	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 16:32:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.407

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		587968	587967.926
[	U	238	49.454	ug/L	1.450	2624658	4.463

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		98.1			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 16:34:25
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.408

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		624063	624063.010
	U	238	0.006	ug/L	8.896	693	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		104.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:36:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.409

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		604405	604404.935
	U	238	50.306	ug/L	0.810	2744319	4.540

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.8			
	U	238	100.612				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:37:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.410

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		601216	601215.925
	U	238	0.010	ug/L	9.203	908	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, February 28, 2010 11:19:11
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.612
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6196.3	6196.344	143.347	2.3
	Mg	24.0	67234.2	67234.247	309.860	0.5
	Co	58.9	132558.2	132558.202	1103.361	0.8
	Rh	102.9	258781.3	258781.341	1982.494	0.8
	In	114.9	336320.1	336320.050	2837.596	0.8
	Pb	208.0	320426.5	320426.537	1072.771	0.3
⌈>	Ba	137.9	331832.6	331832.612	2204.656	0.7
⌊	Ba++	69.0	5415.4	0.016	0.000	1.6
⌈>	Ce	139.9	412164.8	412164.835	3829.750	0.9
⌊	CeO	155.9	10667.4	0.026	0.001	3.8
	Bkgd	220.0	21.3	21.300	4.604	21.6

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	6.0	6925.3
Co	59	13	6.5	130705.5
In	115	13	7.3	340695.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2050	0.661
Be	9.0	9.0	2061	2075	0.622
Mg	24.0	24.0	5689	2080	0.610
Mg	25.0	25.0	5941	2080	0.625
Mg	26.0	26.0	6167	2080	0.630
Co	58.9	58.9	14183	2110	0.614
Rh	102.9	102.9	24875	2160	0.629
In	114.9	114.9	27789	2180	0.626
Ce	139.9	139.9	33873	2200	0.627
Pb	206.0	206.0	49948	2295	0.581
Pb	207.0	207.0	50171	2240	0.628
Pb	208.0	208.0	50451	2265	0.688
U	238.1	238.1	57734	2275	0.722

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 11:32:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		677057	
	Tl	205		ug/L		808	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 11:35:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 1.002

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		667556	667556.025
	Tl	205	**10.000**	**ug/L**	0.862	294295	0.440

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 11:38:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		659367	659366.978
	Tl	205	99.812	ug/L	1.331	2437008	3.695

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 11:42:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		673365	673364.882
	Tl	205	53.184	ug/L	1.645	1326362	1.969

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.5			
	Tl	205	106.368				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 11:45:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		681777	681776.982
	Tl	205	0.030	ug/L	1.811	1560	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 11:48:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 3.006

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		672467	672467.132
	Tl	205	**1.266**	**ug/L**	0.670	32318	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.3			
	Tl	205	126.599				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 11:51:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		588832	588831.842
	Tl	205	0.013	ug/L	10.715	984	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		87.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 11:54:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 5.008

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		590656	590656.176
	Tl	205	**22.733**	**ug/L**	1.043	497747	0.842

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		87.2			
	Tl	205	113.667				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 11:57:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		670145	670145.439
⌊	Tl	205	53.996	ug/L	0.427	1340274	1.999

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.0			
⌊	Tl	205	107.992				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 12:01:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686615	686614.820
	Tl	205	0.021	ug/L	4.777	1342	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:20:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686305	686304.568
	Tl	205	52.972	ug/L	1.323	1346565	1.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205	105.943				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:23:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		688824	688824.054
	Tl	205	0.058	ug/L	1.241	2291	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:42:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.023

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		668337	668336.676
	Tl	205	**53.656**	**ug/L**	1.715	1328080	1.986

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.7			
	Tl	205	107.312				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:45:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		670679	670678.529
	Tl	205	0.170	ug/L	2.585	5015	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:06:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		668176	668175.537
⌊	Tl	205	52.327	ug/L	0.462	1295066	1.937

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.7			
⌊	Tl	205	104.655				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:09:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		649044	649044.468
⌊	Tl	205	0.080	ug/L	1.399	2707	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		95.9			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:29:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.037

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		635047	635047.332
⌊	Tl	205	**53.266**	**ug/L**	1.058	1252817	1.972

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		93.8			
⌊	Tl	205	106.531				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:32:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		653533	653533.489
	Tl	205	0.138	ug/L	1.085	4121	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:51:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		630598	630597.877
	Tl	205	53.890	ug/L	0.285	1258712	1.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.1			
	Tl	205	107.780				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:54:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		655368	655368.483
	Tl	205	0.124	ug/L	1.141	3781	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:10:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		656527	656526.813
	Tl	205	52.015	ug/L	0.912	1264760	1.925

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.0			
	Tl	205	104.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:13:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		633750	633749.781
⌊	Tl	205	0.304	ug/L	2.392	7889	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		93.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Sunday, February 28, 2010 14:17:07
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032562.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		637279	637278.987
	Tl	205	0.165	ug/L	0.459	4652	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Sunday, February 28, 2010 14:20:21
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032563.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		618802	618801.549
⌊	Tl	205	52.260	ug/L	0.827	1197858	1.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		91.4			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245981001
Sample Date/Time: Sunday, February 28, 2010 14:36:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\245981001.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		616548	616548.066
	Tl	205	0.069	ug/L	6.013	2323	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		91.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:39:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		636661	636661.313
⌊	Tl	205	51.753	ug/L	1.268	1220367	1.916

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.0			
⌊	Tl	205	103.507				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:42:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.060

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		646420	646420.439
⌊	Tl	205	**0.124**	**ug/L**	3.474	3745	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		95.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Sunday, February 28, 2010 14:49:15
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032564.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		606403	606402.736
	Tl	205	0.035	ug/L	8.276	1508	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		89.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Sunday, February 28, 2010 14:52:24
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032565.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		604264	604263.531
	Tl	205	74.988	ug/L	1.789	1678038	2.776

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		89.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Sunday, February 28, 2010 14:55:34
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032566.064

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		622697	622697.219
⌊	Tl	205	**1.665**	**ug/L**	1.459	39115	0.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		92.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 14:58:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		639572	639571.983
⌊	Tl	205	52.103	ug/L	0.346	1234316	1.929

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.5			
⌊	Tl	205	104.206				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 15:01:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.066

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		627865	627864.641
⌊	Tl	205	**0.778**	**ug/L**	1.776	18837	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\020510W1.SIF
Batch ID:
Results Data Set: 020510W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/5/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0006	0.0003	09:04:56	Yes
2		[0.00]	0.0002	-0.0003	0.0002	09:05:30	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	20.18				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/5/2010 09:05:49**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0019	0.0085	0.0021	09:06:50	Yes
2		[0.2]	0.0019	0.0079	0.0021	09:07:24	Yes
Mean:		[0.2]	0.0019				
SD:		0.0	0.0000				
%RSD:		0.0	0.42				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00933 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/5/2010 09:07:43**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0047	0.0201	0.0049	09:08:45	Yes
2		[0.5]	0.0048	0.0214	0.0050	09:09:19	Yes
Mean:		[0.5]	0.0047				
SD:		0.0	0.0001				
%RSD:		0.0	1.87				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999967 Slope: 0.00950 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/5/2010 09:09:39**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0191	0.0825	0.0194	09:10:40	Yes
2		[2.0]	0.0190	0.0814	0.0192	09:11:15	Yes
Mean:		[2.0]	0.0190				
SD:		0.0	0.0001				
%RSD:		0.0	0.73				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.00953 Intercept: -0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/5/2010 09:11:35**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0473	0.2057	0.0476	09:12:37	Yes
2		[5.0]	0.0469	0.2028	0.0471	09:13:12	Yes
Mean:		[5.0]	0.0471				
SD:		0.0	0.0003				
%RSD:		0.0	0.72				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00942 Intercept: 0.00004

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/5/2010 09:13:32**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0944	0.4143	0.0947	09:14:32	Yes
2		[10.0]	0.0937	0.4076	0.0940	09:15:07	Yes
Mean:		[10.0]	0.0941				
SD:		0.0	0.0005				
%RSD:		0.0	0.53				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

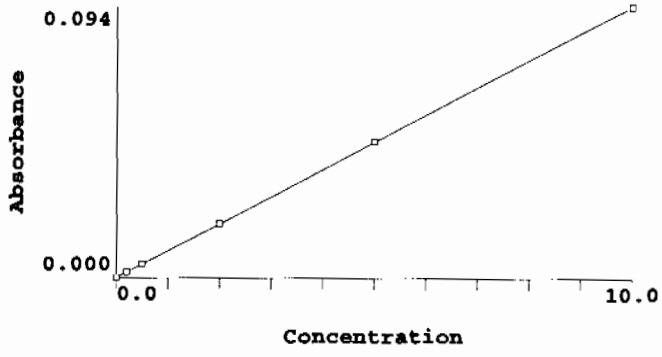

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.006	0.00	20.2
S0.2	0.0019	0.2	0.192	0.00	0.4
S0.5	0.0047	0.5	0.498	0.00	1.9
S2.0	0.0190	2.0	2.019	0.00	0.7

S5.0	0.0471	5.0	5.001	0.00	0.7
S10.0	0.0941	10.0	9.996	0.00	0.5

Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/5/2010 09:15:26**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.965	4.965	0.0468	0.2021	0.0470	09:16:27	Yes
2	4.945	4.945	0.0466	0.2010	0.0468	09:17:02	Yes
Mean:	4.955	4.955	0.0467				
SD:	0.014	0.014	0.0001				
%RSD:	0.281	0.281	0.28				

QC value within limits for Hg 253.7 Recovery = 99.10%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/5/2010 09:17:22**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	-0.0008	0.0002	09:18:23	Yes
2	-0.012	-0.012	-0.0000	-0.0006	0.0002	09:18:58	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.89	11.89	23.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/5/2010 09:19:18**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.191	0.191	0.0019	0.0082	0.0021	09:20:19	Yes
2	0.191	0.191	0.0019	0.0082	0.0021	09:20:54	Yes
Mean:	0.191	0.191	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.034	0.034	0.03				

QC value within limits for Hg 253.7 Recovery = 95.30%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 09:21:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.014	5.014	0.0472	0.2051	0.0475	09:22:14	Yes
2	4.974	4.974	0.0468	0.2038	0.0471	09:22:50	Yes
Mean:	4.994	4.994	0.0470				
SD:	0.029	0.029	0.0003				
%RSD:	0.577	0.577	0.58				

QC value within limits for Hg 253.7 Recovery = 99.88%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/5/2010 09:23:09
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0000	-0.0002	0.0002	09:24:10	Yes
2	-0.006	-0.006	0.0000	0.0002	0.0002	09:24:45	Yes
Mean:	-0.009	-0.009	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	42.32	42.32	156.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202029931|947628|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 2/5/2010 09:25:04
Data Type: Original

Replicate Data: 1202029931|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	-0.0005	0.0002	09:26:06	Yes
2	-0.005	-0.005	0.0000	-0.0001	0.0002	09:26:40	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	44.19	44.19	224.20				

Sequence No.: 13
Sample ID: 1202029932|947628|1
Analyst: JXL
Autosampler Location: 13
Date Collected: 2/5/2010 09:27:01
Data Type: Original

Replicate Data: 1202029932|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0191	0.0835	0.0193	09:28:02	Yes
2	2.026	2.026	0.0191	0.0827	0.0193	09:28:37	Yes
Mean:	2.024	2.024	0.0191				
SD:	0.003	0.003	0.0000				
%RSD:	0.144	0.144	0.14				

Sequence No.: 14
Sample ID: 245601001|947628|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 2/5/2010 09:28:58
Data Type: Original

Replicate Data: 245601001|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0002	0.0002	09:29:58	Yes
2	0.002	0.002	0.0001	0.0008	0.0003	09:30:33	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	299.4	299.4	87.21				

Sequence No.: 15
Sample ID: 245614001|947628|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 2/5/2010 09:30:52
Data Type: Original

Replicate Data: 245614001|947628|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202029937|947628|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	09:41:26	Yes
2	-0.008	-0.008	-0.0000	-0.0004	0.0002	09:42:01	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.270	1.270	5.82				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 1202033203|949020|1 Date Collected: 2/5/2010 09:42:20
Analyst: JXL Data Type: Original

Replicate Data: 1202033203|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0006	0.0003	09:43:21	Yes
2	0.003	0.003	0.0001	0.0014	0.0003	09:43:56	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	53.61	53.61	15.02				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 2/5/2010 09:44:15
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.947	4.947	0.0466	0.2056	0.0468	09:45:17	Yes
2	4.906	4.906	0.0462	0.2030	0.0464	09:45:52	Yes
Mean:	4.927	4.927	0.0464				
SD:	0.029	0.029	0.0003				
%RSD:	0.589	0.589	0.59				

QC value within limits for Hg 253.7 Recovery = 98.53%
All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 09:46:11
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0003	0.0002	09:47:12	Yes
2	0.006	0.006	0.0001	0.0006	0.0003	09:47:46	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.009	0.009	0.0001				
%RSD:	>999.9%	>999.9%	153.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 Autosampler Location: 22
Sample ID: 1202033204|949020|1 Date Collected: 2/5/2010 09:48:06
Analyst: JXL Data Type: Original

Replicate Data: 1202033204|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.013	2.013	0.0190	0.0852	0.0192	09:49:07	Yes
2	2.004	2.004	0.0189	0.0839	0.0191	09:49:42	Yes

Mean:	2.009	2.009	0.0190
SD:	0.006	0.006	0.0001
%RSD:	0.312	0.312	0.31

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 245911001|949020|1 **Date Collected: 2/5/2010 09:50:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 245911001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0002	0.0022	0.0004	09:51:03	Yes
2	0.017	0.017	0.0002	0.0028	0.0005	09:51:38	Yes
Mean:	0.016	0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	7.972	7.972	5.75				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 245922001|949020|1 **Date Collected: 2/5/2010 09:51:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 245922001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0012	0.0003	09:53:00	Yes
2	0.007	0.007	0.0001	0.0009	0.0004	09:53:35	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	44.12	44.12	20.60				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 245939001|949020|1 **Date Collected: 2/5/2010 09:53:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0030	0.0005	09:54:57	Yes
2	0.022	0.022	0.0003	0.0034	0.0005	09:55:32	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	14.54	14.54	11.04				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 245939002|949020|1 **Date Collected: 2/5/2010 09:55:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0010	0.0003	09:56:53	Yes
2	0.006	0.006	0.0001	0.0011	0.0003	09:57:28	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	80.46	80.46	31.18				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 245953001|949020|1 **Date Collected: 2/5/2010 09:57:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 245953001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	-0.0001	0.0003	09:58:48	Yes
2	0.005	0.005	0.0001	0.0008	0.0003	09:59:23	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	292.1	292.1	59.58				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 245965001|949020|1 **Date Collected: 2/5/2010 09:59:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 245965001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0007	0.0003	10:00:43	Yes
2	0.004	0.004	0.0001	0.0002	0.0003	10:01:18	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	33.02	33.02	15.09				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 245975001|949020|1 **Date Collected: 2/5/2010 10:01:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 245975001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0010	0.0003	10:02:38	Yes
2	0.004	0.004	0.0001	0.0015	0.0003	10:03:12	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	165.2	165.2	34.46				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 245981001|949020|1 **Date Collected: 2/5/2010 10:03:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 245981001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0021	0.0004	10:04:32	Yes
2	0.019	0.019	0.0002	0.0034	0.0005	10:05:07	Yes
Mean:	0.015	0.015	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	43.49	43.49	30.52				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246000001|949020|1 **Date Collected: 2/5/2010 10:05:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 246000001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0018	0.0003	10:06:27	Yes
2	0.012	0.012	0.0002	0.0024	0.0004	10:07:02	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	42.51	42.51	25.13				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 10:07:22**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.069	5.069	0.0477	0.2135	0.0480	10:08:22	Yes
2	5.033	5.033	0.0474	0.2110	0.0476	10:08:58	Yes
Mean:	5.051	5.051	0.0476				
SD:	0.025	0.025	0.0002				
%RSD:	0.502	0.502	0.50				

QC value within limits for Hg 253.7 Recovery = 101.01%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 10:09:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0004	0.0003	10:10:17	Yes
2	0.005	0.005	0.0001	0.0009	0.0003	10:10:52	Yes
Mean:	0.001	0.001	0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	>999.9%	>999.9%	94.99				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246010001|949020|1 Date Collected: 2/5/2010 10:11:11
Analyst: JXL Data Type: Original

Replicate Data: 246010001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0003	0.0002	10:12:12	Yes
2	-0.004	-0.004	0.0000	0.0007	0.0002	10:12:47	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.81	17.81	51.51				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246056001|949020|1 Date Collected: 2/5/2010 10:13:07
Analyst: JXL Data Type: Original

Replicate Data: 246056001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0004	0.0003	10:14:08	Yes
2	0.002	0.002	0.0001	0.0012	0.0003	10:14:43	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	>999.9%	>999.9%	65.75				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202033205|949020|1 Date Collected: 2/5/2010 10:15:03
Analyst: JXL Data Type: Original

Replicate Data: 1202033205|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0008	0.0002	10:16:04	Yes

2	0.005	0.005	0.0001	0.0017	0.0003	10:16:39	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	>999.9%	>999.9%	95.21				

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 1202033206|949020|1 **Date Collected: 2/5/2010 10:16:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033206|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.503	1.503	0.0142	0.0680	0.0144	10:18:00	Yes
2	1.495	1.495	0.0141	0.0670	0.0143	10:18:35	Yes
Mean:	1.499	1.499	0.0142				
SD:	0.006	0.006	0.0001				
%RSD:	0.393	0.393	0.39				

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 1202033207|949020|5 **Date Collected: 2/5/2010 10:18:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033207|949020|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	10:19:57	Yes
2	-0.002	-0.002	0.0000	0.0011	0.0003	10:20:32	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	84.26	84.26	326.78				

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 246056002|949020|1 **Date Collected: 2/5/2010 10:20:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	0.0010	0.0003	10:21:54	Yes
2	-0.003	-0.003	0.0000	0.0008	0.0003	10:22:29	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	8.003	8.003	5.22				

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 246056003|949020|1 **Date Collected: 2/5/2010 10:22:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056003|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0024	0.0005	10:23:50	Yes
2	0.023	0.023	0.0003	0.0022	0.0005	10:24:25	Yes
Mean:	0.021	0.021	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	10.47	10.47	8.06				

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 246056004|949020|1 **Date Collected: 2/5/2010 10:24:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056004|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0004	0.0044	0.0006	10:25:45	Yes
2	0.016	0.016	0.0002	0.0017	0.0004	10:26:21	Yes
Mean:	0.026	0.026	0.0003				
SD:	0.015	0.015	0.0001				
%RSD:	56.65	56.65	45.73				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202033224|949028|1 **Date Collected: 2/5/2010 10:26:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033224|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0003	0.0022	0.0005	10:27:41	Yes
2	0.017	0.017	0.0002	0.0020	0.0005	10:28:17	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	11.82	11.82	8.89				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202033226|949028|1 **Date Collected: 2/5/2010 10:28:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033226|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.106	2.106	0.0199	0.0883	0.0201	10:29:37	Yes
2	2.076	2.076	0.0196	0.0876	0.0198	10:30:12	Yes
Mean:	2.091	2.091	0.0197				
SD:	0.022	0.022	0.0002				
%RSD:	1.033	1.033	1.03				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 10:30:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.111	5.111	0.0481	0.2129	0.0484	10:31:32	Yes
2	5.088	5.088	0.0479	0.2132	0.0481	10:32:08	Yes
Mean:	5.099	5.099	0.0480				
SD:	0.016	0.016	0.0001				
%RSD:	0.309	0.309	0.31				

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/5/2010 10:32:26**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0010	0.0002	10:33:27	Yes
2	-0.005	-0.005	0.0000	0.0011	0.0002	10:34:02	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.051	7.051	16.61				

QC value within limits for Hg 253.7 Recovery = Not calculated

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948730

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032558	U1100120-01	.25	mL
LCS	1202032558	U1100120-06	.25	mL
MS	1202032560	U1100120-01	.25	mL
MS	1202032560	U1100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032557		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032558		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032559	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032560	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032561	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948739

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032563	UI100120-A	.5	mL
LCS	1202032563	UI100120-B	.5	mL
MS	1202032565	UI090930-A	.5	mL
MS	1202032565	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032562		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032563		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032564	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032565	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032566	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 949018

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033204	WHG100204-13	.2	mL
MS	1202033206	WHG100204-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033203		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
LCS	1202033204		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245911001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245922001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245953001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245965001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245975001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245981001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246000001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246010001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
DUP	1202033205	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
MS	1202033206	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SDILT	1202033207	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056003		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056004		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1257474-1	.5 mL	NITRIC ACID
1261483-C	1.5 mL	5% Potassium Persulfate
1264984-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100204-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100204-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100204-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100204-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100204-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100204-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 04-FEB-10 12:15
Digestion End Date: 04-FEB-10 14:15

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	LANL
Batch ID:	**Sample Numbers:**		
948740	See Below		

Potentially affected work order(s)(SDG): 245939(10-1506-1),245965(10-1511-1),245975(10-1512-1),245981(10-1514-1),246000(10-1517-1)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:

1. Failed Recovery for MS/PS:

   QC 1202032565MS

DER Disposition:

The matrix spike recovery failed outside of the control limits for Tl due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 01-MAR-10

Data Validator/Group Leader:

Samantha Jacobs 01-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID:	UI091102-41	**Opened:**	16-NOV-09	**Amount :**	500 mL
Name:	TRACE CALSTD#1B SOUF	**Received:**	02-NOV-09	**Catalog Number :**	HP2270-2-500
Type:	Source Material	**Expires:**	31-OCT-10	**Lot Number :**	0930216
Employee:	Helen Camello			**Solvent :**	HNO3
Supplier:	Environmental Express				
Description:	Trace Calibration Standard #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID:	UI091102-42	**Opened:**	17-NOV-09	**Amount :**	200 mL
Name:	SILICON	**Received:**	02-NOV-09	**Catalog Number :**	HP100050-4F
Type:	Source Material	**Expires:**	17-NOV-10	**Lot Number :**	0921924
Employee:	Helen Camello			**Solvent :**	H20/tr HF
Supplier:	ENVIRNMENTAL EXPRESS				
Description:	SILICON 1000mg/L H20/tr HF				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID:	UI091217-06	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master A	**Received:**	17-DEC-09	**Catalog Number :**	160055-01
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018209
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV SOLN A - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID:	UI091217-07	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master B	**Received:**	17-DEC-09	**Catalog Number :**	160054-02
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018210
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV Soln B - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID:	UI091217-13	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICSAB Master C	**Received:**	17-DEC-09	**Catalog Number :**	160033-03
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1016926
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 2% HNO3
Supplier:	02SI				
Description:	ICPMS ICSAB Master C				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID:	UI100114-48	**Opened:**	22-JAN-10	**Amount :**	1000 mL
Name:	Trace ICP ICSA	**Received:**	18-JAN-10	**Catalog Number :**	160005-02
Type:	Source Material	**Expires:**	22-JAN-11	**Lot Number :**	1018466
Employee:	Helen Camello			**Solvent :**	3% HCl + 1% HNO3
Supplier:	o2si				
Description:	Trace ICP Interferent Check Standard A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID:	UI100114-49.16	**Opened:**	11-FEB-10	**Amount :**	100 ml
Name:	Trace ICP ICSAB	**Received:**	18-JAN-10	**Catalog Number :**	160066-04
Type:	Source Material	**Expires:**	12-FEB-10	**Lot Number :**	1018458
Employee:	Helen Camello			**Solvent :**	3% HCl + 1% HNO3
Supplier:	o2si				
Description:	Trace ICP Inteferent Check Standard AB				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100120-A **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1018097
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100120-B **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1017644
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100128-40 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100128-41 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Standard Logbook

Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100204-01 **Opened:** 04-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-FEB-10 **Solvent :** 1mL HNO3 + Type1 H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 05-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100204-01a **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100204-03 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100204-04 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-05 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100204-06 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-13 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100211-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100211-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Carnello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100224-04 **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100224-04A **Opened:** 24-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100224-04B **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100224-05 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100224-06 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 24-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100224-07 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 24-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-08 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-70 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100225-04 **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100225-04A **Opened:** 25-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-05 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100225-06 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100225-07 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100228-04 **Opened:** 28-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 28-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100228-04A **Opened:** 28-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100228-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100228-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100228-05 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100228-06 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 28-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100228-07 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 28-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100228-08
Name: ICPMS ICSAB
Type: Working
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 28-FEB-10
Received: 28-FEB-10
Expires: 01-MAR-10

Balance Id : 40245216
Pipet Id : 1758088
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.

Standard Logbook

Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1514

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948610	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948609	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245979001	RE15-10-7980
245979002	RE15-10-7958
245979003	RE15-10-7960
245979004	RE15-10-7979
245979005	RE15-10-7972
245979006	RE15-10-7957
245979007	RE15-10-7974
245979008	RE15-10-7961
245979009	RE15-10-7971
245979010	RE15-10-7966
245979011	RE15-10-7959
245979012	RE15-10-7969
245979013	RE15-10-8061
245979014	RE15-10-8063
245979015	RE15-10-8062
1202032221	Method Blank (MB)
1202032222	245979001(RE15-10-7980) Sample Duplicate (DUP)
1202032223	245979002(RE15-10-7958) Sample Duplicate (DUP)
1202032224	245979001(RE15-10-7980) Matrix Spike (MS)
1202032225	245979002(RE15-10-7958) Matrix Spike (MS)
1202032226	245979001(RE15-10-7980) Matrix Spike Duplicate (MSD)
1202032227	245979002(RE15-10-7958) Matrix Spike Duplicate (MSD)
1202032228	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 245979001 (RE15-10-7980) and 245979002 (RE15-10-7958).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202032227 (RE15-10-7958).

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202032222 (RE15-10-7980), 1202032223 (RE15-10-7958), 245979001 (RE15-10-7980) and 245979002 (RE15-10-7958).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202032228 (LCS).

Sample Re-analysis
The following samples were reanalyzed due to PS failure: 1202032223 (RE15-10-7958), 1202032225 (RE15-10-7958), 1202032227 (RE15-10-7958) and 245979002 (RE15-10-7958).

Miscellaneous Information

Data Exception (DER) Documentation
The following DERs were generated for this SDG: 791335 1202032227 (RE15-10-7958).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 27Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1514 GEL Work Order: 245979

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7980	Project:	LANL01004
Sample ID:	245979001	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	4.62%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	71.3	262	ug/kg	1	AXC2	02/10/10	1537	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7958	Project:	LANL01004
Sample ID:	245979002	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	19.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	114	75.5	278	ug/kg	1	AXC2 02/10/10	1619	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7960	Project:	LANL01004
Sample ID:	245979003	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	72.9	268	ug/kg	1	AXC2	02/10/10	1548	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID: RE15-10-7979
Sample ID: 245979004
Matrix: R
Collect Date: 27-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client
Moisture: 25.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	91.7	337	ug/kg	1	AXC2 02/10/10	1549	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7972	Project:	LANL01004
Sample ID:	245979005	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.75%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	67.7	249	ug/kg	1	AXC2	02/10/10	1550	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7957	Project:	LANL01004
Sample ID:	245979006	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	139	84.7	311	ug/kg	1	AXC2	02/10/10	1551	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7974	Project:	LANL01004
Sample ID:	245979007	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	5.14%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	61.8	227	ug/kg	1	AXC2 02/10/10	1552	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7961	Project:	LANL01004
Sample ID:	245979008	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.8	271	ug/kg	1	AXC2 02/10/10	1553	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID: RE15-10-7971
Sample ID: 245979009
Matrix: R
Collect Date: 27-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client
Moisture: 25.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	91.8	338	ug/kg	1	AXC2 02/10/10	1554	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7966	Project:	LANL01004
Sample ID:	245979010	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.56%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.7	271	ug/kg	1	AXC2 02/10/10	1554	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7959	Project:	LANL01004
Sample ID:	245979011	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	20.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.4	277	ug/kg	1	AXC2 02/10/10	1555	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-7969	Project:	LANL01004
Sample ID:	245979012	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.3	266	ug/kg	1	AXC2 02/10/10	1600	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID:	RE15-10-8061	Project:	LANL01004
Sample ID:	245979013	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	101	75.2	277	ug/kg	1	AXC2 02/10/10	1601	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID: RE15-10-8063
Sample ID: 245979014
Matrix: R
Collect Date: 27-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client
Moisture: 18.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	80.2	295	ug/kg	1	AXC2	02/10/10	1602	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1514

Client Sample ID: RE15-10-8062
Sample ID: 245979015
Matrix: R
Collect Date: 27-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client
Moisture: 9.48%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	69.6	256	ug/kg	1	AXC2	02/10/10	1603	948610	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1529	948609

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: February 18, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245979

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948610										
QC1202032222 245979001 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/10/10 15:38
QC1202032223 245979002 DUP										
Cyanide, Total	J	114	U	ND	ug/kg	200 ^				02/10/10 16:20
QC1202032228 LCS										
Cyanide, Total	67900			66300	ug/kg		97.6	(32%-157%)		02/10/10 15:28
QC1202032221 MB										
Cyanide, Total			U	250	ug/kg					02/10/10 15:28
QC1202032224 245979001 MS										
Cyanide, Total	5040	U	ND	5040	ug/kg		100	(26%-158%)		02/10/10 15:39
QC1202032225 245979002 MS										
Cyanide, Total	5650	J	114	5380	ug/kg		93.2	(26%-158%)		02/10/10 16:21
QC1202032226 245979001 MSD										
Cyanide, Total	5240	U	ND	4520	ug/kg	10.9	86.2	(0%-30%)		02/10/10 15:40
QC1202032227 245979002 MSD										
Cyanide, Total	5550	J	114	4250	ug/kg	23.6	74.4	(0%-30%)		02/10/10 16:22

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 245979

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-FEB-2010 09:55

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1514**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-FEB-2010 14:15:06**	**OM_2-10-2010_14-04-36**	**156**	**150**	**104**	**(90%-110%)**	**Yes**
CCV	10-FEB-2010 15:19:11	OM_2-10-2010_14-04-36	108	100	108	(90%-110%)	Yes
CCV	10-FEB-2010 15:31:37	OM_2-10-2010_14-04-36	108	100	108	(90%-110%)	Yes
CCV	10-FEB-2010 15:44:11	OM_2-10-2010_14-04-36	109	100	109	(90%-110%)	Yes
CCV	10-FEB-2010 15:56:44	OM_2-10-2010_14-04-36	108	100	108	(90%-110%)	Yes
CCV	10-FEB-2010 16:03:56	OM_2-10-2010_14-04-36	109	100	109	(90%-110%)	Yes
CCV	10-FEB-2010 16:15:45	OM_2-10-2010_16-14-59	99.7	100	99.7	(90%-110%)	Yes
CCV	10-FEB-2010 16:22:56	OM_2-10-2010_16-14-59	101	100	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-FEB-2010 14:16:57**	**OM_2-10-2010_14-04-36**	**-0.169**	**10**	**Yes**
CCB	10-FEB-2010 15:21:01	OM_2-10-2010_14-04-36	-0.159	10	Yes
CCB	10-FEB-2010 15:33:27	OM_2-10-2010_14-04-36	-0.351	10	Yes
CCB	10-FEB-2010 15:46:02	OM_2-10-2010_14-04-36	2.38	10	Yes
CCB	10-FEB-2010 15:58:34	OM_2-10-2010_14-04-36	2.42	10	Yes
CCB	10-FEB-2010 16:05:47	OM_2-10-2010_14-04-36	2.38	10	Yes
CCB	10-FEB-2010 16:17:35	OM_2-10-2010_16-14-59	2.25	10	Yes
CCB	10-FEB-2010 16:24:46	OM_2-10-2010_16-14-59	2.83	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948609

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032228	URF1200957-01	.25	g
MS	1202032224	URF1184831-02	.025	mL
MS	1202032225	URF1184831-02	.025	mL
MSD	1202032226	URF1184831-02	.025	mL
MSD	1202032227	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032221		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.5 g	25 mL	50	SOIL
LCS	1202032228		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245950001		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245950002		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245950003		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245950004		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245950005		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245979001		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.5 g	25 mL	50	SOIL
DUP	1202032222	245979001	SW846 9010B Prep	09-FEB-2010 15:29	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202032224	245979001	SW846 9010B Prep	09-FEB-2010 15:29	>12	0.52 g	25 mL	48.07692	SOIL
MSD	1202032226	245979001	SW846 9010B Prep	09-FEB-2010 15:29	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245979002		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.56 g	25 mL	44.64286	SOIL
DUP	1202032223	245979002	SW846 9010B Prep	09-FEB-2010 15:29	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202032225	245979002	SW846 9010B Prep	09-FEB-2010 15:29	>12	0.55 g	25 mL	45.45455	SOIL
MSD	1202032227	245979002	SW846 9010B Prep	09-FEB-2010 15:29	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245979003		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245979004		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245979005		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245979006		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245979007		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245979008		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245979009		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245979010		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245979011		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	245979012		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245979013		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245979014		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245979015		SW846 9010B Prep	09-FEB-2010 15:29	>12	0.54 g	25 mL	46.2963	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100209-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments.

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/10/2010 14:07:58	OM_2-10-2010_14-04-36
150 ppb		1	axc2	2/10/2010 14:08:49	OM_2-10-2010_14-04-36
100 ppb		1	axc2	2/10/2010 14:09:42	OM_2-10-2010_14-04-36
50 ppb		1	axc2	2/10/2010 14:10:35	OM_2-10-2010_14-04-36
10 ppb		1	axc2	2/10/2010 14:11:28	OM_2-10-2010_14-04-36
CRDL 5.0 ppb		1	axc2	2/10/2010 14:12:22	OM_2-10-2010_14-04-36
ICAL-00		1	axc2	2/10/2010 14:13:16	OM_2-10-2010_14-04-36
ICV		1	axc2	2/10/2010 14:15:06	OM_2-10-2010_14-04-36
ICB		1	axc2	2/10/2010 14:16:57	OM_2-10-2010_14-04-36
		1	axc2	2/10/2010 14:18:46	OM_2-10-2010_14-04-36
1202032189	948603	1	axc2	2/10/2010 14:20:36	OM_2-10-2010_14-04-36
1202032196	948603	25	axc2	2/10/2010 14:21:30	OM_2-10-2010_14-04-36
246002001	948603	1	axc2	2/10/2010 14:22:23	OM_2-10-2010_14-04-36
1202032190	948603	1	axc2	2/10/2010 14:23:16	OM_2-10-2010_14-04-36
1202032192	948603	1	axc2	2/10/2010 14:24:09	OM_2-10-2010_14-04-36
1202032194	948603	1	axc2	2/10/2010 14:25:02	OM_2-10-2010_14-04-36
246002002	948603	1	axc2	2/10/2010 14:25:54	OM_2-10-2010_14-04-36
1202032191	948603	1	axc2	2/10/2010 14:26:47	OM_2-10-2010_14-04-36
1202032193	948603	1	axc2	2/10/2010 14:27:39	OM_2-10-2010_14-04-36
1202032195	948603	1	axc2	2/10/2010 14:28:31	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010 14:29:24	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010 14:31:14	OM_2-10-2010_14-04-36
246003001	948603	1	axc2	2/10/2010 14:33:02	OM_2-10-2010_14-04-36
246003002	948603	1	axc2	2/10/2010 14:33:55	OM_2-10-2010_14-04-36
246003003	948603	1	axc2	2/10/2010 14:34:46	OM_2-10-2010_14-04-36
246003004	948603	1	axc2	2/10/2010 14:35:38	OM_2-10-2010_14-04-36
246003005	948603	1	axc2	2/10/2010 14:36:29	OM_2-10-2010_14-04-36
246003006	948603	1	axc2	2/10/2010 14:37:23	OM_2-10-2010_14-04-36
246003007	948603	1	axc2	2/10/2010 14:38:17	OM_2-10-2010_14-04-36
246003008	948603	1	axc2	2/10/2010 14:39:10	OM_2-10-2010_14-04-36
246003009	948603	1	axc2	2/10/2010 14:40:03	OM_2-10-2010_14-04-36
246003010	948603	1	axc2	2/10/2010 14:40:57	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010 14:41:49	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010 14:43:39	OM_2-10-2010_14-04-36
246003011	948603	1	axc2	2/10/2010 14:45:28	OM_2-10-2010_14-04-36
246003012	948603	1	axc2	2/10/2010 14:46:21	OM_2-10-2010_14-04-36
246003013	948603	1	axc2	2/10/2010 14:47:14	OM_2-10-2010_14-04-36
246003014	948603	1	axc2	2/10/2010 14:48:06	OM_2-10-2010_14-04-36
246006001	948603	1	axc2	2/10/2010 14:48:58	OM_2-10-2010_14-04-36
246006002	948603	1	axc2	2/10/2010 14:49:51	OM_2-10-2010_14-04-36
246006003	948603	1	axc2	2/10/2010 14:50:43	OM_2-10-2010_14-04-36
246006004	948603	1	axc2	2/10/2010 14:51:35	OM_2-10-2010_14-04-36
1202032205	948607	1	axc2	2/10/2010 14:52:27	OM_2-10-2010_14-04-36
1202032212	948607	25	axc2	2/10/2010 14:53:20	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010 14:54:11	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010 14:56:01	OM_2-10-2010_14-04-36
245969001	948607	1	axc2	2/10/2010 14:57:51	OM_2-10-2010_14-04-36
245969002	948607	1	axc2	2/10/2010 14:58:45	OM_2-10-2010_14-04-36
245969003	948607	1	axc2	2/10/2010 14:59:39	OM_2-10-2010_14-04-36
245969004	948607	1	axc2	2/10/2010 15:00:32	OM_2-10-2010_14-04-36
245969005	948607	1	axc2	2/10/2010 15:01:25	OM_2-10-2010_14-04-36
245969006	948607	1	axc2	2/10/2010 15:02:18	OM_2-10-2010_14-04-36
245969007	948607	1	axc2	2/10/2010 15:03:11	OM_2-10-2010_14-04-36
245969008	948607	1	axc2	2/10/2010 15:04:05	OM_2-10-2010_14-04-36
245969009	948607	1	axc2	2/10/2010 15:04:57	OM_2-10-2010_14-04-36
245969010	948607	1	axc2	2/10/2010 15:05:49	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010 15:06:42	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010 15:08:32	OM_2-10-2010_14-04-36

245969011	948607	1	axc2	2/10/2010	15:10:21	OM_2-10-2010_14-04-36
245969012	948607	1	axc2	2/10/2010	15:11:13	OM_2-10-2010_14-04-36
245969013	948607	1	axc2	2/10/2010	15:12:05	OM_2-10-2010_14-04-36
245969014	948607	1	axc2	2/10/2010	15:12:57	OM_2-10-2010_14-04-36
245969015	948607	1	axc2	2/10/2010	15:13:49	OM_2-10-2010_14-04-36
246006005	948607	1	axc2	2/10/2010	15:14:43	OM_2-10-2010_14-04-36
1202032206	948607	1	axc2	2/10/2010	15:15:37	OM_2-10-2010_14-04-36
1202032208	948607	1	axc2	2/10/2010	15:16:32	OM_2-10-2010_14-04-36
1202032210	948607	1	axc2	2/10/2010	15:17:25	OM_2-10-2010_14-04-36
246006006	948607	1	axc2	2/10/2010	15:18:19	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	15:19:11	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	15:21:01	OM_2-10-2010_14-04-36
1202032207	948607	1	axc2	2/10/2010	15:22:50	OM_2-10-2010_14-04-36
1202032209	948607	1	axc2	2/10/2010	15:23:43	OM_2-10-2010_14-04-36
1202032211	948607	1	axc2	2/10/2010	15:24:36	OM_2-10-2010_14-04-36
246006007	948607	1	axc2	2/10/2010	15:25:29	OM_2-10-2010_14-04-36
246006008	948607	1	axc2	2/10/2010	15:26:22	OM_2-10-2010_14-04-36
246006009	948607	1	axc2	2/10/2010	15:27:14	OM_2-10-2010_14-04-36
1202032221	948610	1	axc2	2/10/2010	15:28:07	OM_2-10-2010_14-04-36
1202032228	948610	25	axc2	2/10/2010	15:28:59	OM_2-10-2010_14-04-36
245950001	948610	1	axc2	2/10/2010	15:29:52	OM_2-10-2010_14-04-36
245950002	948610	1	axc2	2/10/2010	15:30:43	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	15:31:37	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	15:33:27	OM_2-10-2010_14-04-36
245950003	948610	1	axc2	2/10/2010	15:35:17	OM_2-10-2010_14-04-36
245950004	948610	1	axc2	2/10/2010	15:36:11	OM_2-10-2010_14-04-36
245950005	948610	1	axc2	2/10/2010	15:37:05	OM_2-10-2010_14-04-36
245979001	948610	1	axc2	2/10/2010	15:37:59	OM_2-10-2010_14-04-36
1202032222	948610	1	axc2	2/10/2010	15:38:53	OM_2-10-2010_14-04-36
1202032224	948610	1	axc2	2/10/2010	15:39:46	OM_2-10-2010_14-04-36
1202032226	948610	1	axc2	2/10/2010	15:40:39	OM_2-10-2010_14-04-36
245979002*	948610	1	axc2	2/10/2010	15:41:33	OM_2-10-2010_14-04-36
1202032223*	948610	1	axc2	2/10/2010	15:42:26	OM_2-10-2010_14-04-36
1202032225*	948610	1	axc2	2/10/2010	15:43:18	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	15:44:11	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	15:46:02	OM_2-10-2010_14-04-36
1202032227*	948610	1	axc2	2/10/2010	15:47:52	OM_2-10-2010_14-04-36
245979003	948610	1	axc2	2/10/2010	15:48:44	OM_2-10-2010_14-04-36
245979004	948610	1	axc2	2/10/2010	15:49:36	OM_2-10-2010_14-04-36
245979005	948610	1	axc2	2/10/2010	15:50:28	OM_2-10-2010_14-04-36
245979006	948610	1	axc2	2/10/2010	15:51:21	OM_2-10-2010_14-04-36
245979007	948610	1	axc2	2/10/2010	15:52:16	OM_2-10-2010_14-04-36
245979008	948610	1	axc2	2/10/2010	15:53:10	OM_2-10-2010_14-04-36
245979009	948610	1	axc2	2/10/2010	15:54:03	OM_2-10-2010_14-04-36
245979010	948610	1	axc2	2/10/2010	15:54:58	OM_2-10-2010_14-04-36
245979011	948610	1	axc2	2/10/2010	15:55:52	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	15:56:44	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	15:58:34	OM_2-10-2010_14-04-36
245979012	948610	1	axc2	2/10/2010	16:00:24	OM_2-10-2010_14-04-36
245979013	948610	1	axc2	2/10/2010	16:01:17	OM_2-10-2010_14-04-36
245979014	948610	1	axc2	2/10/2010	16:02:11	OM_2-10-2010_14-04-36
245979015	948610	1	axc2	2/10/2010	16:03:04	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	16:03:56	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	16:05:47	OM_2-10-2010_14-04-36

Author: axc2 Date : 2/16/2010

Original Run Filename: OM_2-10-2010_14-04-36.OMN created 2/10/2010 14:04:36
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-10-2010_14-04-36.OMN last modified 2/10/2010 16:06:51
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100210-01	1	S1	200	8.11	2/10/2010@14:07:58			200 ppb
WCN100210-02	1	S2	150	6.18	2/10/2010@14:08:49			150 ppb
WCN100210-03	1	S3	100	3.79	2/10/2010@14:09:42			100 ppb
WCN100210-04	1	S4	50.0	2.07	2/10/2010@14:10:35			50 ppb
WCN100210-05	1	S5	10.0	0.503	2/10/2010@14:11:28			10 ppb
WCN100210-06	1	S6	5.00	0.320	2/10/2010@14:12:22			CRDL 5.0 ppb
WCN100210-08	1	S7	0.00	0.0294	2/10/2010@14:13:16			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99924 > 0.99500					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-07	1	S8	156	6.34	2/10/2010@14:15:06			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	4.2 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference								
		Result:	4.2 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
		Calibration:	Table/Fig. 1					
WCN102010-08	1	S7	-0.194	0.0361	2/10/2010@14:16:57			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.194 < 5.01					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	-0.194 > -5.01					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN102010-06	1	S6	7.28	0.337	2/10/2010@14:18:46			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	7.28 < 7.50					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	7.28 > 2.50					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
1202032189|948603|MB	1	1	-1.09	0.00	2/10/2010@14:20:36			
1202032196||LCS	1	2	33.0	1.37	2/10/2010@14:21:30		25.00	
246002001	1	3	1.62	0.109	2/10/2010@14:22:23			
1202032190||DUP	1	4	1.99	0.124	2/10/2010@14:23:16			
1202032192||MS	1	5	97.5	3.97	2/10/2010@14:24:09			
1202032194||MSD	1	6	99.7	4.06	2/10/2010@14:25:02			
246002002	1	7	1.70	0.112	2/10/2010@14:25:54			
1202032191||DUP	1	8	2.22	0.133	2/10/2010@14:26:47			
1202032193||MS	1	9	102	4.13	2/10/2010@14:27:39			
1202032195||MSD	1	10	102	4.13	2/10/2010@14:28:31			
WCN100210-03	1	S3	100	4.08	2/10/2010@14:29:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.2 < 10.0					

		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Percent Relative Difference					
		Result:	0.2 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-0.269	0.0331	2/10/2010@14:31:14			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.269 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Concentration Limit					
		Result:	-0.269 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
246003001	1	11	-0.111	0.0395	2/10/2010@14:33:02			
246003002	1	12	-1.09	-1.28e-4	2/10/2010@14:33:55			
246003003	1	13	1.32	0.0970	2/10/2010@14:34:46			
246003004	1	14	0.318	0.0567	2/10/2010@14:35:38			
246003005	1	15	-0.445	0.0260	2/10/2010@14:36:29			
246003006	1	16	-0.165	0.0373	2/10/2010@14:37:23			
246003007	1	17	0.339	0.0576	2/10/2010@14:38:17			
246003008	1	18	0.353	0.0581	2/10/2010@14:39:10			
246003009	1	19	3.94	0.203	2/10/2010@14:40:03			
246003010	1	20	1.48	0.104	2/10/2010@14:40:57			
WCN100210-03	1	S3	101	4.11	2/10/2010@14:41:49			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	1.1 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Percent Relative Difference					
		Result:	1.1 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-0.371	0.0290	2/10/2010@14:43:39			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.371 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Concentration Limit					
		Result:	-0.371 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
246003011	1	21	0.586	0.0675	2/10/2010@14:45:28			
246003012	1	22	1.60	0.108	2/10/2010@14:46:21			
246003013	1	23	0.847	0.0781	2/10/2010@14:47:14			
246003014	1	24	0.720	0.0729	2/10/2010@14:48:06			
246006001	1	25	0.215	0.0526	2/10/2010@14:48:58			
246006002	1	26	-0.0642	0.0414	2/10/2010@14:49:51			
246006003	1	27	-0.371	0.0290	2/10/2010@14:50:43			
246006004	1	28	0.506	0.0643	2/10/2010@14:51:35			
1202032205|948607|MB	1	29	-0.179	0.0367	2/10/2010@14:52:27			
1202032212|LCS	1	30	29.1	1.22	2/10/2010@14:53:20		25.00	
WCN100210-03	1	S3	101	4.13	2/10/2010@14:54:11			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	1.5 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Percent Relative Difference					
		Result:	1.5 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN10210-08	1	S7	-1.09	0.00	2/10/2010@14:56:01			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit						
Result:	-1.09 < 5.00					
Message	Passed due to...					
Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit						
Result:	-1.09 > -5.00					
Message	Passed due to...					
Action	...Rerun Peak Detection					
245969001	1	31	-0.344	0.0301	2/10/2010@14:57:51	
245969002	1	32	0.181	0.0512	2/10/2010@14:58:45	
245969003	1	33	0.0454	0.0458	2/10/2010@14:59:39	
245969004	1	34	0.326	0.0571	2/10/2010@15:00:32	
245969005	1	35	1.10	0.0883	2/10/2010@15:01:25	
245969006	1	36	-0.466	0.0252	2/10/2010@15:02:18	
245969007	1	37	1.86	0.119	2/10/2010@15:03:11	
245969008	1	38	0.328	0.0572	2/10/2010@15:04:05	
245969009	1	39	1.57	0.107	2/10/2010@15:04:57	
245969010	1	40	-0.378	0.0287	2/10/2010@15:05:49	
WCN100210-03	1	S3	101	4.12	2/10/2010@15:06:42	CCV
Known Conc:			100			
DQM Test: > + Percent Relative Difference						
Result:	1.4 < 10.0					
Message	Passed due to...					
Action	...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference						
Result:	1.4 < 10.0					
Message	Passed due to...					
Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-1.80	-0.0286	2/10/2010@15:08:32	CCB
Known Conc:			0.00			
DQM Test: > + Concentration Limit						
Result:	-1.80 < 5.00					
Message	Passed due to...					
Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit						
Result:	-1.80 > -5.00					
Message	Passed due to...					
Action	...Rerun Peak Detection					
245969011	1	41	-0.00516	0.0437	2/10/2010@15:10:21	
245969012	1	42	0.323	0.0569	2/10/2010@15:11:13	
245969013	1	43	0.257	0.0543	2/10/2010@15:12:05	
245969014	1	44	0.0155	0.0446	2/10/2010@15:12:57	
245969015	1	45	1.87	0.119	2/10/2010@15:13:49	
246006005	1	46	-0.221	0.0350	2/10/2010@15:14:43	
1202032206||DUP	1	47	-0.0437	0.0422	2/10/2010@15:15:37	
1202032208||MS	1	48	94.9	3.86	2/10/2010@15:16:32	
1202032210||MSD	1	49	99.5	4.05	2/10/2010@15:17:25	
246006006	1	50	0.451	0.0621	2/10/2010@15:18:19	
WCN100210-03	1	S3	108	4.40	2/10/2010@15:19:11	CCV
Known Conc:			100			
DQM Test: > + Percent Relative Difference						
Result:	8.3 < 10.0					
Message	Passed due to...					
Action	...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference						
Result:	8.3 < 10.0					
Message	Passed due to...					
Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-0.159	0.0375	2/10/2010@15:21:01	CCB
Known Conc:			0.00			
DQM Test: > + Concentration Limit						
Result:	-0.159 < 5.00					
Message	Passed due to...					
Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit						
Result:	-0.159 > -5.00					
Message	Passed due to...					
Action	...Rerun Peak Detection					

1202032207||DUP	1	51	0.263	0.0545	2/10/2010@15:22:50			
1202032209||MS	1	52	96.0	3.91	2/10/2010@15:23:43			
1202032211||MSD	1	53	93.5	3.81	2/10/2010@15:24:36			
246006007	1	54	-0.123	0.0390	2/10/2010@15:25:29			
246006008	1	55	0.00499	0.0441	2/10/2010@15:26:22			
246006009	1	56	0.464	0.0626	2/10/2010@15:27:14			
1202032221|948610|MB	1	57	-1.09	-1.37e-4	2/10/2010@15:28:07			
1202032228||LCS	1	58	26.5	1.11	2/10/2010@15:28:59		25.00	
245950001	1	59	0.981	0.0834	2/10/2010@15:29:52			
245950002	1	60	17.8	0.761	2/10/2010@15:30:43			
WCN100210-03	1	S3	108	4.40	2/10/2010@15:31:37			CCV
	Known Conc:		100					
			DQM Test: > + Percent Relative Difference					
		Result:	8.3 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Percent Relative Difference					
		Result:	8.3 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-0.351	0.0298	2/10/2010@15:33:27			CCB
	Known Conc:		0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.351 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Concentration Limit					
		Result:	-0.351 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
245950003	1	61	4.26	0.216	2/10/2010@15:35:17			
245950004	1	62	73.8	3.01	2/10/2010@15:36:11			
245950005	1	63	7.40	0.342	2/10/2010@15:37:05			
245979001	1	64	0.0300	0.0452	2/10/2010@15:37:59			
1202032222||DUP	1	65	-0.391	0.0282	2/10/2010@15:38:53			
1202032224||MS	1	66	100	4.07	2/10/2010@15:39:46			
1202032226||MSD	1	67	86.1	3.51	2/10/2010@15:40:39			
245979002	1	68	4.38	0.220	2/10/2010@15:41:33			
1202032223||DUP	1	69	1.14	0.0899	2/10/2010@15:42:26			
1202032225||MS	1	70	2.19	0.132	2/10/2010@15:43:18			
WCN100210-03	1	S3	109	4.44	2/10/2010@15:44:11			CCV
	Known Conc:		100					
			DQM Test: > + Percent Relative Difference					
		Result:	9.2 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Percent Relative Difference					
		Result:	9.2 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	2.37	0.139	2/10/2010@15:46:02			CCB
	Known Conc:		0.00					
			DQM Test: > + Concentration Limit					
		Result:	2.37 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Concentration Limit					
		Result:	2.37 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
1202032227||MSD	1	71	3.43	0.182	2/10/2010@15:47:52			
245979003	1	72	1.19	0.0920	2/10/2010@15:48:44			
245979004	1	73	0.791	0.0758	2/10/2010@15:49:36			
245979005	1	74	0.465	0.0627	2/10/2010@15:50:28			
245979006	1	75	2.23	0.134	2/10/2010@15:51:21			
245979007	1	76	0.0544	0.0461	2/10/2010@15:52:16			
245979008	1	77	0.979	0.0834	2/10/2010@15:53:10			
245979009	1	78	-0.116	0.0393	2/10/2010@15:54:03			

245979010	1	79	0.190	0.0516	2/10/2010@15:54:58	
245979011	1	80	0.279	0.0552	2/10/2010@15:55:52	
WCN100210-03	1	S3	108	4.41	2/10/2010@15:56:44	CCV
	Known Conc:		100			
DQM Test: > + Percent Relative Difference						
Result:			8.4 < 10.0			
Message			Passed due to...			
Action			...Rerun Peak Detection			
DQM Test: < - Percent Relative Difference						
Result:			8.4 < 10.0			
Message			Passed due to...			
Action			...Rerun Peak Detection			
WCN100210-08	1	S7	2.42	0.141	2/10/2010@15:58:34	CCB
	Known Conc:		0.00			
DQM Test: > + Concentration Limit						
Result:			2.42 < 5.00			
Message			Passed due to...			
Action			...Rerun Peak Detection			
DQM Test: < - Concentration Limit						
Result:			2.42 > -5.00			
Message			Passed due to...			
Action			...Rerun Peak Detection			
245979012	1	81	0.0293	0.0451	2/10/2010@16:00:24	
245979013	1	82	1.77	0.115	2/10/2010@16:01:17	
245979014	1	83	0.378	0.0592	2/10/2010@16:02:11	
245979015	1	84	0.159	0.0503	2/10/2010@16:03:04	
WCN100210-03	1	S3	109	4.43	2/10/2010@16:03:56	CCV
	Known Conc:		100			
DQM Test: > + Percent Relative Difference						
Result:			8.9 < 10.0			
Message			Passed due to...			
Action			...Rerun Peak Detection			
DQM Test: < - Percent Relative Difference						
Result:			8.9 < 10.0			
Message			Passed due to...			
Action			...Rerun Peak Detection			
WCN100210-08	1	S7	2.52	0.145	2/10/2010@16:05:47	CCB
	Known Conc:		0.00			
DQM Test: > + Concentration Limit						
Result:			2.52 < 5.00			
Message			Passed due to...			
Action			...Rerun Peak Detection			
DQM Test: < - Concentration Limit						
Result:			2.52 > -5.00			
Message			Passed due to...			
Action			...Rerun Peak Detection			

Analyte Properties Table for OM_2-10-2010_14-04-36.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Calibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2

Date : 2/16/2010

Channel 1: Current View

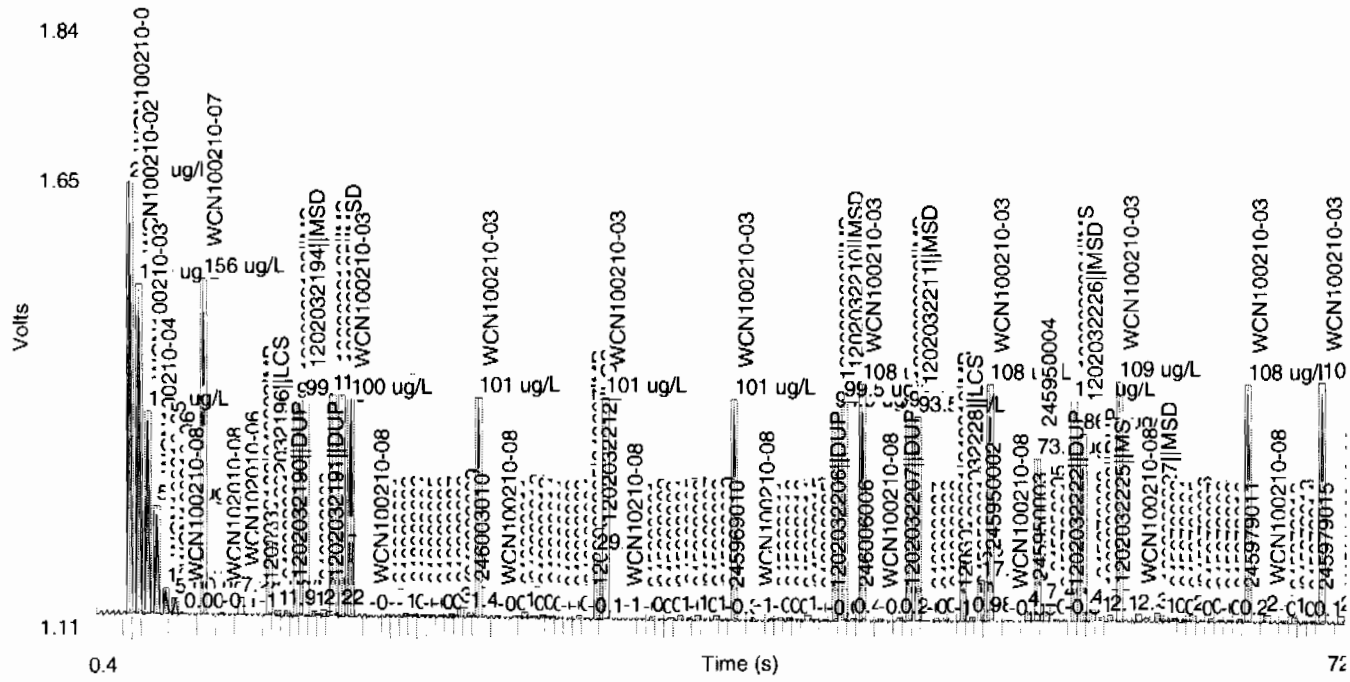

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.14	0.526	-0.6	2/10/2010	14:09:00
2	150	1	6.18	0.400	-1.7	2/10/2010	14:09:52
3	100	1	3.80	0.247	6.5	2/10/2010	14:10:45
4	50.0	1	2.06	0.133	-0.1	2/10/2010	14:11:38
5	10.0	1	0.506	0.0315	-12.4	2/10/2010	14:12:31
6	5.00	1	0.322	0.0192	-29.2	2/10/2010	14:13:25
7	0.00	1	0.0294	0.00117		2/10/2010	14:14:19

Figure 1: TCYANIDE

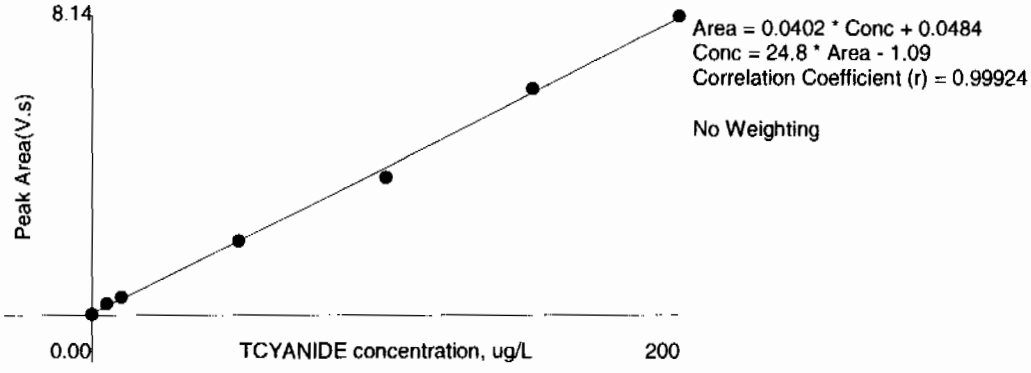

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	2/10/2010 16:15:45	OM_2-10-2010_16-14-59
CCB		1	axc2	2/10/2010 16:17:35	OM_2-10-2010_16-14-59
245979002	948610	1	axc2	2/10/2010 16:19:24	OM_2-10-2010_16-14-59
1202032223	948610	1	axc2	2/10/2010 16:20:17	OM_2-10-2010_16-14-59
1202032225	948610	1	axc2	2/10/2010 16:21:11	OM_2-10-2010_16-14-59
1202032227	948610	1	axc2	2/10/2010 16:22:03	OM_2-10-2010_16-14-59
CCV		1	axc2	2/10/2010 16:22:56	OM_2-10-2010_16-14-59
CCB		1	axc2	2/10/2010 16:24:46	OM_2-10-2010_16-14-59

Author: axc2 Date : 2/17/2010

Original Run Filename: OM_2-10-2010_16-14-59.OMN created 2/10/2010 16:14:59
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-10-2010_16-14-59.OMN last modified 2/10/2010 16:25:50
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100210-03	1	S3	99.7	4.06	2/10/2010@16:15:45			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100210-08	1	S7	2.25	0.134	2/10/2010@16:17:35			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.25 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.25 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245979002|948610|	1	68	2.06	0.127	2/10/2010@16:19:24			
1202032223||DUP	1	69	1.10	0.0882	2/10/2010@16:20:17			
1202032225||MS	1	70	95.2	3.88	2/10/2010@16:21:11			
1202032227||MSD	1	71	76.5	3.12	2/10/2010@16:22:03			
WCN100210-03	1	S3	101	4.11	2/10/2010@16:22:56			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100210-08	1	S7	2.83	0.158	2/10/2010@16:24:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-10-2010_16-14-59.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True

Author: axc2

Date : 2/17/2010

% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

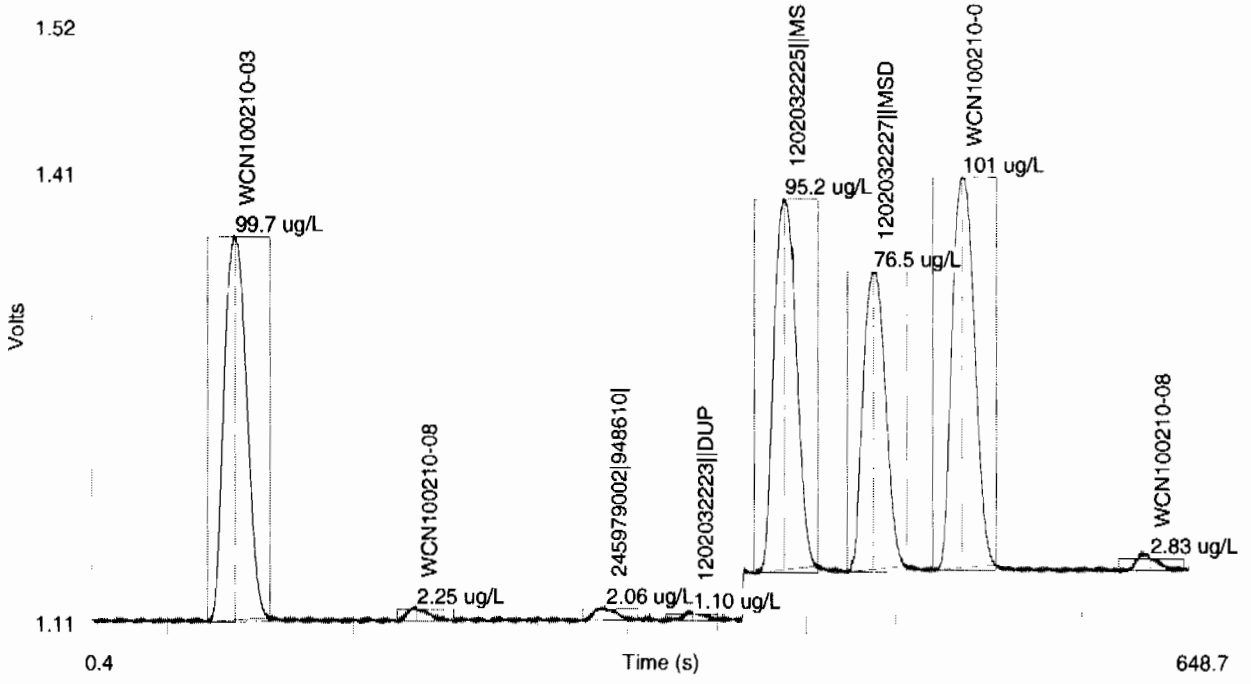

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.14	0.526	-0.6	2/10/2010	14:09:00
2	150	1	6.18	0.400	-1.7	2/10/2010	14:09:52
3	100	1	3.80	0.247	6.5	2/10/2010	14:10:45
4	50.0	1	2.06	0.133	-0.1	2/10/2010	14:11:38
5	10.0	1	0.506	0.0315	-12.4	2/10/2010	14:12:31
6	5.00	1	0.322	0.0192	-29.2	2/10/2010	14:13:25
7	0.00	1	0.0294	0.00117		2/10/2010	14:14:19

Author: axc2 Date : 2/17/2010

Figure 1: TCYANIDE

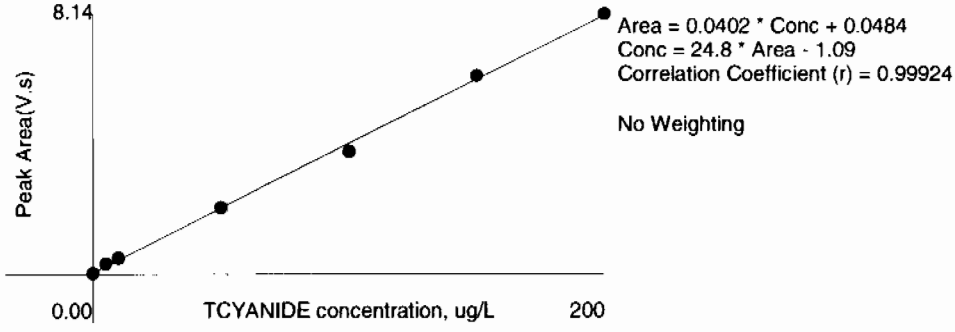

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10			
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
948610	See Below		

Potentially affected work order(s)(SDG): 245950(10-1508),245979(10-1514)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD: QC 1202032227MSD	1. The matrix spike duplicate falls outside of the client specified acceptance limits. Since the spike recovery and the RPD between the spike and spike duplicate are within acceptance limits, the data is reported.

Originator's Name:

Ashley Earl 16-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 17-FEB-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1514-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948940	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948939	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245981001	RE15-10-8083
1202033006	Method Blank (MB)
1202033007	246004001(RE16-10-11766) Sample Duplicate (DUP)
1202033008	245926003(CAMO-10-9289) Sample Duplicate (DUP)
1202033009	246004001(RE16-10-11766) Matrix Spike (MS)
1202033010	245926003(CAMO-10-9289) Matrix Spike (MS)
1202033011	246004001(RE16-10-11766) Matrix Spike Duplicate (MSD)
1202033012	245926003(CAMO-10-9289) Matrix Spike Duplicate (MSD)
1202033013	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245926003 (CAMO-10-9289) and 246004001 (RE16-10-11766).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033008 (CAMO-10-9289).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 27Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1514-1 GEL Work Order: 245981

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1514-1

Client Sample ID: RE15-10-8083
Sample ID: 245981001
Matrix: W
Collect Date: 27-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/08/10	1459	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 12, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245981

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948940										
QC1202033007 246004001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	02/08/10 15:01
QC1202033008 245926003 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				02/08/10 14:44
QC1202033013 LCS										
Cyanide, Total	50.0			51.4	ug/L		103	(90%-110%)		02/08/10 14:37
QC1202033006 MB										
Cyanide, Total			U	5.00	ug/L					02/08/10 14:36
QC1202033009 246004001 MS										
Cyanide, Total	100	U	ND	96.2	ug/L		96.2	(60%-144%)		02/08/10 15:02
QC1202033010 245926003 MS										
Cyanide, Total	100	U	ND	93.6	ug/L		92.2	(60%-144%)		02/08/10 14:45
QC1202033011 246004001 MSD										
Cyanide, Total	100	U	ND	94.3	ug/L	1.99	94.3	(0%-20%)		02/08/10 15:03
QC1202033012 245926003 MSD										
Cyanide, Total	100	U	ND	94.0	ug/L	0.426	92.6	(0%-20%)		02/08/10 14:46

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

QC Summary

Workorder: 245981

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-FEB-2010 13:09

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1514-1**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 14:26:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:39:11	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:51:47	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:04:19	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 14:28:32	OM_2-8-2010_13-14-40	-1.47	10	Yes
CCB	08-FEB-2010 14:41:01	OM_2-8-2010_13-14-40	-1.57	10	Yes
CCB	08-FEB-2010 14:53:37	OM_2-8-2010_13-14-40	-1.83	10	Yes
CCB	08-FEB-2010 15:06:09	OM_2-8-2010_13-14-40	-1.82	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948939

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033013	URF1184831-02	.0125	mL
MS	1202033009	URF1184831-02	.025	mL
MS	1202033010	URF1184831-02	.025	mL
MSD	1202033011	URF1184831-02	.025	mL
MSD	1202033012	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033006		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
LCS	1202033013		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245926001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926002		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926003		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202033008	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MS	1202033010	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202033012	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926004		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926005		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926006		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926007		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245939001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245939002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245953001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245965001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245975001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245981001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246000001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246004001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
DUP	1202033007	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MS	1202033009	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MSD	1202033011	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056003		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056004		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246080001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100205-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010	15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010	15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010	15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010	15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010	15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010	15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010	15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010	15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010	15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010	15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010	15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010	15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010	15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010	15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010	15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010	15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010	15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010	15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010	15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010	15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010	15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010	15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010	15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010	15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010	15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010	15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010	15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010	15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010	15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010	15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010	15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010	15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010	15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	16:02:41	OM_2-8-2010_13-14-40

Author: axc2

Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029237||LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231||DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233||MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235||MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232||DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234||MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236||MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.47 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.47 > -5.00					
		Message	CCB Passed					
		Action	Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			5.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.57 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.57 > -5.00					
Message			CCB Passed					
Action			Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			5.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.83 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.83 > -5.00					
Message			CCB Passed					
Action			Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			4.5 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.5 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.82 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.82 > -5.00					
Message			CCB Passed					
Action			Continue					
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.49 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.49 > -5.00					
Message			CCB Passed					
Action			Continue					
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			5.1 < 10.0					
Message			CCV Passed					
Action			Continue					

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2

Date : 2/8/2010

Channel 1: Current View

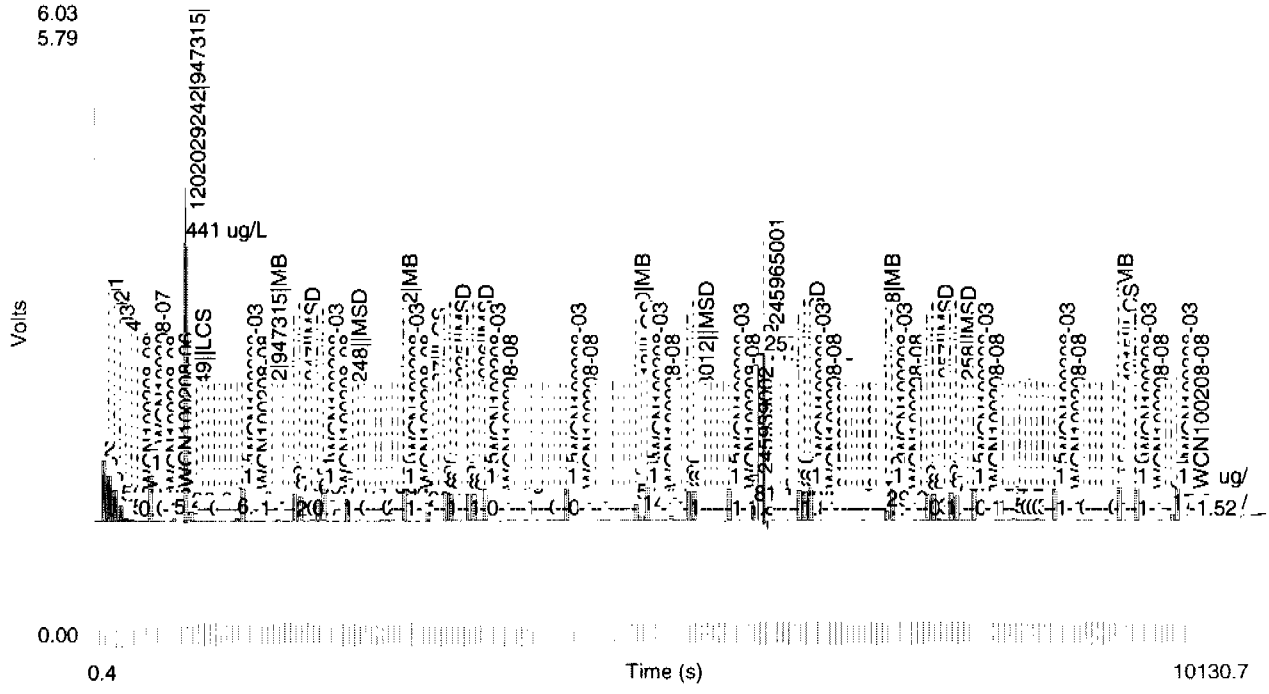

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE

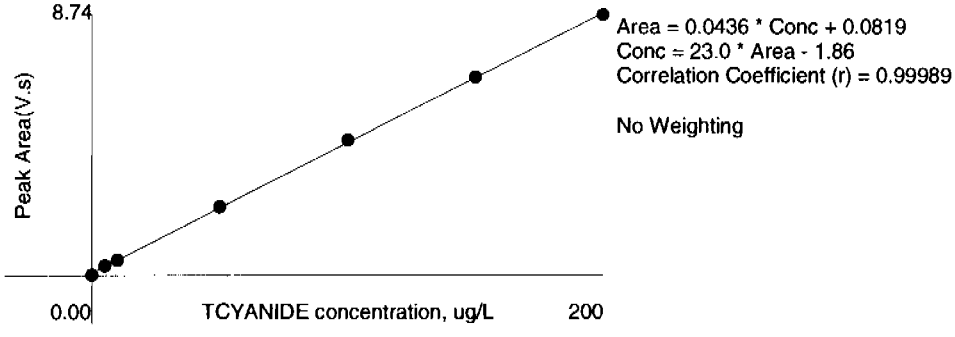

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1514

Method/Analysis Information

Procedure: **Dry Weight-Percent Moisture**

Analytical Method:

Analytical Batch Number: 948543

Sample ID	Client ID
245979001	RE15-10-7980
245979002	RE15-10-7958
245979003	RE15-10-7960
245979004	RE15-10-7979
245979005	RE15-10-7972
245979006	RE15-10-7957
245979007	RE15-10-7974
245979008	RE15-10-7961
245979009	RE15-10-7971
245979010	RE15-10-7966
245979011	RE15-10-7959
245979012	RE15-10-7969
1202032014	245978008(RE15-10-7975) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 245978008 (RE15-10-7975). The QC was from LANL work order

245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	
Analytical Batch Number:	948544

Sample ID	Client ID
245979013	RE15-10-8061
245979014	RE15-10-8063
245979015	RE15-10-8062
1202032015	246020013(RE15-10-8061) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 246020013 (RE15-10-8061). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	950495

Sample ID	Client ID
245979015	RE15-10-8062
1202036900	Method Blank (MB)
1202036901	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202036902	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date:_____

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1514 GEL Work Order: 245979

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID:	RE15-10-8062	Project:	LANL01004
Sample ID:	245979015	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	9.48%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		7980	195	+/-571	250	pCi/L		KXK2	02/14/10	0913	950495	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: February 23, 2010

Client Sample ID: RE15-10-8062
Sample ID: 245979015

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 23, 2010
Page 1 of 2

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245979

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 950495										
QC1202036901 245978001 DUP										
Tritium		202	U	188	pCi/L	0.0556		(0-1)	KXK2	02/14/1012:30
TPU:		+/-61.7		+/-62.1						
QC1202036902 LCS										
Tritium	5560			5590	pCi/L		100	(75%-125%)		02/14/1014:07
TPU:				+/-474						
QC1202036900 MB										
Tritium			U	-27.8	pCi/L					02/14/1010:51
TPU:				+/-56.5						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

QC Summary

Workorder: 245979

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

Y QC Samples were not spiked with this compound

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 950495 Product: Tritium Date: 2/23/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Lindsey Pace

Secondary Review Performed By: L Lynch 2/23/10

LANL 3/2/10

Tritium Que Sheet

95 / 08-FEB-10

Batch #: 950495 **Analyst:** KXK2 **First Client Due Date** 02-MAR-10 **Internal Due Date:** 19-FEB-10

Spike Isotope: Hydrogen-3 **Spike Code:** ——— **Expiration Date:** ——— **Vol:** ——

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 2/11/10 **Initials:** KXK **Pipet ID:** 2970968 **Witness:** Sw 2/11/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Dist Vol (mL)
245978001-1	RE15-10-7880	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-2	1		422.57	390.88	31.69
245978002-1	RE15-10-7891	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-3	2		246.33	182.28	64.05
245978003-1	RE15-10-7892	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-4	3		414.38	385.79	28.59
245978004-1	RE15-10-7967	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-5	4		291.16	220.99	70.17
245978005-1	RE15-10-7976	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-6	5		403.66	389.13	14.53
245978006-1	RE15-10-7968	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-7	6		403.61	360.42	43.19
245978007-1	RE15-10-7965	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-8	7		386.60	300.77	85.83
245978008-1	RE15-10-7975	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-9	8		286.44	213.40	73.04
245978009-1	RE15-10-7978	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-10	9		286.62	238.18	48.44
245978010-1	RE15-10-7970	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-11	10		500.79	460.23	40.56
245978011-1	RE15-10-7964	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-12	11		417.47	373.22	44.25
245978012-1	RE15-10-7973	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-1	12		317.50	259.08	58.42
245978013-1	RE15-10-7962	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-2	13		305.60	289.40	16.20
245978014-1	RE15-10-7963	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-3	14		234.25	185.76	48.49
245978015-1	RE15-10-7977	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-4	15		290.64	185.43	105.21
245979015-1	RE15-10-8062	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-5	16		426.90	386.77	40.13
1202036900-1	MB for batch 950495	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	20-6	17		20.00	0	20.00
1202036901-1	~~RE15-10-8062(245979015DUP)~~ RE15-10-7880(245978001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	27-JAN-10	10	20-7	1		422.57	390.88	31.69
1202036902-1	LCS for batch 950495	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	~~20-8~~ 26-1	18		20.00	0	20.00

Bkg Rack #: 34-1

Comments:

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: Lipnosky Paul 2/23/10

GEL Laboratories LLC, Radiochemistry Division

DATE	2/8/2010	INITIALS	KXK2		BATCH NUMBER	950495

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
245978001	422.57	0.075	31.69	390.88	10	
245978002	246.33	0.260	64.05	182.28	10	
245978003	414.38	0.069	28.59	385.79	10	
245978004	291.16	0.241	70.17	220.99	10	
245978005	403.66	0.036	14.53	389.13	10	
245978006	403.61	0.107	43.19	360.42	10	
245978007	386.60	0.222	85.83	300.77	10	
245978008	286.44	0.255	73.04	213.40	10	
245978009	286.62	0.169	48.44	238.18	10	
245978010	500.79	0.081	40.56	460.23	10	
245978011	417.47	0.106	44.25	373.22	10	
245978012	317.50	0.184	58.42	259.08	10	
245978013	305.60	0.053	16.20	289.40	10	
245978014	234.25	0.207	48.49	185.76	10	
245978015	290.64	0.362	105.21	185.43	10	
245979015	426.90	0.094	40.13	386.77	10	
MB	20.00	1.000	20.00	0.00	10	
DUP	422.57	0.075	31.69	390.88	10	
LCS	20.00	1.000	20.00	0.00	10	

T950495

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.6

Batch : 950495
Analyst : KXK2
Prep Date : 2/11/2010

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2468.20
LCS Volume Added: 0.10

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.32 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	245978001.1	422.57	0.0317	0.0100	2.5729E-05	390.88	7.50%	1	1/27/2010 12:00
2	245978002.1	246.33	0.0641	0.0100	2.5729E-05	182.28	26.00%	2	1/27/2010 12:00
3	245978003.1	414.38	0.0286	0.0100	2.5729E-05	385.79	6.90%	3	1/27/2010 12:00
4	245978004.1	291.16	0.0702	0.0100	2.5729E-05	220.99	24.10%	4	1/27/2010 12:00
5	245978005.1	403.66	0.0145	0.0100	2.5729E-05	389.13	3.60%	5	1/27/2010 12:00
6	245978006.1	403.61	0.0432	0.0100	2.5729E-05	360.42	10.70%	6	1/27/2010 12:00
7	245978007.1	386.60	0.0858	0.0100	2.5729E-05	300.77	22.20%	7	1/27/2010 12:00
8	245978008.1	286.44	0.0730	0.0100	2.5729E-05	213.40	25.50%	8	1/27/2010 12:00
9	245978009.1	286.62	0.0484	0.0100	2.5729E-05	238.18	16.90%	9	1/27/2010 12:00
10	245978010.1	500.79	0.0406	0.0100	2.5729E-05	460.23	8.10%	10	1/27/2010 12:00
11	245978011.1	417.47	0.0443	0.0100	2.5729E-05	373.22	10.60%	11	1/27/2010 12:00
12	245978012.1	317.50	0.0584	0.0100	2.5729E-05	259.08	18.40%	12	1/27/2010 12:00
13	245978013.1	305.60	0.0162	0.0100	2.5729E-05	289.40	5.30%	13	1/27/2010 12:00
14	245978014.1	234.25	0.0485	0.0100	2.5729E-05	185.76	20.70%	14	1/27/2010 12:00
15	245978015.1	290.64	0.1052	0.0100	2.5729E-05	185.43	36.20%	15	1/27/2010 12:00
16	245979015.1	426.90	0.0401	0.0100	2.5729E-05	386.77	9.40%	16	1/27/2010 12:00
17	1202036900.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	17	2/11/2010 0:00
18	1202036901.1	422.57	0.0317	0.0100	2.5729E-05	390.88	7.50%	1	1/27/2010 12:00
19	1202036902.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	18	2/11/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	34-2	95	125.3	6.99	5.76	95	2/13/2010 7:13	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2752	0.00792	34-1	2/13/2010 5:34
2	34-3	95	125.8	136.28	5.76	95	2/13/2010 8:51	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2743	0.00792	34-1	2/13/2010 5:34
3	34-4	95	126	28.16	5.76	95	2/13/2010 11:55	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2739	0.00792	34-1	2/13/2010 5:34
4	34-5	95	125	470.27	5.76	95	2/13/2010 13:33	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2757	0.00792	34-1	2/13/2010 5:34
5	34-6	95	126.3	53.72	5.76	95	2/13/2010 15:12	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2734	0.00792	34-1	2/13/2010 5:34
6	34-7	95	125.5	434.96	5.76	95	2/13/2010 16:50	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2748	0.00792	34-1	2/13/2010 5:34
7	34-8	95	124.7	44.14	5.76	95	2/13/2010 18:29	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2763	0.00792	34-1	2/13/2010 5:34
8	34-9	95	125.8	12.21	5.76	95	2/13/2010 20:07	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2743	0.00792	34-1	2/13/2010 5:34
9	34-10	95	126.3	6.69	5.76	95	2/13/2010 21:45	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2734	0.00792	34-1	2/13/2010 5:34
10	34-11	95	125.9	37.97	5.76	95	2/13/2010 23:24	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2741	0.00792	34-1	2/13/2010 5:34
11	34-12	95	127	9.35	5.76	95	2/14/2010 1:02	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2721	0.00792	34-1	2/13/2010 5:34
12	20-1	95	125.1	12.33	5.76	95	2/14/2010 2:40	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2756	0.00792	34-1	2/13/2010 5:34
13	20-2	95	126.2	68.75	5.76	95	2/14/2010 4:19	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2736	0.00792	34-1	2/13/2010 5:34
14	20-3	95	126	14.09	5.76	95	2/14/2010 5:57	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2739	0.00792	34-1	2/13/2010 5:34
15	20-4	95	126.4	7.56	5.76	95	2/14/2010 7:35	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2732	0.00792	34-1	2/13/2010 5:34
16	20-5	95	126.4	54	5.76	95	2/14/2010 9:13	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2732	0.00792	34-1	2/13/2010 5:34
17	20-6	95	125.1	5.59	5.76	95	2/14/2010 10:51	0.999	LSCSILVER	8/21/2009	8/31/2010	0.2756	0.00792	34-1	2/13/2010 5:34
18	20-7	95	127.4	6.89	5.76	95	2/14/2010 12:30	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2714	0.00792	34-1	2/13/2010 5:34
19	26-1	15	125.9	39.73	5.76	95	2/14/2010 14:07	0.999	LSCSILVER	8/21/2009	8/31/2010	0.2741	0.00792	34-1	2/13/2010 5:34

T950495

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	133.1468	94.0028	250	193.1877	**201.8439**	0.298	1.230	0.366	60.1179	61.7397		SAMPLE				
2	133.5859	94.3128	250	193.8248	**21489.0559**	0.013	130.520	1.223	201.3186	1510.1385		SAMPLE				
3	133.7650	94.4392	250	194.0647	**3692.9222**	0.028	22.400	0.598	98.5118	275.4231		SAMPLE				
4	132.8920	93.8229	250	192.8180	**76080.5538**	0.010	464.510	2.238	366.6350	5311.4903		SAMPLE				
5	134.0341	94.6292	250	194.4750	**7922.7139**	0.019	47.960	0.791	130.7129	567.0680		SAMPLE				
6	133.3295	94.1318	250	193.4528	**70528.6671**	0.010	429.200	2.154	353.9367	4924.8809		SAMPLE				
7	132.6378	93.6434	250	192.4492	**6274.1079**	0.021	38.380	0.725	118.4774	452.7526		SAMPLE				
8	133.5956	94.3198	250	193.8388	**1062.0168**	0.066	6.450	0.435	71.6117	102.9530		SAMPLE				
9	134.0397	94.6332	250	194.4832	**153.6371**	0.369	0.930	0.362	59.8048	60.7545		SAMPLE				
10	133.6865	94.3838	250	193.9708	**5307.1085**	0.023	32.210	0.678	111.7880	386.1614		SAMPLE				
11	134.6709	95.0788	250	195.3990	**595.8648**	0.111	3.590	0.399	66.1948	78.1284		SAMPLE				
12	132.9898	93.8919	250	192.9599	**1076.8699**	0.067	6.570	0.436	71.5246	103.6386		SAMPLE				
13	133.9564	94.5744	250	194.3624	**10399.5529**	0.017	62.990	0.886	146.2139	738.9136		SAMPLE				
14	133.7805	94.4502	250	194.1071	**1373.4644**	0.056	8.330	0.457	75.3687	121.7824		SAMPLE				
15	134.1373	94.7021	250	194.6249	**297.5786**	0.208	1.800	0.374	61.9041	65.2815		SAMPLE				
16	134.1387	94.7031	250	194.6269	**7975.1913**	0.019	48.240	0.793	131.1225	570.7191		SAMPLE				
17	132.7000	93.6874	250	192.5395	**-27.8035**	2.033	-0.170	0.346	56.5310	56.5311		MB				
18	135.0443	95.3424	250	195.9409	**188.0784**	0.323	1.130	0.365	60.7351	62.1316	245978001.1	DUP	7.1%	0.0556		
19	255.4421	180.3443	250	393.5712	**5585.1125**	0.049	33.970	1.646	270.6231	473.8665		LCS			5559.0122	100.5%

ID:TRITIUM 13 FEB 2010 05:27
USER: 4 COMMENT:SILVER
PRESET TIME : 95.00
DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD
COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT
TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF
SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	34-1	95.00	125.6	5.76	9.21	45.35	3.08	2.08	97.95
2	34-2	95.00	125.3	6.99	8.19	46.34	3.04	1.79	196.52
3	34-3	95.00	125.8	136.28	1.76	182.23	1.52	0.45	294.97
~~4~~	~~34-4~~	~~9.42~~	~~125.2~~	~~29.84~~	~~12.12~~	~~69.13~~	~~7.89~~	~~1.54~~	~~305.64~~ JP 2/17/10
~~5~~	~~34-5~~	~~SAMPLE TERMINATED:~~							
6	34-6	SAMPLE TERMINATED:							
7	34-7	SAMPLE TERMINATED:							
8	34-8	SAMPLE TERMINATED:							
9	34-9	SAMPLE TERMINATED:							
10	34-10	SAMPLE TERMINATED:							
11	34-11	SAMPLE TERMINATED:							
~~12~~	~~34-12~~	~~SAMPLE TERMINATED:~~ JP 2/17/10							

QP

INSTRUMENT CALIBRATION: Maxi 13 FEB 2010 10:36
Calibration successful

QP
Calibrating Auto DPM
Counting Standard for 14C
Calibration Complete: 14C
Counting Standard for 3H
Calibration Complete: 3H
Calibration Successful
QPQP

Sample Count Start Time:	13 Feb 2010 05:34:56		
Data Capture Date	13 Feb 2010 07:10:17		
User Filename	S04021334-1A.XLS		
	U04021334-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	34-1	95.00
H#, Total Counts:	125.6	4308	
Win1: Tritium - Start, End, Counts:	20	280	547
Win2: - Start, End, Counts:	0	990	3938

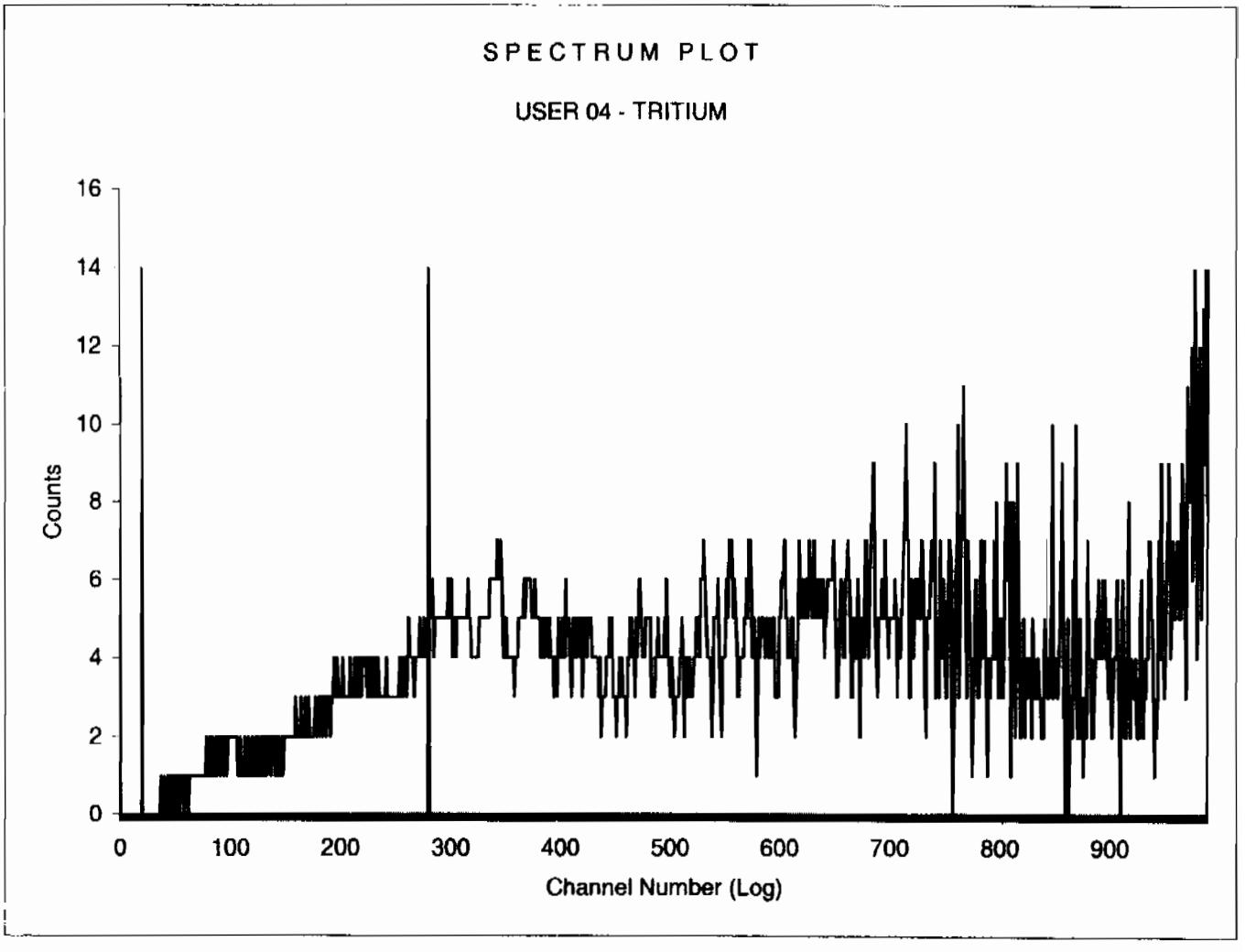

Sample Count Start Time:	13 Feb 2010 07:13:30		
Data Capture Date	13 Feb 2010 08:48:43		
User Filename	S04021334-2A.XLS		
	U04021334-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	34-2	95.00
H#, Total Counts:	125.3	4402	
Win1: Tritium - Start, End, Counts:	20	280	664
Win2: - Start, End, Counts:	0	990	4023

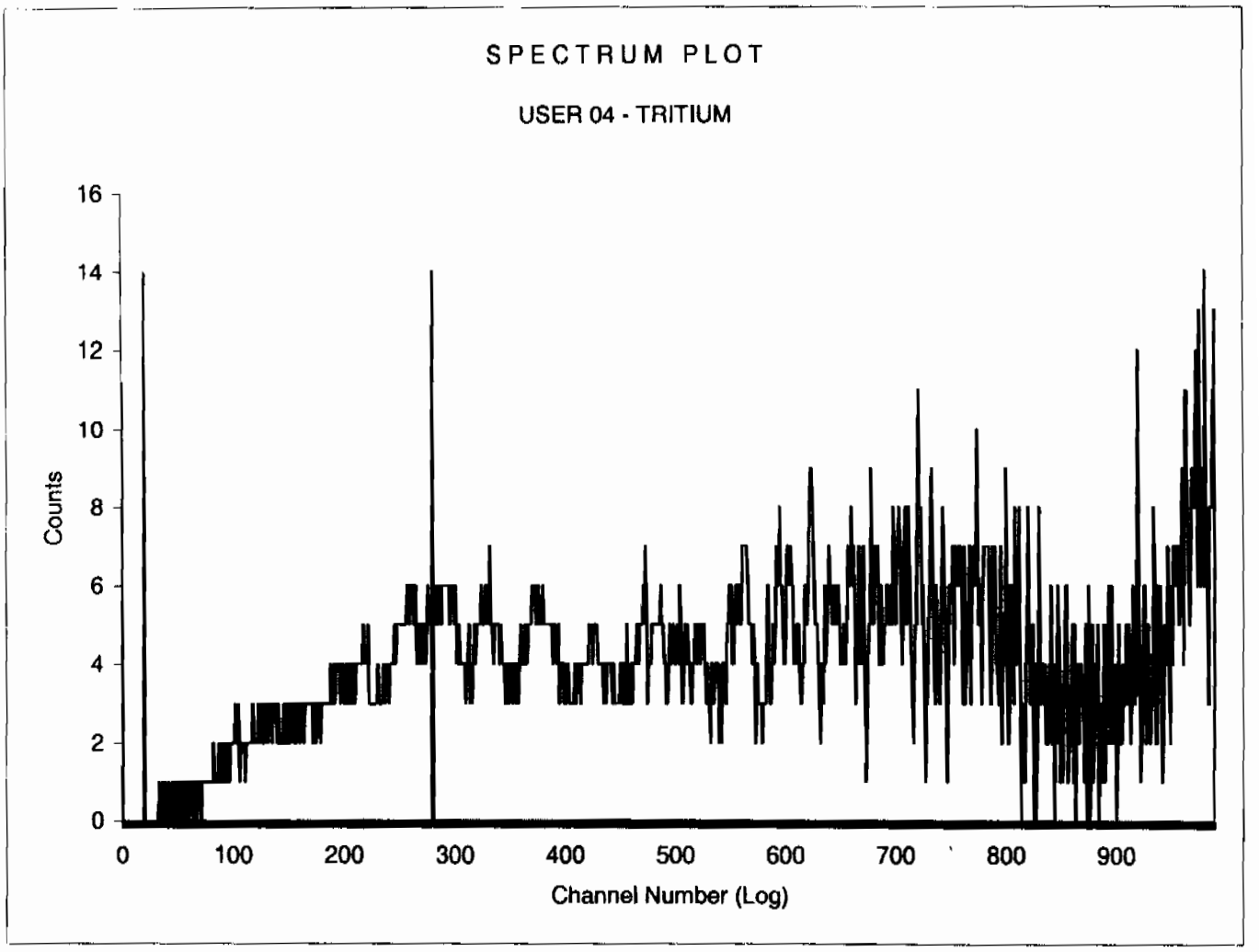

Sample Count Start Time:	13 Feb 2010 08:51:57		
Data Capture Date	13 Feb 2010 10:27:10		
User Filename	S04021334-3A.XLS		
	U04021334-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	34-3	95.00
H#, Total Counts:	125.8	17312	
Win1: Tritium - Start, End, Counts:	20	280	12947
Win2: - Start, End, Counts:	0	990	16954

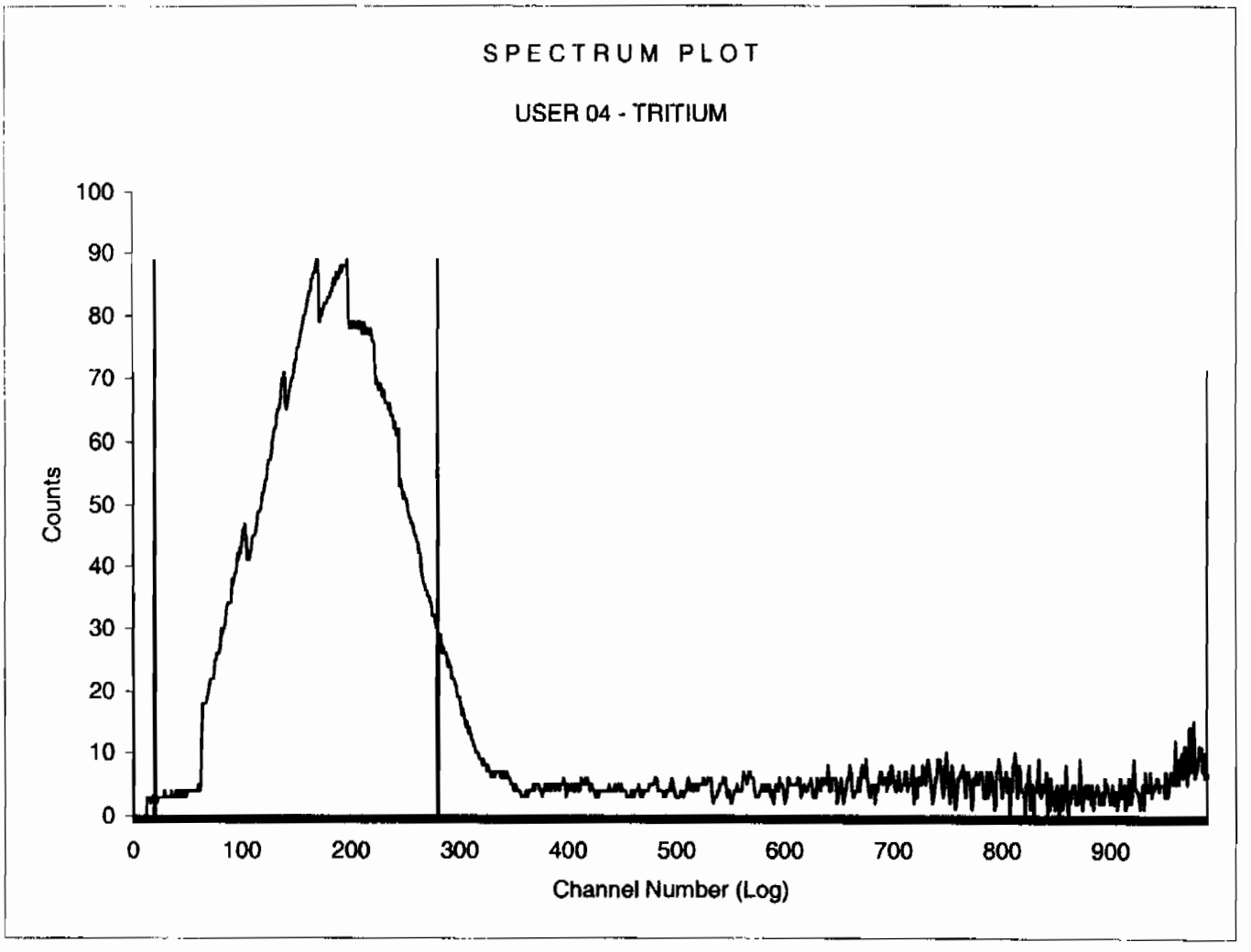

ID:TRITIUM 13 FEB 2010 11:48

USER: 4 COMMENT:SILVER

PRESET TIME : 95.00

DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD

COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT

TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF

SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0

LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
MISSING SAMPLE									
4	34-4	95.00	126.0	28.16	3.92	68.35	2.50	1.26	97.96
5	34-5	95.00	125.0	470.27	0.95	530.00	0.89	0.14	196.37
6	34-6	95.00	126.3	53.72	2.82	95.65	2.11	0.77	294.82
7	34-7	95.00	125.5	434.96	0.98	494.63	0.92	0.14	393.20
8	34-8	95.00	124.7	44.14	3.12	85.91	2.23	1.13	491.70
9	34-9	95.00	125.8	12.21	6.14	52.49	2.86	2.21	590.26
10	34-10	95.00	126.3	6.69	8.25	45.66	3.06	1.29	688.58
11	34-11	95.00	125.9	37.97	3.35	78.22	2.33	0.72	786.91
12	34-12	95.00	127.0	9.35	6.88	48.28	2.97	1.07	885.22
13	20-1	95.00	125.1	12.33	5.93	51.44	2.87	0.77	983.53
14	20-2	95.00	126.2	68.75	2.48	110.01	1.96	0.37	1081.78
15	20-3	95.00	126.0	14.09	5.53	53.78	2.81	0.69	1179.98
16	20-4	95.00	126.4	7.56	7.62	46.19	3.03	0.74	1278.17
17	20-5	95.00	126.4	54.00	2.80	95.98	2.10	0.38	1376.39
18	20-6	95.00	125.1	5.59	8.90	44.72	3.08	0.70	1474.57
19	20-7	95.00	127.4	6.89	8.02	46.04	3.04	0.87	1572.79

QPQP

Sample Count Start Time:	13 Feb 2010 11:55:16		
Data Capture Date	13 Feb 2010 13:30:42		
User Filename	S04021334-4B.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	34-4	95.00
H#, Total Counts:	126.0	6493	
Win1: Tritium - Start, End, Counts:	20	280	2675
Win2: - Start, End, Counts:	0	990	6133

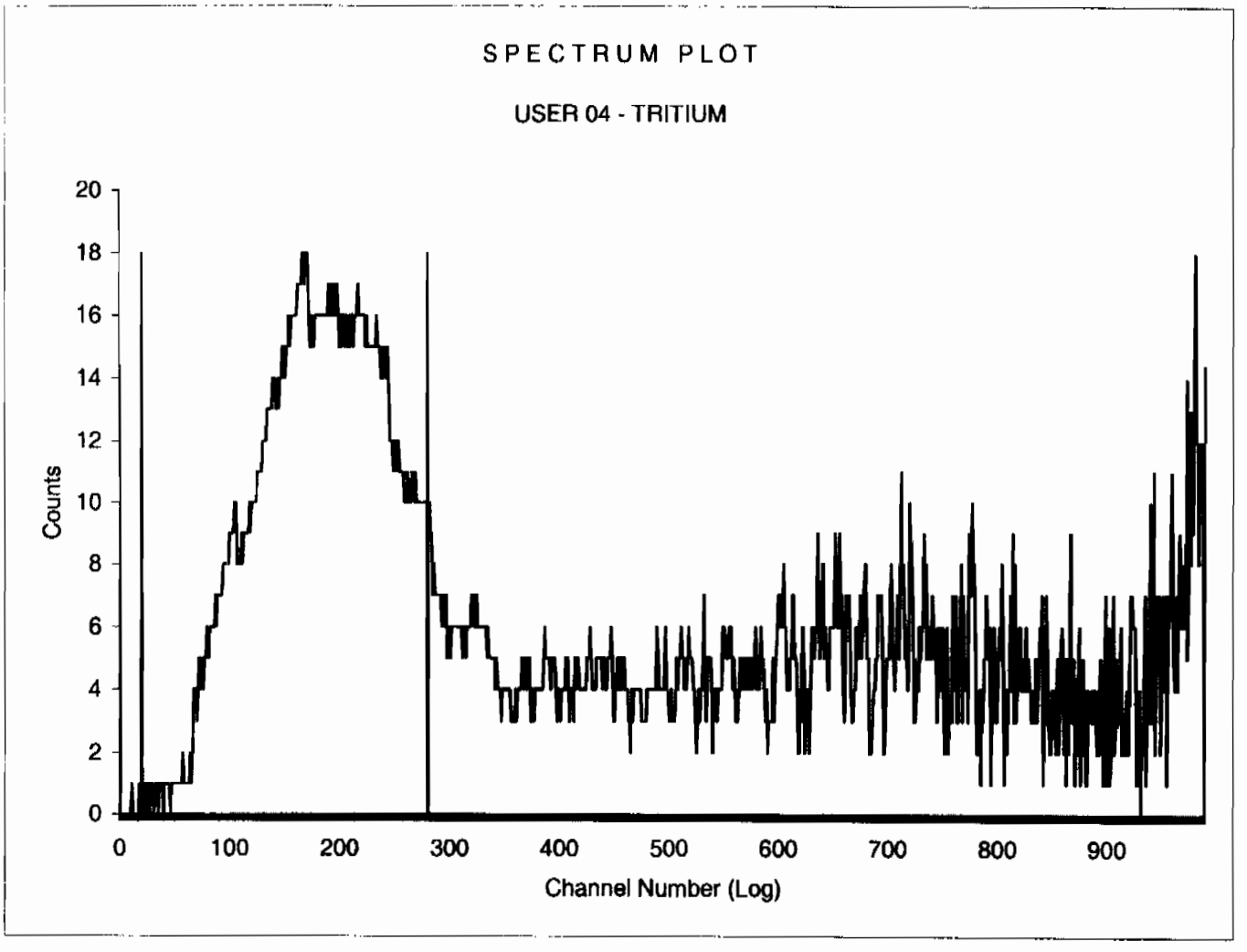

Sample Count Start Time:	13 Feb 2010 13:33:40		
Data Capture Date	13 Feb 2010 15:09:07		
User Filename	S04021334-5A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	34-5	95.00
H#, Total Counts:	125.0	50350	
Win1: Tritium - Start, End, Counts:	20	280	44676
Win2: - Start, End, Counts:	0	990	50004

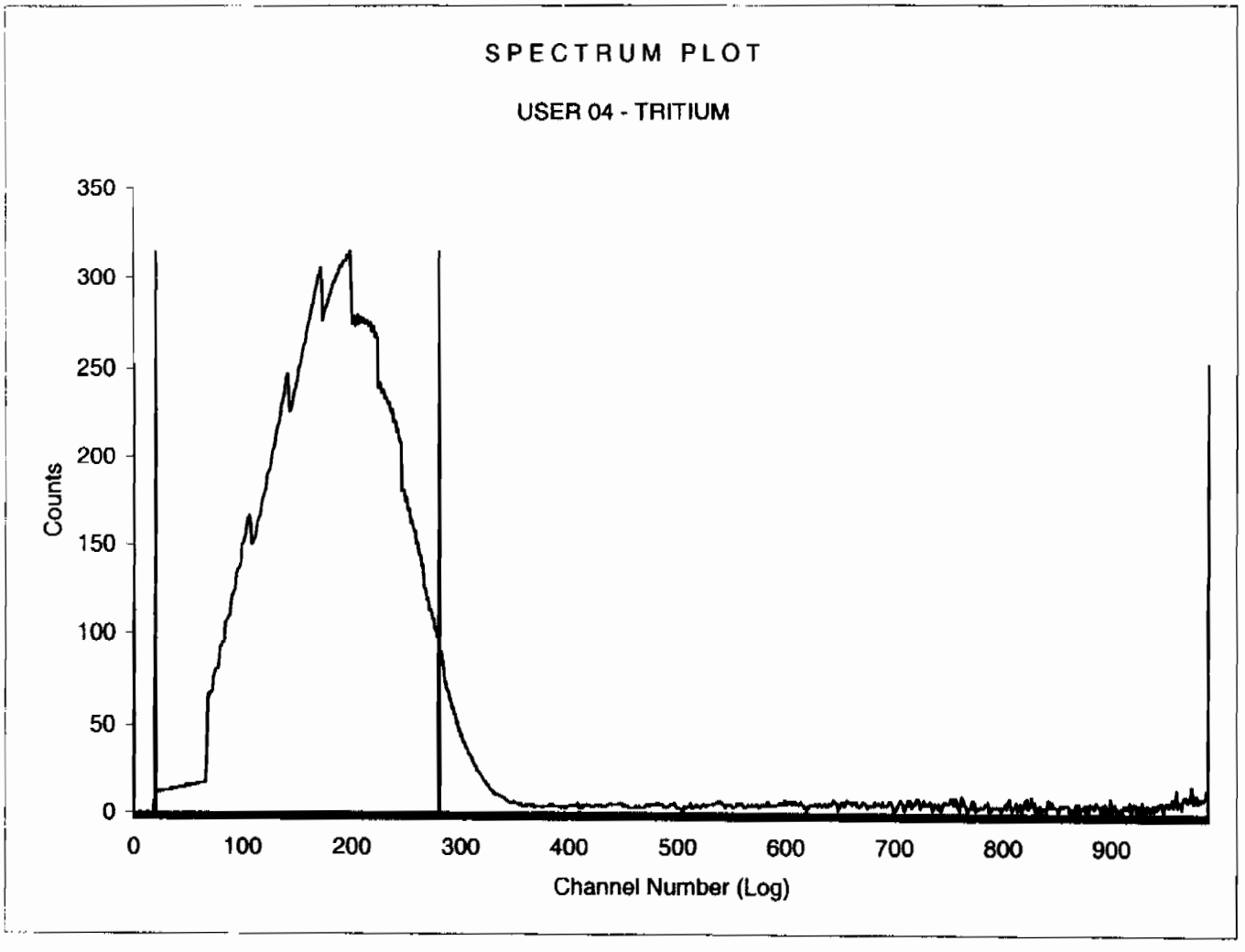

Sample Count Start Time:	13 Feb 2010 15:12:07		
Data Capture Date	13 Feb 2010 16:47:33		
User Filename	S04021334-6A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	34-6	95.00
H#, Total Counts:	126.3	9087	
Win1: Tritium - Start, End, Counts:	20	280	5103
Win2: - Start, End, Counts:	0	990	8756

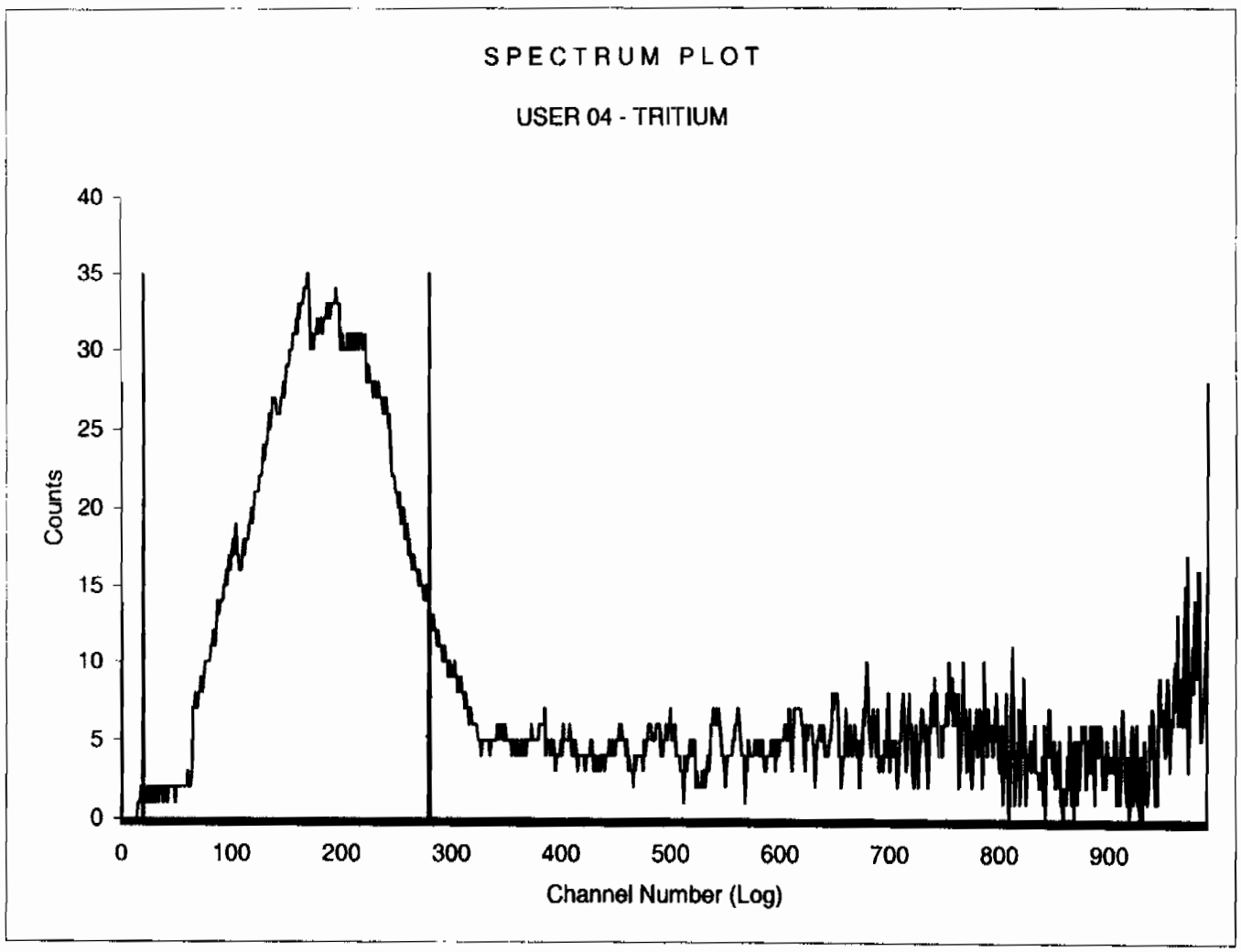

Sample Count Start Time:	13 Feb 2010 16:50:30		
Data Capture Date	13 Feb 2010 18:25:57		
User Filename	S04021334-7A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	34-7	95.00
H#, Total Counts:	125.5	46990	
Win1: Tritium - Start, End, Counts:	20	280	41321
Win2: - Start, End, Counts:	0	990	46605

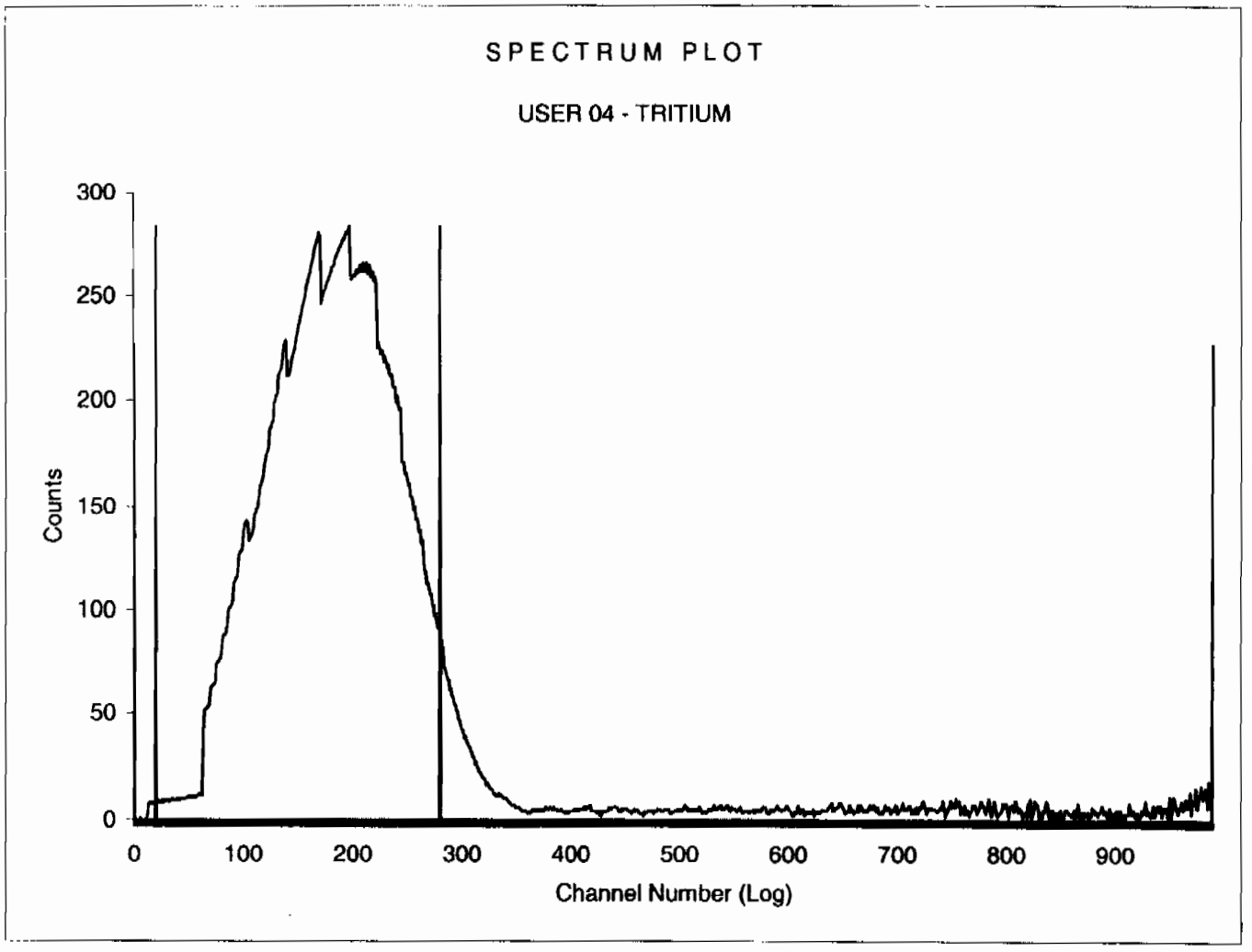

Sample Count Start Time:	13 Feb 2010 18:29:00		
Data Capture Date	13 Feb 2010 20:04:27		
User Filename	S04021334-8A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	34-8	95.00
H#, Total Counts:	124.7	8161	
Win1: Tritium - Start, End, Counts:	20	280	4193
Win2: - Start, End, Counts:	0	990	7785

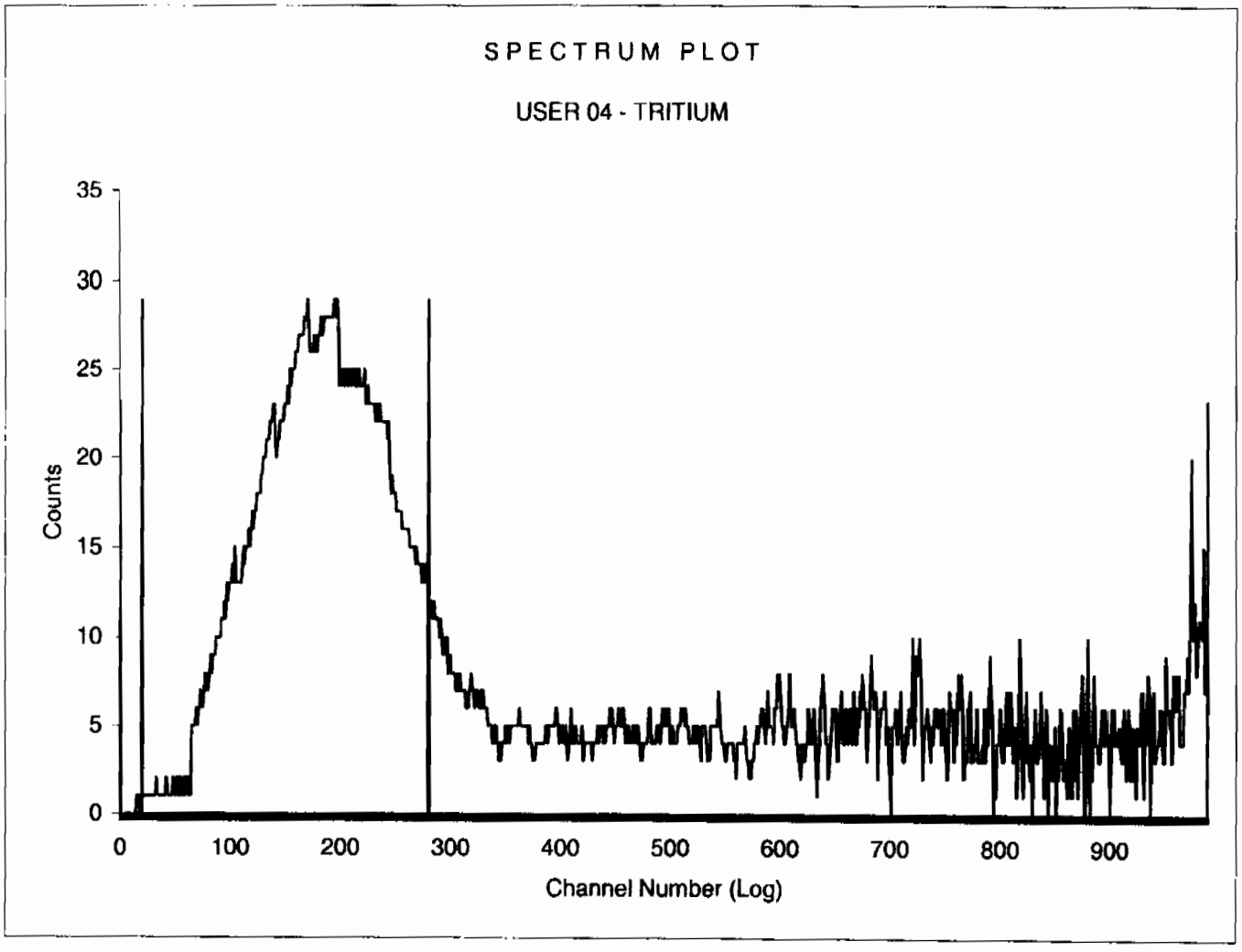

Sample Count Start Time:	13 Feb 2010 20:07:34		
Data Capture Date	13 Feb 2010 21:43:00		
User Filename	S04021334-9A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	34-9	95.00
H#, Total Counts:	125.8	4987	
Win1: Tritium - Start, End, Counts:	20	280	1160
Win2: - Start, End, Counts:	0	990	4635

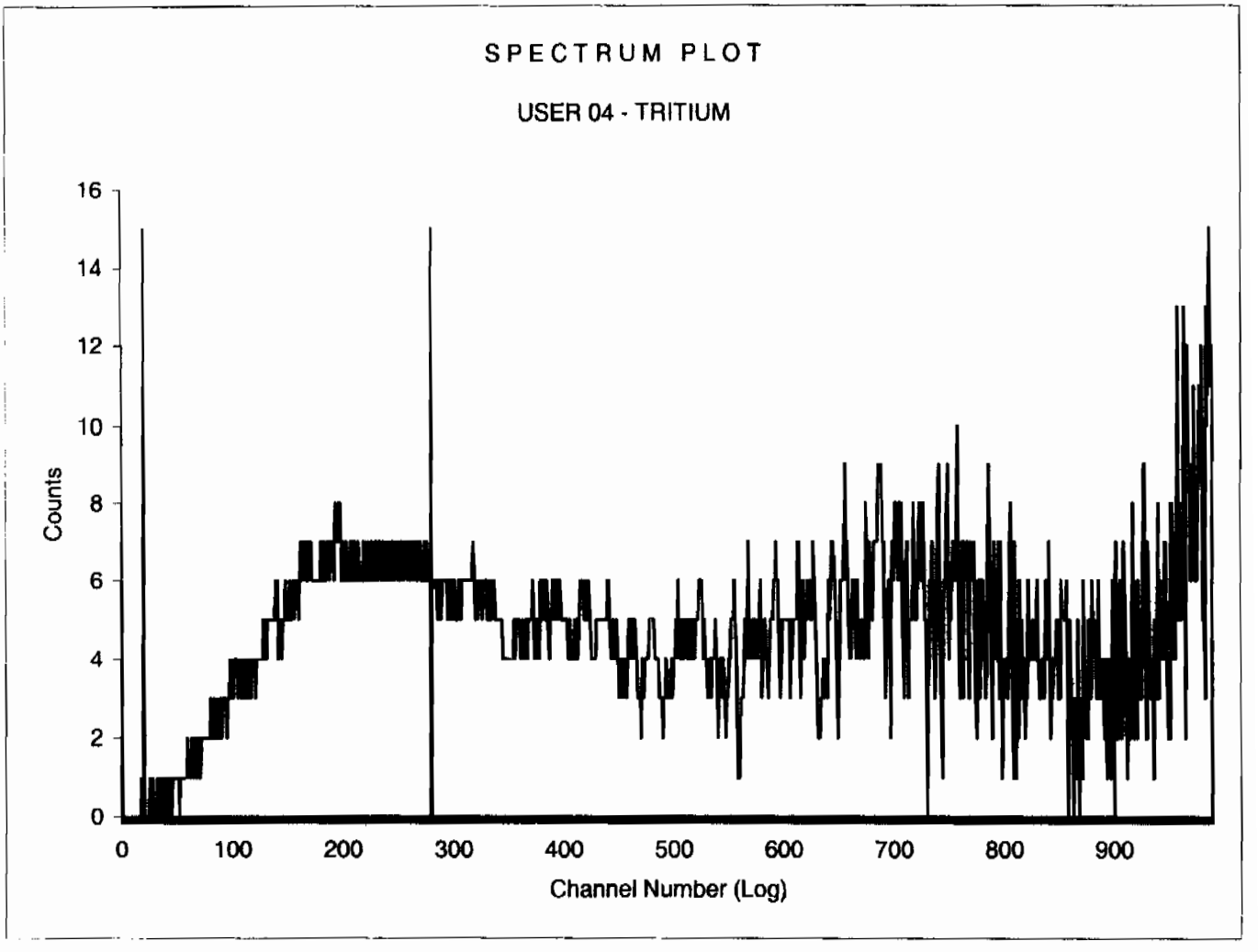

Sample Count Start Time:	13 Feb 2010 21:45:53		
Data Capture Date	13 Feb 2010 23:21:20		
User Filename	S04021334-10A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	34-10	95.00
H#, Total Counts:	126.3	4338	
Win1: Tritium - Start, End, Counts:	20	280	636
Win2: - Start, End, Counts:	0	990	3984

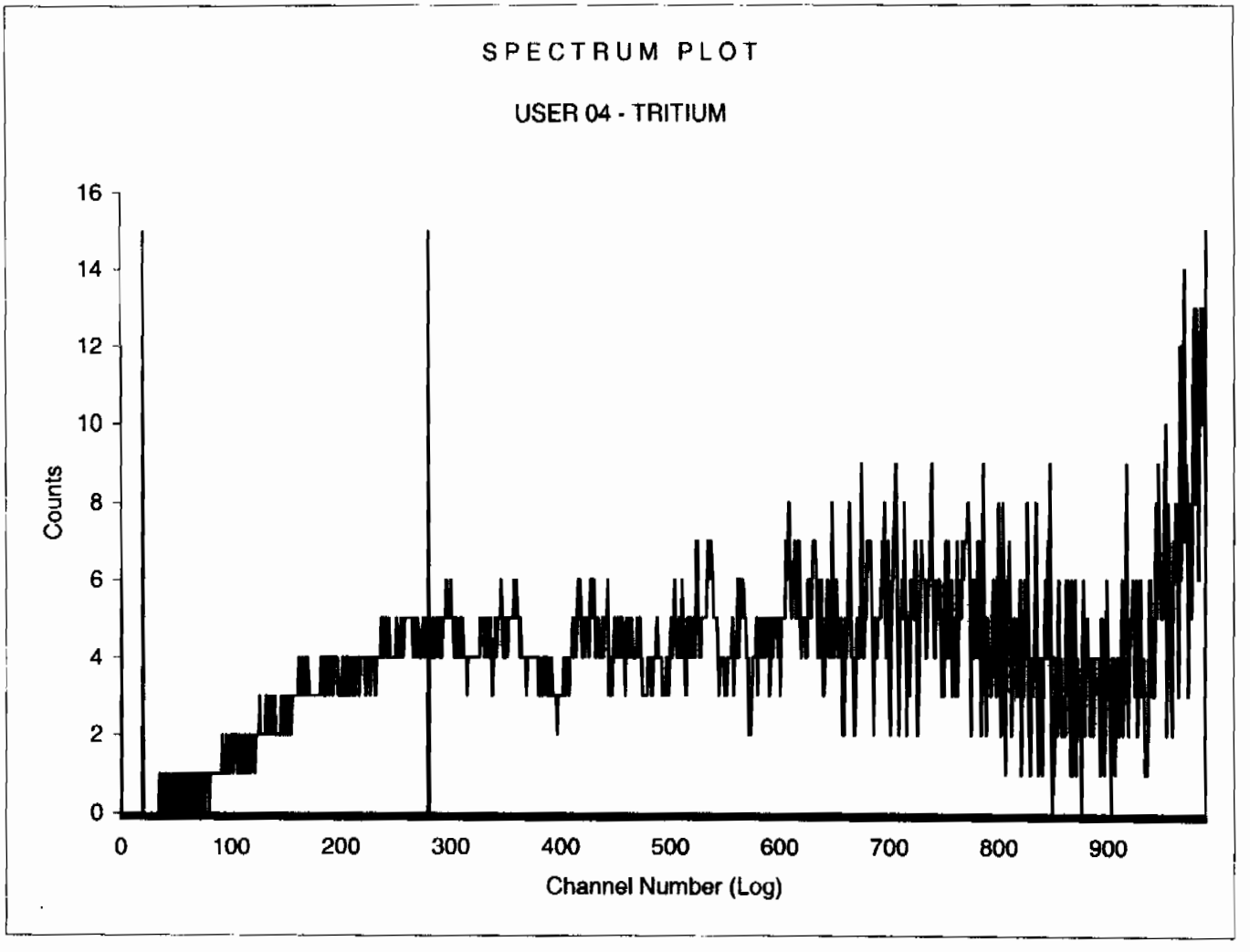

Sample Count Start Time:	13 Feb 2010 23:24:13		
Data Capture Date	14 Feb 2010 00:59:39		
User Filename	S04021434-11A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	34-11	95.00
H#, Total Counts:	125.9	7431	
Win1: Tritium - Start, End, Counts:	20	280	3607
Win2: - Start, End, Counts:	0	990	7066

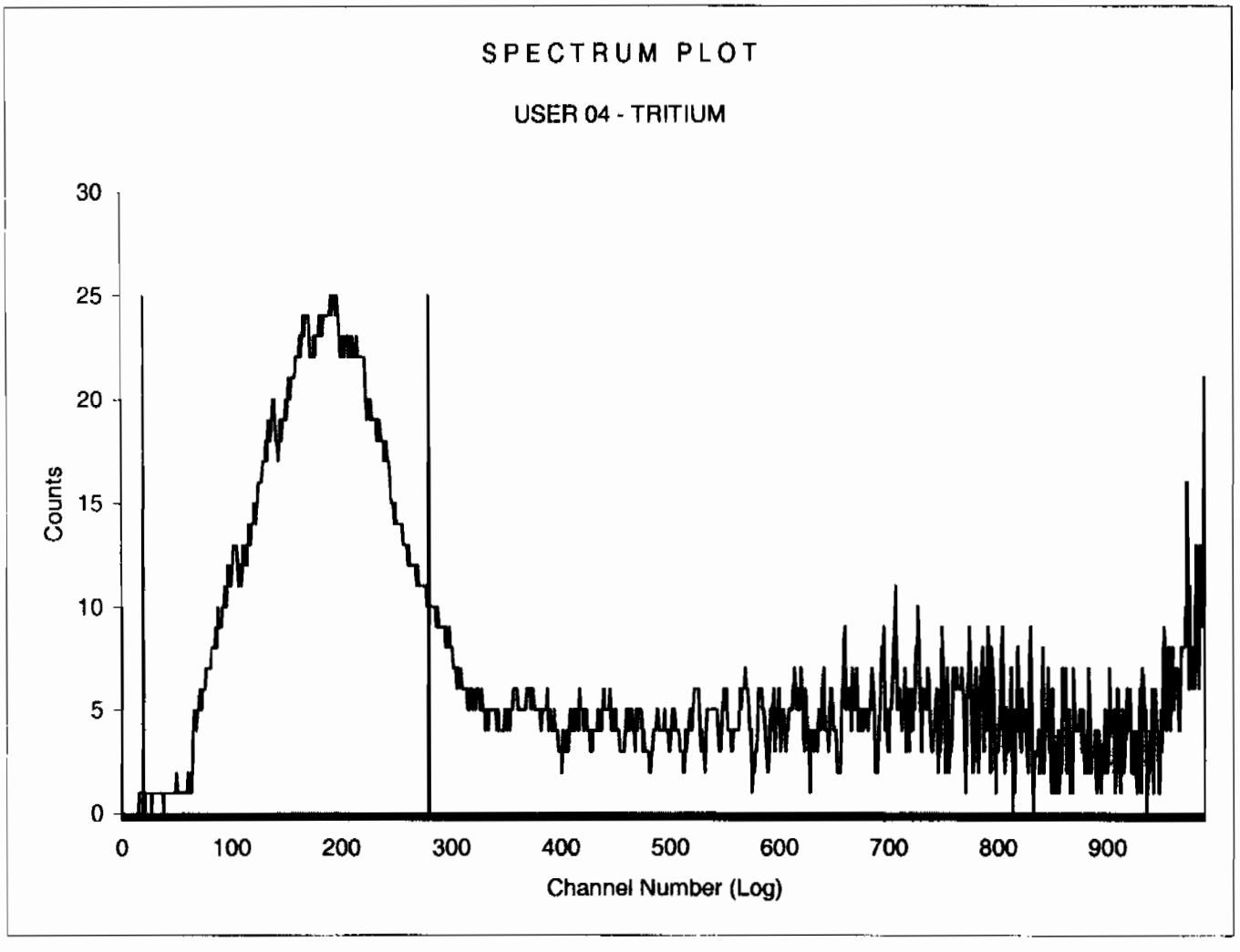

Sample Count Start Time:	14 Feb 2010 01:02:31		
Data Capture Date	14 Feb 2010 02:37:58		
User Filename	S04021434-12A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	34-12	95.00
H#, Total Counts:	127.0	4587	
Win1: Tritium - Start, End, Counts:	20	280	888
Win2: - Start, End, Counts:	0	990	4250

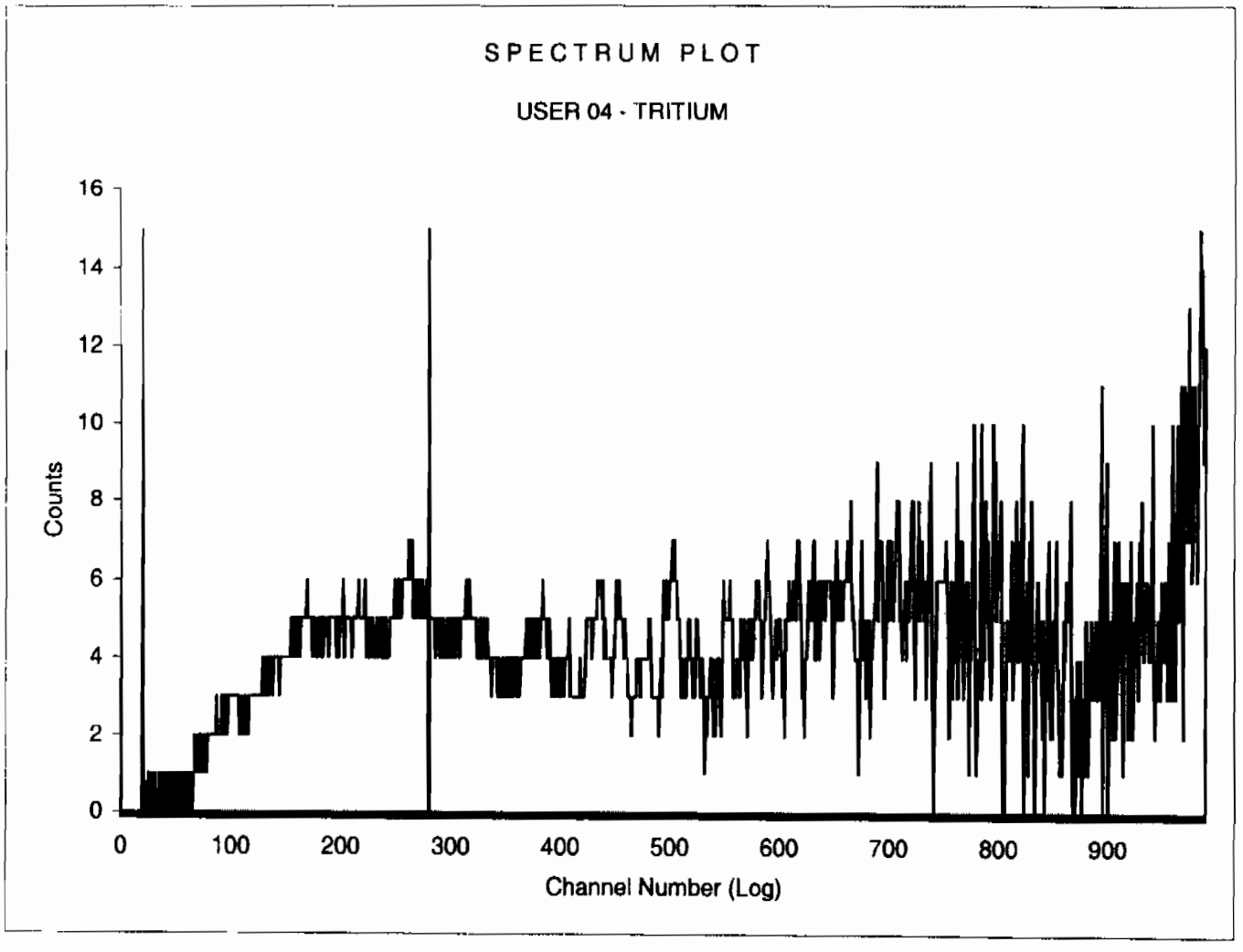

Sample Count Start Time:	14 Feb 2010 02:40:50		
Data Capture Date	14 Feb 2010 04:16:17		
User Filename	S04021420-1A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	13	20-1	95.00
H#, Total Counts:	125.1	4887	
Win1: Tritium - Start, End, Counts:	20	280	1171
Win2: - Start, End, Counts:	0	990	4500

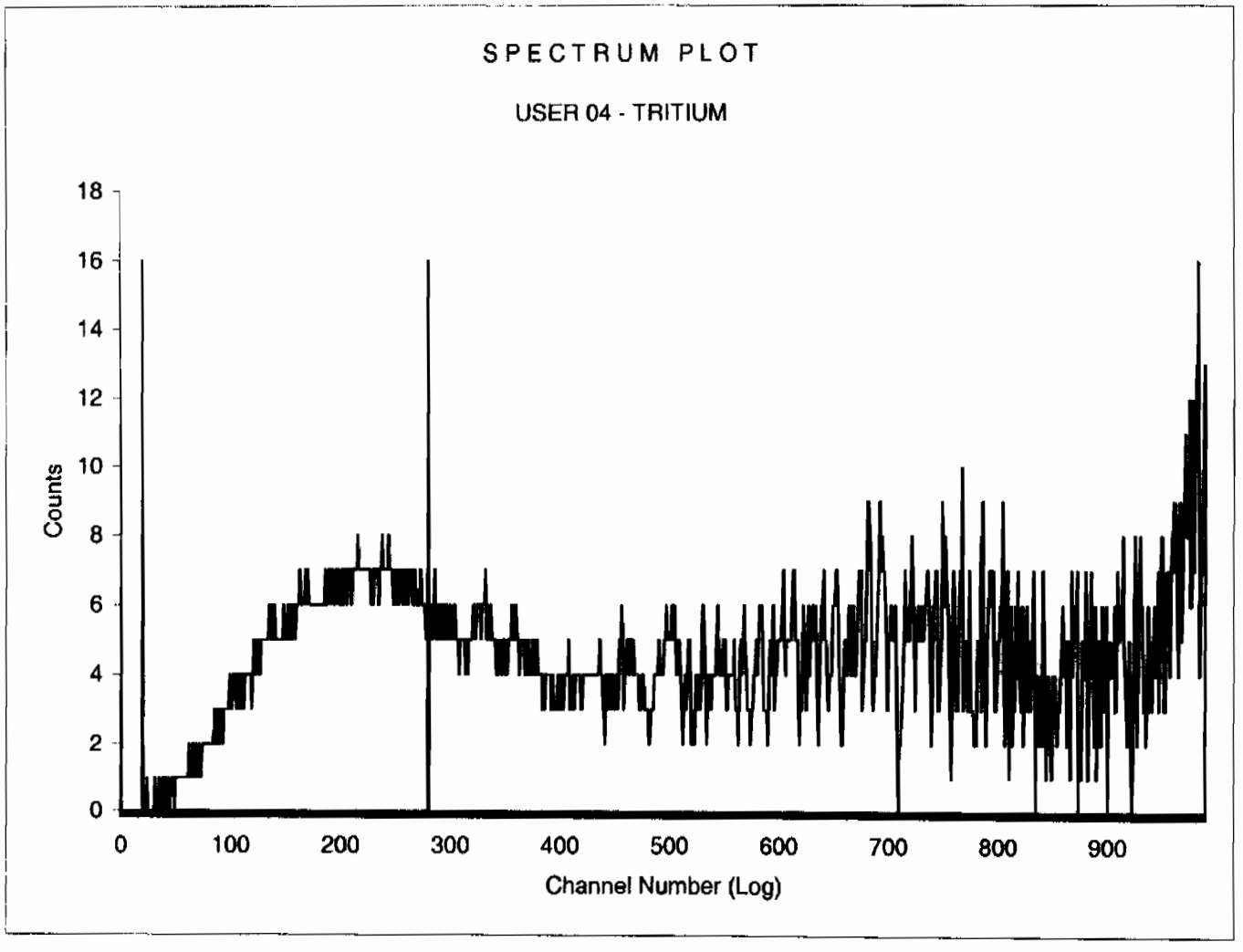

Sample Count Start Time:	14 Feb 2010 04:19:05		
Data Capture Date	14 Feb 2010 05:54:32		
User Filename	S04021420-2A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	14	20-2	95.00
H#, Total Counts:	126.2	10451	
Win1: Tritium - Start, End, Counts:	20	280	6531
Win2: - Start, End, Counts:	0	990	10052

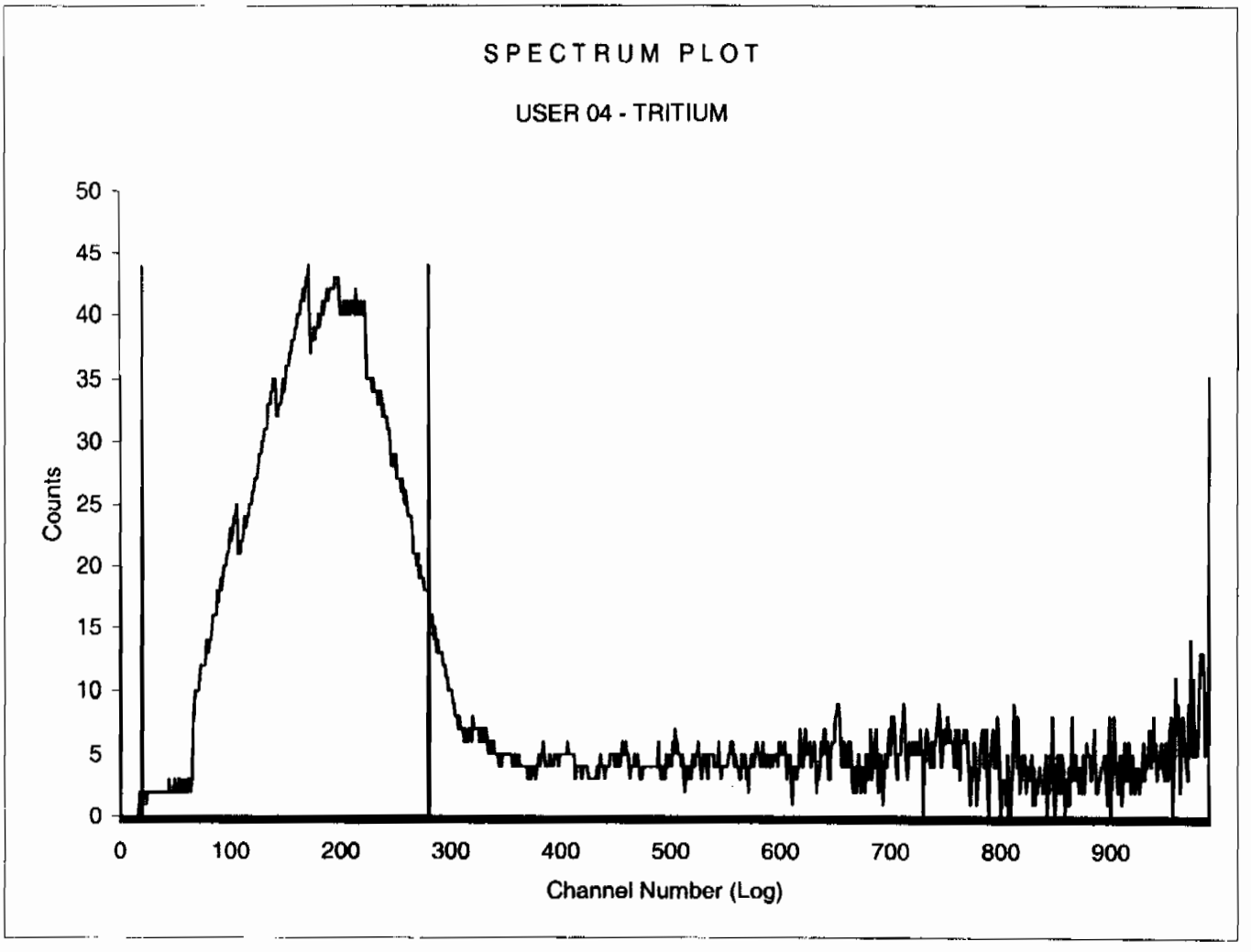

Sample Count Start Time:	14 Feb 2010 05:57:17		
Data Capture Date	14 Feb 2010 07:32:44		
User Filename	S04021420-3A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	15	20-3	95.00
H#, Total Counts:	126.0	5109	
Win1: Tritium - Start, End, Counts:	20	280	1339
Win2: - Start, End, Counts:	0	990	4721

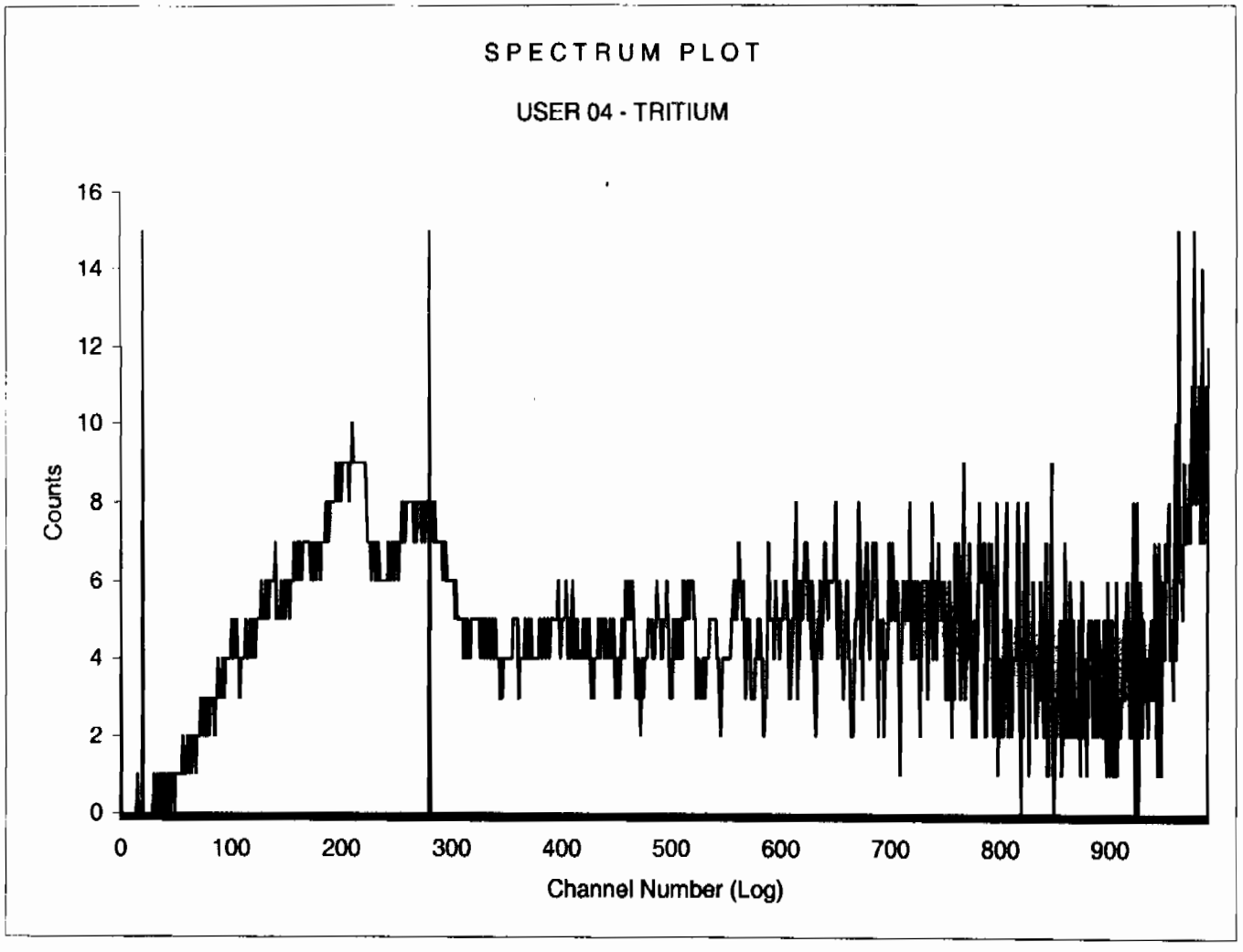

Sample Count Start Time:	14 Feb 2010 07:35:28		
Data Capture Date	14 Feb 2010 09:10:55		
User Filename	S04021420-4A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	16	20-4	95.00
H#, Total Counts:	126.4	4388	
Win1: Tritium - Start, End, Counts:	20	280	718
Win2: - Start, End, Counts:	0	990	3997

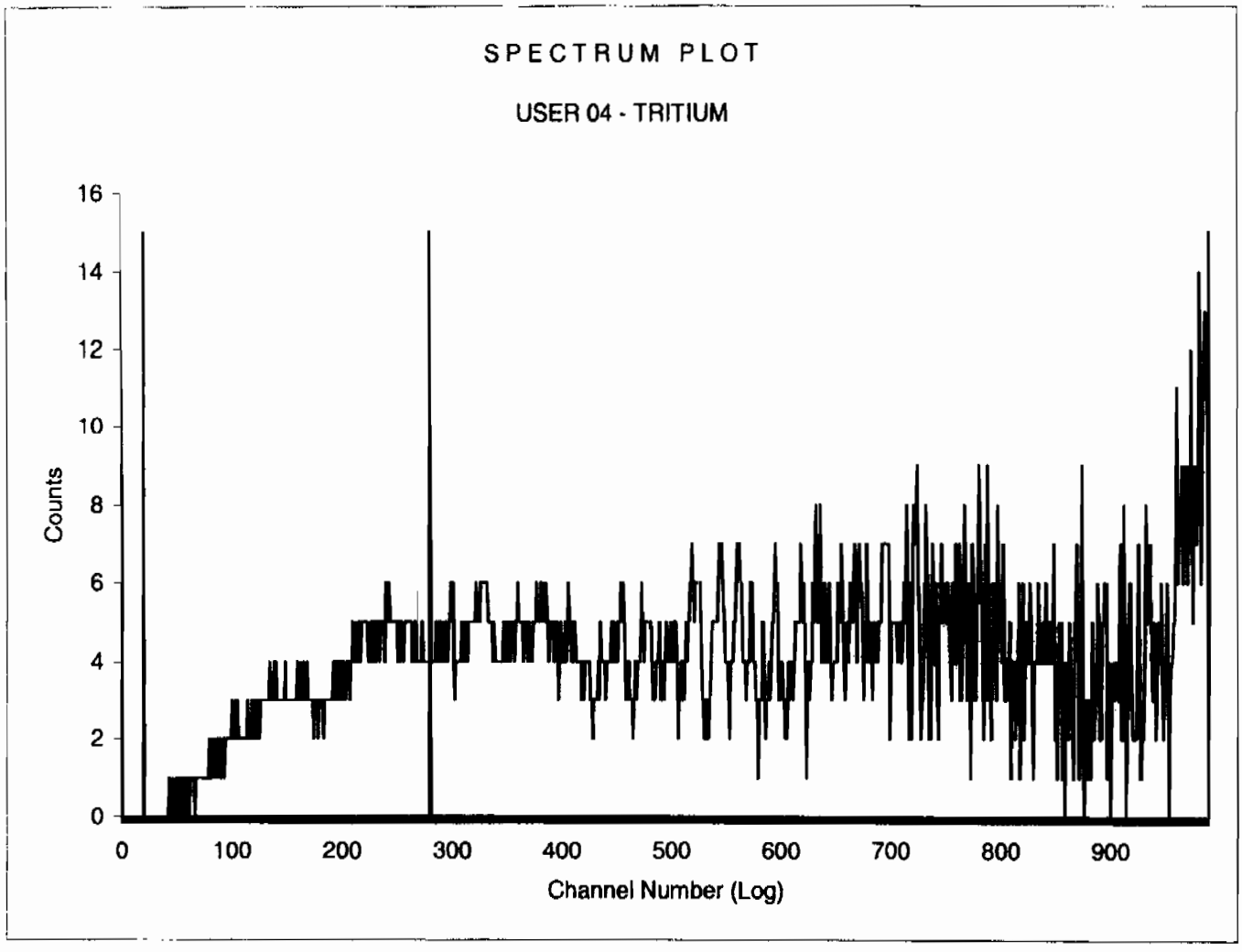

Sample Count Start Time:	14 Feb 2010 09:13:41		
Data Capture Date	14 Feb 2010 10:49:08		
User Filename	S04021420-5A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	17	20-5	95.00
H#, Total Counts:	126.4	9118	
Win1: Tritium - Start, End, Counts:	20	280	5130
Win2: - Start, End, Counts:	0	990	8720

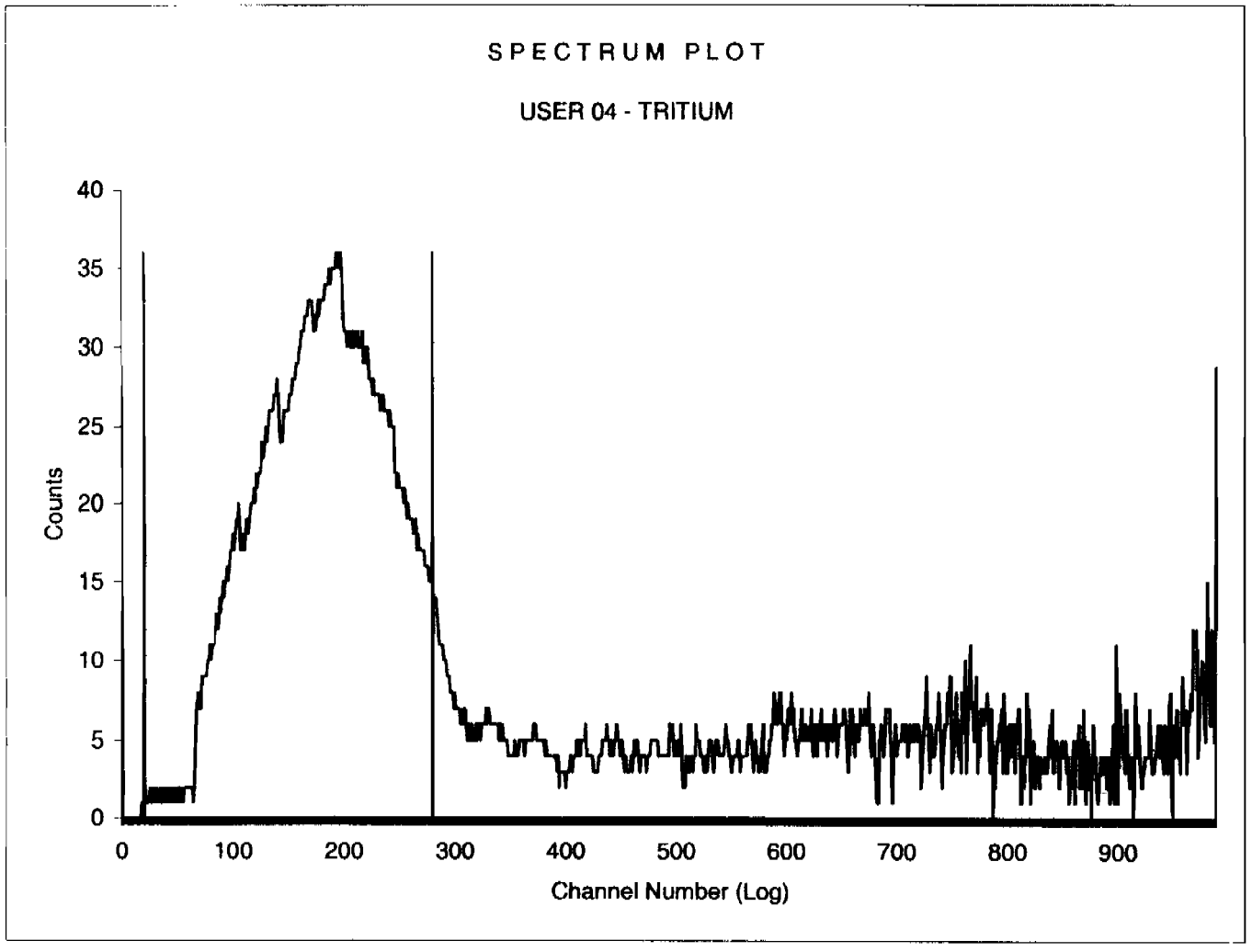

Sample Count Start Time:	14 Feb 2010 10:51:55		
Data Capture Date	14 Feb 2010 12:27:19		
User Filename	S04021420-6A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	18	20-6	95.00
H#, Total Counts:	125.1	4248	
Win1: Tritium - Start, End, Counts:	20	280	531
Win2: - Start, End, Counts:	0	990	3855

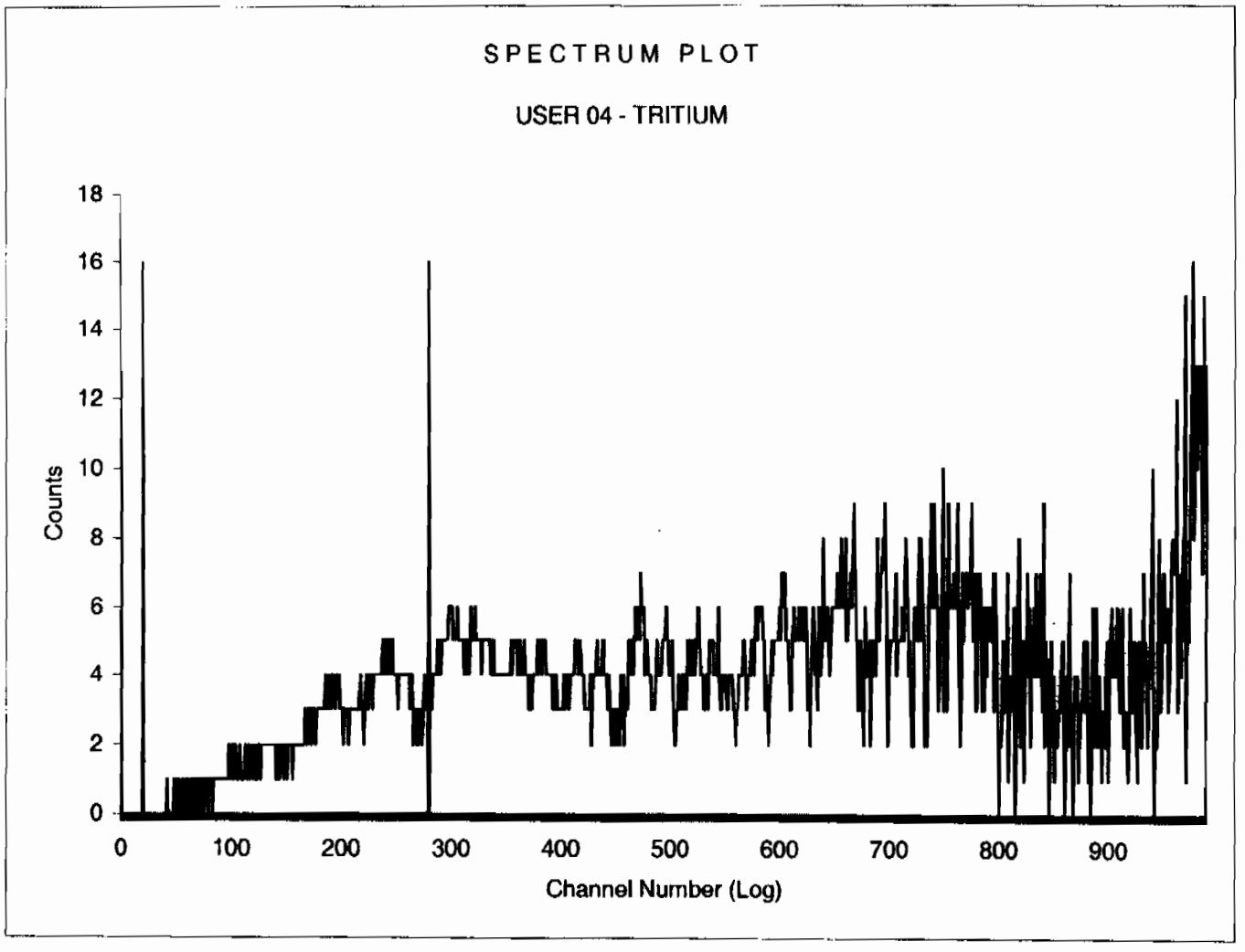

Sample Count Start Time:	14 Feb 2010 12:30:05		
Data Capture Date	14 Feb 2010 14:05:33		
User Filename	S04021420-7A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	19	20-7	95.00
H#, Total Counts:	127.4	4374	
Win1: Tritium - Start, End, Counts:	20	280	655
Win2: - Start, End, Counts:	0	990	4016

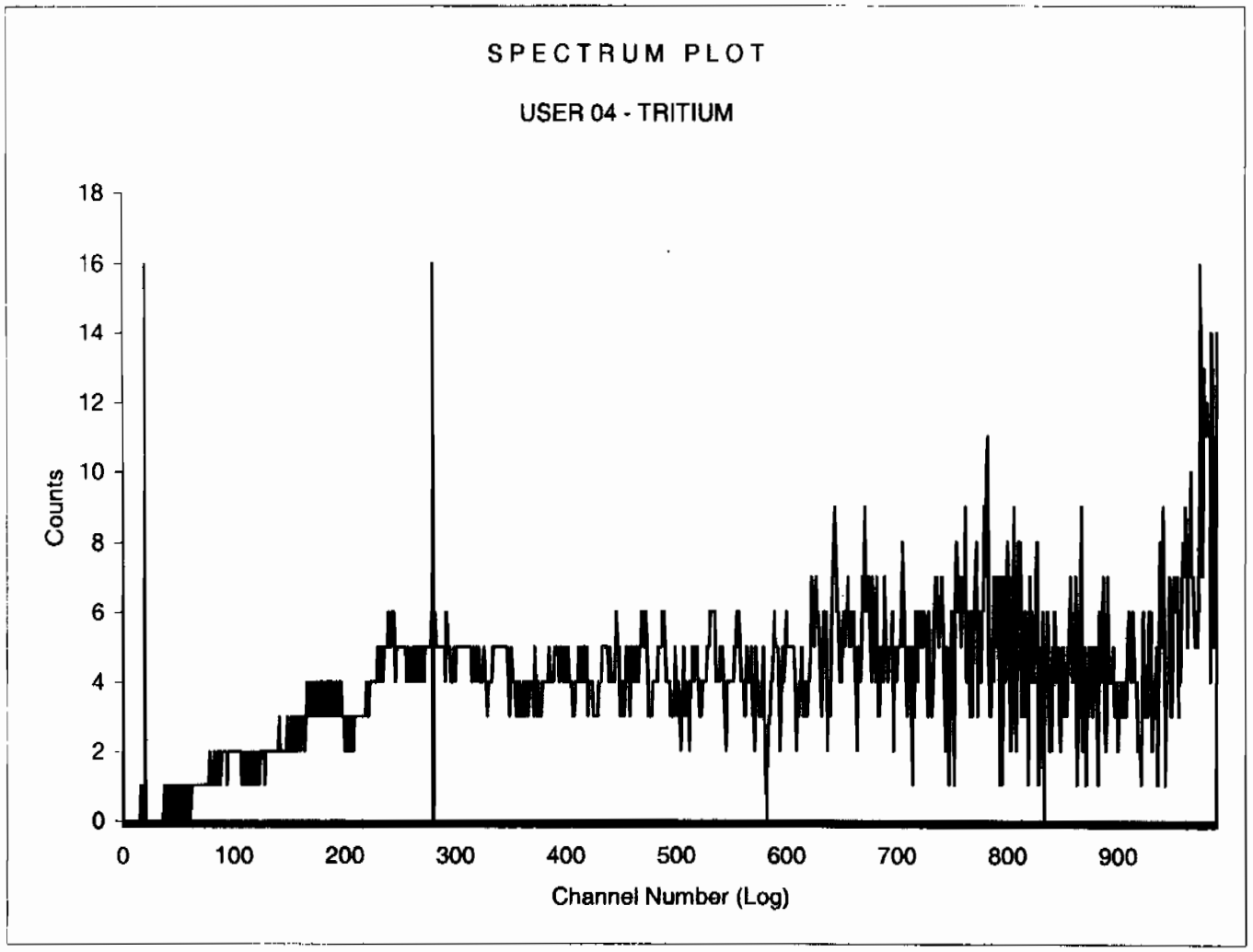

ID:H-3 14 FEB 2010 14:01
USER: 3 COMMENT:SILVER
PRESET TIME : 15.00
DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD
COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT
TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF
SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	26-1	15.00	125.9	39.73	8.22	80.40	5.77	0.48	15.85

QP

INSTRUMENT CALIBRATION: Maxi 14 FEB 2010 16:15
Calibration successful

QP
Calibrating Auto DPM
Counting Standard for 14C
Calibration Complete: 14C
Counting Standard for 3H
Calibration Complete: 3H
Calibration Successful
QPQP

Sample Count Start Time:	14 Feb 2010 14:07:28		
Data Capture Date	14 Feb 2010 14:22:07		
User Filename	S03021426-1A.XLS		
	U03021426-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	26-1	15.00
H#, Total Counts:	125.9	1206	
Win1: Tritium - Start, End, Counts:	20	280	596
Win2: - Start, End, Counts:	0	990	1149

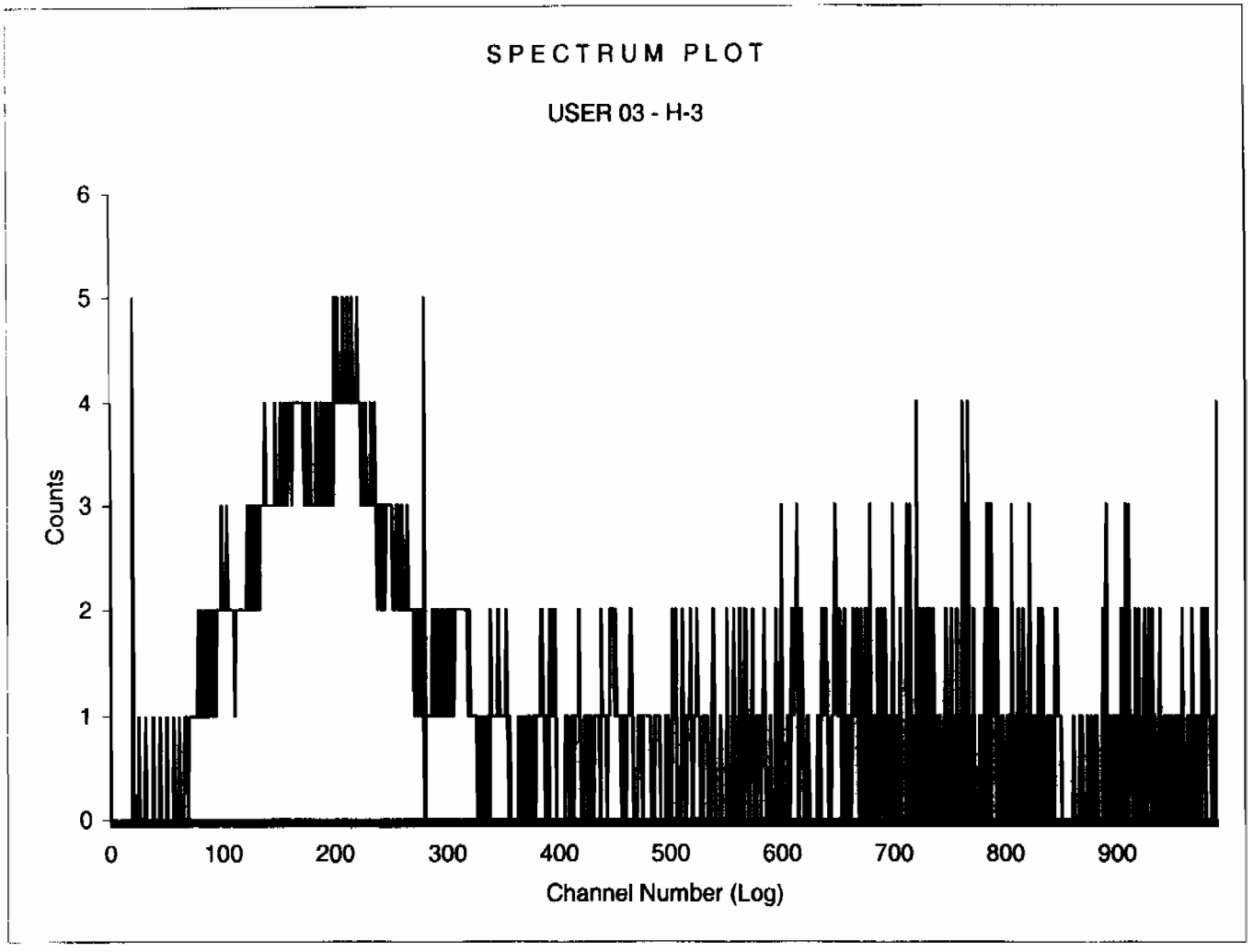

BACKGROUND AND EFFICIENCY DATA

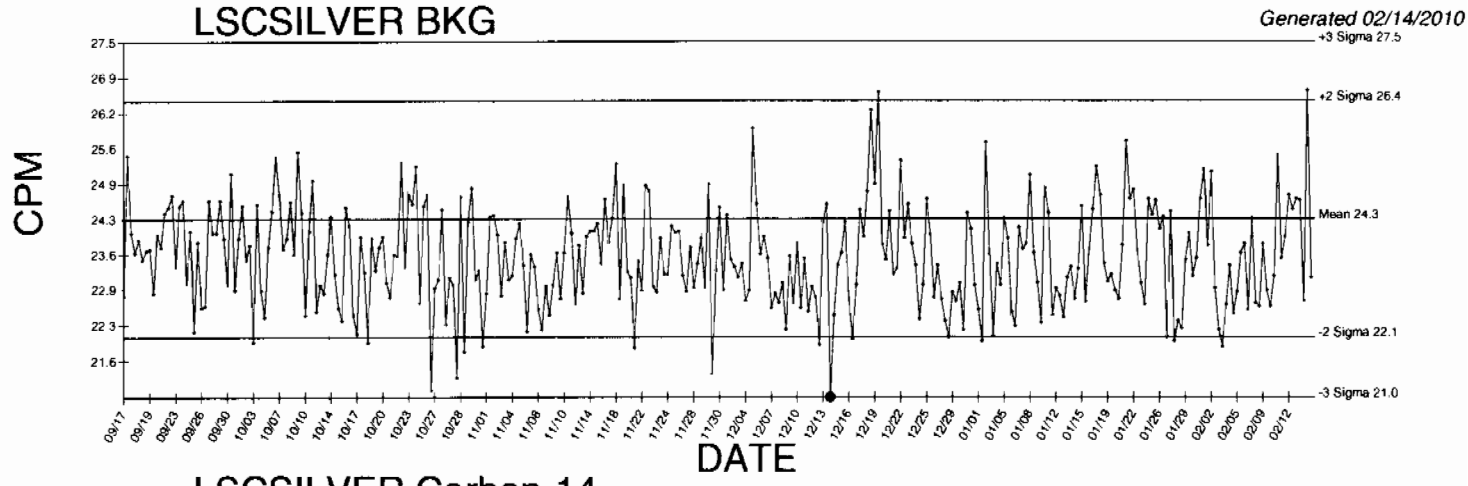

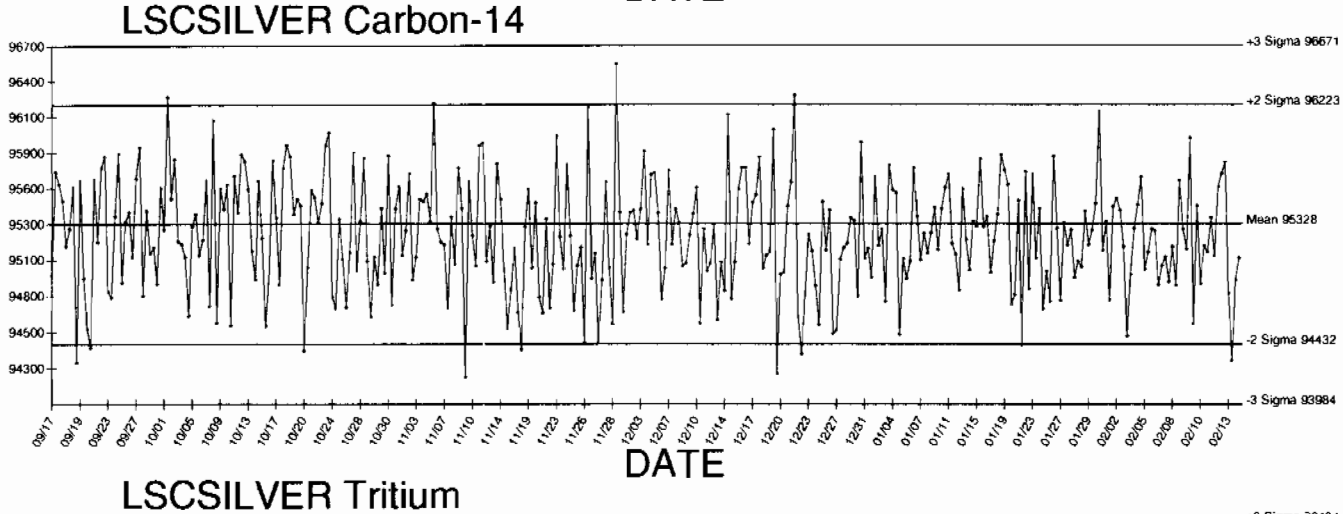

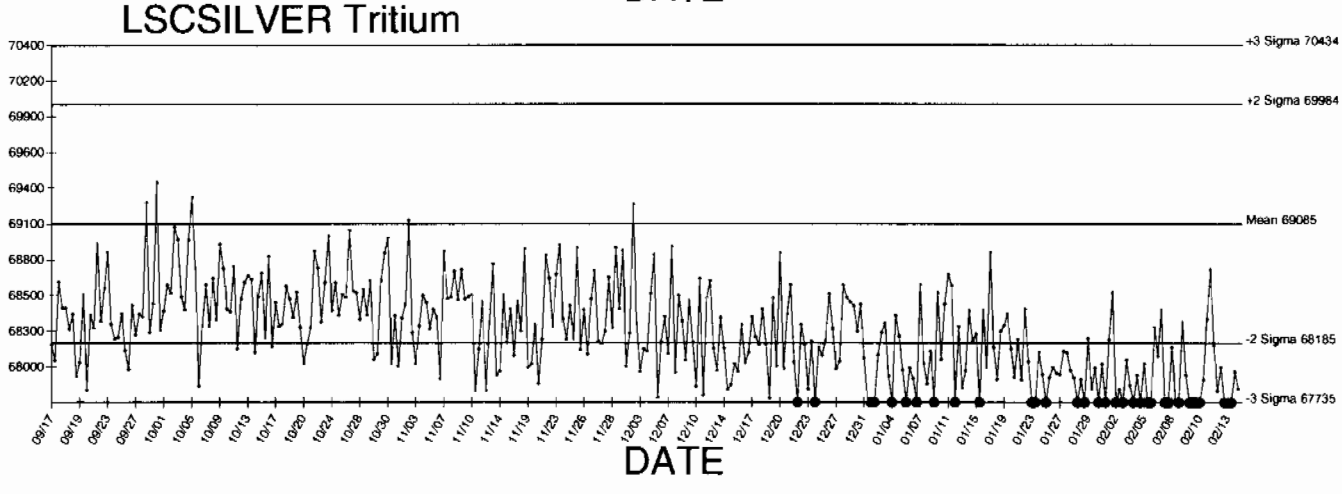

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION
No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-023-001a

Amersham
The Health Science Group

WFCase

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Aders 4/9/09
Amanda L. Tech 4/9/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 950495**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245978001	SAMPLE	KXK2	LSCSILVER	13-FEB-10 07:13	DONE		
245978002	SAMPLE	KXK2	LSCSILVER	13-FEB-10 08:51	DONE		
245978003	SAMPLE	KXK2	LSCSILVER	13-FEB-10 11:55	DONE		
245978004	SAMPLE	KXK2	LSCSILVER	13-FEB-10 13:33	DONE		
245978005	SAMPLE	KXK2	LSCSILVER	13-FEB-10 15:12	DONE		
245978006	SAMPLE	KXK2	LSCSILVER	13-FEB-10 16:50	DONE		
245978007	SAMPLE	KXK2	LSCSILVER	13-FEB-10 18:29	DONE		
245978008	SAMPLE	KXK2	LSCSILVER	13-FEB-10 20:07	DONE		
245978009	SAMPLE	KXK2	LSCSILVER	13-FEB-10 21:45	DONE		
245978010	SAMPLE	KXK2	LSCSILVER	13-FEB-10 23:24	DONE		
245978011	SAMPLE	KXK2	LSCSILVER	14-FEB-10 01:02	DONE		
245978012	SAMPLE	KXK2	LSCSILVER	14-FEB-10 02:40	DONE		
245978013	SAMPLE	KXK2	LSCSILVER	14-FEB-10 04:19	DONE		
245978014	SAMPLE	KXK2	LSCSILVER	14-FEB-10 05:57	DONE		
245978015	SAMPLE	KXK2	LSCSILVER	14-FEB-10 07:35	DONE		
245979015	SAMPLE	KXK2	LSCSILVER	14-FEB-10 09:13	DONE		
1202036900	MB	KXK2	LSCSILVER	14-FEB-10 10:51	DONE		
1202036901	DUP	KXK2	LSCSILVER	14-FEB-10 12:30	DONE		
1202036902	LCS	KXK2	LSCSILVER	14-FEB-10 14:07	DONE		

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1513
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	EPA:906.0	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:AM-241	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:ISOPU	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:ISOU	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	

Final Page of REQUEST NUMBER 10-1513

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1513C

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1513

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/3/2010

General Engineering Laboratories, Inc., Charleston, SC.

TURNAROUND REQ'D: 30

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7880	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7880	1	POLY	H3	Ice	R
RE15-10-7891	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7891	1	POLY	H3	Ice	R
RE15-10-7892	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7892	1	POLY	H3	Ice	R
RE15-10-7967	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7967	1	POLY	H3	Ice	R
RE15-10-7976	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7976	1	POLY	H3	Ice	R
RE15-10-7968	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7968	1	POLY	H3	Ice	R
RE15-10-7965	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7965	1	POLY	H3	Ice	R
RE15-10-7975	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7975	1	POLY	H3	Ice	R
RE15-10-7978	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7978	1	POLY	H3	Ice	R
RE15-10-7970	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7970	1	POLY	H3	Ice	R
RE15-10-7964	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7964	1	POLY	H3	Ice	R
RE15-10-7973	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7973	1	POLY	H3	Ice	R
RE15-10-7962	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7962	1	POLY	H3	Ice	R
RE15-10-7963	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1513C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7963	1	POLY	H3	Ice	R
RE15-10-7977	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7977	1	POLY	H3	Ice	R

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
		2/1/10	3:0				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7892 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		0923	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610715	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light grey tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-68 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 **dpm**
Beta/Gamma ≤ 2430 **dpm**

PID Ambient 0.4 / Reading 1.2 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	7:54AM	(Signature)	754
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7880 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1412	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610709	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.8	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Whitish Gray tuff

SAMPLE COMMENTS: 2nd depth

LOCATION DESC: 8b-50, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ± 44 dpm
Beta/Gamma ± 2120 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherry Sherwood	1/28/10
(Signature)	7:52 AM	(Signature) Sherri Sherwood	752
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7965 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610752	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty clay, some rocks and wood chips

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-70 mesatop

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha = 55 dpm
Beta/Gamma = 2350 dpm

PID Ambient Reading 0.1 / 0.2 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) [illegible]	1/28/10
(Signature) [signature]	0807 AM	(Signature) [signature]	8:07
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7963 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1015	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610751	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks

FR RE15-10-8083

SAMPLE COMMENTS: NA

LOCATION DESC: 8b - ~~70~~ 77 12m 1/27/10 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 55 dpm
Beta/Gamma ≤ 1962 dpm

PID Ambient Reading 0.2 / 0.2 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	0806 AM	(Signature)	8:14
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7977 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Air h
TIME COLLECTED (HH:MM)		1501	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610758	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None		
1	↓	H3	500 ML POLY	Ice		
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 Le	Ice		
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice		
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

SAMPLE DESC: Dark brown silty sand, numerous rocks, frozen

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-51 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE neg

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 1886 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0813 Am	(Signature) Sherri Sherwood	0813
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7891 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	Alih
TIME COLLECTED (HH:MM)		0910	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610715	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, few wood chips

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-68 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE NEG

Alpha ≤ 33 **dpm**
Beta/Gamma ≤ 4490 **dpm**

PID Ambient 0.2 / Reading 0.8 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	7:53 AM	(Signature)	753
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7975 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610757	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 xc	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: dark brown silty sand numerous rocks, pine needles

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-30 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 44 dpm
Beta/Gamma ≤ 2150 dpm

PID Ambient 0.0 / Reading 0.4 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0812 Am	(Signature) Sherri Sherwood	0812
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7976 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1510	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610757	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b-30 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2660 dpm

PID Ambient 0.0 / Reading 0.3 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) E L	0812 Am	(Signature) Sherri Sherwood	0812
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7962 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		937	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610750	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: grey tuff

SAMPLE COMMENTS: Tuff at 23 ft

LOCATION DESC: 8b-61 mesa top next to pine tree

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 38 **dpm**
Beta/Gamma = 2010 **dpm**

PID Ambient 0.0 / Reading 1.7 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan (Signature)	1/28/10 0806 AM	(Printed Name) (Signature)	1/28/10 806
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8084 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1417	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610756	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7974

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

~~**Alpha =** _____ **dpm**~~ TLM 1/27/10
~~**Beta/Gamma =** _____ **dpm**~~

PID ~~**Ambient Reading**~~ **= ppm** TLM 1/27/10

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Martinez	1/28/10
(Signature)	0813 Am	(Signature)	813
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7968 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	TJM 1/27/10 ~~AHH~~ ok
TIME COLLECTED (HH:MM)		1136	SUB-MEDIA:	TUFF 1	ok
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610753	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: hit tuff at 2ft

LOCATION DESC: 8b-69 mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 38 dpm
Beta/Gamma ≤ 2710 dpm

PID Ambient ~~0.2~~ / Reading ~~0.4~~ ppm RS 01-27-10 RS 01-27-10 0.0 / 0.5

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	0809 AM	(Signature)	809
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7978 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1528	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610758	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 KC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty clay, some sand, and rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-51 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 **dpm**
Beta/Gamma ≤ 1984 **dpm**

PID Ambient 0.0 / Reading 0.9 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) E L	07:51 AM	(Signature) Sherri Sherwood	0751
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7967 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1054	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610753	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown sand some clay and few rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-69 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 6140 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0808 AM	(Signature)	0808
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7970 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1310	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610754	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty sand

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-74 mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 44 dpm
Beta/Gamma ≤ 1900 dpm

PID Ambient Reading 0.0 / 0.1 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0810 Am	(Signature) Sherri Sherwood	0810
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7964 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		1120	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610751	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey and orange tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b - ~~70~~ 77 mesa Top 72m 1/27/10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 55 dpm
Beta/Gamma ≤ 2070 dpm

PID Ambient 0.2 / Reading 0.4 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0807 AM	(Signature)	0807
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7973 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	Alih
TIME COLLECTED (HH:MM)		1351	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark brown silty sand, moist, tuff fragments, minor clay

FD: RE15-10-8063

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b - 56 mesatop

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2120 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) [signature]	0812 Am	(Signature) [signature]	0812
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1513 VALIDATION DATE: 03/11/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Mary Donivan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The gamma spec sample results which were rejected by the laboratory due to spectral interference or low abundance were qualified R,R5a. In the QC samples, several results were also rejected by the laboratory. No sample data were qualified as a result.
2. In the MB associated with samples RE15-10-7975, -7978, -7970, -7964, -7973, -7962, -7963 and -7977, alpha spec U-238 was detected. The associated results for all samples except -7975 and -7963 were detects >5X but ≤50X the MB concentration and, thus, were qualified J,R4a. The remaining associated sample results were detects >50X the MB concentration and, thus, were not qualified, based on professional judgment.
3. The alpha spec Am-243 tracer %R was < the laboratory LAL for sample -7964. The associated sample result was an ND and, thus, was not qualified. The alpha spec Am-243 tracer %R was also < the laboratory LAL for the duplicate associated with sample -7964. The alpha spec Am-243 tracer %R was > the laboratory UAL but ≤125% for the LCS associated with batch 951665. Because there were QC samples, no sample data were qualified.
4. An MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria, thus, no sample data were qualified.
5. It should be noted that the matrix QC analyses for iso-Am batch 951665, iso-Pu batch 951669 and iso-U batch 951672 were performed on parent samples from other LANL RNs. No sample data were qualified as a result.

Reviewed By: Charissa Lewis **Level:** I **Date:** 3/11/10

VALIDATOR'S SIGNATURE: Mary N. Donivan DATE: 03/11/2010

DATA VALIDATION COVER SHEET	
5119-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☒	☐	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☒	☐	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☒	☐	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7880
Sample ID: 245978001
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 7.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.0018		0.029	+/-0.00194	0.050	pCi/g		HAKB	02/15/10	0741	949823	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00493		0.0269	+/-0.00286	0.050	pCi/g		HAKB	02/13/10	2140	949824	2
Plutonium-239/240	U	0.00493		0.0202	+/-0.00286	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.753		0.112	+/-0.0791	0.100	pCi/g		HAKB	02/13/10	2124	949825	3
Uranium-235/236	U	0.0219		0.0713	+/-0.0111	0.100	pCi/g						
Uranium-238		0.957		0.0763	+/-0.0946	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0753		0.397	+/-0.125	0.200	pCi/g		MXR1	02/14/10	1117	948721	4
Bismuth-211	UI	3.41	R,R5a	0.327	+/-0.268		pCi/g						
Bismuth-214		1.03		0.110	+/-0.0871	0.200	pCi/g						
Cadmium-109	UI	3.62	R,R5a	1.65	+/-0.623		pCi/g						
Cerium-139	U	0.0105		0.0509	+/-0.0152	0.050	pCi/g						
Cesium-134	UI	0.113	R,R5a	0.0929	+/-0.043	0.100	pCi/g						
Cesium-137	U	0.00966		0.067	+/-0.0195	0.100	pCi/g						
Cobalt-60	U	0.0506		0.0743	+/-0.0196	0.100	pCi/g						
Europium-152	U	-0.139		0.145	+/-0.0496	0.200	pCi/g						
Lanthanum-140	U	-0.0304		0.152	+/-0.0583		pCi/g						
Lead-212		1.71		0.0931	+/-0.086	0.100	pCi/g						
Lead-214		1.19		0.114	+/-0.0983	0.100	pCi/g						
Mercury-203	U	-0.0392		0.0672	+/-0.0207	0.100	pCi/g						
Potassium-40		39.5		0.554	+/-1.99	1.00	pCi/g						
Radium-223	U	0.181		1.09	+/-0.360		pCi/g						
Radium-224	UI	4.36	R,R5a	1.06	+/-0.700		pCi/g						
Radium-226		1.03		0.110	+/-0.0871		pCi/g						
Radium-228		1.55		0.225	+/-0.171	0.500	pCi/g						
Ruthenium-106	U	0.0557		0.535	+/-0.156	0.800	pCi/g						
Sodium-22	U	-0.0219		0.0801	+/-0.0251	0.080	pCi/g						
Strontium-85	U	0.041		0.0658	+/-0.0211		pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7880
Sample ID: 245978001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.509	0.0606	+/-0.0478	0.080	pCi/g						
Thorium-227	U	0.350	0.666	+/-0.188		pCi/g						
Thorium-231	U	0.181	1.09	+/-0.360		pCi/g						
Thorium-234		3.98	3.01	+/-1.32	2.00	pCi/g						
Tin-113	U	-0.032	0.0706	+/-0.0222	0.100	pCi/g						
Uranium-235	U	0.163	0.372	+/-0.111	0.500	pCi/g						
Yttrium-88	U	-0.0179	0.0506	+/-0.0177	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		202	193	+/-61.7	250	pCi/L		KXK2	02/13/10	0713	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	68.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	70.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7891
Sample ID: 245978002
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 26%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0102		0.0257	+/-0.00424	0.050	pCi/g		HAKB	02/15/10	0741	949823	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00225		0.0184	+/-0.0016	0.050	pCi/g		HAKB	02/18/10	1842	949824	2
Plutonium-239/240		0.0214		0.0139	+/-0.00527	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		19.6		0.430	+/-1.60	0.100	pCi/g		HAKB	02/23/10	1043	953488	4
Uranium-235/236		1.83		0.274	+/-0.241	0.100	pCi/g						
Uranium-238		77.0		0.293	+/-5.98	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.207		0.431	+/-0.137	0.200	pCi/g		MXR1	02/14/10	1117	948721	6
Bismuth-211	UI	3.94	R,R5a	0.300	+/-0.315		pCi/g						
Bismuth-214		1.27		0.108	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	4.25	R,R5a	1.86	+/-0.650		pCi/g						
Cerium-139	U	0.00122		0.0574	+/-0.0185	0.050	pCi/g						
Cesium-134	UI	0.118	R,R5a	0.0913	+/-0.0352	0.100	pCi/g						
Cesium-137	U	0.0297		0.0719	+/-0.0208	0.100	pCi/g						
Cobalt-60	U	-0.0391		0.0518	+/-0.0185	0.100	pCi/g						
Europium-152	U	-0.0336		0.155	+/-0.0467	0.200	pCi/g						
Lanthanum-140	U	0.0404		0.144	+/-0.0458		pCi/g						
Lead-212		1.48		0.0979	+/-0.102	0.100	pCi/g						
Lead-214		1.37		0.105	+/-0.115	0.100	pCi/g						
Mercury-203	U	0.0208		0.0707	+/-0.0208	0.100	pCi/g						
Potassium-40		26.6		0.413	+/-1.43	1.00	pCi/g						
Radium-223	U	0.377		1.10	+/-0.364		pCi/g						
Radium-224	UI	4.39	R,R5a	1.11	+/-0.589		pCi/g						
Radium-226		1.27		0.108	+/-0.104		pCi/g						
Radium-228		1.45		0.204	+/-0.165	0.500	pCi/g						
Ruthenium-106	U	-0.0564		0.497	+/-0.152	0.800	pCi/g						
Sodium-22	U	-0.000873		0.066	+/-0.0203	0.080	pCi/g						
Strontium-85	U	0.0439		0.0664	+/-0.0207		pCi/g						
Thallium-208		0.532		0.0622	+/-0.0459	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7891 Project: LANL01004
Sample ID: 245978002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.320	0.649	+/-0.209		pCi/g						
Thorium-231	U	0.377	1.10	+/-0.364		pCi/g						
Thorium-234		73.9	3.22	+/-6.73	2.00	pCi/g						
Tin-113	U	-0.0215	0.0732	+/-0.0217	0.100	pCi/g						
Uranium-235		1.61	0.414	+/-0.242	0.500	pCi/g						
Yttrium-88	U	-0.0212	0.0519	+/-0.0177	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		21500	194	+/-1510	250	pCi/L		KXK2	02/13/10	0851	950495	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	74.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	84.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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03/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7892
Sample ID: 245978003
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 6.96%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00303		0.0221	+/-0.00268	0.050	pCi/g		HAKB	02/15/10	0741	949823	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00666		0.0218	+/-0.0061	0.050	pCi/g		HAKB	02/13/10	2140	949824	2
Plutonium-239/240	U	-0.00266		0.0164	+/-0.00231	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.17		0.0911	+/-0.105	0.100	pCi/g		HAKB	02/13/10	2125	949825	3
Uranium-235/236		0.0803		0.0581	+/-0.0207	0.100	pCi/g						
Uranium-238		2.42		0.0622	+/-0.195	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0576		0.122	+/-0.0371	0.200	pCi/g		MXR1	02/14/10	1118	948721	4
Bismuth-211	UI	4.37	R,R5a	0.419	+/-0.344		pCi/g						
Bismuth-214		1.41		0.141	+/-0.136	0.200	pCi/g						
Cadmium-109	UI	3.67	R,R5a	1.06	+/-0.511		pCi/g						
Cerium-139	U	-0.0317		0.0543	+/-0.0171	0.050	pCi/g						
Cesium-134	U	0.109		0.128	+/-0.0389	0.100	pCi/g						
Cesium-137	U	-0.0391		0.0793	+/-0.0266	0.100	pCi/g						
Cobalt-60	U	0.0164		0.0985	+/-0.0284	0.100	pCi/g						
Europium-152	U	-0.10		0.179	+/-0.058	0.200	pCi/g						
Lanthanum-140	U	0.0409		0.172	+/-0.054		pCi/g						
Lead-212		1.80		0.0983	+/-0.111	0.100	pCi/g						
Lead-214		1.52		0.146	+/-0.126	0.100	pCi/g						
Mercury-203	U	0.00129		0.0804	+/-0.0232	0.100	pCi/g						
Potassium-40		35.5		0.640	+/-1.98	1.00	pCi/g						
Radium-223	U	-0.142		1.24	+/-0.418		pCi/g						
Radium-224	UI	5.30	R,R5a	1.12	+/-0.857		pCi/g						
Radium-226		1.41		0.141	+/-0.136		pCi/g						
Radium-228		2.09		0.267	+/-0.213	0.500	pCi/g						
Ruthenium-106	U	-0.214		0.647	+/-0.210	0.800	pCi/g						
Sodium-22	U	0.0142		0.105	+/-0.0315	0.080	pCi/g						
Strontium-85	U	0.0657		0.084	+/-0.0256		pCi/g						
Thallium-208		0.567		0.0728	+/-0.059	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7892
Sample ID: 245978003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.244	0.677	+/-0.218		pCi/g						
Thorium-231	U	-0.142	1.24	+/-0.418		pCi/g						
Thorium-234		3.09	1.18	+/-0.573	2.00	pCi/g						
Tin-113	U	-0.0597	0.0861	+/-0.0277	0.100	pCi/g						
Uranium-235	U	0.0423	0.384	+/-0.115	0.500	pCi/g						
Yttrium-88	U	0.0112	0.0783	+/-0.0228	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3690	194	+/-275	250	pCi/L		KXK2	02/13/10	1155	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7967
Sample ID: 245978004
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 24.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0142		0.0239	+/-0.00485	0.050	pCi/g		HAKB	02/18/10	1842	949823	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.0012		0.0197	+/-0.00121	0.050	pCi/g		HAKB	02/18/10	1843	949824	3
Plutonium-239/240		0.0723		0.0148	+/-0.0102	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		21.5		0.469	+/-1.76	0.100	pCi/g		HAKB	02/23/10	1043	953488	5
Uranium-235/236		2.75		0.299	+/-0.328	0.100	pCi/g						
Uranium-238		150		0.320	+/-11.7	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	UI	0.765	R,R5a	0.545	+/-0.165	0.200	pCi/g		MXR1	02/14/10	1118	948721	7
Bismuth-211	UI	2.02	R,R5a	0.341	+/-0.212		pCi/g						
Bismuth-214		0.551		0.112	+/-0.0765	0.200	pCi/g						
Cadmium-109	U	2.39		3.13	+/-1.34		pCi/g						
Cerium-139	U	0.0581		0.0689	+/-0.0215	0.050	pCi/g						
Cesium-134	U	0.0816		0.0866	+/-0.0234	0.100	pCi/g						
Cesium-137		0.193		0.0617	+/-0.0364	0.100	pCi/g						
Cobalt-60	U	0.00112		0.0547	+/-0.0162	0.100	pCi/g						
Europium-152	U	0.037		0.170	+/-0.0614	0.200	pCi/g						
Lanthanum-140	U	-0.0574		0.119	+/-0.0404		pCi/g						
Lead-212		1.10		0.0999	+/-0.0615	0.100	pCi/g						
Lead-214		0.702		0.119	+/-0.076	0.100	pCi/g						
Mercury-203	U	0.0174		0.0766	+/-0.0211	0.100	pCi/g						
Potassium-40		22.0		0.419	+/-1.05	1.00	pCi/g						
Radium-223	U	-0.898		1.06	+/-0.326		pCi/g						
Radium-224	UI	3.02	R,R5a	1.14	+/-0.592		pCi/g						
Radium-226		0.551		0.112	+/-0.0765		pCi/g						
Radium-228		1.10		0.191	+/-0.136	0.500	pCi/g						
Ruthenium-106	U	0.067		0.521	+/-0.151	0.800	pCi/g						
Sodium-22	U	-0.019		0.0574	+/-0.0179	0.080	pCi/g						
Strontium-85	U	0.0627		0.0679	+/-0.0204		pCi/g						
Thallium-208		0.363		0.0612	+/-0.037	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7967
Sample ID: 245978004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Thorium-227	UI	0.888	R,R5a	0.840	+/-0.271		pCi/g						
Thorium-231	U	-0.898		1.06	+/-0.326		pCi/g						
Thorium-234		99.0		4.10	+/-8.95	2.00	pCi/g						
Tin-113	U	-0.0285		0.0763	+/-0.0224	0.100	pCi/g						
Uranium-235		1.66		0.495	+/-0.238	0.500	pCi/g						
Yttrium-88	U	-0.0345		0.0421	+/-0.0161	0.100	pCi/g						
Rad Liquid Scintillation Analysis													
H3 "As Received"													
Tritium		76100		193	+/-5310	250	pCi/L		KXK2	02/13/10	1333	950495	8

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R
8	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	77.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7976
Sample ID: 245978005
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 3.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	6.35E-06		0.0213	+/-0.00176	0.050	pCi/g		HAKB	02/15/10	0741	949823	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00126		0.0206	+/-0.00178	0.050	pCi/g		HAKB	02/13/10	2140	949824	2
Plutonium-239/240	U	0.0151		0.0155	+/-0.00477	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.969		0.0893	+/-0.0899	0.100	pCi/g		HAKB	02/13/10	2125	949825	3
Uranium-235/236		0.0612		0.0569	+/-0.018	0.100	pCi/g						
Uranium-238		2.16		0.061	+/-0.175	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0957		0.187	+/-0.0565	0.200	pCi/g		MXR1	02/14/10	1119	948721	4
Bismuth-211	UI	3.60	R,R5a	0.274	+/-0.264		pCi/g						
Bismuth-214		1.02		0.0947	+/-0.0895	0.200	pCi/g						
Cadmium-109	UI	3.47	R,R5a	0.962	+/-0.462		pCi/g						
Cerium-139	U	-0.0252		0.0438	+/-0.0137	0.050	pCi/g						
Cesium-134	UI	0.102	R,R5a	0.0799	+/-0.0308	0.100	pCi/g						
Cesium-137		0.099		0.0586	+/-0.0241	0.100	pCi/g						
Cobalt-60	U	-0.00411		0.0511	+/-0.0161	0.100	pCi/g						
Europium-152	U	-0.0251		0.135	+/-0.0456	0.200	pCi/g						
Lanthanum-140	U	-0.0223		0.120	+/-0.0409		pCi/g						
Lead-212		1.63		0.0821	+/-0.0995	0.100	pCi/g						
Lead-214		1.25		0.0956	+/-0.0974	0.100	pCi/g						
Mercury-203	U	0.00829		0.065	+/-0.0184	0.100	pCi/g						
Potassium-40		32.6		0.431	+/-1.65	1.00	pCi/g						
Radium-223	U	0.495		0.937	+/-0.292		pCi/g						
Radium-224	UI	5.05	R,R5a	0.934	+/-0.648		pCi/g						
Radium-226		1.02		0.0947	+/-0.0895		pCi/g						
Radium-228		1.60		0.183	+/-0.159	0.500	pCi/g						
Ruthenium-106	U	-0.149		0.438	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0167		0.0616	+/-0.0198	0.080	pCi/g						
Strontium-85	UI	0.0848	R,R5a	0.0616	+/-0.0177		pCi/g						
Thallium-208		0.478		0.0481	+/-0.0401	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7976
Sample ID: 245978005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.171	0.556	+/-0.163		pCi/g						
Thorium-231	U	0.495	0.937	+/-0.292		pCi/g						
Thorium-234		2.91	1.56	+/-0.752	2.00	pCi/g						
Tin-113	U	-0.0171	0.0628	+/-0.019	0.100	pCi/g						
Uranium-235	U	0.151	0.335	+/-0.0965	0.500	pCi/g						
Yttrium-88	U	-0.00489	0.0398	+/-0.0127	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		7920	194	+/-567	250	pCi/L		KXK2	02/13/10	1512	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	93.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
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- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7968
Sample ID: 245978006
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00487		0.025	+/-0.00287	0.050	pCi/g		HAKB	02/15/10	0742	949823	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00123		0.0202	+/-0.00276	0.050	pCi/g		HAKB	02/13/10	2140	949824	2
Plutonium-239/240	U	0.0123		0.0152	+/-0.00432	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		3.24		0.0893	+/-0.257	0.100	pCi/g		HAKB	02/13/10	2125	949825	3
Uranium-235/236		0.363		0.0569	+/-0.0477	0.100	pCi/g						
Uranium-238		19.4		0.061	+/-1.42	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0518		0.460	+/-0.141	0.200	pCi/g		MXR1	02/14/10	1156	948721	4
Bismuth-211	UI	3.38	R,R5a	0.331	+/-0.258		pCi/g						
Bismuth-214		1.11		0.108	+/-0.0918	0.200	pCi/g						
Cadmium-109	UI	3.01	R,R5a	1.96	+/-0.625		pCi/g						
Cerium-139	U	0.000395		0.0515	+/-0.0153	0.050	pCi/g						
Cesium-134	UI	0.167	R,R5a	0.101	+/-0.0487	0.100	pCi/g						
Cesium-137	U	0.0479		0.0664	+/-0.0288	0.100	pCi/g						
Cobalt-60	U	0.000599		0.0662	+/-0.0198	0.100	pCi/g						
Europium-152	U	-0.0909		0.152	+/-0.0471	0.200	pCi/g						
Lanthanum-140	U	-0.0148		0.165	+/-0.0514		pCi/g						
Lead-212		1.68		0.0835	+/-0.0874	0.100	pCi/g						
Lead-214		1.18		0.116	+/-0.0947	0.100	pCi/g						
Mercury-203	U	0.00298		0.0727	+/-0.0208	0.100	pCi/g						
Potassium-40		36.5		0.560	+/-1.63	1.00	pCi/g						
Radium-223	U	-0.321		1.10	+/-0.375		pCi/g						
Radium-224	UI	5.09	R,R5a	0.951	+/-0.759		pCi/g						
Radium-226		1.11		0.108	+/-0.0918		pCi/g						
Radium-228		1.76		0.217	+/-0.184	0.500	pCi/g						
Ruthenium-106	U	0.029		0.514	+/-0.157	0.800	pCi/g						
Sodium-22	U	-0.0155		0.077	+/-0.0236	0.080	pCi/g						
Strontium-85	U	0.0529		0.0652	+/-0.0199		pCi/g						
Thallium-208		0.514		0.0602	+/-0.0417	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7968
Sample ID: 245978006
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0667	0.650	+/-0.187		pCi/g						
Thorium-231	U	-0.321	1.10	+/-0.375		pCi/g						
Thorium-234		19.5	3.35	+/-2.54	2.00	pCi/g						
Tin-113	U	0.0119	0.0743	+/-0.0215	0.100	pCi/g						
Uranium-235	U	0.364	0.371	+/-0.138	0.500	pCi/g						
Yttrium-88	U	-0.0122	0.0442	+/-0.0152	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		70500	193	+/-4920	250	pCi/L		KXK2	02/13/10	1650	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	76.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7965
Sample ID: 245978007
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 22.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00181		0.0208	+/-0.0028	0.050	pCi/g		HAKB	02/19/10	1553	954009	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00397		0.0216	+/-0.0023	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.0159		0.0163	+/-0.00466	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		8.51		0.0947	+/-0.630	0.100	pCi/g		HAKB	02/13/10	2125	949825	4
Uranium-235/236		0.830		0.0604	+/-0.0856	0.100	pCi/g						
Uranium-238		35.3		0.0647	+/-2.53	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.073		0.260	+/-0.0832	0.200	pCi/g		MXR1	02/14/10	1156	948721	5
Bismuth-211	UI	4.02	R,R5a	0.324	+/-0.278		pCi/g						
Bismuth-214		1.16		0.117	+/-0.109	0.200	pCi/g						
Cadmium-109	UI	2.95	R,R5a	1.63	+/-0.556		pCi/g						
Cerium-139	U	-0.0168		0.0535	+/-0.0165	0.050	pCi/g						
Cesium-134	U	0.0283		0.0859	+/-0.0248	0.100	pCi/g						
Cesium-137		0.128		0.0689	+/-0.0371	0.100	pCi/g						
Cobalt-60	U	0.00128		0.0606	+/-0.0182	0.100	pCi/g						
Europium-152	U	-0.0164		0.163	+/-0.0557	0.200	pCi/g						
Lanthanum-140	U	0.066		0.168	+/-0.0532		pCi/g						
Lead-212		1.65		0.0941	+/-0.097	0.100	pCi/g						
Lead-214		1.40		0.113	+/-0.103	0.100	pCi/g						
Mercury-203	U	0.0164		0.0759	+/-0.0217	0.100	pCi/g						
Potassium-40		26.0		0.476	+/-1.38	1.00	pCi/g						
Radium-223	U	-0.122		1.09	+/-0.323		pCi/g						
Radium-224	UI	3.96	R,R5a	1.07	+/-0.633		pCi/g						
Radium-226		1.16		0.117	+/-0.109		pCi/g						
Radium-228		1.66		0.221	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	0.261		0.574	+/-0.160	0.800	pCi/g						
Sodium-22	U	-0.0396		0.0641	+/-0.0214	0.080	pCi/g						
Strontium-85	UI	0.0746	R,R5a	0.0706	+/-0.0206		pCi/g						
Thallium-208		0.543		0.0588	+/-0.0459	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7965
Sample ID: 245978007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0672	0.657	+/-0.192		pCi/g						
Thorium-231	U	-0.122	1.09	+/-0.323		pCi/g						
Thorium-234		27.3	2.13	+/-2.67	2.00	pCi/g						
Tin-113	U	0.0161	0.0775	+/-0.0227	0.100	pCi/g						
Uranium-235		0.587	0.376	+/-0.160	0.500	pCi/g						
Yttrium-88	U	-0.00572	0.0483	+/-0.0151	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		6270	192	+/-453	250	pCi/L		KXK2	02/13/10	1829	950495	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	82.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7975
Sample ID: 245978008
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 25.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0324		0.0487	+/-0.0159	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00		0.0472	+/-0.0147	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240		0.0549		0.0355	+/-0.0153	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.60		0.0447	+/-0.126	0.100	pCi/g		CXM2	02/24/10	1320	951672	3
Uranium-235/236		0.171		0.0285	+/-0.0229	0.100	pCi/g						
Uranium-238		6.11		0.0305	+/-0.451	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.423		0.586	+/-0.182	0.200	pCi/g		MXR1	02/14/10	1201	948721	4
Bismuth-211	UI	4.51	R,R5a	0.387	+/-0.345		pCi/g						
Bismuth-214		1.30		0.142	+/-0.107	0.200	pCi/g						
Cadmium-109	U	1.27		2.34	+/-0.756		pCi/g						
Cerium-139	U	-0.00695		0.068	+/-0.0204	0.050	pCi/g						
Cesium-134	U	0.0462		0.0988	+/-0.0328	0.100	pCi/g						
Cesium-137		0.472		0.0848	+/-0.051	0.100	pCi/g						
Cobalt-60	U	0.0255		0.0805	+/-0.0234	0.100	pCi/g						
Europium-152	U	0.0783		0.213	+/-0.087	0.200	pCi/g						
Lanthanum-140	U	0.0619		0.197	+/-0.0629		pCi/g						
Lead-212		1.59		0.116	+/-0.115	0.100	pCi/g						
Lead-214		1.57		0.135	+/-0.127	0.100	pCi/g						
Mercury-203	U	-0.0011		0.0973	+/-0.0283	0.100	pCi/g						
Potassium-40		24.9		0.592	+/-1.53	1.00	pCi/g						
Radium-223	U	-0.216		1.39	+/-0.413		pCi/g						
Radium-224	UI	5.02	R,R5a	1.32	+/-0.817		pCi/g						
Radium-226		1.30		0.142	+/-0.107		pCi/g						
Radium-228		1.36		0.253	+/-0.181	0.500	pCi/g						
Ruthenium-106	U	0.0839		0.613	+/-0.184	0.800	pCi/g						
Sodium-22	U	-0.0249		0.0809	+/-0.0263	0.080	pCi/g						
Strontium-85	UI	0.128	R,R5a	0.0916	+/-0.0271		pCi/g						
Thallium-208		0.397		0.0757	+/-0.0524	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7975
Sample ID: 245978008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.307	0.881	+/-0.250		pCi/g						
Thorium-231	U	-0.216	1.39	+/-0.413		pCi/g						
Thorium-234		14.4	4.34	+/-2.54	2.00	pCi/g						
Tin-113	U	-0.024	0.0997	+/-0.0302	0.100	pCi/g						
Uranium-235	U	0.193	0.494	+/-0.144	0.500	pCi/g						
Yttrium-88	U	-0.015	0.0498	+/-0.017	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1060	194	+/-103	250	pCi/L		KXK2	02/13/10	2007	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	80.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7978
Sample ID: 245978009
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 16.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0163		0.0473	+/-0.00703	0.050	pCi/g		CXM2	02/25/10	1700	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00887		0.0483	+/-0.0148	0.050	pCi/g		CXM2	02/23/10	1308	951669	3
Plutonium-239/240	U	0.00591		0.0364	+/-0.00725	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.461		0.0435	+/-0.0433	0.100	pCi/g		CXM2	02/24/10	1320	951672	4
Uranium-235/236	U	0.0213		0.0278	+/-0.00754	0.100	pCi/g						
Uranium-238		0.609	J,R4a	0.0297	+/-0.0543	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0859		0.245	+/-0.0787	0.200	pCi/g		MXR1	02/14/10	1201	948721	5
Bismuth-211	UI	5.05	R,R5a	0.324	+/-0.373		pCi/g						
Bismuth-214		1.27		0.112	+/-0.109	0.200	pCi/g						
Cadmium-109	UI	4.34	R,R5a	1.31	+/-0.607		pCi/g						
Cerium-139	U	0.0209		0.0557	+/-0.0162	0.050	pCi/g						
Cesium-134	UI	0.108	R,R5a	0.0864	+/-0.0279	0.100	pCi/g						
Cesium-137		0.142		0.0633	+/-0.0421	0.100	pCi/g						
Cobalt-60	U	0.000858		0.0652	+/-0.0198	0.100	pCi/g						
Europium-152	U	-0.0103		0.163	+/-0.0597	0.200	pCi/g						
Lanthanum-140	U	-0.115		0.165	+/-0.0554		pCi/g						
Lead-212		2.15		0.0953	+/-0.154	0.100	pCi/g						
Lead-214		1.76		0.113	+/-0.138	0.100	pCi/g						
Mercury-203	UI	0.0943	R,R5a	0.0677	+/-0.031	0.100	pCi/g						
Potassium-40		29.2		0.451	+/-1.55	1.00	pCi/g						
Radium-223	U	0.362		1.13	+/-0.375		pCi/g						
Radium-224	UI	6.06	R,R5a	1.08	+/-0.842		pCi/g						
Radium-226		1.27		0.112	+/-0.109		pCi/g						
Radium-228		2.02		0.207	+/-0.190	0.500	pCi/g						
Ruthenium-106	U	0.0587		0.547	+/-0.164	0.800	pCi/g						
Sodium-22	U	-0.0429		0.0688	+/-0.0225	0.080	pCi/g						
Strontium-85	UI	0.143	R,R5a	0.0772	+/-0.024		pCi/g						
Thallium-208		0.633		0.0608	+/-0.0571	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7978
Sample ID: 245978009
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.286	0.689	+/-0.208		pCi/g						
Thorium-231	U	0.362	1.13	+/-0.375		pCi/g						
Thorium-234		3.04	2.02	+/-1.01	2.00	pCi/g						
Tin-113	U	0.0011	0.0776	+/-0.0234	0.100	pCi/g						
Uranium-235	U	-0.0178	0.377	+/-0.114	0.500	pCi/g						
Yttrium-88	U	-0.0185	0.0464	+/-0.0157	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	154	194	+/-60.8	250	pCi/L		KXK2	02/13/10	2145	950495	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	80.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7970
Sample ID: 245978010
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 8.19%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.0204		0.0496	+/-0.0127	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.0236		0.0482	+/-0.0102	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00		0.0363	+/-0.00418	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.309		0.0384	+/-0.0308	0.100	pCi/g		CXM2	02/24/10	1320	951672	3
Uranium-235/236	U	0.0226		0.0245	+/-0.00671	0.100	pCi/g						
Uranium-238		1.16	J,R4a	0.0262	+/-0.0921	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0103		0.245	+/-0.0731	0.200	pCi/g		MXR1	02/14/10	1217	948721	4
Bismuth-211	UI	2.53	R,R5a	0.208	+/-0.169		pCi/g						
Bismuth-214		0.691		0.0697	+/-0.0531	0.200	pCi/g						
Cadmium-109	UI	1.95	R,R5a	1.20	+/-0.355		pCi/g						
Cerium-139	U	0.00238		0.0354	+/-0.00964	0.050	pCi/g						
Cesium-134	U	0.0374		0.0558	+/-0.0158	0.100	pCi/g						
Cesium-137	U	0.030		0.0451	+/-0.0122	0.100	pCi/g						
Cobalt-60	U	-0.000796		0.0442	+/-0.0134	0.100	pCi/g						
Europium-152	U	-0.024		0.0988	+/-0.0372	0.200	pCi/g						
Lanthanum-140	U	-0.0196		0.091	+/-0.0284		pCi/g						
Lead-212		0.995		0.0614	+/-0.0495	0.100	pCi/g						
Lead-214		0.880		0.0725	+/-0.0631	0.100	pCi/g						
Mercury-203	U	0.0055		0.0478	+/-0.0137	0.100	pCi/g						
Potassium-40		24.2		0.297	+/-1.08	1.00	pCi/g						
Radium-223	U	-0.459		0.703	+/-0.221		pCi/g						
Radium-224	UI	2.63	R,R5a	0.697	+/-0.408		pCi/g						
Radium-226		0.691		0.0697	+/-0.0531		pCi/g						
Radium-228		1.05		0.138	+/-0.115	0.500	pCi/g						
Ruthenium-106	U	0.184		0.347	+/-0.0974	0.800	pCi/g						
Sodium-22	U	-0.027		0.0469	+/-0.0151	0.080	pCi/g						
Strontium-85	UI	0.0989	R,R5a	0.0522	+/-0.0146		pCi/g						
Thallium-208		0.330		0.0352	+/-0.0277	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7970
Sample ID: 245978010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0789	0.422	+/-0.123		pCi/g						
Thorium-231	U	-0.459	0.703	+/-0.221		pCi/g						
Thorium-234		2.89	1.85	+/-0.910	2.00	pCi/g						
Tin-113	U	-0.018	0.0468	+/-0.0137	0.100	pCi/g						
Uranium-235	U	0.0417	0.252	+/-0.0729	0.500	pCi/g						
Yttrium-88	U	-0.0212	0.0285	+/-0.0104	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		5310	194	+/-386	250	pCi/L		KXK2	02/13/10	2324	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7964
Sample ID: 245978011
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00713		0.031	+/-0.0036	0.050	pCi/g		CXM2	02/27/10	2008	957873	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00374		0.038	+/-0.00476	0.050	pCi/g		CXM2	02/24/10	2001	951669	3
Plutonium-239/240	U	0.00154		0.0285	+/-0.00422	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.444		0.0385	+/-0.0408	0.100	pCi/g		CXM2	02/24/10	1320	951672	5
Uranium-235/236		0.034		0.0246	+/-0.00836	0.100	pCi/g						
Uranium-238		0.509	J,R4a	0.0263	+/-0.0455	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.132		0.341	+/-0.105	0.200	pCi/g		MXR1	02/14/10	1218	948721	6
Bismuth-211	UI	3.72	R,R5a	0.338	+/-0.231		pCi/g						
Bismuth-214		1.20		0.103	+/-0.0909	0.200	pCi/g						
Cadmium-109	UI	1.91	R,R5a	1.46	+/-0.575		pCi/g						
Cerium-139	U	-0.014		0.0521	+/-0.0156	0.050	pCi/g						
Cesium-134	U	0.0154		0.0851	+/-0.0243	0.100	pCi/g						
Cesium-137	U	-0.0241		0.060	+/-0.0192	0.100	pCi/g						
Cobalt-60	U	0.0203		0.0693	+/-0.0199	0.100	pCi/g						
Europium-152	U	0.032		0.169	+/-0.0547	0.200	pCi/g						
Lanthanum-140	U	-0.146		0.113	+/-0.0473		pCi/g						
Lead-212		1.54		0.0956	+/-0.0771	0.100	pCi/g						
Lead-214		1.29		0.121	+/-0.0871	0.100	pCi/g						
Mercury-203	U	0.0228		0.0759	+/-0.0211	0.100	pCi/g						
Potassium-40		24.5		0.583	+/-1.23	1.00	pCi/g						
Radium-223	U	-0.434		1.12	+/-0.388		pCi/g						
Radium-224	UI	4.87	R,R5a	1.09	+/-0.677		pCi/g						
Radium-226		1.20		0.103	+/-0.0909		pCi/g						
Radium-228		1.50		0.245	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	0.0749		0.510	+/-0.150	0.800	pCi/g						
Sodium-22	U	-0.0482		0.0682	+/-0.0235	0.080	pCi/g						
Strontium-85	U	0.0471		0.0692	+/-0.0215		pCi/g						
Thallium-208		0.546		0.0618	+/-0.0438	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7964 Project: LANL01004
Sample ID: 245978011 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.393	0.686	+/-0.198		pCi/g						
Thorium-231	U	-0.434	1.12	+/-0.388		pCi/g						
Thorium-234	U	2.63	2.74	+/-1.08	2.00	pCi/g						
Tin-113	U	-0.000973	0.0801	+/-0.0233	0.100	pCi/g						
Uranium-235	U	0.0886	0.381	+/-0.111	0.500	pCi/g						
Yttrium-88	U	0.00777	0.0602	+/-0.0175	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		596	195	+/-78.1	250	pCi/L		KXK2	02/14/10	0102	950495	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	36.9 *	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	89.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	92.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7973
Sample ID: 245978012
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 18.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.0108		0.0505	+/-0.0151	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	-0.00493		0.0535	+/-0.00646	0.050	pCi/g		CXM2	02/24/10	2001	951669	2
Plutonium-239/240	U	0.00742		0.0401	+/-0.00894	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.687		0.0404	+/-0.059	0.100	pCi/g		CXM2	02/24/10	1321	951672	4
Uranium-235/236		0.0772		0.0258	+/-0.0138	0.100	pCi/g						
Uranium-238		2.27	J,R4a	0.0276	+/-0.172	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.0591		0.299	+/-0.0976	0.200	pCi/g		MXR1	02/14/10	1311	948721	5
Bismuth-211	UI	3.97	R,R5a	0.352	+/-0.297		pCi/g						
Bismuth-214		1.08		0.114	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	2.24	R,R5a	1.83	+/-0.640		pCi/g						
Cerium-139	U	-0.00108		0.0555	+/-0.0156	0.050	pCi/g						
Cesium-134	U	0.0903		0.098	+/-0.0264	0.100	pCi/g						
Cesium-137	U	0.048		0.075	+/-0.0229	0.100	pCi/g						
Cobalt-60	U	0.036		0.0716	+/-0.0192	0.100	pCi/g						
Europium-152	U	-0.0203		0.166	+/-0.057	0.200	pCi/g						
Lanthanum-140	U	-0.00509		0.188	+/-0.0573		pCi/g						
Lead-212		1.57		0.0954	+/-0.0971	0.100	pCi/g						
Lead-214		1.38		0.124	+/-0.109	0.100	pCi/g						
Mercury-203	U	0.0663		0.080	+/-0.0218	0.100	pCi/g						
Potassium-40		23.3		0.450	+/-1.32	1.00	pCi/g						
Radium-223	U	0.0802		1.16	+/-0.388		pCi/g						
Radium-224	UI	4.06	R,R5a	1.09	+/-0.693		pCi/g						
Radium-226		1.08		0.114	+/-0.102		pCi/g						
Radium-228		1.50		0.184	+/-0.161	0.500	pCi/g						
Ruthenium-106	U	0.0648		0.542	+/-0.156	0.800	pCi/g						
Sodium-22	U	-0.0563		0.0615	+/-0.0217	0.080	pCi/g						
Strontium-85	UI	0.0837	R,R5a	0.0775	+/-0.0233		pCi/g						
Thallium-208		0.501		0.0608	+/-0.0464	0.080	pCi/g						

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7973
Sample ID: 245978012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.437	0.624	+/-0.196		pCi/g						
Thorium-231	U	0.0802	1.16	+/-0.388		pCi/g						
Thorium-234		6.54	2.38	+/-1.48	2.00	pCi/g						
Tin-113	U	-0.0104	0.0798	+/-0.0242	0.100	pCi/g						
Uranium-235	U	0.104	0.398	+/-0.111	0.500	pCi/g						
Yttrium-88	U	-0.00503	0.0453	+/-0.0146	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1080	193	+/-104	250	pCi/L		KXK2	02/14/10	0240	950495	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	64.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	85.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7962
Sample ID: 245978013
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 5.31%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	-0.00747		0.0484	+/-0.0147	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00146		0.036	+/-0.00399	0.050	pCi/g		CXM2	02/24/10	2001	951669	2
Plutonium-239/240	U	0.00499		0.027	+/-0.00601	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.375		0.0371	+/-0.0354	0.100	pCi/g		CXM2	02/24/10	1321	951672	4
Uranium-235/236		0.0327		0.0237	+/-0.00805	0.100	pCi/g						
Uranium-238		0.937	J,R4a	0.0254	+/-0.0757	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	-0.116		0.343	+/-0.112	0.200	pCi/g		MXR1	02/14/10	1311	948721	5
Bismuth-211	UI	3.75	R,R5a	0.393	+/-0.290		pCi/g						
Bismuth-214		1.17		0.128	+/-0.0925	0.200	pCi/g						
Cadmium-109	UI	4.31	R,R5a	1.47	+/-0.609		pCi/g						
Cerium-139	U	-0.0224		0.0579	+/-0.0175	0.050	pCi/g						
Cesium-134	UI	0.184	R,R5a	0.105	+/-0.0335	0.100	pCi/g						
Cesium-137	U	-0.0245		0.0692	+/-0.022	0.100	pCi/g						
Cobalt-60	U	0.0141		0.0795	+/-0.0236	0.100	pCi/g						
Europium-152	U	0.0593		0.191	+/-0.0772	0.200	pCi/g						
Lanthanum-140	U	0.005		0.186	+/-0.0553		pCi/g						
Lead-212		1.74		0.109	+/-0.0878	0.100	pCi/g						
Lead-214		1.30		0.137	+/-0.106	0.100	pCi/g						
Mercury-203	U	0.0141		0.0889	+/-0.0252	0.100	pCi/g						
Potassium-40		34.9		0.414	+/-1.51	1.00	pCi/g						
Radium-223	U	0.0964		1.27	+/-0.419		pCi/g						
Radium-224	UI	3.79	R,R5a	1.24	+/-0.746		pCi/g						
Radium-226		1.17		0.128	+/-0.0925		pCi/g						
Radium-228		1.85		0.230	+/-0.174	0.500	pCi/g						
Ruthenium-106	U	0.259		0.633	+/-0.181	0.800	pCi/g						
Sodium-22	U	0.0111		0.0915	+/-0.0274	0.080	pCi/g						
Strontium-85	UI	0.0795	R,R5a	0.0785	+/-0.0234		pCi/g						
Thallium-208		0.558		0.0682	+/-0.0507	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7962
Sample ID: 245978013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0942	0.749	+/-0.224		pCi/g						
Thorium-231	U	0.0964	1.27	+/-0.419		pCi/g						
Thorium-234		4.48	2.83	+/-1.23	2.00	pCi/g						
Tin-113	U	0.00482	0.0898	+/-0.0262	0.100	pCi/g						
Uranium-235	U	0.337	0.431	+/-0.123	0.500	pCi/g						
Yttrium-88	U	-0.000315	0.0556	+/-0.0169	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		10400	194	+/-739	250	pCi/L		KXK2	02/14/10	0419	950495	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	89.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7963
Sample ID: 245978014
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 20.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00205		0.052	+/-0.00703	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00296		0.0483	+/-0.0148	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00591		0.0363	+/-0.00836	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		0.864		0.0383	+/-0.0709	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236		0.0619		0.0244	+/-0.0119	0.100	pCi/g						
Uranium-238		2.99		0.0261	+/-0.222	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0413		0.195	+/-0.0611	0.200	pCi/g		MXR1	02/14/10	1312	948721	4
Bismuth-211	UI	4.13	R,R5a	0.296	+/-0.341		pCi/g						
Bismuth-214		1.26		0.0976	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	3.64	R,R5a	1.28	+/-0.484		pCi/g						
Cerium-139	U	-0.0151		0.042	+/-0.0123	0.050	pCi/g						
Cesium-134	U	0.0704		0.0801	+/-0.0273	0.100	pCi/g						
Cesium-137	U	-0.0106		0.0525	+/-0.0162	0.100	pCi/g						
Cobalt-60	U	0.0379		0.0638	+/-0.0174	0.100	pCi/g						
Europium-152	U	-0.0945		0.118	+/-0.0424	0.200	pCi/g						
Lanthanum-140	U	-0.129		0.140	+/-0.0521		pCi/g						
Lead-212		1.66		0.0786	+/-0.131	0.100	pCi/g						
Lead-214		1.44		0.103	+/-0.124	0.100	pCi/g						
Mercury-203	U	0.025		0.0588	+/-0.0187	0.100	pCi/g						
Potassium-40		27.4		0.467	+/-1.44	1.00	pCi/g						
Radium-223	U	0.310		0.941	+/-0.308		pCi/g						
Radium-224	UI	3.03	R,R5a	1.10	+/-0.488		pCi/g						
Radium-226		1.26		0.0976	+/-0.103		pCi/g						
Radium-228		1.60		0.187	+/-0.153	0.500	pCi/g						
Ruthenium-106	U	0.138		0.475	+/-0.137	0.800	pCi/g						
Sodium-22	U	-0.0358		0.0569	+/-0.0194	0.080	pCi/g						
Strontium-85	UI	0.0741	R,R5a	0.0606	+/-0.0173		pCi/g						
Thallium-208		0.589		0.0463	+/-0.0512	0.080	pCi/g						

MAD
03/11/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7963
Sample ID: 245978014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.307	0.572	+/-0.164		pCi/g						
Thorium-231	U	0.310	0.941	+/-0.308		pCi/g						
Thorium-234		4.61	1.66	+/-0.915	2.00	pCi/g						
Tin-113	U	-0.00779	0.063	+/-0.0183	0.100	pCi/g						
Uranium-235	U	0.231	0.267	+/-0.107	0.500	pCi/g						
Yttrium-88	U	0.00867	0.0567	+/-0.0165	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1370	194	+/-122	250	pCi/L		KXK2	02/14/10	0557	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

MAD
03/11/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7977
Sample ID: 245978015
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 36.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
AM241 "Dry Weight Corrected"													
Americium-241	U	0.00875		0.0527	+/-0.00855	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"													
Plutonium-238	U	0.00906		0.0494	+/-0.0151	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240		0.0483		0.0371	+/-0.0144	0.050	pCi/g						
ISOU "Dry Weight Corrected"													
Uranium-233/234		1.00		0.0453	+/-0.0836	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236		0.0555		0.0289	+/-0.0118	0.100	pCi/g						
Uranium-238		2.21	J,R4a	0.0309	+/-0.171	0.100	pCi/g						
Rad Gamma Spec Analysis													
GAMMA SPEC "Dry Weight Corrected"													
Americium-241	U	0.0875		0.279	+/-0.0876	0.200	pCi/g		MXR1	02/14/10	1312	948721	4
Bismuth-211	UI	4.10	R,R5a	0.367	+/-0.272		pCi/g						
Bismuth-214		1.25		0.124	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	2.40	R,R5a	1.74	+/-0.545		pCi/g						
Cerium-139	U	-0.00926		0.0553	+/-0.0173	0.050	pCi/g						
Cesium-134	UI	0.183	R,R5a	0.100	+/-0.037	0.100	pCi/g						
Cesium-137		0.401		0.0683	+/-0.0365	0.100	pCi/g						
Cobalt-60	U	0.0121		0.078	+/-0.0232	0.100	pCi/g						
Europium-152	U	0.0166		0.178	+/-0.0549	0.200	pCi/g						
Lanthanum-140	U	-0.126		0.133	+/-0.0529		pCi/g						
Lead-212		1.43		0.146	+/-0.0825	0.100	pCi/g						
Lead-214		1.43		0.128	+/-0.102	0.100	pCi/g						
Mercury-203	U	-0.0272		0.0698	+/-0.0246	0.100	pCi/g						
Potassium-40		22.2		0.483	+/-1.19	1.00	pCi/g						
Radium-223	U	0.226		1.20	+/-0.399		pCi/g						
Radium-224	UI	1.49	R,R5a	1.42	+/-0.514		pCi/g						
Radium-226		1.25		0.124	+/-0.105		pCi/g						
Radium-228		1.62		0.239	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.279		0.610	+/-0.172	0.800	pCi/g						
Sodium-22	U	-0.0107		0.0821	+/-0.0257	0.080	pCi/g						
Strontium-85	U	0.0674		0.0749	+/-0.0209		pCi/g						
Thallium-208		0.572		0.0626	+/-0.0516	0.080	pCi/g						

MAD
03/11/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7977
Sample ID: 245978015

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.258	0.662	+/-0.190		pCi/g						
Thorium-231	U	0.226	1.20	+/-0.399		pCi/g						
Thorium-234		6.77	2.33	+/-1.57	2.00	pCi/g						
Tin-113	U	0.0646	0.0921	+/-0.0261	0.100	pCi/g						
Uranium-235	U	0.220	0.379	+/-0.113	0.500	pCi/g						
Yttrium-88	U	0.037	0.0788	+/-0.0208	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		298	195	+/-65.3	250	pCi/L		KXK2	02/14/10	0735	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	77.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

MAD
03/11/10

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1513C

REQUEST NUMBER: 10-1513

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245978

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7880	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7880	1	POLY	H3	Ice	R
RE15-10-7891	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7891	1	POLY	H3	Ice	R
RE15-10-7892	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7892	1	POLY	H3	Ice	R
RE15-10-7967	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7967	1	POLY	H3	Ice	R
RE15-10-7976	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7976	1	POLY	H3	Ice	R
RE15-10-7968	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7968	1	POLY	H3	Ice	R
RE15-10-7965	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7965	1	POLY	H3	Ice	R
RE15-10-7975	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7975	1	POLY	H3	Ice	R
RE15-10-7978	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7978	1	POLY	H3	Ice	R
RE15-10-7970	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7970	1	POLY	H3	Ice	R
RE15-10-7964	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7964	1	POLY	H3	Ice	R
RE15-10-7973	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7973	1	POLY	H3	Ice	R
RE15-10-7962	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7962	1	POLY	H3	Ice	R
RE15-10-7963	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1513C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7963	1	POLY	H3	Ice	R
RE15-10-7977	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7977	1	POLY	H3	Ice	R

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
		2/1/10	3:0	Bionne Francis		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1513
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	EPA:906.0	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:AM-241	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:ISOPU	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:ISOU	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	

Final Page of REQUEST NUMBER 10-1513

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 245978
SDG: 10-1513

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1513
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245978
SDG: 10-1513

TABLE OF CONTENTS

Case Narrative 1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 20

Radiological Analysis..... 22
- Sample Data Summary.....45
- Quality Control Data.....92
- Raw Data..... 102
- Background and Efficiency Data..... 1057
- Standards Data..... 1298
- Runlogs..... 1333

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245978
SDG # : 10-1513

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 13-15,19C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245978001	RE15-10-7880
245978002	RE15-10-7891
245978003	RE15-10-7892
245978004	RE15-10-7967
245978005	RE15-10-7976
245978006	RE15-10-7968
245978007	RE15-10-7965
245978008	RE15-10-7975
245978009	RE15-10-7978
245978010	RE15-10-7970
245978011	RE15-10-7964
245978012	RE15-10-7973
245978013	RE15-10-7962
245978014	RE15-10-7963
245978015	RE15-10-7977

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1513C

REQUEST NUMBER: 10-1513

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245978

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7880	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7880	1	POLY	H3	Ice	R
RE15-10-7891	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7891	1	POLY	H3	Ice	R
RE15-10-7892	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7892	1	POLY	H3	Ice	R
RE15-10-7967	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7967	1	POLY	H3	Ice	R
RE15-10-7976	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7976	1	POLY	H3	Ice	R
RE15-10-7968	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7968	1	POLY	H3	Ice	R
RE15-10-7965	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7965	1	POLY	H3	Ice	R
RE15-10-7975	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7975	1	POLY	H3	Ice	R
RE15-10-7978	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7978	1	POLY	H3	Ice	R
RE15-10-7970	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7970	1	POLY	H3	Ice	R
RE15-10-7964	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7964	1	POLY	H3	Ice	R
RE15-10-7973	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7973	1	POLY	H3	Ice	R
RE15-10-7962	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7962	1	POLY	H3	Ice	R
RE15-10-7963	1	POLY	AM241+GS+ISOPU+ISOU	None	R

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1513C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7963	1	POLY	H3	Ice	R
RE15-10-7977	1	POLY	AM241+GS+ISOPU+ISOU	None	R
RE15-10-7977	1	POLY	H3	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/1/10	3:0	Bionne Francis		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1513

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:901.1	1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	EPA:906.0	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:AM-241	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:AM-241	1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:ISOPU	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	HASL-300:ISOU	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1513

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	

Final Page of REQUEST NUMBER 10-1513

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1513**
Received By: Dionne Francis	**Date Received: February 2, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C 7209 7849 7886 2C 7209 7849 7967 3C 7209 7849 7739 19C
7209 7849 7772 1C 7209 7849 7901 2C 7209 7849 7945 4C
7209 7849 7934 1C 7209 7849 7853 2C 7209 7849 7810 5C
7209 7849 7831 1C 7209 7849 7875 2C 7209 7849 7897 5C
7209 7849 7783 1C 7209 7849 7956 2C 7209 7849 7728 13C
7209 7849 7864 1C 7209 7849 7794 2C 7209 7849 7706 13C
7209 7849 7923 1C 7209 7849 7820 2C 7209 7849 7717 14C
7209 7849 7761 1C 7209 7849 7809 2C 7209 7849 7750 15C
7209 7849 7842 1C 7209 7849 7912 3C 7209 7849 7740 15C

PM (or PMA) review: Initials P. M-H. Date 2/3/10

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

0c

FedEx Express

TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 2
MPS# 0263 7209 7849 7772
Matr# 7209 7849 7761 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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1 of 2
TRK# 0201 7209 7849 7934
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
TRK# 0201 7209 7849 7831
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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REF: 6B010AMR3A052VA00

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TRK# 0201 7209 7849 7783
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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2 of 2
MPS# 0263 7209 784[illegible] 7864
Mstr# 7209 7[illegible] 7853 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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2 of 2
MPS# 0263 7209 7849 7923
Mstr# 7209 7849 7912 0201

TUE - 02 FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
TRK# 0201 7209 7849 7761
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1

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2 of 2
MPS# 0263 7209 7849 7842
Matr# 7209 7849 7831 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

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2 of 2
MPS# 0263 7209 7849 7901
Matr# 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

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2 of 2
MPS# 0263 7209 7849 7886
Matr# 7209 7849 7875 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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FedEx Express

1 of 2
TRK# 0201 7209 7849 7853
** MASTER **

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

FedEx Express

1 of 2
TRK# 0201 7209 7849 7875
TUE - 02FEB A1
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407
SC-US
CHS

Part # 156146-434 NRIT V04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

2C

FedEx Express

1 of 2
TRK# 0201 7209 7849 7956
TUE - 02FEB A1
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407
SC-US
CHS

Part # (56146-434 NRIT V0 09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

2 of 2
MPS# 0203 7209 7849 7794
Mstr# 7209 7849 7783 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

3 of 3
MPS# 0203 7209 7849 7820
Mstr# 7209 7849 7809 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

1 of 3

TUE - 02FEB A1

TRK# 7209 7849 7809 0201

TUE - 02 FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Emp# 133998 01FEB10 SAFA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

FedEx Express

1 of 2

TUE - 02FEB A1
PRIORITY OVERNIGHT

TRK# 7209 7849 7912 0201

MN MASTER MN

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NAIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

FedEx Express

2 of 2

TUE - 02FEB A1
PRIORITY OVERNIGHT

MPS# 7209 7849 7967 0263
Mstr# 7209 7849 7956 0201

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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2 of 2

TUE - 02FEB A1
PRIORITY OVERNIGHT

TRK# 7209 7849 7945 0263
Mstr# 7209 7849 7934 0201

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
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2 of 3
MPS# 0263 7209 7849 7810
Mstr# 7209 7849 7800 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
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XX CHSA

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

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(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7897
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TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
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XX CHSA

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

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TO VALERIE DAVIS
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2040 SAVAGE RD

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REF: 6B010AMR2A0515BYD0

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1 of 2
TRK# 0201 7209 7849 7728
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

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SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

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TO VALERIE DAVIS
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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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2 of 3
MPS# 0263 7209 7849 7706
Mstr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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XX CHSA

04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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3 of 3
MPS# 0263 7209 7849 7717
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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Part # 156143-434 NART V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
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2040 SAVAGE RD

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REF: 6B010AMR2A0515BYDO

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2 of 2
MPS# 0263 7209 7849 7750
Matr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

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CHS

Part # 156143-434 NART V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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1 of 2
TRK# 0201 7209 7849 7740
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

19°

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2 of 2
MPS# 0263 7209 7849 7739
Matr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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SC-US

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1513

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949823
Prep Batch Number:	948542

Sample ID	Client ID
245978001	RE15-10-7880
245978002	RE15-10-7891
245978003	RE15-10-7892
245978004	RE15-10-7967
245978005	RE15-10-7976
245978006	RE15-10-7968
1202034998	Method Blank (MB)
1202034999	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035000	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information

Aliquot for sample 1202034998 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202035000 (LCS) was recounted due to high carrier/tracer yield. Sample 245978004 (RE15-10-7967) was recounted due to a suspected false positive.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202035000 (LCS), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	951665
Prep Batch Number:	948543

Sample ID	Client ID
245978008	RE15-10-7975
245978009	RE15-10-7978
245978010	RE15-10-7970
245978012	RE15-10-7973
245978013	RE15-10-7962
245978014	RE15-10-7963
245978015	RE15-10-7977
1202039541	Method Blank (MB)
1202039542	246020001(RE15-10-7980) Sample Duplicate (DUP)
1202039543	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202039541 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020001 (RE15-10-7980). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245978009 (RE15-10-7978) was recounted due to high MDA.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 1202039543 (LCS), did not meet the client tracer yield requirements, however it is equal to 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	954009
Prep Batch Number:	948542

Sample ID	Client ID
245978007	RE15-10-7965
1202045187	Method Blank (MB)
1202045188	245978007(RE15-10-7965) Sample Duplicate (DUP)
1202045189	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202045187 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978007 (RE15-10-7965). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245978007 (RE15-10-7965) was reprepped due to high carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
Manual integration of alpha spectroscopy spectra 1202045189 (LCS) was performed to fully separate counts in Regions of Interest which would have been biased.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified

Prep Method:	Dry Soil Prep
Analytical Batch Number:	957873
Prep Batch Number:	948543

Sample ID	Client ID
245978011	RE15-10-7964
1202054058	Method Blank (MB)
1202054059	245978011(RE15-10-7964) Sample Duplicate (DUP)
1202054060	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202054058 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978011 (RE15-10-7964). The QC was from LANL work order 245978.

QC Information
Refer to Data Exception Report (DER).

CSU
The Am241 blank result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 245978011 (RE15-10-7964) was reprepped due to low carrier/tracer yield. Sample 245978011

(RE15-10-7964) was recounted in error. Both counts confirm that there is no activity in the sample.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG:
DER 797056 was generated due to RDL less than MDA and Failed Recovery for Surrogate or Tracer. 1. The duplicate sample, 1202054059, does not meet the client's tracer yield requirement of 50 - 105%, nor the required detection limit for Am241. 1. The duplicate sample does not meet the GEL standard tracer yield requirements. The sample, 245978011, meets the required detection limit for Am241 and there are more than 400 Am243 tracer counts. The sample has been reprepped due to low tracer yield and the original analysis confirms the results of the second analysis and the duplicate. Reporting results.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample 245978011 (RE15-10-7964) did not meet the client's yield requirement. However, there are 400 tracer counts, GEL's standard tracer yield requirements are met, and the client's detection limits are met.

Blank Decision Level
The Am241 blank result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949824
Prep Batch Number:	948542

Sample ID	Client ID
245978001	RE15-10-7880
245978002	RE15-10-7891
245978003	RE15-10-7892
245978004	RE15-10-7967
245978005	RE15-10-7976
245978006	RE15-10-7968
245978007	RE15-10-7965
1202035001	Method Blank (MB)
1202035002	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035003	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035001 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202035003 (LCS) was recounted due to poor resolution. Sample 1202035002 (RE15-10-7880) was recounted due to a negative result greater than three times the error. Second count being reported. Samples 245978002 (RE15-10-7891) and 245978004 (RE15-10-7967) were recounted to verify results.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	951669
Prep Batch Number:	948543

Sample ID	Client ID
245978008	RE15-10-7975
245978009	RE15-10-7978
245978010	RE15-10-7970
245978011	RE15-10-7964
245978012	RE15-10-7973
245978013	RE15-10-7962
245978014	RE15-10-7963
245978015	RE15-10-7977
1202039555	Method Blank (MB)
1202039556	246020001(RE15-10-7980) Sample Duplicate (DUP)
1202039557	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202039555 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020001 (RE15-10-7980). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 1202039556 (RE15-10-7980), 245978011 (RE15-10-7964), 245978012 (RE15-10-7973) and 245978013 (RE15-10-7962) were recounted due to high MDAs.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	949825
Prep Batch Number:	948542

Sample ID	Client ID
245978001	RE15-10-7880
245978003	RE15-10-7892
245978005	RE15-10-7976
245978006	RE15-10-7968
245978007	RE15-10-7965
1202035005	Method Blank (MB)
1202035006	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202035007	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202035005 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and 238 blank result 1202035005 (MB) is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202035005 (MB) was recounted due to high carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234 and 238 blank result 1202035005 (MB) is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	951672
Prep Batch Number:	948543

Sample ID	Client ID
245978008	RE15-10-7975
245978009	RE15-10-7978
245978010	RE15-10-7970
245978011	RE15-10-7964
245978012	RE15-10-7973
245978013	RE15-10-7962
245978014	RE15-10-7963
245978015	RE15-10-7977
1202039558	Method Blank (MB)
1202039559	246020001(RE15-10-7980) Sample Duplicate (DUP)
1202039560	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202039558 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246020001 (RE15-10-7980). The QC was from LANL work order 246020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U233/234 and U235 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U238 blank result is greater than the decision level and MDA; however, all sample activities are greater than five time the blank activity.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	953488
Prep Batch Number:	948542

Sample ID	Client ID
245978002	RE15-10-7891
245978004	RE15-10-7967
1202044051	Method Blank (MB)
1202044052	245978002(RE15-10-7891) Sample Duplicate (DUP)
1202044053	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202044051 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 245978002 (RE15-10-7891). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U233/234 and U238 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 245978002 (RE15-10-7891) and 245978004 (RE15-10-7967) were reprepped with reduced aliquot size due to high levels of U238 activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U233/234 and U238 blank results are greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GAMMA SPEC**
Analytical Method:	DOE HASL 300, 4.5.2.3/Ga-01-R
Prep Method:	Dry Soil Prep
Analytical Batch Number:	948721
Prep Batch Number:	948542

Sample ID	Client ID
245978001	RE15-10-7880
245978002	RE15-10-7891
245978003	RE15-10-7892
245978004	RE15-10-7967
245978005	RE15-10-7976
245978006	RE15-10-7968
245978007	RE15-10-7965
245978008	RE15-10-7975
245978009	RE15-10-7978
245978010	RE15-10-7970
245978011	RE15-10-7964
245978012	RE15-10-7973

245978013	RE15-10-7962
245978014	RE15-10-7963
245978015	RE15-10-7977
1202032521	Method Blank (MB)
1202032522	245978008(RE15-10-7975) Sample Duplicate (DUP)
1202032523	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, April 2009, May 2009, June 2009, July 2009, August 2009, November 2009, December 2009, January 2010 and February 2010.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245978008 (RE15-10-7975). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank, 1202032521 (MB), result for Cs-137 is greater than 1.65 times the CSU, but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced

SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	245978001	RE15-10-7880
			245978002	RE15-10-7891
			245978003	RE15-10-7892
			245978004	RE15-10-7967
			245978005	RE15-10-7976
			245978006	RE15-10-7968
			245978007	RE15-10-7965
			245978008	RE15-10-7975
			245978009	RE15-10-7978
			245978010	RE15-10-7970
			245978011	RE15-10-7964
			245978012	RE15-10-7973
			245978013	RE15-10-7962
			245978014	RE15-10-7963
			245978015	RE15-10-7977
			1202032522	RE15-10-7975(245978008DUP)
		Cadmium-109	245978001	RE15-10-7880
			245978002	RE15-10-7891
			245978003	RE15-10-7892
			245978005	RE15-10-7976
			245978006	RE15-10-7968
			245978007	RE15-10-7965
			245978009	RE15-10-7978
			245978010	RE15-10-7970

			245978011	RE15-10-7964
			245978012	RE15-10-7973
			245978013	RE15-10-7962
			245978014	RE15-10-7963
			245978015	RE15-10-7977
			1202032522	RE15-10-7975(245978008DUP)
		Mercury-203	245978009	RE15-10-7978
		Radium-224	245978001	RE15-10-7880
			245978002	RE15-10-7891
			245978003	RE15-10-7892
			245978004	RE15-10-7967
			245978005	RE15-10-7976
			245978006	RE15-10-7968
			245978007	RE15-10-7965
			245978008	RE15-10-7975
			245978009	RE15-10-7978
			245978010	RE15-10-7970
			245978011	RE15-10-7964
			245978012	RE15-10-7973
			245978013	RE15-10-7962
			245978014	RE15-10-7963
			245978015	RE15-10-7977
			1202032522	RE15-10-7975(245978008DUP)
UI	Data rejected due to low abundance.	Americium-241	245978004	RE15-10-7967
		Cesium-134	245978001	RE15-10-7880
			245978002	RE15-10-7891
			245978005	RE15-10-7976
			245978006	RE15-10-7968
			245978009	RE15-10-7978
			245978013	RE15-10-7962
			245978015	RE15-10-7977
		Strontium-85	245978005	RE15-10-7976

	245978007	RE15-10-7965
	245978008	RE15-10-7975
	245978009	RE15-10-7978
	245978010	RE15-10-7970
	245978012	RE15-10-7973
	245978013	RE15-10-7962
	245978014	RE15-10-7963
	1202032521	MB for batch 948721
Thorium-227	245978004	RE15-10-7967

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	950495

Sample ID	**Client ID**
245978001	RE15-10-7880
245978002	RE15-10-7891
245978003	RE15-10-7892
245978004	RE15-10-7967
245978005	RE15-10-7976
245978006	RE15-10-7968
245978007	RE15-10-7965
245978008	RE15-10-7975
245978009	RE15-10-7978
245978010	RE15-10-7970
245978011	RE15-10-7964
245978012	RE15-10-7973
245978013	RE15-10-7962
245978014	RE15-10-7963
245978015	RE15-10-7977
1202036900	Method Blank (MB)
1202036901	245978001(RE15-10-7880) Sample Duplicate (DUP)
1202036902	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with

GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 245978001 (RE15-10-7880). The QC was from LANL work order 245978.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the

requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 3/1/10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Am-05-RC Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
957873	See below		

Potentially affected work order(s)(SDG): 245978(10-1513)

Application Issues:

RDL less than MDA

Failed Recovery for Surrogate or Tracer

Specification and Requirements Exception Description:	DER Disposition:
1. The duplicate sample, 1202054059, does not meet the client's tracer yield requirement of 50 - 105%, nor the required detection limit for Am241.	1. The duplicate sample does not meet the GEL standard tracer yield requirements. The sample, 245978011, meets the required detection limit for Am241 and there are more than 400 Am243 tracer counts. The sample has been reprepped due to low tracer yield and the original analysis confirms the results of the second analysis and the duplicate. Reporting results.

Originator's Name:

Joseph Moulden 01-MAR-10

Data Validator/Group Leader:

Mary Aders 01-MAR-10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1513 GEL Work Order: 245978

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7880
Sample ID: 245978001
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 7.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.0018	0.029	+/-0.00194	0.050	pCi/g		HAKB	02/15/10	0741	949823	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00493	0.0269	+/-0.00286	0.050	pCi/g		HAKB	02/13/10	2140	949824	2
Plutonium-239/240	U	0.00493	0.0202	+/-0.00286	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.753	0.112	+/-0.0791	0.100	pCi/g		HAKB	02/13/10	2124	949825	3
Uranium-235/236	U	0.0219	0.0713	+/-0.0111	0.100	pCi/g						
Uranium-238		0.957	0.0763	+/-0.0946	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0753	0.397	+/-0.125	0.200	pCi/g		MXR1	02/14/10	1117	948721	4
Bismuth-211	UI	3.41	0.327	+/-0.268		pCi/g						
Bismuth-214		1.03	0.110	+/-0.0871	0.200	pCi/g						
Cadmium-109	UI	3.62	1.65	+/-0.623		pCi/g						
Cerium-139	U	0.0105	0.0509	+/-0.0152	0.050	pCi/g						
Cesium-134	UI	0.113	0.0929	+/-0.043	0.100	pCi/g						
Cesium-137	U	0.00966	0.067	+/-0.0195	0.100	pCi/g						
Cobalt-60	U	0.0506	0.0743	+/-0.0196	0.100	pCi/g						
Europium-152	U	-0.139	0.145	+/-0.0496	0.200	pCi/g						
Lanthanum-140	U	-0.0304	0.152	+/-0.0583		pCi/g						
Lead-212		1.71	0.0931	+/-0.086	0.100	pCi/g						
Lead-214		1.19	0.114	+/-0.0983	0.100	pCi/g						
Mercury-203	U	-0.0392	0.0672	+/-0.0207	0.100	pCi/g						
Potassium-40		39.5	0.554	+/-1.99	1.00	pCi/g						
Radium-223	U	0.181	1.09	+/-0.360		pCi/g						
Radium-224	UI	4.36	1.06	+/-0.700		pCi/g						
Radium-226		1.03	0.110	+/-0.0871		pCi/g						
Radium-228		1.55	0.225	+/-0.171	0.500	pCi/g						
Ruthenium-106	U	0.0557	0.535	+/-0.156	0.800	pCi/g						
Sodium-22	U	-0.0219	0.0801	+/-0.0251	0.080	pCi/g						
Strontium-85	U	0.041	0.0658	+/-0.0211		pCi/g						

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7880
Sample ID: 245978001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thallium-208		0.509	0.0606	+/-0.0478	0.080	pCi/g						
Thorium-227	U	0.350	0.666	+/-0.188		pCi/g						
Thorium-231	U	0.181	1.09	+/-0.360		pCi/g						
Thorium-234		3.98	3.01	+/-1.32	2.00	pCi/g						
Tin-113	U	-0.032	0.0706	+/-0.0222	0.100	pCi/g						
Uranium-235	U	0.163	0.372	+/-0.111	0.500	pCi/g						
Yttrium-88	U	-0.0179	0.0506	+/-0.0177	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		202	193	+/-61.7	250	pCi/L		KXK2	02/13/10	0713	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	68.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	70.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7880
Sample ID: 245978001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7891
Sample ID: 245978002
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 26%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0102	0.0257	+/-0.00424	0.050	pCi/g		HAKB	02/15/10	0741	949823	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00225	0.0184	+/-0.0016	0.050	pCi/g		HAKB	02/18/10	1842	949824	2
Plutonium-239/240		0.0214	0.0139	+/-0.00527	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		19.6	0.430	+/-1.60	0.100	pCi/g		HAKB	02/23/10	1043	953488	4
Uranium-235/236		1.83	0.274	+/-0.241	0.100	pCi/g						
Uranium-238		77.0	0.293	+/-5.98	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.207	0.431	+/-0.137	0.200	pCi/g		MXR1	02/14/10	1117	948721	6
Bismuth-211	UI	3.94	0.300	+/-0.315		pCi/g						
Bismuth-214		1.27	0.108	+/-0.104	0.200	pCi/g						
Cadmium-109	UI	4.25	1.86	+/-0.650		pCi/g						
Cerium-139	U	0.00122	0.0574	+/-0.0185	0.050	pCi/g						
Cesium-134	UI	0.118	0.0913	+/-0.0352	0.100	pCi/g						
Cesium-137	U	0.0297	0.0719	+/-0.0208	0.100	pCi/g						
Cobalt-60	U	-0.0391	0.0518	+/-0.0185	0.100	pCi/g						
Europium-152	U	-0.0336	0.155	+/-0.0467	0.200	pCi/g						
Lanthanum-140	U	0.0404	0.144	+/-0.0458		pCi/g						
Lead-212		1.48	0.0979	+/-0.102	0.100	pCi/g						
Lead-214		1.37	0.105	+/-0.115	0.100	pCi/g						
Mercury-203	U	0.0208	0.0707	+/-0.0208	0.100	pCi/g						
Potassium-40		26.6	0.413	+/-1.43	1.00	pCi/g						
Radium-223	U	0.377	1.10	+/-0.364		pCi/g						
Radium-224	UI	4.39	1.11	+/-0.589		pCi/g						
Radium-226		1.27	0.108	+/-0.104		pCi/g						
Radium-228		1.45	0.204	+/-0.165	0.500	pCi/g						
Ruthenium-106	U	-0.0564	0.497	+/-0.152	0.800	pCi/g						
Sodium-22	U	-0.000873	0.066	+/-0.0203	0.080	pCi/g						
Strontium-85	U	0.0439	0.0664	+/-0.0207		pCi/g						
Thallium-208		0.532	0.0622	+/-0.0459	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7891
Sample ID: 245978002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.320	0.649	+/-0.209		pCi/g						
Thorium-231	U	0.377	1.10	+/-0.364		pCi/g						
Thorium-234		73.9	3.22	+/-6.73	2.00	pCi/g						
Tin-113	U	-0.0215	0.0732	+/-0.0217	0.100	pCi/g						
Uranium-235		1.61	0.414	+/-0.242	0.500	pCi/g						
Yttrium-88	U	-0.0212	0.0519	+/-0.0177	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		21500	194	+/-1510	250	pCi/L		KXK2	02/13/10	0851	950495	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	74.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	84.7	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7891
Sample ID: 245978002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7892
Sample ID: 245978003
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 6.96%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00303	0.0221	+/-0.00268	0.050	pCi/g		HAKB	02/15/10	0741	949823	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00666	0.0218	+/-0.0061	0.050	pCi/g		HAKB	02/13/10	2140	949824	2
Plutonium-239/240	U	-0.00266	0.0164	+/-0.00231	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.17	0.0911	+/-0.105	0.100	pCi/g		HAKB	02/13/10	2125	949825	3
Uranium-235/236		0.0803	0.0581	+/-0.0207	0.100	pCi/g						
Uranium-238		2.42	0.0622	+/-0.195	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0576	0.122	+/-0.0371	0.200	pCi/g		MXR1	02/14/10	1118	948721	4
Bismuth-211	UI	4.37	0.419	+/-0.344		pCi/g						
Bismuth-214		1.41	0.141	+/-0.136	0.200	pCi/g						
Cadmium-109	UI	3.67	1.06	+/-0.511		pCi/g						
Cerium-139	U	-0.0317	0.0543	+/-0.0171	0.050	pCi/g						
Cesium-134	U	0.109	0.128	+/-0.0389	0.100	pCi/g						
Cesium-137	U	-0.0391	0.0793	+/-0.0266	0.100	pCi/g						
Cobalt-60	U	0.0164	0.0985	+/-0.0284	0.100	pCi/g						
Europium-152	U	-0.10	0.179	+/-0.058	0.200	pCi/g						
Lanthanum-140	U	0.0409	0.172	+/-0.054		pCi/g						
Lead-212		1.80	0.0983	+/-0.111	0.100	pCi/g						
Lead-214		1.52	0.146	+/-0.126	0.100	pCi/g						
Mercury-203	U	0.00129	0.0804	+/-0.0232	0.100	pCi/g						
Potassium-40		35.5	0.640	+/-1.98	1.00	pCi/g						
Radium-223	U	-0.142	1.24	+/-0.418		pCi/g						
Radium-224	UI	5.30	1.12	+/-0.857		pCi/g						
Radium-226		1.41	0.141	+/-0.136		pCi/g						
Radium-228		2.09	0.267	+/-0.213	0.500	pCi/g						
Ruthenium-106	U	-0.214	0.647	+/-0.210	0.800	pCi/g						
Sodium-22	U	0.0142	0.105	+/-0.0315	0.080	pCi/g						
Strontium-85	U	0.0657	0.084	+/-0.0256		pCi/g						
Thallium-208		0.567	0.0728	+/-0.059	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7892
Sample ID: 245978003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.244	0.677	+/-0.218		pCi/g						
Thorium-231	U	-0.142	1.24	+/-0.418		pCi/g						
Thorium-234		3.09	1.18	+/-0.573	2.00	pCi/g						
Tin-113	U	-0.0597	0.0861	+/-0.0277	0.100	pCi/g						
Uranium-235	U	0.0423	0.384	+/-0.115	0.500	pCi/g						
Yttrium-88	U	0.0112	0.0783	+/-0.0228	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		3690	194	+/-275	250	pCi/L		KXK2	02/13/10	1155	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	90.5	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	83.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	97.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :-

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7892
Sample ID: 245978003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7967
Sample ID: 245978004
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 24.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0142	0.0239	+/-0.00485	0.050	pCi/g		HAKB	02/18/10	1842	949823	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.0012	0.0197	+/-0.00121	0.050	pCi/g		HAKB	02/18/10	1843	949824	3
Plutonium-239/240		0.0723	0.0148	+/-0.0102	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		21.5	0.469	+/-1.76	0.100	pCi/g		HAKB	02/23/10	1043	953488	5
Uranium-235/236		2.75	0.299	+/-0.328	0.100	pCi/g						
Uranium-238		150	0.320	+/-11.7	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	UI	0.765	0.545	+/-0.165	0.200	pCi/g		MXR1	02/14/10	1118	948721	7
Bismuth-211	UI	2.02	0.341	+/-0.212		pCi/g						
Bismuth-214		0.551	0.112	+/-0.0765	0.200	pCi/g						
Cadmium-109	U	2.39	3.13	+/-1.34		pCi/g						
Cerium-139	U	0.0581	0.0689	+/-0.0215	0.050	pCi/g						
Cesium-134	U	0.0816	0.0866	+/-0.0234	0.100	pCi/g						
Cesium-137		0.193	0.0617	+/-0.0364	0.100	pCi/g						
Cobalt-60	U	0.00112	0.0547	+/-0.0162	0.100	pCi/g						
Europium-152	U	0.037	0.170	+/-0.0614	0.200	pCi/g						
Lanthanum-140	U	-0.0574	0.119	+/-0.0404		pCi/g						
Lead-212		1.10	0.0999	+/-0.0615	0.100	pCi/g						
Lead-214		0.702	0.119	+/-0.076	0.100	pCi/g						
Mercury-203	U	0.0174	0.0766	+/-0.0211	0.100	pCi/g						
Potassium-40		22.0	0.419	+/-1.05	1.00	pCi/g						
Radium-223	U	-0.898	1.06	+/-0.326		pCi/g						
Radium-224	UI	3.02	1.14	+/-0.592		pCi/g						
Radium-226		0.551	0.112	+/-0.0765		pCi/g						
Radium-228		1.10	0.191	+/-0.136	0.500	pCi/g						
Ruthenium-106	U	0.067	0.521	+/-0.151	0.800	pCi/g						
Sodium-22	U	-0.019	0.0574	+/-0.0179	0.080	pCi/g						
Strontium-85	U	0.0627	0.0679	+/-0.0204		pCi/g						
Thallium-208		0.363	0.0612	+/-0.037	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7967
Sample ID: 245978004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	UI	0.888	0.840	+/-0.271		pCi/g						
Thorium-231	U	-0.898	1.06	+/-0.326		pCi/g						
Thorium-234		99.0	4.10	+/-8.95	2.00	pCi/g						
Tin-113	U	-0.0285	0.0763	+/-0.0224	0.100	pCi/g						
Uranium-235		1.66	0.495	+/-0.238	0.500	pCi/g						
Yttrium-88	U	-0.0345	0.0421	+/-0.0161	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		76100	193	+/-5310	250	pCi/L		KXK2	02/13/10	1333	950495	8

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE EML HASL-300, U-02-RC Modified
7	DOE HASL 300, 4.5.2.3/Ga-01-R
8	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.0	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	77.9	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	84.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7967
Sample ID: 245978004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7976
Sample ID: 245978005
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 3.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	6.35E-06	0.0213	+/-0.00176	0.050	pCi/g		HAKB	02/15/10	0741	949823	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00126	0.0206	+/-0.00178	0.050	pCi/g		HAKB	02/13/10	2140	949824	2
Plutonium-239/240	U	0.0151	0.0155	+/-0.00477	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.969	0.0893	+/-0.0899	0.100	pCi/g		HAKB	02/13/10	2125	949825	3
Uranium-235/236		0.0612	0.0569	+/-0.018	0.100	pCi/g						
Uranium-238		2.16	0.061	+/-0.175	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0957	0.187	+/-0.0565	0.200	pCi/g		MXR1	02/14/10	1119	948721	4
Bismuth-211	UI	3.60	0.274	+/-0.264		pCi/g						
Bismuth-214		1.02	0.0947	+/-0.0895	0.200	pCi/g						
Cadmium-109	UI	3.47	0.962	+/-0.462		pCi/g						
Cerium-139	U	-0.0252	0.0438	+/-0.0137	0.050	pCi/g						
Cesium-134	UI	0.102	0.0799	+/-0.0308	0.100	pCi/g						
Cesium-137		0.099	0.0586	+/-0.0241	0.100	pCi/g						
Cobalt-60	U	-0.00411	0.0511	+/-0.0161	0.100	pCi/g						
Europium-152	U	-0.0251	0.135	+/-0.0456	0.200	pCi/g						
Lanthanum-140	U	-0.0223	0.120	+/-0.0409		pCi/g						
Lead-212		1.63	0.0821	+/-0.0995	0.100	pCi/g						
Lead-214		1.25	0.0956	+/-0.0974	0.100	pCi/g						
Mercury-203	U	0.00829	0.065	+/-0.0184	0.100	pCi/g						
Potassium-40		32.6	0.431	+/-1.65	1.00	pCi/g						
Radium-223	U	0.495	0.937	+/-0.292		pCi/g						
Radium-224	UI	5.05	0.934	+/-0.648		pCi/g						
Radium-226		1.02	0.0947	+/-0.0895		pCi/g						
Radium-228		1.60	0.183	+/-0.159	0.500	pCi/g						
Ruthenium-106	U	-0.149	0.438	+/-0.140	0.800	pCi/g						
Sodium-22	U	-0.0167	0.0616	+/-0.0198	0.080	pCi/g						
Strontium-85	UI	0.0848	0.0616	+/-0.0177		pCi/g						
Thallium-208		0.478	0.0481	+/-0.0401	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7976
Sample ID: 245978005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.171	0.556	+/-0.163		pCi/g						
Thorium-231	U	0.495	0.937	+/-0.292		pCi/g						
Thorium-234		2.91	1.56	+/-0.752	2.00	pCi/g						
Tin-113	U	-0.0171	0.0628	+/-0.019	0.100	pCi/g						
Uranium-235	U	0.151	0.335	+/-0.0965	0.500	pCi/g						
Yttrium-88	U	-0.00489	0.0398	+/-0.0127	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		7920	194	+/-567	250	pCi/L		KXK2	02/13/10	1512	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	93.3	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	88.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	98.6	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7976
Sample ID: 245978005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7968
Sample ID: 245978006
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00487	0.025	+/-0.00287	0.050	pCi/g		HAKB	02/15/10	0742	949823	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00123	0.0202	+/-0.00276	0.050	pCi/g		HAKB	02/13/10	2140	949824	2
Plutonium-239/240	U	0.0123	0.0152	+/-0.00432	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		3.24	0.0893	+/-0.257	0.100	pCi/g		HAKB	02/13/10	2125	949825	3
Uranium-235/236		0.363	0.0569	+/-0.0477	0.100	pCi/g						
Uranium-238		19.4	0.061	+/-1.42	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0518	0.460	+/-0.141	0.200	pCi/g		MXR1	02/14/10	1156	948721	4
Bismuth-211	UI	3.38	0.331	+/-0.258		pCi/g						
Bismuth-214		1.11	0.108	+/-0.0918	0.200	pCi/g						
Cadmium-109	UI	3.01	1.96	+/-0.625		pCi/g						
Cerium-139	U	0.000395	0.0515	+/-0.0153	0.050	pCi/g						
Cesium-134	UI	0.167	0.101	+/-0.0487	0.100	pCi/g						
Cesium-137	U	0.0479	0.0664	+/-0.0288	0.100	pCi/g						
Cobalt-60	U	0.000599	0.0662	+/-0.0198	0.100	pCi/g						
Europium-152	U	-0.0909	0.152	+/-0.0471	0.200	pCi/g						
Lanthanum-140	U	-0.0148	0.165	+/-0.0514		pCi/g						
Lead-212		1.68	0.0835	+/-0.0874	0.100	pCi/g						
Lead-214		1.18	0.116	+/-0.0947	0.100	pCi/g						
Mercury-203	U	0.00298	0.0727	+/-0.0208	0.100	pCi/g						
Potassium-40		36.5	0.560	+/-1.63	1.00	pCi/g						
Radium-223	U	-0.321	1.10	+/-0.375		pCi/g						
Radium-224	UI	5.09	0.951	+/-0.759		pCi/g						
Radium-226		1.11	0.108	+/-0.0918		pCi/g						
Radium-228		1.76	0.217	+/-0.184	0.500	pCi/g						
Ruthenium-106	U	0.029	0.514	+/-0.157	0.800	pCi/g						
Sodium-22	U	-0.0155	0.077	+/-0.0236	0.080	pCi/g						
Strontium-85	U	0.0529	0.0652	+/-0.0199		pCi/g						
Thallium-208		0.514	0.0602	+/-0.0417	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7968
Sample ID: 245978006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0667	0.650	+/-0.187		pCi/g						
Thorium-231	U	-0.321	1.10	+/-0.375		pCi/g						
Thorium-234		19.5	3.35	+/-2.54	2.00	pCi/g						
Tin-113	U	0.0119	0.0743	+/-0.0215	0.100	pCi/g						
Uranium-235	U	0.364	0.371	+/-0.138	0.500	pCi/g						
Yttrium-88	U	-0.0122	0.0442	+/-0.0152	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		70500	193	+/-4920	250	pCi/L		KXK2	02/13/10	1650	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	76.7	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	87.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	95.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7968
Sample ID: 245978006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7965
Sample ID: 245978007
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 22.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00181	0.0208	+/-0.0028	0.050	pCi/g		HAKB	02/19/10	1553	954009	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00397	0.0216	+/-0.0023	0.050	pCi/g		HAKB	02/13/10	2140	949824	3
Plutonium-239/240	U	0.0159	0.0163	+/-0.00466	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		8.51	0.0947	+/-0.630	0.100	pCi/g		HAKB	02/13/10	2125	949825	4
Uranium-235/236		0.830	0.0604	+/-0.0856	0.100	pCi/g						
Uranium-238		35.3	0.0647	+/-2.53	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.073	0.260	+/-0.0832	0.200	pCi/g		MXR1	02/14/10	1156	948721	5
Bismuth-211	UI	4.02	0.324	+/-0.278		pCi/g						
Bismuth-214		1.16	0.117	+/-0.109	0.200	pCi/g						
Cadmium-109	UI	2.95	1.63	+/-0.556		pCi/g						
Cerium-139	U	-0.0168	0.0535	+/-0.0165	0.050	pCi/g						
Cesium-134	U	0.0283	0.0859	+/-0.0248	0.100	pCi/g						
Cesium-137		0.128	0.0689	+/-0.0371	0.100	pCi/g						
Cobalt-60	U	0.00128	0.0606	+/-0.0182	0.100	pCi/g						
Europium-152	U	-0.0164	0.163	+/-0.0557	0.200	pCi/g						
Lanthanum-140	U	0.066	0.168	+/-0.0532		pCi/g						
Lead-212		1.65	0.0941	+/-0.097	0.100	pCi/g						
Lead-214		1.40	0.113	+/-0.103	0.100	pCi/g						
Mercury-203	U	0.0164	0.0759	+/-0.0217	0.100	pCi/g						
Potassium-40		26.0	0.476	+/-1.38	1.00	pCi/g						
Radium-223	U	-0.122	1.09	+/-0.323		pCi/g						
Radium-224	UI	3.96	1.07	+/-0.633		pCi/g						
Radium-226		1.16	0.117	+/-0.109		pCi/g						
Radium-228		1.66	0.221	+/-0.182	0.500	pCi/g						
Ruthenium-106	U	0.261	0.574	+/-0.160	0.800	pCi/g						
Sodium-22	U	-0.0396	0.0641	+/-0.0214	0.080	pCi/g						
Strontium-85	UI	0.0746	0.0706	+/-0.0206		pCi/g						
Thallium-208		0.543	0.0588	+/-0.0459	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7965
Sample ID: 245978007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0672	0.657	+/-0.192		pCi/g						
Thorium-231	U	-0.122	1.09	+/-0.323		pCi/g						
Thorium-234		27.3	2.13	+/-2.67	2.00	pCi/g						
Tin-113	U	0.0161	0.0775	+/-0.0227	0.100	pCi/g						
Uranium-235		0.587	0.376	+/-0.160	0.500	pCi/g						
Yttrium-88	U	-0.00572	0.0483	+/-0.0151	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		6270	192	+/-453	250	pCi/L		KXK2	02/13/10	1829	950495	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	88.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	82.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	90.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7965
Sample ID: 245978007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7975
Sample ID: 245978008
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 25.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0324	0.0487	+/-0.0159	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00	0.0472	+/-0.0147	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240		0.0549	0.0355	+/-0.0153	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.60	0.0447	+/-0.126	0.100	pCi/g		CXM2	02/24/10	1320	951672	3
Uranium-235/236		0.171	0.0285	+/-0.0229	0.100	pCi/g						
Uranium-238		6.11	0.0305	+/-0.451	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.423	0.586	+/-0.182	0.200	pCi/g		MXR1	02/14/10	1201	948721	4
Bismuth-211	UI	4.51	0.387	+/-0.345		pCi/g						
Bismuth-214		1.30	0.142	+/-0.107	0.200	pCi/g						
Cadmium-109	U	1.27	2.34	+/-0.756		pCi/g						
Cerium-139	U	-0.00695	0.068	+/-0.0204	0.050	pCi/g						
Cesium-134	U	0.0462	0.0988	+/-0.0328	0.100	pCi/g						
Cesium-137		0.472	0.0848	+/-0.051	0.100	pCi/g						
Cobalt-60	U	0.0255	0.0805	+/-0.0234	0.100	pCi/g						
Europium-152	U	0.0783	0.213	+/-0.087	0.200	pCi/g						
Lanthanum-140	U	0.0619	0.197	+/-0.0629		pCi/g						
Lead-212		1.59	0.116	+/-0.115	0.100	pCi/g						
Lead-214		1.57	0.135	+/-0.127	0.100	pCi/g						
Mercury-203	U	-0.0011	0.0973	+/-0.0283	0.100	pCi/g						
Potassium-40		24.9	0.592	+/-1.53	1.00	pCi/g						
Radium-223	U	-0.216	1.39	+/-0.413		pCi/g						
Radium-224	UI	5.02	1.32	+/-0.817		pCi/g						
Radium-226		1.30	0.142	+/-0.107		pCi/g						
Radium-228		1.36	0.253	+/-0.181	0.500	pCi/g						
Ruthenium-106	U	0.0839	0.613	+/-0.184	0.800	pCi/g						
Sodium-22	U	-0.0249	0.0809	+/-0.0263	0.080	pCi/g						
Strontium-85	UI	0.128	0.0916	+/-0.0271		pCi/g						
Thallium-208		0.397	0.0757	+/-0.0524	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7975
Sample ID: 245978008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.307	0.881	+/-0.250		pCi/g						
Thorium-231	U	-0.216	1.39	+/-0.413		pCi/g						
Thorium-234		14.4	4.34	+/-2.54	2.00	pCi/g						
Tin-113	U	-0.024	0.0997	+/-0.0302	0.100	pCi/g						
Uranium-235	U	0.193	0.494	+/-0.144	0.500	pCi/g						
Yttrium-88	U	-0.015	0.0498	+/-0.017	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1060	194	+/-103	250	pCi/L		KXK2	02/13/10	2007	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	83.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	80.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7975
Sample ID: 245978008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7978
Sample ID: 245978009
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 16.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0163	0.0473	+/-0.00703	0.050	pCi/g		CXM2	02/25/10	1700	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00887	0.0483	+/-0.0148	0.050	pCi/g		CXM2	02/23/10	1308	951669	3
Plutonium-239/240	U	0.00591	0.0364	+/-0.00725	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.461	0.0435	+/-0.0433	0.100	pCi/g		CXM2	02/24/10	1320	951672	4
Uranium-235/236	U	0.0213	0.0278	+/-0.00754	0.100	pCi/g						
Uranium-238		0.609	0.0297	+/-0.0543	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0859	0.245	+/-0.0787	0.200	pCi/g		MXR1	02/14/10	1201	948721	5
Bismuth-211	UI	5.05	0.324	+/-0.373		pCi/g						
Bismuth-214		1.27	0.112	+/-0.109	0.200	pCi/g						
Cadmium-109	UI	4.34	1.31	+/-0.607		pCi/g						
Cerium-139	U	0.0209	0.0557	+/-0.0162	0.050	pCi/g						
Cesium-134	UI	0.108	0.0864	+/-0.0279	0.100	pCi/g						
Cesium-137		0.142	0.0633	+/-0.0421	0.100	pCi/g						
Cobalt-60	U	0.000858	0.0652	+/-0.0198	0.100	pCi/g						
Europium-152	U	-0.0103	0.163	+/-0.0597	0.200	pCi/g						
Lanthanum-140	U	-0.115	0.165	+/-0.0554		pCi/g						
Lead-212		2.15	0.0953	+/-0.154	0.100	pCi/g						
Lead-214		1.76	0.113	+/-0.138	0.100	pCi/g						
Mercury-203	UI	0.0943	0.0677	+/-0.031	0.100	pCi/g						
Potassium-40		29.2	0.451	+/-1.55	1.00	pCi/g						
Radium-223	U	0.362	1.13	+/-0.375		pCi/g						
Radium-224	UI	6.06	1.08	+/-0.842		pCi/g						
Radium-226		1.27	0.112	+/-0.109		pCi/g						
Radium-228		2.02	0.207	+/-0.190	0.500	pCi/g						
Ruthenium-106	U	0.0587	0.547	+/-0.164	0.800	pCi/g						
Sodium-22	U	-0.0429	0.0688	+/-0.0225	0.080	pCi/g						
Strontium-85	UI	0.143	0.0772	+/-0.024		pCi/g						
Thallium-208		0.633	0.0608	+/-0.0571	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7978
Sample ID: 245978009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.286	0.689	+/-0.208		pCi/g						
Thorium-231	U	0.362	1.13	+/-0.375		pCi/g						
Thorium-234		3.04	2.02	+/-1.01	2.00	pCi/g						
Tin-113	U	0.0011	0.0776	+/-0.0234	0.100	pCi/g						
Uranium-235	U	-0.0178	0.377	+/-0.114	0.500	pCi/g						
Yttrium-88	U	-0.0185	0.0464	+/-0.0157	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	154	194	+/-60.8	250	pCi/L		KXK2	02/13/10	2145	950495	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	80.2	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	81.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7978
Sample ID: 245978009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7970
Sample ID: 245978010
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 8.19%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.0204	0.0496	+/-0.0127	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.0236	0.0482	+/-0.0102	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00	0.0363	+/-0.00418	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.309	0.0384	+/-0.0308	0.100	pCi/g		CXM2	02/24/10	1320	951672	3
Uranium-235/236	U	0.0226	0.0245	+/-0.00671	0.100	pCi/g						
Uranium-238		1.16	0.0262	+/-0.0921	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0103	0.245	+/-0.0731	0.200	pCi/g		MXR1	02/14/10	1217	948721	4
Bismuth-211	U1	2.53	0.208	+/-0.169		pCi/g						
Bismuth-214		0.691	0.0697	+/-0.0531	0.200	pCi/g						
Cadmium-109	U1	1.95	1.20	+/-0.355		pCi/g						
Cerium-139	U	0.00238	0.0354	+/-0.00964	0.050	pCi/g						
Cesium-134	U	0.0374	0.0558	+/-0.0158	0.100	pCi/g						
Cesium-137	U	0.030	0.0451	+/-0.0122	0.100	pCi/g						
Cobalt-60	U	-0.000796	0.0442	+/-0.0134	0.100	pCi/g						
Europium-152	U	-0.024	0.0988	+/-0.0372	0.200	pCi/g						
Lanthanum-140	U	-0.0196	0.091	+/-0.0284		pCi/g						
Lead-212		0.995	0.0614	+/-0.0495	0.100	pCi/g						
Lead-214		0.880	0.0725	+/-0.0631	0.100	pCi/g						
Mercury-203	U	0.0055	0.0478	+/-0.0137	0.100	pCi/g						
Potassium-40		24.2	0.297	+/-1.08	1.00	pCi/g						
Radium-223	U	-0.459	0.703	+/-0.221		pCi/g						
Radium-224	U1	2.63	0.697	+/-0.408		pCi/g						
Radium-226		0.691	0.0697	+/-0.0531		pCi/g						
Radium-228		1.05	0.138	+/-0.115	0.500	pCi/g						
Ruthenium-106	U	0.184	0.347	+/-0.0974	0.800	pCi/g						
Sodium-22	U	-0.027	0.0469	+/-0.0151	0.080	pCi/g						
Strontium-85	UI	0.0989	0.0522	+/-0.0146		pCi/g						
Thallium-208		0.330	0.0352	+/-0.0277	0.080	pCi/g						

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7970
Sample ID: 245978010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.0789	0.422	+/-0.123		pCi/g						
Thorium-231	U	-0.459	0.703	+/-0.221		pCi/g						
Thorium-234		2.89	1.85	+/-0.910	2.00	pCi/g						
Tin-113	U	-0.018	0.0468	+/-0.0137	0.100	pCi/g						
Uranium-235	U	0.0417	0.252	+/-0.0729	0.500	pCi/g						
Yttrium-88	U	-0.0212	0.0285	+/-0.0104	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		5310	194	+/-386	250	pCi/L		KXK2	02/13/10	2324	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.9	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	94.3	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7970
Sample ID: 245978010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7964
Sample ID: 245978011
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 10.7%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00713	0.031	+/-0.0036	0.050	pCi/g		CXM2	02/27/10	2008	957873	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00374	0.038	+/-0.00476	0.050	pCi/g		CXM2	02/24/10	2001	951669	3
Plutonium-239/240	U	0.00154	0.0285	+/-0.00422	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.444	0.0385	+/-0.0408	0.100	pCi/g		CXM2	02/24/10	1320	951672	5
Uranium-235/236		0.034	0.0246	+/-0.00836	0.100	pCi/g						
Uranium-238		0.509	0.0263	+/-0.0455	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.132	0.341	+/-0.105	0.200	pCi/g		MXR1	02/14/10	1218	948721	6
Bismuth-211	UI	3.72	0.338	+/-0.231		pCi/g						
Bismuth-214		1.20	0.103	+/-0.0909	0.200	pCi/g						
Cadmium-109	UI	1.91	1.46	+/-0.575		pCi/g						
Cerium-139	U	-0.014	0.0521	+/-0.0156	0.050	pCi/g						
Cesium-134	U	0.0154	0.0851	+/-0.0243	0.100	pCi/g						
Cesium-137	U	-0.0241	0.060	+/-0.0192	0.100	pCi/g						
Cobalt-60	U	0.0203	0.0693	+/-0.0199	0.100	pCi/g						
Europium-152	U	0.032	0.169	+/-0.0547	0.200	pCi/g						
Lanthanum-140	U	-0.146	0.113	+/-0.0473		pCi/g						
Lead-212		1.54	0.0956	+/-0.0771	0.100	pCi/g						
Lead-214		1.29	0.121	+/-0.0871	0.100	pCi/g						
Mercury-203	U	0.0228	0.0759	+/-0.0211	0.100	pCi/g						
Potassium-40		24.5	0.583	+/-1.23	1.00	pCi/g						
Radium-223	U	-0.434	1.12	+/-0.388		pCi/g						
Radium-224	UI	4.87	1.09	+/-0.677		pCi/g						
Radium-226		1.20	0.103	+/-0.0909		pCi/g						
Radium-228		1.50	0.245	+/-0.197	0.500	pCi/g						
Ruthenium-106	U	0.0749	0.510	+/-0.150	0.800	pCi/g						
Sodium-22	U	-0.0482	0.0682	+/-0.0235	0.080	pCi/g						
Strontium-85	U	0.0471	0.0692	+/-0.0215		pCi/g						
Thallium-208		0.546	0.0618	+/-0.0438	0.080	pCi/g						

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7964
Sample ID: 245978011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.393	0.686	+/-0.198		pCi/g						
Thorium-231	U	-0.434	1.12	+/-0.388		pCi/g						
Thorium-234	U	2.63	2.74	+/-1.08	2.00	pCi/g						
Tin-113	U	-0.000973	0.0801	+/-0.0233	0.100	pCi/g						
Uranium-235	U	0.0886	0.381	+/-0.111	0.500	pCi/g						
Yttrium-88	U	0.00777	0.0602	+/-0.0175	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		596	195	+/-78.1	250	pCi/L		KXK2	02/14/10	0102	950495	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	DOE HASL 300, 4.5.2.3/Ga-01-R
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	36.9 *	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	89.2	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	92.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7964
Sample ID: 245978011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7973
Sample ID: 245978012
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 18.5%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.0108	0.0505	+/-0.0151	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	-0.00493	0.0535	+/-0.00646	0.050	pCi/g		CXM2	02/24/10	2001	951669	2
Plutonium-239/240	U	0.00742	0.0401	+/-0.00894	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.687	0.0404	+/-0.059	0.100	pCi/g		CXM2	02/24/10	1321	951672	4
Uranium-235/236		0.0772	0.0258	+/-0.0138	0.100	pCi/g						
Uranium-238		2.27	0.0276	+/-0.172	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.0591	0.299	+/-0.0976	0.200	pCi/g		MXR1	02/14/10	1311	948721	5
Bismuth-211	UI	3.97	0.352	+/-0.297		pCi/g						
Bismuth-214		1.08	0.114	+/-0.102	0.200	pCi/g						
Cadmium-109	UI	2.24	1.83	+/-0.640		pCi/g						
Cerium-139	U	-0.00108	0.0555	+/-0.0156	0.050	pCi/g						
Cesium-134	U	0.0903	0.098	+/-0.0264	0.100	pCi/g						
Cesium-137	U	0.048	0.075	+/-0.0229	0.100	pCi/g						
Cobalt-60	U	0.036	0.0716	+/-0.0192	0.100	pCi/g						
Europium-152	U	-0.0203	0.166	+/-0.057	0.200	pCi/g						
Lanthanum-140	U	-0.00509	0.188	+/-0.0573		pCi/g						
Lead-212		1.57	0.0954	+/-0.0971	0.100	pCi/g						
Lead-214		1.38	0.124	+/-0.109	0.100	pCi/g						
Mercury-203	U	0.0663	0.080	+/-0.0218	0.100	pCi/g						
Potassium-40		23.3	0.450	+/-1.32	1.00	pCi/g						
Radium-223	U	0.0802	1.16	+/-0.388		pCi/g						
Radium-224	UI	4.06	1.09	+/-0.693		pCi/g						
Radium-226		1.08	0.114	+/-0.102		pCi/g						
Radium-228		1.50	0.184	+/-0.161	0.500	pCi/g						
Ruthenium-106	U	0.0648	0.542	+/-0.156	0.800	pCi/g						
Sodium-22	U	-0.0563	0.0615	+/-0.0217	0.080	pCi/g						
Strontium-85	UI	0.0837	0.0775	+/-0.0233		pCi/g						
Thallium-208		0.501	0.0608	+/-0.0464	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7973
Sample ID: 245978012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	-0.437	0.624	+/-0.196		pCi/g						
Thorium-231	U	0.0802	1.16	+/-0.388		pCi/g						
Thorium-234		6.54	2.38	+/-1.48	2.00	pCi/g						
Tin-113	U	-0.0104	0.0798	+/-0.0242	0.100	pCi/g						
Uranium-235	U	0.104	0.398	+/-0.111	0.500	pCi/g						
Yttrium-88	U	-0.00503	0.0453	+/-0.0146	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1080	193	+/-104	250	pCi/L		KXK2	02/14/10	0240	950495	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	87.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	64.4	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	85.7	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7973
Sample ID: 245978012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7962
Sample ID: 245978013
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 5.31%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	-0.00747	0.0484	+/-0.0147	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00146	0.036	+/-0.00399	0.050	pCi/g		CXM2	02/24/10	2001	951669	2
Plutonium-239/240	U	0.00499	0.027	+/-0.00601	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.375	0.0371	+/-0.0354	0.100	pCi/g		CXM2	02/24/10	1321	951672	4
Uranium-235/236		0.0327	0.0237	+/-0.00805	0.100	pCi/g						
Uranium-238		0.937	0.0254	+/-0.0757	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	-0.116	0.343	+/-0.112	0.200	pCi/g		MXR1	02/14/10	1311	948721	5
Bismuth-211	UI	3.75	0.393	+/-0.290		pCi/g						
Bismuth-214		1.17	0.128	+/-0.0925	0.200	pCi/g						
Cadmium-109	UI	4.31	1.47	+/-0.609		pCi/g						
Cerium-139	U	-0.0224	0.0579	+/-0.0175	0.050	pCi/g						
Cesium-134	UI	0.184	0.105	+/-0.0335	0.100	pCi/g						
Cesium-137	U	-0.0245	0.0692	+/-0.022	0.100	pCi/g						
Cobalt-60	U	0.0141	0.0795	+/-0.0236	0.100	pCi/g						
Europium-152	U	0.0593	0.191	+/-0.0772	0.200	pCi/g						
Lanthanum-140	U	0.005	0.186	+/-0.0553		pCi/g						
Lead-212		1.74	0.109	+/-0.0878	0.100	pCi/g						
Lead-214		1.30	0.137	+/-0.106	0.100	pCi/g						
Mercury-203	U	0.0141	0.0889	+/-0.0252	0.100	pCi/g						
Potassium-40		34.9	0.414	+/-1.51	1.00	pCi/g						
Radium-223	U	0.0964	1.27	+/-0.419		pCi/g						
Radium-224	UI	3.79	1.24	+/-0.746		pCi/g						
Radium-226		1.17	0.128	+/-0.0925		pCi/g						
Radium-228		1.85	0.230	+/-0.174	0.500	pCi/g						
Ruthenium-106	U	0.259	0.633	+/-0.181	0.800	pCi/g						
Sodium-22	U	0.0111	0.0915	+/-0.0274	0.080	pCi/g						
Strontium-85	UI	0.0795	0.0785	+/-0.0234		pCi/g						
Thallium-208		0.558	0.0682	+/-0.0507	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7962
Sample ID: 245978013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.0942	0.749	+/-0.224		pCi/g						
Thorium-231	U	0.0964	1.27	+/-0.419		pCi/g						
Thorium-234		4.48	2.83	+/-1.23	2.00	pCi/g						
Tin-113	U	0.00482	0.0898	+/-0.0262	0.100	pCi/g						
Uranium-235	U	0.337	0.431	+/-0.123	0.500	pCi/g						
Yttrium-88	U	-0.000315	0.0556	+/-0.0169	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		10400	194	+/-739	250	pCi/L		KXK2	02/14/10	0419	950495	6

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified
5	DOE HASL 300, 4.5.2.3/Ga-01-R
6	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	89.4	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	96.5	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	99.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7962
Sample ID: 245978013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7963
Sample ID: 245978014
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 20.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00205	0.052	+/-0.00703	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00296	0.0483	+/-0.0148	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240	U	0.00591	0.0363	+/-0.00836	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		0.864	0.0383	+/-0.0709	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236		0.0619	0.0244	+/-0.0119	0.100	pCi/g						
Uranium-238		2.99	0.0261	+/-0.222	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0413	0.195	+/-0.0611	0.200	pCi/g		MXR1	02/14/10	1312	948721	4
Bismuth-211	UI	4.13	0.296	+/-0.341		pCi/g						
Bismuth-214		1.26	0.0976	+/-0.103	0.200	pCi/g						
Cadmium-109	UI	3.64	1.28	+/-0.484		pCi/g						
Cerium-139	U	-0.0151	0.042	+/-0.0123	0.050	pCi/g						
Cesium-134	U	0.0704	0.0801	+/-0.0273	0.100	pCi/g						
Cesium-137	U	-0.0106	0.0525	+/-0.0162	0.100	pCi/g						
Cobalt-60	U	0.0379	0.0638	+/-0.0174	0.100	pCi/g						
Europium-152	U	-0.0945	0.118	+/-0.0424	0.200	pCi/g						
Lanthanum-140	U	-0.129	0.140	+/-0.0521		pCi/g						
Lead-212		1.66	0.0786	+/-0.131	0.100	pCi/g						
Lead-214		1.44	0.103	+/-0.124	0.100	pCi/g						
Mercury-203	U	0.025	0.0588	+/-0.0187	0.100	pCi/g						
Potassium-40		27.4	0.467	+/-1.44	1.00	pCi/g						
Radium-223	U	0.310	0.941	+/-0.308		pCi/g						
Radium-224	UI	3.03	1.10	+/-0.488		pCi/g						
Radium-226		1.26	0.0976	+/-0.103		pCi/g						
Radium-228		1.60	0.187	+/-0.153	0.500	pCi/g						
Ruthenium-106	U	0.138	0.475	+/-0.137	0.800	pCi/g						
Sodium-22	U	-0.0358	0.0569	+/-0.0194	0.080	pCi/g						
Strontium-85	UI	0.0741	0.0606	+/-0.0173		pCi/g						
Thallium-208		0.589	0.0463	+/-0.0512	0.080	pCi/g						

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Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7963
Sample ID: 245978014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.307	0.572	+/-0.164		pCi/g						
Thorium-231	U	0.310	0.941	+/-0.308		pCi/g						
Thorium-234		4.61	1.66	+/-0.915	2.00	pCi/g						
Tin-113	U	-0.00779	0.063	+/-0.0183	0.100	pCi/g						
Uranium-235	U	0.231	0.267	+/-0.107	0.500	pCi/g						
Yttrium-88	U	0.00867	0.0567	+/-0.0165	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1370	194	+/-122	250	pCi/L		KXK2	02/14/10	0557	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	85.8	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	93.1	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	91.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded

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Sample ID: 245978014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7977
Sample ID: 245978015
Matrix: R
Collect Date: 27-JAN-10
Receive Date: 02-FEB-10
Collector: Client
Moisture: 36.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.00875	0.0527	+/-0.00855	0.050	pCi/g		CXM2	02/23/10	2121	951665	1
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00906	0.0494	+/-0.0151	0.050	pCi/g		CXM2	02/23/10	1308	951669	2
Plutonium-239/240		0.0483	0.0371	+/-0.0144	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.00	0.0453	+/-0.0836	0.100	pCi/g		CXM2	02/24/10	1321	951672	3
Uranium-235/236		0.0555	0.0289	+/-0.0118	0.100	pCi/g						
Uranium-238		2.21	0.0309	+/-0.171	0.100	pCi/g						
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Americium-241	U	0.0875	0.279	+/-0.0876	0.200	pCi/g		MXR1	02/14/10	1312	948721	4
Bismuth-211	UI	4.10	0.367	+/-0.272		pCi/g						
Bismuth-214		1.25	0.124	+/-0.105	0.200	pCi/g						
Cadmium-109	UI	2.40	1.74	+/-0.545		pCi/g						
Cerium-139	U	-0.00926	0.0553	+/-0.0173	0.050	pCi/g						
Cesium-134	UI	0.183	0.100	+/-0.037	0.100	pCi/g						
Cesium-137		0.401	0.0683	+/-0.0365	0.100	pCi/g						
Cobalt-60	U	0.0121	0.078	+/-0.0232	0.100	pCi/g						
Europium-152	U	0.0166	0.178	+/-0.0549	0.200	pCi/g						
Lanthanum-140	U	-0.126	0.133	+/-0.0529		pCi/g						
Lead-212		1.43	0.146	+/-0.0825	0.100	pCi/g						
Lead-214		1.43	0.128	+/-0.102	0.100	pCi/g						
Mercury-203	U	-0.0272	0.0698	+/-0.0246	0.100	pCi/g						
Potassium-40		22.2	0.483	+/-1.19	1.00	pCi/g						
Radium-223	U	0.226	1.20	+/-0.399		pCi/g						
Radium-224	UI	1.49	1.42	+/-0.514		pCi/g						
Radium-226		1.25	0.124	+/-0.105		pCi/g						
Radium-228		1.62	0.239	+/-0.196	0.500	pCi/g						
Ruthenium-106	U	0.279	0.610	+/-0.172	0.800	pCi/g						
Sodium-22	U	-0.0107	0.0821	+/-0.0257	0.080	pCi/g						
Strontium-85	U	0.0674	0.0749	+/-0.0209		pCi/g						
Thallium-208		0.572	0.0626	+/-0.0516	0.080	pCi/g						

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 1, 2010

Client Sample ID: RE15-10-7977
Sample ID: 245978015

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
GAMMA SPEC "Dry Weight Corrected"												
Thorium-227	U	0.258	0.662	+/-0.190		pCi/g						
Thorium-231	U	0.226	1.20	+/-0.399		pCi/g						
Thorium-234		6.77	2.33	+/-1.57	2.00	pCi/g						
Tin-113	U	0.0646	0.0921	+/-0.0261	0.100	pCi/g						
Uranium-235	U	0.220	0.379	+/-0.113	0.500	pCi/g						
Yttrium-88	U	0.037	0.0788	+/-0.0208	0.100	pCi/g						
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		298	195	+/-65.3	250	pCi/L		KXK2	02/14/10	0735	950495	5

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	DOE HASL 300, 4.5.2.3/Ga-01-R
5	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.6	(50%-105%)
Plutonium-242 Tracer	ISOPU "Dry Weight Corrected"	91.6	(50%-105%)
Uranium-232 Tracer	ISOU "Dry Weight Corrected"	77.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded

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Report Date: March 1, 2010

Client Sample ID: RE15-10-7977
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Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 1, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949823										
QC1202034999 245978001 DUP										
Americium-241	U	-0.0018	U	0.00234	pCi/g	0.552		(0-1)	HAKB	02/15/1007:41
	TPU:	+/-0.00194		+/-0.00181						
	Yield:	68.2		93.4						
QC1202035000 LCS										
Americium-241	33.2			30.0	pCi/g		90.4	(75%-125%)		02/18/1018:42
	TPU:			+/-2.13						
	Yield:			106						
QC1202034998 MB										
Americium-241			U	-0.00331	pCi/g					02/15/1007:41
	TPU:			+/-0.00355						
	Yield:			97.1						
Batch 949824										
QC1202035002 245978001 DUP										
Plutonium-238	U	0.00493	U	-0.00203	pCi/g	0.712		(0-1)	HAKB	02/18/1018:43
	TPU:	+/-0.00286		+/-0.00203						
	Yield:	70.1		93.8						
Plutonium-239/240	U	0.00493	U	0.00203	pCi/g	0.337		(0-1)		
	TPU:	+/-0.00286		+/-0.00144						
	Yield:	70.1		93.8						
QC1202035003 LCS										
Plutonium-238				7.01	pCi/g			(75%-125%)		02/18/1018:43
	TPU:			+/-0.502						
	Yield:			98.7						
Plutonium-239/240	41.8			36.9	pCi/g		88.4	(75%-125%)		
	TPU:			+/-2.25						
	Yield:			98.7						
QC1202035001 MB										
Plutonium-238			U	0.00	pCi/g					02/13/1021:40
	TPU:			+/-0.00164						
	Yield:			85.7						
Plutonium-239/240			U	0.00327	pCi/g					
	TPU:			+/-0.00462						
	Yield:			85.7						
Batch 949825										
QC1202035006 245978001 DUP										
Uranium-233/234		0.753		0.691	pCi/g	0.209		(0-1)	HAKB	02/13/1021:25
	TPU:	+/-0.0791		+/-0.0699						
	Yield:	81.6		99.7						
Uranium-235/236	U	0.0219		0.0661	pCi/g	0.741		(0-1)		
	TPU:	+/-0.0111		+/-0.0188						
	Yield:	81.6		99.7						
Uranium-238		0.957		1.23	pCi/g	0.662		(0-1)		
	TPU:	+/-0.0946		+/-0.109						

QC Summary

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 949825										
	Yield:	81.6		99.7						
QC1202035007 LCS										
Uranium-233/234				5.82	pCi/g			(75%-125%)		02/13/1021:25
	TPU:			+/-0.576						
	Yield:			87.3						
Uranium-235/236			U	0.329	pCi/g			(75%-125%)		
	TPU:			+/-0.0949						
	Yield:			87.3						
Uranium-238	5.75			6.82	pCi/g		119	(75%-125%)		
	TPU:			+/-0.657						
	Yield:			87.3						
QC1202035005 MB										
Uranium-233/234			U	0.0197	pCi/g					02/15/1021:17
	TPU:			+/-0.00624						
	Yield:			102						
Uranium-235/236			U	0.00359	pCi/g					
	TPU:			+/-0.0036						
	Yield:			102						
Uranium-238			U	0.016	pCi/g					
	TPU:			+/-0.00535						
	Yield:			102						
Batch 951665										
QC1202039542 246020001 DUP										
Americium-241	U	0.00156	U	0.00328	pCi/g	0.0808		(0-1)	CXM2	02/23/1013:26
	TPU:	+/-0.00778		+/-0.00289						
	Yield:	95.5		89.5						
QC1202039543 LCS										
Americium-241	33.2			25.9	pCi/g		78	(75%-125%)		02/23/1013:26
	TPU:			+/-1.71						
	Yield:			110						
QC1202039541 MB										
Americium-241			U	-0.00228	pCi/g					02/23/1013:26
	TPU:			+/-0.00387						
	Yield:			89.4						
Batch 951669										
QC1202039556 246020001 DUP										
Plutonium-238	U	0.00	U	-0.00106	pCi/g	0.0614		(0-1)	CXM2	02/25/1022:19
	TPU:	+/-0.00443		+/-0.00424						
	Yield:	86.5		73.2						
Plutonium-239/240	U	0.00626	U	0.00135	pCi/g	0.263		(0-1)		
	TPU:	+/-0.00443		+/-0.00488						
	Yield:	86.5		73.2						
QC1202039557 LCS										
Plutonium-238				7.15	pCi/g			(75%-125%)		02/23/1013:08
	TPU:			+/-0.530						
	Yield:			90.7						
Plutonium-239/240	41.8			39.3	pCi/g		94	(75%-125%)		
	TPU:			+/-2.42						
	Yield:			90.7						

QC Summary

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 951669										
QC1202039555 MB										
Plutonium-238			U	-0.00339	pCi/g					
TPU:				+/-0.00294						
Yield:				90.4						
Plutonium-239/240			U	-0.00169	pCi/g					
TPU:				+/-0.00294						
Yield:				90.4						
Batch 951672										
QC1202039559 246020001 DUP										
Uranium-233/234		0.249		0.280	pCi/g	0.283		(0-1)	CXM2	02/24/1013:02
TPU:		+/-0.0258		+/-0.0289						
Yield:		94.7		71.5						
Uranium-235/236	U	0.0215	U	0.0115	pCi/g	0.427		(0-1)		
TPU:		+/-0.00687		+/-0.00478						
Yield:		94.7		71.5						
Uranium-238		0.316		0.412	pCi/g	0.694		(0-1)		
TPU:		+/-0.0308		+/-0.0386						
Yield:		94.7		71.5						
QC1202039560 LCS										
Uranium-233/234				6.11	pCi/g			(75%-125%)		
TPU:				+/-0.542						
Yield:				95.7						
Uranium-235/236				0.409	pCi/g			(75%-125%)		
TPU:				+/-0.0953						
Yield:				95.7						
Uranium-238	5.75			5.34	pCi/g		92.9	(75%-125%)		
TPU:				+/-0.484						
Yield:				95.7						
QC1202039558 MB										
Uranium-233/234			U	0.0108	pCi/g					02/24/1009:54
TPU:				+/-0.00398						
Yield:				97.8						
Uranium-235/236			U	0.00577	pCi/g					
TPU:				+/-0.00291						
Yield:				97.8						
Uranium-238				0.049	pCi/g					
TPU:				+/-0.00843						
Yield:				97.8						
Batch 953488										
QC1202044052 245978002 DUP										
Uranium-233/234		19.6		18.9	pCi/g	0.110		(0-1)	HAKB	02/23/1010:43
TPU:		+/-1.60		+/-1.60						
Yield:		95.4		88.7						
Uranium-235/236		1.83		2.23	pCi/g	0.376		(0-1)		
TPU:		+/-0.241		+/-0.295						
Yield:		95.4		88.7						
Uranium-238		77.0		79.4	pCi/g	0.0977		(0-1)		
TPU:		+/-5.98		+/-6.31						
Yield:		95.4		88.7						

QC Summary

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 953488										
QC1202044053 LCS										
Uranium-233/234				5.86	pCi/g			(75%-125%)		02/23/1010:43
	TPU:			+/-0.555						
	Yield:			96.0						
Uranium-235/236			U	0.266	pCi/g			(75%-125%)		
	TPU:			+/-0.0794						
	Yield:			96.0						
Uranium-238	5.75			5.91	pCi/g		103	(75%-125%)		
	TPU:			+/-0.559						
	Yield:			96.0						
QC1202044051 MB										
Uranium-233/234			U	0.0236	pCi/g					02/23/1010:41
	TPU:			+/-0.00596						
	Yield:			100						
Uranium-235/236			U	0.00577	pCi/g					
	TPU:			+/-0.00356						
	Yield:			100						
Uranium-238			U	0.0128	pCi/g					
	TPU:			+/-0.0046						
	Yield:			100						
Batch 954009										
QC1202045188 245978007 DUP										
Americium-241	U	-0.00181	U	0.0057	pCi/g	0.683		(0-1)	HAKB	02/19/1015:53
	TPU:	+/-0.0028		+/-0.00269						
	Yield:	88.8		80.0						
QC1202045189 LCS										
Americium-241	33.2			28.1	pCi/g		84.6	(75%-125%)		
	TPU:			+/-1.94						
	Yield:			99.2						
QC1202045187 MB										
Americium-241			U	0.00221	pCi/g					
	TPU:			+/-0.00351						
	Yield:			88.9						
Batch 957873										
QC1202054059 245978011 DUP										
Americium-241	U	0.00713	U	0.0109	pCi/g	0.0767		(0-1)	CXM2	02/26/1023:40
	TPU:	+/-0.0036		+/-0.00911						
	Yield:	36.9		25.5						
QC1202054060 LCS										
Americium-241	33.2			31.4	pCi/g		94.6	(75%-125%)		
	TPU:			+/-2.03						
	Yield:			89.0						
QC1202054058 MB										
Americium-241			U	0.0137	pCi/g					
	TPU:			+/-0.00868						
	Yield:			79.1						
Rad Gamma Spec										
Batch 948721										
QC1202032522 245978008 DUP										

QC Summary

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948721										
Americium-241	U	0.423	U	-0.00979	pCi/g	0.676		(0-1)	MXR1	02/14/1013:18
	TPU:	+/-0.182		+/-0.139						
Bismuth-211	UI	4.51	UI	3.84	pCi/g	0.535		(0-1)		
	TPU:	+/-0.345		+/-0.282						
Bismuth-214		1.30		1.14	pCi/g	0.416		(0-1)		
	TPU:	+/-0.107		+/-0.0896						
Cadmium-109	U	1.27	UI	3.30	pCi/g	0.738		(0-1)		
	TPU:	+/-0.756		+/-0.622						
Cerium-139	U	-0.00695	U	-0.0396	pCi/g	0.451		(0-1)		
	TPU:	+/-0.0204		+/-0.0158						
Cesium-134	U	0.0462	U	0.0261	pCi/g	0.180		(0-1)		
	TPU:	+/-0.0328		+/-0.0231						
Cesium-137		0.472		0.428	pCi/g	0.246		(0-1)		
	TPU:	+/-0.051		+/-0.0379						
Cobalt-60	U	0.0255	U	-0.0207	pCi/g	0.560		(0-1)		
	TPU:	+/-0.0234		+/-0.0178						
Europium-152	U	0.0783	U	0.0206	pCi/g	0.211		(0-1)		
	TPU:	+/-0.087		+/-0.0497						
Lanthanum-140	U	0.0619	U	0.027	pCi/g	0.154		(0-1)		
	TPU:	+/-0.0629		+/-0.0502						
Lead-212		1.59		1.46	pCi/g	0.341		(0-1)		
	TPU:	+/-0.115		+/-0.0757						
Lead-214		1.57		1.33	pCi/g	0.505		(0-1)		
	TPU:	+/-0.127		+/-0.104						
Mercury-203	U	-0.0011	U	0.0106	pCi/g	0.121		(0-1)		
	TPU:	+/-0.0283		+/-0.0201						
Potassium-40		24.9		24.4	pCi/g	0.0845		(0-1)		
	TPU:	+/-1.53		+/-1.31						
Radium-223	U	-0.216	U	-0.0313	pCi/g	0.120		(0-1)		
	TPU:	+/-0.413		+/-0.357						
Radium-224	UI	5.02	UI	3.36	pCi/g	0.628		(0-1)		
	TPU:	+/-0.817		+/-0.511						
Radium-226		1.30		1.14	pCi/g	0.416		(0-1)		
	TPU:	+/-0.107		+/-0.0896						
Radium-228		1.36		1.49	pCi/g	0.200		(0-1)		
	TPU:	+/-0.181		+/-0.154						
Ruthenium-106	U	0.0839	U	0.0218	pCi/g	0.0934		(0-1)		
	TPU:	+/-0.184		+/-0.149						
Sodium-22	U	-0.0249	U	-0.0227	pCi/g	0.0233		(0-1)		
	TPU:	+/-0.0263		+/-0.0221						
Strontium-85	UI	0.128	U	0.0317	pCi/g	1.06		(0-1)		
	TPU:	+/-0.0271		+/-0.0183						
Thallium-208		0.397		0.431	pCi/g	0.175		(0-1)		
	TPU:	+/-0.0524		+/-0.0455						
Thorium-227	U	0.307	U	0.197	pCi/g	0.131		(0-1)		
	TPU:	+/-0.250		+/-0.172						
Thorium-231	U	-0.216	U	-0.0313	pCi/g	0.120		(0-1)		
	TPU:	+/-0.413		+/-0.357						
Thorium-234		14.4		18.1	pCi/g	0.356		(0-1)		
	TPU:	+/-2.54		+/-2.63						

QC Summary

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948721										
Tin-113	U	-0.024	U	-0.0419	pCi/g	0.175		(0-1)		
	TPU:	+/-0.0302		+/-0.021						
Uranium-235	U	0.193		0.511	pCi/g	0.503		(0-1)		
	TPU:	+/-0.144		+/-0.172						
Yttrium-88	U	-0.015	U	-0.0116	pCi/g	0.0468		(0-1)		
	TPU:	+/-0.017		+/-0.0187						
QC1202032523 LCS										
Americium-241	15.9			13.9	pCi/g		87.1	(75%-125%)		02/14/1014:00
	TPU:			+/-1.04						
Bismuth-211				1.86	pCi/g					
	TPU:			+/-0.298						
Bismuth-214				0.579	pCi/g					
	TPU:			+/-0.130						
Cadmium-109				30.0	pCi/g					
	TPU:			+/-2.26						
Cerium-139			U	0.0196	pCi/g					
	TPU:			+/-0.0218						
Cesium-134			U	0.0936	pCi/g					
	TPU:			+/-0.046						
Cesium-137	5.56			5.15	pCi/g		92.7	(75%-125%)		
	TPU:			+/-0.184						
Cobalt-60	6.40			6.37	pCi/g		99.5	(75%-125%)		
	TPU:			+/-0.278						
Europium-152			U	-0.0726	pCi/g					
	TPU:			+/-0.0813						
Lanthanum-140			U	8.11E-05	pCi/g					
	TPU:			+/-0.0379						
Lead-212				0.978	pCi/g					
	TPU:			+/-0.0854						
Lead-214				0.646	pCi/g					
	TPU:			+/-0.105						
Mercury-203			U	0.00538	pCi/g					
	TPU:			+/-0.0301						
Potassium-40				0.946	pCi/g					
	TPU:			+/-0.267						
Radium-223			U	-0.225	pCi/g					
	TPU:			+/-0.557						
Radium-224			U	1.12	pCi/g					
	TPU:			+/-0.795						
Radium-226				0.579	pCi/g					
	TPU:			+/-0.130						
Radium-228				1.37	pCi/g					
	TPU:			+/-0.247						
Ruthenium-106			U	0.0872	pCi/g					
	TPU:			+/-0.296						
Sodium-22			U	0.00745	pCi/g					
	TPU:			+/-0.0265						
Strontium-85			U	0.0619	pCi/g					
	TPU:			+/-0.0369						
Thallium-208				0.405	pCi/g					
	TPU:			+/-0.0505						

QC Summary

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948721										
Thorium-227			U	-0.317	pCi/g					
	TPU:			+/-0.316						
Thorium-231			U	-0.225	pCi/g					
	TPU:			+/-0.557						
Thorium-234			U	-0.336	pCi/g					
	TPU:			+/-1.36						
Tin-113			U	-0.00334	pCi/g					
	TPU:			+/-0.0398						
Uranium-235			U	0.171	pCi/g					
	TPU:			+/-0.147						
Yttrium-88			U	-0.00751	pCi/g					
	TPU:			+/-0.0235						
QC1202032521 MB										
Americium-241			U	-0.0415	pCi/g					02/14/1013:13
	TPU:			+/-0.0243						
Bismuth-211			U	-0.0947	pCi/g					
	TPU:			+/-0.0473						
Bismuth-214			U	-0.0326	pCi/g					
	TPU:			+/-0.0192						
Cadmium-109			U	-0.0906	pCi/g					
	TPU:			+/-0.149						
Cerium-139			U	0.00159	pCi/g					
	TPU:			+/-0.00503						
Cesium-134			U	-0.000707	pCi/g					
	TPU:			+/-0.00938						
Cesium-137			U	0.0153	pCi/g					
	TPU:			+/-0.0081						
Cobalt-60			U	-0.0105	pCi/g					
	TPU:			+/-0.00745						
Europium-152			U	0.00972	pCi/g					
	TPU:			+/-0.020						
Lanthanum-140			U	-0.000909	pCi/g					
	TPU:			+/-0.0125						
Lead-212			U	-0.0145	pCi/g					
	TPU:			+/-0.014						
Lead-214			U	-0.0296	pCi/g					
	TPU:			+/-0.0164						
Mercury-203			U	-0.000887	pCi/g					
	TPU:			+/-0.00768						
Potassium-40			U	-0.0146	pCi/g					
	TPU:			+/-0.110						
Radium-223			U	0.0655	pCi/g					
	TPU:			+/-0.138						
Radium-224			U	0.188	pCi/g					
	TPU:			+/-0.136						
Radium-226			U	-0.0326	pCi/g					
	TPU:			+/-0.0192						
Radium-228			U	-0.0166	pCi/g					
	TPU:			+/-0.0323						
Ruthenium-106			U	0.00062	pCi/g					
	TPU:			+/-0.0705						

QC Summary

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 948721										
Sodium-22			U	0.00838	pCi/g					
	TPU:			+/-0.00652						
Strontium-85			UI	0.0464	pCi/g					
	TPU:			+/-0.00882						
Thallium-208			U	0.00501	pCi/g					
	TPU:			+/-0.00909						
Thorium-227			U	0.118	pCi/g					
	TPU:			+/-0.0748						
Thorium-231			U	0.0655	pCi/g					
	TPU:			+/-0.138						
Thorium-234			U	-0.238	pCi/g					
	TPU:			+/-0.214						
Tin-113			U	0.0101	pCi/g					
	TPU:			+/-0.0078						
Uranium-235			U	-0.0456	pCi/g					
	TPU:			+/-0.0451						
Yttrium-88			U	0.00123	pCi/g					
	TPU:			+/-0.00804						
Rad Liquid Scintillation										
Batch 950495										
QC1202036901 245978001 DUP										
Tritium		202	U	188	pCi/L	0.0556		(0-1)	KXK2	02/14/1012:30
	TPU:	+/-61.7		+/-62.1						
QC1202036902 LCS										
Tritium	5560			5590	pCi/L		100	(80%-120%)		02/14/1014:07
	TPU:			+/-474						
QC1202036900 MB										
Tritium			U	-27.8	pCi/L					02/14/1010:51
	TPU:			+/-56.5						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure

QC Summary

Workorder: 245978

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 949823 Product: AM Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/21/10

Secondary Review Performed By: 02/22/10

2/13-2/23

CAM

√P

Am/Cm Que Sheet

05-FEB-10

Batch #: 949823 | Analyst: HAKB | First Client Due Date: 23-FEB-10 | Internal Due Date: 13-FEB-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-SS | Expiration Date: 5/11/10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): SPIM 0244-B / NA | Expiration Date: 4/30/20 / NA | Vol(s): 0.1 / NA

Spike Isotope(s): Am241/Cm244 | Spike Code(s): NA / NA | Expiration Date: NA / NA | Vol(s): NA / NA

Prep Date: 2/8/10 | Initials: HAKB | Pipet ID: 29710058 | Balance ID: 50410272 | Witness: 02/08/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) 1/1	Am/Cm Det #
245955001-1	RE16-10-1474	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.260	246
245955002-1	RE16-10-1475	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.271	248
245960001-1	RE15-10-7309	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.281	250
245960002-1	RE15-10-7308	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.268	252
245960003-1	RE15-10-7315	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.253	254
245960004-1	RE15-10-7317	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.252	256
245960005-1	RE15-10-7319	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.257	213
~~246960006-1~~	~~RE15-10-7312~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	~~8~~	~~8~~	~~1.284~~	~~214~~
245960007-1	RE15-10-7313	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	~~1.268~~ 1.261	215
~~245960008-1~~	~~RE15-10-7314~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	~~10~~	~~10~~	~~1.282~~	~~216~~ 216
245960009-1	RE15-10-7316	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	11	11	1.260	217
245960010-1	RE15-10-7318	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	12	12	1.270	224
245960011-1	RE15-10-7324	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	13	13	1.261	225
245978001-1	RE15-10-7880	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.271	226
245978002-1	RE15-10-7891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.267	227
245978003-1	RE15-10-7892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.264	228
245978004-1	RE15-10-7967	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.252	~~229~~ 235
245978005-1	RE15-10-7976	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.258	230
245978006-1	RE15-10-7968	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.258	231
~~245978007-1~~	~~RE15-10-7965~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~20~~	~~20~~	~~1.284~~	~~232~~
1202034998-1	MB for batch 949823	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.00	218
1202034999-1	RE15-10-7880(245978001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.260	219
1202035000-1	LCS for batch 949823	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.103	~~220~~ 236

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/21/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 949823

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202034999	DUP	Americium-241	1.26 g	0.00234	0.00181	0.0207	-.00262698	pCi/g	NO
1202035000	LCS	Americium-241	0.103 g	30.0	2.13	0.223	-.03213592	pCi/g	NO
1202034998	MB	Americium-241	1.00 g	-0.00331	0.00355	0.0257	-.00331	pCi/g	NO
245955001	RE16-10-1474	Americium-241	1.26 g	0.00421	0.00253	0.0225	-.00262698	pCi/g	NO
245955002	RE16-10-1475	Americium-241	1.27 g	-0.0018	0.00142	0.0212	-.00260630	pCi/g	NO
245960001	RE15-10-7309	Americium-241	1.28 g	0.00144	0.00162	0.0241	-.00258594	pCi/g	NO
245960002	RE15-10-7308	Americium-241	1.27 g	0.0029	0.00214	0.0234	-.00260630	pCi/g	NO
245960003	RE15-10-7315	Americium-241	1.25 g	-0.00131	0.00226	0.0274	-.002648	pCi/g	NO
245960004	RE15-10-7317	Americium-241	1.25 g	0.00455	0.00271	0.0238	-.002648	pCi/g	NO
245960005	RE15-10-7319	Americium-241	1.26 g	0.0102	0.00422	0.0256	-.00262698	pCi/g	NO
245960007	RE15-10-7313	Americium-241	1.26 g	-0.00181	0.00155	0.0232	-.00262698	pCi/g	NO
245960009	RE15-10-7316	Americium-241	1.26 g	0.00352	0.003	0.0243	-.00262698	pCi/g	NO
245960010	RE15-10-7318	Americium-241	1.27 g	0.0136	0.00467	0.0231	-.00260630	pCi/g	NO
245960011	RE15-10-7324	Americium-241	1.26 g	0.00316	0.0023	0.0248	-.00262698	pCi/g	NO
245978001	RE15-10-7880	Americium-241	1.27 g	-0.0018	0.00194	0.029	-.00260630	pCi/g	NO
245978002	RE15-10-7891	Americium-241	1.27 g	0.0102	0.00424	0.0257	-.00260630	pCi/g	NO
245978003	RE15-10-7892	Americium-241	1.26 g	0.00303	0.00268	0.0221	-.00262698	pCi/g	NO
245978004	RE15-10-7967	Americium-241	1.25 g	0.0142	0.00485	0.0239	-.002648	pCi/g	NO
245978005	RE15-10-7976	Americium-241	1.26 g	6.35E-06	0.00176	0.0213	-.00262698	pCi/g	NO
245978006	RE15-10-7968	Americium-241	1.26 g	0.00487	0.00287	0.025	-.00262698	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 226	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978001_AM	DETECTOR S/N : 79419	BKG FILE : B226.CNF;80
SAMPLE QTY : 1.271 G	AVERAGE %EFFICIENCY : 37.2343	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W226.CNF;28
% YIELD : 68.190		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.9888E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5508.883	0.000	0.000	-0.926	0.000	2.8409	99.94000	-1.80E-03	1.94E-03	1.19E-02	2.90E-02	1.94E-03
AM243	5270.000	5276.667	39.465	532.000	532.000	0.000	0.0000	99.78000	1.03E+00	8.12E-02	0.00E+00	5.27E-03	4.48E-02
CM-242	6102.000	6037.050	4.955	1.000	1.000	0.000	4.3413	100.0000	2.11E-03	2.11E-03	1.82E-02	4.16E-02	2.11E-03
CM-3/4	5795.020	5741.394	79.274	5.000	4.280	0.720	5.1799	100.0000	8.31E-03	4.60E-03	2.17E-02	4.86E-02	4.56E-03
CM-5/6	5386.000	5379.774	7.277	4.000	4.000	0.000	14.2480	86.09000	9.01E-03	4.54E-03	6.92E-02	1.45E-01	4.50E-03
CM-247	4946.000	4848.850	4.955	5.000	2.840	2.160	13.7917	79.30000	6.94E-03	6.28E-03	7.27E-02	1.52E-01	6.26E-03
CM-248	5078.600	5068.201	32.205	9.000	9.000	0.000	19.5080	91.00000	1.92E-02	6.51E-03	8.97E-02	1.85E-01	6.39E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

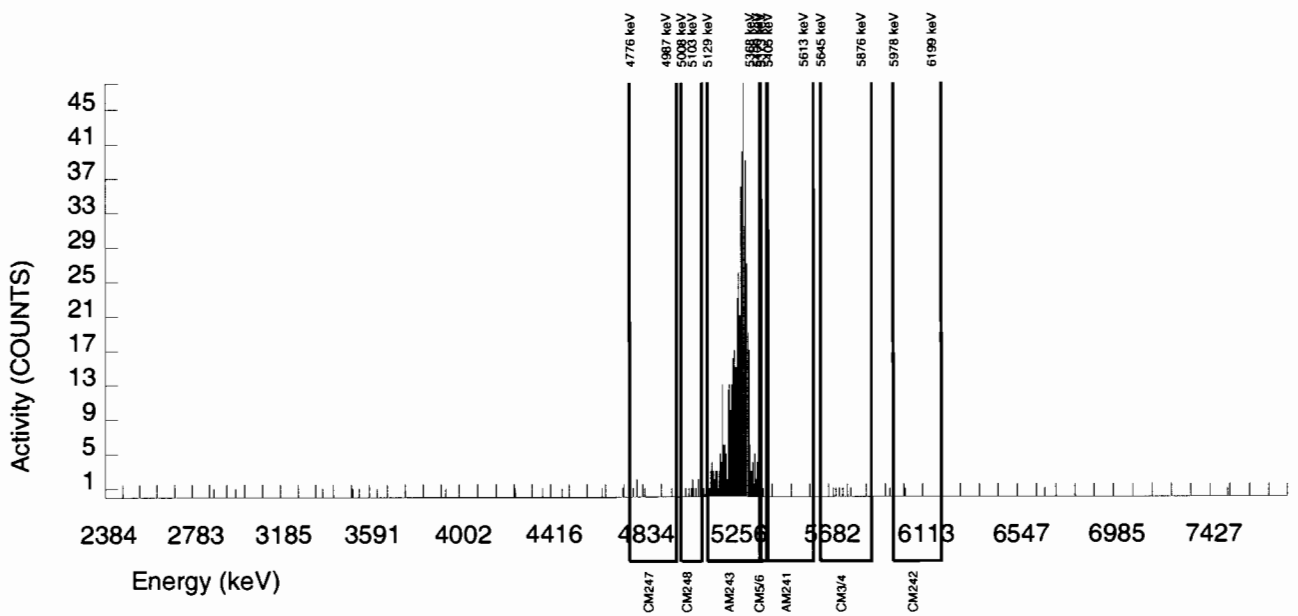

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 227	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978002_AM	DETECTOR S/N : 79420	BKG FILE : B227.CNF;80
SAMPLE QTY : 1.267 G	AVERAGE %EFFICIENCY : 38.6409	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:49	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W227.CNF;28
% YIELD : 74.512		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.1732E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5524.644	4.945	7.000	5.950	0.000	2.8409	99.94000	1.02E-02	4.24E-03	1.05E-02	2.57E-02	4.19E-03
AM243	5270.000	5279.119	44.666	604.000	603.280	0.720	0.8485	99.78000	1.04E+00	7.85E-02	3.15E-03	1.10E-02	4.23E-02
CM-242	6102.000	6055.380	4.945	5.000	5.000	0.000	4.3413	100.0000	9.32E-03	4.21E-03	1.61E-02	3.68E-02	4.17E-03
CM-3/4	5795.020	5770.030	118.686	6.000	5.280	0.720	5.1799	100.0000	9.07E-03	4.43E-03	1.92E-02	4.30E-02	4.39E-03
CM-5/6	5386.000	5375.978	0.000	8.000	8.000	0.000	14.2480	86.09000	1.59E-02	5.73E-03	6.12E-02	1.28E-01	5.63E-03
CM-247	4946.000	4922.027	7.263	7.000	7.000	0.000	13.7917	79.30000	1.51E-02	5.80E-03	6.43E-02	1.35E-01	5.72E-03
CM-248	5078.600	5056.475	0.000	20.000	20.000	0.000	19.5080	91.00000	3.77E-02	8.76E-03	7.93E-02	1.64E-01	8.43E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

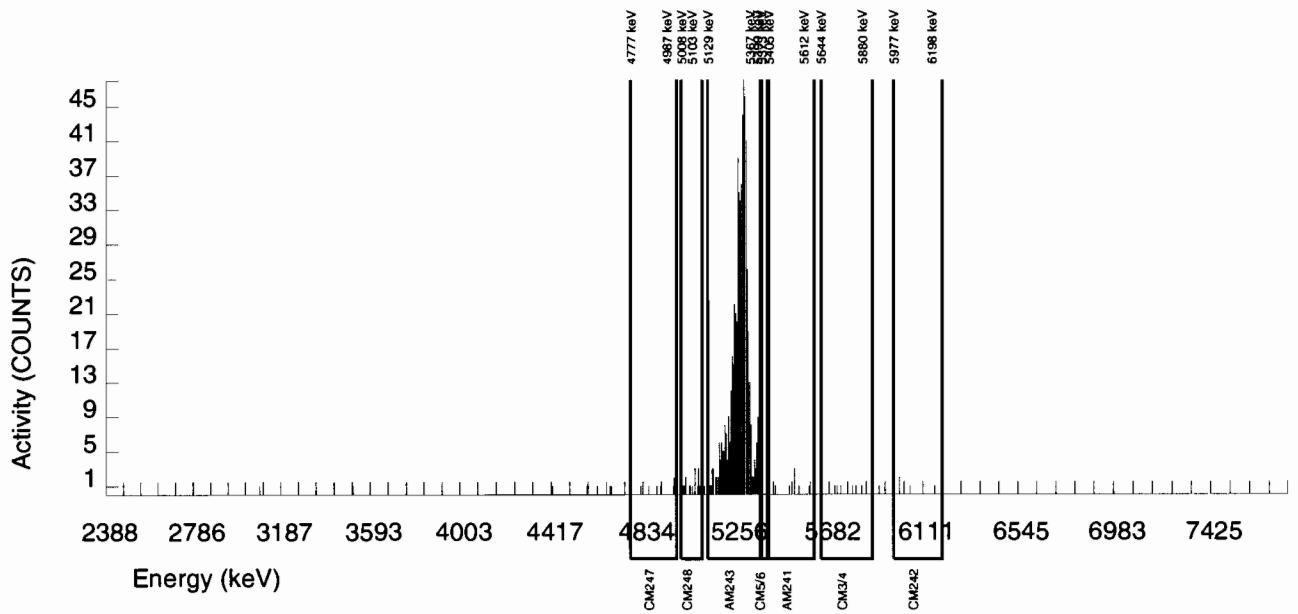

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 228	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978003_AM	DETECTOR S/N : 79421	BKG FILE : B228.CNF;80
SAMPLE QTY : 1.264 G	AVERAGE %EFFICIENCY : 37.1363	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W228.CNF;28
% YIELD : 90.475		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.6388E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5492.618	4.969	4.000	2.055	0.720	2.8409	99.94000	3.03E-03	2.68E-03	9.03E-03	2.21E-02	2.68E-03
AM243	5270.000	5277.485	45.130	704.000	704.000	0.000	0.0000	99.78000	1.04E+00	7.53E-02	0.00E+00	4.00E-03	3.92E-02
CM-242	6102.000	6021.504	84.480	4.000	4.000	0.000	4.3413	100.0000	6.40E-03	3.23E-03	1.38E-02	3.16E-02	3.20E-03
CM-3/4	5795.020	5780.945	4.969	5.000	5.000	0.000	5.1799	100.0000	7.38E-03	3.33E-03	1.65E-02	3.69E-02	3.30E-03
CM-5/6	5386.000	5381.146	0.000	4.000	4.000	0.000	14.2480	86.09000	6.84E-03	3.45E-03	5.26E-02	1.10E-01	3.42E-03
CM-247	4946.000	4918.065	149.083	4.000	4.000	0.000	13.7917	79.30000	7.43E-03	3.74E-03	5.53E-02	1.16E-01	3.72E-03
CM-248	5078.600	5059.543	77.026	17.000	17.000	0.000	19.5080	91.00000	2.75E-02	6.89E-03	6.81E-02	1.41E-01	6.67E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

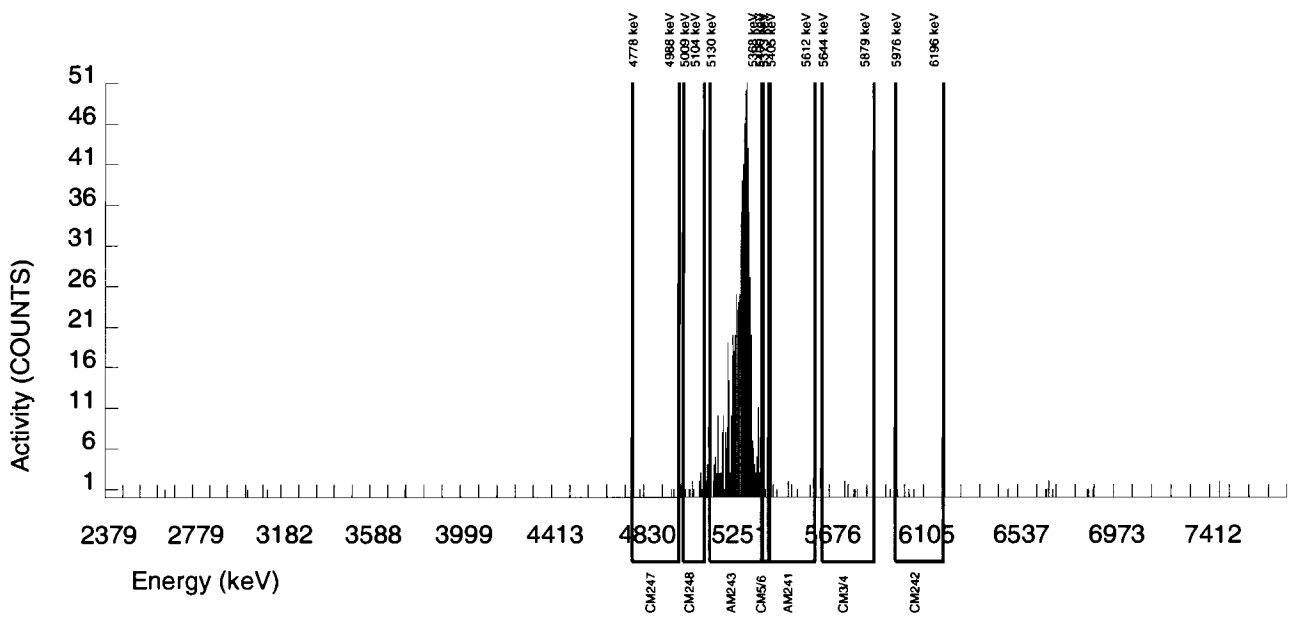

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 235	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978004_AM	DETECTOR S/N : 79428	BKG FILE : B235.CNF;80
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 37.6823	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:42:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W235.CNF;28
% YIELD : 82.993		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4206E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5511.812	6.071	10.000	8.860	0.000	2.8409	99.94000	1.42E-02	4.85E-03	9.80E-03	2.39E-02	4.76E-03
AM243	5270.000	5269.256	62.504	656.000	655.280	0.720	0.8485	99.78000	1.05E+00	7.90E-02	2.93E-03	1.02E-02	4.10E-02
CM-242	6102.000	6052.270	19.589	3.000	3.000	0.000	4.3413	100.0000	5.29E-03	3.07E-03	1.50E-02	3.43E-02	3.05E-03
CM-3/4	5795.020	5735.458	93.050	2.000	2.000	0.000	5.1799	100.0000	3.20E-03	2.27E-03	1.79E-02	4.00E-02	2.27E-03
CM-5/6	5386.000	5377.508	0.000	7.000	7.000	0.000	14.2480	86.09000	1.30E-02	4.98E-03	5.71E-02	1.19E-01	4.91E-03
CM-247	4946.000	4879.808	0.000	7.000	6.280	0.720	13.7917	79.30000	1.27E-02	5.58E-03	6.00E-02	1.25E-01	5.52E-03
CM-248	5078.600	5066.934	53.748	27.000	27.000	0.000	19.5080	91.00000	4.74E-02	9.62E-03	7.39E-02	1.53E-01	9.12E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

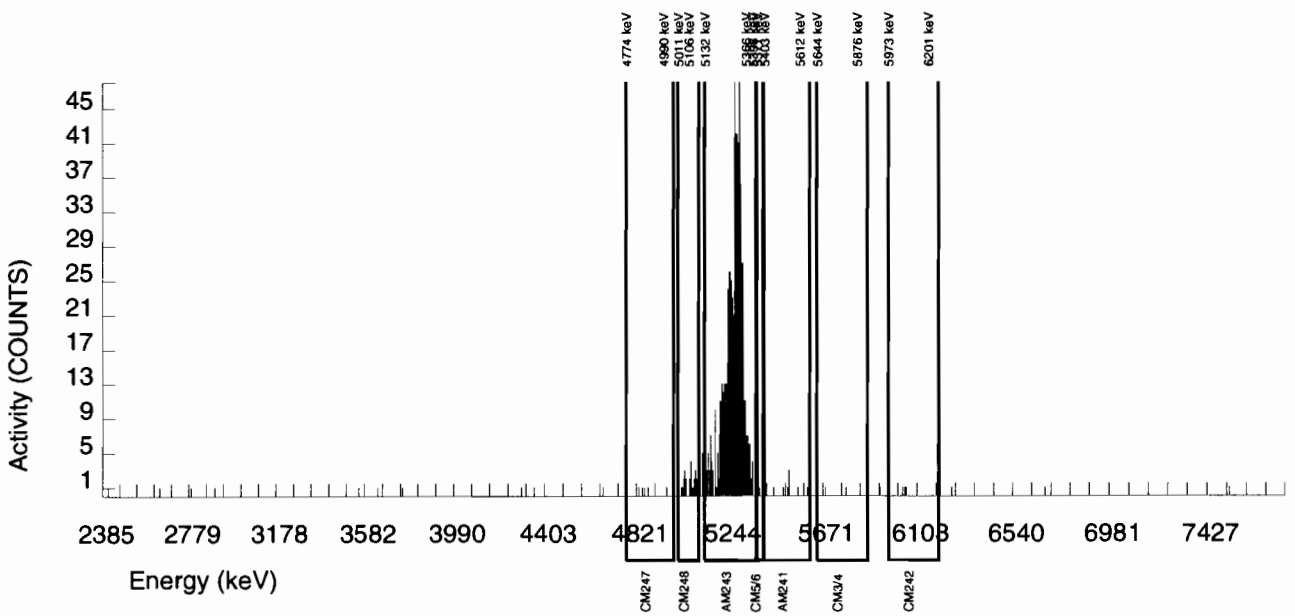

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 230	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978005_AM	DETECTOR S/N : 79423	BKG FILE : B230.CNF;80
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 37.5123	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W230.CNF;28
% YIELD : 93.257		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7199E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5506.674	64.209	2.000	0.004	0.720	2.8409	99.94000	6.35E-06	1.76E-03	8.72E-03	2.13E-02	1.75E-03
AM243	5270.000	5269.844	71.576	733.000	733.000	0.000	0.0000	99.78000	1.04E+00	7.49E-02	0.00E+00	3.86E-03	3.86E-02
CM-242	6102.000	6027.378	98.783	7.000	7.000	0.000	4.3413	100.0000	1.08E-02	4.14E-03	1.33E-02	3.05E-02	4.09E-03
CM-3/4	5795.020	5747.474	108.661	5.000	4.280	0.720	5.1799	100.0000	6.10E-03	3.37E-03	1.59E-02	3.56E-02	3.35E-03
CM-5/6	5386.000	5374.797	0.000	4.000	4.000	0.000	14.2480	86.09000	6.61E-03	3.33E-03	5.08E-02	1.06E-01	3.30E-03
CM-247	4946.000	4937.654	0.000	9.000	9.000	0.000	13.7917	79.30000	1.61E-02	5.47E-03	5.33E-02	1.12E-01	5.38E-03
CM-248	5078.600	5070.223	44.349	15.000	15.000	0.000	19.5080	91.00000	2.34E-02	6.22E-03	6.57E-02	1.36E-01	6.05E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

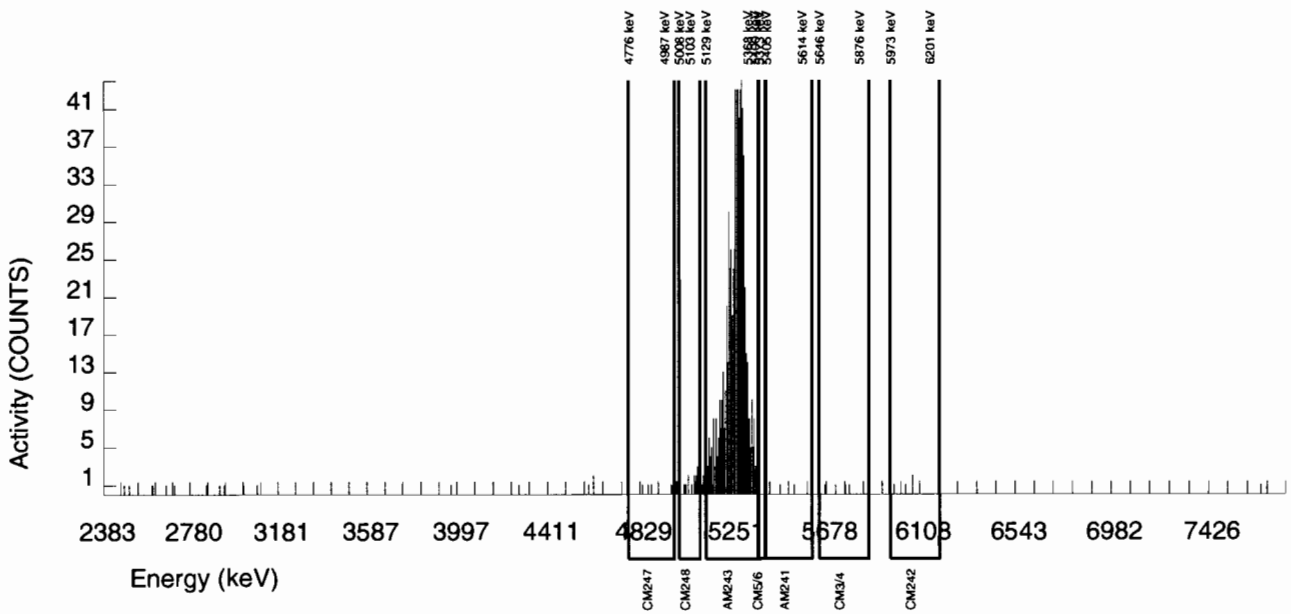

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 231	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978006_AM	DETECTOR S/N : 79424	BKG FILE : B231.CNF;80
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 38.8428	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:42:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W231.CNF;28
% YIELD : 76.650		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.2356E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5506.121	0.000	4.000	2.914	0.000	2.8409	99.94000	4.87E-03	2.87E-03	1.02E-02	2.50E-02	2.85E-03
AM243	5270.000	5279.415	39.156	626.000	623.840	2.160	1.4697	99.78000	1.04E+00	7.84E-02	5.31E-03	1.52E-02	4.19E-02
CM-242	6102.000	6061.985	49.342	2.000	2.000	0.000	4.3413	100.0000	3.63E-03	2.58E-03	1.56E-02	3.58E-02	2.57E-03
CM-3/4	5795.020	5779.842	24.671	2.000	1.280	0.720	5.1799	100.0000	2.14E-03	2.66E-03	1.87E-02	4.19E-02	2.66E-03
CM-5/6	5386.000	5376.660	0.000	10.000	10.000	0.000	14.2480	86.09000	1.94E-02	6.26E-03	5.96E-02	1.25E-01	6.14E-03
CM-247	4946.000	4932.375	63.528	7.000	6.280	0.720	13.7917	79.30000	1.32E-02	5.84E-03	6.27E-02	1.31E-01	5.78E-03
CM-248	5078.600	5056.119	14.803	15.000	14.280	0.720	19.5080	91.00000	2.62E-02	7.42E-03	7.73E-02	1.59E-01	7.23E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

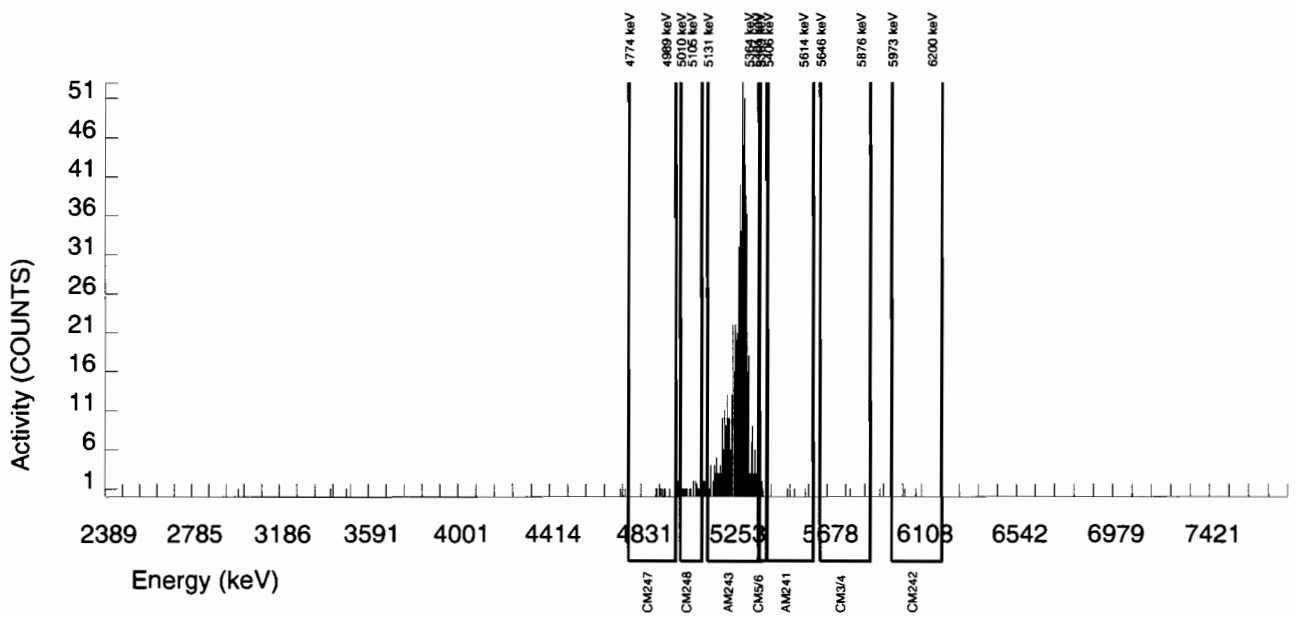

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 218	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202034998_AM	DETECTOR S/N : 79411	BKG FILE : B218.CNF;80
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.5225	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 15-FEB-2010 07:41:22	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W218.CNF;28
% YIELD : 97.083		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.8315E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5560.936	0.000	3.000	-1.928	3.600	2.8409	99.94000	-3.31E-03	3.55E-03	1.05E-02	2.57E-02	3.55E-03
AM243	5270.000	5277.232	48.018	764.000	763.280	0.720	0.8485	99.78000	1.31E+00	9.33E-02	3.15E-03	1.10E-02	4.76E-02
CM-242	6102.000	6043.712	4.944	9.000	9.000	0.000	4.3413	100.0000	1.60E-02	5.41E-03	1.61E-02	3.68E-02	5.32E-03
CM-3/4	5795.020	5759.040	168.093	11.000	11.000	0.000	5.1799	100.0000	1.89E-02	5.82E-03	1.92E-02	4.30E-02	5.70E-03
CM-5/6	5386.000	5372.661	0.000	5.000	4.280	0.720	14.2480	86.09000	8.54E-03	4.72E-03	6.13E-02	1.28E-01	4.69E-03
CM-247	4946.000	4899.614	148.318	5.000	2.840	2.160	13.7917	79.30000	6.15E-03	5.56E-03	6.44E-02	1.35E-01	5.54E-03
CM-248	5078.600	5078.091	0.000	24.000	22.560	1.440	19.5080	91.00000	4.26E-02	9.79E-03	7.94E-02	1.64E-01	9.44E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

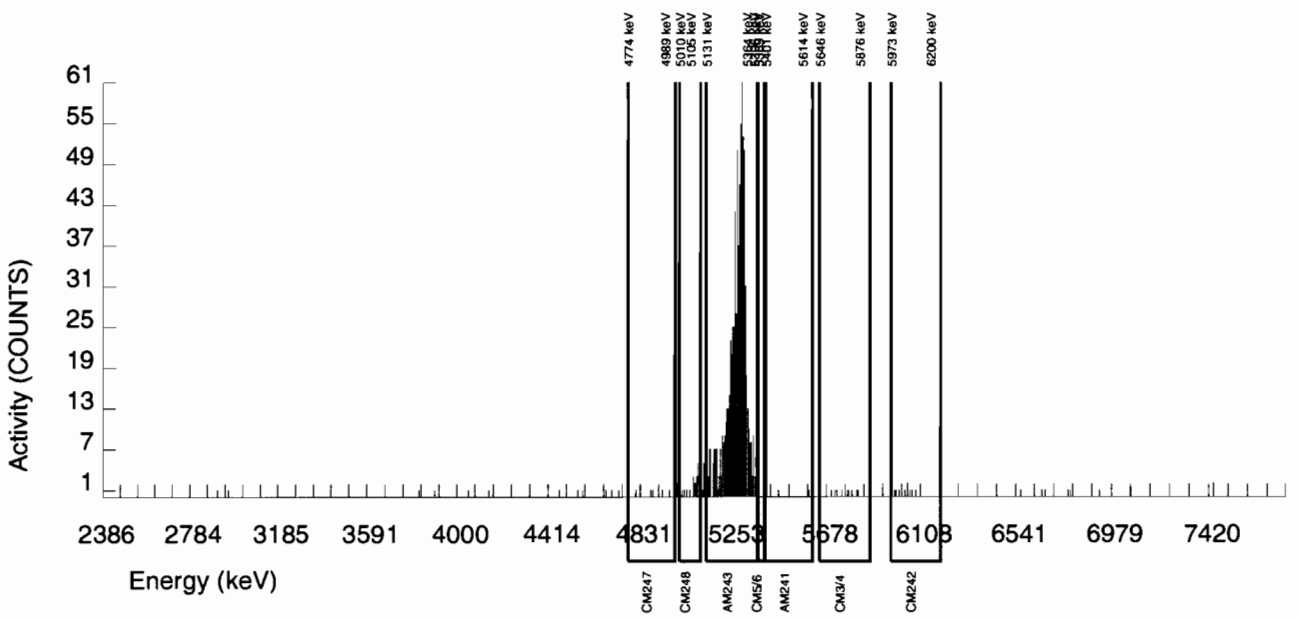

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 219	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202034999_AM	DETECTOR S/N : 79412	BKG FILE : B219.CNF;80
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 38.4458	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 15-FEB-2010 07:41:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W219.CNF;28
% YIELD : 93.352		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.7227E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5484.873	0.000	3.000	1.691	0.000	2.8409	99.94000	2.34E-03	1.81E-03	8.48E-03	2.07E-02	1.80E-03
AM243	5270.000	5276.857	49.546	752.000	752.000	0.000	0.0000	99.78000	1.04E+00	7.43E-02	0.00E+00	3.76E-03	3.80E-02
CM-242	6102.000	6040.348	7.220	8.000	8.000	0.000	4.3413	100.0000	1.20E-02	4.32E-03	1.30E-02	2.97E-02	4.25E-03
CM-3/4	5795.020	5779.022	7.220	12.000	12.000	0.000	5.1799	100.0000	1.66E-02	4.91E-03	1.55E-02	3.47E-02	4.80E-03
CM-5/6	5386.000	5378.583	0.000	11.000	11.000	0.000	14.2480	86.09000	1.77E-02	5.44E-03	4.94E-02	1.03E-01	5.33E-03
CM-247	4946.000	4924.962	7.220	9.000	7.560	1.440	13.7917	79.30000	1.32E-02	5.59E-03	5.19E-02	1.09E-01	5.53E-03
CM-248	5078.600	5072.415	0.000	38.000	38.000	0.000	19.5080	91.00000	5.78E-02	1.00E-02	6.40E-02	1.32E-01	9.37E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

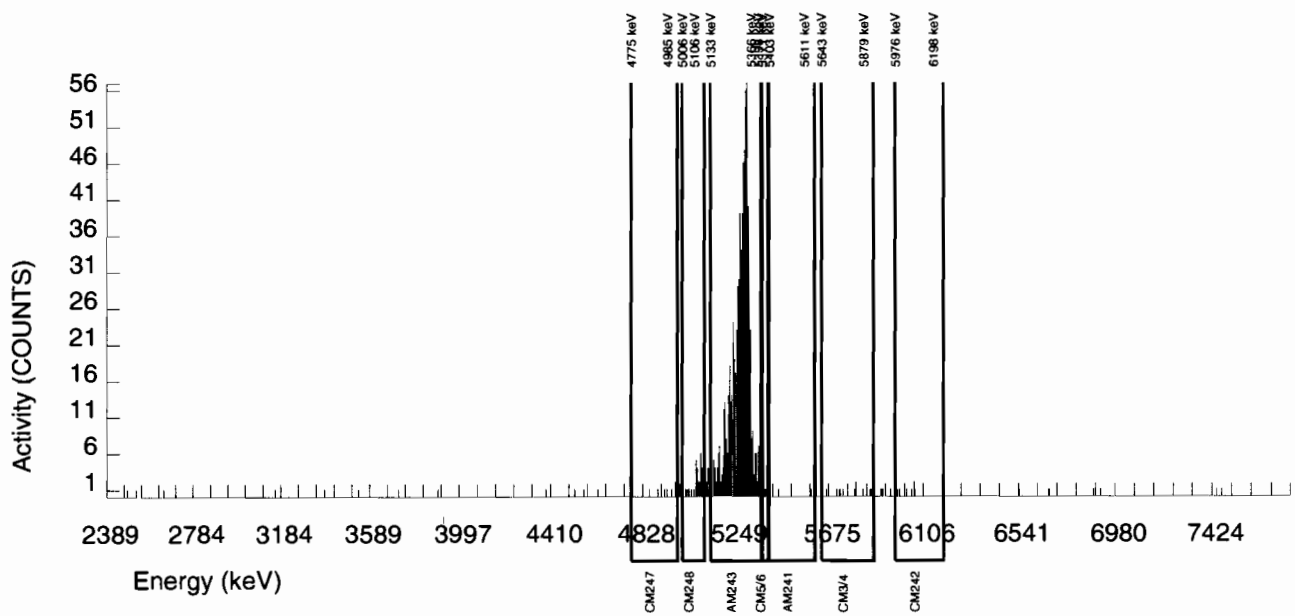

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949823	CHAMBER : 236	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202035000_AM	DETECTOR S/N : 79429	BKG FILE : B236.CNF;80
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 38.6953	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 18-FEB-2010 18:42:55	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W236.CNF;28
% YIELD : 105.646		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 3.0812E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5493.946	51.735	2017.000	2015.510	0.000	2.8409	99.94000	3.00E+01	2.13E+00	9.11E-02	2.23E-01	6.67E-01
AM243	5270.000	5273.112	66.354	858.000	856.560	1.440	1.2000	99.78000	1.28E+01	9.66E-01	3.86E-02	1.17E-01	4.36E-01
CM-242	6102.000	6049.406	58.191	5.000	5.000	0.000	4.3413	100.0000	7.79E-02	3.52E-02	1.39E-01	3.19E-01	3.48E-02
CM-3/4	5795.020	5765.562	4.900	5.000	5.000	0.000	5.1799	100.0000	7.44E-02	3.36E-02	1.66E-01	3.72E-01	3.33E-02
CM-5/6	5386.000	5384.850	0.000	98.000	98.000	0.000	14.2480	86.09000	1.69E+00	2.06E-01	5.31E-01	1.11E+00	1.71E-01
CM-247	4946.000	4913.693	4.900	11.000	10.280	0.720	13.7917	79.30000	1.93E-01	6.49E-02	5.57E-01	1.17E+00	6.36E-02
CM-248	5078.600	5066.467	36.625	30.000	30.000	0.000	19.5080	91.00000	4.90E-01	9.54E-02	6.87E-01	1.42E+00	8.94E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

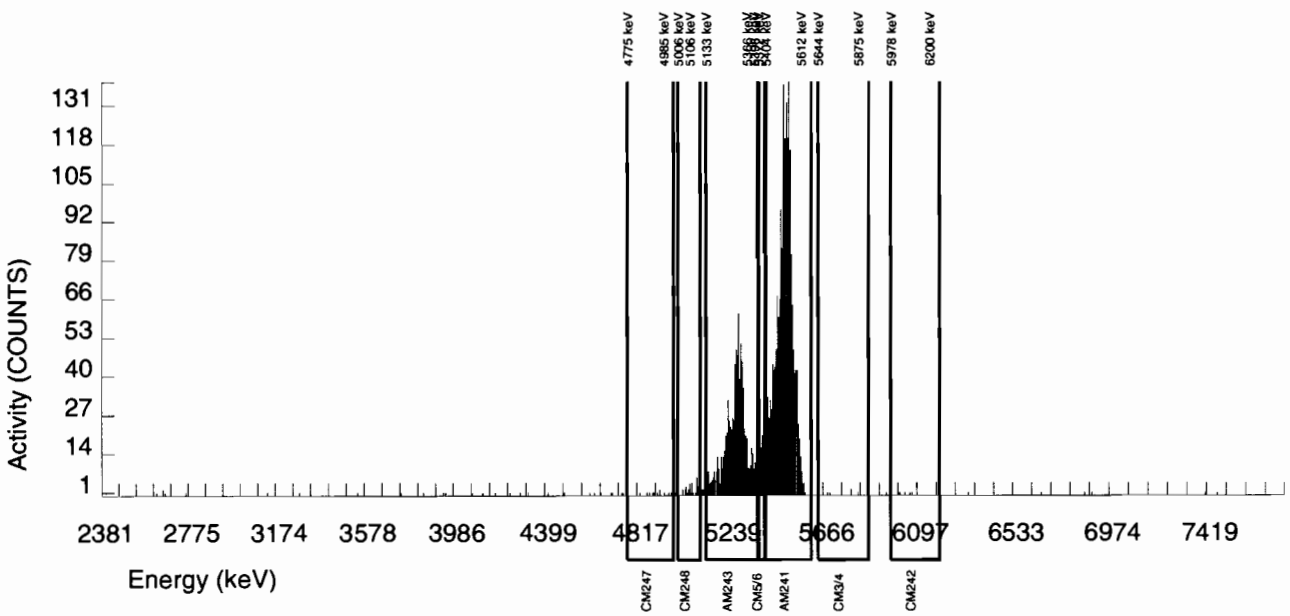

Radiochemistry Batch Checklist, Rev10

Batch# 949824 Product: Pu Date: 2/21/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/21/10

Secondary Review Performed By: 2/22/10

2/13 2/23

✓P

Plutonium Que Sheet

05-FEB-10

Batch #: 949824 Analyst: HAKB First Client Due Date:23-FEB-10 Internal Due Date:13-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 1/8/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: SLM 0294-B Expiration Date: 4/30/10 Vol: 0.103

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/8/10 Initials: HAKB Pipet ID: 29710 58 Balance ID: 50410272 Witness: [illegible] 02/08/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
245955001-1	RE16-10-1474	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	1	1	1.260	247
245955002-1	RE16-10-1475	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	2	2	1.271	248
245960001-1	RE15-10-7309	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	3	3	1.281	249
245960002-1	RE15-10-7308	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	4	4	1.268	250
245960003-1	RE15-10-7315	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	5	5	1.253	251
245960004-1	RE15-10-7317	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	6	6	1.252	223 ~~252~~
245960005-1	RE15-10-7319	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	7	7	1.257	253
245960006-1	RE15-10-7312	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	8	8	1.254	254
245960007-1	RE15-10-7313	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	9	9	1.261	255
245960008-1	RE15-10-7314	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	10	10	1.252	256
245960009-1	RE15-10-7316	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	11	11	1.260	25
245960010-1	RE15-10-7318	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	12	12	1.270	26
245960011-1	RE15-10-7324	SAMPLE		.05 pCi/g	SOIL	LANL010	28-JAN-10	13	13	1.261	27
245978001-1	RE15-10-7880	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	14	1.271	28
245978002-1	RE15-10-7891	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	15	1.267	213 ~~29~~
245978003-1	RE15-10-7892	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	16	1.264	30
245978004-1	RE15-10-7967	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	17	1.252	214 ~~77~~ *
245978005-1	RE15-10-7976	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	18	1.258	79
245978006-1	RE15-10-7968	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	19	1.258	80
245978007-1	RE15-10-7965	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	20	1.281	81
1202835001-1	MB for batch 949824	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	82
1202835002-1	RE15-10-7880(245978001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	1.260 *	~~211~~ 221 *
1202835003-1	LCS for batch 949824	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.103	~~212~~ 222

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/12/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 949824

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035002	DUP	Plutonium-238	1.26 g	-0.00203	0.00203	0.0166	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00203	0.00144	0.0125	.002595238	pCi/g	YES
1202035003	LCS	Plutonium-238	0.103 g	7.01	0.502	0.201	0	pCi/g	NO
		Plutonium-239/240	0.103 g	36.9	2.25	0.152	.031747573	pCi/g	NO
1202035001	MB	Plutonium-238	1.00 g	0.00	0.00164	0.0267	0	pCi/g	NO
		Plutonium-239/240	1.00 g	0.00327	0.00462	0.0201	.00327	pCi/g	YES
245955001	RE16-10-1474	Plutonium-238	1.26 g	-0.00111	0.00189	0.0236	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0105	0.00502	0.0178	.002595238	pCi/g	YES
245955002	RE16-10-1475	Plutonium-238	1.27 g	0.00281	0.00199	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0014	0.00141	0.0163	.002574803	pCi/g	YES
245960001	RE15-10-7309	Plutonium-238	1.28 g	-0.00108	0.00185	0.023	0	pCi/g	YES
		Plutonium-239/240	1.28 g	-0.00282	0.00263	0.0174	.002554688	pCi/g	YES
245960002	RE15-10-7308	Plutonium-238	1.27 g	0.00	0.00151	0.0231	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00751	0.00338	0.0174	.002574803	pCi/g	YES
245960003	RE15-10-7315	Plutonium-238	1.25 g	-0.00106	0.00182	0.0227	0	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00739	0.00333	0.0172	.002616	pCi/g	YES
245960004	RE15-10-7317	Plutonium-238	1.25 g	-0.00106	0.00149	0.0172	0	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00211	0.0015	0.013	.002616	pCi/g	YES
245960005	RE15-10-7319	Plutonium-238	1.26 g	-0.00583	0.00311	0.0222	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00433	0.00251	0.0167	.002595238	pCi/g	YES
245960006	RE15-10-7312	Plutonium-238	1.28 g	0.00183	0.00227	0.0219	0	pCi/g	NO
		Plutonium-239/240	1.28 g	0.0133	0.00469	0.0166	.002554688	pCi/g	NO
245960007	RE15-10-7313	Plutonium-238	1.26 g	0.00	0.00142	0.0218	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.000793	0.00247	0.0164	.002595238	pCi/g	YES
245960008	RE15-10-7314	Plutonium-238	1.25 g	0.000397	0.00175	0.0218	0	pCi/g	NO
		Plutonium-239/240	1.25 g	0.00567	0.00285	0.0164	.002616	pCi/g	YES
245960009	RE15-10-7316	Plutonium-238	1.26 g	-0.00254	0.00802	0.0207	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00888	0.00383	0.0156	.002595238	pCi/g	YES
245960010	RE15-10-7318	Plutonium-238	1.27 g	0.00264	0.00264	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0145	0.00444	0.0162	.002574803	pCi/g	NO
245960011	RE15-10-7324	Plutonium-238	1.26 g	0.00249	0.00249	0.0203	0	pCi/g	NO
		Plutonium-239/240	1.26 g	0.00248	0.00176	0.0153	.002595238	pCi/g	YES
245978001	RE15-10-7880	Plutonium-238	1.27 g	0.00493	0.00286	0.0269	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.00493	0.00286	0.0202	.002574803	pCi/g	YES
245978002	RE15-10-7891	Plutonium-238	1.27 g	0.00225	0.0016	0.0184	0	pCi/g	NO
		Plutonium-239/240	1.27 g	0.0214	0.00527	0.0139	.002574803	pCi/g	NO
245978003	RE15-10-7892	Plutonium-238	1.26 g	-0.00666	0.0061	0.0218	0	pCi/g	YES
		Plutonium-239/240	1.26 g	-0.00266	0.00231	0.0164	.002595238	pCi/g	YES
245978004	RE15-10-7967	Plutonium-238	1.25 g	0.0012	0.00121	0.0197	0	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245978004	RE15-10-7967	Plutonium-239/240	1.25 g	0.0723	0.0102	0.0148	.002616	pCi/g	NO
245978005	RE15-10-7976	Plutonium-238	1.26 g	-0.00126	0.00178	0.0206	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0151	0.00477	0.0155	.002595238	pCi/g	NO
245978006	RE15-10-7968	Plutonium-238	1.26 g	-0.00123	0.00276	0.0202	0	pCi/g	YES
		Plutonium-239/240	1.26 g	0.0123	0.00432	0.0152	.002595238	pCi/g	YES
245978007	RE15-10-7965	Plutonium-238	1.28 g	0.00397	0.0023	0.0216	0	pCi/g	NO
		Plutonium-239/240	1.28 g	0.0159	0.00466	0.0163	.002554688	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 028	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978001_PU	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1121
SAMPLE QTY : 1.271 G	AVERAGE %EFFICIENCY : 30.7898	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W028.CNF;321
% YIELD : 70.130		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3709E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5706.793	4.947	5.000	-3.000	8.000	2.6925	100.0000	-4.98E-03	5.99E-03	1.03E-02	2.50E-02	5.99E-03
PU-238	5499.000	5425.808	84.091	3.000	3.000	0.000	2.9312	99.90000	4.93E-03	2.86E-03	1.12E-02	2.69E-02	2.85E-03
PU-9/0	5155.000	5139.904	158.288	3.000	3.000	0.000	2.0604	99.90000	4.93E-03	2.86E-03	7.88E-03	2.02E-02	2.85E-03
PU242	4890.000	4876.693	47.862	730.000	730.000	0.000	0.0000	100.0000	1.20E+00	8.06E-02	0.00E+00	4.45E-03	4.43E-02
PU-244	4589.000	4540.873	89.037	7.000	6.000	1.000	3.7241	99.90000	9.86E-03	4.68E-03	1.42E-02	3.29E-02	4.65E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

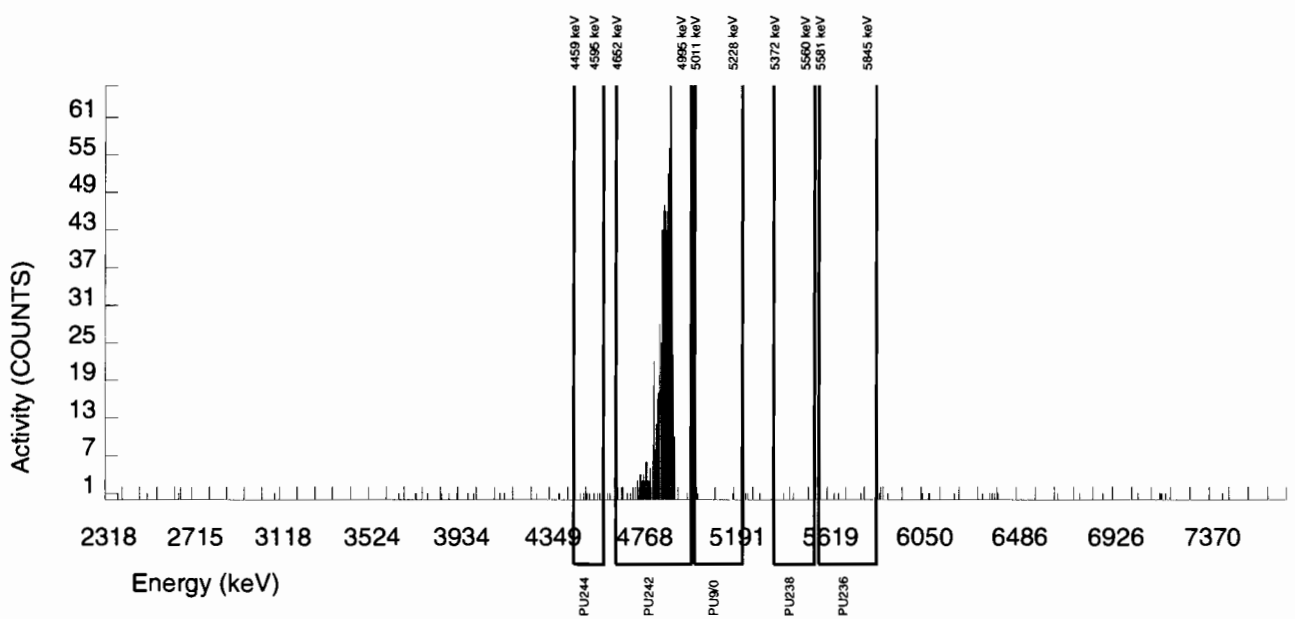

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 213	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978002_PU	DETECTOR S/N : 79192	BKG FILE : B213.CNF;80
SAMPLE QTY : 1.267 G	AVERAGE %EFFICIENCY : 37.3130	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:42:59	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W213.CNF;28
% YIELD : 84.663		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8623E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5700.964	4.939	1.000	0.000	1.000	2.6925	100.0000	0.00E+00	1.62E-03	7.05E-03	1.71E-02	1.62E-03
PU-238	5499.000	5426.987	59.264	2.000	2.000	0.000	2.9312	99.90000	2.25E-03	1.60E-03	7.68E-03	1.84E-02	1.59E-03
PU-9/0	5155.000	5155.167	54.119	20.000	19.000	1.000	2.0604	99.90000	2.14E-02	5.27E-03	5.40E-03	1.39E-02	5.16E-03
PU242	4890.000	4884.826	56.705	1068.000	1068.000	0.000	0.0000	100.0000	1.20E+00	7.05E-02	0.00E+00	3.05E-03	3.68E-02
PU-244	4589.000	4515.231	123.466	7.000	7.000	0.000	3.7241	99.90000	7.89E-03	3.01E-03	9.76E-03	2.26E-02	2.98E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

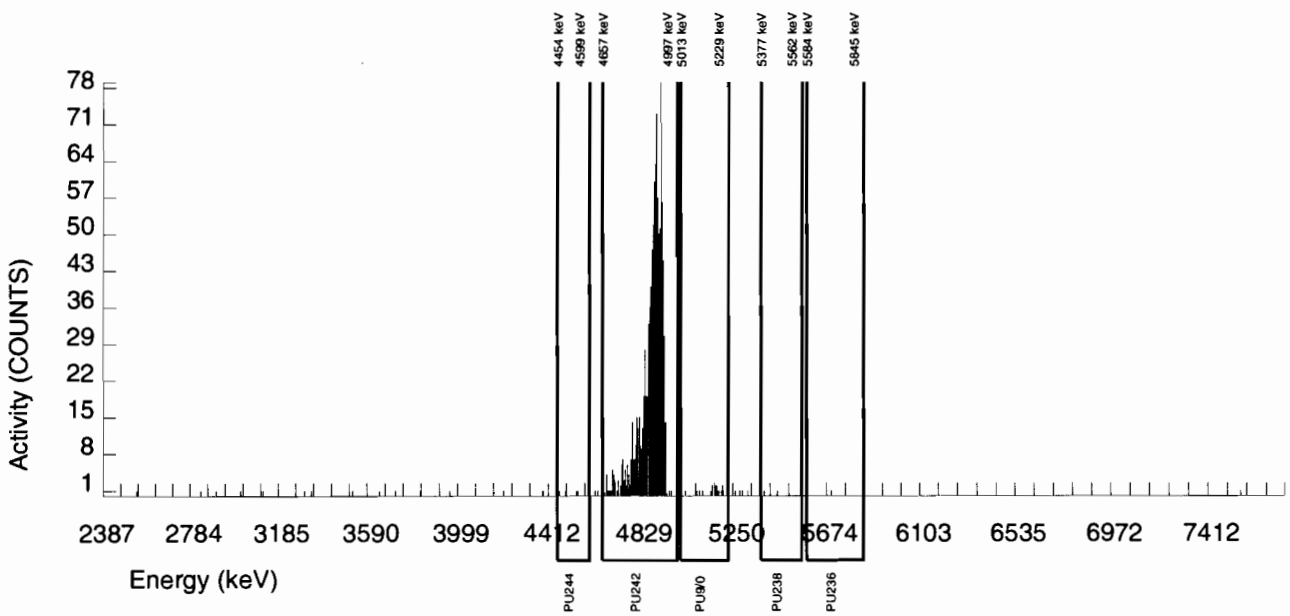

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 030	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978003_PU	DETECTOR S/N : 33447	BKG FILE : B030.CNF;1109
SAMPLE QTY : 1.264 G	AVERAGE %EFFICIENCY : 32.1343	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:55	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W030.CNF;305
% YIELD : 83.396		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8194E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5737.279	14.194	11.000	1.000	10.000	2.6925	100.0000	1.35E-03	6.17E-03	8.33E-03	2.03E-02	6.17E-03
PU-238	5499.000	5439.589	4.937	8.000	-5.000	13.000	2.9312	99.90000	-6.66E-03	6.10E-03	9.08E-03	2.18E-02	6.10E-03
PU-9/0	5155.000	5120.359	0.000	0.000	-2.000	2.000	2.0604	99.90000	-2.66E-03	2.31E-03	6.38E-03	1.64E-02	2.31E-03
PU242	4890.000	4883.026	65.008	911.000	906.000	5.000	2.2361	100.0000	1.20E+00	7.63E-02	6.92E-03	1.74E-02	4.02E-02
PU-244	4589.000	4568.248	54.306	4.000	4.000	0.000	3.7241	99.90000	5.32E-03	2.68E-03	1.15E-02	2.67E-02	2.66E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

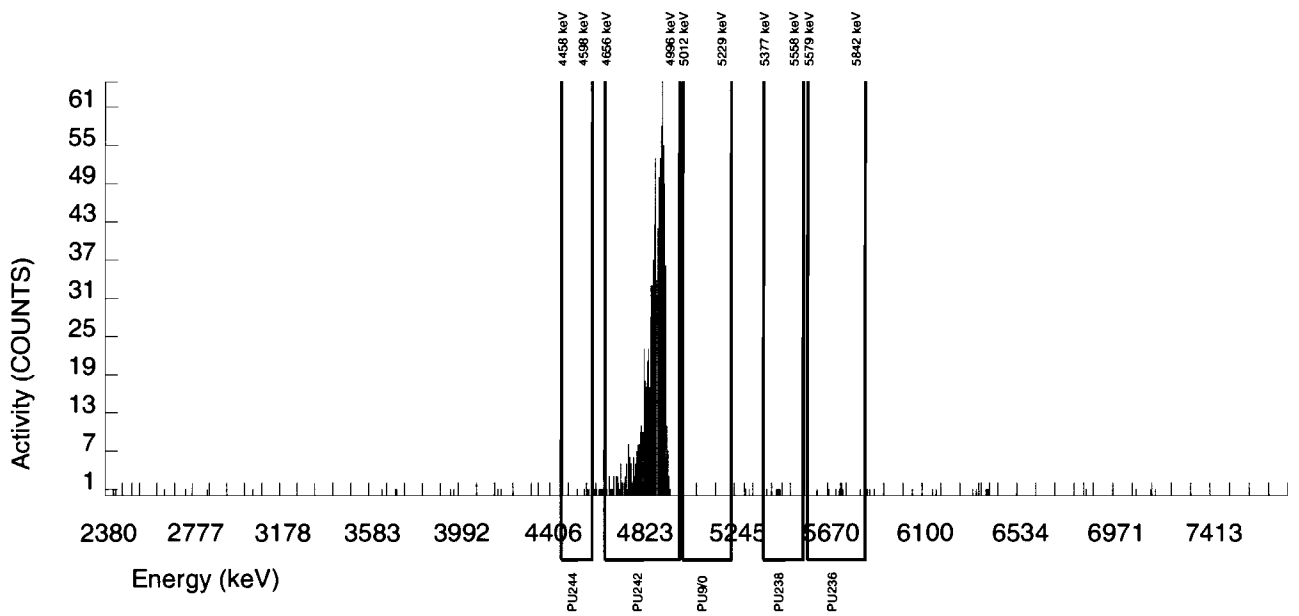

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 214	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978004_PU	DETECTOR S/N : 79193	BKG FILE : B214.CNF;80
SAMPLE QTY : 1.252 G	AVERAGE %EFFICIENCY : 38.4008	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:43:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W214.CNF;28
% YIELD : 77.875		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6328E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.754	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.22E-03	7.54E-03	1.83E-02	1.22E-03
PU-238	5499.000	5520.523	4.930	1.000	1.000	0.000	2.9312	99.90000	1.20E-03	1.21E-03	8.21E-03	1.97E-02	1.20E-03
PU-9/0	5155.000	5138.585	76.617	61.000	60.000	1.000	2.0604	99.90000	7.23E-02	1.02E-02	5.77E-03	1.48E-02	9.48E-03
PU242	4890.000	4880.231	63.381	1012.000	1011.000	1.000	1.0000	100.0000	1.22E+00	7.24E-02	2.80E-03	8.86E-03	3.83E-02
PU-244	4589.000	4529.575	0.000	14.000	13.000	1.000	3.7241	99.90000	1.57E-02	4.73E-03	1.04E-02	2.41E-02	4.66E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

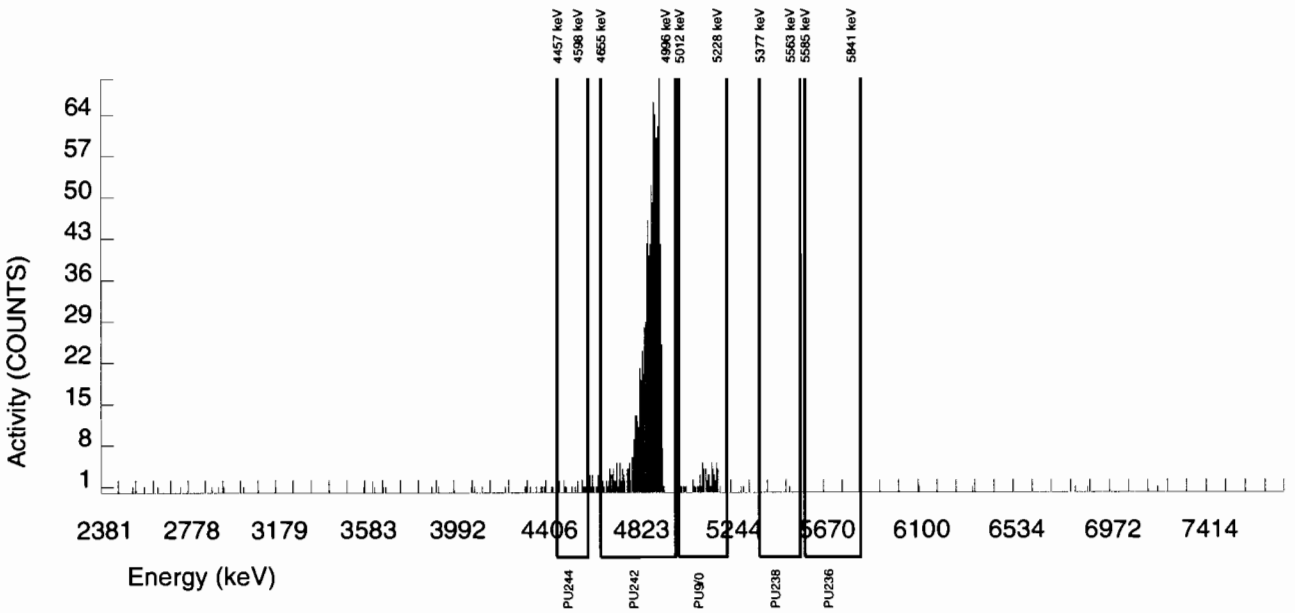

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 079	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978005_PU	DETECTOR S/N : 79466	BKG FILE : B079.CNF;1016
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 32.2486	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.01	EFF FILE : W079.CNF;268
% YIELD : 88.328		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9862E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5782.711	4.918	1.000	0.000	1.000	2.6925	100.0000	-3.03E-10	1.80E-03	7.87E-03	1.92E-02	1.80E-03
PU-238	5499.000	5467.502	0.000	0.000	-1.000	1.000	2.9312	99.90000	-1.26E-03	1.78E-03	8.58E-03	2.06E-02	1.78E-03
PU-9/0	5155.000	5138.256	51.484	13.000	12.000	1.000	2.0604	99.90000	1.51E-02	4.77E-03	6.03E-03	1.55E-02	4.71E-03
PU242	4890.000	4882.313	60.378	966.000	963.000	3.000	1.7321	100.0000	1.21E+00	7.33E-02	5.07E-03	1.35E-02	3.91E-02
PU-244	4589.000	4526.695	0.000	1.000	1.000	0.000	3.7241	99.90000	1.26E-03	1.26E-03	1.09E-02	2.52E-02	1.26E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

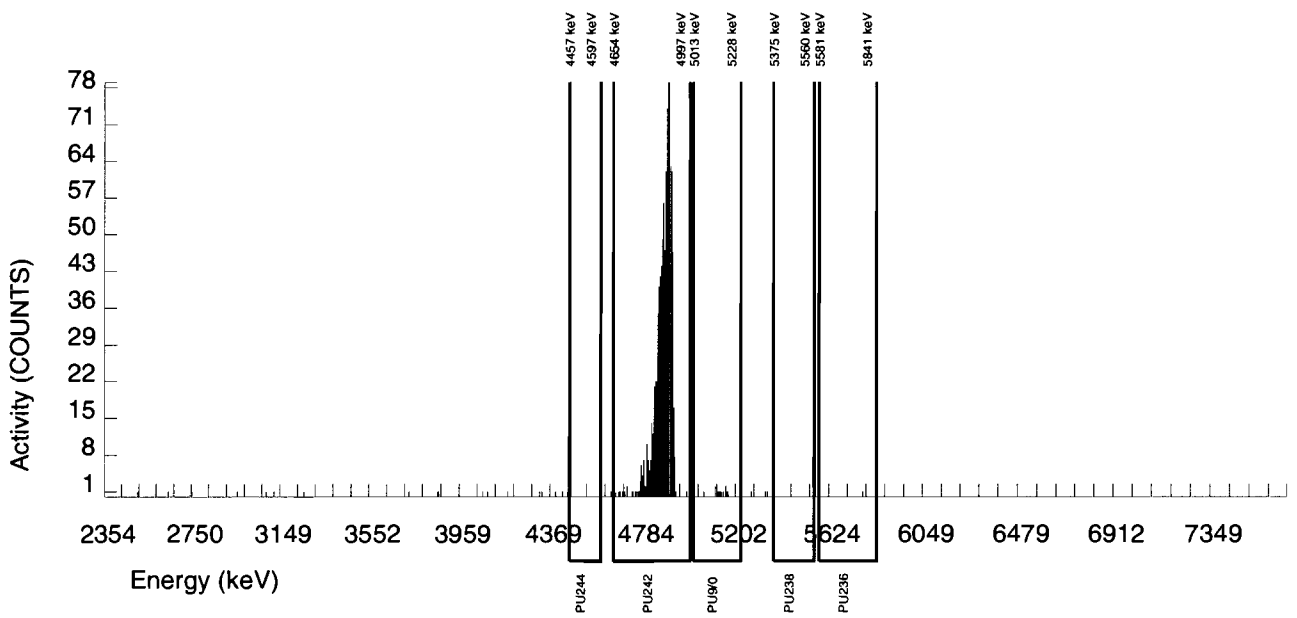

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 080	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978006_PU	DETECTOR S/N : 78197	BKG FILE : B080.CNF;1017
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 33.2957	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.01	EFF FILE : W080.CNF;276
% YIELD : 87.327		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9523E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5689.881	5.019	1.000	-2.000	3.000	2.6925	100.0000	-2.49E-03	2.49E-03	7.71E-03	1.88E-02	2.49E-03
PU-238	5499.000	5424.572	30.115	2.000	-1.000	3.000	2.9312	99.90000	-1.23E-03	2.76E-03	8.41E-03	2.02E-02	2.76E-03
PU-9/0	5155.000	5135.478	5.019	11.000	10.000	1.000	2.0604	99.90000	1.23E-02	4.32E-03	5.91E-03	1.52E-02	4.27E-03
PU242	4890.000	4883.376	66.988	985.000	983.000	2.000	1.4142	100.0000	1.21E+00	7.28E-02	4.05E-03	1.14E-02	3.87E-02
PU-244	4589.000	4552.601	70.269	3.000	3.000	0.000	3.7241	99.90000	3.70E-03	2.14E-03	1.07E-02	2.47E-02	2.14E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

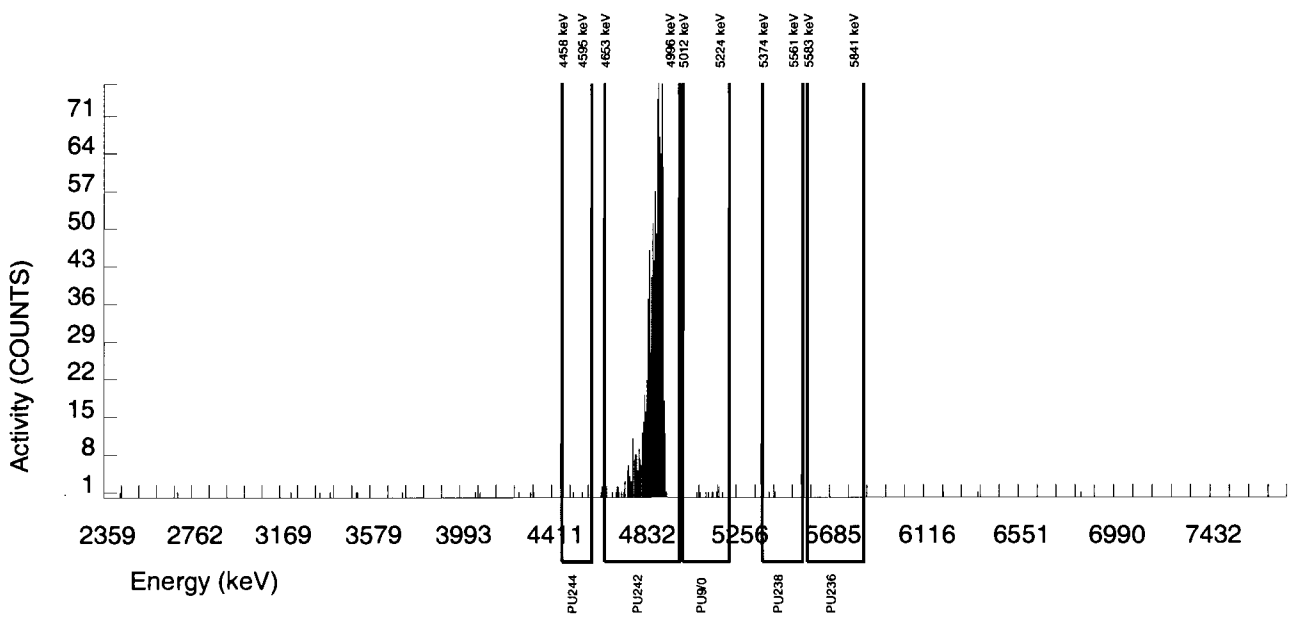

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 081	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978007_PU	DETECTOR S/N : 79996	BKG FILE : B081.CNF;1024
SAMPLE QTY : 1.281 G	AVERAGE %EFFICIENCY : 32.2195	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:40:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.01	EFF FILE : W081.CNF;274
% YIELD : 82.533		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.7902E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5727.216	156.115	4.000	2.000	2.000	2.6925	100.0000	2.68E-03	3.28E-03	8.28E-03	2.01E-02	3.28E-03
PU-238	5499.000	5466.219	106.720	3.000	3.000	0.000	2.9312	99.90000	3.97E-03	2.30E-03	9.03E-03	2.16E-02	2.29E-03
PU-9/0	5155.000	5149.226	4.879	12.000	12.000	0.000	2.0604	99.90000	1.59E-02	4.66E-03	6.34E-03	1.63E-02	4.59E-03
PU242	4890.000	4884.198	52.968	901.000	899.000	2.000	1.4142	100.0000	1.19E+00	7.34E-02	4.35E-03	1.23E-02	3.97E-02
PU-244	4589.000	4559.872	63.422	5.000	4.000	1.000	3.7241	99.90000	5.29E-03	3.25E-03	1.15E-02	2.65E-02	3.24E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

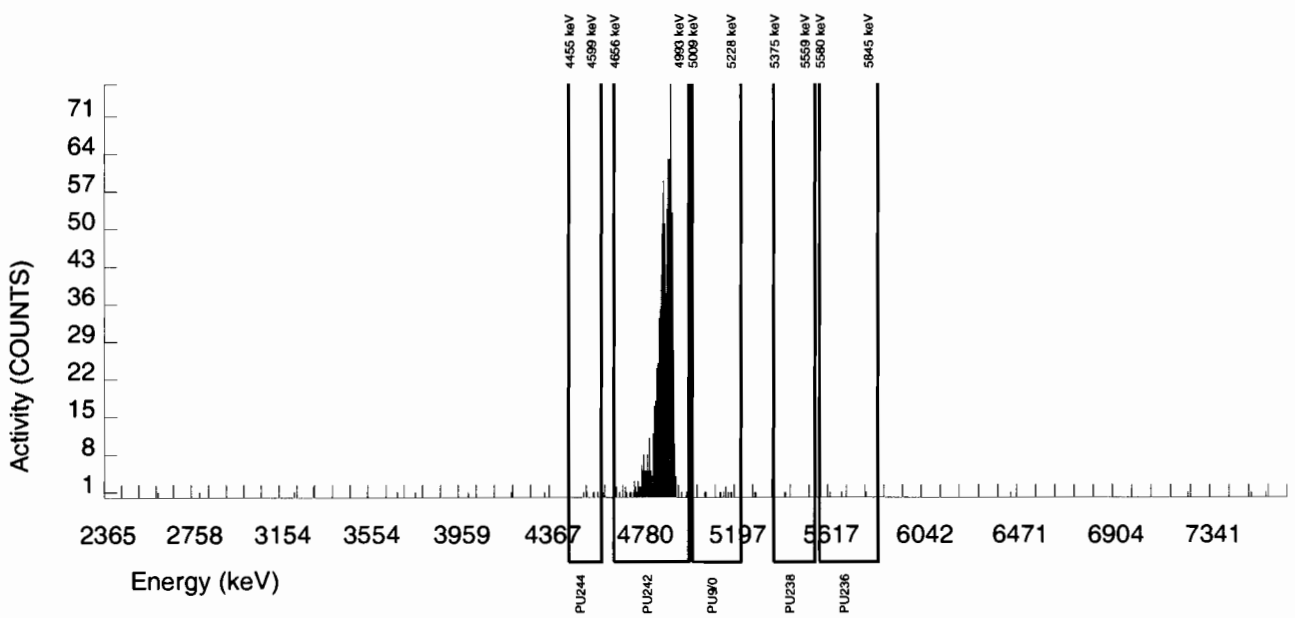

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 082	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035001_PU	DETECTOR S/N : 79997	BKG FILE : B082.CNF;1014
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.1841	BKG DATE : 7-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 13-FEB-2010 21:40:56	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.01	EFF FILE : W082.CNF;257
% YIELD : 85.748		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8989E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5690.966	34.596	2.000	1.000	1.000	2.6925	100.0000	1.64E-03	2.84E-03	1.02E-02	2.49E-02	2.84E-03
PU-238	5499.000	5469.501	0.000	0.000	0.000	0.000	2.9312	99.90000	0.00E+00	1.64E-03	1.11E-02	2.67E-02	1.63E-03
PU-9/0	5155.000	5115.829	88.962	5.000	2.000	3.000	2.0604	99.90000	3.27E-03	4.62E-03	7.83E-03	2.01E-02	4.62E-03
PU242	4890.000	4882.608	49.152	934.000	933.000	1.000	1.0000	100.0000	1.52E+00	9.30E-02	3.80E-03	1.20E-02	4.99E-02
PU-244	4589.000	4513.667	74.135	2.000	0.000	2.000	3.7241	99.90000	-7.79E-10	3.27E-03	1.42E-02	3.27E-02	3.27E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

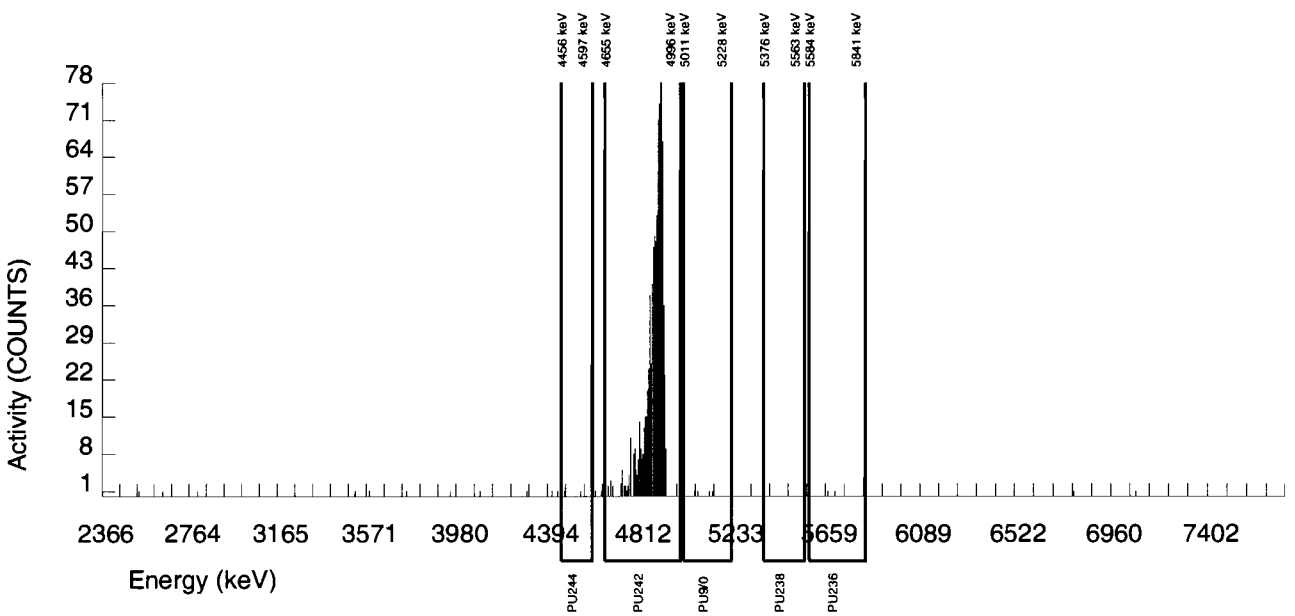

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 221	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035002_PU	DETECTOR S/N : 79414	BKG FILE : B221.CNF;80
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 37.5959	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 18-FEB-2010 18:43:04	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W221.CNF;28
% YIELD : 93.782		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1706E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.673	0.000	0.000	-1.000	1.000	2.6925	100.0000	-1.03E-03	1.46E-03	6.35E-03	1.55E-02	1.46E-03
PU-238	5499.000	5397.583	4.951	1.000	-2.000	3.000	2.9312	99.90000	-2.03E-03	2.03E-03	6.92E-03	1.66E-02	2.03E-03
PU-9/0	5155.000	5137.570	4.951	2.000	2.000	0.000	2.0604	99.90000	2.03E-03	1.44E-03	4.86E-03	1.25E-02	1.44E-03
PU242	4890.000	4875.339	64.164	1192.000	1192.000	0.000	0.0000	100.0000	1.21E+00	6.88E-02	0.00E+00	2.75E-03	3.50E-02
PU-244	4589.000	4552.438	118.817	6.000	6.000	0.000	3.7241	99.90000	6.09E-03	2.50E-03	8.79E-03	2.03E-02	2.49E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

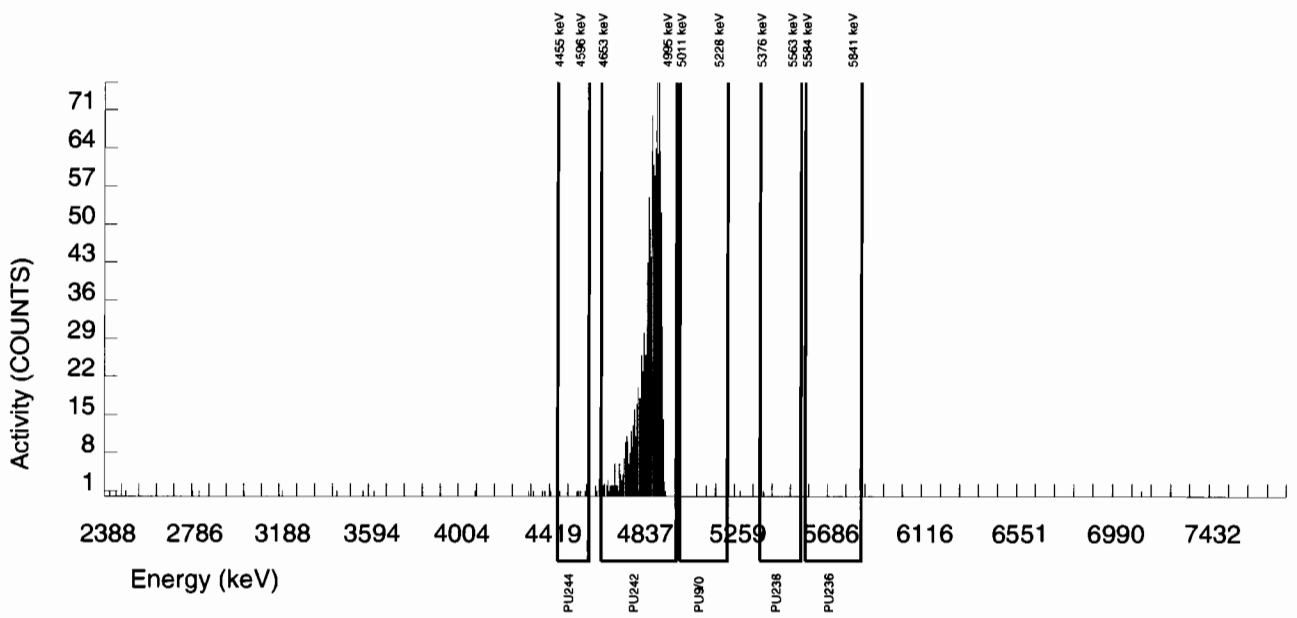

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949824	CHAMBER : 222	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202035003_PU	DETECTOR S/N : 79415	BKG FILE : B222.CNF;80
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 36.0091	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 18-FEB-2010 18:43:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W222.CNF;28
% YIELD : 98.654		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.3353E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5710.860	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.24E-02	7.71E-02	1.88E-01	1.24E-02
PU-238	5499.000	5498.090	54.481	569.000	569.000	0.000	2.9312	99.90000	7.01E+00	5.02E-01	8.40E-02	2.01E-01	2.94E-01
PU-9/0	5155.000	5155.416	53.382	2997.000	2996.000	1.000	2.0604	99.90000	3.69E+01	2.25E+00	5.91E-02	1.52E-01	6.75E-01
PU242	4890.000	4886.232	63.509	1201.000	1201.000	0.000	0.0000	100.0000	1.48E+01	9.59E-01	0.00E+00	3.34E-02	4.27E-01
PU-244	4589.000	4535.408	35.247	17.000	17.000	0.000	3.7241	99.90000	2.09E-01	5.22E-02	1.07E-01	2.47E-01	5.08E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

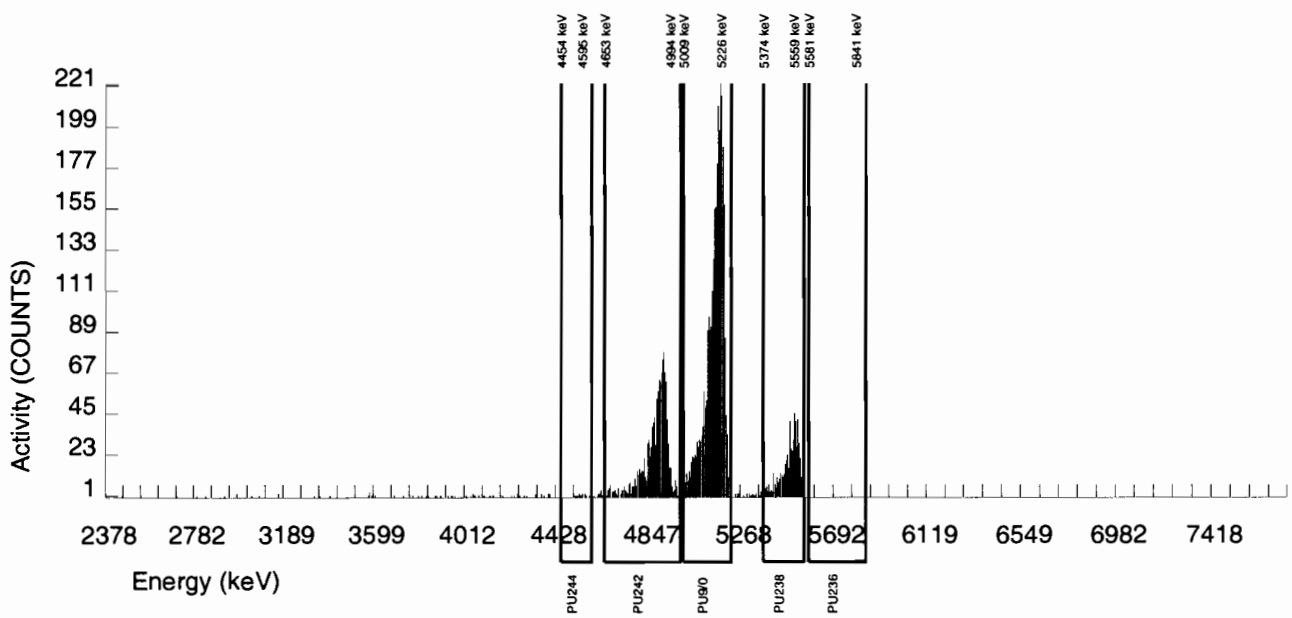

Radiochemistry Batch Checklist, Rev10

Batch# 949825 Product: U Date: 2/16/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		~~case narrative~~ 02/18/10
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		case narrative
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 2/16/10

Secondary Review Performed By: 2/18/10

2/13 - 2/23

CAW

✓P

Uranium Que Sheet

05-FEB-10

Batch #: 949825 Analyst: HAKB First Client Due Date:23-FEB-10 Internal Due Date:13-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-11 Expiration Date: 12/9/10 Vol: 0.1
LCS Isotope: U-238 LCS Code: SRM 0244-A Expiration Date: 10/31/20 Vol: 0.101 g
Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA
Prep Date: 2/8/10 Initials: HAKB Pipet ID: 2071058 Balance ID: 50410272 Witness: [illegible] 02/08/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (1/1)	U Det #
245955001-1	RE16-10-1474	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	1	1	0.515	119 ~~113~~
245955002-1	RE16-10-1475	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	2	2	0.506	120 ~~114~~
245960001-1	RE15-10-7309	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	3	3	0.504	121 ~~115~~
245960002-1	RE15-10-7308	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	4	4	0.505	122
245960003-1	RE15-10-7315	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	5	5	0.528	123
245960004-1	RE15-10-7317	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	6	6	0.551	124
245960005-1	RE15-10-7319	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	7	7	0.504	125
245960006-1	RE15-10-7312	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	8	8	0.524	126
245960007-1	RE15-10-7313	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	9	9	0.527	127
~~245960008-1~~	~~RE15-10-7314~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~28-JAN-10~~	~~10~~	~~10~~	~~0.526~~	~~128~~
245960009-1	RE15-10-7316	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	11	11	0.515	129
245960010-1	RE15-10-7318	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	12	12	0.508	130
245960011-1	RE15-10-7324	SAMPLE		.1 pCi/g	SOIL	LANL010	28-JAN-10	13	13	0.507	131
•245978001-1	RE15-10-7880	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	14	14	0.500	132
~~245978002-1~~	~~RE15-10-7891~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~15~~	~~15~~	~~0.545~~	~~133~~
245978003-1	RE15-10-7892	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	16	16	0.506	134
~~245978004-1~~	~~RE15-10-7967~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~17~~	~~17~~	~~0.506~~	~~135~~
245978005-1	RE15-10-7976	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	18	18	0.507	140
245978006-1	RE15-10-7968	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	19	19	0.526	141
245978007-1	RE15-10-7965	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	20	20	0.513	142
1202035005-1	MB for batch 949825	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21	1.0	143 4
1202035006-1	RE15-10-7880(245978001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	22	0.504	~~143~~ 144
1202035007-1	LCS for batch 949825	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.101	145

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: [illegible] 2/10/10

+/MS

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 949825

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202035006	DUP	Uranium-233/234	0.504 g	0.691	0.0699	0.090	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0661	0.0188	0.0574	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.23	0.109	0.0614	.031746032	pCi/g	NO
1202035007	LCS	Uranium-233/234	0.101 g	5.82	0.576	0.517	.195049505	pCi/g	NO
		Uranium-235/236	0.101 g	0.329	0.0949	0.329	.035544554	pCi/g	NO
		Uranium-238	0.101 g	6.82	0.657	0.353	.158415842	pCi/g	NO
1202035005	MB	Uranium-233/234	1.00 g	0.0197	0.00624	0.0366	.0197	pCi/g	YES
		Uranium-235/236	1.00 g	0.00359	0.0036	0.0234	.00359	pCi/g	YES
		Uranium-238	1.00 g	0.016	0.00535	0.025	.016	pCi/g	YES
245955001	RE16-10-1474	Uranium-233/234	0.515 g	0.903	0.0837	0.0835	.038252427	pCi/g	NO
		Uranium-235/236	0.515 g	0.0491	0.0146	0.0533	.006970874	pCi/g	NO
		Uranium-238	0.515 g	0.821	0.0779	0.057	.031067961	pCi/g	NO
245955002	RE16-10-1475	Uranium-233/234	0.506 g	0.710	0.0698	0.0854	.038932806	pCi/g	NO
		Uranium-235/236	0.506 g	0.046	0.0142	0.0544	.007094862	pCi/g	NO
		Uranium-238	0.506 g	0.819	0.078	0.0583	.031620553	pCi/g	NO
245960001	RE15-10-7309	Uranium-233/234	0.504 g	1.07	0.098	0.0919	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0405	0.0165	0.0586	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.07	0.0984	0.0628	.031746032	pCi/g	NO
245960002	RE15-10-7308	Uranium-233/234	0.505 g	3.62	0.285	0.102	.039009901	pCi/g	NO
		Uranium-235/236	0.505 g	0.215	0.0363	0.0652	.007108911	pCi/g	NO
		Uranium-238	0.505 g	4.59	0.354	0.0699	.031683168	pCi/g	NO
245960003	RE15-10-7315	Uranium-233/234	0.528 g	1.07	0.0962	0.0857	.037310606	pCi/g	NO
		Uranium-235/236	0.528 g	0.0714	0.018	0.0547	.006799242	pCi/g	NO
		Uranium-238	0.528 g	1.25	0.110	0.0585	.030303030	pCi/g	NO
245960004	RE15-10-7317	Uranium-233/234	0.551 g	1.09	0.0962	0.0794	.035753176	pCi/g	NO
		Uranium-235/236	0.551 g	0.0777	0.0182	0.0506	.006515426	pCi/g	NO
		Uranium-238	0.551 g	1.17	0.102	0.0542	.029038113	pCi/g	NO
245960005	RE15-10-7319	Uranium-233/234	0.504 g	1.38	0.120	0.0898	.039087302	pCi/g	NO
		Uranium-235/236	0.504 g	0.0924	0.0212	0.0573	.007123016	pCi/g	NO
		Uranium-238	0.504 g	1.49	0.128	0.0613	.031746032	pCi/g	NO
245960006	RE15-10-7312	Uranium-233/234	0.524 g	7.59	0.565	0.0951	.037595420	pCi/g	NO
		Uranium-235/236	0.524 g	0.405	0.0521	0.0606	.006851145	pCi/g	NO
		Uranium-238	0.524 g	7.64	0.568	0.0649	.030534351	pCi/g	NO
245960007	RE15-10-7313	Uranium-233/234	0.526 g	0.984	0.0917	0.091	.037452471	pCi/g	NO
		Uranium-235/236	0.526 g	0.102	0.0226	0.058	.006825095	pCi/g	NO
		Uranium-238	0.526 g	1.17	0.105	0.0621	.030418251	pCi/g	NO
245960009	RE15-10-7316	Uranium-233/234	0.515 g	2.05	0.172	0.101	.038252427	pCi/g	NO
		Uranium-235/236	0.515 g	0.108	0.0244	0.0641	.006970874	pCi/g	NO
		Uranium-238	0.515 g	2.95	0.237	0.0686	.031067961	pCi/g	NO
245960010	RE15-10-7318	Uranium-233/234	0.508 g	4.65	0.349	0.0859	.038779528	pCi/g	NO
		Uranium-235/236	0.508 g	0.252	0.0371	0.0547	.007066929	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
245960010	RE15-10-7318	Uranium-238	0.508 g	7.77	0.568	0.0586	.031496063	pCi/g	NO
245960011	RE15-10-7324	Uranium-233/234	0.507 g	1.04	0.0977	0.0995	.038856016	pCi/g	NO
		Uranium-235/236	0.507 g	0.0682	0.0189	0.0634	.007080868	pCi/g	NO
		Uranium-238	0.507 g	1.06	0.0996	0.0679	.031558185	pCi/g	NO
245978001	RE15-10-7880	Uranium-233/234	0.500 g	0.753	0.0791	0.112	.0394	pCi/g	NO
		Uranium-235/236	0.500 g	0.0219	0.0111	0.0713	.00718	pCi/g	YES
		Uranium-238	0.500 g	0.957	0.0946	0.0763	.032	pCi/g	NO
245978003	RE15-10-7892	Uranium-233/234	0.506 g	1.17	0.105	0.0911	.038932806	pCi/g	NO
		Uranium-235/236	0.506 g	0.0803	0.0207	0.0581	.007094862	pCi/g	NO
		Uranium-238	0.506 g	2.42	0.195	0.0622	.031620553	pCi/g	NO
245978005	RE15-10-7976	Uranium-233/234	0.507 g	0.969	0.0899	0.0893	.038856016	pCi/g	NO
		Uranium-235/236	0.507 g	0.0612	0.018	0.0569	.007080868	pCi/g	NO
		Uranium-238	0.507 g	2.16	0.175	0.061	.031558185	pCi/g	NO
245978006	RE15-10-7968	Uranium-233/234	0.526 g	3.24	0.257	0.0893	.037452471	pCi/g	NO
		Uranium-235/236	0.526 g	0.363	0.0477	0.0569	.006825095	pCi/g	NO
		Uranium-238	0.526 g	19.4	1.42	0.061	.030418251	pCi/g	NO
245978007	RE15-10-7965	Uranium-233/234	0.513 g	8.51	0.630	0.0947	.038401559	pCi/g	NO
		Uranium-235/236	0.513 g	0.830	0.0856	0.0604	.006998051	pCi/g	NO
		Uranium-238	0.513 g	35.3	2.53	0.0647	.031189084	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 132	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978001_UU	DETECTOR S/N : 67579	BKG FILE : B132.CNF;440
SAMPLE QTY : 0.500 G	AVERAGE %EFFICIENCY : 24.9091	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:24:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W132.CNF;130
% YIELD : 81.646		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6792E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.428	59.667	916.000	916.000	0.000	0.0000	100.0000	4.06E+00	3.21E-01	0.00E+00	1.20E-02	1.34E-01
U-3/4	4763.020	4762.426	69.464	171.000	170.073	0.000	4.8416	100.0000	7.53E-01	7.91E-02	4.99E-02	1.12E-01	5.78E-02
U-235	4391.000	4413.984	39.572	4.000	4.000	0.000	2.2152	80.90000	2.19E-02	1.11E-02	2.82E-02	7.13E-02	1.10E-02
U-238	4184.730	4189.479	46.356	216.000	216.000	0.000	3.1208	100.0000	9.57E-01	9.46E-02	3.22E-02	7.63E-02	6.51E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

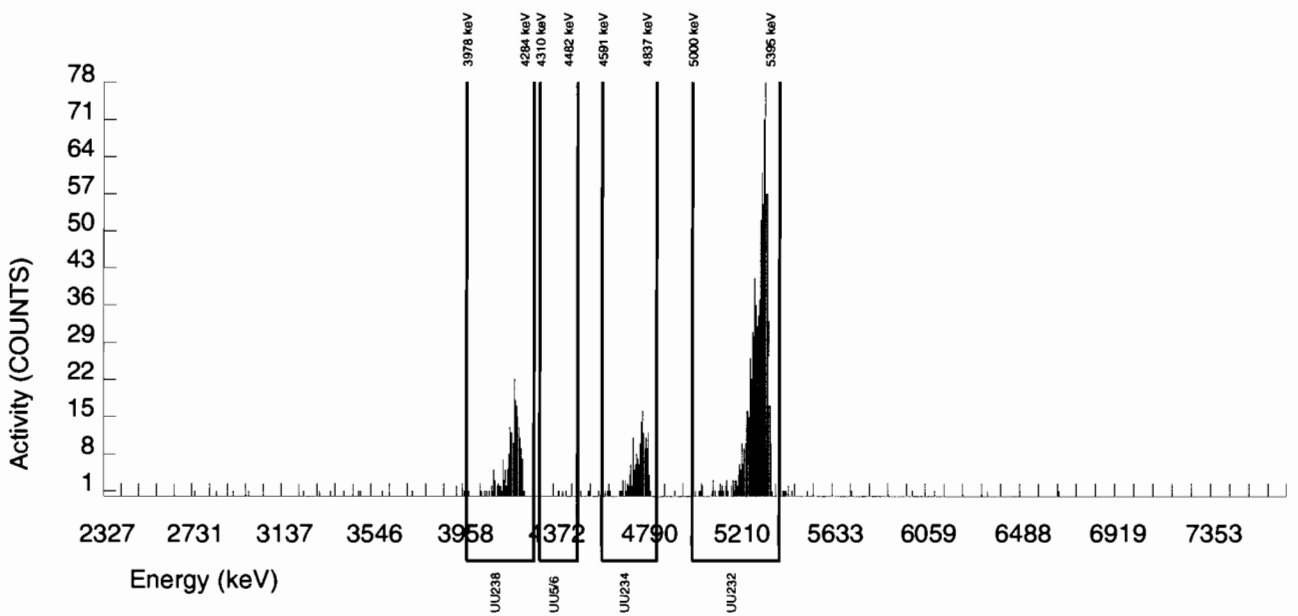

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 138	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978003_UU	DETECTOR S/N : 65877	BKG FILE : B138.CNF;397
SAMPLE QTY : 0.506 G	AVERAGE %EFFICIENCY : 25.2875	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:25:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W138.CNF;102
% YIELD : 97.545		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3957E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5293.523	56.365	1115.000	1111.000	4.000	2.0000	100.0000	4.01E+00	3.08E-01	1.68E-02	4.34E-02	1.21E-01
U-3/4	4763.020	4747.088	80.248	325.000	323.876	0.000	4.8416	100.0000	1.17E+00	1.05E-01	4.06E-02	9.11E-02	6.49E-02
U-235	4391.000	4401.157	117.038	19.000	18.000	1.000	2.2152	80.90000	8.03E-02	2.07E-02	2.30E-02	5.81E-02	2.00E-02
U-238	4184.730	4177.010	65.535	674.000	670.000	4.000	3.1208	100.0000	2.42E+00	1.95E-01	2.62E-02	6.22E-02	9.40E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

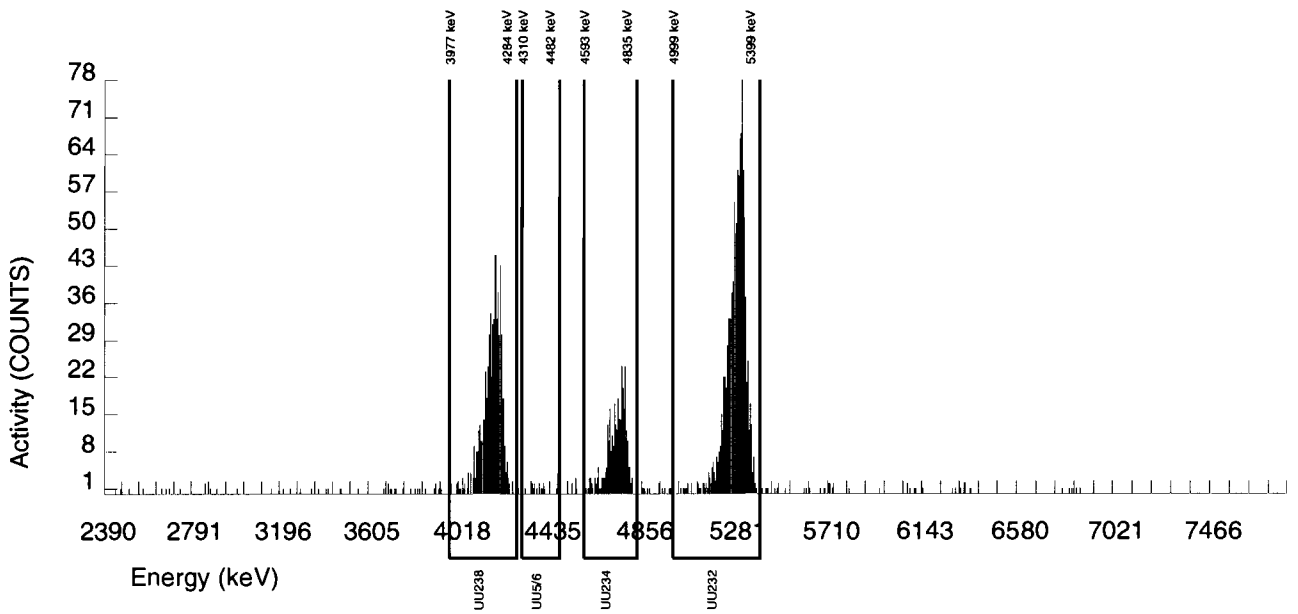

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 140	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978005_UU	DETECTOR S/N : 78771	BKG FILE : B140.CNF;394
SAMPLE QTY : 0.507 G	AVERAGE %EFFICIENCY : 25.4652	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:25:18	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W140.CNF;107
% YIELD : 98.608		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4436E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5292.712	65.094	1132.000	1131.000	1.000	1.0000	100.0000	4.00E+00	3.06E-01	8.23E-03	2.61E-02	1.19E-01
U-3/4	4763.020	4747.359	57.605	275.000	273.855	0.000	4.8416	100.0000	9.69E-01	8.99E-02	3.99E-02	8.93E-02	5.86E-02
U-235	4391.000	4411.266	34.586	15.000	14.000	1.000	2.2152	80.90000	6.12E-02	1.80E-02	2.25E-02	5.69E-02	1.75E-02
U-238	4184.730	4178.963	64.684	611.000	610.000	1.000	3.1208	100.0000	2.16E+00	1.75E-01	2.57E-02	6.10E-02	8.75E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

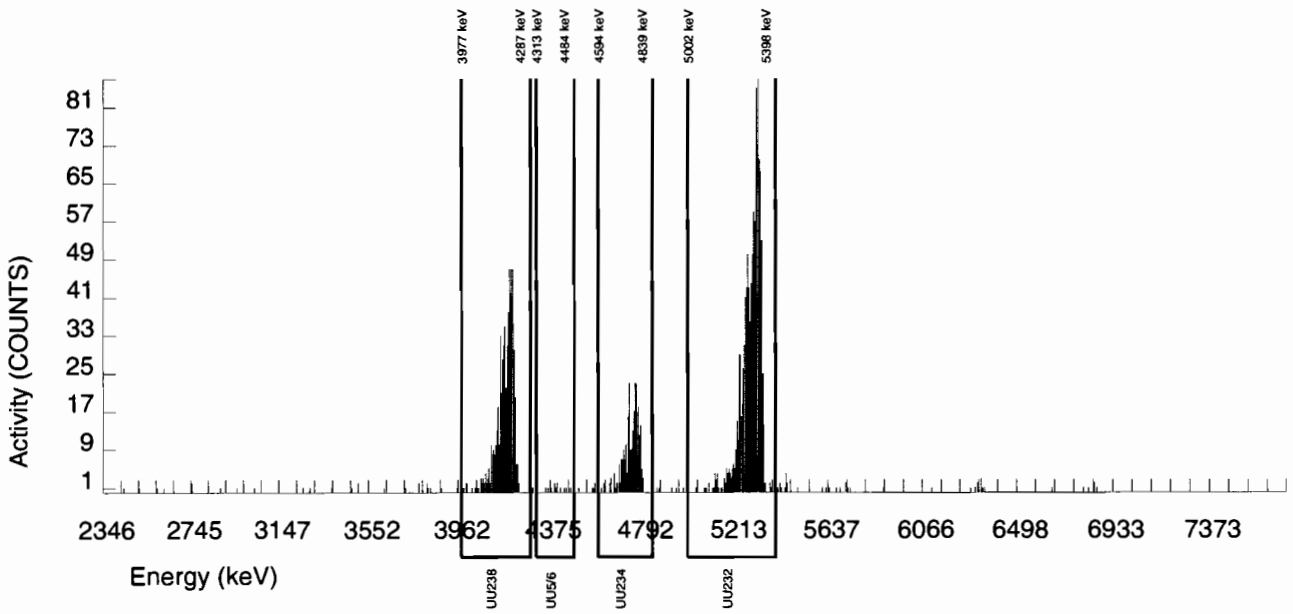

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 141	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978006_UU	DETECTOR S/N : 76232	BKG FILE : B141.CNF;398
SAMPLE QTY : 0.526 G	AVERAGE %EFFICIENCY : 25.2508	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:25:21	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W141.CNF;105
% YIELD : 95.840		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3189E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5288.228	71.644	1094.000	1090.000	4.000	2.0000	100.0000	3.86E+00	3.02E-01	1.65E-02	4.25E-02	1.17E-01
U-3/4	4763.020	4746.518	60.488	917.000	915.897	0.000	4.8416	100.0000	3.24E+00	2.57E-01	3.99E-02	8.93E-02	1.07E-01
U-235	4391.000	4402.194	0.000	83.000	83.000	0.000	2.2152	80.90000	3.63E-01	4.77E-02	2.25E-02	5.69E-02	3.98E-02
U-238	4184.730	4176.713	67.230	5484.000	5483.000	1.000	3.1208	100.0000	1.94E+01	1.42E+00	2.57E-02	6.10E-02	2.62E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

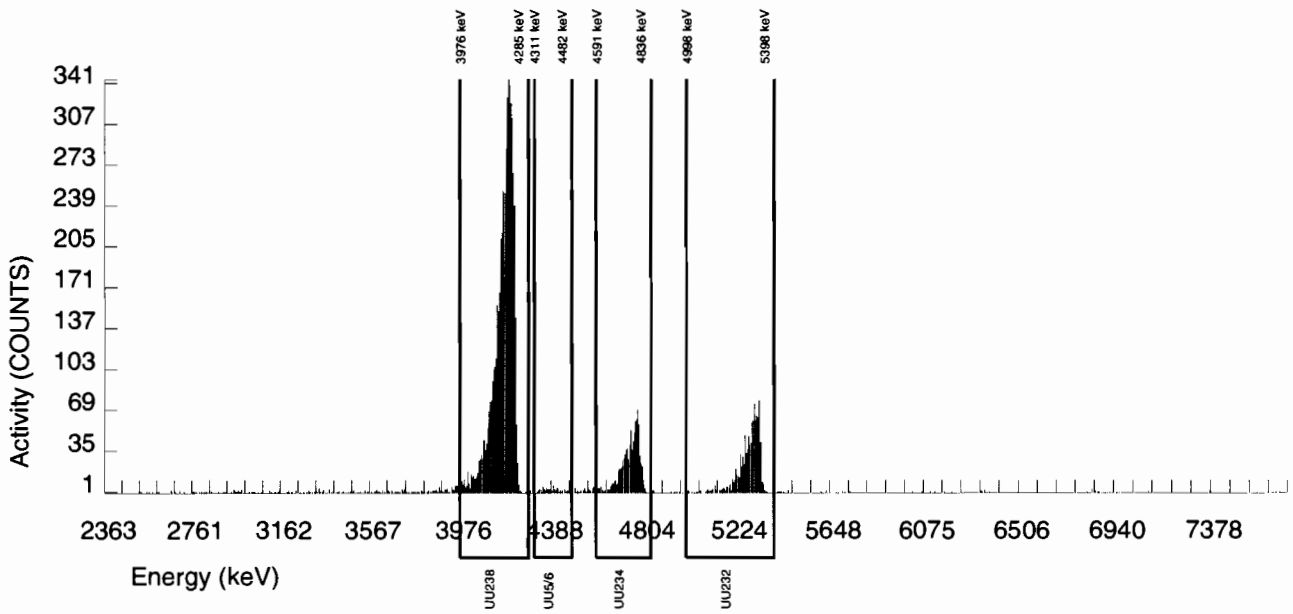

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 142	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978007_UU	DETECTOR S/N : 64261	BKG FILE : B142.CNF;392
SAMPLE QTY : 0.513 G	AVERAGE %EFFICIENCY : 25.9552	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:25:24	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W142.CNF;109
% YIELD : 90.160		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0629E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5288.156	68.815	1068.000	1054.000	14.000	3.7417	100.0000	3.96E+00	3.07E-01	3.27E-02	7.55E-02	1.23E-01
U-3/4	4763.020	4740.528	79.936	2270.000	2266.933	2.000	4.8416	100.0000	8.51E+00	6.30E-01	4.23E-02	9.47E-02	1.79E-01
U-235	4391.000	4398.904	129.634	179.000	179.000	0.000	2.2152	80.90000	8.30E-01	8.56E-02	2.39E-02	6.04E-02	6.21E-02
U-238	4184.730	4170.488	73.863	9416.000	9414.000	2.000	3.1208	100.0000	3.53E+01	2.53E+00	2.72E-02	6.47E-02	3.64E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

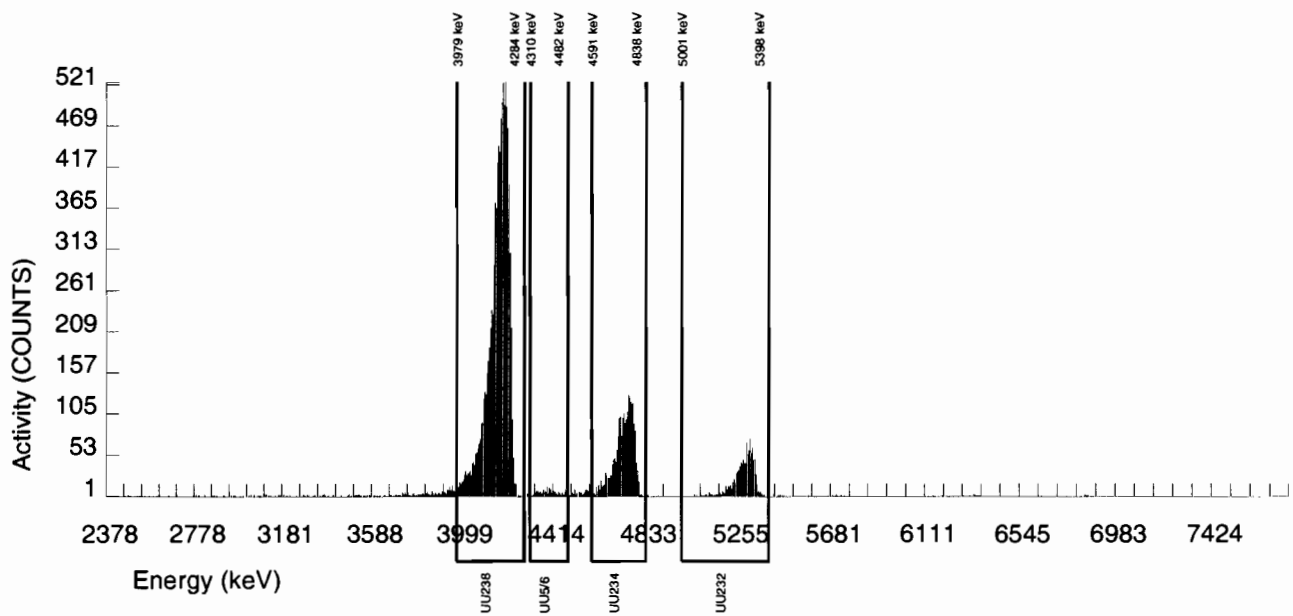

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 004	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035005_UU	DETECTOR S/N : 68548	BKG FILE : B004.CNF;1119
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 30.4786	BKG DATE : 14-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 15-FEB-2010 21:17:42	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W004.CNF;330
% YIELD : 101.771		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5846E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.982	61.273	1402.000	1397.000	5.000	2.2361	100.0000	2.03E+00	1.50E-01	7.55E-03	1.90E-02	5.45E-02
U-3/4	4763.020	4721.488	200.062	17.000	13.586	2.000	4.8416	100.0000	1.97E-02	6.24E-03	1.64E-02	3.66E-02	6.09E-03
U-235	4391.000	4376.544	0.000	3.000	2.000	1.000	2.2152	80.90000	3.59E-03	3.60E-03	9.25E-03	2.34E-02	3.59E-03
U-238	4184.730	4182.872	97.890	12.000	11.000	1.000	3.1208	100.0000	1.60E-02	5.35E-03	1.05E-02	2.50E-02	5.24E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

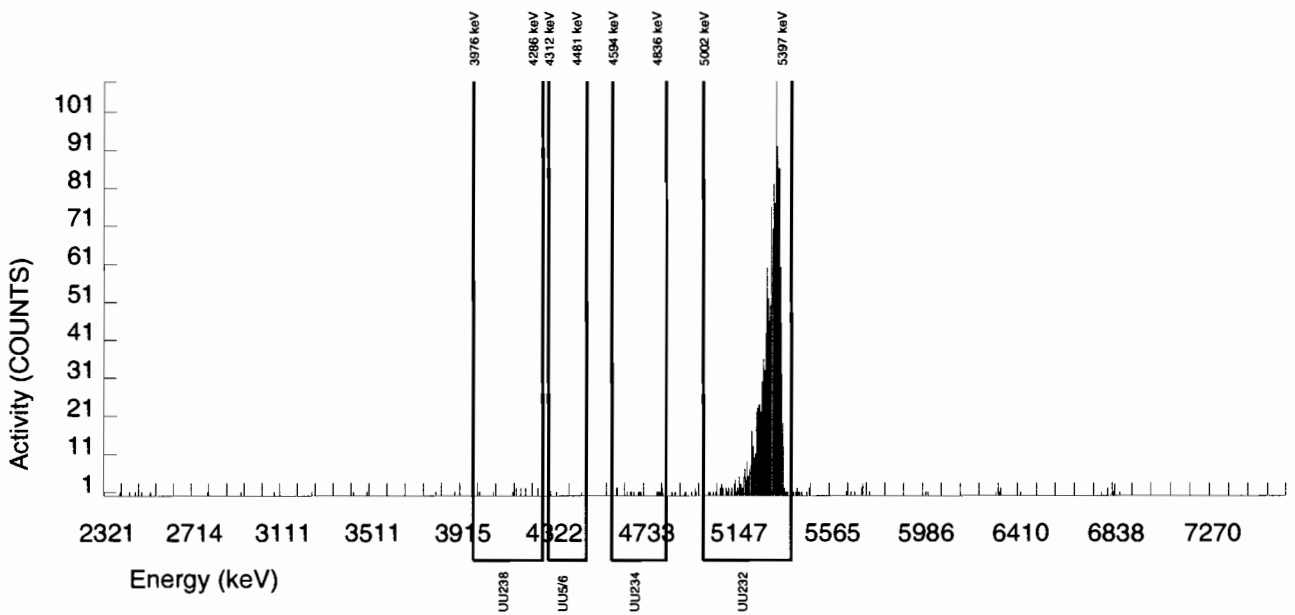

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 144	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035006_UU	DETECTOR S/N : 75551	BKG FILE : B144.CNF;393
SAMPLE QTY : 0.504 G	AVERAGE %EFFICIENCY : 25.1526	BKG DATE : 7-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 13-FEB-2010 21:25:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W144.CNF;106
% YIELD : 99.657		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4909E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.750	56.886	1134.000	1129.000	5.000	2.2361	100.0000	4.03E+00	3.08E-01	1.85E-02	4.68E-02	1.20E-01
U-3/4	4763.020	4744.952	36.624	197.000	193.857	2.000	4.8416	100.0000	6.91E-01	6.99E-02	4.02E-02	9.00E-02	5.02E-02
U-235	4391.000	4396.632	6.134	16.000	15.000	1.000	2.2152	80.90000	6.61E-02	1.88E-02	2.27E-02	5.74E-02	1.82E-02
U-238	4184.730	4177.830	32.338	346.000	344.000	2.000	3.1208	100.0000	1.23E+00	1.09E-01	2.59E-02	6.14E-02	6.65E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

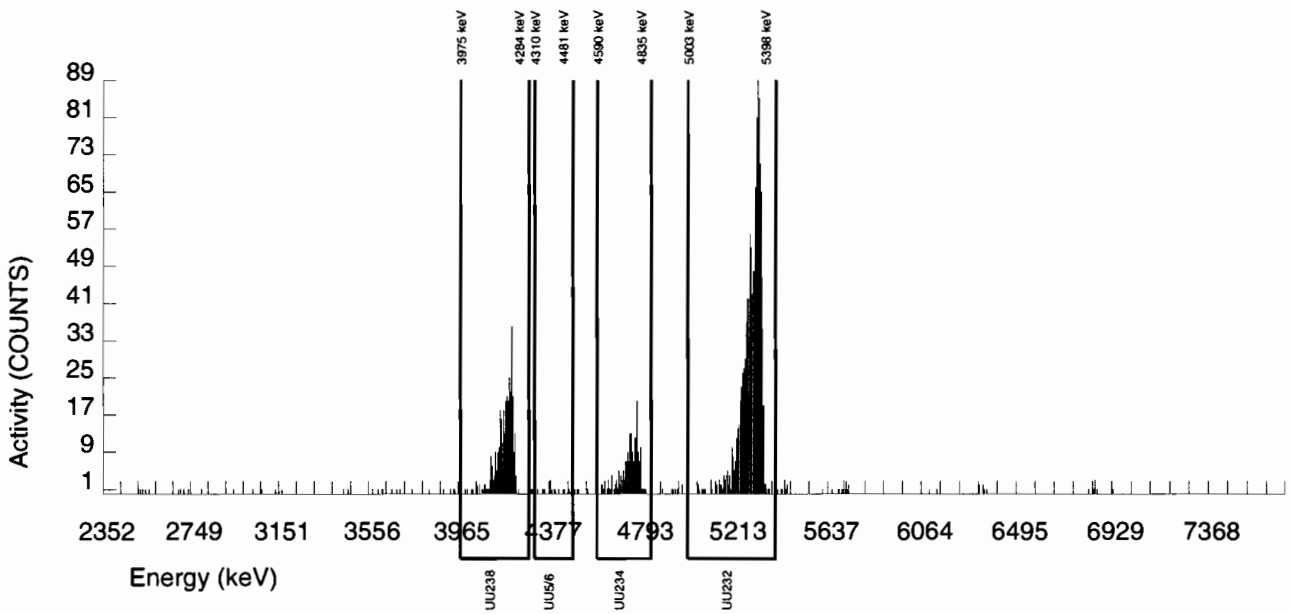

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 949825	CHAMBER : 145	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202035007_UU	DETECTOR S/N : 72526	BKG FILE : B145.CNF;391
SAMPLE QTY : 0.101 G	AVERAGE %EFFICIENCY : 24.9580	BKG DATE : 7-FEB-2010
SAMPLE DATE : 8-FEB-2010 00:00:00.	COUNT DATE : 13-FEB-2010 21:25:33	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W145.CNF;111
% YIELD : 87.269		CAL DATE : 18-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5048E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9313E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5297.035	51.621	984.000	981.000	3.000	1.7321	100.0000	2.01E+01	1.72E+00	8.25E-02	2.21E-01	6.43E-01
U-3/4	4763.020	4751.526	45.112	286.000	284.007	1.000	4.8416	100.0000	5.82E+00	5.76E-01	2.31E-01	5.17E-01	3.46E-01
U-235	4391.000	4393.771	44.478	13.000	13.000	0.000	2.2152	80.90000	3.29E-01	9.49E-02	1.30E-01	3.29E-01	9.13E-02
U-238	4184.730	4178.924	46.672	334.000	333.000	1.000	3.1208	100.0000	6.82E+00	6.57E-01	1.49E-01	3.53E-01	3.75E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

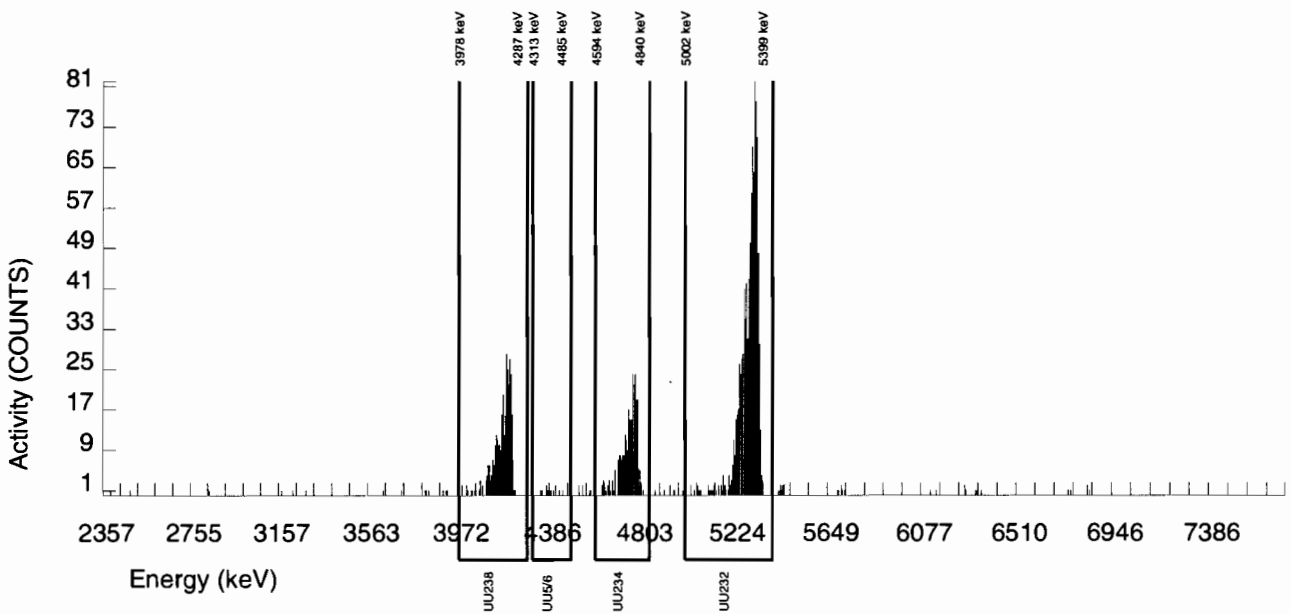

Radiochemistry Batch Checklist, Rev10

Batch# 9516665 Product: Am Date: 2/26/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/26/10

Secondary Review Performed By: [illegible] 2/26/10

3/2
LANC

Am/Cm Que Sheet

10-FEB-10

Batch #: 951665 Analyst: CXM2 First Client Due Date: 02-MAR-10 Internal Due Date19-FEB-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-55 Expiration Date: 5/11/10 Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0244-B / — Expiration Date: ~~10/1~~ 4/30/10 / — Vol(s): 0.115g / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: 2/18/10 CMM / — Vol(s): — / —

Prep Date: 2/18/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: [illegible] 2/18/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245978008-1	RE15-10-7975	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	1	31	0.525	13
245978009-1	RE15-10-7978	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	2	32	0.508	229 ~~14~~
245978010-1	RE15-10-7970	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	3	33	0.501	16
~~245978011-1~~	~~RE15-10-7964~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~4~~	~~34~~	~~0.527~~	~~17~~
245978012-1	RE15-10-7973	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	5	35	0.509	18
245978013-1	RE15-10-7962	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	6	36	0.515	25
245978014-1	RE15-10-7963	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	7	37	0.510	26
245978015-1	RE15-10-7977	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	8	38	0.508	27
246020001-1	RE15-10-7980	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	9	39	0.503	28
246020002-1	RE15-10-7958	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	10	40	0.510	29
246020003-1	RE15-10-7960	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	11	41	0.514	209 ~~30~~
246020004-1	RE15-10-7979	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	12	42	0.525	31
246020005-1	RE15-10-7972	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	13	43	0.500	33
246020006-1	RE15-10-7957	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	44	0.519	210 ~~35~~
246020007-1	RE15-10-7974	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	45	0.513	36
246020008-1	RE15-10-7961	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	46	0.510	95
246020009-1	RE15-10-7971	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	47	0.514	97
246020010-1	RE15-10-7966	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	48	0.517	99
246020011-1	RE15-10-7959	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	49	0.510	100
246020012-1	RE15-10-7969	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	50	0.507	217
1202039541-1	MB for batch 951665	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	51	1	218
1202039542-1	RE15-10-7980(246020001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	52	0.526	233
1202039543-1	LCS for batch 951665	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	53	0.115	234

Choose SOP Used: ~~GL-RAD-A-011~~ GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/26/10

GEL Laboratories LLC, Radiochemistry Division

[illegible] 2/26/10

Blank Correction Report

Batch ID 951665

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202039542	DUP	Americium-241	0.526 g	0.00328	0.00289	0.0404	-.00433460	pCi/g	NO
1202039543	LCS	Americium-241	0.115 g	25.9	1.71	0.147	-.01982609	pCi/g	NO
1202039541	MB	Americium-241	1.00 g	-0.00228	0.00387	0.0214	-.00228	pCi/g	NO
245978008	RE15-10-7975	Americium-241	0.525 g	0.0324	0.0159	0.0487	-.00434286	pCi/g	NO
245978009	RE15-10-7978	Americium-241	0.508 g	0.0163	0.00703	0.0473	-.00448819	pCi/g	NO
245978010	RE15-10-7970	Americium-241	0.501 g	0.0204	0.0127	0.0496	-.00455090	pCi/g	NO
245978012	RE15-10-7973	Americium-241	0.509 g	-0.0108	0.0151	0.0505	-.00447937	pCi/g	NO
245978013	RE15-10-7962	Americium-241	0.515 g	-0.00747	0.0147	0.0484	-.00442718	pCi/g	NO
245978014	RE15-10-7963	Americium-241	0.510 g	0.00205	0.00703	0.052	-.00447059	pCi/g	NO
245978015	RE15-10-7977	Americium-241	0.508 g	0.00875	0.00855	0.0527	-.00448819	pCi/g	NO
246020001	RE15-10-7980	Americium-241	0.503 g	0.00156	0.00778	0.0485	-.00453280	pCi/g	NO
246020002	RE15-10-7958	Americium-241	0.510 g	-0.0173	0.0131	0.0511	-.00447059	pCi/g	NO
246020003	RE15-10-7960	Americium-241	0.519 g	0.0731	0.0157	0.0494	-.00439306	pCi/g	NO
246020004	RE15-10-7979	Americium-241	0.525 g	0.00723	0.00616	0.0461	-.00434286	pCi/g	NO
246020005	RE15-10-7972	Americium-241	0.500 g	0.00737	0.00471	0.0475	-.00456	pCi/g	NO
246020006	RE15-10-7957	Americium-241	0.519 g	0.0769	0.0158	0.0418	-.00439306	pCi/g	NO
246020007	RE15-10-7974	Americium-241	0.513 g	-0.00131	0.00594	0.050	-.00444444	pCi/g	NO
246020008	RE15-10-7961	Americium-241	0.510 g	0.0159	0.020	0.054	-.00447059	pCi/g	NO
246020009	RE15-10-7971	Americium-241	0.514 g	0.00215	0.0126	0.0524	-.00443580	pCi/g	NO
246020010	RE15-10-7966	Americium-241	0.517 g	0.00101	0.00418	0.0432	-.00441006	pCi/g	NO
246020011	RE15-10-7959	Americium-241	0.510 g	0.0196	0.00984	0.048	-.00447059	pCi/g	NO
246020012	RE15-10-7969	Americium-241	0.507 g	-0.00137	0.00444	0.0499	-.00449704	pCi/g	NO

2/26/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 013	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978008_AM	DETECTOR S/N : 78790	BKG FILE : B013.CNF;1097
SAMPLE QTY : 0.525 G	AVERAGE %EFFICIENCY : 33.7535	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:25	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W013.CNF;328
% YIELD : 83.175		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.4258E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5481.678	12.668	20.000	10.578	8.000	2.8409	99.94000	3.24E-02	1.59E-02	2.02E-02	4.87E-02	1.58E-02
AM243	5270.000	5275.274	28.295	817.000	817.000	0.000	0.0000	99.78000	2.50E+00	1.75E-01	0.00E+00	8.30E-03	8.75E-02
CM-242	6102.000	6097.657	4.904	13.000	7.000	6.000	4.3413	100.0000	2.41E-02	1.51E-02	3.09E-02	7.00E-02	1.50E-02
CM-3/4	5795.020	5776.208	142.209	33.000	-3.000	36.000	5.1799	100.0000	-9.20E-03	2.55E-02	3.68E-02	8.19E-02	2.55E-02
CM-5/6	5386.000	5376.314	0.000	6.000	5.000	1.000	14.2480	86.09000	1.78E-02	9.45E-03	1.18E-01	2.45E-01	9.39E-03
CM-247	4946.000	4894.017	4.904	7.000	4.000	3.000	13.7917	79.30000	1.54E-02	1.22E-02	1.24E-01	2.58E-01	1.22E-02
CM-248	5078.600	5066.369	7.202	13.000	12.000	1.000	19.5080	91.00000	4.03E-02	1.28E-02	1.52E-01	3.14E-01	1.26E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

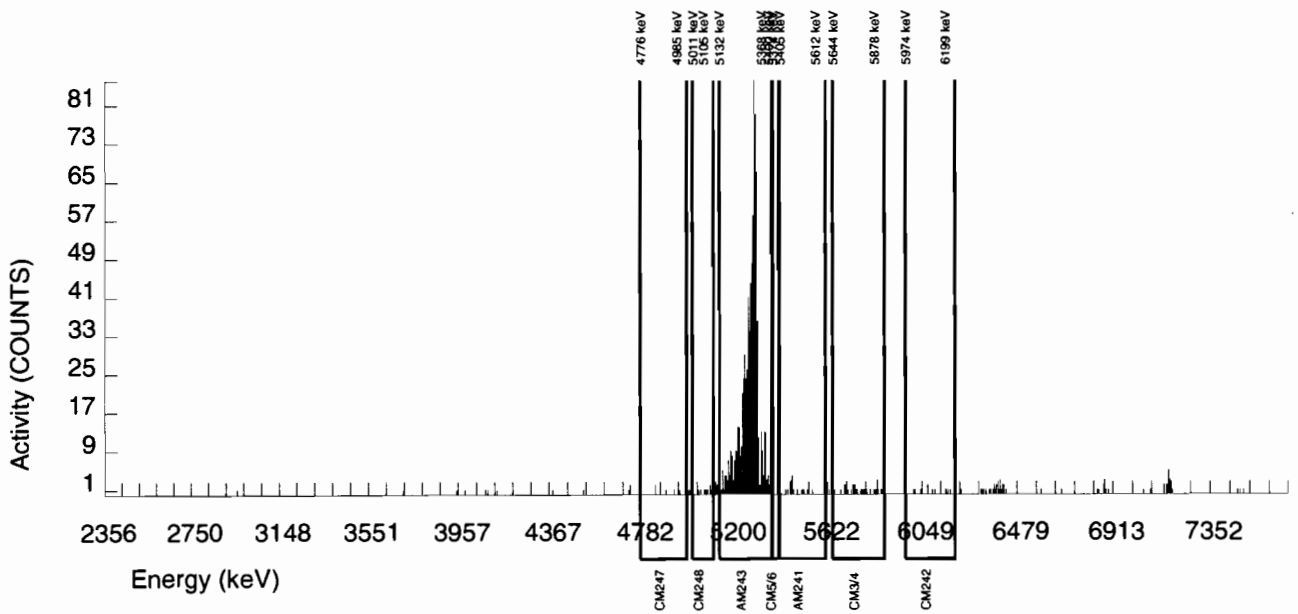

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 229	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978009_AM	DETECTOR S/N : 79422	BKG FILE : B229.CNF;83
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 37.2509	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 25-FEB-2010 17:00:39	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W229.CNF;28
% YIELD : 80.162		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3380E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5515.889	153.356	7.000	5.488	0.000	2.8409	99.94000	1.63E-02	7.03E-03	1.96E-02	4.73E-02	6.96E-03
AM243	5270.000	5275.600	43.337	869.000	869.000	0.000	0.0000	99.78000	2.59E+00	1.78E-01	0.00E+00	8.06E-03	8.77E-02
CM-242	6102.000	6074.443	84.099	4.000	3.000	1.000	4.3413	100.0000	1.01E-02	7.57E-03	3.00E-02	6.80E-02	7.55E-03
CM-3/4	5795.020	5758.621	173.144	8.000	8.000	0.000	5.1799	100.0000	2.38E-02	8.55E-03	3.58E-02	7.96E-02	8.43E-03
CM-5/6	5386.000	5377.542	0.000	3.000	3.000	0.000	14.2480	86.09000	1.03E-02	6.01E-03	1.14E-01	2.38E-01	5.97E-03
CM-247	4946.000	4882.272	4.947	16.000	15.000	1.000	13.7917	79.30000	5.62E-02	1.58E-02	1.20E-01	2.50E-01	1.54E-02
CM-248	5078.600	5062.879	79.152	22.000	22.000	0.000	19.5080	91.00000	7.18E-02	1.59E-02	1.48E-01	3.05E-01	1.53E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

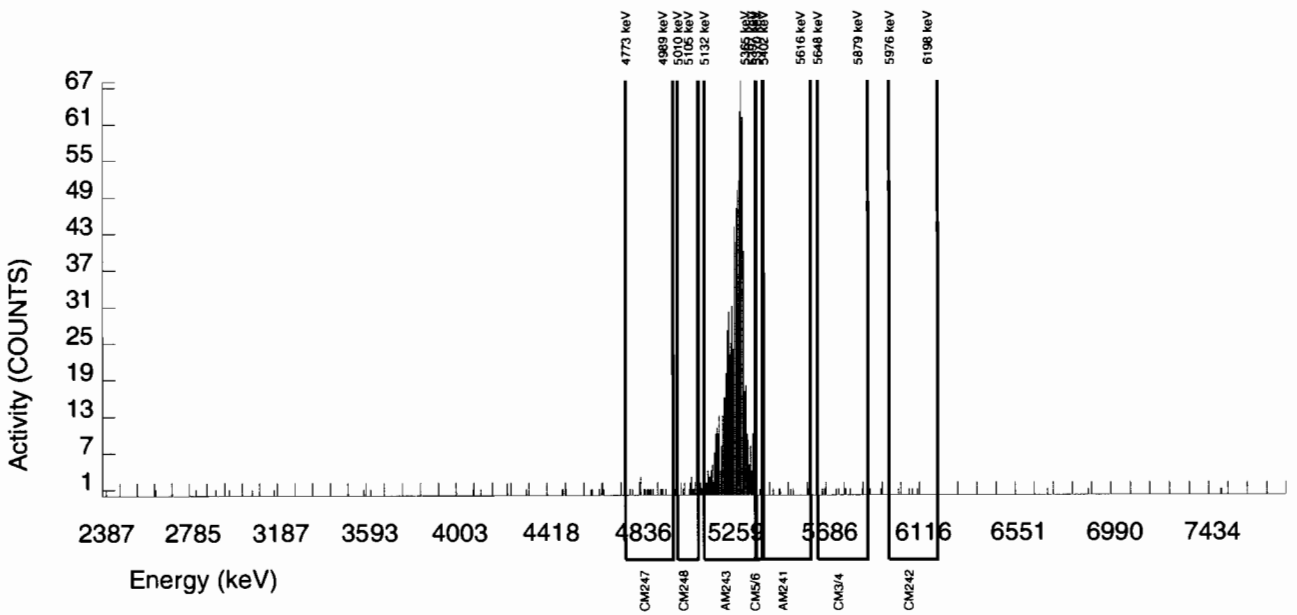

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 016	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978010_AM	DETECTOR S/N : 78774	BKG FILE : B016.CNF;1093
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 33.6016	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:25	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W016.CNF;311
% YIELD : 85.903		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5054E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5470.832	43.931	13.000	6.538	5.000	2.8409	99.94000	2.04E-02	1.27E-02	2.06E-02	4.96E-02	1.27E-02
AM243	5270.000	5274.906	31.804	842.000	840.000	2.000	1.4142	99.78000	2.62E+00	1.83E-01	1.03E-02	2.90E-02	9.07E-02
CM-242	6102.000	6071.860	156.097	14.000	5.000	9.000	4.3413	100.0000	1.76E-02	1.69E-02	3.15E-02	7.14E-02	1.68E-02
CM-3/4	5795.020	5775.348	160.958	34.000	-3.000	37.000	5.1799	100.0000	-9.37E-03	2.63E-02	3.75E-02	8.35E-02	2.63E-02
CM-5/6	5386.000	5380.436	0.000	11.000	10.000	1.000	14.2480	86.09000	3.62E-02	1.27E-02	1.20E-01	2.50E-01	1.25E-02
CM-247	4946.000	4864.164	0.000	6.000	6.000	0.000	13.7917	79.30000	2.36E-02	9.73E-03	1.26E-01	2.63E-01	9.62E-03
CM-248	5078.600	5065.368	0.000	15.000	15.000	0.000	19.5080	91.00000	5.13E-02	1.36E-02	1.55E-01	3.20E-01	1.33E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

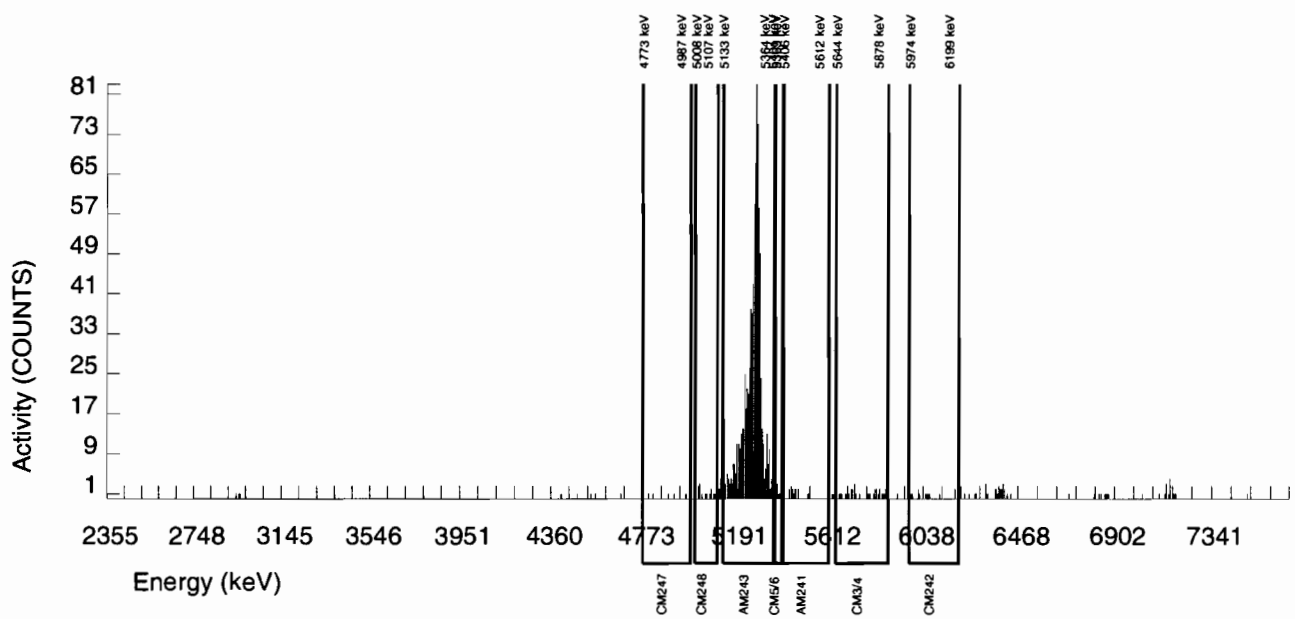

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 018	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978012_AM	DETECTOR S/N : 78782	BKG FILE : B018.CNF;1092
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 31.8067	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:25	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W018.CNF;306
% YIELD : 87.833		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5617E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5463.569	16.112	11.000	-3.415	13.000	2.8409	99.94000	-1.08E-02	1.51E-02	2.09E-02	5.05E-02	1.51E-02
AM243	5270.000	5274.155	45.790	813.000	813.000	0.000	0.0000	99.78000	2.58E+00	1.81E-01	0.00E+00	8.60E-03	9.05E-02
CM-242	6102.000	6074.350	140.002	16.000	9.000	7.000	4.3413	100.0000	3.21E-02	1.72E-02	3.20E-02	7.26E-02	1.71E-02
CM-3/4	5795.020	5801.784	143.926	48.000	9.000	39.000	5.1799	100.0000	2.86E-02	2.97E-02	3.82E-02	8.49E-02	2.96E-02
CM-5/6	5386.000	5374.572	0.000	5.000	3.000	2.000	14.2480	86.09000	1.10E-02	9.76E-03	1.22E-01	2.54E-01	9.74E-03
CM-247	4946.000	4854.517	4.958	4.000	4.000	0.000	13.7917	79.30000	1.60E-02	8.05E-03	1.28E-01	2.67E-01	7.99E-03
CM-248	5078.600	5066.789	77.618	22.000	21.000	1.000	19.5080	91.00000	7.31E-02	1.73E-02	1.58E-01	3.25E-01	1.67E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

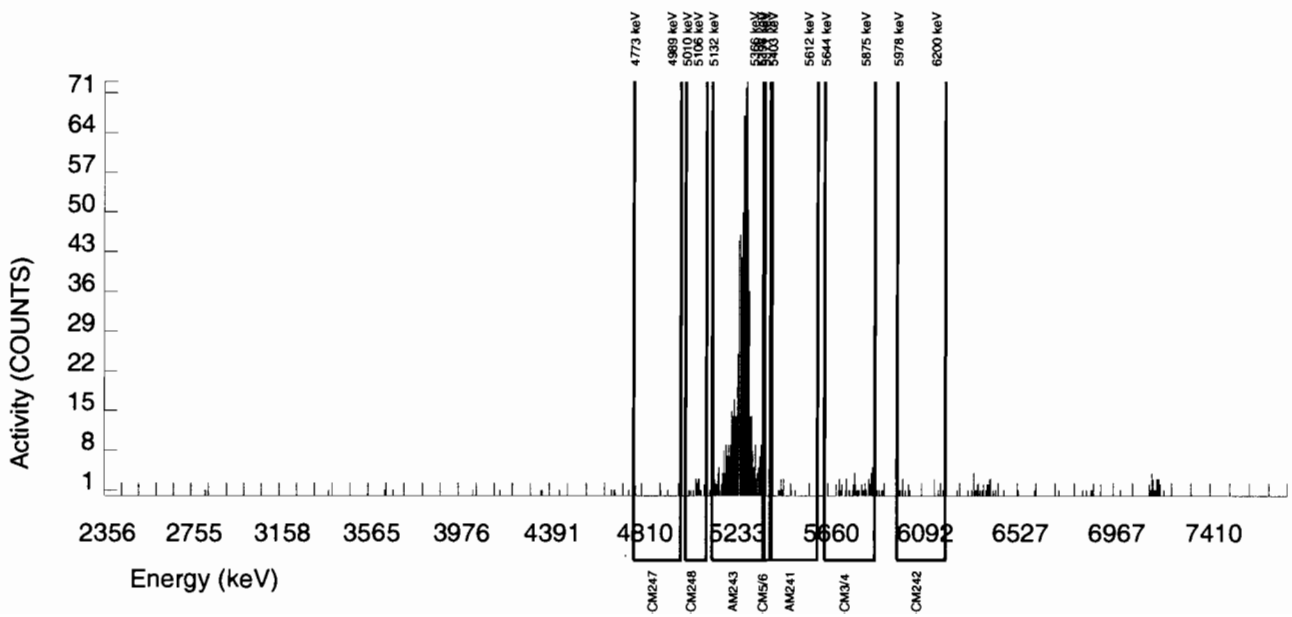

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 025	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978013_AM	DETECTOR S/N : 45-149AA5	BKG FILE : B025.CNF;1115
SAMPLE QTY : 0.515 G	AVERAGE %EFFICIENCY : 32.2436	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W025.CNF;328
% YIELD : 89.414		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.6078E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5462.563	0.000	12.000	-2.460	13.000	2.8409	99.94000	-7.47E-03	1.47E-02	2.01E-02	4.84E-02	1.47E-02
AM243	5270.000	5281.309	56.167	842.000	839.000	3.000	1.7321	99.78000	2.55E+00	1.78E-01	1.23E-02	3.27E-02	8.84E-02
CM-242	6102.000	6068.716	80.296	12.000	11.000	1.000	4.3413	100.0000	3.76E-02	1.25E-02	3.06E-02	6.95E-02	1.23E-02
CM-3/4	5795.020	5755.765	115.486	21.000	9.000	12.000	5.1799	100.0000	2.74E-02	1.76E-02	3.66E-02	8.13E-02	1.75E-02
CM-5/6	5386.000	5381.722	0.000	15.000	9.000	6.000	14.2480	86.09000	3.17E-02	1.63E-02	1.17E-01	2.43E-01	1.61E-02
CM-247	4946.000	4903.080	4.866	10.000	9.000	1.000	13.7917	79.30000	3.44E-02	1.29E-02	1.23E-01	2.56E-01	1.27E-02
CM-248	5078.600	5059.843	26.309	12.000	11.000	1.000	19.5080	91.00000	3.67E-02	1.22E-02	1.51E-01	3.12E-01	1.20E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

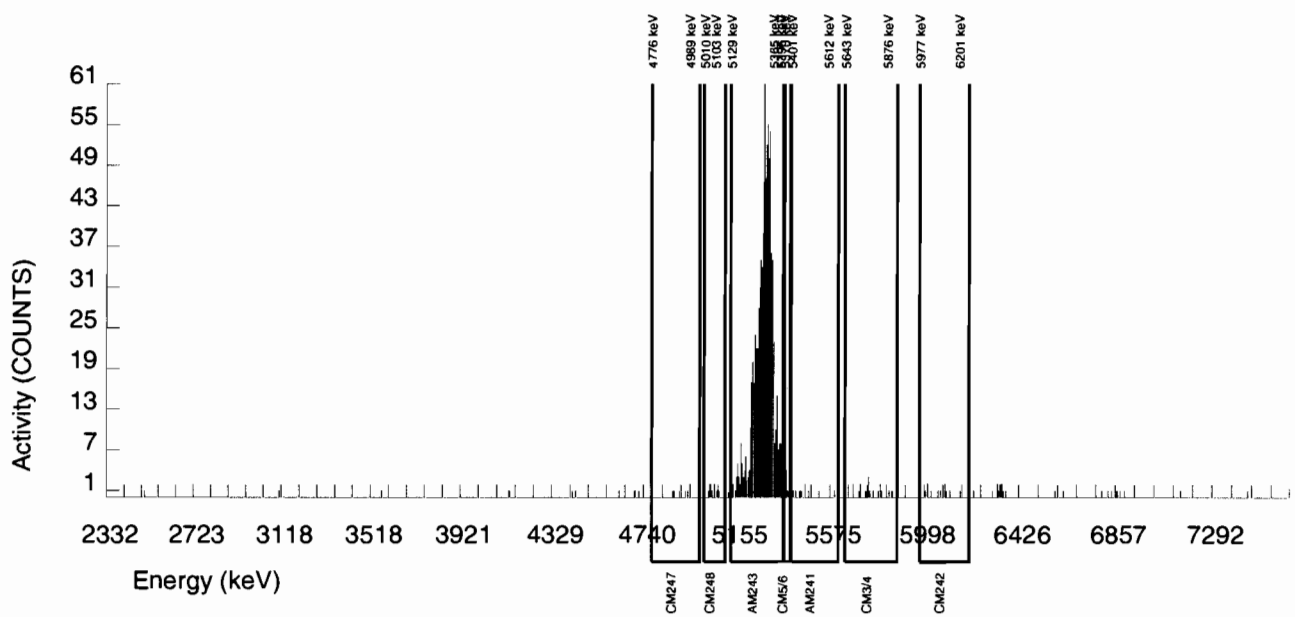

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 026	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978014_AM	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1116
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 31.5547	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W026.CNF;302
% YIELD : 85.812		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5028E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5501.396	147.554	4.000	0.629	2.000	2.8409	99.94000	2.05E-03	7.03E-03	2.16E-02	5.20E-02	7.02E-03
AM243	5270.000	5259.508	33.705	792.000	788.000	4.000	2.0000	99.78000	2.58E+00	1.86E-01	1.52E-02	3.93E-02	9.22E-02
CM-242	6102.000	6037.608	4.918	4.000	4.000	0.000	4.3413	100.0000	1.47E-02	7.41E-03	3.29E-02	7.47E-02	7.36E-03
CM-3/4	5795.020	5765.735	108.206	15.000	10.000	5.000	5.1799	100.0000	3.27E-02	1.48E-02	3.93E-02	8.75E-02	1.46E-02
CM-5/6	5386.000	5386.717	0.000	0.000	0.000	0.000	14.2480	86.09000	0.00E+00	3.80E-03	1.26E-01	2.61E-01	3.79E-03
CM-247	4946.000	4901.636	4.918	9.000	8.000	1.000	13.7917	79.30000	3.29E-02	1.32E-02	1.32E-01	2.75E-01	1.30E-02
CM-248	5078.600	5068.101	0.000	20.000	20.000	0.000	19.5080	91.00000	7.17E-02	1.67E-02	1.63E-01	3.35E-01	1.60E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

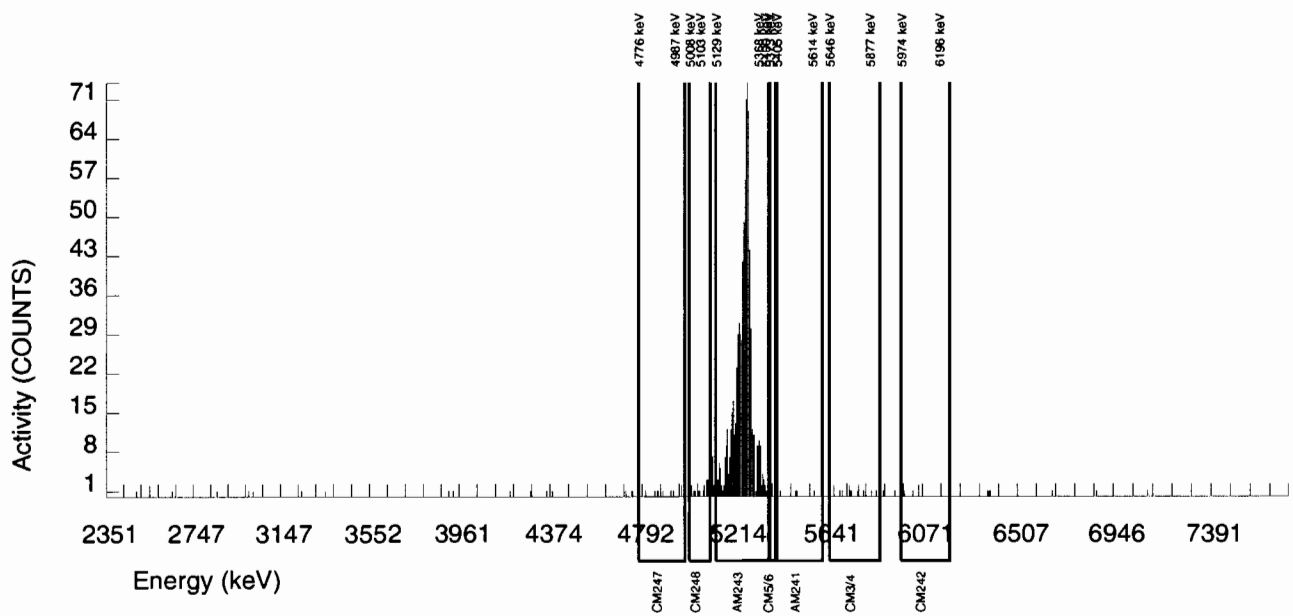

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 027	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978015_AM	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1122
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 33.6745	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 21:21:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W027.CNF;329
% YIELD : 79.594		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3214E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5499.213	4.962	6.000	2.643	2.000	2.8409	99.94000	8.75E-03	8.55E-03	2.19E-02	5.27E-02	8.53E-03
AM243	5270.000	5269.515	38.383	781.000	780.000	1.000	1.0000	99.78000	2.59E+00	1.87E-01	7.71E-03	2.44E-02	9.27E-02
CM-242	6102.000	6059.340	37.216	9.000	8.000	1.000	4.3413	100.0000	2.98E-02	1.19E-02	3.34E-02	7.58E-02	1.18E-02
CM-3/4	5795.020	5802.742	4.962	8.000	6.000	2.000	5.1799	100.0000	1.99E-02	1.06E-02	3.99E-02	8.87E-02	1.05E-02
CM-5/6	5386.000	5388.625	4.962	3.000	3.000	0.000	14.2480	86.09000	1.15E-02	6.70E-03	1.27E-01	2.65E-01	6.66E-03
CM-247	4946.000	4911.153	47.141	12.000	12.000	0.000	13.7917	79.30000	5.01E-02	1.48E-02	1.34E-01	2.79E-01	1.45E-02
CM-248	5078.600	5061.180	78.154	16.000	13.000	3.000	19.5080	91.00000	4.73E-02	1.61E-02	1.65E-01	3.40E-01	1.58E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

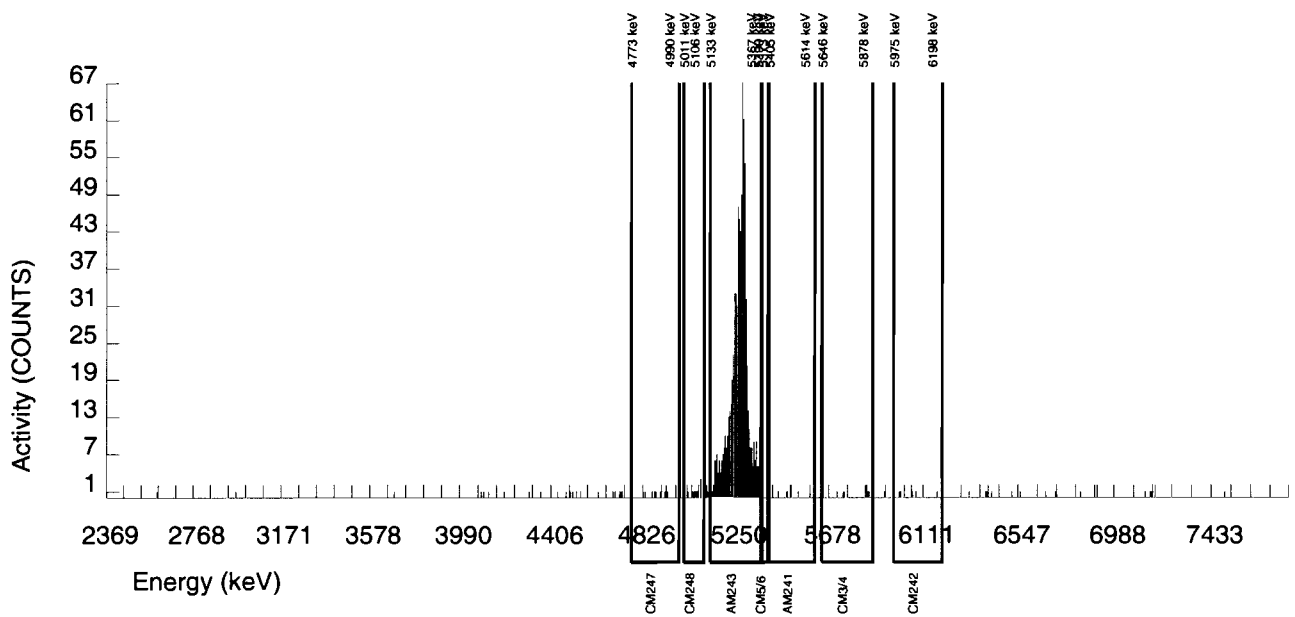

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 218	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202039541_AM	DETECTOR S/N : 79411	BKG FILE : B218.CNF;83
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 37.5225	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:26:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W218.CNF;28
% YIELD : 89.381		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.6068E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5533.230	4.944	5.000	-1.698	5.000	2.8409	99.94000	-2.28E-03	3.87E-03	8.88E-03	2.14E-02	3.87E-03
AM243	5270.000	5275.834	54.303	977.000	976.000	1.000	1.0000	99.78000	1.31E+00	8.78E-02	3.13E-03	9.91E-03	4.21E-02
CM-242	6102.000	6056.878	17.304	9.000	9.000	0.000	4.3413	100.0000	1.24E-02	4.20E-03	1.36E-02	3.08E-02	4.13E-03
CM-3/4	5795.020	5763.906	4.944	1.000	0.000	1.000	5.1799	100.0000	0.00E+00	1.90E-03	1.62E-02	3.60E-02	1.90E-03
CM-5/6	5386.000	5376.111	0.000	12.000	12.000	0.000	14.2480	86.09000	1.87E-02	5.51E-03	5.17E-02	1.08E-01	5.40E-03
CM-247	4946.000	4906.367	0.000	14.000	12.000	2.000	13.7917	79.30000	2.03E-02	6.88E-03	5.43E-02	1.13E-01	6.77E-03
CM-248	5078.600	5062.874	7.416	33.000	33.000	0.000	19.5080	91.00000	4.87E-02	8.95E-03	6.70E-02	1.38E-01	8.48E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

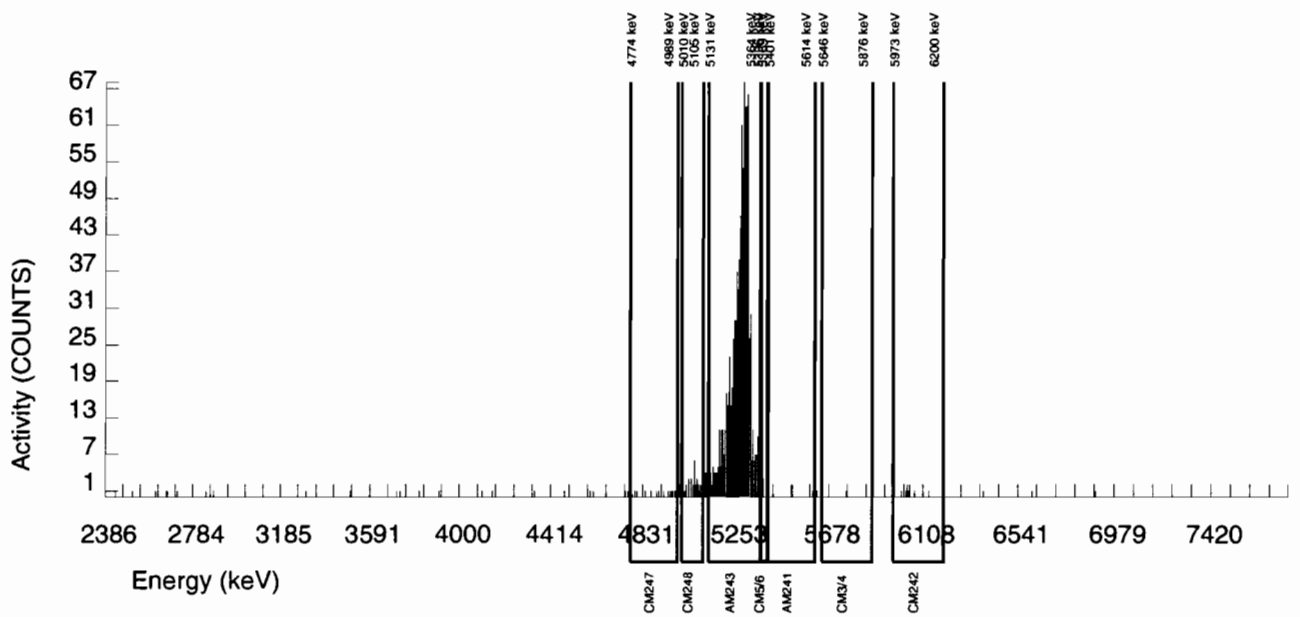

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 233	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202039542_AM	DETECTOR S/N : 79426	BKG FILE : B233.CNF;83
SAMPLE QTY : 0.526 G	AVERAGE %EFFICIENCY : 37.7051	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:26:04	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W233.CNF;28
% YIELD : 89.495		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.6102E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.161	4.909	3.000	1.291	0.000	2.8409	99.94000	3.28E-03	2.89E-03	1.68E-02	4.04E-02	2.89E-03
AM243	5270.000	5276.011	38.479	984.000	982.000	2.000	1.4142	99.78000	2.50E+00	1.67E-01	8.37E-03	2.36E-02	7.99E-02
CM-242	6102.000	6053.310	58.296	3.000	3.000	0.000	4.3413	100.0000	8.57E-03	4.98E-03	2.56E-02	5.81E-02	4.95E-03
CM-3/4	5795.020	5802.671	4.909	4.000	3.000	1.000	5.1799	100.0000	7.64E-03	5.71E-03	3.06E-02	6.80E-02	5.69E-03
CM-5/6	5386.000	5377.062	0.000	9.000	9.000	0.000	14.2480	86.09000	2.65E-02	8.98E-03	9.77E-02	2.03E-01	8.84E-03
CM-247	4946.000	4936.871	87.751	9.000	9.000	0.000	13.7917	79.30000	2.88E-02	9.75E-03	1.03E-01	2.14E-01	9.60E-03
CM-248	5078.600	5062.440	53.878	20.000	20.000	0.000	19.5080	91.00000	5.58E-02	1.29E-02	1.27E-01	2.61E-01	1.25E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

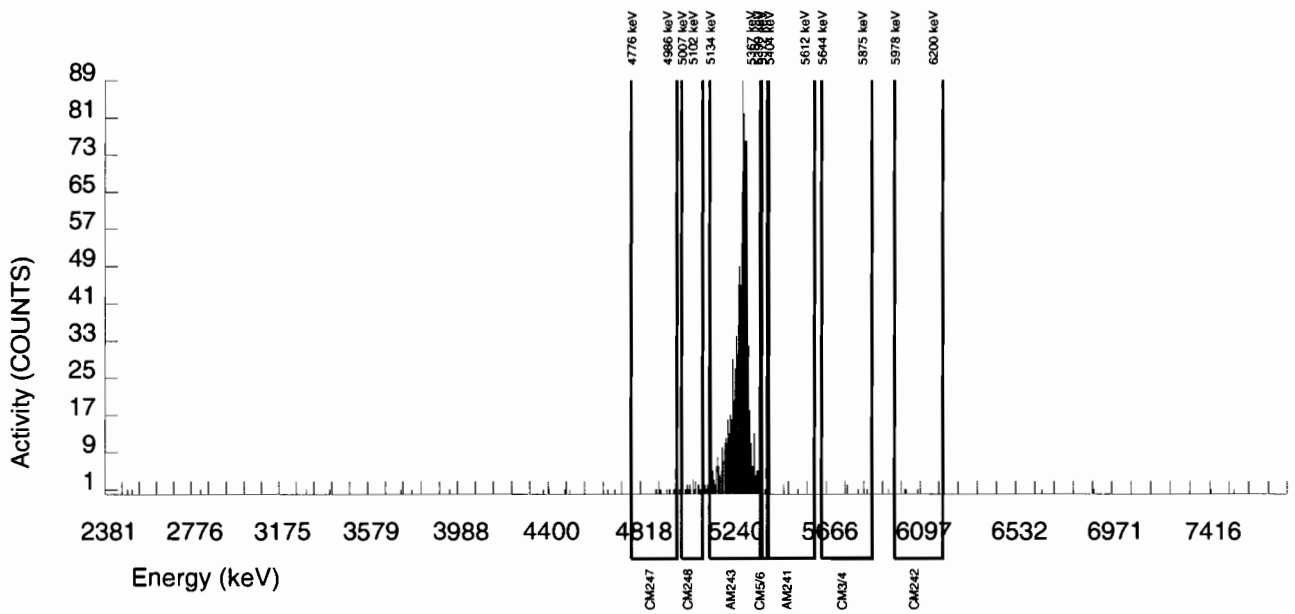

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951665	CHAMBER : 234	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202039543_AM	DETECTOR S/N : 79427	BKG FILE : B234.CNF;83
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 38.3923	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:26:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W234.CNF;28
% YIELD : 110.269		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 3.2161E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5496.893	55.212	2795.000	2792.856	0.000	2.8409	99.94000	2.59E+01	1.71E+00	6.12E-02	1.47E-01	4.89E-01
AM243	5270.000	5274.375	44.178	1232.000	1232.000	0.000	0.0000	99.78000	1.14E+01	7.93E-01	0.00E+00	2.51E-02	3.25E-01
CM-242	6102.000	6057.657	4.914	11.000	10.000	1.000	4.3413	100.0000	9.49E-02	3.34E-02	9.34E-02	2.12E-01	3.29E-02
CM-3/4	5795.020	5747.720	41.617	11.000	11.000	0.000	5.1799	100.0000	1.02E-01	3.14E-02	1.11E-01	2.48E-01	3.07E-02
CM-5/6	5386.000	5386.784	0.000	134.000	134.000	0.000	14.2480	86.09000	1.44E+00	1.54E-01	3.56E-01	7.42E-01	1.24E-01
CM-247	4946.000	4913.074	0.000	40.000	38.000	2.000	13.7917	79.30000	4.43E-01	8.07E-02	3.74E-01	7.80E-01	7.56E-02
CM-248	5078.600	5065.289	0.000	58.000	57.000	1.000	19.5080	91.00000	5.80E-01	8.63E-02	4.61E-01	9.50E-01	7.81E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

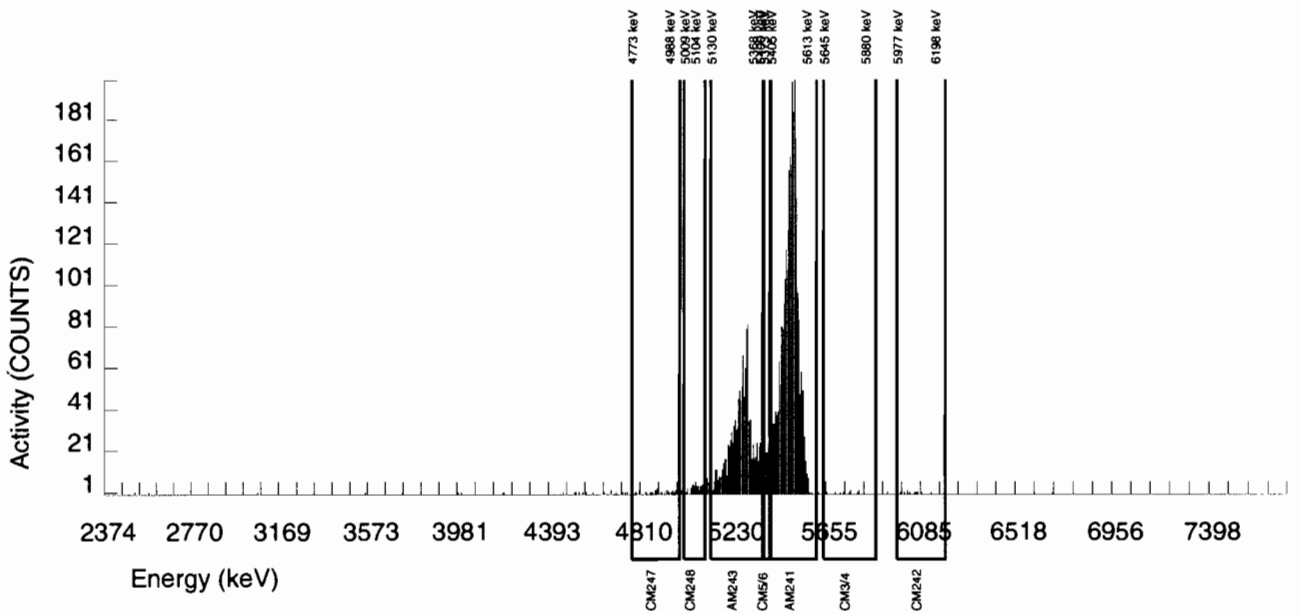

Radiochemistry Batch Checklist, Rev10

Batch# 9516669 Product: PU Date: 2/27/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 2/27/10

Secondary Review Performed By: [illegible] 2/27/10

3/2

LANL

✓P

Plutonium Que Sheet

10-FEB-10

Batch #: 951669 **Analyst:** CXM2 **First Client Due Date:** 02-MAR-10 **Internal Due Date:** 19-FEB-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1375-A **Expiration Date:** 1/8/11 **Vol:** 0.1mL

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0244-B **Expiration Date:** 4/30/20 **Vol:** 0.115g

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 2/18/10 **Initials:** CMM **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** 2/18/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
245978008-1	RE15-10-7975	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	1	31	0.525	65
245978009-1	RE15-10-7978	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	2	32	0.508	66
245978010-1	RE15-10-7970	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	3	33	0.501	67
245978011-1	RE15-10-7964	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	4	34	0.527	~~68~~ 43
245978012-1	RE15-10-7973	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	5	35	0.509	~~69~~ 44
245978013-1	RE15-10-7962	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	6	36	0.515	~~70~~ 45
245978014-1	RE15-10-7963	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	7	37	0.510	71
245978015-1	RE15-10-7977	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	8	38	0.508	72
246020001-1	RE15-10-7980	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	9	39	0.503	73
246020002-1	RE15-10-7958	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	10	40	0.510	74
246020003-1	RE15-10-7960	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	11	41	0.519	75
246020004-1	RE15-10-7979	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	12	42	0.525	76
246020005-1	RE15-10-7972	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	13	43	0.500	77
246020006-1	RE15-10-7957	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	14	44	0.519	79
246020007-1	RE15-10-7974	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	15	45	0.513	~~80~~ 46
246020008-1	RE15-10-7961	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	16	46	0.510	81
246020009-1	RE15-10-7971	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	17	47	0.514	82
246020010-1	RE15-10-7966	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	18	48	0.517	83
246020011-1	RE15-10-7959	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	19	49	0.510	84
246020012-1	RE15-10-7969	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	20	50	0.507	85
1202039555-1	MB for batch 951669	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	51	1.0	86
1202039556-1	RE15-10-7980(246020001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	52	0.526	~~87~~ 43
1202039557-1	LCS for batch 951669	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	53	0.115	88

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: 2/27/10 2/27/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 951669

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202039556	DUP	Plutonium-238	0.526 g	-0.00106	0.00424	0.043	-.00644487	pCi/g	NO
		Plutonium-239/240	0.526 g	0.00135	0.00488	0.0321	-.00321293	pCi/g	NO
1202039557	LCS	Plutonium-238	0.115 g	7.15	0.530	0.233	-.02947826	pCi/g	NO
		Plutonium-239/240	0.115 g	39.3	2.42	0.175	-.01469565	pCi/g	NO
1202039555	MB	Plutonium-238	1.00 g	-0.00339	0.00294	0.0277	-.00339	pCi/g	NO
		Plutonium-239/240	1.00 g	-0.00169	0.00294	0.0208	-.00169	pCi/g	NO
245978008	RE15-10-7975	Plutonium-238	0.525 g	0.00	0.0147	0.0472	-.00645714	pCi/g	NO
		Plutonium-239/240	0.525 g	0.0549	0.0153	0.0355	-.00321905	pCi/g	NO
245978009	RE15-10-7978	Plutonium-238	0.508 g	-0.00887	0.0148	0.0483	-.00667323	pCi/g	NO
		Plutonium-239/240	0.508 g	0.00591	0.00725	0.0364	-.00332677	pCi/g	NO
245978010	RE15-10-7970	Plutonium-238	0.501 g	-0.0236	0.0102	0.0482	-.00676647	pCi/g	NO
		Plutonium-239/240	0.501 g	0.00	0.00418	0.0363	-.00337325	pCi/g	NO
245978011	RE15-10-7964	Plutonium-238	0.527 g	0.00374	0.00476	0.038	-.00643264	pCi/g	NO
		Plutonium-239/240	0.527 g	0.00154	0.00422	0.0285	-.00320683	pCi/g	NO
245978012	RE15-10-7973	Plutonium-238	0.509 g	-0.00493	0.00646	0.0535	-.00666012	pCi/g	NO
		Plutonium-239/240	0.509 g	0.00742	0.00894	0.0401	-.00332024	pCi/g	NO
245978013	RE15-10-7962	Plutonium-238	0.515 g	0.00146	0.00399	0.036	-.00658252	pCi/g	NO
		Plutonium-239/240	0.515 g	0.00499	0.00601	0.027	-.00328155	pCi/g	NO
245978014	RE15-10-7963	Plutonium-238	0.510 g	0.00296	0.0148	0.0483	-.00664706	pCi/g	NO
		Plutonium-239/240	0.510 g	0.00591	0.00836	0.0363	-.00331373	pCi/g	NO
245978015	RE15-10-7977	Plutonium-238	0.508 g	0.00906	0.0151	0.0494	-.00667323	pCi/g	NO
		Plutonium-239/240	0.508 g	0.0483	0.0144	0.0371	-.00332677	pCi/g	NO
246020001	RE15-10-7980	Plutonium-238	0.503 g	0.00	0.00443	0.0511	-.00673956	pCi/g	NO
		Plutonium-239/240	0.503 g	0.00626	0.00443	0.0385	-.00335984	pCi/g	NO
246020002	RE15-10-7958	Plutonium-238	0.510 g	-0.00309	0.00818	0.0505	-.00664706	pCi/g	NO
		Plutonium-239/240	0.510 g	0.00	0.00437	0.038	-.00331373	pCi/g	NO
246020003	RE15-10-7960	Plutonium-238	0.519 g	0.0153	0.00688	0.050	-.00653179	pCi/g	NO
		Plutonium-239/240	0.519 g	0.303	0.0345	0.0376	-.00325626	pCi/g	NO
246020004	RE15-10-7979	Plutonium-238	0.525 g	0.00613	0.00435	0.0501	-.00645714	pCi/g	NO
		Plutonium-239/240	0.525 g	0.0184	0.00973	0.0377	-.00321905	pCi/g	NO
246020005	RE15-10-7972	Plutonium-238	0.500 g	-0.0222	0.0114	0.0518	-.00678	pCi/g	NO
		Plutonium-239/240	0.500 g	0.0127	0.00779	0.039	-.00338	pCi/g	NO
246020006	RE15-10-7957	Plutonium-238	0.519 g	0.00288	0.00288	0.047	-.00653179	pCi/g	NO
		Plutonium-239/240	0.519 g	0.333	0.0355	0.0353	-.00325626	pCi/g	NO
246020007	RE15-10-7974	Plutonium-238	0.513 g	-0.00816	0.00755	0.0442	-.00660819	pCi/g	NO
		Plutonium-239/240	0.513 g	0.000267	0.00768	0.0331	-.00329435	pCi/g	NO
246020008	RE15-10-7961	Plutonium-238	0.510 g	-0.00273	0.00386	0.0446	-.00664706	pCi/g	NO
		Plutonium-239/240	0.510 g	0.0218	0.00779	0.0335	-.00331373	pCi/g	NO
246020009	RE15-10-7971	Plutonium-238	0.514 g	0.00573	0.00407	0.0468	-.00659533	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246020009	RE15-10-7971	Plutonium-239/240	0.514 g	-0.00287	0.00641	0.0352	-.00328794	pCi/g	NO
246020010	RE15-10-7966	Plutonium-238	0.517 g	-0.0109	0.0116	0.0446	-.00655706	pCi/g	NO
		Plutonium-239/240	0.517 g	0.00273	0.0061	0.0335	-.00326886	pCi/g	NO
246020011	RE15-10-7959	Plutonium-238	0.510 g	0.0148	0.00789	0.0485	-.00664706	pCi/g	NO
		Plutonium-239/240	0.510 g	0.113	0.0201	0.0365	-.00331373	pCi/g	NO
246020012	RE15-10-7969	Plutonium-238	0.507 g	0.00913	0.00682	0.0497	-.00668639	pCi/g	NO
		Plutonium-239/240	0.507 g	0.0517	0.0128	0.0374	-.00333333	pCi/g	NO

2/22/10

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 065	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978008_PU	DETECTOR S/N : 68551	BKG FILE : B065.CNF;1947
SAMPLE QTY : 0.525 G	AVERAGE %EFFICIENCY : 30.8199	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:44	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W065.CNF;307
% YIELD : 96.454		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2609E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5729.245	4.899	8.000	-3.000	11.000	2.6925	100.0000	-8.82E-03	1.28E-02	1.81E-02	4.40E-02	1.28E-02
PU-238	5499.000	5455.604	5.690	13.000	0.000	13.000	2.9312	99.90000	0.00E+00	1.47E-02	1.97E-02	4.72E-02	1.47E-02
PU-9/0	5155.000	5138.246	67.271	23.000	19.000	4.000	2.0604	99.90000	5.49E-02	1.53E-02	1.38E-02	3.55E-02	1.50E-02
PU242	4890.000	4883.535	46.553	1017.000	1005.000	12.000	3.4641	100.0000	2.90E+00	1.75E-01	2.33E-02	5.43E-02	9.26E-02
PU-244	4589.000	4532.046	112.679	12.000	7.000	5.000	3.7241	99.90000	2.02E-02	1.20E-02	2.50E-02	5.79E-02	1.19E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

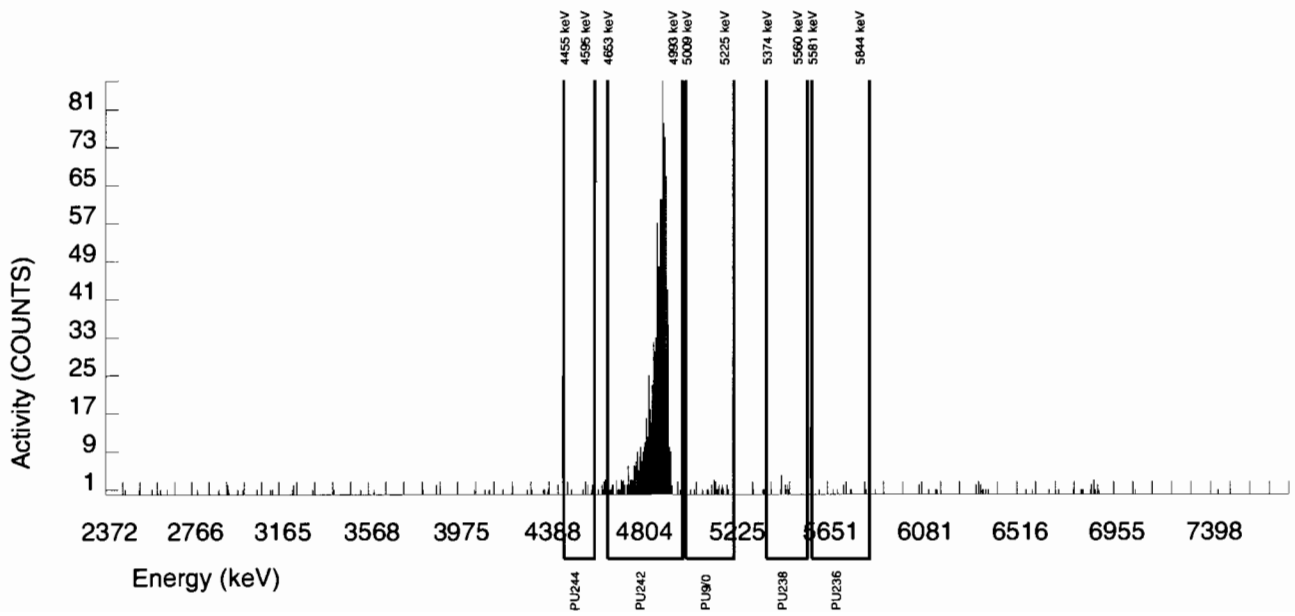

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 066	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978009_PU	DETECTOR S/N : 46-089C1	BKG FILE : B066.CNF;1108
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 31.2039	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:44	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W066.CNF;308
% YIELD : 96.215		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2528E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5659.564	153.704	7.000	-2.000	9.000	2.6925	100.0000	-6.02E-03	1.20E-02	1.85E-02	4.50E-02	1.20E-02
PU-238	5499.000	5434.573	19.913	11.000	-3.000	14.000	2.9312	99.90000	-8.87E-03	1.48E-02	2.02E-02	4.83E-02	1.48E-02
PU-9/0	5155.000	5140.812	4.978	4.000	2.000	2.000	2.0604	99.90000	5.91E-03	7.25E-03	1.42E-02	3.64E-02	7.24E-03
PU242	4890.000	4879.182	54.018	1023.000	1015.000	8.000	2.8284	100.0000	3.00E+00	1.80E-01	1.94E-02	4.69E-02	9.48E-02
PU-244	4589.000	4549.064	4.978	10.000	8.000	2.000	3.7241	99.90000	2.37E-02	1.03E-02	2.56E-02	5.92E-02	1.02E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

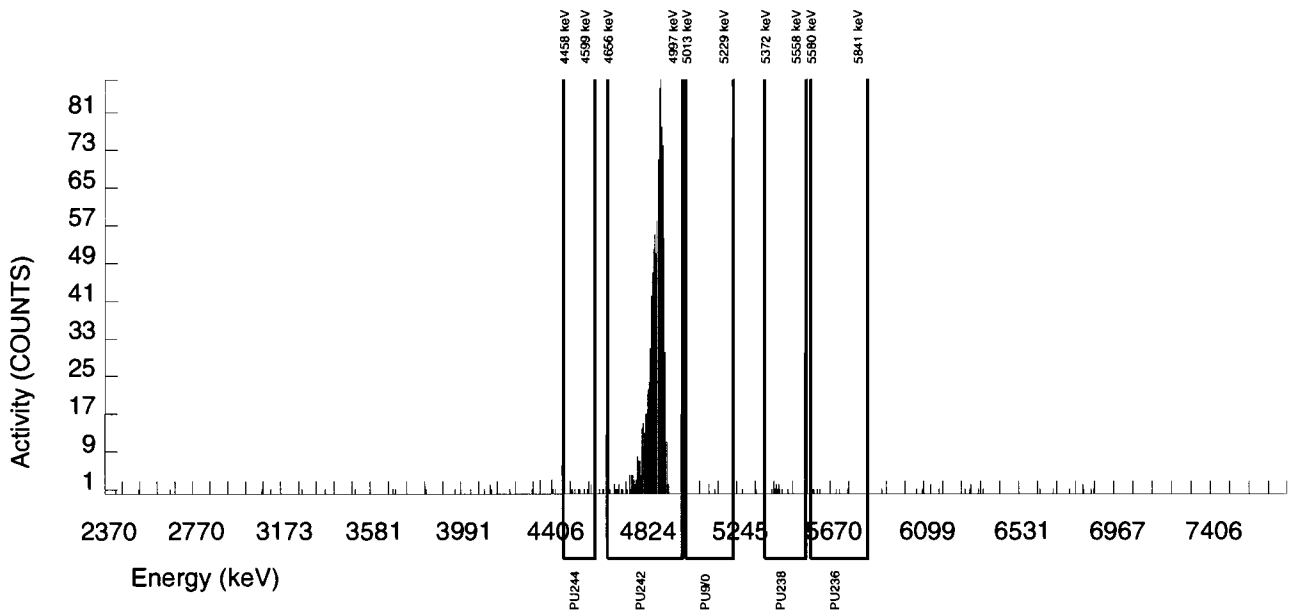

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 067	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978010_PU	DETECTOR S/N : 46-089B4	BKG FILE : B067.CNF;1106
SAMPLE QTY : 0.501 G	AVERAGE %EFFICIENCY : 32.3338	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:44	BKG LIVE TIME(SEC) : 59999.99
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W067.CNF;289
% YIELD : 94.316		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1886E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5723.339	134.638	7.000	-1.000	8.000	2.6925	100.0000	-3.00E-03	1.16E-02	1.85E-02	4.49E-02	1.16E-02
PU-238	5499.000	5409.304	0.000	2.000	-8.000	10.000	2.9312	99.90000	-2.36E-02	1.02E-02	2.01E-02	4.82E-02	1.02E-02
PU-9/0	5155.000	5189.796	4.987	1.000	0.000	1.000	2.0604	99.90000	0.00E+00	4.18E-03	1.41E-02	3.63E-02	4.17E-03
PU242	4890.000	4897.607	54.972	1031.000	1031.000	0.000	0.0000	100.0000	3.04E+00	1.81E-01	0.00E+00	7.99E-03	9.47E-02
PU-244	4589.000	4543.868	0.000	7.000	2.000	5.000	3.7241	99.90000	5.90E-03	1.02E-02	2.56E-02	5.91E-02	1.02E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

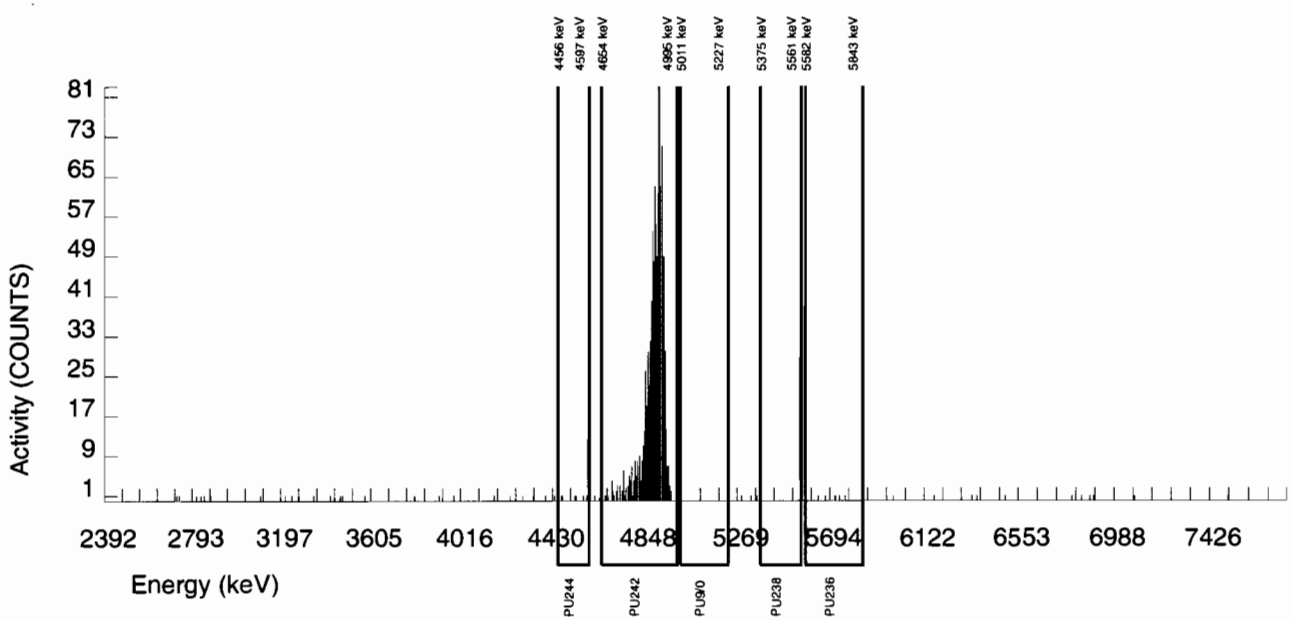

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 043	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978011_PU	DETECTOR S/N : 76543	BKG FILE : B043.CNF;1109
SAMPLE QTY : 0.527 G	AVERAGE %EFFICIENCY : 33.6471	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 20:01:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 77909.54	EFF FILE : W043.CNF;286
% YIELD : 89.231		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0167E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5776.130	4.948	3.000	-2.194	5.194	2.6925	100.0000	-4.90E-03	6.98E-03	1.47E-02	3.54E-02	6.98E-03
PU-238	5499.000	5475.699	128.646	3.000	1.702	1.298	2.9312	99.90000	3.74E-03	4.76E-03	1.60E-02	3.80E-02	4.75E-03
PU-9/0	5155.000	5160.469	29.688	2.000	0.702	1.298	2.0604	99.90000	1.54E-03	4.21E-03	1.13E-02	2.85E-02	4.21E-03
PU242	4890.000	4889.954	30.081	1318.000	1318.000	0.000	0.0000	100.0000	2.89E+00	1.62E-01	0.00E+00	5.94E-03	7.96E-02
PU-244	4589.000	4528.639	0.000	8.000	8.000	0.000	3.7241	99.90000	1.76E-02	6.27E-03	2.04E-02	4.67E-02	6.21E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

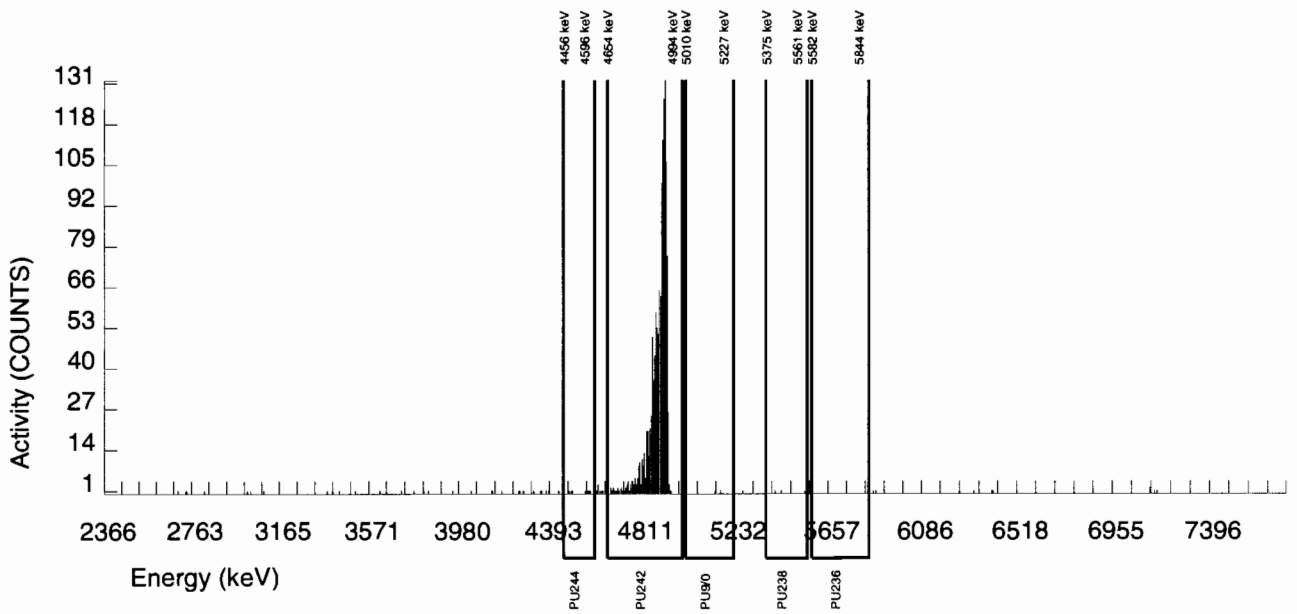

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 044	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978012_PU	DETECTOR S/N : 79459	BKG FILE : B044.CNF;1119
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 34.2824	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 20:01:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 77909.54	EFF FILE : W044.CNF;307
% YIELD : 64.441		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.1786E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5729.465	201.221	4.000	4.000	0.000	2.6925	100.0000	1.26E-02	6.32E-03	2.07E-02	4.98E-02	6.29E-03
PU-238	5499.000	5512.175	4.923	1.000	-1.597	2.597	2.9312	99.90000	-4.93E-03	6.46E-03	2.26E-02	5.35E-02	6.46E-03
PU-9/0	5155.000	5143.556	4.923	5.000	2.403	2.597	2.0604	99.90000	7.42E-03	8.94E-03	1.59E-02	4.01E-02	8.94E-03
PU242	4890.000	4891.150	37.052	975.000	969.806	5.194	2.2790	100.0000	2.99E+00	1.82E-01	1.75E-02	4.34E-02	9.67E-02
PU-244	4589.000	4524.789	4.923	5.000	5.000	0.000	3.7241	99.90000	1.54E-02	6.95E-03	2.87E-02	6.57E-02	6.91E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

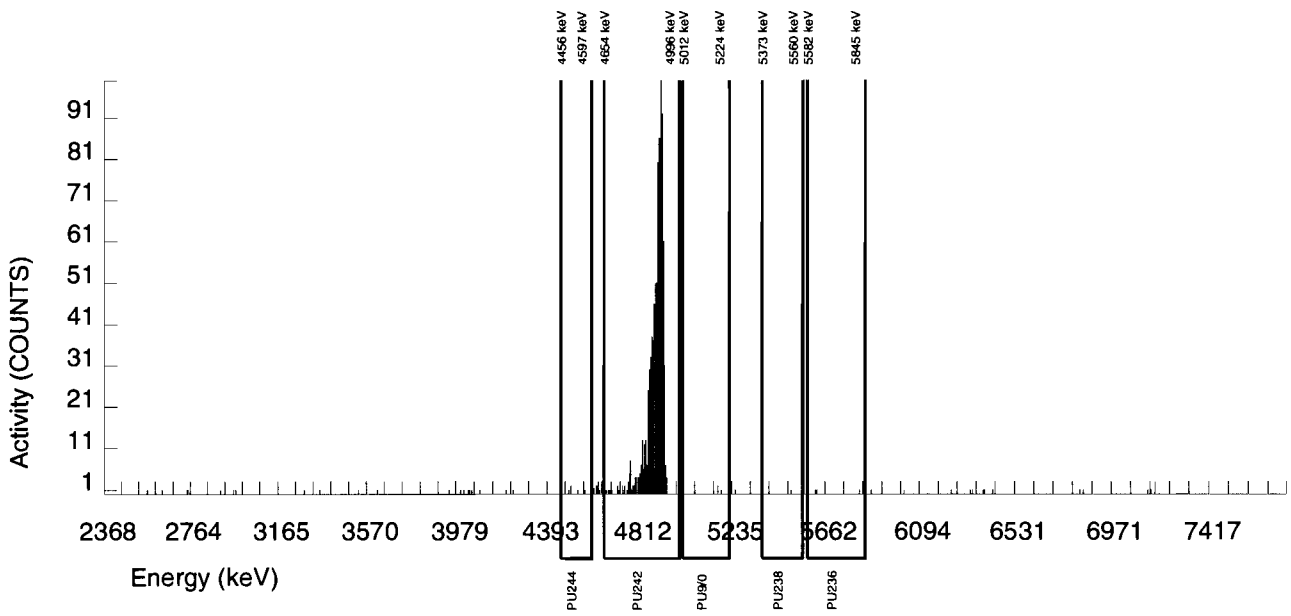

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 045	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978013_PU	DETECTOR S/N : 78783	BKG FILE : B045.CNF;1108
SAMPLE QTY : 0.515 G	AVERAGE %EFFICIENCY : 33.6564	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 20:01:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 77909.54	EFF FILE : W045.CNF;298
% YIELD : 96.543		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.2639E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5712.251	0.000	0.000	-3.895	3.895	2.6925	100.0000	-8.23E-03	5.20E-03	1.39E-02	3.35E-02	5.20E-03
PU-238	5499.000	5463.957	84.012	2.000	0.702	1.298	2.9312	99.90000	1.46E-03	3.99E-03	1.52E-02	3.60E-02	3.99E-03
PU-9/0	5155.000	5153.005	88.953	5.000	2.403	2.597	2.0604	99.90000	4.99E-03	6.01E-03	1.07E-02	2.69E-02	6.00E-03
PU242	4890.000	4883.328	31.161	1429.000	1426.403	2.597	1.6115	100.0000	2.96E+00	1.63E-01	8.33E-03	2.23E-02	7.85E-02
PU-244	4589.000	4528.537	44.477	11.000	11.000	0.000	3.7241	99.90000	2.28E-02	6.97E-03	1.93E-02	4.42E-02	6.88E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

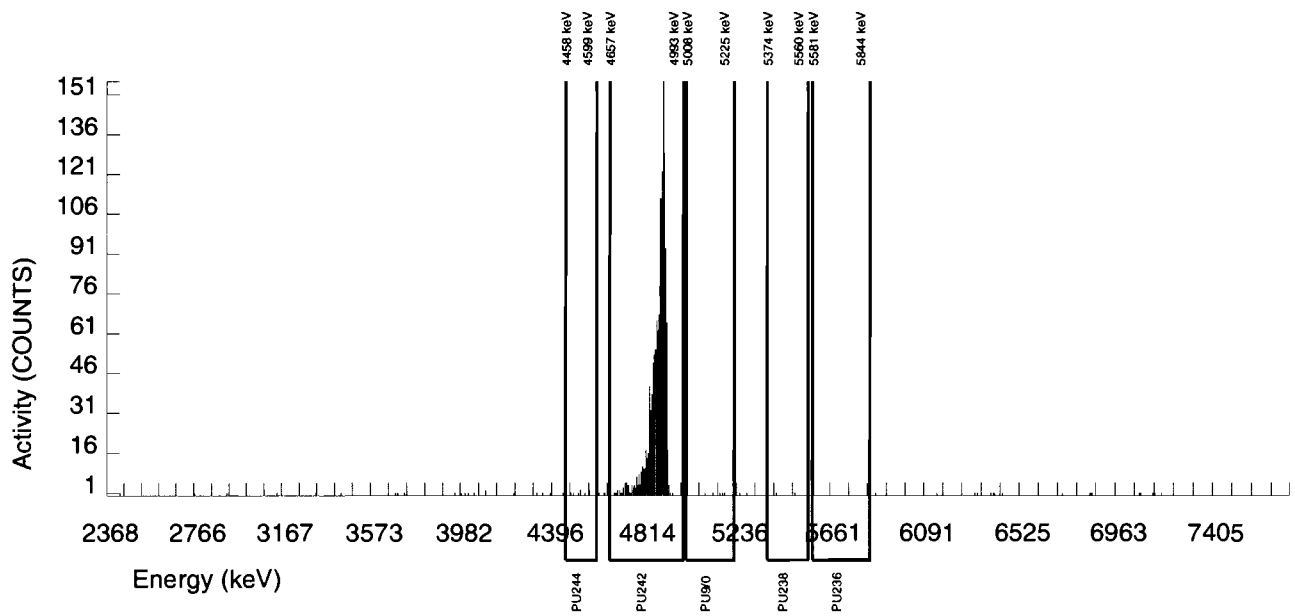

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 071	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978014_PU	DETECTOR S/N : 64259	BKG FILE : B071.CNF;1104
SAMPLE QTY : 0.510 G	AVERAGE %EFFICIENCY : 32.1673	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W071.CNF;286
% YIELD : 93.057		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.1460E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5748.533	19.303	11.000	9.000	2.000	2.6925	100.0000	2.71E-02	1.09E-02	1.85E-02	4.50E-02	1.08E-02
PU-238	5499.000	5450.007	63.046	13.000	1.000	12.000	2.9312	99.90000	2.96E-03	1.48E-02	2.01E-02	4.83E-02	1.48E-02
PU-9/0	5155.000	5185.542	74.721	5.000	2.000	3.000	2.0604	99.90000	5.91E-03	8.36E-03	1.42E-02	3.63E-02	8.35E-03
PU242	4890.000	4894.977	32.276	1014.000	1012.000	2.000	1.4142	100.0000	2.99E+00	1.79E-01	9.71E-03	2.74E-02	9.40E-02
PU-244	4589.000	4501.514	0.000	6.000	6.000	0.000	3.7241	99.90000	1.77E-02	7.29E-03	2.56E-02	5.92E-02	7.23E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

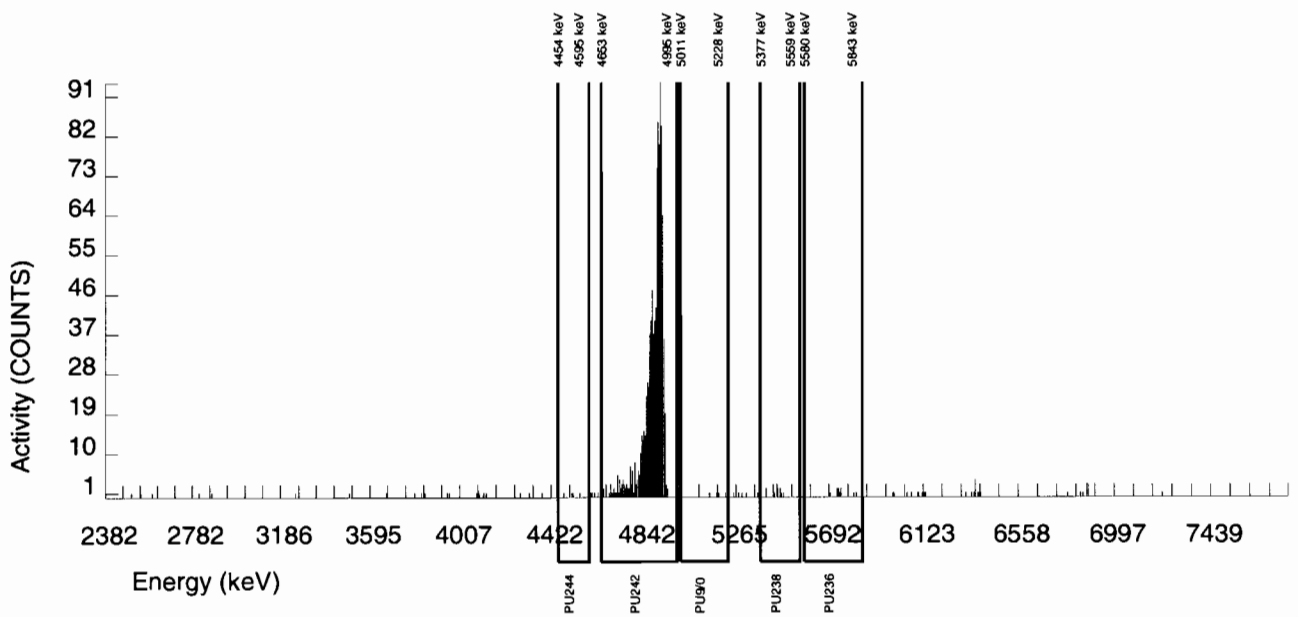

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 072	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0245978015_PU	DETECTOR S/N : 45-149AA3	BKG FILE : B072.CNF;1102
SAMPLE QTY : 0.508 G	AVERAGE %EFFICIENCY : 32.1107	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W072.CNF;277
% YIELD : 91.563		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0955E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5694.435	129.074	7.000	2.000	5.000	2.6925	100.0000	6.14E-03	1.06E-02	1.89E-02	4.60E-02	1.06E-02
PU-238	5499.000	5450.872	7.291	14.000	3.000	11.000	2.9312	99.90000	9.06E-03	1.51E-02	2.06E-02	4.94E-02	1.51E-02
PU-9/0	5155.000	5147.195	5.766	19.000	16.000	3.000	2.0604	99.90000	4.83E-02	1.44E-02	1.45E-02	3.71E-02	1.42E-02
PU242	4890.000	4886.707	43.305	997.000	994.000	3.000	1.7321	100.0000	3.00E+00	1.81E-01	1.22E-02	3.25E-02	9.54E-02
PU-244	4589.000	4588.603	0.000	2.000	1.000	1.000	3.7241	99.90000	3.02E-03	5.23E-03	2.62E-02	6.05E-02	5.23E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

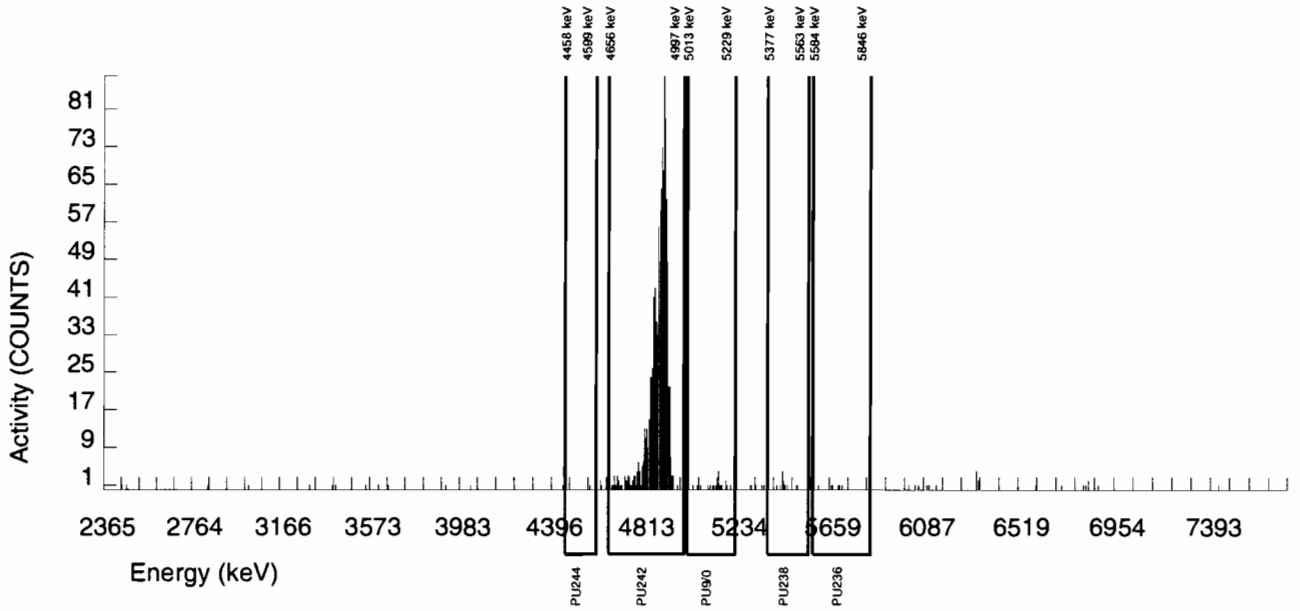

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 073	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0246020001_PU	DETECTOR S/N : 78775	BKG FILE : B073.CNF;1104
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 33.1249	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:45	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W073.CNF;285
% YIELD : 86.528		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.9253E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5691.438	113.493	3.000	1.000	2.000	2.6925	100.0000	3.18E-03	7.12E-03	1.96E-02	4.76E-02	7.12E-03
PU-238	5499.000	5476.451	4.934	1.000	0.000	1.000	2.9312	99.90000	0.00E+00	4.43E-03	2.13E-02	5.11E-02	4.43E-03
PU-9/0	5155.000	5058.304	54.279	2.000	2.000	0.000	2.0604	99.90000	6.26E-03	4.43E-03	1.50E-02	3.85E-02	4.42E-03
PU242	4890.000	4890.462	39.739	974.000	969.000	5.000	2.2361	100.0000	3.03E+00	1.84E-01	1.63E-02	4.10E-02	9.78E-02
PU-244	4589.000	4510.880	4.934	9.000	8.000	1.000	3.7241	99.90000	2.50E-02	9.97E-03	2.71E-02	6.27E-02	9.89E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

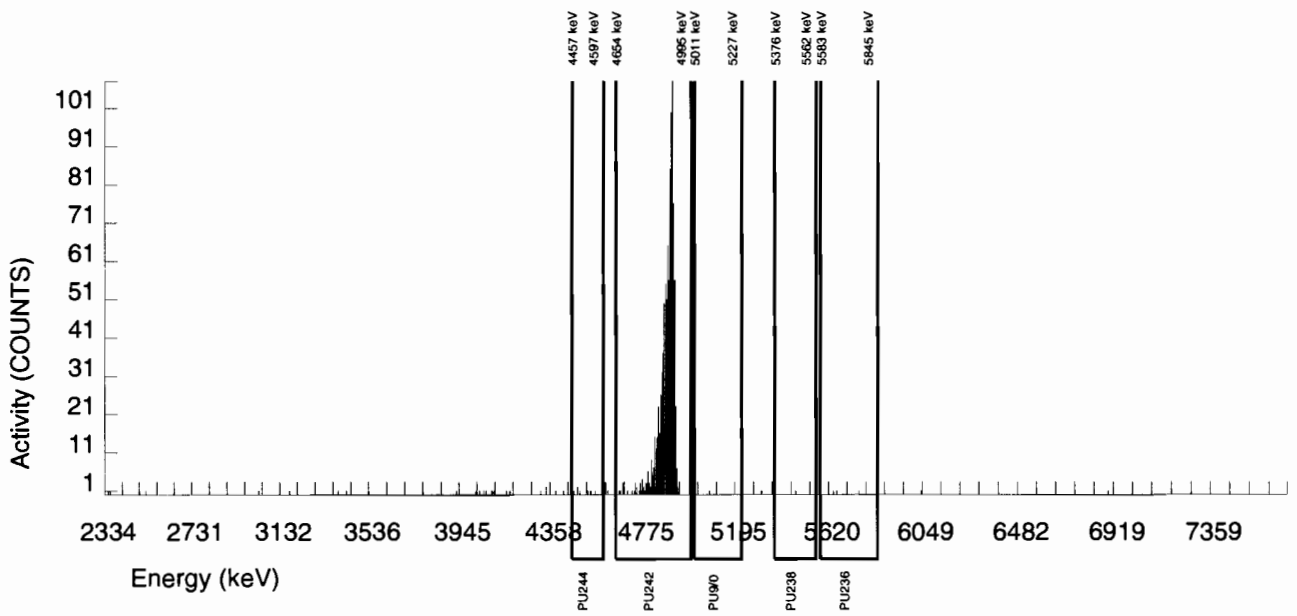

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 086	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202039555_PU	DETECTOR S/N : 78198	BKG FILE : B086.CNF;1026
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 29.4361	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W086.CNF;283
% YIELD : 90.437		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0575E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5713.410	0.000	0.000	0.000	0.000	2.6925	100.0000	0.00E+00	1.70E-03	1.06E-02	2.58E-02	1.70E-03
PU-238	5499.000	5468.799	0.000	0.000	-2.000	2.000	2.9312	99.90000	-3.39E-03	2.94E-03	1.15E-02	2.77E-02	2.93E-03
PU-9/0	5155.000	5175.005	5.021	1.000	-1.000	2.000	2.0604	99.90000	-1.69E-03	2.94E-03	8.12E-03	2.08E-02	2.93E-03
PU242	4890.000	4894.702	34.850	902.000	900.000	2.000	1.4142	100.0000	1.52E+00	9.41E-02	5.57E-03	1.57E-02	5.09E-02
PU-244	4589.000	4563.577	40.165	5.000	4.000	1.000	3.7241	99.90000	6.78E-03	4.16E-03	1.47E-02	3.39E-02	4.15E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

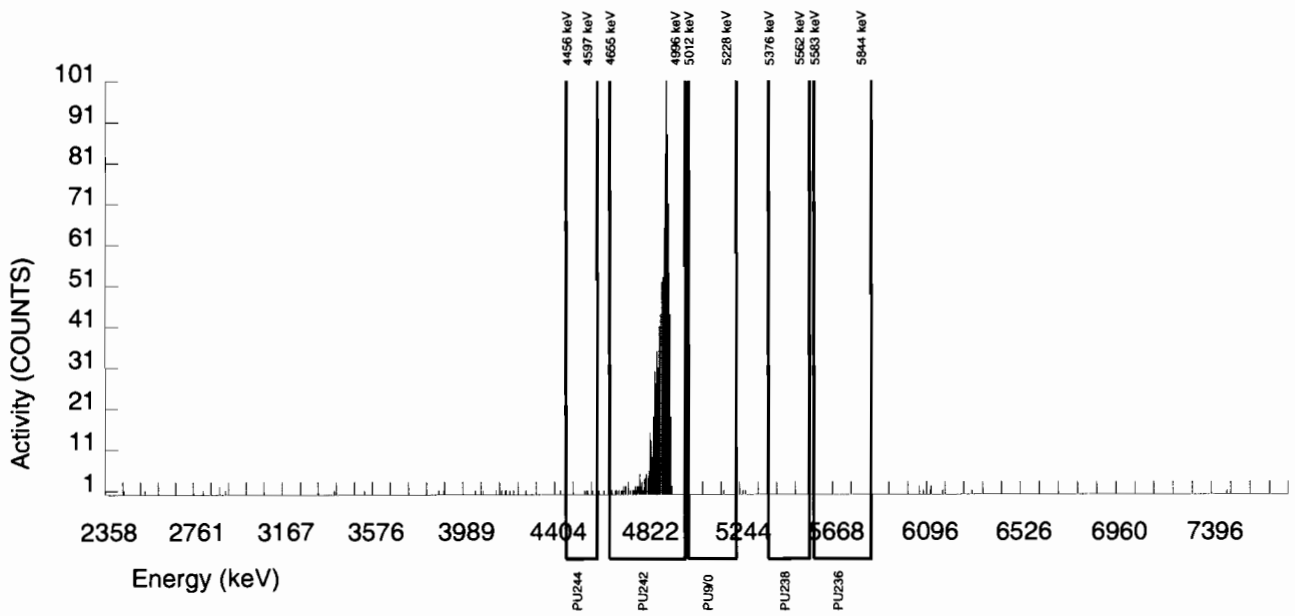

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 043	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202039556_PU	DETECTOR S/N : 76543	BKG FILE : B043.CNF;1109
SAMPLE QTY : 0.526 G	AVERAGE %EFFICIENCY : 33.6471	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 25-FEB-2010 22:19:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 86400.00	EFF FILE : W043.CNF;286
% YIELD : 73.197		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4746E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5771.672	79.167	2.000	-3.760	5.760	2.6925	100.0000	-9.26E-03	7.91E-03	1.67E-02	4.00E-02	7.91E-03
PU-238	5499.000	5459.754	4.948	1.000	-0.440	1.440	2.9312	99.90000	-1.06E-03	4.24E-03	1.82E-02	4.30E-02	4.24E-03
PU-9/0	5155.000	5181.594	9.277	2.000	0.560	1.440	2.0604	99.90000	1.35E-03	4.88E-03	1.28E-02	3.21E-02	4.88E-03
PU242	4890.000	4895.170	31.632	1199.000	1199.000	0.000	0.0000	100.0000	2.90E+00	1.66E-01	0.00E+00	6.54E-03	8.36E-02
PU-244	4589.000	4540.475	18.503	11.000	11.000	0.000	3.7241	99.90000	2.66E-02	8.12E-03	2.31E-02	5.28E-02	8.02E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

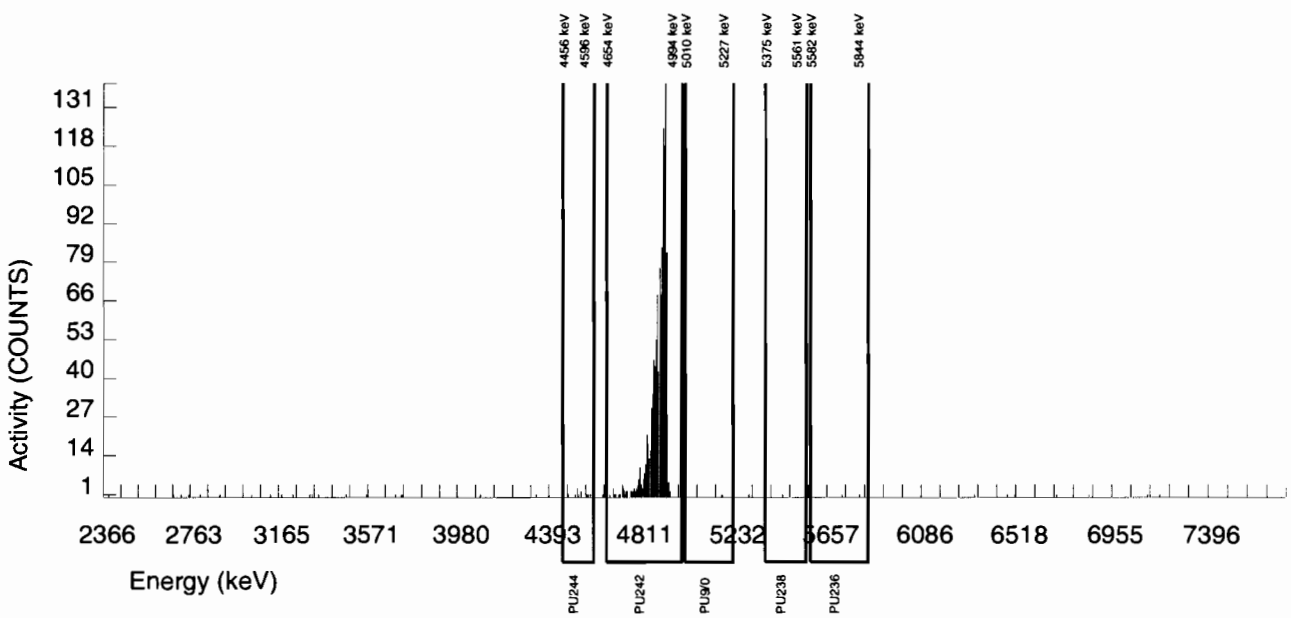

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951669	CHAMBER : 088	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202039557_PU	DETECTOR S/N : 33452	BKG FILE : B088.CNF;1021
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 30.3479	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 13:08:47	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W088.CNF;286
% YIELD : 90.741		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0244-B	ID : 0244-B
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 3.0678E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5728.028	164.299	7.000	4.000	3.000	2.6925	100.0000	5.71E-02	4.53E-02	8.91E-02	2.17E-01	4.52E-02
PU-238	5499.000	5511.380	61.878	511.000	502.000	9.000	2.9312	99.90000	7.15E+00	5.30E-01	9.71E-02	2.33E-01	3.25E-01
PU-9/0	5155.000	5167.284	47.647	2761.000	2758.000	3.000	2.0604	99.90000	3.93E+01	2.42E+00	6.82E-02	1.75E-01	7.49E-01
PU242	4890.000	4904.020	42.430	932.000	931.000	1.000	1.0000	100.0000	1.32E+01	8.90E-01	3.31E-02	1.05E-01	4.34E-01
PU-244	4589.000	4542.208	0.000	9.000	8.000	1.000	3.7241	99.90000	1.14E-01	4.55E-02	1.23E-01	2.85E-01	4.50E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of PU242 calculated as sqrt(BKG AREA).

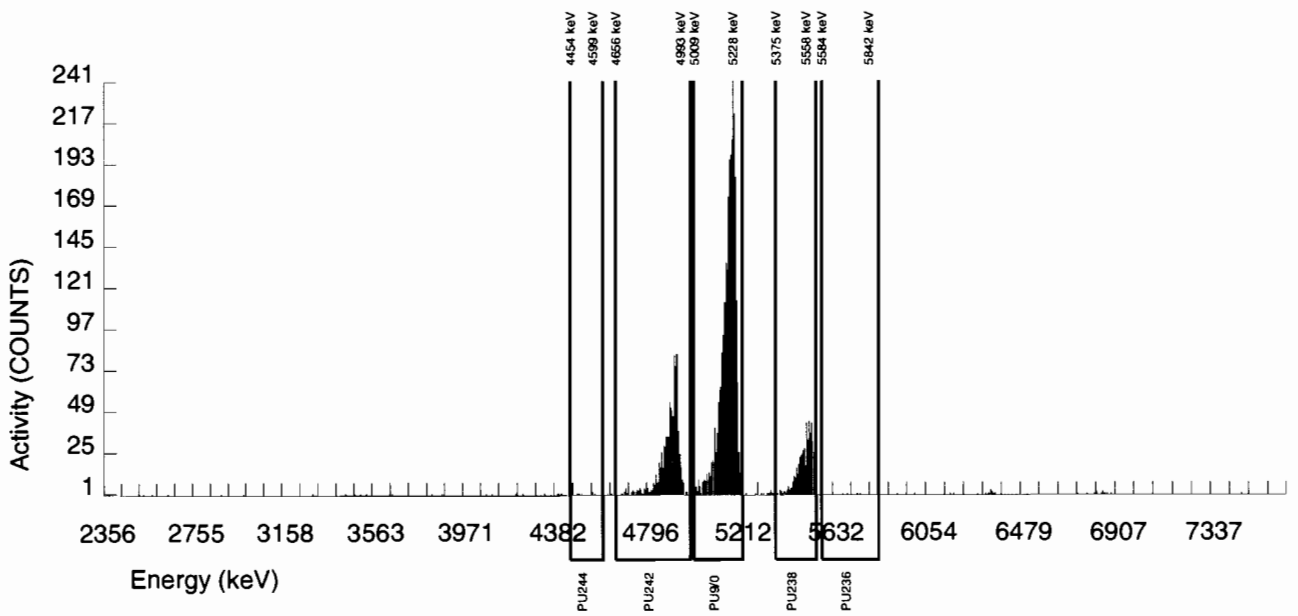

Radiochemistry Batch Checklist, Rev10

Batch# 951672 **Product:** U **Date:** 2/25/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 2/25/10

Secondary Review Performed By: [illegible] 2/25/10

5/2

LANL

Uranium Que Sheet

10-FEB-10

Batch #: 951672 Analyst: CXM2 First Client Due Date:02-MAR-10 Internal Due Date:19-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-14 Expiration Date: 12/9/10 Vol: 0.1 mL

LCS Isotope: U-238 LCS Code: 0244-A Expiration Date: 10/31/20 Vol: 0.115g * SRM

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 2/18/10 Initials: CMM Pipet ID: 2971068 Balance ID: 50410272 Witness: MER 2/18/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g) (l / f)	U Det #
245978008-1	RE15-10-7975	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	1	31	1.272	113
245978009-1	RE15-10-7978	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	2	32	1.260	114
245978010-1	RE15-10-7970	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	3	33	1.260	115
245978011-1	RE15-10-7964	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	4	34	1.253	119 ~~118~~
245978012-1	RE15-10-7973	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	5	35	1.255	120 119
245978013-1	RE15-10-7962	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	6	36	1.253	121 120
245978014-1	RE15-10-7963	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	7	37	1.257	122 121
245978015-1	RE15-10-7977	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	8	38	1.257	123 122
246020001-1	RE15-10-7980	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	9	39	1.265	124 123
246020002-1	RE15-10-7958	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	10	40	1.255	125 124
* ~~246020003-1~~	~~RE15-10-7960~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~11~~	~~41~~	~~1.257~~	~~126 125~~
246020004-1	RE15-10-7979	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	12	42	1.258	127 126
246020005-1	RE15-10-7972	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	13	43	1.259	128 127
* ~~246020006-1~~	~~RE15-10-7957~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~14~~	~~44~~	~~1.257~~	~~129 128~~
246020007-1	RE15-10-7974	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	15	45	1.255	130 ~~129~~
246020008-1	RE15-10-7961	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	16	46	1.255	3
246020009-1	RE15-10-7971	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	17	47	1.252	4
246020010-1	RE15-10-7966	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	18	48	1.257	5
* ~~246020011-1~~	~~RE15-10-7959~~	~~SAMPLE~~		~~.1 pCi/g~~	~~SOIL~~	~~LANL010~~	~~27-JAN-10~~	~~19~~	~~49~~	~~1.264~~	~~8~~
246020012-1	RE15-10-7969	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	20	50	1.257	9
1202039558-1	MB for batch 951672	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	51	1	166
1202039559-1	RE15-10-7980(246020001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	22	52	1.270	10
1202039560-1	LCS for batch 951672	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	53	0.115g 2/18 CMM	11

* 2/25/10

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/25/10

0-42-246

Blank Correction Report

Batch ID 951672

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202039559	DUP	Uranium-233/234	1.27 g	0.280	0.0289	0.0392	.008503937	pCi/g	NO
		Uranium-235/236	1.27 g	0.0115	0.00478	0.025	.004543307	pCi/g	YES
		Uranium-238	1.27 g	0.412	0.0386	0.0268	.038582677	pCi/g	NO
1202039560	LCS	Uranium-233/234	0.115 g	6.11	0.542	0.348	.093913043	pCi/g	NO
		Uranium-235/236	0.115 g	0.409	0.0953	0.222	.050173913	pCi/g	NO
		Uranium-238	0.115 g	5.34	0.484	0.238	.426086957	pCi/g	NO
1202039558	MB	Uranium-233/234	1.00 g	0.0108	0.00398	0.0295	.0108	pCi/g	YES
		Uranium-235/236	1.00 g	0.00577	0.00291	0.0188	.00577	pCi/g	YES
		Uranium-238	1.00 g	0.049	0.00843	0.0201	.049	pCi/g	YES
245978008	RE15-10-7975	Uranium-233/234	1.27 g	1.60	0.126	0.0447	.008503937	pCi/g	NO
		Uranium-235/236	1.27 g	0.171	0.0229	0.0285	.004543307	pCi/g	NO
		Uranium-238	1.27 g	6.11	0.451	0.0305	.038582677	pCi/g	NO
245978009	RE15-10-7978	Uranium-233/234	1.26 g	0.461	0.0433	0.0435	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0213	0.00754	0.0278	.004579365	pCi/g	YES
		Uranium-238	1.26 g	0.609	0.0543	0.0297	.038888889	pCi/g	NO
245978010	RE15-10-7970	Uranium-233/234	1.26 g	0.309	0.0308	0.0384	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0226	0.00671	0.0245	.004579365	pCi/g	YES
		Uranium-238	1.26 g	1.16	0.0921	0.0262	.038888889	pCi/g	NO
245978011	RE15-10-7964	Uranium-233/234	1.25 g	0.444	0.0408	0.0385	.00864	pCi/g	NO
		Uranium-235/236	1.25 g	0.034	0.00836	0.0246	.004616	pCi/g	NO
		Uranium-238	1.25 g	0.509	0.0455	0.0263	.0392	pCi/g	NO
245978012	RE15-10-7973	Uranium-233/234	1.26 g	0.687	0.059	0.0404	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0772	0.0138	0.0258	.004579365	pCi/g	NO
		Uranium-238	1.26 g	2.27	0.172	0.0276	.038888889	pCi/g	NO
245978013	RE15-10-7962	Uranium-233/234	1.25 g	0.375	0.0354	0.0371	.00864	pCi/g	NO
		Uranium-235/236	1.25 g	0.0327	0.00805	0.0237	.004616	pCi/g	NO
		Uranium-238	1.25 g	0.937	0.0757	0.0254	.0392	pCi/g	NO
245978014	RE15-10-7963	Uranium-233/234	1.26 g	0.864	0.0709	0.0383	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0619	0.0119	0.0244	.004579365	pCi/g	NO
		Uranium-238	1.26 g	2.99	0.222	0.0261	.038888889	pCi/g	NO
245978015	RE15-10-7977	Uranium-233/234	1.26 g	1.00	0.0836	0.0453	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0555	0.0118	0.0289	.004579365	pCi/g	NO
		Uranium-238	1.26 g	2.21	0.171	0.0309	.038888889	pCi/g	NO
246020001	RE15-10-7980	Uranium-233/234	1.27 g	0.249	0.0258	0.0366	.008503937	pCi/g	NO
		Uranium-235/236	1.27 g	0.0215	0.00687	0.0233	.004543307	pCi/g	YES
		Uranium-238	1.27 g	0.316	0.0308	0.025	.038582677	pCi/g	NO
246020002	RE15-10-7958	Uranium-233/234	1.26 g	0.279	0.0281	0.0362	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.023	0.00659	0.0231	.004579365	pCi/g	NO
		Uranium-238	1.26 g	0.403	0.0371	0.0247	.038888889	pCi/g	NO
246020004	RE15-10-7979	Uranium-233/234	1.26 g	1.57	0.121	0.0392	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.113	0.0168	0.025	.004579365	pCi/g	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
246020004	RE15-10-7979	Uranium-238	1.26 g	4.15	0.304	0.0268	.038888889	pCi/g	NO
246020005	RE15-10-7972	Uranium-233/234	1.26 g	0.380	0.036	0.0381	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0448	0.00967	0.0243	.004579365	pCi/g	NO
		Uranium-238	1.26 g	1.34	0.104	0.026	.038888889	pCi/g	NO
246020007	RE15-10-7974	Uranium-233/234	1.26 g	0.275	0.028	0.0375	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0221	0.00705	0.0239	.004579365	pCi/g	YES
		Uranium-238	1.26 g	0.254	0.0264	0.0256	.038888889	pCi/g	NO
246020008	RE15-10-7961	Uranium-233/234	1.26 g	4.46	0.331	0.044	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.551	0.0524	0.028	.004579365	pCi/g	NO
		Uranium-238	1.26 g	23.1	1.67	0.030	.038888889	pCi/g	NO
246020009	RE15-10-7971	Uranium-233/234	1.25 g	2.33	0.173	0.0346	.00864	pCi/g	NO
		Uranium-235/236	1.25 g	0.278	0.0293	0.0221	.004616	pCi/g	NO
		Uranium-238	1.25 g	13.1	0.926	0.0236	.0392	pCi/g	NO
246020010	RE15-10-7966	Uranium-233/234	1.26 g	0.476	0.0401	0.0282	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.0442	0.00838	0.018	.004579365	pCi/g	NO
		Uranium-238	1.26 g	1.33	0.0991	0.0192	.038888889	pCi/g	NO
246020012	RE15-10-7969	Uranium-233/234	1.26 g	2.23	0.163	0.0313	.008571429	pCi/g	NO
		Uranium-235/236	1.26 g	0.305	0.0303	0.020	.004579365	pCi/g	NO
		Uranium-238	1.26 g	14.7	1.03	0.0214	.038888889	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 113	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978008_UU	DETECTOR S/N : 45-111B4	BKG FILE : B113.CNF;449
SAMPLE QTY : 1.272 G	AVERAGE %EFFICIENCY : 24.8218	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:20:46	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W113.CNF;125
% YIELD : 80.526		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6287E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5286.301	92.111	904.000	900.000	4.000	2.0000	100.0000	1.60E+00	1.26E-01	8.24E-03	2.13E-02	5.34E-02
U-3/4	4763.020	4744.499	79.682	904.000	901.089	2.000	4.8416	100.0000	1.60E+00	1.26E-01	2.00E-02	4.47E-02	5.33E-02
U-235	4391.000	4402.790	30.089	78.000	78.000	0.000	2.2152	80.90000	1.71E-01	2.29E-02	1.13E-02	2.85E-02	1.93E-02
U-238	4184.730	4176.119	83.135	3448.000	3448.000	0.000	3.1208	100.0000	6.11E+00	4.51E-01	1.29E-02	3.05E-02	1.04E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

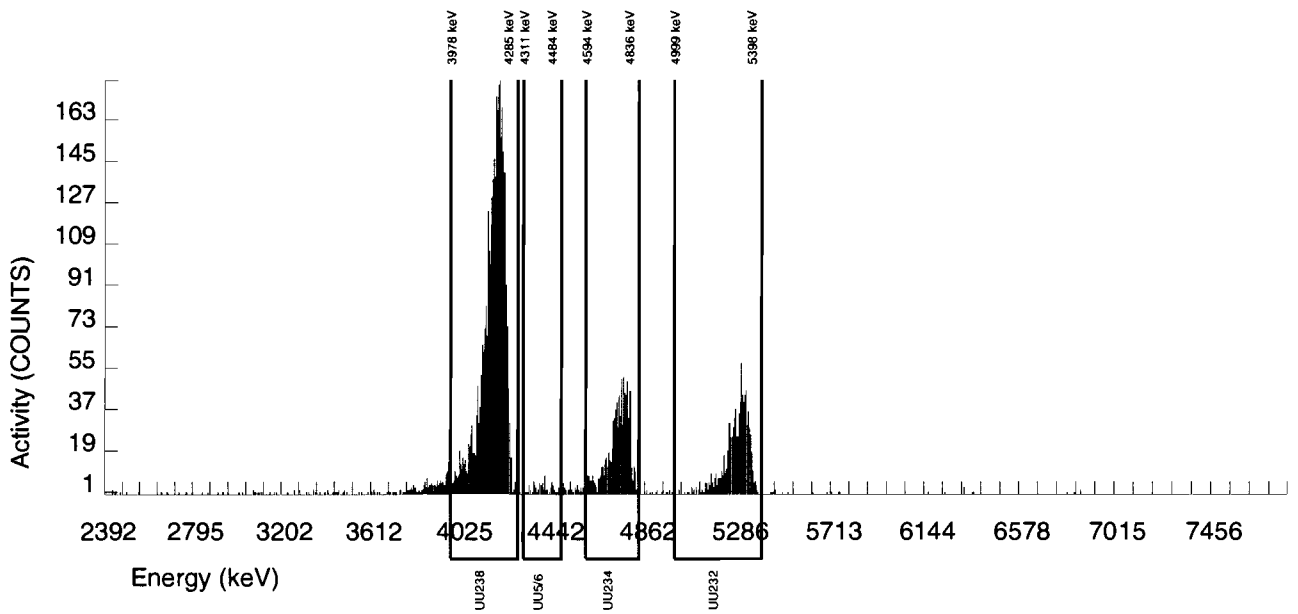

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 114	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978009_UU	DETECTOR S/N : 78258	BKG FILE : B114.CNF;450
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 25.4572	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:20:48	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W114.CNF;121
% YIELD : 81.395		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.6679E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.875	28.988	934.000	933.000	1.000	1.0000	100.0000	1.61E+00	1.27E-01	4.01E-03	1.27E-02	5.28E-02
U-3/4	4763.020	4756.922	59.228	268.000	267.056	0.000	4.8416	100.0000	4.61E-01	4.33E-02	1.94E-02	4.35E-02	2.82E-02
U-235	4391.000	4393.889	5.772	11.000	10.000	1.000	2.2152	80.90000	2.13E-02	7.54E-03	1.10E-02	2.78E-02	7.39E-03
U-238	4184.730	4189.260	51.201	354.000	353.000	1.000	3.1208	100.0000	6.09E-01	5.43E-02	1.25E-02	2.97E-02	3.25E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

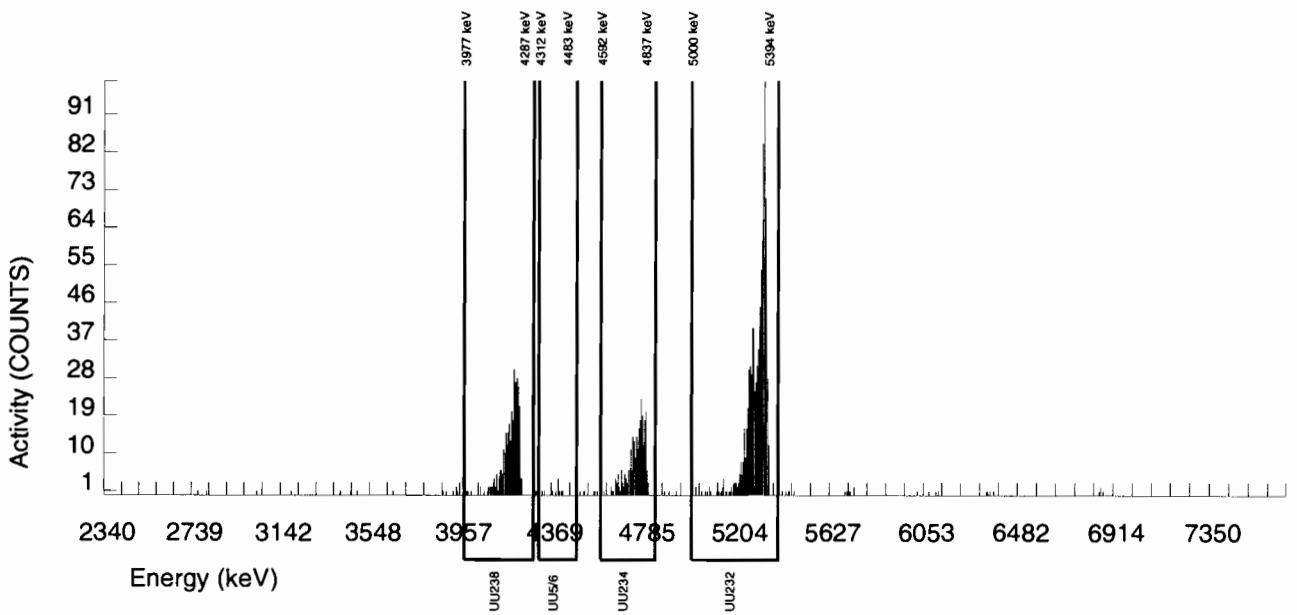

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 115	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978010_UU	DETECTOR S/N : 79995	BKG FILE : B115.CNF;457
SAMPLE QTY : 1.260 G	AVERAGE %EFFICIENCY : 25.6793	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:20:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W115.CNF;149
% YIELD : 91.502		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1233E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.409	67.053	1060.000	1058.000	2.000	1.4142	100.0000	1.61E+00	1.24E-01	5.01E-03	1.41E-02	4.96E-02
U-3/4	4763.020	4760.104	36.385	205.000	202.929	1.000	4.8416	100.0000	3.09E-01	3.08E-02	1.71E-02	3.84E-02	2.18E-02
U-235	4391.000	4387.526	62.108	12.000	12.000	0.000	2.2152	80.90000	2.26E-02	6.71E-03	9.69E-03	2.45E-02	6.51E-03
U-238	4184.730	4186.931	44.782	764.000	764.000	0.000	3.1208	100.0000	1.16E+00	9.21E-02	1.10E-02	2.62E-02	4.21E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

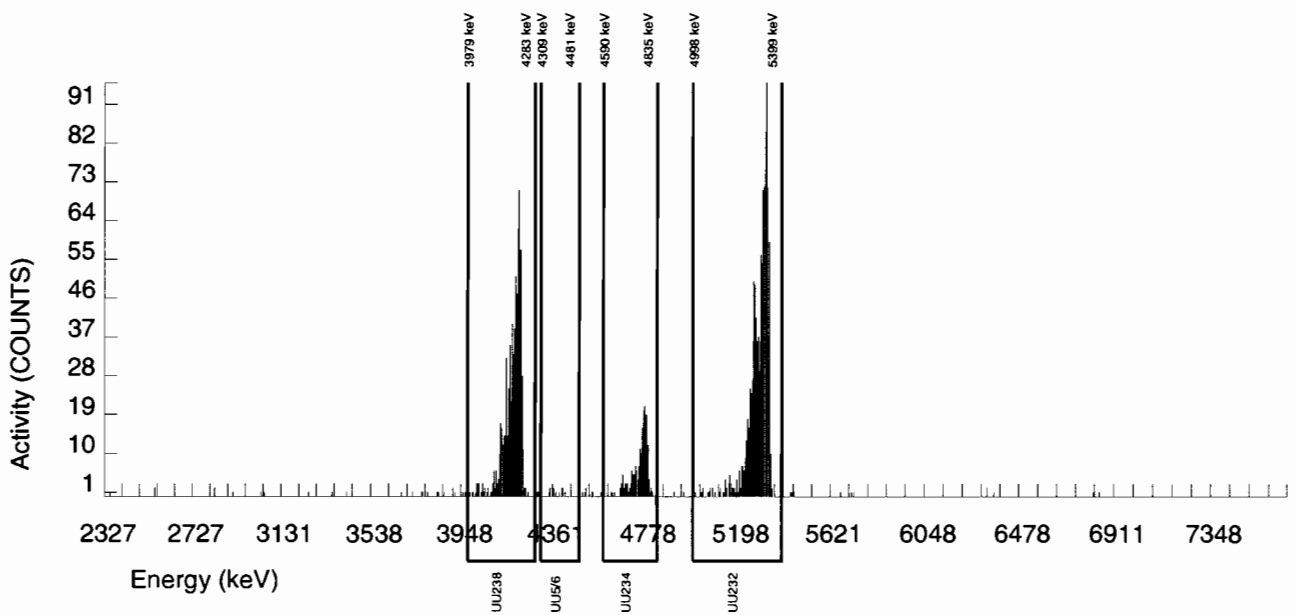

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 119	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978011_UU	DETECTOR S/N : 79450	BKG FILE : B119.CNF;463
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 25.5204	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:20:58	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W119.CNF;121
% YIELD : 92.245		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1568E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5300.475	37.493	1061.000	1060.000	1.000	1.0000	100.0000	1.62E+00	1.25E-01	3.55E-03	1.12E-02	4.98E-02
U-3/4	4763.020	4759.317	51.947	293.000	290.927	1.000	4.8416	100.0000	4.44E-01	4.08E-02	1.72E-02	3.85E-02	2.61E-02
U-235	4391.000	4402.705	7.261	18.000	18.000	0.000	2.2152	80.90000	3.40E-02	8.36E-03	9.73E-03	2.46E-02	8.01E-03
U-238	4184.730	4184.762	44.178	334.000	333.000	1.000	3.1208	100.0000	5.09E-01	4.55E-02	1.11E-02	2.63E-02	2.80E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

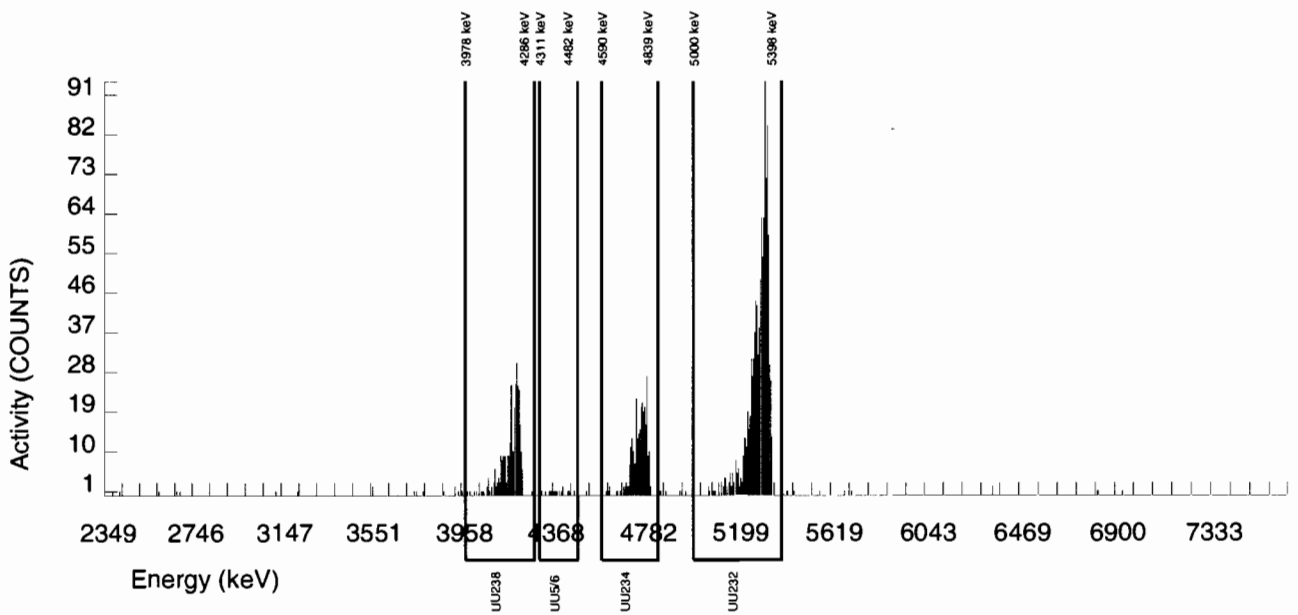

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 120	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978012_UU	DETECTOR S/N : 74430	BKG FILE : B120.CNF;467
SAMPLE QTY : 1.255 G	AVERAGE %EFFICIENCY : 26.1342	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:01	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W120.CNF;128
% YIELD : 85.745		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8639E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.438	28.879	1011.000	1009.000	2.000	1.4142	100.0000	1.62E+00	1.25E-01	5.27E-03	1.49E-02	5.10E-02
U-3/4	4763.020	4760.547	53.767	433.000	428.979	3.000	4.8416	100.0000	6.87E-01	5.90E-02	1.80E-02	4.04E-02	3.34E-02
U-235	4391.000	4407.349	46.884	40.000	39.000	1.000	2.2152	80.90000	7.72E-02	1.38E-02	1.02E-02	2.58E-02	1.27E-02
U-238	4184.730	4190.540	56.987	1420.000	1420.000	0.000	3.1208	100.0000	2.27E+00	1.72E-01	1.16E-02	2.76E-02	6.04E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

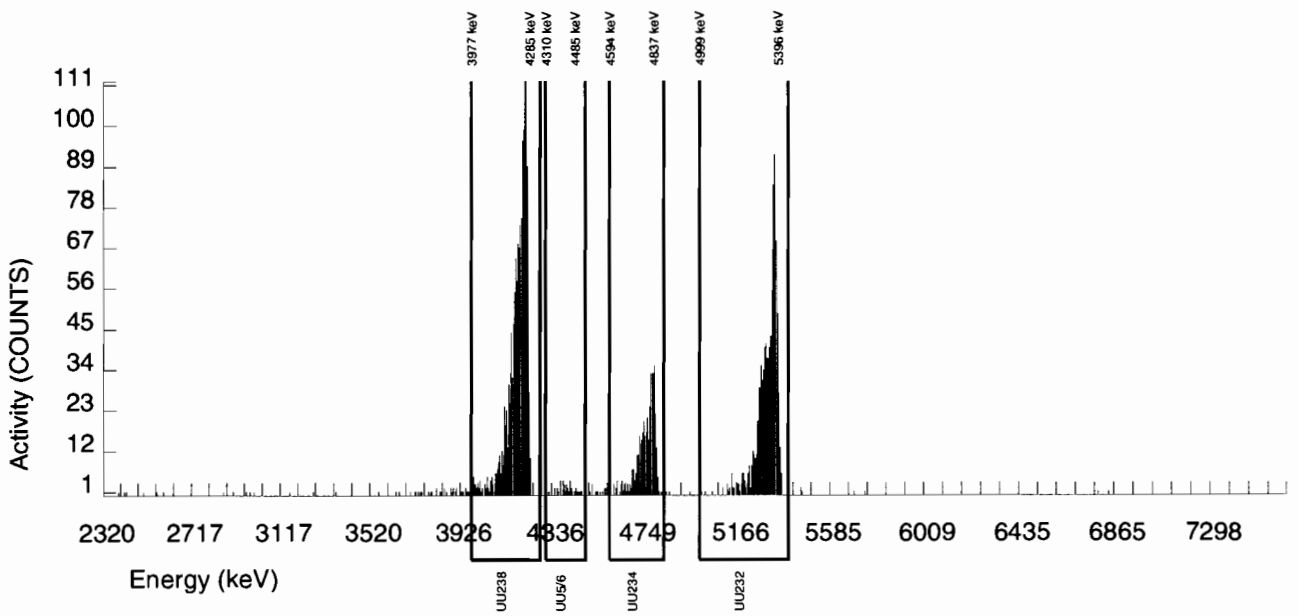

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 121	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978013_UU	DETECTOR S/N : 75545	BKG FILE : B121.CNF;449
SAMPLE QTY : 1.253 G	AVERAGE %EFFICIENCY : 24.6447	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:03	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W121.CNF;119
% YIELD : 99.127		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4670E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.083	37.358	1105.000	1100.000	5.000	2.2361	100.0000	1.62E+00	1.24E-01	7.65E-03	1.93E-02	4.91E-02
U-3/4	4763.020	4757.733	71.296	257.000	254.887	1.000	4.8416	100.0000	3.75E-01	3.54E-02	1.66E-02	3.71E-02	2.36E-02
U-235	4391.000	4420.150	29.604	18.000	18.000	0.000	2.2152	80.90000	3.27E-02	8.05E-03	9.37E-03	2.37E-02	7.72E-03
U-238	4184.730	4193.989	54.211	637.000	637.000	0.000	3.1208	100.0000	9.37E-01	7.57E-02	1.07E-02	2.54E-02	3.71E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

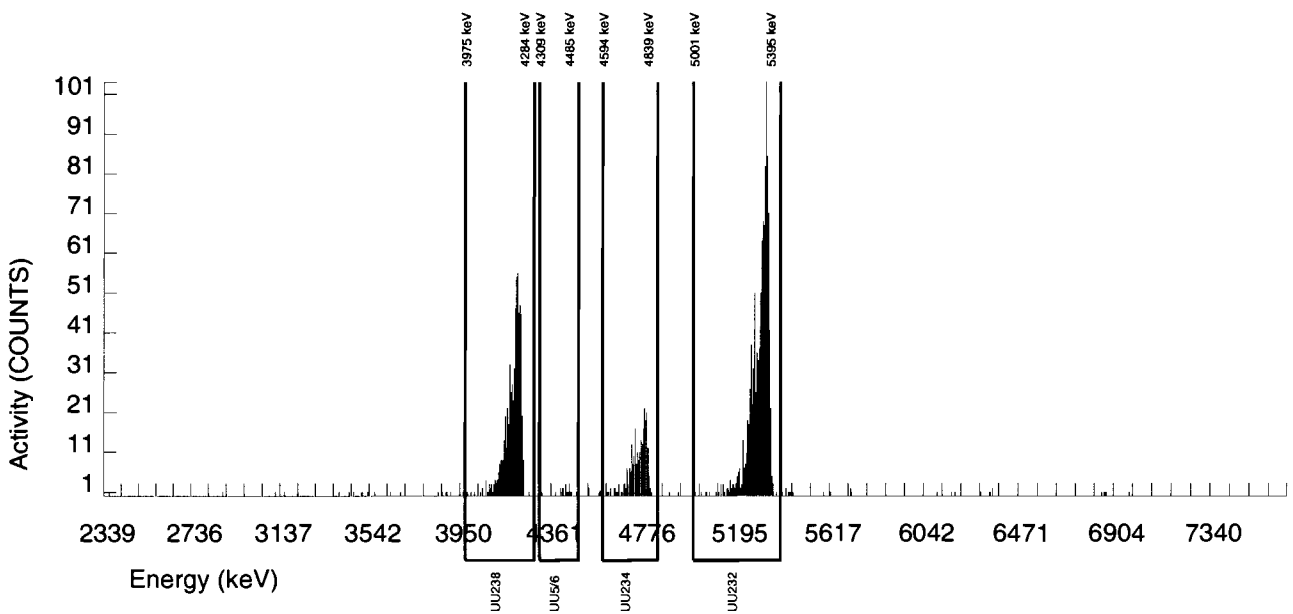

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 122	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978014_UU	DETECTOR S/N : 75546	BKG FILE : B122.CNF;451
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 25.7131	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W122.CNF;122
% YIELD : 91.899		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.1413E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5299.044	59.799	1071.000	1064.000	7.000	2.6458	100.0000	1.61E+00	1.24E-01	9.33E-03	2.28E-02	4.98E-02
U-3/4	4763.020	4757.971	62.592	572.000	569.923	1.000	4.8416	100.0000	8.64E-01	7.09E-02	1.71E-02	3.83E-02	3.63E-02
U-235	4391.000	4406.237	135.954	34.000	33.000	1.000	2.2152	80.90000	6.19E-02	1.19E-02	9.66E-03	2.44E-02	1.11E-02
U-238	4184.730	4187.826	53.972	1973.000	1973.000	0.000	3.1208	100.0000	2.99E+00	2.22E-01	1.10E-02	2.61E-02	6.74E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

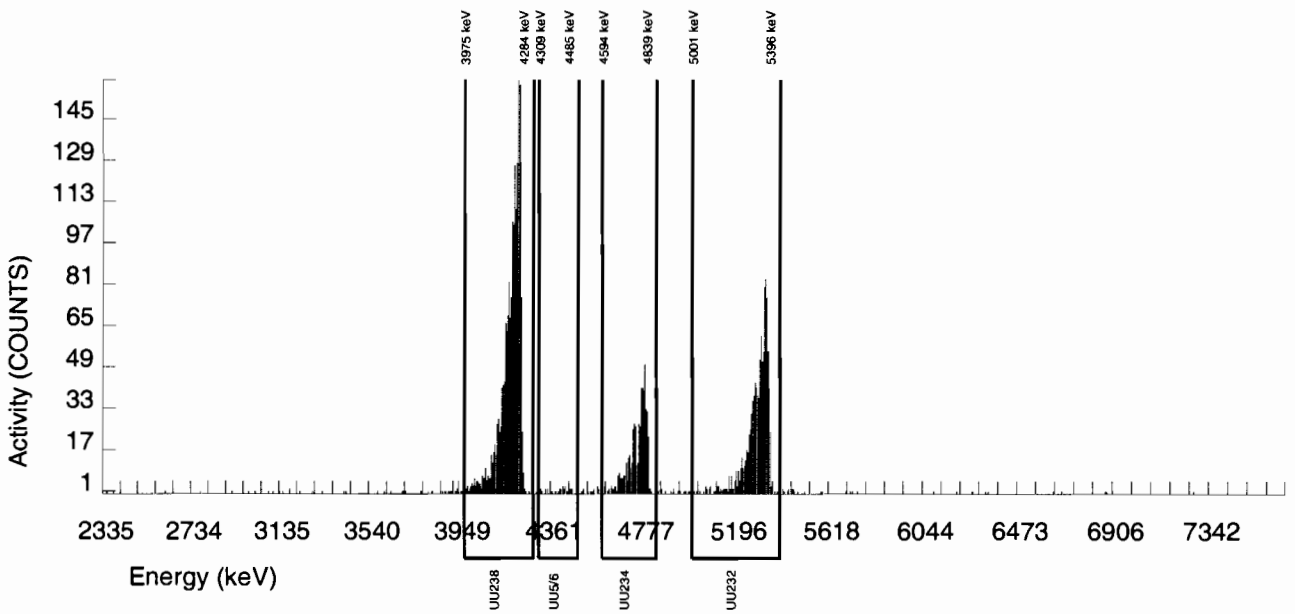

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 123	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978015_UU	DETECTOR S/N : 45-142V3	BKG FILE : B123.CNF;449
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 25.6683	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:08	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W123.CNF;118
% YIELD : 77.784		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.5052E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5305.785	71.510	905.000	899.000	6.000	2.4495	100.0000	1.61E+00	1.28E-01	1.02E-02	2.53E-02	5.42E-02
U-3/4	4763.020	4761.071	65.659	561.000	559.090	1.000	4.8416	100.0000	1.00E+00	8.36E-02	2.02E-02	4.53E-02	4.25E-02
U-235	4391.000	4416.156	18.043	25.000	25.000	0.000	2.2152	80.90000	5.55E-02	1.18E-02	1.14E-02	2.89E-02	1.11E-02
U-238	4184.730	4191.373	63.329	1234.000	1234.000	0.000	3.1208	100.0000	2.21E+00	1.71E-01	1.30E-02	3.09E-02	6.30E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

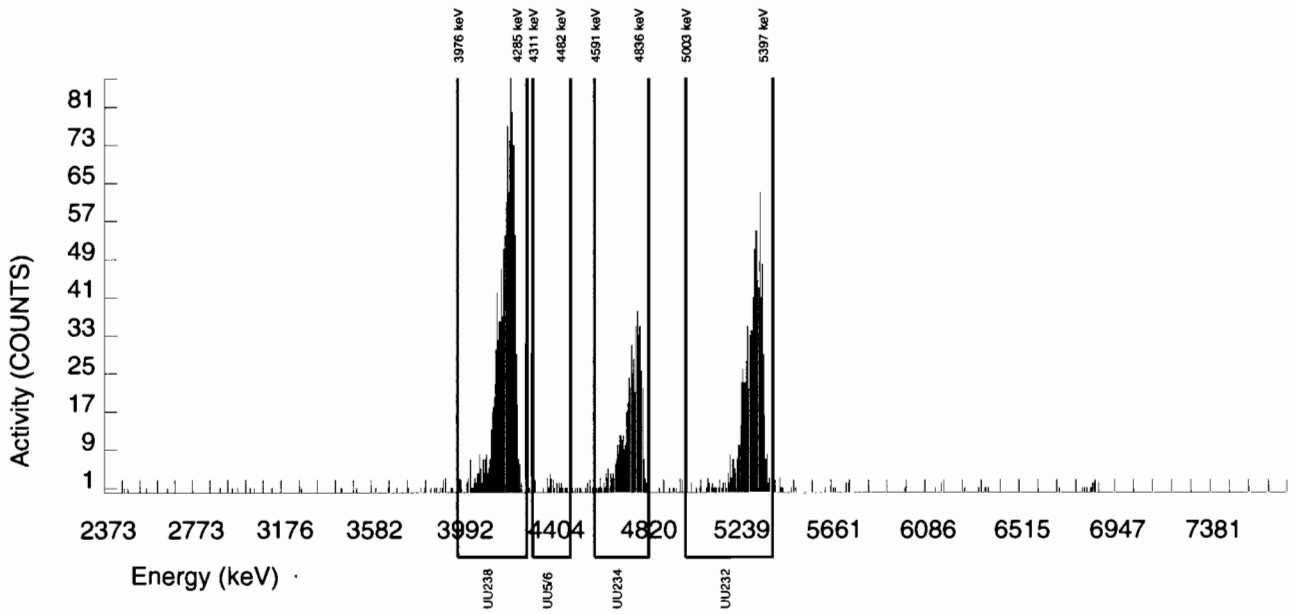

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 124	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0246020001_UU	DETECTOR S/N : 45-142V2	BKG FILE : B124.CNF;445
SAMPLE QTY : 1.265 G	AVERAGE %EFFICIENCY : 25.9705	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:21:10	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W124.CNF;114
% YIELD : 94.666		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.2659E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5295.275	83.338	1109.000	1107.000	2.000	1.4142	100.0000	1.60E+00	1.23E-01	4.77E-03	1.35E-02	4.83E-02
U-3/4	4763.020	4746.444	28.545	173.000	171.879	0.000	4.8416	100.0000	2.49E-01	2.58E-02	1.63E-02	3.66E-02	1.90E-02
U-235	4391.000	4404.660	0.000	13.000	12.000	1.000	2.2152	80.90000	2.15E-02	6.87E-03	9.23E-03	2.33E-02	6.70E-03
U-238	4184.730	4184.963	56.144	218.000	218.000	0.000	3.1208	100.0000	3.16E-01	3.08E-02	1.05E-02	2.50E-02	2.14E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

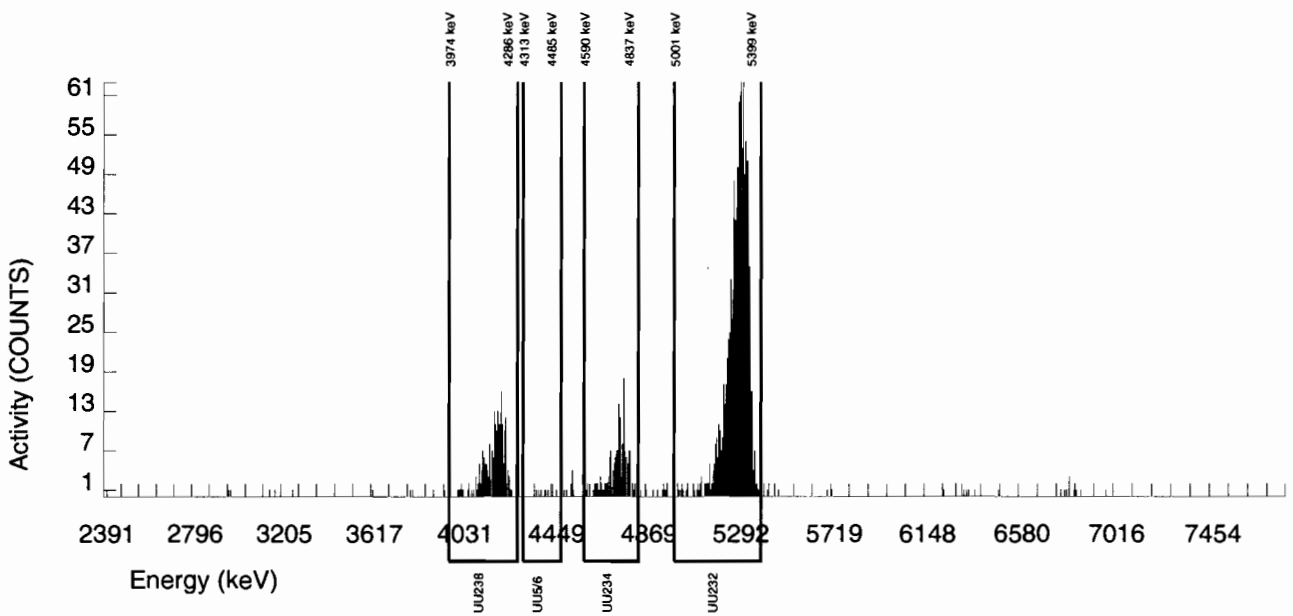

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 166	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202039558_UU	DETECTOR S/N : 74545	BKG FILE : B166.CNF;173
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 39.4562	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 24-FEB-2010 09:54:24	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W166.CNF;58
% YIELD : 97.771		CAL DATE : 22-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5036E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4032E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.138	38.766	1743.000	1737.000	6.000	2.4495	100.0000	2.03E+00	1.46E-01	6.65E-03	1.65E-02	4.88E-02
U-3/4	4763.020	4701.810	162.298	12.000	9.242	1.000	4.8416	100.0000	1.08E-02	3.98E-03	1.32E-02	2.95E-02	3.92E-03
U-235	4391.000	4365.460	68.854	4.000	4.000	0.000	2.2152	80.90000	5.77E-03	2.91E-03	7.44E-03	1.88E-02	2.89E-03
U-238	4184.730	4162.271	31.063	43.000	42.000	1.000	3.1208	100.0000	4.90E-02	8.43E-03	8.48E-03	2.01E-02	7.75E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

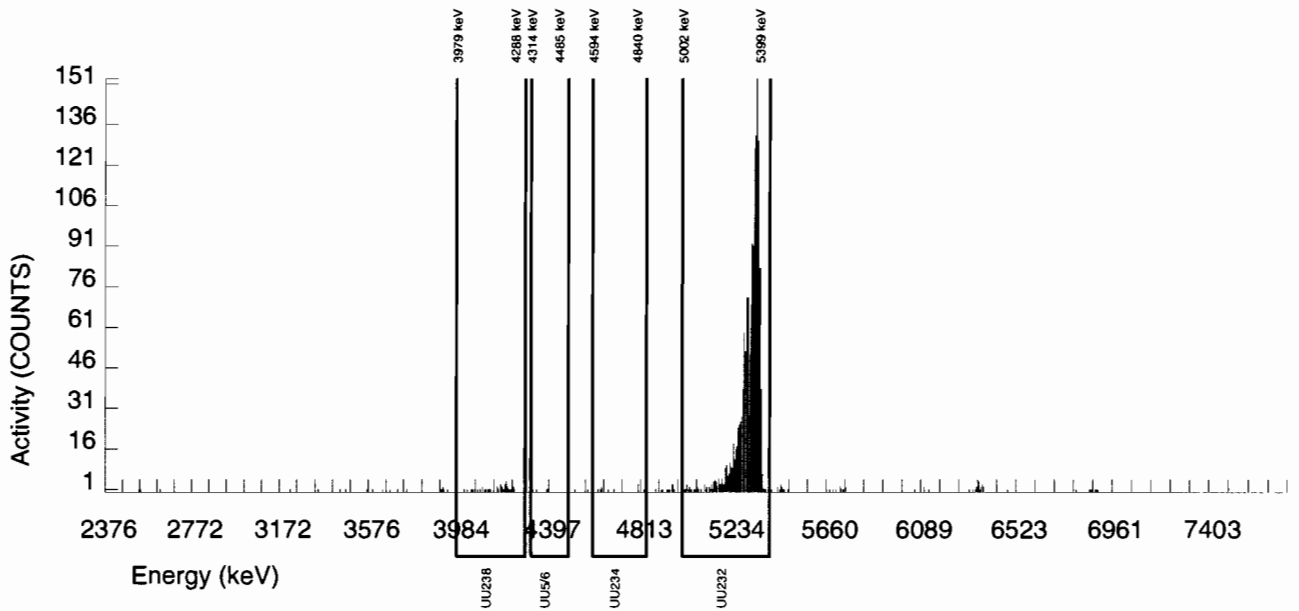

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 010	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202039559_UU	DETECTOR S/N : 72529	BKG FILE : B010.CNF;1126
SAMPLE QTY : 1.270 G	AVERAGE %EFFICIENCY : 31.8962	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:02:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W010.CNF;335
% YIELD : 71.508		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.2224E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5314.646	32.698	1036.000	1027.000	9.000	3.0000	100.0000	1.60E+00	1.24E-01	1.09E-02	2.59E-02	5.03E-02
U-3/4	4763.020	4768.191	23.687	182.000	179.960	1.000	4.8416	100.0000	2.80E-01	2.89E-02	1.75E-02	3.92E-02	2.10E-02
U-235	4391.000	4436.009	4.951	6.000	6.000	0.000	2.2152	80.90000	1.15E-02	4.78E-03	9.91E-03	2.50E-02	4.71E-03
U-238	4184.730	4192.995	33.245	265.000	265.000	0.000	3.1208	100.0000	4.12E-01	3.86E-02	1.13E-02	2.68E-02	2.53E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

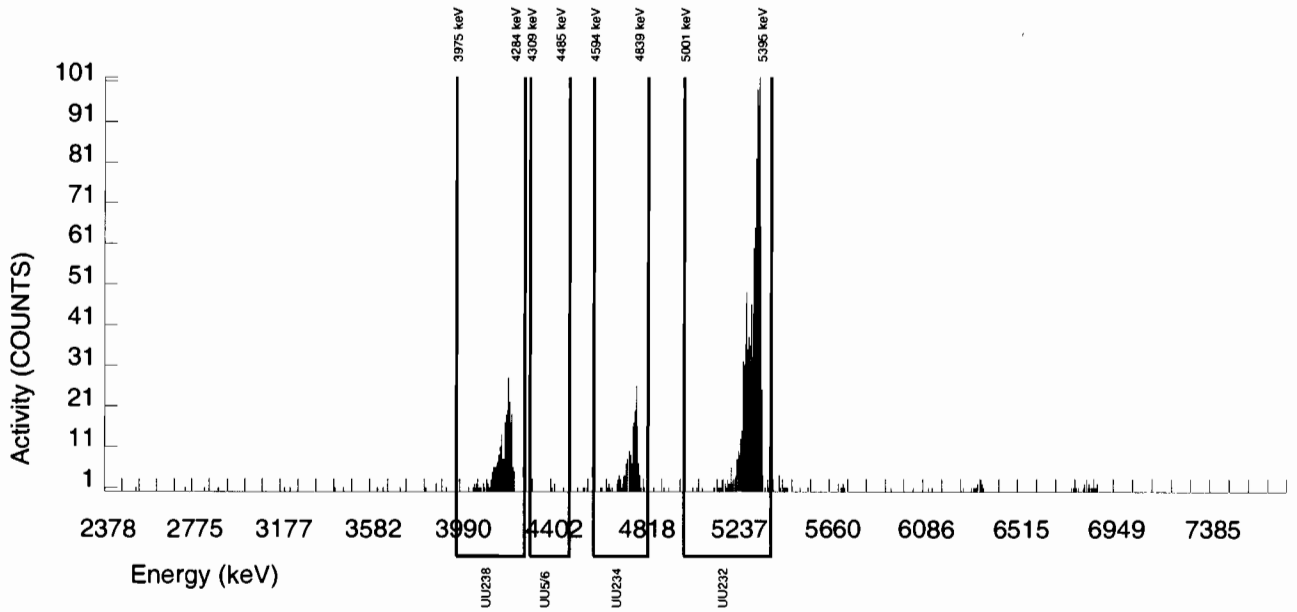

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 951672	CHAMBER : 011	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202039560_UU	DETECTOR S/N : 72531	BKG FILE : B011.CNF;1118
SAMPLE QTY : 0.115 G	AVERAGE %EFFICIENCY : 29.6489	BKG DATE : 21-FEB-2010
SAMPLE DATE : 18-FEB-2010 00:00:00	COUNT DATE : 24-FEB-2010 13:02:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W011.CNF;313
% YIELD : 95.730		CAL DATE : 3-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5036E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3113E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5312.083	30.915	1286.000	1278.000	8.000	2.8284	100.0000	1.76E+01	1.41E+00	9.08E-02	2.19E-01	4.97E-01
U-3/4	4763.020	4765.798	39.118	445.000	442.706	1.000	4.8416	100.0000	6.11E+00	5.42E-01	1.55E-01	3.48E-01	2.91E-01
U-235	4391.000	4413.266	69.936	26.000	24.000	2.000	2.2152	80.90000	4.09E-01	9.53E-02	8.79E-02	2.22E-01	9.03E-02
U-238	4184.730	4191.473	50.718	390.000	387.000	3.000	3.1208	100.0000	5.34E+00	4.84E-01	1.00E-01	2.38E-01	2.74E-01

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

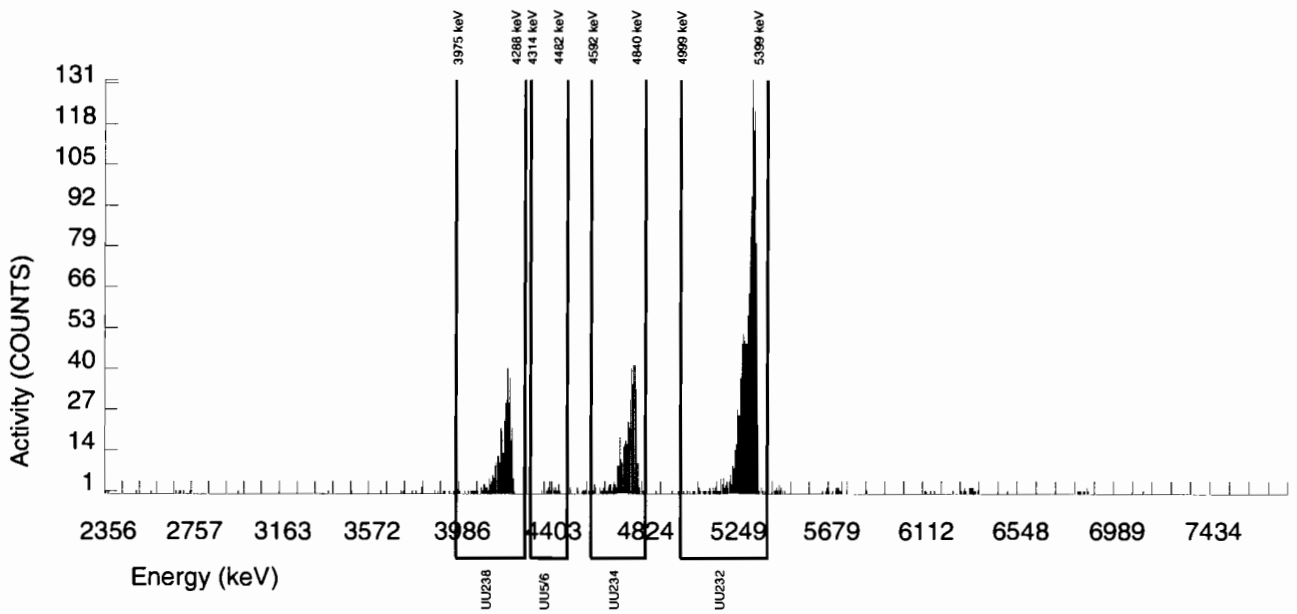

Radiochemistry Batch Checklist, Rev10

Batch# 953 488 Product: U Date: 2/24/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JapLMC - 2/24/10

Secondary Review Performed By: [illegible] 2/24/10

3/2

P ✓

Uranium Que Sheet

15-FEB-10

Batch #: 953488 Analyst: HAKB First Client Due Date:02-MAR-10 Internal Due Date:24-FEB-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: Ø.1

LCS Isotope: U-238 LCS Code: SRM 0244-A Expiration Date: 10/31/20 Vol: 0.103

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/16/10 Initials: HAKB Pipet ID: 2971058 Balance ID: 50410272 Witness: JHO 02/16/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (W / I / f)	U Det #
245978002-2	RE15-10-7891	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	1	1	0.108	125
245978004-2	RE15-10-7967	SAMPLE		.1 pCi/g	SOIL	LANL010	27-JAN-10	2	2	0.114	126
1202044051-1	MB for batch 953488	MB		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		3	3	1	167
1202044052-2	RE15-10-7891(245978002DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	4	4	0.101	127
1202044053-1	LCS for batch 953488	LCS		UCF pCi/g to pCi/	SOIL	QC ACCOUNT		5	5	0.103	128

*SRM 0244-A Exp 10/31/20

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: JoLM 2/24/10

Blank Correction Report

Batch ID 953488

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202044052	DUP	Uranium-233/234	0.101 g	18.9	1.60	0.518	.233663366	pCi/g	NO
		Uranium-235/236	0.101 g	2.23	0.295	0.330	.057128713	pCi/g	NO
		Uranium-238	0.101 g	79.4	6.31	0.354	.126732673	pCi/g	NO
1202044053	LCS	Uranium-233/234	0.103 g	5.86	0.555	0.452	.229126214	pCi/g	NO
		Uranium-235/236	0.103 g	0.266	0.0794	0.288	.056019417	pCi/g	YES
		Uranium-238	0.103 g	5.91	0.559	0.309	.124271845	pCi/g	NO
1202044051	MB	Uranium-233/234	1.00 g	0.0236	0.00596	0.0295	.0236	pCi/g	YES
		Uranium-235/236	1.00 g	0.00577	0.00356	0.0188	.00577	pCi/g	YES
		Uranium-238	1.00 g	0.0128	0.0046	0.0201	.0128	pCi/g	YES
245978002	RE15-10-7891	Uranium-233/234	0.108 g	19.6	1.80	0.430	.218518519	pCi/g	NO
		Uranium-235/236	0.108 g	1.83	0.241	0.274	.053425926	pCi/g	NO
		Uranium-238	0.108 g	77.0	5.98	0.293	.118518519	pCi/g	NO
245978004	RE15-10-7967	Uranium-233/234	0.114 g	21.5	1.76	0.469	.207017544	pCi/g	NO
		Uranium-235/236	0.114 g	2.75	0.328	0.299	.050614035	pCi/g	NO
		Uranium-238	0.114 g	150	11.7	0.320	.112280702	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953488	CHAMBER : 125	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978002_UU	DETECTOR S/N : 75547	BKG FILE : B125.CNF;455
SAMPLE QTY : 0.108 G	AVERAGE %EFFICIENCY : 25.6687	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 10:43:38	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W125.CNF;132
% YIELD : 95.430		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3004E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5294.003	50.629	1104.000	1103.000	1.000	1.0000	100.0000	1.88E+01	1.54E+00	3.96E-02	1.25E-01	5.66E-01
U-3/4	4763.020	4750.368	64.524	1153.000	1150.884	1.000	4.8416	100.0000	1.96E+01	1.60E+00	1.92E-01	4.30E-01	5.78E-01
U-235	4391.000	4392.147	0.000	87.000	87.000	0.000	2.2152	80.90000	1.83E+00	2.41E-01	1.08E-01	2.74E-01	1.96E-01
U-238	4184.730	4179.480	57.741	4520.000	4520.000	0.000	3.1208	100.0000	7.70E+01	5.98E+00	1.24E-01	2.93E-01	1.14E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

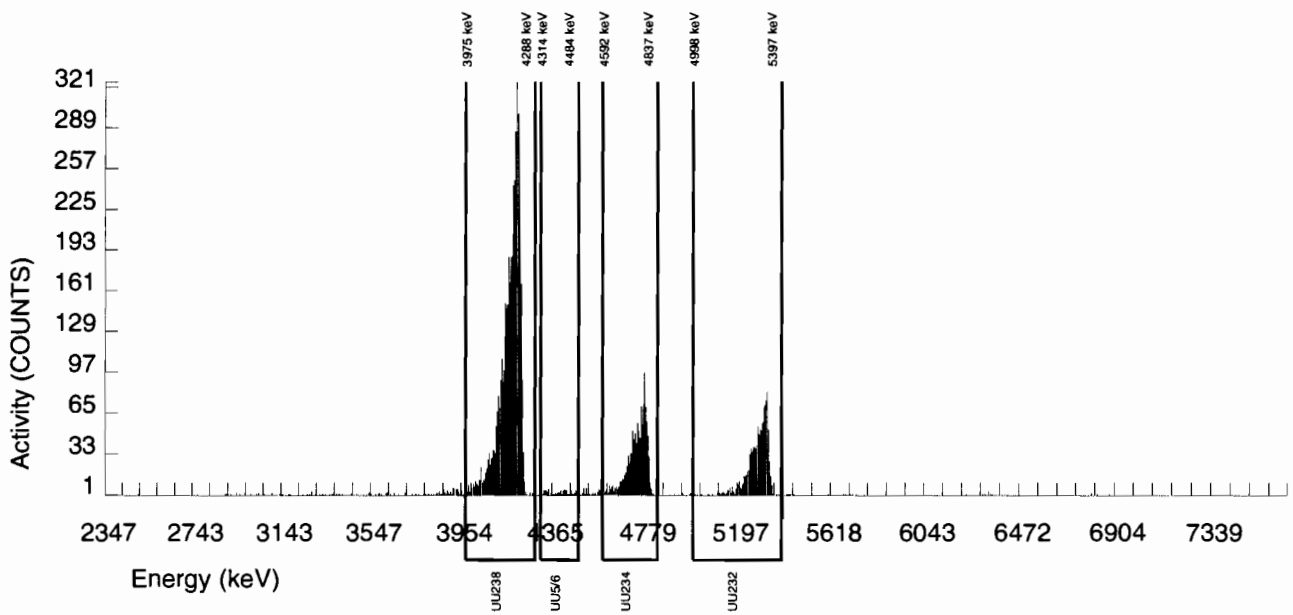

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953488	CHAMBER : 126	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0245978004_UU	DETECTOR S/N : 75548	BKG FILE : B126.CNF;454
SAMPLE QTY : 0.114 G	AVERAGE %EFFICIENCY : 25.0705	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 10:43:40	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W126.CNF;134
% YIELD : 84.862		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.8241E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.449	67.086	962.000	958.000	4.000	2.0000	100.0000	1.78E+01	1.48E+00	8.64E-02	2.23E-01	5.78E-01
U-3/4	4763.020	4758.333	71.655	1158.000	1156.030	1.000	4.8416	100.0000	2.15E+01	1.76E+00	2.09E-01	4.69E-01	6.32E-01
U-235	4391.000	4412.001	36.589	120.000	120.000	0.000	2.2152	80.90000	2.75E+00	3.28E-01	1.18E-01	2.99E-01	2.51E-01
U-238	4184.730	4185.379	71.210	8102.000	8102.000	0.000	3.1208	100.0000	1.50E+02	1.17E+01	1.35E-01	3.20E-01	1.67E+00

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

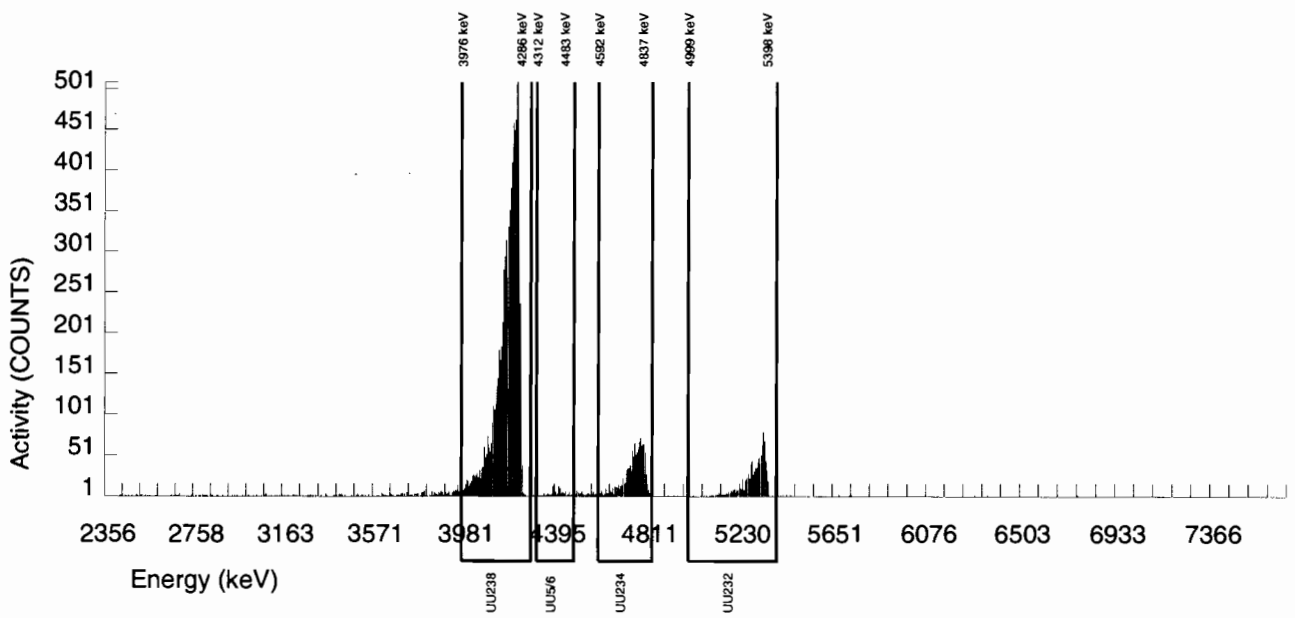

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953488	CHAMBER : 167	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202044051_UU	DETECTOR S/N : 72546	BKG FILE : B167.CNF;173
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 38.5981	BKG DATE : 21-FEB-2010
SAMPLE DATE : 16-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 10:41:59	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W167.CNF;58
% YIELD : 99.999		CAL DATE : 22-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5038E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.5038E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5298.228	65.168	1743.000	1738.000	5.000	2.2361	100.0000	2.03E+00	1.46E-01	6.07E-03	1.53E-02	4.88E-02
U-3/4	4763.020	4714.394	139.837	24.000	20.241	2.000	4.8416	100.0000	2.36E-02	5.96E-03	1.31E-02	2.95E-02	5.75E-03
U-235	4391.000	4381.996	0.000	5.000	4.000	1.000	2.2152	80.90000	5.77E-03	3.56E-03	7.43E-03	1.88E-02	3.53E-03
U-238	4184.730	4142.053	234.901	13.000	11.000	2.000	3.1208	100.0000	1.28E-02	4.60E-03	8.47E-03	2.01E-02	4.52E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

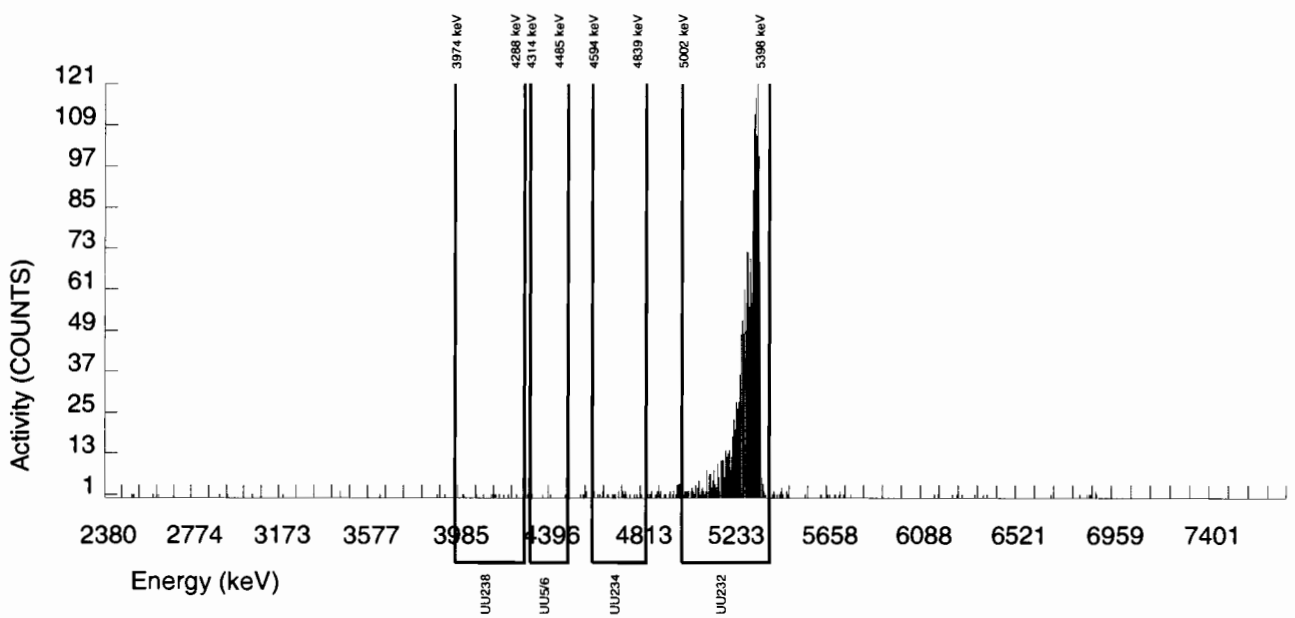

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953488	CHAMBER : 127	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202044052_UU	DETECTOR S/N : 78770	BKG FILE : B127.CNF;458
SAMPLE QTY : 0.101 G	AVERAGE %EFFICIENCY : 24.4938	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 23-FEB-2010 10:43:43	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W127.CNF;125
% YIELD : 88.674		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5063E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9959E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5289.794	76.433	980.000	978.000	2.000	1.4142	100.0000	2.01E+01	1.69E+00	6.76E-02	1.91E-01	6.44E-01
U-3/4	4763.020	4742.455	43.834	922.000	920.010	1.000	4.8416	100.0000	1.89E+01	1.60E+00	2.31E-01	5.18E-01	6.24E-01
U-235	4391.000	4399.909	103.620	88.000	88.000	0.000	2.2152	80.90000	2.23E+00	2.95E-01	1.31E-01	3.30E-01	2.38E-01
U-238	4184.730	4172.280	61.798	3865.000	3865.000	0.000	3.1208	100.0000	7.94E+01	6.31E+00	1.49E-01	3.54E-01	1.28E+00

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

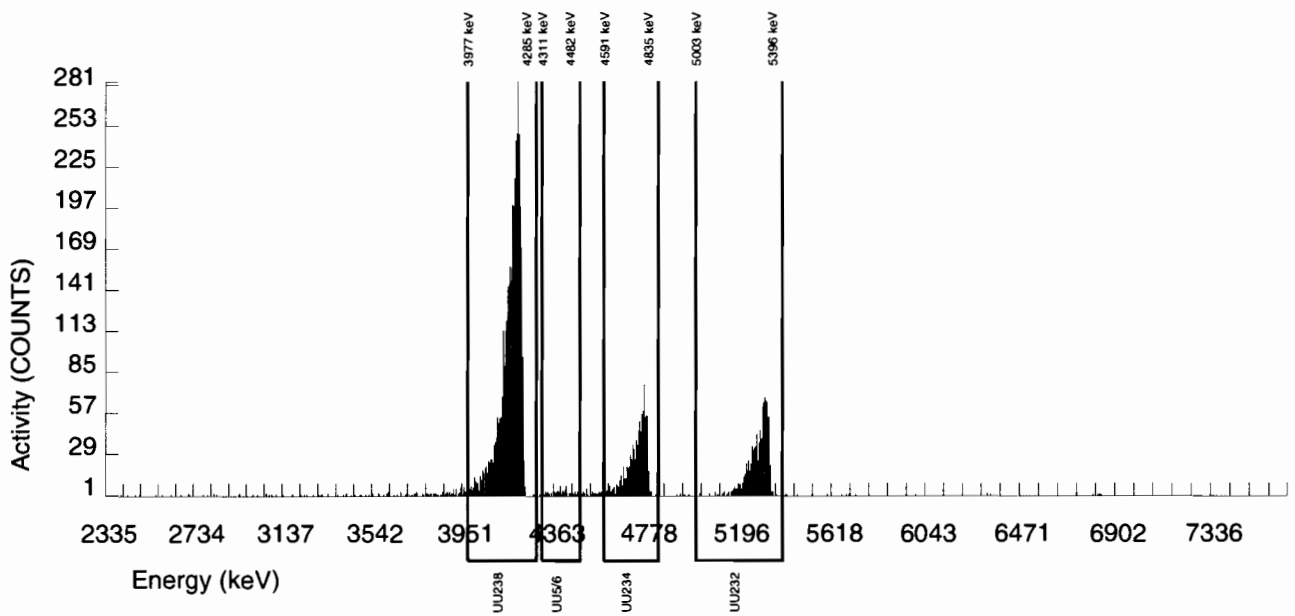

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 953488	CHAMBER : 128	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202044053_UU	DETECTOR S/N : 75549	BKG FILE : B128.CNF;464
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 25.4275	BKG DATE : 21-FEB-2010
SAMPLE DATE : 16-FEB-2010 00:00:00	COUNT DATE : 23-FEB-2010 10:43:46	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W128.CNF;135
% YIELD : 95.986		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5038E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3230E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5303.295	66.442	1100.000	1099.000	1.000	1.0000	100.0000	1.97E+01	1.63E+00	4.17E-02	1.32E-01	5.95E-01
U-3/4	4763.020	4763.748	49.982	328.000	326.888	0.000	4.8416	100.0000	5.86E+00	5.55E-01	2.02E-01	4.52E-01	3.24E-01
U-235	4391.000	4405.308	37.495	12.000	12.000	0.000	2.2152	80.90000	2.66E-01	7.94E-02	1.14E-01	2.88E-01	7.67E-02
U-238	4184.730	4182.141	45.628	330.000	330.000	0.000	3.1208	100.0000	5.91E+00	5.59E-01	1.30E-01	3.09E-01	3.26E-01

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

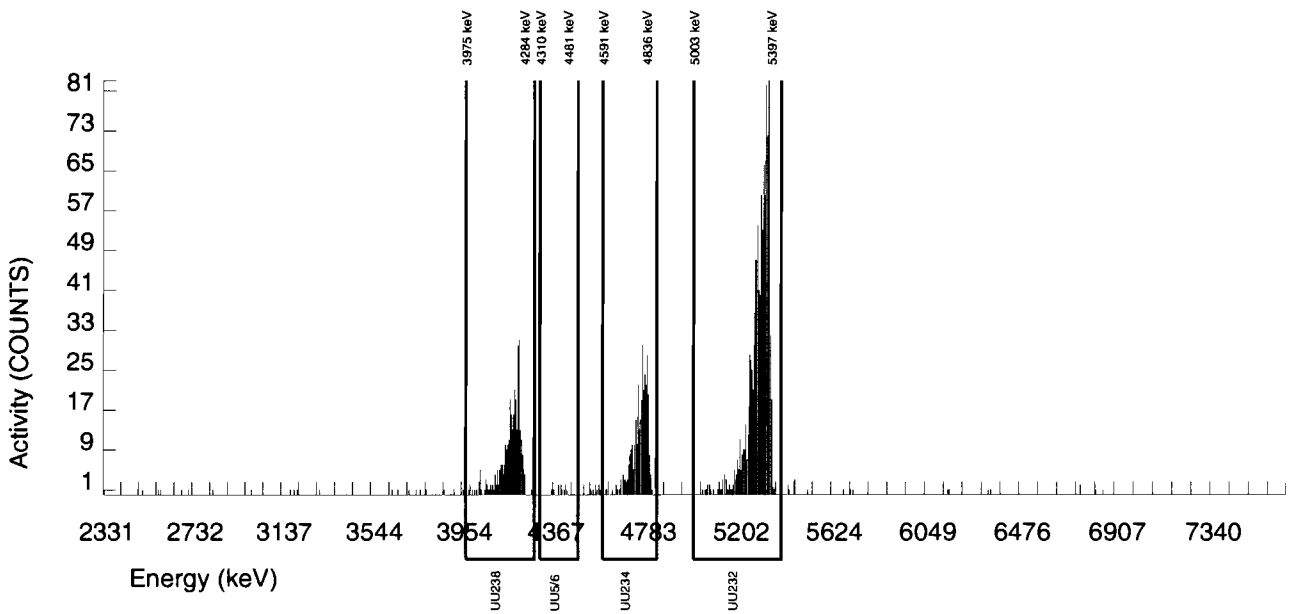

Radiochemistry Batch Checklist, Rev10

Batch# 954009 Product: Am Date: 2/20/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoeLAL 2/20/10

Secondary Review Performed By: [illegible] 2/20/10

3/2

LANL

✓ P

Am/Cm Que Sheet

16-FEB-10

Batch #: 954009 Analyst: HAKB First Client Due Date: 02-MAR-10 Internal Due Date24-FEB-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-SS Expiration Date: 5/11/10 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): SRM0244-B / NA Expiration Date: 4/30/20 / NA Vol(s): 0.111g NA

Spike Isotope(s): Am241/Cm244 Spike Code(s): NA / NA Expiration Date: NA / NA Vol(s): NA / NA

Prep Date: 2/17/10 Initials: HAKB Pipet ID: 29710058 Balance ID: 19350208 Witness: [illegible] 02/17/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
245978007-2	RE15-10-7965	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	1	1	1.263	107
1202045187-1	MB for batch 954009	MB		UCF pCi/g to pCi/SOIL		QC ACCOUNT		2	2	1	108
1202045188-2	RE15-10-7965(245978007DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	3	3	1.263	109
1202045189-1	LCS for batch 954009	* LCS SRM 0244-B		UCF pCi/g to pCi/SOIL		QC ACCOUNT		4	4	0.111	111

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 2/20/10

Blank Correction Report

Batch ID 954009

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202045188	DUP	Americium-241	1.26 g	0.0057	0.00269	0.0199	.001753968	pCi/g	YES
1202045189	LCS	Americium-241	0.111 g	28.1	1.94	0.197	.019909910	pCi/g	NO
1202045187	MB	Americium-241	1.00 g	0.00221	0.00351	0.0239	.00221	pCi/g	YES
245978007	RE15-10-7965	Americium-241	1.26 g	-0.00181	0.0028	0.0208	.001753968	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954009	CHAMBER : 111	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202045189_AM	DETECTOR S/N : 79462	BKG FILE : B111.CNF;679
SAMPLE QTY : 0.111 G	AVERAGE %EFFICIENCY : 33.1216	BKG DATE : 14-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 19-FEB-2010 15:53:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W111.CNF;209
% YIELD : 107.170		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 3.1257E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5490.133	45.054	2171.000	2168.202	1.000	2.8409	99.94000	2.48E+01	1.70E+00	7.56E-02	1.82E-01	5.33E-01
AM243	5270.000	5268.306	59.274	1034.000	1033.000	1.000	1.0000	99.78000	1.18E+01	8.54E-01	2.67E-02	8.44E-02	3.69E-01
CM-242	6102.000	6052.737	9.317	2.000	-1.000	3.000	4.3413	100.0000	-1.16E-02	2.59E-02	1.15E-01	2.62E-01	2.59E-02
CM-3/4	5795.020	5759.227	183.862	6.000	5.000	1.000	5.1799	100.0000	5.72E-02	3.05E-02	1.38E-01	3.07E-01	3.03E-02
CM-5/6	5386.000	5385.427	0.000	81.000	81.000	0.000	14.2480	86.09000	1.08E+00	1.39E-01	4.40E-01	9.16E-01	1.20E-01
CM-247	4946.000	4905.222	99.385	26.000	24.000	2.000	13.7917	79.30000	3.46E-01	7.95E-02	4.63E-01	9.64E-01	7.63E-02
CM-248	5078.600	5056.276	0.000	47.000	46.000	1.000	19.5080	91.00000	5.78E-01	9.48E-02	5.70E-01	1.17E+00	8.70E-02

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)
* Sg of AM243 calculated as sqrt(BKG AREA).
* Corrections made to the following net area due to tracer impurity:
  AM-241

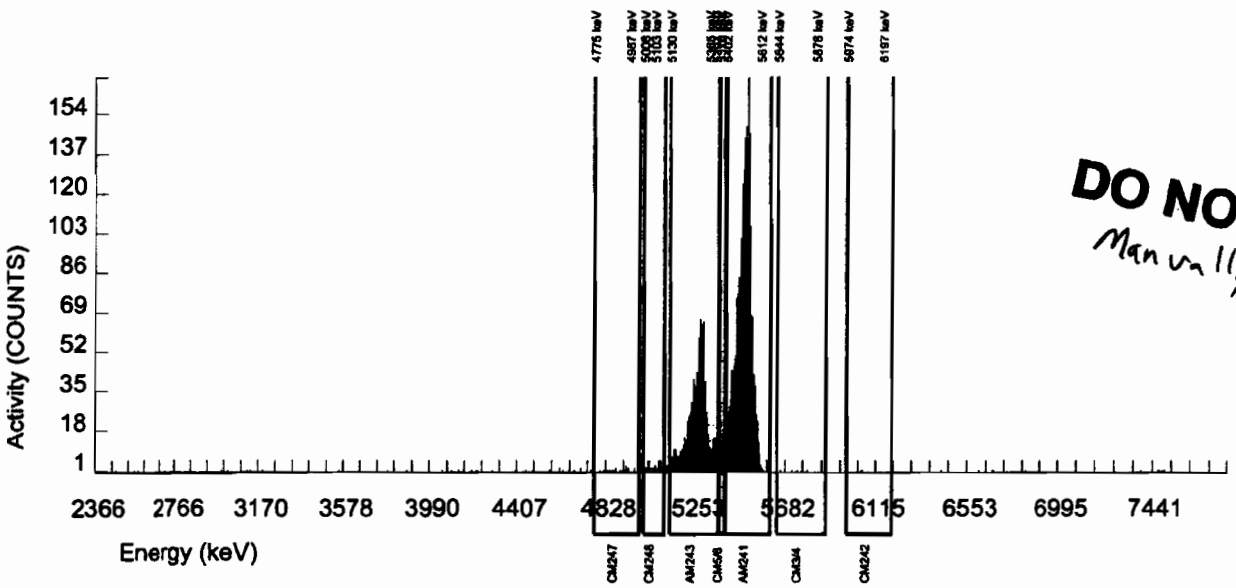

DO NOT REPORT
Manually Integrated

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954009	CHAMBER : 107	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978007_AM	DETECTOR S/N : 67578	BKG FILE : B107.CNF;684
SAMPLE QTY : 1.263 G	AVERAGE %EFFICIENCY : 30.8518	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 19-FEB-2010 15:53:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W107.CNF;232
% YIELD : 88.769		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.5890E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5486.694	79.516	3.000	-1.387	3.000	2.8409	99.94000	-1.81E-03	2.80E-03	8.61E-03	2.08E-02	2.80E-03
AM243	5270.000	5268.987	47.520	798.000	797.000	1.000	1.0000	99.78000	1.04E+00	7.32E-02	3.04E-03	9.61E-03	3.69E-02
CM-242	6102.000	6074.474	4.970	1.000	1.000	0.000	4.3413	100.0000	1.44E-03	1.44E-03	1.32E-02	2.98E-02	1.44E-03
CM-3/4	5795.020	5771.545	4.970	5.000	4.000	1.000	5.1799	100.0000	5.22E-03	3.21E-03	1.57E-02	3.49E-02	3.20E-03
CM-5/6	5386.000	5376.999	0.000	2.000	2.000	0.000	14.2480	86.09000	3.03E-03	2.15E-03	5.01E-02	1.04E-01	2.14E-03
CM-247	4946.000	4866.349	173.942	5.000	2.000	3.000	13.7917	79.30000	3.28E-03	4.65E-03	5.27E-02	1.10E-01	4.64E-03
CM-248	5078.600	5068.514	0.000	19.000	19.000	0.000	19.5080	91.00000	2.72E-02	6.45E-03	6.49E-02	1.34E-01	6.24E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

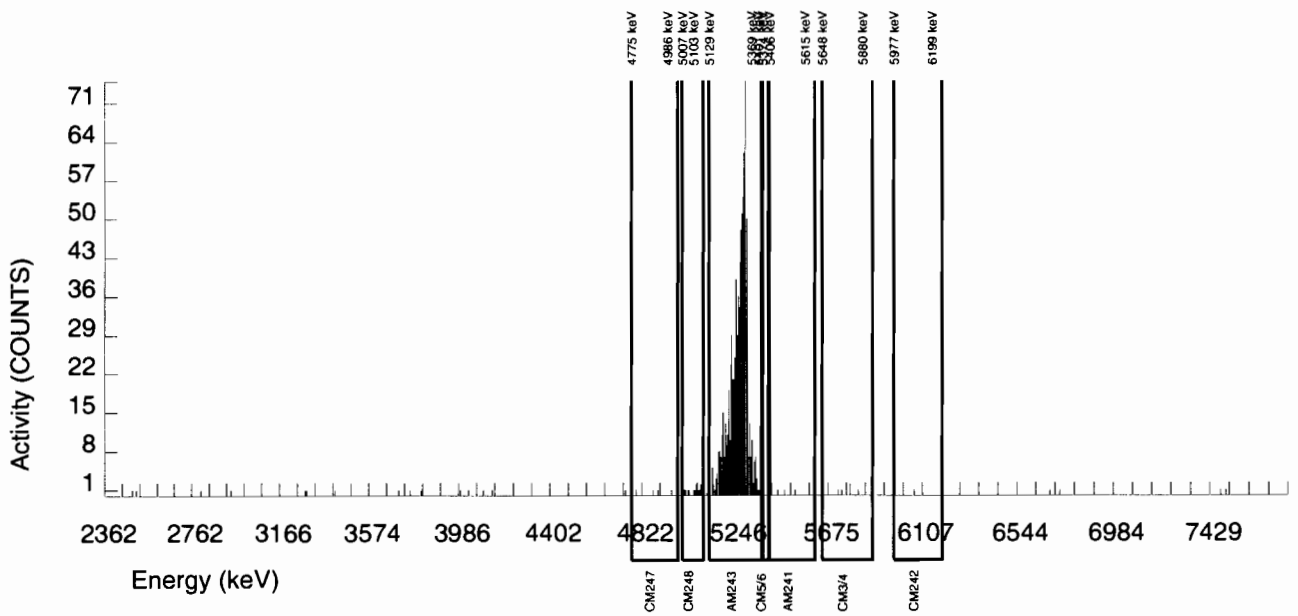

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954009	CHAMBER : 108	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202045187_AM	DETECTOR S/N : 78778	BKG FILE : B108.CNF;682
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 33.8473	BKG DATE : 14-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 19-FEB-2010 15:53:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W108.CNF;213
% YIELD : 88.933		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.5938E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5494.905	73.087	5.000	1.476	2.000	2.8409	99.94000	2.21E-03	3.51E-03	9.90E-03	2.38E-02	3.50E-03
AM243	5270.000	5264.500	51.558	878.000	876.000	2.000	1.4142	99.78000	1.31E+00	9.03E-02	4.93E-03	1.39E-02	4.45E-02
CM-242	6102.000	6029.356	4.872	1.000	1.000	0.000	4.3413	100.0000	1.52E-03	1.52E-03	1.51E-02	3.43E-02	1.52E-03
CM-3/4	5795.020	5757.683	160.792	3.000	2.000	1.000	5.1799	100.0000	2.99E-03	3.00E-03	1.80E-02	4.01E-02	2.99E-03
CM-5/6	5386.000	5386.216	0.000	1.000	1.000	0.000	14.2480	86.09000	1.74E-03	1.74E-03	5.76E-02	1.20E-01	1.74E-03
CM-247	4946.000	4916.344	7.156	9.000	9.000	0.000	13.7917	79.30000	1.70E-02	5.75E-03	6.05E-02	1.26E-01	5.66E-03
CM-248	5078.600	5072.263	7.715	30.000	30.000	0.000	19.5080	91.00000	4.93E-02	9.48E-03	7.46E-02	1.54E-01	9.01E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

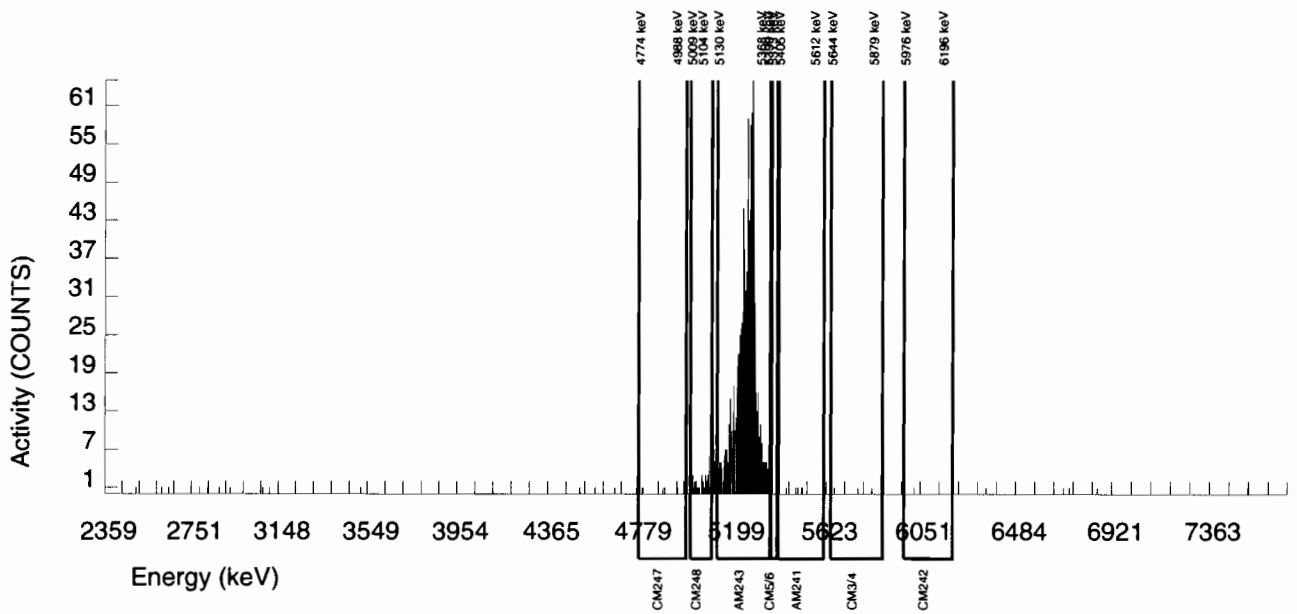

Alpha Spectroscopy Software Version 2.1
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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954009	CHAMBER : 109	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202045188_AM	DETECTOR S/N : 79463	BKG FILE : B109.CNF;680
SAMPLE QTY : 1.263 G	AVERAGE %EFFICIENCY : 35.6501	BKG DATE : 14-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 19-FEB-2010 15:53:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W109.CNF;194
% YIELD : 80.002		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 2.3333E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.878	4.914	6.000	4.556	0.000	2.8409	99.94000	5.70E-03	2.69E-03	8.27E-03	1.99E-02	2.67E-03
AM243	5270.000	5261.741	67.973	834.000	830.000	4.000	2.0000	99.78000	1.04E+00	7.25E-02	5.83E-03	1.51E-02	3.63E-02
CM-242	6102.000	6025.228	4.914	5.000	5.000	0.000	4.3413	100.0000	6.92E-03	3.12E-03	1.26E-02	2.86E-02	3.10E-03
CM-3/4	5795.020	5771.720	181.835	3.000	3.000	0.000	5.1799	100.0000	3.76E-03	2.18E-03	1.51E-02	3.35E-02	2.17E-03
CM-5/6	5386.000	5386.471	0.000	4.000	4.000	0.000	14.2480	86.09000	5.81E-03	2.93E-03	4.81E-02	1.00E-01	2.91E-03
CM-247	4946.000	4918.496	0.000	16.000	14.000	2.000	13.7917	79.30000	2.21E-02	6.82E-03	5.06E-02	1.05E-01	6.69E-03
CM-248	5078.600	5068.107	0.000	25.000	25.000	0.000	19.5080	91.00000	3.44E-02	7.18E-03	6.24E-02	1.28E-01	6.87E-03

NOTES:

* Sg calculated via blank population. (Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

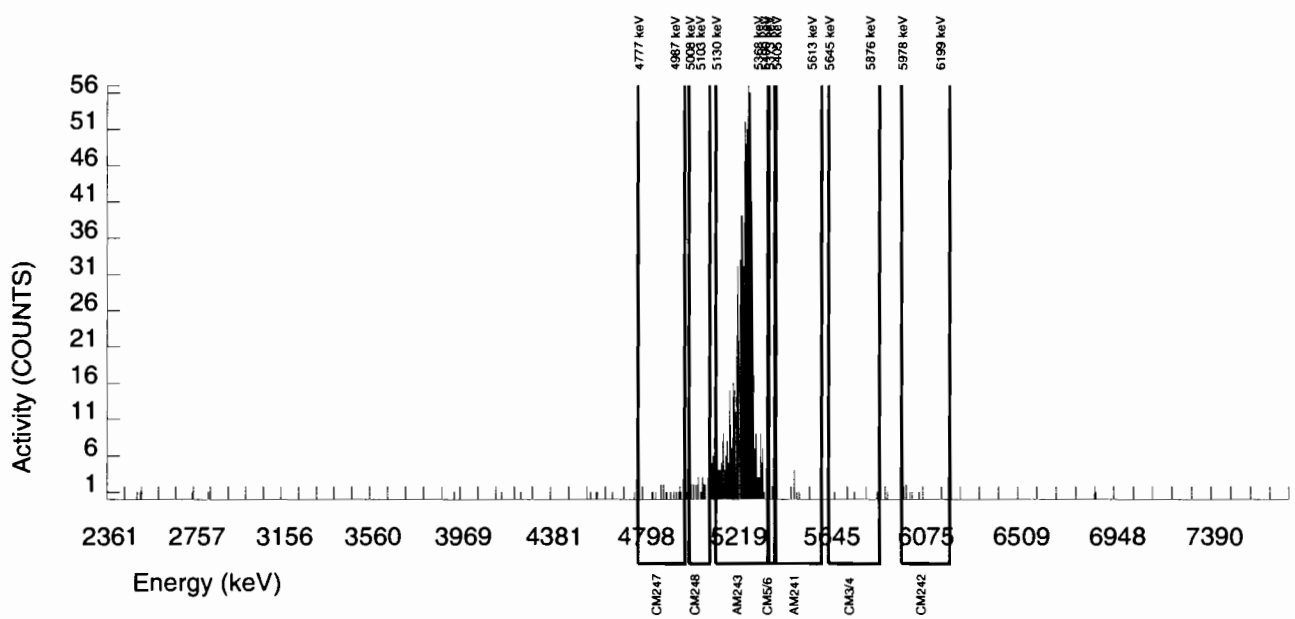

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 954009	CHAMBER : 111	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202045189_AM	DETECTOR S/N : 79462	BKG FILE : B111.CNF;679
SAMPLE QTY : 0.111 G	AVERAGE %EFFICIENCY : 33.1216	BKG DATE : 14-FEB-2010
SAMPLE DATE : 17-FEB-2010 00:00:00	COUNT DATE : 19-FEB-2010 15:53:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W111.CNF;209
% YIELD : 99.182		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.8927E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5485.055	45.054	2276.000	2273.336	1.000	2.8409	99.94000	2.81E+01	1.94E+00	8.17E-02	1.97E-01	5.90E-01
AM243	5270.000	5261.583	59.274	957.000	956.000	1.000	1.0000	99.78000	1.18E+01	8.67E-01	2.88E-02	9.12E-02	3.83E-01
CM-242	6102.000	6052.737	9.317	2.000	-1.000	3.000	4.3413	100.0000	-1.25E-02	2.80E-02	1.25E-01	2.83E-01	2.80E-02
CM-3/4	5795.020	5759.227	183.862	6.000	5.000	1.000	5.1799	100.0000	6.18E-02	3.29E-02	1.49E-01	3.31E-01	3.27E-02
CM-5/6	5386.000	5485.055	45.054	2276.000	2273.336	1.000	14.2480	86.09000	3.26E+01	2.25E+00	4.76E-01	9.90E-01	6.84E-01
CM-247	4946.000	4905.222	99.385	26.000	24.000	2.000	13.7917	79.30000	3.74E-01	8.60E-02	5.00E-01	1.04E+00	8.24E-02
CM-248	5078.600	5056.276	0.000	47.000	46.000	1.000	19.5080	91.00000	6.24E-01	1.03E-01	6.16E-01	1.27E+00	9.41E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

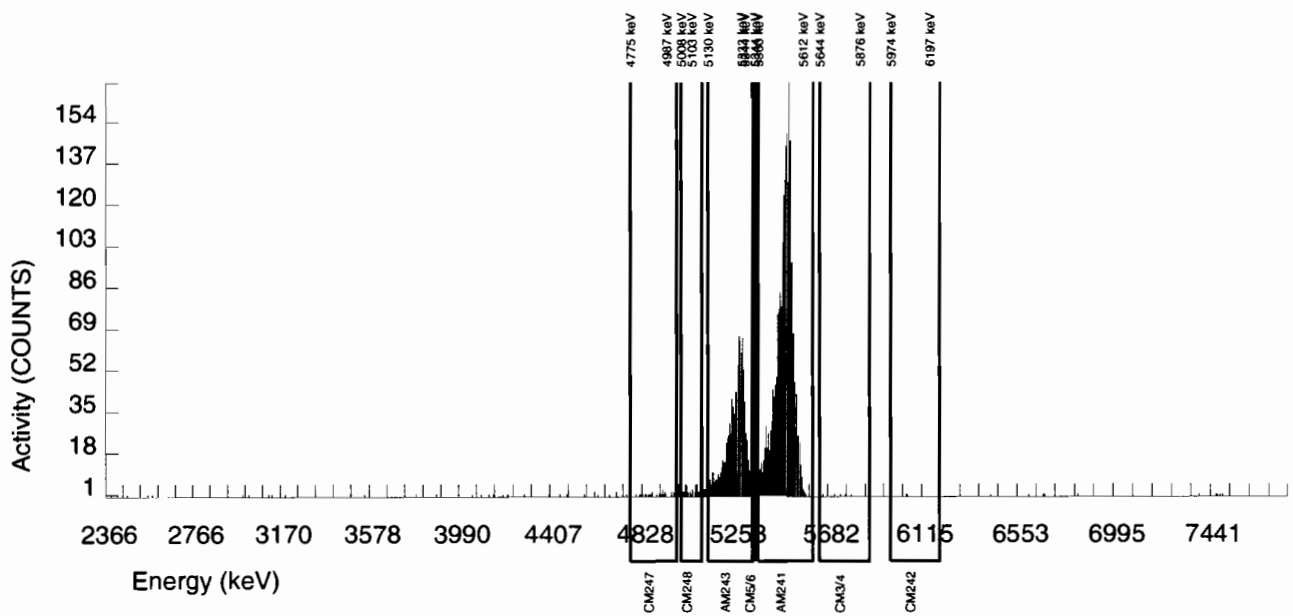

Radiochemistry Batch Checklist, Rev10

Batch# 957873 Product: Am Date: 3/1/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.		✓	DER 797056
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.		✓	DER 797056
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		DER 797056
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	X		DER 797056
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/1/10

Secondary Review Performed By: [signature] 3/1/10

3/2

LANL

Am/Cm Que Sheet

25-FEB-10

Batch #: 957873 Analyst: CXM2 First Client Due Date: 02-MAR-10 Internal Due Date24-FEB-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-SS Expiration Date: 5/11/10 Vol: 0.1mL

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0244-B / — Expiration Date: 4/30/20 / — Vol(s): 0.1g / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 2/25/10 Initials: CMM Pipet ID: 2971058 Balance ID: 50410272 Witness: MEL 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/l)	Am/Cm Det #
245978011-2	RE15-10-7964	SAMPLE		.05 pCi/g	SOIL	LANL010	27-JAN-10	1	1	1.258	233 ~~71~~ 3/1/1
1202054058-1	MB for batch 957873	MB		UCF pCi/g to pCi/SOIL		QC ACCOUNT		2	2	1	72
1202054059-2	RE15-10-7964(245978011DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	27-JAN-10	3	3	1.257	73
1202054060-1	LCS for batch 957873	LCS		UCF pCi/g to pCi/SOIL		QC ACCOUNT		4	4	0.100	74

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: JpL M_ - 3/1/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 957873

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202054059	DUP	Americium-241	1.26 g	0.0109	0.00911	0.0676	.010873016	pCi/g	YES
1202054060	LCS	Americium-241	0.100 g	31.4	2.03	0.254	.137	pCi/g	NO
1202054058	MB	Americium-241	1.00 g	0.0137	0.00868	0.0283	.0137	pCi/g	YES
245978011	RE15-10-7964	Americium-241	1.26 g	0.00713	0.0036	0.031	.010873016	pCi/g	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957873	CHAMBER : 233	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0245978011_AM	DETECTOR S/N : 79426	BKG FILE : B233.CNF;83
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 37.7051	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 27-FEB-2010 20:08:24	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 86400.00	EFF FILE : W233.CNF;28
% YIELD : 36.905		CAL DATE : 29-JAN-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 1.0764E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5477.762	146.661	5.000	3.985	0.000	2.8409	99.94000	7.13E-03	3.60E-03	1.31E-02	3.10E-02	3.57E-03
AM243	5270.000	5272.528	38.026	586.000	583.120	2.880	1.6971	99.78000	1.04E+00	8.01E-02	7.81E-03	2.05E-02	4.35E-02
CM-242	6102.000	6023.046	4.909	10.000	10.000	0.000	4.3413	100.0000	2.05E-02	6.62E-03	1.99E-02	4.47E-02	6.48E-03
CM-3/4	5795.020	5739.129	14.646	15.000	13.560	1.440	5.1799	100.0000	2.43E-02	7.57E-03	2.38E-02	5.24E-02	7.41E-03
CM-5/6	5386.000	5379.425	0.000	3.000	3.000	0.000	14.2480	86.09000	6.23E-03	3.62E-03	7.60E-02	1.58E-01	3.60E-03
CM-247	4946.000	4890.256	4.909	5.000	5.000	0.000	13.7917	79.30000	1.13E-02	5.09E-03	7.99E-02	1.66E-01	5.04E-03
CM-248	5078.600	5049.250	41.575	14.000	14.000	0.000	19.5080	91.00000	2.75E-02	7.56E-03	9.84E-02	2.02E-01	7.35E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

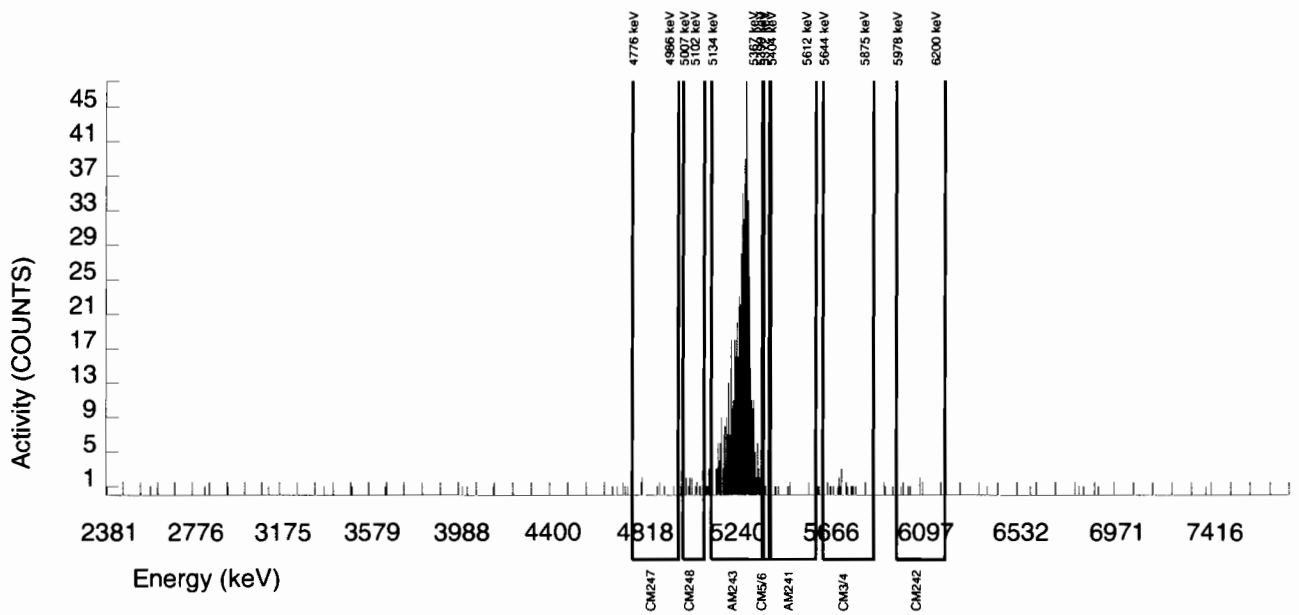

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957873	CHAMBER : 072	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202054058_AM	DETECTOR S/N : 45-149AA3	BKG FILE : B072.CNF;1102
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 32.1107	BKG DATE : 21-FEB-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 26-FEB-2010 23:40:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W072.CNF;277
% YIELD : 79.083		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 2.3065E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5480.290	24.408	17.000	7.714	8.000	2.8409	99.94000	1.37E-02	8.68E-03	1.17E-02	2.83E-02	8.64E-03
AM243	5270.000	5273.287	41.333	743.000	739.000	4.000	2.0000	99.78000	1.31E+00	9.44E-02	8.27E-03	2.14E-02	4.86E-02
CM-242	6102.000	6084.979	94.323	3.000	2.000	1.000	4.3413	100.0000	3.58E-03	3.59E-03	1.79E-02	4.06E-02	3.58E-03
CM-3/4	5795.020	5730.634	7.447	10.000	5.000	5.000	5.1799	100.0000	8.87E-03	6.89E-03	2.14E-02	4.76E-02	6.87E-03
CM-5/6	5386.000	5383.637	0.000	4.000	1.000	3.000	14.2480	86.09000	2.06E-03	5.45E-03	6.83E-02	1.42E-01	5.45E-03
CM-247	4946.000	4849.984	24.822	2.000	1.000	1.000	13.7917	79.30000	2.24E-03	3.88E-03	7.18E-02	1.50E-01	3.87E-03
CM-248	5078.600	5066.432	0.000	5.000	3.000	2.000	19.5080	91.00000	5.85E-03	5.17E-03	8.85E-02	1.82E-01	5.16E-03

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

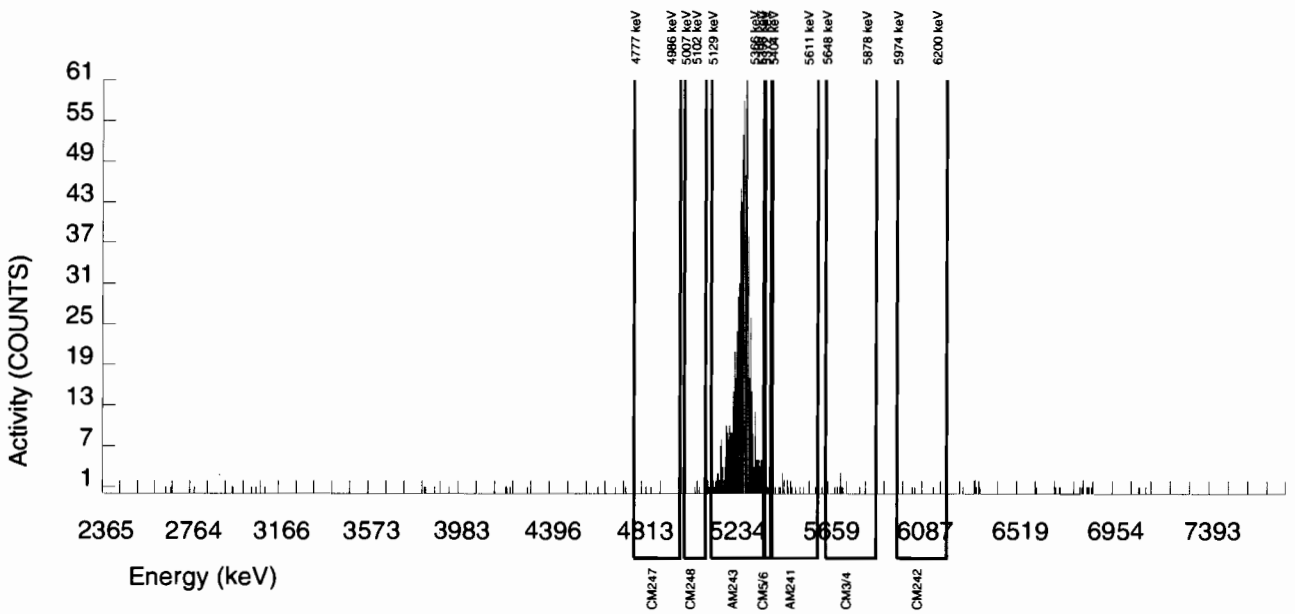

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957873	CHAMBER : 073	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202054059_AM	DETECTOR S/N : 78775	BKG FILE : B073.CNF;1104
SAMPLE QTY : 1.257 G	AVERAGE %EFFICIENCY : 33.1249	BKG DATE : 21-FEB-2010
SAMPLE DATE : 27-JAN-2010 00:00:00	COUNT DATE : 26-FEB-2010 23:40:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W073.CNF;285
% YIELD : 25.519		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3156E+01 pCi/G	NOMINAL : 3.3156E+01 pCi/G
RESULTS : 7.4429E-01 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5492.407	177.641	4.000	2.572	1.000	2.8409	99.94000	1.09E-02	9.11E-03	2.80E-02	6.76E-02	9.07E-03
AM243	5270.000	5279.071	39.713	246.000	246.000	0.000	0.0000	99.78000	1.05E+00	1.07E-01	0.00E+00	1.15E-02	6.66E-02
CM-242	6102.000	6045.936	9.869	7.000	7.000	0.000	4.3413	100.0000	3.39E-02	1.31E-02	4.28E-02	9.71E-02	1.28E-02
CM-3/4	5795.020	5767.190	33.924	4.000	2.000	2.000	5.1799	100.0000	8.51E-03	1.04E-02	5.11E-02	1.14E-01	1.04E-02
CM-5/6	5386.000	5375.529	4.934	1.000	1.000	0.000	14.2480	86.09000	4.92E-03	4.94E-03	1.63E-01	3.40E-01	4.92E-03
CM-247	4946.000	4906.834	4.934	5.000	1.000	4.000	13.7917	79.30000	5.35E-03	1.60E-02	1.72E-01	3.58E-01	1.60E-02
CM-248	5078.600	5060.060	4.934	6.000	6.000	0.000	19.5080	91.00000	2.80E-02	1.16E-02	2.11E-01	4.35E-01	1.14E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

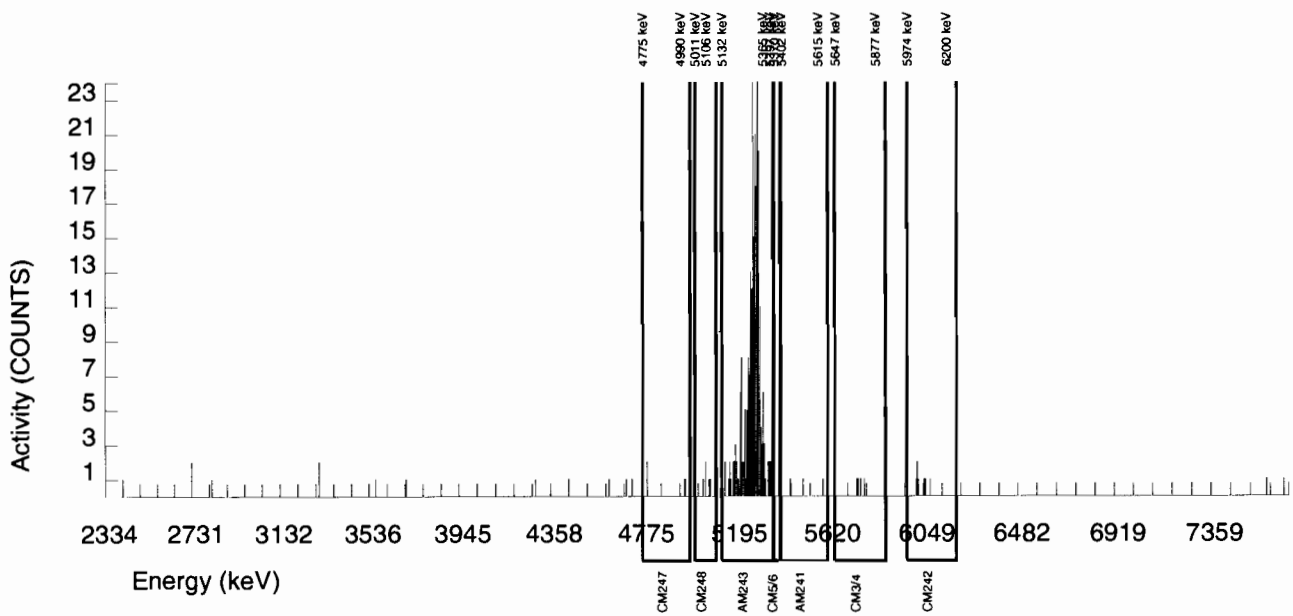

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957873	CHAMBER : 074	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202054060_AM	DETECTOR S/N : 78266	BKG FILE : B074.CNF;1126
SAMPLE QTY : 0.100 G	AVERAGE %EFFICIENCY : 31.7390	BKG DATE : 21-FEB-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 26-FEB-2010 23:40:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : CXM2	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W074.CNF;332
% YIELD : 88.995		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.3152E+01 pCi/G	NOMINAL : 3.3152E+01 pCi/G
RESULTS : 2.5956E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5500.787	38.881	1974.000	1968.570	4.000	2.8409	99.94000	3.14E+01	2.03E+00	1.05E-01	2.54E-01	7.09E-01
AM243	5270.000	5280.268	36.851	822.000	822.000	0.000	0.0000	99.78000	1.31E+01	9.17E-01	0.00E+00	4.33E-02	4.58E-01
CM-242	6102.000	6074.374	129.716	4.000	4.000	0.000	4.3413	100.0000	6.44E-02	3.24E-02	1.61E-01	3.65E-01	3.22E-02
CM-3/4	5795.020	5746.680	9.355	2.000	0.000	2.000	5.1799	100.0000	0.00E+00	3.19E-02	1.92E-01	4.28E-01	3.19E-02
CM-5/6	5386.000	5386.368	0.000	56.000	56.000	0.000	14.2480	86.09000	1.04E+00	1.52E-01	6.14E-01	1.28E+00	1.39E-01
CM-247	4946.000	4916.223	0.000	10.000	9.000	1.000	13.7917	79.30000	1.81E-01	6.76E-02	6.45E-01	1.34E+00	6.67E-02
CM-248	5078.600	5050.105	0.000	8.000	8.000	0.000	19.5080	91.00000	1.40E-01	5.03E-02	7.95E-01	1.64E+00	4.96E-02

NOTES:

* Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

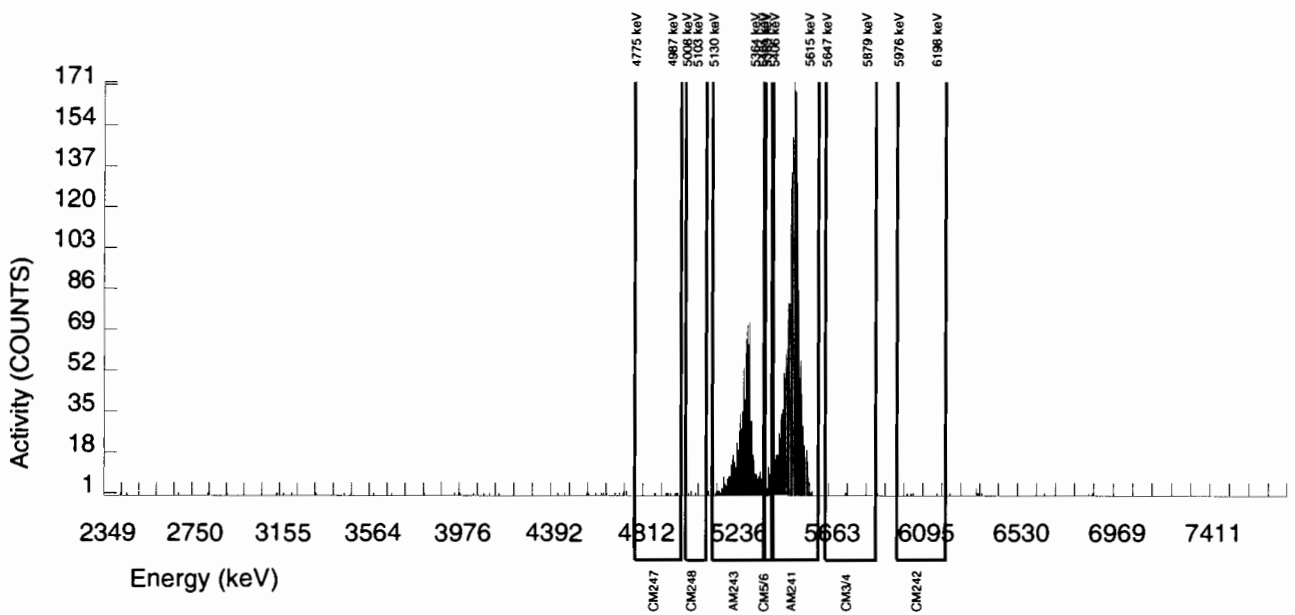

Radiochemistry Batch Checklist, Rev10

Batch# 948721 **Product:** Gamma Solid **Date:** 02/18/10

LANL

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 2/18/10

Secondary Review Performed By: [illegible] 2/19/10

3/2

Gamma Spec Que Sheet

1.G.- 2/12/10

02/05/2010

Batch #:948721 **Analyst:** MXR1 **First Client DueDate** 03/02/2010 **Internal Due Date:** 02/19/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Na **Expiration Date:** Na **Vol:** Na **Nominal Concentration:** Na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0mL **Nominal Concentration:** Cs137-5.561 Co60-6.404

Initials: MS **Prep Date:** 2/5/10 **Library:** SOLID **Witness:** Na Am241-15.90

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1/g/F)	Detector	Sealing Date/Time (if Applicable)
245978001-1	RE15-10-7880	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U	Can	127.59	10	2/5/10
245978002-1	RE15-10-7891	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		141.47	16	
245978003-1	RE15-10-7892	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		124.22	17	
245978004-1	RE15-10-7967	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		164.73	19	
245978005-1	RE15-10-7976	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		147.47	20	
245978006-1	RE15-10-7968	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		134.50	4	
245978007-1	RE15-10-7965	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		138.27	7	
245978008-1	RE15-10-7975	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		134.06	15	2/4/10
245978009-1	RE15-10-7978	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		111.44	22	2/5/10
245978010-1	RE15-10-7970	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		165.20	18	2/4/10
245978011-1	RE15-10-7964	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		143.56	23	
245978012-1	RE15-10-7973	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		142.78	1	
245978013-1	RE15-10-7962	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		134.68	6	
245978014-1	RE15-10-7963	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		141.19	11	
245978015-1	RE15-10-7977	SAMPLE		LANL010	SOIL	27-JAN-10 12:00:00	U		109.43	12	
1202032521-1	MB	MB		QC ACCOUNT	SOIL	2/5/10	U		165.20	14	2/5/10
1202032522-1	DUP RE15-10-7975(245978008)	DUP		QC ACCOUNT	SOIL	27-JAN-10 12:00:00	U		138.84	10	2/4/10
1202032523-1	LCS	LCS		QC ACCOUNT	SOIL	2/5/10	U		155.44	4	2/5/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: Hart 2/18/10

J. Eulau 2/19/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
948721	245978001	SAMPLE	14-FEB-10		Americium-241	0.07526	0.3971	0.200
					Cerium-139	0.01053	0.05093	0.050
					Sodium-22	-0.02188	0.08013	0.080
948721	245978002	SAMPLE	14-FEB-10		Americium-241	0.2068	0.4309	0.200
					Cerium-139	0.00122	0.05743	0.050
948721	245978003	SAMPLE	14-FEB-10		Cerium-139	-0.03165	0.05432	0.050
					Cesium-134	0.1086	0.1282	0.100
					Sodium-22	0.01415	0.1053	0.080
948721	245978004	SAMPLE	14-FEB-10		Cerium-139	0.0581	0.06889	0.050
948721	245978005	SAMPLE	14-FEB-10					
948721	245978006	SAMPLE	14-FEB-10		Americium-241	0.05184	0.4598	0.200
					Cerium-139	0.00039	0.05154	0.050
948721	245978007	SAMPLE	14-FEB-10		Americium-241	-0.07301	0.2595	0.200
					Cerium-139	-0.01684	0.05354	0.050
948721	245978008	SAMPLE	14-FEB-10		Americium-241	0.4229	0.5858	0.200
					Cerium-139	-0.00695	0.06803	0.050
					Europium-152	0.07826	0.2127	0.200
					Sodium-22	-0.02491	0.08094	0.080
948721	245978009	SAMPLE	14-FEB-10		Americium-241	0.08588	0.2451	0.200
					Cerium-139	0.02088	0.05574	0.050
948721	245978010	SAMPLE	14-FEB-10		Americium-241	0.01032	0.2451	0.200
948721	245978011	SAMPLE	14-FEB-10		Americium-241	0.1317	0.3407	0.200
					Cerium-139	-0.014	0.0521	0.050
					Thorium-234	2.628	2.74	2.00
948721	245978012	SAMPLE	14-FEB-10		Americium-241	-0.05905	0.2992	0.200
					Cerium-139	-0.00108	0.05545	0.050
948721	245978013	SAMPLE	14-FEB-10		Americium-241	-0.1157	0.3432	0.200
					Cerium-139	-0.02236	0.05793	0.050
					Sodium-22	0.0111	0.09154	0.080
948721	245978014	SAMPLE	14-FEB-10					
948721	245978015	SAMPLE	14-FEB-10		Americium-241	0.0875	0.2786	0.200
					Cerium-139	-0.00926	0.05529	0.050
					Sodium-22	-0.01068	0.08208	0.080
948721	1202032521	MB	14-FEB-10					
948721	1202032522	DUP	14-FEB-10		Americium-241	-0.00979	0.4422	0.200
948721	1202032523	LCS	14-FEB-10		Cerium-139	0.01961	0.07713	0.050
					Cesium-134	0.09361	0.1671	0.100
					Europium-152	-0.07255	0.2766	0.200
					Mercury-203	0.00538	0.1075	0.100
					Ruthenium-106	0.08721	0.9874	0.800
					Sodium-22	0.00745	0.09166	0.080
					Thorium-234	-0.3358	4.528	2.00
					Tin-113	-0.00334	0.1372	0.100

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
948721	1202032523	LCS	14-FEB-10		Uranium-235	0.1708	0.527	0.500

GEL QUALS

Batch ID: 948721

Report run on: February 18, 2010 10:58 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245978001-1 14-FEB-2010 11:17	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.406			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.618			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1128		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.363			
245978002-1 14-FEB-2010 11:17	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.936			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.253			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1183		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.39			
245978003-1 14-FEB-2010 11:18	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.368			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.666			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.303			
245978004-1 14-FEB-2010 11:18	Americium-241	UI	UI	UI	Data rejected due to low abundance.		.7652		.2	.2
	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.019			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.021			
	Thorium-227	UI	UI	UI	Data rejected due to low abundance.		.8877			
245978005-1 14-FEB-2010 11:19	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.6			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.474			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1023		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.048			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08484			

GEL QUALS

Batch ID: 948721

Report run on: February 18, 2010 10:58 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245978006-1 14-FEB-2010 11:56	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.382			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.008			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.167		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.088			
245978007-1 14-FEB-2010 11:56	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.022			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.95			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.957			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07464			
245978008-1 14-FEB-2010 12:01	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.506			
	Radium-224	UI	UI	UI	Data rejected due to interference.		5.023			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1279			
245978009-1 14-FEB-2010 12:01	Bismuth-211	UI	UI	UI	Data rejected due to interference.		5.05			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.34			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.108		.1	.1
	Mercury-203	UI	UI	UI	Data rejected due to interference.		.09427		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		6.062			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.1425			
245978010-1 14-FEB-2010 12:17	Bismuth-211	UI	UI	UI	Data rejected due to interference.		2.53			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.946			
	Radium-224	UI	UI	UI	Data rejected due to interference.		2.627			

GEL QUALS

Batch ID: 948721

Report run on: February 18, 2010 10:58 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245978010-1 14-FEB-2010 12:17	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.09887			
245978011-1 14-FEB-2010 12:18	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.718			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		1.913			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.871			
245978012-1 14-FEB-2010 13:11	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.974			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.242			
	Radium-224	UI	UI	UI	Data rejected due to interference.		4.061			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.08368			
245978013-1 14-FEB-2010 13:11	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.749			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		4.305			
	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.1839		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.788			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07947			
245978014-1 14-FEB-2010 13:12	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.131			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.639			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.034			
	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.07409			
245978015-1 14-FEB-2010 13:12	Bismuth-211	UI	UI	UI	Data rejected due to interference.		4.103			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		2.396			

GEL QUALS

Batch ID: 948721

Report run on: February 18, 2010 10:58 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
245978015-1 14-FEB-2010 13:12	Cesium-134	UI	UI	UI	Data rejected due to low abundance.		.183		.1	.1
	Radium-224	UI	UI	UI	Data rejected due to interference.		1.493			
1202032521-1 MB 14-FEB-2010 13:13	Strontium-85	UI	UI	UI	Data rejected due to low abundance.		.04638			
1202032522-1 DUP 14-FEB-2010 13:18	Bismuth-211	UI	UI	UI	Data rejected due to interference.		3.835			
	Cadmium-109	UI	UI	UI	Data rejected due to interference.		3.301			
	Radium-224	UI	UI	UI	Data rejected due to interference.		3.356			

Gamma Review Report based on Result > MDA for Batch:948721

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978001	27-JAN-10 12:00	14-FEB-10 11:17	18	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.553	0.1706	pCi/g	0.2248	N	910.7	3	1.794	IDENTIFIED	9.091	☐	
Americium-243	int nr	0.3981	0.05502	pCi/g	0.1115	N	74.61	1	1.301	IDENTIFIED	12.69	☐	
Annihilation Rad.	HE	0.05992	0.03357	pCi/g	0.04936	N	510.5	1	1.327	IDENTIFIED	55.93	☐	
Bismuth-211	int	3.406	0.2682	pCi/g	0.3271	Y	351.6	4	1.295	IDENTIFIED	6.978	☐ ui	
Bismuth-212	HE	0.9784	0.2546	pCi/g	0.6825	N	0	11	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.033	0.0871	pCi/g	0.1104	0.200	609	4	1.648	IDENTIFIED	7.523	☐	
Cadmium-109	int	3.618	0.6228	pCi/g	1.646	Y	86.91	3	1.27	IDENTIFIED	16.26	☐ ui	
Cerium-143		3579	550.5	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1128	0.04296	pCi/g	0.09286	0.100	0	11	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-135	int nr	0.5965	0.1681	pCi/g	0.2512	N	269.5	1	1.74	IDENTIFIED	27.89	☐	
Gross Gamma		10.27	1.627	pCi/g	3.477	N		0				☐	
Iodine-123	HE	9.65E+07	1.10E+08	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Iodine-135		9.81E+17	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.707	0.08603	pCi/g	0.09305	0.100	238.4	4	1.124	IDENTIFIED	3.318	☐	
Lead-214 ✔		1.185	0.09828	pCi/g	0.114	0.100	351.6	4	1.295	IDENTIFIED	6.978	☐	
Lutetium-177	HE	4.166	1.123	pCi/g	2.802	N	0	11	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	1.04	0.2087	pCi/g	0.4777	N	86.91	3	1.27	IDENTIFIED	16.26	☐	
Niobium-97		1.69E+06	8.15E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.707	0.08603	pCi/g	0.09305	N	238.4	4	1.124	IDENTIFIED	3.318	☐	
Polonium-214	nr	1.185	0.09828	pCi/g	0.114	N	351.6	4	1.295	IDENTIFIED	6.978	☐	
Polonium-216	nr	1.707	0.08603	pCi/g	0.09305	N	238.4	4	1.124	IDENTIFIED	3.318	☐	
Polonium-218	nr	1.185	0.09828	pCi/g	0.114	N	351.6	4	1.295	IDENTIFIED	6.978	☐	
Potassium-40 ✔		39.46	1.985	pCi/g	0.5544	1.00	1460	1	2.167	IDENTIFIED	2.597	☐	
Promethium-149	HE	61.23	107.9	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Radium-224	int	4.363	0.7002	pCi/g	1.059	Y	241.3	1	1.787	IDENTIFIED	15.75	☐ ui	
Radium-226 ✔		1.033	0.0871	pCi/g	0.1104	Y	609	4	1.648	IDENTIFIED	7.523	☐	
Radium-228 ✔		1.553	0.1706	pCi/g	0.2248	0.500	910.7	3	1.794	IDENTIFIED	9.091	☐	
Sodium-24	HE	9.26E+05	8.65E+06	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.509	0.04776	pCi/g	0.06057	0.080	582.9	1	1.372	IDENTIFIED	8.761	☐	
Thorium-228	nr	1.738	0.08758	pCi/g	0.09473	N	238.4	4	1.124	IDENTIFIED	3.318	☐	
Thorium-230	nr	1.033	0.08709	pCi/g	0.1104	N	609	4	1.648	IDENTIFIED	7.523	☐	
Thorium-232	nr	1.553	0.1706	pCi/g	0.2248	N	910.7	3	1.794	IDENTIFIED	9.091	☐	
Thorium-234 ✔		3.98	1.316	pCi/g	3.011	2.00	63.3	2	1.059	IDENTIFIED	31.57	☐	
Tin-126	int nr	0.3541	0.06096	pCi/g	0.1671	N	86.91	3	1.27	IDENTIFIED	16.26	☐	
Titanium-44	la nr	0.1808	0.02519	pCi/g	0.08298	N	0	11	0	NOT_IDENTI	0	☐	
Total Uranium		11.916	3.92E-06	ug/g	4.4828	N		0				☐	
Uranium-234	nr	1.033	0.08709	pCi/g	0.1104	N	609	4	1.648	IDENTIFIED	7.523	☐	
Uranium-238	HE	3.98	1.316	pCi/g	3.011	N	63.3	2	1.059	IDENTIFIED	31.57	☐	
Zirconium-97		4.16E+07	1.75E+07	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue

245978002	27-JAN-10 12:00	14-FEB-10 11:17	18	SAMPLE	LOAD	1	LANL	LANL01004	GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.451	0.1648	pCi/g	0.2042	N	911.3	3	1.437	IDENTIFIED	9.683		
Americium-243	int nr	0.3406	0.04703	pCi/g	0.1378	N	74.83	1	0.8063	IDENTIFIED	13.17		
Annihilation Rad.	HE	0.08401	0.03352	pCi/g	0.04809	N	510.7	1	1.279	IDENTIFIED	39.62		
Bismuth-211	int	3.936	0.3149	pCi/g	0.3003	Y	351.8	4	1.166	IDENTIFIED	5.852	ui	
Bismuth-212	nr	1.174	0.2566	pCi/g	0.4238	N	727.2	1	1.472	IDENTIFIED	21.22		
Bismuth-214 ✔		1.272	0.104	pCi/g	0.1075	0.200	609.3	4	1.201	IDENTIFIED	6.241		
Cadmium-109	int	4.253	0.6503	pCi/g	1.859	Y	87.19	3	1.156	IDENTIFIED	14.53	ui	
Cerium-141	HE	0.191	0.04292	pCi/g	0.1429	N	0	13	0	NOT_IDENTI	0		
Cerium-143		1583	379.2	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Cesium-134	la	0.1183	0.0352	pCi/g	0.09125	0.100	0	13	0	FAIL_ABUND	0	UI	Data rejected due to low abundance.
Gadolinium-153	la nr	0.8438	0.08929	pCi/g	0.2293	N	0	13	0	FAIL_ABUND	0		
Gold-195	la nr	2.463	0.2607	pCi/g	0.6918	N	0	13	0	FAIL_ABUND	0		
Gross Gamma		19.08	2.012	pCi/g	6.874	N		0					
Iodine-135		2.10E+18	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Lead-212 ✔		1.475	0.1015	pCi/g	0.09791	0.100	238.6	4	0.9662	IDENTIFIED	3.513		
Lead-214 ✔		1.369	0.1152	pCi/g	0.1047	0.100	351.8	4	1.166	IDENTIFIED	5.852		
Lutetium-177	HE	3.776	1.01	pCi/g	2.431	N	209.2	1	1.012	IDENTIFIED	26.27		
Neptunium-237	int nr	1.222	0.2255	pCi/g	0.6	N	87.19	3	1.156	IDENTIFIED	14.53		
Niobium-95	int nr	0.4431	0.04299	pCi/g	0.07072	N	766.6	1	1.802	IDENTIFIED	8.53		
Polonium-212	nr	1.475	0.1015	pCi/g	0.09791	N	238.6	4	0.9662	IDENTIFIED	3.513		
Polonium-214	nr	1.369	0.1152	pCi/g	0.1047	N	351.8	4	1.166	IDENTIFIED	5.852		
Polonium-216	nr	1.475	0.1015	pCi/g	0.09791	N	238.6	4	0.9662	IDENTIFIED	3.513		
Polonium-218	nr	1.369	0.1152	pCi/g	0.1047	N	351.8	4	1.166	IDENTIFIED	5.852		
Potassium-40 ✔		26.63	1.428	pCi/g	0.413	1.00	1461	1	1.942	IDENTIFIED	3.072		
Protactinium-234m	nr	106.4	7.96	pCi/g	6.37	N	1001	1	1.279	IDENTIFIED	5.375		
Radium-224	int	4.39	0.5893	pCi/g	1.114	Y	241.6	1	1.579	IDENTIFIED	12.24	ui	
Radium-226 ✔		1.272	0.104	pCi/g	0.1075	Y	609.3	4	1.201	IDENTIFIED	6.241		
Radium-228 ✔		1.451	0.1648	pCi/g	0.2042	0.500	911.3	3	1.437	IDENTIFIED	9.683		
Rhenium-183	HE	0.333	0.09317	pCi/g	0.2479	N	0	13	0	FAIL_ABUND	0		
Sodium-24	HE	7.22E+06	7.74E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Thallium-200	HE	1135	1321	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Thallium-208 ✔		0.5321	0.04588	pCi/g	0.0622	0.080	583.1	1	1.22	IDENTIFIED	7.056		
Thorium-228	nr	1.502	0.1034	pCi/g	0.09968	N	238.6	4	0.9662	IDENTIFIED	3.513		
Thorium-230	nr	1.272	0.104	pCi/g	0.1075	N	609.3	4	1.201	IDENTIFIED	6.241		
Thorium-232	nr	1.451	0.1648	pCi/g	0.2042	N	911.3	3	1.437	IDENTIFIED	9.683		
Thorium-234 ✔		73.85	6.733	pCi/g	3.22	2.00	63.28	2	0.8862	IDENTIFIED	2.658		
Tin-126	int nr	0.4163	0.06365	pCi/g	0.1828	N	87.19	3	1.156	IDENTIFIED	14.53		
Titanium-44	la nr	0.3647	0.03361	pCi/g	0.09693	N	0	13	0	FAIL_ABUND	0		
Total Uranium		220.46	2.00E-05	ug/g	4.7932	N		0					
Tungsten-181	HE	1.224	0.2864	pCi/g	0.9231	N	0	13	0	NOT_IDENTI	0		
Uranium-231	HE	6.543	1.561	pCi/g	4.348	N	0	13	0	FAIL_ABUND	0		
Uranium-234	nr	1.272	0.104	pCi/g	0.1075	N	609.3	4	1.201	IDENTIFIED	6.241		
Uranium-235 ✔		1.611	0.2424	pCi/g	0.4137	0.500	143.7	1	1.021	IDENTIFIED	12.25		
Uranium-238	nr	73.85	6.733	pCi/g	3.22	N	63.28	2	0.8862	IDENTIFIED	2.658		
Zirconium-97	HE	1.32E+07	1.60E+07	pCi/g	0	N	0	13	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978003	27-JAN-10 12:00	14-FEB-10 11:18	18	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	2.092	0.2125	pCi/g	0.267	N	910.8	3	1.575	IDENTIFIED	8.427		
Americium-243	int nr	0.4168	0.03527	pCi/g	0.06691	N	74.83	1	0.9322	IDENTIFIED	6.911		
Annihilation Rad.	HE	0.1353	0.05017	pCi/g	0.05626	N	510.4	1	1.712	IDENTIFIED	36.82		
Bismuth-210	HE	1.667	0.4807	pCi/g	0.9236	N	46.2	3	1.008	IDENTIFIED	28.32		
Bismuth-211	int	4.368	0.3438	pCi/g	0.4193	Y	351.8	4	1.268	IDENTIFIED	6.341	ui	
Bismuth-212	HE	1.172	0.3983	pCi/g	0.891	N	0	8	0	FAIL_ABUND	0		
Bismuth-214		1.407	0.1356	pCi/g	0.1414	0.200	609.1	4	1.472	IDENTIFIED	8.188		
Cadmium-109	int	3.666	0.5108	pCi/g	1.055	Y	87.2	3	1.197	IDENTIFIED	13.05	ui	
Cerium-143		2442	465.5	pCi/g	0	N	0	8	0	SHORT_HLIF	0		
Gross Gamma		10.95	1.466	pCi/g	4.398	N		0					
Iodine-123	HE	6.54E+07	1.14E+08	pCi/g	0	N	0	8	0	SHORT_HLIF	0		
Iodine-135		2.88E+18	0	pCi/g	0	N	0	8	0	SHORT_HLIF	0		
Lead-210	HE	1.667	0.4807	pCi/g	0.9236	N	46.2	3	1.008	IDENTIFIED	28.32		
Lead-212		1.801	0.1113	pCi/g	0.09828	0.100	238.6	4	1.033	IDENTIFIED	3.581		
Lead-214		1.52	0.126	pCi/g	0.1462	0.100	351.8	4	1.268	IDENTIFIED	6.341		
Neptunium-237	int nr	1.054	0.1827	pCi/g	0.3018	N	87.2	3	1.197	IDENTIFIED	13.05		
Polonium-210	HE	1.667	0.4796	pCi/g	0.9236	N	46.2	3	1.008	IDENTIFIED	28.32		
Polonium-212	nr	1.801	0.1113	pCi/g	0.09828	N	238.6	4	1.033	IDENTIFIED	3.581		
Polonium-214	nr	1.52	0.126	pCi/g	0.1462	N	351.8	4	1.268	IDENTIFIED	6.341		
Polonium-216	nr	1.801	0.1113	pCi/g	0.09828	N	238.6	4	1.033	IDENTIFIED	3.581		
Polonium-218	nr	1.52	0.126	pCi/g	0.1462	N	351.8	4	1.268	IDENTIFIED	6.341		
Potassium-40		35.47	1.982	pCi/g	0.6402	1.00	1460	1	2.093	IDENTIFIED	3.396		
Promethium-149	HE	28.34	121.1	pCi/g	0	N	0	8	0	SHORT_HLIF	0		
Radium-224	int	5.303	0.8567	pCi/g	1.119	Y	241.4	1	1.803	IDENTIFIED	15.51	ui	
Radium-226		1.407	0.1356	pCi/g	0.1414	Y	609.1	4	1.472	IDENTIFIED	8.188		
Radium-228		2.092	0.2125	pCi/g	0.267	0.500	910.8	3	1.575	IDENTIFIED	8.427		
Sodium-24	HE	1.86E+07	1.25E+07	pCi/g	0	N	0	8	0	SHORT_HLIF	0		
Thallium-208		0.5665	0.05897	pCi/g	0.07281	0.080	583	1	1.147	IDENTIFIED	9.272		
Thorium-228	nr	1.833	0.1133	pCi/g	0.1001	N	238.6	4	1.033	IDENTIFIED	3.581		
Thorium-230	nr	1.407	0.1356	pCi/g	0.1414	N	609.1	4	1.472	IDENTIFIED	8.188		
Thorium-232	nr	2.092	0.2125	pCi/g	0.267	N	910.8	3	1.575	IDENTIFIED	8.427		
Thorium-234		3.09	0.5734	pCi/g	1.177	2.00	63.23	2	0.9624	IDENTIFIED	16.04		
Tin-126	int nr	0.3588	0.04999	pCi/g	0.1031	N	87.2	3	1.197	IDENTIFIED	13.05		
Titanium-44	la nr	0.4542	0.03067	pCi/g	0.06872	N	0	8	0	FAIL_ABUND	0		
Total Uranium		9.2113	1.71E-06	ug/g	1.7544	N		0					
Uranium-234	nr	1.407	0.1356	pCi/g	0.1414	N	609.1	4	1.472	IDENTIFIED	8.188		
Uranium-238	nr	3.09	0.5734	pCi/g	1.177	N	63.23	2	0.9624	IDENTIFIED	16.04		
Zirconium-97	HE	2.50E+07	2.05E+07	pCi/g	0	N	0	8	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978004	27-JAN-10 12:00	14-FEB-10 11:18	18	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-227	HE	0.8877	0.268	pCi/g	0.8399	N	0	20	0	NOT_IDENTI	0		

Actinium-228	nr	1.102	0.1356	pCi/g	0.1914	N	911.5	3	1.896	IDENTIFIED	10.93	☐		
Americium-241	la	0.7652	0.1648	pCi/g	0.5448	0.200	0	20	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Americium-243	HE	0.2865	0.06378	pCi/g	0.1834	N	74.99	1	1.375	IDENTIFIED	21.9	☐		
Annihilation Rad.	HE	0.06571	0.03583	pCi/g	0.04873	N	510.6	1	2.261	IDENTIFIED	54.45	☐		
Barium-137m		0.1828	0.03442	pCi/g	0.05837	N	661.8	2	1.27	IDENTIFIED	18.6	☐		
Bismuth-211	int	2.019	0.2121	pCi/g	0.3414	Y	351.7	4	1.369	IDENTIFIED	10.01	☐	ui	
Bismuth-212	nr	1.145	0.2303	pCi/g	0.4819	N	727.6	1	2.307	IDENTIFIED	19.68	☐		
Bismuth-214	✓	0.5514	0.07654	pCi/g	0.1123	0.200	609.2	4	1.193	IDENTIFIED	13.31	☐		
Cerium-141	la nr	0.4526	0.0566	pCi/g	0.1896	N	0	20	0	NOT_IDENTI	0	☐		
Cerium-143		2783	476.6	pCi/g	0	N	0	20	0	SHORT_HLIF	0	☐		
Cesium-137	✓	0.1933	0.03639	pCi/g	0.0617	0.100	661.8	2	1.27	IDENTIFIED	18.6	☐		
Gadolinium-153	la nr	1.203	0.102	pCi/g	0.304	N	0	20	0	FAIL_ABUND	0	☐		
Gold-195	la nr	3.513	0.2979	pCi/g	0.8536	N	0	20	0	FAIL_ABUND	0	☐		
Gross Gamma		19.72	1.728	pCi/g	7.634	N		0				☐		
Iodine-123	HE	1.33E+08	1.52E+08	pCi/g	0	N	0	20	0	SHORT_HLIF	0	☐		
Lead-212	✓	1.097	0.06148	pCi/g	0.09991	0.100	238.5	4	1.414	IDENTIFIED	4.289	☐		
Lead-214	✓	0.7023	0.07602	pCi/g	0.119	0.100	351.7	4	1.369	IDENTIFIED	10.01	☐		
Neptunium-237	HE	0.9529	0.3912	pCi/g	0.891	N	0	20	0	NOT_IDENTI	0	☐		
Niobium-95	int nr	0.567	0.055	pCi/g	0.0626	N	766.5	1	1.571	IDENTIFIED	9.032	☐		
Niobium-95m	HE	0.345	0.07901	pCi/g	0.2571	N	0	20	0	NOT_IDENTI	0	☐		
Niobium-97	HE	6.05E+05	9.41E+05	pCi/g	0	N	0	20	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.097	0.06148	pCi/g	0.09991	N	238.5	4	1.414	IDENTIFIED	4.289	☐		
Polonium-214	nr	0.7023	0.07602	pCi/g	0.119	N	351.7	4	1.369	IDENTIFIED	10.01	☐		
Polonium-216	nr	1.097	0.06148	pCi/g	0.09991	N	238.5	4	1.414	IDENTIFIED	4.289	☐		
Polonium-218	nr	0.7023	0.07602	pCi/g	0.119	N	351.7	4	1.369	IDENTIFIED	10.01	☐		
Potassium-40	✓	22	1.049	pCi/g	0.4186	1.00	1461	1	1.917	IDENTIFIED	2.979	☐		
Protactinium-234m		143	9.039	pCi/g	6.204	N	1001	1	1.817	IDENTIFIED	4.276	☐		
Radium-224	int	3.021	0.5924	pCi/g	1.136	Y	241.2	1	1.837	IDENTIFIED	19.4	☐	ui	
Radium-226	✓	0.5514	0.07654	pCi/g	0.1123	Y	609.2	4	1.193	IDENTIFIED	13.31	☐		
Radium-228	✓	1.102	0.1356	pCi/g	0.1914	0.500	911.5	3	1.896	IDENTIFIED	10.93	☐		
Rhenium-183	la nr	0.5088	0.1037	pCi/g	0.2855	N	0	20	0	FAIL_ABUND	0	☐		
Sodium-24	HE	7.90E+06	6.31E+06	pCi/g	0	N	0	20	0	SHORT_HLIF	0	☐		
Technetium-99m		6.45E+19	0	pCi/g	0	N	0	20	0	SHORT_HLIF	0	☐		
Tellurium-125m	HE	39.08	9.293	pCi/g	30.08	N	0	20	0	NOT_IDENTI	0	☐		
Thallium-208	✓	0.3634	0.03702	pCi/g	0.06119	0.080	583.3	1	1.83	IDENTIFIED	9.604	☐		
Thorium-227	la	0.8877	0.2713	pCi/g	0.8399	Y	0	20	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Thorium-228	nr	1.117	0.06259	pCi/g	0.1017	N	238.5	4	1.414	IDENTIFIED	4.289	☐		
Thorium-230	nr	0.5514	0.07653	pCi/g	0.1123	N	609.2	4	1.193	IDENTIFIED	13.31	☐		
Thorium-232	nr	1.102	0.1356	pCi/g	0.1914	N	911.5	3	1.896	IDENTIFIED	10.93	☐		
Thorium-234	✓	99.01	8.946	pCi/g	4.097	2.00	63.27	2	1.248	IDENTIFIED	2.258	☐		
Tin-126	HE	0.3811	0.1282	pCi/g	0.3028	N	0	20	0	FAIL_ABUND	0	☐		
Titanium-44	la nr	0.2283	0.04221	pCi/g	0.1241	N	0	20	0	FAIL_ABUND	0	☐		
Total Uranium		295.33	2.66E-05	ug/g	6.0993	N		0				☐		
Tungsten-181	la nr	15.46	0.7353	pCi/g	1.795	N	0	20	0	NOT_IDENTI	0	☐		
Uranium-231	la nr	22.81	2.514	pCi/g	6.31	N	0	20	0	FAIL_ABUND	0	☐		
Uranium-234	nr	0.5514	0.07653	pCi/g	0.1123	N	609.2	4	1.193	IDENTIFIED	13.31	☐		
Uranium-235	✓	1.659	0.2378	pCi/g	0.4948	0.500	143.9	1	1.386	IDENTIFIED	11.83	☐		
Uranium-238	nr	99.01	8.946	pCi/g	4.097	N	63.27	2	1.248	IDENTIFIED	2.258	☐		

Zirconium-97		5.73E+07	1.70E+07	pCi/g	0	N	0	20	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978005	27-JAN-10 12:00	14-FEB-10 11:19	18	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.596	0.1592	pCi/g	0.1828	N	911.6	3	1.497	IDENTIFIED	7.877	☐	
Americium-243	int nr	0.3729	0.0327	pCi/g	0.06976	N	74.91	1	1.131	IDENTIFIED	7.785	☐	
Annihilation Rad.		0.1338	0.03043	pCi/g	0.0396	N	510.8	1	1.771	IDENTIFIED	22.25	☐	
Barium-137m	HE	0.09361	0.02282	pCi/g	0.05547	N	662.1	2	1.655	IDENTIFIED	23.85	☐	
Bismuth-211	int	3.6	0.2637	pCi/g	0.2742	Y	351.9	4	1.138	IDENTIFIED	5.547	☐ ui	
Bismuth-212	HE	0.8623	0.2115	pCi/g	0.6084	N	0	12	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.022	0.0895	pCi/g	0.09468	0.200	609.4	4	1.45	IDENTIFIED	6.761	☐	
Cadmium-109	int	3.474	0.4615	pCi/g	0.9621	Y	87.28	3	1.393	IDENTIFIED	12.43	☐ ui	
Cadmium-115		23.9	11.11	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cerium-143		2493	419.8	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1023	0.03075	pCi/g	0.07986	0.100	0	12	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137 ✔		0.09896	0.02412	pCi/g	0.05864	0.100	662.1	2	1.655	IDENTIFIED	23.85	☐	
Gross Gamma		9.982	1.367	pCi/g	3.738	N		0				☐	
Iodine-133	HE	39150	25860	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Krypton-85	HE	16.06	3.343	pCi/g	11.67	N	0	12	0	NOT_IDENTI	0	☐	
Lead-212 ✔		1.625	0.09954	pCi/g	0.08207	0.100	238.6	4	1.123	IDENTIFIED	3.041	☐	
Lead-214 ✔		1.252	0.09737	pCi/g	0.09558	0.100	351.9	4	1.138	IDENTIFIED	5.547	☐	
Lutetium-177	HE	3.865	0.8678	pCi/g	2.393	N	0	12	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	0.9983	0.1679	pCi/g	0.2793	N	87.28	3	1.393	IDENTIFIED	12.43	☐	
Niobium-97	HE	9.41E+05	7.55E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.625	0.09954	pCi/g	0.08207	N	238.6	4	1.123	IDENTIFIED	3.041	☐	
Polonium-214	nr	1.252	0.09737	pCi/g	0.09558	N	351.9	4	1.138	IDENTIFIED	5.547	☐	
Polonium-216	nr	1.625	0.09954	pCi/g	0.08207	N	238.6	4	1.123	IDENTIFIED	3.041	☐	
Polonium-218	nr	1.252	0.09737	pCi/g	0.09558	N	351.9	4	1.138	IDENTIFIED	5.547	☐	
Potassium-40 ✔		32.6	1.649	pCi/g	0.4312	1.00	1461	1	1.851	IDENTIFIED	2.567	☐	
Radium-224	int	5.048	0.6484	pCi/g	0.9336	Y	241.6	1	1.785	IDENTIFIED	11.9	☐ ui	
Radium-226 ✔		1.022	0.0895	pCi/g	0.09468	Y	609.4	4	1.45	IDENTIFIED	6.761	☐	
Radium-228 ✔		1.596	0.1592	pCi/g	0.1828	0.500	911.6	3	1.497	IDENTIFIED	7.877	☐	
Strontium-85	la	0.08484	0.01766	pCi/g	0.06164	Y	0	12	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	1228	1162	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.4776	0.04011	pCi/g	0.04811	0.080	583.3	1	1.345	IDENTIFIED	6.64	☐	
Thorium-228	nr	1.654	0.1013	pCi/g	0.08355	N	238.6	4	1.123	IDENTIFIED	3.041	☐	
Thorium-230	nr	1.022	0.0895	pCi/g	0.09468	N	609.4	4	1.45	IDENTIFIED	6.761	☐	
Thorium-232	nr	1.596	0.1592	pCi/g	0.1828	N	911.6	3	1.497	IDENTIFIED	7.877	☐	
Thorium-234 ✔		2.909	0.7515	pCi/g	1.559	2.00	63.52	2	0.9776	IDENTIFIED	24.33	☐	
Tin-126	int nr	0.34	0.04517	pCi/g	0.09444	N	87.28	3	1.393	IDENTIFIED	12.43	☐	
Titanium-44	la nr	0.3566	0.02406	pCi/g	0.06903	N	0	12	0	FAIL_ABUND	0	☐	
Total Uranium		8.7246	2.24E-06	ug/g	2.3217	N		0				☐	
Uranium-234	nr	1.022	0.0895	pCi/g	0.09468	N	609.4	4	1.45	IDENTIFIED	6.761	☐	
Uranium-238	HE	2.909	0.7515	pCi/g	1.559	N	63.52	2	0.9776	IDENTIFIED	24.33	☐	
Zirconium-97		4.52E+07	1.38E+07	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978006	27-JAN-10 12:00	14-FEB-10 11:56	18	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.757	0.1844	pCi/g	0.2165	N	911.4	3	2.016	IDENTIFIED	8.968		
Americium-243	int nr	0.2709	0.04365	pCi/g	0.1241	N	74.78	1	0.9071	IDENTIFIED	15.06		
Annihilation Rad.		0.1613	0.03512	pCi/g	0.04729	N	510.8	1	1.594	IDENTIFIED	21.59		
Bismuth-211	int	3.382	0.2576	pCi/g	0.3313	Y	351.9	4	1.267	IDENTIFIED	6.827	ui	
Bismuth-212	la nr	1.594	0.2504	pCi/g	0.7277	N	0	13	0	FAIL_ABUND	0		
Bismuth-214		1.106	0.09175	pCi/g	0.1084	0.200	609.3	4	1.183	IDENTIFIED	7.435		
Cadmium-109	int	3.008	0.6246	pCi/g	1.962	Y	87.13	3	1.31	IDENTIFIED	19.89	ui	
Cadmium-115	HE	17.3	13.25	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Cerium-143		1989	403.9	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Cesium-134	la	0.167	0.04867	pCi/g	0.1013	0.100	0	13	0	FAIL_ABUND	0	UI	Data rejected due to low abundance.
Gold-195	HE	0.6684	0.1349	pCi/g	0.4959	N	0	13	0	FAIL_ABUND	0		
Gross Gamma		12.08	1.669	pCi/g	3.969	N		0					
Iodine-133	HE	7481	30440	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Lead-212		1.681	0.08737	pCi/g	0.08354	0.100	238.6	4	1.22	IDENTIFIED	3.3		
Lead-214		1.177	0.09471	pCi/g	0.1155	0.100	351.9	4	1.267	IDENTIFIED	6.827		
Lutetium-177	HE	3.834	1.092	pCi/g	2.471	N	208.9	1	1.059	IDENTIFIED	28.29		
Neptunium-237	HE	0.8645	0.2005	pCi/g	0.5307	N	87.13	3	1.31	IDENTIFIED	19.89		
Niobium-95	HE	0.1205	0.02694	pCi/g	0.0949	N	0	13	0	NOT_IDENTI	0		
Niobium-97	HE	6.25E+05	9.31E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Polonium-212	nr	1.681	0.08737	pCi/g	0.08354	N	238.6	4	1.22	IDENTIFIED	3.3		
Polonium-214	nr	1.177	0.09471	pCi/g	0.1155	N	351.9	4	1.267	IDENTIFIED	6.827		
Polonium-216	nr	1.681	0.08737	pCi/g	0.08354	N	238.6	4	1.22	IDENTIFIED	3.3		
Polonium-218	nr	1.177	0.09471	pCi/g	0.1155	N	351.9	4	1.267	IDENTIFIED	6.827		
Potassium-40		36.45	1.625	pCi/g	0.5598	1.00	1461	1	2.119	IDENTIFIED	2.692		
Protactinium-234m		25.67	4.325	pCi/g	7.41	N	1001	1	1.28	IDENTIFIED	16.22		
Radium-224	int	5.088	0.7593	pCi/g	0.9508	Y	241.8	1	2.053	IDENTIFIED	14.55	ui	
Radium-226		1.106	0.09175	pCi/g	0.1084	Y	609.3	4	1.183	IDENTIFIED	7.435		
Radium-228		1.757	0.1844	pCi/g	0.2165	0.500	911.4	3	2.016	IDENTIFIED	8.968		
Sodium-24	HE	7.23E+06	9.41E+06	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Technetium-99m		1.14E+20	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Thallium-200	HE	1189	1461	pCi/g	0	N	0	13	0	SHORT_HLIF	0		
Thallium-208		0.514	0.04169	pCi/g	0.06022	0.080	583.2	1	1.475	IDENTIFIED	7.475		
Thorium-228	nr	1.711	0.08895	pCi/g	0.08505	N	238.6	4	1.22	IDENTIFIED	3.3		
Thorium-230	nr	1.106	0.09175	pCi/g	0.1084	N	609.3	4	1.183	IDENTIFIED	7.435		
Thorium-232	nr	1.757	0.1844	pCi/g	0.2165	N	911.4	3	2.016	IDENTIFIED	8.968		
Thorium-234		19.54	2.536	pCi/g	3.354	2.00	63.24	2	1.034	IDENTIFIED	8.404		
Tin-126	HE	0.2944	0.06113	pCi/g	0.184	N	87.13	3	1.31	IDENTIFIED	19.89		
Titanium-44	la nr	0.3371	0.03852	pCi/g	0.08962	N	0	13	0	FAIL_ABUND	0		
Total Uranium		58.289	7.54E-06	ug/g	4.9922	N		0					
Uranium-234	nr	1.106	0.09175	pCi/g	0.1084	N	609.3	4	1.183	IDENTIFIED	7.435		
Uranium-238	nr	19.54	2.536	pCi/g	3.354	N	63.24	2	1.034	IDENTIFIED	8.404		
Zirconium-97		4.61E+07	1.75E+07	pCi/g	0	N	0	13	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978007	27-JAN-10 12:00	14-FEB-10 11:56	18	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.662	0.1817	pCi/g	0.2205	N	911.4	3	1.683	IDENTIFIED	9.25		
Americium-243	int nr	0.32	0.0407	pCi/g	0.09566	N	74.85	1	1.217	IDENTIFIED	12.06		
Annihilation Rad.	HE	0.09038	0.03334	pCi/g	0.04721	N	511	1	2.03	IDENTIFIED	36.62		
Barium-137m	HE	0.1211	0.0351	pCi/g	0.06518	N	662	2	1.509	IDENTIFIED	28.65		
Bismuth-211	int	4.022	0.2778	pCi/g	0.3241	Y	352.1	4	1.395	IDENTIFIED	5.254	ui	
Bismuth-212	la nr	1.541	0.2428	pCi/g	0.6933	N	0	17	0	FAIL_ABUND	0		
Bismuth-214		1.163	0.1088	pCi/g	0.1165	0.200	609.5	4	1.35	IDENTIFIED	7.803		
Cadmium-109	int	2.95	0.556	pCi/g	1.628	Y	87.34	3	1.334	IDENTIFIED	18.26	ui	
Cadmium-115	HE	6.79	13.56	pCi/g	0	N	0	17	0	SHORT_HLIF	0		
Cerium-141	HE	0.1323	0.04138	pCi/g	0.1317	N	0	17	0	NOT_IDENTI	0		
Cerium-143		2073	413.3	pCi/g	0	N	0	17	0	SHORT_HLIF	0		
Cesium-137		0.128	0.0371	pCi/g	0.0689	0.100	662	2	1.509	IDENTIFIED	28.65		
Gadolinium-153	la nr	0.3569	0.05964	pCi/g	0.1663	N	0	17	0	FAIL_ABUND	0		
Gold-195	la nr	1.042	0.1741	pCi/g	0.4995	N	0	17	0	FAIL_ABUND	0		
Gross Gamma		12.33	1.588	pCi/g	4.903	N		0					
Iodine-133	HE	35100	30630	pCi/g	0	N	0	17	0	SHORT_HLIF	0		
Iodine-135		2.33E+18	0	pCi/g	0	N	0	17	0	SHORT_HLIF	0		
Krypton-85	HE	14.12	3.9	pCi/g	13.36	N	0	17	0	NOT_IDENTI	0		
Lead-212		1.648	0.09702	pCi/g	0.09413	0.100	238.7	4	1.122	IDENTIFIED	3.43		
Lead-214		1.399	0.1033	pCi/g	0.113	0.100	352.1	4	1.395	IDENTIFIED	5.254		
Lutetium-177	HE	3.592	0.948	pCi/g	2.739	N	209.5	1	1.105	IDENTIFIED	26.07		
Neptunium-237	int nr	0.8477	0.1822	pCi/g	0.4546	N	87.34	3	1.334	IDENTIFIED	18.26		
Niobium-95	HE	0.1359	0.03159	pCi/g	0.1058	N	0	17	0	NOT_IDENTI	0		
Niobium-97	HE	1.26E+05	9.32E+05	pCi/g	0	N	0	17	0	SHORT_HLIF	0		
Polonium-212	nr	1.648	0.09702	pCi/g	0.09413	N	238.7	4	1.122	IDENTIFIED	3.43		
Polonium-214	nr	1.399	0.1033	pCi/g	0.113	N	352.1	4	1.395	IDENTIFIED	5.254		
Polonium-216	nr	1.648	0.09702	pCi/g	0.09413	N	238.7	4	1.122	IDENTIFIED	3.43		
Polonium-218	nr	1.399	0.1033	pCi/g	0.113	N	352.1	4	1.395	IDENTIFIED	5.254		
Potassium-40		25.95	1.38	pCi/g	0.4756	1.00	1461	1	2.146	IDENTIFIED	3.138		
Protactinium-234m	nr	36.45	5.071	pCi/g	14.58	N	0	17	0	FAIL_ABUND	0		
Radium-224	int	3.957	0.6334	pCi/g	1.071	Y	241.7	1	1.663	IDENTIFIED	15.44	ui	
Radium-226		1.163	0.1088	pCi/g	0.1165	Y	609.5	4	1.35	IDENTIFIED	7.803		
Radium-228		1.662	0.1817	pCi/g	0.2205	0.500	911.4	3	1.683	IDENTIFIED	9.25		
Strontium-85	la	0.07464	0.02061	pCi/g	0.07062	Y	0	17	0	NOT_IDENTI	0	UI	Data rejected due to low abundance.
Thallium-200	HE	685.1	1470	pCi/g	0	N	0	17	0	SHORT_HLIF	0		
Thallium-208		0.5427	0.04594	pCi/g	0.0588	0.080	583.5	1	1.195	IDENTIFIED	6.985		
Thorium-228	nr	1.678	0.09878	pCi/g	0.09584	N	238.7	4	1.122	IDENTIFIED	3.43		
Thorium-230	nr	1.163	0.1088	pCi/g	0.1165	N	609.5	4	1.35	IDENTIFIED	7.803		
Thorium-232	nr	1.662	0.1817	pCi/g	0.2205	N	911.4	3	1.683	IDENTIFIED	9.25		
Thorium-234		27.34	2.674	pCi/g	2.126	2.00	63.33	2	1.017	IDENTIFIED	4.462		
Tin-126	int nr	0.2887	0.05442	pCi/g	0.1542	N	87.34	3	1.334	IDENTIFIED	18.26		
Titanium-44	la nr	0.3953	0.03123	pCi/g	0.08282	N	0	17	0	FAIL_ABUND	0		
Total Uranium		81.615	7.95E-06	ug/g	3.1652	N		0					
Tungsten-181	la nr	1.131	0.2096	pCi/g	0.6987	N	0	17	0	NOT_IDENTI	0		

Uranium-231	nr	7.205	2.284	pCi/g	2.585	N	94.7	1	1.53	IDENTIFIED	31.38	☐	
Uranium-234	nr	1.163	0.1088	pCi/g	0.1165	N	609.5	4	1.35	IDENTIFIED	7.803	☐	
Uranium-235	✔	0.5865	0.1604	pCi/g	0.3755	0.500	143.8	1	1.189	IDENTIFIED	25.94	☐	
Uranium-238	nr	27.34	2.674	pCi/g	2.126	N	63.33	2	1.017	IDENTIFIED	4.462	☐	
Zirconium-97	HE	2.69E+07	1.68E+07	pCi/g	0	N	0	17	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978008	27-JAN-10 12:00	14-FEB-10 12:01	18	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.356	0.1808	pCi/g	0.2527	N	911.3	3	1.711	IDENTIFIED	11.96	☐		
Americium-243	int nr	0.4066	0.07267	pCi/g	0.1498	N	75.01	1	1.602	IDENTIFIED	16.92	☐		
Annihilation Rad.		0.1452	0.04058	pCi/g	0.05792	N	511	1	1.872	IDENTIFIED	27.62	☐		
Barium-137m		0.4463	0.0482	pCi/g	0.08026	N	661.5	2	1.552	IDENTIFIED	9.986	☐		
Bismuth-211	int	4.506	0.3451	pCi/g	0.3873	Y	352	4	1.483	IDENTIFIED	5.83	☐	ui	
Bismuth-212	HE	1.128	0.3008	pCi/g	0.7593	N	0	14	0	FAIL_ABUND	0	☐		
Bismuth-214	✔	1.303	0.1074	pCi/g	0.1415	0.200	609.3	4	1.446	IDENTIFIED	6.587	☐		
Cadmium-115	HE	24.66	16.25	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cerium-143		4194	677.2	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Cesium-137	✔	0.4718	0.05097	pCi/g	0.08484	0.100	661.5	2	1.552	IDENTIFIED	9.986	☐		
Gross Gamma		10.59	1.469	pCi/g	4.096	N		0				☐		
Iodine-135		6.13E+18	0	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Krypton-85	HE	24.19	5.13	pCi/g	17.33	N	0	14	0	NOT_IDENTI	0	☐		
Lead-212	✔	1.588	0.1151	pCi/g	0.1164	0.100	238.8	4	1.358	IDENTIFIED	4.141	☐		
Lead-214	✔	1.567	0.1268	pCi/g	0.135	0.100	352	4	1.483	IDENTIFIED	5.83	☐		
Lutetium-177	HE	5.61	1.478	pCi/g	3.502	N	0	14	0	FAIL_ABUND	0	☐		
Niobium-95	HE	0.1284	0.03206	pCi/g	0.109	N	0	14	0	NOT_IDENTI	0	☐		
Niobium-97	HE	1.88E+06	1.13E+06	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.588	0.1151	pCi/g	0.1164	N	238.8	4	1.358	IDENTIFIED	4.141	☐		
Polonium-214	nr	1.567	0.1268	pCi/g	0.135	N	352	4	1.483	IDENTIFIED	5.83	☐		
Polonium-216	nr	1.588	0.1151	pCi/g	0.1164	N	238.8	4	1.358	IDENTIFIED	4.141	☐		
Polonium-218	nr	1.567	0.1268	pCi/g	0.135	N	352	4	1.483	IDENTIFIED	5.83	☐		
Potassium-40	✔	24.91	1.529	pCi/g	0.5915	1.00	1461	1	2.119	IDENTIFIED	3.679	☐		
Promethium-149	HE	70.41	143.4	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Protactinium-234m	la nr	26.2	4.886	pCi/g	14.09	N	0	14	0	FAIL_ABUND	0	☐		
Radium-224	int	5.023	0.8174	pCi/g	1.324	Y	241.9	1	1.854	IDENTIFIED	15.31	☐	ui	
Radium-226	✔	1.303	0.1074	pCi/g	0.1415	Y	609.3	4	1.446	IDENTIFIED	6.587	☐		
Radium-228	✔	1.356	0.1808	pCi/g	0.2527	0.500	911.3	3	1.711	IDENTIFIED	11.96	☐		
Strontium-85	la	0.1279	0.02711	pCi/g	0.09158	Y	0	14	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208	✔	0.3966	0.05242	pCi/g	0.07568	0.080	582.9	1	1.7	IDENTIFIED	12.4	☐		
Thorium-228	nr	1.616	0.1172	pCi/g	0.1185	N	238.8	4	1.358	IDENTIFIED	4.141	☐		
Thorium-230	nr	1.303	0.1074	pCi/g	0.1415	N	609.3	4	1.446	IDENTIFIED	6.587	☐		
Thorium-232	nr	1.356	0.1808	pCi/g	0.2527	N	911.3	3	1.711	IDENTIFIED	11.96	☐		
Thorium-234	✔	14.41	2.54	pCi/g	4.337	2.00	63.22	2	1.248	IDENTIFIED	14.69	☐		
Titanium-44	la nr	0.3217	0.03949	pCi/g	0.1191	N	0	14	0	FAIL_ABUND	0	☐		
Total Uranium		42.951	7.56E-06	ug/g	6.4567	N		0				☐		
Tungsten-181	HE	2.185	0.4431	pCi/g	1.43	N	0	14	0	NOT_IDENTI	0	☐		
Uranium-234	nr	1.303	0.1074	pCi/g	0.1415	N	609.3	4	1.446	IDENTIFIED	6.587	☐		

Uranium-238	nr	14.41	2.54	pCi/g	4.337	N	63.22	2	1.248	IDENTIFIED	14.69	☐	
Zirconium-97		9.09E+07	2.23E+07	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978009	27-JAN-10 12:00	14-FEB-10 12:01	18	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	2.023	0.1898	pCi/g	0.2065	N	911.2	3	1.851	IDENTIFIED	6.644	☐	
Americium-243	int nr	0.4029	0.04244	pCi/g	0.09541	N	74.82	1	1.151	IDENTIFIED	9.712	☐	
Annihilation Rad.		0.1656	0.03288	pCi/g	0.04433	N	510.8	1	2.155	IDENTIFIED	19.21	☐	
Barium-137m	HE	0.134	0.03982	pCi/g	0.05989	N	661.9	2	1.04	IDENTIFIED	29.23	☐	
Bismuth-211	int	5.05	0.3728	pCi/g	0.3237	Y	351.9	4	1.281	IDENTIFIED	4.549	☐ ui	
Bismuth-212	la nr	1.202	0.2442	pCi/g	0.6386	N	0	11	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	1.271	0.1087	pCi/g	0.1121	0.200	609.4	4	1.375	IDENTIFIED	6.275	☐	
Cadmium-109	int	4.34	0.6074	pCi/g	1.312	Y	87.2	3	1.32	IDENTIFIED	13.18	☐ ui	
Cerium-143		4305	680.7	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.108	0.02792	pCi/g	0.08644	0.100	0	11	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Cesium-137	✔	0.1417	0.04209	pCi/g	0.06331	0.100	661.9	2	1.04	IDENTIFIED	29.23	☐	
Europium-155	HE	0.2278	0.06067	pCi/g	0.2079	N	0	11	0	FAIL_ABUND	0	☐	
Gross Gamma		10.61	1.392	pCi/g	2.477	N		0				☐	
Krypton-85	la nr	26.95	4.542	pCi/g	14.61	N	0	11	0	NOT_IDENTI	0	☐	
Lead-212	✔	2.15	0.1542	pCi/g	0.0953	0.100	238.7	4	1.287	IDENTIFIED	2.788	☐	
Lead-214	✔	1.757	0.1375	pCi/g	0.1131	0.100	351.9	4	1.281	IDENTIFIED	4.549	☐	
Lutetium-177	HE	3.773	1.116	pCi/g	2.984	N	0	11	0	FAIL_ABUND	0	☐	
Mercury-203	int	0.09427	0.03099	pCi/g	0.06772	0.100	277.9	1	1.349	IDENTIFIED	32.11	☐ ui	
Neptunium-237	int nr	1.247	0.2169	pCi/g	0.4252	N	87.2	3	1.32	IDENTIFIED	13.18	☐	
Niobium-95m	HE	0.3223	0.07911	pCi/g	0.2418	N	0	11	0	NOT_IDENTI	0	☐	
Niobium-97	HE	3.21E+05	9.95E+05	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	
Polonium-212	nr	2.15	0.1542	pCi/g	0.0953	N	238.7	4	1.287	IDENTIFIED	2.788	☐	
Polonium-214	nr	1.757	0.1375	pCi/g	0.1131	N	351.9	4	1.281	IDENTIFIED	4.549	☐	
Polonium-216	nr	2.15	0.1542	pCi/g	0.0953	N	238.7	4	1.287	IDENTIFIED	2.788	☐	
Polonium-218	nr	1.757	0.1375	pCi/g	0.1131	N	351.9	4	1.281	IDENTIFIED	4.549	☐	
Potassium-40	✔	29.18	1.548	pCi/g	0.451	1.00	1461	1	2.563	IDENTIFIED	2.673	☐	
Radium-224	int	6.062	0.8418	pCi/g	1.083	Y	241.6	1	2.074	IDENTIFIED	12.39	☐ ui	
Radium-226	✔	1.271	0.1087	pCi/g	0.1121	Y	609.4	4	1.375	IDENTIFIED	6.275	☐	
Radium-228	✔	2.023	0.1898	pCi/g	0.2065	0.500	911.2	3	1.851	IDENTIFIED	6.644	☐	
Strontium-85	la ✔	0.1425	0.02401	pCi/g	0.07722	Y	0	11	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-208		0.6331	0.05712	pCi/g	0.06075	0.080	583.1	1	1.819	IDENTIFIED	7.212	☐	
Thorium-228	nr	2.189	0.157	pCi/g	0.09702	N	238.7	4	1.287	IDENTIFIED	2.788	☐	
Thorium-230	nr	1.271	0.1087	pCi/g	0.1121	N	609.4	4	1.375	IDENTIFIED	6.275	☐	
Thorium-232	nr	2.023	0.1898	pCi/g	0.2065	N	911.2	3	1.851	IDENTIFIED	6.644	☐	
Thorium-234	✔	3.038	1.008	pCi/g	2.017	2.00	63.03	2	0.9925	IDENTIFIED	32.03	☐	
Tin-126	int nr	0.4248	0.05945	pCi/g	0.1289	N	87.2	3	1.32	IDENTIFIED	13.18	☐	
Titanium-44	la nr	0.4208	0.03075	pCi/g	0.08034	N	0	11	0	FAIL_ABUND	0	☐	
Total Uranium		9.0302	3.00E-06	ug/g	3.0032	N		0				☐	
Uranium-234	nr	1.271	0.1087	pCi/g	0.1121	N	609.4	4	1.375	IDENTIFIED	6.275	☐	
Uranium-238	HE	3.038	1.008	pCi/g	2.017	N	63.03	2	0.9925	IDENTIFIED	32.03	☐	
Zirconium-97		1.14E+08	2.06E+07	pCi/g	0	N	0	11	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978010	27-JAN-10 12:00	14-FEB-10 12:17	18	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.051	0.1146	pCi/g	0.1381	N	910.8	3	1.654	IDENTIFIED	8.653	☐	
Americium-243	int nr	0.2126	0.03051	pCi/g	0.07619	N	75.05	1	1.181	IDENTIFIED	13.73	☐	
Annihilation Rad.	HE	0.05893	0.02203	pCi/g	0.0331	N	510.8	1	2.296	IDENTIFIED	37.24	☐	
Bismuth-211	int	2.53	0.169	pCi/g	0.208	Y	351.8	4	1.405	IDENTIFIED	5.859	☐ ui	
Bismuth-212	HE	0.6025	0.1374	pCi/g	0.4201	N	0	10	0	FAIL_ABUND	0	☐	
Bismuth-214	✔	0.6911	0.05313	pCi/g	0.06966	0.200	609.2	4	1.725	IDENTIFIED	6.258	☐	
Cadmium-109	int	1.946	0.3553	pCi/g	1.199	Y	87.38	3	1.308	IDENTIFIED	17.67	☐ ui	
Cadmium-115	HE	5.5	7.969	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Cerium-143		2182	336.1	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Gross Gamma		6.38	0.8448	pCi/g	1.541	N		0				☐	
Iodine-123	HE	1.07E+08	8.19E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Krypton-85	la nr	18.7	2.762	pCi/g	9.883	N	0	10	0	NOT_IDENTI	0	☐	
Lead-212	✔	0.9954	0.04948	pCi/g	0.06136	0.100	238.7	4	1.129	IDENTIFIED	3.457	☐	
Lead-214	✔	0.88	0.06311	pCi/g	0.07249	0.100	351.8	4	1.405	IDENTIFIED	5.859	☐	
Lutetium-177	HE	1.877	0.6339	pCi/g	1.782	N	0	10	0	FAIL_ABUND	0	☐	
Neptunium-237	int nr	0.5592	0.1173	pCi/g	0.319	N	87.38	3	1.308	IDENTIFIED	17.67	☐	
Niobium-95	HE	0.08863	0.02332	pCi/g	0.04206	N	767.2	1	1.552	IDENTIFIED	25.91	☐	
Polonium-212	nr	0.9954	0.04948	pCi/g	0.06136	N	238.7	4	1.129	IDENTIFIED	3.457	☐	
Polonium-214	nr	0.88	0.06311	pCi/g	0.07249	N	351.8	4	1.405	IDENTIFIED	5.859	☐	
Polonium-216	nr	0.9954	0.04948	pCi/g	0.06136	N	238.7	4	1.129	IDENTIFIED	3.457	☐	
Polonium-218	nr	0.88	0.06311	pCi/g	0.07249	N	351.8	4	1.405	IDENTIFIED	5.859	☐	
Potassium-40	✔	24.23	1.075	pCi/g	0.2971	1.00	1460	1	2.218	IDENTIFIED	2.294	☐	
Radium-224	int	2.627	0.4077	pCi/g	0.6973	Y	241.6	1	1.611	IDENTIFIED	15.27	☐ ui	
Radium-226	✔	0.6911	0.05313	pCi/g	0.06966	Y	609.2	4	1.725	IDENTIFIED	6.258	☐	
Radium-228	✔	1.051	0.1146	pCi/g	0.1381	0.500	910.8	3	1.654	IDENTIFIED	8.653	☐	
Rhenium-188	HE	0.2285	0.08188	pCi/g	0.2119	N	154	1	0.9184	IDENTIFIED	35.74	☐	
Strontium-85	la	0.09887	0.0146	pCi/g	0.05224	Y	0	10	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Thallium-200	HE	718.3	824.7	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-208	✔	0.3298	0.02772	pCi/g	0.03516	0.080	583	1	1.304	IDENTIFIED	7.435	☐	
Thorium-228	nr	1.013	0.05038	pCi/g	0.06247	N	238.7	4	1.129	IDENTIFIED	3.457	☐	
Thorium-230	nr	0.6911	0.05313	pCi/g	0.06966	N	609.2	4	1.725	IDENTIFIED	6.258	☐	
Thorium-232	nr	1.051	0.1146	pCi/g	0.1381	N	910.8	3	1.654	IDENTIFIED	8.653	☐	
Thorium-234	✔	2.885	0.9096	pCi/g	1.847	2.00	63.54	2	0.8786	IDENTIFIED	30.27	☐	
Tin-126	int nr	0.1904	0.03477	pCi/g	0.1142	N	87.38	3	1.308	IDENTIFIED	17.67	☐	
Titanium-44	la nr	0.2038	0.01969	pCi/g	0.06188	N	0	10	0	FAIL_ABUND	0	☐	
Total Uranium		8.6036	2.71E-06	ug/g	2.7496	N		0				☐	
Uranium-234	nr	0.6911	0.05313	pCi/g	0.06966	N	609.2	4	1.725	IDENTIFIED	6.258	☐	
Uranium-238	HE	2.885	0.9096	pCi/g	1.847	N	63.54	2	0.8786	IDENTIFIED	30.27	☐	
Zirconium-97		4.84E+07	1.16E+07	pCi/g	0	N	0	10	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978011	27-JAN-10 12:00	14-FEB-10 12:18	18	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.5	0.1972	pCi/g	0.2454	N	910.4	3	1.679	IDENTIFIED	11.81		
Americium-243	int nr	0.3768	0.04261	pCi/g	0.1061	N	74.71	1	1.177	IDENTIFIED	10.4		
Annihilation Rad.		0.1613	0.03515	pCi/g	0.05008	N	510.4	1	1.927	IDENTIFIED	21.6		
Bismuth-211	int	3.718	0.2308	pCi/g	0.3377	Y	351.4	4	1.349	IDENTIFIED	5.285	ui	
Bismuth-212	la nr	1.177	0.2309	pCi/g	0.6582	N	0	11	0	FAIL_ABUND	0		
Bismuth-214		1.204	0.09085	pCi/g	0.1027	0.200	608.7	4	1.329	IDENTIFIED	6.542		
Cadmium-109	int	1.913	0.5747	pCi/g	1.457	Y	87.22	3	0.948	IDENTIFIED	29.64	ui	
Cadmium-115	HE	0.716	14.16	pCi/g	0	N	0	11	0	SHORT_HLIF	0		
Cerium-143		4666	658.8	pCi/g	0	N	0	11	0	SHORT_HLIF	0		
Cesium-135	HE	0.3377	0.09294	pCi/g	0.3018	N	0	11	0	NOT_IDENTI	0		
Gross Gamma		8.299	1.321	pCi/g	2.801	N		0					
Iodine-133	HE	45130	32210	pCi/g	0	N	0	11	0	SHORT_HLIF	0		
Iodine-135		3.62E+18	0	pCi/g	0	N	0	11	0	SHORT_HLIF	0		
Lead-212		1.536	0.07707	pCi/g	0.09561	0.100	238.3	4	1.115	IDENTIFIED	3.501		
Lead-214		1.293	0.0871	pCi/g	0.1208	0.100	351.4	4	1.349	IDENTIFIED	5.285		
Lutetium-177	HE	3.935	0.9995	pCi/g	2.838	N	0	11	0	FAIL_ABUND	0		
Neptunium-237	HE	0.5499	0.1746	pCi/g	0.4546	N	87.22	3	0.948	IDENTIFIED	29.64		
Niobium-95	HE	0.07973	0.02505	pCi/g	0.06941	N	767.1	1	2.164	IDENTIFIED	31.24		
Niobium-95m	la nr	0.6939	0.08985	pCi/g	0.3036	N	0	11	0	NOT_IDENTI	0		
Polonium-212	nr	1.536	0.07707	pCi/g	0.09561	N	238.3	4	1.115	IDENTIFIED	3.501		
Polonium-214	nr	1.293	0.0871	pCi/g	0.1208	N	351.4	4	1.349	IDENTIFIED	5.285		
Polonium-216	nr	1.536	0.07707	pCi/g	0.09561	N	238.3	4	1.115	IDENTIFIED	3.501		
Polonium-218	nr	1.293	0.0871	pCi/g	0.1208	N	351.4	4	1.349	IDENTIFIED	5.285		
Potassium-40		24.53	1.233	pCi/g	0.5831	1.00	1460	1	2.716	IDENTIFIED	3.359		
Promethium-149	HE	117.9	110	pCi/g	0	N	0	11	0	SHORT_HLIF	0		
Radium-224	int	4.871	0.6769	pCi/g	1.088	Y	241.3	1	1.773	IDENTIFIED	13.61	ui	
Radium-226		1.204	0.09085	pCi/g	0.1027	Y	608.7	4	1.329	IDENTIFIED	6.542		
Radium-228		1.5	0.1972	pCi/g	0.2454	0.500	910.4	3	1.679	IDENTIFIED	11.81		
Thallium-208		0.546	0.04381	pCi/g	0.06175	0.080	582.6	1	1.807	IDENTIFIED	7.338		
Thorium-228	nr	1.564	0.07847	pCi/g	0.09734	N	238.3	4	1.115	IDENTIFIED	3.501		
Thorium-230	nr	1.204	0.09085	pCi/g	0.1027	N	608.7	4	1.329	IDENTIFIED	6.542		
Thorium-232	nr	1.5	0.1972	pCi/g	0.2454	N	910.4	3	1.679	IDENTIFIED	11.81		
Tin-126	HE	0.1873	0.05624	pCi/g	0.1435	N	87.22	3	0.948	IDENTIFIED	29.64		
Titanium-44	la nr	0.3863	0.03223	pCi/g	0.09194	N	0	11	0	FAIL_ABUND	0		
Total Uranium		7.8598	3.21E-06	ug/g	4.0787	N		0					
Uranium-234	nr	1.204	0.09085	pCi/g	0.1027	N	608.7	4	1.329	IDENTIFIED	6.542		
Zirconium-97		9.53E+07	2.07E+07	pCi/g	0	N	0	11	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978012	27-JAN-10 12:00	14-FEB-10 13:11	18	SAMPLE	LOAD	1	LANL	LANL010041GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.503	0.1606	pCi/g	0.1835	N	911.6	3	1.389	IDENTIFIED	8.986		
Americium-243	int nr	0.3951	0.04652	pCi/g	0.1027	N	74.93	1	1.306	IDENTIFIED	11.01		
Annihilation Rad.	HE	0.1173	0.03589	pCi/g	0.04779	N	511.4	1	1.734	IDENTIFIED	30.29		
Bismuth-211	int	3.974	0.297	pCi/g	0.3524	Y	352.3	4	1.405	IDENTIFIED	5.936	ui	
Bismuth-212	la nr	1.397	0.2446	pCi/g	0.7186	N	0	12	0	FAIL_ABUND	0		

Bismuth-214 ✔		1.084	0.102	pCi/g	0.1138	0.200	609.6	4	1.365	IDENTIFIED	8.013	☐		
Cadmium-109	int	2.242	0.6396	pCi/g	1.826	Y	87.07	3	1.211	IDENTIFIED	28.14	☐	ui	
Cerium-143		1662	407.8	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Gross Gamma		9.15	1.448	pCi/g	3.898	N		0				☐		
Iodine-123	HE	1.03E+08	1.19E+08	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Iodine-133	HE	3653	30600	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Iodine-135		2.84E+18	0	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Krypton-85	HE	15.83	4.413	pCi/g	14.66	N	0	12	0	NOT_IDENTI	0	☐		
Lead-212 ✔		1.568	0.09712	pCi/g	0.09543	0.100	239	4	1.24	IDENTIFIED	3.571	☐		
Lead-214 ✔		1.382	0.1094	pCi/g	0.1237	0.100	352.3	4	1.405	IDENTIFIED	5.936	☐		
Neptunium-237	HE	0.6442	0.1955	pCi/g	0.4706	N	87.07	3	1.211	IDENTIFIED	28.14	☐		
Niobium-97	HE	4.56E+05	9.66E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.568	0.09712	pCi/g	0.09543	N	239	4	1.24	IDENTIFIED	3.571	☐		
Polonium-214	nr	1.382	0.1094	pCi/g	0.1237	N	352.3	4	1.405	IDENTIFIED	5.936	☐		
Polonium-216	nr	1.568	0.09712	pCi/g	0.09543	N	239	4	1.24	IDENTIFIED	3.571	☐		
Polonium-218	nr	1.382	0.1094	pCi/g	0.1237	N	352.3	4	1.405	IDENTIFIED	5.936	☐		
Potassium-40 ✔		23.29	1.315	pCi/g	0.4501	1.00	1461	1	2.038	IDENTIFIED	3.481	☐		
Promethium-149		293.4	125.7	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Protactinium-234m	HE	15.93	3.918	pCi/g	10.91	N	0	12	0	FAIL_ABUND	0	☐		
Radium-224	int	4.061	0.6926	pCi/g	1.086	Y	242.1	1	1.879	IDENTIFIED	16.44	☐	ui	
Radium-226 ✔		1.084	0.102	pCi/g	0.1138	Y	609.6	4	1.365	IDENTIFIED	8.013	☐		
Radium-228 ✔		1.503	0.1606	pCi/g	0.1835	0.500	911.6	3	1.389	IDENTIFIED	8.986	☐		
Strontium-85	la	0.08368	0.02334	pCi/g	0.07753	Y	0	12	0	NOT_IDENTI	0	☒	UI	Data rejected due to low abundance.
Thallium-200		3018	1437	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Thallium-208 ✔		0.5009	0.04642	pCi/g	0.06076	0.080	583.4	1	1.321	IDENTIFIED	8.078	☐		
Thorium-228	nr	1.596	0.09888	pCi/g	0.09717	N	239	4	1.24	IDENTIFIED	3.571	☐		
Thorium-230	nr	1.084	0.102	pCi/g	0.1138	N	609.6	4	1.365	IDENTIFIED	8.013	☐		
Thorium-232	nr	1.503	0.1606	pCi/g	0.1835	N	911.6	3	1.389	IDENTIFIED	8.986	☐		
Thorium-234 ✔		6.535	1.476	pCi/g	2.379	2.00	63.25	2	1.063	IDENTIFIED	20.81	☐		
Tin-126	HE	0.2194	0.06259	pCi/g	0.1678	N	87.07	3	1.211	IDENTIFIED	28.14	☐		
Titanium-44	la nrt	0.333	0.03037	pCi/g	0.0849	N	0	12	0	FAIL_ABUND	0	☐		
Total Uranium		19.489	4.39E-06	ug/g	3.5422	N		0				☐		
Uranium-234	nr	1.084	0.102	pCi/g	0.1138	N	609.6	4	1.365	IDENTIFIED	8.013	☐		
Uranium-238	nr	6.535	1.476	pCi/g	2.379	N	63.25	2	1.063	IDENTIFIED	20.81	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978013	27-JAN-10 12:00	14-FEB-10 13:11	18	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act Rpt	Err(%)	Qual		Qual Comment
Actinium-228	nr	1.845	0.1742	pCi/g	0.2303	N	910.8	3	1.561	IDENTIFIED	7.934	☐	
Americium-243	int nr	0.3914	0.04665	pCi/g	0.1143	N	74.54	1	1.126	IDENTIFIED	11.03	☐	
Annihilation Rad.		0.1694	0.03218	pCi/g	0.05355	N	510.8	1	1.872	IDENTIFIED	18.8	☐	
Bismuth-211	int	3.749	0.2898	pCi/g	0.3934	Y	351.6	4	1.342	IDENTIFIED	7.025	☐	ui
Bismuth-212	HE	1.252	0.2881	pCi/g	0.7844	N	0	14	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.167	0.09252	pCi/g	0.1277	0.200	609.1	4	1.481	IDENTIFIED	7.02	☐	
Cadmium-109	int	4.305	0.6093	pCi/g	1.47	Y	86.98	3	1.408	IDENTIFIED	13.28	☐	ui
Cerium-143		4464	680.8	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐	
Cesium-134	la	0.1839	0.03351	pCi/g	0.1051	0.100	0	14	0	FAIL_ABUND	0	☒	UI Data rejected due to low abundance.

Cesium-135	HE	0.3718	0.1098	pCi/g	0.3495	N	0	14	0	NOT_IDENTI	0	☐		
Gross Gamma		10.4	1.411	pCi/g	3.833	N		0				☐		
Iodine-123	HE	8.72E+07	1.38E+08	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Iodine-133	HE	48050	36400	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Iodine-135		7.43E+18	0	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Krypton-85	HE	15.03	4.421	pCi/g	14.84	N	0	14	0	NOT_IDENTI	0	☐		
Lead-212 ✔		1.737	0.08784	pCi/g	0.1089	0.100	238.4	4	1.191	IDENTIFIED	3.464	☐		
Lead-214 ✔		1.304	0.1064	pCi/g	0.1371	0.100	351.6	4	1.342	IDENTIFIED	7.025	☐		
Lutetium-177	HE	4.445	1.214	pCi/g	3.271	N	0	14	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.237	0.2167	pCi/g	0.4304	N	86.98	3	1.408	IDENTIFIED	13.28	☐		
Niobium-95m	la nr	0.6783	0.09518	pCi/g	0.3189	N	0	14	0	NOT_IDENTI	0	☐		
Polonium-212	nr	1.737	0.08784	pCi/g	0.1089	N	238.4	4	1.191	IDENTIFIED	3.464	☐		
Polonium-214	nr	1.304	0.1064	pCi/g	0.1371	N	351.6	4	1.342	IDENTIFIED	7.025	☐		
Polonium-216	nr	1.737	0.08784	pCi/g	0.1089	N	238.4	4	1.191	IDENTIFIED	3.464	☐		
Polonium-218	nr	1.304	0.1064	pCi/g	0.1371	N	351.6	4	1.342	IDENTIFIED	7.025	☐		
Potassium-40 ✔		34.85	1.508	pCi/g	0.4144	1.00	1461	1	2.167	IDENTIFIED	2.791	☐		
Promethium-149	HE	23.87	128.6	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		
Radium-224	int	3.788	0.7461	pCi/g	1.239	Y	241.2	1	1.774	IDENTIFIED	19.47	☐	ui	
Radium-226 ✔		1.167	0.09252	pCi/g	0.1277	Y	609.1	4	1.481	IDENTIFIED	7.02	☐		
Radium-228 ✔		1.845	0.1742	pCi/g	0.2303	0.500	910.8	3	1.561	IDENTIFIED	7.934	☐		
Strontium-85	la	0.07947	0.02338	pCi/g	0.07849	Y	0	14	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Thallium-208 ✔		0.5584	0.05073	pCi/g	0.0682	0.080	583.1	1	1.484	IDENTIFIED	8.517	☐		
Thorium-228	nr	1.768	0.08943	pCi/g	0.1108	N	238.4	4	1.191	IDENTIFIED	3.464	☐		
Thorium-230	nr	1.167	0.09252	pCi/g	0.1277	N	609.1	4	1.481	IDENTIFIED	7.02	☐		
Thorium-232	nr	1.845	0.1742	pCi/g	0.2303	N	910.8	3	1.561	IDENTIFIED	7.934	☐		
Thorium-234 ✔		4.481	1.225	pCi/g	2.833	2.00	63.09	2	1.23	IDENTIFIED	25.78	☐		
Tin-126	int nr	0.4213	0.05962	pCi/g	0.1447	N	86.98	3	1.408	IDENTIFIED	13.28	☐		
Titanium-44	la nr	0.3047	0.03188	pCi/g	0.0947	N	0	14	0	NOT_IDENTI	0	☐		
Total Uranium		13.487	3.64E-06	ug/g	4.2183	N		0				☐		
Uranium-234	nr	1.167	0.09252	pCi/g	0.1277	N	609.1	4	1.481	IDENTIFIED	7.02	☐		
Uranium-238	HE	4.481	1.225	pCi/g	2.833	N	63.09	2	1.23	IDENTIFIED	25.78	☐		
Zirconium-97		1.03E+08	2.16E+07	pCi/g	0	N	0	14	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978014	27-JAN-10 12:00	14-FEB-10 13:12	18.1	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Actinium-228	nr	1.603	0.1528	pCi/g	0.1868	N	911.5	3	1.52	IDENTIFIED	7.331	☐	
Americium-243	int nr	0.3333	0.03083	pCi/g	0.07343	N	74.89	1	0.8897	IDENTIFIED	8.312	☐	
Annihilation Rad.		0.1457	0.02888	pCi/g	0.04018	N	511	1	1.503	IDENTIFIED	19.08	☐	
Bismuth-211	int	4.131	0.341	pCi/g	0.2961	Y	352	4	1.235	IDENTIFIED	4.992	☐	ui
Bismuth-212	HE	0.7219	0.1913	pCi/g	0.5939	N	0	13	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.256	0.1033	pCi/g	0.09758	0.200	609.4	4	1.285	IDENTIFIED	5.981	☐	
Cadmium-109	int	3.639	0.4841	pCi/g	1.275	Y	87.24	3	1.098	IDENTIFIED	12.45	☐	ui
Cadmium-115	HE	17.51	10.72	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Cerium-143		1742	353.6	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	
Gross Gamma		9.992	1.409	pCi/g	4.379	N		0				☐	
Iodine-123	HE	6.67E+07	9.36E+07	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐	

Iodine-133	HE	14300	25660	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Krypton-85	HE	14.01	3.265	pCi/g	11.45	N	0	13	0	NOT_IDENTI	0	☐		
Lead-212 ✓		1.661	0.1306	pCi/g	0.07859	0.100	238.6	4	1.058	IDENTIFIED	3.574	☐		
Lead-214 ✓		1.437	0.1244	pCi/g	0.1032	0.100	352	4	1.235	IDENTIFIED	4.992	☐		
Lutetium-177	HE	2.532	0.8981	pCi/g	2.412	N	0	13	0	FAIL_ABUND	0	☐		
Neptunium-237	int nr	1.046	0.176	pCi/g	0.336	N	87.24	3	1.098	IDENTIFIED	12.45	☐		
Niobium-97	HE	71310	7.55E+05	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Polonium-212	nr	1.661	0.1306	pCi/g	0.07859	N	238.6	4	1.058	IDENTIFIED	3.574	☐		
Polonium-214	nr	1.437	0.1244	pCi/g	0.1032	N	352	4	1.235	IDENTIFIED	4.992	☐		
Polonium-216	nr	1.661	0.1306	pCi/g	0.07859	N	238.6	4	1.058	IDENTIFIED	3.574	☐		
Polonium-218	nr	1.437	0.1244	pCi/g	0.1032	N	352	4	1.235	IDENTIFIED	4.992	☐		
Potassium-40 ✓		27.42	1.442	pCi/g	0.4665	1.00	1461	1	1.873	IDENTIFIED	2.993	☐		
Protactinium-234m	HE	10.58	3.244	pCi/g	8.808	N	0	13	0	FAIL_ABUND	0	☐		
Radium-224	int	3.034	0.4878	pCi/g	1.098	Y	241.8	1	1.02	IDENTIFIED	14.6	☐	ui	
Radium-226 ✓		1.256	0.1033	pCi/g	0.09758	Y	609.4	4	1.285	IDENTIFIED	5.981	☐		
Radium-228 ✓		1.603	0.1528	pCi/g	0.1868	0.500	911.5	3	1.52	IDENTIFIED	7.331	☐		
Strontium-85	la	0.07409	0.01726	pCi/g	0.06056	Y	0	13	0	NOT_IDENTI	0	☑	UI	Data rejected due to low abundance.
Technetium-99m		1.25E+20	0	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		
Thallium-208 ✓		0.5888	0.05121	pCi/g	0.04626	0.080	583.3	1	1.413	IDENTIFIED	6.819	☐		
Thorium-228	nr	1.691	0.1329	pCi/g	0.08002	N	238.6	4	1.058	IDENTIFIED	3.574	☐		
Thorium-230	nr	1.256	0.1033	pCi/g	0.09758	N	609.4	4	1.285	IDENTIFIED	5.981	☐		
Thorium-232	nr	1.603	0.1528	pCi/g	0.1868	N	911.5	3	1.52	IDENTIFIED	7.331	☐		
Thorium-234 ✓		4.614	0.9145	pCi/g	1.662	2.00	63.24	2	0.9561	IDENTIFIED	17.81	☐		
Tin-126	int nr	0.3561	0.04737	pCi/g	0.1252	N	87.24	3	1.098	IDENTIFIED	12.45	☐		
Titanium-44	la nr	0.3629	0.0246	pCi/g	0.05896	N	0	13	0	FAIL_ABUND	0	☐		
Total Uranium		13.833	2.72E-06	ug/g	2.475	N		0				☐		
Uranium-234	nr	1.256	0.1033	pCi/g	0.09758	N	609.4	4	1.285	IDENTIFIED	5.981	☐		
Uranium-238	nr	4.614	0.9145	pCi/g	1.662	N	63.24	2	0.9561	IDENTIFIED	17.81	☐		
Zirconium-97	HE	1.62E+07	1.40E+07	pCi/g	0	N	0	13	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
245978015	27-JAN-10 12:00	14-FEB-10 13:12	18.1	SAMPLE	LOAD	1	LANL	LANL01004!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Actinium-228	nr	1.621	0.1961	pCi/g	0.2385	N	910.9	3	1.311	IDENTIFIED	10.78	☐		
Americium-243	int nr	0.3893	0.04742	pCi/g	0.1026	N	74.63	1	1.092	IDENTIFIED	11.69	☐		
Annihilation Rad.		0.1949	0.0476	pCi/g	0.04742	N	511	1	2.374	IDENTIFIED	24.24	☐		
Barium-137m		0.3792	0.03455	pCi/g	0.06464	N	661.3	2	1.804	IDENTIFIED	8.514	☐		
Bismuth-211	int	4.103	0.2718	pCi/g	0.3674	Y	351.7	4	1.308	IDENTIFIED	5.831	☐	ui	
Bismuth-212	HE	0.8891	0.325	pCi/g	0.7059	N	0	12	0	FAIL_ABUND	0	☐		
Bismuth-214 ✓		1.249	0.1045	pCi/g	0.1236	0.200	609	4	1.564	IDENTIFIED	7.287	☐		
Cadmium-109	int	2.396	0.5451	pCi/g	1.736	Y	87.09	3	1.264	IDENTIFIED	22.43	☐	ui	
Cadmium-115	HE	12.64	15.61	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Cerium-143		3479	567.2	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		
Cesium-134	la	0.183	0.03702	pCi/g	0.1003	0.100	0	12	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Cesium-137 ✓		0.4009	0.03653	pCi/g	0.06833	0.100	661.3	2	1.804	IDENTIFIED	8.514	☐		
Gross Gamma		9.636	1.55	pCi/g	4.218	N		0				☐		
Iodine-123	HE	1.70E+08	1.31E+08	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐		

Iodine-133	HE	13370	35600	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Iodine-135		5.26E+18	0	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.425	0.08245	pCi/g	0.1456	0.100	238.4	4	1.143	IDENTIFIED	4.568	☐	
Lead-214 ✔		1.427	0.1016	pCi/g	0.1281	0.100	351.7	4	1.308	IDENTIFIED	5.831	☐	
Lutetium-177	HE	3.838	1.213	pCi/g	2.883	N	0	12	0	FAIL_ABUND	0	☐	
Neptunium-237	HE	0.6885	0.172	pCi/g	0.4599	N	87.09	3	1.264	IDENTIFIED	22.43	☐	
Niobium-97	HE	3.36E+05	1.04E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Polonium-212 nr		1.425	0.08245	pCi/g	0.1456	N	238.4	4	1.143	IDENTIFIED	4.568	☐	
Polonium-214 nr		1.427	0.1016	pCi/g	0.1281	N	351.7	4	1.308	IDENTIFIED	5.831	☐	
Polonium-216 nr		1.425	0.08245	pCi/g	0.1456	N	238.4	4	1.143	IDENTIFIED	4.568	☐	
Polonium-218 nr		1.427	0.1016	pCi/g	0.1281	N	351.7	4	1.308	IDENTIFIED	5.831	☐	
Potassium-40 ✔		22.16	1.185	pCi/g	0.4831	1.00	1460	1	1.789	IDENTIFIED	3.987	☐	
Radium-224 int		1.493	0.5137	pCi/g	1.417	Y	241.3	1	2.18	IDENTIFIED	34.3	☐	ui
Radium-226 ✔		1.249	0.1045	pCi/g	0.1236	Y	609	4	1.564	IDENTIFIED	7.287	☐	
Radium-228 ✔		1.621	0.1961	pCi/g	0.2385	0.500	910.9	3	1.311	IDENTIFIED	10.78	☐	
Thallium-200	HE	115	1637	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.5723	0.05164	pCi/g	0.06258	0.080	582.8	1	1.343	IDENTIFIED	8.283	☐	
Thorium-228 nr		1.451	0.08395	pCi/g	0.1483	N	238.4	4	1.143	IDENTIFIED	4.568	☐	
Thorium-230 nr		1.249	0.1045	pCi/g	0.1236	N	609	4	1.564	IDENTIFIED	7.287	☐	
Thorium-232 nr		1.621	0.1961	pCi/g	0.2385	N	910.9	3	1.311	IDENTIFIED	10.78	☐	
Thorium-234 ✔		6.766	1.569	pCi/g	2.331	2.00	62.73	2	0.9911	IDENTIFIED	21.57	☐	
Tin-126	HE	0.2345	0.05334	pCi/g	0.1689	N	87.09	3	1.264	IDENTIFIED	22.43	☐	
Titanium-44 la nr		0.4479	0.03298	pCi/g	0.08195	N	0	12	0	FAIL_ABUND	0	☐	
Total Uranium		20.231	4.67E-06	ug/g	3.4703	N		0				☐	
Uranium-234 nr		1.249	0.1045	pCi/g	0.1236	N	609	4	1.564	IDENTIFIED	7.287	☐	
Uranium-238 nr		6.766	1.569	pCi/g	2.331	N	62.73	2	0.9911	IDENTIFIED	21.57	☐	
Zirconium-97		8.43E+07	2.14E+07	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032521		14-FEB-10 13:13	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-135	HE	5.34E+08	7.26E+08	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	
Krypton-85	HE	9.59	1.824	pCi/g	7.264	N	0	4	0	NOT_IDENTI	0	☐	
Strontium-85	la	0.04638	0.00882	pCi/g	0.03513	Y	0	4	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Zirconium-97		8166	2196	pCi/g	0	N	0	4	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032522	27-JAN-10 12:00	14-FEB-10 13:18	18.1	DUP	LOAD	1		LAN101004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228	nr	1.49	0.1544	pCi/g	0.1718	N	910.8	3	1.261	IDENTIFIED	8.329	☐	
Americium-243	int nr	0.2647	0.04184	pCi/g	0.1222	N	74.57	1	0.8962	IDENTIFIED	14.83	☐	
Annihilation Rad.	HE	0.04809	0.02978	pCi/g	0.04712	N	510.9	1	1.78	IDENTIFIED	61.84	☐	
Barium-137m		0.4048	0.03582	pCi/g	0.05566	N	661.1	2	1.402	IDENTIFIED	8.496	☐	
Bismuth-211	int	3.835	0.2821	pCi/g	0.3297	Y	351.5	4	1.447	IDENTIFIED	6.389	☐	ui
Bismuth-212	HE	1.075	0.2185	pCi/g	0.648	N	0	12	0	FAIL_ABUND	0	☐	
Bismuth-214 ✔		1.139	0.08961	pCi/g	0.09954	0.200	608.9	4	1.377	IDENTIFIED	6.889	☐	

Cadmium-109	int	3.301	0.6219	pCi/g	1.697	Y	86.9	3	1.134	IDENTIFIED	17.98	☐	ui
Cadmium-115	HE	14.02	12.73	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cerium-143		3008	494.1	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Cesium-137 ✔		0.428	0.03788	pCi/g	0.05883	0.100	661.1	2	1.402	IDENTIFIED	8.496	☐	
Gadolinium-153	HE	0.2923	0.07588	pCi/g	0.1672	N	0	12	0	FAIL_ABUND	0	☐	
Gold-195	HE	0.8535	0.2215	pCi/g	0.4761	N	0	12	0	FAIL_ABUND	0	☐	
Gross Gamma		10.16	1.509	pCi/g	4.224	N		0				☐	
Iodine-135		5.46E+18	0	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Lead-212 ✔		1.458	0.07567	pCi/g	0.08793	0.100	238.4	4	1.175	IDENTIFIED	3.545	☐	
Lead-214 ✔		1.334	0.1041	pCi/g	0.1149	0.100	351.5	4	1.447	IDENTIFIED	6.389	☐	
Lutetium-177	HE	4.275	0.9728	pCi/g	2.443	N	209	1	1.369	IDENTIFIED	22.56	☐	
Neptunium-237	int nr	0.9486	0.2038	pCi/g	0.5248	N	86.9	3	1.134	IDENTIFIED	17.98	☐	
Niobium-95	HE	0.09803	0.02259	pCi/g	0.08585	N	0	12	0	NOT_IDENTI	0	☐	
Niobium-97		2.26E+06	9.66E+05	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Polonium-212	nr	1.458	0.07567	pCi/g	0.08793	N	238.4	4	1.175	IDENTIFIED	3.545	☐	
Polonium-214	nr	1.334	0.1041	pCi/g	0.1149	N	351.5	4	1.447	IDENTIFIED	6.389	☐	
Polonium-216	nr	1.458	0.07567	pCi/g	0.08793	N	238.4	4	1.175	IDENTIFIED	3.545	☐	
Polonium-218	nr	1.334	0.1041	pCi/g	0.1149	N	351.5	4	1.447	IDENTIFIED	6.389	☐	
Potassium-40 ✔		24.43	1.31	pCi/g	0.2791	1.00	1460	1	2.1	IDENTIFIED	3.194	☐	
Protactinium-234m	la nr	21.46	4.077	pCi/g	11.53	N	0	12	0	FAIL_ABUND	0	☐	
Radium-224	int	3.356	0.5108	pCi/g	1	Y	241.5	1	1.49	IDENTIFIED	14.91	☐	ui
Radium-226 ✔		1.139	0.08961	pCi/g	0.09954	Y	608.9	4	1.377	IDENTIFIED	6.889	☐	
Radium-228 ✔		1.49	0.1544	pCi/g	0.1718	0.500	910.8	3	1.261	IDENTIFIED	8.329	☐	
Sodium-24	HE	4.41E+06	9.35E+06	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	
Thallium-208 ✔		0.4309	0.04547	pCi/g	0.05665	0.080	582.9	1	1.547	IDENTIFIED	10	☐	
Thorium-228	nr	1.484	0.07705	pCi/g	0.08953	N	238.4	4	1.175	IDENTIFIED	3.545	☐	
Thorium-230	nr	1.138	0.08961	pCi/g	0.09954	N	608.9	4	1.377	IDENTIFIED	6.889	☐	
Thorium-232	nr	1.49	0.1544	pCi/g	0.1718	N	910.8	3	1.261	IDENTIFIED	8.329	☐	
Thorium-234 ✔		18.09	2.627	pCi/g	3.191	2.00	62.87	2	0.9567	IDENTIFIED	10.65	☐	
Tin-126	int nr	0.3231	0.06086	pCi/g	0.1673	N	86.9	3	1.134	IDENTIFIED	17.98	☐	
Titanium-44	la nr	0.1425	0.0256	pCi/g	0.0848	N	0	12	0	NOT_IDENTI	0	☐	
Total Uranium		54.046	7.82E-06	ug/g	4.75	N		0				☐	
Uranium-234	nr	1.138	0.08961	pCi/g	0.09954	N	608.9	4	1.377	IDENTIFIED	6.889	☐	
Uranium-235 ✔		0.5109	0.1724	pCi/g	0.3435	0.500	143	1	0.8089	IDENTIFIED	32.74	☐	
Uranium-238	nr	18.09	2.627	pCi/g	3.191	N	62.87	2	0.9567	IDENTIFIED	10.65	☐	
Zirconium-97		3.71E+07	1.83E+07	pCi/g	0	N	0	12	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202032523		14-FEB-10 14:00	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Actinium-228		1.368	0.247	pCi/g	0.7062	N	0	7	0	FAIL_ABUND	0	☐	
Americium-241 ✔		13.86	1.036	pCi/g	0.7421	0.200	59.46	1	0.9323	IDENTIFIED	3.993	☐	
Americium-243		0.6923	0.1288	pCi/g	0.1612	N	75.96	1	3.314	IDENTIFIED	17.7	☐	
Barium-137m		4.874	0.1737	pCi/g	0.1128	N	661.7	2	1.442	IDENTIFIED	2.599	☐	
Bismuth-211		1.856	0.2975	pCi/g	0.6088	Y	351.9	4	1.259	IDENTIFIED	15.67	☐	
Bismuth-212	HE	1.165	0.3704	pCi/g	0.9789	N	0	7	0	FAIL_ABUND	0	☐	
Bismuth-214		0.579	0.13	pCi/g	0.2183	0.200	609.8	4	1.288	IDENTIFIED	22.15	☐	

Cadmium-109		29.95	2.262	pCi/g	2.29	Y	87.99	3	0.9036	IDENTIFIED	4.571	☐
Cesium-137 ✓		5.153	0.1841	pCi/g	0.1192	0.100	661.7	2	1.442	IDENTIFIED	2.599	☐
Cobalt-57		0.2424	0.03368	pCi/g	0.06276	N	122.1	1	1.373	IDENTIFIED	13.45	☐
Cobalt-60 ✓		6.374	0.2776	pCi/g	0.09554	0.100	1333	1	1.816	IDENTIFIED	2.688	☐
Gross Gamma		26.14	3.135	pCi/g	3.619	N		0				☐
Lead-212		0.9783	0.0854	pCi/g	0.2036	0.100	238.5	4	1.03	IDENTIFIED	7.752	☐
Lead-214		0.6455	0.1048	pCi/g	0.2208	0.100	351.9	4	1.259	IDENTIFIED	15.67	☐
Neptunium-237		8.717	1.115	pCi/g	0.7198	N	87.99	3	0.9036	IDENTIFIED	4.571	☐
Polonium-212		0.9783	0.0854	pCi/g	0.2036	N	238.5	4	1.03	IDENTIFIED	7.752	☐
Polonium-214		0.6455	0.1048	pCi/g	0.2208	N	351.9	4	1.259	IDENTIFIED	15.67	☐
Polonium-216		0.9783	0.0854	pCi/g	0.2036	N	238.5	4	1.03	IDENTIFIED	7.752	☐
Polonium-218		0.6455	0.1048	pCi/g	0.2208	N	351.9	4	1.259	IDENTIFIED	15.67	☐
Potassium-40		0.9463	0.267	pCi/g	0.4361	1.00	1461	1	0.9724	IDENTIFIED	27.99	☐
Radium-226		0.579	0.13	pCi/g	0.2183	Y	609.8	4	1.288	IDENTIFIED	22.15	☐
Radium-228		1.368	0.247	pCi/g	0.7062	0.500	0	7	0	FAIL_ABUND	0	☐
Sodium-24	HE	380.3	820.4	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Thallium-200	HE	12.16	11.62	pCi/g	0	N	0	7	0	SHORT_HLIF	0	☐
Thallium-208		0.4046	0.05047	pCi/g	0.1096	0.080	583.3	1	1.399	IDENTIFIED	12.07	☐
Thorium-228		0.9877	0.08622	pCi/g	0.2055	N	238.5	4	1.03	IDENTIFIED	7.752	☐
Thorium-230		0.579	0.13	pCi/g	0.2183	N	609.8	4	1.288	IDENTIFIED	22.15	☐
Thorium-232		1.368	0.247	pCi/g	0.7062	N	0	7	0	FAIL_ABUND	0	☐
Tin-126		2.969	0.2242	pCi/g	0.2287	N	87.99	3	0.9036	IDENTIFIED	4.571	☐
Titanium-44	HE	0.1602	0.03334	pCi/g	0.118	N	0	7	0	NOT_IDENTI	0	☐
Uranium-234		0.579	0.13	pCi/g	0.2183	N	609.8	4	1.288	IDENTIFIED	22.15	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
948721	245978015	SAMPLE	14-FEB-10	Radium-224	1.493	0.5137	pCi/g	0.7087	Y
				Radium-226	1.249	0.1045	pCi/g	0.06182	Y
				Radium-228	1.621	0.1961	pCi/g	0.1183	0.500
				Strontium-85	0.06738	0.02089	pCi/g	0.03745	Y
				Thallium-200	115	1637	pCi/g	0	N
				Thallium-208	0.5723	0.05164	pCi/g	0.03131	0.080
				Thorium-234	6.766	1.569	pCi/g	1.166	2.00
				Tin-113	0.06463	0.02607	pCi/g	0.04608	0.100
				Uranium-235	0.2197	0.1133	pCi/g	0.1897	0.500
				Uranium-238	6.766	1.569	pCi/g	1.166	N
				Zirconium-97	8.43E+07	2.14E+07	pCi/g	0	N
948721	1202032521	MB	14-FEB-10	Iodine-135	5.34E+08	7.26E+08	pCi/g	0	N
				Krypton-85	9.59	1.824	pCi/g	3.634	N
				Strontium-85	0.04638	0.00882	pCi/g	0.01757	Y
				Zirconium-97	8166	2196	pCi/g	0	N
948721	1202032522	DUP	14-FEB-10	Bismuth-210	13.3	4.763	pCi/g	8.908	N
				Bismuth-211	3.835	0.2821	pCi/g	0.165	Y
				Bismuth-214	1.139	0.08961	pCi/g	0.0498	0.200
				Cadmium-109	3.301	0.6219	pCi/g	0.8489	Y
				Cadmium-115	14.02	12.73	pCi/g	0	N
				Cerium-143	3008	494.1	pCi/g	0	N
				Cesium-137	0.428	0.03788	pCi/g	0.02943	0.100
				Gross Gamma	10.16	1.509	pCi/g	2.053	N
				Iodine-135	5.46E+18	0	pCi/g	0	N
				Krypton-85	5.998	3.456	pCi/g	5.41	N
				Lead-210	13.3	4.763	pCi/g	8.908	N
				Lead-212	1.458	0.07567	pCi/g	0.04399	0.100
				Lead-214	1.334	0.1041	pCi/g	0.0575	0.100
				Niobium-97	2.26E+06	9.665E+05	pCi/g	0	N
				Polonium-209	7.866	3.644	pCi/g	6.574	N
				Polonium-210	13.3	4.756	pCi/g	8.908	N
				Potassium-40	24.43	1.31	pCi/g	0.1397	1.00
				Protactinium-234m	21.46	4.077	pCi/g	5.767	N
				Radium-224	3.356	0.5108	pCi/g	0.5005	Y
				Radium-226	1.139	0.08961	pCi/g	0.0498	Y
				Radium-228	1.49	0.1544	pCi/g	0.08593	0.500
				Sodium-24	4.41E+06	9.35E+06	pCi/g	0	N

rsc 2/19/10

rsc 2/19/10

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:17:32.29

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978001.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:17:01
Sample ID         : G245978001           Sample quantity  : 1.27590E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.18  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.30*	117	402	1.06	126.75	123	8	1.63E-02	31.6	
2	3	74.61*	345	487	1.30	149.35	142	18	4.79E-02	12.7	6.14E+00
3	3	76.87	571	425	1.23	153.88	142	18	7.93E-02	7.5	
4	0	86.91*	234	428	1.27	173.94	171	7	3.24E-02	16.3	
5	0	93.35*	214	1013	1.49	186.80	180	14	2.97E-02	33.6	
6	0	185.58*	157	345	1.12	371.10	367	9	2.18E-02	23.8	
7	0	209.00	135	333	1.68	417.92	413	10	1.88E-02	26.8	
8	6	238.38*	1325	196	1.12	476.62	470	18	1.84E-01	3.3	1.36E+00
9	6	241.31	297	308	1.79	482.49	470	18	4.13E-02	15.8	
10	0	269.53	153	350	1.74	538.88	532	15	2.12E-02	27.9	
11	1	294.98	417	144	1.37	589.75	584	24	5.79E-02	7.0	1.66E+00
12	1	299.74*	98	131	1.40	599.25	584	24	1.36E-02	23.4	
13	0	327.46	38	245	0.98	654.66	649	11	5.26E-03	81.7	
14	0	338.01	217	145	1.29	675.74	672	8	3.02E-02	11.7	
15	0	351.59*	583	231	1.30	702.89	696	14	8.09E-02	7.0	
16	0	462.50	83	117	1.42	924.57	921	10	1.15E-02	26.8	
17	0	510.53*	60	187	1.33	1020.57	1015	14	8.29E-03	55.9	
18	0	582.89*	383	154	1.37	1165.22	1159	14	5.32E-02	8.8	
19	0	608.99*	412	126	1.65	1217.41	1211	12	5.72E-02	7.5	
20	0	727.23*	85	86	1.56	1453.79	1449	13	1.18E-02	25.7	
21	0	768.18	37	58	1.14	1535.66	1530	9	5.12E-03	40.8	
22	0	794.46	58	83	1.89	1588.21	1582	16	8.00E-03	37.9	
23	0	861.02	63	76	1.34	1721.30	1716	13	8.72E-03	31.1	
24	0	910.65*	254	66	1.79	1820.54	1814	12	3.53E-02	9.1	
25	0	968.76*	141	131	1.59	1936.75	1931	16	1.97E-02	21.1	
26	0	1000.72	32	39	1.50	2000.65	1996	8	4.38E-03	34.0	
27	0	1120.01*	94	88	1.97	2239.21	2232	13	1.30E-02	23.3	
28	0	1460.10*	1585	17	2.17	2919.50	2911	17	2.20E-01	2.6	
29	0	1589.44	54	6	5.52	3178.28	3168	22	7.54E-03	17.5	
30	0	1629.74	25	0	1.70	3258.92	3252	12	3.47E-03	20.0	
31	0	1660.82*	17	8	0.90	3321.11	3313	15	2.43E-03	42.8	
32	0	1763.58*	78	0	2.38	3526.74	3519	15	1.08E-02	12.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:17:35

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:17:01
Sample ID : G245978001 Sample quantity : 127.59 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.18 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.946E+01	3.970E+00	5.544E-01	4.775E-02	71.181
CD-109	+	88.03	*	3.618E+00	1.246E+00	1.578E+00	1.789E-01	2.293
SN-126	+	64.28		1.575E+00	1.031E+00	1.057E+00	1.808E-01	1.490
	+	86.94		1.472E+00	7.820E-01	6.543E-01	2.748E-01	2.250
	+	87.57	*	3.541E-01	1.219E-01	1.602E-01	1.813E-02	2.210
CS-135	+	268.24	*	5.965E-01	3.362E-01	2.448E-01	1.979E-02	2.436
TL-208		277.35		3.139E-01	3.741E-01	6.463E-01	7.049E-02	0.486
	+	510.84		2.774E-01	3.117E-01	2.248E-01	2.363E-02	1.234
	+	583.14	*	5.090E-01	9.552E-02	5.972E-02	4.013E-03	8.523
	+	860.37		8.062E-01	5.079E-01	5.254E-01	5.131E-02	1.534
BI-211		72.87		1.059E+01	4.093E+00	7.029E+00	7.730E-01	1.507
	+	351.07	*	3.406E+00	5.363E-01	3.200E-01	2.333E-02	10.643
PB-212	+	74.81		2.455E+00	7.165E-01	6.550E-01	9.430E-02	3.748
	+	77.11		2.245E+00	4.160E-01	3.630E-01	3.969E-02	6.186
	+	87.30		1.638E+00	5.872E-01	7.442E-01	1.123E-01	2.201
	+	238.63	*	1.707E+00	1.721E-01	9.053E-02	6.867E-03	18.860
	+	300.09		1.932E+00	9.209E-01	1.200E+00	1.055E-01	1.610
PO-212	+	74.81		2.455E+00	7.165E-01	6.550E-01	9.430E-02	3.748
	+	77.11		2.245E+00	4.160E-01	3.630E-01	3.969E-02	6.186
	+	87.30		1.638E+00	5.872E-01	7.442E-01	1.123E-01	2.201
		115.19		-1.601E+00	3.796E+00	6.020E+00	4.307E-01	-0.266
	+	238.63	*	1.707E+00	1.721E-01	9.053E-02	6.867E-03	18.860
	+	300.09		1.932E+00	9.209E-01	1.200E+00	1.055E-01	1.610
BI-214	+	609.31	*	1.033E+00	1.742E-01	1.089E-01	8.290E-03	9.483
	+	1120.29		1.290E+00	6.146E-01	5.809E-01	5.677E-02	2.221
	+	1764.49		1.489E+00	3.887E-01	2.930E-01	1.957E-02	5.081
PB-214	+	74.81		4.231E+00	1.211E+00	1.129E+00	1.492E-01	3.748
	+	77.11		3.849E+00	7.711E-01	6.222E-01	8.292E-02	6.186
	+	87.30		2.806E+00	9.899E-01	1.275E+00	1.744E-01	2.201
	+	241.98		2.301E+00	7.497E-01	5.450E-01	4.535E-02	4.222
	+	295.21		1.446E+00	2.404E-01	2.103E-01	1.899E-02	6.877
	+	351.92	*	1.185E+00	1.966E-01	1.116E-01	1.000E-02	10.621
PO-214	+	74.81		4.231E+00	1.211E+00	1.129E+00	1.492E-01	3.748
	+	77.11		3.849E+00	7.711E-01	6.222E-01	8.292E-02	6.186

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		2.806E+00	9.899E-01	1.275E+00	1.744E-01	2.201
	+	241.98		2.301E+00	7.497E-01	5.450E-01	4.535E-02	4.222
	+	295.21		1.446E+00	2.404E-01	2.103E-01	1.899E-02	6.877
	+	351.92	*	1.185E+00	1.966E-01	1.116E-01	1.000E-02	10.621
PO-216	+	74.81		2.455E+00	7.165E-01	6.550E-01	9.430E-02	3.748
	+	77.11		2.245E+00	4.160E-01	3.630E-01	3.969E-02	6.186
	+	87.30		1.638E+00	5.872E-01	7.442E-01	1.123E-01	2.201
	+	238.63	*	1.707E+00	1.721E-01	9.053E-02	6.867E-03	18.860
	+	300.09		1.932E+00	9.209E-01	1.200E+00	1.055E-01	1.610
PO-218	+	74.81		4.231E+00	1.211E+00	1.129E+00	1.492E-01	3.748
	+	77.11		3.849E+00	7.711E-01	6.222E-01	8.292E-02	6.186
	+	87.30		2.806E+00	9.899E-01	1.275E+00	1.744E-01	2.201
	+	241.98		2.301E+00	7.497E-01	5.450E-01	4.535E-02	4.222
	+	295.21		1.446E+00	2.404E-01	2.103E-01	1.899E-02	6.877
	+	351.92	*	1.185E+00	1.966E-01	1.116E-01	1.000E-02	10.621
RA-224	+	240.98	*	4.363E+00	1.400E+00	1.030E+00	6.323E-02	4.235
RA-226	+	609.31	*	1.033E+00	1.742E-01	1.089E-01	8.290E-03	9.483
	+	1120.29		1.290E+00	6.146E-01	5.809E-01	5.677E-02	2.221
	+	1764.49		1.489E+00	3.887E-01	2.930E-01	1.957E-02	5.081
AC-228	+	338.32		1.400E+00	6.603E-01	3.680E-01	1.505E-01	3.804
	+	911.07	*	1.553E+00	3.412E-01	2.231E-01	2.754E-02	6.958
	+	969.11		1.532E+00	7.425E-01	5.030E-01	1.189E-01	3.046
RA-228	+	338.32		1.400E+00	6.603E-01	3.680E-01	1.505E-01	3.804
	+	911.07	*	1.553E+00	3.412E-01	2.231E-01	2.754E-02	6.958
	+	969.11		1.532E+00	7.425E-01	5.030E-01	1.189E-01	3.046
TH-228	+	74.81		2.500E+00	6.916E-01	6.669E-01	7.340E-02	3.748
	+	77.11		2.286E+00	4.235E-01	3.695E-01	4.040E-02	6.186
	+	87.30		1.668E+00	5.740E-01	7.577E-01	8.561E-02	2.201
	+	238.63	*	1.738E+00	1.752E-01	9.217E-02	6.991E-03	18.860
	+	300.09		1.967E+00	1.482E+00	1.222E+00	7.212E-01	1.610
TH-230	+	609.31	*	1.033E+00	1.742E-01	1.089E-01	8.290E-03	9.483
	+	1120.29		1.290E+00	6.146E-01	5.809E-01	5.677E-02	2.221
	+	1764.49		1.489E+00	3.887E-01	2.930E-01	1.957E-02	5.081
TH-232	+	338.32		1.400E+00	3.419E-01	3.680E-01	2.467E-02	3.804
	+	911.07	*	1.553E+00	3.412E-01	2.231E-01	2.754E-02	6.958
	+	969.11		1.532E+00	7.425E-01	5.030E-01	1.189E-01	3.046
TH-234	+	63.29	*	3.980E+00	2.633E+00	2.874E+00	5.665E-01	1.385
	+	92.38		2.020E+00	1.408E+00	9.115E-01	1.725E-01	2.216
U-234	+	609.31	*	1.033E+00	1.742E-01	1.089E-01	8.290E-03	9.483
	+	1120.29		1.290E+00	6.146E-01	5.809E-01	5.677E-02	2.221
	+	1764.49		1.489E+00	3.887E-01	2.930E-01	1.957E-02	5.081
NP-237	+	86.50	*	1.040E+00	4.174E-01	4.580E-01	1.076E-01	2.271
		95.87		-3.611E-01	1.123E+00	1.611E+00	4.025E-01	-0.224
U-238	+	63.29	*	3.980E+00	2.633E+00	2.874E+00	5.665E-01	1.385
	+	92.38		2.020E+00	1.371E+00	9.115E-01	9.366E-02	2.216
AM-243	+	74.67	*	3.981E-01	1.100E-01	1.067E-01	1.168E-02	3.731
	+	86.72		3.900E+01	1.343E+01	1.740E+01	1.959E+00	2.242
		117.66		5.251E-02	4.046E+00	6.571E+00	4.559E-01	0.008
		142.18		-6.452E+00	1.833E+01	2.870E+01	1.713E+00	-0.225

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	5.992E-02	6.714E-02	4.857E-02	3.112E-03	1.234

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.121E-02	3.287E-01	5.283E-01	3.928E-02	-0.040
NA-22		1274.54	*	-2.188E-02	5.013E-02	7.997E-02	6.194E-03	-0.274
NA-24		1368.53	*	9.256E-01	5.013E-02	Half-Life too short		
AL-26		1129.67		-1.149E-01	1.890E+00	3.158E+00	2.215E-01	-0.036
		1808.65	*	1.022E-02	2.949E-02	5.116E-02	3.244E-03	0.200
TI-44		67.85		-9.373E-03	6.457E-02	9.534E-02	1.076E-02	-0.098
		78.38	*	1.808E-01	5.039E-02	7.944E-02	8.693E-03	2.277
SC-46		889.25	*	2.632E-03	4.500E-02	7.394E-02	7.317E-03	0.036
	+	1120.51		2.261E-01	1.067E-01	1.500E-01	1.077E-02	1.508
V-48		944.10		-4.655E-01	1.073E+00	1.671E+00	1.619E-01	-0.279
		983.50	*	4.192E-02	9.090E-02	1.535E-01	1.419E-02	0.273
		1312.09		-6.132E-02	9.561E-02	1.469E-01	1.227E-02	-0.417
CR-51		320.08	*	-9.742E-02	3.867E-01	6.312E-01	4.559E-02	-0.154
MN-52		744.21		1.375E-01	3.498E-01	5.972E-01	3.896E-02	0.230
		848.13		-3.946E-01	9.559E+00	1.562E+01	1.385E+00	-0.025
		935.52		1.930E-01	3.941E-01	6.688E-01	6.539E-02	0.289
		1246.25		-3.694E-01	1.245E+01	2.071E+01	1.508E+00	-0.018
		1333.61		3.913E+00	7.337E+00	1.290E+01	1.121E+00	0.303
		1434.06	*	-4.972E-02	3.213E-01	5.170E-01	4.369E-02	-0.096
MN-54		834.83	*	-1.203E-02	4.182E-02	6.713E-02	5.735E-03	-0.179
CO-56		846.75	*	-5.482E-03	3.980E-02	6.445E-02	5.692E-03	-0.085
		977.42		3.055E-01	3.651E+00	5.421E+00	5.052E-01	0.056
		1037.82		8.456E-02	3.757E-01	6.191E-01	5.567E-02	0.137
		1175.09		3.473E-01	2.727E+00	4.609E+00	2.855E-01	0.075
		1238.25		1.761E-01	1.131E-01	2.062E-01	1.537E-02	0.854
		1360.21		-1.594E-01	1.101E+00	1.789E+00	1.546E-01	-0.089
		1771.40		-1.970E-01	2.536E-01	3.435E-01	2.276E-02	-0.574
CO-57		122.06	*	-1.407E-02	2.648E-02	4.190E-02	2.764E-03	-0.336
		136.48		-8.711E-02	2.115E-01	3.344E-01	2.339E-02	-0.260
CO-58		810.76	*	-9.322E-03	3.932E-02	6.329E-02	5.064E-03	-0.147
FE-59		142.65		-1.716E-01	2.929E+00	4.644E+00	2.767E-01	-0.037
		192.34		-3.894E-01	1.015E+00	1.576E+00	1.853E-01	-0.247
		1099.22	*	2.821E-02	1.160E-01	1.905E-01	1.590E-02	0.148
		1291.56		-4.681E-02	1.505E-01	2.426E-01	2.245E-02	-0.193
CO-60		1173.22		1.601E-03	5.122E-02	8.587E-02	5.295E-03	0.019
		1332.49	*	5.055E-02	3.925E-02	7.422E-02	6.450E-03	0.681
ZN-65		1115.52	*	-1.900E-02	1.236E-01	1.676E-01	1.221E-02	-0.113
GE-68		1077.35	*	2.360E-01	1.358E+00	2.225E+00	1.763E-01	0.106
AS-73		53.44	*	1.269E-02	1.608E+00	2.692E+00	3.562E-01	0.005
AS-74		595.88	*	1.731E-02	1.027E-01	1.748E-01	9.984E-03	0.099
		634.78		-1.705E-01	4.093E-01	6.646E-01	3.508E-02	-0.256
SE-75		66.05		-1.522E+00	6.851E+00	1.008E+01	1.299E+00	-0.151
		96.73		2.341E-01	9.211E-01	1.365E+00	1.932E-01	0.172

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.11		-1.049E-02	1.432E-01	2.314E-01	2.267E-02	-0.045
		136.00		-3.021E-03	3.942E-02	6.332E-02	3.932E-03	-0.048
		198.60		-1.300E+00	1.926E+00	2.900E+00	2.054E-01	-0.448
		264.65	*	-1.358E-02	4.664E-02	6.686E-02	4.264E-03	-0.203
		279.53		-1.393E-01	1.081E-01	1.679E-01	1.151E-02	-0.830
		303.91		8.294E-01	2.210E+00	3.321E+00	3.329E-01	0.250
		400.65		5.283E-02	2.497E-01	4.136E-01	4.039E-02	0.128
BR-77	+	87.88		1.789E+03	6.159E+02	8.551E+02	9.695E+01	2.092
		200.40		-3.987E+01	3.940E+02	6.194E+02	3.573E+01	-0.064
	+	239.00		6.301E+02	5.687E+01	8.934E+01	5.469E+00	7.053
		249.79		1.080E+02	1.485E+02	2.576E+02	1.600E+01	0.419
		281.68		-1.186E+01	1.964E+02	3.267E+02	2.103E+01	-0.036
		297.23		2.142E+02	1.242E+02	2.216E+02	1.447E+01	0.967
		303.76		1.456E+02	4.248E+02	6.370E+02	4.180E+01	0.229
		439.47		3.394E+02	3.381E+02	5.841E+02	3.927E+01	0.581
		484.57		1.869E+02	5.241E+02	8.678E+02	5.686E+01	0.215
		520.65	*	7.380E+00	2.473E+01	4.060E+01	2.576E+00	0.182
		574.64		-1.094E+02	4.663E+02	7.734E+02	4.577E+01	-0.141
		578.91		-7.907E+01	2.371E+02	3.375E+02	1.984E+01	-0.234
		585.48		1.333E+03	5.105E+02	8.862E+02	5.155E+01	1.504
		755.35		3.709E+02	4.011E+02	7.091E+02	4.790E+01	0.523
		817.79		-1.361E+02	3.234E+02	5.121E+02	4.169E+01	-0.266
SR-82		698.33		-1.106E+01	3.512E+01	5.698E+01	3.197E+00	-0.194
		776.49	*	-6.843E-01	4.523E-01	6.446E-01	4.647E-02	-1.062
		1395.20		-9.466E+00	1.157E+01	1.673E+01	1.432E+00	-0.566
RB-83		520.41	*	1.803E-02	7.253E-02	1.186E-01	7.530E-03	0.152
		529.64		-2.966E-02	1.138E-01	1.788E-01	1.123E-02	-0.166
		552.65		-1.898E-01	2.157E-01	3.198E-01	1.953E-02	-0.593
RB-84		881.50	*	-2.117E-02	7.994E-02	1.276E-01	1.237E-02	-0.166
KR-85		513.99	*	7.760E+00	8.004E+00	1.226E+01	7.833E-01	0.633
SR-85		513.99	*	4.100E-02	4.229E-02	6.479E-02	4.138E-03	0.633
RB-86		1076.63	*	-2.890E-01	9.739E-01	1.521E+00	1.207E-01	-0.190
Y-88		898.02		8.500E-03	4.910E-02	8.135E-02	8.265E-03	0.104
		1836.01	*	-1.787E-02	3.546E-02	5.077E-02	3.115E-03	-0.352
ZR-88		392.90	*	4.553E-03	3.046E-02	5.031E-02	3.419E-03	0.091
Y-91		1204.90	*	-4.061E+00	2.361E+01	3.895E+01	2.587E+00	-0.104
NB-94		702.63	*	-2.132E-03	3.420E-02	5.661E-02	3.223E-03	-0.038
		871.10		-8.741E-03	3.658E-02	5.858E-02	5.526E-03	-0.149
NB-95		765.79	*	1.588E-02	5.102E-02	7.562E-02	5.277E-03	0.210
NB-95M		235.69	*	1.684E-01	1.408E-01	2.222E-01	1.723E-02	0.758
ZR-95		724.18		1.012E-02	1.160E-01	1.687E-01	1.202E-02	0.060
		756.15	*	9.256E-02	7.710E-02	1.385E-01	1.088E-02	0.668
NB-97		657.90	*	1.687E+00	7.710E-02	Half-Life too short		
		1024.50		-1.278E+02	7.710E-02	Half-Life too short		
ZR-97		254.15		-7.799E+01	7.710E-02	Half-Life too short		
		355.39		1.850E+01	7.710E-02	Half-Life too short		
		507.63	*	4.162E+01	7.710E-02	Half-Life too short		
		602.52		-9.103E+01	7.710E-02	Half-Life too short		
		1021.30		6.630E+01	7.710E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1147.95		-2.850E+01	7.710E-02	Half-Life too short		
		1362.66		7.760E+01	7.710E-02	Half-Life too short		
		1750.46		-9.938E+00	7.710E-02	Half-Life too short		
MO-99		140.51		-5.558E+01	5.715E+01	8.408E+01	2.270E+01	-0.661
		181.06		2.905E+01	3.760E+01	5.531E+01	9.441E+00	0.525
		366.43		-1.114E+02	1.699E+02	2.671E+02	1.809E+01	-0.417
		739.58	*	-1.318E+01	2.410E+01	3.800E+01	5.342E+00	-0.347
		778.00		4.554E+01	7.141E+01	1.231E+02	8.919E+00	0.370
TC-99M		140.51	*	-1.045E+14	7.141E+01	Half-Life too short		
RH-101		127.23		2.962E-02	3.338E-02	5.584E-02	3.569E-03	0.530
		198.01	*	9.075E-03	3.400E-02	5.370E-02	3.085E-03	0.169
		325.23		5.915E-02	2.451E-01	3.628E-01	2.415E-02	0.163
RH-102		418.52		9.675E-02	2.924E-01	4.865E-01	3.294E-02	0.199
		475.06	*	-2.343E-02	2.961E-02	4.491E-02	2.962E-03	-0.522
		631.29		-8.502E-03	5.541E-02	9.180E-02	4.884E-03	-0.093
		697.49		-3.643E-02	7.327E-02	1.170E-01	6.548E-03	-0.311
	+	766.84		1.572E-01	1.289E-01	1.999E-01	1.399E-02	0.787
		1046.59		5.211E-02	1.371E-01	2.288E-01	1.921E-02	0.228
		1112.84		7.062E-03	3.044E-01	4.223E-01	3.092E-02	0.017
RU-103		497.08	*	-3.789E-02	4.584E-02	6.885E-02	8.933E-03	-0.550
	+	610.33		1.173E+01	2.520E+00	2.947E+00	4.517E-01	3.981
RH-106	+	511.85		3.009E-01	3.371E-01	4.131E-01	2.644E-02	0.728
		621.84	*	5.571E-02	3.111E-01	5.284E-01	6.108E-02	0.105
		1050.47		1.653E+00	2.799E+00	4.744E+00	3.957E-01	0.348
RU-106	+	511.85		3.009E-01	3.371E-01	4.131E-01	2.644E-02	0.728
		621.84	*	5.571E-02	3.110E-01	5.284E-01	2.870E-02	0.105
		1050.47		1.653E+00	2.799E+00	4.744E+00	3.957E-01	0.348
AG-108M		433.93	*	-9.194E-03	3.270E-02	5.209E-02	3.735E-03	-0.176
		614.37		-1.090E-02	4.134E-02	5.870E-02	3.540E-03	-0.186
		722.95		1.630E-03	4.584E-02	6.633E-02	4.352E-03	0.025
AG-110M		657.75	*	3.552E-02	3.544E-02	6.333E-02	3.431E-03	0.561
		677.61		1.047E-01	3.075E-01	5.259E-01	2.952E-02	0.199
		706.67		6.641E-02	2.195E-01	3.728E-01	2.282E-02	0.178
		763.93		9.374E-02	1.895E-01	2.866E-01	2.075E-02	0.327
		884.67		2.189E-02	5.093E-02	8.656E-02	8.677E-03	0.253
		937.48		-2.326E-01	1.327E-01	1.777E-01	1.783E-02	-1.309
		1384.27		4.398E-03	1.711E-01	2.837E-01	2.506E-02	0.016
IN-111		171.28		1.076E+00	1.993E+00	3.257E+00	1.791E-01	0.330
		245.39	*	1.064E+00	2.255E+00	3.445E+00	2.127E-01	0.309
IN-113M		391.69	*	-3.202E-02	4.444E-02	6.915E-02	4.931E-03	-0.463
SN-113		391.69	*	-3.202E-02	4.444E-02	6.915E-02	4.931E-03	-0.463
IN-114M		190.27	*	9.813E-02	2.143E-01	3.103E-01	1.760E-02	0.316
CD-115		260.90		-1.595E-04	2.143E-01	Half-Life too short		
		492.35		3.575E-05	2.143E-01	Half-Life too short		
		527.90	*	-6.243E-06	2.143E-01	Half-Life too short		
SN-117M		156.02		-2.502E+00	2.716E+00	4.163E+00	2.357E-01	-0.601
		158.56	*	1.999E-02	6.512E-02	1.056E-01	5.922E-03	0.189
SB-122		563.90	*	3.761E+00	3.976E+00	6.849E+00	4.119E-01	0.549
		692.80		1.468E+01	8.412E+01	1.420E+02	7.818E+00	0.103

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
I-123		159.00	*	9.651E+01	8.412E+01	Half-Life too short		
		528.96		-7.717E+03	8.412E+01	Half-Life too short		
TE-123M		159.00	*	1.305E-02	2.963E-02	4.832E-02	2.744E-03	0.270
I-124		602.71	*	-8.487E-01	1.188E+00	1.610E+00	9.084E-02	-0.527
		722.78		6.480E-01	7.712E+00	1.122E+01	6.831E-01	0.058
		1325.50		1.167E+01	5.539E+01	9.415E+01	8.071E+00	0.124
		1376.25		6.744E+01	5.553E+01	1.028E+02	8.846E+00	0.656
		1509.49		2.120E+01	2.464E+01	4.532E+01	3.706E+00	0.468
		1691.02		2.593E+00	5.887E+00	1.039E+01	7.475E-01	0.249
SB-124		602.71		-3.176E-02	4.447E-02	6.026E-02	3.401E-03	-0.527
		645.85		7.069E-02	4.908E-01	8.303E-01	4.954E-02	0.085
		709.31		4.733E-01	2.929E+00	4.927E+00	2.869E-01	0.096
		713.82		-1.153E-01	1.610E+00	2.659E+00	2.731E-01	-0.043
		722.78		3.515E-02	4.183E-01	6.086E-01	3.864E-02	0.058
	+	968.20		1.630E+01	7.063E+00	8.454E+00	7.969E-01	1.928
		1045.16		-4.441E-01	2.979E+00	4.741E+00	3.993E-01	-0.094
		1325.50		6.761E-01	3.209E+00	5.455E+00	4.676E-01	0.124
		1368.21		9.579E-02	1.791E+00	2.983E+00	4.021E-01	0.032
		1436.60		-2.510E+00	3.691E+00	5.407E+00	4.565E-01	-0.464
		1691.02	*	3.317E-02	7.533E-02	1.330E-01	1.010E-02	0.249
SB-125		427.89	*	-2.338E-02	8.920E-02	1.424E-01	9.915E-03	-0.164
	+	463.38		7.536E-01	4.077E-01	5.668E-01	4.251E-02	1.330
		600.56		2.962E-02	1.705E-01	2.901E-01	1.912E-02	0.102
		635.90		4.450E-02	2.772E-01	4.696E-01	2.977E-02	0.095
TE-125M		109.28	*	3.125E+00	1.023E+01	1.686E+01	1.620E+00	0.185
I-126		388.63		-1.763E-02	2.408E-01	3.924E-01	2.667E-02	-0.045
		666.33	*	-4.462E-02	2.021E-01	3.316E-01	1.664E-02	-0.135
		753.82		1.692E-01	1.811E+00	3.019E+00	2.030E-01	0.056
SB-126		223.80		2.309E+00	4.746E+00	8.170E+00	4.892E-01	0.283
		278.60		6.067E-01	2.840E+00	4.790E+00	3.075E-01	0.127
		296.50		1.061E+01	2.098E+00	3.926E+00	2.562E-01	2.703
		414.70		4.934E-02	8.602E-02	1.455E-01	9.855E-03	0.339
		415.30		8.948E-01	7.185E+00	1.181E+01	8.000E-01	0.076
		555.20		4.434E+00	4.906E+00	8.372E+00	5.097E-01	0.530
		573.80		1.582E-01	1.182E+00	2.011E+00	1.192E-01	0.079
		593.00		-1.756E-02	1.102E+00	1.852E+00	1.064E-01	-0.009
		656.30		-3.467E-01	4.062E+00	6.747E+00	3.377E-01	-0.051
		666.33		-1.877E-02	8.501E-02	1.395E-01	6.997E-03	-0.135
		675.00		-1.283E+00	2.330E+00	3.717E+00	1.923E-01	-0.345
		695.00		1.574E-02	8.375E-02	1.415E-01	7.850E-03	0.111
		697.00		-6.565E-02	2.997E-01	4.901E-01	2.737E-02	-0.134
		720.50	*	2.872E-02	1.781E-01	2.832E-01	1.711E-02	0.101
		856.80		1.758E-01	6.626E-01	9.708E-01	8.811E-02	0.181
		989.30		-6.552E-01	1.728E+00	2.703E+00	2.481E-01	-0.242
		1034.80		4.256E+00	1.220E+01	2.032E+01	1.742E+00	0.209
		1213.00		-5.384E+00	6.828E+00	1.073E+01	7.261E-01	-0.502
SB-127		61.10		4.133E+01	1.463E+02	2.215E+02	3.272E+01	0.187
		252.40		-2.482E+00	7.265E+00	1.187E+01	4.969E+00	-0.209
		290.80		-1.089E+01	3.826E+01	5.484E+01	5.832E+00	-0.199

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		411.60		-9.484E+00	2.099E+01	3.317E+01	5.136E+00	-0.286
		444.90		4.731E+00	1.564E+01	2.592E+01	3.158E+00	0.182
		473.00		1.650E+00	2.767E+00	4.654E+00	5.805E-01	0.355
		543.00		2.391E+00	2.677E+01	4.317E+01	5.979E+00	0.055
		603.60		-1.482E+01	2.160E+01	2.930E+01	3.399E+00	-0.506
		685.20	*	2.288E-01	2.136E+00	3.590E+00	3.674E-01	0.064
		698.50		-9.654E+00	2.418E+01	3.889E+01	5.873E+00	-0.248
		722.20		1.418E+01	5.587E+01	8.277E+01	8.596E+00	0.171
		783.80		2.136E+00	6.690E+00	1.129E+01	1.405E+00	0.189
XE-127		57.60		-7.869E+00	1.040E+01	1.677E+01	2.132E+00	-0.469
		145.22		-3.294E-02	7.400E-01	1.187E+00	6.999E-02	-0.028
		172.10		-3.056E-02	1.284E-01	2.022E-01	1.113E-02	-0.151
		202.84	*	3.473E-02	5.057E-02	8.542E-02	4.946E-03	0.407
		374.96		-1.464E-01	1.926E-01	2.989E-01	2.028E-02	-0.490
I-131		80.18		7.148E-01	6.845E+00	1.016E+01	1.121E+00	0.070
		284.30		1.105E-01	1.834E+00	3.069E+00	2.170E-01	0.036
		364.48	*	-4.254E-02	1.455E-01	2.347E-01	1.732E-02	-0.181
		636.97		1.542E+00	1.997E+00	3.524E+00	2.129E-01	0.438
		722.89		5.209E-01	9.885E+00	1.433E+01	8.884E-01	0.036
TE-132		49.72		-4.705E+01	7.641E+01	1.244E+02	1.853E+01	-0.378
		111.76		3.337E+01	5.826E+01	9.673E+01	1.048E+01	0.345
		116.30		3.002E+00	5.368E+01	8.682E+01	9.158E+00	0.035
		228.16	*	-5.669E-01	1.223E+00	2.018E+00	3.039E-01	-0.281
BA-133		53.15		1.062E+00	6.925E+00	1.166E+01	1.544E+00	0.091
		79.62		1.797E+00	1.547E+00	2.371E+00	3.951E-01	0.758
		81.00		-1.679E-01	1.238E-01	1.655E-01	2.860E-02	-1.015
		276.40		1.817E-01	4.045E-01	6.417E-01	8.500E-02	0.283
		302.84		5.372E-02	1.500E-01	2.249E-01	2.711E-02	0.239
		356.01	*	1.388E-02	4.662E-02	6.900E-02	8.324E-03	0.201
		383.85		1.241E-01	2.995E-01	5.028E-01	5.747E-02	0.247
I-133	+	510.53		5.972E+00	2.995E-01	Half-Life too short		
		529.87	*	-2.693E-02	2.995E-01	Half-Life too short		
		706.58		1.304E+00	2.995E-01	Half-Life too short		
		856.28		8.313E-02	2.995E-01	Half-Life too short		
		875.33		8.415E-01	2.995E-01	Half-Life too short		
		1236.41		6.560E+00	2.995E-01	Half-Life too short		
		1298.22		-1.141E+00	2.995E-01	Half-Life too short		
CS-134		475.35		-1.328E+00	1.920E+00	2.936E+00	1.936E-01	-0.452
		563.23		9.320E-02	3.501E-01	5.712E-01	3.506E-02	0.163
		569.32		4.815E-02	1.894E-01	3.086E-01	1.893E-02	0.156
		604.70		-2.350E-02	3.805E-02	5.223E-02	2.953E-03	-0.450
	+	795.84	*	1.128E-01	8.592E-02	9.199E-02	7.092E-03	1.226
		801.93		1.049E-01	4.767E-01	6.921E-01	5.419E-02	0.152
		1038.57		5.233E-01	4.570E+00	7.459E+00	6.353E-01	0.070
		1167.94		-8.598E-01	2.796E+00	4.564E+00	2.863E-01	-0.188
		1365.15		5.902E-01	1.331E+00	2.318E+00	2.091E-01	0.255
I-135		288.45		-1.420E+12	1.331E+00	Half-Life too short		
		417.63		2.272E+13	1.331E+00	Half-Life too short		
		546.56		-9.346E+12	1.331E+00	Half-Life too short		

---- Non-Identified Nuclides ----

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		836.80		4.048E+13	1.331E+00	Half-Life too short		
		1038.76		4.963E+12	1.331E+00	Half-Life too short		
		1124.00		2.215E+13	1.331E+00	Half-Life too short		
		1131.51		-3.970E+12	1.331E+00	Half-Life too short		
		1260.41	*	9.805E+11	1.331E+00	Half-Life too short		
		1457.56		1.657E+15	1.331E+00	Half-Life too short		
		1678.03		-1.957E+11	1.331E+00	Half-Life too short		
		1706.46		2.317E+13	1.331E+00	Half-Life too short		
		1791.20		2.930E+12	1.331E+00	Half-Life too short		
CS-136		66.91		-7.918E-01	1.307E+00	1.877E+00	3.216E-01	-0.422
	+	86.29		5.371E+00	1.919E+00	2.681E+00	3.950E-01	2.004
		153.22		-2.266E-01	7.763E-01	1.228E+00	8.794E-02	-0.185
		163.89		3.251E-01	1.292E+00	2.086E+00	1.464E-01	0.156
		176.55		4.307E-01	4.264E-01	7.096E-01	4.467E-02	0.607
		273.65		-4.912E-01	6.215E-01	8.669E-01	6.188E-02	-0.567
		340.57		1.784E-01	1.592E-01	2.493E-01	1.753E-02	0.715
		818.51		-1.830E-02	9.293E-02	1.503E-01	1.228E-02	-0.122
		1048.07	*	2.645E-02	1.524E-01	2.512E-01	2.199E-02	0.105
		1235.34		2.454E-01	8.423E-01	1.431E+00	1.546E-01	0.171
BA-137M		661.65	*	9.136E-03	3.685E-02	6.260E-02	3.089E-03	0.146
CS-137		661.65	*	9.658E-03	3.895E-02	6.618E-02	3.284E-03	0.146
CE-139		165.85	*	1.053E-02	3.039E-02	4.929E-02	2.692E-03	0.214
BA-140		162.64		2.810E-01	9.115E-01	1.476E+00	9.270E-02	0.190
		304.84		5.809E-01	1.529E+00	2.289E+00	6.286E-01	0.254
		423.70		9.461E-01	2.282E+00	3.783E+00	1.209E+00	0.250
		537.32	*	1.162E-01	3.159E-01	5.168E-01	1.685E-01	0.225
LA-140	+	328.77		3.522E-01	5.758E-01	6.583E-01	4.796E-02	0.535
		432.53		9.654E-01	2.338E+00	3.910E+00	2.842E-01	0.247
		487.03		5.855E-02	1.581E-01	2.621E-01	1.895E-02	0.223
		751.79		-2.339E+00	2.076E+00	3.099E+00	2.428E-01	-0.755
		815.85		-2.318E-01	3.940E-01	6.134E-01	5.610E-02	-0.378
		867.82		-6.623E-01	2.028E+00	2.751E+00	2.689E-01	-0.241
		919.63		-9.136E-01	3.420E+00	5.431E+00	6.372E-01	-0.168
		925.24		8.225E-01	1.349E+00	2.323E+00	2.405E-01	0.354
		1596.49	*	-3.035E-02	1.165E-01	1.526E-01	1.184E-02	-0.199
CE-141		145.44	*	-2.928E-02	6.864E-02	1.082E-01	6.624E-03	-0.271
CE-143		57.37		-3.751E-03	6.864E-02	Half-Life too short		
		231.56		-4.789E-04	6.864E-02	Half-Life too short		
		293.26	*	3.579E-03	6.864E-02	Half-Life too short		
	+	350.59		1.138E-01	6.864E-02	Half-Life too short		
		490.36		-7.252E-03	6.864E-02	Half-Life too short		
		664.57		-1.240E-03	6.864E-02	Half-Life too short		
		721.93		3.221E-03	6.864E-02	Half-Life too short		
CE-144		80.11		4.717E-01	2.491E+00	3.711E+00	4.072E-01	0.127
		133.54	*	-1.645E-01	2.078E-01	3.212E-01	4.614E-02	-0.512
PM-144		476.78		4.375E-03	6.695E-02	1.087E-01	8.275E-03	0.040
		618.01		-1.658E-02	3.036E-02	4.879E-02	2.851E-03	-0.340
		696.49	*	9.388E-03	3.271E-02	5.566E-02	3.107E-03	0.169
		778.57		1.793E+00	2.349E+00	4.088E+00	2.968E-01	0.439

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PR-144		696.49	*	6.371E-01	2.220E+00	3.777E+00	2.106E-01	0.169
		1489.15		-1.205E+00	1.202E+01	1.944E+01	1.605E+00	-0.062
PM-146		453.90	*	-2.782E-03	4.318E-02	6.965E-02	6.433E-03	-0.040
		633.02		3.254E-01	1.408E+00	2.390E+00	8.781E-01	0.136
		735.90		3.706E-02	1.491E-01	2.455E-01	6.875E-02	0.151
		747.13		-2.154E-02	9.459E-02	1.537E-01	1.981E-02	-0.140
ND-147		91.11		3.285E-01	5.639E-01	7.036E-01	7.844E-02	0.467
		319.41		-4.917E-01	3.759E+00	6.179E+00	4.102E-01	-0.080
		439.89		1.786E+00	7.324E+00	1.208E+01	8.127E-01	0.148
		531.02	*	-1.428E-01	7.151E-01	1.128E+00	1.549E-01	-0.127
PM-149		285.90	*	6.123E-05	7.151E-01	Half-Life too short		
EU-152		121.78		-2.095E-02	7.492E-02	1.199E-01	9.880E-03	-0.175
		244.69		1.322E-01	3.421E-01	5.199E-01	3.207E-02	0.254
		344.27	*	-1.393E-01	9.915E-02	1.421E-01	1.047E-02	-0.980
		443.98		-4.990E-01	9.622E-01	1.503E+00	1.008E-01	-0.332
		778.89		3.501E-01	2.638E-01	4.804E-01	3.488E-02	0.729
		867.32		3.748E-01	9.682E-01	1.442E+00	1.346E-01	0.260
		964.01		4.714E-01	3.932E-01	6.204E-01	5.878E-02	0.760
		1085.78		1.390E-01	4.175E-01	6.949E-01	5.409E-02	0.200
		1112.02		1.671E-01	4.025E-01	6.128E-01	4.494E-02	0.273
		1407.95		5.695E-02	1.825E-01	3.135E-01	2.673E-02	0.182
GD-153		69.67		1.334E+00	2.260E+00	3.445E+00	3.842E-01	0.387
		83.37		1.847E+01	1.796E+01	2.766E+01	3.065E+00	0.668
		97.43	*	3.868E-02	9.318E-02	1.392E-01	1.296E-02	0.278
		103.18		-1.606E-02	1.103E-01	1.790E-01	1.513E-02	-0.090
EU-154		123.07		-9.924E-03	5.262E-02	8.451E-02	8.351E-03	-0.117
		247.94		-2.984E-01	3.588E-01	5.772E-01	5.649E-02	-0.517
		591.81		-2.661E-01	6.168E-01	1.005E+00	9.800E-02	-0.265
		723.30		-9.024E-02	2.071E-01	2.841E-01	2.081E-02	-0.318
		756.87		8.271E-01	8.185E-01	1.450E+00	1.556E-01	0.571
		873.19		3.209E-03	3.221E-01	5.278E-01	6.791E-02	0.006
		996.32		-2.756E-01	4.589E-01	5.818E-01	1.047E-01	-0.474
		1004.76		1.072E-01	2.625E-01	3.869E-01	4.608E-02	0.277
		1274.45	*	-2.620E-02	1.371E-01	2.240E-01	2.386E-02	-0.117
EU-155		48.70		-2.486E+00	5.359E+00	8.809E+00	1.058E+00	-0.282
		60.01		-1.104E+00	8.117E+00	1.205E+01	1.484E+00	-0.092
	+	86.54		4.270E-01	1.471E-01	2.120E-01	2.400E-02	2.014
		105.31	*	7.130E-02	1.146E-01	1.914E-01	1.587E-02	0.373
TB-160	+	86.79		1.171E+00	4.031E-01	5.790E-01	6.523E-02	2.022
		197.04		-1.437E-01	5.952E-01	9.170E-01	5.259E-02	-0.157
		215.65		8.460E-04	7.309E-01	1.237E+00	7.312E-02	0.001
	+	298.57		2.890E-01	1.367E-01	2.046E-01	1.337E-02	1.413
		879.36	*	-3.600E-02	1.544E-01	2.472E-01	2.383E-02	-0.146
		962.29		2.224E-01	7.108E-01	1.039E+00	9.865E-02	0.214
		966.15		1.302E+00	3.599E-01	6.186E-01	5.846E-02	2.105
		1177.93		1.559E-01	4.422E-01	7.595E-01	4.736E-02	0.205
		1271.85		-2.189E-01	8.154E-01	1.322E+00	1.017E-01	-0.166
HO-166M		80.57		-2.296E-01	3.249E-01	4.612E-01	5.066E-02	-0.498
	+	184.41		1.073E-01	5.147E-02	6.862E-02	3.854E-03	1.563

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		280.46		-9.922E-02	8.362E-02	1.307E-01	8.405E-03	-0.759
		410.95		2.517E-01	2.379E-01	4.131E-01	2.801E-02	0.609
		711.68	*	-2.501E-02	6.103E-02	9.812E-02	5.758E-03	-0.255
		752.31		-2.997E-01	2.859E-01	4.310E-01	2.884E-02	-0.695
		810.29		-5.190E-02	6.038E-02	9.138E-02	7.281E-03	-0.568
TM-171		51.35		2.632E+01	6.225E+01	1.059E+02	1.392E+01	0.249
		52.39		1.480E+01	3.159E+01	5.373E+01	7.117E+00	0.275
		59.40		1.486E+01	4.332E+01	6.590E+01	8.187E+00	0.225
		66.72	*	-2.143E+01	4.064E+01	5.882E+01	6.701E+00	-0.364
LU-176	+	88.36		8.400E-01	2.892E-01	3.905E-01	4.392E-02	2.151
		201.83		6.472E-03	2.839E-02	4.862E-02	2.811E-03	0.133
		306.84	*	-5.764E-03	2.559E-02	3.877E-02	2.551E-03	-0.149
		401.10		8.922E-01	6.555E+00	1.080E+01	7.336E-01	0.083
LU-177		112.95		1.470E-01	2.304E+00	3.756E+00	2.765E-01	0.039
	+	208.36	*	4.166E+00	2.247E+00	2.720E+00	1.590E-01	1.531
LU-177M		52.97		8.691E-01	3.202E+00	5.411E+00	7.169E-01	0.161
		54.07		-5.132E-01	1.622E+00	2.678E+00	3.531E-01	-0.192
		61.30		3.125E-01	2.330E+00	3.492E+00	4.225E-01	0.089
		121.62		-1.688E-01	3.943E-01	6.269E-01	4.148E-02	-0.269
		147.16		-6.095E-01	6.746E-01	1.039E+00	6.078E-02	-0.587
		171.86		2.279E-01	4.809E-01	7.835E-01	4.313E-02	0.291
		218.09		1.474E-01	8.381E-01	1.428E+00	8.472E-02	0.103
	+	268.79		3.035E+00	1.704E+00	1.583E+00	1.006E-01	1.917
		319.02		-9.154E-02	2.485E-01	4.027E-01	2.671E-02	-0.227
		367.43		-8.435E-02	8.943E-01	1.460E+00	9.889E-02	-0.058
		413.65	*	-1.524E-01	1.790E-01	2.747E-01	1.862E-02	-0.555
HF-181		56.28		5.463E-01	1.677E+00	2.833E+00	3.660E-01	0.193
		57.53		-4.852E-01	8.624E-01	1.404E+00	1.787E-01	-0.346
		65.20		6.339E-01	1.396E+00	2.125E+00	2.455E-01	0.298
		133.02		-3.785E-02	6.871E-02	1.081E-01	6.714E-03	-0.350
		136.25		-1.065E-01	4.764E-01	7.602E-01	4.653E-02	-0.140
		345.85		4.264E-02	2.093E-01	3.082E-01	2.073E-02	0.138
		482.03	*	-1.155E-02	4.545E-02	7.196E-02	4.724E-03	-0.161
W-181		56.28		2.085E-01	6.367E-01	1.076E+00	1.390E-01	0.194
		57.53		-1.842E-01	3.278E-01	5.337E-01	6.791E-02	-0.345
		65.20	*	2.390E-01	5.265E-01	8.011E-01	9.257E-02	0.298
TA-182		67.75		-3.357E-02	1.567E-01	2.306E-01	2.605E-02	-0.146
		100.10		2.430E-03	1.895E-01	3.100E-01	2.755E-02	0.008
		152.43		-1.560E-01	3.490E-01	5.481E-01	3.144E-02	-0.285
		222.10		2.371E-02	3.476E-01	5.890E-01	3.518E-02	0.040
	+	1001.68		3.121E+00	2.143E+00	4.260E+00	3.843E-01	0.733
	+	1121.28		6.206E-01	2.928E-01	4.111E-01	2.947E-02	1.510
		1189.05		-7.259E-02	3.650E-01	6.011E-01	3.849E-02	-0.121
		1221.42	*	8.689E-02	2.542E-01	4.340E-01	2.993E-02	0.200
		1230.97		-2.566E-01	6.003E-01	9.708E-01	6.839E-02	-0.264
RE-183		57.98		-1.260E-01	3.262E-01	5.357E-01	6.777E-02	-0.235
		59.32		6.719E-02	1.834E-01	2.793E-01	3.473E-02	0.241
		67.20		-1.672E-01	2.941E-01	4.246E-01	4.818E-02	-0.394
		162.32	*	1.817E-02	1.167E-01	1.877E-01	1.038E-02	0.097

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		2.869E+00	1.547E+00	1.880E+00	1.099E-01	1.526
		291.72		4.008E-01	1.029E+00	1.550E+00	1.007E-01	0.259
RE-184		57.98		-4.566E-01	1.182E+00	1.941E+00	2.456E-01	-0.235
		59.32		2.433E-01	6.641E-01	1.011E+00	1.258E-01	0.241
		67.20		-6.060E-01	1.066E+00	1.538E+00	1.746E-01	-0.394
		161.27		-2.965E-01	3.786E-01	5.833E-01	3.239E-02	-0.508
		216.55		5.786E-02	2.571E-01	4.389E-01	2.599E-02	0.132
		252.85	*	-1.531E-01	2.354E-01	3.827E-01	2.386E-02	-0.400
		318.01		-4.102E-02	4.290E-01	7.068E-01	4.686E-02	-0.058
		792.07		5.217E-01	1.230E+00	1.839E+00	1.389E-01	0.284
		903.28		4.464E-01	1.229E+00	1.891E+00	1.905E-01	0.236
		920.93		-8.819E-02	4.685E-01	7.495E-01	7.434E-02	-0.118
OS-185		59.72		-1.822E-02	4.914E-01	7.334E-01	9.070E-02	-0.025
		61.14		7.551E-02	2.540E-01	3.851E-01	4.669E-02	0.196
		69.30		2.632E-01	4.156E-01	6.346E-01	7.093E-02	0.415
		592.07		-8.026E-01	2.592E+00	4.266E+00	2.454E-01	-0.188
		646.12	*	1.086E-02	4.143E-02	7.071E-02	3.633E-03	0.154
		717.42		-2.819E-01	9.183E-01	1.487E+00	8.897E-02	-0.189
		874.81		4.838E-01	6.280E-01	1.096E+00	1.044E-01	0.442
		880.27		-7.168E-02	8.530E-01	1.385E+00	1.339E-01	-0.052
RE-188		155.03	*	1.144E-01	1.746E-01	2.877E-01	1.635E-02	0.398
		477.96		-1.207E-01	3.146E+00	5.066E+00	3.335E-01	-0.024
		633.10		6.214E-01	2.911E+00	4.951E+00	2.623E-01	0.126
W-188	+	63.58		1.646E+02	1.057E+02	1.313E+02	1.544E+01	1.254
		227.08		-7.064E+00	1.239E+01	2.037E+01	1.226E+00	-0.347
		290.67	*	-3.405E+00	8.213E+00	1.166E+01	7.568E-01	-0.292
IR-192	+	295.96		1.133E+00	1.749E-01	2.889E-01	1.908E-02	3.921
		308.46		-1.469E-02	9.546E-02	1.571E-01	1.044E-02	-0.094
		316.51	*	-9.850E-04	3.265E-02	5.402E-02	3.592E-03	-0.018
		468.07		-1.750E-02	7.959E-02	1.100E-01	8.154E-03	-0.159
		604.41		-3.255E-01	5.280E-01	7.235E-01	8.147E-02	-0.450
		612.46		7.340E-01	7.244E-01	1.168E+00	8.610E-02	0.629
AU-195		65.12		1.123E-01	2.431E-01	3.700E-01	4.279E-02	0.304
		66.83		-8.615E-02	1.364E-01	1.961E-01	2.232E-02	-0.439
	+	75.70		1.302E+00	3.600E-01	5.445E-01	5.956E-02	2.392
		98.88	*	1.439E-01	2.696E-01	4.046E-01	3.672E-02	0.356
		129.76		6.542E+00	3.038E+00	5.278E+00	3.329E-01	1.240
TL-200		367.94	*	-1.584E-04	3.038E+00	Half-Life too short		
		579.30		2.747E-03	3.038E+00	Half-Life too short		
		828.27		-3.350E-03	3.038E+00	Half-Life too short		
		1205.75		-4.820E-03	3.038E+00	Half-Life too short		
TL-201		68.90		8.976E+00	1.254E+01	1.922E+01	2.154E+00	0.467
		70.82		5.326E+00	7.074E+00	1.083E+01	1.201E+00	0.492
		80.30		-7.226E+00	1.155E+01	1.649E+01	1.810E+00	-0.438
		135.34		1.444E+01	4.751E+01	7.764E+01	4.771E+00	0.186
		167.43	*	-1.226E+01	1.376E+01	2.100E+01	1.148E+00	-0.584
TL-202		68.90		4.956E-01	6.923E-01	1.061E+00	1.189E-01	0.467
		70.82		2.932E-01	3.895E-01	5.963E-01	6.610E-02	0.492
		80.30		-3.980E-01	6.364E-01	9.081E-01	9.969E-02	-0.438

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	5.587E-02	8.516E-02	1.441E-01	9.688E-03	0.388
HG-203		70.83		1.125E+00	1.502E+00	2.293E+00	3.505E-01	0.491
		72.87		2.198E+00	8.775E-01	1.459E+00	2.168E-01	1.507
		82.60		-9.101E-01	1.423E+00	2.023E+00	3.113E-01	-0.450
		279.20	*	-3.921E-02	4.132E-02	6.551E-02	4.421E-03	-0.598
BI-207		72.80		5.618E-01	2.358E-01	4.052E-01	4.458E-02	1.386
	+	74.97		7.146E-01	1.976E-01	2.720E-01	2.977E-02	2.628
		84.90		3.326E-01	2.331E-01	3.620E-01	4.039E-02	0.919
		569.67		1.772E-02	3.025E-02	5.053E-02	3.014E-03	0.351
		1063.62	*	-5.566E-02	5.809E-02	8.406E-02	6.843E-03	-0.662
		1770.23		-1.166E+00	6.578E-01	7.381E-01	4.898E-02	-1.579
TL-207		81.07		-3.707E-01	2.685E-01	3.647E-01	4.011E-02	-1.017
		83.78		1.673E-01	1.518E-01	2.342E-01	2.600E-02	0.715
		94.90		-1.242E-01	2.703E-01	4.138E-01	4.041E-02	-0.300
		122.32		-1.015E-01	1.786E+00	2.887E+00	2.131E-01	-0.035
		144.24		6.642E-01	7.044E-01	1.161E+00	8.512E-02	0.572
		154.21		3.226E-01	3.964E-01	6.570E-01	4.553E-02	0.491
	+	269.46		7.018E-01	3.942E-01	3.775E-01	2.491E-02	1.859
		323.87	*	1.805E-01	7.207E-01	1.068E+00	1.797E-01	0.169
	+	338.28		5.846E+00	1.517E+00	2.398E+00	2.651E-01	2.438
		445.03		5.597E-01	2.172E+00	3.590E+00	3.880E-01	0.156
PO-209		260.50		-6.070E+00	9.052E+00	1.464E+01	9.211E-01	-0.415
		262.80		-7.669E-01	2.596E+01	4.029E+01	2.542E+00	-0.019
		896.60	*	-3.479E-01	8.632E+00	1.406E+01	1.418E+00	-0.025
BI-210		46.50	*	-3.234E+00	8.553E+00	1.414E+01	1.387E+00	-0.229
PB-210		46.50	*	-3.234E+00	8.553E+00	1.414E+01	1.387E+00	-0.229
PO-210		46.50	*	-3.234E+00	8.552E+00	1.414E+01	1.270E+00	-0.229
PB-211		404.84	*	-2.953E-01	9.192E-01	1.438E+00	8.979E-01	-0.205
		427.08		8.614E-01	2.079E+00	3.366E+00	2.084E+00	0.256
		831.96		-1.889E-01	1.281E+00	2.069E+00	1.296E+00	-0.091
BI-212	+	727.18	*	9.784E-01	5.093E-01	6.752E-01	5.402E-02	1.449
		785.46		1.844E+00	1.973E+00	3.467E+00	2.568E-01	0.532
		1620.62		6.466E-01	1.484E+00	2.474E+00	1.887E-01	0.261
PO-215		81.07		-3.707E-01	2.685E-01	3.647E-01	4.011E-02	-1.017
		83.78		1.673E-01	1.518E-01	2.342E-01	2.600E-02	0.715
		94.90		-1.242E-01	2.703E-01	4.138E-01	4.041E-02	-0.300
		122.32		-1.015E-01	1.786E+00	2.887E+00	2.131E-01	-0.035
		144.24		6.642E-01	7.044E-01	1.161E+00	8.512E-02	0.572
		154.21		3.226E-01	3.964E-01	6.570E-01	4.553E-02	0.491
	+	269.46		7.018E-01	3.942E-01	3.775E-01	2.491E-02	1.859
		323.87	*	1.805E-01	7.207E-01	1.068E+00	1.797E-01	0.169
	+	338.28		5.846E+00	1.517E+00	2.398E+00	2.651E-01	2.438
		445.03		5.597E-01	2.172E+00	3.590E+00	3.880E-01	0.156
RN-219		271.23		6.031E-01	2.583E-01	4.652E-01	3.964E-02	1.297
		401.81	*	3.026E-01	4.084E-01	6.948E-01	9.766E-02	0.436
RN-220		549.76	*	3.716E+00	2.569E+01	4.158E+01	2.550E+00	0.089
RA-223		81.07		-3.707E-01	2.685E-01	3.647E-01	4.011E-02	-1.017
		83.78		1.673E-01	1.518E-01	2.342E-01	2.600E-02	0.715
		94.90		-1.242E-01	2.703E-01	4.138E-01	4.041E-02	-0.300

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-1.015E-01	1.786E+00	2.887E+00	2.131E-01	-0.035
		144.24		6.642E-01	7.044E-01	1.161E+00	8.512E-02	0.572
		154.21		3.226E-01	3.964E-01	6.570E-01	4.553E-02	0.491
	+	269.46		7.018E-01	3.942E-01	3.775E-01	2.491E-02	1.859
		323.87	*	1.805E-01	7.207E-01	1.068E+00	1.797E-01	0.169
	+	338.28		5.846E+00	1.517E+00	2.398E+00	2.651E-01	2.438
		445.03		5.597E-01	2.172E+00	3.590E+00	3.880E-01	0.156
AC-227		79.80		1.172E+00	1.966E+00	2.961E+00	6.676E-01	0.396
		236.00		6.991E-01	2.764E-01	4.483E-01	4.760E-02	1.560
		256.20	*	3.497E-01	3.736E-01	6.485E-01	9.181E-02	0.539
		286.10		3.214E-01	1.485E+00	2.503E+00	2.980E-01	0.128
	+	299.80		3.581E+00	1.779E+00	2.574E+00	4.263E-01	1.391
		304.40		2.795E-01	1.957E+00	2.889E+00	5.075E-01	0.097
		334.20		-6.086E-01	2.492E+00	3.539E+00	6.595E-01	-0.172
TH-227		79.80		1.172E+00	1.966E+00	2.961E+00	6.754E-01	0.396
	+	94.00		7.804E+00	5.524E+00	4.106E+00	9.171E-01	1.900
		236.00		6.991E-01	2.740E-01	4.483E-01	4.146E-02	1.560
		256.20	*	3.497E-01	3.751E-01	6.485E-01	1.107E-01	0.539
		286.10		3.214E-01	1.519E+00	2.503E+00	2.508E+00	0.128
	+	299.80		3.581E+00	1.779E+00	2.574E+00	4.263E-01	1.391
		304.40		2.795E-01	1.957E+00	2.889E+00	5.075E-01	0.097
		334.20		-6.086E-01	2.492E+00	3.539E+00	6.595E-01	-0.172
TH-229	+	85.43		7.941E-01	2.734E-01	3.751E-01	4.196E-02	2.117
		88.47		3.861E-02	1.880E-01	2.219E-01	2.490E-02	0.174
		100.00		1.529E-02	1.939E-01	3.181E-01	2.831E-02	0.048
		193.63	*	-2.367E-01	5.208E-01	8.057E-01	4.595E-02	-0.294
		210.97		1.222E+00	7.774E-01	1.262E+00	7.408E-02	0.968
PA-231		283.67	*	2.251E-01	1.473E+00	2.476E+00	3.482E-01	0.091
		301.29		7.869E-01	5.850E-01	1.023E+00	1.114E-01	0.769
TH-231		81.07		-3.707E-01	2.685E-01	3.647E-01	4.011E-02	-1.017
		83.78		1.673E-01	1.518E-01	2.342E-01	2.600E-02	0.715
		94.90		-1.242E-01	2.703E-01	4.138E-01	4.041E-02	-0.300
		122.32		-1.015E-01	1.786E+00	2.887E+00	2.131E-01	-0.035
		144.24		6.642E-01	7.044E-01	1.161E+00	8.512E-02	0.572
		154.21		3.226E-01	3.964E-01	6.570E-01	4.553E-02	0.491
	+	269.46		7.018E-01	3.942E-01	3.775E-01	2.491E-02	1.859
		323.87	*	1.805E-01	7.207E-01	1.068E+00	1.797E-01	0.169
	+	338.28		5.846E+00	1.517E+00	2.398E+00	2.651E-01	2.438
		445.03		5.597E-01	2.172E+00	3.590E+00	3.880E-01	0.156
U-231		84.21		1.297E+01	1.032E+01	1.599E+01	1.779E+00	0.811
	+	92.29		1.234E+01	8.380E+00	7.630E+00	7.855E-01	1.617
		95.87	*	-6.553E-01	2.033E+00	2.923E+00	2.802E-01	-0.224
		108.00		-1.917E+00	3.495E+00	5.562E+00	4.378E-01	-0.345
PA-233	+	75.28		2.085E+01	6.343E+00	8.205E+00	1.375E+00	2.541
	+	86.59		6.933E+00	2.966E+00	3.439E+00	9.553E-01	2.016
	+	300.12		9.983E-01	4.874E-01	7.237E-01	9.969E-02	1.379
		311.98	*	1.751E-02	5.902E-02	9.957E-02	6.890E-03	0.176
		340.50		8.637E-01	6.976E-01	1.060E+00	2.462E-01	0.814
		398.62		1.421E-01	2.009E+00	3.298E+00	8.607E-01	0.043

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-2.287E-01	1.645E+00	2.656E+00	5.546E-01	-0.086
PA-234	+	63.00		4.639E+00	3.039E+00	3.827E+00	6.695E-01	1.212
	+	94.67		6.959E-01	4.766E-01	3.080E-01	4.083E-02	2.259
		98.44		1.192E-01	1.256E-01	1.650E-01	9.217E-02	0.723
		99.86		8.243E-02	4.930E-01	8.114E-01	7.240E-02	0.102
		111.00		7.525E-02	1.970E-01	3.251E-01	3.691E-02	0.231
		131.20		-1.308E-01	1.136E-01	1.742E-01	1.091E-02	-0.750
		152.70		-8.840E-02	3.279E-01	5.188E-01	8.189E-02	-0.170
	+	186.00		3.862E+00	2.185E+00	2.521E+00	7.696E-01	1.531
		226.40		8.142E-02	3.905E-01	6.648E-01	7.757E-02	0.122
		227.20		-3.670E-01	4.146E-01	6.714E-01	4.041E-02	-0.547
		248.90		-2.283E-02	7.993E-01	1.341E+00	2.896E-01	-0.017
	+	293.70		6.943E+00	1.493E+00	1.752E+00	2.865E-01	3.962
		369.80		-6.704E-02	8.330E-01	1.361E+00	2.873E-01	-0.049
		568.70		3.673E-01	9.667E-01	1.591E+00	9.501E-02	0.231
		569.50		1.131E-01	2.650E-01	4.376E-01	2.610E-02	0.259
		574.00		6.124E-02	1.437E+00	2.430E+00	1.440E-01	0.025
		699.00		-2.779E-01	6.903E-01	1.109E+00	1.988E-01	-0.251
		706.10		5.941E-01	1.121E+00	1.882E+00	8.305E-01	0.316
		733.00		-1.349E-01	4.339E-01	6.002E-01	1.284E-01	-0.225
		742.81		1.404E+00	1.656E+00	2.443E+00	1.636E+00	0.575
		796.30		1.147E+00	9.928E-01	1.700E+00	4.550E-01	0.675
		805.60		-1.187E-01	1.013E+00	1.651E+00	5.026E-01	-0.072
		819.60		2.794E-01	1.352E+00	2.255E+00	8.555E-01	0.124
		826.30		-3.700E-01	8.902E-01	1.385E+00	6.188E-01	-0.267
		831.60		-1.624E-01	6.518E-01	1.045E+00	3.114E-01	-0.155
		876.40		1.288E-01	9.169E-01	1.504E+00	1.547E+00	0.086
		880.51		-6.134E-03	3.037E-01	4.960E-01	4.797E-02	-0.012
		883.24		2.434E-01	3.355E-01	5.153E-01	3.472E-01	0.472
		899.00		3.191E-01	9.610E-01	1.597E+00	7.032E-01	0.200
		925.00		9.226E-01	1.185E+00	2.072E+00	2.047E-01	0.445
		926.50		1.074E-02	1.775E-01	2.910E-01	7.487E-02	0.037
		946.00	*	-1.251E-01	3.230E-01	5.045E-01	9.720E-02	-0.248
		949.00		-1.760E-01	4.930E-01	7.749E-01	7.468E-02	-0.227
		980.50		-9.087E-01	8.500E-01	1.232E+00	1.143E-01	-0.738
		1394.10		-1.526E+00	1.492E+00	1.427E+00	9.287E-01	-1.070
PA-234M		766.42		5.088E+00	1.417E+01	2.072E+01	1.046E+01	0.246
	+	1001.03	*	6.966E+00	4.796E+00	9.452E+00	9.755E-01	0.737
U-235		89.95		-1.153E+00	1.838E+00	1.999E+00	6.308E-01	-0.576
	+	93.35		2.428E+00	1.771E+00	1.451E+00	4.136E-01	1.673
		105.00		1.255E+00	1.166E+00	1.883E+00	5.600E-01	0.666
		143.76	*	1.626E-01	2.210E-01	3.596E-01	5.880E-02	0.452
		163.35		1.486E-01	4.867E-01	7.869E-01	1.408E-01	0.189
	+	185.71		1.430E-01	6.862E-02	9.359E-02	5.267E-03	1.528
		205.31		-3.401E-01	5.934E-01	8.574E-01	1.542E-01	-0.397
NP-236	+	94.67		5.278E-01	3.584E-01	2.340E-01	2.295E-02	2.256
		98.44		9.016E-02	8.096E-02	1.247E-01	1.141E-02	0.723
		111.00		5.692E-02	1.489E-01	2.459E-01	1.858E-02	0.231
		160.31	*	2.990E-02	8.145E-02	1.324E-01	7.376E-03	0.226

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.017E-01	1.720E-01	2.749E-01	2.466E-02	0.370
		117.00	*	-1.191E-01	2.032E-01	3.215E-01	2.249E-02	-0.370
	+	209.75		2.200E+00	1.187E+00	1.409E+00	8.252E-02	1.561
		228.18		-1.019E-01	2.176E-01	3.595E-01	2.167E-02	-0.283
		277.60		1.148E-01	1.818E-01	3.122E-01	2.002E-02	0.368
		334.30		-4.094E-01	1.407E+00	1.993E+00	1.333E-01	-0.205
AM-241		59.54	*	7.526E-02	2.494E-01	3.787E-01	4.863E-02	0.199
CM-243		99.55		1.047E-01	1.770E-01	2.829E-01	2.538E-02	0.370
		103.76	*	3.053E-02	1.004E-01	1.659E-01	1.390E-02	0.184
		117.00		-1.225E-01	2.090E-01	3.308E-01	2.314E-02	-0.370
	+	209.75		2.169E+00	1.170E+00	1.389E+00	8.137E-02	1.561
		228.18		-1.030E-01	2.199E-01	3.634E-01	2.190E-02	-0.283
		277.60		1.158E-01	1.833E-01	3.148E-01	2.018E-02	0.368
AM-246		798.80		-1.969E-01	1.680E-01	2.030E-01	1.564E-02	-0.970
		1036.00		2.834E-02	3.518E-01	5.726E-01	4.898E-02	0.049
		1062.04		2.733E-02	2.492E-01	4.062E-01	3.317E-02	0.067
		1078.86	*	1.070E-01	1.481E-01	2.556E-01	2.019E-02	0.418
CM-247		278.00		4.984E-01	7.406E-01	1.274E+00	8.175E-02	0.391
		287.40		-2.737E-01	1.183E+00	1.948E+00	1.261E-01	-0.141
		402.60	*	2.125E-02	3.578E-02	6.064E-02	4.117E-03	0.350
CF-249		252.85		-5.677E-01	8.730E-01	1.419E+00	8.848E-02	-0.400
		333.44		2.142E-02	1.983E-01	2.706E-01	1.810E-02	0.079
		387.95	*	1.812E-02	4.044E-02	6.799E-02	4.620E-03	0.267
CF-251		176.60	*	8.254E-02	1.283E-01	2.102E-01	1.166E-02	0.393
		227.00		-2.400E-01	3.656E-01	5.988E-01	3.602E-02	-0.401
		285.00		-4.002E-01	1.682E+00	2.769E+00	1.789E-01	-0.145

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978001      *
* Acquisition date : 14-FEB-2010 11:17:01 Detector SN#     :               *
* Detector ID        : GAM10               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.18     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245978001           Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.2759E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.946E+01	3.891E+00	5.544E-01	0.000E+00
CD-109	3.618E+00	1.221E+00	1.646E+00	0.000E+00
SN-126	3.541E-01	1.195E-01	1.671E-01	0.000E+00
CS-135	5.965E-01	3.295E-01	2.512E-01	0.000E+00
TL-208	5.090E-01	9.361E-02	6.057E-02	0.000E+00
BI-211	3.406E+00	5.256E-01	3.271E-01	0.000E+00
PB-212	1.707E+00	1.686E-01	9.305E-02	0.000E+00
PO-212	1.707E+00	1.686E-01	9.305E-02	0.000E+00
BI-214	1.033E+00	1.707E-01	1.104E-01	0.000E+00
PB-214	1.185E+00	1.926E-01	1.140E-01	0.000E+00
PO-214	1.185E+00	1.926E-01	1.140E-01	0.000E+00
PO-216	1.707E+00	1.686E-01	9.305E-02	0.000E+00
PO-218	1.185E+00	1.926E-01	1.140E-01	0.000E+00
RA-224	4.363E+00	1.372E+00	1.059E+00	0.000E+00
RA-226	1.033E+00	1.707E-01	1.104E-01	0.000E+00
AC-228	1.553E+00	3.344E-01	2.248E-01	0.000E+00
RA-228	1.553E+00	3.344E-01	2.248E-01	0.000E+00
TH-228	1.738E+00	1.717E-01	9.473E-02	0.000E+00
TH-230	1.033E+00	1.707E-01	1.104E-01	0.000E+00
TH-232	1.553E+00	3.344E-01	2.248E-01	0.000E+00
TH-234	3.980E+00	2.580E+00	3.011E+00	0.000E+00
U-234	1.033E+00	1.707E-01	1.104E-01	0.000E+00
NP-237	1.040E+00	4.090E-01	4.777E-01	0.000E+00
U-238	3.980E+00	2.580E+00	3.011E+00	0.000E+00
AM-243	3.981E-01	1.078E-01	1.115E-01	0.000E+00
ANH-511	5.992E-02	6.579E-02	4.936E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-2.121E-02		3.221E-01	5.374E-01	0.000E+00	NOT IDENT.

NA-22	-2.188E-02	4.913E-02	8.013E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.695E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.022E-02	2.890E-02	5.099E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.938E-02	8.298E-02	0.000E+00	NOT IDENT.
SC-46	2.632E-03	4.410E-02	7.451E-02	0.000E+00	FAIL ABUN
V-48	4.192E-02	8.908E-02	1.544E-01	0.000E+00	NOT IDENT.
CR-51	-9.742E-02	3.790E-01	6.459E-01	0.000E+00	NOT IDENT.
MN-52	-4.972E-02	3.149E-01	5.171E-01	0.000E+00	NOT IDENT.
MN-54	-1.203E-02	4.098E-02	6.771E-02	0.000E+00	NOT IDENT.
CO-56	-5.482E-03	3.900E-02	6.499E-02	0.000E+00	NOT IDENT.
CO-57	-1.407E-02	2.595E-02	4.349E-02	0.000E+00	NOT IDENT.
CO-58	-9.322E-03	3.853E-02	6.386E-02	0.000E+00	NOT IDENT.
FE-59	2.821E-02	1.137E-01	1.913E-01	0.000E+00	NOT IDENT.
CO-60	5.055E-02	3.846E-02	7.432E-02	0.000E+00	NOT IDENT.
ZN-65	-1.900E-02	1.212E-01	1.683E-01	0.000E+00	NOT IDENT.
GE-68	2.360E-01	1.331E+00	2.236E+00	0.000E+00	NOT IDENT.
AS-73	1.269E-02	1.576E+00	2.827E+00	0.000E+00	NOT IDENT.
AS-74	1.731E-02	1.007E-01	1.772E-01	0.000E+00	NOT IDENT.
SE-75	-1.358E-02	4.570E-02	6.861E-02	0.000E+00	NOT IDENT.
BR-77	7.380E+00	2.424E+01	4.125E+01	0.000E+00	FAIL ABUN
SR-82	-6.843E-01	4.433E-01	6.509E-01	0.000E+00	NOT IDENT.
RB-83	1.803E-02	7.108E-02	1.205E-01	0.000E+00	NOT IDENT.
RB-84	-2.117E-02	7.834E-02	1.286E-01	0.000E+00	NOT IDENT.
KR-85	7.760E+00	7.844E+00	1.246E+01	0.000E+00	NOT IDENT.
SR-85	4.100E-02	4.144E-02	6.583E-02	0.000E+00	NOT IDENT.
RB-86	-2.890E-01	9.544E-01	1.528E+00	0.000E+00	NOT IDENT.
Y-88	-1.787E-02	3.475E-02	5.058E-02	0.000E+00	NOT IDENT.
ZR-88	4.553E-03	2.985E-02	5.133E-02	0.000E+00	NOT IDENT.
Y-91	-4.061E+00	2.314E+01	3.907E+01	0.000E+00	NOT IDENT.
NB-94	-2.132E-03	3.351E-02	5.725E-02	0.000E+00	NOT IDENT.
NB-95	1.588E-02	5.000E-02	7.637E-02	0.000E+00	NOT IDENT.
NB-95M	1.684E-01	1.380E-01	2.284E-01	0.000E+00	NOT IDENT.
ZR-95	9.256E-02	7.555E-02	1.399E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.598E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.429E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.318E+01	2.362E+01	3.840E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.073E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.075E-03	3.332E-02	5.534E-02	0.000E+00	NOT IDENT.
RH-102	-2.343E-02	2.901E-02	4.569E-02	0.000E+00	FAIL ABUN
RU-103	-3.789E-02	4.492E-02	7.000E-02	0.000E+00	FAIL ABUN
RH-106	5.571E-02	3.048E-01	5.354E-01	0.000E+00	FAIL ABUN
RU-106	5.571E-02	3.048E-01	5.354E-01	0.000E+00	FAIL ABUN
AG-108M	-9.194E-03	3.205E-02	5.306E-02	0.000E+00	NOT IDENT.
AG-110M	3.552E-02	3.473E-02	6.411E-02	0.000E+00	NOT IDENT.
IN-111	1.064E+00	2.210E+00	3.539E+00	0.000E+00	NOT IDENT.
IN-113M	-3.202E-02	4.355E-02	7.055E-02	0.000E+00	NOT IDENT.
SN-113	-3.202E-02	4.355E-02	7.055E-02	0.000E+00	NOT IDENT.
IN-114M	9.813E-02	2.100E-01	3.200E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.803E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.999E-02	6.382E-02	1.092E-01	0.000E+00	NOT IDENT.
SB-122	3.761E+00	3.897E+00	6.950E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.148E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.305E-02	2.904E-02	4.996E-02	0.000E+00	NOT IDENT.
I-124	-8.487E-01	1.165E+00	1.632E+00	0.000E+00	NOT IDENT.
SB-124	3.317E-02	7.382E-02	1.327E-01	0.000E+00	FAIL ABUN
SB-125	-2.338E-02	8.742E-02	1.451E-01	0.000E+00	FAIL ABUN
TE-125M	3.125E+00	1.003E+01	1.753E+01	0.000E+00	NOT IDENT.
I-126	-4.462E-02	1.981E-01	3.356E-01	0.000E+00	NOT IDENT.
SB-126	2.872E-02	1.745E-01	2.863E-01	0.000E+00	NOT IDENT.
SB-127	2.288E-01	2.094E+00	3.632E+00	0.000E+00	NOT IDENT.
XE-127	3.473E-02	4.955E-02	8.801E-02	0.000E+00	NOT IDENT.
I-131	-4.254E-02	1.426E-01	2.397E-01	0.000E+00	NOT IDENT.
TE-132	-5.669E-01	1.199E+00	2.075E+00	0.000E+00	NOT IDENT.
BA-133	1.388E-02	4.569E-02	7.049E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.156E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	8.421E-02	9.286E-02	0.000E+00	FAIL ABUN
I-135	0.000E+00	8.466E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.645E-02	1.494E-01	2.524E-01	0.000E+00	FAIL ABUN
BA-137M	9.136E-03	3.611E-02	6.337E-02	0.000E+00	NOT IDENT.
CS-137	9.658E-03	3.817E-02	6.699E-02	0.000E+00	NOT IDENT.
CE-139	1.053E-02	2.979E-02	5.093E-02	0.000E+00	NOT IDENT.
BA-140	1.162E-01	3.096E-01	5.248E-01	0.000E+00	NOT IDENT.
LA-140	-3.035E-02	1.142E-01	1.524E-01	0.000E+00	FAIL ABUN
CE-141	-2.928E-02	6.727E-02	1.121E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.079E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.645E-01	2.036E-01	3.329E-01	0.000E+00	NOT IDENT.
PM-144	9.388E-03	3.206E-02	5.629E-02	0.000E+00	NOT IDENT.
PR-144	6.371E-01	2.176E+00	3.820E+00	0.000E+00	NOT IDENT.

PM-146	-2.782E-03	4.232E-02	7.090E-02	0.000E+00	NOT IDENT.
ND-147	-1.428E-01	7.008E-01	1.146E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	2.115E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.393E-01	9.717E-02	1.453E-01	0.000E+00	NOT IDENT.
GD-153	3.868E-02	9.131E-02	1.449E-01	0.000E+00	NOT IDENT.
EU-154	-2.620E-02	1.344E-01	2.245E-01	0.000E+00	NOT IDENT.
EU-155	7.130E-02	1.123E-01	1.990E-01	0.000E+00	FAIL ABUN
TB-160	-3.600E-02	1.513E-01	2.491E-01	0.000E+00	FAIL ABUN
HO-166M	-2.501E-02	5.981E-02	9.921E-02	0.000E+00	FAIL ABUN
TM-171	-2.143E+01	3.983E+01	6.158E+01	0.000E+00	NOT IDENT.
LU-176	-5.764E-03	2.508E-02	3.970E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.202E+00	2.802E+00	0.000E+00	FAIL ABUN
LU-177M	-1.524E-01	1.754E-01	2.800E-01	0.000E+00	FAIL ABUN
HF-181	-1.155E-02	4.454E-02	7.319E-02	0.000E+00	NOT IDENT.
W-181	2.390E-01	5.159E-01	8.391E-01	0.000E+00	NOT IDENT.
TA-182	8.689E-02	2.491E-01	4.352E-01	0.000E+00	FAIL ABUN
RE-183	1.817E-02	1.143E-01	1.940E-01	0.000E+00	FAIL ABUN
RE-184	-1.531E-01	2.307E-01	3.930E-01	0.000E+00	NOT IDENT.
OS-185	1.086E-02	4.060E-02	7.160E-02	0.000E+00	NOT IDENT.
RE-188	1.144E-01	1.711E-01	2.976E-01	0.000E+00	NOT IDENT.
W-188	-3.405E+00	8.048E+00	1.195E+01	0.000E+00	FAIL ABUN
IR-192	-9.850E-04	3.200E-02	5.529E-02	0.000E+00	FAIL ABUN
AU-195	1.439E-01	2.642E-01	4.212E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.695E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.226E+01	1.348E+01	2.169E+01	0.000E+00	NOT IDENT.
TL-202	5.587E-02	8.346E-02	1.468E-01	0.000E+00	NOT IDENT.
HG-203	-3.921E-02	4.049E-02	6.718E-02	0.000E+00	NOT IDENT.
BI-207	-5.566E-02	5.692E-02	8.447E-02	0.000E+00	FAIL ABUN
TL-207	1.805E-01	7.063E-01	1.092E+00	0.000E+00	FAIL ABUN
PO-209	-3.479E-01	8.460E+00	1.416E+01	0.000E+00	NOT IDENT.
BI-210	-3.234E+00	8.382E+00	1.488E+01	0.000E+00	NOT IDENT.
PB-210	-3.234E+00	8.382E+00	1.488E+01	0.000E+00	NOT IDENT.
PO-210	-3.234E+00	8.381E+00	1.488E+01	0.000E+00	NOT IDENT.
PB-211	-2.953E-01	9.009E-01	1.466E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.991E-01	6.825E-01	0.000E+00	FAIL ABUN
PO-215	1.805E-01	7.063E-01	1.092E+00	0.000E+00	FAIL ABUN
RN-219	3.026E-01	4.002E-01	7.086E-01	0.000E+00	NOT IDENT.
RN-220	3.716E+00	2.518E+01	4.221E+01	0.000E+00	NOT IDENT.
RA-223	1.805E-01	7.063E-01	1.092E+00	0.000E+00	FAIL ABUN
AC-227	3.497E-01	3.662E-01	6.658E-01	0.000E+00	FAIL ABUN
TH-227	3.497E-01	3.676E-01	6.658E-01	0.000E+00	FAIL ABUN
TH-229	-2.367E-01	5.104E-01	8.306E-01	0.000E+00	FAIL ABUN
PA-231	2.251E-01	1.444E+00	2.538E+00	0.000E+00	NOT IDENT.
TH-231	1.805E-01	7.063E-01	1.092E+00	0.000E+00	FAIL ABUN
U-231	-6.553E-01	1.992E+00	3.045E+00	0.000E+00	FAIL ABUN
PA-233	1.751E-02	5.784E-02	1.019E-01	0.000E+00	FAIL ABUN
PA-234	-1.251E-01	3.165E-01	5.078E-01	0.000E+00	FAIL ABUN
PA-234M	6.966E+00	4.700E+00	9.506E+00	0.000E+00	FAIL ABUN
U-235	1.626E-01	2.166E-01	3.724E-01	0.000E+00	FAIL ABUN
NP-236	2.990E-02	7.982E-02	1.368E-01	0.000E+00	FAIL ABUN
NP-239	-1.191E-01	1.991E-01	3.339E-01	0.000E+00	FAIL ABUN
AM-241	7.526E-02	2.444E-01	3.971E-01	0.000E+00	NOT IDENT.
CM-243	3.053E-02	9.840E-02	1.726E-01	0.000E+00	FAIL ABUN
AM-246	1.070E-01	1.451E-01	2.568E-01	0.000E+00	NOT IDENT.
CM-247	2.125E-02	3.506E-02	6.184E-02	0.000E+00	NOT IDENT.
CF-249	1.812E-02	3.963E-02	6.938E-02	0.000E+00	NOT IDENT.
CF-251	8.254E-02	1.258E-01	2.170E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:17:33.21

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978001.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:17:01
Sample ID         : G245978001           Sample quantity  : 1.27590E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.18  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1585	10.67*	1.108E+00	3.946E+01	3.946E+01	10.06
CD-109	88.03	234	3.72*	5.245E+00	3.522E+00	3.618E+00	34.43
SN-126	64.28	117	9.60	2.278E+00	1.575E+00	1.575E+00	65.43
	86.94	234	8.90	5.245E+00	1.472E+00	1.472E+00	53.12
	87.57	234	37.00*	5.245E+00	3.541E-01	3.541E-01	34.43
CS-135	268.24	153	16.00*	4.703E+00	5.965E-01	5.965E-01	56.37
TL-208	277.35	------	6.80	4.610E+00	------ Line Not Found		------
	510.84	60	21.60	2.931E+00	2.774E-01	2.774E-01	112.35
	583.14	383	84.20*	2.628E+00	5.090E-01	5.090E-01	18.77
	860.37	63	12.46	1.840E+00	8.062E-01	8.062E-01	62.99
BI-211	72.87	------	1.27	3.633E+00	------ Line Not Found		------
	351.07	583	12.94*	3.890E+00	3.406E+00	3.406E+00	15.75
PB-212	74.81	345	10.70	3.864E+00	2.455E+00	2.455E+00	29.18
	77.11	571	18.00	4.154E+00	2.245E+00	2.245E+00	18.53
	87.30	234	8.00	5.245E+00	1.638E+00	1.638E+00	35.85
	238.63	1325	44.60*	5.117E+00	1.707E+00	1.707E+00	10.08
	300.09	98	3.41	4.363E+00	1.932E+00	1.932E+00	47.66
PO-212	74.81	345	10.70	3.864E+00	2.455E+00	2.455E+00	29.18
	77.11	571	18.00	4.154E+00	2.245E+00	2.245E+00	18.53
	87.30	234	8.00	5.245E+00	1.638E+00	1.638E+00	35.85
	115.19	------	0.60	6.657E+00	------ Line Not Found		------
	238.63	1325	44.60*	5.117E+00	1.707E+00	1.707E+00	10.08
	300.09	98	3.41	4.363E+00	1.932E+00	1.932E+00	47.66
BI-214	609.31	412	46.30*	2.532E+00	1.033E+00	1.033E+00	16.86
	1120.29	94	15.10	1.415E+00	1.290E+00	1.290E+00	47.64
	1764.49	78	15.80	9.767E-01	1.489E+00	1.489E+00	26.11
PB-214	74.81	345	6.21	3.864E+00	4.231E+00	4.231E+00	28.62
	77.11	571	10.50	4.154E+00	3.849E+00	3.849E+00	20.03
	87.30	234	4.67	5.245E+00	2.806E+00	2.806E+00	35.28
	241.98	297	7.49	5.075E+00	2.301E+00	2.301E+00	32.58
	295.21	417	19.20	4.413E+00	1.446E+00	1.446E+00	16.62
	351.92	583	37.20*	3.890E+00	1.185E+00	1.185E+00	16.59

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	74.81	345	6.21	3.864E+00	4.231E+00	4.231E+00	28.62
	77.11	571	10.50	4.154E+00	3.849E+00	3.849E+00	20.03
	87.30	234	4.67	5.245E+00	2.806E+00	2.806E+00	35.28
	241.98	297	7.49	5.075E+00	2.301E+00	2.301E+00	32.58
	295.21	417	19.20	4.413E+00	1.446E+00	1.446E+00	16.62
	351.92	583	37.20*	3.890E+00	1.185E+00	1.185E+00	16.59
PO-216	74.81	345	10.70	3.864E+00	2.455E+00	2.455E+00	29.18
	77.11	571	18.00	4.154E+00	2.245E+00	2.245E+00	18.53
	87.30	234	8.00	5.245E+00	1.638E+00	1.638E+00	35.85
	238.63	1325	44.60*	5.117E+00	1.707E+00	1.707E+00	10.08
	300.09	98	3.41	4.363E+00	1.932E+00	1.932E+00	47.66
PO-218	74.81	345	6.21	3.864E+00	4.231E+00	4.231E+00	28.62
	77.11	571	10.50	4.154E+00	3.849E+00	3.849E+00	20.03
	87.30	234	4.67	5.245E+00	2.806E+00	2.806E+00	35.28
	241.98	297	7.49	5.075E+00	2.301E+00	2.301E+00	32.58
	295.21	417	19.20	4.413E+00	1.446E+00	1.446E+00	16.62
	351.92	583	37.20*	3.890E+00	1.185E+00	1.185E+00	16.59
RA-224	240.98	297	3.95*	5.075E+00	4.363E+00	4.363E+00	32.10
RA-226	609.31	412	46.30*	2.532E+00	1.033E+00	1.033E+00	16.86
	1120.29	94	15.10	1.415E+00	1.290E+00	1.290E+00	47.64
	1764.49	78	15.80	9.767E-01	1.489E+00	1.489E+00	26.11
AC-228	338.32	217	11.40	4.002E+00	1.400E+00	1.400E+00	47.17
	911.07	254	27.70*	1.741E+00	1.553E+00	1.553E+00	21.98
	969.11	141	16.60	1.637E+00	1.532E+00	1.532E+00	48.46
RA-228	338.32	217	11.40	4.002E+00	1.400E+00	1.400E+00	47.17
	911.07	254	27.70*	1.741E+00	1.553E+00	1.553E+00	21.98
	969.11	141	16.60	1.637E+00	1.532E+00	1.532E+00	48.46
TH-228	74.81	345	10.70	3.864E+00	2.455E+00	2.500E+00	27.67
	77.11	571	18.00	4.154E+00	2.245E+00	2.286E+00	18.53
	87.30	234	8.00	5.245E+00	1.638E+00	1.668E+00	34.43
	238.63	1325	44.60*	5.117E+00	1.707E+00	1.738E+00	10.08
	300.09	98	3.41	4.363E+00	1.932E+00	1.967E+00	75.35
TH-230	609.31	412	46.30*	2.532E+00	1.033E+00	1.033E+00	16.86
	1120.29	94	15.10	1.415E+00	1.290E+00	1.290E+00	47.64
	1764.49	78	15.80	9.767E-01	1.489E+00	1.489E+00	26.11
TH-232	338.32	217	11.40	4.002E+00	1.400E+00	1.400E+00	24.42
	911.07	254	27.70*	1.741E+00	1.553E+00	1.553E+00	21.98
	969.11	141	16.60	1.637E+00	1.532E+00	1.532E+00	48.46
TH-234	63.29	117	3.80*	2.278E+00	3.980E+00	3.980E+00	66.14
	92.38	214	5.41	5.766E+00	2.020E+00	2.020E+00	69.74
U-234	609.31	412	46.30*	2.532E+00	1.033E+00	1.033E+00	16.86
	1120.29	94	15.10	1.415E+00	1.290E+00	1.290E+00	47.64
	1764.49	78	15.80	9.767E-01	1.489E+00	1.489E+00	26.11
NP-237	86.50	234	12.60*	5.245E+00	1.040E+00	1.040E+00	40.14
	95.87	------	2.60	5.933E+00	------ Line Not Found		------
U-238	63.29	117	3.80*	2.278E+00	3.980E+00	3.980E+00	66.14
	92.38	214	5.41	5.766E+00	2.020E+00	2.020E+00	67.90
AM-243	74.67	345	66.00*	3.864E+00	3.981E-01	3.981E-01	27.64
	86.72	234	0.34	5.245E+00	3.900E+01	3.900E+01	34.43

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	117.66	------	0.55	6.694E+00	------	Line Not Found	------
	142.18	------	0.13	6.676E+00	------	Line Not Found	------
ANH-511	511.00	60	100.00*	2.931E+00	5.992E-02	5.992E-02	112.04

Flag: "*" = Keyline

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

Total number of lines in spectrum 32
Number of unidentified lines 3
Number of lines tentatively identified by NID 29 90.63%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.946E+01	3.946E+01	0.397E+01	10.06	
CD-109	464.00D	1.03	3.522E+00	3.618E+00	1.246E+00	34.43	
SN-126	1.00E+05Y	1.00	3.541E-01	3.541E-01	1.219E-01	34.43	
CS-135	2.30E+06Y	1.00	5.965E-01	5.965E-01	3.362E-01	56.37	
TL-208	1.41E+10Y	1.00	5.090E-01	5.090E-01	0.955E-01	18.77	
BI-211	7.04E+08Y	1.00	3.406E+00	3.406E+00	0.536E+00	15.75	
PB-212	1.41E+10Y	1.00	1.707E+00	1.707E+00	0.172E+00	10.08	
PO-212	1.41E+10Y	1.00	1.707E+00	1.707E+00	0.172E+00	10.08	
BI-214	1600.00Y	1.00	1.033E+00	1.033E+00	0.174E+00	16.86	
PB-214	1600.00Y	1.00	1.185E+00	1.185E+00	0.197E+00	16.59	
PO-214	1600.00Y	1.00	1.185E+00	1.185E+00	0.197E+00	16.59	
PO-216	1.41E+10Y	1.00	1.707E+00	1.707E+00	0.172E+00	10.08	
PO-218	1600.00Y	1.00	1.185E+00	1.185E+00	0.197E+00	16.59	
RA-224	1.41E+10Y	1.00	4.363E+00	4.363E+00	1.400E+00	32.10	
RA-226	1600.00Y	1.00	1.033E+00	1.033E+00	0.174E+00	16.86	
AC-228	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.341E+00	21.98	
RA-228	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.341E+00	21.98	
TH-228	1.91Y	1.02	1.707E+00	1.738E+00	0.175E+00	10.08	
TH-230	4.47E+09Y	1.00	1.033E+00	1.033E+00	0.174E+00	16.86	
TH-232	1.41E+10Y	1.00	1.553E+00	1.553E+00	0.341E+00	21.98	
TH-234	4.47E+09Y	1.00	3.980E+00	3.980E+00	2.633E+00	66.14	
U-234	4.47E+09Y	1.00	1.033E+00	1.033E+00	0.174E+00	16.86	
NP-237	2.14E+06Y	1.00	1.040E+00	1.040E+00	0.417E+00	40.14	
U-238	4.47E+09Y	1.00	3.980E+00	3.980E+00	2.633E+00	66.14	
AM-243	7380.00Y	1.00	3.981E-01	3.981E-01	1.100E-01	27.64	
ANH-511	1.00E+09Y	1.00	5.992E-02	5.992E-02	6.714E-02	112.04	
	Total Activity :		8.085E+01	8.097E+01			

Grand Total Activity : 8.085E+01 8.097E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.58	157	345	1.12	371.10	367	9	2.18E-02	47.6	5.98E+00	T
0	209.00	135	333	1.68	417.92	413	10	1.88E-02	53.6	5.58E+00	T
0	327.46	38	245	0.98	654.66	649	11	5.26E-03	****	4.10E+00	T
0	462.50	83	117	1.42	924.57	921	10	1.15E-02	53.6	3.17E+00	T
0	727.23	85	86	1.56	1453.79	1449	13	1.18E-02	51.4	2.16E+00	T
0	768.18	37	58	1.14	1535.66	1530	9	5.12E-03	81.7	2.05E+00	T
0	794.46	58	83	1.89	1588.21	1582	16	8.00E-03	75.8	1.99E+00	T
0	1000.72	32	39	1.50	2000.65	1996	8	4.38E-03	68.1	1.58E+00	T
0	1589.44	54	6	5.52	3178.28	3168	22	7.54E-03	35.0	1.04E+00	
0	1629.74	25	0	1.70	3258.92	3252	12	3.47E-03	40.0	1.02E+00	
0	1660.82	17	8	0.90	3321.11	3313	15	2.43E-03	85.6	1.01E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:17:40.84

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978001.CNF;1 *
* Acquisition date  : 14-FEB-2010 11:17:01  Detector SN#     :             *
* Detector ID       : GAM10                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.18          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245978001            Analyst initials: MXR1         *
* Batch Number      : 948721                Sample Quantity : 1.27590E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08.8MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.946E+01	3.970E+00	5.544E-01	4.775E-02	71.181
CD-109	3.618E+00	1.246E+00	1.578E+00	1.789E-01	2.293
SN-126	3.541E-01	1.219E-01	1.602E-01	1.813E-02	2.210
CS-135	5.965E-01	3.362E-01	2.448E-01	1.979E-02	2.436
TL-208	5.090E-01	9.552E-02	5.972E-02	4.013E-03	8.523
BI-211	3.406E+00	5.363E-01	3.200E-01	2.333E-02	10.643
PB-212	1.707E+00	1.721E-01	9.053E-02	6.867E-03	18.860
PO-212	1.707E+00	1.721E-01	9.053E-02	6.867E-03	18.860
BI-214	1.033E+00	1.742E-01	1.089E-01	8.290E-03	9.483
PB-214	1.185E+00	1.966E-01	1.116E-01	1.000E-02	10.621
PO-214	1.185E+00	1.966E-01	1.116E-01	1.000E-02	10.621
PO-216	1.707E+00	1.721E-01	9.053E-02	6.867E-03	18.860
PO-218	1.185E+00	1.966E-01	1.116E-01	1.000E-02	10.621
RA-224	4.363E+00	1.400E+00	1.030E+00	6.323E-02	4.235
RA-226	1.033E+00	1.742E-01	1.089E-01	8.290E-03	9.483
AC-228	1.553E+00	3.412E-01	2.231E-01	2.754E-02	6.958
RA-228	1.553E+00	3.412E-01	2.231E-01	2.754E-02	6.958
TH-228	1.738E+00	1.752E-01	9.217E-02	6.991E-03	18.860

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.033E+00	1.742E-01	1.089E-01	8.290E-03	9.483
TH-232	1.553E+00	3.412E-01	2.231E-01	2.754E-02	6.958
TH-234	3.980E+00	2.633E+00	2.874E+00	5.665E-01	1.385
U-234	1.033E+00	1.742E-01	1.089E-01	8.290E-03	9.483
NP-237	1.040E+00	4.174E-01	4.580E-01	1.076E-01	2.271
U-238	3.980E+00	2.633E+00	2.874E+00	5.665E-01	1.385
AM-243	3.981E-01	1.100E-01	1.067E-01	1.168E-02	3.731
ANH-511	5.992E-02	6.714E-02	4.857E-02	3.112E-03	1.234

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.121E-02		3.287E-01	5.283E-01	3.928E-02	-0.040
NA-22	-2.188E-02		5.013E-02	7.997E-02	6.194E-03	-0.274
NA-24	9.256E-01		8.647E+00	Half-Life too short		
AL-26	1.022E-02		2.949E-02	5.116E-02	3.244E-03	0.200
TI-44	1.808E-01		5.039E-02	7.944E-02	8.693E-03	2.277
SC-46	2.632E-03		4.500E-02	7.394E-02	7.317E-03	0.036
V-48	4.192E-02		9.090E-02	1.535E-01	1.419E-02	0.273
CR-51	-9.742E-02		3.867E-01	6.312E-01	4.559E-02	-0.154
MN-52	-4.972E-02		3.213E-01	5.170E-01	4.369E-02	-0.096
MN-54	-1.203E-02		4.182E-02	6.713E-02	5.735E-03	-0.179
CO-56	-5.482E-03		3.980E-02	6.445E-02	5.692E-03	-0.085
CO-57	-1.407E-02		2.648E-02	4.190E-02	2.764E-03	-0.336
CO-58	-9.322E-03		3.932E-02	6.329E-02	5.064E-03	-0.147
FE-59	2.821E-02		1.160E-01	1.905E-01	1.590E-02	0.148
CO-60	5.055E-02		3.925E-02	7.422E-02	6.450E-03	0.681
ZN-65	-1.900E-02		1.236E-01	1.676E-01	1.221E-02	-0.113
GE-68	2.360E-01		1.358E+00	2.225E+00	1.763E-01	0.106
AS-73	1.269E-02		1.608E+00	2.692E+00	3.562E-01	0.005
AS-74	1.731E-02		1.027E-01	1.748E-01	9.984E-03	0.099
SE-75	-1.358E-02		4.664E-02	6.686E-02	4.264E-03	-0.203
BR-77	7.380E+00		2.473E+01	4.060E+01	2.576E+00	0.182
SR-82	-6.843E-01		4.523E-01	6.446E-01	4.647E-02	-1.062
RB-83	1.803E-02		7.253E-02	1.186E-01	7.530E-03	0.152
RB-84	-2.117E-02		7.994E-02	1.276E-01	1.237E-02	-0.166
KR-85	7.760E+00		8.004E+00	1.226E+01	7.833E-01	0.633
SR-85	4.100E-02		4.229E-02	6.479E-02	4.138E-03	0.633
RB-86	-2.890E-01		9.739E-01	1.521E+00	1.207E-01	-0.190
Y-88	-1.787E-02		3.546E-02	5.077E-02	3.115E-03	-0.352
ZR-88	4.553E-03		3.046E-02	5.031E-02	3.419E-03	0.091
Y-91	-4.061E+00		2.361E+01	3.895E+01	2.587E+00	-0.104
NB-94	-2.132E-03		3.420E-02	5.661E-02	3.223E-03	-0.038
NB-95	1.588E-02		5.102E-02	7.562E-02	5.277E-03	0.210
NB-95M	1.684E-01		1.408E-01	2.222E-01	1.723E-02	0.758
ZR-95	9.256E-02		7.710E-02	1.385E-01	1.088E-02	0.668
NB-97	1.687E+00		8.152E-01	Half-Life too short		

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	4.162E+01		1.749E+01	Half-Life too short		
MO-99	-1.318E+01		2.410E+01	3.800E+01	5.342E+00	-0.347
TC-99M	-1.045E+14		5.476E+13	Half-Life too short		
RH-101	9.075E-03		3.400E-02	5.370E-02	3.085E-03	0.169
RH-102	-2.343E-02		2.961E-02	4.491E-02	2.962E-03	-0.522
RU-103	-3.789E-02		4.584E-02	6.885E-02	8.933E-03	-0.550
RH-106	5.571E-02		3.111E-01	5.284E-01	6.108E-02	0.105
RU-106	5.571E-02		3.110E-01	5.284E-01	2.870E-02	0.105
AG-108M	-9.194E-03		3.270E-02	5.209E-02	3.735E-03	-0.176
AG-110M	3.552E-02		3.544E-02	6.333E-02	3.431E-03	0.561
IN-111	1.064E+00		2.255E+00	3.445E+00	2.127E-01	0.309
IN-113M	-3.202E-02		4.444E-02	6.915E-02	4.931E-03	-0.463
SN-113	-3.202E-02		4.444E-02	6.915E-02	4.931E-03	-0.463
IN-114M	9.813E-02		2.143E-01	3.103E-01	1.760E-02	0.316
CD-115	-6.243E-06		1.430E-05	Half-Life too short		
SN-117M	1.999E-02		6.512E-02	1.056E-01	5.922E-03	0.189
SB-122	3.761E+00		3.976E+00	6.849E+00	4.119E-01	0.549
I-123	9.651E+01		1.096E+02	Half-Life too short		
TE-123M	1.305E-02		2.963E-02	4.832E-02	2.744E-03	0.270
I-124	-8.487E-01		1.188E+00	1.610E+00	9.084E-02	-0.527
SB-124	3.317E-02		7.533E-02	1.330E-01	1.010E-02	0.249
SB-125	-2.338E-02		8.920E-02	1.424E-01	9.915E-03	-0.164
TE-125M	3.125E+00		1.023E+01	1.686E+01	1.620E+00	0.185
I-126	-4.462E-02		2.021E-01	3.316E-01	1.664E-02	-0.135
SB-126	2.872E-02		1.781E-01	2.832E-01	1.711E-02	0.101
SB-127	2.288E-01		2.136E+00	3.590E+00	3.674E-01	0.064
XE-127	3.473E-02		5.057E-02	8.542E-02	4.946E-03	0.407
I-131	-4.254E-02		1.455E-01	2.347E-01	1.732E-02	-0.181
TE-132	-5.669E-01		1.223E+00	2.018E+00	3.039E-01	-0.281
BA-133	1.388E-02		4.662E-02	6.900E-02	8.324E-03	0.201
I-133	-2.693E-02		3.141E-02	Half-Life too short		
CS-134	1.128E-01	+	8.592E-02	9.199E-02	7.092E-03	1.226
I-135	9.805E+11		4.320E+12	Half-Life too short		
CS-136	2.645E-02		1.524E-01	2.512E-01	2.199E-02	0.105
BA-137M	9.136E-03		3.685E-02	6.260E-02	3.089E-03	0.146
CS-137	9.658E-03		3.895E-02	6.618E-02	3.284E-03	0.146
CE-139	1.053E-02		3.039E-02	4.929E-02	2.692E-03	0.214
BA-140	1.162E-01		3.159E-01	5.168E-01	1.685E-01	0.225
LA-140	-3.035E-02		1.165E-01	1.526E-01	1.184E-02	-0.199
CE-141	-2.928E-02		6.864E-02	1.082E-01	6.624E-03	-0.271
CE-143	3.579E-03		5.505E-04	Half-Life too short		
CE-144	-1.645E-01		2.078E-01	3.212E-01	4.614E-02	-0.512
PM-144	9.388E-03		3.271E-02	5.566E-02	3.107E-03	0.169
PR-144	6.371E-01		2.220E+00	3.777E+00	2.106E-01	0.169
PM-146	-2.782E-03		4.318E-02	6.965E-02	6.433E-03	-0.040
ND-147	-1.428E-01		7.151E-01	1.128E+00	1.549E-01	-0.127
PM-149	6.123E-05		1.079E-04	Half-Life too short		
EU-152	-1.393E-01		9.915E-02	1.421E-01	1.047E-02	-0.980

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	3.868E-02		9.318E-02	1.392E-01	1.296E-02	0.278
EU-154	-2.620E-02		1.371E-01	2.240E-01	2.386E-02	-0.117
EU-155	7.130E-02		1.146E-01	1.914E-01	1.587E-02	0.373
TB-160	-3.600E-02		1.544E-01	2.472E-01	2.383E-02	-0.146
HO-166M	-2.501E-02		6.103E-02	9.812E-02	5.758E-03	-0.255
TM-171	-2.143E+01		4.064E+01	5.882E+01	6.701E+00	-0.364
LU-176	-5.764E-03		2.559E-02	3.877E-02	2.551E-03	-0.149
LU-177	4.166E+00	+	2.247E+00	2.720E+00	1.590E-01	1.531
LU-177M	-1.524E-01		1.790E-01	2.747E-01	1.862E-02	-0.555
HF-181	-1.155E-02		4.545E-02	7.196E-02	4.724E-03	-0.161
W-181	2.390E-01		5.265E-01	8.011E-01	9.257E-02	0.298
TA-182	8.689E-02		2.542E-01	4.340E-01	2.993E-02	0.200
RE-183	1.817E-02		1.167E-01	1.877E-01	1.038E-02	0.097
RE-184	-1.531E-01		2.354E-01	3.827E-01	2.386E-02	-0.400
OS-185	1.086E-02		4.143E-02	7.071E-02	3.633E-03	0.154
RE-188	1.144E-01		1.746E-01	2.877E-01	1.635E-02	0.398
W-188	-3.405E+00		8.213E+00	1.166E+01	7.568E-01	-0.292
IR-192	-9.850E-04		3.265E-02	5.402E-02	3.592E-03	-0.018
AU-195	1.439E-01		2.696E-01	4.046E-01	3.672E-02	0.356
TL-200	-1.584E-04		1.375E-03	Half-Life too short		
TL-201	-1.226E+01		1.376E+01	2.100E+01	1.148E+00	-0.584
TL-202	5.587E-02		8.516E-02	1.441E-01	9.688E-03	0.388
HG-203	-3.921E-02		4.132E-02	6.551E-02	4.421E-03	-0.598
BI-207	-5.566E-02		5.809E-02	8.406E-02	6.843E-03	-0.662
TL-207	1.805E-01		7.207E-01	1.068E+00	1.797E-01	0.169
PO-209	-3.479E-01		8.632E+00	1.406E+01	1.418E+00	-0.025
BI-210	-3.234E+00		8.553E+00	1.414E+01	1.387E+00	-0.229
PB-210	-3.234E+00		8.553E+00	1.414E+01	1.387E+00	-0.229
PO-210	-3.234E+00		8.552E+00	1.414E+01	1.270E+00	-0.229
PB-211	-2.953E-01		9.192E-01	1.438E+00	8.979E-01	-0.205
BI-212	9.784E-01	+	5.093E-01	6.752E-01	5.402E-02	1.449
PO-215	1.805E-01		7.207E-01	1.068E+00	1.797E-01	0.169
RN-219	3.026E-01		4.084E-01	6.948E-01	9.766E-02	0.436
RN-220	3.716E+00		2.569E+01	4.158E+01	2.550E+00	0.089
RA-223	1.805E-01		7.207E-01	1.068E+00	1.797E-01	0.169
AC-227	3.497E-01		3.736E-01	6.485E-01	9.181E-02	0.539
TH-227	3.497E-01		3.751E-01	6.485E-01	1.107E-01	0.539
TH-229	-2.367E-01		5.208E-01	8.057E-01	4.595E-02	-0.294
PA-231	2.251E-01		1.473E+00	2.476E+00	3.482E-01	0.091
TH-231	1.805E-01		7.207E-01	1.068E+00	1.797E-01	0.169
U-231	-6.553E-01		2.033E+00	2.923E+00	2.802E-01	-0.224
PA-233	1.751E-02		5.902E-02	9.957E-02	6.890E-03	0.176
PA-234	-1.251E-01		3.230E-01	5.045E-01	9.720E-02	-0.248
PA-234M	6.966E+00	+	4.796E+00	9.452E+00	9.755E-01	0.737
U-235	1.626E-01		2.210E-01	3.596E-01	5.880E-02	0.452
NP-236	2.990E-02		8.145E-02	1.324E-01	7.376E-03	0.226
NP-239	-1.191E-01		2.032E-01	3.215E-01	2.249E-02	-0.370
AM-241	7.526E-02		2.494E-01	3.787E-01	4.863E-02	0.199

Sample ID : G245978001 Acquisition date : 14-FEB-2010 11:17:01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	3.053E-02		1.004E-01	1.659E-01	1.390E-02	0.184
AM-246	1.070E-01		1.481E-01	2.556E-01	2.019E-02	0.418
CM-247	2.125E-02		3.578E-02	6.064E-02	4.117E-03	0.350
CF-249	1.812E-02		4.044E-02	6.799E-02	4.620E-03	0.267
CF-251	8.254E-02		1.283E-01	2.102E-01	1.166E-02	0.393

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978001           *
* Acquisition date  : 14-FEB-2010 11:17:01 Detector SN#     :               *
* Detector ID       : GAM10                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.18      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978001           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.2759E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.946E+01	3.891E+00	2.773E-01	1.985E+00
CD-109	3.618E+00	1.221E+00	8.235E-01	6.228E-01
SN-126	3.541E-01	1.195E-01	8.360E-02	6.096E-02
CS-135	5.965E-01	3.295E-01	1.257E-01	1.681E-01
TL-208	5.090E-01	9.361E-02	3.030E-02	4.776E-02
BI-211	3.406E+00	5.256E-01	1.636E-01	2.682E-01
PB-212	1.707E+00	1.686E-01	4.655E-02	8.603E-02
PO-212	1.707E+00	1.686E-01	4.655E-02	8.603E-02
BI-214	1.033E+00	1.707E-01	5.524E-02	8.710E-02
PB-214	1.185E+00	1.926E-01	5.703E-02	9.828E-02
PO-214	1.185E+00	1.926E-01	5.703E-02	9.828E-02
PO-216	1.707E+00	1.686E-01	4.655E-02	8.603E-02
PO-218	1.185E+00	1.926E-01	5.703E-02	9.828E-02
RA-224	4.363E+00	1.372E+00	5.296E-01	7.002E-01
RA-226	1.033E+00	1.707E-01	5.524E-02	8.710E-02
AC-228	1.553E+00	3.344E-01	1.125E-01	1.706E-01
RA-228	1.553E+00	3.344E-01	1.125E-01	1.706E-01
TH-228	1.738E+00	1.717E-01	4.739E-02	8.758E-02
TH-230	1.033E+00	1.707E-01	5.524E-02	8.709E-02
TH-232	1.553E+00	3.344E-01	1.125E-01	1.706E-01
TH-234	3.980E+00	2.580E+00	1.507E+00	1.316E+00
U-234	1.033E+00	1.707E-01	5.524E-02	8.709E-02
NP-237	1.040E+00	4.090E-01	2.390E-01	2.087E-01
U-238	3.980E+00	2.580E+00	1.507E+00	1.316E+00
AM-243	3.981E-01	1.078E-01	5.579E-02	5.502E-02
ANH-511	5.992E-02	6.579E-02	2.469E-02	3.357E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-2.121E-02	3.221E-01	2.688E-01	1.644E-01 NOT IDENT.

NA-22	-2.188E-02	4.913E-02	4.009E-02	2.506E-02	NOT IDENT.
NA-24	9.256E+05	1.695E+07	0.000E+00	8.647E+06	SHORT HLIF
AL-26	1.022E-02	2.890E-02	2.551E-02	1.474E-02	NOT IDENT.
TI-44	1.808E-01	4.938E-02	4.151E-02	2.519E-02	NOT IDENT.
SC-46	2.632E-03	4.410E-02	3.728E-02	2.250E-02	FAIL ABUN
V-48	4.192E-02	8.908E-02	7.726E-02	4.545E-02	NOT IDENT.
CR-51	-9.742E-02	3.790E-01	3.231E-01	1.933E-01	NOT IDENT.
MN-52	-4.972E-02	3.149E-01	2.587E-01	1.607E-01	NOT IDENT.
MN-54	-1.203E-02	4.098E-02	3.387E-02	2.091E-02	NOT IDENT.
CO-56	-5.482E-03	3.900E-02	3.252E-02	1.990E-02	NOT IDENT.
CO-57	-1.407E-02	2.595E-02	2.176E-02	1.324E-02	NOT IDENT.
CO-58	-9.322E-03	3.853E-02	3.195E-02	1.966E-02	NOT IDENT.
FE-59	2.821E-02	1.137E-01	9.572E-02	5.800E-02	NOT IDENT.
CO-60	5.055E-02	3.846E-02	3.718E-02	1.962E-02	NOT IDENT.
ZN-65	-1.900E-02	1.212E-01	8.419E-02	6.182E-02	NOT IDENT.
GE-68	2.360E-01	1.331E+00	1.119E+00	6.792E-01	NOT IDENT.
AS-73	1.269E-02	1.576E+00	1.414E+00	8.040E-01	NOT IDENT.
AS-74	1.731E-02	1.007E-01	8.864E-02	5.137E-02	NOT IDENT.
SE-75	-1.358E-02	4.570E-02	3.433E-02	2.332E-02	NOT IDENT.
BR-77	7.380E+00	2.424E+01	2.064E+01	1.237E+01	FAIL ABUN
SR-82	-6.843E-01	4.433E-01	3.256E-01	2.262E-01	NOT IDENT.
RB-83	1.803E-02	7.108E-02	6.030E-02	3.627E-02	NOT IDENT.
RB-84	-2.117E-02	7.834E-02	6.432E-02	3.997E-02	NOT IDENT.
KR-85	7.760E+00	7.844E+00	6.234E+00	4.002E+00	NOT IDENT.
SR-85	4.100E-02	4.144E-02	3.293E-02	2.114E-02	NOT IDENT.
RB-86	-2.890E-01	9.544E-01	7.647E-01	4.870E-01	NOT IDENT.
Y-88	-1.787E-02	3.475E-02	2.530E-02	1.773E-02	NOT IDENT.
ZR-88	4.553E-03	2.985E-02	2.568E-02	1.523E-02	NOT IDENT.
Y-91	-4.061E+00	2.314E+01	1.954E+01	1.181E+01	NOT IDENT.
NB-94	-2.132E-03	3.351E-02	2.864E-02	1.710E-02	NOT IDENT.
NB-95	1.588E-02	5.000E-02	3.821E-02	2.551E-02	NOT IDENT.
NB-95M	1.684E-01	1.380E-01	1.143E-01	7.039E-02	NOT IDENT.
ZR-95	9.256E-02	7.555E-02	7.001E-02	3.855E-02	NOT IDENT.
NB-97	1.687E+06	1.598E+06	0.000E+00	8.152E+05	SHORT HLIF
ZR-97	4.162E+07	3.429E+07	0.000E+00	1.749E+07	SHORT HLIF
MO-99	-1.318E+01	2.362E+01	1.921E+01	1.205E+01	NOT IDENT.
TC-99M	-1.045E+20	1.073E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	9.075E-03	3.332E-02	2.769E-02	1.700E-02	NOT IDENT.
RH-102	-2.343E-02	2.901E-02	2.286E-02	1.480E-02	FAIL ABUN
RU-103	-3.789E-02	4.492E-02	3.502E-02	2.292E-02	FAIL ABUN
RH-106	5.571E-02	3.048E-01	2.679E-01	1.555E-01	FAIL ABUN
RU-106	5.571E-02	3.048E-01	2.679E-01	1.555E-01	FAIL ABUN
AG-108M	-9.194E-03	3.205E-02	2.655E-02	1.635E-02	NOT IDENT.
AG-110M	3.552E-02	3.473E-02	3.207E-02	1.772E-02	NOT IDENT.
IN-111	1.064E+00	2.210E+00	1.770E+00	1.128E+00	NOT IDENT.
IN-113M	-3.202E-02	4.355E-02	3.530E-02	2.222E-02	NOT IDENT.
SN-113	-3.202E-02	4.355E-02	3.530E-02	2.222E-02	NOT IDENT.
IN-114M	9.813E-02	2.100E-01	1.601E-01	1.071E-01	NOT IDENT.
CD-115	-6.243E+00	2.803E+01	0.000E+00	1.430E+01	SHORT HLIF
SN-117M	1.999E-02	6.382E-02	5.463E-02	3.256E-02	NOT IDENT.
SB-122	3.761E+00	3.897E+00	3.477E+00	1.988E+00	NOT IDENT.
I-123	9.651E+07	2.148E+08	0.000E+00	1.096E+08	SHORT HLIF
TE-123M	1.305E-02	2.904E-02	2.499E-02	1.481E-02	NOT IDENT.
I-124	-8.487E-01	1.165E+00	8.166E-01	5.942E-01	NOT IDENT.
SB-124	3.317E-02	7.382E-02	6.638E-02	3.766E-02	FAIL ABUN
SB-125	-2.338E-02	8.742E-02	7.258E-02	4.460E-02	FAIL ABUN
TE-125M	3.125E+00	1.003E+01	8.768E+00	5.116E+00	NOT IDENT.
I-126	-4.462E-02	1.981E-01	1.679E-01	1.011E-01	NOT IDENT.
SB-126	2.872E-02	1.745E-01	1.432E-01	8.904E-02	NOT IDENT.
SB-127	2.288E-01	2.094E+00	1.817E+00	1.068E+00	NOT IDENT.
XE-127	3.473E-02	4.955E-02	4.403E-02	2.528E-02	NOT IDENT.
I-131	-4.254E-02	1.426E-01	1.199E-01	7.276E-02	NOT IDENT.
TE-132	-5.669E-01	1.199E+00	1.038E+00	6.117E-01	NOT IDENT.
BA-133	1.388E-02	4.569E-02	3.527E-02	2.331E-02	NOT IDENT.
I-133	-2.693E+04	6.156E+04	0.000E+00	3.141E+04	SHORT HLIF
CS-134	1.128E-01	8.421E-02	4.646E-02	4.296E-02	FAIL ABUN
I-135	9.805E+17	8.466E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.645E-02	1.494E-01	1.263E-01	7.621E-02	FAIL ABUN
BA-137M	9.136E-03	3.611E-02	3.170E-02	1.842E-02	NOT IDENT.
CS-137	9.658E-03	3.817E-02	3.351E-02	1.947E-02	NOT IDENT.
CE-139	1.053E-02	2.979E-02	2.548E-02	1.520E-02	NOT IDENT.
BA-140	1.162E-01	3.096E-01	2.625E-01	1.580E-01	NOT IDENT.
LA-140	-3.035E-02	1.142E-01	7.622E-02	5.826E-02	FAIL ABUN
CE-141	-2.928E-02	6.727E-02	5.606E-02	3.432E-02	NOT IDENT.
CE-143	3.579E+03	1.079E+03	0.000E+00	5.505E+02	SHORT HLIF
CE-144	-1.645E-01	2.036E-01	1.666E-01	1.039E-01	NOT IDENT.
PM-144	9.388E-03	3.206E-02	2.816E-02	1.636E-02	NOT IDENT.
PR-144	6.371E-01	2.176E+00	1.911E+00	1.110E+00	NOT IDENT.

PM-146	-2.782E-03	4.232E-02	3.547E-02	2.159E-02	NOT IDENT.
ND-147	-1.428E-01	7.008E-01	5.733E-01	3.575E-01	NOT IDENT.
PM-149	6.123E+01	2.115E+02	0.000E+00	1.079E+02	SHORT HLIF
EU-152	-1.393E-01	9.717E-02	7.268E-02	4.958E-02	NOT IDENT.
GD-153	3.868E-02	9.131E-02	7.251E-02	4.659E-02	NOT IDENT.
EU-154	-2.620E-02	1.344E-01	1.123E-01	6.857E-02	NOT IDENT.
EU-155	7.130E-02	1.123E-01	9.958E-02	5.731E-02	FAIL ABUN
TB-160	-3.600E-02	1.513E-01	1.246E-01	7.719E-02	FAIL ABUN
HO-166M	-2.501E-02	5.981E-02	4.963E-02	3.052E-02	FAIL ABUN
TM-171	-2.143E+01	3.983E+01	3.081E+01	2.032E+01	NOT IDENT.
LU-176	-5.764E-03	2.508E-02	1.986E-02	1.279E-02	FAIL ABUN
LU-177	4.166E+00	2.202E+00	1.402E+00	1.123E+00	FAIL ABUN
LU-177M	-1.524E-01	1.754E-01	1.401E-01	8.949E-02	FAIL ABUN
HF-181	-1.155E-02	4.454E-02	3.662E-02	2.273E-02	NOT IDENT.
W-181	2.390E-01	5.159E-01	4.198E-01	2.632E-01	NOT IDENT.
TA-182	8.689E-02	2.491E-01	2.177E-01	1.271E-01	FAIL ABUN
RE-183	1.817E-02	1.143E-01	9.707E-02	5.833E-02	FAIL ABUN
RE-184	-1.531E-01	2.307E-01	1.966E-01	1.177E-01	NOT IDENT.
OS-185	1.086E-02	4.060E-02	3.582E-02	2.071E-02	NOT IDENT.
RE-188	1.144E-01	1.711E-01	1.489E-01	8.729E-02	NOT IDENT.
W-188	-3.405E+00	8.048E+00	5.977E+00	4.106E+00	FAIL ABUN
IR-192	-9.850E-04	3.200E-02	2.766E-02	1.633E-02	FAIL ABUN
AU-195	1.439E-01	2.642E-01	2.107E-01	1.348E-01	FAIL ABUN
TL-200	-1.584E+02	2.695E+03	0.000E+00	1.375E+03	SHORT HLIF
TL-201	-1.226E+01	1.348E+01	1.085E+01	6.878E+00	NOT IDENT.
TL-202	5.587E-02	8.346E-02	7.343E-02	4.258E-02	NOT IDENT.
HG-203	-3.921E-02	4.049E-02	3.361E-02	2.066E-02	NOT IDENT.
BI-207	-5.566E-02	5.692E-02	4.226E-02	2.904E-02	FAIL ABUN
TL-207	1.805E-01	7.063E-01	5.465E-01	3.604E-01	FAIL ABUN
PO-209	-3.479E-01	8.460E+00	7.085E+00	4.316E+00	NOT IDENT.
BI-210	-3.234E+00	8.382E+00	7.447E+00	4.276E+00	NOT IDENT.
PB-210	-3.234E+00	8.382E+00	7.447E+00	4.276E+00	NOT IDENT.
PO-210	-3.234E+00	8.381E+00	7.447E+00	4.276E+00	NOT IDENT.
PB-211	-2.953E-01	9.009E-01	7.337E-01	4.596E-01	NOT IDENT.
BI-212	9.784E-01	4.991E-01	3.415E-01	2.546E-01	FAIL ABUN
PO-215	1.805E-01	7.063E-01	5.465E-01	3.604E-01	FAIL ABUN
RN-219	3.026E-01	4.002E-01	3.545E-01	2.042E-01	NOT IDENT.
RN-220	3.716E+00	2.518E+01	2.112E+01	1.285E+01	NOT IDENT.
RA-223	1.805E-01	7.063E-01	5.465E-01	3.604E-01	FAIL ABUN
AC-227	3.497E-01	3.662E-01	3.331E-01	1.868E-01	FAIL ABUN
TH-227	3.497E-01	3.676E-01	3.331E-01	1.876E-01	FAIL ABUN
TH-229	-2.367E-01	5.104E-01	4.156E-01	2.604E-01	FAIL ABUN
PA-231	2.251E-01	1.444E+00	1.270E+00	7.365E-01	NOT IDENT.
TH-231	1.805E-01	7.063E-01	5.465E-01	3.604E-01	FAIL ABUN
U-231	-6.553E-01	1.992E+00	1.523E+00	1.016E+00	FAIL ABUN
PA-233	1.751E-02	5.784E-02	5.100E-02	2.951E-02	FAIL ABUN
PA-234	-1.251E-01	3.165E-01	2.541E-01	1.615E-01	FAIL ABUN
PA-234M	6.966E+00	4.700E+00	4.756E+00	2.398E+00	FAIL ABUN
U-235	1.626E-01	2.166E-01	1.863E-01	1.105E-01	FAIL ABUN
NP-236	2.990E-02	7.982E-02	6.846E-02	4.073E-02	FAIL ABUN
NP-239	-1.191E-01	1.991E-01	1.671E-01	1.016E-01	FAIL ABUN
AM-241	7.526E-02	2.444E-01	1.987E-01	1.247E-01	NOT IDENT.
CM-243	3.053E-02	9.840E-02	8.634E-02	5.020E-02	FAIL ABUN
AM-246	1.070E-01	1.451E-01	1.285E-01	7.404E-02	NOT IDENT.
CM-247	2.125E-02	3.506E-02	3.094E-02	1.789E-02	NOT IDENT.
CF-249	1.812E-02	3.963E-02	3.471E-02	2.022E-02	NOT IDENT.
CF-251	8.254E-02	1.258E-01	1.086E-01	6.417E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	275.8679
46.50	275.8679
46.50	275.8679
48.70	277.5230
49.72	293.0212
51.35	275.7661
52.39	292.2796
52.97	298.2877
53.15	300.2833
53.44	298.6428
54.07	317.7536
56.28	295.1347
56.28	295.1371
57.37	0.0000
57.53	318.5893
57.53	318.5906
57.60	328.0422
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57.98	318.9341
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59.32	287.3915
59.40	287.4457
59.54	287.5410
59.72	308.9193
60.01	319.0558
61.10	297.1224
61.14	297.1496
61.30	297.2596
63.00	330.3103
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63.29	330.5279
63.58	330.7450
64.28	322.1981
65.12	319.9347
65.20	319.9913
65.20	319.9913
66.05	340.7219
66.72	372.8974
66.83	381.6290
66.91	381.6957
67.20	381.9383
67.20	381.9383
67.75	360.7502
67.85	360.8284
68.90	342.8410
68.90	342.8410
69.30	351.8228
69.67	349.2047
70.82	370.3893
70.82	370.3893
70.83	370.3971
72.80	395.7490
72.87	395.8069
72.87	395.8069
74.67	397.2726
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74.81	397.3864
74.81	397.3864
74.81	397.3864
74.81	397.3864
74.81	397.3864
74.81	397.3864
74.97	397.5148
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75.70	398.1027
77.11	399.2309
77.11	399.2309

77.11	399.2309
77.11	399.2309
77.11	399.2309
77.11	399.2309
77.11	399.2309
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79.80	344.6523
80.11	344.8621
80.18	344.9083
80.30	386.4462
80.30	386.4462
80.57	386.6493
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81.07	428.5434
81.07	428.5434
81.07	428.5434
81.07	428.5434
82.60	414.9303
83.37	338.0892
83.78	341.3353
83.78	341.3353
83.78	341.3353
83.78	341.3353
84.21	331.1691
84.90	355.4984
85.43	397.7154
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86.50	482.4030
86.54	482.4374
86.59	482.4817
86.72	498.7861
86.79	498.8470
86.94	498.9867
87.30	528.1262
87.30	528.1262
87.30	528.1262
87.30	528.1262
87.30	528.1262
87.30	528.1262
87.30	528.1262
87.57	528.3867
87.88	498.6484
88.03	498.7852
88.36	529.1521
88.47	529.2568
89.95	530.6802
91.11	531.7866
92.29	421.4785
92.38	421.5464
92.38	421.5464
93.35	422.2686
94.00	422.7507
94.67	423.2414
94.67	423.2456
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94.90	423.4156
94.90	423.4156
94.90	423.4156
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95.87	348.8689
96.73	321.9250
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98.44	284.6110
98.44	284.6110
98.88	307.7935
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99.55	298.0235
99.86	311.8816
100.00	311.9561
100.10	312.0104
103.18	310.5235
103.76	296.4111
105.00	283.6049
105.31	306.4489
108.00	340.9396
109.28	320.8660

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111.00	319.6527
111.76	318.9912
112.95	323.7587
115.19	323.8286
116.30	305.4799
117.00	334.1776
117.00	334.1776
117.66	316.6281
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121.62	304.7461
121.78	293.1755
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122.32	289.1697
122.32	289.1697
122.32	289.1697
122.32	289.1697
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140.51	0.0000
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144.24	268.6046
144.24	268.6046
144.24	268.6046
145.22	302.8419
145.44	321.5206
147.16	325.5266
152.43	306.7604
152.70	298.0344
153.22	301.5430
154.21	265.4199
154.21	265.4199
154.21	265.4199
154.21	265.4199
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156.02	323.6583
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162.64	287.1799
163.35	281.8337
163.89	287.6113
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167.43	300.0654
171.28	239.3324
171.86	239.4942
172.10	271.2012
176.55	232.8376
176.60	248.7520
181.06	224.3227
184.41	285.3176
185.71	286.8729
186.00	286.9644
190.27	249.0930
192.34	270.4530
193.63	270.8267
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198.01	245.3403
198.60	278.0699
200.40	273.9300
201.83	274.0469
202.84	261.4369
205.31	306.4880

208.36	257.3758
208.81	257.4939
209.75	228.7874
209.75	228.7874
210.97	203.6162
215.65	237.9514
216.55	233.7207
218.09	239.4139
222.10	244.8194
223.80	240.7459
226.40	229.6836
227.00	239.6893
227.08	232.5254
227.20	247.8171
228.16	239.0554
228.18	239.0595
228.18	239.0595
231.56	0.0000
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236.00	236.1132
236.00	236.1132
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238.63	227.7924
238.63	227.7924
238.63	227.7924
239.00	227.8690
240.98	228.2826
241.98	228.4913
241.98	228.4913
241.98	228.4913
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245.39	187.0109
247.94	224.2313
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249.79	183.3496
252.40	209.5021
252.85	219.6972
252.85	219.6972
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256.20	175.1678
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260.90	0.0000
262.80	161.9537
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268.24	182.5776
268.79	182.6644
269.46	182.7661
269.46	182.7661
269.46	182.7661
269.46	182.7661
271.23	183.0382
273.65	247.0408
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277.60	194.3373
277.60	194.3373
278.00	185.9483
278.60	190.7400
279.20	204.9338
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281.68	172.3807
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284.30	167.0853
285.00	172.8470
285.90	0.0000
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286.10	166.3831
287.40	172.2329
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291.72	162.5742
293.26	0.0000
293.70	175.0044
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295.21	169.4987

295.21	169.4987
295.96	169.5992
296.50	169.6698
297.23	169.7676
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300.09	170.1479
300.09	170.1479
300.09	170.1479
300.12	170.1506
301.29	170.3054
302.84	145.6056
303.76	141.1063
303.91	141.1243
304.40	145.7795
304.40	145.7795
304.84	135.0852
306.84	156.3026
308.46	156.8169
311.98	132.1564
316.51	135.5118
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319.02	149.3426
319.41	144.5347
320.08	153.3422
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323.87	146.3747
323.87	146.3747
323.87	146.3747
325.23	152.7565
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334.20	153.7566
334.20	153.7566
334.30	153.7662
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338.28	150.4670
338.28	150.4670
338.28	150.4670
338.32	150.4716
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338.32	150.4716
340.50	140.2641
340.57	140.2706
344.27	167.0497
345.85	121.8108
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351.07	138.9255
351.92	139.0088
351.92	139.0088
351.92	139.0088
355.39	0.0000
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364.48	134.1963
366.43	137.3826
367.43	127.4399
367.94	0.0000
369.80	127.6414
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383.85	121.7249
387.95	126.1172
388.63	134.3123
391.69	134.5761
391.69	134.5761
392.90	117.3338
398.62	115.7122
400.65	113.8099
401.10	119.9957
401.81	111.8408
402.60	109.8425
404.84	124.3880
410.95	104.2225
411.60	141.4276
413.65	137.4708
414.70	106.5315
415.30	113.8135

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417.63	0.0000
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423.70	114.3942
427.08	103.1633
427.89	110.5126
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433.93	115.0941
439.47	100.7739
439.56	110.2279
439.89	117.5986
443.98	116.8281
444.90	94.7749
445.03	94.7832
445.03	94.7832
445.03	94.7832
445.03	94.7832
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468.07	112.6802
473.00	89.8781
475.06	114.6181
475.35	111.4220
476.78	97.5706
477.59	98.6863
477.96	99.7803
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484.57	92.6033
487.03	89.4932
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507.63	0.0000
510.53	0.0000
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511.00	108.1143
511.85	108.1612
511.85	108.1612
513.99	94.5007
513.99	94.5007
520.41	92.1826
520.65	92.1929
527.90	0.0000
528.96	0.0000
529.64	102.5418
529.87	0.0000
531.02	102.6128
537.32	89.6567
543.00	79.9211
546.56	0.0000
549.76	81.3041
552.65	108.1866
555.20	81.5213
563.23	79.5998
563.90	63.9250
568.70	77.5618
569.32	77.5850
569.50	77.5913
569.67	77.5976
573.80	88.3436
574.00	88.3507
574.64	93.7904
578.91	112.9578
579.30	0.0000
583.14	93.2633
585.48	96.6901
591.81	95.4613
592.07	95.4741
593.00	92.7861
595.88	91.0889
600.56	86.7200
602.52	0.0000
602.71	102.0349
602.71	102.0349
603.60	103.6021
604.41	106.6890
604.70	106.7033
609.31	87.0702

609.31	87.0702
609.31	87.0702
609.31	87.0702
610.33	90.1661
612.46	65.7773
614.37	85.7386
618.01	85.5732
621.84	78.3469
621.84	78.3469
631.29	87.0074
633.02	81.5160
633.10	81.5203
634.78	92.7051
635.90	83.4763
636.97	73.3084
645.85	70.7991
646.12	69.8749
656.30	89.8359
657.75	71.1646
657.90	0.0000
661.65	87.2284
661.65	87.2284
664.57	0.0000
666.33	80.8224
666.33	80.8224
675.00	85.8368
677.61	72.7101
685.20	67.2576
692.80	68.4193
695.00	67.5315
696.49	70.4265
696.49	70.4265
697.00	78.0582
697.49	81.8806
698.33	80.0051
698.50	80.9637
699.00	82.8858
702.63	86.8255
706.10	81.2148
706.58	0.0000
706.67	84.1006
709.31	80.3640
711.68	83.3127
713.82	69.9667
717.42	79.6666
720.50	74.4793
721.93	0.0000
722.20	73.7280
722.78	73.7449
722.78	73.7449
722.89	73.7486
722.95	73.7505
723.30	91.4004
724.18	89.8265
727.18	77.0859
733.00	77.2637
735.90	64.4613
739.58	78.4332
742.81	58.1719
744.21	69.8449
747.13	77.6934
751.79	89.5091
752.31	89.5270
753.82	77.8945
755.35	66.2485
756.15	62.3719
756.87	65.3135
763.93	70.0517
765.79	78.2520
766.42	88.0554
766.84	86.1115
776.49	97.2308
778.00	58.9614
778.57	57.0088
778.89	51.1164
783.80	82.7265
785.46	75.8796
792.07	75.7364

795.84	62.3232
796.30	62.3325
798.80	85.8288
801.93	64.4462
805.60	67.5103
810.29	74.5880
810.76	61.6700
815.85	72.7451
817.79	71.7996
818.51	71.8189
819.60	68.8534
826.30	73.0196
828.27	0.0000
831.60	72.1564
831.96	73.1675
834.83	87.2889
836.80	0.0000
846.75	59.4465
848.13	58.4673
856.28	0.0000
856.80	64.0369
860.37	77.6156
867.32	54.1237
867.82	69.3577
871.10	66.0490
873.19	64.0628
874.81	51.8890
875.33	0.0000
876.40	63.1156
879.36	66.2362
880.27	64.2182
880.51	64.2228
881.50	66.2838
883.24	47.9570
884.67	52.0633
889.25	67.4808
896.60	73.7982
898.02	71.7825
899.00	66.6774
903.28	64.5713
911.07	61.7959
911.07	61.7959
911.07	61.7959
919.63	60.9388
920.93	56.8315
925.00	44.4918
925.24	47.5992
926.50	52.7942
935.52	59.1792
937.48	94.5391
944.10	62.4683
946.00	63.5481
949.00	67.7803
962.29	75.0488
964.01	71.5982
966.15	80.3839
968.20	139.8893
969.11	99.6990
969.11	99.6990
969.11	99.6990
977.42	58.6238
980.50	77.9385
983.50	57.9823
989.30	70.7606
996.32	63.5054
1001.03	61.4777
1001.68	60.0755
1004.76	53.0579
1021.30	0.0000
1024.50	0.0000
1034.80	61.0384
1036.00	64.2744
1037.82	63.2377
1038.57	64.3242
1038.76	0.0000
1045.16	66.5985
1046.59	63.4048
1048.07	65.5810

1050.47	62.4010
1050.47	62.4010
1062.04	55.0566
1063.62	68.0418
1076.63	60.7113
1077.35	53.1344
1078.86	43.3945
1085.78	47.8285
1099.22	67.6551
1112.02	61.0164
1112.84	67.5503
1115.52	74.9098
1120.29	82.3279
1120.29	82.3279
1120.29	82.3279
1120.29	82.3279
1120.51	76.8462
1121.28	67.7129
1124.00	0.0000
1129.67	66.9538
1131.51	0.0000
1147.95	0.0000
1167.94	71.3698
1173.22	64.9756
1175.09	75.2223
1177.93	73.4228
1189.05	78.3022
1204.90	87.0588
1205.75	0.0000
1213.00	101.3159
1221.42	91.1980
1230.97	100.8480
1235.34	97.1912
1236.41	0.0000
1238.25	78.3765
1246.25	76.6461
1260.41	0.0000
1271.85	56.1936
1274.45	56.2320
1274.54	60.9974
1291.56	57.4316
1298.22	0.0000
1312.09	45.2176
1325.50	30.8880
1325.50	30.8880
1332.49	21.2713
1333.61	29.0149
1360.21	34.0686
1362.66	0.0000
1365.15	28.2613
1368.21	26.3320
1368.53	0.0000
1376.25	29.3127
1384.27	30.3479
1394.10	32.3810
1395.20	30.4261
1407.95	24.6104
1434.06	22.7782
1436.60	25.7641
1457.56	0.0000
1460.81	22.9176
1489.15	21.0573
1509.49	16.1159
1596.49	21.1113
1620.62	19.8031
1678.03	0.0000
1691.02	10.4626
1691.02	10.4626
1706.46	0.0000
1750.46	0.0000
1764.49	10.9177
1764.49	10.9177
1764.49	10.9177
1764.49	10.9177
1770.23	39.3170
1771.40	19.1316
1791.20	0.0000
1808.65	9.6339

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978001

Total Uranium Activity	1.1916E+01	ug/g
Total Uranium Counting Unc.	7.6758E+00	ug/g
Total Uranium Tpu	3.9162E-06	ug/g
Total Uranium Mda	4.4828E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978001       *
*   ANALYST       : MXR1                      DETECTOR   : GAM10            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 11:17:01.15    SAMPLE ALQT:  127.590 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.027E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.627E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.477E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.683E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:18:37.38

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978002.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:17:26
Sample ID         : G245978002           Sample quantity  : 1.41470E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.28*	3732	1852	0.89	126.75	122	9	5.18E-01	2.7	
2	3	74.83	433	1275	0.81	149.84	146	13	6.01E-02	13.2	8.08E-01
3	3	77.13*	719	1184	0.85	154.44	146	13	9.99E-02	8.2	
4	0	84.06*	411	1726	1.54	168.31	165	7	5.71E-02	17.5	
5	3	87.19	363	1198	1.16	174.57	172	22	5.04E-02	14.5	4.68E+00
6	3	90.03	461	1594	1.16	180.25	172	22	6.41E-02	14.8	
7	3	92.58*	9732	1160	1.01	185.34	172	22	1.35E+00	1.2	
8	3	94.35*	267	930	1.07	188.89	172	22	3.71E-02	32.0	
9	0	98.48	647	1063	0.90	197.16	194	8	8.99E-02	9.6	
10	0	112.37	632	1206	0.82	224.93	220	9	8.78E-02	10.7	
11	0	143.66*	443	755	1.02	287.52	283	9	6.15E-02	12.2	
12	0	163.19*	162	600	0.82	326.57	323	8	2.25E-02	27.6	
13	0	185.70*	2307	647	1.06	371.59	366	10	3.20E-01	3.0	
14	0	205.23	170	380	0.90	410.65	408	7	2.36E-02	20.5	
15	0	209.22	139	395	1.01	418.64	415	8	1.93E-02	26.3	
16	4	238.56*	1295	295	0.97	477.31	473	16	1.80E-01	3.5	1.15E+00
17	4	241.63	339	355	1.58	483.45	473	16	4.70E-02	12.2	
18	0	258.05	148	370	1.02	516.29	511	11	2.05E-02	26.5	
19	0	270.00*	136	249	1.00	540.19	536	9	1.90E-02	22.8	
20	0	295.27*	453	306	1.08	590.74	585	12	6.29E-02	9.2	
21	0	299.77	95	169	0.92	599.72	597	7	1.32E-02	24.8	
22	0	328.21	66	192	1.04	656.61	653	8	9.17E-03	38.4	
23	0	338.15	260	258	1.03	676.48	672	10	3.62E-02	13.1	
24	0	351.77*	756	262	1.17	703.73	697	14	1.05E-01	5.9	
25	0	462.81	78	115	0.98	925.79	922	8	1.08E-02	26.5	
26	0	510.70*	94	235	1.28	1021.55	1015	14	1.30E-02	39.6	
27	0	583.14*	450	126	1.22	1166.41	1159	13	6.26E-02	7.1	
28	0	609.29*	571	159	1.20	1218.71	1212	13	7.94E-02	6.2	
29	0	727.17	116	110	1.47	1454.44	1449	14	1.61E-02	21.2	
30	0	742.89	75	73	1.34	1485.86	1483	9	1.04E-02	23.8	
31	2	766.63*	291	99	1.80	1533.34	1528	27	4.04E-02	8.5	5.56E+00
32	2	771.67	46	49	1.81	1543.41	1528	27	6.46E-03	40.3	
33	0	786.18	69	79	1.64	1572.43	1568	13	9.65E-03	29.2	
34	0	795.01	69	85	2.04	1590.08	1585	12	9.63E-03	29.4	
35	0	860.24	63	73	0.87	1720.52	1715	12	8.72E-03	29.9	
36	0	911.27*	276	88	1.44	1822.55	1816	13	3.84E-02	9.7	
37	0	969.07*	167	139	1.79	1938.12	1928	17	2.32E-02	18.1	
38	0	1001.07*	565	82	1.28	2002.09	1996	13	7.84E-02	5.4	

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1120.49*	112	61	1.35	2240.87	2235	14	1.56E-02	17.8	
40	0	1238.21	57	80	0.99	2476.22	2472	12	7.90E-03	33.8	
41	0	1393.19*	4	35	1.73	2786.04	2780	16	6.15E-04	309.3	
42	0	1408.25	38	14	1.83	2816.16	2809	14	5.28E-03	26.4	
43	0	1460.79*	1294	42	1.94	2921.18	2911	21	1.80E-01	3.1	
44	0	1509.67	29	15	5.32	3018.89	3009	15	3.96E-03	35.1	
45	0	1589.65	23	42	5.60	3178.78	3168	19	3.13E-03	72.6	
46	0	1764.79*	94	8	1.90	3528.87	3521	17	1.30E-02	13.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:18:42

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:17:26
Sample ID : G245978002 Sample quantity : 141.47 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA16 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:03.29 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.663E+01	2.856E+00	4.112E-01	3.615E-02	64.763
NB-95	+	765.79	*	4.431E-01	8.599E-02	6.944E-02	6.419E-03	6.381
CD-109	+	88.03	*	4.253E+00	1.301E+00	1.747E+00	1.683E-01	2.435
SN-126	+	64.28		2.923E+01	4.523E+00	1.058E+00	1.541E-01	27.633
	+	86.94		1.731E+00	8.775E-01	7.941E-01	3.300E-01	2.179
	+	87.57	*	4.163E-01	1.273E-01	1.717E-01	1.646E-02	2.424
LU-177	+	112.95		2.358E+01	5.409E+00	4.587E+00	3.841E-01	5.141
	+	208.36	*	3.776E+00	2.021E+00	2.324E+00	2.358E-01	1.625
TL-208		277.35		3.841E-01	3.672E-01	6.103E-01	9.072E-02	0.629
	+	510.84		3.889E-01	3.121E-01	2.167E-01	2.740E-02	1.795
	+	583.14	*	5.321E-01	9.176E-02	6.072E-02	6.019E-03	8.763
	+	860.37		6.962E-01	4.220E-01	3.973E-01	3.978E-02	1.752
BI-211		72.87		4.139E+00	4.571E+00	7.197E+00	5.850E-01	0.575
	+	351.07	*	3.936E+00	6.299E-01	2.901E-01	3.172E-02	13.568
BI-212	+	727.18	*	1.174E+00	5.132E-01	4.157E-01	4.343E-02	2.824
	+	785.46		4.506E+00	2.666E+00	3.043E+00	2.828E-01	1.481
		1620.62		-1.579E-02	1.028E+00	1.704E+00	1.448E-01	-0.009
PB-212	+	74.81		2.101E+00	6.126E-01	7.936E-01	9.915E-02	2.647
	+	77.11		1.976E+00	3.642E-01	4.503E-01	3.825E-02	4.389
	+	87.30		1.925E+00	6.194E-01	7.963E-01	1.101E-01	2.418
	+	238.63	*	1.475E+00	2.030E-01	9.383E-02	1.111E-02	15.719
	+	300.09		1.666E+00	8.548E-01	1.072E+00	1.405E-01	1.554
PO-212	+	74.81		2.101E+00	6.126E-01	7.936E-01	9.915E-02	2.647
	+	77.11		1.976E+00	3.642E-01	4.503E-01	3.825E-02	4.389
	+	87.30		1.925E+00	6.194E-01	7.963E-01	1.101E-01	2.418
		115.19		5.550E+00	4.723E+00	7.388E+00	6.164E-01	0.751
	+	238.63	*	1.475E+00	2.030E-01	9.383E-02	1.111E-02	15.719
	+	300.09		1.666E+00	8.548E-01	1.072E+00	1.405E-01	1.554
BI-214	+	609.31	*	1.272E+00	2.081E-01	1.051E-01	1.111E-02	12.108
	+	1120.29		1.301E+00	4.827E-01	3.907E-01	4.195E-02	3.329
	+	1764.49		1.493E+00	4.132E-01	2.648E-01	2.192E-02	5.637
PB-214	+	74.81		3.620E+00	1.035E+00	1.367E+00	1.520E-01	2.647
	+	77.11		3.388E+00	6.757E-01	7.719E-01	8.808E-02	4.389
	+	87.30		3.298E+00	1.040E+00	1.364E+00	1.675E-01	2.418

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.315E+00	6.350E-01	5.651E-01	7.001E-02	4.097
	+	295.21		1.395E+00	3.165E-01	1.968E-01	2.627E-02	7.089
	+	351.92	*	1.369E+00	2.305E-01	1.011E-01	1.223E-02	13.539
PO-214	+	74.81		3.620E+00	1.035E+00	1.367E+00	1.520E-01	2.647
	+	77.11		3.388E+00	6.757E-01	7.719E-01	8.808E-02	4.389
	+	87.30		3.298E+00	1.040E+00	1.364E+00	1.675E-01	2.418
	+	241.98		2.315E+00	6.350E-01	5.651E-01	7.001E-02	4.097
	+	295.21		1.395E+00	3.165E-01	1.968E-01	2.627E-02	7.089
	+	351.92	*	1.369E+00	2.305E-01	1.011E-01	1.223E-02	13.539
PO-216	+	74.81		2.101E+00	6.126E-01	7.936E-01	9.915E-02	2.647
	+	77.11		1.976E+00	3.642E-01	4.503E-01	3.825E-02	4.389
	+	87.30		1.925E+00	6.194E-01	7.963E-01	1.101E-01	2.418
	+	238.63	*	1.475E+00	2.030E-01	9.383E-02	1.111E-02	15.719
	+	300.09		1.666E+00	8.548E-01	1.072E+00	1.405E-01	1.554
PO-218	+	74.81		3.620E+00	1.035E+00	1.367E+00	1.520E-01	2.647
	+	77.11		3.388E+00	6.757E-01	7.719E-01	8.808E-02	4.389
	+	87.30		3.298E+00	1.040E+00	1.364E+00	1.675E-01	2.418
	+	241.98		2.315E+00	6.350E-01	5.651E-01	7.001E-02	4.097
	+	295.21		1.395E+00	3.165E-01	1.968E-01	2.627E-02	7.089
	+	351.92	*	1.369E+00	2.305E-01	1.011E-01	1.223E-02	13.539
RA-224	+	240.98	*	4.390E+00	1.179E+00	1.068E+00	1.177E-01	4.111
RA-226	+	609.31	*	1.272E+00	2.081E-01	1.051E-01	1.111E-02	12.108
	+	1120.29		1.301E+00	4.827E-01	3.907E-01	4.195E-02	3.329
	+	1764.49		1.493E+00	4.132E-01	2.648E-01	2.192E-02	5.637
AC-228	+	338.32		1.493E+00	7.361E-01	3.515E-01	1.469E-01	4.249
	+	911.07	*	1.451E+00	3.295E-01	2.013E-01	2.391E-02	7.207
	+	969.11		1.547E+00	6.689E-01	3.245E-01	7.653E-02	4.766
RA-228	+	338.32		1.493E+00	7.361E-01	3.515E-01	1.469E-01	4.249
	+	911.07	*	1.451E+00	3.295E-01	2.013E-01	2.391E-02	7.207
	+	969.11		1.547E+00	6.689E-01	3.245E-01	7.653E-02	4.766
TH-228	+	74.81		2.139E+00	5.912E-01	8.080E-01	6.760E-02	2.647
	+	77.11		2.012E+00	3.708E-01	4.584E-01	3.894E-02	4.389
	+	87.30		1.960E+00	5.994E-01	8.107E-01	7.747E-02	2.418
	+	238.63	*	1.502E+00	2.067E-01	9.552E-02	1.131E-02	15.719
	+	300.09		1.696E+00	1.318E+00	1.092E+00	6.528E-01	1.554
TH-230	+	609.31	*	1.272E+00	2.081E-01	1.051E-01	1.111E-02	12.108
	+	1120.29		1.301E+00	4.827E-01	3.907E-01	4.194E-02	3.329
	+	1764.49		1.493E+00	4.132E-01	2.648E-01	2.192E-02	5.637
TH-232	+	338.32		1.493E+00	4.226E-01	3.515E-01	3.837E-02	4.249
	+	911.07	*	1.451E+00	3.295E-01	2.013E-01	2.391E-02	7.207
	+	969.11		1.547E+00	6.689E-01	3.245E-01	7.653E-02	4.766
PA-234M	+	766.42		1.137E+02	6.099E+01	1.628E+01	8.279E+00	6.984
	+	1001.03	*	1.064E+02	1.592E+01	6.291E+00	6.550E-01	16.911
TH-234	+	63.29	*	7.385E+01	1.347E+01	3.005E+00	5.242E-01	24.573
	+	92.38		7.249E+01	1.343E+01	1.128E+00	2.072E-01	64.295
U-234	+	609.31	*	1.272E+00	2.081E-01	1.051E-01	1.111E-02	12.108
	+	1120.29		1.301E+00	4.827E-01	3.907E-01	4.194E-02	3.329
	+	1764.49		1.493E+00	4.132E-01	2.648E-01	2.192E-02	5.637
U-235	+	89.95		7.039E+00	3.024E+00	2.302E+00	7.159E-01	3.058

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	93.35		8.715E+01	2.467E+01	1.347E+00	3.796E-01	64.724
		105.00		7.035E-01	1.307E+00	2.206E+00	6.579E-01	0.319
	+	143.76	*	1.611E+00	4.848E-01	3.925E-01	6.859E-02	4.105
	+	163.35		1.387E+00	8.113E-01	8.511E-01	1.639E-01	1.630
	+	185.71		1.844E+00	2.074E-01	7.304E-02	6.977E-03	25.243
	+	205.31		1.660E+00	7.556E-01	8.941E-01	1.768E-01	1.856
NP-237	+	86.50	*	1.222E+00	4.510E-01	5.635E-01	1.279E-01	2.169
		95.87		3.605E+00	1.911E+00	2.254E+00	5.582E-01	1.599
U-238	+	63.29	*	7.385E+01	1.347E+01	3.005E+00	5.242E-01	24.573
	+	92.38		7.249E+01	6.888E+00	1.128E+00	1.040E-01	64.295
AM-243	+	74.67	*	3.406E-01	9.407E-02	1.291E-01	1.068E-02	2.639
	+	86.72		4.584E+01	1.402E+01	2.108E+01	2.001E+00	2.174
		117.66		-6.000E+00	4.485E+00	7.196E+00	5.988E-01	-0.834
	+	142.18		1.353E+02	3.511E+01	3.170E+01	2.703E+00	4.269
ANH-511	+	511.00	*	8.401E-02	6.705E-02	4.682E-02	4.453E-03	1.794

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	6.217E-02	3.195E-01	5.357E-01	5.419E-02	0.116
NA-22		1274.54	*	-8.733E-04	4.050E-02	6.552E-02	5.452E-03	-0.013
NA-24		1368.53	*	7.215E+00	4.050E-02	Half-Life too short		
AL-26		1129.67		8.149E-01	1.564E+00	2.677E+00	2.244E-01	0.304
		1808.65	*	-2.395E-04	2.708E-02	4.447E-02	3.636E-03	-0.005
TI-44		67.85		-2.560E-02	6.571E-02	1.005E-01	7.784E-03	-0.255
	+	78.38	*	3.647E-01	6.722E-02	9.086E-02	7.824E-03	4.014
SC-46		889.25	*	-9.936E-03	3.743E-02	6.112E-02	5.778E-03	-0.163
	+	1120.51		2.280E-01	8.324E-02	1.200E-01	1.014E-02	1.900
V-48		944.10		-2.457E-01	9.992E-01	1.589E+00	1.485E-01	-0.155
		983.50	*	4.300E-02	7.504E-02	1.303E-01	1.199E-02	0.330
		1312.09		5.043E-02	8.047E-02	1.394E-01	1.170E-02	0.362
CR-51		320.08	*	-2.179E-01	4.106E-01	6.288E-01	7.351E-02	-0.347
MN-52	+	744.21		9.421E-01	4.559E-01	6.920E-01	6.354E-02	1.361
		848.13		2.305E+00	9.442E+00	1.612E+01	1.517E+00	0.143
		935.52		2.623E-01	3.078E-01	5.489E-01	5.142E-02	0.478
		1246.25		-5.816E+00	1.023E+01	1.462E+01	1.205E+00	-0.398
		1333.61		-1.452E+00	6.253E+00	9.790E+00	8.260E-01	-0.148
		1434.06	*	1.100E-01	3.092E-01	5.206E-01	4.442E-02	0.211
MN-54		834.83	*	5.347E-03	3.628E-02	6.154E-02	5.780E-03	0.087
CO-56		846.75	*	-3.052E-02	4.029E-02	6.352E-02	5.978E-03	-0.480
		977.42		1.163E+00	2.537E+00	4.387E+00	4.048E-01	0.265
		1037.82		-7.428E-02	2.838E-01	4.563E-01	4.290E-02	-0.163
		1175.09		6.944E-01	1.945E+00	3.286E+00	2.644E-01	0.211
	+	1238.25		1.903E-01	1.298E-01	1.748E-01	1.483E-02	1.089
		1360.21		1.980E-01	9.225E-01	1.529E+00	1.295E-01	0.130
		1771.40		-6.292E-02	1.868E-01	2.317E-01	1.914E-02	-0.272
CO-57		122.06	*	8.956E-04	2.883E-02	4.834E-02	4.017E-03	0.019
		136.48		1.016E-01	2.335E-01	3.937E-01	3.579E-02	0.258

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-58		810.76	*	-2.902E-02	3.933E-02	6.235E-02	5.841E-03	-0.466
FE-59	+	142.65		2.172E+01	5.637E+00	6.682E+00	5.704E-01	3.251
		192.34		-1.437E+00	1.033E+00	1.564E+00	2.214E-01	-0.919
		1099.22	*	7.247E-02	8.948E-02	1.570E-01	1.459E-02	0.462
		1291.56		5.922E-02	1.238E-01	2.101E-01	2.006E-02	0.282
CO-60		1173.22		2.355E-02	4.007E-02	6.890E-02	5.540E-03	0.342
		1332.49	*	-3.912E-02	3.702E-02	5.148E-02	4.342E-03	-0.760
ZN-65		1115.52	*	-5.657E-02	8.906E-02	1.147E-01	9.745E-03	-0.493
GE-68		1077.35	*	7.575E-01	1.156E+00	2.011E+00	1.756E-01	0.377
AS-73		53.44	*	4.451E-02	1.315E+00	2.064E+00	1.574E-01	0.022
AS-74		595.88	*	5.900E-02	1.082E-01	1.823E-01	1.692E-02	0.324
		634.78		2.151E-01	3.993E-01	6.723E-01	6.095E-02	0.320
SE-75		66.05		-9.379E+00	7.522E+00	1.019E+01	9.805E-01	-0.920
		96.73		1.617E+00	1.416E+00	1.793E+00	2.479E-01	0.902
		121.11		1.295E-01	1.593E-01	2.719E-01	2.986E-02	0.476
		136.00		2.410E-02	4.429E-02	7.491E-02	6.357E-03	0.322
		198.60		-7.949E-01	1.910E+00	3.036E+00	3.254E-01	-0.262
		264.65	*	2.710E-02	4.712E-02	7.403E-02	8.639E-03	0.366
		279.53		-4.524E-02	1.122E-01	1.753E-01	2.146E-02	-0.258
		303.91		-2.601E-01	2.419E+00	3.388E+00	4.708E-01	-0.077
		400.65		-1.361E-01	2.443E-01	3.961E-01	4.611E-02	-0.344
BR-77	+	87.88		2.103E+03	6.432E+02	1.075E+03	1.034E+02	1.957
		200.40		-1.323E+02	3.872E+02	6.230E+02	6.190E+01	-0.212
	+	239.00		5.444E+02	7.085E+01	7.938E+01	8.706E+00	6.858
		249.79		1.874E+01	1.502E+02	2.431E+02	2.736E+01	0.077
		281.68		1.371E+02	1.931E+02	3.191E+02	3.823E+01	0.430
		297.23		3.559E+02	1.592E+02	2.118E+02	2.491E+01	1.680
		303.76		3.629E+02	4.405E+02	6.569E+02	7.655E+01	0.552
		439.47		3.444E+02	2.958E+02	5.249E+02	4.953E+01	0.656
		484.57		1.694E+02	5.296E+02	8.930E+02	8.495E+01	0.190
		520.65	*	2.457E+00	2.367E+01	3.923E+01	3.728E+00	0.063
		574.64		-8.072E+01	4.840E+02	7.822E+02	7.330E+01	-0.103
		578.91		6.412E+01	2.197E+02	3.229E+02	3.021E+01	0.199
		585.48		1.711E+03	5.025E+02	8.623E+02	8.044E+01	1.984
		755.35		5.413E+01	3.863E+02	6.250E+02	5.759E+01	0.087
		817.79		2.493E+02	2.981E+02	5.300E+02	4.962E+01	0.470
SR-82		698.33		1.195E+00	3.802E+01	6.137E+01	5.537E+00	0.019
		776.49	*	-1.404E-01	4.488E-01	5.994E-01	5.557E-02	-0.234
		1395.20		-4.183E+00	1.141E+01	1.488E+01	1.266E+00	-0.281
RB-83		520.41	*	6.148E-03	6.958E-02	1.152E-01	1.095E-02	0.053
		529.64		-6.017E-02	1.077E-01	1.703E-01	1.616E-02	-0.353
		552.65		-1.283E-01	2.044E-01	3.203E-01	3.023E-02	-0.401
RB-84		881.50	*	8.662E-02	7.763E-02	1.393E-01	1.316E-02	0.622
KR-85		513.99	*	8.305E+00	7.828E+00	1.224E+01	1.164E+00	0.679
SR-85		513.99	*	4.388E-02	4.136E-02	6.467E-02	6.149E-03	0.679
RB-86		1076.63	*	4.347E-01	8.139E-01	1.402E+00	1.225E-01	0.310
Y-88		898.02		-1.978E-02	3.611E-02	5.715E-02	5.427E-03	-0.346
		1836.01	*	-2.123E-02	3.531E-02	5.190E-02	4.213E-03	-0.409
ZR-88		392.90	*	-1.061E-02	3.040E-02	5.006E-02	4.631E-03	-0.212

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-91		1204.90	*	-4.330E+00	1.916E+01	3.063E+01	2.491E+00	-0.141
NB-94		702.63	*	2.984E-03	3.480E-02	5.635E-02	5.094E-03	0.053
		871.10		3.306E-03	3.230E-02	5.448E-02	5.143E-03	0.061
NB-95M		235.69	*	4.785E-02	1.418E-01	2.078E-01	2.470E-02	0.230
ZR-95		724.18		7.919E-03	1.104E-01	1.558E-01	1.531E-02	0.051
		756.15	*	-1.740E-02	7.594E-02	1.192E-01	1.197E-02	-0.146
NB-97		657.90	*	-1.316E+00	7.594E-02	Half-Life too short		
		1024.50		3.084E+01	7.594E-02	Half-Life too short		
ZR-97		254.15		-1.822E+01	7.594E-02	Half-Life too short		
		355.39		-2.306E+01	7.594E-02	Half-Life too short		
		507.63	*	1.318E+01	7.594E-02	Half-Life too short		
		602.52		-4.289E+00	7.594E-02	Half-Life too short		
		1021.30		-3.507E+01	7.594E-02	Half-Life too short		
		1147.95		-4.918E+01	7.594E-02	Half-Life too short		
		1362.66		-2.523E+01	7.594E-02	Half-Life too short		
		1750.46		2.115E+00	7.594E-02	Half-Life too short		
MO-99		140.51		-2.745E+01	6.671E+01	9.626E+01	2.662E+01	-0.285
		181.06		8.001E+00	4.183E+01	6.187E+01	1.156E+01	0.129
		366.43		-3.585E+01	1.610E+02	2.683E+02	2.714E+01	-0.134
		739.58	*	2.659E+00	2.732E+01	3.860E+01	5.984E+00	0.069
		778.00		-1.001E+02	8.668E+01	1.035E+02	9.599E+00	-0.967
TC-99M		140.51	*	-5.167E+13	8.668E+01	Half-Life too short		
RH-101		127.23		-2.316E-02	3.559E-02	5.827E-02	4.852E-03	-0.397
		198.01	*	-2.793E-02	3.489E-02	5.452E-02	5.383E-03	-0.512
		325.23		9.409E-02	2.401E-01	3.470E-01	3.896E-02	0.271
RH-102		418.52		1.856E-01	2.646E-01	4.592E-01	4.301E-02	0.404
		475.06	*	-1.085E-02	2.777E-02	4.486E-02	4.264E-03	-0.242
		631.29		4.431E-03	5.134E-02	8.390E-02	7.624E-03	0.053
		697.49		-6.733E-04	7.969E-02	1.282E-01	1.157E-02	-0.005
	+	766.84		1.083E+00	2.102E-01	3.239E-01	2.995E-02	3.343
		1046.59		-1.115E-01	1.132E-01	1.695E-01	1.510E-02	-0.658
		1112.84		-1.133E-01	2.163E-01	3.146E-01	2.675E-02	-0.360
RU-103		497.08	*	1.766E-02	4.078E-02	6.912E-02	1.018E-02	0.255
	+	610.33		1.445E+01	3.046E+00	3.012E+00	5.119E-01	4.796
RH-106	+	511.85		4.219E-01	3.367E-01	4.001E-01	3.805E-02	1.054
		621.84	*	-5.636E-02	3.033E-01	4.857E-01	6.655E-02	-0.116
		1050.47		1.006E+00	2.290E+00	3.911E+00	3.477E-01	0.257
RU-106	+	511.85		4.219E-01	3.367E-01	4.001E-01	3.805E-02	1.054
		621.84	*	-5.636E-02	3.033E-01	4.857E-01	4.442E-02	-0.116
		1050.47		1.006E+00	2.290E+00	3.911E+00	3.477E-01	0.257
AG-108M		433.93	*	-1.046E-03	3.185E-02	5.261E-02	5.121E-03	-0.020
		614.37		-7.584E-03	4.298E-02	6.008E-02	5.711E-03	-0.126
		722.95		1.322E-02	4.455E-02	6.446E-02	6.080E-03	0.205
AG-110M		657.75	*	-2.631E-02	3.638E-02	5.559E-02	5.088E-03	-0.473
		677.61		5.252E-02	3.035E-01	4.964E-01	4.555E-02	0.106
		706.67		5.140E-03	2.106E-01	3.394E-01	3.150E-02	0.015
		763.93		4.366E-01	2.262E-01	3.627E-01	3.433E-02	1.204
		884.67		1.366E-02	5.287E-02	8.997E-02	8.731E-03	0.152
		937.48		-3.891E-02	9.571E-02	1.531E-01	1.477E-02	-0.254

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1384.27		1.946E-02	1.256E-01	2.070E-01	1.809E-02	0.094
IN-111		171.28		-4.431E-01	2.165E+00	3.537E+00	3.252E-01	-0.125
		245.39	*	-5.134E-01	2.322E+00	3.285E+00	3.658E-01	-0.156
IN-113M		391.69	*	-2.146E-02	4.340E-02	7.088E-02	6.728E-03	-0.303
SN-113		391.69	*	-2.146E-02	4.340E-02	7.088E-02	6.728E-03	-0.303
IN-114M		190.27	*	4.884E-02	1.991E-01	3.137E-01	3.033E-02	0.156
CD-115		260.90		6.885E-05	1.991E-01	Half-Life too short		
		492.35		-2.645E-05	1.991E-01	Half-Life too short		
		527.90	*	-6.816E-06	1.991E-01	Half-Life too short		
SN-117M		156.02		-7.126E-01	2.809E+00	4.608E+00	4.064E-01	-0.155
		158.56	*	-3.292E-02	7.026E-02	1.087E-01	9.650E-03	-0.303
SB-122		563.90	*	3.971E+00	4.559E+00	7.834E+00	7.370E-01	0.507
		692.80		5.622E+01	9.394E+01	1.576E+02	1.419E+01	0.357
I-123		159.00	*	-1.999E+02	9.394E+01	Half-Life too short		
		528.96		-1.168E+04	9.394E+01	Half-Life too short		
TE-123M		159.00	*	-2.702E-02	3.482E-02	4.959E-02	4.435E-03	-0.545
I-124		602.71	*	-1.041E-01	1.218E+00	1.722E+00	1.593E-01	-0.060
		722.78		3.066E+00	7.449E+00	1.091E+01	9.940E-01	0.281
		1325.50		6.149E+00	5.055E+01	8.287E+01	6.979E+00	0.074
		1376.25		5.212E+01	4.641E+01	8.388E+01	7.119E+00	0.621
	+	1509.49		4.380E+01	3.097E+01	4.236E+01	3.622E+00	1.034
		1691.02		1.915E+00	4.426E+00	7.965E+00	6.698E-01	0.240
SB-124		602.71		-3.897E-03	4.558E-02	6.445E-02	5.962E-03	-0.060
		645.85		4.071E-02	4.657E-01	7.600E-01	7.210E-02	0.054
		709.31		-1.546E-01	2.742E+00	4.390E+00	3.979E-01	-0.035
		713.82		-2.895E-01	1.602E+00	2.535E+00	3.137E-01	-0.114
		722.78		1.663E-01	4.041E-01	5.918E-01	5.496E-02	0.281
	+	968.20		1.646E+01	6.157E+00	6.968E+00	6.454E-01	2.362
		1045.16		-8.587E-01	2.362E+00	3.762E+00	3.355E-01	-0.228
		1325.50		3.562E-01	2.928E+00	4.801E+00	4.043E-01	0.074
		1368.21		7.466E-01	1.603E+00	2.739E+00	3.666E-01	0.273
		1436.60		2.047E+00	3.286E+00	5.943E+00	5.072E-01	0.344
		1691.02	*	2.451E-02	5.664E-02	1.019E-01	8.925E-03	0.240
SB-125		427.89	*	-3.276E-02	7.883E-02	1.279E-01	1.222E-02	-0.256
	+	463.38		6.316E-01	3.403E-01	5.103E-01	5.158E-02	1.238
		600.56		-2.609E-02	1.858E-01	3.000E-01	2.956E-02	-0.087
		635.90		7.844E-02	2.751E-01	4.553E-01	4.427E-02	0.172
TE-125M		109.28	*	1.637E+01	1.370E+01	2.129E+01	2.169E+00	0.769
I-126		388.63		8.153E-02	2.295E-01	3.924E-01	3.672E-02	0.208
		666.33	*	-8.789E-02	2.279E-01	3.583E-01	3.187E-02	-0.245
		753.82		3.248E-01	1.718E+00	2.791E+00	2.571E-01	0.116
SB-126		223.80		-3.434E+00	4.789E+00	7.498E+00	7.919E-01	-0.458
		278.60		3.400E+00	2.837E+00	4.758E+00	5.707E-01	0.715
	+	296.50		1.629E+01	3.553E+00	3.841E+00	4.522E-01	4.242
		414.70		-1.598E-02	8.587E-02	1.422E-01	1.330E-02	-0.112
		415.30		-1.003E+01	7.328E+00	1.122E+01	1.050E+00	-0.894
		555.20		2.297E+00	4.792E+00	8.088E+00	7.630E-01	0.284
		573.80		-2.067E-01	1.201E+00	1.941E+00	1.819E-01	-0.106
		593.00		4.445E-02	1.105E+00	1.808E+00	1.680E-01	0.025

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		656.30		3.646E+00	3.626E+00	6.302E+00	5.618E-01	0.579
		666.33		-3.697E-02	9.586E-02	1.507E-01	1.341E-02	-0.245
		675.00		-7.316E-02	2.237E+00	3.602E+00	3.217E-01	-0.020
		695.00		-2.514E-02	9.610E-02	1.519E-01	1.368E-02	-0.166
		697.00		-5.185E-02	3.252E-01	5.176E-01	4.668E-02	-0.100
		720.50	*	1.637E-02	1.753E-01	2.738E-01	2.492E-02	0.060
		856.80		5.597E-02	5.480E-01	7.813E-01	7.362E-02	0.072
		989.30		-6.593E-01	1.334E+00	2.105E+00	1.933E-01	-0.313
		1034.80		-7.124E-03	9.077E+00	1.498E+01	1.344E+00	0.000
		1213.00		1.791E+00	5.526E+00	9.228E+00	7.525E-01	0.194
SB-127		61.10		2.319E+01	1.722E+02	2.475E+02	2.749E+01	0.094
		252.40		-2.598E+00	7.468E+00	1.107E+01	4.751E+00	-0.235
		290.80		8.892E+00	3.845E+01	5.534E+01	8.049E+00	0.161
		411.60		2.453E+01	1.973E+01	3.446E+01	5.775E+00	0.712
		444.90		-2.146E+00	1.450E+01	2.391E+01	3.320E+00	-0.090
		473.00		3.530E-01	2.599E+00	4.345E+00	6.179E-01	0.081
		543.00		-1.203E+01	2.950E+01	4.709E+01	7.344E+00	-0.256
		603.60		-9.767E+00	2.253E+01	3.077E+01	4.223E+00	-0.317
		685.20	*	1.857E+00	2.316E+00	3.937E+00	4.925E-01	0.472
		698.50		4.433E+00	2.574E+01	4.196E+01	6.996E+00	0.106
		722.20		4.972E+01	5.213E+01	8.030E+01	9.963E+00	0.619
		783.80		1.086E+01	7.384E+00	1.160E+01	1.585E+00	0.936
XE-127		57.60		-7.285E+00	1.042E+01	1.597E+01	1.154E+00	-0.456
		145.22		3.215E+00	9.915E-01	1.586E+00	1.361E-01	2.028
		172.10		6.147E-02	1.351E-01	2.256E-01	2.078E-02	0.272
		202.84	*	3.432E-02	5.603E-02	8.396E-02	8.397E-03	0.409
		374.96		1.323E-01	1.983E-01	3.448E-01	3.391E-02	0.384
I-131		80.18		5.270E-01	1.124E+01	1.386E+01	1.228E+00	0.038
		284.30		-4.424E-01	1.772E+00	2.786E+00	3.424E-01	-0.159
		364.48	*	-8.007E-03	1.392E-01	2.318E-01	2.455E-02	-0.035
		636.97		-1.468E-01	2.018E+00	3.255E+00	3.103E-01	-0.045
		722.89		3.802E+00	9.561E+00	1.398E+01	1.284E+00	0.272
TE-132		49.72		-4.627E+00	5.368E+01	8.417E+01	9.481E+00	-0.055
	+	111.76		5.856E+02	1.419E+02	1.551E+02	1.782E+01	3.775
		116.30		1.244E+01	6.598E+01	1.002E+02	1.146E+01	0.124
		228.16	*	1.177E-01	1.303E+00	2.117E+00	3.695E-01	0.056
BA-133		53.15		-4.023E-01	5.508E+00	8.618E+00	6.603E-01	-0.047
		79.62		-1.055E+00	2.169E+00	3.011E+00	4.602E-01	-0.350
		81.00		8.093E-02	1.887E-01	2.354E-01	3.769E-02	0.344
		276.40		3.548E-02	3.639E-01	5.846E-01	9.729E-02	0.061
		302.84		-2.891E-02	1.605E-01	2.236E-01	3.452E-02	-0.129
		356.01	*	-2.730E-02	4.357E-02	6.161E-02	8.902E-03	-0.443
		383.85		6.830E-02	2.861E-01	4.869E-01	6.447E-02	0.140
I-133	+	510.53		8.374E+00	2.861E-01	Half-Life too short		
		529.87	*	-4.033E-02	2.861E-01	Half-Life too short		
		706.58		4.796E-02	2.861E-01	Half-Life too short		
		856.28		1.309E+00	2.861E-01	Half-Life too short		
		875.33		-6.292E-01	2.861E-01	Half-Life too short		
		1236.41		1.189E+01	2.861E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1298.22		5.397E-01	2.861E-01	Half-Life too short		
CS-134		475.35		-7.268E-01	1.845E+00	2.980E+00	2.833E-01	-0.244
		563.23		2.909E-01	3.753E-01	6.425E-01	6.094E-02	0.453
		569.32		-4.003E-02	2.050E-01	3.300E-01	3.134E-02	-0.121
		604.70		1.247E-03	3.735E-02	5.340E-02	4.944E-03	0.023
	+	795.84	*	1.183E-01	7.040E-02	8.968E-02	8.408E-03	1.319
		801.93		-9.955E-02	4.069E-01	6.095E-01	5.714E-02	-0.163
		1038.57		-2.024E-01	3.430E+00	5.627E+00	5.038E-01	-0.036
		1167.94		4.823E-01	2.257E+00	3.759E+00	3.039E-01	0.128
		1365.15		-5.878E-01	1.148E+00	1.720E+00	1.526E-01	-0.342
CS-135		268.24	*	3.972E-02	1.746E-01	2.498E-01	3.185E-02	0.159
I-135		288.45		-1.157E+12	1.746E-01	Half-Life too short		
		417.63		1.937E+12	1.746E-01	Half-Life too short		
		546.56		3.379E+11	1.746E-01	Half-Life too short		
		836.80		5.313E+12	1.746E-01	Half-Life too short		
		1038.76		-5.115E+12	1.746E-01	Half-Life too short		
		1124.00		-3.453E+12	1.746E-01	Half-Life too short		
		1131.51		4.884E+12	1.746E-01	Half-Life too short		
		1260.41	*	2.101E+12	1.746E-01	Half-Life too short		
		1457.56		4.659E+14	1.746E-01	Half-Life too short		
		1678.03		1.765E+13	1.746E-01	Half-Life too short		
		1706.46		1.432E+13	1.746E-01	Half-Life too short		
		1791.20		-1.132E+13	1.746E-01	Half-Life too short		
CS-136		66.91		-8.721E-01	1.388E+00	1.926E+00	2.876E-01	-0.453
	+	86.29		6.313E+00	2.022E+00	3.214E+00	4.312E-01	1.964
		153.22		1.008E+00	8.350E-01	1.425E+00	1.391E-01	0.708
	+	163.89		3.652E+00	2.050E+00	2.642E+00	2.646E-01	1.382
		176.55		-7.016E-02	4.580E-01	7.484E-01	7.325E-02	-0.094
		273.65		7.047E-03	5.476E-01	7.800E-01	9.587E-02	0.009
		340.57		1.181E-01	1.534E-01	2.399E-01	2.654E-02	0.492
		818.51		5.724E-02	8.488E-02	1.494E-01	1.400E-02	0.383
		1048.07	*	2.503E-02	1.204E-01	2.020E-01	1.871E-02	0.124
		1235.34		4.961E-01	7.203E-01	1.089E+00	1.259E-01	0.455
BA-137M		661.65	*	2.808E-02	3.941E-02	6.655E-02	5.906E-03	0.422
CS-137		661.65	*	2.969E-02	4.166E-02	7.035E-02	6.255E-03	0.422
CE-139		165.85	*	1.222E-03	3.697E-02	5.464E-02	4.955E-03	0.022
BA-140	+	162.64		2.583E+00	1.447E+00	1.836E+00	1.738E-01	1.407
		304.84		-7.366E-01	1.586E+00	2.302E+00	6.696E-01	-0.320
		423.70		-1.952E+00	2.146E+00	3.227E+00	1.053E+00	-0.605
		537.32	*	-4.897E-02	3.107E-01	5.045E-01	1.684E-01	-0.097
LA-140	+	328.77		5.465E-01	4.243E-01	5.929E-01	6.833E-02	0.922
		432.53		7.404E-01	2.252E+00	3.796E+00	3.721E-01	0.195
		487.03		7.667E-02	1.580E-01	2.689E-01	2.689E-02	0.285
		751.79		2.495E-01	1.997E+00	3.229E+00	3.252E-01	0.077
		815.85		6.112E-02	3.780E-01	6.430E-01	6.610E-02	0.095
		867.82		5.481E-01	1.593E+00	2.671E+00	2.632E-01	0.205
		919.63		3.009E-02	2.984E+00	4.977E+00	5.622E-01	0.006
		925.24		1.007E-01	1.283E+00	2.150E+00	2.127E-01	0.047
		1596.49	*	4.041E-02	9.165E-02	1.441E-01	1.227E-02	0.280

---- Non-Identified Nuclides ----

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CE-141		145.44	*	1.910E-01	8.584E-02	1.356E-01	1.186E-02	1.408
CE-143		57.37		-4.740E-03	8.584E-02	Half-Life too short		
		231.56		5.016E-03	8.584E-02	Half-Life too short		
		293.26	*	1.583E-03	8.584E-02	Half-Life too short		
	+	350.59		1.315E-01	8.584E-02	Half-Life too short		
		490.36		-9.778E-03	8.584E-02	Half-Life too short		
		664.57		-5.185E-03	8.584E-02	Half-Life too short		
		721.93		8.249E-03	8.584E-02	Half-Life too short		
CE-144		80.11		3.270E-02	4.071E+00	5.013E+00	4.401E-01	0.007
		133.54	*	-2.418E-01	2.323E-01	3.701E-01	5.715E-02	-0.653
PM-144		476.78		3.223E-02	6.566E-02	1.119E-01	1.147E-02	0.288
		618.01		1.860E-02	3.188E-02	5.389E-02	5.061E-03	0.345
		696.49	*	-2.288E-03	3.586E-02	5.749E-02	5.186E-03	-0.040
		778.57		-3.554E+00	2.847E+00	3.344E+00	3.103E-01	-1.063
PR-144		696.49	*	-1.553E-01	2.434E+00	3.901E+00	3.518E-01	-0.040
		1489.15		-2.179E+00	1.028E+01	1.669E+01	1.427E+00	-0.131
PM-146		453.90	*	-1.413E-02	3.962E-02	6.433E-02	7.347E-03	-0.220
		633.02		3.565E-01	1.374E+00	2.261E+00	8.476E-01	0.158
		735.90		1.234E-01	1.457E-01	2.430E-01	6.990E-02	0.508
		747.13		-5.422E-02	1.079E-01	1.415E-01	2.038E-02	-0.383
ND-147	+	91.11		2.116E+00	6.626E-01	1.526E+00	1.525E-01	1.387
		319.41		-1.849E+00	4.047E+00	6.228E+00	7.072E-01	-0.297
		439.89		2.975E+00	6.362E+00	1.089E+01	1.028E+00	0.273
		531.02	*	-2.110E-01	6.671E-01	1.073E+00	1.659E-01	-0.197
PM-149		285.90	*	-8.527E-05	6.671E-01	Half-Life too short		
EU-152		121.78		3.150E-02	8.308E-02	1.406E-01	1.357E-02	0.224
		244.69		-1.990E-02	3.581E-01	5.122E-01	5.695E-02	-0.039
		344.27	*	-3.356E-02	9.344E-02	1.500E-01	1.677E-02	-0.224
		443.98		-4.421E-01	8.604E-01	1.384E+00	1.307E-01	-0.320
		778.89		-3.827E-01	3.283E-01	3.912E-01	3.629E-02	-0.978
		867.32		-1.198E-01	8.545E-01	1.334E+00	1.258E-01	-0.090
		964.01		3.940E-01	3.050E-01	4.959E-01	4.601E-02	0.795
		1085.78		3.473E-02	3.379E-01	5.612E-01	4.872E-02	0.062
		1112.02		-8.827E-02	2.882E-01	4.592E-01	3.906E-02	-0.192
	+	1407.95		3.925E-01	2.103E-01	3.288E-01	2.800E-02	1.194
GD-153		69.67		-5.708E-01	2.192E+00	3.742E+00	2.949E-01	-0.153
	+	83.37		8.680E+01	3.145E+01	4.021E+01	3.665E+00	2.158
	+	97.43	*	8.438E-01	1.786E-01	2.159E-01	1.918E-02	3.909
		103.18		-1.853E-01	1.336E-01	2.052E-01	1.768E-02	-0.903
EU-154		123.07		-3.612E-02	5.833E-02	9.565E-02	1.064E-02	-0.378
		247.94		-2.144E-01	3.617E-01	5.638E-01	7.625E-02	-0.380
		591.81		-3.236E-01	6.208E-01	9.732E-01	1.185E-01	-0.333
		723.30		4.302E-02	1.855E-01	2.667E-01	2.661E-02	0.161
		756.87		-1.156E-01	7.923E-01	1.252E+00	1.555E-01	-0.092
		873.19		-1.224E-01	2.795E-01	4.499E-01	5.774E-02	-0.272
		996.32		4.250E-02	3.616E-01	5.276E-01	9.513E-02	0.081
		1004.76		4.463E-02	2.289E-01	3.370E-01	4.047E-02	0.132
		1274.45	*	2.350E-02	1.108E-01	1.836E-01	2.033E-02	0.128
EU-155		48.70		9.457E-02	3.660E+00	5.763E+00	4.735E-01	0.016

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		60.01		4.843E+00	8.781E+00	1.278E+01	9.131E-01	0.379
	+	86.54		5.019E-01	1.536E-01	2.567E-01	2.451E-02	1.955
		105.31	*	1.072E-01	1.311E-01	2.251E-01	1.948E-02	0.476
TB-160	+	86.79		1.376E+00	4.209E-01	7.080E-01	6.724E-02	1.944
		197.04		-4.892E-01	6.146E-01	9.614E-01	9.467E-02	-0.509
		215.65		8.137E-02	7.580E-01	1.236E+00	1.279E-01	0.066
	+	298.57		2.491E-01	1.270E-01	1.910E-01	2.242E-02	1.305
		879.36	*	4.849E-02	1.495E-01	2.557E-01	2.416E-02	0.190
		962.29		6.760E-01	5.183E-01	8.552E-01	7.939E-02	0.790
		966.15		4.848E-01	2.414E-01	4.066E-01	3.769E-02	1.192
		1177.93		-2.261E-01	3.145E-01	4.746E-01	3.823E-02	-0.476
		1271.85		1.270E-01	6.475E-01	1.072E+00	8.903E-02	0.118
HO-166M		80.57		3.621E-01	5.113E-01	6.451E-01	5.693E-02	0.561
	+	184.41		1.383E+00	1.555E-01	1.259E-01	1.198E-02	10.987
		280.46		-5.158E-02	8.515E-02	1.313E-01	1.575E-02	-0.393
		410.95		2.163E-01	2.289E-01	4.012E-01	3.745E-02	0.539
		711.68	*	-3.055E-02	5.748E-02	8.816E-02	7.999E-03	-0.346
		752.31		1.188E-01	2.679E-01	4.441E-01	4.088E-02	0.268
		810.29		-3.866E-02	5.784E-02	9.229E-02	8.627E-03	-0.419
TM-171		51.35		1.225E+01	4.684E+01	7.407E+01	5.837E+00	0.165
		52.39		-8.531E+00	2.451E+01	3.807E+01	2.951E+00	-0.224
		59.40		6.975E+01	4.653E+01	6.935E+01	4.925E+00	1.006
		66.72	*	-2.017E+01	4.281E+01	5.995E+01	4.593E+00	-0.337
LU-176	+	88.36		9.873E-01	3.019E-01	4.989E-01	4.790E-02	1.979
		201.83		-1.725E-03	3.324E-02	4.827E-02	4.815E-03	-0.036
		306.84	*	-4.265E-03	2.429E-02	3.817E-02	4.427E-03	-0.112
		401.10		1.986E-01	6.232E+00	1.047E+01	9.725E-01	0.019
LU-177M		52.97		-5.345E-01	2.517E+00	3.923E+00	3.014E-01	-0.136
		54.07		-1.442E-01	1.337E+00	2.089E+00	1.579E-01	-0.069
		61.30		1.631E+00	2.715E+00	3.950E+00	2.865E-01	0.413
		121.62		1.250E-01	4.343E-01	7.335E-01	6.088E-02	0.170
		147.16		7.269E-01	7.694E-01	1.181E+00	1.018E-01	0.616
		171.86		2.067E-01	5.207E-01	8.681E-01	7.994E-02	0.238
		218.09		-4.691E-01	8.825E-01	1.398E+00	1.456E-01	-0.335
	+	268.79		2.405E+00	1.132E+00	1.391E+00	1.634E-01	1.729
		319.02		1.381E-02	2.666E-01	4.233E-01	4.809E-02	0.033
		367.43		1.974E-01	8.745E-01	1.491E+00	1.504E-01	0.132
		413.65	*	1.886E-01	1.709E-01	3.013E-01	2.816E-02	0.626
HF-181		56.28		-3.920E-01	1.569E+00	2.438E+00	1.789E-01	-0.161
		57.53		-6.615E-01	8.695E-01	1.330E+00	9.622E-02	-0.497
		65.20		3.248E+00	1.519E+00	2.287E+00	1.727E-01	1.420
		133.02		-5.983E-02	7.664E-02	1.246E-01	1.044E-02	-0.480
		136.25		2.548E-01	5.327E-01	8.995E-01	7.583E-02	0.283
		345.85		9.116E-02	2.019E-01	3.113E-01	3.337E-02	0.293
		482.03	*	-1.275E-02	4.432E-02	7.207E-02	6.854E-03	-0.177
W-181		56.28		-1.478E-01	5.960E-01	9.259E-01	6.796E-02	-0.160
		57.53		-2.520E-01	3.304E-01	5.055E-01	3.657E-02	-0.499
		65.20	*	1.224E+00	5.728E-01	8.621E-01	6.511E-02	1.420
TA-182		67.75		-7.162E-02	1.594E-01	2.435E-01	1.884E-02	-0.294

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		100.10		5.701E-01	2.540E-01	4.061E-01	3.552E-02	1.404
		152.43		2.953E-01	3.702E-01	6.271E-01	5.479E-02	0.471
		222.10		2.793E-02	3.592E-01	5.841E-01	6.143E-02	0.048
	+	1001.68		4.767E+01	6.724E+00	9.903E+00	9.041E-01	4.814
	+	1121.28		6.256E-01	2.284E-01	3.321E-01	2.804E-02	1.884
		1189.05		-1.634E-01	2.876E-01	4.438E-01	3.589E-02	-0.368
		1221.42	*	-1.657E-02	2.026E-01	3.276E-01	2.679E-02	-0.051
		1230.97		2.873E-01	4.610E-01	7.695E-01	6.312E-02	0.373
RE-183		57.98		-1.087E-01	3.331E-01	5.158E-01	3.714E-02	-0.211
		59.32		3.182E-01	1.951E-01	2.917E-01	2.073E-02	1.091
		67.20		-2.178E-01	3.156E-01	4.384E-01	3.374E-02	-0.497
	+	162.32	*	3.330E-01	1.863E-01	2.358E-01	2.116E-02	1.412
	+	208.81		2.600E+00	1.392E+00	1.848E+00	1.878E-01	1.407
		291.72		-7.137E-02	1.028E+00	1.449E+00	1.716E-01	-0.049
RE-184		57.98		-3.940E-01	1.207E+00	1.870E+00	1.346E-01	-0.211
		59.32		1.152E+00	7.066E-01	1.056E+00	7.508E-02	1.091
		67.20		-7.892E-01	1.144E+00	1.588E+00	1.223E-01	-0.497
		161.27		3.373E-01	4.229E-01	6.460E-01	5.781E-02	0.522
		216.55		-4.133E-02	2.690E-01	4.339E-01	4.499E-02	-0.095
		252.85	*	-1.869E-01	2.610E-01	3.545E-01	4.017E-02	-0.527
		318.01		1.255E-01	4.632E-01	7.443E-01	8.472E-02	0.169
		792.07		2.180E-01	1.565E+00	1.594E+00	1.484E-01	0.137
		903.28		6.590E-01	9.658E-01	1.658E+00	1.567E-01	0.397
		920.93		2.204E-01	4.185E-01	7.275E-01	6.843E-02	0.303
OS-185		59.72		3.964E-01	5.310E-01	7.772E-01	5.531E-02	0.510
		61.14		6.850E-02	2.996E-01	4.319E-01	3.127E-02	0.159
		69.30		2.028E-01	3.912E-01	6.776E-01	5.320E-02	0.299
		592.07		-1.077E+00	2.602E+00	4.118E+00	3.829E-01	-0.262
		646.12	*	1.551E-02	3.882E-02	6.493E-02	5.836E-03	0.239
		717.42		-8.743E-01	9.234E-01	1.363E+00	1.240E-01	-0.641
		874.81		-4.660E-01	5.576E-01	8.634E-01	8.153E-02	-0.540
		880.27		2.383E-01	8.398E-01	1.432E+00	1.353E-01	0.166
RE-188		155.03	*	-7.146E-02	1.930E-01	3.155E-01	2.775E-02	-0.227
		477.96		-2.256E-01	3.091E+00	5.098E+00	4.847E-01	-0.044
		633.10		4.430E-01	2.866E+00	4.703E+00	4.268E-01	0.094
W-188	+	63.58		3.054E+03	2.785E+02	2.557E+02	1.900E+01	11.946
		227.08		1.331E+00	1.336E+01	2.171E+01	2.312E+00	0.061
		290.67	*	1.711E+00	8.186E+00	1.177E+01	1.396E+00	0.145
IR-192	+	295.96		1.093E+00	2.385E-01	2.783E-01	3.291E-02	3.927
		308.46		-2.357E-02	9.737E-02	1.523E-01	1.767E-02	-0.155
		316.51	*	3.305E-03	3.717E-02	5.916E-02	6.761E-03	0.056
		468.07		-2.009E-02	6.642E-02	9.963E-02	1.003E-02	-0.202
		604.41		2.004E-02	5.174E-01	7.402E-01	9.946E-02	0.027
		612.46		6.621E-02	7.902E-01	1.134E+00	1.180E-01	0.058
AU-195		65.12		7.802E-01	2.712E-01	4.122E-01	3.110E-02	1.893
		66.83		-5.391E-02	1.428E-01	2.007E-01	1.539E-02	-0.269
	+	75.70		1.114E+00	3.077E-01	5.067E-01	4.240E-02	2.199
	+	98.88	*	2.463E+00	5.214E-01	6.514E-01	5.736E-02	3.782
		129.76		3.721E+00	3.186E+00	5.474E+00	4.570E-01	0.680

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-200		367.94	*	1.135E-03	3.186E+00	Half-Life too short		
		579.30		3.044E-03	3.186E+00	Half-Life too short		
		828.27		-3.803E-03	3.186E+00	Half-Life too short		
		1205.75		-4.249E-04	3.186E+00	Half-Life too short		
TL-201		68.90		7.610E+00	1.189E+01	2.063E+01	1.614E+00	0.369
		70.82		-1.798E+00	7.642E+00	1.176E+01	9.368E-01	-0.153
		80.30		2.081E+00	1.835E+01	2.268E+01	1.995E+00	0.092
		135.34		3.053E+01	5.355E+01	9.066E+01	7.631E+00	0.337
		167.43	*	5.159E-01	1.628E+01	2.404E+01	2.188E+00	0.021
TL-202		68.90		4.202E-01	6.564E-01	1.139E+00	8.909E-02	0.369
		70.82		-9.899E-02	4.208E-01	6.474E-01	5.157E-02	-0.153
		80.30		1.146E-01	1.011E+00	1.249E+00	1.099E-01	0.092
		439.56	*	8.291E-02	7.336E-02	1.299E-01	1.226E-02	0.638
HG-203		70.83		-3.782E-01	1.619E+00	2.490E+00	3.287E-01	-0.152
		72.87		8.590E-01	9.525E-01	1.493E+00	1.925E-01	0.575
	+	82.60		6.678E+00	2.523E+00	2.953E+00	4.136E-01	2.261
		279.20	*	2.079E-02	4.158E-02	6.800E-02	8.287E-03	0.306
BI-207		72.80		2.323E-01	2.668E-01	4.198E-01	3.410E-02	0.553
	+	74.97		6.115E-01	1.689E-01	2.703E-01	2.245E-02	2.262
	+	84.90		1.114E+00	4.036E-01	4.949E-01	4.593E-02	2.250
		569.67		-4.762E-03	3.171E-02	5.121E-02	4.807E-03	-0.093
		1063.62	*	4.343E-02	4.626E-02	8.251E-02	7.273E-03	0.526
		1770.23		4.511E-02	3.940E-01	5.781E-01	4.777E-02	0.078
TL-207		81.07		1.832E-01	4.156E-01	5.193E-01	4.609E-02	0.353
	+	83.78		7.342E-01	2.660E-01	3.419E-01	3.132E-02	2.147
	+	94.90		9.475E-01	6.123E-01	6.077E-01	5.494E-02	1.559
		122.32		-5.570E-01	1.966E+00	3.264E+00	2.922E-01	-0.171
	+	144.24		5.220E+00	1.373E+00	1.676E+00	1.608E-01	3.116
		154.21		-5.382E-02	4.323E-01	7.127E-01	6.858E-02	-0.076
	+	269.46		5.562E-01	2.620E-01	3.360E-01	3.996E-02	1.656
		323.87	*	3.773E-01	7.271E-01	1.057E+00	2.021E-01	0.357
	+	338.28		6.237E+00	1.848E+00	2.372E+00	3.324E-01	2.629
		445.03		-2.098E-01	2.027E+00	3.352E+00	4.255E-01	-0.063
PO-209		260.50		7.402E+00	1.083E+01	1.611E+01	1.858E+00	0.460
		262.80		-5.295E-01	3.054E+01	4.356E+01	5.049E+00	-0.012
		896.60	*	-5.490E+00	6.512E+00	9.996E+00	9.454E-01	-0.549
BI-210		46.50	*	-1.906E+00	5.142E+00	8.003E+00	7.463E-01	-0.238
PB-210		46.50	*	-1.906E+00	5.142E+00	8.003E+00	7.463E-01	-0.238
PO-210		46.50	*	-1.906E+00	5.141E+00	8.003E+00	6.760E-01	-0.238
PB-211		404.84	*	3.962E-01	8.917E-01	1.472E+00	9.236E-01	0.269
		427.08		-7.730E-01	1.892E+00	2.974E+00	1.852E+00	-0.260
		831.96		-2.178E-02	1.136E+00	1.905E+00	1.196E+00	-0.011
PO-215		81.07		1.832E-01	4.156E-01	5.193E-01	4.609E-02	0.353
	+	83.78		7.342E-01	2.660E-01	3.419E-01	3.132E-02	2.147
	+	94.90		9.475E-01	6.123E-01	6.077E-01	5.494E-02	1.559
		122.32		-5.570E-01	1.966E+00	3.264E+00	2.922E-01	-0.171
	+	144.24		5.220E+00	1.373E+00	1.676E+00	1.608E-01	3.116
		154.21		-5.382E-02	4.323E-01	7.127E-01	6.858E-02	-0.076
	+	269.46		5.562E-01	2.620E-01	3.360E-01	3.996E-02	1.656

---- Non-Identified Nuclides ----

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		323.87	*	3.773E-01	7.271E-01	1.057E+00	2.021E-01	0.357
	+	338.28		6.237E+00	1.848E+00	2.372E+00	3.324E-01	2.629
		445.03		-2.098E-01	2.027E+00	3.352E+00	4.255E-01	-0.063
RN-219	+	271.23		7.137E-01	3.383E-01	4.166E-01	5.455E-02	1.713
		401.81	*	1.547E-01	3.885E-01	6.641E-01	1.024E-01	0.233
RN-220		549.76	*	-8.650E+00	2.624E+01	4.207E+01	3.975E+00	-0.206
RA-223		81.07		1.832E-01	4.156E-01	5.193E-01	4.609E-02	0.353
	+	83.78		7.342E-01	2.660E-01	3.419E-01	3.132E-02	2.147
	+	94.90		9.475E-01	6.123E-01	6.077E-01	5.494E-02	1.559
		122.32		-5.570E-01	1.966E+00	3.264E+00	2.922E-01	-0.171
	+	144.24		5.220E+00	1.373E+00	1.676E+00	1.608E-01	3.116
		154.21		-5.382E-02	4.323E-01	7.127E-01	6.858E-02	-0.076
	+	269.46		5.562E-01	2.620E-01	3.360E-01	3.996E-02	1.656
		323.87	*	3.773E-01	7.271E-01	1.057E+00	2.021E-01	0.357
	+	338.28		6.237E+00	1.848E+00	2.372E+00	3.324E-01	2.629
		445.03		-2.098E-01	2.027E+00	3.352E+00	4.255E-01	-0.063
AC-227		79.80		-1.133E+00	2.755E+00	3.828E+00	8.252E-01	-0.296
		236.00		1.107E-01	2.588E-01	3.805E-01	5.302E-02	0.291
		256.20	*	3.202E-01	4.177E-01	6.225E-01	1.063E-01	0.514
		286.10		-3.540E-01	1.440E+00	2.263E+00	3.522E-01	-0.156
	+	299.80		3.088E+00	1.642E+00	2.443E+00	4.693E-01	1.264
		304.40		-6.341E-01	1.994E+00	2.945E+00	5.899E-01	-0.215
		334.20		-1.144E+00	2.292E+00	3.296E+00	6.786E-01	-0.347
TH-227		79.80		-1.133E+00	2.755E+00	3.828E+00	8.357E-01	-0.296
	+	94.00		7.580E+00	5.127E+00	9.513E+00	2.090E+00	0.797
		236.00		1.107E-01	2.587E-01	3.805E-01	4.916E-02	0.291
		256.20	*	3.202E-01	4.189E-01	6.225E-01	1.217E-01	0.514
		286.10		-3.540E-01	1.483E+00	2.263E+00	2.279E+00	-0.156
	+	299.80		3.088E+00	1.642E+00	2.443E+00	4.693E-01	1.264
		304.40		-6.341E-01	1.994E+00	2.945E+00	5.899E-01	-0.215
		334.20		-1.144E+00	2.292E+00	3.296E+00	6.786E-01	-0.347
TH-229	+	85.43		1.099E+00	3.983E-01	4.752E-01	4.439E-02	2.313
	+	88.47		5.683E-01	1.738E-01	2.879E-01	2.761E-02	1.974
		100.00		6.995E-01	2.641E-01	4.237E-01	3.708E-02	1.651
		193.63	*	-1.742E-01	5.240E-01	8.453E-01	8.248E-02	-0.206
		210.97		8.231E-01	8.267E-01	1.257E+00	1.285E-01	0.655
PA-231		283.67	*	-9.013E-01	1.443E+00	2.207E+00	3.817E-01	-0.408
		301.29		8.160E-01	6.695E-01	1.006E+00	1.466E-01	0.811
TH-231		81.07		1.832E-01	4.156E-01	5.193E-01	4.609E-02	0.353
	+	83.78		7.342E-01	2.660E-01	3.419E-01	3.132E-02	2.147
	+	94.90		9.475E-01	6.123E-01	6.077E-01	5.494E-02	1.559
		122.32		-5.570E-01	1.966E+00	3.264E+00	2.922E-01	-0.171
	+	144.24		5.220E+00	1.373E+00	1.676E+00	1.608E-01	3.116
		154.21		-5.382E-02	4.323E-01	7.127E-01	6.858E-02	-0.076
	+	269.46		5.562E-01	2.620E-01	3.360E-01	3.996E-02	1.656
		323.87	*	3.773E-01	7.271E-01	1.057E+00	2.021E-01	0.357
	+	338.28		6.237E+00	1.848E+00	2.372E+00	3.324E-01	2.629
		445.03		-2.098E-01	2.027E+00	3.352E+00	4.255E-01	-0.063
U-231	+	84.21		5.063E+01	1.835E+01	2.348E+01	2.161E+00	2.156

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		4.430E+02	4.210E+01	2.202E+01	2.034E+00	20.119
		95.87	*	6.543E+00	3.122E+00	4.091E+00	3.673E-01	1.599
		108.00		-1.457E+00	4.659E+00	6.952E+00	5.888E-01	-0.210
PA-233	+	75.28		1.784E+01	5.423E+00	7.855E+00	1.193E+00	2.272
	+	86.59		8.149E+00	3.239E+00	4.173E+00	1.131E+00	1.953
	+	300.12		8.608E-01	4.510E-01	6.831E-01	1.151E-01	1.260
		311.98	*	7.025E-03	6.502E-02	1.037E-01	1.212E-02	0.068
		340.50		5.869E-01	6.582E-01	1.016E+00	2.513E-01	0.578
		398.62		-1.380E+00	1.980E+00	3.132E+00	8.411E-01	-0.441
		415.76		-2.869E+00	1.728E+00	2.419E+00	5.286E-01	-1.186
PA-234	+	63.00		8.609E+01	1.359E+01	7.488E+00	1.112E+00	11.497
	+	94.67		6.759E-01	4.409E-01	4.838E-01	6.148E-02	1.397
	+	98.44		9.874E-01	5.830E-01	2.624E-01	1.465E-01	3.763
	+	99.86		5.119E+00	1.083E+00	1.131E+00	9.905E-02	4.526
	+	111.00		1.990E+00	4.865E-01	4.583E-01	5.470E-02	4.342
		131.20		9.144E-02	1.194E-01	2.032E-01	1.700E-02	0.450
		152.70		4.056E-01	3.559E-01	5.992E-01	1.025E-01	0.677
	+	186.00		4.978E+01	1.595E+01	5.264E+00	1.657E+00	9.457
		226.40		8.627E-02	4.000E-01	6.533E-01	9.535E-02	0.132
		227.20		4.570E-02	4.386E-01	7.131E-01	7.597E-02	0.064
		248.90		2.238E-01	7.972E-01	1.298E+00	3.056E-01	0.172
		293.70		4.353E+00	1.180E+00	1.510E+00	2.883E-01	2.883
		369.80		5.807E-01	8.054E-01	1.391E+00	3.110E-01	0.418
		568.70		-3.264E-01	1.049E+00	1.676E+00	1.574E-01	-0.195
		569.50		-5.844E-02	2.827E-01	4.547E-01	4.269E-02	-0.129
		574.00		-9.575E-02	1.481E+00	2.411E+00	2.260E-01	-0.040
		699.00		2.890E-02	7.302E-01	1.179E+00	2.272E-01	0.025
		706.10		3.156E-01	1.056E+00	1.721E+00	7.690E-01	0.183
		733.00		-2.434E-01	4.141E-01	5.328E-01	1.194E-01	-0.457
	+	742.81		3.787E+00	3.120E+00	2.871E+00	1.932E+00	1.319
	+	796.30		2.292E+00	1.486E+00	1.679E+00	4.582E-01	1.365
		805.60		3.396E-01	9.696E-01	1.664E+00	5.133E-01	0.204
		819.60		7.152E-01	1.221E+00	2.090E+00	7.984E-01	0.342
		826.30		2.680E-01	7.442E-01	1.270E+00	5.701E-01	0.211
		831.60		-1.199E-01	5.940E-01	9.807E-01	2.949E-01	-0.122
		876.40		-6.488E-01	1.041E+00	1.247E+00	1.283E+00	-0.520
		880.51		1.350E-01	2.966E-01	5.115E-01	4.832E-02	0.264
		883.24		1.005E-01	3.206E-01	5.356E-01	3.606E-01	0.188
		899.00		-1.165E-01	7.419E-01	1.218E+00	5.347E-01	-0.096
		925.00		1.593E-01	1.132E+00	1.907E+00	1.792E-01	0.084
		926.50		1.123E-01	1.692E-01	2.928E-01	7.480E-02	0.384
		946.00	*	1.522E-01	3.008E-01	5.070E-01	9.686E-02	0.300
		949.00		3.104E-02	4.406E-01	7.365E-01	6.869E-02	0.042
		980.50		-5.652E-01	6.680E-01	1.016E+00	9.364E-02	-0.556
	+	1394.10		3.019E-01	1.877E+00	1.467E+00	9.549E-01	0.206
NP-236	+	94.67		5.127E-01	3.313E-01	3.677E-01	3.330E-02	1.394
	+	98.44		7.465E-01	1.580E-01	1.984E-01	1.751E-02	3.763
	+	111.00		1.505E+00	3.452E-01	3.467E-01	2.914E-02	4.342
		160.31	*	-5.631E-02	9.463E-02	1.359E-01	1.213E-02	-0.414

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		1.706E+00	3.611E-01	4.172E-01	3.660E-02	4.089
		117.00	*	-2.460E-01	2.337E-01	3.606E-01	3.002E-02	-0.682
	+	209.75		1.994E+00	1.067E+00	1.388E+00	1.414E-01	1.437
		228.18		2.080E-02	2.323E-01	3.773E-01	4.030E-02	0.055
		277.60		1.627E-01	1.785E-01	2.965E-01	3.549E-02	0.549
		334.30		-6.737E-01	1.293E+00	1.863E+00	2.052E-01	-0.362
AM-241		59.54	*	2.068E-01	2.745E-01	4.018E-01	3.153E-02	0.515
CM-243	+	99.55		1.756E+00	3.716E-01	4.294E-01	3.767E-02	4.089
		103.76	*	-1.188E-01	1.163E-01	1.903E-01	1.636E-02	-0.624
		117.00		-2.531E-01	2.405E-01	3.710E-01	3.089E-02	-0.682
	+	209.75		1.966E+00	1.052E+00	1.369E+00	1.394E-01	1.437
		228.18		2.102E-02	2.348E-01	3.814E-01	4.072E-02	0.055
		277.60		1.640E-01	1.800E-01	2.990E-01	3.578E-02	0.549
AM-246		798.80		-2.324E-02	1.405E-01	2.024E-01	1.887E-02	-0.115
		1036.00		-1.712E-02	2.647E-01	4.342E-01	3.893E-02	-0.039
		1062.04		9.064E-02	1.956E-01	3.363E-01	2.968E-02	0.269
		1078.86	*	7.844E-02	1.316E-01	2.278E-01	1.987E-02	0.344
CM-247		278.00		1.011E+00	7.318E-01	1.234E+00	1.478E-01	0.819
		287.40		-1.369E-01	1.184E+00	1.876E+00	2.233E-01	-0.073
		402.60	*	3.348E-02	3.446E-02	6.056E-02	5.631E-03	0.553
CF-249		252.85		-6.933E-01	9.680E-01	1.315E+00	1.490E-01	-0.527
		333.44		3.385E-02	1.749E-01	2.489E-01	2.747E-02	0.136
		387.95	*	1.028E-02	3.935E-02	6.698E-02	6.283E-03	0.154
CF-251		176.60	*	-2.343E-02	1.358E-01	2.218E-01	2.068E-02	-0.106
		227.00		1.571E-01	3.836E-01	6.314E-01	6.722E-02	0.249
		285.00		-8.304E-01	1.660E+00	2.568E+00	3.066E-01	-0.323

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978002       *
* Acquisition date : 14-FEB-2010 11:17:26 Detector SN#    :                 *
* Detector ID       : GAM16                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:03.29      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978002           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.4147E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.663E+01	2.799E+00	4.130E-01	0.000E+00
NB-95	4.431E-01	8.427E-02	7.072E-02	0.000E+00
CD-109	4.253E+00	1.275E+00	1.859E+00	0.000E+00
SN-126	4.163E-01	1.248E-01	1.828E-01	0.000E+00
LU-177	3.776E+00	1.980E+00	2.431E+00	0.000E+00
TL-208	5.321E-01	8.992E-02	6.220E-02	0.000E+00
BI-211	3.936E+00	6.173E-01	3.003E-01	0.000E+00
BI-212	1.174E+00	5.029E-01	4.238E-01	0.000E+00
PB-212	1.475E+00	1.990E-01	9.791E-02	0.000E+00
PO-212	1.475E+00	1.990E-01	9.791E-02	0.000E+00
BI-214	1.272E+00	2.039E-01	1.075E-01	0.000E+00
PB-214	1.369E+00	2.258E-01	1.047E-01	0.000E+00
PO-214	1.369E+00	2.258E-01	1.047E-01	0.000E+00
PO-216	1.475E+00	1.990E-01	9.791E-02	0.000E+00
PO-218	1.369E+00	2.258E-01	1.047E-01	0.000E+00
RA-224	4.390E+00	1.155E+00	1.114E+00	0.000E+00
RA-226	1.272E+00	2.039E-01	1.075E-01	0.000E+00
AC-228	1.451E+00	3.229E-01	2.042E-01	0.000E+00
RA-228	1.451E+00	3.229E-01	2.042E-01	0.000E+00
TH-228	1.502E+00	2.026E-01	9.968E-02	0.000E+00
TH-230	1.272E+00	2.039E-01	1.075E-01	0.000E+00
TH-232	1.451E+00	3.229E-01	2.042E-01	0.000E+00
PA-234M	1.064E+02	1.560E+01	6.370E+00	0.000E+00
TH-234	7.385E+01	1.320E+01	3.220E+00	0.000E+00
U-234	1.272E+00	2.039E-01	1.075E-01	0.000E+00
U-235	1.611E+00	4.751E-01	4.137E-01	0.000E+00
NP-237	1.222E+00	4.419E-01	6.000E-01	0.000E+00
U-238	7.385E+01	1.320E+01	3.220E+00	0.000E+00
AM-243	3.406E-01	9.219E-02	1.378E-01	0.000E+00
ANH-511	8.401E-02	6.570E-02	4.809E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	6.217E-02	3.131E-01	5.510E-01	0.000E+00	NOT IDENT.
NA-22	-8.733E-04	3.969E-02	6.599E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.518E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.395E-04	2.654E-02	4.445E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.588E-02	9.693E-02	0.000E+00	FAIL ABUN
SC-46	-9.936E-03	3.668E-02	6.205E-02	0.000E+00	FAIL ABUN
V-48	4.300E-02	7.354E-02	1.320E-01	0.000E+00	NOT IDENT.
CR-51	-2.179E-01	4.024E-01	6.522E-01	0.000E+00	NOT IDENT.
MN-52	1.100E-01	3.030E-01	5.230E-01	0.000E+00	FAIL ABUN
MN-54	5.347E-03	3.556E-02	6.255E-02	0.000E+00	NOT IDENT.
CO-56	-3.052E-02	3.948E-02	6.455E-02	0.000E+00	FAIL ABUN
CO-57	8.956E-04	2.825E-02	5.112E-02	0.000E+00	NOT IDENT.
CO-58	-2.902E-02	3.854E-02	6.341E-02	0.000E+00	NOT IDENT.
FE-59	7.247E-02	8.769E-02	1.586E-01	0.000E+00	FAIL ABUN
CO-60	-3.912E-02	3.628E-02	5.180E-02	0.000E+00	NOT IDENT.
ZN-65	-5.657E-02	8.728E-02	1.159E-01	0.000E+00	NOT IDENT.
GE-68	7.575E-01	1.133E+00	2.033E+00	0.000E+00	NOT IDENT.
AS-73	4.451E-02	1.289E+00	2.218E+00	0.000E+00	NOT IDENT.
AS-74	5.900E-02	1.060E-01	1.866E-01	0.000E+00	NOT IDENT.
SE-75	2.710E-02	4.618E-02	7.709E-02	0.000E+00	NOT IDENT.
BR-77	2.457E+00	2.319E+01	4.028E+01	0.000E+00	FAIL ABUN
SR-82	-1.404E-01	4.398E-01	6.102E-01	0.000E+00	NOT IDENT.
RB-83	6.148E-03	6.818E-02	1.183E-01	0.000E+00	NOT IDENT.
RB-84	8.662E-02	7.608E-02	1.415E-01	0.000E+00	NOT IDENT.
KR-85	8.305E+00	7.672E+00	1.257E+01	0.000E+00	NOT IDENT.
SR-85	4.388E-02	4.053E-02	6.641E-02	0.000E+00	NOT IDENT.
RB-86	4.347E-01	7.976E-01	1.417E+00	0.000E+00	NOT IDENT.
Y-88	-2.123E-02	3.461E-02	5.185E-02	0.000E+00	NOT IDENT.
ZR-88	-1.061E-02	2.979E-02	5.171E-02	0.000E+00	NOT IDENT.
Y-91	-4.330E+00	1.878E+01	3.089E+01	0.000E+00	NOT IDENT.
NB-94	2.984E-03	3.410E-02	5.749E-02	0.000E+00	NOT IDENT.
NB-95M	4.785E-02	1.390E-01	2.168E-01	0.000E+00	NOT IDENT.
ZR-95	-1.740E-02	7.442E-02	1.215E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.646E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.141E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.659E+00	2.677E+01	3.934E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.235E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.793E-02	3.419E-02	5.711E-02	0.000E+00	NOT IDENT.
RH-102	-1.085E-02	2.722E-02	4.615E-02	0.000E+00	FAIL ABUN
RU-103	1.766E-02	3.997E-02	7.104E-02	0.000E+00	FAIL ABUN
RH-106	-5.636E-02	2.973E-01	4.968E-01	0.000E+00	FAIL ABUN
RU-106	-5.636E-02	2.972E-01	4.968E-01	0.000E+00	FAIL ABUN
AG-108M	-1.046E-03	3.121E-02	5.423E-02	0.000E+00	NOT IDENT.
AG-110M	-2.631E-02	3.565E-02	5.680E-02	0.000E+00	NOT IDENT.
IN-111	-5.134E-01	2.276E+00	3.425E+00	0.000E+00	NOT IDENT.
IN-113M	-2.146E-02	4.254E-02	7.321E-02	0.000E+00	NOT IDENT.
SN-113	-2.146E-02	4.254E-02	7.321E-02	0.000E+00	NOT IDENT.
IN-114M	4.884E-02	1.951E-01	3.288E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.467E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-3.292E-02	6.885E-02	1.143E-01	0.000E+00	NOT IDENT.
SB-122	3.971E+00	4.468E+00	8.030E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.525E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.702E-02	3.412E-02	5.217E-02	0.000E+00	NOT IDENT.
I-124	-1.041E-01	1.194E+00	1.763E+00	0.000E+00	FAIL ABUN
SB-124	2.451E-02	5.550E-02	1.020E-01	0.000E+00	FAIL ABUN
SB-125	-3.276E-02	7.725E-02	1.319E-01	0.000E+00	FAIL ABUN
TE-125M	1.637E+01	1.342E+01	2.257E+01	0.000E+00	NOT IDENT.
I-126	-8.789E-02	2.233E-01	3.660E-01	0.000E+00	NOT IDENT.
SB-126	1.637E-02	1.718E-01	2.792E-01	0.000E+00	FAIL ABUN
SB-127	1.857E+00	2.269E+00	4.019E+00	0.000E+00	NOT IDENT.
XE-127	3.432E-02	5.491E-02	8.790E-02	0.000E+00	NOT IDENT.
I-131	-8.007E-03	1.364E-01	2.398E-01	0.000E+00	NOT IDENT.
TE-132	1.177E-01	1.277E+00	2.211E+00	0.000E+00	FAIL ABUN
BA-133	-2.730E-02	4.270E-02	6.376E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.819E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.899E-02	9.125E-02	0.000E+00	FAIL ABUN
CS-135	3.972E-02	1.711E-01	2.600E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.788E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.503E-02	1.179E-01	2.043E-01	0.000E+00	FAIL ABUN
BA-137M	2.808E-02	3.862E-02	6.799E-02	0.000E+00	NOT IDENT.
CS-137	2.969E-02	4.082E-02	7.187E-02	0.000E+00	NOT IDENT.
CE-139	1.222E-03	3.623E-02	5.743E-02	0.000E+00	NOT IDENT.
BA-140	-4.897E-02	3.045E-01	5.177E-01	0.000E+00	FAIL ABUN
LA-140	4.041E-02	8.981E-02	1.444E-01	0.000E+00	FAIL ABUN
CE-141	0.000E+00	8.412E-02	1.429E-01	0.000E+00	NOT IDENT.

CE-143	0.000E+00	7.432E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-2.418E-01	2.276E-01	3.907E-01	0.000E+00	NOT IDENT.
PM-144	-2.288E-03	3.514E-02	5.866E-02	0.000E+00	NOT IDENT.
PR-144	-1.553E-01	2.385E+00	3.981E+00	0.000E+00	NOT IDENT.
PM-146	-1.413E-02	3.883E-02	6.624E-02	0.000E+00	NOT IDENT.
ND-147	-2.110E-01	6.537E-01	1.101E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.059E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-3.356E-02	9.157E-02	1.554E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	1.750E-01	2.293E-01	0.000E+00	FAIL ABUN
EU-154	2.350E-02	1.086E-01	1.849E-01	0.000E+00	NOT IDENT.
EU-155	1.072E-01	1.285E-01	2.388E-01	0.000E+00	FAIL ABUN
TB-160	4.849E-02	1.465E-01	2.597E-01	0.000E+00	FAIL ABUN
HO-166M	-3.055E-02	5.633E-02	8.992E-02	0.000E+00	FAIL ABUN
TM-171	-2.017E+01	4.195E+01	6.415E+01	0.000E+00	NOT IDENT.
LU-176	-4.265E-03	2.381E-02	3.962E-02	0.000E+00	FAIL ABUN
LU-177M	1.886E-01	1.675E-01	3.108E-01	0.000E+00	FAIL ABUN
HF-181	-1.275E-02	4.344E-02	7.412E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	5.613E-01	9.231E-01	0.000E+00	NOT IDENT.
TA-182	-1.657E-02	1.986E-01	3.303E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	1.826E-01	2.479E-01	0.000E+00	FAIL ABUN
RE-184	-1.869E-01	2.558E-01	3.695E-01	0.000E+00	NOT IDENT.
OS-185	1.551E-02	3.804E-02	6.636E-02	0.000E+00	NOT IDENT.
RE-188	-7.146E-02	1.892E-01	3.321E-01	0.000E+00	NOT IDENT.
W-188	1.711E+00	8.022E+00	1.223E+01	0.000E+00	FAIL ABUN
IR-192	3.305E-03	3.643E-02	6.138E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	5.109E-01	6.918E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.589E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.159E-01	1.595E+01	2.526E+01	0.000E+00	NOT IDENT.
TL-202	8.291E-02	7.189E-02	1.339E-01	0.000E+00	NOT IDENT.
HG-203	2.079E-02	4.075E-02	7.073E-02	0.000E+00	FAIL ABUN
BI-207	4.343E-02	4.533E-02	8.343E-02	0.000E+00	FAIL ABUN
TL-207	3.773E-01	7.125E-01	1.096E+00	0.000E+00	FAIL ABUN
PO-209	-5.490E+00	6.382E+00	1.015E+01	0.000E+00	NOT IDENT.
BI-210	-1.906E+00	5.039E+00	8.625E+00	0.000E+00	NOT IDENT.
PB-210	-1.906E+00	5.039E+00	8.625E+00	0.000E+00	NOT IDENT.
PO-210	-1.906E+00	5.038E+00	8.625E+00	0.000E+00	NOT IDENT.
PB-211	3.962E-01	8.738E-01	1.519E+00	0.000E+00	NOT IDENT.
PO-215	3.773E-01	7.125E-01	1.096E+00	0.000E+00	FAIL ABUN
RN-219	1.547E-01	3.807E-01	6.856E-01	0.000E+00	FAIL ABUN
RN-220	-8.650E+00	2.572E+01	4.315E+01	0.000E+00	NOT IDENT.
RA-223	3.773E-01	7.125E-01	1.096E+00	0.000E+00	FAIL ABUN
AC-227	3.202E-01	4.094E-01	6.486E-01	0.000E+00	FAIL ABUN
TH-227	3.202E-01	4.105E-01	6.486E-01	0.000E+00	FAIL ABUN
TH-229	-1.742E-01	5.136E-01	8.858E-01	0.000E+00	FAIL ABUN
PA-231	-9.013E-01	1.414E+00	2.295E+00	0.000E+00	NOT IDENT.
TH-231	3.773E-01	7.125E-01	1.096E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	3.060E+00	4.348E+00	0.000E+00	FAIL ABUN
PA-233	7.025E-03	6.372E-02	1.076E-01	0.000E+00	FAIL ABUN
PA-234	1.522E-01	2.948E-01	5.140E-01	0.000E+00	FAIL ABUN
NP-236	-5.631E-02	9.274E-02	1.430E-01	0.000E+00	FAIL ABUN
NP-239	-2.460E-01	2.290E-01	3.817E-01	0.000E+00	FAIL ABUN
AM-241	2.068E-01	2.690E-01	4.309E-01	0.000E+00	NOT IDENT.
CM-243	-1.188E-01	1.140E-01	2.019E-01	0.000E+00	FAIL ABUN
AM-246	7.844E-02	1.290E-01	2.303E-01	0.000E+00	NOT IDENT.
CM-247	3.348E-02	3.377E-02	6.251E-02	0.000E+00	NOT IDENT.
CF-249	1.028E-02	3.856E-02	6.919E-02	0.000E+00	NOT IDENT.
CF-251	-2.343E-02	1.331E-01	2.328E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:18:38.66

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978002.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:17:26
Sample ID         : G245978002           Sample quantity  : 1.41470E+02 GRAM
Detector name     : GAM16                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:03.29  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1294	10.67*	1.208E+00	2.663E+01	2.663E+01	10.72
NB-95	765.79	291	99.81*	2.123E+00	3.646E-01	4.431E-01	19.41
CD-109	88.03	363	3.72*	6.255E+00	4.140E+00	4.253E+00	30.58
SN-126	64.28	3732	9.60	3.529E+00	2.923E+01	2.923E+01	15.47
	86.94	363	8.90	6.255E+00	1.731E+00	1.731E+00	50.71
	87.57	363	37.00*	6.255E+00	4.163E-01	4.163E-01	30.58
LU-177	112.95	632	6.40	7.146E+00	3.669E+00	2.358E+01	22.94
	208.36	139	11.00*	5.709E+00	5.874E-01	3.776E+00	53.51
TL-208	277.35	------	6.80	4.695E+00	------ Line Not Found		------
	510.84	94	21.60	2.965E+00	3.889E-01	3.889E-01	80.24
	583.14	450	84.20*	2.668E+00	5.321E-01	5.321E-01	17.24
	860.37	63	12.46	1.920E+00	6.962E-01	6.962E-01	60.62
BI-211	72.87	------	1.27	4.872E+00	------ Line Not Found		------
	351.07	756	12.94*	3.941E+00	3.936E+00	3.936E+00	16.00
BI-212	727.18	116	11.80*	2.221E+00	1.174E+00	1.174E+00	43.71
	785.46	69	1.97	2.077E+00	4.506E+00	4.506E+00	59.15
	1620.62	------	2.75	1.117E+00	------ Line Not Found		------
PB-212	74.81	433	10.70	5.107E+00	2.101E+00	2.101E+00	29.15
	77.11	719	18.00	5.365E+00	1.976E+00	1.976E+00	18.43
	87.30	363	8.00	6.255E+00	1.925E+00	1.925E+00	32.17
	238.63	1295	44.60*	5.226E+00	1.475E+00	1.475E+00	13.77
	300.09	95	3.41	4.436E+00	1.666E+00	1.666E+00	51.31
PO-212	74.81	433	10.70	5.107E+00	2.101E+00	2.101E+00	29.15
	77.11	719	18.00	5.365E+00	1.976E+00	1.976E+00	18.43
	87.30	363	8.00	6.255E+00	1.925E+00	1.925E+00	32.17
	115.19	------	0.60	7.166E+00	------ Line Not Found		------
	238.63	1295	44.60*	5.226E+00	1.475E+00	1.475E+00	13.77
	300.09	95	3.41	4.436E+00	1.666E+00	1.666E+00	51.31
BI-214	609.31	571	46.30*	2.574E+00	1.272E+00	1.272E+00	16.36
	1120.29	112	15.10	1.516E+00	1.301E+00	1.301E+00	37.11
	1764.49	94	15.80	1.056E+00	1.493E+00	1.493E+00	27.68
PB-214	74.81	433	6.21	5.107E+00	3.620E+00	3.620E+00	28.59

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	719	10.50	5.365E+00	3.388E+00	3.388E+00	19.95
	87.30	363	4.67	6.255E+00	3.298E+00	3.298E+00	31.54
	241.98	339	7.49	5.179E+00	2.315E+00	2.315E+00	27.43
	295.21	453	19.20	4.485E+00	1.395E+00	1.395E+00	22.68
	351.92	756	37.20*	3.941E+00	1.369E+00	1.369E+00	16.83
PO-214	74.81	433	6.21	5.107E+00	3.620E+00	3.620E+00	28.59
	77.11	719	10.50	5.365E+00	3.388E+00	3.388E+00	19.95
	87.30	363	4.67	6.255E+00	3.298E+00	3.298E+00	31.54
	241.98	339	7.49	5.179E+00	2.315E+00	2.315E+00	27.43
	295.21	453	19.20	4.485E+00	1.395E+00	1.395E+00	22.68
	351.92	756	37.20*	3.941E+00	1.369E+00	1.369E+00	16.83
PO-216	74.81	433	10.70	5.107E+00	2.101E+00	2.101E+00	29.15
	77.11	719	18.00	5.365E+00	1.976E+00	1.976E+00	18.43
	87.30	363	8.00	6.255E+00	1.925E+00	1.925E+00	32.17
	238.63	1295	44.60*	5.226E+00	1.475E+00	1.475E+00	13.77
	300.09	95	3.41	4.436E+00	1.666E+00	1.666E+00	51.31
PO-218	74.81	433	6.21	5.107E+00	3.620E+00	3.620E+00	28.59
	77.11	719	10.50	5.365E+00	3.388E+00	3.388E+00	19.95
	87.30	363	4.67	6.255E+00	3.298E+00	3.298E+00	31.54
	241.98	339	7.49	5.179E+00	2.315E+00	2.315E+00	27.43
	295.21	453	19.20	4.485E+00	1.395E+00	1.395E+00	22.68
	351.92	756	37.20*	3.941E+00	1.369E+00	1.369E+00	16.83
RA-224	240.98	339	3.95*	5.179E+00	4.390E+00	4.390E+00	26.85
RA-226	609.31	571	46.30*	2.574E+00	1.272E+00	1.272E+00	16.36
	1120.29	112	15.10	1.516E+00	1.301E+00	1.301E+00	37.11
	1764.49	94	15.80	1.056E+00	1.493E+00	1.493E+00	27.68
AC-228	338.32	260	11.40	4.058E+00	1.493E+00	1.493E+00	49.28
	911.07	276	27.70*	1.824E+00	1.451E+00	1.451E+00	22.72
	969.11	167	16.60	1.727E+00	1.547E+00	1.547E+00	43.25
RA-228	338.32	260	11.40	4.058E+00	1.493E+00	1.493E+00	49.28
	911.07	276	27.70*	1.824E+00	1.451E+00	1.451E+00	22.72
	969.11	167	16.60	1.727E+00	1.547E+00	1.547E+00	43.25
TH-228	74.81	433	10.70	5.107E+00	2.101E+00	2.139E+00	27.64
	77.11	719	18.00	5.365E+00	1.976E+00	2.012E+00	18.43
	87.30	363	8.00	6.255E+00	1.925E+00	1.960E+00	30.58
	238.63	1295	44.60*	5.226E+00	1.475E+00	1.502E+00	13.77
	300.09	95	3.41	4.436E+00	1.666E+00	1.696E+00	77.70
TH-230	609.31	571	46.30*	2.574E+00	1.272E+00	1.272E+00	16.36
	1120.29	112	15.10	1.516E+00	1.301E+00	1.301E+00	37.11
	1764.49	94	15.80	1.056E+00	1.493E+00	1.493E+00	27.68
TH-232	338.32	260	11.40	4.058E+00	1.493E+00	1.493E+00	28.30
	911.07	276	27.70*	1.824E+00	1.451E+00	1.451E+00	22.72
	969.11	167	16.60	1.727E+00	1.547E+00	1.547E+00	43.25
PA-234M	766.42	291	0.32	2.123E+00	1.137E+02	1.137E+02	53.63
	1001.03	565	0.84*	1.677E+00	1.064E+02	1.064E+02	14.97
TH-234	63.29	3732	3.80*	3.529E+00	7.385E+01	7.385E+01	18.23
	92.38	9732	5.41	6.584E+00	7.249E+01	7.249E+01	18.52
U-234	609.31	571	46.30*	2.574E+00	1.272E+00	1.272E+00	16.36
	1120.29	112	15.10	1.516E+00	1.301E+00	1.301E+00	37.11

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	1764.49	94	15.80	1.056E+00	1.493E+00	1.493E+00	27.68
U-235	89.95	461	2.70	6.440E+00	7.039E+00	7.039E+00	42.96
	93.35	9732	4.50	6.584E+00	8.715E+01	8.715E+01	28.31
	105.00	------	2.10	7.034E+00	------ Line Not Found		------
	143.76	443	10.50*	6.944E+00	1.611E+00	1.611E+00	30.09
	163.35	162	4.70	6.591E+00	1.387E+00	1.387E+00	58.49
	185.71	2307	54.00	6.148E+00	1.844E+00	1.844E+00	11.25
	205.31	170	4.70	5.781E+00	1.660E+00	1.660E+00	45.53
NP-237	86.50	363	12.60*	6.255E+00	1.222E+00	1.222E+00	36.89
	95.87	------	2.60	6.742E+00	------ Line Not Found		------
U-238	63.29	3732	3.80*	3.529E+00	7.385E+01	7.385E+01	18.23
	92.38	9732	5.41	6.584E+00	7.249E+01	7.249E+01	9.50
AM-243	74.67	433	66.00*	5.107E+00	3.406E-01	3.406E-01	27.62
	86.72	363	0.34	6.255E+00	4.584E+01	4.584E+01	30.58
	117.66	------	0.55	7.175E+00	------ Line Not Found		------
	142.18	443	0.13	6.944E+00	1.353E+02	1.353E+02	25.95
ANH-511	511.00	94	100.00*	2.965E+00	8.401E-02	8.401E-02	79.81

Flag: "*" = Keyline

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

Total number of lines in spectrum 46
Number of unidentified lines 3
Number of lines tentatively identified by NID 43 93.48%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.663E+01	2.663E+01	0.286E+01	10.72	
NB-95	64.02D	1.22	3.646E-01	4.431E-01	0.860E-01	19.41	
CD-109	464.00D	1.03	4.140E+00	4.253E+00	1.301E+00	30.58	
SN-126	1.00E+05Y	1.00	4.163E-01	4.163E-01	1.273E-01	30.58	
LU-177	6.71D	6.43	5.874E-01	3.776E+00	2.021E+00	53.51	
TL-208	1.41E+10Y	1.00	5.321E-01	5.321E-01	0.918E-01	17.24	
BI-211	7.04E+08Y	1.00	3.936E+00	3.936E+00	0.630E+00	16.00	
BI-212	1.41E+10Y	1.00	1.174E+00	1.174E+00	0.513E+00	43.71	
PB-212	1.41E+10Y	1.00	1.475E+00	1.475E+00	0.203E+00	13.77	
PO-212	1.41E+10Y	1.00	1.475E+00	1.475E+00	0.203E+00	13.77	
BI-214	1600.00Y	1.00	1.272E+00	1.272E+00	0.208E+00	16.36	
PB-214	1600.00Y	1.00	1.369E+00	1.369E+00	0.230E+00	16.83	
PO-214	1600.00Y	1.00	1.369E+00	1.369E+00	0.230E+00	16.83	
PO-216	1.41E+10Y	1.00	1.475E+00	1.475E+00	0.203E+00	13.77	
PO-218	1600.00Y	1.00	1.369E+00	1.369E+00	0.230E+00	16.83	
RA-224	1.41E+10Y	1.00	4.390E+00	4.390E+00	1.179E+00	26.85	
RA-226	1600.00Y	1.00	1.272E+00	1.272E+00	0.208E+00	16.36	
AC-228	1.41E+10Y	1.00	1.451E+00	1.451E+00	0.330E+00	22.72	
RA-228	1.41E+10Y	1.00	1.451E+00	1.451E+00	0.330E+00	22.72	
TH-228	1.91Y	1.02	1.475E+00	1.502E+00	0.207E+00	13.77	
TH-230	4.47E+09Y	1.00	1.272E+00	1.272E+00	0.208E+00	16.36	
TH-232	1.41E+10Y	1.00	1.451E+00	1.451E+00	0.330E+00	22.72	
PA-234M	4.47E+09Y	1.00	1.064E+02	1.064E+02	0.159E+02	14.97	
TH-234	4.47E+09Y	1.00	7.385E+01	7.385E+01	1.347E+01	18.23	
U-234	4.47E+09Y	1.00	1.272E+00	1.272E+00	0.208E+00	16.36	
U-235	7.04E+08Y	1.00	1.611E+00	1.611E+00	0.485E+00	30.09	
NP-237	2.14E+06Y	1.00	1.222E+00	1.222E+00	0.451E+00	36.89	
U-238	4.47E+09Y	1.00	7.385E+01	7.385E+01	1.347E+01	18.23	
AM-243	7380.00Y	1.00	3.406E-01	3.406E-01	0.941E-01	27.62	
ANH-511	1.00E+09Y	1.00	8.401E-02	8.401E-02	6.705E-02	79.81	
		Total Activity :	3.190E+02	3.224E+02			

Grand Total Activity : 3.190E+02 3.224E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.06	411	1726	1.54	168.31	165	7	5.71E-02	35.1	6.02E+00	T
3	94.35	267	930	1.07	188.89	172	22	3.71E-02	64.0	6.67E+00	T
0	98.48	647	1063	0.90	197.16	194	8	8.99E-02	19.2	6.85E+00	T
0	258.05	148	370	1.02	516.29	511	11	2.05E-02	53.0	4.94E+00	
0	270.00	136	249	1.00	540.19	536	9	1.90E-02	45.6	4.79E+00	T
0	328.21	66	192	1.04	656.61	653	8	9.17E-03	76.8	4.15E+00	T
0	462.81	78	115	0.98	925.79	922	8	1.08E-02	52.9	3.20E+00	T
0	742.89	75	73	1.34	1485.86	1483	9	1.04E-02	47.5	2.18E+00	T
2	771.67	46	49	1.81	1543.41	1528	27	6.46E-03	80.5	2.11E+00	
0	795.01	69	85	2.04	1590.08	1585	12	9.63E-03	58.8	2.06E+00	T
0	1238.21	57	80	0.99	2476.22	2472	12	7.90E-03	67.7	1.39E+00	T
0	1393.19	4	35	1.73	2786.04	2780	16	6.15E-04	****	1.26E+00	T
0	1408.25	38	14	1.83	2816.16	2809	14	5.28E-03	52.9	1.24E+00	T
0	1509.67	29	15	5.32	3018.89	3009	15	3.96E-03	70.2	1.18E+00	T
0	1589.65	23	42	5.60	3178.78	3168	19	3.13E-03	****	1.13E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:18:45.82

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978002.CNF;1   *
* Acquisition date  : 14-FEB-2010 11:17:26  Detector SN#     :                *
* Detector ID       : GAM16                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:03.29          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID           *
* Sample ID         : G245978002            Analyst initials: MXR1            *
* Batch Number      : 948721                Sample Quantity : 1.41470E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16.1MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.663E+01	2.856E+00	4.112E-01	3.615E-02	64.763
NB-95	4.431E-01	8.599E-02	6.944E-02	6.419E-03	6.381
CD-109	4.253E+00	1.301E+00	1.747E+00	1.683E-01	2.435
SN-126	4.163E-01	1.273E-01	1.717E-01	1.646E-02	2.424
LU-177	3.776E+00	2.021E+00	2.324E+00	2.358E-01	1.625
TL-208	5.321E-01	9.176E-02	6.072E-02	6.019E-03	8.763
BI-211	3.936E+00	6.299E-01	2.901E-01	3.172E-02	13.568
BI-212	1.174E+00	5.132E-01	4.157E-01	4.343E-02	2.824
PB-212	1.475E+00	2.030E-01	9.383E-02	1.111E-02	15.719
PO-212	1.475E+00	2.030E-01	9.383E-02	1.111E-02	15.719
BI-214	1.272E+00	2.081E-01	1.051E-01	1.111E-02	12.108
PB-214	1.369E+00	2.305E-01	1.011E-01	1.223E-02	13.539
PO-214	1.369E+00	2.305E-01	1.011E-01	1.223E-02	13.539
PO-216	1.475E+00	2.030E-01	9.383E-02	1.111E-02	15.719
PO-218	1.369E+00	2.305E-01	1.011E-01	1.223E-02	13.539
RA-224	4.390E+00	1.179E+00	1.068E+00	1.177E-01	4.111
RA-226	1.272E+00	2.081E-01	1.051E-01	1.111E-02	12.108
AC-228	1.451E+00	3.295E-01	2.013E-01	2.391E-02	7.207

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.451E+00	3.295E-01	2.013E-01	2.391E-02	7.207
TH-228	1.502E+00	2.067E-01	9.552E-02	1.131E-02	15.719
TH-230	1.272E+00	2.081E-01	1.051E-01	1.111E-02	12.108
TH-232	1.451E+00	3.295E-01	2.013E-01	2.391E-02	7.207
PA-234M	1.064E+02	1.592E+01	6.291E+00	6.550E-01	16.911
TH-234	7.385E+01	1.347E+01	3.005E+00	5.242E-01	24.573
U-234	1.272E+00	2.081E-01	1.051E-01	1.111E-02	12.108
U-235	1.611E+00	4.848E-01	3.925E-01	6.859E-02	4.105
NP-237	1.222E+00	4.510E-01	5.635E-01	1.279E-01	2.169
U-238	7.385E+01	1.347E+01	3.005E+00	5.242E-01	24.573
AM-243	3.406E-01	9.407E-02	1.291E-01	1.068E-02	2.639
ANH-511	8.401E-02	6.705E-02	4.682E-02	4.453E-03	1.794

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.217E-02		3.195E-01	5.357E-01	5.419E-02	0.116
NA-22	-8.733E-04		4.050E-02	6.552E-02	5.452E-03	-0.013
NA-24	7.215E+00		7.744E+00	Half-Life too short		
AL-26	-2.395E-04		2.708E-02	4.447E-02	3.636E-03	-0.005
TI-44	3.647E-01	+	6.722E-02	9.086E-02	7.824E-03	4.014
SC-46	-9.936E-03		3.743E-02	6.112E-02	5.778E-03	-0.163
V-48	4.300E-02		7.504E-02	1.303E-01	1.199E-02	0.330
CR-51	-2.179E-01		4.106E-01	6.288E-01	7.351E-02	-0.347
MN-52	1.100E-01		3.092E-01	5.206E-01	4.442E-02	0.211
MN-54	5.347E-03		3.628E-02	6.154E-02	5.780E-03	0.087
CO-56	-3.052E-02		4.029E-02	6.352E-02	5.978E-03	-0.480
CO-57	8.956E-04		2.883E-02	4.834E-02	4.017E-03	0.019
CO-58	-2.902E-02		3.933E-02	6.235E-02	5.841E-03	-0.466
FE-59	7.247E-02		8.948E-02	1.570E-01	1.459E-02	0.462
CO-60	-3.912E-02		3.702E-02	5.148E-02	4.342E-03	-0.760
ZN-65	-5.657E-02		8.906E-02	1.147E-01	9.745E-03	-0.493
GE-68	7.575E-01		1.156E+00	2.011E+00	1.756E-01	0.377
AS-73	4.451E-02		1.315E+00	2.064E+00	1.574E-01	0.022
AS-74	5.900E-02		1.082E-01	1.823E-01	1.692E-02	0.324
SE-75	2.710E-02		4.712E-02	7.403E-02	8.639E-03	0.366
BR-77	2.457E+00		2.367E+01	3.923E+01	3.728E+00	0.063
SR-82	-1.404E-01		4.488E-01	5.994E-01	5.557E-02	-0.234
RB-83	6.148E-03		6.958E-02	1.152E-01	1.095E-02	0.053
RB-84	8.662E-02		7.763E-02	1.393E-01	1.316E-02	0.622
KR-85	8.305E+00		7.828E+00	1.224E+01	1.164E+00	0.679
SR-85	4.388E-02		4.136E-02	6.467E-02	6.149E-03	0.679
RB-86	4.347E-01		8.139E-01	1.402E+00	1.225E-01	0.310
Y-88	-2.123E-02		3.531E-02	5.190E-02	4.213E-03	-0.409
ZR-88	-1.061E-02		3.040E-02	5.006E-02	4.631E-03	-0.212
Y-91	-4.330E+00		1.916E+01	3.063E+01	2.491E+00	-0.141
NB-94	2.984E-03		3.480E-02	5.635E-02	5.094E-03	0.053

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	4.785E-02		1.418E-01	2.078E-01	2.470E-02	0.230
ZR-95	-1.740E-02		7.594E-02	1.192E-01	1.197E-02	-0.146
NB-97	-1.316E+00		8.397E-01	Half-Life too short		
ZR-97	1.318E+01		1.602E+01	Half-Life too short		
MO-99	2.659E+00		2.732E+01	3.860E+01	5.984E+00	0.069
TC-99M	-5.167E+13		6.300E+13	Half-Life too short		
RH-101	-2.793E-02		3.489E-02	5.452E-02	5.383E-03	-0.512
RH-102	-1.085E-02		2.777E-02	4.486E-02	4.264E-03	-0.242
RU-103	1.766E-02		4.078E-02	6.912E-02	1.018E-02	0.255
RH-106	-5.636E-02		3.033E-01	4.857E-01	6.655E-02	-0.116
RU-106	-5.636E-02		3.033E-01	4.857E-01	4.442E-02	-0.116
AG-108M	-1.046E-03		3.185E-02	5.261E-02	5.121E-03	-0.020
AG-110M	-2.631E-02		3.638E-02	5.559E-02	5.088E-03	-0.473
IN-111	-5.134E-01		2.322E+00	3.285E+00	3.658E-01	-0.156
IN-113M	-2.146E-02		4.340E-02	7.088E-02	6.728E-03	-0.303
SN-113	-2.146E-02		4.340E-02	7.088E-02	6.728E-03	-0.303
IN-114M	4.884E-02		1.991E-01	3.137E-01	3.033E-02	0.156
CD-115	-6.816E-06		1.259E-05	Half-Life too short		
SN-117M	-3.292E-02		7.026E-02	1.087E-01	9.650E-03	-0.303
SB-122	3.971E+00		4.559E+00	7.834E+00	7.370E-01	0.507
I-123	-1.999E+02		1.288E+02	Half-Life too short		
TE-123M	-2.702E-02		3.482E-02	4.959E-02	4.435E-03	-0.545
I-124	-1.041E-01		1.218E+00	1.722E+00	1.593E-01	-0.060
SB-124	2.451E-02		5.664E-02	1.019E-01	8.925E-03	0.240
SB-125	-3.276E-02		7.883E-02	1.279E-01	1.222E-02	-0.256
TE-125M	1.637E+01		1.370E+01	2.129E+01	2.169E+00	0.769
I-126	-8.789E-02		2.279E-01	3.583E-01	3.187E-02	-0.245
SB-126	1.637E-02		1.753E-01	2.738E-01	2.492E-02	0.060
SB-127	1.857E+00		2.316E+00	3.937E+00	4.925E-01	0.472
XE-127	3.432E-02		5.603E-02	8.396E-02	8.397E-03	0.409
I-131	-8.007E-03		1.392E-01	2.318E-01	2.455E-02	-0.035
TE-132	1.177E-01		1.303E+00	2.117E+00	3.695E-01	0.056
BA-133	-2.730E-02		4.357E-02	6.161E-02	8.902E-03	-0.443
I-133	-4.033E-02		2.969E-02	Half-Life too short		
CS-134	1.183E-01	+	7.040E-02	8.968E-02	8.408E-03	1.319
CS-135	3.972E-02		1.746E-01	2.498E-01	3.185E-02	0.159
I-135	2.101E+12		3.463E+12	Half-Life too short		
CS-136	2.503E-02		1.204E-01	2.020E-01	1.871E-02	0.124
BA-137M	2.808E-02		3.941E-02	6.655E-02	5.906E-03	0.422
CS-137	2.969E-02		4.166E-02	7.035E-02	6.255E-03	0.422
CE-139	1.222E-03		3.697E-02	5.464E-02	4.955E-03	0.022
BA-140	-4.897E-02		3.107E-01	5.045E-01	1.684E-01	-0.097
LA-140	4.041E-02		9.165E-02	1.441E-01	1.227E-02	0.280
CE-141	1.910E-01		8.584E-02	1.356E-01	1.186E-02	1.408
CE-143	1.583E-03		3.792E-04	Half-Life too short		
CE-144	-2.418E-01		2.323E-01	3.701E-01	5.715E-02	-0.653
PM-144	-2.288E-03		3.586E-02	5.749E-02	5.186E-03	-0.040
PR-144	-1.553E-01		2.434E+00	3.901E+00	3.518E-01	-0.040

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-146	-1.413E-02		3.962E-02	6.433E-02	7.347E-03	-0.220
ND-147	-2.110E-01		6.671E-01	1.073E+00	1.659E-01	-0.197
PM-149	-8.527E-05		1.050E-04	Half-Life too short		
EU-152	-3.356E-02		9.344E-02	1.500E-01	1.677E-02	-0.224
GD-153	8.438E-01	+	1.786E-01	2.159E-01	1.918E-02	3.909
EU-154	2.350E-02		1.108E-01	1.836E-01	2.033E-02	0.128
EU-155	1.072E-01		1.311E-01	2.251E-01	1.948E-02	0.476
TB-160	4.849E-02		1.495E-01	2.557E-01	2.416E-02	0.190
HO-166M	-3.055E-02		5.748E-02	8.816E-02	7.999E-03	-0.346
TM-171	-2.017E+01		4.281E+01	5.995E+01	4.593E+00	-0.337
LU-176	-4.265E-03		2.429E-02	3.817E-02	4.427E-03	-0.112
LU-177M	1.886E-01		1.709E-01	3.013E-01	2.816E-02	0.626
HF-181	-1.275E-02		4.432E-02	7.207E-02	6.854E-03	-0.177
W-181	1.224E+00		5.728E-01	8.621E-01	6.511E-02	1.420
TA-182	-1.657E-02		2.026E-01	3.276E-01	2.679E-02	-0.051
RE-183	3.330E-01	+	1.863E-01	2.358E-01	2.116E-02	1.412
RE-184	-1.869E-01		2.610E-01	3.545E-01	4.017E-02	-0.527
OS-185	1.551E-02		3.882E-02	6.493E-02	5.836E-03	0.239
RE-188	-7.146E-02		1.930E-01	3.155E-01	2.775E-02	-0.227
W-188	1.711E+00		8.186E+00	1.177E+01	1.396E+00	0.145
IR-192	3.305E-03		3.717E-02	5.916E-02	6.761E-03	0.056
AU-195	2.463E+00	+	5.214E-01	6.514E-01	5.736E-02	3.782
TL-200	1.135E-03		1.321E-03	Half-Life too short		
TL-201	5.159E-01		1.628E+01	2.404E+01	2.188E+00	0.021
TL-202	8.291E-02		7.336E-02	1.299E-01	1.226E-02	0.638
HG-203	2.079E-02		4.158E-02	6.800E-02	8.287E-03	0.306
BI-207	4.343E-02		4.626E-02	8.251E-02	7.273E-03	0.526
TL-207	3.773E-01		7.271E-01	1.057E+00	2.021E-01	0.357
PO-209	-5.490E+00		6.512E+00	9.996E+00	9.454E-01	-0.549
BI-210	-1.906E+00		5.142E+00	8.003E+00	7.463E-01	-0.238
PB-210	-1.906E+00		5.142E+00	8.003E+00	7.463E-01	-0.238
PO-210	-1.906E+00		5.141E+00	8.003E+00	6.760E-01	-0.238
PB-211	3.962E-01		8.917E-01	1.472E+00	9.236E-01	0.269
PO-215	3.773E-01		7.271E-01	1.057E+00	2.021E-01	0.357
RN-219	1.547E-01		3.885E-01	6.641E-01	1.024E-01	0.233
RN-220	-8.650E+00		2.624E+01	4.207E+01	3.975E+00	-0.206
RA-223	3.773E-01		7.271E-01	1.057E+00	2.021E-01	0.357
AC-227	3.202E-01		4.177E-01	6.225E-01	1.063E-01	0.514
TH-227	3.202E-01		4.189E-01	6.225E-01	1.217E-01	0.514
TH-229	-1.742E-01		5.240E-01	8.453E-01	8.248E-02	-0.206
PA-231	-9.013E-01		1.443E+00	2.207E+00	3.817E-01	-0.408
TH-231	3.773E-01		7.271E-01	1.057E+00	2.021E-01	0.357
U-231	6.543E+00		3.122E+00	4.091E+00	3.673E-01	1.599
PA-233	7.025E-03		6.502E-02	1.037E-01	1.212E-02	0.068
PA-234	1.522E-01		3.008E-01	5.070E-01	9.686E-02	0.300
NP-236	-5.631E-02		9.463E-02	1.359E-01	1.213E-02	-0.414
NP-239	-2.460E-01		2.337E-01	3.606E-01	3.002E-02	-0.682
AM-241	2.068E-01		2.745E-01	4.018E-01	3.153E-02	0.515

Sample ID : G245978002 Acquisition date : 14-FEB-2010 11:17:26

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.188E-01		1.163E-01	1.903E-01	1.636E-02	-0.624
AM-246	7.844E-02		1.316E-01	2.278E-01	1.987E-02	0.344
CM-247	3.348E-02		3.446E-02	6.056E-02	5.631E-03	0.553
CF-249	1.028E-02		3.935E-02	6.698E-02	6.283E-03	0.154
CF-251	-2.343E-02		1.358E-01	2.218E-01	2.068E-02	-0.106

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978002            *
* Acquisition date : 14-FEB-2010 11:17:26 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:03.29     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978002           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.4147E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 11:22:16 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.663E+01	2.799E+00	2.066E-01	1.428E+00
NB-95	4.431E-01	8.427E-02	3.538E-02	4.299E-02
CD-109	4.253E+00	1.275E+00	9.301E-01	6.503E-01
SN-126	4.163E-01	1.248E-01	9.145E-02	6.365E-02
LU-177	3.776E+00	1.980E+00	1.216E+00	1.010E+00
TL-208	5.321E-01	8.992E-02	3.112E-02	4.588E-02
BI-211	3.936E+00	6.173E-01	1.502E-01	3.149E-01
BI-212	1.174E+00	5.029E-01	2.120E-01	2.566E-01
PB-212	1.475E+00	1.990E-01	4.898E-02	1.015E-01
PO-212	1.475E+00	1.990E-01	4.898E-02	1.015E-01
BI-214	1.272E+00	2.039E-01	5.379E-02	1.040E-01
PB-214	1.369E+00	2.258E-01	5.237E-02	1.152E-01
PO-214	1.369E+00	2.258E-01	5.237E-02	1.152E-01
PO-216	1.475E+00	1.990E-01	4.898E-02	1.015E-01
PO-218	1.369E+00	2.258E-01	5.237E-02	1.152E-01
RA-224	4.390E+00	1.155E+00	5.574E-01	5.893E-01
RA-226	1.272E+00	2.039E-01	5.379E-02	1.040E-01
AC-228	1.451E+00	3.229E-01	1.022E-01	1.648E-01
RA-228	1.451E+00	3.229E-01	1.022E-01	1.648E-01
TH-228	1.502E+00	2.026E-01	4.987E-02	1.034E-01
TH-230	1.272E+00	2.039E-01	5.379E-02	1.040E-01
TH-232	1.451E+00	3.229E-01	1.022E-01	1.648E-01
PA-234M	1.064E+02	1.560E+01	3.187E+00	7.960E+00
TH-234	7.385E+01	1.320E+01	1.611E+00	6.733E+00
U-234	1.272E+00	2.039E-01	5.379E-02	1.040E-01
U-235	1.611E+00	4.751E-01	2.070E-01	2.424E-01
NP-237	1.222E+00	4.419E-01	3.002E-01	2.255E-01
U-238	7.385E+01	1.320E+01	1.611E+00	6.733E+00
AM-243	3.406E-01	9.219E-02	6.895E-02	4.703E-02
ANH-511	8.401E-02	6.570E-02	2.406E-02	3.352E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	6.217E-02	3.131E-01	2.757E-01	1.598E-01	NOT IDENT.
NA-22	-8.733E-04	3.969E-02	3.302E-02	2.025E-02	NOT IDENT.
NA-24	7.215E+06	1.518E+07	0.000E+00	7.744E+06	SHORT HLIF
AL-26	-2.395E-04	2.654E-02	2.224E-02	1.354E-02	NOT IDENT.
TI-44	3.647E-01	6.588E-02	4.850E-02	3.361E-02	FAIL ABUN
SC-46	-9.936E-03	3.668E-02	3.104E-02	1.871E-02	FAIL ABUN
V-48	4.300E-02	7.354E-02	6.603E-02	3.752E-02	NOT IDENT.
CR-51	-2.179E-01	4.024E-01	3.263E-01	2.053E-01	NOT IDENT.
MN-52	1.100E-01	3.030E-01	2.617E-01	1.546E-01	FAIL ABUN
MN-54	5.347E-03	3.556E-02	3.130E-02	1.814E-02	NOT IDENT.
CO-56	-3.052E-02	3.948E-02	3.230E-02	2.014E-02	FAIL ABUN
CO-57	8.956E-04	2.825E-02	2.558E-02	1.442E-02	NOT IDENT.
CO-58	-2.902E-02	3.854E-02	3.173E-02	1.966E-02	NOT IDENT.
FE-59	7.247E-02	8.769E-02	7.935E-02	4.474E-02	FAIL ABUN
CO-60	-3.912E-02	3.628E-02	2.592E-02	1.851E-02	NOT IDENT.
ZN-65	-5.657E-02	8.728E-02	5.799E-02	4.453E-02	NOT IDENT.
GE-68	7.575E-01	1.133E+00	1.017E+00	5.781E-01	NOT IDENT.
AS-73	4.451E-02	1.289E+00	1.110E+00	6.577E-01	NOT IDENT.
AS-74	5.900E-02	1.060E-01	9.337E-02	5.408E-02	NOT IDENT.
SE-75	2.710E-02	4.618E-02	3.857E-02	2.356E-02	NOT IDENT.
BR-77	2.457E+00	2.319E+01	2.015E+01	1.183E+01	FAIL ABUN
SR-82	-1.404E-01	4.398E-01	3.053E-01	2.244E-01	NOT IDENT.
RB-83	6.148E-03	6.818E-02	5.919E-02	3.479E-02	NOT IDENT.
RB-84	8.662E-02	7.608E-02	7.078E-02	3.882E-02	NOT IDENT.
KR-85	8.305E+00	7.672E+00	6.289E+00	3.914E+00	NOT IDENT.
SR-85	4.388E-02	4.053E-02	3.323E-02	2.068E-02	NOT IDENT.
RB-86	4.347E-01	7.976E-01	7.090E-01	4.069E-01	NOT IDENT.
Y-88	-2.123E-02	3.461E-02	2.594E-02	1.766E-02	NOT IDENT.
ZR-88	-1.061E-02	2.979E-02	2.587E-02	1.520E-02	NOT IDENT.
Y-91	-4.330E+00	1.878E+01	1.545E+01	9.581E+00	NOT IDENT.
NB-94	2.984E-03	3.410E-02	2.876E-02	1.740E-02	NOT IDENT.
NB-95M	4.785E-02	1.390E-01	1.085E-01	7.089E-02	NOT IDENT.
ZR-95	-1.740E-02	7.442E-02	6.076E-02	3.797E-02	NOT IDENT.
NB-97	-1.316E+06	1.646E+06	0.000E+00	8.397E+05	SHORT HLIF
ZR-97	1.318E+07	3.141E+07	0.000E+00	1.602E+07	SHORT HLIF
MO-99	2.659E+00	2.677E+01	1.968E+01	1.366E+01	NOT IDENT.
TC-99M	-5.167E+19	1.235E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.793E-02	3.419E-02	2.857E-02	1.744E-02	NOT IDENT.
RH-102	-1.085E-02	2.722E-02	2.309E-02	1.389E-02	FAIL ABUN
RU-103	1.766E-02	3.997E-02	3.554E-02	2.039E-02	FAIL ABUN
RH-106	-5.636E-02	2.973E-01	2.486E-01	1.517E-01	FAIL ABUN
RU-106	-5.636E-02	2.972E-01	2.486E-01	1.516E-01	FAIL ABUN
AG-108M	-1.046E-03	3.121E-02	2.713E-02	1.593E-02	NOT IDENT.
AG-110M	-2.631E-02	3.565E-02	2.841E-02	1.819E-02	NOT IDENT.
IN-111	-5.134E-01	2.276E+00	1.714E+00	1.161E+00	NOT IDENT.
IN-113M	-2.146E-02	4.254E-02	3.662E-02	2.170E-02	NOT IDENT.
SN-113	-2.146E-02	4.254E-02	3.662E-02	2.170E-02	NOT IDENT.
IN-114M	4.884E-02	1.951E-01	1.645E-01	9.956E-02	NOT IDENT.
CD-115	-6.816E+00	2.467E+01	0.000E+00	1.259E+01	SHORT HLIF
SN-117M	-3.292E-02	6.885E-02	5.719E-02	3.513E-02	NOT IDENT.
SB-122	3.971E+00	4.468E+00	4.018E+00	2.279E+00	NOT IDENT.
I-123	-1.999E+08	2.525E+08	0.000E+00	1.288E+08	SHORT HLIF
TE-123M	-2.702E-02	3.412E-02	2.610E-02	1.741E-02	NOT IDENT.
I-124	-1.041E-01	1.194E+00	8.820E-01	6.090E-01	FAIL ABUN
SB-124	2.451E-02	5.550E-02	5.104E-02	2.832E-02	FAIL ABUN
SB-125	-3.276E-02	7.725E-02	6.599E-02	3.942E-02	FAIL ABUN
TE-125M	1.637E+01	1.342E+01	1.129E+01	6.849E+00	NOT IDENT.
I-126	-8.789E-02	2.233E-01	1.831E-01	1.139E-01	NOT IDENT.
SB-126	1.637E-02	1.718E-01	1.397E-01	8.765E-02	FAIL ABUN
SB-127	1.857E+00	2.269E+00	2.011E+00	1.158E+00	NOT IDENT.
XE-127	3.432E-02	5.491E-02	4.398E-02	2.801E-02	NOT IDENT.
I-131	-8.007E-03	1.364E-01	1.200E-01	6.959E-02	NOT IDENT.
TE-132	1.177E-01	1.277E+00	1.106E+00	6.516E-01	FAIL ABUN
BA-133	-2.730E-02	4.270E-02	3.190E-02	2.179E-02	NOT IDENT.
I-133	-4.033E+04	5.819E+04	0.000E+00	2.969E+04	SHORT HLIF
CS-134	1.183E-01	6.899E-02	4.565E-02	3.520E-02	FAIL ABUN
CS-135	3.972E-02	1.711E-01	1.301E-01	8.732E-02	NOT IDENT.
I-135	2.101E+18	6.788E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.503E-02	1.179E-01	1.022E-01	6.018E-02	FAIL ABUN
BA-137M	2.808E-02	3.862E-02	3.401E-02	1.970E-02	NOT IDENT.
CS-137	2.969E-02	4.082E-02	3.596E-02	2.083E-02	NOT IDENT.
CE-139	1.222E-03	3.623E-02	2.873E-02	1.849E-02	NOT IDENT.
BA-140	-4.897E-02	3.045E-01	2.590E-01	1.553E-01	FAIL ABUN
LA-140	4.041E-02	8.981E-02	7.226E-02	4.582E-02	FAIL ABUN
CE-141	1.910E-01	8.412E-02	7.151E-02	4.292E-02	NOT IDENT.

CE-143	1.583E+03	7.432E+02	0.000E+00	3.792E+02	SHORT HLIF
CE-144	-2.418E-01	2.276E-01	1.955E-01	1.161E-01	NOT IDENT.
PM-144	-2.288E-03	3.514E-02	2.935E-02	1.793E-02	NOT IDENT.
PR-144	-1.553E-01	2.385E+00	1.992E+00	1.217E+00	NOT IDENT.
PM-146	-1.413E-02	3.883E-02	3.314E-02	1.981E-02	NOT IDENT.
ND-147	-2.110E-01	6.537E-01	5.507E-01	3.335E-01	FAIL ABUN
PM-149	-8.527E+01	2.059E+02	0.000E+00	1.050E+02	SHORT HLIF
EU-152	-3.356E-02	9.157E-02	7.773E-02	4.672E-02	FAIL ABUN
GD-153	8.438E-01	1.750E-01	1.147E-01	8.929E-02	FAIL ABUN
EU-154	2.350E-02	1.086E-01	9.250E-02	5.539E-02	NOT IDENT.
EU-155	1.072E-01	1.285E-01	1.195E-01	6.556E-02	FAIL ABUN
TB-160	4.849E-02	1.465E-01	1.299E-01	7.475E-02	FAIL ABUN
HO-166M	-3.055E-02	5.633E-02	4.499E-02	2.874E-02	FAIL ABUN
TM-171	-2.017E+01	4.195E+01	3.210E+01	2.140E+01	NOT IDENT.
LU-176	-4.265E-03	2.381E-02	1.982E-02	1.215E-02	FAIL ABUN
LU-177M	1.886E-01	1.675E-01	1.555E-01	8.545E-02	FAIL ABUN
HF-181	-1.275E-02	4.344E-02	3.708E-02	2.216E-02	NOT IDENT.
W-181	1.224E+00	5.613E-01	4.618E-01	2.864E-01	NOT IDENT.
TA-182	-1.657E-02	1.986E-01	1.653E-01	1.013E-01	FAIL ABUN
RE-183	3.330E-01	1.826E-01	1.240E-01	9.317E-02	FAIL ABUN
RE-184	-1.869E-01	2.558E-01	1.848E-01	1.305E-01	NOT IDENT.
OS-185	1.551E-02	3.804E-02	3.320E-02	1.941E-02	NOT IDENT.
RE-188	-7.146E-02	1.892E-01	1.661E-01	9.651E-02	NOT IDENT.
W-188	1.711E+00	8.022E+00	6.118E+00	4.093E+00	FAIL ABUN
IR-192	3.305E-03	3.643E-02	3.071E-02	1.858E-02	FAIL ABUN
AU-195	2.463E+00	5.109E-01	3.461E-01	2.607E-01	FAIL ABUN
TL-200	1.135E+03	2.589E+03	0.000E+00	1.321E+03	SHORT HLIF
TL-201	5.159E-01	1.595E+01	1.264E+01	8.139E+00	NOT IDENT.
TL-202	8.291E-02	7.189E-02	6.698E-02	3.668E-02	NOT IDENT.
HG-203	2.079E-02	4.075E-02	3.538E-02	2.079E-02	FAIL ABUN
BI-207	4.343E-02	4.533E-02	4.174E-02	2.313E-02	FAIL ABUN
TL-207	3.773E-01	7.125E-01	5.481E-01	3.635E-01	FAIL ABUN
PO-209	-5.490E+00	6.382E+00	5.076E+00	3.256E+00	NOT IDENT.
BI-210	-1.906E+00	5.039E+00	4.315E+00	2.571E+00	NOT IDENT.
PB-210	-1.906E+00	5.039E+00	4.315E+00	2.571E+00	NOT IDENT.
PO-210	-1.906E+00	5.038E+00	4.315E+00	2.571E+00	NOT IDENT.
PB-211	3.962E-01	8.738E-01	7.599E-01	4.458E-01	NOT IDENT.
PO-215	3.773E-01	7.125E-01	5.481E-01	3.635E-01	FAIL ABUN
RN-219	1.547E-01	3.807E-01	3.430E-01	1.943E-01	FAIL ABUN
RN-220	-8.650E+00	2.572E+01	2.159E+01	1.312E+01	NOT IDENT.
RA-223	3.773E-01	7.125E-01	5.481E-01	3.635E-01	FAIL ABUN
AC-227	3.202E-01	4.094E-01	3.245E-01	2.089E-01	FAIL ABUN
TH-227	3.202E-01	4.105E-01	3.245E-01	2.094E-01	FAIL ABUN
TH-229	-1.742E-01	5.136E-01	4.431E-01	2.620E-01	FAIL ABUN
PA-231	-9.013E-01	1.414E+00	1.148E+00	7.215E-01	NOT IDENT.
TH-231	3.773E-01	7.125E-01	5.481E-01	3.635E-01	FAIL ABUN
U-231	6.543E+00	3.060E+00	2.175E+00	1.561E+00	FAIL ABUN
PA-233	7.025E-03	6.372E-02	5.384E-02	3.251E-02	FAIL ABUN
PA-234	1.522E-01	2.948E-01	2.572E-01	1.504E-01	FAIL ABUN
NP-236	-5.631E-02	9.274E-02	7.154E-02	4.731E-02	FAIL ABUN
NP-239	-2.460E-01	2.290E-01	1.909E-01	1.168E-01	FAIL ABUN
AM-241	2.068E-01	2.690E-01	2.156E-01	1.373E-01	NOT IDENT.
CM-243	-1.188E-01	1.140E-01	1.010E-01	5.814E-02	FAIL ABUN
AM-246	7.844E-02	1.290E-01	1.152E-01	6.581E-02	NOT IDENT.
CM-247	3.348E-02	3.377E-02	3.128E-02	1.723E-02	NOT IDENT.
CF-249	1.028E-02	3.856E-02	3.462E-02	1.967E-02	NOT IDENT.
CF-251	-2.343E-02	1.331E-01	1.165E-01	6.791E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	715.8649
46.50	715.8649
46.50	715.8649
48.70	769.3136
49.72	785.9583
51.35	796.9653
52.39	859.2451
52.97	842.7196
53.15	843.1607
53.44	854.6722
54.07	870.6537
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56.28	966.8716
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57.53	1073.4498
57.60	1073.6521
57.98	1072.3401
57.98	1072.3401
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59.32	998.9711
59.40	1020.3420
59.54	1102.1256
59.72	1102.6576
60.01	1127.9669
61.10	1244.0411
61.14	1244.1709
61.30	1244.6953
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63.29	1067.8638
63.58	1068.6632
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65.20	883.9168
65.20	883.9168
66.05	1013.3075
66.72	965.2518
66.83	965.5182
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67.20	1016.2211
67.20	1016.2211
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67.85	1015.3636
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68.90	1032.1578
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72.87	1205.7356
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77.11	1240.9644

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79.80	1272.4077
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80.30	1242.9900
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81.07	1245.0947
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81.07	1245.0947
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83.78	1318.4059
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84.90	1270.9749
85.43	1272.4030
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86.50	1275.2740
86.54	1275.3788
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86.94	1276.4479
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88.47	1047.9258
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94.00	1059.6984
94.67	1061.0873
94.67	1061.0995
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94.90	1061.5768
94.90	1061.5768
94.90	1061.5768
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98.44	699.7170
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99.55	637.0912
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111.00	759.7047
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117.00	615.2168
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121.78	512.1736
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136.48	491.0894
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142.65	536.8090
143.76	537.6878
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144.24	515.0457
144.24	515.0457
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147.16	408.8810
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154.21	482.5636
154.21	482.5636
154.21	482.5636
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161.27	400.8281
162.32	420.5811
162.64	455.6997
163.35	456.1377
163.89	449.5662
165.85	449.2617
167.43	438.3138
171.28	419.1199
171.86	396.5222
172.10	396.6437
176.55	414.9476
176.60	414.9771
181.06	417.3102
184.41	385.6431
185.71	386.2555
186.00	386.3950
190.27	348.6414
192.34	398.5614
193.63	373.5844
197.04	383.3093
198.01	376.5439
198.60	358.2697
200.40	370.3685
201.83	365.8151
202.84	330.5472
205.31	387.5047

208.36	340.4321
208.81	309.3569
209.75	301.8629
209.75	301.8629
210.97	299.1428
215.65	301.2180
216.55	314.1227
218.09	332.5419
222.10	309.6762
223.80	319.7690
226.40	285.6155
227.00	283.6712
227.08	300.6961
227.20	300.7336
228.16	306.3574
228.18	306.3633
228.18	306.3633
231.56	0.0000
235.69	313.5871
236.00	323.3402
236.00	323.3402
238.63	313.9957
238.63	313.9957
238.63	313.9957
238.63	313.9957
239.00	314.1115
240.98	314.7442
241.98	315.0620
241.98	315.0620
241.98	315.0620
244.69	256.4125
245.39	253.3453
247.94	260.4980
248.90	227.0651
249.79	235.9641
252.40	234.1705
252.85	248.6699
252.85	248.6699
254.15	0.0000
256.20	211.7282
256.20	211.7282
260.50	222.4937
260.90	0.0000
262.80	241.1486
264.65	219.7271
268.24	229.1016
268.79	230.8805
269.46	220.4984
269.46	220.4984
269.46	220.4984
269.46	220.4984
271.23	229.7375
273.65	215.2349
276.40	230.8325
277.35	203.1282
277.60	212.1071
277.60	212.1071
278.00	193.1995
278.60	197.7746
279.20	210.1766
279.53	244.9091
280.46	238.3986
281.68	178.1536
283.67	199.8009
284.30	187.5590
285.00	200.0363
285.90	0.0000
286.10	191.2327
286.10	191.2327
287.40	198.2113
288.45	0.0000
290.67	198.2195
290.80	198.2409
291.72	201.7930
293.26	0.0000
293.70	190.2510
295.21	188.7996
295.21	188.7996

295.21	188.7996
295.96	188.9249
296.50	143.0369
297.23	143.1266
298.57	143.2906
299.80	256.1462
299.80	256.1462
300.09	172.5150
300.09	172.5150
300.09	172.5150
300.09	172.5150
300.12	172.5211
301.29	212.0200
302.84	208.8759
303.76	171.3440
303.91	210.7794
304.40	213.9516
304.40	213.9516
304.84	212.6595
306.84	188.9685
308.46	190.3738
311.98	190.9344
316.51	200.8866
318.01	186.1071
319.02	189.7318
319.41	199.0500
320.08	203.7900
323.87	170.7374
323.87	170.7374
323.87	170.7374
323.87	170.7374
325.23	170.9258
328.77	176.6575
333.44	156.2498
334.20	178.4759
334.20	178.4759
334.30	178.4914
338.28	173.5864
338.28	173.5864
338.28	173.5864
338.28	173.5864
338.32	173.5924
338.32	173.5924
338.32	173.5924
340.50	183.5964
340.57	183.6060
344.27	179.0742
345.85	148.9047
350.59	0.0000
351.07	144.1601
351.92	144.2541
351.92	144.2541
351.92	144.2541
355.39	0.0000
356.01	160.0635
364.48	147.4138
366.43	155.7280
367.43	155.8415
367.94	0.0000
369.80	139.8704
374.96	144.9243
383.85	151.3190
387.95	162.7303
388.63	153.6599
391.69	164.9899
391.69	164.9899
392.90	164.2126
398.62	157.4971
400.65	157.7163
401.10	145.7720
401.81	142.1497
402.60	128.3739
404.84	135.0438
410.95	130.9612
411.60	128.2295
413.65	129.3369
414.70	155.4999
415.30	181.6431

415.76	182.6315
417.63	0.0000
418.52	120.4218
423.70	147.0629
427.08	126.7355
427.89	116.4714
432.53	116.8233
433.93	132.9577
439.47	98.4188
439.56	99.3700
439.89	113.5895
443.98	123.3766
444.90	114.9016
445.03	114.9127
445.03	114.9127
445.03	114.9127
445.03	114.9127
453.90	122.2383
463.38	133.7158
468.07	118.1707
473.00	113.0492
475.06	126.7343
475.35	130.6268
476.78	117.1800
477.59	119.1750
477.96	127.9233
482.03	134.0623
484.57	126.4810
487.03	116.9220
490.36	0.0000
492.35	0.0000
497.08	107.8113
507.63	0.0000
510.53	0.0000
510.84	126.4473
511.00	126.4590
511.85	126.5186
511.85	126.5186
513.99	120.3383
513.99	120.3383
520.41	115.2106
520.65	115.2283
527.90	0.0000
528.96	0.0000
529.64	125.7885
529.87	0.0000
531.02	119.8901
537.32	125.3166
543.00	136.7637
546.56	0.0000
549.76	120.1076
552.65	124.3363
555.20	111.3461
563.23	113.8525
563.90	116.9408
568.70	127.4300
569.32	122.3730
569.50	122.3840
569.67	120.3551
573.80	113.4593
574.00	113.4695
574.64	118.6196
578.91	108.2232
579.30	0.0000
583.14	122.2212
585.48	92.1348
591.81	115.5410
592.07	115.5547
593.00	110.4482
595.88	114.7431
600.56	128.4843
602.52	0.0000
602.71	119.4926
602.71	119.4926
603.60	131.1678
604.41	114.6114
604.70	114.6283
609.31	103.0243

609.31	103.0243
609.31	103.0243
609.31	103.0243
610.33	94.9545
612.46	110.0634
614.37	110.1665
618.01	95.1046
621.84	94.2352
621.84	94.2352
631.29	86.2516
633.02	92.6406
633.10	95.8016
634.78	91.6649
635.90	96.9835
636.97	103.3624
645.85	77.3174
646.12	72.0321
656.30	71.3102
657.75	117.1570
657.90	0.0000
661.65	113.1005
661.65	113.1005
664.57	0.0000
666.33	125.1052
666.33	125.1052
675.00	88.0284
677.61	88.1335
685.20	85.2008
692.80	97.3938
695.00	114.8215
696.49	108.3923
696.49	108.3923
697.00	109.5009
697.49	108.4412
698.33	107.3960
698.50	101.9806
699.00	105.2590
702.63	106.5146
706.10	94.7022
706.58	0.0000
706.67	97.9926
709.31	88.2946
711.68	90.5685
713.82	85.1911
717.42	105.0146
720.50	92.6368
721.93	0.0000
722.20	70.1543
722.78	80.6977
722.78	80.6977
722.89	80.7021
722.95	82.4588
723.30	82.4703
724.18	100.0562
727.18	77.9943
733.00	88.1006
735.90	67.2586
739.58	84.8109
742.81	74.3121
744.21	95.5995
747.13	95.7155
751.79	84.3589
752.31	76.6058
753.82	84.4308
755.35	86.7074
756.15	95.6320
756.87	92.3238
763.93	101.7400
765.79	96.4591
766.42	80.4045
766.84	80.4177
776.49	78.9400
778.00	109.5081
778.57	109.5319
778.89	109.5468
783.80	77.3748
785.46	102.0360
792.07	81.2417

795.84	73.3287
796.30	73.8449
798.80	73.9167
801.93	81.5603
805.60	78.0488
810.29	90.9229
810.76	90.9399
815.85	82.0085
817.79	67.4798
818.51	71.1464
819.60	69.3519
826.30	62.2127
828.27	0.0000
831.60	82.5095
831.96	78.8529
834.83	85.3643
836.80	0.0000
846.75	92.2070
848.13	75.6498
856.28	0.0000
856.80	57.0763
860.37	59.3156
867.32	76.6589
867.82	68.1538
871.10	67.9260
873.19	72.6337
874.81	76.4045
875.33	0.0000
876.40	80.1778
879.36	79.3326
880.27	82.1605
880.51	79.3658
881.50	68.1862
883.24	86.9219
884.67	82.2916
889.25	69.3154
896.60	67.6213
898.02	62.0184
899.00	62.0410
903.28	60.6716
911.07	67.9728
911.07	67.9728
911.07	67.9728
919.63	62.4986
920.93	55.8959
925.00	66.4111
925.24	68.3139
926.50	58.8531
935.52	46.6589
937.48	60.0315
944.10	61.1250
946.00	53.5186
949.00	71.7517
962.29	49.6535
964.01	57.6958
966.15	70.5690
968.20	56.8149
969.11	56.8336
969.11	56.8336
969.11	56.8336
977.42	45.4004
980.50	67.6877
983.50	55.1728
989.30	62.0688
996.32	51.8438
1001.03	51.6000
1001.68	51.6116
1004.76	56.8622
1021.30	0.0000
1024.50	0.0000
1034.80	52.1693
1036.00	54.1594
1037.82	57.1447
1038.57	54.2024
1038.76	0.0000
1045.16	63.2062
1046.59	78.0549
1048.07	61.2855

1050.47	62.3232
1050.47	62.3232
1062.04	45.6721
1063.62	43.7078
1076.63	52.8603
1077.35	50.8780
1078.86	51.8984
1085.78	48.0094
1099.22	52.2234
1112.02	63.5168
1112.84	65.5522
1115.52	62.2388
1120.29	52.5586
1120.29	52.5586
1120.29	52.5586
1120.29	52.5586
1120.51	52.5611
1121.28	52.5738
1124.00	0.0000
1129.67	50.6787
1131.51	0.0000
1147.95	0.0000
1167.94	57.4000
1173.22	52.3547
1175.09	49.3031
1177.93	60.6507
1189.05	70.1250
1204.90	78.7275
1205.75	0.0000
1213.00	76.8328
1221.42	84.2985
1230.97	64.9262
1235.34	67.9072
1236.41	0.0000
1238.25	59.2482
1246.25	68.1135
1260.41	0.0000
1271.85	44.3174
1274.45	46.4621
1274.54	50.6859
1291.56	45.6140
1298.22	0.0000
1312.09	33.0631
1325.50	36.3906
1325.50	36.3906
1332.49	48.2498
1333.61	35.3944
1360.21	30.2367
1362.66	0.0000
1365.15	36.7625
1368.21	25.9699
1368.53	0.0000
1376.25	29.2755
1384.27	21.7295
1394.10	17.4266
1395.20	25.4206
1407.95	22.9513
1434.06	25.2989
1436.60	21.0955
1457.56	0.0000
1460.81	18.4513
1489.15	24.1486
1509.49	31.9964
1596.49	16.3184
1620.62	18.1828
1678.03	0.0000
1691.02	8.7444
1691.02	8.7444
1706.46	0.0000
1750.46	0.0000
1764.49	12.8249
1764.49	12.8249
1764.49	12.8249
1764.49	12.8249
1770.23	10.1589
1771.40	10.1614
1791.20	0.0000
1808.65	12.9397

1836.01 22.0170

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978002

Total Uranium Activity	2.2046E+02	ug/g
Total Uranium Counting Unc.	3.9262E+01	ug/g
Total Uranium Tpu	2.0032E-05	ug/g
Total Uranium Mda	4.7932E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID     : 948721                    SAMPLE ID  : G245978002          *
*   ANALYST      : MXR1                      DETECTOR   : GAM16               *
*   SAMPLE DATE  : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 14-FEB-2010 11:17:26.63   SAMPLE ALQT:  141.470 GRAM       *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.908E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 2.012E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 6.874E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 3.376E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:19:37.67

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978003.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:18:00
Sample ID         : G245978003           Sample quantity  : 1.24220E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.11  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.20*	140	403	1.01	92.03	87	9	1.95E-02	28.3	
2	0	63.23*	263	512	0.96	126.09	122	7	3.66E-02	16.0	
3	3	74.83*	619	470	0.93	149.30	145	16	8.59E-02	6.9	1.04E+00
4	3	77.09*	994	423	0.94	153.84	145	16	1.38E-01	4.7	
5	3	87.20	293	449	1.20	174.06	163	28	4.07E-02	13.1	2.43E+00
6	3	89.95	194	301	0.85	179.55	163	28	2.69E-02	15.2	
7	3	92.73*	474	394	1.24	185.11	163	28	6.59E-02	8.8	
8	0	185.88*	164	309	1.29	371.49	367	10	2.28E-02	22.4	
9	0	209.10	79	197	0.70	417.94	415	7	1.10E-02	31.5	
10	7	238.56*	1069	134	1.03	476.89	472	16	1.48E-01	3.6	2.10E+00
11	7	241.45	276	185	1.80	482.66	472	16	3.84E-02	15.5	
12	0	270.45	108	177	0.96	540.69	535	11	1.50E-02	25.8	
13	0	295.19*	287	142	0.97	590.19	586	9	3.98E-02	9.7	
14	0	299.76	88	105	1.01	599.34	596	7	1.22E-02	22.2	
15	0	327.42	70	147	0.94	654.68	651	10	9.67E-03	34.6	
16	0	338.29*	156	176	1.05	676.44	672	10	2.17E-02	18.0	
17	0	351.76*	544	152	1.27	703.39	698	12	7.56E-02	6.3	
18	0	462.97	79	67	1.01	925.93	921	10	1.10E-02	23.3	
19	0	510.39*	92	173	1.71	1020.80	1014	17	1.28E-02	36.8	
20	0	582.99*	286	87	1.15	1166.07	1159	14	3.97E-02	9.3	
21	0	609.06*	374	113	1.47	1218.25	1211	15	5.20E-02	8.2	
22	0	727.28	67	88	1.79	1454.83	1447	16	9.31E-03	33.6	
23	0	795.04	37	41	1.34	1590.44	1586	9	5.07E-03	35.5	
24	0	860.42	50	41	2.39	1721.27	1715	12	6.96E-03	29.4	
25	0	910.82*	227	25	1.58	1822.14	1816	14	3.15E-02	8.4	
26	3	964.04	53	30	2.21	1928.66	1922	20	7.31E-03	27.4	6.93E-01
27	3	968.35*	120	28	1.56	1937.28	1922	20	1.66E-02	12.3	
28	0	1120.60	76	63	2.24	2242.01	2233	17	1.06E-02	26.6	
29	0	1459.91*	975	20	2.09	2921.18	2911	19	1.35E-01	3.4	
30	0	1590.45	19	19	4.92	3182.49	3173	16	2.61E-03	57.8	
31	0	1763.45*	83	0	2.01	3528.83	3522	13	1.15E-02	11.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:19:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:18:00
Sample ID : G245978003 Sample quantity : 124.22 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA17 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:10.11 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.547E+01	3.965E+00	6.409E-01	5.690E-02	55.344
CD-109	+	88.03	*	3.666E+00	1.022E+00	1.016E+00	9.923E-02	3.606
SN-126	+	64.28		1.223E+00	4.383E-01	4.403E-01	7.028E-02	2.778
	+	86.94		1.491E+00	7.326E-01	4.122E-01	1.715E-01	3.618
	+	87.57	*	3.588E-01	9.999E-02	9.934E-02	9.694E-03	3.611
TL-208		277.35		6.637E-01	4.258E-01	7.648E-01	9.737E-02	0.868
	+	510.84		6.263E-01	4.675E-01	2.569E-01	3.138E-02	2.438
	+	583.14	*	5.665E-01	1.179E-01	7.197E-02	6.808E-03	7.871
	+	860.37		9.755E-01	5.805E-01	6.340E-01	5.965E-02	1.539
BI-210	+	46.50	*	1.667E+00	9.615E-01	8.828E-01	9.577E-02	1.888
PB-210	+	46.50	*	1.667E+00	9.615E-01	8.828E-01	9.577E-02	1.888
PO-210	+	46.50	*	1.667E+00	9.592E-01	8.828E-01	8.919E-02	1.888
BI-211		72.87		2.934E+00	2.287E+00	3.631E+00	3.550E-01	0.808
	+	351.07	*	4.368E+00	6.877E-01	4.116E-01	3.841E-02	10.612
PB-212	+	74.81		2.571E+00	4.970E-01	3.971E-01	5.366E-02	6.475
	+	77.11		2.461E+00	3.323E-01	2.371E-01	2.311E-02	10.380
	+	87.30		1.659E+00	4.913E-01	4.591E-01	6.414E-02	3.614
	+	238.63	*	1.801E+00	2.227E-01	9.598E-02	9.676E-03	18.762
	+	300.09		2.326E+00	1.064E+00	1.328E+00	1.447E-01	1.751
PO-212	+	74.81		2.571E+00	4.970E-01	3.971E-01	5.366E-02	6.475
	+	77.11		2.461E+00	3.323E-01	2.371E-01	2.311E-02	10.380
	+	87.30		1.659E+00	4.913E-01	4.591E-01	6.414E-02	3.614
		115.19		-1.800E+00	3.544E+00	5.733E+00	6.454E-01	-0.314
	+	238.63	*	1.801E+00	2.227E-01	9.598E-02	9.676E-03	18.762
	+	300.09		2.326E+00	1.064E+00	1.328E+00	1.447E-01	1.751
BI-214	+	609.31	*	1.407E+00	2.713E-01	1.398E-01	1.422E-02	10.064
	+	1120.29		1.559E+00	8.463E-01	6.396E-01	6.838E-02	2.438
	+	1764.49		2.360E+00	5.708E-01	4.291E-01	3.628E-02	5.501
PB-214	+	74.81		4.430E+00	8.183E-01	6.841E-01	8.383E-02	6.475
	+	77.11		4.219E+00	6.541E-01	4.065E-01	5.029E-02	10.380
	+	87.30		2.843E+00	8.219E-01	7.865E-01	9.780E-02	3.614
	+	241.98		2.797E+00	9.171E-01	5.786E-01	6.160E-02	4.833
	+	295.21		1.332E+00	2.985E-01	2.336E-01	2.595E-02	5.703
	+	351.92	*	1.520E+00	2.520E-01	1.435E-01	1.534E-02	10.586

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-214	+	74.81		4.430E+00	8.183E-01	6.841E-01	8.383E-02	6.475
	+	77.11		4.219E+00	6.541E-01	4.065E-01	5.029E-02	10.380
	+	87.30		2.843E+00	8.219E-01	7.865E-01	9.780E-02	3.614
	+	241.98		2.797E+00	9.171E-01	5.786E-01	6.160E-02	4.833
	+	295.21		1.332E+00	2.985E-01	2.336E-01	2.595E-02	5.703
	+	351.92	*	1.520E+00	2.520E-01	1.435E-01	1.534E-02	10.586
PO-216	+	74.81		2.571E+00	4.970E-01	3.971E-01	5.366E-02	6.475
	+	77.11		2.461E+00	3.323E-01	2.371E-01	2.311E-02	10.380
	+	87.30		1.659E+00	4.913E-01	4.591E-01	6.414E-02	3.614
	+	238.63	*	1.801E+00	2.227E-01	9.598E-02	9.676E-03	18.762
	+	300.09		2.326E+00	1.064E+00	1.328E+00	1.447E-01	1.751
PO-218	+	74.81		4.430E+00	8.183E-01	6.841E-01	8.383E-02	6.475
	+	77.11		4.219E+00	6.541E-01	4.065E-01	5.029E-02	10.380
	+	87.30		2.843E+00	8.219E-01	7.865E-01	9.780E-02	3.614
	+	241.98		2.797E+00	9.171E-01	5.786E-01	6.160E-02	4.833
	+	295.21		1.332E+00	2.985E-01	2.336E-01	2.595E-02	5.703
	+	351.92	*	1.520E+00	2.520E-01	1.435E-01	1.534E-02	10.586
RA-224	+	240.98	*	5.303E+00	1.713E+00	1.093E+00	9.886E-02	4.851
RA-226	+	609.31	*	1.407E+00	2.713E-01	1.398E-01	1.422E-02	10.064
	+	1120.29		1.559E+00	8.463E-01	6.396E-01	6.838E-02	2.438
	+	1764.49		2.360E+00	5.708E-01	4.291E-01	3.628E-02	5.501
AC-228	+	338.32		1.374E+00	7.541E-01	4.396E-01	1.817E-01	3.126
	+	911.07	*	2.092E+00	4.249E-01	2.656E-01	3.013E-02	7.875
	+	969.11		1.954E+00	6.622E-01	5.457E-01	1.276E-01	3.581
RA-228	+	338.32		1.374E+00	7.541E-01	4.396E-01	1.817E-01	3.126
	+	911.07	*	2.092E+00	4.249E-01	2.656E-01	3.013E-02	7.875
	+	969.11		1.954E+00	6.622E-01	5.457E-01	1.276E-01	3.581
TH-228	+	74.81		2.617E+00	4.439E-01	4.042E-01	3.972E-02	6.475
	+	77.11		2.506E+00	3.383E-01	2.414E-01	2.353E-02	10.380
	+	87.30		1.689E+00	4.708E-01	4.674E-01	4.560E-02	3.614
	+	238.63	*	1.833E+00	2.267E-01	9.771E-02	9.851E-03	18.762
	+	300.09		2.368E+00	1.755E+00	1.352E+00	8.028E-01	1.751
TH-230	+	609.31	*	1.407E+00	2.713E-01	1.398E-01	1.422E-02	10.064
	+	1120.29		1.559E+00	8.463E-01	6.396E-01	6.838E-02	2.438
	+	1764.49		2.360E+00	5.707E-01	4.291E-01	3.628E-02	5.501
TH-232	+	338.32		1.374E+00	5.111E-01	4.396E-01	3.960E-02	3.126
	+	911.07	*	2.092E+00	4.249E-01	2.656E-01	3.013E-02	7.875
	+	969.11		1.954E+00	6.622E-01	5.457E-01	1.276E-01	3.581
TH-234	+	63.29	*	3.090E+00	1.147E+00	1.130E+00	2.109E-01	2.735
	+	92.38		4.019E+00	1.037E+00	6.900E-01	1.295E-01	5.825
U-234	+	609.31	*	1.407E+00	2.713E-01	1.398E-01	1.422E-02	10.064
	+	1120.29		1.559E+00	8.463E-01	6.396E-01	6.838E-02	2.438
	+	1764.49		2.360E+00	5.707E-01	4.291E-01	3.628E-02	5.501
NP-237	+	86.50	*	1.054E+00	3.653E-01	2.908E-01	6.637E-02	3.623
		95.87		3.934E-01	8.910E-01	1.361E+00	3.431E-01	0.289
U-238	+	63.29	*	3.090E+00	1.147E+00	1.130E+00	2.109E-01	2.735
	+	92.38		4.019E+00	8.162E-01	6.900E-01	6.877E-02	5.825
AM-243	+	74.67	*	4.168E-01	7.053E-02	6.435E-02	6.283E-03	6.477
	+	86.72		3.951E+01	1.101E+01	1.091E+01	1.064E+00	3.621

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		117.66		9.890E-01	3.661E+00	6.137E+00	7.008E-01	0.161
		142.18		4.873E+00	1.861E+01	3.090E+01	3.187E+00	0.158
ANH-511	+	511.00	*	1.353E-01	1.003E-01	5.551E-02	4.957E-03	2.437

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.973E-02	4.288E-01	6.938E-01	6.602E-02	-0.100
NA-22		1274.54	*	1.415E-02	6.309E-02	1.052E-01	8.863E-03	0.134
NA-24		1368.53	*	1.860E+01	6.309E-02	Half-Life too short		
AL-26		1129.67		1.036E+00	2.534E+00	4.282E+00	3.578E-01	0.242
		1808.65	*	-1.053E-02	3.963E-02	6.042E-02	5.064E-03	-0.174
TI-44		67.85		-5.098E-03	2.687E-02	4.526E-02	4.457E-03	-0.113
	+	78.38	*	4.542E-01	6.133E-02	6.613E-02	6.444E-03	6.869
SC-46		889.25	*	-9.102E-03	5.359E-02	8.709E-02	7.624E-03	-0.105
	+	1120.51		2.733E-01	1.472E-01	1.808E-01	1.517E-02	1.511
V-48		944.10		-2.434E-01	1.347E+00	2.174E+00	1.902E-01	-0.112
		983.50	*	2.203E-02	1.154E-01	1.932E-01	1.685E-02	0.114
		1312.09		-5.574E-02	1.218E-01	1.926E-01	1.635E-02	-0.289
CR-51		320.08	*	-3.886E-02	4.596E-01	7.694E-01	7.348E-02	-0.051
MN-52		744.21		6.337E-02	4.532E-01	7.696E-01	6.690E-02	0.082
		848.13		4.170E+00	1.281E+01	2.195E+01	1.929E+00	0.190
		935.52		2.412E-01	5.278E-01	9.072E-01	7.939E-02	0.266
		1246.25		-3.883E-01	1.534E+01	2.462E+01	2.057E+00	-0.016
		1333.61		-3.013E-01	1.028E+01	1.717E+01	1.463E+00	-0.018
		1434.06	*	-3.777E-01	4.277E-01	6.020E-01	5.190E-02	-0.627
MN-54		834.83	*	2.415E-02	5.578E-02	9.603E-02	8.443E-03	0.251
CO-56		846.75	*	-2.087E-03	5.179E-02	8.568E-02	7.532E-03	-0.024
		977.42		9.442E-01	4.477E+00	7.509E+00	6.554E-01	0.126
		1037.82		1.793E-01	5.031E-01	8.504E-01	7.733E-02	0.211
		1175.09		1.385E+00	3.710E+00	6.209E+00	5.075E-01	0.223
		1238.25		2.454E-01	1.473E-01	2.673E-01	2.297E-02	0.918
		1360.21		6.732E-01	1.415E+00	2.509E+00	2.147E-01	0.268
		1771.40		-5.050E-02	3.143E-01	4.953E-01	4.183E-02	-0.102
CO-57		122.06	*	2.262E-02	2.473E-02	4.244E-02	4.972E-03	0.533
		136.48		1.227E-01	2.194E-01	3.695E-01	4.159E-02	0.332
CO-58		810.76	*	-5.059E-02	5.344E-02	8.012E-02	7.056E-03	-0.631
FE-59		142.65		-6.740E-01	3.124E+00	4.971E+00	5.109E-01	-0.136
		192.34		-4.945E-01	1.035E+00	1.621E+00	2.177E-01	-0.305
		1099.22	*	8.836E-02	1.439E-01	2.481E-01	2.277E-02	0.356
		1291.56		-1.609E-01	2.003E-01	2.883E-01	2.777E-02	-0.558
CO-60		1173.22		4.774E-02	7.189E-02	1.234E-01	1.008E-02	0.387
		1332.49	*	1.640E-02	5.687E-02	9.844E-02	8.390E-03	0.167
ZN-65		1115.52	*	-5.991E-02	1.401E-01	1.825E-01	1.537E-02	-0.328
GE-68		1077.35	*	1.409E+00	1.851E+00	3.245E+00	2.769E-01	0.434
AS-73		53.44	*	-2.476E-02	2.684E-01	4.507E-01	4.510E-02	-0.055
AS-74		595.88	*	5.693E-02	1.358E-01	2.272E-01	2.001E-02	0.251
		634.78		-1.061E-01	4.995E-01	7.837E-01	6.750E-02	-0.135

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SE-75		66.05		2.311E+00	2.974E+00	4.675E+00	5.378E-01	0.494
		96.73		-9.100E-01	8.076E-01	1.120E+00	1.643E-01	-0.813
		121.11		-4.806E-02	1.350E-01	2.193E-01	3.000E-02	-0.219
		136.00		9.009E-03	4.126E-02	6.854E-02	7.412E-03	0.131
		198.60		8.072E-01	2.101E+00	3.406E+00	3.281E-01	0.237
		264.65	*	-5.898E-02	5.949E-02	7.559E-02	6.945E-03	-0.780
		279.53		-1.634E-02	1.195E-01	2.012E-01	1.908E-02	-0.081
		303.91		4.735E-01	2.710E+00	4.093E+00	4.868E-01	0.116
		400.65		-1.180E-01	3.205E-01	5.177E-01	5.699E-02	-0.228
BR-77	+	87.88		1.813E+03	5.052E+02	7.074E+02	6.904E+01	2.563
		200.40		-2.074E+01	4.275E+02	6.866E+02	5.986E+01	-0.030
	+	239.00		6.647E+02	7.660E+01	1.041E+02	9.403E+00	6.385
		249.79		-1.372E+02	1.670E+02	2.492E+02	2.266E+01	-0.550
		281.68		-2.359E+02	2.162E+02	3.404E+02	3.126E+01	-0.693
		297.23		3.819E+02	2.042E+02	2.747E+02	2.522E+01	1.390
		303.76		1.134E+02	5.233E+02	7.930E+02	7.270E+01	0.143
		439.47		1.901E+02	4.092E+02	6.974E+02	6.077E+01	0.273
		484.57		6.333E+00	6.580E+02	1.078E+03	9.582E+01	0.006
		520.65	*	2.626E+01	3.017E+01	5.264E+01	4.705E+00	0.499
		574.64		-1.337E+02	6.062E+02	9.601E+02	8.525E+01	-0.139
		578.91		3.484E+01	2.828E+02	4.058E+02	3.598E+01	0.086
		585.48		9.512E+02	6.343E+02	1.026E+03	9.074E+01	0.927
		755.35		2.637E+02	5.401E+02	9.407E+02	8.199E+01	0.280
		817.79		1.467E+02	4.072E+02	7.017E+02	6.168E+01	0.209
SR-82		698.33		-9.500E+00	4.936E+01	8.189E+01	7.012E+00	-0.116
		776.49	*	-2.061E-02	4.918E-01	8.190E-01	7.167E-02	-0.025
		1395.20		9.631E+00	1.439E+01	2.640E+01	2.269E+00	0.365
RB-83		520.41	*	8.809E-02	8.977E-02	1.577E-01	1.410E-02	0.559
		529.64		-5.013E-02	1.374E-01	2.163E-01	1.933E-02	-0.232
		552.65		-4.502E-02	2.570E-01	4.101E-01	3.659E-02	-0.110
RB-84		881.50	*	-2.547E-03	1.086E-01	1.794E-01	1.573E-02	-0.014
KR-85		513.99	*	1.244E+01	9.690E+00	1.569E+01	1.402E+00	0.793
SR-85		513.99	*	6.573E-02	5.120E-02	8.289E-02	7.405E-03	0.793
RB-86		1076.63	*	1.625E-01	1.337E+00	2.206E+00	1.883E-01	0.074
Y-88		898.02		9.431E-03	5.389E-02	9.035E-02	7.936E-03	0.104
		1836.01	*	1.121E-02	4.568E-02	7.866E-02	6.560E-03	0.143
ZR-88		392.90	*	6.505E-03	3.730E-02	6.271E-02	5.283E-03	0.104
Y-91		1204.90	*	-1.833E+00	3.158E+01	5.072E+01	4.186E+00	-0.036
NB-94		702.63	*	5.414E-03	4.678E-02	7.951E-02	6.820E-03	0.068
		871.10		5.290E-04	4.741E-02	7.868E-02	6.904E-03	0.007
NB-95		765.79	*	5.042E-02	6.327E-02	1.120E-01	9.786E-03	0.450
NB-95M		235.69	*	-7.180E-02	1.593E-01	2.178E-01	2.223E-02	-0.330
ZR-95		724.18		6.509E-02	1.487E-01	2.284E-01	2.144E-02	0.285
		756.15	*	2.664E-02	1.046E-01	1.789E-01	1.714E-02	0.149
NB-97		657.90	*	-1.642E-01	1.046E-01	Half-Life too short		
		1024.50		-7.905E+01	1.046E-01	Half-Life too short		
ZR-97		254.15		-5.264E+01	1.046E-01	Half-Life too short		
		355.39		1.899E+01	1.046E-01	Half-Life too short		
		507.63	*	2.495E+01	1.046E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		602.52		1.166E+02	1.046E-01	Half-Life too short		
		1021.30		1.275E+01	1.046E-01	Half-Life too short		
		1147.95		-5.509E+01	1.046E-01	Half-Life too short		
		1362.66		-7.232E+01	1.046E-01	Half-Life too short		
		1750.46		5.187E+01	1.046E-01	Half-Life too short		
MO-99		140.51		-3.607E+01	6.010E+01	9.337E+01	2.643E+01	-0.386
		181.06		4.524E+00	4.337E+01	6.308E+01	1.150E+01	0.072
		366.43		3.090E+01	2.004E+02	3.378E+02	2.957E+01	0.091
		739.58	*	-6.090E+00	3.305E+01	5.457E+01	8.305E+00	-0.112
		778.00		-3.903E+01	8.009E+01	1.266E+02	1.109E+01	-0.308
TC-99M		140.51	*	-6.798E+13	8.009E+01	Half-Life too short		
RH-101		127.23		-4.528E-03	3.369E-02	5.525E-02	6.284E-03	-0.082
		198.01	*	-6.743E-03	3.842E-02	6.054E-02	5.263E-03	-0.111
		325.23		7.646E-02	2.809E-01	4.258E-01	3.871E-02	0.180
RH-102		418.52		-1.441E-01	3.516E-01	5.637E-01	4.847E-02	-0.256
		475.06	*	-3.391E-02	3.793E-02	5.751E-02	5.094E-03	-0.590
		631.29		-4.868E-02	7.359E-02	1.101E-01	9.509E-03	-0.442
		697.49		-4.231E-05	1.028E-01	1.733E-01	1.484E-02	0.000
		766.84		1.976E-01	1.643E-01	2.968E-01	2.593E-02	0.666
		1046.59		8.656E-03	1.773E-01	2.910E-01	2.507E-02	0.030
		1112.84		1.424E-01	3.348E-01	5.026E-01	4.232E-02	0.283
RU-103		497.08	*	-6.819E-03	5.337E-02	8.628E-02	1.237E-02	-0.079
	+	610.33		1.598E+01	3.743E+00	4.089E+00	6.849E-01	3.908
RH-106	+	511.85		6.793E-01	5.039E-01	5.647E-01	5.044E-02	1.203
		621.84	*	-2.142E-01	4.207E-01	6.404E-01	8.582E-02	-0.334
		1050.47		-1.378E+00	3.534E+00	5.535E+00	4.763E-01	-0.249
RU-106	+	511.85		6.793E-01	5.039E-01	5.647E-01	5.044E-02	1.203
		621.84	*	-2.142E-01	4.201E-01	6.404E-01	5.564E-02	-0.334
		1050.47		-1.378E+00	3.534E+00	5.535E+00	4.763E-01	-0.249
AG-108M		433.93	*	-2.085E-02	4.012E-02	6.348E-02	5.729E-03	-0.328
		614.37		8.185E-03	5.591E-02	8.006E-02	7.254E-03	0.102
		722.95		3.658E-03	5.991E-02	8.840E-02	7.935E-03	0.041
AG-110M		657.75	*	4.080E-03	5.020E-02	8.096E-02	7.056E-03	0.050
		677.61		6.820E-02	4.395E-01	7.124E-01	6.223E-02	0.096
		706.67		4.529E-02	2.922E-01	4.979E-01	4.396E-02	0.091
		763.93		-2.174E-01	2.514E-01	3.911E-01	3.509E-02	-0.556
		884.67		2.676E-02	7.188E-02	1.232E-01	1.113E-02	0.217
		937.48		1.005E-03	1.636E-01	2.697E-01	2.443E-02	0.004
		1384.27		2.151E-01	1.919E-01	3.715E-01	3.279E-02	0.579
IN-111		171.28		3.320E-01	2.142E+00	3.509E+00	2.946E-01	0.095
		245.39	*	1.848E-01	2.513E+00	3.576E+00	3.243E-01	0.052
IN-113M		391.69	*	-5.974E-02	5.541E-02	8.459E-02	7.350E-03	-0.706
SN-113		391.69	*	-5.974E-02	5.541E-02	8.459E-02	7.350E-03	-0.706
IN-114M		190.27	*	1.704E-01	2.077E-01	3.173E-01	2.733E-02	0.537
CD-115		260.90		-1.153E-04	2.077E-01	Half-Life too short		
		492.35		3.609E-05	2.077E-01	Half-Life too short		
		527.90	*	-2.583E-05	2.077E-01	Half-Life too short		
SN-117M		156.02		1.169E-01	2.868E+00	4.693E+00	4.321E-01	0.025
		158.56	*	3.892E-02	6.790E-02	1.138E-01	1.023E-02	0.342

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-122		563.90	*	3.088E+00	5.609E+00	9.506E+00	8.465E-01	0.325
		692.80		-7.166E+01	1.234E+02	1.981E+02	1.692E+01	-0.362
I-123		159.00	*	6.541E+01	1.234E+02	Half-Life too short		
		528.96		-1.755E+04	1.234E+02	Half-Life too short		
TE-123M		159.00	*	8.834E-03	3.090E-02	5.111E-02	4.600E-03	0.173
I-124		602.71	*	7.211E-01	1.460E+00	2.187E+00	1.921E-01	0.330
		722.78		-2.003E+00	1.023E+01	1.461E+01	1.262E+00	-0.137
		1325.50		1.806E+01	8.452E+01	1.450E+02	1.234E+01	0.125
		1376.25		1.397E+02	7.104E+01	1.425E+02	1.222E+01	0.980
		1509.49		2.211E+01	3.029E+01	5.613E+01	4.854E+00	0.394
		1691.02		4.317E-03	8.059E+00	1.323E+01	1.132E+00	0.000
SB-124		602.71		2.698E-02	5.462E-02	8.185E-02	7.189E-03	0.330
		645.85		3.686E-01	6.869E-01	1.158E+00	1.049E-01	0.318
		709.31		-8.818E-01	4.072E+00	6.555E+00	5.637E-01	-0.135
		713.82		4.283E-01	2.334E+00	3.985E+00	4.795E-01	0.107
		722.78		-1.086E-01	5.548E-01	7.922E-01	6.991E-02	-0.137
	+	968.20		2.079E+01	5.414E+00	1.019E+01	8.902E-01	2.040
		1045.16		2.130E-02	3.917E+00	6.404E+00	5.519E-01	0.003
		1325.50		1.046E+00	4.896E+00	8.398E+00	7.147E-01	0.125
		1368.21		2.322E+00	2.591E+00	4.781E+00	6.427E-01	0.486
		1436.60		-1.690E+00	4.751E+00	7.427E+00	6.405E-01	-0.228
		1691.02	*	5.523E-05	1.031E-01	1.693E-01	1.506E-02	0.000
SB-125		427.89	*	-5.328E-02	1.127E-01	1.793E-01	1.581E-02	-0.297
	+	463.38		1.034E+00	4.924E-01	6.784E-01	6.431E-02	1.524
		600.56		-4.004E-03	2.263E-01	3.642E-01	3.429E-02	-0.011
		635.90		9.828E-03	3.385E-01	5.451E-01	5.071E-02	0.018
TE-125M		109.28	*	-7.029E-01	9.483E+00	1.571E+01	1.932E+00	-0.045
I-126		388.63		4.088E-02	2.809E-01	4.716E-01	3.991E-02	0.087
		666.33	*	-1.287E-01	2.938E-01	4.498E-01	3.798E-02	-0.286
		753.82		1.358E+00	2.369E+00	4.156E+00	3.621E-01	0.327
SB-126		223.80		5.872E-01	5.695E+00	9.162E+00	8.178E-01	0.064
		278.60		4.642E+00	3.218E+00	5.817E+00	5.339E-01	0.798
	+	296.50		1.556E+01	3.347E+00	4.766E+00	4.376E-01	3.265
		414.70		-1.120E-02	1.005E-01	1.648E-01	1.413E-02	-0.068
		415.30		8.051E-01	8.165E+00	1.362E+01	1.168E+00	0.059
		555.20		-9.592E-01	5.696E+00	9.087E+00	8.106E-01	-0.106
		573.80		-1.052E+00	1.569E+00	2.373E+00	2.108E-01	-0.443
		593.00		-8.366E-01	1.570E+00	2.414E+00	2.129E-01	-0.347
		656.30		2.678E+00	5.581E+00	9.319E+00	7.888E-01	0.287
		666.33		-5.411E-02	1.236E-01	1.892E-01	1.597E-02	-0.286
		675.00		-1.889E+00	3.199E+00	4.796E+00	4.066E-01	-0.394
		695.00		-1.621E-02	1.193E-01	1.988E-01	1.700E-02	-0.082
		697.00		9.031E-03	4.197E-01	7.086E-01	6.065E-02	0.013
		720.50	*	-1.353E-01	2.599E-01	3.553E-01	3.067E-02	-0.381
		856.80		5.677E-01	7.931E-01	1.259E+00	1.106E-01	0.451
		989.30		1.193E+00	1.934E+00	3.388E+00	2.953E-01	0.352
		1034.80		-1.025E+01	1.583E+01	2.408E+01	2.080E+00	-0.426
		1213.00		5.522E+00	8.705E+00	1.484E+01	1.228E+00	0.372
SB-127		61.10		1.557E+00	4.864E+01	7.467E+01	9.775E+00	0.021

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		1.080E+01	8.991E+00	1.345E+01	5.699E+00	0.803
		290.80		-4.996E+01	4.483E+01	6.013E+01	7.494E+00	-0.831
		411.60		-1.981E+00	2.399E+01	3.949E+01	6.451E+00	-0.050
		444.90		7.299E+00	1.958E+01	3.315E+01	4.446E+00	0.220
		473.00		3.299E+00	3.516E+00	6.141E+00	8.471E-01	0.537
		543.00		-1.124E+01	3.535E+01	5.569E+01	8.509E+00	-0.202
		603.60		6.839E+00	2.689E+01	3.908E+01	5.242E+00	0.175
		685.20	*	-4.851E+00	3.211E+00	4.196E+00	5.114E-01	-1.156
		698.50		-1.126E+01	3.427E+01	5.614E+01	9.224E+00	-0.201
		722.20		-3.759E+01	7.328E+01	1.000E+02	1.206E+01	-0.376
		783.80		8.490E+00	8.010E+00	1.449E+01	1.929E+00	0.586
XE-127		57.60		-9.179E-01	2.535E+00	4.268E+00	4.286E-01	-0.215
		145.22		-2.363E-01	7.890E-01	1.247E+00	1.257E-01	-0.190
		172.10		-1.113E-01	1.371E-01	2.125E-01	1.787E-02	-0.524
		202.84	*	-3.624E-02	5.452E-02	8.432E-02	7.372E-03	-0.430
		374.96		8.701E-02	2.339E-01	3.999E-01	3.459E-02	0.218
I-131		80.18		1.304E+00	6.014E+00	7.365E+00	7.225E-01	0.177
		284.30		-1.061E+00	2.044E+00	3.353E+00	3.228E-01	-0.316
		364.48	*	6.632E-02	1.686E-01	2.888E-01	2.673E-02	0.230
		636.97		2.442E-02	2.490E+00	4.001E+00	3.642E-01	0.006
		722.89		-2.038E+00	1.318E+01	1.893E+01	1.650E+00	-0.108
TE-132		49.72		-1.032E+01	8.557E+00	1.227E+01	1.561E+00	-0.841
		111.76		3.199E+01	5.443E+01	9.232E+01	1.250E+01	0.346
		116.30		-6.714E+00	5.038E+01	8.298E+01	1.143E+01	-0.081
		228.16	*	-2.756E-01	1.495E+00	2.364E+00	3.890E-01	-0.117
BA-133		53.15		5.061E-01	1.090E+00	1.863E+00	1.864E-01	0.272
		79.62		6.439E-01	1.285E+00	1.602E+00	2.545E-01	0.402
		81.00		-6.904E-03	1.009E-01	1.209E-01	1.997E-02	-0.057
		276.40		4.458E-01	4.256E-01	7.325E-01	1.083E-01	0.609
		302.84		-7.947E-02	1.831E-01	2.627E-01	3.586E-02	-0.303
		356.01	*	3.855E-03	5.937E-02	8.788E-02	1.174E-02	0.044
		383.85		5.323E-02	3.629E-01	6.096E-01	7.647E-02	0.087
I-133	+	510.53		1.349E+01	3.629E-01	Half-Life too short		
		529.87	*	-2.707E-02	3.629E-01	Half-Life too short		
		706.58		1.089E+00	3.629E-01	Half-Life too short		
		856.28		1.827E+00	3.629E-01	Half-Life too short		
		875.33		-1.733E+00	3.629E-01	Half-Life too short		
		1236.41		8.140E+00	3.629E-01	Half-Life too short		
		1298.22		-3.563E-01	3.629E-01	Half-Life too short		
CS-134		475.35		-8.693E-01	2.398E+00	3.815E+00	3.379E-01	-0.228
		563.23		2.895E-01	4.591E-01	7.838E-01	7.043E-02	0.369
		569.32		2.055E-01	2.527E-01	4.370E-01	3.936E-02	0.470
		604.70		6.363E-04	4.830E-02	6.806E-02	5.986E-03	0.009
	+	795.84	*	1.086E-01	7.773E-02	1.272E-01	1.124E-02	0.853
		801.93		-5.152E-01	5.714E-01	8.682E-01	7.664E-02	-0.593
		1038.57		3.499E+00	6.085E+00	1.049E+01	9.052E-01	0.334
		1167.94		-3.121E+00	3.774E+00	5.554E+00	4.550E-01	-0.562
		1365.15		-3.846E-01	1.786E+00	2.902E+00	2.600E-01	-0.133
CS-135		268.24	*	1.912E-01	1.994E-01	3.020E-01	3.151E-02	0.633

---- Non-Identified Nuclides ----

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I-135		288.45		2.752E+13	1.994E-01	Half-Life too short		
		417.63		-5.373E+12	1.994E-01	Half-Life too short		
		546.56		-1.487E+13	1.994E-01	Half-Life too short		
		836.80		3.084E+13	1.994E-01	Half-Life too short		
		1038.76		2.593E+13	1.994E-01	Half-Life too short		
		1124.00		-1.750E+13	1.994E-01	Half-Life too short		
		1131.51		6.334E+11	1.994E-01	Half-Life too short		
		1260.41	*	2.877E+12	1.994E-01	Half-Life too short		
		1457.56		1.542E+15	1.994E-01	Half-Life too short		
		1678.03		-4.453E+12	1.994E-01	Half-Life too short		
		1706.46		-2.215E+13	1.994E-01	Half-Life too short		
		1791.20		-2.690E+13	1.994E-01	Half-Life too short		
CS-136		66.91		2.291E-01	5.381E-01	8.841E-01	1.429E-01	0.259
	+	86.29		5.441E+00	1.603E+00	2.072E+00	2.825E-01	2.626
		153.22		-1.638E-01	8.373E-01	1.356E+00	1.407E-01	-0.121
		163.89		1.887E+00	1.385E+00	2.383E+00	2.280E-01	0.792
		176.55		3.332E-02	4.591E-01	7.475E-01	6.704E-02	0.045
		273.65		-6.312E-01	6.949E-01	8.909E-01	8.651E-02	-0.709
		340.57		1.517E-01	1.854E-01	2.916E-01	2.694E-02	0.520
		818.51		2.323E-02	1.141E-01	1.938E-01	1.706E-02	0.120
		1048.07	*	5.139E-02	1.841E-01	3.093E-01	2.778E-02	0.166
		1235.34		-3.644E-01	1.178E+00	1.777E+00	2.069E-01	-0.205
BA-137M		661.65	*	-3.696E-02	5.040E-02	7.426E-02	6.256E-03	-0.498
CS-137		661.65	*	-3.907E-02	5.328E-02	7.850E-02	6.626E-03	-0.498
CE-139		165.85	*	-3.165E-02	3.412E-02	5.280E-02	4.403E-03	-0.600
BA-140		162.64		5.906E-01	9.758E-01	1.634E+00	1.492E-01	0.362
		304.84		7.264E-01	1.752E+00	2.917E+00	8.225E-01	0.249
		423.70		1.129E-01	2.855E+00	4.671E+00	1.514E+00	0.024
		537.32	*	2.234E-02	4.082E-01	6.665E-01	2.215E-01	0.034
LA-140	+	328.77		8.793E-01	6.137E-01	7.722E-01	7.360E-02	1.139
		432.53		1.940E+00	2.904E+00	5.025E+00	4.571E-01	0.386
		487.03		-1.005E-01	1.908E-01	2.973E-01	2.797E-02	-0.338
		751.79		-1.197E+00	2.740E+00	4.411E+00	4.244E-01	-0.271
		815.85		3.589E-01	4.936E-01	8.781E-01	8.574E-02	0.409
		867.82		-9.527E-01	2.365E+00	3.652E+00	3.369E-01	-0.261
		919.63		-1.902E+00	4.698E+00	7.429E+00	7.989E-01	-0.256
		925.24		3.048E-01	1.972E+00	3.302E+00	3.066E-01	0.092
		1596.49	*	4.087E-02	1.080E-01	1.728E-01	1.492E-02	0.236
CE-141		145.44	*	-4.940E-02	7.115E-02	1.125E-01	1.147E-02	-0.439
CE-143		57.37		-9.145E-04	7.115E-02	Half-Life too short		
		231.56		-1.373E-03	7.115E-02	Half-Life too short		
		293.26	*	2.442E-03	7.115E-02	Half-Life too short		
	+	350.59		1.460E-01	7.115E-02	Half-Life too short		
		490.36		-2.104E-03	7.115E-02	Half-Life too short		
		664.57		-2.242E-03	7.115E-02	Half-Life too short		
		721.93		-4.610E-03	7.115E-02	Half-Life too short		
CE-144		80.11		4.924E-01	2.178E+00	2.669E+00	2.600E-01	0.185
		133.54	*	-2.443E-01	2.140E-01	3.259E-01	5.527E-02	-0.750
PM-144		476.78		-8.141E-03	8.692E-02	1.414E-01	1.365E-02	-0.058

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		618.01		-4.029E-02	4.100E-02	5.895E-02	5.273E-03	-0.683
		696.49	*	-2.749E-03	4.589E-02	7.697E-02	6.590E-03	-0.036
		778.57		-2.414E+00	2.613E+00	3.893E+00	3.409E-01	-0.620
PR-144		696.49	*	-1.866E-01	3.114E+00	5.224E+00	4.470E-01	-0.036
		1489.15		-9.700E+00	1.743E+01	2.634E+01	2.277E+00	-0.368
PM-146		453.90	*	-2.131E-03	5.169E-02	8.475E-02	9.199E-03	-0.025
		633.02		3.087E-01	1.732E+00	2.827E+00	1.056E+00	0.109
		735.90		1.677E-02	2.067E-01	3.407E-01	9.750E-02	0.049
		747.13		9.968E-03	1.187E-01	2.005E-01	2.825E-02	0.050
ND-147	+	91.11		9.810E-01	3.151E-01	5.935E-01	6.251E-02	1.653
		319.41		-2.951E+00	4.564E+00	7.360E+00	6.713E-01	-0.401
		439.89		8.039E-01	8.876E+00	1.473E+01	1.284E+00	0.055
		531.02	*	-1.726E-02	8.651E-01	1.405E+00	2.127E-01	-0.012
PM-149		285.90	*	2.834E-05	8.651E-01	Half-Life too short		
EU-152		121.78		2.856E-02	7.194E-02	1.211E-01	1.536E-02	0.236
		244.69		-2.156E-01	4.047E-01	5.447E-01	4.938E-02	-0.396
		344.27	*	-1.002E-01	1.160E-01	1.755E-01	1.660E-02	-0.571
		443.98		4.648E-02	1.185E+00	1.959E+00	1.712E-01	0.024
		778.89		-2.997E-01	3.013E-01	4.445E-01	3.891E-02	-0.674
		867.32		-1.664E-01	1.229E+00	1.894E+00	1.662E-01	-0.088
	+	964.01		9.878E-01	5.486E-01	7.956E-01	6.953E-02	1.242
		1085.78		2.719E-01	5.358E-01	9.222E-01	7.847E-02	0.295
		1112.02		5.335E-02	4.784E-01	7.156E-01	6.027E-02	0.075
		1407.95		-2.993E-02	2.667E-01	4.383E-01	3.771E-02	-0.068
GD-153		69.67		-1.230E+00	1.077E+00	1.659E+00	1.629E-01	-0.741
		83.37		2.766E+01	1.254E+01	2.109E+01	2.054E+00	1.312
		97.43	*	-1.109E-01	8.332E-02	1.146E-01	1.171E-02	-0.968
		103.18		-1.132E-01	1.025E-01	1.617E-01	1.704E-02	-0.700
EU-154		123.07		-3.469E-02	5.112E-02	8.133E-02	1.123E-02	-0.427
		247.94		-5.588E-02	3.856E-01	6.067E-01	7.175E-02	-0.092
		591.81		2.991E-01	8.401E-01	1.398E+00	1.652E-01	0.214
		723.30		5.928E-02	2.544E-01	3.831E-01	3.657E-02	0.155
		756.87		6.714E-01	1.037E+00	1.829E+00	2.204E-01	0.367
		873.19		1.823E-01	3.955E-01	6.855E-01	8.468E-02	0.266
		996.32		-3.763E-01	5.397E-01	8.129E-01	1.448E-01	-0.463
		1004.76		2.702E-02	3.381E-01	5.583E-01	6.530E-02	0.048
		1274.45	*	2.280E-02	1.791E-01	2.952E-01	3.293E-02	0.077
EU-155		48.70		-4.235E-01	5.091E-01	7.510E-01	7.544E-02	-0.564
		60.01		1.193E+00	2.435E+00	3.794E+00	3.817E-01	0.315
	+	86.54		4.326E-01	1.207E-01	1.697E-01	1.669E-02	2.549
		105.31	*	1.812E-01	1.072E-01	1.876E-01	2.015E-02	0.966
TB-160	+	86.79		1.186E+00	3.306E-01	4.672E-01	4.557E-02	2.539
		197.04		-3.564E-01	6.750E-01	1.043E+00	9.057E-02	-0.342
		215.65		8.323E-01	8.735E-01	1.469E+00	1.302E-01	0.566
	+	298.57		3.478E-01	1.578E-01	2.515E-01	2.308E-02	1.383
		879.36	*	6.707E-02	1.965E-01	3.365E-01	2.950E-02	0.199
		962.29		6.515E-01	8.915E-01	1.395E+00	1.219E-01	0.467
		966.15		1.443E+00	4.000E-01	7.724E-01	6.749E-02	1.868
		1177.93		5.966E-03	6.040E-01	9.779E-01	8.001E-02	0.006

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1271.85		4.513E-01	1.057E+00	1.784E+00	1.500E-01	0.253
HO-166M		80.57		2.438E-02	2.779E-01	3.372E-01	3.284E-02	0.072
	+	184.41		1.434E-01	6.547E-02	7.527E-02	6.435E-03	1.905
		280.46		-1.294E-01	9.462E-02	1.467E-01	1.347E-02	-0.882
		410.95		2.394E-01	2.944E-01	5.137E-01	4.393E-02	0.466
		711.68	*	-2.510E-02	8.420E-02	1.382E-01	1.189E-02	-0.182
		752.31		8.365E-02	3.810E-01	6.503E-01	5.664E-02	0.129
		810.29		-8.205E-02	8.120E-02	1.213E-01	1.065E-02	-0.677
TM-171		51.35		-1.655E+00	7.633E+00	1.296E+01	1.298E+00	-0.128
		52.39		2.209E+00	4.528E+00	7.746E+00	7.750E-01	0.285
		59.40		9.455E+00	1.272E+01	2.001E+01	2.017E+00	0.472
		66.72	*	1.205E+01	1.780E+01	2.789E+01	2.753E+00	0.432
LU-176	+	88.36		8.509E-01	2.371E-01	3.287E-01	3.213E-02	2.589
		201.83		-7.986E-03	3.100E-02	4.917E-02	4.294E-03	-0.162
		306.84	*	8.799E-03	2.829E-02	4.856E-02	4.449E-03	0.181
		401.10		1.560E+00	8.247E+00	1.386E+01	1.176E+00	0.113
LU-177		112.95		-3.382E-01	2.169E+00	3.574E+00	3.974E-01	-0.095
	+	208.36	*	3.147E+00	2.001E+00	3.089E+00	2.717E-01	1.019
LU-177M		52.97		2.534E-01	4.943E-01	8.461E-01	8.465E-02	0.300
		54.07		1.730E-01	2.820E-01	4.838E-01	4.841E-02	0.358
		61.30		-5.424E-02	7.871E-01	1.203E+00	1.205E-01	-0.045
		121.62		1.013E-01	3.706E-01	6.205E-01	7.247E-02	0.163
		147.16		-3.459E-01	6.939E-01	1.108E+00	1.100E-01	-0.312
		171.86		-2.961E-01	5.259E-01	8.276E-01	6.955E-02	-0.358
		218.09		-9.460E-01	1.007E+00	1.521E+00	1.351E-01	-0.622
		268.79		1.515E+00	1.086E+00	1.683E+00	1.542E-01	0.900
		319.02		-1.974E-01	2.983E-01	4.803E-01	4.381E-02	-0.411
		367.43		-1.134E-01	1.082E+00	1.791E+00	1.566E-01	-0.063
		413.65	*	-3.149E-01	2.141E-01	3.114E-01	2.669E-02	-1.011
HF-181		56.28		-8.514E-02	3.628E-01	6.142E-01	6.157E-02	-0.139
		57.53		-8.631E-02	2.106E-01	3.539E-01	3.554E-02	-0.244
		65.20		1.521E-01	5.842E-01	9.026E-01	8.939E-02	0.168
		133.02		-6.394E-02	7.087E-02	1.110E-01	1.219E-02	-0.576
		136.25		1.734E-01	4.996E-01	8.345E-01	8.969E-02	0.208
		345.85		3.535E-02	2.415E-01	3.799E-01	3.401E-02	0.093
		482.03	*	4.257E-02	5.564E-02	9.652E-02	8.569E-03	0.441
W-181		56.28		-3.255E-02	1.378E-01	2.332E-01	2.338E-02	-0.140
		57.53		-3.291E-02	8.002E-02	1.345E-01	1.350E-02	-0.245
		65.20	*	5.734E-02	2.203E-01	3.403E-01	3.370E-02	0.168
TA-182		67.75		-1.002E-03	6.487E-02	1.099E-01	1.083E-02	-0.009
		100.10		2.083E-01	1.679E-01	2.920E-01	3.027E-02	0.713
		152.43		-1.706E-01	3.730E-01	5.958E-01	5.664E-02	-0.286
		222.10		2.828E-01	4.206E-01	6.966E-01	6.208E-02	0.406
		1001.68		4.214E+00	3.337E+00	6.034E+00	5.249E-01	0.698
	+	1121.28		7.499E-01	4.041E-01	4.886E-01	4.099E-02	1.535
		1189.05		-1.800E-03	4.830E-01	7.804E-01	6.409E-02	-0.002
		1221.42	*	2.594E-01	3.310E-01	5.689E-01	4.719E-02	0.456
		1230.97		-6.519E-02	7.522E-01	1.202E+00	9.999E-02	-0.054
RE-183		57.98		-5.876E-02	8.507E-02	1.402E-01	1.409E-02	-0.419

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		3.873E-02	5.343E-02	8.402E-02	8.465E-03	0.461
		67.20		3.923E-02	1.215E-01	1.992E-01	1.964E-02	0.197
		162.32	*	4.216E-02	1.254E-01	2.075E-01	1.797E-02	0.203
	+	208.81		2.167E+00	1.378E+00	2.077E+00	1.828E-01	1.043
		291.72		-9.011E-01	1.183E+00	1.651E+00	1.516E-01	-0.546
RE-184		57.98		-2.130E-01	3.083E-01	5.082E-01	5.108E-02	-0.419
		59.32		1.403E-01	1.935E-01	3.043E-01	3.066E-02	0.461
		67.20		1.421E-01	4.401E-01	7.218E-01	7.117E-02	0.197
		161.27		-3.400E-01	3.975E-01	6.185E-01	5.412E-02	-0.550
		216.55		8.174E-02	3.054E-01	4.968E-01	4.405E-02	0.165
		252.85	*	1.669E-01	2.576E-01	4.262E-01	3.880E-02	0.392
		318.01		-4.648E-01	5.353E-01	8.508E-01	7.763E-02	-0.546
		792.07		-8.702E-02	1.531E+00	2.206E+00	1.935E-01	-0.039
		903.28		-4.615E-01	1.408E+00	2.104E+00	1.840E-01	-0.219
		920.93		2.015E-01	6.698E-01	1.137E+00	9.953E-02	0.177
OS-185		59.72		1.293E-01	1.450E-01	2.292E-01	2.308E-02	0.564
		61.14		3.224E-03	8.468E-02	1.300E-01	1.303E-02	0.025
		69.30		-2.260E-01	1.836E-01	2.963E-01	2.911E-02	-0.763
		592.07		-1.625E+00	3.719E+00	5.771E+00	5.092E-01	-0.282
		646.12	*	3.552E-02	5.764E-02	9.784E-02	8.354E-03	0.363
		717.42		6.217E-01	1.227E+00	2.148E+00	1.853E-01	0.289
		874.81		-6.161E-01	8.029E-01	1.217E+00	1.067E-01	-0.506
		880.27		6.742E-01	1.110E+00	1.945E+00	1.705E-01	0.347
RE-188		155.03	*	9.773E-02	1.920E-01	3.209E-01	2.981E-02	0.305
		477.96		8.603E-01	3.966E+00	6.614E+00	5.864E-01	0.130
		633.10		6.414E-01	3.592E+00	5.873E+00	5.065E-01	0.109
W-188	+	63.58		1.278E+02	4.292E+01	6.002E+01	5.969E+00	2.129
		227.08		1.426E+00	1.542E+01	2.478E+01	2.218E+00	0.058
		290.67	*	-1.065E+01	9.512E+00	1.282E+01	1.177E+00	-0.831
IR-192	+	295.96		1.044E+00	2.247E-01	3.354E-01	3.099E-02	3.111
		308.46		-8.654E-02	1.140E-01	1.830E-01	1.683E-02	-0.473
		316.51	*	2.378E-02	4.065E-02	7.072E-02	6.470E-03	0.336
		468.07		-3.809E-02	9.382E-02	1.285E-01	1.213E-02	-0.296
		604.41		1.585E-02	6.694E-01	9.447E-01	1.240E-01	0.017
		612.46		6.924E-01	1.042E+00	1.582E+00	1.582E-01	0.438
AU-195		65.12		5.150E-02	1.021E-01	1.592E-01	1.577E-02	0.324
		66.83		2.803E-02	5.618E-02	9.264E-02	9.141E-03	0.303
	+	75.70		1.363E+00	2.307E-01	3.861E-01	3.767E-02	3.531
		98.88	*	1.178E-01	2.099E-01	3.578E-01	3.686E-02	0.329
		129.76		3.406E+00	3.100E+00	5.312E+00	5.950E-01	0.641
TL-200		367.94	*	-8.896E-04	3.100E+00	Half-Life too short		
		579.30		7.974E-03	3.100E+00	Half-Life too short		
		828.27		6.187E-03	3.100E+00	Half-Life too short		
		1205.75		-9.215E-03	3.100E+00	Half-Life too short		
TL-201		68.90		-2.398E+00	5.411E+00	9.028E+00	8.874E-01	-0.266
		70.82		2.288E+00	3.496E+00	5.464E+00	5.355E-01	0.419
		80.30		1.928E+00	9.827E+00	1.202E+01	1.170E+00	0.160
		135.34		4.217E+00	4.981E+01	8.227E+01	8.896E+00	0.051
		167.43	*	-8.198E+00	1.444E+01	2.277E+01	1.901E+00	-0.360

---- Non-Identified Nuclides ----

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TL-202		68.90		-1.324E-01	2.987E-01	4.984E-01	4.899E-02	-0.266
		70.82		1.260E-01	1.924E-01	3.008E-01	2.948E-02	0.419
		80.30		1.062E-01	5.412E-01	6.618E-01	6.446E-02	0.160
		439.56	*	4.776E-02	1.014E-01	1.728E-01	1.506E-02	0.276
HG-203		70.83		4.870E-01	7.422E-01	1.157E+00	1.665E-01	0.421
		72.87		6.090E-01	4.785E-01	7.534E-01	1.054E-01	0.808
		82.60		4.589E-01	1.244E+00	1.535E+00	2.222E-01	0.299
		279.20	*	1.288E-03	4.631E-02	7.867E-02	7.404E-03	0.016
BI-207		72.80		1.439E-01	1.322E-01	2.088E-01	2.042E-02	0.689
	+	74.97		7.483E-01	1.266E-01	1.855E-01	1.810E-02	4.035
		84.90		3.435E-01	1.609E-01	2.702E-01	2.633E-02	1.271
		569.67		2.762E-02	3.922E-02	6.730E-02	5.984E-03	0.410
		1063.62	*	3.373E-02	7.921E-02	1.347E-01	1.155E-02	0.250
		1770.23		-1.973E+00	9.914E-01	1.064E+00	8.984E-02	-1.855
TL-207		81.07		-1.941E-02	2.226E-01	2.665E-01	2.596E-02	-0.073
		83.78		2.564E-01	1.074E-01	1.810E-01	1.763E-02	1.417
		94.90		2.574E-01	2.203E-01	3.481E-01	3.513E-02	0.739
		122.32		1.576E+00	1.701E+00	2.919E+00	3.552E-01	0.540
		144.24		1.912E-01	7.327E-01	1.190E+00	1.313E-01	0.161
		154.21		2.306E-01	4.323E-01	7.230E-01	7.343E-02	0.319
	+	269.46		6.597E-01	3.455E-01	4.088E-01	3.815E-02	1.614
		323.87	*	-1.419E-01	8.356E-01	1.220E+00	2.189E-01	-0.116
	+	338.28		5.738E+00	2.193E+00	2.948E+00	3.711E-01	1.946
		445.03		1.189E+00	2.743E+00	4.664E+00	5.679E-01	0.255
PO-209		260.50		-3.434E+00	1.124E+01	1.744E+01	1.594E+00	-0.197
		262.80		1.580E+01	3.012E+01	4.936E+01	4.513E+00	0.320
		896.60	*	-2.075E+00	9.303E+00	1.499E+01	1.311E+00	-0.138
PB-211		404.84	*	-4.501E-01	1.196E+00	1.876E+00	1.175E+00	-0.240
		427.08		-1.228E+00	2.601E+00	3.952E+00	2.456E+00	-0.311
		831.96		-1.220E+00	1.873E+00	2.655E+00	1.665E+00	-0.459
BI-212	+	727.18	*	1.172E+00	7.967E-01	8.834E-01	8.864E-02	1.327
		785.46		3.638E+00	2.390E+00	4.467E+00	3.915E-01	0.814
		1620.62		1.494E+00	1.829E+00	3.393E+00	2.923E-01	0.440
PO-215		81.07		-1.941E-02	2.226E-01	2.665E-01	2.596E-02	-0.073
		83.78		2.564E-01	1.074E-01	1.810E-01	1.763E-02	1.417
		94.90		2.574E-01	2.203E-01	3.481E-01	3.513E-02	0.739
		122.32		1.576E+00	1.701E+00	2.919E+00	3.552E-01	0.540
		144.24		1.912E-01	7.327E-01	1.190E+00	1.313E-01	0.161
		154.21		2.306E-01	4.323E-01	7.230E-01	7.343E-02	0.319
	+	269.46		6.597E-01	3.455E-01	4.088E-01	3.815E-02	1.614
		323.87	*	-1.419E-01	8.356E-01	1.220E+00	2.189E-01	-0.116
	+	338.28		5.738E+00	2.193E+00	2.948E+00	3.711E-01	1.946
		445.03		1.189E+00	2.743E+00	4.664E+00	5.679E-01	0.255
RN-219	+	271.23		8.464E-01	4.456E-01	5.191E-01	5.592E-02	1.631
		401.81	*	3.138E-01	5.091E-01	8.758E-01	1.309E-01	0.358
RN-220		549.76	*	6.007E-01	3.375E+01	5.486E+01	4.898E+00	0.011
RA-223		81.07		-1.941E-02	2.226E-01	2.665E-01	2.596E-02	-0.073
		83.78		2.564E-01	1.074E-01	1.810E-01	1.763E-02	1.417
		94.90		2.574E-01	2.203E-01	3.481E-01	3.513E-02	0.739

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		1.576E+00	1.701E+00	2.919E+00	3.552E-01	0.540
		144.24		1.912E-01	7.327E-01	1.190E+00	1.313E-01	0.161
		154.21		2.306E-01	4.323E-01	7.230E-01	7.343E-02	0.319
	+	269.46		6.597E-01	3.455E-01	4.088E-01	3.815E-02	1.614
		323.87	*	-1.419E-01	8.356E-01	1.220E+00	2.189E-01	-0.116
	+	338.28		5.738E+00	2.193E+00	2.948E+00	3.711E-01	1.946
		445.03		1.189E+00	2.743E+00	4.664E+00	5.679E-01	0.255
AC-227		79.80		8.359E-01	1.639E+00	2.039E+00	4.481E-01	0.410
		236.00		2.438E-02	2.919E-01	4.165E-01	5.217E-02	0.059
		256.20	*	-2.438E-01	4.356E-01	6.622E-01	1.035E-01	-0.368
		286.10		8.708E-01	1.619E+00	2.821E+00	3.831E-01	0.309
	+	299.80		4.310E+00	2.062E+00	3.181E+00	5.653E-01	1.355
		304.40		5.277E-01	2.267E+00	3.611E+00	6.752E-01	0.146
		334.20		-1.727E+00	3.063E+00	4.284E+00	8.396E-01	-0.403
TH-227		79.80		8.359E-01	1.640E+00	2.039E+00	4.536E-01	0.410
	+	94.00		1.553E+01	4.427E+00	3.857E+00	8.632E-01	4.027
		236.00		2.438E-02	2.919E-01	4.165E-01	4.742E-02	0.059
		256.20	*	-2.438E-01	4.362E-01	6.622E-01	1.212E-01	-0.368
		286.10		8.708E-01	1.836E+00	2.821E+00	2.833E+00	0.309
	+	299.80		4.310E+00	2.062E+00	3.181E+00	5.653E-01	1.355
		304.40		5.277E-01	2.267E+00	3.611E+00	6.752E-01	0.146
		334.20		-1.727E+00	3.063E+00	4.284E+00	8.396E-01	-0.403
TH-229		85.43		4.064E-01	1.628E-01	2.743E-01	2.674E-02	1.481
	+	88.47		4.898E-01	1.365E-01	1.882E-01	1.841E-02	2.602
		100.00		1.531E-01	1.727E-01	2.973E-01	3.080E-02	0.515
		193.63	*	-2.578E-01	5.421E-01	8.505E-01	7.355E-02	-0.303
		210.97		2.917E-01	9.452E-01	1.381E+00	1.218E-01	0.211
PA-231		283.67	*	-6.970E-01	1.596E+00	2.627E+00	4.074E-01	-0.265
		301.29		9.055E-01	7.643E-01	1.223E+00	1.546E-01	0.740
TH-231		81.07		-1.941E-02	2.226E-01	2.665E-01	2.596E-02	-0.073
		83.78		2.564E-01	1.074E-01	1.810E-01	1.763E-02	1.417
		94.90		2.574E-01	2.203E-01	3.481E-01	3.513E-02	0.739
		122.32		1.576E+00	1.701E+00	2.919E+00	3.552E-01	0.540
		144.24		1.912E-01	7.327E-01	1.190E+00	1.313E-01	0.161
		154.21		2.306E-01	4.323E-01	7.230E-01	7.343E-02	0.319
	+	269.46		6.597E-01	3.455E-01	4.088E-01	3.815E-02	1.614
		323.87	*	-1.419E-01	8.356E-01	1.220E+00	2.189E-01	-0.116
	+	338.28		5.738E+00	2.193E+00	2.948E+00	3.711E-01	1.946
		445.03		1.189E+00	2.743E+00	4.664E+00	5.679E-01	0.255
U-231		84.21		1.723E+01	7.393E+00	1.244E+01	1.212E+00	1.385
	+	92.29		2.456E+01	4.989E+00	7.006E+00	6.980E-01	3.506
		95.87	*	7.139E-01	1.609E+00	2.471E+00	2.506E-01	0.289
		108.00		-2.895E+00	3.353E+00	5.351E+00	5.788E-01	-0.541
PA-233	+	75.28		2.183E+01	4.619E+00	5.706E+00	9.138E-01	3.826
	+	86.59		7.023E+00	2.648E+00	2.759E+00	7.507E-01	2.545
	+	300.12		1.202E+00	5.642E-01	8.839E-01	1.344E-01	1.359
		311.98	*	-3.972E-02	7.459E-02	1.216E-01	1.140E-02	-0.327
		340.50		8.306E-01	8.076E-01	1.256E+00	3.010E-01	0.662
		398.62		-2.275E+00	2.674E+00	4.058E+00	1.079E+00	-0.561

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		6.508E-01	1.852E+00	3.140E+00	6.762E-01	0.207
PA-234	+	63.00		3.601E+00	1.296E+00	1.698E+00	2.765E-01	2.121
		94.67		3.717E-01	1.703E-01	2.711E-01	3.649E-02	1.371
		98.44		4.370E-02	8.707E-02	1.425E-01	7.989E-02	0.307
		99.86		4.139E-01	4.383E-01	7.557E-01	7.824E-02	0.548
		111.00		-1.164E-02	1.825E-01	3.022E-01	4.196E-02	-0.039
		131.20		-5.152E-02	1.115E-01	1.796E-01	1.994E-02	-0.287
		152.70		-1.838E-01	3.603E-01	5.725E-01	1.002E-01	-0.321
	+	186.00		5.162E+00	2.820E+00	2.926E+00	9.128E-01	1.764
		226.40		1.575E-01	4.831E-01	7.855E-01	1.054E-01	0.201
		227.20		1.900E-01	4.952E-01	8.086E-01	7.238E-02	0.235
		248.90		-4.956E-01	8.857E-01	1.341E+00	3.030E-01	-0.370
	+	293.70		6.396E+00	1.677E+00	1.890E+00	3.324E-01	3.384
		369.80		-4.459E-01	9.972E-01	1.603E+00	3.497E-01	-0.278
		568.70		4.961E-01	1.298E+00	2.171E+00	1.931E-01	0.229
		569.50		3.209E-01	3.438E-01	6.005E-01	5.339E-02	0.534
		574.00		-1.217E+00	1.896E+00	2.874E+00	2.552E-01	-0.423
		699.00		-8.251E-02	9.403E-01	1.573E+00	2.997E-01	-0.052
		706.10		-3.231E-01	1.491E+00	2.457E+00	1.095E+00	-0.132
		733.00		-5.446E-01	5.856E-01	7.306E-01	1.623E-01	-0.745
		742.81		1.087E+00	1.936E+00	3.168E+00	2.130E+00	0.343
	+	796.30		2.104E+00	1.600E+00	2.424E+00	6.569E-01	0.868
		805.60		1.143E+00	1.429E+00	2.478E+00	7.606E-01	0.461
		819.60		-1.219E-01	1.603E+00	2.648E+00	1.008E+00	-0.046
		826.30		1.716E-01	1.116E+00	1.881E+00	8.424E-01	0.091
		831.60		-8.705E-01	9.291E-01	1.348E+00	4.030E-01	-0.646
		876.40		-9.668E-01	1.517E+00	1.729E+00	1.777E+00	-0.559
		880.51		2.137E-01	3.943E-01	6.868E-01	6.020E-02	0.311
		883.24		1.519E-01	4.211E-01	7.008E-01	4.712E-01	0.217
		899.00		3.932E-01	1.091E+00	1.842E+00	8.058E-01	0.213
		925.00		3.041E-01	1.791E+00	3.003E+00	2.628E-01	0.101
		926.50		-1.676E-01	2.712E-01	4.149E-01	1.051E-01	-0.404
		946.00	*	-8.536E-02	4.217E-01	6.794E-01	1.279E-01	-0.126
		949.00		2.917E-01	6.391E-01	1.099E+00	9.615E-02	0.265
		980.50		-3.707E-01	1.073E+00	1.698E+00	1.482E-01	-0.218
		1394.10		1.043E+00	1.531E+00	2.562E+00	1.667E+00	0.407
PA-234M		766.42		2.282E+01	2.035E+01	3.074E+01	1.561E+01	0.742
		1001.03	*	8.704E+00	7.447E+00	1.336E+01	1.341E+00	0.652
U-235	+	89.95		3.263E+00	1.421E+00	1.766E+00	5.515E-01	1.848
	+	93.35		4.832E+00	1.620E+00	1.383E+00	3.941E-01	3.493
		105.00		1.702E+00	1.151E+00	1.825E+00	5.563E-01	0.933
		143.76	*	4.231E-02	2.301E-01	3.726E-01	6.830E-02	0.114
		163.35		7.627E-01	5.412E-01	9.082E-01	1.731E-01	0.840
	+	185.71		1.912E-01	8.730E-02	1.086E-01	9.299E-03	1.760
		205.31		4.961E-01	6.226E-01	9.323E-01	1.785E-01	0.532
NP-236		94.67		2.859E-01	1.270E-01	2.061E-01	2.077E-02	1.387
		98.44		3.299E-02	6.325E-02	1.077E-01	1.107E-02	0.306
		111.00		-8.802E-03	1.380E-01	2.286E-01	2.514E-02	-0.039
		160.31	*	-8.065E-02	8.768E-02	1.359E-01	1.201E-02	-0.593

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.201E-01	1.472E-01	2.529E-01	2.614E-02	0.475
		117.00	*	8.595E-02	1.825E-01	3.085E-01	3.510E-02	0.279
	+	209.75		1.662E+00	1.057E+00	1.615E+00	1.423E-01	1.029
		228.18		-5.211E-02	2.663E-01	4.208E-01	3.770E-02	-0.124
		277.60		2.989E-01	2.044E-01	3.691E-01	3.388E-02	0.810
		334.30		-1.037E+00	1.724E+00	2.415E+00	2.182E-01	-0.430
AM-241		59.54	*	5.756E-02	7.428E-02	1.169E-01	1.241E-02	0.492
CM-243		99.55		1.236E-01	1.515E-01	2.602E-01	2.690E-02	0.475
		103.76	*	-8.236E-02	9.440E-02	1.508E-01	1.594E-02	-0.546
		117.00		8.844E-02	1.878E-01	3.175E-01	3.611E-02	0.279
	+	209.75		1.639E+00	1.042E+00	1.593E+00	1.403E-01	1.029
		228.18		-5.267E-02	2.692E-01	4.252E-01	3.810E-02	-0.124
		277.60		3.014E-01	2.061E-01	3.722E-01	3.416E-02	0.810
AM-246		798.80		-4.312E-02	2.063E-01	2.904E-01	2.549E-02	-0.148
		1036.00		-3.076E-02	4.583E-01	7.442E-01	6.429E-02	-0.041
		1062.04		1.477E-01	3.532E-01	5.996E-01	5.143E-02	0.246
		1078.86	*	2.155E-01	2.138E-01	3.821E-01	3.259E-02	0.564
CM-247		278.00		1.230E+00	8.599E-01	1.550E+00	1.423E-01	0.794
		287.40		1.363E+00	1.357E+00	2.416E+00	2.219E-01	0.564
		402.60	*	4.365E-02	4.543E-02	7.993E-02	6.790E-03	0.546
CF-249		252.85		6.190E-01	9.553E-01	1.581E+00	1.439E-01	0.392
		333.44		-2.269E-01	2.735E-01	3.070E-01	2.776E-02	-0.739
		387.95	*	9.737E-03	4.705E-02	7.933E-02	6.721E-03	0.123
CF-251		176.60	*	8.171E-03	1.361E-01	2.215E-01	1.874E-02	0.037
		227.00		5.655E-02	4.506E-01	7.254E-01	6.492E-02	0.078
		285.00		-8.760E-01	1.934E+00	3.188E+00	2.928E-01	-0.275

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978003       *
* Acquisition date : 14-FEB-2010 11:18:00 Detector SN#    :                 *
* Detector ID       : GAM17               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:10.11     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978003           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.2422E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.547E+01	3.886E+00	6.402E-01	0.000E+00
CD-109	3.666E+00	1.001E+00	1.055E+00	0.000E+00
SN-126	3.588E-01	9.799E-02	1.031E-01	0.000E+00
TL-208	5.665E-01	1.156E-01	7.281E-02	0.000E+00
BI-210	1.667E+00	9.422E-01	9.236E-01	0.000E+00
PB-210	1.667E+00	9.422E-01	9.236E-01	0.000E+00
PO-210	1.667E+00	9.400E-01	9.236E-01	0.000E+00
BI-211	4.368E+00	6.739E-01	4.193E-01	0.000E+00
PB-212	1.801E+00	2.182E-01	9.828E-02	0.000E+00
PO-212	1.801E+00	2.182E-01	9.828E-02	0.000E+00
BI-214	1.407E+00	2.658E-01	1.414E-01	0.000E+00
PB-214	1.520E+00	2.470E-01	1.462E-01	0.000E+00
PO-214	1.520E+00	2.470E-01	1.462E-01	0.000E+00
PO-216	1.801E+00	2.182E-01	9.828E-02	0.000E+00
PO-218	1.520E+00	2.470E-01	1.462E-01	0.000E+00
RA-224	5.303E+00	1.679E+00	1.119E+00	0.000E+00
RA-226	1.407E+00	2.658E-01	1.414E-01	0.000E+00
AC-228	2.092E+00	4.164E-01	2.670E-01	0.000E+00
RA-228	2.092E+00	4.164E-01	2.670E-01	0.000E+00
TH-228	1.833E+00	2.222E-01	1.001E-01	0.000E+00
TH-230	1.407E+00	2.658E-01	1.414E-01	0.000E+00
TH-232	2.092E+00	4.164E-01	2.670E-01	0.000E+00
TH-234	3.090E+00	1.124E+00	1.177E+00	0.000E+00
U-234	1.407E+00	2.658E-01	1.414E-01	0.000E+00
NP-237	1.054E+00	3.580E-01	3.018E-01	0.000E+00
U-238	3.090E+00	1.124E+00	1.177E+00	0.000E+00
AM-243	4.168E-01	6.912E-02	6.691E-02	0.000E+00
ANH-511	1.353E-01	9.834E-02	5.626E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	-6.973E-02	4.202E-01	7.038E-01	0.000E+00	NOT IDENT.
NA-22	1.415E-02	6.182E-02	1.053E-01	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.440E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.053E-02	3.884E-02	6.017E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.011E-02	6.872E-02	0.000E+00	FAIL ABUN
SC-46	-9.102E-03	5.252E-02	8.760E-02	0.000E+00	FAIL ABUN
V-48	2.203E-02	1.131E-01	1.940E-01	0.000E+00	NOT IDENT.
CR-51	-3.886E-02	4.504E-01	7.848E-01	0.000E+00	NOT IDENT.
MN-52	-3.777E-01	4.192E-01	6.015E-01	0.000E+00	NOT IDENT.
MN-54	2.415E-02	5.467E-02	9.667E-02	0.000E+00	NOT IDENT.
CO-56	-2.087E-03	5.075E-02	8.623E-02	0.000E+00	NOT IDENT.
CO-57	2.262E-02	2.424E-02	4.384E-02	0.000E+00	NOT IDENT.
CO-58	-5.059E-02	5.237E-02	8.069E-02	0.000E+00	NOT IDENT.
FE-59	8.836E-02	1.410E-01	2.488E-01	0.000E+00	NOT IDENT.
CO-60	1.640E-02	5.573E-02	9.846E-02	0.000E+00	NOT IDENT.
ZN-65	-5.991E-02	1.373E-01	1.830E-01	0.000E+00	NOT IDENT.
GE-68	1.409E+00	1.814E+00	3.255E+00	0.000E+00	NOT IDENT.
AS-73	-2.476E-02	2.630E-01	4.707E-01	0.000E+00	NOT IDENT.
AS-74	5.693E-02	1.331E-01	2.298E-01	0.000E+00	NOT IDENT.
SE-75	-5.898E-02	5.830E-02	7.730E-02	0.000E+00	NOT IDENT.
BR-77	2.626E+01	2.957E+01	5.334E+01	0.000E+00	FAIL ABUN
SR-82	-2.061E-02	4.820E-01	8.253E-01	0.000E+00	NOT IDENT.
RB-83	8.809E-02	8.798E-02	1.598E-01	0.000E+00	NOT IDENT.
RB-84	-2.547E-03	1.064E-01	1.805E-01	0.000E+00	NOT IDENT.
KR-85	1.244E+01	9.496E+00	1.590E+01	0.000E+00	NOT IDENT.
SR-85	6.573E-02	5.017E-02	8.400E-02	0.000E+00	NOT IDENT.
RB-86	1.625E-01	1.310E+00	2.213E+00	0.000E+00	NOT IDENT.
Y-88	1.121E-02	4.477E-02	7.832E-02	0.000E+00	NOT IDENT.
ZR-88	6.505E-03	3.655E-02	6.378E-02	0.000E+00	NOT IDENT.
Y-91	-1.833E+00	3.095E+01	5.080E+01	0.000E+00	NOT IDENT.
NB-94	5.414E-03	4.585E-02	8.023E-02	0.000E+00	NOT IDENT.
NB-95	5.042E-02	6.201E-02	1.129E-01	0.000E+00	NOT IDENT.
NB-95M	-7.180E-02	1.561E-01	2.230E-01	0.000E+00	NOT IDENT.
ZR-95	2.664E-02	1.025E-01	1.804E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.267E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.008E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-6.090E+00	3.239E+01	5.502E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.118E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-6.743E-03	3.766E-02	6.215E-02	0.000E+00	NOT IDENT.
RH-102	-3.391E-02	3.717E-02	5.834E-02	0.000E+00	NOT IDENT.
RU-103	-6.819E-03	5.230E-02	8.748E-02	0.000E+00	FAIL ABUN
RH-106	-2.142E-01	4.122E-01	6.473E-01	0.000E+00	FAIL ABUN
RU-106	-2.142E-01	4.117E-01	6.473E-01	0.000E+00	FAIL ABUN
AG-108M	-2.085E-02	3.932E-02	6.448E-02	0.000E+00	NOT IDENT.
AG-110M	4.080E-03	4.919E-02	8.177E-02	0.000E+00	NOT IDENT.
IN-111	1.848E-01	2.462E+00	3.661E+00	0.000E+00	NOT IDENT.
IN-113M	-5.974E-02	5.430E-02	8.605E-02	0.000E+00	NOT IDENT.
SN-113	-5.974E-02	5.430E-02	8.605E-02	0.000E+00	NOT IDENT.
IN-114M	1.704E-01	2.035E-01	3.259E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.303E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	3.892E-02	6.654E-02	1.172E-01	0.000E+00	NOT IDENT.
SB-122	3.088E+00	5.497E+00	9.621E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.242E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	8.834E-03	3.028E-02	5.262E-02	0.000E+00	NOT IDENT.
I-124	7.211E-01	1.431E+00	2.212E+00	0.000E+00	NOT IDENT.
SB-124	5.523E-05	1.010E-01	1.688E-01	0.000E+00	FAIL ABUN
SB-125	-5.328E-02	1.104E-01	1.822E-01	0.000E+00	FAIL ABUN
TE-125M	-7.029E-01	9.294E+00	1.625E+01	0.000E+00	NOT IDENT.
I-126	-1.287E-01	2.879E-01	4.542E-01	0.000E+00	NOT IDENT.
SB-126	-1.353E-01	2.547E-01	3.584E-01	0.000E+00	FAIL ABUN
SB-127	-4.851E+00	3.147E+00	4.236E+00	0.000E+00	NOT IDENT.
XE-127	-3.624E-02	5.343E-02	8.653E-02	0.000E+00	NOT IDENT.
I-131	6.632E-02	1.652E-01	2.940E-01	0.000E+00	NOT IDENT.
TE-132	-2.756E-01	1.466E+00	2.422E+00	0.000E+00	NOT IDENT.
BA-133	3.855E-03	5.818E-02	8.951E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.457E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.086E-01	7.618E-02	1.282E-01	0.000E+00	FAIL ABUN
CS-135	1.912E-01	1.955E-01	3.088E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.054E+19	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.139E-02	1.804E-01	3.104E-01	0.000E+00	FAIL ABUN
BA-137M	-3.696E-02	4.939E-02	7.500E-02	0.000E+00	NOT IDENT.
CS-137	-3.907E-02	5.221E-02	7.928E-02	0.000E+00	NOT IDENT.
CE-139	-3.165E-02	3.344E-02	5.432E-02	0.000E+00	NOT IDENT.
BA-140	2.234E-02	4.000E-01	6.751E-01	0.000E+00	NOT IDENT.
LA-140	4.087E-02	1.059E-01	1.724E-01	0.000E+00	FAIL ABUN
CE-141	-4.940E-02	6.973E-02	1.159E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.123E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-2.443E-01	2.097E-01	3.363E-01	0.000E+00	NOT IDENT.
PM-144	-2.749E-03	4.497E-02	7.768E-02	0.000E+00	NOT IDENT.
PR-144	-1.866E-01	3.052E+00	5.272E+00	0.000E+00	NOT IDENT.
PM-146	-2.131E-03	5.066E-02	8.604E-02	0.000E+00	NOT IDENT.
ND-147	-1.726E-02	8.478E-01	1.423E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.374E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.002E-01	1.137E-01	1.788E-01	0.000E+00	FAIL ABUN
GD-153	-1.109E-01	8.166E-02	1.187E-01	0.000E+00	NOT IDENT.
EU-154	2.280E-02	1.755E-01	2.954E-01	0.000E+00	NOT IDENT.
EU-155	1.812E-01	1.050E-01	1.941E-01	0.000E+00	FAIL ABUN
TB-160	6.707E-02	1.925E-01	3.385E-01	0.000E+00	FAIL ABUN
HO-166M	-2.510E-02	8.251E-02	1.394E-01	0.000E+00	FAIL ABUN
TM-171	1.205E+01	1.744E+01	2.904E+01	0.000E+00	NOT IDENT.
LU-176	8.799E-03	2.772E-02	4.956E-02	0.000E+00	FAIL ABUN
LU-177	3.147E+00	1.961E+00	3.169E+00	0.000E+00	FAIL ABUN
LU-177M	-3.149E-01	2.098E-01	3.166E-01	0.000E+00	NOT IDENT.
HF-181	4.257E-02	5.453E-02	9.790E-02	0.000E+00	NOT IDENT.
W-181	5.734E-02	2.158E-01	3.545E-01	0.000E+00	NOT IDENT.
TA-182	2.594E-01	3.244E-01	5.697E-01	0.000E+00	FAIL ABUN
RE-183	4.216E-02	1.229E-01	2.136E-01	0.000E+00	FAIL ABUN
RE-184	1.669E-01	2.524E-01	4.361E-01	0.000E+00	NOT IDENT.
OS-185	3.552E-02	5.649E-02	9.885E-02	0.000E+00	NOT IDENT.
RE-188	9.773E-02	1.882E-01	3.305E-01	0.000E+00	NOT IDENT.
W-188	-1.065E+01	9.322E+00	1.309E+01	0.000E+00	FAIL ABUN
IR-192	2.378E-02	3.984E-02	7.215E-02	0.000E+00	FAIL ABUN
AU-195	1.178E-01	2.057E-01	3.707E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.182E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-8.198E+00	1.415E+01	2.343E+01	0.000E+00	NOT IDENT.
TL-202	4.776E-02	9.933E-02	1.755E-01	0.000E+00	NOT IDENT.
HG-203	1.288E-03	4.538E-02	8.039E-02	0.000E+00	NOT IDENT.
BI-207	3.373E-02	7.762E-02	1.351E-01	0.000E+00	FAIL ABUN
TL-207	-1.419E-01	8.189E-01	1.244E+00	0.000E+00	FAIL ABUN
PO-209	-2.075E+00	9.117E+00	1.508E+01	0.000E+00	NOT IDENT.
PB-211	-4.501E-01	1.172E+00	1.907E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.807E-01	8.910E-01	0.000E+00	FAIL ABUN
PO-215	-1.419E-01	8.189E-01	1.244E+00	0.000E+00	FAIL ABUN
RN-219	3.138E-01	4.989E-01	8.905E-01	0.000E+00	FAIL ABUN
RN-220	6.007E-01	3.307E+01	5.554E+01	0.000E+00	NOT IDENT.
RA-223	-1.419E-01	8.189E-01	1.244E+00	0.000E+00	FAIL ABUN
AC-227	-2.438E-01	4.269E-01	6.774E-01	0.000E+00	FAIL ABUN
TH-227	-2.438E-01	4.275E-01	6.774E-01	0.000E+00	FAIL ABUN
TH-229	-2.578E-01	5.313E-01	8.733E-01	0.000E+00	FAIL ABUN
PA-231	-6.970E-01	1.564E+00	2.684E+00	0.000E+00	NOT IDENT.
TH-231	-1.419E-01	8.189E-01	1.244E+00	0.000E+00	FAIL ABUN
U-231	7.139E-01	1.576E+00	2.560E+00	0.000E+00	FAIL ABUN
PA-233	-3.972E-02	7.310E-02	1.240E-01	0.000E+00	FAIL ABUN
PA-234	-8.536E-02	4.133E-01	6.827E-01	0.000E+00	FAIL ABUN
PA-234M	8.704E+00	7.298E+00	1.342E+01	0.000E+00	NOT IDENT.
U-235	4.231E-02	2.255E-01	3.841E-01	0.000E+00	FAIL ABUN
NP-236	-8.065E-02	8.593E-02	1.399E-01	0.000E+00	NOT IDENT.
NP-239	8.595E-02	1.788E-01	3.189E-01	0.000E+00	FAIL ABUN
AM-241	5.756E-02	7.279E-02	1.219E-01	0.000E+00	NOT IDENT.
CM-243	-8.236E-02	9.251E-02	1.561E-01	0.000E+00	FAIL ABUN
AM-246	2.155E-01	2.095E-01	3.833E-01	0.000E+00	NOT IDENT.
CM-247	4.365E-02	4.452E-02	8.127E-02	0.000E+00	NOT IDENT.
CF-249	9.737E-03	4.611E-02	8.070E-02	0.000E+00	NOT IDENT.
CF-251	8.171E-03	1.334E-01	2.277E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:19:38.76

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978003.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:18:00
Sample ID         : G245978003           Sample quantity  : 1.24220E+02 GRAM
Detector name     : GAM17                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:10.11  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	975	10.67*	7.782E-01	3.547E+01	3.547E+01	11.18
CD-109	88.03	293	3.72*	6.676E+00	3.568E+00	3.666E+00	27.87
SN-126	64.28	263	9.60	6.776E+00	1.223E+00	1.223E+00	35.84
	86.94	293	8.90	6.676E+00	1.491E+00	1.491E+00	49.12
	87.57	293	37.00*	6.676E+00	3.588E-01	3.588E-01	27.87
TL-208	277.35	------	6.80	3.568E+00	------ Line Not Found		------
	510.84	92	21.60	2.058E+00	6.263E-01	6.263E-01	74.65
	583.14	286	84.20*	1.812E+00	5.665E-01	5.665E-01	20.82
	860.37	50	12.46	1.247E+00	9.755E-01	9.755E-01	59.50
BI-210	46.50	140	4.05*	6.296E+00	1.665E+00	1.667E+00	57.67
PB-210	46.50	140	4.05*	6.296E+00	1.665E+00	1.667E+00	57.67
PO-210	46.50	140	4.05*	6.296E+00	1.665E+00	1.667E+00	57.54
BI-211	72.87	------	1.27	6.803E+00	------ Line Not Found		------
	351.07	544	12.94*	2.908E+00	4.368E+00	4.368E+00	15.74
PB-212	74.81	619	10.70	6.795E+00	2.571E+00	2.571E+00	19.33
	77.11	994	18.00	6.782E+00	2.461E+00	2.461E+00	13.50
	87.30	293	8.00	6.676E+00	1.659E+00	1.659E+00	29.61
	238.63	1069	44.60*	4.023E+00	1.801E+00	1.801E+00	12.37
	300.09	88	3.41	3.344E+00	2.326E+00	2.326E+00	45.74
PO-212	74.81	619	10.70	6.795E+00	2.571E+00	2.571E+00	19.33
	77.11	994	18.00	6.782E+00	2.461E+00	2.461E+00	13.50
	87.30	293	8.00	6.676E+00	1.659E+00	1.659E+00	29.61
	115.19	------	0.60	6.177E+00	------ Line Not Found		------
	238.63	1069	44.60*	4.023E+00	1.801E+00	1.801E+00	12.37
	300.09	88	3.41	3.344E+00	2.326E+00	2.326E+00	45.74
BI-214	609.31	374	46.30*	1.737E+00	1.407E+00	1.407E+00	19.28
	1120.29	76	15.10	9.766E-01	1.559E+00	1.559E+00	54.28
	1764.49	83	15.80	6.717E-01	2.360E+00	2.360E+00	24.18
PB-214	74.81	619	6.21	6.795E+00	4.430E+00	4.430E+00	18.47
	77.11	994	10.50	6.782E+00	4.219E+00	4.219E+00	15.50
	87.30	293	4.67	6.676E+00	2.842E+00	2.843E+00	28.92
	241.98	276	7.49	3.986E+00	2.797E+00	2.797E+00	32.79

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	295.21	287	19.20	3.387E+00	1.332E+00	1.332E+00	22.40
	351.92	544	37.20*	2.908E+00	1.519E+00	1.520E+00	16.58
PO-214	74.81	619	6.21	6.795E+00	4.430E+00	4.430E+00	18.47
	77.11	994	10.50	6.782E+00	4.219E+00	4.219E+00	15.50
	87.30	293	4.67	6.676E+00	2.842E+00	2.843E+00	28.92
	241.98	276	7.49	3.986E+00	2.797E+00	2.797E+00	32.79
	295.21	287	19.20	3.387E+00	1.332E+00	1.332E+00	22.40
	351.92	544	37.20*	2.908E+00	1.519E+00	1.520E+00	16.58
PO-216	74.81	619	10.70	6.795E+00	2.571E+00	2.571E+00	19.33
	77.11	994	18.00	6.782E+00	2.461E+00	2.461E+00	13.50
	87.30	293	8.00	6.676E+00	1.659E+00	1.659E+00	29.61
	238.63	1069	44.60*	4.023E+00	1.801E+00	1.801E+00	12.37
	300.09	88	3.41	3.344E+00	2.326E+00	2.326E+00	45.74
PO-218	74.81	619	6.21	6.795E+00	4.430E+00	4.430E+00	18.47
	77.11	994	10.50	6.782E+00	4.219E+00	4.219E+00	15.50
	87.30	293	4.67	6.676E+00	2.842E+00	2.843E+00	28.92
	241.98	276	7.49	3.986E+00	2.797E+00	2.797E+00	32.79
	295.21	287	19.20	3.387E+00	1.332E+00	1.332E+00	22.40
	351.92	544	37.20*	2.908E+00	1.519E+00	1.520E+00	16.58
RA-224	240.98	276	3.95*	3.986E+00	5.303E+00	5.303E+00	32.31
RA-226	609.31	374	46.30*	1.737E+00	1.407E+00	1.407E+00	19.28
	1120.29	76	15.10	9.766E-01	1.559E+00	1.559E+00	54.28
	1764.49	83	15.80	6.717E-01	2.360E+00	2.360E+00	24.18
AC-228	338.32	156	11.40	3.011E+00	1.374E+00	1.374E+00	54.88
	911.07	227	27.70*	1.182E+00	2.092E+00	2.092E+00	20.32
	969.11	120	16.60	1.116E+00	1.954E+00	1.954E+00	33.89
RA-228	338.32	156	11.40	3.011E+00	1.374E+00	1.374E+00	54.88
	911.07	227	27.70*	1.182E+00	2.092E+00	2.092E+00	20.32
	969.11	120	16.60	1.116E+00	1.954E+00	1.954E+00	33.89
TH-228	74.81	619	10.70	6.795E+00	2.571E+00	2.617E+00	16.96
	77.11	994	18.00	6.782E+00	2.461E+00	2.506E+00	13.50
	87.30	293	8.00	6.676E+00	1.659E+00	1.689E+00	27.87
	238.63	1069	44.60*	4.023E+00	1.801E+00	1.833E+00	12.37
	300.09	88	3.41	3.344E+00	2.326E+00	2.368E+00	74.14
TH-230	609.31	374	46.30*	1.737E+00	1.407E+00	1.407E+00	19.28
	1120.29	76	15.10	9.766E-01	1.559E+00	1.559E+00	54.28
	1764.49	83	15.80	6.717E-01	2.360E+00	2.360E+00	24.18
TH-232	338.32	156	11.40	3.011E+00	1.374E+00	1.374E+00	37.20
	911.07	227	27.70*	1.182E+00	2.092E+00	2.092E+00	20.32
	969.11	120	16.60	1.116E+00	1.954E+00	1.954E+00	33.89
TH-234	63.29	263	3.80*	6.776E+00	3.090E+00	3.090E+00	37.11
	92.38	474	5.41	6.594E+00	4.019E+00	4.019E+00	25.79
U-234	609.31	374	46.30*	1.737E+00	1.407E+00	1.407E+00	19.28
	1120.29	76	15.10	9.766E-01	1.559E+00	1.559E+00	54.28
	1764.49	83	15.80	6.717E-01	2.360E+00	2.360E+00	24.18
NP-237	86.50	293	12.60*	6.676E+00	1.054E+00	1.054E+00	34.68
	95.87	------	2.60	6.543E+00	------	Line Not Found	------
U-238	63.29	263	3.80*	6.776E+00	3.090E+00	3.090E+00	37.11
	92.38	474	5.41	6.594E+00	4.019E+00	4.019E+00	20.31

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
AM-243	74.67	619	66.00*	6.795E+00	4.168E-01	4.168E-01	16.92
	86.72	293	0.34	6.676E+00	3.951E+01	3.951E+01	27.87
	117.66	------	0.55	6.127E+00	------	Line Not Found	------
	142.18	------	0.13	5.624E+00	------	Line Not Found	------
ANH-511	511.00	92	100.00*	2.058E+00	1.353E-01	1.353E-01	74.18

Flag: "*" = Keyline

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.547E+01	3.547E+01	0.396E+01	11.18	
CD-109	464.00D	1.03	3.568E+00	3.666E+00	1.022E+00	27.87	
SN-126	1.00E+05Y	1.00	3.588E-01	3.588E-01	0.100E+00	27.87	
TL-208	1.41E+10Y	1.00	5.665E-01	5.665E-01	1.179E-01	20.82	
BI-210	22.26Y	1.00	1.665E+00	1.667E+00	0.961E+00	57.67	
PB-210	22.26Y	1.00	1.665E+00	1.667E+00	0.961E+00	57.67	
PO-210	22.26Y	1.00	1.665E+00	1.667E+00	0.959E+00	57.54	
BI-211	7.04E+08Y	1.00	4.368E+00	4.368E+00	0.688E+00	15.74	
PB-212	1.41E+10Y	1.00	1.801E+00	1.801E+00	0.223E+00	12.37	
PO-212	1.41E+10Y	1.00	1.801E+00	1.801E+00	0.223E+00	12.37	
BI-214	1600.00Y	1.00	1.407E+00	1.407E+00	0.271E+00	19.28	
PB-214	1600.00Y	1.00	1.519E+00	1.520E+00	0.252E+00	16.58	
PO-214	1600.00Y	1.00	1.519E+00	1.520E+00	0.252E+00	16.58	
PO-216	1.41E+10Y	1.00	1.801E+00	1.801E+00	0.223E+00	12.37	
PO-218	1600.00Y	1.00	1.519E+00	1.520E+00	0.252E+00	16.58	
RA-224	1.41E+10Y	1.00	5.303E+00	5.303E+00	1.713E+00	32.31	
RA-226	1600.00Y	1.00	1.407E+00	1.407E+00	0.271E+00	19.28	
AC-228	1.41E+10Y	1.00	2.092E+00	2.092E+00	0.425E+00	20.32	
RA-228	1.41E+10Y	1.00	2.092E+00	2.092E+00	0.425E+00	20.32	
TH-228	1.91Y	1.02	1.801E+00	1.833E+00	0.227E+00	12.37	
TH-230	4.47E+09Y	1.00	1.407E+00	1.407E+00	0.271E+00	19.28	
TH-232	1.41E+10Y	1.00	2.092E+00	2.092E+00	0.425E+00	20.32	
TH-234	4.47E+09Y	1.00	3.090E+00	3.090E+00	1.147E+00	37.11	
U-234	4.47E+09Y	1.00	1.407E+00	1.407E+00	0.271E+00	19.28	
NP-237	2.14E+06Y	1.00	1.054E+00	1.054E+00	0.365E+00	34.68	
U-238	4.47E+09Y	1.00	3.090E+00	3.090E+00	1.147E+00	37.11	
AM-243	7380.00Y	1.00	4.168E-01	4.168E-01	0.705E-01	16.92	
ANH-511	1.00E+09Y	1.00	1.353E-01	1.353E-01	1.003E-01	74.18	
		Total Activity :	8.608E+01	8.622E+01			

Grand Total Activity : 8.608E+01 8.622E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	89.95	194	301	0.85	179.55	163	28	2.69E-02	30.4	6.64E+00	T
0	185.88	164	309	1.29	371.49	367	10	2.28E-02	44.9	4.81E+00	T
0	209.10	79	197	0.70	417.94	415	7	1.10E-02	63.0	4.44E+00	T
0	270.45	108	177	0.96	540.69	535	11	1.50E-02	51.5	3.64E+00	T
0	327.42	70	147	0.94	654.68	651	10	9.67E-03	69.1	3.10E+00	T
0	462.97	79	67	1.01	925.93	921	10	1.10E-02	46.7	2.26E+00	T
0	727.28	67	88	1.79	1454.83	1447	16	9.31E-03	67.2	1.46E+00	T
0	795.04	37	41	1.34	1590.44	1586	9	5.07E-03	71.0	1.34E+00	T
3	964.04	53	30	2.21	1928.66	1922	20	7.31E-03	54.8	1.12E+00	T
0	1590.45	19	19	4.92	3182.49	3173	16	2.61E-03	****	7.27E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:19:44.07

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978003.CNF;1  *
* Acquisition date : 14-FEB-2010 11:18:00  Detector SN#    :                *
* Detector ID      : GAM17                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:10.11         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245978003            Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.24220E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 6-JAN-2010 11:41:36.18MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.547E+01	3.965E+00	6.409E-01	5.690E-02	55.344
CD-109	3.666E+00	1.022E+00	1.016E+00	9.923E-02	3.606
SN-126	3.588E-01	9.999E-02	9.934E-02	9.694E-03	3.611
TL-208	5.665E-01	1.179E-01	7.197E-02	6.808E-03	7.871
BI-210	1.667E+00	9.615E-01	8.828E-01	9.577E-02	1.888
PB-210	1.667E+00	9.615E-01	8.828E-01	9.577E-02	1.888
PO-210	1.667E+00	9.592E-01	8.828E-01	8.919E-02	1.888
BI-211	4.368E+00	6.877E-01	4.116E-01	3.841E-02	10.612
PB-212	1.801E+00	2.227E-01	9.598E-02	9.676E-03	18.762
PO-212	1.801E+00	2.227E-01	9.598E-02	9.676E-03	18.762
BI-214	1.407E+00	2.713E-01	1.398E-01	1.422E-02	10.064
PB-214	1.520E+00	2.520E-01	1.435E-01	1.534E-02	10.586
PO-214	1.520E+00	2.520E-01	1.435E-01	1.534E-02	10.586
PO-216	1.801E+00	2.227E-01	9.598E-02	9.676E-03	18.762
PO-218	1.520E+00	2.520E-01	1.435E-01	1.534E-02	10.586
RA-224	5.303E+00	1.713E+00	1.093E+00	9.886E-02	4.851
RA-226	1.407E+00	2.713E-01	1.398E-01	1.422E-02	10.064
AC-228	2.092E+00	4.249E-01	2.656E-01	3.013E-02	7.875

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	2.092E+00	4.249E-01	2.656E-01	3.013E-02	7.875
TH-228	1.833E+00	2.267E-01	9.771E-02	9.851E-03	18.762
TH-230	1.407E+00	2.713E-01	1.398E-01	1.422E-02	10.064
TH-232	2.092E+00	4.249E-01	2.656E-01	3.013E-02	7.875
TH-234	3.090E+00	1.147E+00	1.130E+00	2.109E-01	2.735
U-234	1.407E+00	2.713E-01	1.398E-01	1.422E-02	10.064
NP-237	1.054E+00	3.653E-01	2.908E-01	6.637E-02	3.623
U-238	3.090E+00	1.147E+00	1.130E+00	2.109E-01	2.735
AM-243	4.168E-01	7.053E-02	6.435E-02	6.283E-03	6.477
ANH-511	1.353E-01	1.003E-01	5.551E-02	4.957E-03	2.437

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.973E-02		4.288E-01	6.938E-01	6.602E-02	-0.100
NA-22	1.415E-02		6.309E-02	1.052E-01	8.863E-03	0.134
NA-24	1.860E+01		1.245E+01	Half-Life too short		
AL-26	-1.053E-02		3.963E-02	6.042E-02	5.064E-03	-0.174
TI-44	4.542E-01	+	6.133E-02	6.613E-02	6.444E-03	6.869
SC-46	-9.102E-03		5.359E-02	8.709E-02	7.624E-03	-0.105
V-48	2.203E-02		1.154E-01	1.932E-01	1.685E-02	0.114
CR-51	-3.886E-02		4.596E-01	7.694E-01	7.348E-02	-0.051
MN-52	-3.777E-01		4.277E-01	6.020E-01	5.190E-02	-0.627
MN-54	2.415E-02		5.578E-02	9.603E-02	8.443E-03	0.251
CO-56	-2.087E-03		5.179E-02	8.568E-02	7.532E-03	-0.024
CO-57	2.262E-02		2.473E-02	4.244E-02	4.972E-03	0.533
CO-58	-5.059E-02		5.344E-02	8.012E-02	7.056E-03	-0.631
FE-59	8.836E-02		1.439E-01	2.481E-01	2.277E-02	0.356
CO-60	1.640E-02		5.687E-02	9.844E-02	8.390E-03	0.167
ZN-65	-5.991E-02		1.401E-01	1.825E-01	1.537E-02	-0.328
GE-68	1.409E+00		1.851E+00	3.245E+00	2.769E-01	0.434
AS-73	-2.476E-02		2.684E-01	4.507E-01	4.510E-02	-0.055
AS-74	5.693E-02		1.358E-01	2.272E-01	2.001E-02	0.251
SE-75	-5.898E-02		5.949E-02	7.559E-02	6.945E-03	-0.780
BR-77	2.626E+01		3.017E+01	5.264E+01	4.705E+00	0.499
SR-82	-2.061E-02		4.918E-01	8.190E-01	7.167E-02	-0.025
RB-83	8.809E-02		8.977E-02	1.577E-01	1.410E-02	0.559
RB-84	-2.547E-03		1.086E-01	1.794E-01	1.573E-02	-0.014
KR-85	1.244E+01		9.690E+00	1.569E+01	1.402E+00	0.793
SR-85	6.573E-02		5.120E-02	8.289E-02	7.405E-03	0.793
RB-86	1.625E-01		1.337E+00	2.206E+00	1.883E-01	0.074
Y-88	1.121E-02		4.568E-02	7.866E-02	6.560E-03	0.143
ZR-88	6.505E-03		3.730E-02	6.271E-02	5.283E-03	0.104
Y-91	-1.833E+00		3.158E+01	5.072E+01	4.186E+00	-0.036
NB-94	5.414E-03		4.678E-02	7.951E-02	6.820E-03	0.068
NB-95	5.042E-02		6.327E-02	1.120E-01	9.786E-03	0.450
NB-95M	-7.180E-02		1.593E-01	2.178E-01	2.223E-02	-0.330

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	2.664E-02		1.046E-01	1.789E-01	1.714E-02	0.149
NB-97	-1.642E-01		1.156E+00	Half-Life too short		
ZR-97	2.495E+01		2.045E+01	Half-Life too short		
MO-99	-6.090E+00		3.305E+01	5.457E+01	8.305E+00	-0.112
TC-99M	-6.798E+13		5.703E+13	Half-Life too short		
RH-101	-6.743E-03		3.842E-02	6.054E-02	5.263E-03	-0.111
RH-102	-3.391E-02		3.793E-02	5.751E-02	5.094E-03	-0.590
RU-103	-6.819E-03		5.337E-02	8.628E-02	1.237E-02	-0.079
RH-106	-2.142E-01		4.207E-01	6.404E-01	8.582E-02	-0.334
RU-106	-2.142E-01		4.201E-01	6.404E-01	5.564E-02	-0.334
AG-108M	-2.085E-02		4.012E-02	6.348E-02	5.729E-03	-0.328
AG-110M	4.080E-03		5.020E-02	8.096E-02	7.056E-03	0.050
IN-111	1.848E-01		2.513E+00	3.576E+00	3.243E-01	0.052
IN-113M	-5.974E-02		5.541E-02	8.459E-02	7.350E-03	-0.706
SN-113	-5.974E-02		5.541E-02	8.459E-02	7.350E-03	-0.706
IN-114M	1.704E-01		2.077E-01	3.173E-01	2.733E-02	0.537
CD-115	-2.583E-05		1.685E-05	Half-Life too short		
SN-117M	3.892E-02		6.790E-02	1.138E-01	1.023E-02	0.342
SB-122	3.088E+00		5.609E+00	9.506E+00	8.465E-01	0.325
I-123	6.541E+01		1.144E+02	Half-Life too short		
TE-123M	8.834E-03		3.090E-02	5.111E-02	4.600E-03	0.173
I-124	7.211E-01		1.460E+00	2.187E+00	1.921E-01	0.330
SB-124	5.523E-05		1.031E-01	1.693E-01	1.506E-02	0.000
SB-125	-5.328E-02		1.127E-01	1.793E-01	1.581E-02	-0.297
TE-125M	-7.029E-01		9.483E+00	1.571E+01	1.932E+00	-0.045
I-126	-1.287E-01		2.938E-01	4.498E-01	3.798E-02	-0.286
SB-126	-1.353E-01		2.599E-01	3.553E-01	3.067E-02	-0.381
SB-127	-4.851E+00		3.211E+00	4.196E+00	5.114E-01	-1.156
XE-127	-3.624E-02		5.452E-02	8.432E-02	7.372E-03	-0.430
I-131	6.632E-02		1.686E-01	2.888E-01	2.673E-02	0.230
TE-132	-2.756E-01		1.495E+00	2.364E+00	3.890E-01	-0.117
BA-133	3.855E-03		5.937E-02	8.788E-02	1.174E-02	0.044
I-133	-2.707E-02		3.804E-02	Half-Life too short		
CS-134	1.086E-01	+	7.773E-02	1.272E-01	1.124E-02	0.853
CS-135	1.912E-01		1.994E-01	3.020E-01	3.151E-02	0.633
I-135	2.877E+12		5.375E+12	Half-Life too short		
CS-136	5.139E-02		1.841E-01	3.093E-01	2.778E-02	0.166
BA-137M	-3.696E-02		5.040E-02	7.426E-02	6.256E-03	-0.498
CS-137	-3.907E-02		5.328E-02	7.850E-02	6.626E-03	-0.498
CE-139	-3.165E-02		3.412E-02	5.280E-02	4.403E-03	-0.600
BA-140	2.234E-02		4.082E-01	6.665E-01	2.215E-01	0.034
LA-140	4.087E-02		1.080E-01	1.728E-01	1.492E-02	0.236
CE-141	-4.940E-02		7.115E-02	1.125E-01	1.147E-02	-0.439
CE-143	2.442E-03		4.655E-04	Half-Life too short		
CE-144	-2.443E-01		2.140E-01	3.259E-01	5.527E-02	-0.750
PM-144	-2.749E-03		4.589E-02	7.697E-02	6.590E-03	-0.036
PR-144	-1.866E-01		3.114E+00	5.224E+00	4.470E-01	-0.036
PM-146	-2.131E-03		5.169E-02	8.475E-02	9.199E-03	-0.025

Sample ID : G245978003 Acquisition date : 14-FEB-2010 11:18:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	-1.726E-02		8.651E-01	1.405E+00	2.127E-01	-0.012
PM-149	2.834E-05		1.211E-04	Half-Life too short		
EU-152	-1.002E-01		1.160E-01	1.755E-01	1.660E-02	-0.571
GD-153	-1.109E-01		8.332E-02	1.146E-01	1.171E-02	-0.968
EU-154	2.280E-02		1.791E-01	2.952E-01	3.293E-02	0.077
EU-155	1.812E-01		1.072E-01	1.876E-01	2.015E-02	0.966
TB-160	6.707E-02		1.965E-01	3.365E-01	2.950E-02	0.199
HO-166M	-2.510E-02		8.420E-02	1.382E-01	1.189E-02	-0.182
TM-171	1.205E+01		1.780E+01	2.789E+01	2.753E+00	0.432
LU-176	8.799E-03		2.829E-02	4.856E-02	4.449E-03	0.181
LU-177	3.147E+00	+	2.001E+00	3.089E+00	2.717E-01	1.019
LU-177M	-3.149E-01		2.141E-01	3.114E-01	2.669E-02	-1.011
HF-181	4.257E-02		5.564E-02	9.652E-02	8.569E-03	0.441
W-181	5.734E-02		2.203E-01	3.403E-01	3.370E-02	0.168
TA-182	2.594E-01		3.310E-01	5.689E-01	4.719E-02	0.456
RE-183	4.216E-02		1.254E-01	2.075E-01	1.797E-02	0.203
RE-184	1.669E-01		2.576E-01	4.262E-01	3.880E-02	0.392
OS-185	3.552E-02		5.764E-02	9.784E-02	8.354E-03	0.363
RE-188	9.773E-02		1.920E-01	3.209E-01	2.981E-02	0.305
W-188	-1.065E+01		9.512E+00	1.282E+01	1.177E+00	-0.831
IR-192	2.378E-02		4.065E-02	7.072E-02	6.470E-03	0.336
AU-195	1.178E-01		2.099E-01	3.578E-01	3.686E-02	0.329
TL-200	-8.896E-04		1.624E-03	Half-Life too short		
TL-201	-8.198E+00		1.444E+01	2.277E+01	1.901E+00	-0.360
TL-202	4.776E-02		1.014E-01	1.728E-01	1.506E-02	0.276
HG-203	1.288E-03		4.631E-02	7.867E-02	7.404E-03	0.016
BI-207	3.373E-02		7.921E-02	1.347E-01	1.155E-02	0.250
TL-207	-1.419E-01		8.356E-01	1.220E+00	2.189E-01	-0.116
PO-209	-2.075E+00		9.303E+00	1.499E+01	1.311E+00	-0.138
PB-211	-4.501E-01		1.196E+00	1.876E+00	1.175E+00	-0.240
BI-212	1.172E+00	+	7.967E-01	8.834E-01	8.864E-02	1.327
PO-215	-1.419E-01		8.356E-01	1.220E+00	2.189E-01	-0.116
RN-219	3.138E-01		5.091E-01	8.758E-01	1.309E-01	0.358
RN-220	6.007E-01		3.375E+01	5.486E+01	4.898E+00	0.011
RA-223	-1.419E-01		8.356E-01	1.220E+00	2.189E-01	-0.116
AC-227	-2.438E-01		4.356E-01	6.622E-01	1.035E-01	-0.368
TH-227	-2.438E-01		4.362E-01	6.622E-01	1.212E-01	-0.368
TH-229	-2.578E-01		5.421E-01	8.505E-01	7.355E-02	-0.303
PA-231	-6.970E-01		1.596E+00	2.627E+00	4.074E-01	-0.265
TH-231	-1.419E-01		8.356E-01	1.220E+00	2.189E-01	-0.116
U-231	7.139E-01		1.609E+00	2.471E+00	2.506E-01	0.289
PA-233	-3.972E-02		7.459E-02	1.216E-01	1.140E-02	-0.327
PA-234	-8.536E-02		4.217E-01	6.794E-01	1.279E-01	-0.126
PA-234M	8.704E+00		7.447E+00	1.336E+01	1.341E+00	0.652
U-235	4.231E-02		2.301E-01	3.726E-01	6.830E-02	0.114
NP-236	-8.065E-02		8.768E-02	1.359E-01	1.201E-02	-0.593
NP-239	8.595E-02		1.825E-01	3.085E-01	3.510E-02	0.279
AM-241	5.756E-02		7.428E-02	1.169E-01	1.241E-02	0.492

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-8.236E-02		9.440E-02	1.508E-01	1.594E-02	-0.546
AM-246	2.155E-01		2.138E-01	3.821E-01	3.259E-02	0.564
CM-247	4.365E-02		4.543E-02	7.993E-02	6.790E-03	0.546
CF-249	9.737E-03		4.705E-02	7.933E-02	6.721E-03	0.123
CF-251	8.171E-03		1.361E-01	2.215E-01	1.874E-02	0.037

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978003            *
* Acquisition date : 14-FEB-2010 11:18:00 Detector SN#     :                *
* Detector ID      : GAM17                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:10.11     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978003           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.2422E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  6-JAN-2010 11:41:36 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.547E+01	3.886E+00	3.203E-01	1.982E+00
CD-109	3.666E+00	1.001E+00	5.276E-01	5.108E-01
SN-126	3.588E-01	9.799E-02	5.157E-02	4.999E-02
TL-208	5.665E-01	1.156E-01	3.643E-02	5.897E-02
BI-210	1.667E+00	9.422E-01	4.621E-01	4.807E-01
PB-210	1.667E+00	9.422E-01	4.621E-01	4.807E-01
PO-210	1.667E+00	9.400E-01	4.621E-01	4.796E-01
BI-211	4.368E+00	6.739E-01	2.098E-01	3.438E-01
PB-212	1.801E+00	2.182E-01	4.917E-02	1.113E-01
PO-212	1.801E+00	2.182E-01	4.917E-02	1.113E-01
BI-214	1.407E+00	2.658E-01	7.073E-02	1.356E-01
PB-214	1.520E+00	2.470E-01	7.315E-02	1.260E-01
PO-214	1.520E+00	2.470E-01	7.315E-02	1.260E-01
PO-216	1.801E+00	2.182E-01	4.917E-02	1.113E-01
PO-218	1.520E+00	2.470E-01	7.315E-02	1.260E-01
RA-224	5.303E+00	1.679E+00	5.599E-01	8.567E-01
RA-226	1.407E+00	2.658E-01	7.073E-02	1.356E-01
AC-228	2.092E+00	4.164E-01	1.336E-01	2.125E-01
RA-228	2.092E+00	4.164E-01	1.336E-01	2.125E-01
TH-228	1.833E+00	2.222E-01	5.006E-02	1.133E-01
TH-230	1.407E+00	2.658E-01	7.072E-02	1.356E-01
TH-232	2.092E+00	4.164E-01	1.336E-01	2.125E-01
TH-234	3.090E+00	1.124E+00	5.890E-01	5.734E-01
U-234	1.407E+00	2.658E-01	7.072E-02	1.356E-01
NP-237	1.054E+00	3.580E-01	1.510E-01	1.827E-01
U-238	3.090E+00	1.124E+00	5.890E-01	5.734E-01
AM-243	4.168E-01	6.912E-02	3.348E-02	3.527E-02
ANH-511	1.353E-01	9.834E-02	2.814E-02	5.017E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-6.973E-02	4.202E-01	3.521E-01	2.144E-01	NOT IDENT.
NA-22	1.415E-02	6.182E-02	5.268E-02	3.154E-02	NOT IDENT.
NA-24	1.860E+07	2.440E+07	0.000E+00	1.245E+07	SHORT HLIF
AL-26	-1.053E-02	3.884E-02	3.010E-02	1.981E-02	NOT IDENT.
TI-44	4.542E-01	6.011E-02	3.438E-02	3.067E-02	FAIL ABUN
SC-46	-9.102E-03	5.252E-02	4.382E-02	2.680E-02	FAIL ABUN
V-48	2.203E-02	1.131E-01	9.708E-02	5.770E-02	NOT IDENT.
CR-51	-3.886E-02	4.504E-01	3.926E-01	2.298E-01	NOT IDENT.
MN-52	-3.777E-01	4.192E-01	3.009E-01	2.139E-01	NOT IDENT.
MN-54	2.415E-02	5.467E-02	4.836E-02	2.789E-02	NOT IDENT.
CO-56	-2.087E-03	5.075E-02	4.314E-02	2.589E-02	NOT IDENT.
CO-57	2.262E-02	2.424E-02	2.193E-02	1.237E-02	NOT IDENT.
CO-58	-5.059E-02	5.237E-02	4.037E-02	2.672E-02	NOT IDENT.
FE-59	8.836E-02	1.410E-01	1.245E-01	7.194E-02	NOT IDENT.
CO-60	1.640E-02	5.573E-02	4.926E-02	2.843E-02	NOT IDENT.
ZN-65	-5.991E-02	1.373E-01	9.157E-02	7.003E-02	NOT IDENT.
GE-68	1.409E+00	1.814E+00	1.628E+00	9.254E-01	NOT IDENT.
AS-73	-2.476E-02	2.630E-01	2.355E-01	1.342E-01	NOT IDENT.
AS-74	5.693E-02	1.331E-01	1.150E-01	6.791E-02	NOT IDENT.
SE-75	-5.898E-02	5.830E-02	3.867E-02	2.975E-02	NOT IDENT.
BR-77	2.626E+01	2.957E+01	2.669E+01	1.509E+01	FAIL ABUN
SR-82	-2.061E-02	4.820E-01	4.129E-01	2.459E-01	NOT IDENT.
RB-83	8.809E-02	8.798E-02	7.995E-02	4.489E-02	NOT IDENT.
RB-84	-2.547E-03	1.064E-01	9.030E-02	5.429E-02	NOT IDENT.
KR-85	1.244E+01	9.496E+00	7.954E+00	4.845E+00	NOT IDENT.
SR-85	6.573E-02	5.017E-02	4.203E-02	2.560E-02	NOT IDENT.
RB-86	1.625E-01	1.310E+00	1.107E+00	6.684E-01	NOT IDENT.
Y-88	1.121E-02	4.477E-02	3.918E-02	2.284E-02	NOT IDENT.
ZR-88	6.505E-03	3.655E-02	3.191E-02	1.865E-02	NOT IDENT.
Y-91	-1.833E+00	3.095E+01	2.541E+01	1.579E+01	NOT IDENT.
NB-94	5.414E-03	4.585E-02	4.014E-02	2.339E-02	NOT IDENT.
NB-95	5.042E-02	6.201E-02	5.649E-02	3.164E-02	NOT IDENT.
NB-95M	-7.180E-02	1.561E-01	1.116E-01	7.966E-02	NOT IDENT.
ZR-95	2.664E-02	1.025E-01	9.024E-02	5.231E-02	NOT IDENT.
NB-97	-1.642E+05	2.267E+06	0.000E+00	1.156E+06	SHORT HLIF
ZR-97	2.495E+07	4.008E+07	0.000E+00	2.045E+07	SHORT HLIF
MO-99	-6.090E+00	3.239E+01	2.753E+01	1.652E+01	NOT IDENT.
TC-99M	-6.798E+19	1.118E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-6.743E-03	3.766E-02	3.109E-02	1.921E-02	NOT IDENT.
RH-102	-3.391E-02	3.717E-02	2.919E-02	1.897E-02	NOT IDENT.
RU-103	-6.819E-03	5.230E-02	4.376E-02	2.668E-02	FAIL ABUN
RH-106	-2.142E-01	4.122E-01	3.238E-01	2.103E-01	FAIL ABUN
RU-106	-2.142E-01	4.117E-01	3.238E-01	2.100E-01	FAIL ABUN
AG-108M	-2.085E-02	3.932E-02	3.226E-02	2.006E-02	NOT IDENT.
AG-110M	4.080E-03	4.919E-02	4.091E-02	2.510E-02	NOT IDENT.
IN-111	1.848E-01	2.462E+00	1.832E+00	1.256E+00	NOT IDENT.
IN-113M	-5.974E-02	5.430E-02	4.305E-02	2.770E-02	NOT IDENT.
SN-113	-5.974E-02	5.430E-02	4.305E-02	2.770E-02	NOT IDENT.
IN-114M	1.704E-01	2.035E-01	1.631E-01	1.038E-01	NOT IDENT.
CD-115	-2.583E+01	3.303E+01	0.000E+00	1.685E+01	SHORT HLIF
SN-117M	3.892E-02	6.654E-02	5.861E-02	3.395E-02	NOT IDENT.
SB-122	3.088E+00	5.497E+00	4.814E+00	2.804E+00	NOT IDENT.
I-123	6.541E+07	2.242E+08	0.000E+00	1.144E+08	SHORT HLIF
TE-123M	8.834E-03	3.028E-02	2.633E-02	1.545E-02	NOT IDENT.
I-124	7.211E-01	1.431E+00	1.107E+00	7.299E-01	NOT IDENT.
SB-124	5.523E-05	1.010E-01	8.444E-02	5.155E-02	FAIL ABUN
SB-125	-5.328E-02	1.104E-01	9.113E-02	5.635E-02	FAIL ABUN
TE-125M	-7.029E-01	9.294E+00	8.132E+00	4.742E+00	NOT IDENT.
I-126	-1.287E-01	2.879E-01	2.272E-01	1.469E-01	NOT IDENT.
SB-126	-1.353E-01	2.547E-01	1.793E-01	1.299E-01	FAIL ABUN
SB-127	-4.851E+00	3.147E+00	2.119E+00	1.606E+00	NOT IDENT.
XE-127	-3.624E-02	5.343E-02	4.329E-02	2.726E-02	NOT IDENT.
I-131	6.632E-02	1.652E-01	1.471E-01	8.429E-02	NOT IDENT.
TE-132	-2.756E-01	1.466E+00	1.212E+00	7.477E-01	NOT IDENT.
BA-133	3.855E-03	5.818E-02	4.478E-02	2.968E-02	NOT IDENT.
I-133	-2.707E+04	7.457E+04	0.000E+00	3.804E+04	SHORT HLIF
CS-134	1.086E-01	7.618E-02	6.413E-02	3.887E-02	FAIL ABUN
CS-135	1.912E-01	1.955E-01	1.545E-01	9.972E-02	NOT IDENT.
I-135	2.877E+18	1.054E+19	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.139E-02	1.804E-01	1.553E-01	9.203E-02	FAIL ABUN
BA-137M	-3.696E-02	4.939E-02	3.752E-02	2.520E-02	NOT IDENT.
CS-137	-3.907E-02	5.221E-02	3.967E-02	2.664E-02	NOT IDENT.
CE-139	-3.165E-02	3.344E-02	2.718E-02	1.706E-02	NOT IDENT.
BA-140	2.234E-02	4.000E-01	3.377E-01	2.041E-01	NOT IDENT.
LA-140	4.087E-02	1.059E-01	8.627E-02	5.402E-02	FAIL ABUN
CE-141	-4.940E-02	6.973E-02	5.799E-02	3.558E-02	NOT IDENT.
CE-143	2.442E+03	9.123E+02	0.000E+00	4.655E+02	SHORT HLIF

CE-144	-2.443E-01	2.097E-01	1.682E-01	1.070E-01	NOT IDENT.
PM-144	-2.749E-03	4.497E-02	3.886E-02	2.294E-02	NOT IDENT.
PR-144	-1.866E-01	3.052E+00	2.637E+00	1.557E+00	NOT IDENT.
PM-146	-2.131E-03	5.066E-02	4.304E-02	2.585E-02	NOT IDENT.
ND-147	-1.726E-02	8.478E-01	7.121E-01	4.326E-01	FAIL ABUN
PM-149	2.834E+01	2.374E+02	0.000E+00	1.211E+02	SHORT HLIF
EU-152	-1.002E-01	1.137E-01	8.946E-02	5.799E-02	FAIL ABUN
GD-153	-1.109E-01	8.166E-02	5.940E-02	4.166E-02	NOT IDENT.
EU-154	2.280E-02	1.755E-01	1.478E-01	8.953E-02	NOT IDENT.
EU-155	1.812E-01	1.050E-01	9.713E-02	5.358E-02	FAIL ABUN
TB-160	6.707E-02	1.925E-01	1.693E-01	9.824E-02	FAIL ABUN
HO-166M	-2.510E-02	8.251E-02	6.976E-02	4.210E-02	FAIL ABUN
TM-171	1.205E+01	1.744E+01	1.453E+01	8.898E+00	NOT IDENT.
LU-176	8.799E-03	2.772E-02	2.479E-02	1.414E-02	FAIL ABUN
LU-177	3.147E+00	1.961E+00	1.585E+00	1.000E+00	FAIL ABUN
LU-177M	-3.149E-01	2.098E-01	1.584E-01	1.071E-01	NOT IDENT.
HF-181	4.257E-02	5.453E-02	4.898E-02	2.782E-02	NOT IDENT.
W-181	5.734E-02	2.158E-01	1.773E-01	1.101E-01	NOT IDENT.
TA-182	2.594E-01	3.244E-01	2.850E-01	1.655E-01	FAIL ABUN
RE-183	4.216E-02	1.229E-01	1.069E-01	6.268E-02	FAIL ABUN
RE-184	1.669E-01	2.524E-01	2.182E-01	1.288E-01	NOT IDENT.
OS-185	3.552E-02	5.649E-02	4.945E-02	2.882E-02	NOT IDENT.
RE-188	9.773E-02	1.882E-01	1.654E-01	9.601E-02	NOT IDENT.
W-188	-1.065E+01	9.322E+00	6.548E+00	4.756E+00	FAIL ABUN
IR-192	2.378E-02	3.984E-02	3.609E-02	2.032E-02	FAIL ABUN
AU-195	1.178E-01	2.057E-01	1.855E-01	1.050E-01	FAIL ABUN
TL-200	-8.896E+02	3.182E+03	0.000E+00	1.624E+03	SHORT HLIF
TL-201	-8.198E+00	1.415E+01	1.172E+01	7.220E+00	NOT IDENT.
TL-202	4.776E-02	9.933E-02	8.781E-02	5.068E-02	NOT IDENT.
HG-203	1.288E-03	4.538E-02	4.022E-02	2.316E-02	NOT IDENT.
BI-207	3.373E-02	7.762E-02	6.760E-02	3.960E-02	FAIL ABUN
TL-207	-1.419E-01	8.189E-01	6.224E-01	4.178E-01	FAIL ABUN
PO-209	-2.075E+00	9.117E+00	7.544E+00	4.651E+00	NOT IDENT.
PB-211	-4.501E-01	1.172E+00	9.540E-01	5.980E-01	NOT IDENT.
BI-212	1.172E+00	7.807E-01	4.458E-01	3.983E-01	FAIL ABUN
PO-215	-1.419E-01	8.189E-01	6.224E-01	4.178E-01	FAIL ABUN
RN-219	3.138E-01	4.989E-01	4.455E-01	2.545E-01	FAIL ABUN
RN-220	6.007E-01	3.307E+01	2.779E+01	1.687E+01	NOT IDENT.
RA-223	-1.419E-01	8.189E-01	6.224E-01	4.178E-01	FAIL ABUN
AC-227	-2.438E-01	4.269E-01	3.389E-01	2.178E-01	FAIL ABUN
TH-227	-2.438E-01	4.275E-01	3.389E-01	2.181E-01	FAIL ABUN
TH-229	-2.578E-01	5.313E-01	4.369E-01	2.710E-01	FAIL ABUN
PA-231	-6.970E-01	1.564E+00	1.343E+00	7.980E-01	NOT IDENT.
TH-231	-1.419E-01	8.189E-01	6.224E-01	4.178E-01	FAIL ABUN
U-231	7.139E-01	1.576E+00	1.281E+00	8.043E-01	FAIL ABUN
PA-233	-3.972E-02	7.310E-02	6.205E-02	3.730E-02	FAIL ABUN
PA-234	-8.536E-02	4.133E-01	3.416E-01	2.109E-01	FAIL ABUN
PA-234M	8.704E+00	7.298E+00	6.712E+00	3.723E+00	NOT IDENT.
U-235	4.231E-02	2.255E-01	1.922E-01	1.150E-01	FAIL ABUN
NP-236	-8.065E-02	8.593E-02	6.999E-02	4.384E-02	NOT IDENT.
NP-239	8.595E-02	1.788E-01	1.596E-01	9.124E-02	FAIL ABUN
AM-241	5.756E-02	7.279E-02	6.100E-02	3.714E-02	NOT IDENT.
CM-243	-8.236E-02	9.251E-02	7.810E-02	4.720E-02	FAIL ABUN
AM-246	2.155E-01	2.095E-01	1.917E-01	1.069E-01	NOT IDENT.
CM-247	4.365E-02	4.452E-02	4.066E-02	2.271E-02	NOT IDENT.
CF-249	9.737E-03	4.611E-02	4.038E-02	2.352E-02	NOT IDENT.
CF-251	8.171E-03	1.334E-01	1.139E-01	6.806E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	257.1653
46.50	257.1653
46.50	257.1653
48.70	286.5021
49.72	318.8636
51.35	303.8965
52.39	303.9425
52.97	310.3716
53.15	310.5261
53.44	339.6464
54.07	314.7187
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56.28	360.2487
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57.53	376.0443
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57.98	393.6788
59.32	348.0446
59.32	348.0446
59.40	348.1165
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63.29	428.6651
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65.20	403.1038
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68.90	417.7147
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77.11	424.2620

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77.11	424.2620
77.11	424.2620
77.11	424.2620
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80.30	369.5653
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81.07	370.1650
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81.07	370.1650
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83.78	302.1850
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86.50	303.8611
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86.59	303.9167
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87.88	304.7017
88.03	304.7927
88.36	304.9915
88.47	305.0588
89.95	305.9500
91.11	306.6423
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92.38	307.3970
92.38	307.3970
93.35	307.9698
94.00	308.3505
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94.67	268.4722
94.90	268.5894
94.90	268.5894
94.90	268.5894
94.90	268.5894
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95.87	249.4597
96.73	315.8380
97.43	320.4650
98.44	256.2874
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99.86	247.5444
100.00	247.6072
100.10	232.5876
103.18	292.5888
103.76	289.0991
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105.31	227.1623
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109.28	261.2751

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111.76	244.1195
112.95	255.2024
115.19	252.2902
116.30	239.1946
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117.00	204.5672
117.66	208.6705
121.11	216.6670
121.62	201.2159
121.78	201.2672
122.06	184.7395
122.32	184.8154
122.32	184.8154
122.32	184.8154
122.32	184.8154
123.07	225.1756
127.23	252.2643
129.76	232.4708
131.20	252.8081
133.02	241.5712
133.54	241.7591
135.34	215.4727
136.00	214.6851
136.25	214.7638
136.48	209.8398
140.51	255.2997
140.51	0.0000
142.18	227.7036
142.65	235.9210
143.76	221.1476
144.24	210.1815
144.24	210.1815
144.24	210.1815
144.24	210.1815
145.22	220.5924
145.44	244.9516
147.16	231.3375
152.43	238.1338
152.70	247.4232
153.22	235.3204
154.21	216.1707
154.21	216.1707
154.21	216.1707
154.21	216.1707
155.03	214.3577
156.02	224.9125
158.56	195.7906
159.00	0.0000
159.00	201.0600
160.31	236.5243
161.27	236.8202
162.32	214.3637
162.64	209.2721
163.35	188.7261
163.89	189.8953
165.85	242.3907
167.43	212.6494
171.28	185.4049
171.86	204.4064
172.10	211.8078
176.55	189.7815
176.60	189.7943
181.06	206.7253
184.41	255.4541
185.71	187.6213
186.00	187.6857
190.27	141.4692
192.34	180.4841
193.63	187.2079
197.04	210.6172
198.01	201.1178
198.60	183.9384
200.40	201.6589
201.83	185.6918
202.84	198.9462
205.31	152.0694

208.36	196.8732
208.81	191.4988
209.75	175.8114
209.75	175.8114
210.97	185.9148
215.65	163.1457
216.55	175.4396
218.09	204.4590
222.10	178.6831
223.80	191.2254
226.40	183.9348
227.00	179.5855
227.08	179.6002
227.20	166.2351
228.16	185.3822
228.18	185.3856
228.18	185.3856
231.56	0.0000
235.69	187.3531
236.00	187.4124
236.00	187.4124
238.63	150.0945
238.63	150.0945
238.63	150.0945
238.63	150.0945
239.00	150.1486
240.98	150.4408
241.98	150.5869
241.98	150.5869
241.98	150.5869
244.69	151.5523
245.39	127.7985
247.94	127.5426
248.90	134.4989
249.79	142.5985
252.40	100.6382
252.85	117.8427
252.85	117.8427
254.15	0.0000
256.20	146.9063
256.20	146.9063
260.50	146.3425
260.90	0.0000
262.80	121.2482
264.65	154.4191
268.24	121.8506
268.79	132.3599
269.46	130.1152
269.46	130.1152
269.46	130.1152
269.46	130.1152
271.23	129.1590
273.65	162.6734
276.40	128.2522
277.35	121.0890
277.60	124.6270
277.60	124.6270
278.00	129.0602
278.60	118.5864
279.20	137.1070
279.53	137.1451
280.46	161.8928
281.68	137.4045
283.67	122.6409
284.30	129.7712
285.00	136.9164
285.90	0.0000
286.10	108.7530
286.10	108.7530
287.40	110.6453
288.45	0.0000
290.67	149.1226
290.80	149.1379
291.72	140.7269
293.26	0.0000
293.70	106.7908
295.21	116.9061
295.21	116.9061

295.21	116.9061
295.96	121.2599
296.50	107.0416
297.23	107.1075
298.57	107.2284
299.80	123.0791
299.80	123.0791
300.09	115.9530
300.09	115.9530
300.09	115.9530
300.09	115.9530
300.12	115.9550
301.29	131.8300
302.84	136.3027
303.76	124.9202
303.91	124.9351
304.40	123.3100
304.40	123.3100
304.84	121.1299
306.84	118.7589
308.46	136.9313
311.98	132.8060
316.51	108.8086
318.01	137.9889
319.02	126.2890
319.41	128.1449
320.08	120.0278
323.87	116.7402
323.87	116.7402
323.87	116.7402
323.87	116.7402
325.23	112.4828
328.77	130.3711
333.44	142.1113
334.20	133.8584
334.20	133.8584
334.30	133.8695
338.28	115.2782
338.28	115.2782
338.28	115.2782
338.28	115.2782
338.32	115.2821
338.32	115.2821
338.32	115.2821
340.50	107.8978
340.57	107.9031
344.27	121.7563
345.85	100.1706
350.59	0.0000
351.07	121.9750
351.92	122.0509
351.92	122.0509
351.92	122.0509
355.39	0.0000
356.01	113.6326
364.48	88.3817
366.43	93.2128
367.43	100.8170
367.94	0.0000
369.80	102.8744
374.96	83.3580
383.85	98.1719
387.95	92.7136
388.63	93.7128
391.69	115.9485
391.69	115.9485
392.90	92.0684
398.62	115.5286
400.65	106.0455
401.10	98.3627
401.81	91.6558
402.60	85.9118
404.84	109.2411
410.95	84.4445
411.60	92.2487
413.65	110.8480
414.70	82.7056
415.30	75.9243

415.76	73.0259
417.63	0.0000
418.52	96.5664
423.70	90.0375
427.08	92.1927
427.89	93.2214
432.53	73.8121
433.93	91.6079
439.47	80.0644
439.56	80.0681
439.89	88.9838
443.98	83.2617
444.90	73.3914
445.03	73.3970
445.03	73.3970
445.03	73.3970
445.03	73.3970
453.90	75.7901
463.38	60.9781
468.07	80.4590
473.00	65.5634
475.06	94.9280
475.35	82.8246
476.78	82.8934
477.59	83.9435
477.96	74.8570
482.03	65.9085
484.57	75.1450
487.03	73.2173
490.36	0.0000
492.35	0.0000
497.08	73.6370
507.63	0.0000
510.53	0.0000
510.84	65.9604
511.00	65.9663
511.85	65.9976
511.85	65.9976
513.99	61.1191
513.99	61.1191
520.41	58.0200
520.65	58.0269
527.90	0.0000
528.96	0.0000
529.64	72.8882
529.87	0.0000
531.02	69.8155
537.32	75.2783
543.00	70.2613
546.56	0.0000
549.76	67.3535
552.65	66.4011
555.20	61.2126
563.23	59.3462
563.90	63.6072
568.70	64.8255
569.32	57.4047
569.50	54.2202
569.67	58.4778
573.80	73.5168
574.00	71.3920
574.64	66.0869
578.91	63.2378
579.30	0.0000
583.14	61.0165
585.48	70.3046
591.81	64.5044
592.07	82.7900
593.00	83.9033
595.88	62.4781
600.56	64.7809
602.52	0.0000
602.71	53.6082
602.71	53.6082
603.60	58.8210
604.41	65.7671
604.70	65.7764
609.31	63.9713

609.31	63.9713
609.31	63.9713
609.31	63.9713
610.33	64.0019
612.46	59.0733
614.37	60.8655
618.01	68.5929
621.84	65.4456
621.84	65.4456
631.29	67.9279
633.02	50.4388
633.10	50.4417
634.78	54.8706
635.90	51.6056
636.97	52.7300
645.85	51.8437
646.12	50.7463
656.30	62.0652
657.75	67.6514
657.90	0.0000
661.65	71.1035
661.65	71.1035
664.57	0.0000
666.33	71.2539
666.33	71.2539
675.00	65.9411
677.61	61.5410
685.20	76.3423
692.80	74.7932
695.00	64.9441
696.49	65.8871
696.49	65.8871
697.00	65.9032
697.49	66.8186
698.33	69.5538
698.50	72.2695
699.00	65.9584
702.63	70.5866
706.10	76.1311
706.58	0.0000
706.67	67.9907
709.31	69.8809
711.68	69.9523
713.82	62.7418
717.42	54.6416
720.50	66.8701
721.93	0.0000
722.20	63.8767
722.78	60.8496
722.78	60.8496
722.89	60.8529
722.95	56.2889
723.30	56.2979
724.18	62.4076
727.18	54.8657
733.00	67.2210
735.90	57.1044
739.58	62.5016
742.81	47.8588
744.21	54.3330
747.13	51.6318
751.79	63.7391
752.31	58.2089
753.82	53.6217
755.35	57.3545
756.15	61.0758
756.87	49.0599
763.93	89.1164
765.79	64.0996
766.42	61.3288
766.84	66.9146
776.49	43.8491
778.00	43.8755
778.57	46.6858
778.89	47.6257
783.80	43.0396
785.46	40.2590
792.07	56.3203

795.84	43.8696
796.30	53.2799
798.80	51.7626
801.93	63.1331
805.60	46.2366
810.29	62.3906
810.76	57.6745
815.85	38.8399
817.79	43.6090
818.51	44.5697
819.60	45.5367
826.30	47.5537
828.27	0.0000
831.60	68.6144
831.96	64.8108
834.83	61.0641
836.80	0.0000
846.75	44.0841
848.13	43.1477
856.28	0.0000
856.80	36.8734
860.37	49.1211
867.32	50.6940
867.82	54.7271
871.10	47.3790
873.19	38.7061
874.81	51.3153
875.33	0.0000
876.40	54.2514
879.36	42.6712
880.27	41.7150
880.51	42.6884
881.50	52.4087
883.24	45.6437
884.67	46.6383
889.25	44.7680
896.60	40.0060
898.02	34.1686
899.00	33.2040
903.28	46.4575
911.07	38.2478
911.07	38.2478
911.07	38.2478
919.63	53.1154
920.93	47.2348
925.00	52.2288
925.24	50.2616
926.50	61.1296
935.52	47.4727
937.48	51.4630
944.10	42.6515
946.00	47.6414
949.00	43.7153
962.29	46.5710
964.01	47.9297
966.15	47.9637
968.20	61.6606
969.11	51.6780
969.11	51.6780
969.11	51.6780
977.42	47.1388
980.50	51.2030
983.50	44.2181
989.30	32.2195
996.32	55.5035
1001.03	48.5133
1001.68	47.5129
1004.76	56.6672
1021.30	0.0000
1024.50	0.0000
1034.80	56.1870
1036.00	51.0986
1037.82	50.1054
1038.57	47.0489
1038.76	0.0000
1045.16	51.2451
1046.59	51.2671
1048.07	44.1107

1050.47	54.4104
1050.47	54.4104
1062.04	47.3926
1063.62	45.3535
1076.63	48.6386
1077.35	39.3341
1078.86	38.3152
1085.78	34.2456
1099.22	43.7596
1112.02	41.8359
1112.84	34.8714
1115.52	47.1138
1120.29	45.0828
1120.29	45.0828
1120.29	45.0828
1120.29	45.0828
1120.51	45.0849
1121.28	45.0954
1124.00	0.0000
1129.67	46.2580
1131.51	0.0000
1147.95	0.0000
1167.94	60.5875
1173.22	52.1630
1175.09	56.4497
1177.93	61.8261
1189.05	56.6722
1204.90	65.5125
1205.75	0.0000
1213.00	55.9736
1221.42	60.4160
1230.97	64.9014
1235.34	74.7242
1236.41	0.0000
1238.25	53.1081
1246.25	49.9644
1260.41	0.0000
1271.85	34.9953
1274.45	36.1131
1274.54	33.9259
1291.56	48.3678
1298.22	0.0000
1312.09	34.0747
1325.50	34.1922
1325.50	34.1922
1332.49	29.6237
1333.61	31.4849
1360.21	22.3740
1362.66	0.0000
1365.15	28.9351
1368.21	19.6157
1368.53	0.0000
1376.25	14.9753
1384.27	11.2539
1394.10	12.2208
1395.20	14.1052
1407.95	28.2971
1434.06	23.7305
1436.60	18.9958
1457.56	0.0000
1460.81	14.3286
1489.15	24.0397
1509.49	11.5928
1596.49	6.7545
1620.62	12.8725
1678.03	0.0000
1691.02	11.0555
1691.02	11.0555
1706.46	0.0000
1750.46	0.0000
1764.49	10.4937
1764.49	10.4937
1764.49	10.4937
1764.49	10.4937
1770.23	41.8775
1771.40	11.2381
1791.20	0.0000
1808.65	10.2917

1836.01	8.2777

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978003

Total Uranium Activity	9.2113E+00	ug/g
Total Uranium Counting Unc.	3.3449E+00	ug/g
Total Uranium Tpu	1.7066E-06	ug/g
Total Uranium Mda	1.7544E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978003       *
*   ANALYST       : MXR1                      DETECTOR   : GAM17            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 11:18:00.67    SAMPLE ALQT:  124.220 GRAM    *
*                                                                           *
*****************************************************************************
```

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GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.095E+01
GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.466E+00
GROSS GAMMA MDA     (pCi/GRAM  )  : 4.398E+00
GROSS GAMMA DLC     (pCi/GRAM  )  : 2.135E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:20:37.08

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978004.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:18:29
Sample ID         : G245978004           Sample quantity  : 1.64730E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.27*	5979	3261	1.25	126.40	120	11	8.30E-01	2.3	
2	1	74.99	422	2672	1.37	149.81	143	16	5.86E-02	21.9	2.19E+00
3	1	77.14	518	2670	1.29	154.11	143	16	7.19E-02	18.0	
4	0	84.06*	462	3006	1.71	167.94	164	8	6.41E-02	21.1	
5	0	92.64*	15880	4871	1.35	185.10	177	16	2.21E+00	1.3	
6	0	98.62*	1037	1543	1.24	197.04	193	9	1.44E-01	7.6	
7	0	112.74	1190	2160	1.32	225.27	219	14	1.65E-01	8.9	
8	0	143.91*	507	932	1.39	287.55	283	9	7.04E-02	11.8	
9	0	163.31	275	804	1.70	326.32	322	10	3.82E-02	20.2	
10	0	185.65*	2426	765	1.33	370.98	366	12	3.37E-01	3.1	
11	0	205.25	149	575	1.12	410.14	407	9	2.07E-02	30.3	
12	3	238.47*	1077	318	1.41	476.55	469	19	1.50E-01	4.3	1.66E+00
13	3	241.24	261	496	1.84	482.07	469	19	3.62E-02	19.4	
14	0	257.94	197	416	1.29	515.46	510	11	2.74E-02	21.3	
15	0	270.19	116	389	1.44	539.94	534	12	1.61E-02	35.3	
16	0	294.99	332	412	1.29	589.51	583	13	4.62E-02	13.7	
17	0	338.25	181	291	1.36	675.97	671	12	2.52E-02	20.2	
18	0	351.70*	434	334	1.37	702.86	697	13	6.03E-02	10.0	
19	0	510.59*	82	289	2.26	1020.48	1011	19	1.14E-02	54.5	
20	0	568.17*	190	131	2.57	1135.60	1128	15	2.64E-02	15.4	
21	0	583.34*	343	154	1.83	1165.93	1160	14	4.76E-02	9.6	
22	0	609.16*	276	228	1.19	1217.56	1211	14	3.84E-02	13.3	
23	0	661.79	166	174	1.27	1322.79	1316	14	2.30E-02	18.6	
24	0	727.57	126	108	2.31	1454.32	1448	14	1.75E-02	19.7	
25	0	743.40	93	173	2.17	1485.95	1476	17	1.29E-02	34.2	
26	0	766.47	415	180	1.57	1532.10	1523	18	5.76E-02	9.0	
27	0	786.93	119	110	1.38	1573.00	1567	14	1.65E-02	21.0	
28	0	861.32	43	102	1.56	1721.77	1715	14	6.01E-03	52.9	
29	0	911.54	234	83	1.90	1822.20	1816	16	3.25E-02	10.9	
30	1	965.12	58	37	2.01	1929.36	1925	19	7.99E-03	23.1	9.56E-01
31	1	969.12*	113	51	1.74	1937.36	1925	19	1.56E-02	15.7	
32	0	1001.23*	847	73	1.82	2001.58	1993	19	1.18E-01	4.3	
33	0	1120.61	66	77	1.42	2240.37	2236	14	9.11E-03	31.4	
34	0	1155.57	41	38	1.63	2310.29	2304	11	5.66E-03	33.4	
35	0	1460.97*	1204	12	1.92	2921.29	2914	17	1.67E-01	3.0	
36	0	1509.81	44	0	2.31	3019.02	3012	15	6.11E-03	15.1	
37	0	1738.67	10	15	1.50	3477.02	3471	10	1.46E-03	75.4	
38	0	1764.86*	66	13	1.65	3529.44	3522	13	9.12E-03	17.6	

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:20:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978004.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:18:29
Sample ID : G245978004 Sample quantity : 164.73 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA19 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.56 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.200E+01	2.098E+00	4.139E-01	3.082E-02	53.165
NB-95	+	765.79	*	5.670E-01	1.100E-01	6.063E-02	4.285E-03	9.351
BA-137M	+	661.65	*	1.828E-01	6.884E-02	5.629E-02	3.278E-03	3.248
CS-137	+	661.65	*	1.933E-01	7.278E-02	5.950E-02	3.479E-03	3.248
TL-208		277.35		3.142E-01	3.754E-01	6.341E-01	6.691E-02	0.496
	+	510.84		3.042E-01	3.327E-01	2.158E-01	2.203E-02	1.410
	+	583.14	*	3.634E-01	7.404E-02	5.878E-02	3.997E-03	6.182
	+	860.37		4.315E-01	4.583E-01	3.950E-01	3.537E-02	1.092
BI-211		72.87		1.373E+01	6.280E+00	9.292E+00	7.281E-01	1.477
	+	351.07	*	2.019E+00	4.242E-01	3.229E-01	2.062E-02	6.252
BI-212	+	727.18	*	1.145E+00	4.605E-01	4.661E-01	3.880E-02	2.456
	+	785.46		6.925E+00	2.948E+00	2.912E+00	2.130E-01	2.379
		1620.62		3.439E-01	9.034E-01	1.574E+00	1.051E-01	0.218
PB-212	+	74.81		1.767E+00	8.040E-01	1.021E+00	1.252E-01	1.731
	+	77.11		1.237E+00	4.574E-01	5.812E-01	4.695E-02	2.128
		87.30		1.613E+00	1.197E+00	1.270E+00	1.700E-01	1.270
	+	238.63	*	1.097E+00	1.230E-01	9.345E-02	6.745E-03	11.738
		300.09		4.423E-01	8.625E-01	1.297E+00	1.071E-01	0.341
PO-212	+	74.81		1.767E+00	8.040E-01	1.021E+00	1.252E-01	1.731
	+	77.11		1.237E+00	4.574E-01	5.812E-01	4.695E-02	2.128
		87.30		1.613E+00	1.197E+00	1.270E+00	1.700E-01	1.270
		115.19		2.796E+01	6.416E+00	9.905E+00	6.306E-01	2.823
	+	238.63	*	1.097E+00	1.230E-01	9.345E-02	6.745E-03	11.738
		300.09		4.423E-01	8.625E-01	1.297E+00	1.071E-01	0.341
BI-214	+	609.31	*	5.514E-01	1.531E-01	1.080E-01	8.493E-03	5.105
	+	1120.29		6.806E-01	4.320E-01	3.614E-01	3.306E-02	1.883
	+	1764.49		9.201E-01	3.290E-01	1.730E-01	1.049E-02	5.317
PB-214	+	74.81		3.045E+00	1.374E+00	1.760E+00	1.911E-01	1.731
	+	77.11		2.120E+00	8.006E-01	9.963E-01	1.106E-01	2.128
		87.30		2.763E+00	2.043E+00	2.176E+00	2.562E-01	1.270
	+	241.98		1.593E+00	6.312E-01	5.664E-01	4.517E-02	2.813
	+	295.21		9.146E-01	2.631E-01	2.351E-01	2.007E-02	3.890
	+	351.92	*	7.023E-01	1.520E-01	1.125E-01	9.279E-03	6.240
PO-214	+	74.81		3.045E+00	1.374E+00	1.760E+00	1.911E-01	1.731

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		2.120E+00	8.006E-01	9.963E-01	1.106E-01	2.128
		87.30		2.763E+00	2.043E+00	2.176E+00	2.562E-01	1.270
	+	241.98		1.593E+00	6.312E-01	5.664E-01	4.517E-02	2.813
	+	295.21		9.146E-01	2.631E-01	2.351E-01	2.007E-02	3.890
	+	351.92	*	7.023E-01	1.520E-01	1.125E-01	9.279E-03	6.240
PO-216	+	74.81		1.767E+00	8.040E-01	1.021E+00	1.252E-01	1.731
	+	77.11		1.237E+00	4.574E-01	5.812E-01	4.695E-02	2.128
		87.30		1.613E+00	1.197E+00	1.270E+00	1.700E-01	1.270
	+	238.63	*	1.097E+00	1.230E-01	9.345E-02	6.745E-03	11.738
		300.09		4.423E-01	8.625E-01	1.297E+00	1.071E-01	0.341
PO-218	+	74.81		3.045E+00	1.374E+00	1.760E+00	1.911E-01	1.731
	+	77.11		2.120E+00	8.006E-01	9.963E-01	1.106E-01	2.128
		87.30		2.763E+00	2.043E+00	2.176E+00	2.562E-01	1.270
	+	241.98		1.593E+00	6.312E-01	5.664E-01	4.517E-02	2.813
	+	295.21		9.146E-01	2.631E-01	2.351E-01	2.007E-02	3.890
	+	351.92	*	7.023E-01	1.520E-01	1.125E-01	9.279E-03	6.240
RA-224	+	240.98	*	3.021E+00	1.185E+00	1.063E+00	6.023E-02	2.842
RA-226	+	609.31	*	5.514E-01	1.531E-01	1.080E-01	8.493E-03	5.105
	+	1120.29		6.806E-01	4.320E-01	3.614E-01	3.306E-02	1.883
	+	1764.49		9.201E-01	3.290E-01	1.730E-01	1.049E-02	5.317
AC-228	+	338.32		9.294E-01	5.337E-01	3.659E-01	1.492E-01	2.540
	+	911.07	*	1.102E+00	2.712E-01	1.864E-01	2.109E-02	5.910
	+	969.11		9.353E-01	3.646E-01	2.994E-01	6.939E-02	3.124
RA-228	+	338.32		9.294E-01	5.337E-01	3.659E-01	1.492E-01	2.540
	+	911.07	*	1.102E+00	2.712E-01	1.864E-01	2.109E-02	5.910
	+	969.11		9.353E-01	3.646E-01	2.994E-01	6.939E-02	3.124
TH-228	+	74.81		1.799E+00	8.013E-01	1.040E+00	8.336E-02	1.731
	+	77.11		1.259E+00	4.657E-01	5.917E-01	4.780E-02	2.128
		87.30		1.642E+00	1.207E+00	1.293E+00	1.150E-01	1.270
	+	238.63	*	1.117E+00	1.252E-01	9.514E-02	6.867E-03	11.738
		300.09		4.503E-01	9.166E-01	1.320E+00	7.780E-01	0.341
TH-230	+	609.31	*	5.514E-01	1.531E-01	1.080E-01	8.493E-03	5.105
	+	1120.29		6.806E-01	4.320E-01	3.614E-01	3.306E-02	1.883
	+	1764.49		9.201E-01	3.290E-01	1.730E-01	1.049E-02	5.317
TH-232	+	338.32		9.294E-01	3.797E-01	3.659E-01	2.115E-02	2.540
	+	911.07	*	1.102E+00	2.712E-01	1.864E-01	2.109E-02	5.910
	+	969.11		9.353E-01	3.646E-01	2.994E-01	6.939E-02	3.124
PA-234M	+	766.42		1.455E+02	7.804E+01	1.557E+01	7.864E+00	9.344
	+	1001.03	*	1.430E+02	1.808E+01	6.060E+00	5.641E-01	23.602
TH-234	+	63.29	*	9.901E+01	1.789E+01	3.693E+00	6.461E-01	26.814
	+	92.38		1.048E+02	1.899E+01	1.722E+00	3.092E-01	60.881
U-234	+	609.31	*	5.514E-01	1.531E-01	1.080E-01	8.493E-03	5.105
	+	1120.29		6.806E-01	4.320E-01	3.614E-01	3.306E-02	1.883
	+	1764.49		9.201E-01	3.290E-01	1.730E-01	1.049E-02	5.317
U-235		89.95		3.121E+01	1.005E+01	4.752E+00	1.467E+00	6.568
	+	93.35		1.260E+02	3.535E+01	2.057E+00	5.740E-01	61.274
		105.00		-3.527E+00	1.952E+00	2.582E+00	7.600E-01	-1.366
	+	143.76	*	1.659E+00	4.757E-01	4.561E-01	7.396E-02	3.637
	+	163.35		2.119E+00	9.361E-01	9.598E-01	1.710E-01	2.208

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.71		1.739E+00	1.420E-01	8.155E-02	4.358E-03	21.324
	+	205.31		1.301E+00	8.221E-01	1.003E+00	1.793E-01	1.298
U-238	+	63.29	*	9.901E+01	1.789E+01	3.693E+00	6.461E-01	26.814
	+	92.38		1.048E+02	9.117E+00	1.722E+00	1.438E-01	60.881
AM-243	+	74.67	*	2.865E-01	1.276E-01	1.660E-01	1.317E-02	1.726
		86.72		3.404E+01	2.831E+01	3.024E+01	2.673E+00	1.126
		117.66		5.444E-01	6.157E+00	8.802E+00	5.469E-01	0.062
		142.18		1.132E+02	2.992E+01	4.627E+01	2.576E+00	2.447
ANH-511	+	511.00	*	6.571E-02	7.166E-02	4.662E-02	2.751E-03	1.410

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	3.077E-01	3.379E-01	5.847E-01	3.969E-02	0.526
NA-22		1274.54	*	-1.897E-02	3.589E-02	5.648E-02	3.767E-03	-0.336
NA-24		1368.53	*	7.895E+00	3.589E-02	Half-Life too short		
AL-26		1129.67		4.361E-02	1.343E+00	2.089E+00	1.289E-01	0.021
		1808.65	*	1.936E-03	2.643E-02	4.364E-02	2.548E-03	0.044
TI-44		67.85		-1.836E-01	1.111E-01	1.276E-01	9.741E-03	-1.439
	+	78.38	*	2.283E-01	8.442E-02	1.125E-01	9.186E-03	2.028
SC-46		889.25	*	1.766E-02	3.877E-02	6.480E-02	5.631E-03	0.273
	+	1120.51		1.193E-01	7.530E-02	9.605E-02	6.058E-03	1.242
V-48		944.10		7.390E-01	9.558E-01	1.634E+00	1.377E-01	0.452
		983.50	*	-7.789E-03	6.792E-02	1.078E-01	8.668E-03	-0.072
		1312.09		-2.671E-02	6.959E-02	1.103E-01	7.848E-03	-0.242
CR-51		320.08	*	1.064E-01	3.840E-01	6.517E-01	4.217E-02	0.163
MN-52	+	744.21		1.050E+00	7.224E-01	7.316E-01	4.974E-02	1.436
		848.13		-1.591E+00	9.371E+00	1.495E+01	1.216E+00	-0.106
		935.52		1.898E-01	3.165E-01	5.357E-01	4.554E-02	0.354
		1246.25		-1.043E+00	8.027E+00	1.318E+01	8.333E-01	-0.079
		1333.61		-1.831E+00	5.849E+00	9.345E+00	6.886E-01	-0.196
		1434.06	*	7.536E-02	2.464E-01	4.241E-01	3.059E-02	0.178
MN-54		834.83	*	-1.915E-02	3.582E-02	5.555E-02	4.419E-03	-0.345
CO-56		846.75	*	6.194E-03	3.904E-02	6.391E-02	5.185E-03	0.097
		977.42		7.431E-01	2.646E+00	4.252E+00	3.445E-01	0.175
		1037.82		-1.284E-01	2.569E-01	4.110E-01	3.270E-02	-0.312
		1175.09		2.693E-01	1.886E+00	3.181E+00	1.750E-01	0.085
		1238.25		1.235E-01	7.659E-02	1.412E-01	9.272E-03	0.875
		1360.21		6.136E-01	8.659E-01	1.542E+00	1.131E-01	0.398
		1771.40		-5.396E-01	2.426E-01	2.338E-01	1.409E-02	-2.308
CO-57		122.06	*	2.184E-02	3.624E-02	5.977E-02	3.567E-03	0.365
		136.48		-1.822E-01	2.859E-01	4.563E-01	3.012E-02	-0.399
CO-58		810.76	*	3.831E-03	3.855E-02	6.294E-02	4.823E-03	0.061
FE-59	+	142.65		2.237E+01	5.434E+00	7.623E+00	4.239E-01	2.935
		192.34		-4.803E-01	1.250E+00	1.827E+00	2.122E-01	-0.263
		1099.22	*	2.371E-02	7.908E-02	1.355E-01	1.017E-02	0.175
		1291.56		9.891E-02	1.124E-01	2.007E-01	1.662E-02	0.493
CO-60		1173.22		2.240E-02	3.708E-02	6.483E-02	3.553E-03	0.345

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1332.49	*	1.117E-03	3.243E-02	5.393E-02	3.974E-03	0.021
ZN-65		1115.52	*	-1.823E-02	8.432E-02	1.182E-01	7.556E-03	-0.154
GE-68		1077.35	*	1.951E-02	1.015E+00	1.701E+00	1.177E-01	0.011
AS-73		53.44	*	-1.196E-01	1.484E+00	2.449E+00	1.811E-01	-0.049
AS-74		595.88	*	-3.689E-02	9.686E-02	1.551E-01	9.186E-03	-0.238
		634.78		-2.248E-01	3.668E-01	5.740E-01	3.374E-02	-0.392
SE-75		66.05		1.701E+01	9.934E+00	1.464E+01	1.406E+00	1.162
		96.73		1.112E+01	2.631E+00	2.698E+00	3.549E-01	4.120
		121.11		9.895E-02	1.974E-01	3.247E-01	3.041E-02	0.305
		136.00		-1.495E-02	5.416E-02	8.732E-02	5.029E-03	-0.171
		198.60		-8.093E-01	2.190E+00	3.443E+00	2.350E-01	-0.235
		264.65	*	-7.392E-03	6.004E-02	7.677E-02	4.464E-03	-0.096
		279.53		-3.155E-03	1.105E-01	1.859E-01	1.164E-02	-0.017
		303.91		-2.700E+00	2.176E+00	3.451E+00	3.296E-01	-0.782
		400.65		4.339E-02	2.557E-01	4.293E-01	3.855E-02	0.101
BR-77		87.88		9.090E+02	1.325E+03	1.397E+03	1.250E+02	0.651
		200.40		1.127E+02	5.004E+02	7.092E+02	3.858E+01	0.159
	+	239.00		4.050E+02	4.160E+01	7.000E+01	3.960E+00	5.785
		249.79		1.134E+02	1.683E+02	2.758E+02	1.573E+01	0.411
		281.68		5.778E+01	2.093E+02	3.515E+02	2.037E+01	0.164
		297.23		3.870E+02	1.496E+02	2.434E+02	1.415E+01	1.590
		303.76		-4.787E+02	4.157E+02	6.649E+02	3.868E+01	-0.720
		439.47		8.759E+01	3.186E+02	5.364E+02	3.080E+01	0.163
		484.57		-3.919E+02	5.170E+02	8.177E+02	4.789E+01	-0.479
		520.65	*	1.678E+01	2.386E+01	4.089E+01	2.417E+00	0.410
		574.64		-1.559E+02	5.294E+02	7.334E+02	4.353E+01	-0.213
		578.91		1.741E+02	2.122E+02	3.232E+02	1.918E+01	0.539
		585.48		1.946E+03	5.115E+02	8.885E+02	5.269E+01	2.191
		755.35		7.985E+02	3.705E+02	6.831E+02	4.738E+01	1.169
		817.79		3.852E+01	2.805E+02	4.595E+02	3.552E+01	0.084
SR-82		698.33		1.786E+00	3.698E+01	6.049E+01	3.779E+00	0.030
		776.49	*	-8.098E-02	3.950E-01	6.314E-01	4.546E-02	-0.128
		1395.20		8.344E+00	9.605E+00	1.747E+01	1.273E+00	0.478
RB-83		520.41	*	2.279E-02	7.116E-02	1.195E-01	7.065E-03	0.191
		529.64		-4.256E-02	1.056E-01	1.699E-01	1.006E-02	-0.251
		552.65		4.290E-02	1.967E-01	3.280E-01	1.947E-02	0.131
RB-84		881.50	*	6.970E-02	7.262E-02	1.256E-01	1.078E-02	0.555
KR-85		513.99	*	1.186E+01	7.730E+00	1.229E+01	7.257E-01	0.965
SR-85		513.99	*	6.268E-02	4.084E-02	6.493E-02	3.834E-03	0.965
RB-86		1076.63	*	-1.749E-01	7.155E-01	1.172E+00	8.118E-02	-0.149
Y-88		898.02		3.531E-02	4.038E-02	6.949E-02	6.151E-03	0.508
		1836.01	*	-3.452E-02	3.217E-02	4.198E-02	2.396E-03	-0.822
ZR-88		392.90	*	-8.651E-03	3.121E-02	5.132E-02	2.858E-03	-0.169
Y-91		1204.90	*	1.245E+01	1.588E+01	2.807E+01	1.639E+00	0.444
NB-94		702.63	*	-1.514E-02	3.352E-02	5.301E-02	3.339E-03	-0.286
		871.10		5.781E-03	3.131E-02	5.136E-02	4.336E-03	0.113
NB-95M		235.69	*	3.450E-01	1.580E-01	2.404E-01	1.781E-02	1.435
ZR-95		724.18		8.561E-02	1.053E-01	1.592E-01	1.195E-02	0.538
		756.15	*	8.624E-02	7.290E-02	1.274E-01	1.020E-02	0.677

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97		657.90	*	6.046E-01	7.290E-02	Half-Life too short		
		1024.50		-1.924E+01	7.290E-02	Half-Life too short		
ZR-97		254.15		-6.819E+00	7.290E-02	Half-Life too short		
		355.39		-2.354E+00	7.290E-02	Half-Life too short		
		507.63	*	5.732E+01	7.290E-02	Half-Life too short		
		602.52		3.496E+01	7.290E-02	Half-Life too short		
		1021.30		2.839E+01	7.290E-02	Half-Life too short		
		1147.95		-3.298E+01	7.290E-02	Half-Life too short		
		1362.66		1.818E+01	7.290E-02	Half-Life too short		
		1750.46		-5.393E+00	7.290E-02	Half-Life too short		
MO-99		140.51		3.420E+01	8.246E+01	1.179E+02	3.173E+01	0.290
		181.06		3.744E+00	4.857E+01	6.859E+01	1.165E+01	0.055
		366.43		-1.928E+01	1.749E+02	2.907E+02	1.655E+01	-0.066
		739.58	*	1.565E+01	2.852E+01	4.203E+01	5.970E+00	0.372
		778.00		-7.266E+00	6.608E+01	1.064E+02	7.681E+00	-0.068
TC-99M		140.51	*	6.449E+13	6.608E+01	Half-Life too short		
RH-101		127.23		-7.834E-02	4.465E-02	6.919E-02	4.037E-03	-1.132
		198.01	*	-6.440E-03	3.873E-02	6.127E-02	3.324E-03	-0.105
		325.23		-9.396E-02	2.117E-01	3.481E-01	2.020E-02	-0.270
RH-102		418.52		-3.869E-02	2.784E-01	4.597E-01	2.607E-02	-0.084
		475.06	*	1.922E-02	2.909E-02	4.982E-02	2.908E-03	0.386
		631.29		4.074E-04	5.047E-02	8.269E-02	4.865E-03	0.005
		697.49		-2.052E-02	7.829E-02	1.256E-01	7.831E-03	-0.163
	+	766.84		1.386E+00	2.688E-01	3.514E-01	2.488E-02	3.944
		1046.59		-3.313E-04	9.864E-02	1.653E-01	1.209E-02	-0.002
		1112.84		9.542E-03	1.883E-01	3.094E-01	1.986E-02	0.031
RU-103		497.08	*	1.363E-02	4.224E-02	7.101E-02	9.005E-03	0.192
	+	610.33		6.261E+00	1.928E+00	2.271E+00	3.511E-01	2.757
RH-106	+	511.85		3.300E-01	3.599E-01	3.594E-01	2.121E-02	0.918
		621.84	*	6.699E-02	3.019E-01	5.017E-01	5.913E-02	0.134
		1050.47		-3.857E-01	1.927E+00	3.173E+00	2.307E-01	-0.122
RU-106	+	511.85		3.300E-01	3.599E-01	3.594E-01	2.121E-02	0.918
		621.84	*	6.699E-02	3.018E-01	5.017E-01	2.959E-02	0.134
		1050.47		-3.857E-01	1.927E+00	3.173E+00	2.307E-01	-0.122
AG-108M		433.93	*	-1.718E-02	3.244E-02	5.236E-02	3.261E-03	-0.328
		614.37		8.672E-03	4.148E-02	5.997E-02	3.832E-03	0.145
		722.95		4.338E-03	4.405E-02	6.260E-02	4.370E-03	0.069
CD-109		88.03	*	2.388E+00	2.683E+00	2.842E+00	2.545E-01	0.840
AG-110M		657.75	*	9.873E-03	4.078E-02	5.892E-02	3.656E-03	0.168
		677.61		3.117E-01	3.071E-01	5.333E-01	3.386E-02	0.584
		706.67		-2.932E-02	2.043E-01	3.297E-01	2.198E-02	-0.089
		763.93		1.401E+00	2.524E-01	4.542E-01	3.334E-02	3.086
		884.67		-2.878E-02	5.108E-02	7.865E-02	7.002E-03	-0.366
		937.48		-1.050E-02	9.588E-02	1.527E-01	1.344E-02	-0.069
		1384.27		-7.448E-02	1.319E-01	2.026E-01	1.538E-02	-0.368
IN-111		171.28		-1.875E+00	2.519E+00	3.975E+00	2.086E-01	-0.472
		245.39	*	-1.726E+00	2.721E+00	3.658E+00	2.080E-01	-0.472
IN-113M		391.69	*	-2.847E-02	4.485E-02	7.241E-02	4.321E-03	-0.393
SN-113		391.69	*	-2.847E-02	4.485E-02	7.241E-02	4.321E-03	-0.393

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-114M		190.27	*	-9.375E-02	2.477E-01	3.422E-01	1.839E-02	-0.274
CD-115		260.90		1.173E-04	2.477E-01	Half-Life too short		
		492.35		-7.470E-05	2.477E-01	Half-Life too short		
		527.90	*	-5.234E-06	2.477E-01	Half-Life too short		
SN-117M		156.02		-2.670E+00	3.338E+00	5.280E+00	2.830E-01	-0.506
		158.56	*	3.592E-02	9.144E-02	1.312E-01	6.982E-03	0.274
SB-122		563.90	*	1.669E+00	4.628E+00	6.804E+00	4.039E-01	0.245
		692.80		4.931E+01	9.190E+01	1.549E+02	9.576E+00	0.318
I-123		159.00	*	1.333E+02	9.190E+01	Half-Life too short		
		528.96		-5.411E+03	9.190E+01	Half-Life too short		
TE-123M		159.00	*	1.800E-02	4.114E-02	5.912E-02	3.193E-03	0.304
I-124		602.71	*	4.469E-01	1.156E+00	1.697E+00	1.005E-01	0.263
		722.78		1.344E-01	7.352E+00	1.036E+01	6.776E-01	0.013
		1325.50		-4.104E+00	4.005E+01	6.552E+01	4.771E+00	-0.063
		1376.25		2.189E+01	3.526E+01	6.266E+01	4.583E+00	0.349
	+	1509.49		5.991E+01	1.855E+01	4.088E+01	2.876E+00	1.465
		1691.02		-1.260E-01	4.006E+00	6.509E+00	4.163E-01	-0.019
SB-124		602.71		1.672E-02	4.325E-02	6.350E-02	3.760E-03	0.263
		645.85		-2.658E-01	5.110E-01	8.066E-01	5.319E-02	-0.330
		709.31		1.752E+00	2.786E+00	4.727E+00	3.015E-01	0.371
		713.82		1.316E+00	1.618E+00	2.774E+00	2.935E-01	0.475
		722.78		7.288E-03	3.987E-01	5.621E-01	3.812E-02	0.013
	+	968.20		9.950E+00	3.224E+00	5.836E+00	4.783E-01	1.705
		1045.16		3.959E-01	2.195E+00	3.732E+00	2.738E-01	0.106
		1325.50		-2.378E-01	2.320E+00	3.795E+00	2.764E-01	-0.063
		1368.21		9.909E-01	1.332E+00	2.403E+00	3.048E-01	0.412
		1436.60		-8.063E-01	2.727E+00	4.295E+00	3.096E-01	-0.188
		1691.02	*	-1.612E-03	5.125E-02	8.327E-02	5.703E-03	-0.019
SB-125		427.89	*	-3.593E-02	8.808E-02	1.432E-01	8.524E-03	-0.251
		463.38		5.168E-01	2.917E-01	5.198E-01	3.520E-02	0.994
		600.56		-8.515E-02	1.724E-01	2.741E-01	1.868E-02	-0.311
		635.90		-4.717E-02	2.470E-01	3.988E-01	2.734E-02	-0.118
TE-125M		109.28	*	3.908E+01	1.859E+01	2.752E+01	2.435E+00	1.420
I-126		388.63		2.238E-01	2.373E-01	4.120E-01	2.299E-02	0.543
		666.33	*	7.163E-02	2.263E-01	3.295E-01	1.936E-02	0.217
		753.82		9.812E-01	1.717E+00	2.898E+00	2.005E-01	0.339
SB-126		223.80		-8.551E-01	5.451E+00	8.689E+00	4.849E-01	-0.098
		278.60		2.605E+00	2.833E+00	4.925E+00	2.851E-01	0.529
		296.50		6.976E+00	2.175E+00	3.568E+00	2.074E-01	1.955
		414.70		-3.063E-02	8.353E-02	1.363E-01	7.710E-03	-0.225
		415.30		-3.660E+00	6.947E+00	1.123E+01	6.357E-01	-0.326
		555.20		-1.294E-01	4.520E+00	7.428E+00	4.408E-01	-0.017
		573.80		-7.765E-01	1.307E+00	1.755E+00	1.041E-01	-0.443
		593.00		-2.593E-01	1.057E+00	1.708E+00	1.012E-01	-0.152
		656.30		1.974E+00	4.523E+00	6.647E+00	3.879E-01	0.297
		666.33		3.013E-02	9.518E-02	1.386E-01	8.143E-03	0.217
		675.00		1.347E+00	2.312E+00	3.917E+00	2.341E-01	0.344
		695.00		-5.077E-02	9.312E-02	1.465E-01	9.095E-03	-0.347
		697.00		-7.683E-02	3.153E-01	5.060E-01	3.154E-02	-0.152

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		720.50	*	3.547E-02	1.723E-01	2.590E-01	1.687E-02	0.137
		856.80		-2.972E-02	6.274E-01	8.700E-01	7.175E-02	-0.034
		989.30		-5.925E-01	1.356E+00	2.086E+00	1.664E-01	-0.284
		1034.80		-6.885E+00	8.551E+00	1.328E+01	9.909E-01	-0.519
		1213.00		-2.758E+00	4.691E+00	7.437E+00	4.412E-01	-0.371
SN-126	+	64.28		3.919E+01	5.988E+00	2.601E+00	3.798E-01	15.069
		86.94		1.294E+00	1.188E+00	1.140E+00	4.719E-01	1.136
		87.57	*	3.811E-01	2.565E-01	2.753E-01	2.456E-02	1.384
SB-127		61.10		2.729E+03	3.837E+02	3.929E+02	4.437E+01	6.947
		252.40		-5.944E-01	9.305E+00	1.290E+01	5.390E+00	-0.046
		290.80		1.317E+01	4.075E+01	6.073E+01	6.214E+00	0.217
		411.60		-1.743E+00	1.938E+01	3.209E+01	4.820E+00	-0.054
		444.90		-1.288E+00	1.543E+01	2.549E+01	2.980E+00	-0.051
		473.00		-3.164E+00	2.788E+00	4.279E+00	5.169E-01	-0.739
		543.00		-3.722E+00	2.743E+01	4.481E+01	6.157E+00	-0.083
		603.60		5.487E+00	2.167E+01	3.142E+01	3.689E+00	0.175
		685.20	*	-1.510E+00	2.163E+00	3.344E+00	3.557E-01	-0.452
		698.50		2.824E+00	2.554E+01	4.193E+01	6.437E+00	0.067
		722.20		3.208E+01	4.966E+01	7.447E+01	7.938E+00	0.431
		783.80		1.273E+01	7.144E+00	1.141E+01	1.415E+00	1.116
XE-127		57.60		2.087E+01	1.322E+01	1.965E+01	1.472E+00	1.062
	+	145.22		5.789E+00	1.406E+00	1.954E+00	1.078E-01	2.963
		172.10		-8.392E-02	1.574E-01	2.500E-01	1.314E-02	-0.336
		202.84	*	4.610E-02	6.845E-02	9.869E-02	5.384E-03	0.467
		374.96		-2.438E-02	1.979E-01	3.284E-01	1.856E-02	-0.074
I-131		80.18		-1.056E+01	1.802E+01	1.830E+01	1.532E+00	-0.577
		284.30		-1.097E+00	1.914E+00	3.148E+00	2.039E-01	-0.348
		364.48	*	6.130E-02	1.474E-01	2.508E-01	1.609E-02	0.244
		636.97		-4.901E-02	1.846E+00	3.017E+00	1.988E-01	-0.016
		722.89		6.657E-01	9.473E+00	1.342E+01	8.916E-01	0.050
TE-132		49.72		-4.592E+01	5.795E+01	9.423E+01	9.998E+00	-0.487
	+	111.76		9.869E+02	2.019E+02	1.896E+02	1.942E+01	5.206
		116.30		9.963E+01	8.413E+01	1.235E+02	1.242E+01	0.807
		228.16	*	-2.136E-01	1.472E+00	2.346E+00	3.495E-01	-0.091
BA-133		53.15		2.584E+00	6.187E+00	1.029E+01	7.598E-01	0.251
		79.62		2.415E-01	3.898E+00	4.051E+00	6.084E-01	0.060
		81.00		-6.092E-02	3.009E-01	3.097E-01	4.873E-02	-0.197
		276.40		-1.434E-02	3.975E-01	6.093E-01	7.895E-02	-0.024
		302.84		-8.497E-02	1.447E-01	2.370E-01	2.765E-02	-0.358
		356.01	*	3.117E-03	4.924E-02	7.188E-02	8.285E-03	0.043
		383.85		-2.517E-02	3.031E-01	5.035E-01	5.423E-02	-0.050
I-133	+	510.53		6.554E+00	3.031E-01	Half-Life too short		
		529.87	*	-2.335E-02	3.031E-01	Half-Life too short		
		706.58		-6.548E-01	3.031E-01	Half-Life too short		
		856.28		-1.313E+00	3.031E-01	Half-Life too short		
		875.33		-1.085E+00	3.031E-01	Half-Life too short		
		1236.41		4.937E+00	3.031E-01	Half-Life too short		
		1298.22		-1.461E+00	3.031E-01	Half-Life too short		
CS-134		475.35		1.760E+00	1.899E+00	3.293E+00	1.922E-01	0.535

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		563.23		-1.148E-01	3.848E-01	5.331E-01	3.228E-02	-0.215
	+	569.32		1.092E+00	3.435E-01	4.373E-01	2.670E-02	2.497
		604.70		2.022E-02	3.675E-02	5.461E-02	3.249E-03	0.370
		795.84	*	8.160E-02	4.681E-02	8.398E-02	6.315E-03	0.972
		801.93		-5.016E-01	3.908E-01	5.644E-01	4.279E-02	-0.889
		1038.57		8.864E-02	3.184E+00	5.350E+00	3.968E-01	0.017
		1167.94		-9.021E-01	2.029E+00	3.251E+00	1.810E-01	-0.277
		1365.15		-8.333E-01	1.017E+00	1.507E+00	1.174E-01	-0.553
CS-135		268.24	*	1.138E-01	1.826E-01	2.765E-01	2.110E-02	0.412
I-135		288.45		-1.739E+12	1.826E-01	Half-Life too short		
		417.63		-1.108E+13	1.826E-01	Half-Life too short		
		546.56		-9.236E+11	1.826E-01	Half-Life too short		
		836.80		3.469E+13	1.826E-01	Half-Life too short		
		1038.76		2.253E+12	1.826E-01	Half-Life too short		
		1124.00		6.445E+12	1.826E-01	Half-Life too short		
		1131.51		-1.540E+12	1.826E-01	Half-Life too short		
		1260.41	*	-1.020E+11	1.826E-01	Half-Life too short		
		1457.56		4.137E+14	1.826E-01	Half-Life too short		
		1678.03		-3.675E+12	1.826E-01	Half-Life too short		
		1706.46		-1.633E+13	1.826E-01	Half-Life too short		
		1791.20		-2.485E+12	1.826E-01	Half-Life too short		
CS-136		66.91		-4.393E+00	1.905E+00	2.453E+00	3.653E-01	-1.791
		86.29		5.265E+00	3.957E+00	4.205E+00	5.456E-01	1.252
		153.22		3.973E-02	9.745E-01	1.579E+00	1.091E-01	0.025
	+	163.89		5.580E+00	2.287E+00	2.903E+00	1.980E-01	1.922
		176.55		2.812E-02	5.337E-01	8.622E-01	5.231E-02	0.033
		273.65		-4.384E-01	5.817E-01	8.184E-01	5.402E-02	-0.536
		340.57		2.675E-01	1.612E-01	2.560E-01	1.574E-02	1.045
		818.51		3.928E-02	7.824E-02	1.318E-01	1.022E-02	0.298
		1048.07	*	2.277E-02	1.059E-01	1.807E-01	1.397E-02	0.126
		1235.34		-1.807E-01	5.747E-01	9.326E-01	9.533E-02	-0.194
CE-139		165.85	*	5.810E-02	4.303E-02	6.376E-02	3.329E-03	0.911
BA-140	+	162.64		3.946E+00	1.613E+00	2.061E+00	1.247E-01	1.914
		304.84		-8.944E-01	1.513E+00	2.449E+00	6.684E-01	-0.365
		423.70		3.041E-01	2.165E+00	3.582E+00	1.138E+00	0.085
		537.32	*	-1.079E-01	2.879E-01	4.598E-01	1.496E-01	-0.235
LA-140		328.77		2.855E-01	3.377E-01	5.830E-01	3.788E-02	0.490
		432.53		9.692E-01	2.359E+00	3.999E+00	2.533E-01	0.242
		487.03		1.445E-01	1.523E-01	2.649E-01	1.753E-02	0.546
		751.79		-9.258E-01	2.048E+00	3.223E+00	2.583E-01	-0.287
		815.85		-2.199E-01	3.486E-01	5.340E-01	4.700E-02	-0.412
		867.82		5.266E-02	1.646E+00	2.302E+00	2.041E-01	0.023
		919.63		1.340E+00	3.462E+00	5.032E+00	5.365E-01	0.266
		925.24		1.195E+00	1.265E+00	2.188E+00	1.998E-01	0.546
		1596.49	*	-5.737E-02	8.074E-02	1.180E-01	7.982E-03	-0.486
CE-141		145.44	*	4.526E-01	1.132E-01	1.748E-01	1.007E-02	2.589
CE-143		57.37		1.232E-02	1.132E-01	Half-Life too short		
		231.56		-6.272E-04	1.132E-01	Half-Life too short		
		293.26	*	2.783E-03	1.132E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	350.59		6.747E-02	1.132E-01	Half-Life too short		
		490.36		-7.616E-03	1.132E-01	Half-Life too short		
		664.57		6.392E-03	1.132E-01	Half-Life too short		
		721.93		3.880E-03	1.132E-01	Half-Life too short		
CE-144		80.11		-3.794E+00	6.530E+00	6.633E+00	5.496E-01	-0.572
		133.54	*	-1.935E-01	2.917E-01	4.643E-01	6.577E-02	-0.417
PM-144		476.78		4.181E-02	6.837E-02	1.167E-01	8.145E-03	0.358
		618.01		9.110E-04	3.037E-02	4.980E-02	3.111E-03	0.018
		696.49	*	-3.041E-02	3.509E-02	5.391E-02	3.359E-03	-0.564
		778.57		8.560E-01	2.197E+00	3.578E+00	2.588E-01	0.239
PR-144		696.49	*	-2.064E+00	2.381E+00	3.659E+00	2.278E-01	-0.564
		1489.15		-9.348E+00	8.932E+00	1.208E+01	8.562E-01	-0.774
PM-146		453.90	*	2.830E-02	4.351E-02	7.444E-02	6.411E-03	0.380
		633.02		-6.018E-01	1.295E+00	2.019E+00	7.437E-01	-0.298
		735.90		-5.218E-02	1.941E-01	2.487E-01	6.986E-02	-0.210
		747.13		5.241E-02	9.896E-02	1.464E-01	1.906E-02	0.358
ND-147		91.11		4.945E+01	4.711E+00	2.323E+00	2.146E-01	21.287
		319.41		1.893E-01	3.830E+00	6.438E+00	3.743E-01	0.029
		439.89		2.755E+00	6.635E+00	1.125E+01	6.469E-01	0.245
		531.02	*	3.888E-01	6.575E-01	1.118E+00	1.518E-01	0.348
PM-149		285.90	*	-7.404E-05	6.575E-01	Half-Life too short		
EU-152		121.78		5.922E-02	1.047E-01	1.724E-01	1.335E-02	0.343
		244.69		1.570E-02	4.133E-01	5.770E-01	3.279E-02	0.027
		344.27	*	3.701E-02	1.228E-01	1.605E-01	1.044E-02	0.231
		443.98		-2.411E-01	9.161E-01	1.498E+00	8.625E-02	-0.161
		778.89		8.500E-02	2.594E-01	4.201E-01	3.037E-02	0.202
		867.32		-2.340E-01	8.546E-01	1.148E+00	9.634E-02	-0.204
	+	964.01		5.499E-01	2.583E-01	4.721E-01	3.889E-02	1.165
		1085.78		1.234E-01	3.239E-01	5.595E-01	3.807E-02	0.221
		1112.02		7.578E-02	2.613E-01	4.471E-01	2.876E-02	0.169
		1407.95		4.029E-02	1.498E-01	2.553E-01	1.854E-02	0.158
GD-153		69.67		4.302E+00	3.253E+00	4.797E+00	3.692E-01	0.897
	+	83.37		8.561E+01	3.694E+01	5.146E+01	4.396E+00	1.664
	+	97.43	*	1.203E+00	2.041E-01	2.772E-01	2.156E-02	4.341
		103.18		-9.235E-02	1.845E-01	2.599E-01	1.882E-02	-0.355
EU-154		123.07		2.572E-02	7.341E-02	1.204E-01	1.142E-02	0.214
		247.94		-1.773E-01	4.231E-01	6.397E-01	6.063E-02	-0.277
		591.81		-1.669E-01	6.196E-01	9.716E-01	9.570E-02	-0.172
		723.30		4.652E-02	1.860E-01	2.682E-01	2.066E-02	0.173
		756.87		4.999E-01	7.835E-01	1.295E+00	1.404E-01	0.386
		873.19		5.553E-02	2.764E-01	4.538E-01	5.508E-02	0.122
		996.32		-1.431E-01	3.923E-01	5.149E-01	8.974E-02	-0.278
		1004.76		8.983E-01	2.750E-01	4.826E-01	5.335E-02	1.861
		1274.45	*	-2.807E-02	9.883E-02	1.595E-01	1.578E-02	-0.176
EU-155		48.70		-4.617E+00	3.855E+00	6.223E+00	4.364E-01	-0.742
		60.01		2.828E+01	1.068E+01	1.594E+01	1.200E+00	1.774
		86.54		3.879E-01	3.108E-01	3.322E-01	2.960E-02	1.167
		105.31	*	-3.390E-01	1.774E-01	2.651E-01	1.907E-02	-1.279
TB-160		86.79		1.006E+00	8.492E-01	9.067E-01	8.020E-02	1.110

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		197.04		3.997E-01	6.623E-01	1.085E+00	5.880E-02	0.368
		215.65		-9.006E-03	8.646E-01	1.387E+00	7.675E-02	-0.006
		298.57		1.012E-01	1.310E-01	1.995E-01	1.160E-02	0.507
		879.36	*	-1.130E-02	1.426E-01	2.288E-01	1.957E-02	-0.049
		962.29		2.122E-01	5.204E-01	7.564E-01	6.242E-02	0.280
	+	966.15		3.879E-01	1.822E-01	4.063E-01	3.338E-02	0.955
		1177.93		4.114E-02	3.100E-01	5.223E-01	2.890E-02	0.079
		1271.85		8.155E-01	5.979E-01	1.111E+00	7.360E-02	0.734
HO-166M		80.57		-4.177E-01	8.302E-01	8.457E-01	7.036E-02	-0.494
	+	184.41		1.304E+00	1.065E-01	1.347E-01	7.187E-03	9.682
		280.46		-5.774E-02	8.631E-02	1.416E-01	8.204E-03	-0.408
		410.95		1.301E-01	2.341E-01	3.998E-01	2.256E-02	0.325
		711.68	*	-2.106E-02	6.033E-02	9.596E-02	6.147E-03	-0.219
		752.31		-8.101E-02	2.810E-01	4.478E-01	3.089E-02	-0.181
		810.29		3.049E-02	5.631E-02	9.493E-02	7.246E-03	0.321
TM-171		51.35		2.601E+01	5.138E+01	8.561E+01	6.243E+00	0.304
		52.39		5.732E+00	2.707E+01	4.490E+01	3.301E+00	0.128
		59.40		1.228E+02	5.651E+01	8.425E+01	6.338E+00	1.457
		66.72	*	-9.907E+01	5.586E+01	7.696E+01	5.850E+00	-1.287
LU-176		88.36		8.205E-01	6.254E-01	6.681E-01	5.950E-02	1.228
		201.83		1.343E-03	3.903E-02	5.483E-02	2.988E-03	0.024
		306.84	*	-4.129E-03	2.490E-02	4.154E-02	2.417E-03	-0.099
		401.10		-3.099E-01	6.594E+00	1.096E+01	6.139E-01	-0.028
LU-177	+	112.95		3.974E+01	7.507E+00	7.530E+00	4.903E-01	5.278
		208.36	*	2.136E+00	1.848E+00	2.719E+00	1.493E-01	0.786
LU-177M		52.97		1.033E+00	2.831E+00	4.704E+00	3.471E-01	0.220
		54.07		-1.175E+00	1.540E+00	2.509E+00	1.861E-01	-0.468
		61.30		5.699E+01	5.698E+00	6.646E+00	5.000E-01	8.575
		121.62		3.015E-01	5.428E-01	8.945E-01	5.348E-02	0.337
		147.16		1.066E+00	9.669E-01	1.421E+00	7.803E-02	0.750
		171.86		-4.816E-01	6.102E-01	9.615E-01	5.051E-02	-0.501
		218.09		3.838E-02	9.676E-01	1.554E+00	8.623E-02	0.025
	+	268.79		1.827E+00	1.294E+00	1.430E+00	8.246E-02	1.277
		319.02		6.105E-02	2.528E-01	4.284E-01	2.490E-02	0.143
		367.43		-1.110E-01	9.206E-01	1.529E+00	8.695E-02	-0.073
		413.65	*	-2.078E-01	1.713E-01	2.665E-01	1.506E-02	-0.780
HF-181		56.28		-3.778E-02	1.866E+00	2.976E+00	2.222E-01	-0.013
		57.53		1.662E+00	1.102E+00	1.637E+00	1.226E-01	1.015
		65.20		4.101E+01	3.901E+00	4.295E+00	3.250E-01	9.549
		133.02		3.012E-02	9.637E-02	1.577E-01	9.023E-03	0.191
		136.25		-2.635E-01	6.492E-01	1.043E+00	5.909E-02	-0.253
		345.85		-8.430E-02	2.389E-01	3.198E-01	1.843E-02	-0.264
		482.03	*	-1.260E-03	4.336E-02	7.163E-02	4.192E-03	-0.018
W-181		56.28		-1.181E-01	7.104E-01	1.130E+00	8.441E-02	-0.104
		57.53		6.308E-01	4.189E-01	6.222E-01	4.660E-02	1.014
		65.20	*	1.546E+01	1.471E+00	1.619E+00	1.225E-01	9.549
TA-182		67.75		-4.248E-01	2.424E-01	3.093E-01	2.360E-02	-1.374
	+	100.10		2.828E+00	4.796E-01	5.858E-01	4.402E-02	4.828
		152.43		-1.068E-01	4.451E-01	7.162E-01	3.876E-02	-0.149

---- Non-Identified Nuclides ----

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		222.10		4.835E-02	3.947E-01	6.355E-01	3.540E-02	0.076
	+	1001.68		6.409E+01	7.440E+00	1.051E+01	8.247E-01	6.097
	+	1121.28		3.274E-01	2.067E-01	2.624E-01	1.652E-02	1.247
		1189.05		-7.248E-02	2.423E-01	3.928E-01	2.222E-02	-0.185
		1221.42	*	-7.993E-02	1.660E-01	2.652E-01	1.599E-02	-0.301
		1230.97		1.442E-01	3.912E-01	6.695E-01	4.112E-02	0.215
RE-183		57.98		6.198E-01	4.278E-01	6.345E-01	4.758E-02	0.977
		59.32		4.978E-01	2.380E-01	3.546E-01	2.667E-02	1.404
		67.20		-9.416E-01	4.124E-01	5.585E-01	4.253E-02	-1.686
	+	162.32	*	5.088E-01	2.074E-01	2.641E-01	1.391E-02	1.927
		208.81		1.603E+00	1.261E+00	1.865E+00	1.024E-01	0.859
		291.72		7.355E-01	1.106E+00	1.677E+00	9.741E-02	0.439
RE-184		57.98		2.246E+00	1.551E+00	2.300E+00	1.724E-01	0.977
		59.32		1.803E+00	8.618E-01	1.284E+00	9.658E-02	1.404
		67.20		-3.412E+00	1.494E+00	2.023E+00	1.541E-01	-1.686
		161.27		1.040E+00	5.346E-01	8.048E-01	4.252E-02	1.292
		216.55		3.266E-02	2.988E-01	4.812E-01	2.666E-02	0.068
		252.85	*	-8.375E-02	3.023E-01	4.142E-01	2.367E-02	-0.202
		318.01		2.310E-01	4.435E-01	7.599E-01	4.417E-02	0.304
		792.07		1.496E-01	1.152E+00	1.633E+00	1.208E-01	0.092
		903.28		-1.239E+00	9.632E-01	1.311E+00	1.149E-01	-0.945
		920.93		-4.019E-02	4.560E-01	7.085E-01	6.112E-02	-0.057
OS-185		59.72		1.617E+00	6.399E-01	9.555E-01	7.189E-02	1.693
		61.14		5.082E+00	5.539E-01	6.942E-01	5.223E-02	7.321
		69.30		7.406E-01	6.304E-01	8.674E-01	6.663E-02	0.854
		592.07		-6.548E-01	2.583E+00	4.057E+00	2.404E-01	-0.161
		646.12	*	-2.405E-02	4.268E-02	6.714E-02	3.932E-03	-0.358
		717.42		-2.906E-01	8.777E-01	1.396E+00	9.037E-02	-0.208
		874.81		-3.408E-01	5.693E-01	8.711E-01	7.397E-02	-0.391
		880.27		3.988E-01	7.770E-01	1.304E+00	1.117E-01	0.306
RE-188		155.03	*	-5.414E-03	2.240E-01	3.624E-01	1.947E-02	-0.015
		477.96		1.884E+00	3.205E+00	5.465E+00	3.194E-01	0.345
		633.10		-1.149E+00	2.658E+00	4.218E+00	2.480E-01	-0.272
W-188	+	63.58		4.095E+03	3.598E+02	2.838E+02	2.141E+01	14.427
		227.08		-3.959E+00	1.527E+01	2.424E+01	1.357E+00	-0.163
		290.67	*	3.623E+00	8.583E+00	1.286E+01	7.471E-01	0.282
IR-192	+	295.96		7.163E-01	2.013E-01	2.448E-01	1.445E-02	2.926
		308.46		5.168E-02	9.960E-02	1.706E-01	1.004E-02	0.303
		316.51	*	6.809E-03	3.540E-02	5.987E-02	3.498E-03	0.114
		468.07		-1.845E-03	6.804E-02	1.125E-01	7.546E-03	-0.016
		604.41		2.074E-01	5.148E-01	7.554E-01	8.619E-02	0.275
		612.46		6.406E-01	8.267E-01	1.245E+00	9.533E-02	0.514
AU-195		65.12		7.820E+00	7.242E-01	7.677E-01	5.808E-02	10.186
		66.83		-3.370E-01	1.861E-01	2.560E-01	1.947E-02	-1.316
	+	75.70		9.374E-01	4.173E-01	5.981E-01	4.779E-02	1.567
	+	98.88	*	3.513E+00	5.958E-01	7.787E-01	5.943E-02	4.511
		129.76		6.274E+00	3.969E+00	6.658E+00	3.851E-01	0.942
TL-200		367.94	*	-1.444E-04	3.969E+00	Half-Life too short		
		579.30		2.004E-02	3.969E+00	Half-Life too short		

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		828.27		2.124E-02	3.969E+00	Half-Life too short		
		1205.75		8.566E-03	3.969E+00	Half-Life too short		
TL-201		68.90		1.507E+01	1.894E+01	2.589E+01	1.985E+00	0.582
		70.82		2.235E+01	1.032E+01	1.532E+01	1.186E+00	1.459
		80.30		-1.749E+01	2.939E+01	2.984E+01	2.477E+00	-0.586
		135.34		-5.884E+01	6.743E+01	1.070E+02	6.081E+00	-0.550
		167.43	*	1.127E+01	1.868E+01	2.699E+01	1.410E+00	0.418
TL-202		68.90		8.317E-01	1.045E+00	1.429E+00	1.096E-01	0.582
		70.82		1.231E+00	5.683E-01	8.433E-01	6.529E-02	1.459
		80.30		-9.630E-01	1.619E+00	1.643E+00	1.364E-01	-0.586
		439.56	*	2.013E-02	7.877E-02	1.325E-01	7.610E-03	0.152
HG-203		70.83		4.435E+00	2.238E+00	3.245E+00	4.240E-01	1.367
		72.87		2.849E+00	1.334E+00	1.928E+00	2.450E-01	1.477
	+	82.60		6.586E+00	2.928E+00	3.964E+00	5.414E-01	1.661
		279.20	*	1.735E-02	4.214E-02	7.201E-02	4.428E-03	0.241
BI-207		72.80		9.639E-01	3.650E-01	5.411E-01	4.238E-02	1.781
	+	74.97		5.144E-01	2.290E-01	3.233E-01	2.570E-02	1.591
	+	84.90		1.098E+00	4.740E-01	6.500E-01	5.639E-02	1.690
	+	569.67		1.697E-01	5.335E-02	6.625E-02	3.933E-03	2.562
		1063.62	*	-4.278E-02	4.027E-02	6.111E-02	4.339E-03	-0.700
		1770.23		2.016E-01	2.597E-01	4.710E-01	2.841E-02	0.428
TL-207		81.07		-8.172E-02	6.638E-01	6.854E-01	5.729E-02	-0.119
	+	83.78		7.241E-01	3.125E-01	4.334E-01	3.718E-02	1.671
		94.90		1.730E+01	1.576E+00	1.234E+00	9.934E-02	14.017
		122.32		1.227E+00	2.494E+00	4.104E+00	2.803E-01	0.299
	+	144.24		5.376E+00	1.326E+00	1.834E+00	1.288E-01	2.931
		154.21		9.351E-02	4.999E-01	8.132E-01	5.428E-02	0.115
	+	269.46		4.224E-01	2.994E-01	3.379E-01	2.038E-02	1.250
		323.87	*	-8.983E-01	6.521E-01	9.988E-01	1.650E-01	-0.899
	+	338.28		3.881E+00	1.622E+00	1.984E+00	2.088E-01	1.956
		445.03		-1.103E-01	2.161E+00	3.576E+00	3.664E-01	-0.031
PO-209		260.50		1.315E+01	1.242E+01	1.823E+01	1.046E+00	0.721
		262.80		8.623E+00	3.507E+01	4.600E+01	2.644E+00	0.187
		896.60	*	7.016E+00	7.052E+00	1.224E+01	1.076E+00	0.573
BI-210		46.50	*	8.161E-01	5.250E+00	8.687E+00	6.622E-01	0.094
PB-210		46.50	*	8.161E-01	5.250E+00	8.687E+00	6.622E-01	0.094
PO-210		46.50	*	8.161E-01	5.250E+00	8.687E+00	5.662E-01	0.094
PB-211		404.84	*	-6.240E-01	1.026E+00	1.532E+00	9.547E-01	-0.407
		427.08		-7.518E-01	2.016E+00	3.194E+00	1.974E+00	-0.235
		831.96		-9.020E-01	1.284E+00	1.717E+00	1.074E+00	-0.525
PO-215		81.07		-8.172E-02	6.638E-01	6.854E-01	5.729E-02	-0.119
	+	83.78		7.241E-01	3.125E-01	4.334E-01	3.718E-02	1.671
		94.90		1.730E+01	1.576E+00	1.234E+00	9.934E-02	14.017
		122.32		1.227E+00	2.494E+00	4.104E+00	2.803E-01	0.299
	+	144.24		5.376E+00	1.326E+00	1.834E+00	1.288E-01	2.931
		154.21		9.351E-02	4.999E-01	8.132E-01	5.428E-02	0.115
	+	269.46		4.224E-01	2.994E-01	3.379E-01	2.038E-02	1.250
		323.87	*	-8.983E-01	6.521E-01	9.988E-01	1.650E-01	-0.899
	+	338.28		3.881E+00	1.622E+00	1.984E+00	2.088E-01	1.956

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		445.03		-1.103E-01	2.161E+00	3.576E+00	3.664E-01	-0.031
RN-219	+	271.23		5.420E-01	3.853E-01	4.383E-01	3.543E-02	1.237
		401.81	*	-9.984E-03	4.059E-01	6.751E-01	9.131E-02	-0.015
RN-220		549.76	*	8.586E+00	2.599E+01	4.362E+01	2.588E+00	0.197
RA-223		81.07		-8.172E-02	6.638E-01	6.854E-01	5.729E-02	-0.119
	+	83.78		7.241E-01	3.125E-01	4.334E-01	3.718E-02	1.671
		94.90		1.730E+01	1.576E+00	1.234E+00	9.934E-02	14.017
		122.32		1.227E+00	2.494E+00	4.104E+00	2.803E-01	0.299
	+	144.24		5.376E+00	1.326E+00	1.834E+00	1.288E-01	2.931
		154.21		9.351E-02	4.999E-01	8.132E-01	5.428E-02	0.115
	+	269.46		4.224E-01	2.994E-01	3.379E-01	2.038E-02	1.250
		323.87	*	-8.983E-01	6.521E-01	9.988E-01	1.650E-01	-0.899
	+	338.28		3.881E+00	1.622E+00	1.984E+00	2.088E-01	1.956
		445.03		-1.103E-01	2.161E+00	3.576E+00	3.664E-01	-0.031
AC-227		79.80		-1.871E-01	4.936E+00	5.113E+00	1.092E+00	-0.037
		236.00		1.347E+00	3.300E-01	4.971E-01	5.153E-02	2.710
		256.20	*	8.877E-01	5.360E-01	7.872E-01	1.097E-01	1.128
		286.10		-5.589E-01	1.518E+00	2.515E+00	2.908E-01	-0.222
		299.80		8.866E-01	1.605E+00	2.410E+00	3.926E-01	0.368
		304.40		-1.876E+00	1.919E+00	3.053E+00	5.283E-01	-0.614
		334.20		4.077E-01	2.534E+00	3.729E+00	6.834E-01	0.109
TH-227		79.80		-1.871E-01	4.936E+00	5.113E+00	1.107E+00	-0.037
	+	94.00		4.050E+02	8.834E+01	1.462E+01	3.159E+00	27.697
		236.00		1.347E+00	3.224E-01	4.971E-01	4.453E-02	2.710
		256.20	*	8.877E-01	5.427E-01	7.872E-01	1.328E-01	1.128
		286.10		-5.589E-01	1.617E+00	2.515E+00	2.520E+00	-0.222
		299.80		8.866E-01	1.605E+00	2.410E+00	3.926E-01	0.368
		304.40		-1.876E+00	1.919E+00	3.053E+00	5.283E-01	-0.614
		334.20		4.077E-01	2.534E+00	3.729E+00	6.834E-01	0.109
TH-229	+	85.43		1.084E+00	4.677E-01	6.374E-01	5.559E-02	1.701
		88.47		8.226E-01	3.543E-01	3.847E-01	3.420E-02	2.138
	+	100.00		2.884E+00	4.892E-01	6.072E-01	4.569E-02	4.751
		193.63	*	2.820E-01	5.879E-01	9.602E-01	5.181E-02	0.294
		210.97		6.372E-01	9.648E-01	1.391E+00	7.662E-02	0.458
PA-231		283.67	*	-6.326E-01	1.564E+00	2.553E+00	3.518E-01	-0.248
		301.29		1.160E+00	6.045E-01	9.938E-01	1.040E-01	1.167
TH-231		81.07		-8.172E-02	6.638E-01	6.854E-01	5.729E-02	-0.119
	+	83.78		7.241E-01	3.125E-01	4.334E-01	3.718E-02	1.671
		94.90		1.730E+01	1.576E+00	1.234E+00	9.934E-02	14.017
		122.32		1.227E+00	2.494E+00	4.104E+00	2.803E-01	0.299
	+	144.24		5.376E+00	1.326E+00	1.834E+00	1.288E-01	2.931
		154.21		9.351E-02	4.999E-01	8.132E-01	5.428E-02	0.115
	+	269.46		4.224E-01	2.994E-01	3.379E-01	2.038E-02	1.250
		323.87	*	-8.983E-01	6.521E-01	9.988E-01	1.650E-01	-0.899
	+	338.28		3.881E+00	1.622E+00	1.984E+00	2.088E-01	1.956
		445.03		-1.103E-01	2.161E+00	3.576E+00	3.664E-01	-0.031
U-231	+	84.21		4.994E+01	2.155E+01	2.965E+01	2.554E+00	1.685
	+	92.29		6.407E+02	5.573E+01	2.506E+01	2.096E+00	25.561
		95.87	*	2.281E+01	5.028E+00	5.751E+00	4.568E-01	3.965

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		6.471E+00	6.010E+00	8.814E+00	6.046E-01	0.734
PA-233	+	75.28		1.501E+01	6.949E+00	9.514E+00	1.426E+00	1.578
		86.59		6.229E+00	5.284E+00	5.389E+00	1.449E+00	1.156
		300.12		2.266E-01	4.462E-01	6.697E-01	9.004E-02	0.338
		311.98	*	-4.185E-02	6.564E-02	1.073E-01	6.622E-03	-0.390
		340.50		1.200E+00	7.266E-01	1.079E+00	2.478E-01	1.112
		398.62		-8.027E-01	2.065E+00	3.357E+00	8.664E-01	-0.239
		415.76		-3.884E-01	1.546E+00	2.535E+00	5.209E-01	-0.153
PA-234	+	63.00		1.154E+02	1.800E+01	8.256E+00	1.232E+00	13.979
		94.67		1.786E+01	2.224E+00	1.022E+00	1.229E-01	17.480
	+	98.44		1.408E+00	8.121E-01	3.136E-01	1.745E-01	4.491
	+	99.86		7.299E+00	1.238E+00	1.564E+00	1.179E-01	4.666
		111.00		2.032E+00	4.444E-01	6.183E-01	6.658E-02	3.286
		131.20		2.058E-01	1.475E-01	2.466E-01	1.419E-02	0.835
		152.70		-4.383E-02	4.175E-01	6.740E-01	1.056E-01	-0.065
	+	186.00		4.695E+01	1.460E+01	4.957E+00	1.510E+00	9.473
		226.40		2.924E-01	4.620E-01	7.546E-01	8.646E-02	0.387
		227.20		-2.122E-01	5.033E-01	7.944E-01	4.447E-02	-0.267
		248.90		-4.495E-03	9.108E-01	1.455E+00	3.122E-01	-0.003
	+	293.70		4.390E+00	1.398E+00	1.497E+00	2.408E-01	2.932
		369.80		2.282E-01	8.422E-01	1.422E+00	2.956E-01	0.161
	+	568.70		5.524E+00	1.736E+00	2.275E+00	1.351E-01	2.427
	+	569.50		1.506E+00	4.734E-01	5.957E-01	3.536E-02	2.529
		574.00		-8.978E-01	1.603E+00	2.160E+00	1.282E-01	-0.416
		699.00		3.068E-01	7.130E-01	1.191E+00	2.159E-01	0.258
		706.10		-5.639E-01	1.067E+00	1.631E+00	7.209E-01	-0.346
		733.00		3.844E-02	4.454E-01	6.241E-01	1.343E-01	0.062
	+	742.81		4.221E+00	4.044E+00	3.020E+00	2.024E+00	1.398
		796.30		1.626E+00	9.942E-01	1.625E+00	4.339E-01	1.001
		805.60		5.152E-01	9.550E-01	1.590E+00	4.830E-01	0.324
		819.60		5.239E-01	1.149E+00	1.901E+00	7.194E-01	0.276
		826.30		-1.222E-01	7.759E-01	1.237E+00	5.517E-01	-0.099
		831.60		-4.374E-01	5.940E-01	8.805E-01	2.611E-01	-0.497
		876.40		-3.253E-01	8.781E-01	1.268E+00	1.303E+00	-0.257
		880.51		2.149E-01	2.705E-01	4.633E-01	3.971E-02	0.464
		883.24		-4.396E-02	2.880E-01	4.567E-01	3.070E-01	-0.096
		899.00		5.567E-01	8.230E-01	1.341E+00	5.868E-01	0.415
		925.00		1.042E+00	1.124E+00	1.942E+00	1.669E-01	0.537
		926.50		7.646E-02	1.720E-01	2.853E-01	7.208E-02	0.268
		946.00	*	3.094E-01	2.975E-01	5.096E-01	9.512E-02	0.607
		949.00		-7.255E-02	4.476E-01	7.105E-01	5.953E-02	-0.102
		980.50		-4.962E-01	6.399E-01	9.464E-01	7.638E-02	-0.524
		1394.10		4.937E-01	1.038E+00	1.727E+00	1.122E+00	0.286
NP-236		94.67		1.364E+01	1.184E+00	7.772E-01	6.278E-02	17.550
	+	98.44		1.065E+00	1.805E-01	2.371E-01	1.819E-02	4.491
		111.00		1.537E+00	3.099E-01	4.677E-01	3.107E-02	3.286
		160.31	*	3.421E-02	1.161E-01	1.658E-01	8.784E-03	0.206
NP-237		86.50	*	9.529E-01	7.824E-01	8.098E-01	1.817E-01	1.177
		95.87		1.257E+01	4.010E+00	3.169E+00	7.734E-01	3.965

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		2.433E+00	4.126E-01	5.310E-01	4.018E-02	4.582
		117.00	*	2.036E-01	3.101E-01	4.510E-01	2.820E-02	0.451
		209.75		8.060E-01	9.824E-01	1.426E+00	7.841E-02	0.565
		228.18		-4.053E-02	2.622E-01	4.178E-01	2.341E-02	-0.097
		277.60		1.463E-01	1.804E-01	3.053E-01	1.767E-02	0.479
		334.30		2.538E-01	1.436E+00	2.116E+00	1.225E-01	0.120
AM-241		59.54	*	7.652E-01	3.296E-01	4.902E-01	4.036E-02	1.561
CM-243	+	99.55		2.504E+00	4.247E-01	5.465E-01	4.136E-02	4.582
		103.76	*	-1.080E-01	1.700E-01	2.385E-01	1.715E-02	-0.453
		117.00		2.095E-01	3.191E-01	4.641E-01	2.902E-02	0.451
		209.75		7.947E-01	9.686E-01	1.406E+00	7.731E-02	0.565
		228.18		-4.096E-02	2.650E-01	4.222E-01	2.366E-02	-0.097
		277.60		1.475E-01	1.819E-01	3.079E-01	1.782E-02	0.479
AM-246		798.80		-9.857E-02	1.400E-01	2.151E-01	1.610E-02	-0.458
		1036.00		-2.111E-01	2.471E-01	3.817E-01	2.843E-02	-0.553
		1062.04		-5.552E-03	1.695E-01	2.829E-01	2.015E-02	-0.020
		1078.86	*	8.864E-02	1.179E-01	2.095E-01	1.445E-02	0.423
CM-247		278.00		7.873E-01	7.272E-01	1.271E+00	7.355E-02	0.620
		287.40		-9.607E-01	1.308E+00	2.008E+00	1.165E-01	-0.478
		402.60	*	1.070E-02	3.639E-02	6.144E-02	3.446E-03	0.174
CF-249		252.85		-3.106E-01	1.121E+00	1.536E+00	8.780E-02	-0.202
		333.44		2.207E-02	1.861E-01	2.733E-01	1.583E-02	0.081
		387.95	*	1.546E-02	4.015E-02	6.810E-02	3.803E-03	0.227
CF-251		176.60	*	-1.713E-02	1.592E-01	2.560E-01	1.353E-02	-0.067
		227.00		-1.040E-01	4.456E-01	7.081E-01	3.964E-02	-0.147
		285.00		-6.356E-01	1.758E+00	2.917E+00	1.692E-01	-0.218

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978004      *
* Acquisition date : 14-FEB-2010 11:18:29 Detector SN#    :                 *
* Detector ID        : GAM19               Sensitivity     : 5.000         *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:02.56      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245978004           Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.6473E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.200E+01	2.057E+00	4.186E-01	0.000E+00
NB-95	5.670E-01	1.078E-01	6.260E-02	0.000E+00
BA-137M	1.828E-01	6.746E-02	5.837E-02	0.000E+00
CS-137	1.933E-01	7.132E-02	6.170E-02	0.000E+00
TL-208	3.634E-01	7.256E-02	6.119E-02	0.000E+00
BI-211	2.019E+00	4.157E-01	3.414E-01	0.000E+00
BI-212	1.145E+00	4.513E-01	4.819E-01	0.000E+00
PB-212	1.097E+00	1.205E-01	9.991E-02	0.000E+00
PO-212	1.097E+00	1.205E-01	9.991E-02	0.000E+00
BI-214	5.514E-01	1.500E-01	1.123E-01	0.000E+00
PB-214	7.023E-01	1.490E-01	1.190E-01	0.000E+00
PO-214	7.023E-01	1.490E-01	1.190E-01	0.000E+00
PO-216	1.097E+00	1.205E-01	9.991E-02	0.000E+00
PO-218	7.023E-01	1.490E-01	1.190E-01	0.000E+00
RA-224	3.021E+00	1.161E+00	1.136E+00	0.000E+00
RA-226	5.514E-01	1.500E-01	1.123E-01	0.000E+00
AC-228	1.102E+00	2.658E-01	1.914E-01	0.000E+00
RA-228	1.102E+00	2.658E-01	1.914E-01	0.000E+00
TH-228	1.117E+00	1.227E-01	1.017E-01	0.000E+00
TH-230	5.514E-01	1.500E-01	1.123E-01	0.000E+00
TH-232	1.102E+00	2.658E-01	1.914E-01	0.000E+00
PA-234M	1.430E+02	1.772E+01	6.204E+00	0.000E+00
TH-234	9.901E+01	1.753E+01	4.097E+00	0.000E+00
U-234	5.514E-01	1.500E-01	1.123E-01	0.000E+00
U-235	1.659E+00	4.662E-01	4.948E-01	0.000E+00
U-238	9.901E+01	1.753E+01	4.097E+00	0.000E+00
AM-243	2.865E-01	1.250E-01	1.834E-01	0.000E+00
ANH-511	6.571E-02	7.023E-02	4.873E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	3.077E-01	3.312E-01	6.125E-01	0.000E+00	NOT IDENT.
NA-22	-1.897E-02	3.517E-02	5.737E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.238E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.936E-03	2.591E-02	4.383E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	8.273E-02	1.241E-01	0.000E+00	FAIL ABUN
SC-46	1.766E-02	3.799E-02	6.659E-02	0.000E+00	FAIL ABUN
V-48	-7.789E-03	6.656E-02	1.104E-01	0.000E+00	NOT IDENT.
CR-51	1.064E-01	3.764E-01	6.908E-01	0.000E+00	NOT IDENT.
MN-52	7.536E-02	2.415E-01	4.292E-01	0.000E+00	FAIL ABUN
MN-54	-1.915E-02	3.511E-02	5.719E-02	0.000E+00	NOT IDENT.
CO-56	6.194E-03	3.826E-02	6.577E-02	0.000E+00	NOT IDENT.
CO-57	2.184E-02	3.552E-02	6.514E-02	0.000E+00	NOT IDENT.
CO-58	3.831E-03	3.778E-02	6.486E-02	0.000E+00	NOT IDENT.
FE-59	2.371E-02	7.750E-02	1.383E-01	0.000E+00	FAIL ABUN
CO-60	1.117E-03	3.178E-02	5.471E-02	0.000E+00	NOT IDENT.
ZN-65	-1.823E-02	8.263E-02	1.206E-01	0.000E+00	NOT IDENT.
GE-68	1.951E-02	9.944E-01	1.738E+00	0.000E+00	NOT IDENT.
AS-73	-1.196E-01	1.454E+00	2.730E+00	0.000E+00	NOT IDENT.
AS-74	-3.689E-02	9.492E-02	1.613E-01	0.000E+00	NOT IDENT.
SE-75	-7.392E-03	5.884E-02	8.184E-02	0.000E+00	NOT IDENT.
BR-77	1.678E+01	2.338E+01	4.272E+01	0.000E+00	FAIL ABUN
SR-82	-8.098E-02	3.871E-01	6.515E-01	0.000E+00	NOT IDENT.
RB-83	2.279E-02	6.973E-02	1.248E-01	0.000E+00	NOT IDENT.
RB-84	6.970E-02	7.117E-02	1.291E-01	0.000E+00	NOT IDENT.
KR-85	1.186E+01	7.575E+00	1.284E+01	0.000E+00	NOT IDENT.
SR-85	6.268E-02	4.002E-02	6.786E-02	0.000E+00	NOT IDENT.
RB-86	-1.749E-01	7.012E-01	1.197E+00	0.000E+00	NOT IDENT.
Y-88	-3.452E-02	3.153E-02	4.214E-02	0.000E+00	NOT IDENT.
ZR-88	-8.651E-03	3.059E-02	5.407E-02	0.000E+00	NOT IDENT.
Y-91	1.245E+01	1.556E+01	2.857E+01	0.000E+00	NOT IDENT.
NB-94	-1.514E-02	3.285E-02	5.488E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.549E-01	2.571E-01	0.000E+00	NOT IDENT.
ZR-95	8.624E-02	7.144E-02	1.316E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.843E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.335E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.565E+01	2.794E+01	4.344E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.529E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-6.440E-03	3.796E-02	6.586E-02	0.000E+00	NOT IDENT.
RH-102	1.922E-02	2.851E-02	5.219E-02	0.000E+00	FAIL ABUN
RU-103	1.363E-02	4.139E-02	7.428E-02	0.000E+00	FAIL ABUN
RH-106	6.699E-02	2.958E-01	5.213E-01	0.000E+00	FAIL ABUN
RU-106	6.699E-02	2.957E-01	5.213E-01	0.000E+00	FAIL ABUN
AG-108M	-1.718E-02	3.179E-02	5.500E-02	0.000E+00	NOT IDENT.
CD-109	2.388E+00	2.630E+00	3.125E+00	0.000E+00	NOT IDENT.
AG-110M	9.873E-03	3.996E-02	6.111E-02	0.000E+00	NOT IDENT.
IN-111	-1.726E+00	2.666E+00	3.908E+00	0.000E+00	NOT IDENT.
IN-113M	-2.847E-02	4.395E-02	7.630E-02	0.000E+00	NOT IDENT.
SN-113	-2.847E-02	4.395E-02	7.630E-02	0.000E+00	NOT IDENT.
IN-114M	-9.375E-02	2.428E-01	3.683E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.521E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	3.592E-02	8.961E-02	1.419E-01	0.000E+00	NOT IDENT.
SB-122	1.669E+00	4.536E+00	7.090E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.986E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.800E-02	4.032E-02	6.395E-02	0.000E+00	NOT IDENT.
I-124	4.469E-01	1.133E+00	1.765E+00	0.000E+00	FAIL ABUN
SB-124	-1.612E-03	5.022E-02	8.382E-02	0.000E+00	FAIL ABUN
SB-125	-3.593E-02	8.632E-02	1.504E-01	0.000E+00	NOT IDENT.
TE-125M	0.000E+00	1.821E+01	3.008E+01	0.000E+00	NOT IDENT.
I-126	7.163E-02	2.218E-01	3.416E-01	0.000E+00	NOT IDENT.
SB-126	3.547E-02	1.688E-01	2.679E-01	0.000E+00	NOT IDENT.
SN-126	0.000E+00	2.513E-01	3.028E-01	0.000E+00	FAIL ABUN
SB-127	-1.510E+00	2.120E+00	3.464E+00	0.000E+00	NOT IDENT.
XE-127	4.610E-02	6.708E-02	1.060E-01	0.000E+00	FAIL ABUN
I-131	6.130E-02	1.445E-01	2.649E-01	0.000E+00	NOT IDENT.
TE-132	-2.136E-01	1.443E+00	2.511E+00	0.000E+00	FAIL ABUN
BA-133	3.117E-03	4.825E-02	7.595E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.686E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	8.160E-02	4.587E-02	8.659E-02	0.000E+00	FAIL ABUN
CS-135	1.138E-01	1.790E-01	2.946E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.753E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.277E-02	1.038E-01	1.847E-01	0.000E+00	FAIL ABUN
CE-139	5.810E-02	4.217E-02	6.889E-02	0.000E+00	NOT IDENT.
BA-140	-1.079E-01	2.821E-01	4.799E-01	0.000E+00	FAIL ABUN
LA-140	-5.737E-02	7.912E-02	1.190E-01	0.000E+00	NOT IDENT.
CE-141	0.000E+00	1.109E-01	1.896E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.340E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.935E-01	2.859E-01	5.047E-01	0.000E+00	NOT IDENT.

PM-144	-3.041E-02	3.438E-02	5.582E-02	0.000E+00	NOT IDENT.
PR-144	-2.064E+00	2.334E+00	3.788E+00	0.000E+00	NOT IDENT.
PM-146	2.830E-02	4.264E-02	7.809E-02	0.000E+00	NOT IDENT.
ND-147	3.888E-01	6.443E-01	1.167E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	2.175E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	3.701E-02	1.203E-01	1.697E-01	0.000E+00	FAIL ABUN
GD-153	0.000E+00	2.000E-01	3.040E-01	0.000E+00	FAIL ABUN
EU-154	-2.807E-02	9.685E-02	1.620E-01	0.000E+00	NOT IDENT.
EU-155	-3.390E-01	1.739E-01	2.901E-01	0.000E+00	NOT IDENT.
TB-160	-1.130E-02	1.398E-01	2.352E-01	0.000E+00	FAIL ABUN
HO-166M	-2.106E-02	5.912E-02	9.929E-02	0.000E+00	FAIL ABUN
TM-171	-9.907E+01	5.474E+01	8.527E+01	0.000E+00	NOT IDENT.
LU-176	-4.129E-03	2.441E-02	4.409E-02	0.000E+00	NOT IDENT.
LU-177	2.136E+00	1.811E+00	2.918E+00	0.000E+00	FAIL ABUN
LU-177M	-2.078E-01	1.679E-01	2.803E-01	0.000E+00	FAIL ABUN
HF-181	-1.260E-03	4.249E-02	7.501E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	1.441E+00	1.795E+00	0.000E+00	NOT IDENT.
TA-182	-7.993E-02	1.626E-01	2.698E-01	0.000E+00	FAIL ABUN
RE-183	0.000E+00	2.032E-01	2.855E-01	0.000E+00	FAIL ABUN
RE-184	-8.375E-02	2.963E-01	4.421E-01	0.000E+00	NOT IDENT.
OS-185	-2.405E-02	4.183E-02	6.968E-02	0.000E+00	NOT IDENT.
RE-188	-5.414E-03	2.195E-01	3.922E-01	0.000E+00	NOT IDENT.
W-188	3.623E+00	8.411E+00	1.368E+01	0.000E+00	FAIL ABUN
IR-192	6.809E-03	3.469E-02	6.348E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	5.839E-01	8.536E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.784E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.127E+01	1.831E+01	2.915E+01	0.000E+00	NOT IDENT.
TL-202	2.013E-02	7.720E-02	1.391E-01	0.000E+00	NOT IDENT.
HG-203	1.735E-02	4.130E-02	7.664E-02	0.000E+00	FAIL ABUN
BI-207	-4.278E-02	3.947E-02	6.244E-02	0.000E+00	FAIL ABUN
TL-207	-8.983E-01	6.391E-01	1.058E+00	0.000E+00	FAIL ABUN
PO-209	7.016E+00	6.911E+00	1.258E+01	0.000E+00	NOT IDENT.
BI-210	8.161E-01	5.145E+00	9.719E+00	0.000E+00	NOT IDENT.
PB-210	8.161E-01	5.145E+00	9.719E+00	0.000E+00	NOT IDENT.
PO-210	8.161E-01	5.145E+00	9.719E+00	0.000E+00	NOT IDENT.
PB-211	-6.240E-01	1.005E+00	1.613E+00	0.000E+00	NOT IDENT.
PO-215	-8.983E-01	6.391E-01	1.058E+00	0.000E+00	FAIL ABUN
RN-219	-9.984E-03	3.978E-01	7.108E-01	0.000E+00	FAIL ABUN
RN-220	8.586E+00	2.547E+01	4.549E+01	0.000E+00	NOT IDENT.
RA-223	-8.983E-01	6.391E-01	1.058E+00	0.000E+00	FAIL ABUN
AC-227	0.000E+00	5.253E-01	8.399E-01	0.000E+00	NOT IDENT.
TH-227	0.000E+00	5.318E-01	8.399E-01	0.000E+00	FAIL ABUN
TH-229	2.820E-01	5.761E-01	1.033E+00	0.000E+00	FAIL ABUN
PA-231	-6.326E-01	1.532E+00	2.716E+00	0.000E+00	NOT IDENT.
TH-231	-8.983E-01	6.391E-01	1.058E+00	0.000E+00	FAIL ABUN
U-231	0.000E+00	4.928E+00	6.310E+00	0.000E+00	FAIL ABUN
PA-233	-4.185E-02	6.433E-02	1.138E-01	0.000E+00	FAIL ABUN
PA-234	3.094E-01	2.916E-01	5.226E-01	0.000E+00	FAIL ABUN
NP-236	3.421E-02	1.137E-01	1.793E-01	0.000E+00	FAIL ABUN
NP-237	0.000E+00	7.667E-01	8.910E-01	0.000E+00	NOT IDENT.
NP-239	2.036E-01	3.039E-01	4.920E-01	0.000E+00	FAIL ABUN
AM-241	0.000E+00	3.230E-01	5.448E-01	0.000E+00	NOT IDENT.
CM-243	-1.080E-01	1.666E-01	2.611E-01	0.000E+00	FAIL ABUN
AM-246	8.864E-02	1.156E-01	2.139E-01	0.000E+00	NOT IDENT.
CM-247	1.070E-02	3.567E-02	6.468E-02	0.000E+00	NOT IDENT.
CF-249	1.546E-02	3.935E-02	7.178E-02	0.000E+00	NOT IDENT.
CF-251	-1.713E-02	1.560E-01	2.761E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:20:38.13

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978004.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:18:29
Sample ID         : G245978004           Sample quantity  : 1.64730E+02 GRAM
Detector name     : GAM19                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.56  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1204	10.67*	1.168E+00	2.200E+01	2.200E+01	9.54
NB-95	765.79	415	99.81*	2.031E+00	4.665E-01	5.670E-01	19.40
BA-137M	661.65	166	89.98*	2.301E+00	1.826E-01	1.828E-01	37.65
CS-137	661.65	166	85.12*	2.301E+00	1.931E-01	1.933E-01	37.65
TL-208	277.35	------	6.80	4.511E+00	------	Line Not Found	------
	510.84	82	21.60	2.843E+00	3.042E-01	3.042E-01	109.38
	583.14	343	84.20*	2.554E+00	3.634E-01	3.634E-01	20.38
	860.37	43	12.46	1.835E+00	4.315E-01	4.315E-01	106.21
BI-211	72.87	------	1.27	4.857E+00	------	Line Not Found	------
	351.07	434	12.94*	3.788E+00	2.019E+00	2.019E+00	21.01
BI-212	727.18	126	11.80*	2.124E+00	1.145E+00	1.145E+00	40.23
	785.46	119	1.97	1.985E+00	6.925E+00	6.925E+00	42.57
	1620.62	------	2.75	1.085E+00	------	Line Not Found	------
PB-212	74.81	422	10.70	5.086E+00	1.767E+00	1.767E+00	45.49
	77.11	518	18.00	5.302E+00	1.237E+00	1.237E+00	36.98
	87.30	------	8.00	6.097E+00	------	Line Not Found	------
	238.63	1077	44.60*	5.018E+00	1.097E+00	1.097E+00	11.21
	300.09	------	3.41	4.261E+00	------	Line Not Found	------
PO-212	74.81	422	10.70	5.086E+00	1.767E+00	1.767E+00	45.49
	77.11	518	18.00	5.302E+00	1.237E+00	1.237E+00	36.98
	87.30	------	8.00	6.097E+00	------	Line Not Found	------
	115.19	------	0.60	6.866E+00	------	Line Not Found	------
	238.63	1077	44.60*	5.018E+00	1.097E+00	1.097E+00	11.21
	300.09	------	3.41	4.261E+00	------	Line Not Found	------
BI-214	609.31	276	46.30*	2.465E+00	5.514E-01	5.514E-01	27.76
	1120.29	66	15.10	1.455E+00	6.806E-01	6.806E-01	63.47
	1764.49	66	15.80	1.029E+00	9.201E-01	9.201E-01	35.76
PB-214	74.81	422	6.21	5.086E+00	3.045E+00	3.045E+00	45.13
	77.11	518	10.50	5.302E+00	2.120E+00	2.120E+00	37.76
	87.30	------	4.67	6.097E+00	------	Line Not Found	------
	241.98	261	7.49	4.978E+00	1.593E+00	1.593E+00	39.62
	295.21	332	19.20	4.314E+00	9.146E-01	9.146E-01	28.77

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	434	37.20*	3.788E+00	7.023E-01	7.023E-01	21.65
PO-214	74.81	422	6.21	5.086E+00	3.045E+00	3.045E+00	45.13
	77.11	518	10.50	5.302E+00	2.120E+00	2.120E+00	37.76
	87.30	------	4.67	6.097E+00	------	Line Not Found	------
	241.98	261	7.49	4.978E+00	1.593E+00	1.593E+00	39.62
	295.21	332	19.20	4.314E+00	9.146E-01	9.146E-01	28.77
	351.92	434	37.20*	3.788E+00	7.023E-01	7.023E-01	21.65
PO-216	74.81	422	10.70	5.086E+00	1.767E+00	1.767E+00	45.49
	77.11	518	18.00	5.302E+00	1.237E+00	1.237E+00	36.98
	87.30	------	8.00	6.097E+00	------	Line Not Found	------
	238.63	1077	44.60*	5.018E+00	1.097E+00	1.097E+00	11.21
	300.09	------	3.41	4.261E+00	------	Line Not Found	------
PO-218	74.81	422	6.21	5.086E+00	3.045E+00	3.045E+00	45.13
	77.11	518	10.50	5.302E+00	2.120E+00	2.120E+00	37.76
	87.30	------	4.67	6.097E+00	------	Line Not Found	------
	241.98	261	7.49	4.978E+00	1.593E+00	1.593E+00	39.62
	295.21	332	19.20	4.314E+00	9.146E-01	9.146E-01	28.77
	351.92	434	37.20*	3.788E+00	7.023E-01	7.023E-01	21.65
RA-224	240.98	261	3.95*	4.978E+00	3.021E+00	3.021E+00	39.22
RA-226	609.31	276	46.30*	2.465E+00	5.514E-01	5.514E-01	27.76
	1120.29	66	15.10	1.455E+00	6.806E-01	6.806E-01	63.47
	1764.49	66	15.80	1.029E+00	9.201E-01	9.201E-01	35.76
AC-228	338.32	181	11.40	3.900E+00	9.294E-01	9.294E-01	57.42
	911.07	234	27.70*	1.746E+00	1.102E+00	1.102E+00	24.61
	969.11	113	16.60	1.654E+00	9.353E-01	9.353E-01	38.99
RA-228	338.32	181	11.40	3.900E+00	9.294E-01	9.294E-01	57.42
	911.07	234	27.70*	1.746E+00	1.102E+00	1.102E+00	24.61
	969.11	113	16.60	1.654E+00	9.353E-01	9.353E-01	38.99
TH-228	74.81	422	10.70	5.086E+00	1.767E+00	1.799E+00	44.53
	77.11	518	18.00	5.302E+00	1.237E+00	1.259E+00	36.98
	87.30	------	8.00	6.097E+00	------	Line Not Found	------
	238.63	1077	44.60*	5.018E+00	1.097E+00	1.117E+00	11.21
	300.09	------	3.41	4.261E+00	------	Line Not Found	------
TH-230	609.31	276	46.30*	2.465E+00	5.514E-01	5.514E-01	27.76
	1120.29	66	15.10	1.455E+00	6.806E-01	6.806E-01	63.47
	1764.49	66	15.80	1.029E+00	9.201E-01	9.201E-01	35.76
TH-232	338.32	181	11.40	3.900E+00	9.294E-01	9.294E-01	40.85
	911.07	234	27.70*	1.746E+00	1.102E+00	1.102E+00	24.61
	969.11	113	16.60	1.654E+00	9.353E-01	9.353E-01	38.99
PA-234M	766.42	415	0.32	2.031E+00	1.455E+02	1.455E+02	53.63
	1001.03	847	0.84*	1.607E+00	1.430E+02	1.430E+02	12.64
TH-234	63.29	5979	3.80*	3.621E+00	9.901E+01	9.901E+01	18.07
	92.38	15880	5.41	6.381E+00	1.048E+02	1.048E+02	18.12
U-234	609.31	276	46.30*	2.465E+00	5.514E-01	5.514E-01	27.76
	1120.29	66	15.10	1.455E+00	6.806E-01	6.806E-01	63.47
	1764.49	66	15.80	1.029E+00	9.201E-01	9.201E-01	35.76
U-235	89.95	------	2.70	6.249E+00	------	Line Not Found	------
	93.35	15880	4.50	6.381E+00	1.260E+02	1.260E+02	28.05
	105.00	------	2.10	6.763E+00	------	Line Not Found	------

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	143.76	507	10.50*	6.633E+00	1.659E+00	1.659E+00	28.67
	163.35	275	4.70	6.300E+00	2.119E+00	2.119E+00	44.17
	185.71	2426	54.00	5.888E+00	1.739E+00	1.739E+00	8.16
	205.31	149	4.70	5.541E+00	1.301E+00	1.301E+00	63.18
U-238	63.29	5979	3.80*	3.621E+00	9.901E+01	9.901E+01	18.07
	92.38	15880	5.41	6.381E+00	1.048E+02	1.048E+02	8.70
AM-243	74.67	422	66.00*	5.086E+00	2.865E-01	2.865E-01	44.52
	86.72	------	0.34	6.061E+00	------	Line Not Found	------
	117.66	------	0.55	6.871E+00	------	Line Not Found	------
	142.18	------	0.13	6.659E+00	------	Line Not Found	------
ANH-511	511.00	82	100.00*	2.843E+00	6.571E-02	6.571E-02	109.06

Flag: "*" = Keyline

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

Total number of lines in spectrum 38
Number of unidentified lines 3
Number of lines tentatively identified by NID 35 92.11%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.200E+01	2.200E+01	0.210E+01	9.54	
NB-95	64.02D	1.22	4.665E-01	5.670E-01	1.100E-01	19.40	
BA-137M	30.17Y	1.00	1.826E-01	1.828E-01	0.688E-01	37.65	
CS-137	30.17Y	1.00	1.931E-01	1.933E-01	0.728E-01	37.65	
TL-208	1.41E+10Y	1.00	3.634E-01	3.634E-01	0.740E-01	20.38	
BI-211	7.04E+08Y	1.00	2.019E+00	2.019E+00	0.424E+00	21.01	
BI-212	1.41E+10Y	1.00	1.145E+00	1.145E+00	0.461E+00	40.23	
PB-212	1.41E+10Y	1.00	1.097E+00	1.097E+00	0.123E+00	11.21	
PO-212	1.41E+10Y	1.00	1.097E+00	1.097E+00	0.123E+00	11.21	
BI-214	1600.00Y	1.00	5.514E-01	5.514E-01	1.531E-01	27.76	
PB-214	1600.00Y	1.00	7.023E-01	7.023E-01	1.520E-01	21.65	
PO-214	1600.00Y	1.00	7.023E-01	7.023E-01	1.520E-01	21.65	
PO-216	1.41E+10Y	1.00	1.097E+00	1.097E+00	0.123E+00	11.21	
PO-218	1600.00Y	1.00	7.023E-01	7.023E-01	1.520E-01	21.65	
RA-224	1.41E+10Y	1.00	3.021E+00	3.021E+00	1.185E+00	39.22	
RA-226	1600.00Y	1.00	5.514E-01	5.514E-01	1.531E-01	27.76	
AC-228	1.41E+10Y	1.00	1.102E+00	1.102E+00	0.271E+00	24.61	
RA-228	1.41E+10Y	1.00	1.102E+00	1.102E+00	0.271E+00	24.61	
TH-228	1.91Y	1.02	1.097E+00	1.117E+00	0.125E+00	11.21	
TH-230	4.47E+09Y	1.00	5.514E-01	5.514E-01	1.531E-01	27.76	
TH-232	1.41E+10Y	1.00	1.102E+00	1.102E+00	0.271E+00	24.61	
PA-234M	4.47E+09Y	1.00	1.430E+02	1.430E+02	0.181E+02	12.64	
TH-234	4.47E+09Y	1.00	9.901E+01	9.901E+01	1.789E+01	18.07	
U-234	4.47E+09Y	1.00	5.514E-01	5.514E-01	1.531E-01	27.76	
U-235	7.04E+08Y	1.00	1.659E+00	1.659E+00	0.476E+00	28.67	
U-238	4.47E+09Y	1.00	9.901E+01	9.901E+01	1.789E+01	18.07	
AM-243	7380.00Y	1.00	2.865E-01	2.865E-01	1.276E-01	44.52	
ANH-511	1.00E+09Y	1.00	6.571E-02	6.571E-02	7.166E-02	109.06	
	Total Activity :		3.845E+02	3.846E+02			

Grand Total Activity : 3.845E+02 3.846E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	84.06	462	3006	1.71	167.94	164	8	6.41E-02	42.3	5.88E+00	T
0	98.62	1037	1543	1.24	197.04	193	9	1.44E-01	15.1	6.61E+00	T
0	112.74	1190	2160	1.32	225.27	219	14	1.65E-01	17.7	6.85E+00	T
0	257.94	197	416	1.29	515.46	510	11	2.74E-02	42.5	4.75E+00	
0	270.19	116	389	1.44	539.94	534	12	1.61E-02	70.6	4.60E+00	T
0	568.17	190	131	2.57	1135.60	1128	15	2.64E-02	30.9	2.61E+00	T
0	743.40	93	173	2.17	1485.95	1476	17	1.29E-02	68.5	2.08E+00	T
1	965.12	58	37	2.01	1929.36	1925	19	7.99E-03	46.2	1.66E+00	T
0	1155.57	41	38	1.63	2310.29	2304	11	5.66E-03	66.8	1.42E+00	
0	1509.81	44	0	2.31	3019.02	3012	15	6.11E-03	30.2	1.14E+00	T
0	1738.67	10	15	1.50	3477.02	3471	10	1.46E-03	****	1.04E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:20:43.56

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978004.CNF;1  *
* Acquisition date : 14-FEB-2010 11:18:29  Detector SN#    :                *
* Detector ID      : GAM19                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:02.56         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245978004            Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.64730E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54.1MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.200E+01	2.098E+00	4.139E-01	3.082E-02	53.165
NB-95	5.670E-01	1.100E-01	6.063E-02	4.285E-03	9.351
BA-137M	1.828E-01	6.884E-02	5.629E-02	3.278E-03	3.248
CS-137	1.933E-01	7.278E-02	5.950E-02	3.479E-03	3.248
TL-208	3.634E-01	7.404E-02	5.878E-02	3.997E-03	6.182
BI-211	2.019E+00	4.242E-01	3.229E-01	2.062E-02	6.252
BI-212	1.145E+00	4.605E-01	4.661E-01	3.880E-02	2.456
PB-212	1.097E+00	1.230E-01	9.345E-02	6.745E-03	11.738
PO-212	1.097E+00	1.230E-01	9.345E-02	6.745E-03	11.738
BI-214	5.514E-01	1.531E-01	1.080E-01	8.493E-03	5.105
PB-214	7.023E-01	1.520E-01	1.125E-01	9.279E-03	6.240
PO-214	7.023E-01	1.520E-01	1.125E-01	9.279E-03	6.240
PO-216	1.097E+00	1.230E-01	9.345E-02	6.745E-03	11.738
PO-218	7.023E-01	1.520E-01	1.125E-01	9.279E-03	6.240
RA-224	3.021E+00	1.185E+00	1.063E+00	6.023E-02	2.842
RA-226	5.514E-01	1.531E-01	1.080E-01	8.493E-03	5.105
AC-228	1.102E+00	2.712E-01	1.864E-01	2.109E-02	5.910
RA-228	1.102E+00	2.712E-01	1.864E-01	2.109E-02	5.910

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.117E+00	1.252E-01	9.514E-02	6.867E-03	11.738
TH-230	5.514E-01	1.531E-01	1.080E-01	8.493E-03	5.105
TH-232	1.102E+00	2.712E-01	1.864E-01	2.109E-02	5.910
PA-234M	1.430E+02	1.808E+01	6.060E+00	5.641E-01	23.602
TH-234	9.901E+01	1.789E+01	3.693E+00	6.461E-01	26.814
U-234	5.514E-01	1.531E-01	1.080E-01	8.493E-03	5.105
U-235	1.659E+00	4.757E-01	4.561E-01	7.396E-02	3.637
U-238	9.901E+01	1.789E+01	3.693E+00	6.461E-01	26.814
AM-243	2.865E-01	1.276E-01	1.660E-01	1.317E-02	1.726
ANH-511	6.571E-02	7.166E-02	4.662E-02	2.751E-03	1.410

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	3.077E-01		3.379E-01	5.847E-01	3.969E-02	0.526
NA-22	-1.897E-02		3.589E-02	5.648E-02	3.767E-03	-0.336
NA-24	7.895E+00		6.314E+00	Half-Life too short		
AL-26	1.936E-03		2.643E-02	4.364E-02	2.548E-03	0.044
TI-44	2.283E-01	+	8.442E-02	1.125E-01	9.186E-03	2.028
SC-46	1.766E-02		3.877E-02	6.480E-02	5.631E-03	0.273
V-48	-7.789E-03		6.792E-02	1.078E-01	8.668E-03	-0.072
CR-51	1.064E-01		3.840E-01	6.517E-01	4.217E-02	0.163
MN-52	7.536E-02		2.464E-01	4.241E-01	3.059E-02	0.178
MN-54	-1.915E-02		3.582E-02	5.555E-02	4.419E-03	-0.345
CO-56	6.194E-03		3.904E-02	6.391E-02	5.185E-03	0.097
CO-57	2.184E-02		3.624E-02	5.977E-02	3.567E-03	0.365
CO-58	3.831E-03		3.855E-02	6.294E-02	4.823E-03	0.061
FE-59	2.371E-02		7.908E-02	1.355E-01	1.017E-02	0.175
CO-60	1.117E-03		3.243E-02	5.393E-02	3.974E-03	0.021
ZN-65	-1.823E-02		8.432E-02	1.182E-01	7.556E-03	-0.154
GE-68	1.951E-02		1.015E+00	1.701E+00	1.177E-01	0.011
AS-73	-1.196E-01		1.484E+00	2.449E+00	1.811E-01	-0.049
AS-74	-3.689E-02		9.686E-02	1.551E-01	9.186E-03	-0.238
SE-75	-7.392E-03		6.004E-02	7.677E-02	4.464E-03	-0.096
BR-77	1.678E+01		2.386E+01	4.089E+01	2.417E+00	0.410
SR-82	-8.098E-02		3.950E-01	6.314E-01	4.546E-02	-0.128
RB-83	2.279E-02		7.116E-02	1.195E-01	7.065E-03	0.191
RB-84	6.970E-02		7.262E-02	1.256E-01	1.078E-02	0.555
KR-85	1.186E+01		7.730E+00	1.229E+01	7.257E-01	0.965
SR-85	6.268E-02		4.084E-02	6.493E-02	3.834E-03	0.965
RB-86	-1.749E-01		7.155E-01	1.172E+00	8.118E-02	-0.149
Y-88	-3.452E-02		3.217E-02	4.198E-02	2.396E-03	-0.822
ZR-88	-8.651E-03		3.121E-02	5.132E-02	2.858E-03	-0.169
Y-91	1.245E+01		1.588E+01	2.807E+01	1.639E+00	0.444
NB-94	-1.514E-02		3.352E-02	5.301E-02	3.339E-03	-0.286
NB-95M	3.450E-01		1.580E-01	2.404E-01	1.781E-02	1.435
ZR-95	8.624E-02		7.290E-02	1.274E-01	1.020E-02	0.677

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	6.046E-01		9.406E-01	Half-Life too short		
ZR-97	5.732E+01		1.702E+01	Half-Life too short		
MO-99	1.565E+01		2.852E+01	4.203E+01	5.970E+00	0.372
TC-99M	6.449E+13		7.802E+13	Half-Life too short		
RH-101	-6.440E-03		3.873E-02	6.127E-02	3.324E-03	-0.105
RH-102	1.922E-02		2.909E-02	4.982E-02	2.908E-03	0.386
RU-103	1.363E-02		4.224E-02	7.101E-02	9.005E-03	0.192
RH-106	6.699E-02		3.019E-01	5.017E-01	5.913E-02	0.134
RU-106	6.699E-02		3.018E-01	5.017E-01	2.959E-02	0.134
AG-108M	-1.718E-02		3.244E-02	5.236E-02	3.261E-03	-0.328
CD-109	2.388E+00		2.683E+00	2.842E+00	2.545E-01	0.840
AG-110M	9.873E-03		4.078E-02	5.892E-02	3.656E-03	0.168
IN-111	-1.726E+00		2.721E+00	3.658E+00	2.080E-01	-0.472
IN-113M	-2.847E-02		4.485E-02	7.241E-02	4.321E-03	-0.393
SN-113	-2.847E-02		4.485E-02	7.241E-02	4.321E-03	-0.393
IN-114M	-9.375E-02		2.477E-01	3.422E-01	1.839E-02	-0.274
CD-115	-5.234E-06		1.286E-05	Half-Life too short		
SN-117M	3.592E-02		9.144E-02	1.312E-01	6.982E-03	0.274
SB-122	1.669E+00		4.628E+00	6.804E+00	4.039E-01	0.245
I-123	1.333E+02		1.523E+02	Half-Life too short		
TE-123M	1.800E-02		4.114E-02	5.912E-02	3.193E-03	0.304
I-124	4.469E-01		1.156E+00	1.697E+00	1.005E-01	0.263
SB-124	-1.612E-03		5.125E-02	8.327E-02	5.703E-03	-0.019
SB-125	-3.593E-02		8.808E-02	1.432E-01	8.524E-03	-0.251
TE-125M	3.908E+01		1.859E+01	2.752E+01	2.435E+00	1.420
I-126	7.163E-02		2.263E-01	3.295E-01	1.936E-02	0.217
SB-126	3.547E-02		1.723E-01	2.590E-01	1.687E-02	0.137
SN-126	3.811E-01		2.565E-01	2.753E-01	2.456E-02	1.384
SB-127	-1.510E+00		2.163E+00	3.344E+00	3.557E-01	-0.452
XE-127	4.610E-02		6.845E-02	9.869E-02	5.384E-03	0.467
I-131	6.130E-02		1.474E-01	2.508E-01	1.609E-02	0.244
TE-132	-2.136E-01		1.472E+00	2.346E+00	3.495E-01	-0.091
BA-133	3.117E-03		4.924E-02	7.188E-02	8.285E-03	0.043
I-133	-2.335E-02		2.901E-02	Half-Life too short		
CS-134	8.160E-02		4.681E-02	8.398E-02	6.315E-03	0.972
CS-135	1.138E-01		1.826E-01	2.765E-01	2.110E-02	0.412
I-135	-1.020E+11		2.935E+12	Half-Life too short		
CS-136	2.277E-02		1.059E-01	1.807E-01	1.397E-02	0.126
CE-139	5.810E-02		4.303E-02	6.376E-02	3.329E-03	0.911
BA-140	-1.079E-01		2.879E-01	4.598E-01	1.496E-01	-0.235
LA-140	-5.737E-02		8.074E-02	1.180E-01	7.982E-03	-0.486
CE-141	4.526E-01		1.132E-01	1.748E-01	1.007E-02	2.589
CE-143	2.783E-03		4.766E-04	Half-Life too short		
CE-144	-1.935E-01		2.917E-01	4.643E-01	6.577E-02	-0.417
PM-144	-3.041E-02		3.509E-02	5.391E-02	3.359E-03	-0.564
PR-144	-2.064E+00		2.381E+00	3.659E+00	2.278E-01	-0.564
PM-146	2.830E-02		4.351E-02	7.444E-02	6.411E-03	0.380
ND-147	3.888E-01		6.575E-01	1.118E+00	1.518E-01	0.348

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-7.404E-05		1.110E-04	Half-Life too short		
EU-152	3.701E-02		1.228E-01	1.605E-01	1.044E-02	0.231
GD-153	1.203E+00	+	2.041E-01	2.772E-01	2.156E-02	4.341
EU-154	-2.807E-02		9.883E-02	1.595E-01	1.578E-02	-0.176
EU-155	-3.390E-01		1.774E-01	2.651E-01	1.907E-02	-1.279
TB-160	-1.130E-02		1.426E-01	2.288E-01	1.957E-02	-0.049
HO-166M	-2.106E-02		6.033E-02	9.596E-02	6.147E-03	-0.219
TM-171	-9.907E+01		5.586E+01	7.696E+01	5.850E+00	-1.287
LU-176	-4.129E-03		2.490E-02	4.154E-02	2.417E-03	-0.099
LU-177	2.136E+00		1.848E+00	2.719E+00	1.493E-01	0.786
LU-177M	-2.078E-01		1.713E-01	2.665E-01	1.506E-02	-0.780
HF-181	-1.260E-03		4.336E-02	7.163E-02	4.192E-03	-0.018
W-181	1.546E+01		1.471E+00	1.619E+00	1.225E-01	9.549
TA-182	-7.993E-02		1.660E-01	2.652E-01	1.599E-02	-0.301
RE-183	5.088E-01	+	2.074E-01	2.641E-01	1.391E-02	1.927
RE-184	-8.375E-02		3.023E-01	4.142E-01	2.367E-02	-0.202
OS-185	-2.405E-02		4.268E-02	6.714E-02	3.932E-03	-0.358
RE-188	-5.414E-03		2.240E-01	3.624E-01	1.947E-02	-0.015
W-188	3.623E+00		8.583E+00	1.286E+01	7.471E-01	0.282
IR-192	6.809E-03		3.540E-02	5.987E-02	3.498E-03	0.114
AU-195	3.513E+00	+	5.958E-01	7.787E-01	5.943E-02	4.511
TL-200	-1.444E-04		1.420E-03	Half-Life too short		
TL-201	1.127E+01		1.868E+01	2.699E+01	1.410E+00	0.418
TL-202	2.013E-02		7.877E-02	1.325E-01	7.610E-03	0.152
HG-203	1.735E-02		4.214E-02	7.201E-02	4.428E-03	0.241
BI-207	-4.278E-02		4.027E-02	6.111E-02	4.339E-03	-0.700
TL-207	-8.983E-01		6.521E-01	9.988E-01	1.650E-01	-0.899
PO-209	7.016E+00		7.052E+00	1.224E+01	1.076E+00	0.573
BI-210	8.161E-01		5.250E+00	8.687E+00	6.622E-01	0.094
PB-210	8.161E-01		5.250E+00	8.687E+00	6.622E-01	0.094
PO-210	8.161E-01		5.250E+00	8.687E+00	5.662E-01	0.094
PB-211	-6.240E-01		1.026E+00	1.532E+00	9.547E-01	-0.407
PO-215	-8.983E-01		6.521E-01	9.988E-01	1.650E-01	-0.899
RN-219	-9.984E-03		4.059E-01	6.751E-01	9.131E-02	-0.015
RN-220	8.586E+00		2.599E+01	4.362E+01	2.588E+00	0.197
RA-223	-8.983E-01		6.521E-01	9.988E-01	1.650E-01	-0.899
AC-227	8.877E-01		5.360E-01	7.872E-01	1.097E-01	1.128
TH-227	8.877E-01		5.427E-01	7.872E-01	1.328E-01	1.128
TH-229	2.820E-01		5.879E-01	9.602E-01	5.181E-02	0.294
PA-231	-6.326E-01		1.564E+00	2.553E+00	3.518E-01	-0.248
TH-231	-8.983E-01		6.521E-01	9.988E-01	1.650E-01	-0.899
U-231	2.281E+01		5.028E+00	5.751E+00	4.568E-01	3.965
PA-233	-4.185E-02		6.564E-02	1.073E-01	6.622E-03	-0.390
PA-234	3.094E-01		2.975E-01	5.096E-01	9.512E-02	0.607
NP-236	3.421E-02		1.161E-01	1.658E-01	8.784E-03	0.206
NP-237	9.529E-01		7.824E-01	8.098E-01	1.817E-01	1.177
NP-239	2.036E-01		3.101E-01	4.510E-01	2.820E-02	0.451
AM-241	7.652E-01		3.296E-01	4.902E-01	4.036E-02	1.561

Sample ID : G245978004 Acquisition date : 14-FEB-2010 11:18:29

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.080E-01		1.700E-01	2.385E-01	1.715E-02	-0.453
AM-246	8.864E-02		1.179E-01	2.095E-01	1.445E-02	0.423
CM-247	1.070E-02		3.639E-02	6.144E-02	3.446E-03	0.174
CF-249	1.546E-02		4.015E-02	6.810E-02	3.803E-03	0.227
CF-251	-1.713E-02		1.592E-01	2.560E-01	1.353E-02	-0.067

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978004           *
* Acquisition date  : 14-FEB-2010 11:18:29 Detector SN#     :               *
* Detector ID       : GAM19                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.56      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978004           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.6473E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 12-MAR-2009 10:24:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.200E+01	2.057E+00	2.094E-01	1.049E+00
NB-95	5.670E-01	1.078E-01	3.132E-02	5.500E-02
BA-137M	1.828E-01	6.746E-02	2.920E-02	3.442E-02
CS-137	1.933E-01	7.132E-02	3.087E-02	3.639E-02
TL-208	3.634E-01	7.256E-02	3.061E-02	3.702E-02
BI-211	2.019E+00	4.157E-01	1.708E-01	2.121E-01
BI-212	1.145E+00	4.513E-01	2.411E-01	2.303E-01
PB-212	1.097E+00	1.205E-01	4.999E-02	6.148E-02
PO-212	1.097E+00	1.205E-01	4.999E-02	6.148E-02
BI-214	5.514E-01	1.500E-01	5.618E-02	7.654E-02
PB-214	7.023E-01	1.490E-01	5.952E-02	7.602E-02
PO-214	7.023E-01	1.490E-01	5.952E-02	7.602E-02
PO-216	1.097E+00	1.205E-01	4.999E-02	6.148E-02
PO-218	7.023E-01	1.490E-01	5.952E-02	7.602E-02
RA-224	3.021E+00	1.161E+00	5.684E-01	5.924E-01
RA-226	5.514E-01	1.500E-01	5.618E-02	7.654E-02
AC-228	1.102E+00	2.658E-01	9.577E-02	1.356E-01
RA-228	1.102E+00	2.658E-01	9.577E-02	1.356E-01
TH-228	1.117E+00	1.227E-01	5.089E-02	6.259E-02
TH-230	5.514E-01	1.500E-01	5.618E-02	7.653E-02
TH-232	1.102E+00	2.658E-01	9.577E-02	1.356E-01
PA-234M	1.430E+02	1.772E+01	3.104E+00	9.039E+00
TH-234	9.901E+01	1.753E+01	2.050E+00	8.946E+00
U-234	5.514E-01	1.500E-01	5.618E-02	7.653E-02
U-235	1.659E+00	4.662E-01	2.475E-01	2.378E-01
U-238	9.901E+01	1.753E+01	2.050E+00	8.946E+00
AM-243	2.865E-01	1.250E-01	9.176E-02	6.378E-02
ANH-511	6.571E-02	7.023E-02	2.438E-02	3.583E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	3.077E-01	3.312E-01	3.064E-01	1.690E-01	NOT IDENT.
NA-22	-1.897E-02	3.517E-02	2.870E-02	1.794E-02	NOT IDENT.
NA-24	7.895E+06	1.238E+07	0.000E+00	6.314E+06	SHORT HLIF
AL-26	1.936E-03	2.591E-02	2.193E-02	1.322E-02	NOT IDENT.
TI-44	2.283E-01	8.273E-02	6.211E-02	4.221E-02	FAIL ABUN
SC-46	1.766E-02	3.799E-02	3.331E-02	1.938E-02	FAIL ABUN
V-48	-7.789E-03	6.656E-02	5.525E-02	3.396E-02	NOT IDENT.
CR-51	1.064E-01	3.764E-01	3.456E-01	1.920E-01	NOT IDENT.
MN-52	7.536E-02	2.415E-01	2.147E-01	1.232E-01	FAIL ABUN
MN-54	-1.915E-02	3.511E-02	2.861E-02	1.791E-02	NOT IDENT.
CO-56	6.194E-03	3.826E-02	3.291E-02	1.952E-02	NOT IDENT.
CO-57	2.184E-02	3.552E-02	3.259E-02	1.812E-02	NOT IDENT.
CO-58	3.831E-03	3.778E-02	3.245E-02	1.927E-02	NOT IDENT.
FE-59	2.371E-02	7.750E-02	6.921E-02	3.954E-02	FAIL ABUN
CO-60	1.117E-03	3.178E-02	2.737E-02	1.622E-02	NOT IDENT.
ZN-65	-1.823E-02	8.263E-02	6.032E-02	4.216E-02	NOT IDENT.
GE-68	1.951E-02	9.944E-01	8.693E-01	5.074E-01	NOT IDENT.
AS-73	-1.196E-01	1.454E+00	1.366E+00	7.420E-01	NOT IDENT.
AS-74	-3.689E-02	9.492E-02	8.071E-02	4.843E-02	NOT IDENT.
SE-75	-7.392E-03	5.884E-02	4.094E-02	3.002E-02	NOT IDENT.
BR-77	1.678E+01	2.338E+01	2.137E+01	1.193E+01	FAIL ABUN
SR-82	-8.098E-02	3.871E-01	3.259E-01	1.975E-01	NOT IDENT.
RB-83	2.279E-02	6.973E-02	6.246E-02	3.558E-02	NOT IDENT.
RB-84	6.970E-02	7.117E-02	6.460E-02	3.631E-02	NOT IDENT.
KR-85	1.186E+01	7.575E+00	6.426E+00	3.865E+00	NOT IDENT.
SR-85	6.268E-02	4.002E-02	3.395E-02	2.042E-02	NOT IDENT.
RB-86	-1.749E-01	7.012E-01	5.986E-01	3.577E-01	NOT IDENT.
Y-88	-3.452E-02	3.153E-02	2.108E-02	1.609E-02	NOT IDENT.
ZR-88	-8.651E-03	3.059E-02	2.705E-02	1.561E-02	NOT IDENT.
Y-91	1.245E+01	1.556E+01	1.429E+01	7.941E+00	NOT IDENT.
NB-94	-1.514E-02	3.285E-02	2.745E-02	1.676E-02	NOT IDENT.
NB-95M	3.450E-01	1.549E-01	1.286E-01	7.901E-02	NOT IDENT.
ZR-95	8.624E-02	7.144E-02	6.584E-02	3.645E-02	NOT IDENT.
NB-97	6.046E+05	1.843E+06	0.000E+00	9.406E+05	SHORT HLIF
ZR-97	5.732E+07	3.335E+07	0.000E+00	1.702E+07	SHORT HLIF
MO-99	1.565E+01	2.794E+01	2.173E+01	1.426E+01	NOT IDENT.
TC-99M	6.449E+19	1.529E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-6.440E-03	3.796E-02	3.295E-02	1.937E-02	NOT IDENT.
RH-102	1.922E-02	2.851E-02	2.611E-02	1.455E-02	FAIL ABUN
RU-103	1.363E-02	4.139E-02	3.716E-02	2.112E-02	FAIL ABUN
RH-106	6.699E-02	2.958E-01	2.608E-01	1.509E-01	FAIL ABUN
RU-106	6.699E-02	2.957E-01	2.608E-01	1.509E-01	FAIL ABUN
AG-108M	-1.718E-02	3.179E-02	2.752E-02	1.622E-02	NOT IDENT.
CD-109	2.388E+00	2.630E+00	1.563E+00	1.342E+00	NOT IDENT.
AG-110M	9.873E-03	3.996E-02	3.057E-02	2.039E-02	NOT IDENT.
IN-111	-1.726E+00	2.666E+00	1.955E+00	1.360E+00	NOT IDENT.
IN-113M	-2.847E-02	4.395E-02	3.817E-02	2.242E-02	NOT IDENT.
SN-113	-2.847E-02	4.395E-02	3.817E-02	2.242E-02	NOT IDENT.
IN-114M	-9.375E-02	2.428E-01	1.843E-01	1.239E-01	NOT IDENT.
CD-115	-5.234E+00	2.521E+01	0.000E+00	1.286E+01	SHORT HLIF
SN-117M	3.592E-02	8.961E-02	7.099E-02	4.572E-02	NOT IDENT.
SB-122	1.669E+00	4.536E+00	3.547E+00	2.314E+00	NOT IDENT.
I-123	1.333E+08	2.986E+08	0.000E+00	1.523E+08	SHORT HLIF
TE-123M	1.800E-02	4.032E-02	3.199E-02	2.057E-02	NOT IDENT.
I-124	4.469E-01	1.133E+00	8.831E-01	5.780E-01	FAIL ABUN
SB-124	-1.612E-03	5.022E-02	4.194E-02	2.562E-02	FAIL ABUN
SB-125	-3.593E-02	8.632E-02	7.527E-02	4.404E-02	NOT IDENT.
TE-125M	3.908E+01	1.821E+01	1.505E+01	9.293E+00	NOT IDENT.
I-126	7.163E-02	2.218E-01	1.709E-01	1.131E-01	NOT IDENT.
SB-126	3.547E-02	1.688E-01	1.340E-01	8.614E-02	NOT IDENT.
SN-126	3.811E-01	2.513E-01	1.515E-01	1.282E-01	FAIL ABUN
SB-127	-1.510E+00	2.120E+00	1.733E+00	1.082E+00	NOT IDENT.
XE-127	4.610E-02	6.708E-02	5.304E-02	3.422E-02	FAIL ABUN
I-131	6.130E-02	1.445E-01	1.325E-01	7.371E-02	NOT IDENT.
TE-132	-2.136E-01	1.443E+00	1.256E+00	7.360E-01	FAIL ABUN
BA-133	3.117E-03	4.825E-02	3.800E-02	2.462E-02	NOT IDENT.
I-133	-2.335E+04	5.686E+04	0.000E+00	2.901E+04	SHORT HLIF
CS-134	8.160E-02	4.587E-02	4.332E-02	2.340E-02	FAIL ABUN
CS-135	1.138E-01	1.790E-01	1.474E-01	9.132E-02	NOT IDENT.
I-135	-1.020E+17	5.753E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.277E-02	1.038E-01	9.241E-02	5.297E-02	FAIL ABUN
CE-139	5.810E-02	4.217E-02	3.446E-02	2.152E-02	NOT IDENT.
BA-140	-1.079E-01	2.821E-01	2.401E-01	1.439E-01	FAIL ABUN
LA-140	-5.737E-02	7.912E-02	5.952E-02	4.037E-02	NOT IDENT.
CE-141	4.526E-01	1.109E-01	9.484E-02	5.660E-02	NOT IDENT.
CE-143	2.783E+03	9.340E+02	0.000E+00	4.766E+02	SHORT HLIF
CE-144	-1.935E-01	2.859E-01	2.525E-01	1.459E-01	NOT IDENT.

PM-144	-3.041E-02	3.438E-02	2.792E-02	1.754E-02	NOT IDENT.
PR-144	-2.064E+00	2.334E+00	1.895E+00	1.191E+00	NOT IDENT.
PM-146	2.830E-02	4.264E-02	3.907E-02	2.175E-02	NOT IDENT.
ND-147	3.888E-01	6.443E-01	5.840E-01	3.287E-01	NOT IDENT.
PM-149	-7.404E+01	2.175E+02	0.000E+00	1.110E+02	SHORT HLIF
EU-152	3.701E-02	1.203E-01	8.491E-02	6.138E-02	FAIL ABUN
GD-153	1.203E+00	2.000E-01	1.521E-01	1.020E-01	FAIL ABUN
EU-154	-2.807E-02	9.685E-02	8.105E-02	4.941E-02	NOT IDENT.
EU-155	-3.390E-01	1.739E-01	1.451E-01	8.871E-02	NOT IDENT.
TB-160	-1.130E-02	1.398E-01	1.177E-01	7.132E-02	FAIL ABUN
HO-166M	-2.106E-02	5.912E-02	4.968E-02	3.016E-02	FAIL ABUN
TM-171	-9.907E+01	5.474E+01	4.266E+01	2.793E+01	NOT IDENT.
LU-176	-4.129E-03	2.441E-02	2.206E-02	1.245E-02	NOT IDENT.
LU-177	2.136E+00	1.811E+00	1.460E+00	9.239E-01	FAIL ABUN
LU-177M	-2.078E-01	1.679E-01	1.402E-01	8.566E-02	FAIL ABUN
HF-181	-1.260E-03	4.249E-02	3.753E-02	2.168E-02	NOT IDENT.
W-181	1.546E+01	1.441E+00	8.982E-01	7.353E-01	NOT IDENT.
TA-182	-7.993E-02	1.626E-01	1.350E-01	8.298E-02	FAIL ABUN
RE-183	5.088E-01	2.032E-01	1.428E-01	1.037E-01	FAIL ABUN
RE-184	-8.375E-02	2.963E-01	2.212E-01	1.512E-01	NOT IDENT.
OS-185	-2.405E-02	4.183E-02	3.486E-02	2.134E-02	NOT IDENT.
RE-188	-5.414E-03	2.195E-01	1.962E-01	1.120E-01	NOT IDENT.
W-188	3.623E+00	8.411E+00	6.842E+00	4.292E+00	FAIL ABUN
IR-192	6.809E-03	3.469E-02	3.176E-02	1.770E-02	FAIL ABUN
AU-195	3.513E+00	5.839E-01	4.270E-01	2.979E-01	FAIL ABUN
TL-200	-1.444E+02	2.784E+03	0.000E+00	1.420E+03	SHORT HLIF
TL-201	1.127E+01	1.831E+01	1.459E+01	9.342E+00	NOT IDENT.
TL-202	2.013E-02	7.720E-02	6.961E-02	3.939E-02	NOT IDENT.
HG-203	1.735E-02	4.130E-02	3.834E-02	2.107E-02	FAIL ABUN
BI-207	-4.278E-02	3.947E-02	3.124E-02	2.014E-02	FAIL ABUN
TL-207	-8.983E-01	6.391E-01	5.295E-01	3.260E-01	FAIL ABUN
PO-209	7.016E+00	6.911E+00	6.293E+00	3.526E+00	NOT IDENT.
BI-210	8.161E-01	5.145E+00	4.862E+00	2.625E+00	NOT IDENT.
PB-210	8.161E-01	5.145E+00	4.862E+00	2.625E+00	NOT IDENT.
PO-210	8.161E-01	5.145E+00	4.862E+00	2.625E+00	NOT IDENT.
PB-211	-6.240E-01	1.005E+00	8.068E-01	5.130E-01	NOT IDENT.
PO-215	-8.983E-01	6.391E-01	5.295E-01	3.260E-01	FAIL ABUN
RN-219	-9.984E-03	3.978E-01	3.556E-01	2.030E-01	FAIL ABUN
RN-220	8.586E+00	2.547E+01	2.276E+01	1.300E+01	NOT IDENT.
RA-223	-8.983E-01	6.391E-01	5.295E-01	3.260E-01	FAIL ABUN
AC-227	8.877E-01	5.253E-01	4.202E-01	2.680E-01	NOT IDENT.
TH-227	8.877E-01	5.318E-01	4.202E-01	2.713E-01	FAIL ABUN
TH-229	2.820E-01	5.761E-01	5.167E-01	2.939E-01	FAIL ABUN
PA-231	-6.326E-01	1.532E+00	1.359E+00	7.818E-01	NOT IDENT.
TH-231	-8.983E-01	6.391E-01	5.295E-01	3.260E-01	FAIL ABUN
U-231	2.281E+01	4.928E+00	3.157E+00	2.514E+00	FAIL ABUN
PA-233	-4.185E-02	6.433E-02	5.692E-02	3.282E-02	FAIL ABUN
PA-234	3.094E-01	2.916E-01	2.614E-01	1.488E-01	FAIL ABUN
NP-236	3.421E-02	1.137E-01	8.972E-02	5.803E-02	FAIL ABUN
NP-237	9.529E-01	7.667E-01	4.458E-01	3.912E-01	NOT IDENT.
NP-239	2.036E-01	3.039E-01	2.462E-01	1.550E-01	FAIL ABUN
AM-241	7.652E-01	3.230E-01	2.726E-01	1.648E-01	NOT IDENT.
CM-243	-1.080E-01	1.666E-01	1.306E-01	8.502E-02	FAIL ABUN
AM-246	8.864E-02	1.156E-01	1.070E-01	5.896E-02	NOT IDENT.
CM-247	1.070E-02	3.567E-02	3.236E-02	1.820E-02	NOT IDENT.
CF-249	1.546E-02	3.935E-02	3.591E-02	2.008E-02	NOT IDENT.
CF-251	-1.713E-02	1.560E-01	1.381E-01	7.960E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	1467.4465
46.50	1467.4465
46.50	1467.4465
48.70	1672.0861
49.72	1728.7484
51.35	1727.1632
52.39	1829.0560
52.97	1845.9365
53.15	1846.3176
53.44	1923.3497
54.07	2049.2434
56.28	2152.3008
56.28	2172.5291
57.37	0.0000
57.53	2058.2915
57.53	2058.2976
57.60	2058.4492
57.98	2141.2295
57.98	2141.2295
59.32	2232.6799
59.32	2232.6799
59.40	2232.8699
59.54	2233.2065
59.72	2233.6343
60.01	2288.0120
61.10	2421.8625
61.14	2421.9607
61.30	2472.9651
63.00	2302.7195
63.29	2303.4094
63.29	2303.4094
63.58	2142.8301
64.28	2150.7134
65.12	2195.4133
65.20	2195.5906
65.20	2195.5906
66.05	2318.2373
66.72	2412.0151
66.83	2412.2837
66.91	2520.6182
67.20	2521.3438
67.20	2521.3438
67.75	2498.8433
67.85	2522.9788
68.90	2226.8220
68.90	2226.8220
69.30	2227.7007
69.67	2243.6599
70.82	2292.4553
70.82	2292.4553
70.83	2316.4280
72.80	2461.5640
72.87	2554.5078
72.87	2554.5078
74.67	2730.9011
74.81	2731.2651
74.81	2731.2651
74.81	2731.2651
74.81	2731.2651
74.81	2731.2651
74.81	2731.2651
74.81	2731.2651
74.97	2731.6709
75.28	2732.4614
75.70	2733.5330
77.11	2737.1113
77.11	2737.1113

77.11	2737.1113
77.11	2737.1113
77.11	2737.1113
77.11	2737.1113
77.11	2737.1113
78.38	3081.6289
79.62	2873.1702
79.80	2873.6387
79.80	2873.6387
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80.18	2995.4016
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81.07	2997.7969
81.07	2997.7969
81.07	2997.7969
81.07	2997.7969
82.60	2878.1611
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83.78	3122.1482
83.78	3122.1482
83.78	3122.1482
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84.90	3296.3672
85.43	3070.0261
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86.59	3073.1184
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86.79	3073.6396
86.94	3074.0449
87.30	3074.9946
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87.30	3074.9946
87.30	3074.9946
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87.88	3323.7803
88.03	3324.2056
88.36	3325.1440
88.47	3078.0752
89.95	3414.0950
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92.38	3134.6050
92.38	3134.6050
93.35	3137.1206
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94.67	1630.5908
94.67	1630.5969
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94.90	1630.9082
94.90	1630.9082
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95.87	1632.1960
96.73	1633.3374
97.43	1634.2590
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98.44	1421.3274
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103.76	1287.6952
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111.00	1499.6077
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112.95	1266.3047
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117.00	985.3606
117.00	985.3606
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121.62	950.7631
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122.06	945.8567
122.32	956.4374
122.32	956.4374
122.32	956.4374
122.32	956.4374
123.07	956.9458
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136.00	902.3983
136.25	902.5490
136.48	917.3986
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143.76	899.5883
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144.24	851.7059
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145.44	850.6668
147.16	761.8634
152.43	816.4054
152.70	796.3657
153.22	775.3799
154.21	751.4086
154.21	751.4086
154.21	751.4086
154.21	751.4086
155.03	765.6097
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163.35	719.2421
163.89	694.4572
165.85	645.5987
167.43	637.6313
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171.86	697.0590
172.10	684.2628
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176.60	678.4882
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184.41	668.0552
185.71	598.6038
186.00	598.7008
190.27	566.0270
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193.63	538.1357
197.04	534.7612
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198.60	590.7946
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205.31	607.0948

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209.75	505.2058
210.97	494.9906
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216.55	463.1636
218.09	467.9274
222.10	455.6228
223.80	485.8154
226.40	453.2672
227.00	492.1068
227.08	492.1271
227.20	501.0020
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228.18	485.7496
228.18	485.7496
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236.00	399.8392
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238.63	389.2185
238.63	389.2185
238.63	389.2185
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241.98	395.6245
241.98	395.6245
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252.85	381.4993
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256.20	382.0817
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260.90	0.0000
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268.79	321.6966
269.46	297.7332
269.46	297.7332
269.46	297.7332
269.46	297.7332
271.23	303.9822
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276.40	321.9058
277.35	294.7327
277.60	294.7645
277.60	294.7645
278.00	284.3517
278.60	290.7652
279.20	305.3363
279.53	320.7844
280.46	341.7621
281.68	297.4982
283.67	309.5516
284.30	311.4509
285.00	307.9099
285.90	0.0000
286.10	298.0588
286.10	298.0588
287.40	314.8140
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291.72	296.0309
293.26	0.0000
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295.21	337.5076

295.21	337.5076
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298.57	293.8271
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300.09	287.9182
300.09	287.9182
300.09	287.9182
300.12	287.9220
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304.40	315.8948
304.84	300.3810
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308.46	260.4674
311.98	291.1470
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318.01	234.7668
319.02	235.7813
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323.87	278.6790
323.87	278.6790
323.87	278.6790
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334.30	245.5261
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338.28	235.6941
338.28	235.6941
338.28	235.6941
338.32	235.6972
338.32	235.6972
338.32	235.6972
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340.57	224.4444
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351.92	223.8486
351.92	223.8486
355.39	0.0000
356.01	228.8591
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366.43	222.2309
367.43	220.4330
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369.80	204.6624
374.96	195.6348
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388.63	190.9112
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391.69	218.5533
392.90	211.0715
398.62	207.6944
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402.60	195.6321
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413.65	209.7090
414.70	184.9915
415.30	186.9369

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427.89	178.1395
432.53	167.8586
433.93	189.0474
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439.56	164.3976
439.89	155.7609
443.98	167.5196
444.90	159.8642
445.03	160.8333
445.03	160.8333
445.03	160.8333
445.03	160.8333
453.90	162.2537
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473.00	182.6528
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476.78	157.5762
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513.99	137.6989
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555.20	133.3490
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563.90	123.0292
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569.50	106.5677
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592.07	132.9034
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595.88	130.8030
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602.71	125.9979
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604.70	129.4268
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609.31	135.3053
609.31	135.3053
609.31	135.3053
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614.37	121.3271
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621.84	111.4314
631.29	106.6252
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661.65	120.7426
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666.33	107.5635
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696.49	144.4707
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697.49	137.2796
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722.78	103.8330
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727.18	121.6103
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744.21	111.3047
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752.31	120.2222
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778.89	92.3124
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911.07	72.4421
911.07	72.4421
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920.93	81.8531
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969.11	60.1455
969.11	60.1455
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1048.07	61.0344

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1050.47	63.8368
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1076.63	61.3459
1077.35	57.6356
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1099.22	58.7933
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1120.29	56.1987
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1124.00	0.0000
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1147.95	0.0000
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1175.09	63.3414
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1205.75	0.0000
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1271.85	37.4559
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1274.54	57.6489
1291.56	45.2788
1298.22	0.0000
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1325.50	31.9594
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1333.61	41.6947
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1365.15	40.9216
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1368.53	0.0000
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1384.27	38.1066
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1395.20	24.4670
1407.95	31.3776
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1457.56	0.0000
1460.81	23.7148
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1596.49	29.2006
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1691.02	11.2148
1691.02	11.2148
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1764.49	7.0569
1764.49	7.0569
1764.49	7.0569
1770.23	3.5310
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1791.20	0.0000
1808.65	16.5566

1836.01	25.9562

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978004

Total Uranium Activity	2.9533E+02	ug/g
Total Uranium Counting Unc.	5.2163E+01	ug/g
Total Uranium Tpu	2.6614E-05	ug/g
Total Uranium Mda	6.0993E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978004       *
*   ANALYST       : MXR1                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 11:18:29.90    SAMPLE ALQT:  164.730 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.972E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.728E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 7.634E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 3.772E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:22:39.25

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978005.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:19:06
Sample ID         : G245978005           Sample quantity  : 1.47470E+02 GRAM
Detector name     : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:34.69  0.5%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.52*	203	653	0.98	127.03	123	9	2.82E-02	24.3	
2	2	73.24	100	542	1.24	146.43	143	22	1.39E-02	41.7	2.39E+00
3	2	74.91	585	528	1.13	149.76	143	22	8.13E-02	7.8	
4	2	77.18*	855	429	1.08	154.29	143	22	1.19E-01	5.3	
5	3	87.28	343	502	1.39	174.46	165	29	4.76E-02	12.4	3.26E+00
6	3	89.90	217	480	1.32	179.69	165	29	3.02E-02	19.1	
7	3	92.82*	518	457	1.40	185.53	165	29	7.20E-02	9.1	
8	0	128.65	148	471	1.02	257.09	252	11	2.06E-02	29.4	
9	0	185.87*	289	323	1.34	371.37	367	9	4.01E-02	13.1	
10	0	209.19	149	284	0.89	417.94	414	9	2.07E-02	22.0	
11	6	238.61*	1495	194	1.12	476.72	470	18	2.08E-01	3.0	3.03E+00
12	6	241.61	408	270	1.79	482.70	470	18	5.66E-02	11.9	
13	0	270.33	129	267	1.46	540.08	535	12	1.79E-02	26.9	
14	0	295.18	532	204	1.28	589.71	584	12	7.39E-02	6.9	
15	0	299.89	77	127	1.06	599.12	596	7	1.07E-02	26.8	
16	0	328.37	56	176	1.32	656.03	652	9	7.73E-03	45.1	
17	0	338.38*	248	218	1.25	676.03	672	11	3.44E-02	13.3	
18	0	351.90*	726	205	1.14	703.04	697	13	1.01E-01	5.5	
19	0	409.82	57	89	1.32	818.76	814	9	7.91E-03	32.8	
20	0	463.25	92	111	1.28	925.54	920	12	1.28E-02	25.1	
21	0	510.81*	157	170	1.77	1020.57	1014	16	2.19E-02	22.3	
22	0	583.31*	426	88	1.35	1165.47	1160	12	5.92E-02	6.6	
23	0	609.37*	484	124	1.45	1217.58	1210	14	6.72E-02	6.8	
24	0	662.09	80	82	1.66	1322.97	1317	10	1.12E-02	23.9	
25	0	727.66	90	99	1.52	1454.04	1448	11	1.25E-02	23.9	
26	2	768.32	45	61	1.91	1535.34	1526	25	6.25E-03	38.2	1.12E+00
27	2	772.82	53	46	1.91	1544.34	1526	25	7.31E-03	31.3	
28	0	795.00	64	68	1.82	1588.69	1582	13	8.82E-03	29.6	
29	0	860.91	50	62	1.04	1720.50	1716	11	6.96E-03	33.3	
30	0	911.62*	323	65	1.50	1821.90	1816	14	4.49E-02	7.9	
31	1	965.33	55	71	1.84	1929.33	1924	20	7.57E-03	30.8	2.40E+00
32	1	969.32*	196	56	1.84	1937.33	1924	20	2.72E-02	10.6	
33	0	1004.09	81	97	5.47	2006.87	1993	24	1.12E-02	34.8	
34	0	1121.24	107	117	1.65	2241.25	2232	18	1.49E-02	25.6	
35	0	1378.10	40	20	1.60	2755.30	2748	13	5.62E-03	27.4	
36	0	1461.02	1712	39	1.85	2921.31	2911	19	2.38E-01	2.6	
37	0	1588.52	32	19	1.15	3176.61	3172	12	4.45E-03	32.0	
38	0	1729.92	31	3	1.32	3459.81	3454	13	4.34E-03	21.4	

Sample ID : G245978005 Acquisition date : 14-FEB-2010 11:19:06

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1764.77*	110	7	1.47	3529.62	3523	13	1.53E-02	11.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:22:42

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978005.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:19:06
Sample ID : G245978005 Sample quantity : 147.47 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA20 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:34.69 0.5%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.260E+01	3.299E+00	4.286E-01	3.737E-02	76.074
CD-109	+	88.03	*	3.474E+00	9.230E-01	8.961E-01	8.473E-02	3.876
SN-126	+	64.28		1.152E+00	5.845E-01	5.725E-01	8.289E-02	2.011
	+	86.94		1.413E+00	6.840E-01	3.671E-01	1.524E-01	3.850
	+	87.57	*	3.400E-01	9.033E-02	8.795E-02	8.272E-03	3.865
BA-137M	+	661.65	*	9.361E-02	4.564E-02	5.409E-02	5.428E-03	1.731
CS-137	+	661.65	*	9.896E-02	4.825E-02	5.718E-02	5.747E-03	1.731
TL-208		277.35		3.889E-01	3.281E-01	5.549E-01	7.378E-02	0.701
	+	510.84		6.196E-01	2.864E-01	1.776E-01	2.220E-02	3.489
	+	583.14	*	4.776E-01	8.022E-02	4.677E-02	4.809E-03	10.211
	+	860.37		5.245E-01	3.534E-01	3.388E-01	3.591E-02	1.548
BI-211	+	72.87		3.421E+00	2.862E+00	3.465E+00	2.736E-01	0.987
	+	351.07	*	3.600E+00	5.274E-01	2.635E-01	2.524E-02	13.665
PB-212	+	74.81		2.300E+00	4.571E-01	3.985E-01	4.919E-02	5.772
	+	77.11		1.932E+00	2.607E-01	2.293E-01	1.897E-02	8.427
	+	87.30		1.572E+00	4.464E-01	4.075E-01	5.585E-02	3.859
	+	238.63	*	1.625E+00	1.991E-01	7.815E-02	8.311E-03	20.794
	+	300.09		1.285E+00	7.047E-01	9.229E-01	1.055E-01	1.392
PO-212	+	74.81		2.300E+00	4.571E-01	3.985E-01	4.919E-02	5.772
	+	77.11		1.932E+00	2.607E-01	2.293E-01	1.897E-02	8.427
	+	87.30		1.572E+00	4.464E-01	4.075E-01	5.585E-02	3.859
		115.19		1.756E+00	3.054E+00	5.026E+00	4.221E-01	0.349
	+	238.63	*	1.625E+00	1.991E-01	7.815E-02	8.311E-03	20.794
	+	300.09		1.285E+00	7.047E-01	9.229E-01	1.055E-01	1.392
BI-214	+	609.31	*	1.022E+00	1.790E-01	9.214E-02	1.025E-02	11.094
	+	1120.29		1.159E+00	6.066E-01	3.707E-01	4.010E-02	3.127
	+	1764.49		1.611E+00	3.806E-01	1.794E-01	1.474E-02	8.977
PB-214	+	74.81		3.963E+00	7.545E-01	6.867E-01	7.518E-02	5.772
	+	77.11		3.313E+00	5.133E-01	3.931E-01	4.421E-02	8.427
	+	87.30		2.694E+00	7.452E-01	6.980E-01	8.471E-02	3.859
	+	241.98		2.662E+00	7.000E-01	4.705E-01	5.261E-02	5.659
	+	295.21		1.563E+00	2.825E-01	1.792E-01	2.092E-02	8.723
	+	351.92	*	1.252E+00	1.947E-01	9.183E-02	1.001E-02	13.637
PO-214	+	74.81		3.963E+00	7.545E-01	6.867E-01	7.518E-02	5.772

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		3.313E+00	5.133E-01	3.931E-01	4.421E-02	8.427
	+	87.30		2.694E+00	7.452E-01	6.980E-01	8.471E-02	3.859
	+	241.98		2.662E+00	7.000E-01	4.705E-01	5.261E-02	5.659
	+	295.21		1.563E+00	2.825E-01	1.792E-01	2.092E-02	8.723
	+	351.92	*	1.252E+00	1.947E-01	9.183E-02	1.001E-02	13.637
PO-216	+	74.81		2.300E+00	4.571E-01	3.985E-01	4.919E-02	5.772
	+	77.11		1.932E+00	2.607E-01	2.293E-01	1.897E-02	8.427
	+	87.30		1.572E+00	4.464E-01	4.075E-01	5.585E-02	3.859
	+	238.63	*	1.625E+00	1.991E-01	7.815E-02	8.311E-03	20.794
	+	300.09		1.285E+00	7.047E-01	9.229E-01	1.055E-01	1.392
PO-218	+	74.81		3.963E+00	7.545E-01	6.867E-01	7.518E-02	5.772
	+	77.11		3.313E+00	5.133E-01	3.931E-01	4.421E-02	8.427
	+	87.30		2.694E+00	7.452E-01	6.980E-01	8.471E-02	3.859
	+	241.98		2.662E+00	7.000E-01	4.705E-01	5.261E-02	5.659
	+	295.21		1.563E+00	2.825E-01	1.792E-01	2.092E-02	8.723
	+	351.92	*	1.252E+00	1.947E-01	9.183E-02	1.001E-02	13.637
RA-224	+	240.98	*	5.048E+00	1.297E+00	8.892E-01	8.595E-02	5.677
RA-226	+	609.31	*	1.022E+00	1.790E-01	9.214E-02	1.025E-02	11.094
	+	1120.29		1.159E+00	6.066E-01	3.707E-01	4.010E-02	3.127
	+	1764.49		1.611E+00	3.806E-01	1.794E-01	1.474E-02	8.977
AC-228	+	338.32		1.354E+00	6.668E-01	3.160E-01	1.309E-01	4.285
	+	911.07	*	1.596E+00	3.185E-01	1.796E-01	2.200E-02	8.886
	+	969.11		1.705E+00	5.415E-01	2.862E-01	6.791E-02	5.958
RA-228	+	338.32		1.354E+00	6.668E-01	3.160E-01	1.309E-01	4.285
	+	911.07	*	1.596E+00	3.185E-01	1.796E-01	2.200E-02	8.886
	+	969.11		1.705E+00	5.415E-01	2.862E-01	6.791E-02	5.958
TH-228	+	74.81		2.342E+00	4.115E-01	4.057E-01	3.302E-02	5.772
	+	77.11		1.967E+00	2.654E-01	2.335E-01	1.931E-02	8.427
	+	87.30		1.601E+00	4.253E-01	4.148E-01	3.888E-02	3.859
	+	238.63	*	1.654E+00	2.027E-01	7.956E-02	8.461E-03	20.794
	+	300.09		1.308E+00	1.048E+00	9.396E-01	5.587E-01	1.392
TH-230	+	609.31	*	1.022E+00	1.790E-01	9.213E-02	1.025E-02	11.094
	+	1120.29		1.159E+00	6.066E-01	3.707E-01	4.010E-02	3.127
	+	1764.49		1.611E+00	3.806E-01	1.794E-01	1.474E-02	8.977
TH-232	+	338.32		1.354E+00	3.824E-01	3.160E-01	2.960E-02	4.285
	+	911.07	*	1.596E+00	3.185E-01	1.796E-01	2.200E-02	8.886
	+	969.11		1.705E+00	5.415E-01	2.862E-01	6.791E-02	5.958
TH-234	+	63.29	*	2.909E+00	1.503E+00	1.442E+00	2.505E-01	2.018
	+	92.38		3.401E+00	8.776E-01	5.867E-01	1.076E-01	5.797
U-234	+	609.31	*	1.022E+00	1.790E-01	9.213E-02	1.025E-02	11.094
	+	1120.29		1.159E+00	6.066E-01	3.707E-01	4.010E-02	3.127
	+	1764.49		1.611E+00	3.806E-01	1.794E-01	1.474E-02	8.977
NP-237	+	86.50	*	9.983E-01	3.359E-01	2.601E-01	5.884E-02	3.838
		95.87		-3.804E-01	8.624E-01	1.211E+00	2.998E-01	-0.314
U-238	+	63.29	*	2.909E+00	1.503E+00	1.442E+00	2.505E-01	2.018
	+	92.38		3.401E+00	6.913E-01	5.867E-01	5.363E-02	5.797
AM-243	+	74.67	*	3.729E-01	6.540E-02	6.475E-02	5.212E-03	5.760
	+	86.72		3.744E+01	9.948E+00	9.739E+00	9.060E-01	3.844
		117.66		-1.975E+00	3.229E+00	5.053E+00	4.230E-01	-0.391

Sample ID : G245978005 Acquisition date : 14-FEB-2010 11:19:06

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		6.540E+00	1.585E+01	2.572E+01	2.171E+00	0.254
ANH-511	+	511.00	*	1.338E-01	6.085E-02	3.838E-02	3.576E-03	3.488

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.070E-01	2.937E-01	4.638E-01	4.509E-02	-0.231
NA-22		1274.54	*	-1.669E-02	3.960E-02	6.101E-02	5.054E-03	-0.274
NA-24		1368.53	*	-1.190E+01	3.960E-02	Half-Life too short		
AL-26		1129.67		-5.267E-01	1.701E+00	2.521E+00	2.135E-01	-0.209
		1808.65	*	-2.360E-03	1.822E-02	2.893E-02	2.350E-03	-0.082
TI-44		67.85		2.350E-02	3.679E-02	5.529E-02	4.160E-03	0.425
	+	78.38	*	3.566E-01	4.812E-02	6.413E-02	5.382E-03	5.561
SC-46		889.25	*	-2.404E-02	3.135E-02	4.762E-02	4.747E-03	-0.505
	+	1120.51		2.031E-01	1.055E-01	1.155E-01	9.882E-03	1.758
V-48		944.10		-7.620E-01	9.085E-01	1.376E+00	1.343E-01	-0.554
		983.50	*	-2.164E-02	7.014E-02	1.118E-01	1.068E-02	-0.194
		1312.09		6.245E-03	7.852E-02	1.274E-01	1.063E-02	0.049
CR-51		320.08	*	-5.332E-02	3.098E-01	5.080E-01	5.093E-02	-0.105
MN-52		744.21		7.292E-02	2.902E-01	4.940E-01	5.019E-02	0.148
		848.13		-8.308E+00	8.389E+00	1.263E+01	1.272E+00	-0.658
		935.52		6.241E-02	3.352E-01	5.603E-01	5.488E-02	0.111
		1246.25		-1.473E+00	1.080E+01	1.725E+01	1.417E+00	-0.085
		1333.61		-1.779E+00	5.945E+00	9.172E+00	7.684E-01	-0.194
		1434.06	*	-1.594E-01	2.896E-01	4.506E-01	3.814E-02	-0.354
MN-54		834.83	*	7.123E-04	3.156E-02	5.245E-02	5.298E-03	0.014
CO-56		846.75	*	1.605E-03	3.442E-02	5.727E-02	5.772E-03	0.028
		977.42		-9.129E-01	2.731E+00	4.216E+00	4.044E-01	-0.217
		1037.82		-7.854E-02	2.799E-01	4.454E-01	4.298E-02	-0.176
		1175.09		-2.404E-01	2.275E+00	3.656E+00	2.941E-01	-0.066
		1238.25		9.211E-02	9.324E-02	1.604E-01	1.357E-02	0.574
		1360.21		-2.979E-01	8.600E-01	1.381E+00	1.162E-01	-0.216
		1771.40		-4.904E-01	2.539E-01	2.790E-01	2.289E-02	-1.758
CO-57		122.06	*	1.340E-03	2.142E-02	3.450E-02	2.880E-03	0.039
		136.48		1.088E-01	1.821E-01	2.983E-01	2.700E-02	0.365
CO-58		810.76	*	-4.829E-03	3.409E-02	5.599E-02	5.685E-03	-0.086
FE-59		142.65		2.486E+00	2.602E+00	4.300E+00	3.632E-01	0.578
		192.34		1.085E-01	8.127E-01	1.384E+00	1.901E-01	0.078
		1099.22	*	-2.076E-02	8.787E-02	1.401E-01	1.321E-02	-0.148
		1291.56		6.253E-02	1.126E-01	1.917E-01	1.823E-02	0.326
CO-60		1173.22		1.310E-04	4.427E-02	7.179E-02	5.772E-03	0.002
		1332.49	*	-4.108E-03	3.211E-02	5.071E-02	4.248E-03	-0.081
ZN-65		1115.52	*	1.179E-02	8.677E-02	1.242E-01	1.069E-02	0.095
GE-68		1077.35	*	-5.469E-01	1.115E+00	1.732E+00	1.546E-01	-0.316
AS-73		53.44	*	5.204E-01	5.117E-01	8.719E-01	6.472E-02	0.597
AS-74		595.88	*	-4.032E-02	8.788E-02	1.352E-01	1.323E-02	-0.298
		634.78		-1.904E-01	3.305E-01	5.327E-01	5.299E-02	-0.357
SE-75		66.05		-8.824E-01	3.850E+00	5.589E+00	5.287E-01	-0.158

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		-3.249E-01	6.999E-01	9.846E-01	1.360E-01	-0.330
		121.11		2.745E-02	1.164E-01	1.889E-01	2.080E-02	0.145
		136.00		1.797E-02	3.463E-02	5.657E-02	4.780E-03	0.318
		198.60		1.463E+00	1.449E+00	2.538E+00	2.554E-01	0.577
		264.65	*	-5.532E-03	3.986E-02	6.134E-02	6.073E-03	-0.090
		279.53		-3.676E-02	9.627E-02	1.576E-01	1.613E-02	-0.233
		303.91		-2.285E-01	1.935E+00	2.800E+00	3.465E-01	-0.082
		400.65		1.379E-01	2.183E-01	3.710E-01	4.072E-02	0.372
BR-77	+	87.88		1.718E+03	4.566E+02	6.308E+02	5.957E+01	2.724
		200.40		-2.659E+02	3.027E+02	4.923E+02	4.528E+01	-0.540
	+	239.00		6.000E+02	6.841E+01	7.864E+01	7.587E+00	7.630
		249.79		-5.473E+01	1.231E+02	2.017E+02	1.966E+01	-0.271
		281.68		-1.398E+01	1.789E+02	2.972E+02	2.955E+01	-0.047
		297.23		6.379E+02	1.645E+02	2.333E+02	2.295E+01	2.735
		303.76		-2.166E+01	3.739E+02	5.438E+02	5.320E+01	-0.040
		439.47		2.749E+02	2.811E+02	4.863E+02	4.272E+01	0.565
		484.57		-1.335E+02	4.419E+02	6.997E+02	6.393E+01	-0.191
		520.65	*	1.318E+01	1.845E+01	3.150E+01	2.955E+00	0.419
		574.64		-1.198E+02	3.907E+02	6.103E+02	5.912E+01	-0.196
		578.91		-1.822E+01	1.822E+02	2.518E+02	2.445E+01	-0.072
		585.48		2.525E+03	5.349E+02	9.182E+02	8.943E+01	2.749
		755.35		8.850E+01	3.180E+02	5.421E+02	5.509E+01	0.163
		817.79		-1.106E+01	2.485E+02	4.112E+02	4.164E+01	-0.027
SR-82		698.33		-1.451E+01	3.387E+01	5.514E+01	5.575E+00	-0.263
		776.49	*	-1.394E-01	3.462E-01	4.734E-01	4.810E-02	-0.294
		1395.20		2.518E+00	8.823E+00	1.533E+01	1.294E+00	0.164
RB-83		520.41	*	2.144E-02	5.625E-02	9.358E-02	8.776E-03	0.229
		529.64		7.901E-02	9.433E-02	1.611E-01	1.520E-02	0.490
		552.65		1.475E-01	1.695E-01	2.906E-01	2.781E-02	0.508
RB-84		881.50	*	5.773E-02	6.334E-02	1.125E-01	1.124E-02	0.513
KR-85		513.99	*	1.606E+01	6.685E+00	1.131E+01	1.056E+00	1.420
SR-85		513.99	*	8.484E-02	3.532E-02	5.974E-02	5.579E-03	1.420
RB-86		1076.63	*	-5.536E-02	7.492E-01	1.213E+00	1.083E-01	-0.046
Y-88		898.02		-9.068E-03	3.624E-02	5.865E-02	5.852E-03	-0.155
		1836.01	*	-4.885E-03	2.531E-02	3.982E-02	3.213E-03	-0.123
ZR-88		392.90	*	-1.952E-02	2.624E-02	4.085E-02	3.416E-03	-0.478
Y-91		1204.90	*	2.093E+00	1.745E+01	2.853E+01	2.317E+00	0.073
NB-94		702.63	*	-5.361E-03	2.916E-02	4.825E-02	4.882E-03	-0.111
		871.10		-1.759E-02	2.789E-02	4.328E-02	4.338E-03	-0.406
NB-95		765.79	*	6.196E-02	3.652E-02	6.735E-02	6.844E-03	0.920
NB-95M		235.69	*	3.504E-02	1.184E-01	1.784E-01	1.916E-02	0.196
ZR-95		724.18		5.626E-02	8.786E-02	1.364E-01	1.471E-02	0.412
		756.15	*	1.137E-02	6.060E-02	1.026E-01	1.120E-02	0.111
NB-97		657.90	*	9.410E-01	6.060E-02	Half-Life too short		
		1024.50		-1.440E+01	6.060E-02	Half-Life too short		
ZR-97		254.15		-1.626E+01	6.060E-02	Half-Life too short		
		355.39		-3.769E+01	6.060E-02	Half-Life too short		
		507.63	*	4.516E+01	6.060E-02	Half-Life too short		
		602.52		2.778E+01	6.060E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		9.455E+01	6.060E-02	Half-Life too short		
		1147.95		-3.892E+01	6.060E-02	Half-Life too short		
		1362.66		6.789E+01	6.060E-02	Half-Life too short		
		1750.46		-5.847E+01	6.060E-02	Half-Life too short		
MO-99		140.51		-3.078E+01	4.877E+01	7.425E+01	2.052E+01	-0.415
		181.06		-1.382E+01	3.426E+01	4.671E+01	8.613E+00	-0.296
		366.43		1.018E+02	1.477E+02	2.527E+02	2.247E+01	0.403
		739.58	*	-1.173E+01	2.078E+01	3.307E+01	5.326E+00	-0.355
		778.00		-6.529E+01	6.578E+01	8.265E+01	8.399E+00	-0.790
TC-99M		140.51	*	-5.814E+13	6.578E+01	Half-Life too short		
RH-101	+	127.23		7.689E-02	4.570E-02	4.349E-02	3.628E-03	1.768
		198.01	*	1.866E-02	2.651E-02	4.603E-02	4.220E-03	0.405
		325.23		-5.426E-03	2.051E-01	2.978E-01	2.844E-02	-0.018
RH-102		418.52		-1.700E-01	2.425E-01	3.767E-01	3.240E-02	-0.451
		475.06	*	-4.093E-03	2.564E-02	4.114E-02	3.730E-03	-0.099
		631.29		3.019E-02	4.640E-02	7.801E-02	7.750E-03	0.387
		697.49		-1.729E-02	7.012E-02	1.156E-01	1.169E-02	-0.150
	+	766.84		1.584E-01	1.220E-01	1.861E-01	1.891E-02	0.851
		1046.59		9.929E-03	1.073E-01	1.768E-01	1.619E-02	0.056
		1112.84		-1.742E-01	2.322E-01	2.923E-01	2.520E-02	-0.596
RU-103		497.08	*	1.704E-02	3.639E-02	6.082E-02	8.841E-03	0.280
	+	610.33		1.161E+01	2.553E+00	2.674E+00	4.640E-01	4.341
RH-106	+	511.85		6.721E-01	3.056E-01	3.835E-01	3.576E-02	1.752
		621.84	*	-1.488E-01	2.808E-01	4.268E-01	6.067E-02	-0.349
		1050.47		7.771E-01	2.278E+00	3.825E+00	3.491E-01	0.203
RU-106	+	511.85		6.721E-01	3.056E-01	3.835E-01	3.576E-02	1.752
		621.84	*	-1.488E-01	2.804E-01	4.268E-01	4.224E-02	-0.349
		1050.47		7.771E-01	2.278E+00	3.825E+00	3.491E-01	0.203
AG-108M		433.93	*	-1.804E-03	2.638E-02	4.283E-02	3.887E-03	-0.042
		614.37		1.670E-03	3.948E-02	5.524E-02	5.615E-03	0.030
		722.95		1.173E-02	3.663E-02	5.525E-02	5.764E-03	0.212
AG-110M		657.75	*	2.187E-02	3.296E-02	5.154E-02	5.280E-03	0.424
		677.61		-2.249E-02	2.542E-01	4.242E-01	4.362E-02	-0.053
		706.67		-3.109E-02	1.803E-01	2.985E-01	3.082E-02	-0.104
		763.93		6.495E-02	1.531E-01	2.323E-01	2.409E-02	0.280
		884.67		-9.404E-04	4.262E-02	6.947E-02	7.102E-03	-0.014
		937.48		-9.143E-02	1.036E-01	1.569E-01	1.579E-02	-0.583
		1384.27		1.371E-01	1.369E-01	2.330E-01	2.022E-02	0.588
IN-111		171.28		-1.041E+00	1.794E+00	2.762E+00	2.430E-01	-0.377
		245.39	*	6.207E-01	1.850E+00	2.797E+00	2.715E-01	0.222
IN-113M		391.69	*	-1.707E-02	3.799E-02	6.047E-02	5.216E-03	-0.282
SN-113		391.69	*	-1.707E-02	3.799E-02	6.047E-02	5.216E-03	-0.282
IN-114M		190.27	*	-1.962E-02	1.824E-01	2.717E-01	2.462E-02	-0.072
CD-115		260.90		1.594E-04	1.824E-01	Half-Life too short		
		492.35		-1.249E-05	1.824E-01	Half-Life too short		
		527.90	*	2.390E-05	1.824E-01	Half-Life too short		
SN-117M		156.02		3.563E-01	2.308E+00	3.696E+00	3.178E-01	0.096
		158.56	*	2.734E-02	5.535E-02	8.892E-02	7.674E-03	0.308
SB-122		563.90	*	1.962E+00	3.719E+00	6.209E+00	5.980E-01	0.316

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		2.836E+01	8.008E+01	1.375E+02	1.389E+01	0.206
I-123		159.00	*	-2.105E+01	8.008E+01	Half-Life too short		
		528.96		2.018E+04	8.008E+01	Half-Life too short		
TE-123M		159.00	*	-2.840E-03	2.567E-02	4.017E-02	3.490E-03	-0.071
I-124		602.71	*	-4.893E-01	1.055E+00	1.393E+00	1.367E-01	-0.351
		722.78		2.045E+00	6.148E+00	9.287E+00	9.419E-01	0.220
		1325.50		-1.533E+01	4.737E+01	7.300E+01	6.107E+00	-0.210
		1376.25		4.984E+01	4.823E+01	8.003E+01	6.741E+00	0.623
		1509.49		1.797E+01	2.039E+01	3.763E+01	3.190E+00	0.477
		1691.02		1.836E+00	4.467E+00	7.945E+00	6.625E-01	0.231
SB-124		602.71		-1.830E-02	3.946E-02	5.211E-02	5.117E-03	-0.351
		645.85		3.563E-01	4.410E-01	7.821E-01	8.161E-02	0.456
		709.31		-3.234E-02	2.399E+00	4.016E+00	4.067E-01	-0.008
		713.82		1.599E-01	1.363E+00	2.303E+00	3.032E-01	0.069
		722.78		1.109E-01	3.334E-01	5.036E-01	5.188E-02	0.220
	+	968.20		1.814E+01	4.208E+00	6.822E+00	6.577E-01	2.659
		1045.16		7.423E-01	2.338E+00	3.926E+00	3.598E-01	0.189
		1325.50		-8.880E-01	2.744E+00	4.228E+00	3.537E-01	-0.210
		1368.21		-1.057E+00	1.590E+00	2.455E+00	3.276E-01	-0.431
		1436.60		2.387E+00	3.216E+00	5.863E+00	4.962E-01	0.407
		1691.02	*	2.348E-02	5.715E-02	1.016E-01	8.833E-03	0.231
SB-125		427.89	*	9.054E-03	7.609E-02	1.252E-01	1.108E-02	0.072
	+	463.38		7.118E-01	3.637E-01	4.569E-01	4.399E-02	1.558
		600.56		1.369E-01	1.451E-01	2.490E-01	2.582E-02	0.550
		635.90		-9.668E-02	2.234E-01	3.642E-01	3.846E-02	-0.265
TE-125M		109.28	*	-8.402E-01	8.435E+00	1.356E+01	1.387E+00	-0.062
I-126		388.63		4.053E-02	2.015E-01	3.347E-01	2.819E-02	0.121
		666.33	*	2.716E-01	1.868E-01	3.125E-01	3.140E-02	0.869
		753.82		1.265E+00	1.404E+00	2.498E+00	2.539E-01	0.506
SB-126		223.80		3.105E-01	4.002E+00	6.763E+00	6.415E-01	0.046
		278.60		1.147E+00	2.518E+00	4.284E+00	4.264E-01	0.268
	+	296.50		1.826E+01	3.095E+00	3.879E+00	3.818E-01	4.707
		414.70		2.922E-02	8.324E-02	1.230E-01	1.054E-02	0.238
		415.30		1.100E+00	6.358E+00	1.017E+01	8.716E-01	0.108
		555.20		-4.502E-01	4.036E+00	6.433E+00	6.165E-01	-0.070
		573.80		-4.434E-03	1.001E+00	1.606E+00	1.555E-01	-0.003
		593.00		-7.101E-03	9.232E-01	1.478E+00	1.444E-01	-0.005
		656.30		2.966E-01	3.907E+00	5.774E+00	5.785E-01	0.051
		666.33		1.142E-01	7.859E-02	1.314E-01	1.321E-02	0.869
		675.00		1.473E+00	1.986E+00	3.503E+00	3.527E-01	0.421
		695.00		7.804E-02	8.140E-02	1.446E-01	1.461E-02	0.540
		697.00		4.020E-02	2.863E-01	4.847E-01	4.900E-02	0.083
		720.50	*	-8.479E-02	1.449E-01	2.162E-01	2.192E-02	-0.392
		856.80		-2.346E-01	5.076E-01	6.839E-01	6.877E-02	-0.343
		989.30		-9.217E-02	1.284E+00	2.092E+00	1.993E-01	-0.044
		1034.80		6.268E+00	8.942E+00	1.554E+01	1.436E+00	0.403
		1213.00		-4.106E+00	4.939E+00	7.371E+00	6.000E-01	-0.557
SB-127		61.10		2.264E+01	7.198E+01	1.072E+02	1.184E+01	0.211
		252.40		6.946E+00	6.788E+00	1.077E+01	4.580E+00	0.645

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		290.80		-2.107E+01	3.377E+01	4.705E+01	6.112E+00	-0.448
		411.60		1.225E+00	1.939E+01	2.794E+01	4.563E+00	0.044
		444.90		-1.526E+01	1.384E+01	2.047E+01	2.757E+00	-0.745
		473.00		8.433E-01	2.399E+00	3.987E+00	5.551E-01	0.212
		543.00		-1.151E+01	2.293E+01	3.525E+01	5.508E+00	-0.326
		603.60		-6.914E+00	1.797E+01	2.388E+01	3.372E+00	-0.290
		685.20	*	4.024E-01	1.808E+00	3.087E+00	4.116E-01	0.130
		698.50		-1.138E+01	2.326E+01	3.760E+01	6.500E+00	-0.303
		722.20		3.166E+01	4.249E+01	6.691E+01	8.821E+00	0.473
		783.80		5.162E+00	5.527E+00	9.728E+00	1.389E+00	0.531
XE-127		57.60		3.839E-01	4.107E+00	6.783E+00	4.847E-01	0.057
		145.22		-1.292E-01	6.854E-01	1.086E+00	9.202E-02	-0.119
		172.10		-2.808E-02	1.106E-01	1.730E-01	1.525E-02	-0.162
		202.84	*	1.879E-02	3.934E-02	6.776E-02	6.253E-03	0.277
		374.96		1.022E-01	1.747E-01	2.971E-01	2.590E-02	0.344
I-131		80.18		1.458E+00	4.974E+00	7.332E+00	6.343E-01	0.199
		284.30		-8.640E-01	1.651E+00	2.677E+00	2.768E-01	-0.323
		364.48	*	3.522E-02	1.233E-01	2.065E-01	1.941E-02	0.171
		636.97		-2.067E-01	1.658E+00	2.770E+00	2.879E-01	-0.075
		722.89		2.562E+00	7.892E+00	1.191E+01	1.216E+00	0.215
TE-132		49.72		-1.492E+01	1.939E+01	3.098E+01	3.437E+00	-0.482
		111.76		-3.555E+01	4.839E+01	7.470E+01	8.610E+00	-0.476
		116.30		2.137E+01	4.237E+01	6.951E+01	7.979E+00	0.308
		228.16	*	3.966E-02	1.094E+00	1.844E+00	3.094E-01	0.022
BA-133		53.15		2.198E+00	2.150E+00	3.665E+00	2.731E-01	0.600
		79.62		5.069E-01	1.099E+00	1.629E+00	2.470E-01	0.311
		81.00		8.682E-02	1.002E-01	1.210E-01	1.924E-02	0.717
		276.40		4.283E-01	3.544E-01	5.525E-01	8.438E-02	0.775
		302.84		1.480E-02	1.283E-01	1.891E-01	2.662E-02	0.078
		356.01	*	-2.415E-02	4.104E-02	5.619E-02	7.591E-03	-0.430
		383.85		5.887E-02	2.571E-01	4.279E-01	5.366E-02	0.138
I-133	+	510.53		1.336E+01	2.571E-01	Half-Life too short		
		529.87	*	3.915E-02	2.571E-01	Half-Life too short		
		706.58		-5.978E-01	2.571E-01	Half-Life too short		
		856.28		-4.083E+00	2.571E-01	Half-Life too short		
		875.33		2.936E-01	2.571E-01	Half-Life too short		
		1236.41		2.250E+00	2.571E-01	Half-Life too short		
		1298.22		-3.622E-01	2.571E-01	Half-Life too short		
CS-134		475.35		4.205E-01	1.642E+00	2.713E+00	2.461E-01	0.155
		563.23		2.030E-01	3.078E-01	5.187E-01	5.032E-02	0.391
		569.32		2.343E-03	1.604E-01	2.579E-01	2.519E-02	0.009
		604.70		-5.760E-03	2.948E-02	4.012E-02	3.950E-03	-0.144
	+	795.84	*	1.023E-01	6.150E-02	7.821E-02	7.981E-03	1.308
		801.93		-2.933E-02	3.403E-01	5.296E-01	5.395E-02	-0.055
		1038.57		-7.335E-01	3.488E+00	5.592E+00	5.152E-01	-0.131
		1167.94		1.543E+00	2.247E+00	3.858E+00	3.122E-01	0.400
		1365.15		6.236E-01	1.077E+00	1.917E+00	1.690E-01	0.325
CS-135		268.24	*	1.814E-01	1.435E-01	2.268E-01	2.513E-02	0.800
I-135		288.45		-5.231E+12	1.435E-01	Half-Life too short		

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		417.63		-1.259E+12	1.435E-01	Half-Life too short		
		546.56		1.221E+11	1.435E-01	Half-Life too short		
		836.80		1.052E+13	1.435E-01	Half-Life too short		
		1038.76		-4.453E+12	1.435E-01	Half-Life too short		
		1124.00		5.445E+13	1.435E-01	Half-Life too short		
		1131.51		1.995E+12	1.435E-01	Half-Life too short		
		1260.41	*	-1.901E+12	1.435E-01	Half-Life too short		
		1457.56		4.180E+14	1.435E-01	Half-Life too short		
		1678.03		4.949E+12	1.435E-01	Half-Life too short		
		1706.46		-2.406E+13	1.435E-01	Half-Life too short		
		1791.20		7.512E+12	1.435E-01	Half-Life too short		
CS-136		66.91		-3.287E-01	7.300E-01	1.047E+00	1.552E-01	-0.314
	+	86.29		5.156E+00	1.456E+00	1.872E+00	2.487E-01	2.754
		153.22		6.602E-01	6.736E-01	1.113E+00	1.067E-01	0.593
		163.89		4.023E-01	1.083E+00	1.747E+00	1.700E-01	0.230
		176.55		-3.299E-01	3.909E-01	5.926E-01	5.548E-02	-0.557
		273.65		-3.757E-01	4.938E-01	6.858E-01	7.149E-02	-0.548
		340.57		2.859E-01	1.524E-01	2.438E-01	2.333E-02	1.173
		818.51		-4.415E-02	7.202E-02	1.129E-01	1.144E-02	-0.391
		1048.07	*	6.022E-03	1.220E-01	2.002E-01	1.901E-02	0.030
		1235.34		-1.666E-01	6.966E-01	1.105E+00	1.276E-01	-0.151
CE-139		165.85	*	-2.524E-02	2.732E-02	4.140E-02	3.614E-03	-0.610
BA-140		162.64		5.916E-01	7.596E-01	1.246E+00	1.144E-01	0.475
		304.84		-2.272E-01	1.299E+00	1.975E+00	5.610E-01	-0.115
		423.70		1.419E+00	1.938E+00	3.227E+00	1.046E+00	0.440
		537.32	*	-6.299E-02	2.654E-01	4.184E-01	1.396E-01	-0.151
LA-140	+	328.77		4.394E-01	3.991E-01	5.329E-01	5.299E-02	0.824
		432.53		-2.736E-01	1.926E+00	3.110E+00	2.843E-01	-0.088
		487.03		-1.256E-01	1.321E-01	1.970E-01	1.902E-02	-0.637
		751.79		-9.238E-01	1.671E+00	2.660E+00	2.914E-01	-0.347
		815.85		1.090E-01	3.064E-01	5.243E-01	5.761E-02	0.208
		867.82		1.151E+00	1.333E+00	2.209E+00	2.303E-01	0.521
		919.63		-7.022E-01	2.740E+00	4.131E+00	4.824E-01	-0.170
		925.24		5.419E-01	1.206E+00	2.060E+00	2.125E-01	0.263
		1596.49	*	-2.228E-02	8.185E-02	1.193E-01	1.007E-02	-0.187
CE-141		145.44	*	6.874E-04	6.132E-02	9.788E-02	8.451E-03	0.007
CE-143		57.37		-4.135E-04	6.132E-02	Half-Life too short		
		231.56		8.548E-04	6.132E-02	Half-Life too short		
		293.26	*	2.493E-03	6.132E-02	Half-Life too short		
	+	350.59		1.203E-01	6.132E-02	Half-Life too short		
		490.36		-5.516E-03	6.132E-02	Half-Life too short		
		664.57		3.474E-03	6.132E-02	Half-Life too short		
		721.93		5.843E-03	6.132E-02	Half-Life too short		
CE-144		80.11		5.106E-01	1.802E+00	2.655E+00	2.274E-01	0.192
		133.54	*	6.686E-02	2.030E-01	2.941E-01	4.538E-02	0.227
PM-144		476.78		5.884E-03	6.026E-02	9.843E-02	9.695E-03	0.060
		618.01		2.761E-03	2.788E-02	4.490E-02	4.531E-03	0.061
		696.49	*	7.557E-03	3.104E-02	5.290E-02	5.349E-03	0.143
		778.57		-1.660E+00	2.202E+00	2.882E+00	2.929E-01	-0.576

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PR-144		696.49	*	5.129E-01	2.107E+00	3.590E+00	3.629E-01	0.143
		1489.15		8.121E+00	8.312E+00	1.588E+01	1.346E+00	0.511
PM-146		453.90	*	5.070E-03	3.651E-02	5.998E-02	6.570E-03	0.085
		633.02		5.297E-01	1.165E+00	1.906E+00	7.184E-01	0.278
		735.90		2.842E-02	1.265E-01	2.147E-01	6.249E-02	0.132
		747.13		-1.353E-02	7.456E-02	1.227E-01	1.844E-02	-0.110
ND-147	+	91.11		8.723E-01	3.444E-01	5.270E-01	5.214E-02	1.655
		319.41		-1.226E+00	3.095E+00	5.004E+00	4.815E-01	-0.245
		439.89		6.918E+00	5.961E+00	1.041E+01	9.153E-01	0.664
		531.02	*	-4.615E-01	6.073E-01	9.153E-01	1.413E-01	-0.504
PM-149		285.90	*	-1.946E-05	6.073E-01	Half-Life too short		
EU-152		121.78		1.359E-02	6.154E-02	9.980E-02	9.667E-03	0.136
		244.69		2.297E-01	2.842E-01	4.418E-01	4.286E-02	0.520
		344.27	*	-2.513E-02	9.128E-02	1.293E-01	1.261E-02	-0.194
		443.98		-3.388E-01	8.003E-01	1.263E+00	1.115E-01	-0.268
		778.89		-1.920E-01	2.557E-01	3.351E-01	3.405E-02	-0.573
		867.32		3.056E-01	7.299E-01	1.107E+00	1.110E-01	0.276
	+	964.01		5.457E-01	3.405E-01	4.861E-01	4.697E-02	1.123
		1085.78		9.721E-02	3.700E-01	6.169E-01	5.462E-02	0.158
		1112.02		-1.998E-01	3.017E-01	4.280E-01	3.694E-02	-0.467
		1407.95		1.109E-01	1.630E-01	2.920E-01	2.467E-02	0.380
GD-153		69.67		-3.526E-01	1.360E+00	1.967E+00	1.505E-01	-0.179
		83.37		1.961E+01	1.574E+01	1.953E+01	1.741E+00	1.004
		97.43	*	6.379E-03	7.277E-02	1.052E-01	9.329E-03	0.061
		103.18		-8.785E-02	8.819E-02	1.363E-01	1.179E-02	-0.645
EU-154		123.07		1.041E-02	4.522E-02	6.988E-02	7.792E-03	0.149
		247.94		-3.629E-01	2.949E-01	4.587E-01	5.657E-02	-0.791
		591.81		-4.065E-02	5.220E-01	8.306E-01	1.042E-01	-0.049
		723.30		1.277E-02	1.604E-01	2.357E-01	2.575E-02	0.054
		756.87		2.079E-01	6.352E-01	1.087E+00	1.427E-01	0.191
		873.19		-2.074E-01	2.379E-01	3.569E-01	4.733E-02	-0.581
		996.32		-4.995E-02	3.737E-01	5.209E-01	9.481E-02	-0.096
	+	1004.76		6.739E-01	4.762E-01	3.341E-01	4.094E-02	2.017
		1274.45	*	-1.691E-02	1.077E-01	1.707E-01	1.887E-02	-0.099
EU-155		48.70		-1.024E+00	1.287E+00	2.058E+00	1.647E-01	-0.497
		60.01		2.075E+00	3.691E+00	5.562E+00	3.946E-01	0.373
	+	86.54		4.099E-01	1.090E-01	1.495E-01	1.399E-02	2.742
		105.31	*	4.312E-02	9.242E-02	1.518E-01	1.320E-02	0.284
TB-160	+	86.79		1.124E+00	2.987E-01	4.111E-01	3.827E-02	2.734
		197.04		7.161E-02	4.653E-01	7.927E-01	7.255E-02	0.090
		215.65		1.822E-02	6.062E-01	1.024E+00	9.616E-02	0.018
	+	298.57		1.922E-01	1.048E-01	1.673E-01	1.645E-02	1.149
		879.36	*	-2.325E-02	1.239E-01	2.014E-01	2.014E-02	-0.115
		962.29		-3.697E-01	5.228E-01	6.757E-01	6.534E-02	-0.547
	+	966.15		3.849E-01	2.402E-01	4.015E-01	3.875E-02	0.959
		1177.93		-2.291E-02	3.698E-01	5.963E-01	4.802E-02	-0.038
		1271.85		1.656E-02	6.565E-01	1.061E+00	8.772E-02	0.016
HO-166M		80.57		5.751E-02	2.292E-01	3.372E-01	2.904E-02	0.171
	+	184.41		1.654E-01	4.590E-02	5.934E-02	5.329E-03	2.788

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		-4.360E-02	7.382E-02	1.194E-01	1.188E-02	-0.365
	+	410.95		3.653E-01	2.415E-01	3.540E-01	3.021E-02	1.032
		711.68	*	-3.440E-03	5.084E-02	8.474E-02	8.584E-03	-0.041
		752.31		3.410E-02	2.215E-01	3.744E-01	3.804E-02	0.091
		810.29		4.061E-03	5.016E-02	8.392E-02	8.507E-03	0.048
TM-171		51.35		5.239E+00	1.755E+01	2.929E+01	2.238E+00	0.179
		52.39		8.505E+00	9.366E+00	1.591E+01	1.198E+00	0.534
		59.40		1.609E+01	1.948E+01	2.969E+01	2.101E+00	0.542
		66.72	*	-6.299E+00	2.259E+01	3.272E+01	2.438E+00	-0.193
LU-176	+	88.36		8.063E-01	2.143E-01	2.985E-01	2.815E-02	2.701
		201.83		-3.038E-02	2.347E-02	3.732E-02	3.440E-03	-0.814
		306.84	*	5.519E-04	2.028E-02	3.373E-02	3.290E-03	0.016
		401.10		3.477E+00	5.556E+00	9.451E+00	7.978E-01	0.368
LU-177		112.95		-7.872E-01	1.921E+00	3.012E+00	2.539E-01	-0.261
	+	208.36	*	3.865E+00	1.736E+00	2.272E+00	2.113E-01	1.701
LU-177M		52.97		1.024E+00	9.833E-01	1.677E+00	1.252E-01	0.611
		54.07		1.442E-01	5.269E-01	8.765E-01	6.459E-02	0.164
		61.30		4.050E-01	1.138E+00	1.698E+00	1.215E-01	0.238
		121.62		6.480E-02	3.202E-01	5.189E-01	4.328E-02	0.125
		147.16		9.741E-02	5.901E-01	9.476E-01	8.047E-02	0.103
		171.86		-1.127E-01	4.270E-01	6.680E-01	5.884E-02	-0.169
		218.09		1.214E-01	6.996E-01	1.188E+00	1.119E-01	0.102
		268.79		1.149E+00	7.736E-01	1.232E+00	1.219E-01	0.933
		319.02		2.460E-02	1.986E-01	3.316E-01	3.191E-02	0.074
		367.43		5.446E-01	7.610E-01	1.305E+00	1.157E-01	0.417
		413.65	*	5.033E-02	1.649E-01	2.429E-01	2.079E-02	0.207
HF-181		56.28		-7.776E-01	6.241E-01	9.767E-01	7.046E-02	-0.796
		57.53		7.978E-03	3.419E-01	5.633E-01	4.026E-02	0.014
		65.20		-7.862E-02	7.972E-01	1.165E+00	8.573E-02	-0.067
		133.02		-9.448E-03	6.813E-02	9.633E-02	8.061E-03	-0.098
		136.25		2.589E-01	4.153E-01	6.811E-01	5.714E-02	0.380
		345.85		1.042E-02	1.892E-01	2.754E-01	2.549E-02	0.038
		482.03	*	2.369E-02	3.777E-02	6.393E-02	5.829E-03	0.371
W-181		56.28		-2.949E-01	2.370E-01	3.710E-01	2.676E-02	-0.795
		57.53		2.763E-03	1.299E-01	2.140E-01	1.530E-02	0.013
		65.20	*	-2.964E-02	3.006E-01	4.392E-01	3.232E-02	-0.067
TA-182		67.75		8.676E-03	9.098E-02	1.339E-01	1.006E-02	0.065
		100.10		-1.776E-02	1.503E-01	2.398E-01	2.099E-02	-0.074
		152.43		4.571E-02	3.025E-01	4.849E-01	4.147E-02	0.094
		222.10		6.847E-02	2.979E-01	5.066E-01	4.796E-02	0.135
		1001.68		2.083E+00	2.083E+00	3.505E+00	3.313E-01	0.594
	+	1121.28		5.575E-01	2.894E-01	3.179E-01	2.717E-02	1.754
		1189.05		-7.249E-02	2.954E-01	4.684E-01	3.785E-02	-0.155
		1221.42	*	8.706E-02	2.024E-01	3.376E-01	2.755E-02	0.258
		1230.97		1.247E-01	4.776E-01	7.868E-01	6.438E-02	0.158
RE-183		57.98		6.693E-02	1.323E-01	2.215E-01	1.579E-02	0.302
		59.32		6.681E-02	8.210E-02	1.251E-01	8.854E-03	0.534
		67.20		-6.524E-02	1.657E-01	2.387E-01	1.786E-02	-0.273
		162.32	*	5.650E-02	9.785E-02	1.593E-01	1.382E-02	0.355

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	+	208.81		2.662E+00	1.195E+00	1.601E+00	1.490E-01	1.663
		291.72		1.127E-01	9.058E-01	1.338E+00	1.322E-01	0.084
RE-184		57.98		2.426E-01	4.796E-01	8.029E-01	5.723E-02	0.302
		59.32		2.419E-01	2.973E-01	4.530E-01	3.206E-02	0.534
		67.20		-2.364E-01	6.005E-01	8.650E-01	6.471E-02	-0.273
		161.27		-1.209E-02	3.117E-01	4.943E-01	4.284E-02	-0.024
		216.55		1.664E-02	2.142E-01	3.626E-01	3.409E-02	0.046
		252.85	*	2.394E-01	2.001E-01	3.512E-01	3.432E-02	0.682
		318.01		1.481E-01	3.537E-01	6.003E-01	5.784E-02	0.247
		792.07		-2.814E-01	9.319E-01	1.298E+00	1.318E-01	-0.217
		903.28		-9.217E-02	8.741E-01	1.430E+00	1.419E-01	-0.064
		920.93		-1.193E-01	3.749E-01	5.989E-01	5.903E-02	-0.199
OS-185		59.72		1.918E-01	2.195E-01	3.351E-01	2.373E-02	0.572
		61.14		4.143E-02	1.251E-01	1.866E-01	1.333E-02	0.222
		69.30		-7.159E-02	2.464E-01	3.560E-01	2.714E-02	-0.201
		592.07		2.082E-01	2.174E+00	3.511E+00	3.430E-01	0.059
		646.12	*	4.729E-02	3.643E-02	6.644E-02	6.635E-03	0.712
		717.42		-4.392E-01	7.270E-01	1.155E+00	1.171E-01	-0.380
		874.81		-1.003E-01	4.873E-01	7.903E-01	7.913E-02	-0.127
		880.27		2.493E-01	6.729E-01	1.148E+00	1.148E-01	0.217
RE-188		155.03	*	7.090E-02	1.565E-01	2.537E-01	2.178E-02	0.279
		477.96		3.505E-01	2.759E+00	4.517E+00	4.105E-01	0.078
		633.10		1.343E-01	2.471E+00	3.960E+00	3.936E-01	0.034
W-188	+	63.58		1.203E+02	5.918E+01	7.320E+01	5.320E+00	1.644
		227.08		-7.179E-01	1.140E+01	1.914E+01	1.822E+00	-0.038
		290.67	*	-4.489E+00	7.186E+00	1.003E+01	9.916E-01	-0.448
IR-192	+	295.96		1.224E+00	2.079E-01	2.679E-01	2.653E-02	4.570
		308.46		4.109E-02	8.032E-02	1.369E-01	1.339E-02	0.300
		316.51	*	-2.263E-02	2.781E-02	4.371E-02	4.227E-03	-0.518
		468.07		-9.085E-03	6.260E-02	8.757E-02	8.414E-03	-0.104
		604.41		-7.880E-02	4.133E-01	5.627E-01	7.791E-02	-0.140
		612.46		1.220E+00	7.776E-01	1.227E+00	1.350E-01	0.994
AU-195		65.12		2.121E-02	1.394E-01	2.058E-01	1.514E-02	0.103
		66.83		-3.554E-02	7.610E-02	1.093E-01	8.149E-03	-0.325
	+	75.70		1.220E+00	2.139E-01	3.675E-01	2.992E-02	3.319
		98.88	*	2.206E-01	2.051E-01	3.101E-01	2.731E-02	0.711
	+	129.76		6.839E+00	4.065E+00	4.315E+00	3.604E-01	1.585
TL-200		367.94	*	1.228E-03	4.065E+00	Half-Life too short		
		579.30		8.345E-03	4.065E+00	Half-Life too short		
		828.27		-1.356E-02	4.065E+00	Half-Life too short		
		1205.75		8.807E-03	4.065E+00	Half-Life too short		
TL-201		68.90		4.278E+00	7.315E+00	1.097E+01	8.329E-01	0.390
		70.82		4.445E-01	4.170E+00	6.127E+00	4.739E-01	0.073
		80.30		2.321E+00	8.119E+00	1.196E+01	1.027E+00	0.194
		135.34		9.101E+00	4.282E+01	6.911E+01	5.794E+00	0.132
		167.43	*	8.278E+00	1.169E+01	1.911E+01	1.672E+00	0.433
TL-202		68.90		2.361E-01	4.038E-01	6.053E-01	4.597E-02	0.390
		70.82		2.447E-02	2.296E-01	3.372E-01	2.608E-02	0.073
		80.30		1.278E-01	4.470E-01	6.587E-01	5.655E-02	0.194

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		439.56	*	7.175E-02	6.984E-02	1.211E-01	1.064E-02	0.592
HG-203		70.83		9.686E-02	8.830E-01	1.297E+00	1.695E-01	0.075
	+	72.87		7.099E-01	5.983E-01	8.485E-01	1.081E-01	0.837
		82.60		1.249E+00	1.202E+00	1.466E+00	2.034E-01	0.852
		279.20	*	8.290E-03	3.686E-02	6.211E-02	6.317E-03	0.133
BI-207	+	72.80		1.995E-01	1.669E-01	2.341E-01	1.847E-02	0.852
	+	74.97		6.695E-01	1.174E-01	1.783E-01	1.440E-02	3.754
		84.90		4.281E-01	1.614E-01	2.536E-01	2.304E-02	1.689
		569.67		9.257E-03	2.499E-02	4.131E-02	3.991E-03	0.224
		1063.62	*	-9.890E-03	4.664E-02	7.463E-02	6.739E-03	-0.133
		1770.23		-8.871E-02	3.967E-01	5.233E-01	4.293E-02	-0.170
TL-207		81.07		1.828E-01	2.193E-01	2.660E-01	2.305E-02	0.687
		83.78		1.883E-01	1.335E-01	1.669E-01	1.496E-02	1.128
		94.90		4.617E-01	2.126E-01	3.319E-01	2.985E-02	1.391
		122.32		6.701E-01	1.444E+00	2.365E+00	2.126E-01	0.283
		144.24		2.122E-01	6.340E-01	1.026E+00	9.744E-02	0.207
		154.21		1.057E-01	3.555E-01	5.728E-01	5.406E-02	0.184
	+	269.46		5.009E-01	2.740E-01	2.999E-01	3.016E-02	1.670
		323.87	*	4.954E-01	5.844E-01	8.986E-01	1.634E-01	0.551
	+	338.28		5.653E+00	1.672E+00	2.147E+00	2.759E-01	2.633
		445.03		-2.092E+00	1.927E+00	2.861E+00	3.501E-01	-0.731
PO-209		260.50		4.481E+00	8.140E+00	1.395E+01	1.372E+00	0.321
		262.80		-5.541E+00	2.273E+01	3.757E+01	3.701E+00	-0.147
		896.60	*	-2.709E+00	6.273E+00	9.939E+00	9.886E-01	-0.273
BI-210		46.50	*	2.073E-01	1.791E+00	2.964E+00	2.749E-01	0.070
PB-210		46.50	*	2.073E-01	1.791E+00	2.964E+00	2.749E-01	0.070
PO-210		46.50	*	2.073E-01	1.791E+00	2.964E+00	2.487E-01	0.070
PB-211		404.84	*	-2.122E-01	8.708E-01	1.206E+00	7.556E-01	-0.176
		427.08		9.118E-01	1.815E+00	2.914E+00	1.811E+00	0.313
		831.96		-7.673E-01	1.115E+00	1.504E+00	9.457E-01	-0.510
BI-212	+	727.18	*	8.623E-01	4.231E-01	5.946E-01	6.748E-02	1.450
		785.46		1.546E+00	1.619E+00	2.862E+00	2.907E-01	0.540
		1620.62		1.328E+00	1.054E+00	2.035E+00	1.714E-01	0.652
PO-215		81.07		1.828E-01	2.193E-01	2.660E-01	2.305E-02	0.687
		83.78		1.883E-01	1.335E-01	1.669E-01	1.496E-02	1.128
		94.90		4.617E-01	2.126E-01	3.319E-01	2.985E-02	1.391
		122.32		6.701E-01	1.444E+00	2.365E+00	2.126E-01	0.283
		144.24		2.122E-01	6.340E-01	1.026E+00	9.744E-02	0.207
		154.21		1.057E-01	3.555E-01	5.728E-01	5.406E-02	0.184
	+	269.46		5.009E-01	2.740E-01	2.999E-01	3.016E-02	1.670
		323.87	*	4.954E-01	5.844E-01	8.986E-01	1.634E-01	0.551
	+	338.28		5.653E+00	1.672E+00	2.147E+00	2.759E-01	2.633
		445.03		-2.092E+00	1.927E+00	2.861E+00	3.501E-01	-0.731
RN-219	+	271.23		6.426E-01	3.532E-01	3.882E-01	4.430E-02	1.656
		401.81	*	7.283E-02	3.416E-01	5.670E-01	8.465E-02	0.128
RN-220		549.76	*	-3.520E+00	2.182E+01	3.463E+01	3.309E+00	-0.102
RA-223		81.07		1.828E-01	2.193E-01	2.660E-01	2.305E-02	0.687
		83.78		1.883E-01	1.335E-01	1.669E-01	1.496E-02	1.128
		94.90		4.617E-01	2.126E-01	3.319E-01	2.985E-02	1.391

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		6.701E-01	1.444E+00	2.365E+00	2.126E-01	0.283
		144.24		2.122E-01	6.340E-01	1.026E+00	9.744E-02	0.207
		154.21		1.057E-01	3.555E-01	5.728E-01	5.406E-02	0.184
	+	269.46		5.009E-01	2.740E-01	2.999E-01	3.016E-02	1.670
		323.87	*	4.954E-01	5.844E-01	8.986E-01	1.634E-01	0.551
	+	338.28		5.653E+00	1.672E+00	2.147E+00	2.759E-01	2.633
		445.03		-2.092E+00	1.927E+00	2.861E+00	3.501E-01	-0.731
AC-227		79.80		3.924E-01	1.386E+00	2.040E+00	4.379E-01	0.192
		236.00		4.220E-01	2.273E-01	3.599E-01	4.666E-02	1.173
		256.20	*	-1.708E-01	3.257E-01	5.301E-01	8.504E-02	-0.322
		286.10		-1.920E-02	1.322E+00	2.202E+00	3.101E-01	-0.009
	+	299.80		2.382E+00	1.348E+00	2.118E+00	3.835E-01	1.125
		304.40		-6.629E-01	1.746E+00	2.470E+00	4.694E-01	-0.268
		334.20		1.090E+00	2.338E+00	3.279E+00	6.488E-01	0.332
TH-227		79.80		3.924E-01	1.386E+00	2.040E+00	4.435E-01	0.192
	+	94.00		1.314E+01	3.748E+00	3.489E+00	7.657E-01	3.767
		236.00		4.220E-01	2.262E-01	3.599E-01	4.271E-02	1.173
		256.20	*	-1.708E-01	3.261E-01	5.301E-01	9.890E-02	-0.322
		286.10		-1.920E-02	1.322E+00	2.202E+00	2.212E+00	-0.009
	+	299.80		2.382E+00	1.348E+00	2.118E+00	3.835E-01	1.125
		304.40		-6.629E-01	1.746E+00	2.470E+00	4.694E-01	-0.268
		334.20		1.090E+00	2.338E+00	3.279E+00	6.488E-01	0.332
TH-229		85.43		4.998E-01	1.628E-01	2.568E-01	2.350E-02	1.946
	+	88.47		4.642E-01	1.233E-01	1.712E-01	1.612E-02	2.712
		100.00		2.749E-03	1.540E-01	2.471E-01	2.165E-02	0.011
		193.63	*	-9.130E-02	4.166E-01	6.997E-01	6.373E-02	-0.130
		210.97		1.323E+00	6.804E-01	1.107E+00	1.033E-01	1.195
PA-231		283.67	*	-3.059E-01	1.308E+00	2.154E+00	3.439E-01	-0.142
	+	301.29		9.527E-01	5.260E-01	8.609E-01	1.128E-01	1.107
TH-231		81.07		1.828E-01	2.193E-01	2.660E-01	2.305E-02	0.687
		83.78		1.883E-01	1.335E-01	1.669E-01	1.496E-02	1.128
		94.90		4.617E-01	2.126E-01	3.319E-01	2.985E-02	1.391
		122.32		6.701E-01	1.444E+00	2.365E+00	2.126E-01	0.283
		144.24		2.122E-01	6.340E-01	1.026E+00	9.744E-02	0.207
		154.21		1.057E-01	3.555E-01	5.728E-01	5.406E-02	0.184
	+	269.46		5.009E-01	2.740E-01	2.999E-01	3.016E-02	1.670
		323.87	*	4.954E-01	5.844E-01	8.986E-01	1.634E-01	0.551
	+	338.28		5.653E+00	1.672E+00	2.147E+00	2.759E-01	2.633
		445.03		-2.092E+00	1.927E+00	2.861E+00	3.501E-01	-0.731
U-231		84.21		1.857E+01	7.323E+00	1.149E+01	1.036E+00	1.615
	+	92.29		2.079E+01	4.226E+00	5.959E+00	5.450E-01	3.489
		95.87	*	-6.904E-01	1.557E+00	2.199E+00	1.967E-01	-0.314
		108.00		-2.263E+00	2.911E+00	4.548E+00	3.876E-01	-0.498
PA-233	+	75.28		1.953E+01	4.229E+00	5.361E+00	8.076E-01	3.643
	+	86.59		6.655E+00	2.446E+00	2.430E+00	6.570E-01	2.739
	+	300.12		6.640E-01	3.708E-01	5.987E-01	9.337E-02	1.109
		311.98	*	4.844E-03	5.082E-02	8.479E-02	8.412E-03	0.057
		340.50		1.410E+00	7.204E-01	1.049E+00	2.528E-01	1.345
		398.62		7.367E-01	1.776E+00	2.969E+00	7.888E-01	0.248

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		4.974E-01	1.377E+00	2.298E+00	4.948E-01	0.216
PA-234	+	63.00		3.391E+00	1.724E+00	2.090E+00	3.088E-01	1.623
		94.67		5.386E-01	1.694E-01	2.575E-01	3.263E-02	2.092
		98.44		1.116E-01	1.029E-01	1.261E-01	7.040E-02	0.885
		99.86		1.674E-02	4.120E-01	6.317E-01	5.537E-02	0.027
		111.00		3.317E-02	1.598E-01	2.596E-01	3.110E-02	0.128
		131.20		6.855E-02	1.023E-01	1.510E-01	1.262E-02	0.454
		152.70		3.023E-01	2.833E-01	4.644E-01	7.902E-02	0.651
	+	186.00		5.956E+00	2.434E+00	2.354E+00	7.374E-01	2.530
		226.40		-2.181E-01	3.504E-01	5.727E-01	7.905E-02	-0.381
		227.20		-6.535E-03	3.742E-01	6.296E-01	5.996E-02	-0.010
		248.90		-9.610E-01	7.052E-01	1.045E+00	2.388E-01	-0.920
	+	293.70		7.504E+00	1.699E+00	1.502E+00	2.697E-01	4.996
		369.80		-1.173E+00	7.720E-01	1.075E+00	2.349E-01	-1.091
		568.70		-2.643E-01	8.224E-01	1.285E+00	1.240E-01	-0.206
		569.50		2.748E-02	2.233E-01	3.621E-01	3.498E-02	0.076
		574.00		-1.358E-01	1.216E+00	1.932E+00	1.871E-01	-0.070
		699.00		-2.075E-01	6.419E-01	1.051E+00	2.080E-01	-0.197
		706.10		-1.762E-01	9.184E-01	1.513E+00	6.794E-01	-0.116
		733.00		-4.172E-02	3.651E-01	5.242E-01	1.197E-01	-0.080
		742.81		6.009E-03	1.154E+00	1.930E+00	1.302E+00	0.003
	+	796.30		1.984E+00	1.296E+00	1.501E+00	4.138E-01	1.322
		805.60		1.060E-01	8.145E-01	1.368E+00	4.257E-01	0.077
		819.60		-5.049E-01	1.043E+00	1.628E+00	6.251E-01	-0.310
		826.30		-3.943E-01	6.830E-01	1.035E+00	4.661E-01	-0.381
		831.60		-2.392E-01	5.207E-01	7.937E-01	2.405E-01	-0.301
		876.40		1.943E-01	7.065E-01	1.150E+00	1.184E+00	0.169
		880.51		2.443E-02	2.437E-01	4.063E-01	4.062E-02	0.060
		883.24		1.671E-01	2.696E-01	4.241E-01	2.859E-01	0.394
		899.00		-2.779E-01	7.301E-01	1.151E+00	5.063E-01	-0.241
		925.00		4.601E-01	1.071E+00	1.827E+00	1.798E-01	0.252
		926.50		6.536E-02	1.610E-01	2.728E-01	7.016E-02	0.240
		946.00	*	-2.402E-01	2.712E-01	4.036E-01	7.792E-02	-0.595
		949.00		2.369E-01	3.983E-01	6.874E-01	6.692E-02	0.345
		980.50		3.021E-01	6.211E-01	1.064E+00	1.019E-01	0.284
		1394.10		3.986E-01	9.066E-01	1.543E+00	1.004E+00	0.258
PA-234M		766.42		2.362E+01	1.556E+01	1.899E+01	9.690E+00	1.244
		1001.03	*	4.995E+00	4.681E+00	7.902E+00	8.453E-01	0.632
U-235	+	89.95		2.901E+00	1.428E+00	1.522E+00	4.728E-01	1.906
	+	93.35		4.089E+00	1.371E+00	1.170E+00	3.297E-01	3.494
		105.00		6.326E-01	9.116E-01	1.480E+00	4.417E-01	0.427
		143.76	*	1.505E-01	1.930E-01	3.151E-01	5.491E-02	0.478
		163.35		5.470E-02	4.159E-01	6.641E-01	1.269E-01	0.082
	+	185.71		2.206E-01	6.120E-02	8.740E-02	7.866E-03	2.524
		205.31		2.093E-01	4.629E-01	7.061E-01	1.368E-01	0.296
NP-236		94.67		4.119E-01	1.234E-01	1.956E-01	1.762E-02	2.106
		98.44		8.436E-02	6.237E-02	9.534E-02	8.413E-03	0.885
		111.00		2.509E-02	1.208E-01	1.964E-01	1.662E-02	0.128
		160.31	*	-5.129E-02	7.137E-02	1.083E-01	9.373E-03	-0.473

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		3.974E-02	1.365E-01	2.115E-01	1.857E-02	0.188
		117.00	*	-2.641E-02	1.616E-01	2.583E-01	2.164E-02	-0.102
	+	209.75		2.041E+00	9.166E-01	1.223E+00	1.139E-01	1.670
		228.18		6.088E-02	1.930E-01	3.289E-01	3.136E-02	0.185
		277.60		1.702E-01	1.541E-01	2.687E-01	2.673E-02	0.634
		334.30		5.510E-01	1.317E+00	1.846E+00	1.741E-01	0.298
AM-241		59.54	*	9.572E-02	1.131E-01	1.724E-01	1.349E-02	0.555
CM-243		99.55		4.091E-02	1.405E-01	2.177E-01	1.911E-02	0.188
		103.76	*	-2.333E-02	7.955E-02	1.270E-01	1.096E-02	-0.184
		117.00		-2.717E-02	1.663E-01	2.658E-01	2.227E-02	-0.102
	+	209.75		2.013E+00	9.037E-01	1.205E+00	1.123E-01	1.670
		228.18		6.153E-02	1.951E-01	3.324E-01	3.169E-02	0.185
		277.60		1.716E-01	1.554E-01	2.709E-01	2.695E-02	0.634
AM-246		798.80		3.372E-03	1.267E-01	1.838E-01	1.865E-02	0.018
		1036.00		1.863E-01	2.558E-01	4.458E-01	4.114E-02	0.418
		1062.04		-1.269E-01	1.999E-01	3.058E-01	2.765E-02	-0.415
		1078.86	*	-5.143E-02	1.275E-01	1.999E-01	1.781E-02	-0.257
CM-247		278.00		5.775E-01	6.410E-01	1.109E+00	1.104E-01	0.521
		287.40		4.380E-01	1.068E+00	1.813E+00	1.797E-01	0.242
		402.60	*	-1.621E-02	3.086E-02	4.876E-02	4.124E-03	-0.333
CF-249		252.85		8.880E-01	7.422E-01	1.302E+00	1.273E-01	0.682
		333.44		1.211E-01	2.136E-01	2.418E-01	2.282E-02	0.501
		387.95	*	1.116E-02	3.326E-02	5.572E-02	4.701E-03	0.200
CF-251		176.60	*	-9.857E-02	1.159E-01	1.757E-01	1.560E-02	-0.561
		227.00		-2.701E-02	3.321E-01	5.572E-01	5.305E-02	-0.048
		285.00		-2.425E-01	1.514E+00	2.502E+00	2.484E-01	-0.097

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978005      *
* Acquisition date : 14-FEB-2010 11:19:06 Detector SN#     :               *
* Detector ID        : GAM20               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:34.69      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245978005           Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.4747E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM            :    0.000             MSD Isotope      :              *
* LCS DPM            :    0.000             LCS Isotope      :              *
* LCSD DPM           :    0.000             LCSD Isotope     :              *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.260E+01	3.233E+00	4.312E-01	0.000E+00
CD-109	3.474E+00	9.045E-01	9.621E-01	0.000E+00
SN-126	3.400E-01	8.853E-02	9.444E-02	0.000E+00
BA-137M	9.361E-02	4.473E-02	5.547E-02	0.000E+00
CS-137	9.896E-02	4.728E-02	5.864E-02	0.000E+00
TL-208	4.776E-01	7.861E-02	4.811E-02	0.000E+00
BI-211	3.600E+00	5.168E-01	2.742E-01	0.000E+00
PB-212	1.625E+00	1.951E-01	8.207E-02	0.000E+00
PO-212	1.625E+00	1.951E-01	8.207E-02	0.000E+00
BI-214	1.022E+00	1.754E-01	9.468E-02	0.000E+00
PB-214	1.252E+00	1.909E-01	9.558E-02	0.000E+00
PO-214	1.252E+00	1.909E-01	9.558E-02	0.000E+00
PO-216	1.625E+00	1.951E-01	8.207E-02	0.000E+00
PO-218	1.252E+00	1.909E-01	9.558E-02	0.000E+00
RA-224	5.048E+00	1.271E+00	9.336E-01	0.000E+00
RA-226	1.022E+00	1.754E-01	9.468E-02	0.000E+00
AC-228	1.596E+00	3.121E-01	1.828E-01	0.000E+00
RA-228	1.596E+00	3.121E-01	1.828E-01	0.000E+00
TH-228	1.654E+00	1.986E-01	8.355E-02	0.000E+00
TH-230	1.022E+00	1.754E-01	9.468E-02	0.000E+00
TH-232	1.596E+00	3.121E-01	1.828E-01	0.000E+00
TH-234	2.909E+00	1.473E+00	1.559E+00	0.000E+00
U-234	1.022E+00	1.754E-01	9.468E-02	0.000E+00
NP-237	9.983E-01	3.291E-01	2.793E-01	0.000E+00
U-238	2.909E+00	1.473E+00	1.559E+00	0.000E+00
AM-243	3.729E-01	6.409E-02	6.976E-02	0.000E+00
ANH-511	1.338E-01	5.964E-02	3.960E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)

BE-7	-1.070E-01	2.878E-01	4.794E-01	0.000E+00	NOT IDENT.
NA-22	-1.669E-02	3.881E-02	6.158E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.546E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.360E-03	1.785E-02	2.896E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.715E-02	6.903E-02	0.000E+00	FAIL ABUN
SC-46	-2.404E-02	3.072E-02	4.849E-02	0.000E+00	FAIL ABUN
V-48	-2.164E-02	6.873E-02	1.135E-01	0.000E+00	NOT IDENT.
CR-51	-5.332E-02	3.036E-01	5.299E-01	0.000E+00	NOT IDENT.
MN-52	-1.594E-01	2.838E-01	4.536E-01	0.000E+00	NOT IDENT.
MN-54	7.123E-04	3.093E-02	5.349E-02	0.000E+00	NOT IDENT.
CO-56	1.605E-03	3.373E-02	5.839E-02	0.000E+00	NOT IDENT.
CO-57	1.340E-03	2.099E-02	3.678E-02	0.000E+00	NOT IDENT.
CO-58	-4.829E-03	3.341E-02	5.714E-02	0.000E+00	NOT IDENT.
FE-59	-2.076E-02	8.612E-02	1.419E-01	0.000E+00	NOT IDENT.
CO-60	-4.108E-03	3.147E-02	5.114E-02	0.000E+00	NOT IDENT.
ZN-65	1.179E-02	8.503E-02	1.258E-01	0.000E+00	NOT IDENT.
GE-68	-5.469E-01	1.093E+00	1.756E+00	0.000E+00	NOT IDENT.
AS-73	5.204E-01	5.015E-01	9.461E-01	0.000E+00	NOT IDENT.
AS-74	-4.032E-02	8.612E-02	1.390E-01	0.000E+00	NOT IDENT.
SE-75	-5.532E-03	3.907E-02	6.427E-02	0.000E+00	NOT IDENT.
BR-77	1.318E+01	1.808E+01	3.249E+01	0.000E+00	FAIL ABUN
SR-82	-1.394E-01	3.393E-01	4.836E-01	0.000E+00	NOT IDENT.
RB-83	2.144E-02	5.512E-02	9.651E-02	0.000E+00	NOT IDENT.
RB-84	5.773E-02	6.207E-02	1.145E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.551E+00	1.167E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.461E-02	6.164E-02	0.000E+00	NOT IDENT.
RB-86	-5.536E-02	7.342E-01	1.230E+00	0.000E+00	NOT IDENT.
Y-88	-4.885E-03	2.480E-02	3.983E-02	0.000E+00	NOT IDENT.
ZR-88	-1.952E-02	2.571E-02	4.241E-02	0.000E+00	NOT IDENT.
Y-91	2.093E+00	1.710E+01	2.884E+01	0.000E+00	NOT IDENT.
NB-94	-5.361E-03	2.857E-02	4.941E-02	0.000E+00	NOT IDENT.
NB-95	6.196E-02	3.579E-02	6.883E-02	0.000E+00	NOT IDENT.
NB-95M	3.504E-02	1.160E-01	1.874E-01	0.000E+00	NOT IDENT.
ZR-95	1.137E-02	5.939E-02	1.049E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.480E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.696E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.173E+01	2.036E+01	3.382E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.099E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.866E-02	2.598E-02	4.855E-02	0.000E+00	FAIL ABUN
RH-102	-4.093E-03	2.513E-02	4.252E-02	0.000E+00	FAIL ABUN
RU-103	1.704E-02	3.567E-02	6.279E-02	0.000E+00	FAIL ABUN
RH-106	-1.488E-01	2.752E-01	4.383E-01	0.000E+00	FAIL ABUN
RU-106	-1.488E-01	2.748E-01	4.383E-01	0.000E+00	FAIL ABUN
AG-108M	-1.804E-03	2.586E-02	4.436E-02	0.000E+00	NOT IDENT.
AG-110M	2.187E-02	3.230E-02	5.286E-02	0.000E+00	NOT IDENT.
IN-111	6.207E-01	1.813E+00	2.935E+00	0.000E+00	NOT IDENT.
IN-113M	-1.707E-02	3.723E-02	6.278E-02	0.000E+00	NOT IDENT.
SN-113	-1.707E-02	3.723E-02	6.278E-02	0.000E+00	NOT IDENT.
IN-114M	-1.962E-02	1.787E-01	2.868E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.177E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	2.734E-02	5.424E-02	9.424E-02	0.000E+00	NOT IDENT.
SB-122	1.962E+00	3.644E+00	6.392E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.865E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.840E-03	2.516E-02	4.257E-02	0.000E+00	NOT IDENT.
I-124	-4.893E-01	1.034E+00	1.432E+00	0.000E+00	NOT IDENT.
SB-124	2.348E-02	5.600E-02	1.019E-01	0.000E+00	FAIL ABUN
SB-125	9.054E-03	7.457E-02	1.298E-01	0.000E+00	FAIL ABUN
TE-125M	-8.402E-01	8.267E+00	1.449E+01	0.000E+00	NOT IDENT.
I-126	2.716E-01	1.831E-01	3.204E-01	0.000E+00	NOT IDENT.
SB-126	-8.479E-02	1.420E-01	2.213E-01	0.000E+00	FAIL ABUN
SB-127	4.024E-01	1.772E+00	3.164E+00	0.000E+00	NOT IDENT.
XE-127	1.879E-02	3.855E-02	7.141E-02	0.000E+00	NOT IDENT.
I-131	3.522E-02	1.208E-01	2.148E-01	0.000E+00	NOT IDENT.
TE-132	3.966E-02	1.072E+00	1.939E+00	0.000E+00	NOT IDENT.
BA-133	-2.415E-02	4.022E-02	5.847E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.070E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.027E-02	7.986E-02	0.000E+00	FAIL ABUN
CS-135	1.814E-01	1.406E-01	2.375E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.078E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.022E-03	1.196E-01	2.031E-01	0.000E+00	FAIL ABUN
CE-139	-2.524E-02	2.678E-02	4.384E-02	0.000E+00	NOT IDENT.
BA-140	-6.299E-02	2.601E-01	4.312E-01	0.000E+00	NOT IDENT.
LA-140	-2.228E-02	8.022E-02	1.197E-01	0.000E+00	FAIL ABUN
CE-141	6.874E-04	6.009E-02	1.039E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.228E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	6.686E-02	1.989E-01	3.129E-01	0.000E+00	NOT IDENT.
PM-144	7.557E-03	3.042E-02	5.419E-02	0.000E+00	NOT IDENT.
PR-144	5.129E-01	2.065E+00	3.678E+00	0.000E+00	NOT IDENT.

PM-146	5.070E-03	3.578E-02	6.206E-02	0.000E+00	NOT IDENT.
ND-147	-4.615E-01	5.952E-01	9.437E-01	0.000E+00	FAIL ABUN
PM-149	0.000E+00	1.893E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-2.513E-02	8.946E-02	1.346E-01	0.000E+00	FAIL ABUN
GD-153	6.379E-03	7.131E-02	1.127E-01	0.000E+00	NOT IDENT.
EU-154	-1.691E-02	1.056E-01	1.724E-01	0.000E+00	FAIL ABUN
EU-155	4.312E-02	9.057E-02	1.624E-01	0.000E+00	FAIL ABUN
TB-160	-2.325E-02	1.214E-01	2.052E-01	0.000E+00	FAIL ABUN
HO-166M	-3.440E-03	4.982E-02	8.675E-02	0.000E+00	FAIL ABUN
TM-171	-6.299E+00	2.214E+01	3.534E+01	0.000E+00	NOT IDENT.
LU-176	5.519E-04	1.987E-02	3.522E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.701E+00	2.393E+00	0.000E+00	FAIL ABUN
LU-177M	5.033E-02	1.616E-01	2.519E-01	0.000E+00	NOT IDENT.
HF-181	2.369E-02	3.702E-02	6.605E-02	0.000E+00	NOT IDENT.
W-181	-2.964E-02	2.946E-01	4.747E-01	0.000E+00	NOT IDENT.
TA-182	8.706E-02	1.984E-01	3.412E-01	0.000E+00	FAIL ABUN
RE-183	5.650E-02	9.590E-02	1.687E-01	0.000E+00	FAIL ABUN
RE-184	2.394E-01	1.961E-01	3.683E-01	0.000E+00	NOT IDENT.
OS-185	4.729E-02	3.570E-02	6.818E-02	0.000E+00	NOT IDENT.
RE-188	7.090E-02	1.534E-01	2.690E-01	0.000E+00	NOT IDENT.
W-188	-4.489E+00	7.042E+00	1.048E+01	0.000E+00	FAIL ABUN
IR-192	-2.263E-02	2.726E-02	4.561E-02	0.000E+00	FAIL ABUN
AU-195	2.206E-01	2.010E-01	3.321E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.278E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	8.278E+00	1.146E+01	2.022E+01	0.000E+00	NOT IDENT.
TL-202	7.175E-02	6.845E-02	1.254E-01	0.000E+00	NOT IDENT.
HG-203	8.290E-03	3.612E-02	6.500E-02	0.000E+00	FAIL ABUN
BI-207	-9.890E-03	4.571E-02	7.567E-02	0.000E+00	FAIL ABUN
TL-207	4.954E-01	5.728E-01	9.371E-01	0.000E+00	FAIL ABUN
PO-209	-2.709E+00	6.148E+00	1.012E+01	0.000E+00	NOT IDENT.
BI-210	2.073E-01	1.755E+00	3.226E+00	0.000E+00	NOT IDENT.
PB-210	2.073E-01	1.755E+00	3.226E+00	0.000E+00	NOT IDENT.
PO-210	2.073E-01	1.755E+00	3.226E+00	0.000E+00	NOT IDENT.
PB-211	-2.122E-01	8.534E-01	1.251E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.146E-01	6.084E-01	0.000E+00	FAIL ABUN
PO-215	4.954E-01	5.728E-01	9.371E-01	0.000E+00	FAIL ABUN
RN-219	7.283E-02	3.348E-01	5.884E-01	0.000E+00	FAIL ABUN
RN-220	-3.520E+00	2.138E+01	3.568E+01	0.000E+00	NOT IDENT.
RA-223	4.954E-01	5.728E-01	9.371E-01	0.000E+00	FAIL ABUN
AC-227	-1.708E-01	3.192E-01	5.558E-01	0.000E+00	FAIL ABUN
TH-227	-1.708E-01	3.196E-01	5.558E-01	0.000E+00	FAIL ABUN
TH-229	-9.130E-02	4.082E-01	7.383E-01	0.000E+00	FAIL ABUN
PA-231	-3.059E-01	1.282E+00	2.253E+00	0.000E+00	FAIL ABUN
TH-231	4.954E-01	5.728E-01	9.371E-01	0.000E+00	FAIL ABUN
U-231	-6.904E-01	1.526E+00	2.357E+00	0.000E+00	FAIL ABUN
PA-233	4.844E-03	4.980E-02	8.850E-02	0.000E+00	FAIL ABUN
PA-234	-2.402E-01	2.658E-01	4.104E-01	0.000E+00	FAIL ABUN
PA-234M	4.995E+00	4.587E+00	8.024E+00	0.000E+00	NOT IDENT.
U-235	1.505E-01	1.892E-01	3.347E-01	0.000E+00	FAIL ABUN
NP-236	-5.129E-02	6.994E-02	1.148E-01	0.000E+00	NOT IDENT.
NP-239	-2.641E-02	1.584E-01	2.756E-01	0.000E+00	FAIL ABUN
AM-241	9.572E-02	1.108E-01	1.867E-01	0.000E+00	NOT IDENT.
CM-243	-2.333E-02	7.796E-02	1.359E-01	0.000E+00	FAIL ABUN
AM-246	-5.143E-02	1.249E-01	2.026E-01	0.000E+00	NOT IDENT.
CM-247	-1.621E-02	3.024E-02	5.060E-02	0.000E+00	NOT IDENT.
CF-249	1.116E-02	3.260E-02	5.786E-02	0.000E+00	NOT IDENT.
CF-251	-9.857E-02	1.136E-01	1.858E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:22:40.47

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*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978005.CNF;1
Sample date      : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:19:06
Sample ID        : G245978005           Sample quantity  : 1.47470E+02 GRAM
Detector name    : GAM20                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:34.69  0.5%
Energy tolerance : 1.50000 keV          Analyst Initials : MXR1
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 948721               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1712	10.67*	1.253E+00	3.260E+01	3.260E+01	10.12
CD-109	88.03	343	3.72*	6.938E+00	3.381E+00	3.474E+00	26.57
SN-126	64.28	203	9.60	4.669E+00	1.152E+00	1.152E+00	50.76
	86.94	343	8.90	6.938E+00	1.413E+00	1.413E+00	48.40
	87.57	343	37.00*	6.938E+00	3.400E-01	3.400E-01	26.57
BA-137M	661.65	80	89.98*	2.434E+00	9.351E-02	9.361E-02	48.75
CS-137	661.65	80	85.12*	2.434E+00	9.885E-02	9.896E-02	48.76
TL-208	277.35	------	6.80	4.722E+00	------ Line Not Found		------
	510.84	157	21.60	2.993E+00	6.196E-01	6.196E-01	46.22
	583.14	426	84.20*	2.696E+00	4.776E-01	4.776E-01	16.79
	860.37	50	12.46	1.953E+00	5.245E-01	5.245E-01	67.39
BI-211	72.87	100	1.27	5.883E+00	3.421E+00	3.421E+00	83.68
	351.07	726	12.94*	3.969E+00	3.600E+00	3.600E+00	14.65
PB-212	74.81	585	10.70	6.050E+00	2.300E+00	2.300E+00	19.87
	77.11	855	18.00	6.258E+00	1.932E+00	1.932E+00	13.49
	87.30	343	8.00	6.938E+00	1.572E+00	1.572E+00	28.39
	238.63	1495	44.60*	5.249E+00	1.625E+00	1.625E+00	12.25
	300.09	77	3.41	4.463E+00	1.285E+00	1.285E+00	54.83
PO-212	74.81	585	10.70	6.050E+00	2.300E+00	2.300E+00	19.87
	77.11	855	18.00	6.258E+00	1.932E+00	1.932E+00	13.49
	87.30	343	8.00	6.938E+00	1.572E+00	1.572E+00	28.39
	115.19	------	0.60	7.430E+00	------ Line Not Found		------
	238.63	1495	44.60*	5.249E+00	1.625E+00	1.625E+00	12.25
	300.09	77	3.41	4.463E+00	1.285E+00	1.285E+00	54.83
BI-214	609.31	484	46.30*	2.603E+00	1.022E+00	1.022E+00	17.51
	1120.29	107	15.10	1.556E+00	1.159E+00	1.159E+00	52.34
	1764.49	110	15.80	1.100E+00	1.611E+00	1.611E+00	23.63
PB-214	74.81	585	6.21	6.050E+00	3.963E+00	3.963E+00	19.04
	77.11	855	10.50	6.258E+00	3.313E+00	3.313E+00	15.49
	87.30	343	4.67	6.938E+00	2.693E+00	2.694E+00	27.67
	241.98	408	7.49	5.204E+00	2.662E+00	2.662E+00	26.29
	295.21	532	19.20	4.515E+00	1.563E+00	1.563E+00	18.07

Sample ID : G245978005 Acquisition date : 14-FEB-2010 11:19:06

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	726	37.20*	3.969E+00	1.252E+00	1.252E+00	15.55
PO-214	74.81	585	6.21	6.050E+00	3.963E+00	3.963E+00	19.04
	77.11	855	10.50	6.258E+00	3.313E+00	3.313E+00	15.49
	87.30	343	4.67	6.938E+00	2.693E+00	2.694E+00	27.67
	241.98	408	7.49	5.204E+00	2.662E+00	2.662E+00	26.29
	295.21	532	19.20	4.515E+00	1.563E+00	1.563E+00	18.07
	351.92	726	37.20*	3.969E+00	1.252E+00	1.252E+00	15.55
PO-216	74.81	585	10.70	6.050E+00	2.300E+00	2.300E+00	19.87
	77.11	855	18.00	6.258E+00	1.932E+00	1.932E+00	13.49
	87.30	343	8.00	6.938E+00	1.572E+00	1.572E+00	28.39
	238.63	1495	44.60*	5.249E+00	1.625E+00	1.625E+00	12.25
	300.09	77	3.41	4.463E+00	1.285E+00	1.285E+00	54.83
PO-218	74.81	585	6.21	6.050E+00	3.963E+00	3.963E+00	19.04
	77.11	855	10.50	6.258E+00	3.313E+00	3.313E+00	15.49
	87.30	343	4.67	6.938E+00	2.693E+00	2.694E+00	27.67
	241.98	408	7.49	5.204E+00	2.662E+00	2.662E+00	26.29
	295.21	532	19.20	4.515E+00	1.563E+00	1.563E+00	18.07
	351.92	726	37.20*	3.969E+00	1.252E+00	1.252E+00	15.55
RA-224	240.98	408	3.95*	5.204E+00	5.048E+00	5.048E+00	25.69
RA-226	609.31	484	46.30*	2.603E+00	1.022E+00	1.022E+00	17.51
	1120.29	107	15.10	1.556E+00	1.159E+00	1.159E+00	52.34
	1764.49	110	15.80	1.100E+00	1.611E+00	1.611E+00	23.63
AC-228	338.32	248	11.40	4.086E+00	1.354E+00	1.354E+00	49.25
	911.07	323	27.70*	1.860E+00	1.596E+00	1.596E+00	19.96
	969.11	196	16.60	1.764E+00	1.705E+00	1.705E+00	31.76
RA-228	338.32	248	11.40	4.086E+00	1.354E+00	1.354E+00	49.25
	911.07	323	27.70*	1.860E+00	1.596E+00	1.596E+00	19.96
	969.11	196	16.60	1.764E+00	1.705E+00	1.705E+00	31.76
TH-228	74.81	585	10.70	6.050E+00	2.300E+00	2.342E+00	17.57
	77.11	855	18.00	6.258E+00	1.932E+00	1.967E+00	13.49
	87.30	343	8.00	6.938E+00	1.572E+00	1.601E+00	26.57
	238.63	1495	44.60*	5.249E+00	1.625E+00	1.654E+00	12.25
	300.09	77	3.41	4.463E+00	1.285E+00	1.308E+00	80.08
TH-230	609.31	484	46.30*	2.603E+00	1.022E+00	1.022E+00	17.51
	1120.29	107	15.10	1.556E+00	1.159E+00	1.159E+00	52.34
	1764.49	110	15.80	1.100E+00	1.611E+00	1.611E+00	23.63
TH-232	338.32	248	11.40	4.086E+00	1.354E+00	1.354E+00	28.24
	911.07	323	27.70*	1.860E+00	1.596E+00	1.596E+00	19.96
	969.11	196	16.60	1.764E+00	1.705E+00	1.705E+00	31.76
TH-234	63.29	203	3.80*	4.669E+00	2.909E+00	2.909E+00	51.66
	92.38	518	5.41	7.168E+00	3.401E+00	3.401E+00	25.80
U-234	609.31	484	46.30*	2.603E+00	1.022E+00	1.022E+00	17.51
	1120.29	107	15.10	1.556E+00	1.159E+00	1.159E+00	52.34
	1764.49	110	15.80	1.100E+00	1.611E+00	1.611E+00	23.63
NP-237	86.50	343	12.60*	6.938E+00	9.983E-01	9.983E-01	33.64
	95.87	------	2.60	7.260E+00	------	Line Not Found	------
U-238	63.29	203	3.80*	4.669E+00	2.909E+00	2.909E+00	51.66
	92.38	518	5.41	7.168E+00	3.401E+00	3.401E+00	20.33
AM-243	74.67	585	66.00*	6.050E+00	3.729E-01	3.729E-01	17.54

Sample ID : G245978005 Acquisition date : 14-FEB-2010 11:19:06

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	343	0.34	6.938E+00	3.744E+01	3.744E+01	26.57
	117.66	------	0.55	7.416E+00	------	Line Not Found	------
	142.18	------	0.13	7.067E+00	------	Line Not Found	------
ANH-511	511.00	157	100.00*	2.993E+00	1.338E-01	1.338E-01	45.47

Flag: "*" = Keyline

Sample ID : G245978005 Acquisition date : 14-FEB-2010 11:19:06

Total number of lines in spectrum 39
Number of unidentified lines 4
Number of lines tentatively identified by NID 35 89.74%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.260E+01	3.260E+01	0.330E+01	10.12	
CD-109	464.00D	1.03	3.381E+00	3.474E+00	0.923E+00	26.57	
SN-126	1.00E+05Y	1.00	3.400E-01	3.400E-01	0.903E-01	26.57	
BA-137M	30.17Y	1.00	9.351E-02	9.361E-02	4.564E-02	48.75	
CS-137	30.17Y	1.00	9.885E-02	9.896E-02	4.825E-02	48.76	
TL-208	1.41E+10Y	1.00	4.776E-01	4.776E-01	0.802E-01	16.79	
BI-211	7.04E+08Y	1.00	3.600E+00	3.600E+00	0.527E+00	14.65	
PB-212	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.199E+00	12.25	
PO-212	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.199E+00	12.25	
BI-214	1600.00Y	1.00	1.022E+00	1.022E+00	0.179E+00	17.51	
PB-214	1600.00Y	1.00	1.252E+00	1.252E+00	0.195E+00	15.55	
PO-214	1600.00Y	1.00	1.252E+00	1.252E+00	0.195E+00	15.55	
PO-216	1.41E+10Y	1.00	1.625E+00	1.625E+00	0.199E+00	12.25	
PO-218	1600.00Y	1.00	1.252E+00	1.252E+00	0.195E+00	15.55	
RA-224	1.41E+10Y	1.00	5.048E+00	5.048E+00	1.297E+00	25.69	
RA-226	1600.00Y	1.00	1.022E+00	1.022E+00	0.179E+00	17.51	
AC-228	1.41E+10Y	1.00	1.596E+00	1.596E+00	0.318E+00	19.96	
RA-228	1.41E+10Y	1.00	1.596E+00	1.596E+00	0.318E+00	19.96	
TH-228	1.91Y	1.02	1.625E+00	1.654E+00	0.203E+00	12.25	
TH-230	4.47E+09Y	1.00	1.022E+00	1.022E+00	0.179E+00	17.51	
TH-232	1.41E+10Y	1.00	1.596E+00	1.596E+00	0.318E+00	19.96	
TH-234	4.47E+09Y	1.00	2.909E+00	2.909E+00	1.503E+00	51.66	
U-234	4.47E+09Y	1.00	1.022E+00	1.022E+00	0.179E+00	17.51	
NP-237	2.14E+06Y	1.00	9.983E-01	9.983E-01	3.359E-01	33.64	
U-238	4.47E+09Y	1.00	2.909E+00	2.909E+00	1.503E+00	51.66	
AM-243	7380.00Y	1.00	3.729E-01	3.729E-01	0.654E-01	17.54	
ANH-511	1.00E+09Y	1.00	1.338E-01	1.338E-01	0.609E-01	45.47	
			---	---			
	Total Activity :		7.210E+01	7.222E+01			

Grand Total Activity : 7.210E+01 7.222E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978005 Acquisition date : 14-FEB-2010 11:19:06

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
3	89.90	217	480	1.32	179.69	165	29	3.02E-02	38.2	7.06E+00	T
0	128.65	148	471	1.02	257.09	252	11	2.06E-02	58.8	7.30E+00	T
0	185.87	289	323	1.34	371.37	367	9	4.01E-02	26.2	6.18E+00	T
0	209.19	149	284	0.89	417.94	414	9	2.07E-02	43.9	5.73E+00	T
0	270.33	129	267	1.46	540.08	535	12	1.79E-02	53.8	4.81E+00	T
0	328.37	56	176	1.32	656.03	652	9	7.73E-03	90.3	4.18E+00	T
0	409.82	57	89	1.32	818.76	814	9	7.91E-03	65.6	3.54E+00	T
0	463.25	92	111	1.28	925.54	920	12	1.28E-02	50.2	3.23E+00	T
0	727.66	90	99	1.52	1454.04	1448	11	1.25E-02	47.7	2.25E+00	T
2	768.32	45	61	1.91	1535.34	1526	25	6.25E-03	76.4	2.15E+00	T
2	772.82	53	46	1.91	1544.34	1526	25	7.31E-03	62.5	2.14E+00	
0	795.00	64	68	1.82	1588.69	1582	13	8.82E-03	59.2	2.09E+00	T
1	965.33	55	71	1.84	1929.33	1924	20	7.57E-03	61.7	1.77E+00	T
0	1004.09	81	97	5.47	2006.87	1993	24	1.12E-02	69.6	1.71E+00	T
0	1378.10	40	20	1.60	2755.30	2748	13	5.62E-03	54.9	1.31E+00	
0	1588.52	32	19	1.15	3176.61	3172	12	4.45E-03	63.9	1.18E+00	
0	1729.92	31	3	1.32	3459.81	3454	13	4.34E-03	42.8	1.11E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:22:47.70

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978005.CNF;1 *
* Acquisition date  : 14-FEB-2010 11:19:06  Detector SN#     :              *
* Detector ID       : GAM20                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:34.69          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245978005            Analyst initials: MXR1         *
* Batch Number      : 948721                Sample Quantity : 1.47470E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11.7MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.260E+01	3.299E+00	4.286E-01	3.737E-02	76.074
CD-109	3.474E+00	9.230E-01	8.961E-01	8.473E-02	3.876
SN-126	3.400E-01	9.033E-02	8.795E-02	8.272E-03	3.865
BA-137M	9.361E-02	4.564E-02	5.409E-02	5.428E-03	1.731
CS-137	9.896E-02	4.825E-02	5.718E-02	5.747E-03	1.731
TL-208	4.776E-01	8.022E-02	4.677E-02	4.809E-03	10.211
BI-211	3.600E+00	5.274E-01	2.635E-01	2.524E-02	13.665
PB-212	1.625E+00	1.991E-01	7.815E-02	8.311E-03	20.794
PO-212	1.625E+00	1.991E-01	7.815E-02	8.311E-03	20.794
BI-214	1.022E+00	1.790E-01	9.214E-02	1.025E-02	11.094
PB-214	1.252E+00	1.947E-01	9.183E-02	1.001E-02	13.637
PO-214	1.252E+00	1.947E-01	9.183E-02	1.001E-02	13.637
PO-216	1.625E+00	1.991E-01	7.815E-02	8.311E-03	20.794
PO-218	1.252E+00	1.947E-01	9.183E-02	1.001E-02	13.637
RA-224	5.048E+00	1.297E+00	8.892E-01	8.595E-02	5.677
RA-226	1.022E+00	1.790E-01	9.214E-02	1.025E-02	11.094
AC-228	1.596E+00	3.185E-01	1.796E-01	2.200E-02	8.886
RA-228	1.596E+00	3.185E-01	1.796E-01	2.200E-02	8.886

Sample ID : G245978005 Acquisition date : 14-FEB-2010 11:19:06

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.654E+00	2.027E-01	7.956E-02	8.461E-03	20.794
TH-230	1.022E+00	1.790E-01	9.213E-02	1.025E-02	11.094
TH-232	1.596E+00	3.185E-01	1.796E-01	2.200E-02	8.886
TH-234	2.909E+00	1.503E+00	1.442E+00	2.505E-01	2.018
U-234	1.022E+00	1.790E-01	9.213E-02	1.025E-02	11.094
NP-237	9.983E-01	3.359E-01	2.601E-01	5.884E-02	3.838
U-238	2.909E+00	1.503E+00	1.442E+00	2.505E-01	2.018
AM-243	3.729E-01	6.540E-02	6.475E-02	5.212E-03	5.760
ANH-511	1.338E-01	6.085E-02	3.838E-02	3.576E-03	3.488

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.070E-01		2.937E-01	4.638E-01	4.509E-02	-0.231
NA-22	-1.669E-02		3.960E-02	6.101E-02	5.054E-03	-0.274
NA-24	-1.190E+01		7.887E+00	Half-Life too short		
AL-26	-2.360E-03		1.822E-02	2.893E-02	2.350E-03	-0.082
TI-44	3.566E-01	+	4.812E-02	6.413E-02	5.382E-03	5.561
SC-46	-2.404E-02		3.135E-02	4.762E-02	4.747E-03	-0.505
V-48	-2.164E-02		7.014E-02	1.118E-01	1.068E-02	-0.194
CR-51	-5.332E-02		3.098E-01	5.080E-01	5.093E-02	-0.105
MN-52	-1.594E-01		2.896E-01	4.506E-01	3.814E-02	-0.354
MN-54	7.123E-04		3.156E-02	5.245E-02	5.298E-03	0.014
CO-56	1.605E-03		3.442E-02	5.727E-02	5.772E-03	0.028
CO-57	1.340E-03		2.142E-02	3.450E-02	2.880E-03	0.039
CO-58	-4.829E-03		3.409E-02	5.599E-02	5.685E-03	-0.086
FE-59	-2.076E-02		8.787E-02	1.401E-01	1.321E-02	-0.148
CO-60	-4.108E-03		3.211E-02	5.071E-02	4.248E-03	-0.081
ZN-65	1.179E-02		8.677E-02	1.242E-01	1.069E-02	0.095
GE-68	-5.469E-01		1.115E+00	1.732E+00	1.546E-01	-0.316
AS-73	5.204E-01		5.117E-01	8.719E-01	6.472E-02	0.597
AS-74	-4.032E-02		8.788E-02	1.352E-01	1.323E-02	-0.298
SE-75	-5.532E-03		3.986E-02	6.134E-02	6.073E-03	-0.090
BR-77	1.318E+01		1.845E+01	3.150E+01	2.955E+00	0.419
SR-82	-1.394E-01		3.462E-01	4.734E-01	4.810E-02	-0.294
RB-83	2.144E-02		5.625E-02	9.358E-02	8.776E-03	0.229
RB-84	5.773E-02		6.334E-02	1.125E-01	1.124E-02	0.513
KR-85	1.606E+01		6.685E+00	1.131E+01	1.056E+00	1.420
SR-85	8.484E-02		3.532E-02	5.974E-02	5.579E-03	1.420
RB-86	-5.536E-02		7.492E-01	1.213E+00	1.083E-01	-0.046
Y-88	-4.885E-03		2.531E-02	3.982E-02	3.213E-03	-0.123
ZR-88	-1.952E-02		2.624E-02	4.085E-02	3.416E-03	-0.478
Y-91	2.093E+00		1.745E+01	2.853E+01	2.317E+00	0.073
NB-94	-5.361E-03		2.916E-02	4.825E-02	4.882E-03	-0.111
NB-95	6.196E-02		3.652E-02	6.735E-02	6.844E-03	0.920
NB-95M	3.504E-02		1.184E-01	1.784E-01	1.916E-02	0.196
ZR-95	1.137E-02		6.060E-02	1.026E-01	1.120E-02	0.111

Sample ID : G245978005 Acquisition date : 14-FEB-2010 11:19:06

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	9.410E-01		7.549E-01	Half-Life too short		
ZR-97	4.516E+01		1.376E+01	Half-Life too short		
MO-99	-1.173E+01		2.078E+01	3.307E+01	5.326E+00	-0.355
TC-99M	-5.814E+13		4.643E+13	Half-Life too short		
RH-101	1.866E-02		2.651E-02	4.603E-02	4.220E-03	0.405
RH-102	-4.093E-03		2.564E-02	4.114E-02	3.730E-03	-0.099
RU-103	1.704E-02		3.639E-02	6.082E-02	8.841E-03	0.280
RH-106	-1.488E-01		2.808E-01	4.268E-01	6.067E-02	-0.349
RU-106	-1.488E-01		2.804E-01	4.268E-01	4.224E-02	-0.349
AG-108M	-1.804E-03		2.638E-02	4.283E-02	3.887E-03	-0.042
AG-110M	2.187E-02		3.296E-02	5.154E-02	5.280E-03	0.424
IN-111	6.207E-01		1.850E+00	2.797E+00	2.715E-01	0.222
IN-113M	-1.707E-02		3.799E-02	6.047E-02	5.216E-03	-0.282
SN-113	-1.707E-02		3.799E-02	6.047E-02	5.216E-03	-0.282
IN-114M	-1.962E-02		1.824E-01	2.717E-01	2.462E-02	-0.072
CD-115	2.390E-05		1.111E-05	Half-Life too short		
SN-117M	2.734E-02		5.535E-02	8.892E-02	7.674E-03	0.308
SB-122	1.962E+00		3.719E+00	6.209E+00	5.980E-01	0.316
I-123	-2.105E+01		9.514E+01	Half-Life too short		
TE-123M	-2.840E-03		2.567E-02	4.017E-02	3.490E-03	-0.071
I-124	-4.893E-01		1.055E+00	1.393E+00	1.367E-01	-0.351
SB-124	2.348E-02		5.715E-02	1.016E-01	8.833E-03	0.231
SB-125	9.054E-03		7.609E-02	1.252E-01	1.108E-02	0.072
TE-125M	-8.402E-01		8.435E+00	1.356E+01	1.387E+00	-0.062
I-126	2.716E-01		1.868E-01	3.125E-01	3.140E-02	0.869
SB-126	-8.479E-02		1.449E-01	2.162E-01	2.192E-02	-0.392
SB-127	4.024E-01		1.808E+00	3.087E+00	4.116E-01	0.130
XE-127	1.879E-02		3.934E-02	6.776E-02	6.253E-03	0.277
I-131	3.522E-02		1.233E-01	2.065E-01	1.941E-02	0.171
TE-132	3.966E-02		1.094E+00	1.844E+00	3.094E-01	0.022
BA-133	-2.415E-02		4.104E-02	5.619E-02	7.591E-03	-0.430
I-133	3.915E-02		2.586E-02	Half-Life too short		
CS-134	1.023E-01	+	6.150E-02	7.821E-02	7.981E-03	1.308
CS-135	1.814E-01		1.435E-01	2.268E-01	2.513E-02	0.800
I-135	-1.901E+12		3.101E+12	Half-Life too short		
CS-136	6.022E-03		1.220E-01	2.002E-01	1.901E-02	0.030
CE-139	-2.524E-02		2.732E-02	4.140E-02	3.614E-03	-0.610
BA-140	-6.299E-02		2.654E-01	4.184E-01	1.396E-01	-0.151
LA-140	-2.228E-02		8.185E-02	1.193E-01	1.007E-02	-0.187
CE-141	6.874E-04		6.132E-02	9.788E-02	8.451E-03	0.007
CE-143	2.493E-03		4.198E-04	Half-Life too short		
CE-144	6.686E-02		2.030E-01	2.941E-01	4.538E-02	0.227
PM-144	7.557E-03		3.104E-02	5.290E-02	5.349E-03	0.143
PR-144	5.129E-01		2.107E+00	3.590E+00	3.629E-01	0.143
PM-146	5.070E-03		3.651E-02	5.998E-02	6.570E-03	0.085
ND-147	-4.615E-01		6.073E-01	9.153E-01	1.413E-01	-0.504
PM-149	-1.946E-05		9.657E-05	Half-Life too short		
EU-152	-2.513E-02		9.128E-02	1.293E-01	1.261E-02	-0.194

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	6.379E-03		7.277E-02	1.052E-01	9.329E-03	0.061
EU-154	-1.691E-02		1.077E-01	1.707E-01	1.887E-02	-0.099
EU-155	4.312E-02		9.242E-02	1.518E-01	1.320E-02	0.284
TB-160	-2.325E-02		1.239E-01	2.014E-01	2.014E-02	-0.115
HO-166M	-3.440E-03		5.084E-02	8.474E-02	8.584E-03	-0.041
TM-171	-6.299E+00		2.259E+01	3.272E+01	2.438E+00	-0.193
LU-176	5.519E-04		2.028E-02	3.373E-02	3.290E-03	0.016
LU-177	3.865E+00	+	1.736E+00	2.272E+00	2.113E-01	1.701
LU-177M	5.033E-02		1.649E-01	2.429E-01	2.079E-02	0.207
HF-181	2.369E-02		3.777E-02	6.393E-02	5.829E-03	0.371
W-181	-2.964E-02		3.006E-01	4.392E-01	3.232E-02	-0.067
TA-182	8.706E-02		2.024E-01	3.376E-01	2.755E-02	0.258
RE-183	5.650E-02		9.785E-02	1.593E-01	1.382E-02	0.355
RE-184	2.394E-01		2.001E-01	3.512E-01	3.432E-02	0.682
OS-185	4.729E-02		3.643E-02	6.644E-02	6.635E-03	0.712
RE-188	7.090E-02		1.565E-01	2.537E-01	2.178E-02	0.279
W-188	-4.489E+00		7.186E+00	1.003E+01	9.916E-01	-0.448
IR-192	-2.263E-02		2.781E-02	4.371E-02	4.227E-03	-0.518
AU-195	2.206E-01		2.051E-01	3.101E-01	2.731E-02	0.711
TL-200	1.228E-03		1.162E-03	Half-Life too short		
TL-201	8.278E+00		1.169E+01	1.911E+01	1.672E+00	0.433
TL-202	7.175E-02		6.984E-02	1.211E-01	1.064E-02	0.592
HG-203	8.290E-03		3.686E-02	6.211E-02	6.317E-03	0.133
BI-207	-9.890E-03		4.664E-02	7.463E-02	6.739E-03	-0.133
TL-207	4.954E-01		5.844E-01	8.986E-01	1.634E-01	0.551
PO-209	-2.709E+00		6.273E+00	9.939E+00	9.886E-01	-0.273
BI-210	2.073E-01		1.791E+00	2.964E+00	2.749E-01	0.070
PB-210	2.073E-01		1.791E+00	2.964E+00	2.749E-01	0.070
PO-210	2.073E-01		1.791E+00	2.964E+00	2.487E-01	0.070
PB-211	-2.122E-01		8.708E-01	1.206E+00	7.556E-01	-0.176
BI-212	8.623E-01	+	4.231E-01	5.946E-01	6.748E-02	1.450
PO-215	4.954E-01		5.844E-01	8.986E-01	1.634E-01	0.551
RN-219	7.283E-02		3.416E-01	5.670E-01	8.465E-02	0.128
RN-220	-3.520E+00		2.182E+01	3.463E+01	3.309E+00	-0.102
RA-223	4.954E-01		5.844E-01	8.986E-01	1.634E-01	0.551
AC-227	-1.708E-01		3.257E-01	5.301E-01	8.504E-02	-0.322
TH-227	-1.708E-01		3.261E-01	5.301E-01	9.890E-02	-0.322
TH-229	-9.130E-02		4.166E-01	6.997E-01	6.373E-02	-0.130
PA-231	-3.059E-01		1.308E+00	2.154E+00	3.439E-01	-0.142
TH-231	4.954E-01		5.844E-01	8.986E-01	1.634E-01	0.551
U-231	-6.904E-01		1.557E+00	2.199E+00	1.967E-01	-0.314
PA-233	4.844E-03		5.082E-02	8.479E-02	8.412E-03	0.057
PA-234	-2.402E-01		2.712E-01	4.036E-01	7.792E-02	-0.595
PA-234M	4.995E+00		4.681E+00	7.902E+00	8.453E-01	0.632
U-235	1.505E-01		1.930E-01	3.151E-01	5.491E-02	0.478
NP-236	-5.129E-02		7.137E-02	1.083E-01	9.373E-03	-0.473
NP-239	-2.641E-02		1.616E-01	2.583E-01	2.164E-02	-0.102
AM-241	9.572E-02		1.131E-01	1.724E-01	1.349E-02	0.555

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.333E-02		7.955E-02	1.270E-01	1.096E-02	-0.184
AM-246	-5.143E-02		1.275E-01	1.999E-01	1.781E-02	-0.257
CM-247	-1.621E-02		3.086E-02	4.876E-02	4.124E-03	-0.333
CF-249	1.116E-02		3.326E-02	5.572E-02	4.701E-03	0.200
CF-251	-9.857E-02		1.159E-01	1.757E-01	1.560E-02	-0.561

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978005            *
* Acquisition date : 14-FEB-2010 11:19:06 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:34.69     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978005           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.4747E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 26-AUG-2009 06:32:11 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.260E+01	3.233E+00	2.157E-01	1.649E+00
CD-109	3.474E+00	9.045E-01	4.813E-01	4.615E-01
SN-126	3.400E-01	8.853E-02	4.725E-02	4.517E-02
BA-137M	9.361E-02	4.473E-02	2.775E-02	2.282E-02
CS-137	9.896E-02	4.728E-02	2.934E-02	2.412E-02
TL-208	4.776E-01	7.861E-02	2.407E-02	4.011E-02
BI-211	3.600E+00	5.168E-01	1.372E-01	2.637E-01
PB-212	1.625E+00	1.951E-01	4.106E-02	9.954E-02
PO-212	1.625E+00	1.951E-01	4.106E-02	9.954E-02
BI-214	1.022E+00	1.754E-01	4.737E-02	8.950E-02
PB-214	1.252E+00	1.909E-01	4.782E-02	9.737E-02
PO-214	1.252E+00	1.909E-01	4.782E-02	9.737E-02
PO-216	1.625E+00	1.951E-01	4.106E-02	9.954E-02
PO-218	1.252E+00	1.909E-01	4.782E-02	9.737E-02
RA-224	5.048E+00	1.271E+00	4.671E-01	6.484E-01
RA-226	1.022E+00	1.754E-01	4.737E-02	8.950E-02
AC-228	1.596E+00	3.121E-01	9.144E-02	1.592E-01
RA-228	1.596E+00	3.121E-01	9.144E-02	1.592E-01
TH-228	1.654E+00	1.986E-01	4.180E-02	1.013E-01
TH-230	1.022E+00	1.754E-01	4.737E-02	8.950E-02
TH-232	1.596E+00	3.121E-01	9.144E-02	1.592E-01
TH-234	2.909E+00	1.473E+00	7.800E-01	7.515E-01
U-234	1.022E+00	1.754E-01	4.737E-02	8.950E-02
NP-237	9.983E-01	3.291E-01	1.398E-01	1.679E-01
U-238	2.909E+00	1.473E+00	7.800E-01	7.515E-01
AM-243	3.729E-01	6.409E-02	3.490E-02	3.270E-02
ANH-511	1.338E-01	5.964E-02	1.981E-02	3.043E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-1.070E-01	2.878E-01	2.398E-01	1.468E-01	NOT IDENT.
NA-22	-1.669E-02	3.881E-02	3.081E-02	1.980E-02	NOT IDENT.
NA-24	-1.190E+07	1.546E+07	0.000E+00	7.887E+06	SHORT HLIF
AL-26	-2.360E-03	1.785E-02	1.449E-02	9.109E-03	NOT IDENT.
TI-44	3.566E-01	4.715E-02	3.453E-02	2.406E-02	FAIL ABUN
SC-46	-2.404E-02	3.072E-02	2.426E-02	1.568E-02	FAIL ABUN
V-48	-2.164E-02	6.873E-02	5.680E-02	3.507E-02	NOT IDENT.
CR-51	-5.332E-02	3.036E-01	2.651E-01	1.549E-01	NOT IDENT.
MN-52	-1.594E-01	2.838E-01	2.269E-01	1.448E-01	NOT IDENT.
MN-54	7.123E-04	3.093E-02	2.676E-02	1.578E-02	NOT IDENT.
CO-56	1.605E-03	3.373E-02	2.921E-02	1.721E-02	NOT IDENT.
CO-57	1.340E-03	2.099E-02	1.840E-02	1.071E-02	NOT IDENT.
CO-58	-4.829E-03	3.341E-02	2.859E-02	1.705E-02	NOT IDENT.
FE-59	-2.076E-02	8.612E-02	7.099E-02	4.394E-02	NOT IDENT.
CO-60	-4.108E-03	3.147E-02	2.558E-02	1.606E-02	NOT IDENT.
ZN-65	1.179E-02	8.503E-02	6.291E-02	4.338E-02	NOT IDENT.
GE-68	-5.469E-01	1.093E+00	8.785E-01	5.576E-01	NOT IDENT.
AS-73	5.204E-01	5.015E-01	4.733E-01	2.558E-01	NOT IDENT.
AS-74	-4.032E-02	8.612E-02	6.954E-02	4.394E-02	NOT IDENT.
SE-75	-5.532E-03	3.907E-02	3.215E-02	1.993E-02	NOT IDENT.
BR-77	1.318E+01	1.808E+01	1.625E+01	9.226E+00	FAIL ABUN
SR-82	-1.394E-01	3.393E-01	2.420E-01	1.731E-01	NOT IDENT.
RB-83	2.144E-02	5.512E-02	4.829E-02	2.812E-02	NOT IDENT.
RB-84	5.773E-02	6.207E-02	5.731E-02	3.167E-02	NOT IDENT.
KR-85	1.606E+01	6.551E+00	5.836E+00	3.343E+00	NOT IDENT.
SR-85	8.484E-02	3.461E-02	3.084E-02	1.766E-02	NOT IDENT.
RB-86	-5.536E-02	7.342E-01	6.153E-01	3.746E-01	NOT IDENT.
Y-88	-4.885E-03	2.480E-02	1.993E-02	1.265E-02	NOT IDENT.
ZR-88	-1.952E-02	2.571E-02	2.122E-02	1.312E-02	NOT IDENT.
Y-91	2.093E+00	1.710E+01	1.443E+01	8.726E+00	NOT IDENT.
NB-94	-5.361E-03	2.857E-02	2.472E-02	1.458E-02	NOT IDENT.
NB-95	6.196E-02	3.579E-02	3.443E-02	1.826E-02	NOT IDENT.
NB-95M	3.504E-02	1.160E-01	9.373E-02	5.920E-02	NOT IDENT.
ZR-95	1.137E-02	5.939E-02	5.249E-02	3.030E-02	NOT IDENT.
NB-97	9.410E+05	1.480E+06	0.000E+00	7.549E+05	SHORT HLIF
ZR-97	4.516E+07	2.696E+07	0.000E+00	1.376E+07	SHORT HLIF
MO-99	-1.173E+01	2.036E+01	1.692E+01	1.039E+01	NOT IDENT.
TC-99M	-5.814E+19	9.099E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.866E-02	2.598E-02	2.429E-02	1.326E-02	FAIL ABUN
RH-102	-4.093E-03	2.513E-02	2.127E-02	1.282E-02	FAIL ABUN
RU-103	1.704E-02	3.567E-02	3.142E-02	1.820E-02	FAIL ABUN
RH-106	-1.488E-01	2.752E-01	2.193E-01	1.404E-01	FAIL ABUN
RU-106	-1.488E-01	2.748E-01	2.193E-01	1.402E-01	FAIL ABUN
AG-108M	-1.804E-03	2.586E-02	2.219E-02	1.319E-02	NOT IDENT.
AG-110M	2.187E-02	3.230E-02	2.645E-02	1.648E-02	NOT IDENT.
IN-111	6.207E-01	1.813E+00	1.468E+00	9.250E-01	NOT IDENT.
IN-113M	-1.707E-02	3.723E-02	3.141E-02	1.899E-02	NOT IDENT.
SN-113	-1.707E-02	3.723E-02	3.141E-02	1.899E-02	NOT IDENT.
IN-114M	-1.962E-02	1.787E-01	1.435E-01	9.118E-02	NOT IDENT.
CD-115	2.390E+01	2.177E+01	0.000E+00	1.111E+01	SHORT HLIF
SN-117M	2.734E-02	5.424E-02	4.715E-02	2.768E-02	NOT IDENT.
SB-122	1.962E+00	3.644E+00	3.198E+00	1.859E+00	NOT IDENT.
I-123	-2.105E+07	1.865E+08	0.000E+00	9.514E+07	SHORT HLIF
TE-123M	-2.840E-03	2.516E-02	2.130E-02	1.284E-02	NOT IDENT.
I-124	-4.893E-01	1.034E+00	7.162E-01	5.274E-01	NOT IDENT.
SB-124	2.348E-02	5.600E-02	5.097E-02	2.857E-02	FAIL ABUN
SB-125	9.054E-03	7.457E-02	6.492E-02	3.804E-02	FAIL ABUN
TE-125M	-8.402E-01	8.267E+00	7.247E+00	4.218E+00	NOT IDENT.
I-126	2.716E-01	1.831E-01	1.603E-01	9.342E-02	NOT IDENT.
SB-126	-8.479E-02	1.420E-01	1.107E-01	7.246E-02	FAIL ABUN
SB-127	4.024E-01	1.772E+00	1.583E+00	9.041E-01	NOT IDENT.
XE-127	1.879E-02	3.855E-02	3.573E-02	1.967E-02	NOT IDENT.
I-131	3.522E-02	1.208E-01	1.074E-01	6.165E-02	NOT IDENT.
TE-132	3.966E-02	1.072E+00	9.700E-01	5.470E-01	NOT IDENT.
BA-133	-2.415E-02	4.022E-02	2.925E-02	2.052E-02	NOT IDENT.
I-133	3.915E+04	5.070E+04	0.000E+00	2.586E+04	SHORT HLIF
CS-134	1.023E-01	6.027E-02	3.995E-02	3.075E-02	FAIL ABUN
CS-135	1.814E-01	1.406E-01	1.188E-01	7.174E-02	NOT IDENT.
I-135	-1.901E+18	6.078E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.022E-03	1.196E-01	1.016E-01	6.100E-02	FAIL ABUN
CE-139	-2.524E-02	2.678E-02	2.193E-02	1.366E-02	NOT IDENT.
BA-140	-6.299E-02	2.601E-01	2.157E-01	1.327E-01	NOT IDENT.
LA-140	-2.228E-02	8.022E-02	5.990E-02	4.093E-02	FAIL ABUN
CE-141	6.874E-04	6.009E-02	5.200E-02	3.066E-02	NOT IDENT.
CE-143	2.493E+03	8.228E+02	0.000E+00	4.198E+02	SHORT HLIF
CE-144	6.686E-02	1.989E-01	1.565E-01	1.015E-01	NOT IDENT.
PM-144	7.557E-03	3.042E-02	2.711E-02	1.552E-02	NOT IDENT.
PR-144	5.129E-01	2.065E+00	1.840E+00	1.053E+00	NOT IDENT.

PM-146	5.070E-03	3.578E-02	3.105E-02	1.825E-02	NOT IDENT.
ND-147	-4.615E-01	5.952E-01	4.721E-01	3.037E-01	FAIL ABUN
PM-149	-1.946E+01	1.893E+02	0.000E+00	9.657E+01	SHORT HLIF
EU-152	-2.513E-02	8.946E-02	6.735E-02	4.564E-02	FAIL ABUN
GD-153	6.379E-03	7.131E-02	5.638E-02	3.639E-02	NOT IDENT.
EU-154	-1.691E-02	1.056E-01	8.623E-02	5.386E-02	FAIL ABUN
EU-155	4.312E-02	9.057E-02	8.124E-02	4.621E-02	FAIL ABUN
TB-160	-2.325E-02	1.214E-01	1.027E-01	6.195E-02	FAIL ABUN
HO-166M	-3.440E-03	4.982E-02	4.340E-02	2.542E-02	FAIL ABUN
TM-171	-6.299E+00	2.214E+01	1.768E+01	1.130E+01	NOT IDENT.
LU-176	5.519E-04	1.987E-02	1.762E-02	1.014E-02	FAIL ABUN
LU-177	3.865E+00	1.701E+00	1.197E+00	8.678E-01	FAIL ABUN
LU-177M	5.033E-02	1.616E-01	1.260E-01	8.246E-02	NOT IDENT.
HF-181	2.369E-02	3.702E-02	3.305E-02	1.889E-02	NOT IDENT.
W-181	-2.964E-02	2.946E-01	2.375E-01	1.503E-01	NOT IDENT.
TA-182	8.706E-02	1.984E-01	1.707E-01	1.012E-01	FAIL ABUN
RE-183	5.650E-02	9.590E-02	8.441E-02	4.893E-02	FAIL ABUN
RE-184	2.394E-01	1.961E-01	1.843E-01	1.001E-01	NOT IDENT.
OS-185	4.729E-02	3.570E-02	3.411E-02	1.822E-02	NOT IDENT.
RE-188	7.090E-02	1.534E-01	1.346E-01	7.825E-02	NOT IDENT.
W-188	-4.489E+00	7.042E+00	5.245E+00	3.593E+00	FAIL ABUN
IR-192	-2.263E-02	2.726E-02	2.282E-02	1.391E-02	FAIL ABUN
AU-195	2.206E-01	2.010E-01	1.662E-01	1.025E-01	FAIL ABUN
TL-200	1.228E+03	2.278E+03	0.000E+00	1.162E+03	SHORT HLIF
TL-201	8.278E+00	1.146E+01	1.012E+01	5.845E+00	NOT IDENT.
TL-202	7.175E-02	6.845E-02	6.275E-02	3.492E-02	NOT IDENT.
HG-203	8.290E-03	3.612E-02	3.252E-02	1.843E-02	FAIL ABUN
BI-207	-9.890E-03	4.571E-02	3.786E-02	2.332E-02	FAIL ABUN
TL-207	4.954E-01	5.728E-01	4.688E-01	2.922E-01	FAIL ABUN
PO-209	-2.709E+00	6.148E+00	5.063E+00	3.137E+00	NOT IDENT.
BI-210	2.073E-01	1.755E+00	1.614E+00	8.954E-01	NOT IDENT.
PB-210	2.073E-01	1.755E+00	1.614E+00	8.954E-01	NOT IDENT.
PO-210	2.073E-01	1.755E+00	1.614E+00	8.953E-01	NOT IDENT.
PB-211	-2.122E-01	8.534E-01	6.261E-01	4.354E-01	NOT IDENT.
BI-212	8.623E-01	4.146E-01	3.044E-01	2.115E-01	FAIL ABUN
PO-215	4.954E-01	5.728E-01	4.688E-01	2.922E-01	FAIL ABUN
RN-219	7.283E-02	3.348E-01	2.944E-01	1.708E-01	FAIL ABUN
RN-220	-3.520E+00	2.138E+01	1.785E+01	1.091E+01	NOT IDENT.
RA-223	4.954E-01	5.728E-01	4.688E-01	2.922E-01	FAIL ABUN
AC-227	-1.708E-01	3.192E-01	2.781E-01	1.628E-01	FAIL ABUN
TH-227	-1.708E-01	3.196E-01	2.781E-01	1.631E-01	FAIL ABUN
TH-229	-9.130E-02	4.082E-01	3.694E-01	2.083E-01	FAIL ABUN
PA-231	-3.059E-01	1.282E+00	1.127E+00	6.541E-01	FAIL ABUN
TH-231	4.954E-01	5.728E-01	4.688E-01	2.922E-01	FAIL ABUN
U-231	-6.904E-01	1.526E+00	1.179E+00	7.786E-01	FAIL ABUN
PA-233	4.844E-03	4.980E-02	4.428E-02	2.541E-02	FAIL ABUN
PA-234	-2.402E-01	2.658E-01	2.053E-01	1.356E-01	FAIL ABUN
PA-234M	4.995E+00	4.587E+00	4.014E+00	2.340E+00	NOT IDENT.
U-235	1.505E-01	1.892E-01	1.674E-01	9.651E-02	FAIL ABUN
NP-236	-5.129E-02	6.994E-02	5.742E-02	3.568E-02	NOT IDENT.
NP-239	-2.641E-02	1.584E-01	1.379E-01	8.081E-02	FAIL ABUN
AM-241	9.572E-02	1.108E-01	9.338E-02	5.654E-02	NOT IDENT.
CM-243	-2.333E-02	7.796E-02	6.798E-02	3.978E-02	FAIL ABUN
AM-246	-5.143E-02	1.249E-01	1.014E-01	6.374E-02	NOT IDENT.
CM-247	-1.621E-02	3.024E-02	2.531E-02	1.543E-02	NOT IDENT.
CF-249	1.116E-02	3.260E-02	2.895E-02	1.663E-02	NOT IDENT.
CF-251	-9.857E-02	1.136E-01	9.296E-02	5.797E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.50	302.4542
46.50	302.4542
46.50	302.4542
48.70	348.8253
49.72	353.4874
51.35	337.9750
52.39	326.8733
52.97	325.2835
53.15	325.4002
53.44	325.5890
54.07	352.6684
56.28	414.7131
56.28	414.7152
57.37	0.0000
57.53	391.8417
57.53	391.8427
57.60	391.8938
57.98	386.2041
57.98	386.2041
59.32	395.1631
59.32	395.1631
59.40	395.2215
59.54	395.3253
59.72	395.4582
60.01	421.1495
61.10	446.0268
61.14	446.0586
61.30	453.7016
63.00	460.1286
63.29	460.3680
63.29	460.3680
63.58	460.6073
64.28	492.4000
65.12	496.1584
65.20	496.2285
65.20	496.2285
66.05	466.6668
66.72	476.3135
66.83	491.5767
66.91	491.6459
67.20	491.8931
67.20	491.8931
67.75	475.6443
67.85	465.0863
68.90	472.0149
68.90	472.0149
69.30	513.4756
69.67	513.7996
70.82	493.4084
70.82	493.4084
70.83	493.4158
72.80	496.5675
72.87	472.0997
72.87	472.0997
74.67	473.4908
74.81	473.5989
74.81	473.5989
74.81	473.5989
74.81	473.5989
74.81	473.5989
74.81	473.5989
74.81	473.5989
74.97	473.7211
75.28	473.9584
75.70	474.2780
77.11	475.3495
77.11	475.3495

77.11	475.3495
77.11	475.3495
77.11	475.3495
77.11	475.3495
77.11	475.3495
78.38	476.3059
79.62	477.2318
79.80	477.3657
79.80	477.3657
80.11	477.5960
80.18	477.6477
80.30	477.7370
80.30	477.7370
80.57	477.9367
81.00	413.0375
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81.07	413.0822
81.07	413.0822
81.07	413.0822
82.60	414.0522
83.37	414.5332
83.78	414.7929
83.78	414.7929
83.78	414.7929
83.78	414.7929
84.21	363.5683
84.90	363.9452
85.43	364.2349
86.29	364.7007
86.50	364.8145
86.54	364.8358
86.59	364.8625
86.72	364.9318
86.79	364.9691
86.94	365.0509
87.30	365.2446
87.30	365.2446
87.30	365.2446
87.30	365.2446
87.30	365.2446
87.30	365.2446
87.30	365.2446
87.57	365.3886
87.88	365.5557
88.03	365.6357
88.36	365.8117
88.47	365.8704
89.95	366.6579
91.11	367.2694
92.29	367.8880
92.38	367.9360
92.38	367.9360
93.35	368.4409
94.00	368.7786
94.67	369.1217
94.67	369.1252
94.90	369.2426
94.90	369.2426
94.90	369.2426
94.90	369.2426
95.87	401.4796
95.87	401.4796
96.73	374.9492
97.43	353.0453
98.44	297.7958
98.44	297.7958
98.88	304.3480
99.55	341.9453
99.55	341.9453
99.86	353.5774
100.00	347.8999
100.10	347.9481
103.18	376.0930
103.76	348.5803
105.00	340.5810
105.31	356.7901
108.00	410.7207
109.28	383.3942

111.00	359.4077
111.00	359.4077
111.76	383.5198
112.95	365.6990
115.19	329.8281
116.30	309.6371
117.00	331.6500
117.00	331.6500
117.66	339.5345
121.11	302.7025
121.62	301.7922
121.78	299.6624
122.06	305.2329
122.32	284.5337
122.32	284.5337
122.32	284.5337
122.32	284.5337
123.07	295.7410
127.23	297.1829
129.76	334.4762
131.20	316.7809
133.02	342.3631
133.54	324.2690
135.34	327.7008
136.00	307.9309
136.25	303.5675
136.48	303.6453
140.51	353.0248
140.51	0.0000
142.18	345.8302
142.65	323.6080
143.76	321.7510
144.24	348.8373
144.24	348.8373
144.24	348.8373
144.24	348.8373
145.22	363.7980
145.44	363.8837
147.16	336.4176
152.43	319.0343
152.70	279.5145
153.22	294.3831
154.21	324.1502
154.21	324.1502
154.21	324.1502
154.21	324.1502
155.03	310.8087
156.02	311.1209
158.56	277.7664
159.00	0.0000
159.00	302.9435
160.31	321.5874
161.27	294.4991
162.32	278.8065
162.64	273.1807
163.35	299.6780
163.89	286.1049
165.85	333.6625
167.43	271.0144
171.28	301.9860
171.86	286.0058
172.10	286.0714
176.55	323.1812
176.60	323.1983
181.06	291.3836
184.41	242.2211
185.71	278.6018
186.00	278.6746
190.27	304.0190
192.34	270.5597
193.63	277.0426
197.04	263.7079
198.01	247.1029
198.60	231.2763
200.40	279.5616
201.83	295.8972
202.84	241.0141
205.31	242.4098

208.36	257.3262
208.81	231.5018
209.75	204.6687
209.75	204.6687
210.97	206.3092
215.65	229.2164
216.55	231.1847
218.09	234.1750
222.10	248.4865
223.80	249.7291
226.40	277.4456
227.00	263.0625
227.08	263.0780
227.20	262.1973
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228.18	245.1469
228.18	245.1469
231.56	0.0000
235.69	254.2541
236.00	241.1594
236.00	241.1594
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238.63	238.8989
238.63	238.8989
238.63	238.8989
239.00	238.9666
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241.98	239.5062
241.98	239.5062
241.98	239.5062
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245.39	178.1131
247.94	217.5337
248.90	225.9902
249.79	199.3722
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252.85	181.3185
254.15	0.0000
256.20	219.7835
256.20	219.7835
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260.90	0.0000
262.80	205.9229
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268.24	164.6267
268.79	181.1573
269.46	179.7451
269.46	179.7451
269.46	179.7451
269.46	179.7451
271.23	179.9678
273.65	217.8292
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277.60	183.5891
277.60	183.5891
278.00	189.2901
278.60	204.4408
279.20	203.5811
279.53	216.8253
280.46	216.0206
281.68	200.1507
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284.30	200.5065
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285.90	0.0000
286.10	189.3860
286.10	189.3860
287.40	182.9165
288.45	0.0000
290.67	193.0053
290.80	193.0239
291.72	180.9753
293.26	0.0000
293.70	175.1195
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295.21	172.2450

295.21	172.2450
295.96	172.3305
296.50	125.8608
297.23	125.9213
298.57	126.0320
299.80	148.3015
299.80	148.3015
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300.09	140.6841
300.09	140.6841
300.09	140.6841
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301.29	160.6890
302.84	153.1909
303.76	159.4125
303.91	159.4277
304.40	170.2126
304.40	170.2126
304.84	162.3363
306.84	155.5063
308.46	143.1751
311.98	140.6065
316.51	149.7021
318.01	127.6071
319.02	125.7530
319.41	141.2637
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323.87	122.6390
323.87	122.6390
323.87	122.6390
325.23	153.8150
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334.20	152.3152
334.20	152.3152
334.30	152.3247
338.28	154.6465
338.28	154.6465
338.28	154.6465
338.28	154.6465
338.32	154.6513
338.32	154.6513
338.32	154.6513
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340.57	147.4097
344.27	146.1617
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351.07	131.1654
351.92	131.2303
351.92	131.2303
351.92	131.2303
355.39	0.0000
356.01	147.1675
364.48	125.2233
366.43	122.3769
367.43	115.4778
367.94	0.0000
369.80	161.4858
374.96	118.9655
383.85	128.5918
387.95	120.8258
388.63	126.9132
391.69	133.1783
391.69	133.1783
392.90	135.2841
398.62	119.4962
400.65	114.5553
401.10	112.5548
401.81	118.6835
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404.84	120.2970
410.95	123.9435
411.60	122.3547
413.65	109.4197
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415.30	115.5857

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427.89	106.9326
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433.93	102.1013
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439.56	97.2172
439.89	94.1298
443.98	111.9419
444.90	122.3627
445.03	122.3699
445.03	122.3699
445.03	122.3699
445.03	122.3699
453.90	103.1119
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468.07	97.3143
473.00	98.8036
475.06	111.5251
475.35	101.0171
476.78	110.5611
477.59	114.8162
477.96	105.3543
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492.35	0.0000
497.08	90.3449
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511.00	94.1210
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511.85	94.1573
513.99	70.2565
513.99	70.2565
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528.96	0.0000
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529.87	0.0000
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546.56	0.0000
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563.90	86.4376
568.70	88.8014
569.32	82.2464
569.50	82.2510
569.67	77.8708
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574.64	84.6229
578.91	82.7893
579.30	0.0000
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591.81	82.9994
592.07	80.7950
593.00	83.0383
595.88	93.1106
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602.71	99.5887
602.71	99.5887
603.60	88.9478
604.41	80.0793
604.70	78.3084
609.31	88.0336

609.31	88.0336
609.31	88.0336
609.31	88.0336
610.33	107.0215
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614.37	96.4723
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621.84	90.7048
631.29	68.5561
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633.10	77.5997
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635.90	85.5649
636.97	84.6987
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657.75	72.6465
657.90	0.0000
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661.65	100.0313
664.57	0.0000
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666.33	56.1760
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695.00	81.9187
696.49	93.9341
696.49	93.9341
697.00	98.5544
697.49	105.0214
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698.50	109.6654
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717.42	76.9979
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722.78	66.6084
722.89	66.6101
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727.18	84.7060
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735.90	72.8203
739.58	85.9984
742.81	74.8633
744.21	73.0260
747.13	71.2240
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753.82	59.1732
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756.15	69.5593
756.87	66.7549
763.93	69.1117
765.79	58.4671
766.42	58.4792
766.84	58.4868
776.49	58.3575
778.00	77.3221
778.57	77.3361
778.89	78.9225
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785.46	75.9277
792.07	72.9194

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796.30	66.6692
798.80	63.5449
801.93	65.5962
805.60	63.0464
810.29	66.9666
810.76	68.8904
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818.51	70.0183
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828.27	0.0000
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834.83	72.3029
836.80	0.0000
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856.80	64.7038
860.37	48.5803
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867.82	40.3433
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880.27	56.6902
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883.24	50.8714
884.67	58.7227
889.25	58.8018
896.60	64.8221
898.02	59.9352
899.00	61.9187
903.28	66.9159
911.07	61.1508
911.07	61.1508
911.07	61.1508
919.63	54.3810
920.93	58.3576
925.00	62.3863
925.24	62.3909
926.50	63.4031
935.52	71.5131
937.48	82.4833
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946.00	74.7125
949.00	58.8243
962.29	78.3907
964.01	43.3852
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968.20	50.1184
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969.11	50.1306
969.11	50.1306
977.42	64.7607
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983.50	63.4153
989.30	59.4825
996.32	63.9735
1001.03	57.6485
1001.68	57.6582
1004.76	57.7069
1021.30	0.0000
1024.50	0.0000
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1036.00	47.9788
1037.82	62.2986
1038.57	64.3566
1038.76	0.0000
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1046.59	66.5361
1048.07	72.7091

1050.47	70.7048
1050.47	70.7048
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1063.62	63.7468
1076.63	56.7375
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1078.86	66.0594
1085.78	63.0730
1099.22	69.5125
1112.02	72.8574
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1120.29	54.2344
1120.29	54.2344
1120.29	54.2344
1120.51	54.2369
1121.28	54.2471
1124.00	0.0000
1129.67	75.7887
1131.51	0.0000
1147.95	0.0000
1167.94	59.0844
1173.22	81.3463
1175.09	83.4939
1177.93	84.6094
1189.05	79.5300
1204.90	70.2475
1205.75	0.0000
1213.00	83.1759
1221.42	88.6819
1230.97	89.9473
1235.34	111.4750
1236.41	0.0000
1238.25	93.3126
1246.25	91.3335
1260.41	0.0000
1271.85	54.0381
1274.45	54.0698
1274.54	59.4768
1291.56	42.3344
1298.22	0.0000
1312.09	41.4345
1325.50	40.4633
1325.50	40.4633
1332.49	35.0469
1333.61	37.2473
1360.21	34.8890
1362.66	0.0000
1365.15	31.2483
1368.21	42.3052
1368.53	0.0000
1376.25	31.5848
1384.27	18.9827
1394.10	21.2677
1395.20	23.1222
1407.95	31.5291
1434.06	35.4286
1436.60	19.5884
1457.56	0.0000
1460.81	23.4344
1489.15	11.3120
1509.49	19.8755
1596.49	21.8117
1620.62	13.5329
1678.03	0.0000
1691.02	10.7695
1691.02	10.7695
1706.46	0.0000
1750.46	0.0000
1764.49	6.9422
1764.49	6.9422
1764.49	6.9422
1764.49	6.9422
1770.23	13.6144
1771.40	39.7168
1791.20	0.0000
1808.65	7.9941

1836.01	12.0464

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978005

Total Uranium Activity	8.7246E+00	ug/g
Total Uranium Counting Unc.	4.3829E+00	ug/g
Total Uranium Tpu	2.2362E-06	ug/g
Total Uranium Mda	2.3217E+00	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978005       *
*   ANALYST       : MXR1                      DETECTOR   : GAM20            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 11:19:06.07    SAMPLE ALQT:  147.470 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.982E+00
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.367E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.738E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.818E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:56:44.13

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978006.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:56:15
Sample ID         : G245978006           Sample quantity  : 1.34500E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.52  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.24*	548	512	1.03	126.51	122	8	7.61E-02	8.4	
2	4	74.78	233	489	0.91	149.59	146	14	3.23E-02	15.1	3.12E+00
3	4	77.17	464	559	1.11	154.37	146	14	6.44E-02	9.9	
4	0	87.13	195	527	1.31	174.29	172	6	2.71E-02	19.9	
5	0	92.69*	1705	1064	1.12	185.42	181	11	2.37E-01	4.5	
6	0	113.16	135	609	0.98	226.37	222	10	1.87E-02	35.5	
7	0	129.92	180	460	3.49	259.88	255	11	2.50E-02	24.3	
8	0	143.66	88	348	0.63	287.36	284	7	1.22E-02	36.9	
9	0	185.87*	490	459	1.26	371.81	367	12	6.80E-02	10.0	
10	0	208.88	124	343	1.06	417.82	414	9	1.72E-02	28.3	
11	6	238.60*	1296	165	1.22	477.26	470	20	1.80E-01	3.3	2.99E+00
12	6	241.77*	344	212	2.05	483.61	470	20	4.78E-02	14.5	
13	0	269.80	89	233	1.17	539.67	536	10	1.24E-02	33.6	
14	3	295.21	384	170	1.30	590.50	584	23	5.34E-02	7.7	1.05E+00
15	3	300.06	102	214	1.62	600.19	584	23	1.41E-02	28.6	
16	0	328.13	61	173	1.12	656.34	653	9	8.49E-03	40.9	
17	0	338.19*	224	151	1.07	676.46	672	9	3.11E-02	12.1	
18	0	351.87*	569	228	1.27	703.83	698	12	7.90E-02	6.8	
19	0	463.04	53	114	1.01	926.17	922	10	7.34E-03	40.1	
20	0	510.77*	158	151	1.59	1021.63	1014	17	2.19E-02	21.6	
21	0	583.22*	381	107	1.47	1166.54	1161	11	5.29E-02	7.5	
22	0	609.33*	435	130	1.18	1218.75	1212	14	6.03E-02	7.4	
23	0	662.03*	32	86	1.21	1324.15	1320	10	4.47E-03	60.0	
24	0	727.51	137	66	1.56	1455.11	1449	14	1.90E-02	15.2	
25	0	767.85	109	97	2.20	1535.79	1529	19	1.52E-02	23.5	
26	0	795.96	85	92	2.32	1592.00	1585	18	1.18E-02	29.0	
27	0	861.05	59	55	2.16	1722.16	1715	13	8.17E-03	29.1	
28	0	911.39*	288	68	2.02	1822.84	1817	17	4.00E-02	9.0	
29	1	964.86	44	40	1.87	1929.77	1926	17	6.17E-03	27.2	8.43E-01
30	1	968.99*	145	47	1.73	1938.04	1926	17	2.02E-02	12.6	
31	0	1001.11*	117	55	1.28	2002.26	1995	13	1.62E-02	16.2	
32	0	1121.10*	115	91	2.03	2242.20	2234	19	1.59E-02	22.1	
33	0	1155.04	44	60	3.36	2310.09	2303	12	6.11E-03	38.3	
34	0	1377.91	27	30	2.74	2755.74	2749	14	3.81E-03	45.3	
35	0	1460.94*	1497	22	2.12	2921.77	2913	17	2.08E-01	2.7	
36	0	1509.92	25	7	1.08	3019.70	3015	10	3.45E-03	28.7	
37	0	1764.53*	76	3	1.89	3528.78	3522	13	1.06E-02	13.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:56:47

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978006.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:56:15
Sample ID : G245978006 Sample quantity : 134.50 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.52 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.645E+01	3.249E+00	5.587E-01	3.970E-02	65.234
CD-109	+	88.03	*	3.008E+00	1.249E+00	1.862E+00	2.238E-01	1.615
SN-126	+	64.28		7.733E+00	1.864E+00	1.238E+00	2.132E-01	6.248
	+	86.94		1.224E+00	7.095E-01	7.501E-01	3.164E-01	1.632
	+	87.57	*	2.944E-01	1.223E-01	1.746E-01	2.094E-02	1.686
BA-137M	+	661.65	*	4.531E-02	5.446E-02	6.178E-02	3.013E-03	0.733
CS-137	+	661.65	*	4.790E-02	5.756E-02	6.531E-02	3.204E-03	0.733
LU-177	+	112.95		5.952E+00	4.246E+00	3.918E+00	3.033E-01	1.519
	+	208.36	*	3.834E+00	2.184E+00	2.381E+00	1.562E-01	1.610
TL-208		277.35		3.565E-01	3.576E-01	6.281E-01	6.940E-02	0.568
	+	510.84		7.467E-01	3.311E-01	2.142E-01	2.150E-02	3.486
	+	583.14	*	5.140E-01	8.337E-02	5.909E-02	3.718E-03	8.699
	+	860.37		7.559E-01	4.449E-01	4.510E-01	3.762E-02	1.676
BI-211		72.87		2.879E+00	4.481E+00	6.920E+00	7.934E-01	0.416
	+	351.07	*	3.382E+00	5.151E-01	3.221E-01	2.176E-02	10.500
PB-212	+	74.81		1.671E+00	5.607E-01	7.211E-01	1.066E-01	2.317
	+	77.11		1.827E+00	4.174E-01	3.980E-01	4.566E-02	4.590
	+	87.30		1.362E+00	5.816E-01	8.077E-01	1.260E-01	1.686
	+	238.63	*	1.681E+00	1.747E-01	8.067E-02	6.478E-03	20.839
	+	300.09		2.039E+00	1.178E+00	1.190E+00	1.048E-01	1.714
PO-212	+	74.81		1.671E+00	5.607E-01	7.211E-01	1.066E-01	2.317
	+	77.11		1.827E+00	4.174E-01	3.980E-01	4.566E-02	4.590
	+	87.30		1.362E+00	5.816E-01	8.077E-01	1.260E-01	1.686
		115.19		6.479E+00	4.060E+00	6.434E+00	4.842E-01	1.007
	+	238.63	*	1.681E+00	1.747E-01	8.067E-02	6.478E-03	20.839
	+	300.09		2.039E+00	1.178E+00	1.190E+00	1.048E-01	1.714
BI-214	+	609.31	*	1.106E+00	1.835E-01	1.065E-01	7.824E-03	10.392
	+	1120.29		1.561E+00	7.065E-01	4.856E-01	4.524E-02	3.214
	+	1764.49		1.417E+00	3.798E-01	2.326E-01	1.418E-02	6.091
PB-214	+	74.81		2.879E+00	9.521E-01	1.242E+00	1.695E-01	2.317
	+	77.11		3.132E+00	7.543E-01	6.823E-01	9.397E-02	4.590
	+	87.30		2.332E+00	9.852E-01	1.384E+00	1.970E-01	1.686
	+	241.98		2.683E+00	8.149E-01	4.859E-01	4.234E-02	5.522
	+	295.21		1.352E+00	2.423E-01	2.084E-01	1.892E-02	6.487

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.177E+00	1.894E-01	1.123E-01	9.578E-03	10.478
PO-214	+	74.81		2.879E+00	9.521E-01	1.242E+00	1.695E-01	2.317
	+	77.11		3.132E+00	7.543E-01	6.823E-01	9.397E-02	4.590
	+	87.30		2.332E+00	9.852E-01	1.384E+00	1.970E-01	1.686
	+	241.98		2.683E+00	8.149E-01	4.859E-01	4.234E-02	5.522
	+	295.21		1.352E+00	2.423E-01	2.084E-01	1.892E-02	6.487
	+	351.92	*	1.177E+00	1.894E-01	1.123E-01	9.578E-03	10.478
PO-216	+	74.81		1.671E+00	5.607E-01	7.211E-01	1.066E-01	2.317
	+	77.11		1.827E+00	4.174E-01	3.980E-01	4.566E-02	4.590
	+	87.30		1.362E+00	5.816E-01	8.077E-01	1.260E-01	1.686
	+	238.63	*	1.681E+00	1.747E-01	8.067E-02	6.478E-03	20.839
	+	300.09		2.039E+00	1.178E+00	1.190E+00	1.048E-01	1.714
PO-218	+	74.81		2.879E+00	9.521E-01	1.242E+00	1.695E-01	2.317
	+	77.11		3.132E+00	7.543E-01	6.823E-01	9.397E-02	4.590
	+	87.30		2.332E+00	9.852E-01	1.384E+00	1.970E-01	1.686
	+	241.98		2.683E+00	8.149E-01	4.859E-01	4.234E-02	5.522
	+	295.21		1.352E+00	2.423E-01	2.084E-01	1.892E-02	6.487
	+	351.92	*	1.177E+00	1.894E-01	1.123E-01	9.578E-03	10.478
RA-224	+	240.98	*	5.088E+00	1.519E+00	9.182E-01	6.122E-02	5.541
RA-226	+	609.31	*	1.106E+00	1.835E-01	1.065E-01	7.824E-03	10.392
	+	1120.29		1.561E+00	7.065E-01	4.856E-01	4.524E-02	3.214
	+	1764.49		1.417E+00	3.798E-01	2.326E-01	1.418E-02	6.091
AC-228	+	338.32		1.468E+00	6.965E-01	3.768E-01	1.539E-01	3.896
	+	911.07	*	1.757E+00	3.688E-01	2.142E-01	2.335E-02	8.205
	+	969.11		1.569E+00	5.371E-01	3.980E-01	9.179E-02	3.942
RA-228	+	338.32		1.468E+00	6.965E-01	3.768E-01	1.539E-01	3.896
	+	911.07	*	1.757E+00	3.688E-01	2.142E-01	2.335E-02	8.205
	+	969.11		1.569E+00	5.371E-01	3.980E-01	9.179E-02	3.942
TH-228	+	74.81		1.701E+00	5.486E-01	7.341E-01	8.447E-02	2.317
	+	77.11		1.860E+00	4.250E-01	4.052E-01	4.649E-02	4.590
	+	87.30		1.386E+00	5.757E-01	8.223E-01	9.844E-02	1.686
	+	238.63	*	1.711E+00	1.779E-01	8.212E-02	6.595E-03	20.839
	+	300.09		2.076E+00	1.705E+00	1.211E+00	7.149E-01	1.714
TH-230	+	609.31	*	1.106E+00	1.835E-01	1.065E-01	7.823E-03	10.392
	+	1120.29		1.561E+00	7.064E-01	4.856E-01	4.524E-02	3.214
	+	1764.49		1.417E+00	3.798E-01	2.326E-01	1.418E-02	6.091
TH-232	+	338.32		1.468E+00	3.663E-01	3.768E-01	2.369E-02	3.896
	+	911.07	*	1.757E+00	3.688E-01	2.142E-01	2.335E-02	8.205
	+	969.11		1.569E+00	5.371E-01	3.980E-01	9.179E-02	3.942
PA-234M	+	766.42		4.922E+01	3.389E+01	1.802E+01	9.082E+00	2.731
	+	1001.03	*	2.567E+01	8.650E+00	7.343E+00	6.694E-01	3.496
TH-234	+	63.29	*	1.954E+01	5.072E+00	3.165E+00	6.262E-01	6.172
	+	92.38		1.610E+01	3.419E+00	1.029E+00	1.980E-01	15.655
U-234	+	609.31	*	1.106E+00	1.835E-01	1.065E-01	7.823E-03	10.392
	+	1120.29		1.561E+00	7.064E-01	4.856E-01	4.524E-02	3.214
	+	1764.49		1.417E+00	3.798E-01	2.326E-01	1.418E-02	6.091
U-235		89.95		-9.277E-01	2.047E+00	2.342E+00	7.440E-01	-0.396
	+	93.35		1.936E+01	5.838E+00	1.222E+00	3.508E-01	15.842
		105.00		2.190E+00	1.314E+00	2.017E+00	6.021E-01	1.086

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	143.76	*	3.636E-01	2.752E-01	3.546E-01	5.878E-02	1.025
		163.35		-9.845E-02	4.780E-01	7.665E-01	1.393E-01	-0.128
	+	185.71		4.443E-01	9.330E-02	7.018E-02	4.525E-03	6.331
		205.31		9.307E-02	5.917E-01	8.494E-01	1.549E-01	0.110
NP-237	+	86.50	*	8.645E-01	4.009E-01	5.035E-01	1.200E-01	1.717
		95.87		-1.593E+00	1.332E+00	1.788E+00	4.506E-01	-0.891
U-238	+	63.29	*	1.954E+01	5.072E+00	3.165E+00	6.262E-01	6.172
	+	92.38		1.610E+01	2.268E+00	1.029E+00	1.117E-01	15.655
AM-243	+	74.67	*	2.709E-01	8.730E-02	1.175E-01	1.345E-02	2.306
	+	86.72		3.242E+01	1.346E+01	1.872E+01	2.232E+00	1.732
		117.66		-1.331E+00	4.267E+00	6.175E+00	4.508E-01	-0.216
	+	142.18		3.054E+01	2.265E+01	2.882E+01	1.885E+00	1.060
ANH-511	+	511.00	*	1.613E-01	7.024E-02	4.628E-02	2.588E-03	3.485

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	5.157E-02	3.411E-01	5.621E-01	3.724E-02	0.092
NA-22		1274.54	*	-1.545E-02	4.725E-02	7.662E-02	5.010E-03	-0.202
NA-24		1368.53	*	7.231E+00	4.725E-02	Half-Life too short		
AL-26		1129.67		-1.873E+00	2.269E+00	2.793E+00	1.801E-01	-0.671
		1808.65	*	1.188E-02	2.735E-02	4.859E-02	2.882E-03	0.245
TI-44		67.85		-5.605E-03	6.086E-02	1.023E-01	1.189E-02	-0.055
	+	78.38	*	3.371E-01	7.704E-02	8.488E-02	9.761E-03	3.972
SC-46		889.25	*	3.623E-04	4.111E-02	6.776E-02	5.480E-03	0.005
	+	1120.51		2.737E-01	1.225E-01	1.350E-01	8.843E-03	2.027
V-48		944.10		-3.790E-01	1.118E+00	1.776E+00	1.420E-01	-0.213
		983.50	*	9.923E-02	9.054E-02	1.614E-01	1.250E-02	0.615
		1312.09		-8.490E-02	1.042E-01	1.595E-01	1.075E-02	-0.532
CR-51		320.08	*	2.297E-01	3.901E-01	6.730E-01	4.739E-02	0.341
MN-52		744.21		4.958E-01	3.414E-01	6.309E-01	3.745E-02	0.786
		848.13		2.238E+00	1.078E+01	1.810E+01	1.347E+00	0.124
		935.52		2.758E-01	3.973E-01	6.890E-01	5.541E-02	0.400
		1246.25		-1.210E+01	1.148E+01	1.747E+01	1.112E+00	-0.693
		1333.61		2.455E-02	7.339E+00	1.224E+01	8.388E-01	0.002
		1434.06	*	3.985E-02	3.297E-01	5.629E-01	3.842E-02	0.071
MN-54		834.83	*	2.027E-02	3.829E-02	6.602E-02	4.777E-03	0.307
CO-56		846.75	*	4.271E-02	4.313E-02	7.681E-02	5.699E-03	0.556
		977.42		-4.352E+00	3.282E+00	4.623E+00	3.600E-01	-0.941
		1037.82		2.771E-01	3.210E-01	5.658E-01	4.454E-02	0.490
		1175.09		-2.752E+00	2.771E+00	4.048E+00	2.412E-01	-0.680
		1238.25		1.232E-01	1.128E-01	2.016E-01	1.342E-02	0.611
		1360.21		-1.036E-01	1.002E+00	1.646E+00	1.128E-01	-0.063
		1771.40		-6.072E-01	2.925E-01	2.728E-01	1.656E-02	-2.226
CO-57		122.06	*	5.078E-03	2.684E-02	4.444E-02	3.085E-03	0.114
		136.48		9.188E-02	2.123E-01	3.530E-01	2.626E-02	0.260
CO-58		810.76	*	1.218E-02	3.865E-02	6.589E-02	4.549E-03	0.185
FE-59	+	142.65		4.905E+00	3.637E+00	5.099E+00	3.333E-01	0.962

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		192.34		-1.737E-01	1.003E+00	1.516E+00	1.843E-01	-0.115
		1099.22	*	-4.223E-02	1.158E-01	1.817E-01	1.389E-02	-0.232
		1291.56		3.511E-02	1.320E-01	2.264E-01	1.830E-02	0.155
CO-60		1173.22		-1.650E-02	5.391E-02	8.441E-02	5.020E-03	-0.195
		1332.49	*	5.988E-04	3.949E-02	6.596E-02	4.520E-03	0.009
ZN-65		1115.52	*	-3.557E-02	1.107E-01	1.474E-01	9.751E-03	-0.241
GE-68		1077.35	*	4.677E-01	1.393E+00	2.329E+00	1.627E-01	0.201
AS-73		53.44	*	-3.985E-01	1.731E+00	2.896E+00	3.789E-01	-0.138
AS-74		595.88	*	2.910E-02	1.009E-01	1.658E-01	8.754E-03	0.175
		634.78		-3.615E-01	4.150E-01	6.099E-01	3.085E-02	-0.593
SE-75		66.05		4.357E+00	7.425E+00	1.153E+01	1.513E+00	0.378
		96.73		-1.426E+00	1.076E+00	1.478E+00	2.143E-01	-0.965
		121.11		1.556E-01	1.420E-01	2.423E-01	2.431E-02	0.642
		136.00		1.931E-02	4.013E-02	6.686E-02	4.481E-03	0.289
		198.60		1.256E+00	1.854E+00	3.035E+00	2.343E-01	0.414
		264.65	*	2.079E-02	4.510E-02	7.290E-02	4.904E-03	0.285
		279.53		-6.846E-02	1.094E-01	1.788E-01	1.263E-02	-0.383
		303.91		-5.200E-01	2.335E+00	3.397E+00	3.401E-01	-0.153
		400.65		-4.091E-02	2.608E-01	4.182E-01	3.765E-02	-0.098
BR-77	+	87.88		1.499E+03	6.226E+02	9.334E+02	1.122E+02	1.606
		200.40		-2.884E+02	3.910E+02	6.034E+02	3.937E+01	-0.478
	+	239.00		6.253E+02	5.864E+01	8.797E+01	5.862E+00	7.109
		249.79		5.302E+01	1.412E+02	2.440E+02	1.629E+01	0.217
		281.68		6.508E+01	2.062E+02	3.529E+02	2.344E+01	0.184
		297.23		4.590E+02	1.378E+02	2.568E+02	1.690E+01	1.787
		303.76		-1.604E+02	4.542E+02	6.544E+02	4.284E+01	-0.245
		439.47		1.453E+02	3.470E+02	5.843E+02	3.314E+01	0.249
		484.57		1.009E+02	5.538E+02	9.135E+02	5.154E+01	0.111
		520.65	*	9.097E+00	2.323E+01	3.882E+01	2.162E+00	0.234
		574.64		-3.374E+02	4.686E+02	7.058E+02	3.797E+01	-0.478
		578.91		9.750E+01	2.132E+02	3.151E+02	1.689E+01	0.309
		585.48		2.260E+03	5.842E+02	1.038E+03	5.533E+01	2.178
		755.35		4.076E+02	4.018E+02	7.192E+02	4.378E+01	0.567
		817.79		-1.183E+00	2.920E+02	4.838E+02	3.377E+01	-0.002
SR-82		698.33		-1.586E+01	3.798E+01	6.176E+01	3.293E+00	-0.257
		776.49	*	-1.296E-01	4.741E-01	6.624E-01	4.227E-02	-0.196
		1395.20		1.409E+01	1.303E+01	2.422E+01	1.658E+00	0.582
RB-83		520.41	*	8.905E-03	6.865E-02	1.124E-01	6.260E-03	0.079
		529.64		3.294E-03	1.086E-01	1.762E-01	9.766E-03	0.019
		552.65		-6.123E-02	2.096E-01	3.302E-01	1.806E-02	-0.185
RB-84		881.50	*	8.387E-02	7.788E-02	1.398E-01	1.113E-02	0.600
KR-85		513.99	*	1.002E+01	7.542E+00	1.208E+01	6.750E-01	0.829
SR-85		513.99	*	5.294E-02	3.986E-02	6.387E-02	3.567E-03	0.829
RB-86		1076.63	*	4.217E-01	9.407E-01	1.591E+00	1.112E-01	0.265
Y-88		898.02		-3.297E-02	4.454E-02	6.810E-02	5.635E-03	-0.484
		1836.01	*	-1.216E-02	3.033E-02	4.431E-02	2.586E-03	-0.274
ZR-88		392.90	*	2.111E-02	2.943E-02	5.086E-02	2.862E-03	0.415
Y-91		1204.90	*	-7.267E+00	2.345E+01	3.665E+01	2.246E+00	-0.198
NB-94		702.63	*	2.695E-02	3.398E-02	6.009E-02	3.237E-03	0.448

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		871.10		-1.160E-02	3.610E-02	5.781E-02	4.508E-03	-0.201
NB-95		765.79	*	1.205E-01	5.388E-02	9.358E-02	5.832E-03	1.288
NB-95M		235.69	*	1.668E-01	1.416E-01	2.139E-01	1.755E-02	0.780
ZR-95		724.18		5.334E-02	9.778E-02	1.512E-01	1.020E-02	0.353
		756.15	*	7.323E-02	7.585E-02	1.353E-01	9.854E-03	0.541
NB-97		657.90	*	6.253E-01	7.585E-02	Half-Life too short		
		1024.50		-8.145E+01	7.585E-02	Half-Life too short		
ZR-97		254.15		-6.494E+01	7.585E-02	Half-Life too short		
		355.39		5.069E+00	7.585E-02	Half-Life too short		
		507.63	*	4.613E+01	7.585E-02	Half-Life too short		
		602.52		-3.193E+00	7.585E-02	Half-Life too short		
		1021.30		-8.103E+01	7.585E-02	Half-Life too short		
		1147.95		-5.076E+01	7.585E-02	Half-Life too short		
		1362.66		-2.262E-01	7.585E-02	Half-Life too short		
		1750.46		-3.334E+00	7.585E-02	Half-Life too short		
MO-99		140.51		5.649E+01	6.209E+01	9.189E+01	2.492E+01	0.615
		181.06		5.291E+00	4.121E+01	5.953E+01	1.033E+01	0.089
		366.43		-7.093E+01	1.825E+02	2.960E+02	1.769E+01	-0.240
		739.58	*	-1.455E+01	2.408E+01	3.806E+01	5.257E+00	-0.382
		778.00		9.337E+00	7.654E+01	1.216E+02	7.788E+00	0.077
TC-99M		140.51	*	1.138E+14	7.654E+01	Half-Life too short		
RH-101		127.23		-5.743E-03	3.686E-02	5.361E-02	3.641E-03	-0.107
		198.01	*	3.981E-02	3.331E-02	5.572E-02	3.629E-03	0.714
		325.23		-1.259E-02	2.428E-01	3.561E-01	2.279E-02	-0.035
RH-102		418.52		-7.978E-02	2.752E-01	4.436E-01	2.512E-02	-0.180
		475.06	*	-1.561E-04	2.948E-02	4.807E-02	2.718E-03	-0.003
		631.29		3.409E-02	5.720E-02	9.587E-02	4.871E-03	0.356
		697.49		-4.497E-02	7.970E-02	1.282E-01	6.820E-03	-0.351
	+	766.84		4.688E-01	2.219E-01	2.403E-01	1.501E-02	1.951
		1046.59		-3.183E-02	1.180E-01	1.864E-01	1.354E-02	-0.171
		1112.84		-8.156E-02	2.703E-01	3.805E-01	2.523E-02	-0.214
RU-103		497.08	*	1.014E-02	4.335E-02	7.167E-02	9.004E-03	0.141
	+	610.33		1.257E+01	2.673E+00	3.067E+00	4.662E-01	4.099
RH-106	+	511.85		8.100E-01	3.528E-01	4.242E-01	2.372E-02	1.910
		621.84	*	2.897E-02	3.132E-01	5.050E-01	5.769E-02	0.057
		1050.47		2.203E+00	2.492E+00	4.375E+00	3.163E-01	0.504
RU-106	+	511.85		8.100E-01	3.528E-01	4.242E-01	2.372E-02	1.910
		621.84	*	2.897E-02	3.132E-01	5.050E-01	2.594E-02	0.057
		1050.47		2.203E+00	2.492E+00	4.375E+00	3.163E-01	0.504
AG-108M		433.93	*	5.107E-03	3.146E-02	5.223E-02	3.227E-03	0.098
		614.37		1.765E-02	4.339E-02	6.338E-02	3.629E-03	0.278
		722.95		-4.853E-03	4.154E-02	5.955E-02	3.665E-03	-0.081
AG-110M		657.75	*	1.117E-02	3.937E-02	5.951E-02	3.179E-03	0.188
		677.61		1.435E-01	2.901E-01	5.062E-01	2.771E-02	0.284
		706.67		1.230E-01	2.187E-01	3.807E-01	2.211E-02	0.323
		763.93		2.238E-01	1.759E-01	2.905E-01	1.900E-02	0.770
		884.67		-1.413E-02	5.224E-02	8.390E-02	6.974E-03	-0.168
		937.48		-1.260E-01	1.243E-01	1.842E-01	1.541E-02	-0.684
		1384.27		1.816E-01	1.616E-01	2.818E-01	2.016E-02	0.644

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
IN-111		171.28		-6.433E-01	1.981E+00	3.150E+00	2.008E-01	-0.204
		245.39	*	-2.545E-02	2.159E+00	3.028E+00	2.021E-01	-0.008
IN-113M		391.69	*	1.188E-02	4.302E-02	7.235E-02	4.359E-03	0.164
SN-113		391.69	*	1.188E-02	4.302E-02	7.235E-02	4.359E-03	0.164
IN-114M		190.27	*	6.743E-02	1.978E-01	2.891E-01	1.871E-02	0.233
CD-115		260.90		-1.973E-04	1.978E-01	Half-Life too short		
		492.35		4.469E-05	1.978E-01	Half-Life too short		
		527.90	*	1.730E-05	1.978E-01	Half-Life too short		
SN-117M		156.02		-4.412E-01	2.615E+00	4.213E+00	2.703E-01	-0.105
		158.56	*	-4.877E-04	6.288E-02	1.020E-01	6.521E-03	-0.005
SB-122		563.90	*	2.053E+00	4.090E+00	6.862E+00	3.723E-01	0.299
		692.80		5.286E+01	9.165E+01	1.601E+02	8.422E+00	0.330
I-123		159.00	*	-4.548E+00	9.165E+01	Half-Life too short		
		528.96		2.025E+03	9.165E+01	Half-Life too short		
TE-123M		159.00	*	-5.941E-04	2.879E-02	4.664E-02	3.015E-03	-0.013
I-124		602.71	*	-2.902E-02	1.218E+00	1.698E+00	8.907E-02	-0.017
		722.78		-9.008E-01	6.989E+00	1.000E+01	5.651E-01	-0.090
		1325.50		1.510E+01	6.082E+01	1.041E+02	7.090E+00	0.145
		1376.25		1.028E+02	5.949E+01	1.065E+02	7.300E+00	0.965
	+	1509.49		4.524E+01	2.614E+01	4.999E+01	3.371E+00	0.905
		1691.02		-1.989E-01	6.056E+00	9.831E+00	6.231E-01	-0.020
SB-124		602.71		-1.081E-03	4.540E-02	6.329E-02	3.321E-03	-0.017
		645.85		9.129E-02	4.777E-01	8.175E-01	4.770E-02	0.112
		709.31		-1.707E-01	3.141E+00	5.155E+00	2.821E-01	-0.033
		713.82		-2.580E-02	1.690E+00	2.827E+00	2.844E-01	-0.009
		722.78		-4.866E-02	3.775E-01	5.404E-01	3.204E-02	-0.090
	+	968.20		1.670E+01	4.422E+00	7.648E+00	6.002E-01	2.183
		1045.16		-2.161E+00	2.719E+00	4.053E+00	2.948E-01	-0.533
		1325.50		8.713E-01	3.509E+00	6.004E+00	4.091E-01	0.145
		1368.21		4.118E-01	1.860E+00	3.177E+00	3.946E-01	0.130
		1436.60		-8.749E-01	3.846E+00	6.256E+00	4.268E-01	-0.140
		1691.02	*	-2.535E-03	7.716E-02	1.253E-01	8.512E-03	-0.020
SB-125		427.89	*	5.413E-02	8.804E-02	1.507E-01	8.918E-03	0.359
	+	463.38		4.896E-01	3.935E-01	5.264E-01	3.499E-02	0.930
		600.56		6.795E-02	1.753E-01	2.899E-01	1.810E-02	0.234
		635.90		-8.223E-02	2.736E-01	4.248E-01	2.619E-02	-0.194
TE-125M		109.28	*	1.014E+01	1.149E+01	1.767E+01	1.755E+00	0.574
I-126		388.63		6.074E-02	2.284E-01	3.840E-01	2.178E-02	0.158
		666.33	*	-5.451E-02	2.544E-01	3.649E-01	1.800E-02	-0.149
		753.82		8.888E-01	1.834E+00	3.166E+00	1.921E-01	0.281
SB-126		223.80		6.621E-01	4.897E+00	7.841E+00	5.194E-01	0.084
		278.60		2.237E+00	2.780E+00	4.862E+00	3.233E-01	0.460
	+	296.50		1.581E+01	2.655E+00	4.175E+00	2.749E-01	3.786
		414.70		-6.149E-03	8.650E-02	1.417E-01	8.020E-03	-0.043
		415.30		1.907E-01	7.104E+00	1.171E+01	6.630E-01	0.016
		555.20		3.294E+00	4.727E+00	8.036E+00	4.386E-01	0.410
		573.80		-1.563E+00	1.225E+00	1.749E+00	9.418E-02	-0.893
		593.00		-1.039E+00	1.119E+00	1.650E+00	8.735E-02	-0.629
		656.30		1.241E+00	4.002E+00	6.334E+00	3.113E-01	0.196

---- Non-Identified Nuclides ----

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		666.33		-2.293E-02	1.070E-01	1.535E-01	7.572E-03	-0.149
		675.00		-5.367E-01	2.250E+00	3.711E+00	1.870E-01	-0.145
		695.00		5.034E-02	9.360E-02	1.629E-01	8.615E-03	0.309
		697.00		-3.820E-02	3.091E-01	5.135E-01	2.730E-02	-0.074
		720.50	*	-3.481E-02	1.699E-01	2.529E-01	1.421E-02	-0.138
		856.80		-6.095E-01	6.484E-01	8.089E-01	6.127E-02	-0.753
		989.30		-2.507E-01	1.596E+00	2.566E+00	1.978E-01	-0.098
		1034.80		-2.167E+00	1.068E+01	1.701E+01	1.252E+00	-0.127
		1213.00		-1.613E+00	6.908E+00	1.087E+01	6.715E-01	-0.148
SB-127		61.10		1.401E+02	1.668E+02	2.616E+02	3.855E+01	0.536
		252.40		-5.377E-01	6.778E+00	1.145E+01	4.802E+00	-0.047
		290.80		-9.265E+00	3.779E+01	5.507E+01	5.901E+00	-0.168
		411.60		6.303E+00	2.100E+01	3.518E+01	5.287E+00	0.179
		444.90		-1.229E+01	1.620E+01	2.498E+01	2.911E+00	-0.492
		473.00		-3.137E-01	2.787E+00	4.509E+00	5.412E-01	-0.070
		543.00		1.439E+01	2.618E+01	4.412E+01	5.987E+00	0.326
		603.60		7.198E+00	2.151E+01	3.119E+01	3.563E+00	0.231
		685.20	*	1.119E+00	2.241E+00	3.900E+00	3.956E-01	0.287
		698.50		-1.390E+01	2.663E+01	4.285E+01	6.431E+00	-0.324
		722.20		6.302E+00	4.912E+01	7.262E+01	7.369E+00	0.087
		783.80		3.404E+00	6.961E+00	1.195E+01	1.428E+00	0.285
XE-127		57.60		-4.549E+00	1.145E+01	1.912E+01	2.393E+00	-0.238
		145.22		8.219E-01	8.498E-01	1.296E+00	8.434E-02	0.634
		172.10		-1.274E-01	1.262E-01	1.938E-01	1.236E-02	-0.657
		202.84	*	9.869E-03	5.149E-02	8.309E-02	5.431E-03	0.119
		374.96		1.283E-03	2.114E-01	3.505E-01	2.056E-02	0.004
I-131		80.18		-1.489E+00	7.606E+00	1.133E+01	1.316E+00	-0.131
		284.30		8.825E-01	1.879E+00	3.238E+00	2.342E-01	0.273
		364.48	*	1.360E-01	1.455E-01	2.544E-01	1.701E-02	0.534
		636.97		4.472E-01	1.945E+00	3.170E+00	1.859E-01	0.141
		722.89		-1.134E+00	8.961E+00	1.283E+01	7.401E-01	-0.088
TE-132		49.72		-3.182E+01	8.483E+01	1.423E+02	2.079E+01	-0.224
	+	111.76		1.482E+02	1.064E+02	1.133E+02	1.259E+01	1.308
		116.30		1.585E+01	5.797E+01	8.666E+01	9.363E+00	0.183
		228.16	*	-3.777E-02	1.322E+00	2.097E+00	3.214E-01	-0.018
BA-133		53.15		-2.161E+00	7.498E+00	1.252E+01	1.639E+00	-0.173
		79.62		1.967E-02	1.665E+00	2.506E+00	4.271E-01	0.008
		81.00		-1.655E-01	1.354E-01	1.882E-01	3.325E-02	-0.879
		276.40		2.480E-01	3.629E-01	6.116E-01	8.176E-02	0.405
		302.84		-6.298E-02	1.568E-01	2.249E-01	2.710E-02	-0.280
		356.01	*	-7.102E-03	4.778E-02	6.897E-02	8.080E-03	-0.103
		383.85		-1.530E-01	2.925E-01	4.670E-01	5.063E-02	-0.328
I-133	+	510.53		1.643E+01	2.925E-01	Half-Life too short		
		529.87	*	7.481E-03	2.925E-01	Half-Life too short		
		706.58		2.503E+00	2.925E-01	Half-Life too short		
		856.28		-4.542E+00	2.925E-01	Half-Life too short		
		875.33		1.097E-01	2.925E-01	Half-Life too short		
		1236.41		4.126E+00	2.925E-01	Half-Life too short		
		1298.22		-1.704E+00	2.925E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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CS-134		475.35		9.915E-02	1.907E+00	3.122E+00	1.765E-01	0.032
		563.23		3.790E-01	3.388E-01	5.950E-01	3.306E-02	0.637
		569.32		1.802E-01	2.017E-01	3.434E-01	1.919E-02	0.525
		604.70		1.141E-02	3.738E-02	5.404E-02	2.848E-03	0.211
	+	795.84	*	1.670E-01	9.734E-02	9.997E-02	6.738E-03	1.670
		801.93		2.533E-02	4.533E-01	6.576E-01	4.478E-02	0.039
		1038.57		3.215E+00	4.015E+00	7.028E+00	5.151E-01	0.457
		1167.94		1.812E+00	2.759E+00	4.709E+00	2.830E-01	0.385
		1365.15		9.916E-02	1.301E+00	2.184E+00	1.603E-01	0.045
CS-135		268.24	*	9.217E-02	1.693E-01	2.615E-01	2.180E-02	0.352
I-135		288.45		2.431E+12	1.693E-01	Half-Life too short		
		417.63		-1.574E+11	1.693E-01	Half-Life too short		
		546.56		2.291E+12	1.693E-01	Half-Life too short		
		836.80		-6.808E+12	1.693E-01	Half-Life too short		
		1038.76		1.233E+13	1.693E-01	Half-Life too short		
		1124.00		5.595E+13	1.693E-01	Half-Life too short		
		1131.51		-7.625E+11	1.693E-01	Half-Life too short		
		1260.41	*	-2.599E+12	1.693E-01	Half-Life too short		
		1457.56		7.105E+14	1.693E-01	Half-Life too short		
		1678.03		1.212E+12	1.693E-01	Half-Life too short		
		1706.46		-1.088E+13	1.693E-01	Half-Life too short		
		1791.20		1.349E+12	1.693E-01	Half-Life too short		
CS-136		66.91		7.903E-01	1.344E+00	2.081E+00	3.606E-01	0.380
	+	86.29		4.471E+00	1.905E+00	2.793E+00	4.257E-01	1.601
		153.22		5.292E-01	7.641E-01	1.276E+00	9.881E-02	0.415
		163.89		-2.065E-02	1.265E+00	2.046E+00	1.578E-01	-0.010
		176.55		7.050E-02	4.469E-01	7.256E-01	5.123E-02	0.097
		273.65		-4.907E-01	5.609E-01	7.842E-01	5.791E-02	-0.626
		340.57		1.919E-01	1.601E-01	2.546E-01	1.683E-02	0.754
		818.51		-4.057E-02	8.166E-02	1.288E-01	9.020E-03	-0.315
		1048.07	*	-1.747E-02	1.345E-01	2.158E-01	1.658E-02	-0.081
		1235.34		3.095E-01	8.211E-01	1.410E+00	1.451E-01	0.219
CE-139		165.85	*	3.948E-04	3.055E-02	4.945E-02	3.142E-03	0.008
BA-140		162.64		8.734E-03	8.912E-01	1.444E+00	1.016E-01	0.006
		304.84		3.353E-01	1.630E+00	2.444E+00	6.710E-01	0.137
		423.70		-3.622E-01	2.119E+00	3.436E+00	1.091E+00	-0.105
		537.32	*	5.279E-02	3.107E-01	5.082E-01	1.650E-01	0.104
LA-140	+	328.77		5.787E-01	4.749E-01	6.382E-01	4.475E-02	0.907
		432.53		-5.300E-01	2.385E+00	3.856E+00	2.425E-01	-0.137
		487.03		8.555E-02	1.607E-01	2.717E-01	1.745E-02	0.315
		751.79		-2.793E-01	2.033E+00	3.353E+00	2.446E-01	-0.083
		815.85		-4.319E-02	3.579E-01	5.865E-01	4.781E-02	-0.074
		867.82		-8.663E-02	1.797E+00	2.782E+00	2.296E-01	-0.031
		919.63		2.491E+00	3.803E+00	5.867E+00	6.014E-01	0.425
		925.24		-3.764E-01	1.380E+00	2.205E+00	1.912E-01	-0.171
		1596.49	*	-1.477E-02	1.027E-01	1.650E-01	1.086E-02	-0.090
CE-141		145.44	*	5.754E-02	7.697E-02	1.162E-01	7.803E-03	0.495
CE-143		57.37		-3.086E-05	7.697E-02	Half-Life too short		
		231.56		-6.360E-03	7.697E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		293.26	*	1.989E-03	7.697E-02	Half-Life too short		
	+	350.59		1.145E-01	7.697E-02	Half-Life too short		
		490.36		-7.596E-03	7.697E-02	Half-Life too short		
		664.57		2.135E-03	7.697E-02	Half-Life too short		
		721.93		-1.285E-03	7.697E-02	Half-Life too short		
CE-144		80.11		-5.658E-01	2.752E+00	4.099E+00	4.736E-01	-0.138
		133.54	*	-8.786E-02	2.262E-01	3.229E-01	4.706E-02	-0.272
PM-144		476.78		7.397E-03	7.003E-02	1.150E-01	7.847E-03	0.064
		618.01		-6.104E-03	3.270E-02	5.139E-02	2.852E-03	-0.119
		696.49	*	-4.391E-03	3.571E-02	5.936E-02	3.155E-03	-0.074
		778.57		-1.549E-01	2.406E+00	3.876E+00	2.487E-01	-0.040
PR-144		696.49	*	-2.980E-01	2.423E+00	4.029E+00	2.139E-01	-0.074
		1489.15		-8.831E-01	9.406E+00	1.526E+01	1.033E+00	-0.058
PM-146		453.90	*	2.208E-02	4.214E-02	7.146E-02	6.099E-03	0.309
		633.02		-7.382E-01	1.495E+00	2.245E+00	8.244E-01	-0.329
		735.90		1.016E-02	1.454E-01	2.381E-01	6.640E-02	0.043
		747.13		-8.339E-02	9.440E-02	1.452E-01	1.828E-02	-0.574
ND-147		91.11		4.403E+00	8.580E-01	1.035E+00	1.213E-01	4.255
		319.41		-8.872E-02	3.979E+00	6.652E+00	4.290E-01	-0.013
		439.89		6.196E+00	7.120E+00	1.233E+01	6.996E-01	0.503
		531.02	*	-3.642E-01	6.903E-01	1.067E+00	1.432E-01	-0.341
PM-149		285.90	*	-1.224E-04	6.903E-01	Half-Life too short		
EU-152		121.78		1.891E-02	7.754E-02	1.286E-01	1.096E-02	0.147
		244.69		-4.397E-02	3.319E-01	4.609E-01	3.075E-02	-0.095
		344.27	*	-9.088E-02	9.415E-02	1.475E-01	1.021E-02	-0.616
		443.98		-7.076E-01	9.507E-01	1.473E+00	8.358E-02	-0.480
		778.89		-4.360E-02	2.697E-01	4.427E-01	2.841E-02	-0.098
		867.32		-8.573E-03	9.594E-01	1.436E+00	1.111E-01	-0.006
	+	964.01		5.511E-01	3.034E-01	6.033E-01	4.751E-02	0.913
		1085.78		1.079E-01	4.281E-01	7.107E-01	4.906E-02	0.152
		1112.02		-1.774E-01	3.525E-01	5.243E-01	3.482E-02	-0.338
		1407.95		-3.259E-02	2.094E-01	3.409E-01	2.332E-02	-0.096
GD-153		69.67		-2.109E+00	2.220E+00	3.583E+00	4.137E-01	-0.589
		83.37		2.078E+01	2.023E+01	3.136E+01	3.671E+00	0.663
		97.43	*	9.667E-02	1.039E-01	1.604E-01	1.574E-02	0.603
		103.18		-1.896E-01	1.176E-01	1.810E-01	1.611E-02	-1.048
EU-154		123.07		-3.207E-02	5.461E-02	8.748E-02	8.855E-03	-0.367
		247.94		7.603E-02	3.710E-01	5.647E-01	5.701E-02	0.135
		591.81		-1.299E-01	6.233E-01	9.825E-01	9.320E-02	-0.132
		723.30		3.750E-03	1.713E-01	2.499E-01	1.740E-02	0.015
		756.87		5.972E-01	8.066E-01	1.416E+00	1.461E-01	0.422
		873.19		-5.822E-03	3.121E-01	5.137E-01	6.012E-02	-0.011
		996.32		5.407E-02	4.355E-01	6.249E-01	1.082E-01	0.087
		1004.76		-2.922E-02	2.562E-01	3.552E-01	3.873E-02	-0.082
		1274.45	*	-7.417E-02	1.335E-01	2.115E-01	2.074E-02	-0.351
EU-155		48.70		-3.687E+00	6.058E+00	1.006E+01	1.160E+00	-0.366
		60.01		3.900E+00	8.742E+00	1.358E+01	1.649E+00	0.287
	+	86.54		3.549E-01	1.475E-01	2.240E-01	2.683E-02	1.584
		105.31	*	1.411E-01	1.183E-01	2.031E-01	1.770E-02	0.695

---- Non-Identified Nuclides ----

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TB-160	+	86.79		9.736E-01	4.043E-01	6.190E-01	7.386E-02	1.573
		197.04		-4.484E-01	6.046E-01	9.274E-01	6.035E-02	-0.484
		215.65		-1.830E-01	7.856E-01	1.237E+00	8.160E-02	-0.148
	+	298.57		3.050E-01	1.753E-01	2.113E-01	1.389E-02	1.443
		879.36	*	-7.278E-03	1.571E-01	2.579E-01	2.045E-02	-0.028
		962.29		2.913E-01	6.877E-01	1.020E+00	8.040E-02	0.286
	+	966.15		3.888E-01	2.141E-01	5.045E-01	3.966E-02	0.771
		1177.93		1.311E-01	4.547E-01	7.098E-01	4.240E-02	0.185
		1271.85		1.071E-01	7.977E-01	1.351E+00	8.798E-02	0.079
HO-166M		80.57		-1.644E-01	3.522E-01	5.180E-01	5.994E-02	-0.317
	+	184.41		3.332E-01	6.998E-02	7.694E-02	4.956E-03	4.331
		280.46		-8.133E-02	8.463E-02	1.358E-01	9.025E-03	-0.599
		410.95		3.154E-01	2.516E-01	4.439E-01	2.510E-02	0.710
		711.68	*	-2.769E-02	6.169E-02	9.973E-02	5.489E-03	-0.278
		752.31		-8.635E-02	2.850E-01	4.640E-01	2.805E-02	-0.186
		810.29		1.727E-02	5.602E-02	9.548E-02	6.560E-03	0.181
TM-171		51.35		5.130E+01	6.737E+01	1.174E+02	1.520E+01	0.437
		52.39		-9.102E-01	3.389E+01	5.719E+01	7.481E+00	-0.016
		59.40		-4.918E+00	4.910E+01	7.449E+01	9.083E+00	-0.066
		66.72	*	2.161E+01	4.232E+01	6.553E+01	7.661E+00	0.330
LU-176	+	88.36		6.982E-01	2.900E-01	4.291E-01	5.115E-02	1.627
		201.83		-3.232E-02	3.052E-02	4.632E-02	3.025E-03	-0.698
		306.84	*	5.618E-03	2.490E-02	4.095E-02	2.674E-03	0.137
		401.10		2.334E+00	6.683E+00	1.106E+01	6.242E-01	0.211
LU-177M		52.97		-2.548E+00	3.538E+00	5.793E+00	7.585E-01	-0.440
		54.07		-8.002E-01	1.760E+00	2.917E+00	3.804E-01	-0.274
		61.30		2.666E+00	2.599E+00	4.107E+00	4.955E-01	0.649
		121.62		2.461E-01	3.974E-01	6.686E-01	4.657E-02	0.368
		147.16		-1.839E-01	7.695E-01	1.104E+00	7.163E-02	-0.167
		171.86		-5.018E-01	4.872E-01	7.471E-01	4.764E-02	-0.672
		218.09		6.445E-01	8.808E-01	1.452E+00	9.588E-02	0.444
	+	268.79		1.790E+00	1.210E+00	1.419E+00	9.462E-02	1.262
		319.02		-2.555E-02	2.568E-01	4.276E-01	2.757E-02	-0.060
		367.43		4.079E-01	9.376E-01	1.595E+00	9.510E-02	0.256
		413.65	*	-1.444E-01	1.864E-01	2.917E-01	1.650E-02	-0.495
HF-181		56.28		1.810E+00	1.828E+00	3.185E+00	4.061E-01	0.568
		57.53		-1.690E-01	9.508E-01	1.602E+00	2.007E-01	-0.105
		65.20		6.221E-01	1.549E+00	2.390E+00	2.817E-01	0.260
		133.02		-9.368E-03	7.524E-02	1.093E-01	7.292E-03	-0.086
		136.25		2.242E-01	4.830E-01	8.041E-01	5.324E-02	0.279
		345.85		-2.866E-03	2.149E-01	3.145E-01	1.954E-02	-0.009
		482.03	*	9.973E-04	4.758E-02	7.659E-02	4.324E-03	0.013
W-181		56.28		6.868E-01	6.938E-01	1.209E+00	1.541E-01	0.568
		57.53		-6.386E-02	3.613E-01	6.087E-01	7.628E-02	-0.105
		65.20	*	2.345E-01	5.838E-01	9.009E-01	1.062E-01	0.260
TA-182		67.75		3.517E-03	1.487E-01	2.509E-01	2.919E-02	0.014
		100.10		9.805E-02	1.996E-01	3.365E-01	3.150E-02	0.291
		152.43		-2.262E-01	3.498E-01	5.526E-01	3.560E-02	-0.409
		222.10		-9.610E-02	3.546E-01	5.562E-01	3.681E-02	-0.173

---- Non-Identified Nuclides ----

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	+	1001.68		1.151E+01	3.834E+00	5.767E+00	4.394E-01	1.995
	+	1121.28		7.510E-01	3.362E-01	3.820E-01	2.499E-02	1.966
		1189.05		1.454E-01	3.603E-01	5.998E-01	3.622E-02	0.242
		1221.42	*	-7.205E-02	2.156E-01	3.523E-01	2.193E-02	-0.205
		1230.97		1.856E-02	5.347E-01	8.996E-01	5.648E-02	0.021
RE-183		57.98		-2.026E-01	3.790E-01	5.998E-01	7.468E-02	-0.338
		59.32		-3.125E-02	2.074E-01	3.139E-01	3.832E-02	-0.100
		67.20		1.680E-01	2.857E-01	4.696E-01	5.477E-02	0.358
		162.32	*	3.905E-02	1.139E-01	1.872E-01	1.193E-02	0.209
	+	208.81		2.634E+00	1.500E+00	1.918E+00	1.259E-01	1.373
		291.72		-1.177E-01	1.013E+00	1.490E+00	9.843E-02	-0.079
RE-184		57.98		-7.341E-01	1.373E+00	2.174E+00	2.706E-01	-0.338
		59.32		-1.132E-01	7.511E-01	1.137E+00	1.388E-01	-0.100
		67.20		6.088E-01	1.035E+00	1.701E+00	1.984E-01	0.358
		161.27		-2.515E-02	3.588E-01	5.796E-01	3.697E-02	-0.043
		216.55		4.177E-02	2.736E-01	4.392E-01	2.898E-02	0.095
		252.85	*	-1.416E-01	2.190E-01	3.595E-01	2.401E-02	-0.394
		318.01		-1.214E-01	4.407E-01	7.265E-01	4.690E-02	-0.167
		792.07		3.696E-01	1.221E+00	1.820E+00	1.202E-01	0.203
		903.28		5.239E-01	1.079E+00	1.806E+00	1.482E-01	0.290
		920.93		3.147E-01	5.060E-01	8.342E-01	6.773E-02	0.377
OS-185		59.72		2.587E-01	5.373E-01	8.358E-01	1.017E-01	0.310
		61.14		2.532E-01	2.880E-01	4.533E-01	5.475E-02	0.558
		69.30		-5.644E-01	4.067E-01	6.416E-01	7.418E-02	-0.880
		592.07		-8.671E-01	2.608E+00	4.066E+00	2.155E-01	-0.213
		646.12	*	-4.867E-03	4.066E-02	6.791E-02	3.385E-03	-0.072
		717.42		1.673E-02	8.653E-01	1.450E+00	8.091E-02	0.012
		874.81		2.847E-02	6.195E-01	1.026E+00	8.059E-02	0.028
		880.27		2.320E-01	8.423E-01	1.421E+00	1.129E-01	0.163
RE-188		155.03	*	1.772E-01	1.753E-01	2.962E-01	1.902E-02	0.598
		477.96		7.871E-01	3.180E+00	5.277E+00	2.982E-01	0.149
		633.10		-1.719E+00	3.042E+00	4.616E+00	2.340E-01	-0.372
W-188	+	63.58		8.081E+02	1.665E+02	2.004E+02	2.385E+01	4.033
		227.08		4.257E+00	1.353E+01	2.184E+01	1.449E+00	0.195
		290.67	*	-1.913E+00	8.018E+00	1.169E+01	7.729E-01	-0.164
IR-192	+	295.96		1.059E+00	1.782E-01	2.922E-01	1.948E-02	3.624
		308.46		-2.247E-02	9.265E-02	1.533E-01	1.008E-02	-0.147
		316.51	*	-5.455E-03	3.512E-02	5.832E-02	3.787E-03	-0.094
		468.07		6.000E-03	7.374E-02	1.063E-01	6.982E-03	0.056
		604.41		2.984E-01	5.063E-01	7.537E-01	8.346E-02	0.396
		612.46		5.562E-01	8.674E-01	1.290E+00	9.183E-02	0.431
AU-195		65.12		1.330E-01	2.704E-01	4.187E-01	4.937E-02	0.318
		66.83		7.025E-02	1.406E-01	2.176E-01	2.543E-02	0.323
	+	75.70		8.862E-01	2.856E-01	5.147E-01	5.896E-02	1.722
		98.88	*	6.684E-01	2.698E-01	4.716E-01	4.509E-02	1.417
	+	129.76		1.020E+01	5.007E+00	5.341E+00	3.598E-01	1.909
TL-200		367.94	*	1.189E-03	5.007E+00	Half-Life too short		
		579.30		1.025E-02	5.007E+00	Half-Life too short		
		828.27		-1.076E-02	5.007E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1205.75		-2.078E-03	5.007E+00	Half-Life too short		
TL-201		68.90		-1.832E+01	1.232E+01	1.941E+01	2.247E+00	-0.944
		70.82		2.969E+00	7.528E+00	1.154E+01	1.328E+00	0.257
		80.30		-2.203E+00	1.245E+01	1.856E+01	2.146E+00	-0.119
		135.34		2.257E+01	5.032E+01	8.007E+01	5.313E+00	0.282
		167.43	*	-1.015E+00	1.348E+01	2.173E+01	1.381E+00	-0.047
TL-202		68.90		-1.007E+00	6.768E-01	1.067E+00	1.235E-01	-0.944
		70.82		1.627E-01	4.125E-01	6.322E-01	7.276E-02	0.257
		80.30		-1.208E-01	6.823E-01	1.018E+00	1.176E-01	-0.119
		439.56	*	3.573E-02	8.537E-02	1.437E-01	8.153E-03	0.249
HG-203		70.83		6.345E-01	1.586E+00	2.429E+00	3.789E-01	0.261
		72.87		5.977E-01	9.323E-01	1.437E+00	2.186E-01	0.416
		82.60		1.083E-01	1.461E+00	2.339E+00	3.702E-01	0.046
		279.20	*	2.979E-03	4.159E-02	7.040E-02	4.902E-03	0.042
BI-207		72.80		1.575E-01	2.616E-01	4.035E-01	4.627E-02	0.390
	+	74.97		4.863E-01	1.567E-01	2.637E-01	3.020E-02	1.844
		84.90		2.803E-01	2.524E-01	3.916E-01	4.620E-02	0.716
		569.67		2.011E-02	3.190E-02	5.331E-02	2.879E-03	0.377
		1063.62	*	4.109E-02	6.072E-02	1.043E-01	7.419E-03	0.394
		1770.23		-9.201E-02	3.618E-01	4.463E-01	2.712E-02	-0.206
TL-207		81.07		-3.570E-01	2.945E-01	4.156E-01	4.818E-02	-0.859
		83.78		2.218E-01	1.695E-01	2.643E-01	3.100E-02	0.839
		94.90		5.600E-01	3.066E-01	4.828E-01	4.976E-02	1.160
		122.32		-6.242E-01	1.869E+00	3.031E+00	2.332E-01	-0.206
	+	144.24		1.178E+00	8.752E-01	1.239E+00	9.686E-02	0.951
		154.21		3.805E-01	3.935E-01	6.633E-01	5.002E-02	0.574
	+	269.46		4.140E-01	2.799E-01	3.435E-01	2.370E-02	1.205
		323.87	*	-3.213E-01	7.506E-01	1.067E+00	1.786E-01	-0.301
	+	338.28		6.130E+00	1.622E+00	2.406E+00	2.601E-01	2.548
		445.03		-1.786E+00	2.240E+00	3.445E+00	3.513E-01	-0.518
PO-209		260.50		-5.725E+00	9.490E+00	1.561E+01	1.042E+00	-0.367
		262.80		-2.208E+01	2.542E+01	4.112E+01	2.745E+00	-0.537
		896.60	*	-4.193E+00	7.680E+00	1.197E+01	9.827E-01	-0.350
BI-210		46.50	*	4.080E+00	1.008E+01	1.715E+01	1.495E+00	0.238
PB-210		46.50	*	4.080E+00	1.008E+01	1.715E+01	1.495E+00	0.238
PO-210		46.50	*	4.080E+00	1.007E+01	1.715E+01	1.332E+00	0.238
PB-211		404.84	*	-6.346E-01	1.012E+00	1.469E+00	9.155E-01	-0.432
		427.08		-2.265E-01	2.034E+00	3.308E+00	2.044E+00	-0.068
		831.96		-1.318E-04	1.275E+00	2.110E+00	1.319E+00	0.000
BI-212	+	727.18	*	1.594E+00	5.009E-01	7.169E-01	5.480E-02	2.224
		785.46		2.710E+00	1.982E+00	3.593E+00	2.339E-01	0.754
		1620.62		1.468E+00	1.396E+00	2.615E+00	1.707E-01	0.561
PO-215		81.07		-3.570E-01	2.945E-01	4.156E-01	4.818E-02	-0.859
		83.78		2.218E-01	1.695E-01	2.643E-01	3.100E-02	0.839
		94.90		5.600E-01	3.066E-01	4.828E-01	4.976E-02	1.160
		122.32		-6.242E-01	1.869E+00	3.031E+00	2.332E-01	-0.206
	+	144.24		1.178E+00	8.752E-01	1.239E+00	9.686E-02	0.951
		154.21		3.805E-01	3.935E-01	6.633E-01	5.002E-02	0.574
	+	269.46		4.140E-01	2.799E-01	3.435E-01	2.370E-02	1.205

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-3.213E-01	7.506E-01	1.067E+00	1.786E-01	-0.301
	+	338.28		6.130E+00	1.622E+00	2.406E+00	2.601E-01	2.548
		445.03		-1.786E+00	2.240E+00	3.445E+00	3.513E-01	-0.518
RN-219	+	271.23		5.312E-01	3.602E-01	4.359E-01	3.812E-02	1.218
		401.81	*	2.633E-01	4.079E-01	6.853E-01	9.279E-02	0.384
RN-220		549.76	*	-8.922E+00	2.548E+01	3.991E+01	2.186E+00	-0.224
RA-223		81.07		-3.570E-01	2.945E-01	4.156E-01	4.818E-02	-0.859
		83.78		2.218E-01	1.695E-01	2.643E-01	3.100E-02	0.839
		94.90		5.600E-01	3.066E-01	4.828E-01	4.976E-02	1.160
		122.32		-6.242E-01	1.869E+00	3.031E+00	2.332E-01	-0.206
	+	144.24		1.178E+00	8.752E-01	1.239E+00	9.686E-02	0.951
		154.21		3.805E-01	3.935E-01	6.633E-01	5.002E-02	0.574
	+	269.46		4.140E-01	2.799E-01	3.435E-01	2.370E-02	1.205
		323.87	*	-3.213E-01	7.506E-01	1.067E+00	1.786E-01	-0.301
	+	338.28		6.130E+00	1.622E+00	2.406E+00	2.601E-01	2.548
		445.03		-1.786E+00	2.240E+00	3.445E+00	3.513E-01	-0.518
AC-227		79.80		-4.613E-02	2.104E+00	3.161E+00	7.218E-01	-0.015
		236.00		4.092E-01	2.641E-01	4.028E-01	4.411E-02	1.016
		256.20	*	-6.667E-02	3.738E-01	6.284E-01	9.016E-02	-0.106
		286.10		-1.410E+00	1.514E+00	2.414E+00	2.896E-01	-0.584
	+	299.80		3.778E+00	2.247E+00	2.773E+00	4.596E-01	1.363
		304.40		1.648E-01	2.025E+00	3.014E+00	5.294E-01	0.055
		334.20		-2.029E+00	2.692E+00	3.390E+00	6.273E-01	-0.599
TH-227		79.80		-4.613E-02	2.104E+00	3.161E+00	7.300E-01	-0.015
	+	94.00		6.222E+01	1.522E+01	6.233E+00	1.408E+00	9.983
		236.00		4.092E-01	2.633E-01	4.028E-01	3.878E-02	1.016
		256.20	*	-6.667E-02	3.739E-01	6.284E-01	1.082E-01	-0.106
		286.10		-1.410E+00	2.064E+00	2.414E+00	2.420E+00	-0.584
	+	299.80		3.778E+00	2.247E+00	2.773E+00	4.596E-01	1.363
		304.40		1.648E-01	2.025E+00	3.014E+00	5.294E-01	0.055
		334.20		-2.029E+00	2.692E+00	3.390E+00	6.273E-01	-0.599
TH-229		85.43		2.949E-01	2.515E-01	3.903E-01	4.619E-02	0.756
	+	88.47		4.019E-01	1.669E-01	2.459E-01	2.923E-02	1.635
		100.00		1.546E-01	2.060E-01	3.499E-01	3.281E-02	0.442
		193.63	*	1.199E-01	5.056E-01	8.200E-01	5.322E-02	0.146
		210.97		1.306E+00	8.700E-01	1.341E+00	8.816E-02	0.974
PA-231		283.67	*	7.114E-01	1.515E+00	2.607E+00	3.689E-01	0.273
	+	301.29		1.511E+00	8.787E-01	1.039E+00	1.132E-01	1.455
TH-231		81.07		-3.570E-01	2.945E-01	4.156E-01	4.818E-02	-0.859
		83.78		2.218E-01	1.695E-01	2.643E-01	3.100E-02	0.839
		94.90		5.600E-01	3.066E-01	4.828E-01	4.976E-02	1.160
		122.32		-6.242E-01	1.869E+00	3.031E+00	2.332E-01	-0.206
	+	144.24		1.178E+00	8.752E-01	1.239E+00	9.686E-02	0.951
		154.21		3.805E-01	3.935E-01	6.633E-01	5.002E-02	0.574
	+	269.46		4.140E-01	2.799E-01	3.435E-01	2.370E-02	1.205
		323.87	*	-3.213E-01	7.506E-01	1.067E+00	1.786E-01	-0.301
	+	338.28		6.130E+00	1.622E+00	2.406E+00	2.601E-01	2.548
		445.03		-1.786E+00	2.240E+00	3.445E+00	3.513E-01	-0.518
U-231		84.21		1.694E+01	1.166E+01	1.822E+01	2.142E+00	0.930

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.29		9.884E+01	1.392E+01	1.301E+01	1.416E+00	7.595
		95.87	*	-2.904E+00	2.334E+00	3.260E+00	3.296E-01	-0.891
		108.00		-7.366E+00	3.962E+00	5.686E+00	4.708E-01	-1.295
PA-233	+	75.28		1.419E+01	4.915E+00	7.800E+00	1.334E+00	1.819
	+	86.59		5.763E+00	2.806E+00	3.644E+00	1.022E+00	1.582
	+	300.12		1.053E+00	6.189E-01	7.645E-01	1.054E-01	1.378
		311.98	*	4.771E-03	6.119E-02	1.030E-01	7.025E-03	0.046
		340.50		9.981E-01	7.132E-01	1.094E+00	2.526E-01	0.912
		398.62		-1.529E+00	2.051E+00	3.154E+00	8.144E-01	-0.485
		415.76		7.916E-02	1.618E+00	2.672E+00	5.491E-01	0.030
PA-234	+	63.00		2.277E+01	5.535E+00	5.927E+00	1.041E+00	3.842
		94.67		7.074E-01	2.380E-01	3.657E-01	4.997E-02	1.934
		98.44		2.450E-01	1.762E-01	1.901E-01	1.064E-01	1.289
		99.86		5.777E-01	5.301E-01	9.080E-01	8.534E-02	0.636
		111.00		2.026E-01	2.343E-01	3.584E-01	4.163E-02	0.565
	+	131.20		3.782E-01	1.857E-01	1.807E-01	1.212E-02	2.093
		152.70		-8.167E-02	3.302E-01	5.306E-01	8.519E-02	-0.154
	+	186.00		1.200E+01	4.393E+00	3.117E+00	9.564E-01	3.849
		226.40		-5.759E-02	4.281E-01	6.756E-01	8.107E-02	-0.085
		227.20		1.609E-01	4.452E-01	7.201E-01	4.778E-02	0.223
		248.90		3.043E-01	7.999E-01	1.288E+00	2.800E-01	0.236
		293.70		4.377E+00	1.077E+00	1.607E+00	2.634E-01	2.723
		369.80		1.830E-01	8.885E-01	1.490E+00	3.108E-01	0.123
		568.70		9.789E-01	1.018E+00	1.742E+00	9.416E-02	0.562
		569.50		1.513E-01	2.843E-01	4.718E-01	2.549E-02	0.321
		574.00		-1.273E+00	1.448E+00	2.146E+00	1.155E-01	-0.593
		699.00		-1.945E-01	7.259E-01	1.192E+00	2.127E-01	-0.163
		706.10		2.577E-02	1.090E+00	1.829E+00	8.062E-01	0.014
		733.00		1.998E-01	4.003E-01	6.131E-01	1.303E-01	0.326
		742.81		1.552E+00	1.726E+00	2.497E+00	1.671E+00	0.622
	+	796.30		3.236E+00	2.061E+00	1.887E+00	4.998E-01	1.715
		805.60		5.688E-01	1.063E+00	1.731E+00	5.225E-01	0.329
		819.60		-4.458E-01	1.182E+00	1.868E+00	7.039E-01	-0.239
		826.30		5.915E-02	8.116E-01	1.352E+00	6.014E-01	0.044
		831.60		-1.920E-01	6.685E-01	1.077E+00	3.172E-01	-0.178
		876.40		-3.695E-01	9.768E-01	1.429E+00	1.469E+00	-0.259
		880.51		1.078E-01	3.005E-01	5.104E-01	4.056E-02	0.211
		883.24		2.536E-03	2.977E-01	4.909E-01	3.296E-01	0.005
		899.00		-7.162E-01	9.289E-01	1.328E+00	5.796E-01	-0.539
		925.00		-3.320E-01	1.216E+00	1.943E+00	1.573E-01	-0.171
		926.50		4.612E-02	1.837E-01	3.079E-01	7.730E-02	0.150
		946.00	*	-2.286E-01	3.418E-01	5.222E-01	9.651E-02	-0.438
		949.00		4.157E-01	4.934E-01	8.647E-01	6.888E-02	0.481
		980.50		-4.431E-02	7.974E-01	1.296E+00	1.007E-01	-0.034
		1394.10		1.148E+00	1.449E+00	2.290E+00	1.486E+00	0.501
NP-236		94.67		5.398E-01	1.743E-01	2.777E-01	2.875E-02	1.944
		98.44		1.852E-01	8.561E-02	1.437E-01	1.385E-02	1.289
		111.00		1.532E-01	1.767E-01	2.711E-01	2.153E-02	0.565
		160.31	*	2.251E-02	8.027E-02	1.317E-01	8.406E-03	0.171

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		3.533E-01	1.809E-01	3.148E-01	2.975E-02	1.122
		117.00	*	-2.337E-02	2.135E-01	3.128E-01	2.301E-02	-0.075
	+	209.75		2.019E+00	1.150E+00	1.476E+00	9.693E-02	1.368
		228.18		-8.581E-03	2.342E-01	3.714E-01	2.465E-02	-0.023
		277.60		1.533E-01	1.729E-01	3.034E-01	2.018E-02	0.505
		334.30		-1.186E+00	1.511E+00	1.913E+00	1.210E-01	-0.620
AM-241		59.54	*	5.184E-02	2.821E-01	4.336E-01	5.474E-02	0.120
CM-243		99.55		3.637E-01	1.862E-01	3.240E-01	3.062E-02	1.122
		103.76	*	2.780E-02	1.040E-01	1.739E-01	1.533E-02	0.160
		117.00		-2.404E-02	2.197E-01	3.218E-01	2.368E-02	-0.075
	+	209.75		1.991E+00	1.134E+00	1.455E+00	9.557E-02	1.368
		228.18		-8.672E-03	2.367E-01	3.753E-01	2.491E-02	-0.023
		277.60		1.546E-01	1.744E-01	3.060E-01	2.035E-02	0.505
AM-246		798.80		2.531E-03	1.386E-01	2.305E-01	1.545E-02	0.011
		1036.00		1.092E-01	3.116E-01	5.243E-01	3.854E-02	0.208
		1062.04		4.090E-02	2.549E-01	4.200E-01	2.993E-02	0.097
		1078.86	*	-2.010E-02	1.666E-01	2.671E-01	1.862E-02	-0.075
CM-247		278.00		5.289E-01	7.137E-01	1.245E+00	8.280E-02	0.425
		287.40		-1.476E-01	1.165E+00	1.949E+00	1.291E-01	-0.076
		402.60	*	4.060E-02	3.569E-02	6.295E-02	3.553E-03	0.645
CF-249		252.85		-5.252E-01	8.119E-01	1.333E+00	8.903E-02	-0.394
		333.44		9.420E-02	2.307E-01	2.623E-01	1.661E-02	0.359
		387.95	*	-4.805E-04	3.769E-02	6.226E-02	3.538E-03	-0.008
CF-251		176.60	*	2.223E-02	1.325E-01	2.152E-01	1.377E-02	0.103
		227.00		-9.706E-03	4.001E-01	6.350E-01	4.212E-02	-0.015
		285.00		1.778E-01	1.682E+00	2.850E+00	1.890E-01	0.062

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978006      *
* Acquisition date : 14-FEB-2010 11:56:15 Detector SN#     :               *
* Detector ID        : GAM04               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.52     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245978006           Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.3450E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.645E+01	3.184E+00	5.598E-01	0.000E+00
CD-109	3.008E+00	1.224E+00	1.962E+00	0.000E+00
SN-126	2.944E-01	1.198E-01	1.840E-01	0.000E+00
BA-137M	4.531E-02	5.337E-02	6.283E-02	0.000E+00
CS-137	4.790E-02	5.641E-02	6.641E-02	0.000E+00
LU-177	3.834E+00	2.140E+00	2.471E+00	0.000E+00
TL-208	5.140E-01	8.170E-02	6.022E-02	0.000E+00
BI-211	3.382E+00	5.048E-01	3.313E-01	0.000E+00
PB-212	1.681E+00	1.712E-01	8.354E-02	0.000E+00
PO-212	1.681E+00	1.712E-01	8.354E-02	0.000E+00
BI-214	1.106E+00	1.798E-01	1.084E-01	0.000E+00
PB-214	1.177E+00	1.856E-01	1.155E-01	0.000E+00
PO-214	1.177E+00	1.856E-01	1.155E-01	0.000E+00
PO-216	1.681E+00	1.712E-01	8.354E-02	0.000E+00
PO-218	1.177E+00	1.856E-01	1.155E-01	0.000E+00
RA-224	5.088E+00	1.488E+00	9.508E-01	0.000E+00
RA-226	1.106E+00	1.798E-01	1.084E-01	0.000E+00
AC-228	1.757E+00	3.614E-01	2.165E-01	0.000E+00
RA-228	1.757E+00	3.614E-01	2.165E-01	0.000E+00
TH-228	1.711E+00	1.743E-01	8.505E-02	0.000E+00
TH-230	1.106E+00	1.798E-01	1.084E-01	0.000E+00
TH-232	1.757E+00	3.614E-01	2.165E-01	0.000E+00
PA-234M	2.567E+01	8.477E+00	7.410E+00	0.000E+00
TH-234	1.954E+01	4.971E+00	3.354E+00	0.000E+00
U-234	1.106E+00	1.798E-01	1.084E-01	0.000E+00
U-235	3.636E-01	2.697E-01	3.705E-01	0.000E+00
NP-237	8.645E-01	3.929E-01	5.307E-01	0.000E+00
U-238	1.954E+01	4.971E+00	3.354E+00	0.000E+00
AM-243	2.709E-01	8.556E-02	1.241E-01	0.000E+00
ANH-511	1.613E-01	6.884E-02	4.729E-02	0.000E+00

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM	K.L. Act error) Ided	MDA (pCi/GRAM	)	
BE-7	5.157E-02	3.343E-01	5.750E-01	0.000E+00	NOT IDENT.
NA-22	-1.545E-02	4.630E-02	7.697E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.845E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.188E-02	2.680E-02	4.850E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.550E-02	8.962E-02	0.000E+00	FAIL ABUN
SC-46	3.623E-04	4.029E-02	6.853E-02	0.000E+00	FAIL ABUN
V-48	9.923E-02	8.873E-02	1.629E-01	0.000E+00	NOT IDENT.
CR-51	2.297E-01	3.823E-01	6.933E-01	0.000E+00	NOT IDENT.
MN-52	3.985E-02	3.231E-01	5.643E-01	0.000E+00	NOT IDENT.
MN-54	2.027E-02	3.752E-02	6.684E-02	0.000E+00	NOT IDENT.
CO-56	4.271E-02	4.227E-02	7.776E-02	0.000E+00	NOT IDENT.
CO-57	5.078E-03	2.630E-02	4.656E-02	0.000E+00	NOT IDENT.
CO-58	1.218E-02	3.788E-02	6.676E-02	0.000E+00	NOT IDENT.
FE-59	-4.223E-02	1.135E-01	1.831E-01	0.000E+00	FAIL ABUN
CO-60	5.988E-04	3.870E-02	6.621E-02	0.000E+00	NOT IDENT.
ZN-65	-3.557E-02	1.085E-01	1.485E-01	0.000E+00	NOT IDENT.
GE-68	4.677E-01	1.365E+00	2.347E+00	0.000E+00	NOT IDENT.
AS-73	-3.985E-01	1.697E+00	3.077E+00	0.000E+00	NOT IDENT.
AS-74	2.910E-02	9.889E-02	1.689E-01	0.000E+00	NOT IDENT.
SE-75	2.079E-02	4.420E-02	7.536E-02	0.000E+00	NOT IDENT.
BR-77	9.097E+00	2.277E+01	3.964E+01	0.000E+00	FAIL ABUN
SR-82	-1.296E-01	4.646E-01	6.716E-01	0.000E+00	NOT IDENT.
RB-83	8.905E-03	6.728E-02	1.148E-01	0.000E+00	NOT IDENT.
RB-84	8.387E-02	7.632E-02	1.414E-01	0.000E+00	NOT IDENT.
KR-85	1.002E+01	7.391E+00	1.235E+01	0.000E+00	NOT IDENT.
SR-85	5.294E-02	3.906E-02	6.524E-02	0.000E+00	NOT IDENT.
RB-86	4.217E-01	9.219E-01	1.603E+00	0.000E+00	NOT IDENT.
Y-88	-1.216E-02	2.972E-02	4.421E-02	0.000E+00	NOT IDENT.
ZR-88	2.111E-02	2.885E-02	5.221E-02	0.000E+00	NOT IDENT.
Y-91	-7.267E+00	2.298E+01	3.685E+01	0.000E+00	NOT IDENT.
NB-94	2.695E-02	3.330E-02	6.104E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	5.280E-02	9.490E-02	0.000E+00	NOT IDENT.
NB-95M	1.668E-01	1.388E-01	2.215E-01	0.000E+00	NOT IDENT.
ZR-95	7.323E-02	7.433E-02	1.373E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.825E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.433E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.455E+01	2.359E+01	3.863E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.246E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.981E-02	3.265E-02	5.790E-02	0.000E+00	NOT IDENT.
RH-102	-1.561E-04	2.889E-02	4.917E-02	0.000E+00	FAIL ABUN
RU-103	1.014E-02	4.248E-02	7.326E-02	0.000E+00	FAIL ABUN
RH-106	2.897E-02	3.070E-01	5.141E-01	0.000E+00	FAIL ABUN
RU-106	2.897E-02	3.069E-01	5.141E-01	0.000E+00	FAIL ABUN
AG-108M	5.107E-03	3.084E-02	5.352E-02	0.000E+00	NOT IDENT.
AG-110M	1.117E-02	3.859E-02	6.052E-02	0.000E+00	NOT IDENT.
IN-111	-2.545E-02	2.116E+00	3.134E+00	0.000E+00	NOT IDENT.
IN-113M	1.188E-02	4.216E-02	7.427E-02	0.000E+00	NOT IDENT.
SN-113	1.188E-02	4.216E-02	7.427E-02	0.000E+00	NOT IDENT.
IN-114M	6.743E-02	1.938E-01	3.006E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.598E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.877E-04	6.162E-02	1.063E-01	0.000E+00	NOT IDENT.
SB-122	2.053E+00	4.008E+00	6.998E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.160E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-5.941E-04	2.821E-02	4.865E-02	0.000E+00	NOT IDENT.
I-124	-2.902E-02	1.194E+00	1.730E+00	0.000E+00	FAIL ABUN
SB-124	-2.535E-03	7.561E-02	1.252E-01	0.000E+00	FAIL ABUN
SB-125	5.413E-02	8.628E-02	1.544E-01	0.000E+00	FAIL ABUN
TE-125M	1.014E+01	1.126E+01	1.855E+01	0.000E+00	NOT IDENT.
I-126	-5.451E-02	2.494E-01	3.710E-01	0.000E+00	NOT IDENT.
SB-126	-3.481E-02	1.665E-01	2.568E-01	0.000E+00	FAIL ABUN
SB-127	1.119E+00	2.196E+00	3.964E+00	0.000E+00	NOT IDENT.
XE-127	9.869E-03	5.046E-02	8.630E-02	0.000E+00	NOT IDENT.
I-131	1.360E-01	1.426E-01	2.615E-01	0.000E+00	NOT IDENT.
TE-132	-3.777E-02	1.296E+00	2.173E+00	0.000E+00	FAIL ABUN
BA-133	-7.102E-03	4.682E-02	7.093E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.967E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	9.539E-02	1.013E-01	0.000E+00	FAIL ABUN
CS-135	9.217E-02	1.659E-01	2.703E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.641E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.747E-02	1.318E-01	2.176E-01	0.000E+00	FAIL ABUN
CE-139	3.948E-04	2.994E-02	5.154E-02	0.000E+00	NOT IDENT.
BA-140	5.279E-02	3.045E-01	5.187E-01	0.000E+00	NOT IDENT.
LA-140	-1.477E-02	1.007E-01	1.650E-01	0.000E+00	FAIL ABUN
CE-141	5.754E-02	7.543E-02	1.214E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.917E+02	0.000E+00	0.000E+00	SHORT HLIF

CE-144	-8.786E-02	2.217E-01	3.378E-01	0.000E+00	NOT IDENT.
PM-144	-4.391E-03	3.499E-02	6.030E-02	0.000E+00	NOT IDENT.
PR-144	-2.980E-01	2.375E+00	4.093E+00	0.000E+00	NOT IDENT.
PM-146	2.208E-02	4.130E-02	7.316E-02	0.000E+00	NOT IDENT.
ND-147	-3.642E-01	6.764E-01	1.090E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	2.155E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-9.088E-02	9.227E-02	1.518E-01	0.000E+00	FAIL ABUN
GD-153	9.667E-02	1.018E-01	1.687E-01	0.000E+00	NOT IDENT.
EU-154	-7.417E-02	1.309E-01	2.124E-01	0.000E+00	NOT IDENT.
EU-155	1.411E-01	1.160E-01	2.134E-01	0.000E+00	FAIL ABUN
TB-160	-7.278E-03	1.539E-01	2.609E-01	0.000E+00	FAIL ABUN
HO-166M	-2.769E-02	6.045E-02	1.013E-01	0.000E+00	FAIL ABUN
TM-171	2.161E+01	4.147E+01	6.937E+01	0.000E+00	NOT IDENT.
LU-176	5.618E-03	2.441E-02	4.222E-02	0.000E+00	FAIL ABUN
LU-177M	-1.444E-01	1.826E-01	2.991E-01	0.000E+00	FAIL ABUN
HF-181	9.973E-04	4.663E-02	7.834E-02	0.000E+00	NOT IDENT.
W-181	2.345E-01	5.721E-01	9.540E-01	0.000E+00	NOT IDENT.
TA-182	-7.205E-02	2.113E-01	3.542E-01	0.000E+00	FAIL ABUN
RE-183	3.905E-02	1.116E-01	1.952E-01	0.000E+00	FAIL ABUN
RE-184	-1.416E-01	2.146E-01	3.719E-01	0.000E+00	NOT IDENT.
OS-185	-4.867E-03	3.985E-02	6.908E-02	0.000E+00	NOT IDENT.
RE-188	1.772E-01	1.718E-01	3.091E-01	0.000E+00	NOT IDENT.
W-188	-1.913E+00	7.858E+00	1.207E+01	0.000E+00	FAIL ABUN
IR-192	-5.455E-03	3.442E-02	6.010E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	2.644E-01	4.959E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.864E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.015E+00	1.321E+01	2.264E+01	0.000E+00	NOT IDENT.
TL-202	3.573E-02	8.367E-02	1.473E-01	0.000E+00	NOT IDENT.
HG-203	2.979E-03	4.076E-02	7.271E-02	0.000E+00	NOT IDENT.
BI-207	4.109E-02	5.951E-02	1.052E-01	0.000E+00	FAIL ABUN
TL-207	-3.213E-01	7.356E-01	1.099E+00	0.000E+00	FAIL ABUN
PO-209	-4.193E+00	7.526E+00	1.211E+01	0.000E+00	NOT IDENT.
BI-210	4.080E+00	9.874E+00	1.826E+01	0.000E+00	NOT IDENT.
PB-210	4.080E+00	9.874E+00	1.826E+01	0.000E+00	NOT IDENT.
PO-210	4.080E+00	9.873E+00	1.826E+01	0.000E+00	NOT IDENT.
PB-211	-6.346E-01	9.916E-01	1.507E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.909E-01	7.277E-01	0.000E+00	FAIL ABUN
PO-215	-3.213E-01	7.356E-01	1.099E+00	0.000E+00	FAIL ABUN
RN-219	2.633E-01	3.998E-01	7.032E-01	0.000E+00	FAIL ABUN
RN-220	-8.922E+00	2.497E+01	4.072E+01	0.000E+00	NOT IDENT.
RA-223	-3.213E-01	7.356E-01	1.099E+00	0.000E+00	FAIL ABUN
AC-227	-6.667E-02	3.663E-01	6.500E-01	0.000E+00	FAIL ABUN
TH-227	-6.667E-02	3.664E-01	6.500E-01	0.000E+00	FAIL ABUN
TH-229	1.199E-01	4.955E-01	8.524E-01	0.000E+00	FAIL ABUN
PA-231	7.114E-01	1.485E+00	2.691E+00	0.000E+00	FAIL ABUN
TH-231	-3.213E-01	7.356E-01	1.099E+00	0.000E+00	FAIL ABUN
U-231	-2.904E+00	2.288E+00	3.430E+00	0.000E+00	FAIL ABUN
PA-233	4.771E-03	5.997E-02	1.062E-01	0.000E+00	FAIL ABUN
PA-234	-2.286E-01	3.350E-01	5.276E-01	0.000E+00	FAIL ABUN
NP-236	2.251E-02	7.866E-02	1.373E-01	0.000E+00	NOT IDENT.
NP-239	-2.337E-02	2.093E-01	3.279E-01	0.000E+00	FAIL ABUN
AM-241	5.184E-02	2.765E-01	4.598E-01	0.000E+00	NOT IDENT.
CM-243	2.780E-02	1.019E-01	1.827E-01	0.000E+00	FAIL ABUN
AM-246	-2.010E-02	1.633E-01	2.692E-01	0.000E+00	NOT IDENT.
CM-247	4.060E-02	3.497E-02	6.459E-02	0.000E+00	NOT IDENT.
CF-249	-4.805E-04	3.693E-02	6.393E-02	0.000E+00	NOT IDENT.
CF-251	2.223E-02	1.298E-01	2.240E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:56:45.17

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
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Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978006.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:56:15
Sample ID         : G245978006           Sample quantity  : 1.34500E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.52  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1497	10.67*	1.074E+00	3.645E+01	3.645E+01	8.92
CD-109	88.03	195	3.72*	5.006E+00	2.928E+00	3.008E+00	41.53
SN-126	64.28	548	9.60	2.060E+00	7.733E+00	7.733E+00	24.10
	86.94	195	8.90	5.006E+00	1.224E+00	1.224E+00	57.97
	87.57	195	37.00*	5.006E+00	2.944E-01	2.944E-01	41.53
BA-137M	661.65	32	89.98*	2.207E+00	4.526E-02	4.531E-02	120.18
CS-137	661.65	32	85.12*	2.207E+00	4.784E-02	4.790E-02	120.18
LU-177	112.95	135	6.40	6.370E+00	9.233E-01	5.952E+00	71.35
	208.36	124	11.00*	5.292E+00	5.948E-01	3.834E+00	56.96
TL-208	277.35	------	6.80	4.326E+00	------ Line Not Found		------
	510.84	158	21.60	2.731E+00	7.467E-01	7.467E-01	44.34
	583.14	381	84.20*	2.455E+00	5.140E-01	5.140E-01	16.22
	860.37	59	12.46	1.743E+00	7.559E-01	7.559E-01	58.86
BI-211	72.87	------	1.27	3.384E+00	------ Line Not Found		------
	351.07	569	12.94*	3.627E+00	3.382E+00	3.382E+00	15.23
PB-212	74.81	233	10.70	3.634E+00	1.671E+00	1.671E+00	33.56
	77.11	464	18.00	3.935E+00	1.827E+00	1.827E+00	22.85
	87.30	195	8.00	5.006E+00	1.362E+00	1.362E+00	42.72
	238.63	1296	44.60*	4.826E+00	1.681E+00	1.681E+00	10.39
	300.09	102	3.41	4.082E+00	2.039E+00	2.039E+00	57.79
PO-212	74.81	233	10.70	3.634E+00	1.671E+00	1.671E+00	33.56
	77.11	464	18.00	3.935E+00	1.827E+00	1.827E+00	22.85
	87.30	195	8.00	5.006E+00	1.362E+00	1.362E+00	42.72
	115.19	------	0.60	6.408E+00	------ Line Not Found		------
	238.63	1296	44.60*	4.826E+00	1.681E+00	1.681E+00	10.39
	300.09	102	3.41	4.082E+00	2.039E+00	2.039E+00	57.79
BI-214	609.31	435	46.30*	2.367E+00	1.106E+00	1.106E+00	16.59
	1120.29	115	15.10	1.357E+00	1.561E+00	1.561E+00	45.26
	1764.49	76	15.80	9.529E-01	1.417E+00	1.417E+00	26.80
PB-214	74.81	233	6.21	3.634E+00	2.879E+00	2.879E+00	33.07
	77.11	464	10.50	3.935E+00	3.132E+00	3.132E+00	24.09
	87.30	195	4.67	5.006E+00	2.332E+00	2.332E+00	42.24

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	344	7.49	4.781E+00	2.683E+00	2.683E+00	30.37
	295.21	384	19.20	4.132E+00	1.351E+00	1.352E+00	17.92
	351.92	569	37.20*	3.627E+00	1.176E+00	1.177E+00	16.10
PO-214	74.81	233	6.21	3.634E+00	2.879E+00	2.879E+00	33.07
	77.11	464	10.50	3.935E+00	3.132E+00	3.132E+00	24.09
	87.30	195	4.67	5.006E+00	2.332E+00	2.332E+00	42.24
	241.98	344	7.49	4.781E+00	2.683E+00	2.683E+00	30.37
	295.21	384	19.20	4.132E+00	1.351E+00	1.352E+00	17.92
	351.92	569	37.20*	3.627E+00	1.176E+00	1.177E+00	16.10
PO-216	74.81	233	10.70	3.634E+00	1.671E+00	1.671E+00	33.56
	77.11	464	18.00	3.935E+00	1.827E+00	1.827E+00	22.85
	87.30	195	8.00	5.006E+00	1.362E+00	1.362E+00	42.72
	238.63	1296	44.60*	4.826E+00	1.681E+00	1.681E+00	10.39
	300.09	102	3.41	4.082E+00	2.039E+00	2.039E+00	57.79
PO-218	74.81	233	6.21	3.634E+00	2.879E+00	2.879E+00	33.07
	77.11	464	10.50	3.935E+00	3.132E+00	3.132E+00	24.09
	87.30	195	4.67	5.006E+00	2.332E+00	2.332E+00	42.24
	241.98	344	7.49	4.781E+00	2.683E+00	2.683E+00	30.37
	295.21	384	19.20	4.132E+00	1.351E+00	1.352E+00	17.92
	351.92	569	37.20*	3.627E+00	1.176E+00	1.177E+00	16.10
RA-224	240.98	344	3.95*	4.781E+00	5.088E+00	5.088E+00	29.85
RA-226	609.31	435	46.30*	2.367E+00	1.106E+00	1.106E+00	16.59
	1120.29	115	15.10	1.357E+00	1.561E+00	1.561E+00	45.26
	1764.49	76	15.80	9.529E-01	1.417E+00	1.417E+00	26.80
AC-228	338.32	224	11.40	3.735E+00	1.468E+00	1.468E+00	47.44
	911.07	288	27.70*	1.652E+00	1.757E+00	1.757E+00	20.99
	969.11	145	16.60	1.559E+00	1.569E+00	1.569E+00	34.23
RA-228	338.32	224	11.40	3.735E+00	1.468E+00	1.468E+00	47.44
	911.07	288	27.70*	1.652E+00	1.757E+00	1.757E+00	20.99
	969.11	145	16.60	1.559E+00	1.569E+00	1.569E+00	34.23
TH-228	74.81	233	10.70	3.634E+00	1.671E+00	1.701E+00	32.25
	77.11	464	18.00	3.935E+00	1.827E+00	1.860E+00	22.85
	87.30	195	8.00	5.006E+00	1.362E+00	1.386E+00	41.53
	238.63	1296	44.60*	4.826E+00	1.681E+00	1.711E+00	10.39
	300.09	102	3.41	4.082E+00	2.039E+00	2.076E+00	82.13
TH-230	609.31	435	46.30*	2.367E+00	1.106E+00	1.106E+00	16.59
	1120.29	115	15.10	1.357E+00	1.561E+00	1.561E+00	45.26
	1764.49	76	15.80	9.529E-01	1.417E+00	1.417E+00	26.80
TH-232	338.32	224	11.40	3.735E+00	1.468E+00	1.468E+00	24.95
	911.07	288	27.70*	1.652E+00	1.757E+00	1.757E+00	20.99
	969.11	145	16.60	1.559E+00	1.569E+00	1.569E+00	34.23
PA-234M	766.42	109	0.32	1.936E+00	4.922E+01	4.922E+01	68.85
	1001.03	117	0.84*	1.511E+00	2.567E+01	2.567E+01	33.69
TH-234	63.29	548	3.80*	2.060E+00	1.954E+01	1.954E+01	25.96
	92.38	1705	5.41	5.462E+00	1.610E+01	1.610E+01	21.24
U-234	609.31	435	46.30*	2.367E+00	1.106E+00	1.106E+00	16.59
	1120.29	115	15.10	1.357E+00	1.561E+00	1.561E+00	45.26
	1764.49	76	15.80	9.529E-01	1.417E+00	1.417E+00	26.80
U-235	89.95	------	2.70	5.250E+00	------	Line Not Found	------

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	93.35	1705	4.50	5.462E+00	1.936E+01	1.936E+01	30.16
	105.00	------	2.10	6.134E+00	------ Line Not Found		------
	143.76	88	10.50*	6.400E+00	3.636E-01	3.636E-01	75.71
	163.35	------	4.70	6.104E+00	------ Line Not Found		------
	185.71	490	54.00	5.698E+00	4.443E-01	4.443E-01	21.00
	205.31	------	4.70	5.352E+00	------ Line Not Found		------
NP-237	86.50	195	12.60*	5.006E+00	8.645E-01	8.645E-01	46.38
	95.87	------	2.60	5.678E+00	------ Line Not Found		------
U-238	63.29	548	3.80*	2.060E+00	1.954E+01	1.954E+01	25.96
	92.38	1705	5.41	5.462E+00	1.610E+01	1.610E+01	14.08
AM-243	74.67	233	66.00*	3.634E+00	2.709E-01	2.709E-01	32.23
	86.72	195	0.34	5.006E+00	3.242E+01	3.242E+01	41.53
	117.66	------	0.55	6.445E+00	------ Line Not Found		------
	142.18	88	0.13	6.400E+00	3.054E+01	3.054E+01	74.16
ANH-511	511.00	158	100.00*	2.731E+00	1.613E-01	1.613E-01	43.55

Flag: "*" = Keyline

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

Total number of lines in spectrum 37
Number of unidentified lines 2
Number of lines tentatively identified by NID 35 94.59%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.645E+01	3.645E+01	0.325E+01	8.92	
CD-109	464.00D	1.03	2.928E+00	3.008E+00	1.249E+00	41.53	
SN-126	1.00E+05Y	1.00	2.944E-01	2.944E-01	1.223E-01	41.53	
BA-137M	30.17Y	1.00	4.526E-02	4.531E-02	5.446E-02	120.18	
CS-137	30.17Y	1.00	4.784E-02	4.790E-02	5.756E-02	120.18	
LU-177	6.71D	6.45	5.948E-01	3.834E+00	2.184E+00	56.96	
TL-208	1.41E+10Y	1.00	5.140E-01	5.140E-01	0.834E-01	16.22	
BI-211	7.04E+08Y	1.00	3.382E+00	3.382E+00	0.515E+00	15.23	
PB-212	1.41E+10Y	1.00	1.681E+00	1.681E+00	0.175E+00	10.39	
PO-212	1.41E+10Y	1.00	1.681E+00	1.681E+00	0.175E+00	10.39	
BI-214	1600.00Y	1.00	1.106E+00	1.106E+00	0.184E+00	16.59	
PB-214	1600.00Y	1.00	1.176E+00	1.177E+00	0.189E+00	16.10	
PO-214	1600.00Y	1.00	1.176E+00	1.177E+00	0.189E+00	16.10	
PO-216	1.41E+10Y	1.00	1.681E+00	1.681E+00	0.175E+00	10.39	
PO-218	1600.00Y	1.00	1.176E+00	1.177E+00	0.189E+00	16.10	
RA-224	1.41E+10Y	1.00	5.088E+00	5.088E+00	1.519E+00	29.85	
RA-226	1600.00Y	1.00	1.106E+00	1.106E+00	0.184E+00	16.59	
AC-228	1.41E+10Y	1.00	1.757E+00	1.757E+00	0.369E+00	20.99	
RA-228	1.41E+10Y	1.00	1.757E+00	1.757E+00	0.369E+00	20.99	
TH-228	1.91Y	1.02	1.681E+00	1.711E+00	0.178E+00	10.39	
TH-230	4.47E+09Y	1.00	1.106E+00	1.106E+00	0.184E+00	16.59	
TH-232	1.41E+10Y	1.00	1.757E+00	1.757E+00	0.369E+00	20.99	
PA-234M	4.47E+09Y	1.00	2.567E+01	2.567E+01	0.865E+01	33.69	
TH-234	4.47E+09Y	1.00	1.954E+01	1.954E+01	0.507E+01	25.96	
U-234	4.47E+09Y	1.00	1.106E+00	1.106E+00	0.184E+00	16.59	
U-235	7.04E+08Y	1.00	3.636E-01	3.636E-01	2.752E-01	75.71	
NP-237	2.14E+06Y	1.00	8.645E-01	8.645E-01	4.009E-01	46.38	
U-238	4.47E+09Y	1.00	1.954E+01	1.954E+01	0.507E+01	25.96	
AM-243	7380.00Y	1.00	2.709E-01	2.709E-01	0.873E-01	32.23	
ANH-511	1.00E+09Y	1.00	1.613E-01	1.613E-01	0.702E-01	43.55	
		Total Activity :	1.357E+02	1.390E+02			

Grand Total Activity : 1.357E+02 1.390E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	129.92	180	460	3.49	259.88	255	11	2.50E-02	48.6	6.50E+00	T
0	269.80	89	233	1.17	539.67	536	10	1.24E-02	67.3	4.41E+00	T
0	328.13	61	173	1.12	656.34	653	9	8.49E-03	81.8	3.82E+00	T
0	463.04	53	114	1.01	926.17	922	10	7.34E-03	80.1	2.95E+00	T
0	727.51	137	66	1.56	1455.11	1449	14	1.90E-02	30.5	2.03E+00	T
0	795.96	85	92	2.32	1592.00	1585	18	1.18E-02	57.9	1.87E+00	T
1	964.86	44	40	1.87	1929.77	1926	17	6.17E-03	54.5	1.57E+00	T
0	1155.04	44	60	3.36	2310.09	2303	12	6.11E-03	76.6	1.32E+00	
0	1377.91	27	30	2.74	2755.74	2749	14	3.81E-03	90.7	1.13E+00	
0	1509.92	25	7	1.08	3019.70	3015	10	3.45E-03	57.4	1.05E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:56:50.57

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978006.CNF;1   *
* Acquisition date : 14-FEB-2010 11:56:15  Detector SN#     :               *
* Detector ID      : GAM04                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.52         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245978006            Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.34500E+02 GRAM *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.645E+01	3.249E+00	5.587E-01	3.970E-02	65.234
CD-109	3.008E+00	1.249E+00	1.862E+00	2.238E-01	1.615
SN-126	2.944E-01	1.223E-01	1.746E-01	2.094E-02	1.686
BA-137M	4.531E-02	5.446E-02	6.178E-02	3.013E-03	0.733
CS-137	4.790E-02	5.756E-02	6.531E-02	3.204E-03	0.733
LU-177	3.834E+00	2.184E+00	2.381E+00	1.562E-01	1.610
TL-208	5.140E-01	8.337E-02	5.909E-02	3.718E-03	8.699
BI-211	3.382E+00	5.151E-01	3.221E-01	2.176E-02	10.500
PB-212	1.681E+00	1.747E-01	8.067E-02	6.478E-03	20.839
PO-212	1.681E+00	1.747E-01	8.067E-02	6.478E-03	20.839
BI-214	1.106E+00	1.835E-01	1.065E-01	7.824E-03	10.392
PB-214	1.177E+00	1.894E-01	1.123E-01	9.578E-03	10.478
PO-214	1.177E+00	1.894E-01	1.123E-01	9.578E-03	10.478
PO-216	1.681E+00	1.747E-01	8.067E-02	6.478E-03	20.839
PO-218	1.177E+00	1.894E-01	1.123E-01	9.578E-03	10.478
RA-224	5.088E+00	1.519E+00	9.182E-01	6.122E-02	5.541
RA-226	1.106E+00	1.835E-01	1.065E-01	7.824E-03	10.392
AC-228	1.757E+00	3.688E-01	2.142E-01	2.335E-02	8.205

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.757E+00	3.688E-01	2.142E-01	2.335E-02	8.205
TH-228	1.711E+00	1.779E-01	8.212E-02	6.595E-03	20.839
TH-230	1.106E+00	1.835E-01	1.065E-01	7.823E-03	10.392
TH-232	1.757E+00	3.688E-01	2.142E-01	2.335E-02	8.205
PA-234M	2.567E+01	8.650E+00	7.343E+00	6.694E-01	3.496
TH-234	1.954E+01	5.072E+00	3.165E+00	6.262E-01	6.172
U-234	1.106E+00	1.835E-01	1.065E-01	7.823E-03	10.392
U-235	3.636E-01	2.752E-01	3.546E-01	5.878E-02	1.025
NP-237	8.645E-01	4.009E-01	5.035E-01	1.200E-01	1.717
U-238	1.954E+01	5.072E+00	3.165E+00	6.262E-01	6.172
AM-243	2.709E-01	8.730E-02	1.175E-01	1.345E-02	2.306
ANH-511	1.613E-01	7.024E-02	4.628E-02	2.588E-03	3.485

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	5.157E-02		3.411E-01	5.621E-01	3.724E-02	0.092
NA-22	-1.545E-02		4.725E-02	7.662E-02	5.010E-03	-0.202
NA-24	7.231E+00		9.411E+00	Half-Life too short		
AL-26	1.188E-02		2.735E-02	4.859E-02	2.882E-03	0.245
TI-44	3.371E-01	+	7.704E-02	8.488E-02	9.761E-03	3.972
SC-46	3.623E-04		4.111E-02	6.776E-02	5.480E-03	0.005
V-48	9.923E-02		9.054E-02	1.614E-01	1.250E-02	0.615
CR-51	2.297E-01		3.901E-01	6.730E-01	4.739E-02	0.341
MN-52	3.985E-02		3.297E-01	5.629E-01	3.842E-02	0.071
MN-54	2.027E-02		3.829E-02	6.602E-02	4.777E-03	0.307
CO-56	4.271E-02		4.313E-02	7.681E-02	5.699E-03	0.556
CO-57	5.078E-03		2.684E-02	4.444E-02	3.085E-03	0.114
CO-58	1.218E-02		3.865E-02	6.589E-02	4.549E-03	0.185
FE-59	-4.223E-02		1.158E-01	1.817E-01	1.389E-02	-0.232
CO-60	5.988E-04		3.949E-02	6.596E-02	4.520E-03	0.009
ZN-65	-3.557E-02		1.107E-01	1.474E-01	9.751E-03	-0.241
GE-68	4.677E-01		1.393E+00	2.329E+00	1.627E-01	0.201
AS-73	-3.985E-01		1.731E+00	2.896E+00	3.789E-01	-0.138
AS-74	2.910E-02		1.009E-01	1.658E-01	8.754E-03	0.175
SE-75	2.079E-02		4.510E-02	7.290E-02	4.904E-03	0.285
BR-77	9.097E+00		2.323E+01	3.882E+01	2.162E+00	0.234
SR-82	-1.296E-01		4.741E-01	6.624E-01	4.227E-02	-0.196
RB-83	8.905E-03		6.865E-02	1.124E-01	6.260E-03	0.079
RB-84	8.387E-02		7.788E-02	1.398E-01	1.113E-02	0.600
KR-85	1.002E+01		7.542E+00	1.208E+01	6.750E-01	0.829
SR-85	5.294E-02		3.986E-02	6.387E-02	3.567E-03	0.829
RB-86	4.217E-01		9.407E-01	1.591E+00	1.112E-01	0.265
Y-88	-1.216E-02		3.033E-02	4.431E-02	2.586E-03	-0.274
ZR-88	2.111E-02		2.943E-02	5.086E-02	2.862E-03	0.415
Y-91	-7.267E+00		2.345E+01	3.665E+01	2.246E+00	-0.198
NB-94	2.695E-02		3.398E-02	6.009E-02	3.237E-03	0.448

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95	1.205E-01		5.388E-02	9.358E-02	5.832E-03	1.288
NB-95M	1.668E-01		1.416E-01	2.139E-01	1.755E-02	0.780
ZR-95	7.323E-02		7.585E-02	1.353E-01	9.854E-03	0.541
NB-97	6.253E-01		9.314E-01	Half-Life too short		
ZR-97	4.613E+01		1.752E+01	Half-Life too short		
MO-99	-1.455E+01		2.408E+01	3.806E+01	5.257E+00	-0.382
TC-99M	1.138E+14		6.357E+13	Half-Life too short		
RH-101	3.981E-02		3.331E-02	5.572E-02	3.629E-03	0.714
RH-102	-1.561E-04		2.948E-02	4.807E-02	2.718E-03	-0.003
RU-103	1.014E-02		4.335E-02	7.167E-02	9.004E-03	0.141
RH-106	2.897E-02		3.132E-01	5.050E-01	5.769E-02	0.057
RU-106	2.897E-02		3.132E-01	5.050E-01	2.594E-02	0.057
AG-108M	5.107E-03		3.146E-02	5.223E-02	3.227E-03	0.098
AG-110M	1.117E-02		3.937E-02	5.951E-02	3.179E-03	0.188
IN-111	-2.545E-02		2.159E+00	3.028E+00	2.021E-01	-0.008
IN-113M	1.188E-02		4.302E-02	7.235E-02	4.359E-03	0.164
SN-113	1.188E-02		4.302E-02	7.235E-02	4.359E-03	0.164
IN-114M	6.743E-02		1.978E-01	2.891E-01	1.871E-02	0.233
CD-115	1.730E-05		1.325E-05	Half-Life too short		
SN-117M	-4.877E-04		6.288E-02	1.020E-01	6.521E-03	-0.005
SB-122	2.053E+00		4.090E+00	6.862E+00	3.723E-01	0.299
I-123	-4.548E+00		1.102E+02	Half-Life too short		
TE-123M	-5.941E-04		2.879E-02	4.664E-02	3.015E-03	-0.013
I-124	-2.902E-02		1.218E+00	1.698E+00	8.907E-02	-0.017
SB-124	-2.535E-03		7.716E-02	1.253E-01	8.512E-03	-0.020
SB-125	5.413E-02		8.804E-02	1.507E-01	8.918E-03	0.359
TE-125M	1.014E+01		1.149E+01	1.767E+01	1.755E+00	0.574
I-126	-5.451E-02		2.544E-01	3.649E-01	1.800E-02	-0.149
SB-126	-3.481E-02		1.699E-01	2.529E-01	1.421E-02	-0.138
SB-127	1.119E+00		2.241E+00	3.900E+00	3.956E-01	0.287
XE-127	9.869E-03		5.149E-02	8.309E-02	5.431E-03	0.119
I-131	1.360E-01		1.455E-01	2.544E-01	1.701E-02	0.534
TE-132	-3.777E-02		1.322E+00	2.097E+00	3.214E-01	-0.018
BA-133	-7.102E-03		4.778E-02	6.897E-02	8.080E-03	-0.103
I-133	7.481E-03		3.044E-02	Half-Life too short		
CS-134	1.670E-01	+	9.734E-02	9.997E-02	6.738E-03	1.670
CS-135	9.217E-02		1.693E-01	2.615E-01	2.180E-02	0.352
I-135	-2.599E+12		4.409E+12	Half-Life too short		
CS-136	-1.747E-02		1.345E-01	2.158E-01	1.658E-02	-0.081
CE-139	3.948E-04		3.055E-02	4.945E-02	3.142E-03	0.008
BA-140	5.279E-02		3.107E-01	5.082E-01	1.650E-01	0.104
LA-140	-1.477E-02		1.027E-01	1.650E-01	1.086E-02	-0.090
CE-141	5.754E-02		7.697E-02	1.162E-01	7.803E-03	0.495
CE-143	1.989E-03		4.039E-04	Half-Life too short		
CE-144	-8.786E-02		2.262E-01	3.229E-01	4.706E-02	-0.272
PM-144	-4.391E-03		3.571E-02	5.936E-02	3.155E-03	-0.074
PR-144	-2.980E-01		2.423E+00	4.029E+00	2.139E-01	-0.074
PM-146	2.208E-02		4.214E-02	7.146E-02	6.099E-03	0.309

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ND-147	-3.642E-01		6.903E-01	1.067E+00	1.432E-01	-0.341
PM-149	-1.224E-04		1.100E-04	Half-Life too short		
EU-152	-9.088E-02		9.415E-02	1.475E-01	1.021E-02	-0.616
GD-153	9.667E-02		1.039E-01	1.604E-01	1.574E-02	0.603
EU-154	-7.417E-02		1.335E-01	2.115E-01	2.074E-02	-0.351
EU-155	1.411E-01		1.183E-01	2.031E-01	1.770E-02	0.695
TB-160	-7.278E-03		1.571E-01	2.579E-01	2.045E-02	-0.028
HO-166M	-2.769E-02		6.169E-02	9.973E-02	5.489E-03	-0.278
TM-171	2.161E+01		4.232E+01	6.553E+01	7.661E+00	0.330
LU-176	5.618E-03		2.490E-02	4.095E-02	2.674E-03	0.137
LU-177M	-1.444E-01		1.864E-01	2.917E-01	1.650E-02	-0.495
HF-181	9.973E-04		4.758E-02	7.659E-02	4.324E-03	0.013
W-181	2.345E-01		5.838E-01	9.009E-01	1.062E-01	0.260
TA-182	-7.205E-02		2.156E-01	3.523E-01	2.193E-02	-0.205
RE-183	3.905E-02		1.139E-01	1.872E-01	1.193E-02	0.209
RE-184	-1.416E-01		2.190E-01	3.595E-01	2.401E-02	-0.394
OS-185	-4.867E-03		4.066E-02	6.791E-02	3.385E-03	-0.072
RE-188	1.772E-01		1.753E-01	2.962E-01	1.902E-02	0.598
W-188	-1.913E+00		8.018E+00	1.169E+01	7.729E-01	-0.164
IR-192	-5.455E-03		3.512E-02	5.832E-02	3.787E-03	-0.094
AU-195	6.684E-01		2.698E-01	4.716E-01	4.509E-02	1.417
TL-200	1.189E-03		1.461E-03	Half-Life too short		
TL-201	-1.015E+00		1.348E+01	2.173E+01	1.381E+00	-0.047
TL-202	3.573E-02		8.537E-02	1.437E-01	8.153E-03	0.249
HG-203	2.979E-03		4.159E-02	7.040E-02	4.902E-03	0.042
BI-207	4.109E-02		6.072E-02	1.043E-01	7.419E-03	0.394
TL-207	-3.213E-01		7.506E-01	1.067E+00	1.786E-01	-0.301
PO-209	-4.193E+00		7.680E+00	1.197E+01	9.827E-01	-0.350
BI-210	4.080E+00		1.008E+01	1.715E+01	1.495E+00	0.238
PB-210	4.080E+00		1.008E+01	1.715E+01	1.495E+00	0.238
PO-210	4.080E+00		1.007E+01	1.715E+01	1.332E+00	0.238
PB-211	-6.346E-01		1.012E+00	1.469E+00	9.155E-01	-0.432
BI-212	1.594E+00	+	5.009E-01	7.169E-01	5.480E-02	2.224
PO-215	-3.213E-01		7.506E-01	1.067E+00	1.786E-01	-0.301
RN-219	2.633E-01		4.079E-01	6.853E-01	9.279E-02	0.384
RN-220	-8.922E+00		2.548E+01	3.991E+01	2.186E+00	-0.224
RA-223	-3.213E-01		7.506E-01	1.067E+00	1.786E-01	-0.301
AC-227	-6.667E-02		3.738E-01	6.284E-01	9.016E-02	-0.106
TH-227	-6.667E-02		3.739E-01	6.284E-01	1.082E-01	-0.106
TH-229	1.199E-01		5.056E-01	8.200E-01	5.322E-02	0.146
PA-231	7.114E-01		1.515E+00	2.607E+00	3.689E-01	0.273
TH-231	-3.213E-01		7.506E-01	1.067E+00	1.786E-01	-0.301
U-231	-2.904E+00		2.334E+00	3.260E+00	3.296E-01	-0.891
PA-233	4.771E-03		6.119E-02	1.030E-01	7.025E-03	0.046
PA-234	-2.286E-01		3.418E-01	5.222E-01	9.651E-02	-0.438
NP-236	2.251E-02		8.027E-02	1.317E-01	8.406E-03	0.171
NP-239	-2.337E-02		2.135E-01	3.128E-01	2.301E-02	-0.075
AM-241	5.184E-02		2.821E-01	4.336E-01	5.474E-02	0.120

Sample ID : G245978006 Acquisition date : 14-FEB-2010 11:56:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.780E-02		1.040E-01	1.739E-01	1.533E-02	0.160
AM-246	-2.010E-02		1.666E-01	2.671E-01	1.862E-02	-0.075
CM-247	4.060E-02		3.569E-02	6.295E-02	3.553E-03	0.645
CF-249	-4.805E-04		3.769E-02	6.226E-02	3.538E-03	-0.008
CF-251	2.223E-02		1.325E-01	2.152E-01	1.377E-02	0.103

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978006           *
* Acquisition date  : 14-FEB-2010 11:56:15 Detector SN#     :               *
* Detector ID       : GAM04                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.52      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978006           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.3450E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.645E+01	3.184E+00	2.801E-01	1.625E+00
CD-109	3.008E+00	1.224E+00	9.817E-01	6.246E-01
SN-126	2.944E-01	1.198E-01	9.203E-02	6.113E-02
BA-137M	4.531E-02	5.337E-02	3.143E-02	2.723E-02
CS-137	4.790E-02	5.641E-02	3.323E-02	2.878E-02
LU-177	3.834E+00	2.140E+00	1.236E+00	1.092E+00
TL-208	5.140E-01	8.170E-02	3.013E-02	4.169E-02
BI-211	3.382E+00	5.048E-01	1.658E-01	2.576E-01
PB-212	1.681E+00	1.712E-01	4.179E-02	8.737E-02
PO-212	1.681E+00	1.712E-01	4.179E-02	8.737E-02
BI-214	1.106E+00	1.798E-01	5.424E-02	9.175E-02
PB-214	1.177E+00	1.856E-01	5.778E-02	9.471E-02
PO-214	1.177E+00	1.856E-01	5.778E-02	9.471E-02
PO-216	1.681E+00	1.712E-01	4.179E-02	8.737E-02
PO-218	1.177E+00	1.856E-01	5.778E-02	9.471E-02
RA-224	5.088E+00	1.488E+00	4.757E-01	7.593E-01
RA-226	1.106E+00	1.798E-01	5.424E-02	9.175E-02
AC-228	1.757E+00	3.614E-01	1.083E-01	1.844E-01
RA-228	1.757E+00	3.614E-01	1.083E-01	1.844E-01
TH-228	1.711E+00	1.743E-01	4.255E-02	8.895E-02
TH-230	1.106E+00	1.798E-01	5.424E-02	9.175E-02
TH-232	1.757E+00	3.614E-01	1.083E-01	1.844E-01
PA-234M	2.567E+01	8.477E+00	3.707E+00	4.325E+00
TH-234	1.954E+01	4.971E+00	1.678E+00	2.536E+00
U-234	1.106E+00	1.798E-01	5.424E-02	9.175E-02
U-235	3.636E-01	2.697E-01	1.854E-01	1.376E-01
NP-237	8.645E-01	3.929E-01	2.655E-01	2.005E-01
U-238	1.954E+01	4.971E+00	1.678E+00	2.536E+00
AM-243	2.709E-01	8.556E-02	6.209E-02	4.365E-02
ANH-511	1.613E-01	6.884E-02	2.366E-02	3.512E-02

---- Non-Identified Nuclides ----

Key-Line

Nuclide	Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	5.157E-02	3.343E-01	2.877E-01	1.706E-01	NOT IDENT.
NA-22	-1.545E-02	4.630E-02	3.851E-02	2.362E-02	NOT IDENT.
NA-24	7.231E+06	1.845E+07	0.000E+00	9.411E+06	SHORT HLIF
AL-26	1.188E-02	2.680E-02	2.426E-02	1.367E-02	NOT IDENT.
TI-44	3.371E-01	7.550E-02	4.483E-02	3.852E-02	FAIL ABUN
SC-46	3.623E-04	4.029E-02	3.428E-02	2.056E-02	FAIL ABUN
V-48	9.923E-02	8.873E-02	8.149E-02	4.527E-02	NOT IDENT.
CR-51	2.297E-01	3.823E-01	3.469E-01	1.950E-01	NOT IDENT.
MN-52	3.985E-02	3.231E-01	2.823E-01	1.648E-01	NOT IDENT.
MN-54	2.027E-02	3.752E-02	3.344E-02	1.914E-02	NOT IDENT.
CO-56	4.271E-02	4.227E-02	3.890E-02	2.157E-02	NOT IDENT.
CO-57	5.078E-03	2.630E-02	2.329E-02	1.342E-02	NOT IDENT.
CO-58	1.218E-02	3.788E-02	3.340E-02	1.933E-02	NOT IDENT.
FE-59	-4.223E-02	1.135E-01	9.159E-02	5.791E-02	FAIL ABUN
CO-60	5.988E-04	3.870E-02	3.312E-02	1.975E-02	NOT IDENT.
ZN-65	-3.557E-02	1.085E-01	7.427E-02	5.536E-02	NOT IDENT.
GE-68	4.677E-01	1.365E+00	1.174E+00	6.964E-01	NOT IDENT.
AS-73	-3.985E-01	1.697E+00	1.540E+00	8.657E-01	NOT IDENT.
AS-74	2.910E-02	9.889E-02	8.451E-02	5.046E-02	NOT IDENT.
SE-75	2.079E-02	4.420E-02	3.770E-02	2.255E-02	NOT IDENT.
BR-77	9.097E+00	2.277E+01	1.983E+01	1.162E+01	FAIL ABUN
SR-82	-1.296E-01	4.646E-01	3.360E-01	2.370E-01	NOT IDENT.
RB-83	8.905E-03	6.728E-02	5.743E-02	3.433E-02	NOT IDENT.
RB-84	8.387E-02	7.632E-02	7.074E-02	3.894E-02	NOT IDENT.
KR-85	1.002E+01	7.391E+00	6.176E+00	3.771E+00	NOT IDENT.
SR-85	5.294E-02	3.906E-02	3.264E-02	1.993E-02	NOT IDENT.
RB-86	4.217E-01	9.219E-01	8.021E-01	4.704E-01	NOT IDENT.
Y-88	-1.216E-02	2.972E-02	2.212E-02	1.517E-02	NOT IDENT.
ZR-88	2.111E-02	2.885E-02	2.612E-02	1.472E-02	NOT IDENT.
Y-91	-7.267E+00	2.298E+01	1.844E+01	1.172E+01	NOT IDENT.
NB-94	2.695E-02	3.330E-02	3.054E-02	1.699E-02	NOT IDENT.
NB-95	1.205E-01	5.280E-02	4.748E-02	2.694E-02	NOT IDENT.
NB-95M	1.668E-01	1.388E-01	1.108E-01	7.080E-02	NOT IDENT.
ZR-95	7.323E-02	7.433E-02	6.868E-02	3.792E-02	NOT IDENT.
NB-97	6.253E+05	1.825E+06	0.000E+00	9.314E+05	SHORT HLIF
ZR-97	4.613E+07	3.433E+07	0.000E+00	1.752E+07	SHORT HLIF
MO-99	-1.455E+01	2.359E+01	1.933E+01	1.204E+01	NOT IDENT.
TC-99M	1.138E+20	1.246E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.981E-02	3.265E-02	2.897E-02	1.666E-02	NOT IDENT.
RH-102	-1.561E-04	2.889E-02	2.460E-02	1.474E-02	FAIL ABUN
RU-103	1.014E-02	4.248E-02	3.665E-02	2.168E-02	FAIL ABUN
RH-106	2.897E-02	3.070E-01	2.572E-01	1.566E-01	FAIL ABUN
RU-106	2.897E-02	3.069E-01	2.572E-01	1.566E-01	FAIL ABUN
AG-108M	5.107E-03	3.084E-02	2.677E-02	1.573E-02	NOT IDENT.
AG-110M	1.117E-02	3.859E-02	3.028E-02	1.969E-02	NOT IDENT.
IN-111	-2.545E-02	2.116E+00	1.568E+00	1.080E+00	NOT IDENT.
IN-113M	1.188E-02	4.216E-02	3.716E-02	2.151E-02	NOT IDENT.
SN-113	1.188E-02	4.216E-02	3.716E-02	2.151E-02	NOT IDENT.
IN-114M	6.743E-02	1.938E-01	1.504E-01	9.890E-02	NOT IDENT.
CD-115	1.730E+01	2.598E+01	0.000E+00	1.325E+01	SHORT HLIF
SN-117M	-4.877E-04	6.162E-02	5.320E-02	3.144E-02	NOT IDENT.
SB-122	2.053E+00	4.008E+00	3.501E+00	2.045E+00	NOT IDENT.
I-123	-4.548E+06	2.160E+08	0.000E+00	1.102E+08	SHORT HLIF
TE-123M	-5.941E-04	2.821E-02	2.434E-02	1.439E-02	NOT IDENT.
I-124	-2.902E-02	1.194E+00	8.655E-01	6.092E-01	FAIL ABUN
SB-124	-2.535E-03	7.561E-02	6.263E-02	3.858E-02	FAIL ABUN
SB-125	5.413E-02	8.628E-02	7.725E-02	4.402E-02	FAIL ABUN
TE-125M	1.014E+01	1.126E+01	9.281E+00	5.746E+00	NOT IDENT.
I-126	-5.451E-02	2.494E-01	1.856E-01	1.272E-01	NOT IDENT.
SB-126	-3.481E-02	1.665E-01	1.285E-01	8.496E-02	FAIL ABUN
SB-127	1.119E+00	2.196E+00	1.983E+00	1.121E+00	NOT IDENT.
XE-127	9.869E-03	5.046E-02	4.318E-02	2.575E-02	NOT IDENT.
I-131	1.360E-01	1.426E-01	1.308E-01	7.274E-02	NOT IDENT.
TE-132	-3.777E-02	1.296E+00	1.087E+00	6.611E-01	FAIL ABUN
BA-133	-7.102E-03	4.682E-02	3.548E-02	2.389E-02	NOT IDENT.
I-133	7.481E+03	5.967E+04	0.000E+00	3.044E+04	SHORT HLIF
CS-134	1.670E-01	9.539E-02	5.069E-02	4.867E-02	FAIL ABUN
CS-135	9.217E-02	1.659E-01	1.352E-01	8.465E-02	NOT IDENT.
I-135	-2.599E+18	8.641E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.747E-02	1.318E-01	1.089E-01	6.726E-02	FAIL ABUN
CE-139	3.948E-04	2.994E-02	2.579E-02	1.527E-02	NOT IDENT.
BA-140	5.279E-02	3.045E-01	2.595E-01	1.554E-01	NOT IDENT.
LA-140	-1.477E-02	1.007E-01	8.256E-02	5.136E-02	FAIL ABUN
CE-141	5.754E-02	7.543E-02	6.075E-02	3.849E-02	NOT IDENT.
CE-143	1.989E+03	7.917E+02	0.000E+00	4.039E+02	SHORT HLIF

CE-144	-8.786E-02	2.217E-01	1.690E-01	1.131E-01	NOT IDENT.
PM-144	-4.391E-03	3.499E-02	3.017E-02	1.785E-02	NOT IDENT.
PR-144	-2.980E-01	2.375E+00	2.048E+00	1.212E+00	NOT IDENT.
PM-146	2.208E-02	4.130E-02	3.660E-02	2.107E-02	NOT IDENT.
ND-147	-3.642E-01	6.764E-01	5.452E-01	3.451E-01	NOT IDENT.
PM-149	-1.224E+02	2.155E+02	0.000E+00	1.100E+02	SHORT HLIF
EU-152	-9.088E-02	9.227E-02	7.594E-02	4.708E-02	FAIL ABUN
GD-153	9.667E-02	1.018E-01	8.440E-02	5.195E-02	NOT IDENT.
EU-154	-7.417E-02	1.309E-01	1.063E-01	6.676E-02	NOT IDENT.
EU-155	1.411E-01	1.160E-01	1.067E-01	5.916E-02	FAIL ABUN
TB-160	-7.278E-03	1.539E-01	1.305E-01	7.854E-02	FAIL ABUN
HO-166M	-2.769E-02	6.045E-02	5.067E-02	3.084E-02	FAIL ABUN
TM-171	2.161E+01	4.147E+01	3.470E+01	2.116E+01	NOT IDENT.
LU-176	5.618E-03	2.441E-02	2.112E-02	1.245E-02	FAIL ABUN
LU-177M	-1.444E-01	1.826E-01	1.496E-01	9.318E-02	FAIL ABUN
HF-181	9.973E-04	4.663E-02	3.919E-02	2.379E-02	NOT IDENT.
W-181	2.345E-01	5.721E-01	4.773E-01	2.919E-01	NOT IDENT.
TA-182	-7.205E-02	2.113E-01	1.772E-01	1.078E-01	FAIL ABUN
RE-183	3.905E-02	1.116E-01	9.766E-02	5.696E-02	FAIL ABUN
RE-184	-1.416E-01	2.146E-01	1.861E-01	1.095E-01	NOT IDENT.
OS-185	-4.867E-03	3.985E-02	3.456E-02	2.033E-02	NOT IDENT.
RE-188	1.772E-01	1.718E-01	1.546E-01	8.767E-02	NOT IDENT.
W-188	-1.913E+00	7.858E+00	6.038E+00	4.009E+00	FAIL ABUN
IR-192	-5.455E-03	3.442E-02	3.007E-02	1.756E-02	FAIL ABUN
AU-195	6.684E-01	2.644E-01	2.481E-01	1.349E-01	FAIL ABUN
TL-200	1.189E+03	2.864E+03	0.000E+00	1.461E+03	SHORT HLIF
TL-201	-1.015E+00	1.321E+01	1.133E+01	6.740E+00	NOT IDENT.
TL-202	3.573E-02	8.367E-02	7.367E-02	4.269E-02	NOT IDENT.
HG-203	2.979E-03	4.076E-02	3.638E-02	2.079E-02	NOT IDENT.
BI-207	4.109E-02	5.951E-02	5.261E-02	3.036E-02	FAIL ABUN
TL-207	-3.213E-01	7.356E-01	5.498E-01	3.753E-01	FAIL ABUN
PO-209	-4.193E+00	7.526E+00	6.058E+00	3.840E+00	NOT IDENT.
BI-210	4.080E+00	9.874E+00	9.138E+00	5.038E+00	NOT IDENT.
PB-210	4.080E+00	9.874E+00	9.138E+00	5.038E+00	NOT IDENT.
PO-210	4.080E+00	9.873E+00	9.138E+00	5.037E+00	NOT IDENT.
PB-211	-6.346E-01	9.916E-01	7.539E-01	5.059E-01	NOT IDENT.
BI-212	1.594E+00	4.909E-01	3.641E-01	2.504E-01	FAIL ABUN
PO-215	-3.213E-01	7.356E-01	5.498E-01	3.753E-01	FAIL ABUN
RN-219	2.633E-01	3.998E-01	3.518E-01	2.040E-01	FAIL ABUN
RN-220	-8.922E+00	2.497E+01	2.037E+01	1.274E+01	NOT IDENT.
RA-223	-3.213E-01	7.356E-01	5.498E-01	3.753E-01	FAIL ABUN
AC-227	-6.667E-02	3.663E-01	3.252E-01	1.869E-01	FAIL ABUN
TH-227	-6.667E-02	3.664E-01	3.252E-01	1.869E-01	FAIL ABUN
TH-229	1.199E-01	4.955E-01	4.264E-01	2.528E-01	FAIL ABUN
PA-231	7.114E-01	1.485E+00	1.346E+00	7.576E-01	FAIL ABUN
TH-231	-3.213E-01	7.356E-01	5.498E-01	3.753E-01	FAIL ABUN
U-231	-2.904E+00	2.288E+00	1.716E+00	1.167E+00	FAIL ABUN
PA-233	4.771E-03	5.997E-02	5.312E-02	3.060E-02	FAIL ABUN
PA-234	-2.286E-01	3.350E-01	2.639E-01	1.709E-01	FAIL ABUN
NP-236	2.251E-02	7.866E-02	6.869E-02	4.013E-02	NOT IDENT.
NP-239	-2.337E-02	2.093E-01	1.641E-01	1.068E-01	FAIL ABUN
AM-241	5.184E-02	2.765E-01	2.301E-01	1.411E-01	NOT IDENT.
CM-243	2.780E-02	1.019E-01	9.141E-02	5.200E-02	FAIL ABUN
AM-246	-2.010E-02	1.633E-01	1.347E-01	8.331E-02	NOT IDENT.
CM-247	4.060E-02	3.497E-02	3.231E-02	1.784E-02	NOT IDENT.
CF-249	-4.805E-04	3.693E-02	3.198E-02	1.884E-02	NOT IDENT.
CF-251	2.223E-02	1.298E-01	1.121E-01	6.624E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
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46.50	262.0153
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46.50	262.0153
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49.72	289.4874
51.35	261.4022
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52.97	327.7945
53.15	305.3397
53.44	296.0059
54.07	320.0629
56.28	290.3826
56.28	290.3851
57.37	0.0000
57.53	339.7516
57.53	339.7536
57.60	350.3786
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57.98	358.4800
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59.32	352.8246
59.40	352.8967
59.54	343.7324
59.72	327.9574
60.01	328.1995
61.10	339.7643
61.14	339.7983
61.30	339.9355
63.00	366.8094
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63.29	367.0712
63.58	398.1670
64.28	406.9043
65.12	380.8194
65.20	380.8928
65.20	380.8928
66.05	364.1371
66.72	366.0667
66.83	366.1638
66.91	360.8285
67.20	365.6729
67.20	365.6729
67.75	386.3686
67.85	386.4600
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68.90	451.6731
69.30	452.0918
69.67	444.3217
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70.83	415.9520
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72.87	480.8977
72.87	480.8977
74.67	467.6894
74.81	467.8346
74.81	467.8346
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74.81	467.8346
74.97	467.9980
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75.70	468.7477
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77.11	470.1822

77.11	470.1822
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77.11	470.1822
77.11	470.1822
77.11	470.1822
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80.30	442.7501
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81.07	522.9521
81.07	522.9521
81.07	522.9521
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83.78	462.7760
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83.78	462.7760
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86.54	585.2244
86.59	585.2813
86.72	579.7906
86.79	579.8690
86.94	658.6069
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87.57	630.7947
87.88	698.4828
88.03	698.6901
88.36	651.0268
88.47	651.1672
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92.38	543.9103
92.38	543.9103
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94.67	391.0816
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94.90	421.3465
94.90	421.3465
94.90	421.3465
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95.87	498.2062
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98.44	340.4474
98.88	326.2837
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99.55	331.5003
99.86	350.0056
100.00	350.0943
100.10	350.1607
103.18	404.4693
103.76	336.9187
105.00	299.7034
105.31	327.1270
108.00	442.5079
109.28	327.9022

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111.00	370.1519
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112.95	363.9645
115.19	276.2130
116.30	306.4696
117.00	302.3503
117.00	302.3503
117.66	305.6560
121.11	276.8647
121.62	301.0965
121.78	319.1817
122.06	319.3229
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122.32	342.4871
122.32	342.4871
122.32	342.4871
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136.48	295.6897
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144.24	327.4435
144.24	327.4435
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145.44	310.8948
147.16	338.1288
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152.70	317.1476
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154.21	270.5924
154.21	270.5924
154.21	270.5924
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163.89	294.2308
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171.28	262.6801
171.86	289.6930
172.10	289.7781
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176.60	288.1473
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198.01	221.3013
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202.84	269.2147
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209.75	257.2350
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227.20	224.8654
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228.18	234.2285
228.18	234.2285
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236.00	219.3665
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238.63	178.9491
238.63	178.9491
238.63	178.9491
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241.98	179.5341
241.98	179.5341
241.98	179.5341
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252.85	192.2282
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256.20	202.5143
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268.79	188.1097
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269.46	183.9447
269.46	183.9447
269.46	183.9447
271.23	177.0936
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278.00	170.6104
278.60	169.8018
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323.87	168.6089
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338.28	152.7550
338.28	152.7550
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338.32	152.7599
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391.69	109.7083
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445.03	113.5313
445.03	113.5313
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569.50	79.2868
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602.71	86.5587
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609.31	80.8529
609.31	80.8529
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612.46	90.5150
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618.01	78.9650
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696.49	89.4136
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727.18	66.3025
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911.07	57.0682
911.07	57.0682
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969.11	62.9614
969.11	62.9614
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1099.22	75.4999
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1120.29	58.8484
1120.29	58.8484
1120.51	58.8538
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1147.95	0.0000
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1236.41	0.0000
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1260.41	0.0000
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1274.45	59.5547
1274.54	55.8325
1291.56	41.1265
1298.22	0.0000
1312.09	57.3191
1325.50	38.6577
1325.50	38.6577
1332.49	34.0042
1333.61	34.9585
1360.21	29.4851
1362.66	0.0000
1365.15	31.4263
1368.21	28.5913
1368.53	0.0000
1376.25	22.9180
1384.27	14.7625
1394.10	23.0186
1395.20	23.9848
1407.95	36.5697
1434.06	18.3993
1436.60	21.3170
1457.56	0.0000
1460.81	24.3632
1489.15	13.7334
1509.49	24.6379
1596.49	23.1104
1620.62	16.1608
1678.03	0.0000
1691.02	14.3520
1691.02	14.3520
1706.46	0.0000
1750.46	0.0000
1764.49	7.2840
1764.49	7.2840
1764.49	7.2840
1764.49	7.2840
1770.23	7.1434
1771.40	34.3857
1791.20	0.0000
1808.65	8.3971

1836.01	11.6078

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978006

Total Uranium Activity	5.8289E+01	ug/g
Total Uranium Counting Unc.	1.4788E+01	ug/g
Total Uranium Tpu	7.5449E-06	ug/g
Total Uranium Mda	4.9922E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID     : 948721                    SAMPLE ID  : G245978006        *
*   ANALYST      : MXR1                      DETECTOR   : GAM04             *
*   SAMPLE DATE  : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 11:56:15.89   SAMPLE ALQT:  134.500 GRAM     *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.208E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.669E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.969E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.925E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:57:44.89

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978007.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:56:47
Sample ID         : G245978007           Sample quantity  : 1.38270E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.20*	82	742	0.95	92.05	89	8	1.14E-02	59.2	
2	0	63.33*	1838	1349	1.02	126.31	122	10	2.55E-01	4.5	
3	2	74.85	473	962	1.22	149.35	143	16	6.56E-02	12.1	4.04E+00
4	2	77.12*	889	969	1.09	153.89	143	16	1.23E-01	6.7	
5	0	84.17*	162	979	1.44	168.00	165	7	2.25E-02	33.3	
6	0	87.34	269	862	1.33	174.32	172	6	3.74E-02	18.3	
7	4	90.05	249	568	1.34	179.75	178	16	3.46E-02	13.9	1.35E+00
8	4	92.65*	4021	778	1.17	184.94	178	16	5.59E-01	2.0	
9	4	94.70	267	739	1.53	189.04	178	16	3.71E-02	31.4	
10	0	98.61*	279	566	1.10	196.86	193	8	3.87E-02	16.1	
11	0	112.96	163	768	0.81	225.56	221	10	2.26E-02	32.9	
12	0	143.80*	152	448	1.19	287.23	283	8	2.11E-02	25.9	
13	0	185.99*	645	553	1.22	371.59	366	11	8.96E-02	8.3	
14	0	209.50*	121	279	1.11	418.61	415	8	1.69E-02	26.1	
15	3	238.72*	1329	237	1.12	477.03	469	20	1.85E-01	3.4	1.31E+00
16	3	241.66	280	325	1.66	482.91	469	20	3.89E-02	15.4	
17	0	270.40	96	278	2.05	540.39	534	11	1.34E-02	35.1	
18	0	295.35*	353	232	1.16	590.28	585	10	4.90E-02	9.8	
19	0	300.63*	53	184	1.06	600.84	596	7	7.34E-03	46.0	
20	0	338.30	251	221	1.23	676.15	671	12	3.48E-02	13.4	
21	0	352.05*	705	158	1.39	703.65	698	12	9.80E-02	5.3	
22	0	463.21	71	138	1.68	925.94	919	12	9.90E-03	35.0	
23	0	510.99*	92	172	2.03	1021.49	1014	15	1.27E-02	36.6	
24	0	583.46*	417	99	1.20	1166.40	1160	12	5.79E-02	7.0	
25	0	609.51*	474	180	1.35	1218.49	1211	15	6.58E-02	7.8	
26	0	662.02	89	134	1.51	1323.50	1317	13	1.24E-02	28.6	
27	0	727.58	138	63	1.95	1454.60	1448	14	1.92E-02	14.9	
28	0	744.13	35	69	2.56	1487.70	1482	9	4.86E-03	46.2	
29	0	768.18*	135	149	2.35	1535.79	1528	21	1.87E-02	24.6	
30	0	861.38	66	75	2.42	1722.16	1713	15	9.19E-03	31.1	
31	0	911.44*	288	72	1.68	1822.28	1813	18	3.99E-02	9.2	
32	0	969.10*	146	74	1.25	1937.59	1933	12	2.02E-02	15.0	
33	0	1001.42	176	75	1.59	2002.23	1996	15	2.44E-02	12.9	
34	0	1120.92	88	66	1.36	2241.19	2235	13	1.22E-02	22.1	
35	0	1461.22*	1152	25	2.15	2921.74	2913	17	1.60E-01	3.1	
36	0	1589.65	57	20	4.80	3178.58	3168	21	7.91E-03	24.0	
37	0	1765.18*	100	4	1.59	3529.62	3523	14	1.39E-02	11.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 13:57:48

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978007.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:56:47
Sample ID : G245978007 Sample quantity : 138.27 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA7 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.60 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.595E+01	2.760E+00	4.741E-01	4.071E-02	54.736
CD-109	+	88.03	*	2.950E+00	1.112E+00	1.537E+00	1.447E-01	1.920
SN-126	+	64.28		1.082E+01	1.841E+00	7.689E-01	1.115E-01	14.075
	+	86.94		1.200E+00	6.636E-01	6.275E-01	2.604E-01	1.913
	+	87.57	*	2.887E-01	1.088E-01	1.455E-01	1.364E-02	1.984
BA-137M	+	661.65	*	1.211E-01	7.019E-02	6.394E-02	5.658E-03	1.894
CS-137	+	661.65	*	1.280E-01	7.420E-02	6.759E-02	5.992E-03	1.894
LU-177	+	112.95		6.209E+00	4.118E+00	3.921E+00	3.383E-01	1.583
	+	208.36	*	3.592E+00	1.896E+00	2.627E+00	2.176E-01	1.367
TL-208		277.35		4.273E-01	3.899E-01	6.720E-01	8.228E-02	0.636
	+	510.84		4.184E-01	3.107E-01	2.132E-01	2.598E-02	1.962
	+	583.14	*	5.427E-01	9.189E-02	5.753E-02	5.503E-03	9.434
	+	860.37		8.093E-01	5.089E-01	4.564E-01	4.463E-02	1.773
BI-210	+	46.50	*	2.738E+00	3.254E+00	3.610E+00	3.386E-01	0.758
PB-210	+	46.50	*	2.738E+00	3.254E+00	3.610E+00	3.386E-01	0.758
PO-210	+	46.50	*	2.738E+00	3.252E+00	3.610E+00	3.071E-01	0.758
BI-211		72.87		5.323E+00	3.542E+00	5.405E+00	4.266E-01	0.985
	+	351.07	*	4.022E+00	5.556E-01	3.140E-01	2.817E-02	12.808
PB-212	+	74.81		1.974E+00	5.348E-01	5.542E-01	6.837E-02	3.561
	+	77.11		2.142E+00	3.384E-01	3.205E-01	2.645E-02	6.683
	+	87.30		1.335E+00	5.208E-01	6.968E-01	9.533E-02	1.916
	+	238.63	*	1.648E+00	1.940E-01	9.052E-02	8.658E-03	18.210
	+	300.09		1.014E+00	9.387E-01	1.276E+00	1.323E-01	0.795
PO-212	+	74.81		1.974E+00	5.348E-01	5.542E-01	6.837E-02	3.561
	+	77.11		2.142E+00	3.384E-01	3.205E-01	2.645E-02	6.683
	+	87.30		1.335E+00	5.208E-01	6.968E-01	9.533E-02	1.916
		115.19		4.207E+00	4.242E+00	6.358E+00	5.476E-01	0.662
	+	238.63	*	1.648E+00	1.940E-01	9.052E-02	8.658E-03	18.210
	+	300.09		1.014E+00	9.387E-01	1.276E+00	1.323E-01	0.795
BI-214	+	609.31	*	1.163E+00	2.177E-01	1.141E-01	1.180E-02	10.193
	+	1120.29		1.114E+00	5.075E-01	5.091E-01	5.467E-02	2.187
	+	1764.49		1.752E+00	4.239E-01	2.079E-01	1.709E-02	8.430
PB-214	+	74.81		3.401E+00	9.010E-01	9.550E-01	1.045E-01	3.561
	+	77.11		3.672E+00	6.441E-01	5.494E-01	6.171E-02	6.683

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		2.287E+00	8.802E-01	1.194E+00	1.445E-01	1.916
	+	241.98		2.087E+00	6.783E-01	5.453E-01	5.534E-02	3.827
	+	295.21		1.188E+00	2.637E-01	2.251E-01	2.383E-02	5.276
	+	351.92	*	1.399E+00	2.066E-01	1.095E-01	1.136E-02	12.781
PO-214	+	74.81		3.401E+00	9.010E-01	9.550E-01	1.045E-01	3.561
	+	77.11		3.672E+00	6.441E-01	5.494E-01	6.171E-02	6.683
	+	87.30		2.287E+00	8.802E-01	1.194E+00	1.445E-01	1.916
	+	241.98		2.087E+00	6.783E-01	5.453E-01	5.534E-02	3.827
	+	295.21		1.188E+00	2.637E-01	2.251E-01	2.383E-02	5.276
	+	351.92	*	1.399E+00	2.066E-01	1.095E-01	1.136E-02	12.781
PO-216	+	74.81		1.974E+00	5.348E-01	5.542E-01	6.837E-02	3.561
	+	77.11		2.142E+00	3.384E-01	3.205E-01	2.645E-02	6.683
	+	87.30		1.335E+00	5.208E-01	6.968E-01	9.533E-02	1.916
	+	238.63	*	1.648E+00	1.940E-01	9.052E-02	8.658E-03	18.210
	+	300.09		1.014E+00	9.387E-01	1.276E+00	1.323E-01	0.795
PO-218	+	74.81		3.401E+00	9.010E-01	9.550E-01	1.045E-01	3.561
	+	77.11		3.672E+00	6.441E-01	5.494E-01	6.171E-02	6.683
	+	87.30		2.287E+00	8.802E-01	1.194E+00	1.445E-01	1.916
	+	241.98		2.087E+00	6.783E-01	5.453E-01	5.534E-02	3.827
	+	295.21		1.188E+00	2.637E-01	2.251E-01	2.383E-02	5.276
	+	351.92	*	1.399E+00	2.066E-01	1.095E-01	1.136E-02	12.781
RA-224	+	240.98	*	3.957E+00	1.267E+00	1.030E+00	8.714E-02	3.840
RA-226	+	609.31	*	1.163E+00	2.177E-01	1.141E-01	1.180E-02	10.193
	+	1120.29		1.114E+00	5.075E-01	5.091E-01	5.467E-02	2.187
	+	1764.49		1.752E+00	4.239E-01	2.079E-01	1.709E-02	8.430
AC-228	+	338.32		1.573E+00	7.739E-01	3.896E-01	1.607E-01	4.037
	+	911.07	*	1.662E+00	3.634E-01	2.177E-01	2.536E-02	7.634
	+	969.11		1.482E+00	5.640E-01	5.157E-01	1.212E-01	2.874
RA-228	+	338.32		1.573E+00	7.739E-01	3.896E-01	1.607E-01	4.037
	+	911.07	*	1.662E+00	3.634E-01	2.177E-01	2.536E-02	7.634
	+	969.11		1.482E+00	5.640E-01	5.157E-01	1.212E-01	2.874
TH-228	+	74.81		2.009E+00	5.116E-01	5.643E-01	4.586E-02	3.561
	+	77.11		2.180E+00	3.445E-01	3.263E-01	2.693E-02	6.683
	+	87.30		1.359E+00	5.125E-01	7.094E-01	6.624E-02	1.916
	+	238.63	*	1.678E+00	1.976E-01	9.216E-02	8.815E-03	18.210
	+	300.09		1.033E+00	1.130E+00	1.299E+00	7.698E-01	0.795
TH-229	+	85.43		3.973E-01	2.671E-01	3.295E-01	3.004E-02	1.206
	+	88.47		3.941E-01	1.486E-01	2.049E-01	1.924E-02	1.923
	+	100.00		8.554E-01	2.859E-01	3.060E-01	2.710E-02	2.796
		193.63	*	-3.247E-01	4.945E-01	8.133E-01	6.642E-02	-0.399
	+	210.97		1.878E+00	9.913E-01	1.167E+00	9.683E-02	1.610
TH-230	+	609.31	*	1.163E+00	2.177E-01	1.141E-01	1.180E-02	10.193
	+	1120.29		1.114E+00	5.075E-01	5.091E-01	5.466E-02	2.187
	+	1764.49		1.752E+00	4.239E-01	2.078E-01	1.709E-02	8.430
U-231	+	84.21		1.838E+01	1.236E+01	1.563E+01	1.403E+00	1.177
	+	92.29		1.766E+02	1.760E+01	5.295E+00	4.853E-01	33.349
	+	95.87	*	7.205E+00	4.569E+00	2.444E+00	2.200E-01	2.948
		108.00		-6.077E+00	4.176E+00	5.575E+00	4.842E-01	-1.090
TH-232	+	338.32		1.573E+00	4.429E-01	3.896E-01	3.335E-02	4.037

Sample ID : G245978007 Acquisition date : 14-FEB-2010 11:56:47

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	911.07	*	1.662E+00	3.634E-01	2.177E-01	2.536E-02	7.634
	+	969.11		1.482E+00	5.640E-01	5.157E-01	1.212E-01	2.874
TH-234	+	63.29	*	2.734E+01	5.347E+00	1.994E+00	3.470E-01	13.710
	+	92.38		2.877E+01	5.397E+00	8.623E-01	1.582E-01	33.358
U-234	+	609.31	*	1.163E+00	2.177E-01	1.141E-01	1.180E-02	10.193
	+	1120.29		1.114E+00	5.075E-01	5.091E-01	5.466E-02	2.187
	+	1764.49		1.752E+00	4.239E-01	2.078E-01	1.709E-02	8.430
U-235	+	89.95		3.614E+00	1.508E+00	2.044E+00	6.348E-01	1.768
	+	93.35		3.458E+01	9.845E+00	1.034E+00	2.914E-01	33.448
		105.00		1.049E+00	1.154E+00	1.856E+00	5.545E-01	0.565
	+	143.76	*	5.865E-01	3.208E-01	3.576E-01	6.194E-02	1.640
		163.35		2.994E-01	5.350E-01	8.542E-01	1.605E-01	0.351
	+	185.71		5.576E-01	1.026E-01	7.313E-02	5.920E-03	7.625
		205.31		5.344E-01	6.010E-01	9.120E-01	1.725E-01	0.586
NP-237	+	86.50	*	8.477E-01	3.643E-01	4.289E-01	9.698E-02	1.976
	+	95.87		3.952E+00	2.667E+00	1.341E+00	3.321E-01	2.948
U-238	+	63.29	*	2.734E+01	5.347E+00	1.994E+00	3.470E-01	13.710
	+	92.38		2.877E+01	2.867E+00	8.623E-01	7.899E-02	33.358
AM-243	+	74.67	*	3.200E-01	8.139E-02	9.002E-02	7.236E-03	3.554
	+	86.72		3.179E+01	1.199E+01	1.607E+01	1.489E+00	1.979
		117.66		6.645E-01	4.548E+00	6.572E+00	5.653E-01	0.101
		142.18		3.740E+01	2.125E+01	3.247E+01	2.680E+00	1.152
ANH-511	+	511.00	*	9.038E-02	6.668E-02	4.607E-02	4.094E-03	1.962

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.178E-01	3.529E-01	5.787E-01	5.462E-02	0.204
NA-22		1274.54	*	-3.958E-02	4.283E-02	6.370E-02	5.229E-03	-0.621
NA-24		1368.53	*	-8.256E-01	4.283E-02	Half-Life too short		
AL-26		1129.67		8.682E-01	1.738E+00	2.962E+00	2.488E-01	0.293
		1808.65	*	1.720E-02	3.172E-02	5.746E-02	4.686E-03	0.299
TI-44		67.85		8.523E-03	4.985E-02	7.390E-02	5.575E-03	0.115
	+	78.38	*	3.953E-01	6.246E-02	7.800E-02	6.530E-03	5.067
SC-46		889.25	*	-6.105E-03	3.943E-02	6.303E-02	5.776E-03	-0.097
	+	1120.51		1.952E-01	8.803E-02	1.250E-01	1.057E-02	1.561
V-48		944.10		-1.754E-01	9.833E-01	1.560E+00	1.418E-01	-0.112
		983.50	*	2.599E-02	8.282E-02	1.374E-01	1.237E-02	0.189
		1312.09		4.246E-02	8.244E-02	1.439E-01	1.179E-02	0.295
CR-51		320.08	*	-1.378E-01	3.880E-01	6.080E-01	5.495E-02	-0.227
MN-52	+	744.21		4.885E-01	4.535E-01	6.987E-01	6.342E-02	0.699
		848.13		1.346E+01	1.053E+01	1.879E+01	1.725E+00	0.716
		935.52		1.212E-01	3.355E-01	5.621E-01	5.119E-02	0.216
		1246.25		-3.270E+00	9.828E+00	1.575E+01	1.290E+00	-0.208
		1333.61		-7.491E-03	6.660E+00	1.096E+01	8.984E-01	-0.001
		1434.06	*	1.266E-01	2.828E-01	4.945E-01	4.112E-02	0.256
MN-54		834.83	*	8.756E-03	3.813E-02	6.336E-02	5.816E-03	0.138
CO-56		846.75	*	1.922E-02	4.318E-02	7.290E-02	6.692E-03	0.264

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		977.42		2.366E+00	3.053E+00	5.167E+00	4.659E-01	0.458
		1037.82		-3.118E-01	3.177E-01	4.835E-01	4.485E-02	-0.645
		1175.09		1.869E-01	2.498E+00	4.179E+00	3.401E-01	0.045
		1238.25		1.746E-01	9.774E-02	1.801E-01	1.522E-02	0.969
		1360.21		-2.478E-01	8.036E-01	1.256E+00	1.034E-01	-0.197
		1771.40		9.722E-02	2.473E-01	3.904E-01	3.207E-02	0.249
CO-57		122.06	*	-6.667E-03	2.799E-02	4.460E-02	3.838E-03	-0.149
		136.48		1.700E-01	2.173E-01	3.575E-01	3.219E-02	0.475
CO-58		810.76	*	2.372E-03	3.856E-02	6.340E-02	5.825E-03	0.037
FE-59	+	142.65		7.912E+00	4.156E+00	5.534E+00	4.563E-01	1.430
		192.34		-4.687E-01	9.536E-01	1.578E+00	2.072E-01	-0.297
		1099.22	*	5.402E-02	9.731E-02	1.700E-01	1.575E-02	0.318
		1291.56		4.132E-02	1.179E-01	2.019E-01	1.901E-02	0.205
CO-60		1173.22		-5.782E-03	4.773E-02	7.860E-02	6.396E-03	-0.074
		1332.49	*	1.283E-03	3.644E-02	6.027E-02	4.937E-03	0.021
ZN-65		1115.52	*	-2.815E-02	1.070E-01	1.491E-01	1.265E-02	-0.189
GE-68		1077.35	*	-4.252E-01	1.190E+00	1.925E+00	1.668E-01	-0.221
AS-73		53.44	*	-3.690E-01	7.018E-01	1.142E+00	8.573E-02	-0.323
AS-74		595.88	*	-9.133E-02	1.050E-01	1.643E-01	1.473E-02	-0.556
		634.78		1.057E-01	4.054E-01	6.868E-01	6.123E-02	0.154
SE-75		66.05		-6.928E+00	5.164E+00	7.202E+00	6.832E-01	-0.962
		96.73		2.689E+00	1.121E+00	1.417E+00	1.962E-01	1.898
		121.11		-4.957E-02	1.507E-01	2.393E-01	2.681E-02	-0.207
		136.00		3.019E-02	4.139E-02	6.799E-02	5.716E-03	0.444
		198.60		-1.182E-01	1.873E+00	3.112E+00	2.860E-01	-0.038
		264.65	*	-4.518E-02	5.078E-02	6.947E-02	5.932E-03	-0.650
		279.53		-1.900E-02	1.132E-01	1.862E-01	1.641E-02	-0.102
		303.91		1.443E+00	2.349E+00	3.545E+00	4.053E-01	0.407
		400.65		3.904E-02	2.593E-01	4.246E-01	4.642E-02	0.092
BR-77	+	87.88		1.470E+03	5.543E+02	8.704E+02	8.189E+01	1.689
		200.40		-1.995E+02	3.828E+02	6.326E+02	5.201E+01	-0.315
	+	239.00		6.133E+02	6.675E+01	8.807E+01	7.442E+00	6.964
		249.79		-7.170E+00	1.460E+02	2.429E+02	2.060E+01	-0.030
		281.68		-1.412E+02	2.105E+02	3.367E+02	2.861E+01	-0.419
		297.23		4.775E+02	2.254E+02	2.805E+02	2.397E+01	1.703
		303.76		2.834E+02	4.556E+02	6.887E+02	5.896E+01	0.412
		439.47		7.494E+01	3.338E+02	5.463E+02	4.706E+01	0.137
		484.57		-1.659E+02	5.341E+02	8.347E+02	7.351E+01	-0.199
		520.65	*	2.410E+00	2.416E+01	4.097E+01	3.649E+00	0.059
		574.64		4.816E+02	4.811E+02	8.554E+02	7.671E+01	0.563
		578.91		-1.715E+02	2.276E+02	3.055E+02	2.740E+01	-0.561
		585.48		3.908E+03	6.917E+02	1.203E+03	1.079E+02	3.249
		755.35		1.309E+02	3.831E+02	6.466E+02	5.883E+01	0.202
		817.79		-9.951E+01	2.924E+02	4.618E+02	4.235E+01	-0.215
SR-82		698.33		-1.148E+01	4.008E+01	6.491E+01	5.820E+00	-0.177
		776.49	*	-4.311E-02	4.821E-01	6.770E-01	6.182E-02	-0.064
		1395.20		1.008E+01	1.062E+01	1.958E+01	1.620E+00	0.515
RB-83		520.41	*	3.410E-03	7.028E-02	1.188E-01	1.058E-02	0.029
		529.64		5.230E-02	1.096E-01	1.900E-01	1.696E-02	0.275

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		552.65		-8.643E-02	1.878E-01	3.043E-01	2.725E-02	-0.284
RB-84		881.50	*	4.188E-02	7.299E-02	1.248E-01	1.144E-02	0.336
KR-85		513.99	*	1.412E+01	7.801E+00	1.304E+01	1.160E+00	1.083
SR-85		513.99	*	7.464E-02	4.123E-02	6.893E-02	6.129E-03	1.083
RB-86		1076.63	*	-6.723E-02	8.347E-01	1.387E+00	1.202E-01	-0.048
Y-88		898.02		-1.761E-03	4.359E-02	7.044E-02	6.478E-03	-0.025
		1836.01	*	-5.724E-03	3.019E-02	4.834E-02	3.923E-03	-0.118
ZR-88		392.90	*	-5.561E-03	3.171E-02	5.091E-02	4.240E-03	-0.109
Y-91		1204.90	*	-1.913E+00	2.020E+01	3.327E+01	2.717E+00	-0.057
NB-94		702.63	*	8.890E-03	3.489E-02	5.866E-02	5.267E-03	0.152
		871.10		2.000E-02	3.463E-02	5.917E-02	5.429E-03	0.338
NB-95		765.79	*	1.359E-01	6.317E-02	1.041E-01	9.490E-03	1.305
NB-95M		235.69	*	6.517E-02	1.434E-01	2.163E-01	2.100E-02	0.301
ZR-95		724.18		-2.160E-02	1.118E-01	1.564E-01	1.524E-02	-0.138
		756.15	*	7.665E-03	7.407E-02	1.227E-01	1.219E-02	0.062
NB-97		657.90	*	1.256E-01	7.407E-02	Half-Life too short		
		1024.50		2.703E+01	7.407E-02	Half-Life too short		
ZR-97		254.15		-2.853E+01	7.407E-02	Half-Life too short		
		355.39		-1.899E+01	7.407E-02	Half-Life too short		
		507.63	*	2.691E+01	7.407E-02	Half-Life too short		
		602.52		-5.621E+00	7.407E-02	Half-Life too short		
		1021.30		3.769E+01	7.407E-02	Half-Life too short		
		1147.95		1.079E+01	7.407E-02	Half-Life too short		
		1362.66		-7.564E+00	7.407E-02	Half-Life too short		
		1750.46		-1.207E+02	7.407E-02	Half-Life too short		
MO-99		140.51		-2.100E+01	6.381E+01	8.827E+01	2.435E+01	-0.238
		181.06		2.906E+01	3.981E+01	6.123E+01	1.104E+01	0.475
		366.43		-6.170E+01	1.782E+02	2.844E+02	2.409E+01	-0.217
		739.58	*	4.747E+00	2.776E+01	4.035E+01	6.231E+00	0.118
		778.00		-5.374E+00	8.387E+01	1.181E+02	1.079E+01	-0.045
TC-99M		140.51	*	-4.233E+13	8.387E+01	Half-Life too short		
RH-101		127.23		-3.907E-02	3.558E-02	5.457E-02	4.635E-03	-0.716
		198.01	*	1.762E-02	3.370E-02	5.713E-02	4.686E-03	0.309
		325.23		-2.400E-01	2.332E-01	3.608E-01	3.094E-02	-0.665
RH-102		418.52		7.255E-02	2.896E-01	4.761E-01	4.045E-02	0.152
		475.06	*	3.315E-02	3.006E-02	5.171E-02	4.537E-03	0.641
		631.29		8.517E-03	5.739E-02	9.649E-02	8.609E-03	0.088
		697.49		-4.931E-02	8.483E-02	1.344E-01	1.205E-02	-0.367
	+	766.84		5.529E-01	2.769E-01	2.646E-01	2.413E-02	2.089
		1046.59		4.870E-03	1.113E-01	1.875E-01	1.649E-02	0.026
		1112.84		7.554E-02	2.380E-01	3.810E-01	3.235E-02	0.198
RU-103		497.08	*	-1.402E-02	4.711E-02	7.365E-02	1.053E-02	-0.190
	+	610.33		1.321E+01	3.034E+00	3.203E+00	5.399E-01	4.124
RH-106	+	511.85		4.539E-01	3.349E-01	4.260E-01	3.786E-02	1.066
		621.84	*	2.605E-01	3.209E-01	5.619E-01	7.622E-02	0.464
		1050.47		-2.228E+00	2.234E+00	3.381E+00	2.968E-01	-0.659
RU-106	+	511.85		4.539E-01	3.349E-01	4.260E-01	3.786E-02	1.066
		621.84	*	2.605E-01	3.198E-01	5.619E-01	5.022E-02	0.464
		1050.47		-2.228E+00	2.234E+00	3.381E+00	2.968E-01	-0.659

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AG-108M		433.93	*	-5.218E-03	3.285E-02	5.240E-02	4.678E-03	-0.100
		614.37		1.336E-02	4.183E-02	6.259E-02	5.805E-03	0.213
		722.95		-8.450E-03	4.663E-02	6.523E-02	6.102E-03	-0.130
AG-110M		657.75	*	3.874E-03	3.963E-02	5.770E-02	5.257E-03	0.067
		677.61		-8.523E-02	2.836E-01	4.575E-01	4.181E-02	-0.186
		706.67		-9.124E-02	2.126E-01	3.394E-01	3.128E-02	-0.269
		763.93		2.672E-01	2.036E-01	3.255E-01	3.041E-02	0.821
		884.67		-7.358E-03	4.847E-02	7.752E-02	7.309E-03	-0.095
		937.48		2.110E-02	1.049E-01	1.730E-01	1.626E-02	0.122
		1384.27		-1.010E-01	1.794E-01	2.749E-01	2.341E-02	-0.367
IN-111		171.28		1.524E+00	2.119E+00	3.452E+00	2.747E-01	0.441
		245.39	*	-1.098E+00	2.447E+00	3.492E+00	2.958E-01	-0.314
IN-113M		391.69	*	1.612E-02	4.535E-02	7.528E-02	6.471E-03	0.214
SN-113		391.69	*	1.612E-02	4.535E-02	7.528E-02	6.471E-03	0.214
IN-114M		190.27	*	7.414E-02	1.974E-01	3.007E-01	2.447E-02	0.247
CD-115		260.90		-8.484E-05	1.974E-01	Half-Life too short		
		492.35		-7.414E-06	1.974E-01	Half-Life too short		
		527.90	*	6.790E-06	1.974E-01	Half-Life too short		
SN-117M		156.02		1.552E+00	2.780E+00	4.513E+00	3.635E-01	0.344
		158.56	*	-4.451E-02	6.850E-02	1.056E-01	8.470E-03	-0.421
SB-122		563.90	*	1.038E+00	4.540E+00	7.720E+00	6.921E-01	0.134
		692.80		-1.732E+01	1.015E+02	1.659E+02	1.485E+01	-0.104
I-123		159.00	*	-1.635E+02	1.015E+02	Half-Life too short		
		528.96		2.829E+03	1.015E+02	Half-Life too short		
TE-123M		159.00	*	-2.135E-02	3.143E-02	4.839E-02	3.904E-03	-0.441
I-124		602.71	*	1.733E-02	1.230E+00	1.787E+00	1.601E-01	0.010
		722.78		-1.514E+00	7.847E+00	1.096E+01	9.899E-01	-0.138
		1325.50		2.363E+01	5.459E+01	9.424E+01	7.722E+00	0.251
		1376.25		5.210E+01	5.019E+01	9.128E+01	7.534E+00	0.571
		1509.49		3.514E+01	2.510E+01	4.799E+01	4.012E+00	0.732
		1691.02		-1.238E+00	4.167E+00	6.154E+00	5.113E-01	-0.201
SB-124		602.71		6.458E-04	4.582E-02	6.659E-02	5.968E-03	0.010
		645.85		-9.145E-02	5.002E-01	8.191E-01	7.694E-02	-0.112
		709.31		2.278E-01	2.794E+00	4.642E+00	4.177E-01	0.049
		713.82		1.641E-01	1.681E+00	2.794E+00	3.442E-01	0.059
		722.78		-8.179E-02	4.239E-01	5.921E-01	5.453E-02	-0.138
	+	968.20		1.577E+01	4.932E+00	7.682E+00	6.944E-01	2.053
		1045.16		7.727E-01	2.496E+00	4.299E+00	3.784E-01	0.180
		1325.50		1.363E+00	3.150E+00	5.437E+00	4.455E-01	0.251
		1368.21		6.016E-02	1.592E+00	2.629E+00	3.480E-01	0.023
		1436.60		-1.929E+00	3.699E+00	5.585E+00	4.645E-01	-0.345
		1691.02	*	-1.577E-02	5.309E-02	7.840E-02	6.791E-03	-0.201
SB-125		427.89	*	-9.936E-02	8.903E-02	1.311E-01	1.143E-02	-0.758
	+	463.38		6.357E-01	4.492E-01	5.456E-01	5.125E-02	1.165
		600.56		-1.427E-02	1.814E-01	3.013E-01	2.884E-02	-0.047
		635.90		6.144E-02	2.744E-01	4.638E-01	4.447E-02	0.132
TE-125M		109.28	*	5.041E+00	1.171E+01	1.718E+01	1.783E+00	0.293
I-126		388.63		4.142E-02	2.434E-01	3.997E-01	3.335E-02	0.104
		666.33	*	1.692E-01	2.440E-01	3.754E-01	3.328E-02	0.451

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		753.82		6.297E-01	1.701E+00	2.878E+00	2.618E-01	0.219
SB-126		223.80		5.195E-01	4.546E+00	7.662E+00	6.421E-01	0.068
		278.60		3.803E+00	2.989E+00	5.208E+00	4.420E-01	0.730
	+	296.50		1.389E+01	2.960E+00	4.321E+00	3.692E-01	3.215
		414.70		-1.002E-01	8.844E-02	1.312E-01	1.112E-02	-0.764
		415.30		-5.608E+00	7.278E+00	1.112E+01	9.430E-01	-0.504
		555.20		-4.698E+00	4.565E+00	7.065E+00	6.329E-01	-0.665
		573.80		5.719E-01	1.192E+00	2.059E+00	1.846E-01	0.278
		593.00		5.432E-01	1.112E+00	1.918E+00	1.720E-01	0.283
		656.30		-1.395E-01	4.699E+00	6.749E+00	5.983E-01	-0.021
		666.33		7.119E-02	1.027E-01	1.579E-01	1.400E-02	0.451
		675.00		4.219E-01	2.171E+00	3.653E+00	3.249E-01	0.115
		695.00		5.859E-02	9.896E-02	1.699E-01	1.522E-02	0.345
		697.00		-1.157E-01	3.460E-01	5.585E-01	5.006E-02	-0.207
		720.50	*	1.387E-01	1.795E-01	2.891E-01	2.609E-02	0.480
		856.80		7.029E-02	5.783E-01	8.272E-01	7.593E-02	0.085
		989.30		-3.152E-01	1.491E+00	2.348E+00	2.110E-01	-0.134
		1034.80		8.245E+00	9.817E+00	1.767E+01	1.562E+00	0.467
		1213.00		7.434E-01	5.834E+00	9.773E+00	7.988E-01	0.076
SB-127		61.10		1.107E+02	1.057E+02	1.604E+02	1.783E+01	0.690
		252.40		-6.227E+00	7.375E+00	1.097E+01	4.634E+00	-0.568
		290.80		6.001E+00	3.955E+01	5.805E+01	6.964E+00	0.103
		411.60		1.611E+01	2.136E+01	3.592E+01	5.851E+00	0.449
		444.90		1.142E+01	1.672E+01	2.809E+01	3.751E+00	0.407
		473.00		-4.280E-01	2.946E+00	4.676E+00	6.427E-01	-0.092
		543.00		-1.014E+01	2.778E+01	4.548E+01	6.954E+00	-0.223
		603.60		2.297E+00	2.272E+01	3.328E+01	4.506E+00	0.069
		685.20	*	7.634E-01	2.289E+00	3.880E+00	4.845E-01	0.197
		698.50		-8.825E+00	2.778E+01	4.484E+01	7.466E+00	-0.197
		722.20		1.746E+01	5.346E+01	7.922E+01	9.790E+00	0.220
		783.80		2.053E+00	6.481E+00	1.087E+01	1.475E+00	0.189
XE-127		57.60		6.983E-01	5.949E+00	9.886E+00	7.166E-01	0.071
	+	145.22		2.048E+00	1.076E+00	1.411E+00	1.159E-01	1.451
		172.10		4.173E-02	1.312E-01	2.103E-01	1.676E-02	0.198
		202.84	*	-1.364E-02	5.038E-02	8.405E-02	6.927E-03	-0.162
		374.96		-9.033E-02	2.058E-01	3.256E-01	2.743E-02	-0.277
I-131		80.18		-1.292E+00	8.883E+00	1.020E+01	8.803E-01	-0.127
		284.30		-1.128E-01	1.875E+00	3.096E+00	2.781E-01	-0.036
		364.48	*	-1.609E-02	1.430E-01	2.317E-01	2.080E-02	-0.069
		636.97		-1.009E+00	2.005E+00	3.206E+00	3.013E-01	-0.315
		722.89		-1.866E+00	1.006E+01	1.407E+01	1.281E+00	-0.133
TE-132		49.72		5.949E+00	2.804E+01	4.218E+01	4.709E+00	0.141
	+	111.76		1.546E+02	1.033E+02	1.138E+02	1.328E+01	1.359
		116.30		-7.376E+00	6.189E+01	8.835E+01	1.029E+01	-0.083
		228.16	*	-2.830E-01	1.236E+00	2.049E+00	3.313E-01	-0.138
BA-133		53.15		-1.618E+00	2.931E+00	4.766E+00	3.591E-01	-0.339
		79.62		-2.319E-01	1.688E+00	2.242E+00	3.397E-01	-0.103
		81.00		-1.452E-01	1.559E-01	1.698E-01	2.697E-02	-0.855
		276.40		4.432E-01	3.871E-01	6.657E-01	9.567E-02	0.666

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		302.84		1.386E-01	1.596E-01	2.439E-01	3.232E-02	0.568
		356.01	*	-7.595E-04	4.888E-02	6.907E-02	9.071E-03	-0.011
		383.85		8.250E-02	2.973E-01	4.917E-01	6.115E-02	0.168
I-133	+	510.53		9.208E+00	2.973E-01	Half-Life too short		
		529.87	*	3.510E-02	2.973E-01	Half-Life too short		
		706.58		-1.906E+00	2.973E-01	Half-Life too short		
		856.28		5.912E-01	2.973E-01	Half-Life too short		
		875.33		-1.024E+00	2.973E-01	Half-Life too short		
		1236.41		1.006E+01	2.973E-01	Half-Life too short		
		1298.22		-1.155E+00	2.973E-01	Half-Life too short		
CS-134		475.35		1.369E+00	2.045E+00	3.424E+00	3.004E-01	0.400
		563.23		5.281E-02	3.870E-01	6.544E-01	5.918E-02	0.081
		569.32		-5.302E-04	1.973E-01	3.306E-01	3.002E-02	-0.002
		604.70		-1.772E-02	4.015E-02	5.580E-02	5.010E-03	-0.318
		795.84	*	2.834E-02	4.959E-02	8.458E-02	7.793E-03	0.335
		801.93		-1.430E-01	4.115E-01	6.533E-01	6.015E-02	-0.219
		1038.57		-1.092E+00	3.807E+00	6.224E+00	5.493E-01	-0.175
		1167.94		1.842E+00	2.586E+00	4.543E+00	3.712E-01	0.405
		1365.15		3.140E-01	9.890E-01	1.702E+00	1.472E-01	0.184
CS-135		268.24	*	1.387E-01	1.763E-01	2.697E-01	2.659E-02	0.514
I-135		288.45		-1.045E+13	1.763E-01	Half-Life too short		
		417.63		2.338E+13	1.763E-01	Half-Life too short		
		546.56		4.969E+12	1.763E-01	Half-Life too short		
		836.80		2.611E+13	1.763E-01	Half-Life too short		
		1038.76		-3.025E+12	1.763E-01	Half-Life too short		
		1124.00		-4.488E+12	1.763E-01	Half-Life too short		
		1131.51		-2.857E+11	1.763E-01	Half-Life too short		
		1260.41	*	2.326E+12	1.763E-01	Half-Life too short		
		1457.56		4.120E+14	1.763E-01	Half-Life too short		
		1678.03		2.906E+12	1.763E-01	Half-Life too short		
		1706.46		1.900E+13	1.763E-01	Half-Life too short		
		1791.20		4.432E+11	1.763E-01	Half-Life too short		
CS-136		66.91		-1.315E+00	9.946E-01	1.372E+00	2.036E-01	-0.959
	+	86.29		4.384E+00	1.705E+00	2.532E+00	3.358E-01	1.731
		153.22		3.831E-01	8.216E-01	1.330E+00	1.220E-01	0.288
		163.89		5.574E-01	1.405E+00	2.239E+00	2.028E-01	0.249
		176.55		2.497E-01	4.155E-01	7.195E-01	6.149E-02	0.347
		273.65		-6.837E-01	6.256E-01	8.442E-01	7.660E-02	-0.810
		340.57		4.714E-01	1.781E-01	2.933E-01	2.585E-02	1.607
		818.51		2.853E-02	8.061E-02	1.360E-01	1.249E-02	0.210
		1048.07	*	-1.339E-02	1.179E-01	1.956E-01	1.790E-02	-0.068
		1235.34		1.506E-01	7.390E-01	1.242E+00	1.433E-01	0.121
CE-139		165.85	*	-1.684E-02	3.302E-02	5.114E-02	4.045E-03	-0.329
BA-140		162.64		7.412E-01	9.829E-01	1.587E+00	1.349E-01	0.467
		304.84		-4.617E-01	1.592E+00	2.378E+00	6.660E-01	-0.194
		423.70		-9.118E-02	2.239E+00	3.609E+00	1.169E+00	-0.025
		537.32	*	-8.581E-02	2.870E-01	4.702E-01	1.562E-01	-0.182
LA-140		328.77		4.778E-01	3.718E-01	6.440E-01	5.833E-02	0.742
		432.53		1.764E+00	2.342E+00	3.970E+00	3.572E-01	0.444

---- Non-Identified Nuclides ----

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		487.03		8.264E-02	1.666E-01	2.760E-01	2.577E-02	0.299
		751.79		-9.432E-01	1.998E+00	3.151E+00	3.141E-01	-0.299
		815.85		-1.946E-02	3.558E-01	5.784E-01	5.848E-02	-0.034
		867.82		9.498E-01	1.947E+00	3.016E+00	2.897E-01	0.315
		919.63		9.735E-01	3.529E+00	5.348E+00	5.918E-01	0.182
		925.24		7.524E-01	1.246E+00	2.136E+00	2.059E-01	0.352
		1596.49	*	6.601E-02	1.063E-01	1.682E-01	1.407E-02	0.392
CE-141		145.44	*	1.323E-01	8.276E-02	1.255E-01	1.050E-02	1.054
CE-143		57.37		2.880E-03	8.276E-02	Half-Life too short		
		231.56		-1.927E-03	8.276E-02	Half-Life too short		
		293.26	*	2.073E-03	8.276E-02	Half-Life too short		
	+	350.59		1.362E-01	8.276E-02	Half-Life too short		
		490.36		-8.987E-03	8.276E-02	Half-Life too short		
		664.57		1.216E-02	8.276E-02	Half-Life too short		
		721.93		2.341E-03	8.276E-02	Half-Life too short		
CE-144		80.11		-4.367E-01	3.212E+00	3.691E+00	3.153E-01	-0.118
		133.54	*	-1.074E-01	2.242E-01	3.515E-01	5.426E-02	-0.306
PM-144		476.78		3.995E-02	7.269E-02	1.208E-01	1.156E-02	0.331
		618.01		-2.072E-02	3.159E-02	4.999E-02	4.586E-03	-0.414
		696.49	*	6.976E-03	3.745E-02	6.269E-02	5.620E-03	0.111
		778.57		3.127E-01	2.510E+00	3.926E+00	3.587E-01	0.080
PR-144		696.49	*	4.734E-01	2.542E+00	4.255E+00	3.813E-01	0.111
		1489.15		8.174E-02	1.093E+01	1.727E+01	1.443E+00	0.005
PM-146		453.90	*	4.072E-02	4.199E-02	7.194E-02	7.751E-03	0.566
		633.02		8.951E-01	1.486E+00	2.512E+00	9.405E-01	0.356
		735.90		9.973E-04	1.486E-01	2.382E-01	6.846E-02	0.004
		747.13		7.499E-02	1.049E-01	1.609E-01	2.306E-02	0.466
ND-147	+	91.11		1.088E+00	3.219E-01	1.127E+00	1.115E-01	0.966
		319.41		-1.593E+00	3.825E+00	5.967E+00	5.119E-01	-0.267
		439.89		-3.304E-01	7.112E+00	1.143E+01	9.848E-01	-0.029
		531.02	*	3.740E-01	6.679E-01	1.161E+00	1.757E-01	0.322
PM-149		285.90	*	-4.200E-05	6.679E-01	Half-Life too short		
EU-152		121.78		-9.245E-04	8.058E-02	1.295E-01	1.283E-02	-0.007
		244.69		-4.225E-02	3.737E-01	5.454E-01	4.619E-02	-0.077
		344.27	*	-1.635E-02	1.115E-01	1.580E-01	1.432E-02	-0.103
		443.98		7.491E-02	1.000E+00	1.620E+00	1.399E-01	0.046
		778.89		1.484E-02	2.867E-01	4.453E-01	4.067E-02	0.033
		867.32		6.413E-01	1.030E+00	1.553E+00	1.425E-01	0.413
		964.01		3.388E-01	3.239E-01	5.061E-01	4.580E-02	0.669
		1085.78		-8.711E-02	3.739E-01	6.117E-01	5.277E-02	-0.142
		1112.02		1.085E-01	3.197E-01	5.384E-01	4.574E-02	0.201
		1407.95		9.759E-02	1.943E-01	3.365E-01	2.790E-02	0.290
GD-153		69.67		2.028E+00	1.818E+00	2.764E+00	2.118E-01	0.734
	+	83.37		3.138E+01	2.110E+01	2.953E+01	2.624E+00	1.063
	+	97.43	*	3.569E-01	1.193E-01	1.573E-01	1.406E-02	2.269
		103.18		-1.207E-01	1.204E-01	1.778E-01	1.561E-02	-0.679
EU-154		123.07		1.967E-03	5.564E-02	8.956E-02	1.015E-02	0.022
		247.94		3.406E-01	3.654E-01	6.138E-01	6.978E-02	0.555
		591.81		3.141E-01	6.443E-01	1.110E+00	1.324E-01	0.283

---- Non-Identified Nuclides ----

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		723.30		-1.950E-02	1.921E-01	2.713E-01	2.686E-02	-0.072
		756.87		-2.745E-01	8.098E-01	1.294E+00	1.595E-01	-0.212
		873.19		-1.636E-01	3.014E-01	4.633E-01	5.856E-02	-0.353
		996.32		-1.383E-02	3.876E-01	5.342E-01	9.581E-02	-0.026
		1004.76		1.992E-01	2.763E-01	4.146E-01	4.925E-02	0.481
		1274.45	*	-1.087E-01	1.187E-01	1.761E-01	1.936E-02	-0.617
EU-155		48.70		-1.386E+00	1.856E+00	2.690E+00	2.177E-01	-0.515
		60.01		-1.494E+00	5.311E+00	7.800E+00	5.616E-01	-0.192
	+	86.54		3.480E-01	1.313E-01	2.017E-01	1.882E-02	1.725
		105.31	*	8.315E-02	1.139E-01	1.885E-01	1.666E-02	0.441
TB-160	+	86.79		9.547E-01	3.599E-01	5.602E-01	5.197E-02	1.704
		197.04		6.857E-01	5.872E-01	1.015E+00	8.315E-02	0.676
		215.65		-2.212E-01	7.642E-01	1.269E+00	1.057E-01	-0.174
		298.57		-1.446E-02	2.000E-01	2.074E-01	1.774E-02	-0.070
		879.36	*	1.552E-01	1.428E-01	2.538E-01	2.328E-02	0.611
		962.29		-1.343E-01	5.635E-01	8.334E-01	7.545E-02	-0.161
		966.15		8.125E-01	2.714E-01	4.747E-01	4.294E-02	1.712
		1177.93		-4.545E-02	4.062E-01	6.695E-01	5.451E-02	-0.068
		1271.85		3.332E-02	6.756E-01	1.122E+00	9.203E-02	0.030
HO-166M		80.57		1.200E-01	3.990E-01	4.690E-01	4.028E-02	0.256
		184.41		3.383E-01	5.574E-02	8.969E-02	7.250E-03	3.772
		280.46		-1.126E-01	8.847E-02	1.368E-01	1.161E-02	-0.824
		410.95		5.838E-01	2.550E-01	4.608E-01	3.893E-02	1.267
		711.68	*	-1.490E-02	6.047E-02	9.784E-02	8.809E-03	-0.152
		752.31		-1.857E-01	2.764E-01	4.280E-01	3.892E-02	-0.434
		810.29		-1.973E-02	5.813E-02	9.205E-02	8.438E-03	-0.214
TM-171		51.35		-2.009E+01	2.453E+01	3.787E+01	2.925E+00	-0.531
		52.39		-3.427E+00	1.246E+01	2.042E+01	1.554E+00	-0.168
		59.40		6.143E+00	2.798E+01	4.177E+01	3.004E+00	0.147
		66.72	*	-4.408E+01	3.061E+01	4.266E+01	3.191E+00	-1.033
LU-176	+	88.36		6.846E-01	2.581E-01	4.106E-01	3.859E-02	1.667
		201.83		-2.344E-02	2.938E-02	4.797E-02	3.950E-03	-0.489
		306.84	*	-3.495E-03	2.420E-02	3.958E-02	3.390E-03	-0.088
		401.10		2.920E+00	6.623E+00	1.104E+01	9.256E-01	0.265
LU-177M		52.97		-4.420E-01	1.327E+00	2.171E+00	1.639E-01	-0.204
		54.07		-1.060E-02	7.274E-01	1.201E+00	8.957E-02	-0.009
		61.30		3.436E+00	1.692E+00	2.626E+00	1.901E-01	1.308
		121.62		4.193E-03	4.185E-01	6.733E-01	5.786E-02	0.006
		147.16		6.214E-01	7.548E-01	1.115E+00	9.120E-02	0.557
		171.86		2.225E-01	5.094E-01	8.204E-01	6.533E-02	0.271
		218.09		2.803E-01	8.364E-01	1.423E+00	1.188E-01	0.197
		268.79		1.158E+00	9.358E-01	1.462E+00	1.242E-01	0.792
		319.02		-1.384E-01	2.499E-01	3.860E-01	3.310E-02	-0.359
		367.43		1.227E-01	9.217E-01	1.515E+00	1.283E-01	0.081
		413.65	*	-2.599E-01	1.875E-01	2.737E-01	2.318E-02	-0.950
HF-181		56.28		3.040E-01	8.946E-01	1.495E+00	1.093E-01	0.203
		57.53		4.566E-02	4.960E-01	8.237E-01	5.973E-02	0.055
		65.20		3.000E+00	1.112E+00	1.740E+00	1.288E-01	1.724
		133.02		1.962E-02	7.548E-02	1.220E-01	1.024E-02	0.161

---- Non-Identified Nuclides ----

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		136.25		5.572E-01	4.924E-01	8.196E-01	6.837E-02	0.680
		345.85		-3.047E-02	2.182E-01	3.272E-01	2.796E-02	-0.093
		482.03	*	1.227E-02	4.358E-02	7.130E-02	6.273E-03	0.172
W-181		56.28		1.162E-01	3.397E-01	5.678E-01	4.151E-02	0.205
		57.53		1.720E-02	1.884E-01	3.129E-01	2.269E-02	0.055
		65.20	*	1.131E+00	4.193E-01	6.559E-01	4.853E-02	1.724
TA-182		67.75		4.437E-04	1.211E-01	1.783E-01	1.344E-02	0.002
	+	100.10		8.388E-01	2.804E-01	3.429E-01	3.037E-02	2.446
		152.43		1.825E-01	3.610E-01	5.855E-01	4.747E-02	0.312
		222.10		-4.565E-02	3.434E-01	5.730E-01	4.796E-02	-0.080
	+	1001.68		1.634E+01	4.471E+00	6.519E+00	5.835E-01	2.506
	+	1121.28		5.357E-01	2.416E-01	3.408E-01	2.878E-02	1.572
		1189.05		-1.532E-01	3.210E-01	5.127E-01	4.180E-02	-0.299
		1221.42	*	1.164E-01	1.984E-01	3.442E-01	2.815E-02	0.338
		1230.97		1.452E-01	4.795E-01	8.137E-01	6.660E-02	0.178
RE-183		57.98		1.406E-02	2.010E-01	3.184E-01	2.303E-02	0.044
		59.32		4.114E-02	1.171E-01	1.755E-01	1.262E-02	0.234
		67.20		-2.773E-01	2.240E-01	3.150E-01	2.365E-02	-0.880
		162.32	*	1.354E-01	1.253E-01	2.064E-01	1.643E-02	0.656
	+	208.81		2.467E+00	1.302E+00	1.871E+00	1.550E-01	1.319
		291.72		3.761E-01	1.037E+00	1.544E+00	1.318E-01	0.244
RE-184		57.98		5.095E-02	7.284E-01	1.154E+00	8.345E-02	0.044
		59.32		1.490E-01	4.240E-01	6.356E-01	4.571E-02	0.234
		67.20		-1.005E+00	8.115E-01	1.141E+00	8.566E-02	-0.880
		161.27		8.192E-02	3.936E-01	6.296E-01	5.022E-02	0.130
		216.55		8.427E-02	2.604E-01	4.432E-01	3.695E-02	0.190
		252.85	*	-2.094E-01	2.220E-01	3.514E-01	2.982E-02	-0.596
		318.01		-2.344E-01	4.264E-01	6.779E-01	5.813E-02	-0.346
		792.07		-5.838E-01	1.094E+00	1.716E+00	1.570E-01	-0.340
		903.28		5.211E-01	1.240E+00	1.824E+00	1.669E-01	0.286
		920.93		1.163E-01	4.413E-01	7.330E-01	6.691E-02	0.159
OS-185		59.72		-1.407E-01	3.231E-01	4.722E-01	3.397E-02	-0.298
		61.14		2.295E-01	1.832E-01	2.804E-01	2.028E-02	0.819
		69.30		3.447E-01	3.296E-01	5.004E-01	3.821E-02	0.689
		592.07		1.401E+00	2.653E+00	4.585E+00	4.111E-01	0.306
		646.12	*	-1.206E-02	4.145E-02	6.726E-02	5.980E-03	-0.179
		717.42		-2.036E-01	9.205E-01	1.492E+00	1.345E-01	-0.136
		874.81		-5.132E-01	5.988E-01	8.879E-01	8.145E-02	-0.578
		880.27		5.365E-01	7.946E-01	1.369E+00	1.255E-01	0.392
RE-188		155.03	*	2.085E-01	1.885E-01	3.116E-01	2.514E-02	0.669
		477.96		1.666E+00	3.358E+00	5.564E+00	4.887E-01	0.299
		633.10		1.807E+00	3.009E+00	5.208E+00	4.645E-01	0.347
W-188	+	63.58		1.131E+03	1.305E+02	1.471E+02	1.078E+01	7.686
		227.08		3.645E+00	1.281E+01	2.172E+01	1.824E+00	0.168
		290.67	*	1.224E+00	8.387E+00	1.231E+01	1.050E+00	0.099
IR-192	+	295.96		9.303E-01	1.985E-01	2.888E-01	2.486E-02	3.221
		308.46		7.955E-03	9.472E-02	1.568E-01	1.351E-02	0.051
		316.51	*	-9.168E-03	3.284E-02	5.313E-02	4.567E-03	-0.173
		468.07		5.766E-02	7.287E-02	1.103E-01	1.032E-02	0.523

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		604.41		-2.901E-01	5.545E-01	7.628E-01	1.010E-01	-0.380
		612.46		1.559E+00	9.086E-01	1.484E+00	1.512E-01	1.050
AU-195		65.12		7.273E-01	2.008E-01	3.163E-01	2.339E-02	2.299
		66.83		-1.413E-01	1.022E-01	1.428E-01	1.069E-02	-0.990
	+	75.70		1.047E+00	2.663E-01	4.307E-01	3.500E-02	2.431
	+	98.88	*	1.042E+00	3.483E-01	4.725E-01	4.202E-02	2.205
		129.76		1.081E+00	3.267E+00	5.296E+00	4.473E-01	0.204
TL-200		367.94	*	6.851E-04	3.267E+00	Half-Life too short		
		579.30		-2.386E-02	3.267E+00	Half-Life too short		
		828.27		6.791E-03	3.267E+00	Half-Life too short		
		1205.75		-2.809E-04	3.267E+00	Half-Life too short		
TL-201		68.90		1.234E+01	9.984E+00	1.523E+01	1.159E+00	0.810
		70.82		1.246E+00	5.767E+00	8.543E+00	6.612E-01	0.146
		80.30		-2.355E+00	1.456E+01	1.670E+01	1.430E+00	-0.141
		135.34		-1.154E+01	5.136E+01	8.144E+01	6.805E+00	-0.142
		167.43	*	-2.528E+00	1.435E+01	2.254E+01	1.785E+00	-0.112
TL-202		68.90		6.783E-01	5.486E-01	8.369E-01	6.368E-02	0.810
		70.82		6.829E-02	3.160E-01	4.682E-01	3.623E-02	0.146
		80.30		-1.291E-01	7.979E-01	9.156E-01	7.839E-02	-0.141
		439.56	*	1.604E-02	8.194E-02	1.339E-01	1.153E-02	0.120
HG-203		70.83		2.595E-01	1.214E+00	1.799E+00	2.350E-01	0.144
		72.87		1.105E+00	7.436E-01	1.122E+00	1.430E-01	0.985
		82.60		2.169E+00	1.456E+00	2.182E+00	3.023E-01	0.994
		279.20	*	1.642E-02	4.345E-02	7.324E-02	6.398E-03	0.224
BI-207		72.80		2.888E-01	2.061E-01	3.140E-01	2.476E-02	0.920
	+	74.97		5.744E-01	1.461E-01	2.126E-01	1.714E-02	2.702
	+	84.90		4.026E-01	2.706E-01	3.703E-01	3.353E-02	1.087
		569.67		-8.230E-05	3.070E-02	5.143E-02	4.612E-03	-0.002
		1063.62	*	9.415E-03	5.242E-02	8.918E-02	7.781E-03	0.106
		1770.23		3.946E-02	5.885E-01	8.551E-01	7.025E-02	0.046
TL-207		81.07		-3.164E-01	3.414E-01	3.749E-01	3.239E-02	-0.844
	+	83.78		2.654E-01	1.784E-01	2.475E-01	2.210E-02	1.072
	+	94.90		9.175E-01	5.818E-01	5.285E-01	4.779E-02	1.736
		122.32		-4.691E-01	1.902E+00	3.029E+00	2.794E-01	-0.155
	+	144.24		1.901E+00	1.002E+00	1.366E+00	1.269E-01	1.392
		154.21		2.616E-02	4.297E-01	6.848E-01	6.157E-02	0.038
	+	269.46		4.294E-01	3.036E-01	3.408E-01	2.958E-02	1.260
		323.87	*	-1.219E-01	6.468E-01	1.051E+00	1.859E-01	-0.116
	+	338.28		6.568E+00	1.937E+00	2.429E+00	2.981E-01	2.704
		445.03		1.604E+00	2.319E+00	3.900E+00	4.720E-01	0.411
PO-209		260.50		1.091E+01	9.534E+00	1.663E+01	1.413E+00	0.656
		262.80		-4.147E+01	2.676E+01	4.072E+01	3.460E+00	-1.019
		896.60	*	2.485E+00	7.361E+00	1.232E+01	1.128E+00	0.202
PB-211		404.84	*	-3.833E-02	9.206E-01	1.488E+00	9.318E-01	-0.026
		427.08		-1.919E+00	2.312E+00	2.970E+00	1.845E+00	-0.646
		831.96		-6.011E-01	1.277E+00	1.904E+00	1.194E+00	-0.316
BI-212	+	727.18	*	1.541E+00	4.856E-01	6.814E-01	7.067E-02	2.262
		785.46		1.357E+00	1.899E+00	3.271E+00	2.991E-01	0.415
		1620.62		9.562E-01	1.273E+00	2.289E+00	1.913E-01	0.418

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PO-215		81.07		-3.164E-01	3.414E-01	3.749E-01	3.239E-02	-0.844
	+	83.78		2.654E-01	1.784E-01	2.475E-01	2.210E-02	1.072
	+	94.90		9.175E-01	5.818E-01	5.285E-01	4.779E-02	1.736
		122.32		-4.691E-01	1.902E+00	3.029E+00	2.794E-01	-0.155
	+	144.24		1.901E+00	1.002E+00	1.366E+00	1.269E-01	1.392
		154.21		2.616E-02	4.297E-01	6.848E-01	6.157E-02	0.038
	+	269.46		4.294E-01	3.036E-01	3.408E-01	2.958E-02	1.260
		323.87	*	-1.219E-01	6.468E-01	1.051E+00	1.859E-01	-0.116
	+	338.28		6.568E+00	1.937E+00	2.429E+00	2.981E-01	2.704
		445.03		1.604E+00	2.319E+00	3.900E+00	4.720E-01	0.411
RN-219	+	271.23		5.510E-01	3.906E-01	4.467E-01	4.561E-02	1.233
		401.81	*	3.180E-02	4.073E-01	6.638E-01	9.888E-02	0.048
RN-220		549.76	*	5.376E+00	2.457E+01	4.190E+01	3.751E+00	0.128
RA-223		81.07		-3.164E-01	3.414E-01	3.749E-01	3.239E-02	-0.844
	+	83.78		2.654E-01	1.784E-01	2.475E-01	2.210E-02	1.072
	+	94.90		9.175E-01	5.818E-01	5.285E-01	4.779E-02	1.736
		122.32		-4.691E-01	1.902E+00	3.029E+00	2.794E-01	-0.155
	+	144.24		1.901E+00	1.002E+00	1.366E+00	1.269E-01	1.392
		154.21		2.616E-02	4.297E-01	6.848E-01	6.157E-02	0.038
	+	269.46		4.294E-01	3.036E-01	3.408E-01	2.958E-02	1.260
		323.87	*	-1.219E-01	6.468E-01	1.051E+00	1.859E-01	-0.116
	+	338.28		6.568E+00	1.937E+00	2.429E+00	2.981E-01	2.704
		445.03		1.604E+00	2.319E+00	3.900E+00	4.720E-01	0.411
AC-227		79.80		-3.318E-01	2.142E+00	2.841E+00	6.097E-01	-0.117
		236.00		3.024E-01	2.633E-01	4.076E-01	4.939E-02	0.742
		256.20	*	-6.721E-02	3.829E-01	6.322E-01	9.658E-02	-0.106
		286.10		1.104E-01	1.501E+00	2.493E+00	3.274E-01	0.044
	+	299.80		1.880E+00	1.760E+00	2.687E+00	4.690E-01	0.700
		304.40		6.410E-02	2.094E+00	3.039E+00	5.595E-01	0.021
		334.20		-4.630E-01	2.721E+00	3.862E+00	7.486E-01	-0.120
TH-227		79.80		-3.318E-01	2.142E+00	2.841E+00	6.175E-01	-0.117
	+	94.00		7.340E+00	4.881E+00	7.539E+00	1.656E+00	0.974
		236.00		3.024E-01	2.628E-01	4.076E-01	4.458E-02	0.742
		256.20	*	-6.721E-02	3.829E-01	6.322E-01	1.138E-01	-0.106
		286.10		1.104E-01	1.505E+00	2.493E+00	2.502E+00	0.044
	+	299.80		1.880E+00	1.760E+00	2.687E+00	4.690E-01	0.700
		304.40		6.410E-02	2.094E+00	3.039E+00	5.595E-01	0.021
		334.20		-4.630E-01	2.721E+00	3.862E+00	7.486E-01	-0.120
PA-231		283.67	*	-5.955E-02	1.488E+00	2.459E+00	3.718E-01	-0.024
	+	301.29		7.520E-01	6.975E-01	1.092E+00	1.332E-01	0.689
TH-231		81.07		-3.164E-01	3.414E-01	3.749E-01	3.239E-02	-0.844
	+	83.78		2.654E-01	1.784E-01	2.475E-01	2.210E-02	1.072
	+	94.90		9.175E-01	5.818E-01	5.285E-01	4.779E-02	1.736
		122.32		-4.691E-01	1.902E+00	3.029E+00	2.794E-01	-0.155
	+	144.24		1.901E+00	1.002E+00	1.366E+00	1.269E-01	1.392
		154.21		2.616E-02	4.297E-01	6.848E-01	6.157E-02	0.038
	+	269.46		4.294E-01	3.036E-01	3.408E-01	2.958E-02	1.260
		323.87	*	-1.219E-01	6.468E-01	1.051E+00	1.859E-01	-0.116
	+	338.28		6.568E+00	1.937E+00	2.429E+00	2.981E-01	2.704

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.604E+00	2.319E+00	3.900E+00	4.720E-01	0.411
PA-233	+	75.28		1.676E+01	4.765E+00	6.452E+00	9.715E-01	2.598
	+	86.59		5.651E+00	2.569E+00	3.283E+00	8.875E-01	1.721
	+	300.12		5.241E-01	4.882E-01	7.462E-01	1.107E-01	0.702
		311.98	*	-6.934E-03	6.069E-02	9.930E-02	8.757E-03	-0.070
		340.50		2.147E+00	8.911E-01	1.248E+00	2.971E-01	1.721
		398.62		1.124E+00	2.064E+00	3.432E+00	9.112E-01	0.328
		415.76		4.859E-02	1.641E+00	2.661E+00	5.719E-01	0.018
PA-234	+	63.00		3.187E+01	5.512E+00	4.249E+00	6.292E-01	7.501
	+	94.67		6.546E-01	4.192E-01	4.449E-01	5.653E-02	1.471
	+	98.44		4.176E-01	2.692E-01	1.900E-01	1.061E-01	2.198
	+	99.86		2.165E+00	7.235E-01	9.206E-01	8.159E-02	2.351
		111.00		2.378E-01	2.380E-01	3.548E-01	4.296E-02	0.670
		131.20		9.382E-02	1.194E-01	1.962E-01	1.653E-02	0.478
		152.70		1.873E-01	3.466E-01	5.609E-01	9.418E-02	0.334
	+	186.00		1.505E+01	5.298E+00	3.539E+00	1.100E+00	4.254
		226.40		3.922E-03	3.940E-01	6.608E-01	8.628E-02	0.006
		227.20		2.294E-01	4.172E-01	7.146E-01	6.002E-02	0.321
		248.90		6.565E-01	8.099E-01	1.379E+00	3.083E-01	0.476
		293.70		3.977E+00	1.115E+00	1.572E+00	2.713E-01	2.530
		369.80		7.006E-01	8.770E-01	1.476E+00	3.205E-01	0.475
		568.70		-1.943E-01	9.927E-01	1.641E+00	1.472E-01	-0.118
		569.50		-7.309E-04	2.723E-01	4.563E-01	4.092E-02	-0.002
		574.00		7.381E-01	1.481E+00	2.560E+00	2.296E-01	0.288
		699.00		-2.462E-01	7.798E-01	1.258E+00	2.421E-01	-0.196
		706.10		-3.770E-01	1.077E+00	1.710E+00	7.640E-01	-0.220
		733.00		2.476E-02	3.965E-01	5.701E-01	1.275E-01	0.043
	+	742.81		1.957E+00	2.237E+00	2.811E+00	1.891E+00	0.696
		796.30		7.408E-01	9.733E-01	1.651E+00	4.494E-01	0.449
		805.60		2.650E-01	1.034E+00	1.722E+00	5.306E-01	0.154
		819.60		3.287E-01	1.130E+00	1.887E+00	7.200E-01	0.174
		826.30		-1.412E-01	7.988E-01	1.278E+00	5.733E-01	-0.110
		831.60		-3.246E-01	6.238E-01	9.575E-01	2.873E-01	-0.339
		876.40		-5.643E-01	1.022E+00	1.278E+00	1.315E+00	-0.441
		880.51		1.703E-01	2.818E-01	4.826E-01	4.426E-02	0.353
		883.24		-5.829E-02	2.923E-01	4.615E-01	3.106E-01	-0.126
		899.00		-2.534E-01	8.795E-01	1.377E+00	6.036E-01	-0.184
		925.00		4.958E-01	1.113E+00	1.881E+00	1.716E-01	0.264
		926.50		1.869E-02	1.636E-01	2.678E-01	6.816E-02	0.070
		946.00	*	-9.226E-02	2.966E-01	4.632E-01	8.794E-02	-0.199
		949.00		-8.976E-02	4.496E-01	7.118E-01	6.464E-02	-0.126
		980.50		-7.491E-01	7.791E-01	1.130E+00	1.018E-01	-0.663
		1394.10		5.967E-01	1.130E+00	1.875E+00	1.220E+00	0.318
PA-234M		766.42		3.671E+01	2.485E+01	2.754E+01	1.400E+01	1.333
	+	1001.03	*	3.645E+01	1.014E+01	1.442E+01	1.479E+00	2.528
NP-236	+	94.67		4.964E-01	3.148E-01	3.385E-01	3.064E-02	1.467
	+	98.44		3.157E-01	1.055E-01	1.436E-01	1.279E-02	2.198
		111.00		1.799E-01	1.794E-01	2.684E-01	2.321E-02	0.670
		160.31	*	-5.171E-02	8.832E-02	1.366E-01	1.092E-02	-0.378

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		7.215E-01	2.412E-01	3.198E-01	2.837E-02	2.256
		117.00	*	-1.851E-03	2.268E-01	3.255E-01	2.800E-02	-0.006
	+	209.75		1.892E+00	9.986E-01	1.425E+00	1.181E-01	1.328
		228.18		-4.974E-02	2.189E-01	3.632E-01	3.053E-02	-0.137
		277.60		2.507E-01	1.863E-01	3.253E-01	2.761E-02	0.771
		334.30		-2.693E-01	1.541E+00	2.187E+00	1.874E-01	-0.123
AM-241		59.54	*	-7.301E-02	1.664E-01	2.432E-01	1.928E-02	-0.300
CM-243	+	99.55		7.426E-01	2.482E-01	3.292E-01	2.920E-02	2.256
		103.76	*	-2.654E-02	1.026E-01	1.648E-01	1.444E-02	-0.161
		117.00		-1.904E-03	2.334E-01	3.349E-01	2.881E-02	-0.006
	+	209.75		1.865E+00	9.846E-01	1.405E+00	1.165E-01	1.328
		228.18		-5.027E-02	2.213E-01	3.671E-01	3.085E-02	-0.137
		277.60		2.528E-01	1.878E-01	3.280E-01	2.784E-02	0.771
AM-246		798.80		-1.551E-01	1.500E-01	2.236E-01	2.048E-02	-0.693
		1036.00		-3.267E-02	2.917E-01	4.848E-01	4.284E-02	-0.067
		1062.04		-6.382E-04	2.268E-01	3.800E-01	3.318E-02	-0.002
		1078.86	*	1.407E-02	1.329E-01	2.247E-01	1.945E-02	0.063
CM-247		278.00		1.201E+00	7.728E-01	1.358E+00	1.153E-01	0.884
		287.40		-6.128E-02	1.201E+00	1.982E+00	1.688E-01	-0.031
		402.60	*	-6.640E-03	3.670E-02	5.881E-02	4.937E-03	-0.113
CF-249		252.85		-7.765E-01	8.232E-01	1.303E+00	1.106E-01	-0.596
		333.44		-6.422E-02	2.053E-01	2.884E-01	2.471E-02	-0.223
		387.95	*	1.440E-02	3.919E-02	6.515E-02	5.438E-03	0.221
CF-251		176.60	*	7.296E-02	1.231E-01	2.131E-01	1.707E-02	0.342
		227.00		1.063E-01	3.734E-01	6.331E-01	5.317E-02	0.168
		285.00		-2.569E-01	1.712E+00	2.812E+00	2.393E-01	-0.091

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978007      *
* Acquisition date : 14-FEB-2010 11:56:47 Detector SN#     :               *
* Detector ID        : GAM07               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.60      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245978007           Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.3827E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.595E+01	2.705E+00	4.756E-01	0.000E+00
CD-109	2.950E+00	1.090E+00	1.628E+00	0.000E+00
SN-126	2.887E-01	1.067E-01	1.542E-01	0.000E+00
BA-137M	1.211E-01	6.879E-02	6.518E-02	0.000E+00
CS-137	1.280E-01	7.272E-02	6.890E-02	0.000E+00
LU-177	3.592E+00	1.858E+00	2.739E+00	0.000E+00
TL-208	5.427E-01	9.005E-02	5.880E-02	0.000E+00
BI-210	2.738E+00	3.189E+00	3.869E+00	0.000E+00
PB-210	2.738E+00	3.189E+00	3.869E+00	0.000E+00
PO-210	2.738E+00	3.187E+00	3.869E+00	0.000E+00
BI-211	4.022E+00	5.445E-01	3.241E-01	0.000E+00
PB-212	1.648E+00	1.902E-01	9.413E-02	0.000E+00
PO-212	1.648E+00	1.902E-01	9.413E-02	0.000E+00
BI-214	1.163E+00	2.133E-01	1.165E-01	0.000E+00
PB-214	1.399E+00	2.025E-01	1.130E-01	0.000E+00
PO-214	1.399E+00	2.025E-01	1.130E-01	0.000E+00
PO-216	1.648E+00	1.902E-01	9.413E-02	0.000E+00
PO-218	1.399E+00	2.025E-01	1.130E-01	0.000E+00
RA-224	3.957E+00	1.241E+00	1.071E+00	0.000E+00
RA-226	1.163E+00	2.133E-01	1.165E-01	0.000E+00
AC-228	1.662E+00	3.561E-01	2.205E-01	0.000E+00
RA-228	1.662E+00	3.561E-01	2.205E-01	0.000E+00
TH-228	1.678E+00	1.936E-01	9.584E-02	0.000E+00
TH-229	-3.247E-01	4.846E-01	8.491E-01	0.000E+00
TH-230	1.163E+00	2.133E-01	1.165E-01	0.000E+00
U-231	7.205E+00	4.478E+00	2.585E+00	0.000E+00
TH-232	1.662E+00	3.561E-01	2.205E-01	0.000E+00
TH-234	2.734E+01	5.240E+00	2.126E+00	0.000E+00
U-234	1.163E+00	2.133E-01	1.165E-01	0.000E+00
U-235	5.865E-01	3.144E-01	3.755E-01	0.000E+00
NP-237	8.477E-01	3.570E-01	4.546E-01	0.000E+00
U-238	2.734E+01	5.240E+00	2.126E+00	0.000E+00
AM-243	3.200E-01	7.976E-02	9.566E-02	0.000E+00
ANH-511	9.038E-02	6.534E-02	4.721E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM	K.L. Act error)	Ided	MDA (pCi/GRAM	)	
BE-7	1.178E-01	3.459E-01		5.938E-01	0.000E+00	NOT IDENT.
NA-22	-3.958E-02	4.197E-02		6.409E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.533E+07		0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.720E-02	3.109E-02		5.739E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.121E-02		8.282E-02	0.000E+00	FAIL ABUN
SC-46	-6.105E-03	3.864E-02		6.388E-02	0.000E+00	FAIL ABUN
V-48	2.599E-02	8.116E-02		1.389E-01	0.000E+00	NOT IDENT.
CR-51	-1.378E-01	3.802E-01		6.287E-01	0.000E+00	NOT IDENT.
MN-52	1.266E-01	2.771E-01		4.963E-01	0.000E+00	FAIL ABUN
MN-54	8.756E-03	3.736E-02		6.429E-02	0.000E+00	NOT IDENT.
CO-56	1.922E-02	4.231E-02		7.395E-02	0.000E+00	NOT IDENT.
CO-57	-6.667E-03	2.743E-02		4.697E-02	0.000E+00	NOT IDENT.
CO-58	2.372E-03	3.779E-02		6.437E-02	0.000E+00	NOT IDENT.
FE-59	5.402E-02	9.537E-02		1.715E-01	0.000E+00	FAIL ABUN
CO-60	1.283E-03	3.571E-02		6.058E-02	0.000E+00	NOT IDENT.
ZN-65	-2.815E-02	1.049E-01		1.504E-01	0.000E+00	NOT IDENT.
GE-68	-4.252E-01	1.167E+00		1.944E+00	0.000E+00	NOT IDENT.
AS-73	-3.690E-01	6.877E-01		1.221E+00	0.000E+00	NOT IDENT.
AS-74	-9.133E-02	1.029E-01		1.679E-01	0.000E+00	NOT IDENT.
SE-75	-4.518E-02	4.977E-02		7.210E-02	0.000E+00	NOT IDENT.
BR-77	2.410E+00	2.367E+01		4.197E+01	0.000E+00	FAIL ABUN
SR-82	-4.311E-02	4.725E-01		6.879E-01	0.000E+00	NOT IDENT.
RB-83	3.410E-03	6.888E-02		1.217E-01	0.000E+00	NOT IDENT.
RB-84	4.188E-02	7.153E-02		1.265E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	7.645E+00		1.336E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.040E-02		7.062E-02	0.000E+00	NOT IDENT.
RB-86	-6.723E-02	8.180E-01		1.400E+00	0.000E+00	NOT IDENT.
Y-88	-5.724E-03	2.959E-02		4.827E-02	0.000E+00	NOT IDENT.
ZR-88	-5.561E-03	3.107E-02		5.243E-02	0.000E+00	NOT IDENT.
Y-91	-1.913E+00	1.980E+01		3.351E+01	0.000E+00	NOT IDENT.
NB-94	8.890E-03	3.419E-02		5.972E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	6.191E-02		1.058E-01	0.000E+00	NOT IDENT.
NB-95M	6.517E-02	1.405E-01		2.250E-01	0.000E+00	NOT IDENT.
ZR-95	7.665E-03	7.259E-02		1.248E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.827E+06		0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.289E+07		0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.747E+00	2.720E+01		4.104E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.263E+20		0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.762E-02	3.302E-02		5.962E-02	0.000E+00	NOT IDENT.
RH-102	3.315E-02	2.946E-02		5.306E-02	0.000E+00	FAIL ABUN
RU-103	-1.402E-02	4.617E-02		7.550E-02	0.000E+00	FAIL ABUN
RH-106	2.605E-01	3.145E-01		5.735E-01	0.000E+00	FAIL ABUN
RU-106	2.605E-01	3.134E-01		5.735E-01	0.000E+00	FAIL ABUN
AG-108M	-5.218E-03	3.219E-02		5.386E-02	0.000E+00	NOT IDENT.
AG-110M	3.874E-03	3.884E-02		5.883E-02	0.000E+00	NOT IDENT.
IN-111	-1.098E+00	2.398E+00		3.629E+00	0.000E+00	NOT IDENT.
IN-113M	1.612E-02	4.444E-02		7.753E-02	0.000E+00	NOT IDENT.
SN-113	1.612E-02	4.444E-02		7.753E-02	0.000E+00	NOT IDENT.
IN-114M	7.414E-02	1.935E-01		3.141E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.657E+01		0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.451E-02	6.713E-02		1.107E-01	0.000E+00	NOT IDENT.
SB-122	1.038E+00	4.449E+00		7.895E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.359E+08		0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.135E-02	3.080E-02		5.071E-02	0.000E+00	NOT IDENT.
I-124	1.733E-02	1.205E+00		1.825E+00	0.000E+00	NOT IDENT.
SB-124	-1.577E-02	5.203E-02		7.842E-02	0.000E+00	FAIL ABUN
SB-125	-9.936E-02	8.725E-02		1.348E-01	0.000E+00	FAIL ABUN
TE-125M	5.041E+00	1.148E+01		1.813E+01	0.000E+00	NOT IDENT.
I-126	1.692E-01	2.392E-01		3.826E-01	0.000E+00	NOT IDENT.
SB-126	1.387E-01	1.759E-01		2.942E-01	0.000E+00	FAIL ABUN
SB-127	7.634E-01	2.243E+00		3.953E+00	0.000E+00	NOT IDENT.
XE-127	-1.364E-02	4.937E-02		8.767E-02	0.000E+00	FAIL ABUN
I-131	-1.609E-02	1.402E-01		2.390E-01	0.000E+00	NOT IDENT.
TE-132	-2.830E-01	1.211E+00		2.133E+00	0.000E+00	FAIL ABUN
BA-133	-7.595E-04	4.790E-02		7.127E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.004E+04		0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.834E-02	4.860E-02		8.591E-02	0.000E+00	NOT IDENT.
CS-135	1.387E-01	1.728E-01		2.798E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.037E+18		0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.339E-02	1.155E-01		1.976E-01	0.000E+00	FAIL ABUN
CE-139	-1.684E-02	3.236E-02		5.354E-02	0.000E+00	NOT IDENT.

BA-140	-8.581E-02	2.813E-01	4.813E-01	0.000E+00	NOT IDENT.
LA-140	6.601E-02	1.042E-01	1.684E-01	0.000E+00	NOT IDENT.
CE-141	0.000E+00	8.111E-02	1.317E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	8.100E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.074E-01	2.197E-01	3.695E-01	0.000E+00	NOT IDENT.
PM-144	6.976E-03	3.671E-02	6.384E-02	0.000E+00	NOT IDENT.
PR-144	4.734E-01	2.491E+00	4.333E+00	0.000E+00	NOT IDENT.
PM-146	4.072E-02	4.115E-02	7.388E-02	0.000E+00	NOT IDENT.
ND-147	3.740E-01	6.545E-01	1.189E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.187E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.635E-02	1.092E-01	1.632E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.169E-01	1.663E-01	0.000E+00	FAIL ABUN
EU-154	-1.087E-01	1.163E-01	1.772E-01	0.000E+00	NOT IDENT.
EU-155	8.315E-02	1.116E-01	1.991E-01	0.000E+00	FAIL ABUN
TB-160	1.552E-01	1.400E-01	2.573E-01	0.000E+00	FAIL ABUN
HO-166M	-1.490E-02	5.926E-02	9.960E-02	0.000E+00	NOT IDENT.
TM-171	-4.408E+01	3.000E+01	4.543E+01	0.000E+00	NOT IDENT.
LU-176	-3.495E-03	2.371E-02	4.096E-02	0.000E+00	FAIL ABUN
LU-177M	-2.599E-01	1.838E-01	2.817E-01	0.000E+00	NOT IDENT.
HF-181	1.227E-02	4.271E-02	7.314E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	4.109E-01	6.987E-01	0.000E+00	NOT IDENT.
TA-182	1.164E-01	1.944E-01	3.466E-01	0.000E+00	FAIL ABUN
RE-183	1.354E-01	1.228E-01	2.162E-01	0.000E+00	FAIL ABUN
RE-184	-2.094E-01	2.175E-01	3.650E-01	0.000E+00	NOT IDENT.
OS-185	-1.206E-02	4.062E-02	6.860E-02	0.000E+00	NOT IDENT.
RE-188	2.085E-01	1.847E-01	3.267E-01	0.000E+00	NOT IDENT.
W-188	1.224E+00	8.220E+00	1.275E+01	0.000E+00	FAIL ABUN
IR-192	-9.168E-03	3.218E-02	5.495E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	3.413E-01	4.995E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.881E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-2.528E+00	1.406E+01	2.359E+01	0.000E+00	NOT IDENT.
TL-202	1.604E-02	8.031E-02	1.376E-01	0.000E+00	NOT IDENT.
HG-203	1.642E-02	4.258E-02	7.593E-02	0.000E+00	NOT IDENT.
BI-207	9.415E-03	5.137E-02	9.005E-02	0.000E+00	FAIL ABUN
TL-207	-1.219E-01	6.338E-01	1.087E+00	0.000E+00	FAIL ABUN
PO-209	2.485E+00	7.214E+00	1.248E+01	0.000E+00	NOT IDENT.
PB-211	-3.833E-02	9.022E-01	1.531E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.759E-01	6.933E-01	0.000E+00	FAIL ABUN
PO-215	-1.219E-01	6.338E-01	1.087E+00	0.000E+00	FAIL ABUN
RN-219	3.180E-02	3.991E-01	6.834E-01	0.000E+00	FAIL ABUN
RN-220	5.376E+00	2.408E+01	4.287E+01	0.000E+00	NOT IDENT.
RA-223	-1.219E-01	6.338E-01	1.087E+00	0.000E+00	FAIL ABUN
AC-227	-6.721E-02	3.752E-01	6.566E-01	0.000E+00	FAIL ABUN
TH-227	-6.721E-02	3.752E-01	6.566E-01	0.000E+00	FAIL ABUN
PA-231	-5.955E-02	1.458E+00	2.548E+00	0.000E+00	FAIL ABUN
TH-231	-1.219E-01	6.338E-01	1.087E+00	0.000E+00	FAIL ABUN
PA-233	-6.934E-03	5.948E-02	1.027E-01	0.000E+00	FAIL ABUN
PA-234	-9.226E-02	2.907E-01	4.689E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	9.939E+00	1.458E+01	0.000E+00	FAIL ABUN
NP-236	-5.171E-02	8.656E-02	1.432E-01	0.000E+00	FAIL ABUN
NP-239	-1.851E-03	2.223E-01	3.430E-01	0.000E+00	FAIL ABUN
AM-241	-7.301E-02	1.631E-01	2.595E-01	0.000E+00	NOT IDENT.
CM-243	-2.654E-02	1.006E-01	1.740E-01	0.000E+00	FAIL ABUN
AM-246	1.407E-02	1.303E-01	2.268E-01	0.000E+00	NOT IDENT.
CM-247	-6.640E-03	3.597E-02	6.054E-02	0.000E+00	NOT IDENT.
CF-249	1.440E-02	3.841E-02	6.712E-02	0.000E+00	NOT IDENT.
CF-251	7.296E-02	1.206E-01	2.228E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:57:45.96

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978007.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 11:56:47
Sample ID         : G245978007           Sample quantity  : 1.38270E+02 GRAM
Detector name     : GAM07                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1152	10.67*	1.129E+00	2.595E+01	2.595E+01	10.64
CD-109	88.03	269	3.72*	6.840E+00	2.871E+00	2.950E+00	37.70
SN-126	64.28	1838	9.60	4.803E+00	1.082E+01	1.082E+01	17.01
	86.94	269	8.90	6.840E+00	1.200E+00	1.200E+00	55.30
	87.57	269	37.00*	6.840E+00	2.887E-01	2.887E-01	37.70
BA-137M	661.65	89	89.98*	2.231E+00	1.209E-01	1.211E-01	57.97
CS-137	661.65	89	85.12*	2.231E+00	1.278E-01	1.280E-01	57.98
LU-177	112.95	163	6.40	7.166E+00	9.632E-01	6.209E+00	66.32
	208.36	121	11.00*	5.377E+00	5.572E-01	3.592E+00	52.79
TL-208	277.35	------	6.80	4.401E+00	------ Line Not Found		------
	510.84	92	21.60	2.755E+00	4.184E-01	4.184E-01	74.25
	583.14	417	84.20*	2.476E+00	5.427E-01	5.427E-01	16.93
	860.37	66	12.46	1.781E+00	8.093E-01	8.093E-01	62.88
BI-210	46.50	82	4.05*	2.018E+00	2.734E+00	2.738E+00	118.87
PB-210	46.50	82	4.05*	2.018E+00	2.734E+00	2.738E+00	118.87
PO-210	46.50	82	4.05*	2.018E+00	2.734E+00	2.738E+00	118.80
BI-211	72.87	------	1.27	5.899E+00	------ Line Not Found		------
	351.07	705	12.94*	3.680E+00	4.022E+00	4.022E+00	13.81
PB-212	74.81	473	10.70	6.076E+00	1.974E+00	1.974E+00	27.10
	77.11	889	18.00	6.258E+00	2.142E+00	2.142E+00	15.80
	87.30	269	8.00	6.840E+00	1.335E+00	1.335E+00	39.01
	238.63	1329	44.60*	4.909E+00	1.648E+00	1.648E+00	11.77
	300.09	53	3.41	4.146E+00	1.014E+00	1.014E+00	92.54
PO-212	74.81	473	10.70	6.076E+00	1.974E+00	1.974E+00	27.10
	77.11	889	18.00	6.258E+00	2.142E+00	2.142E+00	15.80
	87.30	269	8.00	6.840E+00	1.335E+00	1.335E+00	39.01
	115.19	------	0.60	7.150E+00	------ Line Not Found		------
	238.63	1329	44.60*	4.909E+00	1.648E+00	1.648E+00	11.77
	300.09	53	3.41	4.146E+00	1.014E+00	1.014E+00	92.54
BI-214	609.31	474	46.30*	2.389E+00	1.163E+00	1.163E+00	18.72
	1120.29	88	15.10	1.413E+00	1.114E+00	1.114E+00	45.57
	1764.49	100	15.80	9.831E-01	1.752E+00	1.752E+00	24.19

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PB-214	74.81	473	6.21	6.076E+00	3.401E+00	3.401E+00	26.49
	77.11	889	10.50	6.258E+00	3.671E+00	3.672E+00	17.54
	87.30	269	4.67	6.840E+00	2.287E+00	2.287E+00	38.48
	241.98	280	7.49	4.866E+00	2.087E+00	2.087E+00	32.50
	295.21	353	19.20	4.201E+00	1.188E+00	1.188E+00	22.21
	351.92	705	37.20*	3.680E+00	1.399E+00	1.399E+00	14.77
PO-214	74.81	473	6.21	6.076E+00	3.401E+00	3.401E+00	26.49
	77.11	889	10.50	6.258E+00	3.671E+00	3.672E+00	17.54
	87.30	269	4.67	6.840E+00	2.287E+00	2.287E+00	38.48
	241.98	280	7.49	4.866E+00	2.087E+00	2.087E+00	32.50
	295.21	353	19.20	4.201E+00	1.188E+00	1.188E+00	22.21
	351.92	705	37.20*	3.680E+00	1.399E+00	1.399E+00	14.77
PO-216	74.81	473	10.70	6.076E+00	1.974E+00	1.974E+00	27.10
	77.11	889	18.00	6.258E+00	2.142E+00	2.142E+00	15.80
	87.30	269	8.00	6.840E+00	1.335E+00	1.335E+00	39.01
	238.63	1329	44.60*	4.909E+00	1.648E+00	1.648E+00	11.77
	300.09	53	3.41	4.146E+00	1.014E+00	1.014E+00	92.54
PO-218	74.81	473	6.21	6.076E+00	3.401E+00	3.401E+00	26.49
	77.11	889	10.50	6.258E+00	3.671E+00	3.672E+00	17.54
	87.30	269	4.67	6.840E+00	2.287E+00	2.287E+00	38.48
	241.98	280	7.49	4.866E+00	2.087E+00	2.087E+00	32.50
	295.21	353	19.20	4.201E+00	1.188E+00	1.188E+00	22.21
	351.92	705	37.20*	3.680E+00	1.399E+00	1.399E+00	14.77
RA-224	240.98	280	3.95*	4.866E+00	3.957E+00	3.957E+00	32.02
RA-226	609.31	474	46.30*	2.389E+00	1.163E+00	1.163E+00	18.72
	1120.29	88	15.10	1.413E+00	1.114E+00	1.114E+00	45.57
	1764.49	100	15.80	9.831E-01	1.752E+00	1.752E+00	24.19
AC-228	338.32	251	11.40	3.793E+00	1.573E+00	1.573E+00	49.20
	911.07	288	27.70*	1.695E+00	1.662E+00	1.662E+00	21.86
	969.11	146	16.60	1.606E+00	1.482E+00	1.482E+00	38.05
RA-228	338.32	251	11.40	3.793E+00	1.573E+00	1.573E+00	49.20
	911.07	288	27.70*	1.695E+00	1.662E+00	1.662E+00	21.86
	969.11	146	16.60	1.606E+00	1.482E+00	1.482E+00	38.05
TH-228	74.81	473	10.70	6.076E+00	1.974E+00	2.009E+00	25.46
	77.11	889	18.00	6.258E+00	2.142E+00	2.180E+00	15.80
	87.30	269	8.00	6.840E+00	1.335E+00	1.359E+00	37.70
	238.63	1329	44.60*	4.909E+00	1.648E+00	1.678E+00	11.77
	300.09	53	3.41	4.146E+00	1.014E+00	1.033E+00	109.40
TH-229	85.43	162	16.50	6.698E+00	3.973E-01	3.973E-01	67.23
	88.47	269	27.10	6.840E+00	3.941E-01	3.941E-01	37.70
	100.00	279	12.40	7.131E+00	8.554E-01	8.554E-01	33.43
	193.63	------	4.59*	5.666E+00	------ Line Not Found		------
	210.97	121	3.26	5.377E+00	1.878E+00	1.878E+00	52.79
TH-230	609.31	474	46.30*	2.389E+00	1.163E+00	1.163E+00	18.72
	1120.29	88	15.10	1.413E+00	1.114E+00	1.114E+00	45.57
	1764.49	100	15.80	9.831E-01	1.752E+00	1.752E+00	24.19
U-231	84.21	162	7.00	6.698E+00	9.365E-01	1.838E+01	67.23
	92.29	4021	17.30	7.015E+00	8.996E+00	1.766E+02	9.97
	95.87	267	28.00*	7.063E+00	3.670E-01	7.205E+00	63.41

Sample ID : G245978007 Acquisition date : 14-FEB-2010 11:56:47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	108.00	------	13.10	7.185E+00	------ Line Not Found		------
TH-232	338.32	251	11.40	3.793E+00	1.573E+00	1.573E+00	28.16
	911.07	288	27.70*	1.695E+00	1.662E+00	1.662E+00	21.86
	969.11	146	16.60	1.606E+00	1.482E+00	1.482E+00	38.05
TH-234	63.29	1838	3.80*	4.803E+00	2.734E+01	2.734E+01	19.56
	92.38	4021	5.41	7.015E+00	2.877E+01	2.877E+01	18.76
U-234	609.31	474	46.30*	2.389E+00	1.163E+00	1.163E+00	18.72
	1120.29	88	15.10	1.413E+00	1.114E+00	1.114E+00	45.57
	1764.49	100	15.80	9.831E-01	1.752E+00	1.752E+00	24.19
U-235	89.95	249	2.70	6.939E+00	3.614E+00	3.614E+00	41.71
	93.35	4021	4.50	7.015E+00	3.458E+01	3.458E+01	28.47
	105.00	------	2.10	7.182E+00	------ Line Not Found		------
	143.76	152	10.50*	6.690E+00	5.865E-01	5.865E-01	54.70
	163.35	------	4.70	6.279E+00	------ Line Not Found		------
	185.71	645	54.00	5.814E+00	5.576E-01	5.576E-01	18.39
	205.31	------	4.70	5.451E+00	------ Line Not Found		------
NP-237	86.50	269	12.60*	6.840E+00	8.477E-01	8.477E-01	42.98
	95.87	267	2.60	7.063E+00	3.952E+00	3.952E+00	67.48
U-238	63.29	1838	3.80*	4.803E+00	2.734E+01	2.734E+01	19.56
	92.38	4021	5.41	7.015E+00	2.877E+01	2.877E+01	9.97
AM-243	74.67	473	66.00*	6.076E+00	3.200E-01	3.200E-01	25.44
	86.72	269	0.34	6.840E+00	3.179E+01	3.179E+01	37.70
	117.66	------	0.55	7.126E+00	------ Line Not Found		------
	142.18	------	0.13	6.723E+00	------ Line Not Found		------
ANH-511	511.00	92	100.00*	2.755E+00	9.038E-02	9.038E-02	73.78

Flag: "*" = Keyline

Sample ID : G245978007 Acquisition date : 14-FEB-2010 11:56:47

Total number of lines in spectrum 37
Number of unidentified lines 1
Number of lines tentatively identified by NID 36 97.30%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.595E+01	2.595E+01	0.276E+01	10.64	
CD-109	464.00D	1.03	2.871E+00	2.950E+00	1.112E+00	37.70	
SN-126	1.00E+05Y	1.00	2.887E-01	2.887E-01	1.088E-01	37.70	
BA-137M	30.17Y	1.00	1.209E-01	1.211E-01	0.702E-01	57.97	
CS-137	30.17Y	1.00	1.278E-01	1.280E-01	0.742E-01	57.98	
LU-177	6.71D	6.45	5.572E-01	3.592E+00	1.896E+00	52.79	
TL-208	1.41E+10Y	1.00	5.427E-01	5.427E-01	0.919E-01	16.93	
BI-210	22.26Y	1.00	2.734E+00	2.738E+00	3.254E+00	118.87	
PB-210	22.26Y	1.00	2.734E+00	2.738E+00	3.254E+00	118.87	
PO-210	22.26Y	1.00	2.734E+00	2.738E+00	3.252E+00	118.80	
BI-211	7.04E+08Y	1.00	4.022E+00	4.022E+00	0.556E+00	13.81	
PB-212	1.41E+10Y	1.00	1.648E+00	1.648E+00	0.194E+00	11.77	
PO-212	1.41E+10Y	1.00	1.648E+00	1.648E+00	0.194E+00	11.77	
BI-214	1600.00Y	1.00	1.163E+00	1.163E+00	0.218E+00	18.72	
PB-214	1600.00Y	1.00	1.399E+00	1.399E+00	0.207E+00	14.77	
PO-214	1600.00Y	1.00	1.399E+00	1.399E+00	0.207E+00	14.77	
PO-216	1.41E+10Y	1.00	1.648E+00	1.648E+00	0.194E+00	11.77	
PO-218	1600.00Y	1.00	1.399E+00	1.399E+00	0.207E+00	14.77	
RA-224	1.41E+10Y	1.00	3.957E+00	3.957E+00	1.267E+00	32.02	
RA-226	1600.00Y	1.00	1.163E+00	1.163E+00	0.218E+00	18.72	
AC-228	1.41E+10Y	1.00	1.662E+00	1.662E+00	0.363E+00	21.86	
RA-228	1.41E+10Y	1.00	1.662E+00	1.662E+00	0.363E+00	21.86	
TH-228	1.91Y	1.02	1.648E+00	1.678E+00	0.198E+00	11.77	
TH-229	7340.00Y	1.00	3.941E-01	3.941E-01	1.486E-01	37.70	K
TH-230	4.47E+09Y	1.00	1.163E+00	1.163E+00	0.218E+00	18.72	
U-231	4.20D	19.6	3.670E-01	7.205E+00	4.569E+00	63.41	
TH-232	1.41E+10Y	1.00	1.662E+00	1.662E+00	0.363E+00	21.86	
TH-234	4.47E+09Y	1.00	2.734E+01	2.734E+01	0.535E+01	19.56	
U-234	4.47E+09Y	1.00	1.163E+00	1.163E+00	0.218E+00	18.72	
U-235	7.04E+08Y	1.00	5.865E-01	5.865E-01	3.208E-01	54.70	
NP-237	2.14E+06Y	1.00	8.477E-01	8.477E-01	3.643E-01	42.98	
U-238	4.47E+09Y	1.00	2.734E+01	2.734E+01	0.535E+01	19.56	
AM-243	7380.00Y	1.00	3.200E-01	3.200E-01	0.814E-01	25.44	
ANH-511	1.00E+09Y	1.00	9.038E-02	9.038E-02	6.668E-02	73.78	
	Total Activity :		1.244E+02	1.343E+02			

Grand Total Activity : 1.244E+02 1.343E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978007 Acquisition date : 14-FEB-2010 11:56:47

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	270.40	96	278	2.05	540.39	534	11	1.34E-02	70.2	4.48E+00	T
0	463.21	71	138	1.68	925.94	919	12	9.90E-03	70.0	2.98E+00	T
0	727.58	138	63	1.95	1454.60	1448	14	1.92E-02	29.8	2.06E+00	T
0	744.13	35	69	2.56	1487.70	1482	9	4.86E-03	92.4	2.02E+00	T
0	768.18	135	149	2.35	1535.79	1528	21	1.87E-02	49.2	1.97E+00	T
0	1001.42	176	75	1.59	2002.23	1996	15	2.44E-02	25.9	1.56E+00	T
0	1589.65	57	20	4.80	3178.58	3168	21	7.91E-03	48.0	1.06E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 13:57:52.64

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978007.CNF;1 *
* Acquisition date  : 14-FEB-2010 11:56:47  Detector SN#     :             *
* Detector ID       : GAM07                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.60          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245978007            Analyst initials: MXR1         *
* Batch Number      : 948721                Sample Quantity : 1.38270E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58.0MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.595E+01	2.760E+00	4.741E-01	4.071E-02	54.736
CD-109	2.950E+00	1.112E+00	1.537E+00	1.447E-01	1.920
SN-126	2.887E-01	1.088E-01	1.455E-01	1.364E-02	1.984
BA-137M	1.211E-01	7.019E-02	6.394E-02	5.658E-03	1.894
CS-137	1.280E-01	7.420E-02	6.759E-02	5.992E-03	1.894
LU-177	3.592E+00	1.896E+00	2.627E+00	2.176E-01	1.367
TL-208	5.427E-01	9.189E-02	5.753E-02	5.503E-03	9.434
BI-210	2.738E+00	3.254E+00	3.610E+00	3.386E-01	0.758
PB-210	2.738E+00	3.254E+00	3.610E+00	3.386E-01	0.758
PO-210	2.738E+00	3.252E+00	3.610E+00	3.071E-01	0.758
BI-211	4.022E+00	5.556E-01	3.140E-01	2.817E-02	12.808
PB-212	1.648E+00	1.940E-01	9.052E-02	8.658E-03	18.210
PO-212	1.648E+00	1.940E-01	9.052E-02	8.658E-03	18.210
BI-214	1.163E+00	2.177E-01	1.141E-01	1.180E-02	10.193
PB-214	1.399E+00	2.066E-01	1.095E-01	1.136E-02	12.781
PO-214	1.399E+00	2.066E-01	1.095E-01	1.136E-02	12.781
PO-216	1.648E+00	1.940E-01	9.052E-02	8.658E-03	18.210
PO-218	1.399E+00	2.066E-01	1.095E-01	1.136E-02	12.781

Sample ID : G245978007 Acquisition date : 14-FEB-2010 11:56:47

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-224	3.957E+00	1.267E+00	1.030E+00	8.714E-02	3.840
RA-226	1.163E+00	2.177E-01	1.141E-01	1.180E-02	10.193
AC-228	1.662E+00	3.634E-01	2.177E-01	2.536E-02	7.634
RA-228	1.662E+00	3.634E-01	2.177E-01	2.536E-02	7.634
TH-228	1.678E+00	1.976E-01	9.216E-02	8.815E-03	18.210
TH-229	3.941E-01	1.486E-01	8.133E-01	6.642E-02	0.485
TH-230	1.163E+00	2.177E-01	1.141E-01	1.180E-02	10.193
U-231	7.205E+00	4.569E+00	2.444E+00	2.200E-01	2.948
TH-232	1.662E+00	3.634E-01	2.177E-01	2.536E-02	7.634
TH-234	2.734E+01	5.347E+00	1.994E+00	3.470E-01	13.710
U-234	1.163E+00	2.177E-01	1.141E-01	1.180E-02	10.193
U-235	5.865E-01	3.208E-01	3.576E-01	6.194E-02	1.640
NP-237	8.477E-01	3.643E-01	4.289E-01	9.698E-02	1.976
U-238	2.734E+01	5.347E+00	1.994E+00	3.470E-01	13.710
AM-243	3.200E-01	8.139E-02	9.002E-02	7.236E-03	3.554
ANH-511	9.038E-02	6.668E-02	4.607E-02	4.094E-03	1.962

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.178E-01		3.529E-01	5.787E-01	5.462E-02	0.204
NA-22	-3.958E-02		4.283E-02	6.370E-02	5.229E-03	-0.621
NA-24	-8.256E-01		7.823E+00	Half-Life too short		
AL-26	1.720E-02		3.172E-02	5.746E-02	4.686E-03	0.299
TI-44	3.953E-01	+	6.246E-02	7.800E-02	6.530E-03	5.067
SC-46	-6.105E-03		3.943E-02	6.303E-02	5.776E-03	-0.097
V-48	2.599E-02		8.282E-02	1.374E-01	1.237E-02	0.189
CR-51	-1.378E-01		3.880E-01	6.080E-01	5.495E-02	-0.227
MN-52	1.266E-01		2.828E-01	4.945E-01	4.112E-02	0.256
MN-54	8.756E-03		3.813E-02	6.336E-02	5.816E-03	0.138
CO-56	1.922E-02		4.318E-02	7.290E-02	6.692E-03	0.264
CO-57	-6.667E-03		2.799E-02	4.460E-02	3.838E-03	-0.149
CO-58	2.372E-03		3.856E-02	6.340E-02	5.825E-03	0.037
FE-59	5.402E-02		9.731E-02	1.700E-01	1.575E-02	0.318
CO-60	1.283E-03		3.644E-02	6.027E-02	4.937E-03	0.021
ZN-65	-2.815E-02		1.070E-01	1.491E-01	1.265E-02	-0.189
GE-68	-4.252E-01		1.190E+00	1.925E+00	1.668E-01	-0.221
AS-73	-3.690E-01		7.018E-01	1.142E+00	8.573E-02	-0.323
AS-74	-9.133E-02		1.050E-01	1.643E-01	1.473E-02	-0.556
SE-75	-4.518E-02		5.078E-02	6.947E-02	5.932E-03	-0.650
BR-77	2.410E+00		2.416E+01	4.097E+01	3.649E+00	0.059
SR-82	-4.311E-02		4.821E-01	6.770E-01	6.182E-02	-0.064
RB-83	3.410E-03		7.028E-02	1.188E-01	1.058E-02	0.029
RB-84	4.188E-02		7.299E-02	1.248E-01	1.144E-02	0.336
KR-85	1.412E+01		7.801E+00	1.304E+01	1.160E+00	1.083
SR-85	7.464E-02		4.123E-02	6.893E-02	6.129E-03	1.083
RB-86	-6.723E-02		8.347E-01	1.387E+00	1.202E-01	-0.048

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
Y-88	-5.724E-03		3.019E-02	4.834E-02	3.923E-03	-0.118
ZR-88	-5.561E-03		3.171E-02	5.091E-02	4.240E-03	-0.109
Y-91	-1.913E+00		2.020E+01	3.327E+01	2.717E+00	-0.057
NB-94	8.890E-03		3.489E-02	5.866E-02	5.267E-03	0.152
NB-95	1.359E-01		6.317E-02	1.041E-01	9.490E-03	1.305
NB-95M	6.517E-02		1.434E-01	2.163E-01	2.100E-02	0.301
ZR-95	7.665E-03		7.407E-02	1.227E-01	1.219E-02	0.062
NB-97	1.256E-01		9.323E-01	Half-Life too short		
ZR-97	2.691E+01		1.678E+01	Half-Life too short		
MO-99	4.747E+00		2.776E+01	4.035E+01	6.231E+00	0.118
TC-99M	-4.233E+13		6.446E+13	Half-Life too short		
RH-101	1.762E-02		3.370E-02	5.713E-02	4.686E-03	0.309
RH-102	3.315E-02		3.006E-02	5.171E-02	4.537E-03	0.641
RU-103	-1.402E-02		4.711E-02	7.365E-02	1.053E-02	-0.190
RH-106	2.605E-01		3.209E-01	5.619E-01	7.622E-02	0.464
RU-106	2.605E-01		3.198E-01	5.619E-01	5.022E-02	0.464
AG-108M	-5.218E-03		3.285E-02	5.240E-02	4.678E-03	-0.100
AG-110M	3.874E-03		3.963E-02	5.770E-02	5.257E-03	0.067
IN-111	-1.098E+00		2.447E+00	3.492E+00	2.958E-01	-0.314
IN-113M	1.612E-02		4.535E-02	7.528E-02	6.471E-03	0.214
SN-113	1.612E-02		4.535E-02	7.528E-02	6.471E-03	0.214
IN-114M	7.414E-02		1.974E-01	3.007E-01	2.447E-02	0.247
CD-115	6.790E-06		1.356E-05	Half-Life too short		
SN-117M	-4.451E-02		6.850E-02	1.056E-01	8.470E-03	-0.421
SB-122	1.038E+00		4.540E+00	7.720E+00	6.921E-01	0.134
I-123	-1.635E+02		1.203E+02	Half-Life too short		
TE-123M	-2.135E-02		3.143E-02	4.839E-02	3.904E-03	-0.441
I-124	1.733E-02		1.230E+00	1.787E+00	1.601E-01	0.010
SB-124	-1.577E-02		5.309E-02	7.840E-02	6.791E-03	-0.201
SB-125	-9.936E-02		8.903E-02	1.311E-01	1.143E-02	-0.758
TE-125M	5.041E+00		1.171E+01	1.718E+01	1.783E+00	0.293
I-126	1.692E-01		2.440E-01	3.754E-01	3.328E-02	0.451
SB-126	1.387E-01		1.795E-01	2.891E-01	2.609E-02	0.480
SB-127	7.634E-01		2.289E+00	3.880E+00	4.845E-01	0.197
XE-127	-1.364E-02		5.038E-02	8.405E-02	6.927E-03	-0.162
I-131	-1.609E-02		1.430E-01	2.317E-01	2.080E-02	-0.069
TE-132	-2.830E-01		1.236E+00	2.049E+00	3.313E-01	-0.138
BA-133	-7.595E-04		4.888E-02	6.907E-02	9.071E-03	-0.011
I-133	3.510E-02		3.063E-02	Half-Life too short		
CS-134	2.834E-02		4.959E-02	8.458E-02	7.793E-03	0.335
CS-135	1.387E-01		1.763E-01	2.697E-01	2.659E-02	0.514
I-135	2.326E+12		4.101E+12	Half-Life too short		
CS-136	-1.339E-02		1.179E-01	1.956E-01	1.790E-02	-0.068
CE-139	-1.684E-02		3.302E-02	5.114E-02	4.045E-03	-0.329
BA-140	-8.581E-02		2.870E-01	4.702E-01	1.562E-01	-0.182
LA-140	6.601E-02		1.063E-01	1.682E-01	1.407E-02	0.392
CE-141	1.323E-01		8.276E-02	1.255E-01	1.050E-02	1.054
CE-143	2.073E-03		4.133E-04	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CE-144	-1.074E-01		2.242E-01	3.515E-01	5.426E-02	-0.306
PM-144	6.976E-03		3.745E-02	6.269E-02	5.620E-03	0.111
PR-144	4.734E-01		2.542E+00	4.255E+00	3.813E-01	0.111
PM-146	4.072E-02		4.199E-02	7.194E-02	7.751E-03	0.566
ND-147	3.740E-01		6.679E-01	1.161E+00	1.757E-01	0.322
PM-149	-4.200E-05		1.116E-04	Half-Life too short		
EU-152	-1.635E-02		1.115E-01	1.580E-01	1.432E-02	-0.103
GD-153	3.569E-01	+	1.193E-01	1.573E-01	1.406E-02	2.269
EU-154	-1.087E-01		1.187E-01	1.761E-01	1.936E-02	-0.617
EU-155	8.315E-02		1.139E-01	1.885E-01	1.666E-02	0.441
TB-160	1.552E-01		1.428E-01	2.538E-01	2.328E-02	0.611
HO-166M	-1.490E-02		6.047E-02	9.784E-02	8.809E-03	-0.152
TM-171	-4.408E+01		3.061E+01	4.266E+01	3.191E+00	-1.033
LU-176	-3.495E-03		2.420E-02	3.958E-02	3.390E-03	-0.088
LU-177M	-2.599E-01		1.875E-01	2.737E-01	2.318E-02	-0.950
HF-181	1.227E-02		4.358E-02	7.130E-02	6.273E-03	0.172
W-181	1.131E+00		4.193E-01	6.559E-01	4.853E-02	1.724
TA-182	1.164E-01		1.984E-01	3.442E-01	2.815E-02	0.338
RE-183	1.354E-01		1.253E-01	2.064E-01	1.643E-02	0.656
RE-184	-2.094E-01		2.220E-01	3.514E-01	2.982E-02	-0.596
OS-185	-1.206E-02		4.145E-02	6.726E-02	5.980E-03	-0.179
RE-188	2.085E-01		1.885E-01	3.116E-01	2.514E-02	0.669
W-188	1.224E+00		8.387E+00	1.231E+01	1.050E+00	0.099
IR-192	-9.168E-03		3.284E-02	5.313E-02	4.567E-03	-0.173
AU-195	1.042E+00	+	3.483E-01	4.725E-01	4.202E-02	2.205
TL-200	6.851E-04		1.470E-03	Half-Life too short		
TL-201	-2.528E+00		1.435E+01	2.254E+01	1.785E+00	-0.112
TL-202	1.604E-02		8.194E-02	1.339E-01	1.153E-02	0.120
HG-203	1.642E-02		4.345E-02	7.324E-02	6.398E-03	0.224
BI-207	9.415E-03		5.242E-02	8.918E-02	7.781E-03	0.106
TL-207	-1.219E-01		6.468E-01	1.051E+00	1.859E-01	-0.116
PO-209	2.485E+00		7.361E+00	1.232E+01	1.128E+00	0.202
PB-211	-3.833E-02		9.206E-01	1.488E+00	9.318E-01	-0.026
BI-212	1.541E+00	+	4.856E-01	6.814E-01	7.067E-02	2.262
PO-215	-1.219E-01		6.468E-01	1.051E+00	1.859E-01	-0.116
RN-219	3.180E-02		4.073E-01	6.638E-01	9.888E-02	0.048
RN-220	5.376E+00		2.457E+01	4.190E+01	3.751E+00	0.128
RA-223	-1.219E-01		6.468E-01	1.051E+00	1.859E-01	-0.116
AC-227	-6.721E-02		3.829E-01	6.322E-01	9.658E-02	-0.106
TH-227	-6.721E-02		3.829E-01	6.322E-01	1.138E-01	-0.106
PA-231	-5.955E-02		1.488E+00	2.459E+00	3.718E-01	-0.024
TH-231	-1.219E-01		6.468E-01	1.051E+00	1.859E-01	-0.116
PA-233	-6.934E-03		6.069E-02	9.930E-02	8.757E-03	-0.070
PA-234	-9.226E-02		2.966E-01	4.632E-01	8.794E-02	-0.199
PA-234M	3.645E+01	+	1.014E+01	1.442E+01	1.479E+00	2.528
NP-236	-5.171E-02		8.832E-02	1.366E-01	1.092E-02	-0.378
NP-239	-1.851E-03		2.268E-01	3.255E-01	2.800E-02	-0.006
AM-241	-7.301E-02		1.664E-01	2.432E-01	1.928E-02	-0.300

Sample ID : G245978007 Acquisition date : 14-FEB-2010 11:56:47

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.654E-02		1.026E-01	1.648E-01	1.444E-02	-0.161
AM-246	1.407E-02		1.329E-01	2.247E-01	1.945E-02	0.063
CM-247	-6.640E-03		3.670E-02	5.881E-02	4.937E-03	-0.113
CF-249	1.440E-02		3.919E-02	6.515E-02	5.438E-03	0.221
CF-251	7.296E-02		1.231E-01	2.131E-01	1.707E-02	0.342

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978007           *
* Acquisition date  : 14-FEB-2010 11:56:47 Detector SN#     :               *
* Detector ID       : GAM07                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.60      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978007           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.3827E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 20-JUL-2009 15:29:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.595E+01	2.705E+00	2.379E-01	1.380E+00
CD-109	2.950E+00	1.090E+00	8.145E-01	5.560E-01
SN-126	2.887E-01	1.067E-01	7.715E-02	5.442E-02
BA-137M	1.211E-01	6.879E-02	3.261E-02	3.510E-02
CS-137	1.280E-01	7.272E-02	3.447E-02	3.710E-02
LU-177	3.592E+00	1.858E+00	1.370E+00	9.480E-01
TL-208	5.427E-01	9.005E-02	2.942E-02	4.594E-02
BI-210	2.738E+00	3.189E+00	1.936E+00	1.627E+00
PB-210	2.738E+00	3.189E+00	1.936E+00	1.627E+00
PO-210	2.738E+00	3.187E+00	1.936E+00	1.626E+00
BI-211	4.022E+00	5.445E-01	1.621E-01	2.778E-01
PB-212	1.648E+00	1.902E-01	4.709E-02	9.702E-02
PO-212	1.648E+00	1.902E-01	4.709E-02	9.702E-02
BI-214	1.163E+00	2.133E-01	5.827E-02	1.088E-01
PB-214	1.399E+00	2.025E-01	5.652E-02	1.033E-01
PO-214	1.399E+00	2.025E-01	5.652E-02	1.033E-01
PO-216	1.648E+00	1.902E-01	4.709E-02	9.702E-02
PO-218	1.399E+00	2.025E-01	5.652E-02	1.033E-01
RA-224	3.957E+00	1.241E+00	5.360E-01	6.334E-01
RA-226	1.163E+00	2.133E-01	5.827E-02	1.088E-01
AC-228	1.662E+00	3.561E-01	1.103E-01	1.817E-01
RA-228	1.662E+00	3.561E-01	1.103E-01	1.817E-01
TH-228	1.678E+00	1.936E-01	4.795E-02	9.878E-02
TH-229	-3.247E-01	4.846E-01	4.248E-01	2.473E-01
TH-230	1.163E+00	2.133E-01	5.827E-02	1.088E-01
U-231	7.205E+00	4.478E+00	1.293E+00	2.284E+00
TH-232	1.662E+00	3.561E-01	1.103E-01	1.817E-01
TH-234	2.734E+01	5.240E+00	1.064E+00	2.674E+00
U-234	1.163E+00	2.133E-01	5.827E-02	1.088E-01
U-235	5.865E-01	3.144E-01	1.878E-01	1.604E-01
NP-237	8.477E-01	3.570E-01	2.274E-01	1.822E-01
U-238	2.734E+01	5.240E+00	1.064E+00	2.674E+00
AM-243	3.200E-01	7.976E-02	4.786E-02	4.070E-02
ANH-511	9.038E-02	6.534E-02	2.362E-02	3.334E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	1.178E-01	3.459E-01	2.971E-01	1.765E-01	NOT IDENT.
NA-22	-3.958E-02	4.197E-02	3.206E-02	2.141E-02	NOT IDENT.
NA-24	-8.256E+05	1.533E+07	0.000E+00	7.823E+06	SHORT HLIF
AL-26	1.720E-02	3.109E-02	2.871E-02	1.586E-02	NOT IDENT.
TI-44	3.953E-01	6.121E-02	4.143E-02	3.123E-02	FAIL ABUN
SC-46	-6.105E-03	3.864E-02	3.196E-02	1.971E-02	FAIL ABUN
V-48	2.599E-02	8.116E-02	6.951E-02	4.141E-02	NOT IDENT.
CR-51	-1.378E-01	3.802E-01	3.146E-01	1.940E-01	NOT IDENT.
MN-52	1.266E-01	2.771E-01	2.483E-01	1.414E-01	FAIL ABUN
MN-54	8.756E-03	3.736E-02	3.217E-02	1.906E-02	NOT IDENT.
CO-56	1.922E-02	4.231E-02	3.699E-02	2.159E-02	NOT IDENT.
CO-57	-6.667E-03	2.743E-02	2.350E-02	1.399E-02	NOT IDENT.
CO-58	2.372E-03	3.779E-02	3.220E-02	1.928E-02	NOT IDENT.
FE-59	5.402E-02	9.537E-02	8.580E-02	4.866E-02	FAIL ABUN
CO-60	1.283E-03	3.571E-02	3.031E-02	1.822E-02	NOT IDENT.
ZN-65	-2.815E-02	1.049E-01	7.525E-02	5.352E-02	NOT IDENT.
GE-68	-4.252E-01	1.167E+00	9.724E-01	5.952E-01	NOT IDENT.
AS-73	-3.690E-01	6.877E-01	6.107E-01	3.509E-01	NOT IDENT.
AS-74	-9.133E-02	1.029E-01	8.399E-02	5.252E-02	NOT IDENT.
SE-75	-4.518E-02	4.977E-02	3.607E-02	2.539E-02	NOT IDENT.
BR-77	2.410E+00	2.367E+01	2.100E+01	1.208E+01	FAIL ABUN
SR-82	-4.311E-02	4.725E-01	3.442E-01	2.411E-01	NOT IDENT.
RB-83	3.410E-03	6.888E-02	6.089E-02	3.514E-02	NOT IDENT.
RB-84	4.188E-02	7.153E-02	6.329E-02	3.649E-02	NOT IDENT.
KR-85	1.412E+01	7.645E+00	6.685E+00	3.900E+00	NOT IDENT.
SR-85	7.464E-02	4.040E-02	3.533E-02	2.061E-02	NOT IDENT.
RB-86	-6.723E-02	8.180E-01	7.005E-01	4.173E-01	NOT IDENT.
Y-88	-5.724E-03	2.959E-02	2.415E-02	1.510E-02	NOT IDENT.
ZR-88	-5.561E-03	3.107E-02	2.623E-02	1.585E-02	NOT IDENT.
Y-91	-1.913E+00	1.980E+01	1.677E+01	1.010E+01	NOT IDENT.
NB-94	8.890E-03	3.419E-02	2.988E-02	1.744E-02	NOT IDENT.
NB-95	1.359E-01	6.191E-02	5.294E-02	3.159E-02	NOT IDENT.
NB-95M	6.517E-02	1.405E-01	1.126E-01	7.169E-02	NOT IDENT.
ZR-95	7.665E-03	7.259E-02	6.242E-02	3.703E-02	NOT IDENT.
NB-97	1.256E+05	1.827E+06	0.000E+00	9.323E+05	SHORT HLIF
ZR-97	2.691E+07	3.289E+07	0.000E+00	1.678E+07	SHORT HLIF
MO-99	4.747E+00	2.720E+01	2.053E+01	1.388E+01	NOT IDENT.
TC-99M	-4.233E+19	1.263E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.762E-02	3.302E-02	2.983E-02	1.685E-02	NOT IDENT.
RH-102	3.315E-02	2.946E-02	2.655E-02	1.503E-02	FAIL ABUN
RU-103	-1.402E-02	4.617E-02	3.777E-02	2.355E-02	FAIL ABUN
RH-106	2.605E-01	3.145E-01	2.869E-01	1.604E-01	FAIL ABUN
RU-106	2.605E-01	3.134E-01	2.869E-01	1.599E-01	FAIL ABUN
AG-108M	-5.218E-03	3.219E-02	2.695E-02	1.642E-02	NOT IDENT.
AG-110M	3.874E-03	3.884E-02	2.943E-02	1.982E-02	NOT IDENT.
IN-111	-1.098E+00	2.398E+00	1.816E+00	1.223E+00	NOT IDENT.
IN-113M	1.612E-02	4.444E-02	3.879E-02	2.268E-02	NOT IDENT.
SN-113	1.612E-02	4.444E-02	3.879E-02	2.268E-02	NOT IDENT.
IN-114M	7.414E-02	1.935E-01	1.571E-01	9.872E-02	NOT IDENT.
CD-115	6.790E+00	2.657E+01	0.000E+00	1.356E+01	SHORT HLIF
SN-117M	-4.451E-02	6.713E-02	5.538E-02	3.425E-02	NOT IDENT.
SB-122	1.038E+00	4.449E+00	3.950E+00	2.270E+00	NOT IDENT.
I-123	-1.635E+08	2.359E+08	0.000E+00	1.203E+08	SHORT HLIF
TE-123M	-2.135E-02	3.080E-02	2.537E-02	1.571E-02	NOT IDENT.
I-124	1.733E-02	1.205E+00	9.132E-01	6.148E-01	NOT IDENT.
SB-124	-1.577E-02	5.203E-02	3.923E-02	2.654E-02	FAIL ABUN
SB-125	-9.936E-02	8.725E-02	6.744E-02	4.451E-02	FAIL ABUN
TE-125M	5.041E+00	1.148E+01	9.071E+00	5.855E+00	NOT IDENT.
I-126	1.692E-01	2.392E-01	1.914E-01	1.220E-01	NOT IDENT.
SB-126	1.387E-01	1.759E-01	1.472E-01	8.977E-02	FAIL ABUN
SB-127	7.634E-01	2.243E+00	1.978E+00	1.144E+00	NOT IDENT.
XE-127	-1.364E-02	4.937E-02	4.386E-02	2.519E-02	FAIL ABUN
I-131	-1.609E-02	1.402E-01	1.196E-01	7.152E-02	NOT IDENT.
TE-132	-2.830E-01	1.211E+00	1.067E+00	6.179E-01	FAIL ABUN
BA-133	-7.595E-04	4.790E-02	3.566E-02	2.444E-02	NOT IDENT.
I-133	3.510E+04	6.004E+04	0.000E+00	3.063E+04	SHORT HLIF
CS-134	2.834E-02	4.860E-02	4.298E-02	2.480E-02	NOT IDENT.
CS-135	1.387E-01	1.728E-01	1.400E-01	8.816E-02	NOT IDENT.
I-135	2.326E+18	8.037E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.339E-02	1.155E-01	9.885E-02	5.893E-02	FAIL ABUN
CE-139	-1.684E-02	3.236E-02	2.679E-02	1.651E-02	NOT IDENT.

BA-140	-8.581E-02	2.813E-01	2.408E-01	1.435E-01	NOT IDENT.
LA-140	6.601E-02	1.042E-01	8.427E-02	5.316E-02	NOT IDENT.
CE-141	1.323E-01	8.111E-02	6.590E-02	4.138E-02	NOT IDENT.
CE-143	2.073E+03	8.100E+02	0.000E+00	4.133E+02	SHORT HLIF
CE-144	-1.074E-01	2.197E-01	1.849E-01	1.121E-01	NOT IDENT.
PM-144	6.976E-03	3.671E-02	3.194E-02	1.873E-02	NOT IDENT.
PR-144	4.734E-01	2.491E+00	2.168E+00	1.271E+00	NOT IDENT.
PM-146	4.072E-02	4.115E-02	3.696E-02	2.100E-02	NOT IDENT.
ND-147	3.740E-01	6.545E-01	5.947E-01	3.339E-01	FAIL ABUN
PM-149	-4.200E+01	2.187E+02	0.000E+00	1.116E+02	SHORT HLIF
EU-152	-1.635E-02	1.092E-01	8.163E-02	5.573E-02	NOT IDENT.
GD-153	3.569E-01	1.169E-01	8.320E-02	5.964E-02	FAIL ABUN
EU-154	-1.087E-01	1.163E-01	8.864E-02	5.934E-02	NOT IDENT.
EU-155	8.315E-02	1.116E-01	9.960E-02	5.694E-02	FAIL ABUN
TB-160	1.552E-01	1.400E-01	1.287E-01	7.141E-02	FAIL ABUN
HO-166M	-1.490E-02	5.926E-02	4.983E-02	3.024E-02	NOT IDENT.
TM-171	-4.408E+01	3.000E+01	2.273E+01	1.530E+01	NOT IDENT.
LU-176	-3.495E-03	2.371E-02	2.049E-02	1.210E-02	FAIL ABUN
LU-177M	-2.599E-01	1.838E-01	1.409E-01	9.377E-02	NOT IDENT.
HF-181	1.227E-02	4.271E-02	3.659E-02	2.179E-02	NOT IDENT.
W-181	1.131E+00	4.109E-01	3.496E-01	2.096E-01	NOT IDENT.
TA-182	1.164E-01	1.944E-01	1.734E-01	9.918E-02	FAIL ABUN
RE-183	1.354E-01	1.228E-01	1.082E-01	6.263E-02	FAIL ABUN
RE-184	-2.094E-01	2.175E-01	1.826E-01	1.110E-01	NOT IDENT.
OS-185	-1.206E-02	4.062E-02	3.432E-02	2.073E-02	NOT IDENT.
RE-188	2.085E-01	1.847E-01	1.634E-01	9.424E-02	NOT IDENT.
W-188	1.224E+00	8.220E+00	6.379E+00	4.194E+00	FAIL ABUN
IR-192	-9.168E-03	3.218E-02	2.749E-02	1.642E-02	FAIL ABUN
AU-195	1.042E+00	3.413E-01	2.499E-01	1.741E-01	FAIL ABUN
TL-200	6.851E+02	2.881E+03	0.000E+00	1.470E+03	SHORT HLIF
TL-201	-2.528E+00	1.406E+01	1.180E+01	7.174E+00	NOT IDENT.
TL-202	1.604E-02	8.031E-02	6.884E-02	4.097E-02	NOT IDENT.
HG-203	1.642E-02	4.258E-02	3.799E-02	2.172E-02	NOT IDENT.
BI-207	9.415E-03	5.137E-02	4.505E-02	2.621E-02	FAIL ABUN
TL-207	-1.219E-01	6.338E-01	5.437E-01	3.234E-01	FAIL ABUN
PO-209	2.485E+00	7.214E+00	6.245E+00	3.681E+00	NOT IDENT.
PB-211	-3.833E-02	9.022E-01	7.660E-01	4.603E-01	NOT IDENT.
BI-212	1.541E+00	4.759E-01	3.468E-01	2.428E-01	FAIL ABUN
PO-215	-1.219E-01	6.338E-01	5.437E-01	3.234E-01	FAIL ABUN
RN-219	3.180E-02	3.991E-01	3.419E-01	2.036E-01	FAIL ABUN
RN-220	5.376E+00	2.408E+01	2.145E+01	1.229E+01	NOT IDENT.
RA-223	-1.219E-01	6.338E-01	5.437E-01	3.234E-01	FAIL ABUN
AC-227	-6.721E-02	3.752E-01	3.285E-01	1.914E-01	FAIL ABUN
TH-227	-6.721E-02	3.752E-01	3.285E-01	1.915E-01	FAIL ABUN
PA-231	-5.955E-02	1.458E+00	1.275E+00	7.439E-01	FAIL ABUN
TH-231	-1.219E-01	6.338E-01	5.437E-01	3.234E-01	FAIL ABUN
PA-233	-6.934E-03	5.948E-02	5.140E-02	3.035E-02	FAIL ABUN
PA-234	-9.226E-02	2.907E-01	2.346E-01	1.483E-01	FAIL ABUN
PA-234M	3.645E+01	9.939E+00	7.294E+00	5.071E+00	FAIL ABUN
NP-236	-5.171E-02	8.656E-02	7.162E-02	4.416E-02	FAIL ABUN
NP-239	-1.851E-03	2.223E-01	1.716E-01	1.134E-01	FAIL ABUN
AM-241	-7.301E-02	1.631E-01	1.298E-01	8.321E-02	NOT IDENT.
CM-243	-2.654E-02	1.006E-01	8.707E-02	5.132E-02	FAIL ABUN
AM-246	1.407E-02	1.303E-01	1.135E-01	6.645E-02	NOT IDENT.
CM-247	-6.640E-03	3.597E-02	3.029E-02	1.835E-02	NOT IDENT.
CF-249	1.440E-02	3.841E-02	3.358E-02	1.959E-02	NOT IDENT.
CF-251	7.296E-02	1.206E-01	1.115E-01	6.153E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
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46.50	572.4137
46.50	572.4137
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49.72	595.4296
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54.07	708.6933
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56.28	777.2520
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57.53	817.3760
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57.98	831.8246
57.98	831.8246
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59.32	821.3416
59.40	839.0038
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59.72	906.8063
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61.14	889.2921
61.30	889.6210
63.00	828.8324
63.29	829.3760
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63.58	829.9186
64.28	831.2209
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65.20	798.4232
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67.85	819.4166
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68.90	779.5322
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70.82	850.0543
70.83	850.0716
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72.87	882.2421
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74.81	813.8184
74.81	813.8184
74.81	813.8184
74.81	813.8184
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74.81	813.8184
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77.11	817.5793

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77.11	817.5793
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81.07	934.9352
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83.78	862.9850
83.78	862.9850
83.78	862.9850
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86.59	848.9853
86.72	849.1867
86.79	849.2916
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94.67	673.3972
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94.90	673.6663
94.90	673.6663
94.90	673.6663
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95.87	382.9068
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98.88	466.8947
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100.10	461.5321
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117.00	417.2348
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122.32	422.1731
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144.24	396.3402
144.24	396.3402
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152.70	355.7548
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154.21	380.3402
154.21	380.3402
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163.89	360.6613
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172.10	300.1654
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176.60	292.9431
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186.00	331.4759
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201.83	344.3048
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209.75	322.5584
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228.18	253.4717
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236.00	274.3401
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238.63	246.6057
238.63	246.6057
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241.98	247.3600
241.98	247.3600
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252.85	212.8721
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256.20	223.9346
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269.46	219.7682
269.46	219.7682
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277.35	206.7215
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277.60	198.0682
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284.30	185.5500
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286.10	181.9267
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293.70	194.1890
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295.21	206.9622

295.21	206.9622
295.96	235.3235
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297.23	243.4098
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300.09	204.6040
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338.28	178.1001
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338.32	178.1055
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351.92	140.9859
351.92	140.9859
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391.69	126.9156
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511.85	101.1381
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513.99	88.5000
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520.65	102.0504
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529.64	97.9831
529.87	0.0000
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546.56	0.0000
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555.20	106.5863
563.23	114.3821
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569.50	100.8489
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579.30	0.0000
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593.00	89.8102
595.88	112.4121
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602.52	0.0000
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602.71	101.8032
603.60	106.5461
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609.31	99.9107
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609.31	99.9107
610.33	99.9573
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614.37	83.4508
618.01	96.5190
621.84	76.7799
621.84	76.7799
631.29	92.3323
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633.10	84.7847
634.78	84.8477
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661.65	103.2017
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713.82	77.8582
717.42	82.9049
720.50	66.3495
721.93	0.0000
722.20	69.2190
722.78	82.4219
722.78	82.4219
722.89	82.4259
722.95	82.4280
723.30	79.1426
724.18	90.7155
727.18	70.3465
733.00	64.5493
735.90	70.6997
739.58	73.0129
742.81	81.7458
744.21	81.4573
747.13	64.9064
751.79	80.0293
752.31	84.0472
753.82	69.0792
755.35	70.1213
756.15	75.1538
756.87	86.1995
763.93	75.3772
765.79	97.2213
766.42	103.9514
766.84	91.5576
776.49	75.7361
778.00	77.4622
778.57	74.5314
778.89	74.5404
783.80	82.0184
785.46	78.0170
792.07	97.5070

795.84	78.3178
796.30	74.2618
798.80	96.7302
801.93	79.5120
805.60	70.4319
810.29	68.5065
810.76	60.3367
815.85	58.3999
817.79	61.5161
818.51	52.3024
819.60	50.2717
826.30	62.7335
828.27	0.0000
831.60	73.1546
831.96	76.2565
834.83	72.2080
836.80	0.0000
846.75	68.3687
848.13	59.0735
856.28	0.0000
856.80	53.7089
860.37	64.5309
867.32	64.3375
867.82	67.0809
871.10	55.3673
873.19	66.9063
874.81	69.0357
875.33	0.0000
876.40	68.0262
879.36	47.1423
880.27	52.3975
880.51	53.4491
881.50	51.3710
883.24	62.9399
884.67	57.7231
889.25	58.8629
896.60	54.7942
898.02	64.3076
899.00	68.5483
903.28	65.1249
911.07	65.6464
911.07	65.6464
911.07	65.6464
919.63	53.0908
920.93	50.9883
925.00	46.8016
925.24	44.6783
926.50	48.9536
935.52	48.0300
937.48	50.1957
944.10	55.6550
946.00	58.9021
949.00	61.1024
962.29	71.3190
964.01	57.4453
966.15	53.8916
968.20	93.4714
969.11	118.6716
969.11	118.6716
969.11	118.6716
977.42	45.6693
980.50	72.5403
983.50	55.2683
989.30	57.5392
996.32	47.1472
1001.03	49.0309
1001.68	49.0408
1004.76	50.9049
1021.30	0.0000
1024.50	0.0000
1034.80	43.1139
1036.00	56.8939
1037.82	68.8599
1038.57	59.6918
1038.76	0.0000
1045.16	53.3673
1046.59	55.2319
1048.07	53.4145

1050.47	65.4329
1050.47	65.4329
1062.04	58.2576
1063.62	57.3581
1076.63	53.8605
1077.35	56.6588
1078.86	50.1790
1085.78	54.0045
1099.22	56.0815
1112.02	57.3075
1112.84	57.5474
1115.52	72.4376
1120.29	74.1468
1120.29	74.1468
1120.29	74.1468
1120.29	74.1468
1120.51	58.2991
1121.28	49.9814
1124.00	0.0000
1129.67	56.5625
1131.51	0.0000
1147.95	0.0000
1167.94	59.0660
1173.22	73.4595
1175.09	74.4517
1177.93	78.3298
1189.05	71.8567
1204.90	74.0830
1205.75	0.0000
1213.00	76.1680
1221.42	61.8438
1230.97	67.8097
1235.34	89.2223
1236.41	0.0000
1238.25	64.0530
1246.25	59.3246
1260.41	0.0000
1271.85	43.0708
1274.45	56.8129
1274.54	57.7924
1291.56	36.3978
1298.22	0.0000
1312.09	30.6506
1325.50	33.7275
1325.50	33.7275
1332.49	32.7919
1333.61	32.7999
1360.21	23.0075
1362.66	0.0000
1365.15	19.0286
1368.21	25.0559
1368.53	0.0000
1376.25	30.1245
1384.27	45.2728
1394.10	21.1760
1395.20	18.1553
1407.95	32.3724
1434.06	17.3016
1436.60	29.5310
1457.56	0.0000
1460.81	20.4785
1489.15	16.4870
1509.49	16.5612
1596.49	16.2692
1620.62	16.9570
1678.03	0.0000
1691.02	8.6003
1691.02	8.6003
1706.46	0.0000
1750.46	0.0000
1764.49	6.5437
1764.49	6.5437
1764.49	6.5437
1764.49	6.5437
1770.23	19.6523
1771.40	11.4669
1791.20	0.0000
1808.65	13.1978

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978007

Total Uranium Activity	8.1615E+01	ug/g
Total Uranium Counting Unc.	1.5590E+01	ug/g
Total Uranium Tpu	7.9543E-06	ug/g
Total Uranium Mda	3.1652E+00	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID     : 948721                    SAMPLE ID  : G245978007          *
*   ANALYST      : MXR1                      DETECTOR   : GAM07               *
*   SAMPLE DATE  : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 14-FEB-2010 11:56:47.30   SAMPLE ALQT:  138.270 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.233E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.588E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.903E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.403E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:01:36.90

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978008.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:01:03
Sample ID         : G245978008           Sample quantity  : 1.34060E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.22*	354	613	1.25	125.37	120	11	4.92E-02	14.7	
2	2	75.01*	311	631	1.60	148.94	143	14	4.33E-02	16.9	2.81E+00
3	2	77.29*	393	450	1.12	153.50	143	14	5.45E-02	10.8	
4	0	92.71*	1520	943	1.47	184.35	177	15	2.11E-01	5.2	
5	0	185.98*	445	422	1.24	370.87	366	12	6.17E-02	10.7	
6	0	209.18	154	357	1.51	417.27	413	12	2.14E-02	25.8	
7	2	238.79*	1040	250	1.36	476.48	471	23	1.44E-01	4.1	1.63E+00
8	2	241.87	289	256	1.85	482.63	471	23	4.01E-02	15.3	
9	0	270.67*	66	236	1.34	540.25	536	10	9.17E-03	46.0	
10	0	295.25*	368	207	1.42	589.40	584	11	5.11E-02	9.4	
11	0	299.69	55	202	0.73	598.28	595	9	7.68E-03	48.1	
12	0	338.45	200	224	1.71	675.79	671	11	2.77E-02	16.1	
13	0	351.96*	654	162	1.48	702.82	695	14	9.08E-02	5.8	
14	0	463.55	74	134	1.57	925.99	921	13	1.03E-02	34.6	
15	0	510.97*	125	140	1.87	1020.84	1012	19	1.74E-02	27.6	
16	0	582.95*	261	161	1.70	1164.81	1160	15	3.63E-02	12.4	
17	0	609.34*	456	102	1.45	1217.59	1212	12	6.34E-02	6.6	
18	0	661.48*	284	103	1.55	1321.88	1313	15	3.94E-02	10.0	
19	0	727.44*	87	81	1.63	1453.81	1446	16	1.21E-02	26.2	
20	0	768.21	102	50	2.29	1535.38	1529	13	1.42E-02	17.8	
21	0	796.04	21	61	1.45	1591.03	1585	9	2.93E-03	70.9	
22	0	911.30*	200	67	1.71	1821.59	1815	16	2.78E-02	12.0	
23	0	969.60	115	108	1.52	1938.21	1929	14	1.60E-02	21.3	
24	0	1000.74*	107	49	1.57	2000.49	1993	16	1.49E-02	17.9	
25	0	1122.09*	84	116	2.03	2243.25	2233	21	1.16E-02	35.0	
26	0	1237.94	46	71	4.59	2475.00	2467	15	6.36E-03	42.8	
27	0	1377.39	72	10	6.14	2753.98	2745	20	1.00E-02	16.0	
28	0	1460.67*	917	32	2.12	2920.59	2910	21	1.27E-01	3.7	
29	0	1592.80	32	6	1.30	3184.95	3180	12	4.44E-03	23.4	
30	0	1764.60*	62	16	2.21	3528.68	3522	13	8.59E-03	19.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 14:01:40

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978008.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:01:03
Sample ID : G245978008 Sample quantity : 134.06 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA15 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.40 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.491E+01	3.058E+00	5.904E-01	5.801E-02	42.196
BA-137M	+	661.65	*	4.463E-01	9.640E-02	7.895E-02	6.491E-03	5.653
CS-137	+	661.65	*	4.718E-01	1.019E-01	8.346E-02	6.876E-03	5.653
TL-208		277.35		4.088E-01	5.133E-01	8.367E-01	1.169E-01	0.489
	+	510.84		6.720E-01	3.798E-01	2.625E-01	3.151E-02	2.560
	+	583.14	*	3.966E-01	1.048E-01	7.427E-02	6.801E-03	5.339
		860.37		4.645E-01	3.720E-01	6.463E-01	6.321E-02	0.719
BI-211		72.87		8.236E+00	5.582E+00	8.446E+00	9.674E-01	0.975
	+	351.07	*	4.506E+00	6.903E-01	3.767E-01	3.751E-02	11.962
PB-212	+	74.81		2.508E+00	9.266E-01	8.705E-01	1.290E-01	2.881
	+	77.11		1.743E+00	4.279E-01	4.992E-01	5.786E-02	3.492
		87.30		1.507E-01	6.843E-01	9.902E-01	1.573E-01	0.152
	+	238.63	*	1.588E+00	2.303E-01	1.125E-01	1.339E-02	14.117
	+	300.09		1.293E+00	1.254E+00	1.489E+00	1.799E-01	0.868
PO-212	+	74.81		2.508E+00	9.266E-01	8.705E-01	1.290E-01	2.881
	+	77.11		1.743E+00	4.279E-01	4.992E-01	5.786E-02	3.492
		87.30		1.507E-01	6.843E-01	9.902E-01	1.573E-01	0.152
		115.19		-6.860E-01	5.094E+00	8.254E+00	8.355E-01	-0.083
	+	238.63	*	1.588E+00	2.303E-01	1.125E-01	1.339E-02	14.117
	+	300.09		1.293E+00	1.254E+00	1.489E+00	1.799E-01	0.868
BI-214	+	609.31	*	1.303E+00	2.149E-01	1.390E-01	1.378E-02	9.374
		1120.29		1.359E+00	4.800E-01	8.745E-01	9.427E-02	1.554
	+	1764.49		1.281E+00	5.215E-01	2.889E-01	2.533E-02	4.435
PB-214	+	74.81		4.322E+00	1.577E+00	1.500E+00	2.052E-01	2.881
	+	77.11		2.988E+00	7.681E-01	8.557E-01	1.187E-01	3.492
		87.30		2.581E-01	1.172E+00	1.696E+00	2.469E-01	0.152
	+	241.98		2.649E+00	8.749E-01	6.769E-01	8.374E-02	3.914
	+	295.21		1.513E+00	3.388E-01	2.644E-01	3.260E-02	5.720
	+	351.92	*	1.567E+00	2.537E-01	1.313E-01	1.473E-02	11.939
PO-214	+	74.81		4.322E+00	1.577E+00	1.500E+00	2.052E-01	2.881
	+	77.11		2.988E+00	7.681E-01	8.557E-01	1.187E-01	3.492
		87.30		2.581E-01	1.172E+00	1.696E+00	2.469E-01	0.152
	+	241.98		2.649E+00	8.749E-01	6.769E-01	8.374E-02	3.914
	+	295.21		1.513E+00	3.388E-01	2.644E-01	3.260E-02	5.720

Sample ID : G245978008 Acquisition date : 14-FEB-2010 12:01:03

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.567E+00	2.537E-01	1.313E-01	1.473E-02	11.939
PO-216	+	74.81		2.508E+00	9.266E-01	8.705E-01	1.290E-01	2.881
	+	77.11		1.743E+00	4.279E-01	4.992E-01	5.786E-02	3.492
		87.30		1.507E-01	6.843E-01	9.902E-01	1.573E-01	0.152
	+	238.63	*	1.588E+00	2.303E-01	1.125E-01	1.339E-02	14.117
	+	300.09		1.293E+00	1.254E+00	1.489E+00	1.799E-01	0.868
PO-218	+	74.81		4.322E+00	1.577E+00	1.500E+00	2.052E-01	2.881
	+	77.11		2.988E+00	7.681E-01	8.557E-01	1.187E-01	3.492
		87.30		2.581E-01	1.172E+00	1.696E+00	2.469E-01	0.152
	+	241.98		2.649E+00	8.749E-01	6.769E-01	8.374E-02	3.914
	+	295.21		1.513E+00	3.388E-01	2.644E-01	3.260E-02	5.720
	+	351.92	*	1.567E+00	2.537E-01	1.313E-01	1.473E-02	11.939
RA-224	+	240.98	*	5.023E+00	1.635E+00	1.279E+00	1.411E-01	3.926
RA-226	+	609.31	*	1.303E+00	2.149E-01	1.390E-01	1.378E-02	9.374
		1120.29		1.359E+00	4.800E-01	8.745E-01	9.427E-02	1.554
	+	1764.49		1.281E+00	5.215E-01	2.889E-01	2.533E-02	4.435
AC-228	+	338.32		1.519E+00	7.989E-01	5.016E-01	2.084E-01	3.028
	+	911.07	*	1.356E+00	3.617E-01	2.500E-01	2.945E-02	5.426
	+	969.11		1.380E+00	6.717E-01	3.926E-01	9.247E-02	3.514
RA-228	+	338.32		1.519E+00	7.989E-01	5.016E-01	2.084E-01	3.028
	+	911.07	*	1.356E+00	3.617E-01	2.500E-01	2.945E-02	5.426
	+	969.11		1.380E+00	6.717E-01	3.926E-01	9.247E-02	3.514
TH-228	+	74.81		2.553E+00	9.131E-01	8.863E-01	1.024E-01	2.881
	+	77.11		1.775E+00	4.357E-01	5.082E-01	5.891E-02	3.492
		87.30		1.534E-01	6.965E-01	1.008E+00	1.245E-01	0.152
	+	238.63	*	1.616E+00	2.345E-01	1.145E-01	1.363E-02	14.117
	+	300.09		1.317E+00	1.490E+00	1.516E+00	9.035E-01	0.868
TH-230	+	609.31	*	1.303E+00	2.149E-01	1.390E-01	1.378E-02	9.374
		1120.29		1.359E+00	4.800E-01	8.745E-01	9.427E-02	1.554
	+	1764.49		1.281E+00	5.215E-01	2.889E-01	2.533E-02	4.435
TH-232	+	338.32		1.519E+00	5.125E-01	5.016E-01	4.945E-02	3.028
	+	911.07	*	1.356E+00	3.617E-01	2.500E-01	2.945E-02	5.426
	+	969.11		1.380E+00	6.717E-01	3.926E-01	9.247E-02	3.514
TH-234	+	63.29	*	1.441E+01	5.080E+00	4.096E+00	7.981E-01	3.517
	+	92.38		1.631E+01	3.628E+00	1.258E+00	2.479E-01	12.968
U-234	+	609.31	*	1.303E+00	2.149E-01	1.390E-01	1.378E-02	9.374
		1120.29		1.359E+00	4.800E-01	8.745E-01	9.427E-02	1.554
	+	1764.49		1.281E+00	5.215E-01	2.889E-01	2.533E-02	4.435
U-238	+	63.29	*	1.441E+01	5.080E+00	4.096E+00	7.981E-01	3.517
	+	92.38		1.631E+01	2.538E+00	1.258E+00	1.466E-01	12.968
AM-243	+	74.67	*	4.066E-01	1.453E-01	1.418E-01	1.631E-02	2.867
		86.72		1.634E+01	1.625E+01	2.404E+01	2.954E+00	0.680
		117.66		-6.507E+00	5.260E+00	8.100E+00	8.171E-01	-0.803
		142.18		3.244E+01	2.389E+01	4.014E+01	4.074E+00	0.808
ANH-511	+	511.00	*	1.452E-01	8.115E-02	5.671E-02	4.900E-03	2.560

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	7.890E-02	4.172E-01	6.887E-01	6.403E-02	0.115

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	-2.491E-02	5.264E-02	8.058E-02	7.320E-03	-0.309
NA-24		1368.53	*	-1.805E+01	5.264E-02	Half-Life too short		
AL-26		1129.67		-1.568E+00	2.341E+00	2.937E+00	2.481E-01	-0.534
		1808.65	*	2.213E-02	3.173E-02	5.916E-02	5.061E-03	0.374
TI-44		67.85		1.359E-02	9.917E-02	1.344E-01	1.534E-02	0.101
	+	78.38	*	3.217E-01	7.898E-02	1.129E-01	1.316E-02	2.848
SC-46		889.25	*	-2.575E-02	4.316E-02	6.693E-02	6.219E-03	-0.385
		1120.51		2.410E-01	8.291E-02	1.539E-01	1.308E-02	1.566
V-48		944.10		-9.628E-01	1.138E+00	1.674E+00	1.548E-01	-0.575
		983.50	*	-3.584E-04	9.192E-02	1.509E-01	1.379E-02	-0.002
		1312.09		-4.646E-02	1.090E-01	1.665E-01	1.570E-02	-0.279
CR-51		320.08	*	-5.440E-01	4.914E-01	7.612E-01	8.083E-02	-0.715
MN-52		744.21		-1.504E-01	4.146E-01	6.725E-01	5.820E-02	-0.224
		848.13		-6.036E-01	1.089E+01	1.795E+01	1.639E+00	-0.034
		935.52		1.166E-01	4.188E-01	7.066E-01	6.546E-02	0.165
		1246.25		2.246E+00	1.319E+01	2.011E+01	1.773E+00	0.112
		1333.61		5.858E+00	8.341E+00	1.457E+01	1.401E+00	0.402
		1434.06	*	-1.354E-01	3.499E-01	5.492E-01	5.287E-02	-0.247
MN-54		834.83	*	5.646E-02	4.510E-02	8.123E-02	7.371E-03	0.695
CO-56		846.75	*	-2.115E-02	4.638E-02	7.368E-02	6.723E-03	-0.287
		977.42		-4.693E-01	3.235E+00	5.112E+00	4.683E-01	-0.092
		1037.82		-1.308E-01	3.462E-01	5.435E-01	5.101E-02	-0.241
		1175.09		4.490E-01	2.783E+00	4.587E+00	3.741E-01	0.098
	+	1238.25		2.011E-01	1.730E-01	2.080E-01	1.869E-02	0.967
		1360.21		9.632E-02	1.055E+00	1.785E+00	1.719E-01	0.054
		1771.40		-1.377E+00	4.330E-01	3.139E-01	2.742E-02	-4.389
CO-57		122.06	*	-1.949E-02	3.443E-02	5.467E-02	5.507E-03	-0.356
		136.48		2.529E-01	2.733E-01	4.560E-01	4.849E-02	0.555
CO-58		810.76	*	1.265E-03	4.518E-02	7.518E-02	6.759E-03	0.017
FE-59		142.65		7.373E+00	3.864E+00	6.553E+00	6.656E-01	1.125
		192.34		-9.404E-01	1.518E+00	2.030E+00	3.039E-01	-0.463
		1099.22	*	-7.481E-02	1.132E-01	1.722E-01	1.607E-02	-0.434
		1291.56		3.768E-02	1.492E-01	2.477E-01	2.559E-02	0.152
CO-60		1173.22		-3.757E-02	5.670E-02	8.638E-02	7.031E-03	-0.435
		1332.49	*	2.545E-02	4.676E-02	8.021E-02	7.711E-03	0.317
ZN-65		1115.52	*	7.599E-02	1.115E-01	1.705E-01	1.457E-02	0.446
GE-68		1077.35	*	-2.066E-01	1.542E+00	2.486E+00	2.176E-01	-0.083
AS-73		53.44	*	1.336E+00	2.280E+00	3.852E+00	5.001E-01	0.347
AS-74		595.88	*	4.274E-02	1.236E-01	2.044E-01	1.736E-02	0.209
		634.78		8.938E-02	4.383E-01	7.169E-01	5.986E-02	0.125
SE-75		66.05		5.429E+00	1.020E+01	1.502E+01	1.929E+00	0.361
		96.73		4.607E-01	1.295E+00	1.884E+00	2.887E-01	0.245
		121.11		-9.086E-02	1.854E-01	2.952E-01	3.651E-02	-0.308
		136.00		-7.215E-03	5.255E-02	8.466E-02	8.569E-03	-0.085
		198.60		5.751E-01	2.483E+00	4.005E+00	4.675E-01	0.144
		264.65	*	3.994E-02	6.170E-02	9.721E-02	1.066E-02	0.411
		279.53		-6.581E-02	1.472E-01	2.406E-01	2.663E-02	-0.274
		303.91		-2.070E-01	3.136E+00	4.510E+00	5.841E-01	-0.046
		400.65		-2.848E-01	3.411E-01	5.315E-01	5.838E-02	-0.536

Sample ID : G245978008 Acquisition date : 14-FEB-2010 12:01:03

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BR-77		87.88		5.507E+02	7.527E+02	1.105E+03	1.371E+02	0.498
		200.40		-1.344E+02	5.212E+02	8.235E+02	8.997E+01	-0.163
	+	239.00		5.911E+02	8.155E+01	1.002E+02	1.106E+01	5.897
		249.79		1.585E+02	2.064E+02	3.154E+02	3.472E+01	0.503
		281.68		-8.323E+01	2.746E+02	4.518E+02	4.874E+01	-0.184
		297.23		1.124E+03	3.045E+02	3.843E+02	4.073E+01	2.925
		303.76		-7.182E+01	6.078E+02	8.711E+02	9.151E+01	-0.082
		439.47		7.013E+01	4.177E+02	6.909E+02	5.921E+01	0.102
		484.57		-7.269E+01	6.500E+02	1.051E+03	9.075E+01	-0.069
		520.65	*	3.331E-01	2.967E+01	4.689E+01	4.050E+00	0.007
		574.64		-1.130E+02	6.151E+02	9.803E+02	8.386E+01	-0.115
		578.91		2.584E+01	2.881E+02	4.047E+02	3.458E+01	0.064
		585.48		3.503E+03	7.829E+02	1.334E+03	1.137E+02	2.626
		755.35		4.923E+01	4.553E+02	7.649E+02	6.663E+01	0.064
		817.79		-7.514E+01	3.446E+02	5.606E+02	5.046E+01	-0.134
SR-82		698.33		2.433E+01	4.344E+01	7.540E+01	6.348E+00	0.323
		776.49	*	-3.868E-01	4.885E-01	7.148E-01	6.299E-02	-0.541
		1395.20		3.064E+00	1.309E+01	2.250E+01	2.168E+00	0.136
RB-83		520.41	*	-8.664E-03	9.024E-02	1.368E-01	1.181E-02	-0.063
		529.64		1.556E-02	1.319E-01	2.157E-01	1.862E-02	0.072
		552.65		-8.354E-02	2.506E-01	3.955E-01	3.401E-02	-0.211
RB-84		881.50	*	5.638E-02	7.854E-02	1.383E-01	1.282E-02	0.408
KR-85		513.99	*	2.419E+01	1.026E+01	1.697E+01	1.466E+00	1.426
SR-85		513.99	*	1.279E-01	5.422E-02	8.968E-02	7.748E-03	1.426
RB-86		1076.63	*	8.735E-01	1.026E+00	1.806E+00	1.582E-01	0.484
Y-88		898.02		1.653E-02	5.197E-02	8.803E-02	8.243E-03	0.188
		1836.01	*	-1.498E-02	3.401E-02	4.994E-02	4.206E-03	-0.300
ZR-88		392.90	*	-2.939E-02	4.170E-02	6.578E-02	5.537E-03	-0.447
Y-91		1204.90	*	4.275E+00	2.506E+01	4.122E+01	3.475E+00	0.104
NB-94		702.63	*	-1.845E-02	3.868E-02	6.241E-02	5.269E-03	-0.296
		871.10		4.471E-03	3.846E-02	6.426E-02	5.927E-03	0.070
NB-95		765.79	*	1.284E-01	6.413E-02	1.075E-01	9.417E-03	1.195
NB-95M		235.69	*	2.550E-01	1.965E-01	3.026E-01	3.641E-02	0.843
ZR-95		724.18		1.486E-01	1.164E-01	1.900E-01	1.768E-02	0.782
		756.15	*	3.164E-02	8.602E-02	1.473E-01	1.411E-02	0.215
NB-97		657.90	*	1.884E+00	8.602E-02	Half-Life too short		
		1024.50		1.899E+01	8.602E-02	Half-Life too short		
ZR-97		254.15		-1.494E+02	8.602E-02	Half-Life too short		
		355.39		6.706E+01	8.602E-02	Half-Life too short		
		507.63	*	9.091E+01	8.602E-02	Half-Life too short		
		602.52		-1.019E+02	8.602E-02	Half-Life too short		
		1021.30		8.046E+01	8.602E-02	Half-Life too short		
		1147.95		5.585E+01	8.602E-02	Half-Life too short		
		1362.66		1.451E+01	8.602E-02	Half-Life too short		
		1750.46		-1.345E+01	8.602E-02	Half-Life too short		
MO-99		140.51		-7.147E+01	7.791E+01	1.161E+02	3.274E+01	-0.615
		181.06		-3.223E-01	5.368E+01	7.507E+01	1.457E+01	-0.004
		366.43		1.366E+02	2.171E+02	3.704E+02	3.394E+01	0.369
		739.58	*	1.902E+01	2.782E+01	4.857E+01	7.378E+00	0.392

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		778.00		-1.297E+02	8.079E+01	1.143E+02	1.008E+01	-1.135
TC-99M		140.51	*	-1.452E+14	8.079E+01	Half-Life too short		
RH-101		127.23		2.725E-02	4.310E-02	7.140E-02	7.164E-03	0.382
		198.01	*	2.071E-02	4.463E-02	7.262E-02	7.923E-03	0.285
		325.23		1.369E-01	2.803E-01	4.756E-01	4.819E-02	0.288
RH-102		418.52		-2.049E-02	3.656E-01	5.978E-01	5.089E-02	-0.034
		475.06	*	-7.322E-03	3.790E-02	6.104E-02	5.267E-03	-0.120
		631.29		-2.123E-02	6.097E-02	9.490E-02	7.939E-03	-0.224
		697.49		1.872E-02	9.191E-02	1.559E-01	1.312E-02	0.120
	+	766.84		4.874E-01	1.790E-01	2.716E-01	2.381E-02	1.795
		1046.59		-3.787E-02	1.357E-01	2.159E-01	1.922E-02	-0.175
		1112.84		9.364E-02	2.867E-01	4.191E-01	3.584E-02	0.223
RU-103		497.08	*	2.271E-02	5.197E-02	8.697E-02	1.233E-02	0.261
	+	610.33		1.481E+01	3.137E+00	3.615E+00	6.000E-01	4.096
RH-106	+	511.85		7.290E-01	4.075E-01	4.880E-01	4.216E-02	1.494
		621.84	*	8.386E-02	3.674E-01	6.019E-01	7.957E-02	0.139
		1050.47		1.800E+00	2.708E+00	4.699E+00	4.175E-01	0.383
RU-106	+	511.85		7.290E-01	4.075E-01	4.880E-01	4.216E-02	1.494
		621.84	*	8.386E-02	3.673E-01	6.019E-01	5.059E-02	0.139
		1050.47		1.800E+00	2.708E+00	4.699E+00	4.175E-01	0.383
AG-108M		433.93	*	1.698E-02	4.118E-02	6.911E-02	6.152E-03	0.246
		614.37		-1.891E-02	5.117E-02	6.784E-02	5.956E-03	-0.279
		722.95		-2.599E-02	5.020E-02	6.762E-02	6.010E-03	-0.384
CD-109		88.03	*	1.267E+00	1.511E+00	2.224E+00	2.761E-01	0.569
AG-110M		657.75	*	2.856E-02	4.704E-02	7.228E-02	6.151E-03	0.395
		677.61		3.961E-02	3.354E-01	5.672E-01	4.855E-02	0.070
		706.67		3.117E-02	2.327E-01	3.930E-01	3.421E-02	0.079
		763.93		1.345E-01	2.351E-01	3.531E-01	3.175E-02	0.381
		884.67		-1.990E-02	5.159E-02	8.181E-02	7.800E-03	-0.243
		937.48		-1.196E-02	1.224E-01	1.996E-01	1.906E-02	-0.060
		1384.27		6.044E-02	1.671E-01	2.586E-01	2.548E-02	0.234
IN-111		171.28		1.275E+00	2.715E+00	4.440E+00	4.756E-01	0.287
		245.39	*	1.505E+00	2.919E+00	4.395E+00	4.844E-01	0.342
IN-113M		391.69	*	-2.404E-02	6.041E-02	9.718E-02	8.440E-03	-0.247
SN-113		391.69	*	-2.404E-02	6.041E-02	9.718E-02	8.440E-03	-0.247
IN-114M		190.27	*	-5.105E-02	2.810E-01	3.878E-01	4.211E-02	-0.132
CD-115		260.90		-1.786E-04	2.810E-01	Half-Life too short		
		492.35		-1.232E-04	2.810E-01	Half-Life too short		
		527.90	*	2.466E-05	2.810E-01	Half-Life too short		
SN-117M		156.02		-3.251E-01	3.398E+00	5.458E+00	5.689E-01	-0.060
		158.56	*	-4.342E-02	8.255E-02	1.300E-01	1.363E-02	-0.334
SB-122		563.90	*	2.036E+00	5.444E+00	9.029E+00	7.745E-01	0.226
		692.80		1.166E+01	1.044E+02	1.761E+02	1.478E+01	0.066
I-123		159.00	*	-2.486E+02	1.044E+02	Half-Life too short		
		528.96		1.757E+03	1.044E+02	Half-Life too short		
TE-123M		159.00	*	-3.233E-02	3.798E-02	5.884E-02	6.200E-03	-0.550
I-124		602.71	*	-6.564E-02	1.564E+00	2.163E+00	1.833E-01	-0.030
		722.78		-4.379E+00	8.457E+00	1.139E+01	9.738E-01	-0.384
		1325.50		4.933E+00	6.798E+01	1.105E+02	1.055E+01	0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	1376.25		2.445E+02	8.150E+01	1.313E+02	1.265E+01	1.862
		1509.49		2.442E+01	2.874E+01	5.283E+01	5.045E+00	0.462
		1691.02		-6.530E-01	7.187E+00	1.166E+01	1.058E+00	-0.056
SB-124		602.71		-2.445E-03	5.827E-02	8.056E-02	6.828E-03	-0.030
		645.85		-1.460E-01	6.188E-01	9.734E-01	8.601E-02	-0.150
		709.31		4.704E-01	3.196E+00	5.403E+00	4.580E-01	0.087
		713.82		-4.154E-01	1.909E+00	3.136E+00	3.748E-01	-0.132
		722.78		-2.364E-01	4.566E-01	6.152E-01	5.373E-02	-0.384
	+	968.20		1.468E+01	6.400E+00	8.610E+00	7.910E-01	1.705
		1045.16		1.212E+00	3.041E+00	5.158E+00	4.595E-01	0.235
		1325.50		2.844E-01	3.920E+00	6.373E+00	6.085E-01	0.045
		1368.21		-1.180E+00	2.074E+00	2.717E+00	3.843E-01	-0.434
		1436.60		3.435E+00	3.765E+00	7.087E+00	6.821E-01	0.485
		1691.02	*	-8.316E-03	9.153E-02	1.485E-01	1.396E-02	-0.056
SB-125		427.89	*	8.149E-02	1.123E-01	1.921E-01	1.673E-02	0.424
	+	463.38		7.796E-01	5.439E-01	6.602E-01	6.134E-02	1.181
		600.56		4.436E-02	2.283E-01	3.729E-01	3.403E-02	0.119
		635.90		1.362E-01	2.986E-01	4.986E-01	4.519E-02	0.273
TE-125M		109.28	*	-9.278E+00	1.425E+01	2.267E+01	2.664E+00	-0.409
I-126		388.63		2.289E-01	3.056E-01	5.228E-01	4.449E-02	0.438
		666.33	*	2.849E-01	2.905E-01	4.591E-01	3.786E-02	0.620
		753.82		5.961E-01	2.000E+00	3.407E+00	2.965E-01	0.175
SB-126		223.80		1.204E+00	6.109E+00	1.036E+01	1.142E+00	0.116
		278.60		2.507E+00	3.816E+00	6.530E+00	7.064E-01	0.384
	+	296.50		1.769E+01	3.806E+00	5.253E+00	5.573E-01	3.368
		414.70		-8.302E-02	1.167E-01	1.832E-01	1.558E-02	-0.453
		415.30		-5.695E+00	9.414E+00	1.487E+01	1.265E+00	-0.383
		555.20		-1.366E+00	5.739E+00	9.119E+00	7.837E-01	-0.150
		573.80		-4.669E-01	1.585E+00	2.506E+00	2.144E-01	-0.186
		593.00		-8.362E-01	1.355E+00	2.078E+00	1.767E-01	-0.402
		656.30		-3.434E+00	5.165E+00	6.920E+00	5.708E-01	-0.496
		666.33		1.198E-01	1.222E-01	1.931E-01	1.593E-02	0.620
		675.00		-2.658E-01	2.499E+00	4.154E+00	3.445E-01	-0.064
		695.00		9.631E-03	1.076E-01	1.812E-01	1.522E-02	0.053
		697.00		8.514E-02	3.669E-01	6.240E-01	5.249E-02	0.136
		720.50	*	9.683E-02	1.925E-01	2.945E-01	2.514E-02	0.329
		856.80		-9.489E-01	6.849E-01	9.927E-01	9.100E-02	-0.956
		989.30		-1.292E+00	1.804E+00	2.755E+00	2.513E-01	-0.469
		1034.80		-1.926E+00	1.069E+01	1.714E+01	1.535E+00	-0.112
		1213.00		-2.340E+00	7.128E+00	1.123E+01	9.551E-01	-0.208
SN-126	+	64.28		5.703E+00	1.934E+00	1.990E+00	3.368E-01	2.866
		86.94		1.815E-01	6.242E-01	8.995E-01	3.803E-01	0.202
		87.57	*	7.062E-02	1.475E-01	2.152E-01	2.663E-02	0.328
SB-127		61.10		3.896E+02	2.322E+02	3.526E+02	4.988E+01	1.105
		252.40		-5.343E+00	9.359E+00	1.480E+01	6.341E+00	-0.361
		290.80		-4.877E+00	4.859E+01	6.986E+01	9.510E+00	-0.070
		411.60		1.180E+01	2.649E+01	4.447E+01	7.254E+00	0.265
		444.90		-1.375E+01	2.038E+01	3.172E+01	4.224E+00	-0.433
		473.00		-6.649E-01	3.698E+00	5.961E+00	8.142E-01	-0.112

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		543.00		-8.145E+00	3.328E+01	5.287E+01	7.984E+00	-0.154
		603.60		1.075E+01	2.858E+01	4.111E+01	5.436E+00	0.262
		685.20	*	4.845E-01	2.578E+00	4.378E+00	5.289E-01	0.111
		698.50		1.013E+01	3.043E+01	5.200E+01	8.509E+00	0.195
		722.20		-1.498E+01	5.962E+01	8.319E+01	9.989E+00	-0.180
		783.80		1.159E+01	7.354E+00	1.334E+01	1.785E+00	0.869
XE-127		57.60		-6.068E+00	1.672E+01	2.390E+01	2.809E+00	-0.254
		145.22		-5.790E-01	1.028E+00	1.621E+00	1.654E-01	-0.357
		172.10		-3.627E-02	1.682E-01	2.677E-01	2.870E-02	-0.135
		202.84	*	-6.697E-03	7.067E-02	1.084E-01	1.185E-02	-0.062
		374.96		2.133E-01	2.584E-01	4.448E-01	3.968E-02	0.480
I-131		80.18		-1.224E+01	1.071E+01	1.458E+01	1.722E+00	-0.839
		284.30		1.034E+00	2.487E+00	4.222E+00	4.703E-01	0.245
		364.48	*	9.129E-02	1.883E-01	3.188E-01	3.085E-02	0.286
		636.97		-7.847E-01	2.253E+00	3.506E+00	3.107E-01	-0.224
		722.89		-5.612E+00	1.084E+01	1.460E+01	1.260E+00	-0.384
TE-132		49.72		-6.167E+01	1.149E+02	1.864E+02	2.927E+01	-0.331
		111.76		1.093E+02	8.150E+01	1.365E+02	1.757E+01	0.800
		116.30		-4.295E+01	7.141E+01	1.134E+02	1.451E+01	-0.379
		228.16	*	-1.028E+00	1.691E+00	2.762E+00	4.882E-01	-0.372
BA-133		53.15		7.180E+00	9.656E+00	1.639E+01	2.140E+00	0.438
		79.62		2.277E+00	2.353E+00	3.478E+00	5.972E-01	0.655
		81.00		-1.944E-01	1.795E-01	2.426E-01	4.321E-02	-0.801
		276.40		3.581E-01	5.568E-01	8.358E-01	1.327E-01	0.428
		302.84		-1.088E-01	2.164E-01	3.012E-01	4.395E-02	-0.361
		356.01	*	-1.314E-02	6.040E-02	8.498E-02	1.168E-02	-0.155
		383.85		-3.672E-02	3.713E-01	6.080E-01	7.678E-02	-0.060
I-133	+	510.53		1.482E+01	3.713E-01	Half-Life too short		
		529.87	*	-8.200E-03	3.713E-01	Half-Life too short		
		706.58		9.437E-02	3.713E-01	Half-Life too short		
		856.28		-9.469E+00	3.713E-01	Half-Life too short		
		875.33		-2.963E-01	3.713E-01	Half-Life too short		
		1236.41		1.337E+01	3.713E-01	Half-Life too short		
		1298.22		-2.533E+00	3.713E-01	Half-Life too short		
CS-134		475.35		-4.533E-02	2.446E+00	3.984E+00	3.438E-01	-0.011
		563.23		3.922E-02	4.513E-01	7.343E-01	6.360E-02	0.053
		569.32		1.126E-01	2.397E-01	4.012E-01	3.484E-02	0.281
		604.70		1.156E-02	4.762E-02	6.774E-02	5.750E-03	0.171
	+	795.84	*	4.620E-02	6.565E-02	9.751E-02	8.740E-03	0.474
		801.93		2.181E-01	4.865E-01	7.824E-01	7.023E-02	0.279
		1038.57		-2.585E+00	4.300E+00	6.581E+00	5.882E-01	-0.393
		1167.94		2.723E-01	3.215E+00	5.263E+00	4.305E-01	0.052
		1365.15		4.225E-01	1.196E+00	2.097E+00	2.093E-01	0.201
CS-135		268.24	*	1.111E-01	2.297E-01	3.433E-01	4.120E-02	0.324
I-135		288.45		-2.837E+13	2.297E-01	Half-Life too short		
		417.63		1.182E+13	2.297E-01	Half-Life too short		
		546.56		1.457E+13	2.297E-01	Half-Life too short		
		836.80		3.219E+13	2.297E-01	Half-Life too short		
		1038.76		-1.603E+13	2.297E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1124.00		1.124E+14	2.297E-01	Half-Life too short		
		1131.51		-7.521E+11	2.297E-01	Half-Life too short		
		1260.41	*	6.130E+12	2.297E-01	Half-Life too short		
		1457.56		9.917E+14	2.297E-01	Half-Life too short		
		1678.03		-2.076E+12	2.297E-01	Half-Life too short		
		1706.46		1.676E+13	2.297E-01	Half-Life too short		
		1791.20		-1.240E+13	2.297E-01	Half-Life too short		
CS-136		66.91		-2.654E-01	1.836E+00	2.631E+00	4.513E-01	-0.101
		86.29		4.835E+00	2.302E+00	3.386E+00	5.256E-01	1.428
		153.22		1.272E-01	1.016E+00	1.647E+00	1.848E-01	0.077
		163.89		1.411E+00	1.685E+00	2.786E+00	3.199E-01	0.506
		176.55		4.432E-01	5.561E-01	9.187E-01	1.025E-01	0.482
		273.65		-4.923E-01	8.043E-01	1.122E+00	1.271E-01	-0.439
		340.57		7.771E-01	2.467E-01	4.016E-01	4.029E-02	1.935
		818.51		2.251E-02	9.438E-02	1.599E-01	1.441E-02	0.141
		1048.07	*	-6.948E-02	1.538E-01	2.406E-01	2.227E-02	-0.289
		1235.34		7.823E-01	9.544E-01	1.445E+00	1.722E-01	0.541
CE-139		165.85	*	-6.948E-03	4.087E-02	6.531E-02	6.971E-03	-0.106
BA-140		162.64		7.152E-01	1.177E+00	1.935E+00	2.128E-01	0.370
		304.84		-5.312E-01	2.188E+00	3.101E+00	8.885E-01	-0.171
		423.70		-2.216E+00	2.870E+00	4.328E+00	1.402E+00	-0.512
		537.32	*	2.201E-02	3.572E-01	5.816E-01	1.927E-01	0.038
LA-140		328.77		2.892E-02	4.513E-01	7.506E-01	7.865E-02	0.039
		432.53		-1.382E+00	3.121E+00	4.971E+00	4.462E-01	-0.278
		487.03		1.362E-01	1.958E-01	3.334E-01	3.057E-02	0.409
		751.79		-6.990E-02	2.315E+00	3.851E+00	3.700E-01	-0.018
		815.85		-2.477E-02	4.121E-01	6.802E-01	6.767E-02	-0.036
		867.82		-8.805E-01	1.845E+00	2.916E+00	2.810E-01	-0.302
		919.63		-2.847E+00	4.195E+00	5.323E+00	5.961E-01	-0.535
		925.24		1.447E+00	1.636E+00	2.886E+00	2.824E-01	0.502
		1596.49	*	6.188E-02	1.257E-01	1.970E-01	1.847E-02	0.314
CE-141		145.44	*	-5.422E-02	9.296E-02	1.464E-01	1.514E-02	-0.370
CE-143		57.37		-4.611E-03	9.296E-02	Half-Life too short		
		231.56		-2.624E-03	9.296E-02	Half-Life too short		
		293.26	*	4.194E-03	9.296E-02	Half-Life too short		
	+	350.59		1.528E-01	9.296E-02	Half-Life too short		
		490.36		4.606E-03	9.296E-02	Half-Life too short		
		664.57		3.017E-02	9.296E-02	Half-Life too short		
		721.93		-3.859E-03	9.296E-02	Half-Life too short		
CE-144		80.11		-4.085E+00	3.878E+00	5.309E+00	6.240E-01	-0.769
		133.54	*	-7.314E-02	2.743E-01	4.397E-01	7.213E-02	-0.166
PM-144		476.78		1.474E-02	8.639E-02	1.424E-01	1.344E-02	0.104
		618.01		-8.891E-03	3.671E-02	5.785E-02	5.012E-03	-0.154
		696.49	*	-8.406E-03	4.067E-02	6.706E-02	5.643E-03	-0.125
		778.57		-4.539E+00	2.624E+00	3.647E+00	3.219E-01	-1.245
PR-144		696.49	*	-5.705E-01	2.760E+00	4.551E+00	3.828E-01	-0.125
		1489.15		-1.818E+01	1.478E+01	1.998E+01	1.914E+00	-0.910
PM-146		453.90	*	1.247E-02	5.489E-02	8.903E-02	9.534E-03	0.140
		633.02		-6.902E-01	1.579E+00	2.404E+00	8.969E-01	-0.287

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		735.90		-2.009E-01	1.985E-01	2.637E-01	7.542E-02	-0.762
		747.13		-2.716E-02	1.062E-01	1.734E-01	2.440E-02	-0.157
ND-147		91.11		6.972E+00	1.073E+00	1.262E+00	1.563E-01	5.524
		319.41		-3.295E+00	4.918E+00	7.856E+00	8.048E-01	-0.419
		439.89		-1.507E+00	8.823E+00	1.429E+01	1.225E+00	-0.105
		531.02	*	-3.770E-01	8.459E-01	1.325E+00	1.981E-01	-0.285
PM-149		285.90	*	7.041E-05	8.459E-01	Half-Life too short		
EU-152		121.78		-5.512E-02	9.982E-02	1.586E-01	1.777E-02	-0.348
		244.69		3.948E-01	4.278E-01	7.400E-01	8.157E-02	0.534
		344.27	*	7.826E-02	1.740E-01	2.068E-01	2.106E-02	0.378
		443.98		-8.695E-01	1.199E+00	1.866E+00	1.601E-01	-0.466
		778.89		-5.338E-01	3.085E-01	4.306E-01	3.799E-02	-1.240
		867.32		-9.347E-01	9.603E-01	1.440E+00	1.326E-01	-0.649
		964.01		1.062E-01	4.013E-01	5.835E-01	5.367E-02	0.182
		1085.78		2.671E-01	4.487E-01	7.747E-01	6.746E-02	0.345
		1112.02		-2.463E-01	3.952E-01	5.486E-01	4.694E-02	-0.449
		1407.95		6.031E-02	2.223E-01	3.822E-01	3.683E-02	0.158
GD-153		69.67		-7.026E-01	3.397E+00	4.532E+00	5.174E-01	-0.155
		83.37		-3.867E+01	2.488E+01	3.818E+01	4.577E+00	-1.013
		97.43	*	1.789E-01	1.246E-01	1.885E-01	2.081E-02	0.949
		103.18		-2.141E-01	1.498E-01	2.295E-01	2.426E-02	-0.933
EU-154		123.07		4.254E-02	6.752E-02	1.120E-01	1.398E-02	0.380
		247.94		-2.725E-01	5.129E-01	7.208E-01	9.636E-02	-0.378
		591.81		-2.635E-01	8.674E-01	1.227E+00	1.422E-01	-0.215
		723.30		-8.385E-02	2.118E-01	2.902E-01	2.746E-02	-0.289
		756.87		4.270E-01	9.110E-01	1.569E+00	1.890E-01	0.272
		873.19		2.566E-01	3.329E-01	5.858E-01	7.429E-02	0.438
		996.32		7.538E-02	4.946E-01	7.106E-01	1.279E-01	0.106
		1004.76		2.562E-01	3.175E-01	4.880E-01	5.845E-02	0.525
		1274.45	*	-4.091E-02	1.431E-01	2.238E-01	2.610E-02	-0.183
EU-155		48.70		-4.409E-01	8.178E+00	1.357E+01	1.821E+00	-0.032
		60.01		1.441E+01	1.138E+01	1.739E+01	1.963E+00	0.829
		86.54		1.967E-01	1.792E-01	2.655E-01	3.275E-02	0.741
		105.31	*	-3.134E-02	1.480E-01	2.397E-01	2.525E-02	-0.131
TB-160		86.79		3.697E-01	4.892E-01	7.195E-01	8.846E-02	0.514
		197.04		8.622E-02	7.886E-01	1.266E+00	1.381E-01	0.068
		215.65		5.572E-01	1.114E+00	1.678E+00	1.846E-01	0.332
	+	298.57		1.935E-01	1.873E-01	2.782E-01	2.943E-02	0.695
		879.36	*	-1.678E-02	1.573E-01	2.574E-01	2.382E-02	-0.065
		962.29		-4.136E-01	7.764E-01	1.025E+00	9.433E-02	-0.403
		966.15		9.420E-01	3.439E-01	5.880E-01	5.404E-02	1.602
		1177.93		-5.260E-02	4.369E-01	7.014E-01	5.740E-02	-0.075
		1271.85		5.655E-01	8.223E-01	1.427E+00	1.291E-01	0.396
HO-166M		80.57		-7.790E-01	5.024E-01	6.665E-01	7.853E-02	-1.169
		184.41		2.478E-01	6.610E-02	1.011E-01	1.094E-02	2.450
		280.46		-8.379E-02	1.115E-01	1.792E-01	1.936E-02	-0.467
		410.95		2.684E-01	3.179E-01	5.449E-01	4.625E-02	0.493
		711.68	*	2.238E-02	6.818E-02	1.168E-01	9.912E-03	0.192
		752.31		2.826E-02	3.181E-01	5.338E-01	4.642E-02	0.053

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		810.29		-4.825E-02	6.821E-02	1.061E-01	9.516E-03	-0.455
TM-171		51.35		-4.286E+01	9.146E+01	1.490E+02	2.009E+01	-0.288
		52.39		2.023E+01	4.437E+01	7.475E+01	9.913E+00	0.271
		59.40		6.925E+01	6.279E+01	9.548E+01	1.076E+01	0.725
		66.72	*	-9.406E+00	5.772E+01	8.267E+01	9.437E+00	-0.114
LU-176		88.36		4.760E-01	3.481E-01	5.176E-01	6.390E-02	0.920
		201.83		-3.850E-02	4.009E-02	6.113E-02	6.683E-03	-0.630
		306.84	*	1.272E-02	3.257E-02	5.378E-02	5.624E-03	0.236
		401.10		-4.099E+00	8.669E+00	1.386E+01	1.171E+00	-0.296
LU-177		112.95		4.864E+00	3.213E+00	5.428E+00	5.518E-01	0.896
	+	208.36	*	5.610E+00	2.956E+00	3.375E+00	3.702E-01	1.662
LU-177M		52.97		3.501E+00	4.473E+00	7.597E+00	9.961E-01	0.461
		54.07		1.096E+00	2.280E+00	3.840E+00	4.916E-01	0.286
		61.30		7.331E+00	3.684E+00	5.664E+00	6.437E-01	1.294
		121.62		-1.508E-01	5.126E-01	8.235E-01	8.288E-02	-0.183
		147.16		-1.074E+00	9.119E-01	1.398E+00	1.430E-01	-0.768
		171.86		8.344E-02	6.474E-01	1.046E+00	1.121E-01	0.080
		218.09		4.334E-01	1.107E+00	1.890E+00	2.081E-01	0.229
		268.79		1.143E+00	1.187E+00	1.816E+00	1.980E-01	0.629
		319.02		-1.372E-01	3.248E-01	5.268E-01	5.399E-02	-0.261
		367.43		-5.347E-01	1.160E+00	1.862E+00	1.701E-01	-0.287
		413.65	*	-9.937E-02	2.367E-01	3.790E-01	3.221E-02	-0.262
HF-181		56.28		-9.382E-01	2.394E+00	3.909E+00	4.746E-01	-0.240
		57.53		-5.170E-01	1.400E+00	2.000E+00	2.355E-01	-0.259
		65.20		5.797E+00	2.351E+00	3.584E+00	4.093E-01	1.617
		133.02		-2.235E-02	9.223E-02	1.481E-01	1.488E-02	-0.151
		136.25		1.376E-01	6.321E-01	1.032E+00	1.039E-01	0.133
		345.85		-1.913E-01	3.137E-01	4.012E-01	3.886E-02	-0.477
		482.03	*	-3.859E-02	5.513E-02	8.531E-02	7.366E-03	-0.452
W-181		56.28		-3.548E-01	9.086E-01	1.484E+00	1.801E-01	-0.239
		57.53		-1.965E-01	5.319E-01	7.598E-01	8.947E-02	-0.259
		65.20	*	2.185E+00	8.862E-01	1.351E+00	1.543E-01	1.617
TA-182		67.75		4.478E-02	2.248E-01	3.271E-01	3.732E-02	0.137
		100.10		3.409E-01	2.587E-01	4.245E-01	4.583E-02	0.803
		152.43		-2.743E-02	4.630E-01	7.455E-01	7.709E-02	-0.037
		222.10		-1.554E-01	4.555E-01	7.563E-01	8.334E-02	-0.205
	+	1001.68		1.174E+01	4.340E+00	6.157E+00	5.591E-01	1.907
	+	1121.28		6.100E-01	4.301E-01	4.250E-01	3.612E-02	1.435
		1189.05		-2.402E-01	3.345E-01	4.997E-01	4.140E-02	-0.481
		1221.42	*	-2.233E-01	2.471E-01	3.662E-01	3.143E-02	-0.610
		1230.97		-3.735E-01	7.110E-01	9.172E-01	7.953E-02	-0.407
RE-183		57.98		7.356E-02	5.163E-01	7.567E-01	8.815E-02	0.097
		59.32		2.833E-01	2.653E-01	4.030E-01	4.552E-02	0.703
		67.20		-1.313E-02	4.140E-01	5.964E-01	6.807E-02	-0.022
		162.32	*	1.070E-01	1.506E-01	2.485E-01	2.629E-02	0.431
	+	208.81		3.852E+00	2.030E+00	2.360E+00	2.590E-01	1.632
		291.72		3.298E-01	1.320E+00	1.944E+00	2.075E-01	0.170
RE-184		57.98		2.666E-01	1.871E+00	2.742E+00	3.194E-01	0.097
		59.32		1.026E+00	9.607E-01	1.459E+00	1.648E-01	0.703

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		67.20		-4.756E-02	1.500E+00	2.160E+00	2.466E-01	-0.022
		161.27		3.325E-01	4.738E-01	7.820E-01	8.251E-02	0.425
		216.55		3.692E-01	3.759E-01	6.012E-01	6.616E-02	0.614
		252.85	*	-2.121E-01	2.957E-01	4.781E-01	5.258E-02	-0.444
		318.01		-5.056E-03	5.568E-01	9.241E-01	9.487E-02	-0.005
		792.07		-1.039E+00	1.518E+00	2.012E+00	1.787E-01	-0.516
		903.28		-4.607E-01	1.381E+00	2.039E+00	1.900E-01	-0.226
		920.93		-4.638E-01	5.542E-01	7.879E-01	7.320E-02	-0.589
OS-185		59.72		8.733E-01	7.013E-01	1.071E+00	1.206E-01	0.816
		61.14		7.215E-01	3.994E-01	6.136E-01	6.970E-02	1.176
		69.30		-2.496E-01	6.291E-01	8.306E-01	9.480E-02	-0.300
		592.07		-7.575E-01	3.425E+00	5.093E+00	4.333E-01	-0.149
		646.12	*	-2.672E-02	5.304E-02	8.147E-02	6.761E-03	-0.328
		717.42		-1.088E-01	9.909E-01	1.641E+00	1.398E-01	-0.066
		874.81		-2.717E-02	6.824E-01	1.124E+00	1.038E-01	-0.024
		880.27		-7.124E-02	8.502E-01	1.394E+00	1.290E-01	-0.051
RE-188		155.03	*	2.693E-01	2.285E-01	3.826E-01	3.979E-02	0.704
		477.96		-7.847E-01	4.002E+00	6.440E+00	5.559E-01	-0.122
		633.10		-9.575E-01	3.204E+00	5.010E+00	4.187E-01	-0.191
W-188	+	63.58		5.960E+02	1.879E+02	2.182E+02	2.490E+01	2.732
		227.08		-2.346E+00	1.720E+01	2.879E+01	3.175E+00	-0.081
		290.67	*	-9.737E-01	1.031E+01	1.483E+01	1.584E+00	-0.066
IR-192	+	295.96		1.185E+00	2.552E-01	3.534E-01	3.769E-02	3.353
		308.46		8.597E-02	1.243E-01	2.132E-01	2.232E-02	0.403
		316.51	*	4.745E-02	4.279E-02	7.469E-02	7.701E-03	0.635
		468.07		-5.005E-02	1.015E-01	1.364E-01	1.261E-02	-0.367
		604.41		2.381E-01	6.593E-01	9.480E-01	1.225E-01	0.251
		612.46		3.941E+00	1.163E+00	1.983E+00	1.933E-01	1.987
AU-195		65.12		1.087E+00	4.136E-01	6.306E-01	7.200E-02	1.724
		66.83		-3.373E-02	1.918E-01	2.745E-01	3.133E-02	-0.123
	+	75.70		1.330E+00	4.755E-01	6.585E-01	7.595E-02	2.020
		98.88	*	3.616E-01	3.656E-01	5.448E-01	5.938E-02	0.664
		129.76		6.729E+00	3.826E+00	6.498E+00	6.520E-01	1.036
TL-200		367.94	*	-7.509E-04	3.826E+00	Half-Life too short		
		579.30		7.257E-03	3.826E+00	Half-Life too short		
		828.27		1.049E-02	3.826E+00	Half-Life too short		
		1205.75		4.695E-03	3.826E+00	Half-Life too short		
TL-201		68.90		-9.615E+00	2.147E+01	2.546E+01	2.906E+00	-0.378
		70.82		-6.356E-01	9.531E+00	1.375E+01	1.571E+00	-0.046
		80.30		-2.997E+01	1.796E+01	2.363E+01	2.780E+00	-1.268
		135.34		-7.062E+01	6.555E+01	1.012E+02	1.018E+01	-0.698
		167.43	*	-1.462E+01	1.857E+01	2.883E+01	3.080E+00	-0.507
TL-202		68.90		-5.281E-01	1.179E+00	1.398E+00	1.596E-01	-0.378
		70.82		-3.481E-02	5.220E-01	7.534E-01	8.606E-02	-0.046
		80.30		-1.642E+00	9.841E-01	1.295E+00	1.523E-01	-1.268
		439.56	*	1.440E-02	1.025E-01	1.693E-01	1.451E-02	0.085
HG-203		70.83		-1.298E-01	2.005E+00	2.894E+00	4.495E-01	-0.045
		72.87		1.710E+00	1.171E+00	1.754E+00	2.666E-01	0.975
		82.60		2.086E-01	1.861E+00	2.964E+00	4.750E-01	0.070

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		279.20	*	-1.102E-03	5.654E-02	9.429E-02	1.038E-02	-0.012
BI-207		72.80		4.198E-01	3.236E-01	4.880E-01	5.589E-02	0.860
	+	74.97		7.300E-01	2.609E-01	3.350E-01	3.855E-02	2.179
		84.90		1.741E-01	3.107E-01	4.977E-01	6.031E-02	0.350
		569.67		1.365E-02	3.817E-02	6.337E-02	5.428E-03	0.215
		1063.62	*	4.227E-02	6.039E-02	1.051E-01	9.273E-03	0.402
		1770.23		-1.559E-01	5.295E-01	6.692E-01	5.850E-02	-0.233
TL-207		81.07		-4.217E-01	3.916E-01	5.352E-01	6.324E-02	-0.788
		83.78		-3.176E-01	2.087E-01	3.207E-01	3.855E-02	-0.990
		94.90		3.502E+00	5.971E-01	8.044E-01	9.103E-02	4.354
		122.32		-1.425E+00	2.363E+00	3.746E+00	3.974E-01	-0.380
		144.24		3.524E-01	9.339E-01	1.525E+00	1.687E-01	0.231
		154.21		4.067E-01	5.132E-01	8.501E-01	9.440E-02	0.478
	+	269.46		3.608E-01	3.346E-01	4.342E-01	4.794E-02	0.831
		323.87	*	-2.156E-01	8.252E-01	1.349E+00	2.497E-01	-0.160
	+	338.28		6.342E+00	2.212E+00	2.946E+00	3.891E-01	2.153
		445.03		-1.719E+00	2.832E+00	4.437E+00	5.352E-01	-0.387
PO-209		260.50		-5.578E-01	1.279E+01	2.136E+01	2.341E+00	-0.026
		262.80		-2.425E+01	3.517E+01	5.690E+01	6.228E+00	-0.426
		896.60	*	3.049E+00	8.781E+00	1.493E+01	1.391E+00	0.204
BI-210		46.50	*	-7.636E+00	1.394E+01	2.235E+01	2.752E+00	-0.342
PB-210		46.50	*	-7.636E+00	1.394E+01	2.235E+01	2.752E+00	-0.342
PO-210		46.50	*	-7.636E+00	1.394E+01	2.235E+01	2.606E+00	-0.342
PB-211		404.84	*	-9.193E-01	1.361E+00	1.942E+00	1.217E+00	-0.473
		427.08		1.503E-01	2.512E+00	4.130E+00	2.566E+00	0.036
		831.96		-1.218E+00	1.630E+00	2.220E+00	1.392E+00	-0.549
BI-212	+	727.18	*	1.128E+00	6.015E-01	7.482E-01	7.456E-02	1.508
		785.46		2.457E+00	2.149E+00	3.847E+00	3.406E-01	0.639
		1620.62		7.218E-01	1.351E+00	2.420E+00	2.253E-01	0.298
PO-215		81.07		-4.217E-01	3.916E-01	5.352E-01	6.324E-02	-0.788
		83.78		-3.176E-01	2.087E-01	3.207E-01	3.855E-02	-0.990
		94.90		3.502E+00	5.971E-01	8.044E-01	9.103E-02	4.354
		122.32		-1.425E+00	2.363E+00	3.746E+00	3.974E-01	-0.380
		144.24		3.524E-01	9.339E-01	1.525E+00	1.687E-01	0.231
		154.21		4.067E-01	5.132E-01	8.501E-01	9.440E-02	0.478
	+	269.46		3.608E-01	3.346E-01	4.342E-01	4.794E-02	0.831
		323.87	*	-2.156E-01	8.252E-01	1.349E+00	2.497E-01	-0.160
	+	338.28		6.342E+00	2.212E+00	2.946E+00	3.891E-01	2.153
		445.03		-1.719E+00	2.832E+00	4.437E+00	5.352E-01	-0.387
RN-219	+	271.23		4.629E-01	4.301E-01	5.678E-01	6.966E-02	0.815
		401.81	*	1.663E-01	5.223E-01	8.732E-01	1.304E-01	0.190
RN-220		549.76	*	1.956E+00	3.302E+01	5.368E+01	4.619E+00	0.036
RA-223		81.07		-4.217E-01	3.916E-01	5.352E-01	6.324E-02	-0.788
		83.78		-3.176E-01	2.087E-01	3.207E-01	3.855E-02	-0.990
		94.90		3.502E+00	5.971E-01	8.044E-01	9.103E-02	4.354
		122.32		-1.425E+00	2.363E+00	3.746E+00	3.974E-01	-0.380
		144.24		3.524E-01	9.339E-01	1.525E+00	1.687E-01	0.231
		154.21		4.067E-01	5.132E-01	8.501E-01	9.440E-02	0.478
	+	269.46		3.608E-01	3.346E-01	4.342E-01	4.794E-02	0.831

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		323.87	*	-2.156E-01	8.252E-01	1.349E+00	2.497E-01	-0.160
	+	338.28		6.342E+00	2.212E+00	2.946E+00	3.891E-01	2.153
		445.03		-1.719E+00	2.832E+00	4.437E+00	5.352E-01	-0.387
AC-227		79.80		-1.979E+00	3.033E+00	4.211E+00	9.656E-01	-0.470
		236.00		1.094E+00	3.992E-01	6.118E-01	8.596E-02	1.788
		256.20	*	3.072E-01	4.986E-01	8.521E-01	1.431E-01	0.361
		286.10		6.491E-01	1.943E+00	3.287E+00	4.823E-01	0.197
	+	299.80		2.397E+00	2.349E+00	3.263E+00	6.045E-01	0.734
		304.40		-6.692E-01	2.758E+00	3.914E+00	7.586E-01	-0.171
		334.20		8.218E-01	3.489E+00	5.093E+00	1.020E+00	0.161
TH-227		79.80		-1.979E+00	3.034E+00	4.211E+00	9.765E-01	-0.470
	+	94.00		6.303E+01	1.597E+01	8.145E+00	1.876E+00	7.738
		236.00		1.094E+00	3.951E-01	6.118E-01	7.981E-02	1.788
		256.20	*	3.072E-01	4.995E-01	8.521E-01	1.645E-01	0.361
		286.10		6.491E-01	2.048E+00	3.287E+00	3.306E+00	0.197
	+	299.80		2.397E+00	2.349E+00	3.263E+00	6.045E-01	0.734
		304.40		-6.692E-01	2.758E+00	3.914E+00	7.586E-01	-0.171
		334.20		8.218E-01	3.489E+00	5.093E+00	1.020E+00	0.161
TH-229		85.43		5.759E-01	3.212E-01	5.038E-01	6.129E-02	1.143
		88.47		2.625E-01	1.996E-01	2.965E-01	3.654E-02	0.885
		100.00		3.578E-01	2.644E-01	4.343E-01	4.692E-02	0.824
		193.63	*	2.682E-03	6.746E-01	1.079E+00	1.175E-01	0.002
		210.97		1.777E+00	1.130E+00	1.766E+00	1.939E-01	1.006
PA-231		283.67	*	-1.484E-01	1.996E+00	3.319E+00	5.475E-01	-0.045
		301.29		7.642E-01	8.546E-01	1.296E+00	1.771E-01	0.590
TH-231		81.07		-4.217E-01	3.916E-01	5.352E-01	6.324E-02	-0.788
		83.78		-3.176E-01	2.087E-01	3.207E-01	3.855E-02	-0.990
		94.90		3.502E+00	5.971E-01	8.044E-01	9.103E-02	4.354
		122.32		-1.425E+00	2.363E+00	3.746E+00	3.974E-01	-0.380
		144.24		3.524E-01	9.339E-01	1.525E+00	1.687E-01	0.231
		154.21		4.067E-01	5.132E-01	8.501E-01	9.440E-02	0.478
	+	269.46		3.608E-01	3.346E-01	4.342E-01	4.794E-02	0.831
		323.87	*	-2.156E-01	8.252E-01	1.349E+00	2.497E-01	-0.160
	+	338.28		6.342E+00	2.212E+00	2.946E+00	3.891E-01	2.153
		445.03		-1.719E+00	2.832E+00	4.437E+00	5.352E-01	-0.387
U-231		84.21		-1.467E+01	1.424E+01	2.242E+01	2.704E+00	-0.654
	+	92.29		1.002E+02	1.559E+01	1.377E+01	1.607E+00	7.275
		95.87	*	2.617E+00	2.991E+00	4.426E+00	4.959E-01	0.591
		108.00		-2.280E+00	4.746E+00	7.605E+00	7.851E-01	-0.300
PA-233	+	75.28		2.130E+01	8.079E+00	1.009E+01	1.730E+00	2.111
		86.59		3.113E+00	3.009E+00	4.301E+00	1.213E+00	0.724
	+	300.12		6.682E-01	6.519E-01	9.212E-01	1.481E-01	0.725
		311.98	*	-4.433E-02	8.156E-02	1.316E-01	1.392E-02	-0.337
		340.50		3.373E+00	1.278E+00	1.690E+00	4.106E-01	1.996
		398.62		-8.293E-01	2.740E+00	4.414E+00	1.173E+00	-0.188
		415.76		-5.175E-01	2.130E+00	3.441E+00	7.400E-01	-0.150
PA-234	+	63.00		1.679E+01	5.719E+00	6.437E+00	1.108E+00	2.609
		94.67		3.298E+00	5.809E-01	6.227E-01	8.986E-02	5.295
		98.44		1.979E-01	1.827E-01	2.210E-01	1.242E-01	0.896

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		99.86		9.401E-01	6.715E-01	1.104E+00	1.194E-01	0.852
		111.00		1.555E-01	2.735E-01	4.527E-01	6.010E-02	0.343
		131.20		8.740E-02	1.421E-01	2.351E-01	2.360E-02	0.372
		152.70		7.311E-03	4.352E-01	7.026E-01	1.263E-01	0.010
	+	186.00		1.281E+01	4.917E+00	3.832E+00	1.222E+00	3.343
		226.40		2.277E-02	5.215E-01	8.788E-01	1.308E-01	0.026
		227.20		-5.763E-02	5.655E-01	9.474E-01	1.045E-01	-0.061
		248.90		-4.762E-01	1.147E+00	1.620E+00	3.797E-01	-0.294
		293.70		6.539E+00	1.625E+00	2.051E+00	3.773E-01	3.188
		369.80		-3.787E-01	1.049E+00	1.689E+00	3.708E-01	-0.224
		568.70		8.653E-01	1.178E+00	2.003E+00	1.716E-01	0.432
		569.50		1.346E-01	3.345E-01	5.571E-01	4.772E-02	0.242
		574.00		-1.026E-01	1.912E+00	3.076E+00	2.632E-01	-0.033
		699.00		3.614E-01	8.351E-01	1.435E+00	2.725E-01	0.252
		706.10		-1.101E-03	1.167E+00	1.952E+00	8.697E-01	-0.001
		733.00		-1.320E-01	4.888E-01	6.798E-01	1.508E-01	-0.194
		742.81		8.155E-01	1.717E+00	2.815E+00	1.893E+00	0.290
	+	796.30		8.955E-01	1.293E+00	1.862E+00	5.054E-01	0.481
		805.60		1.166E+00	1.220E+00	2.087E+00	6.417E-01	0.559
		819.60		4.560E-01	1.372E+00	2.325E+00	8.864E-01	0.196
		826.30		-9.952E-02	9.049E-01	1.484E+00	6.652E-01	-0.067
		831.60		-7.168E-01	7.732E-01	1.132E+00	3.394E-01	-0.633
		876.40		-2.013E-01	9.537E-01	1.508E+00	1.551E+00	-0.134
		880.51		2.168E-02	3.027E-01	5.037E-01	4.664E-02	0.043
		883.24		-6.937E-02	3.043E-01	4.854E-01	3.267E-01	-0.143
		899.00		-1.472E-02	1.051E+00	1.732E+00	7.598E-01	-0.008
		925.00		1.412E+00	1.410E+00	2.514E+00	2.334E-01	0.562
		926.50		9.579E-02	2.183E-01	3.708E-01	9.459E-02	0.258
		946.00	*	1.758E-01	3.226E-01	5.563E-01	1.060E-01	0.316
		949.00		5.618E-01	4.920E-01	8.905E-01	8.223E-02	0.631
		980.50		-2.005E-01	7.942E-01	1.270E+00	1.162E-01	-0.158
		1394.10		6.796E-01	1.340E+00	2.259E+00	1.473E+00	0.301
PA-234M		766.42		3.170E+01	2.362E+01	2.876E+01	1.460E+01	1.102
	+	1001.03	*	2.620E+01	9.772E+00	1.397E+01	1.448E+00	1.876
U-235		89.95		-1.959E-01	2.083E+00	2.981E+00	9.535E-01	-0.066
	+	93.35		1.961E+01	6.054E+00	2.661E+00	7.730E-01	7.368
		105.00		1.138E-01	1.439E+00	2.354E+00	7.164E-01	0.048
		143.76	*	1.926E-01	2.886E-01	4.731E-01	8.668E-02	0.407
		163.35		3.860E-01	6.378E-01	1.043E+00	2.092E-01	0.370
	+	185.71		4.745E-01	1.136E-01	1.419E-01	1.536E-02	3.344
		205.31		7.040E-01	7.798E-01	1.125E+00	2.276E-01	0.626
NP-236		94.67		2.513E+00	3.811E-01	4.731E-01	5.368E-02	5.312
		98.44		1.496E-01	1.108E-01	1.671E-01	1.828E-02	0.896
		111.00		1.176E-01	2.067E-01	3.424E-01	3.499E-02	0.343
		160.31	*	-5.535E-02	1.054E-01	1.660E-01	1.747E-02	-0.334
NP-237		86.50	*	4.887E-01	4.485E-01	6.479E-01	1.555E-01	0.754
		95.87		1.435E+00	1.673E+00	2.427E+00	6.226E-01	0.591
NP-239		99.55		2.847E-01	2.345E-01	3.697E-01	4.007E-02	0.770
		117.00	*	-1.566E-01	2.668E-01	4.243E-01	4.284E-02	-0.369

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	209.75		2.954E+00	1.556E+00	1.819E+00	1.997E-01	1.624
		228.18		-1.803E-01	2.985E-01	4.894E-01	5.398E-02	-0.368
		277.60		1.675E-01	2.485E-01	4.041E-01	4.375E-02	0.414
		334.30		6.558E-01	1.961E+00	2.884E+00	2.868E-01	0.227
AM-241		59.54	*	4.229E-01	3.631E-01	5.527E-01	6.488E-02	0.765
CM-243		99.55		2.930E-01	2.414E-01	3.805E-01	4.124E-02	0.770
		103.76	*	-1.998E-02	1.334E-01	2.167E-01	2.283E-02	-0.092
		117.00		-1.612E-01	2.746E-01	4.366E-01	4.408E-02	-0.369
	+	209.75		2.912E+00	1.534E+00	1.794E+00	1.969E-01	1.624
		228.18		-1.822E-01	3.017E-01	4.946E-01	5.456E-02	-0.368
		277.60		1.689E-01	2.506E-01	4.074E-01	4.412E-02	0.414
AM-246		798.80		-1.600E-01	1.887E-01	2.409E-01	2.148E-02	-0.664
		1036.00		-3.716E-02	3.018E-01	4.872E-01	4.360E-02	-0.076
		1062.04		4.831E-02	2.577E-01	4.291E-01	3.789E-02	0.113
		1078.86	*	-4.432E-02	1.746E-01	2.782E-01	2.433E-02	-0.159
CM-247		278.00		5.038E-01	1.008E+00	1.675E+00	1.813E-01	0.301
		287.40		-7.090E-01	1.556E+00	2.535E+00	2.718E-01	-0.280
		402.60	*	2.242E-02	4.664E-02	7.869E-02	6.655E-03	0.285
CF-249		252.85		-7.864E-01	1.097E+00	1.773E+00	1.950E-01	-0.444
		333.44		9.334E-02	2.597E-01	3.824E-01	3.810E-02	0.244
		387.95	*	4.437E-02	5.152E-02	8.859E-02	7.557E-03	0.501
CF-251		176.60	*	9.537E-02	1.658E-01	2.720E-01	2.925E-02	0.351
		227.00		-7.356E-02	5.014E-01	8.386E-01	9.250E-02	-0.088
		285.00		2.013E+00	2.235E+00	3.864E+00	4.154E-01	0.521

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978008       *
* Acquisition date : 14-FEB-2010 12:01:03 Detector SN#    :                 *
* Detector ID       : GAM15                Sensitivity     : 5.000          *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.40      Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978008           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.3406E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.491E+01	2.997E+00	5.915E-01	0.000E+00
BA-137M	4.463E-01	9.447E-02	8.026E-02	0.000E+00
CS-137	4.718E-01	9.990E-02	8.484E-02	0.000E+00
TL-208	3.966E-01	1.027E-01	7.568E-02	0.000E+00
BI-211	4.506E+00	6.765E-01	3.873E-01	0.000E+00
PB-212	1.588E+00	2.257E-01	1.164E-01	0.000E+00
PO-212	1.588E+00	2.257E-01	1.164E-01	0.000E+00
BI-214	1.303E+00	2.106E-01	1.415E-01	0.000E+00
PB-214	1.567E+00	2.486E-01	1.350E-01	0.000E+00
PO-214	1.567E+00	2.486E-01	1.350E-01	0.000E+00
PO-216	1.588E+00	2.257E-01	1.164E-01	0.000E+00
PO-218	1.567E+00	2.486E-01	1.350E-01	0.000E+00
RA-224	5.023E+00	1.602E+00	1.324E+00	0.000E+00
RA-226	1.303E+00	2.106E-01	1.415E-01	0.000E+00
AC-228	1.356E+00	3.544E-01	2.527E-01	0.000E+00
RA-228	1.356E+00	3.544E-01	2.527E-01	0.000E+00
TH-228	1.616E+00	2.298E-01	1.185E-01	0.000E+00
TH-230	1.303E+00	2.106E-01	1.415E-01	0.000E+00
TH-232	1.356E+00	3.544E-01	2.527E-01	0.000E+00
TH-234	1.441E+01	4.978E+00	4.337E+00	0.000E+00
U-234	1.303E+00	2.106E-01	1.415E-01	0.000E+00
U-238	1.441E+01	4.978E+00	4.337E+00	0.000E+00
AM-243	4.066E-01	1.424E-01	1.498E-01	0.000E+00
ANH-511	1.452E-01	7.953E-02	5.792E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	7.890E-02	4.089E-01	7.042E-01	0.000E+00	NOT IDENT.
NA-22	-2.491E-02	5.158E-02	8.094E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.194E+07	0.000E+00	0.000E+00	SHORT HLIF

AL-26	2.213E-02	3.110E-02	5.904E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	7.740E-02	1.191E-01	0.000E+00	FAIL ABUN
SC-46	-2.575E-02	4.229E-02	6.767E-02	0.000E+00	NOT IDENT.
V-48	-3.584E-04	9.009E-02	1.523E-01	0.000E+00	NOT IDENT.
CR-51	-5.440E-01	4.816E-01	7.839E-01	0.000E+00	NOT IDENT.
MN-52	-1.354E-01	3.429E-01	5.505E-01	0.000E+00	NOT IDENT.
MN-54	5.646E-02	4.420E-02	8.223E-02	0.000E+00	NOT IDENT.
CO-56	-2.115E-02	4.545E-02	7.456E-02	0.000E+00	FAIL ABUN
CO-57	-1.949E-02	3.374E-02	5.725E-02	0.000E+00	NOT IDENT.
CO-58	1.265E-03	4.427E-02	7.615E-02	0.000E+00	NOT IDENT.
FE-59	-7.481E-02	1.109E-01	1.734E-01	0.000E+00	NOT IDENT.
CO-60	2.545E-02	4.583E-02	8.050E-02	0.000E+00	NOT IDENT.
ZN-65	7.599E-02	1.093E-01	1.717E-01	0.000E+00	NOT IDENT.
GE-68	-2.066E-01	1.511E+00	2.505E+00	0.000E+00	NOT IDENT.
AS-73	1.336E+00	2.234E+00	4.090E+00	0.000E+00	NOT IDENT.
AS-74	4.274E-02	1.211E-01	2.082E-01	0.000E+00	NOT IDENT.
SE-75	3.994E-02	6.046E-02	1.004E-01	0.000E+00	NOT IDENT.
BR-77	3.331E-01	2.907E+01	4.788E+01	0.000E+00	FAIL ABUN
SR-82	-3.868E-01	4.787E-01	7.246E-01	0.000E+00	NOT IDENT.
RB-83	-8.664E-03	8.843E-02	1.397E-01	0.000E+00	NOT IDENT.
RB-84	5.638E-02	7.697E-02	1.399E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	1.005E+01	1.733E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	5.314E-02	9.158E-02	0.000E+00	NOT IDENT.
RB-86	8.735E-01	1.006E+00	1.820E+00	0.000E+00	NOT IDENT.
Y-88	-1.498E-02	3.333E-02	4.983E-02	0.000E+00	NOT IDENT.
ZR-88	-2.939E-02	4.086E-02	6.749E-02	0.000E+00	NOT IDENT.
Y-91	4.275E+00	2.456E+01	4.145E+01	0.000E+00	NOT IDENT.
NB-94	-1.845E-02	3.791E-02	6.337E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	6.284E-02	1.090E-01	0.000E+00	NOT IDENT.
NB-95M	2.550E-01	1.926E-01	3.133E-01	0.000E+00	NOT IDENT.
ZR-95	3.164E-02	8.430E-02	1.493E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.216E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.369E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.902E+01	2.726E+01	4.927E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.577E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.071E-02	4.374E-02	7.542E-02	0.000E+00	NOT IDENT.
RH-102	-7.322E-03	3.714E-02	6.242E-02	0.000E+00	FAIL ABUN
RU-103	2.271E-02	5.093E-02	8.887E-02	0.000E+00	FAIL ABUN
RH-106	8.386E-02	3.600E-01	6.126E-01	0.000E+00	FAIL ABUN
RU-106	8.386E-02	3.600E-01	6.126E-01	0.000E+00	FAIL ABUN
AG-108M	1.698E-02	4.035E-02	7.079E-02	0.000E+00	NOT IDENT.
CD-109	1.267E+00	1.481E+00	2.342E+00	0.000E+00	NOT IDENT.
AG-110M	2.856E-02	4.610E-02	7.349E-02	0.000E+00	NOT IDENT.
IN-111	1.505E+00	2.861E+00	4.547E+00	0.000E+00	NOT IDENT.
IN-113M	-2.404E-02	5.920E-02	9.972E-02	0.000E+00	NOT IDENT.
SN-113	-2.404E-02	5.920E-02	9.972E-02	0.000E+00	NOT IDENT.
IN-114M	-5.105E-02	2.754E-01	4.030E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.184E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-4.342E-02	8.090E-02	1.355E-01	0.000E+00	NOT IDENT.
SB-122	2.036E+00	5.335E+00	9.205E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.862E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-3.233E-02	3.723E-02	6.133E-02	0.000E+00	NOT IDENT.
I-124	-6.564E-02	1.533E+00	2.202E+00	0.000E+00	FAIL ABUN
SB-124	-8.316E-03	8.969E-02	1.484E-01	0.000E+00	FAIL ABUN
SB-125	8.149E-02	1.101E-01	1.968E-01	0.000E+00	FAIL ABUN
TE-125M	-9.278E+00	1.397E+01	2.379E+01	0.000E+00	NOT IDENT.
I-126	2.849E-01	2.847E-01	4.667E-01	0.000E+00	NOT IDENT.
SB-126	9.683E-02	1.887E-01	2.989E-01	0.000E+00	FAIL ABUN
SN-126	7.062E-02	1.446E-01	2.266E-01	0.000E+00	FAIL ABUN
SB-127	4.845E-01	2.526E+00	4.448E+00	0.000E+00	NOT IDENT.
XE-127	-6.697E-03	6.925E-02	1.125E-01	0.000E+00	NOT IDENT.
I-131	9.129E-02	1.846E-01	3.276E-01	0.000E+00	NOT IDENT.
TE-132	-1.028E+00	1.657E+00	2.861E+00	0.000E+00	NOT IDENT.
BA-133	-1.314E-02	5.919E-02	8.735E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.330E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.620E-02	6.433E-02	9.880E-02	0.000E+00	FAIL ABUN
CS-135	1.111E-01	2.251E-01	3.547E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.673E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.948E-02	1.507E-01	2.426E-01	0.000E+00	NOT IDENT.
CE-139	-6.948E-03	4.005E-02	6.803E-02	0.000E+00	NOT IDENT.
BA-140	2.201E-02	3.501E-01	5.934E-01	0.000E+00	NOT IDENT.
LA-140	6.188E-02	1.232E-01	1.971E-01	0.000E+00	NOT IDENT.
CE-141	-5.422E-02	9.111E-02	1.529E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.327E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-7.314E-02	2.689E-01	4.597E-01	0.000E+00	NOT IDENT.
PM-144	-8.406E-03	3.986E-02	6.811E-02	0.000E+00	NOT IDENT.
PR-144	-5.705E-01	2.705E+00	4.623E+00	0.000E+00	NOT IDENT.
PM-146	1.247E-02	5.380E-02	9.112E-02	0.000E+00	NOT IDENT.

ND-147	-3.770E-01	8.290E-01	1.352E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	2.811E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	7.826E-02	1.706E-01	2.127E-01	0.000E+00	NOT IDENT.
GD-153	1.789E-01	1.221E-01	1.982E-01	0.000E+00	NOT IDENT.
EU-154	-4.091E-02	1.403E-01	2.248E-01	0.000E+00	NOT IDENT.
EU-155	-3.134E-02	1.450E-01	2.516E-01	0.000E+00	NOT IDENT.
TB-160	-1.678E-02	1.542E-01	2.603E-01	0.000E+00	FAIL ABUN
HO-166M	2.238E-02	6.682E-02	1.185E-01	0.000E+00	NOT IDENT.
TM-171	-9.406E+00	5.657E+01	8.746E+01	0.000E+00	NOT IDENT.
LU-176	1.272E-02	3.192E-02	5.543E-02	0.000E+00	NOT IDENT.
LU-177	0.000E+00	2.897E+00	3.502E+00	0.000E+00	FAIL ABUN
LU-177M	-9.937E-02	2.319E-01	3.886E-01	0.000E+00	NOT IDENT.
HF-181	-3.859E-02	5.402E-02	8.722E-02	0.000E+00	NOT IDENT.
W-181	0.000E+00	8.685E-01	1.430E+00	0.000E+00	NOT IDENT.
TA-182	-2.233E-01	2.422E-01	3.681E-01	0.000E+00	FAIL ABUN
RE-183	1.070E-01	1.476E-01	2.590E-01	0.000E+00	FAIL ABUN
RE-184	-2.121E-01	2.898E-01	4.944E-01	0.000E+00	NOT IDENT.
OS-185	-2.672E-02	5.198E-02	8.286E-02	0.000E+00	NOT IDENT.
RE-188	2.693E-01	2.239E-01	3.990E-01	0.000E+00	NOT IDENT.
W-188	-9.737E-01	1.010E+01	1.529E+01	0.000E+00	FAIL ABUN
IR-192	4.745E-02	4.193E-02	7.694E-02	0.000E+00	FAIL ABUN
AU-195	3.616E-01	3.582E-01	5.726E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.515E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.462E+01	1.820E+01	3.003E+01	0.000E+00	NOT IDENT.
TL-202	1.440E-02	1.005E-01	1.733E-01	0.000E+00	NOT IDENT.
HG-203	-1.102E-03	5.541E-02	9.734E-02	0.000E+00	NOT IDENT.
BI-207	4.227E-02	5.918E-02	1.059E-01	0.000E+00	FAIL ABUN
TL-207	-2.156E-01	8.087E-01	1.389E+00	0.000E+00	FAIL ABUN
PO-209	3.049E+00	8.606E+00	1.509E+01	0.000E+00	NOT IDENT.
BI-210	-7.636E+00	1.366E+01	2.378E+01	0.000E+00	NOT IDENT.
PB-210	-7.636E+00	1.366E+01	2.378E+01	0.000E+00	NOT IDENT.
PO-210	-7.636E+00	1.366E+01	2.378E+01	0.000E+00	NOT IDENT.
PB-211	-9.193E-01	1.334E+00	1.992E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.895E-01	7.593E-01	0.000E+00	FAIL ABUN
PO-215	-2.156E-01	8.087E-01	1.389E+00	0.000E+00	FAIL ABUN
RN-219	1.663E-01	5.119E-01	8.957E-01	0.000E+00	FAIL ABUN
RN-220	1.956E+00	3.236E+01	5.476E+01	0.000E+00	NOT IDENT.
RA-223	-2.156E-01	8.087E-01	1.389E+00	0.000E+00	FAIL ABUN
AC-227	3.072E-01	4.887E-01	8.810E-01	0.000E+00	FAIL ABUN
TH-227	3.072E-01	4.895E-01	8.810E-01	0.000E+00	FAIL ABUN
TH-229	2.682E-03	6.611E-01	1.121E+00	0.000E+00	NOT IDENT.
PA-231	-1.484E-01	1.956E+00	3.425E+00	0.000E+00	NOT IDENT.
TH-231	-2.156E-01	8.087E-01	1.389E+00	0.000E+00	FAIL ABUN
U-231	2.617E+00	2.931E+00	4.654E+00	0.000E+00	FAIL ABUN
PA-233	-4.433E-02	7.993E-02	1.356E-01	0.000E+00	FAIL ABUN
PA-234	1.758E-01	3.161E-01	5.619E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	9.577E+00	1.409E+01	0.000E+00	FAIL ABUN
U-235	1.926E-01	2.828E-01	4.940E-01	0.000E+00	FAIL ABUN
NP-236	-5.535E-02	1.033E-01	1.730E-01	0.000E+00	NOT IDENT.
NP-237	4.887E-01	4.396E-01	6.825E-01	0.000E+00	NOT IDENT.
NP-239	-1.566E-01	2.615E-01	4.446E-01	0.000E+00	FAIL ABUN
AM-241	4.229E-01	3.559E-01	5.858E-01	0.000E+00	NOT IDENT.
CM-243	-1.998E-02	1.307E-01	2.275E-01	0.000E+00	FAIL ABUN
AM-246	-4.432E-02	1.711E-01	2.803E-01	0.000E+00	NOT IDENT.
CM-247	2.242E-02	4.570E-02	8.071E-02	0.000E+00	NOT IDENT.
CF-249	4.437E-02	5.049E-02	9.092E-02	0.000E+00	NOT IDENT.
CF-251	9.537E-02	1.625E-01	2.830E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:01:38.03

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978008.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:01:03
Sample ID         : G245978008           Sample quantity  : 1.34060E+02 GRAM
Detector name     : GAM15                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.40  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	917	10.67*	9.662E-01	2.491E+01	2.491E+01	12.28
BA-137M	661.65	284	89.98*	1.982E+00	4.458E-01	4.463E-01	21.60
CS-137	661.65	284	85.12*	1.982E+00	4.713E-01	4.718E-01	21.61
TL-208	277.35	------	6.80	3.705E+00	------	Line Not Found	------
	510.84	125	21.60	2.419E+00	6.720E-01	6.720E-01	56.52
	583.14	261	84.20*	2.191E+00	3.966E-01	3.966E-01	26.44
	860.37	------	12.46	1.576E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	3.001E+00	------	Line Not Found	------
	351.07	654	12.94*	3.141E+00	4.506E+00	4.506E+00	15.32
PB-212	74.81	311	10.70	3.250E+00	2.508E+00	2.508E+00	36.95
	77.11	393	18.00	3.504E+00	1.743E+00	1.743E+00	24.55
	87.30	------	8.00	4.444E+00	------	Line Not Found	------
	238.63	1040	44.60*	4.114E+00	1.588E+00	1.588E+00	14.51
	300.09	55	3.41	3.510E+00	1.293E+00	1.293E+00	96.98
PO-212	74.81	311	10.70	3.250E+00	2.508E+00	2.508E+00	36.95
	77.11	393	18.00	3.504E+00	1.743E+00	1.743E+00	24.55
	87.30	------	8.00	4.444E+00	------	Line Not Found	------
	115.19	------	0.60	5.586E+00	------	Line Not Found	------
	238.63	1040	44.60*	4.114E+00	1.588E+00	1.588E+00	14.51
	300.09	55	3.41	3.510E+00	1.293E+00	1.293E+00	96.98
BI-214	609.31	456	46.30*	2.117E+00	1.303E+00	1.303E+00	16.49
	1120.29	------	15.10	1.226E+00	------	Line Not Found	------
	1764.49	62	15.80	8.553E-01	1.281E+00	1.281E+00	40.71
PB-214	74.81	311	6.21	3.250E+00	4.321E+00	4.322E+00	36.50
	77.11	393	10.50	3.504E+00	2.988E+00	2.988E+00	25.71
	87.30	------	4.67	4.444E+00	------	Line Not Found	------
	241.98	289	7.49	4.077E+00	2.649E+00	2.649E+00	33.02
	295.21	368	19.20	3.547E+00	1.513E+00	1.513E+00	22.40
	351.92	654	37.20*	3.141E+00	1.567E+00	1.567E+00	16.18
PO-214	74.81	311	6.21	3.250E+00	4.321E+00	4.322E+00	36.50
	77.11	393	10.50	3.504E+00	2.988E+00	2.988E+00	25.71
	87.30	------	4.67	4.444E+00	------	Line Not Found	------

Sample ID : G245978008 Acquisition date : 14-FEB-2010 12:01:03

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	289	7.49	4.077E+00	2.649E+00	2.649E+00	33.02
	295.21	368	19.20	3.547E+00	1.513E+00	1.513E+00	22.40
	351.92	654	37.20*	3.141E+00	1.567E+00	1.567E+00	16.18
PO-216	74.81	311	10.70	3.250E+00	2.508E+00	2.508E+00	36.95
	77.11	393	18.00	3.504E+00	1.743E+00	1.743E+00	24.55
	87.30	------	8.00	4.444E+00	------	Line Not Found	------
	238.63	1040	44.60*	4.114E+00	1.588E+00	1.588E+00	14.51
	300.09	55	3.41	3.510E+00	1.293E+00	1.293E+00	96.98
PO-218	74.81	311	6.21	3.250E+00	4.321E+00	4.322E+00	36.50
	77.11	393	10.50	3.504E+00	2.988E+00	2.988E+00	25.71
	87.30	------	4.67	4.444E+00	------	Line Not Found	------
	241.98	289	7.49	4.077E+00	2.649E+00	2.649E+00	33.02
	295.21	368	19.20	3.547E+00	1.513E+00	1.513E+00	22.40
	351.92	654	37.20*	3.141E+00	1.567E+00	1.567E+00	16.18
RA-224	240.98	289	3.95*	4.077E+00	5.023E+00	5.023E+00	32.54
RA-226	609.31	456	46.30*	2.117E+00	1.303E+00	1.303E+00	16.49
	1120.29	------	15.10	1.226E+00	------	Line Not Found	------
	1764.49	62	15.80	8.553E-01	1.281E+00	1.281E+00	40.71
AC-228	338.32	200	11.40	3.227E+00	1.519E+00	1.519E+00	52.60
	911.07	200	27.70*	1.494E+00	1.356E+00	1.356E+00	26.66
	969.11	115	16.60	1.409E+00	1.380E+00	1.380E+00	48.69
RA-228	338.32	200	11.40	3.227E+00	1.519E+00	1.519E+00	52.60
	911.07	200	27.70*	1.494E+00	1.356E+00	1.356E+00	26.66
	969.11	115	16.60	1.409E+00	1.380E+00	1.380E+00	48.69
TH-228	74.81	311	10.70	3.250E+00	2.508E+00	2.553E+00	35.76
	77.11	393	18.00	3.504E+00	1.743E+00	1.775E+00	24.55
	87.30	------	8.00	4.444E+00	------	Line Not Found	------
	238.63	1040	44.60*	4.114E+00	1.588E+00	1.616E+00	14.51
	300.09	55	3.41	3.510E+00	1.293E+00	1.317E+00	113.19
TH-230	609.31	456	46.30*	2.117E+00	1.303E+00	1.303E+00	16.49
	1120.29	------	15.10	1.226E+00	------	Line Not Found	------
	1764.49	62	15.80	8.553E-01	1.281E+00	1.281E+00	40.71
TH-232	338.32	200	11.40	3.227E+00	1.519E+00	1.519E+00	33.75
	911.07	200	27.70*	1.494E+00	1.356E+00	1.356E+00	26.66
	969.11	115	16.60	1.409E+00	1.380E+00	1.380E+00	48.69
TH-234	63.29	354	3.80*	1.810E+00	1.441E+01	1.441E+01	35.26
	92.38	1520	5.41	4.823E+00	1.631E+01	1.631E+01	22.24
U-234	609.31	456	46.30*	2.117E+00	1.303E+00	1.303E+00	16.49
	1120.29	------	15.10	1.226E+00	------	Line Not Found	------
	1764.49	62	15.80	8.553E-01	1.281E+00	1.281E+00	40.71
U-238	63.29	354	3.80*	1.810E+00	1.441E+01	1.441E+01	35.26
	92.38	1520	5.41	4.823E+00	1.631E+01	1.631E+01	15.56
AM-243	74.67	311	66.00*	3.250E+00	4.066E-01	4.066E-01	35.74
	86.72	------	0.34	4.398E+00	------	Line Not Found	------
	117.66	------	0.55	5.611E+00	------	Line Not Found	------
	142.18	------	0.13	5.525E+00	------	Line Not Found	------
ANH-511	511.00	125	100.00*	2.419E+00	1.452E-01	1.452E-01	55.90

Flag: "*" = Keyline

Sample ID : G245978008 Acquisition date : 14-FEB-2010 12:01:03

Total number of lines in spectrum 30
Number of unidentified lines 1
Number of lines tentatively identified by NID 29 96.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.491E+01	2.491E+01	0.306E+01	12.28	
BA-137M	30.17Y	1.00	4.458E-01	4.463E-01	0.964E-01	21.60	
CS-137	30.17Y	1.00	4.713E-01	4.718E-01	1.019E-01	21.61	
TL-208	1.41E+10Y	1.00	3.966E-01	3.966E-01	1.048E-01	26.44	
BI-211	7.04E+08Y	1.00	4.506E+00	4.506E+00	0.690E+00	15.32	
PB-212	1.41E+10Y	1.00	1.588E+00	1.588E+00	0.230E+00	14.51	
PO-212	1.41E+10Y	1.00	1.588E+00	1.588E+00	0.230E+00	14.51	
BI-214	1600.00Y	1.00	1.303E+00	1.303E+00	0.215E+00	16.49	
PB-214	1600.00Y	1.00	1.567E+00	1.567E+00	0.254E+00	16.18	
PO-214	1600.00Y	1.00	1.567E+00	1.567E+00	0.254E+00	16.18	
PO-216	1.41E+10Y	1.00	1.588E+00	1.588E+00	0.230E+00	14.51	
PO-218	1600.00Y	1.00	1.567E+00	1.567E+00	0.254E+00	16.18	
RA-224	1.41E+10Y	1.00	5.023E+00	5.023E+00	1.635E+00	32.54	
RA-226	1600.00Y	1.00	1.303E+00	1.303E+00	0.215E+00	16.49	
AC-228	1.41E+10Y	1.00	1.356E+00	1.356E+00	0.362E+00	26.66	
RA-228	1.41E+10Y	1.00	1.356E+00	1.356E+00	0.362E+00	26.66	
TH-228	1.91Y	1.02	1.588E+00	1.616E+00	0.234E+00	14.51	
TH-230	4.47E+09Y	1.00	1.303E+00	1.303E+00	0.215E+00	16.49	
TH-232	1.41E+10Y	1.00	1.356E+00	1.356E+00	0.362E+00	26.66	
TH-234	4.47E+09Y	1.00	1.441E+01	1.441E+01	0.508E+01	35.26	
U-234	4.47E+09Y	1.00	1.303E+00	1.303E+00	0.215E+00	16.49	
U-238	4.47E+09Y	1.00	1.441E+01	1.441E+01	0.508E+01	35.26	
AM-243	7380.00Y	1.00	4.066E-01	4.066E-01	1.453E-01	35.74	
ANH-511	1.00E+09Y	1.00	1.452E-01	1.452E-01	0.812E-01	55.90	
	Total Activity :		8.546E+01	8.549E+01			

Grand Total Activity : 8.546E+01 8.549E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978008 Acquisition date : 14-FEB-2010 12:01:03

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.98	445	422	1.24	370.87	366	12	6.17E-02	21.3	4.86E+00	T
0	209.18	154	357	1.51	417.27	413	12	2.14E-02	51.5	4.50E+00	T
0	270.67	66	236	1.34	540.25	536	10	9.17E-03	92.1	3.77E+00	T
0	463.55	74	134	1.57	925.99	921	13	1.03E-02	69.1	2.59E+00	T
0	727.44	87	81	1.63	1453.81	1446	16	1.21E-02	52.4	1.83E+00	T
0	768.21	102	50	2.29	1535.38	1529	13	1.42E-02	35.7	1.75E+00	T
0	796.04	21	61	1.45	1591.03	1585	9	2.93E-03	****	1.69E+00	T
0	1000.74	107	49	1.57	2000.49	1993	16	1.49E-02	35.8	1.37E+00	T
0	1122.09	84	116	2.03	2243.25	2233	21	1.16E-02	70.0	1.22E+00	T
0	1237.94	46	71	4.59	2475.00	2467	15	6.36E-03	85.5	1.12E+00	T
0	1377.39	72	10	6.14	2753.98	2745	20	1.00E-02	31.9	1.01E+00	T
0	1592.80	32	6	1.30	3184.95	3180	12	4.44E-03	46.8	9.07E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:01:43.44

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978008.CNF;1  *
* Acquisition date : 14-FEB-2010 12:01:03  Detector SN#     :               *
* Detector ID      : GAM15                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.40         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245978008            Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.34060E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 3-FEB-2010 11:04:32.11MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.491E+01	3.058E+00	5.904E-01	5.801E-02	42.196
BA-137M	4.463E-01	9.640E-02	7.895E-02	6.491E-03	5.653
CS-137	4.718E-01	1.019E-01	8.346E-02	6.876E-03	5.653
TL-208	3.966E-01	1.048E-01	7.427E-02	6.801E-03	5.339
BI-211	4.506E+00	6.903E-01	3.767E-01	3.751E-02	11.962
PB-212	1.588E+00	2.303E-01	1.125E-01	1.339E-02	14.117
PO-212	1.588E+00	2.303E-01	1.125E-01	1.339E-02	14.117
BI-214	1.303E+00	2.149E-01	1.390E-01	1.378E-02	9.374
PB-214	1.567E+00	2.537E-01	1.313E-01	1.473E-02	11.939
PO-214	1.567E+00	2.537E-01	1.313E-01	1.473E-02	11.939
PO-216	1.588E+00	2.303E-01	1.125E-01	1.339E-02	14.117
PO-218	1.567E+00	2.537E-01	1.313E-01	1.473E-02	11.939
RA-224	5.023E+00	1.635E+00	1.279E+00	1.411E-01	3.926
RA-226	1.303E+00	2.149E-01	1.390E-01	1.378E-02	9.374
AC-228	1.356E+00	3.617E-01	2.500E-01	2.945E-02	5.426
RA-228	1.356E+00	3.617E-01	2.500E-01	2.945E-02	5.426
TH-228	1.616E+00	2.345E-01	1.145E-01	1.363E-02	14.117
TH-230	1.303E+00	2.149E-01	1.390E-01	1.378E-02	9.374

Sample ID : G245978008 Acquisition date : 14-FEB-2010 12:01:03

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.356E+00	3.617E-01	2.500E-01	2.945E-02	5.426
TH-234	1.441E+01	5.080E+00	4.096E+00	7.981E-01	3.517
U-234	1.303E+00	2.149E-01	1.390E-01	1.378E-02	9.374
U-238	1.441E+01	5.080E+00	4.096E+00	7.981E-01	3.517
AM-243	4.066E-01	1.453E-01	1.418E-01	1.631E-02	2.867
ANH-511	1.452E-01	8.115E-02	5.671E-02	4.900E-03	2.560

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	7.890E-02		4.172E-01	6.887E-01	6.403E-02	0.115
NA-22	-2.491E-02		5.264E-02	8.058E-02	7.320E-03	-0.309
NA-24	-1.805E+01		1.120E+01	Half-Life too short		
AL-26	2.213E-02		3.173E-02	5.916E-02	5.061E-03	0.374
TI-44	3.217E-01	+	7.898E-02	1.129E-01	1.316E-02	2.848
SC-46	-2.575E-02		4.316E-02	6.693E-02	6.219E-03	-0.385
V-48	-3.584E-04		9.192E-02	1.509E-01	1.379E-02	-0.002
CR-51	-5.440E-01		4.914E-01	7.612E-01	8.083E-02	-0.715
MN-52	-1.354E-01		3.499E-01	5.492E-01	5.287E-02	-0.247
MN-54	5.646E-02		4.510E-02	8.123E-02	7.371E-03	0.695
CO-56	-2.115E-02		4.638E-02	7.368E-02	6.723E-03	-0.287
CO-57	-1.949E-02		3.443E-02	5.467E-02	5.507E-03	-0.356
CO-58	1.265E-03		4.518E-02	7.518E-02	6.759E-03	0.017
FE-59	-7.481E-02		1.132E-01	1.722E-01	1.607E-02	-0.434
CO-60	2.545E-02		4.676E-02	8.021E-02	7.711E-03	0.317
ZN-65	7.599E-02		1.115E-01	1.705E-01	1.457E-02	0.446
GE-68	-2.066E-01		1.542E+00	2.486E+00	2.176E-01	-0.083
AS-73	1.336E+00		2.280E+00	3.852E+00	5.001E-01	0.347
AS-74	4.274E-02		1.236E-01	2.044E-01	1.736E-02	0.209
SE-75	3.994E-02		6.170E-02	9.721E-02	1.066E-02	0.411
BR-77	3.331E-01		2.967E+01	4.689E+01	4.050E+00	0.007
SR-82	-3.868E-01		4.885E-01	7.148E-01	6.299E-02	-0.541
RB-83	-8.664E-03		9.024E-02	1.368E-01	1.181E-02	-0.063
RB-84	5.638E-02		7.854E-02	1.383E-01	1.282E-02	0.408
KR-85	2.419E+01		1.026E+01	1.697E+01	1.466E+00	1.426
SR-85	1.279E-01		5.422E-02	8.968E-02	7.748E-03	1.426
RB-86	8.735E-01		1.026E+00	1.806E+00	1.582E-01	0.484
Y-88	-1.498E-02		3.401E-02	4.994E-02	4.206E-03	-0.300
ZR-88	-2.939E-02		4.170E-02	6.578E-02	5.537E-03	-0.447
Y-91	4.275E+00		2.506E+01	4.122E+01	3.475E+00	0.104
NB-94	-1.845E-02		3.868E-02	6.241E-02	5.269E-03	-0.296
NB-95	1.284E-01		6.413E-02	1.075E-01	9.417E-03	1.195
NB-95M	2.550E-01		1.965E-01	3.026E-01	3.641E-02	0.843
ZR-95	3.164E-02		8.602E-02	1.473E-01	1.411E-02	0.215
NB-97	1.884E+00		1.131E+00	Half-Life too short		
ZR-97	9.091E+01		2.229E+01	Half-Life too short		
MO-99	1.902E+01		2.782E+01	4.857E+01	7.378E+00	0.392

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TC-99M	-1.452E+14		8.045E+13	Half-Life too short		
RH-101	2.071E-02		4.463E-02	7.262E-02	7.923E-03	0.285
RH-102	-7.322E-03		3.790E-02	6.104E-02	5.267E-03	-0.120
RU-103	2.271E-02		5.197E-02	8.697E-02	1.233E-02	0.261
RH-106	8.386E-02		3.674E-01	6.019E-01	7.957E-02	0.139
RU-106	8.386E-02		3.673E-01	6.019E-01	5.059E-02	0.139
AG-108M	1.698E-02		4.118E-02	6.911E-02	6.152E-03	0.246
CD-109	1.267E+00		1.511E+00	2.224E+00	2.761E-01	0.569
AG-110M	2.856E-02		4.704E-02	7.228E-02	6.151E-03	0.395
IN-111	1.505E+00		2.919E+00	4.395E+00	4.844E-01	0.342
IN-113M	-2.404E-02		6.041E-02	9.718E-02	8.440E-03	-0.247
SN-113	-2.404E-02		6.041E-02	9.718E-02	8.440E-03	-0.247
IN-114M	-5.105E-02		2.810E-01	3.878E-01	4.211E-02	-0.132
CD-115	2.466E-05		1.625E-05	Half-Life too short		
SN-117M	-4.342E-02		8.255E-02	1.300E-01	1.363E-02	-0.334
SB-122	2.036E+00		5.444E+00	9.029E+00	7.745E-01	0.226
I-123	-2.486E+02		1.460E+02	Half-Life too short		
TE-123M	-3.233E-02		3.798E-02	5.884E-02	6.200E-03	-0.550
I-124	-6.564E-02		1.564E+00	2.163E+00	1.833E-01	-0.030
SB-124	-8.316E-03		9.153E-02	1.485E-01	1.396E-02	-0.056
SB-125	8.149E-02		1.123E-01	1.921E-01	1.673E-02	0.424
TE-125M	-9.278E+00		1.425E+01	2.267E+01	2.664E+00	-0.409
I-126	2.849E-01		2.905E-01	4.591E-01	3.786E-02	0.620
SB-126	9.683E-02		1.925E-01	2.945E-01	2.514E-02	0.329
SN-126	7.062E-02		1.475E-01	2.152E-01	2.663E-02	0.328
SB-127	4.845E-01		2.578E+00	4.378E+00	5.289E-01	0.111
XE-127	-6.697E-03		7.067E-02	1.084E-01	1.185E-02	-0.062
I-131	9.129E-02		1.883E-01	3.188E-01	3.085E-02	0.286
TE-132	-1.028E+00		1.691E+00	2.762E+00	4.882E-01	-0.372
BA-133	-1.314E-02		6.040E-02	8.498E-02	1.168E-02	-0.155
I-133	-8.200E-03		3.740E-02	Half-Life too short		
CS-134	4.620E-02	+	6.565E-02	9.751E-02	8.740E-03	0.474
CS-135	1.111E-01		2.297E-01	3.433E-01	4.120E-02	0.324
I-135	6.130E+12		4.935E+12	Half-Life too short		
CS-136	-6.948E-02		1.538E-01	2.406E-01	2.227E-02	-0.289
CE-139	-6.948E-03		4.087E-02	6.531E-02	6.971E-03	-0.106
BA-140	2.201E-02		3.572E-01	5.816E-01	1.927E-01	0.038
LA-140	6.188E-02		1.257E-01	1.970E-01	1.847E-02	0.314
CE-141	-5.422E-02		9.296E-02	1.464E-01	1.514E-02	-0.370
CE-143	4.194E-03		6.772E-04	Half-Life too short		
CE-144	-7.314E-02		2.743E-01	4.397E-01	7.213E-02	-0.166
PM-144	-8.406E-03		4.067E-02	6.706E-02	5.643E-03	-0.125
PR-144	-5.705E-01		2.760E+00	4.551E+00	3.828E-01	-0.125
PM-146	1.247E-02		5.489E-02	8.903E-02	9.534E-03	0.140
ND-147	-3.770E-01		8.459E-01	1.325E+00	1.981E-01	-0.285
PM-149	7.041E-05		1.434E-04	Half-Life too short		
EU-152	7.826E-02		1.740E-01	2.068E-01	2.106E-02	0.378
GD-153	1.789E-01		1.246E-01	1.885E-01	2.081E-02	0.949

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-154	-4.091E-02		1.431E-01	2.238E-01	2.610E-02	-0.183
EU-155	-3.134E-02		1.480E-01	2.397E-01	2.525E-02	-0.131
TB-160	-1.678E-02		1.573E-01	2.574E-01	2.382E-02	-0.065
HO-166M	2.238E-02		6.818E-02	1.168E-01	9.912E-03	0.192
TM-171	-9.406E+00		5.772E+01	8.267E+01	9.437E+00	-0.114
LU-176	1.272E-02		3.257E-02	5.378E-02	5.624E-03	0.236
LU-177	5.610E+00	+	2.956E+00	3.375E+00	3.702E-01	1.662
LU-177M	-9.937E-02		2.367E-01	3.790E-01	3.221E-02	-0.262
HF-181	-3.859E-02		5.513E-02	8.531E-02	7.366E-03	-0.452
W-181	2.185E+00		8.862E-01	1.351E+00	1.543E-01	1.617
TA-182	-2.233E-01		2.471E-01	3.662E-01	3.143E-02	-0.610
RE-183	1.070E-01		1.506E-01	2.485E-01	2.629E-02	0.431
RE-184	-2.121E-01		2.957E-01	4.781E-01	5.258E-02	-0.444
OS-185	-2.672E-02		5.304E-02	8.147E-02	6.761E-03	-0.328
RE-188	2.693E-01		2.285E-01	3.826E-01	3.979E-02	0.704
W-188	-9.737E-01		1.031E+01	1.483E+01	1.584E+00	-0.066
IR-192	4.745E-02		4.279E-02	7.469E-02	7.701E-03	0.635
AU-195	3.616E-01		3.656E-01	5.448E-01	5.938E-02	0.664
TL-200	-7.509E-04		1.793E-03	Half-Life too short		
TL-201	-1.462E+01		1.857E+01	2.883E+01	3.080E+00	-0.507
TL-202	1.440E-02		1.025E-01	1.693E-01	1.451E-02	0.085
HG-203	-1.102E-03		5.654E-02	9.429E-02	1.038E-02	-0.012
BI-207	4.227E-02		6.039E-02	1.051E-01	9.273E-03	0.402
TL-207	-2.156E-01		8.252E-01	1.349E+00	2.497E-01	-0.160
PO-209	3.049E+00		8.781E+00	1.493E+01	1.391E+00	0.204
BI-210	-7.636E+00		1.394E+01	2.235E+01	2.752E+00	-0.342
PB-210	-7.636E+00		1.394E+01	2.235E+01	2.752E+00	-0.342
PO-210	-7.636E+00		1.394E+01	2.235E+01	2.606E+00	-0.342
PB-211	-9.193E-01		1.361E+00	1.942E+00	1.217E+00	-0.473
BI-212	1.128E+00	+	6.015E-01	7.482E-01	7.456E-02	1.508
PO-215	-2.156E-01		8.252E-01	1.349E+00	2.497E-01	-0.160
RN-219	1.663E-01		5.223E-01	8.732E-01	1.304E-01	0.190
RN-220	1.956E+00		3.302E+01	5.368E+01	4.619E+00	0.036
RA-223	-2.156E-01		8.252E-01	1.349E+00	2.497E-01	-0.160
AC-227	3.072E-01		4.986E-01	8.521E-01	1.431E-01	0.361
TH-227	3.072E-01		4.995E-01	8.521E-01	1.645E-01	0.361
TH-229	2.682E-03		6.746E-01	1.079E+00	1.175E-01	0.002
PA-231	-1.484E-01		1.996E+00	3.319E+00	5.475E-01	-0.045
TH-231	-2.156E-01		8.252E-01	1.349E+00	2.497E-01	-0.160
U-231	2.617E+00		2.991E+00	4.426E+00	4.959E-01	0.591
PA-233	-4.433E-02		8.156E-02	1.316E-01	1.392E-02	-0.337
PA-234	1.758E-01		3.226E-01	5.563E-01	1.060E-01	0.316
PA-234M	2.620E+01	+	9.772E+00	1.397E+01	1.448E+00	1.876
U-235	1.926E-01		2.886E-01	4.731E-01	8.668E-02	0.407
NP-236	-5.535E-02		1.054E-01	1.660E-01	1.747E-02	-0.334
NP-237	4.887E-01		4.485E-01	6.479E-01	1.555E-01	0.754
NP-239	-1.566E-01		2.668E-01	4.243E-01	4.284E-02	-0.369
AM-241	4.229E-01		3.631E-01	5.527E-01	6.488E-02	0.765

Sample ID : G245978008 Acquisition date : 14-FEB-2010 12:01:03

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.998E-02		1.334E-01	2.167E-01	2.283E-02	-0.092
AM-246	-4.432E-02		1.746E-01	2.782E-01	2.433E-02	-0.159
CM-247	2.242E-02		4.664E-02	7.869E-02	6.655E-03	0.285
CF-249	4.437E-02		5.152E-02	8.859E-02	7.557E-03	0.501
CF-251	9.537E-02		1.658E-01	2.720E-01	2.925E-02	0.351

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978008           *
* Acquisition date : 14-FEB-2010 12:01:03 Detector SN#    :                *
* Detector ID      : GAM15                Sensitivity     : 5.000          *
* Geometry         : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.40     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID        : G245978008           Analyst initials: MXR1           *
* Batch Number     : 948721               Sample Quantity : 1.3406E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  3-FEB-2010 11:04:32 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.491E+01	2.997E+00	2.959E-01	1.529E+00
BA-137M	4.463E-01	9.447E-02	4.015E-02	4.820E-02
CS-137	4.718E-01	9.990E-02	4.245E-02	5.097E-02
TL-208	3.966E-01	1.027E-01	3.786E-02	5.242E-02
BI-211	4.506E+00	6.765E-01	1.938E-01	3.451E-01
PB-212	1.588E+00	2.257E-01	5.824E-02	1.151E-01
PO-212	1.588E+00	2.257E-01	5.824E-02	1.151E-01
BI-214	1.303E+00	2.106E-01	7.081E-02	1.074E-01
PB-214	1.567E+00	2.486E-01	6.752E-02	1.268E-01
PO-214	1.567E+00	2.486E-01	6.752E-02	1.268E-01
PO-216	1.588E+00	2.257E-01	5.824E-02	1.151E-01
PO-218	1.567E+00	2.486E-01	6.752E-02	1.268E-01
RA-224	5.023E+00	1.602E+00	6.624E-01	8.174E-01
RA-226	1.303E+00	2.106E-01	7.081E-02	1.074E-01
AC-228	1.356E+00	3.544E-01	1.264E-01	1.808E-01
RA-228	1.356E+00	3.544E-01	1.264E-01	1.808E-01
TH-228	1.616E+00	2.298E-01	5.929E-02	1.172E-01
TH-230	1.303E+00	2.106E-01	7.081E-02	1.074E-01
TH-232	1.356E+00	3.544E-01	1.264E-01	1.808E-01
TH-234	1.441E+01	4.978E+00	2.170E+00	2.540E+00
U-234	1.303E+00	2.106E-01	7.081E-02	1.074E-01
U-238	1.441E+01	4.978E+00	2.170E+00	2.540E+00
AM-243	4.066E-01	1.424E-01	7.492E-02	7.267E-02
ANH-511	1.452E-01	7.953E-02	2.898E-02	4.058E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	7.890E-02	4.089E-01	3.523E-01	2.086E-01	NOT IDENT.
NA-22	-2.491E-02	5.158E-02	4.049E-02	2.632E-02	NOT IDENT.
NA-24	-1.805E+07	2.194E+07	0.000E+00	1.120E+07	SHORT HLIF

AL-26	2.213E-02	3.110E-02	2.954E-02	1.587E-02	NOT IDENT.
TI-44	3.217E-01	7.740E-02	5.961E-02	3.949E-02	FAIL ABUN
SC-46	-2.575E-02	4.229E-02	3.386E-02	2.158E-02	NOT IDENT.
V-48	-3.584E-04	9.009E-02	7.619E-02	4.596E-02	NOT IDENT.
CR-51	-5.440E-01	4.816E-01	3.922E-01	2.457E-01	NOT IDENT.
MN-52	-1.354E-01	3.429E-01	2.754E-01	1.749E-01	NOT IDENT.
MN-54	5.646E-02	4.420E-02	4.114E-02	2.255E-02	NOT IDENT.
CO-56	-2.115E-02	4.545E-02	3.730E-02	2.319E-02	FAIL ABUN
CO-57	-1.949E-02	3.374E-02	2.864E-02	1.721E-02	NOT IDENT.
CO-58	1.265E-03	4.427E-02	3.810E-02	2.259E-02	NOT IDENT.
FE-59	-7.481E-02	1.109E-01	8.677E-02	5.660E-02	NOT IDENT.
CO-60	2.545E-02	4.583E-02	4.027E-02	2.338E-02	NOT IDENT.
ZN-65	7.599E-02	1.093E-01	8.592E-02	5.574E-02	NOT IDENT.
GE-68	-2.066E-01	1.511E+00	1.253E+00	7.708E-01	NOT IDENT.
AS-73	1.336E+00	2.234E+00	2.046E+00	1.140E+00	NOT IDENT.
AS-74	4.274E-02	1.211E-01	1.041E-01	6.180E-02	NOT IDENT.
SE-75	3.994E-02	6.046E-02	5.025E-02	3.085E-02	NOT IDENT.
BR-77	3.331E-01	2.907E+01	2.395E+01	1.483E+01	FAIL ABUN
SR-82	-3.868E-01	4.787E-01	3.625E-01	2.442E-01	NOT IDENT.
RB-83	-8.664E-03	8.843E-02	6.987E-02	4.512E-02	NOT IDENT.
RB-84	5.638E-02	7.697E-02	7.000E-02	3.927E-02	NOT IDENT.
KR-85	2.419E+01	1.005E+01	8.669E+00	5.130E+00	NOT IDENT.
SR-85	1.279E-01	5.314E-02	4.582E-02	2.711E-02	NOT IDENT.
RB-86	8.735E-01	1.006E+00	9.104E-01	5.131E-01	NOT IDENT.
Y-88	-1.498E-02	3.333E-02	2.493E-02	1.701E-02	NOT IDENT.
ZR-88	-2.939E-02	4.086E-02	3.377E-02	2.085E-02	NOT IDENT.
Y-91	4.275E+00	2.456E+01	2.074E+01	1.253E+01	NOT IDENT.
NB-94	-1.845E-02	3.791E-02	3.171E-02	1.934E-02	NOT IDENT.
NB-95	1.284E-01	6.284E-02	5.452E-02	3.206E-02	NOT IDENT.
NB-95M	2.550E-01	1.926E-01	1.567E-01	9.826E-02	NOT IDENT.
ZR-95	3.164E-02	8.430E-02	7.471E-02	4.301E-02	NOT IDENT.
NB-97	1.884E+06	2.216E+06	0.000E+00	1.131E+06	SHORT HLIF
ZR-97	9.091E+07	4.369E+07	0.000E+00	2.229E+07	SHORT HLIF
MO-99	1.902E+01	2.726E+01	2.465E+01	1.391E+01	NOT IDENT.
TC-99M	-1.452E+20	1.577E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.071E-02	4.374E-02	3.773E-02	2.232E-02	NOT IDENT.
RH-102	-7.322E-03	3.714E-02	3.123E-02	1.895E-02	FAIL ABUN
RU-103	2.271E-02	5.093E-02	4.446E-02	2.599E-02	FAIL ABUN
RH-106	8.386E-02	3.600E-01	3.065E-01	1.837E-01	FAIL ABUN
RU-106	8.386E-02	3.600E-01	3.065E-01	1.836E-01	FAIL ABUN
AG-108M	1.698E-02	4.035E-02	3.542E-02	2.059E-02	NOT IDENT.
CD-109	1.267E+00	1.481E+00	1.172E+00	7.555E-01	NOT IDENT.
AG-110M	2.856E-02	4.610E-02	3.677E-02	2.352E-02	NOT IDENT.
IN-111	1.505E+00	2.861E+00	2.275E+00	1.460E+00	NOT IDENT.
IN-113M	-2.404E-02	5.920E-02	4.989E-02	3.020E-02	NOT IDENT.
SN-113	-2.404E-02	5.920E-02	4.989E-02	3.020E-02	NOT IDENT.
IN-114M	-5.105E-02	2.754E-01	2.016E-01	1.405E-01	NOT IDENT.
CD-115	2.466E+01	3.184E+01	0.000E+00	1.625E+01	SHORT HLIF
SN-117M	-4.342E-02	8.090E-02	6.779E-02	4.128E-02	NOT IDENT.
SB-122	2.036E+00	5.335E+00	4.605E+00	2.722E+00	NOT IDENT.
I-123	-2.486E+08	2.862E+08	0.000E+00	1.460E+08	SHORT HLIF
TE-123M	-3.233E-02	3.723E-02	3.068E-02	1.899E-02	NOT IDENT.
I-124	-6.564E-02	1.533E+00	1.102E+00	7.822E-01	FAIL ABUN
SB-124	-8.316E-03	8.969E-02	7.425E-02	4.576E-02	FAIL ABUN
SB-125	8.149E-02	1.101E-01	9.845E-02	5.617E-02	FAIL ABUN
TE-125M	-9.278E+00	1.397E+01	1.190E+01	7.126E+00	NOT IDENT.
I-126	2.849E-01	2.847E-01	2.335E-01	1.452E-01	NOT IDENT.
SB-126	9.683E-02	1.887E-01	1.496E-01	9.627E-02	FAIL ABUN
SN-126	7.062E-02	1.446E-01	1.134E-01	7.376E-02	FAIL ABUN
SB-127	4.845E-01	2.526E+00	2.225E+00	1.289E+00	NOT IDENT.
XE-127	-6.697E-03	6.925E-02	5.627E-02	3.533E-02	NOT IDENT.
I-131	9.129E-02	1.846E-01	1.639E-01	9.416E-02	NOT IDENT.
TE-132	-1.028E+00	1.657E+00	1.431E+00	8.455E-01	NOT IDENT.
BA-133	-1.314E-02	5.919E-02	4.370E-02	3.020E-02	NOT IDENT.
I-133	-8.200E+03	7.330E+04	0.000E+00	3.740E+04	SHORT HLIF
CS-134	4.620E-02	6.433E-02	4.943E-02	3.282E-02	FAIL ABUN
CS-135	1.111E-01	2.251E-01	1.774E-01	1.148E-01	NOT IDENT.
I-135	6.130E+18	9.673E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.948E-02	1.507E-01	1.214E-01	7.689E-02	NOT IDENT.
CE-139	-6.948E-03	4.005E-02	3.403E-02	2.044E-02	NOT IDENT.
BA-140	2.201E-02	3.501E-01	2.969E-01	1.786E-01	NOT IDENT.
LA-140	6.188E-02	1.232E-01	9.859E-02	6.286E-02	NOT IDENT.
CE-141	-5.422E-02	9.111E-02	7.649E-02	4.648E-02	NOT IDENT.
CE-143	4.194E+03	1.327E+03	0.000E+00	6.772E+02	SHORT HLIF
CE-144	-7.314E-02	2.689E-01	2.300E-01	1.372E-01	NOT IDENT.
PM-144	-8.406E-03	3.986E-02	3.408E-02	2.033E-02	NOT IDENT.
PR-144	-5.705E-01	2.705E+00	2.313E+00	1.380E+00	NOT IDENT.
PM-146	1.247E-02	5.380E-02	4.559E-02	2.745E-02	NOT IDENT.

ND-147	-3.770E-01	8.290E-01	6.764E-01	4.229E-01	NOT IDENT.
PM-149	7.041E+01	2.811E+02	0.000E+00	1.434E+02	SHORT HLIF
EU-152	7.826E-02	1.706E-01	1.064E-01	8.702E-02	NOT IDENT.
GD-153	1.789E-01	1.221E-01	9.914E-02	6.232E-02	NOT IDENT.
EU-154	-4.091E-02	1.403E-01	1.125E-01	7.156E-02	NOT IDENT.
EU-155	-3.134E-02	1.450E-01	1.259E-01	7.400E-02	NOT IDENT.
TB-160	-1.678E-02	1.542E-01	1.302E-01	7.866E-02	FAIL ABUN
HO-166M	2.238E-02	6.682E-02	5.930E-02	3.409E-02	NOT IDENT.
TM-171	-9.406E+00	5.657E+01	4.375E+01	2.886E+01	NOT IDENT.
LU-176	1.272E-02	3.192E-02	2.773E-02	1.628E-02	NOT IDENT.
LU-177	5.610E+00	2.897E+00	1.752E+00	1.478E+00	FAIL ABUN
LU-177M	-9.937E-02	2.319E-01	1.944E-01	1.183E-01	NOT IDENT.
HF-181	-3.859E-02	5.402E-02	4.364E-02	2.756E-02	NOT IDENT.
W-181	2.185E+00	8.685E-01	7.153E-01	4.431E-01	NOT IDENT.
TA-182	-2.233E-01	2.422E-01	1.841E-01	1.236E-01	FAIL ABUN
RE-183	1.070E-01	1.476E-01	1.296E-01	7.532E-02	FAIL ABUN
RE-184	-2.121E-01	2.898E-01	2.474E-01	1.479E-01	NOT IDENT.
OS-185	-2.672E-02	5.198E-02	4.145E-02	2.652E-02	NOT IDENT.
RE-188	2.693E-01	2.239E-01	1.996E-01	1.143E-01	NOT IDENT.
W-188	-9.737E-01	1.010E+01	7.652E+00	5.154E+00	FAIL ABUN
IR-192	4.745E-02	4.193E-02	3.849E-02	2.139E-02	FAIL ABUN
AU-195	3.616E-01	3.582E-01	2.865E-01	1.828E-01	FAIL ABUN
TL-200	-7.509E+02	3.515E+03	0.000E+00	1.793E+03	SHORT HLIF
TL-201	-1.462E+01	1.820E+01	1.502E+01	9.284E+00	NOT IDENT.
TL-202	1.440E-02	1.005E-01	8.672E-02	5.125E-02	NOT IDENT.
HG-203	-1.102E-03	5.541E-02	4.870E-02	2.827E-02	NOT IDENT.
BI-207	4.227E-02	5.918E-02	5.299E-02	3.019E-02	FAIL ABUN
TL-207	-2.156E-01	8.087E-01	6.951E-01	4.126E-01	FAIL ABUN
PO-209	3.049E+00	8.606E+00	7.550E+00	4.391E+00	NOT IDENT.
BI-210	-7.636E+00	1.366E+01	1.190E+01	6.969E+00	NOT IDENT.
PB-210	-7.636E+00	1.366E+01	1.190E+01	6.969E+00	NOT IDENT.
PO-210	-7.636E+00	1.366E+01	1.190E+01	6.968E+00	NOT IDENT.
PB-211	-9.193E-01	1.334E+00	9.966E-01	6.807E-01	NOT IDENT.
BI-212	1.128E+00	5.895E-01	3.799E-01	3.008E-01	FAIL ABUN
PO-215	-2.156E-01	8.087E-01	6.951E-01	4.126E-01	FAIL ABUN
RN-219	1.663E-01	5.119E-01	4.481E-01	2.612E-01	FAIL ABUN
RN-220	1.956E+00	3.236E+01	2.739E+01	1.651E+01	NOT IDENT.
RA-223	-2.156E-01	8.087E-01	6.951E-01	4.126E-01	FAIL ABUN
AC-227	3.072E-01	4.887E-01	4.407E-01	2.493E-01	FAIL ABUN
TH-227	3.072E-01	4.895E-01	4.407E-01	2.497E-01	FAIL ABUN
TH-229	2.682E-03	6.611E-01	5.610E-01	3.373E-01	NOT IDENT.
PA-231	-1.484E-01	1.956E+00	1.713E+00	9.981E-01	NOT IDENT.
TH-231	-2.156E-01	8.087E-01	6.951E-01	4.126E-01	FAIL ABUN
U-231	2.617E+00	2.931E+00	2.328E+00	1.496E+00	FAIL ABUN
PA-233	-4.433E-02	7.993E-02	6.782E-02	4.078E-02	FAIL ABUN
PA-234	1.758E-01	3.161E-01	2.811E-01	1.613E-01	FAIL ABUN
PA-234M	2.620E+01	9.577E+00	7.050E+00	4.886E+00	FAIL ABUN
U-235	1.926E-01	2.828E-01	2.471E-01	1.443E-01	FAIL ABUN
NP-236	-5.535E-02	1.033E-01	8.655E-02	5.271E-02	NOT IDENT.
NP-237	4.887E-01	4.396E-01	3.414E-01	2.243E-01	NOT IDENT.
NP-239	-1.566E-01	2.615E-01	2.225E-01	1.334E-01	FAIL ABUN
AM-241	4.229E-01	3.559E-01	2.931E-01	1.816E-01	NOT IDENT.
CM-243	-1.998E-02	1.307E-01	1.138E-01	6.671E-02	FAIL ABUN
AM-246	-4.432E-02	1.711E-01	1.402E-01	8.730E-02	NOT IDENT.
CM-247	2.242E-02	4.570E-02	4.038E-02	2.332E-02	NOT IDENT.
CF-249	4.437E-02	5.049E-02	4.549E-02	2.576E-02	NOT IDENT.
CF-251	9.537E-02	1.625E-01	1.416E-01	8.291E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	345.2754
46.50	345.2754
46.50	345.2754
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49.72	355.7921
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52.97	329.8174
53.15	329.9136
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54.07	358.3365
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56.28	402.1224
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57.53	410.6509
57.53	410.6522
57.60	410.6950
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57.98	386.1240
59.32	362.0516
59.32	362.0516
59.40	362.0957
59.54	362.1718
59.72	362.2706
60.01	359.3175
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61.14	419.1336
61.30	436.3772
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63.29	472.8247
63.58	473.0246
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65.20	495.2910
66.05	477.0600
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66.83	491.7265
66.91	491.7829
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67.20	491.9835
67.75	487.6426
67.85	491.6458
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68.90	530.4411
69.30	524.1644
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74.81	533.0403
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74.81	533.0403
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74.81	533.0403
74.81	533.0403
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75.70	533.6630
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77.11	578.2521

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79.80	647.3870
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80.18	647.6984
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81.07	656.4304
81.07	656.4304
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83.78	732.9462
83.78	732.9462
83.78	732.9462
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86.29	565.5997
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86.54	643.1391
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86.79	661.0674
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87.30	696.9692
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87.30	696.9692
87.30	696.9692
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88.47	652.7101
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92.29	629.8882
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94.67	462.1708
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98.44	397.1383
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99.55	389.9930
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100.10	380.0957
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105.31	428.1288
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109.28	516.7484

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111.00	477.2967
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117.00	445.8535
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121.78	409.2476
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144.24	387.9529
144.24	387.9529
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154.21	338.4881
154.21	338.4881
154.21	338.4881
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163.89	348.8260
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171.86	335.7508
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209.75	303.6820
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216.55	276.3725
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227.20	305.9273
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236.00	315.9306
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238.63	251.3361
238.63	251.3361
238.63	251.3361
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241.98	251.8730
241.98	251.8730
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252.40	239.6398
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252.85	246.1848
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256.20	233.7060
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260.90	0.0000
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268.79	227.3824
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269.46	216.5653
269.46	216.5653
269.46	216.5653
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273.65	281.1365
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277.60	231.2982
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284.30	210.2657
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285.90	0.0000
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286.10	201.0421
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290.80	189.2749
291.72	189.3726
293.26	0.0000
293.70	170.6243
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295.21	191.3224

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297.23	199.4513
298.57	199.6000
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300.09	187.0830
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323.87	188.8390
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338.28	200.9229
338.28	200.9229
338.28	200.9229
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338.32	200.9280
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351.92	138.7759
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367.94	0.0000
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388.63	143.2195
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391.69	175.2932
392.90	177.3851
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427.89	114.3780
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445.03	134.5910
453.90	113.5989
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473.00	135.1209
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475.35	125.9570
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511.00	110.9798
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511.85	111.0153
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513.99	94.3358
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528.96	0.0000
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529.87	0.0000
531.02	113.9326
537.32	94.1084
543.00	99.6042
546.56	0.0000
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552.65	106.3354
555.20	103.2401
563.23	106.7407
563.90	103.5622
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569.32	84.5084
569.50	87.7236
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585.48	109.3736
591.81	106.2771
592.07	102.4358
593.00	106.7827
595.88	90.6937
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602.52	0.0000
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602.71	111.8301
603.60	110.0586
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609.31	109.5490

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609.31	109.5490
610.33	88.6111
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614.37	92.3524
618.01	84.8517
621.84	77.3356
621.84	77.3356
631.29	77.5782
633.02	79.8081
633.10	76.5300
634.78	68.9155
635.90	65.6587
636.97	79.9115
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656.30	91.2743
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657.90	0.0000
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661.65	116.6522
664.57	0.0000
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666.33	82.0933
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677.61	71.1645
685.20	75.9658
692.80	83.5730
695.00	90.1343
696.49	93.8943
696.49	93.8943
697.00	86.4704
697.49	92.0632
698.33	84.6460
698.50	90.2310
699.00	84.6627
702.63	94.0710
706.10	81.1182
706.58	0.0000
706.67	77.4022
709.31	76.5297
711.68	73.7828
713.82	80.3730
717.42	72.0402
720.50	54.5824
721.93	0.0000
722.20	70.6713
722.78	75.5029
722.78	75.5029
722.89	75.5062
722.95	75.5079
723.30	75.5144
724.18	57.8571
727.18	68.4984
733.00	77.3454
735.90	92.8232
739.58	66.8673
742.81	74.4724
744.21	88.6490
747.13	79.2866
751.79	76.5588
752.31	75.6250
753.82	73.7661
755.35	78.5302
756.15	73.8169
756.87	72.8846
763.93	82.9248
765.79	74.8350
766.42	89.4939
766.84	89.5035
776.49	79.9600
778.00	90.4696
778.57	90.4850
778.89	94.3030
783.80	60.0943
785.46	69.6658
792.07	106.5386

795.84	66.9979
796.30	59.0763
798.80	83.7484
801.93	63.9160
805.60	59.5024
810.29	75.9173
810.76	63.4326
815.85	59.6715
817.79	63.5548
818.51	55.8630
819.60	55.8795
826.30	60.8069
828.27	0.0000
831.60	86.0268
831.96	85.0674
834.83	62.8828
836.80	0.0000
846.75	69.8789
848.13	62.1367
856.28	0.0000
856.80	94.3950
860.37	55.5214
867.32	73.1888
867.82	65.3902
871.10	56.6548
873.19	47.8894
874.81	59.6435
875.33	0.0000
876.40	58.6902
879.36	55.7986
880.27	52.8739
880.51	51.8980
881.50	43.0959
883.24	51.9347
884.67	51.9541
889.25	57.9041
896.60	58.9966
898.02	64.9204
899.00	71.8237
903.28	78.7972
911.07	63.1628
911.07	63.1628
911.07	63.1628
919.63	59.3433
920.93	66.4863
925.00	50.5103
925.24	55.4657
926.50	61.4273
935.52	57.5941
937.48	54.6408
944.10	59.7064
946.00	43.8049
949.00	40.8490
962.29	87.3894
964.01	75.4270
966.15	72.0352
968.20	65.0648
969.11	49.7750
969.11	49.7750
969.11	49.7750
977.42	47.0599
980.50	51.2023
983.50	54.2527
989.30	68.4137
996.32	55.2835
1001.03	59.5246
1001.68	59.5342
1004.76	60.5872
1021.30	0.0000
1024.50	0.0000
1034.80	43.7261
1036.00	41.7040
1037.82	50.8789
1038.57	54.9602
1038.76	0.0000
1045.16	53.0050
1046.59	59.1399
1048.07	65.2786

1050.47	47.9658
1050.47	47.9658
1062.04	49.1152
1063.62	46.0620
1076.63	45.1709
1077.35	61.6064
1078.86	62.6531
1085.78	44.2335
1099.22	63.9703
1112.02	62.0801
1112.84	47.8998
1115.52	44.3778
1120.29	55.9731
1120.29	55.9731
1120.29	55.9731
1120.29	55.9731
1120.51	55.9753
1121.28	55.9863
1124.00	0.0000
1129.67	64.0999
1131.51	0.0000
1147.95	0.0000
1167.94	69.1152
1173.22	75.4805
1175.09	60.8273
1177.93	60.8651
1189.05	56.7993
1204.90	72.8156
1205.75	0.0000
1213.00	81.3927
1221.42	81.5336
1230.97	81.8419
1235.34	65.5313
1236.41	0.0000
1238.25	69.2143
1246.25	55.3389
1260.41	0.0000
1271.85	36.3685
1274.45	49.2288
1274.54	53.5116
1291.56	39.7310
1298.22	0.0000
1312.09	44.2015
1325.50	37.8312
1325.50	37.8312
1332.49	31.3883
1333.61	28.1466
1360.21	25.1807
1362.66	0.0000
1365.15	19.6033
1368.21	27.6053
1368.53	0.0000
1376.25	18.7081
1384.27	16.3940
1394.10	21.5858
1395.20	25.3455
1407.95	31.9912
1434.06	24.5799
1436.60	13.2417
1457.56	0.0000
1460.81	21.8489
1489.15	35.3250
1509.49	19.1622
1596.49	17.0172
1620.62	14.6448
1678.03	0.0000
1691.02	16.7877
1691.02	16.7877
1706.46	0.0000
1750.46	0.0000
1764.49	8.9906
1764.49	8.9906
1764.49	8.9906
1764.49	8.9906
1770.23	12.2479
1771.40	63.0000
1791.20	0.0000
1808.65	8.0455

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978008

Total Uranium Activity	4.2951E+01	ug/g
Total Uranium Counting Unc.	1.4810E+01	ug/g
Total Uranium Tpu	7.5563E-06	ug/g
Total Uranium Mda	6.4567E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID   : G245978008      *
*   ANALYST       : MXR1                      DETECTOR    : GAM15           *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 12:01:03.48    SAMPLE ALQT:  134.060 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.059E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.469E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 4.096E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.989E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:02:36.13

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978009.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:01:43
Sample ID         : G245978009           Sample quantity  : 1.11440E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.03*	147	601	0.99	126.31	123	9	2.04E-02	32.0	
2	3	74.82	487	666	1.15	149.88	145	22	6.76E-02	9.7	7.00E-01
3	3	77.11	787	521	1.02	154.44	145	22	1.09E-01	6.0	
4	5	87.20*	349	614	1.32	174.61	171	21	4.85E-02	13.2	1.32E+00
5	5	89.97	217	499	1.24	180.14	171	21	3.01E-02	18.5	
6	5	92.80*	361	575	1.48	185.79	171	21	5.01E-02	14.4	
7	0	128.68	156	618	1.79	257.48	252	11	2.17E-02	31.9	
8	0	185.91*	199	490	1.31	371.84	368	9	2.77E-02	22.4	
9	0	209.12	137	451	1.07	418.20	415	9	1.91E-02	29.0	
10	4	238.65*	1910	261	1.29	477.22	470	19	2.65E-01	2.8	1.50E+00
11	4	241.56	474	346	2.07	483.04	470	19	6.58E-02	12.4	
12	0	270.15*	213	278	1.98	540.16	534	11	2.96E-02	17.0	
13	0	277.88	102	274	1.35	555.61	551	10	1.42E-02	32.1	
14	2	295.19*	584	188	1.37	590.19	585	22	8.11E-02	6.0	1.37E+00
15	2	299.96*	128	282	1.84	599.73	585	22	1.77E-02	26.7	
16	0	328.65	173	290	1.50	657.06	651	14	2.41E-02	22.3	
17	0	338.28*	415	271	1.45	676.31	672	12	5.76E-02	9.6	
18	0	351.94*	1048	268	1.28	703.62	698	13	1.46E-01	4.5	
19	0	463.14	94	148	1.67	925.86	921	9	1.31E-02	25.5	
20	0	510.81*	211	211	2.15	1021.12	1014	15	2.94E-02	19.2	
21	0	583.10*	622	223	1.82	1165.62	1156	19	8.64E-02	7.2	
22	0	609.39*	666	215	1.38	1218.16	1212	14	9.25E-02	6.3	
23	0	661.94	128	205	1.04	1323.21	1312	21	1.78E-02	29.2	
24	0	727.50*	141	129	1.68	1454.27	1446	14	1.95E-02	19.4	
25	0	795.18	76	76	1.68	1589.57	1584	11	1.05E-02	25.3	
26	0	861.56	94	151	2.26	1722.27	1710	21	1.30E-02	34.4	
27	0	911.16*	464	86	1.85	1821.44	1812	16	6.44E-02	6.6	
28	0	934.35*	42	81	1.45	1867.80	1863	13	5.80E-03	48.4	
29	4	964.94	64	126	2.59	1928.96	1920	27	8.90E-03	43.0	1.22E+00
30	4	969.05*	235	85	1.90	1937.18	1920	27	3.27E-02	10.3	
31	0	1120.24*	151	109	2.23	2239.50	2232	16	2.09E-02	18.3	
32	0	1460.73*	1765	70	2.56	2920.48	2908	21	2.45E-01	2.7	
33	0	1764.82*	144	47	2.32	3528.83	3516	26	2.00E-02	15.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 14:02:39

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978009.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:01:43
Sample ID : G245978009 Sample quantity : 111.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA22 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:02.17 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.918E+01	3.095E+00	4.533E-01	4.153E-02	64.373
CD-109	+	88.03	*	4.340E+00	1.215E+00	1.289E+00	1.224E-01	3.366
SN-126	+	64.28		1.203E+00	7.898E-01	7.719E-01	1.121E-01	1.558
	+	86.94		1.766E+00	8.687E-01	5.298E-01	2.200E-01	3.333
	+	87.57	*	4.248E-01	1.189E-01	1.267E-01	1.196E-02	3.353
BA-137M	+	661.65	*	1.340E-01	7.964E-02	5.982E-02	6.308E-03	2.241
CS-137	+	661.65	*	1.417E-01	8.419E-02	6.323E-02	6.676E-03	2.241
HG-203		70.83		6.088E-01	1.187E+00	1.771E+00	2.325E-01	0.344
		72.87		1.430E+00	7.453E-01	1.140E+00	1.460E-01	1.255
		82.60		-4.594E-01	1.637E+00	1.841E+00	2.562E-01	-0.250
	+	279.20	*	9.427E-02	6.199E-02	6.718E-02	9.508E-03	1.403
TL-208	+	277.35		8.194E-01	5.433E-01	6.416E-01	1.058E-01	1.277
	+	510.84		7.668E-01	3.111E-01	2.045E-01	2.665E-02	3.750
	+	583.14	*	6.331E-01	1.142E-01	6.061E-02	6.573E-03	10.445
	+	860.37		8.689E-01	6.068E-01	4.500E-01	5.244E-02	1.931
BI-211		72.87		6.888E+00	3.523E+00	5.490E+00	4.394E-01	1.255
	+	351.07	*	5.050E+00	7.456E-01	3.217E-01	3.753E-02	15.700
PB-212	+	74.81		2.485E+00	5.728E-01	5.762E-01	7.150E-02	4.313
	+	77.11		2.280E+00	3.332E-01	3.281E-01	2.744E-02	6.948
	+	87.30		1.965E+00	5.839E-01	5.874E-01	8.067E-02	3.344
	+	238.63	*	2.150E+00	3.084E-01	9.442E-02	1.247E-02	22.773
	+	300.09		2.129E+00	1.180E+00	1.238E+00	1.805E-01	1.719
PO-212	+	74.81		2.485E+00	5.728E-01	5.762E-01	7.150E-02	4.313
	+	77.11		2.280E+00	3.332E-01	3.281E-01	2.744E-02	6.948
	+	87.30		1.965E+00	5.839E-01	5.874E-01	8.067E-02	3.344
		115.19		3.651E+00	3.819E+00	6.283E+00	5.205E-01	0.581
	+	238.63	*	2.150E+00	3.084E-01	9.442E-02	1.247E-02	22.773
	+	300.09		2.129E+00	1.180E+00	1.238E+00	1.805E-01	1.719
BI-214	+	609.31	*	1.271E+00	2.175E-01	1.119E-01	1.301E-02	11.359
	+	1120.29		1.431E+00	5.460E-01	4.383E-01	4.843E-02	3.265
	+	1764.49		1.791E+00	5.898E-01	3.397E-01	2.830E-02	5.271
PB-214	+	74.81		4.282E+00	9.564E-01	9.929E-01	1.094E-01	4.313
	+	77.11		3.908E+00	6.441E-01	5.625E-01	6.363E-02	6.948
	+	87.30		3.366E+00	9.771E-01	1.006E+00	1.224E-01	3.344

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		3.197E+00	9.059E-01	5.677E-01	7.807E-02	5.631
	+	295.21		1.717E+00	3.277E-01	2.173E-01	3.235E-02	7.900
	+	351.92	*	1.757E+00	2.751E-01	1.124E-01	1.432E-02	15.635
PO-214	+	74.81		4.282E+00	9.564E-01	9.929E-01	1.094E-01	4.313
	+	77.11		3.908E+00	6.441E-01	5.625E-01	6.363E-02	6.948
	+	87.30		3.366E+00	9.771E-01	1.006E+00	1.224E-01	3.344
	+	241.98		3.197E+00	9.059E-01	5.677E-01	7.807E-02	5.631
	+	295.21		1.717E+00	3.277E-01	2.173E-01	3.235E-02	7.900
	+	351.92	*	1.757E+00	2.751E-01	1.124E-01	1.432E-02	15.635
PO-216	+	74.81		2.485E+00	5.728E-01	5.762E-01	7.150E-02	4.313
	+	77.11		2.280E+00	3.332E-01	3.281E-01	2.744E-02	6.948
	+	87.30		1.965E+00	5.839E-01	5.874E-01	8.067E-02	3.344
	+	238.63	*	2.150E+00	3.084E-01	9.442E-02	1.247E-02	22.773
	+	300.09		2.129E+00	1.180E+00	1.238E+00	1.805E-01	1.719
PO-218	+	74.81		4.282E+00	9.564E-01	9.929E-01	1.094E-01	4.313
	+	77.11		3.908E+00	6.441E-01	5.625E-01	6.363E-02	6.948
	+	87.30		3.366E+00	9.771E-01	1.006E+00	1.224E-01	3.344
	+	241.98		3.197E+00	9.059E-01	5.677E-01	7.807E-02	5.631
	+	295.21		1.717E+00	3.277E-01	2.173E-01	3.235E-02	7.900
	+	351.92	*	1.757E+00	2.751E-01	1.124E-01	1.432E-02	15.635
RA-224	+	240.98	*	6.062E+00	1.684E+00	1.073E+00	1.344E-01	5.648
RA-226	+	609.31	*	1.271E+00	2.175E-01	1.119E-01	1.301E-02	11.359
	+	1120.29		1.431E+00	5.460E-01	4.383E-01	4.843E-02	3.265
	+	1764.49		1.791E+00	5.898E-01	3.397E-01	2.830E-02	5.271
AC-228	+	338.32		2.217E+00	1.024E+00	3.943E-01	1.659E-01	5.623
	+	911.07	*	2.023E+00	3.795E-01	2.067E-01	2.739E-02	9.783
	+	969.11		1.804E+00	5.732E-01	3.698E-01	8.930E-02	4.878
RA-228	+	338.32		2.217E+00	1.024E+00	3.943E-01	1.659E-01	5.623
	+	911.07	*	2.023E+00	3.795E-01	2.067E-01	2.739E-02	9.783
	+	969.11		1.804E+00	5.732E-01	3.698E-01	8.930E-02	4.878
TH-228	+	74.81		2.530E+00	5.338E-01	5.867E-01	4.834E-02	4.313
	+	77.11		2.321E+00	3.392E-01	3.340E-01	2.793E-02	6.948
	+	87.30		2.000E+00	5.598E-01	5.980E-01	5.628E-02	3.344
	+	238.63	*	2.189E+00	3.140E-01	9.612E-02	1.270E-02	22.773
	+	300.09		2.167E+00	1.744E+00	1.260E+00	7.582E-01	1.719
TH-230	+	609.31	*	1.271E+00	2.175E-01	1.119E-01	1.301E-02	11.359
	+	1120.29		1.431E+00	5.460E-01	4.383E-01	4.843E-02	3.265
	+	1764.49		1.791E+00	5.898E-01	3.397E-01	2.830E-02	5.271
TH-232	+	338.32		2.217E+00	4.992E-01	3.943E-01	4.689E-02	5.623
	+	911.07	*	2.023E+00	3.795E-01	2.067E-01	2.739E-02	9.783
	+	969.11		1.804E+00	5.732E-01	3.698E-01	8.930E-02	4.878
TH-234	+	63.29	*	3.038E+00	2.017E+00	1.978E+00	3.443E-01	1.536
	+	92.38		2.857E+00	9.744E-01	8.356E-01	1.531E-01	3.420
U-234	+	609.31	*	1.271E+00	2.175E-01	1.119E-01	1.301E-02	11.359
	+	1120.29		1.431E+00	5.460E-01	4.383E-01	4.843E-02	3.265
	+	1764.49		1.791E+00	5.898E-01	3.397E-01	2.830E-02	5.271
NP-237	+	86.50	*	1.247E+00	4.338E-01	4.180E-01	9.464E-02	2.984
		95.87		-2.860E-01	1.053E+00	1.489E+00	3.683E-01	-0.192
U-238	+	63.29	*	3.038E+00	2.017E+00	1.978E+00	3.443E-01	1.536

Sample ID : G245978009 Acquisition date : 14-FEB-2010 12:01:43

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		2.857E+00	8.620E-01	8.356E-01	7.614E-02	3.420
AM-243	+	74.67	*	4.029E-01	8.489E-02	9.368E-02	7.636E-03	4.301
	+	86.72		4.678E+01	1.309E+01	1.564E+01	1.462E+00	2.990
		117.66		-3.173E+00	4.231E+00	6.516E+00	5.382E-01	-0.487
		142.18		-7.540E+00	1.805E+01	3.000E+01	2.649E+00	-0.251
ANH-511	+	511.00	*	1.656E-01	6.576E-02	4.419E-02	4.427E-03	3.749

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.751E-01	3.396E-01	5.639E-01	5.886E-02	0.310
NA-22		1274.54	*	-4.286E-02	4.502E-02	6.910E-02	5.955E-03	-0.620
NA-24		1368.53	*	-9.971E+00	4.502E-02	Half-Life too short		
AL-26		1129.67		-6.549E-01	1.961E+00	2.806E+00	2.444E-01	-0.233
		1808.65	*	1.519E-04	2.752E-02	4.529E-02	3.704E-03	0.003
TI-44		67.85		-4.419E-02	4.947E-02	7.003E-02	5.345E-03	-0.631
	+	78.38	*	4.208E-01	6.149E-02	7.892E-02	6.691E-03	5.332
SC-46		889.25	*	4.470E-03	4.054E-02	6.773E-02	7.581E-03	0.066
	+	1120.51		2.509E-01	9.427E-02	1.287E-01	1.138E-02	1.950
V-48		944.10		-2.374E-01	1.087E+00	1.652E+00	1.792E-01	-0.144
		983.50	*	-4.344E-02	7.691E-02	1.207E-01	1.266E-02	-0.360
		1312.09		-2.529E-02	8.956E-02	1.443E-01	1.272E-02	-0.175
CR-51		320.08	*	-3.626E-01	4.097E-01	6.542E-01	8.471E-02	-0.554
MN-52		744.21		-2.928E-01	3.495E-01	5.335E-01	5.797E-02	-0.549
		848.13		9.052E-01	9.578E+00	1.605E+01	1.787E+00	0.056
	+	935.52		5.105E-01	4.974E-01	6.697E-01	7.312E-02	0.762
		1246.25		-7.765E+00	1.058E+01	1.668E+01	1.410E+00	-0.465
		1333.61		-1.975E+00	7.363E+00	1.186E+01	1.057E+00	-0.167
		1434.06	*	1.675E-01	3.147E-01	5.423E-01	4.846E-02	0.309
MN-54		834.83	*	1.605E-02	3.861E-02	6.587E-02	7.317E-03	0.244
CO-56		846.75	*	1.763E-02	3.957E-02	6.771E-02	7.538E-03	0.260
		977.42		1.863E+00	3.244E+00	4.828E+00	5.092E-01	0.386
		1037.82		-2.621E-01	3.217E-01	4.921E-01	5.074E-02	-0.533
		1175.09		9.095E-01	2.374E+00	4.051E+00	3.262E-01	0.225
		1238.25		1.244E-01	9.725E-02	1.717E-01	1.488E-02	0.725
		1360.21		1.768E-01	9.942E-01	1.661E+00	1.484E-01	0.106
		1771.40		1.203E-01	2.617E-01	3.971E-01	3.299E-02	0.303
CO-57		122.06	*	-1.721E-02	2.836E-02	4.381E-02	3.613E-03	-0.393
		136.48		9.537E-02	2.150E-01	3.684E-01	3.418E-02	0.259
CO-58		810.76	*	-5.467E-03	3.915E-02	6.492E-02	7.189E-03	-0.084
FE-59		142.65		-1.454E+00	3.024E+00	4.877E+00	4.316E-01	-0.298
		192.34		-4.001E-01	1.073E+00	1.744E+00	2.590E-01	-0.229
		1099.22	*	-3.190E-03	9.437E-02	1.529E-01	1.499E-02	-0.021
		1291.56		-1.107E-01	1.353E-01	2.095E-01	2.065E-02	-0.529
CO-60		1173.22		-3.803E-03	4.711E-02	7.823E-02	6.291E-03	-0.049
		1332.49	*	8.583E-04	3.968E-02	6.550E-02	5.841E-03	0.013
ZN-65		1115.52	*	7.855E-02	1.065E-01	1.572E-01	1.403E-02	0.500
GE-68		1077.35	*	9.955E-01	1.241E+00	2.131E+00	2.009E-01	0.467

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AS-73		53.44	*	-9.985E-02	8.152E-01	1.317E+00	9.954E-02	-0.076
AS-74		595.88	*	-4.366E-02	1.067E-01	1.728E-01	1.791E-02	-0.253
		634.78		-3.622E-01	3.995E-01	6.190E-01	6.487E-02	-0.585
SE-75		66.05		-2.682E+00	5.223E+00	7.445E+00	7.103E-01	-0.360
		96.73		-5.616E-01	8.903E-01	1.233E+00	1.698E-01	-0.455
		121.11		9.970E-02	1.511E-01	2.454E-01	2.682E-02	0.406
		136.00		1.118E-02	4.038E-02	6.888E-02	5.977E-03	0.162
		198.60		-1.111E+00	2.053E+00	3.215E+00	3.757E-01	-0.346
		264.65	*	4.578E-02	5.287E-02	7.774E-02	1.046E-02	0.589
		279.53		1.604E-01	1.335E-01	1.975E-01	2.803E-02	0.812
		303.91		-2.403E+00	2.538E+00	3.463E+00	5.277E-01	-0.694
		400.65		-8.108E-02	2.647E-01	4.276E-01	5.005E-02	-0.190
BR-77	+	87.88		2.165E+03	6.061E+02	8.248E+02	7.818E+01	2.625
		200.40		-1.265E+02	4.178E+02	6.792E+02	7.468E+01	-0.186
	+	239.00		8.008E+02	1.091E+02	9.512E+01	1.183E+01	8.419
		249.79		-5.034E+00	1.677E+02	2.705E+02	3.478E+01	-0.019
		281.68		-4.580E+01	2.477E+02	3.408E+02	4.747E+01	-0.134
		297.23		1.050E+03	2.105E+02	3.121E+02	4.197E+01	3.365
		303.76		-4.752E+02	4.917E+02	6.716E+02	8.883E+01	-0.708
		439.47		-1.407E+02	3.359E+02	5.339E+02	5.139E+01	-0.264
		484.57		-9.759E+01	5.455E+02	8.709E+02	8.609E+01	-0.112
		520.65	*	-1.365E+01	2.412E+01	3.919E+01	3.944E+00	-0.348
		574.64		-2.668E+02	6.035E+02	8.344E+02	8.587E+01	-0.320
		578.91		3.254E+02	2.365E+02	3.695E+02	3.808E+01	0.881
		585.48		5.076E+03	8.280E+02	1.249E+03	1.290E+02	4.064
		755.35		3.387E+02	3.858E+02	6.578E+02	7.172E+01	0.515
		817.79		1.904E+01	3.032E+02	5.089E+02	5.635E+01	0.037
SR-82		698.33		-2.650E+01	3.599E+01	5.587E+01	5.978E+00	-0.474
		776.49	*	-2.069E-03	4.557E-01	7.365E-01	8.077E-02	-0.003
		1395.20		-8.906E+00	1.170E+01	1.770E+01	1.582E+00	-0.503
RB-83		520.41	*	-4.651E-02	7.003E-02	1.131E-01	1.138E-02	-0.411
		529.64		-6.932E-02	1.113E-01	1.800E-01	1.819E-02	-0.385
		552.65		1.703E-02	1.943E-01	3.259E-01	3.326E-02	0.052
RB-84		881.50	*	4.963E-02	7.347E-02	1.270E-01	1.420E-02	0.391
KR-85		513.99	*	2.695E+01	9.084E+00	1.456E+01	1.461E+00	1.851
SR-85		513.99	*	1.425E-01	4.801E-02	7.697E-02	7.724E-03	1.851
RB-86		1076.63	*	4.375E-01	8.729E-01	1.471E+00	1.388E-01	0.297
Y-88		898.02		-9.514E-03	4.097E-02	6.679E-02	7.504E-03	-0.142
		1836.01	*	-1.854E-02	3.133E-02	4.676E-02	3.781E-03	-0.396
ZR-88		392.90	*	1.805E-02	3.222E-02	5.435E-02	5.060E-03	0.332
Y-91		1204.90	*	-5.339E+00	2.011E+01	3.294E+01	2.708E+00	-0.162
NB-94		702.63	*	1.729E-02	3.317E-02	5.576E-02	5.975E-03	0.310
		871.10		7.346E-03	3.638E-02	5.766E-02	6.441E-03	0.127
NB-95		765.79	*	8.104E-02	4.763E-02	8.302E-02	9.078E-03	0.976
NB-95M		235.69	*	3.223E-01	1.582E-01	2.395E-01	3.166E-02	1.346
ZR-95		724.18		9.825E-02	1.251E-01	1.842E-01	2.100E-02	0.533
		756.15	*	8.133E-02	7.360E-02	1.267E-01	1.471E-02	0.642
NB-97		657.90	*	3.206E-01	7.360E-02	Half-Life too short		
		1024.50		-8.219E+01	7.360E-02	Half-Life too short		

---- Non-Identified Nuclides ----

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ZR-97		254.15		-7.528E+01	7.360E-02	Half-Life too short		
		355.39		4.927E+01	7.360E-02	Half-Life too short		
		507.63	*	1.135E+02	7.360E-02	Half-Life too short		
		602.52		-9.321E+01	7.360E-02	Half-Life too short		
		1021.30		-6.983E+01	7.360E-02	Half-Life too short		
		1147.95		-1.863E+01	7.360E-02	Half-Life too short		
		1362.66		5.743E+01	7.360E-02	Half-Life too short		
		1750.46		2.146E+01	7.360E-02	Half-Life too short		
MO-99		140.51		-4.189E+01	5.874E+01	9.223E+01	2.558E+01	-0.454
		181.06		-3.443E+01	4.414E+01	6.113E+01	1.170E+01	-0.563
		366.43		-1.486E+02	1.785E+02	2.820E+02	2.991E+01	-0.527
		739.58	*	2.191E+01	2.408E+01	4.096E+01	6.780E+00	0.535
		778.00		-8.245E+01	8.058E+01	1.212E+02	1.330E+01	-0.680
TC-99M		140.51	*	-8.519E+13	8.058E+01	Half-Life too short		
RH-101	+	127.23		9.144E-02	5.887E-02	6.050E-02	5.057E-03	1.511
		198.01	*	-1.491E-02	3.692E-02	5.817E-02	6.346E-03	-0.256
		325.23		1.941E-01	2.604E-01	3.937E-01	4.894E-02	0.493
RH-102		418.52		-4.909E-02	3.163E-01	5.133E-01	4.871E-02	-0.096
		475.06	*	8.203E-03	3.003E-02	4.927E-02	4.845E-03	0.167
		631.29		-3.996E-03	5.370E-02	8.815E-02	9.230E-03	-0.045
		697.49		-2.750E-02	7.555E-02	1.206E-01	1.289E-02	-0.228
		766.84		2.197E-01	1.174E-01	2.056E-01	2.248E-02	1.069
		1046.59		2.771E-02	1.156E-01	1.920E-01	1.883E-02	0.144
		1112.84		-4.682E-02	2.556E-01	3.452E-01	3.089E-02	-0.136
RU-103		497.08	*	-4.674E-03	4.444E-02	7.110E-02	1.067E-02	-0.066
	+	610.33		1.444E+01	3.131E+00	2.993E+00	5.290E-01	4.826
RH-106	+	511.85		8.318E-01	3.302E-01	4.549E-01	4.559E-02	1.829
		621.84	*	5.874E-02	3.272E-01	5.455E-01	7.966E-02	0.108
		1050.47		-2.474E-01	2.383E+00	3.860E+00	3.768E-01	-0.064
RU-106	+	511.85		8.318E-01	3.302E-01	4.549E-01	4.559E-02	1.829
		621.84	*	5.874E-02	3.271E-01	5.455E-01	5.698E-02	0.108
		1050.47		-2.474E-01	2.383E+00	3.860E+00	3.768E-01	-0.064
AG-108M		433.93	*	-5.243E-04	3.362E-02	5.476E-02	5.420E-03	-0.010
		614.37		-1.461E-02	4.314E-02	5.949E-02	6.368E-03	-0.246
		722.95		1.032E-02	5.071E-02	7.189E-02	7.954E-03	0.144
AG-110M		657.75	*	3.347E-03	4.190E-02	5.948E-02	6.392E-03	0.056
		677.61		6.689E-02	3.095E-01	5.135E-01	5.553E-02	0.130
		706.67		1.437E-01	2.111E-01	3.574E-01	3.904E-02	0.402
		763.93		-1.929E-01	1.822E-01	2.743E-01	3.051E-02	-0.703
		884.67		-1.756E-02	5.071E-02	8.218E-02	9.372E-03	-0.214
		937.48		1.045E-01	1.248E-01	1.899E-01	2.118E-02	0.550
		1384.27		-2.959E-01	1.845E-01	2.571E-01	2.358E-02	-1.151
IN-111		171.28		1.775E-01	2.188E+00	3.649E+00	3.643E-01	0.049
		245.39	*	8.110E-01	2.625E+00	3.774E+00	4.788E-01	0.215
IN-113M		391.69	*	1.097E-03	4.685E-02	7.715E-02	7.368E-03	0.014
SN-113		391.69	*	1.097E-03	4.685E-02	7.715E-02	7.368E-03	0.014
IN-114M		190.27	*	1.532E-01	2.296E-01	3.428E-01	3.645E-02	0.447
CD-115		260.90		-1.569E-04	2.296E-01	Half-Life too short		
		492.35		2.565E-05	2.296E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		527.90	*	-1.018E-05	2.296E-01	Half-Life too short		
SN-117M		156.02		5.392E-01	2.812E+00	4.739E+00	4.443E-01	0.114
		158.56	*	-5.229E-02	6.801E-02	1.106E-01	1.048E-02	-0.473
SB-122		563.90	*	3.141E-01	4.321E+00	7.226E+00	7.406E-01	0.043
		692.80		6.031E+01	9.129E+01	1.547E+02	1.652E+01	0.390
I-123		159.00	*	-3.176E+01	9.129E+01	Half-Life too short		
		528.96		-1.168E+04	9.129E+01	Half-Life too short		
TE-123M		159.00	*	-4.128E-03	3.061E-02	5.097E-02	4.867E-03	-0.081
I-124		602.71	*	-3.743E-01	1.322E+00	1.842E+00	1.913E-01	-0.203
		722.78		1.179E+00	8.517E+00	1.201E+01	1.296E+00	0.098
		1325.50		-1.797E-01	6.273E+01	9.741E+01	8.651E+00	-0.002
		1376.25		1.100E+02	5.631E+01	1.038E+02	9.276E+00	1.060
		1509.49		1.746E+01	2.741E+01	4.711E+01	4.187E+00	0.371
		1691.02		3.054E+00	6.328E+00	1.104E+01	9.445E-01	0.277
SB-124		602.71		-1.394E-02	4.923E-02	6.859E-02	7.125E-03	-0.203
		645.85		-1.656E-01	5.287E-01	8.533E-01	9.333E-02	-0.194
		709.31		-1.563E+00	2.924E+00	4.604E+00	4.946E-01	-0.339
		713.82		-8.346E-01	1.719E+00	2.709E+00	3.699E-01	-0.308
		722.78		6.363E-02	4.598E-01	6.484E-01	7.095E-02	0.098
	+	968.20		1.920E+01	4.459E+00	7.527E+00	8.003E-01	2.551
		1045.16		8.195E-01	2.556E+00	4.267E+00	4.192E-01	0.192
		1325.50		-1.036E-02	3.617E+00	5.617E+00	4.988E-01	-0.002
		1368.21		-3.264E-01	1.943E+00	3.147E+00	4.305E-01	-0.104
		1436.60		-8.863E-01	3.780E+00	6.030E+00	5.388E-01	-0.147
		1691.02	*	3.889E-02	8.059E-02	1.406E-01	1.251E-02	0.277
SB-125		427.89	*	1.295E-02	9.523E-02	1.565E-01	1.519E-02	0.083
	+	463.38		6.787E-01	3.526E-01	5.546E-01	5.751E-02	1.224
		600.56		4.149E-02	1.903E-01	3.120E-01	3.405E-02	0.133
		635.90		-1.892E-01	2.832E-01	4.376E-01	4.841E-02	-0.432
TE-125M		109.28	*	-1.104E+00	1.039E+01	1.654E+01	1.676E+00	-0.067
I-126		388.63		2.557E-02	2.447E-01	4.049E-01	3.833E-02	0.063
		666.33	*	1.518E-01	2.436E-01	3.604E-01	3.808E-02	0.421
		753.82		3.144E-01	1.738E+00	2.851E+00	3.107E-01	0.110
SB-126		223.80		-2.982E+00	5.234E+00	8.324E+00	9.876E-01	-0.358
	+	278.60		6.365E+00	4.183E+00	5.310E+00	7.422E-01	1.199
	+	296.50		2.008E+01	3.622E+00	4.538E+00	6.114E-01	4.424
		414.70		-8.213E-02	9.915E-02	1.554E-01	1.471E-02	-0.529
		415.30		-2.542E+00	8.107E+00	1.306E+01	1.237E+00	-0.195
		555.20		4.769E-01	4.512E+00	7.571E+00	7.734E-01	0.063
		573.80		-1.687E-01	1.449E+00	2.144E+00	2.206E-01	-0.079
		593.00		-5.710E-01	1.149E+00	1.808E+00	1.872E-01	-0.316
		656.30		-4.298E-01	4.549E+00	6.361E+00	6.700E-01	-0.068
		666.33		6.386E-02	1.025E-01	1.516E-01	1.602E-02	0.421
		675.00		5.222E-01	2.330E+00	3.870E+00	4.104E-01	0.135
		695.00		2.707E-02	8.967E-02	1.491E-01	1.594E-02	0.182
		697.00		-1.900E-01	3.108E-01	4.873E-01	5.211E-02	-0.390
		720.50	*	3.374E-02	2.096E-01	2.963E-01	3.195E-02	0.114
		856.80		8.729E-01	6.288E-01	9.969E-01	1.111E-01	0.876
		989.30		5.837E-01	1.450E+00	2.447E+00	2.552E-01	0.239

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1034.80		4.962E+00	9.989E+00	1.691E+01	1.681E+00	0.293
		1213.00		1.911E+00	5.702E+00	9.665E+00	7.991E-01	0.198
SB-127		61.10		5.668E+01	9.626E+01	1.468E+02	1.626E+01	0.386
		252.40		-6.352E+00	8.272E+00	1.213E+01	5.261E+00	-0.524
		290.80		1.222E+01	4.009E+01	5.990E+01	9.615E+00	0.204
		411.60		1.190E+01	2.239E+01	3.742E+01	6.297E+00	0.318
		444.90		-6.967E+00	1.637E+01	2.594E+01	3.640E+00	-0.269
		473.00		-4.150E-01	2.872E+00	4.606E+00	6.653E-01	-0.090
		543.00		1.107E+01	2.859E+01	4.865E+01	7.802E+00	0.228
		603.60		2.878E+00	2.364E+01	3.397E+01	4.935E+00	0.085
		685.20	*	3.093E-01	2.291E+00	3.779E+00	5.203E-01	0.082
		698.50		-2.008E+01	2.494E+01	3.824E+01	6.748E+00	-0.525
		722.20		3.214E+01	5.904E+01	8.598E+01	1.178E+01	0.374
		783.80		1.155E+01	6.771E+00	1.167E+01	1.736E+00	0.990
XE-127		57.60		-4.092E+00	6.016E+00	9.768E+00	7.016E-01	-0.419
		145.22		3.179E-01	7.965E-01	1.322E+00	1.182E-01	0.240
		172.10		7.140E-03	1.359E-01	2.265E-01	2.266E-02	0.032
		202.84	*	3.487E-02	5.463E-02	9.150E-02	1.014E-02	0.381
		374.96		-9.976E-02	2.210E-01	3.567E-01	3.631E-02	-0.280
I-131		80.18		-9.983E+00	6.001E+00	9.174E+00	8.007E-01	-1.088
		284.30		-8.177E-01	2.120E+00	3.194E+00	4.520E-01	-0.256
		364.48	*	-4.351E-02	1.438E-01	2.342E-01	2.599E-02	-0.186
		636.97		2.996E-01	2.018E+00	3.286E+00	3.583E-01	0.091
		722.89		1.976E+00	1.094E+01	1.548E+01	1.680E+00	0.128
TE-132		49.72		-6.417E+00	3.262E+01	5.437E+01	6.099E+00	-0.118
		111.76		-3.330E+01	6.019E+01	9.189E+01	1.052E+01	-0.362
		116.30		-3.375E+01	5.632E+01	8.732E+01	9.959E+00	-0.387
		228.16	*	1.063E+00	1.412E+00	2.341E+00	4.287E-01	0.454
BA-133		53.15		-9.183E-01	3.431E+00	5.513E+00	4.183E-01	-0.167
		79.62		-1.992E+00	1.342E+00	2.033E+00	3.093E-01	-0.980
		81.00		-1.926E-01	1.026E-01	1.497E-01	2.385E-02	-1.287
	+	276.40		8.102E-01	5.407E-01	6.868E-01	1.243E-01	1.180
		302.84		-1.057E-01	1.704E-01	2.389E-01	3.984E-02	-0.442
		356.01	*	1.647E-02	4.655E-02	6.861E-02	1.025E-02	0.240
		383.85		-2.902E-01	3.036E-01	4.716E-01	6.311E-02	-0.615
I-133	+	510.53		1.692E+01	3.036E-01	Half-Life too short		
		529.87	*	-1.960E-02	3.036E-01	Half-Life too short		
		706.58		2.807E+00	3.036E-01	Half-Life too short		
		856.28		2.257E+00	3.036E-01	Half-Life too short		
		875.33		-7.868E-01	3.036E-01	Half-Life too short		
		1236.41		1.968E+01	3.036E-01	Half-Life too short		
		1298.22		3.669E+00	3.036E-01	Half-Life too short		
CS-134		475.35		1.491E+00	1.921E+00	3.234E+00	3.181E-01	0.461
		563.23		1.660E-01	3.566E-01	6.082E-01	6.274E-02	0.273
		569.32		1.441E-01	2.074E-01	3.564E-01	3.695E-02	0.404
		604.70		-1.809E-02	4.227E-02	5.822E-02	6.062E-03	-0.311
	+	795.84	*	1.080E-01	5.584E-02	8.646E-02	9.570E-03	1.249
		801.93		-2.396E-01	4.647E-01	6.142E-01	6.802E-02	-0.390
		1038.57		-2.272E+00	3.856E+00	6.012E+00	5.953E-01	-0.378

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1167.94		1.365E+00	2.526E+00	4.354E+00	3.538E-01	0.314
		1365.15		3.634E-01	1.323E+00	2.154E+00	2.006E-01	0.169
CS-135		268.24	*	2.690E-01	2.053E-01	2.984E-01	4.317E-02	0.902
I-135		288.45		2.068E+13	2.053E-01	Half-Life too short		
		417.63		1.788E+13	2.053E-01	Half-Life too short		
		546.56		-3.942E+12	2.053E-01	Half-Life too short		
		836.80		2.695E+12	2.053E-01	Half-Life too short		
		1038.76		-1.177E+13	2.053E-01	Half-Life too short		
		1124.00		1.766E+14	2.053E-01	Half-Life too short		
		1131.51		-2.711E+12	2.053E-01	Half-Life too short		
		1260.41	*	-6.431E+12	2.053E-01	Half-Life too short		
		1457.56		1.513E+15	2.053E-01	Half-Life too short		
		1678.03		-2.445E+12	2.053E-01	Half-Life too short		
		1706.46		1.303E+13	2.053E-01	Half-Life too short		
		1791.20		6.278E+12	2.053E-01	Half-Life too short		
CS-136		66.91		-4.379E-01	9.717E-01	1.387E+00	2.063E-01	-0.316
	+	86.29		6.453E+00	1.908E+00	2.461E+00	3.277E-01	2.622
		153.22		1.210E+00	8.437E-01	1.462E+00	1.493E-01	0.828
		163.89		-8.554E-02	1.346E+00	2.242E+00	2.388E-01	-0.038
		176.55		3.297E-01	4.589E-01	7.784E-01	8.240E-02	0.424
		273.65		5.014E-02	8.597E-01	8.643E-01	1.223E-01	0.058
		340.57		7.025E-01	2.117E-01	3.248E-01	3.892E-02	2.163
		818.51		4.495E-02	8.527E-02	1.470E-01	1.629E-02	0.306
		1048.07	*	3.219E-02	1.285E-01	2.134E-01	2.159E-02	0.151
		1235.34		1.863E+00	7.323E-01	1.323E+00	1.546E-01	1.408
CE-139		165.85	*	2.088E-02	3.239E-02	5.507E-02	5.401E-03	0.379
BA-140		162.64		1.007E-01	9.447E-01	1.583E+00	1.601E-01	0.064
		304.84		-8.548E-01	1.754E+00	2.463E+00	7.327E-01	-0.347
		423.70		3.957E-01	2.358E+00	3.879E+00	1.267E+00	0.102
		537.32	*	-2.605E-01	3.189E-01	4.899E-01	1.644E-01	-0.532
LA-140	+	328.77		1.347E+00	6.243E-01	6.618E-01	8.360E-02	2.036
		432.53		-5.427E-01	2.518E+00	4.019E+00	4.003E-01	-0.135
		487.03		1.051E-01	1.650E-01	2.753E-01	2.853E-02	0.382
		751.79		1.575E+00	1.935E+00	3.295E+00	3.834E-01	0.478
		815.85		-1.646E-01	3.765E-01	6.114E-01	7.250E-02	-0.269
		867.82		9.511E-01	1.855E+00	2.764E+00	3.185E-01	0.344
		919.63		-1.332E+00	3.400E+00	5.097E+00	6.468E-01	-0.261
		925.24		1.820E-01	1.281E+00	2.099E+00	2.399E-01	0.087
		1596.49	*	-1.146E-01	1.109E-01	1.660E-01	1.455E-02	-0.690
CE-141		145.44	*	2.652E-02	7.027E-02	1.196E-01	1.089E-02	0.222
CE-143		57.37		-2.984E-03	7.027E-02	Half-Life too short		
		231.56		-8.415E-03	7.027E-02	Half-Life too short		
		293.26	*	4.305E-03	7.027E-02	Half-Life too short		
	+	350.59		1.713E-01	7.027E-02	Half-Life too short		
		490.36		-1.143E-03	7.027E-02	Half-Life too short		
		664.57		6.352E-03	7.027E-02	Half-Life too short		
		721.93		3.538E-03	7.027E-02	Half-Life too short		
CE-144		80.11		-3.600E+00	2.169E+00	3.318E+00	2.868E-01	-1.085
		133.54	*	-1.298E-01	2.369E-01	3.439E-01	5.339E-02	-0.377

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-144		476.78		6.533E-02	6.900E-02	1.169E-01	1.234E-02	0.559
		618.01		-2.479E-02	3.438E-02	5.146E-02	5.471E-03	-0.482
		696.49	*	-2.072E-02	3.418E-02	5.362E-02	5.735E-03	-0.386
		778.57		-2.847E+00	2.623E+00	3.925E+00	4.308E-01	-0.725
PR-144		696.49	*	-1.406E+00	2.320E+00	3.639E+00	3.891E-01	-0.386
		1489.15		-1.350E+01	1.203E+01	1.696E+01	1.510E+00	-0.796
PM-146		453.90	*	1.967E-02	4.598E-02	7.623E-02	8.858E-03	0.258
		633.02		-6.692E-01	1.377E+00	2.163E+00	8.184E-01	-0.309
		735.90		-7.721E-02	1.551E-01	2.351E-01	6.899E-02	-0.328
		747.13		-6.700E-02	8.913E-02	1.360E-01	2.112E-02	-0.493
ND-147	+	91.11		1.060E+00	4.065E-01	6.472E-01	6.395E-02	1.638
		319.41		-3.527E+00	4.150E+00	6.650E+00	8.418E-01	-0.530
		439.89		-6.934E-01	7.027E+00	1.138E+01	1.096E+00	-0.061
		531.02	*	5.365E-02	6.732E-01	1.132E+00	1.795E-01	0.047
PM-149		285.90	*	-4.669E-05	6.732E-01	Half-Life too short		
EU-152		121.78		-1.999E-02	8.098E-02	1.271E-01	1.220E-02	-0.157
		244.69		3.923E-01	4.024E-01	5.959E-01	7.545E-02	0.658
		344.27	*	-1.029E-02	1.194E-01	1.617E-01	1.943E-02	-0.064
		443.98		1.000E-01	9.378E-01	1.535E+00	1.481E-01	0.065
		778.89		-2.062E-01	2.974E-01	4.587E-01	5.034E-02	-0.450
		867.32		6.648E-01	9.432E-01	1.428E+00	1.595E-01	0.465
	+	964.01		5.652E-01	4.895E-01	5.388E-01	5.749E-02	1.049
		1085.78		-1.026E-01	4.026E-01	6.424E-01	5.986E-02	-0.160
		1112.02		3.017E-02	3.570E-01	4.969E-01	4.453E-02	0.061
		1407.95		1.093E-01	2.013E-01	3.442E-01	3.077E-02	0.318
GD-153		69.67		-1.131E+00	1.799E+00	2.562E+00	1.988E-01	-0.442
		83.37		2.071E+00	2.112E+01	2.436E+01	2.187E+00	0.085
		97.43	*	-1.225E-02	9.104E-02	1.298E-01	1.141E-02	-0.094
		103.18		-1.042E-01	1.190E-01	1.843E-01	1.575E-02	-0.566
EU-154		123.07		-6.474E-02	6.556E-02	8.683E-02	9.632E-03	-0.746
		247.94		3.223E-01	4.109E-01	6.595E-01	9.801E-02	0.489
		591.81		6.987E-02	7.074E-01	1.059E+00	1.377E-01	0.066
		723.30		7.250E-02	2.149E-01	3.077E-01	3.549E-02	0.236
		756.87		6.385E-01	7.846E-01	1.330E+00	1.824E-01	0.480
		873.19		-1.057E-01	2.987E-01	4.841E-01	6.854E-02	-0.218
		996.32		-3.659E-01	3.742E-01	5.602E-01	1.046E-01	-0.653
		1004.76		-1.474E-01	2.160E-01	3.355E-01	4.332E-02	-0.439
		1274.45	*	-1.212E-01	1.258E-01	1.923E-01	2.174E-02	-0.630
EU-155		48.70		-4.294E-01	2.223E+00	3.710E+00	3.021E-01	-0.116
		60.01		5.052E+00	4.887E+00	7.614E+00	5.407E-01	0.664
	+	86.54		5.122E-01	1.435E-01	1.981E-01	1.863E-02	2.585
		105.31	*	2.278E-01	1.213E-01	2.047E-01	1.757E-02	1.113
TB-160	+	86.79		1.405E+00	3.932E-01	5.435E-01	5.083E-02	2.585
		197.04		-4.674E-01	6.459E-01	1.004E+00	1.092E-01	-0.466
		215.65		2.054E-02	8.590E-01	1.357E+00	1.569E-01	0.015
	+	298.57		3.184E-01	1.755E-01	2.206E-01	2.956E-02	1.444
		879.36	*	9.669E-02	1.422E-01	2.459E-01	2.749E-02	0.393
		962.29		6.965E-01	6.267E-01	9.610E-01	1.027E-01	0.725
	+	966.15		3.988E-01	3.454E-01	5.503E-01	5.861E-02	0.725

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1177.93		8.449E-02	3.782E-01	6.393E-01	5.159E-02	0.132
		1271.85		-1.709E-01	7.214E-01	1.173E+00	1.008E-01	-0.146
HO-166M		80.57		-4.718E-01	2.756E-01	4.202E-01	3.651E-02	-1.123
		184.41		1.086E-01	4.738E-02	7.474E-02	7.792E-03	1.452
		280.46		4.457E-02	9.782E-02	1.403E-01	1.959E-02	0.318
		410.95		1.873E-01	2.664E-01	4.495E-01	4.243E-02	0.417
		711.68	*	-1.241E-02	6.099E-02	9.816E-02	1.055E-02	-0.126
		752.31		4.745E-02	2.755E-01	4.517E-01	4.920E-02	0.105
		810.29		3.742E-03	5.760E-02	9.677E-02	1.070E-02	0.039
TM-171		51.35		-3.383E+00	2.795E+01	4.665E+01	3.639E+00	-0.073
		52.39		-6.245E+00	1.518E+01	2.428E+01	1.863E+00	-0.257
		59.40		1.722E+01	2.727E+01	4.179E+01	2.954E+00	0.412
		66.72	*	-1.741E+01	3.029E+01	4.305E+01	3.253E+00	-0.405
LU-176	+	88.36		1.008E+00	2.820E-01	3.829E-01	3.621E-02	2.631
		201.83		8.594E-04	3.131E-02	5.150E-02	5.690E-03	0.017
		306.84	*	3.147E-03	2.853E-02	4.387E-02	5.756E-03	0.072
		401.10		8.210E-01	6.741E+00	1.113E+01	1.043E+00	0.074
LU-177		112.95		-1.097E+00	2.444E+00	3.751E+00	3.118E-01	-0.292
	+	208.36	*	3.773E+00	2.233E+00	2.953E+00	3.334E-01	1.278
LU-177M		52.97		-7.037E-01	1.576E+00	2.515E+00	1.914E-01	-0.280
		54.07		-8.246E-02	8.276E-01	1.338E+00	1.002E-01	-0.062
		61.30		1.111E+00	1.504E+00	2.309E+00	1.661E-01	0.481
		121.62		-6.691E-02	4.215E-01	6.641E-01	5.470E-02	-0.101
		147.16		-2.451E-01	7.042E-01	1.171E+00	1.056E-01	-0.209
		171.86		9.553E-03	5.243E-01	8.726E-01	8.727E-02	0.011
		218.09		-5.130E-01	9.396E-01	1.499E+00	1.747E-01	-0.342
	+	268.79		3.637E+00	1.330E+00	1.607E+00	2.185E-01	2.263
		319.02		-9.190E-02	2.690E-01	4.432E-01	5.616E-02	-0.207
		367.43		-1.051E+00	9.351E-01	1.449E+00	1.530E-01	-0.726
		413.65	*	-2.726E-01	2.035E-01	3.095E-01	2.927E-02	-0.881
HF-181		56.28		-5.628E-01	9.194E-01	1.498E+00	1.091E-01	-0.376
		57.53		-3.567E-01	5.032E-01	8.161E-01	5.866E-02	-0.437
		65.20		-4.176E-01	1.059E+00	1.521E+00	1.134E-01	-0.275
		133.02		-2.981E-02	7.808E-02	1.147E-01	9.773E-03	-0.260
		136.25		1.972E-01	4.881E-01	8.357E-01	7.209E-02	0.236
		345.85		-2.568E-01	2.794E-01	3.227E-01	3.732E-02	-0.796
		482.03	*	-5.033E-02	4.585E-02	6.873E-02	6.785E-03	-0.732
W-181		56.28		-2.135E-01	3.490E-01	5.687E-01	4.143E-02	-0.375
		57.53		-1.355E-01	1.912E-01	3.101E-01	2.229E-02	-0.437
		65.20	*	-1.574E-01	3.991E-01	5.731E-01	4.273E-02	-0.275
TA-182		67.75		-1.094E-01	1.201E-01	1.699E-01	1.295E-02	-0.644
		100.10		1.041E-01	1.877E-01	3.078E-01	2.667E-02	0.338
		152.43		1.289E-01	3.694E-01	6.263E-01	5.779E-02	0.206
		222.10		3.973E-01	3.839E-01	6.457E-01	7.620E-02	0.615
		1001.68		6.470E-01	2.078E+00	3.359E+00	3.462E-01	0.193
	+	1121.28		6.886E-01	2.587E-01	3.529E-01	3.116E-02	1.952
		1189.05		-3.987E-02	3.029E-01	5.005E-01	4.070E-02	-0.080
		1221.42	*	3.336E-02	2.031E-01	3.408E-01	2.834E-02	0.098
		1230.97		-1.065E+00	5.301E-01	7.638E-01	6.392E-02	-1.395

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RE-183		57.98		2.984E-02	1.887E-01	3.159E-01	2.261E-02	0.094
		59.32		7.843E-02	1.153E-01	1.771E-01	1.252E-02	0.443
		67.20		-5.439E-02	2.188E-01	3.156E-01	2.395E-02	-0.172
		162.32	*	4.665E-02	1.215E-01	2.054E-01	1.982E-02	0.227
	+	208.81		2.591E+00	1.533E+00	2.037E+00	2.302E-01	1.272
		291.72		-4.553E-01	1.104E+00	1.580E+00	2.152E-01	-0.288
RE-184		57.98		1.081E-01	6.837E-01	1.145E+00	8.192E-02	0.094
		59.32		2.840E-01	4.175E-01	6.411E-01	4.535E-02	0.443
		67.20		-1.970E-01	7.925E-01	1.143E+00	8.677E-02	-0.172
		161.27		7.396E-02	3.855E-01	6.482E-01	6.223E-02	0.114
		216.55		-6.972E-02	2.920E-01	4.727E-01	5.480E-02	-0.147
		252.85	*	-2.329E-01	2.549E-01	3.916E-01	5.082E-02	-0.595
		318.01		-2.155E-01	4.634E-01	7.586E-01	9.642E-02	-0.284
		792.07		-6.291E-01	1.295E+00	1.705E+00	1.877E-01	-0.369
		903.28		-4.291E-01	1.106E+00	1.499E+00	1.674E-01	-0.286
		920.93		-1.040E-01	4.533E-01	7.228E-01	7.975E-02	-0.144
OS-185		59.72		2.927E-01	2.967E-01	4.617E-01	3.268E-02	0.634
		61.14		9.821E-02	1.662E-01	2.537E-01	1.823E-02	0.387
		69.30		-1.712E-01	3.053E-01	4.656E-01	3.601E-02	-0.368
		592.07		4.962E-01	2.844E+00	4.424E+00	4.580E-01	0.112
		646.12	*	-6.280E-03	4.474E-02	7.300E-02	7.672E-03	-0.086
		717.42		5.885E-01	9.708E-01	1.603E+00	1.727E-01	0.367
		874.81		-2.951E-01	5.990E-01	9.610E-01	1.074E-01	-0.307
		880.27		4.247E-01	7.796E-01	1.338E+00	1.497E-01	0.317
RE-188		155.03	*	2.800E-01	1.917E-01	3.330E-01	3.108E-02	0.841
		477.96		2.296E-01	3.268E+00	5.301E+00	5.221E-01	0.043
		633.10		-1.671E+00	2.832E+00	4.489E+00	4.703E-01	-0.372
W-188	+	63.58		1.257E+02	8.103E+01	9.570E+01	7.032E+00	1.313
		227.08		1.076E+01	1.444E+01	2.408E+01	2.886E+00	0.447
		290.67	*	3.162E+00	8.524E+00	1.278E+01	1.746E+00	0.247
IR-192	+	295.96		1.345E+00	2.430E-01	3.071E-01	4.155E-02	4.378
		308.46		7.767E-02	1.037E-01	1.784E-01	2.335E-02	0.435
		316.51	*	3.246E-02	3.672E-02	6.338E-02	8.100E-03	0.512
		468.07		6.295E-03	7.610E-02	1.070E-01	1.107E-02	0.059
		604.41		-9.892E-02	5.695E-01	8.001E-01	1.140E-01	-0.124
		612.46		5.197E+00	1.179E+00	1.863E+00	2.142E-01	2.789
AU-195		65.12		-1.140E-01	1.864E-01	2.651E-01	1.975E-02	-0.430
		66.83		-5.083E-02	1.011E-01	1.442E-01	1.091E-02	-0.353
	+	75.70		1.318E+00	2.777E-01	4.710E-01	3.880E-02	2.799
		98.88	*	1.182E-01	2.361E-01	3.867E-01	3.372E-02	0.306
	+	129.76		8.134E+00	5.237E+00	5.535E+00	4.665E-01	1.470
TL-200		367.94	*	-4.038E-03	5.237E+00	Half-Life too short		
		579.30		5.887E-02	5.237E+00	Half-Life too short		
		828.27		-1.162E-02	5.237E+00	Half-Life too short		
		1205.75		-2.686E-03	5.237E+00	Half-Life too short		
TL-201		68.90		-8.992E+00	8.900E+00	1.401E+01	1.080E+00	-0.642
		70.82		2.855E+00	5.634E+00	8.415E+00	6.603E-01	0.339
		80.30		-1.650E+01	9.829E+00	1.502E+01	1.301E+00	-1.099
		135.34		-1.093E+01	4.922E+01	8.264E+01	7.105E+00	-0.132

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		167.43	*	-3.498E+00	1.457E+01	2.407E+01	2.373E+00	-0.145
TL-202		68.90		-4.938E-01	4.888E-01	7.693E-01	5.929E-02	-0.642
		70.82		1.563E-01	3.085E-01	4.609E-01	3.616E-02	0.339
		80.30		-9.039E-01	5.385E-01	8.227E-01	7.127E-02	-1.099
		439.56	*	-1.662E-02	8.154E-02	1.312E-01	1.263E-02	-0.127
BI-207		72.80		3.558E-01	2.040E-01	3.165E-01	2.532E-02	1.124
	+	74.97		7.233E-01	1.524E-01	2.321E-01	1.898E-02	3.116
		84.90		4.497E-01	2.586E-01	3.259E-01	2.979E-02	1.380
		569.67		3.308E-02	3.224E-02	5.612E-02	5.764E-03	0.589
		1063.62	*	3.665E-02	5.489E-02	9.334E-02	8.961E-03	0.393
		1770.23		1.099E+00	5.898E-01	1.048E+00	8.709E-02	1.049
TL-207		81.07		-4.340E-01	2.191E-01	3.291E-01	2.876E-02	-1.319
		83.78		1.856E-02	1.789E-01	2.064E-01	1.861E-02	0.090
		94.90		5.332E-01	2.578E-01	3.996E-01	3.572E-02	1.334
		122.32		-1.233E+00	1.946E+00	3.001E+00	2.671E-01	-0.411
		144.24		2.597E-01	7.388E-01	1.225E+00	1.212E-01	0.212
		154.21		6.328E-01	4.301E-01	7.463E-01	7.538E-02	0.848
	+	269.46		8.409E-01	3.078E-01	3.876E-01	5.324E-02	2.169
		323.87	*	3.615E-01	7.501E-01	1.118E+00	2.223E-01	0.323
	+	338.28		9.258E+00	2.238E+00	2.626E+00	3.884E-01	3.526
		445.03		-9.656E-01	2.269E+00	3.595E+00	4.620E-01	-0.269
PO-209		260.50		-4.719E+00	1.049E+01	1.651E+01	2.191E+00	-0.286
		262.80		-1.481E+01	3.002E+01	4.534E+01	6.058E+00	-0.327
		896.60	*	2.171E+00	7.230E+00	1.222E+01	1.369E+00	0.178
BI-210		46.50	*	-9.382E-01	3.236E+00	5.265E+00	4.891E-01	-0.178
PB-210		46.50	*	-9.382E-01	3.236E+00	5.265E+00	4.891E-01	-0.178
PO-210		46.50	*	-9.382E-01	3.236E+00	5.265E+00	4.427E-01	-0.178
PB-211		404.84	*	-5.783E-01	1.062E+00	1.591E+00	9.986E-01	-0.364
		427.08		1.871E-01	2.173E+00	3.557E+00	2.215E+00	0.053
		831.96		4.339E-01	1.270E+00	2.113E+00	1.332E+00	0.205
BI-212	+	727.18	*	1.202E+00	4.883E-01	6.383E-01	7.624E-02	1.883
		785.46		3.803E+00	1.925E+00	3.395E+00	3.731E-01	1.120
		1620.62		4.597E-01	1.369E+00	2.349E+00	2.047E-01	0.196
PO-215		81.07		-4.340E-01	2.191E-01	3.291E-01	2.876E-02	-1.319
		83.78		1.856E-02	1.789E-01	2.064E-01	1.861E-02	0.090
		94.90		5.332E-01	2.578E-01	3.996E-01	3.572E-02	1.334
		122.32		-1.233E+00	1.946E+00	3.001E+00	2.671E-01	-0.411
		144.24		2.597E-01	7.388E-01	1.225E+00	1.212E-01	0.212
		154.21		6.328E-01	4.301E-01	7.463E-01	7.538E-02	0.848
	+	269.46		8.409E-01	3.078E-01	3.876E-01	5.324E-02	2.169
		323.87	*	3.615E-01	7.501E-01	1.118E+00	2.223E-01	0.323
	+	338.28		9.258E+00	2.238E+00	2.626E+00	3.884E-01	3.526
		445.03		-9.656E-01	2.269E+00	3.595E+00	4.620E-01	-0.269
RN-219	+	271.23		1.079E+00	3.991E-01	4.841E-01	7.172E-02	2.228
		401.81	*	1.430E-01	4.154E-01	6.925E-01	1.071E-01	0.207
RN-220		549.76	*	-2.346E+01	2.539E+01	3.997E+01	4.074E+00	-0.587
RA-223		81.07		-4.340E-01	2.191E-01	3.291E-01	2.876E-02	-1.319
		83.78		1.856E-02	1.789E-01	2.064E-01	1.861E-02	0.090
		94.90		5.332E-01	2.578E-01	3.996E-01	3.572E-02	1.334

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-1.233E+00	1.946E+00	3.001E+00	2.671E-01	-0.411
		144.24		2.597E-01	7.388E-01	1.225E+00	1.212E-01	0.212
		154.21		6.328E-01	4.301E-01	7.463E-01	7.538E-02	0.848
	+	269.46		8.409E-01	3.078E-01	3.876E-01	5.324E-02	2.169
		323.87	*	3.615E-01	7.501E-01	1.118E+00	2.223E-01	0.323
	+	338.28		9.258E+00	2.238E+00	2.626E+00	3.884E-01	3.526
		445.03		-9.656E-01	2.269E+00	3.595E+00	4.620E-01	-0.269
AC-227		79.80		-2.766E+00	1.754E+00	2.552E+00	5.486E-01	-1.084
		236.00		1.520E+00	3.813E-01	5.257E-01	7.931E-02	2.891
		256.20	*	2.863E-01	4.147E-01	6.829E-01	1.246E-01	0.419
		286.10		-4.753E-01	1.641E+00	2.580E+00	4.397E-01	-0.184
	+	299.80		3.945E+00	2.255E+00	2.691E+00	5.450E-01	1.466
		304.40		-1.692E+00	2.222E+00	3.059E+00	6.417E-01	-0.553
		334.20		2.044E+00	3.634E+00	3.770E+00	7.980E-01	0.542
TH-227		79.80		-2.766E+00	1.757E+00	2.552E+00	5.557E-01	-1.084
	+	94.00		1.104E+01	3.997E+00	3.971E+00	8.708E-01	2.781
		236.00		1.520E+00	3.730E-01	5.257E-01	7.442E-02	2.891
		256.20	*	2.863E-01	4.156E-01	6.829E-01	1.406E-01	0.419
		286.10		-4.753E-01	1.708E+00	2.580E+00	2.605E+00	-0.184
	+	299.80		3.945E+00	2.255E+00	2.691E+00	5.450E-01	1.466
		304.40		-1.692E+00	2.222E+00	3.059E+00	6.417E-01	-0.553
		334.20		2.044E+00	3.634E+00	3.770E+00	7.980E-01	0.542
TH-229		85.43		3.805E-01	2.732E-01	3.366E-01	3.097E-02	1.130
	+	88.47		5.800E-01	1.623E-01	2.195E-01	2.073E-02	2.642
		100.00		5.788E-02	1.933E-01	3.142E-01	2.724E-02	0.184
		193.63	*	-1.269E-01	5.488E-01	8.969E-01	9.643E-02	-0.142
		210.97		2.332E+00	9.985E-01	1.536E+00	1.748E-01	1.519
PA-231		283.67	*	-1.291E-01	1.733E+00	2.541E+00	4.745E-01	-0.051
	+	301.29		1.578E+00	8.803E-01	1.052E+00	1.673E-01	1.500
TH-231		81.07		-4.340E-01	2.191E-01	3.291E-01	2.876E-02	-1.319
		83.78		1.856E-02	1.789E-01	2.064E-01	1.861E-02	0.090
		94.90		5.332E-01	2.578E-01	3.996E-01	3.572E-02	1.334
		122.32		-1.233E+00	1.946E+00	3.001E+00	2.671E-01	-0.411
		144.24		2.597E-01	7.388E-01	1.225E+00	1.212E-01	0.212
		154.21		6.328E-01	4.301E-01	7.463E-01	7.538E-02	0.848
	+	269.46		8.409E-01	3.078E-01	3.876E-01	5.324E-02	2.169
		323.87	*	3.615E-01	7.501E-01	1.118E+00	2.223E-01	0.323
	+	338.28		9.258E+00	2.238E+00	2.626E+00	3.884E-01	3.526
		445.03		-9.656E-01	2.269E+00	3.595E+00	4.620E-01	-0.269
U-231		84.21		3.068E+00	1.239E+01	1.441E+01	1.306E+00	0.213
	+	92.29		1.755E+01	5.295E+00	6.884E+00	6.277E-01	2.550
		95.87	*	-5.216E-01	1.916E+00	2.717E+00	2.412E-01	-0.192
		108.00		-5.108E+00	3.703E+00	5.580E+00	4.691E-01	-0.915
PA-233	+	75.28		2.110E+01	5.192E+00	7.053E+00	1.066E+00	2.992
	+	86.59		8.316E+00	3.143E+00	3.222E+00	8.718E-01	2.581
	+	300.12		1.100E+00	6.206E-01	7.513E-01	1.355E-01	1.464
		311.98	*	-5.007E-02	6.807E-02	1.101E-01	1.442E-02	-0.455
		340.50		3.134E+00	1.135E+00	1.376E+00	3.461E-01	2.278
		398.62		-1.512E+00	2.147E+00	3.335E+00	8.965E-01	-0.453

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.187E+00	1.813E+00	3.028E+00	6.632E-01	0.392
PA-234	+	63.00		3.541E+00	2.328E+00	2.737E+00	4.055E-01	1.294
		94.67		5.490E-01	1.984E-01	3.021E-01	3.817E-02	1.817
		98.44		9.233E-02	1.105E-01	1.558E-01	8.694E-02	0.593
		99.86		1.769E-01	4.904E-01	7.990E-01	6.932E-02	0.221
		111.00		-3.780E-02	1.993E-01	3.158E-01	3.756E-02	-0.120
		131.20		1.308E-01	1.186E-01	1.857E-01	1.573E-02	0.704
		152.70		3.025E-01	3.566E-01	6.075E-01	1.055E-01	0.498
	+	186.00		4.409E+00	2.422E+00	2.800E+00	8.898E-01	1.575
		226.40		6.992E-02	4.401E-01	7.208E-01	1.124E-01	0.097
		227.20		3.557E-01	4.754E-01	7.926E-01	9.506E-02	0.449
		248.90		6.438E-01	9.001E-01	1.476E+00	3.592E-01	0.436
	+	293.70		8.239E+00	1.933E+00	1.797E+00	3.635E-01	4.584
		369.80		4.045E-01	8.992E-01	1.510E+00	3.406E-01	0.268
		568.70		1.572E-01	1.026E+00	1.721E+00	1.767E-01	0.091
		569.50		2.779E-01	2.851E-01	4.953E-01	5.087E-02	0.561
		574.00		-5.602E-01	1.791E+00	2.612E+00	2.687E-01	-0.215
		699.00		-7.593E-01	7.148E-01	1.062E+00	2.135E-01	-0.715
		706.10		1.037E+00	1.129E+00	1.778E+00	8.010E-01	0.583
		733.00		-3.045E-01	4.360E-01	5.566E-01	1.288E-01	-0.547
		742.81		2.642E-01	1.400E+00	2.282E+00	1.542E+00	0.116
	+	796.30		2.093E+00	1.208E+00	1.676E+00	4.678E-01	1.249
		805.60		4.511E-01	9.674E-01	1.648E+00	5.179E-01	0.274
		819.60		-3.835E-02	1.241E+00	2.070E+00	8.003E-01	-0.019
		826.30		-2.559E-01	8.528E-01	1.385E+00	6.272E-01	-0.185
		831.60		-1.149E-01	6.642E-01	1.066E+00	3.267E-01	-0.108
		876.40		-4.821E-01	9.813E-01	1.353E+00	1.394E+00	-0.356
		880.51		2.029E-01	2.737E-01	4.751E-01	5.313E-02	0.427
		883.24		-9.953E-02	3.000E-01	4.745E-01	3.208E-01	-0.210
		899.00		-2.445E-01	7.989E-01	1.283E+00	5.683E-01	-0.191
		925.00		2.026E-01	1.154E+00	1.895E+00	2.085E-01	0.107
		926.50		-2.840E-02	1.866E-01	2.775E-01	7.266E-02	-0.102
		946.00	*	-8.793E-02	3.041E-01	4.906E-01	9.752E-02	-0.179
		949.00		3.170E-01	4.551E-01	7.822E-01	8.451E-02	0.405
		980.50		1.175E-01	7.014E-01	1.146E+00	1.205E-01	0.103
		1394.10		-9.345E-02	1.145E+00	1.861E+00	1.212E+00	-0.050
PA-234M		766.42		1.838E+01	1.534E+01	2.126E+01	1.088E+01	0.864
		1001.03	*	-1.748E+00	4.800E+00	7.408E+00	8.490E-01	-0.236
U-235	+	89.95		3.520E+00	1.701E+00	1.931E+00	5.999E-01	1.822
	+	93.35		3.435E+00	1.383E+00	1.329E+00	3.742E-01	2.585
		105.00		1.958E+00	1.315E+00	1.998E+00	5.956E-01	0.980
		143.76	*	-1.780E-02	2.276E-01	3.724E-01	6.569E-02	-0.048
		163.35		-2.086E-02	5.115E-01	8.528E-01	1.670E-01	-0.024
	+	185.71		1.633E-01	7.516E-02	1.034E-01	1.083E-02	1.580
		205.31		1.151E-01	6.488E-01	9.319E-01	1.898E-01	0.124
NP-236		94.67		4.197E-01	1.460E-01	2.294E-01	2.054E-02	1.829
		98.44		6.979E-02	7.414E-02	1.178E-01	1.030E-02	0.593
		111.00		-2.859E-02	1.507E-01	2.389E-01	1.993E-02	-0.120
		160.31	*	1.080E-02	8.501E-02	1.427E-01	1.364E-02	0.076

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		7.336E-02	1.633E-01	2.669E-01	2.319E-02	0.275
		117.00	*	-1.654E-01	2.119E-01	3.261E-01	2.695E-02	-0.507
	+	209.75		1.987E+00	1.175E+00	1.577E+00	1.788E-01	1.260
		228.18		1.868E-01	2.485E-01	4.143E-01	4.985E-02	0.451
	+	277.60		3.952E-01	2.597E-01	3.369E-01	4.696E-02	1.173
		334.30		1.223E+00	2.052E+00	2.146E+00	2.588E-01	0.570
AM-241		59.54	*	8.588E-02	1.574E-01	2.403E-01	1.878E-02	0.357
CM-243		99.55		7.550E-02	1.681E-01	2.747E-01	2.387E-02	0.275
		103.76	*	2.835E-02	1.065E-01	1.724E-01	1.470E-02	0.164
		117.00		-1.702E-01	2.181E-01	3.356E-01	2.774E-02	-0.507
	+	209.75		1.959E+00	1.159E+00	1.554E+00	1.763E-01	1.260
		228.18		1.888E-01	2.512E-01	4.187E-01	5.038E-02	0.451
	+	277.60		3.985E-01	2.619E-01	3.397E-01	4.736E-02	1.173
AM-246		798.80		-4.723E-03	1.580E-01	2.169E-01	2.392E-02	-0.022
		1036.00		-3.421E-03	2.939E-01	4.798E-01	4.765E-02	-0.007
		1062.04		1.988E-01	2.404E-01	4.125E-01	3.968E-02	0.482
		1078.86	*	5.112E-02	1.384E-01	2.312E-01	2.175E-02	0.221
CM-247	+	278.00		1.639E+00	1.077E+00	1.383E+00	1.930E-01	1.185
		287.40		4.328E-01	1.324E+00	2.143E+00	2.948E-01	0.202
		402.60	*	1.757E-02	3.812E-02	6.390E-02	5.995E-03	0.275
CF-249		252.85		-8.635E-01	9.452E-01	1.452E+00	1.884E-01	-0.595
		333.44		2.934E-01	2.582E-01	2.867E-01	3.469E-02	1.023
		387.95	*	1.767E-02	4.038E-02	6.784E-02	6.448E-03	0.260
CF-251		176.60	*	9.890E-02	1.360E-01	2.307E-01	2.344E-02	0.429
		227.00		3.011E-01	4.204E-01	7.004E-01	8.395E-02	0.430
		285.00		-7.971E-01	1.872E+00	2.923E+00	4.043E-01	-0.273

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978009       *
* Acquisition date : 14-FEB-2010 12:01:43 Detector SN#    :                 *
* Detector ID       : GAM22               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:02.17     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978009           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.1144E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.918E+01	3.033E+00	4.510E-01	0.000E+00
CD-109	4.340E+00	1.191E+00	1.312E+00	0.000E+00
SN-126	4.248E-01	1.165E-01	1.289E-01	0.000E+00
BA-137M	1.340E-01	7.804E-02	5.989E-02	0.000E+00
CS-137	1.417E-01	8.250E-02	6.331E-02	0.000E+00
HG-203	9.427E-02	6.075E-02	6.772E-02	0.000E+00
TL-208	6.331E-01	1.120E-01	6.075E-02	0.000E+00
BI-211	5.050E+00	7.307E-01	3.237E-01	0.000E+00
PB-212	2.150E+00	3.022E-01	9.530E-02	0.000E+00
PO-212	2.150E+00	3.022E-01	9.530E-02	0.000E+00
BI-214	1.271E+00	2.131E-01	1.121E-01	0.000E+00
PB-214	1.757E+00	2.696E-01	1.131E-01	0.000E+00
PO-214	1.757E+00	2.696E-01	1.131E-01	0.000E+00
PO-216	2.150E+00	3.022E-01	9.530E-02	0.000E+00
PO-218	1.757E+00	2.696E-01	1.131E-01	0.000E+00
RA-224	6.062E+00	1.650E+00	1.083E+00	0.000E+00
RA-226	1.271E+00	2.131E-01	1.121E-01	0.000E+00
AC-228	2.023E+00	3.719E-01	2.065E-01	0.000E+00
RA-228	2.023E+00	3.719E-01	2.065E-01	0.000E+00
TH-228	2.189E+00	3.077E-01	9.702E-02	0.000E+00
TH-230	1.271E+00	2.131E-01	1.121E-01	0.000E+00
TH-232	2.023E+00	3.719E-01	2.065E-01	0.000E+00
TH-234	3.038E+00	1.976E+00	2.017E+00	0.000E+00
U-234	1.271E+00	2.131E-01	1.121E-01	0.000E+00
NP-237	1.247E+00	4.251E-01	4.252E-01	0.000E+00
U-238	3.038E+00	1.976E+00	2.017E+00	0.000E+00
AM-243	4.029E-01	8.319E-02	9.541E-02	0.000E+00
ANH-511	1.656E-01	6.444E-02	4.433E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error)	Ided	MDA (pCi/GRAM)

BE-7	1.751E-01	3.328E-01	5.661E-01	0.000E+00	NOT IDENT.
NA-22	-4.286E-02	4.412E-02	6.882E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.961E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.519E-04	2.696E-02	4.498E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.026E-02	8.034E-02	0.000E+00	FAIL ABUN
SC-46	4.470E-03	3.973E-02	6.765E-02	0.000E+00	FAIL ABUN
V-48	-4.344E-02	7.537E-02	1.205E-01	0.000E+00	NOT IDENT.
CR-51	-3.626E-01	4.015E-01	6.588E-01	0.000E+00	NOT IDENT.
MN-52	1.675E-01	3.084E-01	5.396E-01	0.000E+00	FAIL ABUN
MN-54	1.605E-02	3.784E-02	6.582E-02	0.000E+00	NOT IDENT.
CO-56	1.763E-02	3.878E-02	6.766E-02	0.000E+00	NOT IDENT.
CO-57	-1.721E-02	2.779E-02	4.445E-02	0.000E+00	NOT IDENT.
CO-58	-5.467E-03	3.837E-02	6.490E-02	0.000E+00	NOT IDENT.
FE-59	-3.190E-03	9.248E-02	1.525E-01	0.000E+00	NOT IDENT.
CO-60	8.583E-04	3.889E-02	6.521E-02	0.000E+00	NOT IDENT.
ZN-65	7.855E-02	1.044E-01	1.568E-01	0.000E+00	NOT IDENT.
GE-68	9.955E-01	1.216E+00	2.125E+00	0.000E+00	NOT IDENT.
AS-73	-9.985E-02	7.989E-01	1.345E+00	0.000E+00	NOT IDENT.
AS-74	-4.366E-02	1.045E-01	1.731E-01	0.000E+00	NOT IDENT.
SE-75	4.578E-02	5.181E-02	7.840E-02	0.000E+00	NOT IDENT.
BR-77	-1.365E+01	2.364E+01	3.931E+01	0.000E+00	FAIL ABUN
SR-82	-2.069E-03	4.466E-01	7.364E-01	0.000E+00	NOT IDENT.
RB-83	-4.651E-02	6.863E-02	1.134E-01	0.000E+00	NOT IDENT.
RB-84	4.963E-02	7.200E-02	1.269E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.903E+00	1.461E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.705E-02	7.722E-02	0.000E+00	NOT IDENT.
RB-86	4.375E-01	8.554E-01	1.467E+00	0.000E+00	NOT IDENT.
Y-88	-1.854E-02	3.070E-02	4.644E-02	0.000E+00	NOT IDENT.
ZR-88	1.805E-02	3.157E-02	5.464E-02	0.000E+00	NOT IDENT.
Y-91	-5.339E+00	1.971E+01	3.282E+01	0.000E+00	NOT IDENT.
NB-94	1.729E-02	3.251E-02	5.580E-02	0.000E+00	NOT IDENT.
NB-95	8.104E-02	4.667E-02	8.302E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.551E-01	2.418E-01	0.000E+00	NOT IDENT.
ZR-95	8.133E-02	7.212E-02	1.268E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.951E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.043E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.191E+01	2.360E+01	4.097E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.183E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.491E-02	3.618E-02	5.880E-02	0.000E+00	FAIL ABUN
RH-102	8.203E-03	2.942E-02	4.946E-02	0.000E+00	NOT IDENT.
RU-103	-4.674E-03	4.355E-02	7.135E-02	0.000E+00	FAIL ABUN
RH-106	5.874E-02	3.206E-01	5.465E-01	0.000E+00	FAIL ABUN
RU-106	5.874E-02	3.206E-01	5.465E-01	0.000E+00	FAIL ABUN
AG-108M	-5.243E-04	3.295E-02	5.501E-02	0.000E+00	NOT IDENT.
AG-110M	3.347E-03	4.107E-02	5.955E-02	0.000E+00	NOT IDENT.
IN-111	8.110E-01	2.572E+00	3.808E+00	0.000E+00	NOT IDENT.
IN-113M	1.097E-03	4.591E-02	7.756E-02	0.000E+00	NOT IDENT.
SN-113	1.097E-03	4.591E-02	7.756E-02	0.000E+00	NOT IDENT.
IN-114M	1.532E-01	2.251E-01	3.466E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.676E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-5.229E-02	6.665E-02	1.119E-01	0.000E+00	NOT IDENT.
SB-122	3.141E-01	4.234E+00	7.244E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.308E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-4.128E-03	3.000E-02	5.161E-02	0.000E+00	NOT IDENT.
I-124	-3.743E-01	1.295E+00	1.845E+00	0.000E+00	NOT IDENT.
SB-124	3.889E-02	7.898E-02	1.398E-01	0.000E+00	FAIL ABUN
SB-125	1.295E-02	9.332E-02	1.572E-01	0.000E+00	FAIL ABUN
TE-125M	-1.104E+00	1.018E+01	1.680E+01	0.000E+00	NOT IDENT.
I-126	1.518E-01	2.387E-01	3.608E-01	0.000E+00	NOT IDENT.
SB-126	3.374E-02	2.054E-01	2.964E-01	0.000E+00	FAIL ABUN
SB-127	3.093E-01	2.245E+00	3.783E+00	0.000E+00	NOT IDENT.
XE-127	3.487E-02	5.353E-02	9.247E-02	0.000E+00	NOT IDENT.
I-131	-4.351E-02	1.409E-01	2.356E-01	0.000E+00	NOT IDENT.
TE-132	1.063E+00	1.383E+00	2.363E+00	0.000E+00	NOT IDENT.
BA-133	1.647E-02	4.562E-02	6.903E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.028E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	5.473E-02	8.644E-02	0.000E+00	FAIL ABUN
CS-135	2.690E-01	2.012E-01	3.009E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.620E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.219E-02	1.260E-01	2.129E-01	0.000E+00	FAIL ABUN
CE-139	2.088E-02	3.174E-02	5.574E-02	0.000E+00	NOT IDENT.
BA-140	-2.605E-01	3.126E-01	4.913E-01	0.000E+00	NOT IDENT.
LA-140	-1.146E-01	1.087E-01	1.650E-01	0.000E+00	FAIL ABUN
CE-141	2.652E-02	6.886E-02	1.212E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.334E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.298E-01	2.321E-01	3.487E-01	0.000E+00	NOT IDENT.
PM-144	-2.072E-02	3.350E-02	5.367E-02	0.000E+00	NOT IDENT.

PR-144	-1.406E+00	2.273E+00	3.642E+00	0.000E+00	NOT IDENT.
PM-146	1.967E-02	4.506E-02	7.655E-02	0.000E+00	NOT IDENT.
ND-147	5.365E-02	6.597E-01	1.136E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.347E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-1.029E-02	1.170E-01	1.627E-01	0.000E+00	FAIL ABUN
GD-153	-1.225E-02	8.922E-02	1.319E-01	0.000E+00	NOT IDENT.
EU-154	-1.212E-01	1.232E-01	1.915E-01	0.000E+00	NOT IDENT.
EU-155	0.000E+00	1.189E-01	2.079E-01	0.000E+00	FAIL ABUN
TB-160	9.669E-02	1.394E-01	2.456E-01	0.000E+00	FAIL ABUN
HO-166M	-1.241E-02	5.977E-02	9.822E-02	0.000E+00	NOT IDENT.
TM-171	-1.741E+01	2.969E+01	4.388E+01	0.000E+00	NOT IDENT.
LU-176	3.147E-03	2.795E-02	4.419E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.188E+00	2.984E+00	0.000E+00	FAIL ABUN
LU-177M	-2.726E-01	1.995E-01	3.110E-01	0.000E+00	FAIL ABUN
HF-181	-5.033E-02	4.493E-02	6.899E-02	0.000E+00	NOT IDENT.
W-181	-1.574E-01	3.911E-01	5.843E-01	0.000E+00	NOT IDENT.
TA-182	3.336E-02	1.990E-01	3.396E-01	0.000E+00	FAIL ABUN
RE-183	4.665E-02	1.191E-01	2.080E-01	0.000E+00	FAIL ABUN
RE-184	-2.329E-01	2.498E-01	3.951E-01	0.000E+00	NOT IDENT.
OS-185	-6.280E-03	4.384E-02	7.310E-02	0.000E+00	NOT IDENT.
RE-188	2.800E-01	1.879E-01	3.372E-01	0.000E+00	NOT IDENT.
W-188	3.162E+00	8.354E+00	1.288E+01	0.000E+00	FAIL ABUN
IR-192	3.246E-02	3.599E-02	6.383E-02	0.000E+00	FAIL ABUN
AU-195	1.182E-01	2.313E-01	3.929E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.927E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.498E+00	1.428E+01	2.436E+01	0.000E+00	NOT IDENT.
TL-202	-1.662E-02	7.990E-02	1.318E-01	0.000E+00	NOT IDENT.
BI-207	3.665E-02	5.379E-02	9.310E-02	0.000E+00	FAIL ABUN
TL-207	3.615E-01	7.351E-01	1.126E+00	0.000E+00	FAIL ABUN
PO-209	2.171E+00	7.086E+00	1.220E+01	0.000E+00	NOT IDENT.
BI-210	-9.382E-01	3.172E+00	5.381E+00	0.000E+00	NOT IDENT.
PB-210	-9.382E-01	3.172E+00	5.381E+00	0.000E+00	NOT IDENT.
PO-210	-9.382E-01	3.171E+00	5.381E+00	0.000E+00	NOT IDENT.
PB-211	-5.783E-01	1.040E+00	1.599E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.785E-01	6.386E-01	0.000E+00	FAIL ABUN
PO-215	3.615E-01	7.351E-01	1.126E+00	0.000E+00	FAIL ABUN
RN-219	1.430E-01	4.071E-01	6.961E-01	0.000E+00	FAIL ABUN
RN-220	-2.346E+01	2.488E+01	4.007E+01	0.000E+00	NOT IDENT.
RA-223	3.615E-01	7.351E-01	1.126E+00	0.000E+00	FAIL ABUN
AC-227	2.863E-01	4.064E-01	6.889E-01	0.000E+00	FAIL ABUN
TH-227	2.863E-01	4.073E-01	6.889E-01	0.000E+00	FAIL ABUN
TH-229	-1.269E-01	5.378E-01	9.067E-01	0.000E+00	FAIL ABUN
PA-231	-1.291E-01	1.698E+00	2.561E+00	0.000E+00	FAIL ABUN
TH-231	3.615E-01	7.351E-01	1.126E+00	0.000E+00	FAIL ABUN
U-231	-5.216E-01	1.878E+00	2.761E+00	0.000E+00	FAIL ABUN
PA-233	-5.007E-02	6.671E-02	1.109E-01	0.000E+00	FAIL ABUN
PA-234	-8.793E-02	2.980E-01	4.899E-01	0.000E+00	FAIL ABUN
PA-234M	-1.748E+00	4.704E+00	7.393E+00	0.000E+00	NOT IDENT.
U-235	-1.780E-02	2.230E-01	3.773E-01	0.000E+00	FAIL ABUN
NP-236	1.080E-02	8.331E-02	1.445E-01	0.000E+00	NOT IDENT.
NP-239	-1.654E-01	2.077E-01	3.310E-01	0.000E+00	FAIL ABUN
AM-241	8.588E-02	1.542E-01	2.451E-01	0.000E+00	NOT IDENT.
CM-243	2.835E-02	1.043E-01	1.751E-01	0.000E+00	FAIL ABUN
AM-246	5.112E-02	1.356E-01	2.306E-01	0.000E+00	NOT IDENT.
CM-247	1.757E-02	3.736E-02	6.423E-02	0.000E+00	FAIL ABUN
CF-249	1.767E-02	3.958E-02	6.821E-02	0.000E+00	NOT IDENT.
CF-251	9.890E-02	1.333E-01	2.334E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:02:37.15

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978009.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:01:43
Sample ID         : G245978009           Sample quantity  : 1.11440E+02 GRAM
Detector name     : GAM22                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:02.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1765	10.67*	1.909E+00	2.918E+01	2.918E+01	10.61
CD-109	88.03	349	3.72*	7.479E+00	4.225E+00	4.340E+00	27.99
SN-126	64.28	147	9.60	4.287E+00	1.203E+00	1.203E+00	65.68
	86.94	349	8.90	7.479E+00	1.766E+00	1.766E+00	49.19
	87.57	349	37.00*	7.479E+00	4.248E-01	4.248E-01	27.99
BA-137M	661.65	128	89.98*	3.589E+00	1.339E-01	1.340E-01	59.41
CS-137	661.65	128	85.12*	3.589E+00	1.415E-01	1.417E-01	59.42
HG-203	70.83	------	4.75	5.596E+00	------	Line Not Found	------
	72.87	------	8.00	5.897E+00	------	Line Not Found	------
	82.60	------	3.55	7.070E+00	------	Line Not Found	------
	279.20	102	77.30*	6.175E+00	7.208E-02	9.427E-02	65.75
TL-208	277.35	102	6.80	6.175E+00	8.194E-01	8.194E-01	66.31
	510.84	211	21.60	4.299E+00	7.668E-01	7.668E-01	40.57
	583.14	622	84.20*	3.931E+00	6.331E-01	6.331E-01	18.04
	860.37	94	12.46	2.920E+00	8.689E-01	8.689E-01	69.84
BI-211	72.87	------	1.27	5.897E+00	------	Line Not Found	------
	351.07	1048	12.94*	5.401E+00	5.050E+00	5.050E+00	14.76
PB-212	74.81	487	10.70	6.168E+00	2.485E+00	2.485E+00	23.05
	77.11	787	18.00	6.461E+00	2.280E+00	2.280E+00	14.61
	87.30	349	8.00	7.479E+00	1.965E+00	1.965E+00	29.72
	238.63	1910	44.60*	6.710E+00	2.150E+00	2.150E+00	14.34
	300.09	128	3.41	5.917E+00	2.129E+00	2.129E+00	55.42
PO-212	74.81	487	10.70	6.168E+00	2.485E+00	2.485E+00	23.05
	77.11	787	18.00	6.461E+00	2.280E+00	2.280E+00	14.61
	87.30	349	8.00	7.479E+00	1.965E+00	1.965E+00	29.72
	115.19	------	0.60	8.535E+00	------	Line Not Found	------
	238.63	1910	44.60*	6.710E+00	2.150E+00	2.150E+00	14.34
	300.09	128	3.41	5.917E+00	2.129E+00	2.129E+00	55.42
BI-214	609.31	666	46.30*	3.811E+00	1.271E+00	1.271E+00	17.11
	1120.29	151	15.10	2.346E+00	1.431E+00	1.431E+00	38.14
	1764.49	144	15.80	1.716E+00	1.791E+00	1.791E+00	32.94
PB-214	74.81	487	6.21	6.168E+00	4.282E+00	4.282E+00	22.33

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	787	10.50	6.461E+00	3.908E+00	3.908E+00	16.48
	87.30	349	4.67	7.479E+00	3.366E+00	3.366E+00	29.03
	241.98	474	7.49	6.666E+00	3.197E+00	3.197E+00	28.34
	295.21	584	19.20	5.971E+00	1.716E+00	1.717E+00	19.09
	351.92	1048	37.20*	5.401E+00	1.757E+00	1.757E+00	15.66
PO-214	74.81	487	6.21	6.168E+00	4.282E+00	4.282E+00	22.33
	77.11	787	10.50	6.461E+00	3.908E+00	3.908E+00	16.48
	87.30	349	4.67	7.479E+00	3.366E+00	3.366E+00	29.03
	241.98	474	7.49	6.666E+00	3.197E+00	3.197E+00	28.34
	295.21	584	19.20	5.971E+00	1.716E+00	1.717E+00	19.09
	351.92	1048	37.20*	5.401E+00	1.757E+00	1.757E+00	15.66
PO-216	74.81	487	10.70	6.168E+00	2.485E+00	2.485E+00	23.05
	77.11	787	18.00	6.461E+00	2.280E+00	2.280E+00	14.61
	87.30	349	8.00	7.479E+00	1.965E+00	1.965E+00	29.72
	238.63	1910	44.60*	6.710E+00	2.150E+00	2.150E+00	14.34
	300.09	128	3.41	5.917E+00	2.129E+00	2.129E+00	55.42
PO-218	74.81	487	6.21	6.168E+00	4.282E+00	4.282E+00	22.33
	77.11	787	10.50	6.461E+00	3.908E+00	3.908E+00	16.48
	87.30	349	4.67	7.479E+00	3.366E+00	3.366E+00	29.03
	241.98	474	7.49	6.666E+00	3.197E+00	3.197E+00	28.34
	295.21	584	19.20	5.971E+00	1.716E+00	1.717E+00	19.09
	351.92	1048	37.20*	5.401E+00	1.757E+00	1.757E+00	15.66
RA-224	240.98	474	3.95*	6.666E+00	6.062E+00	6.062E+00	27.77
RA-226	609.31	666	46.30*	3.811E+00	1.271E+00	1.271E+00	17.11
	1120.29	151	15.10	2.346E+00	1.431E+00	1.431E+00	38.14
	1764.49	144	15.80	1.716E+00	1.791E+00	1.791E+00	32.94
AC-228	338.32	415	11.40	5.526E+00	2.217E+00	2.217E+00	46.21
	911.07	464	27.70*	2.788E+00	2.023E+00	2.023E+00	18.76
	969.11	235	16.60	2.649E+00	1.804E+00	1.804E+00	31.78
RA-228	338.32	415	11.40	5.526E+00	2.217E+00	2.217E+00	46.21
	911.07	464	27.70*	2.788E+00	2.023E+00	2.023E+00	18.76
	969.11	235	16.60	2.649E+00	1.804E+00	1.804E+00	31.78
TH-228	74.81	487	10.70	6.168E+00	2.485E+00	2.530E+00	21.10
	77.11	787	18.00	6.461E+00	2.280E+00	2.321E+00	14.61
	87.30	349	8.00	7.479E+00	1.965E+00	2.000E+00	27.99
	238.63	1910	44.60*	6.710E+00	2.150E+00	2.189E+00	14.34
	300.09	128	3.41	5.917E+00	2.129E+00	2.167E+00	80.48
TH-230	609.31	666	46.30*	3.811E+00	1.271E+00	1.271E+00	17.11
	1120.29	151	15.10	2.346E+00	1.431E+00	1.431E+00	38.14
	1764.49	144	15.80	1.716E+00	1.791E+00	1.791E+00	32.94
TH-232	338.32	415	11.40	5.526E+00	2.217E+00	2.217E+00	22.52
	911.07	464	27.70*	2.788E+00	2.023E+00	2.023E+00	18.76
	969.11	235	16.60	2.649E+00	1.804E+00	1.804E+00	31.78
TH-234	63.29	147	3.80*	4.287E+00	3.038E+00	3.038E+00	66.38
	92.38	361	5.41	7.866E+00	2.857E+00	2.857E+00	34.10
U-234	609.31	666	46.30*	3.811E+00	1.271E+00	1.271E+00	17.11
	1120.29	151	15.10	2.346E+00	1.431E+00	1.431E+00	38.14
	1764.49	144	15.80	1.716E+00	1.791E+00	1.791E+00	32.94
NP-237	86.50	349	12.60*	7.479E+00	1.247E+00	1.247E+00	34.77

Sample ID : G245978009 Acquisition date : 14-FEB-2010 12:01:43

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	95.87	------	2.60	8.032E+00	------ Line Not Found		------
U-238	63.29	147	3.80*	4.287E+00	3.038E+00	3.038E+00	66.38
	92.38	361	5.41	7.866E+00	2.857E+00	2.857E+00	30.17
AM-243	74.67	487	66.00*	6.168E+00	4.029E-01	4.029E-01	21.07
	86.72	349	0.34	7.479E+00	4.678E+01	4.678E+01	27.99
	117.66	------	0.55	8.550E+00	------ Line Not Found		------
	142.18	------	0.13	8.387E+00	------ Line Not Found		------
ANH-511	511.00	211	100.00*	4.299E+00	1.656E-01	1.656E-01	39.70

Flag: "*" = Keyline

Sample ID : G245978009 Acquisition date : 14-FEB-2010 12:01:43

Total number of lines in spectrum 33
Number of unidentified lines 0
Number of lines tentatively identified by NID 33 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.918E+01	2.918E+01	0.310E+01	10.61	
CD-109	464.00D	1.03	4.225E+00	4.340E+00	1.215E+00	27.99	
SN-126	1.00E+05Y	1.00	4.248E-01	4.248E-01	1.189E-01	27.99	
BA-137M	30.17Y	1.00	1.339E-01	1.340E-01	0.796E-01	59.41	
CS-137	30.17Y	1.00	1.415E-01	1.417E-01	0.842E-01	59.42	
HG-203	46.60D	1.31	7.208E-02	9.427E-02	6.199E-02	65.75	
TL-208	1.41E+10Y	1.00	6.331E-01	6.331E-01	1.142E-01	18.04	
BI-211	7.04E+08Y	1.00	5.050E+00	5.050E+00	0.746E+00	14.76	
PB-212	1.41E+10Y	1.00	2.150E+00	2.150E+00	0.308E+00	14.34	
PO-212	1.41E+10Y	1.00	2.150E+00	2.150E+00	0.308E+00	14.34	
BI-214	1600.00Y	1.00	1.271E+00	1.271E+00	0.217E+00	17.11	
PB-214	1600.00Y	1.00	1.757E+00	1.757E+00	0.275E+00	15.66	
PO-214	1600.00Y	1.00	1.757E+00	1.757E+00	0.275E+00	15.66	
PO-216	1.41E+10Y	1.00	2.150E+00	2.150E+00	0.308E+00	14.34	
PO-218	1600.00Y	1.00	1.757E+00	1.757E+00	0.275E+00	15.66	
RA-224	1.41E+10Y	1.00	6.062E+00	6.062E+00	1.684E+00	27.77	
RA-226	1600.00Y	1.00	1.271E+00	1.271E+00	0.217E+00	17.11	
AC-228	1.41E+10Y	1.00	2.023E+00	2.023E+00	0.380E+00	18.76	
RA-228	1.41E+10Y	1.00	2.023E+00	2.023E+00	0.380E+00	18.76	
TH-228	1.91Y	1.02	2.150E+00	2.189E+00	0.314E+00	14.34	
TH-230	4.47E+09Y	1.00	1.271E+00	1.271E+00	0.217E+00	17.11	
TH-232	1.41E+10Y	1.00	2.023E+00	2.023E+00	0.380E+00	18.76	
TH-234	4.47E+09Y	1.00	3.038E+00	3.038E+00	2.017E+00	66.38	
U-234	4.47E+09Y	1.00	1.271E+00	1.271E+00	0.217E+00	17.11	
NP-237	2.14E+06Y	1.00	1.247E+00	1.247E+00	0.434E+00	34.77	
U-238	4.47E+09Y	1.00	3.038E+00	3.038E+00	2.017E+00	66.38	
AM-243	7380.00Y	1.00	4.029E-01	4.029E-01	0.849E-01	21.07	
ANH-511	1.00E+09Y	1.00	1.656E-01	1.656E-01	0.658E-01	39.70	
	Total Activity :		7.884E+01	7.902E+01			

Grand Total Activity : 7.884E+01 7.902E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978009 Acquisition date : 14-FEB-2010 12:01:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
5	89.97	217	499	1.24	180.14	171	21	3.01E-02	37.0	7.68E+00	T
0	128.68	156	618	1.79	257.48	252	11	2.17E-02	63.8	8.53E+00	T
0	185.91	199	490	1.31	371.84	368	9	2.77E-02	44.8	7.61E+00	T
0	209.12	137	451	1.07	418.20	415	9	1.91E-02	58.1	7.19E+00	T
0	270.15	213	278	1.98	540.16	534	11	2.96E-02	33.9	6.27E+00	T
0	328.65	173	290	1.50	657.06	651	14	2.41E-02	44.6	5.62E+00	T
0	463.14	94	148	1.67	925.86	921	9	1.31E-02	50.9	4.58E+00	T
0	727.50	141	129	1.68	1454.27	1446	14	1.95E-02	38.8	3.34E+00	T
0	795.18	76	76	1.68	1589.57	1584	11	1.05E-02	50.5	3.12E+00	T
0	934.35	42	81	1.45	1867.80	1863	13	5.80E-03	96.8	2.73E+00	T
4	964.94	64	126	2.59	1928.96	1920	27	8.90E-03	85.9	2.66E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:02:42.51

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978009.CNF;1    *
* Acquisition date : 14-FEB-2010 12:01:43  Detector SN#    :                  *
* Detector ID      : GAM22                 Sensitivity     : 5.00000          *
* Geometry         : CAN                   Energy tolerance: 1.50000          *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000         *
* Elapsed real time: 0 02:00:02.17         Half life ratio : 8.00000          *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID            *
* Sample ID        : G245978009            Analyst initials: MXR1             *
* Batch Number     : 948721                Sample Quantity : 1.11440E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 2-DEC-2009 16:47:28.08MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.918E+01	3.095E+00	4.533E-01	4.153E-02	64.373
CD-109	4.340E+00	1.215E+00	1.289E+00	1.224E-01	3.366
SN-126	4.248E-01	1.189E-01	1.267E-01	1.196E-02	3.353
BA-137M	1.340E-01	7.964E-02	5.982E-02	6.308E-03	2.241
CS-137	1.417E-01	8.419E-02	6.323E-02	6.676E-03	2.241
HG-203	9.427E-02	6.199E-02	6.718E-02	9.508E-03	1.403
TL-208	6.331E-01	1.142E-01	6.061E-02	6.573E-03	10.445
BI-211	5.050E+00	7.456E-01	3.217E-01	3.753E-02	15.700
PB-212	2.150E+00	3.084E-01	9.442E-02	1.247E-02	22.773
PO-212	2.150E+00	3.084E-01	9.442E-02	1.247E-02	22.773
BI-214	1.271E+00	2.175E-01	1.119E-01	1.301E-02	11.359
PB-214	1.757E+00	2.751E-01	1.124E-01	1.432E-02	15.635
PO-214	1.757E+00	2.751E-01	1.124E-01	1.432E-02	15.635
PO-216	2.150E+00	3.084E-01	9.442E-02	1.247E-02	22.773
PO-218	1.757E+00	2.751E-01	1.124E-01	1.432E-02	15.635
RA-224	6.062E+00	1.684E+00	1.073E+00	1.344E-01	5.648
RA-226	1.271E+00	2.175E-01	1.119E-01	1.301E-02	11.359
AC-228	2.023E+00	3.795E-01	2.067E-01	2.739E-02	9.783

Sample ID : G245978009 Acquisition date : 14-FEB-2010 12:01:43

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	2.023E+00	3.795E-01	2.067E-01	2.739E-02	9.783
TH-228	2.189E+00	3.140E-01	9.612E-02	1.270E-02	22.773
TH-230	1.271E+00	2.175E-01	1.119E-01	1.301E-02	11.359
TH-232	2.023E+00	3.795E-01	2.067E-01	2.739E-02	9.783
TH-234	3.038E+00	2.017E+00	1.978E+00	3.443E-01	1.536
U-234	1.271E+00	2.175E-01	1.119E-01	1.301E-02	11.359
NP-237	1.247E+00	4.338E-01	4.180E-01	9.464E-02	2.984
U-238	3.038E+00	2.017E+00	1.978E+00	3.443E-01	1.536
AM-243	4.029E-01	8.489E-02	9.368E-02	7.636E-03	4.301
ANH-511	1.656E-01	6.576E-02	4.419E-02	4.427E-03	3.749

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.751E-01		3.396E-01	5.639E-01	5.886E-02	0.310
NA-22	-4.286E-02		4.502E-02	6.910E-02	5.955E-03	-0.620
NA-24	-9.971E+00		1.001E+01	Half-Life too short		
AL-26	1.519E-04		2.752E-02	4.529E-02	3.704E-03	0.003
TI-44	4.208E-01	+	6.149E-02	7.892E-02	6.691E-03	5.332
SC-46	4.470E-03		4.054E-02	6.773E-02	7.581E-03	0.066
V-48	-4.344E-02		7.691E-02	1.207E-01	1.266E-02	-0.360
CR-51	-3.626E-01		4.097E-01	6.542E-01	8.471E-02	-0.554
MN-52	1.675E-01		3.147E-01	5.423E-01	4.846E-02	0.309
MN-54	1.605E-02		3.861E-02	6.587E-02	7.317E-03	0.244
CO-56	1.763E-02		3.957E-02	6.771E-02	7.538E-03	0.260
CO-57	-1.721E-02		2.836E-02	4.381E-02	3.613E-03	-0.393
CO-58	-5.467E-03		3.915E-02	6.492E-02	7.189E-03	-0.084
FE-59	-3.190E-03		9.437E-02	1.529E-01	1.499E-02	-0.021
CO-60	8.583E-04		3.968E-02	6.550E-02	5.841E-03	0.013
ZN-65	7.855E-02		1.065E-01	1.572E-01	1.403E-02	0.500
GE-68	9.955E-01		1.241E+00	2.131E+00	2.009E-01	0.467
AS-73	-9.985E-02		8.152E-01	1.317E+00	9.954E-02	-0.076
AS-74	-4.366E-02		1.067E-01	1.728E-01	1.791E-02	-0.253
SE-75	4.578E-02		5.287E-02	7.774E-02	1.046E-02	0.589
BR-77	-1.365E+01		2.412E+01	3.919E+01	3.944E+00	-0.348
SR-82	-2.069E-03		4.557E-01	7.365E-01	8.077E-02	-0.003
RB-83	-4.651E-02		7.003E-02	1.131E-01	1.138E-02	-0.411
RB-84	4.963E-02		7.347E-02	1.270E-01	1.420E-02	0.391
KR-85	2.695E+01		9.084E+00	1.456E+01	1.461E+00	1.851
SR-85	1.425E-01		4.801E-02	7.697E-02	7.724E-03	1.851
RB-86	4.375E-01		8.729E-01	1.471E+00	1.388E-01	0.297
Y-88	-1.854E-02		3.133E-02	4.676E-02	3.781E-03	-0.396
ZR-88	1.805E-02		3.222E-02	5.435E-02	5.060E-03	0.332
Y-91	-5.339E+00		2.011E+01	3.294E+01	2.708E+00	-0.162
NB-94	1.729E-02		3.317E-02	5.576E-02	5.975E-03	0.310
NB-95	8.104E-02		4.763E-02	8.302E-02	9.078E-03	0.976
NB-95M	3.223E-01		1.582E-01	2.395E-01	3.166E-02	1.346

Sample ID : G245978009 Acquisition date : 14-FEB-2010 12:01:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-95	8.133E-02		7.360E-02	1.267E-01	1.471E-02	0.642
NB-97	3.206E-01		9.952E-01	Half-Life too short		
ZR-97	1.135E+02		2.063E+01	Half-Life too short		
MO-99	2.191E+01		2.408E+01	4.096E+01	6.780E+00	0.535
TC-99M	-8.519E+13		6.034E+13	Half-Life too short		
RH-101	-1.491E-02		3.692E-02	5.817E-02	6.346E-03	-0.256
RH-102	8.203E-03		3.003E-02	4.927E-02	4.845E-03	0.167
RU-103	-4.674E-03		4.444E-02	7.110E-02	1.067E-02	-0.066
RH-106	5.874E-02		3.272E-01	5.455E-01	7.966E-02	0.108
RU-106	5.874E-02		3.271E-01	5.455E-01	5.698E-02	0.108
AG-108M	-5.243E-04		3.362E-02	5.476E-02	5.420E-03	-0.010
AG-110M	3.347E-03		4.190E-02	5.948E-02	6.392E-03	0.056
IN-111	8.110E-01		2.625E+00	3.774E+00	4.788E-01	0.215
IN-113M	1.097E-03		4.685E-02	7.715E-02	7.368E-03	0.014
SN-113	1.097E-03		4.685E-02	7.715E-02	7.368E-03	0.014
IN-114M	1.532E-01		2.296E-01	3.428E-01	3.645E-02	0.447
CD-115	-1.018E-05		1.366E-05	Half-Life too short		
SN-117M	-5.229E-02		6.801E-02	1.106E-01	1.048E-02	-0.473
SB-122	3.141E-01		4.321E+00	7.226E+00	7.406E-01	0.043
I-123	-3.176E+01		1.177E+02	Half-Life too short		
TE-123M	-4.128E-03		3.061E-02	5.097E-02	4.867E-03	-0.081
I-124	-3.743E-01		1.322E+00	1.842E+00	1.913E-01	-0.203
SB-124	3.889E-02		8.059E-02	1.406E-01	1.251E-02	0.277
SB-125	1.295E-02		9.523E-02	1.565E-01	1.519E-02	0.083
TE-125M	-1.104E+00		1.039E+01	1.654E+01	1.676E+00	-0.067
I-126	1.518E-01		2.436E-01	3.604E-01	3.808E-02	0.421
SB-126	3.374E-02		2.096E-01	2.963E-01	3.195E-02	0.114
SB-127	3.093E-01		2.291E+00	3.779E+00	5.203E-01	0.082
XE-127	3.487E-02		5.463E-02	9.150E-02	1.014E-02	0.381
I-131	-4.351E-02		1.438E-01	2.342E-01	2.599E-02	-0.186
TE-132	1.063E+00		1.412E+00	2.341E+00	4.287E-01	0.454
BA-133	1.647E-02		4.655E-02	6.861E-02	1.025E-02	0.240
I-133	-1.960E-02		3.075E-02	Half-Life too short		
CS-134	1.080E-01	+	5.584E-02	8.646E-02	9.570E-03	1.249
CS-135	2.690E-01		2.053E-01	2.984E-01	4.317E-02	0.902
I-135	-6.431E+12		3.888E+12	Half-Life too short		
CS-136	3.219E-02		1.285E-01	2.134E-01	2.159E-02	0.151
CE-139	2.088E-02		3.239E-02	5.507E-02	5.401E-03	0.379
BA-140	-2.605E-01		3.189E-01	4.899E-01	1.644E-01	-0.532
LA-140	-1.146E-01		1.109E-01	1.660E-01	1.455E-02	-0.690
CE-141	2.652E-02		7.027E-02	1.196E-01	1.089E-02	0.222
CE-143	4.305E-03		6.807E-04	Half-Life too short		
CE-144	-1.298E-01		2.369E-01	3.439E-01	5.339E-02	-0.377
PM-144	-2.072E-02		3.418E-02	5.362E-02	5.735E-03	-0.386
PR-144	-1.406E+00		2.320E+00	3.639E+00	3.891E-01	-0.386
PM-146	1.967E-02		4.598E-02	7.623E-02	8.858E-03	0.258
ND-147	5.365E-02		6.732E-01	1.132E+00	1.795E-01	0.047
PM-149	-4.669E-05		1.198E-04	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-1.029E-02		1.194E-01	1.617E-01	1.943E-02	-0.064
GD-153	-1.225E-02		9.104E-02	1.298E-01	1.141E-02	-0.094
EU-154	-1.212E-01		1.258E-01	1.923E-01	2.174E-02	-0.630
EU-155	2.278E-01		1.213E-01	2.047E-01	1.757E-02	1.113
TB-160	9.669E-02		1.422E-01	2.459E-01	2.749E-02	0.393
HO-166M	-1.241E-02		6.099E-02	9.816E-02	1.055E-02	-0.126
TM-171	-1.741E+01		3.029E+01	4.305E+01	3.253E+00	-0.405
LU-176	3.147E-03		2.853E-02	4.387E-02	5.756E-03	0.072
LU-177	3.773E+00	+	2.233E+00	2.953E+00	3.334E-01	1.278
LU-177M	-2.726E-01		2.035E-01	3.095E-01	2.927E-02	-0.881
HF-181	-5.033E-02		4.585E-02	6.873E-02	6.785E-03	-0.732
W-181	-1.574E-01		3.991E-01	5.731E-01	4.273E-02	-0.275
TA-182	3.336E-02		2.031E-01	3.408E-01	2.834E-02	0.098
RE-183	4.665E-02		1.215E-01	2.054E-01	1.982E-02	0.227
RE-184	-2.329E-01		2.549E-01	3.916E-01	5.082E-02	-0.595
OS-185	-6.280E-03		4.474E-02	7.300E-02	7.672E-03	-0.086
RE-188	2.800E-01		1.917E-01	3.330E-01	3.108E-02	0.841
W-188	3.162E+00		8.524E+00	1.278E+01	1.746E+00	0.247
IR-192	3.246E-02		3.672E-02	6.338E-02	8.100E-03	0.512
AU-195	1.182E-01		2.361E-01	3.867E-01	3.372E-02	0.306
TL-200	-4.038E-03		1.493E-03	Half-Life too short		
TL-201	-3.498E+00		1.457E+01	2.407E+01	2.373E+00	-0.145
TL-202	-1.662E-02		8.154E-02	1.312E-01	1.263E-02	-0.127
BI-207	3.665E-02		5.489E-02	9.334E-02	8.961E-03	0.393
TL-207	3.615E-01		7.501E-01	1.118E+00	2.223E-01	0.323
PO-209	2.171E+00		7.230E+00	1.222E+01	1.369E+00	0.178
BI-210	-9.382E-01		3.236E+00	5.265E+00	4.891E-01	-0.178
PB-210	-9.382E-01		3.236E+00	5.265E+00	4.891E-01	-0.178
PO-210	-9.382E-01		3.236E+00	5.265E+00	4.427E-01	-0.178
PB-211	-5.783E-01		1.062E+00	1.591E+00	9.986E-01	-0.364
BI-212	1.202E+00	+	4.883E-01	6.383E-01	7.624E-02	1.883
PO-215	3.615E-01		7.501E-01	1.118E+00	2.223E-01	0.323
RN-219	1.430E-01		4.154E-01	6.925E-01	1.071E-01	0.207
RN-220	-2.346E+01		2.539E+01	3.997E+01	4.074E+00	-0.587
RA-223	3.615E-01		7.501E-01	1.118E+00	2.223E-01	0.323
AC-227	2.863E-01		4.147E-01	6.829E-01	1.246E-01	0.419
TH-227	2.863E-01		4.156E-01	6.829E-01	1.406E-01	0.419
TH-229	-1.269E-01		5.488E-01	8.969E-01	9.643E-02	-0.142
PA-231	-1.291E-01		1.733E+00	2.541E+00	4.745E-01	-0.051
TH-231	3.615E-01		7.501E-01	1.118E+00	2.223E-01	0.323
U-231	-5.216E-01		1.916E+00	2.717E+00	2.412E-01	-0.192
PA-233	-5.007E-02		6.807E-02	1.101E-01	1.442E-02	-0.455
PA-234	-8.793E-02		3.041E-01	4.906E-01	9.752E-02	-0.179
PA-234M	-1.748E+00		4.800E+00	7.408E+00	8.490E-01	-0.236
U-235	-1.780E-02		2.276E-01	3.724E-01	6.569E-02	-0.048
NP-236	1.080E-02		8.501E-02	1.427E-01	1.364E-02	0.076
NP-239	-1.654E-01		2.119E-01	3.261E-01	2.695E-02	-0.507
AM-241	8.588E-02		1.574E-01	2.403E-01	1.878E-02	0.357

Sample ID : G245978009 Acquisition date : 14-FEB-2010 12:01:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.835E-02		1.065E-01	1.724E-01	1.470E-02	0.164
AM-246	5.112E-02		1.384E-01	2.312E-01	2.175E-02	0.221
CM-247	1.757E-02		3.812E-02	6.390E-02	5.995E-03	0.275
CF-249	1.767E-02		4.038E-02	6.784E-02	6.448E-03	0.260
CF-251	9.890E-02		1.360E-01	2.307E-01	2.344E-02	0.429

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978009           *
* Acquisition date  : 14-FEB-2010 12:01:43 Detector SN#     :               *
* Detector ID       : GAM22                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:02.17      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978009           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.1144E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-DEC-2009 16:47:28 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.918E+01	3.033E+00	2.256E-01	1.548E+00
CD-109	4.340E+00	1.191E+00	6.562E-01	6.074E-01
SN-126	4.248E-01	1.165E-01	6.448E-02	5.945E-02
BA-137M	1.340E-01	7.804E-02	2.996E-02	3.982E-02
CS-137	1.417E-01	8.250E-02	3.167E-02	4.209E-02
HG-203	9.427E-02	6.075E-02	3.388E-02	3.099E-02
TL-208	6.331E-01	1.120E-01	3.039E-02	5.712E-02
BI-211	5.050E+00	7.307E-01	1.619E-01	3.728E-01
PB-212	2.150E+00	3.022E-01	4.768E-02	1.542E-01
PO-212	2.150E+00	3.022E-01	4.768E-02	1.542E-01
BI-214	1.271E+00	2.131E-01	5.609E-02	1.087E-01
PB-214	1.757E+00	2.696E-01	5.656E-02	1.375E-01
PO-214	1.757E+00	2.696E-01	5.656E-02	1.375E-01
PO-216	2.150E+00	3.022E-01	4.768E-02	1.542E-01
PO-218	1.757E+00	2.696E-01	5.656E-02	1.375E-01
RA-224	6.062E+00	1.650E+00	5.420E-01	8.418E-01
RA-226	1.271E+00	2.131E-01	5.609E-02	1.087E-01
AC-228	2.023E+00	3.719E-01	1.033E-01	1.898E-01
RA-228	2.023E+00	3.719E-01	1.033E-01	1.898E-01
TH-228	2.189E+00	3.077E-01	4.854E-02	1.570E-01
TH-230	1.271E+00	2.131E-01	5.609E-02	1.087E-01
TH-232	2.023E+00	3.719E-01	1.033E-01	1.898E-01
TH-234	3.038E+00	1.976E+00	1.009E+00	1.008E+00
U-234	1.271E+00	2.131E-01	5.609E-02	1.087E-01
NP-237	1.247E+00	4.251E-01	2.127E-01	2.169E-01
U-238	3.038E+00	1.976E+00	1.009E+00	1.008E+00
AM-243	4.029E-01	8.319E-02	4.773E-02	4.244E-02
ANH-511	1.656E-01	6.444E-02	2.218E-02	3.288E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	1.751E-01	3.328E-01	2.832E-01	1.698E-01	NOT IDENT.
NA-22	-4.286E-02	4.412E-02	3.443E-02	2.251E-02	NOT IDENT.
NA-24	-9.971E+06	1.961E+07	0.000E+00	1.001E+07	SHORT HLIF
AL-26	1.519E-04	2.696E-02	2.250E-02	1.376E-02	NOT IDENT.
TI-44	4.208E-01	6.026E-02	4.020E-02	3.075E-02	FAIL ABUN
SC-46	4.470E-03	3.973E-02	3.384E-02	2.027E-02	FAIL ABUN
V-48	-4.344E-02	7.537E-02	6.029E-02	3.845E-02	NOT IDENT.
CR-51	-3.626E-01	4.015E-01	3.296E-01	2.048E-01	NOT IDENT.
MN-52	1.675E-01	3.084E-01	2.700E-01	1.573E-01	FAIL ABUN
MN-54	1.605E-02	3.784E-02	3.293E-02	1.930E-02	NOT IDENT.
CO-56	1.763E-02	3.878E-02	3.385E-02	1.979E-02	NOT IDENT.
CO-57	-1.721E-02	2.779E-02	2.224E-02	1.418E-02	NOT IDENT.
CO-58	-5.467E-03	3.837E-02	3.247E-02	1.958E-02	NOT IDENT.
FE-59	-3.190E-03	9.248E-02	7.628E-02	4.718E-02	NOT IDENT.
CO-60	8.583E-04	3.889E-02	3.263E-02	1.984E-02	NOT IDENT.
ZN-65	7.855E-02	1.044E-01	7.843E-02	5.325E-02	NOT IDENT.
GE-68	9.955E-01	1.216E+00	1.063E+00	6.204E-01	NOT IDENT.
AS-73	-9.985E-02	7.989E-01	6.730E-01	4.076E-01	NOT IDENT.
AS-74	-4.366E-02	1.045E-01	8.662E-02	5.334E-02	NOT IDENT.
SE-75	4.578E-02	5.181E-02	3.922E-02	2.643E-02	NOT IDENT.
BR-77	-1.365E+01	2.364E+01	1.967E+01	1.206E+01	FAIL ABUN
SR-82	-2.069E-03	4.466E-01	3.684E-01	2.278E-01	NOT IDENT.
RB-83	-4.651E-02	6.863E-02	5.674E-02	3.502E-02	NOT IDENT.
RB-84	4.963E-02	7.200E-02	6.347E-02	3.674E-02	NOT IDENT.
KR-85	2.695E+01	8.903E+00	7.310E+00	4.542E+00	NOT IDENT.
SR-85	1.425E-01	4.705E-02	3.863E-02	2.401E-02	NOT IDENT.
RB-86	4.375E-01	8.554E-01	7.339E-01	4.364E-01	NOT IDENT.
Y-88	-1.854E-02	3.070E-02	2.323E-02	1.566E-02	NOT IDENT.
ZR-88	1.805E-02	3.157E-02	2.734E-02	1.611E-02	NOT IDENT.
Y-91	-5.339E+00	1.971E+01	1.642E+01	1.006E+01	NOT IDENT.
NB-94	1.729E-02	3.251E-02	2.792E-02	1.659E-02	NOT IDENT.
NB-95	8.104E-02	4.667E-02	4.154E-02	2.381E-02	NOT IDENT.
NB-95M	3.223E-01	1.551E-01	1.210E-01	7.911E-02	NOT IDENT.
ZR-95	8.133E-02	7.212E-02	6.341E-02	3.680E-02	NOT IDENT.
NB-97	3.206E+05	1.951E+06	0.000E+00	9.952E+05	SHORT HLIF
ZR-97	1.135E+08	4.043E+07	0.000E+00	2.063E+07	SHORT HLIF
MO-99	2.191E+01	2.360E+01	2.050E+01	1.204E+01	NOT IDENT.
TC-99M	-8.519E+19	1.183E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.491E-02	3.618E-02	2.942E-02	1.846E-02	FAIL ABUN
RH-102	8.203E-03	2.942E-02	2.474E-02	1.501E-02	NOT IDENT.
RU-103	-4.674E-03	4.355E-02	3.569E-02	2.222E-02	FAIL ABUN
RH-106	5.874E-02	3.206E-01	2.734E-01	1.636E-01	FAIL ABUN
RU-106	5.874E-02	3.206E-01	2.734E-01	1.636E-01	FAIL ABUN
AG-108M	-5.243E-04	3.295E-02	2.752E-02	1.681E-02	NOT IDENT.
AG-110M	3.347E-03	4.107E-02	2.979E-02	2.095E-02	NOT IDENT.
IN-111	8.110E-01	2.572E+00	1.905E+00	1.312E+00	NOT IDENT.
IN-113M	1.097E-03	4.591E-02	3.881E-02	2.343E-02	NOT IDENT.
SN-113	1.097E-03	4.591E-02	3.881E-02	2.343E-02	NOT IDENT.
IN-114M	1.532E-01	2.251E-01	1.734E-01	1.148E-01	NOT IDENT.
CD-115	-1.018E+01	2.676E+01	0.000E+00	1.366E+01	SHORT HLIF
SN-117M	-5.229E-02	6.665E-02	5.600E-02	3.400E-02	NOT IDENT.
SB-122	3.141E-01	4.234E+00	3.624E+00	2.160E+00	NOT IDENT.
I-123	-3.176E+07	2.308E+08	0.000E+00	1.177E+08	SHORT HLIF
TE-123M	-4.128E-03	3.000E-02	2.582E-02	1.530E-02	NOT IDENT.
I-124	-3.743E-01	1.295E+00	9.232E-01	6.609E-01	NOT IDENT.
SB-124	3.889E-02	7.898E-02	6.992E-02	4.029E-02	FAIL ABUN
SB-125	1.295E-02	9.332E-02	7.867E-02	4.761E-02	FAIL ABUN
TE-125M	-1.104E+00	1.018E+01	8.404E+00	5.196E+00	NOT IDENT.
I-126	1.518E-01	2.387E-01	1.805E-01	1.218E-01	NOT IDENT.
SB-126	3.374E-02	2.054E-01	1.483E-01	1.048E-01	FAIL ABUN
SB-127	3.093E-01	2.245E+00	1.893E+00	1.145E+00	NOT IDENT.
XE-127	3.487E-02	5.353E-02	4.626E-02	2.731E-02	NOT IDENT.
I-131	-4.351E-02	1.409E-01	1.179E-01	7.189E-02	NOT IDENT.
TE-132	1.063E+00	1.383E+00	1.182E+00	7.058E-01	NOT IDENT.
BA-133	1.647E-02	4.562E-02	3.454E-02	2.327E-02	FAIL ABUN
I-133	-1.960E+04	6.028E+04	0.000E+00	3.075E+04	SHORT HLIF
CS-134	1.080E-01	5.473E-02	4.325E-02	2.792E-02	FAIL ABUN
CS-135	2.690E-01	2.012E-01	1.506E-01	1.027E-01	NOT IDENT.
I-135	-6.431E+18	7.620E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	3.219E-02	1.260E-01	1.065E-01	6.426E-02	FAIL ABUN
CE-139	2.088E-02	3.174E-02	2.789E-02	1.620E-02	NOT IDENT.
BA-140	-2.605E-01	3.126E-01	2.458E-01	1.595E-01	NOT IDENT.
LA-140	-1.146E-01	1.087E-01	8.257E-02	5.544E-02	FAIL ABUN
CE-141	2.652E-02	6.886E-02	6.064E-02	3.513E-02	NOT IDENT.
CE-143	4.305E+03	1.334E+03	0.000E+00	6.807E+02	SHORT HLIF
CE-144	-1.298E-01	2.321E-01	1.745E-01	1.184E-01	NOT IDENT.
PM-144	-2.072E-02	3.350E-02	2.685E-02	1.709E-02	NOT IDENT.

PR-144	-1.406E+00	2.273E+00	1.822E+00	1.160E+00	NOT IDENT.
PM-146	1.967E-02	4.506E-02	3.830E-02	2.299E-02	NOT IDENT.
ND-147	5.365E-02	6.597E-01	5.681E-01	3.366E-01	FAIL ABUN
PM-149	-4.669E+01	2.347E+02	0.000E+00	1.198E+02	SHORT HLIF
EU-152	-1.029E-02	1.170E-01	8.140E-02	5.969E-02	FAIL ABUN
GD-153	-1.225E-02	8.922E-02	6.600E-02	4.552E-02	NOT IDENT.
EU-154	-1.212E-01	1.232E-01	9.583E-02	6.288E-02	NOT IDENT.
EU-155	2.278E-01	1.189E-01	1.040E-01	6.067E-02	FAIL ABUN
TB-160	9.669E-02	1.394E-01	1.229E-01	7.111E-02	FAIL ABUN
HO-166M	-1.241E-02	5.977E-02	4.914E-02	3.050E-02	NOT IDENT.
TM-171	-1.741E+01	2.969E+01	2.195E+01	1.515E+01	NOT IDENT.
LU-176	3.147E-03	2.795E-02	2.211E-02	1.426E-02	FAIL ABUN
LU-177	3.773E+00	2.188E+00	1.493E+00	1.116E+00	FAIL ABUN
LU-177M	-2.726E-01	1.995E-01	1.556E-01	1.018E-01	FAIL ABUN
HF-181	-5.033E-02	4.493E-02	3.452E-02	2.292E-02	NOT IDENT.
W-181	-1.574E-01	3.911E-01	2.923E-01	1.996E-01	NOT IDENT.
TA-182	3.336E-02	1.990E-01	1.699E-01	1.015E-01	FAIL ABUN
RE-183	4.665E-02	1.191E-01	1.040E-01	6.077E-02	FAIL ABUN
RE-184	-2.329E-01	2.498E-01	1.977E-01	1.274E-01	NOT IDENT.
OS-185	-6.280E-03	4.384E-02	3.657E-02	2.237E-02	NOT IDENT.
RE-188	2.800E-01	1.879E-01	1.687E-01	9.586E-02	NOT IDENT.
W-188	3.162E+00	8.354E+00	6.446E+00	4.262E+00	FAIL ABUN
IR-192	3.246E-02	3.599E-02	3.193E-02	1.836E-02	FAIL ABUN
AU-195	1.182E-01	2.313E-01	1.966E-01	1.180E-01	FAIL ABUN
TL-200	-4.038E+03	2.927E+03	0.000E+00	1.493E+03	SHORT HLIF
TL-201	-3.498E+00	1.428E+01	1.219E+01	7.283E+00	NOT IDENT.
TL-202	-1.662E-02	7.990E-02	6.594E-02	4.077E-02	NOT IDENT.
BI-207	3.665E-02	5.379E-02	4.658E-02	2.745E-02	FAIL ABUN
TL-207	3.615E-01	7.351E-01	5.634E-01	3.751E-01	FAIL ABUN
PO-209	2.171E+00	7.086E+00	6.106E+00	3.615E+00	NOT IDENT.
BI-210	-9.382E-01	3.172E+00	2.692E+00	1.618E+00	NOT IDENT.
PB-210	-9.382E-01	3.172E+00	2.692E+00	1.618E+00	NOT IDENT.
PO-210	-9.382E-01	3.171E+00	2.692E+00	1.618E+00	NOT IDENT.
PB-211	-5.783E-01	1.040E+00	7.999E-01	5.308E-01	NOT IDENT.
BI-212	1.202E+00	4.785E-01	3.195E-01	2.442E-01	FAIL ABUN
PO-215	3.615E-01	7.351E-01	5.634E-01	3.751E-01	FAIL ABUN
RN-219	1.430E-01	4.071E-01	3.483E-01	2.077E-01	FAIL ABUN
RN-220	-2.346E+01	2.488E+01	2.005E+01	1.269E+01	NOT IDENT.
RA-223	3.615E-01	7.351E-01	5.634E-01	3.751E-01	FAIL ABUN
AC-227	2.863E-01	4.064E-01	3.446E-01	2.074E-01	FAIL ABUN
TH-227	2.863E-01	4.073E-01	3.446E-01	2.078E-01	FAIL ABUN
TH-229	-1.269E-01	5.378E-01	4.536E-01	2.744E-01	FAIL ABUN
PA-231	-1.291E-01	1.698E+00	1.281E+00	8.663E-01	FAIL ABUN
TH-231	3.615E-01	7.351E-01	5.634E-01	3.751E-01	FAIL ABUN
U-231	-5.216E-01	1.878E+00	1.381E+00	9.582E-01	FAIL ABUN
PA-233	-5.007E-02	6.671E-02	5.547E-02	3.403E-02	FAIL ABUN
PA-234	-8.793E-02	2.980E-01	2.451E-01	1.520E-01	FAIL ABUN
PA-234M	-1.748E+00	4.704E+00	3.699E+00	2.400E+00	NOT IDENT.
U-235	-1.780E-02	2.230E-01	1.888E-01	1.138E-01	FAIL ABUN
NP-236	1.080E-02	8.331E-02	7.229E-02	4.251E-02	NOT IDENT.
NP-239	-1.654E-01	2.077E-01	1.656E-01	1.060E-01	FAIL ABUN
AM-241	8.588E-02	1.542E-01	1.226E-01	7.869E-02	NOT IDENT.
CM-243	2.835E-02	1.043E-01	8.761E-02	5.323E-02	FAIL ABUN
AM-246	5.112E-02	1.356E-01	1.154E-01	6.918E-02	NOT IDENT.
CM-247	1.757E-02	3.736E-02	3.214E-02	1.906E-02	FAIL ABUN
CF-249	1.767E-02	3.958E-02	3.413E-02	2.019E-02	NOT IDENT.
CF-251	9.890E-02	1.333E-01	1.168E-01	6.799E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	313.4010
46.50	313.4010
46.50	313.4010
48.70	327.5933
49.72	327.2899
51.35	325.0711
52.39	333.0539
52.97	335.7549
53.15	329.5010
53.44	328.0485
54.07	329.8692
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56.28	374.4470
57.37	0.0000
57.53	398.1795
57.53	398.1827
57.60	396.3971
57.98	363.7670
57.98	363.7670
59.32	368.1179
59.32	368.1179
59.40	368.2346
59.54	368.4395
59.72	337.1411
60.01	337.5283
61.10	376.4789
61.14	376.5371
61.30	376.7715
63.00	432.0393
63.29	432.5168
63.29	432.5168
63.58	432.9920
64.28	455.5507
65.12	473.0946
65.20	454.1891
65.20	454.1891
66.05	452.6781
66.72	456.7363
66.83	456.9208
66.91	457.0556
67.20	448.6825
67.20	448.6825
67.75	504.2935
67.85	504.4769
68.90	509.8450
68.90	509.8450
69.30	494.9064
69.67	503.3021
70.82	482.9105
70.82	482.9105
70.83	482.9278
72.80	535.9040
72.87	536.0344
72.87	536.0344
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74.81	589.0759
74.81	589.0759
74.81	589.0759
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74.81	589.0759
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75.70	590.8284
77.11	593.5831
77.11	593.5831

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77.11	593.5831
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77.11	593.5831
77.11	593.5831
78.38	596.0443
79.62	598.4284
79.80	598.7723
79.80	598.7723
80.11	599.3654
80.18	599.4988
80.30	599.7272
80.30	599.7272
80.57	600.2402
81.00	601.0586
81.07	601.1920
81.07	601.1920
81.07	601.1920
81.07	601.1920
82.60	534.6577
83.37	529.6988
83.78	536.6129
83.78	536.6129
83.78	536.6129
83.78	536.6129
84.21	537.3242
84.90	450.8020
85.43	539.3267
86.29	622.4661
86.50	622.8589
86.54	622.9344
86.59	623.0281
86.72	623.2728
86.79	503.7573
86.94	503.9868
87.30	504.5288
87.30	504.5288
87.30	504.5288
87.30	504.5288
87.30	504.5288
87.30	504.5288
87.30	504.5288
87.57	504.9341
87.88	505.4004
88.03	505.6250
88.36	506.1182
88.47	506.2842
89.95	508.4863
91.11	510.2026
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92.38	512.0679
92.38	512.0679
93.35	513.4814
94.00	514.4263
94.67	378.4900
94.67	378.4954
94.90	378.7392
94.90	378.7392
94.90	378.7392
94.90	378.7392
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95.87	412.0851
96.73	422.7888
97.43	407.3714
98.44	367.1577
98.44	367.1594
98.88	392.1483
99.55	395.0372
99.55	395.0372
99.86	399.7225
100.00	399.8737
100.10	384.7274
103.18	480.1826
103.76	428.0904
105.00	400.7682
105.31	390.0401
108.00	487.3031
109.28	421.9085

111.00	419.2396
111.00	419.2396
111.76	422.2752
112.95	431.3971
115.19	369.1974
116.30	431.5028
117.00	436.7734
117.00	436.7734
117.66	432.9021
121.11	368.6582
121.62	401.2893
121.78	401.4366
122.06	417.8097
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122.32	418.0589
122.32	418.0589
122.32	418.0589
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131.20	356.6676
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136.48	381.4030
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143.76	419.7531
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144.24	406.5774
144.24	406.5774
144.24	406.5774
145.22	403.7532
145.44	418.4565
147.16	448.1310
152.43	427.0172
152.70	419.8740
153.22	403.7044
154.21	388.7743
154.21	388.7743
154.21	388.7743
154.21	388.7743
155.03	389.3845
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163.35	424.6087
163.89	422.2050
165.85	387.8524
167.43	417.3505
171.28	393.5367
171.86	393.9368
172.10	394.1038
176.55	371.1987
176.60	371.2311
181.06	441.8926
184.41	403.8370
185.71	435.5673
186.00	435.7783
190.27	371.5272
192.34	404.7543
193.63	397.6786
197.04	398.8401
198.01	390.4807
198.60	396.8218
200.40	415.9365
201.83	399.8250
202.84	387.3989
205.31	385.2387

208.36	391.8793
208.81	382.4226
209.75	375.2534
209.75	375.2534
210.97	362.5247
215.65	364.8034
216.55	373.9167
218.09	378.8618
222.10	327.3561
223.80	380.9431
226.40	354.2917
227.00	337.9532
227.08	337.9904
227.20	340.1277
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228.18	337.4695
228.18	337.4695
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236.00	328.4912
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238.63	325.4336
238.63	325.4336
238.63	325.4336
239.00	325.5957
240.98	326.4604
241.98	326.8975
241.98	326.8975
241.98	326.8975
244.69	296.5434
245.39	307.0525
247.94	289.7427
248.90	284.9020
249.79	306.6767
252.40	309.8650
252.85	316.5022
252.85	316.5022
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256.20	280.0198
256.20	280.0198
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260.90	0.0000
262.80	300.2624
264.65	241.2608
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268.79	282.9056
269.46	279.1806
269.46	279.1806
269.46	279.1806
269.46	279.1806
271.23	292.9994
273.65	278.3897
276.40	279.3087
277.35	296.4902
277.60	283.0346
277.60	283.0346
278.00	283.1708
278.60	243.5897
279.20	243.7637
279.53	243.8573
280.46	236.9972
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283.67	254.8823
284.30	271.0520
285.00	273.1932
285.90	0.0000
286.10	270.1799
286.10	270.1799
287.40	259.3569
288.45	0.0000
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290.80	249.4762
291.72	279.8287
293.26	0.0000
293.70	269.9021
295.21	252.8438
295.21	252.8438

295.21	252.8438
295.96	253.0583
296.50	253.2116
297.23	253.4193
298.57	253.8008
299.80	254.1481
299.80	254.1481
300.09	254.2333
300.09	254.2333
300.09	254.2333
300.09	254.2333
300.12	254.2401
301.29	237.2341
302.84	286.3910
303.76	288.2065
303.91	288.2527
304.40	279.2545
304.40	279.2545
304.84	268.7015
306.84	262.2977
308.46	242.7917
311.98	279.7202
316.51	225.4216
318.01	250.8706
319.02	252.0677
319.41	268.9231
320.08	260.7295
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323.87	222.8178
323.87	222.8178
323.87	222.8178
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334.20	198.4310
334.30	198.4515
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338.28	251.4362
338.28	251.4362
338.28	251.4362
338.32	251.4492
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338.32	251.4492
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340.57	226.6552
344.27	227.1749
345.85	260.5149
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351.07	206.6016
351.92	207.7339
351.92	207.7339
351.92	207.7339
355.39	0.0000
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366.43	224.2949
367.43	228.4099
367.94	0.0000
369.80	211.3066
374.96	232.9671
383.85	218.0208
387.95	194.9545
388.63	208.0126
391.69	210.5776
391.69	210.5776
392.90	193.8200
398.62	212.8747
400.65	209.2289
401.10	197.2370
401.81	192.3243
402.60	199.5106
404.84	239.2711
410.95	220.2343
411.60	222.3871
413.65	276.6883
414.70	254.5380
415.30	235.3115

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417.63	0.0000
418.52	226.7587
423.70	201.0723
427.08	198.5506
427.89	188.3881
432.53	186.0073
433.93	185.1859
439.47	186.0206
439.56	177.7193
439.89	177.7674
443.98	162.7069
444.90	177.4396
445.03	177.4583
445.03	177.4583
445.03	177.4583
445.03	177.4583
453.90	180.8100
463.38	169.4414
468.07	155.8817
473.00	171.7582
475.06	166.6831
475.35	149.6216
476.78	149.7822
477.59	158.4370
477.96	171.3320
482.03	186.8907
484.57	171.1036
487.03	154.1649
490.36	0.0000
492.35	0.0000
497.08	169.4234
507.63	0.0000
510.53	0.0000
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511.00	146.9911
511.85	144.5175
511.85	144.5175
513.99	148.4011
513.99	148.4011
520.41	172.0748
520.65	172.1053
527.90	0.0000
528.96	0.0000
529.64	182.4390
529.87	0.0000
531.02	158.5139
537.32	179.6771
543.00	158.8735
546.56	0.0000
549.76	163.3480
552.65	142.0294
555.20	143.2113
563.23	149.6487
563.90	160.1395
568.70	168.2422
569.32	164.5035
569.50	156.9165
569.67	156.9333
573.80	181.6672
574.00	188.8436
574.64	189.7421
578.91	145.9753
579.30	0.0000
583.14	164.0455
585.48	166.3478
591.81	156.2618
592.07	154.3555
593.00	168.4872
595.88	175.0307
600.56	173.5111
602.52	0.0000
602.71	191.4474
602.71	191.4474
603.60	183.2234
604.41	191.6479
604.70	206.6811
609.31	158.9310

609.31	158.9310
609.31	158.9310
609.31	158.9310
610.33	130.4579
612.46	150.7230
614.37	152.5723
618.01	165.8471
621.84	147.3663
621.84	147.3663
631.29	136.3379
633.02	141.4231
633.10	144.3960
634.78	154.4385
635.90	153.5494
636.97	132.8304
645.85	148.4634
646.12	147.4911
656.30	140.9089
657.75	147.9055
657.90	0.0000
661.65	151.8233
661.65	151.8233
664.57	0.0000
666.33	133.0715
666.33	133.0715
675.00	131.6927
677.61	130.8687
685.20	132.4386
692.80	129.9197
695.00	133.1474
696.49	149.6565
696.49	149.6565
697.00	149.6981
697.49	145.6344
698.33	149.8051
698.50	149.8199
699.00	157.0435
702.63	131.6406
706.10	120.5515
706.58	0.0000
706.67	129.8657
709.31	151.7224
711.68	139.5126
713.82	144.8450
717.42	131.1745
720.50	149.5107
721.93	0.0000
722.20	135.3909
722.78	151.4715
722.78	151.4715
722.89	151.4804
722.95	151.4833
723.30	153.2955
724.18	165.8476
727.18	116.0964
733.00	134.3628
735.90	134.7299
739.58	108.0062
742.81	126.0425
744.21	142.9478
747.13	127.3710
751.79	103.4052
752.31	123.4865
753.82	125.6918
755.35	110.9900
756.15	106.8050
756.87	114.2490
763.93	181.5379
765.79	131.7626
766.42	138.1805
766.84	129.7044
776.49	149.5547
778.00	174.2520
778.57	173.2324
778.89	163.6333
783.80	117.9291
785.46	110.5146
792.07	162.3820

795.84	98.1297
796.30	97.9979
798.80	114.7774
801.93	115.1822
805.60	107.7224
810.29	114.4781
810.76	116.3657
815.85	124.1100
817.79	112.0815
818.51	105.5789
819.60	118.7192
826.30	129.4087
828.27	0.0000
831.60	132.5465
831.96	126.9274
834.83	132.7457
836.80	0.0000
846.75	106.0215
848.13	112.7184
856.28	0.0000
856.80	94.8568
860.37	109.5332
867.32	96.9776
867.82	100.3436
871.10	107.1895
873.19	114.9526
874.81	116.9514
875.33	0.0000
876.40	120.8716
879.36	97.0159
880.27	97.0547
880.51	92.2600
881.50	96.1461
883.24	118.3497
884.67	117.4620
889.25	109.0155
896.60	98.7182
898.02	106.5261
899.00	102.6949
903.28	103.6133
911.07	103.9595
911.07	103.9595
911.07	103.9595
919.63	106.9827
920.93	103.2121
925.00	94.9489
925.24	92.8489
926.50	101.5549
935.52	82.6538
937.48	87.8913
944.10	109.3409
946.00	111.6738
949.00	99.9379
962.29	111.4277
964.01	107.5216
966.15	107.6158
968.20	107.7043
969.11	107.7458
969.11	107.7458
969.11	107.7458
977.42	78.8269
980.50	87.4240
983.50	100.3418
989.30	90.5164
996.32	119.0083
1001.03	102.0515
1001.68	83.8858
1004.76	116.3677
1021.30	0.0000
1024.50	0.0000
1034.80	83.9448
1036.00	95.2478
1037.82	111.7105
1038.57	105.5937
1038.76	0.0000
1045.16	95.5786
1046.59	97.6871
1048.07	100.8301

1050.47	107.0977
1050.47	107.0977
1062.04	97.2195
1063.62	99.3482
1076.63	90.4682
1077.35	85.2918
1078.86	88.4626
1085.78	104.3352
1099.22	99.6055
1112.02	95.8496
1112.84	101.4096
1115.52	103.3525
1120.29	98.2449
1120.29	98.2449
1120.29	98.2449
1120.29	98.2449
1120.51	98.2546
1121.28	96.1670
1124.00	0.0000
1129.67	120.1948
1131.51	0.0000
1147.95	0.0000
1167.94	108.0827
1173.22	128.0479
1175.09	116.8252
1177.93	116.9387
1189.05	112.6447
1204.90	135.1314
1205.75	0.0000
1213.00	128.8161
1221.42	128.2177
1230.97	190.0481
1235.34	102.8497
1236.41	0.0000
1238.25	122.1902
1246.25	128.2917
1260.41	0.0000
1271.85	93.3633
1274.45	110.9594
1274.54	110.9628
1291.56	105.6863
1298.22	0.0000
1312.09	78.7866
1325.50	75.1558
1325.50	75.1558
1332.49	71.3518
1333.61	76.3326
1360.21	56.9600
1362.66	0.0000
1365.15	56.0427
1368.21	71.1192
1368.53	0.0000
1376.25	62.2516
1384.27	96.6182
1394.10	54.5043
1395.20	63.6075
1407.95	65.8708
1434.06	40.8398
1436.60	52.1097
1457.56	0.0000
1460.81	34.7488
1489.15	55.9891
1509.49	53.1727
1596.49	69.2276
1620.62	47.7105
1678.03	0.0000
1691.02	31.0755
1691.02	31.0755
1706.46	0.0000
1750.46	0.0000
1764.49	34.5927
1764.49	34.5927
1764.49	34.5927
1764.49	34.5927
1770.23	23.1588
1771.40	24.9471
1791.20	0.0000
1808.65	23.9655

1836.01 28.1352

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978009

Total Uranium Activity	9.0302E+00	ug/g
Total Uranium Counting Unc.	5.8808E+00	ug/g
Total Uranium Tpu	3.0004E-06	ug/g
Total Uranium Mda	3.0032E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978009       *
*   ANALYST       : MXR1                      DETECTOR   : GAM22            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 12:01:43.69    SAMPLE ALQT:  111.440 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.061E+01
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.392E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.477E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.202E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:18:14.19

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978010.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:17:41
Sample ID         : G245978010           Sample quantity  : 1.65200E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.54*	151	575	0.88	126.20	122	9	2.09E-02	30.3	
2	3	75.05	305	523	1.18	149.22	144	14	4.24E-02	13.7	1.87E+00
3	3	77.19	459	453	0.95	153.49	144	14	6.37E-02	8.7	
4	0	87.38	200	419	1.31	173.88	171	6	2.78E-02	17.7	
5	0	93.04*	419	705	1.32	185.19	181	10	5.81E-02	13.4	
6	0	153.99	102	385	0.92	307.03	304	9	1.42E-02	35.7	
7	0	185.90*	251	498	0.97	370.83	365	12	3.49E-02	19.4	
8	0	209.40*	102	318	1.32	417.82	413	9	1.42E-02	33.7	
9	4	238.74*	1327	265	1.13	476.48	472	17	1.84E-01	3.5	2.43E+00
10	4	241.65	308	314	1.61	482.29	472	17	4.28E-02	15.3	
11	0	270.09	69	256	0.71	539.15	535	9	9.58E-03	43.5	
12	0	295.30*	478	241	1.34	589.56	585	11	6.64E-02	7.9	
13	0	300.20	70	179	1.37	599.35	596	8	9.76E-03	35.0	
14	0	338.48*	232	292	1.40	675.90	670	12	3.23E-02	16.4	
15	0	351.81*	785	264	1.41	702.54	696	15	1.09E-01	5.9	
16	0	463.13	109	148	1.19	925.13	918	14	1.52E-02	25.7	
17	0	510.77*	112	239	2.30	1020.38	1012	16	1.55E-02	37.2	
18	0	583.01*	481	166	1.30	1164.81	1159	14	6.68E-02	7.4	
19	0	609.22*	537	140	1.72	1217.22	1211	11	7.46E-02	6.3	
20	0	727.18*	104	108	1.33	1453.09	1448	11	1.45E-02	22.3	
21	0	767.25*	102	110	1.55	1533.20	1524	17	1.42E-02	25.9	
22	0	910.84*	356	106	1.65	1820.32	1811	17	4.95E-02	8.7	
23	4	964.01	90	48	3.09	1926.65	1919	26	1.25E-02	21.6	2.53E+00
24	4	968.73*	218	48	2.15	1936.08	1919	26	3.03E-02	9.7	
25	0	1119.79*	163	98	1.85	2238.15	2230	15	2.26E-02	15.6	
26	0	1377.61	34	16	0.99	2753.72	2749	9	4.75E-03	27.0	
27	0	1460.11*	2154	44	2.22	2918.70	2907	21	2.99E-01	2.3	
28	0	1728.87	36	9	2.31	3456.19	3449	12	5.05E-03	23.3	
29	0	1763.79*	109	13	2.22	3526.02	3516	17	1.52E-02	12.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 14:18:19

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978010.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:17:41
Sample ID : G245978010 Sample quantity : 165.20 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA18 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.67 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.423E+01	2.149E+00	2.937E-01	2.229E-02	82.500
NB-95	+	765.79	*	8.863E-02	4.664E-02	4.073E-02	3.725E-03	2.176
CD-109	+	88.03	*	1.946E+00	7.106E-01	1.090E+00	1.008E-01	1.785
SN-126	+	64.28		1.142E+00	7.117E-01	6.554E-01	9.688E-02	1.743
	+	86.94		7.917E-01	4.314E-01	4.253E-01	1.764E-01	1.861
	+	87.57	*	1.904E-01	6.954E-02	1.038E-01	9.564E-03	1.835
RE-188	+	155.03	*	2.285E-01	1.638E-01	1.956E-01	1.047E-02	1.168
		477.96		-1.126E+00	1.982E+00	3.157E+00	2.012E-01	-0.357
		633.10		6.400E-01	1.815E+00	2.991E+00	2.224E-01	0.214
TL-208		277.35		1.860E-01	2.385E-01	4.010E-01	4.212E-02	0.464
	+	510.84		2.728E-01	2.053E-01	1.465E-01	1.558E-02	1.862
	+	583.14	*	3.298E-01	5.543E-02	3.376E-02	2.647E-03	9.768
		860.37		6.082E-01	2.076E-01	3.805E-01	4.256E-02	1.598
BI-211		72.87		-1.413E+00	2.634E+00	3.810E+00	3.146E-01	-0.371
	+	351.07	*	2.530E+00	3.380E-01	1.967E-01	1.263E-02	12.860
PB-212	+	74.81		1.311E+00	3.958E-01	4.235E-01	5.308E-02	3.096
	+	77.11		1.105E+00	2.134E-01	2.369E-01	2.008E-02	4.662
	+	87.30		8.808E-01	3.335E-01	4.819E-01	6.545E-02	1.828
	+	238.63	*	9.954E-01	9.896E-02	5.737E-02	4.098E-03	17.351
	+	300.09		7.823E-01	5.516E-01	7.726E-01	6.344E-02	1.013
PO-212	+	74.81		1.311E+00	3.958E-01	4.235E-01	5.308E-02	3.096
	+	77.11		1.105E+00	2.134E-01	2.369E-01	2.008E-02	4.662
	+	87.30		8.808E-01	3.335E-01	4.819E-01	6.545E-02	1.828
		115.19		7.346E-01	2.471E+00	4.027E+00	2.537E-01	0.182
	+	238.63	*	9.954E-01	9.896E-02	5.737E-02	4.098E-03	17.351
	+	300.09		7.823E-01	5.516E-01	7.726E-01	6.344E-02	1.013
BI-214	+	609.31	*	6.911E-01	1.063E-01	6.698E-02	5.984E-03	10.317
	+	1120.29		1.050E+00	3.436E-01	3.054E-01	2.924E-02	3.438
	+	1764.49		9.271E-01	2.432E-01	1.822E-01	1.108E-02	5.089
PB-214	+	74.81		2.259E+00	6.697E-01	7.297E-01	8.146E-02	3.096
	+	77.11		1.893E+00	3.932E-01	4.062E-01	4.629E-02	4.662
	+	87.30		1.509E+00	5.631E-01	8.255E-01	9.903E-02	1.828
	+	241.98		1.385E+00	4.370E-01	3.448E-01	2.727E-02	4.018
	+	295.21		9.366E-01	1.686E-01	1.361E-01	1.155E-02	6.881

Sample ID : G245978010 Acquisition date : 14-FEB-2010 12:17:41

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	8.800E-01	1.262E-01	6.855E-02	5.671E-03	12.836
PO-214	+	74.81		2.259E+00	6.697E-01	7.297E-01	8.146E-02	3.096
	+	77.11		1.893E+00	3.932E-01	4.062E-01	4.629E-02	4.662
	+	87.30		1.509E+00	5.631E-01	8.255E-01	9.903E-02	1.828
	+	241.98		1.385E+00	4.370E-01	3.448E-01	2.727E-02	4.018
	+	295.21		9.366E-01	1.686E-01	1.361E-01	1.155E-02	6.881
	+	351.92	*	8.800E-01	1.262E-01	6.855E-02	5.671E-03	12.836
PO-216	+	74.81		1.311E+00	3.958E-01	4.235E-01	5.308E-02	3.096
	+	77.11		1.105E+00	2.134E-01	2.369E-01	2.008E-02	4.662
	+	87.30		8.808E-01	3.335E-01	4.819E-01	6.545E-02	1.828
	+	238.63	*	9.954E-01	9.896E-02	5.737E-02	4.098E-03	17.351
	+	300.09		7.823E-01	5.516E-01	7.726E-01	6.344E-02	1.013
PO-218	+	74.81		2.259E+00	6.697E-01	7.297E-01	8.146E-02	3.096
	+	77.11		1.893E+00	3.932E-01	4.062E-01	4.629E-02	4.662
	+	87.30		1.509E+00	5.631E-01	8.255E-01	9.903E-02	1.828
	+	241.98		1.385E+00	4.370E-01	3.448E-01	2.727E-02	4.018
	+	295.21		9.366E-01	1.686E-01	1.361E-01	1.155E-02	6.881
	+	351.92	*	8.800E-01	1.262E-01	6.855E-02	5.671E-03	12.836
RA-224	+	240.98	*	2.627E+00	8.155E-01	6.520E-01	3.632E-02	4.029
RA-226	+	609.31	*	6.911E-01	1.063E-01	6.698E-02	5.984E-03	10.317
	+	1120.29		1.050E+00	3.436E-01	3.054E-01	2.924E-02	3.438
	+	1764.49		9.271E-01	2.432E-01	1.822E-01	1.108E-02	5.089
AC-228	+	338.32		8.301E-01	4.341E-01	2.436E-01	9.929E-02	3.408
	+	911.07	*	1.051E+00	2.291E-01	1.345E-01	1.782E-02	7.815
	+	969.11		1.130E+00	3.479E-01	2.353E-01	5.634E-02	4.803
RA-228	+	338.32		8.301E-01	4.341E-01	2.436E-01	9.929E-02	3.408
	+	911.07	*	1.051E+00	2.291E-01	1.345E-01	1.782E-02	7.815
	+	969.11		1.130E+00	3.479E-01	2.353E-01	5.634E-02	4.803
TH-228	+	74.81		1.335E+00	3.834E-01	4.312E-01	3.633E-02	3.096
	+	77.11		1.125E+00	2.172E-01	2.412E-01	2.045E-02	4.662
	+	87.30		8.967E-01	3.275E-01	4.906E-01	4.509E-02	1.828
	+	238.63	*	1.013E+00	1.008E-01	5.841E-02	4.172E-03	17.351
	+	300.09		7.964E-01	7.290E-01	7.866E-01	4.636E-01	1.013
TH-230	+	609.31	*	6.911E-01	1.063E-01	6.698E-02	5.983E-03	10.317
	+	1120.29		1.050E+00	3.436E-01	3.054E-01	2.924E-02	3.438
	+	1764.49		9.271E-01	2.432E-01	1.822E-01	1.108E-02	5.089
TH-232	+	338.32		8.301E-01	2.762E-01	2.436E-01	1.409E-02	3.408
	+	911.07	*	1.051E+00	2.291E-01	1.345E-01	1.782E-02	7.815
	+	969.11		1.130E+00	3.479E-01	2.353E-01	5.634E-02	4.803
TH-234	+	63.29	*	2.885E+00	1.819E+00	1.663E+00	2.933E-01	1.735
	+	92.38		2.524E+00	8.127E-01	6.182E-01	1.114E-01	4.083
U-234	+	609.31	*	6.911E-01	1.063E-01	6.698E-02	5.983E-03	10.317
	+	1120.29		1.050E+00	3.436E-01	3.054E-01	2.924E-02	3.438
	+	1764.49		9.271E-01	2.432E-01	1.822E-01	1.108E-02	5.089
NP-237	+	86.50	*	5.592E-01	2.346E-01	2.898E-01	6.538E-02	1.930
		95.87		-5.335E-01	7.748E-01	1.072E+00	2.618E-01	-0.498
U-238	+	63.29	*	2.885E+00	1.819E+00	1.663E+00	2.933E-01	1.735
	+	92.38		2.524E+00	7.067E-01	6.182E-01	5.254E-02	4.083
AM-243	+	74.67	*	2.126E-01	6.101E-02	6.893E-02	5.752E-03	3.084

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	86.72		2.097E+01	7.658E+00	1.130E+01	1.033E+00	1.855
		117.66		-7.283E-01	2.672E+00	4.249E+00	2.613E-01	-0.171
		142.18		7.677E-01	1.224E+01	1.930E+01	1.063E+00	0.040
ANH-511	+	511.00	*	5.893E-02	4.406E-02	3.165E-02	2.090E-03	1.862

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-2.370E-02	2.042E-01	3.344E-01	2.423E-02	-0.071
NA-22		1274.54	*	-2.703E-02	3.023E-02	4.619E-02	3.143E-03	-0.585
NA-24		1368.53	*	-7.317E-01	3.023E-02	Half-Life too short		
AL-26		1129.67		-2.536E-01	1.048E+00	1.676E+00	1.119E-01	-0.151
		1808.65	*	7.630E-03	1.763E-02	3.079E-02	1.798E-03	0.248
TI-44		67.85		-7.275E-02	4.180E-02	5.652E-02	4.545E-03	-1.287
	+	78.38	*	2.038E-01	3.938E-02	5.606E-02	4.793E-03	3.636
SC-46		889.25	*	-1.552E-02	2.643E-02	4.122E-02	4.598E-03	-0.377
	+	1120.51		1.841E-01	5.899E-02	8.283E-02	5.723E-03	2.223
V-48		944.10		-2.389E-01	6.652E-01	1.051E+00	1.112E-01	-0.227
		983.50	*	-8.830E-04	5.386E-02	8.709E-02	8.614E-03	-0.010
		1312.09		2.721E-02	5.760E-02	9.810E-02	7.145E-03	0.277
CR-51		320.08	*	-9.812E-02	2.563E-01	4.041E-01	2.602E-02	-0.243
MN-52		744.21		5.037E-02	2.037E-01	3.440E-01	3.033E-02	0.146
		848.13		-1.655E+00	6.099E+00	9.810E+00	1.026E+00	-0.169
		935.52		4.363E-01	2.533E-01	4.516E-01	4.844E-02	0.966
		1246.25		5.905E+00	6.905E+00	1.199E+01	7.711E-01	0.492
		1333.61		-3.695E+00	5.160E+00	7.777E+00	5.875E-01	-0.475
		1434.06	*	2.522E-01	2.060E-01	3.768E-01	2.777E-02	0.669
MN-54		834.83	*	2.296E-02	2.345E-02	4.083E-02	4.183E-03	0.562
CO-56		846.75	*	6.547E-03	2.558E-02	4.274E-02	4.462E-03	0.153
		977.42		-4.433E-01	2.224E+00	3.145E+00	3.146E-01	-0.141
		1037.82		3.207E-02	2.036E-01	3.444E-01	3.191E-02	0.093
		1175.09		1.138E-01	1.502E+00	2.499E+00	1.387E-01	0.046
		1238.25		8.310E-02	5.890E-02	1.048E-01	6.984E-03	0.793
		1360.21		9.996E-02	6.077E-01	1.009E+00	7.579E-02	0.099
		1771.40		-9.163E-01	2.344E-01	1.989E-01	1.202E-02	-4.607
CO-57		122.06	*	-1.102E-02	1.867E-02	2.922E-02	1.731E-03	-0.377
		136.48		1.347E-02	1.419E-01	2.268E-01	1.485E-02	0.059
CO-58		810.76	*	9.692E-03	2.369E-02	4.019E-02	3.968E-03	0.241
FE-59		142.65		1.503E+00	1.981E+00	3.211E+00	1.767E-01	0.468
		192.34		1.336E-01	6.316E-01	1.031E+00	1.196E-01	0.130
		1099.22	*	-9.063E-02	6.068E-02	8.896E-02	7.322E-03	-1.019
		1291.56		7.915E-02	8.762E-02	1.530E-01	1.286E-02	0.517
CO-60		1173.22		2.511E-03	2.938E-02	4.890E-02	2.703E-03	0.051
		1332.49	*	-7.955E-04	2.670E-02	4.353E-02	3.289E-03	-0.018
ZN-65		1115.52	*	9.625E-02	6.605E-02	1.066E-01	7.506E-03	0.903
GE-68		1077.35	*	2.441E-01	7.741E-01	1.320E+00	1.049E-01	0.185
AS-73		53.44	*	2.352E-01	8.427E-01	1.432E+00	1.135E-01	0.164
AS-74		595.88	*	-5.370E-02	6.382E-02	9.678E-02	6.953E-03	-0.555

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		634.78		1.709E-01	2.499E-01	4.205E-01	3.130E-02	0.407
SE-75		66.05		1.203E+00	4.151E+00	6.269E+00	6.209E-01	0.192
		96.73		-4.051E-01	6.235E-01	8.724E-01	1.151E-01	-0.464
		121.11		1.775E-02	9.959E-02	1.610E-01	1.503E-02	0.110
		136.00		-2.095E-03	2.696E-02	4.281E-02	2.438E-03	-0.049
		198.60		-3.434E-01	1.221E+00	1.979E+00	1.343E-01	-0.174
		264.65	*	-1.407E-02	3.032E-02	4.457E-02	2.549E-03	-0.316
		279.53		-2.094E-02	7.170E-02	1.151E-01	7.112E-03	-0.182
		303.91		7.319E-01	1.464E+00	2.143E+00	2.039E-01	0.341
		400.65		2.151E-02	1.544E-01	2.602E-01	2.370E-02	0.083
BR-77	+	87.88		9.740E+02	3.557E+02	5.629E+02	5.201E+01	1.730
		200.40		1.153E+02	2.502E+02	4.243E+02	2.286E+01	0.272
	+	239.00		3.719E+02	3.300E+01	5.374E+01	2.990E+00	6.920
		249.79		-5.949E+01	9.540E+01	1.519E+02	8.514E+00	-0.392
		281.68		-4.539E+01	1.355E+02	2.169E+02	1.238E+01	-0.209
		297.23		5.030E+02	1.297E+02	1.790E+02	1.028E+01	2.810
		303.76		1.370E+02	2.850E+02	4.169E+02	2.398E+01	0.329
		439.47		1.126E+02	2.014E+02	3.446E+02	2.101E+01	0.327
		484.57		-1.026E+02	3.239E+02	5.232E+02	3.358E+01	-0.196
		520.65	*	5.792E+00	1.412E+01	2.373E+01	1.583E+00	0.244
		574.64		-3.672E+02	2.961E+02	4.375E+02	3.081E+01	-0.839
		578.91		6.551E+01	1.410E+02	2.057E+02	1.454E+01	0.318
		585.48		2.512E+03	3.992E+02	7.048E+02	5.014E+01	3.564
		755.35		5.497E+01	2.311E+02	3.894E+02	3.500E+01	0.141
		817.79		-4.064E+01	1.837E+02	2.974E+02	2.964E+01	-0.137
SR-82		698.33		-1.074E+01	2.389E+01	3.884E+01	3.162E+00	-0.276
		776.49	*	-6.298E-02	2.579E-01	4.100E-01	3.818E-02	-0.154
		1395.20		-2.675E+00	7.067E+00	1.101E+01	8.202E-01	-0.243
RB-83		520.41	*	1.877E-02	4.118E-02	6.941E-02	4.629E-03	0.270
		529.64		-2.536E-02	6.552E-02	1.044E-01	7.028E-03	-0.243
		552.65		-2.264E-02	1.230E-01	1.978E-01	1.363E-02	-0.114
RB-84		881.50	*	-9.225E-03	4.921E-02	7.940E-02	8.751E-03	-0.116
KR-85		513.99	*	1.870E+01	5.523E+00	9.453E+00	6.263E-01	1.979
SR-85		513.99	*	9.887E-02	2.919E-02	4.997E-02	3.310E-03	1.979
RB-86		1076.63	*	6.120E-03	5.387E-01	8.994E-01	7.160E-02	0.007
Y-88		898.02		1.802E-03	2.749E-02	4.510E-02	5.113E-03	0.040
		1836.01	*	-2.120E-02	2.084E-02	2.839E-02	1.617E-03	-0.747
ZR-88		392.90	*	-5.523E-03	1.864E-02	3.074E-02	1.768E-03	-0.180
Y-91		1204.90	*	1.874E+00	1.252E+01	2.088E+01	1.235E+00	0.090
NB-94		702.63	*	4.357E-03	2.062E-02	3.486E-02	2.860E-03	0.125
		871.10		-3.735E-03	2.159E-02	3.489E-02	3.784E-03	-0.107
NB-95M		235.69	*	5.523E-02	8.751E-02	1.311E-01	9.620E-03	0.421
ZR-95		724.18		1.362E-01	7.054E-02	1.155E-01	1.071E-02	1.179
		756.15	*	-5.381E-03	4.463E-02	7.342E-02	7.224E-03	-0.073
NB-97		657.90	*	-5.912E-01	4.463E-02	Half-Life too short		
		1024.50		3.856E+01	4.463E-02	Half-Life too short		
ZR-97		254.15		-2.121E+01	4.463E-02	Half-Life too short		
		355.39		-1.888E+01	4.463E-02	Half-Life too short		
		507.63	*	4.836E+01	4.463E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		602.52		-7.393E+01	4.463E-02	Half-Life too short		
		1021.30		-4.769E+00	4.463E-02	Half-Life too short		
		1147.95		2.281E+01	4.463E-02	Half-Life too short		
		1362.66		-3.778E+01	4.463E-02	Half-Life too short		
		1750.46		3.548E+01	4.463E-02	Half-Life too short		
MO-99		140.51		-4.611E+01	4.165E+01	5.980E+01	1.608E+01	-0.771
		181.06		-1.259E+00	2.442E+01	3.605E+01	6.121E+00	-0.035
		366.43		-2.162E+01	1.020E+02	1.700E+02	9.819E+00	-0.127
		739.58	*	-1.295E+00	1.414E+01	2.335E+01	3.562E+00	-0.055
		778.00		-1.313E+01	4.304E+01	6.967E+01	6.505E+00	-0.188
TC-99M		140.51	*	-9.642E+13	4.304E+01	Half-Life too short		
RH-101		127.23		-3.286E-02	2.353E-02	3.543E-02	2.047E-03	-0.927
		198.01	*	-8.970E-03	2.210E-02	3.567E-02	1.917E-03	-0.251
		325.23		-2.066E-01	1.485E-01	2.208E-01	1.276E-02	-0.936
RH-102		418.52		-2.307E-02	1.740E-01	2.880E-01	1.711E-02	-0.080
		475.06	*	1.194E-02	1.788E-02	3.062E-02	1.945E-03	0.390
		631.29		3.261E-02	3.337E-02	5.724E-02	4.248E-03	0.570
		697.49		1.993E-03	4.917E-02	8.232E-02	6.692E-03	0.024
	+	766.84		2.165E-01	1.139E-01	1.303E-01	1.194E-02	1.662
		1046.59		-1.675E-02	7.403E-02	1.219E-01	1.051E-02	-0.137
		1112.84		1.231E-02	1.622E-01	2.327E-01	1.652E-02	0.053
RU-103		497.08	*	7.835E-04	2.504E-02	4.124E-02	5.354E-03	0.019
	+	610.33		7.853E+00	1.597E+00	1.821E+00	2.920E-01	4.312
RH-106	+	511.85		2.960E-01	2.213E-01	2.779E-01	1.837E-02	1.065
		621.84	*	1.843E-01	1.956E-01	3.335E-01	4.196E-02	0.553
		1050.47		1.319E+00	1.458E+00	2.582E+00	2.206E-01	0.511
RU-106	+	511.85		2.960E-01	2.213E-01	2.779E-01	1.837E-02	1.065
		621.84	*	1.843E-01	1.947E-01	3.335E-01	2.454E-02	0.553
		1050.47		1.319E+00	1.458E+00	2.582E+00	2.206E-01	0.511
AG-108M		433.93	*	-6.782E-03	1.960E-02	3.193E-02	2.086E-03	-0.212
		614.37		6.417E-03	2.716E-02	3.863E-02	2.976E-03	0.166
		722.95		1.040E-02	2.880E-02	4.265E-02	3.772E-03	0.244
AG-110M		657.75	*	-1.278E-02	2.190E-02	3.543E-02	2.795E-03	-0.361
		677.61		1.902E-01	1.911E-01	3.380E-01	2.742E-02	0.563
		706.67		4.167E-02	1.252E-01	2.131E-01	1.814E-02	0.196
		763.93		1.121E-01	1.116E-01	1.736E-01	1.623E-02	0.646
		884.67		2.396E-03	3.203E-02	5.266E-02	5.946E-03	0.046
		937.48		-5.848E-02	7.561E-02	1.155E-01	1.265E-02	-0.506
		1384.27		5.252E-02	1.098E-01	1.685E-01	1.306E-02	0.312
IN-111		171.28		1.101E+00	1.307E+00	2.268E+00	1.193E-01	0.486
		245.39	*	5.711E-01	1.454E+00	2.150E+00	1.202E-01	0.266
IN-113M		391.69	*	-1.799E-02	2.743E-02	4.435E-02	2.721E-03	-0.406
SN-113		391.69	*	-1.799E-02	2.743E-02	4.435E-02	2.721E-03	-0.406
IN-114M		190.27	*	-1.852E-02	1.304E-01	1.907E-01	1.018E-02	-0.097
CD-115		260.90		-1.183E-04	1.304E-01	Half-Life too short		
		492.35		-1.806E-05	1.304E-01	Half-Life too short		
		527.90	*	5.500E-06	1.304E-01	Half-Life too short		
SN-117M		156.02		8.083E-01	1.977E+00	3.019E+00	1.612E-01	0.268
		158.56	*	4.861E-02	4.563E-02	7.178E-02	3.815E-03	0.677

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
SB-122		563.90	*	8.039E-01	2.530E+00	4.201E+00	2.928E-01	0.191
		692.80		2.752E+01	5.720E+01	9.824E+01	7.920E+00	0.280
I-123		159.00	*	1.070E+02	5.720E+01	Half-Life too short		
		528.96		-8.332E+02	5.720E+01	Half-Life too short		
TE-123M		159.00	*	1.372E-02	2.099E-02	3.240E-02	1.748E-03	0.423
I-124		602.71	*	-4.276E-01	7.972E-01	1.053E+00	7.614E-02	-0.406
		722.78		1.092E+00	4.822E+00	7.060E+00	6.000E-01	0.155
		1325.50		-8.726E+00	3.667E+01	5.871E+01	4.381E+00	-0.149
	+	1376.25		4.849E+01	2.645E+01	5.399E+01	4.043E+00	0.898
		1509.49		1.408E+01	1.514E+01	2.757E+01	1.975E+00	0.511
		1691.02		-5.146E-01	2.896E+00	4.631E+00	2.987E-01	-0.111
SB-124		602.71		-1.590E-02	2.964E-02	3.915E-02	2.831E-03	-0.406
		645.85		3.609E-02	3.251E-01	5.263E-01	4.266E-02	0.069
		709.31		-3.116E-02	1.701E+00	2.834E+00	2.352E-01	-0.011
		713.82		-5.294E-01	1.006E+00	1.615E+00	1.915E-01	-0.328
		722.78		5.884E-02	2.599E-01	3.805E-01	3.305E-02	0.155
	+	968.20		1.203E+01	2.628E+00	4.368E+00	4.442E-01	2.753
		1045.16		1.016E-01	1.605E+00	2.697E+00	2.336E-01	0.038
		1325.50		-5.023E-01	2.111E+00	3.379E+00	2.522E-01	-0.149
		1368.21		-1.726E-01	1.098E+00	1.724E+00	2.205E-01	-0.100
		1436.60		-1.982E+00	2.497E+00	3.682E+00	2.711E-01	-0.538
		1691.02	*	-6.542E-03	3.682E-02	5.887E-02	4.062E-03	-0.111
SB-125		427.89	*	1.778E-03	5.390E-02	8.986E-02	5.615E-03	0.020
	+	463.38		5.276E-01	2.733E-01	3.218E-01	2.307E-02	1.639
		600.56		-9.236E-02	1.174E-01	1.768E-01	1.409E-02	-0.522
		635.90		-1.186E-02	1.725E-01	2.761E-01	2.277E-02	-0.043
TE-125M		109.28	*	2.453E+00	6.802E+00	1.114E+01	9.806E-01	0.220
I-126		388.63		7.714E-02	1.454E-01	2.502E-01	1.438E-02	0.308
		666.33	*	-1.511E-01	1.340E-01	2.088E-01	1.605E-02	-0.724
		753.82		-3.080E-01	1.051E+00	1.709E+00	1.532E-01	-0.180
SB-126		223.80		-1.499E+00	3.120E+00	5.064E+00	2.783E-01	-0.296
		278.60		4.393E-01	1.872E+00	3.081E+00	1.756E-01	0.143
	+	296.50		1.096E+01	1.850E+00	2.717E+00	1.559E-01	4.035
		414.70		-1.669E-02	5.209E-02	8.535E-02	5.048E-03	-0.195
		415.30		-7.879E-01	4.285E+00	7.074E+00	4.187E-01	-0.111
		555.20		-1.914E-01	2.728E+00	4.420E+00	3.054E-01	-0.043
		573.80		-2.967E-01	7.305E-01	1.153E+00	8.109E-02	-0.257
		593.00		3.412E-01	6.282E-01	1.055E+00	7.563E-02	0.323
		656.30		-2.885E+00	2.389E+00	3.687E+00	2.797E-01	-0.783
		666.33		-6.357E-02	5.639E-02	8.784E-02	6.753E-03	-0.724
		675.00		-1.532E-01	1.448E+00	2.410E+00	1.882E-01	-0.064
		695.00		6.416E-02	5.846E-02	1.033E-01	8.365E-03	0.621
		697.00		5.671E-02	2.017E-01	3.422E-01	2.780E-02	0.166
		720.50	*	9.468E-03	1.129E-01	1.699E-01	1.438E-02	0.056
		856.80		-3.006E-01	3.898E-01	6.053E-01	6.419E-02	-0.497
		989.30		5.172E-01	9.774E-01	1.643E+00	1.607E-01	0.315
		1034.80		1.655E+00	6.793E+00	1.115E+01	9.900E-01	0.148
		1213.00		3.664E+00	3.782E+00	6.595E+00	3.965E-01	0.556
SB-127		61.10		-6.763E+01	8.950E+01	1.287E+02	1.472E+01	-0.525

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		252.40		1.198E+00	4.557E+00	7.524E+00	3.143E+00	0.159
		290.80		-1.244E+01	2.602E+01	3.566E+01	3.638E+00	-0.349
		411.60		4.614E+00	1.192E+01	2.029E+01	3.068E+00	0.227
		444.90		-1.346E+00	9.937E+00	1.635E+01	1.945E+00	-0.082
		473.00		-2.444E-01	1.738E+00	2.844E+00	3.511E-01	-0.086
		543.00		-6.498E+00	1.567E+01	2.475E+01	3.505E+00	-0.263
		603.60		-1.156E+01	1.515E+01	1.956E+01	2.439E+00	-0.591
		685.20	*	9.360E-01	1.322E+00	2.305E+00	2.723E-01	0.406
		698.50		-8.285E+00	1.653E+01	2.671E+01	4.334E+00	-0.310
		722.20		1.136E+01	3.374E+01	4.990E+01	5.975E+00	0.228
		783.80		4.033E+00	3.698E+00	6.480E+00	8.927E-01	0.622
XE-127		57.60		7.885E-01	5.781E+00	9.735E+00	7.503E-01	0.081
		145.22		2.921E-02	5.066E-01	8.052E-01	4.402E-02	0.036
		172.10		9.213E-03	8.120E-02	1.374E-01	7.234E-03	0.067
		202.84	*	-7.737E-03	3.300E-02	5.453E-02	2.943E-03	-0.142
		374.96		1.127E-01	1.186E-01	2.092E-01	1.206E-02	0.539
I-131		80.18		-2.926E+00	4.836E+00	6.917E+00	6.046E-01	-0.423
		284.30		2.809E-02	1.261E+00	2.053E+00	1.314E-01	0.014
		364.48	*	2.935E-03	8.568E-02	1.447E-01	9.382E-03	0.020
		636.97		-1.167E+00	1.295E+00	1.946E+00	1.564E-01	-0.600
		722.89		1.948E+00	6.206E+00	9.156E+00	7.855E-01	0.213
TE-132		49.72		-5.505E+00	3.867E+01	6.491E+01	7.179E+00	-0.085
		111.76		-5.226E+00	3.878E+01	6.224E+01	6.357E+00	-0.084
		116.30		-2.597E+00	3.595E+01	5.769E+01	5.786E+00	-0.045
		228.16	*	4.016E-01	8.652E-01	1.452E+00	2.161E-01	0.276
BA-133		53.15		7.932E-01	3.573E+00	6.058E+00	4.807E-01	0.131
		79.62		-1.121E+00	1.093E+00	1.516E+00	2.309E-01	-0.739
		81.00		2.836E-02	7.777E-02	1.162E-01	1.851E-02	0.244
		276.40		1.009E-01	2.370E-01	3.931E-01	5.077E-02	0.257
		302.84		8.514E-02	9.895E-02	1.479E-01	1.720E-02	0.576
		356.01	*	-2.838E-03	2.917E-02	4.023E-02	4.648E-03	-0.071
		383.85		6.525E-02	1.787E-01	3.054E-01	3.313E-02	0.214
I-133	+	510.53		6.075E+00	1.787E-01	Half-Life too short		
		529.87	*	-1.593E-02	1.787E-01	Half-Life too short		
		706.58		8.576E-01	1.787E-01	Half-Life too short		
		856.28		-5.324E+00	1.787E-01	Half-Life too short		
		875.33		5.505E-01	1.787E-01	Half-Life too short		
		1236.41		4.645E+00	1.787E-01	Half-Life too short		
		1298.22		-2.233E-01	1.787E-01	Half-Life too short		
CS-134		475.35		1.161E+00	1.161E+00	2.023E+00	1.285E-01	0.574
		563.23		2.755E-02	2.114E-01	3.468E-01	2.450E-02	0.079
		569.32		8.939E-02	1.212E-01	2.020E-01	1.444E-02	0.443
		604.70		-4.758E-03	2.533E-02	3.464E-02	2.518E-03	-0.137
		795.84	*	3.743E-02	3.163E-02	5.408E-02	5.231E-03	0.692
		801.93		-5.410E-02	2.531E-01	4.086E-01	3.986E-02	-0.132
		1038.57		6.666E-01	2.399E+00	4.094E+00	3.602E-01	0.163
		1167.94		9.729E-01	1.669E+00	2.866E+00	1.625E-01	0.339
		1365.15		-5.437E-02	7.198E-01	1.164E+00	9.262E-02	-0.047
CS-135		268.24	*	1.784E-01	1.146E-01	1.785E-01	1.349E-02	1.000

---- Non-Identified Nuclides ----

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I-135		288.45		-7.954E+11	1.146E-01	Half-Life too short		
		417.63		-8.824E+12	1.146E-01	Half-Life too short		
		546.56		-1.096E+12	1.146E-01	Half-Life too short		
		836.80		1.917E+13	1.146E-01	Half-Life too short		
		1038.76		-3.295E+12	1.146E-01	Half-Life too short		
		1124.00		7.495E+13	1.146E-01	Half-Life too short		
		1131.51		-1.196E+12	1.146E-01	Half-Life too short		
		1260.41	*	-3.866E+12	1.146E-01	Half-Life too short		
		1457.56		1.388E+15	1.146E-01	Half-Life too short		
		1678.03		-4.474E+12	1.146E-01	Half-Life too short		
		1706.46		-8.581E+12	1.146E-01	Half-Life too short		
		1791.20		-4.752E+12	1.146E-01	Half-Life too short		
CS-136		66.91		-6.056E-01	8.016E-01	1.144E+00	1.727E-01	-0.530
	+	86.29		2.895E+00	1.092E+00	1.672E+00	2.205E-01	1.731
	+	153.22		9.928E-01	7.129E-01	8.668E-01	5.970E-02	1.145
		163.89		3.784E-01	8.185E-01	1.388E+00	9.487E-02	0.273
		176.55		-6.635E-03	2.691E-01	4.523E-01	2.743E-02	-0.015
		273.65		-3.330E-01	3.879E-01	5.222E-01	3.404E-02	-0.638
		340.57		3.302E-01	1.152E-01	1.872E-01	1.153E-02	1.764
		818.51		1.601E-02	4.987E-02	8.410E-02	8.400E-03	0.190
		1048.07	*	1.219E-02	8.006E-02	1.353E-01	1.213E-02	0.090
		1235.34		4.812E-01	4.417E-01	7.710E-01	7.929E-02	0.624
BA-137M		661.65	*	2.842E-02	2.304E-02	4.109E-02	3.132E-03	0.692
CS-137		661.65	*	3.004E-02	2.435E-02	4.344E-02	3.319E-03	0.692
CE-139		165.85	*	2.382E-03	1.929E-02	3.273E-02	1.718E-03	0.073
BA-140		162.64		-2.838E-01	5.789E-01	9.495E-01	5.756E-02	-0.299
		304.84		2.766E-01	1.046E+00	1.503E+00	4.099E-01	0.184
		423.70		-2.344E-01	1.332E+00	2.194E+00	6.979E-01	-0.107
		537.32	*	3.288E-02	1.743E-01	2.877E-01	9.410E-02	0.114
LA-140		328.77		3.773E-01	2.246E-01	3.884E-01	2.516E-02	0.971
		432.53		1.676E-01	1.419E+00	2.376E+00	1.575E-01	0.071
		487.03		4.114E-02	9.624E-02	1.625E-01	1.159E-02	0.253
		751.79		5.742E-01	1.216E+00	2.078E+00	2.042E-01	0.276
		815.85		-4.467E-02	2.156E-01	3.492E-01	3.775E-02	-0.128
		867.82		-6.866E-01	1.020E+00	1.581E+00	1.764E-01	-0.434
		919.63		5.319E-01	2.268E+00	3.588E+00	4.532E-01	0.148
		925.24		-5.003E-01	8.523E-01	1.321E+00	1.496E-01	-0.379
		1596.49	*	-1.960E-02	5.675E-02	9.025E-02	6.191E-03	-0.217
CE-141		145.44	*	8.301E-04	4.621E-02	7.332E-02	4.186E-03	0.011
CE-143		57.37		1.973E-03	4.621E-02	Half-Life too short		
		231.56		-3.014E-03	4.621E-02	Half-Life too short		
		293.26	*	2.182E-03	4.621E-02	Half-Life too short		
	+	350.59		8.631E-02	4.621E-02	Half-Life too short		
		490.36		-3.020E-03	4.621E-02	Half-Life too short		
		664.57		-3.442E-04	4.621E-02	Half-Life too short		
		721.93		1.432E-03	4.621E-02	Half-Life too short		
CE-144		80.11		-1.102E+00	1.746E+00	2.495E+00	2.160E-01	-0.442
		133.54	*	-3.969E-02	1.378E-01	2.169E-01	3.067E-02	-0.183
PM-144		476.78		9.573E-03	4.170E-02	6.970E-02	5.173E-03	0.137

---- Non-Identified Nuclides ----

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		618.01		6.708E-04	2.043E-02	3.302E-02	2.514E-03	0.020
		696.49	*	4.621E-03	2.229E-02	3.767E-02	3.059E-03	0.123
		778.57		-6.742E-01	1.415E+00	2.262E+00	2.115E-01	-0.298
PR-144		696.49	*	3.136E-01	1.513E+00	2.557E+00	2.075E-01	0.123
		1489.15		-6.031E+00	6.972E+00	9.903E+00	7.155E-01	-0.609
PM-146		453.90	*	-8.157E-04	2.539E-02	4.197E-02	3.734E-03	-0.019
		633.02		5.042E-01	8.812E-01	1.442E+00	5.352E-01	0.350
		735.90		-3.182E-03	8.701E-02	1.443E-01	4.130E-02	-0.022
		747.13		-3.567E-02	5.535E-02	8.741E-02	1.240E-02	-0.408
ND-147		91.11		6.758E-01	3.694E-01	4.657E-01	4.381E-02	1.451
		319.41		-8.752E-01	2.551E+00	4.032E+00	2.329E-01	-0.217
		439.89		1.329E+00	4.239E+00	7.160E+00	4.370E-01	0.186
		531.02	*	-1.129E-01	4.138E-01	6.639E-01	9.264E-02	-0.170
PM-149		285.90	*	-4.635E-06	4.138E-01	Half-Life too short		
EU-152		121.78		-5.531E-03	5.324E-02	8.507E-02	6.556E-03	-0.065
		244.69		1.033E-01	2.276E-01	3.376E-01	1.886E-02	0.306
		344.27	*	-2.403E-02	7.432E-02	9.337E-02	6.093E-03	-0.257
		443.98		1.739E-02	5.753E-01	9.563E-01	5.861E-02	0.018
		778.89		-5.554E-02	1.625E-01	2.623E-01	2.453E-02	-0.212
		867.32		-6.520E-01	5.347E-01	7.873E-01	8.488E-02	-0.828
	+	964.01		5.387E-01	2.391E-01	3.551E-01	3.637E-02	1.517
		1085.78		-3.748E-02	2.653E-01	4.379E-01	3.393E-02	-0.086
		1112.02		-3.973E-02	2.320E-01	3.242E-01	2.308E-02	-0.123
		1407.95		1.374E-01	1.190E-01	2.139E-01	1.589E-02	0.642
GD-153		69.67		1.132E-01	1.341E+00	2.130E+00	1.729E-01	0.053
		83.37		9.386E+00	1.192E+01	1.797E+01	1.596E+00	0.522
		97.43	*	-9.159E-03	6.344E-02	9.148E-02	7.153E-03	-0.100
		103.18		-6.391E-03	7.654E-02	1.237E-01	8.924E-03	-0.052
EU-154		123.07		1.163E-02	3.779E-02	6.133E-02	5.800E-03	0.190
		247.94		-6.572E-02	2.421E-01	3.624E-01	3.414E-02	-0.181
		591.81		-7.207E-02	3.728E-01	5.781E-01	6.149E-02	-0.125
		723.30		7.219E-02	1.231E-01	1.855E-01	1.748E-02	0.389
		756.87		2.429E-02	4.662E-01	7.594E-01	9.310E-02	0.032
		873.19		-9.712E-03	1.926E-01	3.142E-01	4.376E-02	-0.031
		996.32		-2.496E-01	2.567E-01	3.780E-01	6.912E-02	-0.660
		1004.76		-1.753E-01	1.493E-01	2.172E-01	2.670E-02	-0.807
		1274.45	*	-9.507E-02	8.594E-02	1.285E-01	1.284E-02	-0.740
EU-155		48.70		7.360E-01	2.731E+00	4.657E+00	3.532E-01	0.158
		60.01		-6.846E-01	4.646E+00	6.922E+00	5.282E-01	-0.099
	+	86.54		2.296E-01	8.390E-02	1.348E-01	1.242E-02	1.703
		105.31	*	8.888E-03	7.785E-02	1.267E-01	9.057E-03	0.070
TB-160	+	86.79		6.299E-01	2.300E-01	3.716E-01	3.399E-02	1.695
		197.04		5.048E-02	3.662E-01	6.147E-01	3.301E-02	0.082
		215.65		3.144E-01	4.771E-01	8.125E-01	4.435E-02	0.387
		298.57		1.381E-01	1.074E-01	1.259E-01	7.229E-03	1.097
		879.36	*	-9.116E-03	9.769E-02	1.588E-01	1.744E-02	-0.057
		962.29		3.498E-01	4.217E-01	6.265E-01	6.437E-02	0.558
		966.15		8.847E-01	1.923E-01	3.425E-01	3.495E-02	2.583
		1177.93		9.304E-03	2.390E-01	3.965E-01	2.214E-02	0.023

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		1271.85		-8.097E-02	4.909E-01	7.961E-01	5.380E-02	-0.102
HO-166M		80.57		3.402E-02	2.191E-01	3.250E-01	2.823E-02	0.105
	+	184.41		1.036E-01	4.048E-02	4.498E-02	2.390E-03	2.302
		280.46		-1.832E-02	5.502E-02	8.811E-02	5.026E-03	-0.208
		410.95		1.288E-01	1.430E-01	2.497E-01	1.470E-02	0.516
		711.68	*	3.013E-03	3.507E-02	5.881E-02	4.902E-03	0.051
		752.31		4.140E-02	1.658E-01	2.797E-01	2.501E-02	0.148
		810.29		7.088E-03	3.430E-02	5.739E-02	5.651E-03	0.123
TM-171		51.35		-1.767E+01	3.146E+01	5.183E+01	4.108E+00	-0.341
		52.39		4.067E+00	1.605E+01	2.727E+01	2.166E+00	0.149
		59.40		-8.535E-02	2.525E+01	3.791E+01	2.878E+00	-0.002
		66.72	*	-4.130E-01	2.423E+01	3.605E+01	2.882E+00	-0.011
LU-176	+	88.36		4.517E-01	1.649E-01	2.604E-01	2.391E-02	1.734
		201.83		-2.494E-03	1.912E-02	3.172E-02	1.711E-03	-0.079
		306.84	*	-1.890E-03	1.530E-02	2.457E-02	1.414E-03	-0.077
		401.10		2.202E+00	3.889E+00	6.699E+00	3.894E-01	0.329
LU-177		112.95		8.097E-01	1.513E+00	2.491E+00	1.605E-01	0.325
	+	208.36	*	1.877E+00	1.268E+00	1.659E+00	8.999E-02	1.131
LU-177M		52.97		2.964E-01	1.654E+00	2.801E+00	2.224E-01	0.106
		54.07		5.484E-02	8.586E-01	1.447E+00	1.144E-01	0.038
		61.30		-8.131E-01	1.390E+00	2.022E+00	1.563E-01	-0.402
		121.62		-1.075E-02	2.771E-01	4.440E-01	2.633E-02	-0.024
		147.16		-4.641E-01	4.724E-01	7.167E-01	3.900E-02	-0.648
		171.86		1.032E-01	3.128E-01	5.336E-01	2.809E-02	0.193
		218.09		-8.858E-02	5.317E-01	8.756E-01	4.789E-02	-0.101
	+	268.79		7.849E-01	6.848E-01	9.332E-01	5.292E-02	0.841
		319.02		-8.063E-02	1.680E-01	2.636E-01	1.521E-02	-0.306
		367.43		1.548E-01	5.234E-01	8.951E-01	5.169E-02	0.173
		413.65	*	-1.185E-01	1.086E-01	1.701E-01	1.005E-02	-0.697
HF-181		56.28		1.724E-01	9.270E-01	1.566E+00	1.220E-01	0.110
		57.53		2.206E-01	4.783E-01	8.145E-01	6.281E-02	0.271
		65.20		1.196E-01	8.910E-01	1.337E+00	1.060E-01	0.089
		133.02		-3.796E-02	4.727E-02	7.273E-02	4.114E-03	-0.522
		136.25		-9.180E-02	3.280E-01	5.161E-01	2.890E-02	-0.178
		345.85		-4.576E-02	1.447E-01	1.967E-01	1.138E-02	-0.233
		482.03	*	-1.636E-03	2.724E-02	4.474E-02	2.864E-03	-0.037
W-181		56.28		6.463E-02	3.518E-01	5.941E-01	4.628E-02	0.109
		57.53		8.383E-02	1.817E-01	3.094E-01	2.386E-02	0.271
		65.20	*	4.506E-02	3.358E-01	5.038E-01	3.996E-02	0.089
TA-182		67.75		-1.656E-01	1.007E-01	1.369E-01	1.100E-02	-1.210
		100.10		4.145E-02	1.285E-01	2.113E-01	1.589E-02	0.196
		152.43		4.797E-02	2.610E-01	3.700E-01	1.990E-02	0.130
		222.10		-2.556E-02	2.202E-01	3.629E-01	1.992E-02	-0.070
		1001.68		1.875E+00	1.460E+00	2.523E+00	2.409E-01	0.743
	+	1121.28		5.053E-01	1.619E-01	2.248E-01	1.549E-02	2.248
		1189.05		-1.898E-02	2.130E-01	3.501E-01	2.002E-02	-0.054
		1221.42	*	6.351E-03	1.380E-01	2.282E-01	1.396E-02	0.028
		1230.97		-4.306E-01	3.189E-01	4.762E-01	2.970E-02	-0.904
RE-183		57.98		5.042E-02	1.826E-01	3.088E-01	2.373E-02	0.163

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		59.32		-4.883E-03	1.065E-01	1.597E-01	1.213E-02	-0.031
		67.20		-1.570E-01	1.797E-01	2.559E-01	2.051E-02	-0.614
		162.32	*	-5.385E-02	7.453E-02	1.212E-01	6.397E-03	-0.444
	+	208.81		1.287E+00	8.697E-01	1.132E+00	6.144E-02	1.137
		291.72		-4.425E-01	7.023E-01	9.524E-01	5.457E-02	-0.465
RE-184		57.98		1.827E-01	6.615E-01	1.119E+00	8.598E-02	0.163
		59.32		-1.768E-02	3.857E-01	5.781E-01	4.392E-02	-0.031
		67.20		-5.687E-01	6.510E-01	9.268E-01	7.429E-02	-0.614
		161.27		-2.219E-01	2.338E-01	3.818E-01	2.019E-02	-0.581
		216.55		1.393E-01	1.668E-01	2.858E-01	1.561E-02	0.488
		252.85	*	-2.830E-02	1.468E-01	2.386E-01	1.340E-02	-0.119
		318.01		-1.454E-01	2.887E-01	4.522E-01	2.610E-02	-0.322
		792.07		7.094E-01	6.513E-01	1.141E+00	1.091E-01	0.622
		903.28		-3.246E-01	7.581E-01	1.009E+00	1.133E-01	-0.322
		920.93		1.177E-01	2.990E-01	5.007E-01	5.487E-02	0.235
OS-185		59.72		8.335E-02	2.801E-01	4.266E-01	3.245E-02	0.195
		61.14		-1.120E-01	1.541E-01	2.226E-01	1.717E-02	-0.503
		69.30		-3.308E-02	2.420E-01	3.813E-01	3.089E-02	-0.087
		592.07		8.487E-02	1.495E+00	2.430E+00	1.740E-01	0.035
		646.12	*	-3.946E-03	2.728E-02	4.336E-02	3.261E-03	-0.091
		717.42		-1.500E-01	5.444E-01	8.902E-01	7.495E-02	-0.169
		874.81		2.282E-01	3.928E-01	6.679E-01	7.285E-02	0.342
		880.27		5.689E-02	5.254E-01	8.660E-01	9.526E-02	0.066
W-188	+	63.58		1.194E+02	7.287E+01	8.535E+01	6.706E+00	1.399
		227.08		-3.403E-01	8.960E+00	1.479E+01	8.153E-01	-0.023
		290.67	*	-2.106E+00	5.524E+00	7.632E+00	4.372E-01	-0.276
IR-192	+	295.96		7.338E-01	1.241E-01	1.855E-01	1.082E-02	3.956
		308.46		-3.217E-02	5.992E-02	9.385E-02	5.468E-03	-0.343
		316.51	*	-3.301E-03	2.253E-02	3.604E-02	2.090E-03	-0.092
		468.07		2.951E-02	4.247E-02	6.463E-02	4.605E-03	0.457
		604.41		-8.653E-02	3.522E-01	4.789E-01	5.819E-02	-0.181
		612.46		1.490E+00	5.824E-01	9.477E-01	8.314E-02	1.573
AU-195		65.12		3.501E-02	1.553E-01	2.340E-01	1.855E-02	0.150
		66.83		-6.109E-02	8.336E-02	1.197E-01	9.574E-03	-0.510
	+	75.70		6.955E-01	1.996E-01	3.189E-01	2.678E-02	2.181
		98.88	*	1.500E-01	1.622E-01	2.724E-01	2.084E-02	0.551
		129.76		2.439E+00	2.040E+00	3.404E+00	1.948E-01	0.716
TL-200		367.94	*	7.183E-04	2.040E+00	Half-Life too short		
		579.30		1.787E-02	2.040E+00	Half-Life too short		
		828.27		3.907E-03	2.040E+00	Half-Life too short		
		1205.75		3.360E-03	2.040E+00	Half-Life too short		
TL-201		68.90		-2.531E+00	7.057E+00	1.157E+01	9.350E-01	-0.219
		70.82		5.963E+00	4.387E+00	6.871E+00	5.610E-01	0.868
		80.30		-6.554E-01	7.789E+00	1.143E+01	9.909E-01	-0.057
		135.34		-2.976E+01	3.363E+01	5.147E+01	2.890E+00	-0.578
		167.43	*	-1.339E+01	8.717E+00	1.383E+01	7.261E-01	-0.968
TL-202		68.90		-1.387E-01	3.868E-01	6.340E-01	5.125E-02	-0.219
		70.82		3.260E-01	2.398E-01	3.756E-01	3.067E-02	0.868
		80.30		-3.584E-02	4.259E-01	6.249E-01	5.419E-02	-0.057

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	2.553E-02	4.924E-02	8.410E-02	5.127E-03	0.304
HG-203		70.83		1.248E+00	9.297E-01	1.442E+00	1.920E-01	0.865
		72.87		-2.934E-01	5.477E-01	7.911E-01	1.026E-01	-0.371
		82.60		-2.766E-01	8.489E-01	1.379E+00	1.913E-01	-0.201
		279.20	*	5.496E-03	2.730E-02	4.486E-02	2.721E-03	0.123
BI-207		72.80		-1.029E-01	1.534E-01	2.204E-01	1.819E-02	-0.467
	+	74.97		3.816E-01	1.095E-01	1.588E-01	1.327E-02	2.404
		84.90		5.447E-02	1.536E-01	2.273E-01	2.045E-02	0.240
		569.67		3.230E-03	1.909E-02	3.074E-02	2.154E-03	0.105
		1063.62	*	-1.470E-02	3.375E-02	5.317E-02	4.389E-03	-0.277
		1770.23		-1.828E-01	3.042E-01	3.608E-01	2.183E-02	-0.507
TL-207		81.07		5.363E-02	1.710E-01	2.552E-01	2.226E-02	0.210
		83.78		-2.691E-02	1.035E-01	1.493E-01	1.331E-02	-0.180
		94.90		4.464E-01	1.836E-01	2.923E-01	2.379E-02	1.527
		122.32		-7.677E-01	1.281E+00	2.003E+00	1.360E-01	-0.383
		144.24		-7.766E-02	4.816E-01	7.519E-01	5.247E-02	-0.103
	+	154.21		5.129E-01	3.681E-01	4.647E-01	3.092E-02	1.104
	+	269.46		1.815E-01	1.584E-01	2.154E-01	1.280E-02	0.842
		323.87	*	-4.586E-01	4.428E-01	6.633E-01	1.095E-01	-0.691
	+	338.28		3.467E+00	1.193E+00	1.511E+00	1.590E-01	2.295
		445.03		-1.056E-01	1.375E+00	2.270E+00	2.375E-01	-0.046
PO-209		260.50		-1.592E+00	6.091E+00	9.846E+00	5.557E-01	-0.162
		262.80		-1.121E+01	1.662E+01	2.627E+01	1.484E+00	-0.427
		896.60	*	-6.972E-01	4.830E+00	7.804E+00	8.802E-01	-0.089
BI-210		46.50	*	1.622E+00	4.162E+00	6.978E+00	5.399E-01	0.232
PB-210		46.50	*	1.622E+00	4.162E+00	6.978E+00	5.399E-01	0.232
PO-210		46.50	*	1.622E+00	4.161E+00	6.978E+00	4.642E-01	0.232
PB-211		404.84	*	-8.008E-01	7.380E-01	8.333E-01	5.195E-01	-0.961
		427.08		-6.739E-03	1.216E+00	2.024E+00	1.251E+00	-0.003
		831.96		-5.651E-01	8.339E-01	1.174E+00	7.387E-01	-0.481
BI-212	+	727.18	*	6.025E-01	2.749E-01	4.062E-01	4.045E-02	1.483
		785.46		2.619E-02	1.108E+00	1.795E+00	1.697E-01	0.015
		1620.62		1.400E+00	7.753E-01	1.524E+00	1.031E-01	0.919
PO-215		81.07		5.363E-02	1.710E-01	2.552E-01	2.226E-02	0.210
		83.78		-2.691E-02	1.035E-01	1.493E-01	1.331E-02	-0.180
		94.90		4.464E-01	1.836E-01	2.923E-01	2.379E-02	1.527
		122.32		-7.677E-01	1.281E+00	2.003E+00	1.360E-01	-0.383
		144.24		-7.766E-02	4.816E-01	7.519E-01	5.247E-02	-0.103
	+	154.21		5.129E-01	3.681E-01	4.647E-01	3.092E-02	1.104
	+	269.46		1.815E-01	1.584E-01	2.154E-01	1.280E-02	0.842
		323.87	*	-4.586E-01	4.428E-01	6.633E-01	1.095E-01	-0.691
	+	338.28		3.467E+00	1.193E+00	1.511E+00	1.590E-01	2.295
		445.03		-1.056E-01	1.375E+00	2.270E+00	2.375E-01	-0.046
RN-219	+	271.23		2.328E-01	2.036E-01	2.737E-01	2.194E-02	0.851
		401.81	*	2.029E-01	2.407E-01	4.179E-01	5.689E-02	0.485
RN-220		549.76	*	9.594E+00	1.584E+01	2.680E+01	1.842E+00	0.358
RA-223		81.07		5.363E-02	1.710E-01	2.552E-01	2.226E-02	0.210
		83.78		-2.691E-02	1.035E-01	1.493E-01	1.331E-02	-0.180
		94.90		4.464E-01	1.836E-01	2.923E-01	2.379E-02	1.527

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-7.677E-01	1.281E+00	2.003E+00	1.360E-01	-0.383
		144.24		-7.766E-02	4.816E-01	7.519E-01	5.247E-02	-0.103
	+	154.21		5.129E-01	3.681E-01	4.647E-01	3.092E-02	1.104
	+	269.46		1.815E-01	1.584E-01	2.154E-01	1.280E-02	0.842
		323.87	*	-4.586E-01	4.428E-01	6.633E-01	1.095E-01	-0.691
	+	338.28		3.467E+00	1.193E+00	1.511E+00	1.590E-01	2.295
		445.03		-1.056E-01	1.375E+00	2.270E+00	2.375E-01	-0.046
AC-227		79.80		-9.998E-01	1.356E+00	1.905E+00	4.098E-01	-0.525
		236.00		3.477E-01	1.700E-01	2.668E-01	2.752E-02	1.303
		256.20	*	-7.892E-02	2.452E-01	3.955E-01	5.493E-02	-0.200
		286.10		5.646E-03	1.003E+00	1.630E+00	1.878E-01	0.003
	+	299.80		1.450E+00	1.042E+00	1.542E+00	2.509E-01	0.940
		304.40		5.388E-01	1.306E+00	1.896E+00	3.277E-01	0.284
		334.20		4.995E-01	1.683E+00	2.404E+00	4.407E-01	0.208
TH-227		79.80		-9.998E-01	1.356E+00	1.905E+00	4.151E-01	-0.525
	+	94.00		9.753E+00	3.356E+00	3.037E+00	6.572E-01	3.211
		236.00		3.477E-01	1.691E-01	2.668E-01	2.374E-02	1.303
		256.20	*	-7.892E-02	2.453E-01	3.955E-01	6.660E-02	-0.200
		286.10		5.646E-03	1.003E+00	1.630E+00	1.633E+00	0.003
	+	299.80		1.450E+00	1.042E+00	1.542E+00	2.509E-01	0.940
		304.40		5.388E-01	1.306E+00	1.896E+00	3.277E-01	0.284
		334.20		4.995E-01	1.683E+00	2.404E+00	4.407E-01	0.208
TH-229		85.43		1.796E-01	1.501E-01	2.291E-01	2.071E-02	0.784
	+	88.47		2.600E-01	9.495E-02	1.491E-01	1.366E-02	1.743
		100.00		5.099E-02	1.314E-01	2.167E-01	1.631E-02	0.235
		193.63	*	4.823E-02	3.169E-01	5.330E-01	2.854E-02	0.090
		210.97		7.866E-01	5.265E-01	8.170E-01	4.441E-02	0.963
PA-231		283.67	*	1.755E-01	9.953E-01	1.632E+00	2.243E-01	0.108
	+	301.29		5.799E-01	4.106E-01	6.309E-01	6.576E-02	0.919
TH-231		81.07		5.363E-02	1.710E-01	2.552E-01	2.226E-02	0.210
		83.78		-2.691E-02	1.035E-01	1.493E-01	1.331E-02	-0.180
		94.90		4.464E-01	1.836E-01	2.923E-01	2.379E-02	1.527
		122.32		-7.677E-01	1.281E+00	2.003E+00	1.360E-01	-0.383
		144.24		-7.766E-02	4.816E-01	7.519E-01	5.247E-02	-0.103
	+	154.21		5.129E-01	3.681E-01	4.647E-01	3.092E-02	1.104
	+	269.46		1.815E-01	1.584E-01	2.154E-01	1.280E-02	0.842
		323.87	*	-4.586E-01	4.428E-01	6.633E-01	1.095E-01	-0.691
	+	338.28		3.467E+00	1.193E+00	1.511E+00	1.590E-01	2.295
		445.03		-1.056E-01	1.375E+00	2.270E+00	2.375E-01	-0.046
U-231		84.21		-1.844E+00	7.185E+00	1.036E+01	9.267E-01	-0.178
	+	92.29		1.553E+01	4.349E+00	5.343E+00	4.549E-01	2.907
		95.87	*	-9.749E-01	1.398E+00	1.959E+00	1.569E-01	-0.498
		108.00		1.260E+00	2.362E+00	3.898E+00	2.650E-01	0.323
PA-233	+	75.28		1.113E+01	3.495E+00	4.712E+00	7.169E-01	2.363
	+	86.59		3.728E+00	1.658E+00	2.195E+00	5.925E-01	1.698
	+	300.12		4.042E-01	2.882E-01	4.304E-01	5.774E-02	0.939
		311.98	*	-7.248E-03	3.951E-02	6.311E-02	3.866E-03	-0.115
		340.50		1.495E+00	5.875E-01	7.945E-01	1.824E-01	1.882
		398.62		3.401E-01	1.252E+00	2.120E+00	5.481E-01	0.160

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.068E-01	9.696E-01	1.627E+00	3.355E-01	0.066
PA-234	+	63.00		3.363E+00	2.098E+00	2.451E+00	3.695E-01	1.372
		94.67		4.485E-01	1.434E-01	2.222E-01	2.687E-02	2.019
		98.44		2.114E-02	6.924E-02	1.072E-01	5.965E-02	0.197
		99.86		1.588E-01	3.340E-01	5.525E-01	4.168E-02	0.287
		111.00		-1.565E-01	1.337E-01	2.040E-01	2.189E-02	-0.767
		131.20		4.099E-02	7.288E-02	1.190E-01	6.774E-03	0.344
	+	152.70		4.209E-01	3.079E-01	3.578E-01	5.602E-02	1.176
	+	186.00		3.728E+00	1.837E+00	1.729E+00	5.267E-01	2.156
		226.40		9.686E-02	2.724E-01	4.563E-01	5.210E-02	0.212
		227.20		-3.520E-02	2.944E-01	4.846E-01	2.671E-02	-0.073
		248.90		-3.333E-01	5.188E-01	8.185E-01	1.754E-01	-0.407
		293.70		3.563E+00	8.195E-01	1.070E+00	1.719E-01	3.328
		369.80		-1.366E-01	4.913E-01	8.133E-01	1.693E-01	-0.168
		568.70		3.644E-01	6.217E-01	1.027E+00	7.191E-02	0.355
		569.50		3.043E-02	1.695E-01	2.731E-01	1.913E-02	0.111
		574.00		-5.421E-01	8.970E-01	1.395E+00	9.815E-02	-0.389
		699.00		-6.968E-02	4.507E-01	7.454E-01	1.407E-01	-0.093
		706.10		1.569E-01	6.280E-01	1.058E+00	4.709E-01	0.148
		733.00		1.248E-01	2.514E-01	3.756E-01	8.342E-02	0.332
		742.81		5.734E-01	8.854E-01	1.388E+00	9.337E-01	0.413
		796.30		6.292E-01	6.363E-01	1.044E+00	2.860E-01	0.602
		805.60		-6.228E-03	6.021E-01	9.923E-01	3.075E-01	-0.006
		819.60		1.207E-02	7.210E-01	1.189E+00	4.560E-01	0.010
		826.30		2.685E-01	5.131E-01	8.523E-01	3.840E-01	0.315
		831.60		-4.550E-01	4.141E-01	5.880E-01	1.784E-01	-0.774
		876.40		3.402E-01	6.423E-01	9.207E-01	9.485E-01	0.369
		880.51		-1.277E-02	1.864E-01	3.035E-01	3.340E-02	-0.042
		883.24		-5.672E-03	1.894E-01	3.091E-01	2.089E-01	-0.018
		899.00		1.460E-01	5.446E-01	9.001E-01	3.989E-01	0.162
		925.00		-4.177E-01	7.586E-01	1.180E+00	1.286E-01	-0.354
		926.50		-6.832E-02	1.124E-01	1.718E-01	4.490E-02	-0.398
		946.00	*	-1.117E-01	2.067E-01	3.207E-01	6.326E-02	-0.348
		949.00		3.894E-01	2.998E-01	5.267E-01	5.532E-02	0.739
		980.50		-1.895E-01	4.859E-01	7.625E-01	7.585E-02	-0.249
		1394.10		1.097E-01	6.882E-01	1.134E+00	7.367E-01	0.097
PA-234M	+	766.42		2.274E+01	1.650E+01	1.395E+01	7.089E+00	1.630
		1001.03	*	5.506E+00	3.236E+00	5.688E+00	6.136E-01	0.968
U-235		89.95		-1.571E-01	1.173E+00	1.340E+00	4.145E-01	-0.117
	+	93.35		3.034E+00	1.173E+00	1.027E+00	2.869E-01	2.955
		105.00		3.591E-02	7.646E-01	1.241E+00	3.652E-01	0.029
		143.76	*	4.173E-02	1.459E-01	2.317E-01	3.753E-02	0.180
		163.35		3.190E-02	3.112E-01	5.215E-01	9.292E-02	0.061
	+	185.71		1.381E-01	5.397E-02	6.430E-02	3.420E-03	2.147
		205.31		-2.754E-01	4.005E-01	5.570E-01	9.949E-02	-0.494
NP-236		94.67		3.432E-01	1.046E-01	1.688E-01	1.379E-02	2.033
		98.44		1.596E-02	5.159E-02	8.102E-02	6.239E-03	0.197
		111.00		-1.184E-01	1.006E-01	1.543E-01	1.015E-02	-0.767
		160.31	*	-3.290E-02	5.366E-02	8.580E-02	4.545E-03	-0.383

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.244E-01	1.112E-01	1.879E-01	1.424E-02	0.662
		117.00	*	2.487E-02	1.336E-01	2.166E-01	1.340E-02	0.115
	+	209.75		9.870E-01	6.667E-01	8.512E-01	4.623E-02	1.159
		228.18		7.144E-02	1.526E-01	2.567E-01	1.416E-02	0.278
		277.60		9.622E-02	1.151E-01	1.945E-01	1.108E-02	0.495
		334.30		3.269E-01	9.546E-01	1.369E+00	7.919E-02	0.239
AM-241		59.54	*	1.032E-02	1.462E-01	2.203E-01	1.827E-02	0.047
CM-243		99.55		1.280E-01	1.145E-01	1.934E-01	1.466E-02	0.662
		103.76	*	2.298E-02	6.894E-02	1.132E-01	8.104E-03	0.203
		117.00		2.559E-02	1.374E-01	2.228E-01	1.379E-02	0.115
	+	209.75		9.732E-01	6.573E-01	8.393E-01	4.558E-02	1.159
		228.18		7.220E-02	1.542E-01	2.594E-01	1.431E-02	0.278
		277.60		9.703E-02	1.161E-01	1.961E-01	1.117E-02	0.495
AM-246		798.80		-1.360E-01	9.428E-02	1.394E-01	1.347E-02	-0.976
		1036.00		5.319E-02	1.834E-01	3.134E-01	2.774E-02	0.170
		1062.04		2.128E-02	1.456E-01	2.396E-01	1.987E-02	0.089
		1078.86	*	3.463E-02	8.696E-02	1.492E-01	1.180E-02	0.232
CM-247		278.00		3.964E-01	4.758E-01	8.036E-01	4.578E-02	0.493
		287.40		1.816E-02	8.078E-01	1.314E+00	7.515E-02	0.014
		402.60	*	1.372E-02	2.126E-02	3.677E-02	2.141E-03	0.373
CF-249		252.85		-1.049E-01	5.443E-01	8.848E-01	4.970E-02	-0.119
		333.44		-1.457E-02	1.296E-01	1.801E-01	1.041E-02	-0.081
		387.95	*	1.234E-02	2.442E-02	4.198E-02	2.413E-03	0.294
CF-251		176.60	*	-9.684E-04	7.970E-02	1.340E-01	7.078E-03	-0.007
		227.00		-5.648E-03	2.614E-01	4.318E-01	2.380E-02	-0.013
		285.00		-2.734E-01	1.153E+00	1.853E+00	1.059E-01	-0.147

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978010       *
* Acquisition date : 14-FEB-2010 12:17:41 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.67     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978010           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.6520E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.423E+01	2.106E+00	2.971E-01	0.000E+00
NB-95	8.863E-02	4.570E-02	4.206E-02	0.000E+00
CD-109	1.946E+00	6.964E-01	1.199E+00	0.000E+00
SN-126	1.904E-01	6.815E-02	1.142E-01	0.000E+00
RE-188	2.285E-01	1.605E-01	2.119E-01	0.000E+00
TL-208	3.298E-01	5.432E-02	3.516E-02	0.000E+00
BI-211	2.530E+00	3.312E-01	2.080E-01	0.000E+00
PB-212	9.954E-01	9.698E-02	6.136E-02	0.000E+00
PO-212	9.954E-01	9.698E-02	6.136E-02	0.000E+00
BI-214	6.911E-01	1.041E-01	6.966E-02	0.000E+00
PB-214	8.800E-01	1.237E-01	7.249E-02	0.000E+00
PO-214	8.800E-01	1.237E-01	7.249E-02	0.000E+00
PO-216	9.954E-01	9.698E-02	6.136E-02	0.000E+00
PO-218	8.800E-01	1.237E-01	7.249E-02	0.000E+00
RA-224	2.627E+00	7.992E-01	6.973E-01	0.000E+00
RA-226	6.911E-01	1.041E-01	6.966E-02	0.000E+00
AC-228	1.051E+00	2.246E-01	1.381E-01	0.000E+00
RA-228	1.051E+00	2.246E-01	1.381E-01	0.000E+00
TH-228	1.013E+00	9.874E-02	6.247E-02	0.000E+00
TH-230	6.911E-01	1.041E-01	6.966E-02	0.000E+00
TH-232	1.051E+00	2.246E-01	1.381E-01	0.000E+00
TH-234	2.885E+00	1.783E+00	1.847E+00	0.000E+00
U-234	6.911E-01	1.041E-01	6.966E-02	0.000E+00
NP-237	5.592E-01	2.299E-01	3.190E-01	0.000E+00
U-238	2.885E+00	1.783E+00	1.847E+00	0.000E+00
AM-243	2.126E-01	5.979E-02	7.619E-02	0.000E+00
ANH-511	5.893E-02	4.318E-02	3.310E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	-2.370E-02	2.001E-01	3.504E-01	0.000E+00	NOT IDENT.
NA-22	-2.703E-02	2.963E-02	4.693E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.096E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	7.630E-03	1.727E-02	3.093E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	3.859E-02	6.188E-02	0.000E+00	FAIL ABUN
SC-46	-1.552E-02	2.590E-02	4.237E-02	0.000E+00	FAIL ABUN
V-48	-8.830E-04	5.278E-02	8.922E-02	0.000E+00	NOT IDENT.
CR-51	-9.812E-02	2.512E-01	4.286E-01	0.000E+00	NOT IDENT.
MN-52	2.522E-01	2.019E-01	3.814E-01	0.000E+00	NOT IDENT.
MN-54	2.296E-02	2.298E-02	4.205E-02	0.000E+00	NOT IDENT.
CO-56	6.547E-03	2.507E-02	4.399E-02	0.000E+00	NOT IDENT.
CO-57	-1.102E-02	1.829E-02	3.186E-02	0.000E+00	NOT IDENT.
CO-58	9.692E-03	2.322E-02	4.143E-02	0.000E+00	NOT IDENT.
FE-59	-9.063E-02	5.947E-02	9.081E-02	0.000E+00	NOT IDENT.
CO-60	-7.955E-04	2.616E-02	4.417E-02	0.000E+00	NOT IDENT.
ZN-65	9.625E-02	6.473E-02	1.087E-01	0.000E+00	NOT IDENT.
GE-68	2.441E-01	7.586E-01	1.349E+00	0.000E+00	NOT IDENT.
AS-73	2.352E-01	8.259E-01	1.597E+00	0.000E+00	NOT IDENT.
AS-74	-5.370E-02	6.255E-02	1.007E-01	0.000E+00	NOT IDENT.
SE-75	-1.407E-02	2.971E-02	4.753E-02	0.000E+00	NOT IDENT.
BR-77	5.792E+00	1.383E+01	2.480E+01	0.000E+00	FAIL ABUN
SR-82	-6.298E-02	2.528E-01	4.232E-01	0.000E+00	NOT IDENT.
RB-83	1.877E-02	4.036E-02	7.254E-02	0.000E+00	NOT IDENT.
RB-84	-9.225E-03	4.823E-02	8.163E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	5.413E+00	9.883E+00	0.000E+00	NOT IDENT.
SR-85	0.000E+00	2.861E-02	5.224E-02	0.000E+00	NOT IDENT.
RB-86	6.120E-03	5.279E-01	9.188E-01	0.000E+00	NOT IDENT.
Y-88	-2.120E-02	2.043E-02	2.850E-02	0.000E+00	NOT IDENT.
ZR-88	-5.523E-03	1.827E-02	3.240E-02	0.000E+00	NOT IDENT.
Y-91	1.874E+00	1.227E+01	2.126E+01	0.000E+00	NOT IDENT.
NB-94	4.357E-03	2.021E-02	3.609E-02	0.000E+00	NOT IDENT.
NB-95M	5.523E-02	8.576E-02	1.403E-01	0.000E+00	NOT IDENT.
ZR-95	-5.381E-03	4.374E-02	7.585E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.027E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.265E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.295E+00	1.386E+01	2.413E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.745E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.970E-03	2.166E-02	3.836E-02	0.000E+00	NOT IDENT.
RH-102	1.194E-02	1.752E-02	3.209E-02	0.000E+00	FAIL ABUN
RU-103	7.835E-04	2.454E-02	4.315E-02	0.000E+00	FAIL ABUN
RH-106	1.843E-01	1.917E-01	3.466E-01	0.000E+00	FAIL ABUN
RU-106	1.843E-01	1.908E-01	3.466E-01	0.000E+00	FAIL ABUN
AG-108M	-6.782E-03	1.921E-02	3.355E-02	0.000E+00	NOT IDENT.
AG-110M	-1.278E-02	2.146E-02	3.676E-02	0.000E+00	NOT IDENT.
IN-111	5.711E-01	1.425E+00	2.298E+00	0.000E+00	NOT IDENT.
IN-113M	-1.799E-02	2.688E-02	4.675E-02	0.000E+00	NOT IDENT.
SN-113	-1.799E-02	2.688E-02	4.675E-02	0.000E+00	NOT IDENT.
IN-114M	-1.852E-02	1.277E-01	2.053E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	1.562E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	4.861E-02	4.472E-02	7.769E-02	0.000E+00	NOT IDENT.
SB-122	8.039E-01	2.480E+00	4.380E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.604E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.372E-02	2.057E-02	3.506E-02	0.000E+00	NOT IDENT.
I-124	-4.276E-01	7.812E-01	1.095E+00	0.000E+00	FAIL ABUN
SB-124	-6.542E-03	3.608E-02	5.926E-02	0.000E+00	FAIL ABUN
SB-125	1.778E-03	5.282E-02	9.447E-02	0.000E+00	FAIL ABUN
TE-125M	2.453E+00	6.666E+00	1.219E+01	0.000E+00	NOT IDENT.
I-126	-1.511E-01	1.314E-01	2.166E-01	0.000E+00	NOT IDENT.
SB-126	9.468E-03	1.106E-01	1.757E-01	0.000E+00	FAIL ABUN
SB-127	9.360E-01	1.295E+00	2.389E+00	0.000E+00	NOT IDENT.
XE-127	-7.737E-03	3.234E-02	5.860E-02	0.000E+00	NOT IDENT.
I-131	2.935E-03	8.397E-02	1.528E-01	0.000E+00	NOT IDENT.
TE-132	4.016E-01	8.479E-01	1.556E+00	0.000E+00	NOT IDENT.
BA-133	-2.838E-03	2.859E-02	4.253E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.651E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.743E-02	3.100E-02	5.578E-02	0.000E+00	NOT IDENT.
CS-135	1.784E-01	1.123E-01	1.902E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.284E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.219E-02	7.846E-02	1.383E-01	0.000E+00	FAIL ABUN
BA-137M	2.842E-02	2.258E-02	4.262E-02	0.000E+00	NOT IDENT.
CS-137	3.004E-02	2.387E-02	4.506E-02	0.000E+00	NOT IDENT.
CE-139	2.382E-03	1.890E-02	3.538E-02	0.000E+00	NOT IDENT.
BA-140	3.288E-02	1.708E-01	3.003E-01	0.000E+00	NOT IDENT.
LA-140	-1.960E-02	5.562E-02	9.102E-02	0.000E+00	NOT IDENT.
CE-141	8.301E-04	4.529E-02	7.955E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.588E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.969E-02	1.351E-01	2.359E-01	0.000E+00	NOT IDENT.
PM-144	4.621E-03	2.184E-02	3.902E-02	0.000E+00	NOT IDENT.

PR-144	3.136E-01	1.483E+00	2.648E+00	0.000E+00	NOT IDENT.
PM-146	-8.157E-04	2.488E-02	4.404E-02	0.000E+00	NOT IDENT.
ND-147	-1.129E-01	4.055E-01	6.934E-01	0.000E+00	NOT IDENT.
PM-149	0.000E+00	1.451E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-2.403E-02	7.284E-02	9.880E-02	0.000E+00	FAIL ABUN
GD-153	-9.159E-03	6.217E-02	1.004E-01	0.000E+00	NOT IDENT.
EU-154	-9.507E-02	8.422E-02	1.306E-01	0.000E+00	NOT IDENT.
EU-155	8.888E-03	7.630E-02	1.387E-01	0.000E+00	FAIL ABUN
TB-160	-9.116E-03	9.574E-02	1.633E-01	0.000E+00	FAIL ABUN
HO-166M	3.013E-03	3.437E-02	6.087E-02	0.000E+00	FAIL ABUN
TM-171	-4.130E-01	2.374E+01	3.997E+01	0.000E+00	NOT IDENT.
LU-176	-1.890E-03	1.500E-02	2.608E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.242E+00	1.782E+00	0.000E+00	FAIL ABUN
LU-177M	-1.185E-01	1.064E-01	1.790E-01	0.000E+00	FAIL ABUN
HF-181	-1.636E-03	2.670E-02	4.686E-02	0.000E+00	NOT IDENT.
W-181	4.506E-02	3.291E-01	5.590E-01	0.000E+00	NOT IDENT.
TA-182	6.351E-03	1.353E-01	2.322E-01	0.000E+00	FAIL ABUN
RE-183	-5.385E-02	7.304E-02	1.311E-01	0.000E+00	FAIL ABUN
RE-184	-2.830E-02	1.438E-01	2.548E-01	0.000E+00	NOT IDENT.
OS-185	-3.946E-03	2.673E-02	4.501E-02	0.000E+00	NOT IDENT.
W-188	-2.106E+00	5.413E+00	8.117E+00	0.000E+00	FAIL ABUN
IR-192	-3.301E-03	2.208E-02	3.823E-02	0.000E+00	FAIL ABUN
AU-195	1.500E-01	1.589E-01	2.988E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.616E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.339E+01	8.542E+00	1.495E+01	0.000E+00	NOT IDENT.
TL-202	2.553E-02	4.826E-02	8.834E-02	0.000E+00	NOT IDENT.
HG-203	5.496E-03	2.675E-02	4.777E-02	0.000E+00	NOT IDENT.
BI-207	-1.470E-02	3.308E-02	5.434E-02	0.000E+00	FAIL ABUN
TL-207	-4.586E-01	4.339E-01	7.032E-01	0.000E+00	FAIL ABUN
PO-209	-6.972E-01	4.734E+00	8.019E+00	0.000E+00	NOT IDENT.
BI-210	1.622E+00	4.079E+00	7.813E+00	0.000E+00	NOT IDENT.
PB-210	1.622E+00	4.079E+00	7.813E+00	0.000E+00	NOT IDENT.
PO-210	1.622E+00	4.078E+00	7.813E+00	0.000E+00	NOT IDENT.
PB-211	-8.008E-01	7.232E-01	8.775E-01	0.000E+00	NOT IDENT.
BI-212	0.000E+00	2.694E-01	4.201E-01	0.000E+00	FAIL ABUN
PO-215	-4.586E-01	4.339E-01	7.032E-01	0.000E+00	FAIL ABUN
RN-219	2.029E-01	2.359E-01	4.402E-01	0.000E+00	FAIL ABUN
RN-220	9.594E+00	1.552E+01	2.796E+01	0.000E+00	NOT IDENT.
RA-223	-4.586E-01	4.339E-01	7.032E-01	0.000E+00	FAIL ABUN
AC-227	-7.892E-02	2.403E-01	4.221E-01	0.000E+00	FAIL ABUN
TH-227	-7.892E-02	2.404E-01	4.221E-01	0.000E+00	FAIL ABUN
TH-229	4.823E-02	3.106E-01	5.736E-01	0.000E+00	FAIL ABUN
PA-231	1.755E-01	9.754E-01	1.737E+00	0.000E+00	FAIL ABUN
TH-231	-4.586E-01	4.339E-01	7.032E-01	0.000E+00	FAIL ABUN
U-231	-9.749E-01	1.370E+00	2.150E+00	0.000E+00	FAIL ABUN
PA-233	-7.248E-03	3.872E-02	6.698E-02	0.000E+00	FAIL ABUN
PA-234	-1.117E-01	2.026E-01	3.290E-01	0.000E+00	FAIL ABUN
PA-234M	5.506E+00	3.171E+00	5.824E+00	0.000E+00	FAIL ABUN
U-235	4.173E-02	1.429E-01	2.515E-01	0.000E+00	FAIL ABUN
NP-236	-3.290E-02	5.259E-02	9.283E-02	0.000E+00	NOT IDENT.
NP-239	2.487E-02	1.309E-01	2.364E-01	0.000E+00	FAIL ABUN
AM-241	1.032E-02	1.433E-01	2.451E-01	0.000E+00	NOT IDENT.
CM-243	2.298E-02	6.756E-02	1.240E-01	0.000E+00	FAIL ABUN
AM-246	3.463E-02	8.522E-02	1.524E-01	0.000E+00	NOT IDENT.
CM-247	1.372E-02	2.084E-02	3.872E-02	0.000E+00	NOT IDENT.
CF-249	1.234E-02	2.394E-02	4.426E-02	0.000E+00	NOT IDENT.
CF-251	-9.684E-04	7.810E-02	1.446E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:18:15.33

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978010.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:17:41
Sample ID         : G245978010           Sample quantity  : 1.65200E+02 GRAM
Detector name     : GAM18                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	2154	10.67*	1.893E+00	2.423E+01	2.423E+01	8.87
NB-95	765.79	102	99.81*	3.199E+00	7.289E-02	8.863E-02	52.62
CD-109	88.03	200	3.72*	6.456E+00	1.894E+00	1.946E+00	36.52
SN-126	64.28	151	9.60	3.121E+00	1.142E+00	1.142E+00	62.31
	86.94	200	8.90	6.456E+00	7.917E-01	7.917E-01	54.49
	87.57	200	37.00*	6.456E+00	1.904E-01	1.904E-01	36.52
RE-188	155.03	102	15.00*	8.126E+00	1.908E-01	2.285E-01	71.67
	477.96	------	1.04	4.504E+00	------	Line Not Found	------
	633.10	------	1.26	3.707E+00	------	Line Not Found	------
TL-208	277.35	------	6.80	6.258E+00	------	Line Not Found	------
	510.84	112	21.60	4.310E+00	2.728E-01	2.728E-01	75.23
	583.14	481	84.20*	3.934E+00	3.298E-01	3.298E-01	16.81
	860.37	------	12.46	2.915E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	4.622E+00	------	Line Not Found	------
	351.07	785	12.94*	5.452E+00	2.530E+00	2.530E+00	13.36
PB-212	74.81	305	10.70	4.944E+00	1.311E+00	1.311E+00	30.18
	77.11	459	18.00	5.245E+00	1.105E+00	1.105E+00	19.32
	87.30	200	8.00	6.456E+00	8.808E-01	8.808E-01	37.86
	238.63	1327	44.60*	6.792E+00	9.954E-01	9.954E-01	9.94
	300.09	70	3.41	5.983E+00	7.823E-01	7.823E-01	70.52
PO-212	74.81	305	10.70	4.944E+00	1.311E+00	1.311E+00	30.18
	77.11	459	18.00	5.245E+00	1.105E+00	1.105E+00	19.32
	87.30	200	8.00	6.456E+00	8.808E-01	8.808E-01	37.86
	115.19	------	0.60	8.058E+00	------	Line Not Found	------
	238.63	1327	44.60*	6.792E+00	9.954E-01	9.954E-01	9.94
	300.09	70	3.41	5.983E+00	7.823E-01	7.823E-01	70.52
BI-214	609.31	537	46.30*	3.812E+00	6.911E-01	6.911E-01	15.38
	1120.29	163	15.10	2.335E+00	1.050E+00	1.050E+00	32.72
	1764.49	109	15.80	1.695E+00	9.271E-01	9.271E-01	26.23
PB-214	74.81	305	6.21	4.944E+00	2.259E+00	2.259E+00	29.64
	77.11	459	10.50	5.245E+00	1.893E+00	1.893E+00	20.77
	87.30	200	4.67	6.456E+00	1.509E+00	1.509E+00	37.32

Sample ID : G245978010 Acquisition date : 14-FEB-2010 12:17:41

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	308	7.49	6.749E+00	1.385E+00	1.385E+00	31.54
	295.21	478	19.20	6.040E+00	9.366E-01	9.366E-01	18.00
	351.92	785	37.20*	5.452E+00	8.800E-01	8.800E-01	14.34
PO-214	74.81	305	6.21	4.944E+00	2.259E+00	2.259E+00	29.64
	77.11	459	10.50	5.245E+00	1.893E+00	1.893E+00	20.77
	87.30	200	4.67	6.456E+00	1.509E+00	1.509E+00	37.32
	241.98	308	7.49	6.749E+00	1.385E+00	1.385E+00	31.54
	295.21	478	19.20	6.040E+00	9.366E-01	9.366E-01	18.00
	351.92	785	37.20*	5.452E+00	8.800E-01	8.800E-01	14.34
PO-216	74.81	305	10.70	4.944E+00	1.311E+00	1.311E+00	30.18
	77.11	459	18.00	5.245E+00	1.105E+00	1.105E+00	19.32
	87.30	200	8.00	6.456E+00	8.808E-01	8.808E-01	37.86
	238.63	1327	44.60*	6.792E+00	9.954E-01	9.954E-01	9.94
	300.09	70	3.41	5.983E+00	7.823E-01	7.823E-01	70.52
PO-218	74.81	305	6.21	4.944E+00	2.259E+00	2.259E+00	29.64
	77.11	459	10.50	5.245E+00	1.893E+00	1.893E+00	20.77
	87.30	200	4.67	6.456E+00	1.509E+00	1.509E+00	37.32
	241.98	308	7.49	6.749E+00	1.385E+00	1.385E+00	31.54
	295.21	478	19.20	6.040E+00	9.366E-01	9.366E-01	18.00
	351.92	785	37.20*	5.452E+00	8.800E-01	8.800E-01	14.34
RA-224	240.98	308	3.95*	6.749E+00	2.627E+00	2.627E+00	31.04
RA-226	609.31	537	46.30*	3.812E+00	6.911E-01	6.911E-01	15.38
	1120.29	163	15.10	2.335E+00	1.050E+00	1.050E+00	32.72
	1764.49	109	15.80	1.695E+00	9.271E-01	9.271E-01	26.23
AC-228	338.32	232	11.40	5.579E+00	8.301E-01	8.301E-01	52.30
	911.07	356	27.70*	2.780E+00	1.051E+00	1.051E+00	21.80
	969.11	218	16.60	2.639E+00	1.130E+00	1.130E+00	30.78
RA-228	338.32	232	11.40	5.579E+00	8.301E-01	8.301E-01	52.30
	911.07	356	27.70*	2.780E+00	1.051E+00	1.051E+00	21.80
	969.11	218	16.60	2.639E+00	1.130E+00	1.130E+00	30.78
TH-228	74.81	305	10.70	4.944E+00	1.311E+00	1.335E+00	28.72
	77.11	459	18.00	5.245E+00	1.105E+00	1.125E+00	19.32
	87.30	200	8.00	6.456E+00	8.808E-01	8.967E-01	36.52
	238.63	1327	44.60*	6.792E+00	9.954E-01	1.013E+00	9.94
	300.09	70	3.41	5.983E+00	7.823E-01	7.964E-01	91.53
TH-230	609.31	537	46.30*	3.812E+00	6.911E-01	6.911E-01	15.38
	1120.29	163	15.10	2.335E+00	1.050E+00	1.050E+00	32.72
	1764.49	109	15.80	1.695E+00	9.271E-01	9.271E-01	26.23
TH-232	338.32	232	11.40	5.579E+00	8.301E-01	8.301E-01	33.27
	911.07	356	27.70*	2.780E+00	1.051E+00	1.051E+00	21.80
	969.11	218	16.60	2.639E+00	1.130E+00	1.130E+00	30.78
TH-234	63.29	151	3.80*	3.121E+00	2.885E+00	2.885E+00	63.05
	92.38	419	5.41	6.966E+00	2.524E+00	2.524E+00	32.20
U-234	609.31	537	46.30*	3.812E+00	6.911E-01	6.911E-01	15.38
	1120.29	163	15.10	2.335E+00	1.050E+00	1.050E+00	32.72
	1764.49	109	15.80	1.695E+00	9.271E-01	9.271E-01	26.23
NP-237	86.50	200	12.60*	6.456E+00	5.592E-01	5.592E-01	41.94
	95.87	------	2.60	7.180E+00	------ Line Not Found		------
U-238	63.29	151	3.80*	3.121E+00	2.885E+00	2.885E+00	63.05

Sample ID : G245978010 Acquisition date : 14-FEB-2010 12:17:41

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	92.38	419	5.41	6.966E+00	2.524E+00	2.524E+00	28.00
AM-243	74.67	305	66.00*	4.944E+00	2.126E-01	2.126E-01	28.70
	86.72	200	0.34	6.456E+00	2.097E+01	2.097E+01	36.52
	117.66	------	0.55	8.112E+00	------	Line Not Found	------
	142.18	------	0.13	8.232E+00	------	Line Not Found	------
ANH-511	511.00	112	100.00*	4.310E+00	5.893E-02	5.893E-02	74.77

Flag: "*" = Keyline

Sample ID : G245978010 Acquisition date : 14-FEB-2010 12:17:41

Total number of lines in spectrum 29
Number of unidentified lines 1
Number of lines tentatively identified by NID 28 96.55%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.423E+01	2.423E+01	0.215E+01	8.87	
NB-95	64.02D	1.22	7.289E-02	8.863E-02	4.664E-02	52.62	
CD-109	464.00D	1.03	1.894E+00	1.946E+00	0.711E+00	36.52	
SN-126	1.00E+05Y	1.00	1.904E-01	1.904E-01	0.695E-01	36.52	
RE-188	69.40D	1.20	1.908E-01	2.285E-01	1.638E-01	71.67	
TL-208	1.41E+10Y	1.00	3.298E-01	3.298E-01	0.554E-01	16.81	
BI-211	7.04E+08Y	1.00	2.530E+00	2.530E+00	0.338E+00	13.36	
PB-212	1.41E+10Y	1.00	9.954E-01	9.954E-01	0.990E-01	9.94	
PO-212	1.41E+10Y	1.00	9.954E-01	9.954E-01	0.990E-01	9.94	
BI-214	1600.00Y	1.00	6.911E-01	6.911E-01	1.063E-01	15.38	
PB-214	1600.00Y	1.00	8.800E-01	8.800E-01	1.262E-01	14.34	
PO-214	1600.00Y	1.00	8.800E-01	8.800E-01	1.262E-01	14.34	
PO-216	1.41E+10Y	1.00	9.954E-01	9.954E-01	0.990E-01	9.94	
PO-218	1600.00Y	1.00	8.800E-01	8.800E-01	1.262E-01	14.34	
RA-224	1.41E+10Y	1.00	2.627E+00	2.627E+00	0.815E+00	31.04	
RA-226	1600.00Y	1.00	6.911E-01	6.911E-01	1.063E-01	15.38	
AC-228	1.41E+10Y	1.00	1.051E+00	1.051E+00	0.229E+00	21.80	
RA-228	1.41E+10Y	1.00	1.051E+00	1.051E+00	0.229E+00	21.80	
TH-228	1.91Y	1.02	9.954E-01	1.013E+00	0.101E+00	9.94	
TH-230	4.47E+09Y	1.00	6.911E-01	6.911E-01	1.063E-01	15.38	
TH-232	1.41E+10Y	1.00	1.051E+00	1.051E+00	0.229E+00	21.80	
TH-234	4.47E+09Y	1.00	2.885E+00	2.885E+00	1.819E+00	63.05	
U-234	4.47E+09Y	1.00	6.911E-01	6.911E-01	1.063E-01	15.38	
NP-237	2.14E+06Y	1.00	5.592E-01	5.592E-01	2.346E-01	41.94	
U-238	4.47E+09Y	1.00	2.885E+00	2.885E+00	1.819E+00	63.05	
AM-243	7380.00Y	1.00	2.126E-01	2.126E-01	0.610E-01	28.70	
ANH-511	1.00E+09Y	1.00	5.893E-02	5.893E-02	4.406E-02	74.77	
		Total Activity :	5.121E+01	5.133E+01			

Grand Total Activity : 5.121E+01 5.133E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978010 Acquisition date : 14-FEB-2010 12:17:41

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	185.90	251	498	0.97	370.83	365	12	3.49E-02	38.7	7.65E+00	T
0	209.40	102	318	1.32	417.82	413	9	1.42E-02	67.3	7.26E+00	T
0	270.09	69	256	0.71	539.15	535	9	9.58E-03	87.1	6.35E+00	T
0	463.13	109	148	1.19	925.13	918	14	1.52E-02	51.3	4.60E+00	T
0	727.18	104	108	1.33	1453.09	1448	11	1.45E-02	44.5	3.34E+00	T
4	964.01	90	48	3.09	1926.65	1919	26	1.25E-02	43.2	2.65E+00	T
0	1377.61	34	16	0.99	2753.72	2749	9	4.75E-03	54.0	1.98E+00	T
0	1728.87	36	9	2.31	3456.19	3449	12	5.05E-03	46.7	1.71E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:18:23.94

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978010.CNF;1  *
* Acquisition date : 14-FEB-2010 12:17:41  Detector SN#     :              *
* Detector ID      : GAM18                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.67         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245978010            Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.65200E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.423E+01	2.149E+00	2.937E-01	2.229E-02	82.500
NB-95	8.863E-02	4.664E-02	4.073E-02	3.725E-03	2.176
CD-109	1.946E+00	7.106E-01	1.090E+00	1.008E-01	1.785
SN-126	1.904E-01	6.954E-02	1.038E-01	9.564E-03	1.835
RE-188	2.285E-01	1.638E-01	1.956E-01	1.047E-02	1.168
TL-208	3.298E-01	5.543E-02	3.376E-02	2.647E-03	9.768
BI-211	2.530E+00	3.380E-01	1.967E-01	1.263E-02	12.860
PB-212	9.954E-01	9.896E-02	5.737E-02	4.098E-03	17.351
PO-212	9.954E-01	9.896E-02	5.737E-02	4.098E-03	17.351
BI-214	6.911E-01	1.063E-01	6.698E-02	5.984E-03	10.317
PB-214	8.800E-01	1.262E-01	6.855E-02	5.671E-03	12.836
PO-214	8.800E-01	1.262E-01	6.855E-02	5.671E-03	12.836
PO-216	9.954E-01	9.896E-02	5.737E-02	4.098E-03	17.351
PO-218	8.800E-01	1.262E-01	6.855E-02	5.671E-03	12.836
RA-224	2.627E+00	8.155E-01	6.520E-01	3.632E-02	4.029
RA-226	6.911E-01	1.063E-01	6.698E-02	5.984E-03	10.317
AC-228	1.051E+00	2.291E-01	1.345E-01	1.782E-02	7.815
RA-228	1.051E+00	2.291E-01	1.345E-01	1.782E-02	7.815

Sample ID : G245978010 Acquisition date : 14-FEB-2010 12:17:41

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.013E+00	1.008E-01	5.841E-02	4.172E-03	17.351
TH-230	6.911E-01	1.063E-01	6.698E-02	5.983E-03	10.317
TH-232	1.051E+00	2.291E-01	1.345E-01	1.782E-02	7.815
TH-234	2.885E+00	1.819E+00	1.663E+00	2.933E-01	1.735
U-234	6.911E-01	1.063E-01	6.698E-02	5.983E-03	10.317
NP-237	5.592E-01	2.346E-01	2.898E-01	6.538E-02	1.930
U-238	2.885E+00	1.819E+00	1.663E+00	2.933E-01	1.735
AM-243	2.126E-01	6.101E-02	6.893E-02	5.752E-03	3.084
ANH-511	5.893E-02	4.406E-02	3.165E-02	2.090E-03	1.862

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-2.370E-02		2.042E-01	3.344E-01	2.423E-02	-0.071
NA-22	-2.703E-02		3.023E-02	4.619E-02	3.143E-03	-0.585
NA-24	-7.317E-01		5.592E+00	Half-Life too short		
AL-26	7.630E-03		1.763E-02	3.079E-02	1.798E-03	0.248
TI-44	2.038E-01	+	3.938E-02	5.606E-02	4.793E-03	3.636
SC-46	-1.552E-02		2.643E-02	4.122E-02	4.598E-03	-0.377
V-48	-8.830E-04		5.386E-02	8.709E-02	8.614E-03	-0.010
CR-51	-9.812E-02		2.563E-01	4.041E-01	2.602E-02	-0.243
MN-52	2.522E-01		2.060E-01	3.768E-01	2.777E-02	0.669
MN-54	2.296E-02		2.345E-02	4.083E-02	4.183E-03	0.562
CO-56	6.547E-03		2.558E-02	4.274E-02	4.462E-03	0.153
CO-57	-1.102E-02		1.867E-02	2.922E-02	1.731E-03	-0.377
CO-58	9.692E-03		2.369E-02	4.019E-02	3.968E-03	0.241
FE-59	-9.063E-02		6.068E-02	8.896E-02	7.322E-03	-1.019
CO-60	-7.955E-04		2.670E-02	4.353E-02	3.289E-03	-0.018
ZN-65	9.625E-02		6.605E-02	1.066E-01	7.506E-03	0.903
GE-68	2.441E-01		7.741E-01	1.320E+00	1.049E-01	0.185
AS-73	2.352E-01		8.427E-01	1.432E+00	1.135E-01	0.164
AS-74	-5.370E-02		6.382E-02	9.678E-02	6.953E-03	-0.555
SE-75	-1.407E-02		3.032E-02	4.457E-02	2.549E-03	-0.316
BR-77	5.792E+00		1.412E+01	2.373E+01	1.583E+00	0.244
SR-82	-6.298E-02		2.579E-01	4.100E-01	3.818E-02	-0.154
RB-83	1.877E-02		4.118E-02	6.941E-02	4.629E-03	0.270
RB-84	-9.225E-03		4.921E-02	7.940E-02	8.751E-03	-0.116
KR-85	1.870E+01		5.523E+00	9.453E+00	6.263E-01	1.979
SR-85	9.887E-02		2.919E-02	4.997E-02	3.310E-03	1.979
RB-86	6.120E-03		5.387E-01	8.994E-01	7.160E-02	0.007
Y-88	-2.120E-02		2.084E-02	2.839E-02	1.617E-03	-0.747
ZR-88	-5.523E-03		1.864E-02	3.074E-02	1.768E-03	-0.180
Y-91	1.874E+00		1.252E+01	2.088E+01	1.235E+00	0.090
NB-94	4.357E-03		2.062E-02	3.486E-02	2.860E-03	0.125
NB-95M	5.523E-02		8.751E-02	1.311E-01	9.620E-03	0.421
ZR-95	-5.381E-03		4.463E-02	7.342E-02	7.224E-03	-0.073
NB-97	-5.912E-01		5.242E-01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ZR-97	4.836E+01		1.156E+01	Half-Life too short		
MO-99	-1.295E+00		1.414E+01	2.335E+01	3.562E+00	-0.055
TC-99M	-9.642E+13		4.462E+13	Half-Life too short		
RH-101	-8.970E-03		2.210E-02	3.567E-02	1.917E-03	-0.251
RH-102	1.194E-02		1.788E-02	3.062E-02	1.945E-03	0.390
RU-103	7.835E-04		2.504E-02	4.124E-02	5.354E-03	0.019
RH-106	1.843E-01		1.956E-01	3.335E-01	4.196E-02	0.553
RU-106	1.843E-01		1.947E-01	3.335E-01	2.454E-02	0.553
AG-108M	-6.782E-03		1.960E-02	3.193E-02	2.086E-03	-0.212
AG-110M	-1.278E-02		2.190E-02	3.543E-02	2.795E-03	-0.361
IN-111	5.711E-01		1.454E+00	2.150E+00	1.202E-01	0.266
IN-113M	-1.799E-02		2.743E-02	4.435E-02	2.721E-03	-0.406
SN-113	-1.799E-02		2.743E-02	4.435E-02	2.721E-03	-0.406
IN-114M	-1.852E-02		1.304E-01	1.907E-01	1.018E-02	-0.097
CD-115	5.500E-06		7.969E-06	Half-Life too short		
SN-117M	4.861E-02		4.563E-02	7.178E-02	3.815E-03	0.677
SB-122	8.039E-01		2.530E+00	4.201E+00	2.928E-01	0.191
I-123	1.070E+02		8.185E+01	Half-Life too short		
TE-123M	1.372E-02		2.099E-02	3.240E-02	1.748E-03	0.423
I-124	-4.276E-01		7.972E-01	1.053E+00	7.614E-02	-0.406
SB-124	-6.542E-03		3.682E-02	5.887E-02	4.062E-03	-0.111
SB-125	1.778E-03		5.390E-02	8.986E-02	5.615E-03	0.020
TE-125M	2.453E+00		6.802E+00	1.114E+01	9.806E-01	0.220
I-126	-1.511E-01		1.340E-01	2.088E-01	1.605E-02	-0.724
SB-126	9.468E-03		1.129E-01	1.699E-01	1.438E-02	0.056
SB-127	9.360E-01		1.322E+00	2.305E+00	2.723E-01	0.406
XE-127	-7.737E-03		3.300E-02	5.453E-02	2.943E-03	-0.142
I-131	2.935E-03		8.568E-02	1.447E-01	9.382E-03	0.020
TE-132	4.016E-01		8.652E-01	1.452E+00	2.161E-01	0.276
BA-133	-2.838E-03		2.917E-02	4.023E-02	4.648E-03	-0.071
I-133	-1.593E-02		1.863E-02	Half-Life too short		
CS-134	3.743E-02		3.163E-02	5.408E-02	5.231E-03	0.692
CS-135	1.784E-01		1.146E-01	1.785E-01	1.349E-02	1.000
I-135	-3.866E+12		2.696E+12	Half-Life too short		
CS-136	1.219E-02		8.006E-02	1.353E-01	1.213E-02	0.090
BA-137M	2.842E-02		2.304E-02	4.109E-02	3.132E-03	0.692
CS-137	3.004E-02		2.435E-02	4.344E-02	3.319E-03	0.692
CE-139	2.382E-03		1.929E-02	3.273E-02	1.718E-03	0.073
BA-140	3.288E-02		1.743E-01	2.877E-01	9.410E-02	0.114
LA-140	-1.960E-02		5.675E-02	9.025E-02	6.191E-03	-0.217
CE-141	8.301E-04		4.621E-02	7.332E-02	4.186E-03	0.011
CE-143	2.182E-03		3.361E-04	Half-Life too short		
CE-144	-3.969E-02		1.378E-01	2.169E-01	3.067E-02	-0.183
PM-144	4.621E-03		2.229E-02	3.767E-02	3.059E-03	0.123
PR-144	3.136E-01		1.513E+00	2.557E+00	2.075E-01	0.123
PM-146	-8.157E-04		2.539E-02	4.197E-02	3.734E-03	-0.019
ND-147	-1.129E-01		4.138E-01	6.639E-01	9.264E-02	-0.170
PM-149	-4.635E-06		7.403E-05	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
EU-152	-2.403E-02		7.432E-02	9.337E-02	6.093E-03	-0.257
GD-153	-9.159E-03		6.344E-02	9.148E-02	7.153E-03	-0.100
EU-154	-9.507E-02		8.594E-02	1.285E-01	1.284E-02	-0.740
EU-155	8.888E-03		7.785E-02	1.267E-01	9.057E-03	0.070
TB-160	-9.116E-03		9.769E-02	1.588E-01	1.744E-02	-0.057
HO-166M	3.013E-03		3.507E-02	5.881E-02	4.902E-03	0.051
TM-171	-4.130E-01		2.423E+01	3.605E+01	2.882E+00	-0.011
LU-176	-1.890E-03		1.530E-02	2.457E-02	1.414E-03	-0.077
LU-177	1.877E+00	+	1.268E+00	1.659E+00	8.999E-02	1.131
LU-177M	-1.185E-01		1.086E-01	1.701E-01	1.005E-02	-0.697
HF-181	-1.636E-03		2.724E-02	4.474E-02	2.864E-03	-0.037
W-181	4.506E-02		3.358E-01	5.038E-01	3.996E-02	0.089
TA-182	6.351E-03		1.380E-01	2.282E-01	1.396E-02	0.028
RE-183	-5.385E-02		7.453E-02	1.212E-01	6.397E-03	-0.444
RE-184	-2.830E-02		1.468E-01	2.386E-01	1.340E-02	-0.119
OS-185	-3.946E-03		2.728E-02	4.336E-02	3.261E-03	-0.091
W-188	-2.106E+00		5.524E+00	7.632E+00	4.372E-01	-0.276
IR-192	-3.301E-03		2.253E-02	3.604E-02	2.090E-03	-0.092
AU-195	1.500E-01		1.622E-01	2.724E-01	2.084E-02	0.551
TL-200	7.183E-04		8.247E-04	Half-Life too short		
TL-201	-1.339E+01		8.717E+00	1.383E+01	7.261E-01	-0.968
TL-202	2.553E-02		4.924E-02	8.410E-02	5.127E-03	0.304
HG-203	5.496E-03		2.730E-02	4.486E-02	2.721E-03	0.123
BI-207	-1.470E-02		3.375E-02	5.317E-02	4.389E-03	-0.277
TL-207	-4.586E-01		4.428E-01	6.633E-01	1.095E-01	-0.691
PO-209	-6.972E-01		4.830E+00	7.804E+00	8.802E-01	-0.089
BI-210	1.622E+00		4.162E+00	6.978E+00	5.399E-01	0.232
PB-210	1.622E+00		4.162E+00	6.978E+00	5.399E-01	0.232
PO-210	1.622E+00		4.161E+00	6.978E+00	4.642E-01	0.232
PB-211	-8.008E-01		7.380E-01	8.333E-01	5.195E-01	-0.961
BI-212	6.025E-01	+	2.749E-01	4.062E-01	4.045E-02	1.483
PO-215	-4.586E-01		4.428E-01	6.633E-01	1.095E-01	-0.691
RN-219	2.029E-01		2.407E-01	4.179E-01	5.689E-02	0.485
RN-220	9.594E+00		1.584E+01	2.680E+01	1.842E+00	0.358
RA-223	-4.586E-01		4.428E-01	6.633E-01	1.095E-01	-0.691
AC-227	-7.892E-02		2.452E-01	3.955E-01	5.493E-02	-0.200
TH-227	-7.892E-02		2.453E-01	3.955E-01	6.660E-02	-0.200
TH-229	4.823E-02		3.169E-01	5.330E-01	2.854E-02	0.090
PA-231	1.755E-01		9.953E-01	1.632E+00	2.243E-01	0.108
TH-231	-4.586E-01		4.428E-01	6.633E-01	1.095E-01	-0.691
U-231	-9.749E-01		1.398E+00	1.959E+00	1.569E-01	-0.498
PA-233	-7.248E-03		3.951E-02	6.311E-02	3.866E-03	-0.115
PA-234	-1.117E-01		2.067E-01	3.207E-01	6.326E-02	-0.348
PA-234M	5.506E+00		3.236E+00	5.688E+00	6.136E-01	0.968
U-235	4.173E-02		1.459E-01	2.317E-01	3.753E-02	0.180
NP-236	-3.290E-02		5.366E-02	8.580E-02	4.545E-03	-0.383
NP-239	2.487E-02		1.336E-01	2.166E-01	1.340E-02	0.115
AM-241	1.032E-02		1.462E-01	2.203E-01	1.827E-02	0.047

Sample ID : G245978010 Acquisition date : 14-FEB-2010 12:17:41

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	2.298E-02		6.894E-02	1.132E-01	8.104E-03	0.203
AM-246	3.463E-02		8.696E-02	1.492E-01	1.180E-02	0.232
CM-247	1.372E-02		2.126E-02	3.677E-02	2.141E-03	0.373
CF-249	1.234E-02		2.442E-02	4.198E-02	2.413E-03	0.294
CF-251	-9.684E-04		7.970E-02	1.340E-01	7.078E-03	-0.007

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978010            *
* Acquisition date : 14-FEB-2010 12:17:41 Detector SN#    :                 *
* Detector ID      : GAM18                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.67     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978010           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.6520E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 23-APR-2009 11:59:23 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.423E+01	2.106E+00	1.486E-01	1.075E+00
NB-95	8.863E-02	4.570E-02	2.104E-02	2.332E-02
CD-109	1.946E+00	6.964E-01	6.000E-01	3.553E-01
SN-126	1.904E-01	6.815E-02	5.715E-02	3.477E-02
RE-188	2.285E-01	1.605E-01	1.060E-01	8.188E-02
TL-208	3.298E-01	5.432E-02	1.759E-02	2.772E-02
BI-211	2.530E+00	3.312E-01	1.041E-01	1.690E-01
PB-212	9.954E-01	9.698E-02	3.070E-02	4.948E-02
PO-212	9.954E-01	9.698E-02	3.070E-02	4.948E-02
BI-214	6.911E-01	1.041E-01	3.485E-02	5.313E-02
PB-214	8.800E-01	1.237E-01	3.627E-02	6.311E-02
PO-214	8.800E-01	1.237E-01	3.627E-02	6.311E-02
PO-216	9.954E-01	9.698E-02	3.070E-02	4.948E-02
PO-218	8.800E-01	1.237E-01	3.627E-02	6.311E-02
RA-224	2.627E+00	7.992E-01	3.488E-01	4.077E-01
RA-226	6.911E-01	1.041E-01	3.485E-02	5.313E-02
AC-228	1.051E+00	2.246E-01	6.911E-02	1.146E-01
RA-228	1.051E+00	2.246E-01	6.911E-02	1.146E-01
TH-228	1.013E+00	9.874E-02	3.126E-02	5.038E-02
TH-230	6.911E-01	1.041E-01	3.485E-02	5.313E-02
TH-232	1.051E+00	2.246E-01	6.911E-02	1.146E-01
TH-234	2.885E+00	1.783E+00	9.240E-01	9.096E-01
U-234	6.911E-01	1.041E-01	3.485E-02	5.313E-02
NP-237	5.592E-01	2.299E-01	1.596E-01	1.173E-01
U-238	2.885E+00	1.783E+00	9.240E-01	9.096E-01
AM-243	2.126E-01	5.979E-02	3.812E-02	3.051E-02
ANH-511	5.893E-02	4.318E-02	1.656E-02	2.203E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	-2.370E-02	2.001E-01	1.753E-01	1.021E-01	NOT IDENT.
NA-22	-2.703E-02	2.963E-02	2.348E-02	1.512E-02	NOT IDENT.
NA-24	-7.317E+05	1.096E+07	0.000E+00	5.592E+06	SHORT HLIF
AL-26	7.630E-03	1.727E-02	1.547E-02	8.813E-03	NOT IDENT.
TI-44	2.038E-01	3.859E-02	3.096E-02	1.969E-02	FAIL ABUN
SC-46	-1.552E-02	2.590E-02	2.120E-02	1.321E-02	FAIL ABUN
V-48	-8.830E-04	5.278E-02	4.464E-02	2.693E-02	NOT IDENT.
CR-51	-9.812E-02	2.512E-01	2.144E-01	1.281E-01	NOT IDENT.
MN-52	2.522E-01	2.019E-01	1.908E-01	1.030E-01	NOT IDENT.
MN-54	2.296E-02	2.298E-02	2.104E-02	1.172E-02	NOT IDENT.
CO-56	6.547E-03	2.507E-02	2.201E-02	1.279E-02	NOT IDENT.
CO-57	-1.102E-02	1.829E-02	1.594E-02	9.333E-03	NOT IDENT.
CO-58	9.692E-03	2.322E-02	2.073E-02	1.185E-02	NOT IDENT.
FE-59	-9.063E-02	5.947E-02	4.543E-02	3.034E-02	NOT IDENT.
CO-60	-7.955E-04	2.616E-02	2.210E-02	1.335E-02	NOT IDENT.
ZN-65	9.625E-02	6.473E-02	5.440E-02	3.302E-02	NOT IDENT.
GE-68	2.441E-01	7.586E-01	6.748E-01	3.871E-01	NOT IDENT.
AS-73	2.352E-01	8.259E-01	7.988E-01	4.214E-01	NOT IDENT.
AS-74	-5.370E-02	6.255E-02	5.039E-02	3.191E-02	NOT IDENT.
SE-75	-1.407E-02	2.971E-02	2.378E-02	1.516E-02	NOT IDENT.
BR-77	5.792E+00	1.383E+01	1.240E+01	7.058E+00	FAIL ABUN
SR-82	-6.298E-02	2.528E-01	2.117E-01	1.290E-01	NOT IDENT.
RB-83	1.877E-02	4.036E-02	3.629E-02	2.059E-02	NOT IDENT.
RB-84	-9.225E-03	4.823E-02	4.084E-02	2.461E-02	NOT IDENT.
KR-85	1.870E+01	5.413E+00	4.944E+00	2.762E+00	NOT IDENT.
SR-85	9.887E-02	2.861E-02	2.613E-02	1.460E-02	NOT IDENT.
RB-86	6.120E-03	5.279E-01	4.597E-01	2.693E-01	NOT IDENT.
Y-88	-2.120E-02	2.043E-02	1.426E-02	1.042E-02	NOT IDENT.
ZR-88	-5.523E-03	1.827E-02	1.621E-02	9.321E-03	NOT IDENT.
Y-91	1.874E+00	1.227E+01	1.063E+01	6.262E+00	NOT IDENT.
NB-94	4.357E-03	2.021E-02	1.806E-02	1.031E-02	NOT IDENT.
NB-95M	5.523E-02	8.576E-02	7.019E-02	4.376E-02	NOT IDENT.
ZR-95	-5.381E-03	4.374E-02	3.795E-02	2.232E-02	NOT IDENT.
NB-97	-5.912E+05	1.027E+06	0.000E+00	5.242E+05	SHORT HLIF
ZR-97	4.836E+07	2.265E+07	0.000E+00	1.156E+07	SHORT HLIF
MO-99	-1.295E+00	1.386E+01	1.207E+01	7.070E+00	NOT IDENT.
TC-99M	-9.642E+19	8.745E+19	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.970E-03	2.166E-02	1.919E-02	1.105E-02	NOT IDENT.
RH-102	1.194E-02	1.752E-02	1.605E-02	8.941E-03	FAIL ABUN
RU-103	7.835E-04	2.454E-02	2.159E-02	1.252E-02	FAIL ABUN
RH-106	1.843E-01	1.917E-01	1.734E-01	9.780E-02	FAIL ABUN
RU-106	1.843E-01	1.908E-01	1.734E-01	9.735E-02	FAIL ABUN
AG-108M	-6.782E-03	1.921E-02	1.679E-02	9.801E-03	NOT IDENT.
AG-110M	-1.278E-02	2.146E-02	1.839E-02	1.095E-02	NOT IDENT.
IN-111	5.711E-01	1.425E+00	1.150E+00	7.270E-01	NOT IDENT.
IN-113M	-1.799E-02	2.688E-02	2.339E-02	1.371E-02	NOT IDENT.
SN-113	-1.799E-02	2.688E-02	2.339E-02	1.371E-02	NOT IDENT.
IN-114M	-1.852E-02	1.277E-01	1.027E-01	6.518E-02	NOT IDENT.
CD-115	5.500E+00	1.562E+01	0.000E+00	7.969E+00	SHORT HLIF
SN-117M	4.861E-02	4.472E-02	3.887E-02	2.281E-02	NOT IDENT.
SB-122	8.039E-01	2.480E+00	2.191E+00	1.265E+00	NOT IDENT.
I-123	1.070E+08	1.604E+08	0.000E+00	8.185E+07	SHORT HLIF
TE-123M	1.372E-02	2.057E-02	1.754E-02	1.049E-02	NOT IDENT.
I-124	-4.276E-01	7.812E-01	5.481E-01	3.986E-01	FAIL ABUN
SB-124	-6.542E-03	3.608E-02	2.965E-02	1.841E-02	FAIL ABUN
SB-125	1.778E-03	5.282E-02	4.726E-02	2.695E-02	FAIL ABUN
TE-125M	2.453E+00	6.666E+00	6.098E+00	3.401E+00	NOT IDENT.
I-126	-1.511E-01	1.314E-01	1.083E-01	6.702E-02	NOT IDENT.
SB-126	9.468E-03	1.106E-01	8.793E-02	5.645E-02	FAIL ABUN
SB-127	9.360E-01	1.295E+00	1.195E+00	6.609E-01	NOT IDENT.
XE-127	-7.737E-03	3.234E-02	2.932E-02	1.650E-02	NOT IDENT.
I-131	2.935E-03	8.397E-02	7.645E-02	4.284E-02	NOT IDENT.
TE-132	4.016E-01	8.479E-01	7.783E-01	4.326E-01	NOT IDENT.
BA-133	-2.838E-03	2.859E-02	2.128E-02	1.458E-02	NOT IDENT.
I-133	-1.593E+04	3.651E+04	0.000E+00	1.863E+04	SHORT HLIF
CS-134	3.743E-02	3.100E-02	2.791E-02	1.582E-02	NOT IDENT.
CS-135	1.784E-01	1.123E-01	9.517E-02	5.731E-02	NOT IDENT.
I-135	-3.866E+18	5.284E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.219E-02	7.846E-02	6.920E-02	4.003E-02	FAIL ABUN
BA-137M	2.842E-02	2.258E-02	2.132E-02	1.152E-02	NOT IDENT.
CS-137	3.004E-02	2.387E-02	2.254E-02	1.218E-02	NOT IDENT.
CE-139	2.382E-03	1.890E-02	1.770E-02	9.644E-03	NOT IDENT.
BA-140	3.288E-02	1.708E-01	1.503E-01	8.713E-02	NOT IDENT.
LA-140	-1.960E-02	5.562E-02	4.554E-02	2.838E-02	NOT IDENT.
CE-141	8.301E-04	4.529E-02	3.980E-02	2.311E-02	NOT IDENT.
CE-143	2.182E+03	6.588E+02	0.000E+00	3.361E+02	SHORT HLIF
CE-144	-3.969E-02	1.351E-01	1.180E-01	6.892E-02	NOT IDENT.
PM-144	4.621E-03	2.184E-02	1.952E-02	1.115E-02	NOT IDENT.

PR-144	3.136E-01	1.483E+00	1.325E+00	7.564E-01	NOT IDENT.
PM-146	-8.157E-04	2.488E-02	2.203E-02	1.269E-02	NOT IDENT.
ND-147	-1.129E-01	4.055E-01	3.469E-01	2.069E-01	NOT IDENT.
PM-149	-4.635E+00	1.451E+02	0.000E+00	7.403E+01	SHORT HLIF
EU-152	-2.403E-02	7.284E-02	4.943E-02	3.716E-02	FAIL ABUN
GD-153	-9.159E-03	6.217E-02	5.022E-02	3.172E-02	NOT IDENT.
EU-154	-9.507E-02	8.422E-02	6.533E-02	4.297E-02	NOT IDENT.
EU-155	8.888E-03	7.630E-02	6.939E-02	3.893E-02	FAIL ABUN
TB-160	-9.116E-03	9.574E-02	8.168E-02	4.885E-02	FAIL ABUN
HO-166M	3.013E-03	3.437E-02	3.045E-02	1.754E-02	FAIL ABUN
TM-171	-4.130E-01	2.374E+01	2.000E+01	1.211E+01	NOT IDENT.
LU-176	-1.890E-03	1.500E-02	1.305E-02	7.651E-03	FAIL ABUN
LU-177	1.877E+00	1.242E+00	8.913E-01	6.339E-01	FAIL ABUN
LU-177M	-1.185E-01	1.064E-01	8.955E-02	5.429E-02	FAIL ABUN
HF-181	-1.636E-03	2.670E-02	2.345E-02	1.362E-02	NOT IDENT.
W-181	4.506E-02	3.291E-01	2.796E-01	1.679E-01	NOT IDENT.
TA-182	6.351E-03	1.353E-01	1.162E-01	6.901E-02	FAIL ABUN
RE-183	-5.385E-02	7.304E-02	6.558E-02	3.727E-02	FAIL ABUN
RE-184	-2.830E-02	1.438E-01	1.275E-01	7.339E-02	NOT IDENT.
OS-185	-3.946E-03	2.673E-02	2.252E-02	1.364E-02	NOT IDENT.
W-188	-2.106E+00	5.413E+00	4.061E+00	2.762E+00	FAIL ABUN
IR-192	-3.301E-03	2.208E-02	1.913E-02	1.127E-02	FAIL ABUN
AU-195	1.500E-01	1.589E-01	1.495E-01	8.108E-02	FAIL ABUN
TL-200	7.183E+02	1.616E+03	0.000E+00	8.247E+02	SHORT HLIF
TL-201	-1.339E+01	8.542E+00	7.478E+00	4.358E+00	NOT IDENT.
TL-202	2.553E-02	4.826E-02	4.420E-02	2.462E-02	NOT IDENT.
HG-203	5.496E-03	2.675E-02	2.390E-02	1.365E-02	NOT IDENT.
BI-207	-1.470E-02	3.308E-02	2.718E-02	1.688E-02	FAIL ABUN
TL-207	-4.586E-01	4.339E-01	3.518E-01	2.214E-01	FAIL ABUN
PO-209	-6.972E-01	4.734E+00	4.012E+00	2.415E+00	NOT IDENT.
BI-210	1.622E+00	4.079E+00	3.909E+00	2.081E+00	NOT IDENT.
PB-210	1.622E+00	4.079E+00	3.909E+00	2.081E+00	NOT IDENT.
PO-210	1.622E+00	4.078E+00	3.909E+00	2.081E+00	NOT IDENT.
PB-211	-8.008E-01	7.232E-01	4.390E-01	3.690E-01	NOT IDENT.
BI-212	6.025E-01	2.694E-01	2.102E-01	1.374E-01	FAIL ABUN
PO-215	-4.586E-01	4.339E-01	3.518E-01	2.214E-01	FAIL ABUN
RN-219	2.029E-01	2.359E-01	2.202E-01	1.203E-01	FAIL ABUN
RN-220	9.594E+00	1.552E+01	1.399E+01	7.921E+00	NOT IDENT.
RA-223	-4.586E-01	4.339E-01	3.518E-01	2.214E-01	FAIL ABUN
AC-227	-7.892E-02	2.403E-01	2.112E-01	1.226E-01	FAIL ABUN
TH-227	-7.892E-02	2.404E-01	2.112E-01	1.226E-01	FAIL ABUN
TH-229	4.823E-02	3.106E-01	2.870E-01	1.585E-01	FAIL ABUN
PA-231	1.755E-01	9.754E-01	8.688E-01	4.977E-01	FAIL ABUN
TH-231	-4.586E-01	4.339E-01	3.518E-01	2.214E-01	FAIL ABUN
U-231	-9.749E-01	1.370E+00	1.076E+00	6.989E-01	FAIL ABUN
PA-233	-7.248E-03	3.872E-02	3.351E-02	1.975E-02	FAIL ABUN
PA-234	-1.117E-01	2.026E-01	1.646E-01	1.034E-01	FAIL ABUN
PA-234M	5.506E+00	3.171E+00	2.914E+00	1.618E+00	FAIL ABUN
U-235	4.173E-02	1.429E-01	1.258E-01	7.293E-02	FAIL ABUN
NP-236	-3.290E-02	5.259E-02	4.644E-02	2.683E-02	NOT IDENT.
NP-239	2.487E-02	1.309E-01	1.183E-01	6.679E-02	FAIL ABUN
AM-241	1.032E-02	1.433E-01	1.226E-01	7.311E-02	NOT IDENT.
CM-243	2.298E-02	6.756E-02	6.204E-02	3.447E-02	FAIL ABUN
AM-246	3.463E-02	8.522E-02	7.623E-02	4.348E-02	NOT IDENT.
CM-247	1.372E-02	2.084E-02	1.937E-02	1.063E-02	NOT IDENT.
CF-249	1.234E-02	2.394E-02	2.215E-02	1.221E-02	NOT IDENT.
CF-251	-9.684E-04	7.810E-02	7.236E-02	3.985E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                          CHARLESTON ,SC 29417                             *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	297.7102
46.50	297.7102
46.50	297.7102
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49.72	323.1958
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52.97	320.9539
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53.44	315.1525
54.07	333.2504
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56.28	329.5487
57.37	0.0000
57.53	315.3263
57.53	315.3280
57.60	331.1292
57.98	326.9507
57.98	326.9507
59.32	335.0244
59.32	335.0244
59.40	335.1187
59.54	335.2835
59.72	324.3118
60.01	344.2315
61.10	376.4385
61.14	376.4906
61.30	376.6982
63.00	339.3018
63.29	339.6332
63.29	339.6332
63.58	339.9637
64.28	373.4164
65.12	377.3038
65.20	377.4034
65.20	377.4034
66.05	334.1845
66.72	353.5172
66.83	396.5983
66.91	396.6997
67.20	398.5051
67.20	398.5051
67.75	436.5454
67.85	446.7422
68.90	407.4008
68.90	407.4008
69.30	404.0680
69.67	406.8539
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70.83	369.7551
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72.87	484.4335
74.67	443.0556
74.81	443.2411
74.81	443.2411
74.81	443.2411
74.81	443.2411
74.81	443.2411
74.81	443.2411
74.81	443.2411
74.97	443.4519
75.28	443.8620
75.70	444.4150
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77.11	446.2583

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77.11	446.2583
77.11	446.2583
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80.30	428.0016
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81.07	408.0108
81.07	408.0108
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83.78	456.2731
83.78	456.2731
83.78	456.2731
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84.90	436.5251
85.43	408.4133
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86.50	483.9273
86.54	483.9784
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86.72	527.2194
86.79	527.3148
86.94	527.5295
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87.30	553.3760
87.30	553.3760
87.30	553.3760
87.30	553.3760
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87.30	553.3760
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88.03	593.0389
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88.47	536.7952
89.95	538.8845
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92.38	478.6023
92.38	478.6023
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94.67	328.5004
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94.90	328.6896
94.90	328.6896
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98.44	341.5899
98.88	325.6729
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99.55	316.7932
99.86	337.9566
100.00	338.0716
100.10	338.1554
103.18	358.5730
103.76	336.8850
105.00	359.0443
105.31	356.1250
108.00	341.2695
109.28	340.1232

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111.00	391.9042
111.76	354.9236
112.95	321.3510
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116.30	342.1721
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117.00	329.6324
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121.62	353.7418
121.78	353.8597
122.06	373.8586
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122.32	374.0591
122.32	374.0591
122.32	374.0591
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136.48	316.8514
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140.51	0.0000
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144.24	353.6310
144.24	353.6310
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147.16	398.2184
152.43	325.0714
152.70	353.2010
153.22	355.6248
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154.21	345.3692
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154.21	345.3692
155.03	353.9382
156.02	354.5442
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162.64	340.5834
163.35	325.8515
163.89	312.7781
165.85	321.8390
167.43	367.4898
171.28	294.9267
171.86	308.7425
172.10	316.0847
176.55	307.4059
176.60	307.4291
181.06	301.8710
184.41	301.9446
185.71	281.3231
186.00	281.4465
190.27	292.7177
192.34	288.4999
193.63	295.8452
197.04	313.2524
198.01	331.5327
198.60	326.1729
200.40	322.3001
201.83	347.5044
202.84	348.9442
205.31	358.3127

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208.81	318.4788
209.75	270.3874
209.75	270.3874
210.97	246.3563
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216.55	257.2751
218.09	275.1849
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223.80	314.2246
226.40	309.4276
227.00	323.3432
227.08	323.3760
227.20	326.3579
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228.18	303.2878
228.18	303.2878
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236.00	273.4971
238.63	270.6256
238.63	270.6256
238.63	270.6256
238.63	270.6256
239.00	270.7485
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241.98	271.7420
241.98	271.7420
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245.39	217.4971
247.94	237.9508
248.90	250.9384
249.79	242.1620
252.40	221.7473
252.85	234.9750
252.85	234.9750
254.15	0.0000
256.20	252.1013
256.20	252.1013
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260.90	0.0000
262.80	236.6906
264.65	234.4634
268.24	216.8042
268.79	220.2265
269.46	238.4818
269.46	238.4818
269.46	238.4818
269.46	238.4818
271.23	245.5481
273.65	277.6060
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277.60	226.1231
277.60	226.1231
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284.30	232.9972
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285.90	0.0000
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286.10	230.3058
287.40	231.6764
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290.80	233.9856
291.72	242.6379
293.26	0.0000
293.70	222.8789
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295.21	223.2334

295.21	223.2334
295.96	223.4074
296.50	182.0440
297.23	182.1805
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300.09	222.6648
300.09	222.6648
300.12	222.6712
301.29	195.7078
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303.76	182.5557
303.91	182.5818
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304.40	187.7949
304.84	191.2969
306.84	193.6078
308.46	192.8540
311.98	189.2344
316.51	197.6459
318.01	204.4289
319.02	207.8789
319.41	204.7087
320.08	205.9251
323.87	239.3225
323.87	239.3225
323.87	239.3225
323.87	239.3225
325.23	254.8842
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334.20	202.1428
334.20	202.1428
334.30	202.1625
338.28	215.0487
338.28	215.0487
338.28	215.0487
338.28	215.0487
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338.32	215.0576
340.50	189.1936
340.57	189.2066
344.27	181.8699
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351.92	173.0931
351.92	173.0931
351.92	173.0931
355.39	0.0000
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364.48	155.3900
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367.43	145.8296
367.94	0.0000
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383.85	155.2440
387.95	163.1524
388.63	161.4008
391.69	179.3790
391.69	179.3790
392.90	164.7499
398.62	156.2265
400.65	157.4143
401.10	143.4971
401.81	137.9849
402.60	139.0054
404.84	182.2507
410.95	140.8795
411.60	146.5909
413.65	184.4773
414.70	157.3127
415.30	150.7910

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423.70	153.6825
427.08	145.5237
427.89	140.8566
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433.93	151.0701
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439.56	137.3111
439.89	142.1483
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445.03	145.5882
445.03	145.5882
445.03	145.5882
445.03	145.5882
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463.38	120.1953
468.07	104.5859
473.00	144.6385
475.06	129.0827
475.35	121.2253
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477.59	142.1455
477.96	156.0057
482.03	138.6277
484.57	140.8560
487.03	123.2114
490.36	0.0000
492.35	0.0000
497.08	122.0611
507.63	0.0000
510.53	0.0000
510.84	166.6154
511.00	166.6325
511.85	168.4113
511.85	168.4113
513.99	123.1132
513.99	123.1132
520.41	109.7455
520.65	109.7640
527.90	0.0000
528.96	0.0000
529.64	130.8500
529.87	0.0000
531.02	130.9656
537.32	107.8685
543.00	110.3176
546.56	0.0000
549.76	111.8232
552.65	123.4334
555.20	112.2003
563.23	114.8447
563.90	110.7126
568.70	112.0862
569.32	105.8404
569.50	118.4265
569.67	118.4403
573.80	125.0401
574.00	129.2581
574.64	141.9247
578.91	121.2076
579.30	0.0000
583.14	112.0039
585.48	98.7565
591.81	110.9263
592.07	105.1609
593.00	96.7142
595.88	124.5582
600.56	139.8400
602.52	0.0000
602.71	133.6029
602.71	133.6029
603.60	153.2750
604.41	139.0835
604.70	137.3223
609.31	125.1689

609.31	125.1689
609.31	125.1689
609.31	125.1689
610.33	116.2970
612.46	123.6025
614.37	120.1507
618.01	125.0710
621.84	97.2466
621.84	97.2466
631.29	94.5042
633.02	104.3789
633.10	110.9076
634.78	104.4820
635.90	118.7025
636.97	137.2988
645.85	111.6870
646.12	114.9899
656.30	137.6465
657.75	135.9166
657.90	0.0000
661.65	116.8766
661.65	116.8766
664.57	0.0000
666.33	152.2235
666.33	152.2235
675.00	121.4106
677.61	101.1585
685.20	91.3108
692.80	118.7938
695.00	115.1824
696.49	133.0759
696.49	133.0759
697.00	130.2984
697.49	135.0205
698.33	147.2705
698.50	147.2833
699.00	135.1230
702.63	121.2708
706.10	112.0661
706.58	0.0000
706.67	109.2739
709.31	111.3044
711.68	101.9927
713.82	115.3381
717.42	110.8110
720.50	109.5572
721.93	0.0000
722.20	104.1563
722.78	110.6992
722.78	110.6992
722.89	110.7040
722.95	110.7063
723.30	112.3560
724.18	101.0008
727.18	119.9117
733.00	91.6230
735.90	98.4422
739.58	99.5757
742.81	87.2657
744.21	97.8787
747.13	112.4321
751.79	98.2356
752.31	101.1505
753.82	111.8275
755.35	99.3684
756.15	108.0921
756.87	99.0008
763.93	91.3316
765.79	102.7694
766.42	102.7996
766.84	102.8190
776.49	108.4225
778.00	107.2563
778.57	111.1866
778.89	109.2520
783.80	88.9690
785.46	104.6925
792.07	105.0103

795.84	101.2586
796.30	105.2128
798.80	148.6468
801.93	94.6387
805.60	96.7698
810.29	84.1094
810.76	83.1387
815.85	84.3186
817.79	90.3502
818.51	78.4600
819.60	84.4604
826.30	84.7112
828.27	0.0000
831.60	120.8695
831.96	114.8947
834.83	94.0306
836.80	0.0000
846.75	96.5293
848.13	101.6185
856.28	0.0000
856.80	140.3716
860.37	73.8332
867.32	114.6254
867.82	102.4754
871.10	95.5051
873.19	97.6230
874.81	91.5839
875.33	0.0000
876.40	87.5712
879.36	109.0899
880.27	99.9520
880.51	103.0220
881.50	104.0856
883.24	101.0967
884.67	94.0046
889.25	107.4930
896.60	99.6030
898.02	97.6073
899.00	93.5346
903.28	104.1410
911.07	96.0614
911.07	96.0614
911.07	96.0614
919.63	95.7706
920.93	90.2214
925.00	99.7168
925.24	99.7266
926.50	97.6987
935.52	84.4887
937.48	115.8712
944.10	100.4746
946.00	112.0701
949.00	81.7927
962.29	104.8013
964.01	94.9274
966.15	95.0061
968.20	95.0793
969.11	95.1141
969.11	95.1141
969.11	95.1141
977.42	95.4163
980.50	99.7736
983.50	96.6986
989.30	85.1969
996.32	118.5224
1001.03	71.6673
1001.68	81.3128
1004.76	123.1819
1021.30	0.0000
1024.50	0.0000
1034.80	85.5576
1036.00	80.7979
1037.82	90.1425
1038.57	82.7298
1038.76	0.0000
1045.16	89.4509
1046.59	97.8882
1048.07	90.4774

1050.47	77.4854
1050.47	77.4854
1062.04	80.6160
1063.62	90.9781
1076.63	84.8019
1077.35	81.9934
1078.86	79.2100
1085.78	102.0862
1099.22	113.0068
1112.02	96.8094
1112.84	91.8289
1115.52	81.8860
1120.29	103.7773
1120.29	103.7773
1120.29	103.7773
1120.29	103.7773
1120.51	103.7849
1121.28	78.6957
1124.00	0.0000
1129.67	90.9318
1131.51	0.0000
1147.95	0.0000
1167.94	100.0866
1173.22	104.1526
1175.09	104.2160
1177.93	102.3633
1189.05	118.3835
1204.90	106.1995
1205.75	0.0000
1213.00	110.4180
1221.42	128.4992
1230.97	142.7645
1235.34	108.2131
1236.41	0.0000
1238.25	103.3398
1246.25	93.6361
1260.41	0.0000
1271.85	91.3586
1274.45	112.5273
1274.54	106.5028
1291.56	72.7107
1298.22	0.0000
1312.09	60.9626
1325.50	68.3413
1325.50	68.3413
1332.49	69.5036
1333.61	70.5474
1360.21	45.3320
1362.66	0.0000
1365.15	44.3647
1368.21	46.7058
1368.53	0.0000
1376.25	53.8191
1384.27	41.9538
1394.10	39.5268
1395.20	46.8222
1407.95	41.7662
1434.06	30.4979
1436.60	53.6717
1457.56	0.0000
1460.81	31.5129
1489.15	39.4880
1509.49	32.8584
1596.49	35.5095
1620.62	19.3085
1678.03	0.0000
1691.02	16.6908
1691.02	16.6908
1706.46	0.0000
1750.46	0.0000
1764.49	21.3021
1764.49	21.3021
1764.49	21.3021
1764.49	21.3021
1770.23	24.8843
1771.40	108.0099
1791.20	0.0000
1808.65	18.1516

1836.01	29.4204

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978010

Total Uranium Activity	8.6036E+00	ug/g
Total Uranium Counting Unc.	5.3046E+00	ug/g
Total Uranium Tpu	2.7064E-06	ug/g
Total Uranium Mda	2.7496E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978010       *
*   ANALYST       : MXR1                      DETECTOR   : GAM18            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 12:17:41.84    SAMPLE ALQT:  165.200 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 6.380E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 8.448E-01
        GROSS GAMMA MDA     (pCi/GRAM  )  : 1.541E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 7.468E-01
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:19:15.13

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978011.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:18:10
Sample ID         : G245978011           Sample quantity  : 1.43560E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.32*	99	440	1.33	126.64	123	9	1.38E-02	40.1	
2	3	74.71*	385	431	1.18	149.42	143	16	5.34E-02	10.4	3.18E+00
3	3	76.96	619	409	1.20	153.93	143	16	8.59E-02	7.0	
4	0	87.22	138	515	0.95	174.45	169	8	1.92E-02	29.6	
5	4	89.84	155	227	1.08	179.69	177	14	2.15E-02	15.1	2.10E-01
6	4	92.83*	300	511	1.89	185.65	177	14	4.16E-02	16.8	
7	0	185.78*	255	305	1.47	371.55	366	11	3.54E-02	15.3	
8	0	208.80	131	269	1.73	417.60	414	10	1.81E-02	25.3	
9	3	238.32*	1215	196	1.12	476.63	469	19	1.69E-01	3.5	1.36E+00
10	3	241.34	338	267	1.77	482.68	469	19	4.70E-02	13.6	
11	0	269.78	118	171	1.55	539.56	535	10	1.63E-02	22.7	
12	0	294.83*	350	270	1.27	589.67	583	13	4.86E-02	11.1	
13	0	299.97	80	192	1.16	599.95	595	10	1.11E-02	34.6	
14	0	327.21	51	214	0.67	654.42	651	11	7.15E-03	56.5	
15	0	337.76	282	190	1.54	675.53	668	13	3.92E-02	11.7	
16	0	351.45*	633	123	1.35	702.90	697	11	8.80E-02	5.3	
17	0	462.34*	80	94	1.11	924.68	919	11	1.12E-02	26.3	
18	0	510.37*	157	149	1.93	1020.74	1011	18	2.18E-02	21.6	
19	0	582.58*	400	94	1.81	1165.16	1158	15	5.56E-02	7.3	
20	0	608.66*	468	88	1.33	1217.32	1209	16	6.50E-02	6.5	
21	0	726.49	100	59	1.81	1452.99	1446	14	1.38E-02	19.2	
22	6	767.08	45	52	2.16	1534.17	1530	23	6.21E-03	31.2	5.09E+00
23	6	771.78*	33	101	3.20	1543.56	1530	23	4.64E-03	76.9	
24	0	910.43*	243	105	1.68	1820.86	1813	17	3.37E-02	11.8	
25	0	968.72	78	113	0.88	1937.45	1928	13	1.09E-02	29.9	
26	0	1119.74	94	62	1.68	2239.49	2233	14	1.30E-02	20.0	
27	0	1388.51	11	41	7.95	2777.01	2760	24	1.49E-03	162.0	
28	0	1459.64*	998	20	2.72	2919.27	2909	19	1.39E-01	3.4	
29	0	1763.17*	79	4	1.54	3526.34	3519	15	1.09E-02	12.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 14:19:19

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978011.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : MXR1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:18:10
Sample ID         : G245978011           Sample quantity  : 143.56 GRAM
Sample type       : SOLID                Sample geometry  :
Detector name     : GAMMA23              Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.453E+01	2.466E+00	5.803E-01	4.341E-02	42.266
NB-95	+	765.79	*	7.973E-02	5.010E-02	6.807E-02	4.574E-03	1.171
CD-109	+	88.03	*	1.913E+00	1.149E+00	1.365E+00	1.332E-01	1.402
SN-126	+	64.28		1.040E+00	8.492E-01	9.942E-01	1.513E-01	1.046
	+	86.94		7.785E-01	5.638E-01	6.725E-01	2.797E-01	1.158
	+	87.57	*	1.873E-01	1.125E-01	1.344E-01	1.307E-02	1.394
TL-208		277.35		3.616E-01	3.907E-01	6.504E-01	6.873E-02	0.556
	+	510.84		7.465E-01	3.313E-01	2.253E-01	2.289E-02	3.313
	+	583.14	*	5.460E-01	8.762E-02	6.020E-02	3.908E-03	9.070
		860.37		2.525E-01	3.248E-01	5.719E-01	5.169E-02	0.442
BI-211		72.87		1.116E+01	4.137E+00	6.486E+00	5.721E-01	1.721
	+	351.07	*	3.718E+00	4.617E-01	3.256E-01	2.121E-02	11.420
PB-212	+	74.81		2.324E+00	5.687E-01	6.083E-01	7.847E-02	3.820
	+	77.11		2.093E+00	3.493E-01	3.408E-01	3.067E-02	6.141
	+	87.30		8.661E-01	5.274E-01	6.236E-01	8.691E-02	1.389
	+	238.63	*	1.536E+00	1.541E-01	9.142E-02	6.573E-03	16.802
	+	300.09		1.568E+00	1.092E+00	1.111E+00	9.228E-02	1.411
PO-212	+	74.81		2.324E+00	5.687E-01	6.083E-01	7.847E-02	3.820
	+	77.11		2.093E+00	3.493E-01	3.408E-01	3.067E-02	6.141
	+	87.30		8.661E-01	5.274E-01	6.236E-01	8.691E-02	1.389
		115.19		-1.023E+00	3.653E+00	5.954E+00	3.798E-01	-0.172
	+	238.63	*	1.536E+00	1.541E-01	9.142E-02	6.573E-03	16.802
	+	300.09		1.568E+00	1.092E+00	1.111E+00	9.228E-02	1.411
BI-214	+	609.31	*	1.204E+00	1.817E-01	1.002E-01	7.534E-03	12.014
	+	1120.29		1.291E+00	5.301E-01	4.195E-01	3.899E-02	3.077
	+	1764.49		1.490E+00	3.924E-01	2.563E-01	1.594E-02	5.813
PB-214	+	74.81		4.004E+00	9.530E-01	1.048E+00	1.213E-01	3.820
	+	77.11		3.588E+00	6.582E-01	5.843E-01	6.889E-02	6.141
	+	87.30		1.484E+00	8.986E-01	1.068E+00	1.324E-01	1.389
	+	241.98		2.569E+00	7.283E-01	5.207E-01	4.142E-02	4.933
	+	295.21		1.208E+00	2.880E-01	2.137E-01	1.832E-02	5.651
	+	351.92	*	1.293E+00	1.742E-01	1.164E-01	9.719E-03	11.107
PO-214	+	74.81		4.004E+00	9.530E-01	1.048E+00	1.213E-01	3.820
	+	77.11		3.588E+00	6.582E-01	5.843E-01	6.889E-02	6.141

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	87.30		1.484E+00	8.986E-01	1.068E+00	1.324E-01	1.389
	+	241.98		2.569E+00	7.283E-01	5.207E-01	4.142E-02	4.933
	+	295.21		1.208E+00	2.880E-01	2.137E-01	1.832E-02	5.651
	+	351.92	*	1.293E+00	1.742E-01	1.164E-01	9.719E-03	11.107
PO-216	+	74.81		2.324E+00	5.687E-01	6.083E-01	7.847E-02	3.820
	+	77.11		2.093E+00	3.493E-01	3.408E-01	3.067E-02	6.141
	+	87.30		8.661E-01	5.274E-01	6.236E-01	8.691E-02	1.389
	+	238.63	*	1.536E+00	1.541E-01	9.142E-02	6.573E-03	16.802
	+	300.09		1.568E+00	1.092E+00	1.111E+00	9.228E-02	1.411
PO-218	+	74.81		4.004E+00	9.530E-01	1.048E+00	1.213E-01	3.820
	+	77.11		3.588E+00	6.582E-01	5.843E-01	6.889E-02	6.141
	+	87.30		1.484E+00	8.986E-01	1.068E+00	1.324E-01	1.389
	+	241.98		2.569E+00	7.283E-01	5.207E-01	4.142E-02	4.933
	+	295.21		1.208E+00	2.880E-01	2.137E-01	1.832E-02	5.651
	+	351.92	*	1.293E+00	1.742E-01	1.164E-01	9.719E-03	11.107
RA-224	+	240.98	*	4.871E+00	1.354E+00	1.040E+00	5.862E-02	4.682
RA-226	+	609.31	*	1.204E+00	1.817E-01	1.002E-01	7.534E-03	12.014
	+	1120.29		1.291E+00	5.301E-01	4.195E-01	3.899E-02	3.077
	+	1764.49		1.490E+00	3.924E-01	2.563E-01	1.594E-02	5.813
AC-228	+	338.32		1.822E+00	8.573E-01	3.857E-01	1.573E-01	4.725
	+	911.07	*	1.500E+00	3.945E-01	2.416E-01	2.788E-02	6.211
	+	969.11		8.563E-01	5.503E-01	3.983E-01	9.274E-02	2.150
RA-228	+	338.32		1.822E+00	8.573E-01	3.857E-01	1.573E-01	4.725
	+	911.07	*	1.500E+00	3.945E-01	2.416E-01	2.788E-02	6.211
	+	969.11		8.563E-01	5.503E-01	3.983E-01	9.274E-02	2.150
TH-228	+	74.81		2.366E+00	5.358E-01	6.193E-01	5.551E-02	3.820
	+	77.11		2.131E+00	3.556E-01	3.470E-01	3.122E-02	6.141
	+	87.30		8.818E-01	5.297E-01	6.349E-01	6.163E-02	1.389
	+	238.63	*	1.564E+00	1.569E-01	9.307E-02	6.692E-03	16.802
	+	300.09		1.596E+00	1.451E+00	1.131E+00	6.669E-01	1.411
TH-230	+	609.31	*	1.204E+00	1.817E-01	1.002E-01	7.534E-03	12.014
	+	1120.29		1.291E+00	5.301E-01	4.195E-01	3.899E-02	3.077
	+	1764.49		1.490E+00	3.924E-01	2.563E-01	1.594E-02	5.813
TH-232	+	338.32		1.822E+00	4.408E-01	3.857E-01	2.278E-02	4.725
	+	911.07	*	1.500E+00	3.945E-01	2.416E-01	2.788E-02	6.211
	+	969.11		8.563E-01	5.503E-01	3.983E-01	9.274E-02	2.150
TH-234	+	63.29	*	2.628E+00	2.160E+00	2.549E+00	4.594E-01	1.031
	+	92.38		2.588E+00	9.874E-01	7.476E-01	1.363E-01	3.462
U-234	+	609.31	*	1.204E+00	1.817E-01	1.002E-01	7.534E-03	12.014
	+	1120.29		1.291E+00	5.301E-01	4.195E-01	3.899E-02	3.077
	+	1764.49		1.490E+00	3.924E-01	2.563E-01	1.594E-02	5.813
NP-237	+	86.50	*	5.499E-01	3.493E-01	4.256E-01	9.693E-02	1.292
		95.87		-1.186E+00	1.146E+00	1.526E+00	3.746E-01	-0.777
U-238	+	63.29	*	2.628E+00	2.160E+00	2.549E+00	4.594E-01	1.031
	+	92.38		2.588E+00	8.976E-01	7.476E-01	6.681E-02	3.462
AM-243	+	74.67	*	3.768E-01	8.521E-02	9.900E-02	8.798E-03	3.806
	+	86.72		2.062E+01	1.239E+01	1.522E+01	1.469E+00	1.355
		117.66		-1.441E+00	3.855E+00	6.253E+00	3.872E-01	-0.230
		142.18		1.180E+01	1.871E+01	3.079E+01	1.677E+00	0.383

Sample ID : G245978011 Acquisition date : 14-FEB-2010 12:18:10

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	1.613E-01	7.030E-02	4.868E-02	2.828E-03	3.312

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-1.964E-01	3.524E-01	5.580E-01	3.792E-02	-0.352
NA-22		1274.54	*	-4.821E-02	4.696E-02	6.761E-02	4.541E-03	-0.713
NA-24		1368.53	*	-1.396E+01	4.696E-02	Half-Life too short		
AL-26		1129.67		-1.308E-01	1.718E+00	2.801E+00	1.784E-01	-0.047
		1808.65	*	-1.711E-02	2.811E-02	4.005E-02	2.407E-03	-0.427
TI-44		67.85		-4.094E-03	6.364E-02	8.703E-02	7.579E-03	-0.047
	+	78.38	*	3.863E-01	6.446E-02	8.591E-02	7.788E-03	4.496
SC-46		889.25	*	2.641E-02	4.010E-02	7.063E-02	6.310E-03	0.374
	+	1120.51		2.263E-01	9.173E-02	1.331E-01	8.670E-03	1.701
V-48		944.10		-4.907E-01	1.088E+00	1.732E+00	1.509E-01	-0.283
		983.50	*	7.058E-02	8.148E-02	1.454E-01	1.210E-02	0.485
		1312.09		-4.846E-02	9.798E-02	1.499E-01	1.067E-02	-0.323
CR-51		320.08	*	-6.757E-02	3.958E-01	6.577E-01	4.313E-02	-0.103
MN-52		744.21		-1.111E-02	3.431E-01	5.499E-01	3.501E-02	-0.020
		848.13		-7.473E+00	9.385E+00	1.447E+01	1.181E+00	-0.516
		935.52		3.283E-01	3.922E-01	6.949E-01	6.109E-02	0.472
		1246.25		-7.062E+00	1.189E+01	1.831E+01	1.172E+00	-0.386
		1333.61		1.302E+00	7.260E+00	1.207E+01	8.857E-01	0.108
		1434.06	*	7.881E-02	3.564E-01	5.944E-01	4.301E-02	0.133
MN-54		834.83	*	3.506E-02	4.152E-02	7.348E-02	5.818E-03	0.477
CO-56		846.75	*	-3.094E-02	3.824E-02	5.879E-02	4.782E-03	-0.526
		977.42		-2.448E+00	2.792E+00	4.165E+00	3.492E-01	-0.588
		1037.82		-8.413E-02	3.042E-01	4.874E-01	3.995E-02	-0.173
		1175.09		-1.497E+00	2.335E+00	3.577E+00	2.025E-01	-0.419
		1238.25		2.301E-01	1.113E-01	2.060E-01	1.370E-02	1.117
		1360.21		9.920E-02	9.466E-01	1.560E+00	1.142E-01	0.064
		1771.40		-3.020E-01	2.514E-01	3.157E-01	1.953E-02	-0.957
CO-57		122.06	*	1.670E-03	2.633E-02	4.340E-02	2.559E-03	0.038
		136.48		-6.447E-02	2.261E-01	3.666E-01	2.384E-02	-0.176
CO-58		810.76	*	-1.033E-02	4.008E-02	6.562E-02	4.930E-03	-0.157
FE-59		142.65		2.399E+00	3.017E+00	4.992E+00	2.715E-01	0.481
		192.34		5.220E-01	1.035E+00	1.653E+00	1.913E-01	0.316
		1099.22	*	1.918E-02	1.055E-01	1.764E-01	1.359E-02	0.109
		1291.56		-1.521E-01	1.342E-01	1.875E-01	1.556E-02	-0.811
CO-60		1173.22		-3.815E-02	4.692E-02	7.065E-02	3.985E-03	-0.540
		1332.49	*	2.027E-02	3.983E-02	6.878E-02	5.049E-03	0.295
ZN-65		1115.52	*	1.007E-01	1.130E-01	1.768E-01	1.168E-02	0.570
GE-68		1077.35	*	6.980E-01	1.359E+00	2.341E+00	1.675E-01	0.298
AS-73		53.44	*	7.232E-02	1.105E+00	1.862E+00	1.644E-01	0.039
AS-74		595.88	*	-6.854E-02	1.054E-01	1.625E-01	8.965E-03	-0.422
		634.78		2.916E-01	4.234E-01	6.848E-01	3.625E-02	0.426
SE-75		66.05		4.778E-01	6.273E+00	9.270E+00	9.729E-01	0.052
		96.73		-8.003E-01	9.092E-01	1.253E+00	1.680E-01	-0.639

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		121.11		-3.755E-02	1.426E-01	2.321E-01	2.164E-02	-0.162
		136.00		-1.741E-02	4.327E-02	6.984E-02	3.944E-03	-0.249
		198.60		6.231E-01	1.955E+00	3.202E+00	2.162E-01	0.195
		264.65	*	-1.520E-02	5.253E-02	7.152E-02	4.163E-03	-0.213
		279.53		4.144E-03	1.096E-01	1.852E-01	1.165E-02	0.022
		303.91		3.102E-01	2.273E+00	3.361E+00	3.225E-01	0.092
		400.65		-2.673E-01	2.674E-01	4.151E-01	3.777E-02	-0.644
BR-77	+	87.88		9.578E+02	5.754E+02	8.313E+02	8.112E+01	1.152
		200.40		2.951E+02	4.245E+02	7.047E+02	3.770E+01	0.419
	+	239.00		5.740E+02	5.153E+01	8.815E+01	4.956E+00	6.511
		249.79		9.936E+01	1.528E+02	2.532E+02	1.440E+01	0.392
		281.68		-1.887E+02	2.067E+02	3.325E+02	1.938E+01	-0.568
		297.23		5.411E+02	2.202E+02	2.756E+02	1.619E+01	1.963
		303.76		5.709E+01	4.429E+02	6.546E+02	3.853E+01	0.087
		439.47		2.034E+02	3.309E+02	5.687E+02	3.327E+01	0.358
		484.57		6.104E+02	5.723E+02	1.004E+03	5.872E+01	0.608
		520.65	*	2.262E+01	2.380E+01	4.171E+01	2.414E+00	0.542
		574.64		-4.826E+01	5.155E+02	7.853E+02	4.408E+01	-0.061
		578.91		2.891E+02	2.251E+02	3.601E+02	2.014E+01	0.803
		585.48		1.844E+03	5.594E+02	9.790E+02	5.448E+01	1.883
		755.35		2.025E+02	4.365E+02	7.276E+02	4.764E+01	0.278
		817.79		6.240E+01	2.927E+02	4.994E+02	3.802E+01	0.125
SR-82		698.33		-1.003E+01	4.096E+01	6.483E+01	3.662E+00	-0.155
		776.49	*	-1.359E-01	4.667E-01	6.517E-01	4.496E-02	-0.208
		1395.20		-1.256E+01	1.528E+01	1.741E+01	1.269E+00	-0.721
RB-83		520.41	*	6.578E-02	6.920E-02	1.213E-01	7.021E-03	0.542
		529.64		7.227E-02	1.137E-01	1.945E-01	1.122E-02	0.371
		552.65		-2.023E-02	2.121E-01	3.443E-01	1.961E-02	-0.059
RB-84		881.50	*	3.457E-02	7.245E-02	1.260E-01	1.107E-02	0.274
KR-85		513.99	*	8.904E+00	8.141E+00	1.273E+01	7.385E-01	0.700
SR-85		513.99	*	4.706E-02	4.303E-02	6.727E-02	3.904E-03	0.700
RB-86		1076.63	*	4.271E-01	9.630E-01	1.649E+00	1.182E-01	0.259
Y-88		898.02		-2.286E-02	4.365E-02	6.914E-02	6.322E-03	-0.331
		1836.01	*	7.768E-03	3.494E-02	6.017E-02	3.543E-03	0.129
ZR-88		392.90	*	8.947E-03	3.219E-02	5.436E-02	3.139E-03	0.165
Y-91		1204.90	*	4.758E+00	2.133E+01	3.557E+01	2.122E+00	0.134
NB-94		702.63	*	5.797E-03	3.791E-02	6.187E-02	3.535E-03	0.094
		871.10		6.174E-03	3.148E-02	5.351E-02	4.595E-03	0.115
NB-95M		235.69	*	6.939E-01	1.797E-01	2.903E-01	2.141E-02	2.391
ZR-95		724.18		1.660E-01	1.205E-01	1.914E-01	1.353E-02	0.867
		756.15	*	3.805E-02	8.233E-02	1.372E-01	1.053E-02	0.277
NB-97		657.90	*	-1.432E+00	8.233E-02	Half-Life too short		
		1024.50		1.064E+02	8.233E-02	Half-Life too short		
ZR-97		254.15		-1.267E+02	8.233E-02	Half-Life too short		
		355.39		4.317E+01	8.233E-02	Half-Life too short		
		507.63	*	9.529E+01	8.233E-02	Half-Life too short		
		602.52		5.619E+01	8.233E-02	Half-Life too short		
		1021.30		7.501E+00	8.233E-02	Half-Life too short		
		1147.95		-2.918E+01	8.233E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1362.66		5.976E+01	8.233E-02	Half-Life too short		
		1750.46		-7.662E+00	8.233E-02	Half-Life too short		
MO-99		140.51		-1.230E+01	5.943E+01	9.515E+01	2.558E+01	-0.129
		181.06		1.493E+01	4.006E+01	5.800E+01	9.830E+00	0.257
		366.43		3.600E+01	1.724E+02	2.909E+02	1.705E+01	0.124
		739.58	*	1.572E+01	2.445E+01	4.147E+01	5.804E+00	0.379
		778.00		-6.451E+01	8.595E+01	1.132E+02	7.839E+00	-0.570
TC-99M		140.51	*	-2.573E+13	8.595E+01	Half-Life too short		
RH-101		127.23		-6.130E-03	3.376E-02	5.508E-02	3.163E-03	-0.111
		198.01	*	1.199E-02	3.512E-02	5.759E-02	3.070E-03	0.208
		325.23		3.114E-01	2.558E-01	4.044E-01	2.389E-02	0.770
RH-102		418.52		1.249E-01	2.856E-01	4.861E-01	2.832E-02	0.257
		475.06	*	1.649E-02	2.960E-02	5.057E-02	2.960E-03	0.326
		631.29		-8.503E-03	5.436E-02	8.702E-02	4.626E-03	-0.098
		697.49		2.109E-02	8.359E-02	1.376E-01	7.753E-03	0.153
	+	766.84		1.948E-01	1.224E-01	1.974E-01	1.330E-02	0.987
		1046.59		-4.289E-02	1.240E-01	1.979E-01	1.499E-02	-0.217
		1112.84		-3.532E-02	2.741E-01	3.798E-01	2.520E-02	-0.093
RU-103		497.08	*	-8.801E-03	4.420E-02	7.160E-02	9.064E-03	-0.123
		610.33		1.181E+01	2.310E+00	2.986E+00	4.565E-01	3.956
RH-106	+	511.85		8.098E-01	3.530E-01	4.181E-01	2.428E-02	1.937
		621.84	*	7.486E-02	3.001E-01	4.980E-01	5.743E-02	0.150
		1050.47		6.716E-01	2.559E+00	4.319E+00	3.249E-01	0.155
RU-106	+	511.85		8.098E-01	3.530E-01	4.181E-01	2.428E-02	1.937
		621.84	*	7.486E-02	3.000E-01	4.980E-01	2.676E-02	0.150
		1050.47		6.716E-01	2.559E+00	4.319E+00	3.249E-01	0.155
AG-108M		433.93	*	-7.040E-03	3.206E-02	5.225E-02	3.313E-03	-0.135
		614.37		1.929E-02	3.727E-02	5.588E-02	3.320E-03	0.345
		722.95		2.141E-02	4.599E-02	6.763E-02	4.397E-03	0.317
AG-110M		657.75	*	-2.908E-02	3.634E-02	5.473E-02	3.041E-03	-0.531
		677.61		-2.356E-02	3.255E-01	5.229E-01	2.993E-02	-0.045
		706.67		-9.366E-02	2.267E-01	3.529E-01	2.162E-02	-0.265
		763.93		-4.174E-02	2.044E-01	2.748E-01	1.924E-02	-0.152
		884.67		-5.617E-03	5.023E-02	8.286E-02	7.554E-03	-0.068
		937.48		-1.669E-01	1.229E-01	1.775E-01	1.611E-02	-0.940
		1384.27		1.038E-02	1.771E-01	2.893E-01	2.194E-02	0.036
IN-111		171.28		1.116E+00	2.149E+00	3.567E+00	1.830E-01	0.313
		245.39	*	2.346E-01	2.373E+00	3.344E+00	1.893E-01	0.070
IN-113M		391.69	*	-9.727E-04	4.663E-02	7.742E-02	4.770E-03	-0.013
SN-113		391.69	*	-9.727E-04	4.663E-02	7.742E-02	4.770E-03	-0.013
IN-114M		190.27	*	8.816E-02	2.144E-01	3.112E-01	1.640E-02	0.283
CD-115		260.90		-8.826E-05	2.144E-01	Half-Life too short		
		492.35		-1.551E-05	2.144E-01	Half-Life too short		
		527.90	*	7.160E-07	2.144E-01	Half-Life too short		
SN-117M		156.02		9.852E-01	2.681E+00	4.436E+00	2.321E-01	0.222
		158.56	*	-7.182E-03	6.363E-02	1.033E-01	5.366E-03	-0.070
SB-122		563.90	*	2.760E+00	4.590E+00	7.812E+00	4.419E-01	0.353
		692.80		-9.121E+00	9.663E+01	1.548E+02	8.614E+00	-0.059
I-123		159.00	*	-9.189E+01	9.663E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		528.96		1.463E+04	9.663E+01	Half-Life too short		
TE-123M		159.00	*	-1.178E-02	2.916E-02	4.674E-02	2.466E-03	-0.252
I-124		602.71	*	5.105E-01	1.229E+00	1.806E+00	9.899E-02	0.283
		722.78		2.936E+00	7.713E+00	1.123E+01	6.769E-01	0.261
		1325.50		1.873E+01	5.670E+01	9.593E+01	6.967E+00	0.195
		1376.25		6.081E+01	6.513E+01	1.036E+02	7.569E+00	0.587
		1509.49		1.469E+01	2.964E+01	5.082E+01	3.604E+00	0.289
		1691.02		-1.014E+00	5.703E+00	9.145E+00	5.969E-01	-0.111
SB-124		602.71		1.898E-02	4.569E-02	6.715E-02	3.682E-03	0.283
		645.85		2.475E-01	5.153E-01	8.693E-01	5.247E-02	0.285
		709.31		-1.702E+00	3.018E+00	4.626E+00	2.690E-01	-0.368
		713.82		1.058E+00	1.739E+00	2.945E+00	3.021E-01	0.359
		722.78		1.582E-01	4.157E-01	6.054E-01	3.807E-02	0.261
	+	968.20		9.115E+00	5.514E+00	7.079E+00	6.002E-01	1.288
		1045.16		-3.810E-01	2.687E+00	4.374E+00	3.321E-01	-0.087
		1325.50		1.078E+00	3.263E+00	5.521E+00	4.010E-01	0.195
		1368.21		-1.407E+00	1.828E+00	2.608E+00	3.307E-01	-0.540
		1436.60		1.416E+00	4.263E+00	7.203E+00	5.209E-01	0.197
		1691.02	*	-1.289E-02	7.249E-02	1.162E-01	8.105E-03	-0.111
SB-125		427.89	*	9.034E-03	9.332E-02	1.554E-01	9.456E-03	0.058
	+	463.38		7.446E-01	3.954E-01	5.524E-01	3.763E-02	1.348
		600.56		1.132E-01	1.991E-01	3.096E-01	1.995E-02	0.366
		635.90		2.826E-01	2.766E-01	4.850E-01	3.084E-02	0.583
TE-125M		109.28	*	-7.290E-01	1.036E+01	1.705E+01	1.523E+00	-0.043
I-126		388.63		-4.018E-02	2.390E-01	3.935E-01	2.276E-02	-0.102
		666.33	*	4.575E-02	2.301E-01	3.781E-01	1.957E-02	0.121
		753.82		1.364E+00	1.924E+00	3.268E+00	2.132E-01	0.417
SB-126		223.80		2.460E+00	5.158E+00	8.474E+00	4.680E-01	0.290
		278.60		2.536E+00	2.856E+00	5.003E+00	2.910E-01	0.507
		296.50		1.308E+01	3.135E+00	4.293E+00	2.520E-01	3.046
		414.70		-1.838E-02	9.100E-02	1.490E-01	8.673E-03	-0.123
		415.30		-3.111E+00	7.579E+00	1.224E+01	7.127E-01	-0.254
		555.20		-1.289E+00	4.847E+00	7.759E+00	4.414E-01	-0.166
		573.80		-5.343E-01	1.288E+00	1.973E+00	1.108E-01	-0.271
		593.00		-6.738E-01	1.134E+00	1.758E+00	9.723E-02	-0.383
		656.30		-1.244E+00	3.957E+00	6.233E+00	3.209E-01	-0.200
		666.33		1.924E-02	9.680E-02	1.590E-01	8.230E-03	0.121
		675.00		7.726E-01	2.516E+00	4.169E+00	2.210E-01	0.185
		695.00		-1.353E-02	9.683E-02	1.545E-01	8.650E-03	-0.088
		697.00		2.988E-02	3.456E-01	5.616E-01	3.161E-02	0.053
		720.50	*	-2.975E-02	1.827E-01	2.478E-01	1.484E-02	-0.120
		856.80		3.487E-01	6.005E-01	1.047E+00	8.708E-02	0.333
		989.30		-8.535E-01	1.707E+00	2.701E+00	2.230E-01	-0.316
		1034.80		5.933E-01	9.871E+00	1.640E+01	1.267E+00	0.036
		1213.00		7.240E-01	6.148E+00	1.015E+01	6.142E-01	0.071
SB-127		61.10		1.506E+02	1.262E+02	1.950E+02	2.362E+01	0.772
		252.40		-2.323E+00	7.427E+00	1.159E+01	4.842E+00	-0.200
		290.80		-8.151E+00	3.993E+01	5.772E+01	5.931E+00	-0.141
		411.60		2.389E+01	2.071E+01	3.617E+01	5.459E+00	0.661

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		444.90		-1.827E+00	1.608E+01	2.635E+01	3.096E+00	-0.069
		473.00		1.262E+00	2.835E+00	4.808E+00	5.819E-01	0.263
		543.00		5.972E+00	3.046E+01	5.050E+01	6.901E+00	0.118
		603.60		3.424E+00	2.260E+01	3.228E+01	3.724E+00	0.106
		685.20	*	9.685E-01	2.359E+00	3.941E+00	4.057E-01	0.246
		698.50		-1.079E+01	2.862E+01	4.474E+01	6.769E+00	-0.241
		722.20		8.998E+00	5.431E+01	7.704E+01	7.987E+00	0.117
		783.80		1.020E+01	6.576E+00	1.204E+01	1.476E+00	0.847
XE-127		57.60		-1.994E+00	8.402E+00	1.331E+01	1.166E+00	-0.150
		145.22		9.899E-02	7.417E-01	1.219E+00	6.578E-02	0.081
		172.10		7.148E-02	1.319E-01	2.191E-01	1.125E-02	0.326
		202.84	*	2.450E-02	5.785E-02	9.184E-02	4.930E-03	0.267
		374.96		5.392E-04	2.017E-01	3.361E-01	1.961E-02	0.002
I-131		80.18		5.172E-01	7.226E+00	1.061E+01	9.808E-01	0.049
		284.30		-6.035E-01	1.872E+00	3.105E+00	2.022E-01	-0.194
		364.48	*	-1.271E-02	1.492E-01	2.476E-01	1.625E-02	-0.051
		636.97		7.473E-01	2.027E+00	3.387E+00	2.055E-01	0.221
		722.89		4.322E+00	9.918E+00	1.454E+01	8.923E-01	0.297
TE-132		49.72		-7.834E+01	5.267E+01	8.234E+01	9.468E+00	-0.951
		111.76		5.371E-01	5.801E+01	9.569E+01	9.854E+00	0.006
		116.30		1.515E+01	5.216E+01	8.681E+01	8.741E+00	0.175
		228.16	*	-2.952E-01	1.370E+00	2.181E+00	3.247E-01	-0.135
BA-133		53.15		5.160E-01	4.706E+00	7.941E+00	7.004E-01	0.065
		79.62		6.785E-01	1.581E+00	2.353E+00	3.652E-01	0.288
		81.00		-3.590E-02	1.423E-01	1.730E-01	2.805E-02	-0.207
		276.40		5.021E-01	4.007E-01	6.525E-01	8.462E-02	0.769
		302.84		-3.949E-02	1.583E-01	2.274E-01	2.660E-02	-0.174
		356.01	*	1.324E-02	4.899E-02	7.263E-02	8.427E-03	0.182
		383.85		1.190E-03	2.979E-01	4.957E-01	5.390E-02	0.002
I-133	+	510.53		1.663E+01	2.979E-01	Half-Life too short		
		529.87	*	4.513E-02	2.979E-01	Half-Life too short		
		706.58		-1.647E+00	2.979E-01	Half-Life too short		
		856.28		-1.159E+00	2.979E-01	Half-Life too short		
		875.33		-1.066E+00	2.979E-01	Half-Life too short		
		1236.41		1.205E+01	2.979E-01	Half-Life too short		
		1298.22		-3.402E-01	2.979E-01	Half-Life too short		
CS-134		475.35		2.761E-01	1.972E+00	3.279E+00	1.919E-01	0.084
		563.23		2.354E-02	3.903E-01	6.400E-01	3.701E-02	0.037
		569.32		3.919E-02	2.105E-01	3.409E-01	1.982E-02	0.115
		604.70		-7.417E-03	4.093E-02	5.640E-02	3.105E-03	-0.131
		795.84	*	1.539E-02	4.869E-02	8.354E-02	6.101E-03	0.184
		801.93		-8.676E-02	4.122E-01	6.736E-01	4.978E-02	-0.129
		1038.57		-3.733E-01	3.692E+00	6.030E+00	4.629E-01	-0.062
		1167.94		2.499E+00	2.493E+00	4.468E+00	2.561E-01	0.559
		1365.15		-1.080E+00	1.233E+00	1.693E+00	1.317E-01	-0.638
CS-135		268.24	*	3.377E-01	1.859E-01	2.893E-01	2.210E-02	1.167
I-135		288.45		-8.389E+12	1.859E-01	Half-Life too short		
		417.63		4.967E+12	1.859E-01	Half-Life too short		
		546.56		-1.542E+12	1.859E-01	Half-Life too short		

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		836.80		4.047E+13	1.859E-01	Half-Life too short		
		1038.76		1.225E+11	1.859E-01	Half-Life too short		
		1124.00		4.194E+12	1.859E-01	Half-Life too short		
		1131.51		-4.292E+12	1.859E-01	Half-Life too short		
		1260.41	*	3.623E+12	1.859E-01	Half-Life too short		
		1457.56		1.395E+15	1.859E-01	Half-Life too short		
		1678.03		-4.678E+12	1.859E-01	Half-Life too short		
		1706.46		9.933E+12	1.859E-01	Half-Life too short		
		1791.20		3.136E+12	1.859E-01	Half-Life too short		
CS-136		66.91		-3.446E-01	1.170E+00	1.698E+00	2.628E-01	-0.203
	+	86.29		2.846E+00	1.731E+00	2.438E+00	3.302E-01	1.167
		153.22		6.709E-01	8.031E-01	1.330E+00	9.057E-02	0.505
		163.89		-5.850E-01	1.248E+00	1.992E+00	1.340E-01	-0.294
		176.55		-1.978E-01	4.383E-01	6.980E-01	4.164E-02	-0.283
		273.65		-8.399E-01	6.576E-01	8.253E-01	5.462E-02	-1.018
		340.57		3.510E-01	1.778E-01	2.900E-01	1.818E-02	1.210
		818.51		-1.427E-03	7.986E-02	1.334E-01	1.019E-02	-0.011
		1048.07	*	5.899E-02	1.351E-01	2.317E-01	1.847E-02	0.255
		1235.34		6.772E-01	8.469E-01	1.456E+00	1.497E-01	0.465
BA-137M		661.65	*	-2.282E-02	3.628E-02	5.552E-02	2.836E-03	-0.411
CS-137		661.65	*	-2.412E-02	3.835E-02	5.868E-02	3.014E-03	-0.411
CE-139		165.85	*	-1.400E-02	3.128E-02	4.944E-02	2.521E-03	-0.283
BA-140		162.64		2.382E-01	8.599E-01	1.417E+00	8.423E-02	0.168
		304.84		-2.624E-01	1.664E+00	2.404E+00	6.565E-01	-0.109
		423.70		-5.397E-01	2.202E+00	3.577E+00	1.137E+00	-0.151
		537.32	*	-1.001E-01	3.264E-01	5.197E-01	1.690E-01	-0.193
LA-140		328.77		4.583E-01	4.294E-01	6.679E-01	4.405E-02	0.686
		432.53		3.332E-01	2.341E+00	3.910E+00	2.521E-01	0.085
		487.03		7.985E-02	1.679E-01	2.850E-01	1.882E-02	0.280
		751.79		9.089E-01	2.193E+00	3.646E+00	2.797E-01	0.249
		815.85		-1.846E-01	3.577E-01	5.695E-01	4.949E-02	-0.324
		867.82		-1.345E+00	1.606E+00	2.459E+00	2.210E-01	-0.547
		919.63		1.597E+00	3.440E+00	5.717E+00	6.232E-01	0.279
		925.24		-9.548E-01	1.398E+00	2.155E+00	2.027E-01	-0.443
		1596.49	*	-1.461E-01	9.460E-02	1.125E-01	7.716E-03	-1.299
CE-141		145.44	*	-9.414E-03	6.787E-02	1.104E-01	6.225E-03	-0.085
CE-143		57.37		-2.277E-03	6.787E-02	Half-Life too short		
		231.56		2.420E-03	6.787E-02	Half-Life too short		
		293.26	*	4.666E-03	6.787E-02	Half-Life too short		
	+	350.59		1.269E-01	6.787E-02	Half-Life too short		
		490.36		-9.045E-03	6.787E-02	Half-Life too short		
		664.57		-5.556E-04	6.787E-02	Half-Life too short		
		721.93		2.065E-03	6.787E-02	Half-Life too short		
CE-144		80.11		2.043E-01	2.612E+00	3.836E+00	3.516E-01	0.053
		133.54	*	-3.536E-02	2.226E-01	3.628E-01	5.124E-02	-0.097
PM-144		476.78		-3.056E-02	7.113E-02	1.137E-01	7.944E-03	-0.269
		618.01		-5.265E-04	3.012E-02	4.887E-02	2.820E-03	-0.011
		696.49	*	-3.557E-03	3.794E-02	6.077E-02	3.420E-03	-0.059
		778.57		-3.423E+00	2.923E+00	3.636E+00	2.523E-01	-0.941

---- Non-Identified Nuclides ----

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PR-144		696.49	*	-2.414E-01	2.575E+00	4.125E+00	2.318E-01	-0.059
		1489.15		-5.635E+00	1.087E+01	1.576E+01	1.125E+00	-0.358
PM-146		453.90	*	-8.288E-03	4.487E-02	7.316E-02	6.336E-03	-0.113
		633.02		-2.868E-01	1.522E+00	2.287E+00	8.406E-01	-0.125
		735.90		4.002E-02	1.493E-01	2.455E-01	6.869E-02	0.163
		747.13		-2.255E-02	9.288E-02	1.458E-01	1.867E-02	-0.155
ND-147	+	91.11		8.352E-01	2.664E-01	6.810E-01	6.696E-02	1.226
		319.41		4.931E-01	3.883E+00	6.556E+00	3.874E-01	0.075
		439.89		3.725E+00	7.008E+00	1.198E+01	7.015E-01	0.311
		531.02	*	4.032E-02	7.379E-01	1.213E+00	1.639E-01	0.033
PM-149		285.90	*	1.179E-04	7.379E-01	Half-Life too short		
EU-152		121.78		-9.099E-04	7.565E-02	1.244E-01	9.562E-03	-0.007
		244.69		1.381E-01	3.654E-01	5.251E-01	2.970E-02	0.263
		344.27	*	3.199E-02	1.093E-01	1.626E-01	1.078E-02	0.197
		443.98		-3.296E-01	9.450E-01	1.524E+00	8.921E-02	-0.216
		778.89		-3.857E-01	3.362E-01	4.199E-01	2.913E-02	-0.919
		867.32		-2.455E-01	8.101E-01	1.313E+00	1.118E-01	-0.187
		964.01		3.582E-01	3.799E-01	5.920E-01	5.045E-02	0.605
		1085.78		3.267E-01	4.162E-01	7.345E-01	5.169E-02	0.445
		1112.02		6.549E-03	3.673E-01	5.412E-01	3.597E-02	0.012
		1407.95		2.096E-01	2.063E-01	3.738E-01	2.719E-02	0.561
GD-153		69.67		5.705E-01	2.090E+00	3.109E+00	2.717E-01	0.183
		83.37		3.755E+00	1.832E+01	2.702E+01	2.537E+00	0.139
		97.43	*	2.689E-02	8.977E-02	1.326E-01	1.083E-02	0.203
		103.18		-1.550E-01	1.147E-01	1.776E-01	1.327E-02	-0.873
EU-154		123.07		1.281E-02	5.384E-02	8.930E-02	8.430E-03	0.143
		247.94		-1.349E-01	3.772E-01	5.703E-01	5.398E-02	-0.237
		591.81		-2.259E-01	6.472E-01	1.025E+00	9.856E-02	-0.220
		723.30		1.441E-01	1.966E-01	2.973E-01	2.162E-02	0.485
		756.87		1.625E-01	8.739E-01	1.425E+00	1.510E-01	0.114
		873.19		1.469E-01	2.748E-01	4.809E-01	5.891E-02	0.305
		996.32		-1.006E-01	3.908E-01	6.308E-01	1.107E-01	-0.159
		1004.76		-2.596E-02	2.062E-01	3.368E-01	3.789E-02	-0.077
		1274.45	*	-1.356E-01	1.312E-01	1.881E-01	1.868E-02	-0.721
EU-155		48.70		-8.810E-01	3.603E+00	6.011E+00	4.848E-01	-0.147
		60.01		4.044E+00	6.638E+00	9.975E+00	8.663E-01	0.405
	+	86.54		2.258E-01	1.357E-01	1.927E-01	1.873E-02	1.172
		105.31	*	6.112E-02	1.136E-01	1.912E-01	1.410E-02	0.320
TB-160	+	86.79		6.194E-01	3.721E-01	5.253E-01	5.076E-02	1.179
		197.04		-9.035E-02	6.024E-01	9.683E-01	5.154E-02	-0.093
		215.65		2.091E-01	8.560E-01	1.347E+00	7.359E-02	0.155
	+	298.57		2.346E-01	1.629E-01	2.210E-01	1.299E-02	1.061
		879.36	*	3.943E-02	1.418E-01	2.423E-01	2.119E-02	0.163
		962.29		8.896E-01	6.854E-01	1.109E+00	9.471E-02	0.802
		966.15		6.573E-01	3.462E-01	5.616E-01	4.773E-02	1.170
		1177.93		-7.901E-02	3.977E-01	6.395E-01	3.638E-02	-0.124
		1271.85		-4.211E-01	7.491E-01	1.128E+00	7.526E-02	-0.373
HO-166M		80.57		-1.128E-01	3.588E-01	4.815E-01	4.428E-02	-0.234
	+	184.41		1.684E-01	5.219E-02	6.884E-02	3.598E-03	2.447

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		280.46		-8.288E-02	8.281E-02	1.326E-01	7.724E-03	-0.625
		410.95		3.707E-01	2.535E-01	4.536E-01	2.637E-02	0.817
		711.68	*	-3.378E-03	6.220E-02	9.979E-02	5.840E-03	-0.034
		752.31		1.780E-01	2.978E-01	5.025E-01	3.265E-02	0.354
		810.29		-2.383E-03	5.846E-02	9.758E-02	7.299E-03	-0.024
TM-171		51.35		-1.821E+01	4.170E+01	6.891E+01	5.990E+00	-0.264
		52.39		-3.820E+00	2.108E+01	3.519E+01	3.092E+00	-0.109
		59.40		2.705E+01	3.631E+01	5.489E+01	4.768E+00	0.493
		66.72	*	-1.464E+01	3.695E+01	5.339E+01	4.643E+00	-0.274
LU-176	+	88.36		4.442E-01	2.668E-01	3.933E-01	3.812E-02	1.129
		201.83		1.894E-03	3.230E-02	5.232E-02	2.804E-03	0.036
		306.84	*	3.750E-03	2.480E-02	4.094E-02	2.412E-03	0.092
		401.10		-6.217E+00	6.746E+00	1.055E+01	6.110E-01	-0.589
LU-177		112.95		4.524E-01	2.258E+00	3.749E+00	2.458E-01	0.121
	+	208.36	*	3.935E+00	1.999E+00	2.706E+00	1.464E-01	1.454
LU-177M		52.97		-1.411E-01	2.181E+00	3.656E+00	3.222E-01	-0.039
		54.07		3.388E-01	1.121E+00	1.904E+00	1.683E-01	0.178
		61.30		2.319E+00	1.982E+00	3.071E+00	2.667E-01	0.755
		121.62		-1.288E-01	3.968E-01	6.443E-01	3.809E-02	-0.200
		147.16		-5.730E-01	6.651E-01	1.049E+00	5.625E-02	-0.546
		171.86		3.484E-01	5.123E-01	8.554E-01	4.392E-02	0.407
		218.09		4.026E-01	9.223E-01	1.514E+00	8.302E-02	0.266
	+	268.79		2.314E+00	1.060E+00	1.487E+00	8.592E-02	1.556
		319.02		1.867E-02	2.545E-01	4.285E-01	2.531E-02	0.044
		367.43		3.023E-01	8.865E-01	1.508E+00	8.830E-02	0.200
		413.65	*	-1.836E-01	1.916E-01	2.992E-01	1.741E-02	-0.614
HF-181		56.28		-7.379E-01	1.266E+00	2.078E+00	1.829E-01	-0.355
		57.53		-1.516E-01	7.009E-01	1.111E+00	9.736E-02	-0.136
		65.20		2.454E-01	1.299E+00	1.930E+00	1.677E-01	0.127
		133.02		-4.240E-02	7.510E-02	1.206E-01	6.769E-03	-0.352
		136.25		-1.925E-01	5.182E-01	8.374E-01	4.648E-02	-0.230
		345.85		-2.806E-02	2.241E-01	3.225E-01	1.902E-02	-0.087
		482.03	*	-9.560E-03	4.886E-02	7.940E-02	4.644E-03	-0.120
W-181		56.28		-2.801E-01	4.806E-01	7.886E-01	6.944E-02	-0.355
		57.53		-5.773E-02	2.663E-01	4.221E-01	3.698E-02	-0.137
		65.20	*	9.247E-02	4.897E-01	7.274E-01	6.319E-02	0.127
TA-182		67.75		-1.038E-02	1.547E-01	2.116E-01	1.842E-02	-0.049
		100.10		1.369E-01	1.860E-01	3.153E-01	2.468E-02	0.434
		152.43		2.800E-01	3.582E-01	5.923E-01	3.130E-02	0.473
		222.10		1.184E-01	3.842E-01	6.270E-01	3.455E-02	0.189
		1001.68		6.748E-01	2.078E+00	3.539E+00	2.874E-01	0.191
		1121.28		5.685E-01	1.944E-01	3.521E-01	2.290E-02	1.615
		1189.05		-1.770E-01	3.584E-01	5.611E-01	3.256E-02	-0.316
		1221.42	*	2.180E-01	2.319E-01	4.064E-01	2.494E-02	0.536
		1230.97		-2.357E-01	5.594E-01	8.817E-01	5.500E-02	-0.267
RE-183		57.98		2.902E-02	2.745E-01	4.239E-01	3.707E-02	0.068
		59.32		1.143E-01	1.535E-01	2.320E-01	2.016E-02	0.493
		67.20		-6.235E-02	2.642E-01	3.846E-01	3.346E-02	-0.162
		162.32	*	1.363E-02	1.126E-01	1.843E-01	9.479E-03	0.074

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		2.699E+00	1.371E+00	1.852E+00	1.002E-01	1.458
		291.72		1.836E-01	1.088E+00	1.614E+00	9.459E-02	0.114
RE-184		57.98		1.052E-01	9.947E-01	1.536E+00	1.343E-01	0.068
		59.32		4.140E-01	5.556E-01	8.399E-01	7.300E-02	0.493
		67.20		-2.258E-01	9.568E-01	1.393E+00	1.212E-01	-0.162
		161.27		5.269E-02	3.529E-01	5.786E-01	2.985E-02	0.091
		216.55		3.917E-02	2.911E-01	4.719E-01	2.581E-02	0.083
		252.85	*	-9.829E-02	2.385E-01	3.732E-01	2.128E-02	-0.263
		318.01		2.079E-02	4.561E-01	7.669E-01	4.528E-02	0.027
		792.07		1.565E+00	1.059E+00	1.954E+00	1.400E-01	0.801
		903.28		1.625E-01	1.220E+00	1.779E+00	1.612E-01	0.091
		920.93		1.635E-02	4.691E-01	7.825E-01	6.979E-02	0.021
OS-185		59.72		2.580E-01	4.060E-01	6.108E-01	5.304E-02	0.422
		61.14		2.170E-01	2.191E-01	3.373E-01	2.930E-02	0.643
		69.30		-1.061E-01	4.168E-01	5.639E-01	4.923E-02	-0.188
		592.07		-1.078E+00	2.687E+00	4.236E+00	2.344E-01	-0.254
		646.12	*	1.991E-02	4.389E-02	7.385E-02	3.854E-03	0.270
		717.42		-1.695E-01	9.049E-01	1.433E+00	8.512E-02	-0.118
		874.81		-2.440E-01	5.818E-01	9.308E-01	8.059E-02	-0.262
		880.27		5.253E-01	7.683E-01	1.359E+00	1.191E-01	0.387
RE-188		155.03	*	1.636E-01	1.830E-01	3.085E-01	1.619E-02	0.530
		477.96		-1.144E+00	3.320E+00	5.339E+00	3.124E-01	-0.214
		633.10		-6.335E-01	3.154E+00	4.744E+00	2.516E-01	-0.134
W-188	+	63.58		1.087E+02	8.771E+01	1.112E+02	9.662E+00	0.977
		227.08		-8.458E+00	1.441E+01	2.255E+01	1.250E+00	-0.375
		290.67	*	-1.828E+00	8.445E+00	1.220E+01	7.143E-01	-0.150
IR-192	+	295.96		9.463E-01	2.180E-01	2.937E-01	1.750E-02	3.222
		308.46		5.864E-03	9.920E-02	1.671E-01	9.959E-03	0.035
		316.51	*	-3.448E-02	3.498E-02	5.545E-02	3.290E-03	-0.622
		468.07		-4.114E-02	7.500E-02	1.008E-01	6.790E-03	-0.408
		604.41		-2.152E-01	5.607E-01	7.544E-01	8.439E-02	-0.285
		612.46		8.430E-01	7.247E-01	1.156E+00	8.427E-02	0.729
AU-195		65.12		5.510E-02	2.262E-01	3.368E-01	2.926E-02	0.164
		66.83		-5.162E-02	1.229E-01	1.774E-01	1.543E-02	-0.291
	+	75.70		1.233E+00	2.788E-01	5.319E-01	4.750E-02	2.318
		98.88	*	3.176E-01	2.397E-01	4.014E-01	3.203E-02	0.791
		129.76		1.425E+00	3.034E+00	5.063E+00	2.878E-01	0.281
TL-200		367.94	*	-7.198E-04	3.034E+00	Half-Life too short		
		579.30		5.958E-02	3.034E+00	Half-Life too short		
		828.27		-1.460E-02	3.034E+00	Half-Life too short		
		1205.75		-2.555E-03	3.034E+00	Half-Life too short		
TL-201		68.90		1.090E+00	1.398E+01	1.747E+01	1.524E+00	0.062
		70.82		1.729E+00	6.503E+00	9.666E+00	8.470E-01	0.179
		80.30		6.879E-01	1.185E+01	1.738E+01	1.596E+00	0.040
		135.34		1.179E+01	5.281E+01	8.727E+01	4.859E+00	0.135
		167.43	*	9.278E-01	1.409E+01	2.275E+01	1.161E+00	0.041
TL-202		68.90		5.975E-02	7.665E-01	9.575E-01	8.352E-02	0.062
		70.82		9.449E-02	3.555E-01	5.283E-01	4.629E-02	0.179
		80.30		3.761E-02	6.477E-01	9.506E-01	8.724E-02	0.040

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	5.037E-02	8.114E-02	1.395E-01	8.162E-03	0.361
HG-203		70.83		3.567E-01	1.365E+00	2.028E+00	2.777E-01	0.176
		72.87		2.318E+00	8.899E-01	1.347E+00	1.796E-01	1.721
		82.60		-3.775E-01	1.706E+00	2.077E+00	2.950E-01	-0.182
		279.20	*	2.282E-02	4.214E-02	7.277E-02	4.495E-03	0.314
BI-207		72.80		5.817E-01	2.385E-01	3.727E-01	3.287E-02	1.561
	+	74.97		6.764E-01	1.530E-01	2.669E-01	2.375E-02	2.534
		84.90		1.467E-01	2.374E-01	3.474E-01	3.303E-02	0.422
		569.67		3.287E-03	3.305E-02	5.320E-02	2.997E-03	0.062
		1063.62	*	-1.810E-02	5.436E-02	8.665E-02	6.366E-03	-0.209
		1770.23		-1.730E+00	6.763E-01	6.450E-01	3.994E-02	-2.683
TL-207		81.07		-7.548E-02	3.137E-01	3.818E-01	3.523E-02	-0.198
		83.78		-5.738E-02	1.563E-01	2.249E-01	2.118E-02	-0.255
		94.90		4.637E-01	2.651E-01	4.130E-01	3.523E-02	1.123
		122.32		5.821E-01	1.801E+00	2.998E+00	2.028E-01	0.194
		144.24		8.676E-02	7.150E-01	1.154E+00	7.993E-02	0.075
		154.21		3.138E-01	4.101E-01	6.882E-01	4.523E-02	0.456
	+	269.46		5.350E-01	2.452E-01	3.465E-01	2.094E-02	1.544
		323.87	*	-4.340E-01	7.751E-01	1.079E+00	1.785E-01	-0.402
	+	338.28		7.609E+00	1.959E+00	2.552E+00	2.702E-01	2.982
		445.03		-3.140E-01	2.219E+00	3.631E+00	3.740E-01	-0.086
PO-209		260.50		-2.012E+00	1.018E+01	1.610E+01	9.245E-01	-0.125
		262.80		-5.047E+00	2.752E+01	4.355E+01	2.505E+00	-0.116
		896.60	*	-1.439E+00	7.436E+00	1.216E+01	1.104E+00	-0.118
BI-210		46.50	*	5.266E+00	5.562E+00	9.594E+00	7.471E-01	0.549
PB-210		46.50	*	5.266E+00	5.562E+00	9.594E+00	7.471E-01	0.549
PO-210		46.50	*	5.266E+00	5.558E+00	9.594E+00	6.437E-01	0.549
PB-211		404.84	*	-1.072E-01	9.457E-01	1.555E+00	9.694E-01	-0.069
		427.08		9.076E-01	2.162E+00	3.551E+00	2.195E+00	0.256
		831.96		-1.248E-02	1.262E+00	2.109E+00	1.320E+00	-0.006
BI-212	+	727.18	*	1.177E+00	4.618E-01	6.448E-01	5.118E-02	1.825
		785.46		2.708E+00	1.872E+00	3.447E+00	2.431E-01	0.785
		1620.62		1.475E+00	1.279E+00	2.473E+00	1.677E-01	0.597
PO-215		81.07		-7.548E-02	3.137E-01	3.818E-01	3.523E-02	-0.198
		83.78		-5.738E-02	1.563E-01	2.249E-01	2.118E-02	-0.255
		94.90		4.637E-01	2.651E-01	4.130E-01	3.523E-02	1.123
		122.32		5.821E-01	1.801E+00	2.998E+00	2.028E-01	0.194
		144.24		8.676E-02	7.150E-01	1.154E+00	7.993E-02	0.075
		154.21		3.138E-01	4.101E-01	6.882E-01	4.523E-02	0.456
	+	269.46		5.350E-01	2.452E-01	3.465E-01	2.094E-02	1.544
		323.87	*	-4.340E-01	7.751E-01	1.079E+00	1.785E-01	-0.402
	+	338.28		7.609E+00	1.959E+00	2.552E+00	2.702E-01	2.982
		445.03		-3.140E-01	2.219E+00	3.631E+00	3.740E-01	-0.086
RN-219	+	271.23		6.864E-01	3.167E-01	4.435E-01	3.591E-02	1.548
		401.81	*	-3.584E-01	4.089E-01	6.364E-01	8.657E-02	-0.563
RN-220		549.76	*	7.004E+00	2.761E+01	4.597E+01	2.624E+00	0.152
RA-223		81.07		-7.548E-02	3.137E-01	3.818E-01	3.523E-02	-0.198
		83.78		-5.738E-02	1.563E-01	2.249E-01	2.118E-02	-0.255
		94.90		4.637E-01	2.651E-01	4.130E-01	3.523E-02	1.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		5.821E-01	1.801E+00	2.998E+00	2.028E-01	0.194
		144.24		8.676E-02	7.150E-01	1.154E+00	7.993E-02	0.075
		154.21		3.138E-01	4.101E-01	6.882E-01	4.523E-02	0.456
	+	269.46		5.350E-01	2.452E-01	3.465E-01	2.094E-02	1.544
		323.87	*	-4.340E-01	7.751E-01	1.079E+00	1.785E-01	-0.402
	+	338.28		7.609E+00	1.959E+00	2.552E+00	2.702E-01	2.982
		445.03		-3.140E-01	2.219E+00	3.631E+00	3.740E-01	-0.086
AC-227		79.80		6.819E-01	1.998E+00	2.960E+00	6.430E-01	0.230
		236.00		2.462E+00	4.281E-01	6.304E-01	6.522E-02	3.906
		256.20	*	3.928E-01	3.934E-01	6.566E-01	9.144E-02	0.598
		286.10		8.355E-01	1.485E+00	2.565E+00	2.971E-01	0.326
	+	299.80		2.906E+00	2.065E+00	2.702E+00	4.408E-01	1.075
		304.40		-2.049E-01	2.029E+00	2.947E+00	5.106E-01	-0.070
		334.20		-3.483E-01	3.372E+00	3.826E+00	7.027E-01	-0.091
TH-227		79.80		6.819E-01	1.998E+00	2.960E+00	6.511E-01	0.230
	+	94.00		1.000E+01	4.004E+00	3.836E+00	8.362E-01	2.607
		236.00		2.462E+00	4.083E-01	6.304E-01	5.631E-02	3.906
		256.20	*	3.928E-01	3.952E-01	6.566E-01	1.108E-01	0.598
		286.10		8.355E-01	1.702E+00	2.565E+00	2.570E+00	0.326
	+	299.80		2.906E+00	2.065E+00	2.702E+00	4.408E-01	1.075
		304.40		-2.049E-01	2.029E+00	2.947E+00	5.106E-01	-0.070
		334.20		-3.483E-01	3.372E+00	3.826E+00	7.027E-01	-0.091
TH-229		85.43		2.775E-01	2.418E-01	3.599E-01	3.436E-02	0.771
	+	88.47		2.557E-01	1.536E-01	2.258E-01	2.184E-02	1.132
		100.00		1.375E-01	1.896E-01	3.215E-01	2.520E-02	0.428
		193.63	*	-1.145E-01	5.116E-01	8.197E-01	4.342E-02	-0.140
		210.97		6.519E-01	8.949E-01	1.315E+00	7.139E-02	0.496
PA-231		283.67	*	-5.765E-01	1.487E+00	2.454E+00	3.385E-01	-0.235
	+	301.29		1.162E+00	8.132E-01	1.046E+00	1.098E-01	1.111
TH-231		81.07		-7.548E-02	3.137E-01	3.818E-01	3.523E-02	-0.198
		83.78		-5.738E-02	1.563E-01	2.249E-01	2.118E-02	-0.255
		94.90		4.637E-01	2.651E-01	4.130E-01	3.523E-02	1.123
		122.32		5.821E-01	1.801E+00	2.998E+00	2.028E-01	0.194
		144.24		8.676E-02	7.150E-01	1.154E+00	7.993E-02	0.075
		154.21		3.138E-01	4.101E-01	6.882E-01	4.523E-02	0.456
	+	269.46		5.350E-01	2.452E-01	3.465E-01	2.094E-02	1.544
		323.87	*	-4.340E-01	7.751E-01	1.079E+00	1.785E-01	-0.402
	+	338.28		7.609E+00	1.959E+00	2.552E+00	2.702E-01	2.982
		445.03		-3.140E-01	2.219E+00	3.631E+00	3.740E-01	-0.086
U-231		84.21		-1.127E+00	1.065E+01	1.549E+01	1.465E+00	-0.073
	+	92.29		1.593E+01	5.524E+00	6.731E+00	6.025E-01	2.366
		95.87	*	-2.166E+00	2.033E+00	2.788E+00	2.339E-01	-0.777
		108.00		4.509E-01	3.520E+00	5.837E+00	4.079E-01	0.077
PA-233	+	75.28		1.974E+01	5.119E+00	8.277E+00	1.284E+00	2.384
	+	86.59		3.666E+00	2.391E+00	3.127E+00	8.494E-01	1.172
	+	300.12		8.101E-01	5.709E-01	7.498E-01	1.010E-01	1.081
		311.98	*	2.230E-02	6.384E-02	1.091E-01	6.819E-03	0.204
		340.50		1.669E+00	8.368E-01	1.238E+00	2.846E-01	1.348
		398.62		6.306E-01	2.106E+00	3.550E+00	9.178E-01	0.178

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		-6.576E-01	1.708E+00	2.756E+00	5.675E-01	-0.239
PA-234	+	63.00		3.064E+00	2.503E+00	3.194E+00	4.963E-01	0.959
		94.67		4.935E-01	1.984E-01	3.075E-01	3.802E-02	1.605
		98.44		1.688E-01	1.362E-01	1.627E-01	9.062E-02	1.037
		99.86		3.408E-01	4.800E-01	8.133E-01	6.389E-02	0.419
		111.00		2.012E-02	1.953E-01	3.232E-01	3.496E-02	0.062
		131.20		1.761E-02	1.118E-01	1.844E-01	1.042E-02	0.095
		152.70		2.521E-01	3.414E-01	5.605E-01	8.757E-02	0.450
	+	186.00		6.063E+00	2.615E+00	2.537E+00	7.726E-01	2.390
		226.40		-2.204E-02	4.368E-01	7.011E-01	8.015E-02	-0.031
		227.20		-2.753E-01	4.729E-01	7.402E-01	4.105E-02	-0.372
		248.90		-1.059E-01	8.324E-01	1.324E+00	2.842E-01	-0.080
	+	293.70		5.798E+00	1.593E+00	1.778E+00	2.863E-01	3.261
		369.80		1.299E-02	8.291E-01	1.383E+00	2.882E-01	0.009
		568.70		5.976E-02	1.092E+00	1.753E+00	9.885E-02	0.034
		569.50		2.569E-02	2.930E-01	4.712E-01	2.655E-02	0.055
		574.00		-1.399E-01	1.529E+00	2.408E+00	1.352E-01	-0.058
		699.00		-1.748E-01	8.135E-01	1.290E+00	2.314E-01	-0.135
		706.10		4.363E-01	1.128E+00	1.850E+00	8.162E-01	0.236
		733.00		-3.469E-01	4.486E-01	5.469E-01	1.169E-01	-0.634
		742.81		-4.855E-02	1.358E+00	2.175E+00	1.456E+00	-0.022
		796.30		-1.281E-02	9.635E-01	1.614E+00	4.299E-01	-0.008
		805.60		4.674E-01	1.028E+00	1.769E+00	5.364E-01	0.264
		819.60		-4.319E-01	1.183E+00	1.894E+00	7.164E-01	-0.228
		826.30		3.687E-01	7.995E-01	1.364E+00	6.081E-01	0.270
		831.60		-3.723E-01	6.616E-01	1.040E+00	3.081E-01	-0.358
		876.40		-3.724E-01	8.958E-01	1.291E+00	1.327E+00	-0.288
		880.51		1.219E-01	2.776E-01	4.809E-01	4.216E-02	0.254
		883.24		-9.526E-02	2.920E-01	4.600E-01	3.093E-01	-0.207
		899.00		-5.684E-01	8.743E-01	1.306E+00	5.723E-01	-0.435
		925.00		-5.842E-01	1.235E+00	1.945E+00	1.728E-01	-0.300
		926.50		-1.859E-01	1.979E-01	2.894E-01	7.341E-02	-0.642
		946.00	*	-1.251E-01	3.395E-01	5.446E-01	1.024E-01	-0.230
		949.00		6.990E-01	4.907E-01	9.028E-01	7.825E-02	0.774
		980.50		-1.164E+00	7.340E-01	9.988E-01	8.341E-02	-1.166
		1394.10		-5.942E-01	1.459E+00	1.768E+00	1.148E+00	-0.336
PA-234M	+	766.42		2.045E+01	1.642E+01	2.126E+01	1.073E+01	0.962
		1001.03	*	1.877E+00	4.671E+00	8.004E+00	7.637E-01	0.234
U-235	+	89.95		2.771E+00	1.202E+00	2.059E+00	6.399E-01	1.346
	+	93.35		3.111E+00	1.361E+00	1.261E+00	3.539E-01	2.468
		105.00		4.773E-01	1.136E+00	1.873E+00	5.522E-01	0.255
		143.76	*	8.855E-02	2.215E-01	3.608E-01	5.835E-02	0.245
		163.35		-1.293E-01	4.698E-01	7.555E-01	1.343E-01	-0.171
	+	185.71		2.246E-01	6.958E-02	9.471E-02	4.959E-03	2.371
		205.31		-1.350E-01	6.505E-01	9.062E-01	1.618E-01	-0.149
NP-236		94.67		3.764E-01	1.469E-01	2.334E-01	2.000E-02	1.613
		98.44		1.276E-01	7.521E-02	1.230E-01	9.883E-03	1.038
		111.00		1.522E-02	1.477E-01	2.445E-01	1.643E-02	0.062
		160.31	*	-4.100E-02	7.913E-02	1.261E-01	6.522E-03	-0.325

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		1.597E-01	1.592E-01	2.722E-01	2.149E-02	0.587
		117.00	*	9.791E-03	1.927E-01	3.180E-01	1.984E-02	0.031
	+	209.75		2.069E+00	1.051E+00	1.384E+00	7.502E-02	1.495
		228.18		-5.275E-02	2.419E-01	3.852E-01	2.139E-02	-0.137
		277.60		1.418E-01	1.883E-01	3.120E-01	1.814E-02	0.454
		334.30		-2.620E-01	1.908E+00	2.156E+00	1.274E-01	-0.122
AM-241		59.54	*	1.317E-01	2.106E-01	3.166E-01	2.946E-02	0.416
CM-243		99.55		1.644E-01	1.639E-01	2.801E-01	2.212E-02	0.587
		103.76	*	-2.600E-03	1.023E-01	1.672E-01	1.239E-02	-0.016
		117.00		1.007E-02	1.983E-01	3.272E-01	2.042E-02	0.031
	+	209.75		2.040E+00	1.036E+00	1.365E+00	7.397E-02	1.495
		228.18		-5.332E-02	2.445E-01	3.893E-01	2.161E-02	-0.137
		277.60		1.429E-01	1.899E-01	3.146E-01	1.829E-02	0.454
AM-246		798.80		-1.921E-01	1.469E-01	2.188E-01	1.593E-02	-0.878
		1036.00		-9.368E-02	2.909E-01	4.640E-01	3.576E-02	-0.202
		1062.04		-5.001E-02	2.358E-01	3.806E-01	2.804E-02	-0.131
		1078.86	*	5.374E-02	1.571E-01	2.666E-01	1.902E-02	0.202
CM-247		278.00		7.613E-01	7.282E-01	1.284E+00	7.465E-02	0.593
		287.40		5.062E-01	1.257E+00	2.048E+00	1.198E-01	0.247
		402.60	*	1.078E-02	3.621E-02	6.121E-02	3.548E-03	0.176
CF-249		252.85		-3.645E-01	8.843E-01	1.384E+00	7.891E-02	-0.263
		333.44		1.527E-01	2.649E-01	2.827E-01	1.670E-02	0.540
		387.95	*	7.573E-03	3.971E-02	6.678E-02	3.864E-03	0.113
CF-251		176.60	*	-5.884E-02	1.298E-01	2.066E-01	1.068E-02	-0.285
		227.00		-2.643E-01	4.209E-01	6.574E-01	3.645E-02	-0.402
		285.00		-2.711E-01	1.699E+00	2.840E+00	1.659E-01	-0.095

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978011       *
* Acquisition date : 14-FEB-2010 12:18:10 Detector SN#    :                 *
* Detector ID      : GAM23                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.75     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978011           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.4356E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.453E+01	2.417E+00	5.831E-01	0.000E+00
NB-95	7.973E-02	4.910E-02	6.941E-02	0.000E+00
CD-109	1.913E+00	1.126E+00	1.457E+00	0.000E+00
SN-126	1.873E-01	1.102E-01	1.435E-01	0.000E+00
TL-208	5.460E-01	8.587E-02	6.175E-02	0.000E+00
BI-211	3.718E+00	4.524E-01	3.377E-01	0.000E+00
PB-212	1.536E+00	1.511E-01	9.561E-02	0.000E+00
PO-212	1.536E+00	1.511E-01	9.561E-02	0.000E+00
BI-214	1.204E+00	1.781E-01	1.027E-01	0.000E+00
PB-214	1.293E+00	1.707E-01	1.208E-01	0.000E+00
PO-214	1.293E+00	1.707E-01	1.208E-01	0.000E+00
PO-216	1.536E+00	1.511E-01	9.561E-02	0.000E+00
PO-218	1.293E+00	1.707E-01	1.208E-01	0.000E+00
RA-224	4.871E+00	1.327E+00	1.088E+00	0.000E+00
RA-226	1.204E+00	1.781E-01	1.027E-01	0.000E+00
AC-228	1.500E+00	3.866E-01	2.454E-01	0.000E+00
RA-228	1.500E+00	3.866E-01	2.454E-01	0.000E+00
TH-228	1.564E+00	1.538E-01	9.734E-02	0.000E+00
TH-230	1.204E+00	1.781E-01	1.027E-01	0.000E+00
TH-232	1.500E+00	3.866E-01	2.454E-01	0.000E+00
TH-234	2.628E+00	2.117E+00	2.740E+00	0.000E+00
U-234	1.204E+00	1.781E-01	1.027E-01	0.000E+00
NP-237	5.499E-01	3.423E-01	4.546E-01	0.000E+00
U-238	2.628E+00	2.117E+00	2.740E+00	0.000E+00
AM-243	3.768E-01	8.351E-02	1.061E-01	0.000E+00
ANH-511	1.613E-01	6.889E-02	5.008E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)		
BE-7	-1.964E-01		3.454E-01	5.749E-01	0.000E+00	NOT IDENT.

NA-22	-4.821E-02	4.602E-02	6.816E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.851E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.711E-02	2.755E-02	4.005E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.317E-02	9.194E-02	0.000E+00	FAIL ABUN
SC-46	2.641E-02	3.930E-02	7.178E-02	0.000E+00	FAIL ABUN
V-48	7.058E-02	7.985E-02	1.475E-01	0.000E+00	NOT IDENT.
CR-51	-6.757E-02	3.879E-01	6.835E-01	0.000E+00	NOT IDENT.
MN-52	7.881E-02	3.493E-01	5.976E-01	0.000E+00	NOT IDENT.
MN-54	3.506E-02	4.069E-02	7.478E-02	0.000E+00	NOT IDENT.
CO-56	-3.094E-02	3.747E-02	5.981E-02	0.000E+00	NOT IDENT.
CO-57	1.670E-03	2.580E-02	4.603E-02	0.000E+00	NOT IDENT.
CO-58	-1.033E-02	3.928E-02	6.682E-02	0.000E+00	NOT IDENT.
FE-59	1.918E-02	1.034E-01	1.784E-01	0.000E+00	NOT IDENT.
CO-60	2.027E-02	3.903E-02	6.926E-02	0.000E+00	NOT IDENT.
ZN-65	1.007E-01	1.108E-01	1.787E-01	0.000E+00	NOT IDENT.
GE-68	6.980E-01	1.331E+00	2.369E+00	0.000E+00	NOT IDENT.
AS-73	7.232E-02	1.083E+00	2.008E+00	0.000E+00	NOT IDENT.
AS-74	-6.854E-02	1.033E-01	1.667E-01	0.000E+00	NOT IDENT.
SE-75	-1.520E-02	5.148E-02	7.463E-02	0.000E+00	NOT IDENT.
BR-77	2.262E+01	2.332E+01	4.289E+01	0.000E+00	FAIL ABUN
SR-82	-1.359E-01	4.573E-01	6.643E-01	0.000E+00	NOT IDENT.
RB-83	6.578E-02	6.782E-02	1.247E-01	0.000E+00	NOT IDENT.
RB-84	3.457E-02	7.100E-02	1.280E-01	0.000E+00	NOT IDENT.
KR-85	8.904E+00	7.979E+00	1.309E+01	0.000E+00	NOT IDENT.
SR-85	4.706E-02	4.217E-02	6.920E-02	0.000E+00	NOT IDENT.
RB-86	4.271E-01	9.437E-01	1.668E+00	0.000E+00	NOT IDENT.
Y-88	7.768E-03	3.424E-02	6.015E-02	0.000E+00	NOT IDENT.
ZR-88	8.947E-03	3.155E-02	5.625E-02	0.000E+00	NOT IDENT.
Y-91	4.758E+00	2.091E+01	3.590E+01	0.000E+00	NOT IDENT.
NB-94	5.797E-03	3.715E-02	6.321E-02	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.761E-01	3.036E-01	0.000E+00	NOT IDENT.
ZR-95	3.805E-02	8.068E-02	1.400E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.700E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.051E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.572E+01	2.396E+01	4.232E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.220E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.199E-02	3.441E-02	6.046E-02	0.000E+00	NOT IDENT.
RH-102	1.649E-02	2.901E-02	5.211E-02	0.000E+00	FAIL ABUN
RU-103	-8.801E-03	4.332E-02	7.370E-02	0.000E+00	NOT IDENT.
RH-106	7.486E-02	2.941E-01	5.101E-01	0.000E+00	FAIL ABUN
RU-106	7.486E-02	2.940E-01	5.101E-01	0.000E+00	FAIL ABUN
AG-108M	-7.040E-03	3.142E-02	5.395E-02	0.000E+00	NOT IDENT.
AG-110M	-2.908E-02	3.561E-02	5.599E-02	0.000E+00	NOT IDENT.
IN-111	2.346E-01	2.326E+00	3.495E+00	0.000E+00	NOT IDENT.
IN-113M	-9.727E-04	4.570E-02	8.012E-02	0.000E+00	NOT IDENT.
SN-113	-9.727E-04	4.570E-02	8.012E-02	0.000E+00	NOT IDENT.
IN-114M	8.816E-02	2.102E-01	3.270E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.775E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-7.182E-03	6.235E-02	1.089E-01	0.000E+00	NOT IDENT.
SB-122	2.760E+00	4.498E+00	8.020E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.230E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.178E-02	2.858E-02	4.929E-02	0.000E+00	NOT IDENT.
I-124	5.105E-01	1.205E+00	1.852E+00	0.000E+00	NOT IDENT.
SB-124	-1.289E-02	7.104E-02	1.164E-01	0.000E+00	FAIL ABUN
SB-125	9.034E-03	9.145E-02	1.605E-01	0.000E+00	FAIL ABUN
TE-125M	-7.290E-01	1.015E+01	1.813E+01	0.000E+00	NOT IDENT.
I-126	4.575E-02	2.255E-01	3.867E-01	0.000E+00	NOT IDENT.
SB-126	-2.975E-02	1.790E-01	2.530E-01	0.000E+00	NOT IDENT.
SB-127	9.685E-01	2.311E+00	4.028E+00	0.000E+00	NOT IDENT.
XE-127	2.450E-02	5.669E-02	9.638E-02	0.000E+00	NOT IDENT.
I-131	-1.271E-02	1.462E-01	2.566E-01	0.000E+00	NOT IDENT.
TE-132	-2.952E-01	1.343E+00	2.283E+00	0.000E+00	NOT IDENT.
BA-133	1.324E-02	4.801E-02	7.531E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.313E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.539E-02	4.771E-02	8.511E-02	0.000E+00	NOT IDENT.
CS-135	0.000E+00	1.822E-01	3.018E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.431E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.899E-02	1.324E-01	2.346E-01	0.000E+00	FAIL ABUN
BA-137M	-2.282E-02	3.555E-02	5.679E-02	0.000E+00	NOT IDENT.
CS-137	-2.412E-02	3.758E-02	6.003E-02	0.000E+00	NOT IDENT.
CE-139	-1.400E-02	3.066E-02	5.210E-02	0.000E+00	NOT IDENT.
BA-140	-1.001E-01	3.198E-01	5.341E-01	0.000E+00	NOT IDENT.
LA-140	-1.461E-01	9.271E-02	1.128E-01	0.000E+00	NOT IDENT.
CE-141	-9.414E-03	6.651E-02	1.166E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.291E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-3.536E-02	2.181E-01	3.841E-01	0.000E+00	NOT IDENT.
PM-144	-3.557E-03	3.718E-02	6.210E-02	0.000E+00	NOT IDENT.
PR-144	-2.414E-01	2.523E+00	4.215E+00	0.000E+00	NOT IDENT.

PM-146	-8.288E-03	4.397E-02	7.546E-02	0.000E+00	NOT IDENT.
ND-147	4.032E-02	7.232E-01	1.247E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.156E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	3.199E-02	1.071E-01	1.687E-01	0.000E+00	NOT IDENT.
GD-153	2.689E-02	8.797E-02	1.412E-01	0.000E+00	NOT IDENT.
EU-154	-1.356E-01	1.286E-01	1.896E-01	0.000E+00	NOT IDENT.
EU-155	6.112E-02	1.114E-01	2.034E-01	0.000E+00	FAIL ABUN
TB-160	3.943E-02	1.389E-01	2.463E-01	0.000E+00	FAIL ABUN
HO-166M	-3.378E-03	6.096E-02	1.019E-01	0.000E+00	FAIL ABUN
TM-171	-1.464E+01	3.621E+01	5.732E+01	0.000E+00	NOT IDENT.
LU-176	3.750E-03	2.430E-02	4.258E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.959E+00	2.838E+00	0.000E+00	FAIL ABUN
LU-177M	-1.836E-01	1.878E-01	3.092E-01	0.000E+00	FAIL ABUN
HF-181	-9.560E-03	4.788E-02	8.179E-02	0.000E+00	NOT IDENT.
W-181	9.247E-02	4.799E-01	7.813E-01	0.000E+00	NOT IDENT.
TA-182	2.180E-01	2.272E-01	4.101E-01	0.000E+00	NOT IDENT.
RE-183	1.363E-02	1.103E-01	1.943E-01	0.000E+00	FAIL ABUN
RE-184	-9.829E-02	2.337E-01	3.898E-01	0.000E+00	NOT IDENT.
OS-185	1.991E-02	4.301E-02	7.558E-02	0.000E+00	NOT IDENT.
RE-188	1.636E-01	1.793E-01	3.255E-01	0.000E+00	NOT IDENT.
W-188	-1.828E+00	8.276E+00	1.270E+01	0.000E+00	FAIL ABUN
IR-192	-3.448E-02	3.428E-02	5.765E-02	0.000E+00	FAIL ABUN
AU-195	3.176E-01	2.349E-01	4.275E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.808E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	9.278E-01	1.381E+01	2.397E+01	0.000E+00	NOT IDENT.
TL-202	5.037E-02	7.952E-02	1.440E-01	0.000E+00	NOT IDENT.
HG-203	2.282E-02	4.130E-02	7.585E-02	0.000E+00	NOT IDENT.
BI-207	-1.810E-02	5.327E-02	8.771E-02	0.000E+00	FAIL ABUN
TL-207	-4.340E-01	7.596E-01	1.121E+00	0.000E+00	FAIL ABUN
PO-209	-1.439E+00	7.287E+00	1.235E+01	0.000E+00	NOT IDENT.
BI-210	5.266E+00	5.451E+00	1.038E+01	0.000E+00	NOT IDENT.
PB-210	5.266E+00	5.451E+00	1.038E+01	0.000E+00	NOT IDENT.
PO-210	5.266E+00	5.447E+00	1.038E+01	0.000E+00	NOT IDENT.
PB-211	-1.072E-01	9.267E-01	1.608E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.526E-01	6.582E-01	0.000E+00	FAIL ABUN
PO-215	-4.340E-01	7.596E-01	1.121E+00	0.000E+00	FAIL ABUN
RN-219	-3.584E-01	4.007E-01	6.582E-01	0.000E+00	FAIL ABUN
RN-220	7.004E+00	2.706E+01	4.722E+01	0.000E+00	NOT IDENT.
RA-223	-4.340E-01	7.596E-01	1.121E+00	0.000E+00	FAIL ABUN
AC-227	3.928E-01	3.856E-01	6.856E-01	0.000E+00	FAIL ABUN
TH-227	3.928E-01	3.873E-01	6.856E-01	0.000E+00	FAIL ABUN
TH-229	-1.145E-01	5.013E-01	8.611E-01	0.000E+00	FAIL ABUN
PA-231	-5.765E-01	1.457E+00	2.557E+00	0.000E+00	FAIL ABUN
TH-231	-4.340E-01	7.596E-01	1.121E+00	0.000E+00	FAIL ABUN
U-231	-2.166E+00	1.992E+00	2.972E+00	0.000E+00	FAIL ABUN
PA-233	2.230E-02	6.256E-02	1.134E-01	0.000E+00	FAIL ABUN
PA-234	-1.251E-01	3.327E-01	5.527E-01	0.000E+00	FAIL ABUN
PA-234M	1.877E+00	4.577E+00	8.112E+00	0.000E+00	FAIL ABUN
U-235	8.855E-02	2.171E-01	3.813E-01	0.000E+00	FAIL ABUN
NP-236	-4.100E-02	7.754E-02	1.330E-01	0.000E+00	NOT IDENT.
NP-239	9.791E-03	1.888E-01	3.375E-01	0.000E+00	FAIL ABUN
AM-241	1.317E-01	2.063E-01	3.407E-01	0.000E+00	NOT IDENT.
CM-243	-2.600E-03	1.002E-01	1.779E-01	0.000E+00	FAIL ABUN
AM-246	5.374E-02	1.539E-01	2.697E-01	0.000E+00	NOT IDENT.
CM-247	1.078E-02	3.549E-02	6.330E-02	0.000E+00	NOT IDENT.
CF-249	7.573E-03	3.892E-02	6.912E-02	0.000E+00	NOT IDENT.
CF-251	-5.884E-02	1.272E-01	2.174E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:19:16.11

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978011.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 12:18:10
Sample ID         : G245978011           Sample quantity  : 1.43560E+02 GRAM
Detector name     : GAM23                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	998	10.67*	9.973E-01	2.453E+01	2.453E+01	10.06
NB-95	765.79	45	99.81*	1.788E+00	6.557E-02	7.973E-02	62.84
CD-109	88.03	138	3.72*	5.226E+00	1.863E+00	1.913E+00	60.07
SN-126	64.28	99	9.60	2.594E+00	1.040E+00	1.040E+00	81.63
	86.94	138	8.90	5.226E+00	7.785E-01	7.785E-01	72.42
	87.57	138	37.00*	5.226E+00	1.873E-01	1.873E-01	60.07
TL-208	277.35	------	6.80	4.140E+00	------	Line Not Found	------
	510.84	157	21.60	2.546E+00	7.465E-01	7.465E-01	44.38
	583.14	400	84.20*	2.278E+00	5.460E-01	5.460E-01	16.05
	860.37	------	12.46	1.609E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	3.829E+00	------	Line Not Found	------
	351.07	633	12.94*	3.442E+00	3.718E+00	3.718E+00	12.42
PB-212	74.81	385	10.70	4.044E+00	2.324E+00	2.324E+00	24.47
	77.11	619	18.00	4.294E+00	2.093E+00	2.093E+00	16.69
	87.30	138	8.00	5.226E+00	8.661E-01	8.661E-01	60.90
	238.63	1215	44.60*	4.638E+00	1.536E+00	1.536E+00	10.04
	300.09	80	3.41	3.897E+00	1.568E+00	1.568E+00	69.67
PO-212	74.81	385	10.70	4.044E+00	2.324E+00	2.324E+00	24.47
	77.11	619	18.00	4.294E+00	2.093E+00	2.093E+00	16.69
	87.30	138	8.00	5.226E+00	8.661E-01	8.661E-01	60.90
	115.19	------	0.60	6.293E+00	------	Line Not Found	------
	238.63	1215	44.60*	4.638E+00	1.536E+00	1.536E+00	10.04
	300.09	80	3.41	3.897E+00	1.568E+00	1.568E+00	69.67
BI-214	609.31	468	46.30*	2.194E+00	1.204E+00	1.204E+00	15.09
	1120.29	94	15.10	1.258E+00	1.291E+00	1.291E+00	41.07
	1764.49	79	15.80	8.744E-01	1.490E+00	1.490E+00	26.33
PB-214	74.81	385	6.21	4.044E+00	4.004E+00	4.004E+00	23.80
	77.11	619	10.50	4.294E+00	3.588E+00	3.588E+00	18.34
	87.30	138	4.67	5.226E+00	1.484E+00	1.484E+00	60.56
	241.98	338	7.49	4.596E+00	2.569E+00	2.569E+00	28.35
	295.21	350	19.20	3.949E+00	1.208E+00	1.208E+00	23.85
	351.92	633	37.20*	3.442E+00	1.293E+00	1.293E+00	13.47

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
PO-214	74.81	385	6.21	4.044E+00	4.004E+00	4.004E+00	23.80
	77.11	619	10.50	4.294E+00	3.588E+00	3.588E+00	18.34
	87.30	138	4.67	5.226E+00	1.484E+00	1.484E+00	60.56
	241.98	338	7.49	4.596E+00	2.569E+00	2.569E+00	28.35
	295.21	350	19.20	3.949E+00	1.208E+00	1.208E+00	23.85
	351.92	633	37.20*	3.442E+00	1.293E+00	1.293E+00	13.47
PO-216	74.81	385	10.70	4.044E+00	2.324E+00	2.324E+00	24.47
	77.11	619	18.00	4.294E+00	2.093E+00	2.093E+00	16.69
	87.30	138	8.00	5.226E+00	8.661E-01	8.661E-01	60.90
	238.63	1215	44.60*	4.638E+00	1.536E+00	1.536E+00	10.04
	300.09	80	3.41	3.897E+00	1.568E+00	1.568E+00	69.67
PO-218	74.81	385	6.21	4.044E+00	4.004E+00	4.004E+00	23.80
	77.11	619	10.50	4.294E+00	3.588E+00	3.588E+00	18.34
	87.30	138	4.67	5.226E+00	1.484E+00	1.484E+00	60.56
	241.98	338	7.49	4.596E+00	2.569E+00	2.569E+00	28.35
	295.21	350	19.20	3.949E+00	1.208E+00	1.208E+00	23.85
	351.92	633	37.20*	3.442E+00	1.293E+00	1.293E+00	13.47
RA-224	240.98	338	3.95*	4.596E+00	4.871E+00	4.871E+00	27.79
RA-226	609.31	468	46.30*	2.194E+00	1.204E+00	1.204E+00	15.09
	1120.29	94	15.10	1.258E+00	1.291E+00	1.291E+00	41.07
	1764.49	79	15.80	8.744E-01	1.490E+00	1.490E+00	26.33
AC-228	338.32	282	11.40	3.551E+00	1.822E+00	1.822E+00	47.05
	911.07	243	27.70*	1.527E+00	1.500E+00	1.500E+00	26.29
	969.11	78	16.60	1.441E+00	8.563E-01	8.563E-01	64.26
RA-228	338.32	282	11.40	3.551E+00	1.822E+00	1.822E+00	47.05
	911.07	243	27.70*	1.527E+00	1.500E+00	1.500E+00	26.29
	969.11	78	16.60	1.441E+00	8.563E-01	8.563E-01	64.26
TH-228	74.81	385	10.70	4.044E+00	2.324E+00	2.366E+00	22.64
	77.11	619	18.00	4.294E+00	2.093E+00	2.131E+00	16.69
	87.30	138	8.00	5.226E+00	8.661E-01	8.818E-01	60.07
	238.63	1215	44.60*	4.638E+00	1.536E+00	1.564E+00	10.04
	300.09	80	3.41	3.897E+00	1.568E+00	1.596E+00	90.88
TH-230	609.31	468	46.30*	2.194E+00	1.204E+00	1.204E+00	15.09
	1120.29	94	15.10	1.258E+00	1.291E+00	1.291E+00	41.07
	1764.49	79	15.80	8.744E-01	1.490E+00	1.490E+00	26.33
TH-232	338.32	282	11.40	3.551E+00	1.822E+00	1.822E+00	24.19
	911.07	243	27.70*	1.527E+00	1.500E+00	1.500E+00	26.29
	969.11	78	16.60	1.441E+00	8.563E-01	8.563E-01	64.26
TH-234	63.29	99	3.80*	2.594E+00	2.628E+00	2.628E+00	82.20
	92.38	300	5.41	5.595E+00	2.588E+00	2.588E+00	38.15
U-234	609.31	468	46.30*	2.194E+00	1.204E+00	1.204E+00	15.09
	1120.29	94	15.10	1.258E+00	1.291E+00	1.291E+00	41.07
	1764.49	79	15.80	8.744E-01	1.490E+00	1.490E+00	26.33
NP-237	86.50	138	12.60*	5.226E+00	5.499E-01	5.499E-01	63.51
	95.87	------	2.60	5.757E+00	------	Line Not Found	------
U-238	63.29	99	3.80*	2.594E+00	2.628E+00	2.628E+00	82.20
	92.38	300	5.41	5.595E+00	2.588E+00	2.588E+00	34.68
AM-243	74.67	385	66.00*	4.044E+00	3.768E-01	3.768E-01	22.62
	86.72	138	0.34	5.226E+00	2.062E+01	2.062E+01	60.07

Sample ID : G245978011 Acquisition date : 14-FEB-2010 12:18:10

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	117.66	------	0.55	6.314E+00	------	Line Not Found	------
	142.18	------	0.13	6.209E+00	------	Line Not Found	------
ANH-511	511.00	157	100.00*	2.546E+00	1.613E-01	1.613E-01	43.59

Flag: "*" = Keyline

Sample ID : G245978011 Acquisition date : 14-FEB-2010 12:18:10

Total number of lines in spectrum 29
Number of unidentified lines 3
Number of lines tentatively identified by NID 26 89.66%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.453E+01	2.453E+01	0.247E+01	10.06	
NB-95	64.02D	1.22	6.557E-02	7.973E-02	5.010E-02	62.84	
CD-109	464.00D	1.03	1.863E+00	1.913E+00	1.149E+00	60.07	
SN-126	1.00E+05Y	1.00	1.873E-01	1.873E-01	1.125E-01	60.07	
TL-208	1.41E+10Y	1.00	5.460E-01	5.460E-01	0.876E-01	16.05	
BI-211	7.04E+08Y	1.00	3.718E+00	3.718E+00	0.462E+00	12.42	
PB-212	1.41E+10Y	1.00	1.536E+00	1.536E+00	0.154E+00	10.04	
PO-212	1.41E+10Y	1.00	1.536E+00	1.536E+00	0.154E+00	10.04	
BI-214	1600.00Y	1.00	1.204E+00	1.204E+00	0.182E+00	15.09	
PB-214	1600.00Y	1.00	1.293E+00	1.293E+00	0.174E+00	13.47	
PO-214	1600.00Y	1.00	1.293E+00	1.293E+00	0.174E+00	13.47	
PO-216	1.41E+10Y	1.00	1.536E+00	1.536E+00	0.154E+00	10.04	
PO-218	1600.00Y	1.00	1.293E+00	1.293E+00	0.174E+00	13.47	
RA-224	1.41E+10Y	1.00	4.871E+00	4.871E+00	1.354E+00	27.79	
RA-226	1600.00Y	1.00	1.204E+00	1.204E+00	0.182E+00	15.09	
AC-228	1.41E+10Y	1.00	1.500E+00	1.500E+00	0.394E+00	26.29	
RA-228	1.41E+10Y	1.00	1.500E+00	1.500E+00	0.394E+00	26.29	
TH-228	1.91Y	1.02	1.536E+00	1.564E+00	0.157E+00	10.04	
TH-230	4.47E+09Y	1.00	1.204E+00	1.204E+00	0.182E+00	15.09	
TH-232	1.41E+10Y	1.00	1.500E+00	1.500E+00	0.394E+00	26.29	
TH-234	4.47E+09Y	1.00	2.628E+00	2.628E+00	2.160E+00	82.20	
U-234	4.47E+09Y	1.00	1.204E+00	1.204E+00	0.182E+00	15.09	
NP-237	2.14E+06Y	1.00	5.499E-01	5.499E-01	3.493E-01	63.51	
U-238	4.47E+09Y	1.00	2.628E+00	2.628E+00	2.160E+00	82.20	
AM-243	7380.00Y	1.00	3.768E-01	3.768E-01	0.852E-01	22.62	
ANH-511	1.00E+09Y	1.00	1.613E-01	1.613E-01	0.703E-01	43.59	
	Total Activity :		6.146E+01	6.156E+01			

Grand Total Activity : 6.146E+01 6.156E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978011 Acquisition date : 14-FEB-2010 12:18:10

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	89.84	155	227	1.08	179.69	177	14	2.15E-02	30.3	5.41E+00	T
0	185.78	255	305	1.47	371.55	366	11	3.54E-02	30.5	5.49E+00	T
0	208.80	131	269	1.73	417.60	414	10	1.81E-02	50.5	5.09E+00	T
0	269.78	118	171	1.55	539.56	535	10	1.63E-02	45.4	4.23E+00	T
0	327.21	51	214	0.67	654.42	651	11	7.15E-03	****	3.64E+00	
0	462.34	80	94	1.11	924.68	919	11	1.12E-02	52.7	2.76E+00	T
0	726.49	100	59	1.81	1452.99	1446	14	1.38E-02	38.4	1.88E+00	T
6	771.78	33	101	3.20	1543.56	1530	23	4.64E-03	****	1.78E+00	
0	1388.51	11	41	7.95	2777.01	2760	24	1.49E-03	****	1.04E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 14:19:24.24

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978011.CNF;1  *
* Acquisition date : 14-FEB-2010 12:18:10  Detector SN#    :                *
* Detector ID      : GAM23                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.75         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245978011            Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.43560E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 2-JUN-2009 11:17:00.62MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.453E+01	2.466E+00	5.803E-01	4.341E-02	42.266
NB-95	7.973E-02	5.010E-02	6.807E-02	4.574E-03	1.171
CD-109	1.913E+00	1.149E+00	1.365E+00	1.332E-01	1.402
SN-126	1.873E-01	1.125E-01	1.344E-01	1.307E-02	1.394
TL-208	5.460E-01	8.762E-02	6.020E-02	3.908E-03	9.070
BI-211	3.718E+00	4.617E-01	3.256E-01	2.121E-02	11.420
PB-212	1.536E+00	1.541E-01	9.142E-02	6.573E-03	16.802
PO-212	1.536E+00	1.541E-01	9.142E-02	6.573E-03	16.802
BI-214	1.204E+00	1.817E-01	1.002E-01	7.534E-03	12.014
PB-214	1.293E+00	1.742E-01	1.164E-01	9.719E-03	11.107
PO-214	1.293E+00	1.742E-01	1.164E-01	9.719E-03	11.107
PO-216	1.536E+00	1.541E-01	9.142E-02	6.573E-03	16.802
PO-218	1.293E+00	1.742E-01	1.164E-01	9.719E-03	11.107
RA-224	4.871E+00	1.354E+00	1.040E+00	5.862E-02	4.682
RA-226	1.204E+00	1.817E-01	1.002E-01	7.534E-03	12.014
AC-228	1.500E+00	3.945E-01	2.416E-01	2.788E-02	6.211
RA-228	1.500E+00	3.945E-01	2.416E-01	2.788E-02	6.211
TH-228	1.564E+00	1.569E-01	9.307E-02	6.692E-03	16.802

Sample ID : G245978011 Acquisition date : 14-FEB-2010 12:18:10

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.204E+00	1.817E-01	1.002E-01	7.534E-03	12.014
TH-232	1.500E+00	3.945E-01	2.416E-01	2.788E-02	6.211
TH-234	2.628E+00	2.160E+00	2.549E+00	4.594E-01	1.031
U-234	1.204E+00	1.817E-01	1.002E-01	7.534E-03	12.014
NP-237	5.499E-01	3.493E-01	4.256E-01	9.693E-02	1.292
U-238	2.628E+00	2.160E+00	2.549E+00	4.594E-01	1.031
AM-243	3.768E-01	8.521E-02	9.900E-02	8.798E-03	3.806
ANH-511	1.613E-01	7.030E-02	4.868E-02	2.828E-03	3.312

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-1.964E-01		3.524E-01	5.580E-01	3.792E-02	-0.352
NA-22	-4.821E-02		4.696E-02	6.761E-02	4.541E-03	-0.713
NA-24	-1.396E+01		9.443E+00	Half-Life too short		
AL-26	-1.711E-02		2.811E-02	4.005E-02	2.407E-03	-0.427
TI-44	3.863E-01	+	6.446E-02	8.591E-02	7.788E-03	4.496
SC-46	2.641E-02		4.010E-02	7.063E-02	6.310E-03	0.374
V-48	7.058E-02		8.148E-02	1.454E-01	1.210E-02	0.485
CR-51	-6.757E-02		3.958E-01	6.577E-01	4.313E-02	-0.103
MN-52	7.881E-02		3.564E-01	5.944E-01	4.301E-02	0.133
MN-54	3.506E-02		4.152E-02	7.348E-02	5.818E-03	0.477
CO-56	-3.094E-02		3.824E-02	5.879E-02	4.782E-03	-0.526
CO-57	1.670E-03		2.633E-02	4.340E-02	2.559E-03	0.038
CO-58	-1.033E-02		4.008E-02	6.562E-02	4.930E-03	-0.157
FE-59	1.918E-02		1.055E-01	1.764E-01	1.359E-02	0.109
CO-60	2.027E-02		3.983E-02	6.878E-02	5.049E-03	0.295
ZN-65	1.007E-01		1.130E-01	1.768E-01	1.168E-02	0.570
GE-68	6.980E-01		1.359E+00	2.341E+00	1.675E-01	0.298
AS-73	7.232E-02		1.105E+00	1.862E+00	1.644E-01	0.039
AS-74	-6.854E-02		1.054E-01	1.625E-01	8.965E-03	-0.422
SE-75	-1.520E-02		5.253E-02	7.152E-02	4.163E-03	-0.213
BR-77	2.262E+01		2.380E+01	4.171E+01	2.414E+00	0.542
SR-82	-1.359E-01		4.667E-01	6.517E-01	4.496E-02	-0.208
RB-83	6.578E-02		6.920E-02	1.213E-01	7.021E-03	0.542
RB-84	3.457E-02		7.245E-02	1.260E-01	1.107E-02	0.274
KR-85	8.904E+00		8.141E+00	1.273E+01	7.385E-01	0.700
SR-85	4.706E-02		4.303E-02	6.727E-02	3.904E-03	0.700
RB-86	4.271E-01		9.630E-01	1.649E+00	1.182E-01	0.259
Y-88	7.768E-03		3.494E-02	6.017E-02	3.543E-03	0.129
ZR-88	8.947E-03		3.219E-02	5.436E-02	3.139E-03	0.165
Y-91	4.758E+00		2.133E+01	3.557E+01	2.122E+00	0.134
NB-94	5.797E-03		3.791E-02	6.187E-02	3.535E-03	0.094
NB-95M	6.939E-01		1.797E-01	2.903E-01	2.141E-02	2.391
ZR-95	3.805E-02		8.233E-02	1.372E-01	1.053E-02	0.277
NB-97	-1.432E+00		8.674E-01	Half-Life too short		
ZR-97	9.529E+01		2.067E+01	Half-Life too short		

Sample ID : G245978011 Acquisition date : 14-FEB-2010 12:18:10

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	1.572E+01		2.445E+01	4.147E+01	5.804E+00	0.379
TC-99M	-2.573E+13		6.224E+13	Half-Life too short		
RH-101	1.199E-02		3.512E-02	5.759E-02	3.070E-03	0.208
RH-102	1.649E-02		2.960E-02	5.057E-02	2.960E-03	0.326
RU-103	-8.801E-03		4.420E-02	7.160E-02	9.064E-03	-0.123
RH-106	7.486E-02		3.001E-01	4.980E-01	5.743E-02	0.150
RU-106	7.486E-02		3.000E-01	4.980E-01	2.676E-02	0.150
AG-108M	-7.040E-03		3.206E-02	5.225E-02	3.313E-03	-0.135
AG-110M	-2.908E-02		3.634E-02	5.473E-02	3.041E-03	-0.531
IN-111	2.346E-01		2.373E+00	3.344E+00	1.893E-01	0.070
IN-113M	-9.727E-04		4.663E-02	7.742E-02	4.770E-03	-0.013
SN-113	-9.727E-04		4.663E-02	7.742E-02	4.770E-03	-0.013
IN-114M	8.816E-02		2.144E-01	3.112E-01	1.640E-02	0.283
CD-115	7.160E-07		1.416E-05	Half-Life too short		
SN-117M	-7.182E-03		6.363E-02	1.033E-01	5.366E-03	-0.070
SB-122	2.760E+00		4.590E+00	7.812E+00	4.419E-01	0.353
I-123	-9.189E+01		1.138E+02	Half-Life too short		
TE-123M	-1.178E-02		2.916E-02	4.674E-02	2.466E-03	-0.252
I-124	5.105E-01		1.229E+00	1.806E+00	9.899E-02	0.283
SB-124	-1.289E-02		7.249E-02	1.162E-01	8.105E-03	-0.111
SB-125	9.034E-03		9.332E-02	1.554E-01	9.456E-03	0.058
TE-125M	-7.290E-01		1.036E+01	1.705E+01	1.523E+00	-0.043
I-126	4.575E-02		2.301E-01	3.781E-01	1.957E-02	0.121
SB-126	-2.975E-02		1.827E-01	2.478E-01	1.484E-02	-0.120
SB-127	9.685E-01		2.359E+00	3.941E+00	4.057E-01	0.246
XE-127	2.450E-02		5.785E-02	9.184E-02	4.930E-03	0.267
I-131	-1.271E-02		1.492E-01	2.476E-01	1.625E-02	-0.051
TE-132	-2.952E-01		1.370E+00	2.181E+00	3.247E-01	-0.135
BA-133	1.324E-02		4.899E-02	7.263E-02	8.427E-03	0.182
I-133	4.513E-02		3.221E-02	Half-Life too short		
CS-134	1.539E-02		4.869E-02	8.354E-02	6.101E-03	0.184
CS-135	3.377E-01		1.859E-01	2.893E-01	2.210E-02	1.167
I-135	3.623E+12		4.302E+12	Half-Life too short		
CS-136	5.899E-02		1.351E-01	2.317E-01	1.847E-02	0.255
BA-137M	-2.282E-02		3.628E-02	5.552E-02	2.836E-03	-0.411
CS-137	-2.412E-02		3.835E-02	5.868E-02	3.014E-03	-0.411
CE-139	-1.400E-02		3.128E-02	4.944E-02	2.521E-03	-0.283
BA-140	-1.001E-01		3.264E-01	5.197E-01	1.690E-01	-0.193
LA-140	-1.461E-01		9.460E-02	1.125E-01	7.716E-03	-1.299
CE-141	-9.414E-03		6.787E-02	1.104E-01	6.225E-03	-0.085
CE-143	4.666E-03		6.588E-04	Half-Life too short		
CE-144	-3.536E-02		2.226E-01	3.628E-01	5.124E-02	-0.097
PM-144	-3.557E-03		3.794E-02	6.077E-02	3.420E-03	-0.059
PR-144	-2.414E-01		2.575E+00	4.125E+00	2.318E-01	-0.059
PM-146	-8.288E-03		4.487E-02	7.316E-02	6.336E-03	-0.113
ND-147	4.032E-02		7.379E-01	1.213E+00	1.639E-01	0.033
PM-149	1.179E-04		1.100E-04	Half-Life too short		
EU-152	3.199E-02		1.093E-01	1.626E-01	1.078E-02	0.197

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	2.689E-02		8.977E-02	1.326E-01	1.083E-02	0.203
EU-154	-1.356E-01		1.312E-01	1.881E-01	1.868E-02	-0.721
EU-155	6.112E-02		1.136E-01	1.912E-01	1.410E-02	0.320
TB-160	3.943E-02		1.418E-01	2.423E-01	2.119E-02	0.163
HO-166M	-3.378E-03		6.220E-02	9.979E-02	5.840E-03	-0.034
TM-171	-1.464E+01		3.695E+01	5.339E+01	4.643E+00	-0.274
LU-176	3.750E-03		2.480E-02	4.094E-02	2.412E-03	0.092
LU-177	3.935E+00	+	1.999E+00	2.706E+00	1.464E-01	1.454
LU-177M	-1.836E-01		1.916E-01	2.992E-01	1.741E-02	-0.614
HF-181	-9.560E-03		4.886E-02	7.940E-02	4.644E-03	-0.120
W-181	9.247E-02		4.897E-01	7.274E-01	6.319E-02	0.127
TA-182	2.180E-01		2.319E-01	4.064E-01	2.494E-02	0.536
RE-183	1.363E-02		1.126E-01	1.843E-01	9.479E-03	0.074
RE-184	-9.829E-02		2.385E-01	3.732E-01	2.128E-02	-0.263
OS-185	1.991E-02		4.389E-02	7.385E-02	3.854E-03	0.270
RE-188	1.636E-01		1.830E-01	3.085E-01	1.619E-02	0.530
W-188	-1.828E+00		8.445E+00	1.220E+01	7.143E-01	-0.150
IR-192	-3.448E-02		3.498E-02	5.545E-02	3.290E-03	-0.622
AU-195	3.176E-01		2.397E-01	4.014E-01	3.203E-02	0.791
TL-200	-7.198E-04		1.433E-03	Half-Life too short		
TL-201	9.278E-01		1.409E+01	2.275E+01	1.161E+00	0.041
TL-202	5.037E-02		8.114E-02	1.395E-01	8.162E-03	0.361
HG-203	2.282E-02		4.214E-02	7.277E-02	4.495E-03	0.314
BI-207	-1.810E-02		5.436E-02	8.665E-02	6.366E-03	-0.209
TL-207	-4.340E-01		7.751E-01	1.079E+00	1.785E-01	-0.402
PO-209	-1.439E+00		7.436E+00	1.216E+01	1.104E+00	-0.118
BI-210	5.266E+00		5.562E+00	9.594E+00	7.471E-01	0.549
PB-210	5.266E+00		5.562E+00	9.594E+00	7.471E-01	0.549
PO-210	5.266E+00		5.558E+00	9.594E+00	6.437E-01	0.549
PB-211	-1.072E-01		9.457E-01	1.555E+00	9.694E-01	-0.069
BI-212	1.177E+00	+	4.618E-01	6.448E-01	5.118E-02	1.825
PO-215	-4.340E-01		7.751E-01	1.079E+00	1.785E-01	-0.402
RN-219	-3.584E-01		4.089E-01	6.364E-01	8.657E-02	-0.563
RN-220	7.004E+00		2.761E+01	4.597E+01	2.624E+00	0.152
RA-223	-4.340E-01		7.751E-01	1.079E+00	1.785E-01	-0.402
AC-227	3.928E-01		3.934E-01	6.566E-01	9.144E-02	0.598
TH-227	3.928E-01		3.952E-01	6.566E-01	1.108E-01	0.598
TH-229	-1.145E-01		5.116E-01	8.197E-01	4.342E-02	-0.140
PA-231	-5.765E-01		1.487E+00	2.454E+00	3.385E-01	-0.235
TH-231	-4.340E-01		7.751E-01	1.079E+00	1.785E-01	-0.402
U-231	-2.166E+00		2.033E+00	2.788E+00	2.339E-01	-0.777
PA-233	2.230E-02		6.384E-02	1.091E-01	6.819E-03	0.204
PA-234	-1.251E-01		3.395E-01	5.446E-01	1.024E-01	-0.230
PA-234M	1.877E+00		4.671E+00	8.004E+00	7.637E-01	0.234
U-235	8.855E-02		2.215E-01	3.608E-01	5.835E-02	0.245
NP-236	-4.100E-02		7.913E-02	1.261E-01	6.522E-03	-0.325
NP-239	9.791E-03		1.927E-01	3.180E-01	1.984E-02	0.031
AM-241	1.317E-01		2.106E-01	3.166E-01	2.946E-02	0.416

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-2.600E-03		1.023E-01	1.672E-01	1.239E-02	-0.016
AM-246	5.374E-02		1.571E-01	2.666E-01	1.902E-02	0.202
CM-247	1.078E-02		3.621E-02	6.121E-02	3.548E-03	0.176
CF-249	7.573E-03		3.971E-02	6.678E-02	3.864E-03	0.113
CF-251	-5.884E-02		1.298E-01	2.066E-01	1.068E-02	-0.285

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978011           *
* Acquisition date  : 14-FEB-2010 12:18:10 Detector SN#     :               *
* Detector ID       : GAM23                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.75      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978011           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.4356E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  2-JUN-2009 11:17:00 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.453E+01	2.417E+00	2.917E-01	1.233E+00
NB-95	7.973E-02	4.910E-02	3.473E-02	2.505E-02
CD-109	1.913E+00	1.126E+00	7.289E-01	5.747E-01
SN-126	1.873E-01	1.102E-01	7.177E-02	5.624E-02
TL-208	5.460E-01	8.587E-02	3.089E-02	4.381E-02
BI-211	3.718E+00	4.524E-01	1.689E-01	2.308E-01
PB-212	1.536E+00	1.511E-01	4.783E-02	7.707E-02
PO-212	1.536E+00	1.511E-01	4.783E-02	7.707E-02
BI-214	1.204E+00	1.781E-01	5.138E-02	9.085E-02
PB-214	1.293E+00	1.707E-01	6.042E-02	8.710E-02
PO-214	1.293E+00	1.707E-01	6.042E-02	8.710E-02
PO-216	1.536E+00	1.511E-01	4.783E-02	7.707E-02
PO-218	1.293E+00	1.707E-01	6.042E-02	8.710E-02
RA-224	4.871E+00	1.327E+00	5.443E-01	6.769E-01
RA-226	1.204E+00	1.781E-01	5.138E-02	9.085E-02
AC-228	1.500E+00	3.866E-01	1.228E-01	1.972E-01
RA-228	1.500E+00	3.866E-01	1.228E-01	1.972E-01
TH-228	1.564E+00	1.538E-01	4.870E-02	7.847E-02
TH-230	1.204E+00	1.781E-01	5.138E-02	9.085E-02
TH-232	1.500E+00	3.866E-01	1.228E-01	1.972E-01
TH-234	2.628E+00	2.117E+00	1.371E+00	1.080E+00
U-234	1.204E+00	1.781E-01	5.138E-02	9.085E-02
NP-237	5.499E-01	3.423E-01	2.274E-01	1.746E-01
U-238	2.628E+00	2.117E+00	1.371E+00	1.080E+00
AM-243	3.768E-01	8.351E-02	5.306E-02	4.261E-02
ANH-511	1.613E-01	6.889E-02	2.506E-02	3.515E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU	
BE-7	-1.964E-01	3.454E-01	2.876E-01	1.762E-01	NOT IDENT.

NA-22	-4.821E-02	4.602E-02	3.410E-02	2.348E-02	NOT IDENT.
NA-24	-1.396E+07	1.851E+07	0.000E+00	9.443E+06	SHORT HLIF
AL-26	-1.711E-02	2.755E-02	2.004E-02	1.405E-02	NOT IDENT.
TI-44	3.863E-01	6.317E-02	4.600E-02	3.223E-02	FAIL ABUN
SC-46	2.641E-02	3.930E-02	3.591E-02	2.005E-02	FAIL ABUN
V-48	7.058E-02	7.985E-02	7.377E-02	4.074E-02	NOT IDENT.
CR-51	-6.757E-02	3.879E-01	3.420E-01	1.979E-01	NOT IDENT.
MN-52	7.881E-02	3.493E-01	2.990E-01	1.782E-01	NOT IDENT.
MN-54	3.506E-02	4.069E-02	3.741E-02	2.076E-02	NOT IDENT.
CO-56	-3.094E-02	3.747E-02	2.992E-02	1.912E-02	NOT IDENT.
CO-57	1.670E-03	2.580E-02	2.303E-02	1.316E-02	NOT IDENT.
CO-58	-1.033E-02	3.928E-02	3.343E-02	2.004E-02	NOT IDENT.
FE-59	1.918E-02	1.034E-01	8.926E-02	5.276E-02	NOT IDENT.
CO-60	2.027E-02	3.903E-02	3.465E-02	1.992E-02	NOT IDENT.
ZN-65	1.007E-01	1.108E-01	8.942E-02	5.652E-02	NOT IDENT.
GE-68	6.980E-01	1.331E+00	1.185E+00	6.793E-01	NOT IDENT.
AS-73	7.232E-02	1.083E+00	1.005E+00	5.527E-01	NOT IDENT.
AS-74	-6.854E-02	1.033E-01	8.338E-02	5.270E-02	NOT IDENT.
SE-75	-1.520E-02	5.148E-02	3.734E-02	2.627E-02	NOT IDENT.
BR-77	2.262E+01	2.332E+01	2.146E+01	1.190E+01	FAIL ABUN
SR-82	-1.359E-01	4.573E-01	3.324E-01	2.333E-01	NOT IDENT.
RB-83	6.578E-02	6.782E-02	6.240E-02	3.460E-02	NOT IDENT.
RB-84	3.457E-02	7.100E-02	6.405E-02	3.623E-02	NOT IDENT.
KR-85	8.904E+00	7.979E+00	6.550E+00	4.071E+00	NOT IDENT.
SR-85	4.706E-02	4.217E-02	3.462E-02	2.152E-02	NOT IDENT.
RB-86	4.271E-01	9.437E-01	8.347E-01	4.815E-01	NOT IDENT.
Y-88	7.768E-03	3.424E-02	3.009E-02	1.747E-02	NOT IDENT.
ZR-88	8.947E-03	3.155E-02	2.814E-02	1.609E-02	NOT IDENT.
Y-91	4.758E+00	2.091E+01	1.796E+01	1.067E+01	NOT IDENT.
NB-94	5.797E-03	3.715E-02	3.162E-02	1.896E-02	NOT IDENT.
NB-95M	6.939E-01	1.761E-01	1.519E-01	8.985E-02	NOT IDENT.
ZR-95	3.805E-02	8.068E-02	7.003E-02	4.117E-02	NOT IDENT.
NB-97	-1.432E+06	1.700E+06	0.000E+00	8.674E+05	SHORT HLIF
ZR-97	9.529E+07	4.051E+07	0.000E+00	2.067E+07	SHORT HLIF
MO-99	1.572E+01	2.396E+01	2.117E+01	1.223E+01	NOT IDENT.
TC-99M	-2.573E+19	1.220E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.199E-02	3.441E-02	3.025E-02	1.756E-02	NOT IDENT.
RH-102	1.649E-02	2.901E-02	2.607E-02	1.480E-02	FAIL ABUN
RU-103	-8.801E-03	4.332E-02	3.687E-02	2.210E-02	NOT IDENT.
RH-106	7.486E-02	2.941E-01	2.552E-01	1.500E-01	FAIL ABUN
RU-106	7.486E-02	2.940E-01	2.552E-01	1.500E-01	FAIL ABUN
AG-108M	-7.040E-03	3.142E-02	2.699E-02	1.603E-02	NOT IDENT.
AG-110M	-2.908E-02	3.561E-02	2.801E-02	1.817E-02	NOT IDENT.
IN-111	2.346E-01	2.326E+00	1.748E+00	1.187E+00	NOT IDENT.
IN-113M	-9.727E-04	4.570E-02	4.008E-02	2.332E-02	NOT IDENT.
SN-113	-9.727E-04	4.570E-02	4.008E-02	2.332E-02	NOT IDENT.
IN-114M	8.816E-02	2.102E-01	1.636E-01	1.072E-01	NOT IDENT.
CD-115	7.160E-01	2.775E+01	0.000E+00	1.416E+01	SHORT HLIF
SN-117M	-7.182E-03	6.235E-02	5.449E-02	3.181E-02	NOT IDENT.
SB-122	2.760E+00	4.498E+00	4.012E+00	2.295E+00	NOT IDENT.
I-123	-9.189E+07	2.230E+08	0.000E+00	1.138E+08	SHORT HLIF
TE-123M	-1.178E-02	2.858E-02	2.466E-02	1.458E-02	NOT IDENT.
I-124	5.105E-01	1.205E+00	9.264E-01	6.146E-01	NOT IDENT.
SB-124	-1.289E-02	7.104E-02	5.824E-02	3.625E-02	FAIL ABUN
SB-125	9.034E-03	9.145E-02	8.032E-02	4.666E-02	FAIL ABUN
TE-125M	-7.290E-01	1.015E+01	9.070E+00	5.181E+00	NOT IDENT.
I-126	4.575E-02	2.255E-01	1.935E-01	1.151E-01	NOT IDENT.
SB-126	-2.975E-02	1.790E-01	1.266E-01	9.135E-02	NOT IDENT.
SB-127	9.685E-01	2.311E+00	2.015E+00	1.179E+00	NOT IDENT.
XE-127	2.450E-02	5.669E-02	4.822E-02	2.892E-02	NOT IDENT.
I-131	-1.271E-02	1.462E-01	1.284E-01	7.460E-02	NOT IDENT.
TE-132	-2.952E-01	1.343E+00	1.142E+00	6.851E-01	NOT IDENT.
BA-133	1.324E-02	4.801E-02	3.768E-02	2.449E-02	NOT IDENT.
I-133	4.513E+04	6.313E+04	0.000E+00	3.221E+04	SHORT HLIF
CS-134	1.539E-02	4.771E-02	4.258E-02	2.434E-02	NOT IDENT.
CS-135	3.377E-01	1.822E-01	1.510E-01	9.294E-02	NOT IDENT.
I-135	3.623E+18	8.431E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	5.899E-02	1.324E-01	1.174E-01	6.757E-02	FAIL ABUN
BA-137M	-2.282E-02	3.555E-02	2.841E-02	1.814E-02	NOT IDENT.
CS-137	-2.412E-02	3.758E-02	3.003E-02	1.917E-02	NOT IDENT.
CE-139	-1.400E-02	3.066E-02	2.607E-02	1.564E-02	NOT IDENT.
BA-140	-1.001E-01	3.198E-01	2.672E-01	1.632E-01	NOT IDENT.
LA-140	-1.461E-01	9.271E-02	5.643E-02	4.730E-02	NOT IDENT.
CE-141	-9.414E-03	6.651E-02	5.836E-02	3.393E-02	NOT IDENT.
CE-143	4.666E+03	1.291E+03	0.000E+00	6.588E+02	SHORT HLIF
CE-144	-3.536E-02	2.181E-01	1.922E-01	1.113E-01	NOT IDENT.
PM-144	-3.557E-03	3.718E-02	3.107E-02	1.897E-02	NOT IDENT.
PR-144	-2.414E-01	2.523E+00	2.109E+00	1.287E+00	NOT IDENT.

PM-146	-8.288E-03	4.397E-02	3.775E-02	2.244E-02	NOT IDENT.
ND-147	4.032E-02	7.232E-01	6.240E-01	3.690E-01	FAIL ABUN
PM-149	1.179E+02	2.156E+02	0.000E+00	1.100E+02	SHORT HLIF
EU-152	3.199E-02	1.071E-01	8.442E-02	5.465E-02	NOT IDENT.
GD-153	2.689E-02	8.797E-02	7.065E-02	4.488E-02	NOT IDENT.
EU-154	-1.356E-01	1.286E-01	9.487E-02	6.561E-02	NOT IDENT.
EU-155	6.112E-02	1.114E-01	1.017E-01	5.682E-02	FAIL ABUN
TB-160	3.943E-02	1.389E-01	1.232E-01	7.088E-02	FAIL ABUN
HO-166M	-3.378E-03	6.096E-02	5.099E-02	3.110E-02	FAIL ABUN
TM-171	-1.464E+01	3.621E+01	2.868E+01	1.847E+01	NOT IDENT.
LU-176	3.750E-03	2.430E-02	2.130E-02	1.240E-02	FAIL ABUN
LU-177	3.935E+00	1.959E+00	1.420E+00	9.995E-01	FAIL ABUN
LU-177M	-1.836E-01	1.878E-01	1.547E-01	9.580E-02	FAIL ABUN
HF-181	-9.560E-03	4.788E-02	4.092E-02	2.443E-02	NOT IDENT.
W-181	9.247E-02	4.799E-01	3.909E-01	2.448E-01	NOT IDENT.
TA-182	2.180E-01	2.272E-01	2.052E-01	1.159E-01	NOT IDENT.
RE-183	1.363E-02	1.103E-01	9.720E-02	5.628E-02	FAIL ABUN
RE-184	-9.829E-02	2.337E-01	1.950E-01	1.192E-01	NOT IDENT.
OS-185	1.991E-02	4.301E-02	3.781E-02	2.194E-02	NOT IDENT.
RE-188	1.636E-01	1.793E-01	1.629E-01	9.149E-02	NOT IDENT.
W-188	-1.828E+00	8.276E+00	6.355E+00	4.222E+00	FAIL ABUN
IR-192	-3.448E-02	3.428E-02	2.884E-02	1.749E-02	FAIL ABUN
AU-195	3.176E-01	2.349E-01	2.139E-01	1.199E-01	FAIL ABUN
TL-200	-7.198E+02	2.808E+03	0.000E+00	1.433E+03	SHORT HLIF
TL-201	9.278E-01	1.381E+01	1.199E+01	7.044E+00	NOT IDENT.
TL-202	5.037E-02	7.952E-02	7.204E-02	4.057E-02	NOT IDENT.
HG-203	2.282E-02	4.130E-02	3.795E-02	2.107E-02	NOT IDENT.
BI-207	-1.810E-02	5.327E-02	4.388E-02	2.718E-02	FAIL ABUN
TL-207	-4.340E-01	7.596E-01	5.607E-01	3.876E-01	FAIL ABUN
PO-209	-1.439E+00	7.287E+00	6.181E+00	3.718E+00	NOT IDENT.
BI-210	5.266E+00	5.451E+00	5.191E+00	2.781E+00	NOT IDENT.
PB-210	5.266E+00	5.451E+00	5.191E+00	2.781E+00	NOT IDENT.
PO-210	5.266E+00	5.447E+00	5.191E+00	2.779E+00	NOT IDENT.
PB-211	-1.072E-01	9.267E-01	8.044E-01	4.728E-01	NOT IDENT.
BI-212	1.177E+00	4.526E-01	3.293E-01	2.309E-01	FAIL ABUN
PO-215	-4.340E-01	7.596E-01	5.607E-01	3.876E-01	FAIL ABUN
RN-219	-3.584E-01	4.007E-01	3.293E-01	2.045E-01	FAIL ABUN
RN-220	7.004E+00	2.706E+01	2.362E+01	1.381E+01	NOT IDENT.
RA-223	-4.340E-01	7.596E-01	5.607E-01	3.876E-01	FAIL ABUN
AC-227	3.928E-01	3.856E-01	3.430E-01	1.967E-01	FAIL ABUN
TH-227	3.928E-01	3.873E-01	3.430E-01	1.976E-01	FAIL ABUN
TH-229	-1.145E-01	5.013E-01	4.308E-01	2.558E-01	FAIL ABUN
PA-231	-5.765E-01	1.457E+00	1.279E+00	7.433E-01	FAIL ABUN
TH-231	-4.340E-01	7.596E-01	5.607E-01	3.876E-01	FAIL ABUN
U-231	-2.166E+00	1.992E+00	1.487E+00	1.017E+00	FAIL ABUN
PA-233	2.230E-02	6.256E-02	5.674E-02	3.192E-02	FAIL ABUN
PA-234	-1.251E-01	3.327E-01	2.765E-01	1.698E-01	FAIL ABUN
PA-234M	1.877E+00	4.577E+00	4.059E+00	2.335E+00	FAIL ABUN
U-235	8.855E-02	2.171E-01	1.908E-01	1.108E-01	FAIL ABUN
NP-236	-4.100E-02	7.754E-02	6.653E-02	3.956E-02	NOT IDENT.
NP-239	9.791E-03	1.888E-01	1.688E-01	9.635E-02	FAIL ABUN
AM-241	1.317E-01	2.063E-01	1.704E-01	1.053E-01	NOT IDENT.
CM-243	-2.600E-03	1.002E-01	8.902E-02	5.114E-02	FAIL ABUN
AM-246	5.374E-02	1.539E-01	1.349E-01	7.853E-02	NOT IDENT.
CM-247	1.078E-02	3.549E-02	3.167E-02	1.811E-02	NOT IDENT.
CF-249	7.573E-03	3.892E-02	3.458E-02	1.985E-02	NOT IDENT.
CF-251	-5.884E-02	1.272E-01	1.088E-01	6.488E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	291.8076
46.50	291.8076
46.50	291.8076
48.70	325.6190
49.72	358.9180
51.35	312.5526
52.39	310.3714
52.97	313.4181
53.15	304.3733
53.44	303.6074
54.07	305.7594
56.28	355.5721
56.28	355.5735
57.37	0.0000
57.53	350.3769
57.53	350.3776
57.60	352.5207
57.98	339.0479
57.98	339.0479
59.32	330.9086
59.32	330.9086
59.40	330.9503
59.54	336.9346
59.72	335.5524
60.01	335.7055
61.10	336.2777
61.14	351.1134
61.30	351.2009
63.00	399.6646
63.29	425.4811
63.29	425.4811
63.58	425.6693
64.28	457.0092
65.12	436.7191
65.20	436.7710
65.20	436.7710
66.05	425.3848
66.72	458.6731
66.83	458.7499
66.91	449.8374
67.20	450.0284
67.20	450.0284
67.75	447.0237
67.85	447.0893
68.90	457.1407
68.90	457.1407
69.30	472.4019
69.67	441.1454
70.82	452.3892
70.82	452.3892
70.83	452.3965
72.80	461.1927
72.87	461.2375
72.87	461.2375
74.67	471.2693
74.81	471.3607
74.81	471.3607
74.81	471.3607
74.81	471.3607
74.81	471.3607
74.81	471.3607
74.81	471.3607
74.97	471.4635
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75.70	471.9355
77.11	472.8416
77.11	472.8416

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77.11	472.8416
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77.11	472.8416
77.11	472.8416
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79.80	474.7355
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80.18	491.7213
80.30	491.7982
80.30	491.7982
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81.07	505.5063
81.07	505.5063
81.07	505.5063
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83.37	505.9993
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83.78	538.3877
83.78	538.3877
83.78	538.3877
84.21	518.7917
84.90	494.7416
85.43	518.0659
86.29	514.0279
86.50	520.3042
86.54	520.3290
86.59	520.3621
86.72	475.9268
86.79	475.9666
86.94	656.4985
87.30	460.9094
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87.57	461.0651
87.88	461.2445
88.03	461.3306
88.36	461.5192
88.47	461.5833
89.95	651.2545
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92.29	343.1773
92.38	343.2152
92.38	343.2152
93.35	321.9480
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94.67	342.6107
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94.90	358.2122
94.90	358.2122
94.90	358.2122
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96.73	391.6259
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98.44	302.3520
98.44	302.3532
98.88	319.3853
99.55	326.4558
99.55	326.4558
99.86	340.2199
100.00	340.2745
100.10	340.3157
103.18	418.8194
103.76	365.2382
105.00	362.8059
105.31	360.9697
108.00	382.7082
109.28	398.0235

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111.00	377.0542
111.76	381.3146
112.95	356.0847
115.19	358.9178
116.30	336.5067
117.00	332.7802
117.00	332.7802
117.66	342.9509
121.11	344.1761
121.62	352.3415
121.78	337.4236
122.06	337.5204
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122.32	328.6197
122.32	328.6197
122.32	328.6197
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127.23	382.4439
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131.20	372.8568
133.02	407.8374
133.54	385.8237
135.34	371.3148
136.00	391.7950
136.25	387.8389
136.48	381.8465
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140.51	0.0000
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142.65	343.3121
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144.24	349.9373
144.24	349.9373
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145.44	347.2580
147.16	355.9863
152.43	308.3382
152.70	310.4675
153.22	308.5533
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154.21	323.2328
154.21	323.2328
154.21	323.2328
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156.02	320.6547
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162.64	286.1959
163.35	309.1950
163.89	317.6414
165.85	319.2077
167.43	307.1356
171.28	307.0724
171.86	299.9057
172.10	299.9648
176.55	311.5428
176.60	311.5541
181.06	282.9811
184.41	327.6402
185.71	301.1360
186.00	301.2056
190.27	269.7565
192.34	269.4553
193.63	284.9074
197.04	309.0919
198.01	308.2509
198.60	311.5867
200.40	322.6929
201.83	345.4966
202.84	335.2037
205.31	338.0190

208.36	326.7341
208.81	321.6802
209.75	275.4199
209.75	275.4199
210.97	277.3850
215.65	283.9945
216.55	288.6538
218.09	270.5688
222.10	278.9271
223.80	270.5637
226.40	279.7565
227.00	298.3852
227.08	296.2238
227.20	296.2487
228.16	273.5546
228.18	273.5584
228.18	273.5584
231.56	0.0000
235.69	271.6644
236.00	269.9681
236.00	269.9681
238.63	241.4659
238.63	241.4659
238.63	241.4659
238.63	241.4659
239.00	241.5247
240.98	241.8419
241.98	216.4812
241.98	216.4812
241.98	216.4812
244.69	197.4711
245.39	194.0334
247.94	208.2368
248.90	206.6299
249.79	180.2138
252.40	202.6652
252.85	207.1550
252.85	207.1550
254.15	0.0000
256.20	182.0626
256.20	182.0626
260.50	214.8368
260.90	0.0000
262.80	200.6543
264.65	198.2065
268.24	173.5912
268.79	175.4406
269.46	182.6761
269.46	182.6761
269.46	182.6761
269.46	182.6761
271.23	206.1830
273.65	258.5566
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277.60	192.3541
277.60	192.3541
278.00	179.1243
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279.20	190.9630
279.53	200.9096
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281.68	210.1892
283.67	186.9545
284.30	187.0252
285.00	181.6778
285.90	0.0000
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286.10	165.5154
287.40	168.5844
288.45	0.0000
290.67	187.4229
290.80	187.4355
291.72	189.0488
293.26	0.0000
293.70	177.1544
295.21	177.3067
295.21	177.3067

295.21	177.3067
295.96	191.0303
296.50	191.0892
297.23	191.1687
298.57	191.3148
299.80	162.5811
299.80	162.5811
300.09	147.4103
300.09	147.4103
300.09	147.4103
300.09	147.4103
300.12	147.4123
301.29	161.1975
302.84	175.0385
303.76	155.3325
303.91	155.3450
304.40	163.0056
304.40	163.0056
304.84	172.1875
306.84	160.6873
308.46	170.4016
311.98	158.8022
316.51	176.6836
318.01	163.9373
319.02	152.9684
319.41	153.0009
320.08	163.2000
323.87	183.2477
323.87	183.2477
323.87	183.2477
323.87	183.2477
325.23	151.0195
328.77	186.8198
333.44	134.6595
334.20	173.4254
334.20	173.4254
334.30	173.4346
338.28	164.4885
338.28	164.4885
338.28	164.4885
338.28	164.4885
338.32	164.4906
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338.32	164.4906
340.50	160.0197
340.57	160.0238
344.27	141.6543
345.85	144.8849
350.59	0.0000
351.07	142.4647
351.92	150.0273
351.92	150.0273
351.92	150.0273
355.39	0.0000
356.01	137.8115
364.48	138.7151
366.43	126.5721
367.43	120.0190
367.94	0.0000
369.80	126.7831
374.96	124.2597
383.85	128.6093
387.95	126.9540
388.63	134.6333
391.69	137.6982
391.69	137.6982
392.90	130.1230
398.62	123.7594
400.65	150.7656
401.10	145.0352
401.81	138.3574
402.60	118.2238
404.84	133.7417
410.95	112.8924
411.60	107.1356
413.65	159.4047
414.70	132.4177
415.30	135.3550

415.76	134.4170
417.63	0.0000
418.52	110.3791
423.70	117.4314
427.08	111.7783
427.89	115.7083
432.53	103.2814
433.93	110.1695
439.47	99.6891
439.56	99.6928
439.89	102.6403
443.98	110.6578
444.90	104.8240
445.03	104.8305
445.03	104.8305
445.03	104.8305
445.03	104.8305
453.90	116.0511
463.38	75.7065
468.07	102.2410
473.00	95.1820
475.06	95.2629
475.35	105.1991
476.78	117.1775
477.59	120.1980
477.96	115.2481
482.03	121.4132
484.57	96.6341
487.03	98.7269
490.36	0.0000
492.35	0.0000
497.08	104.1371
507.63	0.0000
510.53	0.0000
510.84	103.7035
511.00	103.7098
511.85	82.2578
511.85	82.2578
513.99	94.0876
513.99	94.0876
520.41	73.7753
520.65	73.7824
527.90	0.0000
528.96	0.0000
529.64	89.2547
529.87	0.0000
531.02	104.5239
537.32	104.7753
543.00	99.9045
546.56	0.0000
549.76	91.9841
552.65	94.1293
555.20	94.2191
563.23	101.6901
563.90	89.3874
568.70	96.7493
569.32	89.5658
569.50	92.6609
569.67	92.6653
573.80	95.0974
574.00	85.9375
574.64	86.3876
578.91	68.8721
579.30	0.0000
583.14	90.0161
585.48	89.7474
591.81	92.3723
592.07	92.3810
593.00	94.4880
595.88	95.6229
600.56	81.8018
602.52	0.0000
602.71	81.6151
602.71	81.6151
603.60	88.5901
604.41	102.5154
604.70	102.5250
609.31	69.9689

609.31	69.9689
609.31	69.9689
609.31	69.9689
610.33	62.6807
612.46	55.7578
614.37	54.0520
618.01	69.1340
621.84	63.9800
621.84	63.9800
631.29	74.7112
633.02	77.9132
633.10	77.9150
634.78	61.1039
635.90	63.2344
636.97	71.6922
645.85	65.5617
646.12	67.6828
656.30	78.5238
657.75	89.1782
657.90	0.0000
661.65	86.1040
661.65	86.1040
664.57	0.0000
666.33	87.3012
666.33	87.3012
675.00	77.9386
677.61	78.0045
685.20	68.5547
692.80	82.6810
695.00	84.8884
696.49	90.3041
696.49	90.3041
697.00	88.1680
697.49	84.9559
698.33	95.7337
698.50	98.9674
699.00	100.0590
702.63	92.6327
706.10	77.6373
706.58	0.0000
706.67	89.5148
709.31	85.2722
711.68	73.4536
713.82	64.8545
717.42	68.1741
720.50	61.3787
721.93	0.0000
722.20	61.4113
722.78	61.4216
722.78	61.4216
722.89	61.4244
722.95	61.4258
723.30	61.4327
724.18	70.4860
727.18	54.2700
733.00	76.1130
735.90	60.9451
739.58	57.7436
742.81	63.2534
744.21	64.3714
747.13	67.7050
751.79	71.0795
752.31	67.8095
753.82	71.1239
755.35	75.5344
756.15	74.4580
756.87	78.8555
763.93	76.8257
765.79	67.7174
766.42	69.5600
766.84	71.4000
776.49	67.6689
778.00	81.8684
778.57	92.9036
778.89	92.9118
783.80	58.8763
785.46	59.8253
792.07	59.0182

795.84	72.9294
796.30	80.3253
798.80	90.5471
801.93	67.5093
805.60	61.0989
810.29	61.1808
810.76	63.9702
815.85	59.4206
817.79	51.0925
818.51	51.1026
819.60	57.6242
826.30	49.3521
828.27	0.0000
831.60	76.4696
831.96	69.9493
834.83	70.9392
836.80	0.0000
846.75	61.8079
848.13	63.7057
856.28	0.0000
856.80	65.7347
860.37	69.5587
867.32	57.4469
867.82	64.0474
871.10	45.2500
873.19	41.5024
874.81	56.6199
875.33	0.0000
876.40	56.6431
879.36	51.0194
880.27	44.4173
880.51	49.1457
881.50	47.2677
883.24	57.6926
884.67	56.7688
889.25	47.3653
896.60	56.9495
898.02	64.5662
899.00	62.6833
903.28	60.3095
911.07	70.5042
911.07	70.5042
911.07	70.5042
919.63	49.2715
920.93	55.4016
925.00	60.2404
925.24	63.1130
926.50	71.7438
935.52	54.6517
937.48	80.5786
944.10	65.3410
946.00	71.1410
949.00	47.1428
962.29	62.8832
964.01	72.8428
966.15	109.3240
968.20	59.6614
969.11	61.3329
969.11	61.3329
969.11	61.3329
977.42	51.3545
980.50	65.9386
983.50	42.6984
989.30	71.9133
996.32	61.3286
1001.03	46.7803
1001.68	46.7871
1004.76	49.7487
1021.30	0.0000
1024.50	0.0000
1034.80	43.2319
1036.00	49.1394
1037.82	47.1953
1038.57	45.2363
1038.76	0.0000
1045.16	56.1418
1046.59	61.0868
1048.07	52.2366

1050.47	57.1976
1050.47	57.1976
1062.04	54.3868
1063.62	56.3854
1076.63	53.5781
1077.35	51.6022
1078.86	55.5898
1085.78	44.7418
1099.22	58.8416
1112.02	55.5113
1112.84	58.3094
1115.52	54.9107
1120.29	42.9461
1120.29	42.9461
1120.29	42.9461
1120.29	42.9461
1120.51	42.9478
1121.28	44.6730
1124.00	0.0000
1129.67	53.2200
1131.51	0.0000
1147.95	0.0000
1167.94	41.5172
1173.22	65.8966
1175.09	60.8521
1177.93	62.9183
1189.05	76.2939
1204.90	64.3022
1205.75	0.0000
1213.00	69.5246
1221.42	65.5521
1230.97	85.1817
1235.34	87.3138
1236.41	0.0000
1238.25	65.7813
1246.25	70.0088
1260.41	0.0000
1271.85	46.5729
1274.45	57.9870
1274.54	57.9893
1291.56	51.9531
1298.22	0.0000
1312.09	44.8634
1325.50	30.3370
1325.50	30.3370
1332.49	28.2843
1333.61	30.3853
1360.21	23.1709
1362.66	0.0000
1365.15	31.6260
1368.21	32.7004
1368.53	0.0000
1376.25	32.5999
1384.27	31.7432
1394.10	29.0759
1395.20	36.3532
1407.95	25.5078
1434.06	24.5648
1436.60	25.6445
1457.56	0.0000
1460.81	25.7598
1489.15	19.4194
1509.49	27.0691
1596.49	28.2683
1620.62	12.2999
1678.03	0.0000
1691.02	13.4019
1691.02	13.4019
1706.46	0.0000
1750.46	0.0000
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1764.49	8.4756
1770.23	49.4454
1771.40	22.3029
1791.20	0.0000
1808.65	13.6553

1836.01	11.7539

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978011

Total Uranium Activity	7.8598E+00	ug/g
Total Uranium Counting Unc.	6.2991E+00	ug/g
Total Uranium Tpu	3.2138E-06	ug/g
Total Uranium Mda	4.0787E+00	ug/g

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*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978011         *
*   ANALYST       : MXR1                      DETECTOR   : GAM23              *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 14-FEB-2010 12:18:10.42    SAMPLE ALQT:  143.560 GRAM      *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 8.299E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.321E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 2.801E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.358E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:12:24.82

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978012.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:11:08
Sample ID         : G245978012           Sample quantity  : 1.42780E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.25*	262	651	1.06	127.24	121	12	3.64E-02	20.8	
2	2	72.87	152	334	1.30	146.45	144	15	2.11E-02	21.4	5.44E+00
3	2	74.93	413	465	1.31	150.57	144	15	5.73E-02	11.0	
4	2	77.16	542	426	1.21	155.03	144	15	7.52E-02	8.1	
5	0	87.07	160	625	1.21	174.84	172	8	2.22E-02	28.1	
6	0	93.05*	571	824	1.49	186.79	182	11	7.92E-02	11.0	
7	0	186.11*	339	344	1.41	372.82	368	11	4.71E-02	12.4	
8	0	209.86	106	262	1.15	420.29	417	9	1.47E-02	29.5	
9	4	238.98*	1156	184	1.24	478.49	473	21	1.61E-01	3.6	2.96E+00
10	4	242.08	263	227	1.88	484.68	473	21	3.65E-02	16.4	
11	0	270.59	84	251	1.44	541.68	537	11	1.17E-02	38.1	
12	1	295.64	375	165	1.46	591.75	587	21	5.21E-02	8.0	9.06E-01
13	1	300.40	98	143	1.47	601.27	587	21	1.36E-02	25.2	
14	0	327.93	86	157	1.70	656.29	652	10	1.19E-02	29.2	
15	0	338.66	264	210	1.45	677.75	672	12	3.67E-02	12.6	
16	0	352.29*	631	162	1.41	704.99	700	13	8.76E-02	5.9	
17	0	410.51	89	176	3.69	821.36	814	16	1.23E-02	35.2	
18	1	463.37*	65	88	1.61	927.01	921	26	9.07E-03	29.9	1.07E+00
19	1	470.52	39	74	1.61	941.29	921	26	5.39E-03	46.2	
20	0	511.44*	107	140	1.73	1023.09	1016	17	1.48E-02	30.3	
21	0	583.36*	344	96	1.32	1166.85	1161	13	4.77E-02	8.1	
22	0	609.58*	394	122	1.37	1219.24	1212	14	5.47E-02	8.0	
23	0	663.61	36	115	1.55	1327.24	1320	15	4.97E-03	66.9	
24	0	727.36	111	53	1.63	1454.65	1448	14	1.54E-02	16.8	
25	0	768.18	54	80	1.61	1536.24	1527	14	7.55E-03	37.5	
26	0	861.36	51	57	1.36	1722.49	1715	11	7.13E-03	31.8	
27	0	911.59*	229	38	1.39	1822.87	1816	14	3.17E-02	9.0	
28	0	964.49	55	42	0.95	1928.60	1923	11	7.67E-03	26.8	
29	0	969.38*	126	72	1.56	1938.38	1934	13	1.76E-02	16.8	
30	0	1001.13*	67	37	3.10	2001.82	1994	15	9.36E-03	24.1	
31	0	1120.45*	103	39	1.67	2240.30	2234	13	1.43E-02	16.4	
32	0	1378.67	34	49	1.78	2756.35	2749	18	4.68E-03	50.1	
33	0	1409.47	12	22	1.57	2817.92	2810	9	1.73E-03	73.8	
34	0	1461.05*	894	12	2.04	2920.99	2913	16	1.24E-01	3.5	
35	0	1765.63*	75	12	1.62	3529.65	3521	18	1.04E-02	17.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 15:12:27

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978012.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:11:08
Sample ID : G245978012 Sample quantity : 142.78 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA1 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.22 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.329E+01	2.630E+00	4.481E-01	3.983E-02	51.983
CD-109	+	88.03	*	2.242E+00	1.279E+00	1.712E+00	1.620E-01	1.309
SN-126	+	64.28		2.587E+00	1.142E+00	8.390E-01	1.235E-01	3.083
	+	86.94		9.120E-01	6.379E-01	6.396E-01	2.656E-01	1.426
	+	87.57	*	2.194E-01	1.252E-01	1.574E-01	1.482E-02	1.394
TL-208		277.35		1.878E-01	4.036E-01	6.586E-01	8.371E-02	0.285
	+	510.84		5.432E-01	3.354E-01	2.151E-01	2.557E-02	2.525
	+	583.14	*	5.009E-01	9.283E-02	5.926E-02	5.382E-03	8.453
	+	860.37		7.123E-01	4.584E-01	4.450E-01	4.265E-02	1.601
BI-211	+	72.87		7.961E+00	3.463E+00	5.403E+00	4.431E-01	1.473
	+	351.07	*	3.974E+00	5.940E-01	3.400E-01	3.093E-02	11.688
PB-212	+	74.81		2.437E+00	6.174E-01	5.899E-01	7.383E-02	4.131
	+	77.11		1.804E+00	3.292E-01	3.328E-01	2.825E-02	5.421
	+	87.30		1.015E+00	5.878E-01	7.300E-01	1.001E-01	1.390
	+	238.63	*	1.568E+00	1.942E-01	9.133E-02	9.247E-03	17.163
	+	300.09		2.062E+00	1.061E+00	1.302E+00	1.407E-01	1.584
PO-212	+	74.81		2.437E+00	6.174E-01	5.899E-01	7.383E-02	4.131
	+	77.11		1.804E+00	3.292E-01	3.328E-01	2.825E-02	5.421
	+	87.30		1.015E+00	5.878E-01	7.300E-01	1.001E-01	1.390
		115.19		8.873E-01	3.851E+00	6.180E+00	5.369E-01	0.144
	+	238.63	*	1.568E+00	1.942E-01	9.133E-02	9.247E-03	17.163
	+	300.09		2.062E+00	1.061E+00	1.302E+00	1.407E-01	1.584
BI-214	+	609.31	*	1.084E+00	2.040E-01	1.111E-01	1.096E-02	9.760
	+	1120.29		1.506E+00	5.182E-01	4.304E-01	4.605E-02	3.499
	+	1764.49		1.511E+00	5.285E-01	2.694E-01	2.259E-02	5.610
PB-214	+	74.81		4.199E+00	1.037E+00	1.016E+00	1.133E-01	4.131
	+	77.11		3.093E+00	6.115E-01	5.706E-01	6.507E-02	5.421
	+	87.30		1.738E+00	1.001E+00	1.251E+00	1.519E-01	1.390
	+	241.98		2.141E+00	7.403E-01	5.502E-01	5.877E-02	3.892
	+	295.21		1.389E+00	2.690E-01	2.279E-01	2.517E-02	6.093
	+	351.92	*	1.382E+00	2.188E-01	1.193E-01	1.250E-02	11.583
PO-214	+	74.81		4.199E+00	1.037E+00	1.016E+00	1.133E-01	4.131
	+	77.11		3.093E+00	6.115E-01	5.706E-01	6.507E-02	5.421
	+	87.30		1.738E+00	1.001E+00	1.251E+00	1.519E-01	1.390

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		2.141E+00	7.403E-01	5.502E-01	5.877E-02	3.892
	+	295.21		1.389E+00	2.690E-01	2.279E-01	2.517E-02	6.093
	+	351.92	*	1.382E+00	2.188E-01	1.193E-01	1.250E-02	11.583
PO-216	+	74.81		2.437E+00	6.174E-01	5.899E-01	7.383E-02	4.131
	+	77.11		1.804E+00	3.292E-01	3.328E-01	2.825E-02	5.421
	+	87.30		1.015E+00	5.878E-01	7.300E-01	1.001E-01	1.390
	+	238.63	*	1.568E+00	1.942E-01	9.133E-02	9.247E-03	17.163
	+	300.09		2.062E+00	1.061E+00	1.302E+00	1.407E-01	1.584
PO-218	+	74.81		4.199E+00	1.037E+00	1.016E+00	1.133E-01	4.131
	+	77.11		3.093E+00	6.115E-01	5.706E-01	6.507E-02	5.421
	+	87.30		1.738E+00	1.001E+00	1.251E+00	1.519E-01	1.390
	+	241.98		2.141E+00	7.403E-01	5.502E-01	5.877E-02	3.892
	+	295.21		1.389E+00	2.690E-01	2.279E-01	2.517E-02	6.093
	+	351.92	*	1.382E+00	2.188E-01	1.193E-01	1.250E-02	11.583
RA-224	+	240.98	*	4.061E+00	1.385E+00	1.040E+00	9.448E-02	3.906
RA-226	+	609.31	*	1.084E+00	2.040E-01	1.111E-01	1.096E-02	9.760
	+	1120.29		1.506E+00	5.182E-01	4.304E-01	4.605E-02	3.499
	+	1764.49		1.511E+00	5.285E-01	2.694E-01	2.259E-02	5.610
AC-228	+	338.32		1.830E+00	8.851E-01	4.020E-01	1.660E-01	4.552
	+	911.07	*	1.503E+00	3.212E-01	1.808E-01	2.093E-02	8.312
	+	969.11		1.468E+00	6.021E-01	4.451E-01	1.045E-01	3.299
RA-228	+	338.32		1.830E+00	8.851E-01	4.020E-01	1.660E-01	4.552
	+	911.07	*	1.503E+00	3.212E-01	1.808E-01	2.093E-02	8.312
	+	969.11		1.468E+00	6.021E-01	4.451E-01	1.045E-01	3.299
TH-228	+	74.81		2.481E+00	5.849E-01	6.006E-01	5.045E-02	4.131
	+	77.11		1.837E+00	3.351E-01	3.389E-01	2.876E-02	5.421
	+	87.30		1.033E+00	5.895E-01	7.432E-01	6.980E-02	1.390
	+	238.63	*	1.596E+00	1.978E-01	9.299E-02	9.415E-03	17.163
	+	300.09		2.099E+00	1.634E+00	1.325E+00	7.865E-01	1.584
TH-230	+	609.31	*	1.084E+00	2.040E-01	1.111E-01	1.095E-02	9.760
	+	1120.29		1.506E+00	5.182E-01	4.304E-01	4.605E-02	3.499
	+	1764.49		1.511E+00	5.284E-01	2.694E-01	2.259E-02	5.610
TH-232	+	338.32		1.830E+00	4.880E-01	4.020E-01	3.539E-02	4.552
	+	911.07	*	1.503E+00	3.212E-01	1.808E-01	2.093E-02	8.312
	+	969.11		1.468E+00	6.021E-01	4.451E-01	1.045E-01	3.299
TH-234	+	63.29	*	6.535E+00	2.952E+00	2.216E+00	3.895E-01	2.949
	+	92.38		5.030E+00	1.443E+00	9.077E-01	1.664E-01	5.541
U-234	+	609.31	*	1.084E+00	2.040E-01	1.111E-01	1.095E-02	9.760
	+	1120.29		1.506E+00	5.182E-01	4.304E-01	4.605E-02	3.499
	+	1764.49		1.511E+00	5.284E-01	2.694E-01	2.259E-02	5.610
NP-237	+	86.50	*	6.442E-01	3.909E-01	4.411E-01	9.985E-02	1.460
		95.87		1.050E-01	1.154E+00	1.650E+00	4.083E-01	0.064
U-238	+	63.29	*	6.535E+00	2.952E+00	2.216E+00	3.895E-01	2.949
	+	92.38		5.030E+00	1.201E+00	9.077E-01	8.289E-02	5.541
AM-243	+	74.67	*	3.951E-01	9.303E-02	9.596E-02	7.979E-03	4.117
	+	86.72		2.416E+01	1.379E+01	1.699E+01	1.585E+00	1.422
		117.66		-2.877E+00	4.055E+00	6.222E+00	5.424E-01	-0.462
		142.18		9.446E+00	1.778E+01	3.068E+01	2.624E+00	0.308
ANH-511	+	511.00	*	1.173E-01	7.177E-02	4.648E-02	3.939E-03	2.524

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	9.173E-02	3.585E-01	5.861E-01	5.332E-02	0.157
NA-22		1274.54	*	-5.628E-02	4.349E-02	6.107E-02	5.128E-03	-0.922
NA-24		1368.53	*	-1.339E+01	4.349E-02	Half-Life too short		
AL-26		1129.67		-1.160E+00	1.746E+00	2.588E+00	2.161E-01	-0.448
		1808.65	*	-6.609E-03	3.276E-02	5.104E-02	4.229E-03	-0.129
TI-44		67.85		-4.264E-02	5.697E-02	7.902E-02	6.266E-03	-0.540
	+	78.38	*	3.330E-01	6.075E-02	7.943E-02	6.816E-03	4.192
SC-46		889.25	*	5.239E-03	4.299E-02	7.111E-02	6.428E-03	0.074
	+	1120.51		2.642E-01	8.919E-02	1.429E-01	1.201E-02	1.848
V-48		944.10		-5.653E-01	9.675E-01	1.464E+00	1.319E-01	-0.386
		983.50	*	-4.186E-02	8.670E-02	1.334E-01	1.191E-02	-0.314
		1312.09		3.908E-02	8.743E-02	1.534E-01	1.301E-02	0.255
CR-51		320.08	*	-4.078E-02	4.390E-01	7.156E-01	6.731E-02	-0.057
MN-52		744.21		3.656E-02	3.616E-01	6.029E-01	5.172E-02	0.061
		848.13		-3.594E+00	9.886E+00	1.561E+01	1.395E+00	-0.230
		935.52		6.304E-01	3.671E-01	6.915E-01	6.237E-02	0.912
		1246.25		-4.291E+00	1.079E+01	1.734E+01	1.442E+00	-0.247
		1333.61		6.333E+00	7.061E+00	1.301E+01	1.109E+00	0.487
		1434.06	*	-2.834E-01	3.737E-01	5.508E-01	4.755E-02	-0.515
MN-54		834.83	*	1.346E-04	3.722E-02	6.112E-02	5.440E-03	0.002
CO-56		846.75	*	3.045E-02	3.973E-02	6.989E-02	6.245E-03	0.436
		977.42		1.654E+00	3.430E+00	5.442E+00	4.866E-01	0.304
		1037.82		-4.759E-02	3.406E-01	5.426E-01	5.002E-02	-0.088
		1175.09		1.861E+00	2.417E+00	4.321E+00	3.500E-01	0.431
		1238.25		8.197E-02	1.028E-01	1.807E-01	1.545E-02	0.454
		1360.21		4.999E-01	1.070E+00	1.880E+00	1.609E-01	0.266
		1771.40		6.555E-02	2.018E-01	3.181E-01	2.663E-02	0.206
CO-57		122.06	*	2.072E-02	2.735E-02	4.473E-02	3.938E-03	0.463
		136.48		5.773E-02	2.137E-01	3.661E-01	3.382E-02	0.158
CO-58		810.76	*	-6.793E-03	4.167E-02	6.745E-02	5.967E-03	-0.101
FE-59		142.65		9.947E-01	2.996E+00	5.072E+00	4.337E-01	0.196
		192.34		3.372E-01	1.038E+00	1.705E+00	2.303E-01	0.198
		1099.22	*	-1.195E-02	1.140E-01	1.818E-01	1.675E-02	-0.066
		1291.56		-5.999E-02	1.278E-01	2.014E-01	1.937E-02	-0.298
CO-60		1173.22		3.528E-02	4.868E-02	8.660E-02	7.009E-03	0.407
		1332.49	*	3.602E-02	3.846E-02	7.110E-02	6.061E-03	0.507
ZN-65		1115.52	*	-4.997E-02	1.085E-01	1.394E-01	1.176E-02	-0.359
GE-68		1077.35	*	1.048E+00	1.262E+00	2.218E+00	1.910E-01	0.472
AS-73		53.44	*	4.321E-02	1.007E+00	1.642E+00	1.329E-01	0.026
AS-74		595.88	*	3.771E-02	9.649E-02	1.666E-01	1.404E-02	0.226
		634.78		1.186E-01	3.998E-01	6.829E-01	5.673E-02	0.174
SE-75		66.05		-2.715E+00	5.871E+00	8.266E+00	8.105E-01	-0.328
		96.73		-1.106E+00	9.799E-01	1.293E+00	1.786E-01	-0.856
		121.11		-1.173E-02	1.517E-01	2.399E-01	2.721E-02	-0.049
		136.00		-3.921E-03	4.105E-02	6.945E-02	6.011E-03	-0.056
		198.60		-5.024E-01	1.885E+00	3.067E+00	2.984E-01	-0.164
		264.65	*	-1.997E-02	4.877E-02	7.264E-02	6.673E-03	-0.275
		279.53		8.286E-02	1.137E-01	1.941E-01	1.834E-02	0.427
		303.91		-1.469E+00	2.533E+00	3.471E+00	4.101E-01	-0.423

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		1.955E-01	2.786E-01	4.707E-01	5.044E-02	0.415
BR-77	+	87.88		1.134E+03	6.472E+02	8.598E+02	8.127E+01	1.319
		200.40		-4.280E+01	3.885E+02	6.470E+02	5.707E+01	-0.066
	+	239.00		5.920E+02	6.839E+01	8.917E+01	8.095E+00	6.640
		249.79		3.312E+01	1.726E+02	2.683E+02	2.447E+01	0.123
		281.68		-2.921E+02	2.246E+02	3.417E+02	3.123E+01	-0.855
		297.23		7.865E+02	1.775E+02	3.161E+02	2.875E+01	2.488
		303.76		-2.930E+02	4.983E+02	6.831E+02	6.194E+01	-0.429
		439.47		3.061E+02	3.615E+02	6.161E+02	5.108E+01	0.497
		484.57		-2.397E+02	5.689E+02	8.797E+02	7.417E+01	-0.272
		520.65	*	1.201E+01	2.594E+01	4.294E+01	3.643E+00	0.280
		574.64		-1.906E+02	5.386E+02	8.814E+02	7.461E+01	-0.216
		578.91		8.105E+00	2.425E+02	3.554E+02	3.006E+01	0.023
		585.48		3.303E+03	6.972E+02	1.238E+03	1.046E+02	2.667
		755.35		2.431E+01	4.188E+02	6.951E+02	5.994E+01	0.035
		817.79		1.378E+02	3.090E+02	5.297E+02	4.687E+01	0.260
SR-82		698.33		1.855E+01	4.166E+01	7.130E+01	5.970E+00	0.260
		776.49	*	1.526E-01	4.287E-01	7.285E-01	6.343E-02	0.210
		1395.20		-6.246E+00	1.375E+01	2.150E+01	1.849E+00	-0.290
RB-83		520.41	*	2.917E-02	7.422E-02	1.223E-01	1.037E-02	0.239
		529.64		4.271E-03	1.047E-01	1.770E-01	1.503E-02	0.024
		552.65		-5.102E-02	2.132E-01	3.524E-01	2.991E-02	-0.145
RB-84		881.50	*	-9.763E-02	7.618E-02	1.061E-01	9.569E-03	-0.921
KR-85		513.99	*	1.583E+01	8.826E+00	1.426E+01	1.209E+00	1.110
SR-85		513.99	*	8.368E-02	4.667E-02	7.541E-02	6.394E-03	1.110
RB-86		1076.63	*	8.906E-01	8.696E-01	1.558E+00	1.342E-01	0.572
Y-88		898.02		8.798E-03	4.581E-02	7.621E-02	6.934E-03	0.115
		1836.01	*	-5.030E-03	2.927E-02	4.537E-02	3.731E-03	-0.111
ZR-88		392.90	*	-3.223E-02	3.452E-02	5.229E-02	4.210E-03	-0.616
Y-91		1204.90	*	-4.009E+00	2.005E+01	3.298E+01	2.702E+00	-0.122
NB-94		702.63	*	7.448E-03	3.776E-02	6.353E-02	5.333E-03	0.117
		871.10		-1.743E-02	3.404E-02	5.259E-02	4.732E-03	-0.331
NB-95		765.79	*	2.405E-02	4.786E-02	8.195E-02	7.101E-03	0.293
NB-95M		235.69	*	8.357E-02	1.419E-01	2.146E-01	2.201E-02	0.390
ZR-95		724.18		2.336E-02	1.090E-01	1.606E-01	1.486E-02	0.145
		756.15	*	-9.338E-03	7.979E-02	1.305E-01	1.240E-02	-0.072
NB-97		657.90	*	4.557E-01	7.979E-02	Half-Life too short		
		1024.50		5.191E+01	7.979E-02	Half-Life too short		
ZR-97		254.15		-1.498E+01	7.979E-02	Half-Life too short		
		355.39		-3.649E+01	7.979E-02	Half-Life too short		
		507.63	*	-7.171E-01	7.979E-02	Half-Life too short		
		602.52		-3.041E+00	7.979E-02	Half-Life too short		
		1021.30		-1.860E+02	7.979E-02	Half-Life too short		
		1147.95		-5.606E+01	7.979E-02	Half-Life too short		
		1362.66		1.255E+02	7.979E-02	Half-Life too short		
		1750.46		1.064E+01	7.979E-02	Half-Life too short		
MO-99		140.51		-9.391E+00	5.622E+01	9.469E+01	2.620E+01	-0.099
		181.06		-9.559E+00	4.060E+01	5.928E+01	1.085E+01	-0.161
		366.43		7.888E+01	1.729E+02	2.901E+02	2.454E+01	0.272

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	-1.907E+01	2.518E+01	3.850E+01	5.833E+00	-0.495
		778.00		1.955E+01	7.018E+01	1.187E+02	1.034E+01	0.165
TC-99M		140.51	*	-2.155E+13	7.018E+01	Half-Life too short		
RH-101		127.23		5.682E-03	3.483E-02	5.553E-02	4.830E-03	0.102
		198.01	*	-1.647E-02	3.465E-02	5.591E-02	4.920E-03	-0.295
		325.23		-1.666E-02	2.592E-01	3.698E-01	3.300E-02	-0.045
RH-102		418.52		-6.788E-02	3.244E-01	4.977E-01	4.079E-02	-0.136
		475.06	*	-1.660E-02	3.506E-02	4.637E-02	3.899E-03	-0.358
		631.29		-3.015E-02	5.550E-02	8.843E-02	7.358E-03	-0.341
		697.49		4.534E-02	8.312E-02	1.434E-01	1.201E-02	0.316
	+	766.84		2.521E-01	1.904E-01	2.251E-01	1.951E-02	1.120
		1046.59		-1.423E-01	1.268E-01	1.784E-01	1.559E-02	-0.798
		1112.84		5.706E-02	2.594E-01	3.889E-01	3.283E-02	0.147
RU-103		497.08	*	2.593E-03	4.153E-02	6.681E-02	9.395E-03	0.039
	+	610.33		1.233E+01	2.841E+00	3.231E+00	5.353E-01	3.815
RH-106	+	511.85		5.893E-01	3.605E-01	4.438E-01	3.762E-02	1.328
		621.84	*	6.479E-02	3.117E-01	5.295E-01	6.983E-02	0.122
		1050.47		1.958E+00	2.432E+00	4.253E+00	3.709E-01	0.460
RU-106	+	511.85		5.893E-01	3.605E-01	4.438E-01	3.762E-02	1.328
		621.84	*	6.479E-02	3.117E-01	5.295E-01	4.423E-02	0.122
		1050.47		1.958E+00	2.432E+00	4.253E+00	3.709E-01	0.460
AG-108M		433.93	*	-7.084E-03	3.360E-02	5.330E-02	4.597E-03	-0.133
		614.37		-2.248E-02	4.253E-02	5.792E-02	5.053E-03	-0.388
		722.95		-1.012E-02	4.487E-02	6.255E-02	5.523E-03	-0.162
AG-110M		657.75	*	1.148E-02	3.912E-02	5.860E-02	4.968E-03	0.196
		677.61		1.189E-02	3.084E-01	5.145E-01	4.386E-02	0.023
		706.67		-2.672E-01	2.226E-01	3.300E-01	2.857E-02	-0.810
		763.93		-6.133E-02	1.880E-01	2.575E-01	2.292E-02	-0.238
		884.67		-3.250E-02	5.004E-02	7.589E-02	7.054E-03	-0.428
		937.48		-6.567E-02	1.154E-01	1.763E-01	1.642E-02	-0.372
		1384.27		9.642E-02	1.924E-01	3.006E-01	2.655E-02	0.321
IN-111		171.28		-1.263E+00	2.152E+00	3.537E+00	3.028E-01	-0.357
		245.39	*	1.350E+00	2.408E+00	3.643E+00	3.317E-01	0.370
IN-113M		391.69	*	-1.036E-02	4.832E-02	7.721E-02	6.431E-03	-0.134
SN-113		391.69	*	-1.036E-02	4.832E-02	7.721E-02	6.431E-03	-0.134
IN-114M		190.27	*	-1.610E-01	2.202E-01	3.110E-01	2.716E-02	-0.518
CD-115		260.90		2.135E-04	2.202E-01	Half-Life too short		
		492.35		-1.204E-05	2.202E-01	Half-Life too short		
		527.90	*	-2.505E-05	2.202E-01	Half-Life too short		
SN-117M		156.02		4.716E-01	2.644E+00	4.496E+00	3.829E-01	0.105
		158.56	*	1.183E-03	6.434E-02	1.087E-01	9.256E-03	0.011
SB-122		563.90	*	2.060E+00	4.480E+00	7.766E+00	6.584E-01	0.265
		692.80		-2.337E+00	9.029E+01	1.496E+02	1.249E+01	-0.016
I-123		159.00	*	1.027E+02	9.029E+01	Half-Life too short		
		528.96		-2.882E+03	9.029E+01	Half-Life too short		
TE-123M		159.00	*	1.257E-02	2.910E-02	4.990E-02	4.275E-03	0.252
I-124		602.71	*	-9.555E-02	1.175E+00	1.695E+00	1.426E-01	-0.056
		722.78		-1.648E+00	7.627E+00	1.065E+01	9.035E-01	-0.155
		1325.50		-4.552E+01	5.613E+01	8.324E+01	7.082E+00	-0.547

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		1376.25		1.420E+02	6.383E+01	1.195E+02	1.026E+01	1.188
		1509.49		1.828E+01	2.392E+01	4.401E+01	3.810E+00	0.415
		1691.02		-1.282E+00	6.127E+00	9.581E+00	8.163E-01	-0.134
SB-124		602.71		-3.532E-03	4.344E-02	6.268E-02	5.271E-03	-0.056
		645.85		1.617E-01	4.959E-01	8.494E-01	7.476E-02	0.190
		709.31		3.561E+00	2.834E+00	5.157E+00	4.345E-01	0.690
		713.82		-2.254E+00	1.707E+00	2.449E+00	2.917E-01	-0.921
		722.78		-8.831E-02	4.087E-01	5.705E-01	4.950E-02	-0.155
	+	968.20		1.564E+01	5.441E+00	8.230E+00	7.376E-01	1.900
		1045.16		-2.788E+00	2.808E+00	4.062E+00	3.550E-01	-0.686
		1325.50		-2.605E+00	3.212E+00	4.764E+00	4.054E-01	-0.547
		1368.21		-1.480E+00	1.742E+00	2.499E+00	3.360E-01	-0.592
		1436.60		-8.560E-01	3.978E+00	6.376E+00	5.505E-01	-0.134
		1691.02	*	-1.621E-02	7.744E-02	1.211E-01	1.074E-02	-0.134
SB-125		427.89	*	1.063E-02	9.689E-02	1.576E-01	1.326E-02	0.067
	+	463.38		6.477E-01	3.913E-01	5.703E-01	5.173E-02	1.136
		600.56		-5.890E-02	1.717E-01	2.796E-01	2.535E-02	-0.211
		635.90		1.925E-01	2.598E-01	4.593E-01	4.144E-02	0.419
TE-125M		109.28	*	-1.654E+00	1.041E+01	1.646E+01	1.707E+00	-0.101
I-126		388.63		2.813E-01	2.422E-01	4.218E-01	3.416E-02	0.667
		666.33	*	1.619E-01	2.571E-01	3.964E-01	3.257E-02	0.408
		753.82		8.103E-01	1.867E+00	3.191E+00	2.750E-01	0.254
SB-126		223.80		-1.911E+00	5.071E+00	8.304E+00	7.471E-01	-0.230
		278.60		5.034E+00	2.975E+00	5.264E+00	4.814E-01	0.956
	+	296.50		1.629E+01	2.987E+00	4.530E+00	4.122E-01	3.595
		414.70		1.551E-01	1.037E-01	1.661E-01	1.358E-02	0.934
		415.30		6.304E+00	9.271E+00	1.343E+01	1.098E+00	0.470
		555.20		-2.013E-01	4.644E+00	7.784E+00	6.605E-01	-0.026
		573.80		6.179E-01	1.306E+00	2.262E+00	1.915E-01	0.273
		593.00		-6.382E-01	1.057E+00	1.681E+00	1.417E-01	-0.380
		656.30		4.228E-01	4.462E+00	6.826E+00	5.609E-01	0.062
		666.33		6.812E-02	1.082E-01	1.668E-01	1.370E-02	0.408
		675.00		-1.011E+00	2.392E+00	3.835E+00	3.167E-01	-0.264
		695.00		-5.075E-02	9.570E-02	1.519E-01	1.269E-02	-0.334
		697.00		2.455E-01	3.392E-01	5.925E-01	4.958E-02	0.414
		720.50	*	-6.981E-02	2.049E-01	2.822E-01	2.392E-02	-0.247
		856.80		-1.551E-01	6.653E-01	9.126E-01	8.179E-02	-0.170
		989.30		1.338E-01	1.526E+00	2.501E+00	2.229E-01	0.054
		1034.80		-3.265E+00	1.087E+01	1.698E+01	1.491E+00	-0.192
		1213.00		-1.977E+00	5.592E+00	9.058E+00	7.444E-01	-0.218
SB-127		61.10		9.378E+01	1.191E+02	1.786E+02	2.033E+01	0.525
		252.40		5.129E-01	7.458E+00	1.240E+01	5.255E+00	0.041
		290.80		-2.499E+01	4.523E+01	6.256E+01	7.782E+00	-0.399
	+	411.60		6.170E+01	4.451E+01	4.089E+01	6.604E+00	1.509
		444.90		7.102E+00	1.732E+01	2.871E+01	3.778E+00	0.247
		473.00		-1.688E+00	3.372E+00	4.436E+00	6.003E-01	-0.381
		543.00		-3.158E+00	2.614E+01	4.358E+01	6.556E+00	-0.072
		603.60		4.668E+00	2.071E+01	3.092E+01	4.080E+00	0.151
		685.20	*	8.241E-01	2.305E+00	3.942E+00	4.757E-01	0.209

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		1.884E+01	2.912E+01	5.029E+01	8.222E+00	0.375
		722.20		-1.194E+01	5.609E+01	7.838E+01	9.391E+00	-0.152
		783.80		-3.041E-01	6.563E+00	1.077E+01	1.435E+00	-0.028
XE-127		57.60		6.683E+00	8.050E+00	1.217E+01	9.346E-01	0.549
		145.22		7.507E-02	7.673E-01	1.288E+00	1.100E-01	0.058
		172.10		2.101E-03	1.318E-01	2.220E-01	1.902E-02	0.009
		202.84	*	4.747E-03	5.028E-02	8.442E-02	7.464E-03	0.056
		374.96		6.894E-02	2.070E-01	3.441E-01	2.865E-02	0.200
I-131		80.18		-1.129E+00	7.054E+00	1.003E+01	8.833E-01	-0.112
		284.30		-1.684E-01	2.097E+00	3.441E+00	3.297E-01	-0.049
		364.48	*	-1.527E-01	1.508E-01	2.269E-01	2.038E-02	-0.673
		636.97		-4.383E-02	1.870E+00	3.114E+00	2.747E-01	-0.014
		722.89		-2.241E+00	9.727E+00	1.355E+01	1.161E+00	-0.165
TE-132		49.72		-1.689E+01	4.446E+01	7.132E+01	8.255E+00	-0.237
		111.76		-2.443E+01	6.222E+01	9.588E+01	1.123E+01	-0.255
		116.30		1.652E+00	5.466E+01	8.697E+01	1.021E+01	0.019
		228.16	*	5.923E-01	1.396E+00	2.359E+00	3.894E-01	0.251
BA-133		53.15		1.556E+00	4.236E+00	7.002E+00	5.689E-01	0.222
		79.62		-3.341E-01	1.553E+00	2.203E+00	3.361E-01	-0.152
		81.00		-1.006E-01	1.228E-01	1.678E-01	2.681E-02	-0.600
		276.40		2.372E-01	4.329E-01	6.492E-01	9.587E-02	0.365
		302.84		5.113E-02	1.687E-01	2.485E-01	3.376E-02	0.206
		356.01	*	-1.744E-02	5.069E-02	6.996E-02	9.227E-03	-0.249
		383.85		-2.253E-01	3.134E-01	4.814E-01	5.925E-02	-0.468
I-133	+	510.53		1.246E+01	3.134E-01	Half-Life too short		
		529.87	*	3.653E-03	3.134E-01	Half-Life too short		
		706.58		-5.199E+00	3.134E-01	Half-Life too short		
		856.28		1.129E+00	3.134E-01	Half-Life too short		
		875.33		-4.073E-01	3.134E-01	Half-Life too short		
		1236.41		5.064E+00	3.134E-01	Half-Life too short		
		1298.22		1.106E+00	3.134E-01	Half-Life too short		
CS-134		475.35		-1.747E-01	2.260E+00	3.135E+00	2.637E-01	-0.056
		563.23		7.319E-02	3.727E-01	6.349E-01	5.436E-02	0.115
		569.32		-5.105E-02	2.008E-01	3.308E-01	2.842E-02	-0.154
		604.70		2.727E-02	3.532E-02	5.572E-02	4.695E-03	0.489
		795.84	*	9.032E-02	5.271E-02	9.619E-02	8.501E-03	0.939
		801.93		-1.407E-01	4.153E-01	6.645E-01	5.877E-02	-0.212
		1038.57		-2.217E+00	4.262E+00	6.502E+00	5.699E-01	-0.341
		1167.94		1.235E+00	2.600E+00	4.548E+00	3.696E-01	0.272
		1365.15		4.758E-01	1.202E+00	2.104E+00	1.886E-01	0.226
CS-135		268.24	*	6.490E-02	1.752E-01	2.608E-01	2.720E-02	0.249
I-135		288.45		-1.073E+13	1.752E-01	Half-Life too short		
		417.63		-6.220E+12	1.752E-01	Half-Life too short		
		546.56		-6.459E+11	1.752E-01	Half-Life too short		
		836.80		-2.025E+12	1.752E-01	Half-Life too short		
		1038.76		-2.086E+13	1.752E-01	Half-Life too short		
		1124.00		9.534E+13	1.752E-01	Half-Life too short		
		1131.51		-5.621E+12	1.752E-01	Half-Life too short		
		1260.41	*	2.841E+12	1.752E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1457.56		4.326E+14	1.752E-01	Half-Life too short		
		1678.03		-2.186E+12	1.752E-01	Half-Life too short		
		1706.46		-5.416E+12	1.752E-01	Half-Life too short		
		1791.20		1.439E+13	1.752E-01	Half-Life too short		
CS-136		66.91		-1.244E+00	1.140E+00	1.534E+00	2.308E-01	-0.811
	+	86.29		3.341E+00	1.933E+00	2.555E+00	3.400E-01	1.308
		153.22		1.015E+00	7.522E-01	1.325E+00	1.265E-01	0.766
		163.89		3.753E-01	1.271E+00	2.166E+00	2.072E-01	0.173
		176.55		2.340E-01	4.582E-01	7.843E-01	7.144E-02	0.298
		273.65		-5.913E-01	6.428E-01	8.680E-01	8.411E-02	-0.681
		340.57		7.398E-01	2.032E-01	3.422E-01	3.090E-02	2.162
		818.51		5.439E-02	8.375E-02	1.463E-01	1.297E-02	0.372
		1048.07	*	-6.998E-02	1.352E-01	2.059E-01	1.873E-02	-0.340
		1235.34		4.350E-01	7.213E-01	1.262E+00	1.465E-01	0.345
BA-137M		661.65	*	4.539E-02	4.334E-02	6.940E-02	5.685E-03	0.654
CS-137		661.65	*	4.798E-02	4.582E-02	7.336E-02	6.022E-03	0.654
CE-139		165.85	*	-1.076E-03	3.128E-02	5.267E-02	4.485E-03	-0.020
BA-140		162.64		-4.246E-01	8.997E-01	1.489E+00	1.343E-01	-0.285
		304.84		1.950E-01	1.740E+00	2.526E+00	7.115E-01	0.077
		423.70		-7.717E-01	2.435E+00	3.823E+00	1.235E+00	-0.202
		537.32	*	1.149E-01	2.830E-01	4.874E-01	1.614E-01	0.236
LA-140	+	328.77		8.612E-01	5.096E-01	6.860E-01	6.423E-02	1.255
		432.53		5.601E-01	2.470E+00	4.051E+00	3.523E-01	0.138
		487.03		-2.607E-02	1.606E-01	2.536E-01	2.278E-02	-0.103
		751.79		-5.671E-01	2.234E+00	3.612E+00	3.443E-01	-0.157
		815.85		-2.426E-01	3.724E-01	5.694E-01	5.588E-02	-0.426
		867.82		1.440E-01	1.671E+00	2.688E+00	2.534E-01	0.054
		919.63		1.772E+00	3.216E+00	5.424E+00	5.961E-01	0.327
		925.24		-1.065E+00	1.319E+00	1.946E+00	1.858E-01	-0.547
		1596.49	*	-5.089E-03	1.147E-01	1.871E-01	1.615E-02	-0.027
CE-141		145.44	*	3.006E-02	6.780E-02	1.165E-01	1.014E-02	0.258
CE-143		57.37		3.248E-03	6.780E-02	Half-Life too short		
		231.56		-9.225E-03	6.780E-02	Half-Life too short		
		293.26	*	1.662E-03	6.780E-02	Half-Life too short		
		350.59		1.044E-01	6.780E-02	Half-Life too short		
		490.36		-2.202E-03	6.780E-02	Half-Life too short		
	+	664.57		8.605E-03	6.780E-02	Half-Life too short		
		721.93		-1.155E-03	6.780E-02	Half-Life too short		
CE-144		80.11		-5.097E-01	2.538E+00	3.603E+00	3.142E-01	-0.141
		133.54	*	-9.393E-02	2.314E-01	3.586E-01	5.582E-02	-0.262
PM-144		476.78		-3.757E-02	8.214E-02	1.162E-01	1.074E-02	-0.323
		618.01		-1.096E-02	3.121E-02	5.064E-02	4.361E-03	-0.216
		696.49	*	2.987E-02	3.655E-02	6.429E-02	5.381E-03	0.465
		778.57		-7.404E-01	2.241E+00	3.574E+00	3.116E-01	-0.207
PR-144		696.49	*	2.027E+00	2.480E+00	4.363E+00	3.650E-01	0.465
		1489.15		-1.047E+01	9.761E+00	1.214E+01	1.050E+00	-0.863
PM-146		453.90	*	4.460E-02	4.713E-02	8.060E-02	8.466E-03	0.553
		633.02		1.037E+00	1.445E+00	2.461E+00	9.181E-01	0.421
		735.90		5.075E-02	1.480E-01	2.512E-01	7.180E-02	0.202

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		747.13		-4.215E-02	1.002E-01	1.594E-01	2.235E-02	-0.264
ND-147		91.11		1.746E+00	6.149E-01	7.708E-01	7.620E-02	2.265
		319.41		-1.319E-01	4.339E+00	7.098E+00	6.368E-01	-0.019
		439.89		7.254E+00	7.560E+00	1.297E+01	1.076E+00	0.559
		531.02	*	4.074E-01	6.534E-01	1.147E+00	1.706E-01	0.355
PM-149		285.90	*	2.934E-04	6.534E-01	Half-Life too short		
EU-152		121.78		5.026E-02	7.843E-02	1.277E-01	1.286E-02	0.394
		244.69		5.168E-01	3.806E-01	5.994E-01	5.455E-02	0.862
		344.27	*	-2.034E-02	1.141E-01	1.605E-01	1.484E-02	-0.127
		443.98		-2.711E-01	1.033E+00	1.631E+00	1.355E-01	-0.166
		778.89		-2.091E-01	2.646E-01	4.019E-01	3.502E-02	-0.520
		867.32		-3.855E-02	8.972E-01	1.377E+00	1.238E-01	-0.028
	+	964.01		7.371E-01	3.999E-01	5.977E-01	5.362E-02	1.233
		1085.78		2.698E-01	4.051E-01	7.002E-01	6.003E-02	0.385
		1112.02		5.057E-02	3.368E-01	5.363E-01	4.530E-02	0.094
		1407.95		2.890E-01	2.009E-01	3.865E-01	3.329E-02	0.748
GD-153		69.67		2.106E+00	1.986E+00	2.986E+00	2.395E-01	0.705
		83.37		1.789E+01	1.857E+01	2.740E+01	2.467E+00	0.653
		97.43	*	-1.520E-02	9.657E-02	1.351E-01	1.200E-02	-0.113
		103.18		-1.170E-01	1.148E-01	1.745E-01	1.522E-02	-0.670
EU-154		123.07		3.099E-02	5.581E-02	9.047E-02	1.039E-02	0.342
		247.94		2.922E-02	4.055E-01	5.939E-01	7.038E-02	0.049
		591.81		3.999E-02	6.002E-01	1.011E+00	1.166E-01	0.040
		723.30		-6.140E-02	1.913E-01	2.633E-01	2.478E-02	-0.233
		756.87		-5.995E-03	8.200E-01	1.353E+00	1.622E-01	-0.004
		873.19		3.561E-03	2.943E-01	4.822E-01	6.036E-02	0.007
		996.32		1.656E-01	4.146E-01	6.158E-01	1.102E-01	0.269
		1004.76		8.270E-02	2.491E-01	3.662E-01	4.331E-02	0.226
		1274.45	*	-1.368E-01	1.194E-01	1.705E-01	1.899E-02	-0.802
EU-155		48.70		-6.947E-01	3.024E+00	4.888E+00	4.183E-01	-0.142
		60.01		-2.144E+00	6.212E+00	8.833E+00	6.677E-01	-0.243
	+	86.54		2.645E-01	1.510E-01	2.016E-01	1.894E-02	1.312
		105.31	*	8.140E-03	1.159E-01	1.854E-01	1.630E-02	0.044
TB-160	+	86.79		7.259E-01	4.142E-01	5.550E-01	5.183E-02	1.308
		197.04		2.132E-01	5.880E-01	9.984E-01	8.777E-02	0.213
		215.65		4.063E-01	8.457E-01	1.341E+00	1.199E-01	0.303
		298.57		1.230E-01	1.249E-01	2.144E-01	1.949E-02	0.574
		879.36	*	1.016E-01	1.491E-01	2.597E-01	2.342E-02	0.391
		962.29		3.042E-01	6.404E-01	9.556E-01	8.576E-02	0.318
		966.15		6.458E-01	4.227E-01	5.128E-01	4.598E-02	1.259
		1177.93		-1.805E-01	3.709E-01	5.926E-01	4.806E-02	-0.305
		1271.85		6.615E-01	7.246E-01	1.321E+00	1.107E-01	0.501
HO-166M		80.57		-8.042E-02	3.286E-01	4.654E-01	4.076E-02	-0.173
		184.41		1.571E-01	4.292E-02	7.105E-02	6.166E-03	2.211
		280.46		-1.002E-01	8.866E-02	1.365E-01	1.248E-02	-0.734
	+	410.95		7.275E-01	5.150E-01	4.875E-01	3.976E-02	1.492
		711.68	*	1.557E-02	6.127E-02	1.037E-01	8.750E-03	0.150
		752.31		-7.660E-02	3.030E-01	4.899E-01	4.219E-02	-0.156
		810.29		-1.126E-02	5.972E-02	9.640E-02	8.507E-03	-0.117

---- Non-Identified Nuclides ----

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TM-171		51.35		8.857E+00	3.678E+01	6.055E+01	5.039E+00	0.146
		52.39		8.369E+00	1.894E+01	3.140E+01	2.577E+00	0.267
		59.40		4.815E+00	3.299E+01	4.817E+01	3.630E+00	0.100
		66.72	*	-2.111E+01	3.444E+01	4.812E+01	3.790E+00	-0.439
LU-176	+	88.36		5.203E-01	2.969E-01	3.922E-01	3.699E-02	1.327
		201.83		-2.085E-02	2.957E-02	4.792E-02	4.232E-03	-0.435
		306.84	*	8.252E-03	2.835E-02	4.393E-02	3.976E-03	0.188
		401.10		6.454E+00	7.247E+00	1.238E+01	1.003E+00	0.521
LU-177		112.95		1.004E+00	2.441E+00	3.888E+00	3.372E-01	0.258
		208.36	*	1.405E+00	1.811E+00	2.766E+00	2.458E-01	0.508
LU-177M		52.97		8.977E-01	1.953E+00	3.239E+00	2.638E-01	0.277
		54.07		-2.740E-01	1.023E+00	1.646E+00	1.321E-01	-0.166
		61.30		1.862E+00	1.846E+00	2.798E+00	2.134E-01	0.665
		121.62		7.193E-02	4.135E-01	6.609E-01	5.805E-02	0.109
		147.16		-4.319E-01	6.557E-01	1.081E+00	9.225E-02	-0.399
		171.86		-8.468E-02	5.048E-01	8.441E-01	7.230E-02	-0.100
		218.09		-1.349E-01	8.826E-01	1.462E+00	1.309E-01	-0.092
		268.79		1.137E+00	9.356E-01	1.461E+00	1.337E-01	0.778
		319.02		-1.779E-02	2.851E-01	4.655E-01	4.177E-02	-0.038
		367.43		2.286E-01	8.977E-01	1.486E+00	1.255E-01	0.154
		413.65	*	9.045E-02	2.203E-01	3.228E-01	2.638E-02	0.280
HF-181		56.28		-2.698E-01	1.154E+00	1.858E+00	1.449E-01	-0.145
		57.53		5.696E-01	6.730E-01	1.018E+00	7.826E-02	0.559
		65.20		5.140E-01	1.232E+00	1.813E+00	1.415E-01	0.284
		133.02		-4.299E-02	7.805E-02	1.203E-01	1.038E-02	-0.357
		136.25		1.271E-01	4.872E-01	8.345E-01	7.171E-02	0.152
		345.85		-1.422E-01	2.188E-01	3.287E-01	2.867E-02	-0.432
		482.03	*	1.872E-02	4.830E-02	7.968E-02	6.714E-03	0.235
W-181		56.28		-1.010E-01	4.378E-01	7.052E-01	5.500E-02	-0.143
		57.53		2.164E-01	2.556E-01	3.867E-01	2.972E-02	0.560
		65.20	*	1.936E-01	4.641E-01	6.830E-01	5.332E-02	0.284
TA-182		67.75		-2.151E-01	1.439E-01	1.912E-01	1.515E-02	-1.125
		100.10		1.353E-01	1.948E-01	3.194E-01	2.809E-02	0.424
		152.43		-1.230E-01	3.347E-01	5.577E-01	4.751E-02	-0.221
		222.10		-1.967E-01	3.702E-01	6.018E-01	5.407E-02	-0.327
	+	1001.68		7.142E+00	3.495E+00	4.717E+00	4.189E-01	1.514
	+	1121.28		7.248E-01	2.447E-01	3.819E-01	3.207E-02	1.898
		1189.05		2.496E-01	3.058E-01	5.505E-01	4.483E-02	0.453
		1221.42	*	8.801E-02	2.035E-01	3.535E-01	2.913E-02	0.249
		1230.97		-8.931E-03	4.619E-01	7.715E-01	6.380E-02	-0.012
RE-183		57.98		2.284E-01	2.546E-01	3.860E-01	2.952E-02	0.592
		59.32		2.221E-02	1.395E-01	2.038E-01	1.537E-02	0.109
		67.20		-2.861E-01	2.544E-01	3.452E-01	2.727E-02	-0.829
		162.32	*	-5.295E-02	1.155E-01	1.913E-01	1.629E-02	-0.277
	+	208.81		2.346E+00	1.399E+00	1.883E+00	1.674E-01	1.246
		291.72		-1.074E-01	1.162E+00	1.667E+00	1.520E-01	-0.064
RE-184		57.98		8.274E-01	9.222E-01	1.398E+00	1.069E-01	0.592
		59.32		8.039E-02	5.049E-01	7.376E-01	5.564E-02	0.109
		67.20		-1.036E+00	9.215E-01	1.250E+00	9.875E-02	-0.829

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		-4.369E-02	3.645E-01	6.123E-01	5.213E-02	-0.071
		216.55		-1.019E-01	2.763E-01	4.531E-01	4.054E-02	-0.225
		252.85	*	-5.347E-03	2.391E-01	3.956E-01	3.611E-02	-0.014
		318.01		3.478E-01	4.834E-01	8.228E-01	7.389E-02	0.423
		792.07		-1.125E+00	1.146E+00	1.726E+00	1.513E-01	-0.652
		903.28		5.338E-01	1.024E+00	1.719E+00	1.556E-01	0.311
		920.93		-7.272E-02	4.455E-01	7.132E-01	6.446E-02	-0.102
OS-185		59.72		-1.097E-01	3.779E-01	5.391E-01	4.066E-02	-0.204
		61.14		1.700E-01	2.040E-01	3.071E-01	2.340E-02	0.554
		69.30		3.889E-01	3.620E-01	5.447E-01	4.358E-02	0.714
		592.07		-9.223E-02	2.513E+00	4.199E+00	3.541E-01	-0.022
		646.12	*	4.339E-03	4.243E-02	7.134E-02	5.894E-03	0.061
		717.42		7.570E-01	9.082E-01	1.608E+00	1.360E-01	0.471
		874.81		-3.653E-01	6.050E-01	9.247E-01	8.329E-02	-0.395
		880.27		2.048E-01	7.973E-01	1.338E+00	1.207E-01	0.153
RE-188		155.03	*	1.378E-01	1.770E-01	3.070E-01	2.614E-02	0.449
		477.96		1.776E+00	3.374E+00	5.624E+00	4.734E-01	0.316
		633.10		2.071E+00	2.913E+00	5.126E+00	4.261E-01	0.404
W-188	+	63.58		2.705E+02	1.145E+02	1.208E+02	9.346E+00	2.238
		227.08		1.081E+01	1.430E+01	2.450E+01	2.209E+00	0.441
		290.67	*	-5.364E+00	9.498E+00	1.314E+01	1.198E+00	-0.408
IR-192	+	295.96		1.088E+00	1.999E-01	3.048E-01	2.792E-02	3.570
		308.46		6.586E-02	1.063E-01	1.801E-01	1.636E-02	0.366
		316.51	*	6.481E-03	3.744E-02	6.199E-02	5.585E-03	0.105
		468.07		2.010E-02	6.551E-02	1.078E-01	9.733E-03	0.186
		604.41		2.915E-01	5.047E-01	7.791E-01	1.003E-01	0.374
		612.46		3.003E+00	9.679E-01	1.710E+00	1.658E-01	1.756
AU-195		65.12		1.340E-01	2.154E-01	3.197E-01	2.495E-02	0.419
		66.83		-1.268E-01	1.177E-01	1.602E-01	1.262E-02	-0.791
	+	75.70		1.293E+00	3.044E-01	4.804E-01	4.028E-02	2.691
		98.88	*	2.301E-01	2.575E-01	4.024E-01	3.553E-02	0.572
		129.76		2.130E+00	3.215E+00	5.218E+00	4.520E-01	0.408
TL-200		367.94	*	3.018E-03	3.215E+00	Half-Life too short		
		579.30		9.106E-03	3.215E+00	Half-Life too short		
		828.27		4.099E-03	3.215E+00	Half-Life too short		
		1205.75		5.061E-03	3.215E+00	Half-Life too short		
TL-201		68.90		8.115E+00	1.199E+01	1.634E+01	1.304E+00	0.497
		70.82		5.610E+00	6.213E+00	9.277E+00	7.498E-01	0.605
		80.30		-7.409E+00	1.197E+01	1.663E+01	1.453E+00	-0.445
		135.34		2.524E+01	5.382E+01	8.670E+01	7.457E+00	0.291
		167.43	*	3.983E+00	1.412E+01	2.404E+01	2.049E+00	0.166
TL-202		68.90		4.420E-01	6.531E-01	8.901E-01	7.104E-02	0.497
		70.82		3.047E-01	3.375E-01	5.039E-01	4.073E-02	0.605
		80.30		-4.026E-01	6.503E-01	9.038E-01	7.895E-02	-0.445
		439.56	*	7.653E-02	8.801E-02	1.502E-01	1.245E-02	0.510
HG-203		70.83		1.182E+00	1.300E+00	1.933E+00	2.566E-01	0.611
	+	72.87		1.654E+00	7.382E-01	1.208E+00	1.563E-01	1.369
		82.60		3.412E-01	1.347E+00	2.079E+00	2.899E-01	0.164
		279.20	*	6.629E-02	4.365E-02	7.680E-02	7.201E-03	0.863

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207	+	72.80		4.643E-01	2.019E-01	3.345E-01	2.742E-02	1.388
	+	74.97		7.093E-01	1.670E-01	2.448E-01	2.040E-02	2.898
		84.90		2.239E-01	2.371E-01	3.491E-01	3.195E-02	0.641
		569.67		-6.511E-03	3.134E-02	5.183E-02	4.390E-03	-0.126
		1063.62	*	2.822E-02	5.714E-02	9.689E-02	8.399E-03	0.291
		1770.23		3.519E-01	4.418E-01	7.784E-01	6.518E-02	0.452
TL-207		81.07		-2.920E-01	2.726E-01	3.697E-01	3.254E-02	-0.790
		83.78		1.029E-01	1.576E-01	2.298E-01	2.078E-02	0.448
		94.90		1.154E+00	3.002E-01	4.757E-01	4.277E-02	2.426
		122.32		1.987E+00	1.866E+00	3.083E+00	2.901E-01	0.644
		144.24		2.682E-01	7.104E-01	1.204E+00	1.152E-01	0.223
		154.21		5.579E-01	3.909E-01	6.896E-01	6.473E-02	0.809
	+	269.46		4.099E-01	3.147E-01	3.618E-01	3.371E-02	1.133
		323.87	*	8.022E-02	7.752E-01	1.121E+00	2.003E-01	0.072
	+	338.28		7.642E+00	2.146E+00	2.700E+00	3.360E-01	2.830
		445.03		8.965E-01	2.374E+00	3.927E+00	4.661E-01	0.228
PO-209		260.50		5.164E+00	9.896E+00	1.678E+01	1.535E+00	0.308
		262.80		1.706E+00	2.708E+01	4.492E+01	4.109E+00	0.038
		896.60	*	-6.128E-01	8.026E+00	1.301E+01	1.179E+00	-0.047
BI-210		46.50	*	9.733E-01	4.488E+00	7.265E+00	6.858E-01	0.134
PB-210		46.50	*	9.733E-01	4.488E+00	7.265E+00	6.858E-01	0.134
PO-210		46.50	*	9.733E-01	4.487E+00	7.265E+00	6.228E-01	0.134
PB-211		404.84	*	-6.390E-01	1.236E+00	1.570E+00	9.827E-01	-0.407
		427.08		8.261E-02	2.156E+00	3.489E+00	2.166E+00	0.024
		831.96		2.157E-01	1.200E+00	1.992E+00	1.249E+00	0.108
BI-212	+	727.18	*	1.397E+00	4.892E-01	7.043E-01	6.979E-02	1.983
		785.46		2.677E+00	1.896E+00	3.454E+00	3.019E-01	0.775
		1620.62		1.452E+00	1.273E+00	2.458E+00	2.116E-01	0.591
PO-215		81.07		-2.920E-01	2.726E-01	3.697E-01	3.254E-02	-0.790
		83.78		1.029E-01	1.576E-01	2.298E-01	2.078E-02	0.448
		94.90		1.154E+00	3.002E-01	4.757E-01	4.277E-02	2.426
		122.32		1.987E+00	1.866E+00	3.083E+00	2.901E-01	0.644
		144.24		2.682E-01	7.104E-01	1.204E+00	1.152E-01	0.223
		154.21		5.579E-01	3.909E-01	6.896E-01	6.473E-02	0.809
	+	269.46		4.099E-01	3.147E-01	3.618E-01	3.371E-02	1.133
		323.87	*	8.022E-02	7.752E-01	1.121E+00	2.003E-01	0.072
	+	338.28		7.642E+00	2.146E+00	2.700E+00	3.360E-01	2.830
		445.03		8.965E-01	2.374E+00	3.927E+00	4.661E-01	0.228
RN-219	+	271.23		5.260E-01	4.048E-01	4.802E-01	5.167E-02	1.095
		401.81	*	2.535E-01	4.476E-01	7.489E-01	1.104E-01	0.338
RN-220		549.76	*	7.897E+00	2.760E+01	4.734E+01	4.019E+00	0.167
RA-223		81.07		-2.920E-01	2.726E-01	3.697E-01	3.254E-02	-0.790
		83.78		1.029E-01	1.576E-01	2.298E-01	2.078E-02	0.448
		94.90		1.154E+00	3.002E-01	4.757E-01	4.277E-02	2.426
		122.32		1.987E+00	1.866E+00	3.083E+00	2.901E-01	0.644
		144.24		2.682E-01	7.104E-01	1.204E+00	1.152E-01	0.223
		154.21		5.579E-01	3.909E-01	6.896E-01	6.473E-02	0.809
	+	269.46		4.099E-01	3.147E-01	3.618E-01	3.371E-02	1.133
		323.87	*	8.022E-02	7.752E-01	1.121E+00	2.003E-01	0.072

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.642E+00	2.146E+00	2.700E+00	3.360E-01	2.830
		445.03		8.965E-01	2.374E+00	3.927E+00	4.661E-01	0.228
AC-227		79.80		-4.002E-01	1.955E+00	2.772E+00	5.970E-01	-0.144
		236.00		2.980E-02	2.649E-01	3.897E-01	4.895E-02	0.076
		256.20	*	-4.374E-01	3.904E-01	5.982E-01	9.358E-02	-0.731
		286.10		2.134E+00	1.681E+00	2.905E+00	3.934E-01	0.735
	+	299.80		3.821E+00	2.039E+00	2.756E+00	4.885E-01	1.386
		304.40		-1.204E+00	2.244E+00	3.078E+00	5.741E-01	-0.391
		334.20		2.365E-01	2.970E+00	3.986E+00	7.777E-01	0.059
TH-227		79.80		-4.002E-01	1.955E+00	2.772E+00	6.046E-01	-0.144
	+	94.00		1.944E+01	6.054E+00	5.035E+00	1.105E+00	3.860
		236.00		2.980E-02	2.649E-01	3.897E-01	4.453E-02	0.076
		256.20	*	-4.374E-01	3.926E-01	5.982E-01	1.096E-01	-0.731
		286.10		2.134E+00	2.708E+00	2.905E+00	2.917E+00	0.735
	+	299.80		3.821E+00	2.039E+00	2.756E+00	4.885E-01	1.386
		304.40		-1.204E+00	2.244E+00	3.078E+00	5.741E-01	-0.391
		334.20		2.365E-01	2.970E+00	3.986E+00	7.777E-01	0.059
TH-229		85.43		3.754E-01	2.368E-01	3.553E-01	3.270E-02	1.057
	+	88.47		2.995E-01	1.709E-01	2.253E-01	2.123E-02	1.329
		100.00		1.195E-01	2.001E-01	3.270E-01	2.876E-02	0.365
		193.63	*	1.362E-01	5.093E-01	8.625E-01	7.556E-02	0.158
	+	210.97		1.784E+00	1.064E+00	1.374E+00	1.223E-01	1.299
PA-231		283.67	*	-1.227E+00	1.639E+00	2.575E+00	3.987E-01	-0.477
	+	301.29		1.529E+00	7.929E-01	1.102E+00	1.385E-01	1.387
TH-231		81.07		-2.920E-01	2.726E-01	3.697E-01	3.254E-02	-0.790
		83.78		1.029E-01	1.576E-01	2.298E-01	2.078E-02	0.448
		94.90		1.154E+00	3.002E-01	4.757E-01	4.277E-02	2.426
		122.32		1.987E+00	1.866E+00	3.083E+00	2.901E-01	0.644
		144.24		2.682E-01	7.104E-01	1.204E+00	1.152E-01	0.223
		154.21		5.579E-01	3.909E-01	6.896E-01	6.473E-02	0.809
	+	269.46		4.099E-01	3.147E-01	3.618E-01	3.371E-02	1.133
		323.87	*	8.022E-02	7.752E-01	1.121E+00	2.003E-01	0.072
	+	338.28		7.642E+00	2.146E+00	2.700E+00	3.360E-01	2.830
		445.03		8.965E-01	2.374E+00	3.927E+00	4.661E-01	0.228
U-231		84.21		6.231E+00	1.100E+01	1.599E+01	1.452E+00	0.390
	+	92.29		3.114E+01	7.436E+00	8.873E+00	8.107E-01	3.510
		95.87	*	1.931E-01	2.121E+00	3.033E+00	2.713E-01	0.064
		108.00		-1.131E+00	3.602E+00	5.661E+00	4.908E-01	-0.200
PA-233	+	75.28		2.069E+01	5.536E+00	7.318E+00	1.112E+00	2.828
	+	86.59		4.295E+00	2.682E+00	3.276E+00	8.862E-01	1.311
	+	300.12		1.065E+00	5.599E-01	7.720E-01	1.169E-01	1.380
		311.98	*	-3.885E-02	6.385E-02	1.006E-01	9.313E-03	-0.386
		340.50		3.222E+00	1.113E+00	1.442E+00	3.445E-01	2.235
		398.62		-1.723E+00	2.353E+00	3.554E+00	9.405E-01	-0.485
		415.76		4.925E-01	2.106E+00	2.927E+00	6.258E-01	0.168
PA-234	+	63.00		7.617E+00	3.370E+00	3.497E+00	5.251E-01	2.178
		94.67		1.088E+00	2.526E-01	3.673E-01	4.654E-02	2.963
		98.44		1.052E-01	1.234E-01	1.612E-01	8.997E-02	0.653
		99.86		2.550E-01	5.164E-01	8.306E-01	7.309E-02	0.307

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		1.628E-02	2.004E-01	3.201E-01	3.879E-02	0.051
		131.20		4.026E-02	1.186E-01	1.902E-01	1.644E-02	0.212
		152.70		8.352E-02	3.181E-01	5.426E-01	9.221E-02	0.154
	+	186.00		8.634E+00	3.445E+00	3.005E+00	9.387E-01	2.873
		226.40		2.864E-01	4.394E-01	7.485E-01	1.008E-01	0.383
		227.20		3.301E-01	4.680E-01	8.004E-01	7.218E-02	0.412
		248.90		2.325E-01	9.547E-01	1.412E+00	3.193E-01	0.165
		293.70		3.246E+00	1.074E+00	1.578E+00	2.770E-01	2.056
		369.80		-5.021E-01	8.857E-01	1.374E+00	2.981E-01	-0.365
		568.70		-8.476E-01	1.031E+00	1.623E+00	1.375E-01	-0.522
		569.50		-6.520E-02	2.775E-01	4.579E-01	3.879E-02	-0.142
		574.00		-2.448E-01	1.637E+00	2.719E+00	2.302E-01	-0.090
		699.00		2.274E-01	8.269E-01	1.397E+00	2.650E-01	0.163
		706.10		-8.885E-01	1.179E+00	1.723E+00	7.676E-01	-0.516
		733.00		1.401E-01	4.156E-01	6.211E-01	1.377E-01	0.226
		742.81		1.189E+00	1.611E+00	2.481E+00	1.667E+00	0.479
		796.30		1.657E+00	1.073E+00	1.820E+00	4.931E-01	0.910
		805.60		1.041E+00	1.102E+00	1.883E+00	5.781E-01	0.553
		819.60		2.384E-01	1.228E+00	2.052E+00	7.813E-01	0.116
		826.30		-1.124E-01	7.964E-01	1.286E+00	5.762E-01	-0.087
		831.60		-1.492E-02	6.284E-01	1.029E+00	3.080E-01	-0.014
		876.40		2.637E-01	9.349E-01	1.506E+00	1.548E+00	0.175
		880.51		-1.476E-02	2.852E-01	4.641E-01	4.186E-02	-0.032
		883.24		1.348E-02	2.761E-01	4.537E-01	3.052E-01	0.030
		899.00		1.668E-01	9.005E-01	1.493E+00	6.538E-01	0.112
		925.00		-9.435E-01	1.169E+00	1.725E+00	1.558E-01	-0.547
		926.50		5.024E-02	1.633E-01	2.747E-01	6.984E-02	0.183
		946.00	*	-4.749E-02	2.915E-01	4.655E-01	8.818E-02	-0.102
		949.00		1.759E-01	4.459E-01	7.556E-01	6.799E-02	0.233
		980.50		2.661E-01	7.513E-01	1.266E+00	1.131E-01	0.210
		1394.10		2.671E-02	1.304E+00	2.169E+00	1.412E+00	0.012
PA-234M		766.42		1.438E+01	1.483E+01	2.299E+01	1.167E+01	0.625
	+	1001.03	*	1.593E+01	7.836E+00	1.077E+01	1.098E+00	1.480
U-235		89.95		-2.633E+00	2.125E+00	2.007E+00	6.234E-01	-1.312
	+	93.35		6.047E+00	2.164E+00	1.706E+00	4.807E-01	3.543
		105.00		8.725E-01	1.142E+00	1.832E+00	5.471E-01	0.476
		143.76	*	1.041E-01	2.223E-01	3.768E-01	6.583E-02	0.276
		163.35		-1.291E-01	4.810E-01	8.019E-01	1.526E-01	-0.161
	+	185.71		3.198E-01	8.409E-02	1.107E-01	9.619E-03	2.889
		205.31		1.520E-01	6.055E-01	9.029E-01	1.733E-01	0.168
NP-236		94.67		8.304E-01	1.772E-01	2.790E-01	2.512E-02	2.976
		98.44		7.949E-02	8.231E-02	1.218E-01	1.078E-02	0.652
		111.00		1.231E-02	1.516E-01	2.421E-01	2.098E-02	0.051
		160.31	*	5.885E-03	8.057E-02	1.364E-01	1.161E-02	0.043
NP-239		99.55		1.502E-01	1.700E-01	2.772E-01	2.442E-02	0.542
		117.00	*	-2.530E-02	2.024E-01	3.198E-01	2.785E-02	-0.079
	+	209.75		1.798E+00	1.072E+00	1.428E+00	1.270E-01	1.259
		228.18		1.001E-01	2.441E-01	4.129E-01	3.726E-02	0.242
		277.60		1.351E-01	1.874E-01	3.195E-01	2.922E-02	0.423

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		1.803E-01	1.685E+00	2.267E+00	2.005E-01	0.080
AM-241		59.54	*	-5.905E-02	1.953E-01	2.784E-01	2.294E-02	-0.212
CM-243		99.55		1.546E-01	1.750E-01	2.853E-01	2.513E-02	0.542
		103.76	*	6.388E-02	1.019E-01	1.666E-01	1.452E-02	0.383
		117.00		-2.604E-02	2.083E-01	3.291E-01	2.866E-02	-0.079
	+	209.75		1.772E+00	1.057E+00	1.408E+00	1.253E-01	1.259
		228.18		1.012E-01	2.467E-01	4.173E-01	3.766E-02	0.242
		277.60		1.362E-01	1.889E-01	3.222E-01	2.947E-02	0.423
AM-246		798.80		-2.899E-01	1.562E-01	2.098E-01	1.843E-02	-1.382
		1036.00		-4.804E-02	3.163E-01	5.032E-01	4.414E-02	-0.095
		1062.04		1.186E-01	2.465E-01	4.177E-01	3.623E-02	0.284
		1078.86	*	-5.931E-02	1.476E-01	2.271E-01	1.954E-02	-0.261
CM-247		278.00		8.605E-01	7.716E-01	1.337E+00	1.223E-01	0.644
		287.40		8.824E-01	1.368E+00	2.321E+00	2.119E-01	0.380
		402.60	*	6.153E-03	4.209E-02	6.646E-02	5.390E-03	0.093
CF-249		252.85		-1.983E-02	8.863E-01	1.467E+00	1.339E-01	-0.014
		333.44		4.313E-02	2.810E-01	2.961E-01	2.621E-02	0.146
		387.95	*	3.018E-02	4.167E-02	7.071E-02	5.736E-03	0.427
CF-251		176.60	*	7.080E-02	1.355E-01	2.320E-01	1.997E-02	0.305
		227.00		2.658E-01	4.197E-01	7.158E-01	6.454E-02	0.371
		285.00		9.397E-01	1.887E+00	3.185E+00	2.909E-01	0.295

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978012       *
* Acquisition date : 14-FEB-2010 13:11:08 Detector SN#    :                 *
* Detector ID       : GAM01               Sensitivity     : 5.000           *
* Geometry          : CAN                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978012           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.4278E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.329E+01	2.577E+00	4.501E-01	0.000E+00
CD-109	2.242E+00	1.254E+00	1.826E+00	0.000E+00
SN-126	2.194E-01	1.227E-01	1.678E-01	0.000E+00
TL-208	5.009E-01	9.098E-02	6.076E-02	0.000E+00
BI-211	3.974E+00	5.821E-01	3.524E-01	0.000E+00
PB-212	1.568E+00	1.904E-01	9.543E-02	0.000E+00
PO-212	1.568E+00	1.904E-01	9.543E-02	0.000E+00
BI-214	1.084E+00	1.999E-01	1.138E-01	0.000E+00
PB-214	1.382E+00	2.145E-01	1.237E-01	0.000E+00
PO-214	1.382E+00	2.145E-01	1.237E-01	0.000E+00
PO-216	1.568E+00	1.904E-01	9.543E-02	0.000E+00
PO-218	1.382E+00	2.145E-01	1.237E-01	0.000E+00
RA-224	4.061E+00	1.357E+00	1.086E+00	0.000E+00
RA-226	1.084E+00	1.999E-01	1.138E-01	0.000E+00
AC-228	1.503E+00	3.148E-01	1.835E-01	0.000E+00
RA-228	1.503E+00	3.148E-01	1.835E-01	0.000E+00
TH-228	1.596E+00	1.938E-01	9.717E-02	0.000E+00
TH-230	1.084E+00	1.999E-01	1.138E-01	0.000E+00
TH-232	1.503E+00	3.148E-01	1.835E-01	0.000E+00
TH-234	6.535E+00	2.893E+00	2.379E+00	0.000E+00
U-234	1.084E+00	1.999E-01	1.138E-01	0.000E+00
NP-237	6.442E-01	3.831E-01	4.706E-01	0.000E+00
U-238	6.535E+00	2.893E+00	2.379E+00	0.000E+00
AM-243	3.951E-01	9.117E-02	1.027E-01	0.000E+00
ANH-511	1.173E-01	7.034E-02	4.779E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	9.173E-02	3.513E-01	6.035E-01	0.000E+00	NOT IDENT.
NA-22	-5.628E-02	4.262E-02	6.154E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	1.754E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-6.609E-03	3.210E-02	5.103E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.953E-02	8.490E-02	0.000E+00	FAIL ABUN
SC-46	5.239E-03	4.213E-02	7.224E-02	0.000E+00	FAIL ABUN
V-48	-4.186E-02	8.496E-02	1.352E-01	0.000E+00	NOT IDENT.
CR-51	-4.078E-02	4.303E-01	7.431E-01	0.000E+00	NOT IDENT.
MN-52	-2.834E-01	3.663E-01	5.536E-01	0.000E+00	NOT IDENT.
MN-54	1.346E-04	3.648E-02	6.217E-02	0.000E+00	NOT IDENT.
CO-56	3.045E-02	3.893E-02	7.107E-02	0.000E+00	NOT IDENT.
CO-57	2.072E-02	2.681E-02	4.739E-02	0.000E+00	NOT IDENT.
CO-58	-6.793E-03	4.084E-02	6.866E-02	0.000E+00	NOT IDENT.
FE-59	-1.195E-02	1.117E-01	1.838E-01	0.000E+00	NOT IDENT.
CO-60	3.602E-02	3.769E-02	7.158E-02	0.000E+00	NOT IDENT.
ZN-65	-4.997E-02	1.063E-01	1.408E-01	0.000E+00	NOT IDENT.
GE-68	1.048E+00	1.237E+00	2.243E+00	0.000E+00	NOT IDENT.
AS-73	4.321E-02	9.864E-01	1.769E+00	0.000E+00	NOT IDENT.
AS-74	3.771E-02	9.456E-02	1.707E-01	0.000E+00	NOT IDENT.
SE-75	-1.997E-02	4.779E-02	7.574E-02	0.000E+00	NOT IDENT.
BR-77	1.201E+01	2.542E+01	4.414E+01	0.000E+00	FAIL ABUN
SR-82	1.526E-01	4.201E-01	7.423E-01	0.000E+00	NOT IDENT.
RB-83	2.917E-02	7.274E-02	1.257E-01	0.000E+00	NOT IDENT.
RB-84	-9.763E-02	7.466E-02	1.078E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.650E+00	1.466E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.574E-02	7.753E-02	0.000E+00	NOT IDENT.
RB-86	8.906E-01	8.522E-01	1.576E+00	0.000E+00	NOT IDENT.
Y-88	-5.030E-03	2.868E-02	4.534E-02	0.000E+00	NOT IDENT.
ZR-88	-3.223E-02	3.383E-02	5.407E-02	0.000E+00	NOT IDENT.
Y-91	-4.009E+00	1.965E+01	3.328E+01	0.000E+00	NOT IDENT.
NB-94	7.448E-03	3.700E-02	6.487E-02	0.000E+00	NOT IDENT.
NB-95	2.405E-02	4.690E-02	8.352E-02	0.000E+00	NOT IDENT.
NB-95M	8.357E-02	1.391E-01	2.243E-01	0.000E+00	NOT IDENT.
ZR-95	-9.338E-03	7.819E-02	1.330E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.893E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.684E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.907E+01	2.467E+01	3.927E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.265E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.647E-02	3.396E-02	5.865E-02	0.000E+00	NOT IDENT.
RH-102	-1.660E-02	3.435E-02	4.775E-02	0.000E+00	FAIL ABUN
RU-103	2.593E-03	4.070E-02	6.873E-02	0.000E+00	FAIL ABUN
RH-106	6.479E-02	3.055E-01	5.421E-01	0.000E+00	FAIL ABUN
RU-106	6.479E-02	3.054E-01	5.421E-01	0.000E+00	FAIL ABUN
AG-108M	-7.084E-03	3.293E-02	5.500E-02	0.000E+00	NOT IDENT.
AG-110M	1.148E-02	3.834E-02	5.992E-02	0.000E+00	NOT IDENT.
IN-111	1.350E+00	2.360E+00	3.805E+00	0.000E+00	NOT IDENT.
IN-113M	-1.036E-02	4.735E-02	7.984E-02	0.000E+00	NOT IDENT.
SN-113	-1.036E-02	4.735E-02	7.984E-02	0.000E+00	NOT IDENT.
IN-114M	-1.610E-01	2.158E-01	3.265E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.556E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	1.183E-03	6.305E-02	1.146E-01	0.000E+00	NOT IDENT.
SB-122	2.060E+00	4.391E+00	7.968E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.331E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.257E-02	2.852E-02	5.258E-02	0.000E+00	NOT IDENT.
I-124	-9.555E-02	1.152E+00	1.737E+00	0.000E+00	NOT IDENT.
SB-124	-1.621E-02	7.589E-02	1.213E-01	0.000E+00	FAIL ABUN
SB-125	1.063E-02	9.495E-02	1.627E-01	0.000E+00	FAIL ABUN
TE-125M	-1.654E+00	1.020E+01	1.748E+01	0.000E+00	NOT IDENT.
I-126	1.619E-01	2.520E-01	4.053E-01	0.000E+00	NOT IDENT.
SB-126	-6.981E-02	2.008E-01	2.880E-01	0.000E+00	FAIL ABUN
SB-127	8.241E-01	2.259E+00	4.027E+00	0.000E+00	FAIL ABUN
XE-127	4.747E-03	4.928E-02	8.851E-02	0.000E+00	NOT IDENT.
I-131	-1.527E-01	1.478E-01	2.350E-01	0.000E+00	NOT IDENT.
TE-132	5.923E-01	1.368E+00	2.467E+00	0.000E+00	NOT IDENT.
BA-133	-1.744E-02	4.968E-02	7.249E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	5.998E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.032E-02	5.166E-02	9.796E-02	0.000E+00	NOT IDENT.
CS-135	6.490E-02	1.717E-01	2.719E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.066E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.998E-02	1.325E-01	2.084E-01	0.000E+00	FAIL ABUN
BA-137M	4.539E-02	4.248E-02	7.096E-02	0.000E+00	NOT IDENT.
CS-137	4.798E-02	4.490E-02	7.501E-02	0.000E+00	NOT IDENT.
CE-139	-1.076E-03	3.066E-02	5.545E-02	0.000E+00	NOT IDENT.
BA-140	1.149E-01	2.773E-01	5.006E-01	0.000E+00	NOT IDENT.
LA-140	-5.089E-03	1.124E-01	1.876E-01	0.000E+00	FAIL ABUN
CE-141	3.006E-02	6.644E-02	1.230E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.993E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.393E-02	2.268E-01	3.792E-01	0.000E+00	NOT IDENT.
PM-144	2.987E-02	3.581E-02	6.566E-02	0.000E+00	NOT IDENT.
PR-144	2.027E+00	2.431E+00	4.456E+00	0.000E+00	NOT IDENT.

PM-146	4.460E-02	4.619E-02	8.308E-02	0.000E+00	NOT IDENT.
ND-147	4.074E-01	6.403E-01	1.179E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	2.463E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-2.034E-02	1.118E-01	1.664E-01	0.000E+00	FAIL ABUN
GD-153	-1.520E-02	9.464E-02	1.438E-01	0.000E+00	NOT IDENT.
EU-154	-1.368E-01	1.170E-01	1.718E-01	0.000E+00	NOT IDENT.
EU-155	8.140E-03	1.136E-01	1.970E-01	0.000E+00	FAIL ABUN
TB-160	1.016E-01	1.461E-01	2.638E-01	0.000E+00	FAIL ABUN
HO-166M	1.557E-02	6.005E-02	1.059E-01	0.000E+00	FAIL ABUN
TM-171	-2.111E+01	3.376E+01	5.160E+01	0.000E+00	NOT IDENT.
LU-176	8.252E-03	2.779E-02	4.567E-02	0.000E+00	FAIL ABUN
LU-177	1.405E+00	1.775E+00	2.899E+00	0.000E+00	NOT IDENT.
LU-177M	9.045E-02	2.159E-01	3.335E-01	0.000E+00	NOT IDENT.
HF-181	1.872E-02	4.734E-02	8.203E-02	0.000E+00	NOT IDENT.
W-181	1.936E-01	4.548E-01	7.328E-01	0.000E+00	NOT IDENT.
TA-182	8.801E-02	1.994E-01	3.565E-01	0.000E+00	FAIL ABUN
RE-183	-5.295E-02	1.132E-01	2.015E-01	0.000E+00	FAIL ABUN
RE-184	-5.347E-03	2.343E-01	4.129E-01	0.000E+00	NOT IDENT.
OS-185	4.339E-03	4.158E-02	7.298E-02	0.000E+00	NOT IDENT.
RE-188	1.378E-01	1.734E-01	3.236E-01	0.000E+00	NOT IDENT.
W-188	-5.364E+00	9.308E+00	1.367E+01	0.000E+00	FAIL ABUN
IR-192	6.481E-03	3.669E-02	6.439E-02	0.000E+00	FAIL ABUN
AU-195	2.301E-01	2.524E-01	4.281E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.816E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.983E+00	1.384E+01	2.530E+01	0.000E+00	NOT IDENT.
TL-202	7.653E-02	8.625E-02	1.549E-01	0.000E+00	NOT IDENT.
HG-203	6.629E-02	4.278E-02	7.999E-02	0.000E+00	FAIL ABUN
BI-207	2.822E-02	5.600E-02	9.803E-02	0.000E+00	FAIL ABUN
TL-207	8.022E-02	7.597E-01	1.164E+00	0.000E+00	FAIL ABUN
PO-209	-6.128E-01	7.866E+00	1.322E+01	0.000E+00	NOT IDENT.
BI-210	9.733E-01	4.398E+00	7.847E+00	0.000E+00	NOT IDENT.
PB-210	9.733E-01	4.398E+00	7.847E+00	0.000E+00	NOT IDENT.
PO-210	9.733E-01	4.398E+00	7.847E+00	0.000E+00	NOT IDENT.
PB-211	-6.390E-01	1.211E+00	1.622E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.795E-01	7.186E-01	0.000E+00	FAIL ABUN
PO-215	8.022E-02	7.597E-01	1.164E+00	0.000E+00	FAIL ABUN
RN-219	2.535E-01	4.386E-01	7.740E-01	0.000E+00	FAIL ABUN
RN-220	7.897E+00	2.705E+01	4.860E+01	0.000E+00	NOT IDENT.
RA-223	8.022E-02	7.597E-01	1.164E+00	0.000E+00	FAIL ABUN
AC-227	-4.374E-01	3.826E-01	6.242E-01	0.000E+00	FAIL ABUN
TH-227	-4.374E-01	3.848E-01	6.242E-01	0.000E+00	FAIL ABUN
TH-229	1.362E-01	4.991E-01	9.052E-01	0.000E+00	FAIL ABUN
PA-231	-1.227E+00	1.606E+00	2.681E+00	0.000E+00	FAIL ABUN
TH-231	8.022E-02	7.597E-01	1.164E+00	0.000E+00	FAIL ABUN
U-231	1.931E-01	2.078E+00	3.229E+00	0.000E+00	FAIL ABUN
PA-233	-3.885E-02	6.257E-02	1.046E-01	0.000E+00	FAIL ABUN
PA-234	-4.749E-02	2.856E-01	4.722E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	7.679E+00	1.091E+01	0.000E+00	FAIL ABUN
U-235	1.041E-01	2.178E-01	3.979E-01	0.000E+00	FAIL ABUN
NP-236	5.885E-03	7.896E-02	1.437E-01	0.000E+00	NOT IDENT.
NP-239	-2.530E-02	1.984E-01	3.391E-01	0.000E+00	FAIL ABUN
AM-241	-5.905E-02	1.914E-01	2.992E-01	0.000E+00	NOT IDENT.
CM-243	6.388E-02	9.984E-02	1.771E-01	0.000E+00	FAIL ABUN
AM-246	-5.931E-02	1.447E-01	2.297E-01	0.000E+00	NOT IDENT.
CM-247	6.153E-03	4.125E-02	6.869E-02	0.000E+00	NOT IDENT.
CF-249	3.018E-02	4.083E-02	7.314E-02	0.000E+00	NOT IDENT.
CF-251	7.080E-02	1.327E-01	2.439E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:12:25.76

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978012.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:11:08
Sample ID         : G245978012           Sample quantity  : 1.42780E+02 GRAM
Detector name     : GAM01                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.22  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	894	10.67*	9.455E-01	2.329E+01	2.329E+01	11.29
CD-109	88.03	160	3.72*	5.179E+00	2.182E+00	2.242E+00	57.06
SN-126	64.28	262	9.60	2.772E+00	2.587E+00	2.587E+00	44.13
	86.94	160	8.90	5.179E+00	9.120E-01	9.120E-01	69.95
	87.57	160	37.00*	5.179E+00	2.194E-01	2.194E-01	57.06
TL-208	277.35	------	6.80	3.885E+00	------ Line Not Found		------
	510.84	107	21.60	2.391E+00	5.432E-01	5.432E-01	61.74
	583.14	344	84.20*	2.143E+00	5.009E-01	5.009E-01	18.53
	860.37	51	12.46	1.521E+00	7.123E-01	7.123E-01	64.36
BI-211	72.87	152	1.27	3.943E+00	7.961E+00	7.961E+00	43.50
	351.07	631	12.94*	3.225E+00	3.974E+00	3.974E+00	14.95
PB-212	74.81	413	10.70	4.163E+00	2.437E+00	2.437E+00	25.34
	77.11	542	18.00	4.385E+00	1.804E+00	1.804E+00	18.24
	87.30	160	8.00	5.179E+00	1.015E+00	1.015E+00	57.93
	238.63	1156	44.60*	4.346E+00	1.568E+00	1.568E+00	12.39
	300.09	98	3.41	3.653E+00	2.062E+00	2.062E+00	51.47
PO-212	74.81	413	10.70	4.163E+00	2.437E+00	2.437E+00	25.34
	77.11	542	18.00	4.385E+00	1.804E+00	1.804E+00	18.24
	87.30	160	8.00	5.179E+00	1.015E+00	1.015E+00	57.93
	115.19	------	0.60	6.043E+00	------ Line Not Found		------
	238.63	1156	44.60*	4.346E+00	1.568E+00	1.568E+00	12.39
	300.09	98	3.41	3.653E+00	2.062E+00	2.062E+00	51.47
BI-214	609.31	394	46.30*	2.064E+00	1.084E+00	1.084E+00	18.82
	1120.29	103	15.10	1.193E+00	1.506E+00	1.506E+00	34.41
	1764.49	75	15.80	8.254E-01	1.511E+00	1.511E+00	34.97
PB-214	74.81	413	6.21	4.163E+00	4.199E+00	4.199E+00	24.69
	77.11	542	10.50	4.385E+00	3.093E+00	3.093E+00	19.77
	87.30	160	4.67	5.179E+00	1.738E+00	1.738E+00	57.58
	241.98	263	7.49	4.305E+00	2.141E+00	2.141E+00	34.57
	295.21	375	19.20	3.699E+00	1.389E+00	1.389E+00	19.37
	351.92	631	37.20*	3.225E+00	1.382E+00	1.382E+00	15.83
PO-214	74.81	413	6.21	4.163E+00	4.199E+00	4.199E+00	24.69

Sample ID : G245978012 Acquisition date : 14-FEB-2010 13:11:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	542	10.50	4.385E+00	3.093E+00	3.093E+00	19.77
	87.30	160	4.67	5.179E+00	1.738E+00	1.738E+00	57.58
	241.98	263	7.49	4.305E+00	2.141E+00	2.141E+00	34.57
	295.21	375	19.20	3.699E+00	1.389E+00	1.389E+00	19.37
	351.92	631	37.20*	3.225E+00	1.382E+00	1.382E+00	15.83
PO-216	74.81	413	10.70	4.163E+00	2.437E+00	2.437E+00	25.34
	77.11	542	18.00	4.385E+00	1.804E+00	1.804E+00	18.24
	87.30	160	8.00	5.179E+00	1.015E+00	1.015E+00	57.93
	238.63	1156	44.60*	4.346E+00	1.568E+00	1.568E+00	12.39
	300.09	98	3.41	3.653E+00	2.062E+00	2.062E+00	51.47
PO-218	74.81	413	6.21	4.163E+00	4.199E+00	4.199E+00	24.69
	77.11	542	10.50	4.385E+00	3.093E+00	3.093E+00	19.77
	87.30	160	4.67	5.179E+00	1.738E+00	1.738E+00	57.58
	241.98	263	7.49	4.305E+00	2.141E+00	2.141E+00	34.57
	295.21	375	19.20	3.699E+00	1.389E+00	1.389E+00	19.37
	351.92	631	37.20*	3.225E+00	1.382E+00	1.382E+00	15.83
RA-224	240.98	263	3.95*	4.305E+00	4.061E+00	4.061E+00	34.11
RA-226	609.31	394	46.30*	2.064E+00	1.084E+00	1.084E+00	18.82
	1120.29	103	15.10	1.193E+00	1.506E+00	1.506E+00	34.41
	1764.49	75	15.80	8.254E-01	1.511E+00	1.511E+00	34.97
AC-228	338.32	264	11.40	3.327E+00	1.830E+00	1.830E+00	48.37
	911.07	229	27.70*	1.444E+00	1.503E+00	1.503E+00	21.38
	969.11	126	16.60	1.364E+00	1.468E+00	1.468E+00	41.00
RA-228	338.32	264	11.40	3.327E+00	1.830E+00	1.830E+00	48.37
	911.07	229	27.70*	1.444E+00	1.503E+00	1.503E+00	21.38
	969.11	126	16.60	1.364E+00	1.468E+00	1.468E+00	41.00
TH-228	74.81	413	10.70	4.163E+00	2.437E+00	2.481E+00	23.58
	77.11	542	18.00	4.385E+00	1.804E+00	1.837E+00	18.24
	87.30	160	8.00	5.179E+00	1.015E+00	1.033E+00	57.06
	238.63	1156	44.60*	4.346E+00	1.568E+00	1.596E+00	12.39
	300.09	98	3.41	3.653E+00	2.062E+00	2.099E+00	77.81
TH-230	609.31	394	46.30*	2.064E+00	1.084E+00	1.084E+00	18.82
	1120.29	103	15.10	1.193E+00	1.506E+00	1.506E+00	34.41
	1764.49	75	15.80	8.254E-01	1.511E+00	1.511E+00	34.97
TH-232	338.32	264	11.40	3.327E+00	1.830E+00	1.830E+00	26.67
	911.07	229	27.70*	1.444E+00	1.503E+00	1.503E+00	21.38
	969.11	126	16.60	1.364E+00	1.468E+00	1.468E+00	41.00
TH-234	63.29	262	3.80*	2.772E+00	6.535E+00	6.535E+00	45.17
	92.38	571	5.41	5.512E+00	5.030E+00	5.030E+00	28.69
U-234	609.31	394	46.30*	2.064E+00	1.084E+00	1.084E+00	18.82
	1120.29	103	15.10	1.193E+00	1.506E+00	1.506E+00	34.41
	1764.49	75	15.80	8.254E-01	1.511E+00	1.511E+00	34.97
NP-237	86.50	160	12.60*	5.179E+00	6.442E-01	6.442E-01	60.68
	95.87	------	2.60	5.636E+00	------ Line Not Found		------
U-238	63.29	262	3.80*	2.772E+00	6.535E+00	6.535E+00	45.17
	92.38	571	5.41	5.512E+00	5.030E+00	5.030E+00	23.88
AM-243	74.67	413	66.00*	4.163E+00	3.951E-01	3.951E-01	23.55
	86.72	160	0.34	5.179E+00	2.416E+01	2.416E+01	57.06
	117.66	------	0.55	6.054E+00	------ Line Not Found		------

Sample ID : G245978012 Acquisition date : 14-FEB-2010 13:11:08

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	107	100.00*	2.391E+00	1.173E-01	1.173E-01	61.17

Flag: "*" = Keyline

Sample ID : G245978012 Acquisition date : 14-FEB-2010 13:11:08

Total number of lines in spectrum 35
Number of unidentified lines 3
Number of lines tentatively identified by NID 32 91.43%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.329E+01	2.329E+01	0.263E+01	11.29	
CD-109	464.00D	1.03	2.182E+00	2.242E+00	1.279E+00	57.06	
SN-126	1.00E+05Y	1.00	2.194E-01	2.194E-01	1.252E-01	57.06	
TL-208	1.41E+10Y	1.00	5.009E-01	5.009E-01	0.928E-01	18.53	
BI-211	7.04E+08Y	1.00	3.974E+00	3.974E+00	0.594E+00	14.95	
PB-212	1.41E+10Y	1.00	1.568E+00	1.568E+00	0.194E+00	12.39	
PO-212	1.41E+10Y	1.00	1.568E+00	1.568E+00	0.194E+00	12.39	
BI-214	1600.00Y	1.00	1.084E+00	1.084E+00	0.204E+00	18.82	
PB-214	1600.00Y	1.00	1.382E+00	1.382E+00	0.219E+00	15.83	
PO-214	1600.00Y	1.00	1.382E+00	1.382E+00	0.219E+00	15.83	
PO-216	1.41E+10Y	1.00	1.568E+00	1.568E+00	0.194E+00	12.39	
PO-218	1600.00Y	1.00	1.382E+00	1.382E+00	0.219E+00	15.83	
RA-224	1.41E+10Y	1.00	4.061E+00	4.061E+00	1.385E+00	34.11	
RA-226	1600.00Y	1.00	1.084E+00	1.084E+00	0.204E+00	18.82	
AC-228	1.41E+10Y	1.00	1.503E+00	1.503E+00	0.321E+00	21.38	
RA-228	1.41E+10Y	1.00	1.503E+00	1.503E+00	0.321E+00	21.38	
TH-228	1.91Y	1.02	1.568E+00	1.596E+00	0.198E+00	12.39	
TH-230	4.47E+09Y	1.00	1.084E+00	1.084E+00	0.204E+00	18.82	
TH-232	1.41E+10Y	1.00	1.503E+00	1.503E+00	0.321E+00	21.38	
TH-234	4.47E+09Y	1.00	6.535E+00	6.535E+00	2.952E+00	45.17	
U-234	4.47E+09Y	1.00	1.084E+00	1.084E+00	0.204E+00	18.82	
NP-237	2.14E+06Y	1.00	6.442E-01	6.442E-01	3.909E-01	60.68	
U-238	4.47E+09Y	1.00	6.535E+00	6.535E+00	2.952E+00	45.17	
AM-243	7380.00Y	1.00	3.951E-01	3.951E-01	0.930E-01	23.55	
ANH-511	1.00E+09Y	1.00	1.173E-01	1.173E-01	0.718E-01	61.17	
			---	---			
	Total Activity :		6.772E+01	6.780E+01			

Grand Total Activity : 6.772E+01 6.780E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978012 Acquisition date : 14-FEB-2010 13:11:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	186.11	339	344	1.41	372.82	368	11	4.71E-02	24.8	5.16E+00	T
0	209.86	106	262	1.15	420.29	417	9	1.47E-02	59.0	4.77E+00	T
0	270.59	84	251	1.44	541.68	537	11	1.17E-02	76.2	3.96E+00	T
0	327.93	86	157	1.70	656.29	652	10	1.19E-02	58.4	3.41E+00	T
0	410.51	89	176	3.69	821.36	814	16	1.23E-02	70.3	2.86E+00	T
1	463.37	65	88	1.61	927.01	921	26	9.07E-03	59.7	2.59E+00	T
1	470.52	39	74	1.61	941.29	921	26	5.39E-03	92.4	2.56E+00	
0	663.61	36	115	1.55	1327.24	1320	15	4.97E-03	****	1.92E+00	T
0	727.36	111	53	1.63	1454.65	1448	14	1.54E-02	33.6	1.77E+00	T
0	768.18	54	80	1.61	1536.24	1527	14	7.55E-03	75.0	1.69E+00	T
0	964.49	55	42	0.95	1928.60	1923	11	7.67E-03	53.5	1.37E+00	T
0	1001.13	67	37	3.10	2001.82	1994	15	9.36E-03	48.1	1.32E+00	T
0	1378.67	34	49	1.78	2756.35	2749	18	4.68E-03	****	9.92E-01	
0	1409.47	12	22	1.57	2817.92	2810	9	1.73E-03	****	9.74E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:12:31.10

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978012.CNF;1  *
* Acquisition date : 14-FEB-2010 13:11:08  Detector SN#    :                *
* Detector ID      : GAM01                 Sensitivity     : 5.00000        *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.22         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245978012            Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.42780E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.329E+01	2.630E+00	4.481E-01	3.983E-02	51.983
CD-109	2.242E+00	1.279E+00	1.712E+00	1.620E-01	1.309
SN-126	2.194E-01	1.252E-01	1.574E-01	1.482E-02	1.394
TL-208	5.009E-01	9.283E-02	5.926E-02	5.382E-03	8.453
BI-211	3.974E+00	5.940E-01	3.400E-01	3.093E-02	11.688
PB-212	1.568E+00	1.942E-01	9.133E-02	9.247E-03	17.163
PO-212	1.568E+00	1.942E-01	9.133E-02	9.247E-03	17.163
BI-214	1.084E+00	2.040E-01	1.111E-01	1.096E-02	9.760
PB-214	1.382E+00	2.188E-01	1.193E-01	1.250E-02	11.583
PO-214	1.382E+00	2.188E-01	1.193E-01	1.250E-02	11.583
PO-216	1.568E+00	1.942E-01	9.133E-02	9.247E-03	17.163
PO-218	1.382E+00	2.188E-01	1.193E-01	1.250E-02	11.583
RA-224	4.061E+00	1.385E+00	1.040E+00	9.448E-02	3.906
RA-226	1.084E+00	2.040E-01	1.111E-01	1.096E-02	9.760
AC-228	1.503E+00	3.212E-01	1.808E-01	2.093E-02	8.312
RA-228	1.503E+00	3.212E-01	1.808E-01	2.093E-02	8.312
TH-228	1.596E+00	1.978E-01	9.299E-02	9.415E-03	17.163
TH-230	1.084E+00	2.040E-01	1.111E-01	1.095E-02	9.760

Sample ID : G245978012 Acquisition date : 14-FEB-2010 13:11:08

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.503E+00	3.212E-01	1.808E-01	2.093E-02	8.312
TH-234	6.535E+00	2.952E+00	2.216E+00	3.895E-01	2.949
U-234	1.084E+00	2.040E-01	1.111E-01	1.095E-02	9.760
NP-237	6.442E-01	3.909E-01	4.411E-01	9.985E-02	1.460
U-238	6.535E+00	2.952E+00	2.216E+00	3.895E-01	2.949
AM-243	3.951E-01	9.303E-02	9.596E-02	7.979E-03	4.117
ANH-511	1.173E-01	7.177E-02	4.648E-02	3.939E-03	2.524

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	9.173E-02		3.585E-01	5.861E-01	5.332E-02	0.157
NA-22	-5.628E-02		4.349E-02	6.107E-02	5.128E-03	-0.922
NA-24	-1.339E+01		8.947E+00	Half-Life too short		
AL-26	-6.609E-03		3.276E-02	5.104E-02	4.229E-03	-0.129
TI-44	3.330E-01	+	6.075E-02	7.943E-02	6.816E-03	4.192
SC-46	5.239E-03		4.299E-02	7.111E-02	6.428E-03	0.074
V-48	-4.186E-02		8.670E-02	1.334E-01	1.191E-02	-0.314
CR-51	-4.078E-02		4.390E-01	7.156E-01	6.731E-02	-0.057
MN-52	-2.834E-01		3.737E-01	5.508E-01	4.755E-02	-0.515
MN-54	1.346E-04		3.722E-02	6.112E-02	5.440E-03	0.002
CO-56	3.045E-02		3.973E-02	6.989E-02	6.245E-03	0.436
CO-57	2.072E-02		2.735E-02	4.473E-02	3.938E-03	0.463
CO-58	-6.793E-03		4.167E-02	6.745E-02	5.967E-03	-0.101
FE-59	-1.195E-02		1.140E-01	1.818E-01	1.675E-02	-0.066
CO-60	3.602E-02		3.846E-02	7.110E-02	6.061E-03	0.507
ZN-65	-4.997E-02		1.085E-01	1.394E-01	1.176E-02	-0.359
GE-68	1.048E+00		1.262E+00	2.218E+00	1.910E-01	0.472
AS-73	4.321E-02		1.007E+00	1.642E+00	1.329E-01	0.026
AS-74	3.771E-02		9.649E-02	1.666E-01	1.404E-02	0.226
SE-75	-1.997E-02		4.877E-02	7.264E-02	6.673E-03	-0.275
BR-77	1.201E+01		2.594E+01	4.294E+01	3.643E+00	0.280
SR-82	1.526E-01		4.287E-01	7.285E-01	6.343E-02	0.210
RB-83	2.917E-02		7.422E-02	1.223E-01	1.037E-02	0.239
RB-84	-9.763E-02		7.618E-02	1.061E-01	9.569E-03	-0.921
KR-85	1.583E+01		8.826E+00	1.426E+01	1.209E+00	1.110
SR-85	8.368E-02		4.667E-02	7.541E-02	6.394E-03	1.110
RB-86	8.906E-01		8.696E-01	1.558E+00	1.342E-01	0.572
Y-88	-5.030E-03		2.927E-02	4.537E-02	3.731E-03	-0.111
ZR-88	-3.223E-02		3.452E-02	5.229E-02	4.210E-03	-0.616
Y-91	-4.009E+00		2.005E+01	3.298E+01	2.702E+00	-0.122
NB-94	7.448E-03		3.776E-02	6.353E-02	5.333E-03	0.117
NB-95	2.405E-02		4.786E-02	8.195E-02	7.101E-03	0.293
NB-95M	8.357E-02		1.419E-01	2.146E-01	2.201E-02	0.390
ZR-95	-9.338E-03		7.979E-02	1.305E-01	1.240E-02	-0.072
NB-97	4.557E-01		9.656E-01	Half-Life too short		
ZR-97	-7.171E-01		1.880E+01	Half-Life too short		

Sample ID : G245978012 Acquisition date : 14-FEB-2010 13:11:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	-1.907E+01		2.518E+01	3.850E+01	5.833E+00	-0.495
TC-99M	-2.155E+13		6.456E+13	Half-Life too short		
RH-101	-1.647E-02		3.465E-02	5.591E-02	4.920E-03	-0.295
RH-102	-1.660E-02		3.506E-02	4.637E-02	3.899E-03	-0.358
RU-103	2.593E-03		4.153E-02	6.681E-02	9.395E-03	0.039
RH-106	6.479E-02		3.117E-01	5.295E-01	6.983E-02	0.122
RU-106	6.479E-02		3.117E-01	5.295E-01	4.423E-02	0.122
AG-108M	-7.084E-03		3.360E-02	5.330E-02	4.597E-03	-0.133
AG-110M	1.148E-02		3.912E-02	5.860E-02	4.968E-03	0.196
IN-111	1.350E+00		2.408E+00	3.643E+00	3.317E-01	0.370
IN-113M	-1.036E-02		4.832E-02	7.721E-02	6.431E-03	-0.134
SN-113	-1.036E-02		4.832E-02	7.721E-02	6.431E-03	-0.134
IN-114M	-1.610E-01		2.202E-01	3.110E-01	2.716E-02	-0.518
CD-115	-2.505E-05		1.304E-05	Half-Life too short		
SN-117M	1.183E-03		6.434E-02	1.087E-01	9.256E-03	0.011
SB-122	2.060E+00		4.480E+00	7.766E+00	6.584E-01	0.265
I-123	1.027E+02		1.189E+02	Half-Life too short		
TE-123M	1.257E-02		2.910E-02	4.990E-02	4.275E-03	0.252
I-124	-9.555E-02		1.175E+00	1.695E+00	1.426E-01	-0.056
SB-124	-1.621E-02		7.744E-02	1.211E-01	1.074E-02	-0.134
SB-125	1.063E-02		9.689E-02	1.576E-01	1.326E-02	0.067
TE-125M	-1.654E+00		1.041E+01	1.646E+01	1.707E+00	-0.101
I-126	1.619E-01		2.571E-01	3.964E-01	3.257E-02	0.408
SB-126	-6.981E-02		2.049E-01	2.822E-01	2.392E-02	-0.247
SB-127	8.241E-01		2.305E+00	3.942E+00	4.757E-01	0.209
XE-127	4.747E-03		5.028E-02	8.442E-02	7.464E-03	0.056
I-131	-1.527E-01		1.508E-01	2.269E-01	2.038E-02	-0.673
TE-132	5.923E-01		1.396E+00	2.359E+00	3.894E-01	0.251
BA-133	-1.744E-02		5.069E-02	6.996E-02	9.227E-03	-0.249
I-133	3.653E-03		3.060E-02	Half-Life too short		
CS-134	9.032E-02		5.271E-02	9.619E-02	8.501E-03	0.939
CS-135	6.490E-02		1.752E-01	2.608E-01	2.720E-02	0.249
I-135	2.841E+12		4.115E+12	Half-Life too short		
CS-136	-6.998E-02		1.352E-01	2.059E-01	1.873E-02	-0.340
BA-137M	4.539E-02		4.334E-02	6.940E-02	5.685E-03	0.654
CS-137	4.798E-02		4.582E-02	7.336E-02	6.022E-03	0.654
CE-139	-1.076E-03		3.128E-02	5.267E-02	4.485E-03	-0.020
BA-140	1.149E-01		2.830E-01	4.874E-01	1.614E-01	0.236
LA-140	-5.089E-03		1.147E-01	1.871E-01	1.615E-02	-0.027
CE-141	3.006E-02		6.780E-02	1.165E-01	1.014E-02	0.258
CE-143	1.662E-03		4.078E-04	Half-Life too short		
CE-144	-9.393E-02		2.314E-01	3.586E-01	5.582E-02	-0.262
PM-144	2.987E-02		3.655E-02	6.429E-02	5.381E-03	0.465
PR-144	2.027E+00		2.480E+00	4.363E+00	3.650E-01	0.465
PM-146	4.460E-02		4.713E-02	8.060E-02	8.466E-03	0.553
ND-147	4.074E-01		6.534E-01	1.147E+00	1.706E-01	0.355
PM-149	2.934E-04		1.257E-04	Half-Life too short		
EU-152	-2.034E-02		1.141E-01	1.605E-01	1.484E-02	-0.127

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-1.520E-02		9.657E-02	1.351E-01	1.200E-02	-0.113
EU-154	-1.368E-01		1.194E-01	1.705E-01	1.899E-02	-0.802
EU-155	8.140E-03		1.159E-01	1.854E-01	1.630E-02	0.044
TB-160	1.016E-01		1.491E-01	2.597E-01	2.342E-02	0.391
HO-166M	1.557E-02		6.127E-02	1.037E-01	8.750E-03	0.150
TM-171	-2.111E+01		3.444E+01	4.812E+01	3.790E+00	-0.439
LU-176	8.252E-03		2.835E-02	4.393E-02	3.976E-03	0.188
LU-177	1.405E+00		1.811E+00	2.766E+00	2.458E-01	0.508
LU-177M	9.045E-02		2.203E-01	3.228E-01	2.638E-02	0.280
HF-181	1.872E-02		4.830E-02	7.968E-02	6.714E-03	0.235
W-181	1.936E-01		4.641E-01	6.830E-01	5.332E-02	0.284
TA-182	8.801E-02		2.035E-01	3.535E-01	2.913E-02	0.249
RE-183	-5.295E-02		1.155E-01	1.913E-01	1.629E-02	-0.277
RE-184	-5.347E-03		2.391E-01	3.956E-01	3.611E-02	-0.014
OS-185	4.339E-03		4.243E-02	7.134E-02	5.894E-03	0.061
RE-188	1.378E-01		1.770E-01	3.070E-01	2.614E-02	0.449
W-188	-5.364E+00		9.498E+00	1.314E+01	1.198E+00	-0.408
IR-192	6.481E-03		3.744E-02	6.199E-02	5.585E-03	0.105
AU-195	2.301E-01		2.575E-01	4.024E-01	3.553E-02	0.572
TL-200	3.018E-03		1.437E-03	Half-Life too short		
TL-201	3.983E+00		1.412E+01	2.404E+01	2.049E+00	0.166
TL-202	7.653E-02		8.801E-02	1.502E-01	1.245E-02	0.510
HG-203	6.629E-02		4.365E-02	7.680E-02	7.201E-03	0.863
BI-207	2.822E-02		5.714E-02	9.689E-02	8.399E-03	0.291
TL-207	8.022E-02		7.752E-01	1.121E+00	2.003E-01	0.072
PO-209	-6.128E-01		8.026E+00	1.301E+01	1.179E+00	-0.047
BI-210	9.733E-01		4.488E+00	7.265E+00	6.858E-01	0.134
PB-210	9.733E-01		4.488E+00	7.265E+00	6.858E-01	0.134
PO-210	9.733E-01		4.487E+00	7.265E+00	6.228E-01	0.134
PB-211	-6.390E-01		1.236E+00	1.570E+00	9.827E-01	-0.407
BI-212	1.397E+00	+	4.892E-01	7.043E-01	6.979E-02	1.983
PO-215	8.022E-02		7.752E-01	1.121E+00	2.003E-01	0.072
RN-219	2.535E-01		4.476E-01	7.489E-01	1.104E-01	0.338
RN-220	7.897E+00		2.760E+01	4.734E+01	4.019E+00	0.167
RA-223	8.022E-02		7.752E-01	1.121E+00	2.003E-01	0.072
AC-227	-4.374E-01		3.904E-01	5.982E-01	9.358E-02	-0.731
TH-227	-4.374E-01		3.926E-01	5.982E-01	1.096E-01	-0.731
TH-229	1.362E-01		5.093E-01	8.625E-01	7.556E-02	0.158
PA-231	-1.227E+00		1.639E+00	2.575E+00	3.987E-01	-0.477
TH-231	8.022E-02		7.752E-01	1.121E+00	2.003E-01	0.072
U-231	1.931E-01		2.121E+00	3.033E+00	2.713E-01	0.064
PA-233	-3.885E-02		6.385E-02	1.006E-01	9.313E-03	-0.386
PA-234	-4.749E-02		2.915E-01	4.655E-01	8.818E-02	-0.102
PA-234M	1.593E+01	+	7.836E+00	1.077E+01	1.098E+00	1.480
U-235	1.041E-01		2.223E-01	3.768E-01	6.583E-02	0.276
NP-236	5.885E-03		8.057E-02	1.364E-01	1.161E-02	0.043
NP-239	-2.530E-02		2.024E-01	3.198E-01	2.785E-02	-0.079
AM-241	-5.905E-02		1.953E-01	2.784E-01	2.294E-02	-0.212

Sample ID : G245978012 Acquisition date : 14-FEB-2010 13:11:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	6.388E-02		1.019E-01	1.666E-01	1.452E-02	0.383
AM-246	-5.931E-02		1.476E-01	2.271E-01	1.954E-02	-0.261
CM-247	6.153E-03		4.209E-02	6.646E-02	5.390E-03	0.093
CF-249	3.018E-02		4.167E-02	7.071E-02	5.736E-03	0.427
CF-251	7.080E-02		1.355E-01	2.320E-01	1.997E-02	0.305

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978012            *
* Acquisition date : 14-FEB-2010 13:11:08 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.22     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978012           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.4278E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 12-JAN-2010 15:15:52 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.329E+01	2.577E+00	2.252E-01	1.315E+00
CD-109	2.242E+00	1.254E+00	9.135E-01	6.396E-01
SN-126	2.194E-01	1.227E-01	8.396E-02	6.259E-02
TL-208	5.009E-01	9.098E-02	3.040E-02	4.642E-02
BI-211	3.974E+00	5.821E-01	1.763E-01	2.970E-01
PB-212	1.568E+00	1.904E-01	4.775E-02	9.712E-02
PO-212	1.568E+00	1.904E-01	4.775E-02	9.712E-02
BI-214	1.084E+00	1.999E-01	5.692E-02	1.020E-01
PB-214	1.382E+00	2.145E-01	6.188E-02	1.094E-01
PO-214	1.382E+00	2.145E-01	6.188E-02	1.094E-01
PO-216	1.568E+00	1.904E-01	4.775E-02	9.712E-02
PO-218	1.382E+00	2.145E-01	6.188E-02	1.094E-01
RA-224	4.061E+00	1.357E+00	5.434E-01	6.926E-01
RA-226	1.084E+00	1.999E-01	5.692E-02	1.020E-01
AC-228	1.503E+00	3.148E-01	9.182E-02	1.606E-01
RA-228	1.503E+00	3.148E-01	9.182E-02	1.606E-01
TH-228	1.596E+00	1.938E-01	4.861E-02	9.888E-02
TH-230	1.084E+00	1.999E-01	5.692E-02	1.020E-01
TH-232	1.503E+00	3.148E-01	9.182E-02	1.606E-01
TH-234	6.535E+00	2.893E+00	1.190E+00	1.476E+00
U-234	1.084E+00	1.999E-01	5.692E-02	1.020E-01
NP-237	6.442E-01	3.831E-01	2.354E-01	1.955E-01
U-238	6.535E+00	2.893E+00	1.190E+00	1.476E+00
AM-243	3.951E-01	9.117E-02	5.136E-02	4.652E-02
ANH-511	1.173E-01	7.034E-02	2.391E-02	3.589E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	9.173E-02	3.513E-01	3.019E-01	1.793E-01 NOT IDENT.
NA-22	-5.628E-02	4.262E-02	3.079E-02	2.174E-02 NOT IDENT.

NA-24	-1.339E+07	1.754E+07	0.000E+00	8.947E+06	SHORT HLIF
AL-26	-6.609E-03	3.210E-02	2.553E-02	1.638E-02	NOT IDENT.
TI-44	3.330E-01	5.953E-02	4.248E-02	3.037E-02	FAIL ABUN
SC-46	5.239E-03	4.213E-02	3.614E-02	2.150E-02	FAIL ABUN
V-48	-4.186E-02	8.496E-02	6.764E-02	4.335E-02	NOT IDENT.
CR-51	-4.078E-02	4.303E-01	3.718E-01	2.195E-01	NOT IDENT.
MN-52	-2.834E-01	3.663E-01	2.769E-01	1.869E-01	NOT IDENT.
MN-54	1.346E-04	3.648E-02	3.110E-02	1.861E-02	NOT IDENT.
CO-56	3.045E-02	3.893E-02	3.556E-02	1.986E-02	NOT IDENT.
CO-57	2.072E-02	2.681E-02	2.371E-02	1.368E-02	NOT IDENT.
CO-58	-6.793E-03	4.084E-02	3.435E-02	2.083E-02	NOT IDENT.
FE-59	-1.195E-02	1.117E-01	9.194E-02	5.699E-02	NOT IDENT.
CO-60	3.602E-02	3.769E-02	3.581E-02	1.923E-02	NOT IDENT.
ZN-65	-4.997E-02	1.063E-01	7.047E-02	5.423E-02	NOT IDENT.
GE-68	1.048E+00	1.237E+00	1.122E+00	6.311E-01	NOT IDENT.
AS-73	4.321E-02	9.864E-01	8.848E-01	5.033E-01	NOT IDENT.
AS-74	3.771E-02	9.456E-02	8.540E-02	4.825E-02	NOT IDENT.
SE-75	-1.997E-02	4.779E-02	3.789E-02	2.438E-02	NOT IDENT.
BR-77	1.201E+01	2.542E+01	2.208E+01	1.297E+01	FAIL ABUN
SR-82	1.526E-01	4.201E-01	3.714E-01	2.143E-01	NOT IDENT.
RB-83	2.917E-02	7.274E-02	6.286E-02	3.711E-02	NOT IDENT.
RB-84	-9.763E-02	7.466E-02	5.391E-02	3.809E-02	NOT IDENT.
KR-85	1.583E+01	8.650E+00	7.335E+00	4.413E+00	NOT IDENT.
SR-85	8.368E-02	4.574E-02	3.879E-02	2.334E-02	NOT IDENT.
RB-86	8.906E-01	8.522E-01	7.883E-01	4.348E-01	NOT IDENT.
Y-88	-5.030E-03	2.868E-02	2.268E-02	1.463E-02	NOT IDENT.
ZR-88	-3.223E-02	3.383E-02	2.705E-02	1.726E-02	NOT IDENT.
Y-91	-4.009E+00	1.965E+01	1.665E+01	1.002E+01	NOT IDENT.
NB-94	7.448E-03	3.700E-02	3.245E-02	1.888E-02	NOT IDENT.
NB-95	2.405E-02	4.690E-02	4.179E-02	2.393E-02	NOT IDENT.
NB-95M	8.357E-02	1.391E-01	1.122E-01	7.096E-02	NOT IDENT.
ZR-95	-9.338E-03	7.819E-02	6.655E-02	3.989E-02	NOT IDENT.
NB-97	4.557E+05	1.893E+06	0.000E+00	9.656E+05	SHORT HLIF
ZR-97	-7.171E+05	3.684E+07	0.000E+00	1.880E+07	SHORT HLIF
MO-99	-1.907E+01	2.467E+01	1.965E+01	1.259E+01	NOT IDENT.
TC-99M	-2.155E+19	1.265E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.647E-02	3.396E-02	2.934E-02	1.732E-02	NOT IDENT.
RH-102	-1.660E-02	3.435E-02	2.389E-02	1.753E-02	FAIL ABUN
RU-103	2.593E-03	4.070E-02	3.439E-02	2.076E-02	FAIL ABUN
RH-106	6.479E-02	3.055E-01	2.712E-01	1.559E-01	FAIL ABUN
RU-106	6.479E-02	3.054E-01	2.712E-01	1.558E-01	FAIL ABUN
AG-108M	-7.084E-03	3.293E-02	2.752E-02	1.680E-02	NOT IDENT.
AG-110M	1.148E-02	3.834E-02	2.998E-02	1.956E-02	NOT IDENT.
IN-111	1.350E+00	2.360E+00	1.904E+00	1.204E+00	NOT IDENT.
IN-113M	-1.036E-02	4.735E-02	3.994E-02	2.416E-02	NOT IDENT.
SN-113	-1.036E-02	4.735E-02	3.994E-02	2.416E-02	NOT IDENT.
IN-114M	-1.610E-01	2.158E-01	1.634E-01	1.101E-01	NOT IDENT.
CD-115	-2.505E+01	2.556E+01	0.000E+00	1.304E+01	SHORT HLIF
SN-117M	1.183E-03	6.305E-02	5.732E-02	3.217E-02	NOT IDENT.
SB-122	2.060E+00	4.391E+00	3.986E+00	2.240E+00	NOT IDENT.
I-123	1.027E+08	2.331E+08	0.000E+00	1.189E+08	SHORT HLIF
TE-123M	1.257E-02	2.852E-02	2.631E-02	1.455E-02	NOT IDENT.
I-124	-9.555E-02	1.152E+00	8.690E-01	5.876E-01	NOT IDENT.
SB-124	-1.621E-02	7.589E-02	6.067E-02	3.872E-02	FAIL ABUN
SB-125	1.063E-02	9.495E-02	8.138E-02	4.845E-02	FAIL ABUN
TE-125M	-1.654E+00	1.020E+01	8.743E+00	5.203E+00	NOT IDENT.
I-126	1.619E-01	2.520E-01	2.028E-01	1.286E-01	NOT IDENT.
SB-126	-6.981E-02	2.008E-01	1.441E-01	1.025E-01	FAIL ABUN
SB-127	8.241E-01	2.259E+00	2.015E+00	1.153E+00	FAIL ABUN
XE-127	4.747E-03	4.928E-02	4.428E-02	2.514E-02	NOT IDENT.
I-131	-1.527E-01	1.478E-01	1.175E-01	7.539E-02	NOT IDENT.
TE-132	5.923E-01	1.368E+00	1.234E+00	6.979E-01	NOT IDENT.
BA-133	-1.744E-02	4.968E-02	3.627E-02	2.535E-02	NOT IDENT.
I-133	3.653E+03	5.998E+04	0.000E+00	3.060E+04	SHORT HLIF
CS-134	9.032E-02	5.166E-02	4.901E-02	2.636E-02	NOT IDENT.
CS-135	6.490E-02	1.717E-01	1.360E-01	8.759E-02	NOT IDENT.
I-135	2.841E+18	8.066E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.998E-02	1.325E-01	1.043E-01	6.761E-02	FAIL ABUN
BA-137M	4.539E-02	4.248E-02	3.550E-02	2.167E-02	NOT IDENT.
CS-137	4.798E-02	4.490E-02	3.753E-02	2.291E-02	NOT IDENT.
CE-139	-1.076E-03	3.066E-02	2.774E-02	1.564E-02	NOT IDENT.
BA-140	1.149E-01	2.773E-01	2.504E-01	1.415E-01	NOT IDENT.
LA-140	-5.089E-03	1.124E-01	9.387E-02	5.733E-02	FAIL ABUN
CE-141	3.006E-02	6.644E-02	6.156E-02	3.390E-02	NOT IDENT.
CE-143	1.662E+03	7.993E+02	0.000E+00	4.078E+02	SHORT HLIF
CE-144	-9.393E-02	2.268E-01	1.897E-01	1.157E-01	NOT IDENT.
PM-144	2.987E-02	3.581E-02	3.285E-02	1.827E-02	NOT IDENT.
PR-144	2.027E+00	2.431E+00	2.229E+00	1.240E+00	NOT IDENT.

PM-146	4.460E-02	4.619E-02	4.156E-02	2.357E-02	NOT IDENT.
ND-147	4.074E-01	6.403E-01	5.896E-01	3.267E-01	NOT IDENT.
PM-149	2.934E+02	2.463E+02	0.000E+00	1.257E+02	SHORT HLIF
EU-152	-2.034E-02	1.118E-01	8.325E-02	5.704E-02	FAIL ABUN
GD-153	-1.520E-02	9.464E-02	7.196E-02	4.829E-02	NOT IDENT.
EU-154	-1.368E-01	1.170E-01	8.597E-02	5.972E-02	NOT IDENT.
EU-155	8.140E-03	1.136E-01	9.854E-02	5.795E-02	FAIL ABUN
TB-160	1.016E-01	1.461E-01	1.320E-01	7.455E-02	FAIL ABUN
HO-166M	1.557E-02	6.005E-02	5.297E-02	3.064E-02	FAIL ABUN
TM-171	-2.111E+01	3.376E+01	2.582E+01	1.722E+01	NOT IDENT.
LU-176	8.252E-03	2.779E-02	2.285E-02	1.418E-02	FAIL ABUN
LU-177	1.405E+00	1.775E+00	1.450E+00	9.057E-01	NOT IDENT.
LU-177M	9.045E-02	2.159E-01	1.668E-01	1.101E-01	NOT IDENT.
HF-181	1.872E-02	4.734E-02	4.104E-02	2.415E-02	NOT IDENT.
W-181	1.936E-01	4.548E-01	3.666E-01	2.321E-01	NOT IDENT.
TA-182	8.801E-02	1.994E-01	1.784E-01	1.018E-01	FAIL ABUN
RE-183	-5.295E-02	1.132E-01	1.008E-01	5.775E-02	FAIL ABUN
RE-184	-5.347E-03	2.343E-01	2.066E-01	1.195E-01	NOT IDENT.
OS-185	4.339E-03	4.158E-02	3.651E-02	2.121E-02	NOT IDENT.
RE-188	1.378E-01	1.734E-01	1.619E-01	8.848E-02	NOT IDENT.
W-188	-5.364E+00	9.308E+00	6.840E+00	4.749E+00	FAIL ABUN
IR-192	6.481E-03	3.669E-02	3.221E-02	1.872E-02	FAIL ABUN
AU-195	2.301E-01	2.524E-01	2.142E-01	1.288E-01	FAIL ABUN
TL-200	3.018E+03	2.816E+03	0.000E+00	1.437E+03	SHORT HLIF
TL-201	3.983E+00	1.384E+01	1.266E+01	7.059E+00	NOT IDENT.
TL-202	7.653E-02	8.625E-02	7.750E-02	4.401E-02	NOT IDENT.
HG-203	6.629E-02	4.278E-02	4.002E-02	2.183E-02	FAIL ABUN
BI-207	2.822E-02	5.600E-02	4.904E-02	2.857E-02	FAIL ABUN
TL-207	8.022E-02	7.597E-01	5.825E-01	3.876E-01	FAIL ABUN
PO-209	-6.128E-01	7.866E+00	6.613E+00	4.013E+00	NOT IDENT.
BI-210	9.733E-01	4.398E+00	3.926E+00	2.244E+00	NOT IDENT.
PB-210	9.733E-01	4.398E+00	3.926E+00	2.244E+00	NOT IDENT.
PO-210	9.733E-01	4.398E+00	3.926E+00	2.244E+00	NOT IDENT.
PB-211	-6.390E-01	1.211E+00	8.116E-01	6.181E-01	NOT IDENT.
BI-212	1.397E+00	4.795E-01	3.595E-01	2.446E-01	FAIL ABUN
PO-215	8.022E-02	7.597E-01	5.825E-01	3.876E-01	FAIL ABUN
RN-219	2.535E-01	4.386E-01	3.872E-01	2.238E-01	FAIL ABUN
RN-220	7.897E+00	2.705E+01	2.431E+01	1.380E+01	NOT IDENT.
RA-223	8.022E-02	7.597E-01	5.825E-01	3.876E-01	FAIL ABUN
AC-227	-4.374E-01	3.826E-01	3.123E-01	1.952E-01	FAIL ABUN
TH-227	-4.374E-01	3.848E-01	3.123E-01	1.963E-01	FAIL ABUN
TH-229	1.362E-01	4.991E-01	4.529E-01	2.546E-01	FAIL ABUN
PA-231	-1.227E+00	1.606E+00	1.341E+00	8.196E-01	FAIL ABUN
TH-231	8.022E-02	7.597E-01	5.825E-01	3.876E-01	FAIL ABUN
U-231	1.931E-01	2.078E+00	1.615E+00	1.060E+00	FAIL ABUN
PA-233	-3.885E-02	6.257E-02	5.231E-02	3.192E-02	FAIL ABUN
PA-234	-4.749E-02	2.856E-01	2.363E-01	1.457E-01	FAIL ABUN
PA-234M	1.593E+01	7.679E+00	5.458E+00	3.918E+00	FAIL ABUN
U-235	1.041E-01	2.178E-01	1.991E-01	1.111E-01	FAIL ABUN
NP-236	5.885E-03	7.896E-02	7.187E-02	4.028E-02	NOT IDENT.
NP-239	-2.530E-02	1.984E-01	1.696E-01	1.012E-01	FAIL ABUN
AM-241	-5.905E-02	1.914E-01	1.497E-01	9.764E-02	NOT IDENT.
CM-243	6.388E-02	9.984E-02	8.861E-02	5.094E-02	FAIL ABUN
AM-246	-5.931E-02	1.447E-01	1.149E-01	7.381E-02	NOT IDENT.
CM-247	6.153E-03	4.125E-02	3.436E-02	2.105E-02	NOT IDENT.
CF-249	3.018E-02	4.083E-02	3.659E-02	2.083E-02	NOT IDENT.
CF-251	7.080E-02	1.327E-01	1.220E-01	6.773E-02	NOT IDENT.

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*                              GEL Laboratories LLC                         *
*                                 2040 SAVAGE ROAD                          *
*                              CHARLESTON ,SC 29417                         *
*                        GAMMA SPECTROSCOPY BACKGROUND REPORT               *
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ENERGY	MDA COUNTS
46.50	283.5450
46.50	283.5450
46.50	283.5450
48.70	306.4493
49.72	311.2125
51.35	291.5605
52.39	295.2718
52.97	295.6095
53.15	295.7132
53.44	307.3013
54.07	321.1906
56.28	335.0771
56.28	335.0787
57.37	0.0000
57.53	301.3385
57.53	301.3396
57.60	301.3777
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57.98	298.4492
59.32	338.5555
59.32	338.5555
59.40	338.6047
59.54	365.4719
59.72	365.5922
60.01	368.9385
61.10	345.9703
61.14	345.9949
61.30	346.0948
63.00	365.6368
63.29	365.8238
63.29	365.8238
63.58	366.0108
64.28	366.4596
65.12	394.5722
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65.20	394.6270
66.05	388.8303
66.72	406.8245
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66.91	438.8750
67.20	439.0911
67.20	439.0911
67.75	477.8566
67.85	447.5681
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68.90	371.4970
69.30	373.3472
69.67	373.5782
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70.82	382.3195
70.83	382.3249
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72.87	489.9736
72.87	489.9736
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74.81	459.1642
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77.11	460.8283

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77.11	460.8283
77.11	460.8283
77.11	460.8283
77.11	460.8283
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80.30	492.4481
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81.07	533.8374
81.07	533.8374
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83.78	475.3564
83.78	475.3564
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86.50	546.3770
86.54	546.4074
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86.72	579.4766
86.79	579.5330
86.94	579.6592
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87.30	615.5513
87.30	615.5513
87.30	615.5513
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87.30	615.5513
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87.88	705.7697
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88.36	610.5486
88.47	610.6445
89.95	707.8595
91.11	609.6235
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92.38	484.5829
92.38	484.5829
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94.00	485.6701
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94.67	331.2927
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94.90	319.7402
94.90	319.7402
94.90	319.7402
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98.44	302.8690
98.44	302.8704
98.88	312.0897
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99.55	313.9325
99.86	335.2966
100.00	335.3592
100.10	327.5789
103.18	367.0684
103.76	306.6834
105.00	304.9232
105.31	336.5620
108.00	351.2702
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111.00	340.1199
111.76	360.8652
112.95	328.4368
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116.30	314.9431
117.00	315.2070
117.00	315.2070
117.66	328.0294
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121.62	310.0465
121.78	288.2827
122.06	288.3765
122.32	275.8228
122.32	275.8228
122.32	275.8228
122.32	275.8228
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127.23	331.7072
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131.20	344.8021
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135.34	307.8926
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136.25	312.5752
136.48	312.6528
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140.51	0.0000
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144.24	306.4207
144.24	306.4207
144.24	306.4207
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145.44	313.8778
147.16	325.0674
152.43	300.1072
152.70	286.8279
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154.21	255.1486
154.21	255.1486
154.21	255.1486
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162.64	313.0492
163.35	306.0628
163.89	290.9100
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167.43	293.7056
171.28	311.1002
171.86	294.0255
172.10	294.0922
176.55	294.3945
176.60	294.4068
181.06	285.5374
184.41	248.2105
185.71	262.8336
186.00	262.9013
190.27	293.7849
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193.63	253.5554
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198.01	274.0147
198.60	258.3535
200.40	264.3324
201.83	287.9453
202.84	260.2108
205.31	269.1584

208.36	295.3196
208.81	295.4303
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209.75	286.6516
210.97	259.8970
215.65	233.7374
216.55	253.7144
218.09	243.6387
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223.80	261.8138
226.40	246.1856
227.00	248.2021
227.08	241.5608
227.20	241.5841
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228.18	245.5736
228.18	245.5736
231.56	0.0000
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236.00	252.7912
236.00	252.7912
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238.63	210.1162
238.63	210.1162
238.63	210.1162
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241.98	210.6425
241.98	210.6425
241.98	210.6425
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247.94	179.3030
248.90	188.7083
249.79	189.6043
252.40	184.1480
252.85	187.1160
252.85	187.1160
254.15	0.0000
256.20	205.0598
256.20	205.0598
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260.90	0.0000
262.80	176.7274
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268.24	169.3617
268.79	169.4276
269.46	153.8117
269.46	153.8117
269.46	153.8117
269.46	153.8117
271.23	170.8910
273.65	228.2334
276.40	178.1957
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277.60	176.5664
278.00	164.7729
278.60	147.0743
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279.53	165.9313
280.46	202.6039
281.68	207.7153
283.67	194.1248
284.30	189.2513
285.00	173.4779
285.90	0.0000
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286.10	158.7256
287.40	180.7031
288.45	0.0000
290.67	205.3701
290.80	205.3890
291.72	186.3945
293.26	0.0000
293.70	185.0421
295.21	175.6428
295.21	175.6428

295.21	175.6428
295.96	175.7261
296.50	175.7878
297.23	175.8711
298.57	176.0242
299.80	176.1611
299.80	176.1611
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300.09	176.1960
300.09	176.1960
300.09	176.1960
300.12	176.1987
301.29	176.3303
302.84	158.8544
303.76	173.3959
303.91	173.4144
304.40	173.4671
304.40	173.4671
304.84	154.2352
306.84	155.5045
308.46	151.9723
311.98	147.2632
316.51	148.6913
318.01	140.7286
319.02	162.0898
319.41	161.1156
320.08	165.2360
323.87	146.3137
323.87	146.3137
323.87	146.3137
323.87	146.3137
325.23	149.6887
328.77	150.0076
333.44	151.2452
334.20	155.4048
334.20	155.4048
334.30	155.4141
338.28	155.7805
338.28	155.7805
338.28	155.7805
338.28	155.7805
338.32	155.7828
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338.32	155.7828
340.50	119.8601
340.57	119.8654
344.27	136.5812
345.85	149.4128
350.59	0.0000
351.07	135.4662
351.92	137.3917
351.92	137.3917
351.92	137.3917
355.39	0.0000
356.01	132.5352
364.48	130.0488
366.43	99.9873
367.43	103.1693
367.94	0.0000
369.80	127.3055
374.96	103.5983
383.85	128.2865
387.95	107.4910
388.63	93.8264
391.69	125.6567
391.69	125.6567
392.90	142.6444
398.62	140.9553
400.65	110.3381
401.10	110.3651
401.81	115.7127
402.60	126.2295
404.84	136.0977
410.95	125.8611
411.60	125.9044
413.65	114.5003
414.70	85.4944
415.30	92.3616

415.76	100.9381
417.63	0.0000
418.52	119.9246
423.70	119.1655
427.08	104.3117
427.89	103.2788
432.53	93.8128
433.93	100.3508
439.47	93.0521
439.56	93.0560
439.89	91.9882
443.98	108.4381
444.90	92.2139
445.03	92.2191
445.03	92.2191
445.03	92.2191
445.03	92.2191
453.90	89.3459
463.38	76.6148
468.07	76.7836
473.00	94.9918
475.06	96.8435
475.35	89.8115
476.78	110.1364
477.59	92.5492
477.96	87.0548
482.03	90.5296
484.57	96.1625
487.03	81.8849
490.36	0.0000
492.35	0.0000
497.08	73.3648
507.63	0.0000
510.53	0.0000
510.84	82.7616
511.00	82.7673
511.85	82.7978
511.85	82.7978
513.99	82.4271
513.99	82.4271
520.41	77.4923
520.65	77.5008
527.90	0.0000
528.96	0.0000
529.64	76.6743
529.87	0.0000
531.02	67.6923
537.32	64.2553
543.00	70.7599
546.56	0.0000
549.76	84.6059
552.65	90.1731
555.20	77.5023
563.23	84.1634
563.90	78.6955
568.70	97.1856
569.32	87.1235
569.50	87.1305
569.67	87.1351
573.80	83.6063
574.00	97.3953
574.64	100.1783
578.91	88.9966
579.30	0.0000
583.14	76.5420
585.48	86.1533
591.81	69.4043
592.07	71.2626
593.00	76.8419
595.88	63.0262
600.56	78.9280
602.52	0.0000
602.71	74.3477
602.71	74.3477
603.60	68.1753
604.41	68.1968
604.70	62.0052
609.31	75.4708

609.31	75.4708
609.31	75.4708
609.31	75.4708
610.33	75.5005
612.46	62.1908
614.37	77.7954
618.01	72.9193
621.84	64.5991
621.84	64.5991
631.29	77.0452
633.02	60.1719
633.10	61.1136
634.78	64.9149
635.90	53.6490
636.97	60.2609
645.85	57.6268
646.12	62.3568
656.30	71.8029
657.75	61.6738
657.90	0.0000
661.65	66.5137
661.65	66.5137
664.57	0.0000
666.33	71.3855
666.33	71.3855
675.00	73.5185
677.61	64.0295
685.20	60.3699
692.80	65.3354
695.00	81.7336
696.49	66.3822
696.49	66.3822
697.00	70.2429
697.49	74.1050
698.33	82.7918
698.50	79.9078
699.00	89.5511
702.63	84.8439
706.10	86.8755
706.58	0.0000
706.67	89.7895
709.31	49.2842
711.68	62.8656
713.82	78.3976
717.42	52.3296
720.50	74.3738
721.93	0.0000
722.20	64.7103
722.78	61.4871
722.78	61.4871
722.89	61.4887
722.95	61.4902
723.30	64.7347
724.18	64.7542
727.18	55.4205
733.00	53.5820
735.90	54.6096
739.58	71.2748
742.81	52.7805
744.21	64.5401
747.13	75.3701
751.79	76.4670
752.31	75.4999
753.82	64.7464
755.35	67.7231
756.15	71.6669
756.87	66.7748
763.93	65.6169
765.79	73.8647
766.42	73.8794
766.84	73.8885
776.49	58.3086
778.00	52.4048
778.57	57.3585
778.89	65.2765
783.80	69.3420
785.46	51.5392
792.07	90.3824

795.84	49.7205
796.30	49.7278
798.80	92.5663
801.93	58.7839
805.60	49.8743
810.29	55.9412
810.76	57.9476
815.85	56.0383
817.79	45.0571
818.51	41.0621
819.60	48.0879
826.30	49.1914
828.27	0.0000
831.60	55.3055
831.96	51.2889
834.83	56.3664
836.80	0.0000
846.75	41.4184
848.13	55.5841
856.28	0.0000
856.80	59.1067
860.37	47.6747
867.32	50.8228
867.82	47.4414
871.10	51.8965
873.19	45.8196
874.81	53.9912
875.33	0.0000
876.40	50.9595
879.36	43.8629
880.27	44.8948
880.51	48.9797
881.50	61.2422
883.24	42.8921
884.67	53.1261
889.25	52.1741
896.60	55.3619
898.02	53.3330
899.00	52.3223
903.28	42.2292
911.07	35.0027
911.07	35.0027
911.07	35.0027
919.63	36.6936
920.93	44.3920
925.00	51.6785
925.24	51.6821
926.50	36.1903
935.52	30.0627
937.48	54.9720
944.10	45.7220
946.00	43.6663
949.00	41.6221
962.29	53.9586
964.01	40.0525
966.15	67.9548
968.20	67.9929
969.11	68.0104
969.11	68.0104
969.11	68.0104
977.42	38.9510
980.50	41.9824
983.50	54.6216
989.30	44.1861
996.32	38.6477
1001.03	43.2692
1001.68	43.2772
1004.76	42.2559
1021.30	0.0000
1024.50	0.0000
1034.80	47.9136
1036.00	47.9290
1037.82	49.0165
1038.57	55.4227
1038.76	0.0000
1045.16	56.5842
1046.59	61.9450
1048.07	53.4204

1050.47	38.4873
1050.47	38.4873
1062.04	43.9609
1063.62	45.0516
1076.63	31.2104
1077.35	34.4453
1078.86	48.4563
1085.78	36.6745
1099.22	61.6897
1112.02	45.8404
1112.84	46.5402
1115.52	54.3311
1120.29	40.2520
1120.29	40.2520
1120.29	40.2520
1120.29	40.2520
1120.51	40.2556
1121.28	45.3410
1124.00	0.0000
1129.67	52.3383
1131.51	0.0000
1147.95	0.0000
1167.94	47.6857
1173.22	49.5813
1175.09	45.9290
1177.93	54.2322
1189.05	39.6284
1204.90	57.3480
1205.75	0.0000
1213.00	58.3832
1221.42	51.0657
1230.97	51.1776
1235.34	59.6120
1236.41	0.0000
1238.25	63.3792
1246.25	55.0892
1260.41	0.0000
1271.85	30.0495
1274.45	46.9808
1274.54	49.7996
1291.56	39.6125
1298.22	0.0000
1312.09	26.5257
1325.50	36.1028
1325.50	36.1028
1332.49	20.9329
1333.61	20.9383
1360.21	24.8849
1362.66	0.0000
1365.15	21.0780
1368.21	28.7610
1368.53	0.0000
1376.25	18.1090
1384.27	23.0859
1394.10	28.9160
1395.20	35.6706
1407.95	18.3653
1434.06	32.0681
1436.60	24.3062
1457.56	0.0000
1460.81	13.6770
1489.15	17.6836
1509.49	13.8080
1596.49	24.0635
1620.62	10.0712
1678.03	0.0000
1691.02	13.2592
1691.02	13.2592
1706.46	0.0000
1750.46	0.0000
1764.49	8.2640
1764.49	8.2640
1764.49	8.2640
1764.49	8.2640
1770.23	5.3178
1771.40	5.3188
1791.20	0.0000
1808.65	13.5300

1836.01	8.3639

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978012

Total Uranium Activity	1.9489E+01	ug/g
Total Uranium Counting Unc.	8.6071E+00	ug/g
Total Uranium Tpu	4.3914E-06	ug/g
Total Uranium Mda	3.5422E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID   : G245978012      *
*   ANALYST       : MXR1                      DETECTOR    : GAM01           *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 13:11:08.36    SAMPLE ALQT:  142.780 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.150E+00
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.448E+00
        GROSS GAMMA MDA     (pCi/GRAM  )  : 3.898E+00
        GROSS GAMMA DLC     (pCi/GRAM  )  : 1.890E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:13:27.42

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978013.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:11:39
Sample ID         : G245978013           Sample quantity  : 1.34680E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.09*	167	498	1.23	126.19	122	9	2.31E-02	25.8	
2	2	74.54	379	492	1.13	149.09	143	16	5.27E-02	11.0	2.05E+00
3	2	76.86*	572	463	1.20	153.72	143	16	7.95E-02	7.8	
4	1	84.10	149	385	1.40	168.20	164	29	2.07E-02	24.2	2.26E+00
5	1	86.98	288	381	1.41	173.96	164	29	4.00E-02	13.3	
6	1	89.54	207	376	1.41	179.08	164	29	2.87E-02	18.5	
7	1	92.48*	489	416	1.42	184.96	164	29	6.79E-02	9.2	
8	0	128.87	143	357	1.44	257.73	253	9	1.99E-02	25.3	
9	0	185.61*	230	254	1.25	371.22	367	9	3.20E-02	14.8	
10	0	208.78	130	320	1.07	417.56	413	10	1.80E-02	27.2	
11	2	238.44*	1213	172	1.19	476.88	471	18	1.69E-01	3.5	2.07E+00
12	2	241.24	232	245	1.77	482.49	471	18	3.23E-02	19.5	
13	0	269.86	109	213	1.84	539.72	535	10	1.52E-02	26.7	
14	0	295.04*	331	204	1.25	590.09	586	10	4.59E-02	10.0	
15	0	327.53	82	232	1.56	655.05	650	13	1.14E-02	39.7	
16	0	338.09	250	207	1.13	676.18	671	12	3.48E-02	13.1	
17	0	351.65*	564	206	1.34	703.30	696	15	7.84E-02	7.0	
18	0	462.97	61	135	1.20	925.94	919	12	8.47E-03	40.2	
19	0	510.84*	146	88	1.87	1021.68	1016	14	2.03E-02	18.8	
20	0	583.09*	364	119	1.48	1166.19	1159	15	5.05E-02	8.5	
21	0	609.13*	403	88	1.48	1218.25	1213	13	5.60E-02	7.0	
22	0	726.84*	95	76	1.11	1453.67	1447	14	1.32E-02	22.7	
23	0	794.93	82	31	1.65	1589.87	1584	13	1.14E-02	17.9	
24	0	910.80*	268	39	1.56	1821.60	1815	13	3.72E-02	7.9	
25	2	964.35	51	48	2.34	1928.69	1922	23	7.02E-03	31.8	1.37E+00
26	2	968.86*	149	27	2.04	1937.72	1922	23	2.07E-02	11.6	
27	0	1120.12	73	70	2.22	2240.25	2234	12	1.02E-02	25.5	
28	0	1377.87	36	23	1.71	2755.75	2750	15	4.93E-03	33.6	
29	0	1407.64	33	7	1.01	2815.29	2807	14	4.52E-03	24.7	
30	0	1460.64	1284	0	2.17	2921.27	2912	19	1.78E-01	2.8	
31	0	1764.81*	64	10	1.76	3529.62	3523	13	8.90E-03	16.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 15:13:32

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978013.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:11:39
Sample ID : G245978013 Sample quantity : 134.68 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA6 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.37 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	3.485E+01	3.016E+00	4.135E-01	2.735E-02	84.276
CD-109	+	88.03	*	4.305E+00	1.219E+00	1.395E+00	1.377E-01	3.086
SN-126	+	64.28		1.774E+00	9.543E-01	1.042E+00	1.604E-01	1.702
	+	86.94		1.752E+00	8.647E-01	5.748E-01	2.392E-01	3.047
	+	87.57	*	4.213E-01	1.192E-01	1.372E-01	1.351E-02	3.070
TL-208		277.35		4.243E-01	4.697E-01	7.792E-01	8.299E-02	0.545
	+	510.84		7.841E-01	3.051E-01	2.426E-01	2.434E-02	3.233
	+	583.14	*	5.584E-01	1.015E-01	6.691E-02	4.229E-03	8.346
		860.37		5.715E-01	3.529E-01	6.547E-01	5.007E-02	0.873
BI-211		72.87		1.498E+01	4.690E+00	7.379E+00	6.625E-01	2.030
	+	351.07	*	3.749E+00	5.797E-01	3.824E-01	2.468E-02	9.804
PB-212	+	74.81		2.414E+00	6.181E-01	6.647E-01	8.641E-02	3.632
	+	77.11		2.049E+00	3.700E-01	3.749E-01	3.422E-02	5.465
	+	87.30		1.949E+00	5.849E-01	6.368E-01	8.923E-02	3.060
	+	238.63	*	1.737E+00	1.757E-01	1.051E-01	7.748E-03	16.523
		300.09		1.262E+00	9.912E-01	1.565E+00	1.310E-01	0.806
PO-212	+	74.81		2.414E+00	6.181E-01	6.647E-01	8.641E-02	3.632
	+	77.11		2.049E+00	3.700E-01	3.749E-01	3.422E-02	5.465
	+	87.30		1.949E+00	5.849E-01	6.368E-01	8.923E-02	3.060
		115.19		1.001E+00	4.410E+00	7.321E+00	4.832E-01	0.137
	+	238.63	*	1.737E+00	1.757E-01	1.051E-01	7.748E-03	16.523
		300.09		1.262E+00	9.912E-01	1.565E+00	1.310E-01	0.806
BI-214	+	609.31	*	1.167E+00	1.850E-01	1.253E-01	9.249E-03	9.308
	+	1120.29		1.119E+00	5.793E-01	6.369E-01	5.817E-02	1.757
	+	1764.49		1.345E+00	4.588E-01	3.595E-01	2.105E-02	3.741
PB-214	+	74.81		4.159E+00	1.038E+00	1.145E+00	1.338E-01	3.632
	+	77.11		3.512E+00	6.885E-01	6.426E-01	7.642E-02	5.465
	+	87.30		3.338E+00	9.792E-01	1.091E+00	1.362E-01	3.060
	+	241.98		1.998E+00	7.949E-01	6.330E-01	5.136E-02	3.156
	+	295.21		1.291E+00	2.803E-01	2.678E-01	2.315E-02	4.820
	+	351.92	*	1.304E+00	2.128E-01	1.333E-01	1.106E-02	9.783
PO-214	+	74.81		4.159E+00	1.038E+00	1.145E+00	1.338E-01	3.632
	+	77.11		3.512E+00	6.885E-01	6.426E-01	7.642E-02	5.465
	+	87.30		3.338E+00	9.792E-01	1.091E+00	1.362E-01	3.060

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		1.998E+00	7.949E-01	6.330E-01	5.136E-02	3.156
	+	295.21		1.291E+00	2.803E-01	2.678E-01	2.315E-02	4.820
	+	351.92	*	1.304E+00	2.128E-01	1.333E-01	1.106E-02	9.783
PO-216	+	74.81		2.414E+00	6.181E-01	6.647E-01	8.641E-02	3.632
	+	77.11		2.049E+00	3.700E-01	3.749E-01	3.422E-02	5.465
	+	87.30		1.949E+00	5.849E-01	6.368E-01	8.923E-02	3.060
	+	238.63	*	1.737E+00	1.757E-01	1.051E-01	7.748E-03	16.523
		300.09		1.262E+00	9.912E-01	1.565E+00	1.310E-01	0.806
PO-218	+	74.81		4.159E+00	1.038E+00	1.145E+00	1.338E-01	3.632
	+	77.11		3.512E+00	6.885E-01	6.426E-01	7.642E-02	5.465
	+	87.30		3.338E+00	9.792E-01	1.091E+00	1.362E-01	3.060
	+	241.98		1.998E+00	7.949E-01	6.330E-01	5.136E-02	3.156
	+	295.21		1.291E+00	2.803E-01	2.678E-01	2.315E-02	4.820
	+	351.92	*	1.304E+00	2.128E-01	1.333E-01	1.106E-02	9.783
RA-224	+	240.98	*	3.788E+00	1.492E+00	1.196E+00	7.011E-02	3.167
RA-226	+	609.31	*	1.167E+00	1.850E-01	1.253E-01	9.249E-03	9.308
	+	1120.29		1.119E+00	5.793E-01	6.369E-01	5.817E-02	1.757
	+	1764.49		1.345E+00	4.588E-01	3.595E-01	2.105E-02	3.741
AC-228	+	338.32		1.830E+00	8.874E-01	4.099E-01	1.672E-01	4.465
	+	911.07	*	1.845E+00	3.483E-01	2.278E-01	2.328E-02	8.101
	+	969.11		1.807E+00	5.876E-01	4.121E-01	9.398E-02	4.384
RA-228	+	338.32		1.830E+00	8.874E-01	4.099E-01	1.672E-01	4.465
	+	911.07	*	1.845E+00	3.483E-01	2.278E-01	2.328E-02	8.101
	+	969.11		1.807E+00	5.876E-01	4.121E-01	9.398E-02	4.384
TH-228	+	74.81		2.458E+00	5.866E-01	6.768E-01	6.162E-02	3.632
	+	77.11		2.086E+00	3.767E-01	3.817E-01	3.485E-02	5.465
	+	87.30		1.984E+00	5.615E-01	6.483E-01	6.365E-02	3.060
	+	238.63	*	1.768E+00	1.789E-01	1.070E-01	7.888E-03	16.523
		300.09		1.285E+00	1.257E+00	1.594E+00	9.396E-01	0.806
TH-230	+	609.31	*	1.167E+00	1.850E-01	1.253E-01	9.249E-03	9.308
	+	1120.29		1.119E+00	5.793E-01	6.369E-01	5.817E-02	1.757
	+	1764.49		1.345E+00	4.588E-01	3.594E-01	2.105E-02	3.741
TH-232	+	338.32		1.830E+00	4.920E-01	4.099E-01	2.411E-02	4.465
	+	911.07	*	1.845E+00	3.483E-01	2.278E-01	2.328E-02	8.101
	+	969.11		1.807E+00	5.876E-01	4.121E-01	9.398E-02	4.384
TH-234	+	63.29	*	4.481E+00	2.449E+00	2.673E+00	4.860E-01	1.676
	+	92.38		4.618E+00	1.200E+00	8.945E-01	1.638E-01	5.163
U-234	+	609.31	*	1.167E+00	1.850E-01	1.253E-01	9.249E-03	9.308
	+	1120.29		1.119E+00	5.793E-01	6.369E-01	5.817E-02	1.757
	+	1764.49		1.345E+00	4.588E-01	3.594E-01	2.105E-02	3.741
NP-237	+	86.50	*	1.237E+00	4.334E-01	4.082E-01	9.316E-02	3.031
		95.87		-8.118E-01	1.285E+00	1.790E+00	4.407E-01	-0.453
U-238	+	63.29	*	4.481E+00	2.449E+00	2.673E+00	4.860E-01	1.676
	+	92.38		4.618E+00	9.499E-01	8.945E-01	8.132E-02	5.163
AM-243	+	74.67	*	3.914E-01	9.330E-02	1.081E-01	9.766E-03	3.619
	+	86.72		4.640E+01	1.313E+01	1.527E+01	1.491E+00	3.039
		117.66		-1.622E+00	4.561E+00	7.410E+00	4.750E-01	-0.219
		142.18		1.139E+01	2.066E+01	3.448E+01	1.969E+00	0.330
ANH-511	+	511.00	*	1.694E-01	6.437E-02	5.241E-02	2.930E-03	3.232

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	1.034E-01	3.552E-01	5.974E-01	3.946E-02	0.173
NA-22		1274.54	*	1.110E-02	5.483E-02	9.111E-02	5.626E-03	0.122
NA-24		1368.53	*	-5.273E+00	5.483E-02	Half-Life too short		
AL-26		1129.67		4.951E-01	2.050E+00	3.439E+00	2.142E-01	0.144
		1808.65	*	3.434E-02	3.010E-02	6.087E-02	3.496E-03	0.564
TI-44		67.85		-5.047E-02	7.102E-02	9.387E-02	8.376E-03	-0.538
		78.38	*	3.047E-01	6.375E-02	8.968E-02	8.243E-03	3.398
SC-46		889.25	*	-2.065E-02	4.887E-02	7.843E-02	5.622E-03	-0.263
	+	1120.51		1.962E-01	1.008E-01	1.510E-01	9.500E-03	1.299
V-48		944.10		-3.456E-01	1.248E+00	2.023E+00	1.444E-01	-0.171
		983.50	*	-5.602E-02	8.641E-02	1.333E-01	9.333E-03	-0.420
		1312.09		7.302E-02	1.041E-01	1.828E-01	1.141E-02	0.399
CR-51		320.08	*	-1.510E-02	4.498E-01	7.335E-01	4.833E-02	-0.021
MN-52		744.21		6.631E-02	4.293E-01	6.992E-01	3.988E-02	0.095
		848.13		7.957E+00	1.092E+01	1.934E+01	1.303E+00	0.411
		935.52		2.184E-01	3.997E-01	6.965E-01	4.990E-02	0.314
		1246.25		-1.585E+01	1.409E+01	2.067E+01	1.261E+00	-0.767
		1333.61		1.517E+00	8.821E+00	1.462E+01	9.185E-01	0.104
		1434.06	*	-1.183E-02	3.730E-01	6.002E-01	3.777E-02	-0.020
MN-54		834.83	*	-1.059E-02	4.777E-02	7.858E-02	5.186E-03	-0.135
CO-56		846.75	*	2.393E-02	4.698E-02	8.172E-02	5.494E-03	0.293
		977.42		1.738E+00	3.202E+00	5.384E+00	3.782E-01	0.323
		1037.82		4.835E-01	3.925E-01	7.137E-01	5.239E-02	0.677
		1175.09		-3.288E-02	2.974E+00	4.867E+00	2.882E-01	-0.007
		1238.25		1.860E-01	1.254E-01	2.247E-01	1.445E-02	0.828
		1360.21		-1.003E+00	1.200E+00	1.717E+00	1.080E-01	-0.584
		1771.40		-1.244E+00	4.458E-01	4.449E-01	2.597E-02	-2.797
CO-57		122.06	*	-2.551E-02	2.938E-02	4.661E-02	2.847E-03	-0.547
		136.48		1.777E-02	2.477E-01	4.071E-01	2.735E-02	0.044
CO-58		810.76	*	-6.273E-02	4.791E-02	7.104E-02	4.536E-03	-0.883
FE-59		142.65		2.443E+00	3.307E+00	5.556E+00	3.169E-01	0.440
		192.34		-5.890E-01	1.139E+00	1.798E+00	2.104E-01	-0.328
		1099.22	*	-1.218E-02	1.215E-01	1.981E-01	1.453E-02	-0.062
		1291.56		4.742E-02	1.490E-01	2.509E-01	1.942E-02	0.189
CO-60		1173.22		7.378E-03	5.753E-02	9.528E-02	5.637E-03	0.077
		1332.49	*	1.411E-02	4.710E-02	7.922E-02	4.977E-03	0.178
ZN-65		1115.52	*	-1.145E-02	1.240E-01	1.728E-01	1.095E-02	-0.066
GE-68		1077.35	*	6.342E-01	1.425E+00	2.446E+00	1.603E-01	0.259
AS-73		53.44	*	3.994E-01	1.191E+00	2.023E+00	1.850E-01	0.197
AS-74		595.88	*	-4.122E-02	1.149E-01	1.815E-01	9.651E-03	-0.227
		634.78		-1.539E-01	4.431E-01	6.967E-01	3.561E-02	-0.221
SE-75		66.05		-1.561E+00	6.744E+00	9.807E+00	1.050E+00	-0.159
		96.73		3.526E-01	1.031E+00	1.523E+00	2.060E-01	0.231
		121.11		-1.938E-01	1.595E-01	2.480E-01	2.347E-02	-0.782
		136.00		-5.846E-03	4.709E-02	7.682E-02	4.528E-03	-0.076
		198.60		9.232E-01	2.272E+00	3.626E+00	2.531E-01	0.255
		264.65	*	-3.577E-03	6.245E-02	8.662E-02	5.197E-03	-0.041
		279.53		3.246E-02	1.301E-01	2.218E-01	1.425E-02	0.146
		303.91		-1.852E+00	2.430E+00	3.918E+00	3.778E-01	-0.473

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		400.65		3.514E-01	3.146E-01	5.520E-01	4.945E-02	0.636
BR-77	+	87.88		2.178E+03	6.166E+02	9.694E+02	9.566E+01	2.247
		200.40		-1.639E+02	4.627E+02	7.365E+02	4.149E+01	-0.223
	+	239.00		6.560E+02	5.948E+01	9.968E+01	5.833E+00	6.581
		249.79		-1.238E+02	1.815E+02	2.799E+02	1.650E+01	-0.442
		281.68		-2.238E+02	2.448E+02	3.945E+02	2.355E+01	-0.567
		297.23		5.467E+02	1.974E+02	3.266E+02	1.951E+01	1.674
		303.76		-3.686E+02	4.777E+02	7.712E+02	4.603E+01	-0.478
		439.47		1.943E+02	3.948E+02	6.727E+02	3.785E+01	0.289
		484.57		1.250E+02	5.901E+02	9.860E+02	5.546E+01	0.127
		520.65	*	-2.580E+00	2.970E+01	4.839E+01	2.696E+00	-0.053
		574.64		-4.747E+02	6.137E+02	9.121E+02	4.933E+01	-0.520
		578.91		3.291E+02	2.611E+02	4.160E+02	2.243E+01	0.791
		585.48		3.823E+03	6.531E+02	1.268E+03	6.802E+01	3.015
		755.35		-1.022E+02	4.230E+02	6.633E+02	3.853E+01	-0.154
		817.79		-2.755E+01	3.673E+02	6.111E+02	3.927E+01	-0.045
SR-82		698.33		7.243E+00	4.403E+01	7.199E+01	3.795E+00	0.101
		776.49	*	-6.970E-01	4.918E-01	7.286E-01	4.383E-02	-0.957
		1395.20		5.146E+00	1.478E+01	2.498E+01	1.573E+00	0.206
RB-83		520.41	*	-8.834E-03	8.535E-02	1.389E-01	7.742E-03	-0.064
		529.64		3.904E-02	1.264E-01	2.116E-01	1.175E-02	0.184
		552.65		-2.077E-01	2.348E-01	3.566E-01	1.957E-02	-0.583
RB-84		881.50	*	-4.659E-02	8.393E-02	1.326E-01	9.396E-03	-0.351
KR-85		513.99	*	1.503E+01	8.841E+00	1.453E+01	8.114E-01	1.034
SR-85		513.99	*	7.947E-02	4.675E-02	7.682E-02	4.290E-03	1.034
RB-86		1076.63	*	-2.817E-01	1.034E+00	1.658E+00	1.087E-01	-0.170
Y-88		898.02		-4.439E-02	5.224E-02	8.048E-02	5.884E-03	-0.552
		1836.01	*	-3.152E-04	3.376E-02	5.568E-02	3.164E-03	-0.006
ZR-88		392.90	*	-7.281E-03	3.556E-02	5.837E-02	3.239E-03	-0.125
Y-91		1204.90	*	-1.396E+01	2.548E+01	3.975E+01	2.384E+00	-0.351
NB-94		702.63	*	1.155E-02	4.137E-02	6.818E-02	3.621E-03	0.169
		871.10		2.583E-03	3.989E-02	6.692E-02	4.668E-03	0.039
NB-95		765.79	*	9.447E-02	5.551E-02	9.992E-02	5.907E-03	0.945
NB-95M		235.69	*	6.783E-01	1.904E-01	3.078E-01	2.326E-02	2.203
ZR-95		724.18		1.256E-01	1.216E-01	1.894E-01	1.254E-02	0.663
		756.15	*	-2.928E-02	7.789E-02	1.203E-01	8.478E-03	-0.243
NB-97		657.90	*	-1.383E+00	7.789E-02	Half-Life too short		
		1024.50		-1.764E+01	7.789E-02	Half-Life too short		
ZR-97		254.15		-1.171E+02	7.789E-02	Half-Life too short		
		355.39		4.848E+01	7.789E-02	Half-Life too short		
		507.63	*	1.027E+02	7.789E-02	Half-Life too short		
		602.52		8.984E-01	7.789E-02	Half-Life too short		
		1021.30		1.423E+01	7.789E-02	Half-Life too short		
		1147.95		4.568E+01	7.789E-02	Half-Life too short		
		1362.66		-3.295E+01	7.789E-02	Half-Life too short		
		1750.46		6.525E+01	7.789E-02	Half-Life too short		
MO-99		140.51		-8.214E+01	6.826E+01	1.006E+02	2.709E+01	-0.817
		181.06		2.217E+01	4.749E+01	6.899E+01	1.176E+01	0.321
		366.43		4.174E+01	1.953E+02	3.297E+02	1.892E+01	0.127

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		739.58	*	1.217E+01	3.059E+01	5.076E+01	6.965E+00	0.240
		778.00		-6.740E+01	8.508E+01	1.338E+02	8.070E+00	-0.504
TC-99M		140.51	*	-1.887E+14	8.508E+01	Half-Life too short		
RH-101		127.23		5.565E-02	4.423E-02	6.741E-02	4.025E-03	0.825
		198.01	*	3.130E-02	4.071E-02	6.590E-02	3.702E-03	0.475
		325.23		2.291E-01	2.935E-01	4.512E-01	2.675E-02	0.508
RH-102		418.52		-8.277E-02	3.157E-01	5.141E-01	2.879E-02	-0.161
		475.06	*	-8.847E-03	3.207E-02	5.177E-02	2.915E-03	-0.171
		631.29		3.219E-03	5.895E-02	9.614E-02	4.934E-03	0.033
		697.49		-2.547E-02	9.459E-02	1.494E-01	7.862E-03	-0.171
		766.84		2.448E-01	1.400E-01	2.518E-01	1.491E-02	0.972
		1046.59		8.222E-02	1.331E-01	2.321E-01	1.559E-02	0.354
		1112.84		1.663E-02	3.079E-01	4.377E-01	2.774E-02	0.038
RU-103		497.08	*	2.876E-03	4.671E-02	7.711E-02	9.685E-03	0.037
	+	610.33		1.326E+01	2.747E+00	3.355E+00	5.106E-01	3.953
RH-106	+	511.85		8.507E-01	3.233E-01	4.769E-01	2.666E-02	1.784
		621.84	*	2.593E-01	3.628E-01	6.215E-01	7.114E-02	0.417
		1050.47		-1.176E+00	2.894E+00	4.598E+00	3.081E-01	-0.256
RU-106	+	511.85		8.507E-01	3.233E-01	4.769E-01	2.666E-02	1.784
		621.84	*	2.593E-01	3.618E-01	6.215E-01	3.223E-02	0.417
		1050.47		-1.176E+00	2.894E+00	4.598E+00	3.081E-01	-0.256
AG-108M		433.93	*	-1.330E-02	3.633E-02	5.861E-02	3.594E-03	-0.227
		614.37		4.353E-02	4.759E-02	7.372E-02	4.252E-03	0.591
		722.95		-5.387E-02	5.555E-02	6.712E-02	4.038E-03	-0.803
AG-110M		657.75	*	-2.596E-02	4.045E-02	6.185E-02	3.339E-03	-0.420
		677.61		1.662E-01	3.701E-01	6.202E-01	3.401E-02	0.268
		706.67		-4.076E-02	2.571E-01	4.092E-01	2.342E-02	-0.100
		763.93		-1.815E-01	2.138E-01	3.188E-01	1.991E-02	-0.569
		884.67		2.619E-02	5.671E-02	9.830E-02	7.326E-03	0.266
		937.48		-1.187E-01	1.287E-01	1.946E-01	1.466E-02	-0.610
		1384.27		3.794E-02	1.928E-01	2.788E-01	1.847E-02	0.136
IN-111		171.28		3.849E-01	2.364E+00	3.870E+00	2.104E-01	0.099
		245.39	*	2.775E+00	2.601E+00	3.926E+00	2.308E-01	0.707
IN-113M		391.69	*	4.824E-03	5.234E-02	8.747E-02	5.206E-03	0.055
SN-113		391.69	*	4.824E-03	5.234E-02	8.747E-02	5.206E-03	0.055
IN-114M		190.27	*	2.312E-01	2.372E-01	3.556E-01	1.979E-02	0.650
CD-115		260.90		-1.522E-04	2.372E-01	Half-Life too short		
		492.35		4.378E-06	2.372E-01	Half-Life too short		
		527.90	*	-2.503E-05	2.372E-01	Half-Life too short		
SN-117M		156.02		-1.600E+00	3.265E+00	5.050E+00	2.790E-01	-0.317
		158.56	*	2.008E-02	7.453E-02	1.228E-01	6.746E-03	0.164
SB-122		563.90	*	3.638E-02	5.127E+00	8.376E+00	4.564E-01	0.004
		692.80		-1.443E+01	1.075E+02	1.717E+02	8.962E+00	-0.084
I-123		159.00	*	8.721E+01	1.075E+02	Half-Life too short		
		528.96		4.417E+02	1.075E+02	Half-Life too short		
TE-123M		159.00	*	1.066E-02	3.366E-02	5.557E-02	3.095E-03	0.192
I-124		602.71	*	2.841E-01	1.356E+00	1.952E+00	1.031E-01	0.146
		722.78		-8.932E+00	9.448E+00	1.147E+01	6.307E-01	-0.779
		1325.50		-3.452E+00	7.143E+01	1.155E+02	7.238E+00	-0.030

---- Non-Identified Nuclides ----

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		1376.25		4.973E+01	7.699E+01	1.173E+02	7.382E+00	0.424
		1509.49		3.284E+01	2.701E+01	5.137E+01	3.215E+00	0.639
		1691.02		1.019E+00	5.788E+00	9.971E+00	5.996E-01	0.102
SB-124		602.71		1.050E-02	5.013E-02	7.214E-02	3.815E-03	0.146
		645.85		1.625E-01	6.269E-01	1.037E+00	6.102E-02	0.157
		709.31		-9.147E-02	3.474E+00	5.589E+00	3.003E-01	-0.016
		713.82		-1.282E+00	2.079E+00	3.168E+00	3.167E-01	-0.405
		722.78		-4.786E-01	5.063E-01	6.145E-01	3.556E-02	-0.779
	+	968.20		1.924E+01	4.662E+00	8.470E+00	5.979E-01	2.271
		1045.16		-2.028E+00	3.096E+00	4.790E+00	3.222E-01	-0.423
		1325.50		-1.975E-01	4.088E+00	6.609E+00	4.143E-01	-0.030
		1368.21		-9.568E-01	2.236E+00	3.419E+00	4.144E-01	-0.280
		1436.60		3.910E+00	4.335E+00	7.955E+00	5.006E-01	0.491
		1691.02	*	1.288E-02	7.315E-02	1.260E-01	8.183E-03	0.102
SB-125		427.89	*	-2.409E-02	1.049E-01	1.710E-01	1.004E-02	-0.141
	+	463.38		6.381E-01	5.147E-01	6.480E-01	4.291E-02	0.985
		600.56		-4.061E-02	2.030E-01	3.252E-01	2.042E-02	-0.125
		635.90		-2.521E-01	3.078E-01	4.625E-01	2.871E-02	-0.545
TE-125M		109.28	*	-5.039E+00	1.175E+01	1.879E+01	1.710E+00	-0.268
I-126		388.63		1.706E-01	2.783E-01	4.787E-01	2.667E-02	0.356
		666.33	*	2.639E-01	2.607E-01	4.533E-01	2.257E-02	0.582
		753.82		9.943E-01	1.874E+00	3.161E+00	1.832E-01	0.315
SB-126		223.80		4.115E+00	5.643E+00	9.378E+00	5.417E-01	0.439
		278.60		3.043E+00	3.388E+00	5.926E+00	3.535E-01	0.513
	+	296.50		1.514E+01	3.149E+00	4.939E+00	2.950E-01	3.065
		414.70		2.294E-02	9.873E-02	1.661E-01	9.291E-03	0.138
		415.30		1.285E+00	8.126E+00	1.361E+01	7.615E-01	0.094
		555.20		-1.308E+00	5.289E+00	8.474E+00	4.643E-01	-0.154
		573.80		-1.113E+00	1.483E+00	2.282E+00	1.235E-01	-0.488
		593.00		3.602E-01	1.157E+00	1.934E+00	1.031E-01	0.186
		656.30		3.326E-01	4.334E+00	7.066E+00	3.515E-01	0.047
		666.33		1.110E-01	1.097E-01	1.907E-01	9.496E-03	0.582
		675.00		1.743E+00	2.784E+00	4.728E+00	2.392E-01	0.369
		695.00		-2.144E-02	1.082E-01	1.719E-01	9.007E-03	-0.125
		697.00		1.533E-02	3.796E-01	6.147E-01	3.233E-02	0.025
		720.50	*	8.478E-02	2.169E-01	3.161E-01	1.732E-02	0.268
		856.80		-2.851E-01	6.610E-01	1.064E+00	7.265E-02	-0.268
		989.30		2.755E-01	1.763E+00	2.961E+00	2.066E-01	0.093
		1034.80		5.956E-01	1.299E+01	2.154E+01	1.460E+00	0.028
		1213.00		1.691E+00	6.982E+00	1.164E+01	7.006E-01	0.145
SB-127		61.10		2.752E+02	1.414E+02	2.199E+02	2.732E+01	1.251
		252.40		7.330E+00	8.905E+00	1.402E+01	5.861E+00	0.523
		290.80		9.388E+00	4.486E+01	6.678E+01	6.916E+00	0.141
		411.60		1.481E+01	2.357E+01	4.038E+01	6.065E+00	0.367
		444.90		-5.297E+00	1.957E+01	3.175E+01	3.700E+00	-0.167
		473.00		-2.689E+00	3.240E+00	4.993E+00	5.997E-01	-0.539
		543.00		2.991E+01	3.179E+01	5.525E+01	7.508E+00	0.541
		603.60		3.507E+00	2.454E+01	3.504E+01	4.016E+00	0.100
		685.20	*	5.324E-01	2.614E+00	4.297E+00	4.364E-01	0.124

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		698.50		4.201E-01	3.088E+01	4.989E+01	7.484E+00	0.008
		722.20		-6.289E+01	6.795E+01	8.247E+01	8.319E+00	-0.763
		783.80		8.397E+00	6.675E+00	1.218E+01	1.432E+00	0.689
XE-127		57.60		-1.171E+01	9.313E+00	1.366E+01	1.258E+00	-0.857
		145.22		7.527E-01	8.380E-01	1.416E+00	8.020E-02	0.532
		172.10		-3.974E-02	1.457E-01	2.341E-01	1.274E-02	-0.170
		202.84	*	-1.850E-02	6.331E-02	9.298E-02	5.253E-03	-0.199
		374.96		-4.699E-02	2.347E-01	3.862E-01	2.193E-02	-0.122
I-131		80.18		2.691E+00	1.000E+01	1.084E+01	1.015E+00	0.248
		284.30		3.474E-01	2.165E+00	3.676E+00	2.438E-01	0.095
		364.48	*	-5.486E-02	1.656E-01	2.706E-01	1.748E-02	-0.203
		636.97		-1.056E+00	2.241E+00	3.484E+00	2.059E-01	-0.303
		722.89		-1.158E+01	1.205E+01	1.459E+01	8.200E-01	-0.794
TE-132		49.72		5.692E+00	5.346E+01	9.028E+01	1.058E+01	0.063
		111.76		-1.177E+01	6.800E+01	1.114E+02	1.165E+01	-0.106
		116.30		8.789E+00	6.338E+01	1.049E+02	1.072E+01	0.084
		228.16	*	-5.678E-01	1.486E+00	2.342E+00	3.511E-01	-0.242
BA-133		53.15		1.000E+00	5.100E+00	8.625E+00	7.873E-01	0.116
		79.62		1.178E+00	2.218E+00	2.446E+00	3.815E-01	0.482
		81.00		3.877E-03	1.642E-01	1.744E-01	2.840E-02	0.022
		276.40		6.993E-01	4.800E-01	7.833E-01	1.021E-01	0.893
		302.84		-1.083E-01	1.651E-01	2.679E-01	3.146E-02	-0.404
		356.01	*	1.648E-02	5.456E-02	8.111E-02	9.376E-03	0.203
		383.85		-2.452E-03	3.535E-01	5.879E-01	6.333E-02	-0.004
I-133	+	510.53		1.799E+01	3.535E-01	Half-Life too short		
		529.87	*	4.805E-02	3.535E-01	Half-Life too short		
		706.58		-7.990E-01	3.535E-01	Half-Life too short		
		856.28		-6.271E+00	3.535E-01	Half-Life too short		
		875.33		3.730E-01	3.535E-01	Half-Life too short		
		1236.41		3.778E+00	3.535E-01	Half-Life too short		
		1298.22		1.096E+00	3.535E-01	Half-Life too short		
CS-134		475.35		-8.267E-02	2.079E+00	3.415E+00	1.923E-01	-0.024
		563.23		2.581E-01	4.082E-01	6.977E-01	3.894E-02	0.370
		569.32		4.659E-02	2.323E-01	3.846E-01	2.159E-02	0.121
		604.70		6.073E-03	4.057E-02	5.801E-02	3.081E-03	0.105
	+	795.84	*	1.839E-01	6.702E-02	1.037E-01	6.528E-03	1.773
		801.93		-5.133E-01	5.720E-01	7.530E-01	4.769E-02	-0.682
		1038.57		3.945E+00	4.705E+00	8.329E+00	5.631E-01	0.474
		1167.94		-7.350E-01	3.232E+00	5.194E+00	3.094E-01	-0.141
		1365.15		4.627E-01	1.384E+00	2.347E+00	1.601E-01	0.197
CS-135		268.24	*	3.718E-01	2.196E-01	3.381E-01	2.627E-02	1.100
I-135		288.45		-4.769E+13	2.196E-01	Half-Life too short		
		417.63		-2.784E+13	2.196E-01	Half-Life too short		
		546.56		-3.825E+12	2.196E-01	Half-Life too short		
		836.80		2.798E+13	2.196E-01	Half-Life too short		
		1038.76		1.431E+13	2.196E-01	Half-Life too short		
		1124.00		9.765E+12	2.196E-01	Half-Life too short		
		1131.51		-1.603E+13	2.196E-01	Half-Life too short		
		1260.41	*	7.430E+12	2.196E-01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1457.56		1.362E+15	2.196E-01	Half-Life too short		
		1678.03		1.420E+12	2.196E-01	Half-Life too short		
		1706.46		-5.346E+13	2.196E-01	Half-Life too short		
		1791.20		7.007E+12	2.196E-01	Half-Life too short		
CS-136		66.91		-8.150E-01	1.297E+00	1.846E+00	2.882E-01	-0.442
	+	86.29		6.417E+00	1.916E+00	2.757E+00	3.756E-01	2.327
		153.22		1.148E+00	9.314E-01	1.583E+00	1.114E-01	0.725
		163.89		3.925E-02	1.422E+00	2.318E+00	1.614E-01	0.017
		176.55		-3.963E-01	5.068E-01	7.951E-01	4.954E-02	-0.498
		273.65		-1.037E+00	7.872E-01	9.900E-01	6.691E-02	-1.047
		340.57		2.859E-01	1.956E-01	3.118E-01	1.945E-02	0.917
		818.51		-1.377E-02	1.040E-01	1.722E-01	1.110E-02	-0.080
		1048.07	*	2.223E-02	1.525E-01	2.549E-01	1.830E-02	0.087
		1235.34		-1.048E-01	9.567E-01	1.550E+00	1.573E-01	-0.068
BA-137M		661.65	*	-2.316E-02	4.169E-02	6.433E-02	3.177E-03	-0.360
CS-137		661.65	*	-2.449E-02	4.407E-02	6.800E-02	3.378E-03	-0.360
CE-139		165.85	*	-2.236E-02	3.508E-02	5.557E-02	3.005E-03	-0.402
BA-140		162.64		1.126E-01	1.009E+00	1.652E+00	1.026E-01	0.068
		304.84		-1.014E+00	1.711E+00	2.752E+00	7.519E-01	-0.369
		423.70		3.273E-01	2.548E+00	4.251E+00	1.350E+00	0.077
		537.32	*	4.927E-02	3.538E-01	5.845E-01	1.898E-01	0.084
LA-140	+	328.77		8.694E-01	6.920E-01	7.683E-01	5.072E-02	1.132
		432.53		-2.052E-01	2.693E+00	4.434E+00	2.769E-01	-0.046
		487.03		-1.460E-02	1.785E-01	2.919E-01	1.871E-02	-0.050
		751.79		3.407E-02	2.245E+00	3.613E+00	2.557E-01	0.009
		815.85		2.586E-01	4.307E-01	7.561E-01	5.815E-02	0.342
		867.82		7.617E-01	1.912E+00	3.294E+00	2.471E-01	0.231
		919.63		-5.662E-01	3.485E+00	5.701E+00	5.439E-01	-0.099
		925.24		-4.181E-01	1.363E+00	2.193E+00	1.718E-01	-0.191
		1596.49	*	5.001E-03	1.106E-01	1.858E-01	1.146E-02	0.027
CE-141		145.44	*	2.769E-02	7.719E-02	1.279E-01	7.548E-03	0.216
CE-143		57.37		-4.963E-03	7.719E-02	Half-Life too short		
		231.56		-6.554E-03	7.719E-02	Half-Life too short		
		293.26	*	4.464E-03	7.719E-02	Half-Life too short		
	+	350.59		1.304E-01	7.719E-02	Half-Life too short		
		490.36		4.136E-03	7.719E-02	Half-Life too short		
		664.57		2.586E-03	7.719E-02	Half-Life too short		
		721.93		-7.423E-03	7.719E-02	Half-Life too short		
CE-144		80.11		1.091E+00	3.606E+00	3.918E+00	3.639E-01	0.279
		133.54	*	1.609E-01	2.749E-01	4.059E-01	5.772E-02	0.396
PM-144		476.78		1.854E-02	7.421E-02	1.244E-01	8.462E-03	0.149
		618.01		5.198E-03	3.724E-02	6.118E-02	3.422E-03	0.085
		696.49	*	7.167E-03	4.099E-02	6.711E-02	3.531E-03	0.107
		778.57		-2.934E-01	2.620E+00	4.359E+00	2.634E-01	-0.067
PR-144		696.49	*	4.864E-01	2.782E+00	4.554E+00	2.393E-01	0.107
		1489.15		-3.333E+00	1.248E+01	1.915E+01	1.201E+00	-0.174
PM-146		453.90	*	2.711E-02	5.048E-02	8.615E-02	7.332E-03	0.315
		633.02		-3.568E-03	1.477E+00	2.397E+00	8.802E-01	-0.001
		735.90		9.243E-03	1.852E-01	2.992E-01	8.331E-02	0.031

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		747.13		-6.471E-02	1.126E-01	1.713E-01	2.137E-02	-0.378
ND-147	+	91.11		2.796E+00	5.837E-01	8.491E-01	8.463E-02	3.293
		319.41		-2.726E-01	4.420E+00	7.389E+00	4.394E-01	-0.037
		439.89		1.477E+00	8.227E+00	1.376E+01	7.745E-01	0.107
		531.02	*	3.667E-01	7.828E-01	1.324E+00	1.776E-01	0.277
PM-149		285.90	*	2.387E-05	7.828E-01	Half-Life too short		
EU-152		121.78		-7.169E-02	8.479E-02	1.346E-01	1.057E-02	-0.533
		244.69		5.712E-01	3.943E-01	6.088E-01	3.577E-02	0.938
		344.27	*	5.933E-02	1.544E-01	1.855E-01	1.222E-02	0.320
		443.98		-5.027E-01	1.130E+00	1.813E+00	1.021E-01	-0.277
		778.89		-9.213E-02	2.959E-01	4.838E-01	2.922E-02	-0.190
		867.32		2.987E-02	9.974E-01	1.668E+00	1.157E-01	0.018
	+	964.01		7.070E-01	4.526E-01	6.637E-01	4.695E-02	1.065
		1085.78		-1.722E-01	4.518E-01	7.151E-01	4.652E-02	-0.241
		1112.02		-1.393E-01	4.231E-01	6.204E-01	3.936E-02	-0.225
	+	1407.95		4.427E-01	2.204E-01	3.743E-01	2.357E-02	1.182
GD-153		69.67		6.535E-02	2.334E+00	3.436E+00	3.067E-01	0.019
	+	83.37		4.016E+01	1.984E+01	2.893E+01	2.750E+00	1.388
		97.43	*	1.547E-01	1.022E-01	1.585E-01	1.325E-02	0.976
		103.18		-3.008E-02	1.230E-01	2.015E-01	1.548E-02	-0.149
EU-154		123.07		-1.728E-02	6.414E-02	9.635E-02	9.225E-03	-0.179
		247.94		-1.581E-01	4.394E-01	6.335E-01	6.079E-02	-0.250
		591.81		-8.024E-03	6.740E-01	1.067E+00	1.014E-01	-0.008
		723.30		-2.125E-01	2.414E-01	2.973E-01	2.034E-02	-0.715
		756.87		-1.747E-01	8.183E-01	1.286E+00	1.305E-01	-0.136
		873.19		-4.159E-01	3.655E-01	5.438E-01	6.070E-02	-0.765
		996.32		-4.700E-01	4.469E-01	6.545E-01	1.114E-01	-0.718
		1004.76		-5.014E-02	2.807E-01	4.575E-01	4.777E-02	-0.110
		1274.45	*	3.755E-02	1.536E-01	2.561E-01	2.452E-02	0.147
EU-155		48.70		-7.402E-01	3.694E+00	6.178E+00	5.173E-01	-0.120
		60.01		1.429E+00	7.087E+00	1.056E+01	9.673E-01	0.135
	+	86.54		5.080E-01	1.439E-01	2.161E-01	2.124E-02	2.351
		105.31	*	-8.812E-03	1.249E-01	2.058E-01	1.561E-02	-0.043
TB-160	+	86.79		1.394E+00	3.946E-01	5.924E-01	5.790E-02	2.353
		197.04		5.897E-01	7.062E-01	1.146E+00	6.429E-02	0.515
		215.65		2.235E-01	9.123E-01	1.487E+00	8.517E-02	0.150
		298.57		1.845E-01	1.499E-01	2.366E-01	1.413E-02	0.780
		879.36	*	-2.244E-02	1.651E-01	2.719E-01	1.921E-02	-0.083
		962.29		1.008E+00	7.288E-01	1.196E+00	8.469E-02	0.843
		966.15		1.319E+00	3.189E-01	6.279E-01	4.437E-02	2.101
		1177.93		1.770E-01	4.599E-01	7.782E-01	4.614E-02	0.227
		1271.85		4.051E-01	9.026E-01	1.536E+00	9.453E-02	0.264
HO-166M		80.57		3.399E-02	4.551E-01	4.855E-01	4.523E-02	0.070
	+	184.41		1.721E-01	5.182E-02	7.886E-02	4.356E-03	2.182
		280.46		-9.906E-02	9.865E-02	1.583E-01	9.449E-03	-0.626
		410.95		2.852E-01	2.796E-01	4.905E-01	2.741E-02	0.581
		711.68	*	2.134E-02	7.267E-02	1.200E-01	6.474E-03	0.178
		752.31		6.397E-04	3.088E-01	4.963E-01	2.869E-02	0.001
		810.29		-8.177E-02	7.086E-02	1.070E-01	6.795E-03	-0.764

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TM-171		51.35		-1.555E+01	4.470E+01	7.428E+01	6.661E+00	-0.209
		52.39		-3.863E+00	2.278E+01	3.808E+01	3.456E+00	-0.101
		59.40		-2.311E+01	3.876E+01	5.559E+01	5.109E+00	-0.416
		66.72	*	-9.576E+00	3.954E+01	5.748E+01	5.134E+00	-0.167
LU-176	+	88.36		6.970E-01	2.660E-01	4.469E-01	4.383E-02	1.560
		201.83		-2.724E-02	3.421E-02	5.333E-02	3.009E-03	-0.511
		306.84	*	-1.770E-02	2.747E-02	4.456E-02	2.658E-03	-0.397
		401.10		7.465E+00	8.014E+00	1.398E+01	7.785E-01	0.534
LU-177		112.95		2.436E+00	2.702E+00	4.582E+00	3.106E-01	0.532
	+	208.36	*	4.445E+00	2.427E+00	3.150E+00	1.791E-01	1.411
LU-177M		52.97		7.037E-03	2.354E+00	3.957E+00	3.608E-01	0.002
		54.07		6.042E-01	1.206E+00	2.056E+00	1.886E-01	0.294
		61.30		5.085E+00	2.194E+00	3.480E+00	3.164E-01	1.461
		121.62		-5.739E-01	4.465E-01	6.954E-01	4.259E-02	-0.825
		147.16		-1.142E+00	7.801E-01	1.198E+00	6.756E-02	-0.953
		171.86		-8.252E-02	5.651E-01	9.132E-01	4.968E-02	-0.090
		218.09		-6.420E-01	1.027E+00	1.606E+00	9.223E-02	-0.400
	+	268.79		2.434E+00	1.309E+00	1.774E+00	1.055E-01	1.372
		319.02		-4.982E-02	2.916E-01	4.846E-01	2.880E-02	-0.103
		367.43		1.351E-02	1.008E+00	1.681E+00	9.631E-02	0.008
		413.65	*	-8.179E-02	2.090E-01	3.382E-01	1.892E-02	-0.242
HF-181		56.28		-2.125E-01	1.334E+00	2.227E+00	2.050E-01	-0.095
		57.53		-7.425E-01	7.680E-01	1.144E+00	1.053E-01	-0.649
		65.20		2.068E-01	1.385E+00	2.049E+00	1.835E-01	0.101
		133.02		7.102E-02	9.035E-02	1.351E-01	7.915E-03	0.526
		136.25		-2.097E-02	5.669E-01	9.277E-01	5.383E-02	-0.023
		345.85		1.984E-01	2.637E-01	3.864E-01	2.260E-02	0.514
		482.03	*	-1.707E-03	4.914E-02	8.069E-02	4.540E-03	-0.021
W-181		56.28		-8.134E-02	5.060E-01	8.448E-01	7.777E-02	-0.096
		57.53		-2.817E-01	2.916E-01	4.345E-01	4.000E-02	-0.648
		65.20	*	7.789E-02	5.217E-01	7.718E-01	6.914E-02	0.101
TA-182		67.75		-1.191E-01	1.727E-01	2.286E-01	2.040E-02	-0.521
		100.10		1.746E-01	2.165E-01	3.563E-01	2.860E-02	0.490
		152.43		6.045E-01	4.114E-01	7.059E-01	3.932E-02	0.856
		222.10		-6.243E-03	4.266E-01	6.863E-01	3.958E-02	-0.009
		1001.68		3.847E+00	2.608E+00	4.794E+00	3.322E-01	0.802
	+	1121.28		5.384E-01	2.765E-01	4.100E-01	2.577E-02	1.313
		1189.05		1.052E-01	4.098E-01	6.849E-01	4.080E-02	0.154
		1221.42	*	2.428E-01	2.565E-01	4.498E-01	2.716E-02	0.540
		1230.97		6.988E-01	6.075E-01	1.080E+00	6.545E-02	0.647
RE-183		57.98		-3.271E-01	3.103E-01	4.340E-01	3.994E-02	-0.754
		59.32		-9.807E-02	1.638E-01	2.349E-01	2.159E-02	-0.418
		67.20		-1.644E-01	2.915E-01	4.175E-01	3.727E-02	-0.394
		162.32	*	-2.403E-02	1.316E-01	2.129E-01	1.159E-02	-0.113
	+	208.81		3.038E+00	1.659E+00	2.186E+00	1.243E-01	1.390
		291.72		-2.817E-03	1.217E+00	1.785E+00	1.067E-01	-0.002
RE-184		57.98		-1.185E+00	1.124E+00	1.572E+00	1.447E-01	-0.754
		59.32		-3.550E-01	5.928E-01	8.502E-01	7.815E-02	-0.418
		67.20		-5.953E-01	1.056E+00	1.512E+00	1.350E-01	-0.394

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		161.27		-3.890E-02	4.194E-01	6.808E-01	3.717E-02	-0.057
		216.55		-2.259E-01	3.192E-01	4.972E-01	2.851E-02	-0.454
		252.85	*	1.020E-01	2.729E-01	4.455E-01	2.631E-02	0.229
		318.01		-1.499E-01	4.959E-01	8.181E-01	4.864E-02	-0.183
		792.07		1.617E+00	1.235E+00	2.051E+00	1.265E-01	0.788
		903.28		6.980E-01	1.359E+00	2.140E+00	1.551E-01	0.326
		920.93		9.932E-02	4.589E-01	7.800E-01	5.620E-02	0.127
OS-185		59.72		-1.637E-02	4.291E-01	6.326E-01	5.805E-02	-0.026
		61.14		4.819E-01	2.402E-01	3.789E-01	3.448E-02	1.272
		69.30		2.172E-01	4.161E-01	6.246E-01	5.574E-02	0.348
		592.07		2.475E-01	2.719E+00	4.463E+00	2.381E-01	0.055
		646.12	*	5.802E-03	5.343E-02	8.735E-02	4.404E-03	0.066
		717.42		6.764E-01	1.078E+00	1.827E+00	9.958E-02	0.370
		874.81		-6.104E-02	6.853E-01	1.134E+00	7.953E-02	-0.054
		880.27		-3.067E-01	9.053E-01	1.463E+00	1.034E-01	-0.210
RE-188		155.03	*	7.222E-02	2.201E-01	3.519E-01	1.949E-02	0.205
		477.96		5.068E-01	3.432E+00	5.711E+00	3.215E-01	0.089
		633.10		1.400E-01	3.084E+00	5.025E+00	2.574E-01	0.028
W-188	+	63.58		1.854E+02	9.705E+01	1.235E+02	1.112E+01	1.501
		227.08		1.379E+00	1.538E+01	2.484E+01	1.439E+00	0.056
		290.67	*	2.266E+00	9.447E+00	1.409E+01	8.419E-01	0.161
IR-192	+	295.96		1.012E+00	2.107E-01	3.326E-01	2.017E-02	3.041
		308.46		-2.455E-02	1.078E-01	1.788E-01	1.078E-02	-0.137
		316.51	*	8.123E-04	3.928E-02	6.598E-02	3.944E-03	0.012
		468.07		5.715E-02	8.534E-02	1.299E-01	8.500E-03	0.440
		604.41		9.314E-02	5.630E-01	8.064E-01	8.944E-02	0.116
		612.46		1.481E+00	9.947E-01	1.592E+00	1.139E-01	0.930
AU-195		65.12		4.522E-02	2.408E-01	3.568E-01	3.196E-02	0.127
		66.83		-2.644E-02	1.318E-01	1.920E-01	1.715E-02	-0.138
	+	75.70		1.281E+00	3.053E-01	5.642E-01	5.117E-02	2.270
		98.88	*	2.708E-01	3.012E-01	4.557E-01	3.725E-02	0.594
	+	129.76		8.768E+00	4.461E+00	6.053E+00	3.583E-01	1.449
TL-200		367.94	*	-2.250E-03	4.461E+00	Half-Life too short		
		579.30		4.558E-02	4.461E+00	Half-Life too short		
		828.27		-2.140E-02	4.461E+00	Half-Life too short		
		1205.75		-7.143E-03	4.461E+00	Half-Life too short		
TL-201		68.90		8.432E+00	1.355E+01	1.913E+01	1.707E+00	0.441
		70.82		8.956E-01	7.393E+00	1.092E+01	9.759E-01	0.082
		80.30		3.400E+00	1.647E+01	1.776E+01	1.652E+00	0.191
		135.34		1.292E+01	5.862E+01	9.687E+01	5.635E+00	0.133
		167.43	*	1.876E+00	1.576E+01	2.578E+01	1.395E+00	0.073
TL-202		68.90		4.593E-01	7.382E-01	1.042E+00	9.298E-02	0.441
		70.82		4.865E-02	4.016E-01	5.930E-01	5.300E-02	0.082
		80.30		1.847E-01	8.950E-01	9.651E-01	8.976E-02	0.191
		439.56	*	4.496E-02	9.580E-02	1.630E-01	9.172E-03	0.276
HG-203		70.83		1.940E-01	1.540E+00	2.274E+00	3.140E-01	0.085
		72.87		3.112E+00	1.023E+00	1.533E+00	2.060E-01	2.030
	+	82.60		3.092E+00	1.563E+00	2.217E+00	3.166E-01	1.395
		279.20	*	1.412E-02	5.043E-02	8.606E-02	5.435E-03	0.164

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-207		72.80		8.044E-01	2.706E-01	4.253E-01	3.818E-02	1.891
	+	74.97		7.026E-01	1.675E-01	2.915E-01	2.636E-02	2.411
	+	84.90		5.151E-01	2.545E-01	3.980E-01	3.829E-02	1.294
		569.67		6.841E-03	3.668E-02	6.066E-02	3.293E-03	0.113
		1063.62	*	1.224E-02	6.057E-02	1.018E-01	6.747E-03	0.120
		1770.23		1.350E-01	5.739E-01	8.657E-01	5.057E-02	0.156
TL-207		81.07		1.302E-02	3.622E-01	3.851E-01	3.600E-02	0.034
	+	83.78		3.396E-01	1.678E-01	2.454E-01	2.340E-02	1.384
		94.90		2.954E-01	3.148E-01	4.754E-01	4.139E-02	0.621
		122.32		-1.285E+00	2.070E+00	3.197E+00	2.222E-01	-0.402
		144.24		1.272E+00	7.837E-01	1.351E+00	9.641E-02	0.941
		154.21		1.539E-01	5.006E-01	8.005E-01	5.448E-02	0.192
	+	269.46		5.627E-01	3.028E-01	4.161E-01	2.583E-02	1.352
		323.87	*	9.641E-02	8.387E-01	1.234E+00	2.044E-01	0.078
	+	338.28		7.643E+00	2.162E+00	2.869E+00	3.034E-01	2.664
		445.03		-7.279E-01	2.688E+00	4.362E+00	4.438E-01	-0.167
PO-209		260.50		-1.877E+00	1.187E+01	1.882E+01	1.116E+00	-0.100
		262.80		-3.328E+00	3.272E+01	5.204E+01	3.089E+00	-0.064
		896.60	*	-3.988E-01	8.670E+00	1.438E+01	1.042E+00	-0.028
BI-210		46.50	*	2.951E+00	5.568E+00	9.304E+00	7.661E-01	0.317
PB-210		46.50	*	2.951E+00	5.568E+00	9.304E+00	7.661E-01	0.317
PO-210		46.50	*	2.951E+00	5.567E+00	9.304E+00	6.721E-01	0.317
PB-211		404.84	*	-1.788E+00	1.580E+00	1.682E+00	1.048E+00	-1.063
		427.08		-1.660E-01	2.330E+00	3.837E+00	2.371E+00	-0.043
		831.96		2.671E-01	1.478E+00	2.490E+00	1.554E+00	0.107
BI-212	+	727.18	*	1.252E+00	5.763E-01	7.727E-01	5.811E-02	1.621
		785.46		4.817E-01	1.955E+00	3.343E+00	2.040E-01	0.144
		1620.62		1.730E+00	1.495E+00	2.872E+00	1.762E-01	0.602
PO-215		81.07		1.302E-02	3.622E-01	3.851E-01	3.600E-02	0.034
	+	83.78		3.396E-01	1.678E-01	2.454E-01	2.340E-02	1.384
		94.90		2.954E-01	3.148E-01	4.754E-01	4.139E-02	0.621
		122.32		-1.285E+00	2.070E+00	3.197E+00	2.222E-01	-0.402
		144.24		1.272E+00	7.837E-01	1.351E+00	9.641E-02	0.941
		154.21		1.539E-01	5.006E-01	8.005E-01	5.448E-02	0.192
	+	269.46		5.627E-01	3.028E-01	4.161E-01	2.583E-02	1.352
		323.87	*	9.641E-02	8.387E-01	1.234E+00	2.044E-01	0.078
	+	338.28		7.643E+00	2.162E+00	2.869E+00	3.034E-01	2.664
		445.03		-7.279E-01	2.688E+00	4.362E+00	4.438E-01	-0.167
RN-219	+	271.23		7.219E-01	3.904E-01	5.339E-01	4.386E-02	1.352
		401.81	*	2.728E-01	4.934E-01	8.426E-01	1.138E-01	0.324
RN-220		549.76	*	2.310E+01	2.914E+01	5.048E+01	2.775E+00	0.458
RA-223		81.07		1.302E-02	3.622E-01	3.851E-01	3.600E-02	0.034
	+	83.78		3.396E-01	1.678E-01	2.454E-01	2.340E-02	1.384
		94.90		2.954E-01	3.148E-01	4.754E-01	4.139E-02	0.621
		122.32		-1.285E+00	2.070E+00	3.197E+00	2.222E-01	-0.402
		144.24		1.272E+00	7.837E-01	1.351E+00	9.641E-02	0.941
		154.21		1.539E-01	5.006E-01	8.005E-01	5.448E-02	0.192
	+	269.46		5.627E-01	3.028E-01	4.161E-01	2.583E-02	1.352
		323.87	*	9.641E-02	8.387E-01	1.234E+00	2.044E-01	0.078

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	338.28		7.643E+00	2.162E+00	2.869E+00	3.034E-01	2.664
		445.03		-7.279E-01	2.688E+00	4.362E+00	4.438E-01	-0.167
AC-227		79.80		1.122E+00	2.803E+00	3.059E+00	6.660E-01	0.367
		236.00		2.302E+00	4.362E-01	6.589E-01	6.901E-02	3.494
		256.20	*	9.424E-02	4.472E-01	7.235E-01	1.014E-01	0.130
		286.10		1.556E-01	1.707E+00	2.888E+00	3.364E-01	0.054
		299.80		2.150E+00	1.878E+00	2.908E+00	4.754E-01	0.739
		304.40		-1.744E+00	2.157E+00	3.444E+00	5.977E-01	-0.506
		334.20		-2.777E+00	4.652E+00	4.115E+00	7.556E-01	-0.675
TH-227		79.80		1.122E+00	2.803E+00	3.059E+00	6.743E-01	0.367
		94.00		1.471E+01	4.086E+00	4.805E+00	1.051E+00	3.061
		236.00		2.302E+00	4.194E-01	6.589E-01	5.984E-02	3.494
		256.20	*	9.424E-02	4.473E-01	7.235E-01	1.226E-01	0.130
		286.10		1.556E-01	1.714E+00	2.888E+00	2.894E+00	0.054
		299.80		2.150E+00	1.878E+00	2.908E+00	4.754E-01	0.739
		304.40		-1.744E+00	2.157E+00	3.444E+00	5.977E-01	-0.506
		334.20		-2.777E+00	4.652E+00	4.115E+00	7.556E-01	-0.675
TH-229	+	85.43		5.083E-01	2.512E-01	4.121E-01	3.982E-02	1.233
	+	88.47		4.012E-01	1.531E-01	2.549E-01	2.494E-02	1.574
		100.00		1.894E-01	2.213E-01	3.647E-01	2.932E-02	0.519
		193.63	*	-6.314E-01	5.989E-01	9.230E-01	5.157E-02	-0.684
		210.97		1.126E+00	1.073E+00	1.598E+00	9.113E-02	0.705
PA-231		283.67	*	9.442E-01	1.716E+00	2.959E+00	4.099E-01	0.319
		301.29		5.853E-01	7.122E-01	1.140E+00	1.203E-01	0.513
TH-231		81.07		1.302E-02	3.622E-01	3.851E-01	3.600E-02	0.034
	+	83.78		3.396E-01	1.678E-01	2.454E-01	2.340E-02	1.384
		94.90		2.954E-01	3.148E-01	4.754E-01	4.139E-02	0.621
		122.32		-1.285E+00	2.070E+00	3.197E+00	2.222E-01	-0.402
		144.24		1.272E+00	7.837E-01	1.351E+00	9.641E-02	0.941
		154.21		1.539E-01	5.006E-01	8.005E-01	5.448E-02	0.192
	+	269.46		5.627E-01	3.028E-01	4.161E-01	2.583E-02	1.352
		323.87	*	9.641E-02	8.387E-01	1.234E+00	2.044E-01	0.078
	+	338.28		7.643E+00	2.162E+00	2.869E+00	3.034E-01	2.664
		445.03		-7.279E-01	2.688E+00	4.362E+00	4.438E-01	-0.167
U-231	+	84.21		2.373E+01	1.172E+01	1.726E+01	1.651E+00	1.375
	+	92.29		2.859E+01	5.882E+00	8.434E+00	7.680E-01	3.391
		95.87	*	-1.493E+00	2.337E+00	3.292E+00	2.821E-01	-0.453
		108.00		-1.927E+00	3.905E+00	6.327E+00	4.560E-01	-0.305
PA-233	+	75.28		2.050E+01	5.537E+00	8.927E+00	1.392E+00	2.296
	+	86.59		8.248E+00	3.137E+00	3.502E+00	9.528E-01	2.355
		300.12		6.482E-01	5.165E-01	8.082E-01	1.092E-01	0.802
		311.98	*	5.090E-02	7.050E-02	1.227E-01	7.738E-03	0.415
		340.50		1.472E+00	8.894E-01	1.339E+00	3.078E-01	1.099
		398.62		6.986E-01	2.490E+00	4.192E+00	1.082E+00	0.167
		415.76		4.518E-02	1.833E+00	3.044E+00	6.249E-01	0.015
PA-234	+	63.00		5.223E+00	2.815E+00	3.620E+00	5.694E-01	1.443
		94.67		5.106E-01	2.337E-01	3.585E-01	4.477E-02	1.424
		98.44		2.070E-01	1.644E-01	1.850E-01	1.031E-01	1.119
		99.86		5.184E-01	5.619E-01	9.280E-01	7.476E-02	0.559

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		111.00		-3.191E-03	2.288E-01	3.715E-01	4.069E-02	-0.009
		131.20		-3.712E-02	1.426E-01	2.024E-01	1.192E-02	-0.183
		152.70		6.164E-01	4.004E-01	6.712E-01	1.055E-01	0.918
	+	186.00		6.195E+00	2.633E+00	2.874E+00	8.766E-01	2.156
		226.40		1.832E-02	4.745E-01	7.647E-01	8.836E-02	0.024
		227.20		4.261E-02	5.043E-01	8.145E-01	4.720E-02	0.052
		248.90		-8.014E-01	9.452E-01	1.418E+00	3.051E-01	-0.565
	+	293.70		6.196E+00	1.589E+00	1.989E+00	3.211E-01	3.115
		369.80		-2.867E-02	9.520E-01	1.584E+00	3.294E-01	-0.018
		568.70		-2.132E-02	1.161E+00	1.893E+00	1.028E-01	-0.011
		569.50		4.504E-02	3.243E-01	5.346E-01	2.902E-02	0.084
		574.00		-1.488E+00	1.818E+00	2.781E+00	1.505E-01	-0.535
		699.00		-1.117E-02	8.724E-01	1.406E+00	2.506E-01	-0.008
		706.10		-1.500E-01	1.279E+00	2.040E+00	8.992E-01	-0.074
		733.00		1.517E-01	5.150E-01	7.386E-01	1.566E-01	0.205
		742.81		8.508E-01	1.808E+00	2.872E+00	1.922E+00	0.296
	+	796.30		3.565E+00	1.588E+00	1.964E+00	5.181E-01	1.815
		805.60		1.282E+00	1.269E+00	2.185E+00	6.572E-01	0.587
		819.60		-4.348E-01	1.481E+00	2.404E+00	9.037E-01	-0.181
		826.30		-5.618E-01	1.005E+00	1.551E+00	6.884E-01	-0.362
		831.60		-1.977E-02	7.611E-01	1.270E+00	3.724E-01	-0.016
		876.40		8.427E-01	1.275E+00	1.684E+00	1.729E+00	0.500
		880.51		-1.118E-01	3.147E-01	5.073E-01	3.589E-02	-0.220
		883.24		-2.963E-02	3.306E-01	5.457E-01	3.659E-01	-0.054
		899.00		-5.671E-01	1.066E+00	1.648E+00	7.163E-01	-0.344
		925.00		-1.717E-01	1.177E+00	1.927E+00	1.386E-01	-0.089
		926.50		1.582E-02	1.871E-01	3.136E-01	7.785E-02	0.050
		946.00	*	1.473E-01	3.700E-01	6.332E-01	1.148E-01	0.233
		949.00		3.916E-01	5.485E-01	9.630E-01	6.860E-02	0.407
		980.50		-9.471E-01	7.824E-01	1.121E+00	7.862E-02	-0.845
		1394.10		1.365E+00	1.661E+00	2.559E+00	1.659E+00	0.534
PA-234M		766.42		3.159E+01	2.126E+01	2.637E+01	1.328E+01	1.198
		1001.03	*	5.807E+00	5.771E+00	1.029E+01	8.792E-01	0.564
U-235	+	89.95		4.027E+00	1.946E+00	2.370E+00	7.374E-01	1.699
	+	93.35		5.552E+00	1.870E+00	1.600E+00	4.501E-01	3.469
		105.00		6.206E-01	1.230E+00	2.046E+00	6.043E-01	0.303
		143.76	*	3.373E-01	2.457E-01	4.126E-01	6.711E-02	0.817
		163.35		1.364E-01	5.386E-01	8.854E-01	1.582E-01	0.154
	+	185.71		2.294E-01	6.910E-02	1.065E-01	5.891E-03	2.155
		205.31		2.097E-01	6.739E-01	9.676E-01	1.736E-01	0.217
NP-236		94.67		3.920E-01	1.740E-01	2.724E-01	2.381E-02	1.439
		98.44		1.565E-01	8.947E-02	1.399E-01	1.151E-02	1.119
		111.00		-2.414E-03	1.731E-01	2.810E-01	1.950E-02	-0.009
		160.31	*	1.886E-02	9.195E-02	1.511E-01	8.267E-03	0.125
NP-239		99.55		2.151E-01	1.946E-01	3.115E-01	2.521E-02	0.690
		117.00	*	6.434E-02	2.296E-01	3.818E-01	2.466E-02	0.169
	+	209.75		2.328E+00	1.271E+00	1.673E+00	9.524E-02	1.392
		228.18		-1.014E-01	2.601E-01	4.102E-01	2.379E-02	-0.247
		277.60		2.365E-01	2.242E-01	3.757E-01	2.241E-02	0.629

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		334.30		-1.614E+00	2.621E+00	2.324E+00	1.371E-01	-0.695
AM-241		59.54	*	-1.157E-01	2.246E-01	3.235E-01	3.162E-02	-0.358
CM-243		99.55		2.214E-01	2.003E-01	3.206E-01	2.594E-02	0.690
		103.76	*	9.114E-02	1.101E-01	1.870E-01	1.425E-02	0.487
		117.00		6.621E-02	2.362E-01	3.929E-01	2.538E-02	0.169
	+	209.75		2.296E+00	1.254E+00	1.649E+00	9.390E-02	1.392
		228.18		-1.024E-01	2.629E-01	4.146E-01	2.405E-02	-0.247
		277.60		2.384E-01	2.261E-01	3.788E-01	2.260E-02	0.629
AM-246		798.80		-1.979E-01	1.729E-01	2.105E-01	1.313E-02	-0.940
		1036.00		3.434E-02	3.742E-01	6.228E-01	4.218E-02	0.055
		1062.04		7.799E-02	2.694E-01	4.560E-01	3.028E-02	0.171
		1078.86	*	1.189E-01	1.569E-01	2.773E-01	1.815E-02	0.429
CM-247		278.00		8.257E-01	8.811E-01	1.543E+00	9.201E-02	0.535
		287.40		-3.648E-01	1.382E+00	2.298E+00	1.373E-01	-0.159
		402.60	*	2.399E-02	4.383E-02	7.500E-02	4.179E-03	0.320
CF-249		252.85		3.783E-01	1.012E+00	1.652E+00	9.756E-02	0.229
		333.44		-1.990E-01	3.428E-01	3.059E-01	1.805E-02	-0.650
		387.95	*	1.886E-02	4.681E-02	7.961E-02	4.440E-03	0.237
CF-251		176.60	*	-1.168E-01	1.497E-01	2.350E-01	1.286E-02	-0.497
		227.00		6.230E-02	4.481E-01	7.255E-01	4.203E-02	0.086
		285.00		3.249E-01	1.962E+00	3.332E+00	1.990E-01	0.098

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978013       *
* Acquisition date : 14-FEB-2010 13:11:39 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.37     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978013           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.3468E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	3.485E+01	2.956E+00	4.144E-01	0.000E+00
CD-109	4.305E+00	1.194E+00	1.470E+00	0.000E+00
SN-126	4.213E-01	1.169E-01	1.447E-01	0.000E+00
TL-208	5.584E-01	9.943E-02	6.820E-02	0.000E+00
BI-211	3.749E+00	5.681E-01	3.934E-01	0.000E+00
PB-212	1.737E+00	1.722E-01	1.089E-01	0.000E+00
PO-212	1.737E+00	1.722E-01	1.089E-01	0.000E+00
BI-214	1.167E+00	1.813E-01	1.277E-01	0.000E+00
PB-214	1.304E+00	2.086E-01	1.371E-01	0.000E+00
PO-214	1.304E+00	2.086E-01	1.371E-01	0.000E+00
PO-216	1.737E+00	1.722E-01	1.089E-01	0.000E+00
PO-218	1.304E+00	2.086E-01	1.371E-01	0.000E+00
RA-224	3.788E+00	1.462E+00	1.239E+00	0.000E+00
RA-226	1.167E+00	1.813E-01	1.277E-01	0.000E+00
AC-228	1.845E+00	3.413E-01	2.303E-01	0.000E+00
RA-228	1.845E+00	3.413E-01	2.303E-01	0.000E+00
TH-228	1.768E+00	1.753E-01	1.108E-01	0.000E+00
TH-230	1.167E+00	1.813E-01	1.277E-01	0.000E+00
TH-232	1.845E+00	3.413E-01	2.303E-01	0.000E+00
TH-234	4.481E+00	2.400E+00	2.833E+00	0.000E+00
U-234	1.167E+00	1.813E-01	1.277E-01	0.000E+00
NP-237	1.237E+00	4.247E-01	4.304E-01	0.000E+00
U-238	4.481E+00	2.400E+00	2.833E+00	0.000E+00
AM-243	3.914E-01	9.143E-02	1.143E-01	0.000E+00
ANH-511	1.694E-01	6.308E-02	5.355E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	1.034E-01	3.481E-01	6.111E-01	0.000E+00	NOT IDENT.
NA-22	1.110E-02	5.373E-02	9.154E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	2.292E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.434E-02	2.950E-02	6.075E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.248E-02	9.470E-02	0.000E+00	NOT IDENT.
SC-46	-2.065E-02	4.789E-02	7.933E-02	0.000E+00	FAIL ABUN
V-48	-5.602E-02	8.468E-02	1.346E-01	0.000E+00	NOT IDENT.
CR-51	-1.510E-02	4.408E-01	7.559E-01	0.000E+00	NOT IDENT.
MN-52	-1.183E-02	3.656E-01	6.017E-01	0.000E+00	NOT IDENT.
MN-54	-1.059E-02	4.681E-02	7.957E-02	0.000E+00	NOT IDENT.
CO-56	2.393E-02	4.604E-02	8.274E-02	0.000E+00	NOT IDENT.
CO-57	-2.551E-02	2.879E-02	4.885E-02	0.000E+00	NOT IDENT.
CO-58	-6.273E-02	4.695E-02	7.198E-02	0.000E+00	NOT IDENT.
FE-59	-1.218E-02	1.190E-01	1.996E-01	0.000E+00	NOT IDENT.
CO-60	1.411E-02	4.616E-02	7.953E-02	0.000E+00	NOT IDENT.
ZN-65	-1.145E-02	1.215E-01	1.741E-01	0.000E+00	NOT IDENT.
GE-68	6.342E-01	1.396E+00	2.465E+00	0.000E+00	NOT IDENT.
AS-73	3.994E-01	1.168E+00	2.150E+00	0.000E+00	NOT IDENT.
AS-74	-4.122E-02	1.126E-01	1.849E-01	0.000E+00	NOT IDENT.
SE-75	-3.577E-03	6.120E-02	8.956E-02	0.000E+00	NOT IDENT.
BR-77	-2.580E+00	2.910E+01	4.943E+01	0.000E+00	FAIL ABUN
SR-82	-6.970E-01	4.819E-01	7.388E-01	0.000E+00	NOT IDENT.
RB-83	-8.834E-03	8.365E-02	1.419E-01	0.000E+00	NOT IDENT.
RB-84	-4.659E-02	8.225E-02	1.342E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	8.664E+00	1.484E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	4.582E-02	7.849E-02	0.000E+00	NOT IDENT.
RB-86	-2.817E-01	1.013E+00	1.671E+00	0.000E+00	NOT IDENT.
Y-88	-3.152E-04	3.309E-02	5.556E-02	0.000E+00	NOT IDENT.
ZR-88	-7.281E-03	3.485E-02	5.993E-02	0.000E+00	NOT IDENT.
Y-91	-1.396E+01	2.497E+01	3.998E+01	0.000E+00	NOT IDENT.
NB-94	1.155E-02	4.054E-02	6.927E-02	0.000E+00	NOT IDENT.
NB-95	9.447E-02	5.440E-02	1.013E-01	0.000E+00	NOT IDENT.
NB-95M	0.000E+00	1.866E-01	3.189E-01	0.000E+00	NOT IDENT.
ZR-95	-2.928E-02	7.634E-02	1.220E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.959E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.228E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.217E+01	2.998E+01	5.151E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.582E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.130E-02	3.990E-02	6.849E-02	0.000E+00	NOT IDENT.
RH-102	-8.847E-03	3.143E-02	5.297E-02	0.000E+00	NOT IDENT.
RU-103	2.876E-03	4.577E-02	7.883E-02	0.000E+00	FAIL ABUN
RH-106	2.593E-01	3.555E-01	6.328E-01	0.000E+00	FAIL ABUN
RU-106	2.593E-01	3.546E-01	6.328E-01	0.000E+00	FAIL ABUN
AG-108M	-1.330E-02	3.561E-02	6.006E-02	0.000E+00	NOT IDENT.
AG-110M	-2.596E-02	3.964E-02	6.291E-02	0.000E+00	NOT IDENT.
IN-111	2.775E+00	2.549E+00	4.065E+00	0.000E+00	NOT IDENT.
IN-113M	4.824E-03	5.129E-02	8.981E-02	0.000E+00	NOT IDENT.
SN-113	4.824E-03	5.129E-02	8.981E-02	0.000E+00	NOT IDENT.
IN-114M	2.312E-01	2.325E-01	3.698E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.147E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	2.008E-02	7.304E-02	1.281E-01	0.000E+00	NOT IDENT.
SB-122	3.638E-02	5.024E+00	8.543E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.698E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.066E-02	3.299E-02	5.797E-02	0.000E+00	NOT IDENT.
I-124	2.841E-01	1.329E+00	1.988E+00	0.000E+00	NOT IDENT.
SB-124	1.288E-02	7.169E-02	1.259E-01	0.000E+00	FAIL ABUN
SB-125	-2.409E-02	1.028E-01	1.753E-01	0.000E+00	FAIL ABUN
TE-125M	-5.039E+00	1.152E+01	1.973E+01	0.000E+00	NOT IDENT.
I-126	2.639E-01	2.555E-01	4.609E-01	0.000E+00	NOT IDENT.
SB-126	8.478E-02	2.125E-01	3.210E-01	0.000E+00	FAIL ABUN
SB-127	5.324E-01	2.561E+00	4.367E+00	0.000E+00	NOT IDENT.
XE-127	-1.850E-02	6.204E-02	9.659E-02	0.000E+00	NOT IDENT.
I-131	-5.486E-02	1.623E-01	2.782E-01	0.000E+00	NOT IDENT.
TE-132	-5.678E-01	1.457E+00	2.428E+00	0.000E+00	NOT IDENT.
BA-133	1.648E-02	5.347E-02	8.342E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.134E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	6.568E-02	1.051E-01	0.000E+00	FAIL ABUN
CS-135	0.000E+00	2.152E-01	3.495E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.149E+19	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.223E-02	1.494E-01	2.570E-01	0.000E+00	FAIL ABUN
BA-137M	-2.316E-02	4.086E-02	6.542E-02	0.000E+00	NOT IDENT.
CS-137	-2.449E-02	4.319E-02	6.916E-02	0.000E+00	NOT IDENT.
CE-139	-2.236E-02	3.438E-02	5.793E-02	0.000E+00	NOT IDENT.
BA-140	4.927E-02	3.467E-01	5.967E-01	0.000E+00	NOT IDENT.
LA-140	5.001E-03	1.084E-01	1.859E-01	0.000E+00	FAIL ABUN
CE-141	2.769E-02	7.565E-02	1.337E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.334E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	1.609E-01	2.694E-01	4.247E-01	0.000E+00	NOT IDENT.
PM-144	7.167E-03	4.018E-02	6.818E-02	0.000E+00	NOT IDENT.
PR-144	4.864E-01	2.727E+00	4.627E+00	0.000E+00	NOT IDENT.

PM-146	2.711E-02	4.947E-02	8.821E-02	0.000E+00	NOT IDENT.
ND-147	3.667E-01	7.671E-01	1.351E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.521E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	5.933E-02	1.513E-01	1.909E-01	0.000E+00	FAIL ABUN
GD-153	1.547E-01	1.002E-01	1.667E-01	0.000E+00	FAIL ABUN
EU-154	3.755E-02	1.505E-01	2.574E-01	0.000E+00	NOT IDENT.
EU-155	-8.812E-03	1.224E-01	2.162E-01	0.000E+00	FAIL ABUN
TB-160	-2.244E-02	1.618E-01	2.751E-01	0.000E+00	FAIL ABUN
HO-166M	2.134E-02	7.122E-02	1.219E-01	0.000E+00	FAIL ABUN
TM-171	-9.576E+00	3.875E+01	6.086E+01	0.000E+00	NOT IDENT.
LU-176	-1.770E-02	2.692E-02	4.595E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.379E+00	3.271E+00	0.000E+00	FAIL ABUN
LU-177M	-8.179E-02	2.048E-01	3.469E-01	0.000E+00	FAIL ABUN
HF-181	-1.707E-03	4.816E-02	8.253E-02	0.000E+00	NOT IDENT.
W-181	7.789E-02	5.113E-01	8.176E-01	0.000E+00	NOT IDENT.
TA-182	2.428E-01	2.514E-01	4.522E-01	0.000E+00	FAIL ABUN
RE-183	-2.403E-02	1.290E-01	2.220E-01	0.000E+00	FAIL ABUN
RE-184	1.020E-01	2.674E-01	4.610E-01	0.000E+00	NOT IDENT.
OS-185	5.802E-03	5.236E-02	8.887E-02	0.000E+00	NOT IDENT.
RE-188	7.222E-02	2.157E-01	3.673E-01	0.000E+00	NOT IDENT.
W-188	2.266E+00	9.258E+00	1.455E+01	0.000E+00	FAIL ABUN
IR-192	8.123E-04	3.850E-02	6.800E-02	0.000E+00	FAIL ABUN
AU-195	2.708E-01	2.951E-01	4.794E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.272E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	1.876E+00	1.545E+01	2.687E+01	0.000E+00	NOT IDENT.
TL-202	4.496E-02	9.389E-02	1.670E-01	0.000E+00	NOT IDENT.
HG-203	1.412E-02	4.942E-02	8.889E-02	0.000E+00	FAIL ABUN
BI-207	1.224E-02	5.936E-02	1.026E-01	0.000E+00	FAIL ABUN
TL-207	9.641E-02	8.220E-01	1.271E+00	0.000E+00	FAIL ABUN
PO-209	-3.988E-01	8.497E+00	1.454E+01	0.000E+00	NOT IDENT.
BI-210	2.951E+00	5.457E+00	9.912E+00	0.000E+00	NOT IDENT.
PB-210	2.951E+00	5.457E+00	9.912E+00	0.000E+00	NOT IDENT.
PO-210	2.951E+00	5.456E+00	9.912E+00	0.000E+00	NOT IDENT.
PB-211	-1.788E+00	1.548E+00	1.726E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	5.647E-01	7.844E-01	0.000E+00	FAIL ABUN
PO-215	9.641E-02	8.220E-01	1.271E+00	0.000E+00	FAIL ABUN
RN-219	2.728E-01	4.836E-01	8.647E-01	0.000E+00	FAIL ABUN
RN-220	2.310E+01	2.856E+01	5.152E+01	0.000E+00	NOT IDENT.
RA-223	9.641E-02	8.220E-01	1.271E+00	0.000E+00	FAIL ABUN
AC-227	9.424E-02	4.383E-01	7.485E-01	0.000E+00	NOT IDENT.
TH-227	9.424E-02	4.384E-01	7.485E-01	0.000E+00	NOT IDENT.
TH-229	-6.314E-01	5.869E-01	9.596E-01	0.000E+00	FAIL ABUN
PA-231	9.442E-01	1.682E+00	3.056E+00	0.000E+00	NOT IDENT.
TH-231	9.641E-02	8.220E-01	1.271E+00	0.000E+00	FAIL ABUN
U-231	-1.493E+00	2.290E+00	3.465E+00	0.000E+00	FAIL ABUN
PA-233	5.090E-02	6.909E-02	1.265E-01	0.000E+00	FAIL ABUN
PA-234	1.473E-01	3.626E-01	6.397E-01	0.000E+00	FAIL ABUN
PA-234M	5.807E+00	5.656E+00	1.038E+01	0.000E+00	NOT IDENT.
U-235	3.373E-01	2.408E-01	4.312E-01	0.000E+00	FAIL ABUN
NP-236	1.886E-02	9.011E-02	1.576E-01	0.000E+00	NOT IDENT.
NP-239	6.434E-02	2.250E-01	4.004E-01	0.000E+00	FAIL ABUN
AM-241	-1.157E-01	2.201E-01	3.432E-01	0.000E+00	NOT IDENT.
CM-243	9.114E-02	1.079E-01	1.966E-01	0.000E+00	FAIL ABUN
AM-246	1.189E-01	1.538E-01	2.795E-01	0.000E+00	NOT IDENT.
CM-247	2.399E-02	4.295E-02	7.697E-02	0.000E+00	NOT IDENT.
CF-249	1.886E-02	4.587E-02	8.175E-02	0.000E+00	NOT IDENT.
CF-251	-1.168E-01	1.467E-01	2.447E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:13:28.88

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978013.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:11:39
Sample ID         : G245978013           Sample quantity  : 1.34680E+02 GRAM
Detector name     : GAM06                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.37  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1284	10.67*	9.624E-01	3.485E+01	3.485E+01	8.65
CD-109	88.03	288	3.72*	5.143E+00	4.191E+00	4.305E+00	28.30
SN-126	64.28	167	9.60	2.727E+00	1.774E+00	1.774E+00	53.81
	86.94	288	8.90	5.143E+00	1.752E+00	1.752E+00	49.37
	87.57	288	37.00*	5.143E+00	4.213E-01	4.213E-01	28.30
TL-208	277.35	------	6.80	3.899E+00	------	Line Not Found	------
	510.84	146	21.60	2.406E+00	7.841E-01	7.841E-01	38.91
	583.14	364	84.20*	2.158E+00	5.584E-01	5.584E-01	18.17
	860.37	------	12.46	1.539E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	3.913E+00	------	Line Not Found	------
	351.07	564	12.94*	3.243E+00	3.749E+00	3.749E+00	15.46
PB-212	74.81	379	10.70	4.092E+00	2.414E+00	2.414E+00	25.61
	77.11	572	18.00	4.325E+00	2.049E+00	2.049E+00	18.06
	87.30	288	8.00	5.143E+00	1.949E+00	1.949E+00	30.02
	238.63	1213	44.60*	4.367E+00	1.737E+00	1.737E+00	10.12
	300.09	------	3.41	3.669E+00	------	Line Not Found	------
PO-212	74.81	379	10.70	4.092E+00	2.414E+00	2.414E+00	25.61
	77.11	572	18.00	4.325E+00	2.049E+00	2.049E+00	18.06
	87.30	288	8.00	5.143E+00	1.949E+00	1.949E+00	30.02
	115.19	------	0.60	6.030E+00	------	Line Not Found	------
	238.63	1213	44.60*	4.367E+00	1.737E+00	1.737E+00	10.12
	300.09	------	3.41	3.669E+00	------	Line Not Found	------
BI-214	609.31	403	46.30*	2.080E+00	1.167E+00	1.167E+00	15.86
	1120.29	73	15.10	1.211E+00	1.119E+00	1.119E+00	51.78
	1764.49	64	15.80	8.403E-01	1.345E+00	1.345E+00	34.12
PB-214	74.81	379	6.21	4.092E+00	4.159E+00	4.159E+00	24.96
	77.11	572	10.50	4.325E+00	3.512E+00	3.512E+00	19.60
	87.30	288	4.67	5.143E+00	3.338E+00	3.338E+00	29.33
	241.98	232	7.49	4.329E+00	1.998E+00	1.998E+00	39.78
	295.21	331	19.20	3.718E+00	1.291E+00	1.291E+00	21.72
	351.92	564	37.20*	3.243E+00	1.304E+00	1.304E+00	16.32
PO-214	74.81	379	6.21	4.092E+00	4.159E+00	4.159E+00	24.96

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	572	10.50	4.325E+00	3.512E+00	3.512E+00	19.60
	87.30	288	4.67	5.143E+00	3.338E+00	3.338E+00	29.33
	241.98	232	7.49	4.329E+00	1.998E+00	1.998E+00	39.78
	295.21	331	19.20	3.718E+00	1.291E+00	1.291E+00	21.72
	351.92	564	37.20*	3.243E+00	1.304E+00	1.304E+00	16.32
PO-216	74.81	379	10.70	4.092E+00	2.414E+00	2.414E+00	25.61
	77.11	572	18.00	4.325E+00	2.049E+00	2.049E+00	18.06
	87.30	288	8.00	5.143E+00	1.949E+00	1.949E+00	30.02
	238.63	1213	44.60*	4.367E+00	1.737E+00	1.737E+00	10.12
	300.09	------	3.41	3.669E+00	------ Line Not Found		------
PO-218	74.81	379	6.21	4.092E+00	4.159E+00	4.159E+00	24.96
	77.11	572	10.50	4.325E+00	3.512E+00	3.512E+00	19.60
	87.30	288	4.67	5.143E+00	3.338E+00	3.338E+00	29.33
	241.98	232	7.49	4.329E+00	1.998E+00	1.998E+00	39.78
	295.21	331	19.20	3.718E+00	1.291E+00	1.291E+00	21.72
	351.92	564	37.20*	3.243E+00	1.304E+00	1.304E+00	16.32
RA-224	240.98	232	3.95*	4.329E+00	3.788E+00	3.788E+00	39.39
RA-226	609.31	403	46.30*	2.080E+00	1.167E+00	1.167E+00	15.86
	1120.29	73	15.10	1.211E+00	1.119E+00	1.119E+00	51.78
	1764.49	64	15.80	8.403E-01	1.345E+00	1.345E+00	34.12
AC-228	338.32	250	11.40	3.344E+00	1.830E+00	1.830E+00	48.49
	911.07	268	27.70*	1.462E+00	1.845E+00	1.845E+00	18.87
	969.11	149	16.60	1.382E+00	1.807E+00	1.807E+00	32.52
RA-228	338.32	250	11.40	3.344E+00	1.830E+00	1.830E+00	48.49
	911.07	268	27.70*	1.462E+00	1.845E+00	1.845E+00	18.87
	969.11	149	16.60	1.382E+00	1.807E+00	1.807E+00	32.52
TH-228	74.81	379	10.70	4.092E+00	2.414E+00	2.458E+00	23.87
	77.11	572	18.00	4.325E+00	2.049E+00	2.086E+00	18.06
	87.30	288	8.00	5.143E+00	1.949E+00	1.984E+00	28.30
	238.63	1213	44.60*	4.367E+00	1.737E+00	1.768E+00	10.12
	300.09	------	3.41	3.669E+00	------ Line Not Found		------
TH-230	609.31	403	46.30*	2.080E+00	1.167E+00	1.167E+00	15.86
	1120.29	73	15.10	1.211E+00	1.119E+00	1.119E+00	51.78
	1764.49	64	15.80	8.403E-01	1.345E+00	1.345E+00	34.12
TH-232	338.32	250	11.40	3.344E+00	1.830E+00	1.830E+00	26.88
	911.07	268	27.70*	1.462E+00	1.845E+00	1.845E+00	18.87
	969.11	149	16.60	1.382E+00	1.807E+00	1.807E+00	32.52
TH-234	63.29	167	3.80*	2.727E+00	4.481E+00	4.481E+00	54.66
	92.38	489	5.41	5.458E+00	4.618E+00	4.618E+00	26.00
U-234	609.31	403	46.30*	2.080E+00	1.167E+00	1.167E+00	15.86
	1120.29	73	15.10	1.211E+00	1.119E+00	1.119E+00	51.78
	1764.49	64	15.80	8.403E-01	1.345E+00	1.345E+00	34.12
NP-237	86.50	288	12.60*	5.143E+00	1.237E+00	1.237E+00	35.03
	95.87	------	2.60	5.611E+00	------ Line Not Found		------
U-238	63.29	167	3.80*	2.727E+00	4.481E+00	4.481E+00	54.66
	92.38	489	5.41	5.458E+00	4.618E+00	4.618E+00	20.57
AM-243	74.67	379	66.00*	4.092E+00	3.914E-01	3.914E-01	23.84
	86.72	288	0.34	5.143E+00	4.640E+01	4.640E+01	28.30
	117.66	------	0.55	6.042E+00	------ Line Not Found		------

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	142.18	------	0.13	5.887E+00	------	Line Not Found	------
ANH-511	511.00	146	100.00*	2.406E+00	1.694E-01	1.694E-01	38.00

Flag: "*" = Keyline

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

Total number of lines in spectrum 31
Number of unidentified lines 1
Number of lines tentatively identified by NID 30 96.77%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	3.485E+01	3.485E+01	0.302E+01	8.65	
CD-109	464.00D	1.03	4.191E+00	4.305E+00	1.219E+00	28.30	
SN-126	1.00E+05Y	1.00	4.213E-01	4.213E-01	1.192E-01	28.30	
TL-208	1.41E+10Y	1.00	5.584E-01	5.584E-01	1.015E-01	18.17	
BI-211	7.04E+08Y	1.00	3.749E+00	3.749E+00	0.580E+00	15.46	
PB-212	1.41E+10Y	1.00	1.737E+00	1.737E+00	0.176E+00	10.12	
PO-212	1.41E+10Y	1.00	1.737E+00	1.737E+00	0.176E+00	10.12	
BI-214	1600.00Y	1.00	1.167E+00	1.167E+00	0.185E+00	15.86	
PB-214	1600.00Y	1.00	1.304E+00	1.304E+00	0.213E+00	16.32	
PO-214	1600.00Y	1.00	1.304E+00	1.304E+00	0.213E+00	16.32	
PO-216	1.41E+10Y	1.00	1.737E+00	1.737E+00	0.176E+00	10.12	
PO-218	1600.00Y	1.00	1.304E+00	1.304E+00	0.213E+00	16.32	
RA-224	1.41E+10Y	1.00	3.788E+00	3.788E+00	1.492E+00	39.39	
RA-226	1600.00Y	1.00	1.167E+00	1.167E+00	0.185E+00	15.86	
AC-228	1.41E+10Y	1.00	1.845E+00	1.845E+00	0.348E+00	18.87	
RA-228	1.41E+10Y	1.00	1.845E+00	1.845E+00	0.348E+00	18.87	
TH-228	1.91Y	1.02	1.737E+00	1.768E+00	0.179E+00	10.12	
TH-230	4.47E+09Y	1.00	1.167E+00	1.167E+00	0.185E+00	15.86	
TH-232	1.41E+10Y	1.00	1.845E+00	1.845E+00	0.348E+00	18.87	
TH-234	4.47E+09Y	1.00	4.481E+00	4.481E+00	2.449E+00	54.66	
U-234	4.47E+09Y	1.00	1.167E+00	1.167E+00	0.185E+00	15.86	
NP-237	2.14E+06Y	1.00	1.237E+00	1.237E+00	0.433E+00	35.03	
U-238	4.47E+09Y	1.00	4.481E+00	4.481E+00	2.449E+00	54.66	
AM-243	7380.00Y	1.00	3.914E-01	3.914E-01	0.933E-01	23.84	
ANH-511	1.00E+09Y	1.00	1.694E-01	1.694E-01	0.644E-01	38.00	
	Total Activity :		7.938E+01	7.953E+01			

Grand Total Activity : 7.938E+01 7.953E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	84.10	149	385	1.40	168.20	164	29	2.07E-02	48.5	4.94E+00	T
1	89.54	207	376	1.41	179.08	164	29	2.87E-02	36.9	5.30E+00	T
0	128.87	143	357	1.44	257.73	253	9	1.99E-02	50.5	6.02E+00	T
0	185.61	230	254	1.25	371.22	367	9	3.20E-02	29.6	5.18E+00	T
0	208.78	130	320	1.07	417.56	413	10	1.80E-02	54.3	4.80E+00	T
0	269.86	109	213	1.84	539.72	535	10	1.52E-02	53.5	3.98E+00	T
0	327.53	82	232	1.56	655.05	650	13	1.14E-02	79.3	3.43E+00	T
0	462.97	61	135	1.20	925.94	919	12	8.47E-03	80.4	2.61E+00	T
0	726.84	95	76	1.11	1453.67	1447	14	1.32E-02	45.4	1.79E+00	T
0	794.93	82	31	1.65	1589.87	1584	13	1.14E-02	35.9	1.65E+00	T
2	964.35	51	48	2.34	1928.69	1922	23	7.02E-03	63.6	1.39E+00	T
0	1377.87	36	23	1.71	2755.75	2750	15	4.93E-03	67.2	1.01E+00	
0	1407.64	33	7	1.01	2815.29	2807	14	4.52E-03	49.4	9.92E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:13:36.07

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978013.CNF;1  *
* Acquisition date : 14-FEB-2010 13:11:39  Detector SN#     :               *
* Detector ID      : GAM06                 Sensitivity      : 5.00000       *
* Geometry         : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:01.37         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G245978013            Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.34680E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 4-FEB-2009 13:05:54.47MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	3.485E+01	3.016E+00	4.135E-01	2.735E-02	84.276
CD-109	4.305E+00	1.219E+00	1.395E+00	1.377E-01	3.086
SN-126	4.213E-01	1.192E-01	1.372E-01	1.351E-02	3.070
TL-208	5.584E-01	1.015E-01	6.691E-02	4.229E-03	8.346
BI-211	3.749E+00	5.797E-01	3.824E-01	2.468E-02	9.804
PB-212	1.737E+00	1.757E-01	1.051E-01	7.748E-03	16.523
PO-212	1.737E+00	1.757E-01	1.051E-01	7.748E-03	16.523
BI-214	1.167E+00	1.850E-01	1.253E-01	9.249E-03	9.308
PB-214	1.304E+00	2.128E-01	1.333E-01	1.106E-02	9.783
PO-214	1.304E+00	2.128E-01	1.333E-01	1.106E-02	9.783
PO-216	1.737E+00	1.757E-01	1.051E-01	7.748E-03	16.523
PO-218	1.304E+00	2.128E-01	1.333E-01	1.106E-02	9.783
RA-224	3.788E+00	1.492E+00	1.196E+00	7.011E-02	3.167
RA-226	1.167E+00	1.850E-01	1.253E-01	9.249E-03	9.308
AC-228	1.845E+00	3.483E-01	2.278E-01	2.328E-02	8.101
RA-228	1.845E+00	3.483E-01	2.278E-01	2.328E-02	8.101
TH-228	1.768E+00	1.789E-01	1.070E-01	7.888E-03	16.523
TH-230	1.167E+00	1.850E-01	1.253E-01	9.249E-03	9.308

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-232	1.845E+00	3.483E-01	2.278E-01	2.328E-02	8.101
TH-234	4.481E+00	2.449E+00	2.673E+00	4.860E-01	1.676
U-234	1.167E+00	1.850E-01	1.253E-01	9.249E-03	9.308
NP-237	1.237E+00	4.334E-01	4.082E-01	9.316E-02	3.031
U-238	4.481E+00	2.449E+00	2.673E+00	4.860E-01	1.676
AM-243	3.914E-01	9.330E-02	1.081E-01	9.766E-03	3.619
ANH-511	1.694E-01	6.437E-02	5.241E-02	2.930E-03	3.232

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	1.034E-01		3.552E-01	5.974E-01	3.946E-02	0.173
NA-22	1.110E-02		5.483E-02	9.111E-02	5.626E-03	0.122
NA-24	-5.273E+00		1.169E+01	Half-Life too short		
AL-26	3.434E-02		3.010E-02	6.087E-02	3.496E-03	0.564
TI-44	3.047E-01		6.375E-02	8.968E-02	8.243E-03	3.398
SC-46	-2.065E-02		4.887E-02	7.843E-02	5.622E-03	-0.263
V-48	-5.602E-02		8.641E-02	1.333E-01	9.333E-03	-0.420
CR-51	-1.510E-02		4.498E-01	7.335E-01	4.833E-02	-0.021
MN-52	-1.183E-02		3.730E-01	6.002E-01	3.777E-02	-0.020
MN-54	-1.059E-02		4.777E-02	7.858E-02	5.186E-03	-0.135
CO-56	2.393E-02		4.698E-02	8.172E-02	5.494E-03	0.293
CO-57	-2.551E-02		2.938E-02	4.661E-02	2.847E-03	-0.547
CO-58	-6.273E-02		4.791E-02	7.104E-02	4.536E-03	-0.883
FE-59	-1.218E-02		1.215E-01	1.981E-01	1.453E-02	-0.062
CO-60	1.411E-02		4.710E-02	7.922E-02	4.977E-03	0.178
ZN-65	-1.145E-02		1.240E-01	1.728E-01	1.095E-02	-0.066
GE-68	6.342E-01		1.425E+00	2.446E+00	1.603E-01	0.259
AS-73	3.994E-01		1.191E+00	2.023E+00	1.850E-01	0.197
AS-74	-4.122E-02		1.149E-01	1.815E-01	9.651E-03	-0.227
SE-75	-3.577E-03		6.245E-02	8.662E-02	5.197E-03	-0.041
BR-77	-2.580E+00		2.970E+01	4.839E+01	2.696E+00	-0.053
SR-82	-6.970E-01		4.918E-01	7.286E-01	4.383E-02	-0.957
RB-83	-8.834E-03		8.535E-02	1.389E-01	7.742E-03	-0.064
RB-84	-4.659E-02		8.393E-02	1.326E-01	9.396E-03	-0.351
KR-85	1.503E+01		8.841E+00	1.453E+01	8.114E-01	1.034
SR-85	7.947E-02		4.675E-02	7.682E-02	4.290E-03	1.034
RB-86	-2.817E-01		1.034E+00	1.658E+00	1.087E-01	-0.170
Y-88	-3.152E-04		3.376E-02	5.568E-02	3.164E-03	-0.006
ZR-88	-7.281E-03		3.556E-02	5.837E-02	3.239E-03	-0.125
Y-91	-1.396E+01		2.548E+01	3.975E+01	2.384E+00	-0.351
NB-94	1.155E-02		4.137E-02	6.818E-02	3.621E-03	0.169
NB-95	9.447E-02		5.551E-02	9.992E-02	5.907E-03	0.945
NB-95M	6.783E-01		1.904E-01	3.078E-01	2.326E-02	2.203
ZR-95	-2.928E-02		7.789E-02	1.203E-01	8.478E-03	-0.243
NB-97	-1.383E+00		9.997E-01	Half-Life too short		
ZR-97	1.027E+02		2.157E+01	Half-Life too short		

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
MO-99	1.217E+01		3.059E+01	5.076E+01	6.965E+00	0.240
TC-99M	-1.887E+14		8.071E+13	Half-Life too short		
RH-101	3.130E-02		4.071E-02	6.590E-02	3.702E-03	0.475
RH-102	-8.847E-03		3.207E-02	5.177E-02	2.915E-03	-0.171
RU-103	2.876E-03		4.671E-02	7.711E-02	9.685E-03	0.037
RH-106	2.593E-01		3.628E-01	6.215E-01	7.114E-02	0.417
RU-106	2.593E-01		3.618E-01	6.215E-01	3.223E-02	0.417
AG-108M	-1.330E-02		3.633E-02	5.861E-02	3.594E-03	-0.227
AG-110M	-2.596E-02		4.045E-02	6.185E-02	3.339E-03	-0.420
IN-111	2.775E+00		2.601E+00	3.926E+00	2.308E-01	0.707
IN-113M	4.824E-03		5.234E-02	8.747E-02	5.206E-03	0.055
SN-113	4.824E-03		5.234E-02	8.747E-02	5.206E-03	0.055
IN-114M	2.312E-01		2.372E-01	3.556E-01	1.979E-02	0.650
CD-115	-2.503E-05		1.606E-05	Half-Life too short		
SN-117M	2.008E-02		7.453E-02	1.228E-01	6.746E-03	0.164
SB-122	3.638E-02		5.127E+00	8.376E+00	4.564E-01	0.004
I-123	8.721E+01		1.377E+02	Half-Life too short		
TE-123M	1.066E-02		3.366E-02	5.557E-02	3.095E-03	0.192
I-124	2.841E-01		1.356E+00	1.952E+00	1.031E-01	0.146
SB-124	1.288E-02		7.315E-02	1.260E-01	8.183E-03	0.102
SB-125	-2.409E-02		1.049E-01	1.710E-01	1.004E-02	-0.141
TE-125M	-5.039E+00		1.175E+01	1.879E+01	1.710E+00	-0.268
I-126	2.639E-01		2.607E-01	4.533E-01	2.257E-02	0.582
SB-126	8.478E-02		2.169E-01	3.161E-01	1.732E-02	0.268
SB-127	5.324E-01		2.614E+00	4.297E+00	4.364E-01	0.124
XE-127	-1.850E-02		6.331E-02	9.298E-02	5.253E-03	-0.199
I-131	-5.486E-02		1.656E-01	2.706E-01	1.748E-02	-0.203
TE-132	-5.678E-01		1.486E+00	2.342E+00	3.511E-01	-0.242
BA-133	1.648E-02		5.456E-02	8.111E-02	9.376E-03	0.203
I-133	4.805E-02		3.640E-02	Half-Life too short		
CS-134	1.839E-01	+	6.702E-02	1.037E-01	6.528E-03	1.773
CS-135	3.718E-01		2.196E-01	3.381E-01	2.627E-02	1.100
I-135	7.430E+12		5.862E+12	Half-Life too short		
CS-136	2.223E-02		1.525E-01	2.549E-01	1.830E-02	0.087
BA-137M	-2.316E-02		4.169E-02	6.433E-02	3.177E-03	-0.360
CS-137	-2.449E-02		4.407E-02	6.800E-02	3.378E-03	-0.360
CE-139	-2.236E-02		3.508E-02	5.557E-02	3.005E-03	-0.402
BA-140	4.927E-02		3.538E-01	5.845E-01	1.898E-01	0.084
LA-140	5.001E-03		1.106E-01	1.858E-01	1.146E-02	0.027
CE-141	2.769E-02		7.719E-02	1.279E-01	7.548E-03	0.216
CE-143	4.464E-03		6.808E-04	Half-Life too short		
CE-144	1.609E-01		2.749E-01	4.059E-01	5.772E-02	0.396
PM-144	7.167E-03		4.099E-02	6.711E-02	3.531E-03	0.107
PR-144	4.864E-01		2.782E+00	4.554E+00	2.393E-01	0.107
PM-146	2.711E-02		5.048E-02	8.615E-02	7.332E-03	0.315
ND-147	3.667E-01		7.828E-01	1.324E+00	1.776E-01	0.277
PM-149	2.387E-05		1.286E-04	Half-Life too short		
EU-152	5.933E-02		1.544E-01	1.855E-01	1.222E-02	0.320

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	1.547E-01		1.022E-01	1.585E-01	1.325E-02	0.976
EU-154	3.755E-02		1.536E-01	2.561E-01	2.452E-02	0.147
EU-155	-8.812E-03		1.249E-01	2.058E-01	1.561E-02	-0.043
TB-160	-2.244E-02		1.651E-01	2.719E-01	1.921E-02	-0.083
HO-166M	2.134E-02		7.267E-02	1.200E-01	6.474E-03	0.178
TM-171	-9.576E+00		3.954E+01	5.748E+01	5.134E+00	-0.167
LU-176	-1.770E-02		2.747E-02	4.456E-02	2.658E-03	-0.397
LU-177	4.445E+00	+	2.427E+00	3.150E+00	1.791E-01	1.411
LU-177M	-8.179E-02		2.090E-01	3.382E-01	1.892E-02	-0.242
HF-181	-1.707E-03		4.914E-02	8.069E-02	4.540E-03	-0.021
W-181	7.789E-02		5.217E-01	7.718E-01	6.914E-02	0.101
TA-182	2.428E-01		2.565E-01	4.498E-01	2.716E-02	0.540
RE-183	-2.403E-02		1.316E-01	2.129E-01	1.159E-02	-0.113
RE-184	1.020E-01		2.729E-01	4.455E-01	2.631E-02	0.229
OS-185	5.802E-03		5.343E-02	8.735E-02	4.404E-03	0.066
RE-188	7.222E-02		2.201E-01	3.519E-01	1.949E-02	0.205
W-188	2.266E+00		9.447E+00	1.409E+01	8.419E-01	0.161
IR-192	8.123E-04		3.928E-02	6.598E-02	3.944E-03	0.012
AU-195	2.708E-01		3.012E-01	4.557E-01	3.725E-02	0.594
TL-200	-2.250E-03		1.669E-03	Half-Life too short		
TL-201	1.876E+00		1.576E+01	2.578E+01	1.395E+00	0.073
TL-202	4.496E-02		9.580E-02	1.630E-01	9.172E-03	0.276
HG-203	1.412E-02		5.043E-02	8.606E-02	5.435E-03	0.164
BI-207	1.224E-02		6.057E-02	1.018E-01	6.747E-03	0.120
TL-207	9.641E-02		8.387E-01	1.234E+00	2.044E-01	0.078
PO-209	-3.988E-01		8.670E+00	1.438E+01	1.042E+00	-0.028
BI-210	2.951E+00		5.568E+00	9.304E+00	7.661E-01	0.317
PB-210	2.951E+00		5.568E+00	9.304E+00	7.661E-01	0.317
PO-210	2.951E+00		5.567E+00	9.304E+00	6.721E-01	0.317
PB-211	-1.788E+00		1.580E+00	1.682E+00	1.048E+00	-1.063
BI-212	1.252E+00	+	5.763E-01	7.727E-01	5.811E-02	1.621
PO-215	9.641E-02		8.387E-01	1.234E+00	2.044E-01	0.078
RN-219	2.728E-01		4.934E-01	8.426E-01	1.138E-01	0.324
RN-220	2.310E+01		2.914E+01	5.048E+01	2.775E+00	0.458
RA-223	9.641E-02		8.387E-01	1.234E+00	2.044E-01	0.078
AC-227	9.424E-02		4.472E-01	7.235E-01	1.014E-01	0.130
TH-227	9.424E-02		4.473E-01	7.235E-01	1.226E-01	0.130
TH-229	-6.314E-01		5.989E-01	9.230E-01	5.157E-02	-0.684
PA-231	9.442E-01		1.716E+00	2.959E+00	4.099E-01	0.319
TH-231	9.641E-02		8.387E-01	1.234E+00	2.044E-01	0.078
U-231	-1.493E+00		2.337E+00	3.292E+00	2.821E-01	-0.453
PA-233	5.090E-02		7.050E-02	1.227E-01	7.738E-03	0.415
PA-234	1.473E-01		3.700E-01	6.332E-01	1.148E-01	0.233
PA-234M	5.807E+00		5.771E+00	1.029E+01	8.792E-01	0.564
U-235	3.373E-01		2.457E-01	4.126E-01	6.711E-02	0.817
NP-236	1.886E-02		9.195E-02	1.511E-01	8.267E-03	0.125
NP-239	6.434E-02		2.296E-01	3.818E-01	2.466E-02	0.169
AM-241	-1.157E-01		2.246E-01	3.235E-01	3.162E-02	-0.358

Sample ID : G245978013 Acquisition date : 14-FEB-2010 13:11:39

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	9.114E-02		1.101E-01	1.870E-01	1.425E-02	0.487
AM-246	1.189E-01		1.569E-01	2.773E-01	1.815E-02	0.429
CM-247	2.399E-02		4.383E-02	7.500E-02	4.179E-03	0.320
CF-249	1.886E-02		4.681E-02	7.961E-02	4.440E-03	0.237
CF-251	-1.168E-01		1.497E-01	2.350E-01	1.286E-02	-0.497

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978013           *
* Acquisition date  : 14-FEB-2010 13:11:39 Detector SN#     :               *
* Detector ID       : GAM06                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.37      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G245978013           Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.3468E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  4-FEB-2009 13:05:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	3.485E+01	2.956E+00	2.073E-01	1.508E+00
CD-109	4.305E+00	1.194E+00	7.356E-01	6.093E-01
SN-126	4.213E-01	1.169E-01	7.237E-02	5.962E-02
TL-208	5.584E-01	9.943E-02	3.412E-02	5.073E-02
BI-211	3.749E+00	5.681E-01	1.968E-01	2.898E-01
PB-212	1.737E+00	1.722E-01	5.447E-02	8.784E-02
PO-212	1.737E+00	1.722E-01	5.447E-02	8.784E-02
BI-214	1.167E+00	1.813E-01	6.387E-02	9.252E-02
PB-214	1.304E+00	2.086E-01	6.861E-02	1.064E-01
PO-214	1.304E+00	2.086E-01	6.861E-02	1.064E-01
PO-216	1.737E+00	1.722E-01	5.447E-02	8.784E-02
PO-218	1.304E+00	2.086E-01	6.861E-02	1.064E-01
RA-224	3.788E+00	1.462E+00	6.198E-01	7.461E-01
RA-226	1.167E+00	1.813E-01	6.387E-02	9.252E-02
AC-228	1.845E+00	3.413E-01	1.152E-01	1.742E-01
RA-228	1.845E+00	3.413E-01	1.152E-01	1.742E-01
TH-228	1.768E+00	1.753E-01	5.546E-02	8.943E-02
TH-230	1.167E+00	1.813E-01	6.386E-02	9.252E-02
TH-232	1.845E+00	3.413E-01	1.152E-01	1.742E-01
TH-234	4.481E+00	2.400E+00	1.418E+00	1.225E+00
U-234	1.167E+00	1.813E-01	6.386E-02	9.252E-02
NP-237	1.237E+00	4.247E-01	2.153E-01	2.167E-01
U-238	4.481E+00	2.400E+00	1.418E+00	1.225E+00
AM-243	3.914E-01	9.143E-02	5.718E-02	4.665E-02
ANH-511	1.694E-01	6.308E-02	2.679E-02	3.218E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	1.034E-01	3.481E-01	3.057E-01	1.776E-01 NOT IDENT.
NA-22	1.110E-02	5.373E-02	4.580E-02	2.741E-02 NOT IDENT.

NA-24	-5.273E+06	2.292E+07	0.000E+00	1.169E+07	SHORT HLIF
AL-26	3.434E-02	2.950E-02	3.040E-02	1.505E-02	NOT IDENT.
TI-44	3.047E-01	6.248E-02	4.738E-02	3.188E-02	NOT IDENT.
SC-46	-2.065E-02	4.789E-02	3.969E-02	2.443E-02	FAIL ABUN
V-48	-5.602E-02	8.468E-02	6.733E-02	4.320E-02	NOT IDENT.
CR-51	-1.510E-02	4.408E-01	3.782E-01	2.249E-01	NOT IDENT.
MN-52	-1.183E-02	3.656E-01	3.010E-01	1.865E-01	NOT IDENT.
MN-54	-1.059E-02	4.681E-02	3.981E-02	2.388E-02	NOT IDENT.
CO-56	2.393E-02	4.604E-02	4.139E-02	2.349E-02	NOT IDENT.
CO-57	-2.551E-02	2.879E-02	2.444E-02	1.469E-02	NOT IDENT.
CO-58	-6.273E-02	4.695E-02	3.601E-02	2.395E-02	NOT IDENT.
FE-59	-1.218E-02	1.190E-01	9.984E-02	6.074E-02	NOT IDENT.
CO-60	1.411E-02	4.616E-02	3.979E-02	2.355E-02	NOT IDENT.
ZN-65	-1.145E-02	1.215E-01	8.709E-02	6.201E-02	NOT IDENT.
GE-68	6.342E-01	1.396E+00	1.233E+00	7.123E-01	NOT IDENT.
AS-73	3.994E-01	1.168E+00	1.076E+00	5.957E-01	NOT IDENT.
AS-74	-4.122E-02	1.126E-01	9.252E-02	5.743E-02	NOT IDENT.
SE-75	-3.577E-03	6.120E-02	4.481E-02	3.122E-02	NOT IDENT.
BR-77	-2.580E+00	2.910E+01	2.473E+01	1.485E+01	FAIL ABUN
SR-82	-6.970E-01	4.819E-01	3.696E-01	2.459E-01	NOT IDENT.
RB-83	-8.834E-03	8.365E-02	7.100E-02	4.268E-02	NOT IDENT.
RB-84	-4.659E-02	8.225E-02	6.712E-02	4.197E-02	NOT IDENT.
KR-85	1.503E+01	8.664E+00	7.426E+00	4.421E+00	NOT IDENT.
SR-85	7.947E-02	4.582E-02	3.927E-02	2.338E-02	NOT IDENT.
RB-86	-2.817E-01	1.013E+00	8.360E-01	5.169E-01	NOT IDENT.
Y-88	-3.152E-04	3.309E-02	2.779E-02	1.688E-02	NOT IDENT.
ZR-88	-7.281E-03	3.485E-02	2.998E-02	1.778E-02	NOT IDENT.
Y-91	-1.396E+01	2.497E+01	2.000E+01	1.274E+01	NOT IDENT.
NB-94	1.155E-02	4.054E-02	3.465E-02	2.068E-02	NOT IDENT.
NB-95	9.447E-02	5.440E-02	5.070E-02	2.775E-02	NOT IDENT.
NB-95M	6.783E-01	1.866E-01	1.596E-01	9.518E-02	NOT IDENT.
ZR-95	-2.928E-02	7.634E-02	6.105E-02	3.895E-02	NOT IDENT.
NB-97	-1.383E+06	1.959E+06	0.000E+00	9.997E+05	SHORT HLIF
ZR-97	1.027E+08	4.228E+07	0.000E+00	2.157E+07	SHORT HLIF
MO-99	1.217E+01	2.998E+01	2.577E+01	1.530E+01	NOT IDENT.
TC-99M	-1.887E+20	1.582E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.130E-02	3.990E-02	3.426E-02	2.036E-02	NOT IDENT.
RH-102	-8.847E-03	3.143E-02	2.650E-02	1.604E-02	NOT IDENT.
RU-103	2.876E-03	4.577E-02	3.944E-02	2.335E-02	FAIL ABUN
RH-106	2.593E-01	3.555E-01	3.166E-01	1.814E-01	FAIL ABUN
RU-106	2.593E-01	3.546E-01	3.166E-01	1.809E-01	FAIL ABUN
AG-108M	-1.330E-02	3.561E-02	3.005E-02	1.817E-02	NOT IDENT.
AG-110M	-2.596E-02	3.964E-02	3.147E-02	2.023E-02	NOT IDENT.
IN-111	2.775E+00	2.549E+00	2.034E+00	1.301E+00	NOT IDENT.
IN-113M	4.824E-03	5.129E-02	4.493E-02	2.617E-02	NOT IDENT.
SN-113	4.824E-03	5.129E-02	4.493E-02	2.617E-02	NOT IDENT.
IN-114M	2.312E-01	2.325E-01	1.850E-01	1.186E-01	NOT IDENT.
CD-115	-2.503E+01	3.147E+01	0.000E+00	1.606E+01	SHORT HLIF
SN-117M	2.008E-02	7.304E-02	6.410E-02	3.727E-02	NOT IDENT.
SB-122	3.638E-02	5.024E+00	4.274E+00	2.563E+00	NOT IDENT.
I-123	8.721E+07	2.698E+08	0.000E+00	1.377E+08	SHORT HLIF
TE-123M	1.066E-02	3.299E-02	2.900E-02	1.683E-02	NOT IDENT.
I-124	2.841E-01	1.329E+00	9.947E-01	6.781E-01	NOT IDENT.
SB-124	1.288E-02	7.169E-02	6.301E-02	3.657E-02	FAIL ABUN
SB-125	-2.409E-02	1.028E-01	8.772E-02	5.244E-02	FAIL ABUN
TE-125M	-5.039E+00	1.152E+01	9.870E+00	5.877E+00	NOT IDENT.
I-126	2.639E-01	2.555E-01	2.306E-01	1.304E-01	NOT IDENT.
SB-126	8.478E-02	2.125E-01	1.606E-01	1.084E-01	FAIL ABUN
SB-127	5.324E-01	2.561E+00	2.185E+00	1.307E+00	NOT IDENT.
XE-127	-1.850E-02	6.204E-02	4.832E-02	3.165E-02	NOT IDENT.
I-131	-5.486E-02	1.623E-01	1.392E-01	8.279E-02	NOT IDENT.
TE-132	-5.678E-01	1.457E+00	1.215E+00	7.432E-01	NOT IDENT.
BA-133	1.648E-02	5.347E-02	4.174E-02	2.728E-02	NOT IDENT.
I-133	4.805E+04	7.134E+04	0.000E+00	3.640E+04	SHORT HLIF
CS-134	1.839E-01	6.568E-02	5.260E-02	3.351E-02	FAIL ABUN
CS-135	3.718E-01	2.152E-01	1.749E-01	1.098E-01	NOT IDENT.
I-135	7.430E+18	1.149E+19	0.000E+00	0.000E+00	SHORT HLIF
CS-136	2.223E-02	1.494E-01	1.286E-01	7.623E-02	FAIL ABUN
BA-137M	-2.316E-02	4.086E-02	3.273E-02	2.085E-02	NOT IDENT.
CS-137	-2.449E-02	4.319E-02	3.460E-02	2.204E-02	NOT IDENT.
CE-139	-2.236E-02	3.438E-02	2.898E-02	1.754E-02	NOT IDENT.
BA-140	4.927E-02	3.467E-01	2.985E-01	1.769E-01	NOT IDENT.
LA-140	5.001E-03	1.084E-01	9.299E-02	5.531E-02	FAIL ABUN
CE-141	2.769E-02	7.565E-02	6.687E-02	3.859E-02	NOT IDENT.
CE-143	4.464E+03	1.334E+03	0.000E+00	6.808E+02	SHORT HLIF
CE-144	1.609E-01	2.694E-01	2.125E-01	1.374E-01	NOT IDENT.
PM-144	7.167E-03	4.018E-02	3.411E-02	2.050E-02	NOT IDENT.
PR-144	4.864E-01	2.727E+00	2.315E+00	1.391E+00	NOT IDENT.

PM-146	2.711E-02	4.947E-02	4.413E-02	2.524E-02	NOT IDENT.
ND-147	3.667E-01	7.671E-01	6.761E-01	3.914E-01	FAIL ABUN
PM-149	2.387E+01	2.521E+02	0.000E+00	1.286E+02	SHORT HLIF
EU-152	5.933E-02	1.513E-01	9.549E-02	7.718E-02	FAIL ABUN
GD-153	1.547E-01	1.002E-01	8.342E-02	5.111E-02	FAIL ABUN
EU-154	3.755E-02	1.505E-01	1.288E-01	7.678E-02	NOT IDENT.
EU-155	-8.812E-03	1.224E-01	1.082E-01	6.246E-02	FAIL ABUN
TB-160	-2.244E-02	1.618E-01	1.376E-01	8.255E-02	FAIL ABUN
HO-166M	2.134E-02	7.122E-02	6.097E-02	3.634E-02	FAIL ABUN
TM-171	-9.576E+00	3.875E+01	3.045E+01	1.977E+01	NOT IDENT.
LU-176	-1.770E-02	2.692E-02	2.299E-02	1.374E-02	FAIL ABUN
LU-177	4.445E+00	2.379E+00	1.636E+00	1.214E+00	FAIL ABUN
LU-177M	-8.179E-02	2.048E-01	1.736E-01	1.045E-01	FAIL ABUN
HF-181	-1.707E-03	4.816E-02	4.129E-02	2.457E-02	NOT IDENT.
W-181	7.789E-02	5.113E-01	4.091E-01	2.609E-01	NOT IDENT.
TA-182	2.428E-01	2.514E-01	2.263E-01	1.282E-01	FAIL ABUN
RE-183	-2.403E-02	1.290E-01	1.111E-01	6.582E-02	FAIL ABUN
RE-184	1.020E-01	2.674E-01	2.306E-01	1.364E-01	NOT IDENT.
OS-185	5.802E-03	5.236E-02	4.446E-02	2.672E-02	NOT IDENT.
RE-188	7.222E-02	2.157E-01	1.838E-01	1.100E-01	NOT IDENT.
W-188	2.266E+00	9.258E+00	7.278E+00	4.724E+00	FAIL ABUN
IR-192	8.123E-04	3.850E-02	3.402E-02	1.964E-02	FAIL ABUN
AU-195	2.708E-01	2.951E-01	2.398E-01	1.506E-01	FAIL ABUN
TL-200	-2.250E+03	3.272E+03	0.000E+00	1.669E+03	SHORT HLIF
TL-201	1.876E+00	1.545E+01	1.344E+01	7.881E+00	NOT IDENT.
TL-202	4.496E-02	9.389E-02	8.356E-02	4.790E-02	NOT IDENT.
HG-203	1.412E-02	4.942E-02	4.447E-02	2.521E-02	FAIL ABUN
BI-207	1.224E-02	5.936E-02	5.132E-02	3.029E-02	FAIL ABUN
TL-207	9.641E-02	8.220E-01	6.361E-01	4.194E-01	FAIL ABUN
PO-209	-3.988E-01	8.497E+00	7.276E+00	4.335E+00	NOT IDENT.
BI-210	2.951E+00	5.457E+00	4.959E+00	2.784E+00	NOT IDENT.
PB-210	2.951E+00	5.457E+00	4.959E+00	2.784E+00	NOT IDENT.
PO-210	2.951E+00	5.456E+00	4.959E+00	2.784E+00	NOT IDENT.
PB-211	-1.788E+00	1.548E+00	8.634E-01	7.900E-01	NOT IDENT.
BI-212	1.252E+00	5.647E-01	3.925E-01	2.881E-01	FAIL ABUN
PO-215	9.641E-02	8.220E-01	6.361E-01	4.194E-01	FAIL ABUN
RN-219	2.728E-01	4.836E-01	4.326E-01	2.467E-01	FAIL ABUN
RN-220	2.310E+01	2.856E+01	2.577E+01	1.457E+01	NOT IDENT.
RA-223	9.641E-02	8.220E-01	6.361E-01	4.194E-01	FAIL ABUN
AC-227	9.424E-02	4.383E-01	3.744E-01	2.236E-01	NOT IDENT.
TH-227	9.424E-02	4.384E-01	3.744E-01	2.237E-01	NOT IDENT.
TH-229	-6.314E-01	5.869E-01	4.801E-01	2.995E-01	FAIL ABUN
PA-231	9.442E-01	1.682E+00	1.529E+00	8.581E-01	NOT IDENT.
TH-231	9.641E-02	8.220E-01	6.361E-01	4.194E-01	FAIL ABUN
U-231	-1.493E+00	2.290E+00	1.733E+00	1.168E+00	FAIL ABUN
PA-233	5.090E-02	6.909E-02	6.327E-02	3.525E-02	FAIL ABUN
PA-234	1.473E-01	3.626E-01	3.200E-01	1.850E-01	FAIL ABUN
PA-234M	5.807E+00	5.656E+00	5.194E+00	2.886E+00	NOT IDENT.
U-235	3.373E-01	2.408E-01	2.157E-01	1.229E-01	FAIL ABUN
NP-236	1.886E-02	9.011E-02	7.885E-02	4.597E-02	NOT IDENT.
NP-239	6.434E-02	2.250E-01	2.003E-01	1.148E-01	FAIL ABUN
AM-241	-1.157E-01	2.201E-01	1.717E-01	1.123E-01	NOT IDENT.
CM-243	9.114E-02	1.079E-01	9.834E-02	5.504E-02	FAIL ABUN
AM-246	1.189E-01	1.538E-01	1.398E-01	7.847E-02	NOT IDENT.
CM-247	2.399E-02	4.295E-02	3.851E-02	2.191E-02	NOT IDENT.
CF-249	1.886E-02	4.587E-02	4.090E-02	2.341E-02	NOT IDENT.
CF-251	-1.168E-01	1.467E-01	1.224E-01	7.486E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	387.5710
46.50	387.5710
46.50	387.5710
48.70	424.4839
49.72	404.3507
51.35	419.1667
52.39	418.0885
52.97	415.7587
53.15	405.8311
53.44	392.3120
54.07	391.8114
56.28	414.3747
56.28	414.3764
57.37	0.0000
57.53	445.5995
57.53	445.6004
57.60	462.8369
57.98	455.5034
57.98	455.5034
59.32	443.1812
59.32	443.1812
59.40	443.2370
59.54	443.3350
59.72	421.2882
60.01	421.4805
61.10	389.6081
61.14	392.5952
61.30	392.6930
63.00	465.2230
63.29	465.4280
63.29	465.4280
63.58	480.3186
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65.12	472.4914
65.20	472.5475
65.20	472.5475
66.05	471.6547
66.72	488.5540
66.83	488.6359
66.91	521.5723
67.20	520.2986
67.20	520.2986
67.75	546.1544
67.85	546.2346
68.90	470.2554
68.90	470.2554
69.30	487.3988
69.67	525.1730
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74.81	511.0343
74.81	511.0343
74.81	511.0343
74.81	511.0343
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77.11	512.6400

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77.11	512.6400
77.11	512.6400
77.11	512.6400
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80.30	430.1331
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81.07	430.5694
81.07	430.5694
81.07	430.5694
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83.78	410.1000
83.78	410.1000
84.21	410.3275
84.90	410.6891
85.43	410.9657
86.29	411.4141
86.50	411.5238
86.54	411.5434
86.59	411.5696
86.72	411.6383
86.79	411.6727
86.94	411.7513
87.30	411.9378
87.30	411.9378
87.30	411.9378
87.30	411.9378
87.30	411.9378
87.30	411.9378
87.30	411.9378
87.57	412.0769
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88.03	412.3142
88.36	412.4828
88.47	412.5400
89.95	413.2961
91.11	413.8853
92.29	414.4793
92.38	414.5251
92.38	414.5251
93.35	415.0112
94.00	415.3352
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94.67	423.2250
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94.90	457.4571
94.90	457.4571
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95.87	448.6697
96.73	393.1800
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98.44	320.7786
98.44	320.7799
98.88	363.0087
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99.55	346.9202
99.86	355.3996
100.00	355.4566
100.10	355.4997
103.18	380.6559
103.76	333.9041
105.00	353.9809
105.31	374.7023
108.00	396.4818
109.28	399.9939

111.00	397.7823
111.00	397.7823
111.76	423.7926
112.95	388.7259
115.19	407.5006
116.30	400.0360
117.00	374.5020
117.00	374.5020
117.66	385.6955
121.11	366.1236
121.62	381.2874
121.78	360.3844
122.06	360.4877
122.32	348.1685
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122.32	348.1685
122.32	348.1685
123.07	343.8648
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131.20	382.1278
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133.54	339.3633
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136.25	359.4852
136.48	354.4995
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140.51	0.0000
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142.65	344.3308
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144.24	305.0474
144.24	305.0474
144.24	305.0474
145.22	320.6383
145.44	341.1299
147.16	399.9731
152.43	323.7551
152.70	321.7759
153.22	337.3516
154.21	367.4971
154.21	367.4971
154.21	367.4971
154.21	367.4971
155.03	354.3721
156.02	370.1448
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159.00	0.0000
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162.64	313.1563
163.35	306.0823
163.89	310.3752
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167.43	309.2179
171.28	294.5389
171.86	306.1755
172.10	306.2359
176.55	332.5221
176.60	332.5341
181.06	303.1941
184.41	319.1959
185.71	306.4192
186.00	292.5394
190.27	246.0044
192.34	297.3718
193.63	324.2417
197.04	267.5244
198.01	274.1194
198.60	288.1110
200.40	318.4189
201.83	323.0339
202.84	302.5805
205.31	272.8174

208.36	295.7804
208.81	293.5117
209.75	301.2405
209.75	301.2405
210.97	304.9512
215.65	270.1035
216.55	289.7349
218.09	285.7207
222.10	275.6712
223.80	245.5719
226.40	255.8085
227.00	248.2913
227.08	249.3943
227.20	249.4152
228.16	250.6676
228.18	250.6711
228.18	250.6711
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235.69	241.8689
236.00	243.6725
236.00	243.6725
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238.63	249.1489
238.63	249.1489
238.63	249.1489
239.00	249.2095
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241.98	249.7014
241.98	249.7014
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245.39	162.2825
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248.90	215.4697
249.79	221.1212
252.40	178.3011
252.85	196.0771
252.85	196.0771
254.15	0.0000
256.20	203.1552
256.20	203.1552
260.50	227.0814
260.90	0.0000
262.80	219.6050
264.65	214.2773
268.24	193.2768
268.79	193.3427
269.46	197.0037
269.46	197.0037
269.46	197.0037
269.46	197.0037
271.23	218.7332
273.65	287.2852
276.40	196.5515
277.35	213.6949
277.60	206.9775
277.60	206.9775
278.00	208.8283
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279.20	219.7876
279.53	216.2256
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281.68	224.6228
283.67	175.2133
284.30	184.3147
285.00	182.5817
285.90	0.0000
286.10	180.8911
286.10	180.8911
287.40	190.9869
288.45	0.0000
290.67	175.3311
290.80	175.3429
291.72	187.5364
293.26	0.0000
293.70	180.1826
295.21	217.3144
295.21	217.3144

295.21	217.3144
295.96	254.7070
296.50	251.7525
297.23	238.2023
298.57	179.1678
299.80	177.7756
299.80	177.7756
300.09	171.7254
300.09	171.7254
300.09	171.7254
300.09	171.7254
300.12	171.7277
301.29	183.7913
302.84	203.6535
303.76	199.1911
303.91	199.2071
304.40	200.1770
304.40	200.1770
304.84	191.0824
306.84	176.6544
308.46	162.1564
311.98	144.1153
316.51	156.4386
318.01	157.4903
319.02	161.2619
319.41	157.6093
320.08	153.6723
323.87	158.6093
323.87	158.6093
323.87	158.6093
323.87	158.6093
325.23	163.3477
328.77	158.4109
333.44	190.3807
334.20	190.4583
334.20	190.4583
334.30	190.4683
338.28	145.2464
338.28	145.2464
338.28	145.2464
338.28	145.2464
338.32	145.2483
338.32	145.2483
338.32	145.2483
340.50	160.0197
340.57	160.0238
344.27	136.9844
345.85	127.1248
350.59	0.0000
351.07	153.7120
351.92	153.7780
351.92	153.7780
351.92	153.7780
355.39	0.0000
356.01	133.1134
364.48	136.8278
366.43	124.6830
367.43	126.6342
367.94	0.0000
369.80	131.5138
374.96	134.6937
383.85	141.9465
387.95	134.5903
388.63	128.9042
391.69	133.8733
391.69	133.8733
392.90	132.0366
398.62	136.2312
400.65	125.7981
401.10	127.7462
401.81	133.5533
402.60	131.6802
404.84	173.1907
410.95	114.8222
411.60	118.7178
413.65	140.0829
414.70	115.0198
415.30	113.1181

415.76	116.0435
417.63	0.0000
418.52	116.1885
423.70	117.4314
427.08	116.6382
427.89	119.5977
432.53	110.1019
433.93	113.0943
439.47	111.4172
439.56	111.4214
439.89	116.3257
443.98	125.3469
444.90	122.4579
445.03	122.4655
445.03	122.4655
445.03	122.4655
445.03	122.4655
453.90	104.2493
463.38	110.2681
468.07	89.0486
473.00	114.0201
475.06	99.2322
475.35	94.2822
476.78	91.3587
477.59	85.4300
477.96	90.4101
482.03	94.5431
484.57	89.6605
487.03	94.7379
490.36	0.0000
492.35	0.0000
497.08	88.1160
507.63	0.0000
510.53	0.0000
510.84	94.6420
511.00	94.6477
511.85	94.6804
511.85	94.6804
513.99	78.9664
513.99	78.9664
520.41	105.1045
520.65	105.1146
527.90	0.0000
528.96	0.0000
529.64	91.2832
529.87	0.0000
531.02	86.2576
537.32	91.5513
543.00	73.3992
546.56	0.0000
549.76	73.5873
552.65	101.2913
555.20	88.0744
563.23	80.1195
563.90	94.5246
568.70	93.6616
569.32	92.6543
569.50	95.7496
569.67	95.7541
573.80	109.3047
574.00	111.3750
574.64	110.0260
578.91	72.3157
579.30	0.0000
583.14	87.9468
585.48	48.3255
591.81	71.4991
592.07	69.5452
593.00	67.4915
595.88	86.2685
600.56	91.6180
602.52	0.0000
602.71	79.8786
602.71	79.8786
603.60	81.6418
604.41	76.4521
604.70	76.4593
609.31	86.6779

609.31	86.6779
609.31	86.6779
609.31	86.6779
610.33	81.8331
612.46	81.8943
614.37	66.2572
618.01	81.7039
621.84	68.1754
621.84	68.1754
631.29	67.3453
633.02	66.3315
633.10	66.3330
634.78	75.8531
635.90	84.3125
636.97	79.0723
645.85	80.3659
646.12	84.6035
656.30	70.0348
657.75	85.9933
657.90	0.0000
661.65	89.2931
661.65	89.2931
664.57	0.0000
666.33	77.7193
666.33	77.7193
675.00	71.5326
677.61	73.7303
685.20	68.5547
692.80	80.5334
695.00	84.8884
696.49	80.6287
696.49	80.6287
697.00	84.9424
697.49	93.5590
698.33	82.8258
698.50	86.0586
699.00	89.3000
702.63	86.1699
706.10	88.4203
706.58	0.0000
706.67	88.4363
709.31	83.1134
711.68	75.6140
713.82	89.7154
717.42	67.0920
720.50	63.1840
721.93	0.0000
722.20	86.6982
722.78	86.7129
722.78	86.7129
722.89	86.7168
722.95	86.7188
723.30	92.1490
724.18	59.6420
727.18	60.7824
733.00	70.6764
735.90	78.3580
739.58	75.1756
742.81	74.1592
744.21	77.4638
747.13	82.9933
751.79	63.4248
752.31	64.5284
753.82	54.7107
755.35	62.3980
756.15	61.3184
756.87	59.1416
763.93	103.1659
765.79	69.1816
766.42	61.5057
766.84	73.5969
776.49	94.5529
778.00	86.3292
778.57	70.7275
778.89	70.7337
783.80	50.5968
785.46	66.2681
792.07	50.5871

795.84	44.3115
796.30	52.2312
798.80	72.8601
801.93	85.6086
805.60	62.0246
810.29	85.2823
810.76	85.2935
815.85	55.7068
817.79	66.8848
818.51	70.6145
819.60	71.5656
826.30	74.4938
828.27	0.0000
831.60	76.4696
831.96	73.6800
834.83	90.5408
836.80	0.0000
846.75	58.9984
848.13	51.5267
856.28	0.0000
856.80	76.0644
860.37	54.5190
867.32	65.9227
867.82	58.3962
871.10	60.3333
873.19	79.2319
874.81	59.4509
875.33	0.0000
876.40	46.2585
879.36	60.4674
880.27	61.4281
880.51	59.5419
881.50	62.3933
883.24	59.5842
884.67	52.0381
889.25	70.1007
896.60	60.7461
898.02	77.8593
899.00	75.0301
903.28	61.3283
911.07	50.6323
911.07	50.6323
911.07	50.6323
919.63	50.6084
920.93	41.0736
925.00	43.9851
925.24	47.8129
926.50	47.8292
935.52	47.9401
937.48	68.1081
944.10	67.2628
946.00	59.6046
949.00	56.7637
962.29	56.2639
964.01	53.1145
966.15	53.1436
968.20	53.1705
969.11	53.1828
969.11	53.1828
969.11	53.1828
977.42	37.2078
980.50	58.1812
983.50	53.3730
989.30	55.3927
996.32	72.0368
1001.03	56.5262
1001.68	51.6608
1004.76	75.1107
1021.30	0.0000
1024.50	0.0000
1034.80	60.9177
1036.00	60.9329
1037.82	46.2121
1038.57	49.1699
1038.76	0.0000
1045.16	65.9913
1046.59	47.2930
1048.07	57.1646

1050.47	67.0592
1050.47	67.0592
1062.04	52.4091
1063.62	51.4393
1076.63	57.5469
1077.35	46.6405
1078.86	40.6997
1085.78	54.6844
1099.22	66.8201
1112.02	68.0138
1112.84	58.3094
1115.52	63.4905
1120.29	80.7386
1120.29	80.7386
1120.29	80.7386
1120.29	80.7386
1120.51	80.7419
1121.28	65.2913
1124.00	0.0000
1129.67	58.2407
1131.51	0.0000
1147.95	0.0000
1167.94	73.9208
1173.22	68.9380
1175.09	72.0083
1177.93	61.9035
1189.05	72.2249
1204.90	84.7157
1205.75	0.0000
1213.00	71.5694
1221.42	65.5521
1230.97	62.6034
1235.34	104.7766
1236.41	0.0000
1238.25	78.1152
1246.25	89.5701
1260.41	0.0000
1271.85	47.6078
1274.45	51.7741
1274.54	51.7761
1291.56	39.4844
1298.22	0.0000
1312.09	31.3000
1325.50	42.8902
1325.50	42.8902
1332.49	34.5697
1333.61	36.6720
1360.21	37.9160
1362.66	0.0000
1365.15	25.3008
1368.21	36.9198
1368.53	0.0000
1376.25	39.8443
1384.27	21.7667
1394.10	22.2612
1395.20	29.6885
1407.95	25.5078
1434.06	23.4967
1436.60	14.9593
1457.56	0.0000
1460.81	10.7332
1489.15	19.4194
1509.49	12.9932
1596.49	20.7301
1620.62	14.1922
1678.03	0.0000
1691.02	9.5728
1691.02	9.5728
1706.46	0.0000
1750.46	0.0000
1764.49	13.5610
1764.49	13.5610
1764.49	13.5610
1764.49	13.5610
1770.23	11.8766
1771.40	63.9997
1791.20	0.0000
1808.65	4.8769

1836.01	9.7949

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978013

Total Uranium Activity	1.3487E+01	ug/g
Total Uranium Counting Unc.	7.1421E+00	ug/g
Total Uranium Tpu	3.6439E-06	ug/g
Total Uranium Mda	4.2183E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978013       *
*   ANALYST       : MXR1                      DETECTOR   : GAM06            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 13:11:39.04    SAMPLE ALQT:  134.680 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.040E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.411E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.833E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.864E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:14:29.49

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978014.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:12:09
Sample ID         : G245978014           Sample quantity  : 1.41190E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.96  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.24*	282	719	0.96	125.36	122	8	3.92E-02	17.8	
2	2	74.89*	480	529	0.89	148.67	145	11	6.66E-02	8.3	4.09E+00
3	2	77.11	802	433	0.80	153.12	145	11	1.11E-01	5.4	
4	5	84.20*	142	476	1.30	167.31	164	13	1.98E-02	25.5	9.30E-01
5	5	87.24	337	500	1.10	173.39	164	13	4.67E-02	12.4	
6	0	92.76*	1000	642	1.07	184.45	181	9	1.39E-01	5.7	
7	0	98.64	90	490	1.08	196.22	192	9	1.25E-02	45.6	
8	0	128.89	106	344	0.73	256.75	253	7	1.48E-02	30.5	
9	0	140.81*	58	178	1.16	280.62	279	5	8.02E-03	39.0	
10	0	143.71*	64	278	1.06	286.41	284	7	8.93E-03	45.5	
11	0	185.91*	387	366	1.18	370.88	366	11	5.38E-02	11.3	
12	0	209.14	92	317	0.99	417.39	413	8	1.28E-02	35.0	
13	0	238.58*	1452	360	1.06	476.30	471	9	2.02E-01	3.6	
14	0	241.79	233	291	1.02	482.73	481	7	3.23E-02	14.6	
15	4	270.19*	105	200	1.55	539.56	534	27	1.46E-02	26.9	1.16E+00
16	4	277.64	63	185	1.57	554.47	534	27	8.79E-03	41.0	
17	0	295.16	473	231	1.01	589.55	584	11	6.57E-02	7.7	
18	0	328.06	62	133	1.10	655.39	652	7	8.67E-03	33.3	
19	0	338.40*	270	230	1.05	676.08	670	12	3.75E-02	12.9	
20	0	352.01*	788	195	1.23	703.31	698	11	1.09E-01	5.0	
21	0	410.58	94	162	2.66	820.53	813	14	1.30E-02	31.1	
22	0	462.74	99	108	1.14	924.91	920	11	1.37E-02	22.7	
23	0	510.96*	162	120	1.50	1021.42	1015	14	2.25E-02	19.1	
24	0	583.34*	496	124	1.41	1166.25	1158	16	6.89E-02	6.8	
25	0	609.38*	562	127	1.29	1218.38	1212	13	7.80E-02	6.0	
26	0	727.71*	71	79	1.49	1455.16	1451	9	9.89E-03	25.9	
27	0	768.49	65	70	1.15	1536.76	1530	11	9.06E-03	26.6	
28	0	795.05*	41	59	1.51	1589.91	1585	10	5.73E-03	38.4	
29	0	861.24	65	55	1.20	1722.35	1717	11	9.01E-03	25.7	
30	0	911.50*	306	50	1.52	1822.91	1818	11	4.25E-02	7.3	
31	0	934.79	31	36	0.71	1869.52	1865	9	4.31E-03	39.2	
32	1	964.87	56	41	1.73	1929.71	1922	22	7.76E-03	26.2	1.05E+00
33	1	969.17	158	43	1.63	1938.31	1922	22	2.19E-02	11.2	
34	0	1001.00*	56	53	1.63	2001.98	1996	13	7.84E-03	30.2	
35	0	1120.87	97	62	1.22	2241.82	2237	9	1.35E-02	17.9	
36	0	1238.52	86	61	1.00	2477.21	2470	17	1.19E-02	23.2	
37	0	1377.47	45	22	0.86	2755.19	2746	18	6.22E-03	29.0	
38	0	1461.32*	1348	50	1.87	2922.93	2915	17	1.87E-01	3.0	

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
39	0	1510.26	17	6	0.93	3020.82	3016	8	2.35E-03	35.0	
40	0	1513.73	13	2	1.04	3027.77	3025	6	1.74E-03	35.2	
41	0	1588.33	30	21	1.08	3177.00	3171	12	4.17E-03	35.6	
42	0	1764.90*	92	0	1.73	3530.20	3524	11	1.27E-02	10.9	
43	0	1847.95	22	2	1.49	3696.31	3692	8	3.07E-03	23.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 15:14:33

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978014.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:12:09
Sample ID : G245978014 Sample quantity : 141.19 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA11 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.96 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.742E+01	2.883E+00	4.646E-01	4.017E-02	59.017
CD-109	+	88.03	*	3.639E+00	9.682E-01	1.198E+00	1.136E-01	3.037
SN-126	+	64.28		1.826E+00	7.022E-01	6.263E-01	9.085E-02	2.916
	+	86.94		1.480E+00	7.168E-01	4.455E-01	1.850E-01	3.323
	+	87.57	*	3.561E-01	9.475E-02	1.176E-01	1.110E-02	3.027
TL-208	+	277.35		5.297E-01	4.450E-01	4.777E-01	8.470E-02	1.109
	+	510.84		6.746E-01	2.732E-01	1.811E-01	2.455E-02	3.726
	+	583.14	*	5.888E-01	1.024E-01	4.517E-02	4.878E-03	13.035
	+	860.37		7.193E-01	3.776E-01	3.909E-01	4.071E-02	1.840
BI-211		72.87		-4.321E-01	2.727E+00	3.902E+00	3.099E-01	-0.111
	+	351.07	*	4.131E+00	6.820E-01	2.861E-01	3.775E-02	14.438
PB-212	+	74.81		2.056E+00	4.261E-01	4.233E-01	5.236E-02	4.857
	+	77.11		1.966E+00	2.666E-01	2.362E-01	1.962E-02	8.326
	+	87.30		1.647E+00	4.681E-01	4.943E-01	6.784E-02	3.332
	+	238.63	*	1.661E+00	2.611E-01	7.534E-02	1.055E-02	22.048
		300.09		1.151E+00	7.692E-01	1.189E+00	1.906E-01	0.968
PO-212	+	74.81		2.056E+00	4.261E-01	4.233E-01	5.236E-02	4.857
	+	77.11		1.966E+00	2.666E-01	2.362E-01	1.962E-02	8.326
	+	87.30		1.647E+00	4.681E-01	4.943E-01	6.784E-02	3.332
		115.19		-2.047E-02	2.770E+00	4.717E+00	3.997E-01	-0.004
	+	238.63	*	1.661E+00	2.611E-01	7.534E-02	1.055E-02	22.048
		300.09		1.151E+00	7.692E-01	1.189E+00	1.906E-01	0.968
BI-214	+	609.31	*	1.256E+00	2.066E-01	9.537E-02	1.078E-02	13.165
	+	1120.29		1.116E+00	4.168E-01	4.136E-01	4.467E-02	2.698
	+	1764.49		1.438E+00	3.361E-01	2.507E-01	2.066E-02	5.736
PB-214	+	74.81		3.542E+00	7.058E-01	7.294E-01	8.008E-02	4.857
	+	77.11		3.371E+00	5.243E-01	4.048E-01	4.564E-02	8.326
	+	87.30		2.821E+00	7.816E-01	8.468E-01	1.029E-01	3.332
	+	241.98		1.600E+00	5.222E-01	5.400E-01	7.867E-02	2.963
	+	295.21		1.465E+00	3.295E-01	1.585E-01	2.585E-02	9.246
	+	351.92	*	1.437E+00	2.488E-01	9.974E-02	1.411E-02	14.407
PO-214	+	74.81		3.542E+00	7.058E-01	7.294E-01	8.008E-02	4.857
	+	77.11		3.371E+00	5.243E-01	4.048E-01	4.564E-02	8.326
	+	87.30		2.821E+00	7.816E-01	8.468E-01	1.029E-01	3.332

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		1.600E+00	5.222E-01	5.400E-01	7.867E-02	2.963
	+	295.21		1.465E+00	3.295E-01	1.585E-01	2.585E-02	9.246
	+	351.92	*	1.437E+00	2.488E-01	9.974E-02	1.411E-02	14.407
PO-216	+	74.81		2.056E+00	4.261E-01	4.233E-01	5.236E-02	4.857
	+	77.11		1.966E+00	2.666E-01	2.362E-01	1.962E-02	8.326
	+	87.30		1.647E+00	4.681E-01	4.943E-01	6.784E-02	3.332
	+	238.63	*	1.661E+00	2.611E-01	7.534E-02	1.055E-02	22.048
		300.09		1.151E+00	7.692E-01	1.189E+00	1.906E-01	0.968
PO-218	+	74.81		3.542E+00	7.058E-01	7.294E-01	8.008E-02	4.857
	+	77.11		3.371E+00	5.243E-01	4.048E-01	4.564E-02	8.326
	+	87.30		2.821E+00	7.816E-01	8.468E-01	1.029E-01	3.332
	+	241.98		1.600E+00	5.222E-01	5.400E-01	7.867E-02	2.963
	+	295.21		1.465E+00	3.295E-01	1.585E-01	2.585E-02	9.246
	+	351.92	*	1.437E+00	2.488E-01	9.974E-02	1.411E-02	14.407
RA-224	+	240.98	*	3.034E+00	9.755E-01	1.053E+00	1.410E-01	2.881
RA-226	+	609.31	*	1.256E+00	2.066E-01	9.537E-02	1.078E-02	13.165
	+	1120.29		1.116E+00	4.168E-01	4.136E-01	4.467E-02	2.698
	+	1764.49		1.438E+00	3.361E-01	2.507E-01	2.066E-02	5.736
AC-228	+	338.32		1.559E+00	7.760E-01	3.169E-01	1.348E-01	4.919
	+	911.07	*	1.603E+00	3.055E-01	1.841E-01	2.241E-02	8.709
	+	969.11		1.454E+00	4.734E-01	3.009E-01	7.130E-02	4.832
RA-228	+	338.32		1.559E+00	7.760E-01	3.169E-01	1.348E-01	4.919
	+	911.07	*	1.603E+00	3.055E-01	1.841E-01	2.241E-02	8.709
	+	969.11		1.454E+00	4.734E-01	3.009E-01	7.130E-02	4.832
TH-228	+	74.81		2.093E+00	3.879E-01	4.310E-01	3.526E-02	4.857
	+	77.11		2.002E+00	2.715E-01	2.404E-01	1.998E-02	8.326
	+	87.30		1.677E+00	4.461E-01	5.033E-01	4.731E-02	3.332
	+	238.63	*	1.691E+00	2.659E-01	7.671E-02	1.074E-02	22.048
		300.09		1.172E+00	1.040E+00	1.211E+00	7.328E-01	0.968
TH-229	+	85.43		3.471E-01	1.800E-01	2.432E-01	2.232E-02	1.428
	+	88.47		4.862E-01	1.294E-01	1.491E-01	1.408E-02	3.261
	+	100.00		2.668E-01	2.446E-01	2.234E-01	1.961E-02	1.194
		193.63	*	1.299E-01	4.228E-01	7.087E-01	7.781E-02	0.183
		210.97		7.475E-01	7.217E-01	1.118E+00	1.324E-01	0.668
TH-230	+	609.31	*	1.256E+00	2.066E-01	9.537E-02	1.078E-02	13.165
	+	1120.29		1.116E+00	4.168E-01	4.136E-01	4.467E-02	2.698
	+	1764.49		1.438E+00	3.361E-01	2.507E-01	2.066E-02	5.736
TH-232	+	338.32		1.559E+00	4.546E-01	3.169E-01	4.273E-02	4.919
	+	911.07	*	1.603E+00	3.055E-01	1.841E-01	2.241E-02	8.709
	+	969.11		1.454E+00	4.734E-01	3.009E-01	7.130E-02	4.832
TH-234	+	63.29	*	4.614E+00	1.829E+00	1.552E+00	2.701E-01	2.972
	+	92.38		6.962E+00	1.506E+00	6.764E-01	1.241E-01	10.293
U-234	+	609.31	*	1.256E+00	2.066E-01	9.537E-02	1.078E-02	13.165
	+	1120.29		1.116E+00	4.168E-01	4.136E-01	4.467E-02	2.698
	+	1764.49		1.438E+00	3.361E-01	2.507E-01	2.066E-02	5.736
U-235		89.95		1.270E+00	1.177E+00	1.483E+00	4.607E-01	0.857
	+	93.35		8.370E+00	2.547E+00	8.097E-01	2.281E-01	10.338
		105.00		1.196E+00	9.077E-01	1.498E+00	4.471E-01	0.798
	+	143.76	*	2.313E-01	2.146E-01	2.530E-01	4.473E-02	0.914

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		163.35		1.765E-01	3.865E-01	6.556E-01	1.282E-01	0.269
	+	185.71		3.096E-01	7.733E-02	5.748E-02	6.096E-03	5.386
		205.31		-2.119E-01	4.806E-01	6.869E-01	1.413E-01	-0.308
NP-237	+	86.50	*	1.046E+00	3.521E-01	3.157E-01	7.146E-02	3.312
		95.87		1.672E-01	9.344E-01	1.178E+00	2.915E-01	0.142
U-238	+	63.29	*	4.614E+00	1.829E+00	1.552E+00	2.701E-01	2.972
	+	92.38		6.962E+00	1.021E+00	6.764E-01	6.194E-02	10.293
AM-243	+	74.67	*	3.333E-01	6.165E-02	6.879E-02	5.567E-03	4.845
	+	86.72		3.921E+01	1.043E+01	1.182E+01	1.103E+00	3.318
		117.66		-3.199E+00	2.873E+00	4.649E+00	3.932E-01	-0.688
	+	142.18		1.732E+01	1.358E+01	1.801E+01	1.606E+00	0.962
ANH-511	+	511.00	*	1.457E-01	5.775E-02	3.913E-02	4.184E-03	3.724

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.875E-01	2.850E-01	5.045E-01	5.710E-02	0.570
NA-22		1274.54	*	-3.578E-02	3.888E-02	5.654E-02	4.643E-03	-0.633
NA-24		1368.53	*	-1.453E+00	3.888E-02	Half-Life too short		
AL-26		1129.67		-1.351E-01	1.533E+00	2.501E+00	2.112E-01	-0.054
		1808.65	*	3.207E-04	2.564E-02	4.236E-02	3.458E-03	0.008
TI-44		67.85		-3.442E-02	3.629E-02	5.492E-02	4.161E-03	-0.627
	+	78.38	*	3.629E-01	4.921E-02	5.529E-02	4.660E-03	6.564
SC-46		889.25	*	-3.608E-02	3.596E-02	5.466E-02	5.384E-03	-0.660
	+	1120.51		1.957E-01	7.195E-02	1.216E-01	1.037E-02	1.609
V-48		944.10		-6.522E-02	8.316E-01	1.378E+00	1.333E-01	-0.047
		983.50	*	-1.371E-02	7.231E-02	1.182E-01	1.122E-02	-0.116
		1312.09		-5.043E-02	7.322E-02	1.075E-01	8.861E-03	-0.469
CR-51		320.08	*	-8.606E-02	3.406E-01	5.351E-01	7.766E-02	-0.161
MN-52		744.21		1.567E-01	3.200E-01	5.362E-01	5.210E-02	0.292
		848.13		1.137E+01	8.080E+00	1.506E+01	1.484E+00	0.755
	+	935.52		4.582E-01	3.623E-01	5.886E-01	5.715E-02	0.778
		1246.25		-8.313E-01	9.708E+00	1.349E+01	1.101E+00	-0.062
		1333.61		7.811E+00	6.255E+00	1.158E+01	9.570E-01	0.675
		1434.06	*	2.216E-02	2.752E-01	4.482E-01	3.756E-02	0.049
MN-54		834.83	*	-1.037E-02	3.103E-02	5.086E-02	5.008E-03	-0.204
CO-56		846.75	*	2.547E-02	3.291E-02	5.893E-02	5.806E-03	0.432
		977.42		-6.552E-01	2.457E+00	3.981E+00	3.788E-01	-0.165
		1037.82		-6.128E-02	2.699E-01	4.369E-01	4.192E-02	-0.140
		1175.09		1.728E+00	2.111E+00	3.636E+00	2.923E-01	0.475
	+	1238.25		2.851E-01	1.347E-01	1.657E-01	1.394E-02	1.720
		1360.21		-4.376E-01	8.413E-01	1.254E+00	1.041E-01	-0.349
		1771.40		1.703E-01	1.528E-01	3.031E-01	2.494E-02	0.562
CO-57		122.06	*	2.834E-03	2.001E-02	3.418E-02	2.891E-03	0.083
		136.48		-5.326E-02	1.554E-01	2.585E-01	2.428E-02	-0.206
CO-58		810.76	*	-2.768E-02	3.646E-02	5.369E-02	5.287E-03	-0.515
FE-59	+	142.65		3.123E+00	2.858E+00	3.538E+00	3.160E-01	0.883
		192.34		3.597E-02	8.165E-01	1.354E+00	2.032E-01	0.027

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1099.22	*	2.697E-02	8.815E-02	1.491E-01	1.402E-02	0.181
		1291.56		7.315E-02	1.070E-01	1.870E-01	1.765E-02	0.391
CO-60		1173.22		9.357E-03	4.031E-02	6.618E-02	5.316E-03	0.141
		1332.49	*	3.789E-02	3.487E-02	6.339E-02	5.238E-03	0.598
ZN-65		1115.52	*	1.097E-02	9.008E-02	1.305E-01	1.119E-02	0.084
GE-68		1077.35	*	1.312E+00	1.165E+00	2.100E+00	1.865E-01	0.625
AS-73		53.44	*	2.007E-01	5.556E-01	9.028E-01	6.780E-02	0.222
AS-74		595.88	*	-2.030E-02	8.912E-02	1.436E-01	1.460E-02	-0.141
		634.78		2.233E-01	3.469E-01	5.948E-01	5.818E-02	0.375
SE-75		66.05		-2.252E+00	4.206E+00	5.966E+00	5.670E-01	-0.377
		96.73		-6.857E-01	8.379E-01	9.722E-01	1.343E-01	-0.705
		121.11		5.436E-02	1.080E-01	1.868E-01	2.072E-02	0.291
		136.00		-1.717E-03	2.939E-02	4.951E-02	4.359E-03	-0.035
		198.60		5.057E-01	1.563E+00	2.564E+00	3.067E-01	0.197
		264.65	*	8.184E-03	4.154E-02	6.095E-02	8.959E-03	0.134
		279.53		4.717E-02	9.631E-02	1.438E-01	2.252E-02	0.328
		303.91		3.260E-01	1.783E+00	2.894E+00	4.810E-01	0.113
		400.65		2.024E-01	2.142E-01	3.798E-01	4.858E-02	0.533
BR-77	+	87.88		1.841E+03	4.899E+02	6.363E+02	6.026E+01	2.894
		200.40		-2.744E+02	3.260E+02	5.153E+02	5.828E+01	-0.533
	+	239.00		6.275E+02	9.455E+01	8.346E+01	1.109E+01	7.519
		249.79		-1.153E+02	1.283E+02	1.963E+02	2.722E+01	-0.587
		281.68		-3.030E+01	1.877E+02	2.662E+02	4.106E+01	-0.114
		297.23		-1.425E+02	1.458E+02	1.931E+02	2.897E+01	-0.738
		303.76		-1.797E+02	3.697E+02	5.743E+02	8.499E+01	-0.313
		439.47		-8.903E+01	2.969E+02	4.890E+02	5.274E+01	-0.182
		484.57		8.412E+01	4.529E+02	7.649E+02	8.234E+01	0.110
		520.65	*	3.586E+01	2.059E+01	3.781E+01	4.029E+00	0.948
		574.64		1.233E+02	4.218E+02	7.092E+02	7.334E+01	0.174
		578.91		-1.995E+01	1.877E+02	2.676E+02	2.758E+01	-0.075
		585.48		2.153E+03	5.027E+02	8.840E+02	9.066E+01	2.436
		755.35		5.414E+02	3.569E+02	6.409E+02	6.243E+01	0.845
		817.79		9.690E+01	2.686E+02	4.446E+02	4.373E+01	0.218
SR-82		698.33		-1.742E+01	3.449E+01	5.354E+01	5.135E+00	-0.325
		776.49	*	-2.582E-01	3.608E-01	5.371E-01	5.253E-02	-0.481
		1395.20		-9.583E+00	1.071E+01	1.495E+01	1.247E+00	-0.641
RB-83		520.41	*	8.939E-02	6.060E-02	1.097E-01	1.169E-02	0.815
		529.64		2.773E-02	8.809E-02	1.493E-01	1.585E-02	0.186
		552.65		-8.290E-03	1.648E-01	2.710E-01	2.843E-02	-0.031
RB-84		881.50	*	-5.535E-02	6.622E-02	1.026E-01	1.011E-02	-0.539
KR-85		513.99	*	1.401E+01	6.530E+00	1.115E+01	1.191E+00	1.256
SR-85		513.99	*	7.409E-02	3.453E-02	5.898E-02	6.300E-03	1.256
RB-86		1076.63	*	1.430E+00	8.364E-01	1.561E+00	1.387E-01	0.916
Y-88		898.02		-2.254E-02	3.466E-02	5.439E-02	5.375E-03	-0.414
		1836.01	*	8.670E-03	3.299E-02	5.670E-02	4.603E-03	0.153
ZR-88		392.90	*	-9.656E-03	2.529E-02	4.176E-02	4.454E-03	-0.231
Y-91		1204.90	*	-6.968E+00	1.565E+01	2.439E+01	1.975E+00	-0.286
NB-94		702.63	*	6.236E-03	3.010E-02	4.954E-02	4.758E-03	0.126
		871.10		-4.093E-03	2.841E-02	4.712E-02	4.644E-03	-0.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95		765.79	*	6.694E-03	4.671E-02	6.655E-02	6.497E-03	0.101
NB-95M		235.69	*	-2.842E-02	1.168E-01	1.676E-01	2.340E-02	-0.170
ZR-95		724.18		-3.343E-02	9.606E-02	1.297E-01	1.340E-02	-0.258
		756.15	*	3.307E-02	6.789E-02	1.136E-01	1.196E-02	0.291
NB-97		657.90	*	7.131E-02	6.789E-02	Half-Life too short		
		1024.50		6.310E+01	6.789E-02	Half-Life too short		
ZR-97		254.15		-5.469E+01	6.789E-02	Half-Life too short		
		355.39		2.481E+01	6.789E-02	Half-Life too short		
		507.63	*	1.623E+01	6.789E-02	Half-Life too short		
		602.52		-4.060E+01	6.789E-02	Half-Life too short		
		1021.30		-1.064E+02	6.789E-02	Half-Life too short		
		1147.95		-2.657E+01	6.789E-02	Half-Life too short		
		1362.66		4.694E+01	6.789E-02	Half-Life too short		
		1750.46		-2.046E+01	6.789E-02	Half-Life too short		
MO-99	+	140.51		5.439E+01	4.498E+01	7.320E+01	2.033E+01	0.743
		181.06		-1.569E+00	3.216E+01	4.776E+01	9.162E+00	-0.033
		366.43		2.680E+00	1.462E+02	2.318E+02	2.808E+01	0.012
		739.58	*	-7.097E+00	2.200E+01	3.437E+01	5.439E+00	-0.206
		778.00		-2.612E+01	5.990E+01	9.180E+01	8.982E+00	-0.285
TC-99M	+	140.51	*	1.251E+14	5.990E+01	Half-Life too short		
RH-101		127.23		5.111E-03	2.647E-02	4.079E-02	3.484E-03	0.125
		198.01	*	1.244E-02	2.812E-02	4.637E-02	5.190E-03	0.268
		325.23		1.110E-01	2.089E-01	3.096E-01	4.344E-02	0.359
RH-102		418.52		-5.422E-02	2.279E-01	3.779E-01	4.063E-02	-0.143
		475.06	*	-2.001E-02	2.513E-02	3.948E-02	4.256E-03	-0.507
		631.29		-2.983E-02	4.832E-02	7.468E-02	7.334E-03	-0.399
		697.49		3.240E-02	6.835E-02	1.149E-01	1.101E-02	0.282
		766.84		1.257E-01	1.207E-01	1.865E-01	1.820E-02	0.674
		1046.59		-1.901E-03	9.036E-02	1.492E-01	1.358E-02	-0.013
		1112.84		-7.275E-02	2.008E-01	3.192E-01	2.744E-02	-0.228
RU-103		497.08	*	1.101E-02	3.493E-02	5.941E-02	9.233E-03	0.185
	+	610.33		1.428E+01	3.022E+00	3.002E+00	5.241E-01	4.755
RH-106	+	511.85		7.319E-01	2.901E-01	3.980E-01	4.255E-02	1.839
		621.84	*	1.382E-01	2.734E-01	4.644E-01	6.609E-02	0.298
		1050.47		-7.990E-01	2.018E+00	3.208E+00	2.912E-01	-0.249
RU-106	+	511.85		7.319E-01	2.901E-01	3.980E-01	4.255E-02	1.839
		621.84	*	1.382E-01	2.731E-01	4.644E-01	4.607E-02	0.298
		1050.47		-7.990E-01	2.018E+00	3.208E+00	2.912E-01	-0.249
AG-108M		433.93	*	8.174E-04	2.755E-02	4.639E-02	5.129E-03	0.018
		614.37		-2.346E-03	3.549E-02	5.050E-02	5.196E-03	-0.046
		722.95		-5.726E-04	4.152E-02	5.847E-02	5.826E-03	-0.010
AG-110M		657.75	*	1.439E-02	2.939E-02	4.978E-02	4.851E-03	0.289
		677.61		5.529E-02	2.885E-01	4.756E-01	4.633E-02	0.116
		706.67		2.821E-02	1.797E-01	2.947E-01	2.897E-02	0.096
		763.93		-3.509E-02	1.687E-01	2.305E-01	2.299E-02	-0.152
		884.67		3.455E-02	4.209E-02	7.543E-02	7.615E-03	0.458
		937.48		2.326E-02	9.722E-02	1.461E-01	1.458E-02	0.159
		1384.27		-8.353E-02	1.622E-01	2.009E-01	1.724E-02	-0.416
IN-111		171.28		3.577E-01	1.571E+00	2.645E+00	2.632E-01	0.135

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		245.39	*	4.583E-01	1.896E+00	2.807E+00	3.826E-01	0.163
IN-113M		391.69	*	-7.787E-03	3.653E-02	6.103E-02	6.638E-03	-0.128
SN-113		391.69	*	-7.787E-03	3.653E-02	6.103E-02	6.638E-03	-0.128
IN-114M		190.27	*	1.233E-01	1.620E-01	2.510E-01	2.716E-02	0.491
CD-115		260.90		-1.008E-04	1.620E-01	Half-Life too short		
		492.35		5.519E-06	1.620E-01	Half-Life too short		
		527.90	*	1.751E-05	1.620E-01	Half-Life too short		
SN-117M		156.02		-7.440E-01	2.108E+00	3.479E+00	3.257E-01	-0.214
		158.56	*	-1.163E-02	5.010E-02	8.304E-02	7.848E-03	-0.140
SB-122		563.90	*	1.342E+00	3.918E+00	6.612E+00	6.888E-01	0.203
		692.80		-2.865E+00	7.951E+01	1.285E+02	1.230E+01	-0.022
I-123		159.00	*	6.674E+01	7.951E+01	Half-Life too short		
		528.96		1.475E+04	7.951E+01	Half-Life too short		
TE-123M		159.00	*	8.157E-03	2.288E-02	3.886E-02	3.698E-03	0.210
I-124		602.71	*	-3.679E-01	1.045E+00	1.534E+00	1.550E-01	-0.240
		722.78		1.541E-01	7.071E+00	1.000E+01	9.662E-01	0.015
		1325.50		1.732E+01	4.638E+01	7.871E+01	6.499E+00	0.220
	+	1376.25		1.149E+02	6.726E+01	8.828E+01	7.346E+00	1.302
	+	1509.49		2.599E+01	1.831E+01	3.650E+01	3.072E+00	0.712
		1691.02		-3.907E-01	4.876E+00	7.961E+00	6.638E-01	-0.049
SB-124		602.71		-1.360E-02	3.864E-02	5.670E-02	5.731E-03	-0.240
		645.85		4.881E-01	4.512E-01	7.958E-01	8.053E-02	0.613
		709.31		-7.769E-01	2.588E+00	4.077E+00	3.924E-01	-0.191
		713.82		-3.102E-01	1.491E+00	2.366E+00	3.025E-01	-0.131
		722.78		8.257E-03	3.788E-01	5.358E-01	5.266E-02	0.015
	+	968.20		1.548E+01	3.761E+00	6.456E+00	6.173E-01	2.398
		1045.16		1.266E+00	2.039E+00	3.580E+00	3.263E-01	0.354
		1325.50		9.909E-01	2.654E+00	4.504E+00	3.719E-01	0.220
		1368.21		1.157E-01	1.574E+00	2.422E+00	3.217E-01	0.048
		1436.60		1.725E+00	3.070E+00	5.368E+00	4.499E-01	0.321
		1691.02	*	-4.937E-03	6.162E-02	1.006E-01	8.744E-03	-0.049
SB-125		427.89	*	-3.816E-02	7.046E-02	1.138E-01	1.240E-02	-0.335
	+	463.38		8.039E-01	3.767E-01	4.872E-01	5.524E-02	1.650
		600.56		-2.992E-02	1.560E-01	2.520E-01	2.689E-02	-0.119
		635.90		2.239E-01	2.363E-01	4.134E-01	4.295E-02	0.542
TE-125M		109.28	*	-1.525E+00	7.433E+00	1.260E+01	1.294E+00	-0.121
I-126		388.63		9.114E-02	2.040E-01	3.539E-01	3.839E-02	0.258
		666.33	*	8.797E-02	1.935E-01	3.204E-01	3.037E-02	0.275
		753.82		5.951E-01	1.610E+00	2.670E+00	2.600E-01	0.223
SB-126		223.80		2.169E+00	4.017E+00	6.742E+00	8.421E-01	0.322
	+	278.60		4.126E+00	3.447E+00	4.140E+00	6.395E-01	0.997
	+	296.50		1.719E+01	3.713E+00	3.827E+00	5.750E-01	4.492
		414.70		-3.522E-02	7.551E-02	1.070E-01	1.149E-02	-0.329
		415.30		4.300E-01	6.318E+00	9.461E+00	1.016E+00	0.045
		555.20		9.967E-01	3.840E+00	6.398E+00	6.701E-01	0.156
		573.80		2.300E-01	1.082E+00	1.808E+00	1.870E-01	0.127
		593.00		-1.806E-02	8.679E-01	1.422E+00	1.450E-01	-0.013
		656.30		4.704E-01	3.179E+00	5.243E+00	4.997E-01	0.090
		666.33		3.701E-02	8.141E-02	1.348E-01	1.278E-02	0.275

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		675.00		-1.043E-01	2.114E+00	3.419E+00	3.252E-01	-0.031
		695.00		1.386E-02	8.134E-02	1.336E-01	1.280E-02	0.104
		697.00		2.124E-01	2.826E-01	4.840E-01	4.640E-02	0.439
		720.50	*	-8.504E-03	1.538E-01	2.472E-01	2.387E-02	-0.034
		856.80		-2.334E-01	5.315E-01	7.355E-01	7.248E-02	-0.317
		989.30		1.218E+00	1.274E+00	2.294E+00	2.168E-01	0.531
		1034.80		7.502E+00	9.306E+00	1.649E+01	1.514E+00	0.455
		1213.00		1.621E-01	5.101E+00	8.355E+00	6.775E-01	0.019
SB-127		61.10		-6.455E+00	7.685E+01	1.121E+02	1.244E+01	-0.058
		252.40		4.819E+00	6.390E+00	1.025E+01	4.478E+00	0.470
		290.80		-3.619E+01	3.372E+01	4.302E+01	7.479E+00	-0.841
	+	411.60		5.393E+01	3.482E+01	3.011E+01	5.297E+00	1.791
		444.90		-1.534E+01	1.324E+01	1.999E+01	2.969E+00	-0.768
		473.00		1.067E+00	2.316E+00	3.985E+00	6.028E-01	0.268
		543.00		6.126E+00	2.349E+01	3.956E+01	6.446E+00	0.155
		603.60		1.426E+01	1.917E+01	2.948E+01	4.226E+00	0.484
		685.20	*	-1.300E-01	2.029E+00	3.274E+00	4.240E-01	-0.040
		698.50		-1.363E+01	2.399E+01	3.689E+01	6.273E+00	-0.370
		722.20		2.682E+01	4.591E+01	7.255E+01	9.317E+00	0.370
		783.80		6.219E+00	5.797E+00	1.002E+01	1.406E+00	0.621
XE-127		57.60		1.646E+00	4.654E+00	7.522E+00	5.415E-01	0.219
		145.22		3.099E-01	6.348E-01	9.843E-01	8.866E-02	0.315
		172.10		7.904E-03	9.787E-02	1.637E-01	1.635E-02	0.048
		202.84	*	2.273E-02	4.087E-02	6.899E-02	7.885E-03	0.330
		374.96		-2.335E-01	1.967E-01	2.811E-01	3.274E-02	-0.831
I-131		80.18		1.390E+00	5.749E+00	7.359E+00	6.392E-01	0.189
		284.30		5.720E-01	1.572E+00	2.588E+00	4.045E-01	0.221
		364.48	*	-4.399E-02	1.281E-01	1.974E-01	2.481E-02	-0.223
		636.97		4.017E-01	1.805E+00	2.938E+00	2.998E-01	0.137
		722.89		-1.087E-02	9.012E+00	1.271E+01	1.237E+00	-0.001
TE-132		49.72		8.437E+00	2.225E+01	3.629E+01	4.059E+00	0.232
		111.76		2.973E+01	4.487E+01	7.682E+01	8.904E+00	0.387
		116.30		-5.221E+00	3.867E+01	6.549E+01	7.571E+00	-0.080
		228.16	*	-3.590E-01	1.097E+00	1.764E+00	3.313E-01	-0.204
BA-133		53.15		-7.811E-01	2.358E+00	3.714E+00	2.800E-01	-0.210
		79.62		7.702E-02	1.083E+00	1.567E+00	2.380E-01	0.049
		81.00		-2.250E-02	8.403E-02	1.194E-01	1.900E-02	-0.188
	+	276.40		5.238E-01	4.417E-01	5.172E-01	9.940E-02	1.013
		302.84		-2.111E-01	1.374E-01	1.918E-01	3.442E-02	-1.101
		356.01	*	-3.751E-03	4.241E-02	5.926E-02	9.558E-03	-0.063
		383.85		-1.216E-01	2.447E-01	4.012E-01	5.794E-02	-0.303
I-133	+	510.53		1.548E+01	2.447E-01	Half-Life too short		
		529.87	*	1.430E-02	2.447E-01	Half-Life too short		
		706.58		5.776E-01	2.447E-01	Half-Life too short		
		856.28		-7.609E-01	2.447E-01	Half-Life too short		
		875.33		-5.810E-02	2.447E-01	Half-Life too short		
		1236.41		8.852E+00	2.447E-01	Half-Life too short		
		1298.22		9.088E-01	2.447E-01	Half-Life too short		
CS-134		475.35		-9.762E-01	1.642E+00	2.623E+00	2.828E-01	-0.372

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		563.23		1.206E-01	3.231E-01	5.463E-01	5.731E-02	0.221
		569.32		-9.386E-02	1.801E-01	2.818E-01	2.953E-02	-0.333
		604.70		3.058E-02	3.065E-02	4.854E-02	4.906E-03	0.630
	+	795.84	*	7.035E-02	5.453E-02	7.870E-02	7.764E-03	0.894
		801.93		-2.677E-01	3.585E-01	5.294E-01	5.220E-02	-0.506
		1038.57		-1.271E+00	3.235E+00	5.140E+00	4.707E-01	-0.247
		1167.94		-3.680E-01	2.118E+00	3.412E+00	2.759E-01	-0.108
		1365.15		-2.220E-01	1.014E+00	1.585E+00	1.381E-01	-0.140
CS-135		268.24	*	9.041E-02	1.493E-01	2.242E-01	3.517E-02	0.403
I-135		288.45		3.815E+13	1.493E-01	Half-Life too short		
		417.63		1.652E+13	1.493E-01	Half-Life too short		
		546.56		-4.326E+11	1.493E-01	Half-Life too short		
		836.80		8.013E+12	1.493E-01	Half-Life too short		
		1038.76		-9.172E+12	1.493E-01	Half-Life too short		
		1124.00		4.695E+13	1.493E-01	Half-Life too short		
		1131.51		3.411E+12	1.493E-01	Half-Life too short		
		1260.41	*	-1.152E+12	1.493E-01	Half-Life too short		
		1457.56		2.120E+14	1.493E-01	Half-Life too short		
		1678.03		7.502E+12	1.493E-01	Half-Life too short		
		1706.46		-2.976E+13	1.493E-01	Half-Life too short		
		1791.20		-3.165E+12	1.493E-01	Half-Life too short		
CS-136		66.91		5.700E-01	7.361E-01	1.103E+00	1.638E-01	0.517
	+	86.29		5.424E+00	1.533E+00	1.853E+00	2.466E-01	2.926
		153.22		2.234E-01	6.197E-01	1.054E+00	1.077E-01	0.212
		163.89		1.013E+00	1.006E+00	1.742E+00	1.844E-01	0.581
		176.55		3.328E-01	3.404E-01	5.878E-01	6.238E-02	0.566
		273.65		2.109E-01	4.198E-01	6.966E-01	1.080E-01	0.303
		340.57		1.848E-01	1.340E-01	2.088E-01	2.829E-02	0.885
		818.51		-1.540E-03	7.394E-02	1.179E-01	1.160E-02	-0.013
		1048.07	*	-7.638E-02	1.055E-01	1.612E-01	1.522E-02	-0.474
		1235.34		3.305E-01	6.273E-01	9.441E-01	1.087E-01	0.350
BA-137M		661.65	*	-1.003E-02	3.073E-02	4.860E-02	4.598E-03	-0.206
CS-137		661.65	*	-1.060E-02	3.249E-02	5.137E-02	4.869E-03	-0.206
CE-139		165.85	*	-1.505E-02	2.460E-02	3.994E-02	3.881E-03	-0.377
BA-140		162.64		7.943E-02	7.232E-01	1.215E+00	1.221E-01	0.065
		304.84		1.647E-01	1.242E+00	2.008E+00	6.120E-01	0.082
		423.70		4.479E-01	1.789E+00	3.051E+00	1.009E+00	0.147
		537.32	*	-1.069E-01	2.601E-01	4.126E-01	1.391E-01	-0.259
LA-140	+	328.77		5.222E-01	3.552E-01	5.382E-01	7.639E-02	0.970
		432.53		3.797E-01	1.944E+00	3.311E+00	3.681E-01	0.115
		487.03		-8.009E-03	1.387E-01	2.302E-01	2.576E-02	-0.035
		751.79		-1.509E-01	1.866E+00	2.982E+00	3.148E-01	-0.051
		815.85		-5.631E-02	3.330E-01	5.229E-01	5.602E-02	-0.108
		867.82		1.100E-01	1.360E+00	2.180E+00	2.236E-01	0.050
		919.63		-4.220E-01	2.948E+00	4.894E+00	5.676E-01	-0.086
		925.24		3.028E-01	1.060E+00	1.821E+00	1.863E-01	0.166
		1596.49	*	-1.285E-01	1.041E-01	1.393E-01	1.172E-02	-0.922
CE-141		145.44	*	7.762E-03	5.759E-02	8.772E-02	8.040E-03	0.088
CE-143		57.37		1.713E-03	5.759E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		231.56		-5.996E-04	5.759E-02	Half-Life too short		
		293.26	*	1.742E-03	5.759E-02	Half-Life too short		
	+	350.59		1.437E-01	5.759E-02	Half-Life too short		
		490.36		-2.473E-04	5.759E-02	Half-Life too short		
		664.57		8.951E-04	5.759E-02	Half-Life too short		
		721.93		1.429E-03	5.759E-02	Half-Life too short		
CE-144		80.11		5.160E-01	2.070E+00	2.651E+00	2.280E-01	0.195
		133.54	*	-9.360E-02	1.576E-01	2.589E-01	4.039E-02	-0.362
PM-144		476.78		3.690E-02	5.740E-02	9.972E-02	1.140E-02	0.370
		618.01		-8.780E-03	2.623E-02	4.164E-02	4.234E-03	-0.211
		696.49	*	1.603E-02	3.179E-02	5.348E-02	5.128E-03	0.300
		778.57		-1.325E+00	1.986E+00	2.968E+00	2.905E-01	-0.447
PR-144		696.49	*	1.088E+00	2.158E+00	3.630E+00	3.479E-01	0.300
		1489.15		2.156E+00	8.315E+00	1.455E+01	1.223E+00	0.148
PM-146		453.90	*	2.801E-02	3.708E-02	6.487E-02	8.134E-03	0.432
		633.02		-5.823E-01	1.234E+00	1.902E+00	7.164E-01	-0.306
		735.90		-7.717E-02	1.310E-01	1.962E-01	5.680E-02	-0.393
		747.13		-5.387E-02	8.475E-02	1.287E-01	1.897E-02	-0.419
ND-147		91.11		7.374E-01	3.373E-01	5.139E-01	5.093E-02	1.435
		319.41		1.737E+00	3.431E+00	5.652E+00	8.058E-01	0.307
		439.89		-6.262E-01	6.193E+00	1.033E+01	1.115E+00	-0.061
		531.02	*	-6.250E-01	5.827E-01	8.690E-01	1.406E-01	-0.719
PM-149		285.90	*	-2.280E-04	5.827E-01	Half-Life too short		
EU-152		121.78		5.314E-03	5.769E-02	9.835E-02	9.621E-03	0.054
		244.69		-1.263E-02	2.804E-01	4.065E-01	5.525E-02	-0.031
		344.27	*	-9.454E-02	8.477E-02	1.143E-01	1.550E-02	-0.827
		443.98		1.438E-01	7.576E-01	1.288E+00	1.390E-01	0.112
		778.89		-1.850E-01	2.334E-01	3.443E-01	3.369E-02	-0.537
		867.32		1.290E-01	7.086E-01	1.109E+00	1.093E-01	0.116
	+	964.01		5.925E-01	3.157E-01	5.074E-01	4.863E-02	1.168
		1085.78		1.762E-01	3.562E-01	6.137E-01	5.410E-02	0.287
		1112.02		-1.167E-02	2.755E-01	4.517E-01	3.885E-02	-0.026
		1407.95		1.368E-01	1.624E-01	2.921E-01	2.441E-02	0.468
GD-153		69.67		-4.052E-01	1.301E+00	2.029E+00	1.563E-01	-0.200
	+	83.37		2.742E+01	1.422E+01	2.008E+01	1.796E+00	1.366
	+	97.43	*	1.113E-01	1.021E-01	1.060E-01	9.418E-03	1.050
		103.18		-8.512E-02	8.586E-02	1.345E-01	1.167E-02	-0.633
EU-154		123.07		3.601E-03	3.992E-02	6.802E-02	7.651E-03	0.053
		247.94		1.880E-01	2.850E-01	4.792E-01	7.529E-02	0.392
		591.81		-2.963E-01	4.935E-01	7.649E-01	9.855E-02	-0.387
		723.30		-3.904E-02	1.771E-01	2.432E-01	2.549E-02	-0.161
		756.87		-8.301E-02	7.531E-01	1.200E+00	1.537E-01	-0.069
		873.19		9.897E-03	2.510E-01	4.233E-01	5.563E-02	0.023
		996.32		7.045E-02	3.298E-01	4.905E-01	8.909E-02	0.144
		1004.76		-5.271E-02	1.998E-01	2.769E-01	3.380E-02	-0.190
		1274.45	*	-1.008E-01	1.086E-01	1.573E-01	1.730E-02	-0.641
EU-155		48.70		-1.689E+00	1.551E+00	2.357E+00	1.906E-01	-0.717
		60.01		1.900E+00	3.888E+00	5.834E+00	4.162E-01	0.326
	+	86.54		4.294E-01	1.144E-01	1.524E-01	1.431E-02	2.818

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		105.31	*	1.258E-01	8.655E-02	1.542E-01	1.345E-02	0.816
TB-160	+	86.79		1.178E+00	3.135E-01	4.234E-01	3.954E-02	2.783
		197.04		-5.379E-02	4.991E-01	8.048E-01	8.970E-02	-0.067
		215.65		6.988E-02	6.496E-01	1.073E+00	1.295E-01	0.065
		298.57		1.032E-01	1.107E-01	1.681E-01	2.515E-02	0.614
		879.36	*	-2.994E-02	1.258E-01	2.033E-01	2.003E-02	-0.147
		962.29		1.073E-01	5.205E-01	7.726E-01	7.410E-02	0.139
	+	966.15		4.183E-01	2.229E-01	3.822E-01	3.659E-02	1.094
		1177.93		-1.416E-01	3.467E-01	5.467E-01	4.398E-02	-0.259
		1271.85		4.552E-01	6.563E-01	1.141E+00	9.353E-02	0.399
HO-166M		80.57		3.741E-02	2.304E-01	3.347E-01	2.894E-02	0.112
	+	184.41		2.322E-01	5.800E-02	5.868E-02	6.187E-03	3.957
		280.46		-2.789E-02	7.719E-02	1.076E-01	1.662E-02	-0.259
	+	410.95		6.359E-01	4.008E-01	3.950E-01	4.238E-02	1.610
		711.68	*	3.174E-02	5.275E-02	8.956E-02	8.625E-03	0.354
		752.31		-3.761E-02	2.571E-01	4.084E-01	3.976E-02	-0.092
		810.29		-5.750E-02	5.480E-02	7.801E-02	7.666E-03	-0.737
TM-171		51.35		-1.856E+01	1.999E+01	3.057E+01	2.364E+00	-0.607
		52.39		-7.558E-01	1.035E+01	1.651E+01	1.258E+00	-0.046
		59.40		-5.478E+00	2.169E+01	3.143E+01	2.235E+00	-0.174
		66.72	*	1.984E+01	2.294E+01	3.468E+01	2.603E+00	0.572
LU-176	+	88.36		8.446E-01	2.247E-01	2.764E-01	2.613E-02	3.056
		201.83		1.613E-02	2.334E-02	3.962E-02	4.508E-03	0.407
		306.84	*	-1.845E-02	2.100E-02	3.143E-02	4.620E-03	-0.587
		401.10		3.533E+00	5.578E+00	9.757E+00	1.044E+00	0.362
LU-177		112.95		1.509E+00	1.790E+00	3.082E+00	2.618E-01	0.490
	+	208.36	*	2.532E+00	1.796E+00	2.306E+00	2.699E-01	1.098
LU-177M		52.97		-3.885E-01	1.078E+00	1.695E+00	1.281E-01	-0.229
		54.07		4.788E-01	5.682E-01	9.406E-01	7.008E-02	0.509
		61.30		-1.399E-01	1.185E+00	1.725E+00	1.242E-01	-0.081
		121.62		2.334E-02	2.993E-01	5.099E-01	4.309E-02	0.046
		147.16		-2.028E-01	5.742E-01	8.503E-01	7.711E-02	-0.239
		171.86		5.684E-02	3.790E-01	6.358E-01	6.342E-02	0.089
		218.09		-4.300E-01	7.220E-01	1.148E+00	1.400E-01	-0.375
	+	268.79		1.868E+00	1.042E+00	1.234E+00	1.839E-01	1.514
		319.02		1.637E-01	2.231E-01	3.719E-01	5.307E-02	0.440
		367.43		-5.810E-02	7.538E-01	1.186E+00	1.430E-01	-0.049
		413.65	*	-9.010E-02	1.574E-01	2.211E-01	2.374E-02	-0.407
HF-181		56.28		1.275E-01	6.988E-01	1.123E+00	8.177E-02	0.114
		57.53		1.268E-01	3.880E-01	6.266E-01	4.512E-02	0.202
		65.20		-3.401E-01	8.290E-01	1.184E+00	8.779E-02	-0.287
		133.02		-4.146E-02	5.603E-02	8.729E-02	7.568E-03	-0.475
		136.25		-9.737E-02	3.556E-01	5.933E-01	5.192E-02	-0.164
		345.85		-5.814E-02	1.686E-01	2.612E-01	3.433E-02	-0.223
		482.03	*	-1.131E-02	3.699E-02	6.030E-02	6.495E-03	-0.188
W-181		56.28		4.908E-02	2.652E-01	4.264E-01	3.103E-02	0.115
		57.53		4.801E-02	1.473E-01	2.379E-01	1.713E-02	0.202
		65.20	*	-1.281E-01	3.123E-01	4.462E-01	3.307E-02	-0.287
TA-182		67.75		-7.640E-02	8.833E-02	1.342E-01	1.016E-02	-0.569

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	100.10		2.618E-01	2.400E-01	2.299E-01	2.017E-02	1.139
		152.43		-2.324E-02	2.746E-01	4.592E-01	4.243E-02	-0.051
		222.10		3.554E-02	2.937E-01	4.845E-01	6.009E-02	0.073
	+	1001.68		4.742E+00	2.899E+00	3.842E+00	3.606E-01	1.234
	+	1121.28		5.371E-01	1.974E-01	3.309E-01	2.820E-02	1.623
		1189.05		5.735E-02	3.008E-01	5.000E-01	4.033E-02	0.115
		1221.42	*	6.872E-02	1.905E-01	3.201E-01	2.600E-02	0.215
		1230.97		1.773E-02	4.588E-01	6.814E-01	5.546E-02	0.026
RE-183		57.98		-3.406E-02	1.516E-01	2.393E-01	1.718E-02	-0.142
		59.32		-2.545E-02	9.150E-02	1.324E-01	9.420E-03	-0.192
		67.20		-8.825E-02	1.756E-01	2.494E-01	1.879E-02	-0.354
		162.32	*	-9.010E-03	9.227E-02	1.537E-01	1.473E-02	-0.059
	+	208.81		1.731E+00	1.228E+00	1.597E+00	1.873E-01	1.084
		291.72		-9.296E-01	8.768E-01	1.124E+00	1.704E-01	-0.827
RE-184		57.98		-1.234E-01	5.493E-01	8.671E-01	6.224E-02	-0.142
		59.32		-9.213E-02	3.312E-01	4.791E-01	3.410E-02	-0.192
		67.20		-3.196E-01	6.360E-01	9.030E-01	6.804E-02	-0.354
		161.27		-2.097E-01	2.952E-01	4.780E-01	4.564E-02	-0.439
		216.55		1.285E-01	2.255E-01	3.795E-01	4.599E-02	0.339
		252.85	*	6.295E-02	1.960E-01	3.241E-01	4.547E-02	0.194
		318.01		3.735E-01	3.857E-01	6.498E-01	9.297E-02	0.575
		792.07		9.515E-01	8.849E-01	1.412E+00	1.384E-01	0.674
		903.28		6.149E-01	8.445E-01	1.501E+00	1.475E-01	0.410
		920.93		-1.176E-01	4.094E-01	6.674E-01	6.518E-02	-0.176
OS-185		59.72		1.056E-01	2.353E-01	3.526E-01	2.511E-02	0.299
		61.14		-1.174E-02	1.317E-01	1.921E-01	1.381E-02	-0.061
		69.30		-6.335E-02	2.324E-01	3.631E-01	2.787E-02	-0.174
		592.07		-9.741E-01	2.046E+00	3.214E+00	3.279E-01	-0.303
		646.12	*	5.861E-02	3.770E-02	6.848E-02	6.610E-03	0.856
		717.42		-2.696E-01	8.040E-01	1.259E+00	1.215E-01	-0.214
		874.81		4.881E-02	5.066E-01	8.583E-01	8.458E-02	0.057
		880.27		-1.498E-02	7.002E-01	1.155E+00	1.138E-01	-0.013
RE-188		155.03	*	1.428E-01	1.407E-01	2.445E-01	2.280E-02	0.584
		477.96		2.200E+00	2.687E+00	4.715E+00	5.082E-01	0.467
		633.10		-1.194E+00	2.528E+00	3.959E+00	3.881E-01	-0.302
W-188	+	63.58		1.910E+02	6.943E+01	8.636E+01	6.322E+00	2.211
		227.08		-4.716E-01	1.110E+01	1.815E+01	2.297E+00	-0.026
		290.67	*	-7.070E+00	7.037E+00	9.100E+00	1.382E+00	-0.777
IR-192	+	295.96		1.149E+00	2.484E-01	2.763E-01	4.165E-02	4.157
		308.46		1.838E-02	7.742E-02	1.261E-01	1.850E-02	0.146
		316.51	*	8.748E-03	2.985E-02	4.865E-02	6.993E-03	0.180
		468.07		1.854E-02	6.067E-02	9.199E-02	1.039E-02	0.202
		604.41		5.480E-01	4.251E-01	6.851E-01	9.617E-02	0.800
		612.46		9.112E-02	6.997E-01	1.018E+00	1.133E-01	0.090
AU-195		65.12		-7.023E-02	1.444E-01	2.059E-01	1.525E-02	-0.341
		66.83		6.218E-02	7.634E-02	1.152E-01	8.651E-03	0.540
	+	75.70		1.091E+00	2.017E-01	3.354E-01	2.745E-02	3.251
	+	98.88	*	3.251E-01	2.980E-01	3.215E-01	2.837E-02	1.011
	+	129.76		5.124E+00	3.153E+00	4.349E+00	3.738E-01	1.178

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-200		367.94	*	-8.689E-04	3.153E+00	Half-Life too short		
		579.30		-6.017E-03	3.153E+00	Half-Life too short		
		828.27		-1.581E-03	3.153E+00	Half-Life too short		
		1205.75		-1.548E-02	3.153E+00	Half-Life too short		
TL-201		68.90		-4.093E+00	7.221E+00	1.115E+01	8.527E-01	-0.367
		70.82		1.793E+00	4.457E+00	6.591E+00	5.131E-01	0.272
		80.30		2.172E+00	9.486E+00	1.213E+01	1.046E+00	0.179
		135.34		1.820E+01	3.673E+01	6.327E+01	5.522E+00	0.288
		167.43	*	-1.695E+00	1.085E+01	1.799E+01	1.760E+00	-0.094
TL-202		68.90		-2.229E-01	3.933E-01	6.072E-01	4.644E-02	-0.367
		70.82		9.739E-02	2.421E-01	3.579E-01	2.787E-02	0.272
		80.30		1.180E-01	5.153E-01	6.591E-01	5.681E-02	0.179
		439.56	*	-1.988E-02	7.226E-02	1.192E-01	1.286E-02	-0.167
HG-203		70.83		3.717E-01	9.288E-01	1.372E+00	1.796E-01	0.271
		72.87		-8.978E-02	5.667E-01	8.107E-01	1.035E-01	-0.111
		82.60		-3.647E-01	1.037E+00	1.452E+00	2.018E-01	-0.251
		279.20	*	2.498E-02	3.742E-02	5.650E-02	8.825E-03	0.442
BI-207		72.80		-3.201E-02	1.591E-01	2.271E-01	1.803E-02	-0.141
	+	74.97		5.984E-01	1.107E-01	1.778E-01	1.443E-02	3.366
	+	84.90		3.517E-01	1.824E-01	2.559E-01	2.333E-02	1.374
		569.67		-1.839E-02	2.805E-02	4.339E-02	4.502E-03	-0.424
		1063.62	*	2.459E-02	5.086E-02	8.738E-02	7.850E-03	0.281
		1770.23		5.097E-01	2.757E-01	6.335E-01	5.214E-02	0.805
TL-207		81.07		-4.022E-02	1.855E-01	2.644E-01	2.300E-02	-0.152
	+	83.78		2.319E-01	1.202E-01	1.728E-01	1.553E-02	1.342
		94.90		3.642E-01	2.165E-01	2.996E-01	2.699E-02	1.216
		122.32		1.700E-01	1.377E+00	2.350E+00	2.138E-01	0.072
	+	144.24		7.496E-01	6.869E-01	9.373E-01	9.339E-02	0.800
		154.21		2.555E-01	3.201E-01	5.522E-01	5.578E-02	0.463
	+	269.46		4.319E-01	2.411E-01	3.113E-01	4.683E-02	1.387
		323.87	*	3.095E-01	6.150E-01	9.078E-01	1.899E-01	0.341
	+	338.28		6.509E+00	1.983E+00	2.256E+00	3.632E-01	2.885
		445.03		-2.054E+00	1.818E+00	2.761E+00	3.788E-01	-0.744
PO-209		260.50		-1.121E+00	7.974E+00	1.283E+01	1.854E+00	-0.087
		262.80		-2.702E+00	2.235E+01	3.600E+01	5.246E+00	-0.075
		896.60	*	-2.430E+00	6.465E+00	1.047E+01	1.031E+00	-0.232
BI-210		46.50	*	9.987E-01	2.180E+00	3.608E+00	3.359E-01	0.277
PB-210		46.50	*	9.987E-01	2.180E+00	3.608E+00	3.359E-01	0.277
PO-210		46.50	*	9.987E-01	2.180E+00	3.608E+00	3.041E-01	0.277
PB-211		404.84	*	-8.881E-01	1.077E+00	1.260E+00	7.939E-01	-0.705
		427.08		-3.183E-01	1.578E+00	2.596E+00	1.622E+00	-0.123
		831.96		1.589E-01	1.069E+00	1.722E+00	1.082E+00	0.092
BI-212	+	727.18	*	7.219E-01	3.826E-01	5.826E-01	6.367E-02	1.239
		785.46		1.848E+00	1.664E+00	2.897E+00	2.838E-01	0.638
		1620.62		9.500E-01	1.164E+00	2.143E+00	1.799E-01	0.443
PO-215		81.07		-4.022E-02	1.855E-01	2.644E-01	2.300E-02	-0.152
	+	83.78		2.319E-01	1.202E-01	1.728E-01	1.553E-02	1.342
		94.90		3.642E-01	2.165E-01	2.996E-01	2.699E-02	1.216
		122.32		1.700E-01	1.377E+00	2.350E+00	2.138E-01	0.072

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	144.24		7.496E-01	6.869E-01	9.373E-01	9.339E-02	0.800
		154.21		2.555E-01	3.201E-01	5.522E-01	5.578E-02	0.463
	+	269.46		4.319E-01	2.411E-01	3.113E-01	4.683E-02	1.387
		323.87	*	3.095E-01	6.150E-01	9.078E-01	1.899E-01	0.341
	+	338.28		6.509E+00	1.983E+00	2.256E+00	3.632E-01	2.885
		445.03		-2.054E+00	1.818E+00	2.761E+00	3.788E-01	-0.744
RN-219	+	271.23		5.541E-01	3.108E-01	3.935E-01	6.323E-02	1.408
		401.81	*	8.678E-02	3.424E-01	5.869E-01	9.571E-02	0.148
RN-220		549.76	*	-6.292E+00	2.181E+01	3.518E+01	3.697E+00	-0.179
RA-223		81.07		-4.022E-02	1.855E-01	2.644E-01	2.300E-02	-0.152
	+	83.78		2.319E-01	1.202E-01	1.728E-01	1.553E-02	1.342
		94.90		3.642E-01	2.165E-01	2.996E-01	2.699E-02	1.216
		122.32		1.700E-01	1.377E+00	2.350E+00	2.138E-01	0.072
	+	144.24		7.496E-01	6.869E-01	9.373E-01	9.339E-02	0.800
		154.21		2.555E-01	3.201E-01	5.522E-01	5.578E-02	0.463
	+	269.46		4.319E-01	2.411E-01	3.113E-01	4.683E-02	1.387
		323.87	*	3.095E-01	6.150E-01	9.078E-01	1.899E-01	0.341
	+	338.28		6.509E+00	1.983E+00	2.256E+00	3.632E-01	2.885
		445.03		-2.054E+00	1.818E+00	2.761E+00	3.788E-01	-0.744
AC-227		79.80		2.738E-01	1.380E+00	2.008E+00	4.313E-01	0.136
		236.00		3.767E-02	2.053E-01	3.032E-01	4.774E-02	0.124
		256.20	*	3.073E-01	3.268E-01	5.493E-01	1.047E-01	0.559
		286.10		-1.360E+00	1.337E+00	1.982E+00	3.625E-01	-0.686
		299.80		1.596E+00	1.451E+00	2.185E+00	4.657E-01	0.730
		304.40		6.901E-01	1.549E+00	2.543E+00	5.596E-01	0.271
		334.20		7.222E-01	2.209E+00	3.210E+00	7.099E-01	0.225
TH-227		79.80		2.738E-01	1.380E+00	2.008E+00	4.368E-01	0.136
	+	94.00		2.690E+01	6.672E+00	3.517E+00	7.723E-01	7.649
		236.00		3.767E-02	2.053E-01	3.032E-01	4.504E-02	0.124
		256.20	*	3.073E-01	3.281E-01	5.493E-01	1.170E-01	0.559
		286.10		-1.360E+00	1.902E+00	1.982E+00	2.005E+00	-0.686
		299.80		1.596E+00	1.451E+00	2.185E+00	4.657E-01	0.730
		304.40		6.901E-01	1.549E+00	2.543E+00	5.596E-01	0.271
		334.20		7.222E-01	2.209E+00	3.210E+00	7.099E-01	0.225
PA-231		283.67	*	3.880E-01	1.299E+00	2.033E+00	4.028E-01	0.191
		301.29		6.621E-01	5.177E-01	8.695E-01	1.498E-01	0.762
TH-231		81.07		-4.022E-02	1.855E-01	2.644E-01	2.300E-02	-0.152
	+	83.78		2.319E-01	1.202E-01	1.728E-01	1.553E-02	1.342
		94.90		3.642E-01	2.165E-01	2.996E-01	2.699E-02	1.216
		122.32		1.700E-01	1.377E+00	2.350E+00	2.138E-01	0.072
	+	144.24		7.496E-01	6.869E-01	9.373E-01	9.339E-02	0.800
		154.21		2.555E-01	3.201E-01	5.522E-01	5.578E-02	0.463
	+	269.46		4.319E-01	2.411E-01	3.113E-01	4.683E-02	1.387
		323.87	*	3.095E-01	6.150E-01	9.078E-01	1.899E-01	0.341
	+	338.28		6.509E+00	1.983E+00	2.256E+00	3.632E-01	2.885
		445.03		-2.054E+00	1.818E+00	2.761E+00	3.788E-01	-0.744
U-231	+	84.21		1.620E+01	8.400E+00	1.209E+01	1.093E+00	1.340
	+	92.29		4.311E+01	6.321E+00	7.501E+00	6.873E-01	5.747
		95.87	*	3.075E-01	1.717E+00	2.165E+00	1.940E-01	0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		-1.290E+00	2.576E+00	4.319E+00	3.698E-01	-0.299
PA-233	+	75.28		1.746E+01	3.917E+00	5.232E+00	7.892E-01	3.337
	+	86.59		6.971E+00	2.564E+00	2.488E+00	6.731E-01	2.802
		300.12		5.998E-01	4.029E-01	6.153E-01	1.183E-01	0.975
		311.98	*	-8.574E-03	5.019E-02	7.939E-02	1.165E-02	-0.108
		340.50		8.788E-01	5.982E-01	8.877E-01	2.303E-01	0.990
		398.62		-1.075E+00	1.773E+00	2.846E+00	7.788E-01	-0.378
		415.76		1.023E+00	1.377E+00	2.168E+00	4.874E-01	0.472
PA-234	+	63.00		5.378E+00	2.075E+00	2.477E+00	3.667E-01	2.171
		94.67		3.778E-01	1.636E-01	2.276E-01	2.887E-02	1.660
	+	98.44		1.303E-01	1.393E-01	1.295E-01	7.230E-02	1.006
	+	99.86		6.752E-01	6.191E-01	6.080E-01	5.341E-02	1.111
		111.00		-3.351E-02	1.418E-01	2.399E-01	2.882E-02	-0.140
		131.20		1.247E-01	9.095E-02	1.472E-01	1.270E-02	0.847
		152.70		4.271E-02	2.606E-01	4.400E-01	7.643E-02	0.097
	+	186.00		8.358E+00	3.263E+00	2.531E+00	8.056E-01	3.302
		226.40		-5.823E-02	3.377E-01	5.483E-01	8.830E-02	-0.106
		227.20		-2.871E-02	3.653E-01	5.960E-01	7.550E-02	-0.048
		248.90		-6.146E-01	6.854E-01	1.030E+00	2.561E-01	-0.597
	+	293.70		7.034E+00	1.850E+00	1.401E+00	2.982E-01	5.021
		369.80		-2.406E-01	7.262E-01	1.116E+00	2.599E-01	-0.216
		568.70		-5.219E-01	9.206E-01	1.436E+00	1.491E-01	-0.363
		569.50		-1.480E-01	2.498E-01	3.887E-01	4.034E-02	-0.381
		574.00		4.861E-01	1.305E+00	2.206E+00	2.282E-01	0.220
		699.00		-5.629E-01	6.787E-01	1.011E+00	1.975E-01	-0.557
		706.10		2.121E-01	9.075E-01	1.490E+00	6.673E-01	0.142
		733.00		-1.699E-01	3.774E-01	4.947E-01	1.120E-01	-0.343
		742.81		1.086E+00	1.450E+00	2.165E+00	1.458E+00	0.502
	+	796.30		1.364E+00	1.113E+00	1.484E+00	4.075E-01	0.919
		805.60		-9.817E-02	9.331E-01	1.478E+00	4.582E-01	-0.066
		819.60		-8.807E-01	1.134E+00	1.580E+00	6.054E-01	-0.558
		826.30		-2.791E-01	7.636E-01	1.158E+00	5.211E-01	-0.241
		831.60		1.685E-01	5.604E-01	9.158E-01	2.768E-01	0.184
		876.40		4.582E-01	8.435E-01	1.242E+00	1.278E+00	0.369
		880.51		-5.281E-03	2.477E-01	4.085E-01	4.025E-02	-0.013
		883.24		2.758E-02	2.510E-01	4.243E-01	2.859E-01	0.065
		899.00		-5.514E-01	7.277E-01	1.062E+00	4.670E-01	-0.519
		925.00		5.977E-02	9.360E-01	1.575E+00	1.536E-01	0.038
		926.50		2.029E-02	1.392E-01	2.359E-01	6.058E-02	0.086
		946.00	*	-1.258E-01	2.545E-01	4.030E-01	7.764E-02	-0.312
		949.00		-1.790E-01	3.880E-01	6.195E-01	5.980E-02	-0.289
		980.50		2.724E-01	6.408E-01	1.106E+00	1.051E-01	0.246
		1394.10		-1.067E+00	1.289E+00	1.504E+00	9.784E-01	-0.709
PA-234M		766.42		7.959E+00	1.304E+01	1.856E+01	9.455E+00	0.429
	+	1001.03	*	1.058E+01	6.488E+00	8.700E+00	9.254E-01	1.216
NP-236		94.67		2.885E-01	1.215E-01	1.728E-01	1.559E-02	1.669
	+	98.44		9.847E-02	9.028E-02	9.790E-02	8.655E-03	1.006
		111.00		-2.535E-02	1.073E-01	1.814E-01	1.545E-02	-0.140
		160.31	*	3.048E-02	6.295E-02	1.074E-01	1.021E-02	0.284

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		2.251E-01	2.064E-01	2.098E-01	1.846E-02	1.073
		117.00	*	-1.058E-01	1.417E-01	2.335E-01	1.976E-02	-0.453
	+	209.75		1.326E+00	9.410E-01	1.230E+00	1.448E-01	1.078
		228.18		-3.405E-02	1.906E-01	3.093E-01	3.933E-02	-0.110
	+	277.60		2.555E-01	2.134E-01	2.558E-01	3.937E-02	0.999
		334.30		3.193E-01	1.245E+00	1.802E+00	2.461E-01	0.177
AM-241		59.54	*	4.129E-02	1.221E-01	1.821E-01	1.431E-02	0.227
CM-243	+	99.55		2.317E-01	2.124E-01	2.160E-01	1.900E-02	1.073
		103.76	*	-4.463E-03	7.547E-02	1.290E-01	1.117E-02	-0.035
		117.00		-1.089E-01	1.458E-01	2.403E-01	2.033E-02	-0.453
	+	209.75		1.308E+00	9.278E-01	1.213E+00	1.428E-01	1.078
		228.18		-3.441E-02	1.926E-01	3.125E-01	3.975E-02	-0.110
	+	277.60		2.576E-01	2.152E-01	2.579E-01	3.970E-02	0.999
AM-246		798.80		-7.089E-02	1.416E-01	1.839E-01	1.805E-02	-0.385
		1036.00		3.060E-02	2.672E-01	4.472E-01	4.103E-02	0.068
		1062.04		-4.655E-03	2.137E-01	3.525E-01	3.170E-02	-0.013
		1078.86	*	-3.037E-02	1.345E-01	2.176E-01	1.930E-02	-0.140
CM-247	+	278.00		1.059E+00	8.850E-01	1.072E+00	1.652E-01	0.989
		287.40		8.957E-01	1.025E+00	1.724E+00	2.635E-01	0.519
		402.60	*	4.249E-04	3.078E-02	5.205E-02	5.571E-03	0.008
CF-249		252.85		2.334E-01	7.266E-01	1.201E+00	1.686E-01	0.194
		333.44		1.344E-01	1.644E-01	2.475E-01	3.390E-02	0.543
		387.95	*	1.012E-02	3.369E-02	5.804E-02	6.320E-03	0.174
CF-251		176.60	*	9.716E-02	1.005E-01	1.735E-01	1.768E-02	0.560
		227.00		-1.888E-02	3.233E-01	5.280E-01	6.682E-02	-0.036
		285.00		-3.359E-01	1.455E+00	2.312E+00	3.546E-01	-0.145

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978014      *
* Acquisition date : 14-FEB-2010 13:12:09 Detector SN#     :               *
* Detector ID        : GAM11               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:01.96     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245978014           Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.4119E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.742E+01	2.826E+00	4.665E-01	0.000E+00
CD-109	3.639E+00	9.488E-01	1.275E+00	0.000E+00
SN-126	3.561E-01	9.285E-02	1.252E-01	0.000E+00
TL-208	5.888E-01	1.004E-01	4.626E-02	0.000E+00
BI-211	4.131E+00	6.684E-01	2.961E-01	0.000E+00
PB-212	1.661E+00	2.559E-01	7.859E-02	0.000E+00
PO-212	1.661E+00	2.559E-01	7.859E-02	0.000E+00
BI-214	1.256E+00	2.025E-01	9.758E-02	0.000E+00
PB-214	1.437E+00	2.438E-01	1.032E-01	0.000E+00
PO-214	1.437E+00	2.438E-01	1.032E-01	0.000E+00
PO-216	1.661E+00	2.559E-01	7.859E-02	0.000E+00
PO-218	1.437E+00	2.438E-01	1.032E-01	0.000E+00
RA-224	3.034E+00	9.560E-01	1.098E+00	0.000E+00
RA-226	1.256E+00	2.025E-01	9.758E-02	0.000E+00
AC-228	1.603E+00	2.994E-01	1.868E-01	0.000E+00
RA-228	1.603E+00	2.994E-01	1.868E-01	0.000E+00
TH-228	1.691E+00	2.606E-01	8.002E-02	0.000E+00
TH-229	1.299E-01	4.143E-01	7.424E-01	0.000E+00
TH-230	1.256E+00	2.025E-01	9.758E-02	0.000E+00
TH-232	1.603E+00	2.994E-01	1.868E-01	0.000E+00
TH-234	4.614E+00	1.792E+00	1.662E+00	0.000E+00
U-234	1.256E+00	2.025E-01	9.758E-02	0.000E+00
U-235	2.313E-01	2.103E-01	2.666E-01	0.000E+00
NP-237	1.046E+00	3.451E-01	3.360E-01	0.000E+00
U-238	4.614E+00	1.792E+00	1.662E+00	0.000E+00
AM-243	3.333E-01	6.042E-02	7.343E-02	0.000E+00
ANH-511	1.457E-01	5.660E-02	4.018E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error) Ided	MDA (pCi/GRAM)

BE-7	2.875E-01	2.793E-01	5.188E-01	0.000E+00	NOT IDENT.
NA-22	-3.578E-02	3.810E-02	5.694E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.726E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.207E-04	2.513E-02	4.233E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	4.822E-02	5.896E-02	0.000E+00	FAIL ABUN
SC-46	-3.608E-02	3.524E-02	5.548E-02	0.000E+00	FAIL ABUN
V-48	-1.371E-02	7.087E-02	1.197E-01	0.000E+00	NOT IDENT.
CR-51	-8.606E-02	3.338E-01	5.549E-01	0.000E+00	NOT IDENT.
MN-52	2.216E-02	2.697E-01	4.503E-01	0.000E+00	FAIL ABUN
MN-54	-1.037E-02	3.041E-02	5.169E-02	0.000E+00	NOT IDENT.
CO-56	2.547E-02	3.225E-02	5.987E-02	0.000E+00	FAIL ABUN
CO-57	2.834E-03	1.961E-02	3.613E-02	0.000E+00	NOT IDENT.
CO-58	-2.768E-02	3.573E-02	5.460E-02	0.000E+00	NOT IDENT.
FE-59	2.697E-02	8.638E-02	1.507E-01	0.000E+00	FAIL ABUN
CO-60	3.789E-02	3.417E-02	6.378E-02	0.000E+00	NOT IDENT.
ZN-65	1.097E-02	8.828E-02	1.318E-01	0.000E+00	NOT IDENT.
GE-68	1.312E+00	1.141E+00	2.123E+00	0.000E+00	NOT IDENT.
AS-73	2.007E-01	5.445E-01	9.699E-01	0.000E+00	NOT IDENT.
AS-74	-2.030E-02	8.733E-02	1.470E-01	0.000E+00	NOT IDENT.
SE-75	8.184E-03	4.071E-02	6.344E-02	0.000E+00	NOT IDENT.
BR-77	3.586E+01	2.018E+01	3.881E+01	0.000E+00	FAIL ABUN
SR-82	-2.582E-01	3.536E-01	5.467E-01	0.000E+00	NOT IDENT.
RB-83	8.939E-02	5.939E-02	1.126E-01	0.000E+00	NOT IDENT.
RB-84	-5.535E-02	6.489E-02	1.042E-01	0.000E+00	NOT IDENT.
KR-85	0.000E+00	6.399E+00	1.145E+01	0.000E+00	NOT IDENT.
SR-85	0.000E+00	3.384E-02	6.056E-02	0.000E+00	NOT IDENT.
RB-86	1.430E+00	8.197E-01	1.578E+00	0.000E+00	NOT IDENT.
Y-88	8.670E-03	3.233E-02	5.665E-02	0.000E+00	NOT IDENT.
ZR-88	-9.656E-03	2.479E-02	4.312E-02	0.000E+00	NOT IDENT.
Y-91	-6.968E+00	1.533E+01	2.460E+01	0.000E+00	NOT IDENT.
NB-94	6.236E-03	2.950E-02	5.054E-02	0.000E+00	NOT IDENT.
NB-95	6.694E-03	4.578E-02	6.777E-02	0.000E+00	NOT IDENT.
NB-95M	-2.842E-02	1.144E-01	1.749E-01	0.000E+00	NOT IDENT.
ZR-95	3.307E-02	6.653E-02	1.157E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.480E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.736E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-7.097E+00	2.156E+01	3.502E+01	0.000E+00	FAIL ABUN
TC-99M	0.000E+00	1.044E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.244E-02	2.756E-02	4.856E-02	0.000E+00	NOT IDENT.
RH-102	-2.001E-02	2.463E-02	4.060E-02	0.000E+00	NOT IDENT.
RU-103	1.101E-02	3.423E-02	6.104E-02	0.000E+00	FAIL ABUN
RH-106	1.382E-01	2.680E-01	4.749E-01	0.000E+00	FAIL ABUN
RU-106	1.382E-01	2.676E-01	4.749E-01	0.000E+00	FAIL ABUN
AG-108M	8.174E-04	2.700E-02	4.780E-02	0.000E+00	NOT IDENT.
AG-110M	1.439E-02	2.880E-02	5.085E-02	0.000E+00	NOT IDENT.
IN-111	4.583E-01	1.858E+00	2.927E+00	0.000E+00	NOT IDENT.
IN-113M	-7.787E-03	3.580E-02	6.302E-02	0.000E+00	NOT IDENT.
SN-113	-7.787E-03	3.580E-02	6.302E-02	0.000E+00	NOT IDENT.
IN-114M	1.233E-01	1.588E-01	2.631E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.101E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-1.163E-02	4.910E-02	8.734E-02	0.000E+00	NOT IDENT.
SB-122	1.342E+00	3.840E+00	6.776E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.835E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	8.157E-03	2.243E-02	4.087E-02	0.000E+00	NOT IDENT.
I-124	-3.679E-01	1.024E+00	1.570E+00	0.000E+00	FAIL ABUN
SB-124	-4.937E-03	6.039E-02	1.007E-01	0.000E+00	FAIL ABUN
SB-125	-3.816E-02	6.905E-02	1.173E-01	0.000E+00	FAIL ABUN
TE-125M	-1.525E+00	7.285E+00	1.335E+01	0.000E+00	NOT IDENT.
I-126	8.797E-02	1.896E-01	3.272E-01	0.000E+00	NOT IDENT.
SB-126	-8.504E-03	1.507E-01	2.520E-01	0.000E+00	FAIL ABUN
SB-127	-1.300E-01	1.989E+00	3.341E+00	0.000E+00	FAIL ABUN
XE-127	2.273E-02	4.005E-02	7.220E-02	0.000E+00	NOT IDENT.
I-131	-4.399E-02	1.255E-01	2.041E-01	0.000E+00	NOT IDENT.
TE-132	-3.590E-01	1.075E+00	1.842E+00	0.000E+00	NOT IDENT.
BA-133	-3.751E-03	4.157E-02	6.132E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	5.030E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.035E-02	5.344E-02	8.007E-02	0.000E+00	FAIL ABUN
CS-135	9.041E-02	1.463E-01	2.333E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.106E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.638E-02	1.034E-01	1.630E-01	0.000E+00	FAIL ABUN
BA-137M	-1.003E-02	3.012E-02	4.964E-02	0.000E+00	NOT IDENT.
CS-137	-1.060E-02	3.184E-02	5.247E-02	0.000E+00	NOT IDENT.
CE-139	-1.505E-02	2.411E-02	4.197E-02	0.000E+00	NOT IDENT.
BA-140	-1.069E-01	2.549E-01	4.233E-01	0.000E+00	NOT IDENT.
LA-140	-1.285E-01	1.020E-01	1.396E-01	0.000E+00	FAIL ABUN
CE-141	7.762E-03	5.644E-02	9.242E-02	0.000E+00	NOT IDENT.
CE-143	0.000E+00	6.931E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-9.360E-02	1.545E-01	2.732E-01	0.000E+00	NOT IDENT.

PM-144	1.603E-02	3.116E-02	5.457E-02	0.000E+00	NOT IDENT.
PR-144	1.088E+00	2.115E+00	3.703E+00	0.000E+00	NOT IDENT.
PM-146	2.801E-02	3.634E-02	6.679E-02	0.000E+00	NOT IDENT.
ND-147	-6.250E-01	5.710E-01	8.916E-01	0.000E+00	NOT IDENT.
PM-149	0.000E+00	1.984E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	-9.454E-02	8.307E-02	1.184E-01	0.000E+00	FAIL ABUN
GD-153	1.113E-01	1.000E-01	1.126E-01	0.000E+00	FAIL ABUN
EU-154	-1.008E-01	1.064E-01	1.584E-01	0.000E+00	NOT IDENT.
EU-155	1.258E-01	8.482E-02	1.635E-01	0.000E+00	FAIL ABUN
TB-160	-2.994E-02	1.233E-01	2.064E-01	0.000E+00	FAIL ABUN
HO-166M	3.174E-02	5.169E-02	9.133E-02	0.000E+00	FAIL ABUN
TM-171	1.984E+01	2.248E+01	3.710E+01	0.000E+00	NOT IDENT.
LU-176	-1.845E-02	2.058E-02	3.262E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	1.760E+00	2.412E+00	0.000E+00	FAIL ABUN
LU-177M	-9.010E-02	1.543E-01	2.281E-01	0.000E+00	FAIL ABUN
HF-181	-1.131E-02	3.625E-02	6.200E-02	0.000E+00	NOT IDENT.
W-181	-1.281E-01	3.061E-01	4.775E-01	0.000E+00	NOT IDENT.
TA-182	6.872E-02	1.867E-01	3.227E-01	0.000E+00	FAIL ABUN
RE-183	-9.010E-03	9.043E-02	1.615E-01	0.000E+00	FAIL ABUN
RE-184	6.295E-02	1.921E-01	3.377E-01	0.000E+00	NOT IDENT.
OS-185	5.861E-02	3.695E-02	6.997E-02	0.000E+00	NOT IDENT.
RE-188	1.428E-01	1.379E-01	2.572E-01	0.000E+00	NOT IDENT.
W-188	-7.070E+00	6.897E+00	9.454E+00	0.000E+00	FAIL ABUN
IR-192	8.748E-03	2.925E-02	5.046E-02	0.000E+00	FAIL ABUN
AU-195	3.251E-01	2.921E-01	3.413E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.405E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.695E+00	1.064E+01	1.890E+01	0.000E+00	NOT IDENT.
TL-202	-1.988E-02	7.081E-02	1.228E-01	0.000E+00	NOT IDENT.
HG-203	2.498E-02	3.667E-02	5.875E-02	0.000E+00	NOT IDENT.
BI-207	2.459E-02	4.984E-02	8.835E-02	0.000E+00	FAIL ABUN
TL-207	3.095E-01	6.027E-01	9.411E-01	0.000E+00	FAIL ABUN
PO-209	-2.430E+00	6.335E+00	1.063E+01	0.000E+00	NOT IDENT.
BI-210	9.987E-01	2.136E+00	3.886E+00	0.000E+00	NOT IDENT.
PB-210	9.987E-01	2.136E+00	3.886E+00	0.000E+00	NOT IDENT.
PO-210	9.987E-01	2.136E+00	3.886E+00	0.000E+00	NOT IDENT.
PB-211	-8.881E-01	1.055E+00	1.301E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	3.749E-01	5.939E-01	0.000E+00	FAIL ABUN
PO-215	3.095E-01	6.027E-01	9.411E-01	0.000E+00	FAIL ABUN
RN-219	8.678E-02	3.355E-01	6.057E-01	0.000E+00	FAIL ABUN
RN-220	-6.292E+00	2.138E+01	3.608E+01	0.000E+00	NOT IDENT.
RA-223	3.095E-01	6.027E-01	9.411E-01	0.000E+00	FAIL ABUN
AC-227	3.073E-01	3.202E-01	5.722E-01	0.000E+00	NOT IDENT.
TH-227	3.073E-01	3.215E-01	5.722E-01	0.000E+00	FAIL ABUN
PA-231	3.880E-01	1.273E+00	2.113E+00	0.000E+00	NOT IDENT.
TH-231	3.095E-01	6.027E-01	9.411E-01	0.000E+00	FAIL ABUN
U-231	3.075E-01	1.682E+00	2.300E+00	0.000E+00	FAIL ABUN
PA-233	-8.574E-03	4.918E-02	8.237E-02	0.000E+00	FAIL ABUN
PA-234	-1.258E-01	2.494E-01	4.085E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	6.358E+00	8.808E+00	0.000E+00	FAIL ABUN
NP-236	3.048E-02	6.169E-02	1.129E-01	0.000E+00	FAIL ABUN
NP-239	-1.058E-01	1.389E-01	2.471E-01	0.000E+00	FAIL ABUN
AM-241	4.129E-02	1.197E-01	1.952E-01	0.000E+00	NOT IDENT.
CM-243	-4.463E-03	7.396E-02	1.368E-01	0.000E+00	FAIL ABUN
AM-246	-3.037E-02	1.319E-01	2.199E-01	0.000E+00	NOT IDENT.
CM-247	4.249E-04	3.016E-02	5.372E-02	0.000E+00	FAIL ABUN
CF-249	1.012E-02	3.302E-02	5.994E-02	0.000E+00	NOT IDENT.
CF-251	9.716E-02	9.848E-02	1.821E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:14:30.64

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978014.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:12:09
Sample ID         : G245978014           Sample quantity  : 1.41190E+02 GRAM
Detector name     : GAM11                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.96  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1348	10.67*	1.225E+00	2.742E+01	2.742E+01	10.52
CD-109	88.03	337	3.72*	6.791E+00	3.542E+00	3.639E+00	26.61
SN-126	64.28	282	9.60	4.275E+00	1.826E+00	1.826E+00	38.45
	86.94	337	8.90	6.791E+00	1.480E+00	1.480E+00	48.42
	87.57	337	37.00*	6.791E+00	3.561E-01	3.561E-01	26.61
TL-208	277.35	63	6.80	4.673E+00	5.297E-01	5.297E-01	83.99
	510.84	162	21.60	2.953E+00	6.746E-01	6.746E-01	40.50
	583.14	496	84.20*	2.661E+00	5.888E-01	5.888E-01	17.40
	860.37	65	12.46	1.925E+00	7.193E-01	7.193E-01	52.50
BI-211	72.87	------	1.27	5.576E+00	------ Line Not Found		------
	351.07	788	12.94*	3.921E+00	4.131E+00	4.131E+00	16.51
PB-212	74.81	480	10.70	5.798E+00	2.056E+00	2.056E+00	20.72
	77.11	802	18.00	6.022E+00	1.966E+00	1.966E+00	13.56
	87.30	337	8.00	6.791E+00	1.647E+00	1.647E+00	28.42
	238.63	1452	44.60*	5.211E+00	1.661E+00	1.661E+00	15.72
	300.09	------	3.41	4.414E+00	------ Line Not Found		------
PO-212	74.81	480	10.70	5.798E+00	2.056E+00	2.056E+00	20.72
	77.11	802	18.00	6.022E+00	1.966E+00	1.966E+00	13.56
	87.30	337	8.00	6.791E+00	1.647E+00	1.647E+00	28.42
	115.19	------	0.60	7.407E+00	------ Line Not Found		------
	238.63	1452	44.60*	5.211E+00	1.661E+00	1.661E+00	15.72
	300.09	------	3.41	4.414E+00	------ Line Not Found		------
BI-214	609.31	562	46.30*	2.569E+00	1.256E+00	1.256E+00	16.46
	1120.29	97	15.10	1.530E+00	1.116E+00	1.116E+00	37.35
	1764.49	92	15.80	1.071E+00	1.438E+00	1.438E+00	23.37
PB-214	74.81	480	6.21	5.798E+00	3.542E+00	3.542E+00	19.92
	77.11	802	10.50	6.022E+00	3.371E+00	3.371E+00	15.55
	87.30	337	4.67	6.791E+00	2.821E+00	2.821E+00	27.70
	241.98	233	7.49	5.162E+00	1.600E+00	1.600E+00	32.64
	295.21	473	19.20	4.468E+00	1.465E+00	1.465E+00	22.49
	351.92	788	37.20*	3.921E+00	1.437E+00	1.437E+00	17.32
PO-214	74.81	480	6.21	5.798E+00	3.542E+00	3.542E+00	19.92

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	802	10.50	6.022E+00	3.371E+00	3.371E+00	15.55
	87.30	337	4.67	6.791E+00	2.821E+00	2.821E+00	27.70
	241.98	233	7.49	5.162E+00	1.600E+00	1.600E+00	32.64
	295.21	473	19.20	4.468E+00	1.465E+00	1.465E+00	22.49
	351.92	788	37.20*	3.921E+00	1.437E+00	1.437E+00	17.32
PO-216	74.81	480	10.70	5.798E+00	2.056E+00	2.056E+00	20.72
	77.11	802	18.00	6.022E+00	1.966E+00	1.966E+00	13.56
	87.30	337	8.00	6.791E+00	1.647E+00	1.647E+00	28.42
	238.63	1452	44.60*	5.211E+00	1.661E+00	1.661E+00	15.72
	300.09	------	3.41	4.414E+00	------ Line Not Found		------
PO-218	74.81	480	6.21	5.798E+00	3.542E+00	3.542E+00	19.92
	77.11	802	10.50	6.022E+00	3.371E+00	3.371E+00	15.55
	87.30	337	4.67	6.791E+00	2.821E+00	2.821E+00	27.70
	241.98	233	7.49	5.162E+00	1.600E+00	1.600E+00	32.64
	295.21	473	19.20	4.468E+00	1.465E+00	1.465E+00	22.49
	351.92	788	37.20*	3.921E+00	1.437E+00	1.437E+00	17.32
RA-224	240.98	233	3.95*	5.162E+00	3.034E+00	3.034E+00	32.15
RA-226	609.31	562	46.30*	2.569E+00	1.256E+00	1.256E+00	16.46
	1120.29	97	15.10	1.530E+00	1.116E+00	1.116E+00	37.35
	1764.49	92	15.80	1.071E+00	1.438E+00	1.438E+00	23.37
AC-228	338.32	270	11.40	4.038E+00	1.559E+00	1.559E+00	49.79
	911.07	306	27.70*	1.833E+00	1.603E+00	1.603E+00	19.06
	969.11	158	16.60	1.738E+00	1.454E+00	1.454E+00	32.56
RA-228	338.32	270	11.40	4.038E+00	1.559E+00	1.559E+00	49.79
	911.07	306	27.70*	1.833E+00	1.603E+00	1.603E+00	19.06
	969.11	158	16.60	1.738E+00	1.454E+00	1.454E+00	32.56
TH-228	74.81	480	10.70	5.798E+00	2.056E+00	2.093E+00	18.53
	77.11	802	18.00	6.022E+00	1.966E+00	2.002E+00	13.56
	87.30	337	8.00	6.791E+00	1.647E+00	1.677E+00	26.61
	238.63	1452	44.60*	5.211E+00	1.661E+00	1.691E+00	15.72
	300.09	------	3.41	4.414E+00	------ Line Not Found		------
TH-229	85.43	142	16.50	6.602E+00	3.471E-01	3.471E-01	51.84
	88.47	337	27.10	6.791E+00	4.862E-01	4.862E-01	26.61
	100.00	90	12.40	7.248E+00	2.668E-01	2.668E-01	91.68
	193.63	------	4.59*	6.001E+00	------ Line Not Found		------
	210.97	------	3.26	5.673E+00	------ Line Not Found		------
TH-230	609.31	562	46.30*	2.569E+00	1.256E+00	1.256E+00	16.46
	1120.29	97	15.10	1.530E+00	1.116E+00	1.116E+00	37.35
	1764.49	92	15.80	1.071E+00	1.438E+00	1.438E+00	23.37
TH-232	338.32	270	11.40	4.038E+00	1.559E+00	1.559E+00	29.16
	911.07	306	27.70*	1.833E+00	1.603E+00	1.603E+00	19.06
	969.11	158	16.60	1.738E+00	1.454E+00	1.454E+00	32.56
TH-234	63.29	282	3.80*	4.275E+00	4.614E+00	4.614E+00	39.64
	92.38	1000	5.41	7.058E+00	6.962E+00	6.962E+00	21.62
U-234	609.31	562	46.30*	2.569E+00	1.256E+00	1.256E+00	16.46
	1120.29	97	15.10	1.530E+00	1.116E+00	1.116E+00	37.35
	1764.49	92	15.80	1.071E+00	1.438E+00	1.438E+00	23.37
U-235	89.95	------	2.70	6.934E+00	------ Line Not Found		------
	93.35	1000	4.50	7.058E+00	8.370E+00	8.370E+00	30.43

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	105.00	------	2.10	7.364E+00	------	Line Not Found	------
	143.76	64	10.50*	7.035E+00	2.313E-01	2.313E-01	92.79
	163.35	------	4.70	6.629E+00	------	Line Not Found	------
	185.71	387	54.00	6.155E+00	3.096E-01	3.096E-01	24.98
	205.31	------	4.70	5.777E+00	------	Line Not Found	------
NP-237	86.50	337	12.60*	6.791E+00	1.046E+00	1.046E+00	33.67
	95.87	------	2.60	7.169E+00	------	Line Not Found	------
U-238	63.29	282	3.80*	4.275E+00	4.614E+00	4.614E+00	39.64
	92.38	1000	5.41	7.058E+00	6.962E+00	6.962E+00	14.66
AM-243	74.67	480	66.00*	5.798E+00	3.333E-01	3.333E-01	18.50
	86.72	337	0.34	6.791E+00	3.921E+01	3.921E+01	26.61
	117.66	------	0.55	7.397E+00	------	Line Not Found	------
	142.18	58	0.13	7.090E+00	1.732E+01	1.732E+01	78.41
ANH-511	511.00	162	100.00*	2.953E+00	1.457E-01	1.457E-01	39.63

Flag: "*" = Keyline

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

Total number of lines in spectrum 43
Number of unidentified lines 4
Number of lines tentatively identified by NID 39 90.70%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.742E+01	2.742E+01	0.288E+01	10.52	
CD-109	464.00D	1.03	3.542E+00	3.639E+00	0.968E+00	26.61	
SN-126	1.00E+05Y	1.00	3.561E-01	3.561E-01	0.947E-01	26.61	
TL-208	1.41E+10Y	1.00	5.888E-01	5.888E-01	1.024E-01	17.40	
BI-211	7.04E+08Y	1.00	4.131E+00	4.131E+00	0.682E+00	16.51	
PB-212	1.41E+10Y	1.00	1.661E+00	1.661E+00	0.261E+00	15.72	
PO-212	1.41E+10Y	1.00	1.661E+00	1.661E+00	0.261E+00	15.72	
BI-214	1600.00Y	1.00	1.256E+00	1.256E+00	0.207E+00	16.46	
PB-214	1600.00Y	1.00	1.437E+00	1.437E+00	0.249E+00	17.32	
PO-214	1600.00Y	1.00	1.437E+00	1.437E+00	0.249E+00	17.32	
PO-216	1.41E+10Y	1.00	1.661E+00	1.661E+00	0.261E+00	15.72	
PO-218	1600.00Y	1.00	1.437E+00	1.437E+00	0.249E+00	17.32	
RA-224	1.41E+10Y	1.00	3.034E+00	3.034E+00	0.976E+00	32.15	
RA-226	1600.00Y	1.00	1.256E+00	1.256E+00	0.207E+00	16.46	
AC-228	1.41E+10Y	1.00	1.603E+00	1.603E+00	0.306E+00	19.06	
RA-228	1.41E+10Y	1.00	1.603E+00	1.603E+00	0.306E+00	19.06	
TH-228	1.91Y	1.02	1.661E+00	1.691E+00	0.266E+00	15.72	
TH-229	7340.00Y	1.00	4.862E-01	4.862E-01	1.294E-01	26.61	K
TH-230	4.47E+09Y	1.00	1.256E+00	1.256E+00	0.207E+00	16.46	
TH-232	1.41E+10Y	1.00	1.603E+00	1.603E+00	0.306E+00	19.06	
TH-234	4.47E+09Y	1.00	4.614E+00	4.614E+00	1.829E+00	39.64	
U-234	4.47E+09Y	1.00	1.256E+00	1.256E+00	0.207E+00	16.46	
U-235	7.04E+08Y	1.00	2.313E-01	2.313E-01	2.146E-01	92.79	
NP-237	2.14E+06Y	1.00	1.046E+00	1.046E+00	0.352E+00	33.67	
U-238	4.47E+09Y	1.00	4.614E+00	4.614E+00	1.829E+00	39.64	
AM-243	7380.00Y	1.00	3.333E-01	3.333E-01	0.617E-01	18.50	
ANH-511	1.00E+09Y	1.00	1.457E-01	1.457E-01	0.578E-01	39.63	
	Total Activity :		7.133E+01	7.146E+01			

Grand Total Activity : 7.133E+01 7.146E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.89	106	344	0.73	256.75	253	7	1.48E-02	60.9	7.29E+00	T
0	209.14	92	317	0.99	417.39	413	8	1.28E-02	70.0	5.71E+00	T
4	270.19	105	200	1.55	539.56	534	27	1.46E-02	53.7	4.77E+00	T
0	328.06	62	133	1.10	655.39	652	7	8.67E-03	66.5	4.13E+00	T
0	410.58	94	162	2.66	820.53	813	14	1.30E-02	62.1	3.49E+00	T
0	462.74	99	108	1.14	924.91	920	11	1.37E-02	45.5	3.19E+00	T
0	727.71	71	79	1.49	1455.16	1451	9	9.89E-03	51.9	2.22E+00	T
0	768.49	65	70	1.15	1536.76	1530	11	9.06E-03	53.2	2.12E+00	
0	795.05	41	59	1.51	1589.91	1585	10	5.73E-03	76.9	2.06E+00	T
0	934.79	31	36	0.71	1869.52	1865	9	4.31E-03	78.5	1.79E+00	T
1	964.87	56	41	1.73	1929.71	1922	22	7.76E-03	52.4	1.74E+00	T
0	1001.00	56	53	1.63	2001.98	1996	13	7.84E-03	60.4	1.69E+00	T
0	1238.52	86	61	1.00	2477.21	2470	17	1.19E-02	46.5	1.40E+00	T
0	1377.47	45	22	0.86	2755.19	2746	18	6.22E-03	57.9	1.28E+00	T
0	1510.26	17	6	0.93	3020.82	3016	8	2.35E-03	70.0	1.19E+00	T
0	1513.73	13	2	1.04	3027.77	3025	6	1.74E-03	70.5	1.19E+00	
0	1588.33	30	21	1.08	3177.00	3171	12	4.17E-03	71.1	1.15E+00	
0	1847.95	22	2	1.49	3696.31	3692	8	3.07E-03	47.8	1.04E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:14:36.40

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978014.CNF;1 *
* Acquisition date  : 14-FEB-2010 13:12:09  Detector SN#     :             *
* Detector ID       : GAM11                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.96          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245978014            Analyst initials: MXR1         *
* Batch Number      : 948721                Sample Quantity : 1.41190E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22.2MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.742E+01	2.883E+00	4.646E-01	4.017E-02	59.017
CD-109	3.639E+00	9.682E-01	1.198E+00	1.136E-01	3.037
SN-126	3.561E-01	9.475E-02	1.176E-01	1.110E-02	3.027
TL-208	5.888E-01	1.024E-01	4.517E-02	4.878E-03	13.035
BI-211	4.131E+00	6.820E-01	2.861E-01	3.775E-02	14.438
PB-212	1.661E+00	2.611E-01	7.534E-02	1.055E-02	22.048
PO-212	1.661E+00	2.611E-01	7.534E-02	1.055E-02	22.048
BI-214	1.256E+00	2.066E-01	9.537E-02	1.078E-02	13.165
PB-214	1.437E+00	2.488E-01	9.974E-02	1.411E-02	14.407
PO-214	1.437E+00	2.488E-01	9.974E-02	1.411E-02	14.407
PO-216	1.661E+00	2.611E-01	7.534E-02	1.055E-02	22.048
PO-218	1.437E+00	2.488E-01	9.974E-02	1.411E-02	14.407
RA-224	3.034E+00	9.755E-01	1.053E+00	1.410E-01	2.881
RA-226	1.256E+00	2.066E-01	9.537E-02	1.078E-02	13.165
AC-228	1.603E+00	3.055E-01	1.841E-01	2.241E-02	8.709
RA-228	1.603E+00	3.055E-01	1.841E-01	2.241E-02	8.709
TH-228	1.691E+00	2.659E-01	7.671E-02	1.074E-02	22.048
TH-229	4.862E-01	1.294E-01	7.087E-01	7.781E-02	0.686

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-230	1.256E+00	2.066E-01	9.537E-02	1.078E-02	13.165
TH-232	1.603E+00	3.055E-01	1.841E-01	2.241E-02	8.709
TH-234	4.614E+00	1.829E+00	1.552E+00	2.701E-01	2.972
U-234	1.256E+00	2.066E-01	9.537E-02	1.078E-02	13.165
U-235	2.313E-01	2.146E-01	2.530E-01	4.473E-02	0.914
NP-237	1.046E+00	3.521E-01	3.157E-01	7.146E-02	3.312
U-238	4.614E+00	1.829E+00	1.552E+00	2.701E-01	2.972
AM-243	3.333E-01	6.165E-02	6.879E-02	5.567E-03	4.845
ANH-511	1.457E-01	5.775E-02	3.913E-02	4.184E-03	3.724

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.875E-01		2.850E-01	5.045E-01	5.710E-02	0.570
NA-22	-3.578E-02		3.888E-02	5.654E-02	4.643E-03	-0.633
NA-24	-1.453E+00		8.806E+00	Half-Life too short		
AL-26	3.207E-04		2.564E-02	4.236E-02	3.458E-03	0.008
TI-44	3.629E-01	+	4.921E-02	5.529E-02	4.660E-03	6.564
SC-46	-3.608E-02		3.596E-02	5.466E-02	5.384E-03	-0.660
V-48	-1.371E-02		7.231E-02	1.182E-01	1.122E-02	-0.116
CR-51	-8.606E-02		3.406E-01	5.351E-01	7.766E-02	-0.161
MN-52	2.216E-02		2.752E-01	4.482E-01	3.756E-02	0.049
MN-54	-1.037E-02		3.103E-02	5.086E-02	5.008E-03	-0.204
CO-56	2.547E-02		3.291E-02	5.893E-02	5.806E-03	0.432
CO-57	2.834E-03		2.001E-02	3.418E-02	2.891E-03	0.083
CO-58	-2.768E-02		3.646E-02	5.369E-02	5.287E-03	-0.515
FE-59	2.697E-02		8.815E-02	1.491E-01	1.402E-02	0.181
CO-60	3.789E-02		3.487E-02	6.339E-02	5.238E-03	0.598
ZN-65	1.097E-02		9.008E-02	1.305E-01	1.119E-02	0.084
GE-68	1.312E+00		1.165E+00	2.100E+00	1.865E-01	0.625
AS-73	2.007E-01		5.556E-01	9.028E-01	6.780E-02	0.222
AS-74	-2.030E-02		8.912E-02	1.436E-01	1.460E-02	-0.141
SE-75	8.184E-03		4.154E-02	6.095E-02	8.959E-03	0.134
BR-77	3.586E+01		2.059E+01	3.781E+01	4.029E+00	0.948
SR-82	-2.582E-01		3.608E-01	5.371E-01	5.253E-02	-0.481
RB-83	8.939E-02		6.060E-02	1.097E-01	1.169E-02	0.815
RB-84	-5.535E-02		6.622E-02	1.026E-01	1.011E-02	-0.539
KR-85	1.401E+01		6.530E+00	1.115E+01	1.191E+00	1.256
SR-85	7.409E-02		3.453E-02	5.898E-02	6.300E-03	1.256
RB-86	1.430E+00		8.364E-01	1.561E+00	1.387E-01	0.916
Y-88	8.670E-03		3.299E-02	5.670E-02	4.603E-03	0.153
ZR-88	-9.656E-03		2.529E-02	4.176E-02	4.454E-03	-0.231
Y-91	-6.968E+00		1.565E+01	2.439E+01	1.975E+00	-0.286
NB-94	6.236E-03		3.010E-02	4.954E-02	4.758E-03	0.126
NB-95	6.694E-03		4.671E-02	6.655E-02	6.497E-03	0.101
NB-95M	-2.842E-02		1.168E-01	1.676E-01	2.340E-02	-0.170
ZR-95	3.307E-02		6.789E-02	1.136E-01	1.196E-02	0.291

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	7.131E-02		7.551E-01	Half-Life too short		
ZR-97	1.623E+01		1.396E+01	Half-Life too short		
MO-99	-7.097E+00		2.200E+01	3.437E+01	5.439E+00	-0.206
TC-99M	1.251E+14	+	5.324E+13	Half-Life too short		
RH-101	1.244E-02		2.812E-02	4.637E-02	5.190E-03	0.268
RH-102	-2.001E-02		2.513E-02	3.948E-02	4.256E-03	-0.507
RU-103	1.101E-02		3.493E-02	5.941E-02	9.233E-03	0.185
RH-106	1.382E-01		2.734E-01	4.644E-01	6.609E-02	0.298
RU-106	1.382E-01		2.731E-01	4.644E-01	4.607E-02	0.298
AG-108M	8.174E-04		2.755E-02	4.639E-02	5.129E-03	0.018
AG-110M	1.439E-02		2.939E-02	4.978E-02	4.851E-03	0.289
IN-111	4.583E-01		1.896E+00	2.807E+00	3.826E-01	0.163
IN-113M	-7.787E-03		3.653E-02	6.103E-02	6.638E-03	-0.128
SN-113	-7.787E-03		3.653E-02	6.103E-02	6.638E-03	-0.128
IN-114M	1.233E-01		1.620E-01	2.510E-01	2.716E-02	0.491
CD-115	1.751E-05		1.072E-05	Half-Life too short		
SN-117M	-1.163E-02		5.010E-02	8.304E-02	7.848E-03	-0.140
SB-122	1.342E+00		3.918E+00	6.612E+00	6.888E-01	0.203
I-123	6.674E+01		9.361E+01	Half-Life too short		
TE-123M	8.157E-03		2.288E-02	3.886E-02	3.698E-03	0.210
I-124	-3.679E-01		1.045E+00	1.534E+00	1.550E-01	-0.240
SB-124	-4.937E-03		6.162E-02	1.006E-01	8.744E-03	-0.049
SB-125	-3.816E-02		7.046E-02	1.138E-01	1.240E-02	-0.335
TE-125M	-1.525E+00		7.433E+00	1.260E+01	1.294E+00	-0.121
I-126	8.797E-02		1.935E-01	3.204E-01	3.037E-02	0.275
SB-126	-8.504E-03		1.538E-01	2.472E-01	2.387E-02	-0.034
SB-127	-1.300E-01		2.029E+00	3.274E+00	4.240E-01	-0.040
XE-127	2.273E-02		4.087E-02	6.899E-02	7.885E-03	0.330
I-131	-4.399E-02		1.281E-01	1.974E-01	2.481E-02	-0.223
TE-132	-3.590E-01		1.097E+00	1.764E+00	3.313E-01	-0.204
BA-133	-3.751E-03		4.241E-02	5.926E-02	9.558E-03	-0.063
I-133	1.430E-02		2.566E-02	Half-Life too short		
CS-134	7.035E-02	+	5.453E-02	7.870E-02	7.764E-03	0.894
CS-135	9.041E-02		1.493E-01	2.242E-01	3.517E-02	0.403
I-135	-1.152E+12		4.136E+12	Half-Life too short		
CS-136	-7.638E-02		1.055E-01	1.612E-01	1.522E-02	-0.474
BA-137M	-1.003E-02		3.073E-02	4.860E-02	4.598E-03	-0.206
CS-137	-1.060E-02		3.249E-02	5.137E-02	4.869E-03	-0.206
CE-139	-1.505E-02		2.460E-02	3.994E-02	3.881E-03	-0.377
BA-140	-1.069E-01		2.601E-01	4.126E-01	1.391E-01	-0.259
LA-140	-1.285E-01		1.041E-01	1.393E-01	1.172E-02	-0.922
CE-141	7.762E-03		5.759E-02	8.772E-02	8.040E-03	0.088
CE-143	1.742E-03		3.536E-04	Half-Life too short		
CE-144	-9.360E-02		1.576E-01	2.589E-01	4.039E-02	-0.362
PM-144	1.603E-02		3.179E-02	5.348E-02	5.128E-03	0.300
PR-144	1.088E+00		2.158E+00	3.630E+00	3.479E-01	0.300
PM-146	2.801E-02		3.708E-02	6.487E-02	8.134E-03	0.432
ND-147	-6.250E-01		5.827E-01	8.690E-01	1.406E-01	-0.719

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-2.280E-04		1.012E-04	Half-Life too short		
EU-152	-9.454E-02		8.477E-02	1.143E-01	1.550E-02	-0.827
GD-153	1.113E-01	+	1.021E-01	1.060E-01	9.418E-03	1.050
EU-154	-1.008E-01		1.086E-01	1.573E-01	1.730E-02	-0.641
EU-155	1.258E-01		8.655E-02	1.542E-01	1.345E-02	0.816
TB-160	-2.994E-02		1.258E-01	2.033E-01	2.003E-02	-0.147
HO-166M	3.174E-02		5.275E-02	8.956E-02	8.625E-03	0.354
TM-171	1.984E+01		2.294E+01	3.468E+01	2.603E+00	0.572
LU-176	-1.845E-02		2.100E-02	3.143E-02	4.620E-03	-0.587
LU-177	2.532E+00	+	1.796E+00	2.306E+00	2.699E-01	1.098
LU-177M	-9.010E-02		1.574E-01	2.211E-01	2.374E-02	-0.407
HF-181	-1.131E-02		3.699E-02	6.030E-02	6.495E-03	-0.188
W-181	-1.281E-01		3.123E-01	4.462E-01	3.307E-02	-0.287
TA-182	6.872E-02		1.905E-01	3.201E-01	2.600E-02	0.215
RE-183	-9.010E-03		9.227E-02	1.537E-01	1.473E-02	-0.059
RE-184	6.295E-02		1.960E-01	3.241E-01	4.547E-02	0.194
OS-185	5.861E-02		3.770E-02	6.848E-02	6.610E-03	0.856
RE-188	1.428E-01		1.407E-01	2.445E-01	2.280E-02	0.584
W-188	-7.070E+00		7.037E+00	9.100E+00	1.382E+00	-0.777
IR-192	8.748E-03		2.985E-02	4.865E-02	6.993E-03	0.180
AU-195	3.251E-01	+	2.980E-01	3.215E-01	2.837E-02	1.011
TL-200	-8.689E-04		1.227E-03	Half-Life too short		
TL-201	-1.695E+00		1.085E+01	1.799E+01	1.760E+00	-0.094
TL-202	-1.988E-02		7.226E-02	1.192E-01	1.286E-02	-0.167
HG-203	2.498E-02		3.742E-02	5.650E-02	8.825E-03	0.442
BI-207	2.459E-02		5.086E-02	8.738E-02	7.850E-03	0.281
TL-207	3.095E-01		6.150E-01	9.078E-01	1.899E-01	0.341
PO-209	-2.430E+00		6.465E+00	1.047E+01	1.031E+00	-0.232
BI-210	9.987E-01		2.180E+00	3.608E+00	3.359E-01	0.277
PB-210	9.987E-01		2.180E+00	3.608E+00	3.359E-01	0.277
PO-210	9.987E-01		2.180E+00	3.608E+00	3.041E-01	0.277
PB-211	-8.881E-01		1.077E+00	1.260E+00	7.939E-01	-0.705
BI-212	7.219E-01	+	3.826E-01	5.826E-01	6.367E-02	1.239
PO-215	3.095E-01		6.150E-01	9.078E-01	1.899E-01	0.341
RN-219	8.678E-02		3.424E-01	5.869E-01	9.571E-02	0.148
RN-220	-6.292E+00		2.181E+01	3.518E+01	3.697E+00	-0.179
RA-223	3.095E-01		6.150E-01	9.078E-01	1.899E-01	0.341
AC-227	3.073E-01		3.268E-01	5.493E-01	1.047E-01	0.559
TH-227	3.073E-01		3.281E-01	5.493E-01	1.170E-01	0.559
PA-231	3.880E-01		1.299E+00	2.033E+00	4.028E-01	0.191
TH-231	3.095E-01		6.150E-01	9.078E-01	1.899E-01	0.341
U-231	3.075E-01		1.717E+00	2.165E+00	1.940E-01	0.142
PA-233	-8.574E-03		5.019E-02	7.939E-02	1.165E-02	-0.108
PA-234	-1.258E-01		2.545E-01	4.030E-01	7.764E-02	-0.312
PA-234M	1.058E+01	+	6.488E+00	8.700E+00	9.254E-01	1.216
NP-236	3.048E-02		6.295E-02	1.074E-01	1.021E-02	0.284
NP-239	-1.058E-01		1.417E-01	2.335E-01	1.976E-02	-0.453
AM-241	4.129E-02		1.221E-01	1.821E-01	1.431E-02	0.227

Sample ID : G245978014 Acquisition date : 14-FEB-2010 13:12:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-4.463E-03		7.547E-02	1.290E-01	1.117E-02	-0.035
AM-246	-3.037E-02		1.345E-01	2.176E-01	1.930E-02	-0.140
CM-247	4.249E-04		3.078E-02	5.205E-02	5.571E-03	0.008
CF-249	1.012E-02		3.369E-02	5.804E-02	6.320E-03	0.174
CF-251	9.716E-02		1.005E-01	1.735E-01	1.768E-02	0.560

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978014            *
* Acquisition date : 14-FEB-2010 13:12:09 Detector SN#    :                 *
* Detector ID      : GAM11                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.96     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978014           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.4119E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 15:33:22 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.742E+01	2.826E+00	2.334E-01	1.442E+00
CD-109	3.639E+00	9.488E-01	6.378E-01	4.841E-01
SN-126	3.561E-01	9.285E-02	6.263E-02	4.737E-02
TL-208	5.888E-01	1.004E-01	2.314E-02	5.121E-02
BI-211	4.131E+00	6.684E-01	1.482E-01	3.410E-01
PB-212	1.661E+00	2.559E-01	3.932E-02	1.306E-01
PO-212	1.661E+00	2.559E-01	3.932E-02	1.306E-01
BI-214	1.256E+00	2.025E-01	4.882E-02	1.033E-01
PB-214	1.437E+00	2.438E-01	5.164E-02	1.244E-01
PO-214	1.437E+00	2.438E-01	5.164E-02	1.244E-01
PO-216	1.661E+00	2.559E-01	3.932E-02	1.306E-01
PO-218	1.437E+00	2.438E-01	5.164E-02	1.244E-01
RA-224	3.034E+00	9.560E-01	5.495E-01	4.878E-01
RA-226	1.256E+00	2.025E-01	4.882E-02	1.033E-01
AC-228	1.603E+00	2.994E-01	9.343E-02	1.528E-01
RA-228	1.603E+00	2.994E-01	9.343E-02	1.528E-01
TH-228	1.691E+00	2.606E-01	4.003E-02	1.329E-01
TH-229	1.299E-01	4.143E-01	3.714E-01	2.114E-01
TH-230	1.256E+00	2.025E-01	4.882E-02	1.033E-01
TH-232	1.603E+00	2.994E-01	9.343E-02	1.528E-01
TH-234	4.614E+00	1.792E+00	8.317E-01	9.145E-01
U-234	1.256E+00	2.025E-01	4.882E-02	1.033E-01
U-235	2.313E-01	2.103E-01	1.334E-01	1.073E-01
NP-237	1.046E+00	3.451E-01	1.681E-01	1.760E-01
U-238	4.614E+00	1.792E+00	8.317E-01	9.145E-01
AM-243	3.333E-01	6.042E-02	3.674E-02	3.083E-02
ANH-511	1.457E-01	5.660E-02	2.010E-02	2.888E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	2.875E-01	2.793E-01	2.596E-01	1.425E-01	NOT IDENT.
NA-22	-3.578E-02	3.810E-02	2.849E-02	1.944E-02	NOT IDENT.
NA-24	-1.453E+06	1.726E+07	0.000E+00	8.806E+06	SHORT HLIF
AL-26	3.207E-04	2.513E-02	2.118E-02	1.282E-02	NOT IDENT.
TI-44	3.629E-01	4.822E-02	2.950E-02	2.460E-02	FAIL ABUN
SC-46	-3.608E-02	3.524E-02	2.776E-02	1.798E-02	FAIL ABUN
V-48	-1.371E-02	7.087E-02	5.991E-02	3.616E-02	NOT IDENT.
CR-51	-8.606E-02	3.338E-01	2.776E-01	1.703E-01	NOT IDENT.
MN-52	2.216E-02	2.697E-01	2.253E-01	1.376E-01	FAIL ABUN
MN-54	-1.037E-02	3.041E-02	2.586E-02	1.551E-02	NOT IDENT.
CO-56	2.547E-02	3.225E-02	2.995E-02	1.645E-02	FAIL ABUN
CO-57	2.834E-03	1.961E-02	1.808E-02	1.001E-02	NOT IDENT.
CO-58	-2.768E-02	3.573E-02	2.732E-02	1.823E-02	NOT IDENT.
FE-59	2.697E-02	8.638E-02	7.539E-02	4.407E-02	FAIL ABUN
CO-60	3.789E-02	3.417E-02	3.191E-02	1.743E-02	NOT IDENT.
ZN-65	1.097E-02	8.828E-02	6.593E-02	4.504E-02	NOT IDENT.
GE-68	1.312E+00	1.141E+00	1.062E+00	5.823E-01	NOT IDENT.
AS-73	2.007E-01	5.445E-01	4.852E-01	2.778E-01	NOT IDENT.
AS-74	-2.030E-02	8.733E-02	7.353E-02	4.456E-02	NOT IDENT.
SE-75	8.184E-03	4.071E-02	3.174E-02	2.077E-02	NOT IDENT.
BR-77	3.586E+01	2.018E+01	1.942E+01	1.029E+01	FAIL ABUN
SR-82	-2.582E-01	3.536E-01	2.735E-01	1.804E-01	NOT IDENT.
RB-83	8.939E-02	5.939E-02	5.633E-02	3.030E-02	NOT IDENT.
RB-84	-5.535E-02	6.489E-02	5.212E-02	3.311E-02	NOT IDENT.
KR-85	1.401E+01	6.399E+00	5.729E+00	3.265E+00	NOT IDENT.
SR-85	7.409E-02	3.384E-02	3.030E-02	1.726E-02	NOT IDENT.
RB-86	1.430E+00	8.197E-01	7.893E-01	4.182E-01	NOT IDENT.
Y-88	8.670E-03	3.233E-02	2.834E-02	1.649E-02	NOT IDENT.
ZR-88	-9.656E-03	2.479E-02	2.157E-02	1.265E-02	NOT IDENT.
Y-91	-6.968E+00	1.533E+01	1.231E+01	7.823E+00	NOT IDENT.
NB-94	6.236E-03	2.950E-02	2.528E-02	1.505E-02	NOT IDENT.
NB-95	6.694E-03	4.578E-02	3.390E-02	2.336E-02	NOT IDENT.
NB-95M	-2.842E-02	1.144E-01	8.749E-02	5.838E-02	NOT IDENT.
ZR-95	3.307E-02	6.653E-02	5.789E-02	3.394E-02	NOT IDENT.
NB-97	7.131E+04	1.480E+06	0.000E+00	7.551E+05	SHORT HLIF
ZR-97	1.623E+07	2.736E+07	0.000E+00	1.396E+07	SHORT HLIF
MO-99	-7.097E+00	2.156E+01	1.752E+01	1.100E+01	FAIL ABUN
TC-99M	1.251E+20	1.044E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.244E-02	2.756E-02	2.429E-02	1.406E-02	NOT IDENT.
RH-102	-2.001E-02	2.463E-02	2.031E-02	1.257E-02	NOT IDENT.
RU-103	1.101E-02	3.423E-02	3.054E-02	1.747E-02	FAIL ABUN
RH-106	1.382E-01	2.680E-01	2.376E-01	1.367E-01	FAIL ABUN
RU-106	1.382E-01	2.676E-01	2.376E-01	1.365E-01	FAIL ABUN
AG-108M	8.174E-04	2.700E-02	2.392E-02	1.377E-02	NOT IDENT.
AG-110M	1.439E-02	2.880E-02	2.544E-02	1.470E-02	NOT IDENT.
IN-111	4.583E-01	1.858E+00	1.464E+00	9.480E-01	NOT IDENT.
IN-113M	-7.787E-03	3.580E-02	3.153E-02	1.827E-02	NOT IDENT.
SN-113	-7.787E-03	3.580E-02	3.153E-02	1.827E-02	NOT IDENT.
IN-114M	1.233E-01	1.588E-01	1.316E-01	8.101E-02	NOT IDENT.
CD-115	1.751E+01	2.101E+01	0.000E+00	1.072E+01	SHORT HLIF
SN-117M	-1.163E-02	4.910E-02	4.370E-02	2.505E-02	NOT IDENT.
SB-122	1.342E+00	3.840E+00	3.390E+00	1.959E+00	NOT IDENT.
I-123	6.674E+07	1.835E+08	0.000E+00	9.361E+07	SHORT HLIF
TE-123M	8.157E-03	2.243E-02	2.045E-02	1.144E-02	NOT IDENT.
I-124	-3.679E-01	1.024E+00	7.853E-01	5.227E-01	FAIL ABUN
SB-124	-4.937E-03	6.039E-02	5.038E-02	3.081E-02	FAIL ABUN
SB-125	-3.816E-02	6.905E-02	5.866E-02	3.523E-02	FAIL ABUN
TE-125M	-1.525E+00	7.285E+00	6.679E+00	3.717E+00	NOT IDENT.
I-126	8.797E-02	1.896E-01	1.637E-01	9.675E-02	NOT IDENT.
SB-126	-8.504E-03	1.507E-01	1.261E-01	7.688E-02	FAIL ABUN
SB-127	-1.300E-01	1.989E+00	1.672E+00	1.015E+00	FAIL ABUN
XE-127	2.273E-02	4.005E-02	3.612E-02	2.044E-02	NOT IDENT.
I-131	-4.399E-02	1.255E-01	1.021E-01	6.403E-02	NOT IDENT.
TE-132	-3.590E-01	1.075E+00	9.214E-01	5.485E-01	NOT IDENT.
BA-133	-3.751E-03	4.157E-02	3.068E-02	2.121E-02	FAIL ABUN
I-133	1.430E+04	5.030E+04	0.000E+00	2.566E+04	SHORT HLIF
CS-134	7.035E-02	5.344E-02	4.006E-02	2.727E-02	FAIL ABUN
CS-135	9.041E-02	1.463E-01	1.167E-01	7.465E-02	NOT IDENT.
I-135	-1.152E+18	8.106E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.638E-02	1.034E-01	8.156E-02	5.275E-02	FAIL ABUN
BA-137M	-1.003E-02	3.012E-02	2.483E-02	1.537E-02	NOT IDENT.
CS-137	-1.060E-02	3.184E-02	2.625E-02	1.624E-02	NOT IDENT.
CE-139	-1.505E-02	2.411E-02	2.100E-02	1.230E-02	NOT IDENT.
BA-140	-1.069E-01	2.549E-01	2.118E-01	1.301E-01	NOT IDENT.
LA-140	-1.285E-01	1.020E-01	6.986E-02	5.207E-02	FAIL ABUN
CE-141	7.762E-03	5.644E-02	4.624E-02	2.879E-02	NOT IDENT.
CE-143	1.742E+03	6.931E+02	0.000E+00	3.536E+02	SHORT HLIF
CE-144	-9.360E-02	1.545E-01	1.367E-01	7.882E-02	NOT IDENT.

PM-144	1.603E-02	3.116E-02	2.730E-02	1.590E-02	NOT IDENT.
PR-144	1.088E+00	2.115E+00	1.853E+00	1.079E+00	NOT IDENT.
PM-146	2.801E-02	3.634E-02	3.341E-02	1.854E-02	NOT IDENT.
ND-147	-6.250E-01	5.710E-01	4.461E-01	2.913E-01	NOT IDENT.
PM-149	-2.280E+02	1.984E+02	0.000E+00	1.012E+02	SHORT HLIF
EU-152	-9.454E-02	8.307E-02	5.922E-02	4.238E-02	FAIL ABUN
GD-153	1.113E-01	1.000E-01	5.632E-02	5.104E-02	FAIL ABUN
EU-154	-1.008E-01	1.064E-01	7.926E-02	5.429E-02	NOT IDENT.
EU-155	1.258E-01	8.482E-02	8.179E-02	4.328E-02	FAIL ABUN
TB-160	-2.994E-02	1.233E-01	1.033E-01	6.289E-02	FAIL ABUN
HO-166M	3.174E-02	5.169E-02	4.569E-02	2.637E-02	FAIL ABUN
TM-171	1.984E+01	2.248E+01	1.856E+01	1.147E+01	NOT IDENT.
LU-176	-1.845E-02	2.058E-02	1.632E-02	1.050E-02	FAIL ABUN
LU-177	2.532E+00	1.760E+00	1.207E+00	8.981E-01	FAIL ABUN
LU-177M	-9.010E-02	1.543E-01	1.141E-01	7.872E-02	FAIL ABUN
HF-181	-1.131E-02	3.625E-02	3.102E-02	1.849E-02	NOT IDENT.
W-181	-1.281E-01	3.061E-01	2.389E-01	1.562E-01	NOT IDENT.
TA-182	6.872E-02	1.867E-01	1.614E-01	9.526E-02	FAIL ABUN
RE-183	-9.010E-03	9.043E-02	8.082E-02	4.614E-02	FAIL ABUN
RE-184	6.295E-02	1.921E-01	1.689E-01	9.800E-02	NOT IDENT.
OS-185	5.861E-02	3.695E-02	3.501E-02	1.885E-02	NOT IDENT.
RE-188	1.428E-01	1.379E-01	1.287E-01	7.034E-02	NOT IDENT.
W-188	-7.070E+00	6.897E+00	4.730E+00	3.519E+00	FAIL ABUN
IR-192	8.748E-03	2.925E-02	2.524E-02	1.492E-02	FAIL ABUN
AU-195	3.251E-01	2.921E-01	1.708E-01	1.490E-01	FAIL ABUN
TL-200	-8.689E+02	2.405E+03	0.000E+00	1.227E+03	SHORT HLIF
TL-201	-1.695E+00	1.064E+01	9.458E+00	5.427E+00	NOT IDENT.
TL-202	-1.988E-02	7.081E-02	6.144E-02	3.613E-02	NOT IDENT.
HG-203	2.498E-02	3.667E-02	2.939E-02	1.871E-02	NOT IDENT.
BI-207	2.459E-02	4.984E-02	4.420E-02	2.543E-02	FAIL ABUN
TL-207	3.095E-01	6.027E-01	4.708E-01	3.075E-01	FAIL ABUN
PO-209	-2.430E+00	6.335E+00	5.316E+00	3.232E+00	NOT IDENT.
BI-210	9.987E-01	2.136E+00	1.944E+00	1.090E+00	NOT IDENT.
PB-210	9.987E-01	2.136E+00	1.944E+00	1.090E+00	NOT IDENT.
PO-210	9.987E-01	2.136E+00	1.944E+00	1.090E+00	NOT IDENT.
PB-211	-8.881E-01	1.055E+00	6.507E-01	5.384E-01	NOT IDENT.
BI-212	7.219E-01	3.749E-01	2.971E-01	1.913E-01	FAIL ABUN
PO-215	3.095E-01	6.027E-01	4.708E-01	3.075E-01	FAIL ABUN
RN-219	8.678E-02	3.355E-01	3.030E-01	1.712E-01	FAIL ABUN
RN-220	-6.292E+00	2.138E+01	1.805E+01	1.091E+01	NOT IDENT.
RA-223	3.095E-01	6.027E-01	4.708E-01	3.075E-01	FAIL ABUN
AC-227	3.073E-01	3.202E-01	2.863E-01	1.634E-01	NOT IDENT.
TH-227	3.073E-01	3.215E-01	2.863E-01	1.640E-01	FAIL ABUN
PA-231	3.880E-01	1.273E+00	1.057E+00	6.494E-01	NOT IDENT.
TH-231	3.095E-01	6.027E-01	4.708E-01	3.075E-01	FAIL ABUN
U-231	3.075E-01	1.682E+00	1.151E+00	8.583E-01	FAIL ABUN
PA-233	-8.574E-03	4.918E-02	4.121E-02	2.509E-02	FAIL ABUN
PA-234	-1.258E-01	2.494E-01	2.044E-01	1.273E-01	FAIL ABUN
PA-234M	1.058E+01	6.358E+00	4.406E+00	3.244E+00	FAIL ABUN
NP-236	3.048E-02	6.169E-02	5.649E-02	3.147E-02	FAIL ABUN
NP-239	-1.058E-01	1.389E-01	1.236E-01	7.087E-02	FAIL ABUN
AM-241	4.129E-02	1.197E-01	9.765E-02	6.107E-02	NOT IDENT.
CM-243	-4.463E-03	7.396E-02	6.843E-02	3.774E-02	FAIL ABUN
AM-246	-3.037E-02	1.319E-01	1.100E-01	6.727E-02	NOT IDENT.
CM-247	4.249E-04	3.016E-02	2.688E-02	1.539E-02	FAIL ABUN
CF-249	1.012E-02	3.302E-02	2.999E-02	1.685E-02	NOT IDENT.
CF-251	9.716E-02	9.848E-02	9.111E-02	5.024E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	262.0833
46.50	262.0833
46.50	262.0833
48.70	314.5204
49.72	256.2357
51.35	306.2983
52.39	287.3805
52.97	293.4853
53.15	293.6575
53.44	272.7791
54.07	263.2935
56.28	322.4404
56.28	322.4436
57.37	0.0000
57.53	340.6152
57.53	340.6175
57.60	340.6889
57.98	371.5821
57.98	371.5821
59.32	394.6462
59.32	394.6462
59.40	394.7418
59.54	358.5944
59.72	351.2191
60.01	353.0405
61.10	386.1108
61.14	386.1560
61.30	386.3382
63.00	417.3078
63.29	417.6577
63.29	417.6577
63.58	418.0077
64.28	464.8757
65.12	455.2222
65.20	436.8662
65.20	436.8662
66.05	457.9596
66.72	367.6696
66.83	367.7858
66.91	367.8657
67.20	451.6964
67.20	451.6964
67.75	454.3192
67.85	454.4444
68.90	452.2572
68.90	452.2572
69.30	435.2454
69.67	450.8713
70.82	434.2986
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70.83	434.3099
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72.87	502.6335
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74.81	449.9193
74.81	449.9193
74.97	450.1048
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75.70	450.9485
77.11	428.7442
77.11	428.7442

77.11	428.7442
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77.11	428.7442
77.11	428.7442
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79.62	401.0755
79.80	401.2543
79.80	401.2543
80.11	407.9601
80.18	408.0301
80.30	408.1494
80.30	408.1494
80.57	410.0208
81.00	426.4865
81.07	426.5595
81.07	426.5595
81.07	426.5595
81.07	426.5595
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83.78	468.4911
83.78	468.4911
84.21	468.9694
84.90	469.7371
85.43	470.3217
86.29	471.2695
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86.54	471.5441
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86.79	471.8157
86.94	471.9810
87.30	472.3767
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88.03	575.4671
88.36	502.4895
88.47	502.6149
89.95	415.0758
91.11	500.7071
92.29	434.5430
92.38	434.6289
92.38	434.6289
93.35	435.5635
94.00	436.1865
94.67	265.5685
94.67	265.5718
94.90	265.7040
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96.73	359.0068
97.43	304.6128
98.44	281.2470
98.44	281.2487
98.88	281.5111
99.55	265.8572
99.55	265.8572
99.86	266.0319
100.00	266.1096
100.10	271.1898
103.18	332.5663
103.76	312.8916
105.00	281.5531
105.31	285.1151
108.00	315.5787
109.28	305.2928

111.00	298.6243
111.00	298.6243
111.76	289.6401
112.95	284.2949
115.19	289.8267
116.30	268.8269
117.00	273.5089
117.00	273.5089
117.66	286.8471
121.11	258.1584
121.62	271.4938
121.78	271.5729
122.06	269.9648
122.32	271.8403
122.32	271.8403
122.32	271.8403
122.32	271.8403
123.07	262.5824
127.23	253.9614
129.76	268.3776
131.20	241.0783
133.02	285.3921
133.54	270.1337
135.34	229.8239
136.00	237.2422
136.25	244.5070
136.48	244.6014
140.51	242.1864
140.51	0.0000
142.18	165.5161
142.65	165.6446
143.76	228.5109
144.24	228.6877
144.24	228.6877
144.24	228.6877
144.24	228.6877
145.22	256.3170
145.44	260.4975
147.16	272.1553
152.43	272.1162
152.70	267.6321
153.22	265.0869
154.21	252.5826
154.21	252.5826
154.21	252.5826
154.21	252.5826
155.03	238.1338
156.02	272.6974
158.56	251.4767
159.00	0.0000
159.00	240.4993
160.31	236.3189
161.27	282.3118
162.32	265.9554
162.64	264.2128
163.35	252.3395
163.89	230.0920
165.85	270.1494
167.43	246.3233
171.28	210.8183
171.86	219.5060
172.10	219.5815
176.55	207.6216
176.60	207.6371
181.06	248.6849
184.41	252.7027
185.71	239.1627
186.00	239.2535
190.27	196.4664
192.34	238.3456
193.63	235.8210
197.04	249.5837
198.01	228.3331
198.60	232.4265
200.40	266.3797
201.83	213.6844
202.84	221.8437
205.31	249.2314

208.36	261.0898
208.81	261.2343
209.75	235.6788
209.75	235.6788
210.97	228.5615
215.65	224.3441
216.55	208.5438
218.09	229.0159
222.10	208.9057
223.80	203.2532
226.40	214.0071
227.00	213.1403
227.08	213.1595
227.20	215.2198
228.16	220.5385
228.18	214.4450
228.18	214.4450
231.56	0.0000
235.69	226.0112
236.00	210.7094
236.00	210.7094
238.63	200.5284
238.63	200.5284
238.63	200.5284
238.63	200.5284
239.00	469.1182
240.98	303.1187
241.98	284.8749
241.98	284.8749
241.98	284.8749
244.69	159.9395
245.39	158.5065
247.94	143.3611
248.90	183.0254
249.79	182.1581
252.40	150.3076
252.85	163.9553
252.85	163.9553
254.15	0.0000
256.20	156.1511
256.20	156.1511
260.50	166.3256
260.90	0.0000
262.80	166.7210
264.65	156.9927
268.24	167.1162
268.79	149.6920
269.46	149.7953
269.46	149.7953
269.46	149.7953
269.46	149.7953
271.23	150.0621
273.65	150.4235
276.40	150.8366
277.35	150.9772
277.60	151.0145
277.60	151.0145
278.00	151.0747
278.60	151.1636
279.20	131.9437
279.53	131.9863
280.46	154.6611
281.68	141.9419
283.67	135.7515
284.30	136.9115
285.00	152.1074
285.90	0.0000
286.10	174.9463
286.10	174.9463
287.40	130.8347
288.45	0.0000
290.67	162.6984
290.80	164.3469
291.72	159.6029
293.26	0.0000
293.70	112.5840
295.21	120.9139
295.21	120.9139

295.21	120.9139
295.96	120.9998
296.50	157.0518
297.23	268.4819
298.57	149.1608
299.80	157.5352
299.80	157.5352
300.09	144.4475
300.09	144.4475
300.09	144.4475
300.09	144.4475
300.12	144.4502
301.29	152.2744
302.84	207.3455
303.76	167.9943
303.91	141.6606
304.40	131.8384
304.40	131.8384
304.84	138.4867
306.84	151.9510
308.46	114.6831
311.98	118.3679
316.51	126.6241
318.01	115.6691
319.02	121.3388
319.41	128.0624
320.08	138.1654
323.87	122.4167
323.87	122.4167
323.87	122.4167
323.87	122.4167
325.23	127.5983
328.77	134.7266
333.44	128.5051
334.20	135.3564
334.20	135.3564
334.30	135.3687
338.28	139.2208
338.28	139.2208
338.28	139.2208
338.28	139.2208
338.32	139.2258
338.32	139.2258
338.32	139.2258
340.50	108.8633
340.57	108.8711
344.27	132.4159
345.85	126.4377
350.59	0.0000
351.07	138.4243
351.92	138.5203
351.92	138.5203
351.92	138.5203
355.39	0.0000
356.01	127.4969
364.48	119.1147
366.43	104.2419
367.43	104.3243
367.94	0.0000
369.80	114.9723
374.96	150.4186
383.85	121.5165
387.95	118.3623
388.63	118.4236
391.69	114.2686
391.69	114.2686
392.90	115.2576
398.62	127.3266
400.65	98.0896
401.10	107.0435
401.81	112.4552
402.60	116.9857
404.84	143.1177
410.95	104.2223
411.60	104.2719
413.65	106.5864
414.70	96.5775
415.30	90.8501

415.76	75.0128
417.63	0.0000
418.52	102.0821
423.70	95.2043
427.08	90.8859
427.89	95.4847
432.53	93.0569
433.93	104.1057
439.47	118.2566
439.56	118.2625
439.89	115.5391
443.98	87.3563
444.90	104.8937
445.03	104.9024
445.03	104.9024
445.03	104.9024
445.03	104.9024
453.90	90.7206
463.38	95.0180
468.07	82.2288
473.00	82.4919
475.06	109.8232
475.35	107.0263
476.78	86.4521
477.59	81.7961
477.96	83.6969
482.03	94.2856
484.57	89.7163
487.03	96.4763
490.36	0.0000
492.35	0.0000
497.08	79.9536
507.63	0.0000
510.53	0.0000
510.84	87.3516
511.00	87.3599
511.85	87.4057
511.85	87.4057
513.99	64.6288
513.99	64.6288
520.41	66.6163
520.65	58.9020
527.90	0.0000
528.96	0.0000
529.64	74.7488
529.87	0.0000
531.02	99.0989
537.32	89.7146
543.00	77.2931
546.56	0.0000
549.76	83.4877
552.65	75.7546
555.20	66.9977
563.23	89.0744
563.90	89.1074
568.70	100.2695
569.32	97.3241
569.50	99.3195
569.67	99.3286
573.80	86.6150
574.00	82.6403
574.64	80.6786
578.91	79.8706
579.30	0.0000
583.14	67.0470
585.48	59.3156
591.81	75.4051
592.07	73.4055
593.00	68.4109
595.88	86.6535
600.56	91.9220
602.52	0.0000
602.71	99.7808
602.71	99.7808
603.60	79.3211
604.41	61.5422
604.70	66.4108
609.31	84.2310

609.31	84.2310
609.31	84.2310
609.31	84.2310
610.33	84.2741
612.46	86.2001
614.37	74.8893
618.01	74.4191
621.84	68.4395
621.84	68.4395
631.29	85.1961
633.02	82.1899
633.10	82.1924
634.78	66.8388
635.90	62.7610
636.97	70.0005
645.85	59.9753
646.12	52.7432
656.30	63.4070
657.75	64.4919
657.90	0.0000
661.65	80.2498
661.65	80.2498
664.57	0.0000
666.33	74.1656
666.33	74.1656
675.00	78.6758
677.61	79.8246
685.20	73.7918
692.80	74.0588
695.00	77.3130
696.49	78.4263
696.49	78.4263
697.00	71.0260
697.49	74.2233
698.33	95.4684
698.50	95.4739
699.00	100.8012
702.63	78.6544
706.10	71.3286
706.58	0.0000
706.67	70.2821
709.31	82.0968
711.68	64.0430
713.82	74.7894
717.42	74.9155
720.50	78.2353
721.93	0.0000
722.20	62.9242
722.78	75.5283
722.78	75.5283
722.89	75.5326
722.95	75.5348
723.30	80.6963
724.18	80.7285
727.18	73.9587
733.00	67.2560
735.90	72.3100
739.58	74.5907
742.81	62.7914
744.21	69.3301
747.13	77.0127
751.79	76.0840
752.31	78.2776
753.82	71.8008
755.35	53.3425
756.15	68.6082
756.87	83.8804
763.93	76.9291
765.79	83.9906
766.42	84.0141
766.84	82.2775
776.49	72.5138
778.00	63.7667
778.57	69.2812
778.89	73.6902
783.80	63.9260
785.46	63.9703
792.07	42.4723

795.84	70.9004
796.30	63.8227
798.80	70.9883
801.93	65.5287
805.60	71.1914
810.29	78.0173
810.76	71.3438
815.85	60.3232
817.79	51.4271
818.51	54.7975
819.60	66.0113
826.30	67.3151
828.27	0.0000
831.60	60.7137
831.96	60.7236
834.83	68.4501
836.80	0.0000
846.75	47.0590
848.13	40.7472
856.28	0.0000
856.80	65.1176
860.37	57.6278
867.32	46.9235
867.82	49.0508
871.10	55.7385
873.19	54.8701
874.81	54.9038
875.33	0.0000
876.40	47.6138
879.36	58.6688
880.27	56.8550
880.51	56.8603
881.50	70.6441
883.24	57.8382
884.67	45.9290
889.25	72.6950
896.60	62.7506
898.02	59.0906
899.00	60.9598
903.28	48.1076
911.07	57.2193
911.07	57.2193
911.07	57.2193
919.63	59.5750
920.93	63.3283
925.00	46.6357
925.24	44.7750
926.50	45.7293
935.52	43.6964
937.48	42.1666
944.10	50.7226
946.00	58.2779
949.00	62.1054
962.29	63.0355
964.01	49.1981
966.15	49.2350
968.20	49.2718
969.11	49.2883
969.11	49.2883
969.11	49.2883
977.42	50.3849
980.50	50.4393
983.50	60.0207
989.30	42.0041
996.32	43.0653
1001.03	51.7627
1001.68	51.7746
1004.76	51.1901
1021.30	0.0000
1024.50	0.0000
1034.80	46.5469
1036.00	54.3266
1037.82	52.4180
1038.57	52.4312
1038.76	0.0000
1045.16	38.9258
1046.59	43.8113
1048.07	56.4962

1050.47	57.5164
1050.47	57.5164
1062.04	61.6526
1063.62	60.7043
1076.63	42.2819
1077.35	47.2102
1078.86	64.9462
1085.78	50.2978
1099.22	57.4506
1112.02	56.6911
1112.84	63.6719
1115.52	58.0827
1120.29	59.8330
1120.29	59.8330
1120.29	59.8330
1120.29	59.8330
1120.51	59.8359
1121.28	73.1507
1124.00	0.0000
1129.67	61.0089
1131.51	0.0000
1147.95	0.0000
1167.94	55.6633
1173.22	53.7246
1175.09	49.6986
1177.93	71.0596
1189.05	69.2617
1204.90	56.2864
1205.75	0.0000
1213.00	69.7564
1221.42	70.9575
1230.97	63.3482
1235.34	53.3494
1236.41	0.0000
1238.25	42.3713
1246.25	48.3392
1260.41	0.0000
1271.85	41.7383
1274.45	56.3889
1274.54	56.3889
1291.56	32.5273
1298.22	0.0000
1312.09	37.9898
1325.50	28.5979
1325.50	28.5979
1332.49	26.5295
1333.61	23.3535
1360.21	31.0051
1362.66	0.0000
1365.15	27.8345
1368.21	25.4466
1368.53	0.0000
1376.25	17.1797
1384.27	32.2793
1394.10	38.8354
1395.20	36.6895
1407.95	20.5707
1434.06	21.7998
1436.60	17.4508
1457.56	0.0000
1460.81	24.1431
1489.15	13.8147
1509.49	14.2810
1596.49	41.2376
1620.62	18.0560
1678.03	0.0000
1691.02	13.5169
1691.02	13.5169
1706.46	0.0000
1750.46	0.0000
1764.49	11.7725
1764.49	11.7725
1764.49	11.7725
1764.49	11.7725
1770.23	0.0000
1771.40	2.9475
1791.20	0.0000
1808.65	12.8730

1836.01	14.9377

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978014

Total Uranium Activity	1.3833E+01	ug/g
Total Uranium Counting Unc.	5.3333E+00	ug/g
Total Uranium Tpu	2.7211E-06	ug/g
Total Uranium Mda	2.4750E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G245978014       *
*   ANALYST       : MXR1                      DETECTOR   : GAM11            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 13:12:09.03    SAMPLE ALQT:  141.190 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.992E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.409E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 4.379E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 2.127E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:15:27.88

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978015.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:12:34
Sample ID         : G245978015           Sample quantity  : 1.09430E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.38  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.73*	235	604	0.99	124.94	120	11	3.26E-02	21.6	
2	3	74.63*	343	472	1.09	148.75	144	15	4.76E-02	11.7	6.58E-01
3	3	76.98	613	348	0.99	153.45	144	15	8.52E-02	6.5	
4	0	87.09*	143	335	1.26	173.68	171	6	1.98E-02	22.4	
5	0	92.71*	538	473	1.21	184.94	181	9	7.47E-02	8.9	
6	0	128.70	66	315	1.02	256.96	254	8	9.11E-03	48.4	
7	0	185.77*	267	252	1.10	371.14	366	10	3.71E-02	13.4	
8	0	209.18	104	277	1.09	417.99	414	10	1.44E-02	31.5	
9	0	238.40*	930	273	1.14	476.46	472	8	1.29E-01	4.6	
10	0	241.33	86	257	2.18	482.31	481	7	1.19E-02	34.3	
11	0	269.96	99	159	2.01	539.59	535	9	1.37E-02	25.3	
12	0	276.88	46	122	1.01	553.45	551	7	6.41E-03	42.3	
13	2	295.02*	313	139	1.12	589.74	584	24	4.34E-02	8.5	9.91E-01
14	2	299.95	58	164	1.53	599.60	584	24	8.02E-03	42.8	
15	0	327.98	59	100	0.92	655.68	652	8	8.18E-03	32.5	
16	0	337.99*	194	134	1.39	675.71	671	10	2.70E-02	13.5	
17	0	351.69*	582	144	1.31	703.14	698	11	8.09E-02	5.8	
18	0	462.82	55	72	1.35	925.47	922	8	7.64E-03	29.9	
19	0	511.04*	159	159	2.37	1021.94	1013	22	2.20E-02	24.2	
20	0	582.80*	352	101	1.34	1165.50	1158	15	4.89E-02	8.3	
21	0	608.97*	407	95	1.56	1217.86	1210	14	5.65E-02	7.3	
22	0	661.28*	224	35	1.80	1322.51	1316	11	3.11E-02	8.5	
23	0	727.55	64	88	1.78	1455.08	1448	17	8.82E-03	36.3	
24	0	794.56	78	33	3.33	1589.12	1581	15	1.08E-02	19.9	
25	0	860.15	48	39	1.07	1720.32	1714	11	6.60E-03	29.2	
26	0	910.86*	223	68	1.31	1821.76	1814	16	3.10E-02	10.8	
27	0	942.98	23	23	2.21	1886.00	1882	9	3.12E-03	43.5	
28	3	964.86	57	28	2.42	1929.77	1925	17	7.87E-03	21.7	2.01E+00
29	3	968.44*	119	21	1.57	1936.92	1925	17	1.65E-02	12.3	
30	0	1007.09	78	110	10.12	2014.24	1993	41	1.08E-02	47.0	
31	0	1119.62	114	40	1.85	2239.31	2230	16	1.58E-02	15.5	
32	0	1238.55	31	66	1.81	2477.16	2471	16	4.34E-03	60.1	
33	0	1376.58	36	10	1.63	2753.19	2746	14	4.95E-03	25.5	
34	0	1460.13*	784	32	1.79	2920.28	2911	18	1.09E-01	4.0	
35	0	1587.21	26	8	1.42	3174.39	3169	11	3.61E-03	28.9	
36	0	1763.64	70	9	2.06	3527.15	3521	12	9.73E-03	14.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 15:15:31

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978015.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:12:34
Sample ID : G245978015 Sample quantity : 109.43 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA12 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.38 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.216E+01	2.371E+00	4.859E-01	3.465E-02	45.613
CD-109	+	88.03	*	2.396E+00	1.090E+00	1.712E+00	1.310E-01	1.399
SN-126		64.28		8.476E-01	6.766E-01	1.087E+00	1.526E-01	0.780
	+	86.94		9.747E-01	5.934E-01	6.662E-01	2.742E-01	1.463
	+	87.57	*	2.345E-01	1.067E-01	1.666E-01	1.269E-02	1.408
BA-137M	+	661.65	*	3.792E-01	6.909E-02	6.465E-02	4.191E-03	5.866
CS-137	+	661.65	*	4.009E-01	7.307E-02	6.834E-02	4.445E-03	5.866
TL-208	+	277.35		5.165E-01	4.408E-01	6.312E-01	6.610E-02	0.818
	+	510.84		9.021E-01	4.471E-01	2.191E-01	2.262E-02	4.117
	+	583.14	*	5.723E-01	1.033E-01	6.254E-02	4.473E-03	9.152
	+	860.37		7.285E-01	4.296E-01	5.249E-01	4.587E-02	1.388
BI-211		72.87		5.281E+00	3.869E+00	6.154E+00	4.129E-01	0.858
	+	351.07	*	4.103E+00	5.436E-01	3.658E-01	2.300E-02	11.217
PB-212	+	74.81		2.402E+00	6.265E-01	6.215E-01	7.184E-02	3.864
	+	77.11		2.427E+00	3.574E-01	3.527E-01	2.442E-02	6.881
	+	87.30		1.084E+00	5.052E-01	7.556E-01	9.491E-02	1.435
	+	238.63	*	1.425E+00	1.649E-01	1.446E-01	1.027E-02	9.854
	+	300.09		1.367E+00	1.175E+00	1.314E+00	1.073E-01	1.040
PO-212	+	74.81		2.402E+00	6.265E-01	6.215E-01	7.184E-02	3.864
	+	77.11		2.427E+00	3.574E-01	3.527E-01	2.442E-02	6.881
	+	87.30		1.084E+00	5.052E-01	7.556E-01	9.491E-02	1.435
		115.19		1.362E+00	3.766E+00	6.287E+00	3.988E-01	0.217
	+	238.63	*	1.425E+00	1.649E-01	1.446E-01	1.027E-02	9.854
	+	300.09		1.367E+00	1.175E+00	1.314E+00	1.073E-01	1.040
BI-214	+	609.31	*	1.249E+00	2.090E-01	1.235E-01	1.017E-02	10.110
	+	1120.29		1.819E+00	5.893E-01	4.356E-01	3.957E-02	4.177
	+	1764.49		1.535E+00	4.605E-01	2.651E-01	1.571E-02	5.792
PB-214	+	74.81		4.138E+00	1.053E+00	1.071E+00	1.077E-01	3.864
	+	77.11		4.161E+00	6.899E-01	6.047E-01	6.225E-02	6.881
	+	87.30		1.858E+00	8.573E-01	1.294E+00	1.401E-01	1.435
	+	241.98		7.873E-01	5.436E-01	5.835E-01	4.592E-02	1.349
	+	295.21		1.298E+00	2.461E-01	2.301E-01	1.942E-02	5.643
	+	351.92	*	1.427E+00	2.032E-01	1.275E-01	1.042E-02	11.192
PO-214	+	74.81		4.138E+00	1.053E+00	1.071E+00	1.077E-01	3.864

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	77.11		4.161E+00	6.899E-01	6.047E-01	6.225E-02	6.881
	+	87.30		1.858E+00	8.573E-01	1.294E+00	1.401E-01	1.435
	+	241.98		7.873E-01	5.436E-01	5.835E-01	4.592E-02	1.349
	+	295.21		1.298E+00	2.461E-01	2.301E-01	1.942E-02	5.643
	+	351.92	*	1.427E+00	2.032E-01	1.275E-01	1.042E-02	11.192
PO-216	+	74.81		2.402E+00	6.265E-01	6.215E-01	7.184E-02	3.864
	+	77.11		2.427E+00	3.574E-01	3.527E-01	2.442E-02	6.881
	+	87.30		1.084E+00	5.052E-01	7.556E-01	9.491E-02	1.435
	+	238.63	*	1.425E+00	1.649E-01	1.446E-01	1.027E-02	9.854
	+	300.09		1.367E+00	1.175E+00	1.314E+00	1.073E-01	1.040
PO-218	+	74.81		4.138E+00	1.053E+00	1.071E+00	1.077E-01	3.864
	+	77.11		4.161E+00	6.899E-01	6.047E-01	6.225E-02	6.881
	+	87.30		1.858E+00	8.573E-01	1.294E+00	1.401E-01	1.435
	+	241.98		7.873E-01	5.436E-01	5.835E-01	4.592E-02	1.349
	+	295.21		1.298E+00	2.461E-01	2.301E-01	1.942E-02	5.643
	+	351.92	*	1.427E+00	2.032E-01	1.275E-01	1.042E-02	11.192
RA-224	+	240.98	*	1.493E+00	1.027E+00	1.407E+00	7.761E-02	1.061
RA-226	+	609.31	*	1.249E+00	2.090E-01	1.235E-01	1.017E-02	10.110
	+	1120.29		1.819E+00	5.893E-01	4.356E-01	3.957E-02	4.177
	+	1764.49		1.535E+00	4.605E-01	2.651E-01	1.571E-02	5.792
AC-228	+	338.32		1.508E+00	7.369E-01	3.851E-01	1.569E-01	3.915
	+	911.07	*	1.621E+00	3.921E-01	2.391E-01	2.625E-02	6.779
	+	969.11		1.516E+00	5.113E-01	3.586E-01	8.267E-02	4.229
RA-228	+	338.32		1.508E+00	7.369E-01	3.851E-01	1.569E-01	3.915
	+	911.07	*	1.621E+00	3.921E-01	2.391E-01	2.625E-02	6.779
	+	969.11		1.516E+00	5.113E-01	3.586E-01	8.267E-02	4.229
TH-228	+	74.81		2.445E+00	5.962E-01	6.328E-01	4.362E-02	3.864
	+	77.11		2.471E+00	3.639E-01	3.591E-01	2.486E-02	6.881
	+	87.30		1.104E+00	5.024E-01	7.693E-01	5.847E-02	1.435
	+	238.63	*	1.451E+00	1.679E-01	1.473E-01	1.046E-02	9.854
	+	300.09		1.392E+00	1.446E+00	1.338E+00	7.885E-01	1.040
TH-230	+	609.31	*	1.249E+00	2.090E-01	1.235E-01	1.017E-02	10.110
	+	1120.29		1.819E+00	5.893E-01	4.356E-01	3.957E-02	4.177
	+	1764.49		1.535E+00	4.605E-01	2.651E-01	1.571E-02	5.792
TH-232	+	338.32		1.508E+00	4.156E-01	3.851E-01	2.182E-02	3.915
	+	911.07	*	1.621E+00	3.921E-01	2.391E-01	2.625E-02	6.779
	+	969.11		1.516E+00	5.113E-01	3.586E-01	8.267E-02	4.229
TH-234	+	63.29	*	6.766E+00	3.138E+00	2.294E+00	3.905E-01	2.950
	+	92.38		5.705E+00	1.422E+00	9.847E-01	1.722E-01	5.794
U-234	+	609.31	*	1.249E+00	2.090E-01	1.235E-01	1.017E-02	10.110
	+	1120.29		1.819E+00	5.893E-01	4.356E-01	3.957E-02	4.177
	+	1764.49		1.535E+00	4.605E-01	2.651E-01	1.571E-02	5.792
NP-237	+	86.50	*	6.885E-01	3.440E-01	4.535E-01	9.964E-02	1.518
		95.87		-3.245E-02	1.105E+00	1.640E+00	3.956E-01	-0.020
U-238	+	63.29	*	6.766E+00	3.138E+00	2.294E+00	3.905E-01	2.950
	+	92.38		5.705E+00	1.096E+00	9.847E-01	7.169E-02	5.794
AM-243	+	74.67	*	3.893E-01	9.483E-02	1.011E-01	6.867E-03	3.852
	+	86.72		2.582E+01	1.175E+01	1.799E+01	1.359E+00	1.435
		117.66		-2.683E+00	3.883E+00	6.148E+00	3.873E-01	-0.436

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		142.18		-1.574E+00	1.900E+01	3.034E+01	1.718E+00	-0.052
ANH-511	+	511.00	*	1.949E-01	9.521E-02	4.734E-02	2.885E-03	4.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	8.135E-02	3.566E-01	5.852E-01	4.027E-02	0.139
NA-22		1274.54	*	-1.068E-02	5.133E-02	8.247E-02	5.311E-03	-0.130
NA-24		1368.53	*	-9.164E-01	5.133E-02	Half-Life too short		
AL-26		1129.67		3.020E-01	1.612E+00	2.736E+00	1.667E-01	0.110
		1808.65	*	2.300E-03	2.652E-02	4.486E-02	2.574E-03	0.051
TI-44		67.85		-1.700E-02	5.781E-02	8.591E-02	5.592E-03	-0.198
	+	78.38	*	4.479E-01	6.597E-02	8.076E-02	5.649E-03	5.546
SC-46		889.25	*	3.985E-02	4.440E-02	7.847E-02	6.504E-03	0.508
	+	1120.51		3.191E-01	1.012E-01	1.527E-01	9.486E-03	2.090
V-48	+	944.10		1.317E+00	1.150E+00	1.983E+00	1.593E-01	0.664
		983.50	*	-5.745E-02	1.020E-01	1.314E-01	1.013E-02	-0.437
		1312.09		-1.186E-02	9.552E-02	1.540E-01	1.045E-02	-0.077
CR-51		320.08	*	-3.210E-01	4.296E-01	6.780E-01	4.311E-02	-0.473
MN-52		744.21		2.059E-01	3.557E-01	6.170E-01	4.407E-02	0.334
		848.13		3.745E+00	1.142E+01	1.915E+01	1.526E+00	0.196
		935.52		1.274E-01	4.462E-01	7.395E-01	5.988E-02	0.172
		1246.25		-3.637E+00	1.311E+01	1.773E+01	1.092E+00	-0.205
		1333.61		5.523E+00	8.463E+00	1.493E+01	1.043E+00	0.370
		1434.06	*	2.115E-01	3.800E-01	6.683E-01	4.591E-02	0.316
MN-54		834.83	*	1.354E-02	4.521E-02	7.556E-02	5.940E-03	0.179
CO-56		846.75	*	3.534E-02	4.684E-02	8.153E-02	6.486E-03	0.433
		977.42		8.661E-01	3.215E+00	5.329E+00	4.134E-01	0.163
		1037.82		1.451E-01	3.476E-01	6.054E-01	4.676E-02	0.240
		1175.09		9.447E-01	2.202E+00	3.819E+00	2.106E-01	0.247
	+	1238.25		1.440E-01	1.732E-01	1.944E-01	1.251E-02	0.741
		1360.21		2.526E-01	9.656E-01	1.644E+00	1.145E-01	0.154
		1771.40		-5.278E-01	3.126E-01	3.442E-01	2.030E-02	-1.534
CO-57		122.06	*	-6.141E-03	2.681E-02	4.341E-02	2.714E-03	-0.141
		136.48		1.213E-01	2.196E-01	3.666E-01	2.466E-02	0.331
CO-58		810.76	*	-1.342E-04	4.491E-02	7.331E-02	5.641E-03	-0.002
FE-59		142.65		4.851E-01	3.104E+00	5.013E+00	2.832E-01	0.097
		192.34		-8.526E-01	1.087E+00	1.652E+00	1.909E-01	-0.516
		1099.22	*	1.335E-02	1.018E-01	1.718E-01	1.269E-02	0.078
		1291.56		-5.653E-02	1.336E-01	2.072E-01	1.669E-02	-0.273
CO-60		1173.22		2.223E-02	4.403E-02	7.687E-02	4.225E-03	0.289
		1332.49	*	1.214E-02	4.642E-02	7.839E-02	5.475E-03	0.155
ZN-65		1115.52	*	6.857E-02	1.019E-01	1.607E-01	1.011E-02	0.427
GE-68		1077.35	*	8.155E-01	1.252E+00	2.233E+00	1.506E-01	0.365
AS-73		53.44	*	5.857E-04	9.042E-01	1.511E+00	9.752E-02	0.000
AS-74		595.88	*	1.094E-03	1.110E-01	1.858E-01	1.183E-02	0.006
		634.78		2.349E-01	4.062E-01	7.106E-01	4.580E-02	0.331
SE-75		66.05		-4.241E+00	6.065E+00	8.839E+00	7.717E-01	-0.480

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		96.73		-1.126E+00	1.002E+00	1.382E+00	1.750E-01	-0.815
		121.11		2.537E-02	1.415E-01	2.338E-01	2.226E-02	0.109
		136.00		1.144E-02	4.136E-02	6.822E-02	4.028E-03	0.168
		198.60		-1.631E+00	2.058E+00	3.081E+00	2.070E-01	-0.529
		264.65	*	7.780E-03	4.927E-02	7.383E-02	4.185E-03	0.105
		279.53		-8.270E-02	1.278E-01	1.783E-01	1.092E-02	-0.464
		303.91		1.245E+00	2.375E+00	3.628E+00	3.436E-01	0.343
		400.65		-1.806E-01	2.767E-01	4.285E-01	3.829E-02	-0.422
BR-77	+	87.88		1.213E+03	5.517E+02	8.604E+02	6.578E+01	1.409
		200.40		-2.268E+02	4.208E+02	6.489E+02	3.442E+01	-0.350
	+	239.00		5.384E+02	5.743E+01	9.569E+01	5.270E+00	5.627
		249.79		-7.601E+00	1.545E+02	2.596E+02	1.441E+01	-0.029
		281.68		-1.417E+01	2.508E+02	3.676E+02	2.077E+01	-0.039
		297.23		3.269E+02	1.450E+02	2.652E+02	1.505E+01	1.233
		303.76		2.620E+02	4.687E+02	7.184E+02	4.082E+01	0.365
		439.47		-1.495E+02	3.863E+02	6.073E+02	3.497E+01	-0.246
		484.57		-7.616E+01	5.838E+02	9.281E+02	5.552E+01	-0.082
		520.65	*	4.794E+00	2.721E+01	4.095E+01	2.511E+00	0.117
		574.64		-2.305E+02	5.941E+02	9.060E+02	5.717E+01	-0.254
		578.91		2.762E+01	2.404E+02	3.556E+02	2.248E+01	0.078
		585.48		1.736E+03	5.813E+02	1.041E+03	6.597E+01	1.668
		755.35		2.026E+02	4.661E+02	7.835E+02	5.666E+01	0.259
		817.79		7.331E+01	3.413E+02	5.691E+02	4.397E+01	0.129
SR-82		698.33		-3.947E+01	4.540E+01	6.604E+01	4.475E+00	-0.598
		776.49	*	-2.307E-01	4.519E-01	7.028E-01	5.200E-02	-0.328
		1395.20		-1.541E+01	1.428E+01	1.948E+01	1.349E+00	-0.791
RB-83		520.41	*	-2.418E-02	8.773E-02	1.179E-01	7.227E-03	-0.205
		529.64		2.287E-02	1.218E-01	1.977E-01	1.219E-02	0.116
		552.65		-1.207E-01	2.058E-01	3.291E-01	2.055E-02	-0.367
RB-84		881.50	*	1.475E-02	7.835E-02	1.297E-01	1.067E-02	0.114
KR-85		513.99	*	1.274E+01	7.901E+00	1.413E+01	8.630E-01	0.902
SR-85		513.99	*	6.738E-02	4.178E-02	7.473E-02	4.563E-03	0.902
RB-86		1076.63	*	1.498E-01	8.956E-01	1.521E+00	1.027E-01	0.098
Y-88		898.02		-8.638E-04	4.881E-02	7.626E-02	6.406E-03	-0.011
		1836.01	*	3.697E-02	4.158E-02	7.937E-02	4.468E-03	0.466
ZR-88		392.90	*	1.556E-02	3.659E-02	6.143E-02	3.370E-03	0.253
Y-91		1204.90	*	1.536E-01	2.008E+01	3.319E+01	1.919E+00	0.005
NB-94		702.63	*	1.178E-02	3.916E-02	6.623E-02	4.510E-03	0.178
		871.10		-6.256E-03	3.789E-02	6.039E-02	4.919E-03	-0.104
NB-95		765.79	*	6.429E-02	5.544E-02	9.840E-02	7.198E-03	0.653
NB-95M		235.69	*	3.928E-02	1.491E-01	2.262E-01	1.650E-02	0.174
ZR-95		724.18		1.120E-02	1.307E-01	1.885E-01	1.486E-02	0.059
		756.15	*	1.692E-02	8.639E-02	1.424E-01	1.176E-02	0.119
NB-97		657.90	*	3.361E-01	8.639E-02	Half-Life too short		
		1024.50		-2.402E+01	8.639E-02	Half-Life too short		
ZR-97		254.15		-9.251E+01	8.639E-02	Half-Life too short		
		355.39		4.370E+01	8.639E-02	Half-Life too short		
		507.63	*	8.425E+01	8.639E-02	Half-Life too short		
		602.52		-4.942E+01	8.639E-02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1021.30		6.279E+01	8.639E-02	Half-Life too short		
		1147.95		0.000E+00	8.639E-02	Half-Life too short		
		1362.66		-3.431E+01	8.639E-02	Half-Life too short		
		1750.46		3.844E+01	8.639E-02	Half-Life too short		
MO-99		140.51		-9.740E+01	6.782E+01	9.164E+01	2.468E+01	-1.063
		181.06		-2.611E+01	4.257E+01	5.760E+01	9.761E+00	-0.453
		366.43		2.979E+01	1.928E+02	3.199E+02	1.789E+01	0.093
		739.58	*	-2.339E+01	2.603E+01	3.858E+01	5.548E+00	-0.606
		778.00		-5.686E+01	8.057E+01	1.228E+02	9.103E+00	-0.463
TC-99M		140.51	*	-2.241E+14	8.057E+01	Half-Life too short		
RH-101	+	127.23		5.039E-02	4.889E-02	5.911E-02	3.587E-03	0.852
		198.01	*	-1.806E-02	3.704E-02	5.649E-02	2.988E-03	-0.320
		325.23		2.561E-02	2.698E-01	3.956E-01	2.247E-02	0.065
RH-102		418.52		-6.010E-03	3.132E-01	5.086E-01	2.869E-02	-0.012
		475.06	*	-3.253E-02	3.136E-02	4.571E-02	2.715E-03	-0.712
		631.29		1.143E-02	5.763E-02	9.766E-02	6.288E-03	0.117
		697.49		-7.688E-02	8.909E-02	1.364E-01	9.235E-03	-0.564
		766.84		2.305E-01	1.393E-01	2.536E-01	1.857E-02	0.909
		1046.59		7.571E-02	1.363E-01	2.392E-01	1.695E-02	0.317
		1112.84		-2.041E-01	2.822E-01	3.579E-01	2.259E-02	-0.570
RU-103		497.08	*	-2.316E-02	4.778E-02	7.284E-02	9.291E-03	-0.318
	+	610.33		1.420E+01	3.037E+00	3.486E+00	5.457E-01	4.073
RH-106	+	511.85		9.787E-01	4.782E-01	5.159E-01	3.146E-02	1.897
		621.84	*	2.789E-01	3.446E-01	6.099E-01	7.354E-02	0.457
		1050.47		3.954E-01	2.634E+00	4.465E+00	3.145E-01	0.089
RU-106	+	511.85		9.787E-01	4.782E-01	5.159E-01	3.146E-02	1.897
		621.84	*	2.789E-01	3.435E-01	6.099E-01	3.917E-02	0.457
		1050.47		3.954E-01	2.634E+00	4.465E+00	3.145E-01	0.089
AG-108M		433.93	*	-2.211E-02	3.659E-02	5.511E-02	3.434E-03	-0.401
		614.37		5.196E-02	4.461E-02	7.323E-02	5.020E-03	0.709
		722.95		-2.808E-02	5.349E-02	7.123E-02	5.262E-03	-0.394
AG-110M		657.75	*	-4.946E-06	4.130E-02	5.956E-02	4.060E-03	0.000
		677.61		2.437E-02	3.456E-01	5.761E-01	3.989E-02	0.042
		706.67		-8.608E-03	2.528E-01	4.164E-01	2.973E-02	-0.021
		763.93		-2.444E-01	2.142E-01	3.179E-01	2.412E-02	-0.769
		884.67		-3.765E-02	5.681E-02	8.522E-02	7.279E-03	-0.442
		937.48		-2.126E-01	1.769E-01	2.028E-01	1.706E-02	-1.048
		1384.27		1.357E-01	1.845E-01	3.071E-01	2.223E-02	0.442
IN-111		171.28		2.560E-01	2.149E+00	3.471E+00	1.786E-01	0.074
		245.39	*	-8.594E-01	2.509E+00	3.640E+00	2.015E-01	-0.236
IN-113M		391.69	*	6.463E-02	5.213E-02	9.179E-02	5.404E-03	0.704
SN-113		391.69	*	6.463E-02	5.213E-02	9.179E-02	5.404E-03	0.704
IN-114M		190.27	*	1.693E-01	2.195E-01	3.283E-01	1.722E-02	0.516
CD-115		260.90		-2.819E-04	2.195E-01	Half-Life too short		
		492.35		9.843E-06	2.195E-01	Half-Life too short		
		527.90	*	1.264E-05	2.195E-01	Half-Life too short		
SN-117M		156.02		-2.064E+00	2.762E+00	4.287E+00	2.289E-01	-0.482
		158.56	*	-8.403E-03	7.202E-02	1.155E-01	6.103E-03	-0.073
SB-122		563.90	*	3.994E+00	4.640E+00	8.289E+00	5.205E-01	0.482

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		692.80		9.682E+00	9.827E+01	1.639E+02	1.104E+01	0.059
I-123		159.00	*	1.698E+02	9.827E+01	Half-Life too short		
		528.96		6.987E+03	9.827E+01	Half-Life too short		
TE-123M		159.00	*	2.074E-02	3.190E-02	5.302E-02	2.841E-03	0.391
I-124		602.71	*	-3.248E-01	1.287E+00	1.815E+00	1.159E-01	-0.179
		722.78		-5.117E+00	9.062E+00	1.200E+01	8.363E-01	-0.427
		1325.50		2.144E+01	5.900E+01	1.013E+02	7.008E+00	0.212
	+	1376.25		1.271E+02	6.545E+01	1.113E+02	7.733E+00	1.142
		1509.49		1.663E+01	2.872E+01	5.053E+01	3.400E+00	0.329
		1691.02		-3.937E+00	7.025E+00	1.043E+01	6.476E-01	-0.377
SB-124		602.71		-1.200E-02	4.755E-02	6.710E-02	4.283E-03	-0.179
		645.85		-4.046E-01	5.247E-01	8.069E-01	5.759E-02	-0.501
		709.31		1.782E+00	3.267E+00	5.633E+00	3.866E-01	0.316
		713.82		-1.860E-01	1.820E+00	2.975E+00	3.235E-01	-0.063
		722.78		-2.742E-01	4.856E-01	6.427E-01	4.628E-02	-0.427
	+	968.20		1.615E+01	4.169E+00	8.058E+00	6.314E-01	2.004
		1045.16		1.679E+00	2.946E+00	5.182E+00	3.680E-01	0.324
		1325.50		1.227E+00	3.376E+00	5.799E+00	4.011E-01	0.212
		1368.21		4.288E-01	1.737E+00	2.684E+00	3.349E-01	0.160
		1436.60		-8.296E-01	4.585E+00	7.254E+00	4.980E-01	-0.114
		1691.02	*	-4.976E-02	8.879E-02	1.318E-01	8.798E-03	-0.377
SB-125		427.89	*	7.413E-03	9.761E-02	1.594E-01	9.477E-03	0.047
	+	463.38		6.097E-01	3.673E-01	5.983E-01	4.089E-02	1.019
		600.56		-8.495E-02	2.032E-01	3.055E-01	2.204E-02	-0.278
		635.90		-6.309E-02	2.809E-01	4.583E-01	3.369E-02	-0.138
TE-125M		109.28	*	7.785E+00	1.058E+01	1.794E+01	1.548E+00	0.434
I-126		388.63		-1.378E-01	2.676E-01	4.218E-01	2.317E-02	-0.327
		666.33	*	1.793E-01	2.411E-01	3.799E-01	2.477E-02	0.472
		753.82		1.982E+00	2.029E+00	3.555E+00	2.567E-01	0.557
SB-126		223.80		2.915E-01	4.751E+00	8.081E+00	4.390E-01	0.036
		278.60		7.678E-01	3.444E+00	5.159E+00	2.912E-01	0.149
	+	296.50		1.523E+01	2.725E+00	4.532E+00	2.572E-01	3.360
		414.70		1.742E-02	9.547E-02	1.575E-01	8.847E-03	0.111
		415.30		8.520E+00	7.696E+00	1.353E+01	7.607E-01	0.630
		555.20		-6.623E-02	4.910E+00	8.252E+00	5.159E-01	-0.008
		573.80		-3.482E-01	1.345E+00	2.213E+00	1.396E-01	-0.157
		593.00		-4.094E-01	1.208E+00	1.967E+00	1.251E-01	-0.208
		656.30		-3.488E-02	4.375E+00	6.304E+00	4.082E-01	-0.006
		666.33		7.543E-02	1.014E-01	1.598E-01	1.042E-02	0.472
		675.00		-1.172E+00	2.614E+00	4.162E+00	2.743E-01	-0.282
		695.00		-4.234E-03	1.001E-01	1.649E-01	1.113E-02	-0.026
		697.00		-2.222E-01	3.500E-01	5.463E-01	3.696E-02	-0.407
		720.50	*	8.224E-02	2.163E-01	3.236E-01	2.250E-02	0.254
		856.80		4.693E-01	6.934E-01	1.066E+00	8.564E-02	0.440
		989.30		-4.197E-01	1.591E+00	2.470E+00	1.890E-01	-0.170
		1034.80		-3.487E-01	1.120E+01	1.868E+01	1.347E+00	-0.019
		1213.00		2.488E+00	6.117E+00	1.048E+01	6.137E-01	0.237
SB-127		61.10		4.725E+01	1.145E+02	1.786E+02	1.885E+01	0.265
		252.40		1.428E+00	7.232E+00	1.227E+01	5.124E+00	0.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		290.80		6.108E-01	4.401E+01	6.469E+01	6.588E+00	0.009
		411.60		-2.430E+01	2.405E+01	3.591E+01	5.395E+00	-0.677
		444.90		-7.454E+00	1.884E+01	2.952E+01	3.463E+00	-0.252
		473.00		1.196E+00	2.892E+00	4.824E+00	5.863E-01	0.248
		543.00		-1.813E+01	2.929E+01	4.671E+01	6.486E+00	-0.388
		603.60		7.262E-01	2.311E+01	3.373E+01	4.051E+00	0.022
		685.20	*	-1.423E+00	2.505E+00	3.925E+00	4.319E-01	-0.363
		698.50		-2.541E+01	3.196E+01	4.657E+01	7.262E+00	-0.546
		722.20		2.481E+01	5.973E+01	8.989E+01	9.852E+00	0.276
		783.80		9.714E+00	7.408E+00	1.327E+01	1.662E+00	0.732
XE-127		57.60		4.422E+00	6.934E+00	1.157E+01	7.311E-01	0.382
		145.22		-1.038E-01	7.718E-01	1.243E+00	6.947E-02	-0.084
		172.10		-5.249E-02	1.325E-01	2.080E-01	1.071E-02	-0.252
		202.84	*	-1.521E-02	5.436E-02	8.501E-02	4.521E-03	-0.179
		374.96		-1.986E-02	2.290E-01	3.732E-01	2.074E-02	-0.053
I-131		80.18		-2.351E+00	6.671E+00	9.831E+00	7.076E-01	-0.239
		284.30		-1.025E+00	2.037E+00	3.304E+00	2.099E-01	-0.310
		364.48	*	-1.657E-01	1.687E-01	2.582E-01	1.633E-02	-0.642
		636.97		-6.802E-01	2.125E+00	3.438E+00	2.443E-01	-0.198
		722.89		-6.246E+00	1.159E+01	1.540E+01	1.089E+00	-0.406
TE-132		49.72		-2.782E+00	3.882E+01	6.607E+01	6.763E+00	-0.042
		111.76		-1.524E+01	6.211E+01	9.997E+01	1.015E+01	-0.152
		116.30		-9.272E+00	5.301E+01	8.630E+01	8.715E+00	-0.107
		228.16	*	-1.566E-01	1.325E+00	2.231E+00	3.316E-01	-0.070
BA-133		53.15		1.170E-01	3.831E+00	6.409E+00	4.144E-01	0.018
		79.62		6.023E-01	1.419E+00	2.174E+00	3.131E-01	0.277
		81.00		-8.863E-02	1.135E-01	1.623E-01	2.455E-02	-0.546
	+	276.40		5.107E-01	4.375E-01	7.090E-01	9.141E-02	0.720
		302.84		1.072E-01	1.623E-01	2.500E-01	2.900E-02	0.429
		356.01	*	4.513E-02	4.716E-02	7.417E-02	8.509E-03	0.609
		383.85		3.383E-02	3.035E-01	5.009E-01	5.371E-02	0.068
I-133	+	510.53		2.071E+01	3.035E-01	Half-Life too short		
		529.87	*	1.337E-02	3.035E-01	Half-Life too short		
		706.58		-5.131E-01	3.035E-01	Half-Life too short		
		856.28		2.185E+00	3.035E-01	Half-Life too short		
		875.33		2.343E-01	3.035E-01	Half-Life too short		
		1236.41		1.260E+01	3.035E-01	Half-Life too short		
		1298.22		-1.089E+00	3.035E-01	Half-Life too short		
CS-134		475.35		-1.702E+00	2.041E+00	3.038E+00	1.805E-01	-0.560
		563.23		1.168E-01	3.871E-01	6.652E-01	4.251E-02	0.176
		569.32		3.390E-03	2.213E-01	3.679E-01	2.375E-02	0.009
		604.70		1.795E-02	3.854E-02	5.903E-02	3.787E-03	0.304
	+	795.84	*	1.830E-01	7.403E-02	1.004E-01	7.658E-03	1.822
		801.93		2.444E-01	4.906E-01	7.950E-01	6.087E-02	0.307
		1038.57		3.580E+00	4.120E+00	7.477E+00	5.361E-01	0.479
		1167.94		-1.187E+00	2.459E+00	3.846E+00	2.143E-01	-0.309
		1365.15		1.462E-02	1.170E+00	1.916E+00	1.425E-01	0.008
CS-135		268.24	*	1.857E-01	1.940E-01	3.049E-01	2.293E-02	0.609
I-135		288.45		-3.605E+12	1.940E-01	Half-Life too short		

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		417.63		-2.169E+13	1.940E-01	Half-Life too short		
		546.56		1.913E+13	1.940E-01	Half-Life too short		
		836.80		2.723E+13	1.940E-01	Half-Life too short		
		1038.76		2.519E+13	1.940E-01	Half-Life too short		
		1124.00		3.543E+13	1.940E-01	Half-Life too short		
		1131.51		7.470E+12	1.940E-01	Half-Life too short		
		1260.41	*	5.256E+12	1.940E-01	Half-Life too short		
		1457.56		1.278E+15	1.940E-01	Half-Life too short		
		1678.03		-1.205E+13	1.940E-01	Half-Life too short		
		1706.46		3.450E+13	1.940E-01	Half-Life too short		
		1791.20		-2.828E+13	1.940E-01	Half-Life too short		
CS-136		66.91		5.707E-02	1.101E+00	1.667E+00	2.392E-01	0.034
	+	86.29		3.571E+00	1.660E+00	2.558E+00	3.106E-01	1.396
		153.22		1.891E-01	8.033E-01	1.313E+00	9.078E-02	0.144
		163.89		-1.872E-01	1.493E+00	2.327E+00	1.573E-01	-0.080
		176.55		1.660E-01	4.675E-01	7.626E-01	4.551E-02	0.218
		273.65		1.998E-01	8.031E-01	8.906E-01	5.765E-02	0.224
		340.57		1.201E-02	1.729E-01	2.521E-01	1.523E-02	0.048
		818.51		-8.321E-03	9.557E-02	1.545E-01	1.197E-02	-0.054
		1048.07	*	1.809E-01	1.503E-01	2.769E-01	2.081E-02	0.653
		1235.34		1.259E+00	8.707E-01	1.442E+00	1.463E-01	0.873
CE-139		165.85	*	-9.261E-03	3.449E-02	5.477E-02	2.806E-03	-0.169
BA-140		162.64		-4.267E-01	1.051E+00	1.617E+00	9.685E-02	-0.264
		304.84		3.518E-01	1.670E+00	2.483E+00	6.771E-01	0.142
		423.70		7.664E-01	2.497E+00	4.129E+00	1.311E+00	0.186
		537.32	*	1.128E-01	2.942E-01	5.080E-01	1.656E-01	0.222
LA-140	+	328.77		6.619E-01	4.324E-01	6.521E-01	4.165E-02	1.015
		432.53		-2.456E+00	2.715E+00	3.979E+00	2.520E-01	-0.617
		487.03		1.051E-01	1.784E-01	3.006E-01	2.025E-02	0.350
		751.79		5.511E-01	2.272E+00	3.814E+00	3.160E-01	0.144
		815.85		-2.710E-01	4.315E-01	6.461E-01	5.690E-02	-0.419
		867.82		-2.687E-01	1.749E+00	2.790E+00	2.400E-01	-0.096
		919.63		-3.464E-01	3.701E+00	5.747E+00	5.931E-01	-0.060
		925.24		5.617E-02	1.540E+00	2.495E+00	2.181E-01	0.023
		1596.49	*	-1.255E-01	1.058E-01	1.335E-01	8.693E-03	-0.940
CE-141		145.44	*	-2.629E-02	6.960E-02	1.107E-01	6.447E-03	-0.237
CE-143		57.37		2.914E-03	6.960E-02	Half-Life too short		
		231.56		-2.613E-03	6.960E-02	Half-Life too short		
		293.26	*	3.479E-03	6.960E-02	Half-Life too short		
	+	350.59		1.427E-01	6.960E-02	Half-Life too short		
		490.36		2.412E-03	6.960E-02	Half-Life too short		
		664.57		7.732E-03	6.960E-02	Half-Life too short		
		721.93		3.788E-03	6.960E-02	Half-Life too short		
CE-144		80.11		-7.483E-01	2.406E+00	3.553E+00	2.522E-01	-0.211
		133.54	*	2.729E-02	2.206E-01	3.447E-01	4.907E-02	0.079
PM-144		476.78		-1.378E-02	7.297E-02	1.156E-01	8.168E-03	-0.119
		618.01		-3.774E-02	3.619E-02	5.507E-02	3.707E-03	-0.685
		696.49	*	-4.409E-02	3.951E-02	5.884E-02	3.982E-03	-0.749
		778.57		-8.907E-01	2.508E+00	3.963E+00	2.941E-01	-0.225

---- Non-Identified Nuclides ----

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PR-144		696.49	*	-2.993E+00	2.681E+00	3.993E+00	2.700E-01	-0.749
		1489.15		4.187E+00	1.329E+01	2.266E+01	1.534E+00	0.185
PM-146		453.90	*	4.366E-02	5.206E-02	8.896E-02	7.691E-03	0.491
		633.02		3.065E-01	1.446E+00	2.446E+00	9.033E-01	0.125
		735.90		2.271E-01	1.763E-01	2.867E-01	8.079E-02	0.792
		747.13		5.929E-03	9.760E-02	1.614E-01	2.130E-02	0.037
ND-147		91.11		1.046E+00	5.212E-01	8.071E-01	6.619E-02	1.296
		319.41		-5.196E+00	4.162E+00	6.317E+00	3.593E-01	-0.823
		439.89		-3.168E+00	8.045E+00	1.264E+01	7.288E-01	-0.251
		531.02	*	4.478E-02	7.576E-01	1.216E+00	1.664E-01	0.037
PM-149		285.90	*	-5.328E-05	7.576E-01	Half-Life too short		
EU-152		121.78		7.404E-03	7.630E-02	1.255E-01	9.985E-03	0.059
		244.69		-1.994E-02	3.799E-01	5.635E-01	3.117E-02	-0.035
		344.27	*	1.660E-02	1.098E-01	1.768E-01	1.133E-02	0.094
		443.98		1.149E-01	1.050E+00	1.715E+00	9.918E-02	0.067
		778.89		-1.342E-01	2.930E-01	4.584E-01	3.400E-02	-0.293
		867.32		2.374E-01	8.737E-01	1.425E+00	1.157E-01	0.167
	+	964.01		8.337E-01	3.682E-01	6.677E-01	5.256E-02	1.249
		1085.78		-8.847E-02	4.084E-01	6.643E-01	4.413E-02	-0.133
		1112.02		-1.021E-01	3.799E-01	5.209E-01	3.293E-02	-0.196
		1407.95		5.513E-02	2.261E-01	3.678E-01	2.540E-02	0.150
GD-153		69.67		-3.279E-01	2.069E+00	3.091E+00	2.032E-01	-0.106
		83.37		5.742E+00	1.784E+01	2.741E+01	2.004E+00	0.210
		97.43	*	-2.878E-02	1.009E-01	1.463E-01	1.017E-02	-0.197
		103.18		-9.959E-02	1.122E-01	1.776E-01	1.187E-02	-0.561
EU-154		123.07		-2.450E-02	5.441E-02	8.703E-02	8.409E-03	-0.282
		247.94		-2.022E-01	3.646E-01	5.954E-01	5.590E-02	-0.340
		591.81		-7.298E-02	6.747E-01	1.120E+00	1.133E-01	-0.065
		723.30		-1.036E-01	2.248E-01	3.022E-01	2.439E-02	-0.343
		756.87		-1.922E-01	9.110E-01	1.468E+00	1.619E-01	-0.131
		873.19		1.145E-01	3.379E-01	5.672E-01	6.764E-02	0.202
		996.32		-8.384E-02	4.519E-01	6.364E-01	1.100E-01	-0.132
		1004.76		9.943E-03	2.275E-01	3.833E-01	4.156E-02	0.026
		1274.45	*	-2.568E-02	1.436E-01	2.315E-01	2.255E-02	-0.111
EU-155		48.70		-2.374E+00	2.661E+00	4.308E+00	2.815E-01	-0.551
		60.01		-3.535E-01	5.734E+00	8.761E+00	5.505E-01	-0.040
	+	86.54		2.827E-01	1.287E-01	2.042E-01	1.560E-02	1.384
		105.31	*	1.191E-01	1.160E-01	1.995E-01	1.345E-02	0.597
TB-160	+	86.79		7.758E-01	3.530E-01	5.568E-01	4.210E-02	1.393
		197.04		6.608E-02	6.351E-01	1.000E+00	5.286E-02	0.066
		215.65		-4.398E-01	8.485E-01	1.302E+00	7.016E-02	-0.338
	+	298.57		2.046E-01	1.755E-01	2.301E-01	1.306E-02	0.889
		879.36	*	-4.678E-02	1.578E-01	2.474E-01	2.031E-02	-0.189
		962.29		9.168E-01	6.654E-01	1.106E+00	8.722E-02	0.829
	+	966.15		5.885E-01	2.600E-01	6.358E-01	4.993E-02	0.926
		1177.93		-2.609E-01	3.804E-01	5.814E-01	3.220E-02	-0.449
		1271.85		5.144E-01	7.615E-01	1.349E+00	8.634E-02	0.381
HO-166M		80.57		-1.469E-01	3.038E-01	4.442E-01	3.166E-02	-0.331
	+	184.41		2.174E-01	5.956E-02	7.893E-02	4.115E-03	2.754

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		280.46		-2.385E-02	9.860E-02	1.424E-01	8.043E-03	-0.167
		410.95		-3.007E-02	2.775E-01	4.485E-01	2.510E-02	-0.067
		711.68	*	-4.971E-02	6.890E-02	1.063E-01	7.318E-03	-0.468
		752.31		1.707E-01	3.139E-01	5.400E-01	3.892E-02	0.316
		810.29		1.135E-02	6.487E-02	1.078E-01	8.263E-03	0.105
TM-171		51.35		1.119E+01	3.274E+01	5.655E+01	3.685E+00	0.198
		52.39		5.628E+00	1.706E+01	2.891E+01	1.876E+00	0.195
		59.40		1.562E+01	3.027E+01	4.741E+01	2.974E+00	0.329
		66.72	*	-1.707E+01	3.512E+01	5.178E+01	3.351E+00	-0.330
LU-176	+	88.36		5.561E-01	2.530E-01	3.895E-01	2.968E-02	1.428
		201.83		-2.870E-04	3.142E-02	4.989E-02	2.650E-03	-0.006
		306.84	*	-3.857E-02	2.829E-02	3.882E-02	2.206E-03	-0.994
		401.10		-3.766E+00	7.050E+00	1.103E+01	6.109E-01	-0.341
LU-177		112.95		-1.834E-01	2.418E+00	3.917E+00	2.503E-01	-0.047
	+	208.36	*	3.838E+00	2.426E+00	2.860E+00	1.530E-01	1.342
LU-177M		52.97		2.872E-01	1.766E+00	2.972E+00	1.923E-01	0.097
		54.07		-5.454E-01	9.177E-01	1.493E+00	9.606E-02	-0.365
	+	61.30		7.318E+00	3.190E+00	2.867E+00	1.812E-01	2.552
		121.62		3.844E-02	3.961E-01	6.518E-01	4.070E-02	0.059
		147.16		-6.251E-01	6.996E-01	1.082E+00	5.997E-02	-0.578
		171.86		-1.191E-01	5.153E-01	8.168E-01	4.204E-02	-0.146
		218.09		7.948E-01	9.267E-01	1.535E+00	8.291E-02	0.518
	+	268.79		2.344E+00	1.192E+00	1.649E+00	9.263E-02	1.422
		319.02		-3.016E-01	2.732E-01	4.195E-01	2.384E-02	-0.719
		367.43		-4.371E-01	1.025E+00	1.634E+00	9.127E-02	-0.268
		413.65	*	-8.455E-02	1.972E-01	3.109E-01	1.745E-02	-0.272
HF-181		56.28		-9.196E-01	1.013E+00	1.652E+00	1.051E-01	-0.557
		57.53		3.589E-01	5.785E-01	9.646E-01	6.098E-02	0.372
		65.20		-8.596E-01	1.214E+00	1.771E+00	1.138E-01	-0.485
		133.02		-1.851E-02	7.938E-02	1.137E-01	6.708E-03	-0.163
		136.25		1.728E-01	5.005E-01	8.280E-01	4.812E-02	0.209
		345.85		-8.613E-02	2.421E-01	3.594E-01	2.031E-02	-0.240
		482.03	*	-1.435E-02	4.923E-02	7.722E-02	4.611E-03	-0.186
W-181		56.28		-3.486E-01	3.844E-01	6.268E-01	3.986E-02	-0.556
		57.53		1.362E-01	2.197E-01	3.663E-01	2.315E-02	0.372
		65.20	*	-3.238E-01	4.573E-01	6.670E-01	4.285E-02	-0.485
TA-182		67.75		-4.467E-02	1.404E-01	2.083E-01	1.355E-02	-0.214
		100.10		1.700E-01	1.975E-01	3.381E-01	2.304E-02	0.503
		152.43		-1.263E-01	3.716E-01	5.909E-01	3.203E-02	-0.214
		222.10		-2.109E-01	3.703E-01	5.977E-01	3.242E-02	-0.353
		1001.68		1.805E+00	2.521E+00	4.395E+00	3.313E-01	0.411
		1121.28		7.909E-01	2.125E-01	4.114E-01	2.552E-02	1.922
		1189.05		-1.310E-01	3.314E-01	5.253E-01	2.962E-02	-0.249
		1221.42	*	-5.341E-02	2.229E-01	3.593E-01	2.132E-02	-0.149
		1230.97		2.777E-02	5.619E-01	8.346E-01	5.024E-02	0.033
RE-183		57.98		2.301E-01	2.309E-01	3.708E-01	2.339E-02	0.621
		59.32		1.009E-01	1.261E-01	2.003E-01	1.257E-02	0.504
		67.20		4.540E-02	2.464E-01	3.752E-01	2.434E-02	0.121
		162.32	*	7.783E-03	1.343E-01	2.113E-01	1.099E-02	0.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	208.81		2.624E+00	1.658E+00	1.966E+00	1.052E-01	1.335
		291.72		3.644E-01	1.156E+00	1.738E+00	9.853E-02	0.210
RE-184		57.98		8.338E-01	8.363E-01	1.343E+00	8.474E-02	0.621
		59.32		3.653E-01	4.565E-01	7.252E-01	4.550E-02	0.504
		67.20		1.644E-01	8.924E-01	1.359E+00	8.814E-02	0.121
		161.27		3.452E-02	4.087E-01	6.612E-01	3.453E-02	0.052
		216.55		5.350E-02	2.966E-01	4.736E-01	2.555E-02	0.113
		252.85	*	-6.382E-02	2.341E-01	3.882E-01	2.160E-02	-0.164
		318.01		-2.880E-01	4.729E-01	7.533E-01	4.282E-02	-0.382
		792.07		1.118E+00	1.268E+00	1.994E+00	1.500E-01	0.560
		903.28		4.345E-01	1.263E+00	1.856E+00	1.544E-01	0.234
		920.93		-1.183E-01	5.026E-01	7.898E-01	6.479E-02	-0.150
OS-185		59.72		1.636E-01	3.390E-01	5.300E-01	3.326E-02	0.309
		61.14		8.868E-02	1.963E-01	3.071E-01	1.939E-02	0.289
		69.30		-1.890E-01	3.570E-01	5.579E-01	3.661E-02	-0.339
		592.07		-1.372E+00	2.870E+00	4.621E+00	2.937E-01	-0.297
		646.12	*	-3.367E-02	4.413E-02	6.796E-02	4.392E-03	-0.495
		717.42		9.550E-02	1.001E+00	1.665E+00	1.154E-01	0.057
		874.81		8.049E-02	6.920E-01	1.136E+00	9.287E-02	0.071
		880.27		1.263E-01	8.322E-01	1.372E+00	1.128E-01	0.092
RE-188		155.03	*	-1.362E-02	1.879E-01	3.024E-01	1.621E-02	-0.045
		477.96		2.645E+00	3.395E+00	5.814E+00	3.460E-01	0.455
		633.10		7.490E-01	3.008E+00	5.119E+00	3.297E-01	0.146
W-188	+	63.58		2.800E+02	1.221E+02	1.268E+02	8.088E+00	2.208
		227.08		8.303E+00	1.320E+01	2.303E+01	1.255E+00	0.361
		290.67	*	-6.126E-01	9.307E+00	1.360E+01	7.707E-01	-0.045
IR-192	+	295.96		1.017E+00	1.824E-01	3.252E-01	1.876E-02	3.129
		308.46		5.654E-02	1.024E-01	1.758E-01	1.011E-02	0.322
		316.51	*	2.224E-02	3.546E-02	6.115E-02	3.495E-03	0.364
		468.07		-2.699E-02	8.057E-02	1.158E-01	7.850E-03	-0.233
		604.41		2.309E-01	5.332E-01	8.133E-01	9.484E-02	0.284
		612.46		6.563E-01	8.721E-01	1.368E+00	1.101E-01	0.480
AU-195		65.12		-1.061E-01	2.101E-01	3.097E-01	1.989E-02	-0.343
		66.83		-4.967E-02	1.173E-01	1.734E-01	1.123E-02	-0.286
	+	75.70		1.274E+00	3.103E-01	5.239E-01	3.587E-02	2.432
		98.88	*	2.929E-01	2.602E-01	4.433E-01	3.048E-02	0.661
	+	129.76		4.483E+00	4.350E+00	5.585E+00	3.346E-01	0.803
TL-200		367.94	*	1.150E-04	4.350E+00	Half-Life too short		
		579.30		3.222E-03	4.350E+00	Half-Life too short		
		828.27		-1.224E-02	4.350E+00	Half-Life too short		
		1205.75		9.944E-04	4.350E+00	Half-Life too short		
TL-201		68.90		-8.129E+00	1.047E+01	1.698E+01	1.112E+00	-0.479
		70.82		1.075E+00	6.551E+00	9.975E+00	6.604E-01	0.108
		80.30		-4.651E+00	1.098E+01	1.611E+01	1.146E+00	-0.289
		135.34		-3.256E+01	5.266E+01	8.312E+01	4.850E+00	-0.392
		167.43	*	-5.845E-01	1.520E+01	2.439E+01	1.250E+00	-0.024
TL-202		68.90		-4.427E-01	5.703E-01	9.248E-01	6.054E-02	-0.479
		70.82		5.840E-02	3.557E-01	5.417E-01	3.587E-02	0.108
		80.30		-2.527E-01	5.965E-01	8.754E-01	6.224E-02	-0.289

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		439.56	*	-3.693E-02	9.381E-02	1.474E-01	8.490E-03	-0.251
HG-203		70.83		2.261E-01	1.364E+00	2.077E+00	2.583E-01	0.109
		72.87		1.097E+00	8.112E-01	1.279E+00	1.540E-01	0.858
		82.60		-1.142E-02	1.270E+00	2.025E+00	2.619E-01	-0.006
		279.20	*	-2.717E-02	4.929E-02	6.936E-02	4.171E-03	-0.392
BI-207		72.80		2.600E-01	2.241E-01	3.542E-01	2.375E-02	0.734
	+	74.97		6.990E-01	1.703E-01	2.578E-01	1.755E-02	2.712
		84.90		1.963E-01	2.226E-01	3.498E-01	2.596E-02	0.561
		569.67		-1.497E-03	3.465E-02	5.735E-02	3.611E-03	-0.026
		1063.62	*	4.561E-02	5.773E-02	1.036E-01	7.148E-03	0.440
		1770.23		-2.102E+00	7.930E-01	7.421E-01	4.380E-02	-2.833
TL-207		81.07		-1.930E-01	2.489E-01	3.581E-01	2.564E-02	-0.539
		83.78		1.218E-01	1.487E-01	2.332E-01	1.712E-02	0.522
		94.90		4.294E-01	2.636E-01	4.233E-01	3.007E-02	1.014
		122.32		-6.240E-01	1.830E+00	2.947E+00	2.086E-01	-0.212
		144.24		6.397E-01	7.309E-01	1.217E+00	8.616E-02	0.526
		154.21		1.902E-01	4.130E-01	6.822E-01	4.550E-02	0.279
	+	269.46		5.418E-01	2.758E-01	3.887E-01	2.290E-02	1.394
		323.87	*	2.264E-01	7.985E-01	1.189E+00	1.958E-01	0.190
	+	338.28		6.297E+00	1.822E+00	2.617E+00	2.737E-01	2.406
		445.03		-1.583E+00	2.623E+00	4.040E+00	4.146E-01	-0.392
PO-209		260.50		-1.068E+01	9.266E+00	1.447E+01	8.092E-01	-0.738
		262.80		-8.709E+00	2.488E+01	4.088E+01	2.290E+00	-0.213
		896.60	*	-5.085E+00	8.946E+00	1.315E+01	1.097E+00	-0.387
BI-210		46.50	*	1.772E+00	3.752E+00	6.493E+00	4.892E-01	0.273
PB-210		46.50	*	1.772E+00	3.752E+00	6.493E+00	4.892E-01	0.273
PO-210		46.50	*	1.772E+00	3.751E+00	6.493E+00	4.164E-01	0.273
PB-211		404.84	*	-2.400E-02	1.042E+00	1.695E+00	1.057E+00	-0.014
		427.08		-1.593E-01	2.227E+00	3.593E+00	2.221E+00	-0.044
		831.96		6.178E-01	1.390E+00	2.273E+00	1.422E+00	0.272
BI-212	+	727.18	*	8.891E-01	6.500E-01	7.065E-01	6.116E-02	1.258
		785.46		3.053E+00	2.186E+00	3.890E+00	2.906E-01	0.785
		1620.62		2.536E-01	1.581E+00	2.697E+00	1.737E-01	0.094
PO-215		81.07		-1.930E-01	2.489E-01	3.581E-01	2.564E-02	-0.539
		83.78		1.218E-01	1.487E-01	2.332E-01	1.712E-02	0.522
		94.90		4.294E-01	2.636E-01	4.233E-01	3.007E-02	1.014
		122.32		-6.240E-01	1.830E+00	2.947E+00	2.086E-01	-0.212
		144.24		6.397E-01	7.309E-01	1.217E+00	8.616E-02	0.526
		154.21		1.902E-01	4.130E-01	6.822E-01	4.550E-02	0.279
	+	269.46		5.418E-01	2.758E-01	3.887E-01	2.290E-02	1.394
		323.87	*	2.264E-01	7.985E-01	1.189E+00	1.958E-01	0.190
	+	338.28		6.297E+00	1.822E+00	2.617E+00	2.737E-01	2.406
		445.03		-1.583E+00	2.623E+00	4.040E+00	4.146E-01	-0.392
RN-219	+	271.23		6.952E-01	3.558E-01	4.688E-01	3.742E-02	1.483
		401.81	*	-2.927E-01	4.319E-01	6.650E-01	8.975E-02	-0.440
RN-220		549.76	*	-2.094E+01	2.736E+01	4.314E+01	2.690E+00	-0.485
RA-223		81.07		-1.930E-01	2.489E-01	3.581E-01	2.564E-02	-0.539
		83.78		1.218E-01	1.487E-01	2.332E-01	1.712E-02	0.522
		94.90		4.294E-01	2.636E-01	4.233E-01	3.007E-02	1.014

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		122.32		-6.240E-01	1.830E+00	2.947E+00	2.086E-01	-0.212
		144.24		6.397E-01	7.309E-01	1.217E+00	8.616E-02	0.526
		154.21		1.902E-01	4.130E-01	6.822E-01	4.550E-02	0.279
	+	269.46		5.418E-01	2.758E-01	3.887E-01	2.290E-02	1.394
		323.87	*	2.264E-01	7.985E-01	1.189E+00	1.958E-01	0.190
	+	338.28		6.297E+00	1.822E+00	2.617E+00	2.737E-01	2.406
		445.03		-1.583E+00	2.623E+00	4.040E+00	4.146E-01	-0.392
AC-227		79.80		7.630E-01	1.802E+00	2.755E+00	5.767E-01	0.277
		236.00		5.678E-01	2.986E-01	4.834E-01	4.972E-02	1.175
		256.20	*	2.581E-01	3.789E-01	6.580E-01	9.126E-02	0.392
		286.10		-2.646E-01	1.608E+00	2.660E+00	3.057E-01	-0.099
	+	299.80		2.533E+00	2.207E+00	2.803E+00	4.553E-01	0.904
		304.40		1.057E+00	2.071E+00	3.153E+00	5.442E-01	0.335
		334.20		-5.617E-01	2.788E+00	3.973E+00	7.268E-01	-0.141
TH-227		79.80		7.630E-01	1.802E+00	2.755E+00	5.844E-01	0.277
	+	94.00		2.205E+01	6.113E+00	4.664E+00	9.909E-01	4.726
		236.00		5.678E-01	2.971E-01	4.834E-01	4.285E-02	1.175
		256.20	*	2.581E-01	3.797E-01	6.580E-01	1.107E-01	0.392
		286.10		-2.646E-01	1.630E+00	2.660E+00	2.665E+00	-0.099
	+	299.80		2.533E+00	2.207E+00	2.803E+00	4.553E-01	0.904
		304.40		1.057E+00	2.071E+00	3.153E+00	5.442E-01	0.335
		334.20		-5.617E-01	2.788E+00	3.973E+00	7.268E-01	-0.141
TH-229		85.43		2.767E-02	2.325E-01	3.529E-01	2.633E-02	0.078
	+	88.47		3.201E-01	1.457E-01	2.241E-01	1.705E-02	1.428
		100.00		1.638E-01	2.025E-01	3.458E-01	2.359E-02	0.474
		193.63	*	1.599E-02	5.502E-01	8.777E-01	4.621E-02	0.018
		210.97		7.986E-01	9.437E-01	1.404E+00	7.529E-02	0.569
PA-231		283.67	*	9.008E-01	1.596E+00	2.743E+00	3.764E-01	0.328
	+	301.29		1.013E+00	8.737E-01	1.116E+00	1.159E-01	0.908
TH-231		81.07		-1.930E-01	2.489E-01	3.581E-01	2.564E-02	-0.539
		83.78		1.218E-01	1.487E-01	2.332E-01	1.712E-02	0.522
		94.90		4.294E-01	2.636E-01	4.233E-01	3.007E-02	1.014
		122.32		-6.240E-01	1.830E+00	2.947E+00	2.086E-01	-0.212
		144.24		6.397E-01	7.309E-01	1.217E+00	8.616E-02	0.526
		154.21		1.902E-01	4.130E-01	6.822E-01	4.550E-02	0.279
	+	269.46		5.418E-01	2.758E-01	3.887E-01	2.290E-02	1.394
		323.87	*	2.264E-01	7.985E-01	1.189E+00	1.958E-01	0.190
	+	338.28		6.297E+00	1.822E+00	2.617E+00	2.737E-01	2.406
		445.03		-1.583E+00	2.623E+00	4.040E+00	4.146E-01	-0.392
U-231		84.21		9.324E+00	1.041E+01	1.637E+01	1.206E+00	0.570
	+	92.29		3.533E+01	6.785E+00	9.417E+00	6.862E-01	3.751
		95.87	*	-5.967E-02	2.032E+00	3.015E+00	2.124E-01	-0.020
		108.00		-1.365E+00	3.702E+00	6.004E+00	3.912E-01	-0.227
PA-233	+	75.28		2.039E+01	5.602E+00	7.883E+00	1.136E+00	2.587
	+	86.59		4.590E+00	2.392E+00	3.319E+00	8.794E-01	1.383
	+	300.12		7.063E-01	6.118E-01	7.828E-01	1.048E-01	0.902
		311.98	*	-1.230E-02	6.815E-02	1.119E-01	6.773E-03	-0.110
		340.50		1.521E-01	7.250E-01	1.068E+00	2.450E-01	0.142
		398.62		1.578E+00	2.297E+00	3.870E+00	9.984E-01	0.408

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		415.76		1.724E+00	1.788E+00	3.059E+00	6.282E-01	0.564
PA-234	+	63.00		7.887E+00	3.586E+00	3.708E+00	5.328E-01	2.127
		94.67		4.587E-01	1.998E-01	3.214E-01	3.667E-02	1.427
		98.44		1.431E-01	1.309E-01	1.794E-01	9.967E-02	0.798
		99.86		5.660E-01	5.172E-01	8.806E-01	6.012E-02	0.643
		111.00		-7.452E-02	2.047E-01	3.313E-01	3.525E-02	-0.225
		131.20		1.102E-02	1.214E-01	1.779E-01	1.058E-02	0.062
		152.70		1.552E-01	3.451E-01	5.687E-01	8.913E-02	0.273
	+	186.00		7.827E+00	3.180E+00	3.056E+00	9.307E-01	2.561
		226.40		4.733E-02	4.075E-01	6.944E-01	7.907E-02	0.068
		227.20		9.971E-02	4.416E-01	7.562E-01	4.121E-02	0.132
		248.90		1.619E-01	8.189E-01	1.393E+00	2.985E-01	0.116
	+	293.70		6.231E+00	1.455E+00	1.908E+00	3.060E-01	3.266
		369.80		-1.283E-01	9.167E-01	1.489E+00	3.092E-01	-0.086
		568.70		-4.350E-01	1.139E+00	1.837E+00	1.156E-01	-0.237
		569.50		9.080E-03	3.058E-01	5.088E-01	3.203E-02	0.018
		574.00		-2.890E-01	1.651E+00	2.734E+00	1.725E-01	-0.106
		699.00		1.741E-01	8.476E-01	1.354E+00	2.480E-01	0.129
		706.10		-5.878E-01	1.267E+00	1.969E+00	8.717E-01	-0.299
		733.00		-3.503E-01	4.931E-01	6.276E-01	1.358E-01	-0.558
		742.81		6.262E-01	1.441E+00	2.369E+00	1.588E+00	0.264
		796.30		1.411E+00	1.279E+00	1.967E+00	5.258E-01	0.717
		805.60		-2.519E-01	1.144E+00	1.826E+00	5.547E-01	-0.138
		819.60		-2.146E-01	1.411E+00	2.264E+00	8.565E-01	-0.095
		826.30		-4.317E-01	9.099E-01	1.374E+00	6.128E-01	-0.314
		831.60		-1.436E-01	7.016E-01	1.118E+00	3.312E-01	-0.128
		876.40		5.138E-01	1.065E+00	1.588E+00	1.632E+00	0.323
		880.51		1.737E-01	2.861E-01	4.954E-01	4.072E-02	0.351
		883.24		-3.491E-01	3.904E-01	4.390E-01	2.949E-01	-0.795
		899.00		1.290E-01	9.718E-01	1.541E+00	6.730E-01	0.084
		925.00		-4.977E-01	1.386E+00	2.150E+00	1.757E-01	-0.232
		926.50		2.998E-02	2.098E-01	3.434E-01	8.628E-02	0.087
		946.00	*	-2.850E-01	4.135E-01	5.057E-01	9.353E-02	-0.563
		949.00		2.857E-01	5.258E-01	8.254E-01	6.598E-02	0.346
		980.50		-3.582E-02	7.866E-01	1.257E+00	9.714E-02	-0.029
		1394.10		-7.092E-01	1.392E+00	1.965E+00	1.275E+00	-0.361
PA-234M		766.42		1.879E+01	1.734E+01	2.602E+01	1.315E+01	0.722
		1001.03	*	4.146E+00	5.635E+00	9.832E+00	8.898E-01	0.422
U-235		89.95		1.431E+00	1.746E+00	2.122E+00	6.485E-01	0.674
	+	93.35		6.858E+00	2.254E+00	1.769E+00	4.886E-01	3.878
		105.00		1.927E+00	1.254E+00	1.984E+00	5.819E-01	0.971
		143.76	*	2.197E-01	2.267E-01	3.752E-01	6.094E-02	0.586
		163.35		-7.224E-03	5.551E-01	8.694E-01	1.547E-01	-0.008
	+	185.71		2.899E-01	7.941E-02	1.133E-01	5.912E-03	2.559
		205.31		-1.153E-02	6.379E-01	8.980E-01	1.602E-01	-0.013
NP-236		94.67		3.504E-01	1.484E-01	2.441E-01	1.738E-02	1.436
		98.44		1.081E-01	7.897E-02	1.356E-01	9.358E-03	0.797
		111.00		-5.637E-02	1.547E-01	2.506E-01	1.612E-02	-0.225
		160.31	*	7.355E-02	8.951E-02	1.497E-01	7.850E-03	0.491

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239		99.55		2.235E-01	1.743E-01	2.986E-01	2.044E-02	0.748
		117.00	*	-1.431E-01	1.983E-01	3.138E-01	1.980E-02	-0.456
	+	209.75		2.011E+00	1.271E+00	1.547E+00	8.287E-02	1.300
		228.18		-2.762E-02	2.321E-01	3.910E-01	2.133E-02	-0.071
	+	277.60		2.491E-01	2.114E-01	3.388E-01	1.911E-02	0.735
		334.30		-3.786E-01	1.576E+00	2.239E+00	1.270E-01	-0.169
AM-241		59.54	*	8.750E-02	1.751E-01	2.740E-01	1.947E-02	0.319
CM-243		99.55		2.300E-01	1.794E-01	3.074E-01	2.103E-02	0.748
		103.76	*	-1.000E-02	1.026E-01	1.688E-01	1.124E-02	-0.059
		117.00		-1.472E-01	2.040E-01	3.229E-01	2.038E-02	-0.456
	+	209.75		1.982E+00	1.253E+00	1.525E+00	8.171E-02	1.300
		228.18		-2.792E-02	2.346E-01	3.951E-01	2.156E-02	-0.071
	+	277.60		2.512E-01	2.132E-01	3.416E-01	1.927E-02	0.735
AM-246		798.80		-9.264E-02	1.893E-01	2.498E-01	1.893E-02	-0.371
		1036.00		2.382E-02	3.142E-01	5.300E-01	3.815E-02	0.045
		1062.04		7.051E-02	2.486E-01	4.268E-01	2.952E-02	0.165
		1078.86	*	7.627E-02	1.419E-01	2.504E-01	1.684E-02	0.305
CM-247	+	278.00		1.033E+00	8.768E-01	1.381E+00	7.795E-02	0.748
		287.40		-9.141E-01	1.356E+00	2.123E+00	1.202E-01	-0.431
		402.60	*	-4.787E-02	3.985E-02	5.891E-02	3.267E-03	-0.813
CF-249		252.85		-2.366E-01	8.679E-01	1.439E+00	8.009E-02	-0.164
		333.44		-4.823E-03	2.253E-01	3.040E-01	1.724E-02	-0.016
		387.95	*	-2.472E-02	4.372E-02	6.859E-02	3.770E-03	-0.360
CF-251		176.60	*	5.582E-02	1.385E-01	2.264E-01	1.170E-02	0.247
		227.00		2.350E-01	3.843E-01	6.698E-01	3.650E-02	0.351
		285.00		-7.427E-01	1.853E+00	3.025E+00	1.712E-01	-0.245

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978015      *
* Acquisition date : 14-FEB-2010 13:12:34 Detector SN#     :               *
* Detector ID        : GAM12               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.38      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G245978015           Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.0943E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM            :    0.000             MSD Isotope     :               *
* LCS DPM            :    0.000             LCS Isotope     :               *
* LCSD DPM           :    0.000             LCSD Isotope    :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.216E+01	2.323E+00	4.831E-01	0.000E+00
CD-109	2.396E+00	1.068E+00	1.736E+00	0.000E+00
SN-126	2.345E-01	1.046E-01	1.689E-01	0.000E+00
BA-137M	3.792E-01	6.771E-02	6.464E-02	0.000E+00
CS-137	4.009E-01	7.161E-02	6.833E-02	0.000E+00
TL-208	5.723E-01	1.012E-01	6.258E-02	0.000E+00
BI-211	4.103E+00	5.327E-01	3.674E-01	0.000E+00
PB-212	1.425E+00	1.616E-01	1.456E-01	0.000E+00
PO-212	1.425E+00	1.616E-01	1.456E-01	0.000E+00
BI-214	1.249E+00	2.048E-01	1.236E-01	0.000E+00
PB-214	1.427E+00	1.992E-01	1.281E-01	0.000E+00
PO-214	1.427E+00	1.992E-01	1.281E-01	0.000E+00
PO-216	1.425E+00	1.616E-01	1.456E-01	0.000E+00
PO-218	1.427E+00	1.992E-01	1.281E-01	0.000E+00
RA-224	1.493E+00	1.007E+00	1.417E+00	0.000E+00
RA-226	1.249E+00	2.048E-01	1.236E-01	0.000E+00
AC-228	1.621E+00	3.843E-01	2.385E-01	0.000E+00
RA-228	1.621E+00	3.843E-01	2.385E-01	0.000E+00
TH-228	1.451E+00	1.645E-01	1.483E-01	0.000E+00
TH-230	1.249E+00	2.048E-01	1.236E-01	0.000E+00
TH-232	1.621E+00	3.843E-01	2.385E-01	0.000E+00
TH-234	6.766E+00	3.075E+00	2.331E+00	0.000E+00
U-234	1.249E+00	2.048E-01	1.236E-01	0.000E+00
NP-237	6.885E-01	3.371E-01	4.599E-01	0.000E+00
U-238	6.766E+00	3.075E+00	2.331E+00	0.000E+00
AM-243	3.893E-01	9.293E-02	1.026E-01	0.000E+00
ANH-511	1.949E-01	9.330E-02	4.742E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)

BE-7	8.135E-02	3.495E-01	5.864E-01	0.000E+00	NOT IDENT.
NA-22	-1.068E-02	5.030E-02	8.208E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.889E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.300E-03	2.599E-02	4.453E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.465E-02	8.195E-02	0.000E+00	FAIL ABUN
SC-46	3.985E-02	4.351E-02	7.830E-02	0.000E+00	FAIL ABUN
V-48	-5.745E-02	9.998E-02	1.310E-01	0.000E+00	FAIL ABUN
CR-51	-3.210E-01	4.210E-01	6.814E-01	0.000E+00	NOT IDENT.
MN-52	2.115E-01	3.724E-01	6.646E-01	0.000E+00	NOT IDENT.
MN-54	1.354E-02	4.431E-02	7.542E-02	0.000E+00	NOT IDENT.
CO-56	3.534E-02	4.590E-02	8.138E-02	0.000E+00	FAIL ABUN
CO-57	-6.141E-03	2.627E-02	4.392E-02	0.000E+00	NOT IDENT.
CO-58	-1.342E-04	4.401E-02	7.320E-02	0.000E+00	NOT IDENT.
FE-59	1.335E-02	9.979E-02	1.712E-01	0.000E+00	NOT IDENT.
CO-60	1.214E-02	4.549E-02	7.800E-02	0.000E+00	NOT IDENT.
ZN-65	6.857E-02	9.986E-02	1.601E-01	0.000E+00	NOT IDENT.
GE-68	8.155E-01	1.227E+00	2.225E+00	0.000E+00	NOT IDENT.
AS-73	5.857E-04	8.861E-01	1.537E+00	0.000E+00	NOT IDENT.
AS-74	1.094E-03	1.087E-01	1.859E-01	0.000E+00	NOT IDENT.
SE-75	7.780E-03	4.829E-02	7.429E-02	0.000E+00	NOT IDENT.
BR-77	4.794E+00	2.666E+01	4.101E+01	0.000E+00	FAIL ABUN
SR-82	-2.307E-01	4.428E-01	7.019E-01	0.000E+00	NOT IDENT.
RB-83	-2.418E-02	8.597E-02	1.180E-01	0.000E+00	NOT IDENT.
RB-84	1.475E-02	7.678E-02	1.294E-01	0.000E+00	NOT IDENT.
KR-85	1.274E+01	7.743E+00	1.415E+01	0.000E+00	NOT IDENT.
SR-85	6.738E-02	4.094E-02	7.485E-02	0.000E+00	NOT IDENT.
RB-86	1.498E-01	8.777E-01	1.515E+00	0.000E+00	NOT IDENT.
Y-88	3.697E-02	4.075E-02	7.879E-02	0.000E+00	NOT IDENT.
ZR-88	1.556E-02	3.586E-02	6.165E-02	0.000E+00	NOT IDENT.
Y-91	1.536E-01	1.967E+01	3.305E+01	0.000E+00	NOT IDENT.
NB-94	1.178E-02	3.837E-02	6.619E-02	0.000E+00	NOT IDENT.
NB-95	6.429E-02	5.433E-02	9.829E-02	0.000E+00	NOT IDENT.
NB-95M	3.928E-02	1.461E-01	2.278E-01	0.000E+00	NOT IDENT.
ZR-95	1.692E-02	8.466E-02	1.422E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.036E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.187E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.339E+01	2.551E+01	3.855E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.593E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.806E-02	3.630E-02	5.696E-02	0.000E+00	FAIL ABUN
RH-102	-3.253E-02	3.073E-02	4.581E-02	0.000E+00	NOT IDENT.
RU-103	-2.316E-02	4.682E-02	7.297E-02	0.000E+00	FAIL ABUN
RH-106	2.789E-01	3.377E-01	6.101E-01	0.000E+00	FAIL ABUN
RU-106	2.789E-01	3.366E-01	6.101E-01	0.000E+00	FAIL ABUN
AG-108M	-2.211E-02	3.586E-02	5.526E-02	0.000E+00	NOT IDENT.
AG-110M	-4.946E-06	4.048E-02	5.956E-02	0.000E+00	NOT IDENT.
IN-111	-8.594E-01	2.459E+00	3.665E+00	0.000E+00	NOT IDENT.
IN-113M	6.463E-02	5.109E-02	9.211E-02	0.000E+00	NOT IDENT.
SN-113	6.463E-02	5.109E-02	9.211E-02	0.000E+00	NOT IDENT.
IN-114M	1.693E-01	2.151E-01	3.311E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	3.060E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	-8.403E-03	7.058E-02	1.167E-01	0.000E+00	NOT IDENT.
SB-122	3.994E+00	4.547E+00	8.297E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.559E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	2.074E-02	3.127E-02	5.354E-02	0.000E+00	NOT IDENT.
I-124	-3.248E-01	1.261E+00	1.816E+00	0.000E+00	FAIL ABUN
SB-124	-4.976E-02	8.701E-02	1.309E-01	0.000E+00	FAIL ABUN
SB-125	7.413E-03	9.565E-02	1.599E-01	0.000E+00	FAIL ABUN
TE-125M	7.785E+00	1.037E+01	1.816E+01	0.000E+00	NOT IDENT.
I-126	1.793E-01	2.363E-01	3.798E-01	0.000E+00	NOT IDENT.
SB-126	8.224E-02	2.120E-01	3.234E-01	0.000E+00	FAIL ABUN
SB-127	-1.423E+00	2.455E+00	3.923E+00	0.000E+00	NOT IDENT.
XE-127	-1.521E-02	5.327E-02	8.570E-02	0.000E+00	NOT IDENT.
I-131	-1.657E-01	1.653E-01	2.592E-01	0.000E+00	NOT IDENT.
TE-132	-1.566E-01	1.298E+00	2.247E+00	0.000E+00	NOT IDENT.
BA-133	4.513E-02	4.621E-02	7.448E-02	0.000E+00	FAIL ABUN
I-133	0.000E+00	6.977E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	0.000E+00	7.255E-02	1.003E-01	0.000E+00	FAIL ABUN
CS-135	1.857E-01	1.902E-01	3.067E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	9.331E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.809E-01	1.473E-01	2.759E-01	0.000E+00	FAIL ABUN
CE-139	-9.261E-03	3.380E-02	5.529E-02	0.000E+00	NOT IDENT.
BA-140	1.128E-01	2.883E-01	5.087E-01	0.000E+00	NOT IDENT.
LA-140	-1.255E-01	1.037E-01	1.326E-01	0.000E+00	FAIL ABUN
CE-141	-2.629E-02	6.821E-02	1.119E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.112E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.729E-02	2.162E-01	3.485E-01	0.000E+00	NOT IDENT.
PM-144	-4.409E-02	3.872E-02	5.881E-02	0.000E+00	NOT IDENT.
PR-144	-2.993E+00	2.628E+00	3.991E+00	0.000E+00	NOT IDENT.

PM-146	4.366E-02	5.101E-02	8.919E-02	0.000E+00	NOT IDENT.
ND-147	4.478E-02	7.425E-01	1.217E+00	0.000E+00	NOT IDENT.
PM-149	0.000E+00	2.366E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	1.660E-02	1.076E-01	1.775E-01	0.000E+00	FAIL ABUN
GD-153	-2.878E-02	9.891E-02	1.483E-01	0.000E+00	NOT IDENT.
EU-154	-2.568E-02	1.407E-01	2.304E-01	0.000E+00	NOT IDENT.
EU-155	1.191E-01	1.137E-01	2.021E-01	0.000E+00	FAIL ABUN
TB-160	-4.678E-02	1.546E-01	2.469E-01	0.000E+00	FAIL ABUN
HO-166M	-4.971E-02	6.752E-02	1.062E-01	0.000E+00	FAIL ABUN
TM-171	-1.707E+01	3.442E+01	5.260E+01	0.000E+00	NOT IDENT.
LU-176	-3.857E-02	2.772E-02	3.903E-02	0.000E+00	FAIL ABUN
LU-177	0.000E+00	2.377E+00	2.883E+00	0.000E+00	FAIL ABUN
LU-177M	-8.455E-02	1.933E-01	3.118E-01	0.000E+00	FAIL ABUN
HF-181	-1.435E-02	4.825E-02	7.738E-02	0.000E+00	NOT IDENT.
W-181	-3.238E-01	4.482E-01	6.777E-01	0.000E+00	NOT IDENT.
TA-182	-5.341E-02	2.184E-01	3.577E-01	0.000E+00	NOT IDENT.
RE-183	7.783E-03	1.316E-01	2.134E-01	0.000E+00	FAIL ABUN
RE-184	-6.382E-02	2.294E-01	3.907E-01	0.000E+00	NOT IDENT.
OS-185	-3.367E-02	4.325E-02	6.796E-02	0.000E+00	NOT IDENT.
RE-188	-1.362E-02	1.841E-01	3.054E-01	0.000E+00	NOT IDENT.
W-188	-6.126E-01	9.121E+00	1.367E+01	0.000E+00	FAIL ABUN
IR-192	2.224E-02	3.475E-02	6.146E-02	0.000E+00	FAIL ABUN
AU-195	2.929E-01	2.550E-01	4.491E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	3.209E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-5.845E-01	1.489E+01	2.462E+01	0.000E+00	NOT IDENT.
TL-202	-3.693E-02	9.194E-02	1.478E-01	0.000E+00	NOT IDENT.
HG-203	-2.717E-02	4.830E-02	6.977E-02	0.000E+00	NOT IDENT.
BI-207	4.561E-02	5.658E-02	1.032E-01	0.000E+00	FAIL ABUN
TL-207	2.264E-01	7.825E-01	1.195E+00	0.000E+00	FAIL ABUN
PO-209	-5.085E+00	8.767E+00	1.312E+01	0.000E+00	NOT IDENT.
BI-210	1.772E+00	3.677E+00	6.612E+00	0.000E+00	NOT IDENT.
PB-210	1.772E+00	3.677E+00	6.612E+00	0.000E+00	NOT IDENT.
PO-210	1.772E+00	3.676E+00	6.612E+00	0.000E+00	NOT IDENT.
PB-211	-2.400E-02	1.021E+00	1.701E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	6.370E-01	7.059E-01	0.000E+00	FAIL ABUN
PO-215	2.264E-01	7.825E-01	1.195E+00	0.000E+00	FAIL ABUN
RN-219	-2.927E-01	4.233E-01	6.672E-01	0.000E+00	FAIL ABUN
RN-220	-2.094E+01	2.681E+01	4.319E+01	0.000E+00	NOT IDENT.
RA-223	2.264E-01	7.825E-01	1.195E+00	0.000E+00	FAIL ABUN
AC-227	2.581E-01	3.713E-01	6.623E-01	0.000E+00	FAIL ABUN
TH-227	2.581E-01	3.721E-01	6.623E-01	0.000E+00	FAIL ABUN
TH-229	1.599E-02	5.392E-01	8.852E-01	0.000E+00	FAIL ABUN
PA-231	9.008E-01	1.564E+00	2.759E+00	0.000E+00	FAIL ABUN
TH-231	2.264E-01	7.825E-01	1.195E+00	0.000E+00	FAIL ABUN
U-231	-5.967E-02	1.992E+00	3.055E+00	0.000E+00	FAIL ABUN
PA-233	-1.230E-02	6.679E-02	1.125E-01	0.000E+00	FAIL ABUN
PA-234	-2.850E-01	4.053E-01	5.044E-01	0.000E+00	FAIL ABUN
PA-234M	4.146E+00	5.523E+00	9.802E+00	0.000E+00	NOT IDENT.
U-235	2.197E-01	2.222E-01	3.791E-01	0.000E+00	FAIL ABUN
NP-236	7.355E-02	8.772E-02	1.512E-01	0.000E+00	NOT IDENT.
NP-239	-1.431E-01	1.943E-01	3.175E-01	0.000E+00	FAIL ABUN
AM-241	8.750E-02	1.716E-01	2.786E-01	0.000E+00	NOT IDENT.
CM-243	-1.000E-02	1.006E-01	1.709E-01	0.000E+00	FAIL ABUN
AM-246	7.627E-02	1.391E-01	2.495E-01	0.000E+00	NOT IDENT.
CM-247	-4.787E-02	3.905E-02	5.911E-02	0.000E+00	FAIL ABUN
CF-249	-2.472E-02	4.284E-02	6.883E-02	0.000E+00	NOT IDENT.
CF-251	5.582E-02	1.357E-01	2.284E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:15:28.89

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978015.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:12:34
Sample ID         : G245978015           Sample quantity  : 1.09430E+02 GRAM
Detector name     : GAM12                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.38  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	784	10.67*	1.138E+00	2.216E+01	2.216E+01	10.70
CD-109	88.03	143	3.72*	5.643E+00	2.332E+00	2.396E+00	45.50
SN-126	64.28	------	9.60	3.338E+00	------ Line Not Found		------
	86.94	143	8.90	5.643E+00	9.747E-01	9.747E-01	60.88
	87.57	143	37.00*	5.643E+00	2.345E-01	2.345E-01	45.50
BA-137M	661.65	224	89.98*	2.253E+00	3.788E-01	3.792E-01	18.22
CS-137	661.65	224	85.12*	2.253E+00	4.004E-01	4.009E-01	18.23
TL-208	277.35	46	6.80	4.510E+00	5.165E-01	5.165E-01	85.34
	510.84	159	21.60	2.793E+00	9.021E-01	9.021E-01	49.57
	583.14	352	84.20*	2.506E+00	5.723E-01	5.723E-01	18.04
	860.37	48	12.46	1.795E+00	7.285E-01	7.285E-01	58.97
BI-211	72.87	------	1.27	4.387E+00	------ Line Not Found		------
	351.07	582	12.94*	3.763E+00	4.103E+00	4.103E+00	13.25
PB-212	74.81	343	10.70	4.576E+00	2.402E+00	2.402E+00	26.09
	77.11	613	18.00	4.814E+00	2.427E+00	2.427E+00	14.73
	87.30	143	8.00	5.643E+00	1.084E+00	1.084E+00	46.59
	238.63	930	44.60*	5.017E+00	1.425E+00	1.425E+00	11.57
	300.09	58	3.41	4.250E+00	1.367E+00	1.367E+00	85.98
PO-212	74.81	343	10.70	4.576E+00	2.402E+00	2.402E+00	26.09
	77.11	613	18.00	4.814E+00	2.427E+00	2.427E+00	14.73
	87.30	143	8.00	5.643E+00	1.084E+00	1.084E+00	46.59
	115.19	------	0.60	6.604E+00	------ Line Not Found		------
	238.63	930	44.60*	5.017E+00	1.425E+00	1.425E+00	11.57
	300.09	58	3.41	4.250E+00	1.367E+00	1.367E+00	85.98
BI-214	609.31	407	46.30*	2.415E+00	1.249E+00	1.249E+00	16.74
	1120.29	114	15.10	1.423E+00	1.819E+00	1.819E+00	32.39
	1764.49	70	15.80	9.904E-01	1.535E+00	1.535E+00	29.99
PB-214	74.81	343	6.21	4.576E+00	4.138E+00	4.138E+00	25.46
	77.11	613	10.50	4.814E+00	4.161E+00	4.161E+00	16.58
	87.30	143	4.67	5.643E+00	1.858E+00	1.858E+00	46.15
	241.98	86	7.49	4.975E+00	7.873E-01	7.873E-01	69.05
	295.21	313	19.20	4.303E+00	1.298E+00	1.298E+00	18.95

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	351.92	582	37.20*	3.763E+00	1.427E+00	1.427E+00	14.24
PO-214	74.81	343	6.21	4.576E+00	4.138E+00	4.138E+00	25.46
	77.11	613	10.50	4.814E+00	4.161E+00	4.161E+00	16.58
	87.30	143	4.67	5.643E+00	1.858E+00	1.858E+00	46.15
	241.98	86	7.49	4.975E+00	7.873E-01	7.873E-01	69.05
	295.21	313	19.20	4.303E+00	1.298E+00	1.298E+00	18.95
	351.92	582	37.20*	3.763E+00	1.427E+00	1.427E+00	14.24
PO-216	74.81	343	10.70	4.576E+00	2.402E+00	2.402E+00	26.09
	77.11	613	18.00	4.814E+00	2.427E+00	2.427E+00	14.73
	87.30	143	8.00	5.643E+00	1.084E+00	1.084E+00	46.59
	238.63	930	44.60*	5.017E+00	1.425E+00	1.425E+00	11.57
	300.09	58	3.41	4.250E+00	1.367E+00	1.367E+00	85.98
PO-218	74.81	343	6.21	4.576E+00	4.138E+00	4.138E+00	25.46
	77.11	613	10.50	4.814E+00	4.161E+00	4.161E+00	16.58
	87.30	143	4.67	5.643E+00	1.858E+00	1.858E+00	46.15
	241.98	86	7.49	4.975E+00	7.873E-01	7.873E-01	69.05
	295.21	313	19.20	4.303E+00	1.298E+00	1.298E+00	18.95
	351.92	582	37.20*	3.763E+00	1.427E+00	1.427E+00	14.24
RA-224	240.98	86	3.95*	4.975E+00	1.493E+00	1.493E+00	68.82
RA-226	609.31	407	46.30*	2.415E+00	1.249E+00	1.249E+00	16.74
	1120.29	114	15.10	1.423E+00	1.819E+00	1.819E+00	32.39
	1764.49	70	15.80	9.904E-01	1.535E+00	1.535E+00	29.99
AC-228	338.32	194	11.40	3.880E+00	1.508E+00	1.508E+00	48.87
	911.07	223	27.70*	1.707E+00	1.621E+00	1.621E+00	24.19
	969.11	119	16.60	1.617E+00	1.516E+00	1.516E+00	33.72
RA-228	338.32	194	11.40	3.880E+00	1.508E+00	1.508E+00	48.87
	911.07	223	27.70*	1.707E+00	1.621E+00	1.621E+00	24.19
	969.11	119	16.60	1.617E+00	1.516E+00	1.516E+00	33.72
TH-228	74.81	343	10.70	4.576E+00	2.402E+00	2.445E+00	24.38
	77.11	613	18.00	4.814E+00	2.427E+00	2.471E+00	14.73
	87.30	143	8.00	5.643E+00	1.084E+00	1.104E+00	45.50
	238.63	930	44.60*	5.017E+00	1.425E+00	1.451E+00	11.57
	300.09	58	3.41	4.250E+00	1.367E+00	1.392E+00	103.91
TH-230	609.31	407	46.30*	2.415E+00	1.249E+00	1.249E+00	16.74
	1120.29	114	15.10	1.423E+00	1.819E+00	1.819E+00	32.39
	1764.49	70	15.80	9.904E-01	1.535E+00	1.535E+00	29.99
TH-232	338.32	194	11.40	3.880E+00	1.508E+00	1.508E+00	27.56
	911.07	223	27.70*	1.707E+00	1.621E+00	1.621E+00	24.19
	969.11	119	16.60	1.617E+00	1.516E+00	1.516E+00	33.72
TH-234	63.29	235	3.80*	3.131E+00	6.766E+00	6.766E+00	46.37
	92.38	538	5.41	5.974E+00	5.705E+00	5.705E+00	24.93
U-234	609.31	407	46.30*	2.415E+00	1.249E+00	1.249E+00	16.74
	1120.29	114	15.10	1.423E+00	1.819E+00	1.819E+00	32.39
	1764.49	70	15.80	9.904E-01	1.535E+00	1.535E+00	29.99
NP-237	86.50	143	12.60*	5.643E+00	6.885E-01	6.885E-01	49.96
	95.87	------	2.60	6.124E+00	------	Line Not Found	------
U-238	63.29	235	3.80*	3.131E+00	6.766E+00	6.766E+00	46.37
	92.38	538	5.41	5.974E+00	5.705E+00	5.705E+00	19.21
AM-243	74.67	343	66.00*	4.576E+00	3.893E-01	3.893E-01	24.36

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	86.72	143	0.34	5.643E+00	2.582E+01	2.582E+01	45.50
	117.66	------	0.55	6.624E+00	------	Line Not Found	------
	142.18	------	0.13	6.534E+00	------	Line Not Found	------
ANH-511	511.00	159	100.00*	2.793E+00	1.949E-01	1.949E-01	48.86

Flag: "*" = Keyline

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

Total number of lines in spectrum 36
Number of unidentified lines 2
Number of lines tentatively identified by NID 34 94.44%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.216E+01	2.216E+01	0.237E+01	10.70	
CD-109	464.00D	1.03	2.332E+00	2.396E+00	1.090E+00	45.50	
SN-126	1.00E+05Y	1.00	2.345E-01	2.345E-01	1.067E-01	45.50	
BA-137M	30.17Y	1.00	3.788E-01	3.792E-01	0.691E-01	18.22	
CS-137	30.17Y	1.00	4.004E-01	4.009E-01	0.731E-01	18.23	
TL-208	1.41E+10Y	1.00	5.723E-01	5.723E-01	1.033E-01	18.04	
BI-211	7.04E+08Y	1.00	4.103E+00	4.103E+00	0.544E+00	13.25	
PB-212	1.41E+10Y	1.00	1.425E+00	1.425E+00	0.165E+00	11.57	
PO-212	1.41E+10Y	1.00	1.425E+00	1.425E+00	0.165E+00	11.57	
BI-214	1600.00Y	1.00	1.249E+00	1.249E+00	0.209E+00	16.74	
PB-214	1600.00Y	1.00	1.427E+00	1.427E+00	0.203E+00	14.24	
PO-214	1600.00Y	1.00	1.427E+00	1.427E+00	0.203E+00	14.24	
PO-216	1.41E+10Y	1.00	1.425E+00	1.425E+00	0.165E+00	11.57	
PO-218	1600.00Y	1.00	1.427E+00	1.427E+00	0.203E+00	14.24	
RA-224	1.41E+10Y	1.00	1.493E+00	1.493E+00	1.027E+00	68.82	
RA-226	1600.00Y	1.00	1.249E+00	1.249E+00	0.209E+00	16.74	
AC-228	1.41E+10Y	1.00	1.621E+00	1.621E+00	0.392E+00	24.19	
RA-228	1.41E+10Y	1.00	1.621E+00	1.621E+00	0.392E+00	24.19	
TH-228	1.91Y	1.02	1.425E+00	1.451E+00	0.168E+00	11.57	
TH-230	4.47E+09Y	1.00	1.249E+00	1.249E+00	0.209E+00	16.74	
TH-232	1.41E+10Y	1.00	1.621E+00	1.621E+00	0.392E+00	24.19	
TH-234	4.47E+09Y	1.00	6.766E+00	6.766E+00	3.138E+00	46.37	
U-234	4.47E+09Y	1.00	1.249E+00	1.249E+00	0.209E+00	16.74	
NP-237	2.14E+06Y	1.00	6.885E-01	6.885E-01	3.440E-01	49.96	
U-238	4.47E+09Y	1.00	6.766E+00	6.766E+00	3.138E+00	46.37	
AM-243	7380.00Y	1.00	3.893E-01	3.893E-01	0.948E-01	24.36	
ANH-511	1.00E+09Y	1.00	1.949E-01	1.949E-01	0.952E-01	48.86	
		Total Activity :	6.632E+01	6.641E+01			

Grand Total Activity : 6.632E+01 6.641E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	128.70	66	315	1.02	256.96	254	8	9.11E-03	96.8	6.64E+00	T
0	185.77	267	252	1.10	371.14	366	10	3.71E-02	26.9	5.86E+00	T
0	209.18	104	277	1.09	417.99	414	10	1.44E-02	63.0	5.47E+00	T
0	269.96	99	159	2.01	539.59	535	9	1.37E-02	50.6	4.59E+00	T
0	327.98	59	100	0.92	655.68	652	8	8.18E-03	65.0	3.97E+00	T
0	462.82	55	72	1.35	925.47	922	8	7.64E-03	59.9	3.03E+00	T
0	727.55	64	88	1.78	1455.08	1448	17	8.82E-03	72.6	2.08E+00	T
0	794.56	78	33	3.33	1589.12	1581	15	1.08E-02	39.7	1.92E+00	T
0	942.98	23	23	2.21	1886.00	1882	9	3.12E-03	86.9	1.66E+00	T
3	964.86	57	28	2.42	1929.77	1925	17	7.87E-03	43.5	1.62E+00	T
0	1007.09	78	110	10.12	2014.24	1993	41	1.08E-02	94.0	1.56E+00	
0	1238.55	31	66	1.81	2477.16	2471	16	4.34E-03	****	1.30E+00	T
0	1376.58	36	10	1.63	2753.19	2746	14	4.95E-03	51.0	1.19E+00	T
0	1587.21	26	8	1.42	3174.39	3169	11	3.61E-03	57.9	1.07E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:15:34.51

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G245978015.CNF;1 *
* Acquisition date  : 14-FEB-2010 13:12:34  Detector SN#     :             *
* Detector ID       : GAM12                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:01.38          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00  Nuclide Library : SOLID        *
* Sample ID         : G245978015            Analyst initials: MXR1         *
* Batch Number      : 948721                Sample Quantity : 1.09430E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24.5MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.216E+01	2.371E+00	4.859E-01	3.465E-02	45.613
CD-109	2.396E+00	1.090E+00	1.712E+00	1.310E-01	1.399
SN-126	2.345E-01	1.067E-01	1.666E-01	1.269E-02	1.408
BA-137M	3.792E-01	6.909E-02	6.465E-02	4.191E-03	5.866
CS-137	4.009E-01	7.307E-02	6.834E-02	4.445E-03	5.866
TL-208	5.723E-01	1.033E-01	6.254E-02	4.473E-03	9.152
BI-211	4.103E+00	5.436E-01	3.658E-01	2.300E-02	11.217
PB-212	1.425E+00	1.649E-01	1.446E-01	1.027E-02	9.854
PO-212	1.425E+00	1.649E-01	1.446E-01	1.027E-02	9.854
BI-214	1.249E+00	2.090E-01	1.235E-01	1.017E-02	10.110
PB-214	1.427E+00	2.032E-01	1.275E-01	1.042E-02	11.192
PO-214	1.427E+00	2.032E-01	1.275E-01	1.042E-02	11.192
PO-216	1.425E+00	1.649E-01	1.446E-01	1.027E-02	9.854
PO-218	1.427E+00	2.032E-01	1.275E-01	1.042E-02	11.192
RA-224	1.493E+00	1.027E+00	1.407E+00	7.761E-02	1.061
RA-226	1.249E+00	2.090E-01	1.235E-01	1.017E-02	10.110
AC-228	1.621E+00	3.921E-01	2.391E-01	2.625E-02	6.779
RA-228	1.621E+00	3.921E-01	2.391E-01	2.625E-02	6.779

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	1.451E+00	1.679E-01	1.473E-01	1.046E-02	9.854
TH-230	1.249E+00	2.090E-01	1.235E-01	1.017E-02	10.110
TH-232	1.621E+00	3.921E-01	2.391E-01	2.625E-02	6.779
TH-234	6.766E+00	3.138E+00	2.294E+00	3.905E-01	2.950
U-234	1.249E+00	2.090E-01	1.235E-01	1.017E-02	10.110
NP-237	6.885E-01	3.440E-01	4.535E-01	9.964E-02	1.518
U-238	6.766E+00	3.138E+00	2.294E+00	3.905E-01	2.950
AM-243	3.893E-01	9.483E-02	1.011E-01	6.867E-03	3.852
ANH-511	1.949E-01	9.521E-02	4.734E-02	2.885E-03	4.116

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	8.135E-02		3.566E-01	5.852E-01	4.027E-02	0.139
NA-22	-1.068E-02		5.133E-02	8.247E-02	5.311E-03	-0.130
NA-24	-9.164E-01		9.639E+00	Half-Life too short		
AL-26	2.300E-03		2.652E-02	4.486E-02	2.574E-03	0.051
TI-44	4.479E-01	+	6.597E-02	8.076E-02	5.649E-03	5.546
SC-46	3.985E-02		4.440E-02	7.847E-02	6.504E-03	0.508
V-48	-5.745E-02		1.020E-01	1.314E-01	1.013E-02	-0.437
CR-51	-3.210E-01		4.296E-01	6.780E-01	4.311E-02	-0.473
MN-52	2.115E-01		3.800E-01	6.683E-01	4.591E-02	0.316
MN-54	1.354E-02		4.521E-02	7.556E-02	5.940E-03	0.179
CO-56	3.534E-02		4.684E-02	8.153E-02	6.486E-03	0.433
CO-57	-6.141E-03		2.681E-02	4.341E-02	2.714E-03	-0.141
CO-58	-1.342E-04		4.491E-02	7.331E-02	5.641E-03	-0.002
FE-59	1.335E-02		1.018E-01	1.718E-01	1.269E-02	0.078
CO-60	1.214E-02		4.642E-02	7.839E-02	5.475E-03	0.155
ZN-65	6.857E-02		1.019E-01	1.607E-01	1.011E-02	0.427
GE-68	8.155E-01		1.252E+00	2.233E+00	1.506E-01	0.365
AS-73	5.857E-04		9.042E-01	1.511E+00	9.752E-02	0.000
AS-74	1.094E-03		1.110E-01	1.858E-01	1.183E-02	0.006
SE-75	7.780E-03		4.927E-02	7.383E-02	4.185E-03	0.105
BR-77	4.794E+00		2.721E+01	4.095E+01	2.511E+00	0.117
SR-82	-2.307E-01		4.519E-01	7.028E-01	5.200E-02	-0.328
RB-83	-2.418E-02		8.773E-02	1.179E-01	7.227E-03	-0.205
RB-84	1.475E-02		7.835E-02	1.297E-01	1.067E-02	0.114
KR-85	1.274E+01		7.901E+00	1.413E+01	8.630E-01	0.902
SR-85	6.738E-02		4.178E-02	7.473E-02	4.563E-03	0.902
RB-86	1.498E-01		8.956E-01	1.521E+00	1.027E-01	0.098
Y-88	3.697E-02		4.158E-02	7.937E-02	4.468E-03	0.466
ZR-88	1.556E-02		3.659E-02	6.143E-02	3.370E-03	0.253
Y-91	1.536E-01		2.008E+01	3.319E+01	1.919E+00	0.005
NB-94	1.178E-02		3.916E-02	6.623E-02	4.510E-03	0.178
NB-95	6.429E-02		5.544E-02	9.840E-02	7.198E-03	0.653
NB-95M	3.928E-02		1.491E-01	2.262E-01	1.650E-02	0.174
ZR-95	1.692E-02		8.639E-02	1.424E-01	1.176E-02	0.119

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-97	3.361E-01		1.039E+00	Half-Life too short		
ZR-97	8.425E+01		2.136E+01	Half-Life too short		
MO-99	-2.339E+01		2.603E+01	3.858E+01	5.548E+00	-0.606
TC-99M	-2.241E+14		8.127E+13	Half-Life too short		
RH-101	-1.806E-02		3.704E-02	5.649E-02	2.988E-03	-0.320
RH-102	-3.253E-02		3.136E-02	4.571E-02	2.715E-03	-0.712
RU-103	-2.316E-02		4.778E-02	7.284E-02	9.291E-03	-0.318
RH-106	2.789E-01		3.446E-01	6.099E-01	7.354E-02	0.457
RU-106	2.789E-01		3.435E-01	6.099E-01	3.917E-02	0.457
AG-108M	-2.211E-02		3.659E-02	5.511E-02	3.434E-03	-0.401
AG-110M	-4.946E-06		4.130E-02	5.956E-02	4.060E-03	0.000
IN-111	-8.594E-01		2.509E+00	3.640E+00	2.015E-01	-0.236
IN-113M	6.463E-02		5.213E-02	9.179E-02	5.404E-03	0.704
SN-113	6.463E-02		5.213E-02	9.179E-02	5.404E-03	0.704
IN-114M	1.693E-01		2.195E-01	3.283E-01	1.722E-02	0.516
CD-115	1.264E-05		1.561E-05	Half-Life too short		
SN-117M	-8.403E-03		7.202E-02	1.155E-01	6.103E-03	-0.073
SB-122	3.994E+00		4.640E+00	8.289E+00	5.205E-01	0.482
I-123	1.698E+02		1.306E+02	Half-Life too short		
TE-123M	2.074E-02		3.190E-02	5.302E-02	2.841E-03	0.391
I-124	-3.248E-01		1.287E+00	1.815E+00	1.159E-01	-0.179
SB-124	-4.976E-02		8.879E-02	1.318E-01	8.798E-03	-0.377
SB-125	7.413E-03		9.761E-02	1.594E-01	9.477E-03	0.047
TE-125M	7.785E+00		1.058E+01	1.794E+01	1.548E+00	0.434
I-126	1.793E-01		2.411E-01	3.799E-01	2.477E-02	0.472
SB-126	8.224E-02		2.163E-01	3.236E-01	2.250E-02	0.254
SB-127	-1.423E+00		2.505E+00	3.925E+00	4.319E-01	-0.363
XE-127	-1.521E-02		5.436E-02	8.501E-02	4.521E-03	-0.179
I-131	-1.657E-01		1.687E-01	2.582E-01	1.633E-02	-0.642
TE-132	-1.566E-01		1.325E+00	2.231E+00	3.316E-01	-0.070
BA-133	4.513E-02		4.716E-02	7.417E-02	8.509E-03	0.609
I-133	1.337E-02		3.560E-02	Half-Life too short		
CS-134	1.830E-01	+	7.403E-02	1.004E-01	7.658E-03	1.822
CS-135	1.857E-01		1.940E-01	3.049E-01	2.293E-02	0.609
I-135	5.256E+12		4.761E+12	Half-Life too short		
CS-136	1.809E-01		1.503E-01	2.769E-01	2.081E-02	0.653
CE-139	-9.261E-03		3.449E-02	5.477E-02	2.806E-03	-0.169
BA-140	1.128E-01		2.942E-01	5.080E-01	1.656E-01	0.222
LA-140	-1.255E-01		1.058E-01	1.335E-01	8.693E-03	-0.940
CE-141	-2.629E-02		6.960E-02	1.107E-01	6.447E-03	-0.237
CE-143	3.479E-03		5.672E-04	Half-Life too short		
CE-144	2.729E-02		2.206E-01	3.447E-01	4.907E-02	0.079
PM-144	-4.409E-02		3.951E-02	5.884E-02	3.982E-03	-0.749
PR-144	-2.993E+00		2.681E+00	3.993E+00	2.700E-01	-0.749
PM-146	4.366E-02		5.206E-02	8.896E-02	7.691E-03	0.491
ND-147	4.478E-02		7.576E-01	1.216E+00	1.664E-01	0.037
PM-149	-5.328E-05		1.207E-04	Half-Life too short		
EU-152	1.660E-02		1.098E-01	1.768E-01	1.133E-02	0.094

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
GD-153	-2.878E-02		1.009E-01	1.463E-01	1.017E-02	-0.197
EU-154	-2.568E-02		1.436E-01	2.315E-01	2.255E-02	-0.111
EU-155	1.191E-01		1.160E-01	1.995E-01	1.345E-02	0.597
TB-160	-4.678E-02		1.578E-01	2.474E-01	2.031E-02	-0.189
HO-166M	-4.971E-02		6.890E-02	1.063E-01	7.318E-03	-0.468
TM-171	-1.707E+01		3.512E+01	5.178E+01	3.351E+00	-0.330
LU-176	-3.857E-02		2.829E-02	3.882E-02	2.206E-03	-0.994
LU-177	3.838E+00	+	2.426E+00	2.860E+00	1.530E-01	1.342
LU-177M	-8.455E-02		1.972E-01	3.109E-01	1.745E-02	-0.272
HF-181	-1.435E-02		4.923E-02	7.722E-02	4.611E-03	-0.186
W-181	-3.238E-01		4.573E-01	6.670E-01	4.285E-02	-0.485
TA-182	-5.341E-02		2.229E-01	3.593E-01	2.132E-02	-0.149
RE-183	7.783E-03		1.343E-01	2.113E-01	1.099E-02	0.037
RE-184	-6.382E-02		2.341E-01	3.882E-01	2.160E-02	-0.164
OS-185	-3.367E-02		4.413E-02	6.796E-02	4.392E-03	-0.495
RE-188	-1.362E-02		1.879E-01	3.024E-01	1.621E-02	-0.045
W-188	-6.126E-01		9.307E+00	1.360E+01	7.707E-01	-0.045
IR-192	2.224E-02		3.546E-02	6.115E-02	3.495E-03	0.364
AU-195	2.929E-01		2.602E-01	4.433E-01	3.048E-02	0.661
TL-200	1.150E-04		1.637E-03	Half-Life too short		
TL-201	-5.845E-01		1.520E+01	2.439E+01	1.250E+00	-0.024
TL-202	-3.693E-02		9.381E-02	1.474E-01	8.490E-03	-0.251
HG-203	-2.717E-02		4.929E-02	6.936E-02	4.171E-03	-0.392
BI-207	4.561E-02		5.773E-02	1.036E-01	7.148E-03	0.440
TL-207	2.264E-01		7.985E-01	1.189E+00	1.958E-01	0.190
PO-209	-5.085E+00		8.946E+00	1.315E+01	1.097E+00	-0.387
BI-210	1.772E+00		3.752E+00	6.493E+00	4.892E-01	0.273
PB-210	1.772E+00		3.752E+00	6.493E+00	4.892E-01	0.273
PO-210	1.772E+00		3.751E+00	6.493E+00	4.164E-01	0.273
PB-211	-2.400E-02		1.042E+00	1.695E+00	1.057E+00	-0.014
BI-212	8.891E-01	+	6.500E-01	7.065E-01	6.116E-02	1.258
PO-215	2.264E-01		7.985E-01	1.189E+00	1.958E-01	0.190
RN-219	-2.927E-01		4.319E-01	6.650E-01	8.975E-02	-0.440
RN-220	-2.094E+01		2.736E+01	4.314E+01	2.690E+00	-0.485
RA-223	2.264E-01		7.985E-01	1.189E+00	1.958E-01	0.190
AC-227	2.581E-01		3.789E-01	6.580E-01	9.126E-02	0.392
TH-227	2.581E-01		3.797E-01	6.580E-01	1.107E-01	0.392
TH-229	1.599E-02		5.502E-01	8.777E-01	4.621E-02	0.018
PA-231	9.008E-01		1.596E+00	2.743E+00	3.764E-01	0.328
TH-231	2.264E-01		7.985E-01	1.189E+00	1.958E-01	0.190
U-231	-5.967E-02		2.032E+00	3.015E+00	2.124E-01	-0.020
PA-233	-1.230E-02		6.815E-02	1.119E-01	6.773E-03	-0.110
PA-234	-2.850E-01		4.135E-01	5.057E-01	9.353E-02	-0.563
PA-234M	4.146E+00		5.635E+00	9.832E+00	8.898E-01	0.422
U-235	2.197E-01		2.267E-01	3.752E-01	6.094E-02	0.586
NP-236	7.355E-02		8.951E-02	1.497E-01	7.850E-03	0.491
NP-239	-1.431E-01		1.983E-01	3.138E-01	1.980E-02	-0.456
AM-241	8.750E-02		1.751E-01	2.740E-01	1.947E-02	0.319

Sample ID : G245978015 Acquisition date : 14-FEB-2010 13:12:34

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	-1.000E-02		1.026E-01	1.688E-01	1.124E-02	-0.059
AM-246	7.627E-02		1.419E-01	2.504E-01	1.684E-02	0.305
CM-247	-4.787E-02		3.985E-02	5.891E-02	3.267E-03	-0.813
CF-249	-2.472E-02		4.372E-02	6.859E-02	3.770E-03	-0.360
CF-251	5.582E-02		1.385E-01	2.264E-01	1.170E-02	0.247

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G245978015            *
* Acquisition date : 14-FEB-2010 13:12:34 Detector SN#    :                 *
* Detector ID      : GAM12                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:01.38     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00 Nuclide Library : SOLID           *
* Sample ID        : G245978015           Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.0943E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 10-FEB-2009 09:20:24 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.216E+01	2.323E+00	2.417E-01	1.185E+00
CD-109	2.396E+00	1.068E+00	8.687E-01	5.451E-01
SN-126	2.345E-01	1.046E-01	8.450E-02	5.334E-02
BA-137M	3.792E-01	6.771E-02	3.234E-02	3.455E-02
CS-137	4.009E-01	7.161E-02	3.419E-02	3.653E-02
TL-208	5.723E-01	1.012E-01	3.131E-02	5.164E-02
BI-211	4.103E+00	5.327E-01	1.838E-01	2.718E-01
PB-212	1.425E+00	1.616E-01	7.286E-02	8.245E-02
PO-212	1.425E+00	1.616E-01	7.286E-02	8.245E-02
BI-214	1.249E+00	2.048E-01	6.182E-02	1.045E-01
PB-214	1.427E+00	1.992E-01	6.407E-02	1.016E-01
PO-214	1.427E+00	1.992E-01	6.407E-02	1.016E-01
PO-216	1.425E+00	1.616E-01	7.286E-02	8.245E-02
PO-218	1.427E+00	1.992E-01	6.407E-02	1.016E-01
RA-224	1.493E+00	1.007E+00	7.087E-01	5.137E-01
RA-226	1.249E+00	2.048E-01	6.182E-02	1.045E-01
AC-228	1.621E+00	3.843E-01	1.193E-01	1.961E-01
RA-228	1.621E+00	3.843E-01	1.193E-01	1.961E-01
TH-228	1.451E+00	1.645E-01	7.418E-02	8.395E-02
TH-230	1.249E+00	2.048E-01	6.182E-02	1.045E-01
TH-232	1.621E+00	3.843E-01	1.193E-01	1.961E-01
TH-234	6.766E+00	3.075E+00	1.166E+00	1.569E+00
U-234	1.249E+00	2.048E-01	6.182E-02	1.045E-01
NP-237	6.885E-01	3.371E-01	2.301E-01	1.720E-01
U-238	6.766E+00	3.075E+00	1.166E+00	1.569E+00
AM-243	3.893E-01	9.293E-02	5.133E-02	4.742E-02
ANH-511	1.949E-01	9.330E-02	2.372E-02	4.760E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU

BE-7	8.135E-02	3.495E-01	2.934E-01	1.783E-01	NOT IDENT.
NA-22	-1.068E-02	5.030E-02	4.106E-02	2.566E-02	NOT IDENT.
NA-24	-9.164E+05	1.889E+07	0.000E+00	9.639E+06	SHORT HLIF
AL-26	2.300E-03	2.599E-02	2.228E-02	1.326E-02	NOT IDENT.
TI-44	4.479E-01	6.465E-02	4.100E-02	3.298E-02	FAIL ABUN
SC-46	3.985E-02	4.351E-02	3.917E-02	2.220E-02	FAIL ABUN
V-48	-5.745E-02	9.998E-02	6.556E-02	5.101E-02	FAIL ABUN
CR-51	-3.210E-01	4.210E-01	3.409E-01	2.148E-01	NOT IDENT.
MN-52	2.115E-01	3.724E-01	3.325E-01	1.900E-01	NOT IDENT.
MN-54	1.354E-02	4.431E-02	3.773E-02	2.260E-02	NOT IDENT.
CO-56	3.534E-02	4.590E-02	4.071E-02	2.342E-02	FAIL ABUN
CO-57	-6.141E-03	2.627E-02	2.197E-02	1.340E-02	NOT IDENT.
CO-58	-1.342E-04	4.401E-02	3.662E-02	2.246E-02	NOT IDENT.
FE-59	1.335E-02	9.979E-02	8.565E-02	5.091E-02	NOT IDENT.
CO-60	1.214E-02	4.549E-02	3.902E-02	2.321E-02	NOT IDENT.
ZN-65	6.857E-02	9.986E-02	8.011E-02	5.095E-02	NOT IDENT.
GE-68	8.155E-01	1.227E+00	1.113E+00	6.261E-01	NOT IDENT.
AS-73	5.857E-04	8.861E-01	7.688E-01	4.521E-01	NOT IDENT.
AS-74	1.094E-03	1.087E-01	9.303E-02	5.548E-02	NOT IDENT.
SE-75	7.780E-03	4.829E-02	3.717E-02	2.464E-02	NOT IDENT.
BR-77	4.794E+00	2.666E+01	2.052E+01	1.360E+01	FAIL ABUN
SR-82	-2.307E-01	4.428E-01	3.511E-01	2.259E-01	NOT IDENT.
RB-83	-2.418E-02	8.597E-02	5.906E-02	4.386E-02	NOT IDENT.
RB-84	1.475E-02	7.678E-02	6.475E-02	3.918E-02	NOT IDENT.
KR-85	1.274E+01	7.743E+00	7.082E+00	3.950E+00	NOT IDENT.
SR-85	6.738E-02	4.094E-02	3.745E-02	2.089E-02	NOT IDENT.
RB-86	1.498E-01	8.777E-01	7.581E-01	4.478E-01	NOT IDENT.
Y-88	3.697E-02	4.075E-02	3.942E-02	2.079E-02	NOT IDENT.
ZR-88	1.556E-02	3.586E-02	3.084E-02	1.829E-02	NOT IDENT.
Y-91	1.536E-01	1.967E+01	1.653E+01	1.004E+01	NOT IDENT.
NB-94	1.178E-02	3.837E-02	3.311E-02	1.958E-02	NOT IDENT.
NB-95	6.429E-02	5.433E-02	4.917E-02	2.772E-02	NOT IDENT.
NB-95M	3.928E-02	1.461E-01	1.140E-01	7.453E-02	NOT IDENT.
ZR-95	1.692E-02	8.466E-02	7.115E-02	4.320E-02	NOT IDENT.
NB-97	3.361E+05	2.036E+06	0.000E+00	1.039E+06	SHORT HLIF
ZR-97	8.425E+07	4.187E+07	0.000E+00	2.136E+07	SHORT HLIF
MO-99	-2.339E+01	2.551E+01	1.928E+01	1.302E+01	NOT IDENT.
TC-99M	-2.241E+20	1.593E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.806E-02	3.630E-02	2.850E-02	1.852E-02	FAIL ABUN
RH-102	-3.253E-02	3.073E-02	2.292E-02	1.568E-02	NOT IDENT.
RU-103	-2.316E-02	4.682E-02	3.651E-02	2.389E-02	FAIL ABUN
RH-106	2.789E-01	3.377E-01	3.052E-01	1.723E-01	FAIL ABUN
RU-106	2.789E-01	3.366E-01	3.052E-01	1.717E-01	FAIL ABUN
AG-108M	-2.211E-02	3.586E-02	2.765E-02	1.830E-02	NOT IDENT.
AG-110M	-4.946E-06	4.048E-02	2.980E-02	2.065E-02	NOT IDENT.
IN-111	-8.594E-01	2.459E+00	1.834E+00	1.254E+00	NOT IDENT.
IN-113M	6.463E-02	5.109E-02	4.608E-02	2.607E-02	NOT IDENT.
SN-113	6.463E-02	5.109E-02	4.608E-02	2.607E-02	NOT IDENT.
IN-114M	1.693E-01	2.151E-01	1.657E-01	1.098E-01	NOT IDENT.
CD-115	1.264E+01	3.060E+01	0.000E+00	1.561E+01	SHORT HLIF
SN-117M	-8.403E-03	7.058E-02	5.837E-02	3.601E-02	NOT IDENT.
SB-122	3.994E+00	4.547E+00	4.151E+00	2.320E+00	NOT IDENT.
I-123	1.698E+08	2.559E+08	0.000E+00	1.306E+08	SHORT HLIF
TE-123M	2.074E-02	3.127E-02	2.679E-02	1.595E-02	NOT IDENT.
I-124	-3.248E-01	1.261E+00	9.087E-01	6.433E-01	FAIL ABUN
SB-124	-4.976E-02	8.701E-02	6.551E-02	4.440E-02	FAIL ABUN
SB-125	7.413E-03	9.565E-02	7.999E-02	4.880E-02	FAIL ABUN
TE-125M	7.785E+00	1.037E+01	9.086E+00	5.289E+00	NOT IDENT.
I-126	1.793E-01	2.363E-01	1.900E-01	1.205E-01	NOT IDENT.
SB-126	8.224E-02	2.120E-01	1.618E-01	1.082E-01	FAIL ABUN
SB-127	-1.423E+00	2.455E+00	1.963E+00	1.253E+00	NOT IDENT.
XE-127	-1.521E-02	5.327E-02	4.288E-02	2.718E-02	NOT IDENT.
I-131	-1.657E-01	1.653E-01	1.297E-01	8.435E-02	NOT IDENT.
TE-132	-1.566E-01	1.298E+00	1.124E+00	6.623E-01	NOT IDENT.
BA-133	4.513E-02	4.621E-02	3.726E-02	2.358E-02	FAIL ABUN
I-133	1.337E+04	6.977E+04	0.000E+00	3.560E+04	SHORT HLIF
CS-134	1.830E-01	7.255E-02	5.018E-02	3.702E-02	FAIL ABUN
CS-135	1.857E-01	1.902E-01	1.535E-01	9.702E-02	NOT IDENT.
I-135	5.256E+18	9.331E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.809E-01	1.473E-01	1.380E-01	7.517E-02	FAIL ABUN
CE-139	-9.261E-03	3.380E-02	2.766E-02	1.725E-02	NOT IDENT.
BA-140	1.128E-01	2.883E-01	2.545E-01	1.471E-01	NOT IDENT.
LA-140	-1.255E-01	1.037E-01	6.636E-02	5.292E-02	FAIL ABUN
CE-141	-2.629E-02	6.821E-02	5.598E-02	3.480E-02	NOT IDENT.
CE-143	3.479E+03	1.112E+03	0.000E+00	5.672E+02	SHORT HLIF
CE-144	2.729E-02	2.162E-01	1.744E-01	1.103E-01	NOT IDENT.
PM-144	-4.409E-02	3.872E-02	2.942E-02	1.975E-02	NOT IDENT.
PR-144	-2.993E+00	2.628E+00	1.997E+00	1.341E+00	NOT IDENT.

PM-146	4.366E-02	5.101E-02	4.462E-02	2.603E-02	NOT IDENT.
ND-147	4.478E-02	7.425E-01	6.091E-01	3.788E-01	NOT IDENT.
PM-149	-5.328E+01	2.366E+02	0.000E+00	1.207E+02	SHORT HLIF
EU-152	1.660E-02	1.076E-01	8.882E-02	5.488E-02	FAIL ABUN
GD-153	-2.878E-02	9.891E-02	7.417E-02	5.047E-02	NOT IDENT.
EU-154	-2.568E-02	1.407E-01	1.153E-01	7.180E-02	NOT IDENT.
EU-155	1.191E-01	1.137E-01	1.011E-01	5.802E-02	FAIL ABUN
TB-160	-4.678E-02	1.546E-01	1.235E-01	7.889E-02	FAIL ABUN
HO-166M	-4.971E-02	6.752E-02	5.315E-02	3.445E-02	FAIL ABUN
TM-171	-1.707E+01	3.442E+01	2.632E+01	1.756E+01	NOT IDENT.
LU-176	-3.857E-02	2.772E-02	1.952E-02	1.415E-02	FAIL ABUN
LU-177	3.838E+00	2.377E+00	1.442E+00	1.213E+00	FAIL ABUN
LU-177M	-8.455E-02	1.933E-01	1.560E-01	9.861E-02	FAIL ABUN
HF-181	-1.435E-02	4.825E-02	3.871E-02	2.462E-02	NOT IDENT.
W-181	-3.238E-01	4.482E-01	3.390E-01	2.287E-01	NOT IDENT.
TA-182	-5.341E-02	2.184E-01	1.790E-01	1.115E-01	NOT IDENT.
RE-183	7.783E-03	1.316E-01	1.067E-01	6.717E-02	FAIL ABUN
RE-184	-6.382E-02	2.294E-01	1.955E-01	1.170E-01	NOT IDENT.
OS-185	-3.367E-02	4.325E-02	3.400E-02	2.207E-02	NOT IDENT.
RE-188	-1.362E-02	1.841E-01	1.528E-01	9.394E-02	NOT IDENT.
W-188	-6.126E-01	9.121E+00	6.841E+00	4.654E+00	FAIL ABUN
IR-192	2.224E-02	3.475E-02	3.075E-02	1.773E-02	FAIL ABUN
AU-195	2.929E-01	2.550E-01	2.247E-01	1.301E-01	FAIL ABUN
TL-200	1.150E+02	3.209E+03	0.000E+00	1.637E+03	SHORT HLIF
TL-201	-5.845E-01	1.489E+01	1.232E+01	7.598E+00	NOT IDENT.
TL-202	-3.693E-02	9.194E-02	7.395E-02	4.691E-02	NOT IDENT.
HG-203	-2.717E-02	4.830E-02	3.491E-02	2.464E-02	NOT IDENT.
BI-207	4.561E-02	5.658E-02	5.165E-02	2.887E-02	FAIL ABUN
TL-207	2.264E-01	7.825E-01	5.976E-01	3.993E-01	FAIL ABUN
PO-209	-5.085E+00	8.767E+00	6.562E+00	4.473E+00	NOT IDENT.
BI-210	1.772E+00	3.677E+00	3.308E+00	1.876E+00	NOT IDENT.
PB-210	1.772E+00	3.677E+00	3.308E+00	1.876E+00	NOT IDENT.
PO-210	1.772E+00	3.676E+00	3.308E+00	1.876E+00	NOT IDENT.
PB-211	-2.400E-02	1.021E+00	8.510E-01	5.209E-01	NOT IDENT.
BI-212	8.891E-01	6.370E-01	3.532E-01	3.250E-01	FAIL ABUN
PO-215	2.264E-01	7.825E-01	5.976E-01	3.993E-01	FAIL ABUN
RN-219	-2.927E-01	4.233E-01	3.338E-01	2.160E-01	FAIL ABUN
RN-220	-2.094E+01	2.681E+01	2.161E+01	1.368E+01	NOT IDENT.
RA-223	2.264E-01	7.825E-01	5.976E-01	3.993E-01	FAIL ABUN
AC-227	2.581E-01	3.713E-01	3.313E-01	1.895E-01	FAIL ABUN
TH-227	2.581E-01	3.721E-01	3.313E-01	1.899E-01	FAIL ABUN
TH-229	1.599E-02	5.392E-01	4.428E-01	2.751E-01	FAIL ABUN
PA-231	9.008E-01	1.564E+00	1.380E+00	7.980E-01	FAIL ABUN
TH-231	2.264E-01	7.825E-01	5.976E-01	3.993E-01	FAIL ABUN
U-231	-5.967E-02	1.992E+00	1.528E+00	1.016E+00	FAIL ABUN
PA-233	-1.230E-02	6.679E-02	5.628E-02	3.408E-02	FAIL ABUN
PA-234	-2.850E-01	4.053E-01	2.523E-01	2.068E-01	FAIL ABUN
PA-234M	4.146E+00	5.523E+00	4.904E+00	2.818E+00	NOT IDENT.
U-235	2.197E-01	2.222E-01	1.897E-01	1.133E-01	FAIL ABUN
NP-236	7.355E-02	8.772E-02	7.563E-02	4.475E-02	NOT IDENT.
NP-239	-1.431E-01	1.943E-01	1.589E-01	9.914E-02	FAIL ABUN
AM-241	8.750E-02	1.716E-01	1.394E-01	8.757E-02	NOT IDENT.
CM-243	-1.000E-02	1.006E-01	8.551E-02	5.131E-02	FAIL ABUN
AM-246	7.627E-02	1.391E-01	1.248E-01	7.097E-02	NOT IDENT.
CM-247	-4.787E-02	3.905E-02	2.957E-02	1.992E-02	FAIL ABUN
CF-249	-2.472E-02	4.284E-02	3.444E-02	2.186E-02	NOT IDENT.
CF-251	5.582E-02	1.357E-01	1.143E-01	6.923E-02	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	234.5408
46.50	234.5408
46.50	234.5408
48.70	272.9891
49.72	256.7993
51.35	240.9625
52.39	230.5457
52.97	233.5673
53.15	233.7005
53.44	232.1820
54.07	246.5319
56.28	259.5804
56.28	259.5827
57.37	0.0000
57.53	237.9311
57.53	237.9324
57.60	237.9814
57.98	224.0206
57.98	224.0206
59.32	238.1424
59.32	238.1424
59.40	251.4312
59.54	251.5349
59.72	251.6675
60.01	271.7667
61.10	284.5963
61.14	284.6294
61.30	284.7600
63.00	306.6466
63.29	306.8968
63.29	306.8968
63.58	307.1475
64.28	347.5605
65.12	348.3711
65.20	355.1750
65.20	355.1750
66.05	361.3988
66.72	358.0043
66.83	358.1135
66.91	331.1590
67.20	321.9497
67.20	321.9497
67.75	361.7126
67.85	361.8124
68.90	379.5888
68.90	379.5888
69.30	376.5453
69.67	362.2087
70.82	375.5926
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70.83	375.6031
72.80	376.1459
72.87	376.2148
72.87	376.2148
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74.81	367.0306
74.81	367.0306
74.81	367.0306
74.81	367.0306
74.81	367.0306
74.81	367.0306
74.97	367.1777
75.28	367.4628
75.70	367.8484
77.11	369.1351
77.11	369.1351

77.11	369.1351
77.11	369.1351
77.11	369.1351
77.11	369.1351
77.11	369.1351
78.38	304.8577
79.62	284.8299
79.80	284.9529
79.80	284.9529
80.11	320.1129
80.18	320.1653
80.30	320.2579
80.30	320.2579
80.57	320.4641
81.00	344.6068
81.07	344.6650
81.07	344.6650
81.07	344.6650
81.07	344.6650
82.60	335.2245
83.37	322.5851
83.78	303.1557
83.78	303.1557
83.78	303.1557
83.78	303.1557
84.21	306.2804
84.90	302.5277
85.43	369.4208
86.29	407.0183
86.50	402.9566
86.54	402.9935
86.59	453.1823
86.72	453.3163
86.79	453.3870
86.94	438.3932
87.30	459.5965
87.30	459.5965
87.30	459.5965
87.30	459.5965
87.30	459.5965
87.30	459.5965
87.30	459.5965
87.57	480.7382
87.88	491.5109
88.03	491.6769
88.36	398.9517
88.47	399.0500
89.95	371.7664
91.11	418.5916
92.29	395.7161
92.38	395.7938
92.38	395.7938
93.35	396.6235
94.00	252.4437
94.67	241.2462
94.67	241.2487
94.90	241.3672
94.90	241.3672
94.90	241.3672
94.90	241.3672
95.87	269.3816
95.87	269.3816
96.73	330.8115
97.43	292.0628
98.44	242.6834
98.44	242.6847
98.88	249.7073
99.55	229.6201
99.55	229.6201
99.86	229.7665
100.00	248.3360
100.10	244.4929
103.18	263.6667
103.76	246.3096
105.00	206.5852
105.31	228.3679
108.00	279.0525
109.28	246.0171

111.00	274.6973
111.00	274.6973
111.76	268.1175
112.95	251.7385
115.19	229.7222
116.30	226.1742
117.00	239.5495
117.00	239.5495
117.66	228.7550
121.11	206.8638
121.62	215.1723
121.78	215.2338
122.06	227.5307
122.32	227.6356
122.32	227.6356
122.32	227.6356
122.32	227.6356
123.07	233.0266
127.23	246.0040
129.76	223.9119
131.20	222.9126
133.02	225.1487
133.54	212.5999
135.34	246.2819
136.00	214.3004
136.25	215.4313
136.48	211.3468
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140.51	0.0000
142.18	234.3220
142.65	236.5997
143.76	204.3627
144.24	208.7335
144.24	208.7335
144.24	208.7335
144.24	208.7335
145.22	237.5633
145.44	236.5895
147.16	253.1133
152.43	247.6965
152.70	221.0956
153.22	219.1305
154.21	211.9642
154.21	211.9642
154.21	211.9642
154.21	211.9642
155.03	231.5193
156.02	237.2292
158.56	252.1313
159.00	0.0000
159.00	223.1824
160.31	227.9330
161.27	249.8881
162.32	251.3522
162.64	264.4748
163.35	247.3850
163.89	258.4362
165.85	255.8958
167.43	236.8272
171.28	198.6077
171.86	209.7495
172.10	209.8194
176.55	211.1057
176.60	211.1203
181.06	223.5139
184.41	174.2463
185.71	202.5147
186.00	202.5921
190.27	180.6458
192.34	229.0874
193.63	207.9864
197.04	196.3972
198.01	217.0939
198.60	224.0779
200.40	222.3009
201.83	212.4155
202.84	217.2541
205.31	215.0421

208.36	226.1977
208.81	214.2262
209.75	214.4684
209.75	214.4684
210.97	202.6559
215.65	207.8446
216.55	192.9524
218.09	167.6807
222.10	193.9044
223.80	177.5776
226.40	179.8665
227.00	165.8712
227.08	165.8870
227.20	180.9109
228.16	188.1740
228.18	188.1788
228.18	188.1788
231.56	0.0000
235.69	205.2527
236.00	213.8782
236.00	213.8782
238.63	411.1124
238.63	411.1124
238.63	411.1124
238.63	411.1124
239.00	300.4087
240.98	301.0547
241.98	185.1320
241.98	185.1320
241.98	185.1320
244.69	171.2760
245.39	171.4039
247.94	162.4796
248.90	145.4763
249.79	146.5171
252.40	136.9405
252.85	149.7075
252.85	149.7075
254.15	0.0000
256.20	131.1064
256.20	131.1064
260.50	150.8883
260.90	0.0000
262.80	127.4089
264.65	129.2994
268.24	159.2552
268.79	147.5391
269.46	136.5640
269.46	136.5640
269.46	136.5640
269.46	136.5640
271.23	159.7272
273.65	140.8347
276.40	159.0476
277.35	146.9220
277.60	155.3266
277.60	155.3266
278.00	144.4083
278.60	151.9392
279.20	153.5193
279.53	153.5671
280.46	146.2439
281.68	146.4138
283.67	130.0389
284.30	152.5837
285.00	150.8122
285.90	0.0000
286.10	143.4678
286.10	143.4678
287.40	154.9091
288.45	0.0000
290.67	155.1966
290.80	152.2028
291.72	144.7922
293.26	0.0000
293.70	161.6781
295.21	141.8564
295.21	141.8564

295.21	141.8564
295.96	141.9548
296.50	142.0235
297.23	142.1196
298.57	142.2935
299.80	142.4538
299.80	142.4538
300.09	142.4927
300.09	142.4927
300.09	142.4927
300.09	142.4927
300.12	142.4950
301.29	142.6483
302.84	114.2780
303.76	111.3232
303.91	111.3375
304.40	108.3357
304.40	108.3357
304.84	114.4849
306.84	150.3712
308.46	114.8566
311.98	130.5775
316.51	101.2157
318.01	129.3402
319.02	137.1833
319.41	139.1616
320.08	139.2429
323.87	124.1758
323.87	124.1758
323.87	124.1758
323.87	124.1758
325.23	130.5384
328.77	143.4019
333.44	134.9699
334.20	133.0989
334.20	133.0989
334.30	133.1093
338.28	113.9114
338.28	113.9114
338.28	113.9114
338.28	113.9114
338.32	113.9167
338.32	113.9167
338.32	113.9167
340.50	127.5018
340.57	127.5078
344.27	120.6791
345.85	133.0680
350.59	0.0000
351.07	125.0329
351.92	125.1194
351.92	125.1194
351.92	125.1194
355.39	0.0000
356.01	78.1069
364.48	132.3907
366.43	105.4710
367.43	119.6264
367.94	0.0000
369.80	106.7537
374.96	109.2014
383.85	88.5625
387.95	114.3635
388.63	118.5081
391.69	96.2505
391.69	96.2505
392.90	110.6845
398.62	90.5660
400.65	106.1606
401.10	103.1021
401.81	103.1555
402.60	116.6313
404.84	108.5504
410.95	113.1796
411.60	128.8154
413.65	108.1958
414.70	92.6585
415.30	73.9500

415.76	78.1425
417.63	0.0000
418.52	94.9962
423.70	93.2452
427.08	91.3635
427.89	85.1108
432.53	100.1402
433.93	94.9590
439.47	102.7310
439.56	102.7369
439.89	102.7606
443.98	86.0464
444.90	98.8551
445.03	104.1788
445.03	104.1788
445.03	104.1788
445.03	104.1788
453.90	89.8229
463.38	102.2160
468.07	87.7756
473.00	64.9567
475.06	89.9745
475.35	86.7383
476.78	80.3063
477.59	73.8323
477.96	67.3338
482.03	83.8381
484.57	78.5193
487.03	72.0863
490.36	0.0000
492.35	0.0000
497.08	80.2280
507.63	0.0000
510.53	0.0000
510.84	68.7084
511.00	68.7150
511.85	68.7500
511.85	68.7500
513.99	68.8375
513.99	68.8375
520.41	73.1113
520.65	60.9361
527.90	0.0000
528.96	0.0000
529.64	72.8354
529.87	0.0000
531.02	72.8949
537.32	55.8272
543.00	76.7864
546.56	0.0000
549.76	78.8947
552.65	71.7558
555.20	69.1292
563.23	71.2664
563.90	62.1529
568.70	82.4788
569.32	74.2566
569.50	74.2645
569.67	76.1043
573.80	79.9525
574.00	79.9610
574.64	80.4483
578.91	69.1150
579.30	0.0000
583.14	68.3506
585.48	69.3604
591.81	72.3785
592.07	79.8146
593.00	77.0668
595.88	71.6047
600.56	73.4128
602.52	0.0000
602.71	73.1067
602.71	73.1067
603.60	70.0287
604.41	62.2738
604.70	62.2835
609.31	74.9199

609.31	74.9199
609.31	74.9199
609.31	74.9199
610.33	89.0138
612.46	65.6626
614.37	51.6431
618.01	86.5465
621.84	55.6107
621.84	55.6107
631.29	58.7199
633.02	56.8740
633.10	56.8770
634.78	50.2840
635.90	60.7547
636.97	65.5348
645.85	62.9643
646.12	62.9723
656.30	51.1419
657.75	57.5757
657.90	0.0000
661.65	67.2981
661.65	67.2981
664.57	0.0000
666.33	48.1787
666.33	48.1787
675.00	70.6350
677.61	63.9407
685.20	67.0880
692.80	60.4969
695.00	66.4195
696.49	85.0374
696.49	85.0374
697.00	75.2799
697.49	85.0756
698.33	85.1096
698.50	85.1160
699.00	65.5655
702.63	71.5564
706.10	82.4701
706.58	0.0000
706.67	78.5645
709.31	61.9433
711.68	74.8069
713.82	60.1005
717.42	59.2134
720.50	59.2954
721.93	0.0000
722.20	52.7474
722.78	72.5474
722.78	72.5474
722.89	72.5509
722.95	72.5527
723.30	72.5635
724.18	75.8918
727.18	51.5442
733.00	69.5676
735.90	35.5390
739.58	62.7939
742.81	43.9184
744.21	44.9440
747.13	53.0026
751.79	58.1204
752.31	56.1299
753.82	50.1489
755.35	58.2110
756.15	59.2348
756.87	68.2922
763.93	100.7373
765.79	70.5725
766.42	72.6082
766.84	67.5790
776.49	60.7676
778.00	65.8744
778.57	57.7807
778.89	60.8306
783.80	52.8290
785.46	53.0917
792.07	49.2750

795.84	54.4570
796.30	54.4674
798.80	68.1559
801.93	55.0216
805.60	59.4627
810.29	49.3055
810.76	52.3970
815.85	53.5361
817.79	46.3656
818.51	50.5013
819.60	54.6485
826.30	52.7295
828.27	0.0000
831.60	56.9860
831.96	48.7040
834.83	63.2845
836.80	0.0000
846.75	46.9072
848.13	52.1472
856.28	0.0000
856.80	43.6045
860.37	54.1453
867.32	38.5295
867.82	46.2440
871.10	48.4078
873.19	45.2875
874.81	49.5313
875.33	0.0000
876.40	41.1252
879.36	48.5617
880.27	40.1301
880.51	33.7969
881.50	40.1496
883.24	54.9770
884.67	55.0075
889.25	37.0892
896.60	53.1311
898.02	43.5915
899.00	42.5439
903.28	42.6123
911.07	50.2152
911.07	50.2152
911.07	50.2152
919.63	45.2539
920.93	46.1095
925.00	53.6963
925.24	48.3311
926.50	50.5020
935.52	53.9026
937.48	80.9125
944.10	43.2568
946.00	55.9113
949.00	37.1426
962.29	36.2826
964.01	30.8588
966.15	39.2388
968.20	38.1761
969.11	36.3704
969.11	36.3704
969.11	36.3704
977.42	37.2066
980.50	40.5329
983.50	43.8652
989.30	41.7564
996.32	45.6341
1001.03	44.1318
1001.68	44.1416
1004.76	44.1885
1021.30	0.0000
1024.50	0.0000
1034.80	42.7806
1036.00	40.0063
1037.82	40.0308
1038.57	33.5215
1038.76	0.0000
1045.16	43.8617
1046.59	46.6817
1048.07	40.1673

1050.47	46.7428
1050.47	46.7428
1062.04	41.2894
1063.62	37.5553
1076.63	36.7720
1077.35	31.1215
1078.86	32.0798
1085.78	40.6624
1099.22	41.7871
1112.02	44.1368
1112.84	52.3237
1115.52	34.3652
1120.29	34.4165
1120.29	34.4165
1120.29	34.4165
1120.29	34.4165
1120.51	31.1414
1121.28	29.5099
1124.00	0.0000
1129.67	33.5588
1131.51	0.0000
1147.95	0.0000
1167.94	42.6841
1173.22	34.0074
1175.09	33.0551
1177.93	48.6511
1189.05	49.7881
1204.90	45.1184
1205.75	0.0000
1213.00	49.1577
1221.42	57.1622
1230.97	48.9199
1235.34	44.1053
1236.41	0.0000
1238.25	49.5178
1246.25	47.6465
1260.41	0.0000
1271.85	28.9953
1274.45	46.0262
1274.54	46.0281
1291.56	35.1866
1298.22	0.0000
1312.09	30.3308
1325.50	24.3535
1325.50	24.3535
1332.49	31.5159
1333.61	27.4570
1360.21	17.4109
1362.66	0.0000
1365.15	18.4592
1368.21	13.8560
1368.53	0.0000
1376.25	13.3708
1384.27	17.0062
1394.10	27.8998
1395.20	36.1764
1407.95	24.8887
1434.06	18.7910
1436.60	26.1149
1457.56	0.0000
1460.81	13.6623
1489.15	16.9336
1509.49	18.0812
1596.49	24.0514
1620.62	18.7144
1678.03	0.0000
1691.02	17.1098
1691.02	17.1098
1706.46	0.0000
1750.46	0.0000
1764.49	6.7598
1764.49	6.7598
1764.49	6.7598
1764.49	6.7598
1770.23	51.2421
1771.40	28.0452
1791.20	0.0000
1808.65	6.8223

1836.01	8.8211

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G245978015

Total Uranium Activity	2.0231E+01	ug/g
Total Uranium Counting Unc.	9.1482E+00	ug/g
Total Uranium Tpu	4.6674E-06	ug/g
Total Uranium Mda	3.4703E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID   : G245978015      *
*   ANALYST       : MXR1                      DETECTOR    : GAM12           *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 13:12:34.93    SAMPLE ALQT:  109.430 GRAM    *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 9.636E+00
         GROSS GAMMA ERROR   (pCi/GRAM  )  : 1.550E+00
         GROSS GAMMA MDA     (pCi/GRAM  )  : 4.218E+00
         GROSS GAMMA DLC     (pCi/GRAM  )  : 2.039E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:16:26.01

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032521.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 14-FEB-2010 13:13:08
Sample ID         : G1202032521          Sample quantity  : 1.65200E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.49  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.75*	58	90	1.52	185.00	179	13	8.11E-03	41.3	
2	0	510.98*	14	44	2.29	1020.83	1012	16	1.91E-03	152.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 15:16:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032521.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 14-FEB-2010 13:13:08
Sample ID : G1202032521 Sample quantity : 165.20 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA14 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.49 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	+	511.00	*	1.012E-02	3.084E-02	2.132E-02	1.253E-03	0.475

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	-6.690E-03	1.231E-01	2.004E-01	1.350E-02	-0.033
NA-22		1274.54	*	8.384E-03	1.303E-02	2.474E-02	1.616E-03	0.339
NA-24		1368.53	*	-5.198E-04	1.303E-02	Half-Life too short		
AL-26		1129.67		1.414E-01	6.282E-01	1.082E+00	6.835E-02	0.131
		1808.65	*	4.743E-04	1.606E-02	2.617E-02	1.517E-03	0.018
K-40		1460.81	*	-1.462E-02	2.194E-01	3.929E-01	2.853E-02	-0.037
TI-44		67.85		-1.753E-02	1.312E-02	1.902E-02	1.339E-03	-0.921
		78.38	*	-1.022E-02	1.035E-02	1.548E-02	1.208E-03	-0.660
SC-46		889.25	*	-7.327E-03	1.481E-02	2.264E-02	2.092E-03	-0.324
		1120.51		2.294E-02	1.975E-02	3.819E-02	2.473E-03	0.601
V-48		944.10		1.973E-01	2.641E-01	4.948E-01	4.422E-02	0.399
		983.50	*	1.601E-03	2.276E-02	3.836E-02	3.257E-03	0.042
		1312.09		3.960E-03	2.477E-02	4.209E-02	2.909E-03	0.094
CR-51		320.08	*	4.123E-02	1.358E-01	2.318E-01	1.498E-02	0.178
MN-52		744.21		4.868E-02	5.126E-02	9.396E-02	6.631E-03	0.518
		848.13		-8.388E-02	1.568E+00	2.610E+00	2.242E-01	-0.032
		935.52		1.434E-02	5.273E-02	9.168E-02	8.275E-03	0.156
		1246.25		1.084E-02	1.140E+00	1.883E+00	1.173E-01	0.006
		1333.61		2.938E-01	9.759E-01	1.710E+00	1.219E-01	0.172
		1434.06	*	-2.170E-02	5.851E-02	8.785E-02	6.158E-03	-0.247
MN-54		834.83	*	-1.265E-02	1.380E-02	1.951E-02	1.636E-03	-0.648
CO-56		846.75	*	1.011E-03	1.750E-02	2.956E-02	2.534E-03	0.034
		977.42		6.413E-01	1.077E+00	1.973E+00	1.690E-01	0.325
		1037.82		-4.027E-02	1.144E-01	1.776E-01	1.471E-02	-0.227
		1175.09		-4.909E-01	7.916E-01	1.148E+00	6.345E-02	-0.428
		1238.25		1.444E-02	2.443E-02	4.506E-02	2.927E-03	0.321
		1360.21		-2.256E-01	4.525E-01	6.635E-01	4.713E-02	-0.340
		1771.40		-2.725E-02	1.020E-01	1.504E-01	8.975E-03	-0.181

Sample ID : G1202032521 Acquisition date : 14-FEB-2010 13:13:08

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-57		122.06	*	-1.246E-03	8.040E-03	1.275E-02	9.069E-04	-0.098
		136.48		1.584E-02	7.297E-02	1.194E-01	8.764E-03	0.133
CO-58		810.76	*	8.021E-03	1.697E-02	2.918E-02	2.348E-03	0.275
FE-59		142.65		3.539E-01	9.568E-01	1.579E+00	9.900E-02	0.224
		192.34		2.465E-01	3.219E-01	5.702E-01	6.656E-02	0.432
		1099.22	*	2.574E-02	3.169E-02	5.977E-02	4.602E-03	0.431
		1291.56		-4.525E-02	4.896E-02	6.627E-02	5.395E-03	-0.683
CO-60		1173.22		-1.001E-02	1.667E-02	2.431E-02	1.339E-03	-0.412
		1332.49	*	-1.047E-02	1.490E-02	1.997E-02	1.423E-03	-0.524
ZN-65		1115.52	*	-2.457E-02	3.791E-02	5.611E-02	3.688E-03	-0.438
GE-68		1077.35	*	3.087E-02	4.669E-01	7.839E-01	5.635E-02	0.039
AS-73		53.44	*	3.373E-03	2.140E-01	3.501E-01	2.282E-02	0.010
AS-74		595.88	*	-1.750E-02	3.424E-02	5.197E-02	3.108E-03	-0.337
		634.78		-7.500E-02	1.304E-01	1.941E-01	1.159E-02	-0.386
SE-75		66.05		-6.071E-01	1.475E+00	2.238E+00	2.035E-01	-0.271
		96.73		-7.808E-02	2.702E-01	3.683E-01	4.892E-02	-0.212
		121.11		-1.130E-02	4.237E-02	6.643E-02	6.722E-03	-0.170
		136.00		-2.881E-03	1.379E-02	2.174E-02	1.436E-03	-0.133
		198.60		5.985E-01	6.388E-01	1.146E+00	7.934E-02	0.522
		264.65	*	-4.524E-04	1.644E-02	2.738E-02	1.608E-03	-0.017
		279.53		1.104E-02	4.318E-02	7.352E-02	4.631E-03	0.150
		303.91		-7.251E-01	8.053E-01	1.218E+00	1.164E-01	-0.595
		400.65		8.351E-02	9.883E-02	1.773E-01	1.579E-02	0.471
BR-77		87.88		-4.125E+00	1.280E+01	1.754E+01	1.532E+00	-0.235
		200.40		-7.987E+00	1.198E+01	1.911E+01	1.063E+00	-0.418
		239.00		-2.440E-01	8.791E-01	1.373E+00	7.881E-02	-0.178
		249.79		2.446E-01	5.229E+00	8.781E+00	5.072E-01	0.028
		281.68		-2.097E+00	7.001E+00	1.136E+01	6.623E-01	-0.185
		297.23		-8.560E-01	4.063E+00	6.635E+00	3.870E-01	-0.129
		303.76		-1.095E+01	1.385E+01	2.125E+01	1.239E+00	-0.515
		439.47		1.255E+01	1.132E+01	2.092E+01	1.183E+00	0.600
		484.57		5.520E+00	2.017E+01	3.407E+01	1.979E+00	0.162
		520.65	*	2.355E-01	8.505E-01	1.439E+00	8.486E-02	0.164
		574.64		-6.773E+00	1.733E+01	2.669E+01	1.593E+00	-0.254
		578.91		-3.949E+00	7.357E+00	1.111E+01	6.636E-01	-0.355
		585.48		1.516E+00	1.488E+01	2.450E+01	1.464E+00	0.062
		755.35		3.878E+00	1.326E+01	2.236E+01	1.613E+00	0.173
		817.79		-9.420E-01	1.176E+01	1.952E+01	1.587E+00	-0.048
SR-82		698.33		1.741E+00	1.370E+01	2.250E+01	1.446E+00	0.077
		776.49	*	1.375E-02	1.145E-01	1.883E-01	1.416E-02	0.073
		1395.20		-1.459E+00	4.065E+00	6.081E+00	4.296E-01	-0.240
RB-83		520.41	*	8.389E-03	2.737E-02	4.648E-02	2.740E-03	0.180
		529.64		-1.402E-02	4.019E-02	6.237E-02	3.688E-03	-0.225
		552.65		-6.320E-02	7.844E-02	1.128E-01	6.707E-03	-0.560
RB-84		881.50	*	-1.438E-02	2.545E-02	3.855E-02	3.515E-03	-0.373
KR-85		513.99	*	9.590E+00	3.648E+00	6.948E+00	4.087E-01	1.380
SR-85		513.99	*	4.638E-02	1.764E-02	3.360E-02	1.976E-03	1.380
RB-86		1076.63	*	-1.261E-01	2.423E-01	3.606E-01	2.597E-02	-0.350
Y-88		898.02		3.815E-03	1.727E-02	2.981E-02	2.808E-03	0.128

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1836.01	*	1.231E-03	1.607E-02	2.656E-02	1.509E-03	0.046
ZR-88		392.90	*	-5.398E-03	1.151E-02	1.795E-02	9.773E-04	-0.301
Y-91		1204.90	*	-5.894E+00	5.991E+00	7.734E+00	4.499E-01	-0.762
NB-94		702.63	*	-9.120E-04	1.576E-02	2.525E-02	1.638E-03	-0.036
		871.10		-7.662E-03	1.625E-02	2.540E-02	2.273E-03	-0.302
NB-95		765.79	*	6.103E-03	1.332E-02	2.321E-02	1.709E-03	0.263
NB-95M		235.69	*	-2.435E-02	4.856E-02	7.846E-02	5.864E-03	-0.310
ZR-95		724.18		1.652E-02	3.939E-02	6.708E-02	5.168E-03	0.246
		756.15	*	1.604E-02	2.619E-02	4.635E-02	3.824E-03	0.346
NB-97		657.90	*	-9.432E-05	2.619E-02	Half-Life too short		
		1024.50		-1.187E-02	2.619E-02	Half-Life too short		
ZR-97		254.15		-1.751E-03	2.619E-02	Half-Life too short		
		355.39		1.687E-03	2.619E-02	Half-Life too short		
		507.63	*	8.166E-03	2.619E-02	Half-Life too short		
		602.52		1.082E-02	2.619E-02	Half-Life too short		
		1021.30		1.427E-02	2.619E-02	Half-Life too short		
		1147.95		-7.199E-03	2.619E-02	Half-Life too short		
		1362.66		8.966E-03	2.619E-02	Half-Life too short		
		1750.46		1.921E-03	2.619E-02	Half-Life too short		
MO-99		140.51		-2.433E+00	2.603E+00	3.721E+00	1.007E+00	-0.654
		181.06		-1.238E+00	1.663E+00	2.636E+00	4.488E-01	-0.470
		366.43		-5.756E+00	8.521E+00	1.304E+01	7.318E-01	-0.441
		739.58	*	9.756E-02	1.151E+00	1.880E+00	2.692E-01	0.052
		778.00		-8.742E-01	3.165E+00	4.823E+00	3.637E-01	-0.181
TC-99M		140.51	*	-3.004E+03	3.165E+00	Half-Life too short		
RH-101		127.23		7.135E-03	1.193E-02	2.007E-02	1.381E-03	0.355
		198.01	*	8.234E-03	1.213E-02	2.141E-02	1.188E-03	0.385
		325.23		-1.791E-02	9.188E-02	1.498E-01	8.668E-03	-0.120
RH-102		418.52		-1.240E-02	1.220E-01	1.986E-01	1.106E-02	-0.062
		475.06	*	-4.557E-03	1.462E-02	1.936E-02	1.119E-03	-0.235
		631.29		-1.406E-03	2.454E-02	3.949E-02	2.360E-03	-0.036
		697.49		1.751E-03	3.564E-02	5.794E-02	3.718E-03	0.030
		766.84		2.277E-02	3.784E-02	6.705E-02	4.948E-03	0.340
		1046.59		-2.192E-02	4.284E-02	6.400E-02	4.898E-03	-0.343
		1112.84		-4.224E-02	8.736E-02	1.319E-01	8.713E-03	-0.320
RU-103		497.08	*	3.415E-03	1.616E-02	2.711E-02	3.433E-03	0.126
		610.33		2.659E-02	3.528E-01	5.827E-01	9.024E-02	0.046
RH-106	+	511.85		5.003E-02	1.524E-01	2.142E-01	1.259E-02	0.234
		621.84	*	6.197E-04	1.409E-01	2.288E-01	2.706E-02	0.003
		1050.47		-2.449E-01	9.199E-01	1.456E+00	1.106E-01	-0.168
RU-106	+	511.85		5.003E-02	1.524E-01	2.142E-01	1.259E-02	0.234
		621.84	*	6.197E-04	1.409E-01	2.288E-01	1.368E-02	0.003
		1050.47		-2.449E-01	9.199E-01	1.456E+00	1.106E-01	-0.168
AG-108M		433.93	*	-1.048E-02	1.307E-02	1.927E-02	1.184E-03	-0.544
		614.37		-2.018E-02	1.935E-02	2.733E-02	1.766E-03	-0.738
		722.95		1.152E-02	1.828E-02	3.201E-02	2.301E-03	0.360
CD-109		88.03	*	-9.062E-02	2.980E-01	4.090E-01	3.577E-02	-0.222
AG-110M		657.75	*	-8.878E-03	1.413E-02	2.059E-02	1.301E-03	-0.431
		677.61		3.174E-03	1.144E-01	1.859E-01	1.206E-02	0.017

---- Non-Identified Nuclides ----

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		706.67		2.727E-02	9.673E-02	1.619E-01	1.109E-02	0.168
		763.93		-7.259E-03	5.886E-02	9.259E-02	7.057E-03	-0.078
		884.67		1.211E-02	1.763E-02	3.287E-02	3.100E-03	0.368
		937.48		-3.039E-02	4.553E-02	6.741E-02	6.272E-03	-0.451
		1384.27		6.755E-02	7.948E-02	1.500E-01	1.106E-02	0.450
IN-111		171.28		1.976E-02	9.979E-02	1.621E-01	8.740E-03	0.122
		245.39	*	-1.021E-01	1.083E-01	1.669E-01	9.617E-03	-0.612
IN-113M		391.69	*	1.008E-02	1.561E-02	2.770E-02	1.621E-03	0.364
SN-113		391.69	*	1.008E-02	1.561E-02	2.770E-02	1.621E-03	0.364
IN-114M		190.27	*	-9.623E-02	6.881E-02	1.042E-01	5.732E-03	-0.924
CD-115		260.90		-5.529E+00	8.691E+00	1.365E+01	7.925E-01	-0.405
		492.35		5.407E-03	2.931E+00	4.800E+00	2.798E-01	0.001
		527.90	*	-2.610E-02	7.956E-01	1.294E+00	7.645E-02	-0.020
SN-117M		156.02		3.125E-01	6.320E-01	1.053E+00	6.064E-02	0.297
		158.56	*	-2.458E-03	1.709E-02	2.590E-02	1.465E-03	-0.095
SB-122		563.90	*	-2.385E-01	2.434E-01	3.490E-01	2.080E-02	-0.683
		692.80		1.650E+00	4.660E+00	7.891E+00	5.014E-01	0.209
I-123		159.00	*	-2.674E-04	4.660E+00	Half-Life too short		
		528.96		-1.262E-03	4.660E+00	Half-Life too short		
TE-123M		159.00	*	-1.478E-03	1.141E-02	1.732E-02	9.905E-04	-0.085
I-124		602.71	*	9.391E-02	1.327E-01	2.318E-01	1.387E-02	0.405
		722.78		4.783E-01	7.588E-01	1.329E+00	8.981E-02	0.360
		1325.50		8.038E-01	4.763E+00	8.153E+00	5.750E-01	0.099
		1376.25		-4.614E-01	5.023E+00	8.067E+00	5.718E-01	-0.057
		1509.49		1.987E+00	3.107E+00	5.721E+00	3.925E-01	0.347
		1691.02		4.285E-01	9.433E-01	1.680E+00	1.058E-01	0.255
SB-124		602.71		1.288E-02	1.821E-02	3.180E-02	1.903E-03	0.405
		645.85		1.077E-01	2.030E-01	3.530E-01	2.361E-02	0.305
		709.31		1.088E+00	1.205E+00	2.170E+00	1.427E-01	0.501
		713.82		-2.413E-01	6.868E-01	1.049E+00	1.124E-01	-0.230
		722.78		9.513E-02	1.509E-01	2.642E-01	1.848E-02	0.360
		968.20		3.597E-01	9.106E-01	1.609E+00	1.395E-01	0.224
		1045.16		1.069E-01	8.199E-01	1.396E+00	1.072E-01	0.077
		1325.50		1.707E-01	1.012E+00	1.732E+00	1.221E-01	0.099
		1368.21		-3.403E-01	6.734E-01	9.602E-01	1.206E-01	-0.354
		1436.60		-3.192E-01	1.486E+00	2.297E+00	1.609E-01	-0.139
		1691.02	*	2.010E-02	4.425E-02	7.879E-02	5.326E-03	0.255
SB-125		427.89	*	8.208E-03	3.686E-02	6.222E-02	3.646E-03	0.132
		463.38		3.216E-02	1.085E-01	1.843E-01	1.237E-02	0.174
		600.56		3.741E-02	9.034E-02	1.533E-01	1.053E-02	0.244
		635.90		-5.754E-03	1.203E-01	1.937E-01	1.344E-02	-0.030
TE-125M		109.28	*	-2.438E+00	3.141E+00	4.727E+00	4.431E-01	-0.516
I-126		388.63		8.911E-03	5.848E-02	9.819E-02	5.364E-03	0.091
		666.33	*	-3.410E-02	5.935E-02	8.803E-02	5.287E-03	-0.387
		753.82		-4.756E-03	4.562E-01	7.331E-01	5.274E-02	-0.006
SB-126		223.80		2.118E-02	1.056E+00	1.774E+00	1.008E-01	0.012
		278.60		-2.047E-01	7.175E-01	1.167E+00	6.803E-02	-0.175
		296.50		-2.428E-01	3.820E-01	5.980E-01	3.488E-02	-0.406
		414.70		-2.313E-03	2.319E-02	3.778E-02	2.097E-03	-0.061

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		415.30		8.354E-01	1.933E+00	3.329E+00	1.848E-01	0.251
		555.20		-3.741E-01	1.307E+00	2.051E+00	1.221E-01	-0.182
		573.80		-1.851E-01	3.241E-01	4.855E-01	2.898E-02	-0.381
		593.00		-7.857E-02	3.003E-01	4.710E-01	2.817E-02	-0.167
		656.30		-7.925E-01	1.012E+00	1.431E+00	8.519E-02	-0.554
		666.33		-1.407E-02	2.449E-02	3.632E-02	2.181E-03	-0.387
		675.00		-5.816E-01	6.026E-01	8.158E-01	4.992E-02	-0.713
		695.00		1.108E-02	2.741E-02	4.651E-02	2.969E-03	0.238
		697.00		1.629E-02	9.170E-02	1.516E-01	9.715E-03	0.107
		720.50	*	2.052E-02	4.903E-02	8.351E-02	5.619E-03	0.246
		856.80		-1.380E-02	1.488E-01	2.461E-01	2.148E-02	-0.056
		989.30		-9.049E-02	3.917E-01	6.272E-01	5.282E-02	-0.144
		1034.80		6.943E-01	2.207E+00	3.896E+00	3.048E-01	0.178
		1213.00		-2.861E-01	1.144E+00	1.792E+00	1.057E-01	-0.160
SN-126		64.28		-4.240E-02	1.614E-01	2.644E-01	3.767E-02	-0.160
		86.94		-7.038E-02	1.359E-01	1.677E-01	6.937E-02	-0.420
		87.57	*	-1.787E-02	3.006E-02	3.998E-02	3.479E-03	-0.447
SB-127		61.10		-8.175E-01	6.556E+00	1.050E+01	8.464E-01	-0.078
		252.40		-3.699E-01	6.695E-01	1.039E+00	4.277E-01	-0.356
		290.80		-6.240E-01	2.896E+00	4.723E+00	3.476E-01	-0.132
		411.60		-5.754E-01	1.842E+00	2.928E+00	3.857E-01	-0.197
		444.90		-5.335E-01	1.510E+00	2.375E+00	2.188E-01	-0.225
		473.00		9.648E-02	2.345E-01	4.049E-01	3.934E-02	0.238
		543.00		-9.335E-01	2.543E+00	3.936E+00	4.624E-01	-0.237
		603.60		9.254E-01	2.105E+00	3.581E+00	3.355E-01	0.258
		685.20	*	1.182E-01	2.069E-01	3.624E-01	2.904E-02	0.326
		698.50		3.321E-01	2.615E+00	4.292E+00	5.871E-01	0.077
		722.20		-1.089E-01	4.963E+00	7.980E+00	6.469E-01	-0.014
		783.80		5.844E-02	5.357E-01	8.764E-01	9.103E-02	0.067
XE-127		57.60		-1.999E-01	1.561E+00	2.524E+00	1.662E-01	-0.079
		145.22		5.918E-03	2.694E-01	4.116E-01	2.540E-02	0.014
		172.10		2.271E-02	4.209E-02	7.024E-02	3.792E-03	0.323
		202.84	*	-5.545E-03	1.527E-02	2.494E-02	1.390E-03	-0.222
		374.96		1.081E-02	7.234E-02	1.215E-01	6.751E-03	0.089
I-131		80.18		-3.359E-01	8.453E-01	1.330E+00	1.063E-01	-0.253
		284.30		-1.353E-02	3.505E-01	5.820E-01	3.745E-02	-0.023
		364.48	*	-3.541E-03	2.688E-02	4.379E-02	2.747E-03	-0.081
		636.97		2.537E-01	3.805E-01	6.774E-01	4.474E-02	0.375
		722.89		1.201E+00	1.906E+00	3.337E+00	2.265E-01	0.360
TE-132		49.72		-3.398E-01	1.569E+00	2.525E+00	1.939E-01	-0.135
		111.76		3.158E+00	3.252E+00	5.628E+00	4.773E-01	0.561
		116.30		-1.601E+00	3.069E+00	4.722E+00	3.949E-01	-0.339
		228.16	*	-3.260E-02	8.138E-02	1.319E-01	1.765E-02	-0.247
BA-133		53.15		-1.191E-01	9.832E-01	1.592E+00	1.037E-01	-0.075
		79.62		-1.451E-01	3.776E-01	5.938E-01	8.810E-02	-0.244
		81.00		-1.580E-02	2.892E-02	4.477E-02	6.972E-03	-0.353
		276.40		1.242E-01	1.512E-01	2.674E-01	3.470E-02	0.465
		302.84		-2.914E-02	5.645E-02	8.915E-02	1.041E-02	-0.327
		356.01	*	1.205E-02	1.743E-02	3.074E-02	3.534E-03	0.392

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		383.85		3.547E-02	1.165E-01	1.988E-01	2.130E-02	0.178
I-133	+	510.53		1.201E-03	1.165E-01	Half-Life too short		
		529.87	*	-7.599E-06	1.165E-01	Half-Life too short		
		706.58		5.096E-04	1.165E-01	Half-Life too short		
		856.28		-9.543E-04	1.165E-01	Half-Life too short		
		875.33		1.329E-04	1.165E-01	Half-Life too short		
		1236.41		9.647E-04	1.165E-01	Half-Life too short		
		1298.22		-1.176E-04	1.165E-01	Half-Life too short		
CS-134		475.35		-3.459E-01	9.589E-01	1.264E+00	7.303E-02	-0.274
		563.23		-2.811E-01	1.781E-01	2.316E-01	1.408E-02	-1.214
		569.32		8.812E-02	9.589E-02	1.715E-01	1.052E-02	0.514
		604.70		-3.348E-03	1.674E-02	2.658E-02	1.598E-03	-0.126
		795.84	*	-7.073E-04	1.876E-02	2.993E-02	2.356E-03	-0.024
		801.93		1.074E-02	1.979E-01	3.107E-01	2.469E-02	0.035
		1038.57		1.522E-01	1.467E+00	2.484E+00	1.930E-01	0.061
		1167.94		7.077E-01	8.791E-01	1.662E+00	9.325E-02	0.426
		1365.15		-5.704E-03	5.294E-01	8.662E-01	6.558E-02	-0.007
CS-135		268.24	*	-7.137E-03	6.059E-02	1.001E-01	7.680E-03	-0.071
I-135		288.45		-5.938E+03	6.059E-02	Half-Life too short		
		417.63		-2.428E+02	6.059E-02	Half-Life too short		
		546.56		4.107E+03	6.059E-02	Half-Life too short		
		836.80		-7.497E+02	6.059E-02	Half-Life too short		
		1038.76		5.819E+02	6.059E-02	Half-Life too short		
		1124.00		-1.605E+04	6.059E-02	Half-Life too short		
		1131.51		2.255E+03	6.059E-02	Half-Life too short		
		1260.41	*	5.337E+02	6.059E-02	Half-Life too short		
		1457.56		4.631E+02	6.059E-02	Half-Life too short		
		1678.03		1.045E+03	6.059E-02	Half-Life too short		
		1706.46		2.795E+03	6.059E-02	Half-Life too short		
		1791.20		3.650E+02	6.059E-02	Half-Life too short		
CS-136		66.91		-2.870E-01	1.913E-01	2.589E-01	3.776E-02	-1.108
		86.29		1.109E-01	2.833E-01	4.095E-01	5.246E-02	0.271
		153.22		-8.842E-02	1.841E-01	2.824E-01	2.053E-02	-0.313
		163.89		-6.476E-02	2.913E-01	4.563E-01	3.178E-02	-0.142
		176.55		-9.703E-02	1.115E-01	1.643E-01	1.015E-02	-0.590
		273.65		6.494E-03	1.329E-01	2.226E-01	1.476E-02	0.029
		340.57		2.289E-02	3.764E-02	6.581E-02	4.015E-03	0.348
		818.51		-1.149E-02	2.535E-02	3.985E-02	3.245E-03	-0.288
		1048.07	*	-1.272E-02	3.173E-02	4.880E-02	3.923E-03	-0.261
		1235.34		-2.900E-02	1.328E-01	2.089E-01	2.125E-02	-0.139
BA-137M		661.65	*	1.446E-02	1.532E-02	2.789E-02	1.658E-03	0.519
CS-137		661.65	*	1.529E-02	1.619E-02	2.948E-02	1.760E-03	0.519
CE-139		165.85	*	1.594E-03	1.006E-02	1.632E-02	8.763E-04	0.098
BA-140		162.64		-2.921E-02	2.038E-01	3.216E-01	2.011E-02	-0.091
		304.84		-2.640E-01	3.698E-01	5.597E-01	1.528E-01	-0.472
		423.70		5.963E-02	5.751E-01	9.574E-01	3.039E-01	0.062
		537.32	*	2.108E-03	7.035E-02	1.153E-01	3.753E-02	0.018
LA-140		328.77		-2.207E-02	8.884E-02	1.440E-01	9.327E-03	-0.153
		432.53		-1.106E-01	5.993E-01	9.632E-01	6.020E-02	-0.115

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		487.03		-2.613E-03	4.696E-02	7.644E-02	5.028E-03	-0.034
		751.79		2.056E-01	5.220E-01	8.927E-01	7.365E-02	0.230
		815.85		5.086E-02	1.070E-01	1.908E-01	1.746E-02	0.266
		867.82		1.187E-01	4.969E-01	8.577E-01	8.013E-02	0.138
		919.63		9.452E-02	9.319E-01	1.580E+00	1.755E-01	0.060
		925.24		-1.334E-01	3.348E-01	5.205E-01	5.018E-02	-0.256
		1596.49	*	-9.088E-04	2.502E-02	4.026E-02	2.669E-03	-0.023
CE-141		145.44	*	-4.938E-03	2.426E-02	3.641E-02	2.324E-03	-0.136
CE-143		57.37		-4.074E+00	1.844E+01	2.961E+01	2.609E+00	-0.138
		231.56		1.934E+01	6.337E+01	1.081E+02	3.361E+01	0.179
		293.26	*	1.366E+00	2.830E+00	4.903E+00	1.018E+00	0.279
		350.59		-4.350E+01	4.661E+01	6.483E+01	1.979E+01	-0.671
		490.36		-3.017E+01	8.023E+01	1.247E+02	3.881E+01	-0.242
		664.57		1.473E+01	3.477E+01	5.896E+01	1.880E+01	0.250
		721.93		1.516E+01	3.686E+01	6.247E+01	1.803E+01	0.243
CE-144		80.11		-2.620E-01	6.191E-01	9.719E-01	7.738E-02	-0.270
		133.54	*	-7.116E-02	7.621E-02	1.114E-01	1.622E-02	-0.639
PM-144		476.78		-8.214E-03	3.310E-02	4.398E-02	3.047E-03	-0.187
		618.01		-5.967E-03	1.536E-02	2.324E-02	1.468E-03	-0.257
		696.49	*	5.854E-03	1.602E-02	2.709E-02	1.735E-03	0.216
		778.57		-3.886E-02	8.351E-01	1.331E+00	1.005E-01	-0.029
PR-144		696.49	*	3.955E-01	1.082E+00	1.830E+00	1.172E-01	0.216
		1489.15		2.491E+00	5.257E+00	9.557E+00	6.600E-01	0.261
PM-146		453.90	*	3.052E-03	1.877E-02	3.139E-02	2.687E-03	0.097
		633.02		2.046E-02	6.319E-01	1.029E+00	3.792E-01	0.020
		735.90		-3.660E-04	5.179E-02	8.335E-02	2.346E-02	-0.004
		747.13		-2.472E-02	4.053E-02	5.864E-02	7.716E-03	-0.422
ND-147		91.11		1.150E-01	7.744E-02	1.225E-01	1.126E-02	0.939
		319.41		2.952E-01	9.713E-01	1.658E+00	9.622E-02	0.178
		439.89		1.436E+00	1.668E+00	3.008E+00	1.701E-01	0.478
		531.02	*	-6.357E-02	1.541E-01	2.360E-01	3.203E-02	-0.269
PM-149		285.90	*	1.653E-01	6.003E+00	1.003E+01	1.421E+00	0.016
EU-152		121.78		4.879E-04	2.338E-02	3.771E-02	3.262E-03	0.013
		244.69		-1.439E-01	1.337E-01	2.039E-01	1.175E-02	-0.706
		344.27	*	9.717E-03	4.005E-02	6.792E-02	4.394E-03	0.143
		443.98		-2.615E-01	4.044E-01	6.124E-01	3.474E-02	-0.427
		778.89		-4.526E-03	9.735E-02	1.551E-01	1.172E-02	-0.029
		867.32		2.618E-02	3.974E-01	6.713E-01	5.969E-02	0.039
		964.01		8.679E-02	1.156E-01	2.127E-01	1.855E-02	0.408
		1085.78		-9.182E-02	1.425E-01	2.038E-01	1.438E-02	-0.451
		1112.02		-5.159E-02	1.217E-01	1.858E-01	1.230E-02	-0.278
		1407.95		2.516E-02	8.131E-02	1.419E-01	1.000E-02	0.177
GD-153		69.67		-5.194E-01	4.565E-01	6.734E-01	4.816E-02	-0.771
		83.37		2.276E+00	4.424E+00	7.439E+00	6.151E-01	0.306
		97.43	*	2.331E-02	2.620E-02	4.100E-02	3.288E-03	0.569
		103.18		-2.842E-02	3.524E-02	5.281E-02	4.075E-03	-0.538
EU-154		123.07		-1.692E-02	1.830E-02	2.683E-02	2.746E-03	-0.630
		247.94		9.125E-02	1.440E-01	2.528E-01	2.408E-02	0.361
		591.81		8.870E-02	2.551E-01	4.346E-01	4.295E-02	0.204

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		723.30		3.732E-02	7.791E-02	1.337E-01	1.055E-02	0.279
		756.87		3.242E-01	2.822E-01	5.392E-01	5.944E-02	0.601
		873.19		3.966E-02	1.241E-01	2.176E-01	2.721E-02	0.182
		996.32		-8.073E-02	1.454E-01	2.167E-01	3.821E-02	-0.372
		1004.76		1.429E-02	9.426E-02	1.590E-01	1.805E-02	0.090
		1274.45	*	2.348E-02	3.655E-02	6.929E-02	6.794E-03	0.339
EU-155		48.70		6.451E-02	6.293E-01	1.037E+00	6.648E-02	0.062
		60.01		-1.893E+00	1.595E+00	2.361E+00	1.569E-01	-0.802
		86.54		7.411E-03	3.627E-02	4.930E-02	4.279E-03	0.150
		105.31	*	2.441E-02	3.493E-02	5.972E-02	4.622E-03	0.409
TB-160		86.79		-3.673E-02	9.634E-02	1.235E-01	1.064E-02	-0.297
		197.04		2.192E-02	1.997E-01	3.388E-01	1.878E-02	0.065
		215.65		-8.133E-02	2.480E-01	4.049E-01	2.284E-02	-0.201
		298.57		2.264E-02	4.109E-02	7.166E-02	4.179E-03	0.316
		879.36	*	-5.833E-02	5.641E-02	7.779E-02	7.065E-03	-0.750
		962.29		1.397E-01	1.860E-01	3.449E-01	3.014E-02	0.405
		966.15		5.017E-02	7.446E-02	1.359E-01	1.181E-02	0.369
		1177.93		9.065E-03	1.299E-01	2.173E-01	1.207E-02	0.042
		1271.85		-5.115E-02	2.215E-01	3.441E-01	2.234E-02	-0.149
HO-166M		80.57		-4.225E-02	8.206E-02	1.279E-01	1.024E-02	-0.330
		184.41		-1.707E-03	1.490E-02	2.464E-02	1.347E-03	-0.069
		280.46		-6.924E-03	3.501E-02	5.740E-02	3.347E-03	-0.121
		410.95		-4.907E-02	1.006E-01	1.567E-01	8.667E-03	-0.313
		711.68	*	7.413E-03	2.759E-02	4.618E-02	3.051E-03	0.161
		752.31		3.512E-02	1.115E-01	1.886E-01	1.353E-02	0.186
		810.29		6.285E-03	2.732E-02	4.538E-02	3.638E-03	0.138
TM-171		51.35		1.190E+00	8.094E+00	1.338E+01	8.676E-01	0.089
		52.39		-1.313E+00	4.302E+00	6.869E+00	4.467E-01	-0.191
		59.40		-8.161E+00	8.324E+00	1.250E+01	8.280E-01	-0.653
		66.72	*	-1.308E+01	9.100E+00	1.267E+01	8.832E-01	-1.032
LU-176		88.36		5.662E-03	6.643E-02	9.493E-02	8.271E-03	0.060
		201.83		-1.292E-02	1.064E-02	1.614E-02	8.987E-04	-0.800
		306.84	*	-8.481E-03	9.998E-03	1.523E-02	8.869E-04	-0.557
		401.10		1.090E+00	2.729E+00	4.691E+00	2.573E-01	0.232
LU-177		112.95		6.394E-02	3.402E-01	5.565E-01	4.087E-02	0.115
		208.36	*	-1.315E-01	2.117E-01	3.377E-01	1.893E-02	-0.389
LU-177M		52.97		-4.250E-03	4.325E-01	7.064E-01	4.600E-02	-0.006
		54.07		1.371E-01	2.266E-01	3.867E-01	2.524E-02	0.355
		61.30		-9.956E-03	4.538E-01	7.323E-01	4.908E-02	-0.014
		121.62		-2.613E-02	1.199E-01	1.889E-01	1.343E-02	-0.138
		147.16		-9.328E-02	2.523E-01	3.924E-01	2.392E-02	-0.238
		171.86		8.572E-02	1.830E-01	3.038E-01	1.640E-02	0.282
		218.09		4.741E-02	2.921E-01	4.970E-01	2.810E-02	0.095
		268.79		3.367E-02	2.972E-01	5.009E-01	2.914E-02	0.067
		319.02		4.855E-03	1.043E-01	1.739E-01	1.009E-02	0.028
		367.43		-2.169E-01	3.448E-01	5.287E-01	2.963E-02	-0.410
		413.65	*	-2.090E-02	7.101E-02	1.131E-01	6.272E-03	-0.185
HF-181		56.28		-9.461E-02	2.445E-01	3.874E-01	2.542E-02	-0.244
		57.53		-1.448E-02	1.335E-01	2.161E-01	1.423E-02	-0.067

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		65.20		1.456E-01	2.707E-01	4.396E-01	3.028E-02	0.331
		133.02		-9.972E-03	2.169E-02	3.344E-02	2.222E-03	-0.298
		136.25		-1.171E-02	1.500E-01	2.392E-01	1.559E-02	-0.049
		345.85		-7.479E-02	7.439E-02	1.106E-01	6.323E-03	-0.676
		482.03	*	2.413E-03	1.725E-02	2.872E-02	1.666E-03	0.084
W-181		56.28		-3.934E-02	1.015E-01	1.609E-01	1.056E-02	-0.245
		57.53		-5.986E-03	5.547E-02	8.982E-02	5.914E-03	-0.067
		65.20	*	6.004E-02	1.116E-01	1.812E-01	1.249E-02	0.331
TA-182		67.75		-3.935E-02	3.035E-02	4.418E-02	3.107E-03	-0.891
		100.10		7.718E-02	5.595E-02	9.800E-02	7.711E-03	0.788
		152.43		-7.633E-02	1.225E-01	1.855E-01	1.093E-02	-0.412
		222.10		4.534E-02	1.212E-01	2.095E-01	1.188E-02	0.216
		1001.68		3.510E-01	8.556E-01	1.468E+00	1.213E-01	0.239
		1121.28		4.130E-02	5.425E-02	1.002E-01	6.475E-03	0.412
		1189.05		1.202E-02	9.300E-02	1.578E-01	8.934E-03	0.076
		1221.42	*	3.763E-02	6.382E-02	1.167E-01	6.979E-03	0.323
		1230.97		2.405E-02	1.442E-01	2.458E-01	1.494E-02	0.098
RE-183		57.98		-3.362E-03	5.268E-02	8.556E-02	5.641E-03	-0.039
		59.32		-3.310E-02	3.249E-02	4.862E-02	3.220E-03	-0.681
		67.20		-7.429E-02	5.884E-02	8.260E-02	5.782E-03	-0.899
		162.32	*	-7.365E-03	3.881E-02	6.102E-02	3.361E-03	-0.121
		208.81		-2.830E-01	3.261E-01	5.091E-01	2.854E-02	-0.556
		291.72		7.645E-02	3.224E-01	5.491E-01	3.204E-02	0.139
RE-184		57.98		-1.279E-02	2.005E-01	3.256E-01	2.147E-02	-0.039
		59.32		-1.259E-01	1.235E-01	1.849E-01	1.225E-02	-0.681
		67.20		-2.826E-01	2.239E-01	3.143E-01	2.200E-02	-0.899
		161.27		-1.743E-02	1.349E-01	2.133E-01	1.184E-02	-0.082
		216.55		-3.979E-02	9.231E-02	1.493E-01	8.431E-03	-0.266
		252.85	*	-5.053E-02	9.060E-02	1.442E-01	8.340E-03	-0.350
		318.01		-5.016E-02	1.835E-01	2.971E-01	1.724E-02	-0.169
		792.07		-3.044E-01	3.906E-01	5.381E-01	4.168E-02	-0.566
		903.28		-2.074E-01	3.857E-01	5.854E-01	5.465E-02	-0.354
		920.93		3.784E-02	1.986E-01	3.409E-01	3.126E-02	0.111
OS-185		59.72		-7.258E-02	8.876E-02	1.351E-01	8.964E-03	-0.537
		61.14		-5.079E-03	4.882E-02	7.833E-02	5.245E-03	-0.065
		69.30		-1.223E-01	8.160E-02	1.164E-01	8.294E-03	-1.051
		592.07		2.904E-01	1.031E+00	1.740E+00	1.041E-01	0.167
		646.12	*	6.651E-03	1.836E-02	3.120E-02	1.861E-03	0.213
		717.42		-1.660E-01	3.830E-01	5.770E-01	3.858E-02	-0.288
		874.81		3.575E-02	2.391E-01	4.092E-01	3.687E-02	0.087
		880.27		-1.995E-01	3.160E-01	4.744E-01	4.315E-02	-0.420
RE-188		155.03	*	2.795E-02	5.926E-02	9.865E-02	5.717E-03	0.283
		477.96		3.432E-02	1.193E+00	1.963E+00	1.136E-01	0.017
		633.10		2.144E-03	1.206E+00	1.955E+00	1.168E-01	0.001
W-188		63.58		-7.934E+00	1.598E+01	2.579E+01	1.756E+00	-0.308
		227.08		-3.627E+00	4.575E+00	7.164E+00	4.079E-01	-0.506
		290.67	*	-7.946E-01	2.560E+00	4.134E+00	2.412E-01	-0.192
IR-192		295.96		-1.887E-02	3.674E-02	5.814E-02	3.444E-03	-0.324
		308.46		-4.707E-03	3.759E-02	6.179E-02	3.637E-03	-0.076

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		316.51	*	-7.144E-03	1.397E-02	2.209E-02	1.289E-03	-0.323
		468.07		6.983E-03	2.353E-02	4.009E-02	2.666E-03	0.174
		604.41		-1.523E-02	2.188E-01	3.528E-01	4.037E-02	-0.043
		612.46		3.403E-01	3.068E-01	5.593E-01	4.314E-02	0.609
AU-195		65.12		3.208E-02	5.251E-02	8.568E-02	5.899E-03	0.374
		66.83		-4.361E-02	2.957E-02	4.099E-02	2.861E-03	-1.064
		75.70		-8.803E-04	5.790E-02	8.481E-02	6.433E-03	-0.010
		98.88	*	8.662E-02	7.911E-02	1.257E-01	9.973E-03	0.689
		129.76		3.620E-01	1.057E+00	1.744E+00	1.182E-01	0.208
TL-200		367.94	*	-3.197E-06	1.057E+00	Half-Life too short		
		579.30		-1.633E-05	1.057E+00	Half-Life too short		
		828.27		-2.765E-05	1.057E+00	Half-Life too short		
		1205.75		-1.403E-05	1.057E+00	Half-Life too short		
TL-201		68.90		-5.122E-01	3.813E-01	5.520E-01	3.920E-02	-0.928
		70.82		-1.752E-02	2.153E-01	3.482E-01	2.516E-02	-0.050
		80.30		-1.487E-01	4.204E-01	6.638E-01	5.296E-02	-0.224
		135.34		-1.691E+00	2.569E+00	3.880E+00	2.542E-01	-0.436
		167.43	*	-1.782E-01	7.159E-01	1.118E+00	6.003E-02	-0.159
TL-202		68.90		-1.193E-01	8.885E-02	1.286E-01	9.134E-03	-0.928
		70.82		-4.071E-03	5.004E-02	8.090E-02	5.846E-03	-0.050
		80.30		-3.455E-02	9.771E-02	1.543E-01	1.231E-02	-0.224
		439.56	*	2.269E-02	2.029E-02	3.752E-02	2.122E-03	0.605
HG-203		70.83		-2.050E-02	2.738E-01	4.429E-01	5.655E-02	-0.046
		72.87		1.268E-01	1.601E-01	2.738E-01	3.401E-02	0.463
		82.60		1.985E-01	3.119E-01	5.274E-01	7.110E-02	0.376
		279.20	*	-8.870E-04	1.536E-02	2.549E-02	1.577E-03	-0.035
BI-207		72.80		3.993E-02	5.085E-02	8.717E-02	6.419E-03	0.458
		74.97		7.526E-03	3.313E-02	4.944E-02	3.722E-03	0.152
		84.90		1.975E-02	6.398E-02	9.794E-02	8.248E-03	0.202
		569.67		1.110E-02	1.510E-02	2.655E-02	1.584E-03	0.418
		1063.62	*	-6.904E-03	2.157E-02	3.380E-02	2.501E-03	-0.204
		1770.23		-1.831E-01	2.535E-01	3.218E-01	1.922E-02	-0.569
TL-207		81.07		-3.555E-02	6.367E-02	9.875E-02	7.949E-03	-0.360
		83.78		5.700E-03	3.820E-02	6.263E-02	5.204E-03	0.091
		94.90		1.780E-02	9.154E-02	1.320E-01	1.080E-02	0.135
		122.32		-1.958E-01	5.793E-01	9.022E-01	7.080E-02	-0.217
		144.24		-7.598E-02	2.990E-01	4.479E-01	3.388E-02	-0.170
		154.21		7.184E-03	1.468E-01	2.360E-01	1.660E-02	0.030
		269.46		2.078E-02	6.984E-02	1.196E-01	7.271E-03	0.174
		323.87	*	6.547E-02	2.767E-01	4.688E-01	7.742E-02	0.140
		338.28		1.012E-01	4.119E-01	6.978E-01	7.329E-02	0.145
		445.03		-2.803E-01	9.646E-01	1.530E+00	1.561E-01	-0.183
TL-208		277.35		5.324E-02	1.529E-01	2.620E-01	2.771E-02	0.203
	+	510.84		4.686E-02	1.428E-01	2.115E-01	2.156E-02	0.222
		583.14	*	5.012E-03	1.818E-02	3.007E-02	2.056E-03	0.167
		860.37		1.147E-02	1.318E-01	2.233E-01	2.101E-02	0.051
PO-209		260.50		-2.101E+00	3.694E+00	5.852E+00	3.396E-01	-0.359
		262.80		-1.099E+00	1.036E+01	1.715E+01	9.961E-01	-0.064
		896.60	*	1.386E+00	3.327E+00	5.887E+00	5.509E-01	0.235

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BI-210		46.50	*	-1.537E+00	9.678E-01	1.441E+00	1.069E-01	-1.067
PB-210		46.50	*	-1.537E+00	9.678E-01	1.441E+00	1.069E-01	-1.067
PO-210		46.50	*	-1.537E+00	9.659E-01	1.441E+00	9.042E-02	-1.067
BI-211		72.87		6.928E-01	8.719E-01	1.495E+00	1.102E-01	0.463
		351.07	*	-9.471E-02	9.463E-02	1.369E-01	8.672E-03	-0.692
PB-211		404.84	*	-3.399E-01	4.349E-01	5.617E-01	3.500E-01	-0.605
		427.08		3.925E-02	8.308E-01	1.374E+00	8.491E-01	0.029
		831.96		1.908E-01	3.898E-01	6.818E-01	4.270E-01	0.280
BI-212		727.18	*	1.776E-02	1.164E-01	1.921E-01	1.634E-02	0.092
		785.46		3.918E-01	7.227E-01	1.260E+00	9.638E-02	0.311
		1620.62		3.123E-02	4.922E-01	8.157E-01	5.344E-02	0.038
PB-212		74.81		2.677E-02	1.147E-01	1.714E-01	2.055E-02	0.156
		77.11		-7.195E-03	5.700E-02	9.172E-02	7.063E-03	-0.078
		87.30		-1.056E-01	1.417E-01	1.847E-01	2.445E-02	-0.572
		238.63	*	-1.446E-02	2.805E-02	4.310E-02	3.139E-03	-0.335
		300.09		2.651E-01	2.943E-01	5.273E-01	4.361E-02	0.503
PO-212		74.81		2.677E-02	1.147E-01	1.714E-01	2.055E-02	0.156
		77.11		-7.195E-03	5.700E-02	9.172E-02	7.063E-03	-0.078
		87.30		-1.056E-01	1.417E-01	1.847E-01	2.445E-02	-0.572
		115.19		4.071E-01	1.281E+00	2.118E+00	1.541E-01	0.192
		238.63	*	-1.446E-02	2.805E-02	4.310E-02	3.139E-03	-0.335
		300.09		2.651E-01	2.943E-01	5.273E-01	4.361E-02	0.503
BI-214		609.31	*	-3.263E-02	3.847E-02	5.729E-02	4.535E-03	-0.570
		1120.29		1.487E-01	1.226E-01	2.374E-01	2.199E-02	0.627
		1764.49		-1.395E-01	1.341E-01	1.712E-01	1.027E-02	-0.815
PB-214		74.81		4.613E-02	1.977E-01	2.953E-01	3.116E-02	0.156
		77.11		-1.233E-02	9.772E-02	1.572E-01	1.703E-02	-0.078
		87.30		-1.809E-01	2.424E-01	3.165E-01	3.672E-02	-0.572
		241.98		-3.304E-02	1.418E-01	2.333E-01	1.874E-02	-0.142
		295.21		3.773E-03	5.129E-02	8.597E-02	7.350E-03	0.044
		351.92	*	-2.959E-02	3.281E-02	4.790E-02	3.930E-03	-0.618
PO-214		74.81		4.613E-02	1.977E-01	2.953E-01	3.116E-02	0.156
		77.11		-1.233E-02	9.772E-02	1.572E-01	1.703E-02	-0.078
		87.30		-1.809E-01	2.424E-01	3.165E-01	3.672E-02	-0.572
		241.98		-3.304E-02	1.418E-01	2.333E-01	1.874E-02	-0.142
		295.21		3.773E-03	5.129E-02	8.597E-02	7.350E-03	0.044
		351.92	*	-2.959E-02	3.281E-02	4.790E-02	3.930E-03	-0.618
PO-215		81.07		-3.555E-02	6.367E-02	9.875E-02	7.949E-03	-0.360
		83.78		5.700E-03	3.820E-02	6.263E-02	5.204E-03	0.091
		94.90		1.780E-02	9.154E-02	1.320E-01	1.080E-02	0.135
		122.32		-1.958E-01	5.793E-01	9.022E-01	7.080E-02	-0.217
		144.24		-7.598E-02	2.990E-01	4.479E-01	3.388E-02	-0.170
		154.21		7.184E-03	1.468E-01	2.360E-01	1.660E-02	0.030
		269.46		2.078E-02	6.984E-02	1.196E-01	7.271E-03	0.174
		323.87	*	6.547E-02	2.767E-01	4.688E-01	7.742E-02	0.140
		338.28		1.012E-01	4.119E-01	6.978E-01	7.329E-02	0.145
		445.03		-2.803E-01	9.646E-01	1.530E+00	1.561E-01	-0.183
PO-216		74.81		2.677E-02	1.147E-01	1.714E-01	2.055E-02	0.156
		77.11		-7.195E-03	5.700E-02	9.172E-02	7.063E-03	-0.078

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		87.30		-1.056E-01	1.417E-01	1.847E-01	2.445E-02	-0.572
		238.63	*	-1.446E-02	2.805E-02	4.310E-02	3.139E-03	-0.335
		300.09		2.651E-01	2.943E-01	5.273E-01	4.361E-02	0.503
PO-218		74.81		4.613E-02	1.977E-01	2.953E-01	3.116E-02	0.156
		77.11		-1.233E-02	9.772E-02	1.572E-01	1.703E-02	-0.078
		87.30		-1.809E-01	2.424E-01	3.165E-01	3.672E-02	-0.572
		241.98		-3.304E-02	1.418E-01	2.333E-01	1.874E-02	-0.142
		295.21		3.773E-03	5.129E-02	8.597E-02	7.350E-03	0.044
		351.92	*	-2.959E-02	3.281E-02	4.790E-02	3.930E-03	-0.618
RN-219		271.23		-3.425E-02	9.368E-02	1.514E-01	1.229E-02	-0.226
		401.81	*	1.763E-03	1.690E-01	2.790E-01	3.760E-02	0.006
RN-220		549.76	*	-1.807E+00	1.027E+01	1.632E+01	9.702E-01	-0.111
RA-223		81.07		-3.555E-02	6.367E-02	9.875E-02	7.949E-03	-0.360
		83.78		5.700E-03	3.820E-02	6.263E-02	5.204E-03	0.091
		94.90		1.780E-02	9.154E-02	1.320E-01	1.080E-02	0.135
		122.32		-1.958E-01	5.793E-01	9.022E-01	7.080E-02	-0.217
		144.24		-7.598E-02	2.990E-01	4.479E-01	3.388E-02	-0.170
		154.21		7.184E-03	1.468E-01	2.360E-01	1.660E-02	0.030
		269.46		2.078E-02	6.984E-02	1.196E-01	7.271E-03	0.174
		323.87	*	6.547E-02	2.767E-01	4.688E-01	7.742E-02	0.140
		338.28		1.012E-01	4.119E-01	6.978E-01	7.329E-02	0.145
		445.03		-2.803E-01	9.646E-01	1.530E+00	1.561E-01	-0.183
RA-224		240.98	*	1.875E-01	2.716E-01	4.762E-01	2.737E-02	0.394
RA-226		609.31	*	-3.263E-02	3.847E-02	5.729E-02	4.535E-03	-0.570
		1120.29		1.487E-01	1.226E-01	2.374E-01	2.199E-02	0.627
		1764.49		-1.395E-01	1.341E-01	1.712E-01	1.027E-02	-0.815
AC-227		79.80		-1.780E-01	4.807E-01	7.556E-01	1.605E-01	-0.236
		236.00		-8.404E-03	9.485E-02	1.579E-01	1.645E-02	-0.053
		256.20	*	1.179E-01	1.492E-01	2.642E-01	3.688E-02	0.446
		286.10		-1.048E-01	5.799E-01	9.494E-01	1.099E-01	-0.110
		299.80		4.203E-01	5.595E-01	9.848E-01	1.605E-01	0.427
		304.40		-6.659E-01	7.330E-01	1.094E+00	1.893E-01	-0.609
		334.20		-6.960E-01	9.526E-01	1.455E+00	2.665E-01	-0.478
TH-227		79.80		-1.780E-01	4.807E-01	7.556E-01	1.626E-01	-0.236
	+	94.00		1.296E+00	1.107E+00	1.298E+00	2.807E-01	0.998
		236.00		-8.404E-03	9.485E-02	1.579E-01	1.423E-02	-0.053
		256.20	*	1.179E-01	1.496E-01	2.642E-01	4.465E-02	0.446
		286.10		-1.048E-01	5.892E-01	9.494E-01	9.510E-01	-0.110
		299.80		4.203E-01	5.595E-01	9.848E-01	1.605E-01	0.427
		304.40		-6.659E-01	7.330E-01	1.094E+00	1.893E-01	-0.609
		334.20		-6.960E-01	9.526E-01	1.455E+00	2.665E-01	-0.478
AC-228		338.32		3.766E-02	9.859E-02	1.671E-01	6.812E-02	0.225
		911.07	*	-1.655E-02	6.457E-02	9.728E-02	1.143E-02	-0.170
		969.11		2.311E-02	9.454E-02	1.633E-01	3.813E-02	0.142
RA-228		338.32		3.766E-02	9.859E-02	1.671E-01	6.812E-02	0.225
		911.07	*	-1.655E-02	6.457E-02	9.728E-02	1.143E-02	-0.170
		969.11		2.311E-02	9.454E-02	1.633E-01	3.813E-02	0.142
TH-228		74.81		2.703E-02	1.158E-01	1.730E-01	1.315E-02	0.156
		77.11		-7.264E-03	5.755E-02	9.260E-02	7.130E-03	-0.078

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		87.30		-1.066E-01	1.426E-01	1.865E-01	1.617E-02	-0.572
		238.63	*	-1.460E-02	2.831E-02	4.351E-02	3.170E-03	-0.335
		300.09		2.677E-01	3.357E-01	5.323E-01	3.138E-01	0.503
TH-229		85.43		2.573E-02	6.488E-02	9.733E-02	8.249E-03	0.264
		88.47		3.218E-03	3.821E-02	5.459E-02	4.751E-03	0.059
		100.00		8.284E-02	6.005E-02	1.052E-01	8.283E-03	0.788
		193.63	*	-1.018E-01	1.974E-01	3.199E-01	1.766E-02	-0.318
		210.97		1.443E-01	2.518E-01	4.427E-01	2.487E-02	0.326
TH-230		609.31	*	-3.263E-02	3.847E-02	5.729E-02	4.535E-03	-0.570
		1120.29		1.487E-01	1.226E-01	2.374E-01	2.199E-02	0.627
		1764.49		-1.395E-01	1.341E-01	1.712E-01	1.027E-02	-0.815
PA-231		283.67	*	3.323E-01	5.733E-01	1.004E+00	1.385E-01	0.331
		301.29		2.085E-01	2.167E-01	3.896E-01	4.079E-02	0.535
TH-231		81.07		-3.555E-02	6.367E-02	9.875E-02	7.949E-03	-0.360
		83.78		5.700E-03	3.820E-02	6.263E-02	5.204E-03	0.091
		94.90		1.780E-02	9.154E-02	1.320E-01	1.080E-02	0.135
		122.32		-1.958E-01	5.793E-01	9.022E-01	7.080E-02	-0.217
		144.24		-7.598E-02	2.990E-01	4.479E-01	3.388E-02	-0.170
		154.21		7.184E-03	1.468E-01	2.360E-01	1.660E-02	0.030
		269.46		2.078E-02	6.984E-02	1.196E-01	7.271E-03	0.174
		323.87	*	6.547E-02	2.767E-01	4.688E-01	7.742E-02	0.140
		338.28		1.012E-01	4.119E-01	6.978E-01	7.329E-02	0.145
		445.03		-2.803E-01	9.646E-01	1.530E+00	1.561E-01	-0.183
U-231		84.21		-1.511E-01	7.309E-01	1.076E+00	8.984E-02	-0.140
	+	92.29		5.106E-01	4.242E-01	5.510E-01	4.614E-02	0.927
		95.87	*	-1.440E-01	1.622E-01	2.047E-01	1.662E-02	-0.703
		108.00		-7.130E-03	2.750E-01	4.429E-01	3.328E-02	-0.016
TH-232		338.32		3.766E-02	9.742E-02	1.671E-01	9.602E-03	0.225
		911.07	*	-1.655E-02	6.457E-02	9.728E-02	1.143E-02	-0.170
		969.11		2.311E-02	9.454E-02	1.633E-01	3.813E-02	0.142
PA-233		75.28		1.261E-01	9.645E-01	1.429E+00	2.111E-01	0.088
		86.59		9.844E-02	5.898E-01	7.977E-01	2.139E-01	0.123
		300.12		1.361E-01	1.527E-01	2.722E-01	3.661E-02	0.500
		311.98	*	1.943E-02	2.772E-02	4.882E-02	3.014E-03	0.398
		340.50		1.571E-01	2.480E-01	4.303E-01	9.876E-02	0.365
		398.62		1.151E-01	8.401E-01	1.406E+00	3.625E-01	0.082
		415.76		2.677E-01	6.968E-01	1.191E+00	2.445E-01	0.225
PA-234		63.00		-2.919E-01	4.979E-01	7.966E-01	1.160E-01	-0.366
		94.67		8.172E-02	6.429E-02	1.012E-01	1.226E-02	0.807
		98.44		2.661E-02	3.561E-02	5.025E-02	2.799E-02	0.529
		99.86		1.956E-01	1.535E-01	2.665E-01	2.101E-02	0.734
		111.00		5.639E-02	6.658E-02	1.141E-01	1.284E-02	0.494
		131.20		-5.850E-03	4.037E-02	6.413E-02	4.308E-03	-0.091
		152.70		-7.599E-02	1.225E-01	1.847E-01	2.926E-02	-0.411
		186.00		-1.543E-02	5.363E-01	8.913E-01	2.718E-01	-0.017
		226.40		-9.085E-02	1.446E-01	2.288E-01	2.633E-02	-0.397
		227.20		-1.262E-01	1.637E-01	2.568E-01	1.462E-02	-0.491
		248.90		7.094E-02	3.250E-01	5.529E-01	1.188E-01	0.128
		293.70		4.845E-02	2.397E-01	4.064E-01	6.541E-02	0.119

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		369.80		1.175E-01	3.373E-01	5.772E-01	1.199E-01	0.204
		568.70		6.898E-01	4.908E-01	9.157E-01	5.462E-02	0.753
		569.50		1.010E-01	1.343E-01	2.365E-01	1.411E-02	0.427
		574.00		-5.718E-01	6.530E-01	9.332E-01	5.571E-02	-0.613
		699.00		3.238E-02	3.399E-01	5.556E-01	1.011E-01	0.058
		706.10		4.285E-02	4.874E-01	7.954E-01	3.519E-01	0.054
		733.00		1.110E-01	1.277E-01	2.349E-01	5.071E-02	0.473
		742.81		8.475E-01	8.043E-01	1.116E+00	7.484E-01	0.759
		796.30		1.469E-01	3.539E-01	6.045E-01	1.620E-01	0.243
		805.60		-1.057E-01	4.678E-01	7.228E-01	2.202E-01	-0.146
		819.60		-2.686E-01	5.400E-01	8.231E-01	3.122E-01	-0.326
		826.30		-4.299E-02	2.934E-01	4.788E-01	2.139E-01	-0.090
		831.60		3.961E-02	2.023E-01	3.509E-01	1.044E-01	0.113
		876.40		5.734E-02	3.529E-01	5.972E-01	6.141E-01	0.096
		880.51		-6.579E-02	1.205E-01	1.842E-01	1.676E-02	-0.357
		883.24		1.276E-01	1.375E-01	2.134E-01	1.436E-01	0.598
		899.00		-3.302E-02	3.515E-01	5.788E-01	2.539E-01	-0.057
		925.00		-9.886E-02	4.724E-01	7.611E-01	6.950E-02	-0.130
		926.50		-5.333E-02	7.267E-02	1.037E-01	2.640E-02	-0.514
		946.00	*	-2.034E-02	1.149E-01	1.856E-01	3.508E-02	-0.110
		949.00		-5.590E-02	1.591E-01	2.474E-01	2.198E-02	-0.226
		980.50		7.386E-02	3.085E-01	5.334E-01	4.548E-02	0.138
		1394.10		-1.247E-01	5.048E-01	7.663E-01	4.974E-01	-0.163
PA-234M		766.42		2.866E+00	4.081E+00	6.948E+00	3.512E+00	0.413
		1001.03	*	-5.237E-01	2.029E+00	3.136E+00	3.032E-01	-0.167
TH-234		63.29	*	-2.383E-01	4.275E-01	6.845E-01	1.177E-01	-0.348
	+	92.38		3.353E-01	2.836E-01	3.620E-01	6.503E-02	0.926
U-234		609.31	*	-3.263E-02	3.847E-02	5.729E-02	4.535E-03	-0.570
		1120.29		1.487E-01	1.226E-01	2.374E-01	2.199E-02	0.627
		1764.49		-1.395E-01	1.341E-01	1.712E-01	1.027E-02	-0.815
U-235		89.95		2.064E-01	3.925E-01	5.776E-01	1.781E-01	0.357
	+	93.35		4.031E-01	3.517E-01	4.237E-01	1.183E-01	0.951
		105.00		1.374E-01	3.496E-01	5.798E-01	1.715E-01	0.237
		143.76	*	-4.562E-02	9.012E-02	1.313E-01	2.161E-02	-0.348
		163.35		-1.870E-02	1.749E-01	2.770E-01	4.952E-02	-0.068
		185.71		-6.803E-03	2.016E-02	3.289E-02	1.801E-03	-0.207
		205.31		7.666E-02	1.954E-01	3.189E-01	5.714E-02	0.240
NP-236		94.67		6.252E-02	4.848E-02	7.691E-02	6.305E-03	0.813
		98.44		2.010E-02	2.453E-02	3.799E-02	3.024E-03	0.529
		111.00		4.265E-02	5.023E-02	8.629E-02	6.391E-03	0.494
		160.31	*	2.149E-02	2.972E-02	5.042E-02	2.817E-03	0.426
NP-237		86.50	*	2.078E-02	8.892E-02	1.211E-01	2.707E-02	0.172
		95.87		-3.184E-01	3.662E-01	4.527E-01	1.107E-01	-0.703
U-238		63.29	*	-2.383E-01	4.275E-01	6.845E-01	1.177E-01	-0.348
	+	92.38		3.353E-01	2.786E-01	3.620E-01	3.029E-02	0.926
NP-239		99.55		6.594E-02	5.384E-02	9.013E-02	7.119E-03	0.732
		117.00	*	-3.182E-02	6.960E-02	1.078E-01	7.787E-03	-0.295
		209.75		-8.389E-02	2.682E-01	4.393E-01	2.465E-02	-0.191
		228.18		-3.440E-02	8.691E-02	1.411E-01	8.041E-03	-0.244

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		277.60		3.151E-02	7.271E-02	1.256E-01	7.319E-03	0.251
		334.30		-3.893E-01	5.359E-01	8.261E-01	4.758E-02	-0.471
AM-241		59.54	*	-4.152E-02	4.862E-02	7.373E-02	5.474E-03	-0.563
AM-243		74.67	*	5.144E-03	1.869E-02	2.802E-02	2.103E-03	0.184
		86.72		-1.314E+00	3.481E+00	4.465E+00	3.845E-01	-0.294
		117.66		6.273E-01	1.275E+00	2.143E+00	1.545E-01	0.293
		142.18		1.371E+00	6.864E+00	1.118E+01	7.031E-01	0.123
CM-243		99.55		6.783E-02	5.538E-02	9.271E-02	7.322E-03	0.732
		103.76	*	3.380E-03	3.173E-02	5.173E-02	3.977E-03	0.065
		117.00		-3.272E-02	7.158E-02	1.108E-01	8.009E-03	-0.295
		209.75		-8.267E-02	2.643E-01	4.329E-01	2.429E-02	-0.191
		228.18		-3.474E-02	8.779E-02	1.425E-01	8.122E-03	-0.244
		277.60		3.175E-02	7.327E-02	1.265E-01	7.376E-03	0.251
AM-246		798.80		-1.973E-02	6.409E-02	9.799E-02	7.688E-03	-0.201
		1036.00		6.917E-02	1.096E-01	2.026E-01	1.582E-02	0.341
		1062.04		3.429E-02	9.461E-02	1.663E-01	1.235E-02	0.206
		1078.86	*	-1.813E-02	5.555E-02	8.654E-02	6.201E-03	-0.210
CM-247		278.00		1.469E-01	2.900E-01	5.044E-01	2.941E-02	0.291
		287.40		2.054E-01	4.379E-01	7.631E-01	4.452E-02	0.269
		402.60	*	-1.005E-03	1.574E-02	2.578E-02	1.416E-03	-0.039
CF-249		252.85		-1.940E-01	3.478E-01	5.535E-01	3.202E-02	-0.350
		333.44		-4.508E-02	7.178E-02	1.120E-01	6.455E-03	-0.402
		387.95	*	-2.679E-03	1.561E-02	2.528E-02	1.382E-03	-0.106
CF-251		176.60	*	-4.428E-02	5.159E-02	7.612E-02	4.129E-03	-0.582
		227.00		-1.171E-01	1.450E-01	2.266E-01	1.290E-02	-0.517
		285.00		8.077E-03	6.731E-01	1.123E+00	6.552E-02	0.007

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032521    *
* Acquisition date : 14-FEB-2010 13:13:08 Detector SN#     :               *
* Detector ID        : GAM14               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:00.49     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        :  5-FEB-2010 00:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202032521          Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.6520E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
ANH-511	1.012E-02	3.022E-02	2.230E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	-6.690E-03	1.206E-01	2.100E-01	0.000E+00	NOT IDENT.
NA-22	8.384E-03	1.277E-02	2.513E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.416E+02	0.000E+00	0.000E+00	SHORT HLIF
AL-26	4.743E-04	1.574E-02	2.628E-02	0.000E+00	NOT IDENT.
K-40	-1.462E-02	2.150E-01	3.974E-01	0.000E+00	NOT IDENT.
TI-44	-1.022E-02	1.014E-02	1.708E-02	0.000E+00	NOT IDENT.
SC-46	-7.327E-03	1.451E-02	2.327E-02	0.000E+00	NOT IDENT.
V-48	1.601E-03	2.231E-02	3.930E-02	0.000E+00	NOT IDENT.
CR-51	4.123E-02	1.331E-01	2.458E-01	0.000E+00	NOT IDENT.
MN-52	-2.170E-02	5.734E-02	8.892E-02	0.000E+00	NOT IDENT.
MN-54	-1.265E-02	1.352E-02	2.009E-02	0.000E+00	NOT IDENT.
CO-56	1.011E-03	1.715E-02	3.043E-02	0.000E+00	NOT IDENT.
CO-57	-1.246E-03	7.879E-03	1.390E-02	0.000E+00	NOT IDENT.
CO-58	8.021E-03	1.663E-02	3.008E-02	0.000E+00	NOT IDENT.
FE-59	2.574E-02	3.106E-02	6.102E-02	0.000E+00	NOT IDENT.
CO-60	-1.047E-02	1.460E-02	2.026E-02	0.000E+00	NOT IDENT.
ZN-65	-2.457E-02	3.715E-02	5.725E-02	0.000E+00	NOT IDENT.
GE-68	3.087E-02	4.575E-01	8.008E-01	0.000E+00	NOT IDENT.
AS-73	3.373E-03	2.097E-01	3.905E-01	0.000E+00	NOT IDENT.
AS-74	-1.750E-02	3.356E-02	5.409E-02	0.000E+00	NOT IDENT.
SE-75	-4.524E-04	1.611E-02	2.920E-02	0.000E+00	NOT IDENT.
BR-77	2.355E-01	8.335E-01	1.504E+00	0.000E+00	NOT IDENT.
SR-82	1.375E-02	1.122E-01	1.944E-01	0.000E+00	NOT IDENT.
RB-83	8.389E-03	2.682E-02	4.857E-02	0.000E+00	NOT IDENT.
RB-84	-1.438E-02	2.494E-02	3.964E-02	0.000E+00	NOT IDENT.
KR-85	0.000E+00	3.576E+00	7.264E+00	0.000E+00	NOT IDENT.

SR-85	0.000E+00	1.729E-02	3.513E-02	0.000E+00	NOT IDENT.
RB-86	-1.261E-01	2.375E-01	3.684E-01	0.000E+00	NOT IDENT.
Y-88	1.231E-03	1.575E-02	2.667E-02	0.000E+00	NOT IDENT.
ZR-88	-5.398E-03	1.128E-02	1.892E-02	0.000E+00	NOT IDENT.
Y-91	-5.894E+00	5.871E+00	7.872E+00	0.000E+00	NOT IDENT.
NB-94	-9.120E-04	1.545E-02	2.615E-02	0.000E+00	NOT IDENT.
NB-95	6.103E-03	1.305E-02	2.397E-02	0.000E+00	NOT IDENT.
NB-95M	-2.435E-02	4.759E-02	8.396E-02	0.000E+00	NOT IDENT.
ZR-95	1.604E-02	2.567E-02	4.788E-02	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.650E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.304E+03	0.000E+00	0.000E+00	SHORT HLIF
MO-99	9.756E-02	1.128E+00	1.943E+00	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.096E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	8.234E-03	1.189E-02	2.303E-02	0.000E+00	NOT IDENT.
RH-102	-4.557E-03	1.432E-02	2.029E-02	0.000E+00	NOT IDENT.
RU-103	3.415E-03	1.584E-02	2.837E-02	0.000E+00	NOT IDENT.
RH-106	6.197E-04	1.381E-01	2.378E-01	0.000E+00	FAIL ABUN
RU-106	6.197E-04	1.381E-01	2.378E-01	0.000E+00	FAIL ABUN
AG-108M	-1.048E-02	1.280E-02	2.025E-02	0.000E+00	NOT IDENT.
CD-109	-9.062E-02	2.920E-01	4.501E-01	0.000E+00	NOT IDENT.
AG-110M	-8.878E-03	1.385E-02	2.136E-02	0.000E+00	NOT IDENT.
IN-111	-1.021E-01	1.062E-01	1.784E-01	0.000E+00	NOT IDENT.
IN-113M	1.008E-02	1.530E-02	2.919E-02	0.000E+00	NOT IDENT.
SN-113	1.008E-02	1.530E-02	2.919E-02	0.000E+00	NOT IDENT.
IN-114M	-9.623E-02	6.744E-02	1.121E-01	0.000E+00	NOT IDENT.
CD-115	-2.610E-02	7.797E-01	1.351E+00	0.000E+00	NOT IDENT.
SN-117M	-2.458E-03	1.674E-02	2.804E-02	0.000E+00	NOT IDENT.
SB-122	-2.385E-01	2.386E-01	3.638E-01	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.023E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.478E-03	1.118E-02	1.874E-02	0.000E+00	NOT IDENT.
I-124	9.391E-02	1.300E-01	2.411E-01	0.000E+00	NOT IDENT.
SB-124	2.010E-02	4.337E-02	7.932E-02	0.000E+00	NOT IDENT.
SB-125	8.208E-03	3.612E-02	6.541E-02	0.000E+00	NOT IDENT.
TE-125M	-2.438E+00	3.078E+00	5.171E+00	0.000E+00	NOT IDENT.
I-126	-3.410E-02	5.817E-02	9.130E-02	0.000E+00	NOT IDENT.
SB-126	2.052E-02	4.805E-02	8.640E-02	0.000E+00	NOT IDENT.
SN-126	-1.787E-02	2.946E-02	4.400E-02	0.000E+00	NOT IDENT.
SB-127	1.182E-01	2.027E-01	3.755E-01	0.000E+00	NOT IDENT.
XE-127	-5.545E-03	1.496E-02	2.680E-02	0.000E+00	NOT IDENT.
I-131	-3.541E-03	2.634E-02	4.626E-02	0.000E+00	NOT IDENT.
TE-132	-3.260E-02	7.975E-02	1.413E-01	0.000E+00	NOT IDENT.
BA-133	1.205E-02	1.708E-02	3.250E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.674E+01	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-7.073E-04	1.838E-02	3.087E-02	0.000E+00	NOT IDENT.
CS-135	-7.137E-03	5.937E-02	1.067E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.423E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.272E-02	3.110E-02	4.990E-02	0.000E+00	NOT IDENT.
BA-137M	1.446E-02	1.501E-02	2.893E-02	0.000E+00	NOT IDENT.
CS-137	1.529E-02	1.587E-02	3.058E-02	0.000E+00	NOT IDENT.
CE-139	1.594E-03	9.861E-03	1.764E-02	0.000E+00	NOT IDENT.
BA-140	2.108E-03	6.894E-02	1.204E-01	0.000E+00	NOT IDENT.
LA-140	-9.088E-04	2.452E-02	4.061E-02	0.000E+00	NOT IDENT.
CE-141	-4.938E-03	2.377E-02	3.951E-02	0.000E+00	NOT IDENT.
CE-143	1.366E+00	2.774E+00	5.212E+00	0.000E+00	NOT IDENT.
CE-144	-7.116E-02	7.469E-02	1.212E-01	0.000E+00	NOT IDENT.
PM-144	5.854E-03	1.570E-02	2.806E-02	0.000E+00	NOT IDENT.
PR-144	3.955E-01	1.061E+00	1.896E+00	0.000E+00	NOT IDENT.
PM-146	3.052E-03	1.840E-02	3.294E-02	0.000E+00	NOT IDENT.
ND-147	-6.357E-02	1.510E-01	2.465E-01	0.000E+00	NOT IDENT.
PM-149	1.653E-01	5.883E+00	1.067E+01	0.000E+00	NOT IDENT.
EU-152	9.717E-03	3.925E-02	7.187E-02	0.000E+00	NOT IDENT.
GD-153	2.331E-02	2.567E-02	4.499E-02	0.000E+00	NOT IDENT.
EU-154	2.348E-02	3.582E-02	7.040E-02	0.000E+00	NOT IDENT.
EU-155	2.441E-02	3.423E-02	6.539E-02	0.000E+00	NOT IDENT.
TB-160	-5.833E-02	5.528E-02	7.998E-02	0.000E+00	NOT IDENT.
HO-166M	7.413E-03	2.704E-02	4.779E-02	0.000E+00	NOT IDENT.
TM-171	-1.308E+01	8.918E+00	1.404E+01	0.000E+00	NOT IDENT.
LU-176	-8.481E-03	9.798E-03	1.617E-02	0.000E+00	NOT IDENT.
LU-177	-1.315E-01	2.075E-01	3.627E-01	0.000E+00	NOT IDENT.
LU-177M	-2.090E-02	6.959E-02	1.190E-01	0.000E+00	NOT IDENT.
HF-181	2.413E-03	1.690E-02	3.008E-02	0.000E+00	NOT IDENT.
W-181	6.004E-02	1.094E-01	2.011E-01	0.000E+00	NOT IDENT.
TA-182	3.763E-02	6.255E-02	1.187E-01	0.000E+00	NOT IDENT.
RE-183	-7.365E-03	3.803E-02	6.600E-02	0.000E+00	NOT IDENT.
RE-184	-5.053E-02	8.878E-02	1.540E-01	0.000E+00	NOT IDENT.
OS-185	6.651E-03	1.799E-02	3.239E-02	0.000E+00	NOT IDENT.
RE-188	2.795E-02	5.807E-02	1.068E-01	0.000E+00	NOT IDENT.
W-188	-7.946E-01	2.509E+00	4.397E+00	0.000E+00	NOT IDENT.

IR-192	-7.144E-03	1.369E-02	2.343E-02	0.000E+00	NOT IDENT.
AU-195	8.662E-02	7.752E-02	1.378E-01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	5.109E+00	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.782E-01	7.016E-01	1.208E+00	0.000E+00	NOT IDENT.
TL-202	2.269E-02	1.988E-02	3.941E-02	0.000E+00	NOT IDENT.
HG-203	-8.870E-04	1.505E-02	2.714E-02	0.000E+00	NOT IDENT.
BI-207	-6.904E-03	2.114E-02	3.454E-02	0.000E+00	NOT IDENT.
TL-207	6.547E-02	2.711E-01	4.970E-01	0.000E+00	NOT IDENT.
TL-208	5.012E-03	1.782E-02	3.132E-02	0.000E+00	FAIL ABUN
PO-209	1.386E+00	3.261E+00	6.049E+00	0.000E+00	NOT IDENT.
BI-210	-1.537E+00	9.484E-01	1.613E+00	0.000E+00	NOT IDENT.
PB-210	-1.537E+00	9.484E-01	1.613E+00	0.000E+00	NOT IDENT.
PO-210	-1.537E+00	9.465E-01	1.613E+00	0.000E+00	NOT IDENT.
BI-211	-9.471E-02	9.273E-02	1.448E-01	0.000E+00	NOT IDENT.
PB-211	-3.399E-01	4.262E-01	5.914E-01	0.000E+00	NOT IDENT.
BI-212	1.776E-02	1.141E-01	1.987E-01	0.000E+00	NOT IDENT.
PB-212	-1.446E-02	2.749E-02	4.610E-02	0.000E+00	NOT IDENT.
PO-212	-1.446E-02	2.749E-02	4.610E-02	0.000E+00	NOT IDENT.
BI-214	-3.263E-02	3.771E-02	5.958E-02	0.000E+00	NOT IDENT.
PB-214	-2.959E-02	3.216E-02	5.065E-02	0.000E+00	NOT IDENT.
PO-214	-2.959E-02	3.216E-02	5.065E-02	0.000E+00	NOT IDENT.
PO-215	6.547E-02	2.711E-01	4.970E-01	0.000E+00	NOT IDENT.
PO-216	-1.446E-02	2.749E-02	4.610E-02	0.000E+00	NOT IDENT.
PO-218	-2.959E-02	3.216E-02	5.065E-02	0.000E+00	NOT IDENT.
RN-219	1.763E-03	1.656E-01	2.938E-01	0.000E+00	NOT IDENT.
RN-220	-1.807E+00	1.007E+01	1.703E+01	0.000E+00	NOT IDENT.
RA-223	6.547E-02	2.711E-01	4.970E-01	0.000E+00	NOT IDENT.
RA-224	1.875E-01	2.662E-01	5.092E-01	0.000E+00	NOT IDENT.
RA-226	-3.263E-02	3.771E-02	5.958E-02	0.000E+00	NOT IDENT.
AC-227	1.179E-01	1.462E-01	2.821E-01	0.000E+00	NOT IDENT.
TH-227	1.179E-01	1.466E-01	2.821E-01	0.000E+00	FAIL ABUN
AC-228	-1.655E-02	6.328E-02	9.990E-02	0.000E+00	NOT IDENT.
RA-228	-1.655E-02	6.328E-02	9.990E-02	0.000E+00	NOT IDENT.
TH-228	-1.460E-02	2.775E-02	4.655E-02	0.000E+00	NOT IDENT.
TH-229	-1.018E-01	1.935E-01	3.442E-01	0.000E+00	NOT IDENT.
TH-230	-3.263E-02	3.771E-02	5.958E-02	0.000E+00	NOT IDENT.
PA-231	3.323E-01	5.618E-01	1.069E+00	0.000E+00	NOT IDENT.
TH-231	6.547E-02	2.711E-01	4.970E-01	0.000E+00	NOT IDENT.
U-231	-1.440E-01	1.590E-01	2.247E-01	0.000E+00	FAIL ABUN
TH-232	-1.655E-02	6.328E-02	9.990E-02	0.000E+00	NOT IDENT.
PA-233	1.943E-02	2.717E-02	5.181E-02	0.000E+00	NOT IDENT.
PA-234	-2.034E-02	1.126E-01	1.904E-01	0.000E+00	NOT IDENT.
PA-234M	-5.237E-01	1.988E+00	3.211E+00	0.000E+00	NOT IDENT.
TH-234	-2.383E-01	4.190E-01	7.600E-01	0.000E+00	FAIL ABUN
U-234	-3.263E-02	3.771E-02	5.958E-02	0.000E+00	NOT IDENT.
U-235	-4.562E-02	8.832E-02	1.425E-01	0.000E+00	FAIL ABUN
NP-236	2.149E-02	2.913E-02	5.455E-02	0.000E+00	NOT IDENT.
NP-237	2.078E-02	8.714E-02	1.333E-01	0.000E+00	NOT IDENT.
U-238	-2.383E-01	4.190E-01	7.600E-01	0.000E+00	FAIL ABUN
NP-239	-3.182E-02	6.821E-02	1.176E-01	0.000E+00	NOT IDENT.
AM-241	-4.152E-02	4.765E-02	8.200E-02	0.000E+00	NOT IDENT.
AM-243	5.144E-03	1.831E-02	3.097E-02	0.000E+00	NOT IDENT.
CM-243	3.380E-03	3.110E-02	5.666E-02	0.000E+00	NOT IDENT.
AM-246	-1.813E-02	5.444E-02	8.840E-02	0.000E+00	NOT IDENT.
CM-247	-1.005E-03	1.542E-02	2.715E-02	0.000E+00	NOT IDENT.
CF-249	-2.679E-03	1.530E-02	2.665E-02	0.000E+00	NOT IDENT.
CF-251	-4.428E-02	5.056E-02	8.214E-02	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:16:27.26

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032521.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 14-FEB-2010 13:13:08
Sample ID         : G1202032521          Sample quantity  : 1.65200E+02 GRAM
Detector name     : GAM14                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.49  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
ANH-511	511.00	14	100.00*	3.088E+00	1.012E-02	1.012E-02	304.64

Flag: "*" = Keyline

Sample ID : G1202032521 Acquisition date : 14-FEB-2010 13:13:08

Total number of lines in spectrum	2	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	2	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
ANH-511	1.00E+09Y	1.00	1.012E-02	1.012E-02	3.084E-02	304.64	
		Total Activity :	1.012E-02	1.012E-02			
		Grand Total Activity :	1.012E-02	1.012E-02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032521 Acquisition date : 14-FEB-2010 13:13:08

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.75	58	90	1.52	185.00	179	13	8.11E-03	82.7	7.31E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:16:33.79

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032521.CNF;1  *
* Acquisition date  : 14-FEB-2010 13:13:08  Detector SN#     :               *
* Detector ID       : GAM14                 Sensitivity      : 5.00000       *
* Geometry          : CAN                   Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:00.49          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 5-FEB-2010 00:00:00.  Nuclide Library : SOLID          *
* Sample ID         : G1202032521           Analyst initials: MXR1           *
* Batch Number      : 948721                Sample Quantity : 1.65200E+02 GRAM *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 6-MAR-2009 11:43:06.61MS Isotope      :                  *
* MSD ID           :                      MSD Isotope     :                  *
* LCS ID           : 1032-A               LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
ANH-511	1.012E-02	3.084E-02	2.132E-02	1.253E-03	0.475

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	-6.690E-03		1.231E-01	2.004E-01	1.350E-02	-0.033
NA-22	8.384E-03		1.303E-02	2.474E-02	1.616E-03	0.339
NA-24	-5.198E-04		3.274E-04	Half-Life too short		
AL-26	4.743E-04		1.606E-02	2.617E-02	1.517E-03	0.018
K-40	-1.462E-02		2.194E-01	3.929E-01	2.853E-02	-0.037
TI-44	-1.022E-02		1.035E-02	1.548E-02	1.208E-03	-0.660
SC-46	-7.327E-03		1.481E-02	2.264E-02	2.092E-03	-0.324
V-48	1.601E-03		2.276E-02	3.836E-02	3.257E-03	0.042
CR-51	4.123E-02		1.358E-01	2.318E-01	1.498E-02	0.178
MN-52	-2.170E-02		5.851E-02	8.785E-02	6.158E-03	-0.247
MN-54	-1.265E-02		1.380E-02	1.951E-02	1.636E-03	-0.648

Sample ID : G1202032521 Acquisition date : 14-FEB-2010 13:13:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CO-56	1.011E-03		1.750E-02	2.956E-02	2.534E-03	0.034
CO-57	-1.246E-03		8.040E-03	1.275E-02	9.069E-04	-0.098
CO-58	8.021E-03		1.697E-02	2.918E-02	2.348E-03	0.275
FE-59	2.574E-02		3.169E-02	5.977E-02	4.602E-03	0.431
CO-60	-1.047E-02		1.490E-02	1.997E-02	1.423E-03	-0.524
ZN-65	-2.457E-02		3.791E-02	5.611E-02	3.688E-03	-0.438
GE-68	3.087E-02		4.669E-01	7.839E-01	5.635E-02	0.039
AS-73	3.373E-03		2.140E-01	3.501E-01	2.282E-02	0.010
AS-74	-1.750E-02		3.424E-02	5.197E-02	3.108E-03	-0.337
SE-75	-4.524E-04		1.644E-02	2.738E-02	1.608E-03	-0.017
BR-77	2.355E-01		8.505E-01	1.439E+00	8.486E-02	0.164
SR-82	1.375E-02		1.145E-01	1.883E-01	1.416E-02	0.073
RB-83	8.389E-03		2.737E-02	4.648E-02	2.740E-03	0.180
RB-84	-1.438E-02		2.545E-02	3.855E-02	3.515E-03	-0.373
KR-85	9.590E+00		3.648E+00	6.948E+00	4.087E-01	1.380
SR-85	4.638E-02		1.764E-02	3.360E-02	1.976E-03	1.380
RB-86	-1.261E-01		2.423E-01	3.606E-01	2.597E-02	-0.350
Y-88	1.231E-03		1.607E-02	2.656E-02	1.509E-03	0.046
ZR-88	-5.398E-03		1.151E-02	1.795E-02	9.773E-04	-0.301
Y-91	-5.894E+00		5.991E+00	7.734E+00	4.499E-01	-0.762
NB-94	-9.120E-04		1.576E-02	2.525E-02	1.638E-03	-0.036
NB-95	6.103E-03		1.332E-02	2.321E-02	1.709E-03	0.263
NB-95M	-2.435E-02		4.856E-02	7.846E-02	5.864E-03	-0.310
ZR-95	1.604E-02		2.619E-02	4.635E-02	3.824E-03	0.346
NB-97	-9.432E-05		8.420E-05	Half-Life too short		
ZR-97	8.166E-03		2.196E-03	Half-Life too short		
MO-99	9.756E-02		1.151E+00	1.880E+00	2.692E-01	0.052
TC-99M	-3.004E+03		1.580E+03	Half-Life too short		
RH-101	8.234E-03		1.213E-02	2.141E-02	1.188E-03	0.385
RH-102	-4.557E-03		1.462E-02	1.936E-02	1.119E-03	-0.235
RU-103	3.415E-03		1.616E-02	2.711E-02	3.433E-03	0.126
RH-106	6.197E-04		1.409E-01	2.288E-01	2.706E-02	0.003
RU-106	6.197E-04		1.409E-01	2.288E-01	1.368E-02	0.003
AG-108M	-1.048E-02		1.307E-02	1.927E-02	1.184E-03	-0.544
CD-109	-9.062E-02		2.980E-01	4.090E-01	3.577E-02	-0.222
AG-110M	-8.878E-03		1.413E-02	2.059E-02	1.301E-03	-0.431
IN-111	-1.021E-01		1.083E-01	1.669E-01	9.617E-03	-0.612
IN-113M	1.008E-02		1.561E-02	2.770E-02	1.621E-03	0.364
SN-113	1.008E-02		1.561E-02	2.770E-02	1.621E-03	0.364
IN-114M	-9.623E-02		6.881E-02	1.042E-01	5.732E-03	-0.924
CD-115	-2.610E-02		7.956E-01	1.294E+00	7.645E-02	-0.020
SN-117M	-2.458E-03		1.709E-02	2.590E-02	1.465E-03	-0.095
SB-122	-2.385E-01		2.434E-01	3.490E-01	2.080E-02	-0.683
I-123	-2.674E-04		1.032E-03	Half-Life too short		
TE-123M	-1.478E-03		1.141E-02	1.732E-02	9.905E-04	-0.085
I-124	9.391E-02		1.327E-01	2.318E-01	1.387E-02	0.405
SB-124	2.010E-02		4.425E-02	7.879E-02	5.326E-03	0.255
SB-125	8.208E-03		3.686E-02	6.222E-02	3.646E-03	0.132

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TE-125M	-2.438E+00		3.141E+00	4.727E+00	4.431E-01	-0.516
I-126	-3.410E-02		5.935E-02	8.803E-02	5.287E-03	-0.387
SB-126	2.052E-02		4.903E-02	8.351E-02	5.619E-03	0.246
SN-126	-1.787E-02		3.006E-02	3.998E-02	3.479E-03	-0.447
SB-127	1.182E-01		2.069E-01	3.624E-01	2.904E-02	0.326
XE-127	-5.545E-03		1.527E-02	2.494E-02	1.390E-03	-0.222
I-131	-3.541E-03		2.688E-02	4.379E-02	2.747E-03	-0.081
TE-132	-3.260E-02		8.138E-02	1.319E-01	1.765E-02	-0.247
BA-133	1.205E-02		1.743E-02	3.074E-02	3.534E-03	0.392
I-133	-7.599E-06		1.364E-05	Half-Life too short		
CS-134	-7.073E-04		1.876E-02	2.993E-02	2.356E-03	-0.024
CS-135	-7.137E-03		6.059E-02	1.001E-01	7.680E-03	-0.071
I-135	5.337E+02		7.260E+02	Half-Life too short		
CS-136	-1.272E-02		3.173E-02	4.880E-02	3.923E-03	-0.261
BA-137M	1.446E-02		1.532E-02	2.789E-02	1.658E-03	0.519
CS-137	1.529E-02		1.619E-02	2.948E-02	1.760E-03	0.519
CE-139	1.594E-03		1.006E-02	1.632E-02	8.763E-04	0.098
BA-140	2.108E-03		7.035E-02	1.153E-01	3.753E-02	0.018
LA-140	-9.088E-04		2.502E-02	4.026E-02	2.669E-03	-0.023
CE-141	-4.938E-03		2.426E-02	3.641E-02	2.324E-03	-0.136
CE-143	1.366E+00		2.830E+00	4.903E+00	1.018E+00	0.279
CE-144	-7.116E-02		7.621E-02	1.114E-01	1.622E-02	-0.639
PM-144	5.854E-03		1.602E-02	2.709E-02	1.735E-03	0.216
PR-144	3.955E-01		1.082E+00	1.830E+00	1.172E-01	0.216
PM-146	3.052E-03		1.877E-02	3.139E-02	2.687E-03	0.097
ND-147	-6.357E-02		1.541E-01	2.360E-01	3.203E-02	-0.269
PM-149	1.653E-01		6.003E+00	1.003E+01	1.421E+00	0.016
EU-152	9.717E-03		4.005E-02	6.792E-02	4.394E-03	0.143
GD-153	2.331E-02		2.620E-02	4.100E-02	3.288E-03	0.569
EU-154	2.348E-02		3.655E-02	6.929E-02	6.794E-03	0.339
EU-155	2.441E-02		3.493E-02	5.972E-02	4.622E-03	0.409
TB-160	-5.833E-02		5.641E-02	7.779E-02	7.065E-03	-0.750
HO-166M	7.413E-03		2.759E-02	4.618E-02	3.051E-03	0.161
TM-171	-1.308E+01		9.100E+00	1.267E+01	8.832E-01	-1.032
LU-176	-8.481E-03		9.998E-03	1.523E-02	8.869E-04	-0.557
LU-177	-1.315E-01		2.117E-01	3.377E-01	1.893E-02	-0.389
LU-177M	-2.090E-02		7.101E-02	1.131E-01	6.272E-03	-0.185
HF-181	2.413E-03		1.725E-02	2.872E-02	1.666E-03	0.084
W-181	6.004E-02		1.116E-01	1.812E-01	1.249E-02	0.331
TA-182	3.763E-02		6.382E-02	1.167E-01	6.979E-03	0.323
RE-183	-7.365E-03		3.881E-02	6.102E-02	3.361E-03	-0.121
RE-184	-5.053E-02		9.060E-02	1.442E-01	8.340E-03	-0.350
OS-185	6.651E-03		1.836E-02	3.120E-02	1.861E-03	0.213
RE-188	2.795E-02		5.926E-02	9.865E-02	5.717E-03	0.283
W-188	-7.946E-01		2.560E+00	4.134E+00	2.412E-01	-0.192
IR-192	-7.144E-03		1.397E-02	2.209E-02	1.289E-03	-0.323
AU-195	8.662E-02		7.911E-02	1.257E-01	9.973E-03	0.689
TL-200	-3.197E-06		2.607E-06	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TL-201	-1.782E-01		7.159E-01	1.118E+00	6.003E-02	-0.159
TL-202	2.269E-02		2.029E-02	3.752E-02	2.122E-03	0.605
HG-203	-8.870E-04		1.536E-02	2.549E-02	1.577E-03	-0.035
BI-207	-6.904E-03		2.157E-02	3.380E-02	2.501E-03	-0.204
TL-207	6.547E-02		2.767E-01	4.688E-01	7.742E-02	0.140
TL-208	5.012E-03		1.818E-02	3.007E-02	2.056E-03	0.167
PO-209	1.386E+00		3.327E+00	5.887E+00	5.509E-01	0.235
BI-210	-1.537E+00		9.678E-01	1.441E+00	1.069E-01	-1.067
PB-210	-1.537E+00		9.678E-01	1.441E+00	1.069E-01	-1.067
PO-210	-1.537E+00		9.659E-01	1.441E+00	9.042E-02	-1.067
BI-211	-9.471E-02		9.463E-02	1.369E-01	8.672E-03	-0.692
PB-211	-3.399E-01		4.349E-01	5.617E-01	3.500E-01	-0.605
BI-212	1.776E-02		1.164E-01	1.921E-01	1.634E-02	0.092
PB-212	-1.446E-02		2.805E-02	4.310E-02	3.139E-03	-0.335
PO-212	-1.446E-02		2.805E-02	4.310E-02	3.139E-03	-0.335
BI-214	-3.263E-02		3.847E-02	5.729E-02	4.535E-03	-0.570
PB-214	-2.959E-02		3.281E-02	4.790E-02	3.930E-03	-0.618
PO-214	-2.959E-02		3.281E-02	4.790E-02	3.930E-03	-0.618
PO-215	6.547E-02		2.767E-01	4.688E-01	7.742E-02	0.140
PO-216	-1.446E-02		2.805E-02	4.310E-02	3.139E-03	-0.335
PO-218	-2.959E-02		3.281E-02	4.790E-02	3.930E-03	-0.618
RN-219	1.763E-03		1.690E-01	2.790E-01	3.760E-02	0.006
RN-220	-1.807E+00		1.027E+01	1.632E+01	9.702E-01	-0.111
RA-223	6.547E-02		2.767E-01	4.688E-01	7.742E-02	0.140
RA-224	1.875E-01		2.716E-01	4.762E-01	2.737E-02	0.394
RA-226	-3.263E-02		3.847E-02	5.729E-02	4.535E-03	-0.570
AC-227	1.179E-01		1.492E-01	2.642E-01	3.688E-02	0.446
TH-227	1.179E-01		1.496E-01	2.642E-01	4.465E-02	0.446
AC-228	-1.655E-02		6.457E-02	9.728E-02	1.143E-02	-0.170
RA-228	-1.655E-02		6.457E-02	9.728E-02	1.143E-02	-0.170
TH-228	-1.460E-02		2.831E-02	4.351E-02	3.170E-03	-0.335
TH-229	-1.018E-01		1.974E-01	3.199E-01	1.766E-02	-0.318
TH-230	-3.263E-02		3.847E-02	5.729E-02	4.535E-03	-0.570
PA-231	3.323E-01		5.733E-01	1.004E+00	1.385E-01	0.331
TH-231	6.547E-02		2.767E-01	4.688E-01	7.742E-02	0.140
U-231	-1.440E-01		1.622E-01	2.047E-01	1.662E-02	-0.703
TH-232	-1.655E-02		6.457E-02	9.728E-02	1.143E-02	-0.170
PA-233	1.943E-02		2.772E-02	4.882E-02	3.014E-03	0.398
PA-234	-2.034E-02		1.149E-01	1.856E-01	3.508E-02	-0.110
PA-234M	-5.237E-01		2.029E+00	3.136E+00	3.032E-01	-0.167
TH-234	-2.383E-01		4.275E-01	6.845E-01	1.177E-01	-0.348
U-234	-3.263E-02		3.847E-02	5.729E-02	4.535E-03	-0.570
U-235	-4.562E-02		9.012E-02	1.313E-01	2.161E-02	-0.348
NP-236	2.149E-02		2.972E-02	5.042E-02	2.817E-03	0.426
NP-237	2.078E-02		8.892E-02	1.211E-01	2.707E-02	0.172
U-238	-2.383E-01		4.275E-01	6.845E-01	1.177E-01	-0.348
NP-239	-3.182E-02		6.960E-02	1.078E-01	7.787E-03	-0.295
AM-241	-4.152E-02		4.862E-02	7.373E-02	5.474E-03	-0.563

Sample ID : G1202032521 Acquisition date : 14-FEB-2010 13:13:08

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
AM-243	5.144E-03		1.869E-02	2.802E-02	2.103E-03	0.184
CM-243	3.380E-03		3.173E-02	5.173E-02	3.977E-03	0.065
AM-246	-1.813E-02		5.555E-02	8.654E-02	6.201E-03	-0.210
CM-247	-1.005E-03		1.574E-02	2.578E-02	1.416E-03	-0.039
CF-249	-2.679E-03		1.561E-02	2.528E-02	1.382E-03	-0.106
CF-251	-4.428E-02		5.159E-02	7.612E-02	4.129E-03	-0.582

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032521          *
* Acquisition date  : 14-FEB-2010 13:13:08 Detector SN#     :               *
* Detector ID       : GAM14                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.49      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032521          Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.6520E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  6-MAR-2009 11:43:06 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
ANH-511	1.012E-02	3.022E-02	1.115E-02	1.542E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	-6.690E-03	1.206E-01	1.050E-01	6.154E-02 NOT IDENT.
NA-22	8.384E-03	1.277E-02	1.257E-02	6.517E-03 NOT IDENT.
NA-24	-5.198E+02	6.416E+02	0.000E+00	3.274E+02 SHORT HLIF
AL-26	4.743E-04	1.574E-02	1.315E-02	8.030E-03 NOT IDENT.
K-40	-1.462E-02	2.150E-01	1.988E-01	1.097E-01 NOT IDENT.
TI-44	-1.022E-02	1.014E-02	8.547E-03	5.173E-03 NOT IDENT.
SC-46	-7.327E-03	1.451E-02	1.164E-02	7.403E-03 NOT IDENT.
V-48	1.601E-03	2.231E-02	1.966E-02	1.138E-02 NOT IDENT.
CR-51	4.123E-02	1.331E-01	1.230E-01	6.792E-02 NOT IDENT.
MN-52	-2.170E-02	5.734E-02	4.449E-02	2.926E-02 NOT IDENT.
MN-54	-1.265E-02	1.352E-02	1.005E-02	6.900E-03 NOT IDENT.
CO-56	1.011E-03	1.715E-02	1.523E-02	8.750E-03 NOT IDENT.
CO-57	-1.246E-03	7.879E-03	6.954E-03	4.020E-03 NOT IDENT.
CO-58	8.021E-03	1.663E-02	1.505E-02	8.486E-03 NOT IDENT.
FE-59	2.574E-02	3.106E-02	3.053E-02	1.585E-02 NOT IDENT.
CO-60	-1.047E-02	1.460E-02	1.014E-02	7.448E-03 NOT IDENT.
ZN-65	-2.457E-02	3.715E-02	2.864E-02	1.895E-02 NOT IDENT.
GE-68	3.087E-02	4.575E-01	4.006E-01	2.334E-01 NOT IDENT.
AS-73	3.373E-03	2.097E-01	1.954E-01	1.070E-01 NOT IDENT.
AS-74	-1.750E-02	3.356E-02	2.706E-02	1.712E-02 NOT IDENT.
SE-75	-4.524E-04	1.611E-02	1.461E-02	8.218E-03 NOT IDENT.
BR-77	2.355E-01	8.335E-01	7.526E-01	4.252E-01 NOT IDENT.
SR-82	1.375E-02	1.122E-01	9.724E-02	5.723E-02 NOT IDENT.
RB-83	8.389E-03	2.682E-02	2.430E-02	1.368E-02 NOT IDENT.
RB-84	-1.438E-02	2.494E-02	1.983E-02	1.273E-02 NOT IDENT.
KR-85	9.590E+00	3.576E+00	3.634E+00	1.824E+00 NOT IDENT.

SR-85	4.638E-02	1.729E-02	1.757E-02	8.822E-03	NOT IDENT.
RB-86	-1.261E-01	2.375E-01	1.843E-01	1.212E-01	NOT IDENT.
Y-88	1.231E-03	1.575E-02	1.334E-02	8.037E-03	NOT IDENT.
ZR-88	-5.398E-03	1.128E-02	9.464E-03	5.754E-03	NOT IDENT.
Y-91	-5.894E+00	5.871E+00	3.938E+00	2.996E+00	NOT IDENT.
NB-94	-9.120E-04	1.545E-02	1.308E-02	7.880E-03	NOT IDENT.
NB-95	6.103E-03	1.305E-02	1.199E-02	6.660E-03	NOT IDENT.
NB-95M	-2.435E-02	4.759E-02	4.200E-02	2.428E-02	NOT IDENT.
ZR-95	1.604E-02	2.567E-02	2.396E-02	1.309E-02	NOT IDENT.
NB-97	-9.432E+01	1.650E+02	0.000E+00	8.420E+01	SHORT HLIF
ZR-97	8.166E+03	4.304E+03	0.000E+00	2.196E+03	SHORT HLIF
MO-99	9.756E-02	1.128E+00	9.722E-01	5.753E-01	NOT IDENT.
TC-99M	-3.004E+09	3.096E+09	0.000E+00	1.580E+09	SHORT HLIF
RH-101	8.234E-03	1.189E-02	1.152E-02	6.066E-03	NOT IDENT.
RH-102	-4.557E-03	1.432E-02	1.015E-02	7.308E-03	NOT IDENT.
RU-103	3.415E-03	1.584E-02	1.420E-02	8.082E-03	NOT IDENT.
RH-106	6.197E-04	1.381E-01	1.190E-01	7.045E-02	FAIL ABUN
RU-106	6.197E-04	1.381E-01	1.190E-01	7.045E-02	FAIL ABUN
AG-108M	-1.048E-02	1.280E-02	1.013E-02	6.533E-03	NOT IDENT.
CD-109	-9.062E-02	2.920E-01	2.252E-01	1.490E-01	NOT IDENT.
AG-110M	-8.878E-03	1.385E-02	1.069E-02	7.064E-03	NOT IDENT.
IN-111	-1.021E-01	1.062E-01	8.923E-02	5.417E-02	NOT IDENT.
IN-113M	1.008E-02	1.530E-02	1.461E-02	7.804E-03	NOT IDENT.
SN-113	1.008E-02	1.530E-02	1.461E-02	7.804E-03	NOT IDENT.
IN-114M	-9.623E-02	6.744E-02	5.610E-02	3.441E-02	NOT IDENT.
CD-115	-2.610E-02	7.797E-01	6.761E-01	3.978E-01	NOT IDENT.
SN-117M	-2.458E-03	1.674E-02	1.403E-02	8.543E-03	NOT IDENT.
SB-122	-2.385E-01	2.386E-01	1.820E-01	1.217E-01	NOT IDENT.
I-123	-2.674E+02	2.023E+03	0.000E+00	1.032E+03	SHORT HLIF
TE-123M	-1.478E-03	1.118E-02	9.377E-03	5.704E-03	NOT IDENT.
I-124	9.391E-02	1.300E-01	1.206E-01	6.635E-02	NOT IDENT.
SB-124	2.010E-02	4.337E-02	3.968E-02	2.213E-02	NOT IDENT.
SB-125	8.208E-03	3.612E-02	3.272E-02	1.843E-02	NOT IDENT.
TE-125M	-2.438E+00	3.078E+00	2.587E+00	1.571E+00	NOT IDENT.
I-126	-3.410E-02	5.817E-02	4.568E-02	2.968E-02	NOT IDENT.
SB-126	2.052E-02	4.805E-02	4.323E-02	2.451E-02	NOT IDENT.
SN-126	-1.787E-02	2.946E-02	2.201E-02	1.503E-02	NOT IDENT.
SB-127	1.182E-01	2.027E-01	1.879E-01	1.034E-01	NOT IDENT.
XE-127	-5.545E-03	1.496E-02	1.341E-02	7.633E-03	NOT IDENT.
I-131	-3.541E-03	2.634E-02	2.314E-02	1.344E-02	NOT IDENT.
TE-132	-3.260E-02	7.975E-02	7.068E-02	4.069E-02	NOT IDENT.
BA-133	1.205E-02	1.708E-02	1.626E-02	8.715E-03	NOT IDENT.
I-133	-7.599E+00	2.674E+01	0.000E+00	1.364E+01	SHORT HLIF
CS-134	-7.073E-04	1.838E-02	1.544E-02	9.378E-03	NOT IDENT.
CS-135	-7.137E-03	5.937E-02	5.339E-02	3.029E-02	NOT IDENT.
I-135	5.337E+08	1.423E+09	0.000E+00	7.260E+08	SHORT HLIF
CS-136	-1.272E-02	3.110E-02	2.496E-02	1.587E-02	NOT IDENT.
BA-137M	1.446E-02	1.501E-02	1.447E-02	7.658E-03	NOT IDENT.
CS-137	1.529E-02	1.587E-02	1.530E-02	8.095E-03	NOT IDENT.
CE-139	1.594E-03	9.861E-03	8.826E-03	5.031E-03	NOT IDENT.
BA-140	2.108E-03	6.894E-02	6.024E-02	3.518E-02	NOT IDENT.
LA-140	-9.088E-04	2.452E-02	2.032E-02	1.251E-02	NOT IDENT.
CE-141	-4.938E-03	2.377E-02	1.977E-02	1.213E-02	NOT IDENT.
CE-143	1.366E+00	2.774E+00	2.608E+00	1.415E+00	NOT IDENT.
CE-144	-7.116E-02	7.469E-02	6.063E-02	3.811E-02	NOT IDENT.
PM-144	5.854E-03	1.570E-02	1.404E-02	8.010E-03	NOT IDENT.
PR-144	3.955E-01	1.061E+00	9.483E-01	5.412E-01	NOT IDENT.
PM-146	3.052E-03	1.840E-02	1.648E-02	9.386E-03	NOT IDENT.
ND-147	-6.357E-02	1.510E-01	1.233E-01	7.706E-02	NOT IDENT.
PM-149	1.653E-01	5.883E+00	5.339E+00	3.001E+00	NOT IDENT.
EU-152	9.717E-03	3.925E-02	3.596E-02	2.003E-02	NOT IDENT.
GD-153	2.331E-02	2.567E-02	2.251E-02	1.310E-02	NOT IDENT.
EU-154	2.348E-02	3.582E-02	3.522E-02	1.828E-02	NOT IDENT.
EU-155	2.441E-02	3.423E-02	3.271E-02	1.746E-02	NOT IDENT.
TB-160	-5.833E-02	5.528E-02	4.001E-02	2.821E-02	NOT IDENT.
HO-166M	7.413E-03	2.704E-02	2.391E-02	1.379E-02	NOT IDENT.
TM-171	-1.308E+01	8.918E+00	7.026E+00	4.550E+00	NOT IDENT.
LU-176	-8.481E-03	9.798E-03	8.090E-03	4.999E-03	NOT IDENT.
LU-177	-1.315E-01	2.075E-01	1.815E-01	1.059E-01	NOT IDENT.
LU-177M	-2.090E-02	6.959E-02	5.956E-02	3.551E-02	NOT IDENT.
HF-181	2.413E-03	1.690E-02	1.505E-02	8.624E-03	NOT IDENT.
W-181	6.004E-02	1.094E-01	1.006E-01	5.581E-02	NOT IDENT.
TA-182	3.763E-02	6.255E-02	5.939E-02	3.191E-02	NOT IDENT.
RE-183	-7.365E-03	3.803E-02	3.302E-02	1.941E-02	NOT IDENT.
RE-184	-5.053E-02	8.878E-02	7.703E-02	4.530E-02	NOT IDENT.
OS-185	6.651E-03	1.799E-02	1.620E-02	9.178E-03	NOT IDENT.
RE-188	2.795E-02	5.807E-02	5.345E-02	2.963E-02	NOT IDENT.
W-188	-7.946E-01	2.509E+00	2.200E+00	1.280E+00	NOT IDENT.

IR-192	-7.144E-03	1.369E-02	1.172E-02	6.983E-03	NOT IDENT.
AU-195	8.662E-02	7.752E-02	6.896E-02	3.955E-02	NOT IDENT.
TL-200	-3.197E+00	5.109E+00	0.000E+00	2.607E+00	SHORT HLIF
TL-201	-1.782E-01	7.016E-01	6.042E-01	3.580E-01	NOT IDENT.
TL-202	2.269E-02	1.988E-02	1.972E-02	1.014E-02	NOT IDENT.
HG-203	-8.870E-04	1.505E-02	1.358E-02	7.680E-03	NOT IDENT.
BI-207	-6.904E-03	2.114E-02	1.728E-02	1.079E-02	NOT IDENT.
TL-207	6.547E-02	2.711E-01	2.487E-01	1.383E-01	NOT IDENT.
TL-208	5.012E-03	1.782E-02	1.567E-02	9.092E-03	FAIL ABUN
PO-209	1.386E+00	3.261E+00	3.026E+00	1.664E+00	NOT IDENT.
BI-210	-1.537E+00	9.484E-01	8.071E-01	4.839E-01	NOT IDENT.
PB-210	-1.537E+00	9.484E-01	8.071E-01	4.839E-01	NOT IDENT.
PO-210	-1.537E+00	9.465E-01	8.071E-01	4.829E-01	NOT IDENT.
BI-211	-9.471E-02	9.273E-02	7.242E-02	4.731E-02	NOT IDENT.
PB-211	-3.399E-01	4.262E-01	2.959E-01	2.174E-01	NOT IDENT.
BI-212	1.776E-02	1.141E-01	9.941E-02	5.820E-02	NOT IDENT.
PB-212	-1.446E-02	2.749E-02	2.307E-02	1.402E-02	NOT IDENT.
PO-212	-1.446E-02	2.749E-02	2.307E-02	1.402E-02	NOT IDENT.
BI-214	-3.263E-02	3.771E-02	2.981E-02	1.924E-02	NOT IDENT.
PB-214	-2.959E-02	3.216E-02	2.534E-02	1.641E-02	NOT IDENT.
PO-214	-2.959E-02	3.216E-02	2.534E-02	1.641E-02	NOT IDENT.
PO-215	6.547E-02	2.711E-01	2.487E-01	1.383E-01	NOT IDENT.
PO-216	-1.446E-02	2.749E-02	2.307E-02	1.402E-02	NOT IDENT.
PO-218	-2.959E-02	3.216E-02	2.534E-02	1.641E-02	NOT IDENT.
RN-219	1.763E-03	1.656E-01	1.470E-01	8.449E-02	NOT IDENT.
RN-220	-1.807E+00	1.007E+01	8.520E+00	5.136E+00	NOT IDENT.
RA-223	6.547E-02	2.711E-01	2.487E-01	1.383E-01	NOT IDENT.
RA-224	1.875E-01	2.662E-01	2.548E-01	1.358E-01	NOT IDENT.
RA-226	-3.263E-02	3.771E-02	2.981E-02	1.924E-02	NOT IDENT.
AC-227	1.179E-01	1.462E-01	1.411E-01	7.459E-02	NOT IDENT.
TH-227	1.179E-01	1.466E-01	1.411E-01	7.480E-02	FAIL ABUN
AC-228	-1.655E-02	6.328E-02	4.998E-02	3.228E-02	NOT IDENT.
RA-228	-1.655E-02	6.328E-02	4.998E-02	3.228E-02	NOT IDENT.
TH-228	-1.460E-02	2.775E-02	2.329E-02	1.416E-02	NOT IDENT.
TH-229	-1.018E-01	1.935E-01	1.722E-01	9.872E-02	NOT IDENT.
TH-230	-3.263E-02	3.771E-02	2.981E-02	1.924E-02	NOT IDENT.
PA-231	3.323E-01	5.618E-01	5.346E-01	2.867E-01	NOT IDENT.
TH-231	6.547E-02	2.711E-01	2.487E-01	1.383E-01	NOT IDENT.
U-231	-1.440E-01	1.590E-01	1.124E-01	8.112E-02	FAIL ABUN
TH-232	-1.655E-02	6.328E-02	4.998E-02	3.228E-02	NOT IDENT.
PA-233	1.943E-02	2.717E-02	2.592E-02	1.386E-02	NOT IDENT.
PA-234	-2.034E-02	1.126E-01	9.524E-02	5.745E-02	NOT IDENT.
PA-234M	-5.237E-01	1.988E+00	1.606E+00	1.014E+00	NOT IDENT.
TH-234	-2.383E-01	4.190E-01	3.802E-01	2.138E-01	FAIL ABUN
U-234	-3.263E-02	3.771E-02	2.981E-02	1.924E-02	NOT IDENT.
U-235	-4.562E-02	8.832E-02	7.128E-02	4.506E-02	FAIL ABUN
NP-236	2.149E-02	2.913E-02	2.729E-02	1.486E-02	NOT IDENT.
NP-237	2.078E-02	8.714E-02	6.671E-02	4.446E-02	NOT IDENT.
U-238	-2.383E-01	4.190E-01	3.802E-01	2.138E-01	FAIL ABUN
NP-239	-3.182E-02	6.821E-02	5.885E-02	3.480E-02	NOT IDENT.
AM-241	-4.152E-02	4.765E-02	4.103E-02	2.431E-02	NOT IDENT.
AM-243	5.144E-03	1.831E-02	1.550E-02	9.344E-03	NOT IDENT.
CM-243	3.380E-03	3.110E-02	2.835E-02	1.587E-02	NOT IDENT.
AM-246	-1.813E-02	5.444E-02	4.423E-02	2.778E-02	NOT IDENT.
CM-247	-1.005E-03	1.542E-02	1.358E-02	7.869E-03	NOT IDENT.
CF-249	-2.679E-03	1.530E-02	1.333E-02	7.807E-03	NOT IDENT.
CF-251	-4.428E-02	5.056E-02	4.109E-02	2.580E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	105.6716
46.50	105.6716
46.50	105.6716
48.70	94.7401
49.72	98.9317
51.35	88.8975
52.39	98.2084
52.97	92.1300
53.15	94.1961
53.44	89.1053
54.07	80.9679
56.28	99.6547
56.28	99.6550
57.37	99.7711
57.53	97.7305
57.53	97.7307
57.60	97.7377
57.98	92.6309
57.98	92.6309
59.32	115.4361
59.32	115.4361
59.40	115.4457
59.54	113.4008
59.72	113.4220
60.01	125.8330
61.10	104.2903
61.14	104.2946
61.30	104.3117
63.00	100.3534
63.29	102.4525
63.29	102.4525
63.58	100.4119
64.28	94.2669
65.12	90.1984
65.20	90.2056
65.20	90.2056
66.05	104.8090
66.72	124.6069
66.83	124.6207
66.91	125.6689
67.20	112.1990
67.20	112.1990
67.75	113.2981
67.85	113.3090
68.90	113.4237
68.90	113.4237
69.30	117.6309
69.67	108.3005
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70.82	96.9510
70.83	96.9518
72.80	88.7754
72.87	88.7811
72.87	88.7811
74.67	97.2984
74.81	97.3108
74.81	97.3108
74.81	97.3108
74.81	97.3108
74.81	97.3108
74.81	97.3108
74.81	97.3108
74.97	96.2785
75.28	98.3993
75.70	100.5311
77.11	100.6593
77.11	100.6593

77.11	100.6593
77.11	100.6593
77.11	100.6593
77.11	100.6593
77.11	100.6593
78.38	112.3205
79.62	97.7319
79.80	97.7475
79.80	97.7475
80.11	100.9281
80.18	100.9343
80.30	100.9449
80.30	100.9449
80.57	106.2275
81.00	101.0068
81.07	101.0131
81.07	101.0131
81.07	101.0131
81.07	101.0131
82.60	89.5576
83.37	90.6710
83.78	95.9766
83.78	95.9766
83.78	95.9766
83.78	95.9766
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84.90	96.0686
85.43	95.3572
86.29	90.1921
86.50	91.3356
86.54	91.3389
86.59	91.3425
86.72	109.9616
86.79	109.9676
86.94	115.0580
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87.30	123.5551
87.30	123.5551
87.30	123.5551
87.30	123.5551
87.30	123.5551
87.30	123.5551
87.57	118.5044
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88.03	111.7754
88.36	96.5601
88.47	96.5688
89.95	94.9908
91.11	108.6641
92.29	74.3534
92.38	74.3590
92.38	74.3590
93.35	74.4172
94.00	61.2668
94.67	81.7324
94.67	81.7327
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94.90	100.4815
94.90	100.4815
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95.87	95.4461
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97.43	54.6078
98.44	59.7745
98.44	59.7745
98.88	58.0866
99.55	56.9773
99.55	56.9773
99.86	54.9556
100.00	52.5189
100.10	52.5230
103.18	87.8473
103.76	70.7376
105.00	67.5854
105.31	62.2359
108.00	75.2631
109.28	95.7824

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111.00	73.2741
111.76	71.1583
112.95	87.4058
115.19	77.8189
116.30	88.6972
117.00	87.6591
117.00	87.6591
117.66	62.7974
121.11	64.0341
121.62	65.1425
121.78	59.7205
122.06	62.9901
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133.54	95.2160
135.34	84.3709
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144.24	91.4620
144.24	91.4620
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145.44	87.1193
147.16	98.2516
152.43	89.7086
152.70	89.7234
153.22	87.5351
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154.21	78.7180
154.21	78.7180
154.21	78.7180
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163.35	76.9148
163.89	75.8235
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167.43	73.7439
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171.86	72.8091
172.10	72.8190
176.55	96.5853
176.60	96.5879
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184.41	71.2847
185.71	77.6556
186.00	68.6366
190.27	115.8617
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193.63	91.5843
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198.01	69.0724
198.60	64.5479
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201.83	91.9739
202.84	77.4437
205.31	63.8575

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208.81	83.1614
209.75	74.0574
209.75	74.0574
210.97	55.8055
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227.08	79.2965
227.20	79.3007
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228.18	76.5703
228.18	76.5703
231.56	77.6164
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236.00	95.3706
236.00	95.3706
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238.63	89.9245
238.63	89.9245
238.63	89.9245
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241.98	89.1352
241.98	89.1352
241.98	89.1352
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245.39	81.8345
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249.79	65.2251
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252.85	70.9128
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256.20	52.3293
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268.79	60.1344
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269.46	55.4522
269.46	55.4522
269.46	55.4522
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278.60	66.0463
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293.70	50.3196
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295.21	54.1507

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297.23	61.8008
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300.12	45.6908
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323.87	53.8043
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323.87	53.8043
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334.20	62.6966
334.30	62.6990
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338.28	55.0636
338.28	55.0636
338.28	55.0636
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338.32	52.1668
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340.57	48.3429
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351.92	48.5449
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351.92	48.5449
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367.43	44.9101
367.94	0.0000
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391.69	27.5673
391.69	27.5673
392.90	42.3528
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402.60	45.4559
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427.89	33.8771
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477.59	33.3907
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513.99	20.4532
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529.87	0.0000
531.02	28.7725
537.32	22.6467
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546.56	0.0000
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568.70	28.0323
569.32	32.1905
569.50	34.2689
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602.71	36.6637
603.60	38.7678
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604.70	46.1151
609.31	48.2686

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609.31	48.2686
609.31	48.2686
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614.37	50.4316
618.01	32.6007
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633.10	29.5572
634.78	33.7938
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661.65	20.1982
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666.33	32.9920
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677.61	19.2085
685.20	19.2432
692.80	25.7033
695.00	30.0029
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696.49	28.9413
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697.49	31.0922
698.33	31.0985
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717.42	29.0817
720.50	25.8686
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722.20	29.1140
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722.78	22.6468
722.89	22.6478
722.95	22.6478
723.30	24.8070
724.18	25.8908
727.18	21.5903
733.00	9.7284
735.90	15.1430
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742.81	11.9166
744.21	16.2550
747.13	28.1937
751.79	18.4535
752.31	18.4555
753.82	21.7197
755.35	18.4680
756.15	15.2117
756.87	9.7805
763.93	18.5033
765.79	13.0664
766.42	11.9792
766.84	14.1584
776.49	14.1883
778.00	18.5601
778.57	16.3784
778.89	16.3799
783.80	19.6765
785.46	17.4965
792.07	25.1871

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796.30	16.4414
798.80	27.4170
801.93	18.6560
805.60	26.3584
810.29	21.9873
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815.85	20.1783
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818.51	27.5317
819.60	24.7841
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831.60	11.9630
831.96	9.2031
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848.13	24.9313
856.28	0.0000
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867.32	25.0285
867.82	24.1042
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875.33	0.0000
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879.36	26.0187
880.27	23.2351
880.51	23.2361
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883.24	8.3696
884.67	10.2324
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896.60	18.6487
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899.00	19.5901
903.28	20.5404
911.07	20.5717
911.07	20.5717
911.07	20.5717
919.63	20.6062
920.93	19.6743
925.00	17.8148
925.24	18.7533
926.50	21.5714
935.52	16.9113
937.48	22.5571
944.10	10.3517
946.00	16.0039
949.00	15.0710
962.29	13.2204
964.01	16.0586
966.15	16.0648
968.20	16.0710
969.11	17.0193
969.11	17.0193
969.11	17.0193
977.42	11.3638
980.50	16.1080
983.50	16.1170
989.30	18.9815
996.32	19.0063
1001.03	14.2670
1001.68	9.5124
1004.76	15.2285
1021.30	0.0000
1024.50	0.0000
1034.80	9.5695
1036.00	9.5715
1037.82	16.2771
1038.57	13.4064
1038.76	0.0000
1045.16	11.5049
1046.59	16.3027
1048.07	17.2661

1050.47	17.2734
1050.47	17.2734
1062.04	14.4238
1063.62	18.2756
1076.63	16.3892
1077.35	13.4987
1078.86	16.3954
1085.78	15.4499
1099.22	9.6785
1112.02	17.4595
1112.84	18.4318
1115.52	24.2635
1120.29	11.6558
1120.29	11.6558
1120.29	11.6558
1120.29	11.6558
1120.51	11.6563
1121.28	13.6007
1124.00	0.0000
1129.67	12.6472
1131.51	0.0000
1147.95	0.0000
1167.94	8.8118
1173.22	17.6389
1175.09	17.6448
1177.93	14.7107
1189.05	9.8250
1204.90	17.7305
1205.75	0.0000
1213.00	13.8080
1221.42	9.8763
1230.97	10.8805
1235.34	12.8678
1236.41	0.0000
1238.25	7.9222
1246.25	9.9154
1260.41	0.0000
1271.85	9.9552
1274.45	4.9797
1274.54	4.9797
1291.56	16.9751
1298.22	0.0000
1312.09	10.0167
1325.50	7.0259
1325.50	7.0259
1332.49	12.0571
1333.61	8.0397
1360.21	15.1343
1362.66	0.0000
1365.15	10.0968
1368.21	11.1115
1368.53	0.0000
1376.25	11.1249
1384.27	9.1128
1394.10	10.1400
1395.20	11.1558
1407.95	9.1443
1434.06	13.2581
1436.60	9.1820
1457.56	0.0000
1460.81	11.2609
1489.15	6.1667
1509.49	8.2454
1596.49	6.2571
1620.62	5.2309
1678.03	0.0000
1691.02	8.4456
1691.02	8.4456
1706.46	0.0000
1750.46	0.0000
1764.49	11.7202
1764.49	11.7202
1764.49	11.7202
1764.49	11.7202
1770.23	10.6620
1771.40	6.3982
1791.20	0.0000
1808.65	6.4275

1836.01	5.3737

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032521

Total Uranium Activity	-7.3018E-01	ug/g
Total Uranium Counting Unc.	1.2471E+00	ug/g
Total Uranium Tpu	6.3627E-07	ug/g
Total Uranium Mda	1.1317E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G1202032521      *
*   ANALYST       : MXR1                      DETECTOR   : GAM14            *
*   SAMPLE DATE   :  5-FEB-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 13:13:08.47    SAMPLE ALQT:  165.200 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.826E-02
        GROSS GAMMA ERROR   (pCi/GRAM  )  : 2.153E-02
        GROSS GAMMA MDA     (pCi/GRAM  )  : 5.286E-02
        GROSS GAMMA DLC     (pCi/GRAM  )  : 2.503E-02
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:18:49.14

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032522.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:18:21
Sample ID         : G1202032522          Sample quantity  : 1.38840E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.87*	564	800	0.96	125.91	120	11	7.83E-02	10.7	
2	3	74.57*	249	489	0.90	149.28	146	11	3.46E-02	14.8	1.89E+00
3	3	76.77	528	529	0.98	153.68	146	11	7.33E-02	8.3	
4	2	86.90*	232	572	1.13	173.92	171	21	3.22E-02	18.0	2.66E+00
5	2	89.61	139	552	1.22	179.34	171	21	1.93E-02	29.3	
6	2	92.35*	1615	509	1.17	184.81	171	21	2.24E-01	3.5	
7	0	98.35	195	601	1.42	196.79	192	11	2.71E-02	25.6	
8	0	112.41	99	483	0.72	224.89	221	8	1.37E-02	40.1	
9	0	142.97*	132	485	0.81	285.95	281	10	1.84E-02	32.7	
10	0	185.54*	505	435	1.33	371.03	367	10	7.02E-02	9.1	
11	0	208.98	150	301	1.37	417.87	414	9	2.08E-02	22.6	
12	3	238.36*	1231	227	1.17	476.59	472	16	1.71E-01	3.5	1.03E+00
13	3	241.47	249	268	1.49	482.80	472	16	3.45E-02	14.9	
14	0	270.12	106	258	0.92	540.05	535	11	1.47E-02	31.4	
15	0	294.88	401	208	1.20	589.55	585	10	5.57E-02	8.3	
16	0	299.93*	65	273	1.39	599.63	596	13	9.07E-03	53.8	
17	0	327.60	71	185	1.16	654.94	650	10	9.90E-03	37.9	
18	0	338.06	201	166	1.24	675.85	671	10	2.80E-02	13.9	
19	0	351.48*	714	282	1.45	702.67	696	15	9.92E-02	6.4	
20	0	409.03	47	102	1.05	817.69	815	8	6.47E-03	40.1	
21	0	462.88	59	111	1.40	925.32	921	9	8.20E-03	34.8	
22	0	510.90*	52	175	1.78	1021.32	1015	13	7.24E-03	61.8	
23	0	582.92*	353	181	1.55	1165.28	1157	15	4.90E-02	10.0	
24	0	608.88*	494	124	1.38	1217.17	1209	16	6.86E-02	6.9	
25	0	661.13	317	103	1.40	1321.63	1316	12	4.40E-02	8.5	
26	0	726.95*	101	71	1.37	1453.23	1448	12	1.41E-02	19.9	
27	0	860.34	51	53	1.38	1719.94	1715	10	7.11E-03	29.9	
28	0	910.82*	266	48	1.26	1820.88	1815	13	3.69E-02	8.3	
29	0	969.02*	105	96	1.23	1937.26	1930	12	1.46E-02	21.3	
30	0	1000.41	106	59	1.23	2000.03	1993	14	1.47E-02	18.3	
31	0	1120.20*	98	64	1.74	2239.61	2232	18	1.36E-02	22.3	
32	0	1238.00	38	69	1.89	2475.21	2467	12	5.31E-03	46.3	
33	0	1376.64*	34	23	1.36	2752.54	2746	14	4.75E-03	35.4	
34	0	1460.08*	1068	14	2.10	2919.47	2909	18	1.48E-01	3.2	
35	5	1586.60	29	16	3.30	3172.61	3165	23	4.02E-03	34.9	1.83E+00
36	5	1592.04	15	10	2.03	3183.49	3165	23	2.11E-03	46.5	
37	0	1629.91	22	3	0.72	3259.27	3253	11	3.07E-03	25.8	
38	0	1763.74*	79	9	2.19	3527.06	3516	18	1.10E-02	15.4	

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 15:18:52

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032522.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:18:21
Sample ID : G1202032522 Sample quantity : 138.84 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA10 Detector geometry: CAN
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:01.17 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	2.443E+01	2.620E+00	2.782E-01	2.396E-02	87.828
CD-109	+	88.03	*	3.301E+00	1.244E+00	1.600E+00	1.814E-01	2.063
SN-126	+	64.28		7.159E+00	1.962E+00	1.115E+00	1.906E-01	6.424
	+	86.94		1.343E+00	7.424E-01	6.625E-01	2.782E-01	2.027
	+	87.57	*	3.231E-01	1.217E-01	1.577E-01	1.785E-02	2.048
BA-137M	+	661.65	*	4.048E-01	7.164E-02	5.458E-02	2.693E-03	7.418
CS-137	+	661.65	*	4.280E-01	7.577E-02	5.769E-02	2.863E-03	7.418
LU-177	+	112.95		4.091E+00	3.297E+00	3.803E+00	2.800E-01	1.076
	+	208.36	*	4.275E+00	1.946E+00	2.342E+00	1.368E-01	1.826
TL-208		277.35		2.908E-01	3.570E-01	6.155E-01	6.713E-02	0.473
	+	510.84		2.226E-01	2.763E-01	2.128E-01	2.236E-02	1.046
	+	583.14	*	4.309E-01	9.095E-02	5.541E-02	3.723E-03	7.776
	+	860.37		6.037E-01	3.663E-01	3.977E-01	3.883E-02	1.518
BI-211		72.87		8.172E+00	4.468E+00	6.947E+00	7.640E-01	1.176
	+	351.07	*	3.835E+00	5.642E-01	3.193E-01	2.328E-02	12.011
PB-212	+	74.81		1.633E+00	5.383E-01	7.055E-01	1.016E-01	2.314
	+	77.11		1.913E+00	3.796E-01	3.874E-01	4.236E-02	4.939
	+	87.30		1.494E+00	5.824E-01	7.327E-01	1.106E-01	2.039
	+	238.63	*	1.458E+00	1.513E-01	8.451E-02	6.411E-03	17.251
	+	300.09		1.187E+00	1.282E+00	1.155E+00	1.015E-01	1.028
PO-212	+	74.81		1.633E+00	5.383E-01	7.055E-01	1.016E-01	2.314
	+	77.11		1.913E+00	3.796E-01	3.874E-01	4.236E-02	4.939
	+	87.30		1.494E+00	5.824E-01	7.327E-01	1.106E-01	2.039
		115.19		3.452E+00	3.960E+00	5.981E+00	4.279E-01	0.577
	+	238.63	*	1.458E+00	1.513E-01	8.451E-02	6.411E-03	17.251
	+	300.09		1.187E+00	1.282E+00	1.155E+00	1.015E-01	1.028
BI-214	+	609.31	*	1.139E+00	1.792E-01	9.744E-02	7.415E-03	11.684
	+	1120.29		1.237E+00	5.652E-01	3.699E-01	3.615E-02	3.345
	+	1764.49		1.386E+00	4.357E-01	1.555E-01	1.038E-02	8.914
PB-214	+	74.81		2.813E+00	9.135E-01	1.216E+00	1.607E-01	2.314
	+	77.11		3.280E+00	6.971E-01	6.641E-01	8.850E-02	4.939
	+	87.30		2.560E+00	9.844E-01	1.255E+00	1.717E-01	2.039
	+	241.98		1.770E+00	5.478E-01	5.088E-01	4.233E-02	3.478
	+	295.21		1.280E+00	2.429E-01	2.016E-01	1.820E-02	6.348

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	351.92	*	1.334E+00	2.083E-01	1.113E-01	9.980E-03	11.987
PO-214	+	74.81		2.813E+00	9.135E-01	1.216E+00	1.607E-01	2.314
	+	77.11		3.280E+00	6.971E-01	6.641E-01	8.850E-02	4.939
	+	87.30		2.560E+00	9.844E-01	1.255E+00	1.717E-01	2.039
	+	241.98		1.770E+00	5.478E-01	5.088E-01	4.233E-02	3.478
	+	295.21		1.280E+00	2.429E-01	2.016E-01	1.820E-02	6.348
	+	351.92	*	1.334E+00	2.083E-01	1.113E-01	9.980E-03	11.987
PO-216	+	74.81		1.633E+00	5.383E-01	7.055E-01	1.016E-01	2.314
	+	77.11		1.913E+00	3.796E-01	3.874E-01	4.236E-02	4.939
	+	87.30		1.494E+00	5.824E-01	7.327E-01	1.106E-01	2.039
	+	238.63	*	1.458E+00	1.513E-01	8.451E-02	6.411E-03	17.251
	+	300.09		1.187E+00	1.282E+00	1.155E+00	1.015E-01	1.028
PO-218	+	74.81		2.813E+00	9.135E-01	1.216E+00	1.607E-01	2.314
	+	77.11		3.280E+00	6.971E-01	6.641E-01	8.850E-02	4.939
	+	87.30		2.560E+00	9.844E-01	1.255E+00	1.717E-01	2.039
	+	241.98		1.770E+00	5.478E-01	5.088E-01	4.233E-02	3.478
	+	295.21		1.280E+00	2.429E-01	2.016E-01	1.820E-02	6.348
	+	351.92	*	1.334E+00	2.083E-01	1.113E-01	9.980E-03	11.987
RA-224	+	240.98	*	3.356E+00	1.022E+00	9.616E-01	5.902E-02	3.490
RA-226	+	609.31	*	1.139E+00	1.792E-01	9.744E-02	7.415E-03	11.684
	+	1120.29		1.237E+00	5.652E-01	3.699E-01	3.615E-02	3.345
	+	1764.49		1.386E+00	4.357E-01	1.555E-01	1.038E-02	8.914
AC-228	+	338.32		1.194E+00	5.900E-01	3.491E-01	1.428E-01	3.421
	+	911.07	*	1.490E+00	3.089E-01	1.695E-01	2.092E-02	8.789
	+	969.11		1.046E+00	5.106E-01	3.823E-01	9.040E-02	2.736
RA-228	+	338.32		1.194E+00	5.900E-01	3.491E-01	1.428E-01	3.421
	+	911.07	*	1.490E+00	3.089E-01	1.695E-01	2.092E-02	8.789
	+	969.11		1.046E+00	5.106E-01	3.823E-01	9.040E-02	2.736
TH-228	+	74.81		1.662E+00	5.259E-01	7.183E-01	7.906E-02	2.314
	+	77.11		1.948E+00	3.865E-01	3.944E-01	4.313E-02	4.939
	+	87.30		1.521E+00	5.732E-01	7.460E-01	8.429E-02	2.039
	+	238.63	*	1.484E+00	1.541E-01	8.604E-02	6.527E-03	17.251
	+	300.09		1.209E+00	1.484E+00	1.176E+00	6.941E-01	1.028
TH-230	+	609.31	*	1.138E+00	1.792E-01	9.744E-02	7.415E-03	11.684
	+	1120.29		1.237E+00	5.652E-01	3.699E-01	3.614E-02	3.345
	+	1764.49		1.386E+00	4.357E-01	1.555E-01	1.038E-02	8.914
TH-232	+	338.32		1.194E+00	3.405E-01	3.491E-01	2.340E-02	3.421
	+	911.07	*	1.490E+00	3.089E-01	1.695E-01	2.092E-02	8.789
	+	969.11		1.046E+00	5.106E-01	3.823E-01	9.040E-02	2.736
TH-234	+	63.29	*	1.809E+01	5.254E+00	2.991E+00	5.895E-01	6.047
	+	92.38		1.418E+01	2.862E+00	1.009E+00	1.910E-01	14.051
U-234	+	609.31	*	1.138E+00	1.792E-01	9.744E-02	7.415E-03	11.684
	+	1120.29		1.237E+00	5.652E-01	3.699E-01	3.614E-02	3.345
	+	1764.49		1.386E+00	4.357E-01	1.555E-01	1.038E-02	8.914
U-235	+	89.95		2.540E+00	1.689E+00	2.086E+00	6.582E-01	1.217
	+	93.35		1.704E+01	5.015E+00	1.199E+00	3.419E-01	14.210
		105.00		1.292E+00	1.169E+00	1.878E+00	5.584E-01	0.688
	+	143.76	*	5.109E-01	3.448E-01	3.270E-01	5.346E-02	1.563
		163.35		3.398E-01	4.849E-01	7.910E-01	1.415E-01	0.430

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	185.71		4.227E-01	8.089E-02	6.915E-02	3.892E-03	6.113
		205.31		1.210E-01	5.501E-01	8.333E-01	1.499E-01	0.145
NP-237	+	86.50	*	9.486E-01	4.075E-01	4.948E-01	1.163E-01	1.917
		95.87		5.290E-01	1.428E+00	1.689E+00	4.220E-01	0.313
U-238	+	63.29	*	1.809E+01	5.254E+00	2.991E+00	5.895E-01	6.047
	+	92.38		1.418E+01	1.764E+00	1.009E+00	1.037E-01	14.051
AM-243	+	74.67	*	2.647E-01	8.368E-02	1.149E-01	1.258E-02	2.304
	+	86.72		3.557E+01	1.340E+01	1.761E+01	1.984E+00	2.020
		117.66		-3.929E+00	3.769E+00	5.836E+00	4.050E-01	-0.673
	+	142.18		4.292E+01	2.822E+01	2.728E+01	1.628E+00	1.573
ANH-511	+	511.00	*	4.809E-02	5.955E-02	4.597E-02	2.945E-03	1.046

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	6.054E-02	3.315E-01	5.420E-01	4.031E-02	0.112
NA-22		1274.54	*	-2.265E-02	4.424E-02	6.988E-02	5.413E-03	-0.324
NA-24		1368.53	*	4.406E+00	4.424E-02	Half-Life too short		
AL-26		1129.67		5.046E-01	1.616E+00	2.609E+00	1.830E-01	0.193
		1808.65	*	1.781E-02	2.627E-02	4.855E-02	3.078E-03	0.367
TI-44		67.85		-1.057E-02	6.124E-02	9.635E-02	1.088E-02	-0.110
		78.38	*	1.425E-01	5.120E-02	7.980E-02	8.732E-03	1.785
SC-46		889.25	*	-3.178E-02	3.643E-02	5.393E-02	5.337E-03	-0.589
	+	1120.51		2.170E-01	9.808E-02	1.194E-01	8.577E-03	1.817
V-48		944.10		7.972E-01	1.024E+00	1.778E+00	1.723E-01	0.448
		983.50	*	-2.655E-02	6.909E-02	1.071E-01	9.900E-03	-0.248
		1312.09		-2.496E-02	8.407E-02	1.347E-01	1.124E-02	-0.185
CR-51		320.08	*	-6.318E-02	3.690E-01	6.054E-01	4.372E-02	-0.104
MN-52		744.21		-7.257E-03	3.325E-01	5.499E-01	3.587E-02	-0.013
		848.13		-5.890E+00	9.514E+00	1.472E+01	1.305E+00	-0.400
		935.52		2.019E-01	3.146E-01	5.449E-01	5.327E-02	0.370
		1246.25		-3.742E+00	9.268E+00	1.482E+01	1.080E+00	-0.253
		1333.61		-4.397E+00	6.300E+00	9.436E+00	8.198E-01	-0.466
		1434.06	*	-1.310E-01	2.632E-01	3.948E-01	3.337E-02	-0.332
MN-54		834.83	*	3.522E-02	3.820E-02	6.693E-02	5.718E-03	0.526
CO-56		846.75	*	1.148E-02	3.780E-02	6.369E-02	5.624E-03	0.180
		977.42		-2.499E+00	2.681E+00	3.870E+00	3.607E-01	-0.646
		1037.82		7.839E-02	2.733E-01	4.557E-01	4.098E-02	0.172
		1175.09		1.459E+00	2.045E+00	3.642E+00	2.256E-01	0.401
	+	1238.25		1.410E-01	1.311E-01	1.686E-01	1.257E-02	0.836
		1360.21		-6.770E-01	8.793E-01	1.286E+00	1.111E-01	-0.526
		1771.40		-2.556E-01	1.916E-01	1.890E-01	1.252E-02	-1.353
CO-57		122.06	*	3.461E-03	2.515E-02	4.098E-02	2.703E-03	0.084
		136.48		1.084E-01	2.129E-01	3.500E-01	2.448E-02	0.310
CO-58		810.76	*	-3.454E-03	3.571E-02	5.825E-02	4.661E-03	-0.059
FE-59	+	142.65		6.898E+00	4.535E+00	5.161E+00	3.075E-01	1.337
		192.34		-1.473E-01	9.586E-01	1.507E+00	1.772E-01	-0.098
		1099.22	*	-4.781E-03	9.345E-02	1.494E-01	1.247E-02	-0.032

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		1291.56		-1.216E-01	1.188E-01	1.732E-01	1.603E-02	-0.702
CO-60		1173.22		-3.771E-02	4.265E-02	6.541E-02	4.033E-03	-0.577
		1332.49	*	-2.070E-02	3.559E-02	5.451E-02	4.737E-03	-0.380
ZN-65		1115.52	*	2.930E-02	9.568E-02	1.382E-01	1.007E-02	0.212
GE-68		1077.35	*	7.376E-01	1.297E+00	2.200E+00	1.743E-01	0.335
AS-73		53.44	*	6.958E-01	1.754E+00	2.969E+00	3.928E-01	0.234
AS-74		595.88	*	8.149E-03	9.367E-02	1.585E-01	9.054E-03	0.051
		634.78		1.855E-01	3.613E-01	6.277E-01	3.313E-02	0.295
SE-75		66.05		3.538E+00	7.048E+00	1.071E+01	1.379E+00	0.330
		96.73		1.006E+00	1.217E+00	1.480E+00	2.095E-01	0.680
		121.11		7.484E-02	1.348E-01	2.232E-01	2.186E-02	0.335
		136.00		5.852E-03	4.075E-02	6.607E-02	4.103E-03	0.089
		198.60		1.450E+00	1.801E+00	2.912E+00	2.063E-01	0.498
		264.65	*	-5.955E-02	4.807E-02	6.429E-02	4.101E-03	-0.926
		279.53		-8.881E-03	1.070E-01	1.779E-01	1.219E-02	-0.050
		303.91		7.002E-01	2.143E+00	3.204E+00	3.211E-01	0.219
		400.65		2.253E-01	2.446E-01	4.204E-01	4.106E-02	0.536
BR-77	+	87.88		1.673E+03	6.302E+02	8.950E+02	1.015E+02	1.869
		200.40		-3.062E+02	3.909E+02	5.945E+02	3.429E+01	-0.515
	+	239.00		5.514E+02	5.163E+01	8.119E+01	4.970E+00	6.792
		249.79		-2.587E+01	1.361E+02	2.264E+02	1.406E+01	-0.114
		281.68		-4.954E+01	1.997E+02	3.291E+02	2.119E+01	-0.151
		297.23		1.211E+02	1.900E+02	2.156E+02	1.407E+01	0.562
		303.76		1.443E+02	4.228E+02	6.331E+02	4.155E+01	0.228
		439.47		1.418E+02	2.876E+02	4.838E+02	3.253E+01	0.293
		484.57		-4.308E+02	5.006E+02	7.527E+02	4.931E+01	-0.572
		520.65	*	1.460E+01	2.195E+01	3.708E+01	2.352E+00	0.394
		574.64		-1.655E+02	4.776E+02	7.400E+02	4.380E+01	-0.224
		578.91		6.209E+00	2.204E+02	3.246E+02	1.908E+01	0.019
		585.48		1.224E+03	4.995E+02	8.552E+02	4.974E+01	1.431
		755.35		2.261E+02	3.500E+02	6.094E+02	4.117E+01	0.371
		817.79		1.358E+02	2.763E+02	4.749E+02	3.867E+01	0.286
SR-82		698.33		1.169E+01	3.597E+01	6.120E+01	3.433E+00	0.191
		776.49	*	-1.476E-01	3.892E-01	6.179E-01	4.455E-02	-0.239
		1395.20		-1.265E+00	1.165E+01	1.898E+01	1.624E+00	-0.067
RB-83		520.41	*	3.969E-02	6.290E-02	1.060E-01	6.728E-03	0.374
		529.64		7.061E-03	1.035E-01	1.669E-01	1.049E-02	0.042
		552.65		-7.901E-02	1.968E-01	3.044E-01	1.860E-02	-0.260
RB-84		881.50	*	-3.386E-02	7.115E-02	1.110E-01	1.076E-02	-0.305
KR-85		513.99	*	5.998E+00	6.911E+00	1.055E+01	6.739E-01	0.569
SR-85		513.99	*	3.172E-02	3.655E-02	5.579E-02	3.564E-03	0.569
RB-86		1076.63	*	6.117E-01	9.113E-01	1.559E+00	1.237E-01	0.392
Y-88		898.02		6.034E-04	4.159E-02	6.803E-02	6.911E-03	0.009
		1836.01	*	-1.164E-02	3.737E-02	5.673E-02	3.480E-03	-0.205
ZR-88		392.90	*	-3.314E-03	2.871E-02	4.662E-02	3.168E-03	-0.071
Y-91		1204.90	*	1.584E+01	2.048E+01	3.617E+01	2.402E+00	0.438
NB-94		702.63	*	-6.367E-03	3.109E-02	5.090E-02	2.898E-03	-0.125
		871.10		-3.422E-03	3.124E-02	5.060E-02	4.773E-03	-0.068
NB-95		765.79	*	9.803E-02	4.518E-02	8.443E-02	5.892E-03	1.161

---- Non-Identified Nuclides ----

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NB-95M		235.69	*	8.735E-02	1.346E-01	2.067E-01	1.603E-02	0.423
ZR-95		724.18		7.023E-03	1.094E-01	1.586E-01	1.130E-02	0.044
		756.15	*	1.196E-02	6.586E-02	1.106E-01	8.689E-03	0.108
NB-97		657.90	*	2.259E+00	6.586E-02	Half-Life too short		
		1024.50		1.079E+02	6.586E-02	Half-Life too short		
ZR-97		254.15		-1.264E+02	6.586E-02	Half-Life too short		
		355.39		1.049E+01	6.586E-02	Half-Life too short		
		507.63	*	3.712E+01	6.586E-02	Half-Life too short		
		602.52		-9.204E+01	6.586E-02	Half-Life too short		
		1021.30		3.241E+01	6.586E-02	Half-Life too short		
		1147.95		-1.099E+02	6.586E-02	Half-Life too short		
		1362.66		-4.448E+01	6.586E-02	Half-Life too short		
		1750.46		-1.268E+02	6.586E-02	Half-Life too short		
MO-99		140.51		-1.596E+01	6.142E+01	8.624E+01	2.328E+01	-0.185
		181.06		1.254E+01	3.990E+01	5.728E+01	9.778E+00	0.219
		366.43		4.956E+00	1.574E+02	2.591E+02	1.755E+01	0.019
		739.58	*	3.744E+00	2.528E+01	4.233E+01	5.950E+00	0.088
		778.00		3.123E+00	6.640E+01	1.093E+02	7.920E+00	0.029
TC-99M		140.51	*	-3.710E+13	6.640E+01	Half-Life too short		
RH-101		127.23		3.417E-02	3.225E-02	5.417E-02	3.462E-03	0.631
		198.01	*	7.303E-03	3.286E-02	5.182E-02	2.977E-03	0.141
		325.23		7.473E-02	2.371E-01	3.526E-01	2.347E-02	0.212
RH-102		418.52		6.640E-02	2.818E-01	4.657E-01	3.153E-02	0.143
		475.06	*	1.481E-02	2.865E-02	4.789E-02	3.159E-03	0.309
		631.29		-7.322E-04	5.229E-02	8.752E-02	4.656E-03	-0.008
		697.49		2.033E-02	7.624E-02	1.292E-01	7.226E-03	0.157
		766.84		2.501E-01	1.161E-01	2.155E-01	1.508E-02	1.161
		1046.59		-1.209E-01	1.168E-01	1.676E-01	1.408E-02	-0.721
		1112.84		-2.436E-03	2.384E-01	3.292E-01	2.410E-02	-0.007
RU-103		497.08	*	4.839E-03	3.766E-02	6.126E-02	7.948E-03	0.079
	+	610.33		1.295E+01	2.669E+00	2.798E+00	4.289E-01	4.628
RH-106	+	511.85		2.415E-01	2.991E-01	3.728E-01	2.386E-02	0.648
		621.84	*	2.176E-02	2.979E-01	5.022E-01	5.805E-02	0.043
		1050.47		3.772E+00	2.236E+00	4.158E+00	3.468E-01	0.907
RU-106	+	511.85		2.415E-01	2.991E-01	3.728E-01	2.386E-02	0.648
		621.84	*	2.176E-02	2.979E-01	5.022E-01	2.728E-02	0.043
		1050.47		3.772E+00	2.236E+00	4.158E+00	3.468E-01	0.907
AG-108M		433.93	*	-4.532E-04	3.126E-02	5.076E-02	3.639E-03	-0.009
		614.37		-6.435E-03	3.717E-02	5.329E-02	3.214E-03	-0.121
		722.95		2.712E-02	4.353E-02	6.690E-02	4.389E-03	0.405
AG-110M		657.75	*	3.044E-02	3.775E-02	5.927E-02	3.211E-03	0.514
		677.61		1.502E-01	2.677E-01	4.661E-01	2.616E-02	0.322
		706.67		-5.678E-02	1.914E-01	3.109E-01	1.903E-02	-0.183
		763.93		2.261E-02	1.727E-01	2.881E-01	2.085E-02	0.078
		884.67		1.754E-02	4.527E-02	7.676E-02	7.694E-03	0.229
		937.48		-1.860E-01	1.030E-01	1.309E-01	1.313E-02	-1.421
		1384.27		1.177E-02	1.508E-01	2.265E-01	2.000E-02	0.052
IN-111		171.28		-2.237E+00	2.032E+00	3.068E+00	1.687E-01	-0.729
		245.39	*	1.392E+00	2.158E+00	3.328E+00	2.055E-01	0.418

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IN-113M		391.69	*	-4.192E-02	4.197E-02	6.402E-02	4.565E-03	-0.655
SN-113		391.69	*	-4.192E-02	4.197E-02	6.402E-02	4.565E-03	-0.655
IN-114M		190.27	*	1.028E-01	2.003E-01	2.908E-01	1.649E-02	0.354
CD-115		260.90		6.807E-05	2.003E-01	Half-Life too short		
		492.35		1.458E-05	2.003E-01	Half-Life too short		
		527.90	*	1.402E-05	2.003E-01	Half-Life too short		
SN-117M		156.02		-1.207E+00	2.658E+00	4.174E+00	2.363E-01	-0.289
		158.56	*	7.932E-03	6.174E-02	9.932E-02	5.570E-03	0.080
SB-122		563.90	*	2.608E+00	4.186E+00	6.999E+00	4.209E-01	0.373
		692.80		2.423E+01	9.072E+01	1.538E+02	8.470E+00	0.157
I-123		159.00	*	-2.166E+02	9.072E+01	Half-Life too short		
		528.96		3.775E+03	9.072E+01	Half-Life too short		
TE-123M		159.00	*	-2.633E-02	2.844E-02	4.357E-02	2.475E-03	-0.604
I-124		602.71	*	-7.599E-01	1.100E+00	1.494E+00	8.431E-02	-0.508
		722.78		4.698E+00	7.406E+00	1.139E+01	6.937E-01	0.412
		1325.50		1.731E+01	5.391E+01	9.263E+01	7.941E+00	0.187
	+	1376.25		9.859E+01	7.024E+01	9.824E+01	8.454E+00	1.004
		1509.49		4.342E+01	2.507E+01	4.974E+01	4.066E+00	0.873
		1691.02		-6.341E-01	4.584E+00	7.192E+00	5.172E-01	-0.088
SB-124		602.71		-2.807E-02	4.065E-02	5.520E-02	3.116E-03	-0.508
		645.85		-2.672E-02	4.466E-01	7.435E-01	4.437E-02	-0.036
		709.31		2.622E+00	2.554E+00	4.572E+00	2.662E-01	0.573
		713.82		-8.312E-01	1.562E+00	2.482E+00	2.550E-01	-0.335
		722.78		2.516E-01	3.966E-01	6.101E-01	3.874E-02	0.412
	+	968.20		1.114E+01	4.870E+00	6.908E+00	6.512E-01	1.613
		1045.16		-1.917E+00	2.414E+00	3.547E+00	2.987E-01	-0.541
		1325.50		9.899E-01	3.083E+00	5.297E+00	4.541E-01	0.187
		1368.21		3.434E-01	1.755E+00	2.776E+00	3.741E-01	0.124
		1436.60		5.252E-01	2.834E+00	4.824E+00	4.073E-01	0.109
		1691.02	*	-8.008E-03	5.789E-02	9.083E-02	6.901E-03	-0.088
SB-125		427.89	*	2.010E-02	8.964E-02	1.479E-01	1.030E-02	0.136
	+	463.38		4.935E-01	3.457E-01	4.952E-01	3.714E-02	0.997
		600.56		-6.569E-02	1.694E-01	2.606E-01	1.718E-02	-0.252
		635.90		6.818E-02	2.428E-01	4.152E-01	2.632E-02	0.164
TE-125M		109.28	*	4.968E+00	1.162E+01	1.722E+01	1.654E+00	0.289
I-126		388.63		-1.518E-02	2.181E-01	3.554E-01	2.415E-02	-0.043
		666.33	*	1.083E-01	2.205E-01	3.364E-01	1.688E-02	0.322
		753.82		1.930E+00	1.535E+00	2.791E+00	1.876E-01	0.691
SB-126		223.80		-6.478E+00	4.337E+00	6.827E+00	4.088E-01	-0.949
		278.60		1.967E+00	2.781E+00	4.786E+00	3.072E-01	0.411
		296.50		9.304E+00	2.751E+00	3.752E+00	2.448E-01	2.480
		414.70		-3.404E-02	9.253E-02	1.354E-01	9.174E-03	-0.251
		415.30		1.218E+00	7.292E+00	1.161E+01	7.864E-01	0.105
		555.20		7.884E-01	4.339E+00	7.037E+00	4.284E-01	0.112
		573.80		-1.344E-02	1.161E+00	1.907E+00	1.130E-01	-0.007
		593.00		-1.064E+00	1.031E+00	1.605E+00	9.216E-02	-0.663
		656.30		-1.461E+00	4.143E+00	5.786E+00	2.896E-01	-0.253
		666.33		4.557E-02	9.276E-02	1.415E-01	7.099E-03	0.322
		675.00		-3.657E-01	2.019E+00	3.318E+00	1.717E-01	-0.110

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		695.00		-1.357E-02	9.108E-02	1.500E-01	8.322E-03	-0.090
		697.00		1.770E-01	3.164E-01	5.461E-01	3.050E-02	0.324
		720.50	*	6.737E-02	1.777E-01	2.779E-01	1.679E-02	0.242
		856.80		-7.060E-01	6.638E-01	8.123E-01	7.373E-02	-0.869
		989.30		5.005E-02	1.293E+00	2.105E+00	1.932E-01	0.024
		1034.80		-6.340E+00	8.822E+00	1.296E+01	1.111E+00	-0.489
		1213.00		-5.610E+00	5.102E+00	7.631E+00	5.163E-01	-0.735
SB-127		61.10		2.901E+02	1.598E+02	2.710E+02	4.008E+01	1.070
		252.40		5.512E+00	6.817E+00	1.121E+01	4.692E+00	0.492
		290.80		-1.604E+01	3.779E+01	5.364E+01	5.722E+00	-0.299
		411.60		1.871E+00	2.127E+01	3.062E+01	4.746E+00	0.061
		444.90		8.090E+00	1.409E+01	2.379E+01	2.905E+00	0.340
		473.00		-1.398E+00	2.825E+00	4.399E+00	5.498E-01	-0.318
		543.00		5.020E+00	2.587E+01	4.204E+01	5.833E+00	0.119
		603.60		1.038E-01	1.937E+01	2.836E+01	3.298E+00	0.004
		685.20	*	-4.685E-01	1.934E+00	3.154E+00	3.238E-01	-0.149
		698.50		8.478E+00	2.511E+01	4.271E+01	6.460E+00	0.198
		722.20		1.229E+01	5.367E+01	7.925E+01	8.256E+00	0.155
		783.80		7.476E+00	5.977E+00	1.068E+01	1.331E+00	0.700
XE-127		57.60		5.342E+00	1.257E+01	1.915E+01	2.434E+00	0.279
		145.22		7.865E-01	8.231E-01	1.235E+00	7.285E-02	0.637
		172.10		-3.503E-02	1.245E-01	1.957E-01	1.078E-02	-0.179
		202.84	*	5.927E-03	4.677E-02	7.974E-02	4.618E-03	0.074
		374.96		-5.758E-02	1.898E-01	3.053E-01	2.071E-02	-0.189
I-131		80.18		-1.530E-01	7.822E+00	1.154E+01	1.273E+00	-0.013
		284.30		-3.325E-01	1.791E+00	2.958E+00	2.092E-01	-0.112
		364.48	*	-8.844E-02	1.370E-01	2.158E-01	1.593E-02	-0.410
		636.97		-1.085E+00	1.793E+00	2.860E+00	1.728E-01	-0.379
		722.89		5.923E+00	9.446E+00	1.452E+01	9.005E-01	0.408
TE-132		49.72		-8.945E+01	8.375E+01	1.334E+02	1.989E+01	-0.670
	+	111.76		1.025E+02	8.302E+01	1.065E+02	1.157E+01	0.963
		116.30		1.743E+01	5.820E+01	8.545E+01	9.036E+00	0.204
		228.16	*	9.719E-01	1.221E+00	2.110E+00	3.183E-01	0.461
BA-133		53.15		4.938E+00	7.408E+00	1.262E+01	1.672E+00	0.391
		79.62		3.083E-01	1.696E+00	2.522E+00	4.203E-01	0.122
		81.00		-1.877E-01	1.302E-01	1.882E-01	3.252E-02	-0.998
		276.40		3.365E-01	3.603E-01	6.046E-01	8.008E-02	0.557
		302.84		1.747E-02	1.436E-01	2.117E-01	2.552E-02	0.083
		356.01	*	2.381E-03	4.536E-02	6.577E-02	7.935E-03	0.036
		383.85		-7.326E-02	2.688E-01	4.323E-01	4.941E-02	-0.169
I-133	+	510.53		5.127E+00	2.688E-01	Half-Life too short		
		529.87	*	-1.875E-02	2.688E-01	Half-Life too short		
		706.58		-1.280E+00	2.688E-01	Half-Life too short		
		856.28		-7.669E+00	2.688E-01	Half-Life too short		
		875.33		8.382E-01	2.688E-01	Half-Life too short		
		1236.41		1.176E+01	2.688E-01	Half-Life too short		
		1298.22		2.330E+00	2.688E-01	Half-Life too short		
CS-134		475.35		1.399E+00	1.868E+00	3.168E+00	2.089E-01	0.442
		563.23		3.127E-01	3.327E-01	5.696E-01	3.496E-02	0.549

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		569.32		8.461E-02	1.784E-01	2.955E-01	1.813E-02	0.286
		604.70		3.039E-02	3.167E-02	5.080E-02	2.872E-03	0.598
		795.84	*	2.611E-02	4.620E-02	7.934E-02	6.116E-03	0.329
		801.93		9.668E-02	4.156E-01	6.858E-01	5.370E-02	0.141
		1038.57		-8.084E-02	3.471E+00	5.592E+00	4.763E-01	-0.014
		1167.94		-3.485E-01	2.314E+00	3.823E+00	2.398E-01	-0.091
		1365.15		5.544E-01	1.086E+00	1.918E+00	1.731E-01	0.289
CS-135		268.24	*	2.494E-01	1.689E-01	2.695E-01	2.178E-02	0.925
I-135		288.45		4.568E+13	1.689E-01	Half-Life too short		
		417.63		1.440E+13	1.689E-01	Half-Life too short		
		546.56		-5.352E+11	1.689E-01	Half-Life too short		
		836.80		7.112E+12	1.689E-01	Half-Life too short		
		1038.76		4.190E+11	1.689E-01	Half-Life too short		
		1124.00		-4.624E+12	1.689E-01	Half-Life too short		
		1131.51		5.058E+12	1.689E-01	Half-Life too short		
		1260.41	*	5.461E+12	1.689E-01	Half-Life too short		
		1457.56		1.268E+15	1.689E-01	Half-Life too short		
		1678.03		-7.029E+12	1.689E-01	Half-Life too short		
		1706.46		-9.632E+12	1.689E-01	Half-Life too short		
		1791.20		2.660E+12	1.689E-01	Half-Life too short		
CS-136		66.91		2.939E-01	1.289E+00	1.936E+00	3.316E-01	0.152
	+	86.29		4.921E+00	1.913E+00	2.678E+00	3.946E-01	1.838
		153.22		6.931E-01	7.623E-01	1.265E+00	9.059E-02	0.548
		163.89		1.496E+00	1.267E+00	2.116E+00	1.485E-01	0.707
		176.55		1.606E-01	4.244E-01	6.864E-01	4.321E-02	0.234
		273.65		-3.611E-01	5.353E-01	7.504E-01	5.356E-02	-0.481
		340.57		9.064E-02	1.545E-01	2.331E-01	1.640E-02	0.389
		818.51		6.118E-02	7.804E-02	1.372E-01	1.121E-02	0.446
		1048.07	*	-9.513E-02	1.283E-01	1.926E-01	1.687E-02	-0.494
		1235.34		7.349E-01	8.194E-01	1.283E+00	1.386E-01	0.573
CE-139		165.85	*	-3.963E-02	3.161E-02	4.765E-02	2.603E-03	-0.832
BA-140		162.64		1.004E+00	8.852E-01	1.478E+00	9.279E-02	0.680
		304.84		-4.287E-02	1.515E+00	2.207E+00	6.061E-01	-0.019
		423.70		4.862E-01	2.141E+00	3.526E+00	1.127E+00	0.138
		537.32	*	-6.450E-02	2.762E-01	4.325E-01	1.410E-01	-0.149
LA-140	+	328.77		6.123E-01	4.666E-01	5.716E-01	4.164E-02	1.071
		432.53		1.253E+00	2.337E+00	3.929E+00	2.856E-01	0.319
		487.03		-1.573E-02	1.484E-01	2.375E-01	1.716E-02	-0.066
		751.79		2.295E-01	1.807E+00	3.022E+00	2.368E-01	0.076
		815.85		-2.206E-01	3.406E-01	5.246E-01	4.798E-02	-0.420
		867.82		4.260E-01	1.419E+00	2.392E+00	2.338E-01	0.178
		919.63		-5.243E-01	2.704E+00	4.313E+00	5.061E-01	-0.122
		925.24		1.584E-01	1.146E+00	1.895E+00	1.962E-01	0.084
		1596.49	*	2.698E-02	1.004E-01	1.498E-01	1.163E-02	0.180
CE-141		145.44	*	4.314E-02	7.417E-02	1.094E-01	6.695E-03	0.394
CE-143		57.37		8.146E-04	7.417E-02	Half-Life too short		
		231.56		-7.690E-04	7.417E-02	Half-Life too short		
		293.26	*	3.008E-03	7.417E-02	Half-Life too short		
	+	350.59		1.337E-01	7.417E-02	Half-Life too short		

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		490.36		6.251E-03	7.417E-02	Half-Life too short		
		664.57		-1.363E-03	7.417E-02	Half-Life too short		
		721.93		3.080E-03	7.417E-02	Half-Life too short		
CE-144		80.11		5.620E-02	2.812E+00	4.156E+00	4.560E-01	0.014
		133.54	*	4.230E-02	2.108E-01	3.426E-01	4.923E-02	0.123
PM-144		476.78		2.749E-02	6.637E-02	1.102E-01	8.392E-03	0.249
		618.01		9.351E-03	2.890E-02	4.960E-02	2.899E-03	0.189
		696.49	*	1.740E-02	3.470E-02	5.969E-02	3.332E-03	0.292
		778.57		-3.758E-01	2.120E+00	3.422E+00	2.485E-01	-0.110
PR-144		696.49	*	1.181E+00	2.355E+00	4.051E+00	2.259E-01	0.292
		1489.15		-7.577E+00	1.030E+01	1.465E+01	1.209E+00	-0.517
PM-146		453.90	*	6.587E-03	4.334E-02	7.093E-02	6.551E-03	0.093
		633.02		-2.063E-01	1.308E+00	2.163E+00	7.949E-01	-0.095
		735.90		-1.095E-01	1.503E-01	2.297E-01	6.433E-02	-0.476
		747.13		-6.825E-02	8.149E-02	1.241E-01	1.599E-02	-0.550
ND-147	+	91.11		8.585E+00	1.111E+00	1.051E+00	1.172E-01	8.166
		319.41		-1.541E+00	3.630E+00	5.868E+00	3.895E-01	-0.263
		439.89		1.227E+00	6.059E+00	9.985E+00	6.715E-01	0.123
		531.02	*	-1.036E-01	6.661E-01	1.055E+00	1.449E-01	-0.098
PM-149		285.90	*	-1.391E-04	6.661E-01	Half-Life too short		
EU-152		121.78		-2.588E-03	7.355E-02	1.190E-01	9.808E-03	-0.022
		244.69		1.465E-01	3.294E-01	5.018E-01	3.096E-02	0.292
		344.27	*	2.060E-02	9.937E-02	1.539E-01	1.134E-02	0.134
		443.98		-5.217E-01	8.497E-01	1.314E+00	8.821E-02	-0.397
		778.89		9.607E-03	2.372E-01	3.930E-01	2.854E-02	0.024
		867.32		7.354E-04	7.496E-01	1.195E+00	1.116E-01	0.001
		964.01		3.151E-02	3.436E-01	4.904E-01	4.646E-02	0.064
		1085.78		-1.422E-01	3.522E-01	5.397E-01	4.202E-02	-0.263
		1112.02		2.563E-02	3.212E-01	4.714E-01	3.458E-02	0.054
		1407.95		3.530E-02	1.773E-01	2.999E-01	2.557E-02	0.118
GD-153		69.67		-2.150E+00	2.114E+00	3.366E+00	3.754E-01	-0.639
		83.37		2.556E+01	2.013E+01	3.089E+01	3.423E+00	0.828
	+	97.43	*	2.923E-01	1.518E-01	1.580E-01	1.471E-02	1.851
		103.18		4.887E-02	1.173E-01	1.747E-01	1.477E-02	0.280
EU-154		123.07		-4.018E-02	5.233E-02	8.185E-02	8.089E-03	-0.491
		247.94		-3.928E-01	3.263E-01	5.127E-01	5.018E-02	-0.766
		591.81		-3.907E-01	5.793E-01	9.268E-01	9.034E-02	-0.422
		723.30		6.494E-02	1.842E-01	2.755E-01	2.018E-02	0.236
		756.87		1.767E-01	6.741E-01	1.140E+00	1.224E-01	0.155
		873.19		-2.379E-01	2.807E-01	4.182E-01	5.382E-02	-0.569
		996.32		1.500E-01	3.870E-01	5.707E-01	1.027E-01	0.263
		1004.76		1.123E-01	2.270E-01	3.393E-01	4.041E-02	0.331
		1274.45	*	-4.182E-02	1.221E-01	1.962E-01	2.090E-02	-0.213
EU-155		48.70		-4.251E+00	5.895E+00	9.611E+00	1.154E+00	-0.442
		60.01		1.007E+00	8.730E+00	1.312E+01	1.616E+00	0.077
	+	86.54		3.895E-01	1.468E-01	2.119E-01	2.398E-02	1.839
		105.31	*	1.247E-01	1.136E-01	1.920E-01	1.592E-02	0.650
TB-160	+	86.79		1.069E+00	4.028E-01	5.791E-01	6.524E-02	1.846
		197.04		-3.292E-01	5.766E-01	8.755E-01	5.021E-02	-0.376

---- Non-Identified Nuclides ----

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		215.65		-1.434E-01	7.048E-01	1.183E+00	6.993E-02	-0.121
	+	298.57		1.777E-01	1.916E-01	1.916E-01	1.252E-02	0.927
		879.36	*	-6.818E-03	1.350E-01	2.198E-01	2.120E-02	-0.031
		962.29		2.855E-01	6.314E-01	9.383E-01	8.908E-02	0.304
		966.15		7.310E-01	2.896E-01	4.869E-01	4.601E-02	1.502
		1177.93		1.898E-01	3.337E-01	5.868E-01	3.659E-02	0.323
		1271.85		5.404E-01	6.649E-01	1.195E+00	9.194E-02	0.452
HO-166M		80.57		-1.810E-01	3.602E-01	5.199E-01	5.711E-02	-0.348
	+	184.41		3.170E-01	6.067E-02	8.094E-02	4.546E-03	3.916
		280.46		-7.987E-02	8.311E-02	1.322E-01	8.501E-03	-0.604
		410.95		6.413E-02	2.641E-01	3.849E-01	2.610E-02	0.167
		711.68	*	-2.105E-02	5.658E-02	9.128E-02	5.357E-03	-0.231
		752.31		4.388E-02	2.495E-01	4.189E-01	2.803E-02	0.105
		810.29		-3.154E-02	5.427E-02	8.449E-02	6.731E-03	-0.373
TM-171		51.35		5.102E+00	6.613E+01	1.111E+02	1.461E+01	0.046
		52.39		1.410E+01	3.352E+01	5.681E+01	7.525E+00	0.248
		59.40		1.841E+00	4.818E+01	7.219E+01	8.968E+00	0.025
		66.72	*	-3.333E+00	4.067E+01	6.031E+01	6.871E+00	-0.055
LU-176	+	88.36		4.396E-01	2.618E-01	4.012E-01	4.513E-02	1.096
		201.83		-1.221E-02	2.697E-02	4.499E-02	2.601E-03	-0.271
		306.84	*	-5.994E-03	2.558E-02	3.666E-02	2.411E-03	-0.164
		401.10		3.081E+00	6.387E+00	1.073E+01	7.290E-01	0.287
LU-177M		52.97		2.286E+00	3.403E+00	5.800E+00	7.684E-01	0.394
		54.07		3.630E-01	1.739E+00	2.927E+00	3.861E-01	0.124
		61.30		5.754E+00	2.553E+00	4.344E+00	5.256E-01	1.325
		121.62		2.625E-02	3.785E-01	6.151E-01	4.070E-02	0.043
		147.16		4.719E-02	7.126E-01	1.023E+00	5.986E-02	0.046
		171.86		-3.357E-01	4.846E-01	7.473E-01	4.114E-02	-0.449
		218.09		-2.795E-01	8.080E-01	1.347E+00	7.997E-02	-0.207
	+	268.79		1.934E+00	1.220E+00	1.416E+00	8.994E-02	1.366
		319.02		-1.911E-01	2.399E-01	3.790E-01	2.514E-02	-0.504
		367.43		-1.646E-01	8.266E-01	1.341E+00	9.078E-02	-0.123
		413.65	*	-9.212E-02	1.913E-01	2.609E-01	1.768E-02	-0.353
HF-181		56.28		1.026E+00	1.830E+00	3.104E+00	4.010E-01	0.331
		57.53		1.453E-01	1.063E+00	1.602E+00	2.038E-01	0.091
		65.20		9.979E-01	1.453E+00	2.224E+00	2.570E-01	0.449
		133.02		1.586E-02	6.956E-02	1.133E-01	7.034E-03	0.140
		136.25		1.718E-01	4.881E-01	7.977E-01	4.882E-02	0.215
		345.85		-1.266E-01	2.290E-01	3.172E-01	2.134E-02	-0.399
		482.03	*	1.825E-02	4.074E-02	6.791E-02	4.458E-03	0.269
W-181		56.28		3.905E-01	6.943E-01	1.178E+00	1.522E-01	0.332
		57.53		5.492E-02	4.038E-01	6.082E-01	7.739E-02	0.090
		65.20	*	3.759E-01	5.474E-01	8.378E-01	9.680E-02	0.449
TA-182		67.75		-2.078E-02	1.492E-01	2.351E-01	2.656E-02	-0.088
		100.10		3.045E-01	1.998E-01	3.120E-01	2.773E-02	0.976
		152.43		2.922E-01	3.404E-01	5.643E-01	3.237E-02	0.518
		222.10		1.134E-02	3.156E-01	5.341E-01	3.190E-02	0.021
	+	1001.68		9.621E+00	3.624E+00	5.062E+00	4.566E-01	1.901
	+	1121.28		5.954E-01	2.691E-01	3.174E-01	2.275E-02	1.876

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		1189.05		-2.132E-01	3.105E-01	4.882E-01	3.125E-02	-0.437
		1221.42	*	-1.071E-01	1.882E-01	2.982E-01	2.056E-02	-0.359
		1230.97		-2.236E-01	5.632E-01	7.708E-01	5.430E-02	-0.290
RE-183		57.98		-1.205E-02	3.963E-01	5.926E-01	7.498E-02	-0.020
		59.32		1.635E-02	2.042E-01	3.065E-01	3.811E-02	0.053
		67.20		1.734E-01	2.874E-01	4.381E-01	4.971E-02	0.396
		162.32	*	1.017E-01	1.149E-01	1.901E-01	1.052E-02	0.535
	+	208.81		2.921E+00	1.329E+00	1.779E+00	1.040E-01	1.642
		291.72		-4.630E-01	9.785E-01	1.383E+00	8.990E-02	-0.335
RE-184		57.98		-4.365E-02	1.436E+00	2.147E+00	2.716E-01	-0.020
		59.32		5.918E-02	7.391E-01	1.109E+00	1.380E-01	0.053
		67.20		6.280E-01	1.041E+00	1.587E+00	1.800E-01	0.396
		161.27		-1.220E-01	3.606E-01	5.679E-01	3.153E-02	-0.215
		216.55		-6.836E-02	2.467E-01	4.126E-01	2.443E-02	-0.166
		252.85	*	8.766E-02	2.078E-01	3.557E-01	2.218E-02	0.246
		318.01		-2.380E-01	4.081E-01	6.531E-01	4.329E-02	-0.364
		792.07		2.570E-01	9.734E-01	1.638E+00	1.237E-01	0.157
		903.28		4.926E-01	9.525E-01	1.550E+00	1.562E-01	0.318
		920.93		-3.080E-02	3.887E-01	6.283E-01	6.232E-02	-0.049
OS-185		59.72		-1.441E-02	5.330E-01	7.961E-01	9.846E-02	-0.018
		61.14		5.235E-01	2.718E-01	4.664E-01	5.655E-02	1.122
		69.30		-5.493E-01	3.898E-01	6.086E-01	6.803E-02	-0.903
		592.07		-1.770E+00	2.402E+00	3.829E+00	2.202E-01	-0.462
		646.12	*	-8.881E-04	3.717E-02	6.205E-02	3.188E-03	-0.014
		717.42		-2.424E-01	8.616E-01	1.399E+00	8.370E-02	-0.173
		874.81		2.471E-01	5.582E-01	9.507E-01	9.057E-02	0.260
		880.27		-5.685E-01	7.861E-01	1.196E+00	1.156E-01	-0.475
RE-188		155.03	*	1.948E-02	1.766E-01	2.841E-01	1.614E-02	0.069
		477.96		2.827E-01	3.159E+00	5.133E+00	3.379E-01	0.055
		633.10		-4.290E-01	2.716E+00	4.498E+00	2.383E-01	-0.095
W-188	+	63.58		7.486E+02	1.825E+02	1.803E+02	2.120E+01	4.152
		227.08		1.345E+01	1.209E+01	2.129E+01	1.281E+00	0.632
		290.67	*	8.460E-02	7.770E+00	1.139E+01	7.397E-01	0.007
IR-192	+	295.96		1.003E+00	1.801E-01	2.759E-01	1.822E-02	3.635
		308.46		-5.908E-02	9.096E-02	1.455E-01	9.667E-03	-0.406
		316.51	*	-6.763E-04	3.192E-02	5.285E-02	3.513E-03	-0.013
		468.07		-5.745E-03	7.149E-02	1.002E-01	7.429E-03	-0.057
		604.41		4.212E-01	4.409E-01	7.041E-01	7.929E-02	0.598
		612.46		4.482E-01	7.008E-01	1.089E+00	8.032E-02	0.411
AU-195		65.12		1.847E-01	2.531E-01	3.878E-01	4.485E-02	0.476
		66.83		2.529E-02	1.341E-01	2.013E-01	2.291E-02	0.126
	+	75.70		1.708E+00	3.388E-01	5.359E-01	5.862E-02	3.186
	+	98.88	*	8.535E-01	4.431E-01	4.500E-01	4.083E-02	1.897
		129.76		-1.058E+00	2.953E+00	4.703E+00	2.967E-01	-0.225
TL-200		367.94	*	-1.412E-03	2.953E+00	Half-Life too short		
		579.30		7.421E-03	2.953E+00	Half-Life too short		
		828.27		-6.288E-03	2.953E+00	Half-Life too short		
		1205.75		1.173E-02	2.953E+00	Half-Life too short		
TL-201		68.90		-1.259E+01	1.177E+01	1.869E+01	2.095E+00	-0.674

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		70.82		3.467E+00	7.146E+00	1.082E+01	1.199E+00	0.321
		80.30		-5.115E+00	1.306E+01	1.896E+01	2.081E+00	-0.270
		135.34		-1.570E+01	5.143E+01	8.193E+01	5.034E+00	-0.192
		167.43	*	3.833E+00	1.339E+01	2.162E+01	1.183E+00	0.177
TL-202		68.90		-6.852E-01	6.405E-01	1.017E+00	1.140E-01	-0.674
		70.82		1.882E-01	3.878E-01	5.870E-01	6.507E-02	0.321
		80.30		-2.777E-01	7.092E-01	1.029E+00	1.130E-01	-0.270
		439.56	*	2.605E-02	7.035E-02	1.173E-01	7.889E-03	0.222
HG-203		70.83		7.442E-01	1.489E+00	2.252E+00	3.442E-01	0.330
		72.87		1.698E+00	9.438E-01	1.443E+00	2.146E-01	1.176
		82.60		8.241E-01	1.463E+00	2.334E+00	3.590E-01	0.353
		279.20	*	1.059E-02	4.024E-02	6.797E-02	4.587E-03	0.156
BI-207		72.80		4.091E-01	2.580E-01	3.998E-01	4.398E-02	1.023
	+	74.97		4.752E-01	1.502E-01	2.688E-01	2.942E-02	1.768
		84.90		2.622E-01	2.524E-01	3.848E-01	4.293E-02	0.682
		569.67		1.678E-02	2.802E-02	4.684E-02	2.793E-03	0.358
		1063.62	*	2.788E-02	5.450E-02	9.200E-02	7.489E-03	0.303
		1770.23		-1.658E+00	6.032E-01	4.148E-01	2.752E-02	-3.998
TL-207		81.07		-4.078E-01	2.817E-01	4.154E-01	4.568E-02	-0.982
		83.78		1.893E-01	1.687E-01	2.579E-01	2.863E-02	0.734
		94.90		4.182E-01	3.427E-01	4.276E-01	4.175E-02	0.978
		122.32		-4.467E-01	1.745E+00	2.797E+00	2.064E-01	-0.160
	+	144.24		1.656E+00	1.091E+00	1.236E+00	9.055E-02	1.340
		154.21		1.626E-01	3.972E-01	6.468E-01	4.482E-02	0.251
	+	269.46		4.471E-01	2.821E-01	3.267E-01	2.155E-02	1.369
		323.87	*	-3.126E-02	7.147E-01	1.036E+00	1.744E-01	-0.030
	+	338.28		4.986E+00	1.488E+00	2.105E+00	2.327E-01	2.369
		445.03		1.258E+00	1.945E+00	3.300E+00	3.567E-01	0.381
PO-209		260.50		7.064E-01	8.870E+00	1.492E+01	9.388E-01	0.047
		262.80		-1.114E+01	2.405E+01	3.934E+01	2.483E+00	-0.283
		896.60	*	7.866E+00	7.287E+00	1.297E+01	1.308E+00	0.607
BI-210		46.50	*	1.330E+01	9.526E+00	1.659E+01	1.628E+00	0.801
PB-210		46.50	*	1.330E+01	9.526E+00	1.659E+01	1.628E+00	0.801
PO-210		46.50	*	1.330E+01	9.511E+00	1.659E+01	1.490E+00	0.801
PB-211		404.84	*	3.044E-01	9.771E-01	1.409E+00	8.800E-01	0.216
		427.08		-6.151E-01	2.029E+00	3.177E+00	1.967E+00	-0.194
		831.96		-6.039E-02	1.222E+00	1.999E+00	1.252E+00	-0.030
BI-212	+	727.18	*	1.075E+00	4.369E-01	6.366E-01	5.093E-02	1.688
		785.46		2.614E+00	1.715E+00	3.133E+00	2.321E-01	0.834
		1620.62		1.437E+00	1.237E+00	2.332E+00	1.778E-01	0.616
PO-215		81.07		-4.078E-01	2.817E-01	4.154E-01	4.568E-02	-0.982
		83.78		1.893E-01	1.687E-01	2.579E-01	2.863E-02	0.734
		94.90		4.182E-01	3.427E-01	4.276E-01	4.175E-02	0.978
		122.32		-4.467E-01	1.745E+00	2.797E+00	2.064E-01	-0.160
	+	144.24		1.656E+00	1.091E+00	1.236E+00	9.055E-02	1.340
		154.21		1.626E-01	3.972E-01	6.468E-01	4.482E-02	0.251
	+	269.46		4.471E-01	2.821E-01	3.267E-01	2.155E-02	1.369
		323.87	*	-3.126E-02	7.147E-01	1.036E+00	1.744E-01	-0.030
	+	338.28		4.986E+00	1.488E+00	2.105E+00	2.327E-01	2.369

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		445.03		1.258E+00	1.945E+00	3.300E+00	3.567E-01	0.381
RN-219	+	271.23		5.737E-01	3.632E-01	3.962E-01	3.376E-02	1.448
		401.81	*	1.099E-01	3.934E-01	6.531E-01	9.180E-02	0.168
RN-220		549.76	*	9.426E+00	2.557E+01	4.204E+01	2.578E+00	0.224
RA-223		81.07		-4.078E-01	2.817E-01	4.154E-01	4.568E-02	-0.982
		83.78		1.893E-01	1.687E-01	2.579E-01	2.863E-02	0.734
		94.90		4.182E-01	3.427E-01	4.276E-01	4.175E-02	0.978
		122.32		-4.467E-01	1.745E+00	2.797E+00	2.064E-01	-0.160
	+	144.24		1.656E+00	1.091E+00	1.236E+00	9.055E-02	1.340
		154.21		1.626E-01	3.972E-01	6.468E-01	4.482E-02	0.251
	+	269.46		4.471E-01	2.821E-01	3.267E-01	2.155E-02	1.369
		323.87	*	-3.126E-02	7.147E-01	1.036E+00	1.744E-01	-0.030
	+	338.28		4.986E+00	1.488E+00	2.105E+00	2.327E-01	2.369
		445.03		1.258E+00	1.945E+00	3.300E+00	3.567E-01	0.381
AC-227		79.80		-4.928E-02	2.166E+00	3.196E+00	7.205E-01	-0.015
		236.00		6.120E-01	2.652E-01	4.263E-01	4.527E-02	1.436
		256.20	*	1.971E-01	3.431E-01	5.890E-01	8.339E-02	0.335
		286.10		-1.233E+00	1.442E+00	2.287E+00	2.723E-01	-0.539
	+	299.80		2.200E+00	2.396E+00	2.346E+00	3.886E-01	0.938
		304.40		1.233E+00	1.878E+00	2.858E+00	5.022E-01	0.431
		334.20		6.491E-01	2.268E+00	3.361E+00	6.263E-01	0.193
TH-227		79.80		-4.928E-02	2.166E+00	3.196E+00	7.289E-01	-0.015
		94.00		1.760E+01	4.961E+00	5.225E+00	1.167E+00	3.368
		236.00		6.120E-01	2.633E-01	4.263E-01	3.943E-02	1.436
		256.20	*	1.971E-01	3.436E-01	5.890E-01	1.005E-01	0.335
		286.10		-1.233E+00	1.893E+00	2.287E+00	2.291E+00	-0.539
	+	299.80		2.200E+00	2.396E+00	2.346E+00	3.886E-01	0.938
		304.40		1.233E+00	1.878E+00	2.858E+00	5.022E-01	0.431
		334.20		6.491E-01	2.268E+00	3.361E+00	6.263E-01	0.193
TH-229	+	85.43		7.244E-01	2.729E-01	3.881E-01	4.341E-02	1.867
	+	88.47		2.531E-01	1.507E-01	2.275E-01	2.552E-02	1.112
		100.00		3.480E-01	2.056E-01	3.228E-01	2.873E-02	1.078
		193.63	*	1.288E-01	4.919E-01	7.881E-01	4.495E-02	0.163
		210.97		2.609E-02	7.740E-01	1.160E+00	6.809E-02	0.022
PA-231		283.67	*	2.478E-01	1.443E+00	2.426E+00	3.413E-01	0.102
	+	301.29		8.800E-01	9.522E-01	9.515E-01	1.036E-01	0.925
TH-231		81.07		-4.078E-01	2.817E-01	4.154E-01	4.568E-02	-0.982
		83.78		1.893E-01	1.687E-01	2.579E-01	2.863E-02	0.734
		94.90		4.182E-01	3.427E-01	4.276E-01	4.175E-02	0.978
		122.32		-4.467E-01	1.745E+00	2.797E+00	2.064E-01	-0.160
	+	144.24		1.656E+00	1.091E+00	1.236E+00	9.055E-02	1.340
		154.21		1.626E-01	3.972E-01	6.468E-01	4.482E-02	0.251
	+	269.46		4.471E-01	2.821E-01	3.267E-01	2.155E-02	1.369
		323.87	*	-3.126E-02	7.147E-01	1.036E+00	1.744E-01	-0.030
	+	338.28		4.986E+00	1.488E+00	2.105E+00	2.327E-01	2.369
		445.03		1.258E+00	1.945E+00	3.300E+00	3.567E-01	0.381
U-231		84.21		1.490E+01	1.169E+01	1.794E+01	1.995E+00	0.831
	+	92.29		8.785E+01	1.093E+01	1.170E+01	1.204E+00	7.510
		95.87	*	9.733E-01	2.618E+00	3.107E+00	2.978E-01	0.313

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		108.00		1.488E-01	4.032E+00	5.876E+00	4.625E-01	0.025
PA-233	+	75.28		1.387E+01	4.724E+00	8.188E+00	1.373E+00	1.693
	+	86.59		6.324E+00	2.874E+00	3.439E+00	9.554E-01	1.839
	+	300.12		6.133E-01	6.657E-01	6.645E-01	9.153E-02	0.923
		311.98	*	-2.608E-03	5.985E-02	9.905E-02	6.854E-03	-0.026
		340.50		4.483E-01	6.529E-01	9.804E-01	2.276E-01	0.457
		398.62		-4.378E-01	2.059E+00	3.317E+00	8.656E-01	-0.132
		415.76		1.961E-01	1.576E+00	2.588E+00	5.405E-01	0.076
PA-234	+	63.00		2.108E+01	5.814E+00	5.345E+00	9.353E-01	3.944
		94.67		4.393E-01	2.534E-01	3.200E-01	4.242E-02	1.373
	+	98.44		3.420E-01	2.590E-01	1.815E-01	1.014E-01	1.885
		99.86		1.009E+00	5.269E-01	8.327E-01	7.430E-02	1.212
	+	111.00		3.422E-01	2.773E-01	3.464E-01	3.932E-02	0.988
		131.20		-7.095E-02	1.069E-01	1.679E-01	1.051E-02	-0.423
		152.70		2.327E-01	3.263E-01	5.350E-01	8.444E-02	0.435
	+	186.00		1.141E+01	4.061E+00	3.074E+00	9.383E-01	3.712
		226.40		3.527E-01	3.693E-01	6.438E-01	7.512E-02	0.548
		227.20		4.322E-01	3.977E-01	6.993E-01	4.208E-02	0.618
		248.90		-5.784E-01	7.419E-01	1.182E+00	2.553E-01	-0.489
	+	293.70		6.142E+00	1.436E+00	1.597E+00	2.612E-01	3.845
		369.80		-3.288E-01	7.730E-01	1.230E+00	2.597E-01	-0.267
		568.70		-2.915E-01	9.535E-01	1.484E+00	8.861E-02	-0.196
		569.50		1.333E-01	2.474E-01	4.118E-01	2.456E-02	0.324
		574.00		-1.382E-01	1.406E+00	2.294E+00	1.359E-01	-0.060
		699.00		2.367E-01	6.978E-01	1.186E+00	2.126E-01	0.200
		706.10		-6.737E-01	9.960E-01	1.492E+00	6.585E-01	-0.451
		733.00		2.916E-01	3.848E-01	5.953E-01	1.274E-01	0.490
		742.81		1.618E+00	1.722E+00	2.414E+00	1.617E+00	0.670
		796.30		2.372E-01	9.031E-01	1.515E+00	4.053E-01	0.157
		805.60		4.881E-01	9.990E-01	1.691E+00	5.149E-01	0.289
		819.60		5.244E-01	1.134E+00	1.915E+00	7.263E-01	0.274
		826.30		2.022E-01	7.407E-01	1.239E+00	5.538E-01	0.163
		831.60		-5.135E-02	6.226E-01	1.016E+00	3.027E-01	-0.051
		876.40		6.052E-01	9.949E-01	1.362E+00	1.401E+00	0.445
		880.51		-2.012E-01	2.781E-01	4.232E-01	4.093E-02	-0.475
		883.24		9.778E-02	2.725E-01	4.478E-01	3.017E-01	0.218
		899.00		-2.919E-02	8.197E-01	1.334E+00	5.876E-01	-0.022
		925.00		2.745E-01	1.007E+00	1.688E+00	1.667E-01	0.163
		926.50		2.682E-02	1.519E-01	2.519E-01	6.480E-02	0.107
		946.00	*	1.004E-01	3.082E-01	5.151E-01	9.925E-02	0.195
		949.00		2.144E-01	4.183E-01	7.133E-01	6.874E-02	0.301
		980.50		-1.140E-01	5.937E-01	9.409E-01	8.735E-02	-0.121
		1394.10		-4.964E-01	1.194E+00	1.790E+00	1.165E+00	-0.277
PA-234M		766.42		2.584E+01	1.762E+01	2.229E+01	1.125E+01	1.159
	+	1001.03	*	2.146E+01	8.155E+00	1.140E+01	1.177E+00	1.883
NP-236		94.67		3.404E-01	1.902E-01	2.434E-01	2.388E-02	1.398
	+	98.44		2.585E-01	1.342E-01	1.372E-01	1.255E-02	1.885
	+	111.00		2.589E-01	2.086E-01	2.620E-01	1.979E-02	0.988
		160.31	*	-1.230E-01	8.173E-02	1.217E-01	6.784E-03	-1.010

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NP-239	+	99.55		5.909E-01	3.068E-01	2.904E-01	2.605E-02	2.035
		117.00	*	3.567E-02	1.970E-01	3.072E-01	2.149E-02	0.116
	+	209.75		2.239E+00	1.019E+00	1.341E+00	7.855E-02	1.669
		228.18		1.656E-01	2.122E-01	3.688E-01	2.223E-02	0.449
		277.60		1.751E-01	1.711E-01	2.982E-01	1.912E-02	0.587
		334.30		3.018E-01	1.280E+00	1.892E+00	1.266E-01	0.160
AM-241		59.54	*	-9.785E-03	2.772E-01	4.140E-01	5.317E-02	-0.024
CM-243	+	99.55		6.082E-01	3.158E-01	2.988E-01	2.681E-02	2.035
		103.76	*	1.002E-01	1.052E-01	1.697E-01	1.422E-02	0.591
		117.00		3.671E-02	2.028E-01	3.161E-01	2.211E-02	0.116
	+	209.75		2.207E+00	1.004E+00	1.322E+00	7.745E-02	1.669
		228.18		1.673E-01	2.145E-01	3.728E-01	2.247E-02	0.449
		277.60		1.765E-01	1.725E-01	3.007E-01	1.928E-02	0.587
AM-246		798.80		-1.460E-01	1.436E-01	2.168E-01	1.670E-02	-0.674
		1036.00		3.960E-02	2.598E-01	4.270E-01	3.652E-02	0.093
		1062.04		5.068E-02	2.421E-01	3.979E-01	3.249E-02	0.127
		1078.86	*	1.694E-01	1.473E-01	2.616E-01	2.066E-02	0.648
CM-247		278.00		8.184E-01	7.123E-01	1.247E+00	7.999E-02	0.656
		287.40		-6.912E-01	1.162E+00	1.879E+00	1.216E-01	-0.368
		402.60	*	-3.199E-02	3.598E-02	5.540E-02	3.762E-03	-0.577
CF-249		252.85		3.250E-01	7.706E-01	1.319E+00	8.222E-02	0.246
		333.44		6.996E-02	1.823E-01	2.548E-01	1.704E-02	0.275
		387.95	*	2.921E-02	3.596E-02	6.178E-02	4.198E-03	0.473
CF-251		176.60	*	2.804E-02	1.260E-01	2.024E-01	1.123E-02	0.139
		227.00		3.171E-01	3.538E-01	6.179E-01	3.717E-02	0.513
		285.00		-1.214E+00	1.637E+00	2.624E+00	1.695E-01	-0.463

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032522    *
* Acquisition date : 14-FEB-2010 13:18:21 Detector SN#     :               *
* Detector ID        : GAM10               Sensitivity      : 5.000        *
* Geometry           : CAN                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:01.17      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 27-JAN-2010 12:00:00 Nuclide Library : SOLID         *
* Sample ID          : G1202032522          Analyst initials: MXR1          *
* Batch Number       : 948721               Sample Quantity : 1.3884E+02 GRAM *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM            :    0.000             MSD Isotope      :             *
* LCS DPM            :    0.000             LCS Isotope      :             *
* LCSD DPM           :    0.000             LCSD Isotope     :             *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	2.443E+01	2.568E+00	2.791E-01	0.000E+00
CD-109	3.301E+00	1.219E+00	1.697E+00	0.000E+00
SN-126	3.231E-01	1.193E-01	1.673E-01	0.000E+00
BA-137M	4.048E-01	7.021E-02	5.566E-02	0.000E+00
CS-137	4.280E-01	7.425E-02	5.883E-02	0.000E+00
LU-177	4.275E+00	1.907E+00	2.443E+00	0.000E+00
TL-208	4.309E-01	8.913E-02	5.665E-02	0.000E+00
BI-211	3.835E+00	5.529E-01	3.297E-01	0.000E+00
PB-212	1.458E+00	1.483E-01	8.793E-02	0.000E+00
PO-212	1.458E+00	1.483E-01	8.793E-02	0.000E+00
BI-214	1.139E+00	1.756E-01	9.954E-02	0.000E+00
PB-214	1.334E+00	2.041E-01	1.149E-01	0.000E+00
PO-214	1.334E+00	2.041E-01	1.149E-01	0.000E+00
PO-216	1.458E+00	1.483E-01	8.793E-02	0.000E+00
PO-218	1.334E+00	2.041E-01	1.149E-01	0.000E+00
RA-224	3.356E+00	1.001E+00	1.000E+00	0.000E+00
RA-226	1.139E+00	1.756E-01	9.954E-02	0.000E+00
AC-228	1.490E+00	3.027E-01	1.718E-01	0.000E+00
RA-228	1.490E+00	3.027E-01	1.718E-01	0.000E+00
TH-228	1.484E+00	1.510E-01	8.953E-02	0.000E+00
TH-230	1.138E+00	1.756E-01	9.954E-02	0.000E+00
TH-232	1.490E+00	3.027E-01	1.718E-01	0.000E+00
TH-234	1.809E+01	5.149E+00	3.191E+00	0.000E+00
U-234	1.138E+00	1.756E-01	9.954E-02	0.000E+00
U-235	5.109E-01	3.379E-01	3.435E-01	0.000E+00
NP-237	9.486E-01	3.994E-01	5.248E-01	0.000E+00
U-238	1.809E+01	5.149E+00	3.191E+00	0.000E+00
AM-243	2.647E-01	8.201E-02	1.222E-01	0.000E+00
ANH-511	4.809E-02	5.836E-02	4.712E-02	0.000E+00

---- Non-Identified Nuclides ----

	Key-Line Activity	K.L. Act error	MDA

Nuclide	(pCi/GRAM	) Ided	(pCi/GRAM	)	
BE-7	6.054E-02	3.249E-01	5.564E-01	0.000E+00	NOT IDENT.
NA-22	-2.265E-02	4.336E-02	7.032E-02	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.832E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.781E-02	2.574E-02	4.850E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	5.018E-02	8.480E-02	0.000E+00	NOT IDENT.
SC-46	-3.178E-02	3.570E-02	5.467E-02	0.000E+00	FAIL ABUN
V-48	-2.655E-02	6.771E-02	1.083E-01	0.000E+00	NOT IDENT.
CR-51	-6.318E-02	3.616E-01	6.263E-01	0.000E+00	NOT IDENT.
MN-52	-1.310E-01	2.580E-01	3.963E-01	0.000E+00	NOT IDENT.
MN-54	3.522E-02	3.744E-02	6.793E-02	0.000E+00	NOT IDENT.
CO-56	1.148E-02	3.705E-02	6.463E-02	0.000E+00	FAIL ABUN
CO-57	3.461E-03	2.465E-02	4.319E-02	0.000E+00	NOT IDENT.
CO-58	-3.454E-03	3.500E-02	5.916E-02	0.000E+00	NOT IDENT.
FE-59	-4.781E-03	9.158E-02	1.508E-01	0.000E+00	FAIL ABUN
CO-60	-2.070E-02	3.487E-02	5.480E-02	0.000E+00	NOT IDENT.
ZN-65	2.930E-02	9.376E-02	1.395E-01	0.000E+00	NOT IDENT.
GE-68	7.376E-01	1.271E+00	2.222E+00	0.000E+00	NOT IDENT.
AS-73	6.958E-01	1.719E+00	3.177E+00	0.000E+00	NOT IDENT.
AS-74	8.149E-03	9.180E-02	1.620E-01	0.000E+00	NOT IDENT.
SE-75	-5.955E-02	4.711E-02	6.676E-02	0.000E+00	NOT IDENT.
BR-77	1.460E+01	2.151E+01	3.799E+01	0.000E+00	FAIL ABUN
SR-82	-1.476E-01	3.815E-01	6.281E-01	0.000E+00	NOT IDENT.
RB-83	3.969E-02	6.164E-02	1.086E-01	0.000E+00	NOT IDENT.
RB-84	-3.386E-02	6.972E-02	1.125E-01	0.000E+00	NOT IDENT.
KR-85	5.998E+00	6.773E+00	1.081E+01	0.000E+00	NOT IDENT.
SR-85	3.172E-02	3.582E-02	5.718E-02	0.000E+00	NOT IDENT.
RB-86	6.117E-01	8.931E-01	1.574E+00	0.000E+00	NOT IDENT.
Y-88	-1.164E-02	3.662E-02	5.665E-02	0.000E+00	NOT IDENT.
ZR-88	-3.314E-03	2.814E-02	4.804E-02	0.000E+00	NOT IDENT.
Y-91	1.584E+01	2.007E+01	3.644E+01	0.000E+00	NOT IDENT.
NB-94	-6.367E-03	3.046E-02	5.185E-02	0.000E+00	NOT IDENT.
NB-95	0.000E+00	4.428E-02	8.585E-02	0.000E+00	NOT IDENT.
NB-95M	8.735E-02	1.319E-01	2.151E-01	0.000E+00	NOT IDENT.
ZR-95	1.196E-02	6.454E-02	1.125E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.894E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.585E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	3.744E+00	2.477E+01	4.307E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.401E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.303E-03	3.220E-02	5.412E-02	0.000E+00	NOT IDENT.
RH-102	1.481E-02	2.807E-02	4.916E-02	0.000E+00	NOT IDENT.
RU-103	4.839E-03	3.690E-02	6.283E-02	0.000E+00	FAIL ABUN
RH-106	2.176E-02	2.920E-01	5.128E-01	0.000E+00	FAIL ABUN
RU-106	2.176E-02	2.920E-01	5.128E-01	0.000E+00	FAIL ABUN
AG-108M	-4.532E-04	3.063E-02	5.220E-02	0.000E+00	NOT IDENT.
AG-110M	3.044E-02	3.700E-02	6.045E-02	0.000E+00	NOT IDENT.
IN-111	1.392E+00	2.115E+00	3.461E+00	0.000E+00	NOT IDENT.
IN-113M	-4.192E-02	4.113E-02	6.597E-02	0.000E+00	NOT IDENT.
SN-113	-4.192E-02	4.113E-02	6.597E-02	0.000E+00	NOT IDENT.
IN-114M	1.028E-01	1.962E-01	3.039E-01	0.000E+00	NOT IDENT.
CD-115	0.000E+00	2.495E+01	0.000E+00	0.000E+00	SHORT HLIF
SN-117M	7.932E-03	6.050E-02	1.042E-01	0.000E+00	NOT IDENT.
SB-122	2.608E+00	4.102E+00	7.160E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.293E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.633E-02	2.787E-02	4.569E-02	0.000E+00	NOT IDENT.
I-124	-7.599E-01	1.078E+00	1.527E+00	0.000E+00	FAIL ABUN
SB-124	-8.008E-03	5.673E-02	9.086E-02	0.000E+00	FAIL ABUN
SB-125	2.010E-02	8.785E-02	1.522E-01	0.000E+00	FAIL ABUN
TE-125M	4.968E+00	1.138E+01	1.819E+01	0.000E+00	NOT IDENT.
I-126	1.083E-01	2.161E-01	3.430E-01	0.000E+00	NOT IDENT.
SB-126	6.737E-02	1.741E-01	2.829E-01	0.000E+00	NOT IDENT.
SB-127	-4.685E-01	1.895E+00	3.215E+00	0.000E+00	NOT IDENT.
XE-127	5.927E-03	4.583E-02	8.323E-02	0.000E+00	NOT IDENT.
I-131	-8.844E-02	1.342E-01	2.227E-01	0.000E+00	NOT IDENT.
TE-132	9.719E-01	1.196E+00	2.198E+00	0.000E+00	FAIL ABUN
BA-133	2.381E-03	4.445E-02	6.790E-02	0.000E+00	NOT IDENT.
I-133	0.000E+00	6.097E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.611E-02	4.527E-02	8.060E-02	0.000E+00	NOT IDENT.
CS-135	2.494E-01	1.656E-01	2.798E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	8.225E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.513E-02	1.258E-01	1.946E-01	0.000E+00	FAIL ABUN
CE-139	-3.963E-02	3.098E-02	4.993E-02	0.000E+00	NOT IDENT.
BA-140	-6.450E-02	2.706E-01	4.429E-01	0.000E+00	NOT IDENT.
LA-140	2.698E-02	9.838E-02	1.501E-01	0.000E+00	FAIL ABUN
CE-141	4.314E-02	7.269E-02	1.149E-01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.685E+02	0.000E+00	0.000E+00	SHORT HLIF
CE-144	4.230E-02	2.066E-01	3.605E-01	0.000E+00	NOT IDENT.

PM-144	1.740E-02	3.401E-02	6.081E-02	0.000E+00	NOT IDENT.
PR-144	1.181E+00	2.308E+00	4.127E+00	0.000E+00	NOT IDENT.
PM-146	6.587E-03	4.248E-02	7.288E-02	0.000E+00	NOT IDENT.
ND-147	-1.036E-01	6.528E-01	1.081E+00	0.000E+00	FAIL ABUN
PM-149	0.000E+00	2.106E+02	0.000E+00	0.000E+00	SHORT HLIF
EU-152	2.060E-02	9.738E-02	1.590E-01	0.000E+00	NOT IDENT.
GD-153	0.000E+00	1.487E-01	1.672E-01	0.000E+00	FAIL ABUN
EU-154	-4.182E-02	1.196E-01	1.974E-01	0.000E+00	NOT IDENT.
EU-155	1.247E-01	1.113E-01	2.029E-01	0.000E+00	FAIL ABUN
TB-160	-6.818E-03	1.323E-01	2.229E-01	0.000E+00	FAIL ABUN
HO-166M	-2.105E-02	5.545E-02	9.295E-02	0.000E+00	FAIL ABUN
TM-171	-3.333E+00	3.986E+01	6.428E+01	0.000E+00	NOT IDENT.
LU-176	-5.994E-03	2.506E-02	3.796E-02	0.000E+00	FAIL ABUN
LU-177M	-9.212E-02	1.875E-01	2.685E-01	0.000E+00	FAIL ABUN
HF-181	1.825E-02	3.993E-02	6.970E-02	0.000E+00	NOT IDENT.
W-181	3.759E-01	5.365E-01	8.933E-01	0.000E+00	NOT IDENT.
TA-182	-1.071E-01	1.844E-01	3.003E-01	0.000E+00	FAIL ABUN
RE-183	1.017E-01	1.126E-01	1.993E-01	0.000E+00	FAIL ABUN
RE-184	8.766E-02	2.037E-01	3.697E-01	0.000E+00	NOT IDENT.
OS-185	-8.881E-04	3.642E-02	6.331E-02	0.000E+00	NOT IDENT.
RE-188	1.948E-02	1.731E-01	2.981E-01	0.000E+00	NOT IDENT.
W-188	8.460E-02	7.614E+00	1.181E+01	0.000E+00	FAIL ABUN
IR-192	-6.763E-04	3.129E-02	5.469E-02	0.000E+00	FAIL ABUN
AU-195	0.000E+00	4.342E-01	4.761E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.631E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.833E+00	1.312E+01	2.265E+01	0.000E+00	NOT IDENT.
TL-202	2.605E-02	6.895E-02	1.206E-01	0.000E+00	NOT IDENT.
HG-203	1.059E-02	3.943E-02	7.051E-02	0.000E+00	NOT IDENT.
BI-207	2.788E-02	5.341E-02	9.292E-02	0.000E+00	FAIL ABUN
TL-207	-3.126E-02	7.004E-01	1.071E+00	0.000E+00	FAIL ABUN
PO-209	7.866E+00	7.142E+00	1.314E+01	0.000E+00	NOT IDENT.
BI-210	1.330E+01	9.335E+00	1.780E+01	0.000E+00	NOT IDENT.
PB-210	1.330E+01	9.335E+00	1.780E+01	0.000E+00	NOT IDENT.
PO-210	1.330E+01	9.321E+00	1.780E+01	0.000E+00	NOT IDENT.
PB-211	3.044E-01	9.576E-01	1.451E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	4.282E-01	6.480E-01	0.000E+00	FAIL ABUN
PO-215	-3.126E-02	7.004E-01	1.071E+00	0.000E+00	FAIL ABUN
RN-219	1.099E-01	3.856E-01	6.727E-01	0.000E+00	FAIL ABUN
RN-220	9.426E+00	2.506E+01	4.303E+01	0.000E+00	NOT IDENT.
RA-223	-3.126E-02	7.004E-01	1.071E+00	0.000E+00	FAIL ABUN
AC-227	1.971E-01	3.363E-01	6.120E-01	0.000E+00	FAIL ABUN
TH-227	1.971E-01	3.368E-01	6.120E-01	0.000E+00	FAIL ABUN
TH-229	1.288E-01	4.820E-01	8.234E-01	0.000E+00	FAIL ABUN
PA-231	2.478E-01	1.414E+00	2.516E+00	0.000E+00	FAIL ABUN
TH-231	-3.126E-02	7.004E-01	1.071E+00	0.000E+00	FAIL ABUN
U-231	9.733E-01	2.566E+00	3.290E+00	0.000E+00	FAIL ABUN
PA-233	-2.608E-03	5.865E-02	1.025E-01	0.000E+00	FAIL ABUN
PA-234	1.004E-01	3.020E-01	5.215E-01	0.000E+00	FAIL ABUN
PA-234M	0.000E+00	7.992E+00	1.153E+01	0.000E+00	FAIL ABUN
NP-236	-1.230E-01	8.010E-02	1.276E-01	0.000E+00	FAIL ABUN
NP-239	3.567E-02	1.931E-01	3.240E-01	0.000E+00	FAIL ABUN
AM-241	-9.785E-03	2.717E-01	4.422E-01	0.000E+00	NOT IDENT.
CM-243	1.002E-01	1.031E-01	1.794E-01	0.000E+00	FAIL ABUN
AM-246	1.694E-01	1.444E-01	2.642E-01	0.000E+00	NOT IDENT.
CM-247	-3.199E-02	3.526E-02	5.706E-02	0.000E+00	NOT IDENT.
CF-249	2.921E-02	3.525E-02	6.367E-02	0.000E+00	NOT IDENT.
CF-251	2.804E-02	1.235E-01	2.119E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:18:50.28

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032522.CNF;1
Sample date       : 27-JAN-2010 12:00:00 Acquisition date : 14-FEB-2010 13:18:21
Sample ID         : G1202032522          Sample quantity  : 1.38840E+02 GRAM
Detector name     : GAM10                Detector geometry: CAN
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:01.17  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 948721                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	1068	10.67*	1.108E+00	2.443E+01	2.443E+01	10.72
CD-109	88.03	232	3.72*	5.244E+00	3.213E+00	3.301E+00	37.68
SN-126	64.28	564	9.60	2.218E+00	7.159E+00	7.159E+00	27.40
	86.94	232	8.90	5.244E+00	1.343E+00	1.343E+00	55.28
	87.57	232	37.00*	5.244E+00	3.231E-01	3.231E-01	37.68
BA-137M	661.65	317	89.98*	2.356E+00	4.044E-01	4.048E-01	17.70
CS-137	661.65	317	85.12*	2.356E+00	4.275E-01	4.280E-01	17.70
LU-177	112.95	99	6.40	6.603E+00	6.310E-01	4.091E+00	80.58
	208.36	150	11.00*	5.577E+00	6.594E-01	4.275E+00	45.51
TL-208	277.35	------	6.80	4.610E+00	------ Line Not Found		------
	510.84	52	21.60	2.929E+00	2.226E-01	2.226E-01	124.12
	583.14	353	84.20*	2.628E+00	4.309E-01	4.309E-01	21.11
	860.37	51	12.46	1.841E+00	6.037E-01	6.037E-01	60.68
BI-211	72.87	------	1.27	3.633E+00	------ Line Not Found		------
	351.07	714	12.94*	3.890E+00	3.835E+00	3.835E+00	14.71
PB-212	74.81	249	10.70	3.859E+00	1.633E+00	1.633E+00	32.97
	77.11	528	18.00	4.142E+00	1.913E+00	1.913E+00	19.84
	87.30	232	8.00	5.244E+00	1.494E+00	1.494E+00	38.98
	238.63	1231	44.60*	5.118E+00	1.458E+00	1.458E+00	10.38
	300.09	65	3.41	4.361E+00	1.187E+00	1.187E+00	108.01
PO-212	74.81	249	10.70	3.859E+00	1.633E+00	1.633E+00	32.97
	77.11	528	18.00	4.142E+00	1.913E+00	1.913E+00	19.84
	87.30	232	8.00	5.244E+00	1.494E+00	1.494E+00	38.98
	115.19	------	0.60	6.657E+00	------ Line Not Found		------
	238.63	1231	44.60*	5.118E+00	1.458E+00	1.458E+00	10.38
	300.09	65	3.41	4.361E+00	1.187E+00	1.187E+00	108.01
BI-214	609.31	494	46.30*	2.532E+00	1.138E+00	1.139E+00	15.74
	1120.29	98	15.10	1.415E+00	1.237E+00	1.237E+00	45.68
	1764.49	79	15.80	9.766E-01	1.386E+00	1.386E+00	31.44
PB-214	74.81	249	6.21	3.859E+00	2.813E+00	2.813E+00	32.47
	77.11	528	10.50	4.142E+00	3.280E+00	3.280E+00	21.25
	87.30	232	4.67	5.244E+00	2.560E+00	2.560E+00	38.46

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	241.98	249	7.49	5.073E+00	1.770E+00	1.770E+00	30.96
	295.21	401	19.20	4.414E+00	1.280E+00	1.280E+00	18.98
	351.92	714	37.20*	3.890E+00	1.334E+00	1.334E+00	15.61
PO-214	74.81	249	6.21	3.859E+00	2.813E+00	2.813E+00	32.47
	77.11	528	10.50	4.142E+00	3.280E+00	3.280E+00	21.25
	87.30	232	4.67	5.244E+00	2.560E+00	2.560E+00	38.46
	241.98	249	7.49	5.073E+00	1.770E+00	1.770E+00	30.96
	295.21	401	19.20	4.414E+00	1.280E+00	1.280E+00	18.98
	351.92	714	37.20*	3.890E+00	1.334E+00	1.334E+00	15.61
PO-216	74.81	249	10.70	3.859E+00	1.633E+00	1.633E+00	32.97
	77.11	528	18.00	4.142E+00	1.913E+00	1.913E+00	19.84
	87.30	232	8.00	5.244E+00	1.494E+00	1.494E+00	38.98
	238.63	1231	44.60*	5.118E+00	1.458E+00	1.458E+00	10.38
	300.09	65	3.41	4.361E+00	1.187E+00	1.187E+00	108.01
PO-218	74.81	249	6.21	3.859E+00	2.813E+00	2.813E+00	32.47
	77.11	528	10.50	4.142E+00	3.280E+00	3.280E+00	21.25
	87.30	232	4.67	5.244E+00	2.560E+00	2.560E+00	38.46
	241.98	249	7.49	5.073E+00	1.770E+00	1.770E+00	30.96
	295.21	401	19.20	4.414E+00	1.280E+00	1.280E+00	18.98
	351.92	714	37.20*	3.890E+00	1.334E+00	1.334E+00	15.61
RA-224	240.98	249	3.95*	5.073E+00	3.356E+00	3.356E+00	30.45
RA-226	609.31	494	46.30*	2.532E+00	1.138E+00	1.139E+00	15.74
	1120.29	98	15.10	1.415E+00	1.237E+00	1.237E+00	45.68
	1764.49	79	15.80	9.766E-01	1.386E+00	1.386E+00	31.44
AC-228	338.32	201	11.40	4.002E+00	1.194E+00	1.194E+00	49.41
	911.07	266	27.70*	1.740E+00	1.490E+00	1.490E+00	20.73
	969.11	105	16.60	1.636E+00	1.046E+00	1.046E+00	48.80
RA-228	338.32	201	11.40	4.002E+00	1.194E+00	1.194E+00	49.41
	911.07	266	27.70*	1.740E+00	1.490E+00	1.490E+00	20.73
	969.11	105	16.60	1.636E+00	1.046E+00	1.046E+00	48.80
TH-228	74.81	249	10.70	3.859E+00	1.633E+00	1.662E+00	31.63
	77.11	528	18.00	4.142E+00	1.913E+00	1.948E+00	19.84
	87.30	232	8.00	5.244E+00	1.494E+00	1.521E+00	37.68
	238.63	1231	44.60*	5.118E+00	1.458E+00	1.484E+00	10.38
	300.09	65	3.41	4.361E+00	1.187E+00	1.209E+00	122.77
TH-230	609.31	494	46.30*	2.532E+00	1.138E+00	1.138E+00	15.74
	1120.29	98	15.10	1.415E+00	1.237E+00	1.237E+00	45.68
	1764.49	79	15.80	9.766E-01	1.386E+00	1.386E+00	31.44
TH-232	338.32	201	11.40	4.002E+00	1.194E+00	1.194E+00	28.51
	911.07	266	27.70*	1.740E+00	1.490E+00	1.490E+00	20.73
	969.11	105	16.60	1.636E+00	1.046E+00	1.046E+00	48.80
TH-234	63.29	564	3.80*	2.218E+00	1.809E+01	1.809E+01	29.05
	92.38	1615	5.41	5.694E+00	1.418E+01	1.418E+01	20.18
U-234	609.31	494	46.30*	2.532E+00	1.138E+00	1.138E+00	15.74
	1120.29	98	15.10	1.415E+00	1.237E+00	1.237E+00	45.68
	1764.49	79	15.80	9.766E-01	1.386E+00	1.386E+00	31.44
U-235	89.95	139	2.70	5.480E+00	2.540E+00	2.540E+00	66.52
	93.35	1615	4.50	5.694E+00	1.704E+01	1.704E+01	29.43
	105.00	------	2.10	6.385E+00	------ Line Not Found		------

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	143.76	132	10.50*	6.667E+00	5.109E-01	5.109E-01	67.49
	163.35	------	4.70	6.374E+00	------	Line Not Found	------
	185.71	505	54.00	5.984E+00	4.227E-01	4.227E-01	19.14
	205.31	------	4.70	5.638E+00	------	Line Not Found	------
NP-237	86.50	232	12.60*	5.244E+00	9.486E-01	9.486E-01	42.96
	95.87	------	2.60	5.933E+00	------	Line Not Found	------
U-238	63.29	564	3.80*	2.218E+00	1.809E+01	1.809E+01	29.05
	92.38	1615	5.41	5.694E+00	1.418E+01	1.418E+01	12.44
AM-243	74.67	249	66.00*	3.859E+00	2.647E-01	2.647E-01	31.61
	86.72	232	0.34	5.244E+00	3.557E+01	3.557E+01	37.68
	117.66	------	0.55	6.694E+00	------	Line Not Found	------
	142.18	132	0.13	6.667E+00	4.292E+01	4.292E+01	65.75
ANH-511	511.00	52	100.00*	2.929E+00	4.809E-02	4.809E-02	123.84

Flag: "*" = Keyline

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

Total number of lines in spectrum 38
Number of unidentified lines 4
Number of lines tentatively identified by NID 34 89.47%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.443E+01	2.443E+01	0.262E+01	10.72	
CD-109	464.00D	1.03	3.213E+00	3.301E+00	1.244E+00	37.68	
SN-126	1.00E+05Y	1.00	3.231E-01	3.231E-01	1.217E-01	37.68	
BA-137M	30.17Y	1.00	4.044E-01	4.048E-01	0.716E-01	17.70	
CS-137	30.17Y	1.00	4.275E-01	4.280E-01	0.758E-01	17.70	
LU-177	6.71D	6.48	6.594E-01	4.275E+00	1.946E+00	45.51	
TL-208	1.41E+10Y	1.00	4.309E-01	4.309E-01	0.909E-01	21.11	
BI-211	7.04E+08Y	1.00	3.835E+00	3.835E+00	0.564E+00	14.71	
PB-212	1.41E+10Y	1.00	1.458E+00	1.458E+00	0.151E+00	10.38	
PO-212	1.41E+10Y	1.00	1.458E+00	1.458E+00	0.151E+00	10.38	
BI-214	1600.00Y	1.00	1.138E+00	1.139E+00	0.179E+00	15.74	
PB-214	1600.00Y	1.00	1.334E+00	1.334E+00	0.208E+00	15.61	
PO-214	1600.00Y	1.00	1.334E+00	1.334E+00	0.208E+00	15.61	
PO-216	1.41E+10Y	1.00	1.458E+00	1.458E+00	0.151E+00	10.38	
PO-218	1600.00Y	1.00	1.334E+00	1.334E+00	0.208E+00	15.61	
RA-224	1.41E+10Y	1.00	3.356E+00	3.356E+00	1.022E+00	30.45	
RA-226	1600.00Y	1.00	1.138E+00	1.139E+00	0.179E+00	15.74	
AC-228	1.41E+10Y	1.00	1.490E+00	1.490E+00	0.309E+00	20.73	
RA-228	1.41E+10Y	1.00	1.490E+00	1.490E+00	0.309E+00	20.73	
TH-228	1.91Y	1.02	1.458E+00	1.484E+00	0.154E+00	10.38	
TH-230	4.47E+09Y	1.00	1.138E+00	1.138E+00	0.179E+00	15.74	
TH-232	1.41E+10Y	1.00	1.490E+00	1.490E+00	0.309E+00	20.73	
TH-234	4.47E+09Y	1.00	1.809E+01	1.809E+01	0.525E+01	29.05	
U-234	4.47E+09Y	1.00	1.138E+00	1.138E+00	0.179E+00	15.74	
U-235	7.04E+08Y	1.00	5.109E-01	5.109E-01	3.448E-01	67.49	
NP-237	2.14E+06Y	1.00	9.486E-01	9.486E-01	4.075E-01	42.96	
U-238	4.47E+09Y	1.00	1.809E+01	1.809E+01	0.525E+01	29.05	
AM-243	7380.00Y	1.00	2.647E-01	2.647E-01	0.837E-01	31.61	
ANH-511	1.00E+09Y	1.00	4.809E-02	4.809E-02	5.955E-02	123.84	
		Total Activity :	9.389E+01	9.762E+01			

Grand Total Activity : 9.389E+01 9.762E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	98.35	195	601	1.42	196.79	192	11	2.71E-02	51.1	6.08E+00	T
0	270.12	106	258	0.92	540.05	535	11	1.47E-02	62.7	4.70E+00	T
0	327.60	71	185	1.16	654.94	650	10	9.90E-03	75.9	4.09E+00	T
0	409.03	47	102	1.05	817.69	815	8	6.47E-03	80.2	3.48E+00	
0	462.88	59	111	1.40	925.32	921	9	8.20E-03	69.6	3.17E+00	T
0	726.95	101	71	1.37	1453.23	1448	12	1.41E-02	39.9	2.16E+00	T
0	1000.41	106	59	1.23	2000.03	1993	14	1.47E-02	36.6	1.58E+00	T
0	1238.00	38	69	1.89	2475.21	2467	12	5.31E-03	92.7	1.28E+00	T
0	1376.64	34	23	1.36	2752.54	2746	14	4.75E-03	70.7	1.16E+00	T
5	1586.60	29	16	3.30	3172.61	3165	23	4.02E-03	69.9	1.04E+00	
5	1592.04	15	10	2.03	3183.49	3165	23	2.11E-03	92.9	1.04E+00	
0	1629.91	22	3	0.72	3259.27	3253	11	3.07E-03	51.7	1.02E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:18:55.91

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032522.CNF;1 *
* Acquisition date : 14-FEB-2010 13:18:21  Detector SN#     :              *
* Detector ID      : GAM10                 Sensitivity      : 5.00000      *
* Geometry         : CAN                   Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:01.17         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 27-JAN-2010 12:00:00  Nuclide Library : SOLID          *
* Sample ID        : G1202032522           Analyst initials: MXR1           *
* Batch Number     : 948721                Sample Quantity : 1.38840E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08.8MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	2.443E+01	2.620E+00	2.782E-01	2.396E-02	87.828
CD-109	3.301E+00	1.244E+00	1.600E+00	1.814E-01	2.063
SN-126	3.231E-01	1.217E-01	1.577E-01	1.785E-02	2.048
BA-137M	4.048E-01	7.164E-02	5.458E-02	2.693E-03	7.418
CS-137	4.280E-01	7.577E-02	5.769E-02	2.863E-03	7.418
LU-177	4.275E+00	1.946E+00	2.342E+00	1.368E-01	1.826
TL-208	4.309E-01	9.095E-02	5.541E-02	3.723E-03	7.776
BI-211	3.835E+00	5.642E-01	3.193E-01	2.328E-02	12.011
PB-212	1.458E+00	1.513E-01	8.451E-02	6.411E-03	17.251
PO-212	1.458E+00	1.513E-01	8.451E-02	6.411E-03	17.251
BI-214	1.139E+00	1.792E-01	9.744E-02	7.415E-03	11.684
PB-214	1.334E+00	2.083E-01	1.113E-01	9.980E-03	11.987
PO-214	1.334E+00	2.083E-01	1.113E-01	9.980E-03	11.987
PO-216	1.458E+00	1.513E-01	8.451E-02	6.411E-03	17.251
PO-218	1.334E+00	2.083E-01	1.113E-01	9.980E-03	11.987
RA-224	3.356E+00	1.022E+00	9.616E-01	5.902E-02	3.490
RA-226	1.139E+00	1.792E-01	9.744E-02	7.415E-03	11.684
AC-228	1.490E+00	3.089E-01	1.695E-01	2.092E-02	8.789

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RA-228	1.490E+00	3.089E-01	1.695E-01	2.092E-02	8.789
TH-228	1.484E+00	1.541E-01	8.604E-02	6.527E-03	17.251
TH-230	1.138E+00	1.792E-01	9.744E-02	7.415E-03	11.684
TH-232	1.490E+00	3.089E-01	1.695E-01	2.092E-02	8.789
TH-234	1.809E+01	5.254E+00	2.991E+00	5.895E-01	6.047
U-234	1.138E+00	1.792E-01	9.744E-02	7.415E-03	11.684
U-235	5.109E-01	3.448E-01	3.270E-01	5.346E-02	1.563
NP-237	9.486E-01	4.075E-01	4.948E-01	1.163E-01	1.917
U-238	1.809E+01	5.254E+00	2.991E+00	5.895E-01	6.047
AM-243	2.647E-01	8.368E-02	1.149E-01	1.258E-02	2.304
ANH-511	4.809E-02	5.955E-02	4.597E-02	2.945E-03	1.046

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	6.054E-02		3.315E-01	5.420E-01	4.031E-02	0.112
NA-22	-2.265E-02		4.424E-02	6.988E-02	5.413E-03	-0.324
NA-24	4.406E+00		9.346E+00	Half-Life too short		
AL-26	1.781E-02		2.627E-02	4.855E-02	3.078E-03	0.367
TI-44	1.425E-01		5.120E-02	7.980E-02	8.732E-03	1.785
SC-46	-3.178E-02		3.643E-02	5.393E-02	5.337E-03	-0.589
V-48	-2.655E-02		6.909E-02	1.071E-01	9.900E-03	-0.248
CR-51	-6.318E-02		3.690E-01	6.054E-01	4.372E-02	-0.104
MN-52	-1.310E-01		2.632E-01	3.948E-01	3.337E-02	-0.332
MN-54	3.522E-02		3.820E-02	6.693E-02	5.718E-03	0.526
CO-56	1.148E-02		3.780E-02	6.369E-02	5.624E-03	0.180
CO-57	3.461E-03		2.515E-02	4.098E-02	2.703E-03	0.084
CO-58	-3.454E-03		3.571E-02	5.825E-02	4.661E-03	-0.059
FE-59	-4.781E-03		9.345E-02	1.494E-01	1.247E-02	-0.032
CO-60	-2.070E-02		3.559E-02	5.451E-02	4.737E-03	-0.380
ZN-65	2.930E-02		9.568E-02	1.382E-01	1.007E-02	0.212
GE-68	7.376E-01		1.297E+00	2.200E+00	1.743E-01	0.335
AS-73	6.958E-01		1.754E+00	2.969E+00	3.928E-01	0.234
AS-74	8.149E-03		9.367E-02	1.585E-01	9.054E-03	0.051
SE-75	-5.955E-02		4.807E-02	6.429E-02	4.101E-03	-0.926
BR-77	1.460E+01		2.195E+01	3.708E+01	2.352E+00	0.394
SR-82	-1.476E-01		3.892E-01	6.179E-01	4.455E-02	-0.239
RB-83	3.969E-02		6.290E-02	1.060E-01	6.728E-03	0.374
RB-84	-3.386E-02		7.115E-02	1.110E-01	1.076E-02	-0.305
KR-85	5.998E+00		6.911E+00	1.055E+01	6.739E-01	0.569
SR-85	3.172E-02		3.655E-02	5.579E-02	3.564E-03	0.569
RB-86	6.117E-01		9.113E-01	1.559E+00	1.237E-01	0.392
Y-88	-1.164E-02		3.737E-02	5.673E-02	3.480E-03	-0.205
ZR-88	-3.314E-03		2.871E-02	4.662E-02	3.168E-03	-0.071
Y-91	1.584E+01		2.048E+01	3.617E+01	2.402E+00	0.438
NB-94	-6.367E-03		3.109E-02	5.090E-02	2.898E-03	-0.125
NB-95	9.803E-02		4.518E-02	8.443E-02	5.892E-03	1.161

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NB-95M	8.735E-02		1.346E-01	2.067E-01	1.603E-02	0.423
ZR-95	1.196E-02		6.586E-02	1.106E-01	8.689E-03	0.108
NB-97	2.259E+00		9.662E-01	Half-Life too short		
ZR-97	3.712E+01		1.829E+01	Half-Life too short		
MO-99	3.744E+00		2.528E+01	4.233E+01	5.950E+00	0.088
TC-99M	-3.710E+13		7.147E+13	Half-Life too short		
RH-101	7.303E-03		3.286E-02	5.182E-02	2.977E-03	0.141
RH-102	1.481E-02		2.865E-02	4.789E-02	3.159E-03	0.309
RU-103	4.839E-03		3.766E-02	6.126E-02	7.948E-03	0.079
RH-106	2.176E-02		2.979E-01	5.022E-01	5.805E-02	0.043
RU-106	2.176E-02		2.979E-01	5.022E-01	2.728E-02	0.043
AG-108M	-4.532E-04		3.126E-02	5.076E-02	3.639E-03	-0.009
AG-110M	3.044E-02		3.775E-02	5.927E-02	3.211E-03	0.514
IN-111	1.392E+00		2.158E+00	3.328E+00	2.055E-01	0.418
IN-113M	-4.192E-02		4.197E-02	6.402E-02	4.565E-03	-0.655
SN-113	-4.192E-02		4.197E-02	6.402E-02	4.565E-03	-0.655
IN-114M	1.028E-01		2.003E-01	2.908E-01	1.649E-02	0.354
CD-115	1.402E-05		1.273E-05	Half-Life too short		
SN-117M	7.932E-03		6.174E-02	9.932E-02	5.570E-03	0.080
SB-122	2.608E+00		4.186E+00	6.999E+00	4.209E-01	0.373
I-123	-2.166E+02		1.170E+02	Half-Life too short		
TE-123M	-2.633E-02		2.844E-02	4.357E-02	2.475E-03	-0.604
I-124	-7.599E-01		1.100E+00	1.494E+00	8.431E-02	-0.508
SB-124	-8.008E-03		5.789E-02	9.083E-02	6.901E-03	-0.088
SB-125	2.010E-02		8.964E-02	1.479E-01	1.030E-02	0.136
TE-125M	4.968E+00		1.162E+01	1.722E+01	1.654E+00	0.289
I-126	1.083E-01		2.205E-01	3.364E-01	1.688E-02	0.322
SB-126	6.737E-02		1.777E-01	2.779E-01	1.679E-02	0.242
SB-127	-4.685E-01		1.934E+00	3.154E+00	3.238E-01	-0.149
XE-127	5.927E-03		4.677E-02	7.974E-02	4.618E-03	0.074
I-131	-8.844E-02		1.370E-01	2.158E-01	1.593E-02	-0.410
TE-132	9.719E-01		1.221E+00	2.110E+00	3.183E-01	0.461
BA-133	2.381E-03		4.536E-02	6.577E-02	7.935E-03	0.036
I-133	-1.875E-02		3.111E-02	Half-Life too short		
CS-134	2.611E-02		4.620E-02	7.934E-02	6.116E-03	0.329
CS-135	2.494E-01		1.689E-01	2.695E-01	2.178E-02	0.925
I-135	5.461E+12		4.197E+12	Half-Life too short		
CS-136	-9.513E-02		1.283E-01	1.926E-01	1.687E-02	-0.494
CE-139	-3.963E-02		3.161E-02	4.765E-02	2.603E-03	-0.832
BA-140	-6.450E-02		2.762E-01	4.325E-01	1.410E-01	-0.149
LA-140	2.698E-02		1.004E-01	1.498E-01	1.163E-02	0.180
CE-141	4.314E-02		7.417E-02	1.094E-01	6.695E-03	0.394
CE-143	3.008E-03		4.941E-04	Half-Life too short		
CE-144	4.230E-02		2.108E-01	3.426E-01	4.923E-02	0.123
PM-144	1.740E-02		3.470E-02	5.969E-02	3.332E-03	0.292
PR-144	1.181E+00		2.355E+00	4.051E+00	2.259E-01	0.292
PM-146	6.587E-03		4.334E-02	7.093E-02	6.551E-03	0.093
ND-147	-1.036E-01		6.661E-01	1.055E+00	1.449E-01	-0.098

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
PM-149	-1.391E-04		1.075E-04	Half-Life too short		
EU-152	2.060E-02		9.937E-02	1.539E-01	1.134E-02	0.134
GD-153	2.923E-01	+	1.518E-01	1.580E-01	1.471E-02	1.851
EU-154	-4.182E-02		1.221E-01	1.962E-01	2.090E-02	-0.213
EU-155	1.247E-01		1.136E-01	1.920E-01	1.592E-02	0.650
TB-160	-6.818E-03		1.350E-01	2.198E-01	2.120E-02	-0.031
HO-166M	-2.105E-02		5.658E-02	9.128E-02	5.357E-03	-0.231
TM-171	-3.333E+00		4.067E+01	6.031E+01	6.871E+00	-0.055
LU-176	-5.994E-03		2.558E-02	3.666E-02	2.411E-03	-0.164
LU-177M	-9.212E-02		1.913E-01	2.609E-01	1.768E-02	-0.353
HF-181	1.825E-02		4.074E-02	6.791E-02	4.458E-03	0.269
W-181	3.759E-01		5.474E-01	8.378E-01	9.680E-02	0.449
TA-182	-1.071E-01		1.882E-01	2.982E-01	2.056E-02	-0.359
RE-183	1.017E-01		1.149E-01	1.901E-01	1.052E-02	0.535
RE-184	8.766E-02		2.078E-01	3.557E-01	2.218E-02	0.246
OS-185	-8.881E-04		3.717E-02	6.205E-02	3.188E-03	-0.014
RE-188	1.948E-02		1.766E-01	2.841E-01	1.614E-02	0.069
W-188	8.460E-02		7.770E+00	1.139E+01	7.397E-01	0.007
IR-192	-6.763E-04		3.192E-02	5.285E-02	3.513E-03	-0.013
AU-195	8.535E-01	+	4.431E-01	4.500E-01	4.083E-02	1.897
TL-200	-1.412E-03		1.342E-03	Half-Life too short		
TL-201	3.833E+00		1.339E+01	2.162E+01	1.183E+00	0.177
TL-202	2.605E-02		7.035E-02	1.173E-01	7.889E-03	0.222
HG-203	1.059E-02		4.024E-02	6.797E-02	4.587E-03	0.156
BI-207	2.788E-02		5.450E-02	9.200E-02	7.489E-03	0.303
TL-207	-3.126E-02		7.147E-01	1.036E+00	1.744E-01	-0.030
PO-209	7.866E+00		7.287E+00	1.297E+01	1.308E+00	0.607
BI-210	1.330E+01		9.526E+00	1.659E+01	1.628E+00	0.801
PB-210	1.330E+01		9.526E+00	1.659E+01	1.628E+00	0.801
PO-210	1.330E+01		9.511E+00	1.659E+01	1.490E+00	0.801
PB-211	3.044E-01		9.771E-01	1.409E+00	8.800E-01	0.216
BI-212	1.075E+00	+	4.369E-01	6.366E-01	5.093E-02	1.688
PO-215	-3.126E-02		7.147E-01	1.036E+00	1.744E-01	-0.030
RN-219	1.099E-01		3.934E-01	6.531E-01	9.180E-02	0.168
RN-220	9.426E+00		2.557E+01	4.204E+01	2.578E+00	0.224
RA-223	-3.126E-02		7.147E-01	1.036E+00	1.744E-01	-0.030
AC-227	1.971E-01		3.431E-01	5.890E-01	8.339E-02	0.335
TH-227	1.971E-01		3.436E-01	5.890E-01	1.005E-01	0.335
TH-229	1.288E-01		4.919E-01	7.881E-01	4.495E-02	0.163
PA-231	2.478E-01		1.443E+00	2.426E+00	3.413E-01	0.102
TH-231	-3.126E-02		7.147E-01	1.036E+00	1.744E-01	-0.030
U-231	9.733E-01		2.618E+00	3.107E+00	2.978E-01	0.313
PA-233	-2.608E-03		5.985E-02	9.905E-02	6.854E-03	-0.026
PA-234	1.004E-01		3.082E-01	5.151E-01	9.925E-02	0.195
PA-234M	2.146E+01	+	8.155E+00	1.140E+01	1.177E+00	1.883
NP-236	-1.230E-01		8.173E-02	1.217E-01	6.784E-03	-1.010
NP-239	3.567E-02		1.970E-01	3.072E-01	2.149E-02	0.116
AM-241	-9.785E-03		2.772E-01	4.140E-01	5.317E-02	-0.024

Sample ID : G1202032522 Acquisition date : 14-FEB-2010 13:18:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	1.002E-01		1.052E-01	1.697E-01	1.422E-02	0.591
AM-246	1.694E-01		1.473E-01	2.616E-01	2.066E-02	0.648
CM-247	-3.199E-02		3.598E-02	5.540E-02	3.762E-03	-0.577
CF-249	2.921E-02		3.596E-02	6.178E-02	4.198E-03	0.473
CF-251	2.804E-02		1.260E-01	2.024E-01	1.123E-02	0.139

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032522          *
* Acquisition date  : 14-FEB-2010 13:18:21 Detector SN#     :               *
* Detector ID       : GAM10                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:01.17      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 27-JAN-2010 12:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032522          Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.3884E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-MAR-2009 13:18:08 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	2.443E+01	2.568E+00	1.397E-01	1.310E+00
CD-109	3.301E+00	1.219E+00	8.489E-01	6.219E-01
SN-126	3.231E-01	1.193E-01	8.369E-02	6.086E-02
BA-137M	4.048E-01	7.021E-02	2.784E-02	3.582E-02
CS-137	4.280E-01	7.425E-02	2.943E-02	3.788E-02
LU-177	4.275E+00	1.907E+00	1.222E+00	9.728E-01
TL-208	4.309E-01	8.913E-02	2.834E-02	4.547E-02
BI-211	3.835E+00	5.529E-01	1.650E-01	2.821E-01
PB-212	1.458E+00	1.483E-01	4.399E-02	7.567E-02
PO-212	1.458E+00	1.483E-01	4.399E-02	7.567E-02
BI-214	1.139E+00	1.756E-01	4.980E-02	8.961E-02
PB-214	1.334E+00	2.041E-01	5.750E-02	1.041E-01
PO-214	1.334E+00	2.041E-01	5.750E-02	1.041E-01
PO-216	1.458E+00	1.483E-01	4.399E-02	7.567E-02
PO-218	1.334E+00	2.041E-01	5.750E-02	1.041E-01
RA-224	3.356E+00	1.001E+00	5.005E-01	5.108E-01
RA-226	1.139E+00	1.756E-01	4.980E-02	8.961E-02
AC-228	1.490E+00	3.027E-01	8.593E-02	1.544E-01
RA-228	1.490E+00	3.027E-01	8.593E-02	1.544E-01
TH-228	1.484E+00	1.510E-01	4.479E-02	7.705E-02
TH-230	1.138E+00	1.756E-01	4.980E-02	8.961E-02
TH-232	1.490E+00	3.027E-01	8.593E-02	1.544E-01
TH-234	1.809E+01	5.149E+00	1.596E+00	2.627E+00
U-234	1.138E+00	1.756E-01	4.980E-02	8.961E-02
U-235	5.109E-01	3.379E-01	1.719E-01	1.724E-01
NP-237	9.486E-01	3.994E-01	2.626E-01	2.038E-01
U-238	1.809E+01	5.149E+00	1.596E+00	2.627E+00
AM-243	2.647E-01	8.201E-02	6.114E-02	4.184E-02
ANH-511	4.809E-02	5.836E-02	2.358E-02	2.978E-02

---- Non-Identified Nuclides ----

Key-Line Activity	K.L Act error	DLC	TPU

Nuclide	(pCi/GRAM)		(pCi/GRAM)		
BE-7	6.054E-02	3.249E-01	2.784E-01	1.658E-01	NOT IDENT.
NA-22	-2.265E-02	4.336E-02	3.518E-02	2.212E-02	NOT IDENT.
NA-24	4.406E+06	1.832E+07	0.000E+00	9.346E+06	SHORT HLIF
AL-26	1.781E-02	2.574E-02	2.426E-02	1.313E-02	NOT IDENT.
TI-44	1.425E-01	5.018E-02	4.243E-02	2.560E-02	NOT IDENT.
SC-46	-3.178E-02	3.570E-02	2.735E-02	1.822E-02	FAIL ABUN
V-48	-2.655E-02	6.771E-02	5.418E-02	3.454E-02	NOT IDENT.
CR-51	-6.318E-02	3.616E-01	3.133E-01	1.845E-01	NOT IDENT.
MN-52	-1.310E-01	2.580E-01	1.983E-01	1.316E-01	NOT IDENT.
MN-54	3.522E-02	3.744E-02	3.399E-02	1.910E-02	NOT IDENT.
CO-56	1.148E-02	3.705E-02	3.233E-02	1.890E-02	FAIL ABUN
CO-57	3.461E-03	2.465E-02	2.161E-02	1.257E-02	NOT IDENT.
CO-58	-3.454E-03	3.500E-02	2.960E-02	1.786E-02	NOT IDENT.
FE-59	-4.781E-03	9.158E-02	7.547E-02	4.672E-02	FAIL ABUN
CO-60	-2.070E-02	3.487E-02	2.742E-02	1.779E-02	NOT IDENT.
ZN-65	2.930E-02	9.376E-02	6.978E-02	4.784E-02	NOT IDENT.
GE-68	7.376E-01	1.271E+00	1.111E+00	6.487E-01	NOT IDENT.
AS-73	6.958E-01	1.719E+00	1.590E+00	8.770E-01	NOT IDENT.
AS-74	8.149E-03	9.180E-02	8.103E-02	4.684E-02	NOT IDENT.
SE-75	-5.955E-02	4.711E-02	3.340E-02	2.403E-02	NOT IDENT.
BR-77	1.460E+01	2.151E+01	1.901E+01	1.097E+01	FAIL ABUN
SR-82	-1.476E-01	3.815E-01	3.142E-01	1.946E-01	NOT IDENT.
RB-83	3.969E-02	6.164E-02	5.435E-02	3.145E-02	NOT IDENT.
RB-84	-3.386E-02	6.972E-02	5.629E-02	3.557E-02	NOT IDENT.
KR-85	5.998E+00	6.773E+00	5.410E+00	3.456E+00	NOT IDENT.
SR-85	3.172E-02	3.582E-02	2.861E-02	1.827E-02	NOT IDENT.
RB-86	6.117E-01	8.931E-01	7.875E-01	4.557E-01	NOT IDENT.
Y-88	-1.164E-02	3.662E-02	2.834E-02	1.868E-02	NOT IDENT.
ZR-88	-3.314E-03	2.814E-02	2.403E-02	1.436E-02	NOT IDENT.
Y-91	1.584E+01	2.007E+01	1.823E+01	1.024E+01	NOT IDENT.
NB-94	-6.367E-03	3.046E-02	2.594E-02	1.554E-02	NOT IDENT.
NB-95	9.803E-02	4.428E-02	4.295E-02	2.259E-02	NOT IDENT.
NB-95M	8.735E-02	1.319E-01	1.076E-01	6.728E-02	NOT IDENT.
ZR-95	1.196E-02	6.454E-02	5.629E-02	3.293E-02	NOT IDENT.
NB-97	2.259E+06	1.894E+06	0.000E+00	9.662E+05	SHORT HLIF
ZR-97	3.712E+07	3.585E+07	0.000E+00	1.829E+07	SHORT HLIF
MO-99	3.744E+00	2.477E+01	2.155E+01	1.264E+01	NOT IDENT.
TC-99M	-3.710E+19	1.401E+20	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.303E-03	3.220E-02	2.707E-02	1.643E-02	NOT IDENT.
RH-102	1.481E-02	2.807E-02	2.459E-02	1.432E-02	NOT IDENT.
RU-103	4.839E-03	3.690E-02	3.144E-02	1.883E-02	FAIL ABUN
RH-106	2.176E-02	2.920E-01	2.566E-01	1.490E-01	FAIL ABUN
RU-106	2.176E-02	2.920E-01	2.566E-01	1.490E-01	FAIL ABUN
AG-108M	-4.532E-04	3.063E-02	2.612E-02	1.563E-02	NOT IDENT.
AG-110M	3.044E-02	3.700E-02	3.025E-02	1.888E-02	NOT IDENT.
IN-111	1.392E+00	2.115E+00	1.731E+00	1.079E+00	NOT IDENT.
IN-113M	-4.192E-02	4.113E-02	3.301E-02	2.098E-02	NOT IDENT.
SN-113	-4.192E-02	4.113E-02	3.301E-02	2.098E-02	NOT IDENT.
IN-114M	1.028E-01	1.962E-01	1.521E-01	1.001E-01	NOT IDENT.
CD-115	1.402E+01	2.495E+01	0.000E+00	1.273E+01	SHORT HLIF
SN-117M	7.932E-03	6.050E-02	5.211E-02	3.087E-02	NOT IDENT.
SB-122	2.608E+00	4.102E+00	3.582E+00	2.093E+00	NOT IDENT.
I-123	-2.166E+08	2.293E+08	0.000E+00	1.170E+08	SHORT HLIF
TE-123M	-2.633E-02	2.787E-02	2.286E-02	1.422E-02	NOT IDENT.
I-124	-7.599E-01	1.078E+00	7.639E-01	5.502E-01	FAIL ABUN
SB-124	-8.008E-03	5.673E-02	4.546E-02	2.895E-02	FAIL ABUN
SB-125	2.010E-02	8.785E-02	7.612E-02	4.482E-02	FAIL ABUN
TE-125M	4.968E+00	1.138E+01	9.099E+00	5.808E+00	NOT IDENT.
I-126	1.083E-01	2.161E-01	1.716E-01	1.102E-01	NOT IDENT.
SB-126	6.737E-02	1.741E-01	1.416E-01	8.885E-02	NOT IDENT.
SB-127	-4.685E-01	1.895E+00	1.608E+00	9.669E-01	NOT IDENT.
XE-127	5.927E-03	4.583E-02	4.164E-02	2.338E-02	NOT IDENT.
I-131	-8.844E-02	1.342E-01	1.114E-01	6.849E-02	NOT IDENT.
TE-132	9.719E-01	1.196E+00	1.099E+00	6.103E-01	FAIL ABUN
BA-133	2.381E-03	4.445E-02	3.397E-02	2.268E-02	NOT IDENT.
I-133	-1.875E+04	6.097E+04	0.000E+00	3.111E+04	SHORT HLIF
CS-134	2.611E-02	4.527E-02	4.033E-02	2.310E-02	NOT IDENT.
CS-135	2.494E-01	1.656E-01	1.400E-01	8.447E-02	NOT IDENT.
I-135	5.461E+18	8.225E+18	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-9.513E-02	1.258E-01	9.737E-02	6.417E-02	FAIL ABUN
CE-139	-3.963E-02	3.098E-02	2.498E-02	1.581E-02	NOT IDENT.
BA-140	-6.450E-02	2.706E-01	2.216E-01	1.381E-01	NOT IDENT.
LA-140	2.698E-02	9.838E-02	7.507E-02	5.019E-02	FAIL ABUN
CE-141	4.314E-02	7.269E-02	5.749E-02	3.709E-02	NOT IDENT.
CE-143	3.008E+03	9.685E+02	0.000E+00	4.941E+02	SHORT HLIF
CE-144	4.230E-02	2.066E-01	1.804E-01	1.054E-01	NOT IDENT.

PM-144	1.740E-02	3.401E-02	3.042E-02	1.735E-02	NOT IDENT.
PR-144	1.181E+00	2.308E+00	2.065E+00	1.178E+00	NOT IDENT.
PM-146	6.587E-03	4.248E-02	3.646E-02	2.167E-02	NOT IDENT.
ND-147	-1.036E-01	6.528E-01	5.406E-01	3.331E-01	FAIL ABUN
PM-149	-1.391E+02	2.106E+02	0.000E+00	1.075E+02	SHORT HLIF
EU-152	2.060E-02	9.738E-02	7.955E-02	4.968E-02	NOT IDENT.
GD-153	2.923E-01	1.487E-01	8.364E-02	7.588E-02	FAIL ABUN
EU-154	-4.182E-02	1.196E-01	9.877E-02	6.104E-02	NOT IDENT.
EU-155	1.247E-01	1.113E-01	1.015E-01	5.679E-02	FAIL ABUN
TB-160	-6.818E-03	1.323E-01	1.115E-01	6.750E-02	FAIL ABUN
HO-166M	-2.105E-02	5.545E-02	4.650E-02	2.829E-02	FAIL ABUN
TM-171	-3.333E+00	3.986E+01	3.216E+01	2.033E+01	NOT IDENT.
LU-176	-5.994E-03	2.506E-02	1.899E-02	1.279E-02	FAIL ABUN
LU-177M	-9.212E-02	1.875E-01	1.343E-01	9.565E-02	FAIL ABUN
HF-181	1.825E-02	3.993E-02	3.487E-02	2.037E-02	NOT IDENT.
W-181	3.759E-01	5.365E-01	4.469E-01	2.737E-01	NOT IDENT.
TA-182	-1.071E-01	1.844E-01	1.502E-01	9.408E-02	FAIL ABUN
RE-183	1.017E-01	1.126E-01	9.972E-02	5.746E-02	FAIL ABUN
RE-184	8.766E-02	2.037E-01	1.850E-01	1.039E-01	NOT IDENT.
OS-185	-8.881E-04	3.642E-02	3.167E-02	1.858E-02	NOT IDENT.
RE-188	1.948E-02	1.731E-01	1.491E-01	8.829E-02	NOT IDENT.
W-188	8.460E-02	7.614E+00	5.908E+00	3.885E+00	FAIL ABUN
IR-192	-6.763E-04	3.129E-02	2.736E-02	1.596E-02	FAIL ABUN
AU-195	8.535E-01	4.342E-01	2.382E-01	2.215E-01	FAIL ABUN
TL-200	-1.412E+03	2.631E+03	0.000E+00	1.342E+03	SHORT HLIF
TL-201	3.833E+00	1.312E+01	1.133E+01	6.693E+00	NOT IDENT.
TL-202	2.605E-02	6.895E-02	6.035E-02	3.518E-02	NOT IDENT.
HG-203	1.059E-02	3.943E-02	3.528E-02	2.012E-02	NOT IDENT.
BI-207	2.788E-02	5.341E-02	4.649E-02	2.725E-02	FAIL ABUN
TL-207	-3.126E-02	7.004E-01	5.360E-01	3.574E-01	FAIL ABUN
PO-209	7.866E+00	7.142E+00	6.574E+00	3.644E+00	NOT IDENT.
BI-210	1.330E+01	9.335E+00	8.908E+00	4.763E+00	NOT IDENT.
PB-210	1.330E+01	9.335E+00	8.908E+00	4.763E+00	NOT IDENT.
PO-210	1.330E+01	9.321E+00	8.908E+00	4.756E+00	NOT IDENT.
PB-211	3.044E-01	9.576E-01	7.262E-01	4.886E-01	NOT IDENT.
BI-212	1.075E+00	4.282E-01	3.242E-01	2.185E-01	FAIL ABUN
PO-215	-3.126E-02	7.004E-01	5.360E-01	3.574E-01	FAIL ABUN
RN-219	1.099E-01	3.856E-01	3.365E-01	1.967E-01	FAIL ABUN
RN-220	9.426E+00	2.506E+01	2.153E+01	1.279E+01	NOT IDENT.
RA-223	-3.126E-02	7.004E-01	5.360E-01	3.574E-01	FAIL ABUN
AC-227	1.971E-01	3.363E-01	3.062E-01	1.716E-01	FAIL ABUN
TH-227	1.971E-01	3.368E-01	3.062E-01	1.718E-01	FAIL ABUN
TH-229	1.288E-01	4.820E-01	4.119E-01	2.459E-01	FAIL ABUN
PA-231	2.478E-01	1.414E+00	1.259E+00	7.217E-01	FAIL ABUN
TH-231	-3.126E-02	7.004E-01	5.360E-01	3.574E-01	FAIL ABUN
U-231	9.733E-01	2.566E+00	1.646E+00	1.309E+00	FAIL ABUN
PA-233	-2.608E-03	5.865E-02	5.129E-02	2.993E-02	FAIL ABUN
PA-234	1.004E-01	3.020E-01	2.609E-01	1.541E-01	FAIL ABUN
PA-234M	2.146E+01	7.992E+00	5.767E+00	4.077E+00	FAIL ABUN
NP-236	-1.230E-01	8.010E-02	6.386E-02	4.086E-02	FAIL ABUN
NP-239	3.567E-02	1.931E-01	1.621E-01	9.852E-02	FAIL ABUN
AM-241	-9.785E-03	2.717E-01	2.212E-01	1.386E-01	NOT IDENT.
CM-243	1.002E-01	1.031E-01	8.976E-02	5.259E-02	FAIL ABUN
AM-246	1.694E-01	1.444E-01	1.322E-01	7.367E-02	NOT IDENT.
CM-247	-3.199E-02	3.526E-02	2.855E-02	1.799E-02	NOT IDENT.
CF-249	2.921E-02	3.525E-02	3.186E-02	1.798E-02	NOT IDENT.
CF-251	2.804E-02	1.235E-01	1.060E-01	6.300E-02	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                    GAMMA SPECTROSCOPY BACKGROUND REPORT                   *
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ENERGY	MDA COUNTS
46.50	345.2917
46.50	345.2917
46.50	345.2917
48.70	400.6624
49.72	405.4381
51.35	381.2605
52.39	393.4176
52.97	385.6367
53.15	389.5316
53.44	407.4939
54.07	415.5957
56.28	408.5038
56.28	408.5072
57.37	0.0000
57.53	438.4127
57.53	438.4145
57.60	420.1572
57.98	436.0648
57.98	436.0648
59.32	431.7952
59.32	431.7952
59.40	431.8766
59.54	432.0197
59.72	429.3694
60.01	429.6619
61.10	421.7527
61.14	421.7912
61.30	421.9474
63.00	423.5968
63.29	423.8758
63.29	423.8758
63.58	424.1542
64.28	423.8695
65.12	403.1464
65.20	403.2177
65.20	403.2177
66.05	405.4159
66.72	430.4877
66.83	416.1916
66.91	416.2643
67.20	399.2336
67.20	399.2336
67.75	436.3634
67.85	436.4580
68.90	479.3024
68.90	479.3024
69.30	510.6014
69.67	496.5179
70.82	441.5621
70.82	441.5621
70.83	441.5714
72.80	510.4870
72.87	510.5618
72.87	510.5618
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74.81	545.7961
74.81	545.7961
74.81	545.7961
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74.81	545.7961
74.81	545.7961
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75.70	546.7798
77.11	538.5203
77.11	538.5203

77.11	538.5203
77.11	538.5203
77.11	538.5203
77.11	538.5203
77.11	538.5203
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79.62	510.1432
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79.80	526.5933
80.11	526.9138
80.18	529.9450
80.30	553.7581
80.30	553.7581
80.57	554.0491
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81.07	628.7280
81.07	628.7280
81.07	628.7280
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83.78	515.7293
83.78	515.7293
83.78	515.7293
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84.90	528.7664
85.43	553.2131
86.29	666.4136
86.50	666.6750
86.54	666.7225
86.59	666.7836
86.72	605.4976
86.79	605.5716
86.94	605.7411
87.30	606.1449
87.30	606.1449
87.30	606.1449
87.30	606.1449
87.30	606.1449
87.30	606.1449
87.30	606.1449
87.57	606.4438
87.88	606.7891
88.03	606.9555
88.36	607.3223
88.47	607.4425
89.95	609.0761
91.11	610.3460
92.29	611.6282
92.38	611.7269
92.38	611.7269
93.35	612.7748
94.00	613.4745
94.67	398.3091
94.67	398.3131
94.90	398.4730
94.90	398.4730
94.90	398.4730
94.90	398.4730
95.87	399.1426
95.87	399.1426
96.73	399.7363
97.43	325.3648
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98.44	325.9255
98.88	326.1693
99.55	326.5381
99.55	326.5381
99.86	286.8288
100.00	286.8973
100.10	286.9472
103.18	317.7211
103.76	332.2275
105.00	337.2321
105.31	342.5624
108.00	399.4900
109.28	387.8429

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111.00	385.7698
111.76	417.5032
112.95	390.0770
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117.00	319.0450
117.00	319.0450
117.66	350.2896
121.11	295.0000
121.62	319.5601
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122.32	331.5388
122.32	331.5388
122.32	331.5388
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133.54	349.7922
135.34	373.3163
136.00	347.7360
136.25	339.2116
136.48	331.7558
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140.51	0.0000
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142.65	327.9726
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144.24	329.2044
144.24	329.2044
144.24	329.2044
145.22	326.3477
145.44	326.4419
147.16	317.3062
152.43	311.1742
152.70	320.1110
153.22	309.2749
154.21	328.4572
154.21	328.4572
154.21	328.4572
154.21	328.4572
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156.02	351.3687
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162.64	296.1194
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163.89	299.9215
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171.28	321.7441
171.86	316.3131
172.10	301.7113
176.55	288.4914
176.60	295.3221
181.06	303.0925
184.41	302.5054
185.71	315.5602
186.00	315.6609
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193.63	269.6693
197.04	295.0388
198.01	274.4091
198.60	253.6370
200.40	319.3907
201.83	309.9445
202.84	296.2451
205.31	296.6466

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208.81	291.0034
209.75	262.6819
209.75	262.6819
210.97	277.1443
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216.55	266.6016
218.09	275.9045
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226.40	223.4032
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227.08	221.7520
227.20	223.5742
228.16	239.0554
228.18	239.0595
228.18	239.0595
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236.00	269.4298
236.00	269.4298
238.63	235.0527
238.63	235.0527
238.63	235.0527
238.63	235.0527
239.00	235.1317
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241.98	235.7739
241.98	235.7739
241.98	235.7739
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245.39	191.3940
247.94	226.0618
248.90	214.3477
249.79	191.6003
252.40	168.1530
252.85	182.0086
252.85	182.0086
254.15	0.0000
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256.20	184.3872
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260.90	0.0000
262.80	199.3513
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268.24	192.2654
268.79	207.2681
269.46	193.9558
269.46	193.9558
269.46	193.9558
269.46	193.9558
271.23	188.2679
273.65	214.1020
276.40	194.0106
277.35	201.8053
277.60	195.2761
277.60	195.2761
278.00	193.4613
278.60	203.8944
279.20	203.9938
279.53	220.0356
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281.68	204.4077
283.67	189.6428
284.30	190.6850
285.00	203.0716
285.90	0.0000
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286.10	205.1427
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290.80	195.8558
291.72	188.4037
293.26	0.0000
293.70	190.2222
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295.21	184.3537

295.21	184.3537
295.96	213.4282
296.50	213.5171
297.23	213.6401
298.57	213.8657
299.80	186.5474
299.80	186.5474
300.09	186.5891
300.09	186.5891
300.09	186.5891
300.09	186.5891
300.12	186.5921
301.29	186.7619
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304.40	148.8486
304.84	164.2513
306.84	166.0395
308.46	177.0203
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319.02	171.6470
319.41	162.9653
320.08	163.0474
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323.87	175.9611
323.87	175.9611
323.87	175.9611
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334.20	142.7740
334.30	142.7829
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338.28	160.3014
338.28	160.3014
338.28	160.3014
338.32	160.3064
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338.32	160.3064
340.50	165.4801
340.57	165.4878
344.27	155.3864
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351.92	163.8318
351.92	163.8318
351.92	163.8318
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367.94	0.0000
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374.96	133.1219
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387.95	111.8782
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391.69	145.7908
391.69	145.7908
392.90	127.5368
398.62	148.4803
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401.10	129.2261
401.81	132.3620
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404.84	118.4256
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415.30	127.7076

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423.70	122.7138
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439.89	94.4989
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445.03	84.2517
445.03	84.2517
445.03	84.2517
445.03	84.2517
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468.07	105.8511
473.00	125.1873
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475.35	102.8511
476.78	108.2927
477.59	114.7765
477.96	116.9468
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484.57	111.9854
487.03	99.1973
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492.35	0.0000
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511.00	114.6667
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511.85	106.6316
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513.99	84.0006
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520.65	76.8274
527.90	0.0000
528.96	0.0000
529.64	95.9262
529.87	0.0000
531.02	103.7161
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543.00	84.3612
546.56	0.0000
549.76	92.4416
552.65	100.3793
555.20	83.7547
563.23	76.2365
563.90	86.3548
568.70	98.9194
569.32	78.7094
569.50	78.7158
569.67	78.7222
573.80	97.1579
574.00	97.1658
574.64	100.3287
578.91	105.4272
579.30	0.0000
583.14	95.0742
585.48	108.7764
591.81	102.7346
592.07	102.7483
593.00	109.1602
595.88	90.1780
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602.52	0.0000
602.71	100.5120
602.71	100.5120
603.60	88.3665
604.41	70.1099
604.70	70.1193
609.31	82.4875

609.31	82.4875
609.31	82.4875
609.31	82.4875
610.33	74.8837
612.46	78.0149
614.37	81.1455
618.01	80.0523
621.84	86.6425
621.84	86.6425
631.29	89.7842
633.02	88.9266
633.10	88.9313
634.78	73.2370
635.90	74.2012
636.97	86.2997
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646.12	69.8749
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657.75	76.4708
657.90	0.0000
661.65	84.4146
661.65	84.4146
664.57	0.0000
666.33	76.7499
666.33	76.7499
675.00	71.6879
677.61	62.3229
685.20	67.2576
692.80	89.3252
695.00	98.9193
696.49	91.3641
696.49	91.3641
697.00	90.4332
697.49	93.3058
698.33	89.5295
698.50	89.5364
699.00	89.5547
702.63	86.8255
706.10	88.8586
706.58	0.0000
706.67	83.1449
709.31	61.2297
711.68	84.2703
713.82	83.3849
717.42	82.5461
720.50	78.2547
721.93	0.0000
722.20	78.5364
722.78	72.1417
722.78	72.1417
722.89	72.1454
722.95	72.1472
723.30	76.9688
724.18	94.6386
727.18	80.9402
733.00	59.5574
735.90	91.8573
739.58	88.1163
742.81	64.9586
744.21	78.5755
747.13	74.7799
751.79	66.1589
752.31	67.1453
753.82	51.6051
755.35	59.4288
756.15	65.2956
756.87	60.4394
763.93	96.7691
765.79	67.4923
766.42	73.3795
766.84	76.3261
776.49	72.6775
778.00	64.8576
778.57	65.8550
778.89	63.8955
783.80	62.0448
785.46	59.1270
792.07	76.0657

795.84	75.1836
796.30	80.1418
798.80	98.0429
801.93	76.3439
805.60	68.5031
810.29	68.6210
810.76	58.6860
815.85	64.7731
817.79	49.8608
818.51	48.8768
819.60	52.8874
826.30	54.0145
828.27	0.0000
831.60	76.1651
831.96	78.1790
834.83	70.2324
836.80	0.0000
846.75	58.4390
848.13	73.5881
856.28	0.0000
856.80	89.3146
860.37	52.6437
867.32	51.8685
867.82	47.7045
871.10	55.8876
873.19	66.0966
874.81	51.8890
875.33	0.0000
876.40	47.8457
879.36	58.0841
880.27	71.3535
880.51	71.3586
881.50	64.2443
883.24	51.0181
884.67	49.0008
889.25	61.3462
896.60	49.1988
898.02	62.5533
899.00	62.5741
903.28	47.5113
911.07	42.2272
911.07	42.2272
911.07	42.2272
919.63	44.4130
920.93	45.4652
925.00	42.4224
925.24	44.4949
926.50	44.5128
935.52	41.5293
937.48	70.6446
944.10	53.0980
946.00	60.4228
949.00	49.0103
962.29	68.0675
964.01	76.8371
966.15	76.8890
968.20	82.8844
969.11	68.2151
969.11	68.2151
969.11	68.2151
977.42	54.7155
980.50	40.0225
983.50	46.3858
989.30	43.3012
996.32	45.8650
1001.03	60.0645
1001.68	49.4740
1004.76	45.9835
1021.30	0.0000
1024.50	0.0000
1034.80	46.0465
1036.00	40.7071
1037.82	38.5857
1038.57	45.0270
1038.76	0.0000
1045.16	58.0052
1046.59	68.7781
1048.07	63.4308

1050.47	34.4281
1050.47	34.4281
1062.04	60.4543
1063.62	55.0815
1076.63	52.0383
1077.35	53.1344
1078.86	46.6491
1085.78	46.7415
1099.22	54.5605
1112.02	48.5002
1112.84	49.2935
1115.52	49.3308
1120.29	39.5174
1120.29	39.5174
1120.29	39.5174
1120.29	39.5174
1120.51	39.5209
1121.28	39.5297
1124.00	0.0000
1129.67	46.4702
1131.51	0.0000
1147.95	0.0000
1167.94	56.5397
1173.22	62.1909
1175.09	43.6475
1177.93	46.4701
1189.05	72.7092
1204.90	65.5282
1205.75	0.0000
1213.00	71.2964
1221.42	68.6335
1230.97	77.5547
1235.34	72.7923
1236.41	0.0000
1238.25	67.9893
1246.25	52.9899
1260.41	0.0000
1271.85	34.2876
1274.45	54.3258
1274.54	57.1851
1291.56	48.8169
1298.22	0.0000
1312.09	38.4831
1325.50	32.8185
1325.50	32.8185
1332.49	35.7745
1333.61	33.8507
1360.21	30.1750
1362.66	0.0000
1365.15	21.4396
1368.21	24.7066
1368.53	0.0000
1376.25	21.4960
1384.27	22.0267
1394.10	32.3810
1395.20	30.4261
1407.95	28.5481
1434.06	19.8071
1436.60	13.8730
1457.56	0.0000
1460.81	6.8326
1489.15	22.0600
1509.49	13.0942
1596.49	15.8335
1620.62	12.3770
1678.03	0.0000
1691.02	9.4164
1691.02	9.4164
1706.46	0.0000
1750.46	0.0000
1764.49	3.6392
1764.49	3.6392
1764.49	3.6392
1764.49	3.6392
1770.23	45.6927
1771.40	15.9430
1791.20	0.0000
1808.65	7.4930

1836.01 18.2908

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032522

Total Uranium Activity	5.4046E+01	ug/g
Total Uranium Counting Unc.	1.5320E+01	ug/g
Total Uranium Tpu	7.8163E-06	ug/g
Total Uranium Mda	4.7500E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID  : G1202032522      *
*   ANALYST       : MXR1                      DETECTOR   : GAM10            *
*   SAMPLE DATE   : 27-JAN-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 13:18:21.65    SAMPLE ALQT:  138.840 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 1.016E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 1.509E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 4.224E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 2.053E+00
```

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:00:53.37

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032523.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 14-FEB-2010 14:00:27
Sample ID         : G1202032523          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.35  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.46	1607	620	0.93	118.96	113	12	4.46E-01	4.0	
2	0	75.96	358	732	3.31	151.97	143	16	9.95E-02	17.7	
3	0	87.99	1156	461	0.90	176.02	172	10	3.21E-01	4.6	
4	0	92.74*	55	241	0.91	185.52	183	7	1.52E-02	50.1	
5	0	122.07	272	301	1.37	244.20	240	10	7.55E-02	13.5	
6	0	238.47*	436	227	1.03	477.02	473	8	1.21E-01	7.8	
7	0	241.53*	44	286	1.53	483.14	482	8	1.21E-02	71.2	
8	0	295.09	122	172	1.01	590.25	586	8	3.38E-02	20.8	
9	0	337.84*	71	187	1.18	675.76	672	9	1.96E-02	37.0	
10	0	351.89*	180	188	1.26	703.86	700	9	5.01E-02	15.7	
11	0	510.90*	17	154	1.78	1021.90	1016	11	4.69E-03	154.7	
12	0	583.31*	173	72	1.40	1166.71	1162	10	4.81E-02	12.1	
13	0	609.83*	131	153	1.29	1219.75	1213	14	3.65E-02	22.1	
14	0	661.69*	2004	155	1.44	1323.47	1317	14	5.57E-01	2.6	
15	0	726.72	58	69	1.39	1453.52	1446	12	1.61E-02	31.6	
16	0	910.99*	130	85	1.98	1822.04	1816	13	3.60E-02	17.2	
17	0	1173.33	1686	73	1.71	2346.65	2339	17	4.68E-01	2.7	
18	0	1332.63	1524	28	1.82	2665.20	2658	17	4.23E-01	2.7	
19	0	1460.64*	22	3	0.97	2921.16	2916	11	6.24E-03	28.0	
20	0	1764.91*	30	3	1.49	3529.54	3523	13	8.23E-03	23.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 14-FEB-2010 15:00:56

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032523.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : MXR1
Sample date : 5-FEB-2010 00:00:00 Acquisition date : 14-FEB-2010 14:00:27
Sample ID : G1202032523 Sample quantity : 155.44 GRAM
Sample type : SOLID Sample geometry :
Detector name : GAMMA4 Detector geometry: CAN
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.35 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	+	1460.81	*	9.463E-01	5.340E-01	4.324E-01	3.073E-02	2.189
CO-57	+	122.06	*	2.424E-01	6.736E-02	5.827E-02	4.045E-03	4.160
		136.48		2.956E-01	3.129E-01	5.325E-01	3.961E-02	0.555
CO-60	+	1173.22		6.284E+00	5.046E-01	1.239E-01	7.367E-03	50.733
	+	1332.49	*	6.374E+00	5.552E-01	9.449E-02	6.475E-03	67.462
CD-109	+	88.03	*	2.995E+01	4.525E+00	2.109E+00	2.535E-01	14.201
SN-126		64.28		-8.386E-02	1.016E+00	1.545E+00	2.661E-01	-0.054
	+	86.94		1.234E+01	5.329E+00	9.231E-01	3.893E-01	13.369
	+	87.57	*	2.969E+00	4.484E-01	2.106E-01	2.526E-02	14.093
BA-137M	+	661.65	*	4.874E+00	3.474E-01	1.094E-01	5.334E-03	44.565
CS-137	+	661.65	*	5.153E+00	3.683E-01	1.156E-01	5.672E-03	44.565
TL-208		277.35		1.703E-01	5.941E-01	1.016E+00	1.123E-01	0.168
	+	510.84		1.382E-01	4.277E-01	4.227E-01	4.242E-02	0.327
	+	583.14	*	4.046E-01	1.009E-01	1.060E-01	6.668E-03	3.817
		860.37		1.909E-01	6.541E-01	1.103E+00	9.202E-02	0.173
BI-211		72.87		5.654E+00	5.177E+00	9.004E+00	1.032E+00	0.628
	+	351.07	*	1.856E+00	5.949E-01	5.807E-01	3.923E-02	3.195
PB-212	+	74.81		4.270E+00	1.638E+00	9.080E-01	1.342E-01	4.703
	+	77.11		2.538E+00	9.446E-01	5.012E-01	5.750E-02	5.065
	+	87.30		1.373E+01	2.487E+00	9.787E-01	1.527E-01	14.029
	+	238.63	*	9.783E-01	1.708E-01	1.923E-01	1.544E-02	5.088
		300.09		1.020E+00	1.282E+00	2.171E+00	1.911E-01	0.470
PO-212	+	74.81		4.270E+00	1.638E+00	9.080E-01	1.342E-01	4.703
	+	77.11		2.538E+00	9.446E-01	5.012E-01	5.750E-02	5.065
	+	87.30		1.373E+01	2.487E+00	9.787E-01	1.527E-01	14.029
		115.19		-1.016E+00	5.189E+00	8.471E+00	6.374E-01	-0.120
	+	238.63	*	9.783E-01	1.708E-01	1.923E-01	1.544E-02	5.088
		300.09		1.020E+00	1.282E+00	2.171E+00	1.911E-01	0.470
BI-214	+	609.31	*	5.790E-01	2.600E-01	2.113E-01	1.553E-02	2.740
		1120.29		9.457E-02	6.368E-01	1.044E+00	9.729E-02	0.091
	+	1764.49		9.500E-01	4.451E-01	4.304E-01	2.624E-02	2.207
PB-214	+	74.81		7.357E+00	2.792E+00	1.564E+00	2.134E-01	4.703
	+	77.11		4.351E+00	1.653E+00	8.592E-01	1.183E-01	5.065
	+	87.30		2.352E+01	3.989E+00	1.677E+00	2.387E-01	14.029

Sample ID : G1202032523 Acquisition date : 14-FEB-2010 14:00:27

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	241.98		5.883E-01	8.388E-01	1.033E+00	9.002E-02	0.569
	+	295.21		7.405E-01	3.157E-01	3.436E-01	3.120E-02	2.155
	+	351.92	*	6.455E-01	2.097E-01	2.106E-01	1.797E-02	3.065
PO-214	+	74.81		7.357E+00	2.792E+00	1.564E+00	2.134E-01	4.703
	+	77.11		4.351E+00	1.653E+00	8.592E-01	1.183E-01	5.065
	+	87.30		2.352E+01	3.989E+00	1.677E+00	2.387E-01	14.029
	+	241.98		5.883E-01	8.388E-01	1.033E+00	9.002E-02	0.569
	+	295.21		7.405E-01	3.157E-01	3.436E-01	3.120E-02	2.155
	+	351.92	*	6.455E-01	2.097E-01	2.106E-01	1.797E-02	3.065
PO-216	+	74.81		4.270E+00	1.638E+00	9.080E-01	1.342E-01	4.703
	+	77.11		2.538E+00	9.446E-01	5.012E-01	5.750E-02	5.065
	+	87.30		1.373E+01	2.487E+00	9.787E-01	1.527E-01	14.029
	+	238.63	*	9.783E-01	1.708E-01	1.923E-01	1.544E-02	5.088
		300.09		1.020E+00	1.282E+00	2.171E+00	1.911E-01	0.470
PO-218	+	74.81		7.357E+00	2.792E+00	1.564E+00	2.134E-01	4.703
	+	77.11		4.351E+00	1.653E+00	8.592E-01	1.183E-01	5.065
	+	87.30		2.352E+01	3.989E+00	1.677E+00	2.387E-01	14.029
	+	241.98		5.883E-01	8.388E-01	1.033E+00	9.002E-02	0.569
	+	295.21		7.405E-01	3.157E-01	3.436E-01	3.120E-02	2.155
	+	351.92	*	6.455E-01	2.097E-01	2.106E-01	1.797E-02	3.065
RA-224	+	240.98	*	1.115E+00	1.589E+00	2.050E+00	1.367E-01	0.544
RA-226	+	609.31	*	5.790E-01	2.600E-01	2.113E-01	1.553E-02	2.740
		1120.29		9.457E-02	6.368E-01	1.044E+00	9.729E-02	0.091
	+	1764.49		9.500E-01	4.451E-01	4.304E-01	2.624E-02	2.207
TH-228	+	74.81		4.311E+00	1.605E+00	9.167E-01	1.055E-01	4.703
	+	77.11		2.563E+00	9.536E-01	5.060E-01	5.805E-02	5.065
	+	87.30		1.386E+01	2.094E+00	9.881E-01	1.183E-01	14.029
	+	238.63	*	9.877E-01	1.724E-01	1.941E-01	1.559E-02	5.088
		300.09		1.030E+00	1.427E+00	2.192E+00	1.293E+00	0.470
TH-230	+	609.31	*	5.790E-01	2.599E-01	2.113E-01	1.553E-02	2.740
		1120.29		9.457E-02	6.368E-01	1.044E+00	9.729E-02	0.091
	+	1764.49		9.500E-01	4.451E-01	4.304E-01	2.624E-02	2.207
U-234	+	609.31	*	5.790E-01	2.599E-01	2.113E-01	1.553E-02	2.740
		1120.29		9.457E-02	6.368E-01	1.044E+00	9.729E-02	0.091
	+	1764.49		9.500E-01	4.451E-01	4.304E-01	2.624E-02	2.207
NP-237	+	86.50	*	8.717E+00	2.229E+00	6.627E-01	1.579E-01	13.155
		95.87		-4.043E-01	1.401E+00	2.041E+00	5.143E-01	-0.198
AM-241	+	59.54	*	1.386E+01	2.072E+00	6.771E-01	8.548E-02	20.478
AM-243	+	74.67	*	6.923E-01	2.576E-01	1.479E-01	1.694E-02	4.680
	+	86.72		3.269E+02	4.938E+01	2.455E+01	2.928E+00	13.318
		117.66		-7.694E-01	6.354E+00	9.287E+00	6.779E-01	-0.083
		142.18		-9.027E+00	2.403E+01	3.842E+01	2.513E+00	-0.235
ANH-511	+	511.00	*	2.985E-02	9.235E-02	9.133E-02	5.107E-03	0.327

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7		477.59	*	2.548E-01	6.163E-01	1.029E+00	6.819E-02	0.247

Sample ID : G1202032523 Acquisition date : 14-FEB-2010 14:00:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
NA-22		1274.54	*	7.453E-03	5.306E-02	9.054E-02	5.920E-03	0.082
NA-24		1368.53	*	3.803E-04	5.306E-02	Half-Life too short		
AL-26		1129.67		-1.894E+00	3.177E+00	4.821E+00	3.110E-01	-0.393
		1808.65	*	1.801E-02	4.163E-02	7.478E-02	4.435E-03	0.241
TI-44		67.85		-2.150E-02	8.022E-02	1.335E-01	1.553E-02	-0.161
		78.38	*	1.602E-01	6.668E-02	1.084E-01	1.246E-02	1.478
SC-46		889.25	*	-6.258E-02	8.926E-02	1.395E-01	1.128E-02	-0.449
		1120.51		1.869E-02	1.050E-01	1.726E-01	1.130E-02	0.108
V-48		944.10		-2.369E-01	1.879E+00	3.055E+00	2.442E-01	-0.078
		983.50	*	6.192E-02	1.292E-01	2.185E-01	1.693E-02	0.283
		1312.09		-4.399E-02	7.382E-02	1.105E-01	7.446E-03	-0.398
CR-51		320.08	*	1.570E-01	5.450E-01	9.263E-01	6.523E-02	0.170
MN-52		744.21		-2.795E-02	2.211E-01	3.655E-01	2.170E-02	-0.076
		848.13		-6.822E-01	6.977E+00	1.145E+01	8.515E-01	-0.060
		935.52		-1.840E-01	3.356E-01	5.306E-01	4.267E-02	-0.347
		1246.25		-2.610E+00	4.029E+00	6.101E+00	3.883E-01	-0.428
	+	1333.61		4.122E+02	3.590E+01	4.919E+01	3.371E+00	8.378
		1434.06	*	1.273E-02	1.418E-01	2.470E-01	1.686E-02	0.052
MN-54		834.83	*	-3.526E-02	7.724E-02	1.236E-01	8.947E-03	-0.285
CO-56		846.75	*	3.685E-02	7.508E-02	1.287E-01	9.544E-03	0.286
		977.42		-3.645E-01	6.252E+00	1.017E+01	7.921E-01	-0.036
		1037.82		-9.961E-02	6.999E-01	1.126E+00	8.860E-02	-0.088
		1175.09		2.642E+02	2.126E+01	3.235E+01	1.927E+00	8.167
		1238.25		8.263E-02	9.617E-02	1.771E-01	1.179E-02	0.467
		1360.21		6.240E-01	8.366E-01	1.625E+00	1.114E-01	0.384
		1771.40		-4.876E-01	4.111E-01	5.034E-01	3.056E-02	-0.969
CO-58		810.76	*	-6.707E-03	7.687E-02	1.267E-01	8.744E-03	-0.053
FE-59		142.65		5.262E-01	3.354E+00	5.515E+00	3.604E-01	0.095
		192.34		-5.800E-02	1.357E+00	2.173E+00	2.643E-01	-0.027
		1099.22	*	-3.653E-02	1.952E-01	3.118E-01	2.382E-02	-0.117
		1291.56		-2.299E-02	1.238E-01	2.004E-01	1.620E-02	-0.115
ZN-65		1115.52	*	-1.175E-02	1.911E-01	3.074E-01	2.034E-02	-0.038
GE-68		1077.35	*	5.360E-01	2.673E+00	4.407E+00	3.078E-01	0.122
AS-73		53.44	*	-3.601E-01	2.975E+00	4.810E+00	6.292E-01	-0.075
AS-74		595.88	*	-8.740E-02	1.358E-01	2.063E-01	1.089E-02	-0.424
		634.78		3.114E-01	5.132E-01	8.611E-01	4.356E-02	0.362
SE-75		66.05		-3.259E+00	8.283E+00	1.371E+01	1.799E+00	-0.238
		96.73		-9.706E-01	1.151E+00	1.604E+00	2.326E-01	-0.605
	+	121.11		1.280E+00	3.674E-01	4.470E-01	4.486E-02	2.864
		136.00		4.301E-02	5.839E-02	9.857E-02	6.606E-03	0.436
		198.60		-3.828E-01	2.733E+00	4.350E+00	3.357E-01	-0.088
		264.65	*	-3.378E-04	6.620E-02	1.120E-01	7.534E-03	-0.003
		279.53		-9.951E-02	1.719E-01	2.813E-01	1.986E-02	-0.354
		303.91		-2.460E+00	3.408E+00	5.490E+00	5.496E-01	-0.448
		400.65		-1.193E-02	4.719E-01	7.754E-01	6.981E-02	-0.015
BR-77	+	87.88		1.292E+03	1.951E+02	1.943E+02	2.335E+01	6.647
		200.40		3.349E+00	5.232E+01	8.402E+01	5.482E+00	0.040
	+	239.00		3.110E+01	5.247E+00	8.626E+00	5.747E-01	3.605
		249.79		-9.445E-01	2.186E+01	3.705E+01	2.473E+00	-0.025

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		281.68		6.629E+00	2.865E+01	4.887E+01	3.245E+00	0.136
		297.23		-4.786E+00	2.011E+01	2.932E+01	1.929E+00	-0.163
		303.76		-5.072E+01	5.967E+01	9.555E+01	6.255E+00	-0.531
		439.47		7.739E+00	5.688E+01	9.402E+01	5.333E+00	0.082
		484.57		-1.019E+02	8.911E+01	1.336E+02	7.536E+00	-0.763
		520.65	*	-1.879E+00	3.965E+00	6.204E+00	3.455E-01	-0.303
		574.64		-3.883E+01	7.811E+01	1.208E+02	6.500E+00	-0.321
		578.91		4.570E+00	3.431E+01	4.884E+01	2.618E+00	0.094
		585.48		1.897E+02	7.171E+01	1.237E+02	6.594E+00	1.533
		755.35		3.414E+01	6.011E+01	1.044E+02	6.355E+00	0.327
		817.79		-3.730E+00	5.355E+01	8.828E+01	6.162E+00	-0.042
SR-82		698.33		2.811E+01	5.040E+01	8.785E+01	4.684E+00	0.320
		776.49	*	-5.237E-01	6.222E-01	9.665E-01	6.168E-02	-0.542
		1395.20		-2.670E+00	1.166E+01	1.855E+01	1.270E+00	-0.144
RB-83		520.41	*	-6.517E-02	1.263E-01	1.970E-01	1.097E-02	-0.331
		529.64		-3.927E-02	2.019E-01	3.224E-01	1.788E-02	-0.122
		552.65		-3.768E-01	3.554E-01	5.246E-01	2.868E-02	-0.718
RB-84		881.50	*	1.099E-01	1.518E-01	2.615E-01	2.083E-02	0.420
KR-85		513.99	*	1.279E+01	1.524E+01	2.318E+01	1.295E+00	0.552
SR-85		513.99	*	6.188E-02	7.370E-02	1.121E-01	6.262E-03	0.552
RB-86		1076.63	*	8.441E-01	1.405E+00	2.388E+00	1.670E-01	0.353
Y-88		898.02		-4.998E-02	9.433E-02	1.492E-01	1.235E-02	-0.335
		1836.01	*	-7.511E-03	4.704E-02	7.321E-02	4.272E-03	-0.103
ZR-88		392.90	*	-3.384E-02	5.519E-02	8.786E-02	4.945E-03	-0.385
Y-91		1204.90	*	5.961E+00	2.274E+01	3.781E+01	2.317E+00	0.158
NB-94		702.63	*	-2.150E-02	5.857E-02	9.548E-02	5.144E-03	-0.225
		871.10		-3.732E-02	7.743E-02	1.231E-01	9.603E-03	-0.303
NB-95		765.79	*	-2.564E-03	7.036E-02	1.169E-01	7.283E-03	-0.022
NB-95M		235.69	*	-4.220E-02	1.967E-01	2.723E-01	2.235E-02	-0.155
ZR-95		724.18		4.758E-03	1.747E-01	2.548E-01	1.720E-02	0.019
		756.15	*	7.213E-02	1.235E-01	2.145E-01	1.562E-02	0.336
NB-97		657.90	*	-9.406E-05	1.235E-01	Half-Life too short		
		1024.50		4.141E-02	1.235E-01	Half-Life too short		
ZR-97		254.15		1.297E-03	1.235E-01	Half-Life too short		
		355.39		-9.695E-03	1.235E-01	Half-Life too short		
		507.63	*	-6.999E-04	1.235E-01	Half-Life too short		
		602.52		-2.978E-02	1.235E-01	Half-Life too short		
		1021.30		-6.483E-02	1.235E-01	Half-Life too short		
		1147.95		-1.700E-02	1.235E-01	Half-Life too short		
		1362.66		-1.189E-02	1.235E-01	Half-Life too short		
		1750.46		-3.509E-03	1.235E-01	Half-Life too short		
MO-99		140.51		-6.547E+00	8.894E+00	1.366E+01	3.706E+00	-0.479
		181.06		3.375E+00	6.354E+00	1.047E+01	1.817E+00	0.323
		366.43		-1.493E+01	3.653E+01	5.912E+01	3.534E+00	-0.252
		739.58	*	5.984E+00	5.648E+00	1.002E+01	1.383E+00	0.597
		778.00		8.429E+00	1.542E+01	2.672E+01	1.711E+00	0.315
TC-99M		140.51	*	-8.344E+03	1.542E+01	Half-Life too short		
RH-101		127.23		1.631E-02	5.157E-02	7.714E-02	5.239E-03	0.211
		198.01	*	-1.181E-02	5.157E-02	8.170E-02	5.321E-03	-0.145

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		325.23		-2.077E-01	3.722E-01	6.029E-01	3.859E-02	-0.344
RH-102		418.52		-5.752E-01	5.828E-01	9.031E-01	5.114E-02	-0.637
		475.06	*	-3.066E-02	6.256E-02	9.903E-02	5.599E-03	-0.310
		631.29		-4.187E-02	9.895E-02	1.522E-01	7.731E-03	-0.275
		697.49		6.714E-02	1.318E-01	2.290E-01	1.219E-02	0.293
		766.84		-1.400E-01	1.912E-01	3.006E-01	1.878E-02	-0.466
		1046.59		-8.449E-04	2.599E-01	4.224E-01	3.067E-02	-0.002
		1112.84		-2.961E-01	5.159E-01	7.955E-01	5.275E-02	-0.372
RU-103		497.08	*	-5.888E-02	7.417E-02	1.136E-01	1.427E-02	-0.518
	+	610.33		5.669E+00	2.655E+00	3.127E+00	4.755E-01	1.813
RH-106	+	511.85		1.475E-01	4.565E-01	5.884E-01	3.289E-02	0.251
		621.84	*	8.721E-02	5.910E-01	9.562E-01	1.092E-01	0.091
		1050.47		-2.401E+00	5.110E+00	7.976E+00	5.765E-01	-0.301
RU-106	+	511.85		1.475E-01	4.565E-01	5.884E-01	3.289E-02	0.251
		621.84	*	8.721E-02	5.909E-01	9.562E-01	4.912E-02	0.091
		1050.47		-2.401E+00	5.110E+00	7.976E+00	5.765E-01	-0.301
AG-108M		433.93	*	5.250E-02	6.767E-02	1.157E-01	7.152E-03	0.454
		614.37		-3.660E-04	7.946E-02	1.108E-01	6.346E-03	-0.003
		722.95		-8.911E-03	8.048E-02	1.156E-01	7.117E-03	-0.077
AG-110M		657.75	*	-1.710E-02	7.497E-02	1.076E-01	5.748E-03	-0.159
		677.61		2.955E-01	5.205E-01	9.109E-01	4.986E-02	0.324
		706.67		3.778E-01	3.453E-01	6.239E-01	3.624E-02	0.606
		763.93		9.027E-02	2.856E-01	4.869E-01	3.185E-02	0.185
		884.67		5.147E-02	1.194E-01	2.022E-01	1.681E-02	0.255
		937.48		2.070E-01	2.824E-01	4.837E-01	4.046E-02	0.428
		1384.27		1.582E-02	1.896E-01	3.200E-01	2.289E-02	0.049
IN-111		171.28		-8.586E-02	3.958E-01	6.321E-01	4.029E-02	-0.136
		245.39	*	-1.944E-02	5.229E-01	7.319E-01	4.884E-02	-0.027
IN-113M		391.69	*	-3.335E-03	7.962E-02	1.313E-01	7.908E-03	-0.025
SN-113		391.69	*	-3.335E-03	7.962E-02	1.313E-01	7.908E-03	-0.025
IN-114M		190.27	*	1.442E-01	2.547E-01	4.209E-01	2.724E-02	0.343
CD-115		260.90		-1.456E+01	3.745E+01	6.219E+01	4.153E+00	-0.234
		492.35		6.374E+00	1.248E+01	2.099E+01	1.182E+00	0.304
		527.90	*	1.325E+00	3.794E+00	6.288E+00	3.489E-01	0.211
SN-117M		156.02		4.138E-01	2.449E+00	4.010E+00	2.572E-01	0.103
		158.56	*	-1.446E-02	5.930E-02	9.494E-02	6.073E-03	-0.152
SB-122		563.90	*	5.024E-02	9.231E-01	1.493E+00	8.100E-02	0.034
		692.80		-1.699E+01	1.722E+01	2.654E+01	1.397E+00	-0.640
I-123		159.00	*	-3.311E-03	1.722E+01	Half-Life too short		
		528.96		1.322E-01	1.722E+01	Half-Life too short		
TE-123M		159.00	*	-1.802E-02	3.977E-02	6.293E-02	4.068E-03	-0.286
I-124		602.71	*	-2.768E-01	5.512E-01	7.771E-01	4.076E-02	-0.356
		722.78		-2.079E-01	3.359E+00	4.853E+00	2.741E-01	-0.043
		1325.50		1.112E+01	2.146E+01	3.415E+01	2.327E+00	0.326
		1376.25		5.403E+00	1.387E+01	2.461E+01	1.686E+00	0.220
		1509.49		5.438E+00	8.321E+00	1.528E+01	1.031E+00	0.356
		1691.02		4.190E-01	1.948E+00	3.352E+00	2.124E-01	0.125
SB-124		602.71		-3.791E-02	7.549E-02	1.064E-01	5.584E-03	-0.356
		645.85		3.926E-01	8.632E-01	1.500E+00	8.752E-02	0.262

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		709.31		-2.028E+00	4.553E+00	7.376E+00	4.037E-01	-0.275
		713.82		-1.201E+00	2.739E+00	4.428E+00	4.455E-01	-0.271
		722.78		-4.127E-02	6.667E-01	9.634E-01	5.712E-02	-0.043
		968.20		6.000E+00	5.988E+00	1.035E+01	8.123E-01	0.580
		1045.16		-9.387E-01	5.129E+00	8.211E+00	5.973E-01	-0.114
		1325.50		2.358E+00	4.549E+00	7.241E+00	4.934E-01	0.326
		1368.21		3.615E-01	1.719E+00	2.983E+00	3.705E-01	0.121
		1436.60		-2.901E+00	4.242E+00	6.271E+00	4.278E-01	-0.463
		1691.02	*	1.962E-02	9.121E-02	1.569E-01	1.066E-02	0.125
SB-125		427.89	*	-1.134E-01	1.773E-01	2.796E-01	1.655E-02	-0.406
		463.38		7.020E-01	5.888E-01	1.021E+00	6.786E-02	0.688
		600.56		1.858E-01	3.315E-01	5.533E-01	3.454E-02	0.336
		635.90		2.057E-02	4.835E-01	7.746E-01	4.775E-02	0.027
TE-125M		109.28	*	4.403E+00	1.268E+01	2.129E+01	2.110E+00	0.207
I-126		388.63		-8.504E-02	2.835E-01	4.605E-01	2.612E-02	-0.185
		666.33	*	2.762E-01	2.606E-01	4.225E-01	2.084E-02	0.654
		753.82		5.634E-01	1.997E+00	3.400E+00	2.063E-01	0.166
SB-126		223.80		-1.729E+00	5.271E+00	8.239E+00	5.457E-01	-0.210
		278.60		2.800E-01	2.912E+00	4.938E+00	3.283E-01	0.057
	+	296.50		5.405E+00	2.279E+00	3.278E+00	2.158E-01	1.649
		414.70		9.246E-02	1.107E-01	1.904E-01	1.077E-02	0.486
		415.30		2.419E+00	9.302E+00	1.553E+01	8.788E-01	0.156
		555.20		6.571E+00	5.147E+00	9.092E+00	4.963E-01	0.723
		573.80		-4.010E-01	1.414E+00	2.225E+00	1.198E-01	-0.180
		593.00		3.505E-01	1.223E+00	2.008E+00	1.063E-01	0.175
		656.30		-7.328E+00	5.482E+00	6.949E+00	3.415E-01	-1.055
		666.33		1.140E-01	1.075E-01	1.743E-01	8.600E-03	0.654
		675.00		6.134E-01	2.409E+00	4.128E+00	2.080E-01	0.149
		695.00		3.423E-02	9.443E-02	1.627E-01	8.607E-03	0.210
		697.00		9.900E-02	3.542E-01	6.056E-01	3.219E-02	0.163
		720.50	*	-1.592E-01	2.343E-01	3.169E-01	1.780E-02	-0.502
		856.80		-5.199E-02	7.739E-01	1.272E+00	9.636E-02	-0.041
		989.30		-6.480E-01	2.203E+00	3.517E+00	2.711E-01	-0.184
		1034.80		4.786E+00	1.474E+01	2.458E+01	1.809E+00	0.195
		1213.00		-1.101E+00	4.427E+00	6.860E+00	4.236E-01	-0.161
SB-127		61.10		4.507E+02	8.730E+01	1.260E+02	1.623E+01	3.578
		252.40		1.068E+00	2.703E+00	4.608E+00	1.904E+00	0.232
		290.80		-2.666E+00	1.449E+01	2.122E+01	1.696E+00	-0.126
		411.60		-1.474E+00	8.867E+00	1.447E+01	1.913E+00	-0.102
		444.90		2.205E+00	7.374E+00	1.229E+01	1.132E+00	0.179
		473.00		4.937E-01	1.320E+00	2.198E+00	2.121E-01	0.225
		543.00		-1.179E+01	1.204E+01	1.792E+01	2.068E+00	-0.658
		603.60		-1.461E+00	9.112E+00	1.252E+01	1.116E+00	-0.117
		685.20	*	1.846E-01	8.494E-01	1.450E+00	1.044E-01	0.127
		698.50		7.670E+00	9.434E+00	1.666E+01	2.200E+00	0.460
		722.20		-6.522E+00	2.202E+01	3.099E+01	2.235E+00	-0.210
		783.80		-3.040E-01	2.647E+00	4.375E+00	4.193E-01	-0.069
XE-127		57.60		7.930E+01	2.108E+01	3.552E+01	4.447E+00	2.233
		145.22		7.040E-01	8.960E-01	1.514E+00	9.852E-02	0.465

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		172.10		-5.054E-02	1.654E-01	2.628E-01	1.676E-02	-0.192
		202.84	*	6.336E-02	6.823E-02	1.141E-01	7.455E-03	0.556
		374.96		-5.678E-02	3.010E-01	4.928E-01	2.891E-02	-0.115
I-131		80.18		-1.495E+00	4.849E+00	7.157E+00	8.282E-01	-0.209
		284.30		3.849E-01	1.518E+00	2.591E+00	1.857E-01	0.149
		364.48	*	-4.968E-02	1.253E-01	2.031E-01	1.343E-02	-0.245
		636.97		-4.685E-01	1.809E+00	2.824E+00	1.633E-01	-0.166
		722.89		-7.858E-01	8.408E+00	1.210E+01	6.881E-01	-0.065
TE-132		49.72		6.716E+00	2.433E+01	4.186E+01	5.449E+00	0.160
		111.76		2.200E+00	1.316E+01	2.189E+01	1.950E+00	0.100
		116.30		-1.488E+00	1.216E+01	1.992E+01	1.696E+00	-0.075
		228.16	*	1.224E-01	3.640E-01	5.879E-01	8.118E-02	0.208
BA-133		53.15		-5.300E+00	1.316E+01	2.200E+01	2.880E+00	-0.241
		79.62		4.920E-01	2.199E+00	3.346E+00	5.703E-01	0.147
		81.00		-1.383E-01	1.726E-01	2.452E-01	4.332E-02	-0.564
		276.40		2.710E-01	5.942E-01	1.023E+00	1.368E-01	0.265
		302.84		-2.134E-01	2.431E-01	3.873E-01	4.666E-02	-0.551
		356.01	*	-2.682E-02	8.952E-02	1.278E-01	1.497E-02	-0.210
		383.85		-3.575E-02	5.557E-01	9.161E-01	9.932E-02	-0.039
I-133	+	510.53		3.575E-03	5.557E-01	Half-Life too short		
		529.87	*	-3.313E-05	5.557E-01	Half-Life too short		
		706.58		9.289E-03	5.557E-01	Half-Life too short		
		856.28		1.638E-03	5.557E-01	Half-Life too short		
		875.33		2.170E-03	5.557E-01	Half-Life too short		
		1236.41		-1.083E-03	5.557E-01	Half-Life too short		
		1298.22		1.323E-03	5.557E-01	Half-Life too short		
CS-134		475.35		-1.787E+00	4.082E+00	6.482E+00	3.665E-01	-0.276
		563.23		4.344E-01	6.356E-01	1.077E+00	5.984E-02	0.403
		569.32		1.101E-01	3.648E-01	6.014E-01	3.360E-02	0.183
		604.70		8.555E-04	7.067E-02	9.888E-02	5.211E-03	0.009
		795.84	*	9.361E-02	9.193E-02	1.629E-01	1.098E-02	0.574
		801.93		1.674E-01	8.030E-01	1.353E+00	9.210E-02	0.124
		1038.57		-4.882E+00	9.011E+00	1.401E+01	1.027E+00	-0.348
		1167.94		4.388E+00	4.505E+00	7.184E+00	4.318E-01	0.611
		1365.15		2.455E-01	1.214E+00	2.108E+00	1.548E-01	0.116
CS-135		268.24	*	-1.784E-01	2.467E-01	4.014E-01	3.346E-02	-0.445
I-135		288.45		-1.701E+03	2.467E-01	Half-Life too short		
		417.63		6.657E+03	2.467E-01	Half-Life too short		
		546.56		1.759E+04	2.467E-01	Half-Life too short		
		836.80		1.511E+04	2.467E-01	Half-Life too short		
		1038.76		-1.029E+04	2.467E-01	Half-Life too short		
		1124.00		1.296E+04	2.467E-01	Half-Life too short		
		1131.51		5.312E+03	2.467E-01	Half-Life too short		
		1260.41	*	-4.450E+03	2.467E-01	Half-Life too short		
		1457.56		-3.767E+03	2.467E-01	Half-Life too short		
		1678.03		-1.453E+04	2.467E-01	Half-Life too short		
		1706.46		-1.237E+04	2.467E-01	Half-Life too short		
		1791.20		9.937E+03	2.467E-01	Half-Life too short		
CS-136		66.91		-7.404E-01	1.026E+00	1.660E+00	2.876E-01	-0.446

---- Non-Identified Nuclides ----

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		86.29		6.567E+00	1.962E+00	2.921E+00	4.451E-01	2.248
		153.22		-8.938E-02	6.979E-01	1.126E+00	8.715E-02	-0.079
		163.89		-9.649E-01	1.209E+00	1.874E+00	1.444E-01	-0.515
		176.55		-3.931E-02	4.105E-01	6.585E-01	4.643E-02	-0.060
		273.65		-4.903E-01	5.515E-01	8.897E-01	6.562E-02	-0.551
		340.57		1.298E-01	1.705E-01	2.644E-01	1.745E-02	0.491
		818.51		-2.744E-03	1.156E-01	1.913E-01	1.338E-02	-0.014
		1048.07	*	1.602E-01	1.718E-01	2.998E-01	2.301E-02	0.534
		1235.34		-3.954E-01	4.731E-01	7.005E-01	7.204E-02	-0.564
CE-139		165.85	*	1.961E-02	4.363E-02	7.216E-02	4.585E-03	0.272
BA-140		162.64		1.459E-01	8.092E-01	1.323E+00	9.306E-02	0.110
		304.84		1.122E+00	1.599E+00	2.730E+00	7.497E-01	0.411
		423.70		8.315E-02	2.739E+00	4.510E+00	1.432E+00	0.018
		537.32	*	-1.719E-01	3.917E-01	6.075E-01	1.973E-01	-0.283
LA-140		328.77		1.531E-01	3.565E-01	6.092E-01	4.272E-02	0.251
		432.53		2.756E+00	3.075E+00	5.297E+00	3.332E-01	0.520
		487.03		1.586E-01	1.943E-01	3.329E-01	2.139E-02	0.476
		751.79		4.702E-01	2.235E+00	3.788E+00	2.763E-01	0.124
		815.85		-2.453E-01	4.754E-01	7.554E-01	6.157E-02	-0.325
		867.82		5.846E-01	2.248E+00	3.777E+00	3.117E-01	0.155
		919.63		-8.908E-01	4.900E+00	7.941E+00	8.141E-01	-0.112
		925.24		-3.623E-01	2.177E+00	3.534E+00	3.065E-01	-0.103
		1596.49	*	8.108E-05	7.581E-02	1.245E-01	8.200E-03	0.001
CE-141		145.44	*	5.347E-02	7.980E-02	1.342E-01	9.005E-03	0.399
CE-143		57.37		2.265E+02	2.371E+02	3.739E+02	5.184E+01	0.606
		231.56		-3.974E+01	2.530E+02	3.974E+02	1.243E+02	-0.100
		293.26	*	2.336E+01	1.555E+01	2.417E+01	5.074E+00	0.967
	+	350.59		8.947E+02	3.920E+02	4.165E+02	1.275E+02	2.148
		490.36		-2.708E+02	3.666E+02	5.521E+02	1.716E+02	-0.490
		664.57		1.845E+03	6.364E+02	5.138E+02	1.629E+02	3.590
		721.93		-1.191E+02	1.793E+02	2.376E+02	6.803E+01	-0.501
CE-144		80.11		-9.992E-01	3.561E+00	5.265E+00	6.083E-01	-0.190
		133.54	*	-1.101E-01	3.109E-01	4.997E-01	7.283E-02	-0.220
PM-144		476.78		9.848E-02	1.378E-01	2.340E-01	1.596E-02	0.421
		618.01		-7.798E-04	5.961E-02	9.549E-02	5.296E-03	-0.008
		696.49	*	6.234E-03	5.929E-02	1.002E-01	5.321E-03	0.062
		778.57		1.882E+00	4.362E+00	7.483E+00	4.799E-01	0.252
PR-144		696.49	*	4.212E-01	4.006E+00	6.769E+00	3.594E-01	0.062
		1489.15		-6.529E+00	1.429E+01	2.117E+01	1.433E+00	-0.308
PM-146		453.90	*	-1.330E-02	9.386E-02	1.523E-01	1.300E-02	-0.087
		633.02		-9.069E-01	2.535E+00	3.886E+00	1.427E+00	-0.233
		735.90		-2.846E-01	2.875E-01	4.247E-01	1.185E-01	-0.670
		747.13		-4.913E-02	1.596E-01	2.594E-01	3.266E-02	-0.189
ND-147		91.11		2.411E-01	3.509E-01	4.413E-01	5.174E-02	0.546
		319.41		9.715E-01	3.912E+00	6.636E+00	4.277E-01	0.146
		439.89		2.774E+00	8.141E+00	1.362E+01	7.725E-01	0.204
		531.02	*	-2.274E-01	7.944E-01	1.259E+00	1.689E-01	-0.181
PM-149		285.90	*	-2.512E+01	2.730E+01	4.343E+01	6.304E+00	-0.578
EU-152	+	121.78		7.131E-01	2.012E-01	2.592E-01	2.209E-02	2.751

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		244.69		1.927E-01	6.246E-01	8.971E-01	5.985E-02	0.215
		344.27	*	-7.255E-02	1.626E-01	2.637E-01	1.825E-02	-0.275
		443.98		-3.704E-01	1.943E+00	3.148E+00	1.786E-01	-0.118
		778.89		1.352E-01	5.076E-01	8.609E-01	5.523E-02	0.157
		867.32		2.097E-01	1.799E+00	2.993E+00	2.316E-01	0.070
		964.01		-6.342E-01	7.049E-01	1.084E+00	8.536E-02	-0.585
		1085.78		2.656E-01	8.143E-01	1.357E+00	9.370E-02	0.196
		1112.02		-2.839E-01	7.295E-01	1.143E+00	7.589E-02	-0.248
		1407.95		1.298E-01	2.402E-01	4.359E-01	2.982E-02	0.298
GD-153		69.67		2.945E+00	3.049E+00	4.843E+00	5.592E-01	0.608
		83.37		2.370E+01	2.523E+01	3.951E+01	4.625E+00	0.600
		97.43	*	-1.107E-01	1.129E-01	1.680E-01	1.649E-02	-0.659
		103.18		2.570E-02	1.512E-01	2.524E-01	2.246E-02	0.102
EU-154	+	123.07		5.004E-01	1.439E-01	1.688E-01	1.709E-02	2.964
		247.94		-3.878E-01	6.817E-01	9.838E-01	9.933E-02	-0.394
		591.81		4.413E-01	1.127E+00	1.864E+00	1.768E-01	0.237
		723.30		-2.010E-01	3.549E-01	4.842E-01	3.371E-02	-0.415
		756.87		8.313E-01	1.435E+00	2.490E+00	2.569E-01	0.334
		873.19		1.691E-01	6.670E-01	1.119E+00	1.310E-01	0.151
		996.32		3.182E-01	8.460E-01	1.416E+00	2.453E-01	0.225
		1004.76		-6.135E-01	4.947E-01	7.197E-01	7.847E-02	-0.852
		1274.45	*	3.425E-02	1.476E-01	2.550E-01	2.501E-02	0.134
EU-155		48.70		-1.416E+00	1.017E+01	1.725E+01	1.987E+00	-0.082
	+	60.01		4.501E+02	6.556E+01	5.250E+01	6.379E+00	8.572
	+	86.54		3.568E+00	5.407E-01	4.267E-01	5.110E-02	8.362
		105.31	*	6.084E-03	1.612E-01	2.672E-01	2.329E-02	0.023
TB-160	+	86.79		9.055E+00	1.368E+00	1.234E+00	1.473E-01	7.336
		197.04		-5.067E-01	8.374E-01	1.299E+00	8.455E-02	-0.390
		215.65		6.360E-01	1.177E+00	1.927E+00	1.271E-01	0.330
		298.57		1.139E-01	1.844E-01	2.855E-01	1.877E-02	0.399
		879.36	*	-1.241E-01	3.206E-01	5.143E-01	4.078E-02	-0.241
		962.29		-2.979E-02	1.171E+00	1.914E+00	1.509E-01	-0.016
		966.15		5.461E-02	4.703E-01	7.746E-01	6.090E-02	0.070
		1177.93		2.382E-01	7.178E-01	1.038E+00	6.202E-02	0.229
		1271.85		4.400E-01	7.496E-01	1.363E+00	8.877E-02	0.323
HO-166M		80.57		-2.429E-01	4.657E-01	6.780E-01	7.846E-02	-0.358
		184.41		1.747E-04	5.440E-02	8.802E-02	5.669E-03	0.002
		280.46		-5.681E-02	1.373E-01	2.266E-01	1.505E-02	-0.251
		410.95		5.246E-02	4.751E-01	7.874E-01	4.452E-02	0.067
		711.68	*	-6.684E-02	1.046E-01	1.663E-01	9.152E-03	-0.402
		752.31		-6.155E-02	4.913E-01	8.113E-01	4.905E-02	-0.076
		810.29		2.796E-02	1.244E-01	2.096E-01	1.440E-02	0.133
TM-171		51.35		4.852E+01	1.177E+02	2.032E+02	2.631E+01	0.239
		52.39		-8.329E+00	5.874E+01	9.931E+01	1.299E+01	-0.084
	+	59.40		2.359E+03	3.437E+02	2.948E+02	3.594E+01	8.003
		66.72	*	-2.273E+01	4.910E+01	8.095E+01	9.464E+00	-0.281
LU-176	+	88.36		7.041E+00	1.064E+00	1.038E+00	1.237E-01	6.783
		201.83		3.478E-02	4.598E-02	7.631E-02	4.984E-03	0.456
		306.84	*	1.191E-02	4.177E-02	7.113E-02	4.644E-03	0.167

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		401.10		-2.551E+00	1.273E+01	2.071E+01	1.168E+00	-0.123
LU-177		112.95		-2.844E-01	1.314E+00	2.145E+00	1.661E-01	-0.133
		208.36	*	4.164E-01	9.732E-01	1.588E+00	1.042E-01	0.262
LU-177M		52.97		-2.786E+00	5.870E+00	9.784E+00	1.281E+00	-0.285
		54.07		4.413E-01	3.255E+00	5.014E+00	6.538E-01	0.088
		61.30		1.895E+01	4.634E+00	7.408E+00	8.939E-01	2.558
	+	121.62		3.574E+00	9.928E-01	1.292E+00	8.998E-02	2.766
		147.16		-4.244E-01	9.282E-01	1.476E+00	9.579E-02	-0.287
		171.86		-2.210E-01	7.232E-01	1.149E+00	7.328E-02	-0.192
		218.09		5.737E-01	1.453E+00	2.360E+00	1.558E-01	0.243
		268.79		-2.662E-01	1.226E+00	2.050E+00	1.367E-01	-0.130
		319.02		8.629E-02	4.269E-01	7.223E-01	4.658E-02	0.119
		367.43		-5.003E-01	1.575E+00	2.564E+00	1.529E-01	-0.195
		413.65	*	1.653E-01	3.476E-01	5.868E-01	3.320E-02	0.282
HF-181		56.28		2.876E+00	3.154E+00	4.988E+00	6.359E-01	0.577
		57.53		3.816E+00	1.820E+00	2.919E+00	3.659E-01	1.307
		65.20		1.234E-02	1.524E+00	2.573E+00	3.033E-01	0.005
		133.02		2.710E-02	8.985E-02	1.491E-01	9.951E-03	0.182
		136.25		6.008E-01	6.347E-01	1.081E+00	7.157E-02	0.556
		345.85		-1.672E-01	3.075E-01	4.777E-01	2.968E-02	-0.350
		482.03	*	-1.856E-02	7.583E-02	1.214E-01	6.856E-03	-0.153
W-181		56.28		1.193E+00	1.309E+00	2.071E+00	2.640E-01	0.576
		57.53		1.571E+00	7.553E-01	1.212E+00	1.518E-01	1.297
		65.20	*	5.087E-03	6.283E-01	1.061E+00	1.250E-01	0.005
TA-182		67.75		-5.617E-02	1.853E-01	3.080E-01	3.583E-02	-0.182
		100.10		6.033E-02	2.443E-01	4.100E-01	3.837E-02	0.147
		152.43		-4.573E-01	4.750E-01	7.323E-01	4.717E-02	-0.625
		222.10		-1.337E-01	6.002E-01	9.440E-01	6.247E-02	-0.142
		1001.68		-2.362E-01	4.342E+00	7.063E+00	5.381E-01	-0.033
		1121.28		1.178E-01	2.900E-01	4.848E-01	3.171E-02	0.243
		1189.05		-5.549E-02	3.768E-01	5.930E-01	3.581E-02	-0.094
		1221.42	*	-1.456E-01	2.211E-01	3.390E-01	2.110E-02	-0.429
		1230.97		-2.841E-02	4.713E-01	7.841E-01	4.923E-02	-0.036
RE-183	+	57.98		1.601E+01	2.332E+00	1.501E+00	1.868E-01	10.666
	+	59.32		9.200E+00	1.340E+00	1.157E+00	1.412E-01	7.955
		67.20		-2.778E-01	3.321E-01	5.363E-01	6.255E-02	-0.518
		162.32	*	5.165E-02	1.505E-01	2.480E-01	1.580E-02	0.208
		208.81		4.557E-01	1.453E+00	2.357E+00	1.548E-01	0.193
		291.72		-5.272E-01	1.680E+00	2.438E+00	1.610E-01	-0.216
RE-184	+	57.98		6.091E+01	8.873E+00	5.711E+00	7.111E-01	10.666
	+	59.32		3.498E+01	5.096E+00	4.398E+00	5.369E-01	7.955
		67.20		-1.057E+00	1.263E+00	2.040E+00	2.380E-01	-0.518
		161.27		1.415E-02	5.053E-01	8.200E-01	5.230E-02	0.017
		216.55		2.569E-01	4.464E-01	7.315E-01	4.826E-02	0.351
		252.85	*	3.594E-02	3.794E-01	6.465E-01	4.318E-02	0.056
		318.01		-6.893E-02	7.445E-01	1.240E+00	8.006E-02	-0.056
		792.07		-1.285E+00	1.964E+00	3.109E+00	2.053E-01	-0.413
		903.28		1.451E+00	2.477E+00	4.012E+00	3.292E-01	0.362
		920.93		-5.558E-02	1.077E+00	1.763E+00	1.431E-01	-0.032

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
OS-185	+	59.72		2.545E+01	3.707E+00	3.070E+00	3.735E-01	8.289
		61.14		3.084E+00	6.031E-01	9.093E-01	1.098E-01	3.392
		69.30		2.550E-01	5.422E-01	8.420E-01	9.736E-02	0.303
		592.07		2.715E+00	4.355E+00	7.334E+00	3.886E-01	0.370
		646.12	*	1.629E-02	7.526E-02	1.288E-01	6.419E-03	0.126
		717.42		9.251E-01	1.608E+00	2.799E+00	1.561E-01	0.331
		874.81		6.456E-01	1.264E+00	2.158E+00	1.695E-01	0.299
		880.27		1.077E+00	1.784E+00	3.055E+00	2.427E-01	0.352
RE-188		155.03	*	1.296E-01	2.296E-01	3.833E-01	2.461E-02	0.338
		477.96		1.630E+00	6.085E+00	1.008E+01	5.695E-01	0.162
		633.10		-1.737E+00	4.814E+00	7.445E+00	3.774E-01	-0.233
W-188		63.58		-3.586E+01	1.030E+02	1.541E+02	1.834E+01	-0.233
		227.08		1.045E+01	2.111E+01	3.439E+01	2.281E+00	0.304
		290.67	*	-1.873E+00	1.292E+01	1.899E+01	1.255E+00	-0.099
IR-192	+	295.96		5.360E-01	2.261E-01	3.368E-01	2.245E-02	1.592
		308.46		-7.452E-02	1.534E-01	2.504E-01	1.647E-02	-0.298
		316.51	*	-1.833E-02	5.561E-02	9.144E-02	5.936E-03	-0.201
		468.07		-5.291E-02	1.317E-01	2.099E-01	1.378E-02	-0.252
		604.41		2.344E-01	9.017E-01	1.294E+00	1.433E-01	0.181
		612.46		-2.560E-02	1.454E+00	2.025E+00	1.442E-01	-0.013
AU-195		65.12		-9.541E-03	2.942E-01	4.959E-01	5.847E-02	-0.019
		66.83		-7.645E-02	1.593E-01	2.624E-01	3.066E-02	-0.291
	+	75.70		2.194E+00	8.163E-01	6.129E-01	7.021E-02	3.579
		98.88	*	2.017E-01	3.001E-01	5.136E-01	4.911E-02	0.393
		129.76		-1.327E+00	4.166E+00	6.724E+00	4.529E-01	-0.197
TL-200		367.94	*	1.216E-05	4.166E+00	Half-Life too short		
		579.30		-5.936E-06	4.166E+00	Half-Life too short		
		828.27		-5.599E-05	4.166E+00	Half-Life too short		
		1205.75		3.836E-05	4.166E+00	Half-Life too short		
TL-201		68.90		1.141E+00	2.583E+00	4.004E+00	4.637E-01	0.285
		70.82		2.208E-01	1.447E+00	2.207E+00	2.540E-01	0.100
		80.30		-8.350E-01	2.401E+00	3.535E+00	4.086E-01	-0.236
		135.34		3.054E+00	1.097E+01	1.817E+01	1.205E+00	0.168
		167.43	*	6.849E-01	3.006E+00	4.917E+00	3.126E-01	0.139
TL-202		68.90		2.653E-01	6.005E-01	9.311E-01	1.078E-01	0.285
		70.82		5.120E-02	3.354E-01	5.117E-01	5.890E-02	0.100
		80.30		-1.937E-01	5.570E-01	8.199E-01	9.479E-02	-0.236
		439.56	*	1.542E-02	1.016E-01	1.681E-01	9.538E-03	0.092
HG-203		70.83		2.813E-01	1.833E+00	2.797E+00	4.362E-01	0.101
		72.87		1.035E+00	9.536E-01	1.649E+00	2.509E-01	0.628
		82.60		-5.727E-01	1.603E+00	2.638E+00	4.177E-01	-0.217
		279.20	*	5.375E-03	6.012E-02	1.019E-01	7.094E-03	0.053
BI-207		72.80		3.017E-01	3.009E-01	5.224E-01	5.990E-02	0.578
	+	74.97		1.242E+00	4.623E-01	3.382E-01	3.873E-02	3.673
		84.90		2.558E-01	3.319E-01	5.152E-01	6.079E-02	0.496
		569.67		5.569E-03	5.820E-02	9.450E-02	5.104E-03	0.059
		1063.62	*	5.700E-02	1.143E-01	1.930E-01	1.372E-02	0.295
		1770.23		1.616E-02	7.439E-01	1.044E+00	6.344E-02	0.015
TL-207		81.07		-3.064E-01	3.789E-01	5.410E-01	6.272E-02	-0.566

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		83.78		1.558E-01	2.209E-01	3.424E-01	4.016E-02	0.455
		94.90		8.578E-03	3.274E-01	4.889E-01	5.038E-02	0.018
	+	122.32		1.700E+01	4.756E+00	6.175E+00	4.751E-01	2.752
		144.24		7.008E-01	9.567E-01	1.614E+00	1.262E-01	0.434
		154.21		2.723E-01	5.643E-01	9.384E-01	7.076E-02	0.290
		269.46		3.143E-01	2.916E-01	5.172E-01	3.567E-02	0.608
		323.87	*	-2.250E-01	1.114E+00	1.842E+00	3.083E-01	-0.122
	+	338.28		3.342E+00	2.500E+00	3.324E+00	3.592E-01	1.006
		445.03		1.360E+00	4.668E+00	7.774E+00	7.928E-01	0.175
PO-209		260.50		-4.334E+00	1.561E+01	2.608E+01	1.741E+00	-0.166
		262.80		7.758E+00	4.282E+01	7.314E+01	4.883E+00	0.106
		896.60	*	-2.630E+00	1.709E+01	2.781E+01	2.282E+00	-0.095
BI-210		46.50	*	-9.146E+00	1.626E+01	2.700E+01	2.353E+00	-0.339
PB-210		46.50	*	-9.146E+00	1.626E+01	2.700E+01	2.353E+00	-0.339
PO-210		46.50	*	-9.146E+00	1.625E+01	2.700E+01	2.098E+00	-0.339
PB-211		404.84	*	6.675E-01	1.854E+00	3.040E+00	1.895E+00	0.220
		427.08		1.371E+00	3.932E+00	6.446E+00	3.984E+00	0.213
		831.96		9.521E-01	2.574E+00	4.258E+00	2.660E+00	0.224
BI-212	+	727.18	*	1.165E+00	7.408E-01	9.520E-01	7.277E-02	1.224
		785.46		1.015E+00	3.431E+00	5.823E+00	3.791E-01	0.174
		1620.62		-1.586E-01	1.629E+00	2.613E+00	1.706E-01	-0.061
PO-215		81.07		-3.064E-01	3.789E-01	5.410E-01	6.272E-02	-0.566
		83.78		1.558E-01	2.209E-01	3.424E-01	4.016E-02	0.455
		94.90		8.578E-03	3.274E-01	4.889E-01	5.038E-02	0.018
	+	122.32		1.700E+01	4.756E+00	6.175E+00	4.751E-01	2.752
		144.24		7.008E-01	9.567E-01	1.614E+00	1.262E-01	0.434
		154.21		2.723E-01	5.643E-01	9.384E-01	7.076E-02	0.290
		269.46		3.143E-01	2.916E-01	5.172E-01	3.567E-02	0.608
		323.87	*	-2.250E-01	1.114E+00	1.842E+00	3.083E-01	-0.122
	+	338.28		3.342E+00	2.500E+00	3.324E+00	3.592E-01	1.006
		445.03		1.360E+00	4.668E+00	7.774E+00	7.928E-01	0.175
RN-219		271.23		4.632E-01	3.919E-01	6.949E-01	6.077E-02	0.667
		401.81	*	-4.302E-01	8.017E-01	1.275E+00	1.727E-01	-0.337
RN-220		549.76	*	-2.172E+01	5.077E+01	7.934E+01	4.347E+00	-0.274
RA-223		81.07		-3.064E-01	3.789E-01	5.410E-01	6.272E-02	-0.566
		83.78		1.558E-01	2.209E-01	3.424E-01	4.016E-02	0.455
		94.90		8.578E-03	3.274E-01	4.889E-01	5.038E-02	0.018
	+	122.32		1.700E+01	4.756E+00	6.175E+00	4.751E-01	2.752
		144.24		7.008E-01	9.567E-01	1.614E+00	1.262E-01	0.434
		154.21		2.723E-01	5.643E-01	9.384E-01	7.076E-02	0.290
		269.46		3.143E-01	2.916E-01	5.172E-01	3.567E-02	0.608
		323.87	*	-2.250E-01	1.114E+00	1.842E+00	3.083E-01	-0.122
	+	338.28		3.342E+00	2.500E+00	3.324E+00	3.592E-01	1.006
		445.03		1.360E+00	4.668E+00	7.774E+00	7.928E-01	0.175
AC-227		79.80		5.436E-01	2.783E+00	4.227E+00	9.651E-01	0.129
		236.00		-1.790E-01	4.035E-01	5.484E-01	6.006E-02	-0.326
		256.20	*	-3.168E-01	6.320E-01	1.043E+00	1.497E-01	-0.304
		286.10		-5.812E-01	2.537E+00	4.223E+00	5.066E-01	-0.138
		299.80		2.252E+00	2.458E+00	4.011E+00	6.648E-01	0.562

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		304.40		-4.313E-01	3.157E+00	5.261E+00	9.239E-01	-0.082
		334.20		3.040E+00	4.430E+00	6.796E+00	1.258E+00	0.447
TH-227		79.80		5.436E-01	2.783E+00	4.227E+00	9.761E-01	0.129
	+	94.00		3.455E+00	3.547E+00	4.503E+00	1.017E+00	0.767
		236.00		-1.790E-01	4.034E-01	5.484E-01	5.281E-02	-0.326
		256.20	*	-3.168E-01	6.327E-01	1.043E+00	1.797E-01	-0.304
		286.10		-5.812E-01	2.602E+00	4.223E+00	4.233E+00	-0.138
		299.80		2.252E+00	2.458E+00	4.011E+00	6.648E-01	0.562
		304.40		-4.313E-01	3.157E+00	5.261E+00	9.239E-01	-0.082
		334.20		3.040E+00	4.430E+00	6.796E+00	1.258E+00	0.447
AC-228	+	338.32		8.004E-01	6.767E-01	7.945E-01	3.245E-01	1.007
	+	911.07	*	1.368E+00	4.940E-01	6.910E-01	7.534E-02	1.979
		969.11		5.937E-01	6.473E-01	1.091E+00	2.517E-01	0.544
RA-228	+	338.32		8.004E-01	6.767E-01	7.945E-01	3.245E-01	1.007
	+	911.07	*	1.368E+00	4.940E-01	6.910E-01	7.534E-02	1.979
		969.11		5.937E-01	6.473E-01	1.091E+00	2.517E-01	0.544
TH-229		85.43		3.039E-01	3.331E-01	5.191E-01	6.143E-02	0.585
	+	88.47		4.053E+00	6.123E-01	5.935E-01	7.055E-02	6.829
		100.00		7.170E-02	2.627E-01	4.414E-01	4.139E-02	0.162
		193.63	*	-2.104E-01	7.965E-01	1.260E+00	8.175E-02	-0.167
		210.97		1.843E-01	1.203E+00	1.936E+00	1.273E-01	0.095
PA-231		283.67	*	1.214E+00	2.493E+00	4.296E+00	6.080E-01	0.283
		301.29		3.934E-01	9.172E-01	1.573E+00	1.713E-01	0.250
TH-231		81.07		-3.064E-01	3.789E-01	5.410E-01	6.272E-02	-0.566
		83.78		1.558E-01	2.209E-01	3.424E-01	4.016E-02	0.455
		94.90		8.578E-03	3.274E-01	4.889E-01	5.038E-02	0.018
	+	122.32		1.700E+01	4.756E+00	6.175E+00	4.751E-01	2.752
		144.24		7.008E-01	9.567E-01	1.614E+00	1.262E-01	0.434
		154.21		2.723E-01	5.643E-01	9.384E-01	7.076E-02	0.290
		269.46		3.143E-01	2.916E-01	5.172E-01	3.567E-02	0.608
		323.87	*	-2.250E-01	1.114E+00	1.842E+00	3.083E-01	-0.122
	+	338.28		3.342E+00	2.500E+00	3.324E+00	3.592E-01	1.006
		445.03		1.360E+00	4.668E+00	7.774E+00	7.928E-01	0.175
U-231		84.21		5.009E+00	3.746E+00	5.941E+00	6.984E-01	0.843
	+	92.29		1.364E+00	1.374E+00	1.943E+00	2.114E-01	0.702
		95.87	*	-1.832E-01	6.336E-01	9.249E-01	9.351E-02	-0.198
		108.00		-1.119E-01	1.206E+00	1.985E+00	1.644E-01	-0.056
TH-232	+	338.32		8.004E-01	5.946E-01	7.945E-01	4.995E-02	1.007
	+	911.07	*	1.368E+00	4.940E-01	6.910E-01	7.534E-02	1.979
		969.11		5.937E-01	6.473E-01	1.091E+00	2.517E-01	0.544
PA-233	+	75.28		3.626E+01	1.426E+01	9.896E+00	1.692E+00	3.664
	+	86.59		5.811E+01	1.717E+01	7.159E+00	2.008E+00	8.118
		300.12		5.302E-01	6.650E-01	1.122E+00	1.547E-01	0.472
		311.98	*	1.449E-02	1.099E-01	1.854E-01	1.265E-02	0.078
		340.50		9.203E-01	1.131E+00	1.732E+00	3.999E-01	0.531
		398.62		-1.011E-01	3.882E+00	6.398E+00	1.652E+00	-0.016
		415.76		1.516E+00	3.359E+00	5.641E+00	1.159E+00	0.269
PA-234		63.00		-3.246E-01	3.240E+00	4.927E+00	8.655E-01	-0.066
		94.67		7.590E-02	2.358E-01	3.587E-01	4.901E-02	0.212

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
		98.44		6.637E-02	1.308E-01	2.136E-01	1.195E-01	0.311
		99.86		2.052E-01	6.668E-01	1.122E+00	1.055E-01	0.183
		111.00		-5.184E-03	2.698E-01	4.450E-01	5.169E-02	-0.012
		131.20		-5.432E-02	1.576E-01	2.539E-01	1.703E-02	-0.214
		152.70		-2.641E-01	4.704E-01	7.394E-01	1.187E-01	-0.357
		186.00		3.170E+00	2.163E+00	3.358E+00	1.031E+00	0.944
		226.40		8.174E-01	7.026E-01	1.172E+00	1.406E-01	0.697
		227.20		3.855E-01	7.545E-01	1.230E+00	8.158E-02	0.313
		248.90		-2.968E-01	1.461E+00	2.279E+00	4.955E-01	-0.130
	+	293.70		3.554E+00	1.591E+00	2.191E+00	3.590E-01	1.623
		369.80		7.862E-01	1.521E+00	2.583E+00	5.389E-01	0.304
		568.70		2.514E-01	1.906E+00	3.103E+00	1.677E-01	0.081
		569.50		5.270E-02	5.141E-01	8.352E-01	4.512E-02	0.063
		574.00		-1.055E+00	2.767E+00	4.318E+00	2.324E-01	-0.244
		699.00		9.334E-01	1.223E+00	2.144E+00	3.825E-01	0.435
		706.10		1.498E+00	1.905E+00	3.177E+00	1.400E+00	0.472
		733.00		-1.625E-01	6.975E-01	1.076E+00	2.287E-01	-0.151
		742.81		-3.890E-01	2.638E+00	4.335E+00	2.902E+00	-0.090
		796.30		1.548E+00	1.828E+00	3.136E+00	8.307E-01	0.494
		805.60		1.704E+00	2.188E+00	3.720E+00	1.123E+00	0.458
		819.60		1.525E+00	2.578E+00	4.352E+00	1.640E+00	0.351
		826.30		-9.444E-01	1.781E+00	2.749E+00	1.223E+00	-0.344
		831.60		3.419E-01	1.323E+00	2.223E+00	6.550E-01	0.154
		876.40		-4.941E-01	2.015E+00	3.158E+00	3.244E+00	-0.156
		880.51		4.389E-01	6.745E-01	1.158E+00	9.205E-02	0.379
		883.24		3.662E-01	7.297E-01	1.172E+00	7.872E-01	0.312
		899.00		-1.362E+00	2.074E+00	3.111E+00	1.358E+00	-0.438
		925.00		7.204E-01	2.993E+00	4.991E+00	4.042E-01	0.144
		926.50		-4.271E-01	4.730E-01	7.098E-01	1.782E-01	-0.602
		946.00	*	5.315E-01	7.770E-01	1.320E+00	2.439E-01	0.403
		949.00		-2.241E-01	1.156E+00	1.873E+00	1.492E-01	-0.120
		980.50		-4.647E-01	1.630E+00	2.602E+00	2.021E-01	-0.179
		1394.10		1.844E-01	1.422E+00	2.412E+00	1.565E+00	0.076
PA-234M		766.42		-9.768E+00	2.048E+01	3.187E+01	1.606E+01	-0.306
		1001.03	*	-1.507E+00	1.029E+01	1.663E+01	1.516E+00	-0.091
TH-234		63.29	*	-3.358E-01	2.725E+00	4.137E+00	8.185E-01	-0.081
	+	92.38		8.941E-01	9.113E-01	1.270E+00	2.445E-01	0.704
U-235		89.95		6.228E+00	2.935E+00	3.163E+00	1.005E+00	1.969
	+	93.35		1.075E+00	1.120E+00	1.485E+00	4.263E-01	0.724
		105.00		6.001E-01	1.563E+00	2.616E+00	7.811E-01	0.229
		143.76	*	1.708E-01	2.942E-01	4.913E-01	8.144E-02	0.348
		163.35		-4.429E-01	7.125E-01	1.110E+00	2.016E-01	-0.399
		185.71		1.208E-01	7.312E-02	1.263E-01	8.147E-03	0.956
		205.31		-4.350E-01	8.220E-01	1.271E+00	2.318E-01	-0.342
NP-236		94.67		5.861E-02	1.788E-01	2.722E-01	2.819E-02	0.215
		98.44		5.019E-02	9.490E-02	1.614E-01	1.556E-02	0.311
		111.00		-3.921E-03	2.041E-01	3.366E-01	2.674E-02	-0.012
		160.31	*	8.003E-03	1.141E-01	1.857E-01	1.186E-02	0.043
U-238		63.29	*	-3.358E-01	2.725E+00	4.137E+00	8.185E-01	-0.081

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
	+	92.38		8.941E-01	9.002E-01	1.270E+00	1.379E-01	0.704
NP-239		99.55		1.074E-01	2.195E-01	3.725E-01	3.520E-02	0.288
		117.00	*	4.608E-02	2.937E-01	4.652E-01	3.423E-02	0.099
		209.75		1.462E+00	1.210E+00	2.045E+00	1.343E-01	0.715
		228.18		1.268E-01	3.876E-01	6.262E-01	4.156E-02	0.203
		277.60		4.595E-02	2.876E-01	4.892E-01	3.254E-02	0.094
		334.30		1.697E+00	2.491E+00	3.846E+00	2.432E-01	0.441
CM-243		99.55		1.104E-01	2.258E-01	3.832E-01	3.621E-02	0.288
		103.76	*	8.217E-02	1.417E-01	2.407E-01	2.123E-02	0.341
		117.00		4.739E-02	3.020E-01	4.784E-01	3.520E-02	0.099
		209.75		1.441E+00	1.192E+00	2.015E+00	1.324E-01	0.715
		228.18		1.281E-01	3.915E-01	6.325E-01	4.198E-02	0.203
		277.60		4.631E-02	2.899E-01	4.931E-01	3.280E-02	0.094
AM-246		798.80		-4.194E-01	2.842E-01	4.174E-01	2.797E-02	-1.005
		1036.00		6.442E-01	6.834E-01	1.189E+00	8.744E-02	0.542
		1062.04		-8.097E-02	4.967E-01	7.952E-01	5.667E-02	-0.102
		1078.86	*	1.038E-01	3.088E-01	5.145E-01	3.586E-02	0.202
CM-247		278.00		3.222E-01	1.192E+00	2.039E+00	1.356E-01	0.158
		287.40		1.008E+00	2.033E+00	3.508E+00	2.323E-01	0.287
		402.60	*	-2.325E-02	7.169E-02	1.161E-01	6.551E-03	-0.200
CF-249		252.85		1.380E-01	1.456E+00	2.482E+00	1.657E-01	0.056
		333.44		2.045E-01	3.213E-01	4.951E-01	3.135E-02	0.413
		387.95	*	-3.314E-02	7.296E-02	1.174E-01	6.669E-03	-0.282
CF-251		176.60	*	-1.443E-02	1.899E-01	3.049E-01	1.951E-02	-0.047
		227.00		2.730E-01	6.720E-01	1.090E+00	7.229E-02	0.251
		285.00		-4.156E-01	2.934E+00	4.909E+00	3.254E-01	-0.085

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032523      *
* Acquisition date : 14-FEB-2010 14:00:27 Detector SN#    :                 *
* Detector ID      : GAM04                Sensitivity     : 5.000           *
* Geometry         : CAN                  Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:01.35     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  5-FEB-2010 00:00:00 Nuclide Library : SOLID           *
* Sample ID        : G1202032523          Analyst initials: MXR1            *
* Batch Number     : 948721               Sample Quantity : 1.5544E+02 GRAM *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	
K-40	9.463E-01	5.233E-01	4.361E-01	0.000E+00
CO-57	2.424E-01	6.601E-02	6.276E-02	0.000E+00
CO-60	6.374E+00	5.441E-01	9.554E-02	0.000E+00
CD-109	2.995E+01	4.434E+00	2.290E+00	0.000E+00
SN-126	2.969E+00	4.395E-01	2.287E-01	0.000E+00
BA-137M	4.874E+00	3.405E-01	1.128E-01	0.000E+00
CS-137	5.153E+00	3.609E-01	1.192E-01	0.000E+00
TL-208	4.046E-01	9.892E-02	1.096E-01	0.000E+00
BI-211	1.856E+00	5.830E-01	6.088E-01	0.000E+00
PB-212	9.783E-01	1.674E-01	2.036E-01	0.000E+00
PO-212	9.783E-01	1.674E-01	2.036E-01	0.000E+00
BI-214	5.790E-01	2.548E-01	2.183E-01	0.000E+00
PB-214	6.455E-01	2.055E-01	2.208E-01	0.000E+00
PO-214	6.455E-01	2.055E-01	2.208E-01	0.000E+00
PO-216	9.783E-01	1.674E-01	2.036E-01	0.000E+00
PO-218	6.455E-01	2.055E-01	2.208E-01	0.000E+00
RA-224	1.115E+00	1.557E+00	2.171E+00	0.000E+00
RA-226	5.790E-01	2.548E-01	2.183E-01	0.000E+00
TH-228	9.877E-01	1.690E-01	2.055E-01	0.000E+00
TH-230	5.790E-01	2.548E-01	2.183E-01	0.000E+00
U-234	5.790E-01	2.548E-01	2.183E-01	0.000E+00
NP-237	8.717E+00	2.185E+00	7.198E-01	0.000E+00
AM-241	1.386E+01	2.031E+00	7.421E-01	0.000E+00
AM-243	6.923E-01	2.525E-01	1.612E-01	0.000E+00
ANH-511	2.985E-02	9.050E-02	9.480E-02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Act error Ided	MDA (pCi/GRAM)		
BE-7	2.548E-01	6.039E-01	1.071E+00	0.000E+00	NOT IDENT.
NA-22	7.453E-03	5.200E-02	9.166E-02	0.000E+00	NOT IDENT.

NA-24	0.000E+00	1.608E+03	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.801E-02	4.080E-02	7.496E-02	0.000E+00	NOT IDENT.
TI-44	0.000E+00	6.535E-02	1.180E-01	0.000E+00	NOT IDENT.
SC-46	-6.258E-02	8.748E-02	1.426E-01	0.000E+00	NOT IDENT.
V-48	6.192E-02	1.266E-01	2.228E-01	0.000E+00	NOT IDENT.
CR-51	1.570E-01	5.341E-01	9.735E-01	0.000E+00	NOT IDENT.
MN-52	1.273E-02	1.389E-01	2.493E-01	0.000E+00	FAIL ABUN
MN-54	-3.526E-02	7.570E-02	1.266E-01	0.000E+00	NOT IDENT.
CO-56	3.685E-02	7.358E-02	1.317E-01	0.000E+00	NOT IDENT.
CO-58	-6.707E-03	7.533E-02	1.299E-01	0.000E+00	NOT IDENT.
FE-59	-3.653E-02	1.913E-01	3.170E-01	0.000E+00	NOT IDENT.
ZN-65	-1.175E-02	1.873E-01	3.124E-01	0.000E+00	NOT IDENT.
GE-68	5.360E-01	2.620E+00	4.482E+00	0.000E+00	NOT IDENT.
AS-73	-3.601E-01	2.915E+00	5.285E+00	0.000E+00	NOT IDENT.
AS-74	-8.740E-02	1.331E-01	2.133E-01	0.000E+00	NOT IDENT.
SE-75	-3.378E-04	6.487E-02	1.183E-01	0.000E+00	FAIL ABUN
BR-77	-1.879E+00	3.886E+00	6.437E+00	0.000E+00	FAIL ABUN
SR-82	-5.237E-01	6.098E-01	9.920E-01	0.000E+00	NOT IDENT.
RB-83	-6.517E-02	1.238E-01	2.044E-01	0.000E+00	NOT IDENT.
RB-84	1.099E-01	1.487E-01	2.675E-01	0.000E+00	NOT IDENT.
KR-85	1.279E+01	1.493E+01	2.406E+01	0.000E+00	NOT IDENT.
SR-85	6.188E-02	7.223E-02	1.164E-01	0.000E+00	NOT IDENT.
RB-86	8.441E-01	1.377E+00	2.429E+00	0.000E+00	NOT IDENT.
Y-88	-7.511E-03	4.610E-02	7.335E-02	0.000E+00	NOT IDENT.
ZR-88	-3.384E-02	5.408E-02	9.185E-02	0.000E+00	NOT IDENT.
Y-91	5.961E+00	2.229E+01	3.834E+01	0.000E+00	NOT IDENT.
NB-94	-2.150E-02	5.739E-02	9.827E-02	0.000E+00	NOT IDENT.
NB-95	-2.564E-03	6.895E-02	1.200E-01	0.000E+00	NOT IDENT.
NB-95M	-4.220E-02	1.928E-01	2.885E-01	0.000E+00	NOT IDENT.
ZR-95	7.213E-02	1.210E-01	2.204E-01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.855E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.472E+04	0.000E+00	0.000E+00	SHORT HLIF
MO-99	5.984E+00	5.535E+00	1.029E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.099E+10	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.181E-02	5.054E-02	8.693E-02	0.000E+00	NOT IDENT.
RH-102	-3.066E-02	6.131E-02	1.030E-01	0.000E+00	NOT IDENT.
RU-103	-5.888E-02	7.269E-02	1.180E-01	0.000E+00	FAIL ABUN
RH-106	8.721E-02	5.792E-01	9.874E-01	0.000E+00	FAIL ABUN
RU-106	8.721E-02	5.791E-01	9.874E-01	0.000E+00	FAIL ABUN
AG-108M	5.250E-02	6.632E-02	1.207E-01	0.000E+00	NOT IDENT.
AG-110M	-1.710E-02	7.347E-02	1.109E-01	0.000E+00	NOT IDENT.
IN-111	-1.944E-02	5.124E-01	7.745E-01	0.000E+00	NOT IDENT.
IN-113M	-3.335E-03	7.803E-02	1.372E-01	0.000E+00	NOT IDENT.
SN-113	-3.335E-03	7.803E-02	1.372E-01	0.000E+00	NOT IDENT.
IN-114M	1.442E-01	2.496E-01	4.483E-01	0.000E+00	NOT IDENT.
CD-115	1.325E+00	3.718E+00	6.521E+00	0.000E+00	NOT IDENT.
SN-117M	-1.446E-02	5.812E-02	1.016E-01	0.000E+00	NOT IDENT.
SB-122	5.024E-02	9.047E-01	1.546E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	7.163E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.802E-02	3.898E-02	6.733E-02	0.000E+00	NOT IDENT.
I-124	-2.768E-01	5.402E-01	8.031E-01	0.000E+00	NOT IDENT.
SB-124	1.962E-02	8.939E-02	1.576E-01	0.000E+00	NOT IDENT.
SB-125	-1.134E-01	1.737E-01	2.916E-01	0.000E+00	NOT IDENT.
TE-125M	4.403E+00	1.243E+01	2.299E+01	0.000E+00	NOT IDENT.
I-126	2.762E-01	2.554E-01	4.355E-01	0.000E+00	NOT IDENT.
SB-126	-1.592E-01	2.296E-01	3.259E-01	0.000E+00	FAIL ABUN
SB-127	1.846E-01	8.325E-01	1.493E+00	0.000E+00	NOT IDENT.
XE-127	6.336E-02	6.687E-02	1.213E-01	0.000E+00	NOT IDENT.
I-131	-4.968E-02	1.228E-01	2.127E-01	0.000E+00	NOT IDENT.
TE-132	1.224E-01	3.568E-01	6.233E-01	0.000E+00	NOT IDENT.
BA-133	-2.682E-02	8.773E-02	1.339E-01	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.411E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	9.361E-02	9.009E-02	1.671E-01	0.000E+00	NOT IDENT.
CS-135	-1.784E-01	2.418E-01	4.238E-01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.038E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.602E-01	1.683E-01	3.051E-01	0.000E+00	NOT IDENT.
CE-139	1.961E-02	4.276E-02	7.713E-02	0.000E+00	NOT IDENT.
BA-140	-1.719E-01	3.839E-01	6.298E-01	0.000E+00	NOT IDENT.
LA-140	8.108E-05	7.429E-02	1.253E-01	0.000E+00	NOT IDENT.
CE-141	5.347E-02	7.820E-02	1.439E-01	0.000E+00	NOT IDENT.
CE-143	2.336E+01	1.523E+01	2.546E+01	0.000E+00	FAIL ABUN
CE-144	-1.101E-01	3.047E-01	5.370E-01	0.000E+00	NOT IDENT.
PM-144	6.234E-03	5.810E-02	1.031E-01	0.000E+00	NOT IDENT.
PR-144	4.212E-01	3.926E+00	6.969E+00	0.000E+00	NOT IDENT.
PM-146	-1.330E-02	9.198E-02	1.586E-01	0.000E+00	NOT IDENT.
ND-147	-2.274E-01	7.785E-01	1.306E+00	0.000E+00	NOT IDENT.
PM-149	-2.512E+01	2.676E+01	4.578E+01	0.000E+00	NOT IDENT.
EU-152	-7.255E-02	1.593E-01	2.766E-01	0.000E+00	FAIL ABUN

GD-153	-1.107E-01	1.107E-01	1.819E-01	0.000E+00	NOT IDENT.
EU-154	3.425E-02	1.447E-01	2.581E-01	0.000E+00	FAIL ABUN
EU-155	6.084E-03	1.580E-01	2.889E-01	0.000E+00	FAIL ABUN
TB-160	-1.241E-01	3.142E-01	5.261E-01	0.000E+00	FAIL ABUN
HO-166M	-6.684E-02	1.025E-01	1.711E-01	0.000E+00	NOT IDENT.
TM-171	-2.273E+01	4.811E+01	8.848E+01	0.000E+00	FAIL ABUN
LU-176	1.191E-02	4.094E-02	7.483E-02	0.000E+00	FAIL ABUN
LU-177	4.164E-01	9.537E-01	1.687E+00	0.000E+00	NOT IDENT.
LU-177M	1.653E-01	3.406E-01	6.125E-01	0.000E+00	FAIL ABUN
HF-181	-1.856E-02	7.432E-02	1.262E-01	0.000E+00	NOT IDENT.
W-181	5.087E-03	6.157E-01	1.160E+00	0.000E+00	NOT IDENT.
TA-182	-1.456E-01	2.167E-01	3.436E-01	0.000E+00	NOT IDENT.
RE-183	5.165E-02	1.475E-01	2.652E-01	0.000E+00	FAIL ABUN
RE-184	3.594E-02	3.718E-01	6.836E-01	0.000E+00	FAIL ABUN
OS-185	1.629E-02	7.376E-02	1.328E-01	0.000E+00	FAIL ABUN
RE-188	1.296E-01	2.250E-01	4.104E-01	0.000E+00	NOT IDENT.
W-188	-1.873E+00	1.267E+01	2.001E+01	0.000E+00	NOT IDENT.
IR-192	-1.833E-02	5.450E-02	9.613E-02	0.000E+00	FAIL ABUN
AU-195	2.017E-01	2.941E-01	5.560E-01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	2.277E+01	0.000E+00	0.000E+00	SHORT HLIF
TL-201	6.849E-01	2.946E+00	5.254E+00	0.000E+00	NOT IDENT.
TL-202	1.542E-02	9.960E-02	1.752E-01	0.000E+00	NOT IDENT.
HG-203	5.375E-03	5.892E-02	1.075E-01	0.000E+00	NOT IDENT.
BI-207	5.700E-02	1.120E-01	1.963E-01	0.000E+00	FAIL ABUN
TL-207	-2.250E-01	1.092E+00	1.935E+00	0.000E+00	FAIL ABUN
PO-209	-2.630E+00	1.675E+01	2.843E+01	0.000E+00	NOT IDENT.
BI-210	-9.146E+00	1.593E+01	2.977E+01	0.000E+00	NOT IDENT.
PB-210	-9.146E+00	1.593E+01	2.977E+01	0.000E+00	NOT IDENT.
PO-210	-9.146E+00	1.593E+01	2.977E+01	0.000E+00	NOT IDENT.
PB-211	6.675E-01	1.817E+00	3.176E+00	0.000E+00	NOT IDENT.
BI-212	0.000E+00	7.259E-01	9.789E-01	0.000E+00	FAIL ABUN
PO-215	-2.250E-01	1.092E+00	1.935E+00	0.000E+00	FAIL ABUN
RN-219	-4.302E-01	7.857E-01	1.332E+00	0.000E+00	NOT IDENT.
RN-220	-2.172E+01	4.975E+01	8.220E+01	0.000E+00	NOT IDENT.
RA-223	-2.250E-01	1.092E+00	1.935E+00	0.000E+00	FAIL ABUN
AC-227	-3.168E-01	6.193E-01	1.103E+00	0.000E+00	NOT IDENT.
TH-227	-3.168E-01	6.200E-01	1.103E+00	0.000E+00	FAIL ABUN
AC-228	0.000E+00	4.841E-01	7.062E-01	0.000E+00	FAIL ABUN
RA-228	0.000E+00	4.841E-01	7.062E-01	0.000E+00	FAIL ABUN
TH-229	-2.104E-01	7.806E-01	1.341E+00	0.000E+00	FAIL ABUN
PA-231	1.214E+00	2.443E+00	4.529E+00	0.000E+00	NOT IDENT.
TH-231	-2.250E-01	1.092E+00	1.935E+00	0.000E+00	FAIL ABUN
U-231	-1.832E-01	6.209E-01	1.002E+00	0.000E+00	FAIL ABUN
TH-232	0.000E+00	4.841E-01	7.062E-01	0.000E+00	FAIL ABUN
PA-233	1.449E-02	1.077E-01	1.950E-01	0.000E+00	FAIL ABUN
PA-234	5.315E-01	7.615E-01	1.347E+00	0.000E+00	FAIL ABUN
PA-234M	-1.507E+00	1.009E+01	1.695E+01	0.000E+00	NOT IDENT.
TH-234	-3.358E-01	2.671E+00	4.528E+00	0.000E+00	FAIL ABUN
U-235	1.708E-01	2.883E-01	5.270E-01	0.000E+00	FAIL ABUN
NP-236	8.003E-03	1.119E-01	1.987E-01	0.000E+00	NOT IDENT.
U-238	-3.358E-01	2.671E+00	4.528E+00	0.000E+00	FAIL ABUN
NP-239	4.608E-02	2.878E-01	5.015E-01	0.000E+00	NOT IDENT.
CM-243	8.217E-02	1.389E-01	2.603E-01	0.000E+00	NOT IDENT.
AM-246	1.038E-01	3.026E-01	5.233E-01	0.000E+00	NOT IDENT.
CM-247	-2.325E-02	7.026E-02	1.213E-01	0.000E+00	NOT IDENT.
CF-249	-3.314E-02	7.150E-02	1.227E-01	0.000E+00	NOT IDENT.
CF-251	-1.443E-02	1.861E-01	3.253E-01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:00:54.40

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032523.CNF;1
Sample date       : 5-FEB-2010 00:00:00. Acquisition date : 14-FEB-2010 14:00:27
Sample ID         : G1202032523          Sample quantity  : 1.55440E+02 GRAM
Detector name     : GAM04                Detector geometry: CAN
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.35  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : MXR1
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 948721               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
K-40	1460.81	22	10.67*	1.075E+00	9.463E-01	9.463E-01	56.43
CO-57	122.06	272	85.51*	6.487E+00	2.365E-01	2.424E-01	27.79
	136.48	------	10.60	6.470E+00	------ Line Not Found		------
CO-60	1173.22	1686	100.00	1.300E+00	6.262E+00	6.284E+00	8.03
	1332.49	1524	100.00*	1.159E+00	6.352E+00	6.374E+00	8.71
CD-109	88.03	1156	3.72*	5.084E+00	2.953E+01	2.995E+01	15.11
SN-126	64.28	------	9.60	2.203E+00	------ Line Not Found		------
	86.94	1156	8.90	5.084E+00	1.234E+01	1.234E+01	43.18
	87.57	1156	37.00*	5.084E+00	2.969E+00	2.969E+00	15.11
BA-137M	661.65	2004	89.98*	2.208E+00	4.871E+00	4.874E+00	7.13
CS-137	661.65	2004	85.12*	2.208E+00	5.149E+00	5.153E+00	7.15
TL-208	277.35	------	6.80	4.326E+00	------ Line Not Found		------
	510.84	17	21.60	2.730E+00	1.382E-01	1.382E-01	309.49
	583.14	173	84.20*	2.454E+00	4.046E-01	4.046E-01	24.95
	860.37	------	12.46	1.744E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	3.384E+00	------ Line Not Found		------
	351.07	180	12.94*	3.626E+00	1.856E+00	1.856E+00	32.06
PB-212	74.81	358	10.70	3.785E+00	4.270E+00	4.270E+00	38.37
	77.11	358	18.00	3.785E+00	2.538E+00	2.538E+00	37.21
	87.30	1156	8.00	5.084E+00	1.373E+01	1.373E+01	18.12
	238.63	436	44.60*	4.828E+00	9.783E-01	9.783E-01	17.46
	300.09	------	3.41	4.082E+00	------ Line Not Found		------
PO-212	74.81	358	10.70	3.785E+00	4.270E+00	4.270E+00	38.37
	77.11	358	18.00	3.785E+00	2.538E+00	2.538E+00	37.21
	87.30	1156	8.00	5.084E+00	1.373E+01	1.373E+01	18.12
	115.19	------	0.60	6.408E+00	------ Line Not Found		------
	238.63	436	44.60*	4.828E+00	9.783E-01	9.783E-01	17.46
	300.09	------	3.41	4.082E+00	------ Line Not Found		------
BI-214	609.31	131	46.30*	2.366E+00	5.790E-01	5.790E-01	44.90
	1120.29	------	15.10	1.358E+00	------ Line Not Found		------
	1764.49	30	15.80	9.528E-01	9.500E-01	9.500E-01	46.85
PB-214	74.81	358	6.21	3.785E+00	7.357E+00	7.357E+00	37.94

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	2-Sigma %Error
	77.11	358	10.50	3.785E+00	4.351E+00	4.351E+00	37.98
	87.30	1156	4.67	5.084E+00	2.352E+01	2.352E+01	16.96
	241.98	44	7.49	4.784E+00	5.883E-01	5.883E-01	142.58
	295.21	122	19.20	4.133E+00	7.405E-01	7.405E-01	42.63
	351.92	180	37.20*	3.626E+00	6.455E-01	6.455E-01	32.48
PO-214	74.81	358	6.21	3.785E+00	7.357E+00	7.357E+00	37.94
	77.11	358	10.50	3.785E+00	4.351E+00	4.351E+00	37.98
	87.30	1156	4.67	5.084E+00	2.352E+01	2.352E+01	16.96
	241.98	44	7.49	4.784E+00	5.883E-01	5.883E-01	142.58
	295.21	122	19.20	4.133E+00	7.405E-01	7.405E-01	42.63
	351.92	180	37.20*	3.626E+00	6.455E-01	6.455E-01	32.48
PO-216	74.81	358	10.70	3.785E+00	4.270E+00	4.270E+00	38.37
	77.11	358	18.00	3.785E+00	2.538E+00	2.538E+00	37.21
	87.30	1156	8.00	5.084E+00	1.373E+01	1.373E+01	18.12
	238.63	436	44.60*	4.828E+00	9.783E-01	9.783E-01	17.46
	300.09	------	3.41	4.082E+00	------ Line Not Found		------
PO-218	74.81	358	6.21	3.785E+00	7.357E+00	7.357E+00	37.94
	77.11	358	10.50	3.785E+00	4.351E+00	4.351E+00	37.98
	87.30	1156	4.67	5.084E+00	2.352E+01	2.352E+01	16.96
	241.98	44	7.49	4.784E+00	5.883E-01	5.883E-01	142.58
	295.21	122	19.20	4.133E+00	7.405E-01	7.405E-01	42.63
	351.92	180	37.20*	3.626E+00	6.455E-01	6.455E-01	32.48
RA-224	240.98	44	3.95*	4.784E+00	1.115E+00	1.115E+00	142.47
RA-226	609.31	131	46.30*	2.366E+00	5.790E-01	5.790E-01	44.90
	1120.29	------	15.10	1.358E+00	------ Line Not Found		------
	1764.49	30	15.80	9.528E-01	9.500E-01	9.500E-01	46.85
TH-228	74.81	358	10.70	3.785E+00	4.270E+00	4.311E+00	37.23
	77.11	358	18.00	3.785E+00	2.538E+00	2.563E+00	37.21
	87.30	1156	8.00	5.084E+00	1.373E+01	1.386E+01	15.11
	238.63	436	44.60*	4.828E+00	9.783E-01	9.877E-01	17.46
	300.09	------	3.41	4.082E+00	------ Line Not Found		------
TH-230	609.31	131	46.30*	2.366E+00	5.790E-01	5.790E-01	44.90
	1120.29	------	15.10	1.358E+00	------ Line Not Found		------
	1764.49	30	15.80	9.528E-01	9.500E-01	9.500E-01	46.85
U-234	609.31	131	46.30*	2.366E+00	5.790E-01	5.790E-01	44.90
	1120.29	------	15.10	1.358E+00	------ Line Not Found		------
	1764.49	30	15.80	9.528E-01	9.500E-01	9.500E-01	46.85
NP-237	86.50	1156	12.60*	5.084E+00	8.717E+00	8.717E+00	25.57
	95.87	------	2.60	5.678E+00	------ Line Not Found		------
AM-241	59.54	1607	35.90*	1.559E+00	1.386E+01	1.386E+01	14.95
AM-243	74.67	358	66.00*	3.785E+00	6.923E-01	6.923E-01	37.21
	86.72	1156	0.34	5.084E+00	3.269E+02	3.269E+02	15.11
	117.66	------	0.55	6.445E+00	------ Line Not Found		------
	142.18	------	0.13	6.417E+00	------ Line Not Found		------
ANH-511	511.00	17	100.00*	2.730E+00	2.985E-02	2.985E-02	309.38

Flag: "*" = Keyline

Sample ID : G1202032523 Acquisition date : 14-FEB-2010 14:00:27

Total number of lines in spectrum 20
Number of unidentified lines 0
Number of lines tentatively identified by NID 20 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/GRAM	Decay Corr pCi/GRAM	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	9.463E-01	9.463E-01	5.340E-01	56.43	
CO-57	270.90D	1.02	2.365E-01	2.424E-01	0.674E-01	27.79	
CO-60	5.27Y	1.00	6.352E+00	6.374E+00	0.555E+00	8.71	
CD-109	464.00D	1.01	2.953E+01	2.995E+01	0.452E+01	15.11	
SN-126	1.00E+05Y	1.00	2.969E+00	2.969E+00	0.448E+00	15.11	
BA-137M	30.17Y	1.00	4.871E+00	4.874E+00	0.347E+00	7.13	
CS-137	30.17Y	1.00	5.149E+00	5.153E+00	0.368E+00	7.15	
TL-208	1.41E+10Y	1.00	4.046E-01	4.046E-01	1.009E-01	24.95	
BI-211	7.04E+08Y	1.00	1.856E+00	1.856E+00	0.595E+00	32.06	
PB-212	1.41E+10Y	1.00	9.783E-01	9.783E-01	1.708E-01	17.46	
PO-212	1.41E+10Y	1.00	9.783E-01	9.783E-01	1.708E-01	17.46	
BI-214	1600.00Y	1.00	5.790E-01	5.790E-01	2.600E-01	44.90	
PB-214	1600.00Y	1.00	6.455E-01	6.455E-01	2.097E-01	32.48	
PO-214	1600.00Y	1.00	6.455E-01	6.455E-01	2.097E-01	32.48	
PO-216	1.41E+10Y	1.00	9.783E-01	9.783E-01	1.708E-01	17.46	
PO-218	1600.00Y	1.00	6.455E-01	6.455E-01	2.097E-01	32.48	
RA-224	1.41E+10Y	1.00	1.115E+00	1.115E+00	1.589E+00	142.47	
RA-226	1600.00Y	1.00	5.790E-01	5.790E-01	2.600E-01	44.90	
TH-228	1.91Y	1.01	9.783E-01	9.877E-01	1.724E-01	17.46	
TH-230	4.47E+09Y	1.00	5.790E-01	5.790E-01	2.599E-01	44.90	
U-234	4.47E+09Y	1.00	5.790E-01	5.790E-01	2.599E-01	44.90	
NP-237	2.14E+06Y	1.00	8.717E+00	8.717E+00	2.229E+00	25.57	
AM-241	432.20Y	1.00	1.386E+01	1.386E+01	0.207E+01	14.95	
AM-243	7380.00Y	1.00	6.923E-01	6.923E-01	2.576E-01	37.21	
ANH-511	1.00E+09Y	1.00	2.985E-02	2.985E-02	9.235E-02	309.38	
			---	---			
	Total Activity :		8.490E+01	8.537E+01			

Grand Total Activity : 8.490E+01 8.537E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202032523 Acquisition date : 14-FEB-2010 14:00:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.74	55	241	0.91	185.52	183	7	1.52E-02	****	5.47E+00	T
0	337.84	71	187	1.18	675.76	672	9	1.96E-02	74.0	3.74E+00	T
0	726.72	58	69	1.39	1453.52	1446	12	1.61E-02	63.1	2.03E+00	T
0	910.99	130	85	1.98	1822.04	1816	13	3.60E-02	34.4	1.65E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 14-FEB-2010 15:00:59.90

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202032523.CNF;1  *
* Acquisition date  : 14-FEB-2010 14:00:27  Detector SN#     :              *
* Detector ID       : GAM04                 Sensitivity      : 5.00000     *
* Geometry          : CAN                   Energy tolerance: 1.50000      *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 01:00:01.35          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 5-FEB-2010 00:00:00.  Nuclide Library : SOLID        *
* Sample ID         : G1202032523           Analyst initials: MXR1         *
* Batch Number      : 948721                Sample Quantity : 1.55440E+02 GRAM *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 5-MAY-2009 14:25:41.36MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
K-40	9.463E-01	5.340E-01	4.324E-01	3.073E-02	2.189
CO-57	2.424E-01	6.736E-02	5.827E-02	4.045E-03	4.160
CO-60	6.374E+00	5.552E-01	9.449E-02	6.475E-03	67.462
CD-109	2.995E+01	4.525E+00	2.109E+00	2.535E-01	14.201
SN-126	2.969E+00	4.484E-01	2.106E-01	2.526E-02	14.093
BA-137M	4.874E+00	3.474E-01	1.094E-01	5.334E-03	44.565
CS-137	5.153E+00	3.683E-01	1.156E-01	5.672E-03	44.565
TL-208	4.046E-01	1.009E-01	1.060E-01	6.668E-03	3.817
BI-211	1.856E+00	5.949E-01	5.807E-01	3.923E-02	3.195
PB-212	9.783E-01	1.708E-01	1.923E-01	1.544E-02	5.088
PO-212	9.783E-01	1.708E-01	1.923E-01	1.544E-02	5.088
BI-214	5.790E-01	2.600E-01	2.113E-01	1.553E-02	2.740
PB-214	6.455E-01	2.097E-01	2.106E-01	1.797E-02	3.065
PO-214	6.455E-01	2.097E-01	2.106E-01	1.797E-02	3.065
PO-216	9.783E-01	1.708E-01	1.923E-01	1.544E-02	5.088
PO-218	6.455E-01	2.097E-01	2.106E-01	1.797E-02	3.065
RA-224	1.115E+00	1.589E+00	2.050E+00	1.367E-01	0.544
RA-226	5.790E-01	2.600E-01	2.113E-01	1.553E-02	2.740

Sample ID : G1202032523 Acquisition date : 14-FEB-2010 14:00:27

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
TH-228	9.877E-01	1.724E-01	1.941E-01	1.559E-02	5.088
TH-230	5.790E-01	2.599E-01	2.113E-01	1.553E-02	2.740
U-234	5.790E-01	2.599E-01	2.113E-01	1.553E-02	2.740
NP-237	8.717E+00	2.229E+00	6.627E-01	1.579E-01	13.155
AM-241	1.386E+01	2.072E+00	6.771E-01	8.548E-02	20.478
AM-243	6.923E-01	2.576E-01	1.479E-01	1.694E-02	4.680
ANH-511	2.985E-02	9.235E-02	9.133E-02	5.107E-03	0.327

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
BE-7	2.548E-01		6.163E-01	1.029E+00	6.819E-02	0.247
NA-22	7.453E-03		5.306E-02	9.054E-02	5.920E-03	0.082
NA-24	3.803E-04		8.204E-04	Half-Life too short		
AL-26	1.801E-02		4.163E-02	7.478E-02	4.435E-03	0.241
TI-44	1.602E-01		6.668E-02	1.084E-01	1.246E-02	1.478
SC-46	-6.258E-02		8.926E-02	1.395E-01	1.128E-02	-0.449
V-48	6.192E-02		1.292E-01	2.185E-01	1.693E-02	0.283
CR-51	1.570E-01		5.450E-01	9.263E-01	6.523E-02	0.170
MN-52	1.273E-02		1.418E-01	2.470E-01	1.686E-02	0.052
MN-54	-3.526E-02		7.724E-02	1.236E-01	8.947E-03	-0.285
CO-56	3.685E-02		7.508E-02	1.287E-01	9.544E-03	0.286
CO-58	-6.707E-03		7.687E-02	1.267E-01	8.744E-03	-0.053
FE-59	-3.653E-02		1.952E-01	3.118E-01	2.382E-02	-0.117
ZN-65	-1.175E-02		1.911E-01	3.074E-01	2.034E-02	-0.038
GE-68	5.360E-01		2.673E+00	4.407E+00	3.078E-01	0.122
AS-73	-3.601E-01		2.975E+00	4.810E+00	6.292E-01	-0.075
AS-74	-8.740E-02		1.358E-01	2.063E-01	1.089E-02	-0.424
SE-75	-3.378E-04		6.620E-02	1.120E-01	7.534E-03	-0.003
BR-77	-1.879E+00		3.965E+00	6.204E+00	3.455E-01	-0.303
SR-82	-5.237E-01		6.222E-01	9.665E-01	6.168E-02	-0.542
RB-83	-6.517E-02		1.263E-01	1.970E-01	1.097E-02	-0.331
RB-84	1.099E-01		1.518E-01	2.615E-01	2.083E-02	0.420
KR-85	1.279E+01		1.524E+01	2.318E+01	1.295E+00	0.552
SR-85	6.188E-02		7.370E-02	1.121E-01	6.262E-03	0.552
RB-86	8.441E-01		1.405E+00	2.388E+00	1.670E-01	0.353
Y-88	-7.511E-03		4.704E-02	7.321E-02	4.272E-03	-0.103
ZR-88	-3.384E-02		5.519E-02	8.786E-02	4.945E-03	-0.385
Y-91	5.961E+00		2.274E+01	3.781E+01	2.317E+00	0.158
NB-94	-2.150E-02		5.857E-02	9.548E-02	5.144E-03	-0.225
NB-95	-2.564E-03		7.036E-02	1.169E-01	7.283E-03	-0.022
NB-95M	-4.220E-02		1.967E-01	2.723E-01	2.235E-02	-0.155
ZR-95	7.213E-02		1.235E-01	2.145E-01	1.562E-02	0.336
NB-97	-9.406E-05		4.518E-04	Half-Life too short		
ZR-97	-6.999E-04		7.511E-03	Half-Life too short		
MO-99	5.984E+00		5.648E+00	1.002E+01	1.383E+00	0.597
TC-99M	-8.344E+03		5.609E+03	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
RH-101	-1.181E-02		5.157E-02	8.170E-02	5.321E-03	-0.145
RH-102	-3.066E-02		6.256E-02	9.903E-02	5.599E-03	-0.310
RU-103	-5.888E-02		7.417E-02	1.136E-01	1.427E-02	-0.518
RH-106	8.721E-02		5.910E-01	9.562E-01	1.092E-01	0.091
RU-106	8.721E-02		5.909E-01	9.562E-01	4.912E-02	0.091
AG-108M	5.250E-02		6.767E-02	1.157E-01	7.152E-03	0.454
AG-110M	-1.710E-02		7.497E-02	1.076E-01	5.748E-03	-0.159
IN-111	-1.944E-02		5.229E-01	7.319E-01	4.884E-02	-0.027
IN-113M	-3.335E-03		7.962E-02	1.313E-01	7.908E-03	-0.025
SN-113	-3.335E-03		7.962E-02	1.313E-01	7.908E-03	-0.025
IN-114M	1.442E-01		2.547E-01	4.209E-01	2.724E-02	0.343
CD-115	1.325E+00		3.794E+00	6.288E+00	3.489E-01	0.211
SN-117M	-1.446E-02		5.930E-02	9.494E-02	6.073E-03	-0.152
SB-122	5.024E-02		9.231E-01	1.493E+00	8.100E-02	0.034
I-123	-3.311E-03		3.654E-03	Half-Life too short		
TE-123M	-1.802E-02		3.977E-02	6.293E-02	4.068E-03	-0.286
I-124	-2.768E-01		5.512E-01	7.771E-01	4.076E-02	-0.356
SB-124	1.962E-02		9.121E-02	1.569E-01	1.066E-02	0.125
SB-125	-1.134E-01		1.773E-01	2.796E-01	1.655E-02	-0.406
TE-125M	4.403E+00		1.268E+01	2.129E+01	2.110E+00	0.207
I-126	2.762E-01		2.606E-01	4.225E-01	2.084E-02	0.654
SB-126	-1.592E-01		2.343E-01	3.169E-01	1.780E-02	-0.502
SB-127	1.846E-01		8.494E-01	1.450E+00	1.044E-01	0.127
XE-127	6.336E-02		6.823E-02	1.141E-01	7.455E-03	0.556
I-131	-4.968E-02		1.253E-01	2.031E-01	1.343E-02	-0.245
TE-132	1.224E-01		3.640E-01	5.879E-01	8.118E-02	0.208
BA-133	-2.682E-02		8.952E-02	1.278E-01	1.497E-02	-0.210
I-133	-3.313E-05		7.197E-05	Half-Life too short		
CS-134	9.361E-02		9.193E-02	1.629E-01	1.098E-02	0.574
CS-135	-1.784E-01		2.467E-01	4.014E-01	3.346E-02	-0.445
I-135	-4.450E+03		2.570E+03	Half-Life too short		
CS-136	1.602E-01		1.718E-01	2.998E-01	2.301E-02	0.534
CE-139	1.961E-02		4.363E-02	7.216E-02	4.585E-03	0.272
BA-140	-1.719E-01		3.917E-01	6.075E-01	1.973E-01	-0.283
LA-140	8.108E-05		7.581E-02	1.245E-01	8.200E-03	0.001
CE-141	5.347E-02		7.980E-02	1.342E-01	9.005E-03	0.399
CE-143	2.336E+01		1.555E+01	2.417E+01	5.074E+00	0.967
CE-144	-1.101E-01		3.109E-01	4.997E-01	7.283E-02	-0.220
PM-144	6.234E-03		5.929E-02	1.002E-01	5.321E-03	0.062
PR-144	4.212E-01		4.006E+00	6.769E+00	3.594E-01	0.062
PM-146	-1.330E-02		9.386E-02	1.523E-01	1.300E-02	-0.087
ND-147	-2.274E-01		7.944E-01	1.259E+00	1.689E-01	-0.181
PM-149	-2.512E+01		2.730E+01	4.343E+01	6.304E+00	-0.578
EU-152	-7.255E-02		1.626E-01	2.637E-01	1.825E-02	-0.275
GD-153	-1.107E-01		1.129E-01	1.680E-01	1.649E-02	-0.659
EU-154	3.425E-02		1.476E-01	2.550E-01	2.501E-02	0.134
EU-155	6.084E-03		1.612E-01	2.672E-01	2.329E-02	0.023
TB-160	-1.241E-01		3.206E-01	5.143E-01	4.078E-02	-0.241

Sample ID : G1202032523 Acquisition date : 14-FEB-2010 14:00:27

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
HO-166M	-6.684E-02		1.046E-01	1.663E-01	9.152E-03	-0.402
TM-171	-2.273E+01		4.910E+01	8.095E+01	9.464E+00	-0.281
LU-176	1.191E-02		4.177E-02	7.113E-02	4.644E-03	0.167
LU-177	4.164E-01		9.732E-01	1.588E+00	1.042E-01	0.262
LU-177M	1.653E-01		3.476E-01	5.868E-01	3.320E-02	0.282
HF-181	-1.856E-02		7.583E-02	1.214E-01	6.856E-03	-0.153
W-181	5.087E-03		6.283E-01	1.061E+00	1.250E-01	0.005
TA-182	-1.456E-01		2.211E-01	3.390E-01	2.110E-02	-0.429
RE-183	5.165E-02		1.505E-01	2.480E-01	1.580E-02	0.208
RE-184	3.594E-02		3.794E-01	6.465E-01	4.318E-02	0.056
OS-185	1.629E-02		7.526E-02	1.288E-01	6.419E-03	0.126
RE-188	1.296E-01		2.296E-01	3.833E-01	2.461E-02	0.338
W-188	-1.873E+00		1.292E+01	1.899E+01	1.255E+00	-0.099
IR-192	-1.833E-02		5.561E-02	9.144E-02	5.936E-03	-0.201
AU-195	2.017E-01		3.001E-01	5.136E-01	4.911E-02	0.393
TL-200	1.216E-05		1.162E-05	Half-Life too short		
TL-201	6.849E-01		3.006E+00	4.917E+00	3.126E-01	0.139
TL-202	1.542E-02		1.016E-01	1.681E-01	9.538E-03	0.092
HG-203	5.375E-03		6.012E-02	1.019E-01	7.094E-03	0.053
BI-207	5.700E-02		1.143E-01	1.930E-01	1.372E-02	0.295
TL-207	-2.250E-01		1.114E+00	1.842E+00	3.083E-01	-0.122
PO-209	-2.630E+00		1.709E+01	2.781E+01	2.282E+00	-0.095
BI-210	-9.146E+00		1.626E+01	2.700E+01	2.353E+00	-0.339
PB-210	-9.146E+00		1.626E+01	2.700E+01	2.353E+00	-0.339
PO-210	-9.146E+00		1.625E+01	2.700E+01	2.098E+00	-0.339
PB-211	6.675E-01		1.854E+00	3.040E+00	1.895E+00	0.220
BI-212	1.165E+00	+	7.408E-01	9.520E-01	7.277E-02	1.224
PO-215	-2.250E-01		1.114E+00	1.842E+00	3.083E-01	-0.122
RN-219	-4.302E-01		8.017E-01	1.275E+00	1.727E-01	-0.337
RN-220	-2.172E+01		5.077E+01	7.934E+01	4.347E+00	-0.274
RA-223	-2.250E-01		1.114E+00	1.842E+00	3.083E-01	-0.122
AC-227	-3.168E-01		6.320E-01	1.043E+00	1.497E-01	-0.304
TH-227	-3.168E-01		6.327E-01	1.043E+00	1.797E-01	-0.304
AC-228	1.368E+00	+	4.940E-01	6.910E-01	7.534E-02	1.979
RA-228	1.368E+00	+	4.940E-01	6.910E-01	7.534E-02	1.979
TH-229	-2.104E-01		7.965E-01	1.260E+00	8.175E-02	-0.167
PA-231	1.214E+00		2.493E+00	4.296E+00	6.080E-01	0.283
TH-231	-2.250E-01		1.114E+00	1.842E+00	3.083E-01	-0.122
U-231	-1.832E-01		6.336E-01	9.249E-01	9.351E-02	-0.198
TH-232	1.368E+00	+	4.940E-01	6.910E-01	7.534E-02	1.979
PA-233	1.449E-02		1.099E-01	1.854E-01	1.265E-02	0.078
PA-234	5.315E-01		7.770E-01	1.320E+00	2.439E-01	0.403
PA-234M	-1.507E+00		1.029E+01	1.663E+01	1.516E+00	-0.091
TH-234	-3.358E-01		2.725E+00	4.137E+00	8.185E-01	-0.081
U-235	1.708E-01		2.942E-01	4.913E-01	8.144E-02	0.348
NP-236	8.003E-03		1.141E-01	1.857E-01	1.186E-02	0.043
U-238	-3.358E-01		2.725E+00	4.137E+00	8.185E-01	-0.081
NP-239	4.608E-02		2.937E-01	4.652E-01	3.423E-02	0.099

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L. Ided	Act error	MDA (pCi/GRAM)	MDA error	Act/MDA
CM-243	8.217E-02		1.417E-01	2.407E-01	2.123E-02	0.341
AM-246	1.038E-01		3.088E-01	5.145E-01	3.586E-02	0.202
CM-247	-2.325E-02		7.169E-02	1.161E-01	6.551E-03	-0.200
CF-249	-3.314E-02		7.296E-02	1.174E-01	6.669E-03	-0.282
CF-251	-1.443E-02		1.899E-01	3.049E-01	1.951E-02	-0.047

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202032523          *
* Acquisition date  : 14-FEB-2010 14:00:27 Detector SN#     :               *
* Detector ID       : GAM04                Sensitivity      : 5.000         *
* Geometry          : CAN                  Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.35      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  5-FEB-2010 00:00:00 Nuclide Library : SOLID          *
* Sample ID         : G1202032523          Analyst initials: MXR1           *
* Batch Number      : 948721               Sample Quantity : 1.5544E+02 GRAM *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  5-MAY-2009 14:25:41 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/GRAM)	Act Error	DLC (pCi/GRAM)	TPU
K-40	9.463E-01	5.233E-01	2.182E-01	2.670E-01
CO-57	2.424E-01	6.601E-02	3.140E-02	3.368E-02
CO-60	6.374E+00	5.441E-01	4.780E-02	2.776E-01
CD-109	2.995E+01	4.434E+00	1.146E+00	2.262E+00
SN-126	2.969E+00	4.395E-01	1.144E-01	2.242E-01
BA-137M	4.874E+00	3.405E-01	5.641E-02	1.737E-01
CS-137	5.153E+00	3.609E-01	5.963E-02	1.841E-01
TL-208	4.046E-01	9.892E-02	5.484E-02	5.047E-02
BI-211	1.856E+00	5.830E-01	3.046E-01	2.975E-01
PB-212	9.783E-01	1.674E-01	1.019E-01	8.540E-02
PO-212	9.783E-01	1.674E-01	1.019E-01	8.540E-02
BI-214	5.790E-01	2.548E-01	1.092E-01	1.300E-01
PB-214	6.455E-01	2.055E-01	1.105E-01	1.048E-01
PO-214	6.455E-01	2.055E-01	1.105E-01	1.048E-01
PO-216	9.783E-01	1.674E-01	1.019E-01	8.540E-02
PO-218	6.455E-01	2.055E-01	1.105E-01	1.048E-01
RA-224	1.115E+00	1.557E+00	1.086E+00	7.946E-01
RA-226	5.790E-01	2.548E-01	1.092E-01	1.300E-01
TH-228	9.877E-01	1.690E-01	1.028E-01	8.622E-02
TH-230	5.790E-01	2.548E-01	1.092E-01	1.300E-01
U-234	5.790E-01	2.548E-01	1.092E-01	1.300E-01
NP-237	8.717E+00	2.185E+00	3.601E-01	1.115E+00
AM-241	1.386E+01	2.031E+00	3.713E-01	1.036E+00
AM-243	6.923E-01	2.525E-01	8.067E-02	1.288E-01
ANH-511	2.985E-02	9.050E-02	4.743E-02	4.617E-02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/GRAM)	K.L Act error	DLC (pCi/GRAM)	TPU
BE-7	2.548E-01	6.039E-01	5.356E-01	3.081E-01 NOT IDENT.
NA-22	7.453E-03	5.200E-02	4.586E-02	2.653E-02 NOT IDENT.

NA-24	3.803E+02	1.608E+03	0.000E+00	8.204E+02	SHORT HLIF
AL-26	1.801E-02	4.080E-02	3.750E-02	2.081E-02	NOT IDENT.
TI-44	1.602E-01	6.535E-02	5.903E-02	3.334E-02	NOT IDENT.
SC-46	-6.258E-02	8.748E-02	7.135E-02	4.463E-02	NOT IDENT.
V-48	6.192E-02	1.266E-01	1.115E-01	6.462E-02	NOT IDENT.
CR-51	1.570E-01	5.341E-01	4.870E-01	2.725E-01	NOT IDENT.
MN-52	1.273E-02	1.389E-01	1.247E-01	7.089E-02	FAIL ABUN
MN-54	-3.526E-02	7.570E-02	6.336E-02	3.862E-02	NOT IDENT.
CO-56	3.685E-02	7.358E-02	6.591E-02	3.754E-02	NOT IDENT.
CO-58	-6.707E-03	7.533E-02	6.497E-02	3.843E-02	NOT IDENT.
FE-59	-3.653E-02	1.913E-01	1.586E-01	9.760E-02	NOT IDENT.
ZN-65	-1.175E-02	1.873E-01	1.563E-01	9.556E-02	NOT IDENT.
GE-68	5.360E-01	2.620E+00	2.243E+00	1.337E+00	NOT IDENT.
AS-73	-3.601E-01	2.915E+00	2.644E+00	1.487E+00	NOT IDENT.
AS-74	-8.740E-02	1.331E-01	1.067E-01	6.789E-02	NOT IDENT.
SE-75	-3.378E-04	6.487E-02	5.918E-02	3.310E-02	FAIL ABUN
BR-77	-1.879E+00	3.886E+00	3.221E+00	1.983E+00	FAIL ABUN
SR-82	-5.237E-01	6.098E-01	4.963E-01	3.111E-01	NOT IDENT.
RB-83	-6.517E-02	1.238E-01	1.023E-01	6.315E-02	NOT IDENT.
RB-84	1.099E-01	1.487E-01	1.338E-01	7.589E-02	NOT IDENT.
KR-85	1.279E+01	1.493E+01	1.204E+01	7.620E+00	NOT IDENT.
SR-85	6.188E-02	7.223E-02	5.821E-02	3.685E-02	NOT IDENT.
RB-86	8.441E-01	1.377E+00	1.215E+00	7.024E-01	NOT IDENT.
Y-88	-7.511E-03	4.610E-02	3.670E-02	2.352E-02	NOT IDENT.
ZR-88	-3.384E-02	5.408E-02	4.595E-02	2.759E-02	NOT IDENT.
Y-91	5.961E+00	2.229E+01	1.918E+01	1.137E+01	NOT IDENT.
NB-94	-2.150E-02	5.739E-02	4.917E-02	2.928E-02	NOT IDENT.
NB-95	-2.564E-03	6.895E-02	6.003E-02	3.518E-02	NOT IDENT.
NB-95M	-4.220E-02	1.928E-01	1.443E-01	9.837E-02	NOT IDENT.
ZR-95	7.213E-02	1.210E-01	1.102E-01	6.173E-02	NOT IDENT.
NB-97	-9.406E+01	8.855E+02	0.000E+00	4.518E+02	SHORT HLIF
ZR-97	-6.999E+02	1.472E+04	0.000E+00	7.511E+03	SHORT HLIF
MO-99	5.984E+00	5.535E+00	5.150E+00	2.824E+00	NOT IDENT.
TC-99M	-8.344E+09	1.099E+10	0.000E+00	5.609E+09	SHORT HLIF
RH-101	-1.181E-02	5.054E-02	4.349E-02	2.579E-02	NOT IDENT.
RH-102	-3.066E-02	6.131E-02	5.153E-02	3.128E-02	NOT IDENT.
RU-103	-5.888E-02	7.269E-02	5.903E-02	3.709E-02	FAIL ABUN
RH-106	8.721E-02	5.792E-01	4.940E-01	2.955E-01	FAIL ABUN
RU-106	8.721E-02	5.791E-01	4.940E-01	2.955E-01	FAIL ABUN
AG-108M	5.250E-02	6.632E-02	6.037E-02	3.384E-02	NOT IDENT.
AG-110M	-1.710E-02	7.347E-02	5.549E-02	3.748E-02	NOT IDENT.
IN-111	-1.944E-02	5.124E-01	3.875E-01	2.614E-01	NOT IDENT.
IN-113M	-3.335E-03	7.803E-02	6.865E-02	3.981E-02	NOT IDENT.
SN-113	-3.335E-03	7.803E-02	6.865E-02	3.981E-02	NOT IDENT.
IN-114M	1.442E-01	2.496E-01	2.243E-01	1.274E-01	NOT IDENT.
CD-115	1.325E+00	3.718E+00	3.263E+00	1.897E+00	NOT IDENT.
SN-117M	-1.446E-02	5.812E-02	5.082E-02	2.965E-02	NOT IDENT.
SB-122	5.024E-02	9.047E-01	7.734E-01	4.616E-01	NOT IDENT.
I-123	-3.311E+03	7.163E+03	0.000E+00	3.654E+03	SHORT HLIF
TE-123M	-1.802E-02	3.898E-02	3.369E-02	1.989E-02	NOT IDENT.
I-124	-2.768E-01	5.402E-01	4.018E-01	2.756E-01	NOT IDENT.
SB-124	1.962E-02	8.939E-02	7.886E-02	4.561E-02	NOT IDENT.
SB-125	-1.134E-01	1.737E-01	1.459E-01	8.864E-02	NOT IDENT.
TE-125M	4.403E+00	1.243E+01	1.150E+01	6.342E+00	NOT IDENT.
I-126	2.762E-01	2.554E-01	2.179E-01	1.303E-01	NOT IDENT.
SB-126	-1.592E-01	2.296E-01	1.630E-01	1.171E-01	FAIL ABUN
SB-127	1.846E-01	8.325E-01	7.470E-01	4.247E-01	NOT IDENT.
XE-127	6.336E-02	6.687E-02	6.068E-02	3.412E-02	NOT IDENT.
I-131	-4.968E-02	1.228E-01	1.064E-01	6.267E-02	NOT IDENT.
TE-132	1.224E-01	3.568E-01	3.118E-01	1.820E-01	NOT IDENT.
BA-133	-2.682E-02	8.773E-02	6.700E-02	4.476E-02	NOT IDENT.
I-133	-3.313E+01	1.411E+02	0.000E+00	7.197E+01	SHORT HLIF
CS-134	9.361E-02	9.009E-02	8.362E-02	4.597E-02	NOT IDENT.
CS-135	-1.784E-01	2.418E-01	2.120E-01	1.234E-01	NOT IDENT.
I-135	-4.450E+09	5.038E+09	0.000E+00	2.570E+09	SHORT HLIF
CS-136	1.602E-01	1.683E-01	1.527E-01	8.589E-02	NOT IDENT.
CE-139	1.961E-02	4.276E-02	3.859E-02	2.182E-02	NOT IDENT.
BA-140	-1.719E-01	3.839E-01	3.151E-01	1.958E-01	NOT IDENT.
LA-140	8.108E-05	7.429E-02	6.266E-02	3.790E-02	NOT IDENT.
CE-141	5.347E-02	7.820E-02	7.198E-02	3.990E-02	NOT IDENT.
CE-143	2.336E+01	1.523E+01	1.274E+01	7.773E+00	FAIL ABUN
CE-144	-1.101E-01	3.047E-01	2.686E-01	1.555E-01	NOT IDENT.
PM-144	6.234E-03	5.810E-02	5.160E-02	2.964E-02	NOT IDENT.
PR-144	4.212E-01	3.926E+00	3.486E+00	2.003E+00	NOT IDENT.
PM-146	-1.330E-02	9.198E-02	7.937E-02	4.693E-02	NOT IDENT.
ND-147	-2.274E-01	7.785E-01	6.532E-01	3.972E-01	NOT IDENT.
PM-149	-2.512E+01	2.676E+01	2.290E+01	1.365E+01	NOT IDENT.
EU-152	-7.255E-02	1.593E-01	1.384E-01	8.130E-02	FAIL ABUN

GD-153	-1.107E-01	1.107E-01	9.102E-02	5.646E-02	NOT IDENT.
EU-154	3.425E-02	1.447E-01	1.291E-01	7.380E-02	FAIL ABUN
EU-155	6.084E-03	1.580E-01	1.445E-01	8.060E-02	FAIL ABUN
TB-160	-1.241E-01	3.142E-01	2.632E-01	1.603E-01	FAIL ABUN
HO-166M	-6.684E-02	1.025E-01	8.560E-02	5.231E-02	NOT IDENT.
TM-171	-2.273E+01	4.811E+01	4.427E+01	2.455E+01	FAIL ABUN
LU-176	1.191E-02	4.094E-02	3.744E-02	2.089E-02	FAIL ABUN
LU-177	4.164E-01	9.537E-01	8.440E-01	4.866E-01	NOT IDENT.
LU-177M	1.653E-01	3.406E-01	3.065E-01	1.738E-01	FAIL ABUN
HF-181	-1.856E-02	7.432E-02	6.316E-02	3.792E-02	NOT IDENT.
W-181	5.087E-03	6.157E-01	5.804E-01	3.141E-01	NOT IDENT.
TA-182	-1.456E-01	2.167E-01	1.719E-01	1.106E-01	NOT IDENT.
RE-183	5.165E-02	1.475E-01	1.327E-01	7.523E-02	FAIL ABUN
RE-184	3.594E-02	3.718E-01	3.420E-01	1.897E-01	FAIL ABUN
OS-185	1.629E-02	7.376E-02	6.645E-02	3.763E-02	FAIL ABUN
RE-188	1.296E-01	2.250E-01	2.053E-01	1.148E-01	NOT IDENT.
W-188	-1.873E+00	1.267E+01	1.001E+01	6.462E+00	NOT IDENT.
IR-192	-1.833E-02	5.450E-02	4.809E-02	2.781E-02	FAIL ABUN
AU-195	2.017E-01	2.941E-01	2.782E-01	1.500E-01	FAIL ABUN
TL-200	1.216E+01	2.277E+01	0.000E+00	1.162E+01	SHORT HLIF
TL-201	6.849E-01	2.946E+00	2.629E+00	1.503E+00	NOT IDENT.
TL-202	1.542E-02	9.960E-02	8.767E-02	5.082E-02	NOT IDENT.
HG-203	5.375E-03	5.892E-02	5.376E-02	3.006E-02	NOT IDENT.
BI-207	5.700E-02	1.120E-01	9.823E-02	5.715E-02	FAIL ABUN
TL-207	-2.250E-01	1.092E+00	9.680E-01	5.570E-01	FAIL ABUN
PO-209	-2.630E+00	1.675E+01	1.422E+01	8.545E+00	NOT IDENT.
BI-210	-9.146E+00	1.593E+01	1.490E+01	8.128E+00	NOT IDENT.
PB-210	-9.146E+00	1.593E+01	1.490E+01	8.128E+00	NOT IDENT.
PO-210	-9.146E+00	1.593E+01	1.490E+01	8.126E+00	NOT IDENT.
PB-211	6.675E-01	1.817E+00	1.589E+00	9.271E-01	NOT IDENT.
BI-212	1.165E+00	7.259E-01	4.897E-01	3.704E-01	FAIL ABUN
PO-215	-2.250E-01	1.092E+00	9.680E-01	5.570E-01	FAIL ABUN
RN-219	-4.302E-01	7.857E-01	6.665E-01	4.009E-01	NOT IDENT.
RN-220	-2.172E+01	4.975E+01	4.112E+01	2.538E+01	NOT IDENT.
RA-223	-2.250E-01	1.092E+00	9.680E-01	5.570E-01	FAIL ABUN
AC-227	-3.168E-01	6.193E-01	5.517E-01	3.160E-01	NOT IDENT.
TH-227	-3.168E-01	6.200E-01	5.517E-01	3.164E-01	FAIL ABUN
AC-228	1.368E+00	4.841E-01	3.533E-01	2.470E-01	FAIL ABUN
RA-228	1.368E+00	4.841E-01	3.533E-01	2.470E-01	FAIL ABUN
TH-229	-2.104E-01	7.806E-01	6.709E-01	3.983E-01	FAIL ABUN
PA-231	1.214E+00	2.443E+00	2.266E+00	1.246E+00	NOT IDENT.
TH-231	-2.250E-01	1.092E+00	9.680E-01	5.570E-01	FAIL ABUN
U-231	-1.832E-01	6.209E-01	5.013E-01	3.168E-01	FAIL ABUN
TH-232	1.368E+00	4.841E-01	3.533E-01	2.470E-01	FAIL ABUN
PA-233	1.449E-02	1.077E-01	9.757E-02	5.494E-02	FAIL ABUN
PA-234	5.315E-01	7.615E-01	6.739E-01	3.885E-01	FAIL ABUN
PA-234M	-1.507E+00	1.009E+01	8.478E+00	5.147E+00	NOT IDENT.
TH-234	-3.358E-01	2.671E+00	2.265E+00	1.363E+00	FAIL ABUN
U-235	1.708E-01	2.883E-01	2.637E-01	1.471E-01	FAIL ABUN
NP-236	8.003E-03	1.119E-01	9.939E-02	5.707E-02	NOT IDENT.
U-238	-3.358E-01	2.671E+00	2.265E+00	1.363E+00	FAIL ABUN
NP-239	4.608E-02	2.878E-01	2.509E-01	1.468E-01	NOT IDENT.
CM-243	8.217E-02	1.389E-01	1.302E-01	7.085E-02	NOT IDENT.
AM-246	1.038E-01	3.026E-01	2.618E-01	1.544E-01	NOT IDENT.
CM-247	-2.325E-02	7.026E-02	6.067E-02	3.585E-02	NOT IDENT.
CF-249	-3.314E-02	7.150E-02	6.140E-02	3.648E-02	NOT IDENT.
CF-251	-1.443E-02	1.861E-01	1.628E-01	9.493E-02	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	259.4548
46.50	259.4548
46.50	259.4548
48.70	265.4408
49.72	272.2560
51.35	282.1758
52.39	306.4350
52.97	325.1860
53.15	323.6079
53.44	312.3732
54.07	311.3418
56.28	314.5081
56.28	314.5108
57.37	349.7276
57.53	349.8737
57.53	349.8757
57.60	286.9935
57.98	287.2775
57.98	287.2775
59.32	288.2727
59.32	288.2727
59.40	288.3316
59.54	288.4344
59.72	288.5671
60.01	288.7801
61.10	210.5206
61.14	210.5417
61.30	210.6267
63.00	206.1629
63.29	206.3101
63.29	206.3101
63.58	215.8414
64.28	206.8094
65.12	206.3332
65.20	206.3730
65.20	206.3730
66.05	223.8768
66.72	224.2327
66.83	224.2923
66.91	234.2457
67.20	239.8151
67.20	239.8151
67.75	228.3908
67.85	228.4448
68.90	222.6685
68.90	222.6685
69.30	221.5159
69.67	205.3854
70.82	244.1107
70.82	244.1107
70.83	244.1161
72.80	246.5758
72.87	246.6142
72.87	246.6142
74.67	247.6003
74.81	247.6772
74.81	247.6772
74.81	247.6772
74.81	247.6772
74.81	247.6772
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74.81	247.6772
74.97	247.7637
75.28	247.9326
75.70	248.1606
77.11	248.9200
77.11	248.9200

77.11	248.9200
77.11	248.9200
77.11	248.9200
77.11	248.9200
77.11	248.9200
78.38	237.1185
79.62	246.0853
79.80	246.1784
79.80	246.1784
80.11	260.2566
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81.07	290.0641
81.07	290.0641
82.60	288.1881
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83.78	273.4585
83.78	273.4585
83.78	273.4585
83.78	273.4585
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84.90	279.7041
85.43	291.2580
86.29	338.2745
86.50	338.4155
86.54	338.4430
86.59	338.4760
86.72	332.9211
86.79	332.9661
86.94	333.0670
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87.30	306.4724
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87.30	306.4724
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87.30	306.4724
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87.88	306.8234
88.03	306.9145
88.36	307.1148
88.47	307.1810
89.95	215.7910
91.11	216.2758
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92.38	239.6248
92.38	239.6248
93.35	175.7634
94.00	167.3957
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94.67	183.3643
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94.90	186.3097
94.90	186.3097
94.90	186.3097
95.87	192.3909
95.87	192.3909
96.73	211.3932
97.43	213.1057
98.44	177.9174
98.44	177.9174
98.88	172.2855
99.55	186.9508
99.55	186.9508
99.86	196.6974
100.00	196.7472
100.10	196.7845
103.18	209.5093
103.76	200.9861
105.00	209.2086
105.31	225.8734
108.00	223.0146
109.28	210.7592

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111.00	219.2400
111.76	212.6283
112.95	216.9978
115.19	219.7823
116.30	210.2639
117.00	212.0920
117.00	212.0920
117.66	223.6507
121.11	233.8857
121.62	197.0631
121.78	197.1122
122.06	197.1994
122.32	197.2805
122.32	197.2805
122.32	197.2805
122.32	197.2805
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127.23	213.4229
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136.48	210.7684
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144.24	191.3966
144.24	191.3966
144.24	191.3966
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145.44	197.9363
147.16	227.4968
152.43	232.2798
152.70	220.8520
153.22	205.2952
154.21	192.9806
154.21	192.9806
154.21	192.9806
154.21	192.9806
155.03	187.9442
156.02	199.7567
158.56	201.4822
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161.27	201.1386
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162.64	198.3127
163.35	227.1551
163.89	233.6851
165.85	203.3902
167.43	210.2003
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171.86	217.8062
172.10	217.8702
176.55	201.7977
176.60	201.8110
181.06	198.5590
184.41	247.2814
185.71	209.4746
186.00	201.9053
190.27	190.8453
192.34	211.0898
193.63	215.8046
197.04	222.1645
198.01	213.5557
198.60	211.4807
200.40	220.7818
201.83	202.2414
202.84	201.3548
205.31	225.3246

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208.81	211.6252
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209.75	190.5444
210.97	212.1174
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216.55	215.6328
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227.00	215.6896
227.08	212.2830
227.20	212.3095
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228.18	206.8066
228.18	206.8066
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236.00	207.2754
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238.63	339.4261
238.63	339.4261
238.63	339.4261
239.00	297.9713
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241.98	271.0386
241.98	271.0386
241.98	271.0386
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245.39	191.7447
247.94	208.2890
248.90	198.2175
249.79	196.0513
252.40	185.1273
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252.85	191.3504
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256.20	198.9923
256.20	198.9923
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260.90	183.0549
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264.65	159.7220
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268.79	181.6968
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269.46	152.3960
269.46	152.3960
269.46	152.3960
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277.60	170.5524
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291.72	183.1707
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293.70	155.8109
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295.21	147.2588

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296.50	185.3654
297.23	194.2430
298.57	141.8222
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299.80	145.1378
300.09	151.6224
300.09	151.6224
300.09	151.6224
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300.12	151.6249
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306.84	151.8047
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319.41	143.1155
320.08	144.1205
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323.87	157.6046
323.87	157.6046
323.87	157.6046
325.23	166.1743
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334.30	142.8943
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338.28	151.8121
338.28	151.8121
338.28	151.8121
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338.32	151.8170
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351.92	160.0276
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367.43	143.5230
367.94	0.0000
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387.95	150.4682
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391.69	144.9716
391.69	144.9716
392.90	158.8137
398.62	143.6786
400.65	149.7850
401.10	152.7863
401.81	164.6939
402.60	162.8046
404.84	151.1884
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415.30	158.1921

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439.47	143.4496
439.56	143.4582
439.89	136.4152
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445.03	143.9414
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445.03	143.9414
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487.03	103.9139
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511.85	133.1833
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513.99	116.4611
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520.65	116.4621
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529.87	0.0000
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546.56	0.0000
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552.65	113.0653
555.20	70.0841
563.23	82.2831
563.90	99.6395
568.70	100.9666
569.32	93.3985
569.50	98.8370
569.67	99.9315
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579.30	0.0000
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591.81	83.4659
592.07	77.9834
593.00	82.4158
595.88	101.2371
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602.71	114.8228
603.60	106.0371
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614.37	90.5972
618.01	91.1990
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621.84	86.9050
631.29	86.1715
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633.10	85.1243
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636.97	89.7656
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646.12	87.4397
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657.90	0.0000
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661.65	93.5022
664.57	81.8086
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666.33	68.2269
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677.61	69.4836
685.20	71.5482
692.80	85.5891
695.00	70.9317
696.49	82.0393
696.49	82.0393
697.00	85.7457
697.49	75.6198
698.33	75.6458
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699.00	70.1311
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713.82	86.3610
717.42	79.9825
720.50	103.9869
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722.78	77.6774
722.89	77.6794
722.95	77.6815
723.30	91.6785
724.18	82.3855
727.18	73.1506
733.00	78.3970
735.90	95.5951
739.58	75.0898
742.81	89.2875
744.21	81.8153
747.13	75.3223
751.79	70.7483
752.31	77.3675
753.82	75.5254
755.35	71.7936
756.15	72.7627
756.87	73.7287
763.93	75.8340
765.79	83.4797
766.42	90.1410
766.84	95.8514
776.49	94.3134
778.00	69.5853
778.57	78.1823
778.89	80.0994
783.80	94.5842
785.46	86.0405
792.07	107.3488

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796.30	80.6449
798.80	114.3574
801.93	88.5163
805.60	86.7140
810.29	89.7645
810.76	90.7458
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817.79	84.2133
818.51	88.1096
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826.30	97.1069
828.27	0.0000
831.60	92.4348
831.96	87.5808
834.83	106.1845
836.80	0.0000
846.75	74.3635
848.13	85.1712
856.28	0.0000
856.80	106.0647
860.37	102.2684
867.32	88.7256
867.82	87.7550
871.10	102.6670
873.19	89.9003
874.81	86.9859
875.33	0.0000
876.40	104.8380
879.36	114.8502
880.27	97.0597
880.51	97.0693
881.50	99.0845
883.24	98.1541
884.67	104.1566
889.25	114.2616
896.60	99.6143
898.02	110.6287
899.00	114.6547
903.28	101.0967
911.07	82.0981
911.07	82.0981
911.07	82.0981
919.63	103.4275
920.93	106.4865
925.00	110.6606
925.24	121.7356
926.50	136.8865
935.52	137.3082
937.48	110.1203
944.10	127.5812
946.00	105.3711
949.00	121.7051
962.29	121.2254
964.01	147.7966
966.15	137.6993
968.20	119.4223
969.11	123.5405
969.11	123.5405
969.11	123.5405
977.42	84.9737
980.50	87.1105
983.50	84.1181
989.30	98.6648
996.32	86.5266
1001.03	90.7844
1001.68	87.7081
1004.76	108.4530
1021.30	0.0000
1024.50	0.0000
1034.80	79.2471
1036.00	71.9750
1037.82	92.8894
1038.57	96.0430
1038.76	0.0000
1045.16	82.6414
1046.59	84.7692
1048.07	62.8213

1050.47	88.0154
1050.47	88.0154
1062.04	78.8635
1063.62	71.5395
1076.63	69.7093
1077.35	73.9512
1078.86	71.8715
1085.78	63.5479
1099.22	91.4506
1112.02	96.0645
1112.84	99.2938
1115.52	86.5490
1120.29	84.5277
1120.29	84.5277
1120.29	84.5277
1120.29	84.5277
1120.51	85.6055
1121.28	80.2734
1124.00	0.0000
1129.67	65.4469
1131.51	0.0000
1147.95	0.0000
1167.94	34.3494
1173.22	51.0574
1175.09	47.0996
1177.93	50.7637
1189.05	29.4614
1204.90	28.4946
1205.75	0.0000
1213.00	32.9517
1221.42	33.0278
1230.97	22.9960
1235.34	33.1523
1236.41	0.0000
1238.25	23.0408
1246.25	26.7851
1260.41	0.0000
1271.85	14.8783
1274.45	20.4719
1274.54	21.4025
1291.56	17.7592
1298.22	0.0000
1312.09	20.6724
1325.50	17.7799
1325.50	17.7799
1332.49	23.6140
1333.61	23.6206
1360.21	4.7557
1362.66	0.0000
1365.15	8.5708
1368.21	9.5304
1368.53	0.0000
1376.25	12.4139
1384.27	13.3956
1394.10	12.4684
1395.20	15.3503
1407.95	12.5107
1434.06	9.6838
1436.60	13.5653
1457.56	0.0000
1460.81	4.8726
1489.15	12.7524
1509.49	10.8407
1596.49	10.0480
1620.62	11.1106
1678.03	0.0000
1691.02	7.1760
1691.02	7.1760
1706.46	0.0000
1750.46	0.0000
1764.49	8.3245
1764.49	8.3245
1764.49	8.3245
1764.49	8.3245
1770.23	8.9293
1771.40	22.9238
1791.20	0.0000
1808.65	6.2979

1836.01 9.4973

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202032523

Total Uranium Activity	-9.2004E-01	ug/g
Total Uranium Counting Unc.	7.9470E+00	ug/g
Total Uranium Tpu	4.0546E-06	ug/g
Total Uranium Mda	6.7402E+00	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 948721                    SAMPLE ID   : G1202032523     *
*   ANALYST       : MXR1                      DETECTOR    : GAM04           *
*   SAMPLE DATE   :  5-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 14-FEB-2010 14:00:27.05    SAMPLE ALQT:  155.440 GRAM    *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/GRAM  ) : 2.614E+01
        GROSS GAMMA ERROR  (pCi/GRAM  )   : 3.135E+00
        GROSS GAMMA MDA    (pCi/GRAM  )   : 3.619E+00
        GROSS GAMMA DLC    (pCi/GRAM  )   : 1.751E+00
```

Radiochemistry Batch Checklist, Rev10

Batch# 950495 Product: Tritium Date: 2/23/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Lindsey Pace

Secondary Review Performed By: L Lynch 2/23/10

LANL 3/2/10

Tritium Que Sheet

95 1

08-FEB-10

Batch #: 950495 **Analyst:** KXK2 **First Client Due Date** 02-MAR-10 **Internal Due Date:** 19-FEB-10

Spike Isotope: Hydrogen-3 **Spike Code:** ——— **Expiration Date:** ——— **Vol:** ——

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 2/11/10 **Initials:** KKJ **Pipet ID:** 2970968 **Witness:** Sw 2/11/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Dist Vol (mL)
245978001-1	RE15-10-7880	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-2	1	KKJ 2/11/10	422.57	390.88	31.69
245978002-1	RE15-10-7891	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-3	2		246.33	182.28	64.05
245978003-1	RE15-10-7892	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-4	3		414.38	385.79	28.59
245978004-1	RE15-10-7967	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-5	4		291.16	220.99	70.17
245978005-1	RE15-10-7976	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-6	5		403.66	389.13	14.53
245978006-1	RE15-10-7968	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-7	6		403.61	360.42	43.19
245978007-1	RE15-10-7965	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-8	7		386.60	300.77	85.83
245978008-1	RE15-10-7975	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-9	8		286.44	213.40	73.04
245978009-1	RE15-10-7978	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-10	9		286.62	238.18	48.44
245978010-1	RE15-10-7970	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-11	10		500.79	460.23	40.56
245978011-1	RE15-10-7964	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	34-12	11		417.47	373.22	44.25
245978012-1	RE15-10-7973	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-1	12		317.50	259.08	58.42
245978013-1	RE15-10-7962	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-2	13		305.60	289.40	16.20
245978014-1	RE15-10-7963	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-3	14		234.25	185.76	48.49
245978015-1	RE15-10-7977	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-4	15		290.64	185.43	105.21
245979015-1	RE15-10-8062	SAMPLE		.25 pCi/mL	SOIL	LANL010	27-JAN-10	10	20-5	16		426.90	386.77	40.13
1202036900-1	MB for batch 950495	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	20-6	17		20.00	0	20.00
1202036901-1	~~RE15-10-8062(245979015DUP)~~ RE15-10-7880(245978001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	27-JAN-10	10	20-7	1		422.57	390.88	31.69
1202036902-1	LCS for batch 950495	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	~~20-8~~ 26-1	18		20.00	0	20.00

Bkg Rack #: 34-1

Comments: ———

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: Lindsey Paul 2/23/10

GEL Laboratories LLC, Radiochemistry Division

DATE	2/8/2010	INITIALS	KXK2		BATCH NUMBER	950495

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
245978001	422.57	0.075	31.69	390.88	10	
245978002	246.33	0.260	64.05	182.28	10	
245978003	414.38	0.069	28.59	385.79	10	
245978004	291.16	0.241	70.17	220.99	10	
245978005	403.66	0.036	14.53	389.13	10	
245978006	403.61	0.107	43.19	360.42	10	
245978007	386.60	0.222	85.83	300.77	10	
245978008	286.44	0.255	73.04	213.40	10	
245978009	286.62	0.169	48.44	238.18	10	
245978010	500.79	0.081	40.56	460.23	10	
245978011	417.47	0.106	44.25	373.22	10	
245978012	317.50	0.184	58.42	259.08	10	
245978013	305.60	0.053	16.20	289.40	10	
245978014	234.25	0.207	48.49	185.76	10	
245978015	290.64	0.362	105.21	185.43	10	
245979015	426.90	0.094	40.13	386.77	10	
MB	20.00	1.000	20.00	0.00	10	
DUP	422.57	0.075	31.69	390.88	10	
LCS	20.00	1.000	20.00	0.00	10	

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.6

Batch : 950495
Analyst : KXK2
Prep Date : 2/11/2010

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2468.20
LCS Volume Added: 0.10

Procedure Code : LSC_VH3S
Parmname : Tritium
Required MDC : 250 pCi/L
Halflife of Tritium : 12.32 years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	245978001.1	422.57	0.0317	0.0100	2.5729E-05	390.88	7.50%	1	1/27/2010 12:00
2	245978002.1	246.33	0.0641	0.0100	2.5729E-05	182.28	26.00%	2	1/27/2010 12:00
3	245978003.1	414.38	0.0286	0.0100	2.5729E-05	385.79	6.90%	3	1/27/2010 12:00
4	245978004.1	291.16	0.0702	0.0100	2.5729E-05	220.99	24.10%	4	1/27/2010 12:00
5	245978005.1	403.66	0.0145	0.0100	2.5729E-05	389.13	3.60%	5	1/27/2010 12:00
6	245978006.1	403.61	0.0432	0.0100	2.5729E-05	360.42	10.70%	6	1/27/2010 12:00
7	245978007.1	386.60	0.0858	0.0100	2.5729E-05	300.77	22.20%	7	1/27/2010 12:00
8	245978008.1	286.44	0.0730	0.0100	2.5729E-05	213.40	25.50%	8	1/27/2010 12:00
9	245978009.1	286.62	0.0484	0.0100	2.5729E-05	238.18	16.90%	9	1/27/2010 12:00
10	245978010.1	500.79	0.0406	0.0100	2.5729E-05	460.23	8.10%	10	1/27/2010 12:00
11	245978011.1	417.47	0.0443	0.0100	2.5729E-05	373.22	10.60%	11	1/27/2010 12:00
12	245978012.1	317.50	0.0584	0.0100	2.5729E-05	259.08	18.40%	12	1/27/2010 12:00
13	245978013.1	305.60	0.0162	0.0100	2.5729E-05	289.40	5.30%	13	1/27/2010 12:00
14	245978014.1	234.25	0.0485	0.0100	2.5729E-05	185.76	20.70%	14	1/27/2010 12:00
15	245978015.1	290.64	0.1052	0.0100	2.5729E-05	185.43	36.20%	15	1/27/2010 12:00
16	245979015.1	426.90	0.0401	0.0100	2.5729E-05	386.77	9.40%	16	1/27/2010 12:00
17	1202036900.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	17	2/11/2010 0:00
18	1202036901.1	422.57	0.0317	0.0100	2.5729E-05	390.88	7.50%	1	1/27/2010 12:00
19	1202036902.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	18	2/11/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	34-2	95	125.3	6.99	5.76	95	2/13/2010 7:13	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2752	0.00792	34-1	2/13/2010 5:34
2	34-3	95	125.8	136.28	5.76	95	2/13/2010 8:51	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2743	0.00792	34-1	2/13/2010 5:34
3	34-4	95	126	28.16	5.76	95	2/13/2010 11:55	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2739	0.00792	34-1	2/13/2010 5:34
4	34-5	95	125	470.27	5.76	95	2/13/2010 13:33	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2757	0.00792	34-1	2/13/2010 5:34
5	34-6	95	126.3	53.72	5.76	95	2/13/2010 15:12	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2734	0.00792	34-1	2/13/2010 5:34
6	34-7	95	125.5	434.96	5.76	95	2/13/2010 16:50	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2748	0.00792	34-1	2/13/2010 5:34
7	34-8	95	124.7	44.14	5.76	95	2/13/2010 18:29	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2763	0.00792	34-1	2/13/2010 5:34
8	34-9	95	125.8	12.21	5.76	95	2/13/2010 20:07	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2743	0.00792	34-1	2/13/2010 5:34
9	34-10	95	126.3	6.69	5.76	95	2/13/2010 21:45	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2734	0.00792	34-1	2/13/2010 5:34
10	34-11	95	125.9	37.97	5.76	95	2/13/2010 23:24	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2741	0.00792	34-1	2/13/2010 5:34
11	34-12	95	127	9.35	5.76	95	2/14/2010 1:02	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2721	0.00792	34-1	2/13/2010 5:34
12	20-1	95	125.1	12.33	5.76	95	2/14/2010 2:40	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2756	0.00792	34-1	2/13/2010 5:34
13	20-2	95	126.2	68.75	5.76	95	2/14/2010 4:19	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2736	0.00792	34-1	2/13/2010 5:34
14	20-3	95	126	14.09	5.76	95	2/14/2010 5:57	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2739	0.00792	34-1	2/13/2010 5:34
15	20-4	95	126.4	7.56	5.76	95	2/14/2010 7:35	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2732	0.00792	34-1	2/13/2010 5:34
16	20-5	95	126.4	54	5.76	95	2/14/2010 9:13	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2732	0.00792	34-1	2/13/2010 5:34
17	20-6	95	125.1	5.59	5.76	95	2/14/2010 10:51	0.999	LSCSILVER	8/21/2009	8/31/2010	0.2756	0.00792	34-1	2/13/2010 5:34
18	20-7	95	127.4	6.89	5.76	95	2/14/2010 12:30	0.997	LSCSILVER	8/21/2009	8/31/2010	0.2714	0.00792	34-1	2/13/2010 5:34
19	26-1	15	125.9	39.73	5.76	95	2/14/2010 14:07	0.999	LSCSILVER	8/21/2009	8/31/2010	0.2741	0.00792	34-1	2/13/2010 5:34

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	**1 SIGMA** Counting Uncertainty pCi/L	**1 SIGMA** Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	133.1468	94.0028	250	193.1877	**201.8439**	0.298	1.230	0.366	60.1179	61.7397		SAMPLE				
2	133.5859	94.3128	250	193.8248	**21489.0559**	0.013	130.520	1.223	201.3186	1510.1385		SAMPLE				
3	133.7650	94.4392	250	194.0847	**3692.9222**	0.028	22.400	0.598	98.5118	275.4231		SAMPLE				
4	132.8920	93.8229	250	192.8180	**76080.5538**	0.010	464.510	2.238	366.6350	5311.4903		SAMPLE				
5	134.0341	94.6292	250	194.4750	**7922.7139**	0.019	47.960	0.791	130.7129	567.0680		SAMPLE				
6	133.3295	94.1318	250	193.4528	**70528.6671**	0.010	429.200	2.154	353.9367	4924.8809		SAMPLE				
7	132.6378	93.6434	250	192.4492	**6274.1079**	0.021	38.380	0.725	118.4774	452.7526		SAMPLE				
8	133.5956	94.3196	250	193.8388	**1062.0168**	0.068	6.450	0.435	71.6117	102.9530		SAMPLE				
9	134.0397	94.6332	250	194.4832	**153.6371**	0.389	0.930	0.362	59.8048	60.7545		SAMPLE				
10	133.6865	94.3838	250	193.9708	**5307.1085**	0.023	32.210	0.678	111.7880	386.1614		SAMPLE				
11	134.6709	95.0788	250	195.3990	**595.8648**	0.111	3.590	0.399	66.1948	78.1284		SAMPLE				
12	132.9898	93.8919	250	192.9599	**1076.8699**	0.067	6.570	0.436	71.5246	103.6386		SAMPLE				
13	133.9564	94.5744	250	194.3624	**10399.5529**	0.017	62.990	0.886	146.2139	738.9136		SAMPLE				
14	133.7805	94.4502	250	194.1071	**1373.4644**	0.056	8.330	0.457	75.3687	121.7824		SAMPLE				
15	134.1373	94.7021	250	194.6249	**297.5786**	0.208	1.800	0.374	61.9041	65.2815		SAMPLE				
16	134.1387	94.7031	250	194.6269	**7975.1913**	0.019	48.240	0.793	131.1225	570.7191		SAMPLE				
17	132.7000	93.6874	250	192.5395	**-27.8035**	2.033	-0.170	0.346	56.5310	56.5311		MB				
18	135.0443	95.3424	250	195.9409	**188.0764**	0.323	1.130	0.365	60.7351	62.1316	245978001.1	DUP	7.1%	0.0556		
19	255.4421	180.3443	250	393.5712	**5585.1125**	0.049	33.970	1.646	270.6231	473.8665		LCS			5559.0122	100.5%

ID:TRITIUM 13 FEB 2010 05:27
USER: 4 COMMENT:SILVER
PRESET TIME : 95.00
DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD
COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT
TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF
SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0
LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	34-1	95.00	125.6	5.76	9.21	45.35	3.08	2.08	97.95
2	34-2	95.00	125.3	6.99	8.19	46.34	3.04	1.79	196.52
3	34-3	95.00	125.8	136.28	1.76	182.23	1.52	0.45	294.97
~~4~~	~~34-4~~	~~9.42~~	~~125.2~~	~~29.84~~	~~12.12~~	~~69.13~~	~~7.89~~	~~1.54~~	~~305.64~~ JP 2/17/10
~~5~~	~~34-5~~	~~SAMPLE TERMINATED:~~							
6	34-6	SAMPLE TERMINATED:							
7	34-7	SAMPLE TERMINATED:							
8	34-8	SAMPLE TERMINATED:							
9	34-9	SAMPLE TERMINATED:							
10	34-10	SAMPLE TERMINATED:							
11	34-11	SAMPLE TERMINATED:							
~~12~~	~~34-12~~	~~SAMPLE TERMINATED:~~ JP 2/17/10							

QP

INSTRUMENT CALIBRATION: Maxi 13 FEB 2010 10:36
Calibration successful

QP
Calibrating Auto DPM
Counting Standard for 14C
Calibration Complete: 14C
Counting Standard for 3H
Calibration Complete: 3H
Calibration Successful
QPQP

Sample Count Start Time:	13 Feb 2010 05:34:56		
Data Capture Date	13 Feb 2010 07:10:17		
User Filename	S04021334-1A.XLS		
	U04021334-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	34-1	95.00
H#, Total Counts:	125.6	4308	
Win1: Tritium - Start, End, Counts:	20	280	547
Win2: - Start, End, Counts:	0	990	3938

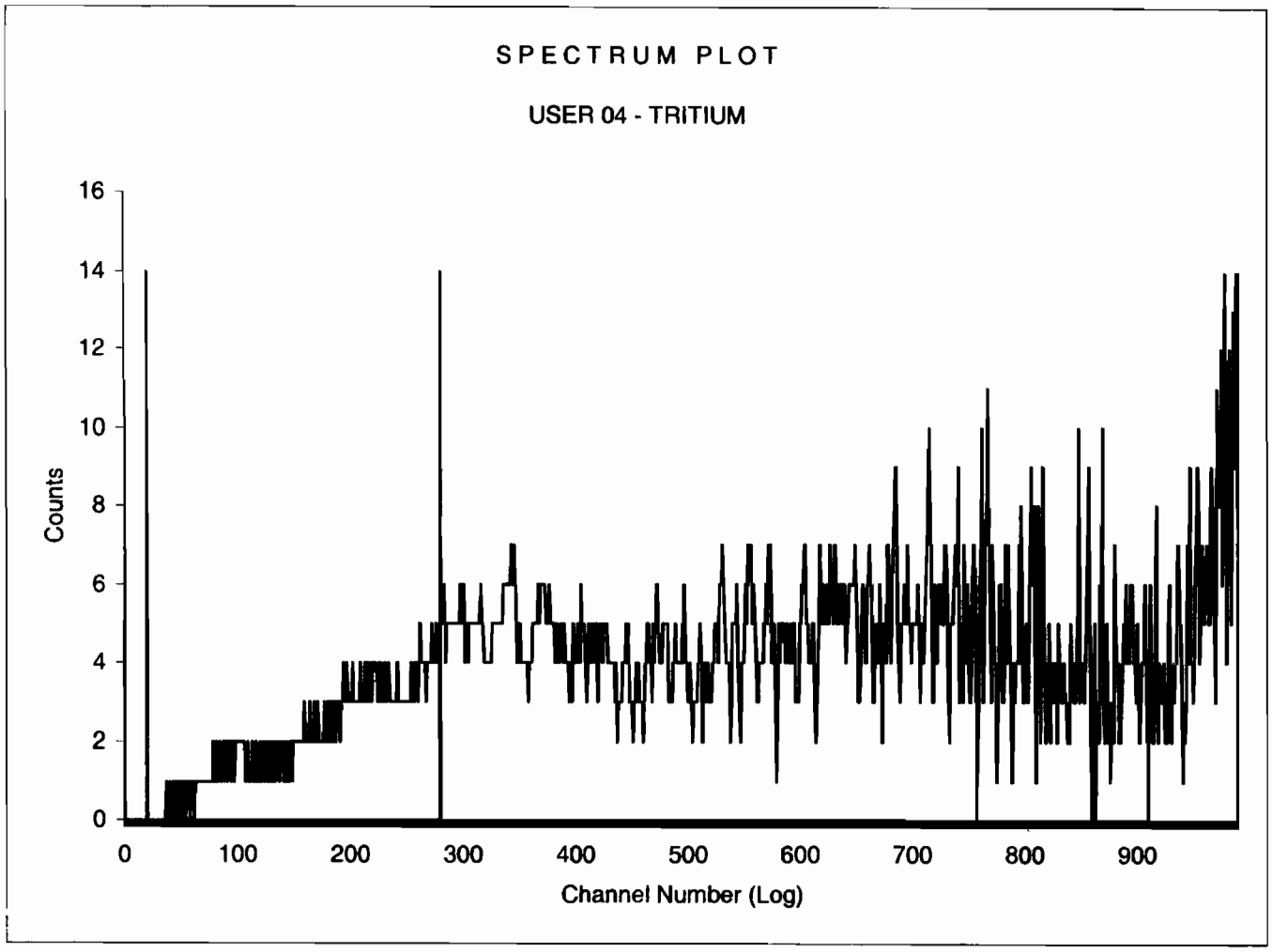

Sample Count Start Time:	13 Feb 2010 07:13:30		
Data Capture Date	13 Feb 2010 08:48:43		
User Filename	S04021334-2A.XLS		
	U04021334-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	34-2	95.00
H#, Total Counts:	125.3	4402	
Win1: Tritium - Start, End, Counts:	20	280	664
Win2: - Start, End, Counts:	0	990	4023

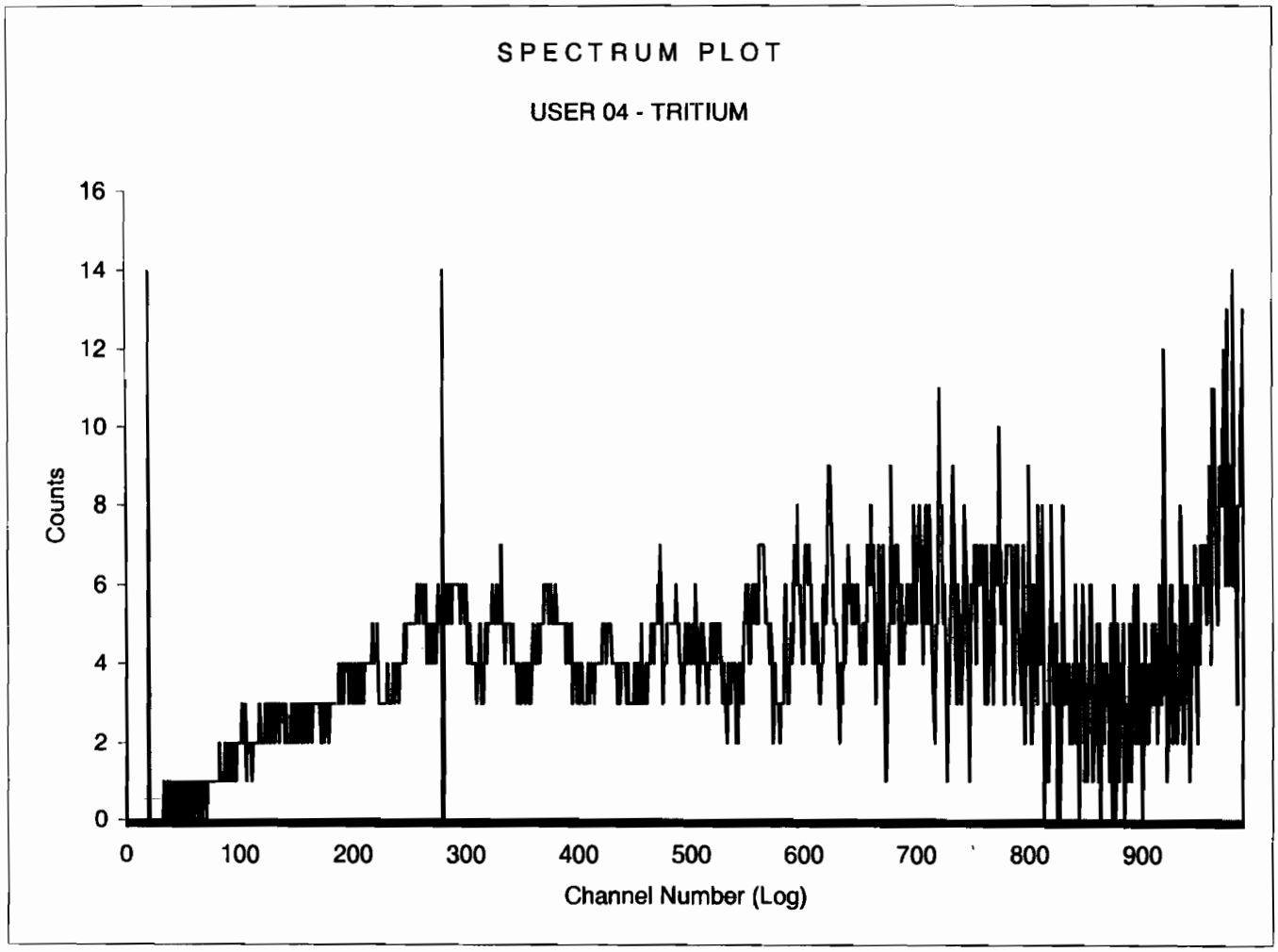

Sample Count Start Time:	13 Feb 2010 08:51:57		
Data Capture Date	13 Feb 2010 10:27:10		
User Filename	S04021334-3A.XLS		
	U04021334-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	34-3	95.00
H#, Total Counts:	125.8	17312	
Win1: Tritium - Start, End, Counts:	20	280	12947
Win2: - Start, End, Counts:	0	990	16954

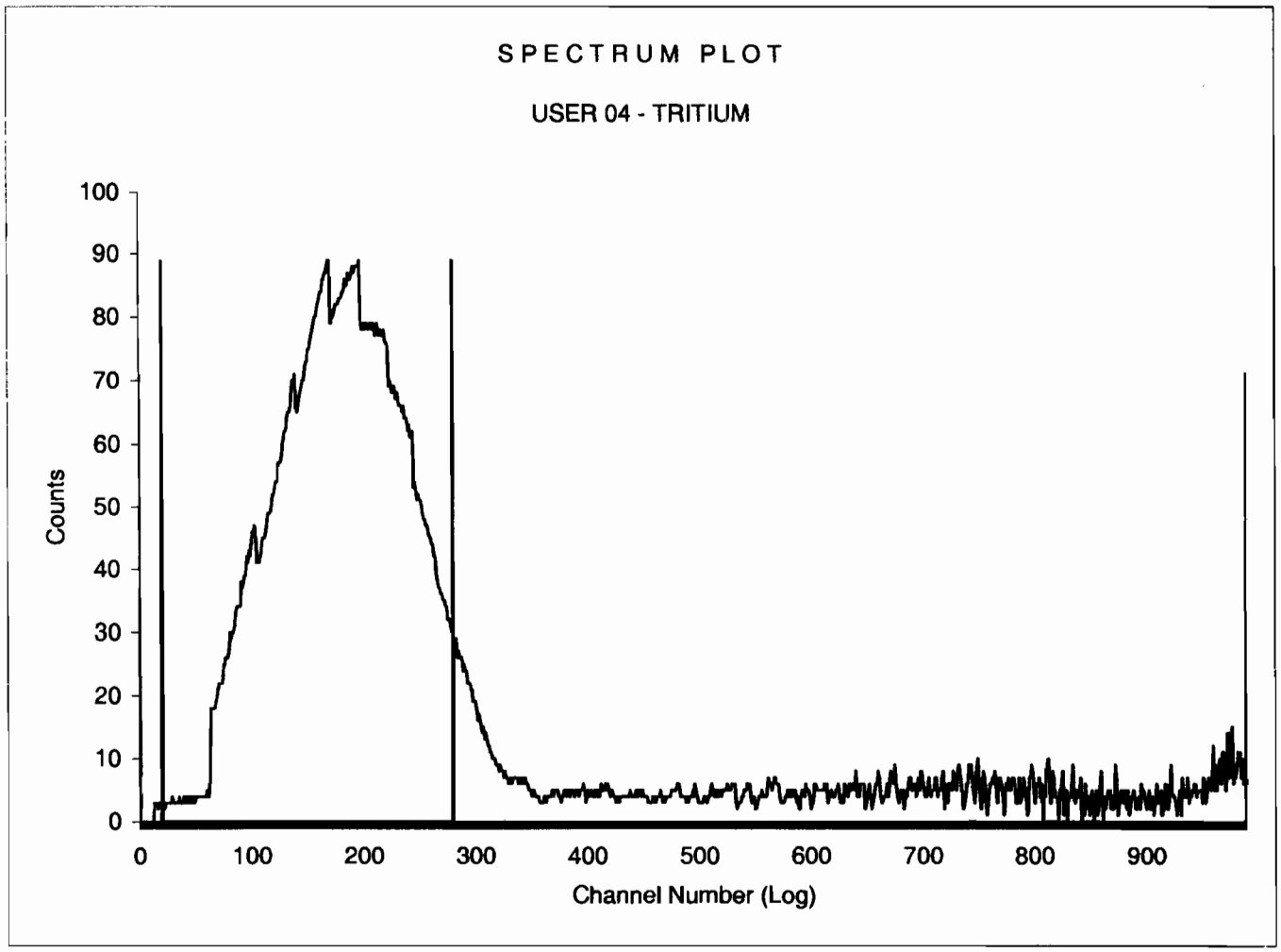

ID:TRITIUM 13 FEB 2010 11:48

USER: 4 COMMENT:SILVER

PRESET TIME : 95.00

DATA CALC : CPM H# :YES SAMPLE REPEATS: 1 PRINTER : STD

COUNT BLANK : NO IC# : NO REPLICATES : 1 RS232 :EDIT

TWO PHASE : NO AQC : NO CYCLE REPEATS : 1 DISK : OFF

SCINTILLATOR: LIQUID LUMEX:YES LOW SAMPLE REJ: 0

LOW LEVEL : NO HALF LIFE CORRECTION DATE: none

CHAN: 20.0 - 280.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 1000.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
MISSING SAMPLE									
4	34-4	95.00	126.0	28.16	3.92	68.35	2.50	1.26	97.96
5	34-5	95.00	125.0	470.27	0.95	530.00	0.89	0.14	196.37
6	34-6	95.00	126.3	53.72	2.82	95.65	2.11	0.77	294.82
7	34-7	95.00	125.5	434.96	0.98	494.63	0.92	0.14	393.20
8	34-8	95.00	124.7	44.14	3.12	85.91	2.23	1.13	491.70
9	34-9	95.00	125.8	12.21	6.14	52.49	2.86	2.21	590.26
10	34-10	95.00	126.3	6.69	8.25	45.66	3.06	1.29	688.58
11	34-11	95.00	125.9	37.97	3.35	78.22	2.33	0.72	786.91
12	34-12	95.00	127.0	9.35	6.88	48.28	2.97	1.07	885.22
13	20-1	95.00	125.1	12.33	5.93	51.44	2.87	0.77	983.53
14	20-2	95.00	126.2	68.75	2.48	110.01	1.96	0.37	1081.78
15	20-3	95.00	126.0	14.09	5.53	53.78	2.81	0.69	1179.98
16	20-4	95.00	126.4	7.56	7.62	46.19	3.03	0.74	1278.17
17	20-5	95.00	126.4	54.00	2.80	95.98	2.10	0.38	1376.39
18	20-6	95.00	125.1	5.59	8.90	44.72	3.08	0.70	1474.57
19	20-7	95.00	127.4	6.89	8.02	46.04	3.04	0.87	1572.79

QPQP

Sample Count Start Time:	13 Feb 2010 11:55:16		
Data Capture Date	13 Feb 2010 13:30:42		
User Filename	S04021334-4B.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	34-4	95.00
H#, Total Counts:	126.0	6493	
Win1: Tritium - Start, End, Counts:	20	280	2675
Win2: - Start, End, Counts:	0	990	6133

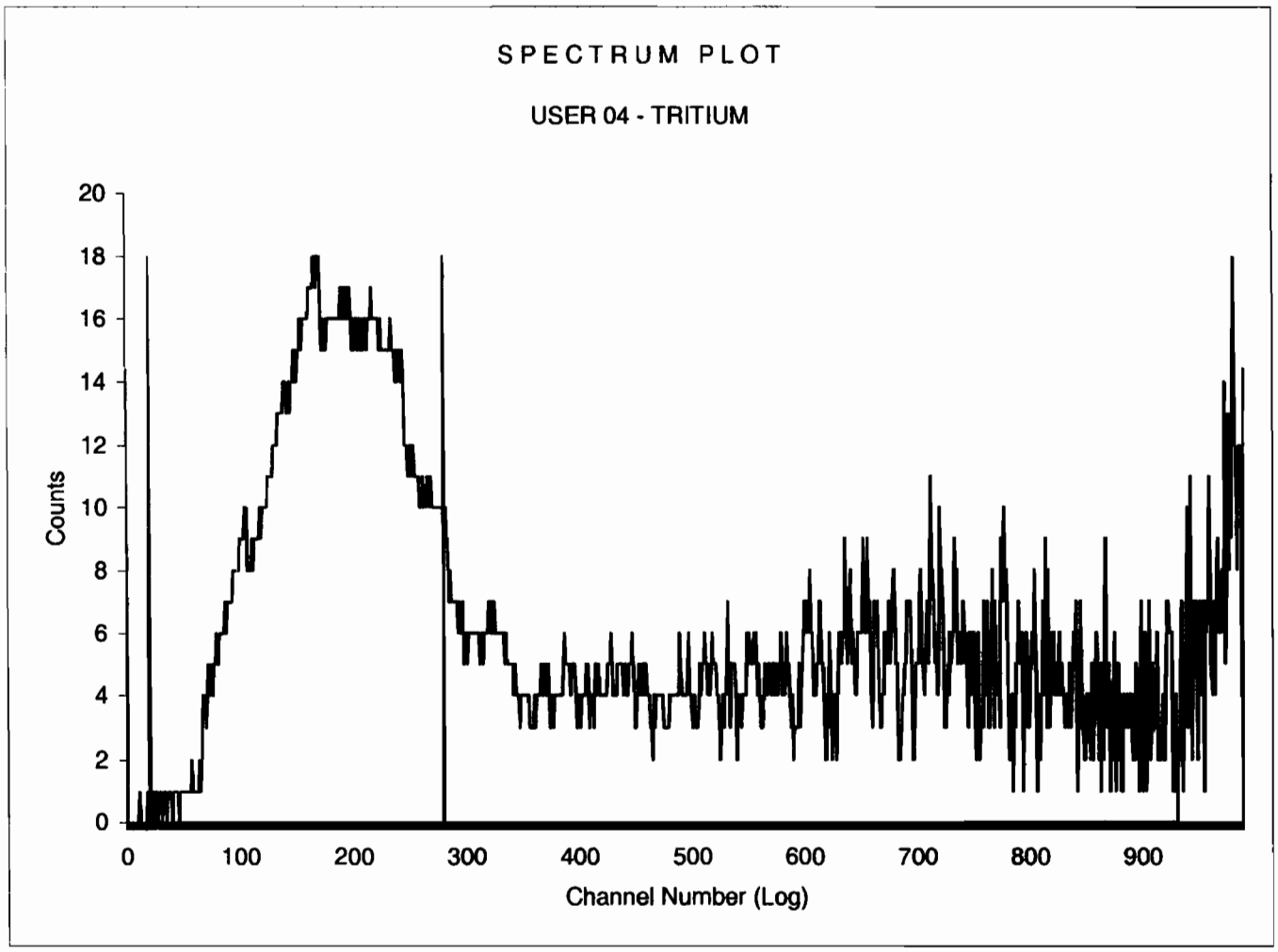

Sample Count Start Time:	13 Feb 2010 13:33:40		
Data Capture Date	13 Feb 2010 15:09:07		
User Filename	S04021334-5A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	34-5	95.00
H#, Total Counts:	125.0	50350	
Win1: Tritium - Start, End, Counts:	20	280	44676
Win2: - Start, End, Counts:	0	990	50004

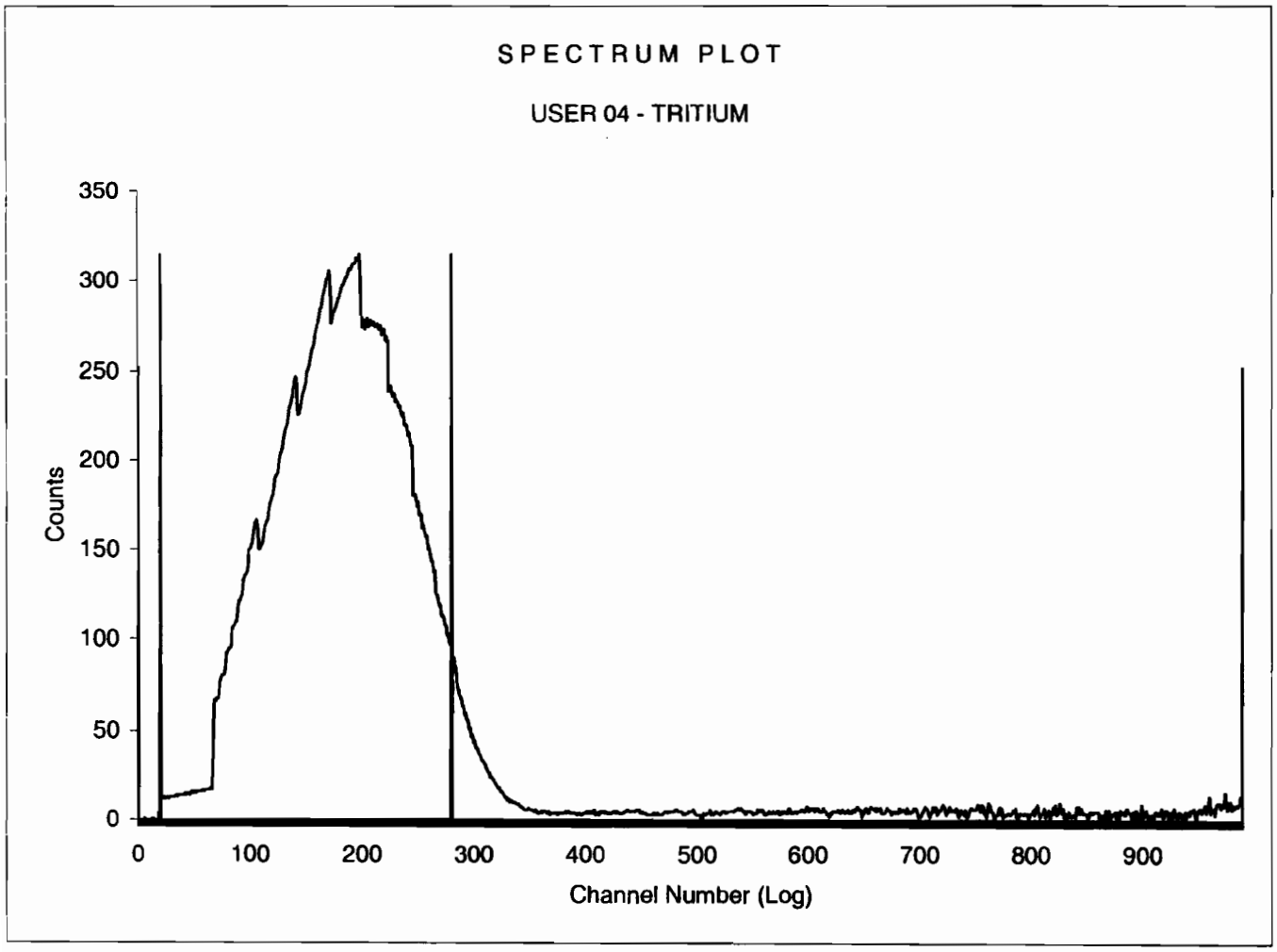

Sample Count Start Time:	13 Feb 2010 15:12:07		
Data Capture Date	13 Feb 2010 16:47:33		
User Filename	S04021334-6A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	34-6	95.00
H#, Total Counts:	126.3	9087	
Win1: Tritium - Start, End, Counts:	20	280	5103
Win2: - Start, End, Counts:	0	990	8756

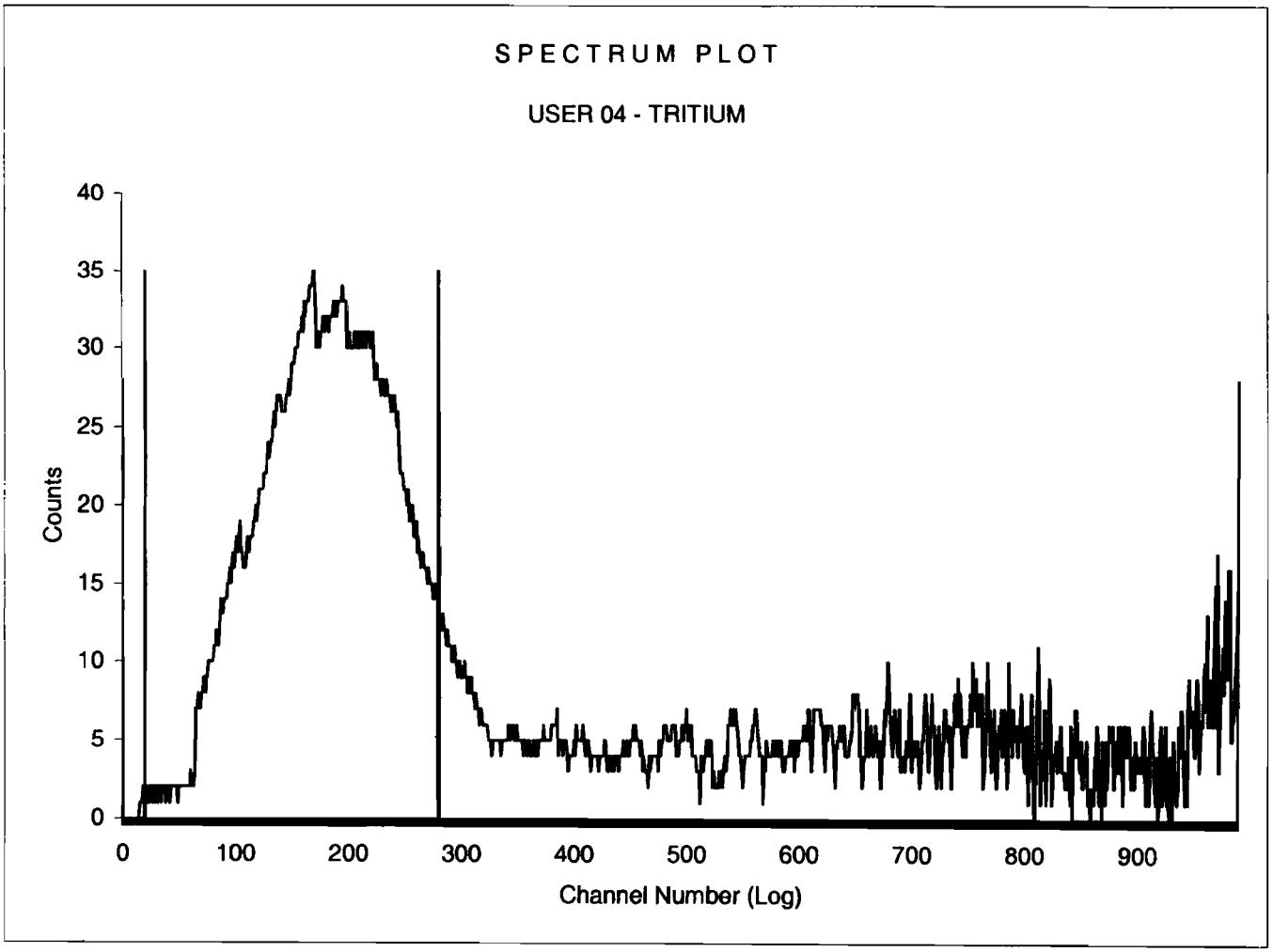

Sample Count Start Time:	13 Feb 2010 16:50:30		
Data Capture Date	13 Feb 2010 18:25:57		
User Filename	S04021334-7A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	34-7	95.00
H#, Total Counts:	125.5	46990	
Win1: Tritium - Start, End, Counts:	20	280	41321
Win2: - Start, End, Counts:	0	990	46605

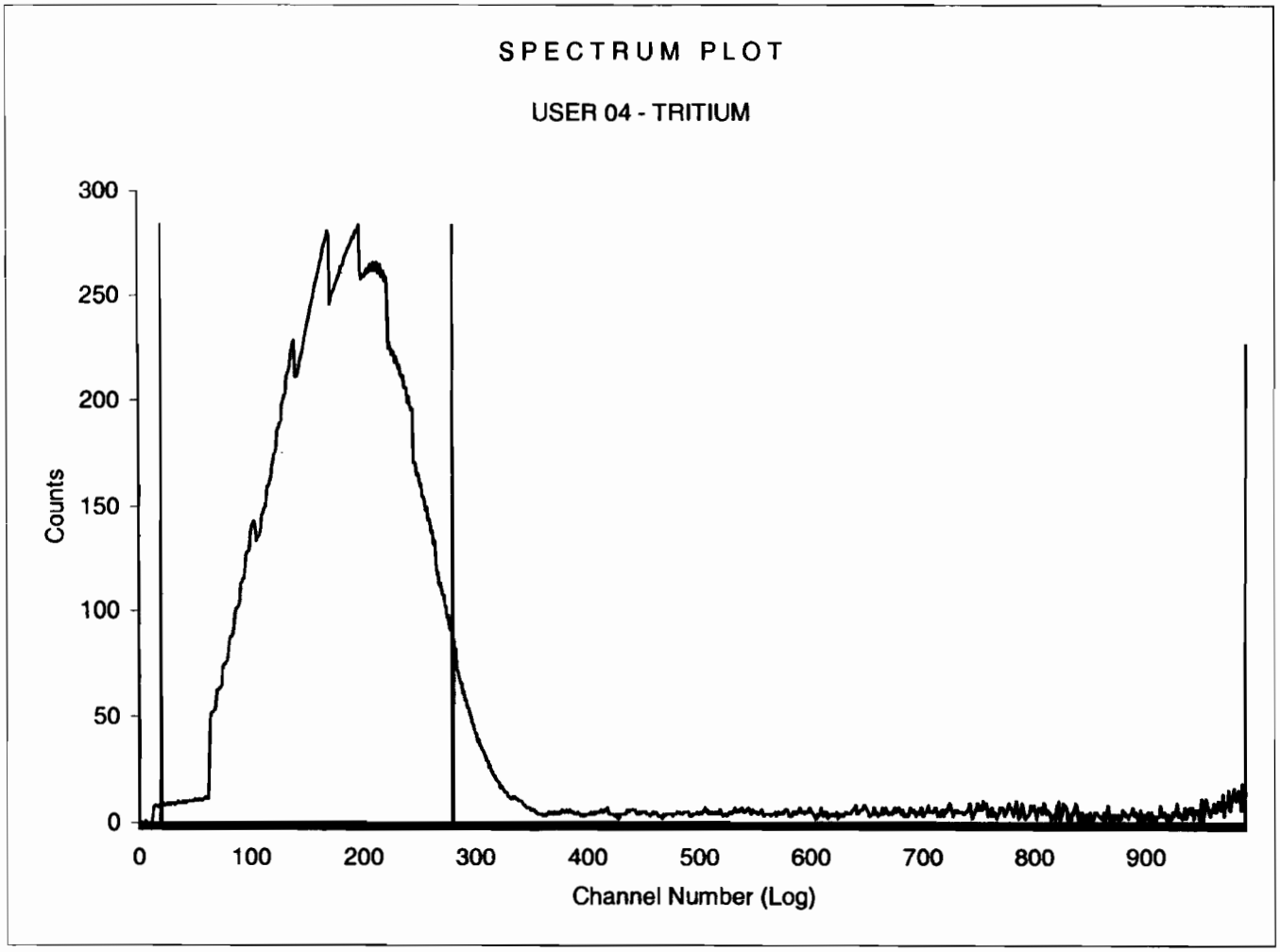

Sample Count Start Time:	13 Feb 2010 18:29:00		
Data Capture Date	13 Feb 2010 20:04:27		
User Filename	S04021334-8A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	34-8	95.00
H#, Total Counts:	124.7	8161	
Win1: Tritium - Start, End, Counts:	20	280	4193
Win2: - Start, End, Counts:	0	990	7785

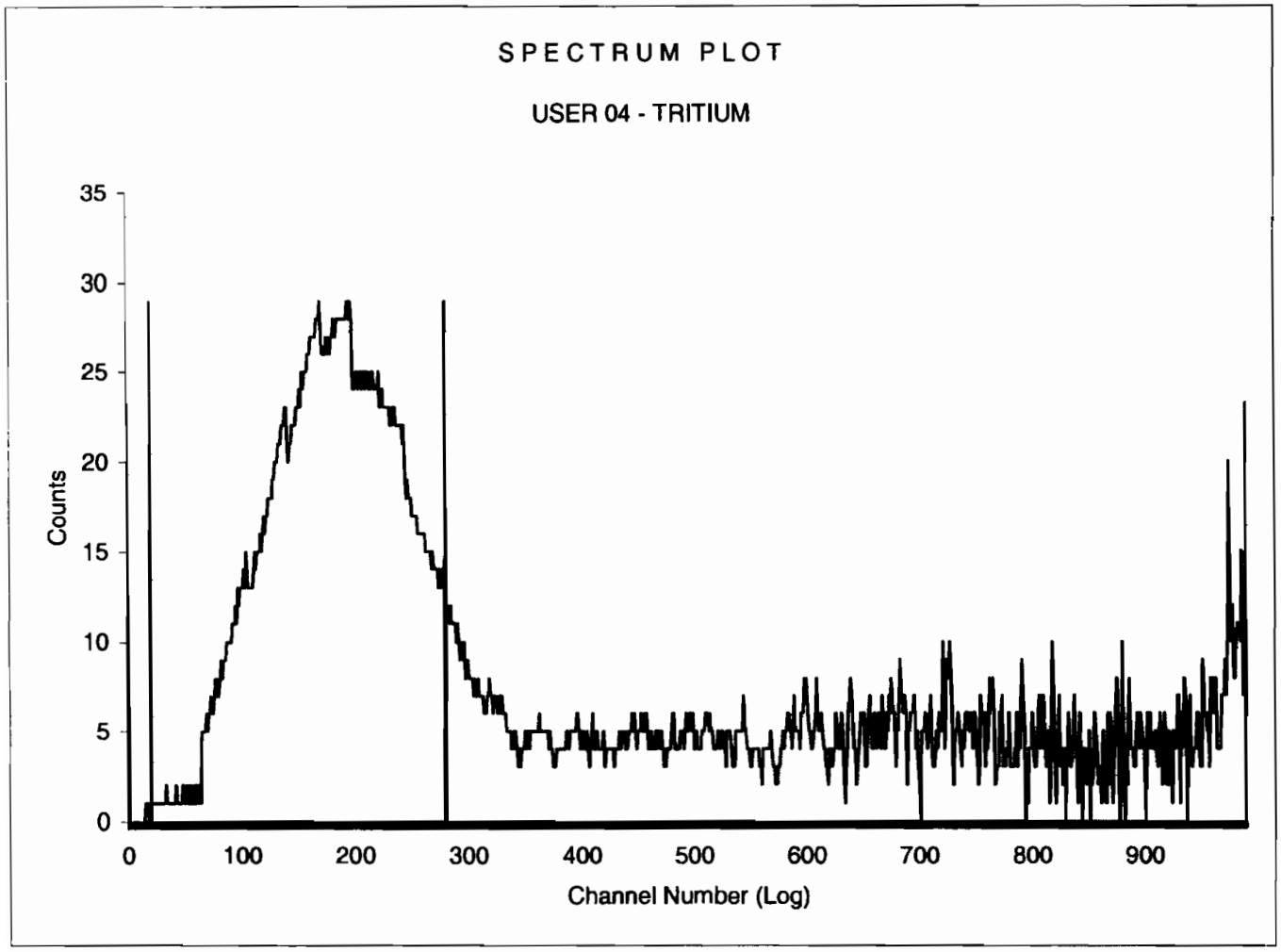

Sample Count Start Time:	13 Feb 2010 20:07:34		
Data Capture Date	13 Feb 2010 21:43:00		
User Filename	S04021334-9A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	34-9	95.00
H#, Total Counts:	125.8	4987	
Win1: Tritium - Start, End, Counts:	20	280	1160
Win2: - Start, End, Counts:	0	990	4635

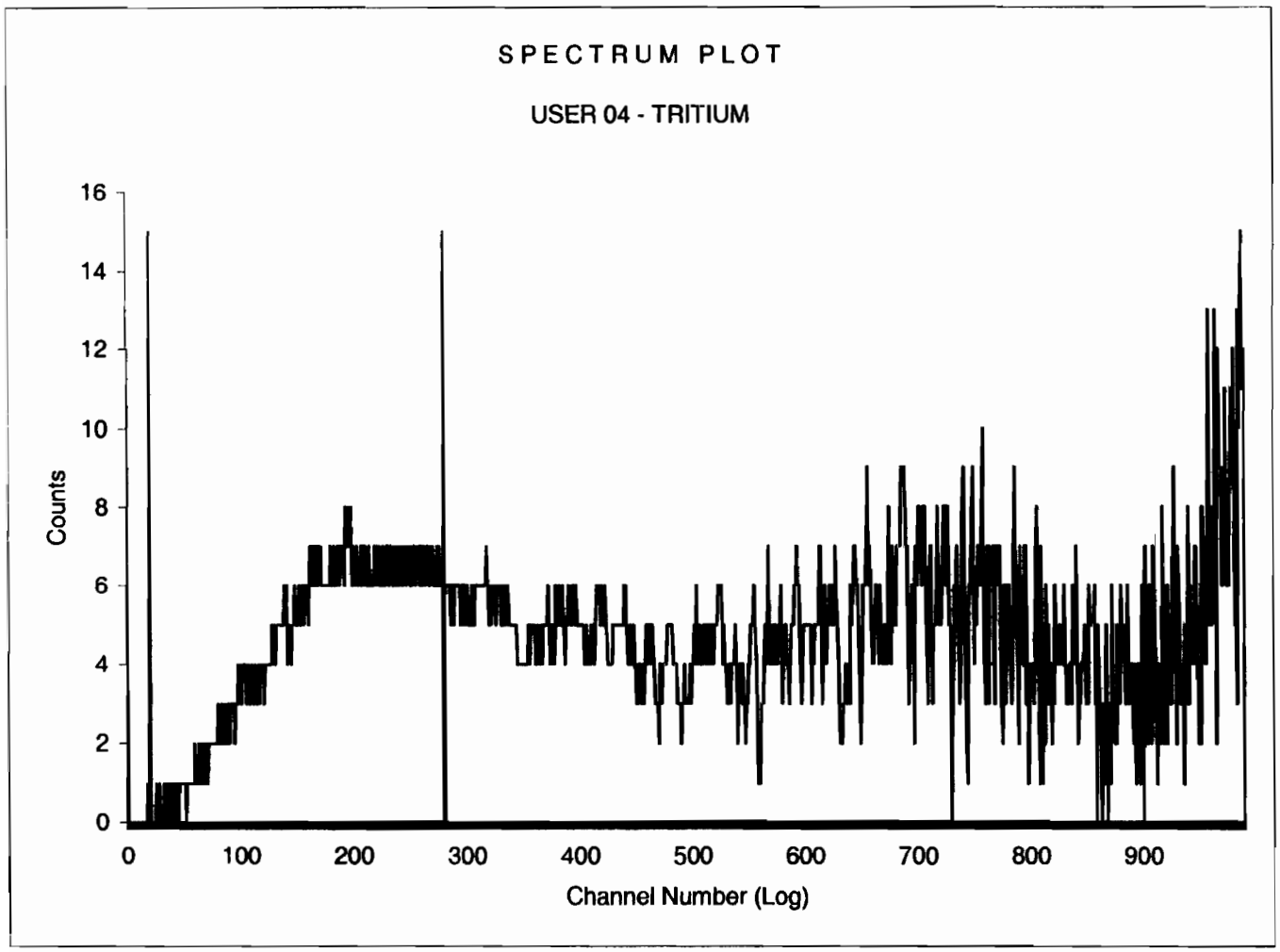

Sample Count Start Time:	13 Feb 2010 21:45:53		
Data Capture Date	13 Feb 2010 23:21:20		
User Filename	S04021334-10A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	34-10	95.00
H#, Total Counts:	126.3	4338	
Win1: Tritium - Start, End, Counts:	20	280	636
Win2: - Start, End, Counts:	0	990	3984

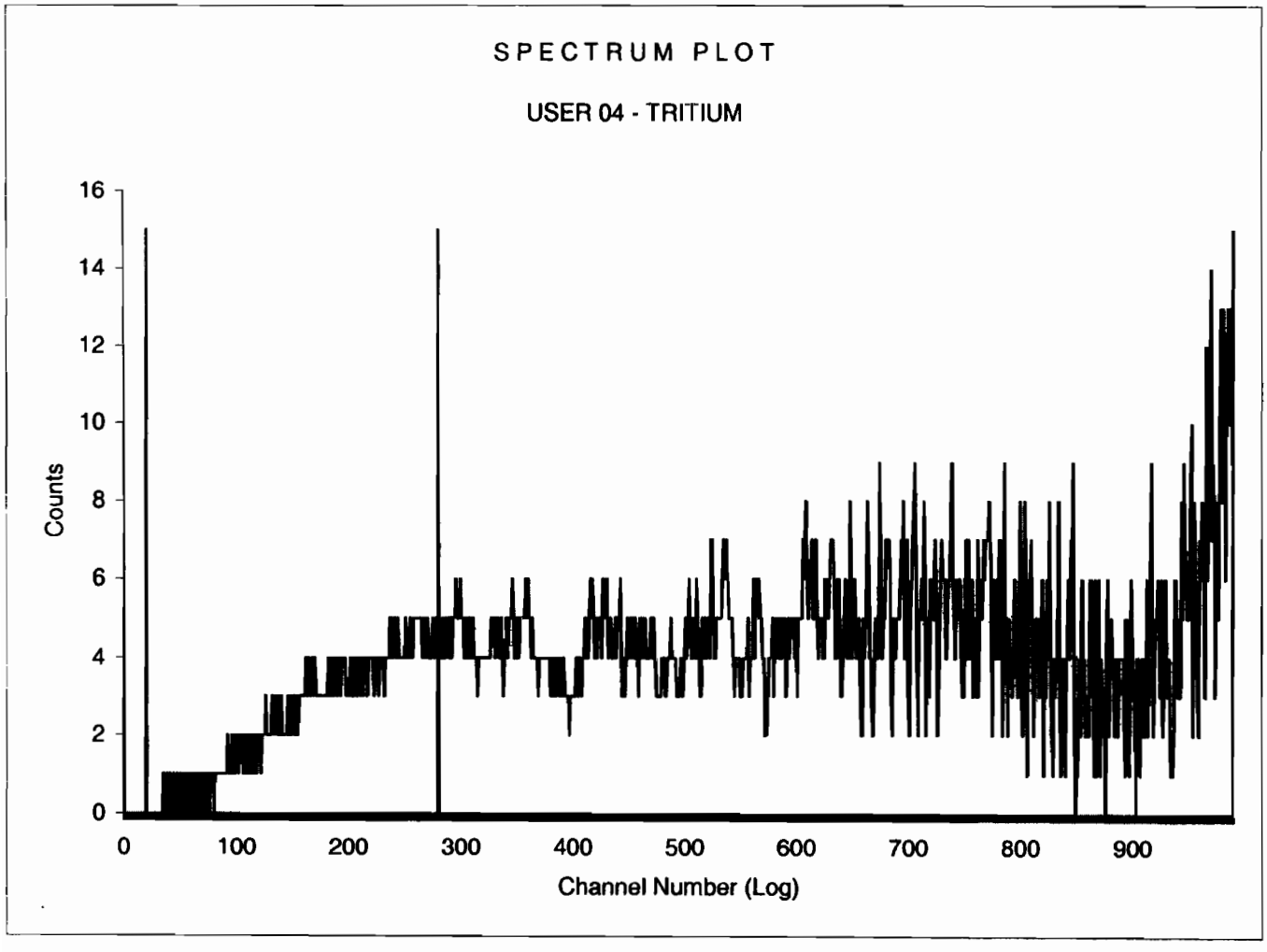

Sample Count Start Time:	13 Feb 2010 23:24:13		
Data Capture Date	14 Feb 2010 00:59:39		
User Filename	S04021434-11A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	34-11	95.00
H#, Total Counts:	125.9	7431	
Win1: Tritium - Start, End, Counts:	20	280	3607
Win2: - Start, End, Counts:	0	990	7066

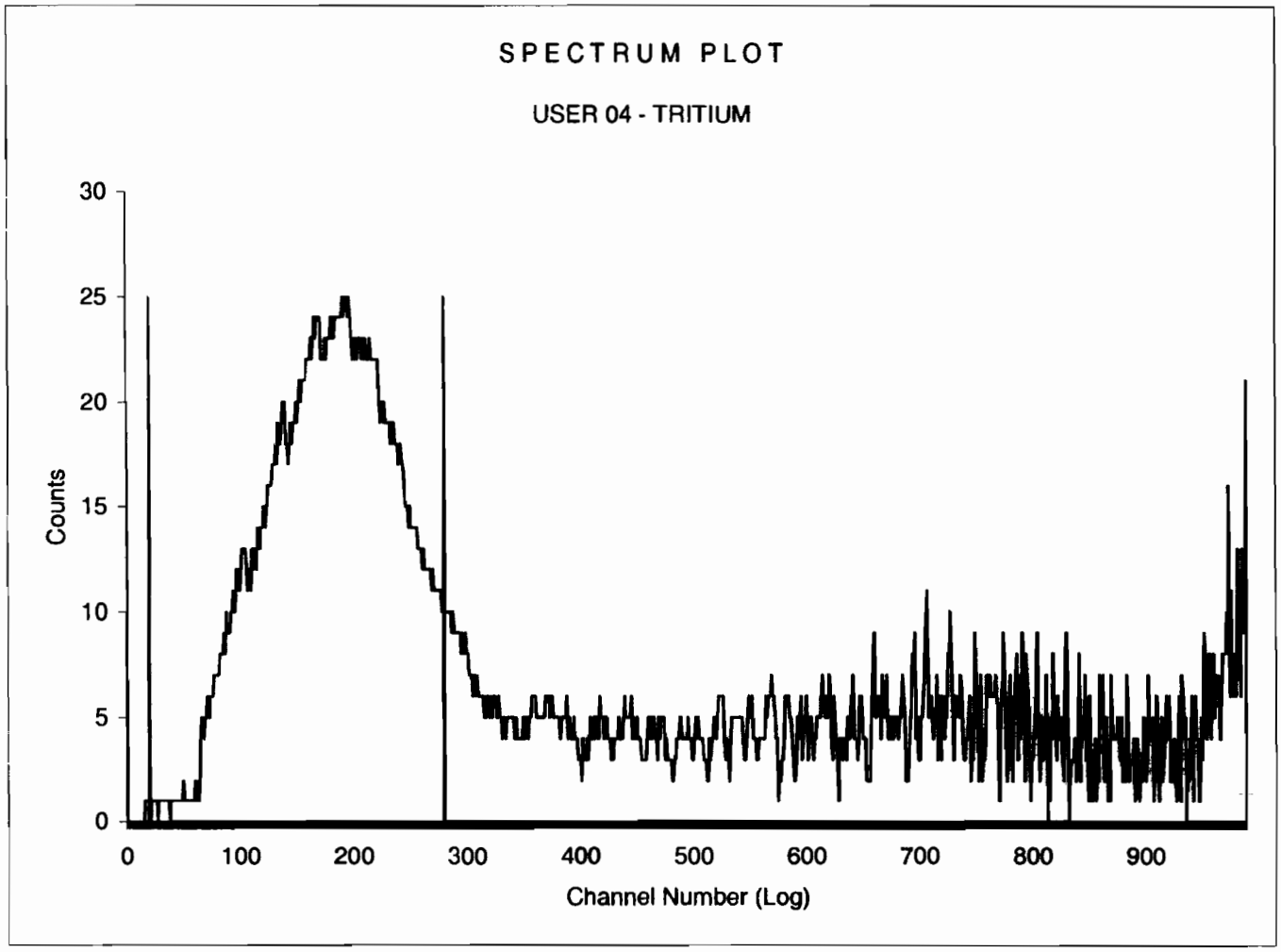

Sample Count Start Time:	14 Feb 2010 01:02:31		
Data Capture Date	14 Feb 2010 02:37:58		
User Filename	S04021434-12A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	34-12	95.00
H#, Total Counts:	127.0	4587	
Win1: Tritium - Start, End, Counts:	20	280	888
Win2: - Start, End, Counts:	0	990	4250

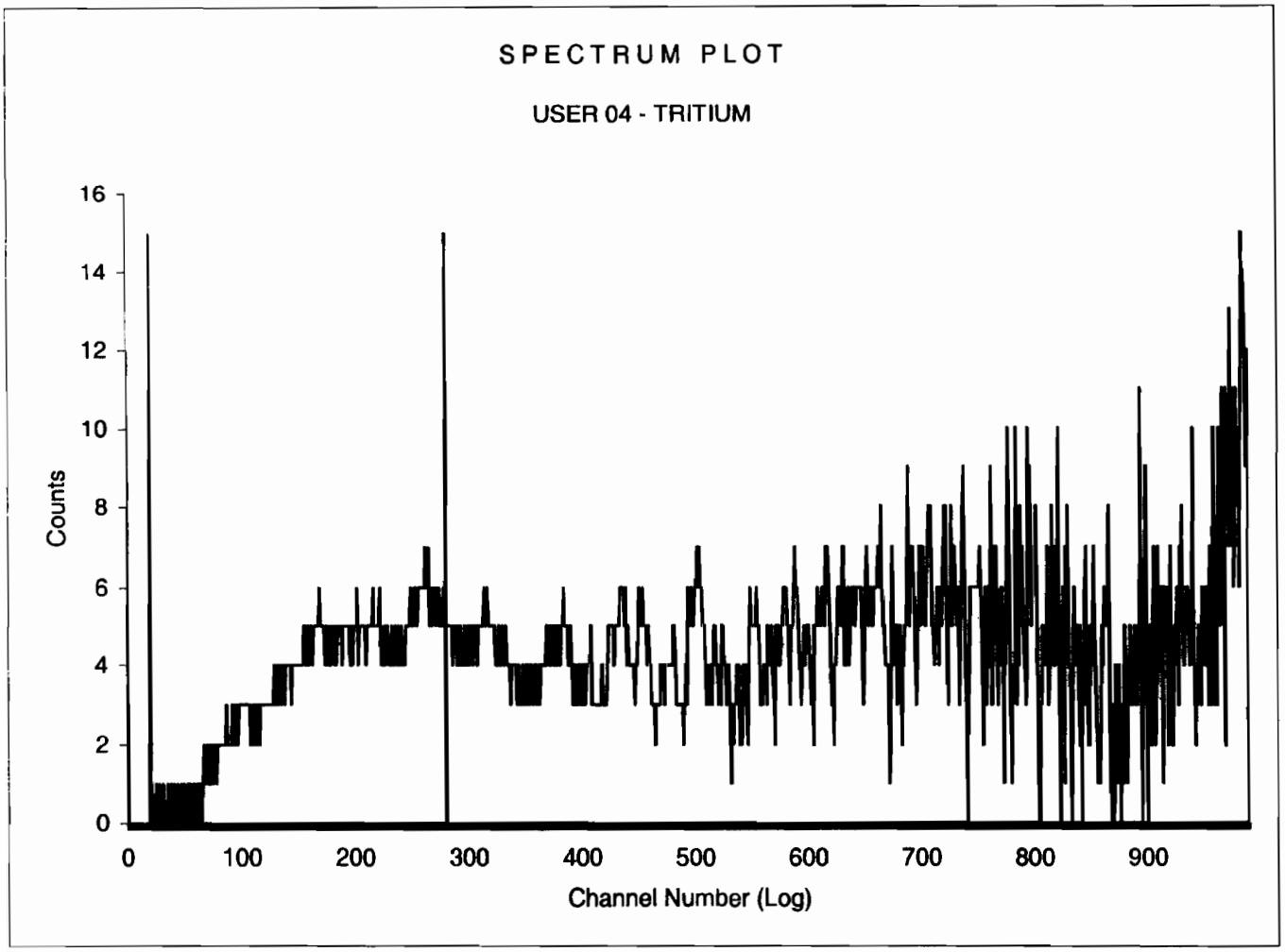

Sample Count Start Time:	14 Feb 2010 02:40:50		
Data Capture Date	14 Feb 2010 04:16:17		
User Filename	S04021420-1A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	13	20-1	95.00
H#, Total Counts:	125.1	4887	
Win1: Tritium - Start, End, Counts:	20	280	1171
Win2: - Start, End, Counts:	0	990	4500

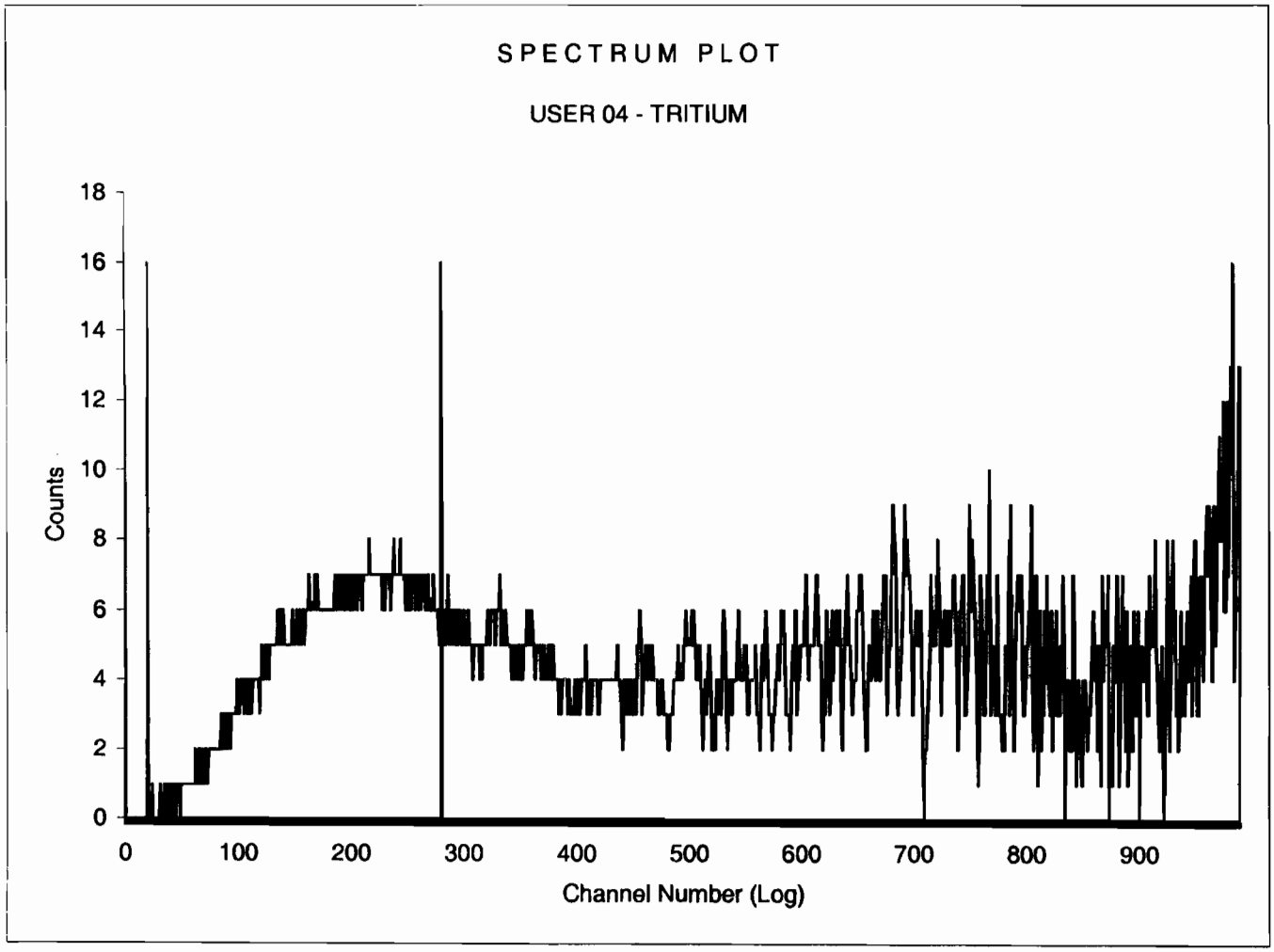

Sample Count Start Time:	14 Feb 2010 04:19:05		
Data Capture Date	14 Feb 2010 05:54:32		
User Filename	S04021420-2A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	14	20-2	95.00
H#, Total Counts:	126.2	10451	
Win1: Tritium - Start, End, Counts:	20	280	6531
Win2: - Start, End, Counts:	0	990	10052

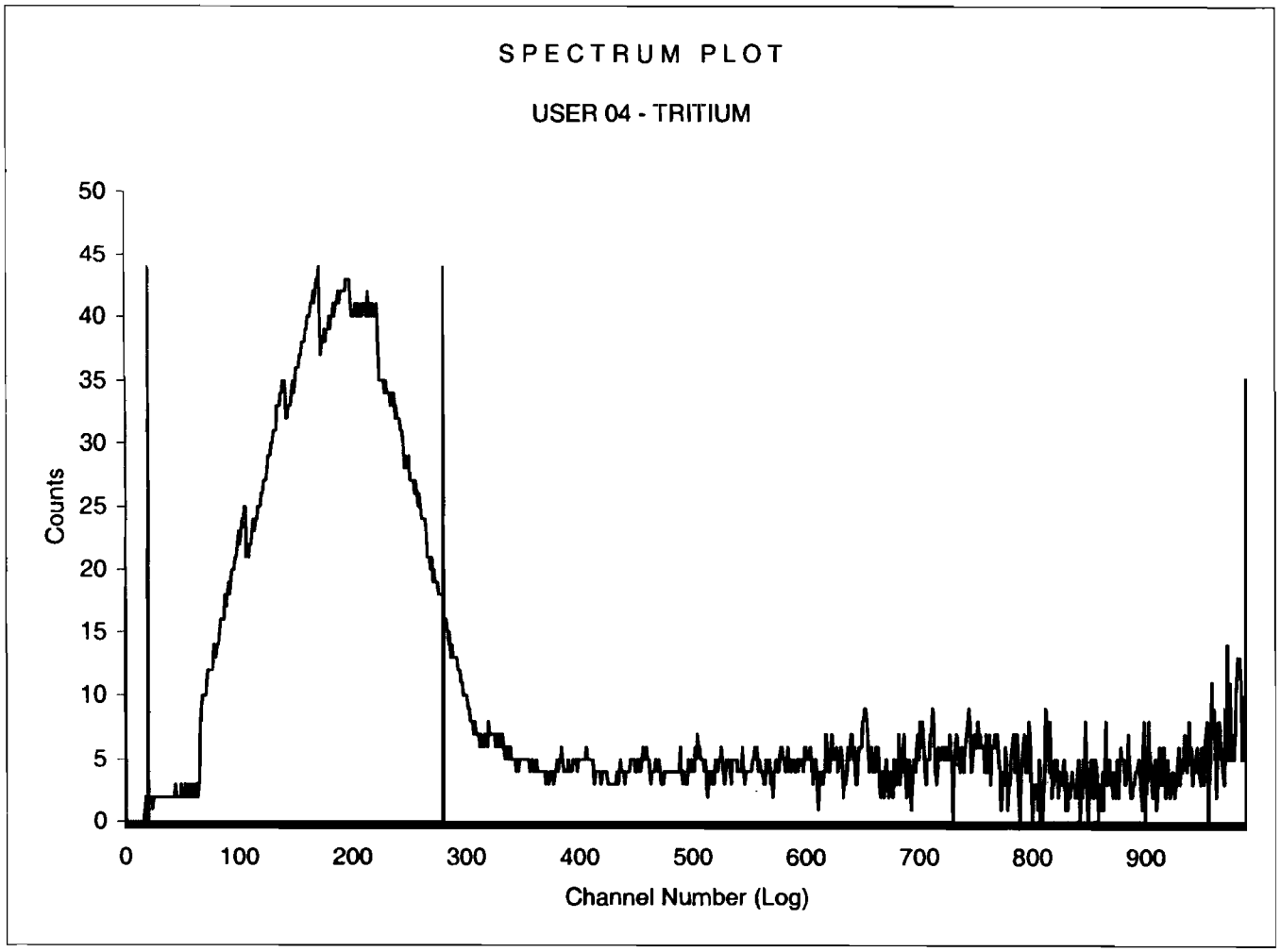

Sample Count Start Time:	14 Feb 2010 05:57:17		
Data Capture Date	14 Feb 2010 07:32:44		
User Filename	S04021420-3A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	15	20-3	95.00
H#, Total Counts:	126.0	5109	
Win1: Tritium - Start, End, Counts:	20	280	1339
Win2: - Start, End, Counts:	0	990	4721

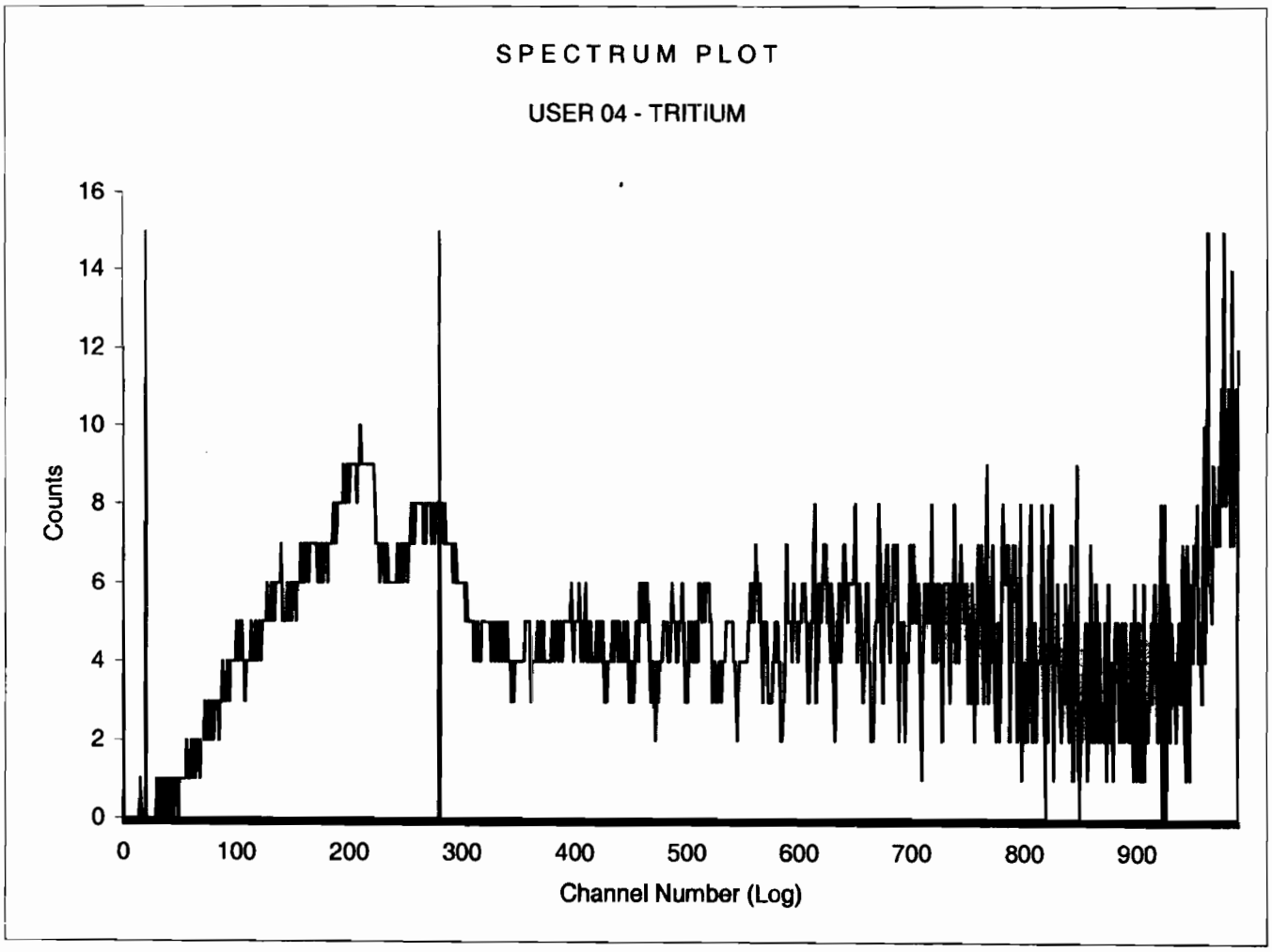

Sample Count Start Time:	14 Feb 2010 07:35:28		
Data Capture Date	14 Feb 2010 09:10:55		
User Filename	S04021420-4A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	16	20-4	95.00
H#, Total Counts:	126.4	4388	
Win1: Tritium - Start, End, Counts:	20	280	718
Win2: - Start, End, Counts:	0	990	3997

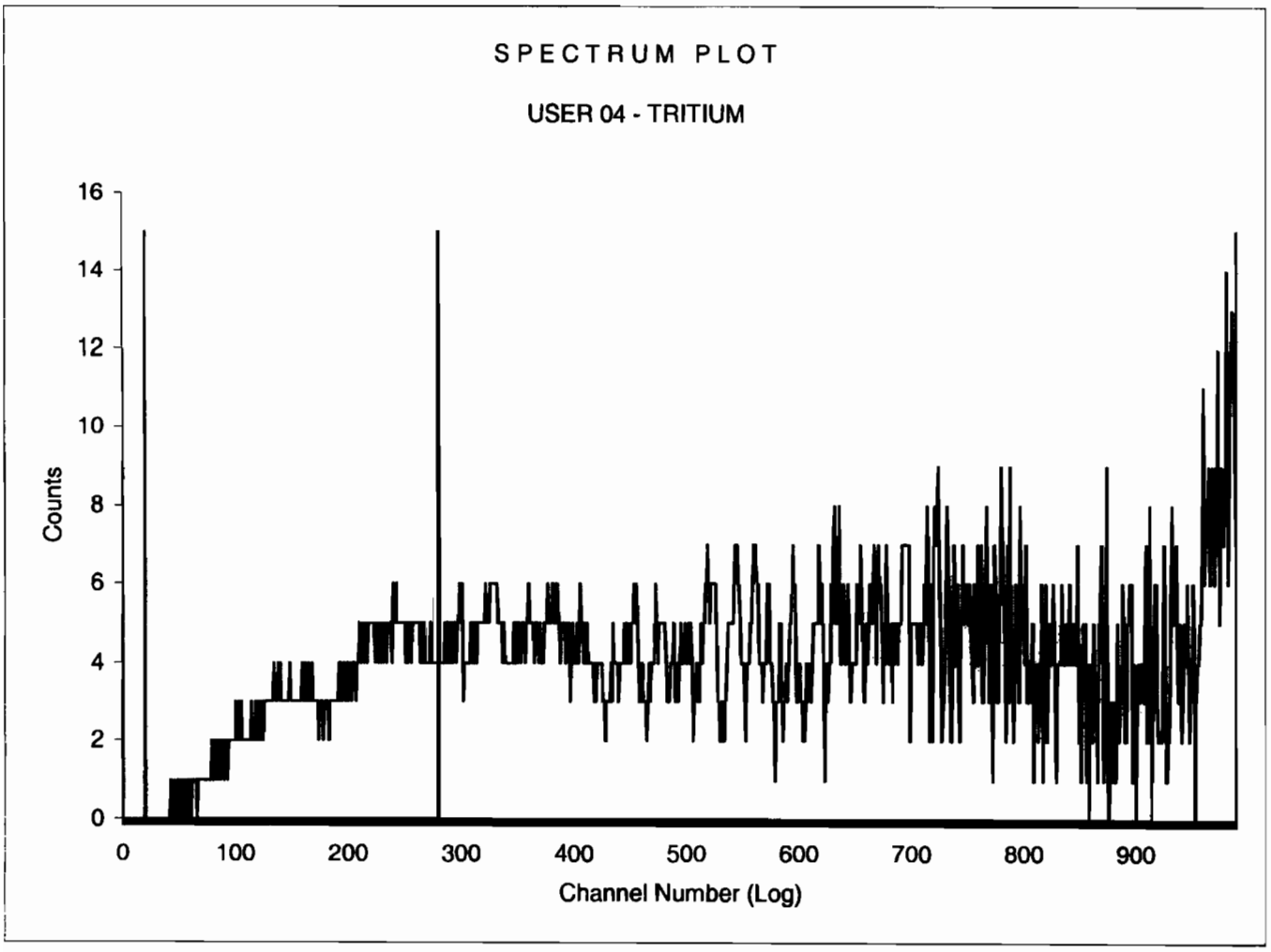

Sample Count Start Time:	14 Feb 2010 09:13:41		
Data Capture Date	14 Feb 2010 10:49:08		
User Filename	S04021420-5A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	17	20-5	95.00
H#, Total Counts:	126.4	9118	
Win1: Tritium - Start, End, Counts:	20	280	5130
Win2: - Start, End, Counts:	0	990	8720

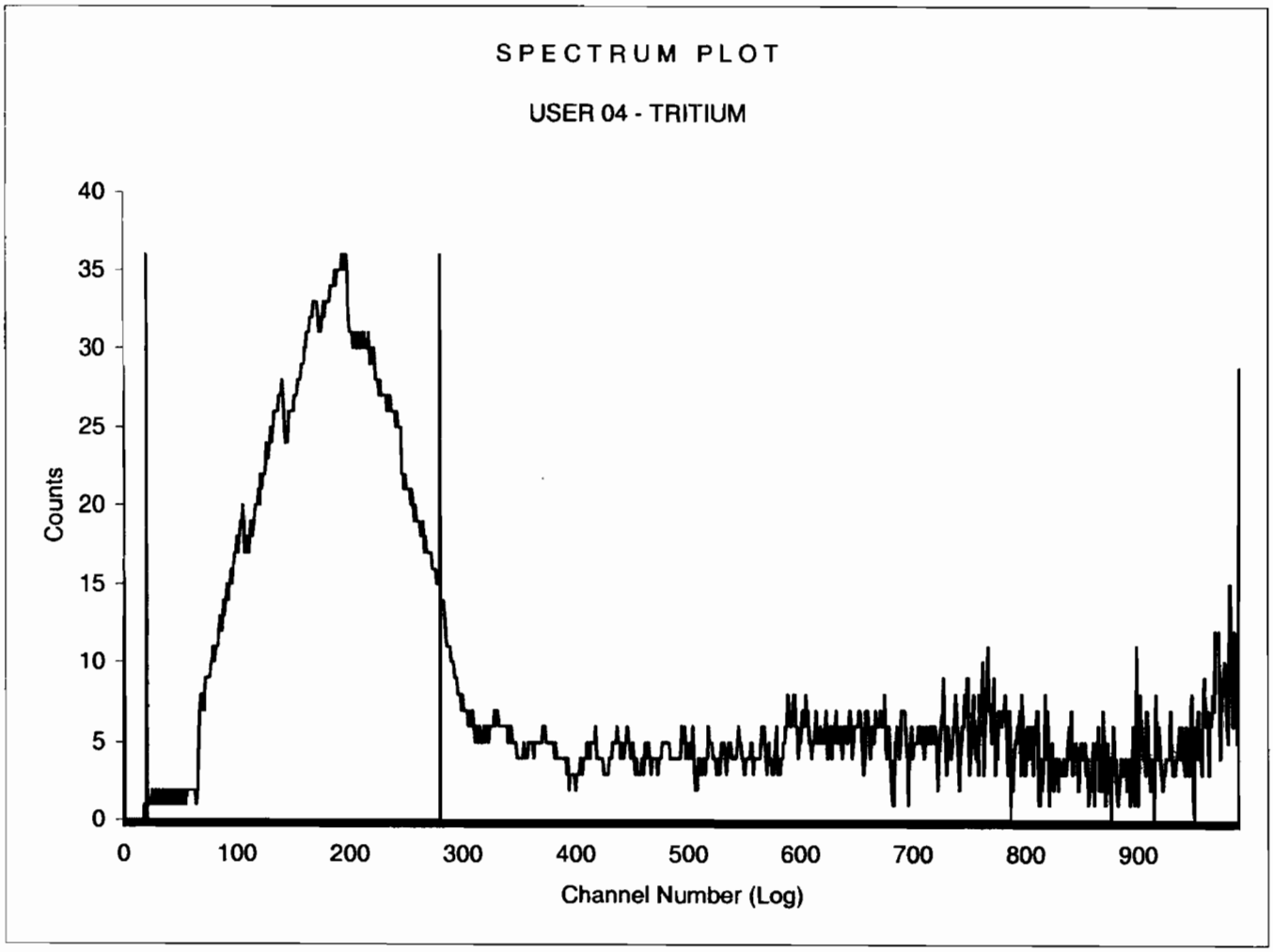

Sample Count Start Time:	14 Feb 2010 10:51:55		
Data Capture Date	14 Feb 2010 12:27:19		
User Filename	S04021420-6A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	18	20-6	95.00
H#, Total Counts:	125.1	4248	
Win1: Tritium - Start, End, Counts:	20	280	531
Win2: - Start, End, Counts:	0	990	3855

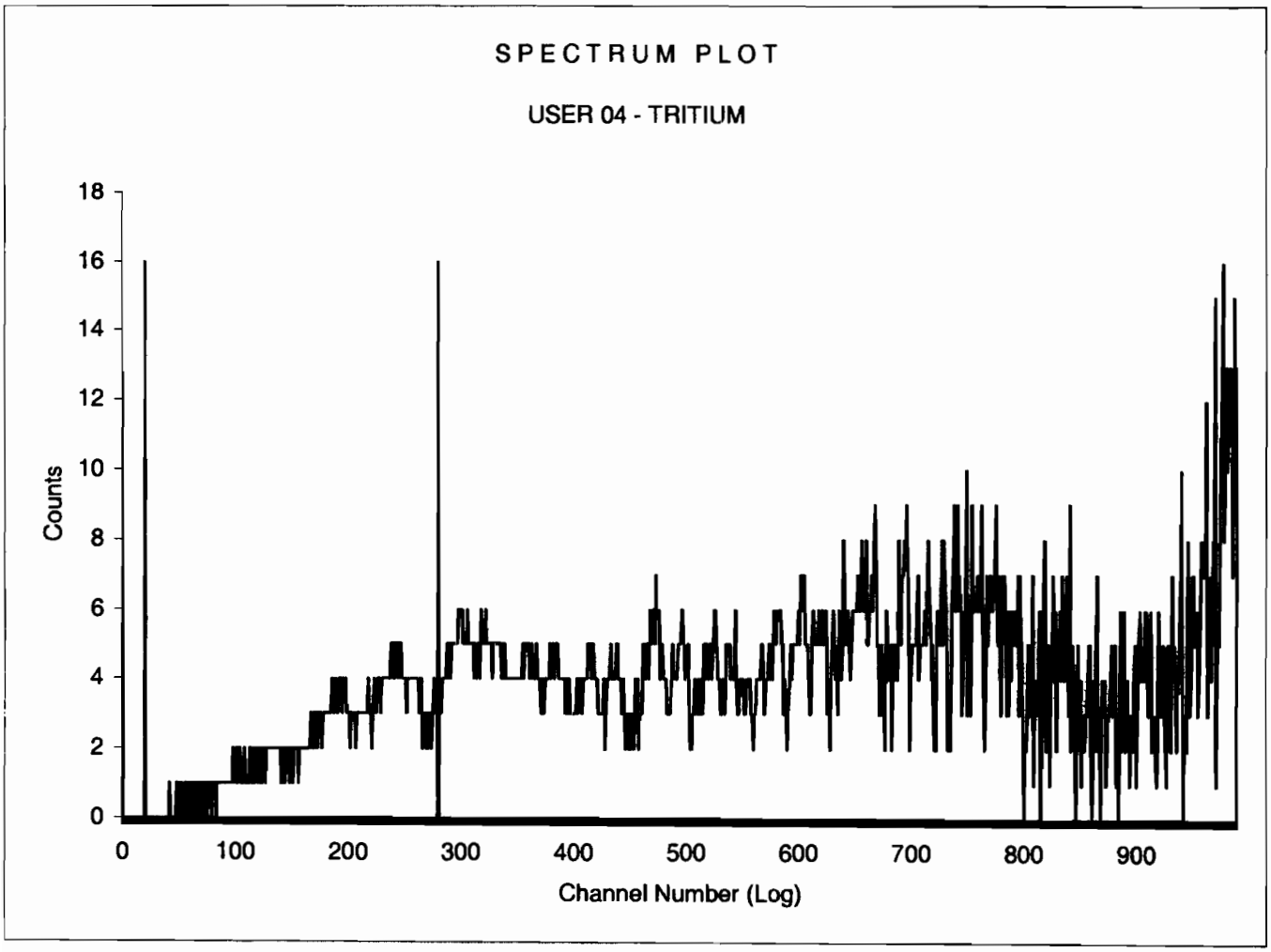

Sample Count Start Time:	14 Feb 2010 12:30:05		
Data Capture Date	14 Feb 2010 14:05:33		
User Filename	S04021420-7A.XLS		
	U04021334-4A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	19	20-7	95.00
H#, Total Counts:	127.4	4374	
Win1: Tritium - Start, End, Counts:	20	280	655
Win2: - Start, End, Counts:	0	990	4016

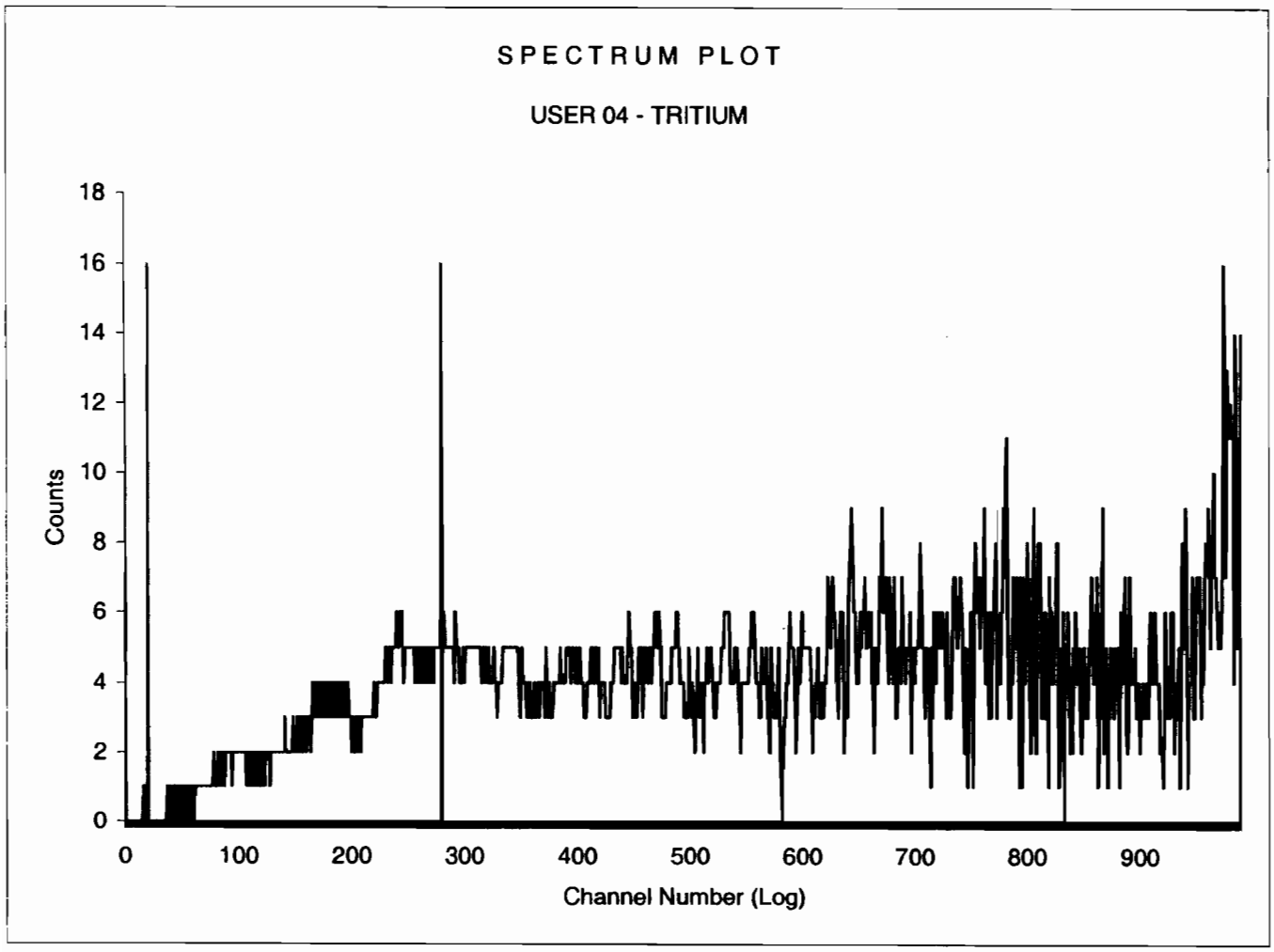

```
ID:H-3                                                          14 FEB 2010 14:01
USER: 3                        COMMENT:SILVER
PRESET TIME :        15.00
DATA CALC    :          CPM  H#    :YES  SAMPLE REPEATS:   1    PRINTER       : STD
COUNT BLANK :            NO  IC#   : NO  REPLICATES    :   1    RS232         :EDIT
TWO PHASE    :           NO  AQC   : NO  CYCLE REPEATS :   1    DISK          : OFF
SCINTILLATOR:      LIQUID  LUMEX:YES  LOW SAMPLE REJ:   0
LOW LEVEL    :           NO  HALF LIFE CORRECTION DATE:        none

CHAN:  20.0 -   280.0  %ERROR: 0.00  FACTOR:   1.000000  BKG. SUB:      0
CHAN:   0.0 - 1000.0  %ERROR: 0.00  FACTOR:   1.000000  BKG. SUB:      0

SAM  POS    TIME     H#     WIND1          WIND2          LUMEX  ELAPSED
 NO          MIN              CPM  %ERROR        CPM  %ERROR      %       TIME

   1 26-1   15.00 125.9      39.73    8.22      80.40    5.77    0.48     15.85
QP

     INSTRUMENT CALIBRATION:   Maxi  14 FEB 2010 16:15
     Calibration successful

QP
     Calibrating Auto DPM
     Counting Standard for   14C
     Calibration Complete:   14C
     Counting Standard for    3H
     Calibration Complete:    3H
     Calibration Successful
QPQP
```

Sample Count Start Time:	14 Feb 2010 14:07:28		
Data Capture Date	14 Feb 2010 14:22:07		
User Filename	S03021426-1A.XLS		
	U03021426-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	H-3		
User Comment	SILVER		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	26-1	15.00
H#, Total Counts:	125.9	1206	
Win1: Tritium - Start, End, Counts:	20	280	596
Win2: - Start, End, Counts:	0	990	1149

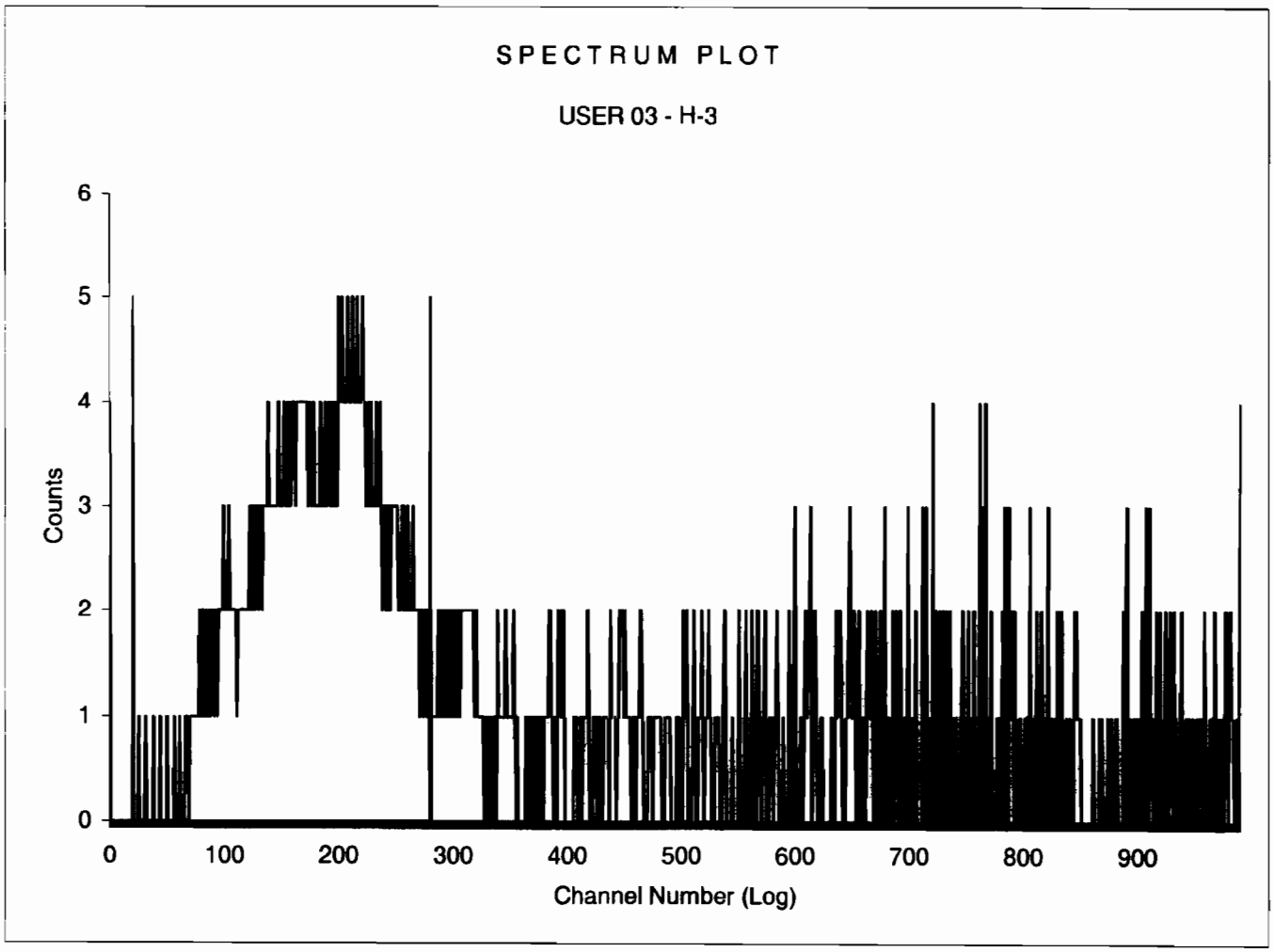

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.294995 through 0.314995

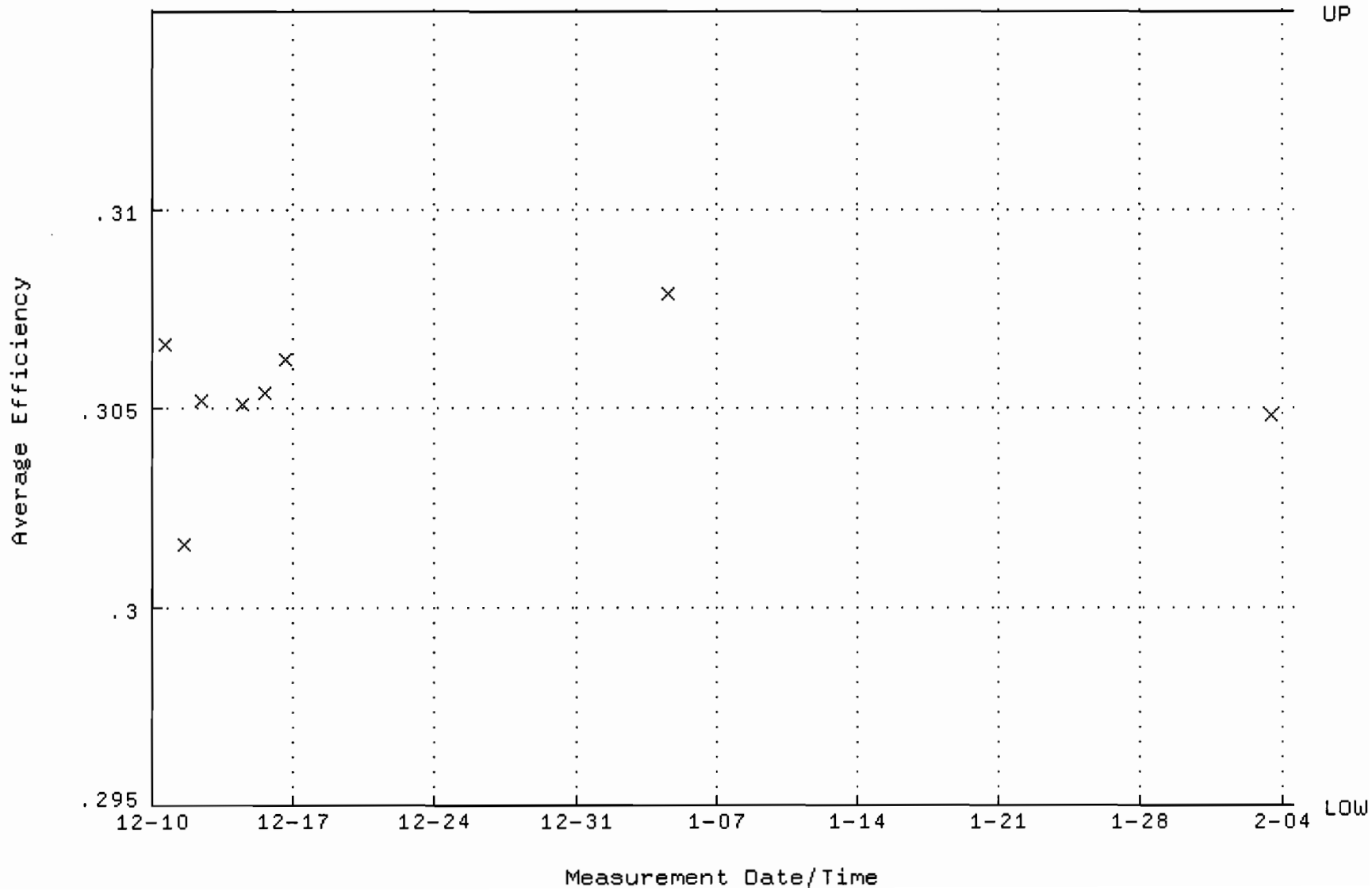

QA filename : DKA100:[ENV_ALPHA.QA.W]W004.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-DEC-2009 15:29:34 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5863 through 96.8059

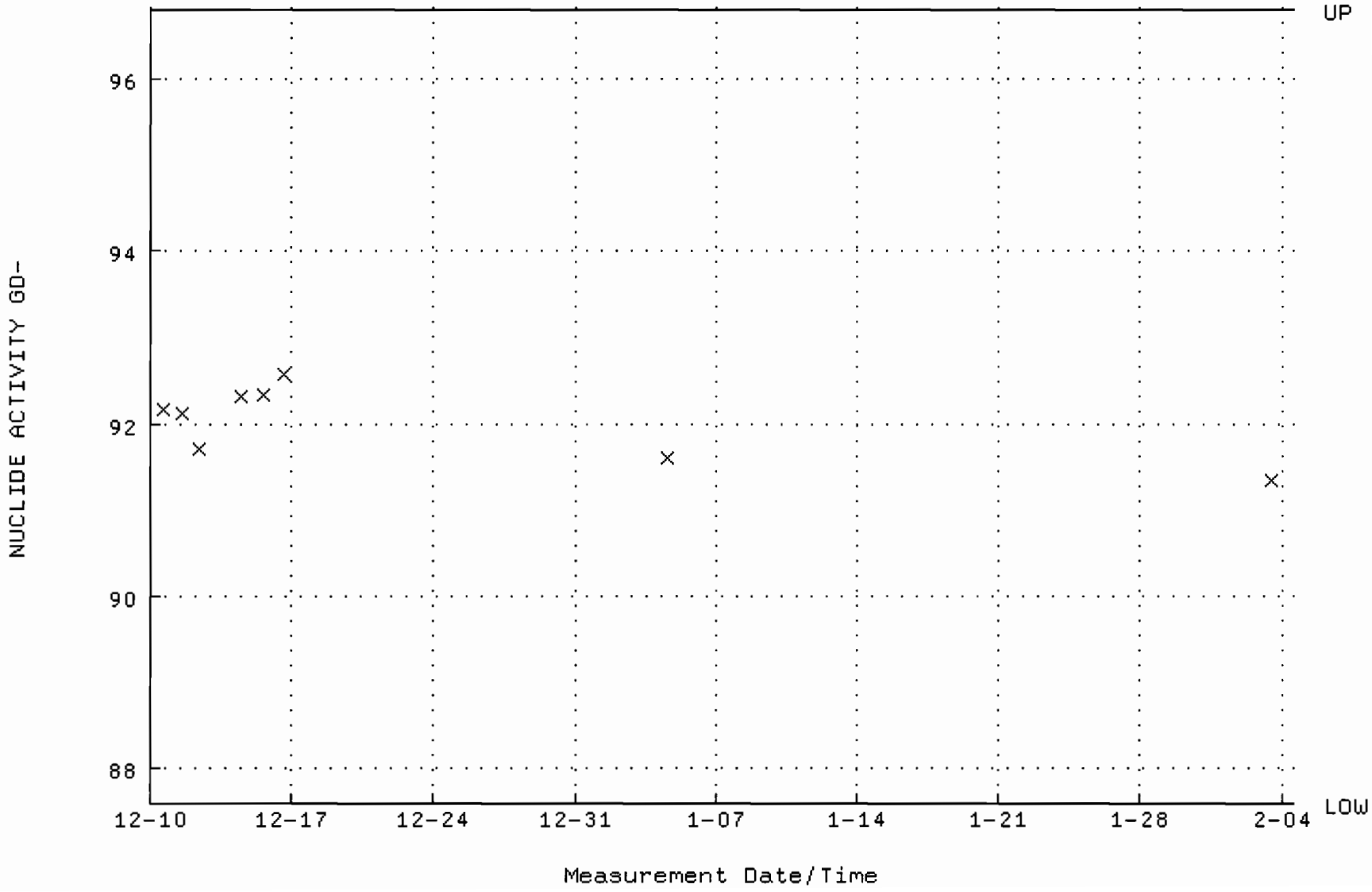

QA filename : DKA100:[ENV_ALPHA.QA.B]B004.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:31 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

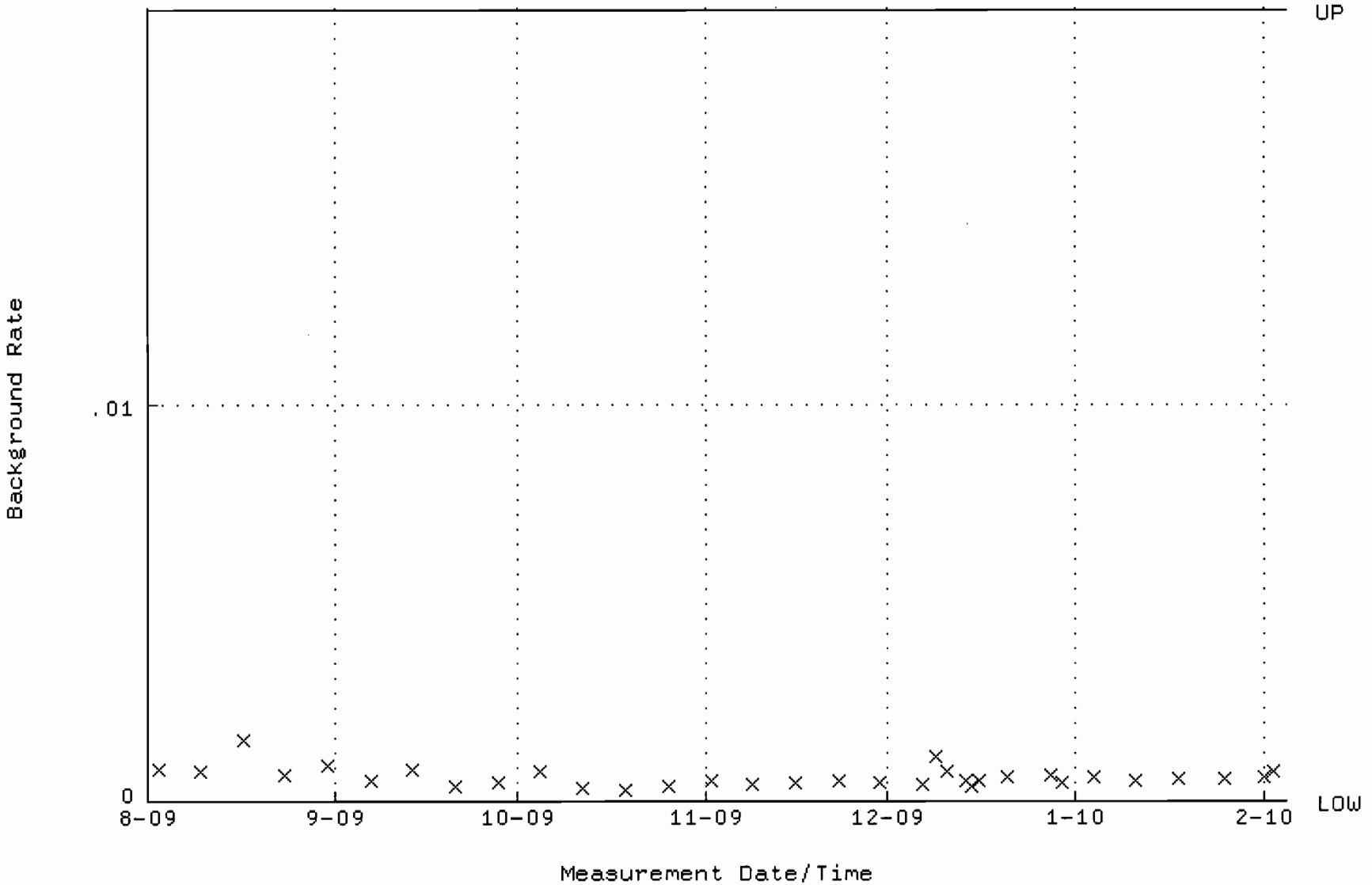

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.303169 through 0.323169

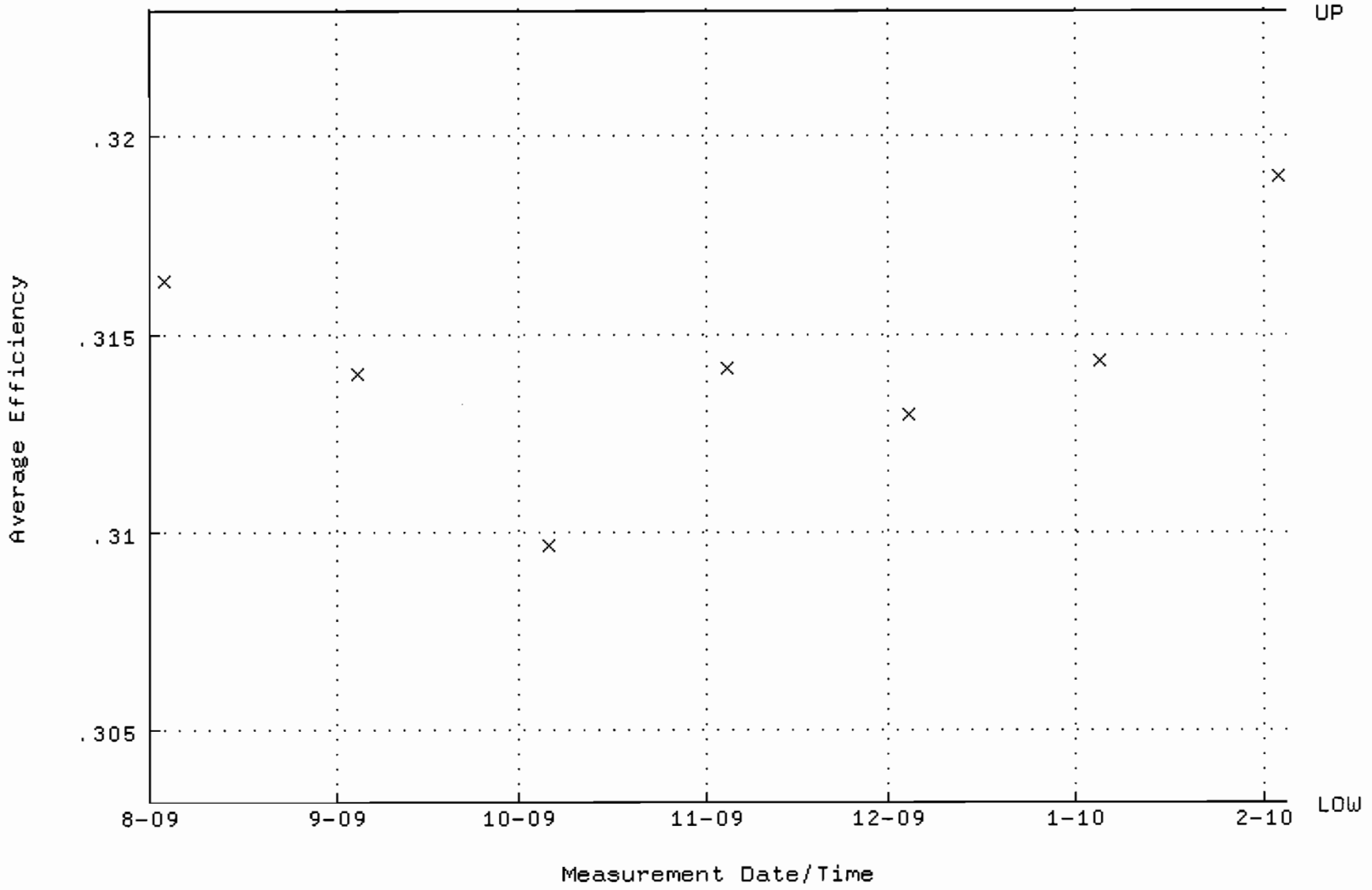

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.3273 through 94.3091

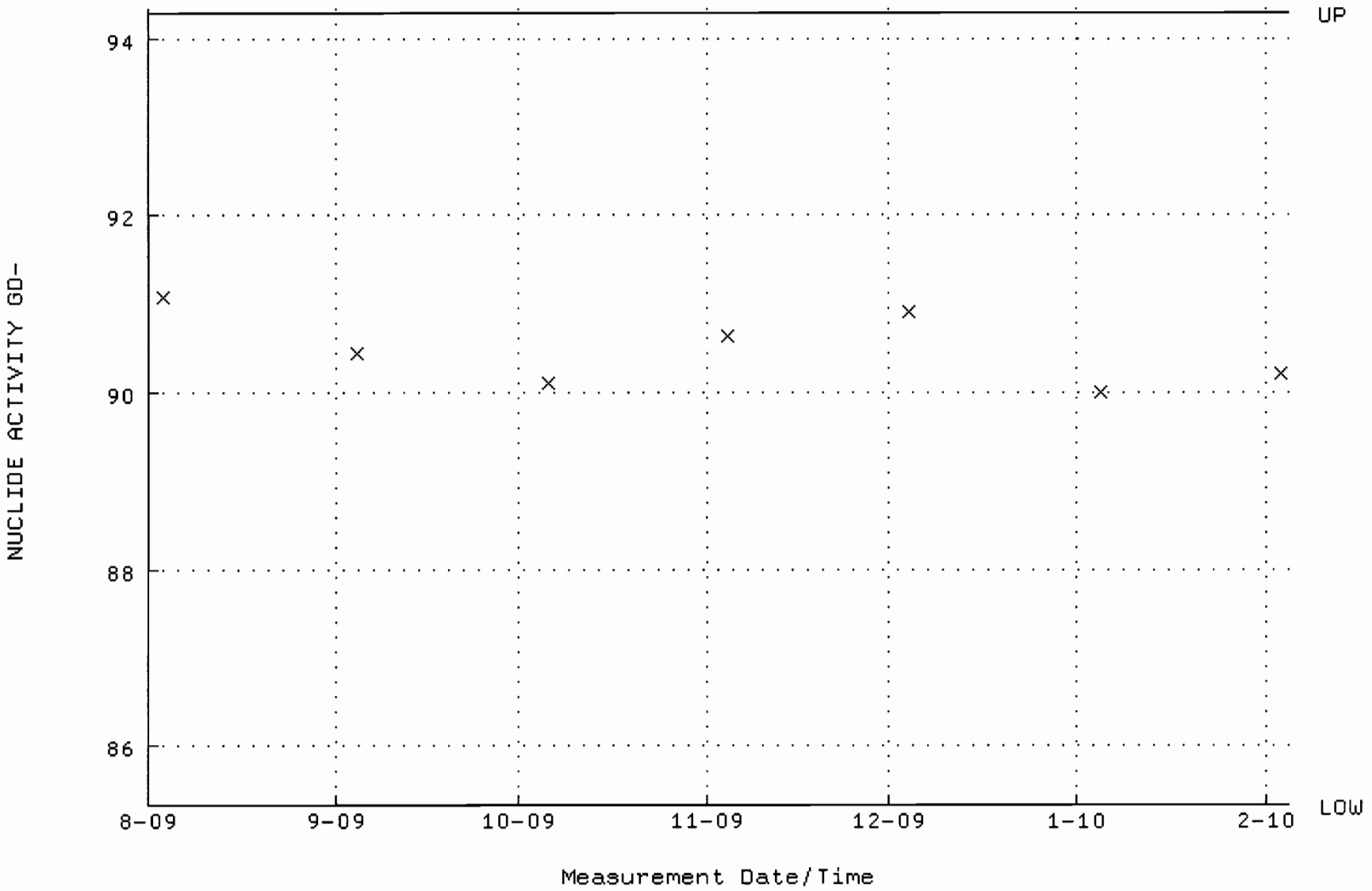

QA filename : DKA100:[ENV_ALPHA.QA.B]B010.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

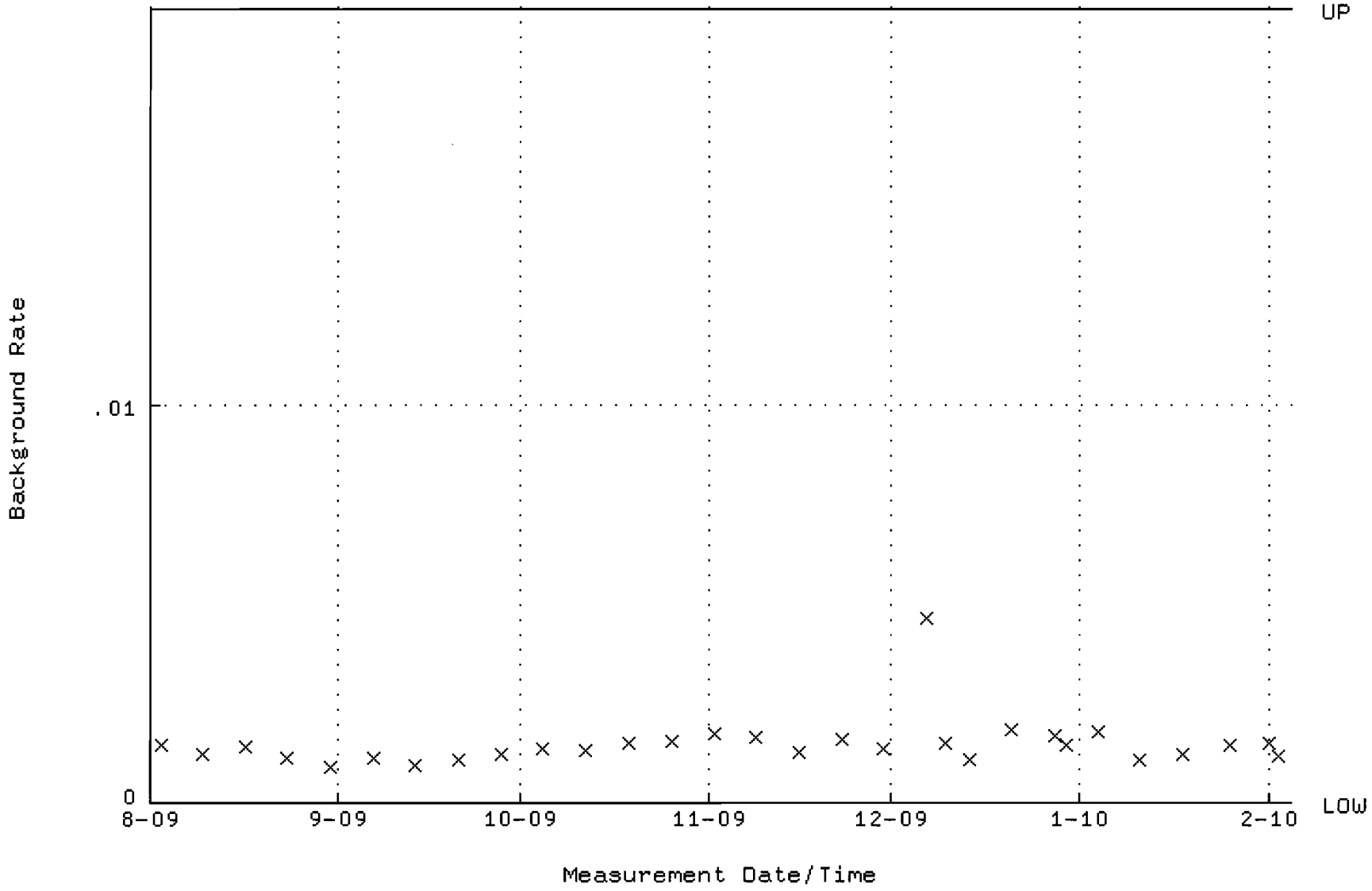

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.287129 through 0.307129

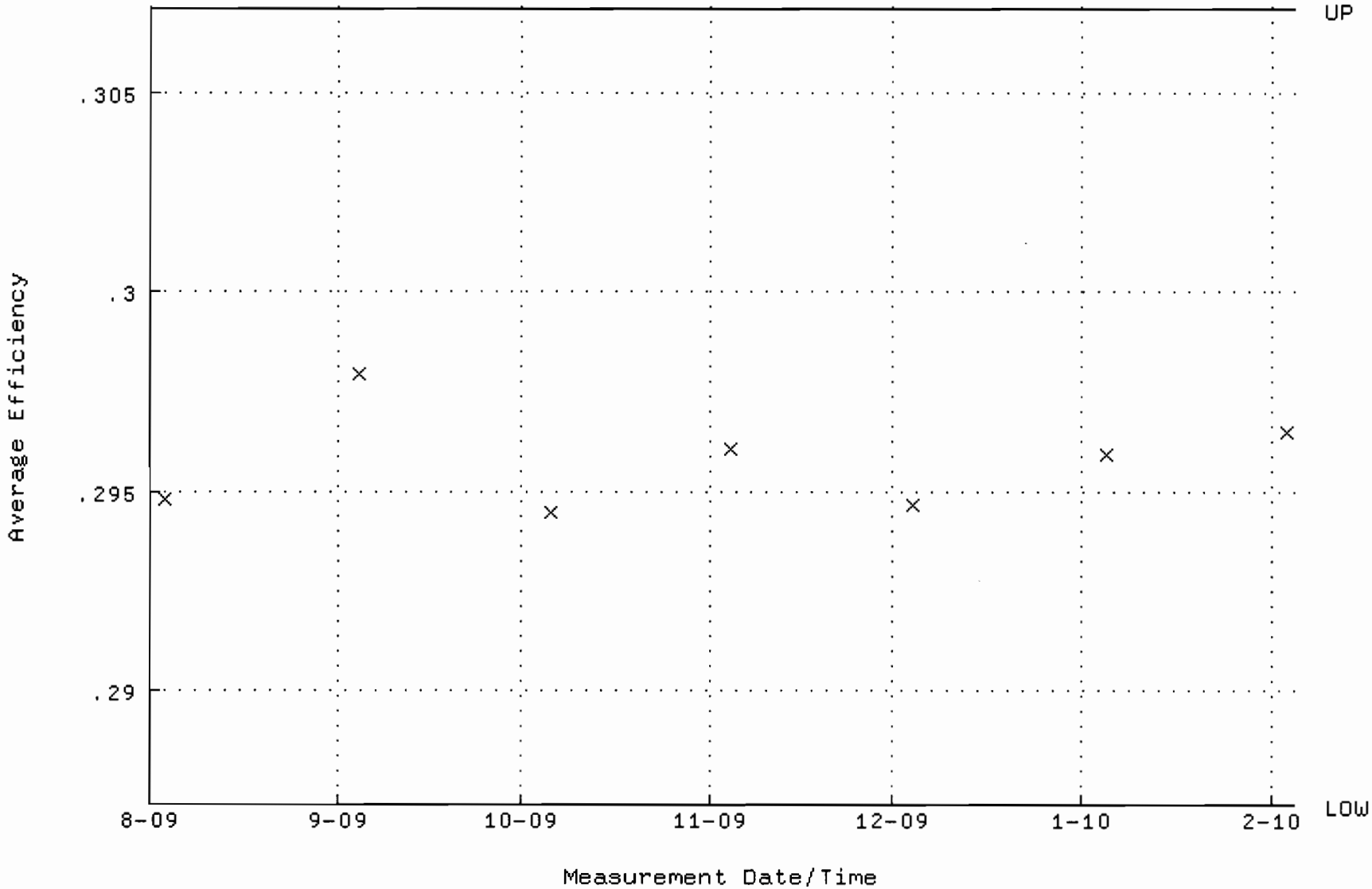

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 90.7092 through 100.258

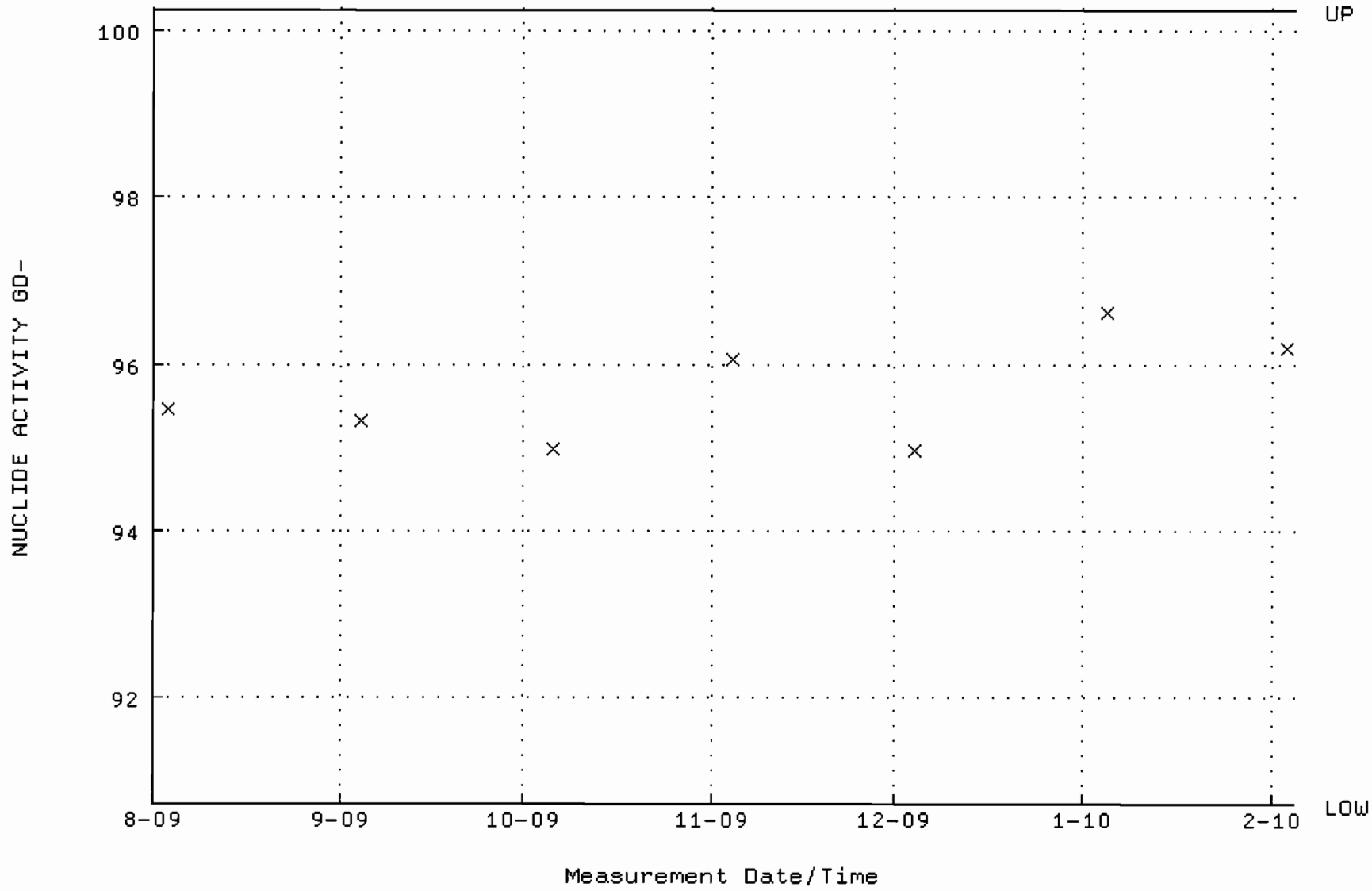

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:32 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

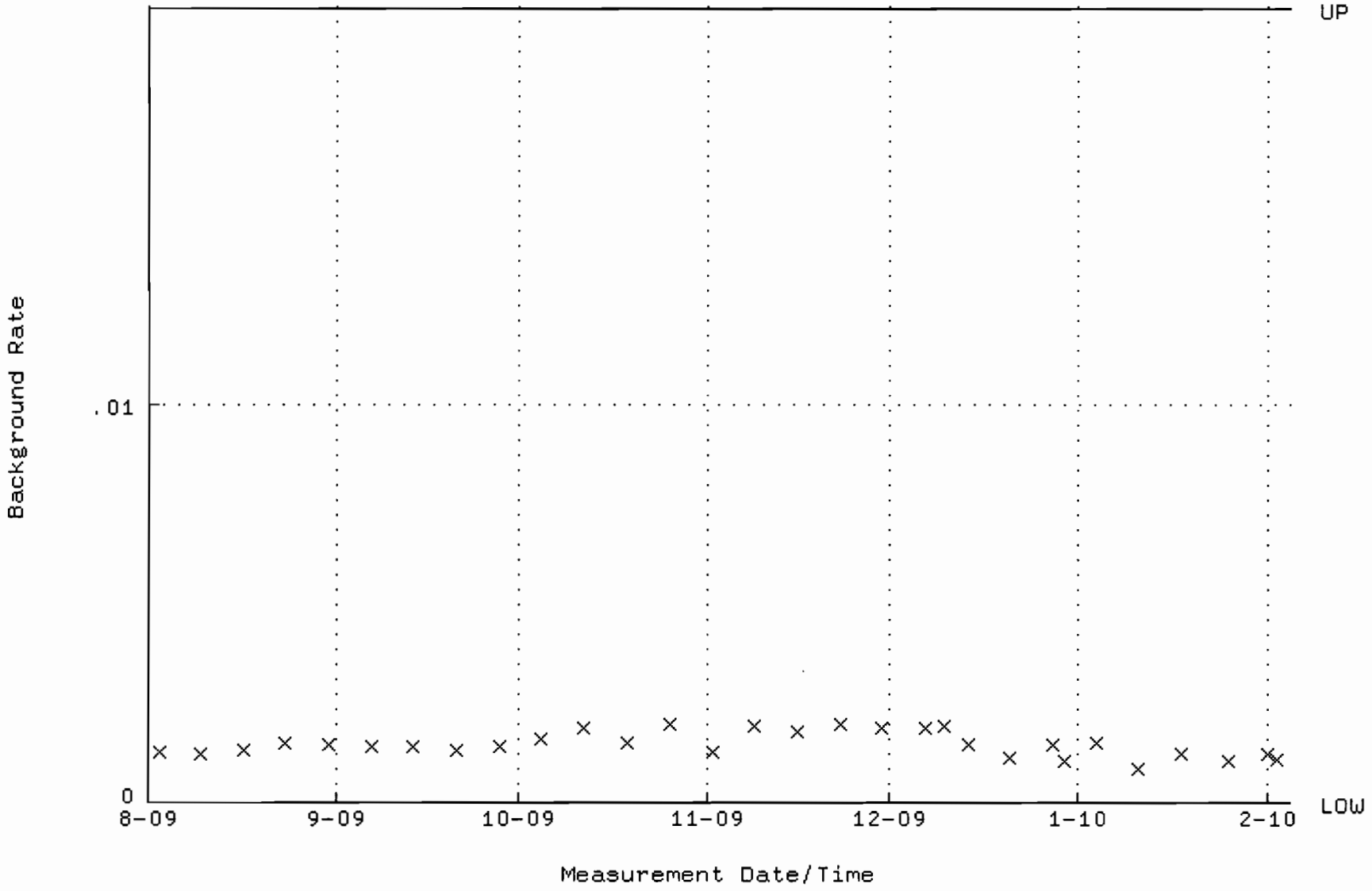

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.331676 through 0.351676

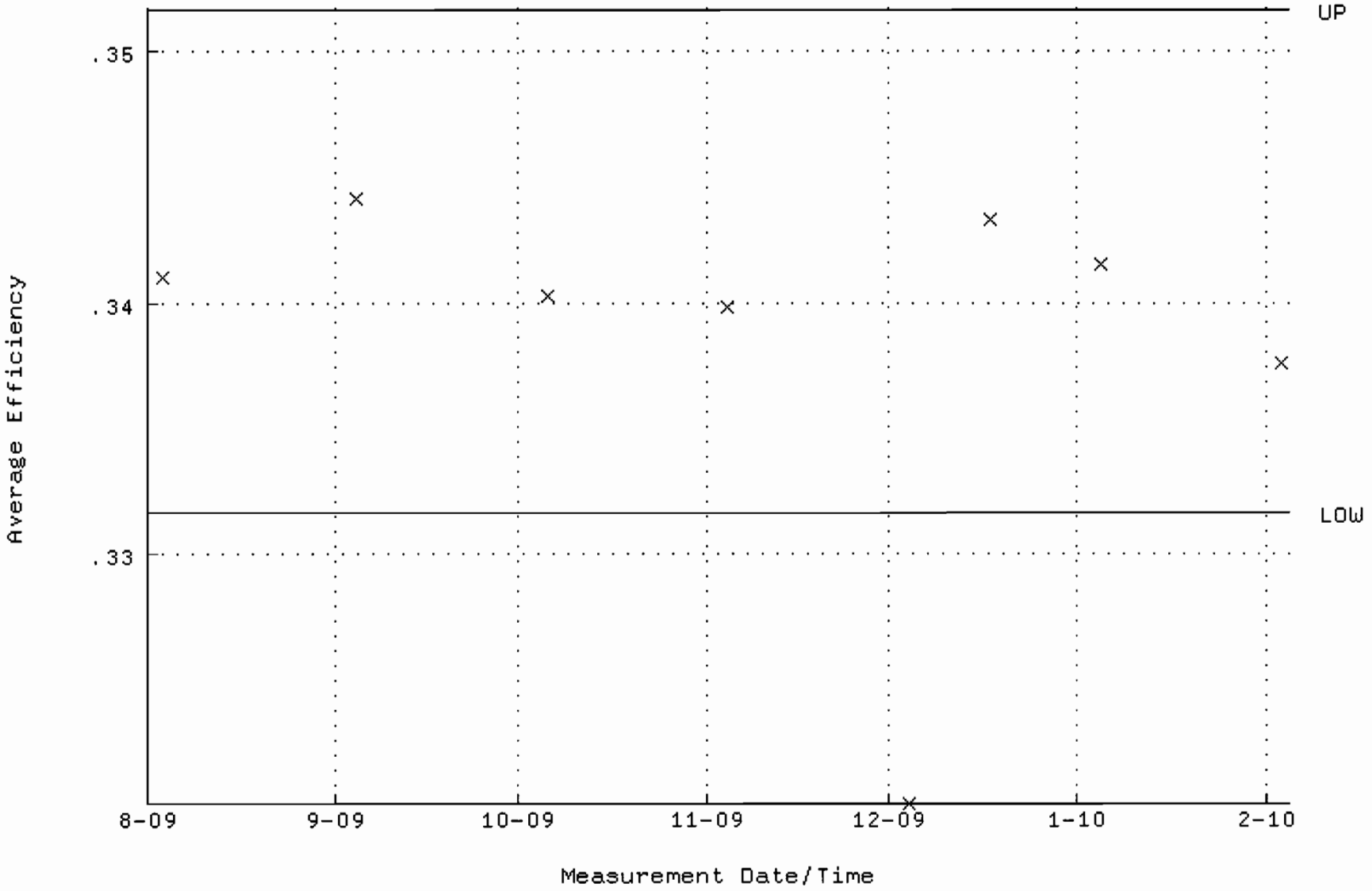

QA filename : DKA100:[ENV_ALPHA.QA.W]W013.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 87.7736 through 97.0130

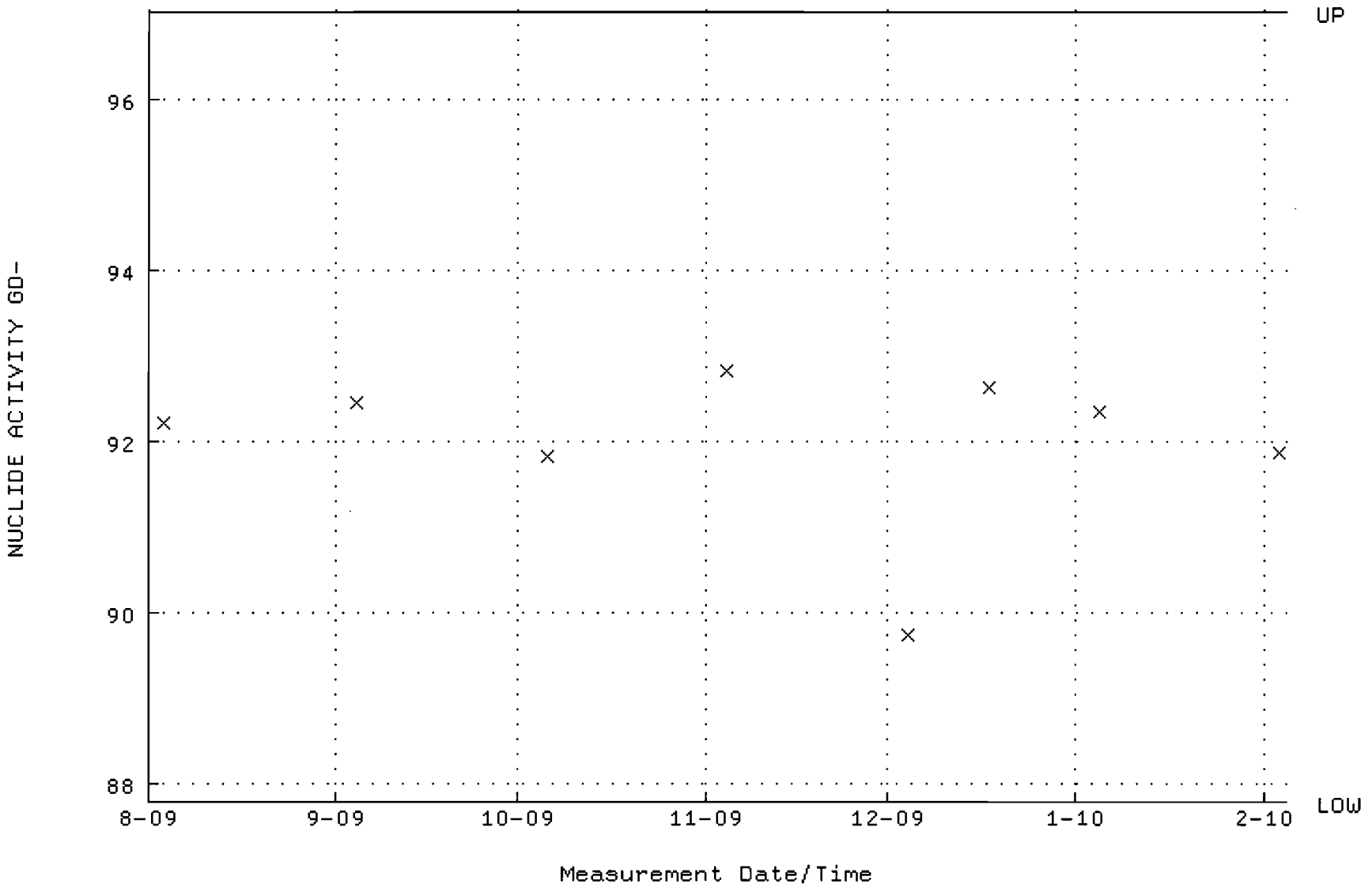

QA filename : DKA100:[ENV_ALPHA.QA.B]B013.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

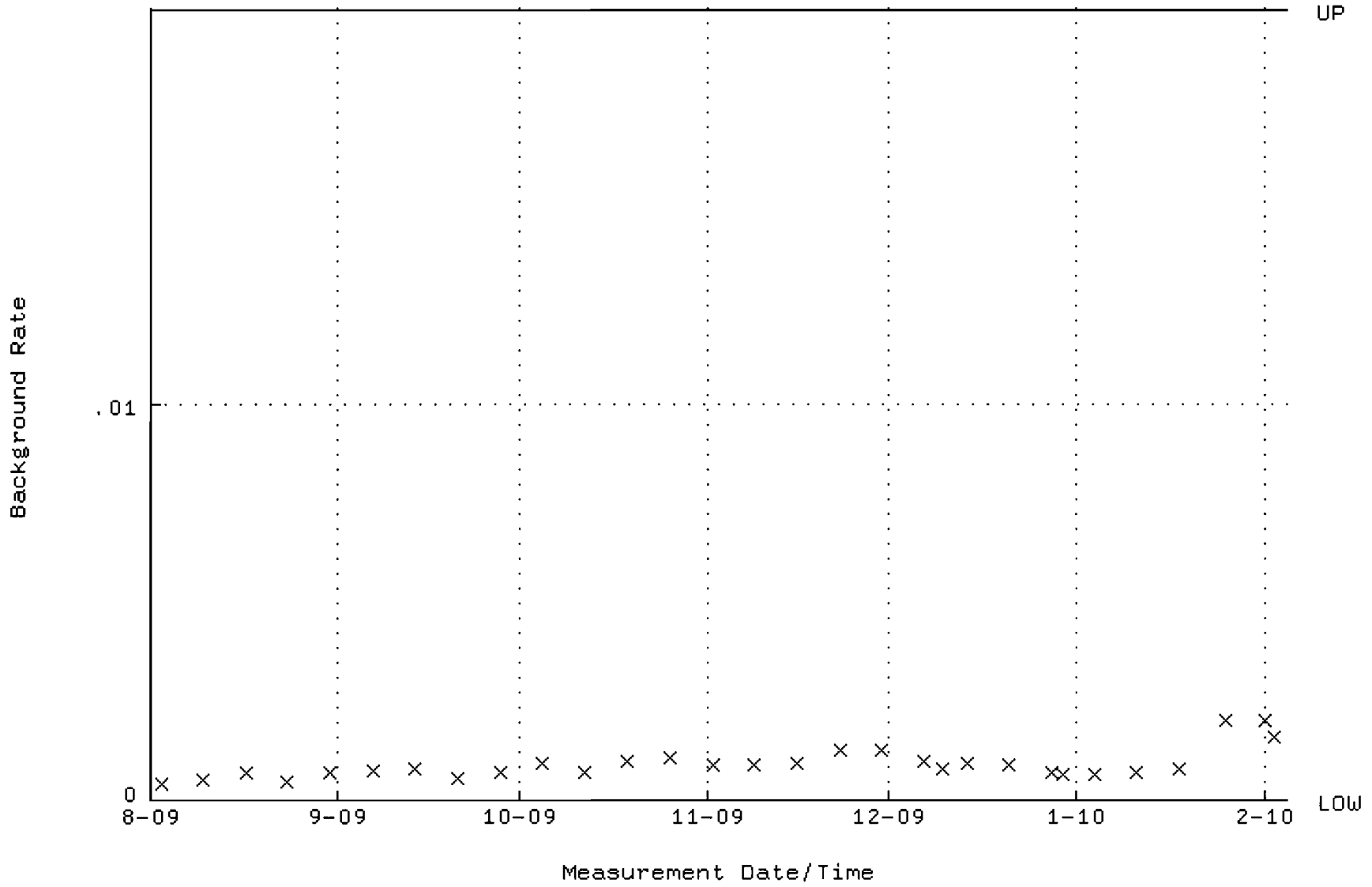

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.326058 through 0.346058

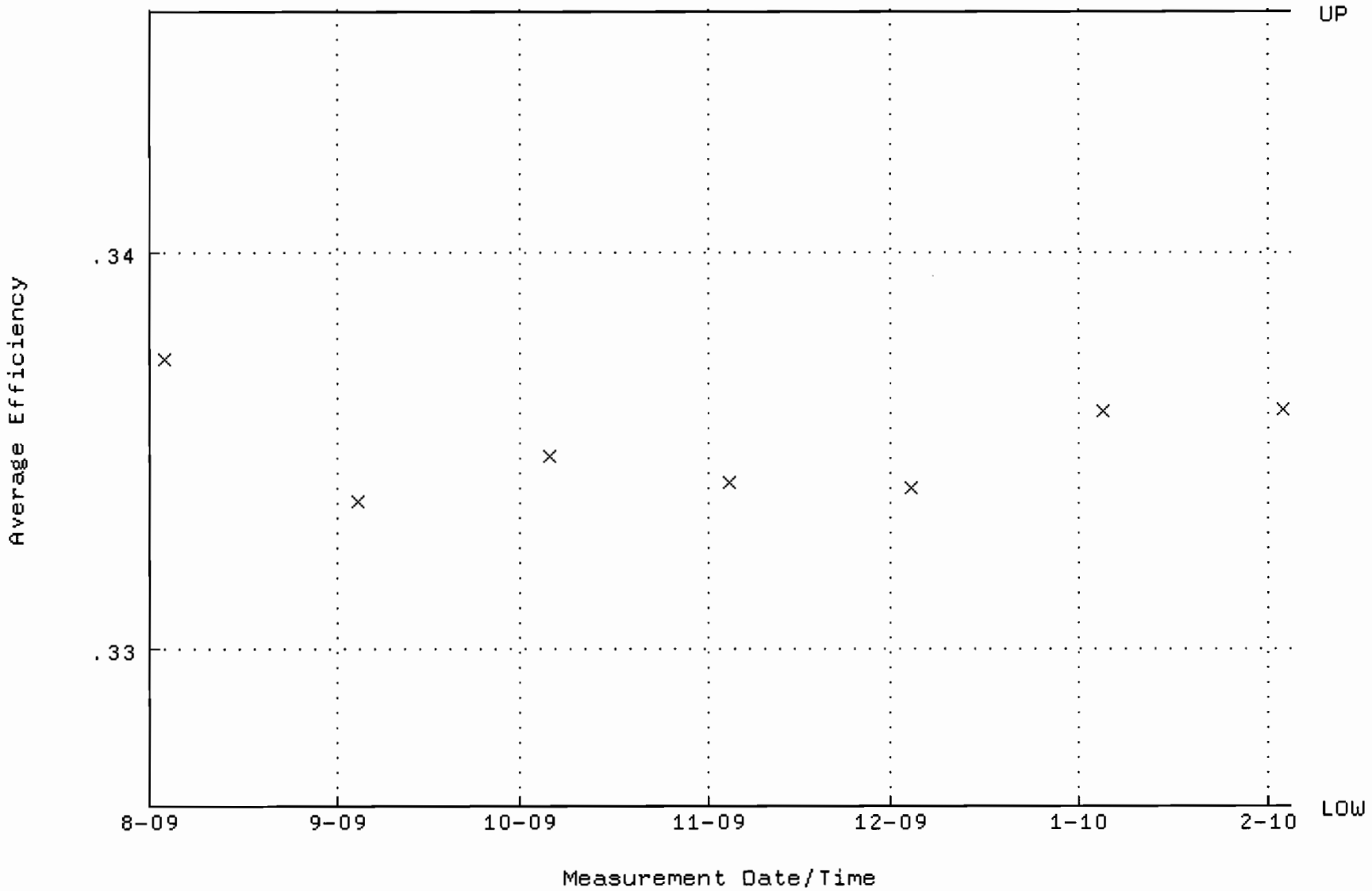

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.9280 through 94.9730

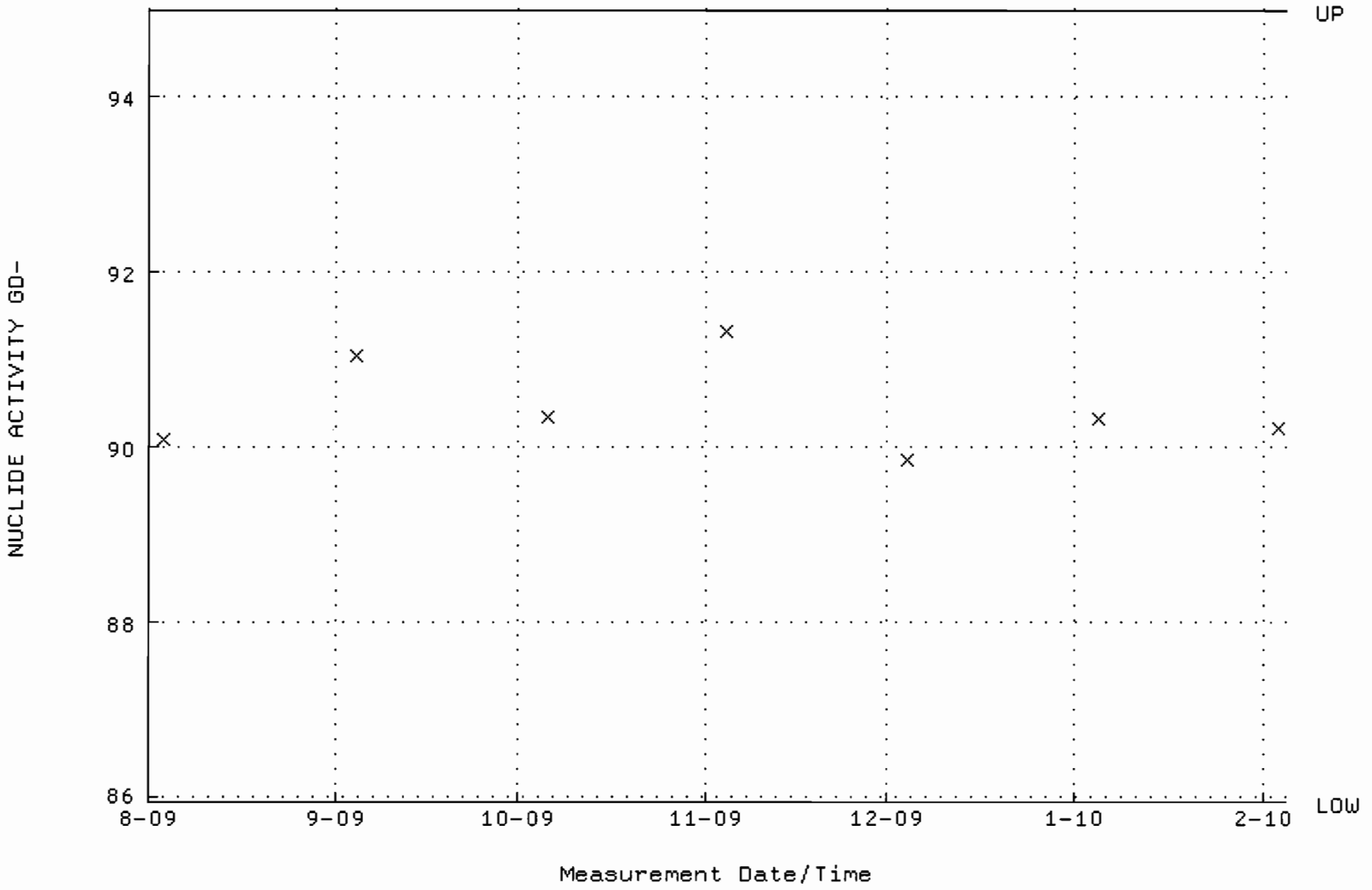

QA filename : DKA100:[ENV_ALPHA.QA.B]B016.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

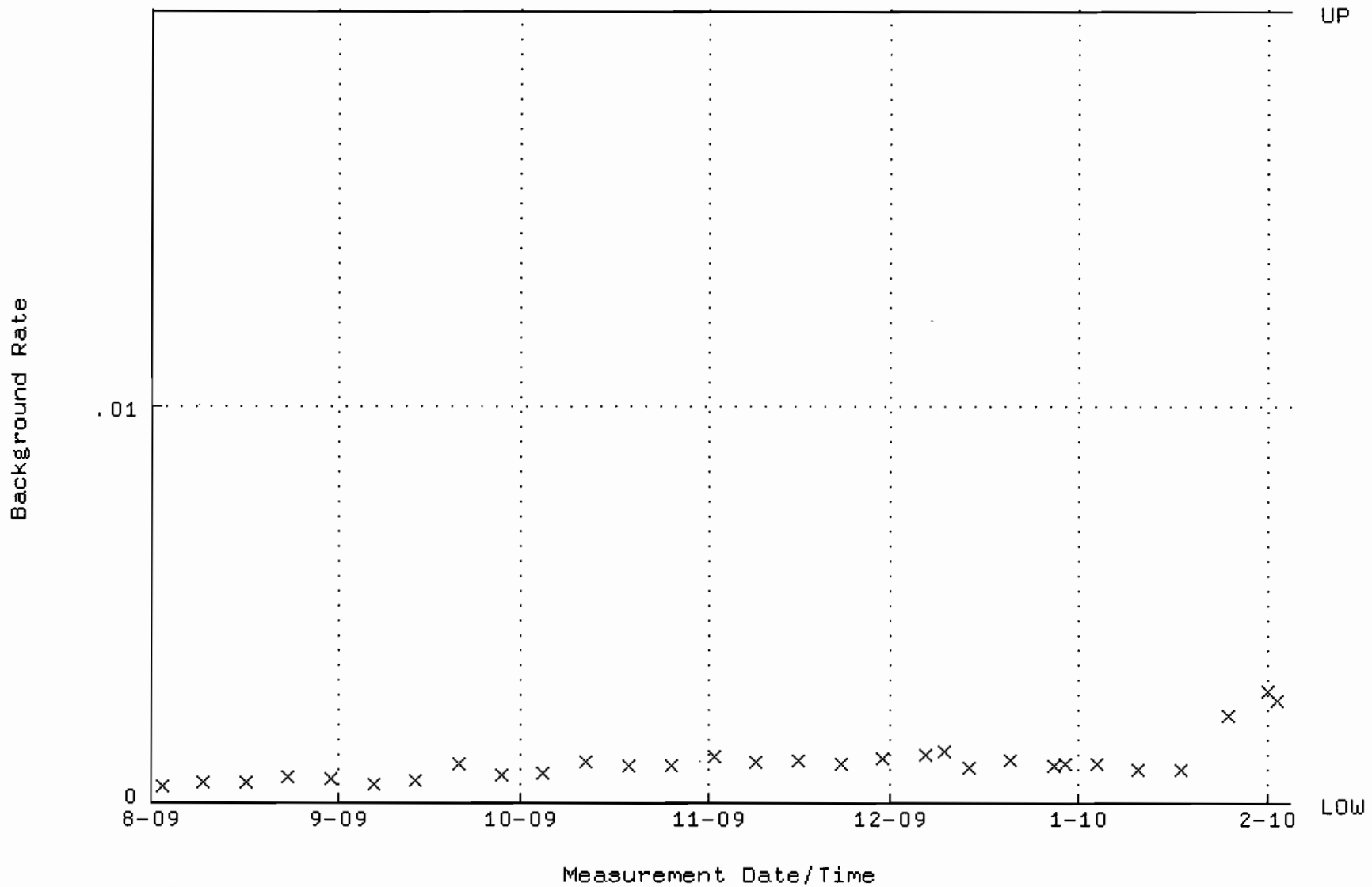

QA filename : DKA100:[ENV_ALPHA.QA.W]W018.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310950 through 0.330950

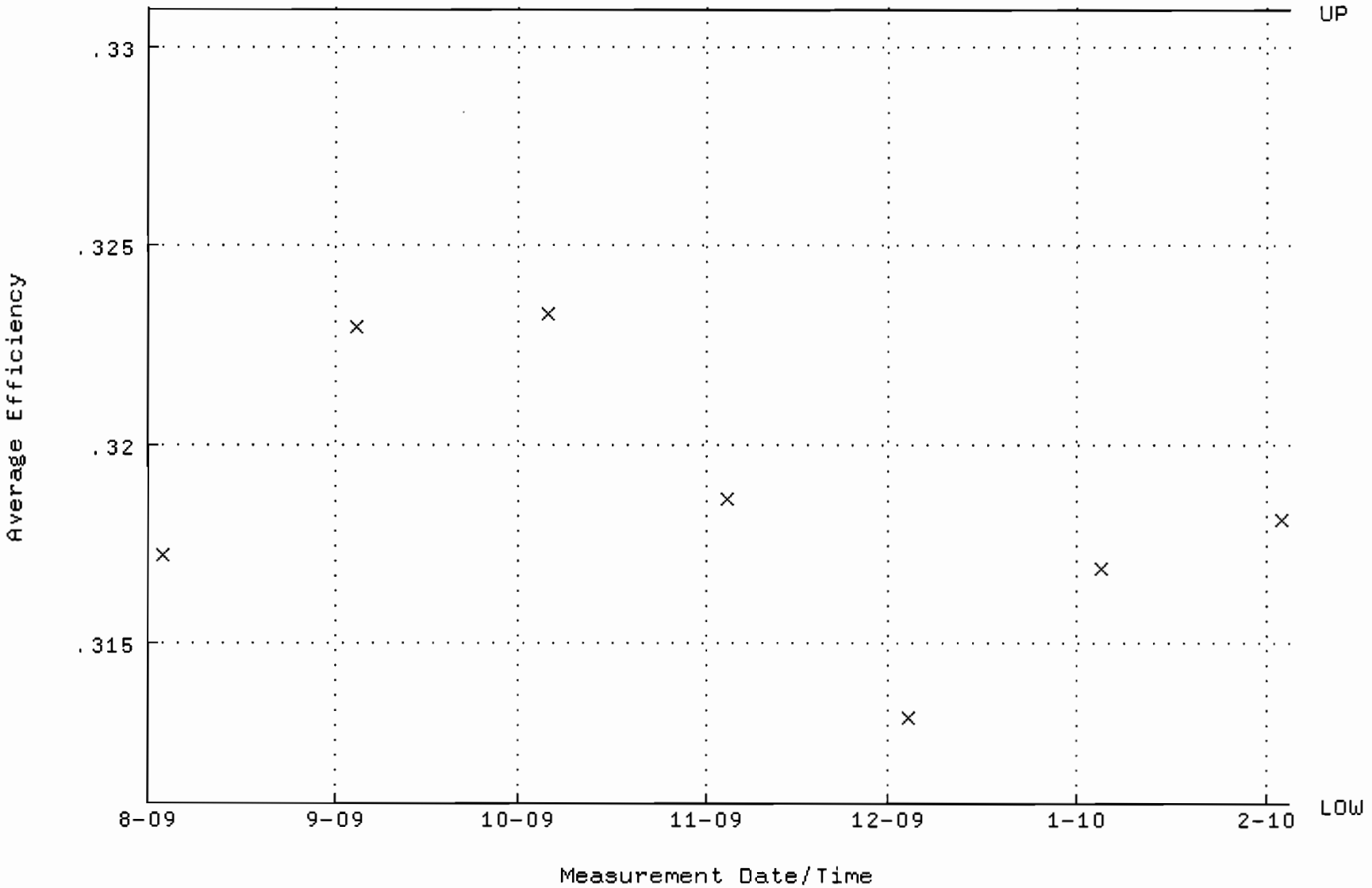

QA filename : DKA100:[ENV_ALPHA.QA.W]W018.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 86.3167 through 95.4027

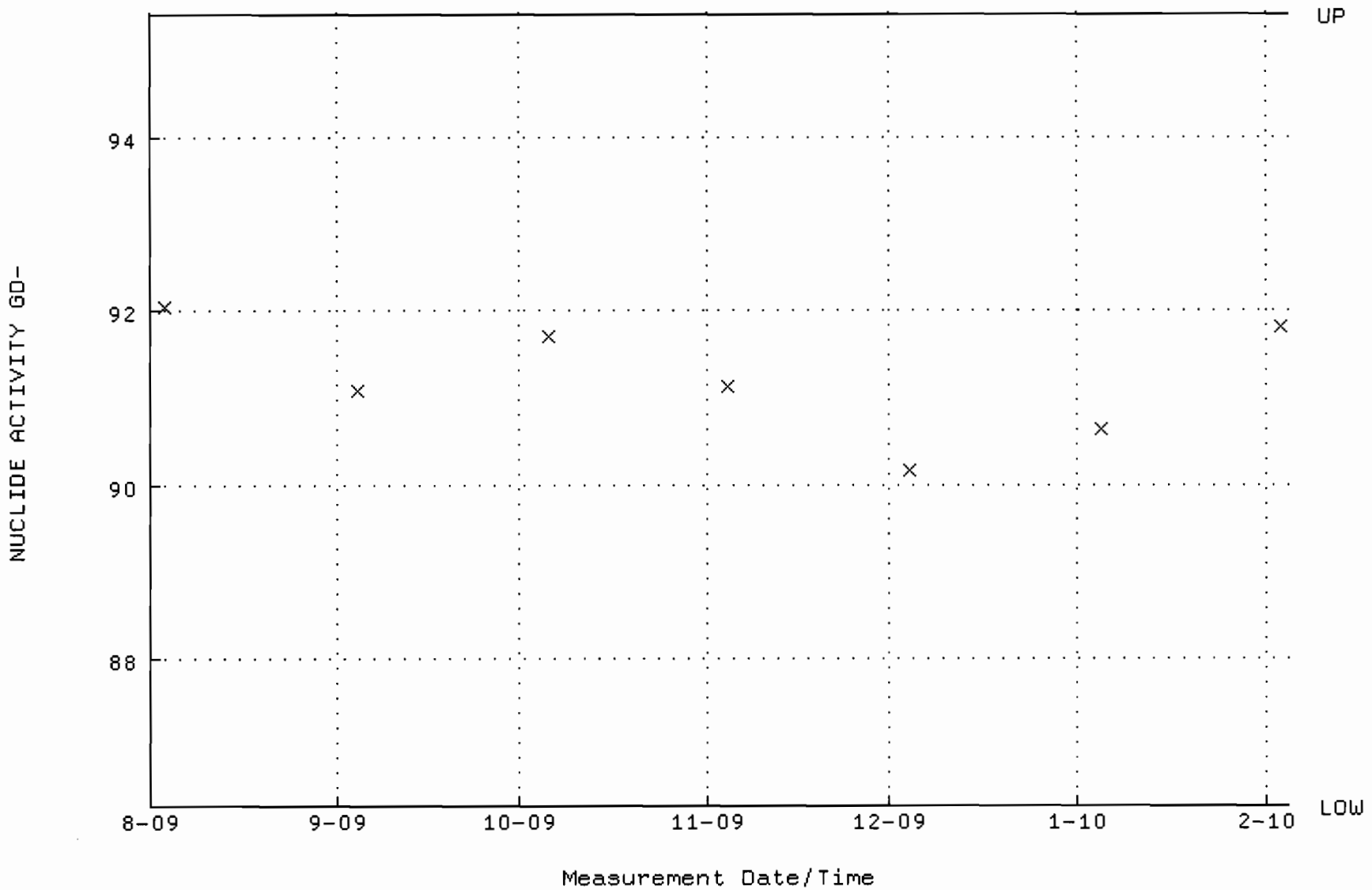

QA filename : DKA100:[ENV_ALPHA.QA.B]B018.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:33 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

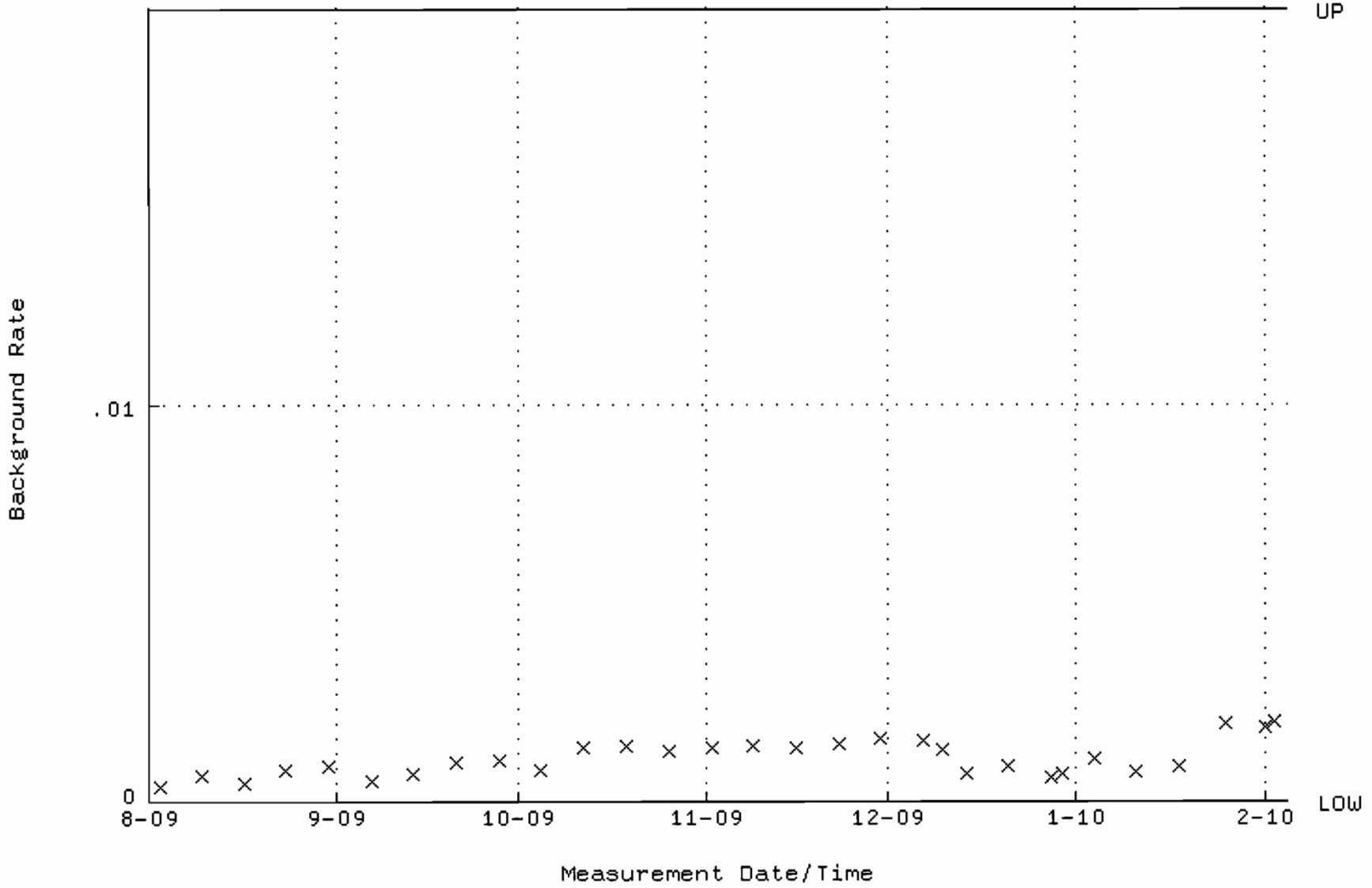

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

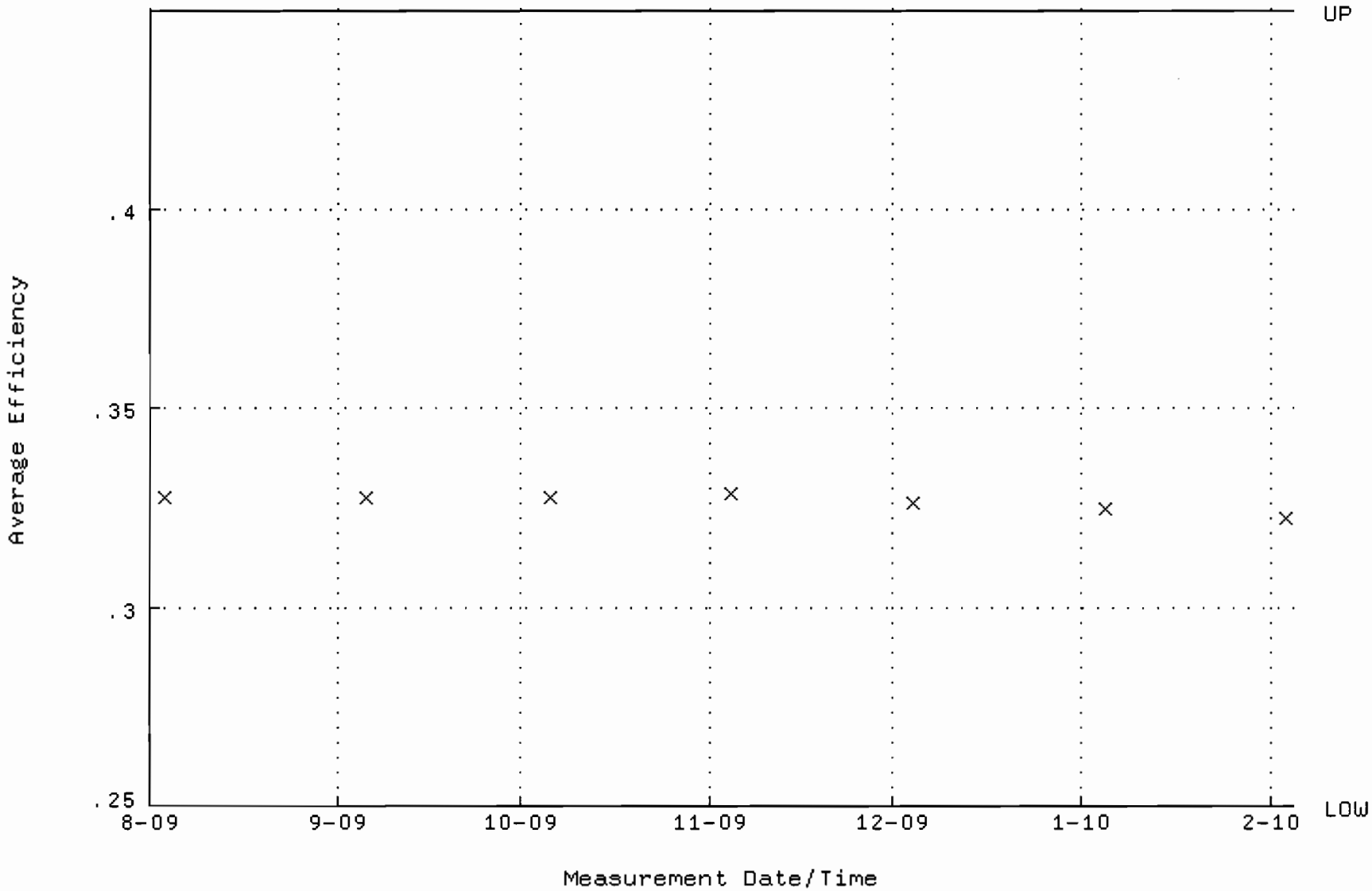

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

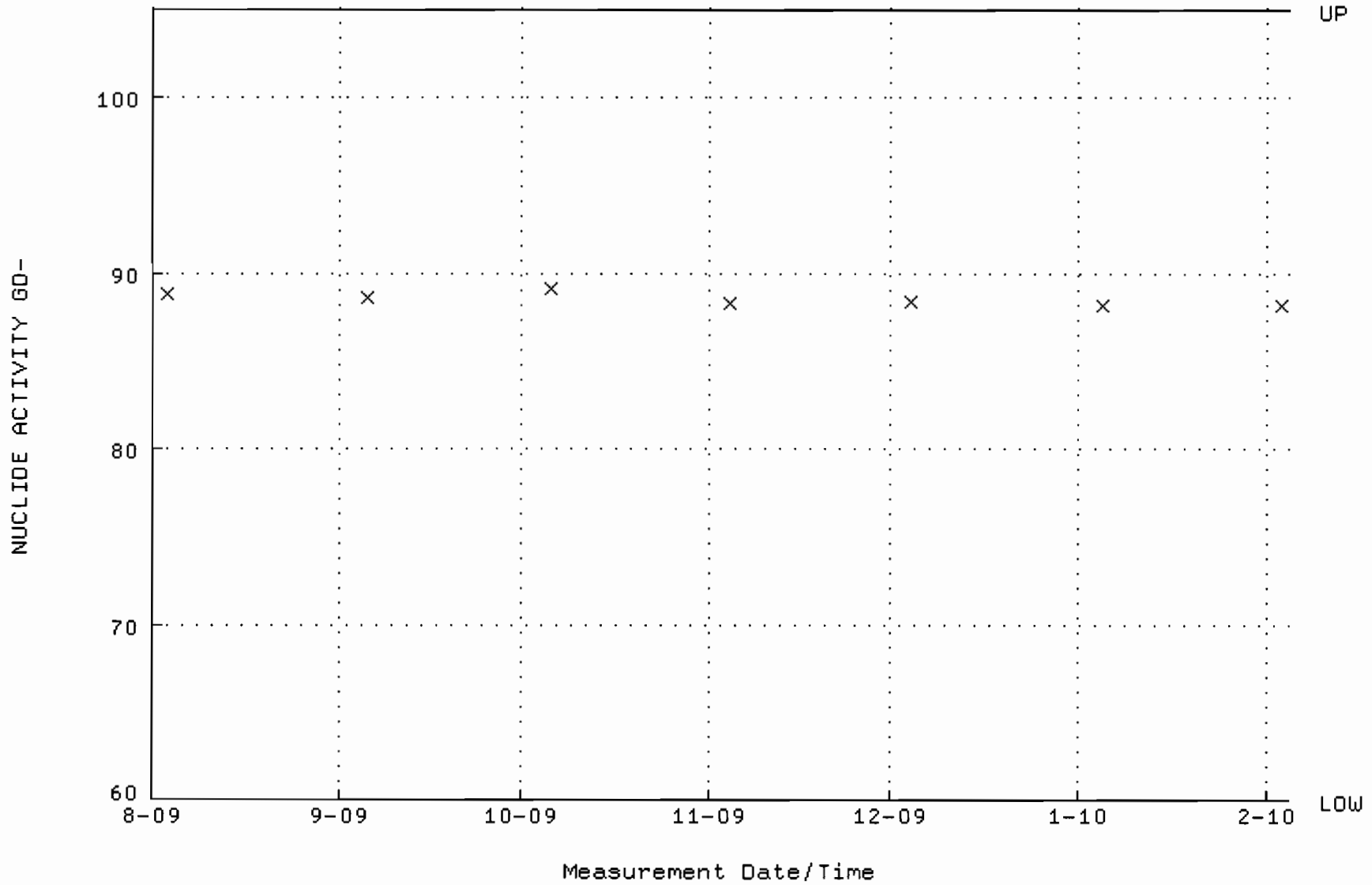

QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

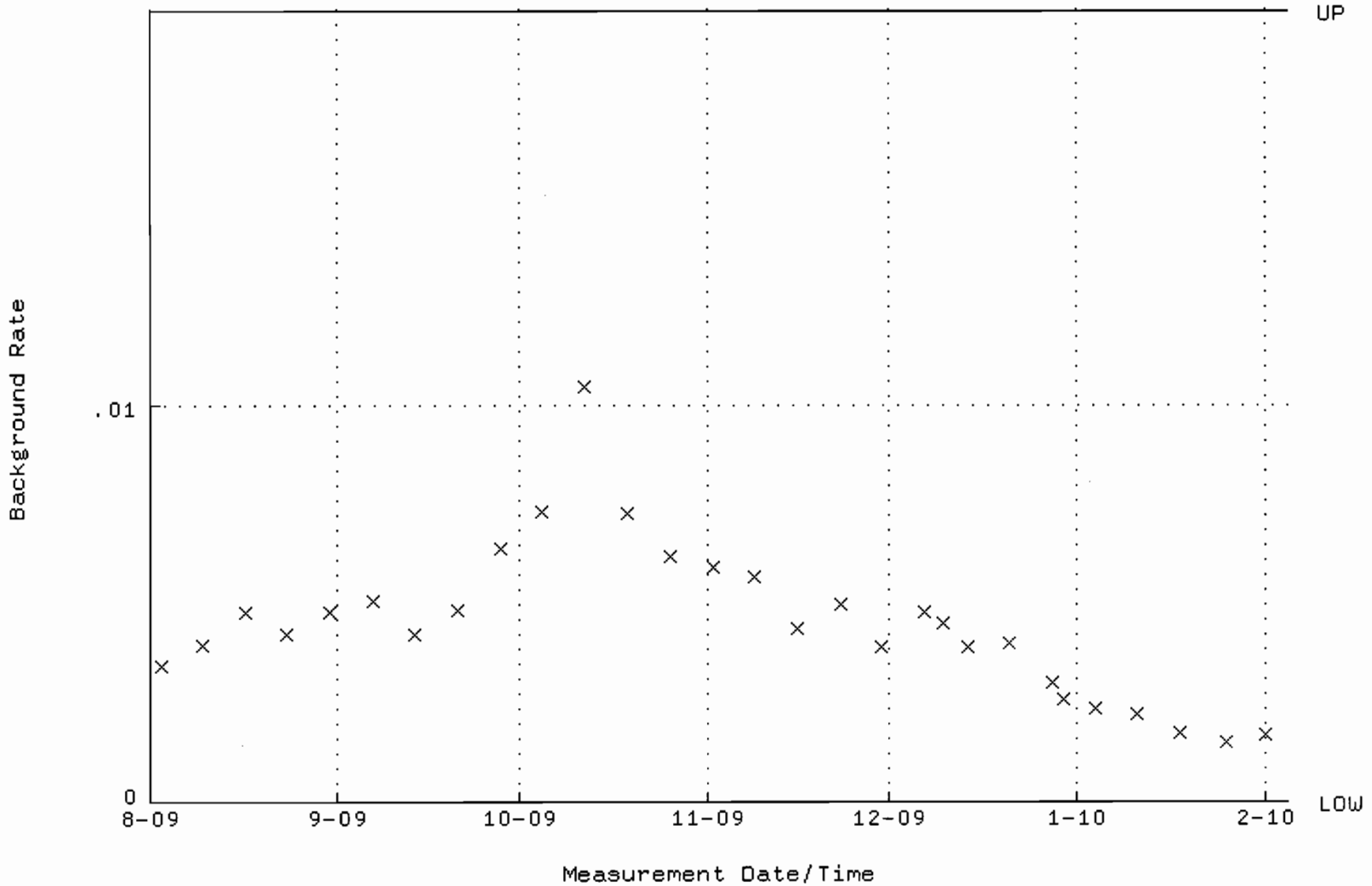

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.307728 through 0.327728

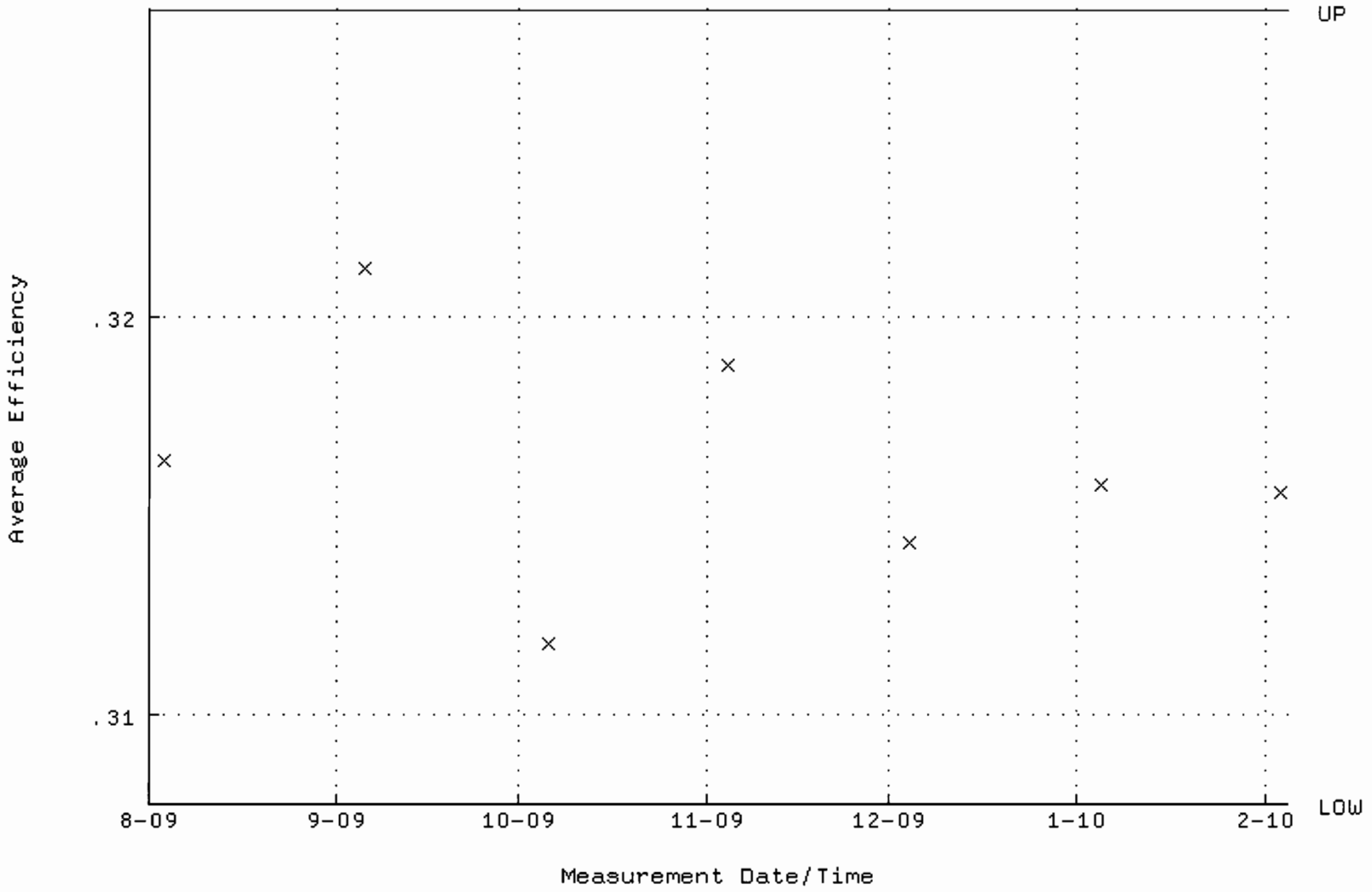

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8763 through 94.9159

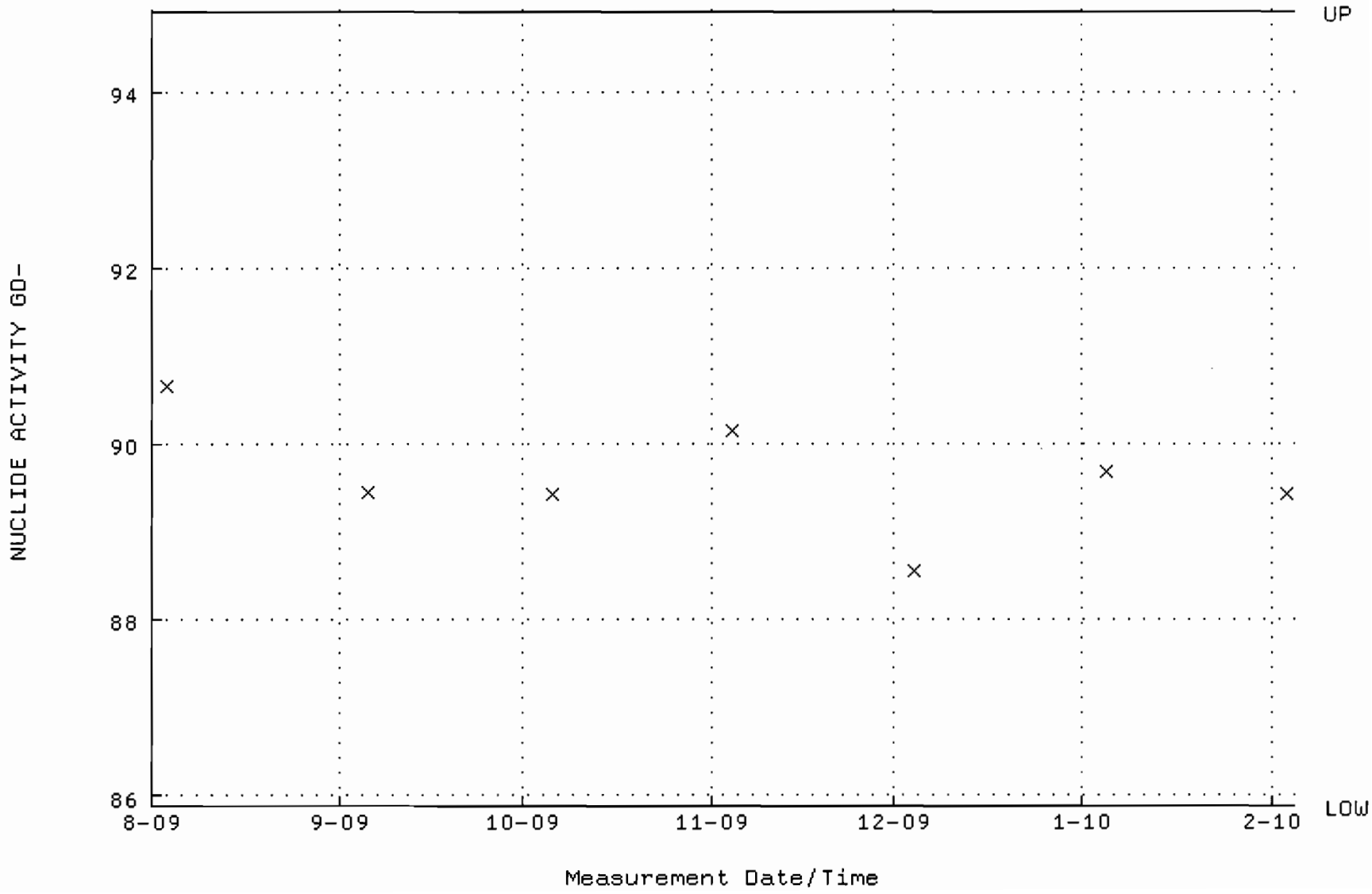

QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

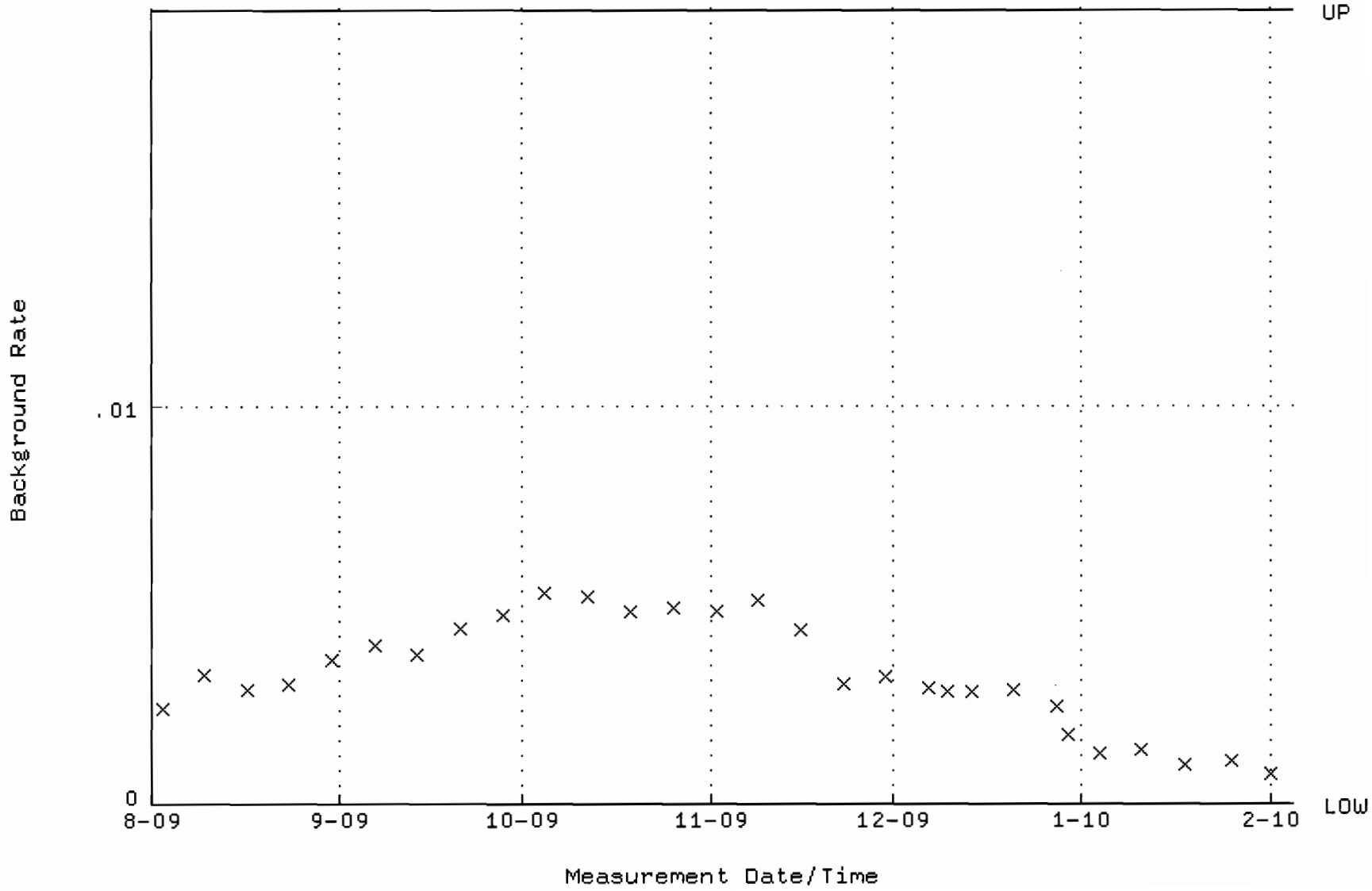

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980

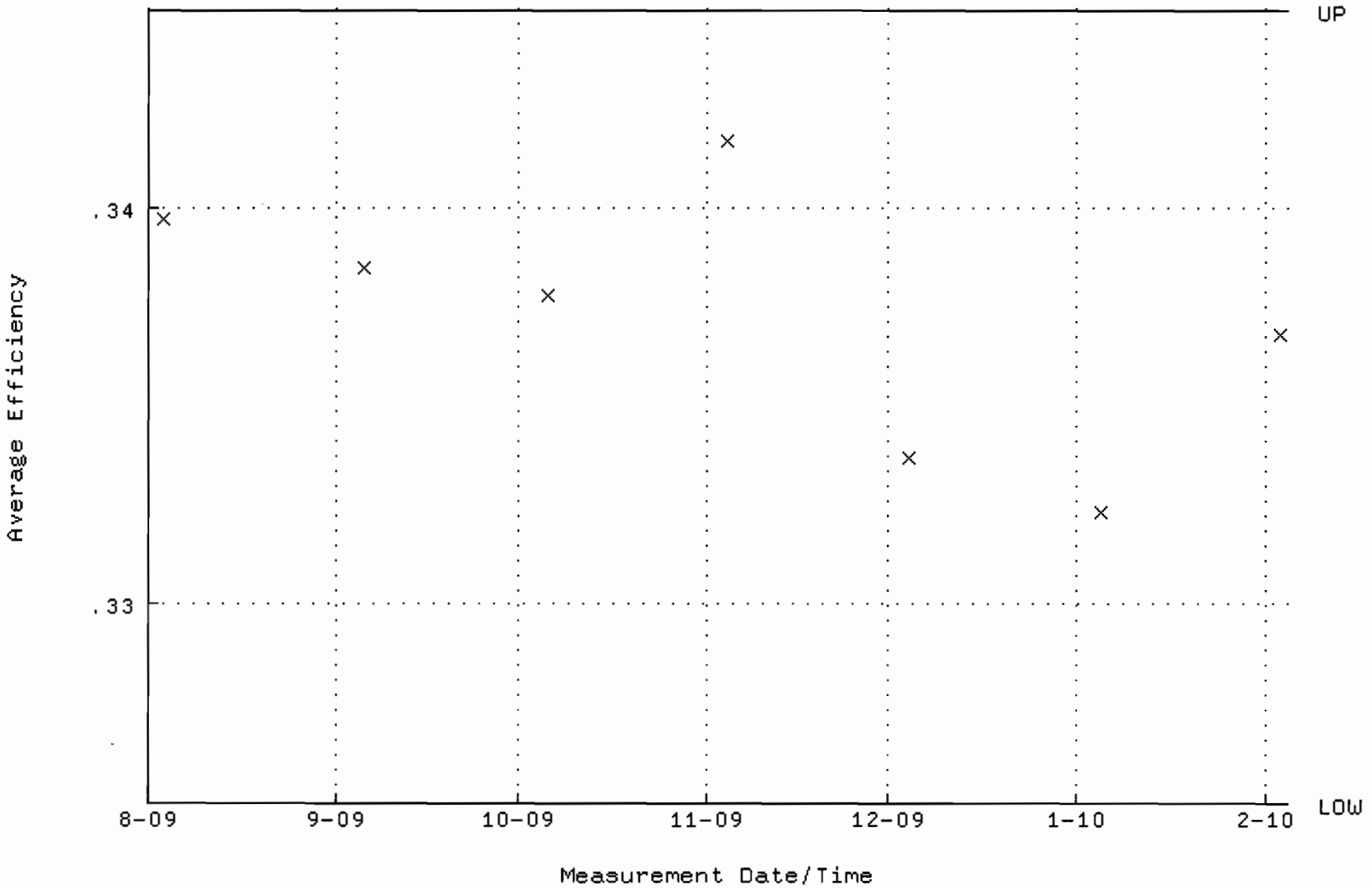

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506

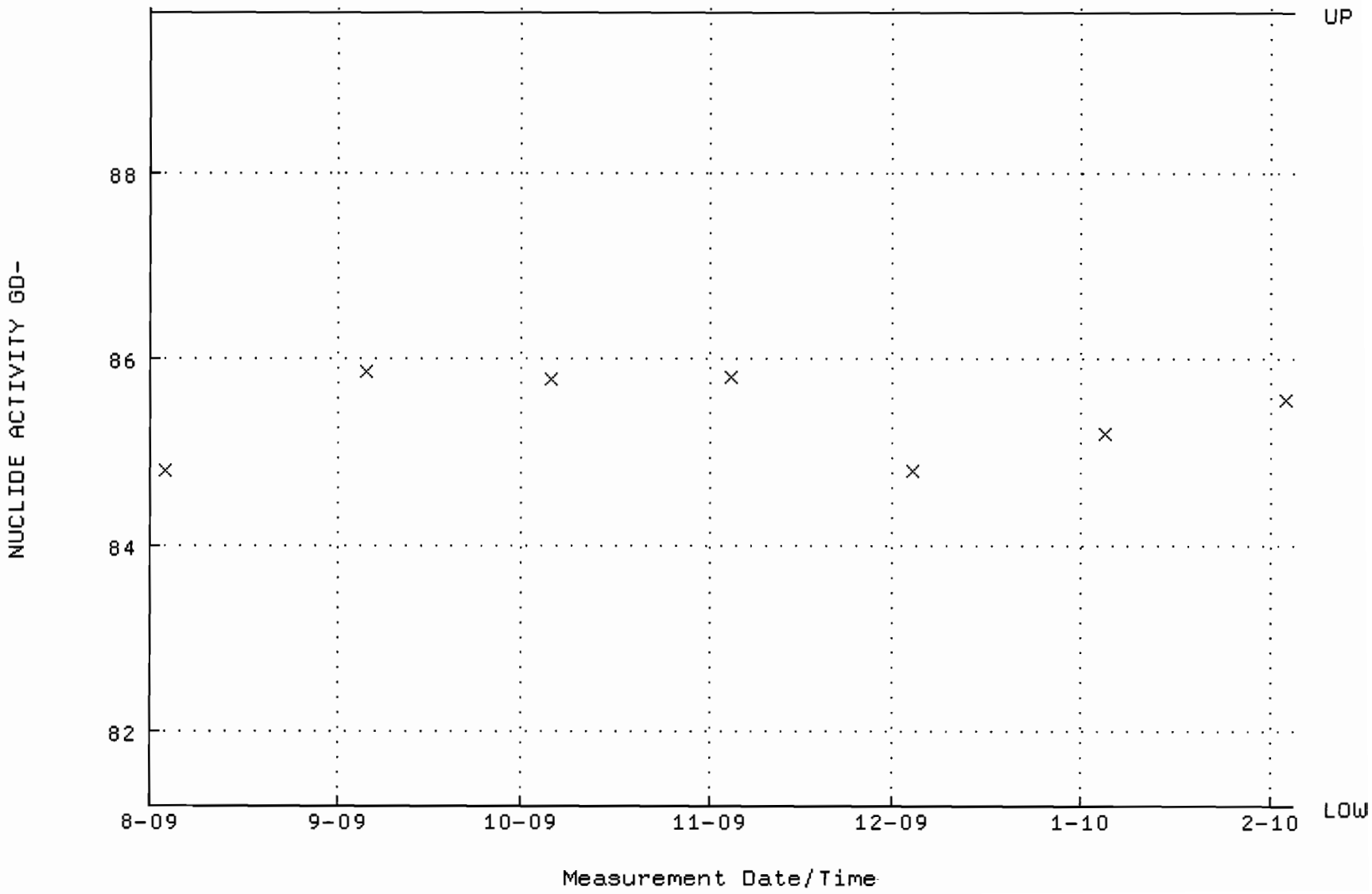

QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

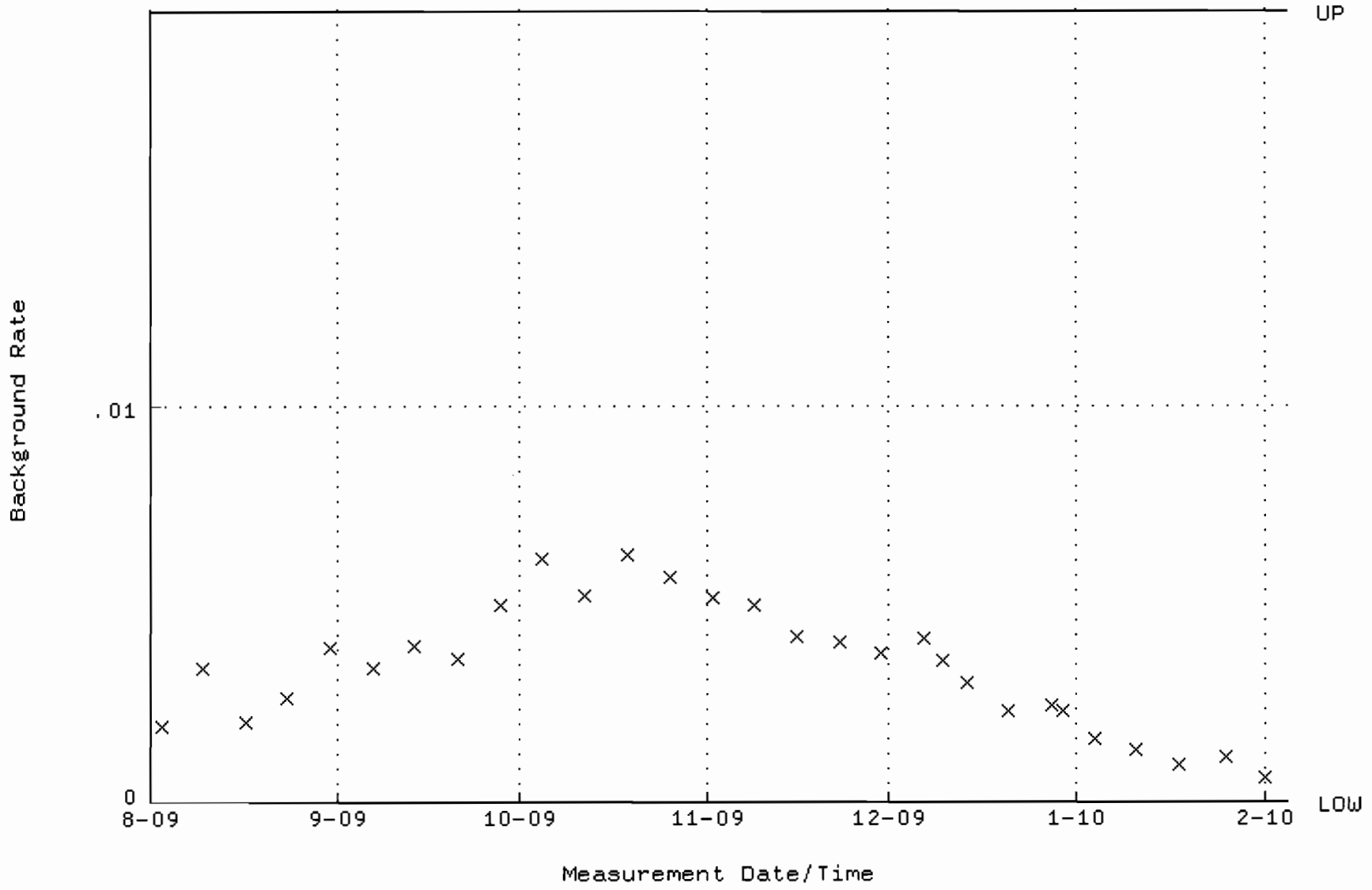

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.295040 through 0.315040

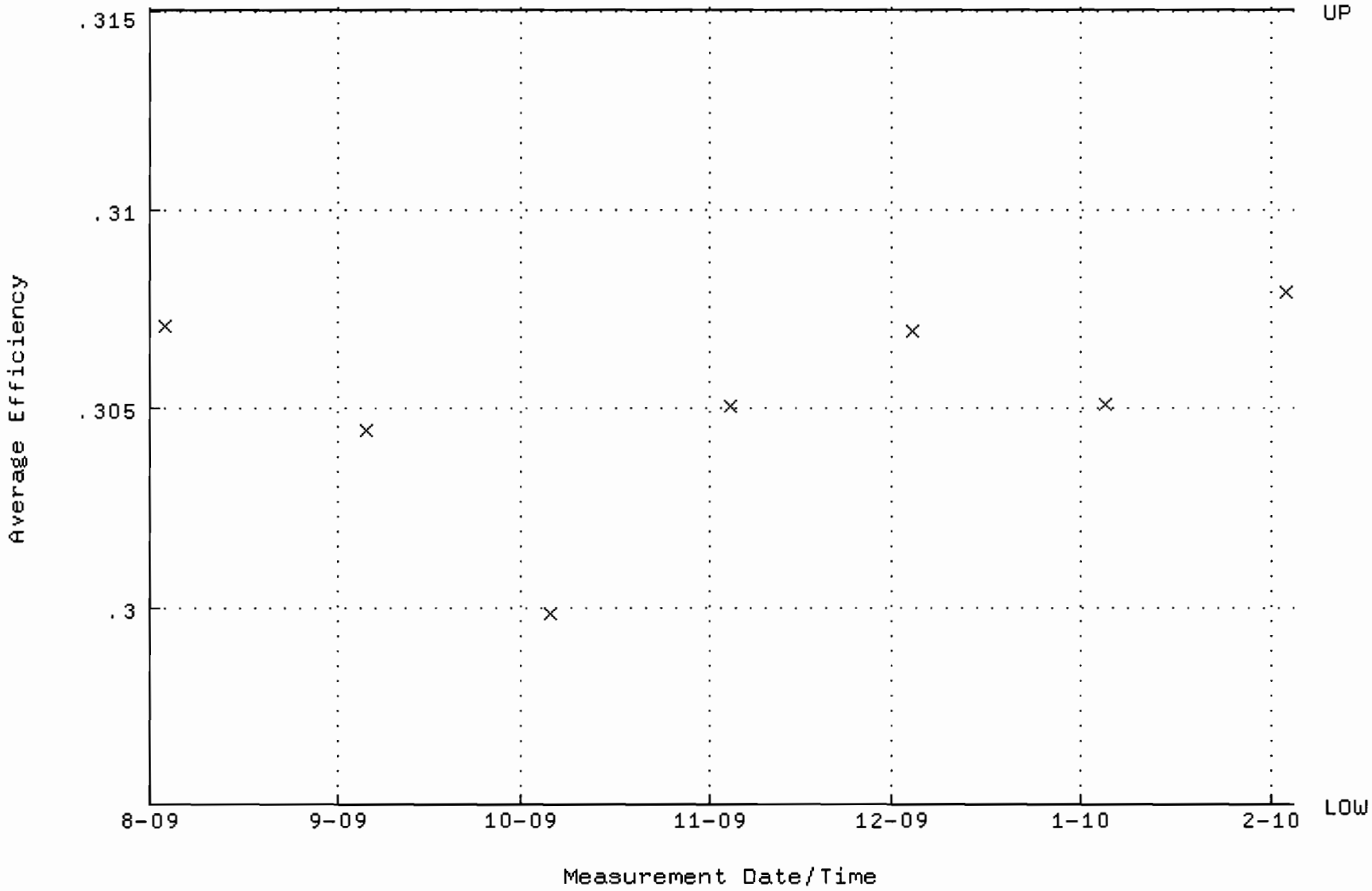

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.1965 through 94.1645

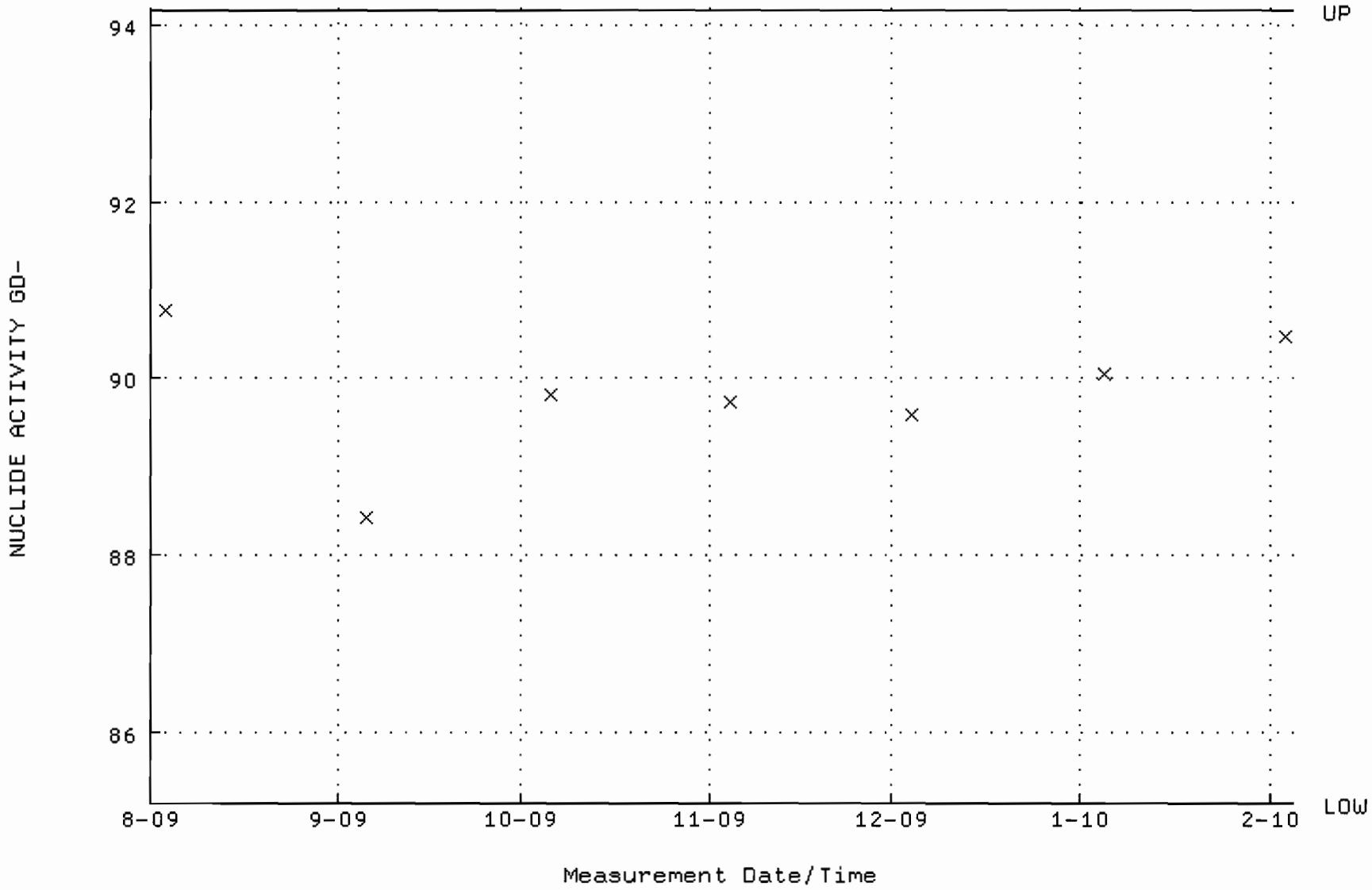

QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

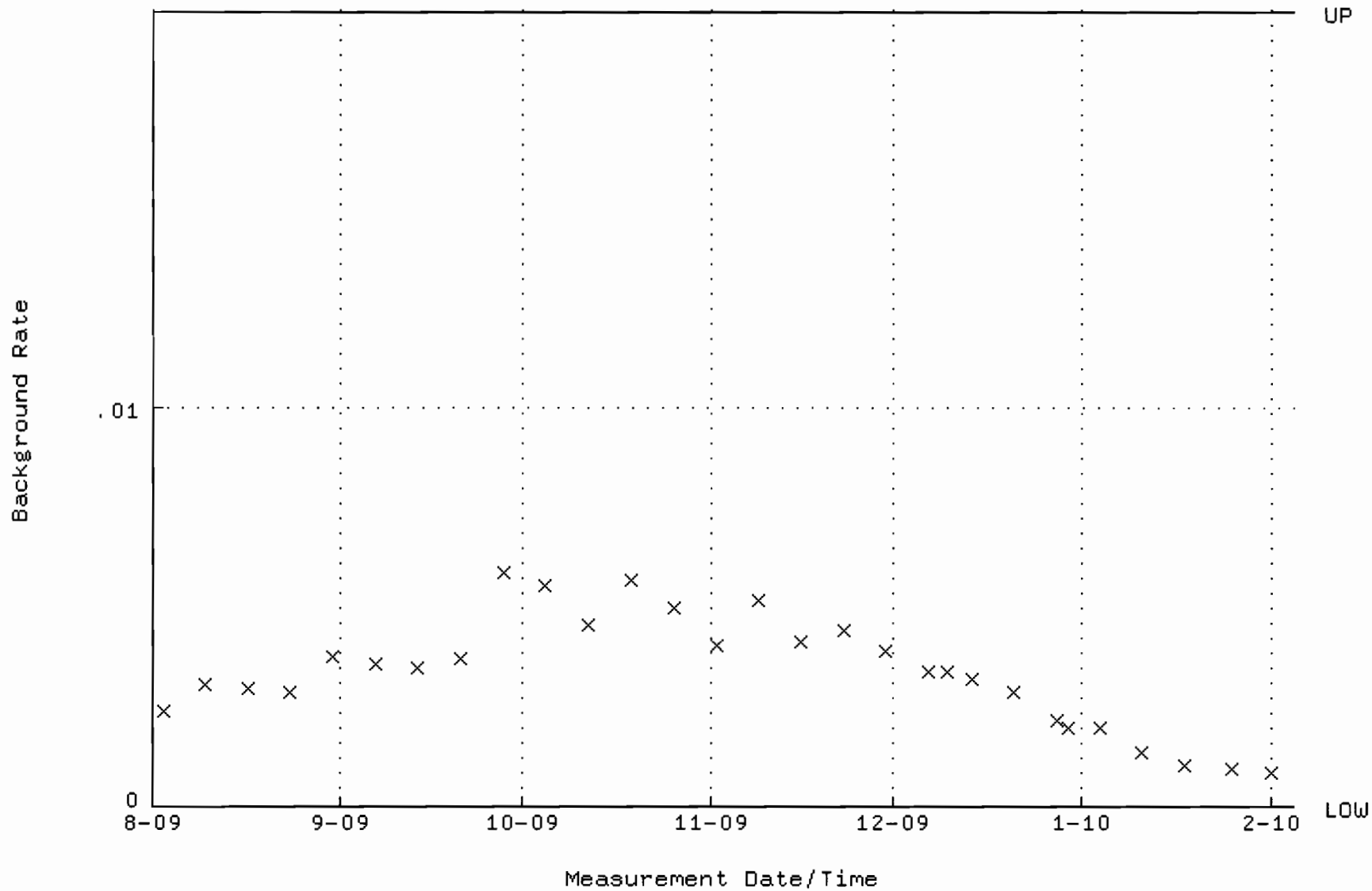

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

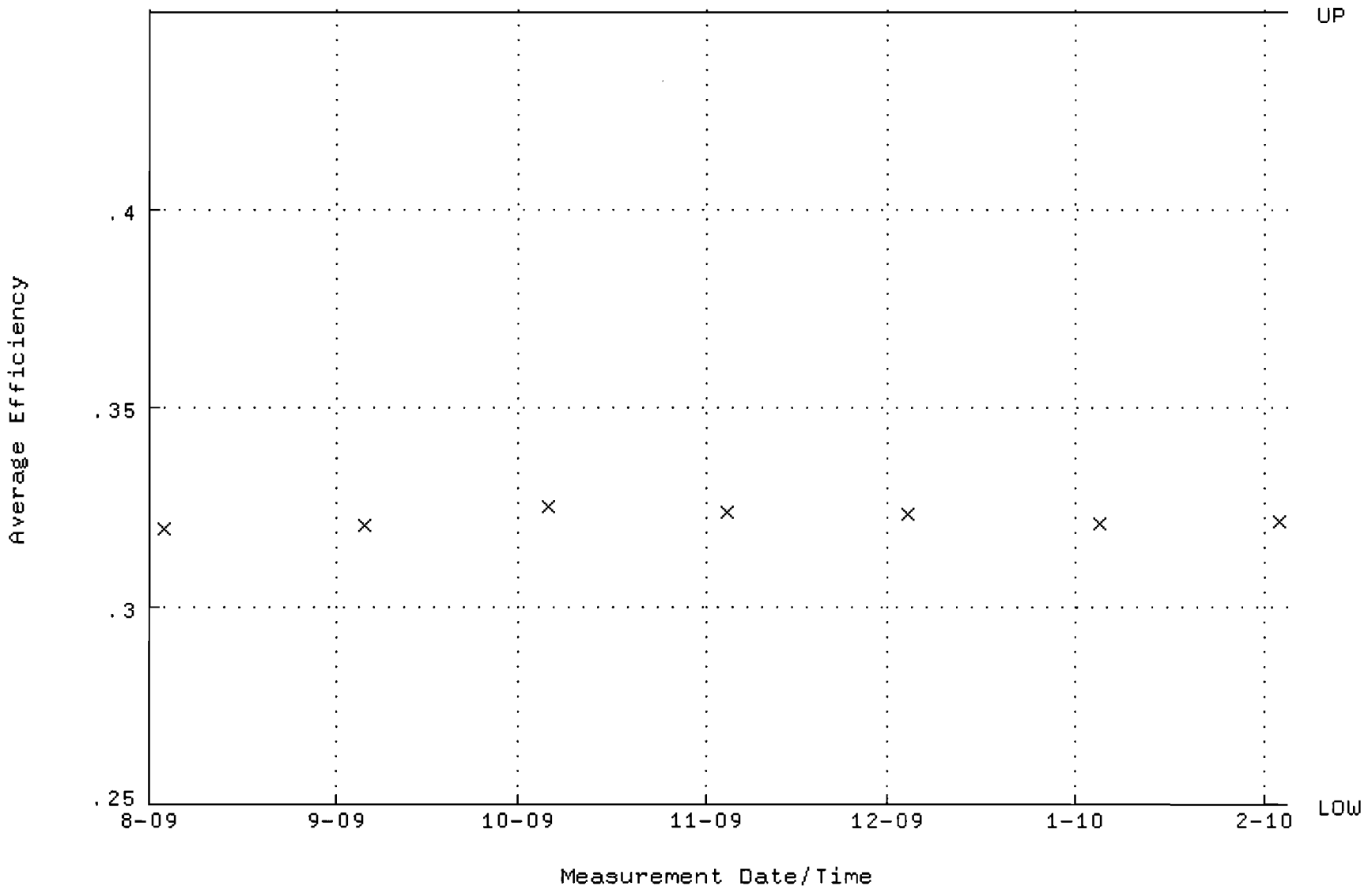

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:40 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

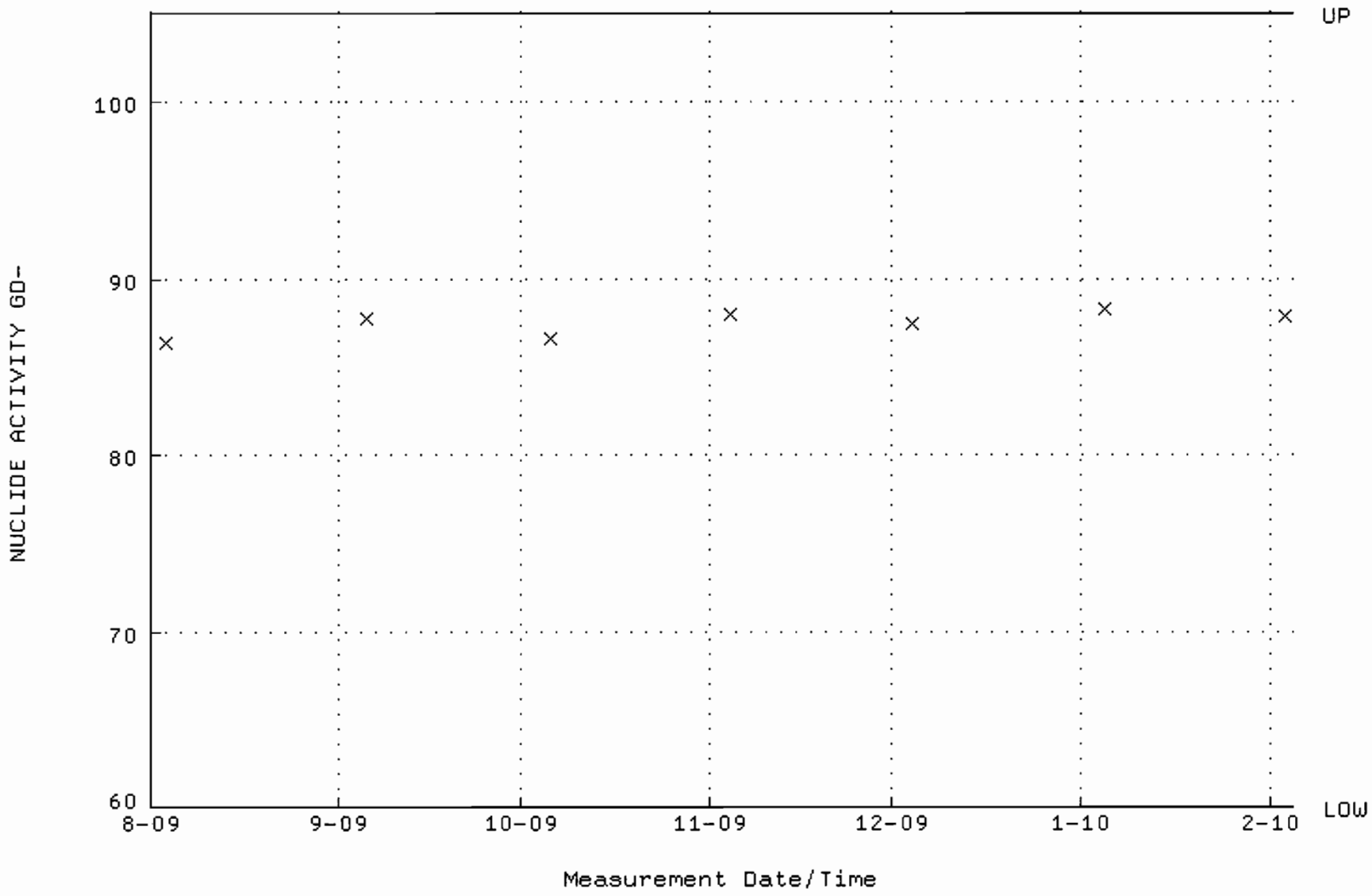

QA filename : DKA100:[ENV_ALPHA.QA.B]B030.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:35 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

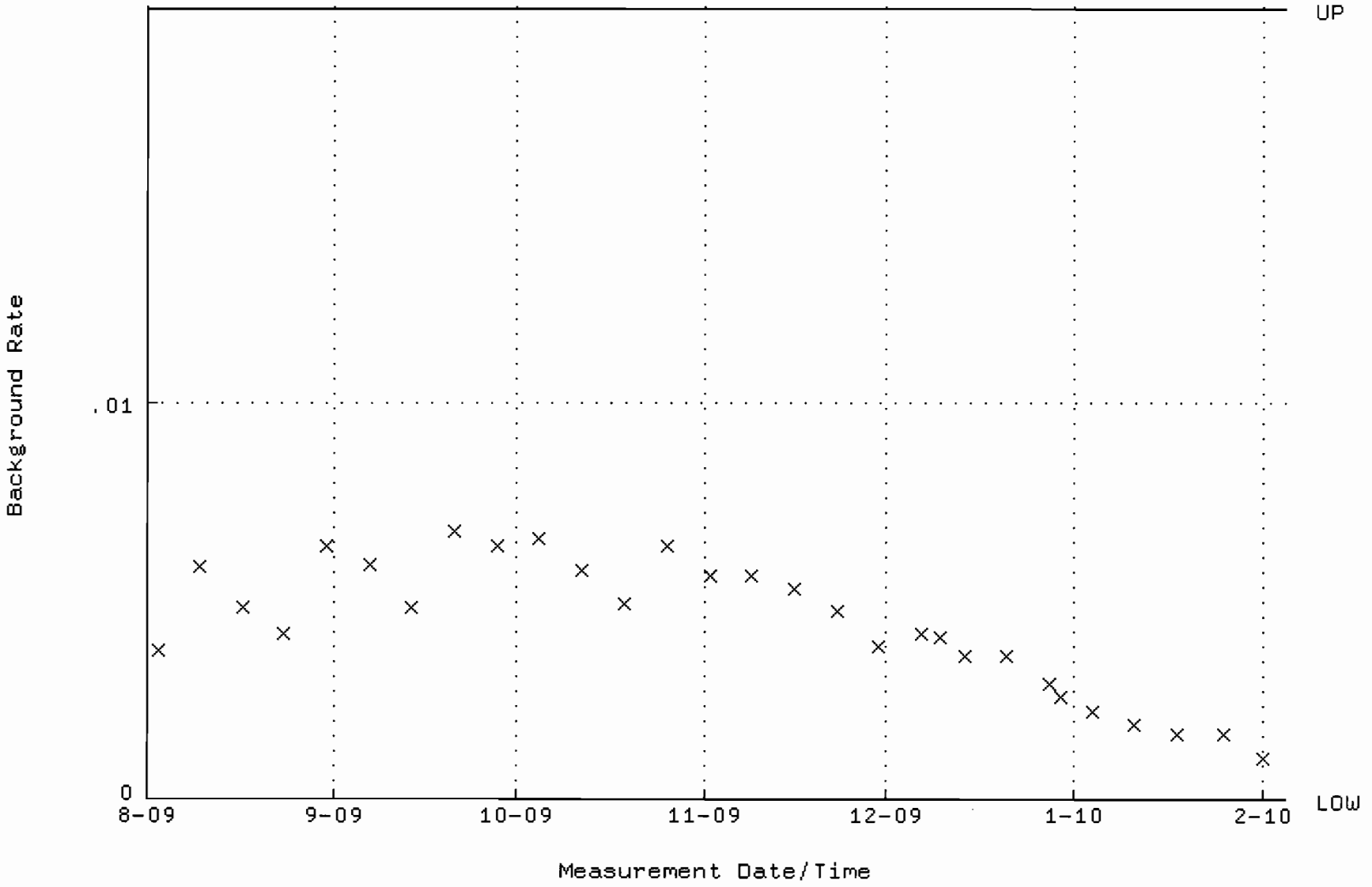

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335973 through 0.355973

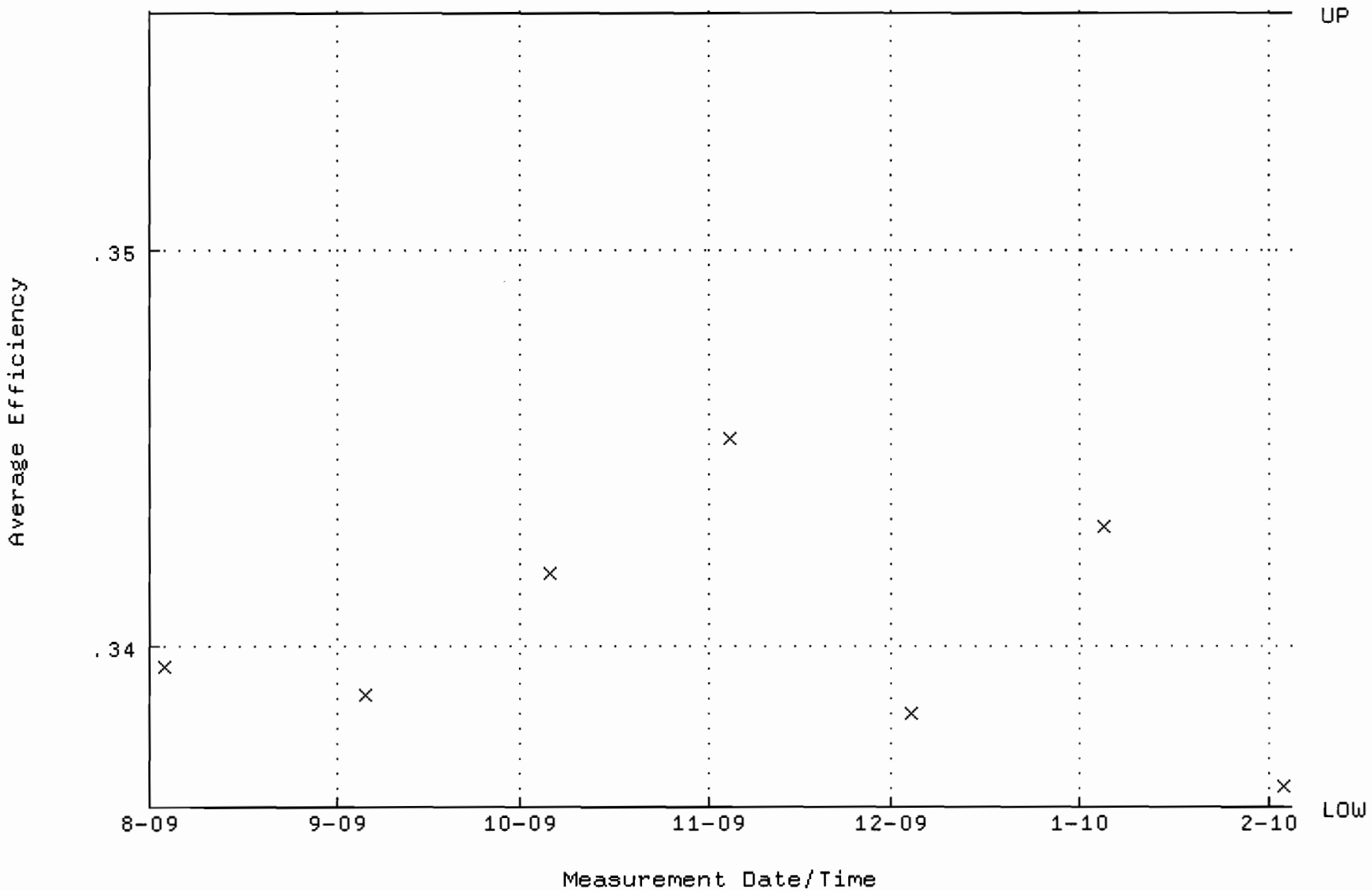

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 84.2440 through 93.1118

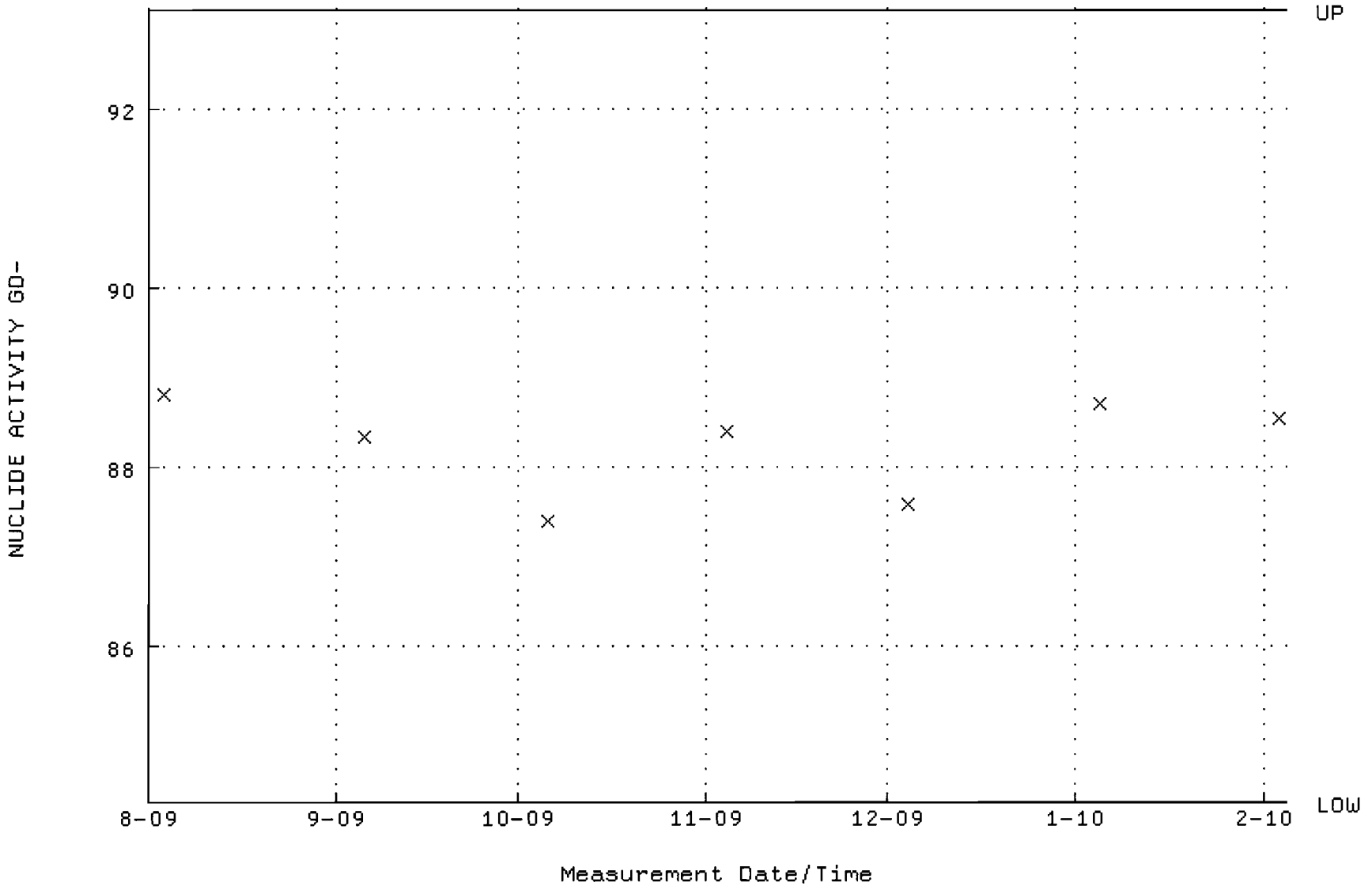

QA filename : DKA100:[ENV_ALPHA.QA.B]B043.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

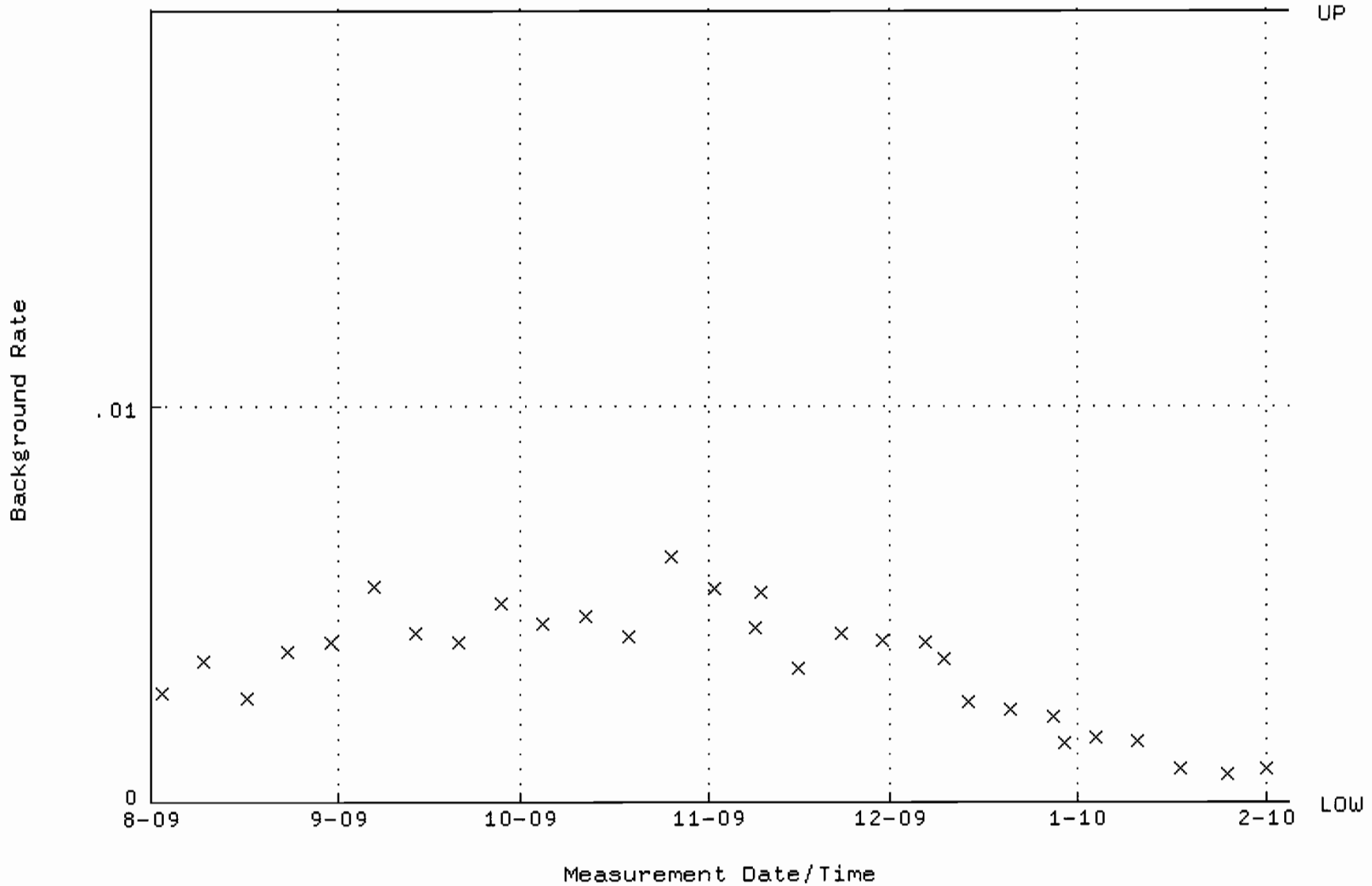

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.335557 through 0.360677

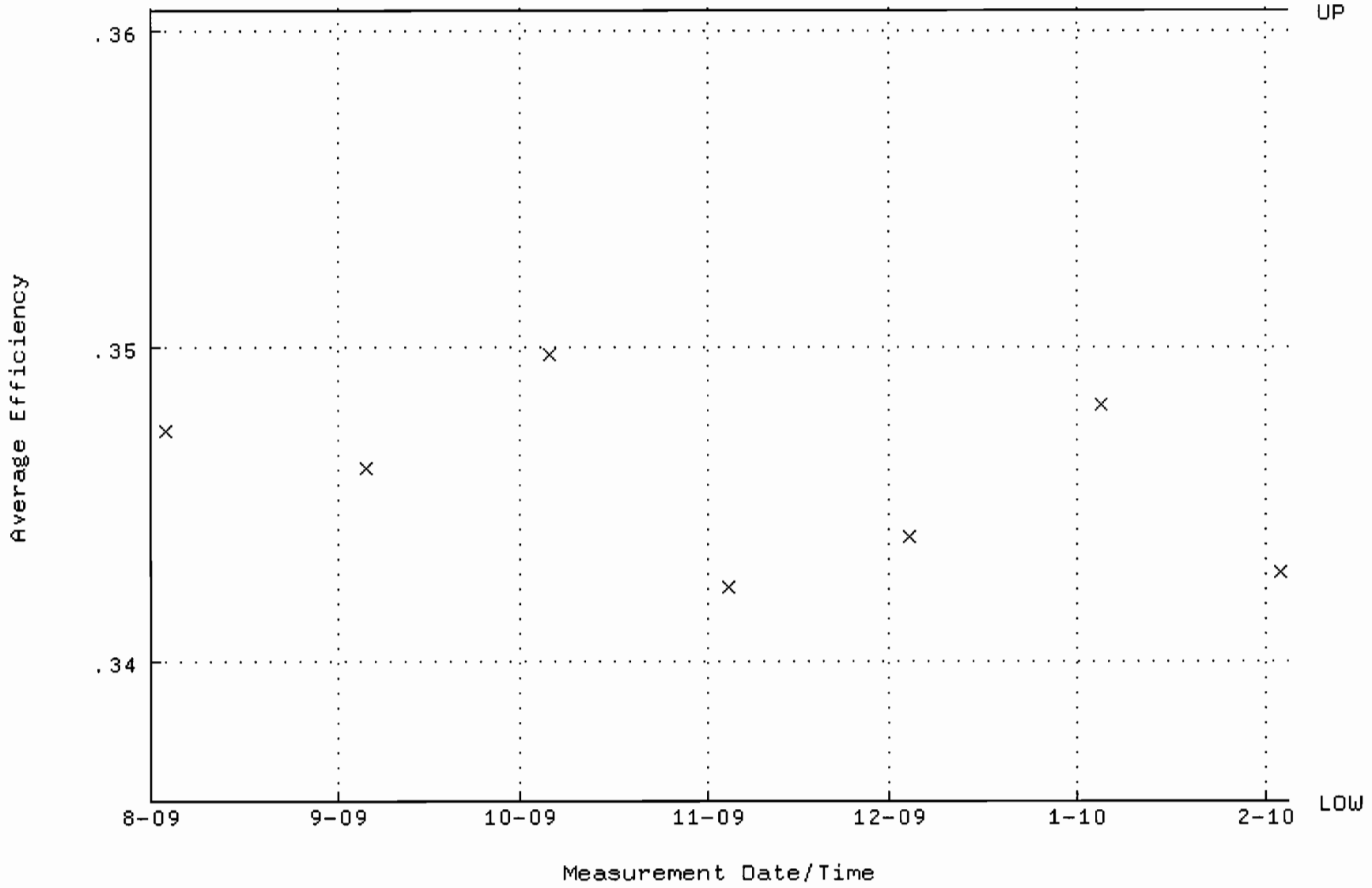

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8425 through 89.6949

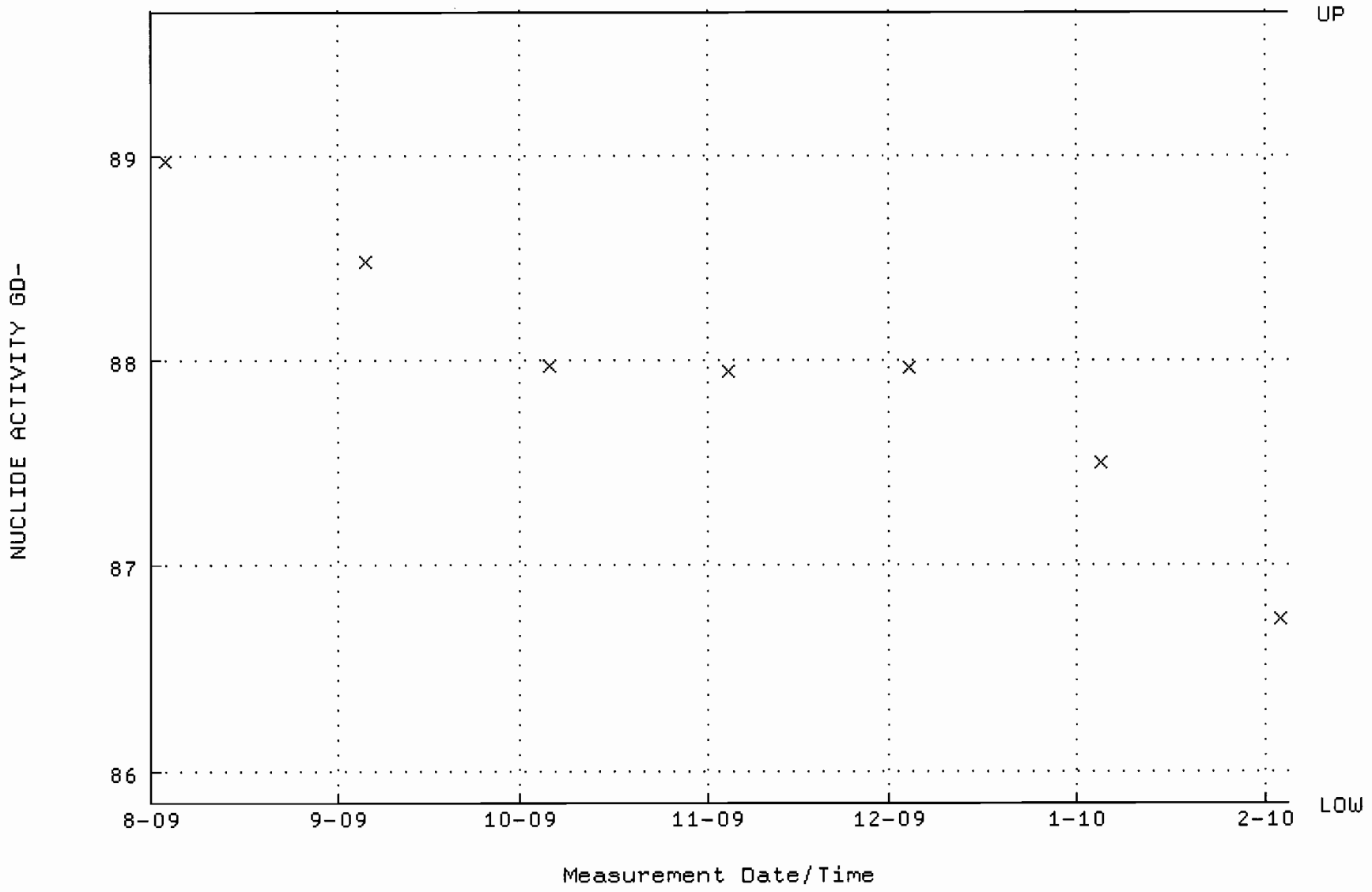

QA filename : DKA100:[ENV_ALPHA.QA.B]B044.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

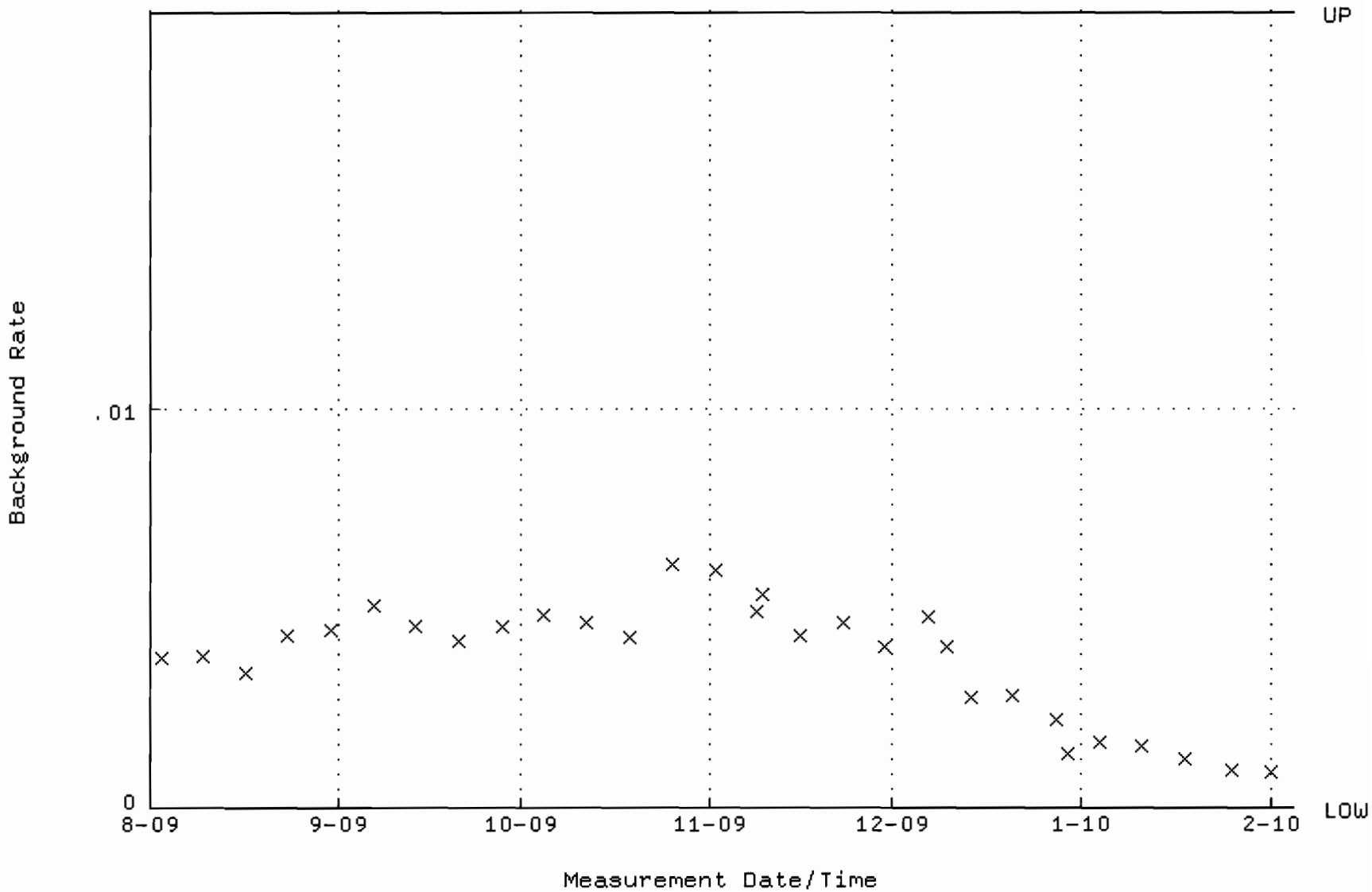

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.332472 through 0.352472

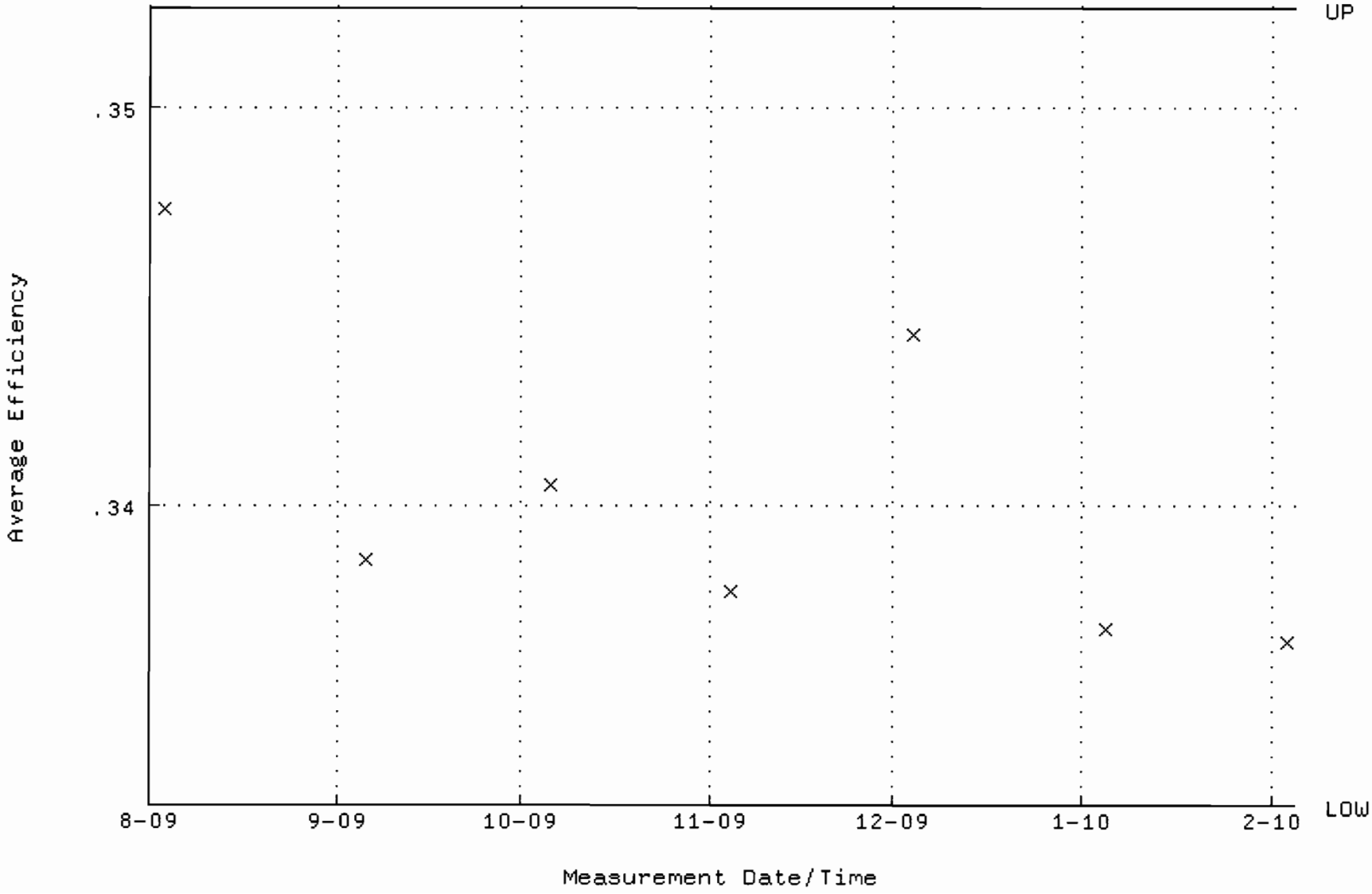

QA filename : DKA100:[ENV_ALPHA.QA.W]W045.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 10:53:44 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 80.4622 through 88.9320

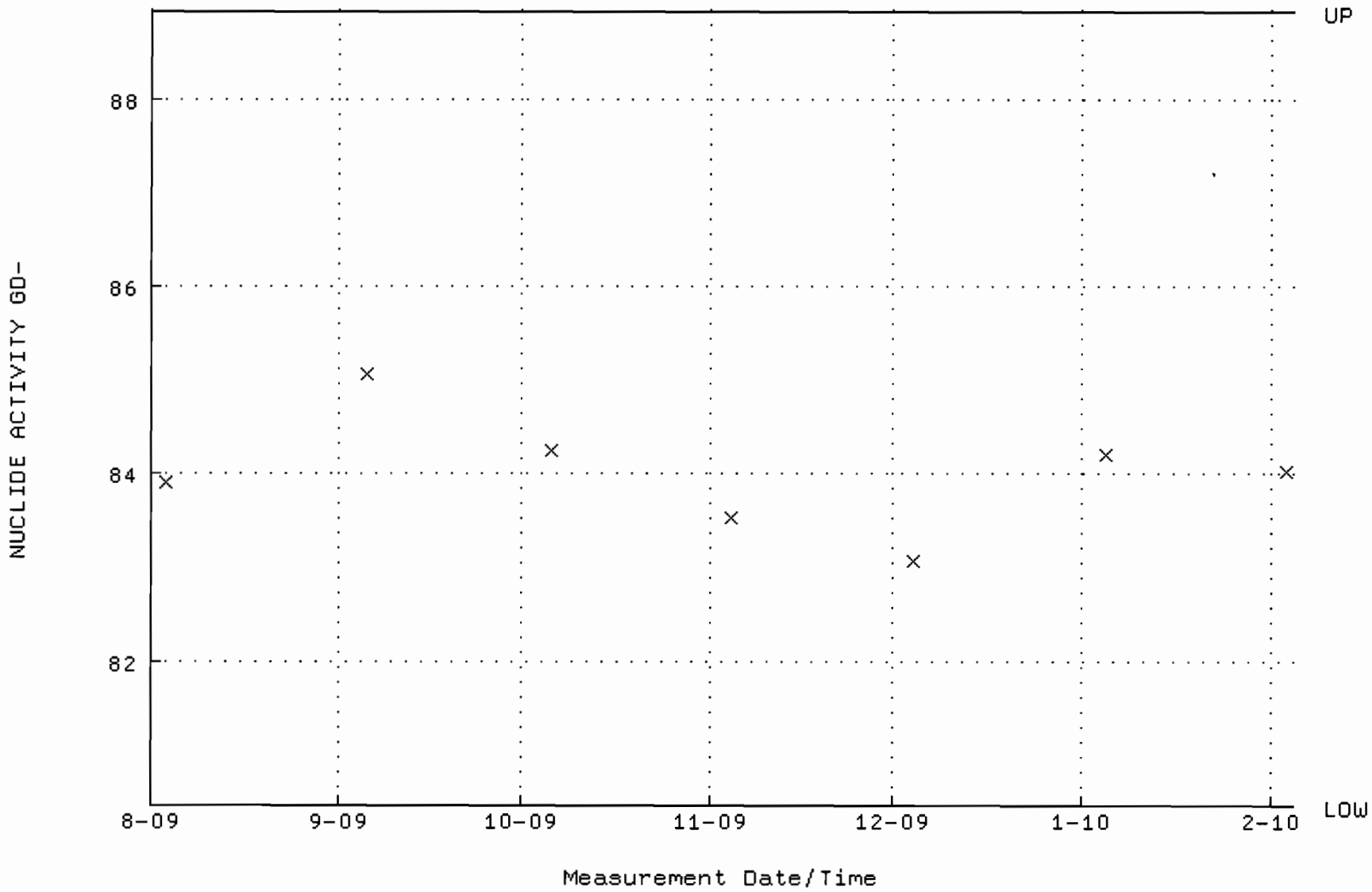

QA filename : DKA100:[ENV_ALPHA.QA.B]B045.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:37 through 4-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

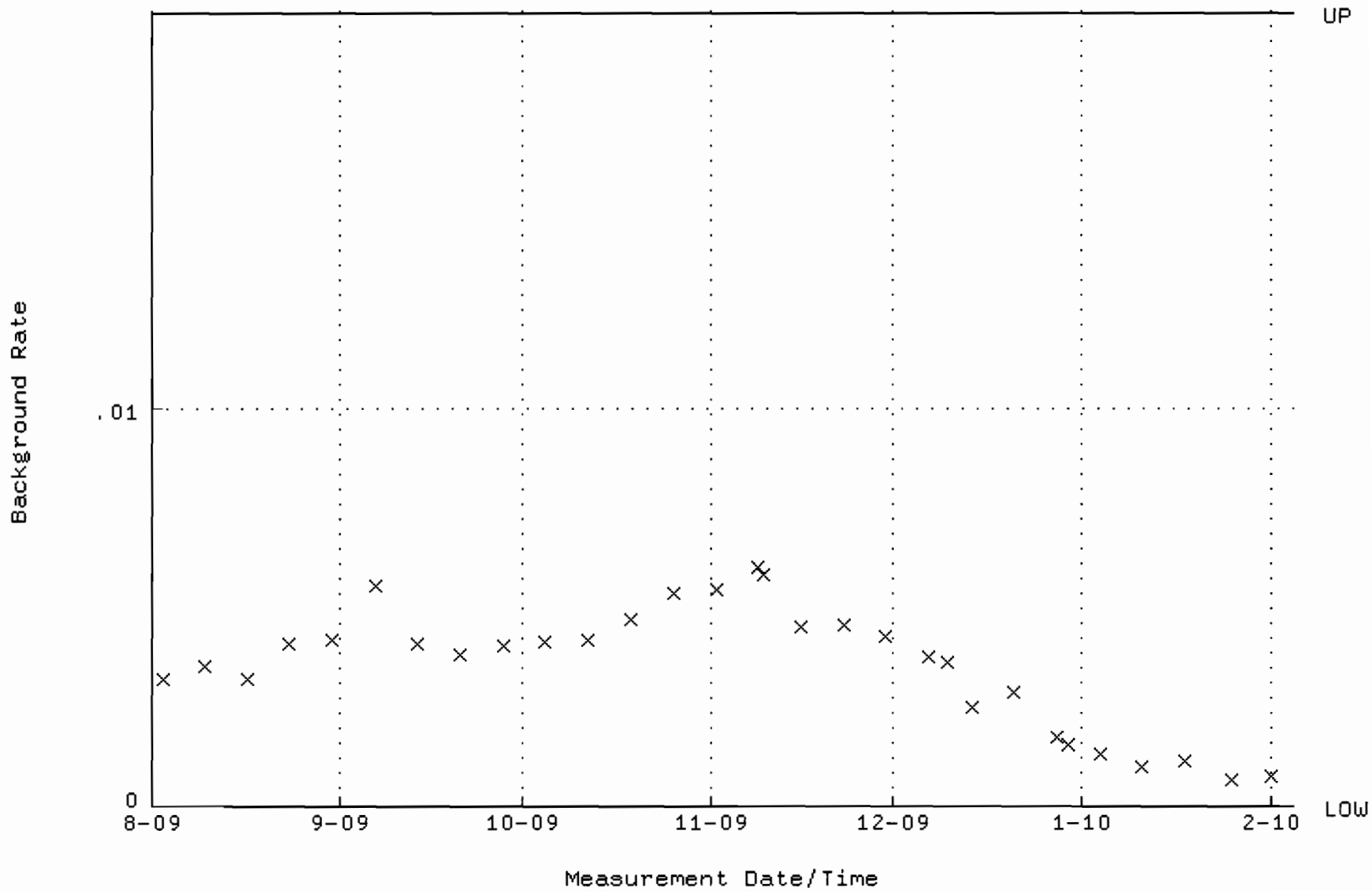

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.302750 through 0.322750

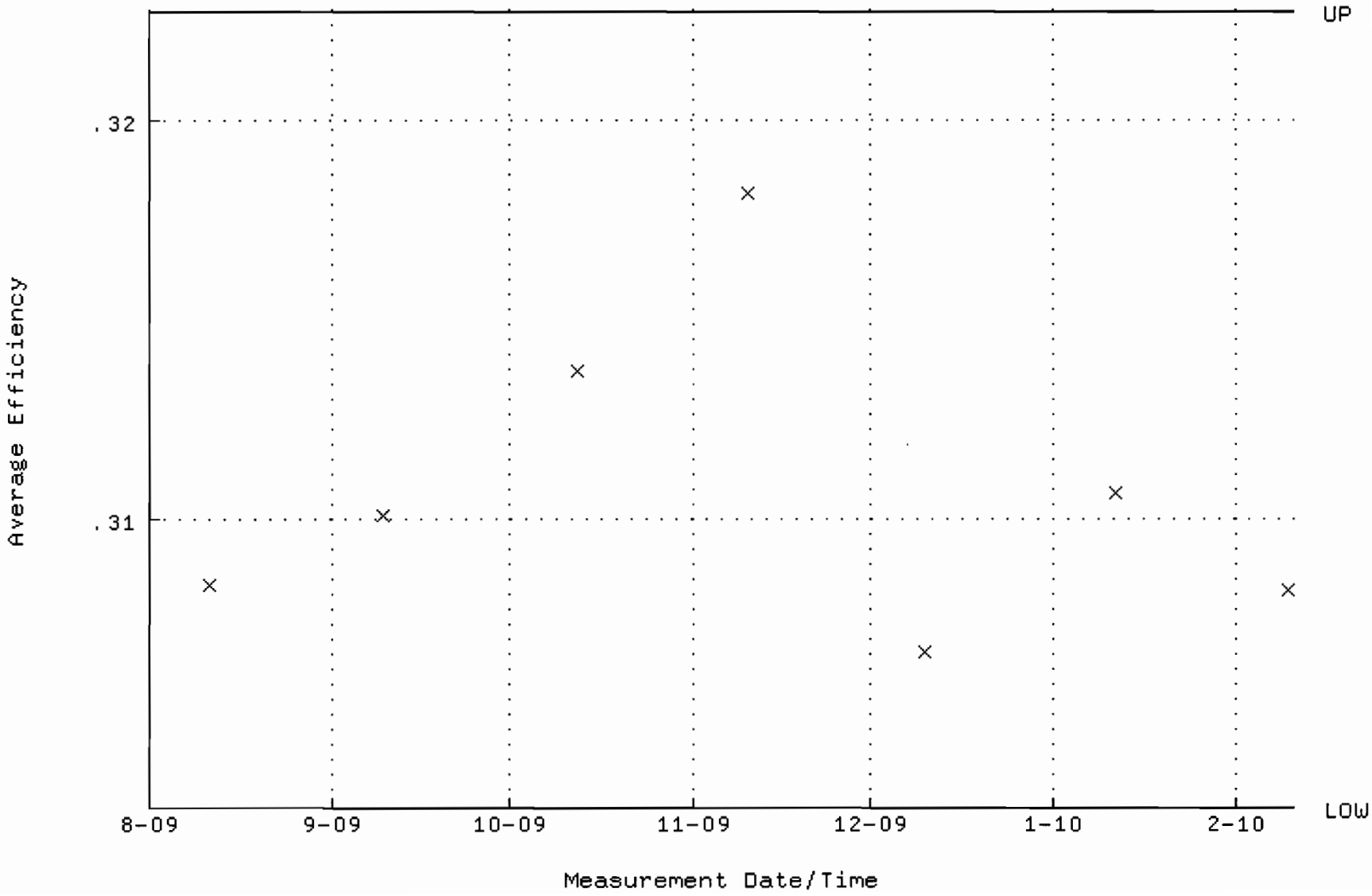

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8638 through 96.0074

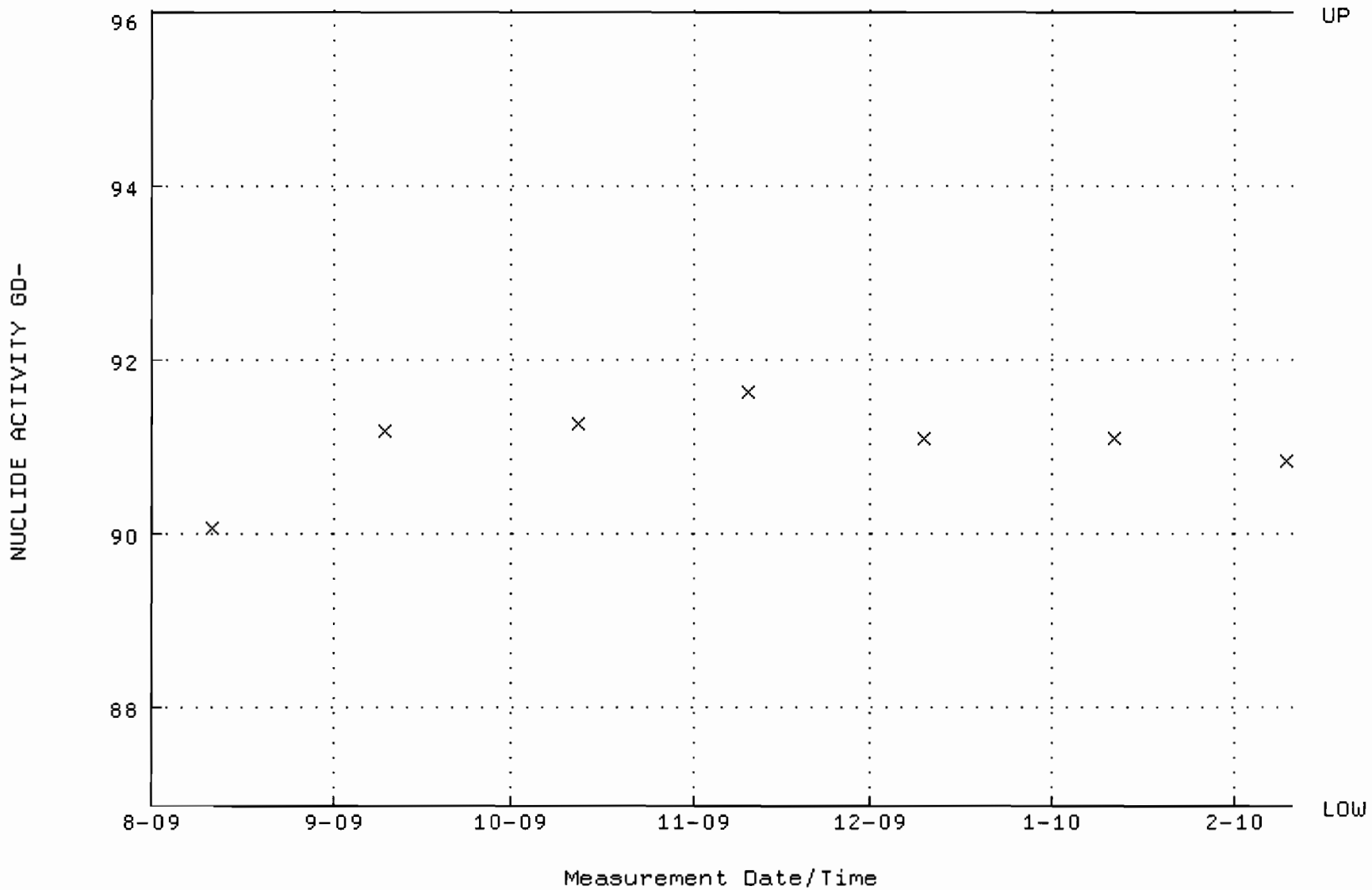

QA filename : DKA100:[ENV_ALPHA.QA.B]B065.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

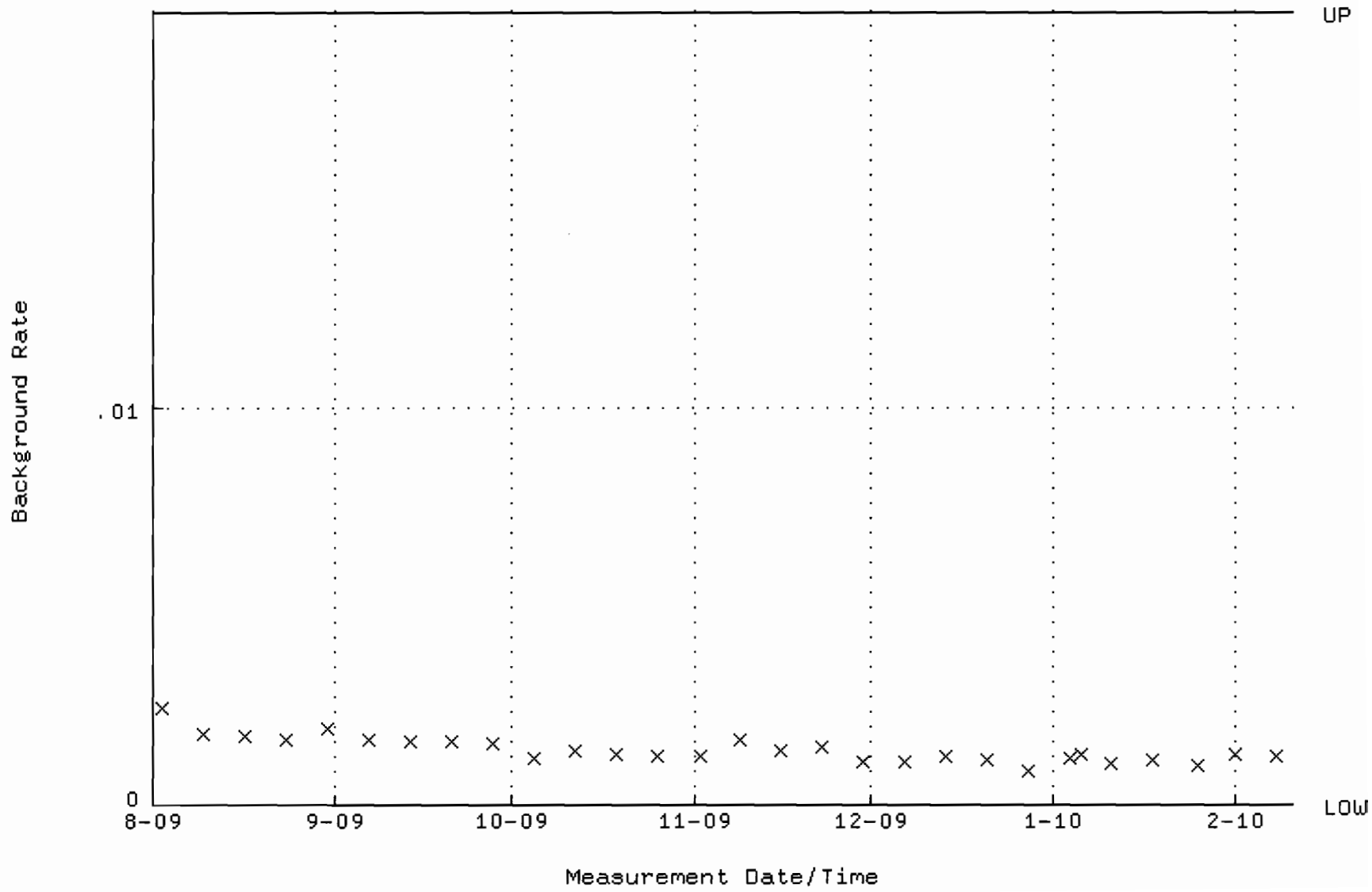

QA filename : DKA100:[ENV_ALPHA.QA.W]W066.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.300416 through 0.320416

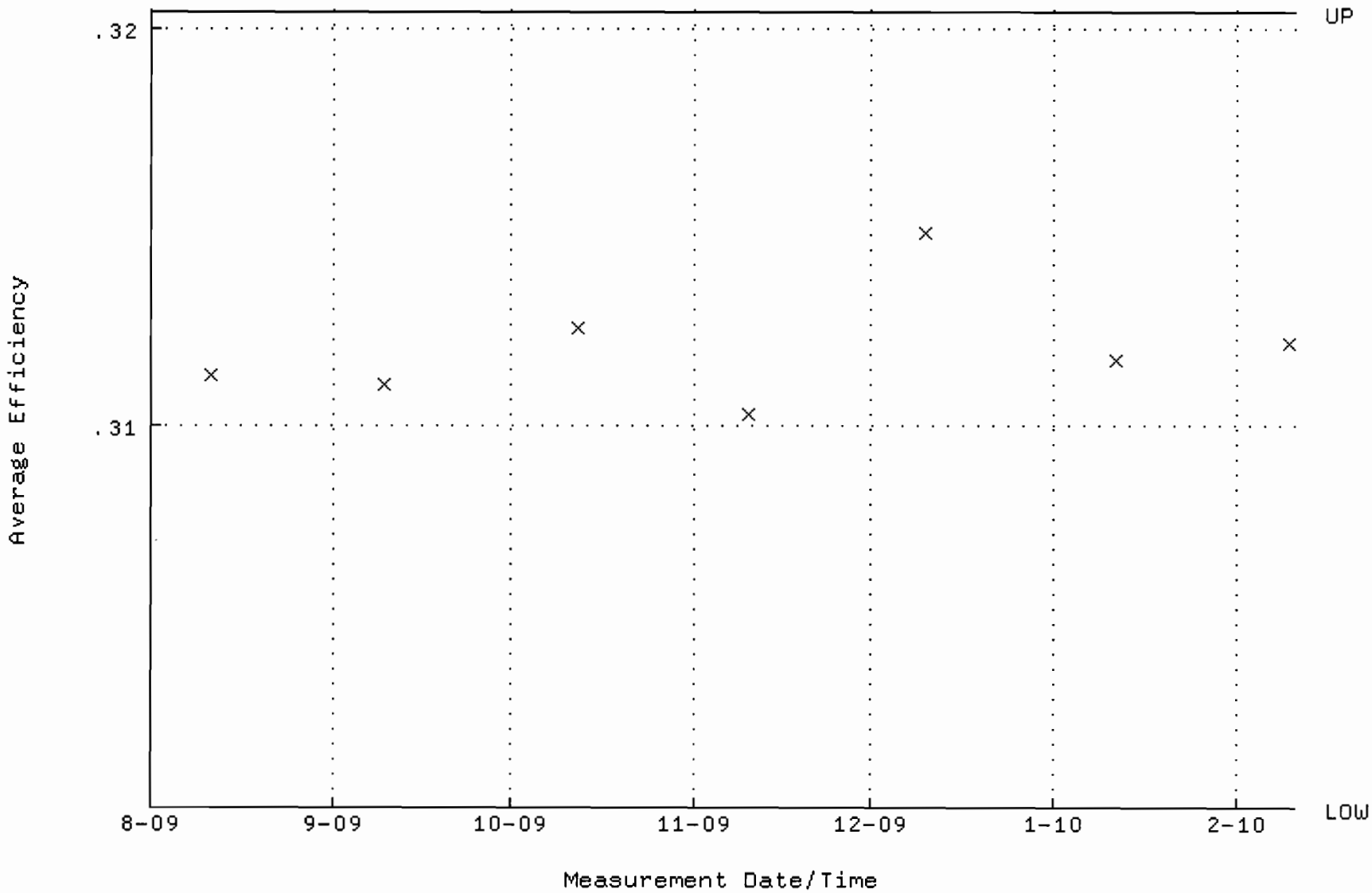

QA filename : DKA100:[ENV_ALPHA.QA.W]W066.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.0864 through 94.0428

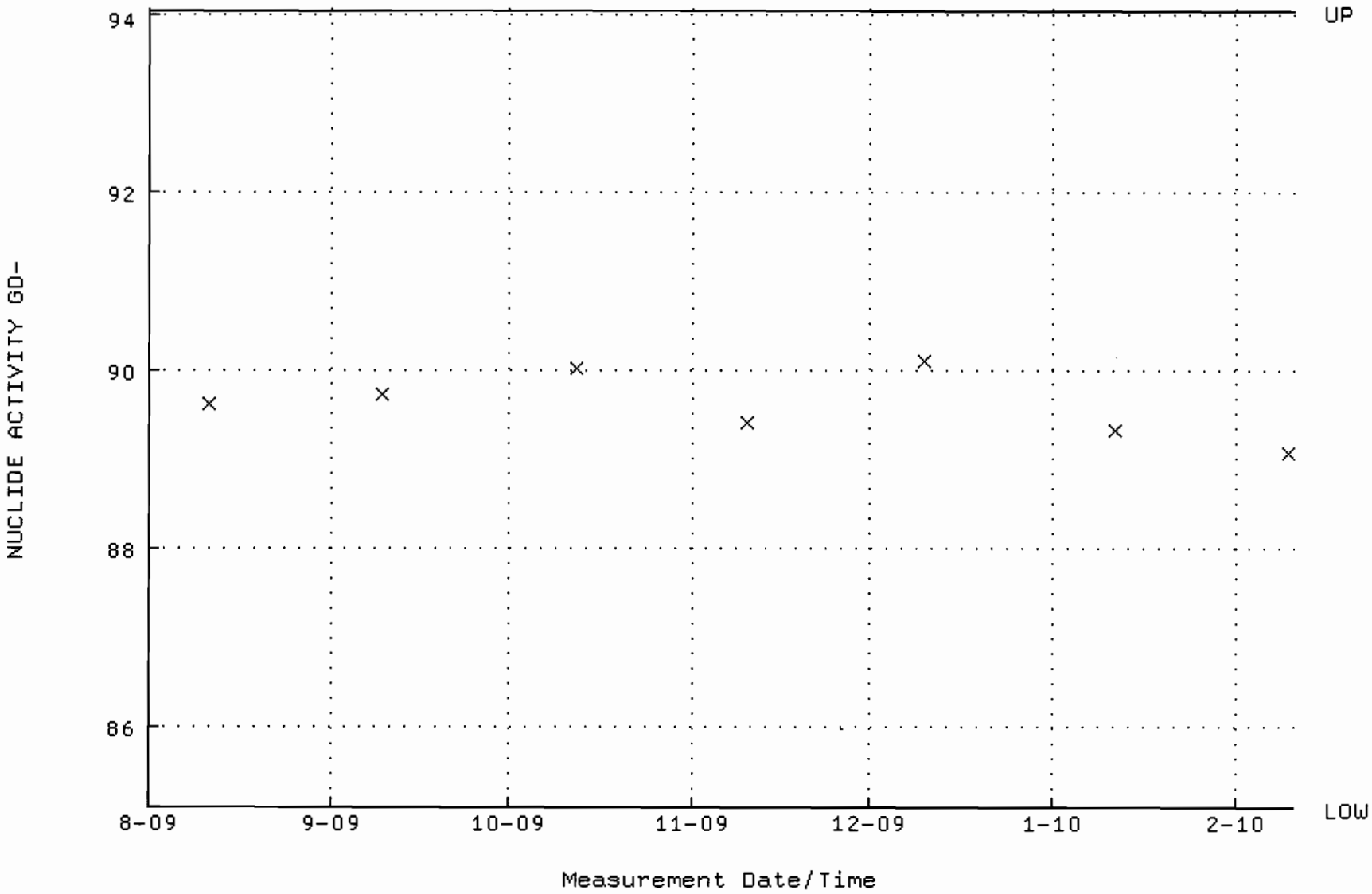

QA filename : DKA100:[ENV_ALPHA.QA.B]B066.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

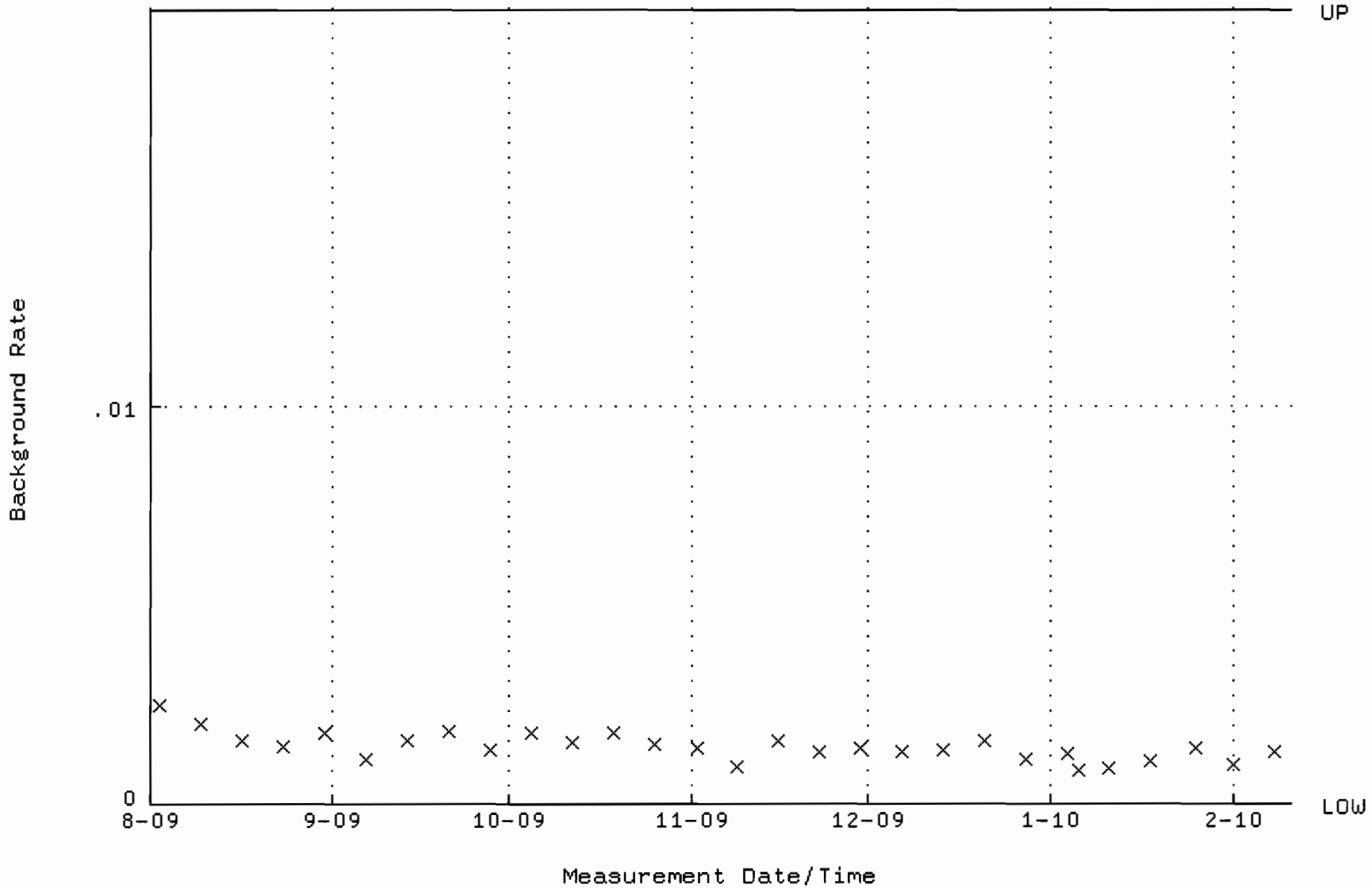

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316597 through 0.336597

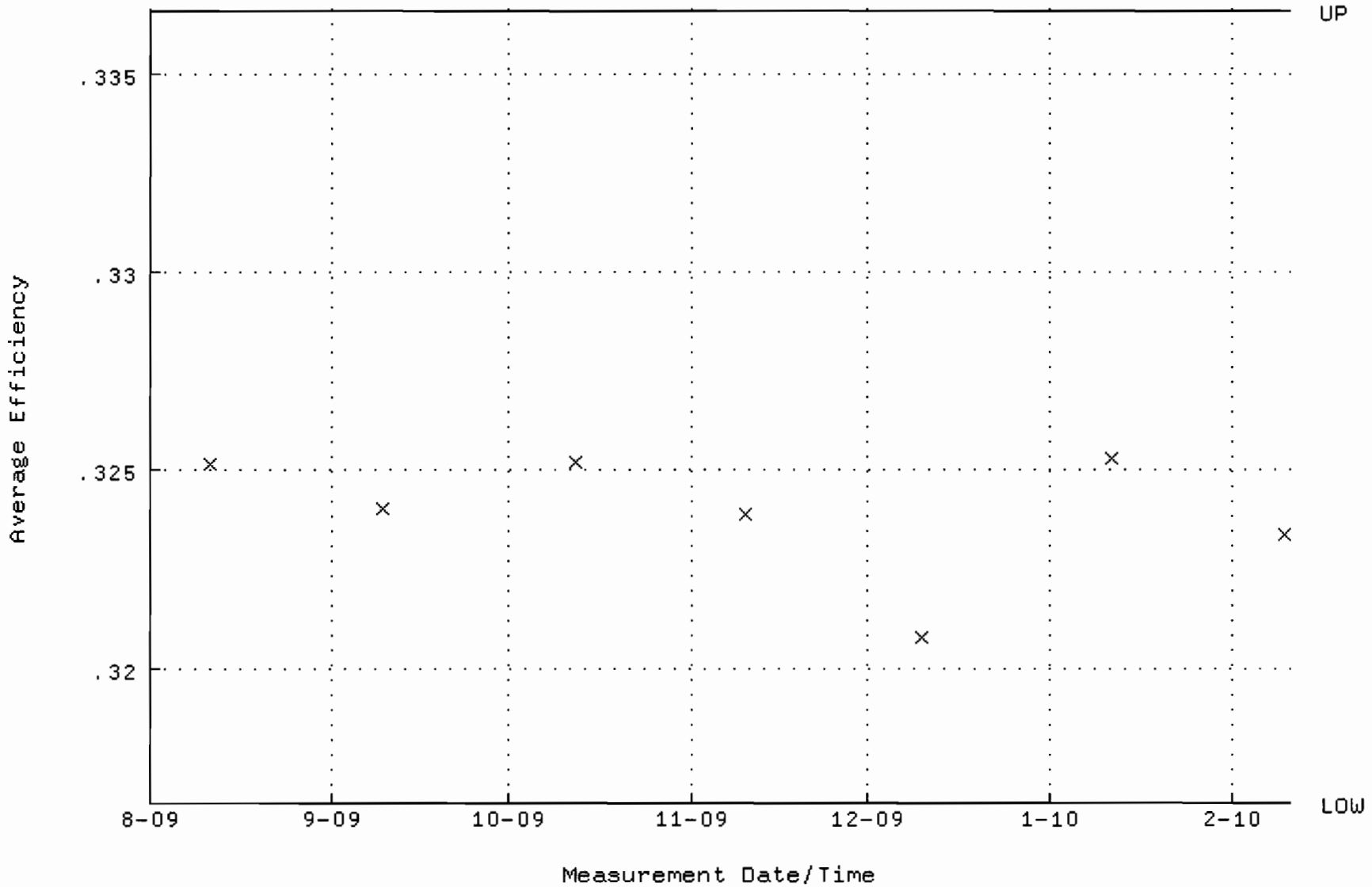

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:10 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.2683 through 95.3491

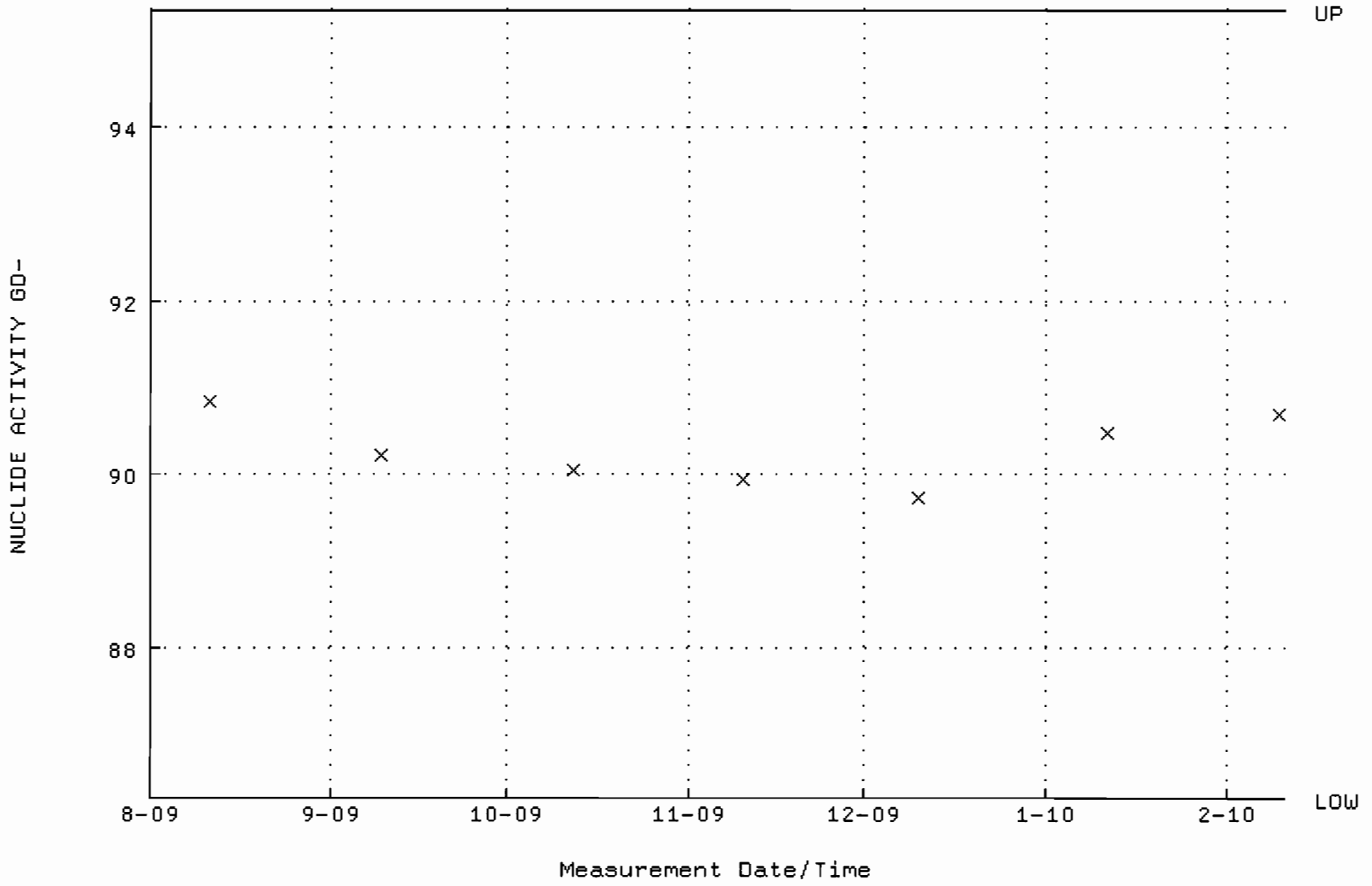

QA filename : DKA100:[ENV_ALPHA.QA.B]B067.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:38 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

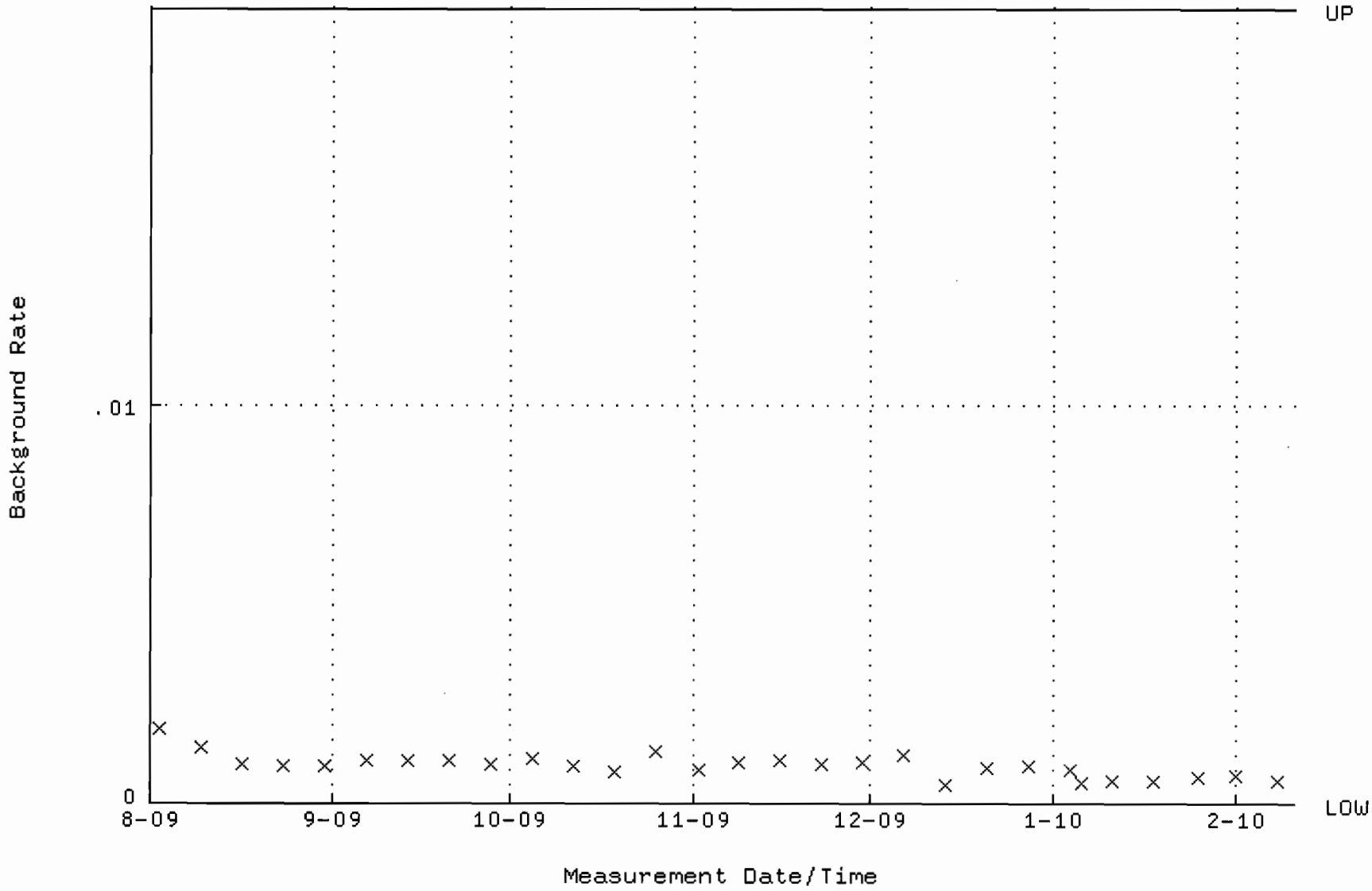

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.309161 through 0.329161

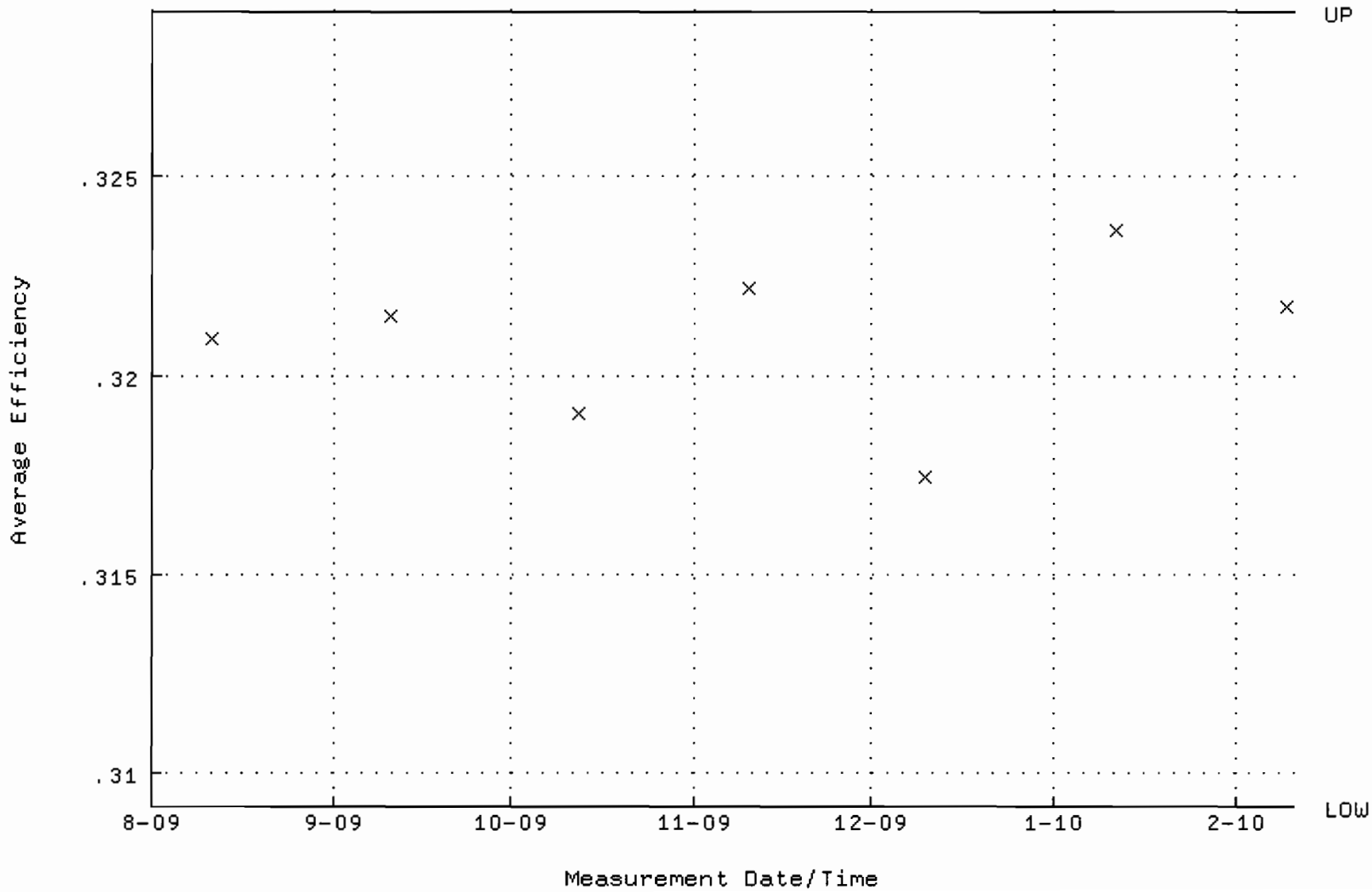

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7769 through 95.9113

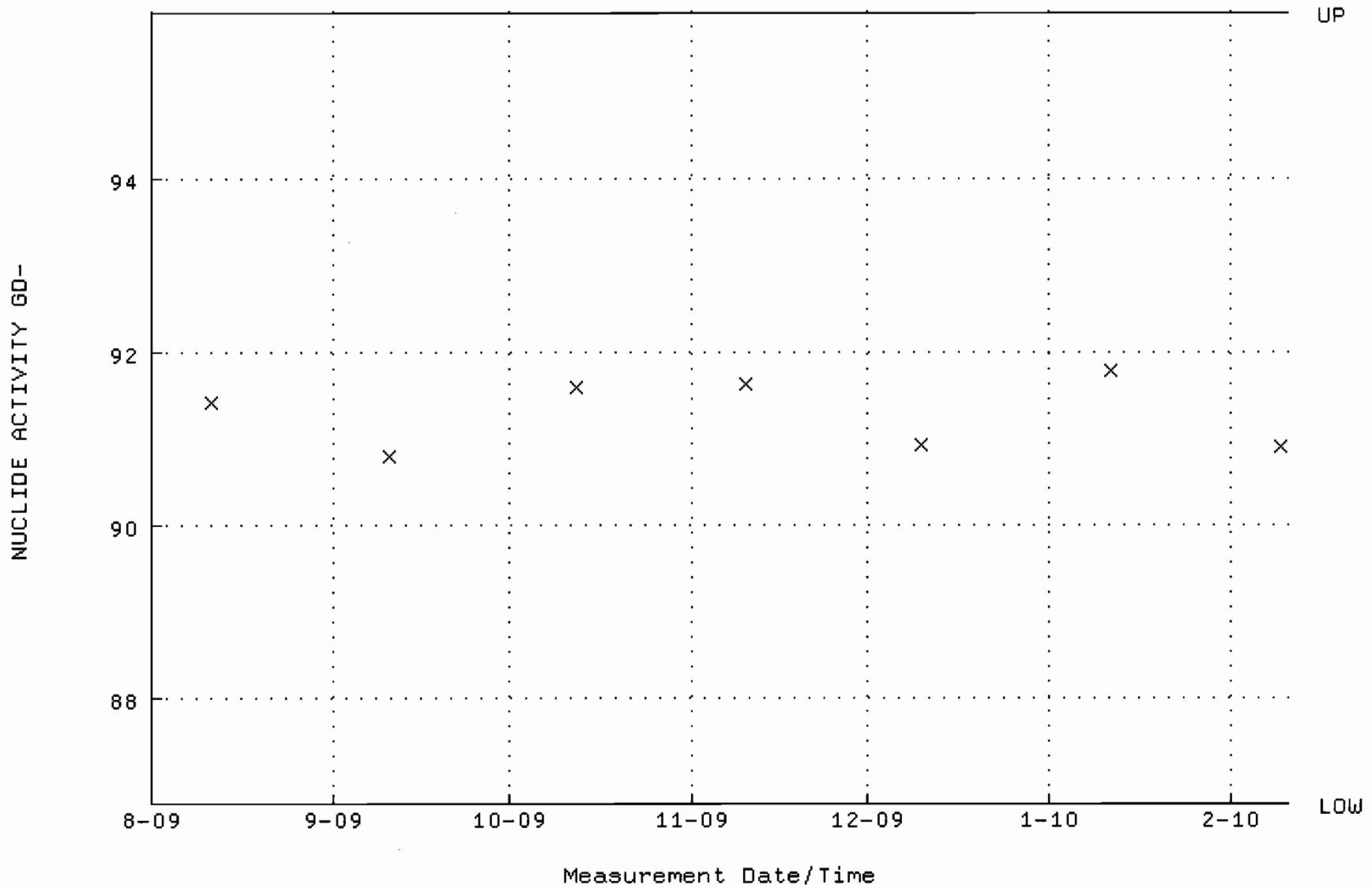

QA filename : DKA100:[ENV_ALPHA.QA.B]B071.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

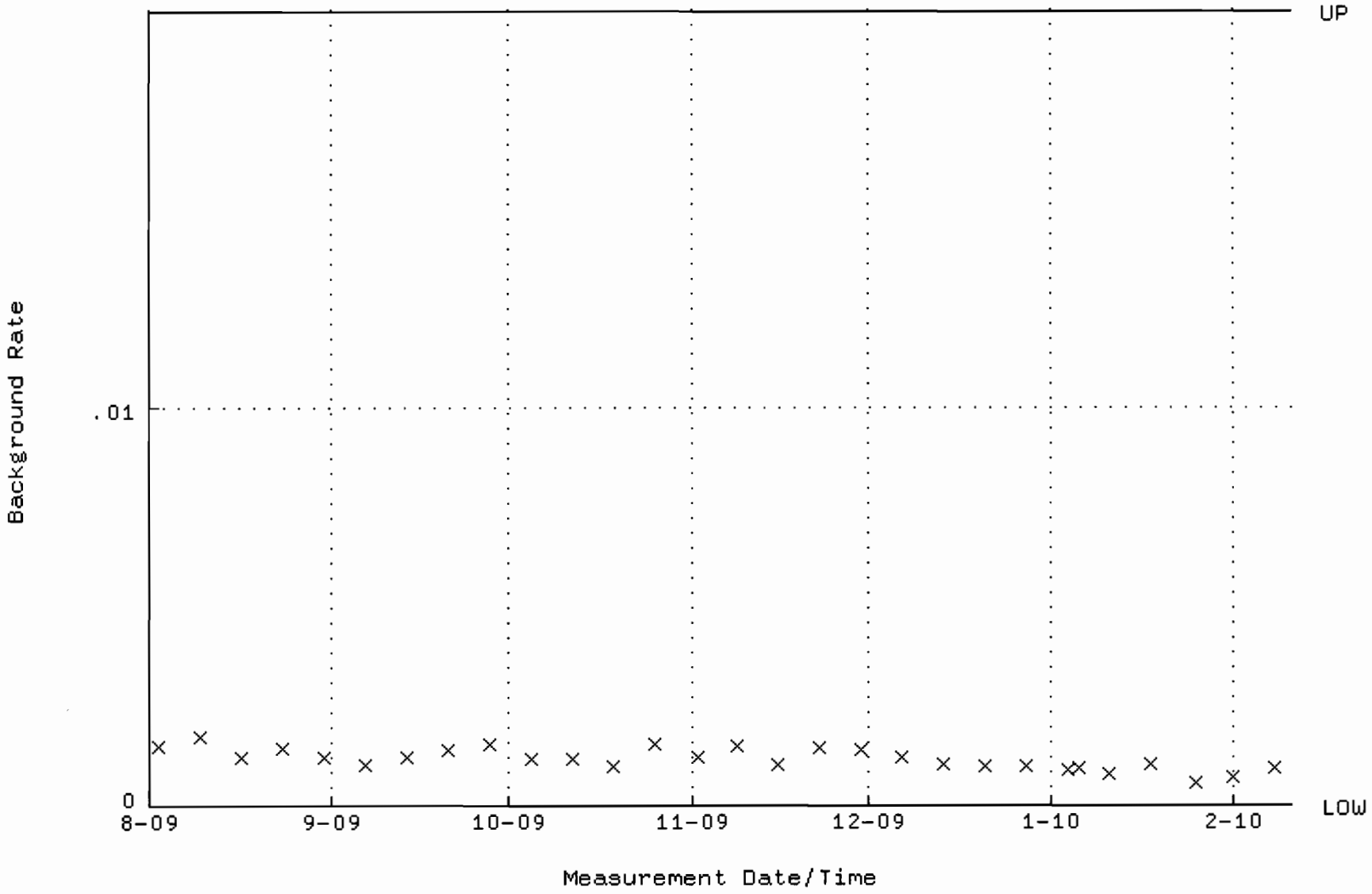

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.313761 through 0.333761

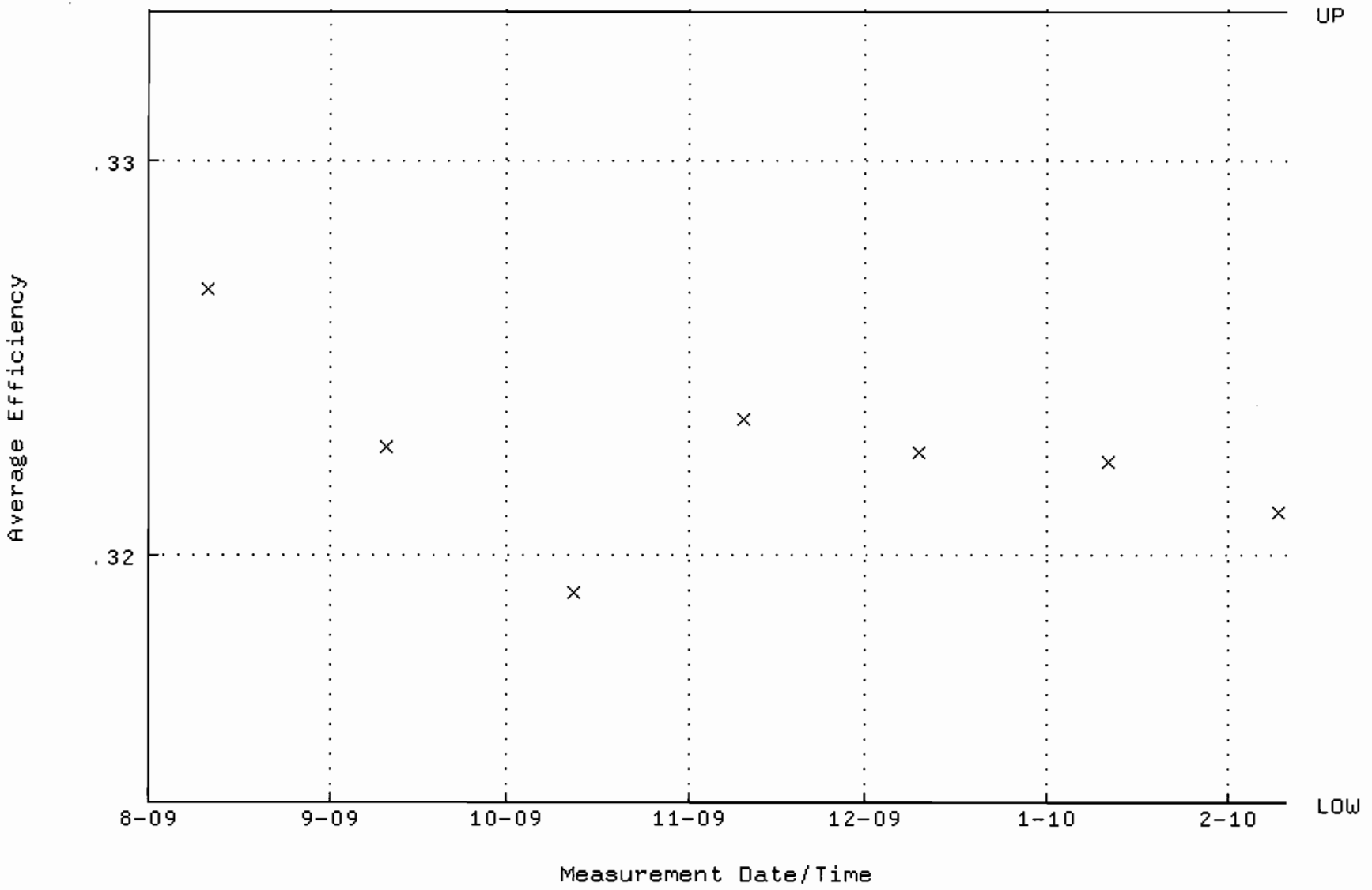

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.3348 through 96.5280

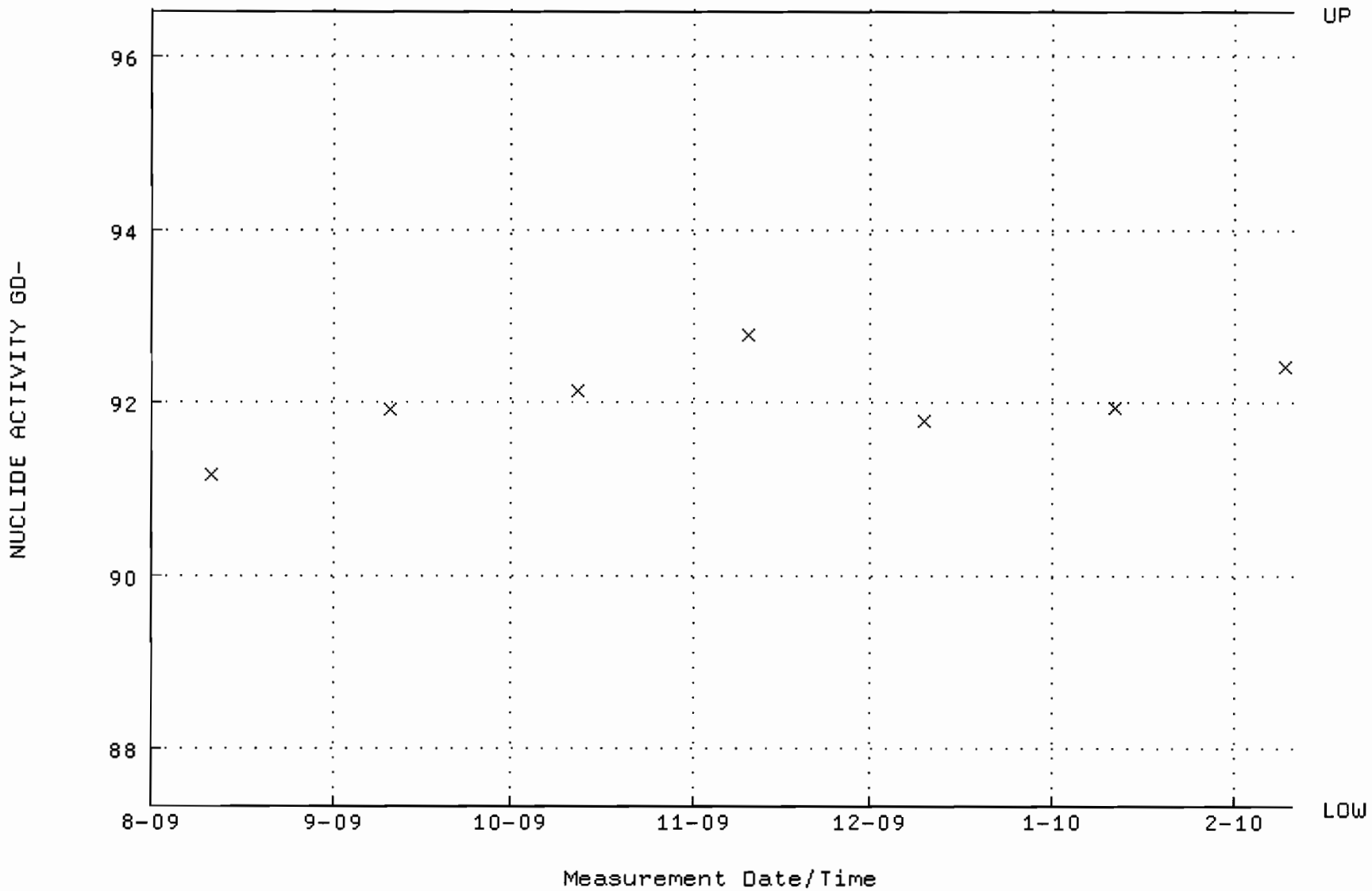

QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

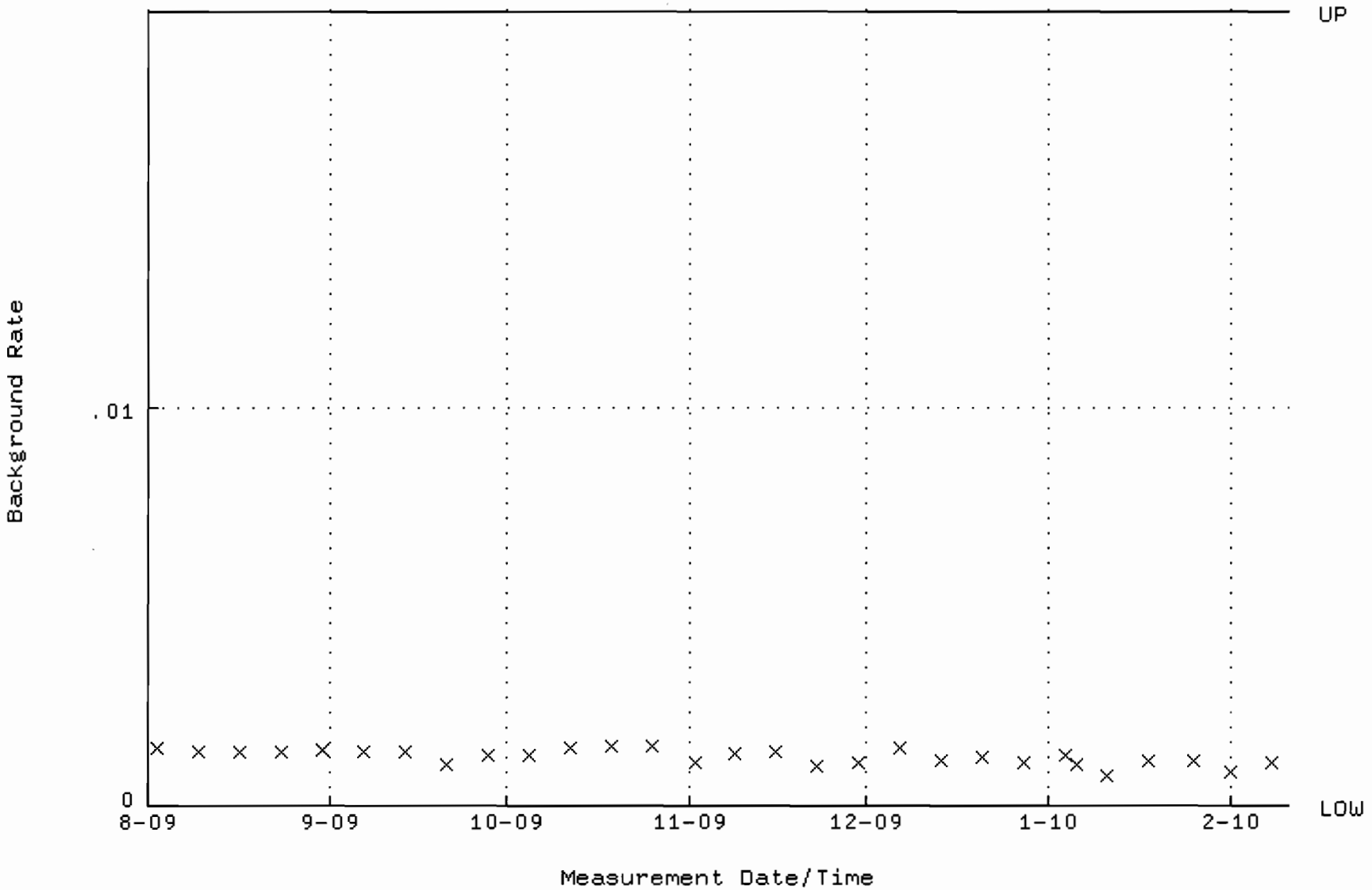

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.323184 through 0.343184

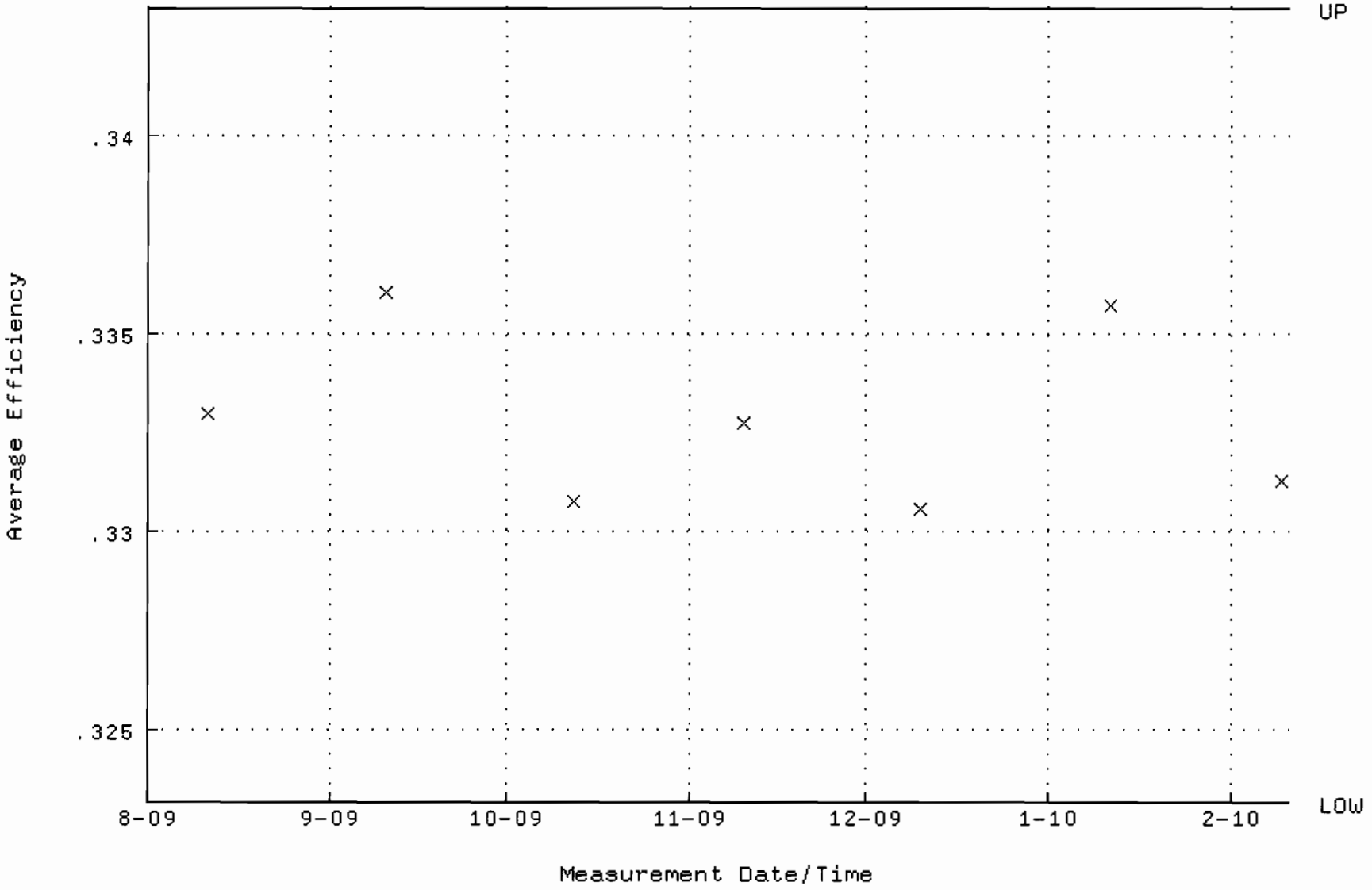

QA filename : DKA100:[ENV_ALPHA.QA.W]W073.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.6734 through 95.7970

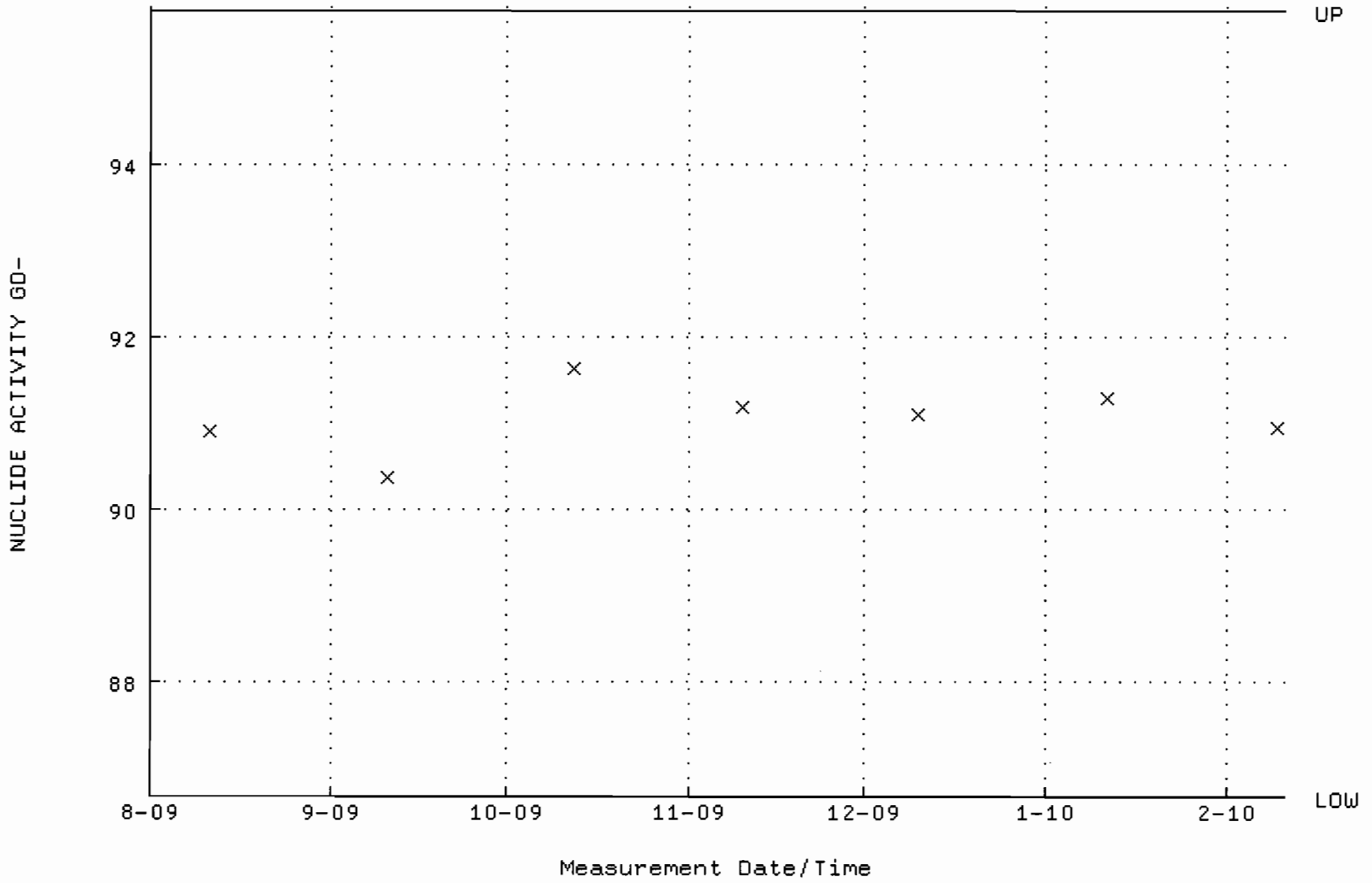

QA filename : DKA100:[ENV_ALPHA.QA.B]B073.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

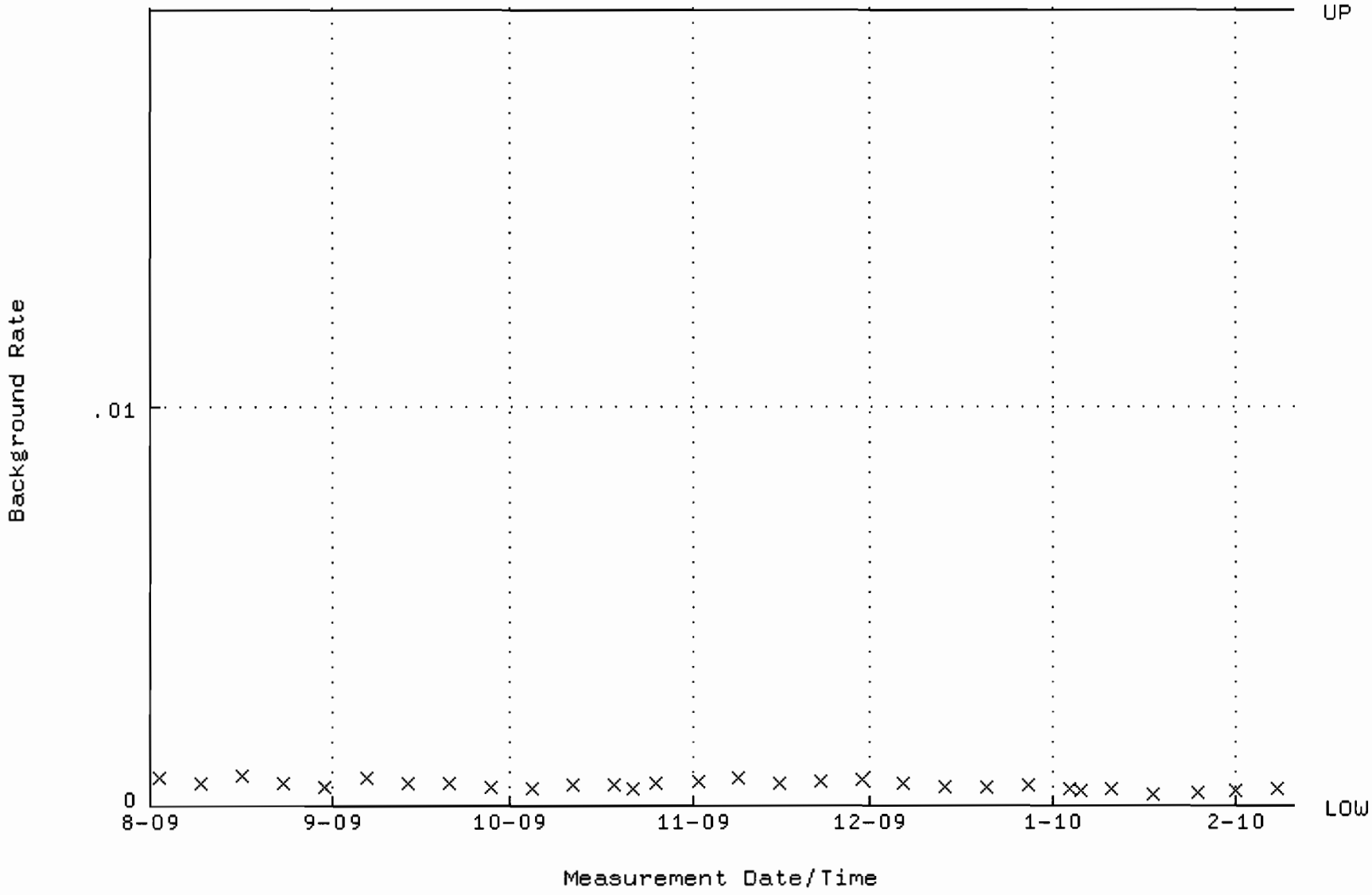

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.305830 through 0.325830

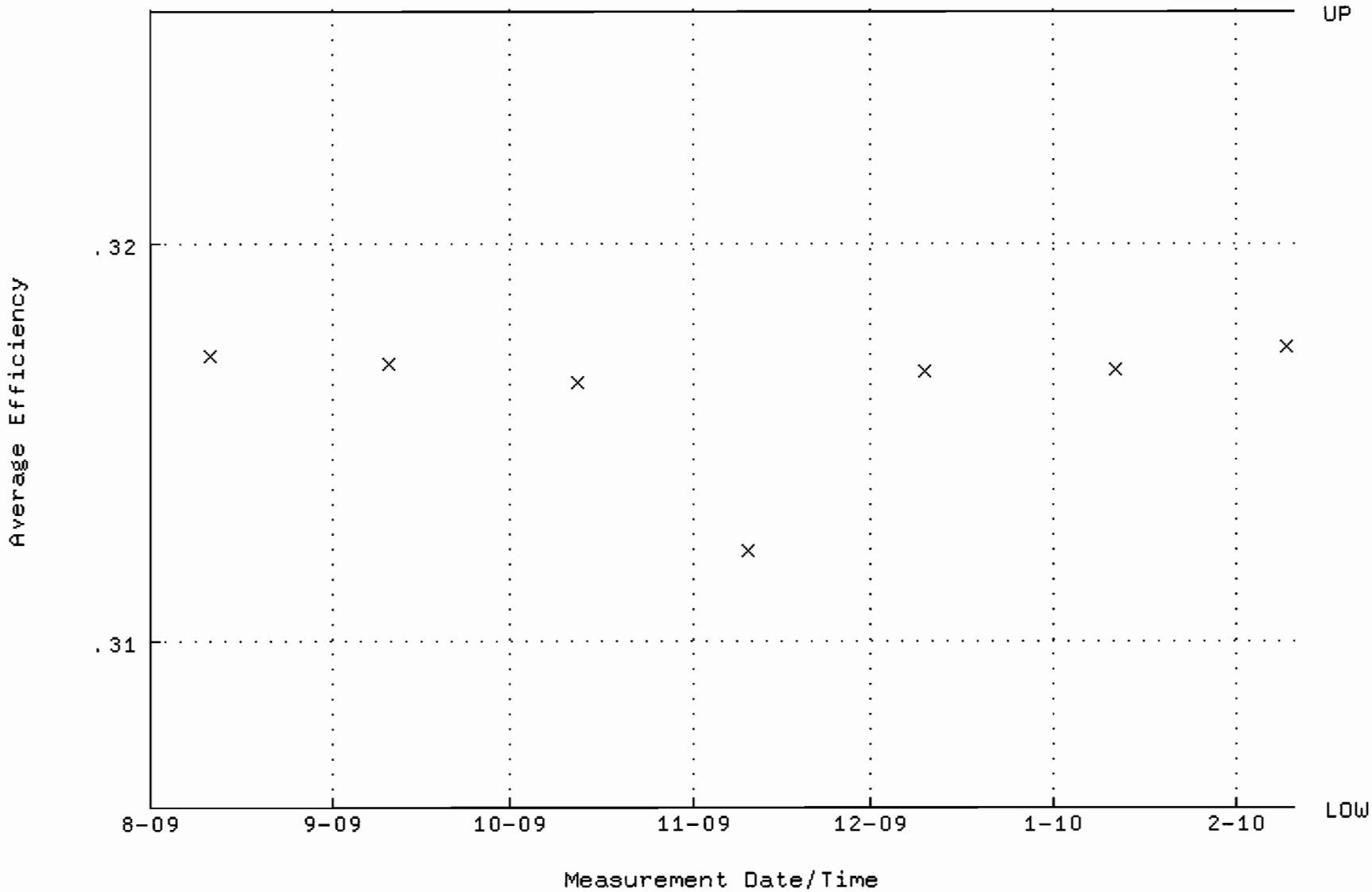

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:11 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0289 through 95.0845

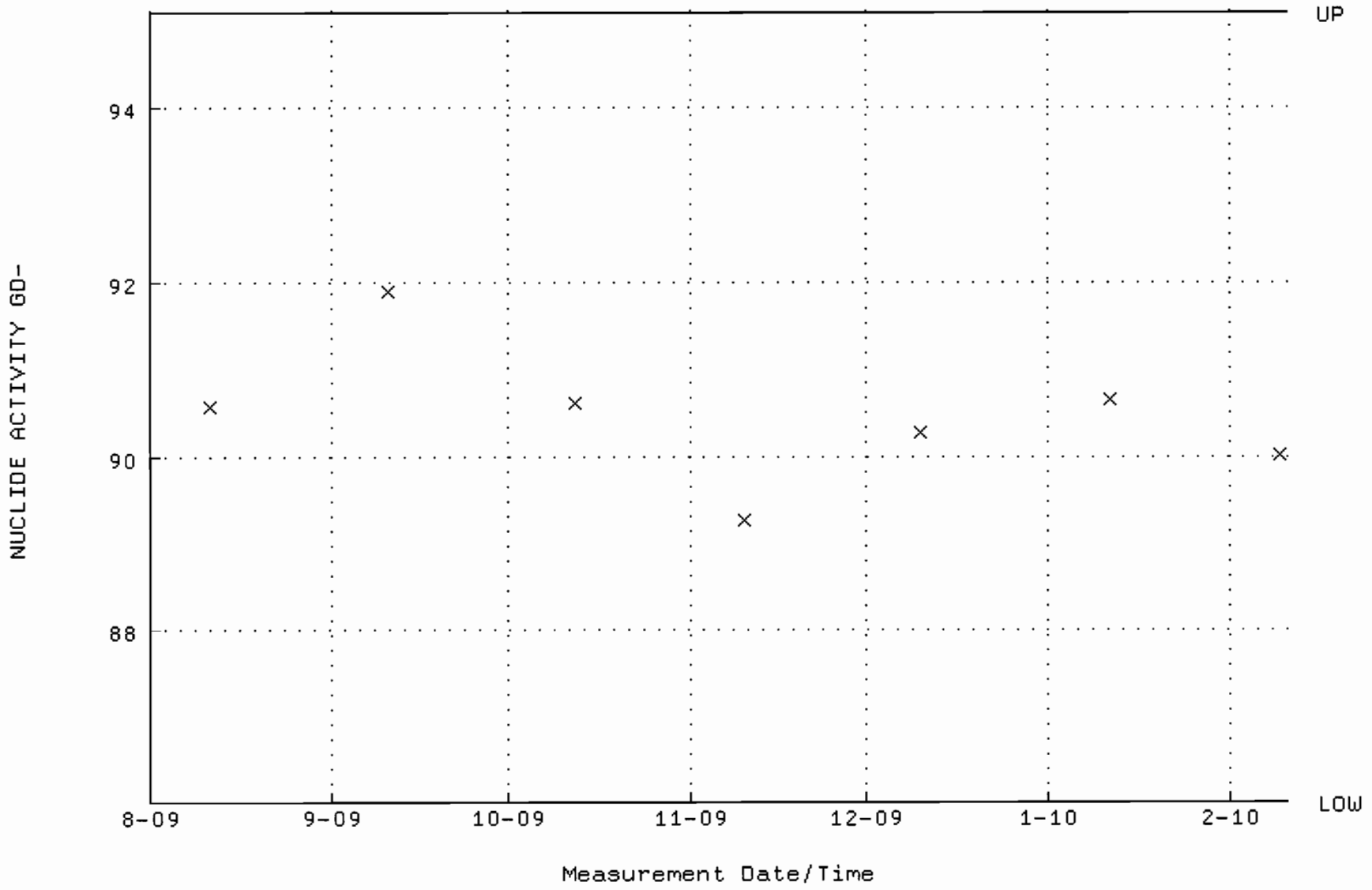

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:39 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

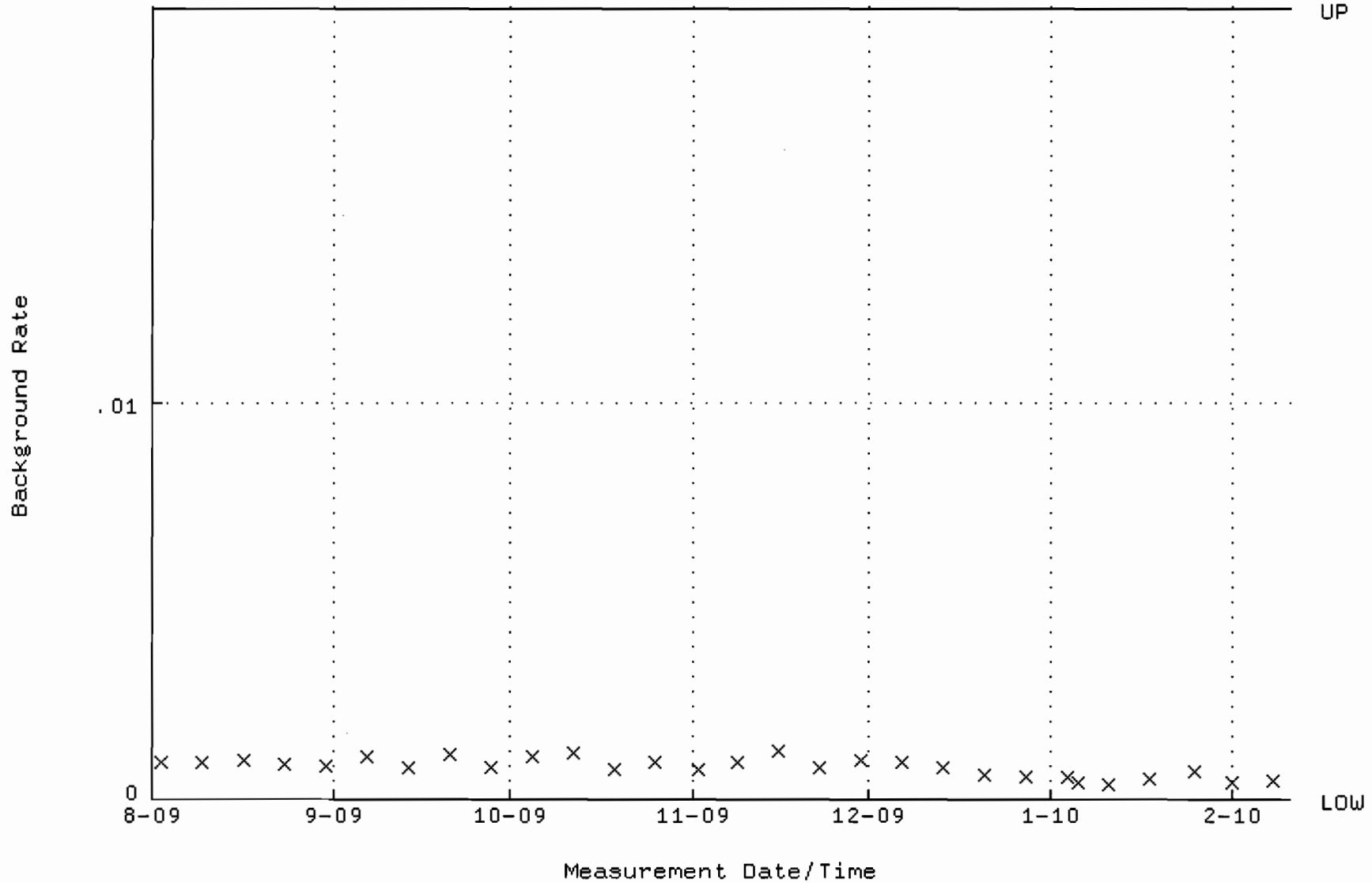

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.316654 through 0.336654

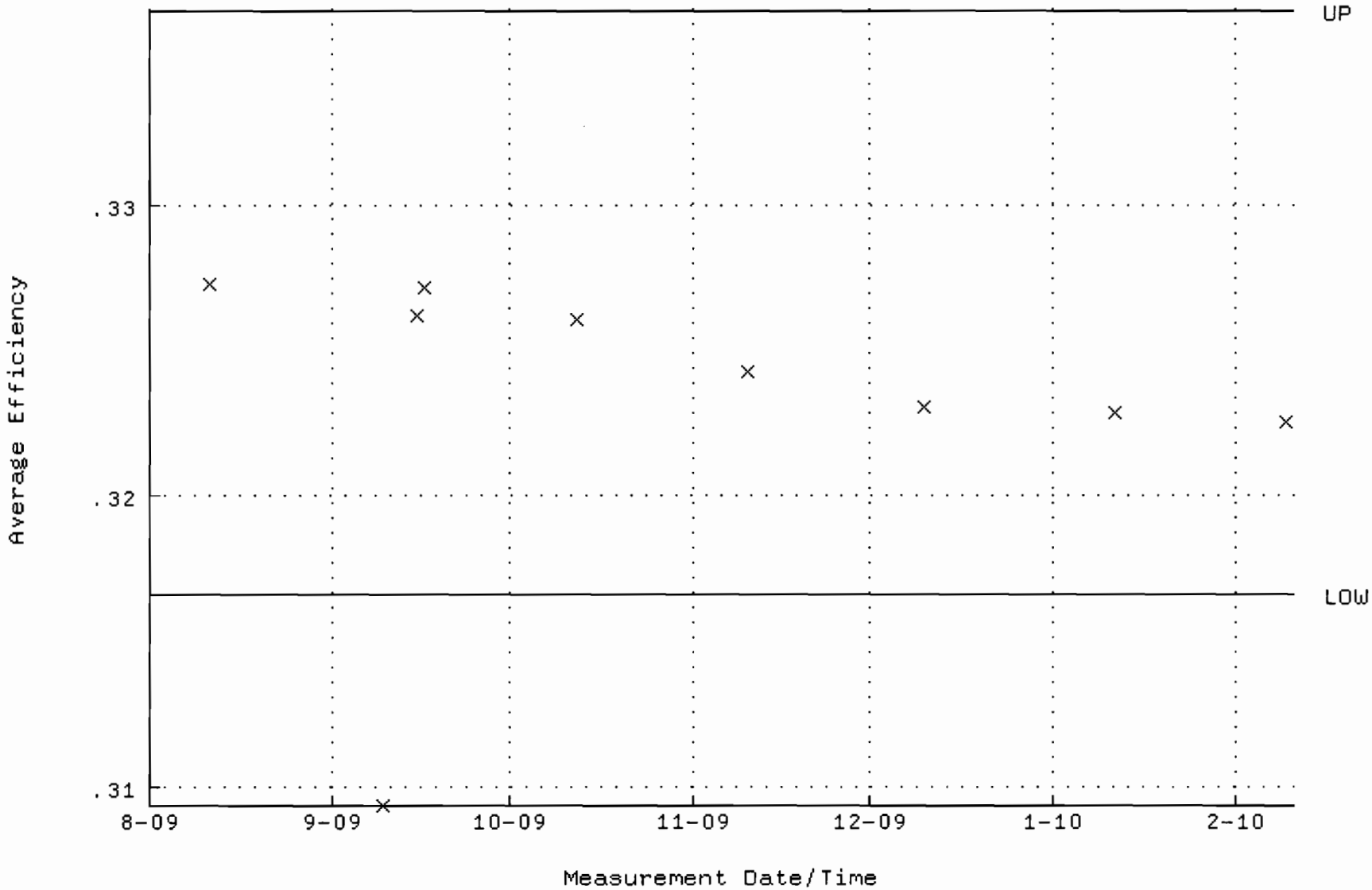

QA filename : DKA100:[ENV_ALPHA.QA.W]W079.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 85.8913 through 94.9325

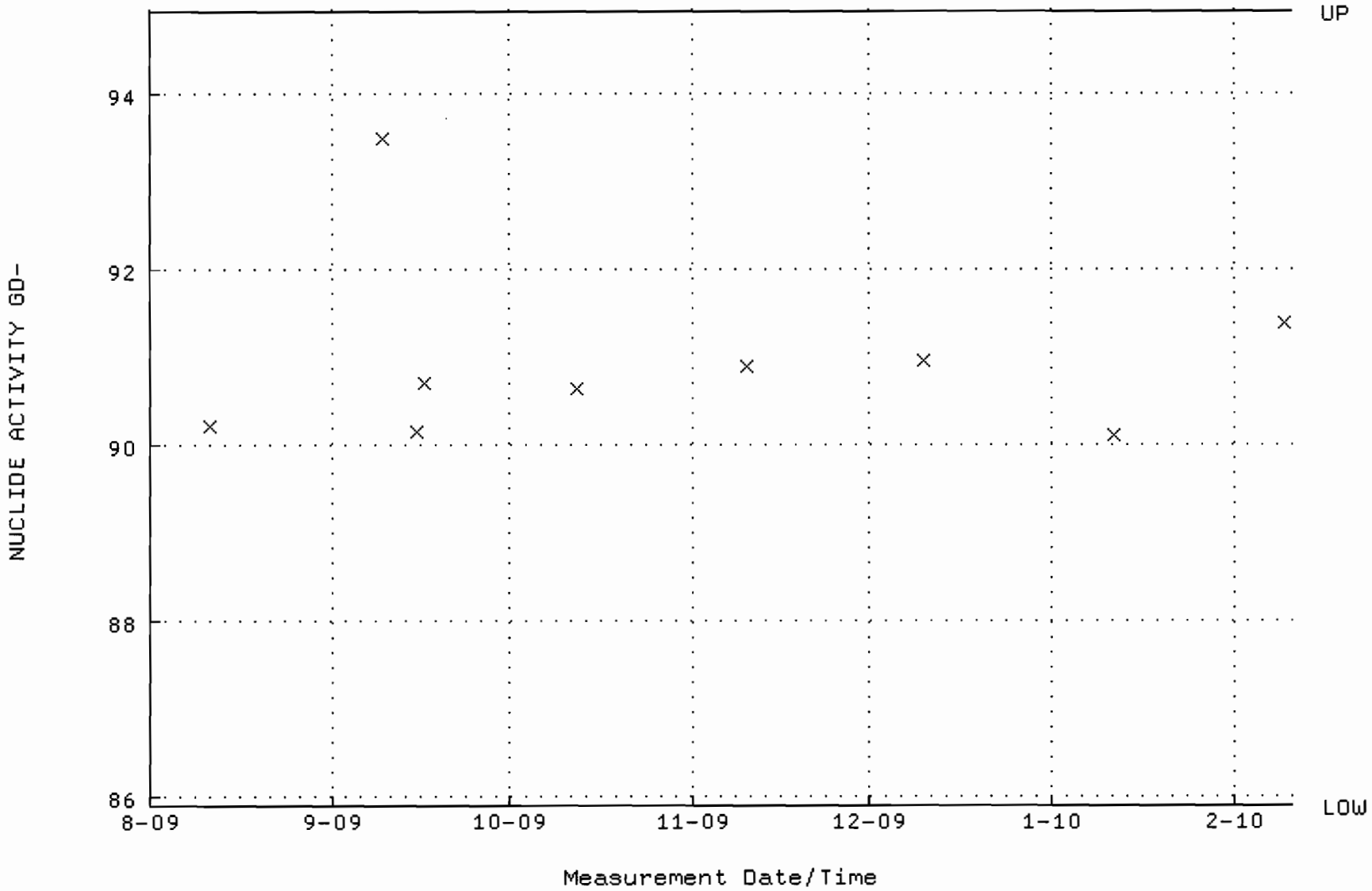

QA filename : DKA100:[ENV_ALPHA.QA.B]B079.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

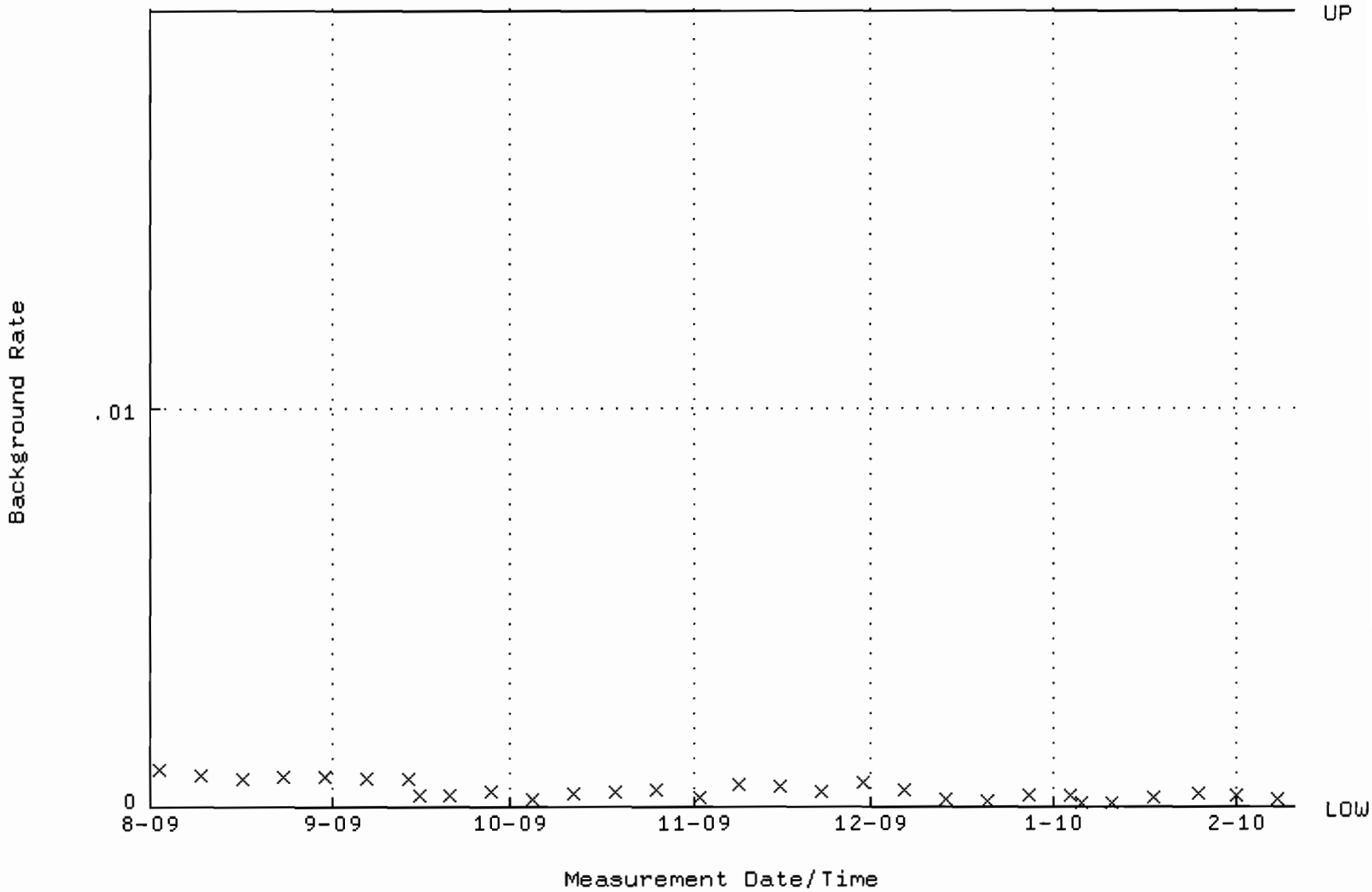

QA filename : DKA100:[ENV_ALPHA.QA.W]W080.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 12:17:29 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.324032 through 0.344032

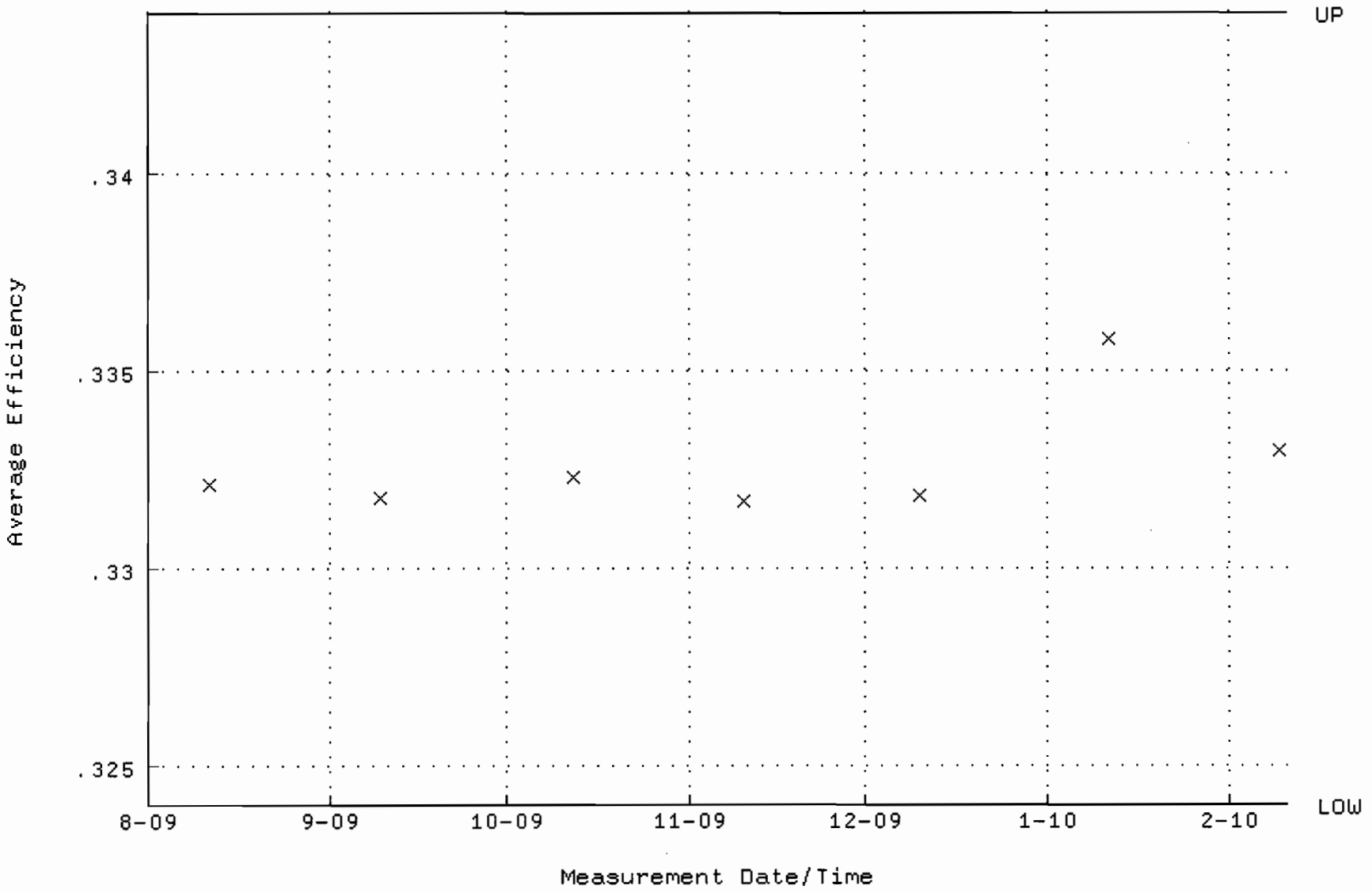

QA filename : DKA100:[ENV_ALPHA.QA.W]W080.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 12:17:29 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.5393 through 95.6487

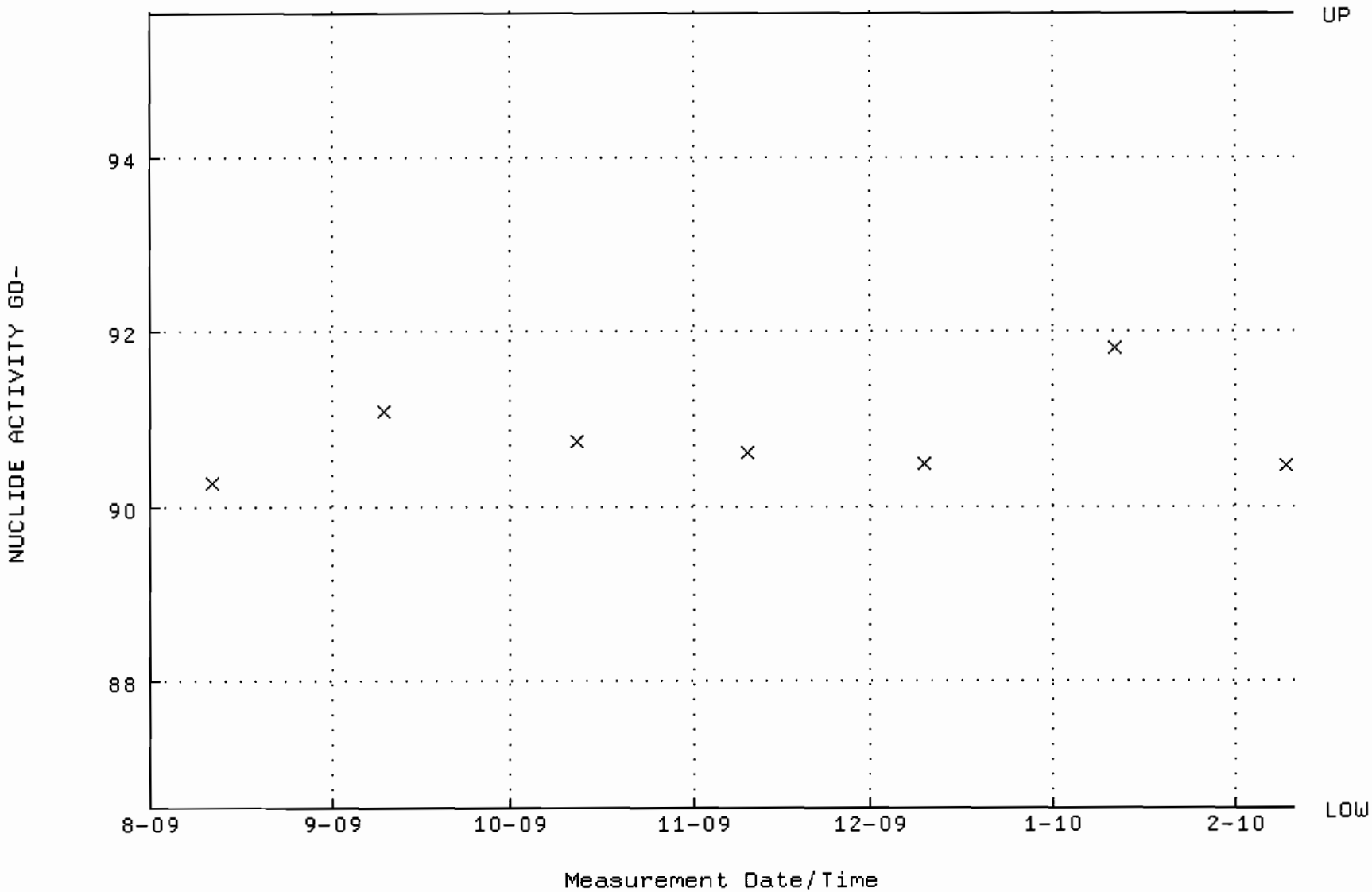

QA filename : DKA100:[ENV_ALPHA.QA.B]B080.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

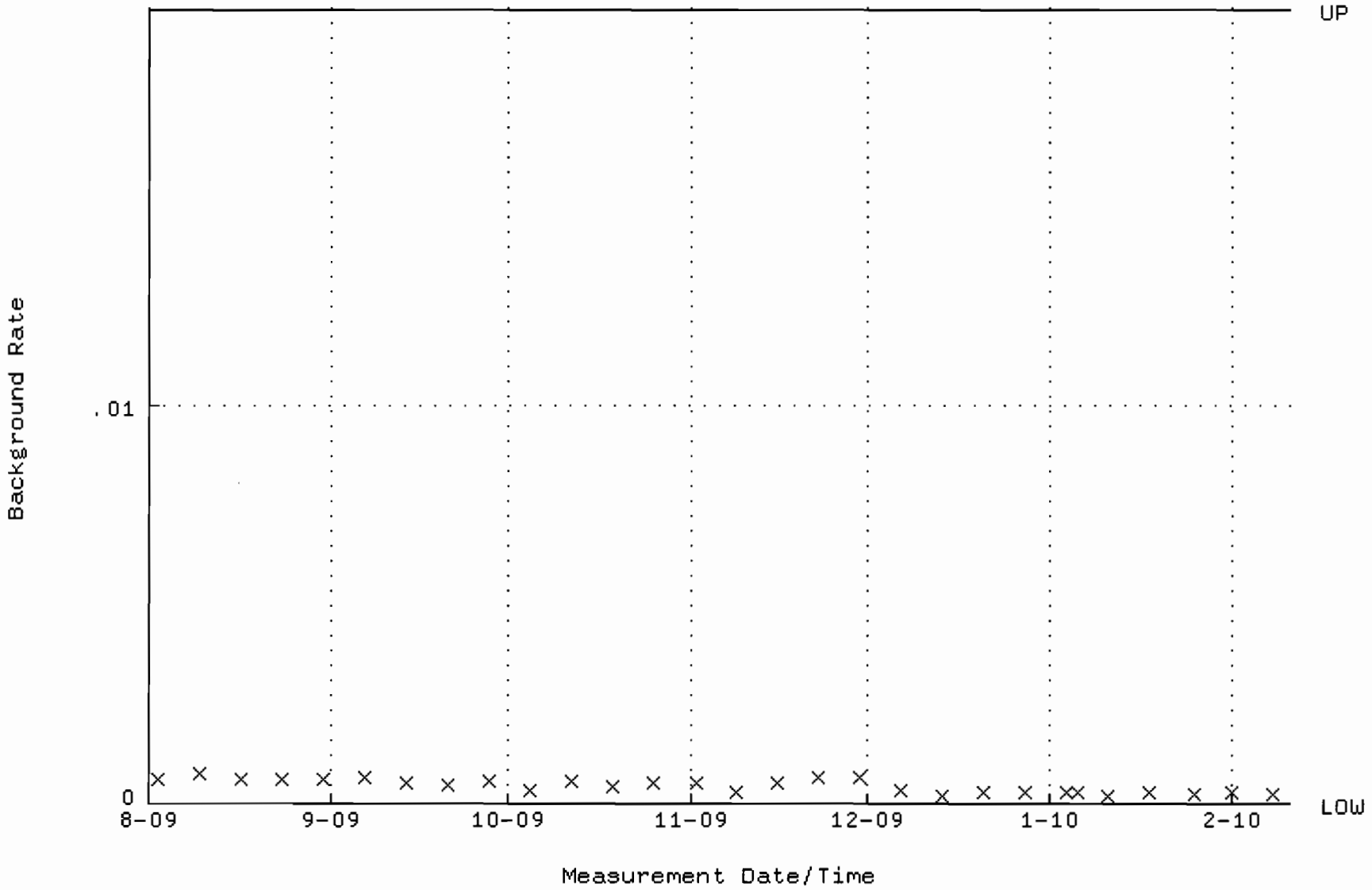

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.310202 through 0.330202

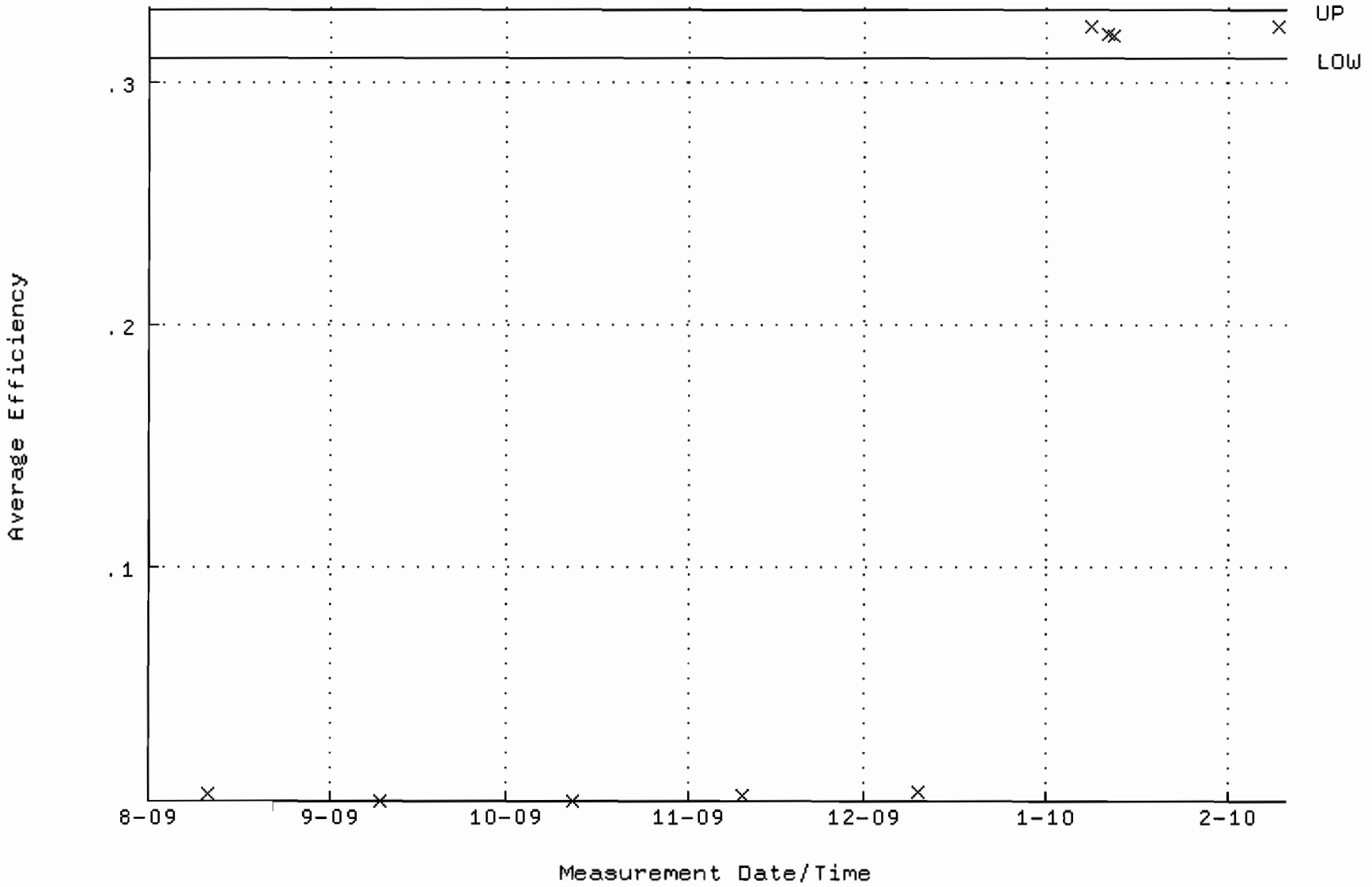

QA filename : DKA100:[ENV_ALPHA.QA.W]W081.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 89.2016 through 98.5912

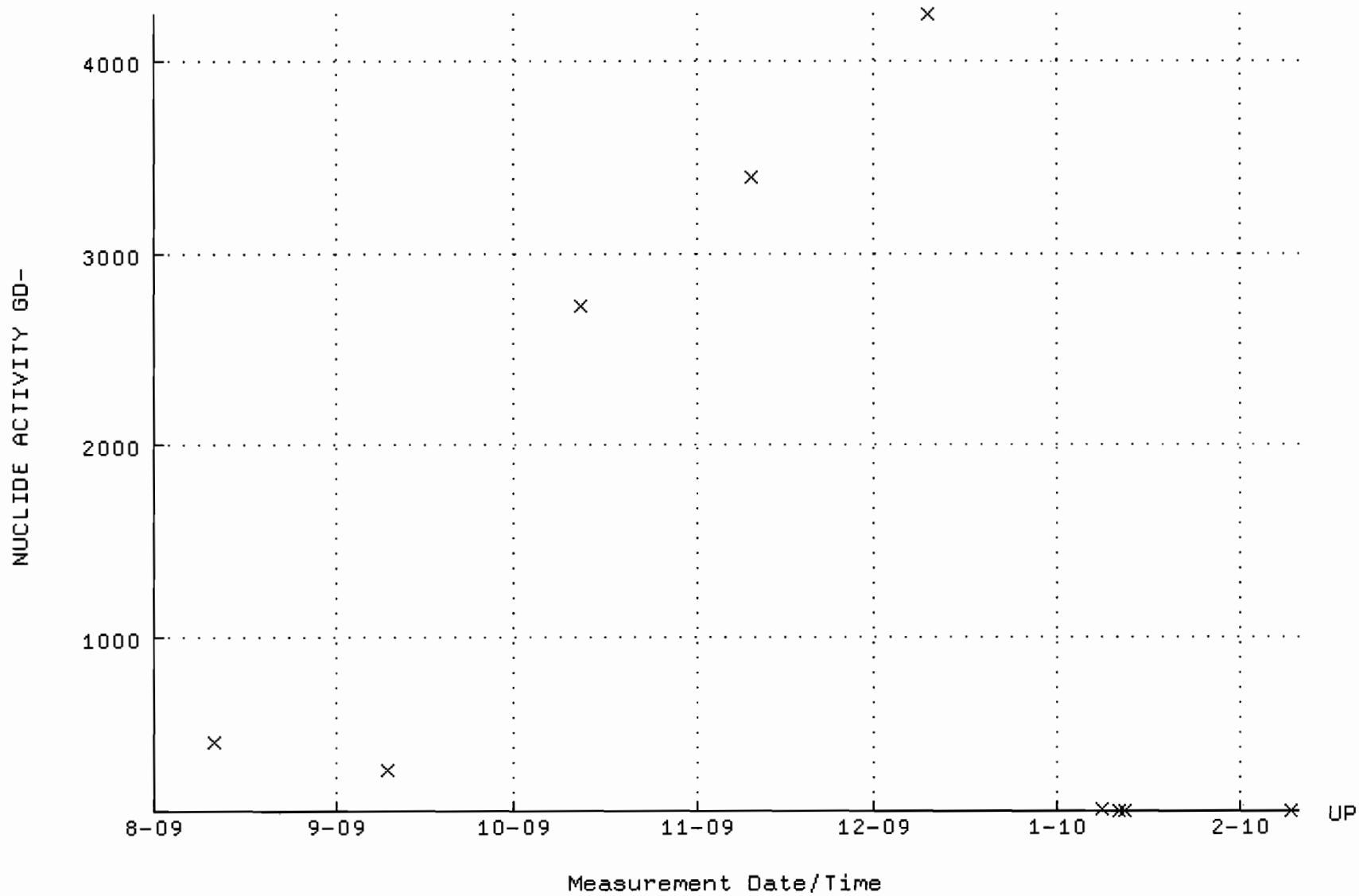

QA filename : DKA100:[ENV_ALPHA.QA.B]B081.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

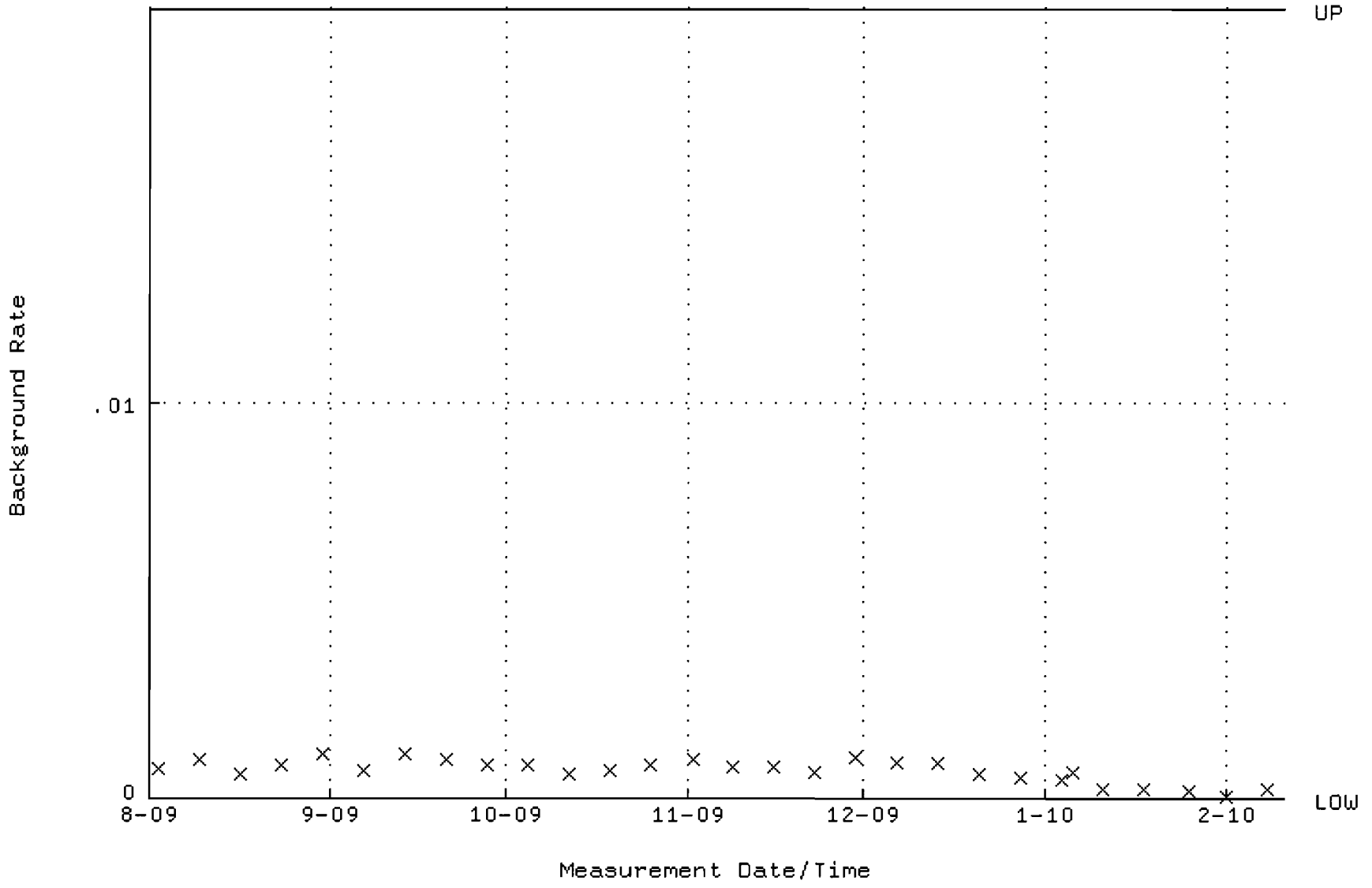

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.311357 through 0.331357

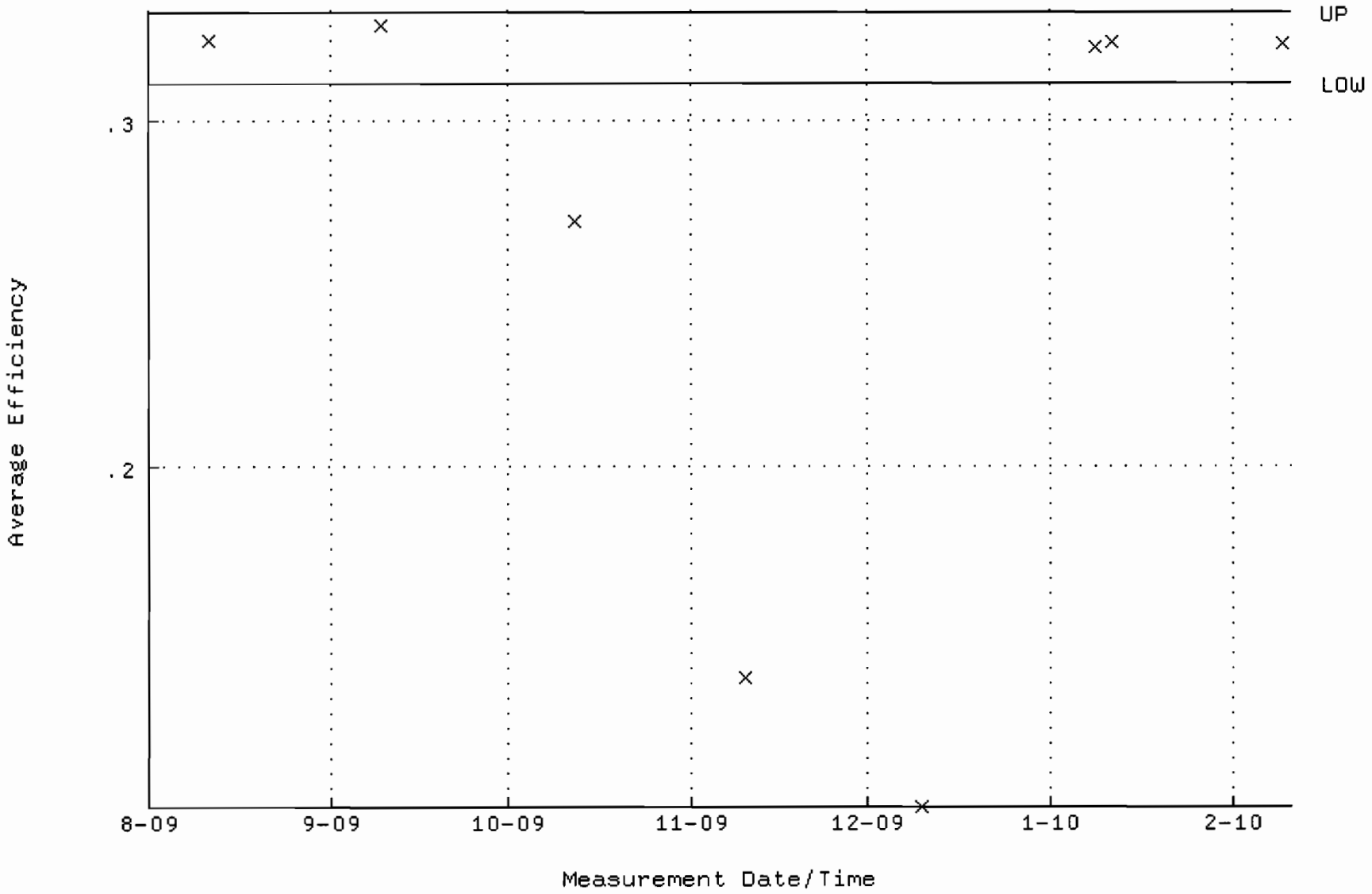

QA filename : DKA100:[ENV_ALPHA.QA.W]W082.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:12 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 86.9094 through 96.0578

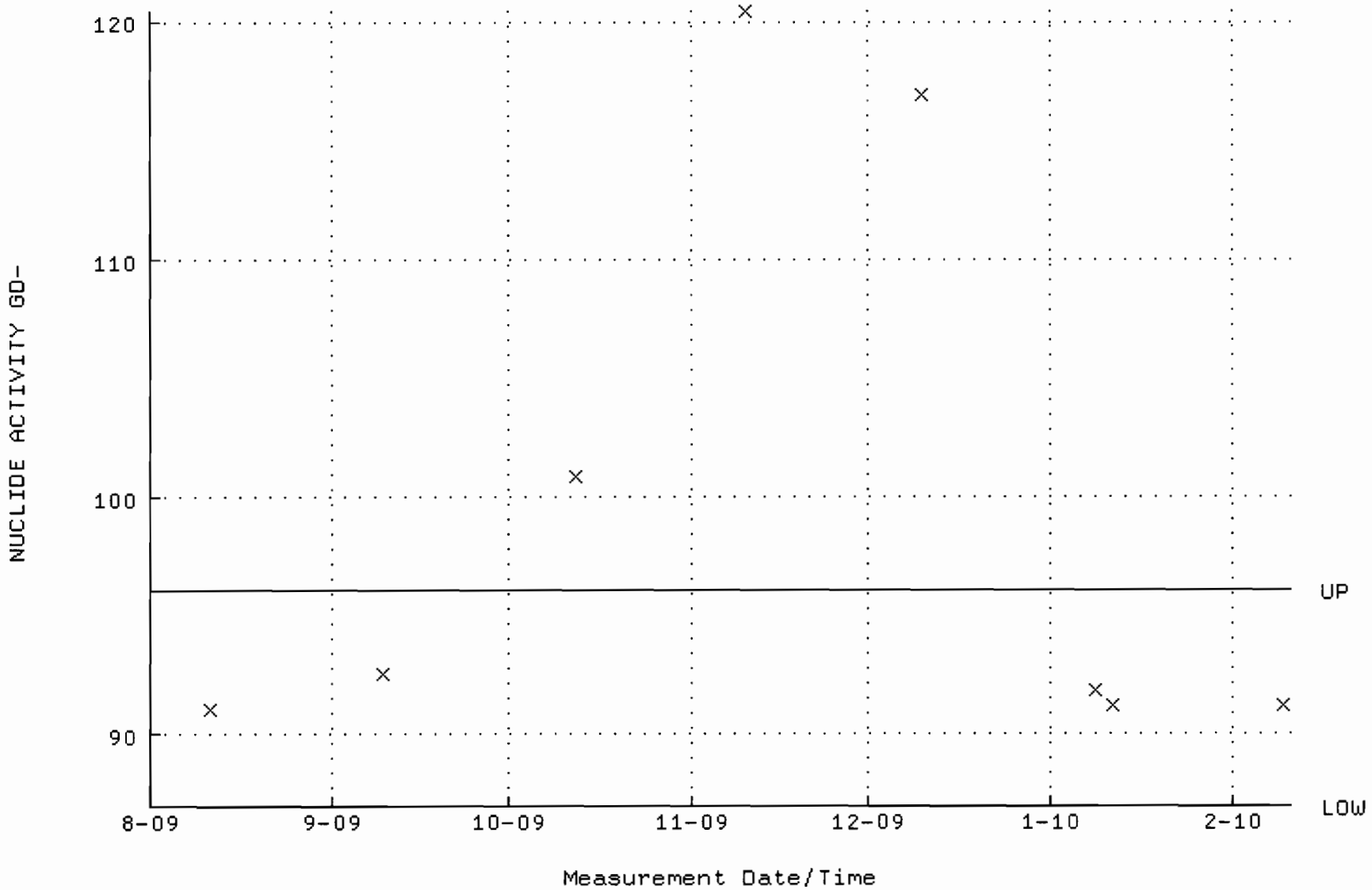

QA filename : DKA100:[ENV_ALPHA.QA.B]B082.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:40 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

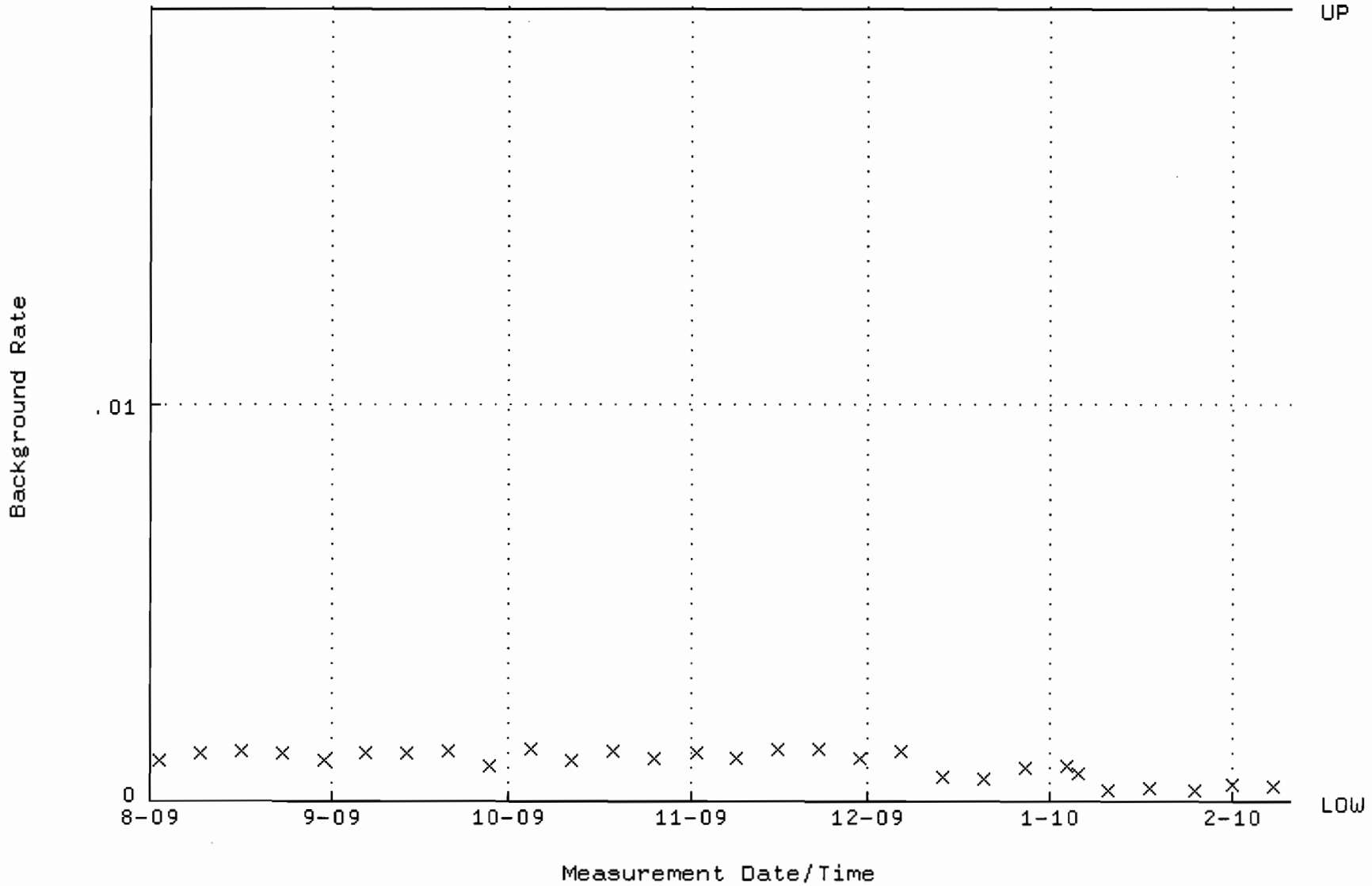

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.289508 through 0.309508

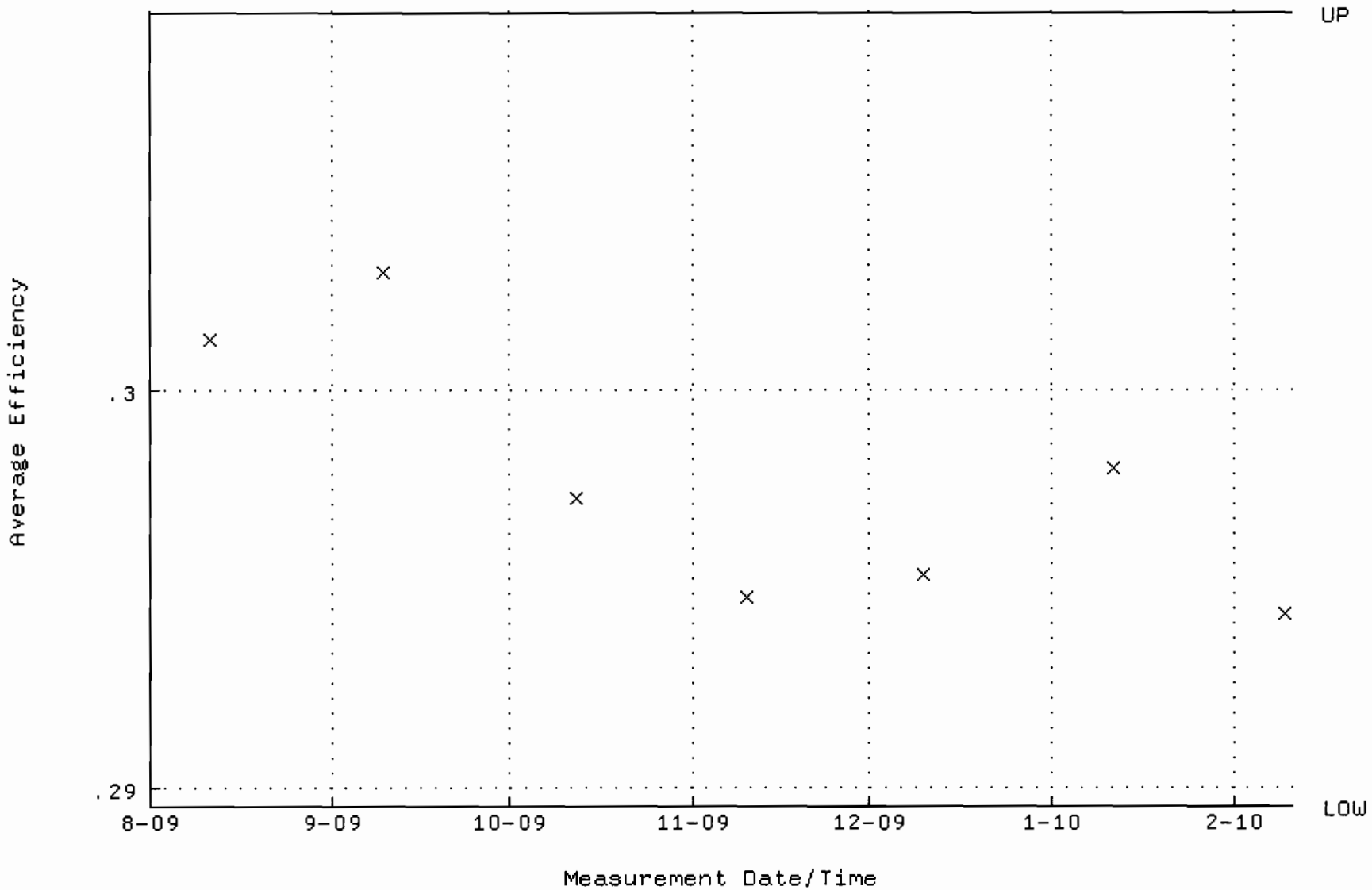

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 87.7898 through 97.0308

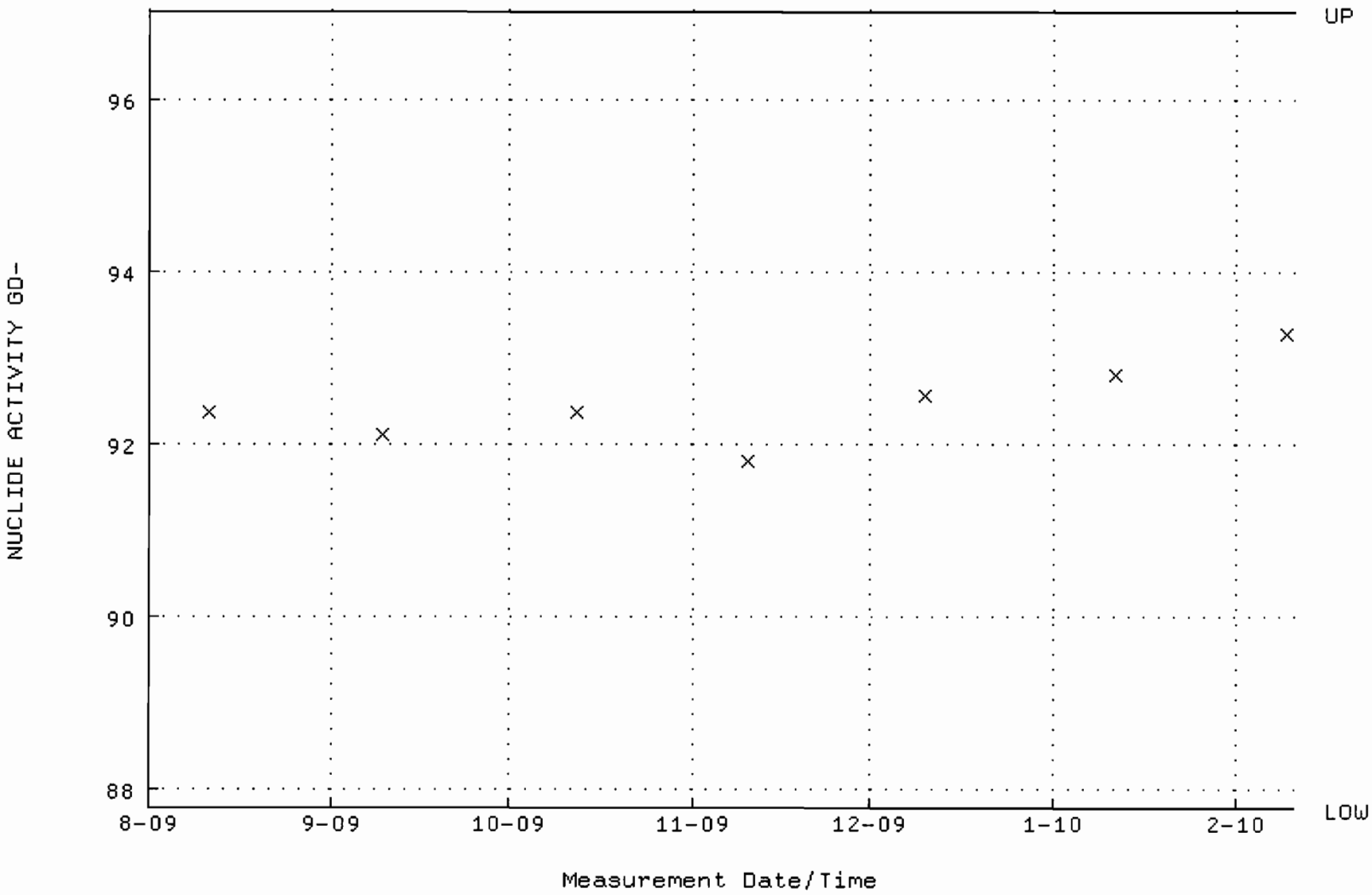

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

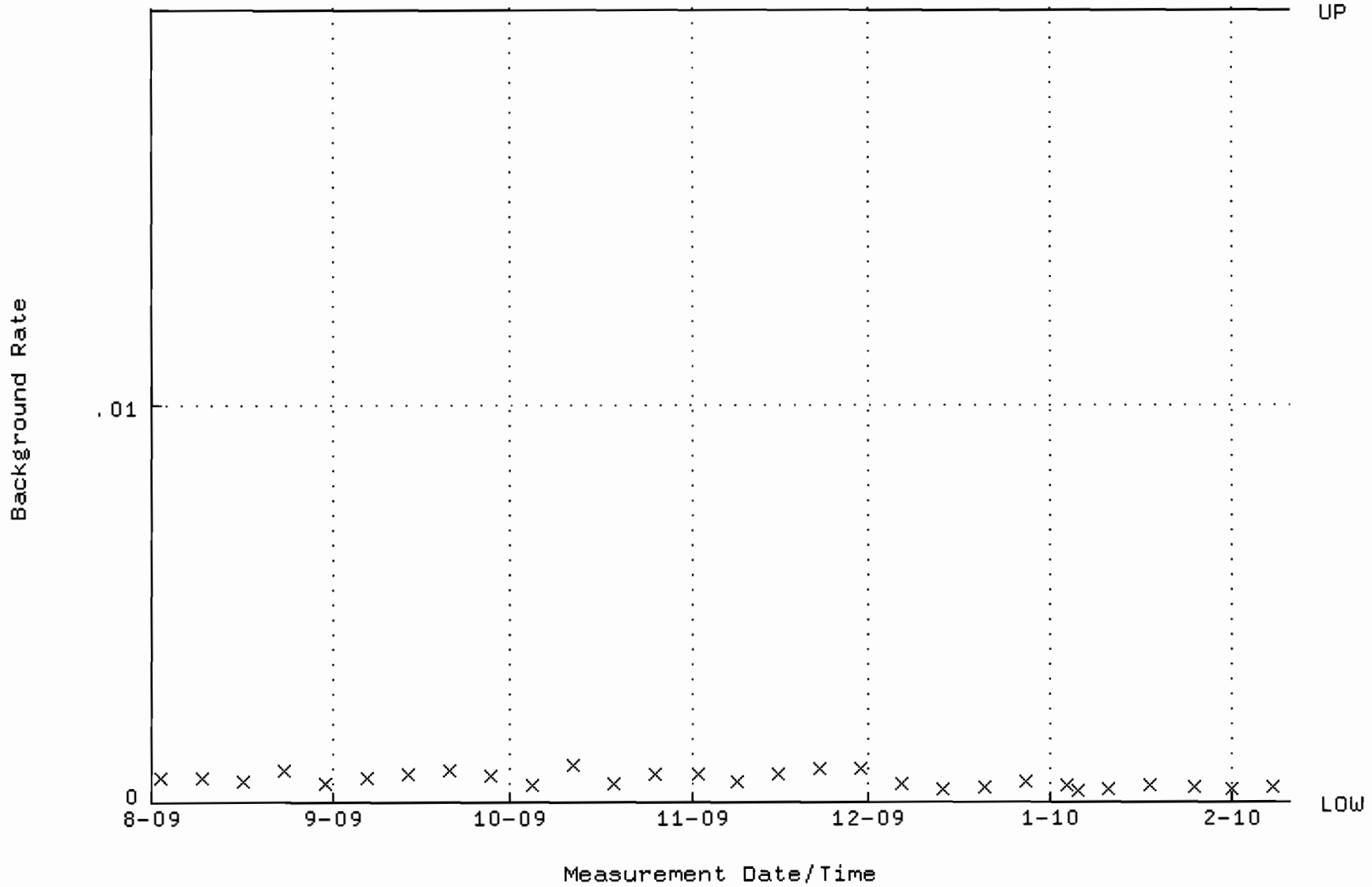

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

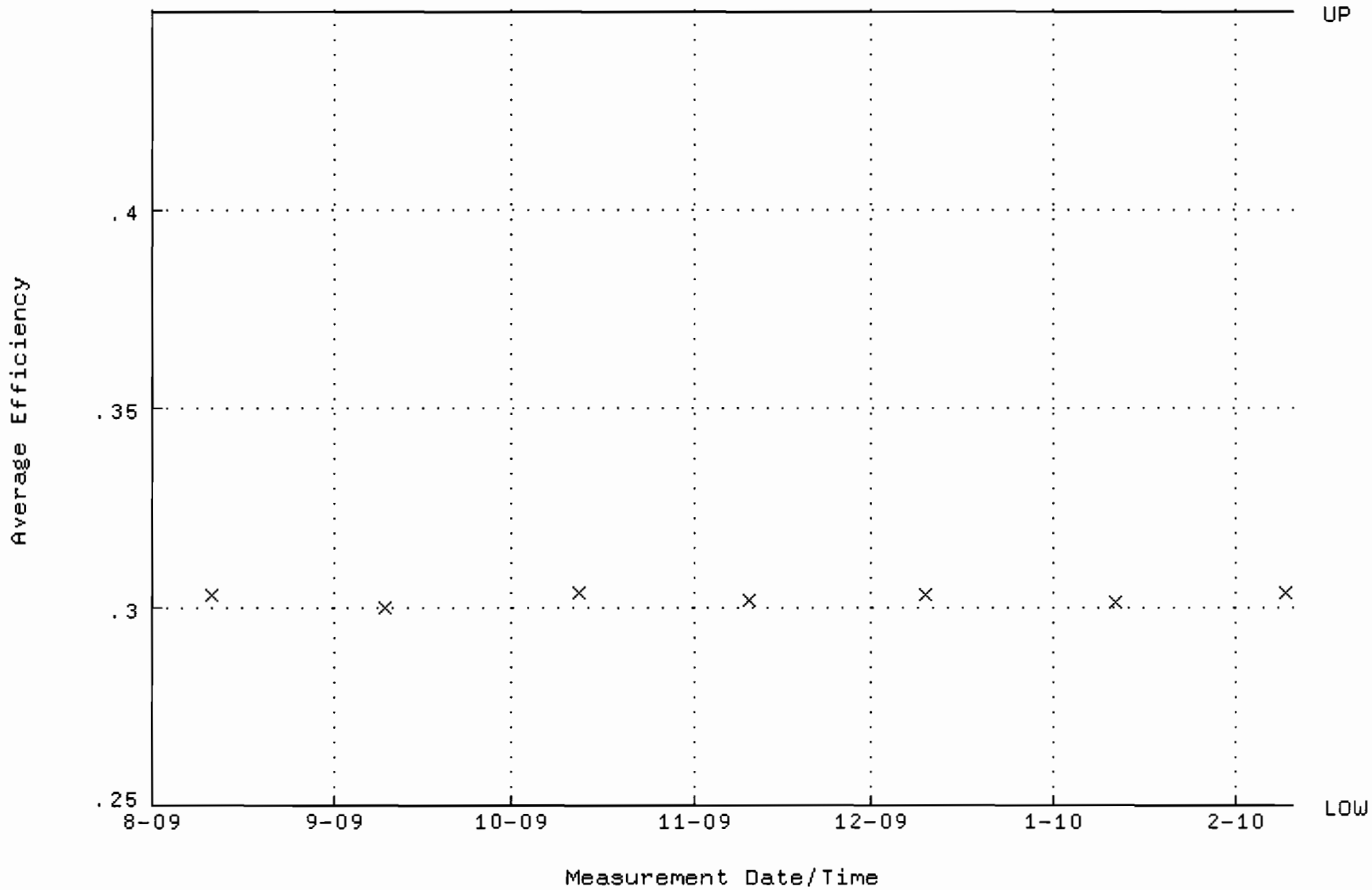

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:14 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

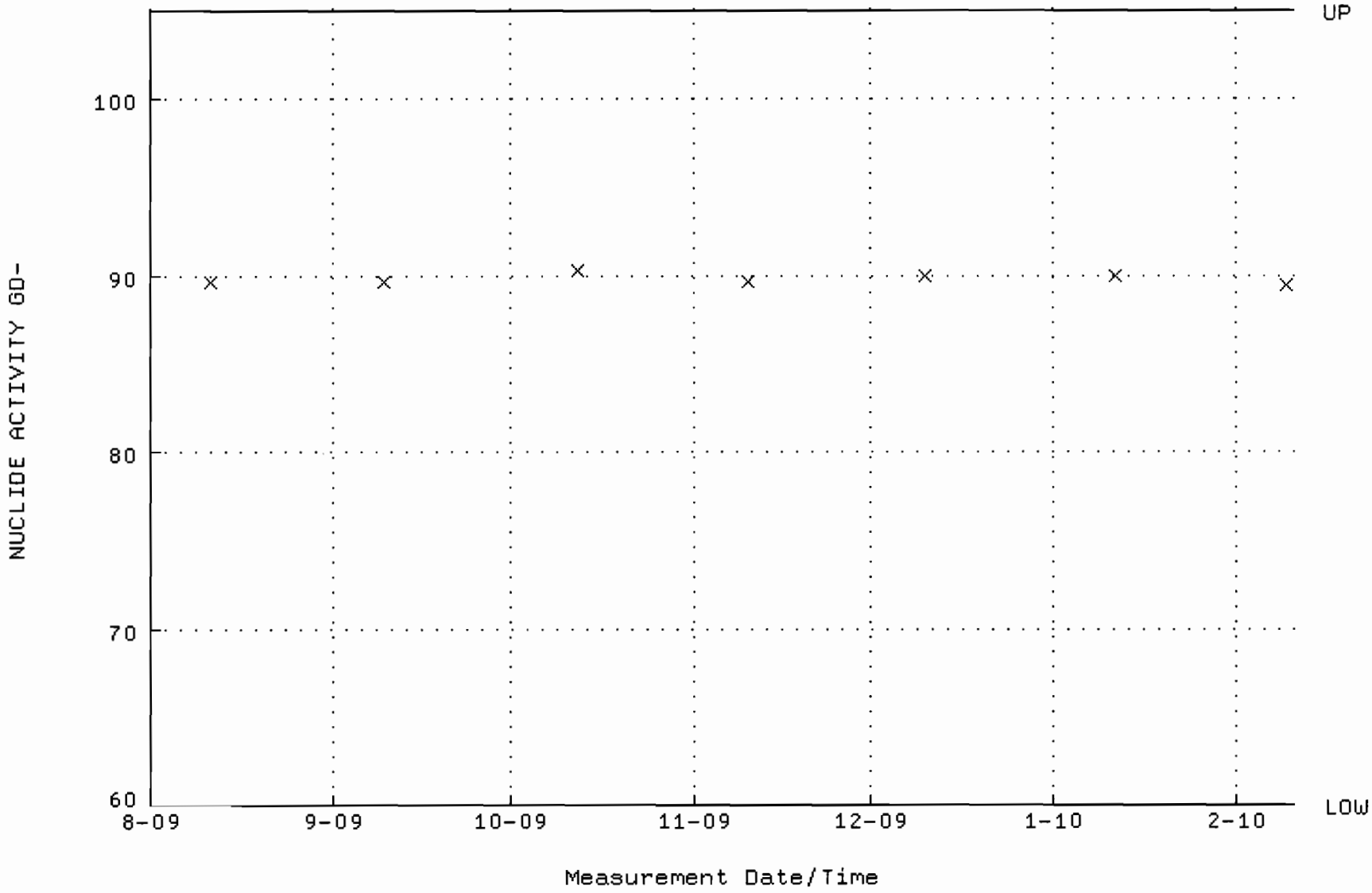

QA filename : DKA100:[ENV_ALPHA.QA.B]B088.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:41 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

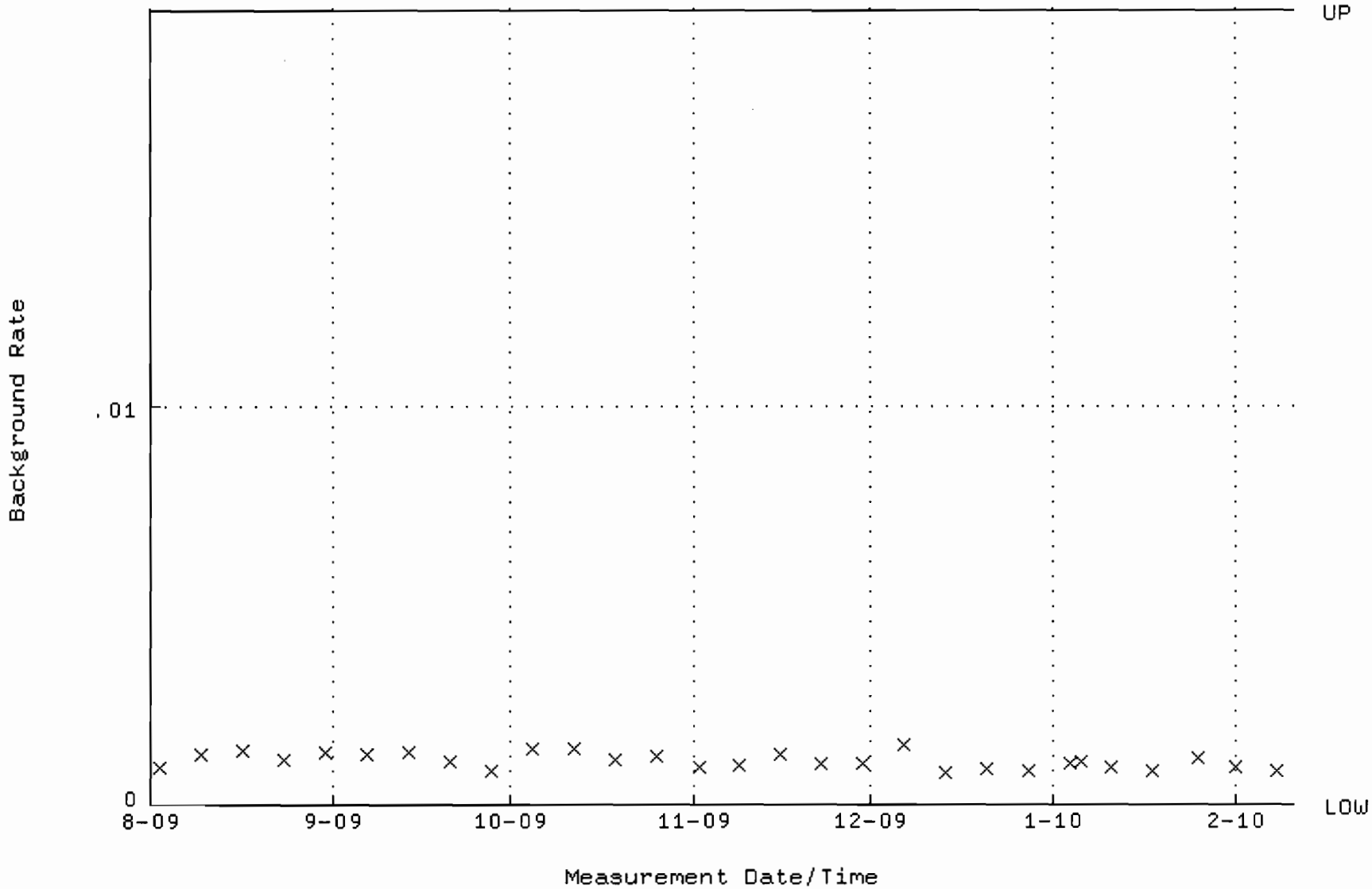

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.303231 through 0.317703

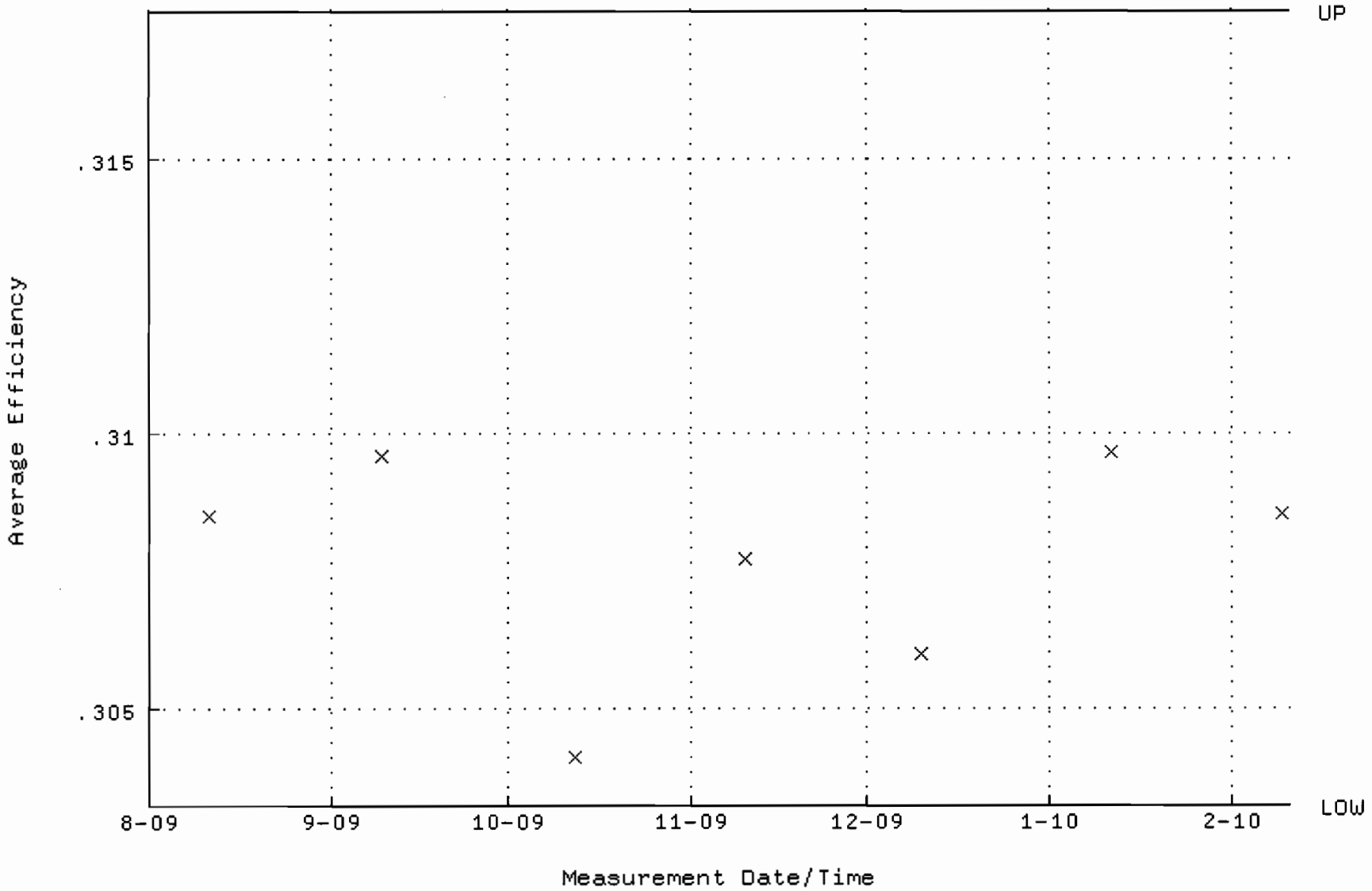

QA filename : DKA100:[ENV_ALPHA.QA.W]W107.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 69.1572 through 72.0358

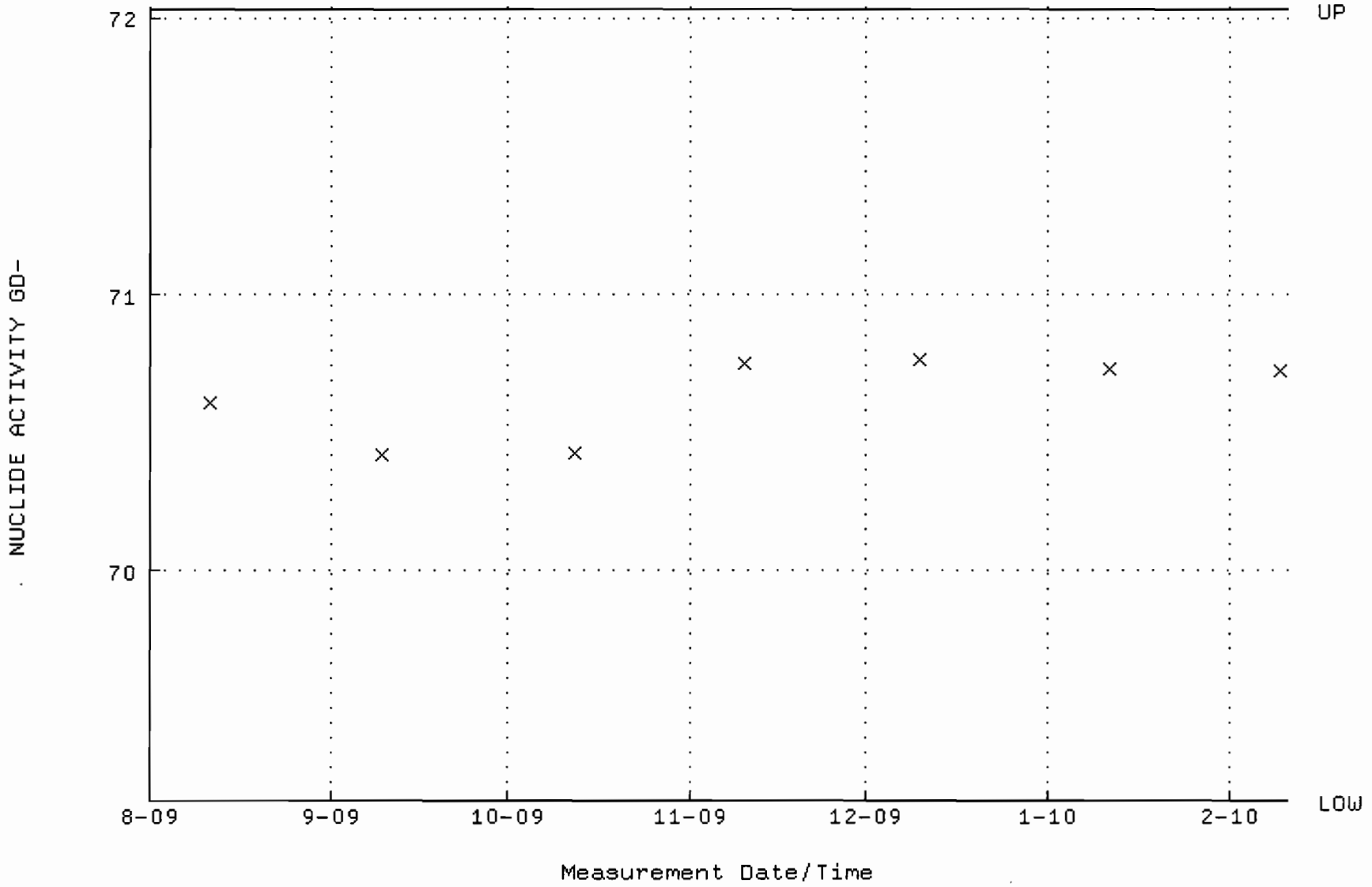

QA filename : DKA100:[ENV_ALPHA.QA.B]B107.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

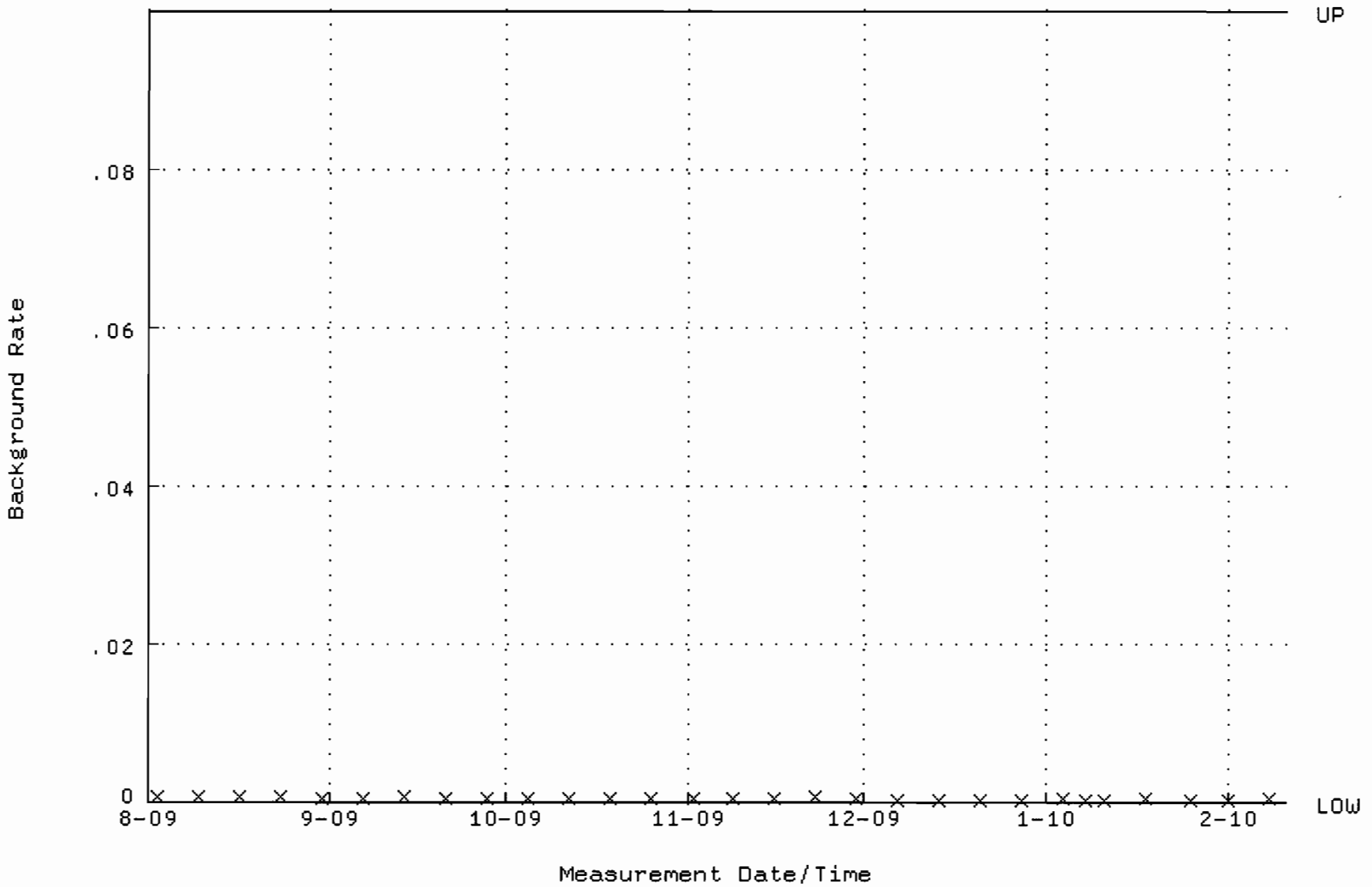

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.330641 through 0.360561

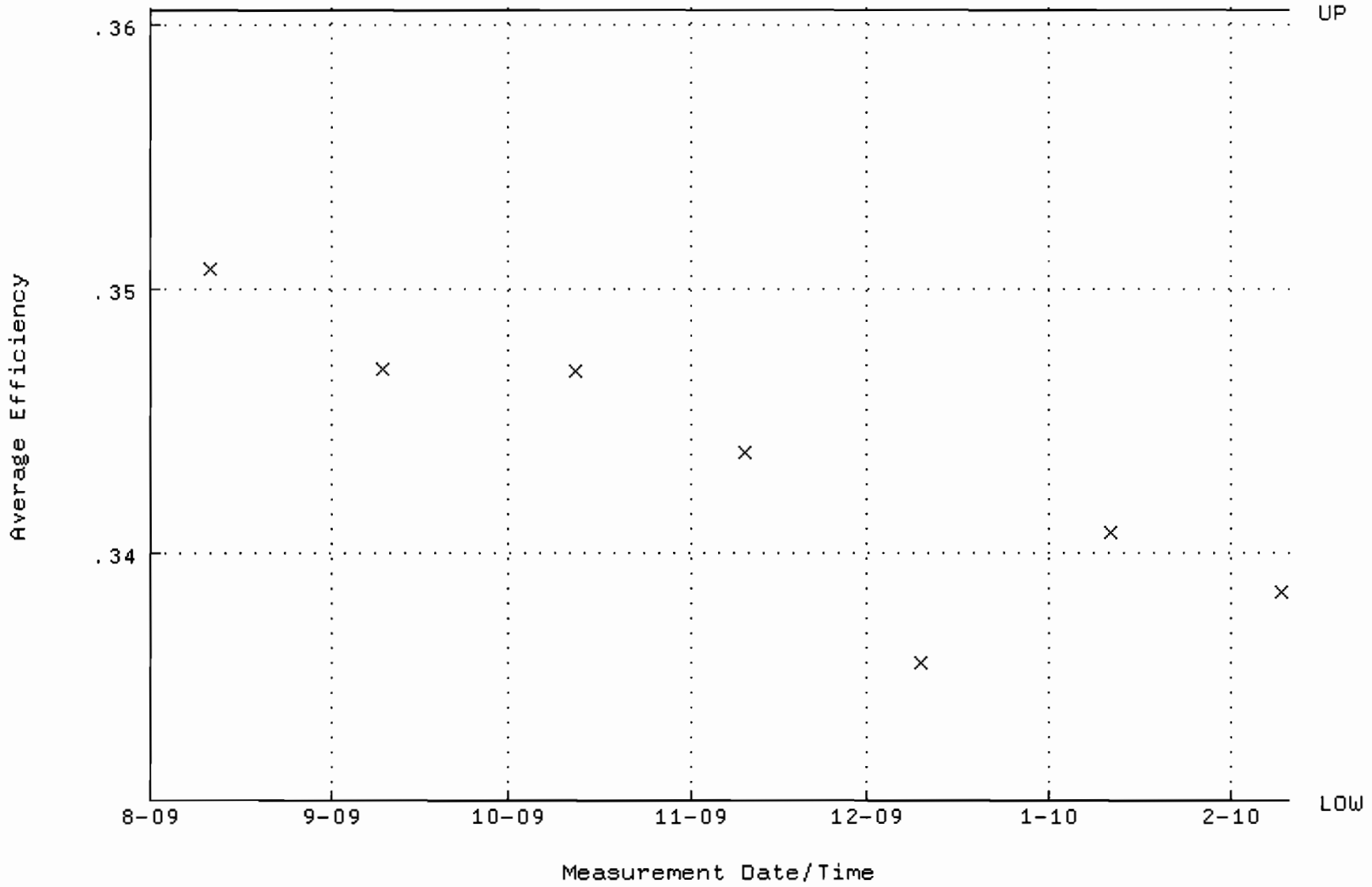

QA filename : DKA100:[ENV_ALPHA.QA.W]W108.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 68.0460 through 72.0402

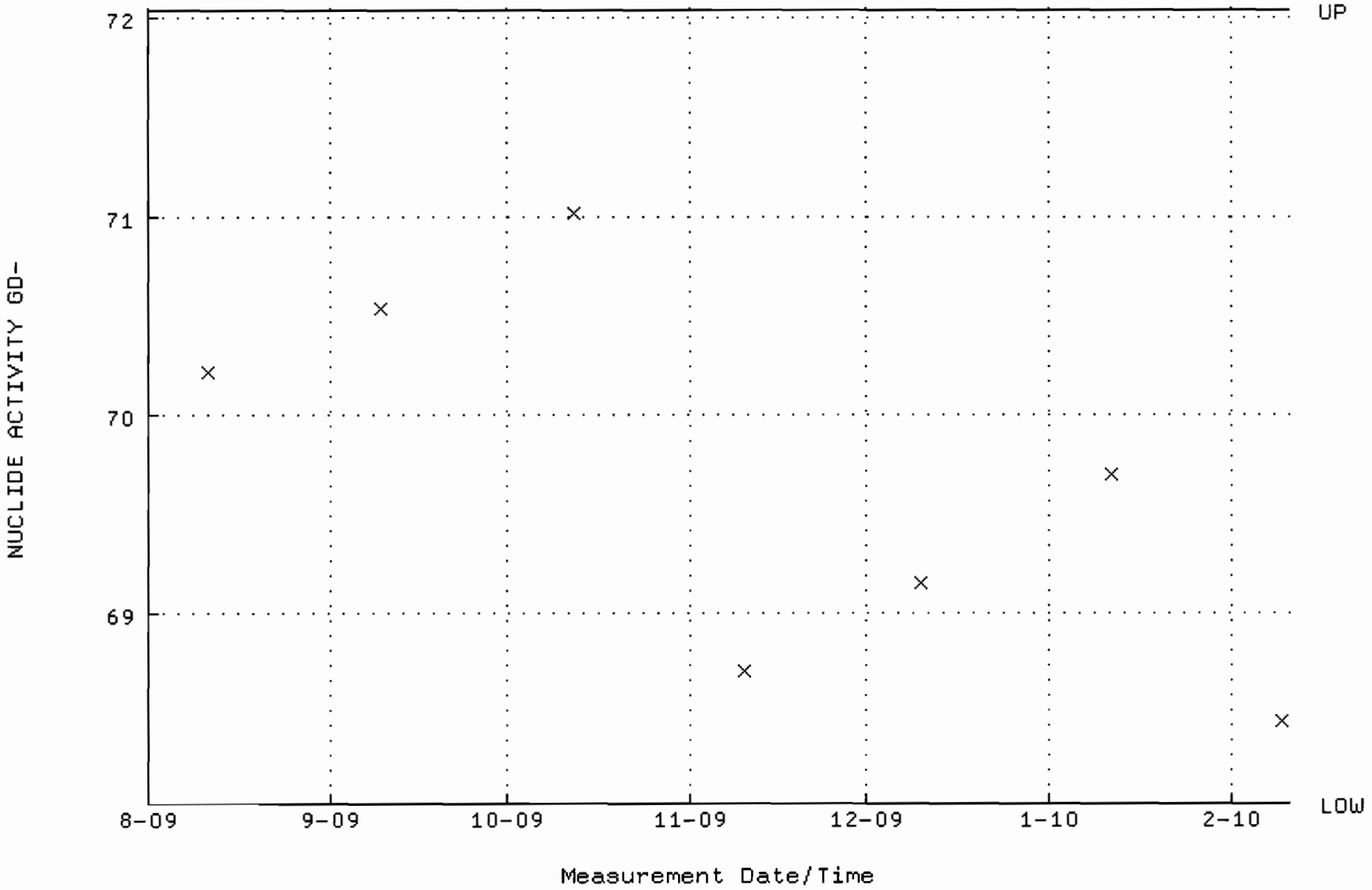

QA filename : DKA100:[ENV_ALPHA.QA.B]B108.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

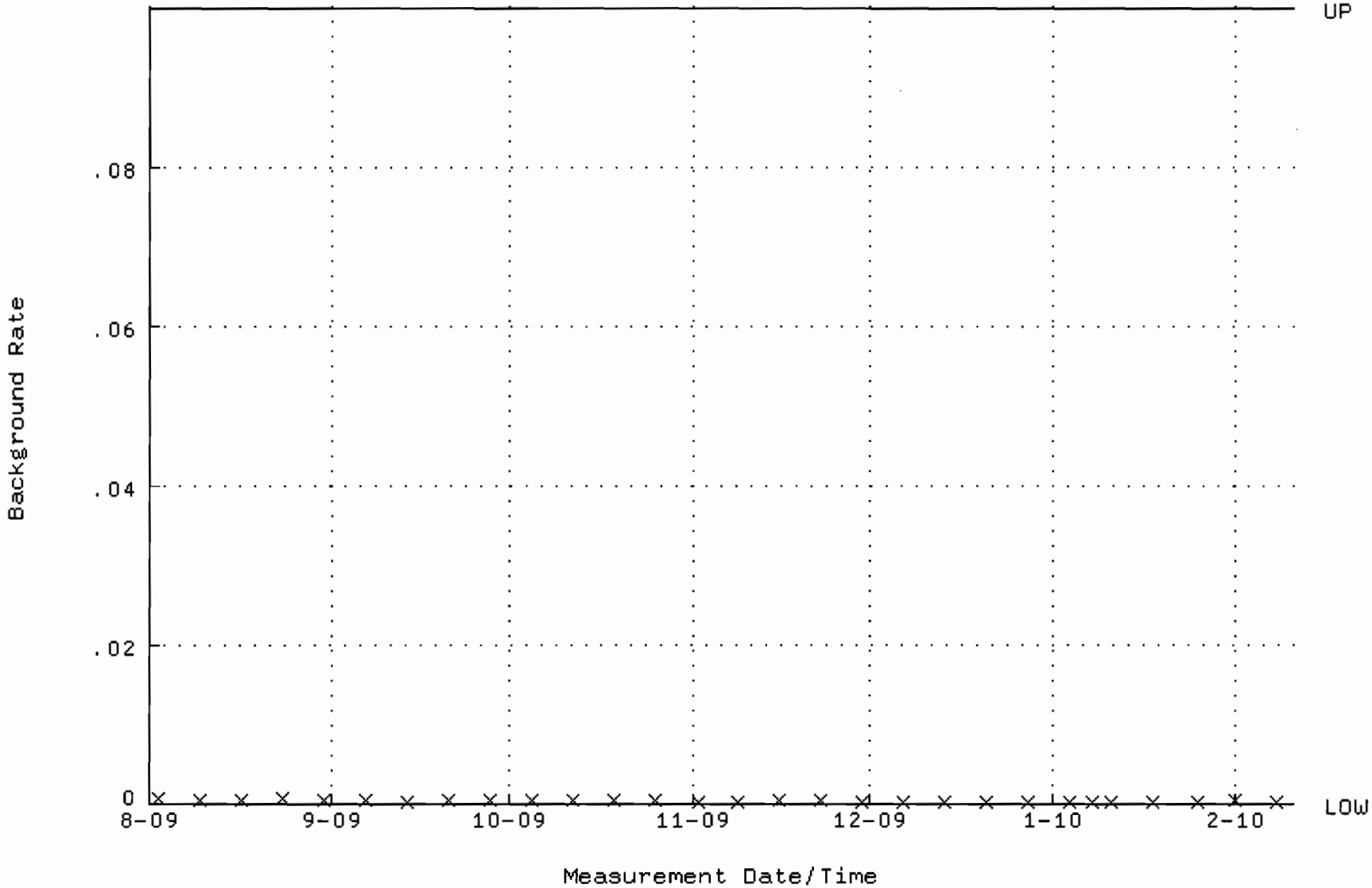

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.344397 through 0.364397

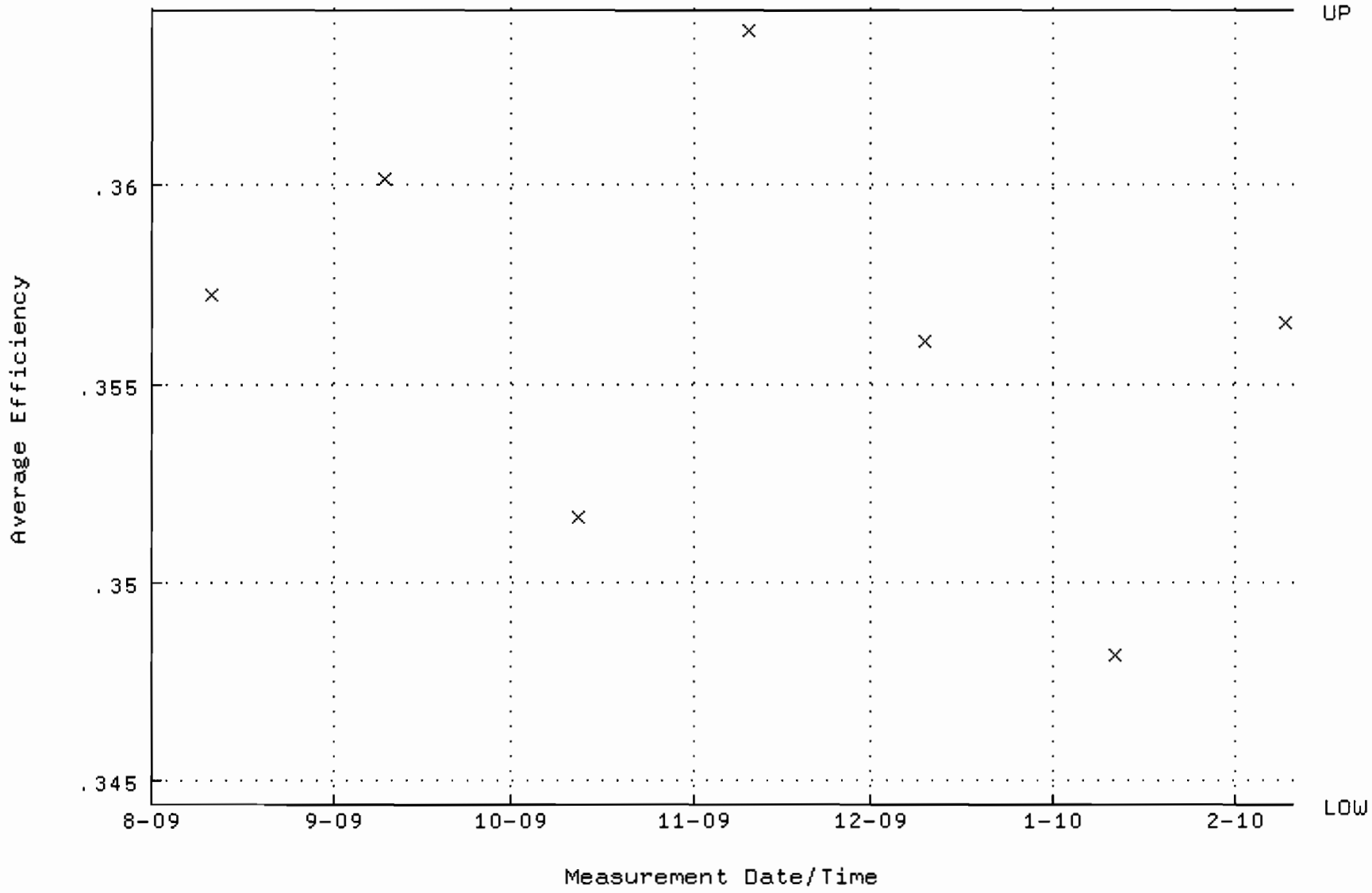

QA filename : DKA100:[ENV_ALPHA.QA.W]W109.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 63.4194 through 70.0952

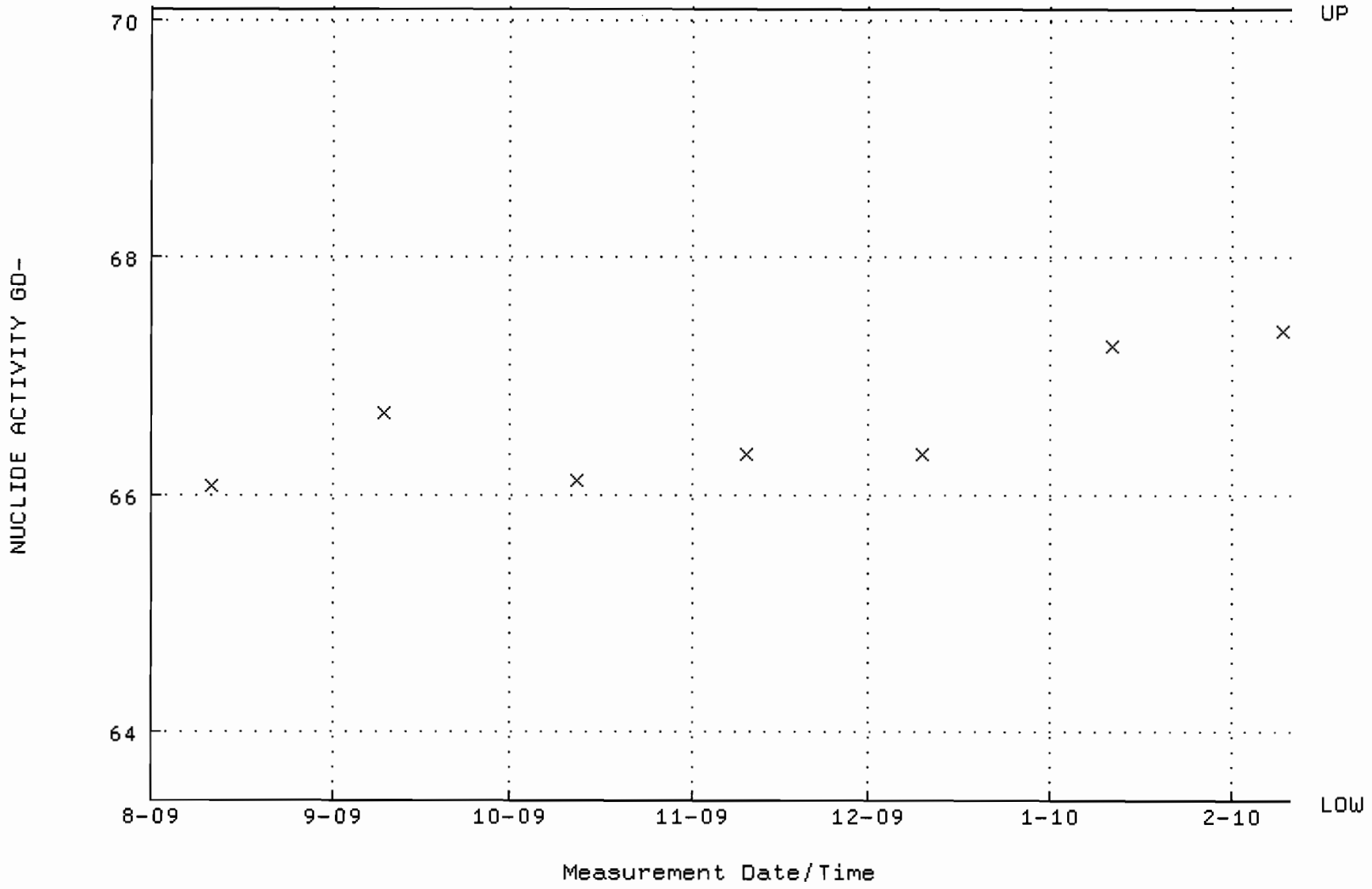

QA filename : DKA100:[ENV_ALPHA.QA.B]B109.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

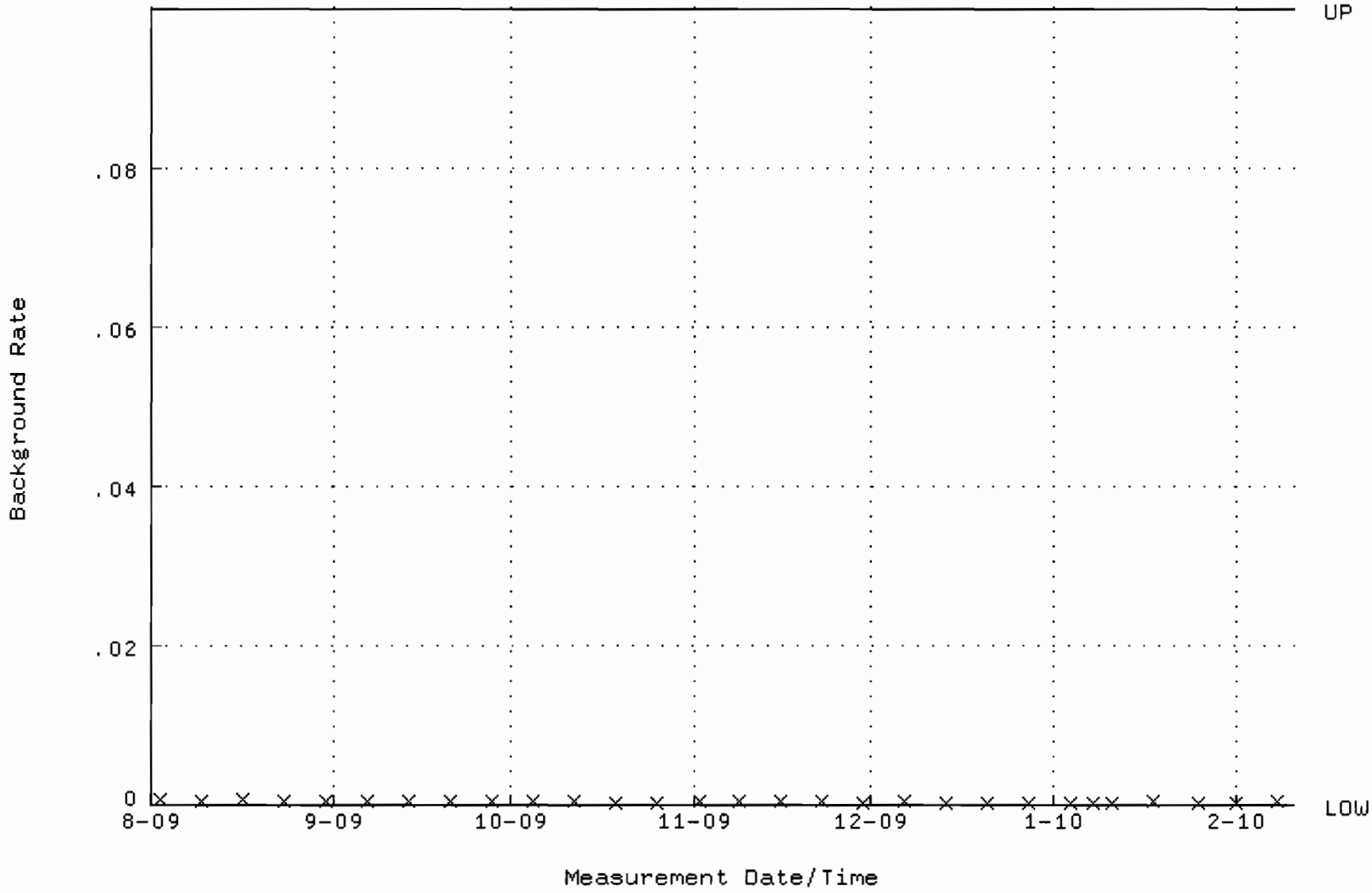

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.321662 through 0.358794

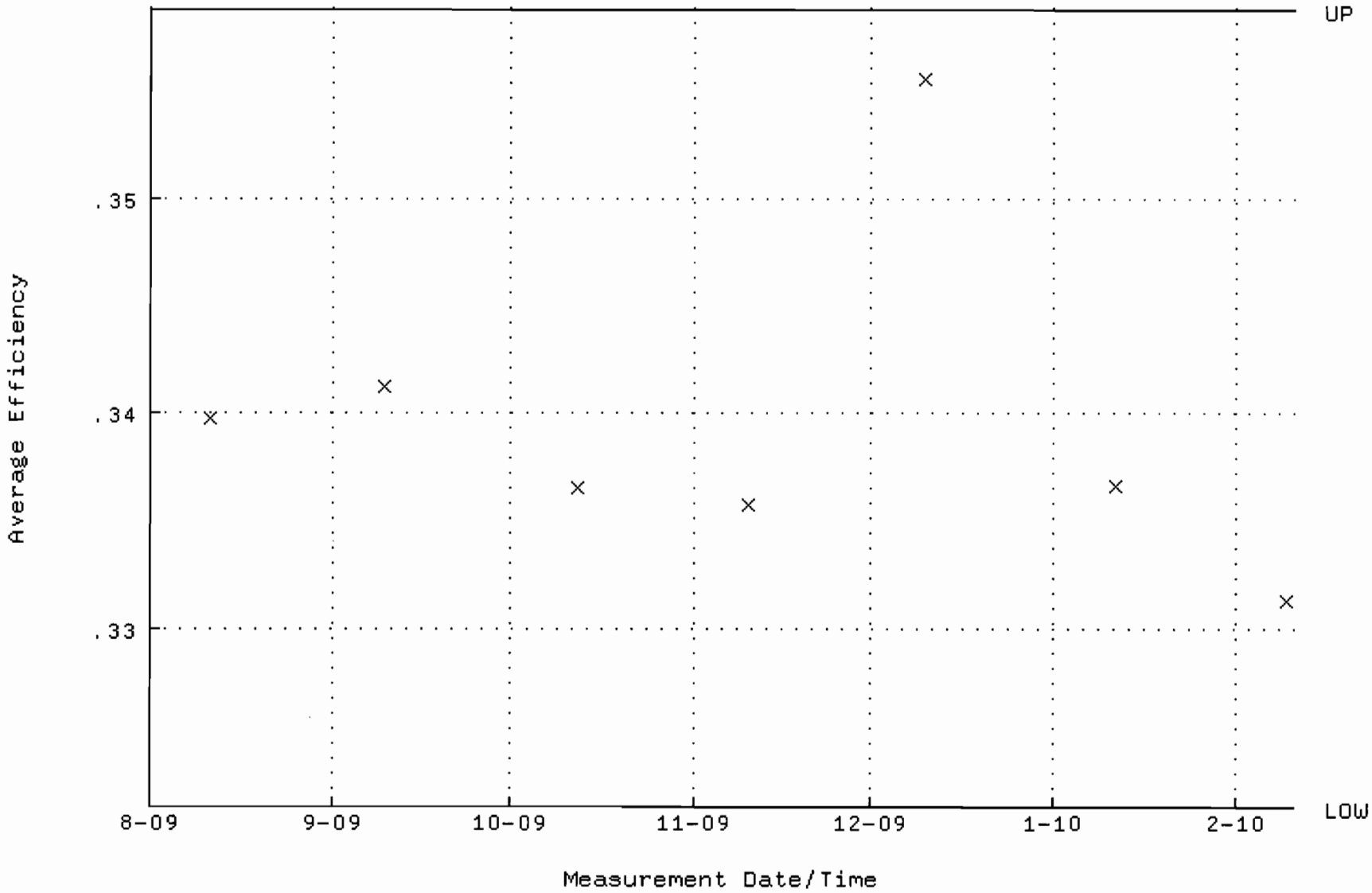

QA filename : DKA100:[ENV_ALPHA.QA.W]W111.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:19 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 69.0200 through 71.9448

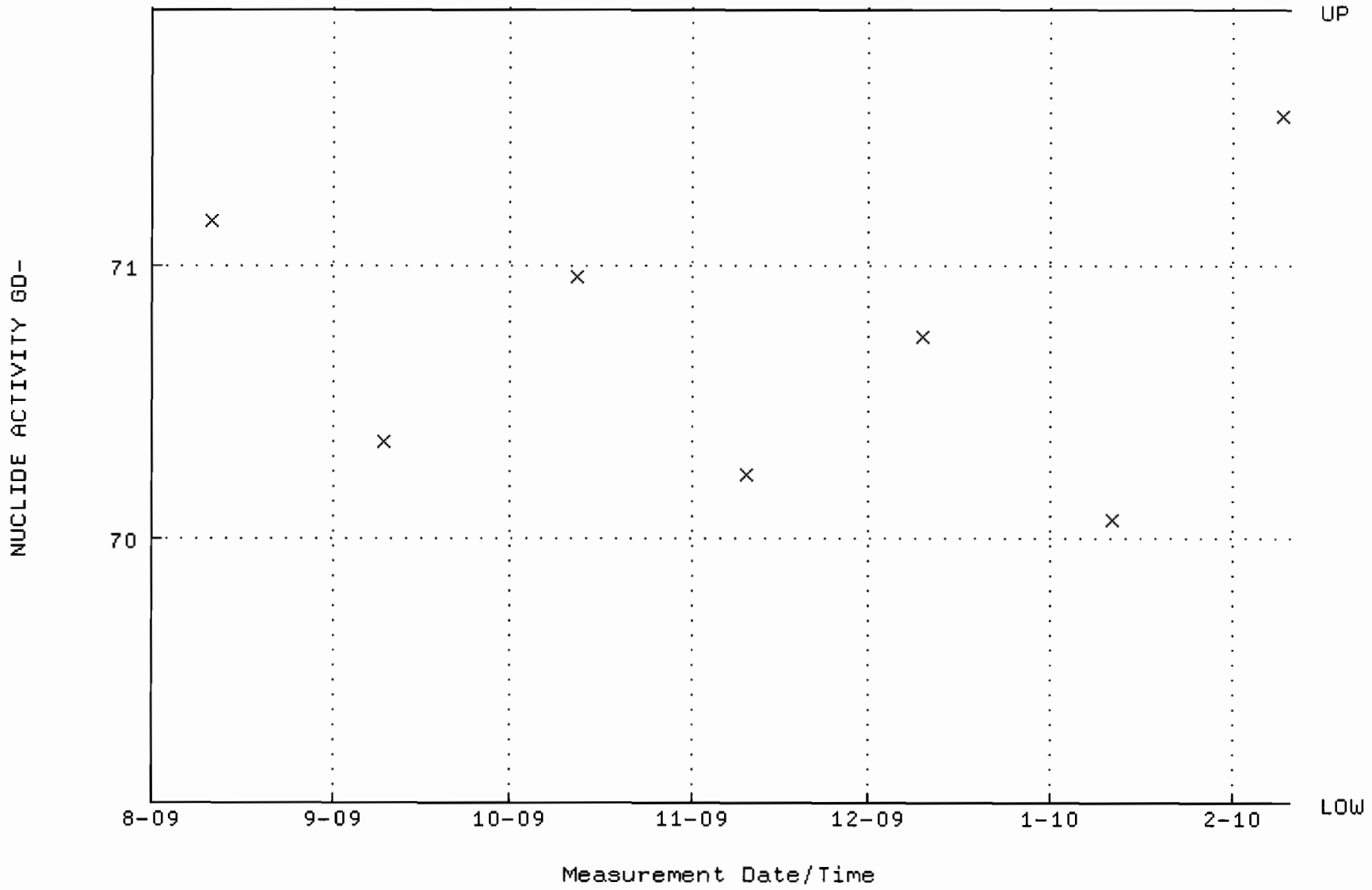

QA filename : DKA100:[ENV_ALPHA.QA.B]B111.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:44 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

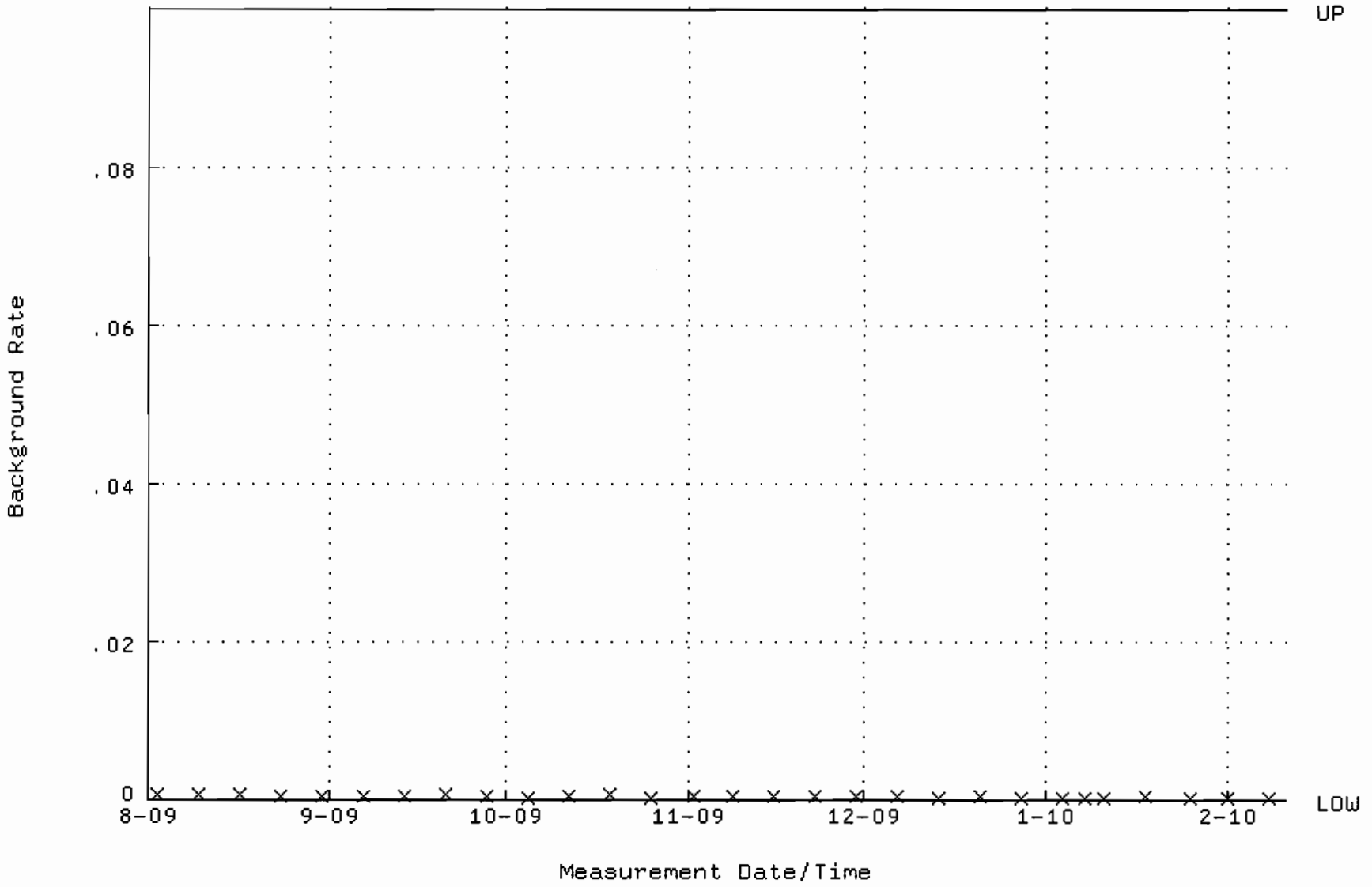

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:40:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242598 through 0.262598

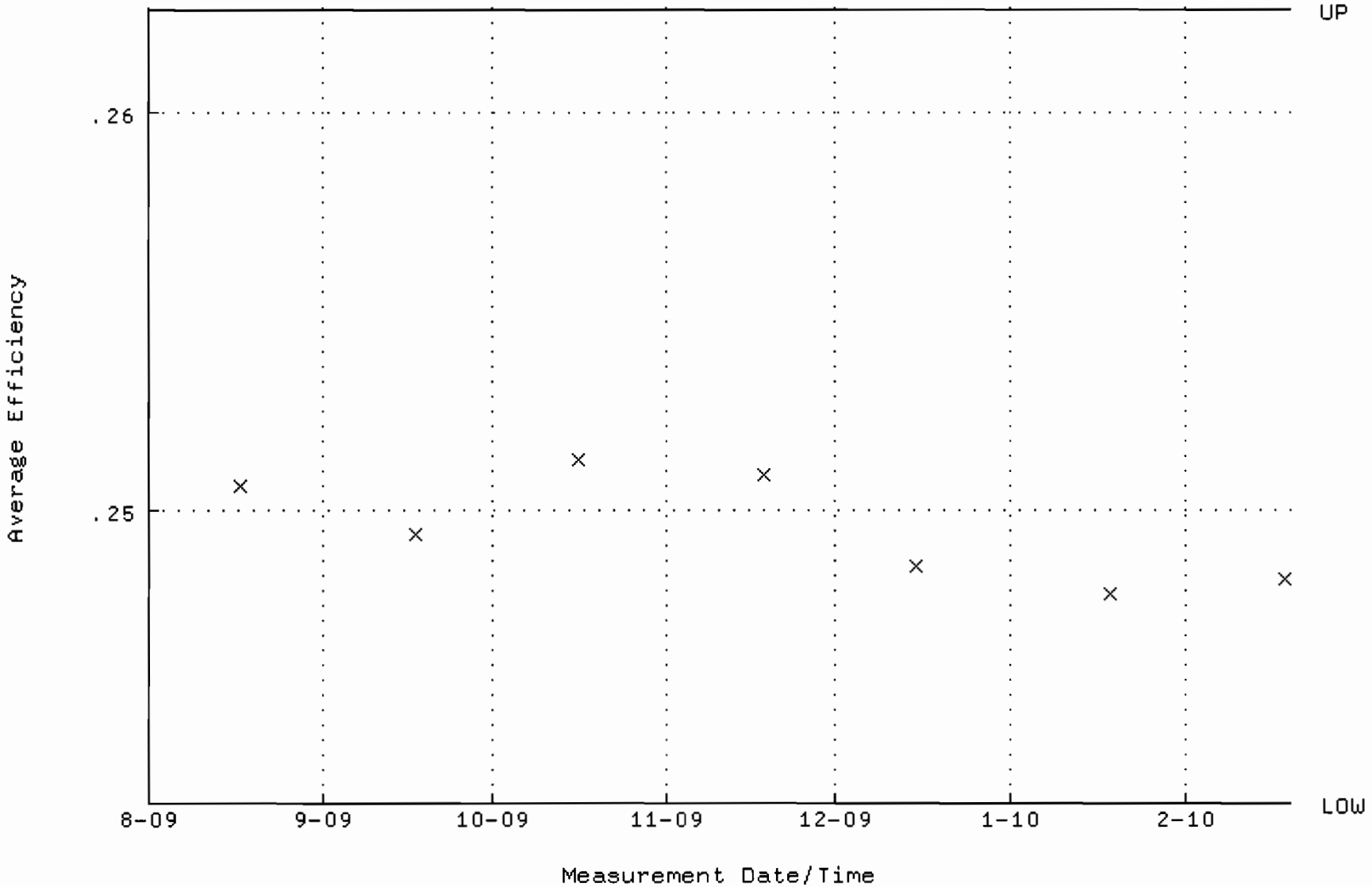

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:40:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.5172 through 96.7296

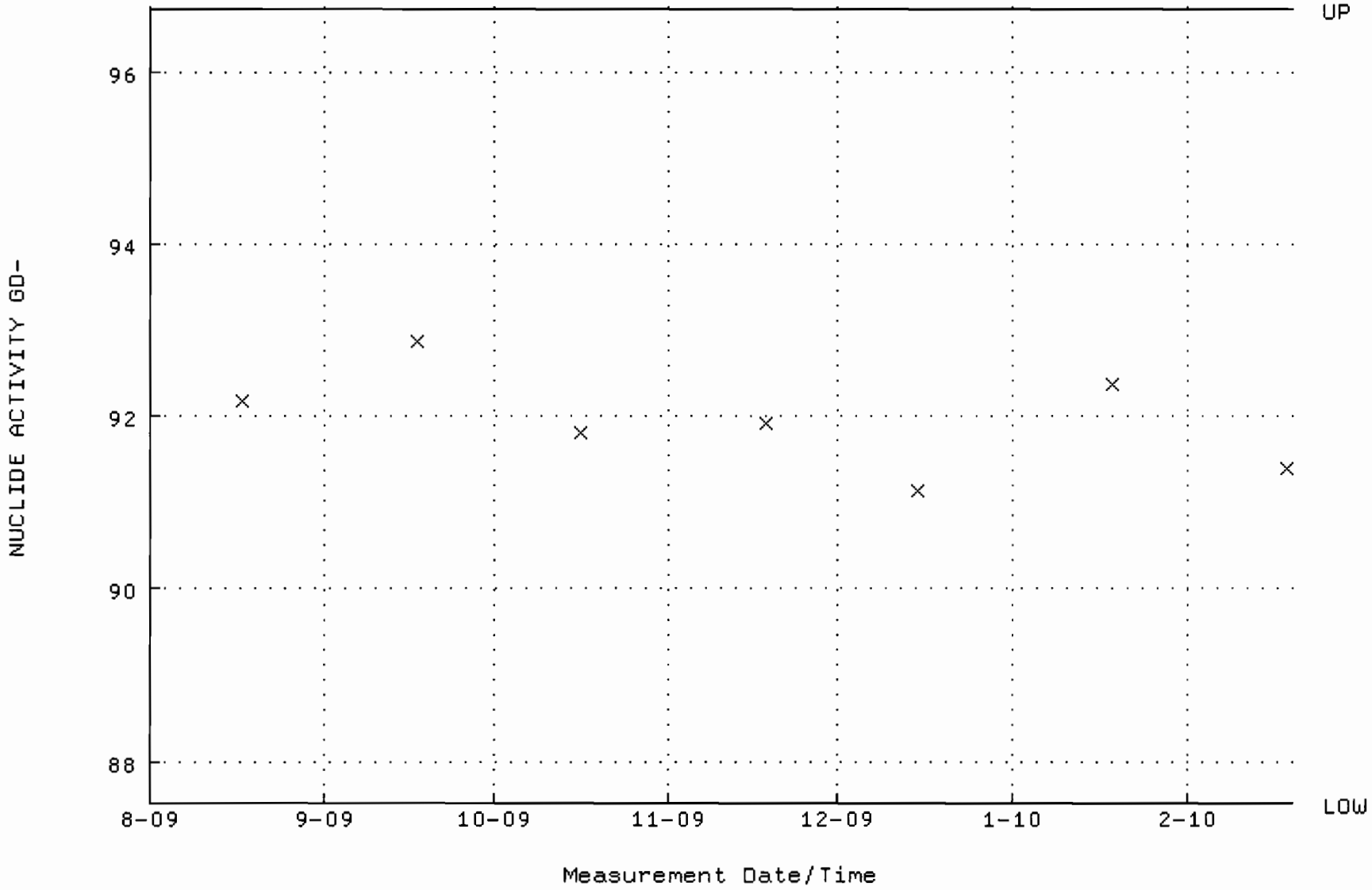

QA filename : DKA100:[ENV_ALPHA.QA.B]B113.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:11:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

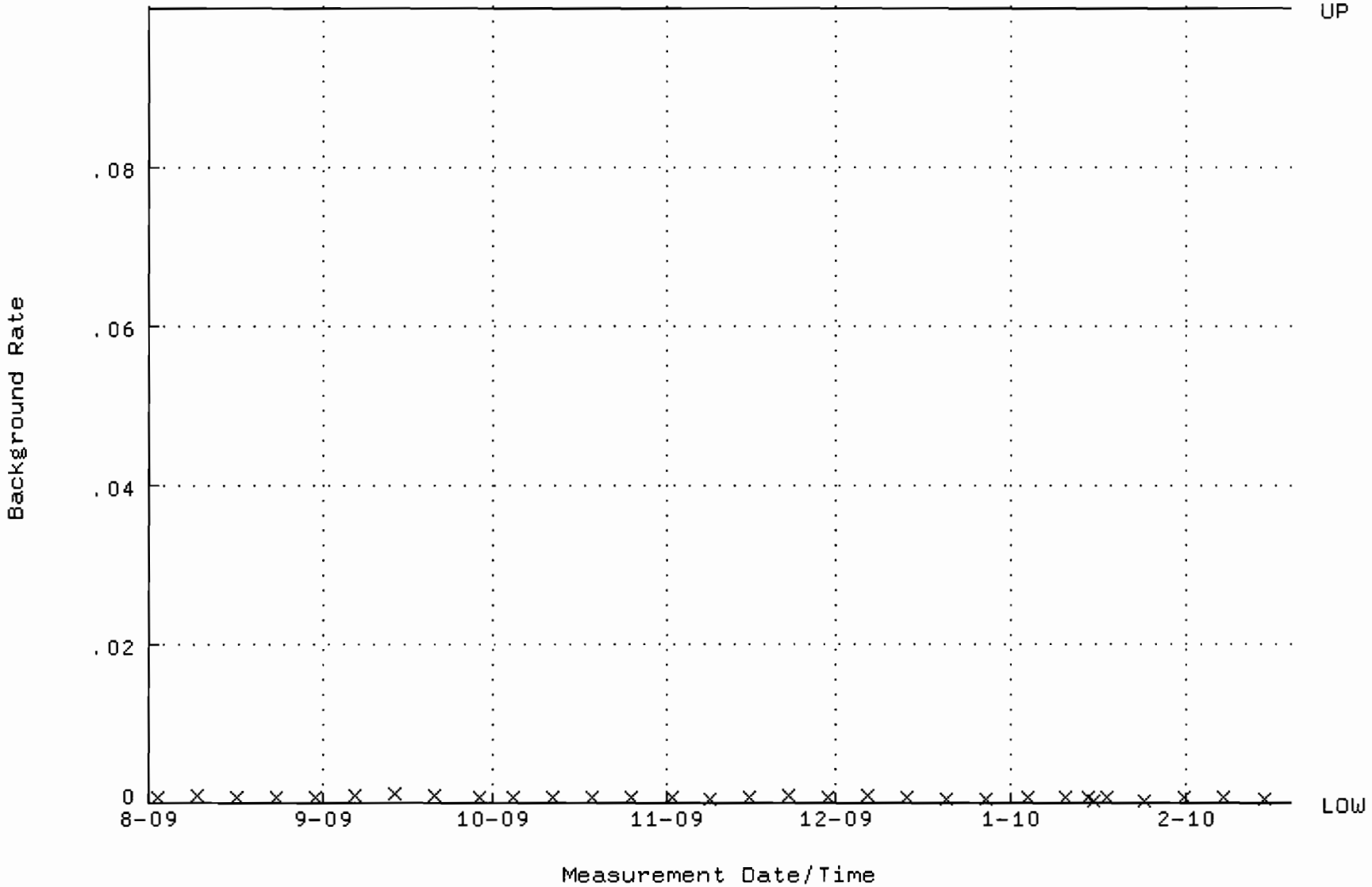

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:40:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.245499 through 0.265499

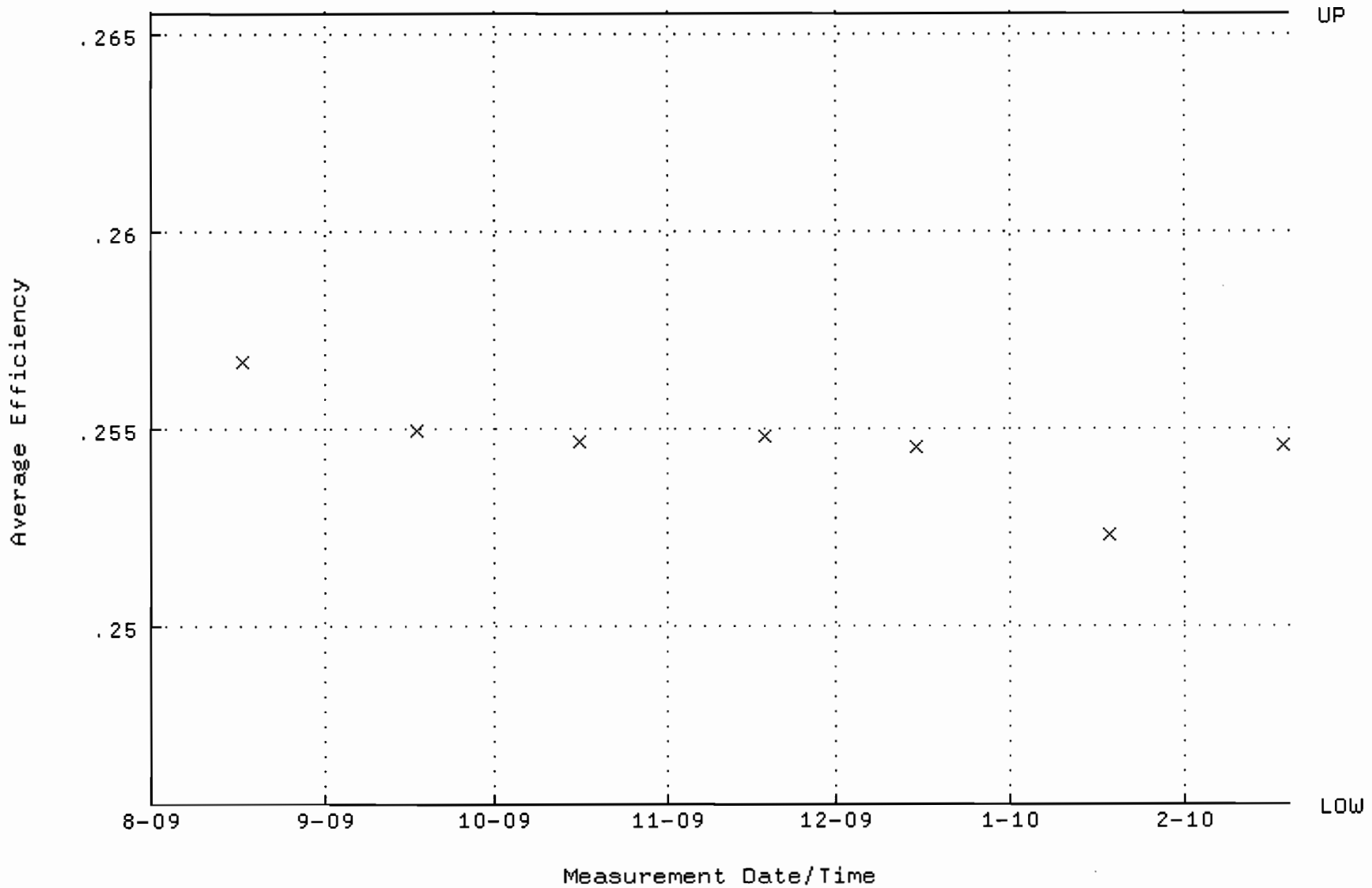

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:40:56 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.8108 through 97.0540

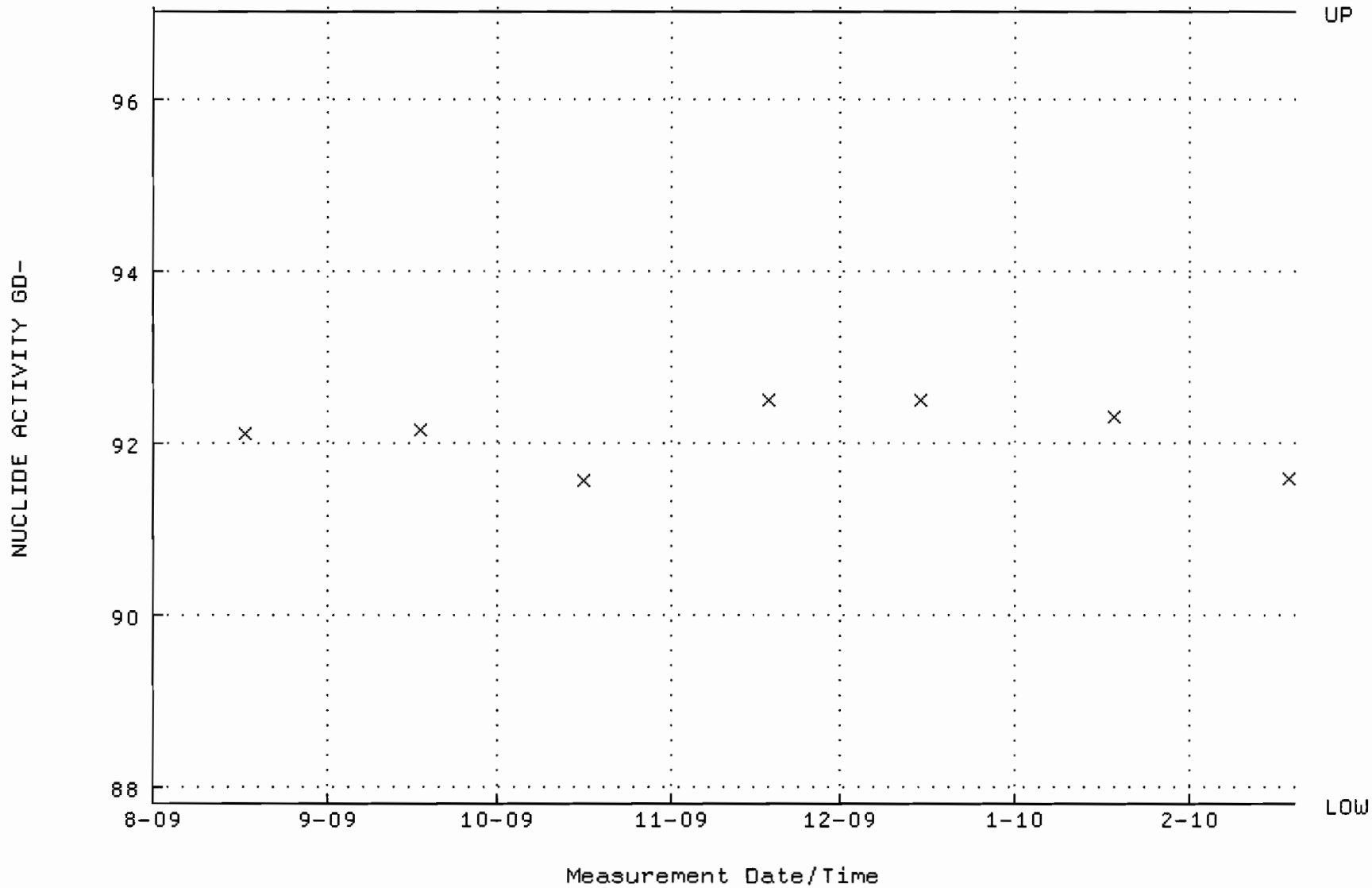

QA filename : DKA100:[ENV_ALPHA.QA.B]B114.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

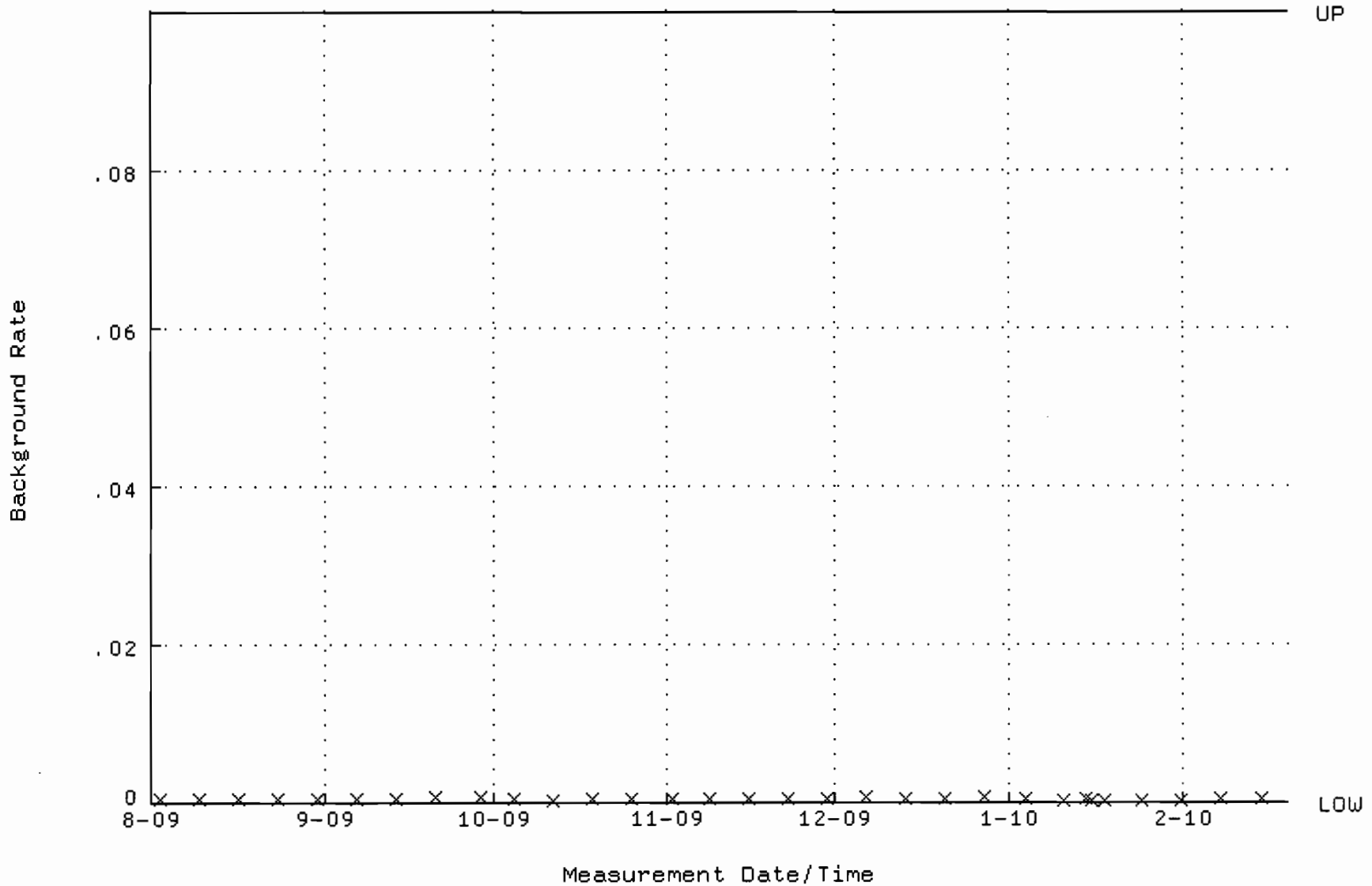

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.248404 through 0.268404

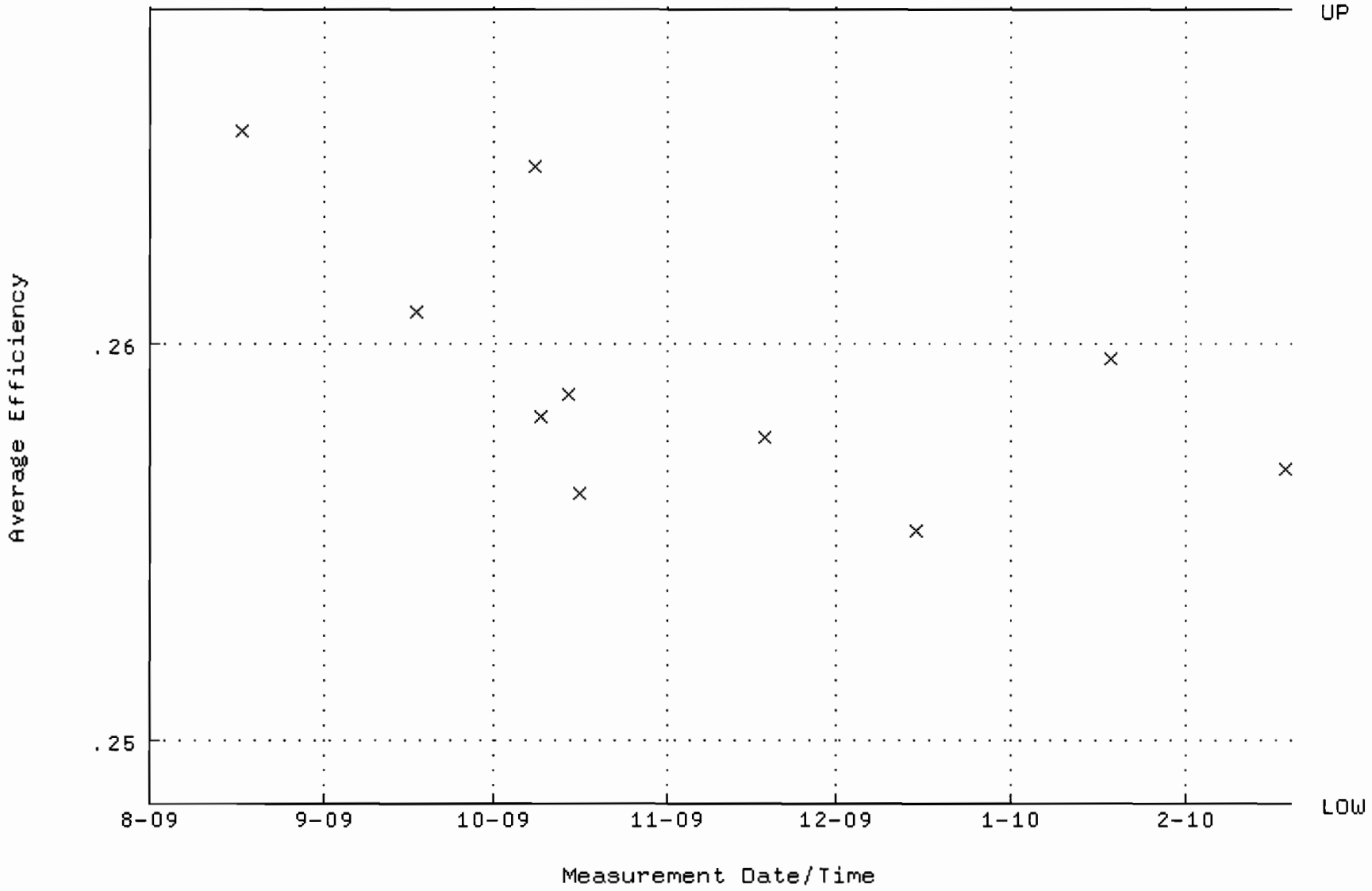

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:02 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.5661 through 94.5731

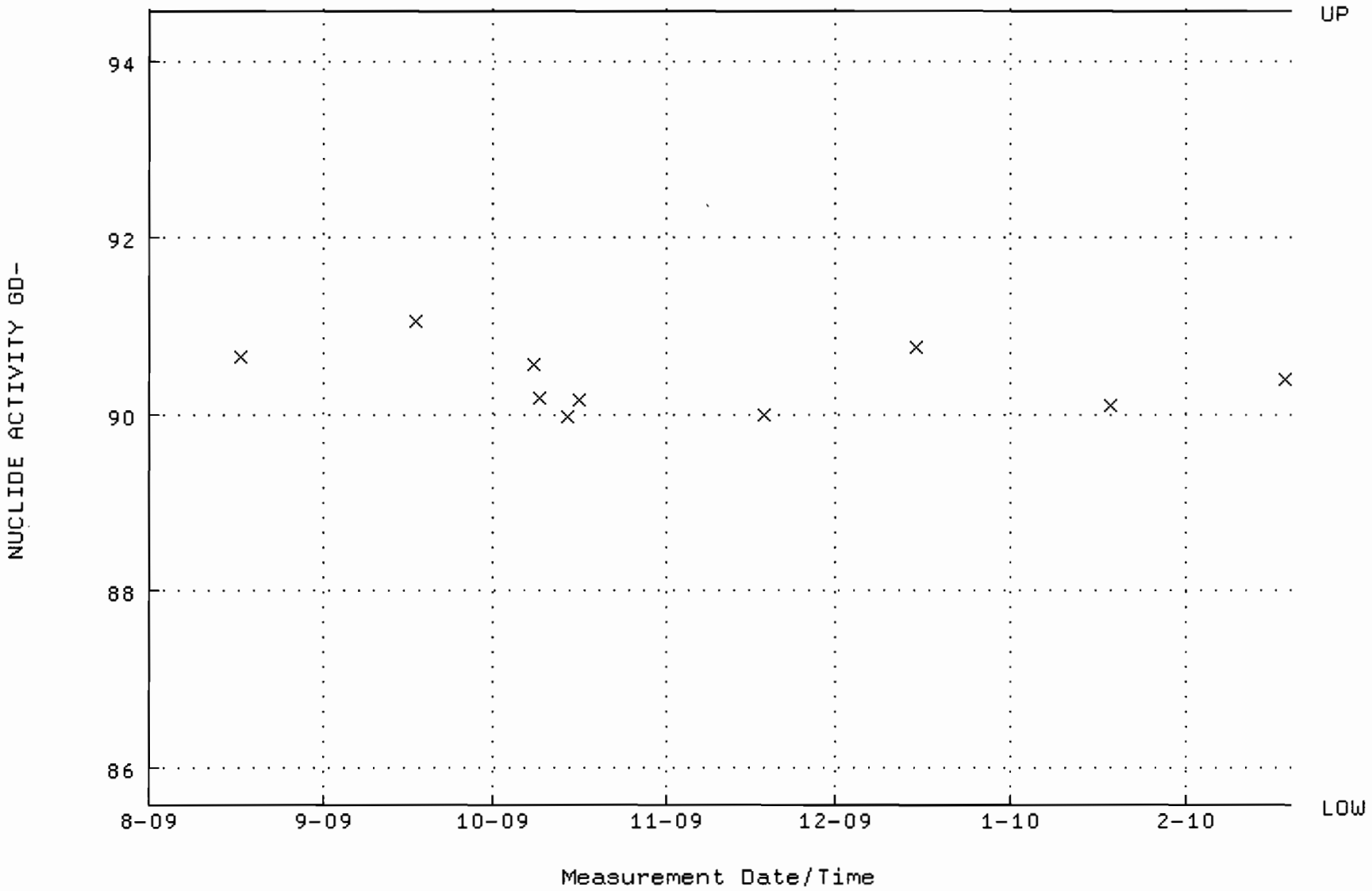

QA filename : DKA100:[ENV_ALPHA.QA.B]B115.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:05 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

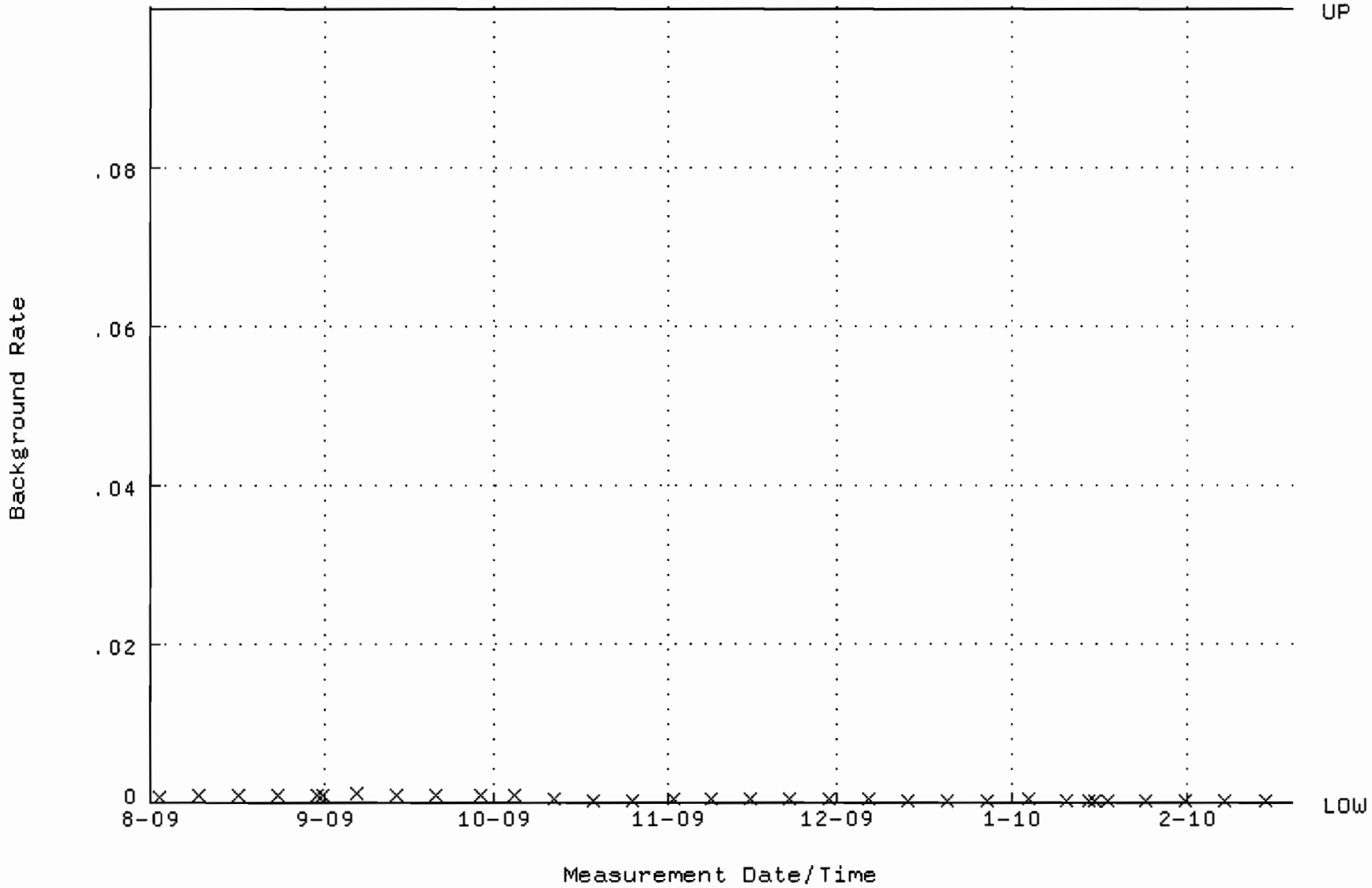

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 06:21:52 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.252093 through 0.260243

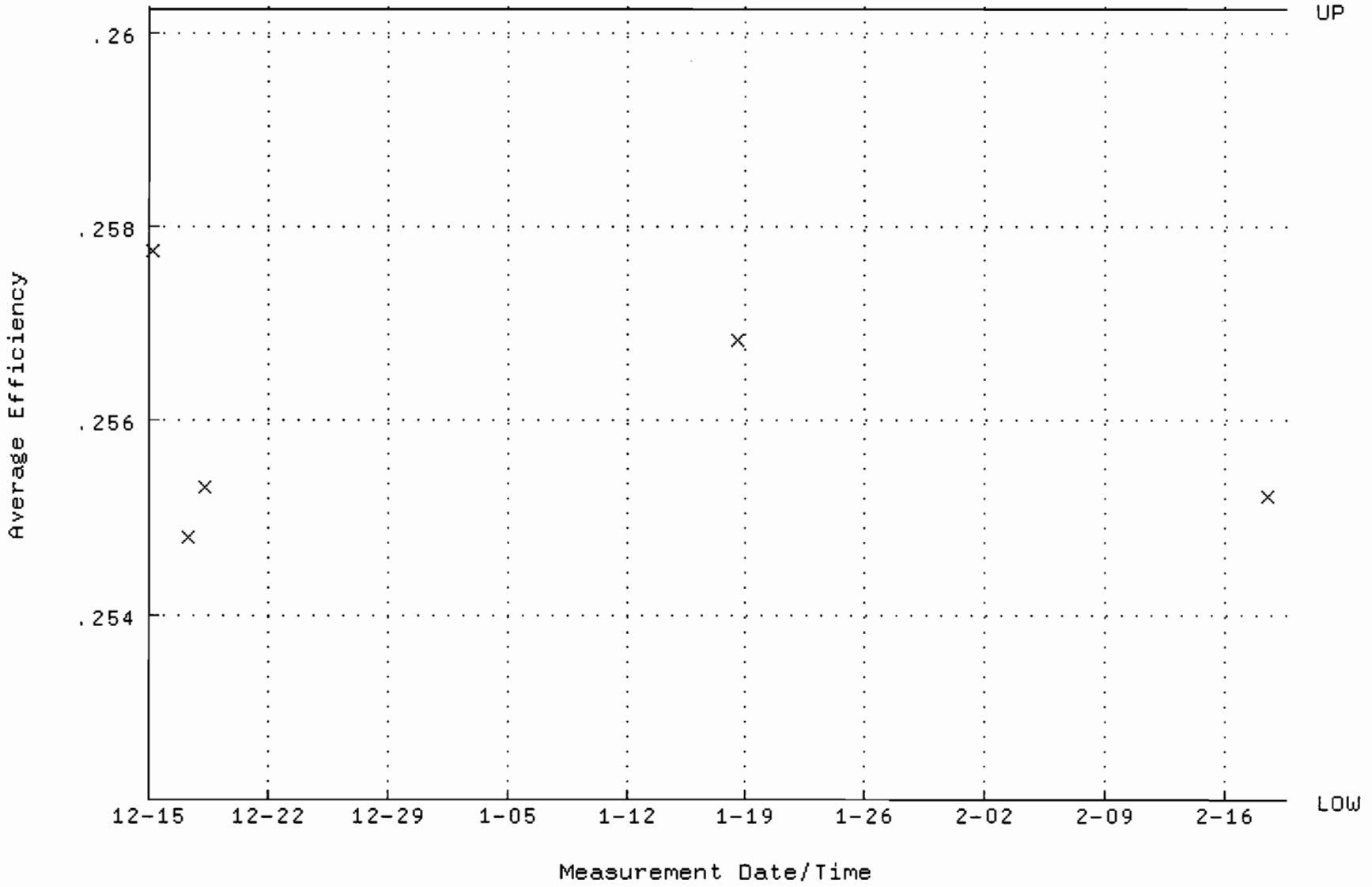

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 06:21:52 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4107 through 94.2781

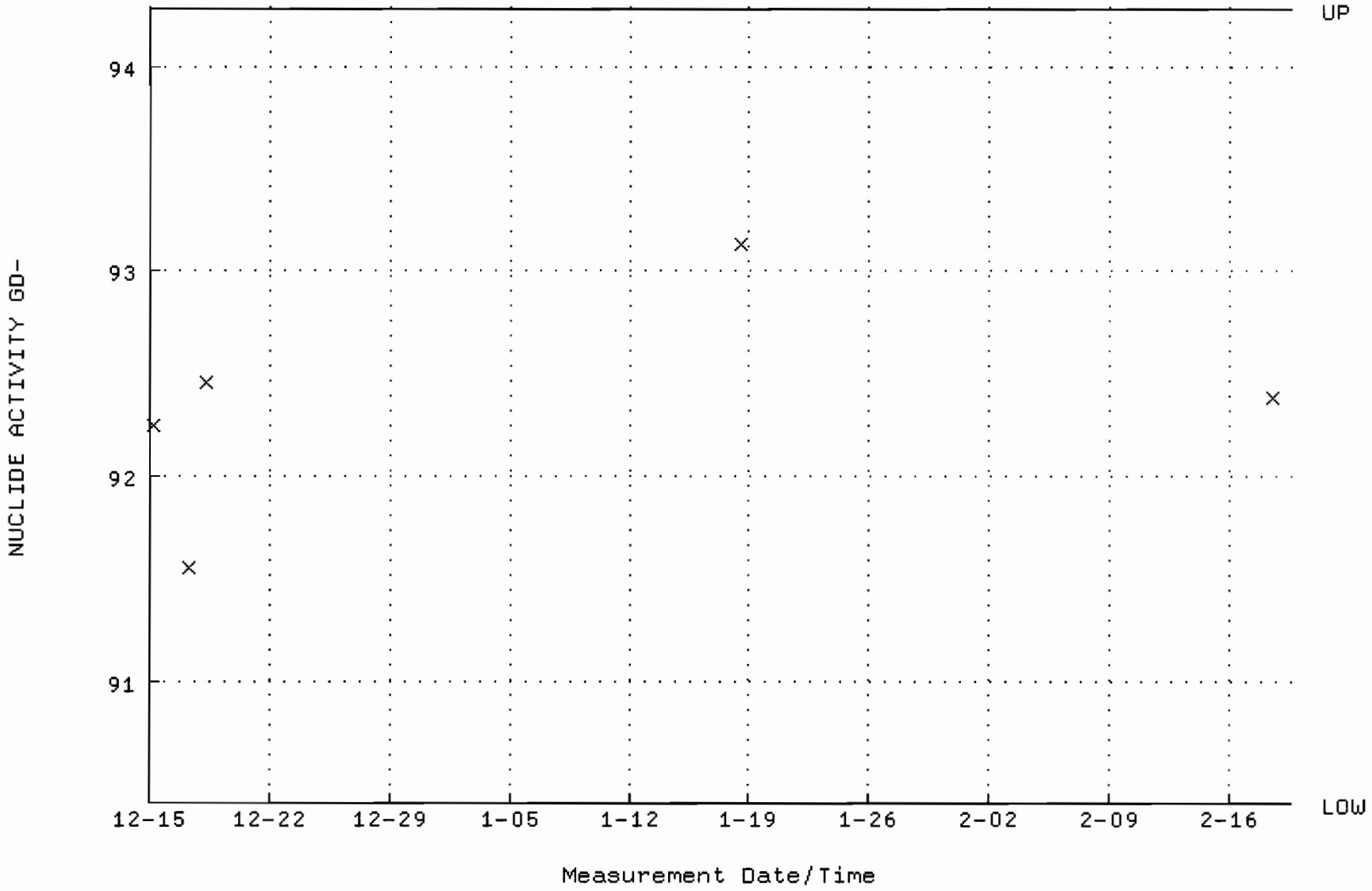

QA filename : DKA100:[ENV_ALPHA.QA.B]B119.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 3-AUG-2009 15:38:13 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

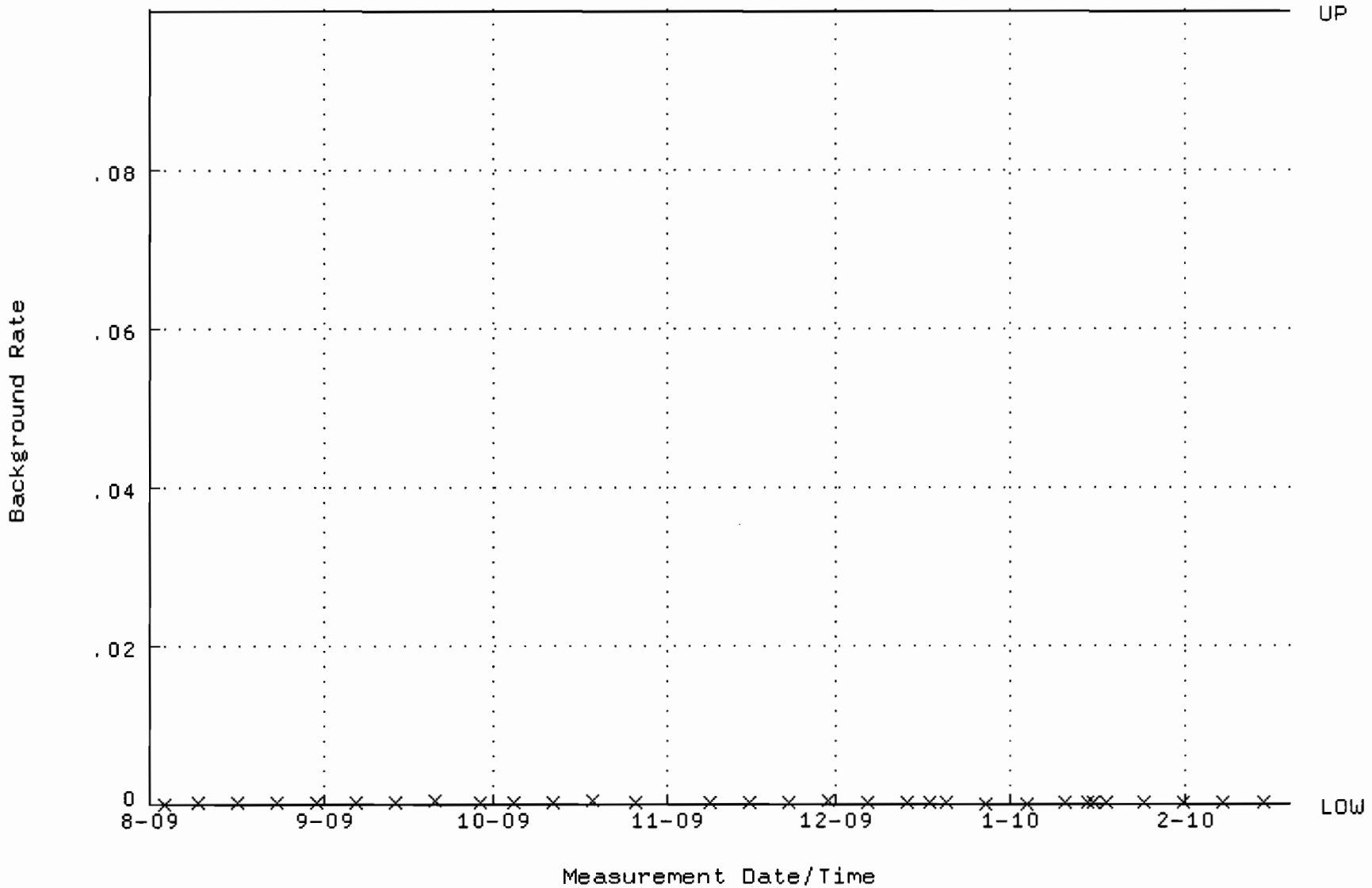

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.232847 through 0.282381

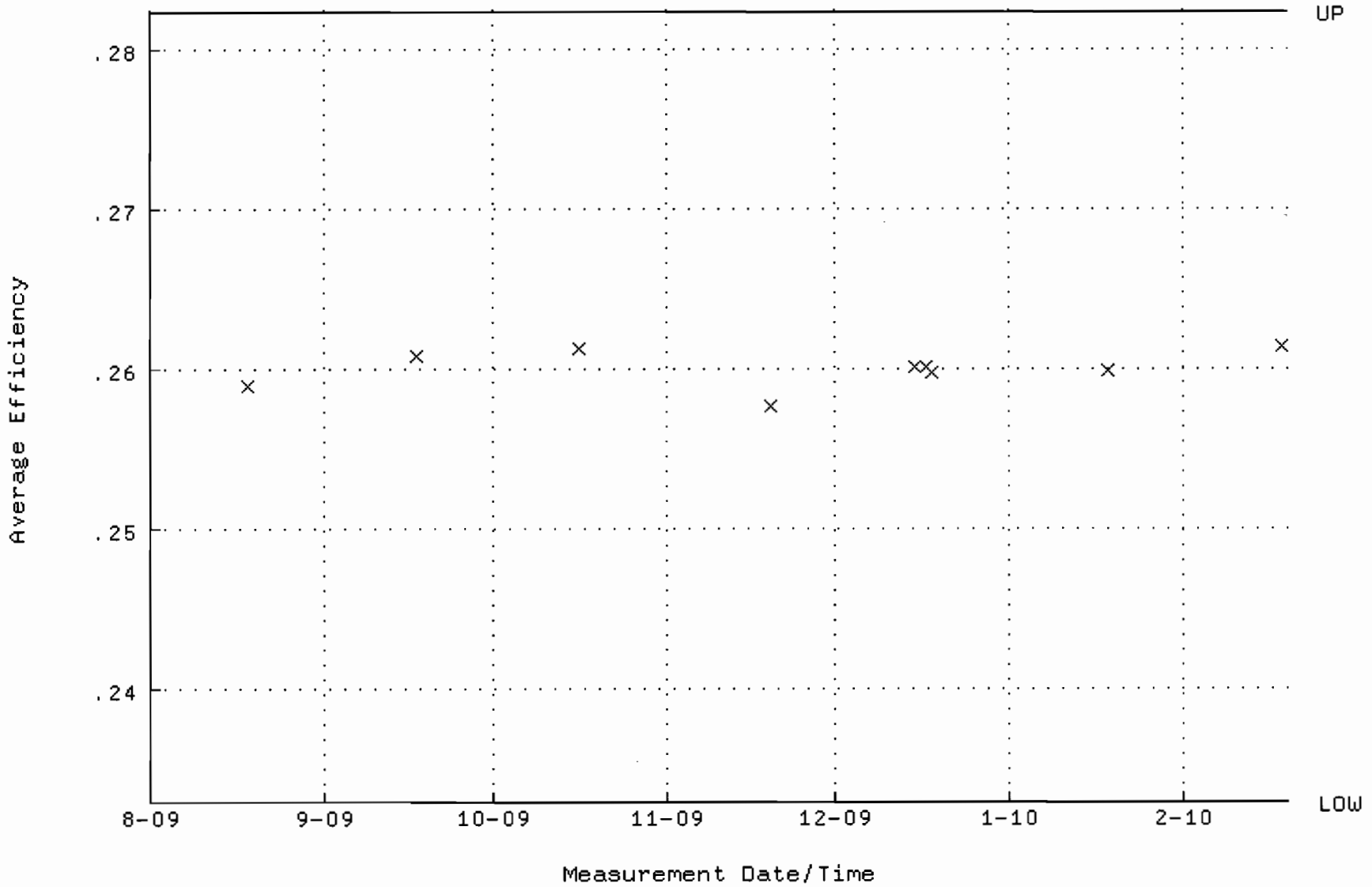

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 18-AUG-2009 08:35:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.3881 through 91.8481

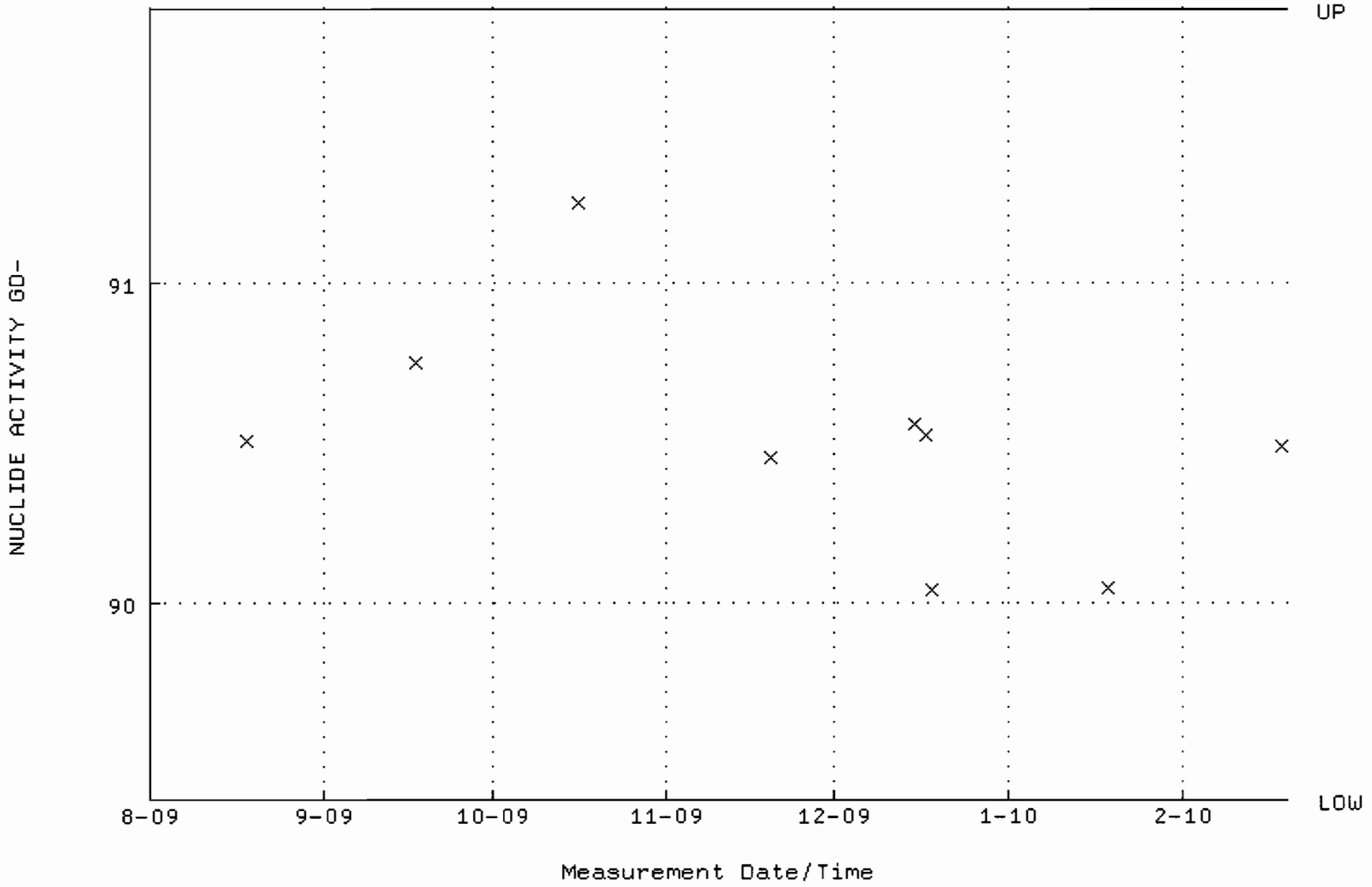

QA filename : DKA100:[ENV_ALPHA.QA.B]B120.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 3-AUG-2009 15:38:20 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

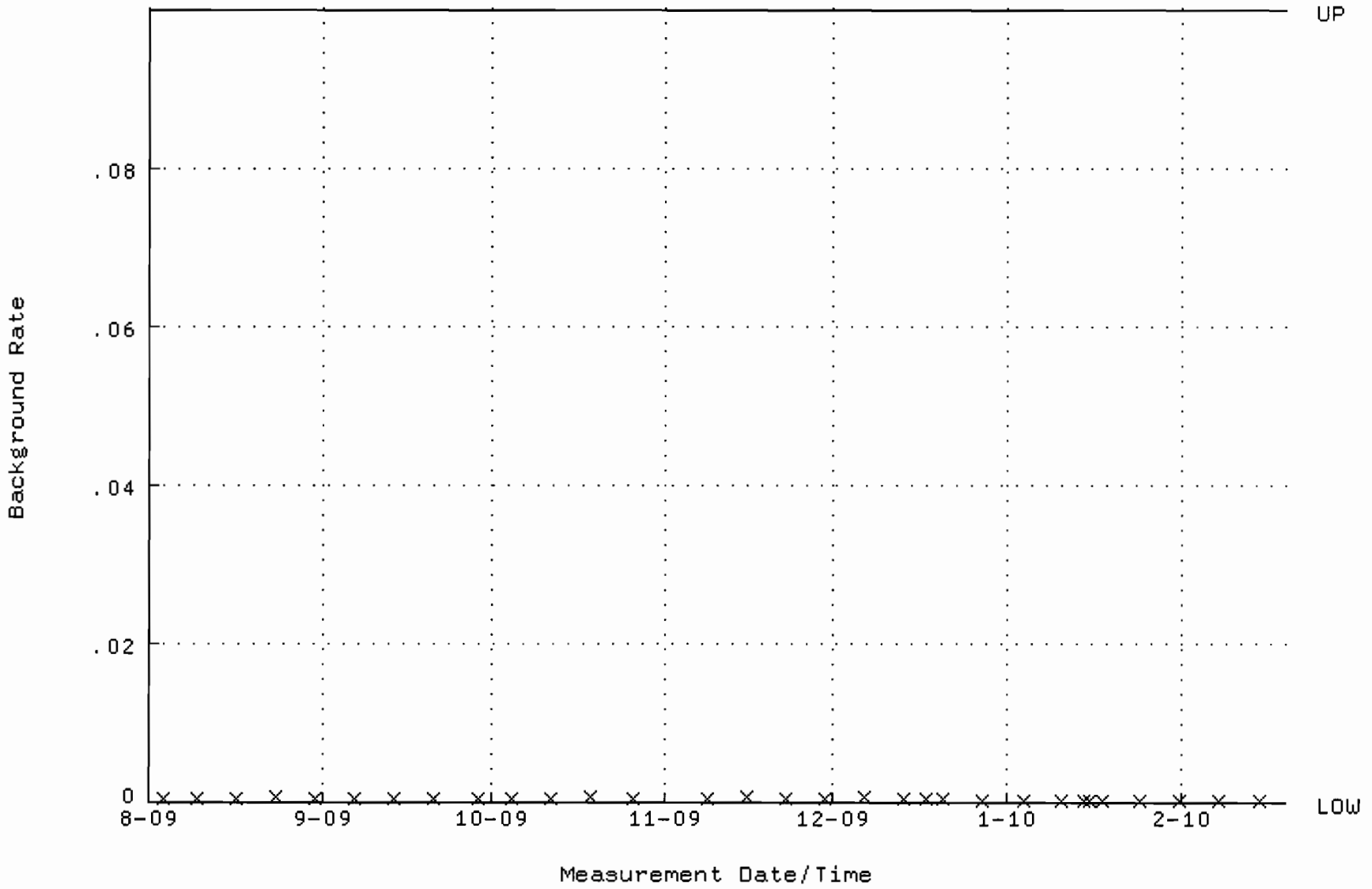

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686

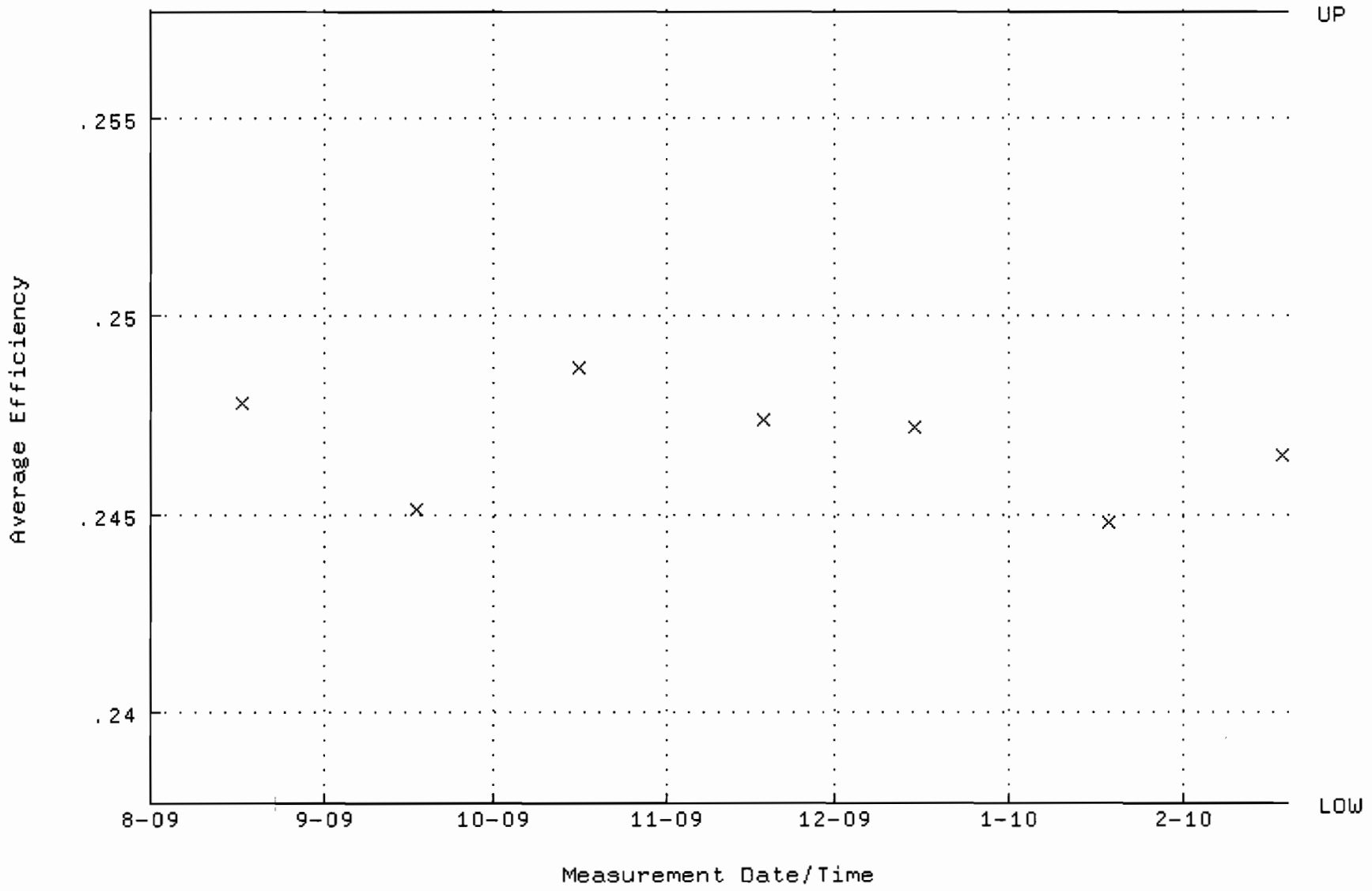

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:25 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395

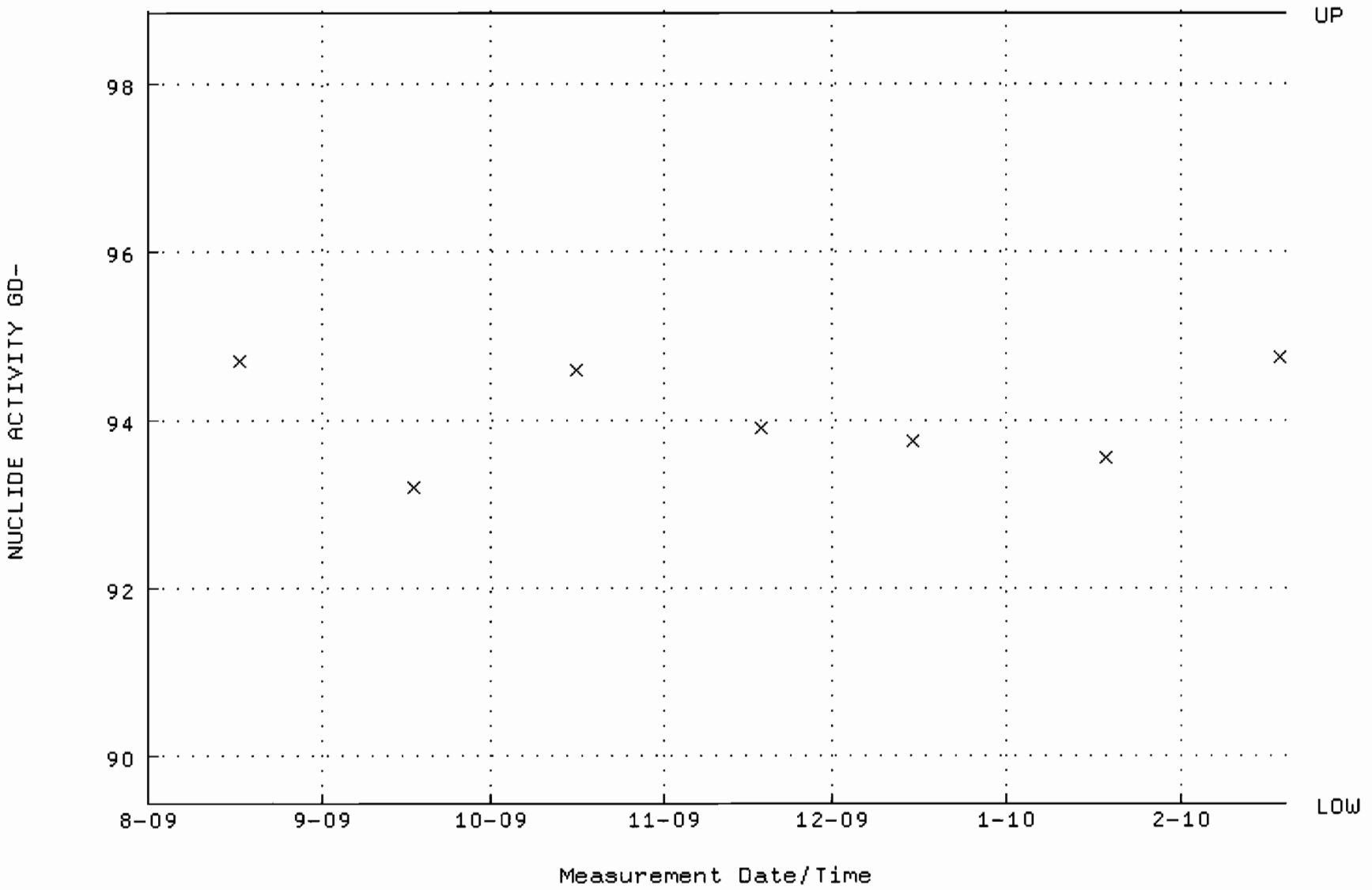

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:33 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

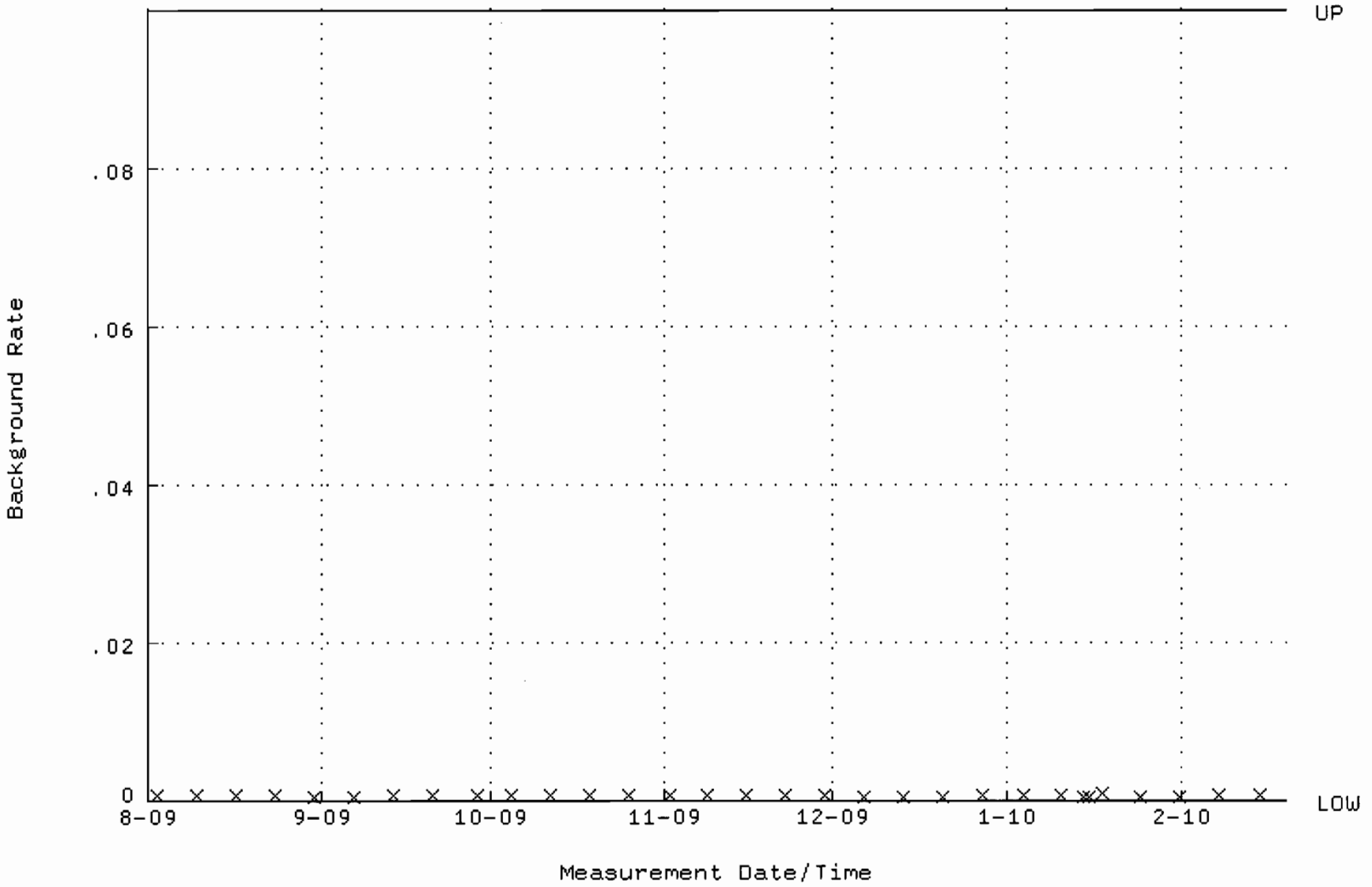

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242659 through 0.262659

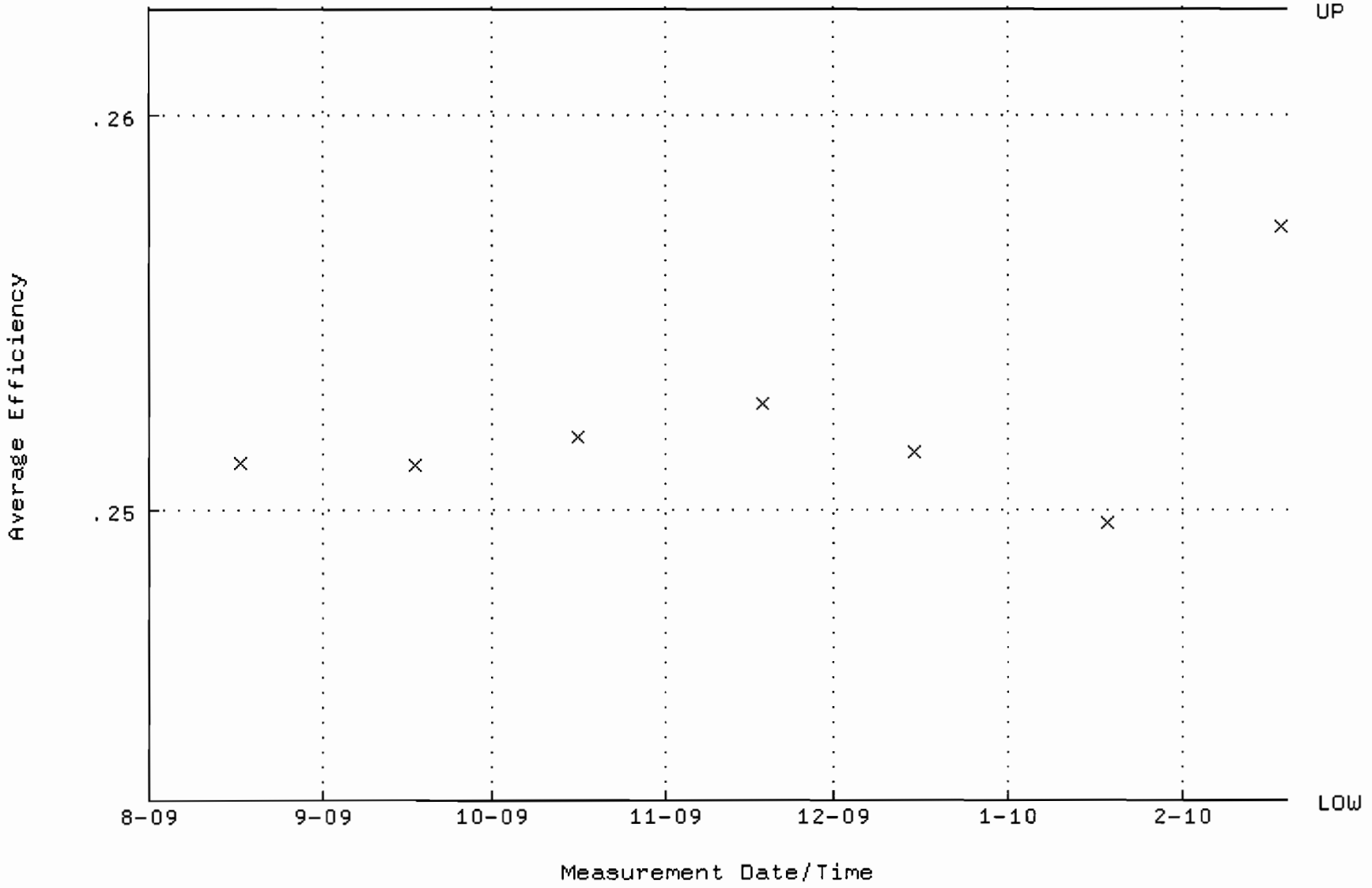

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:30 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.5949 through 100.131

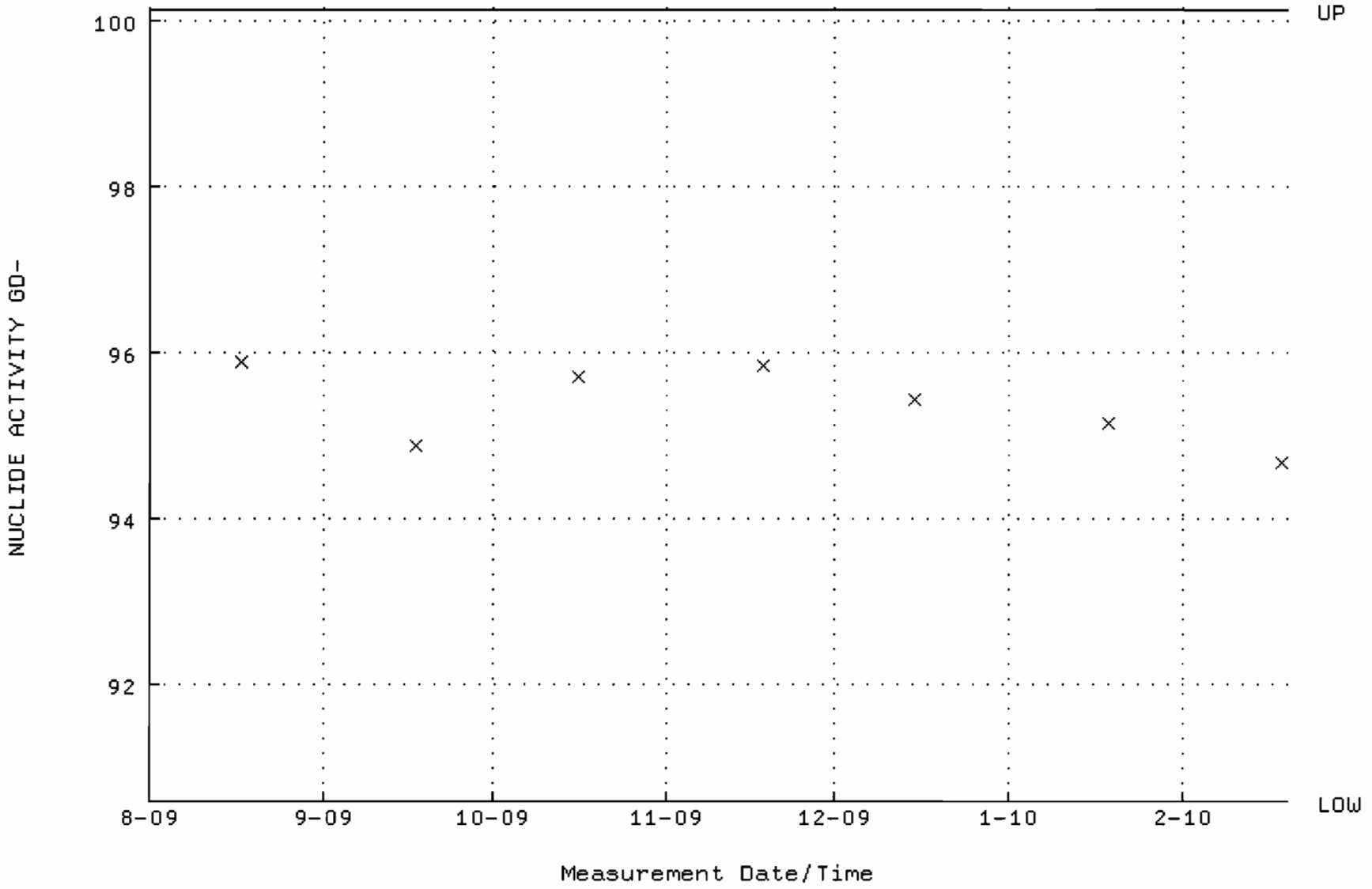

QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:37 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

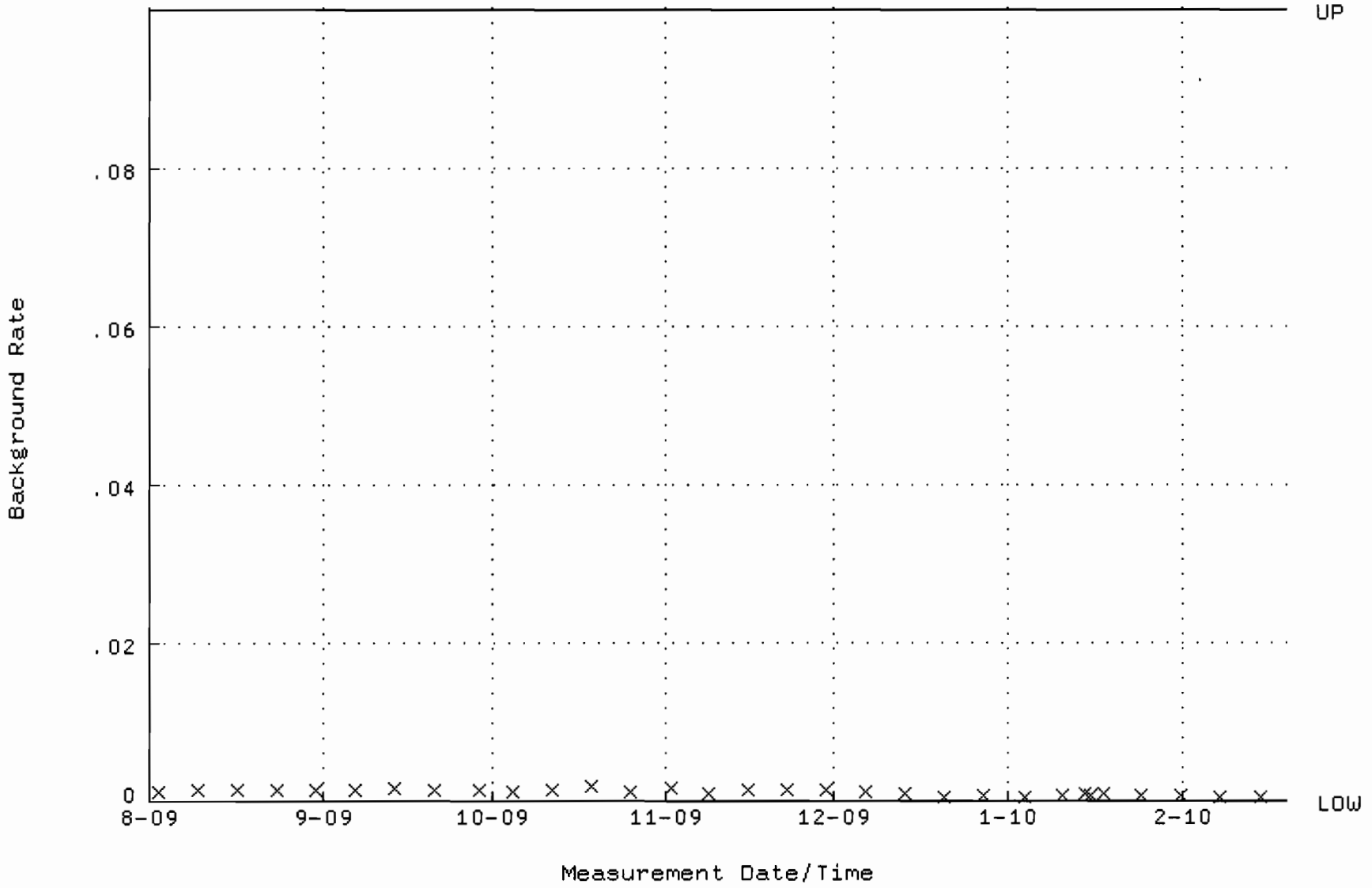

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.249752 through 0.269752

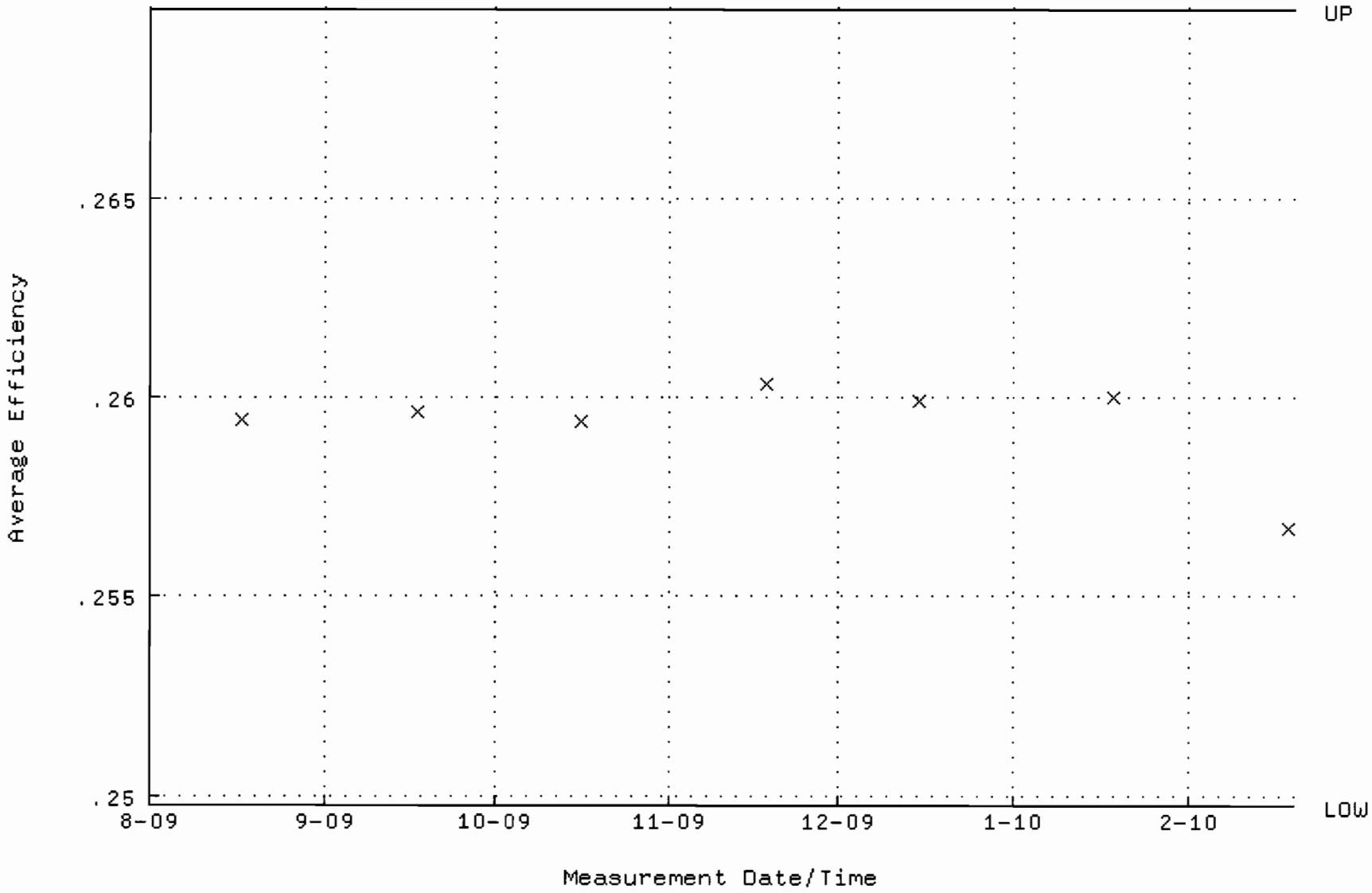

QA filename : DKA100:[ENV_ALPHA.QA.W]W123.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:34 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.0496 through 95.1074

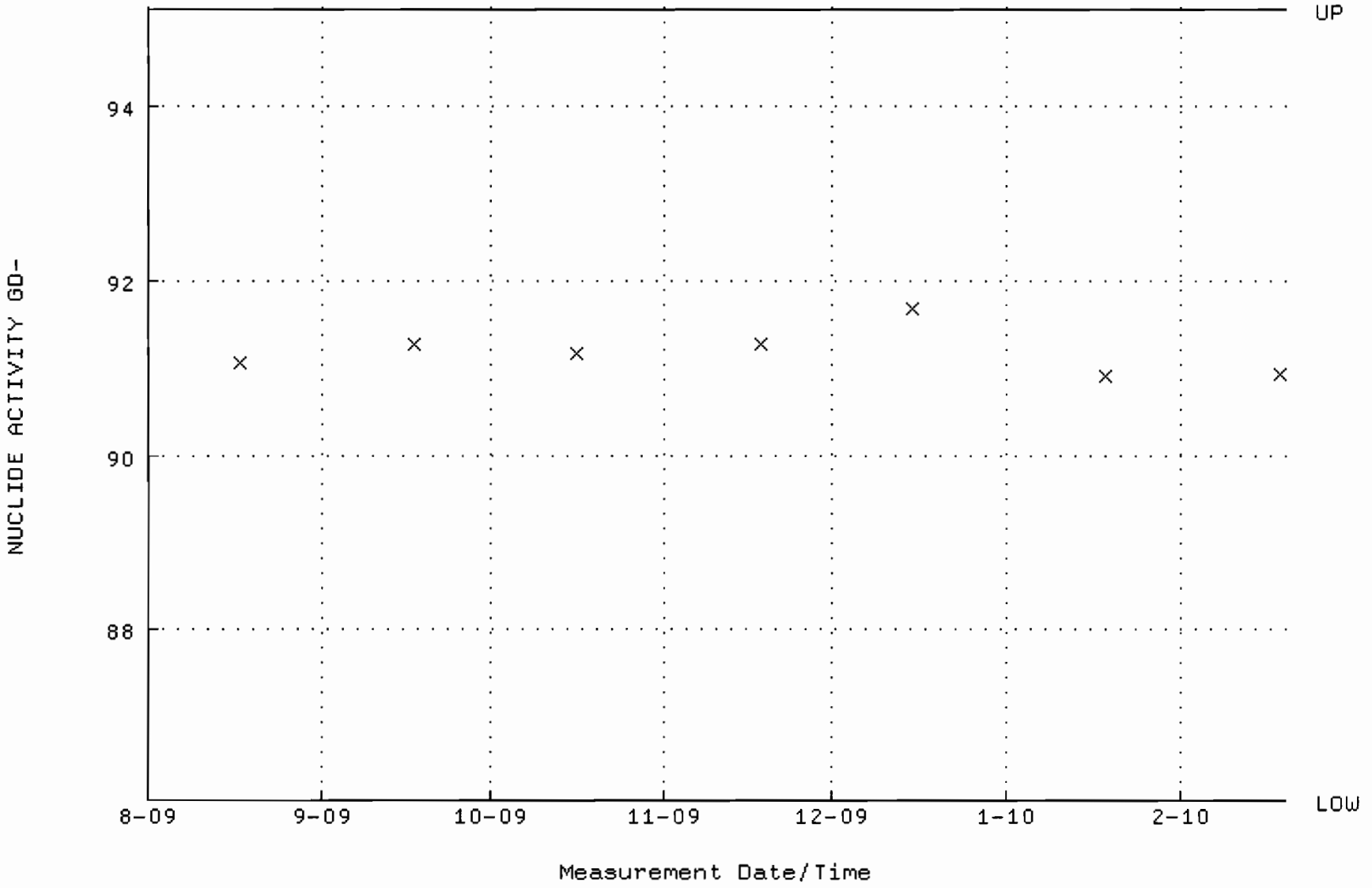

QA filename : DKA100:[ENV_ALPHA.QA.B]B123.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:42 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

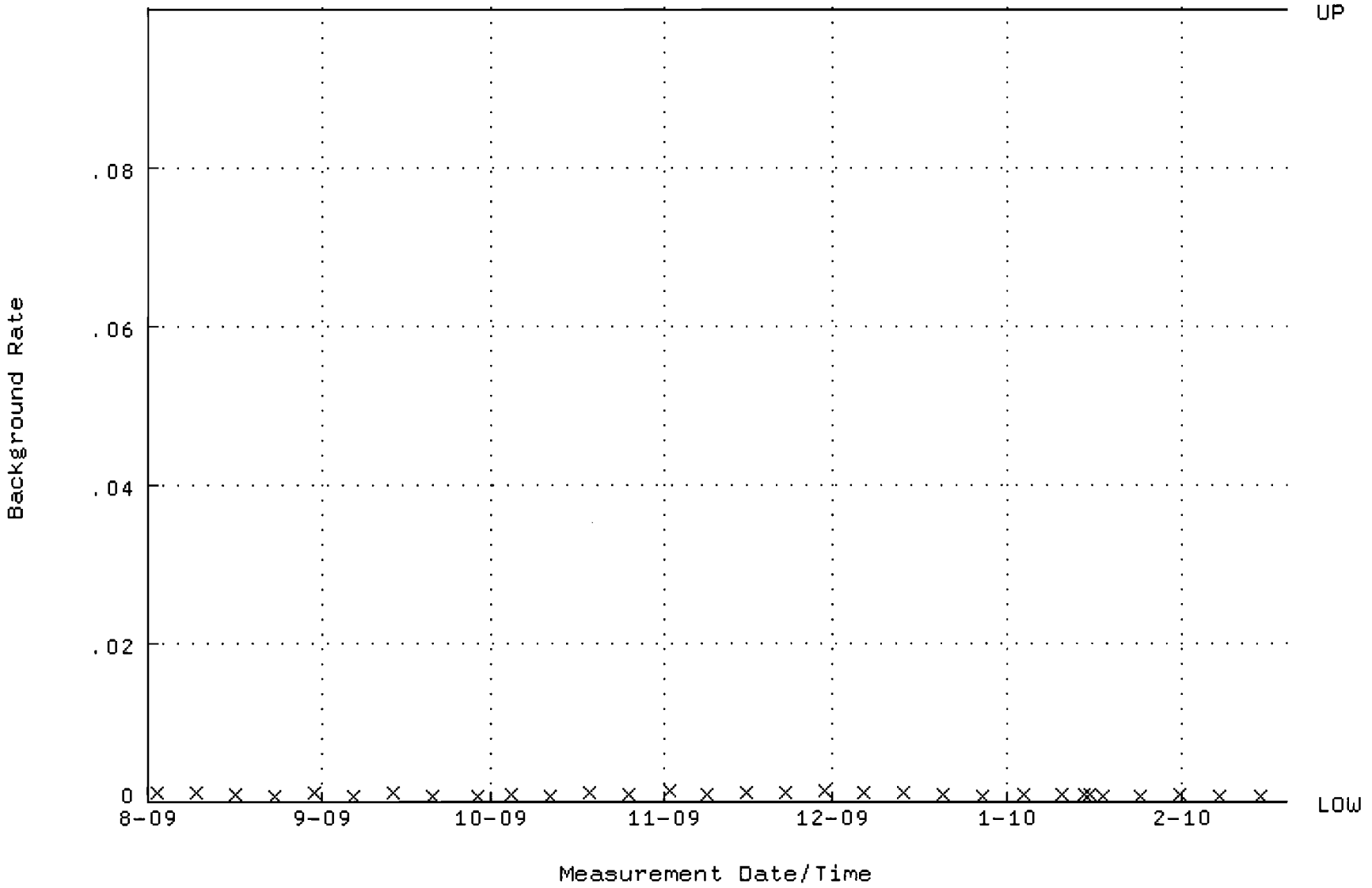

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.251398 through 0.271398

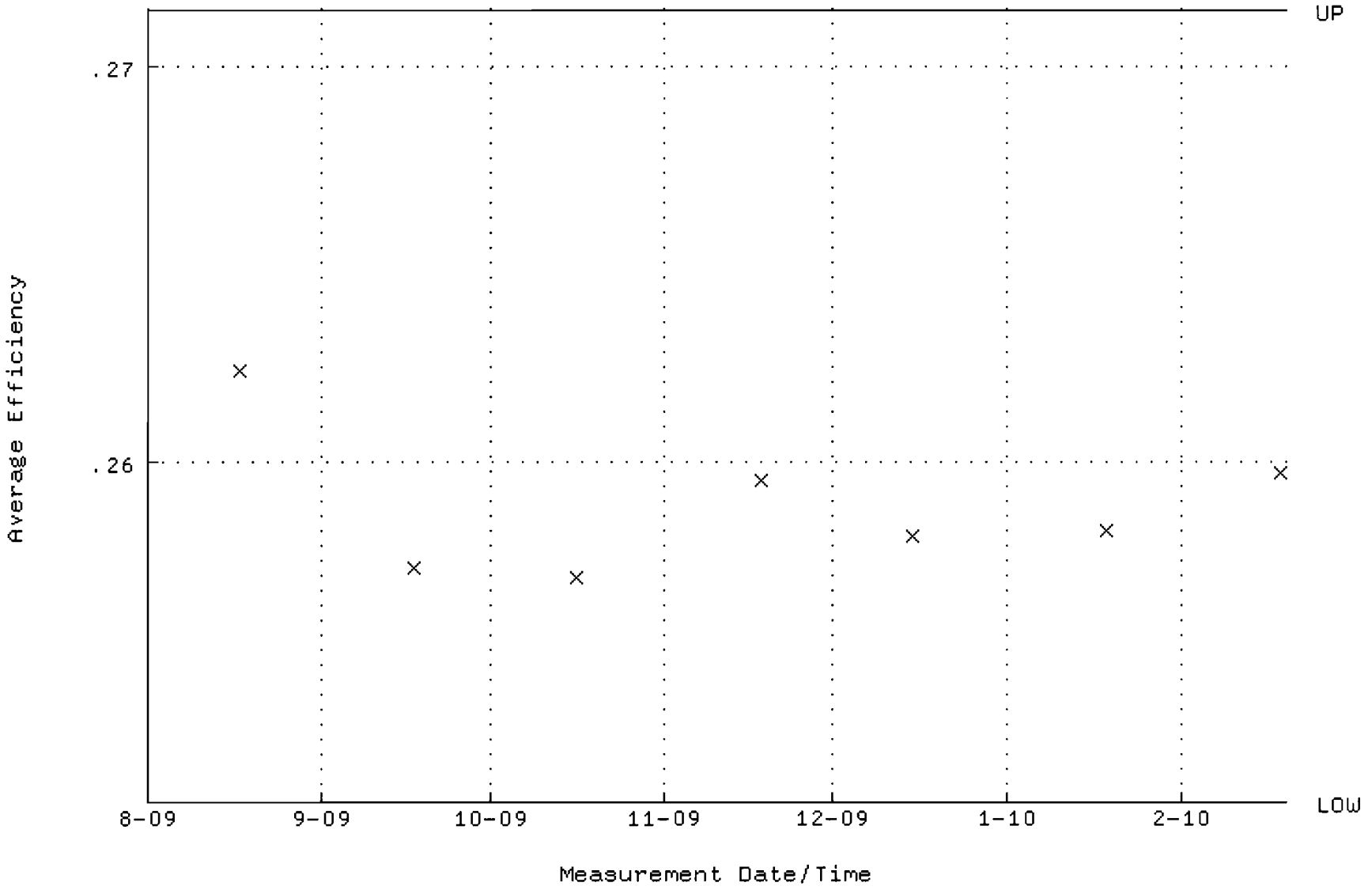

QA filename : DKA100:[ENV_ALPHA.QA.W]W124.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:39 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.8862 through 96.0322

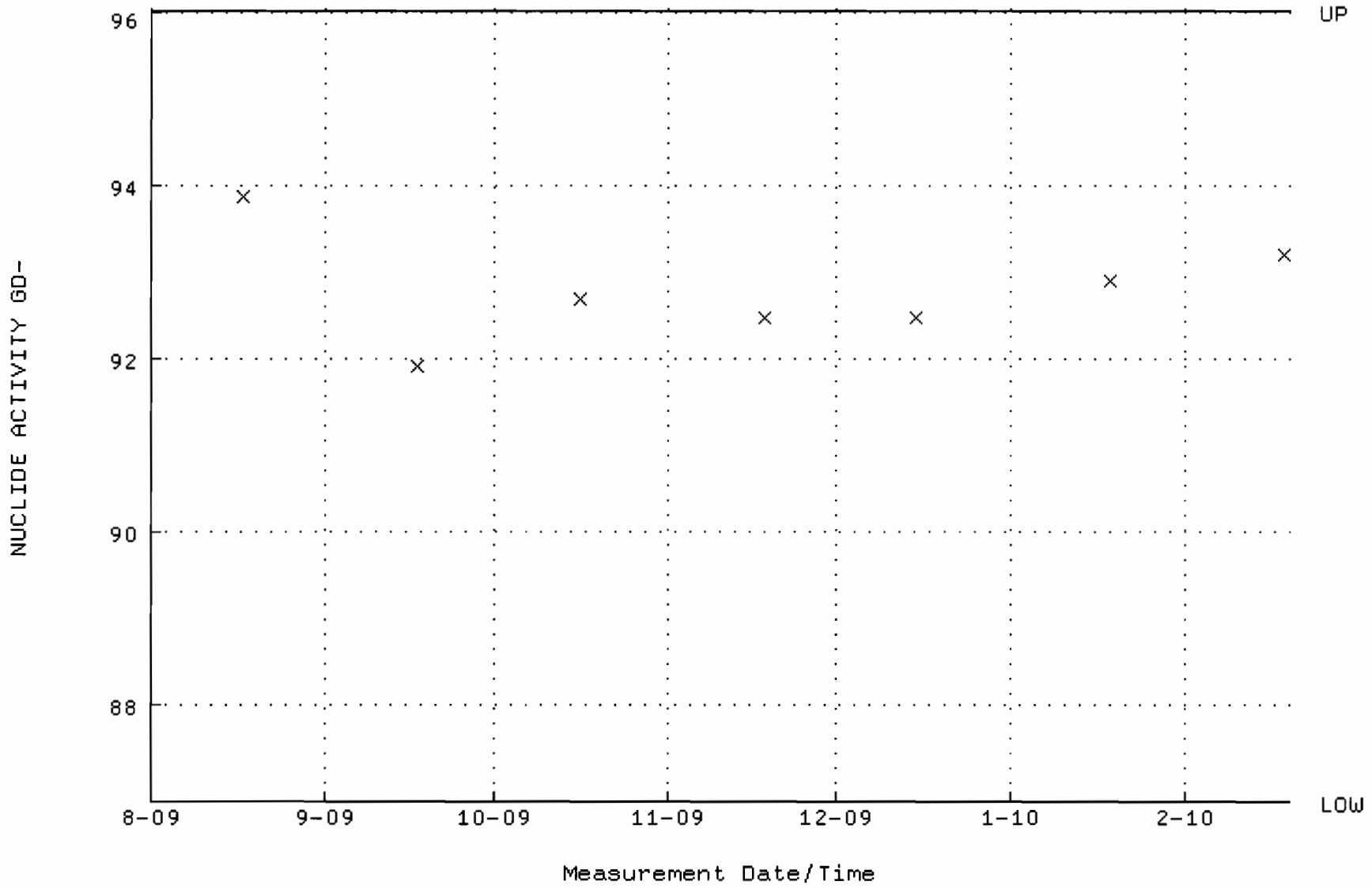

QA filename : DKA100:[ENV_ALPHA.QA.B]B124.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:47 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

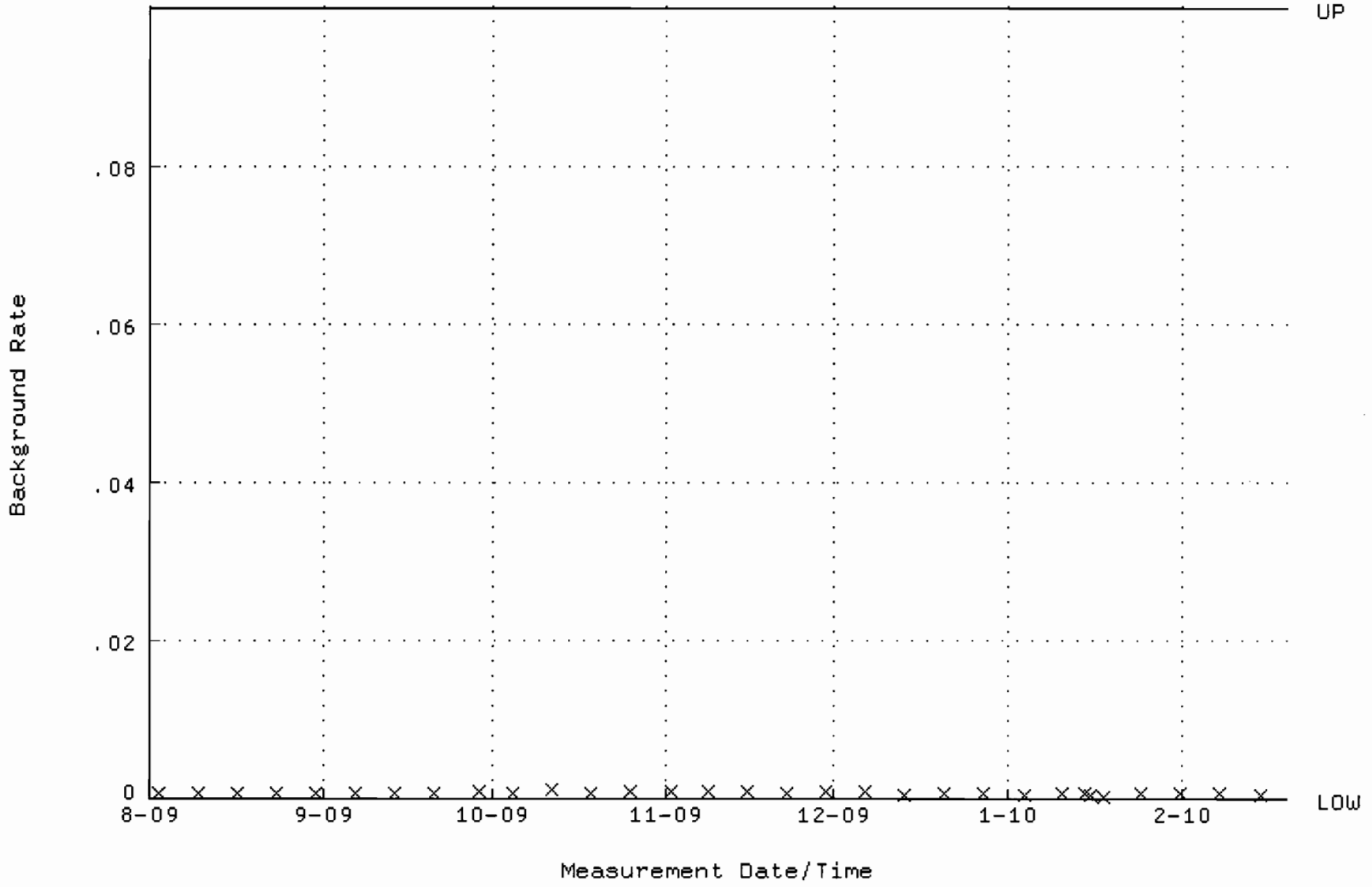

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247512 through 0.267512

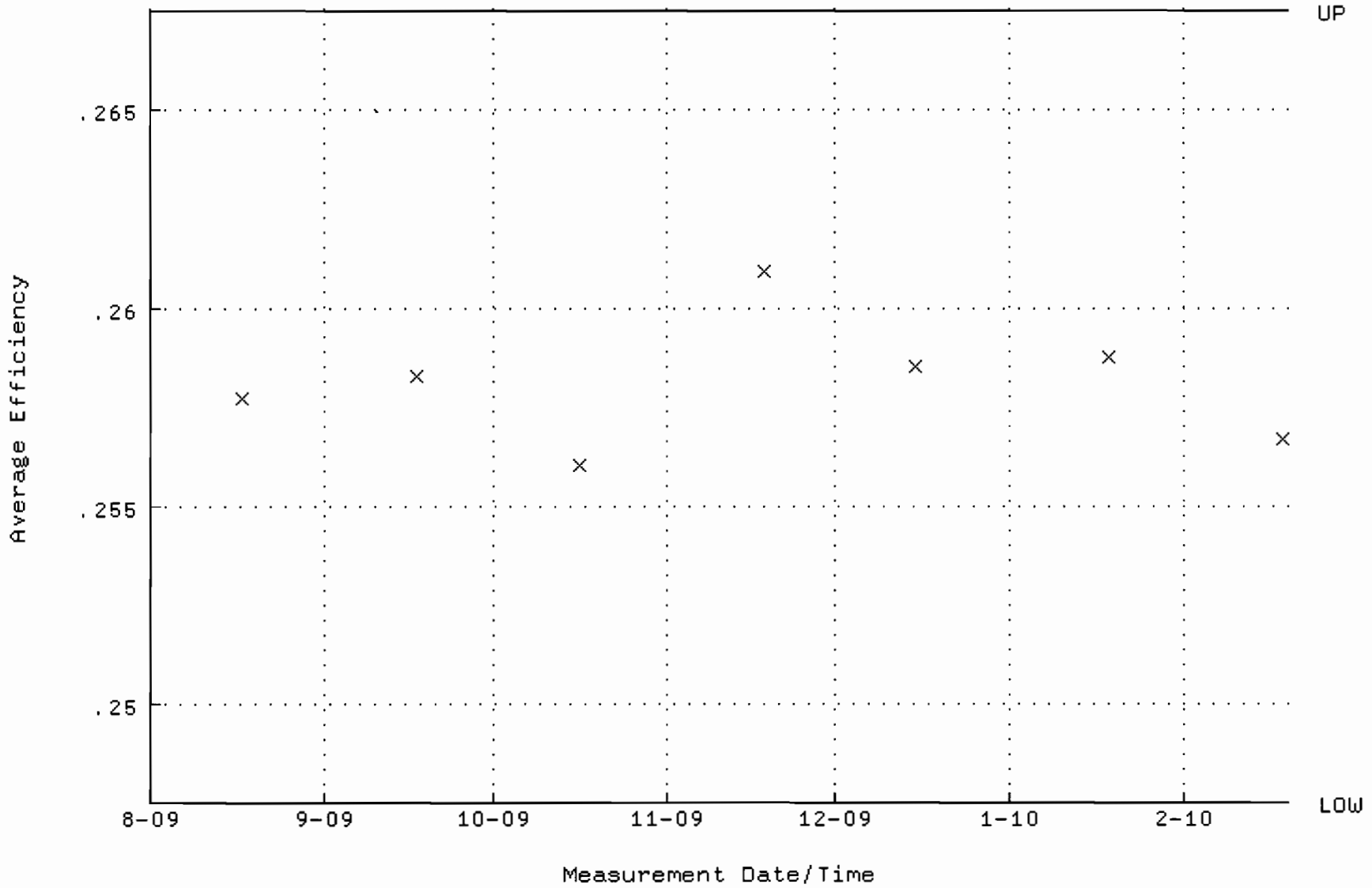

QA filename : DKA100:[ENV_ALPHA.QA.W]W125.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:44 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.6956 through 96.9268

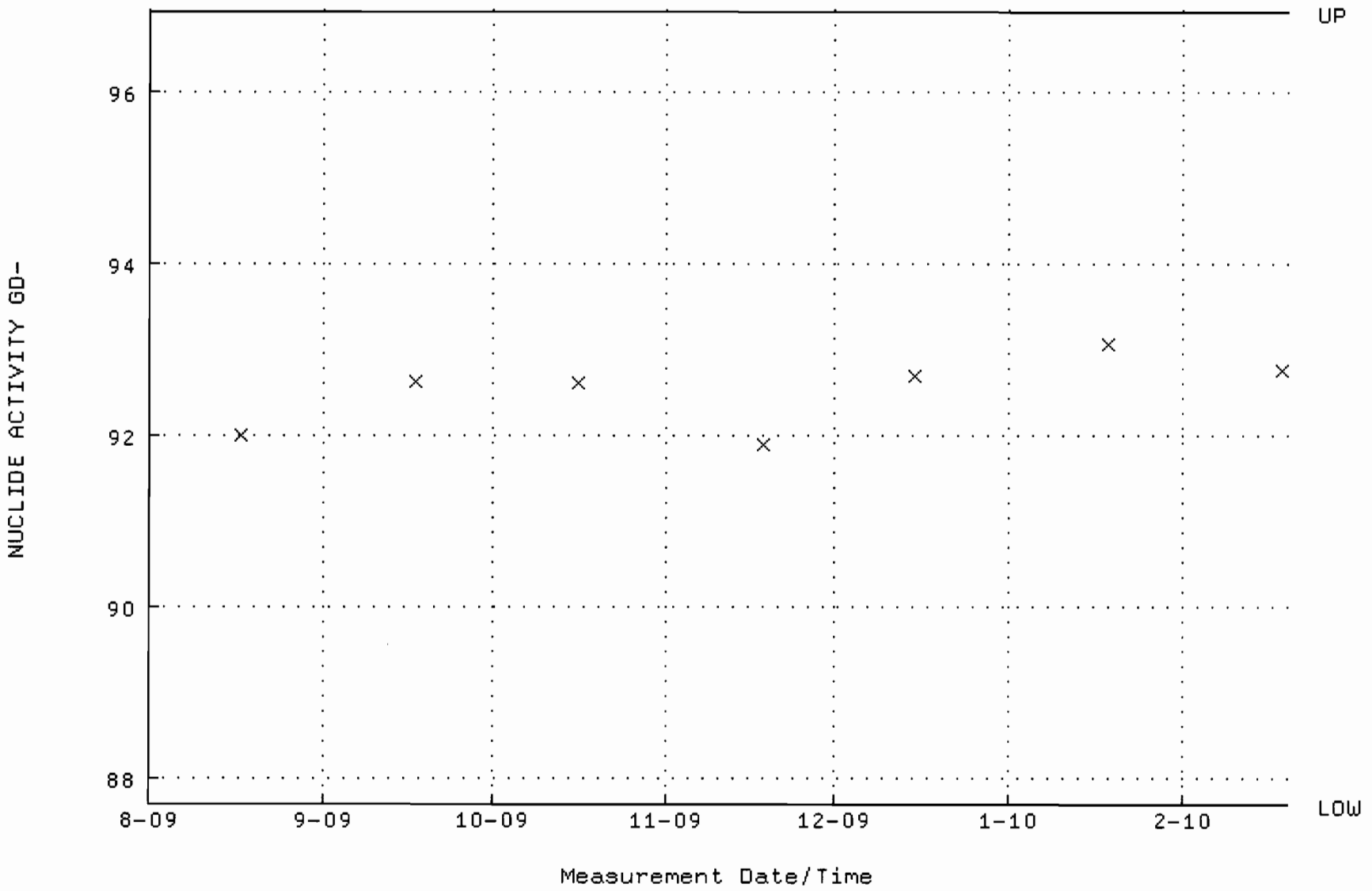

QA filename : DKA100:[ENV_ALPHA.QA.B]B125.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:51 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

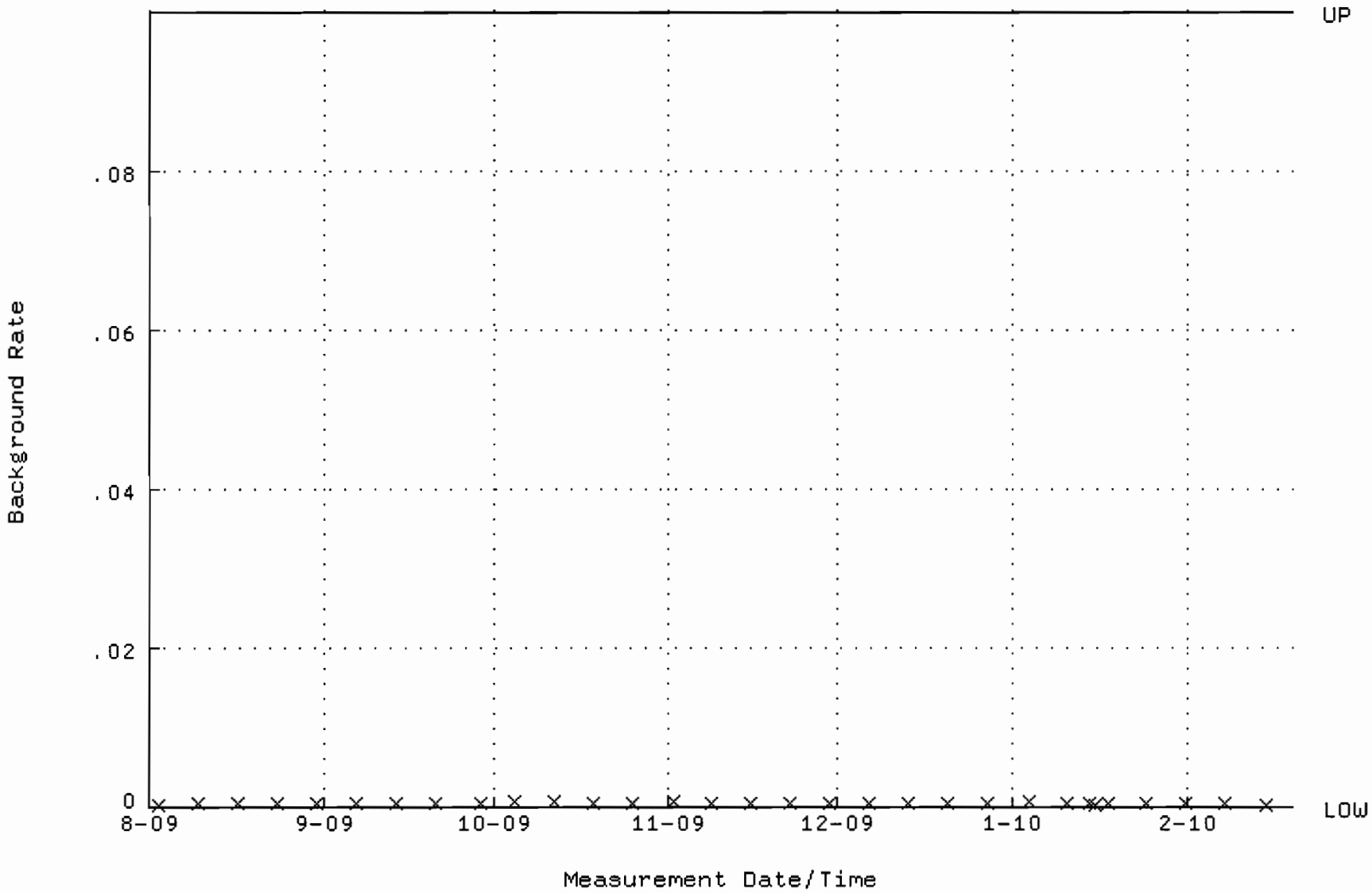

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.243156 through 0.263156

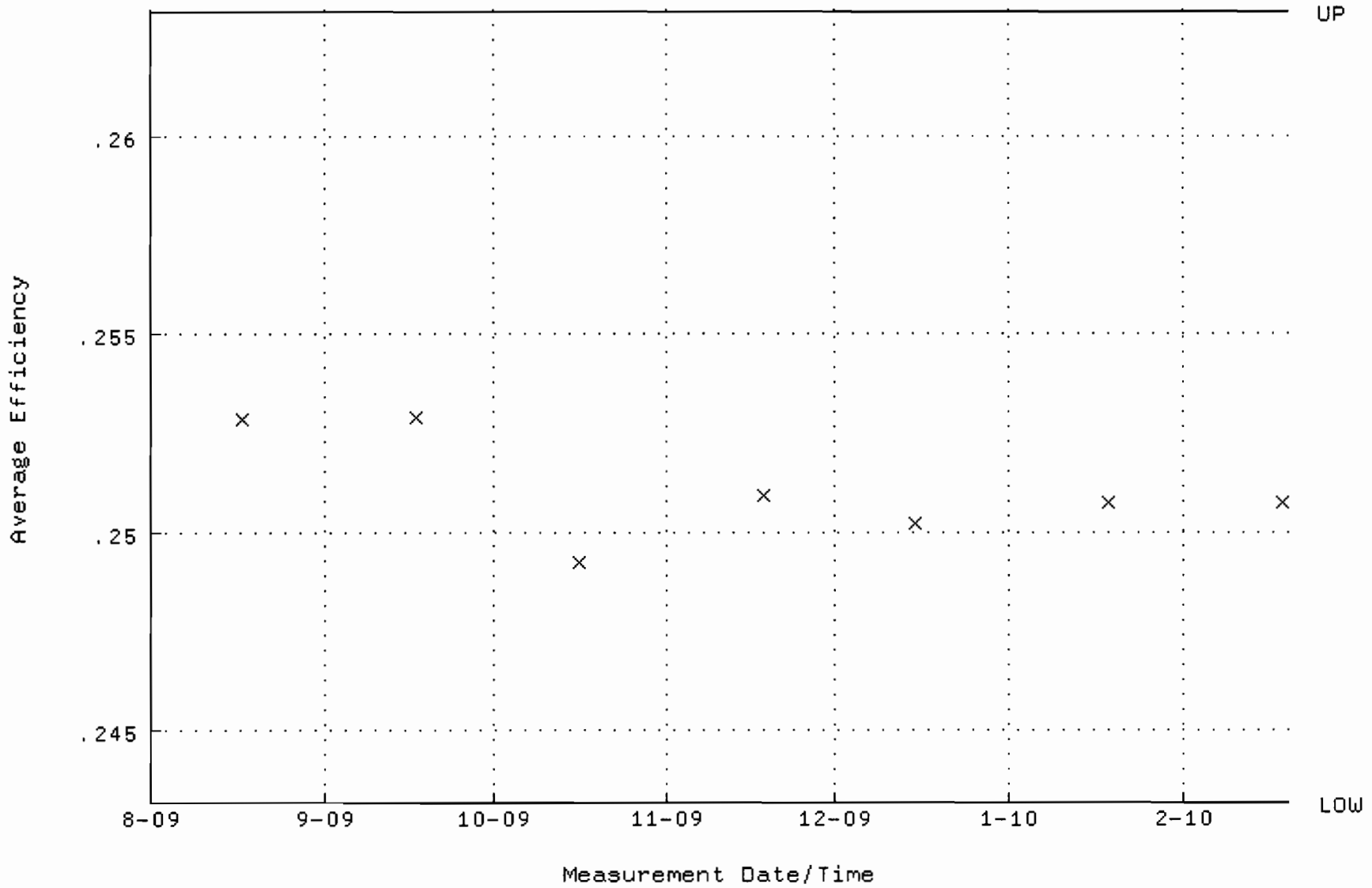

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:49 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 85.7449 through 94.7707

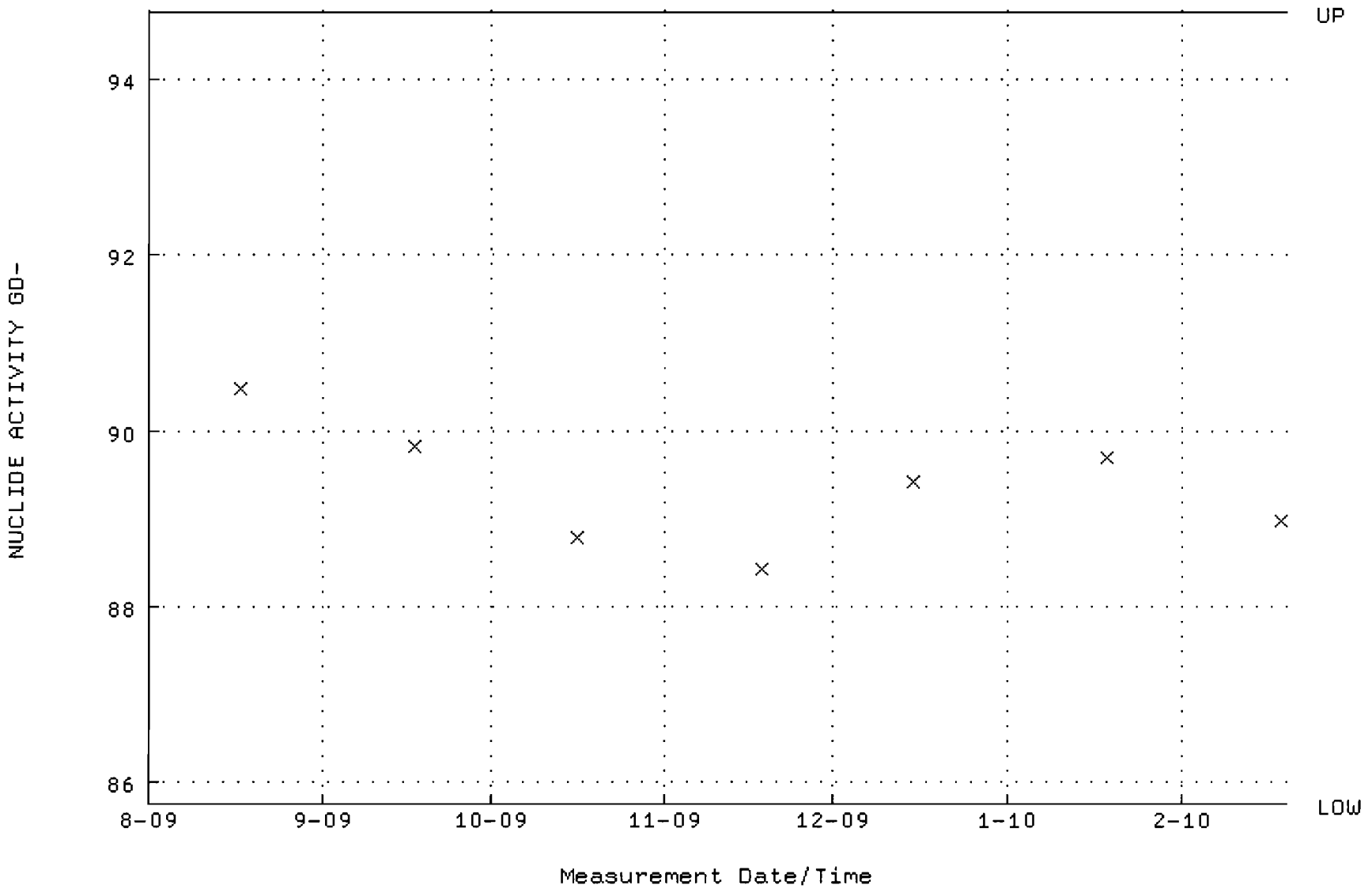

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:12:55 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

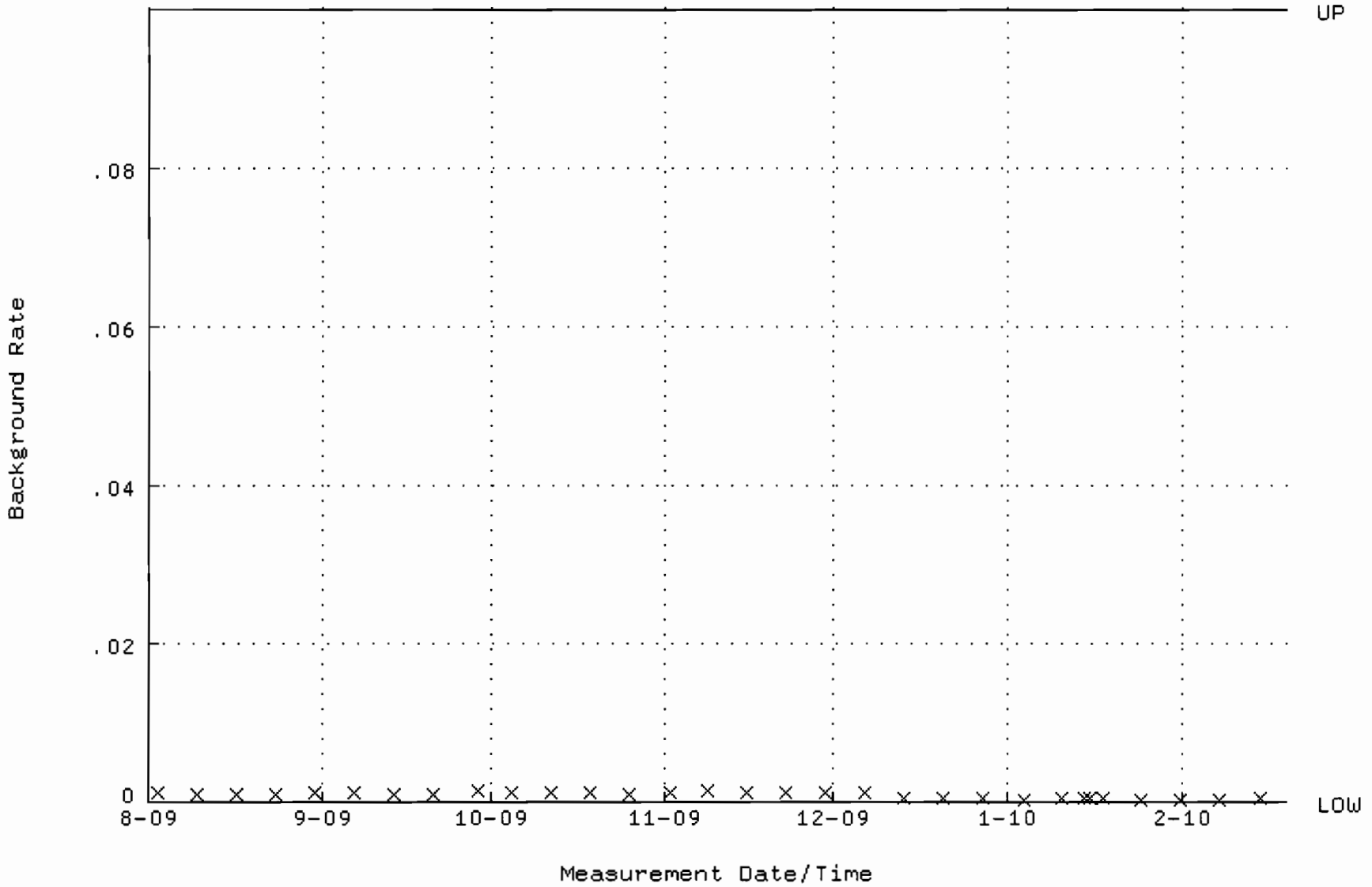

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773

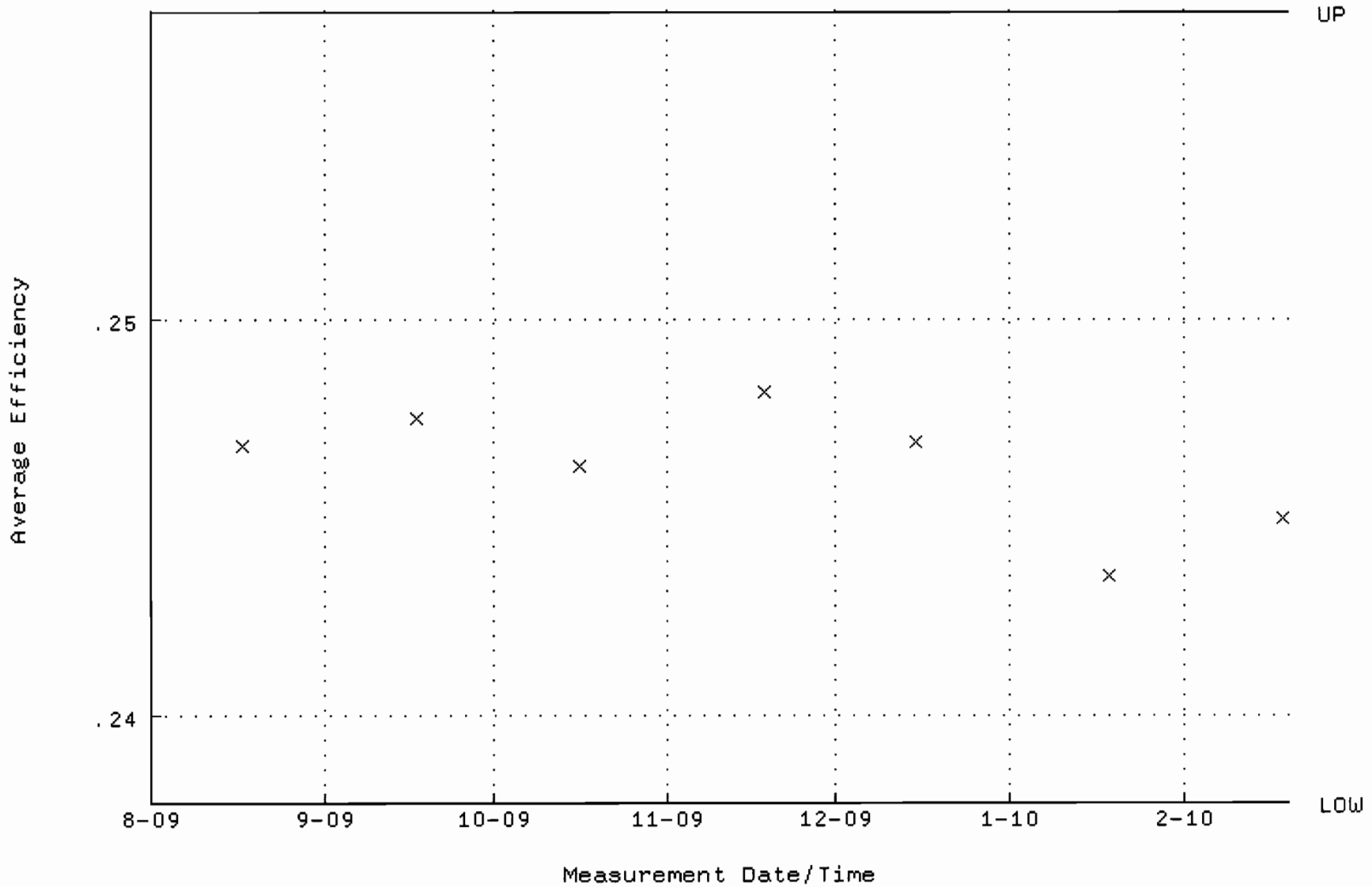

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:53 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713

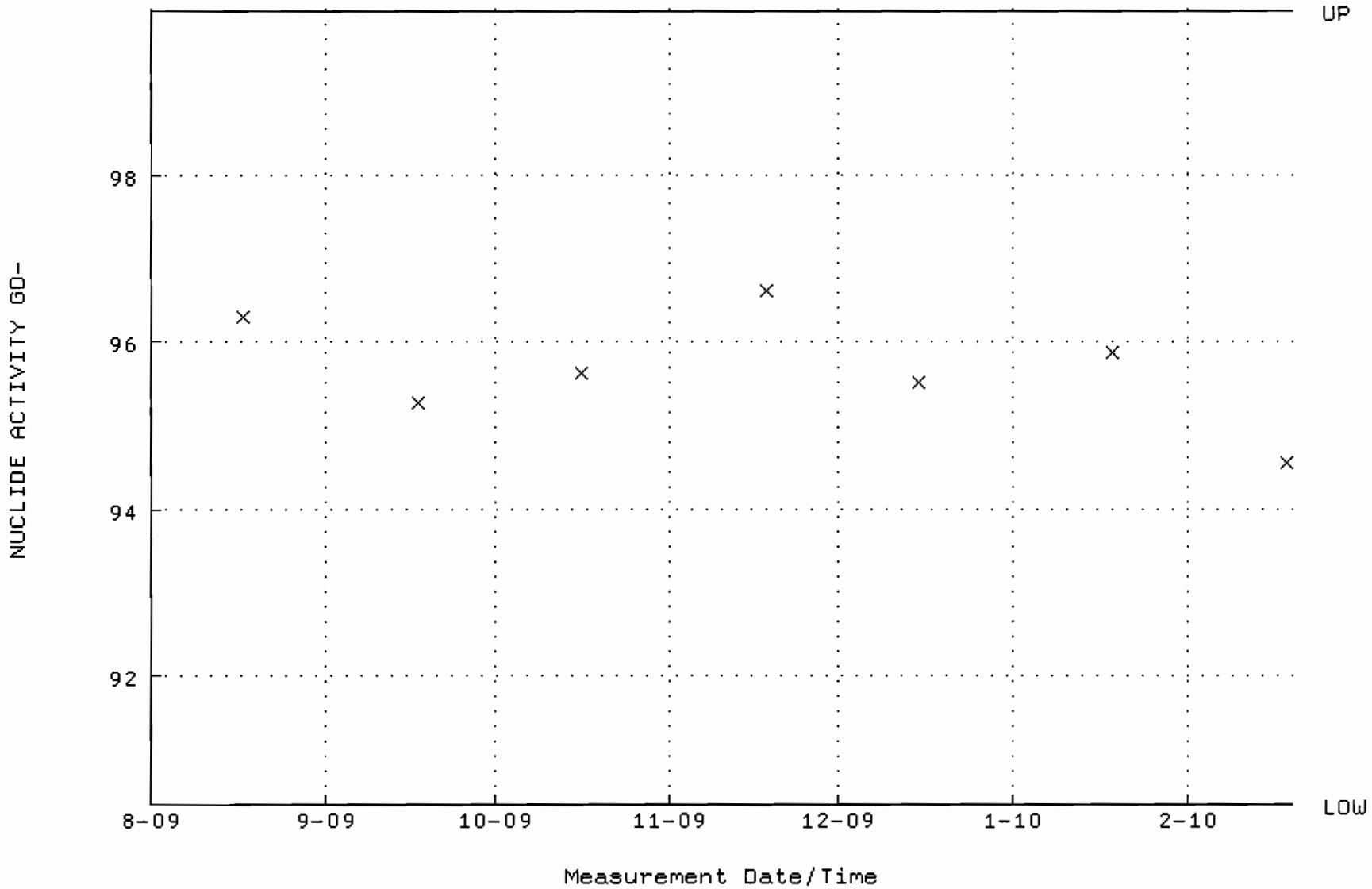

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:00 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

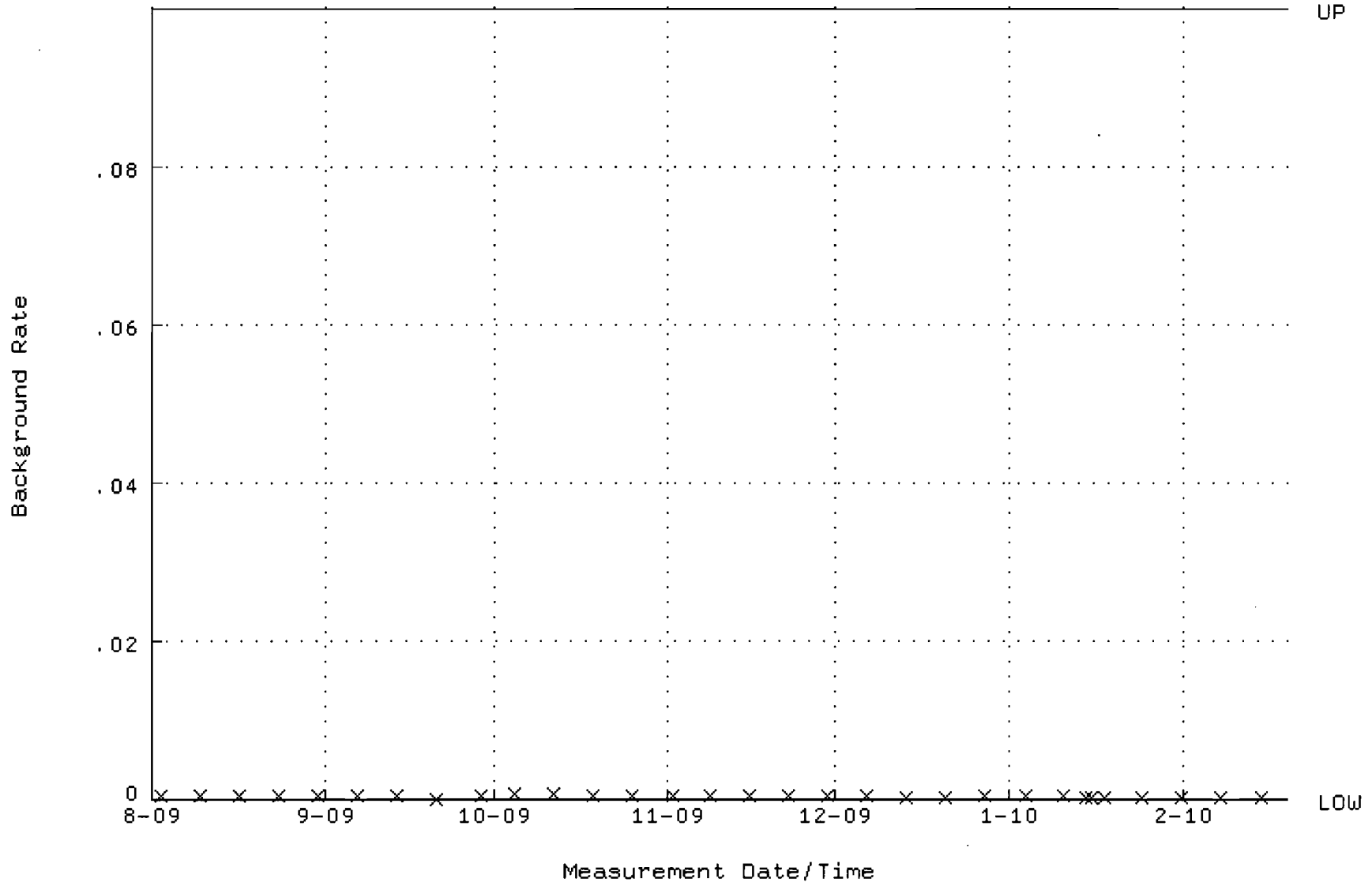

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:41:59 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.246062 through 0.266062

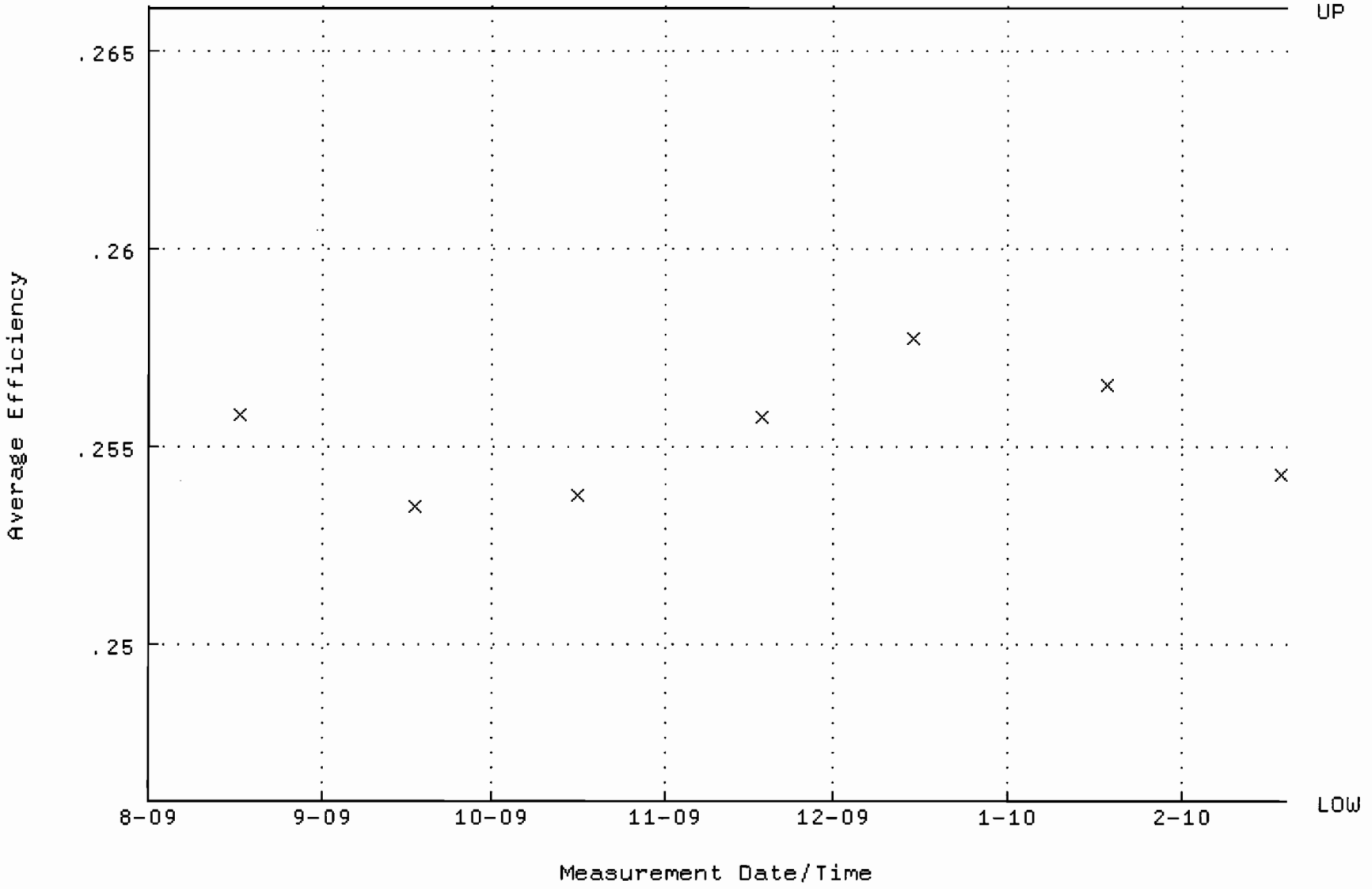

QA filename : DKA100:[ENV_ALPHA.QA.W]W128.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:41:59 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 86.1964 through 95.2697

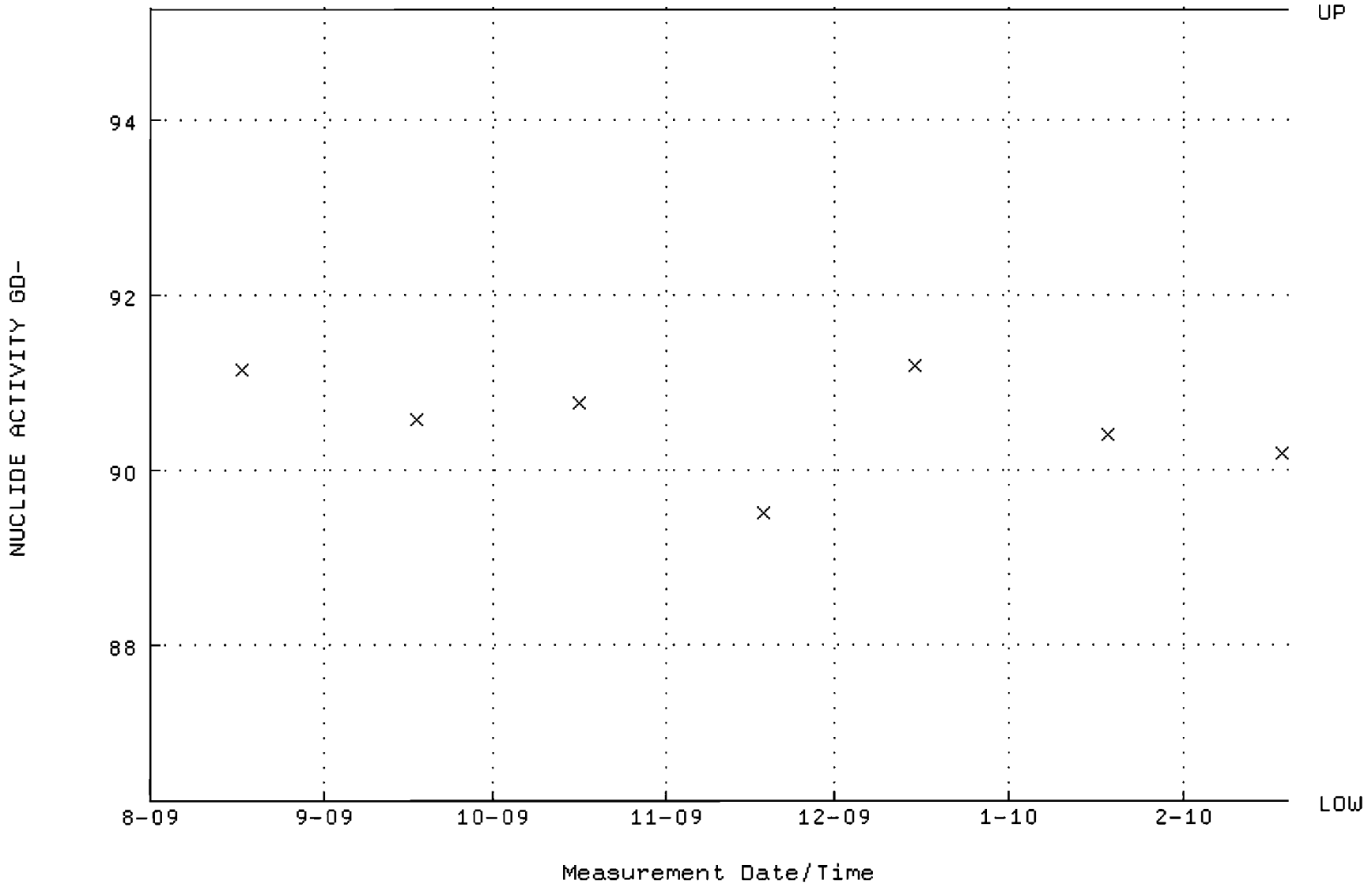

QA filename : DKA100:[ENV_ALPHA.QA.B]B128.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:04 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

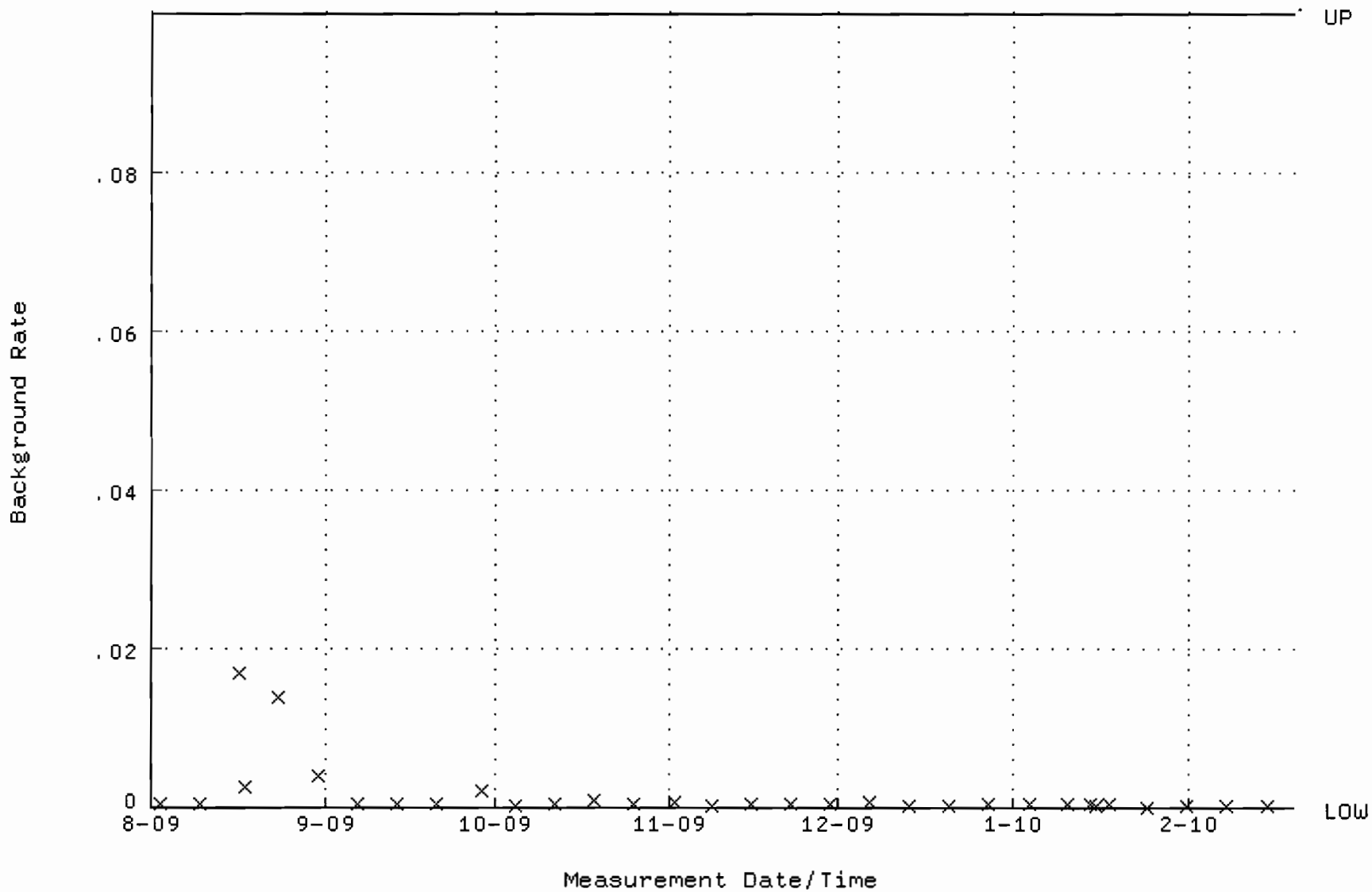

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573

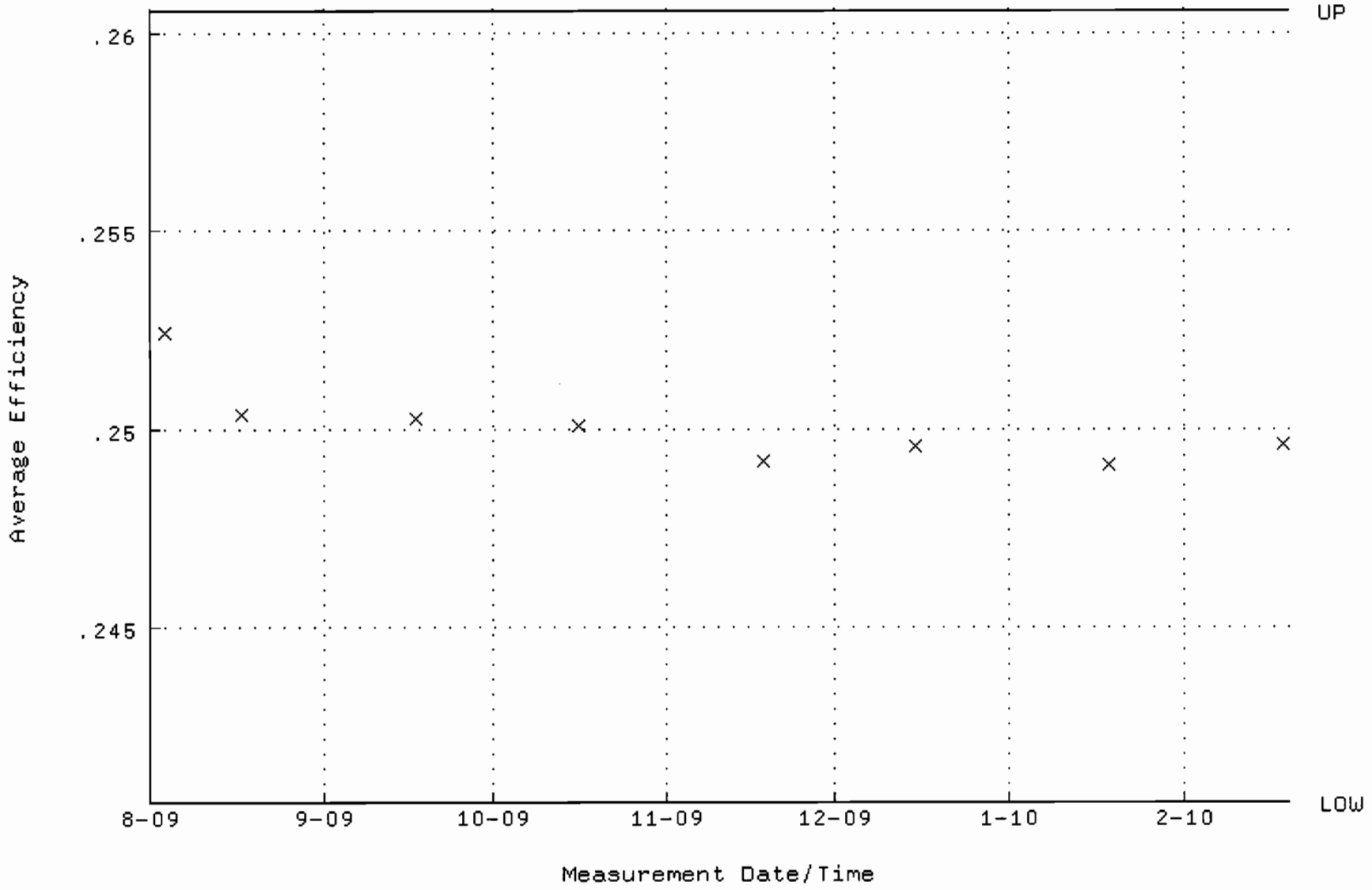

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272

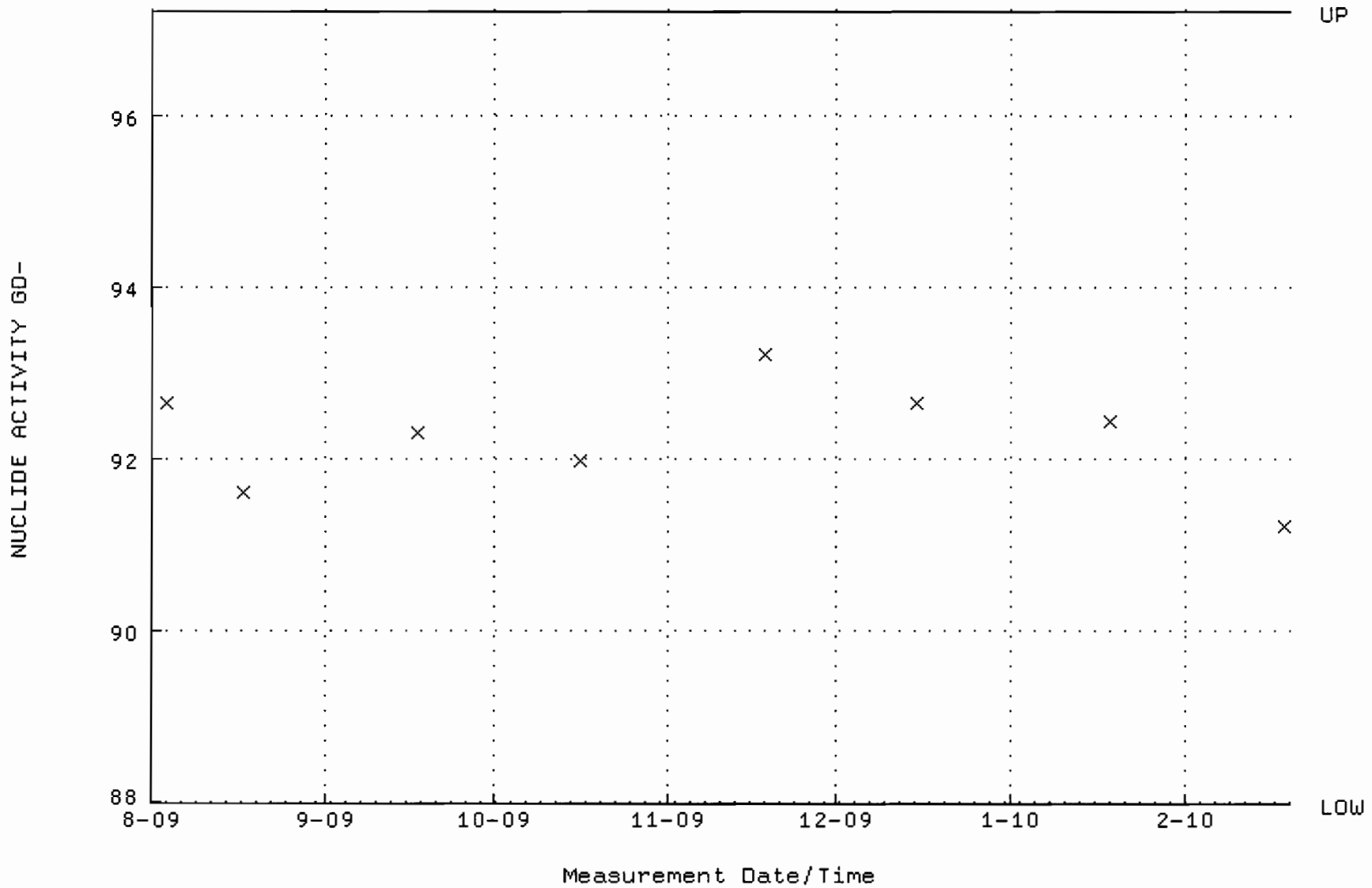

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:22 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

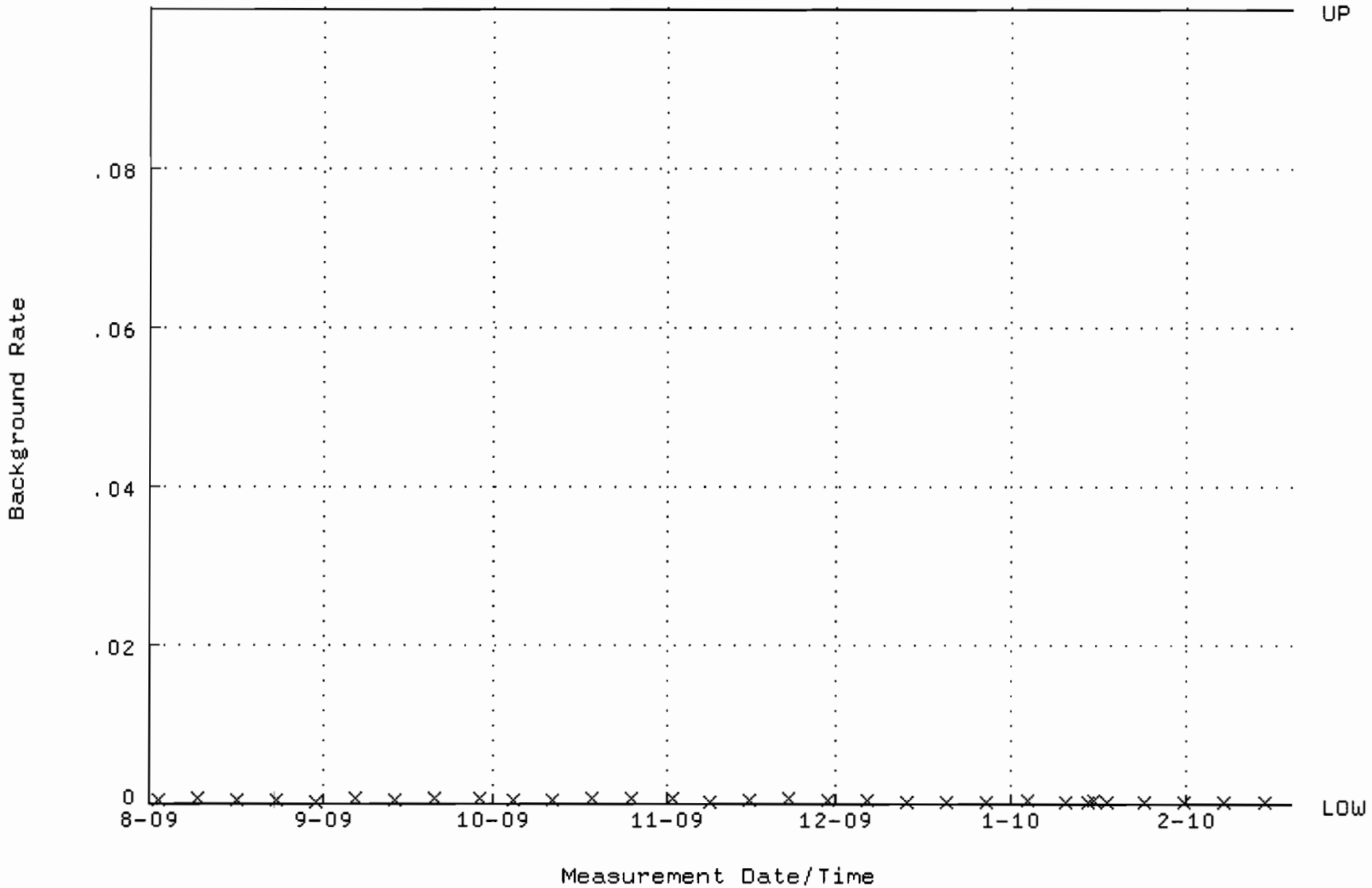

QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:05:25 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247085 through 0.267085

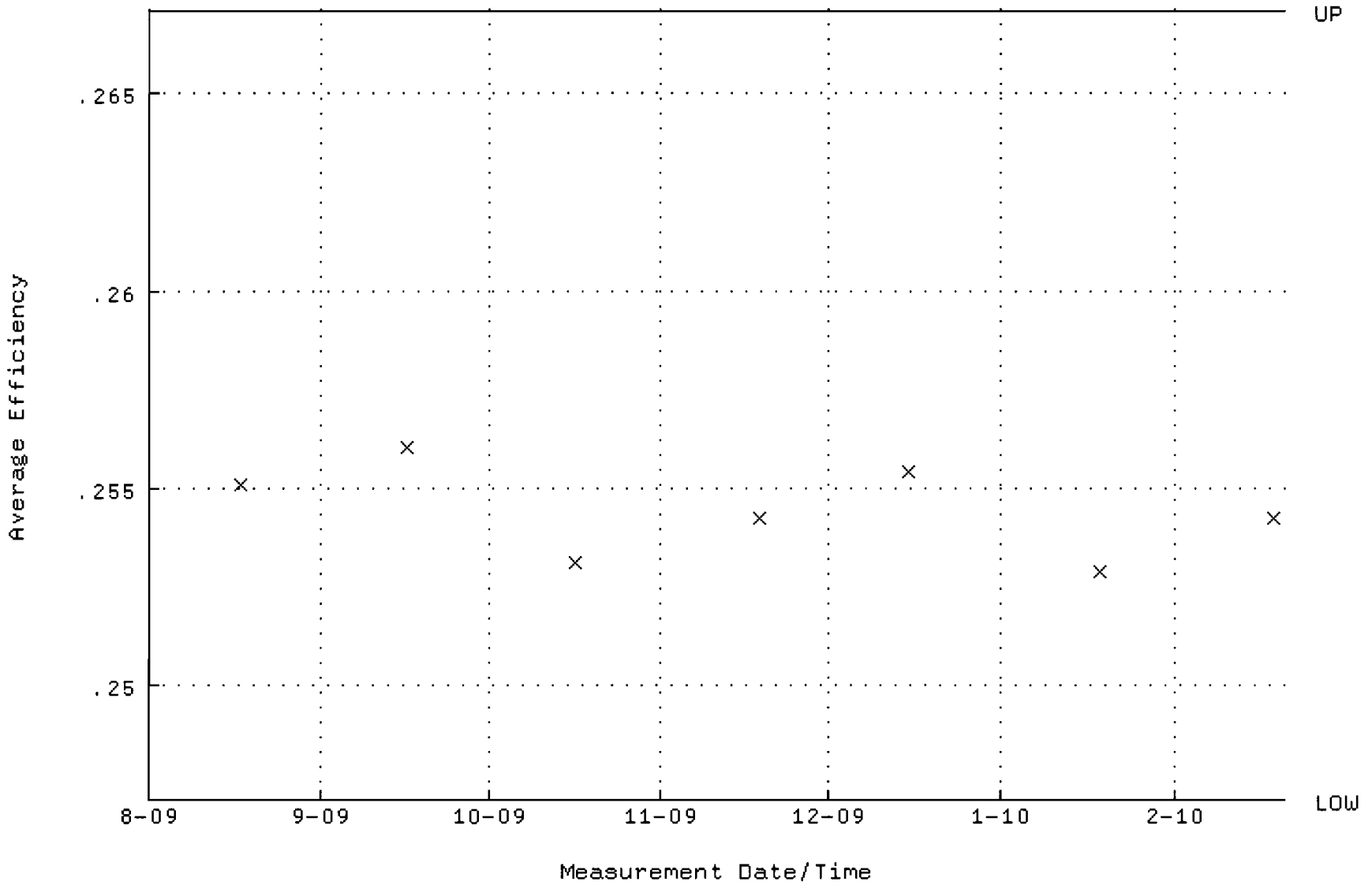

QA filename : DKA100:[ENV_ALPHA.QA.W]W138.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:05:25 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 82.8399 through 91.5599

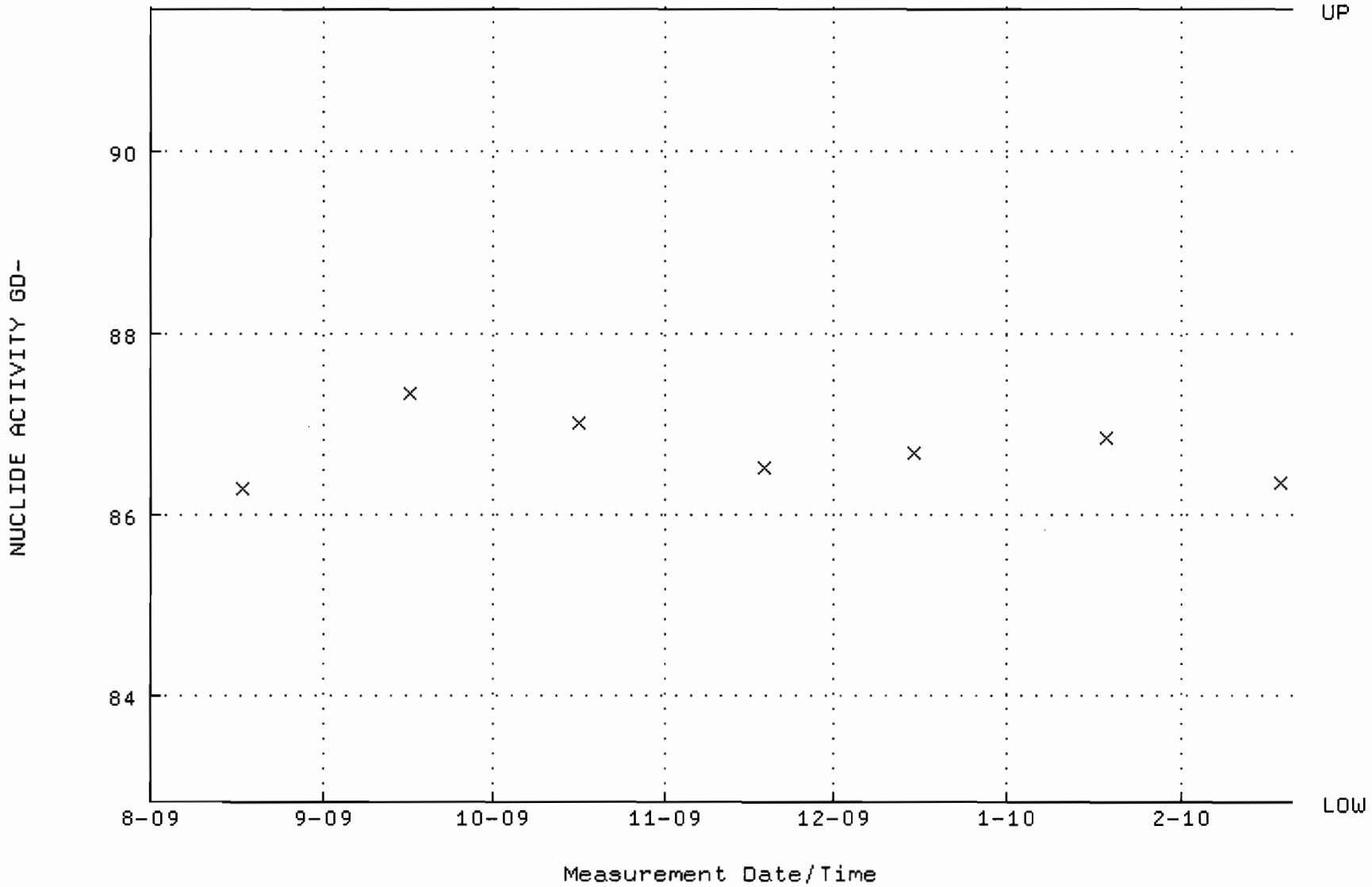

QA filename : DKA100:[ENV_ALPHA.QA.B]B138.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:48 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

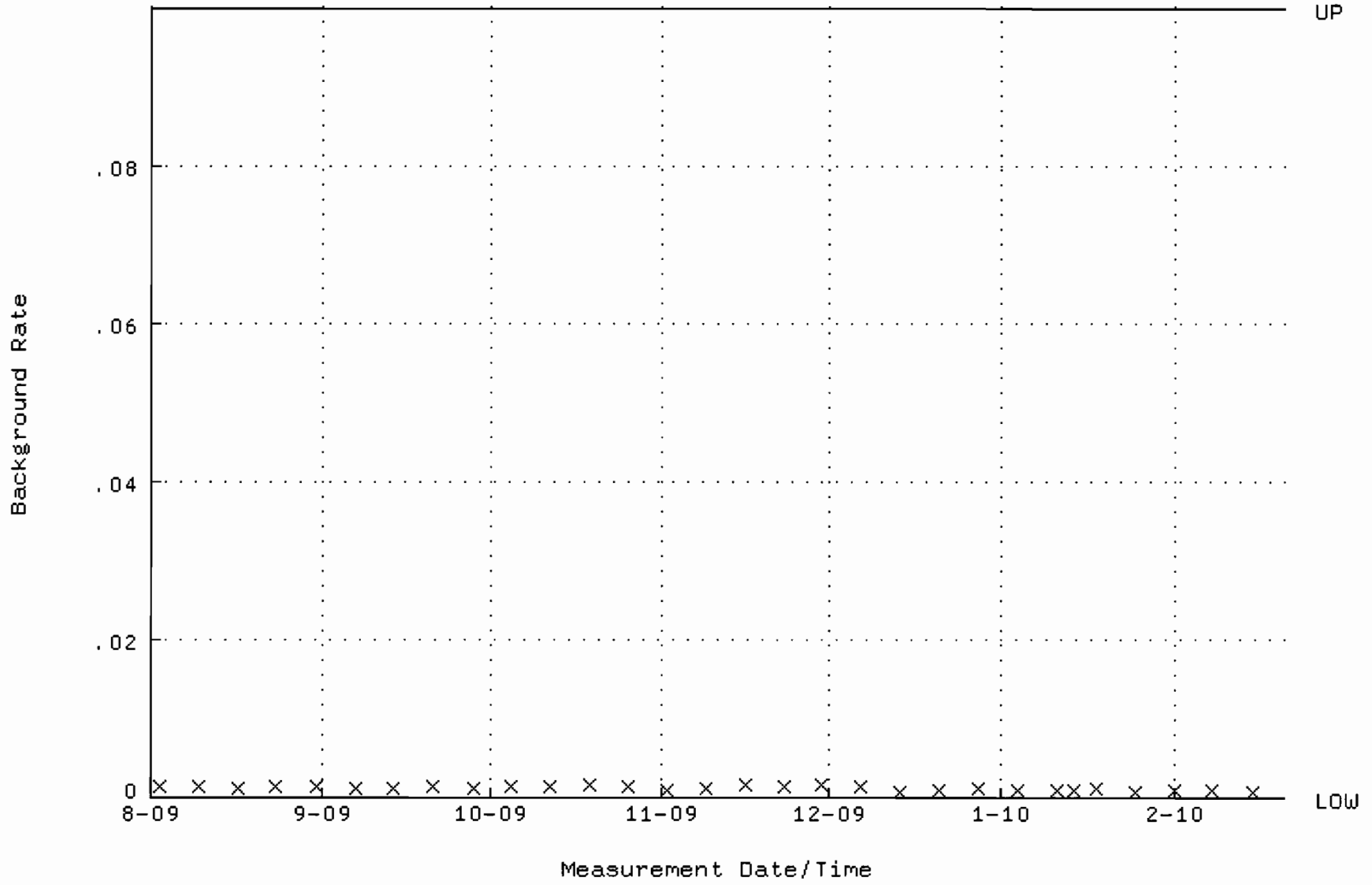

QA filename : DKA100:[ENV_ALPHA.QA.W]W140.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:05:55 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.246178 through 0.266178

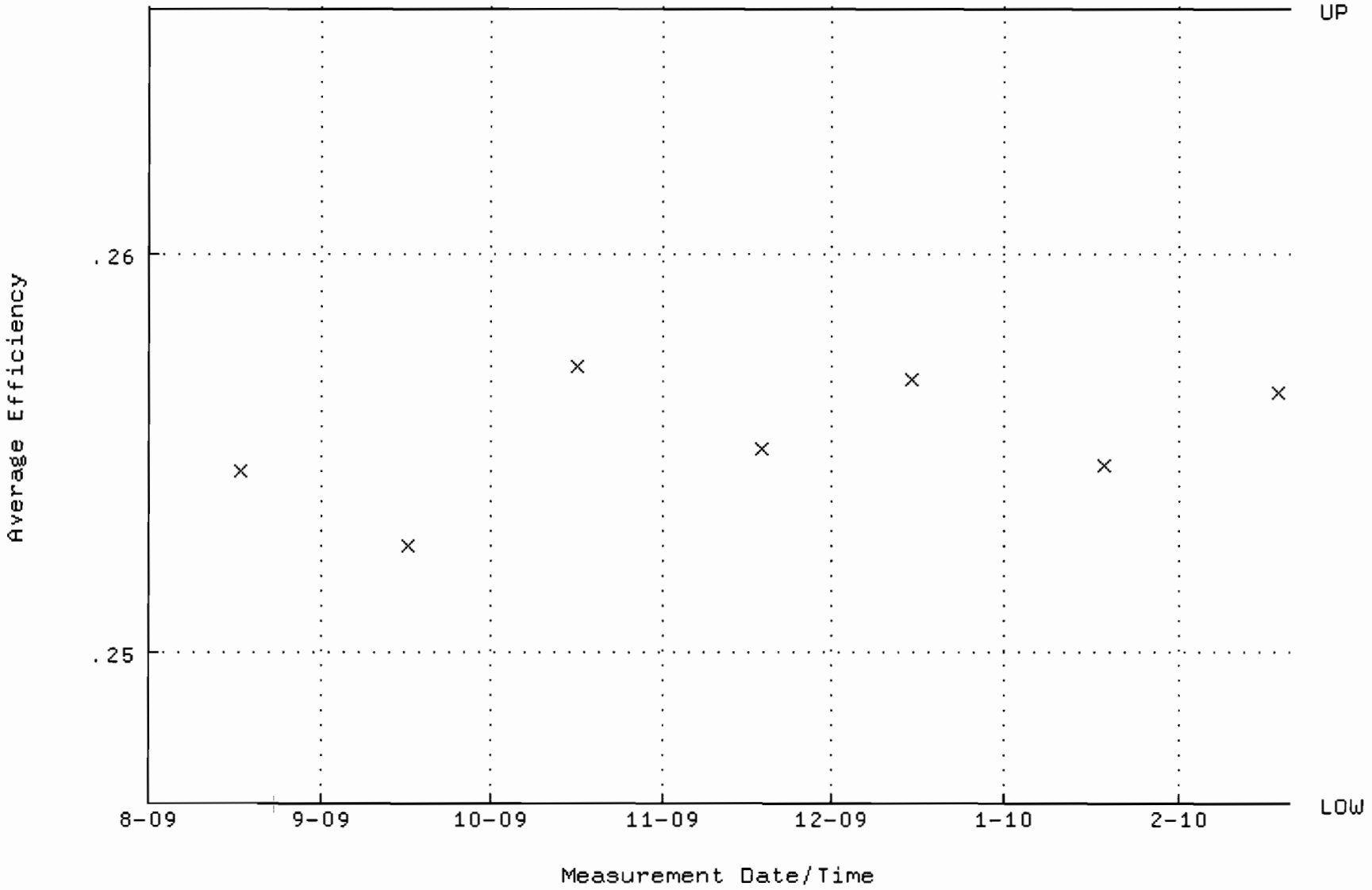

QA filename : DKA100:[ENV_ALPHA.QA.W]W140.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:05:55 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 83.8171 through 92.6399

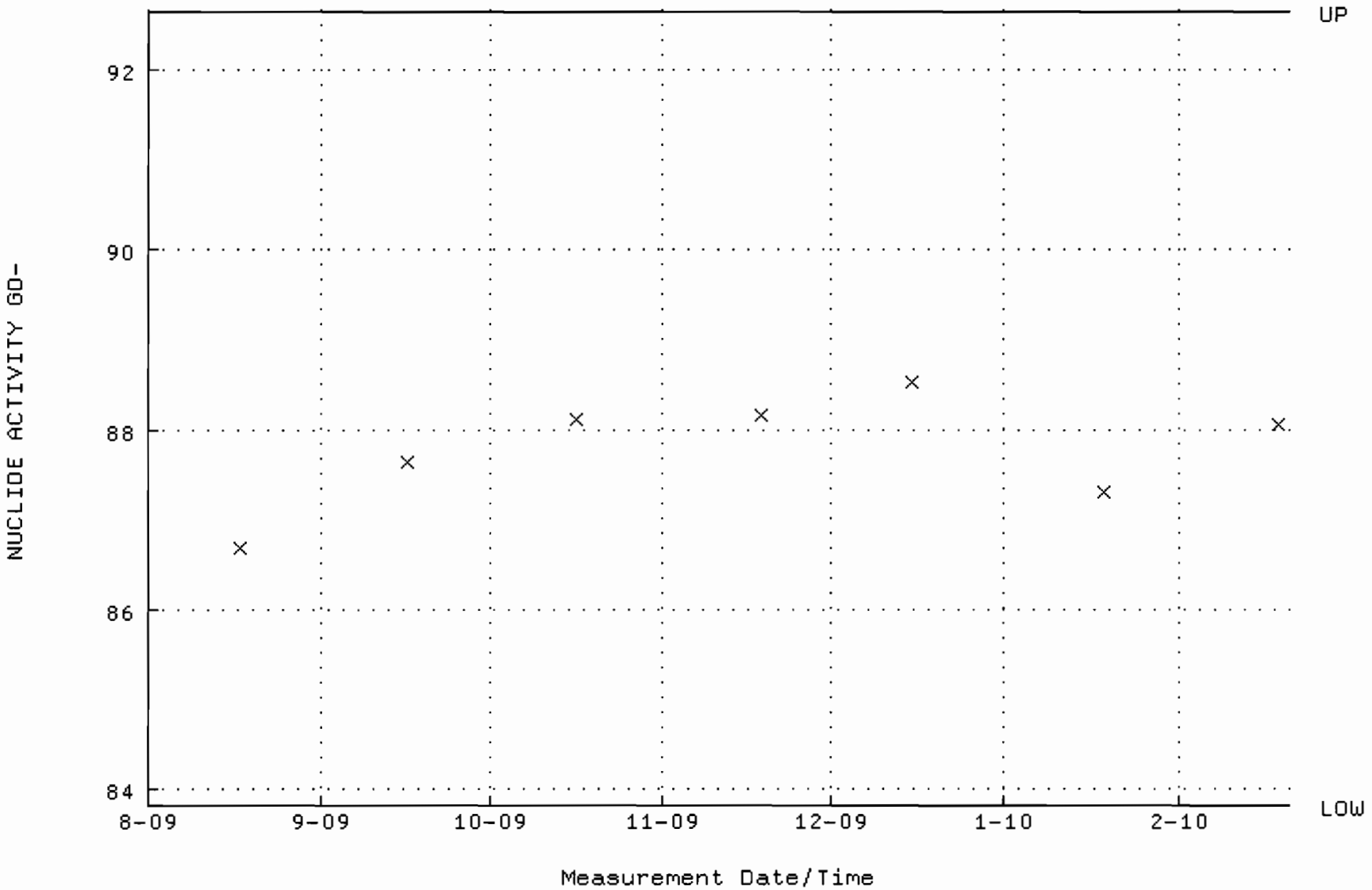

QA filename : DKA100:[ENV_ALPHA.QA.B]B140.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:56 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

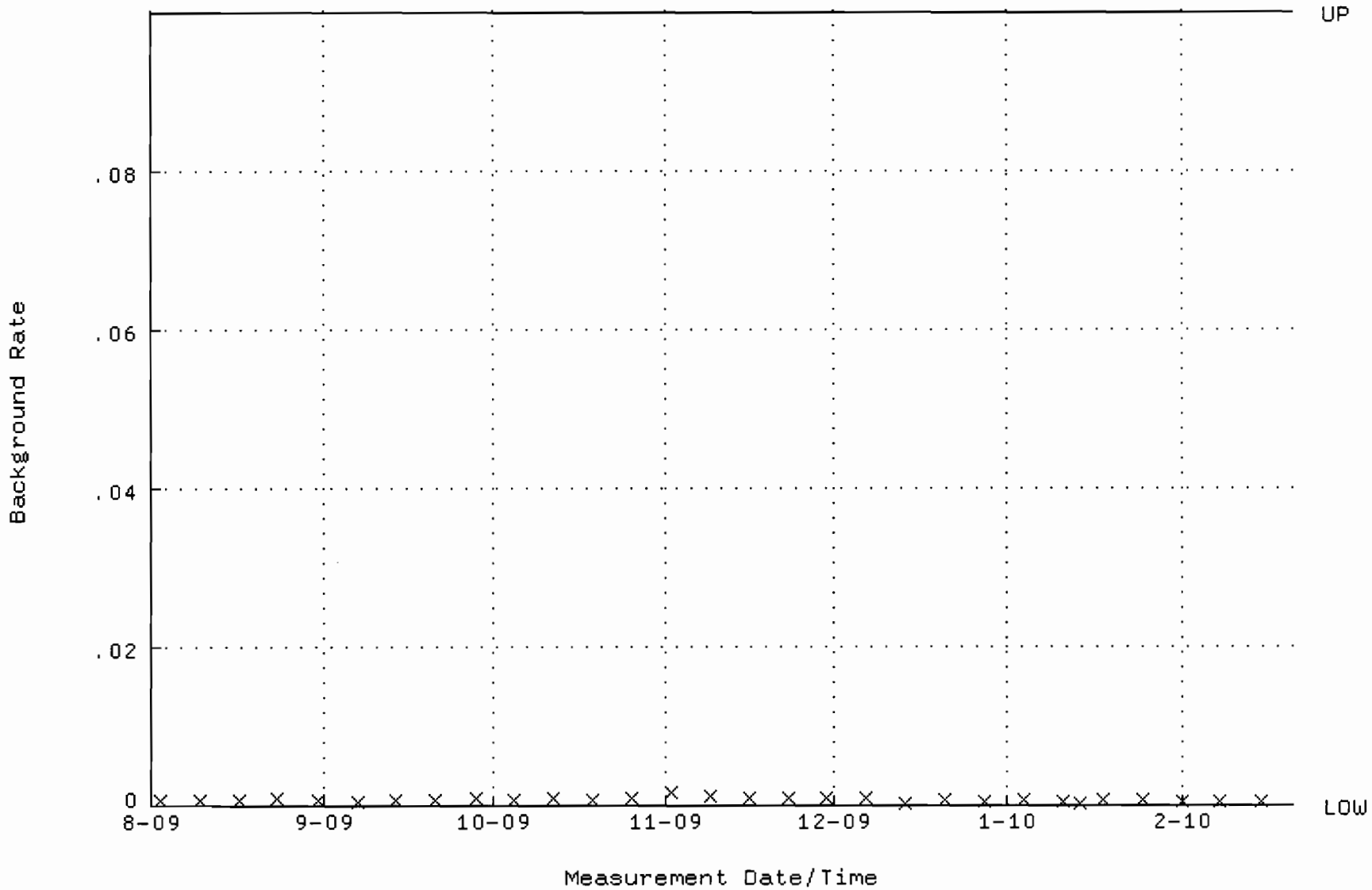

QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:09 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.247845 through 0.267845

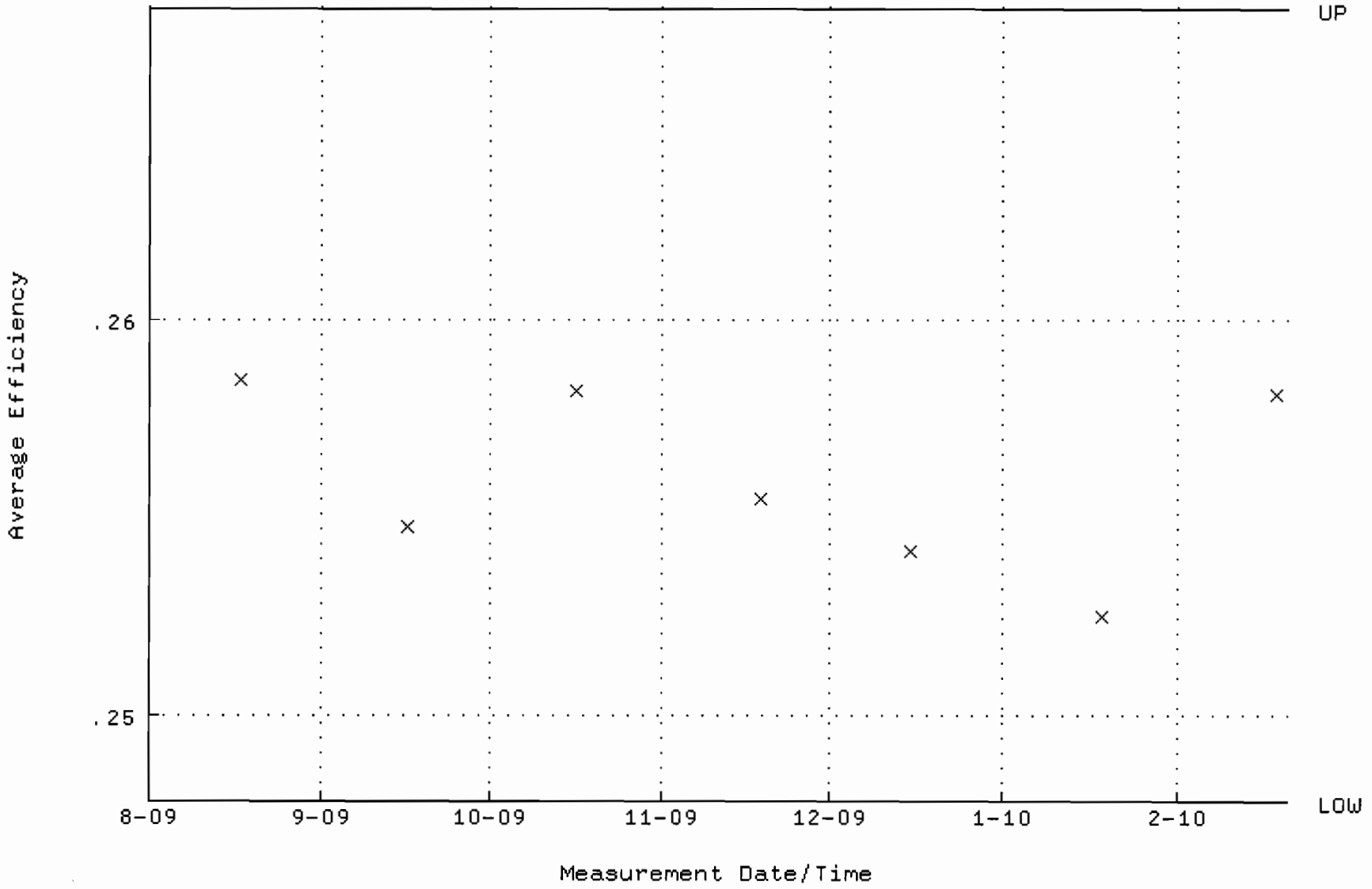

QA filename : DKA100:[ENV_ALPHA.QA.W]W141.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:09 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 80.8595 through 89.3711

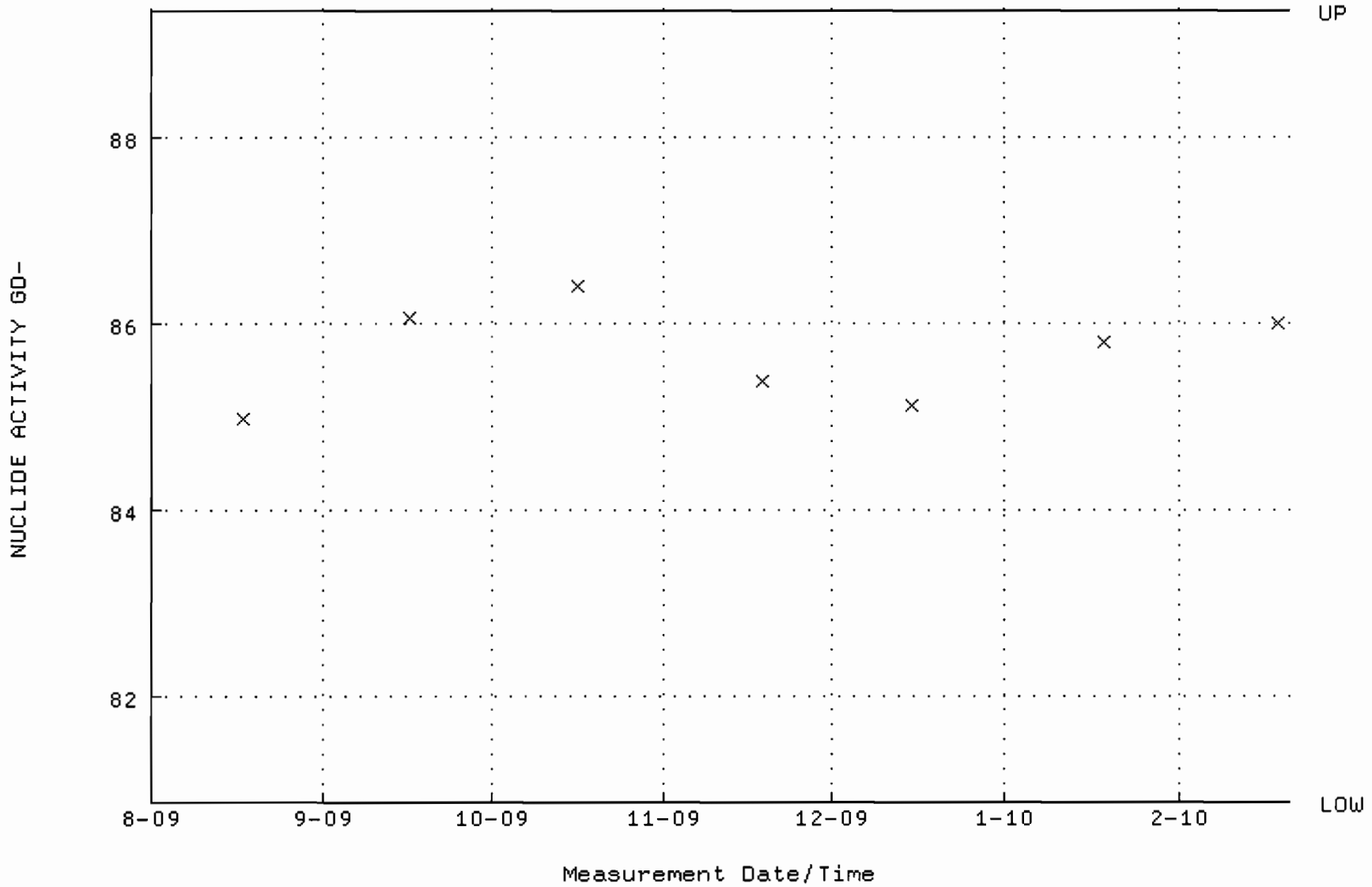

QA filename : DKA100:[ENV_ALPHA.QA.B]B141.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:00 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

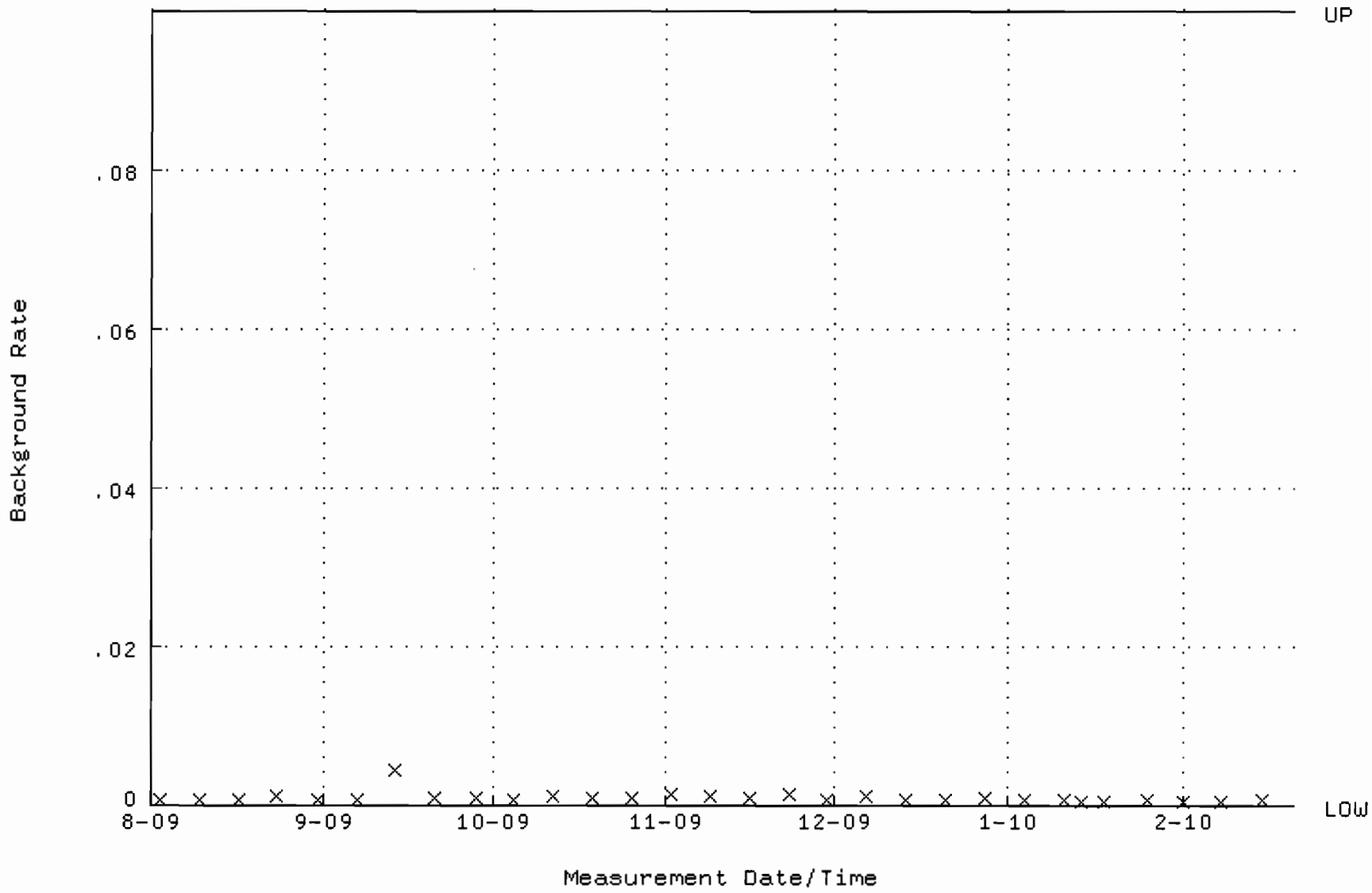

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:21 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.252182 through 0.272182

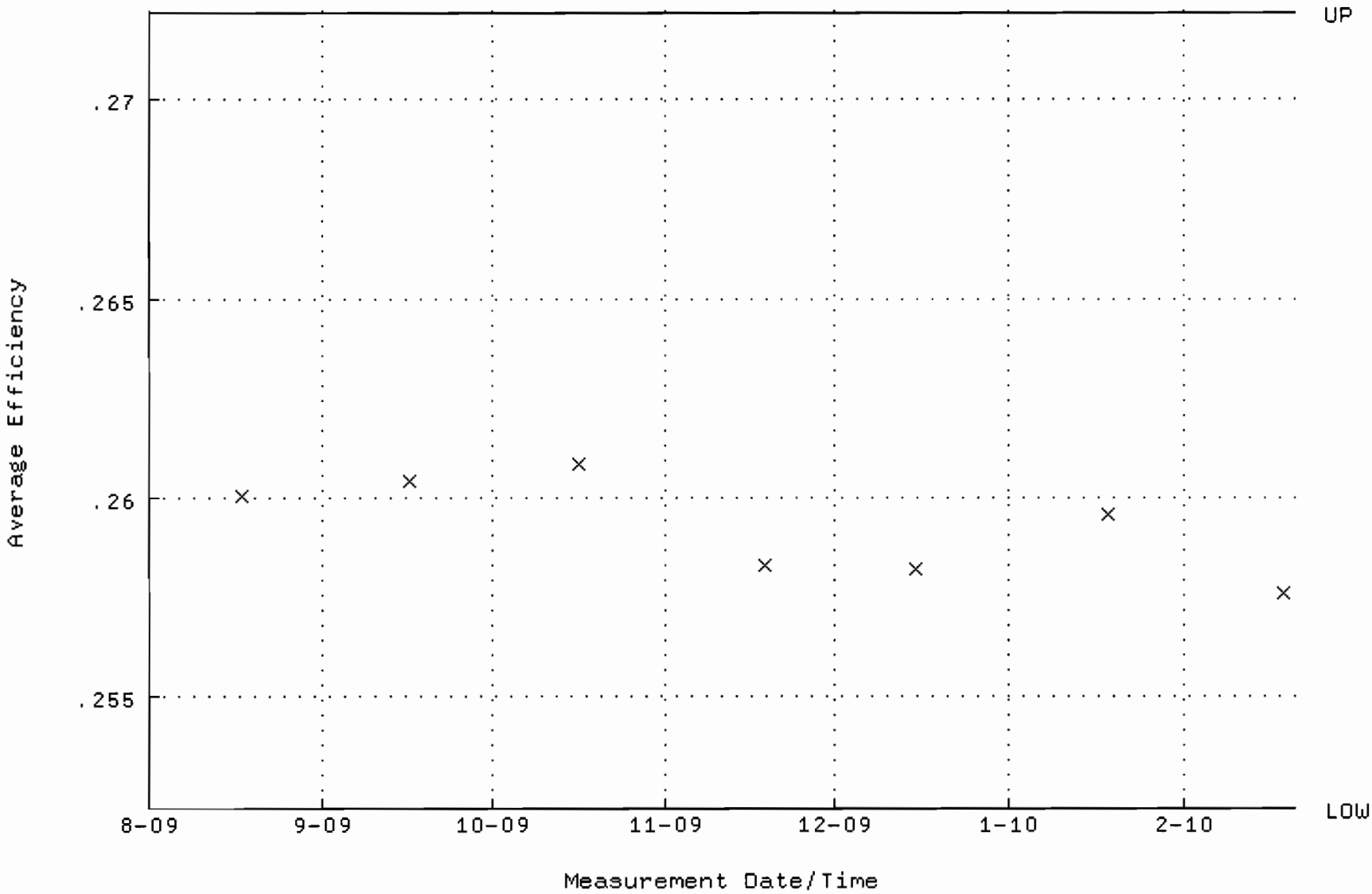

QA filename : DKA100:[ENV_ALPHA.QA.W]W142.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:21 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 81.0245 through 89.5533

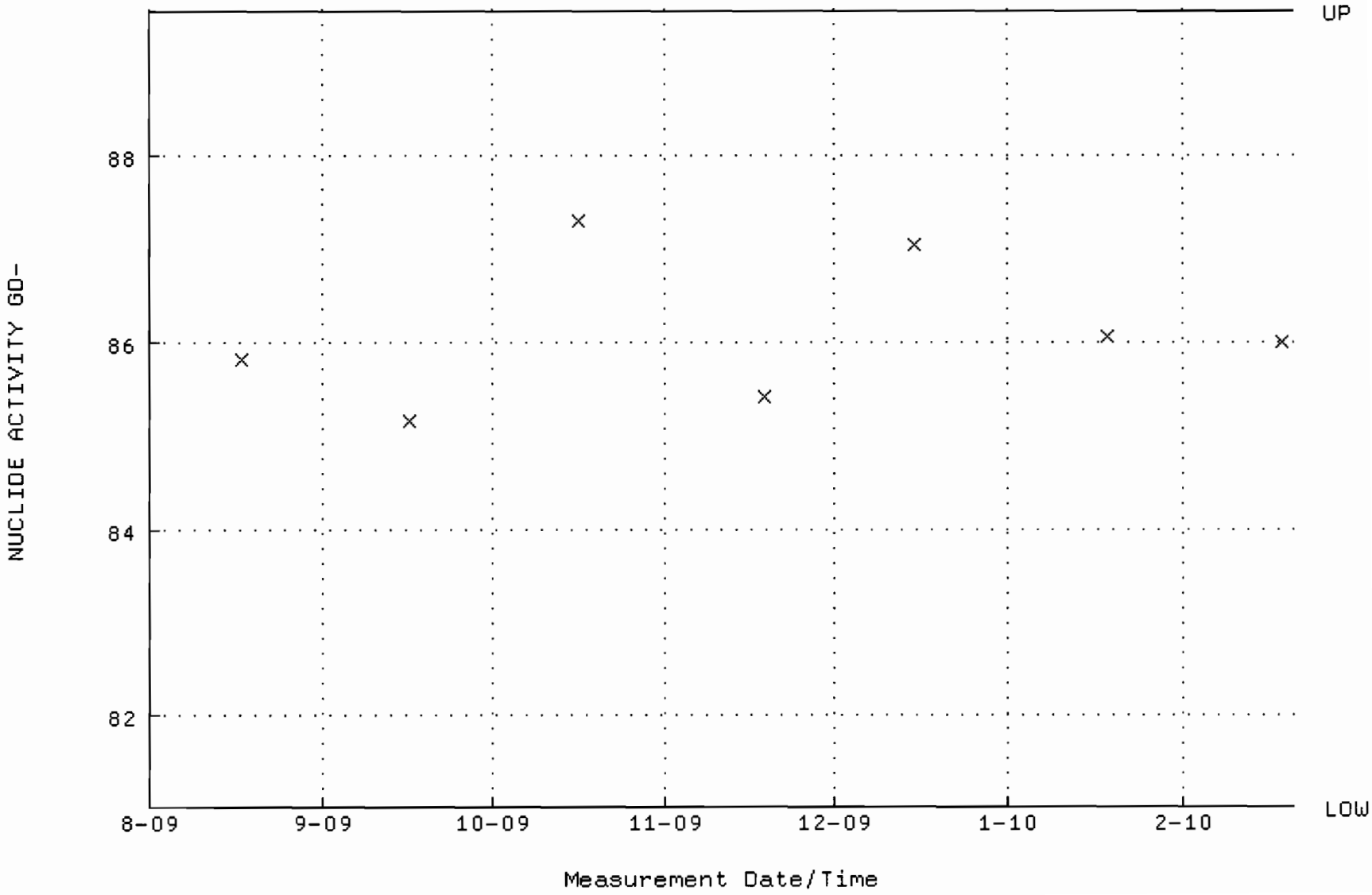

QA filename : DKA100:[ENV_ALPHA.QA.B]B142.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:04 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

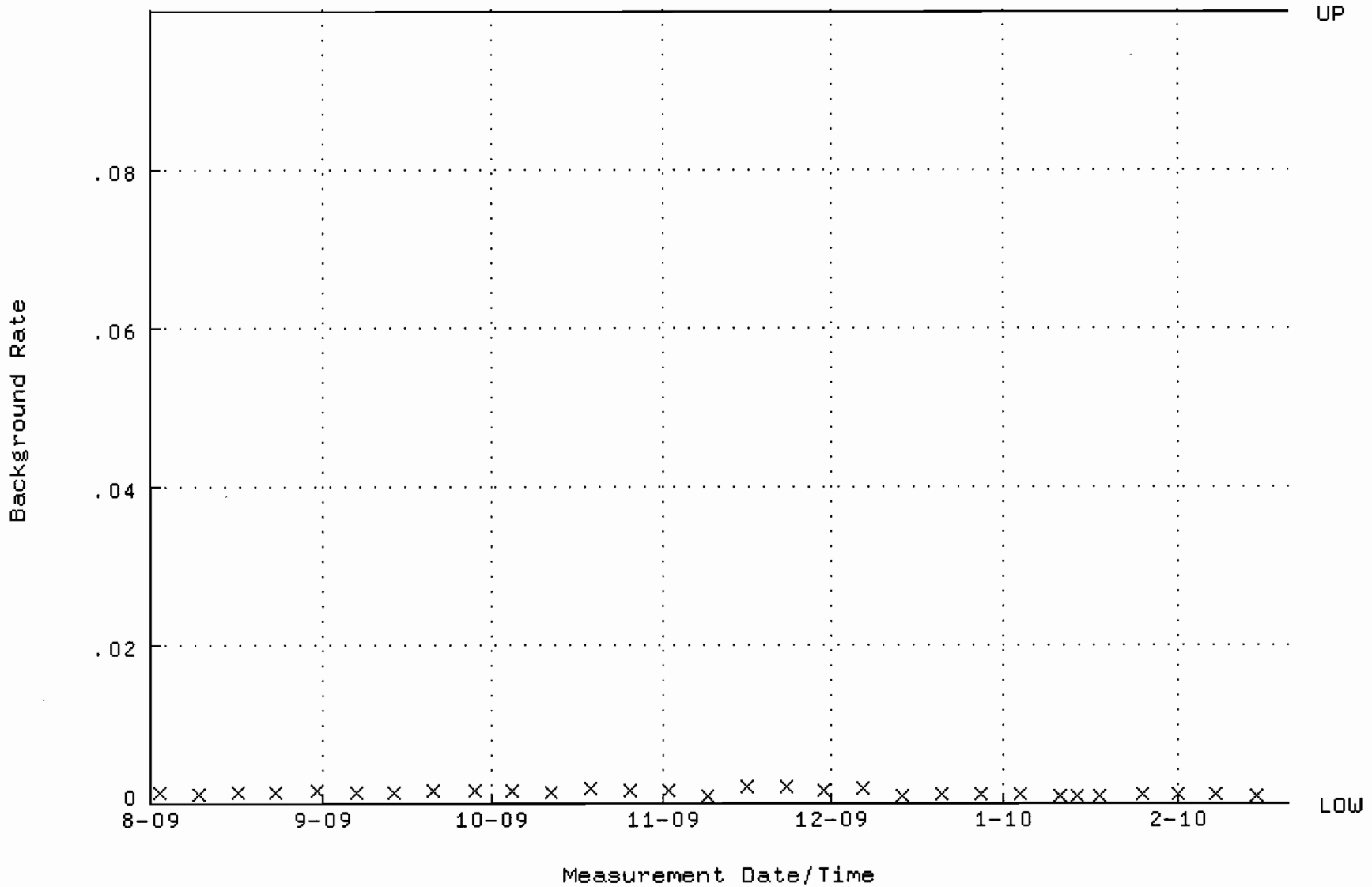

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237963 through 0.257963

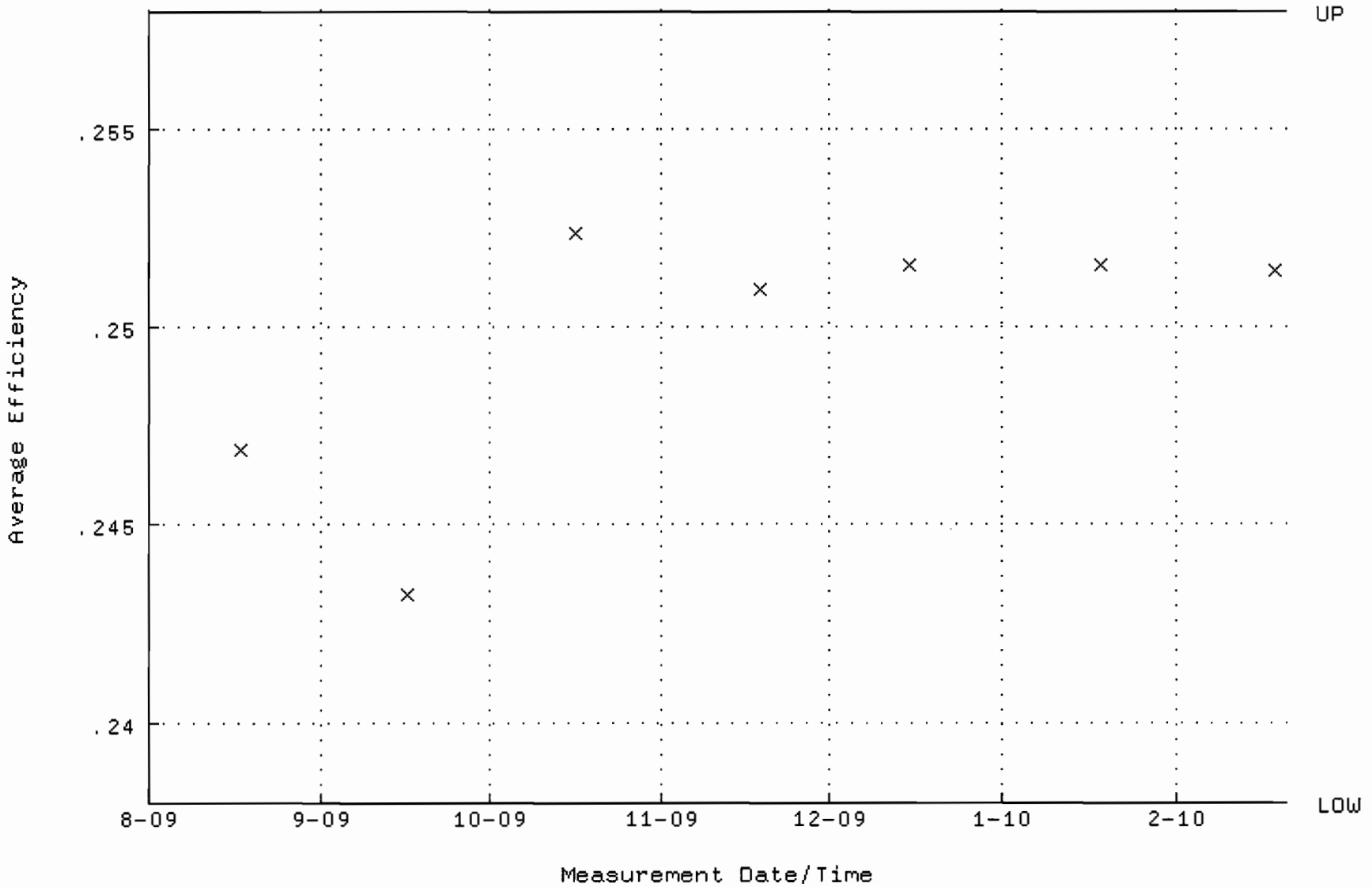

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.6507 through 93.5613

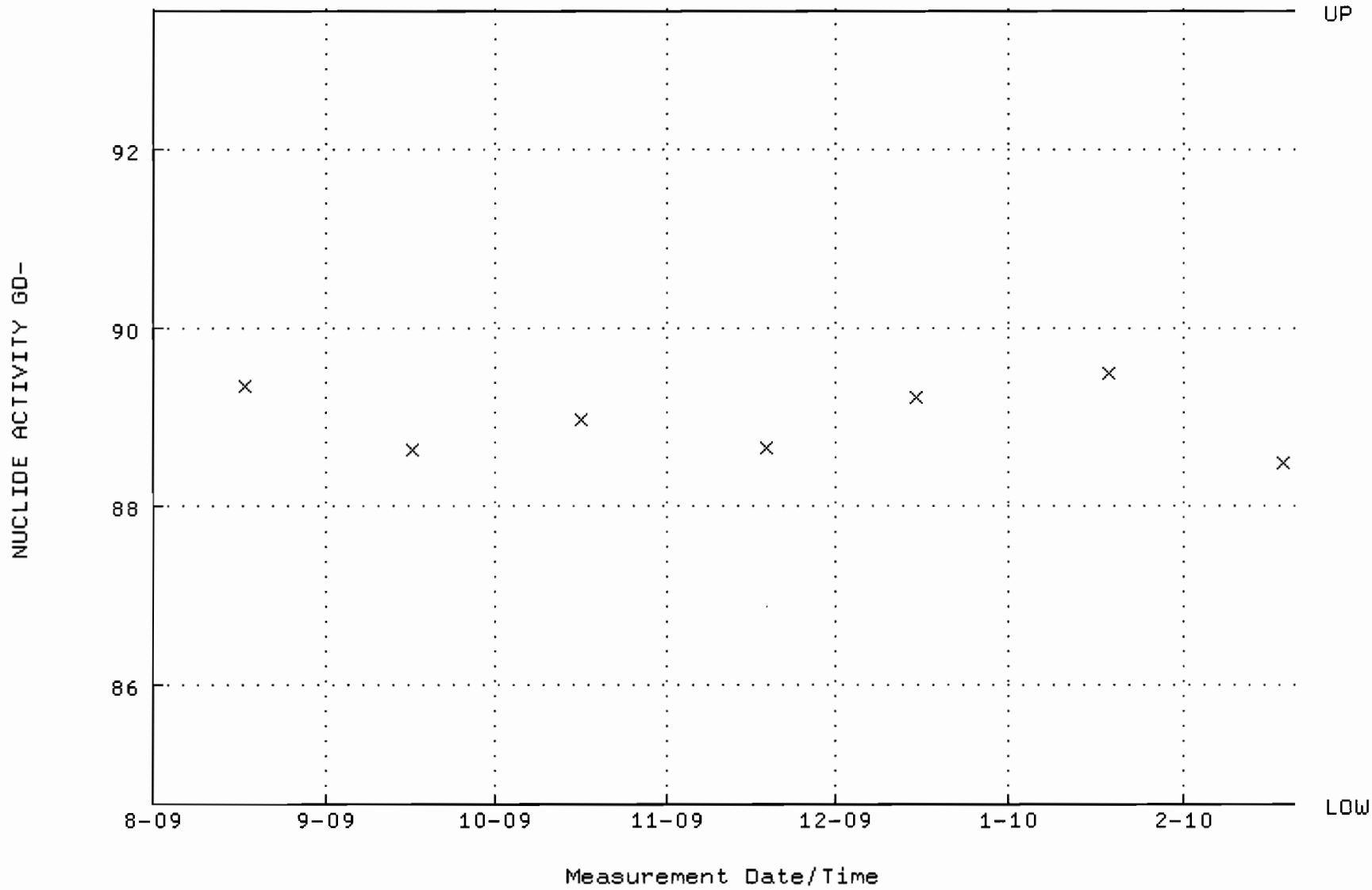

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:12 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

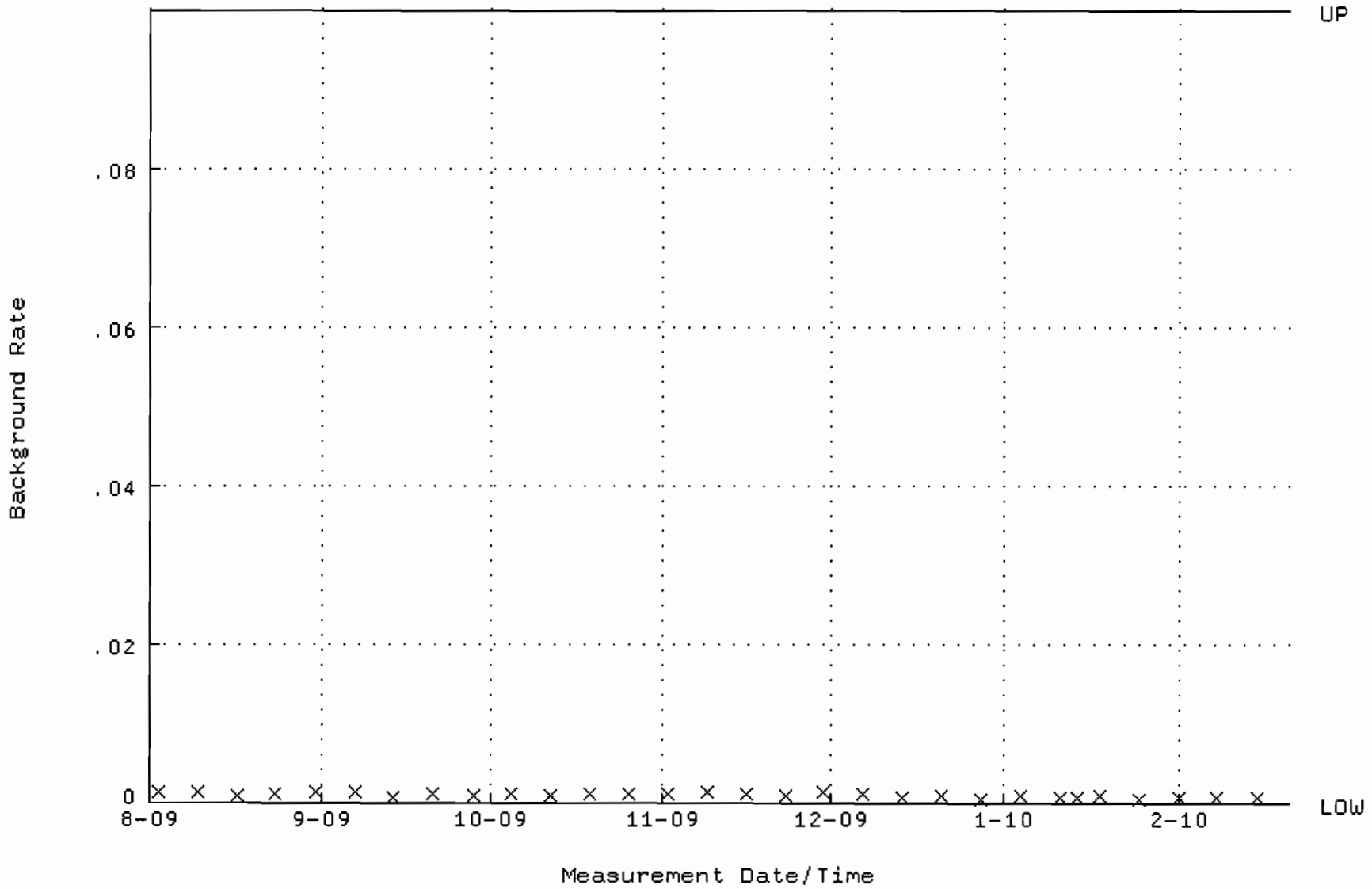

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.239850 through 0.259850

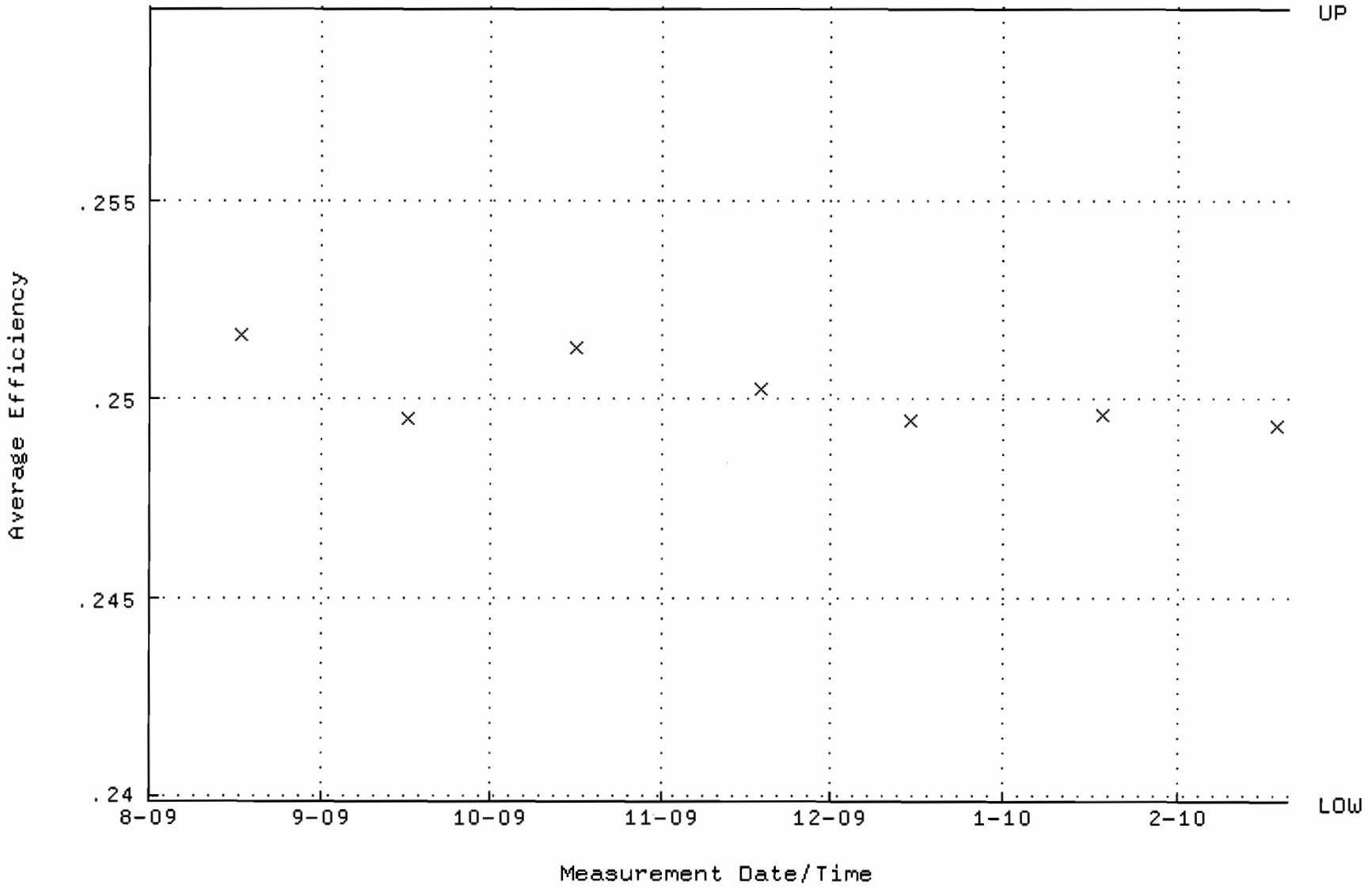

QA filename : DKA100:[ENV_ALPHA.QA.W]W145.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:50 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.9354 through 93.8760

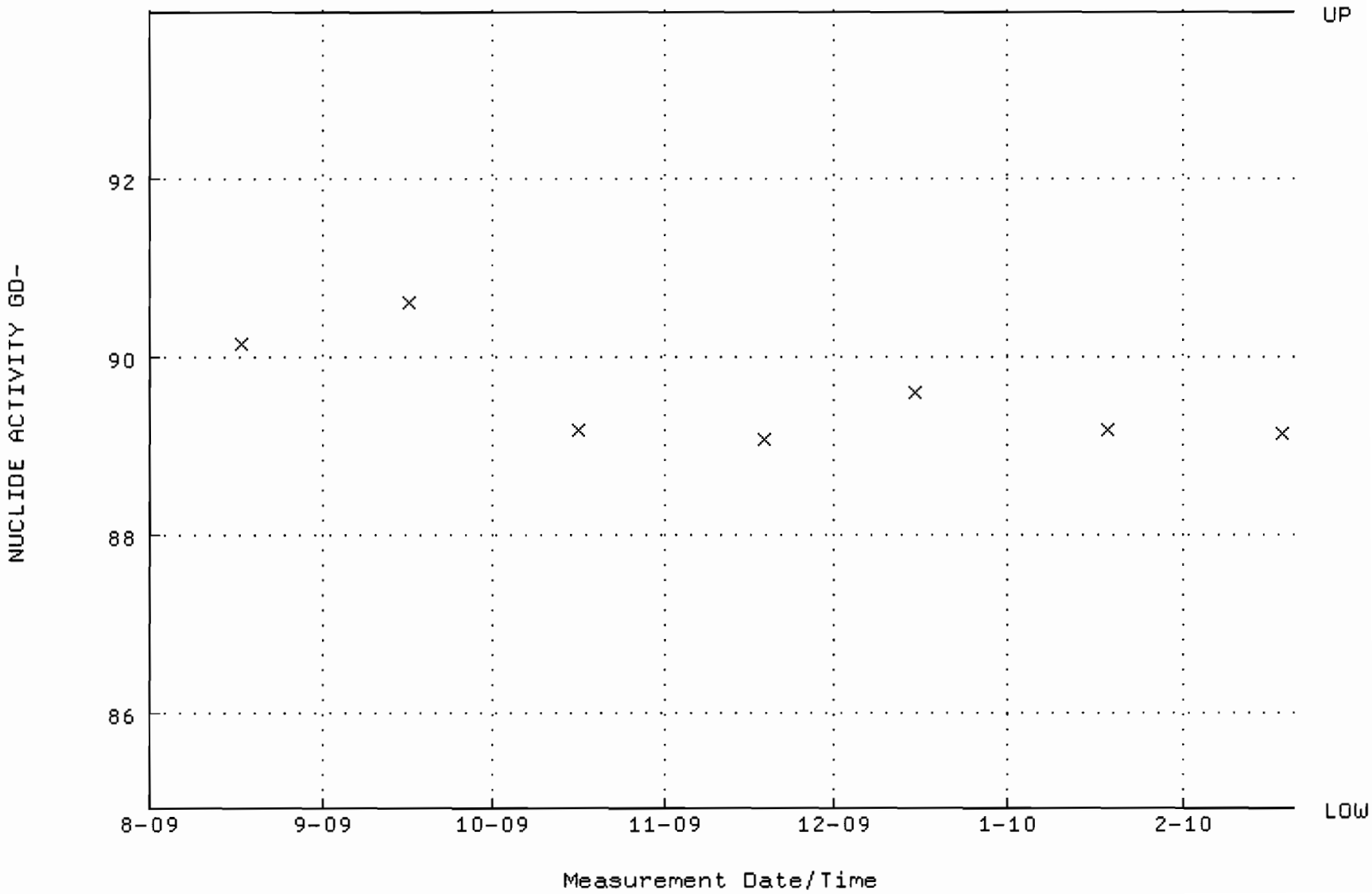

QA filename : DKA100:[ENV_ALPHA.QA.B]B145.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:16 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

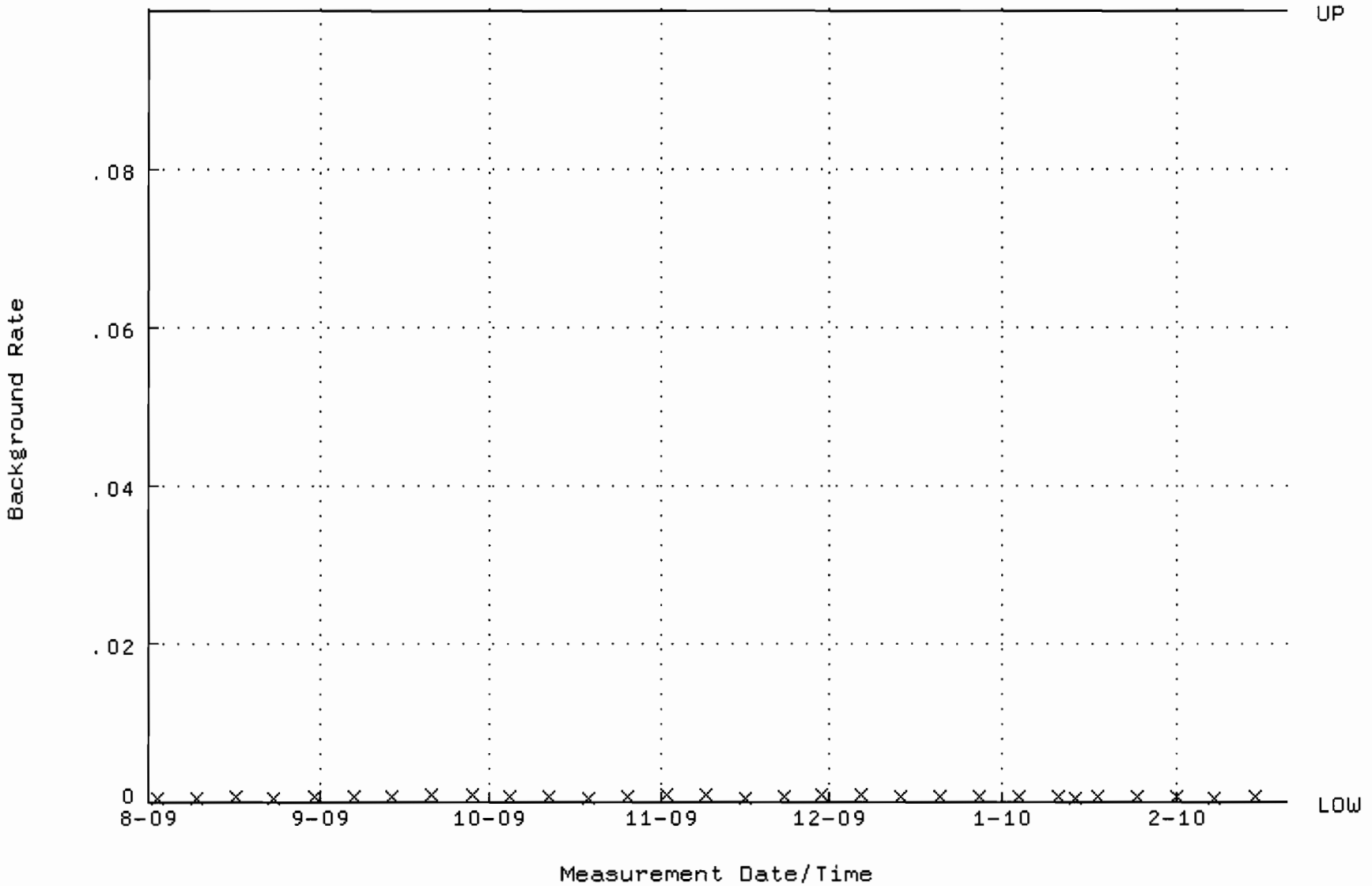

QA filename : DKA100:[ENV_ALPHA.QA.W]W166.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:20 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.385564 through 0.404504

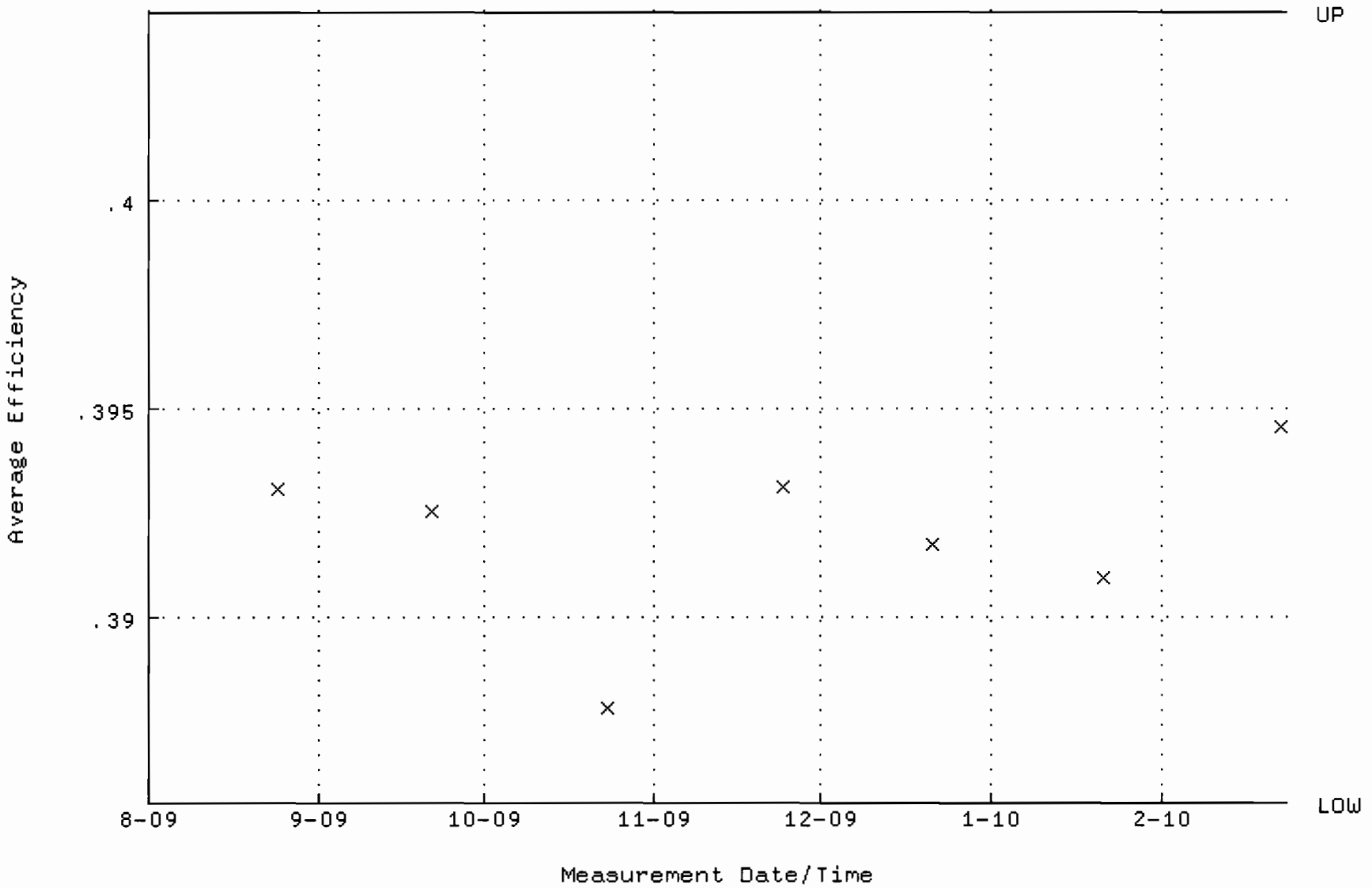

QA filename : DKA100:[ENV_ALPHA.QA.W]W166.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:20 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 88.1264 through 91.2442

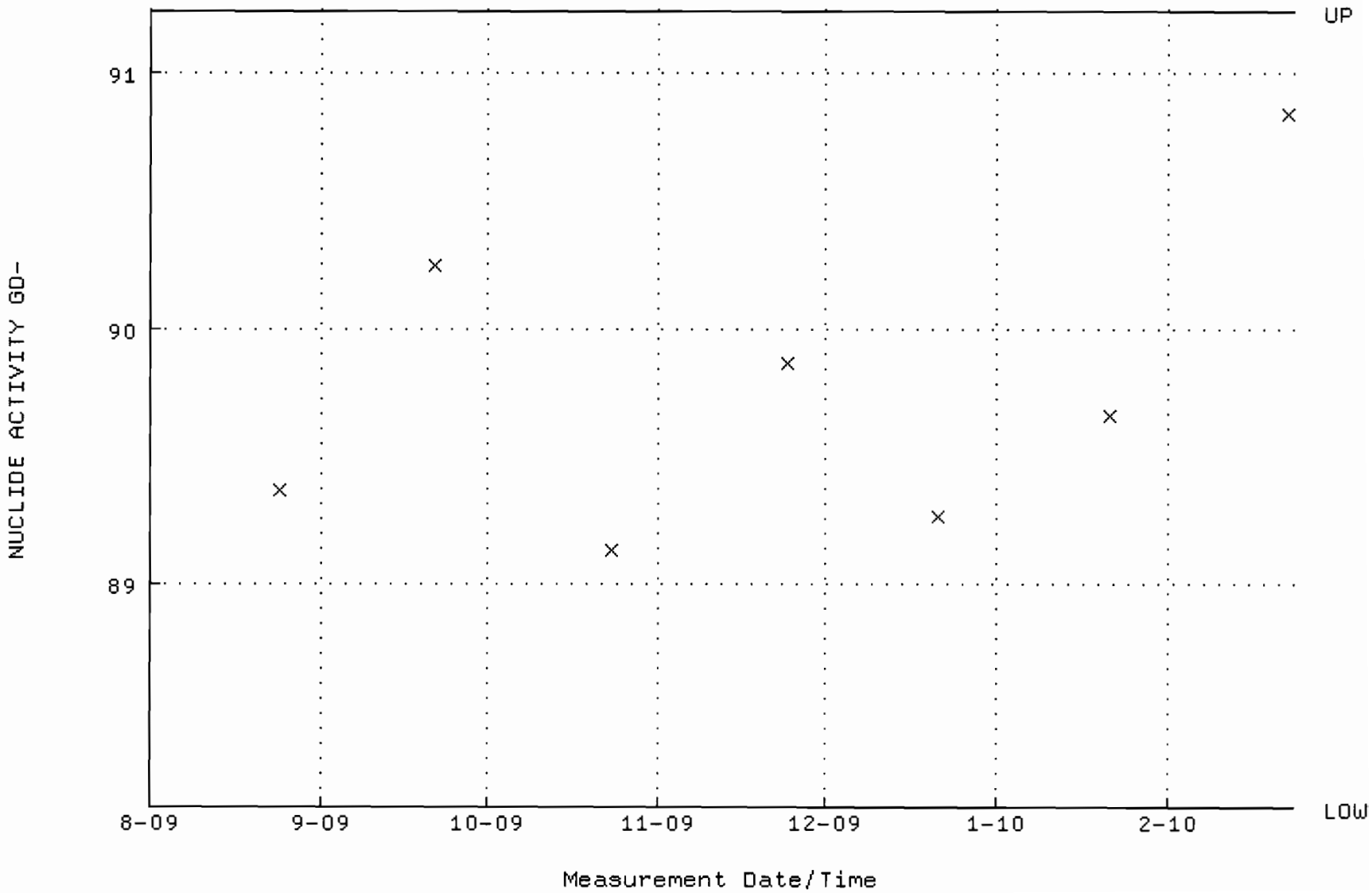

QA filename : DKA100:[ENV_ALPHA.QA.B]B166.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:21:58 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

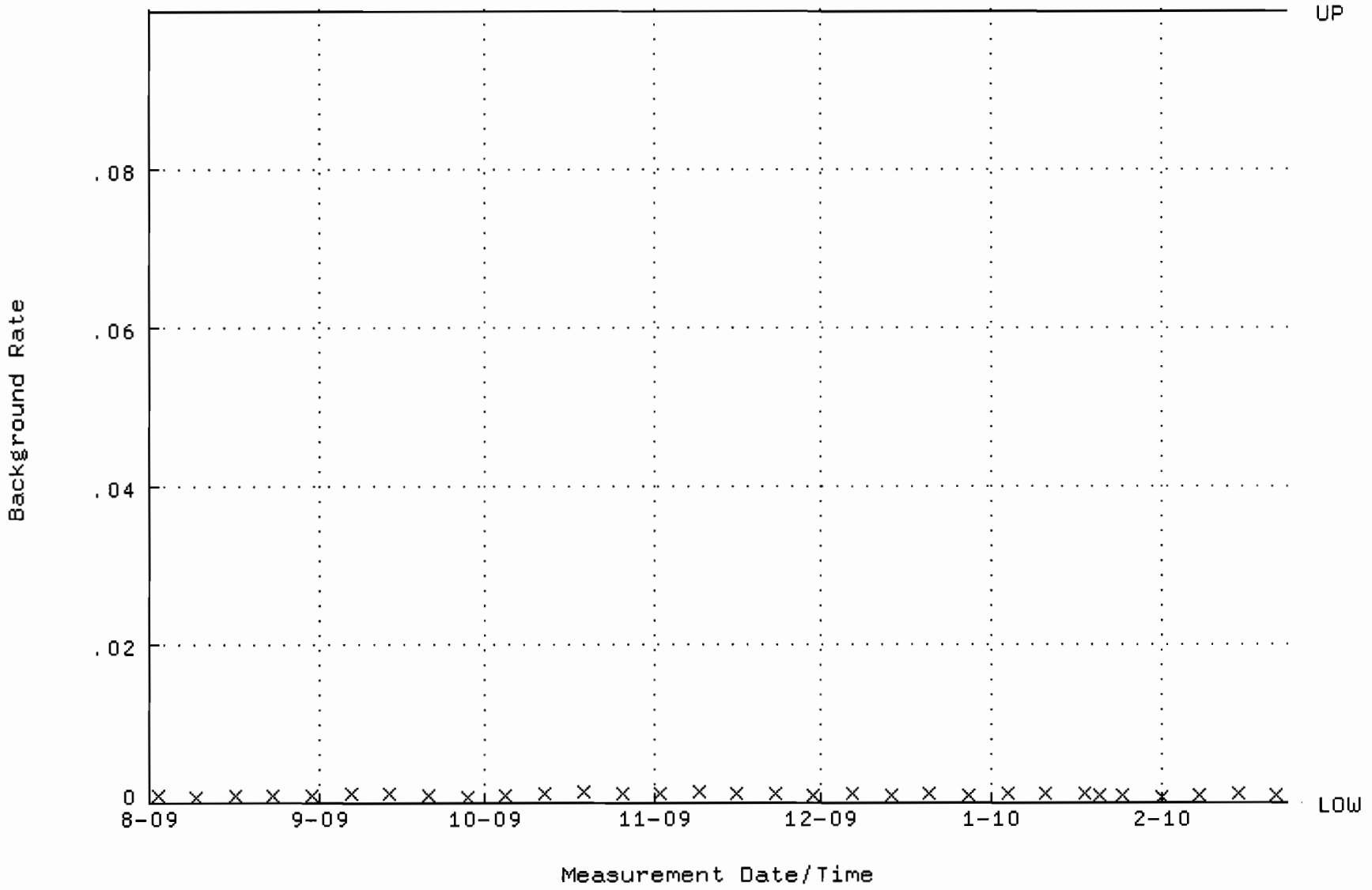

QA filename : DKA100:[ENV_ALPHA.QA.W]W167.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 24-AUG-2009 08:40:25 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.384285 through 0.404285

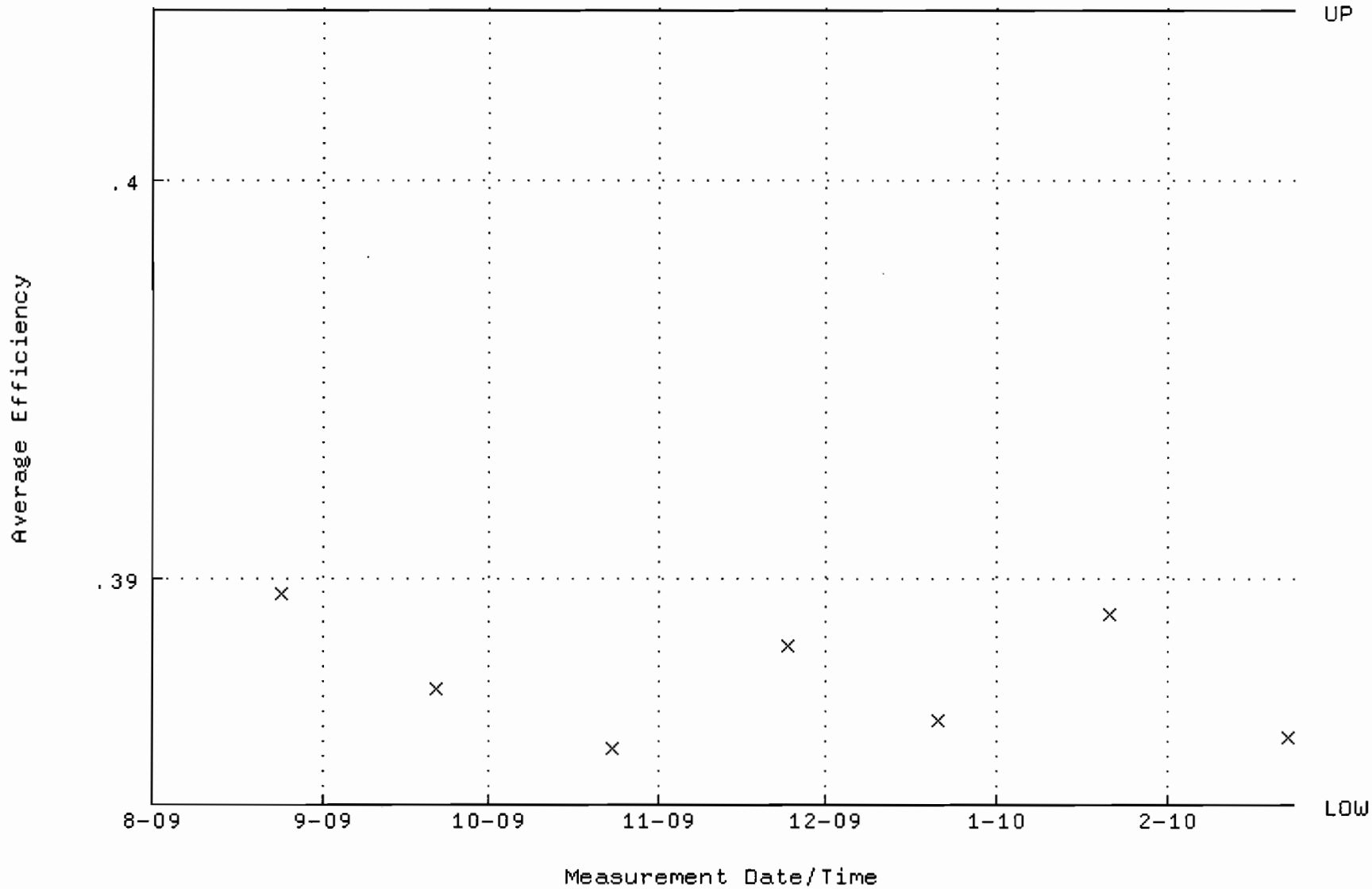

QA filename : DKA100:[ENV_ALPHA.QA.W]W167.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 24-AUG-2009 08:40:25 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 86.7740 through 95.9082

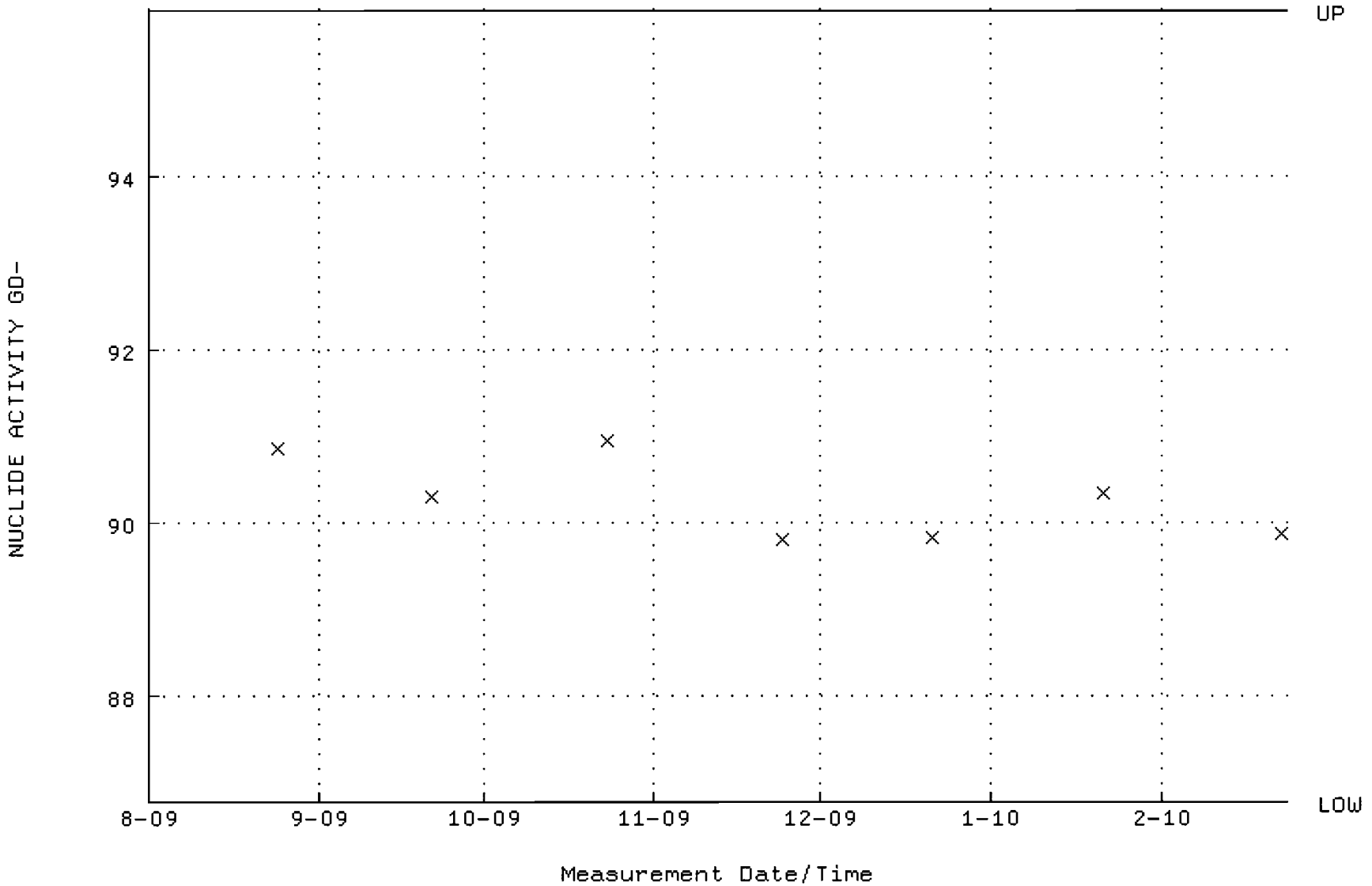

QA filename : DKA100:[ENV_ALPHA.QA.B]B167.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:22:02 through 23-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

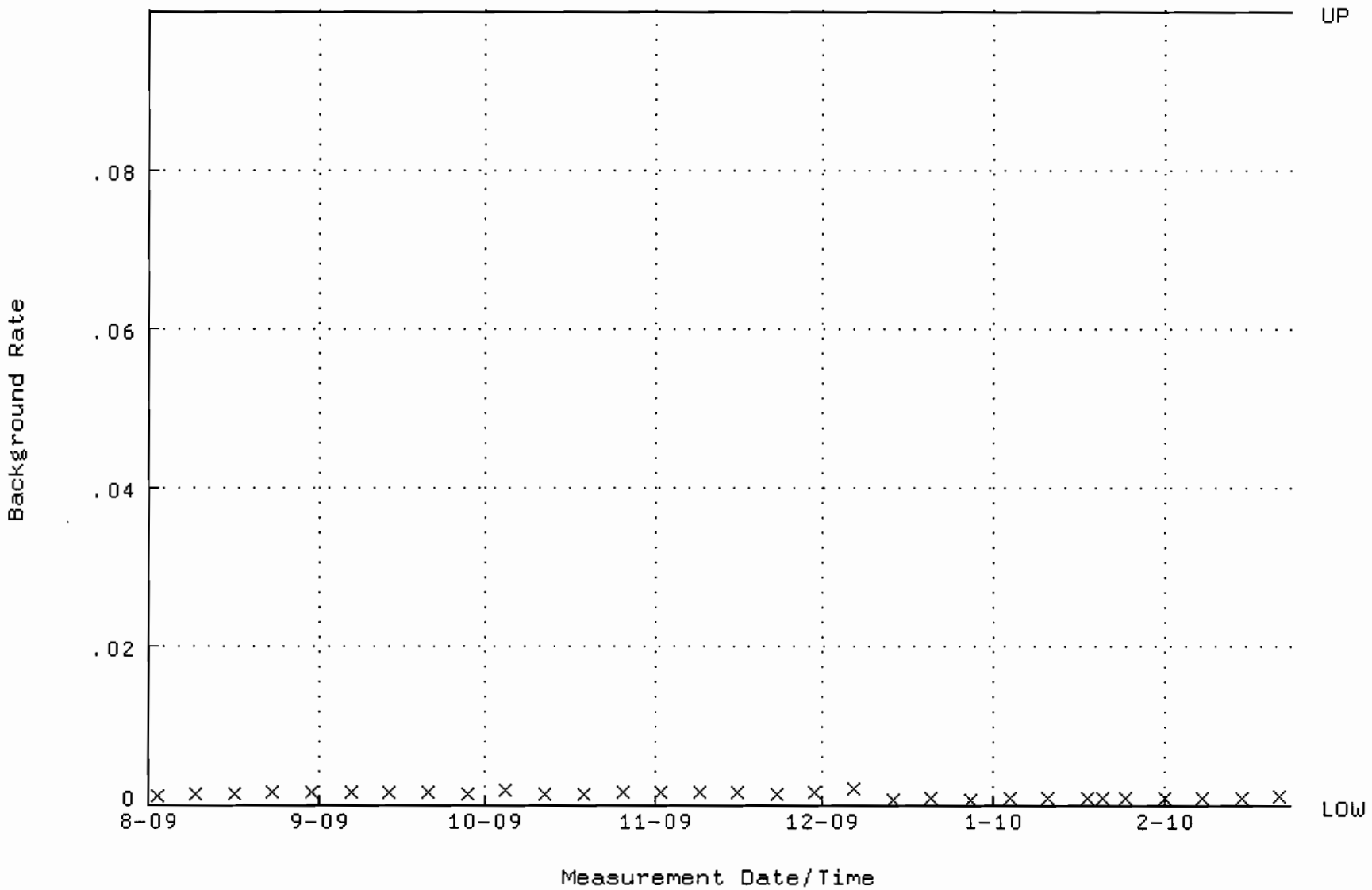

QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:06:50 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363867 through 0.385287

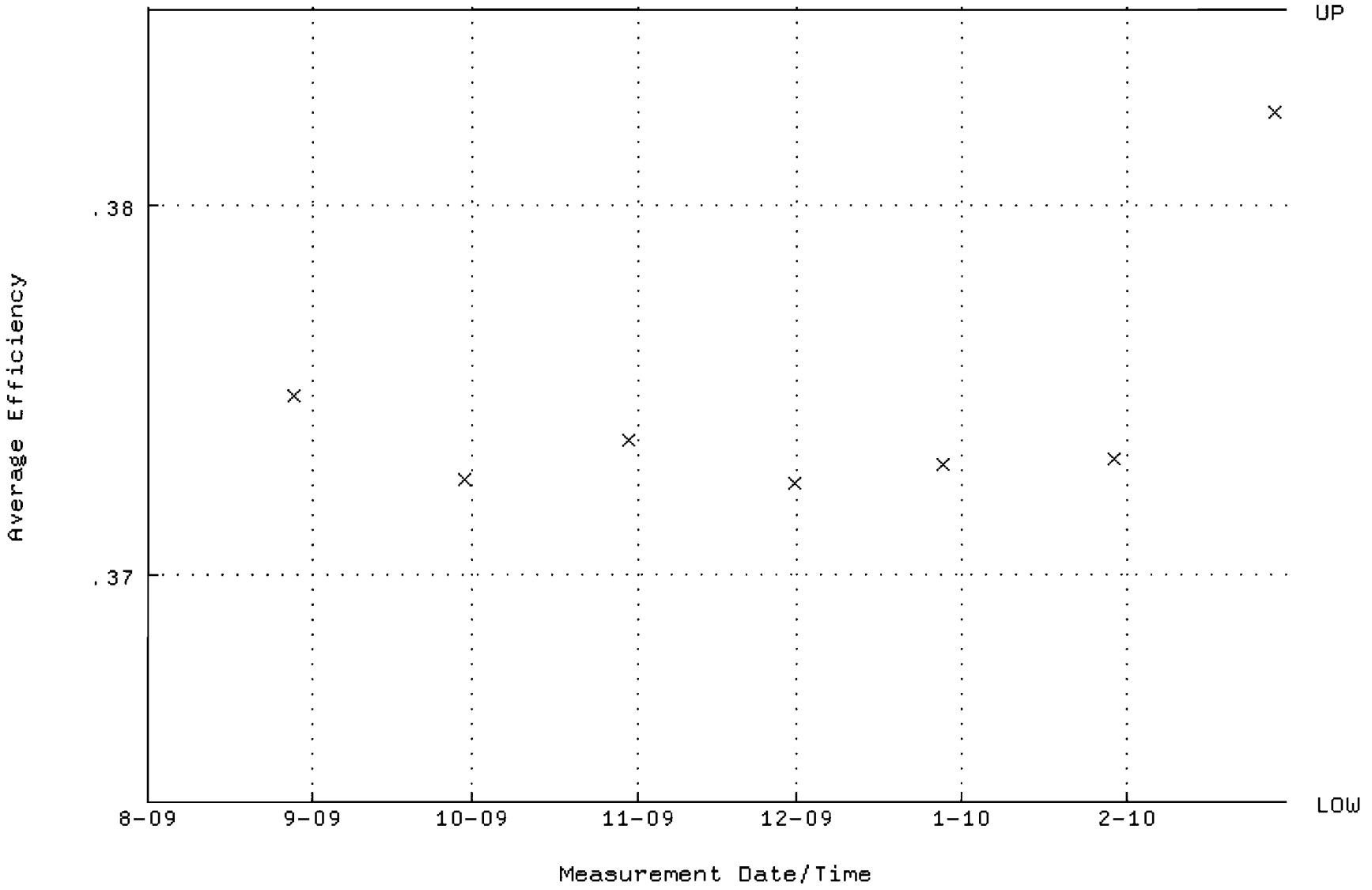

QA filename : DKA100:[ENV_ALPHA.QA.W]W213.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:06:50 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 85.8876 through 92.2476

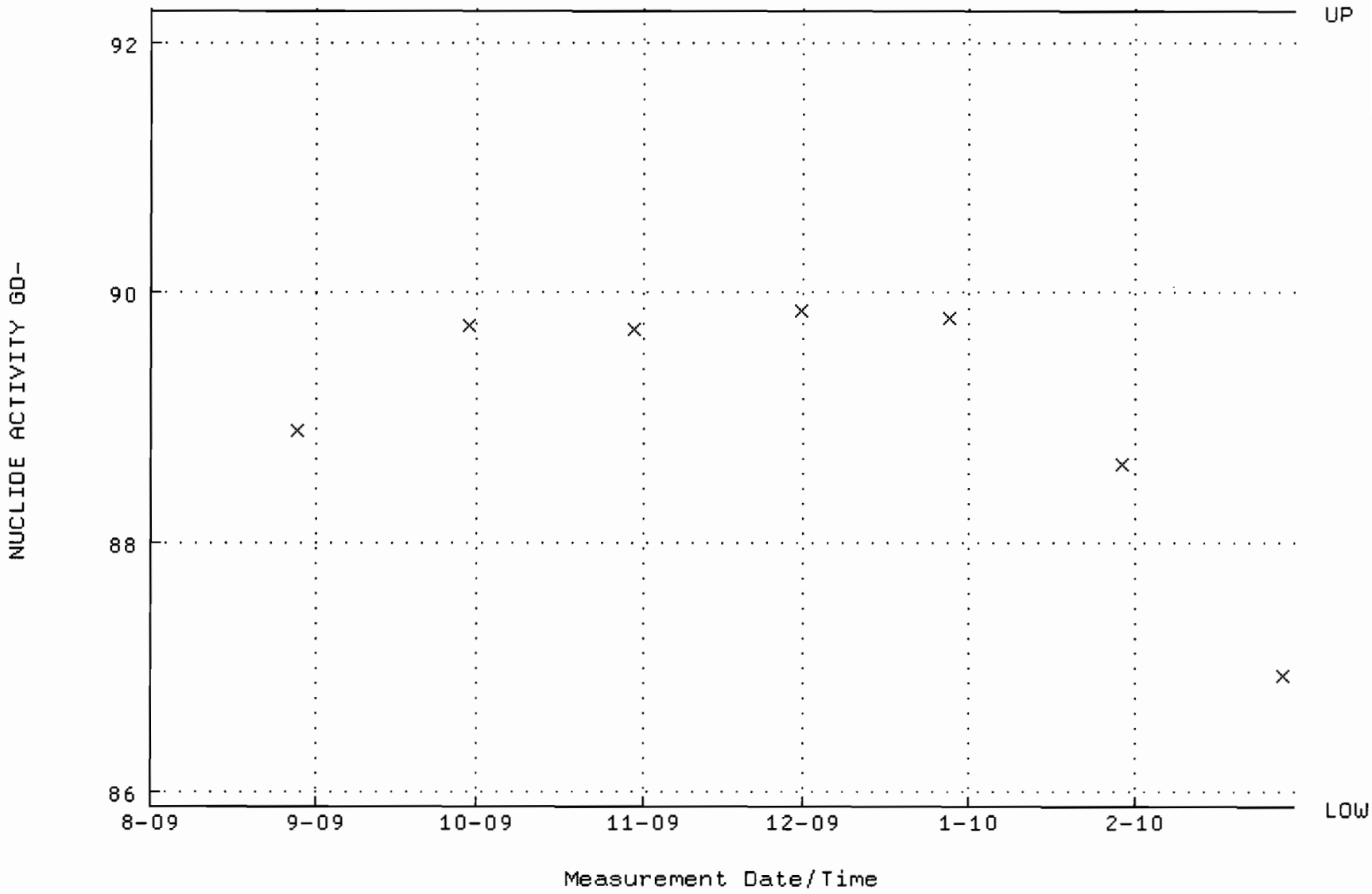

QA filename : DKA100:[ENV_ALPHA.QA.B]B213.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:27 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

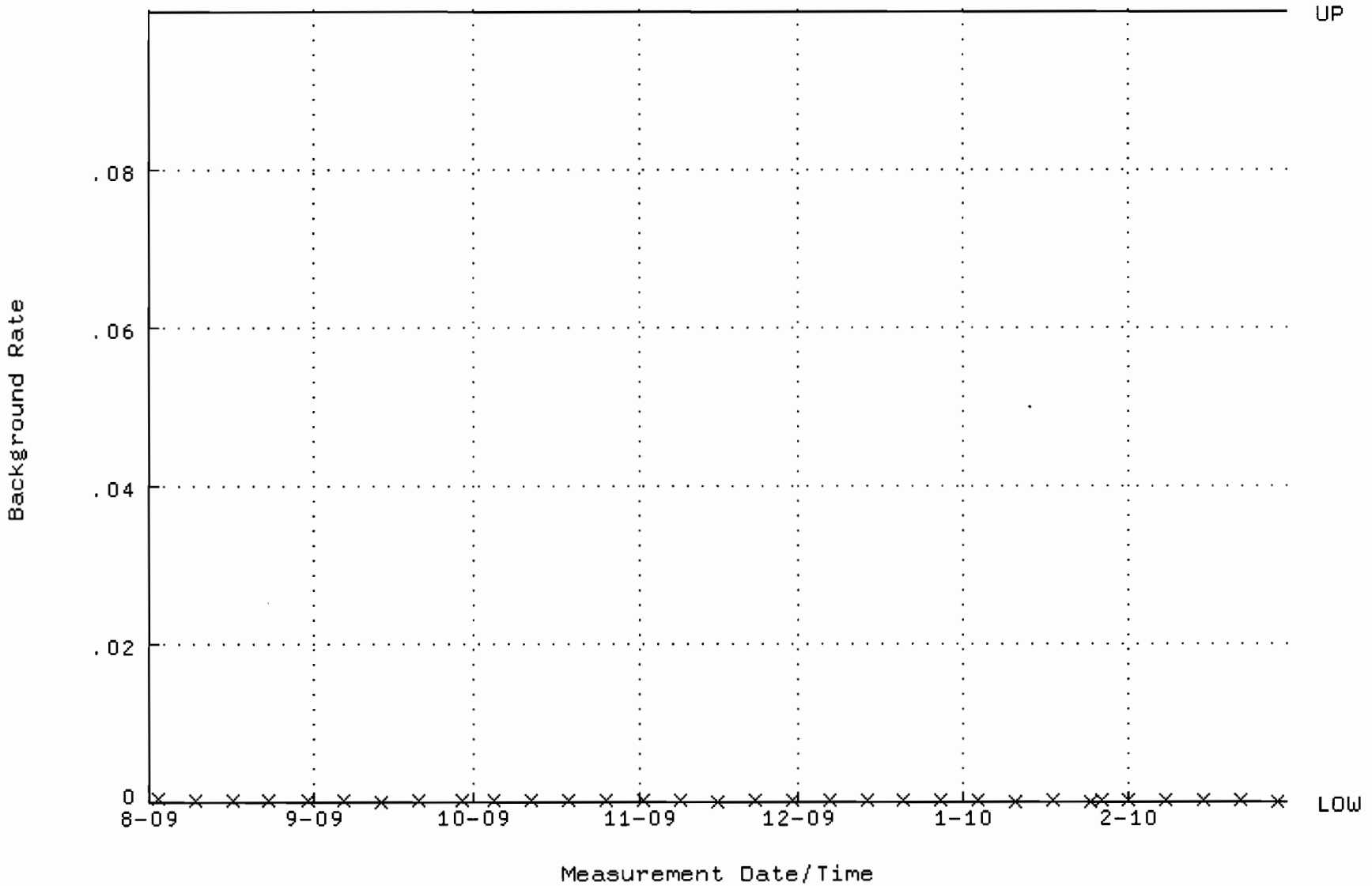

QA filename : DKA100:[ENV_ALPHA.QA.W]W214.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:06:55 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.381077 through 0.386057

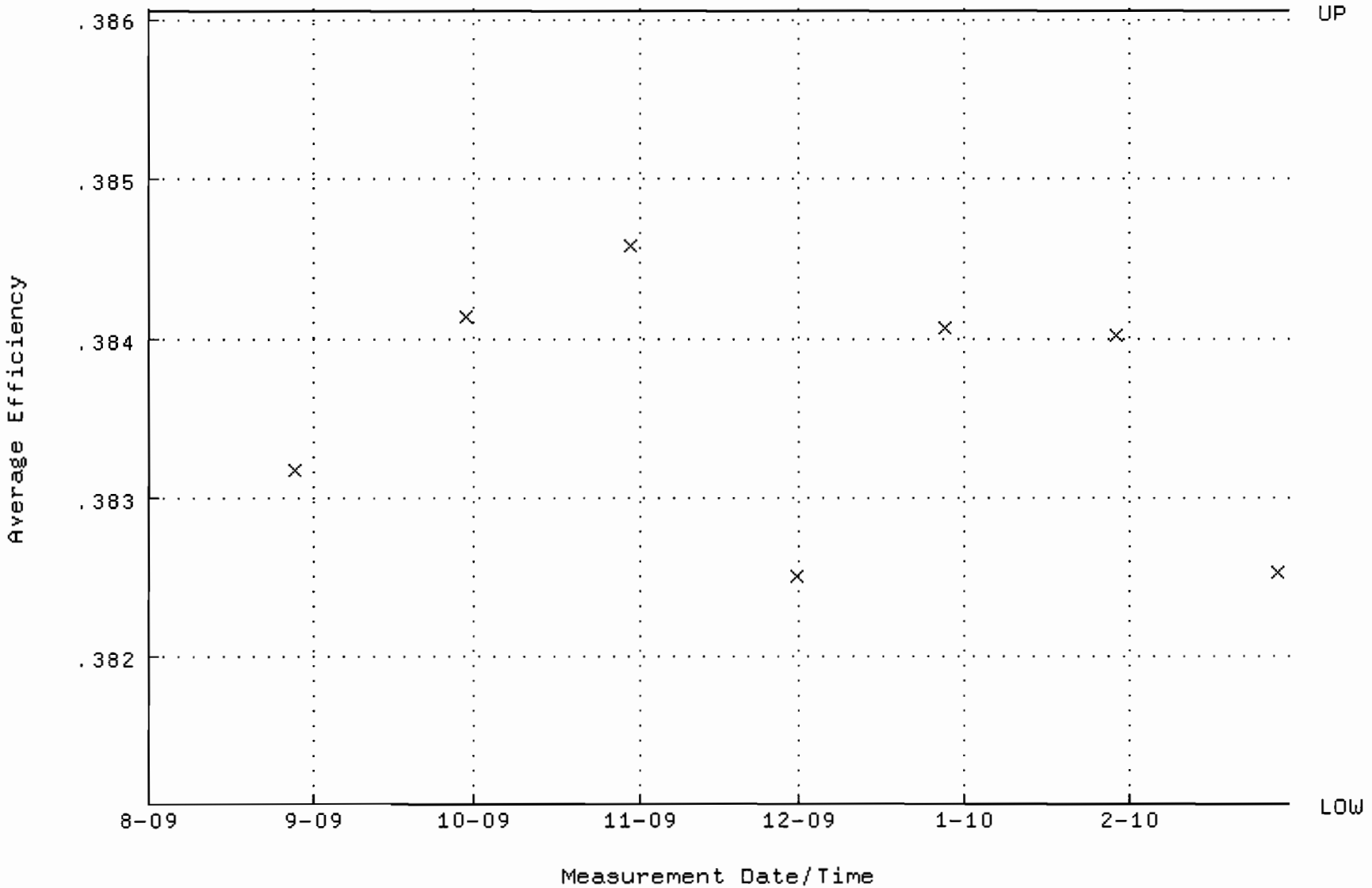

QA filename : DKA100:[ENV_ALPHA.QA.W]W214.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:06:55 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 89.1239 through 90.8865

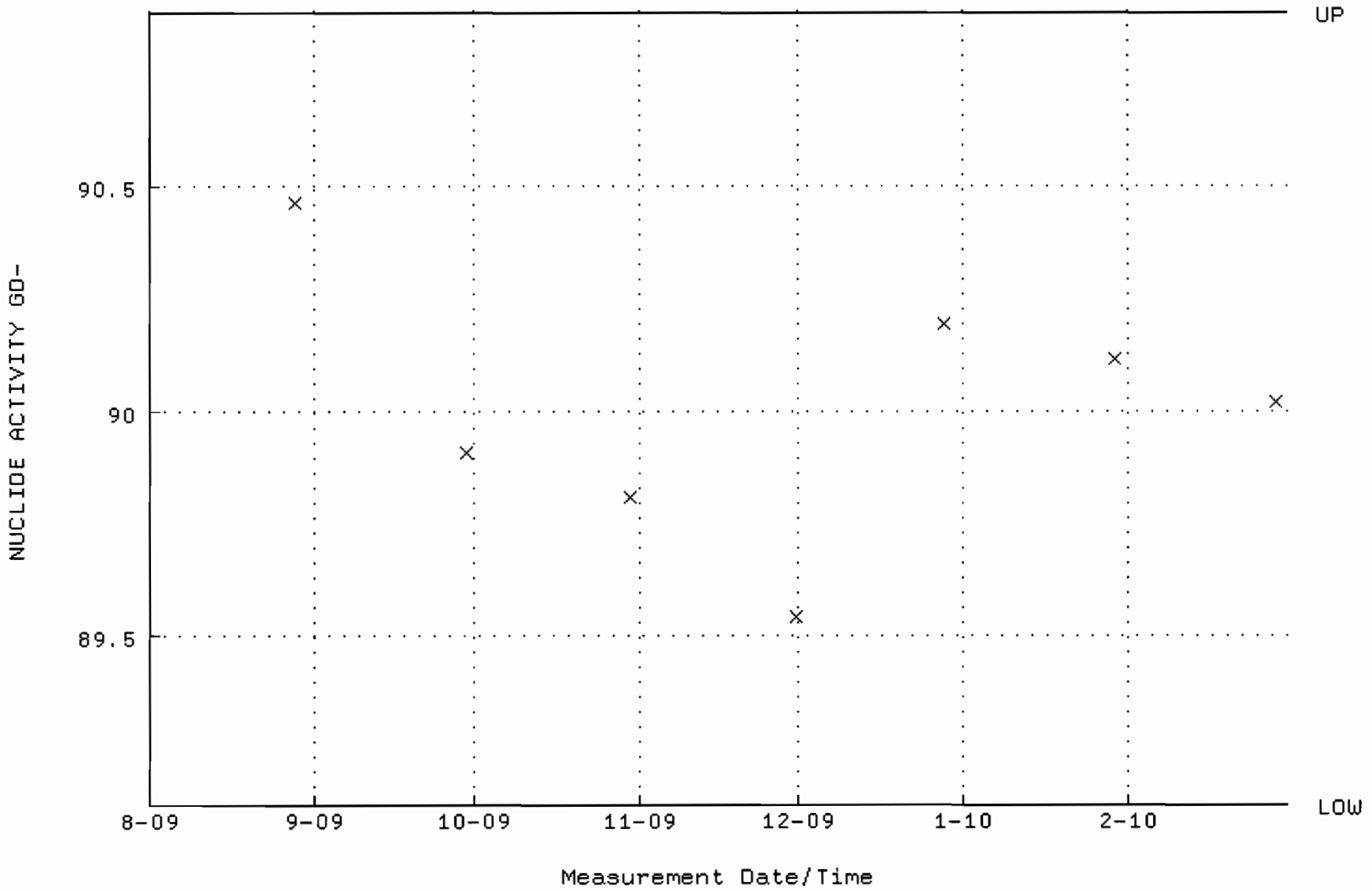

QA filename : DKA100:[ENV_ALPHA.QA.B]B214.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:31 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

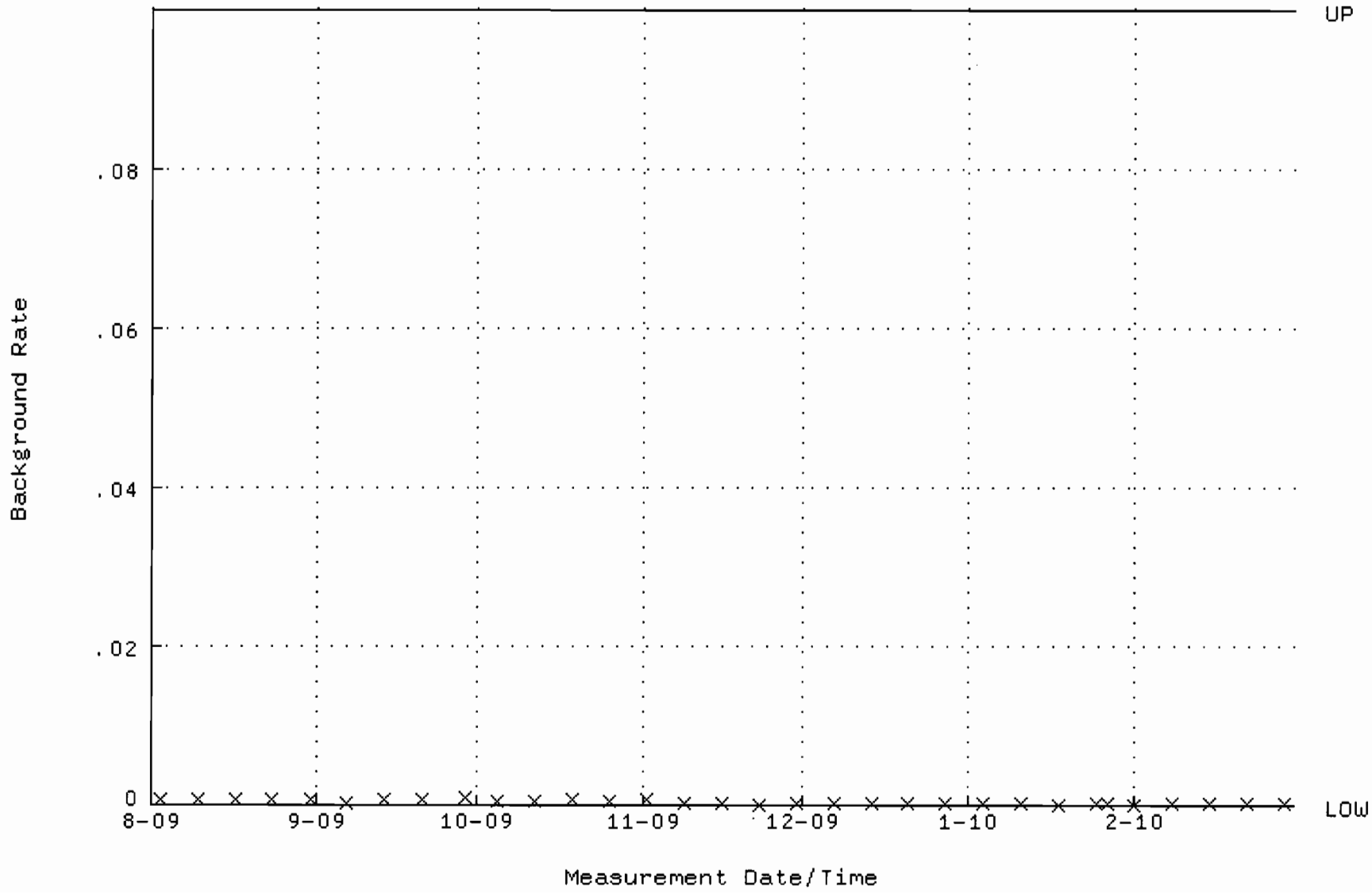

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:14 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.353641 through 0.399809

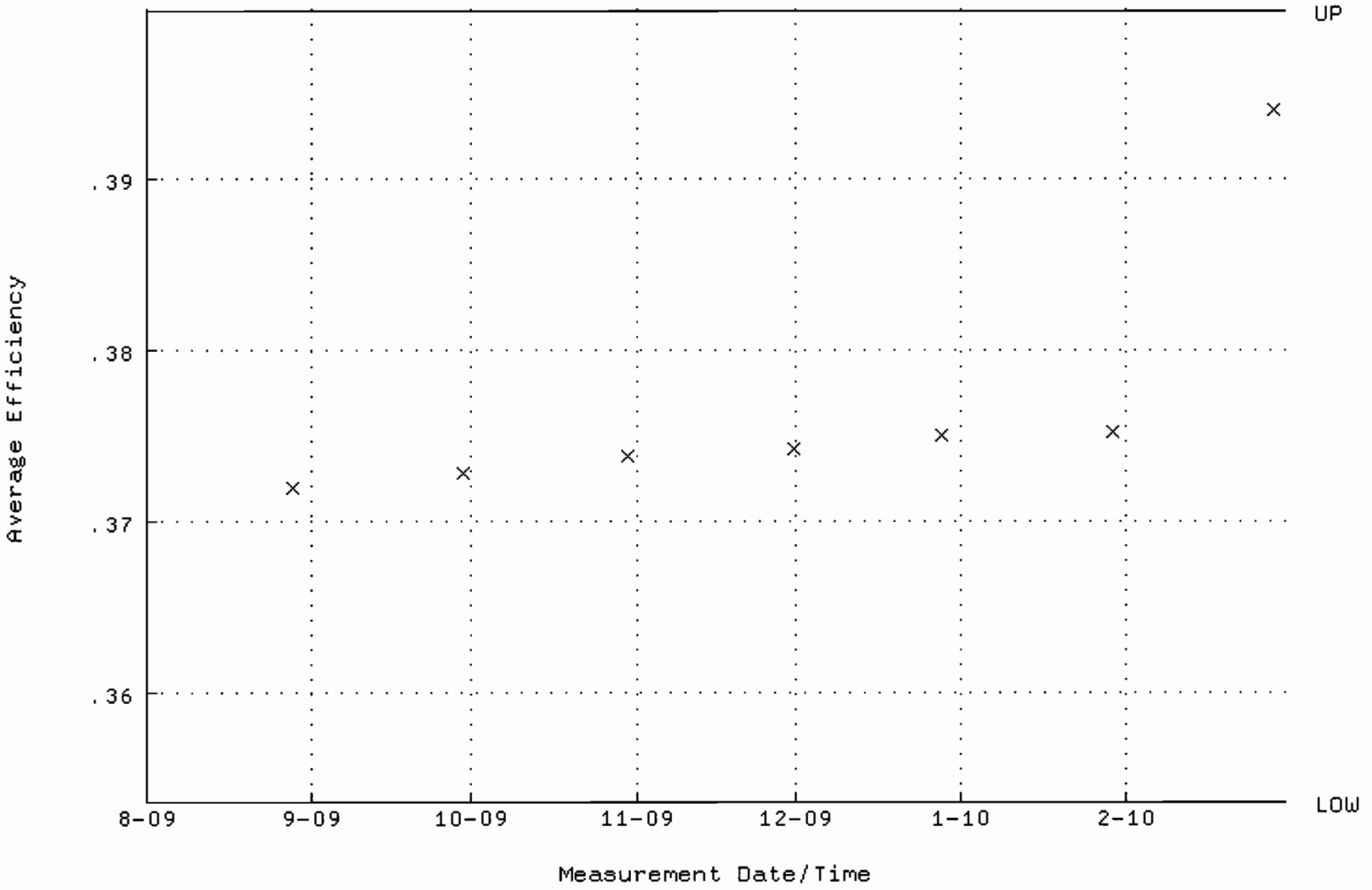

QA filename : DKA100:[ENV_ALPHA.QA.W]W218.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:14 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 86.8733 through 99.5183

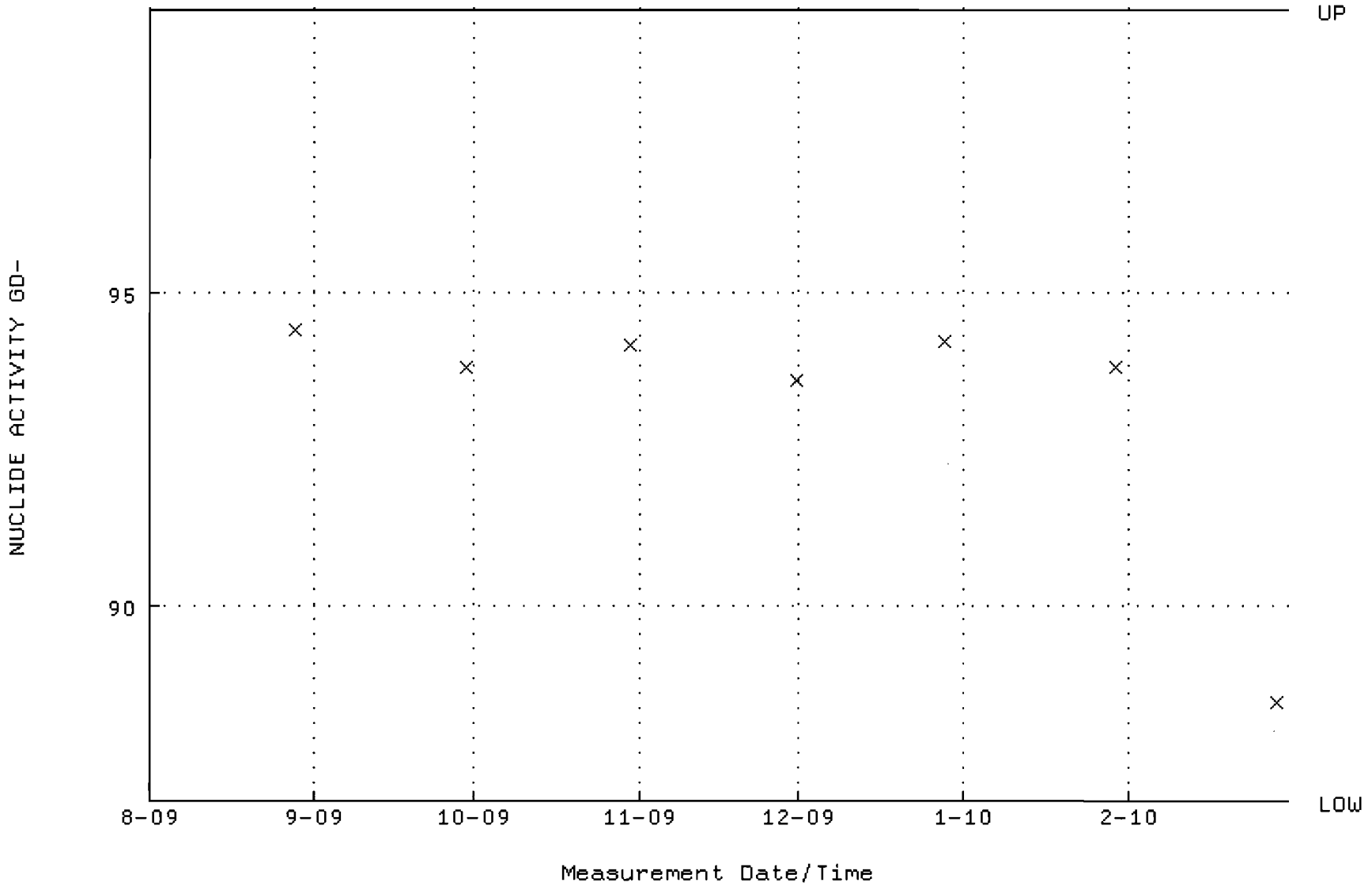

QA filename : DKA100:[ENV_ALPHA.QA.B]B218.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:48 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

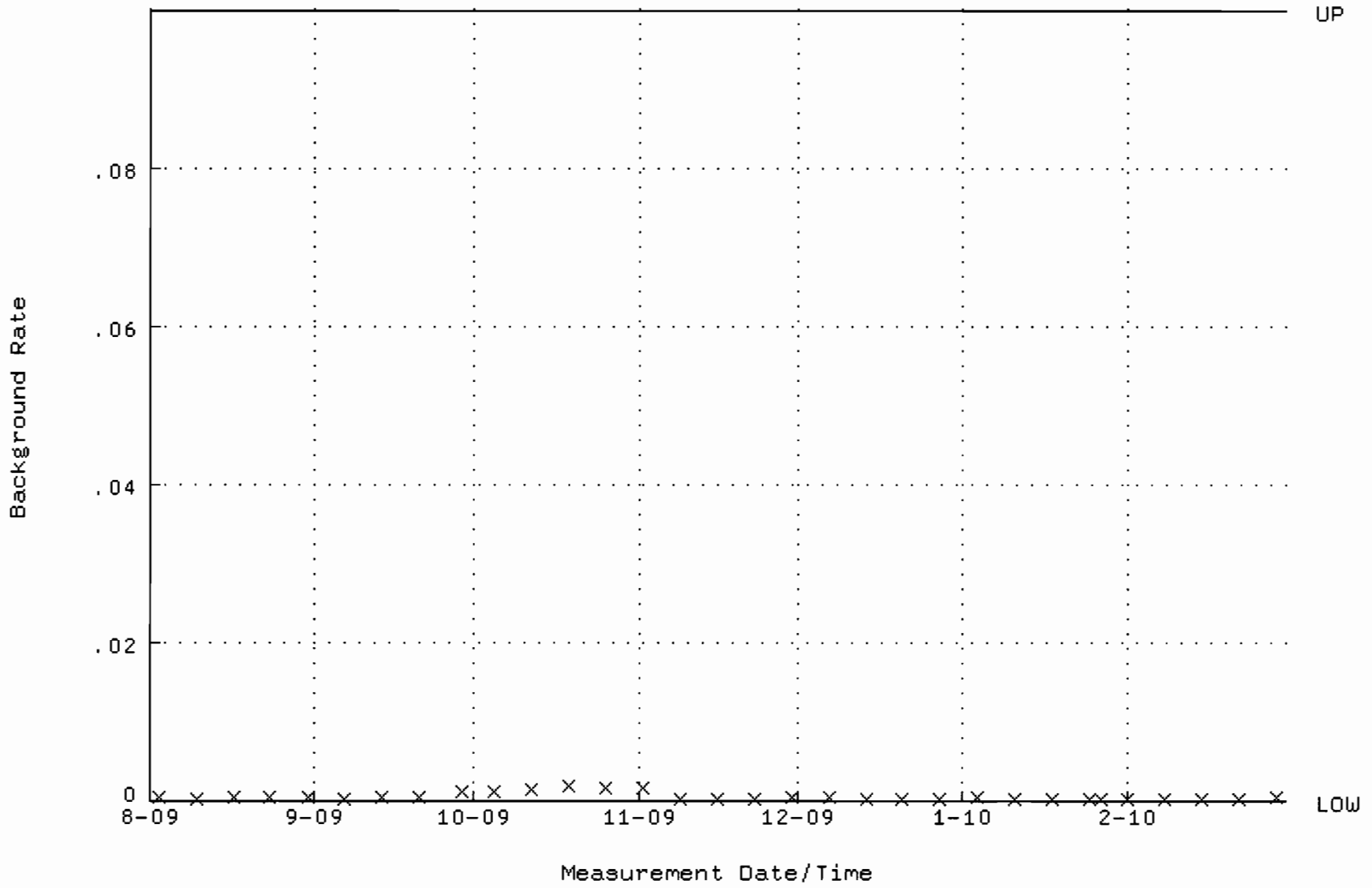

QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:18 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363471 through 0.412689

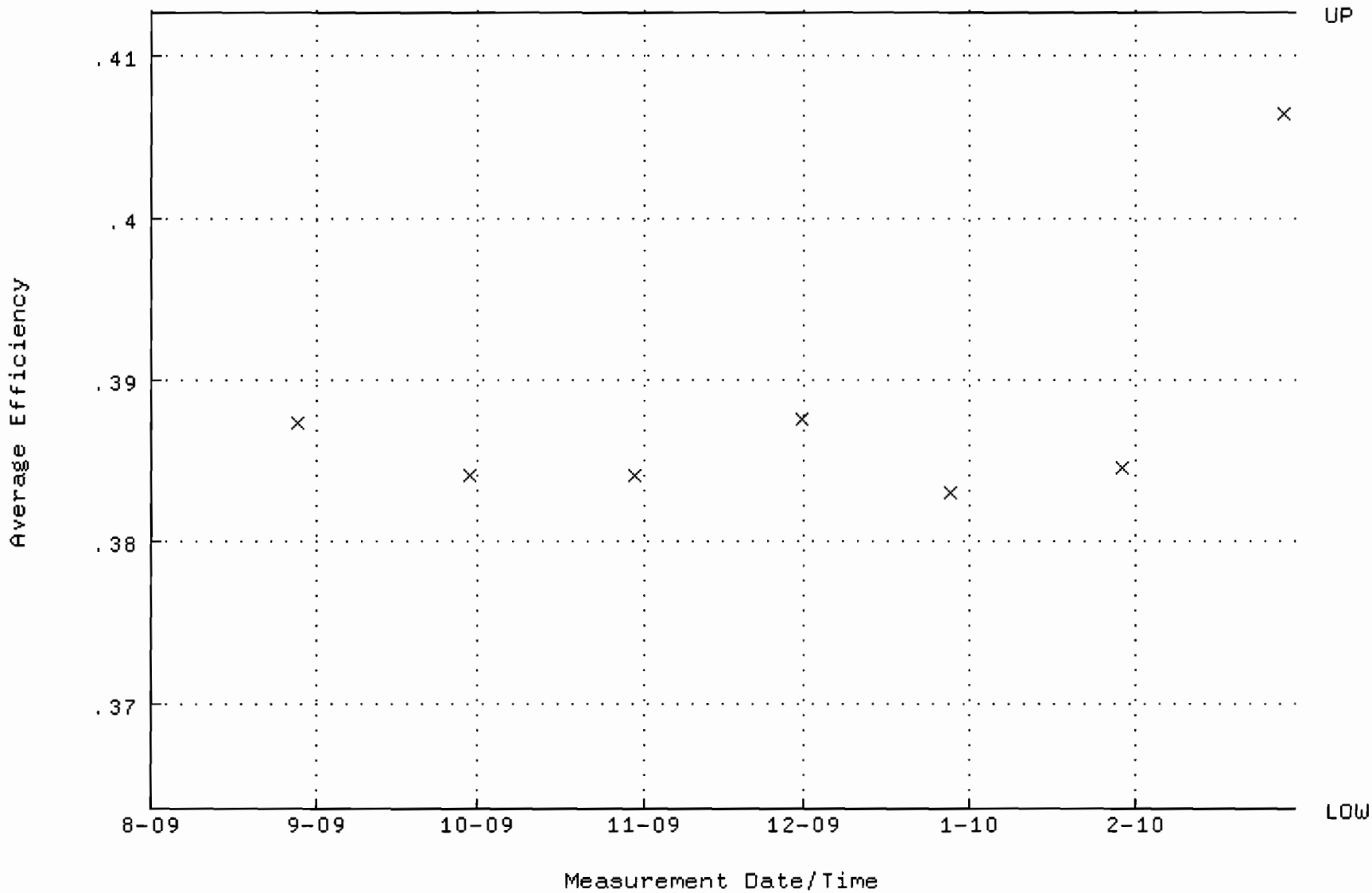

QA filename : OKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:18 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.1251 through 93.8923

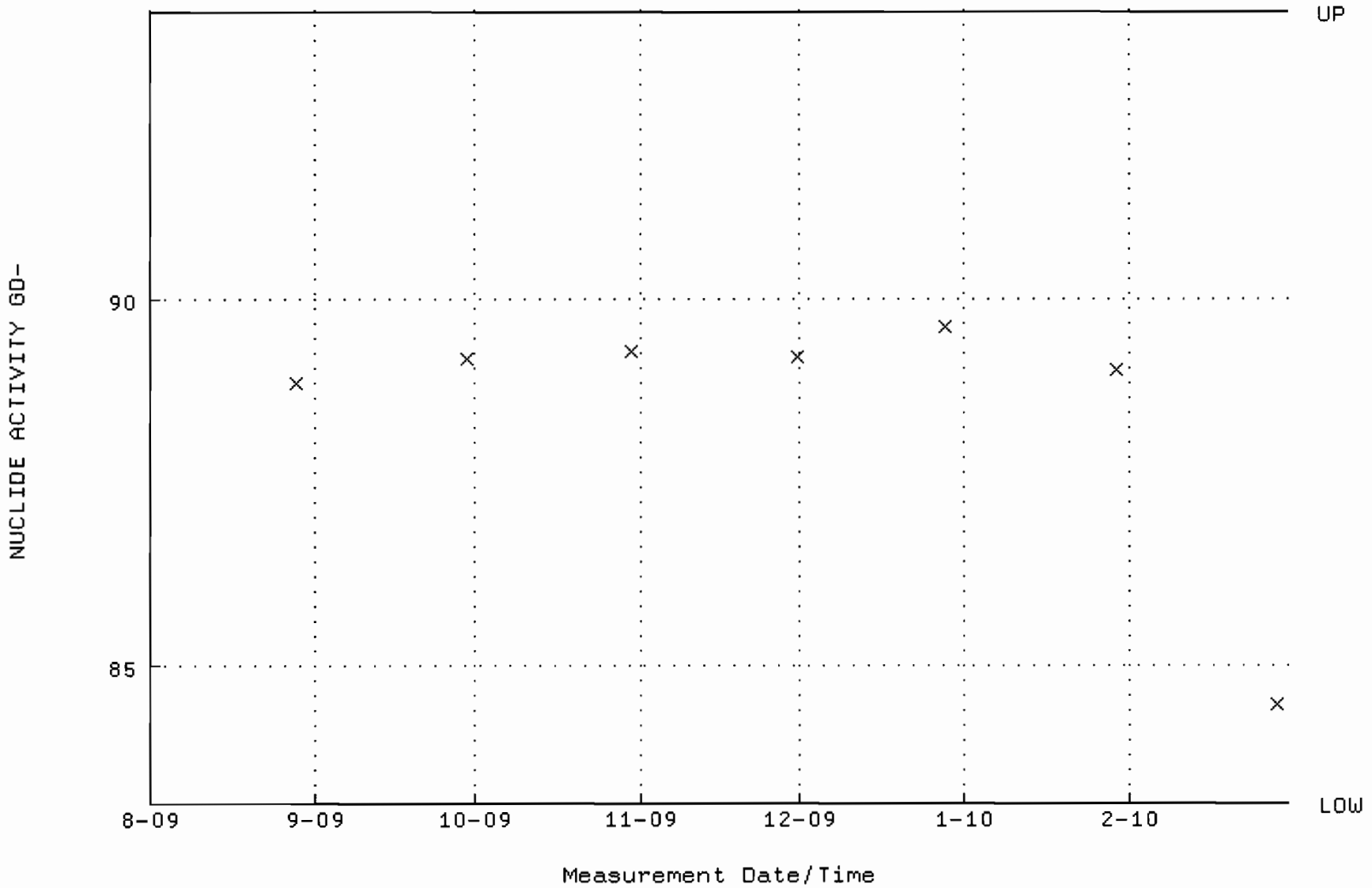

QA filename : DKA100:[ENV_ALPHA.QA.B]B219.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:52 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

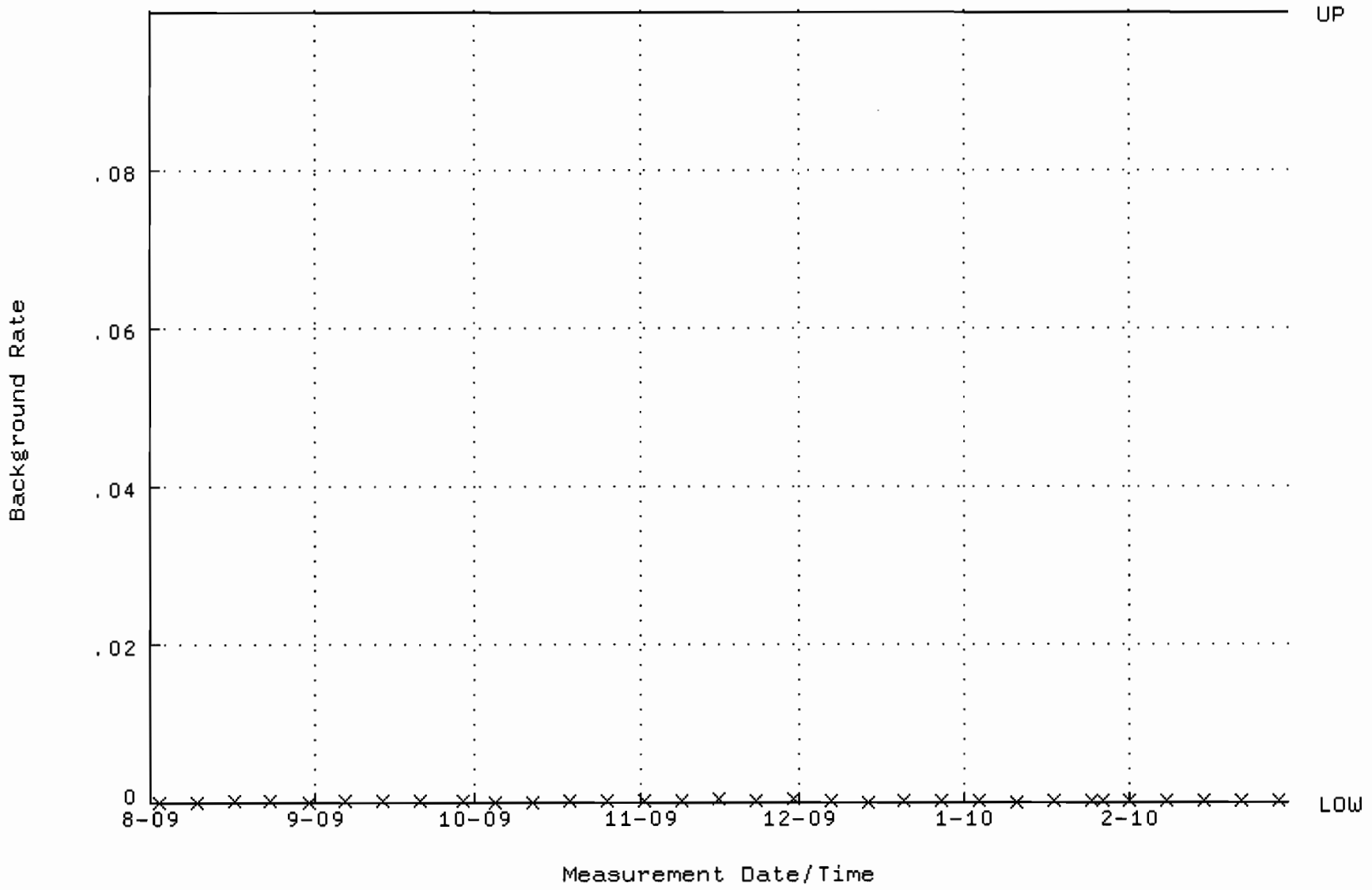

QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:27 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.354487 through 0.403989

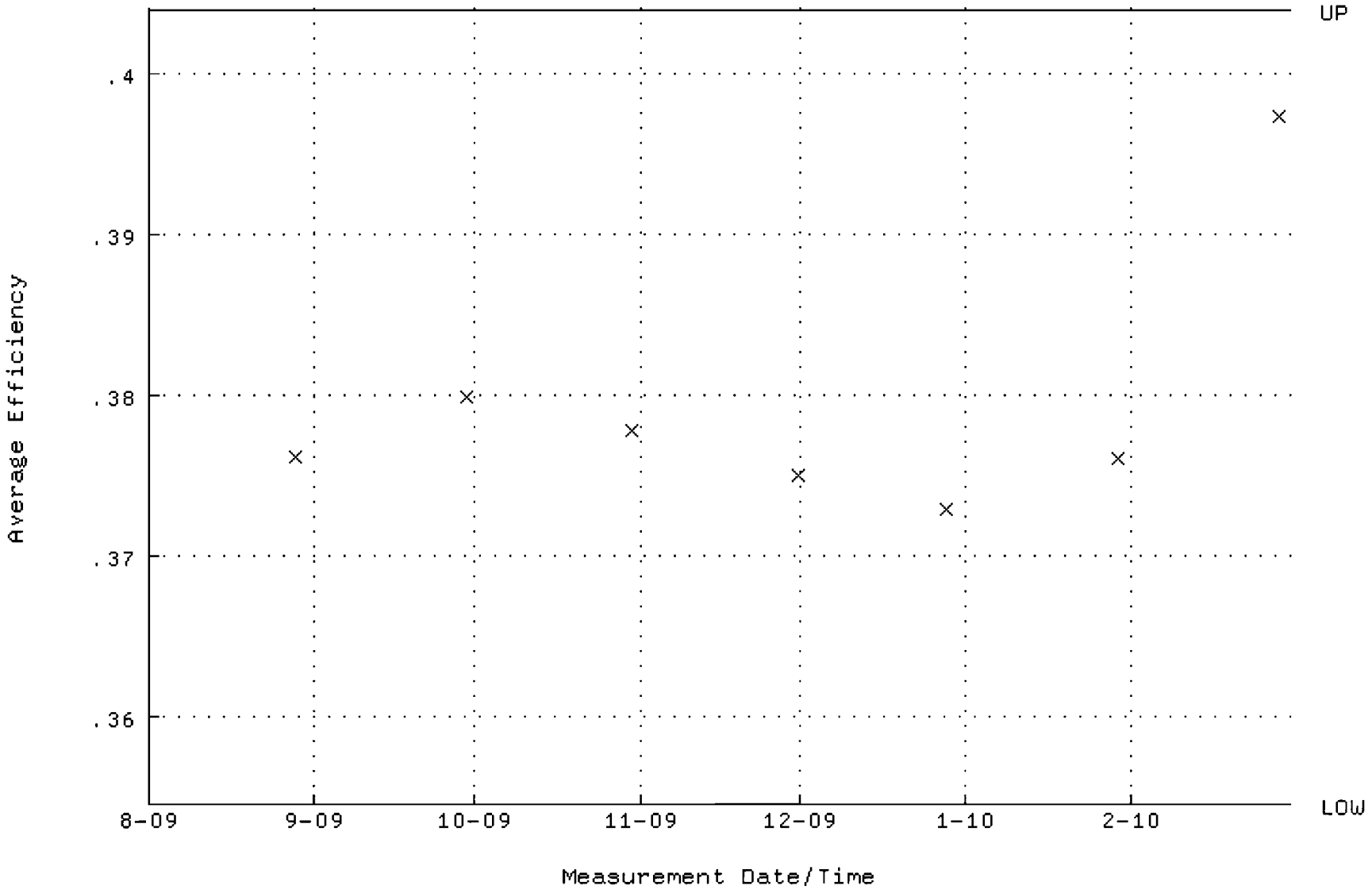

QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:27 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 85.0275 through 96.2669

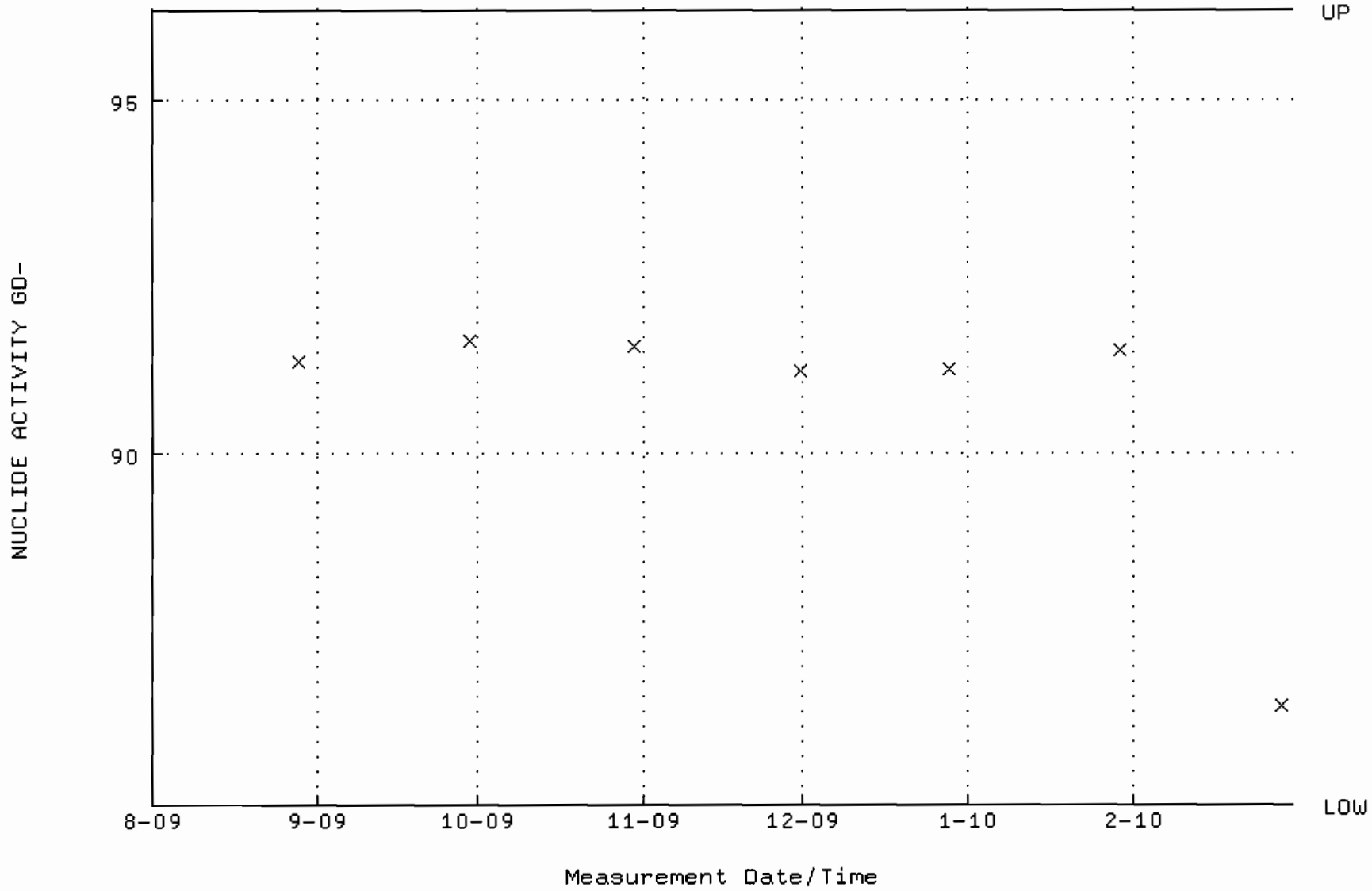

QA filename : DKA100:[ENV_ALPHA.QA.B]B221.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:01 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

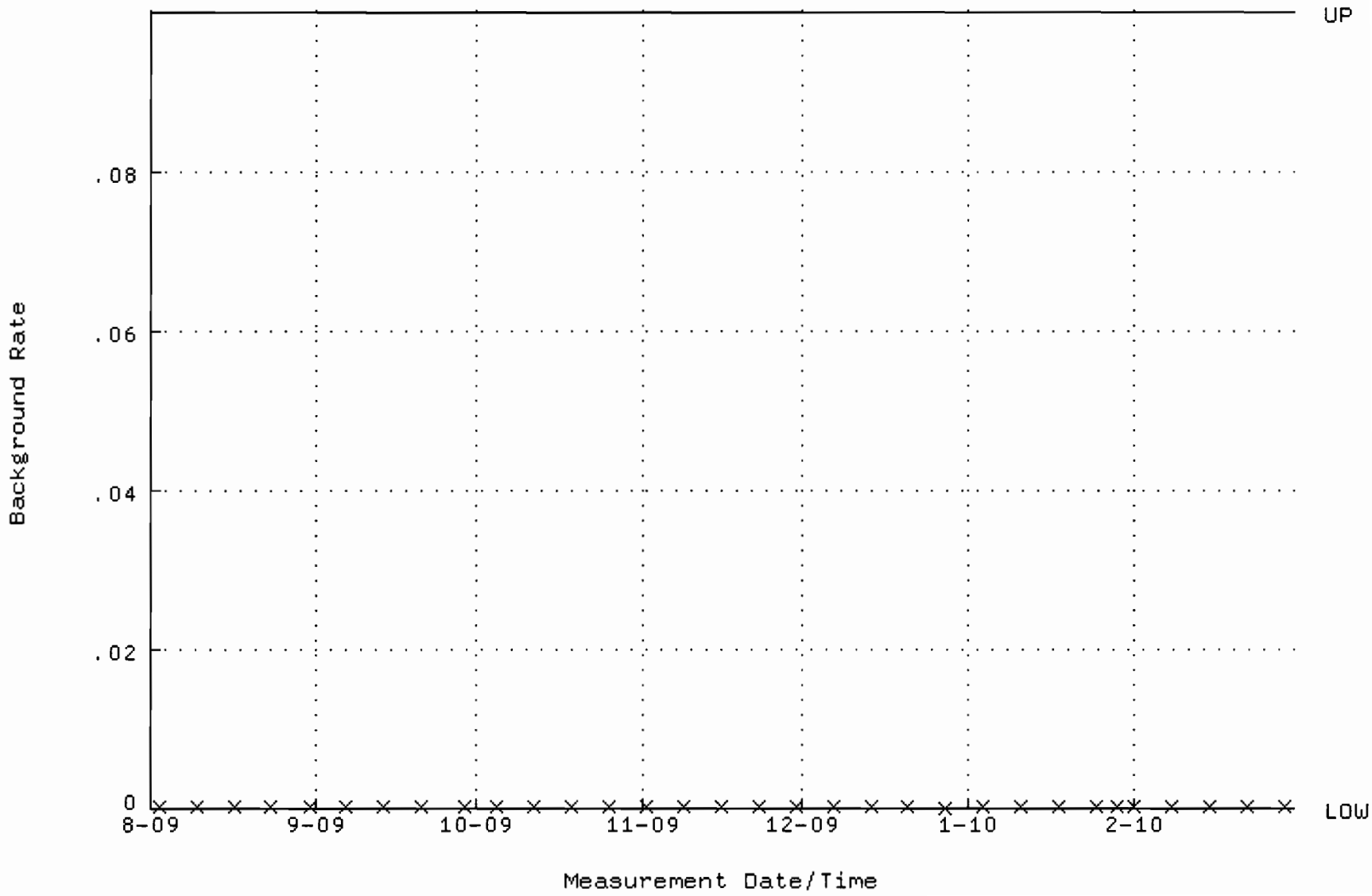

QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:32 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.325585 through 0.400497

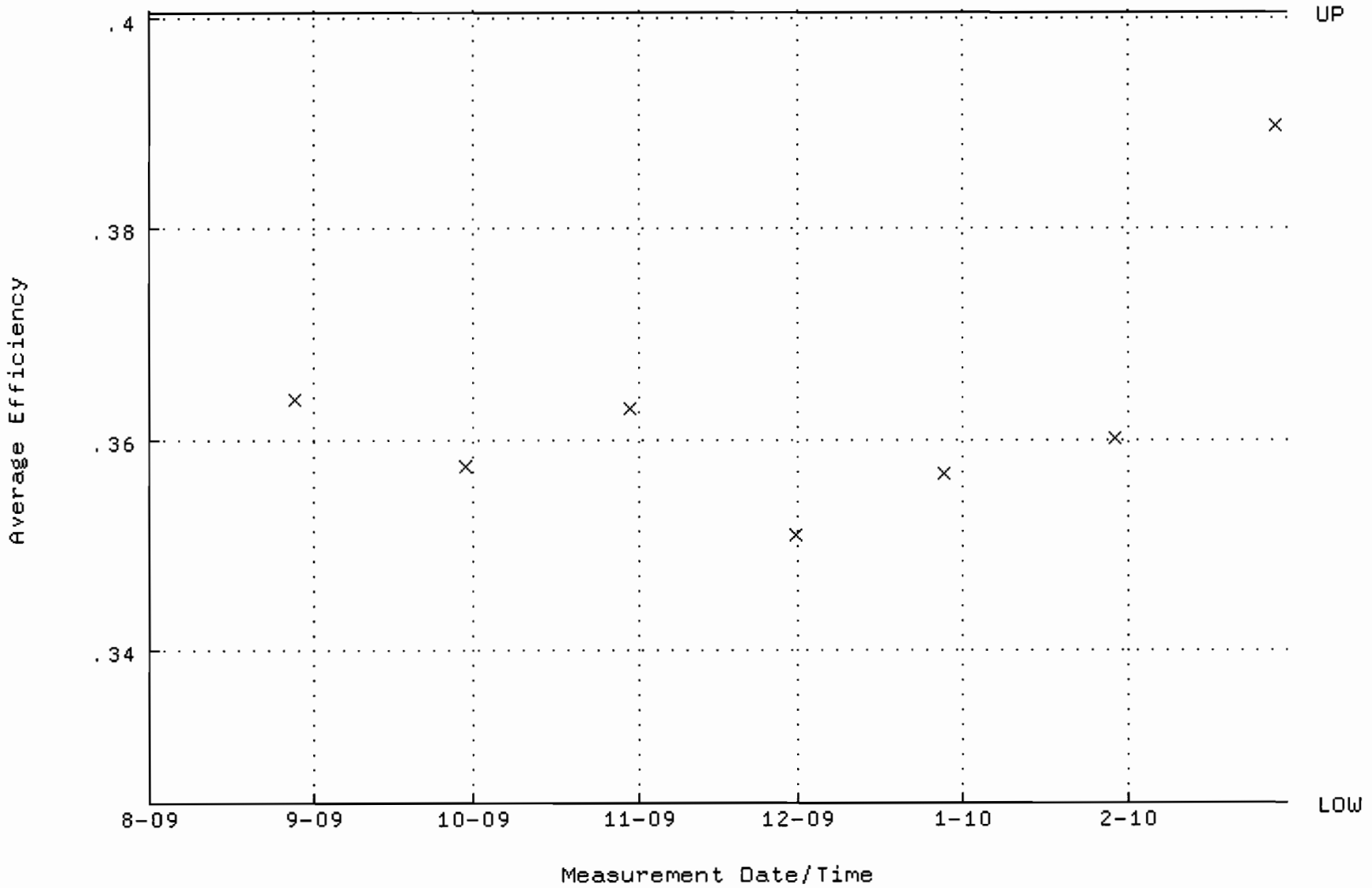

QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:32 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 81.6821 through 94.0551

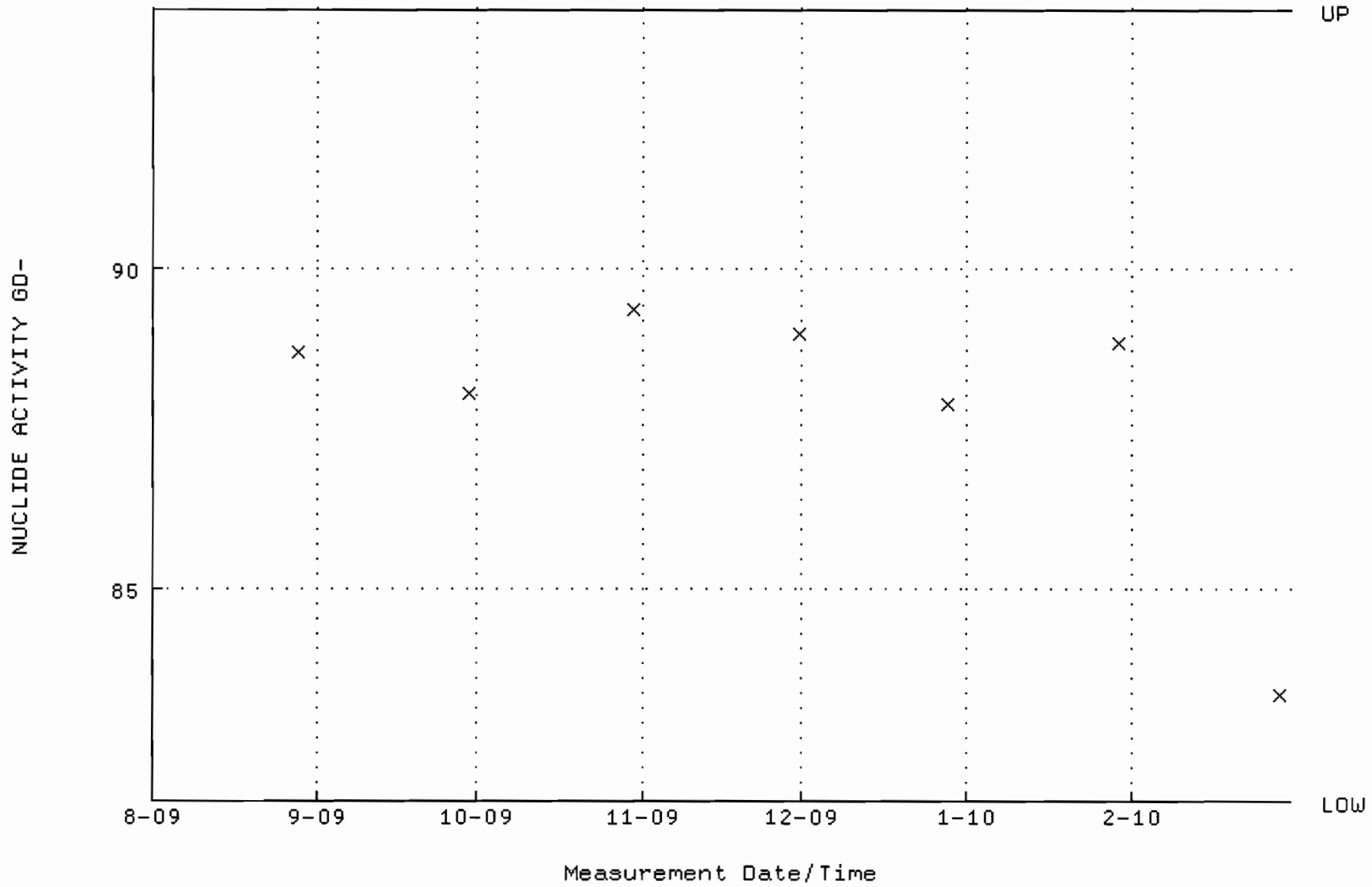

QA filename : DKA100:[ENV_ALPHA.QA.B]B222.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:05 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

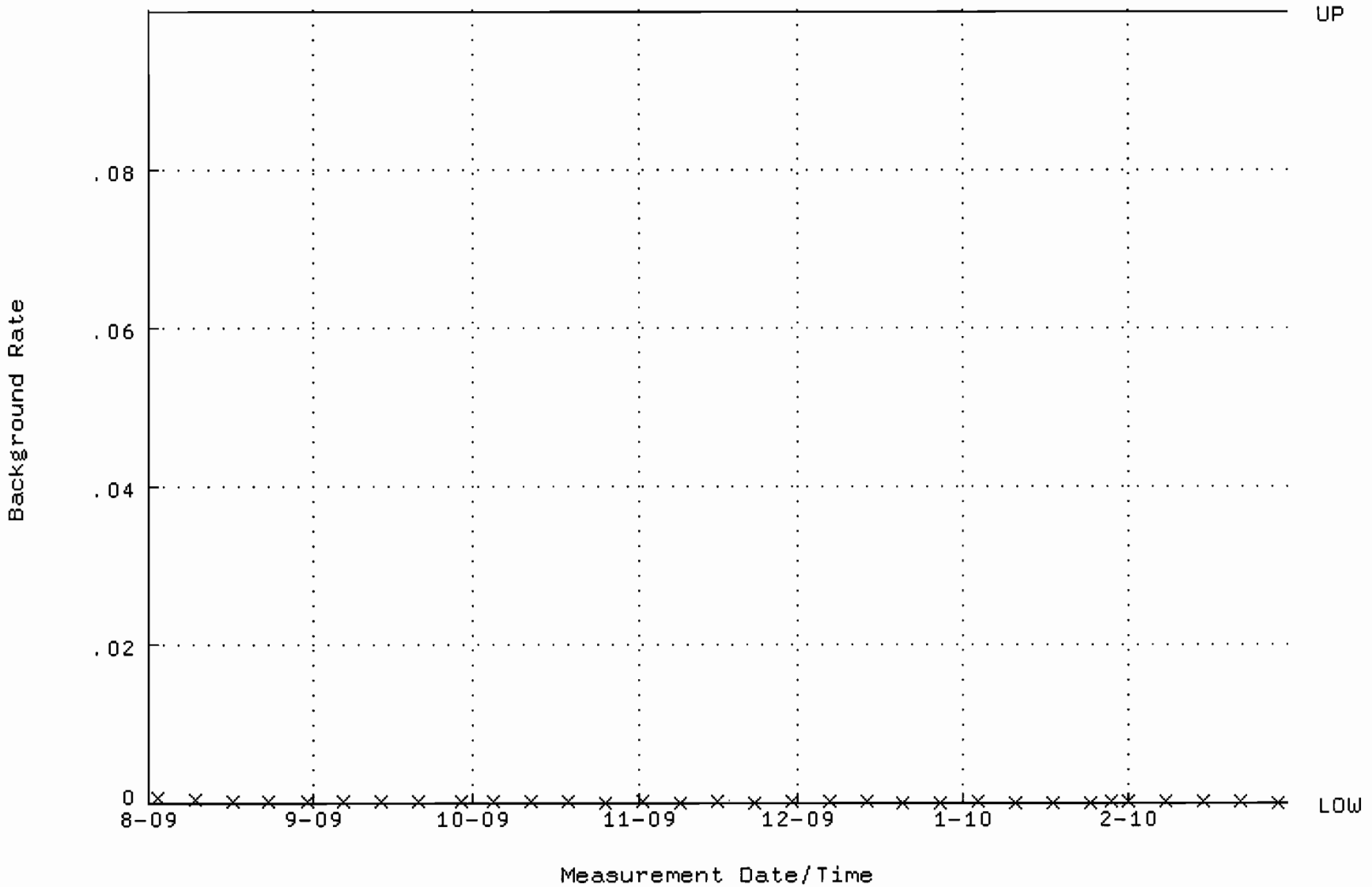

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:57 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.357039 through 0.394215

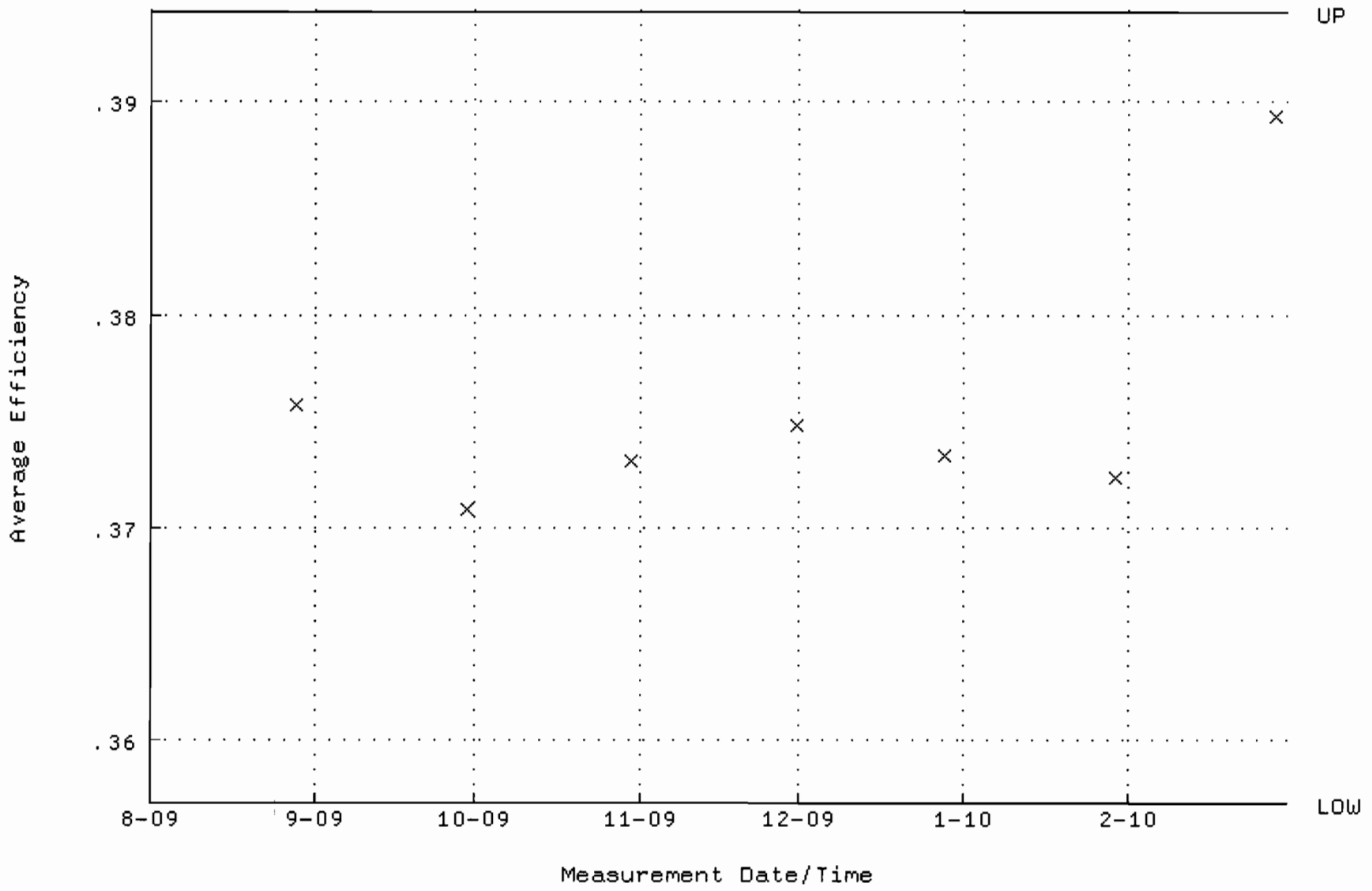

QA filename : DKA100:[ENV_ALPHA.QA.W]W226.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:57 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 86.7273 through 95.1093

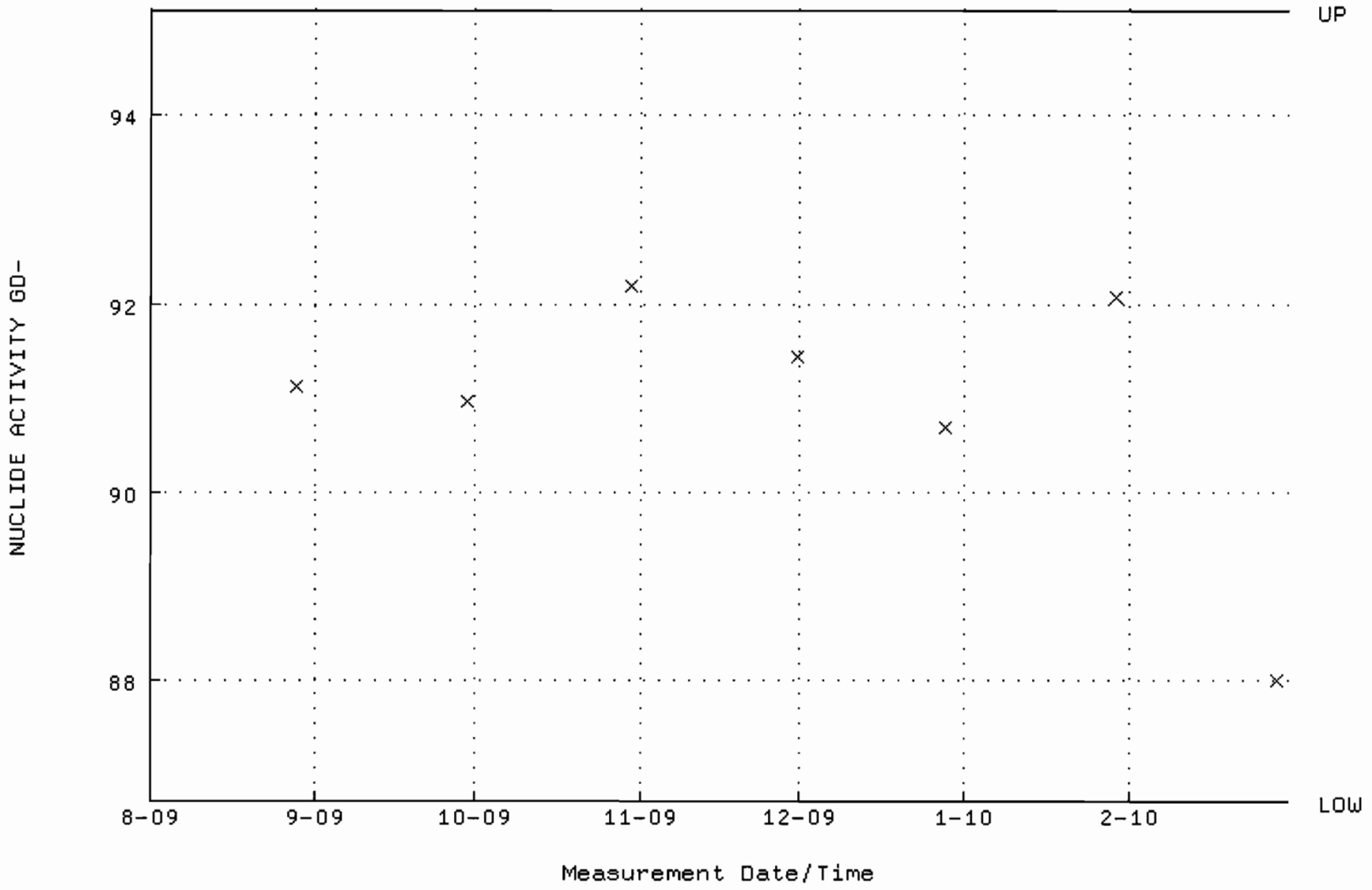

QA filename : DKA100:[ENV_ALPHA.QA.B]B226.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:20 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

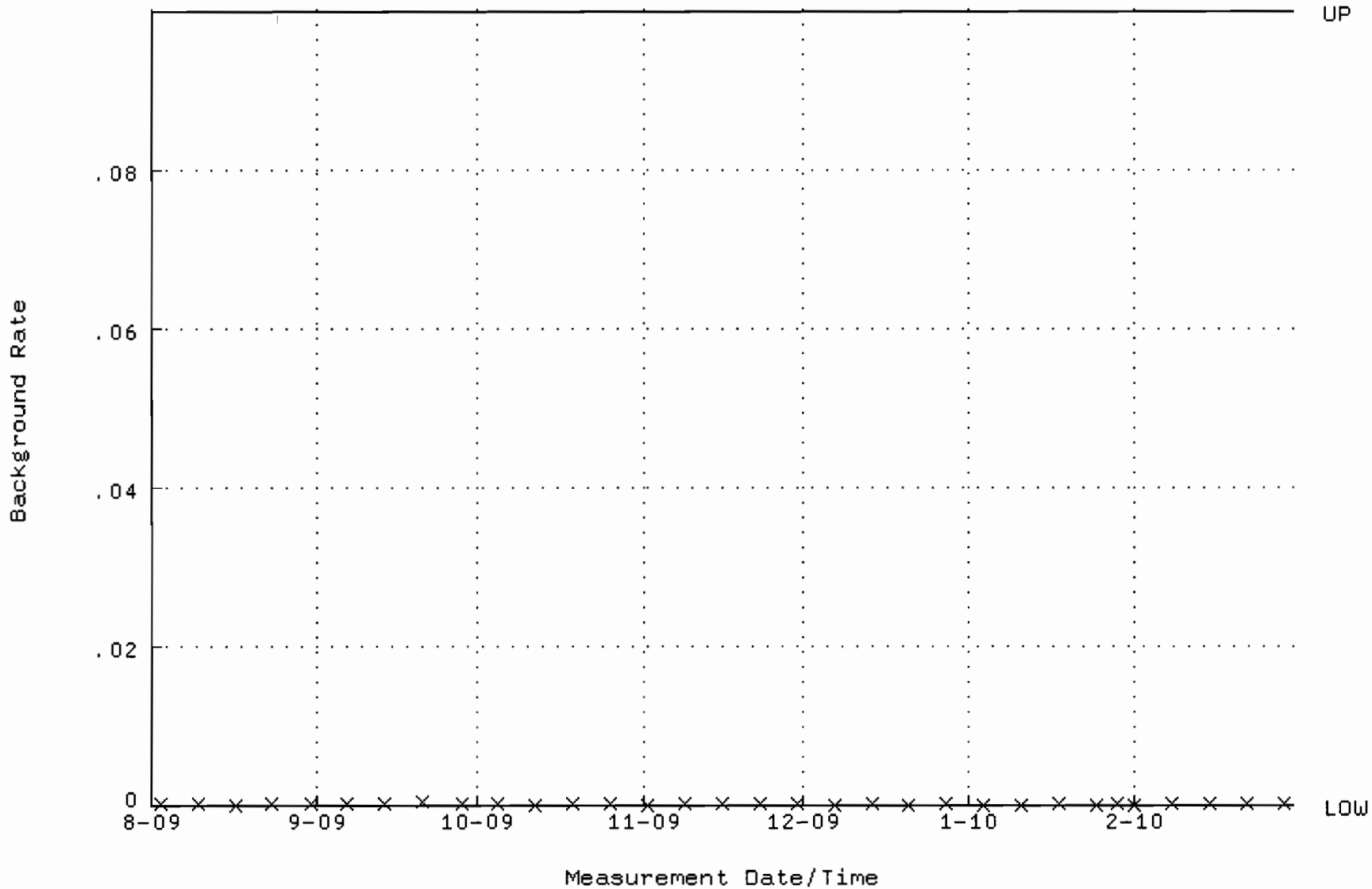

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:03 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.379260 through 0.392050

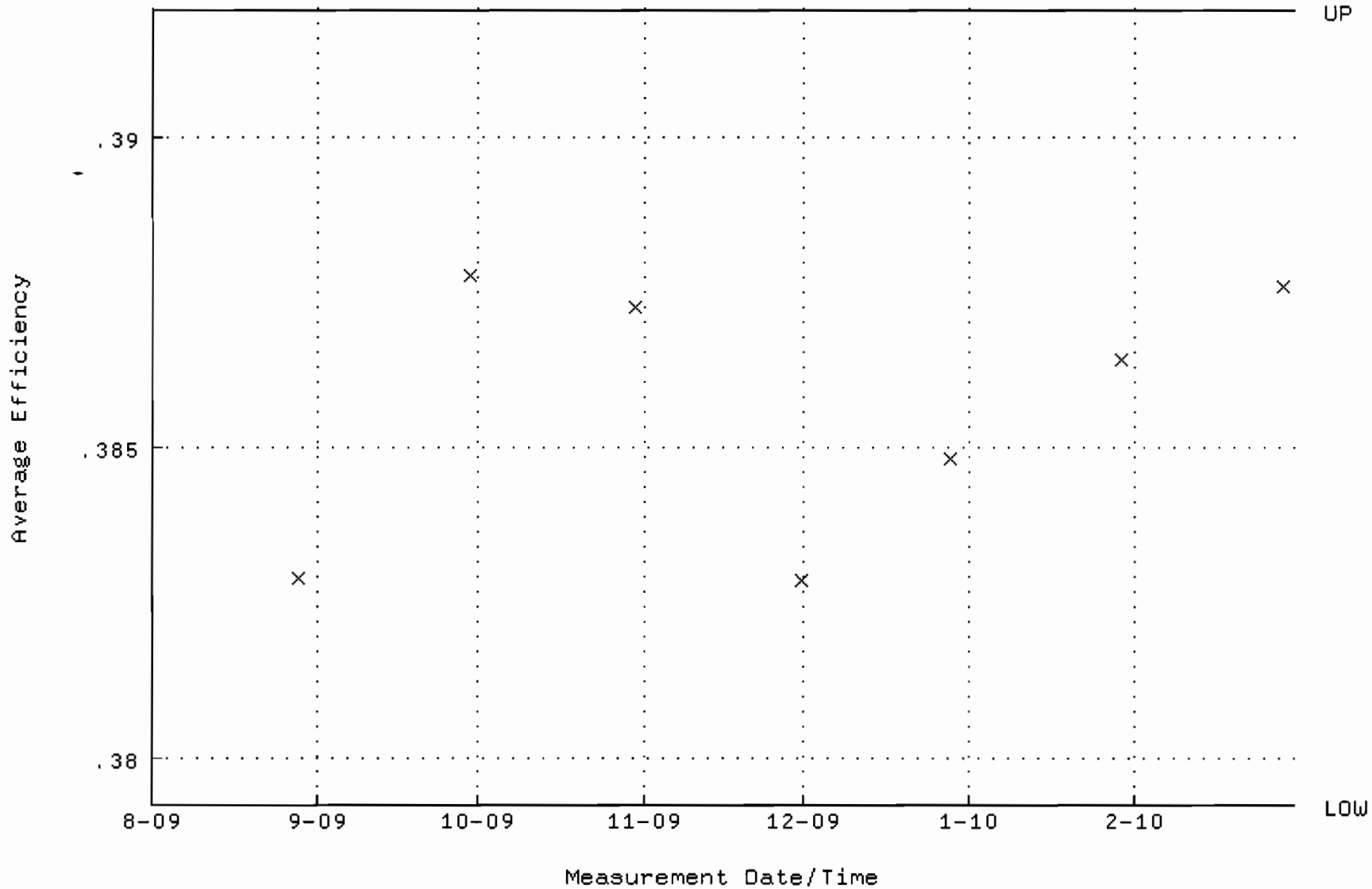

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:03 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 88.9145 through 89.8637

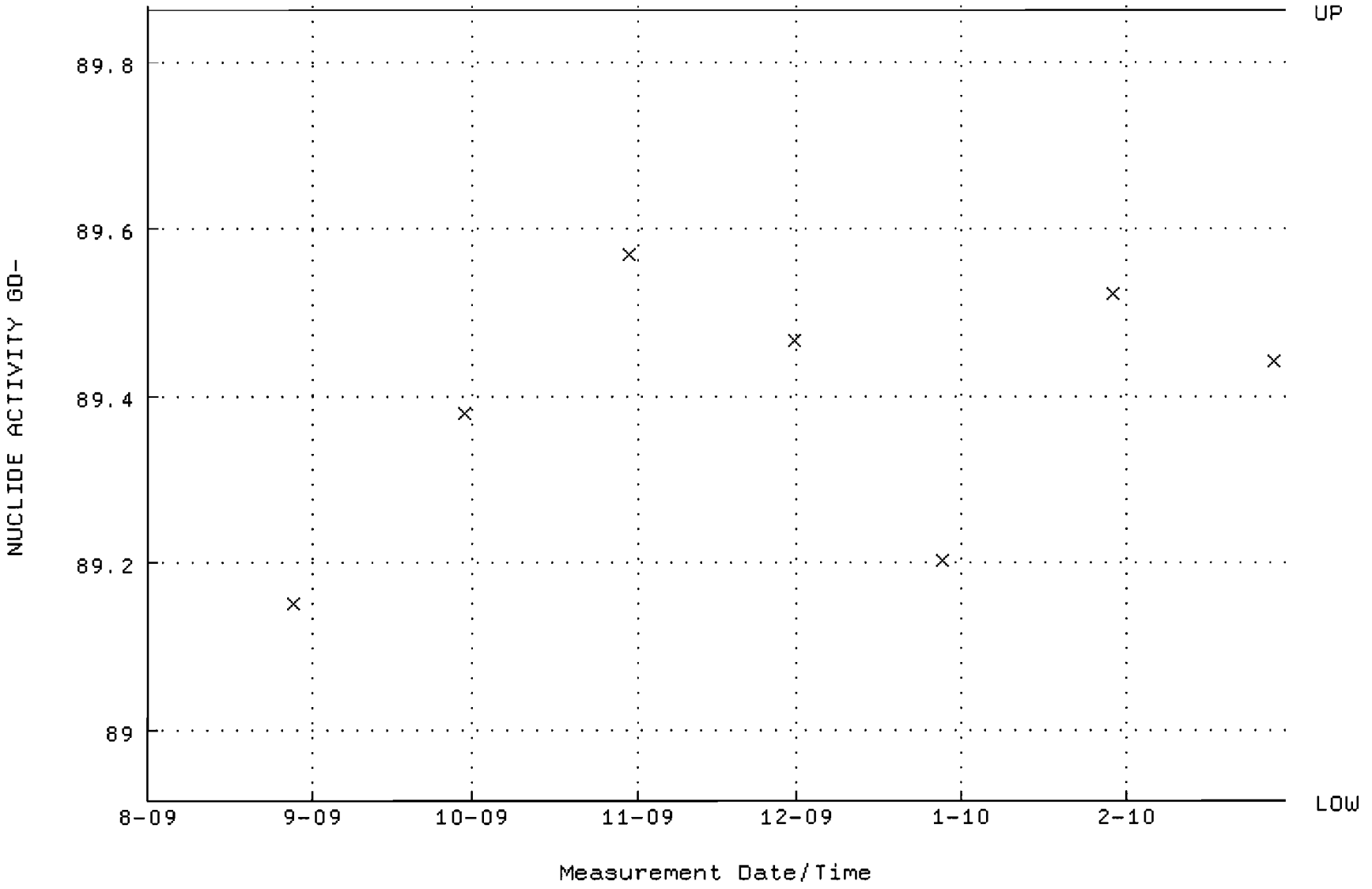

QA filename : DKA100:[ENV_ALPHA.QA.B]B227.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:24 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

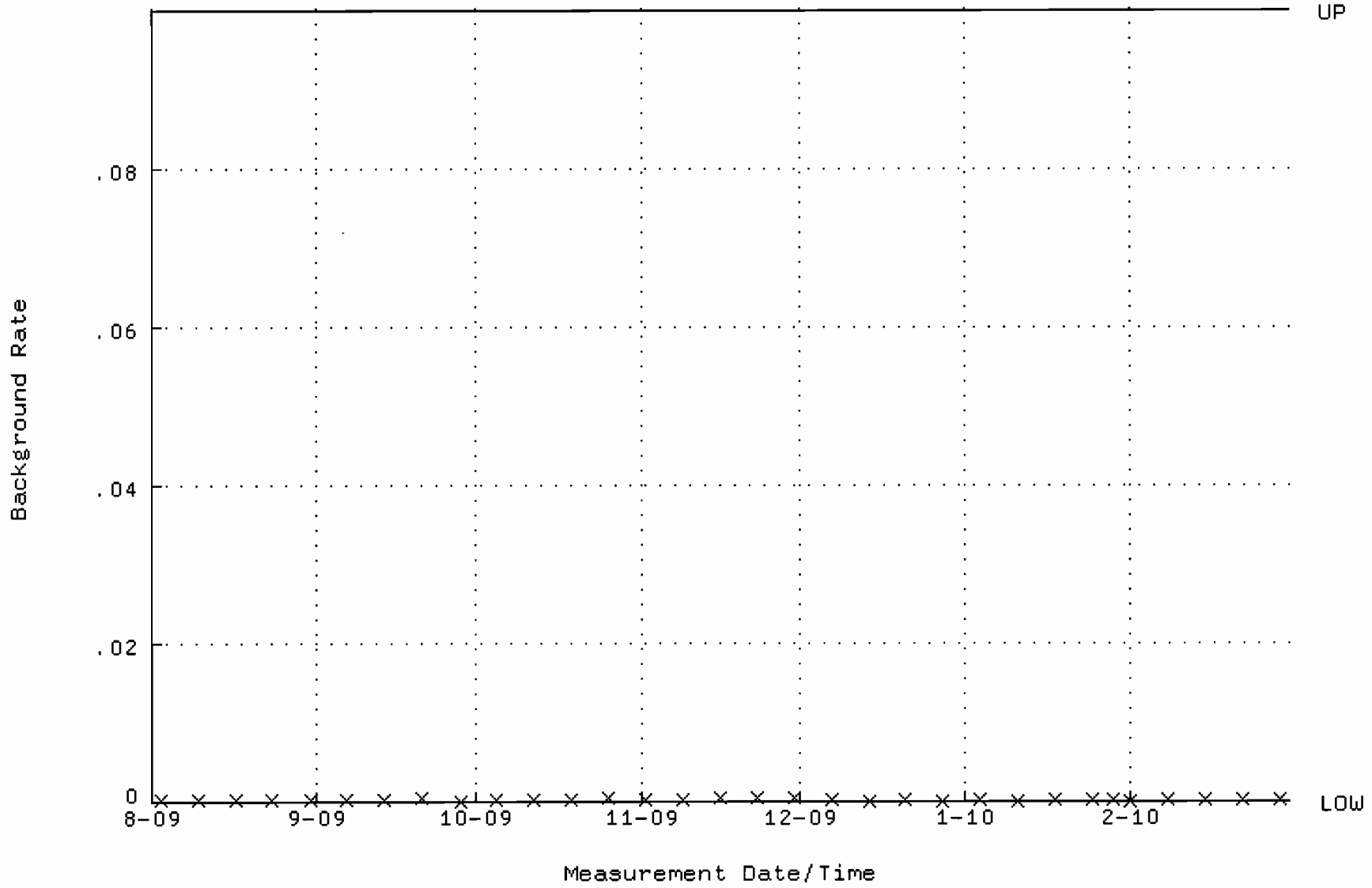

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:10 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.359272 through 0.386096

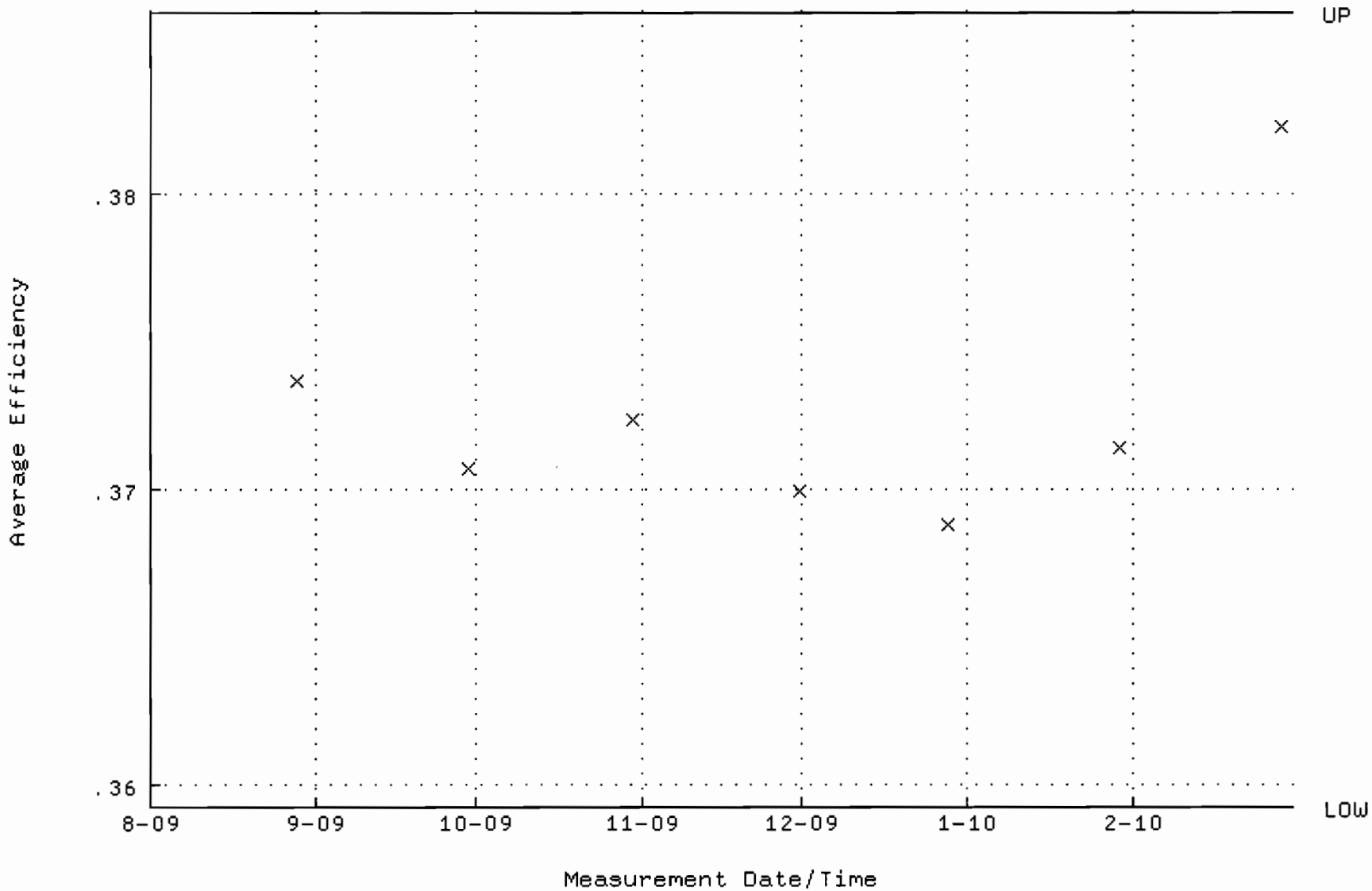

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:10 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 87.8750 through 94.5380

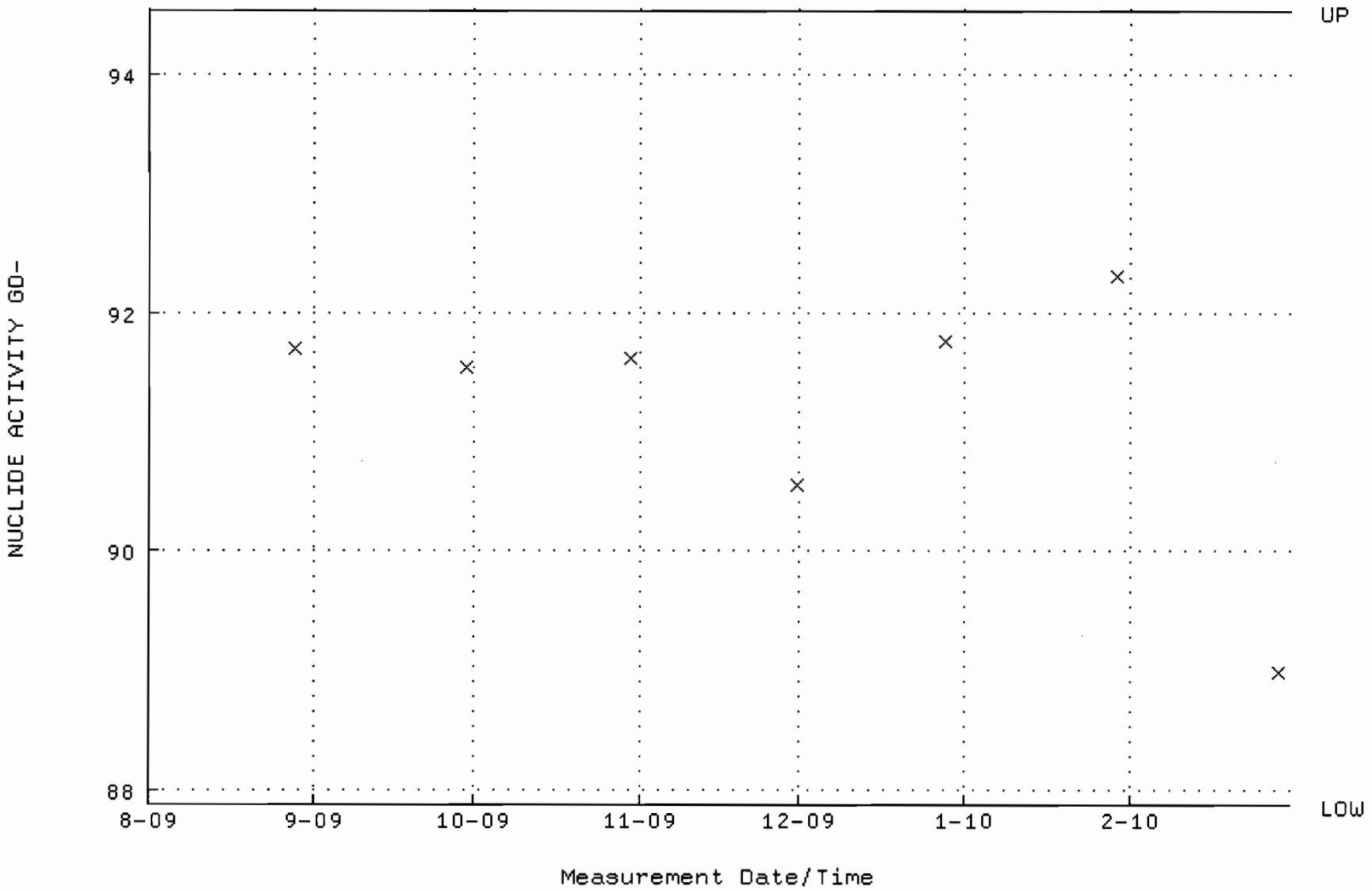

QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:29 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

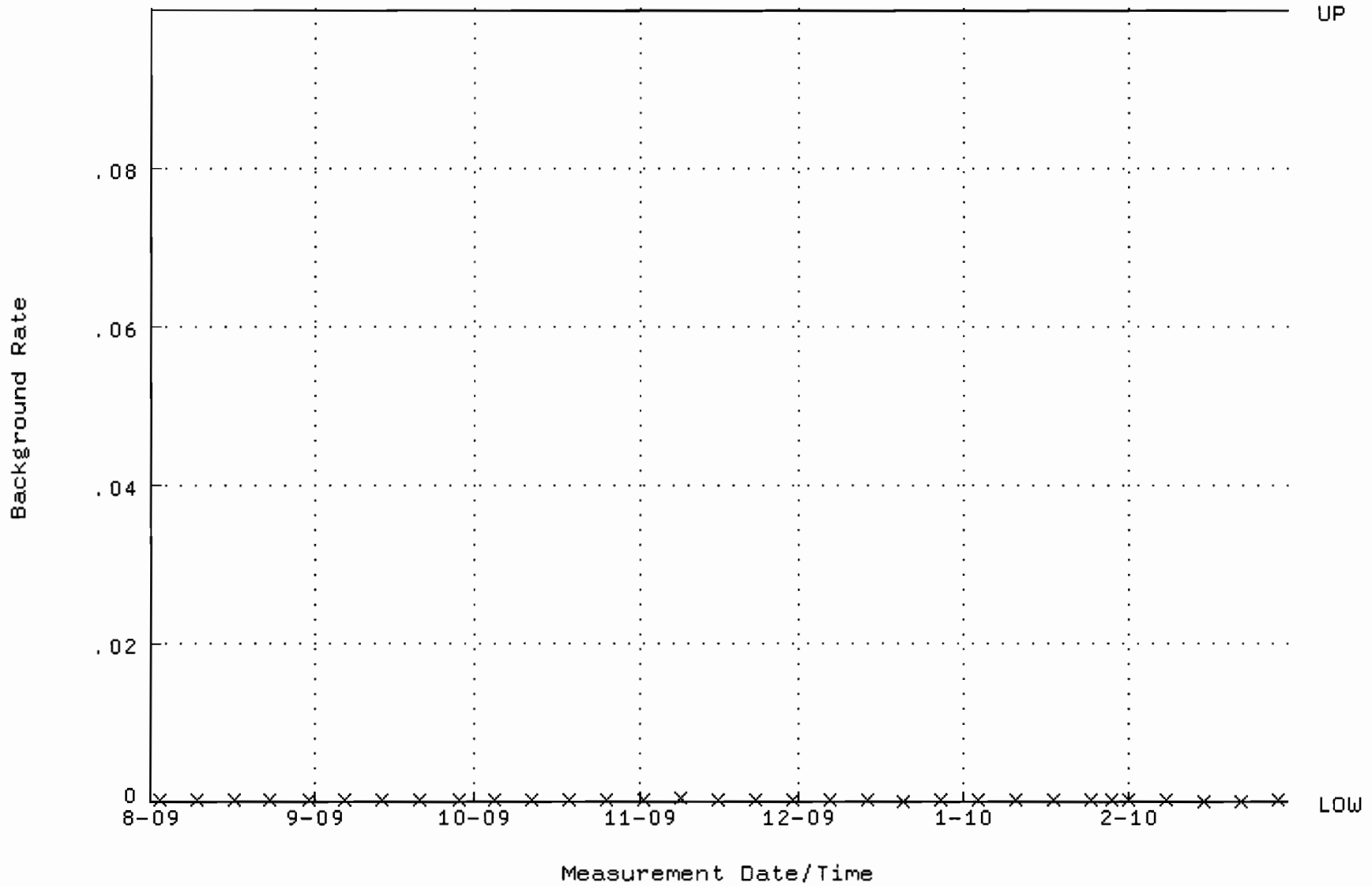

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:15 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.360663 through 0.390815

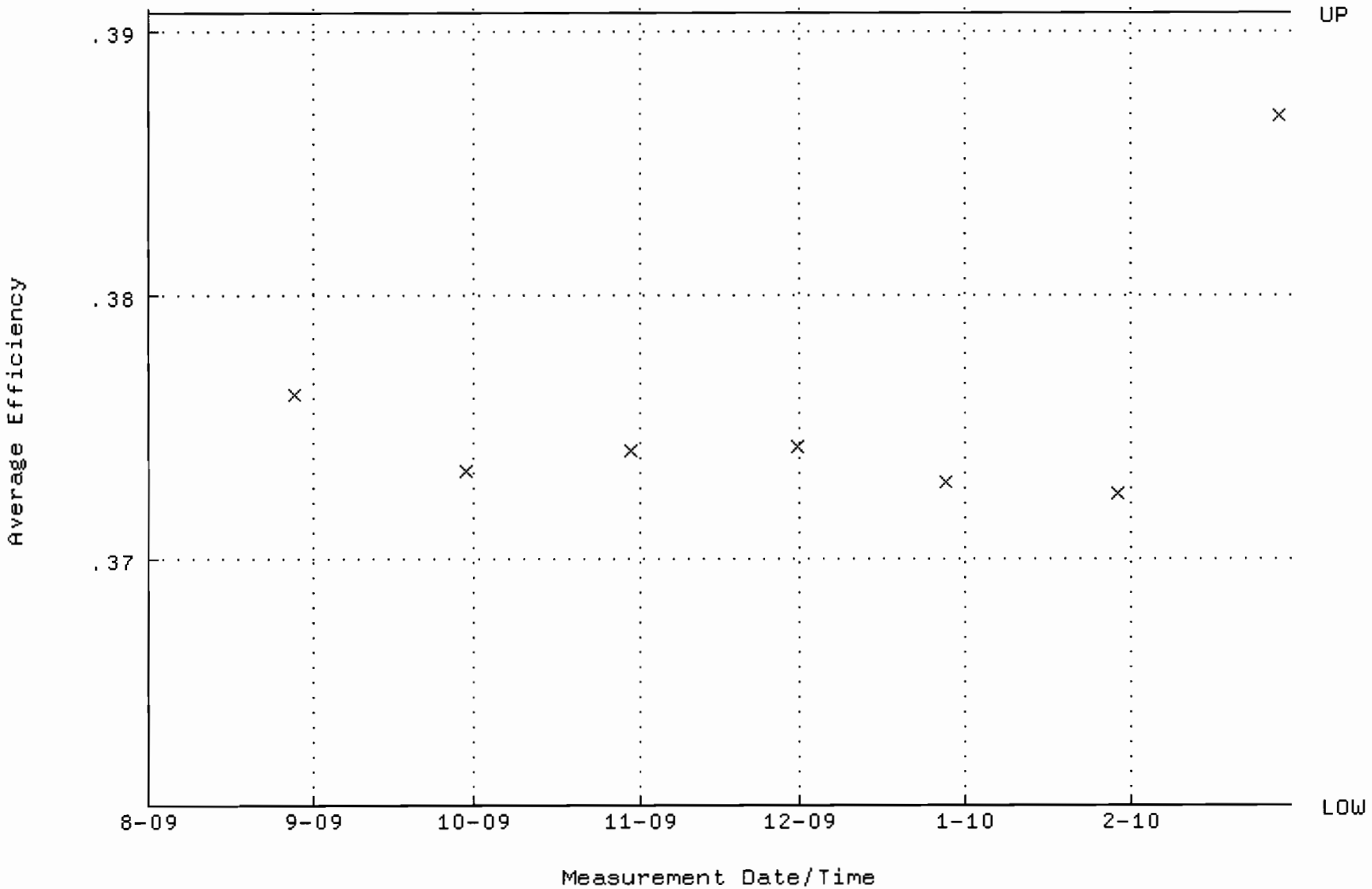

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:15 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 87.5648 through 97.3078

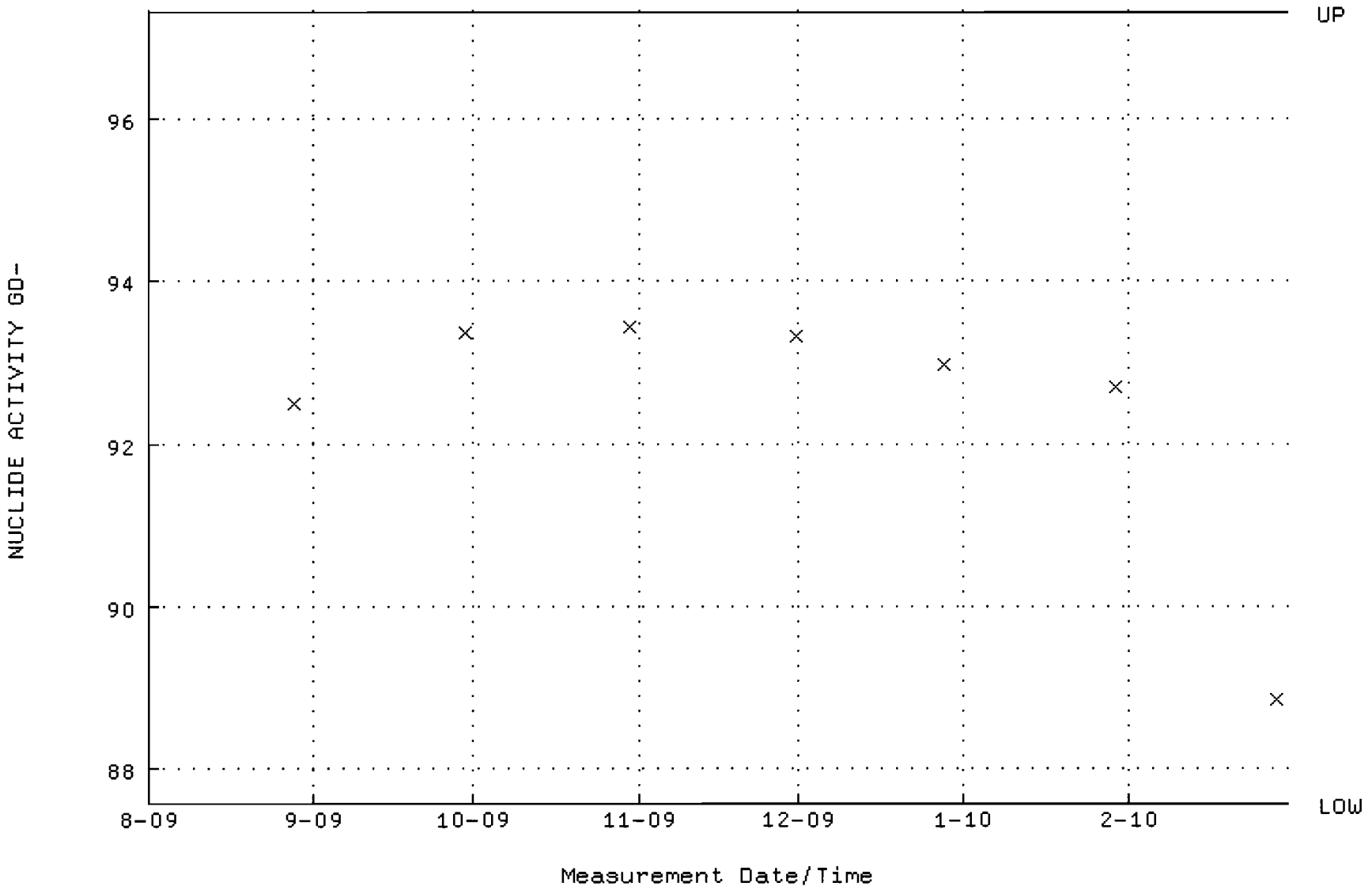

QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:34 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

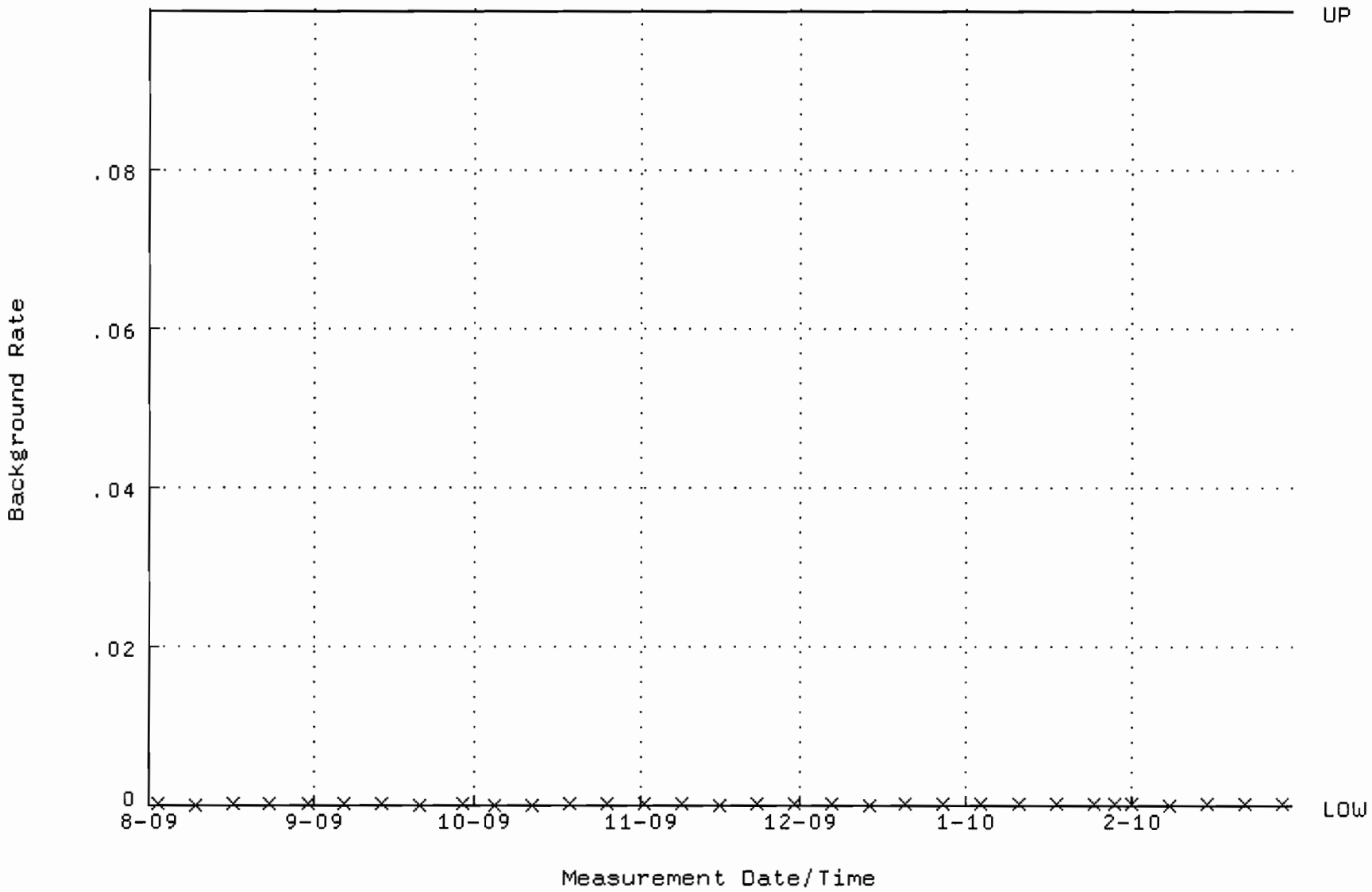

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:19 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.369716 through 0.384082

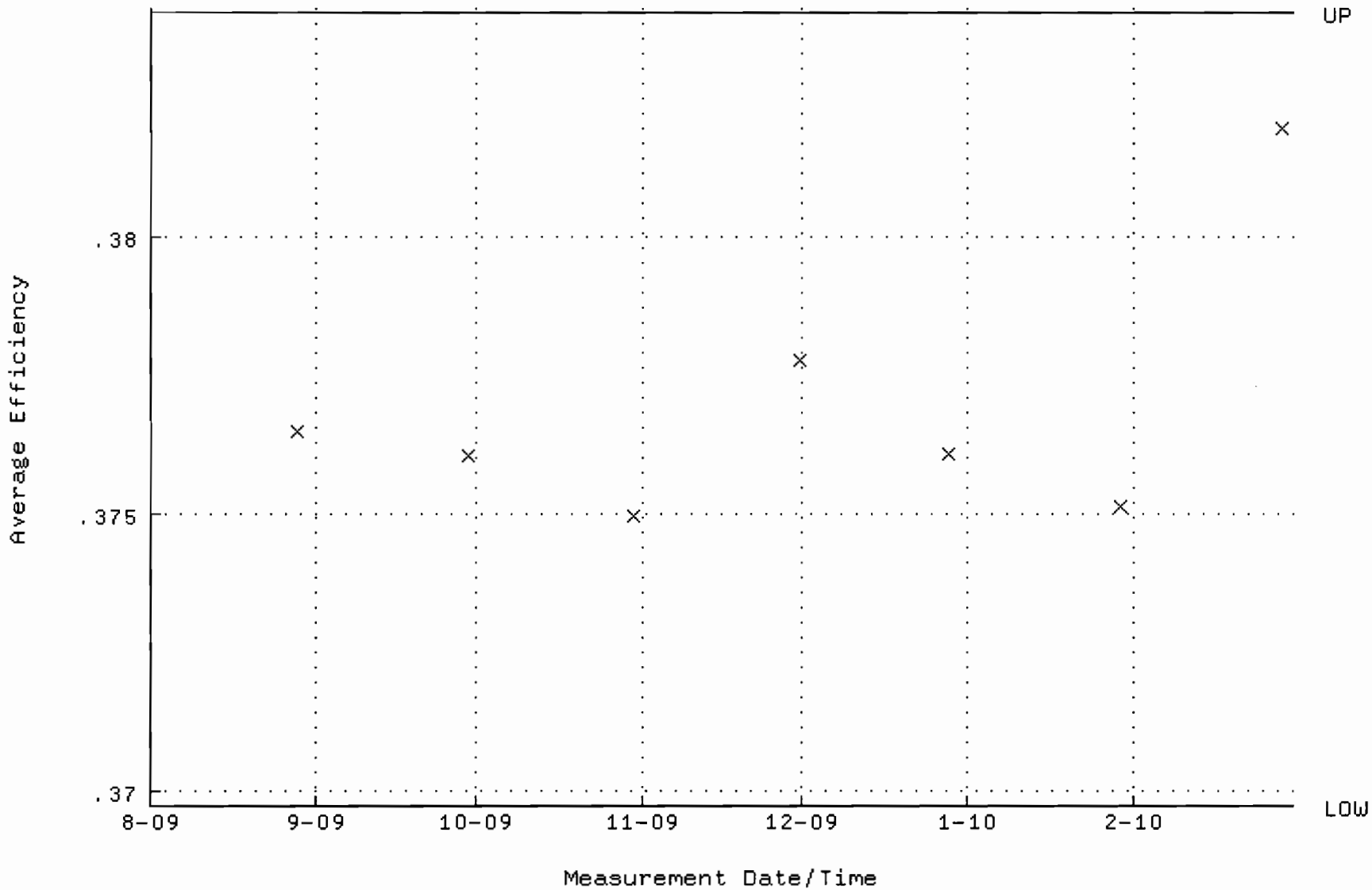

QA filename : DKA100:[ENV_ALPHA.QA.W]W230.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:19 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 87.6979 through 93.1141

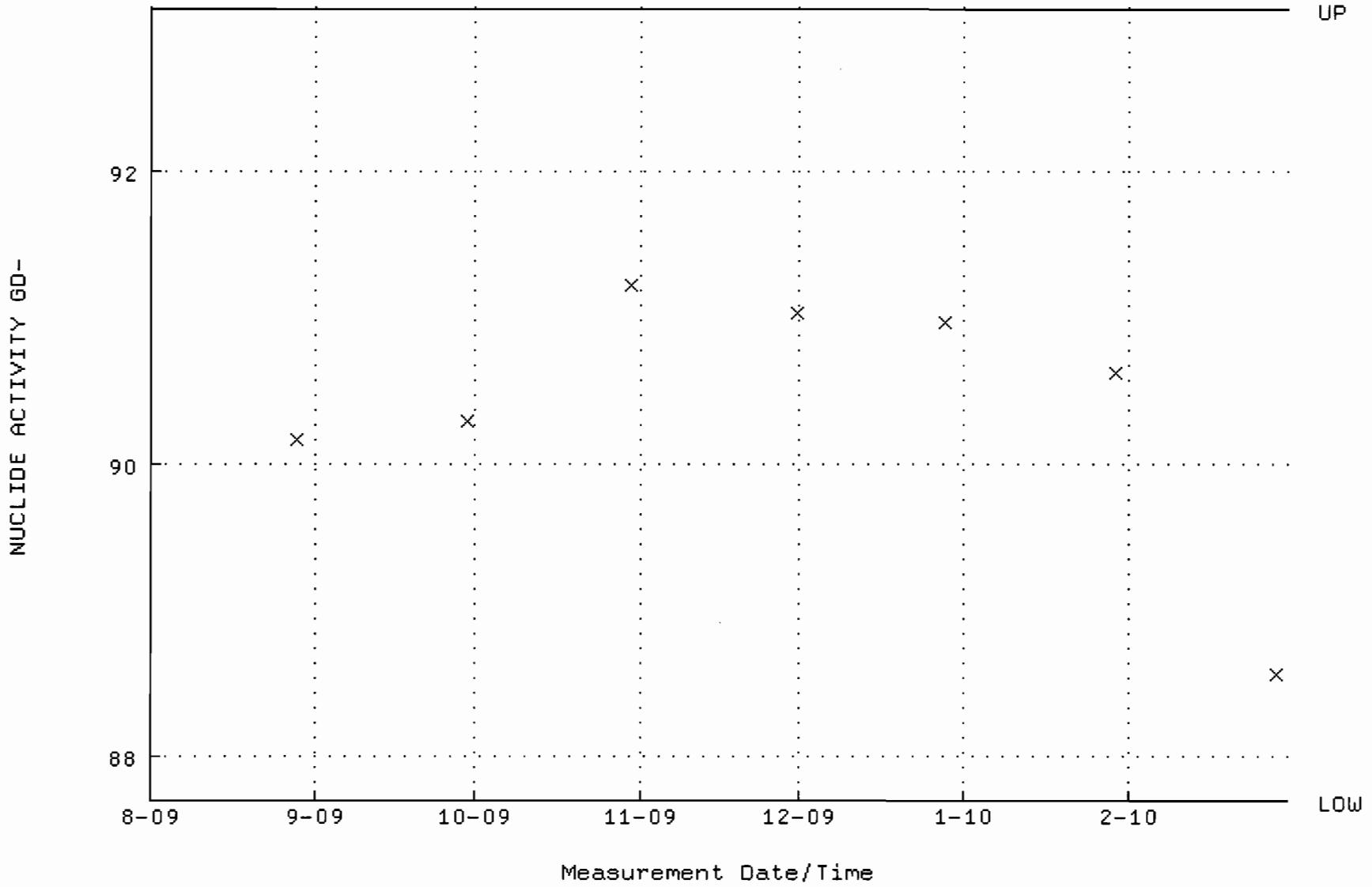

QA filename : DKA100:[ENV_ALPHA.QA.B]B230.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:38 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

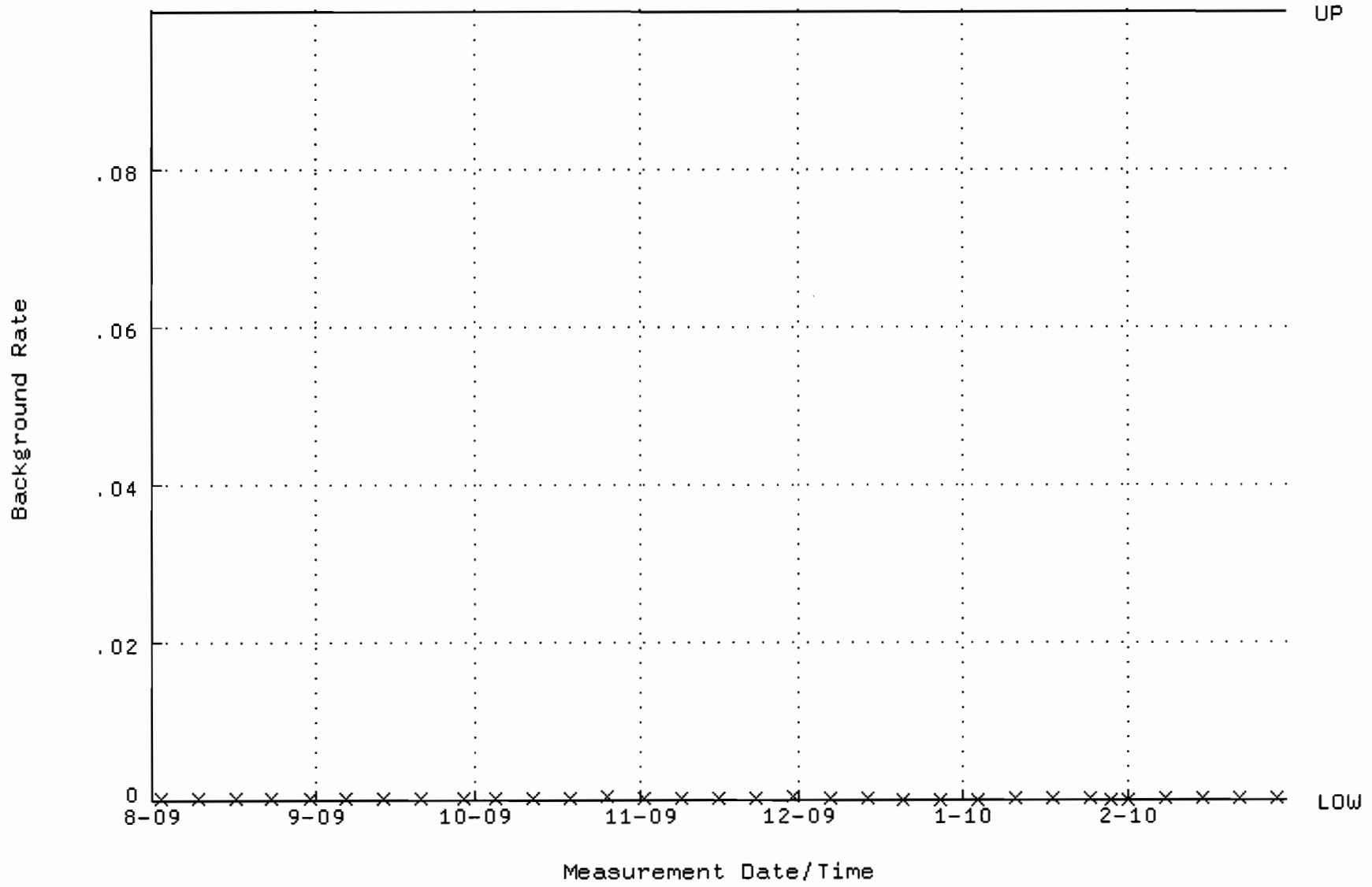

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:24 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.372352 through 0.409678

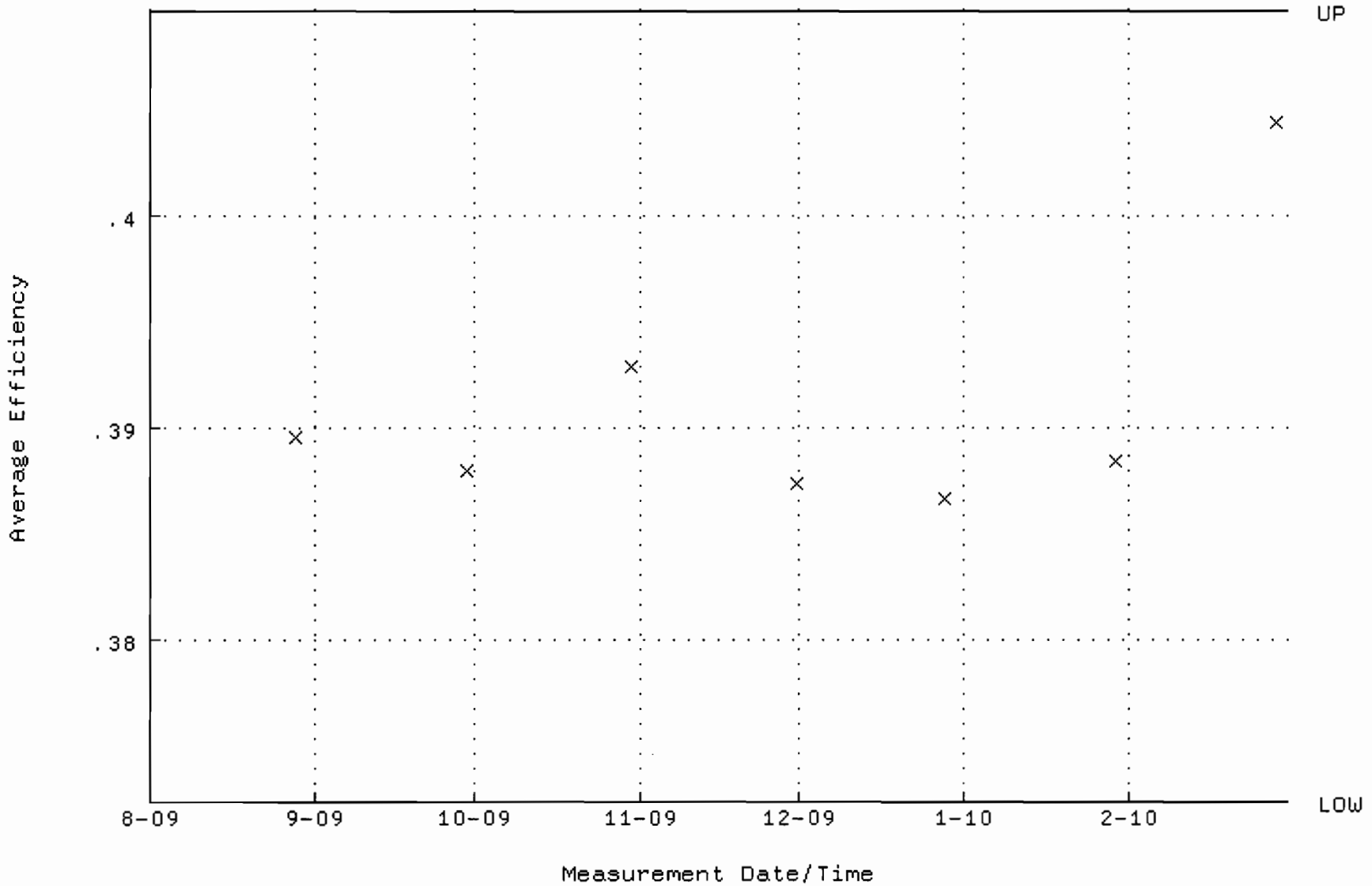

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:24 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.6949 through 95.5595

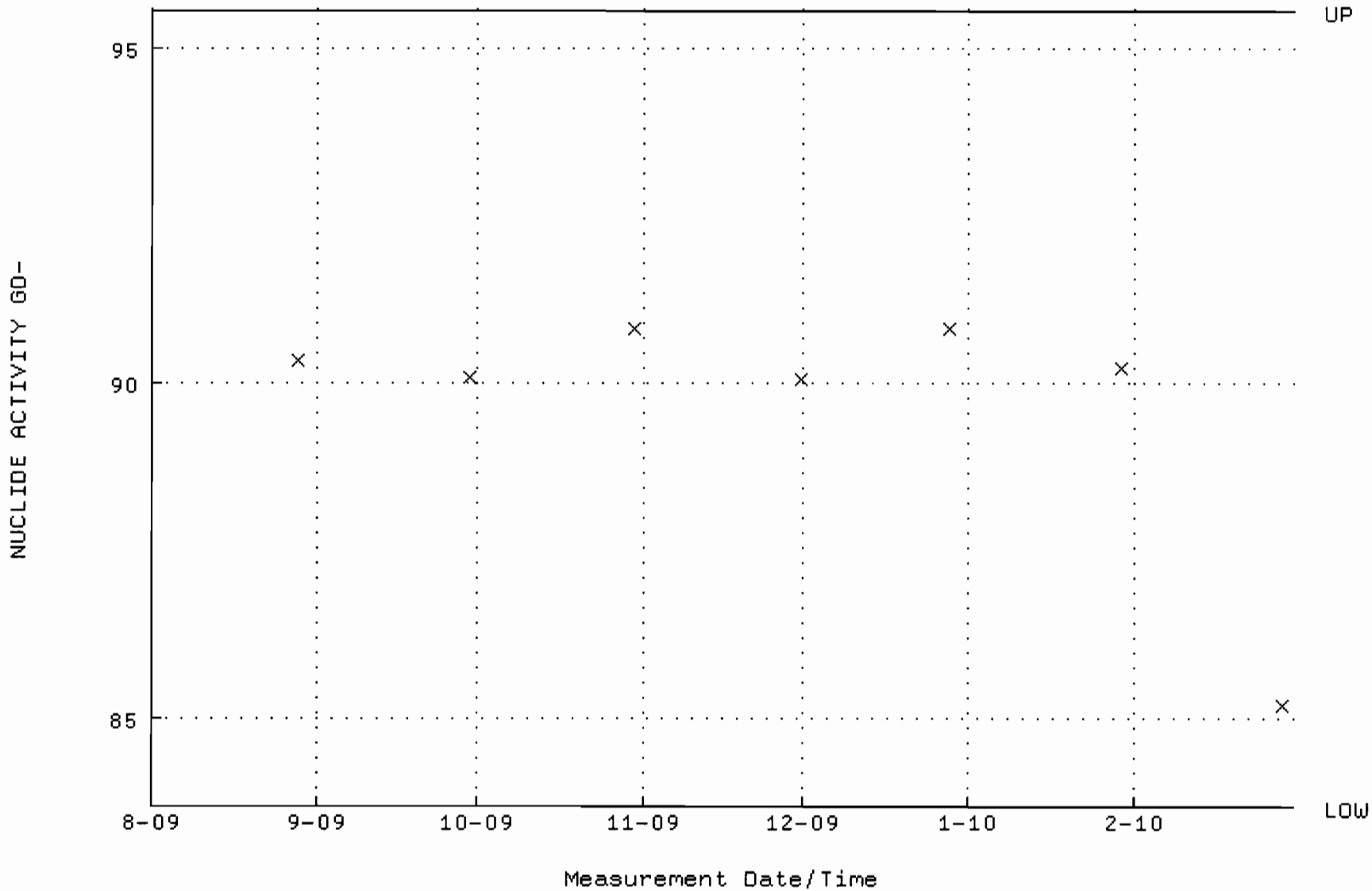

QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:43 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

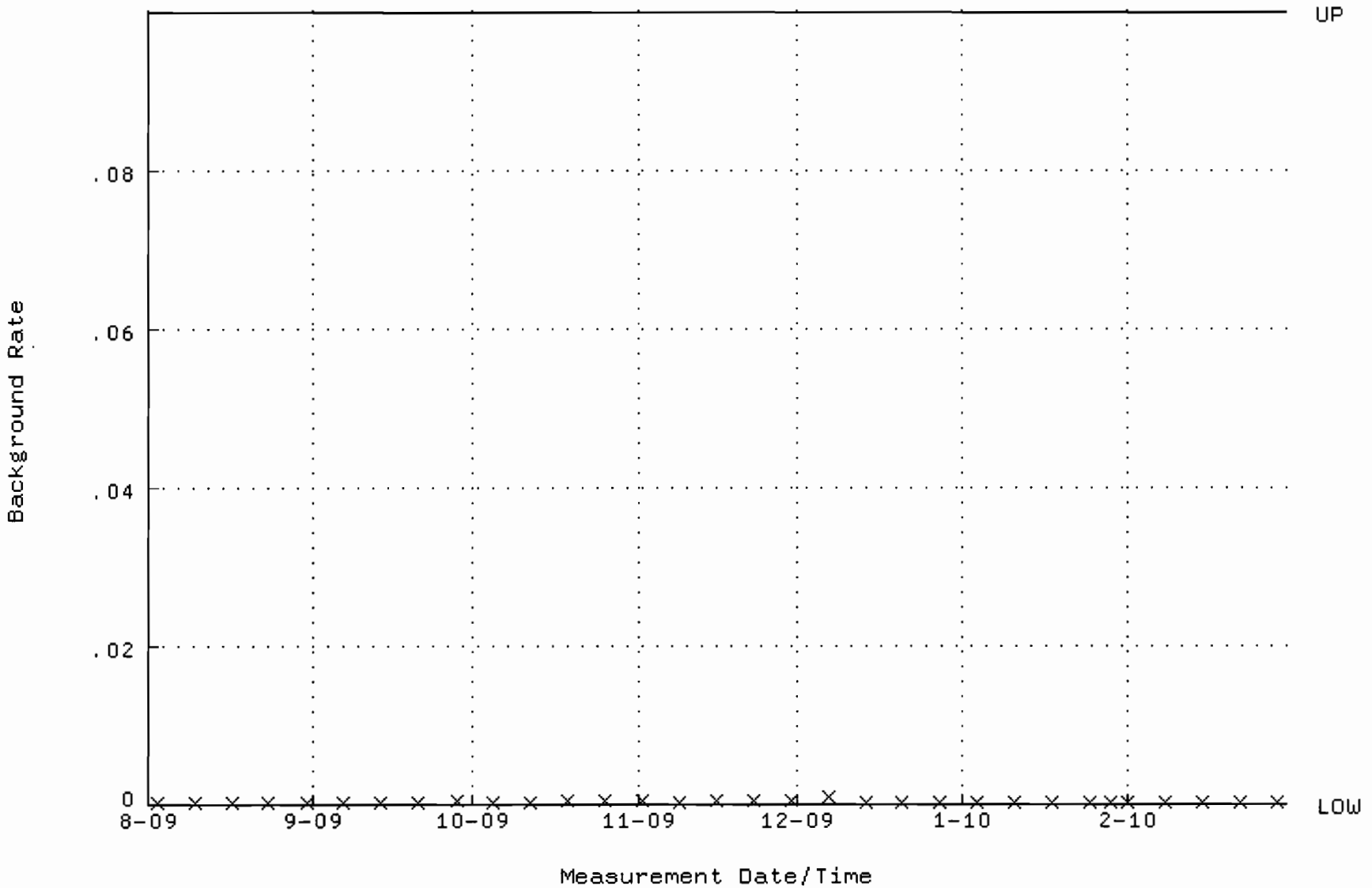

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 27-JUL-2009 11:49:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.372001 through 0.392001

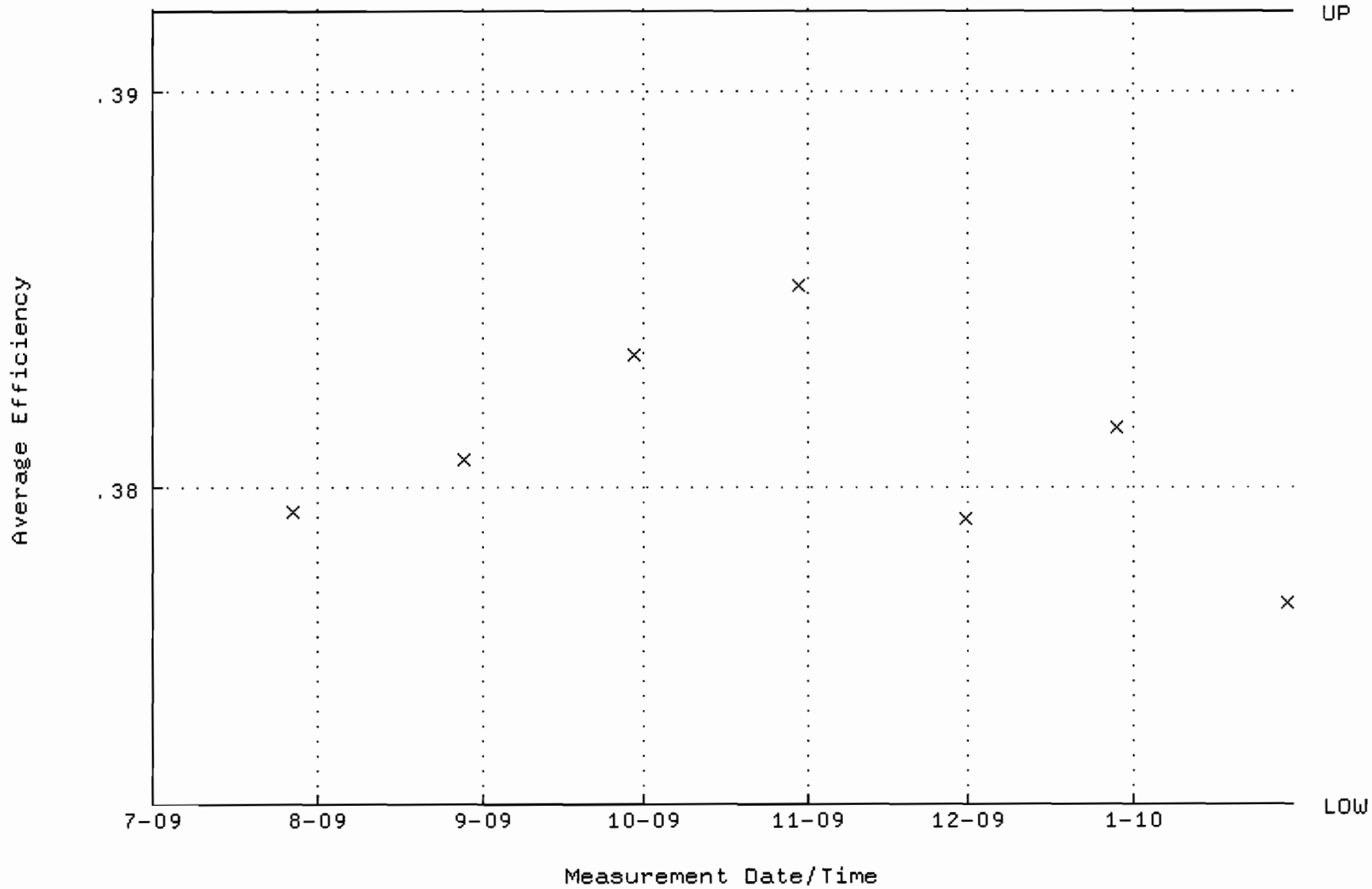

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 27-JUL-2009 11:49:48 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 82.9652 through 91.6984

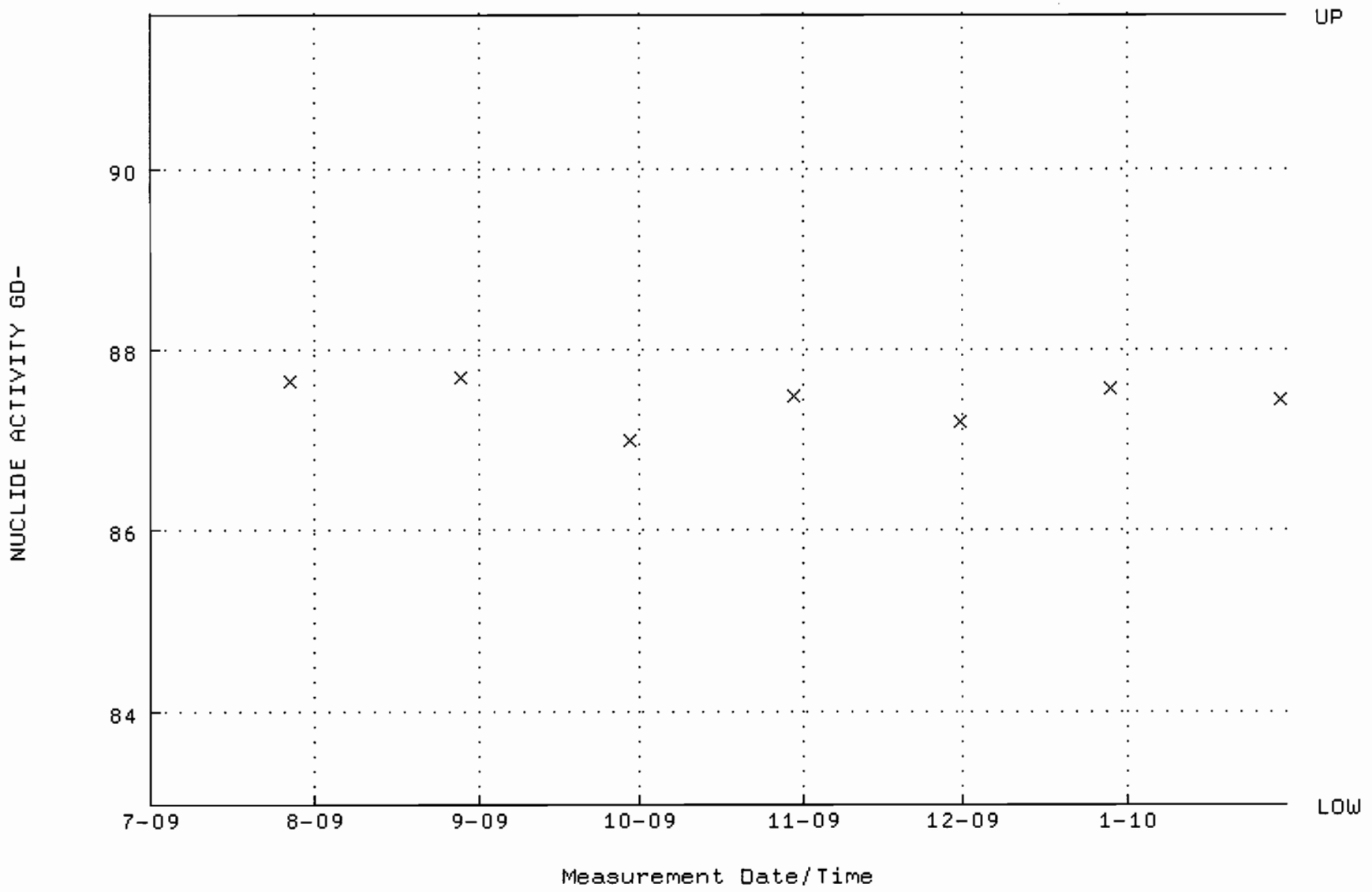

QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:05:10 through 30-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

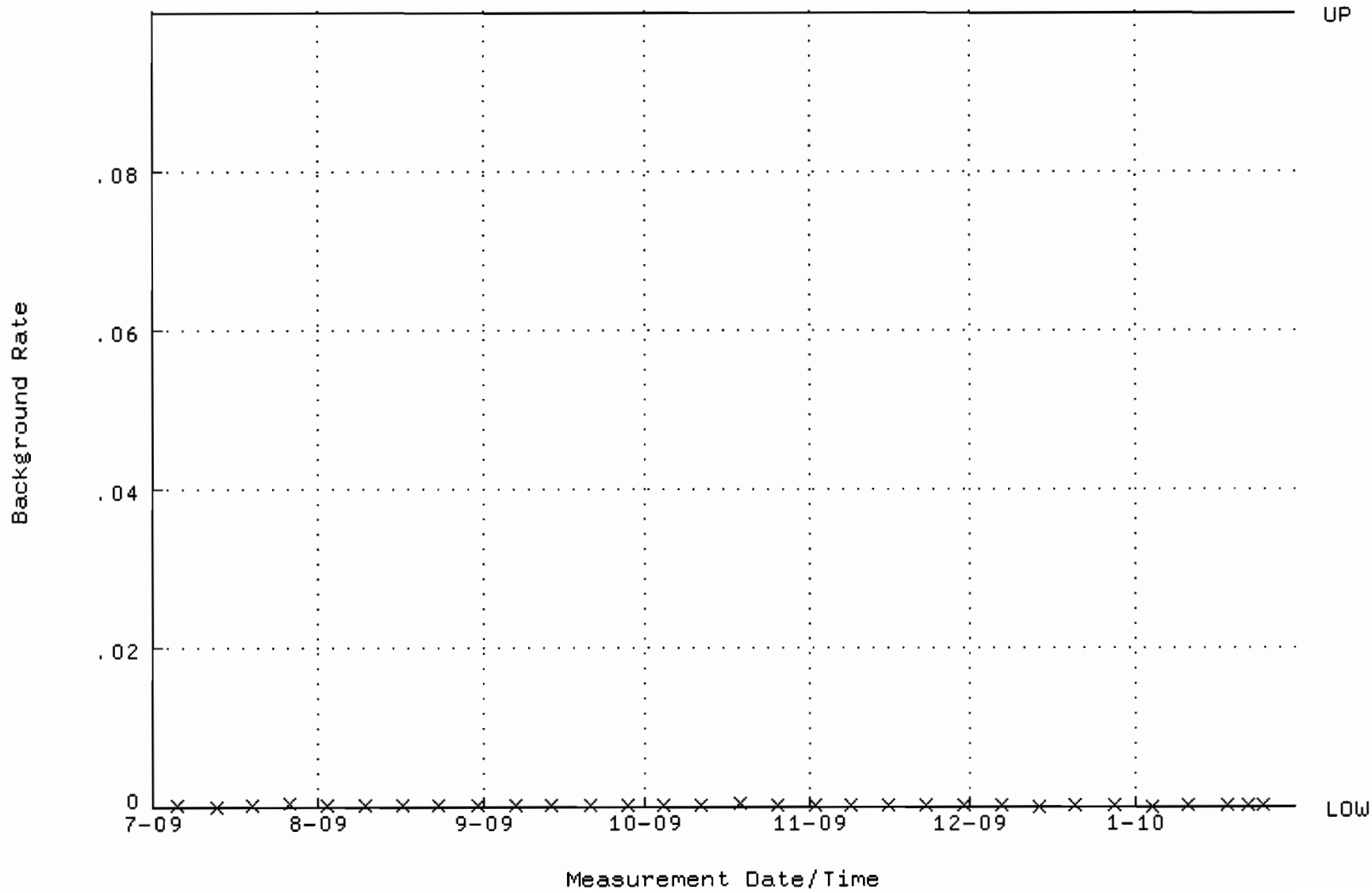

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:41 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.368938 through 0.401788

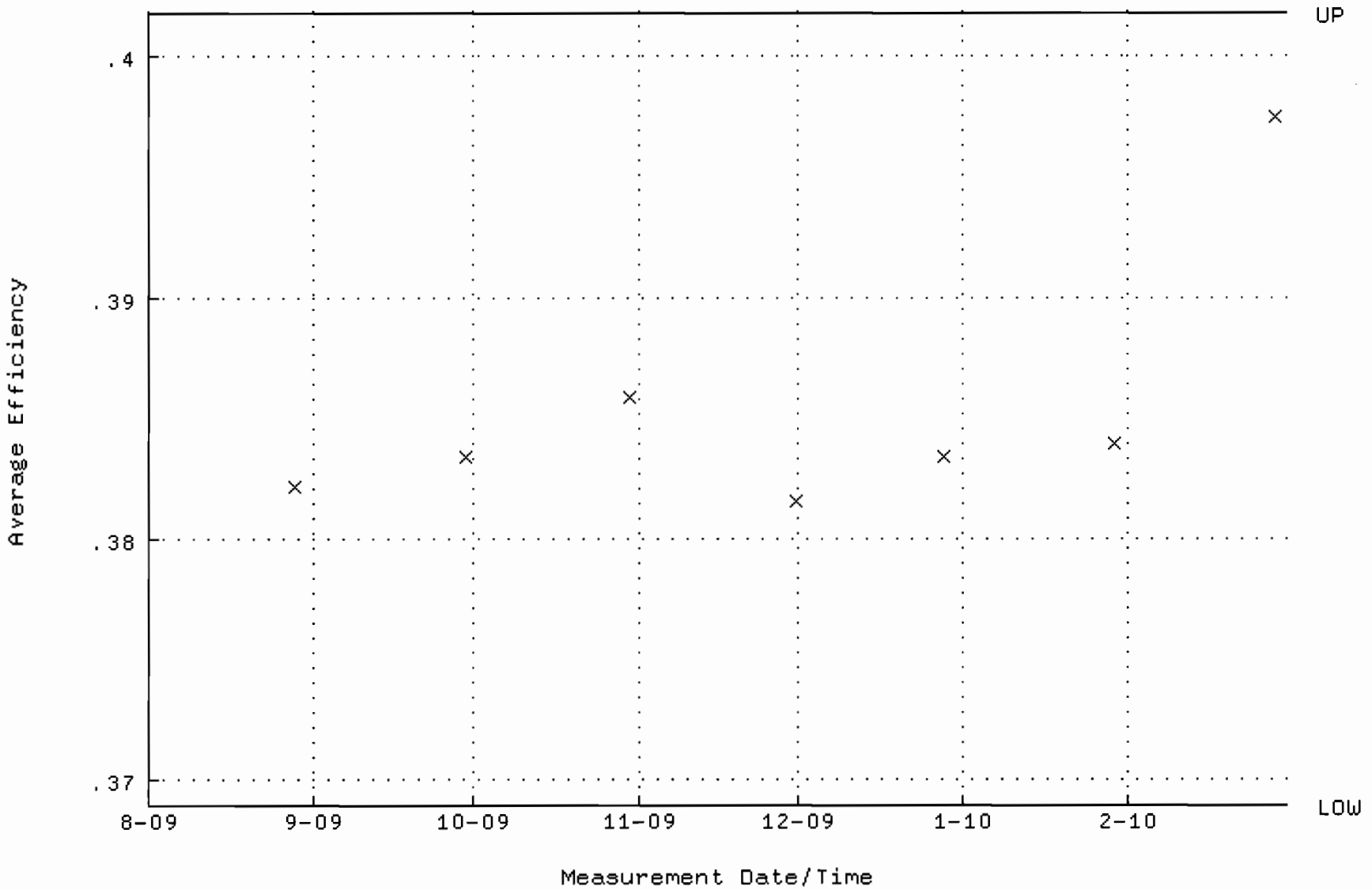

QA filename : DKA100:[ENV_ALPHA.QA.W]W234.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:41 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 81.5490 through 88.3592

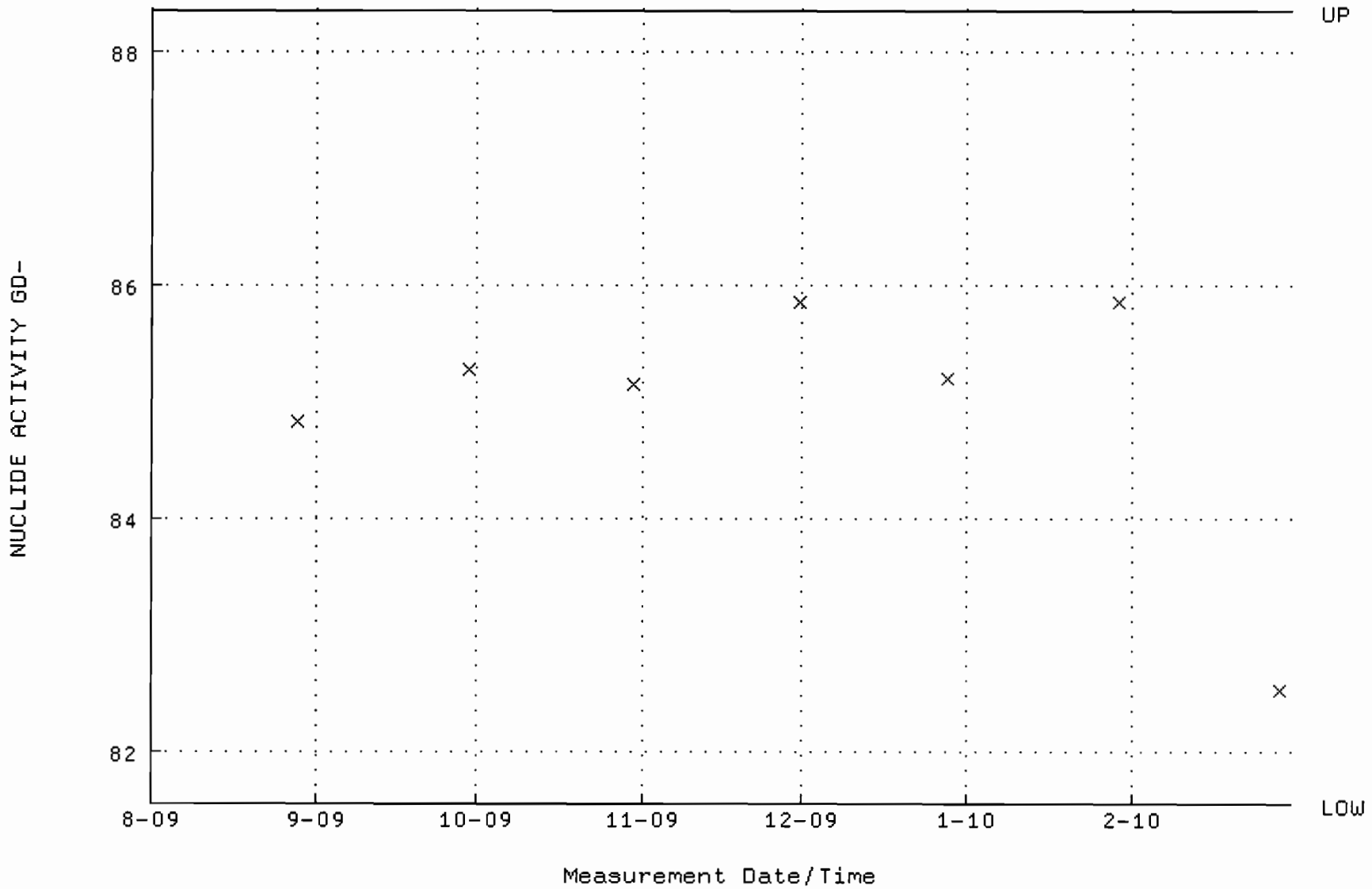

QA filename : DKA100:[ENV_ALPHA.QA.B]B234.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:56 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

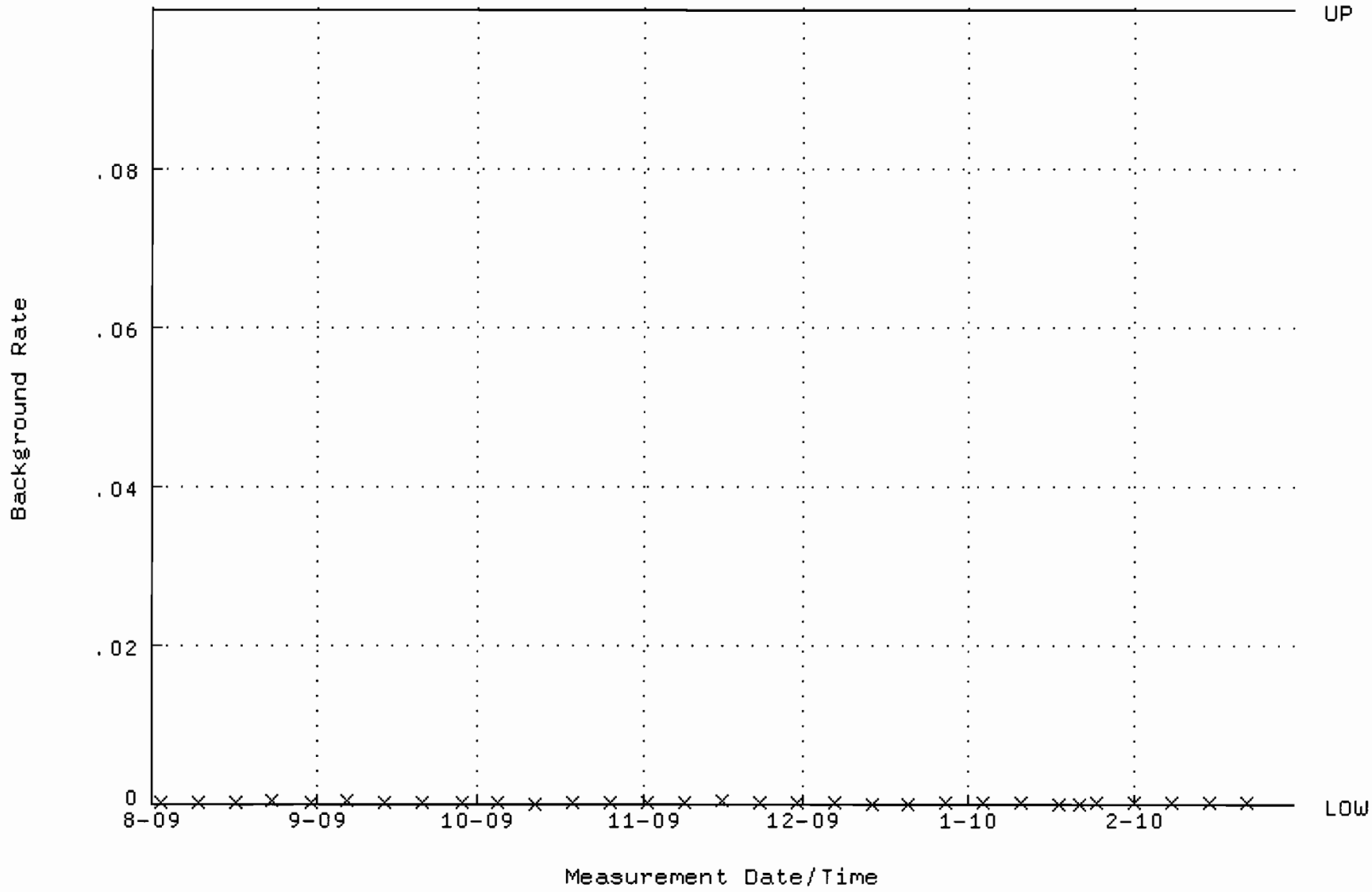

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:45 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.350020 through 0.404668

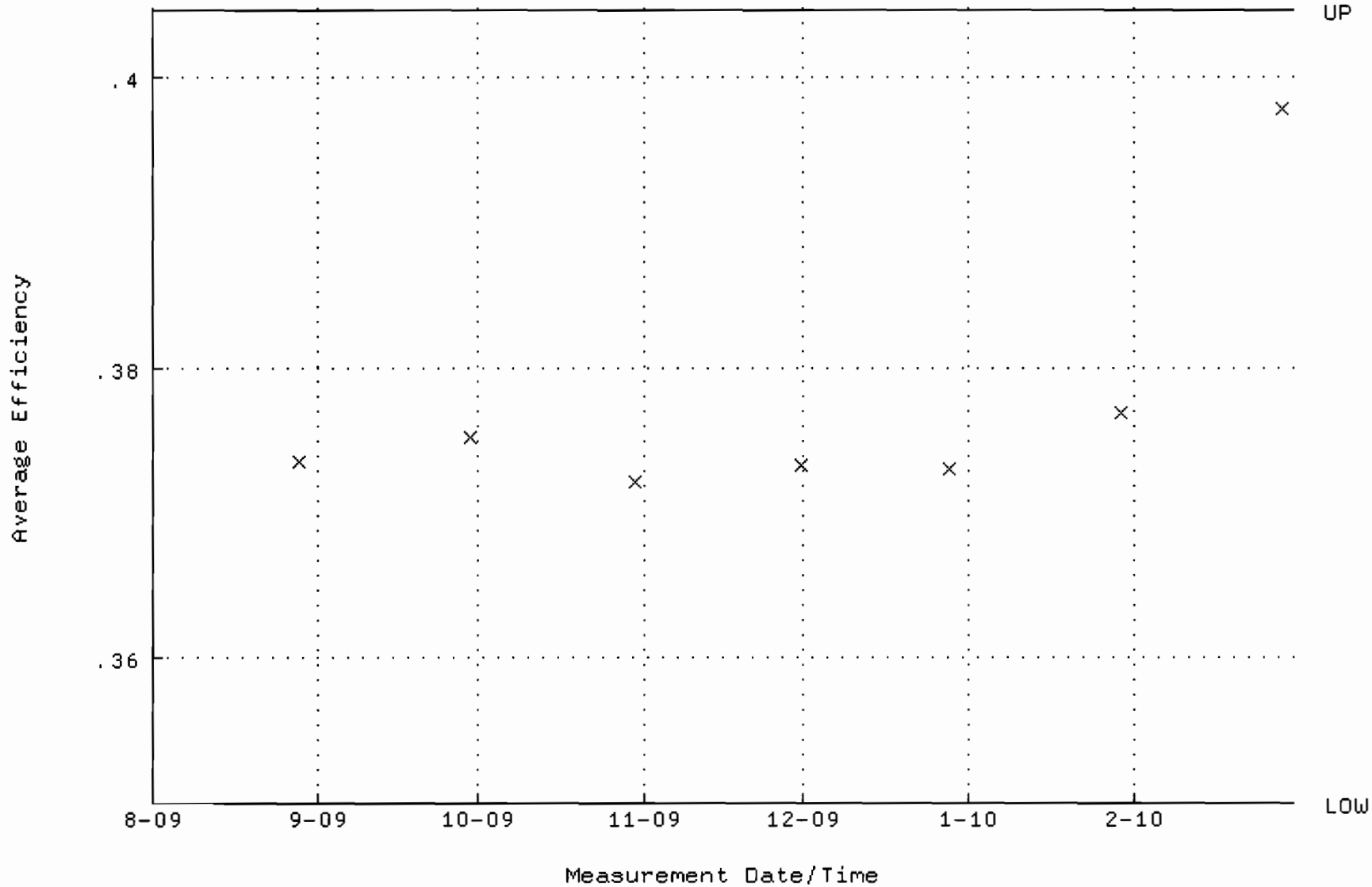

QA filename : DKA100:[ENV_ALPHA.QA.W]W235.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:45 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 86.7703 through 90.3803

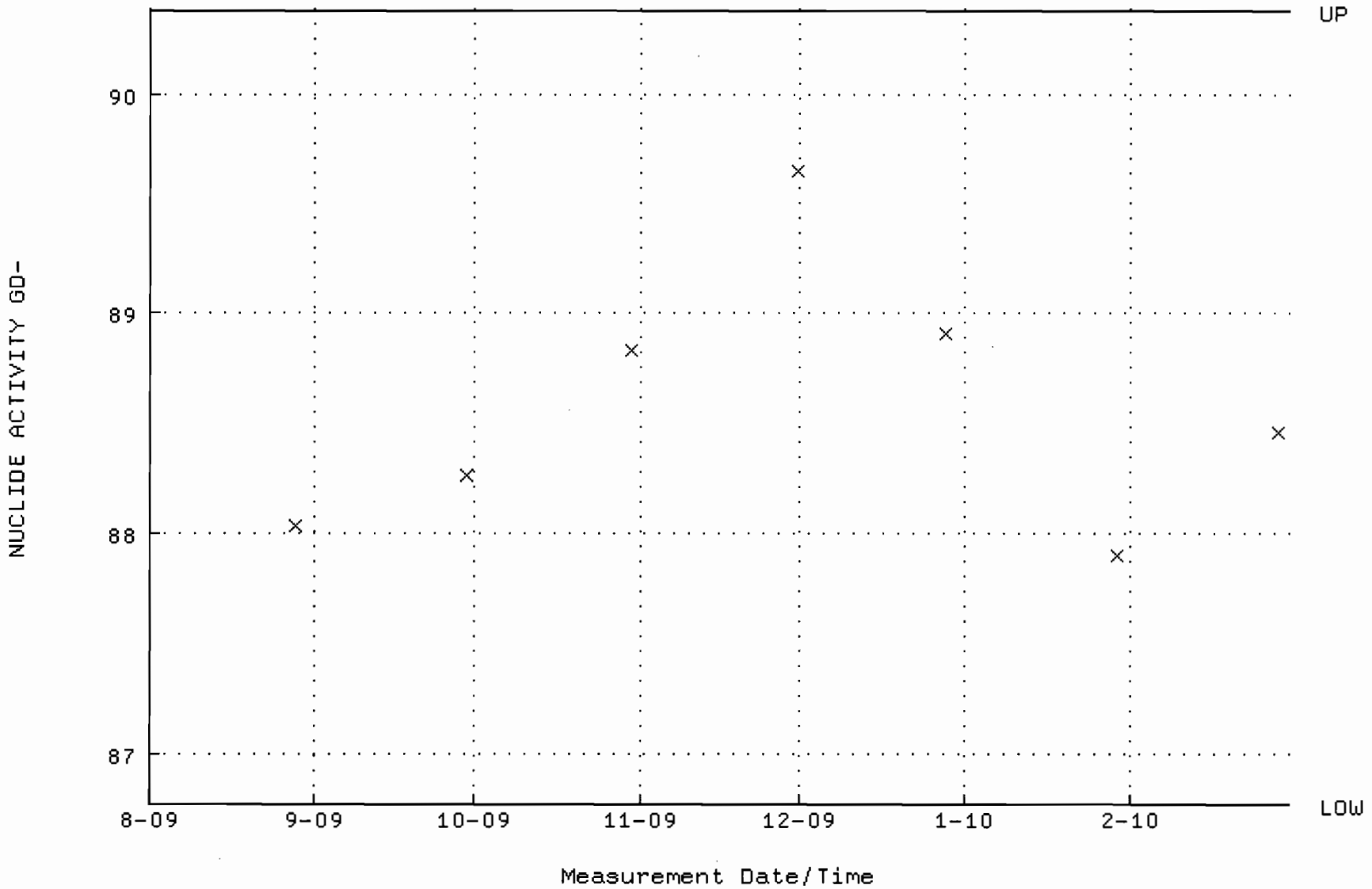

QA filename : DKA100:[ENV_ALPHA.QA.B]B235.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:27:00 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

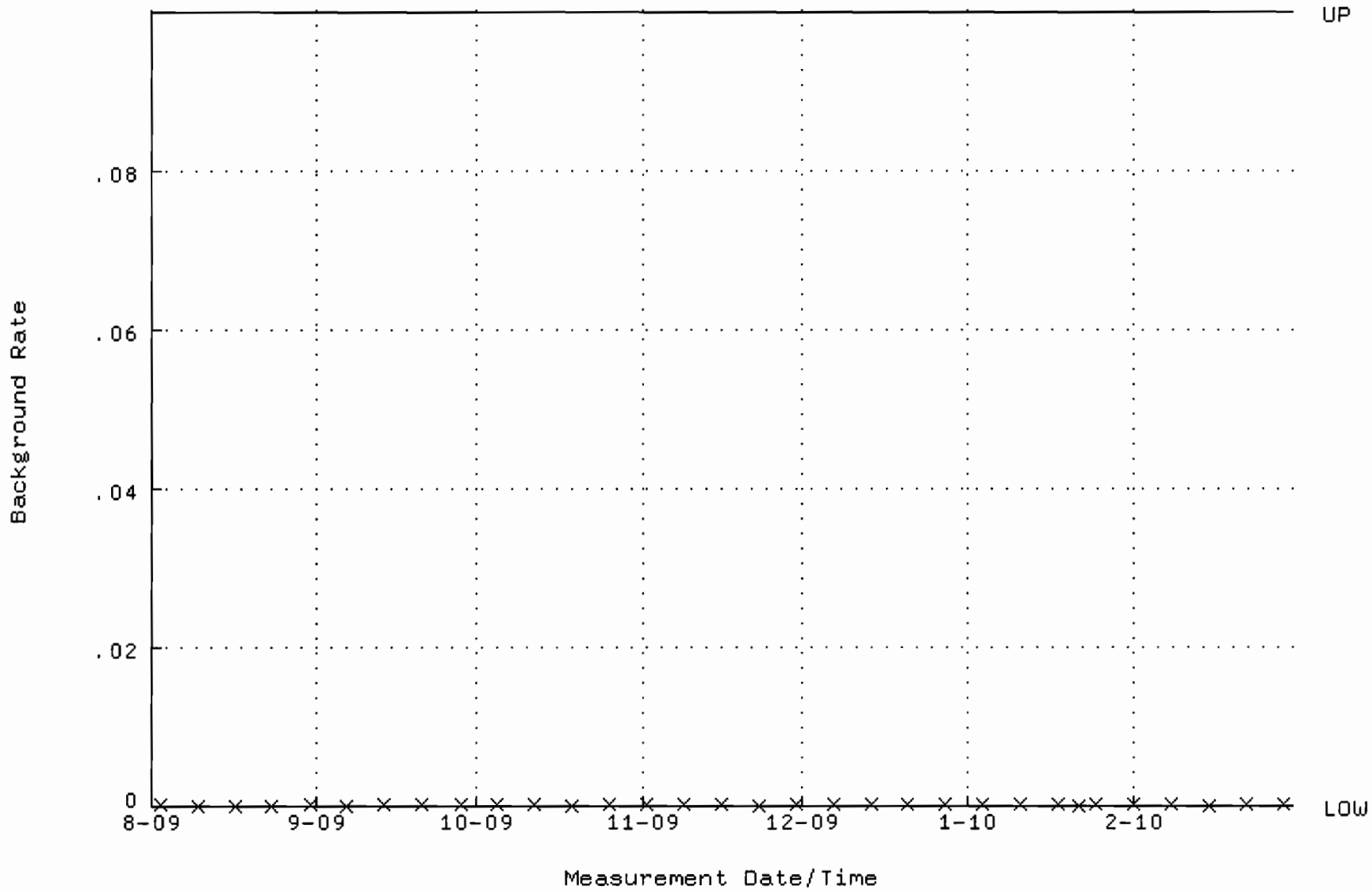

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:51 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.362418 through 0.420706

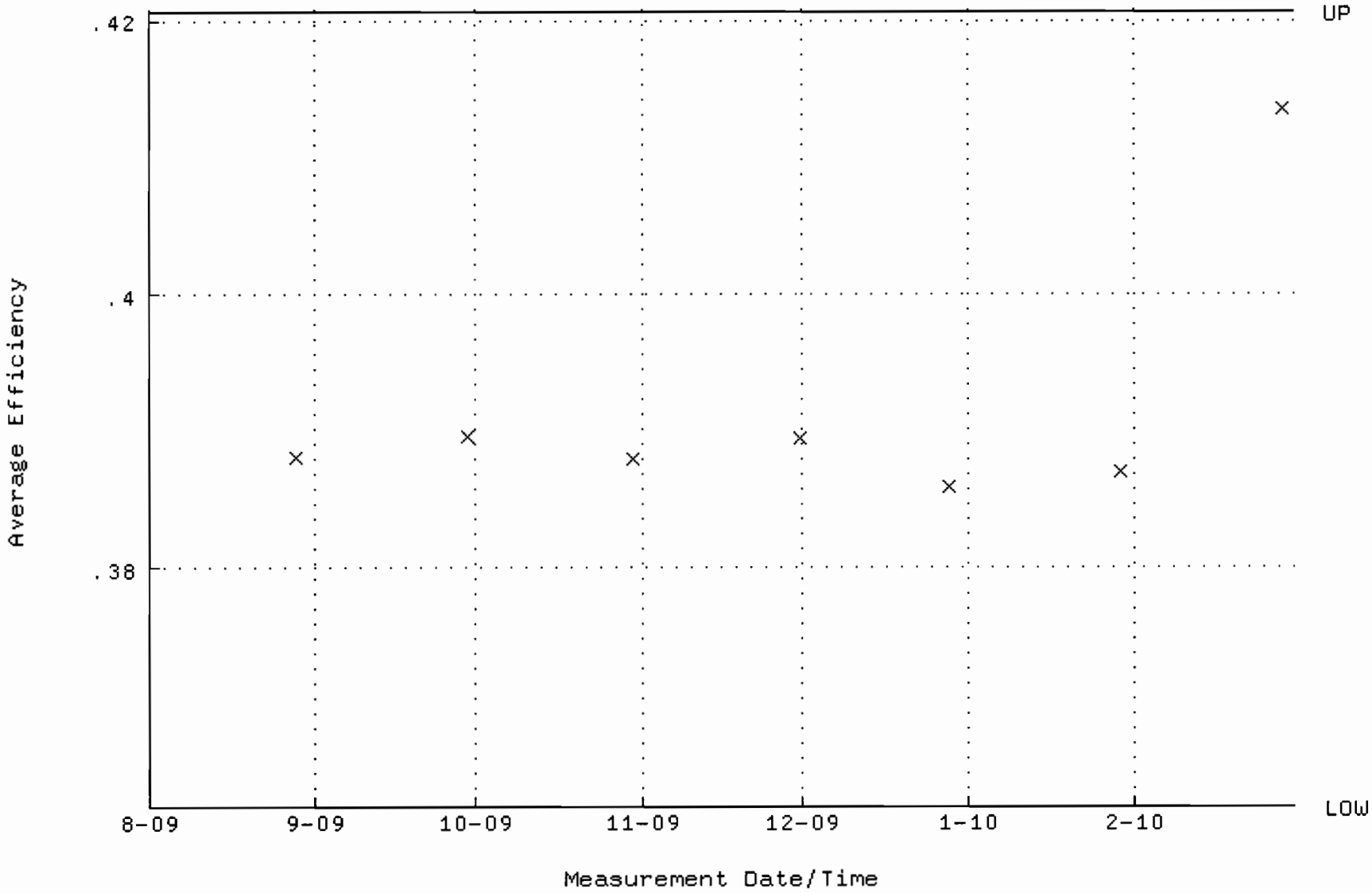

QA filename : DKA100:[ENV_ALPHA.QA.W]W236.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:51 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 79.2135 through 91.8401

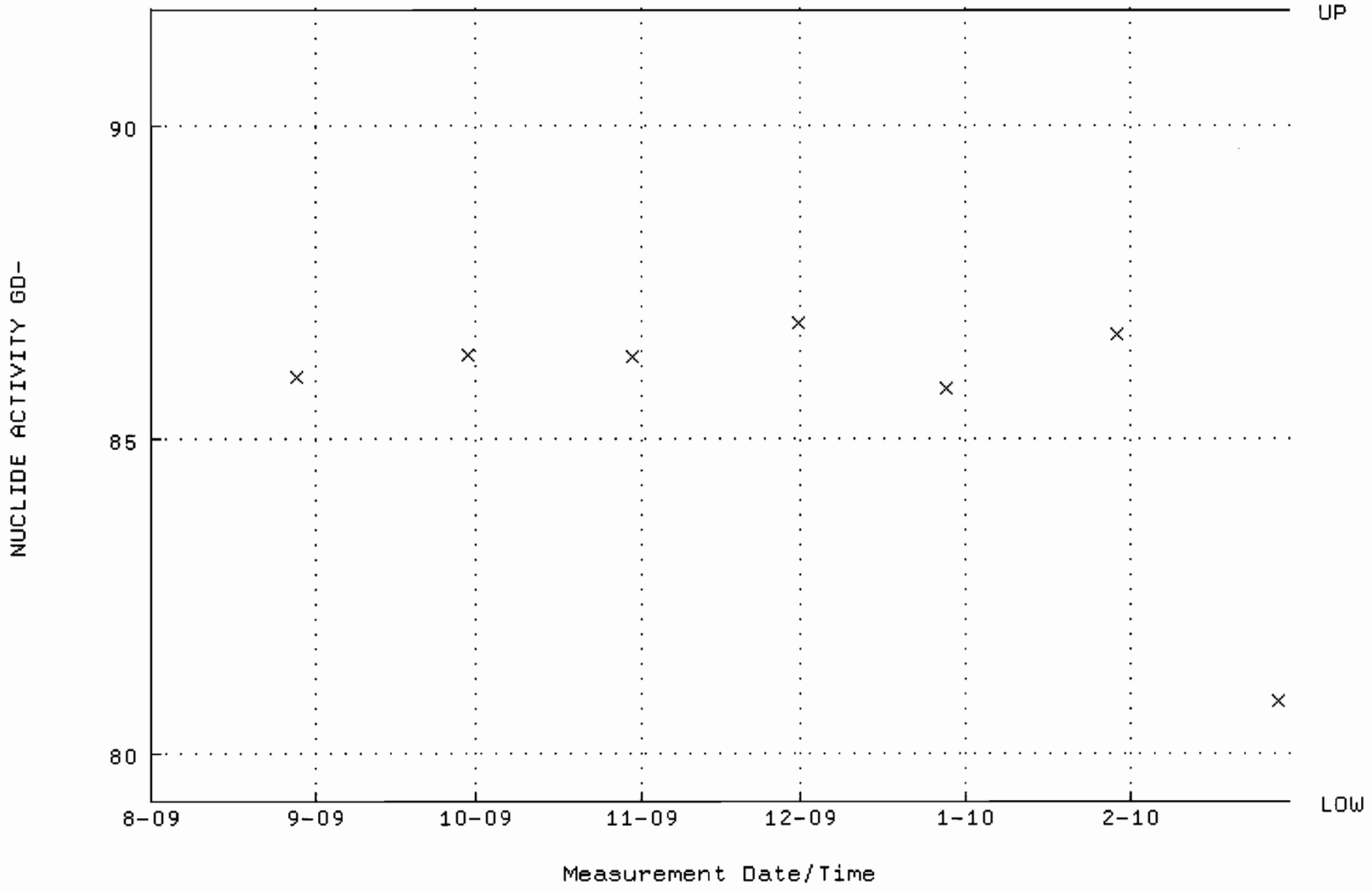

QA filename : DKA100:[ENV_ALPHA.QA.B]B236.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:27:04 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

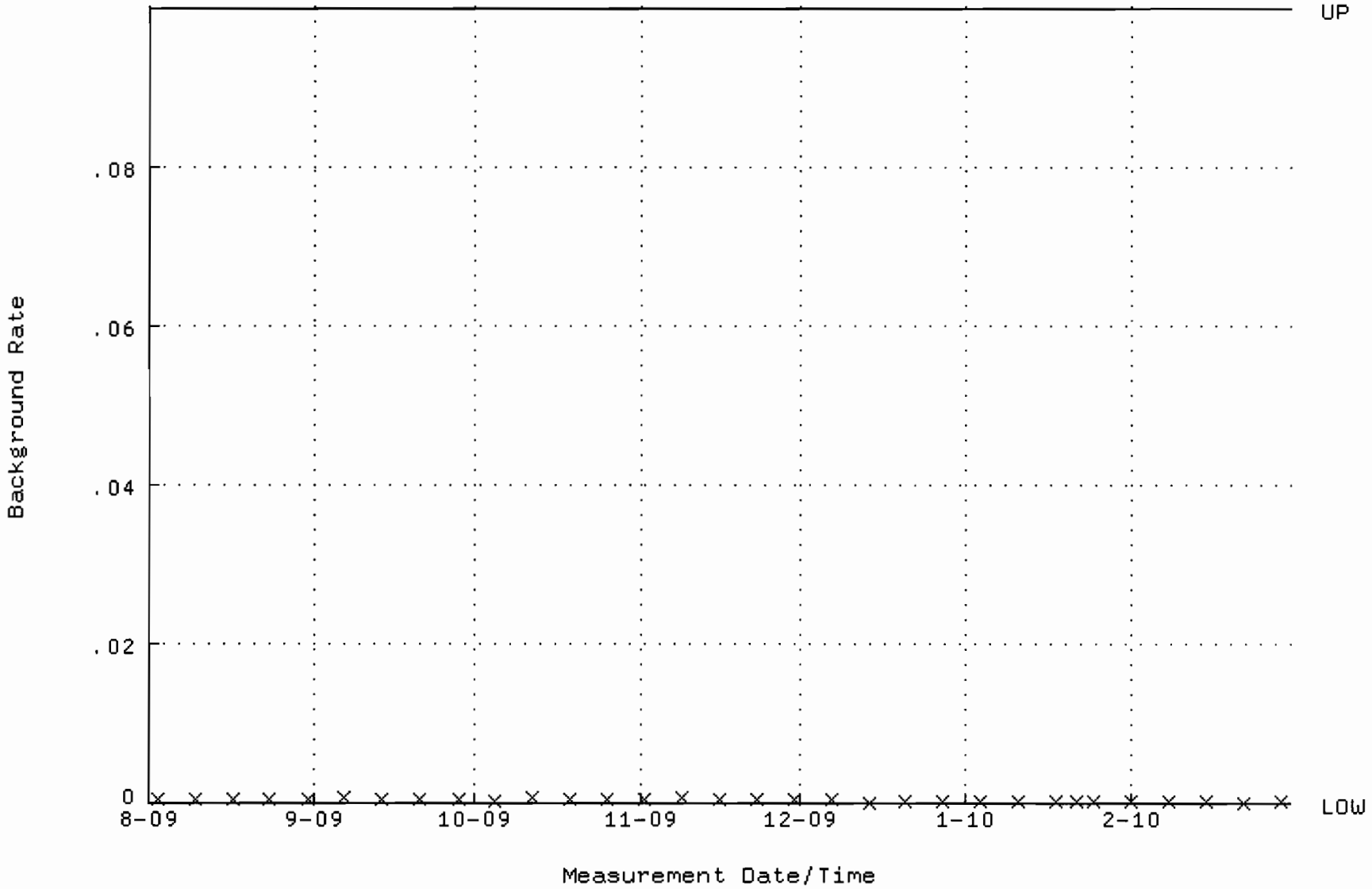

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:08:48 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

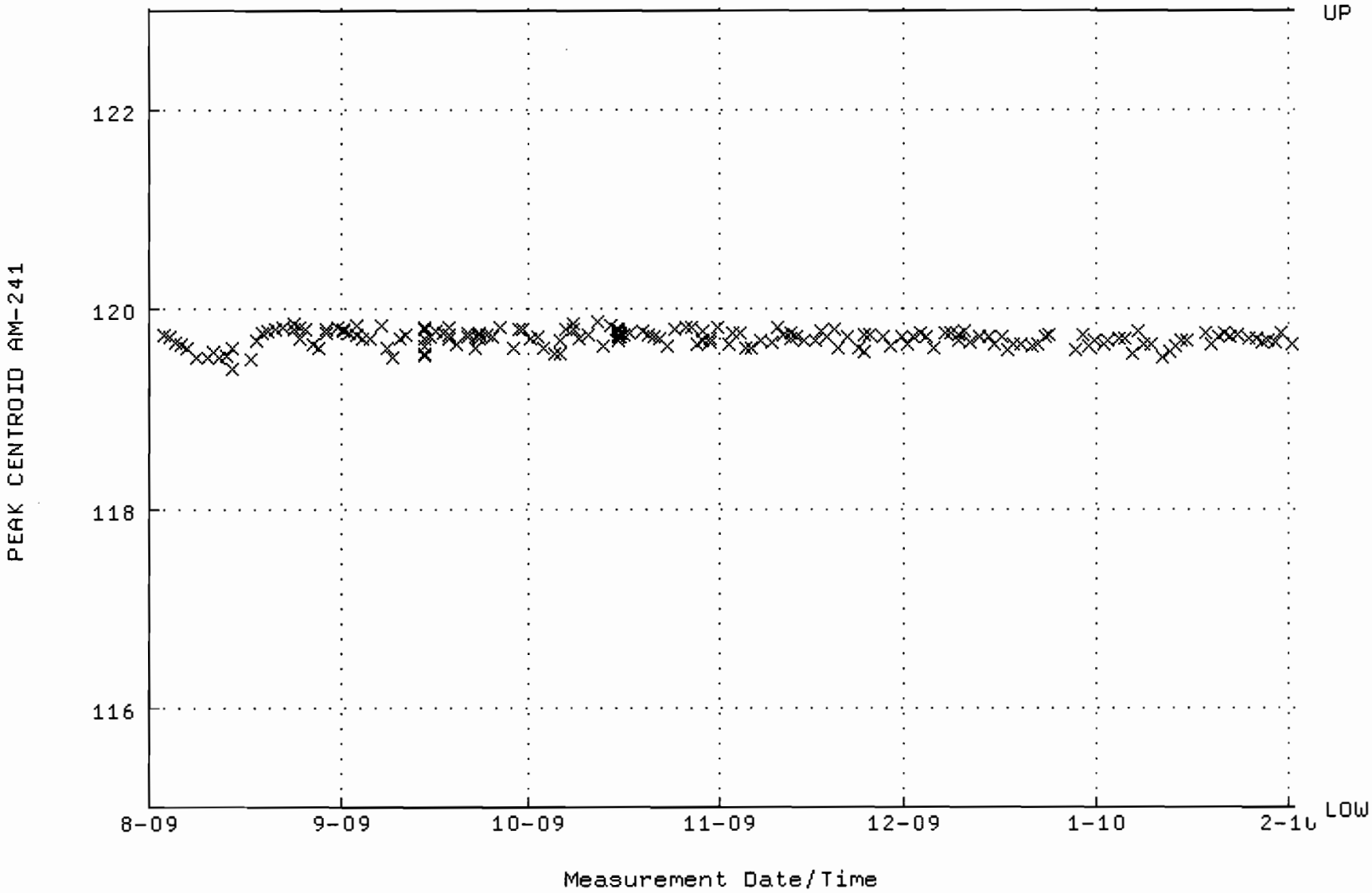

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:21:01 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

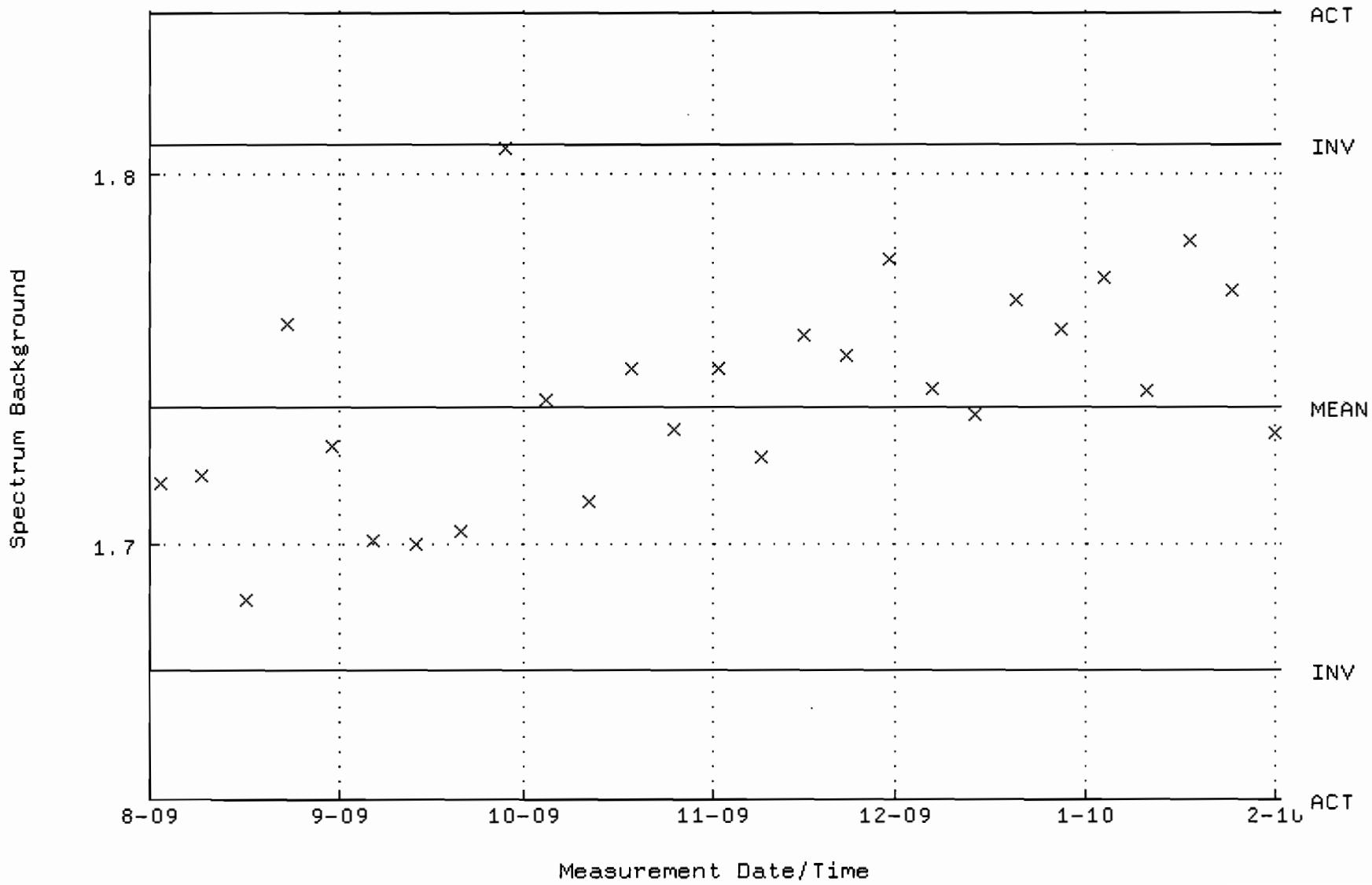

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:11:46 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

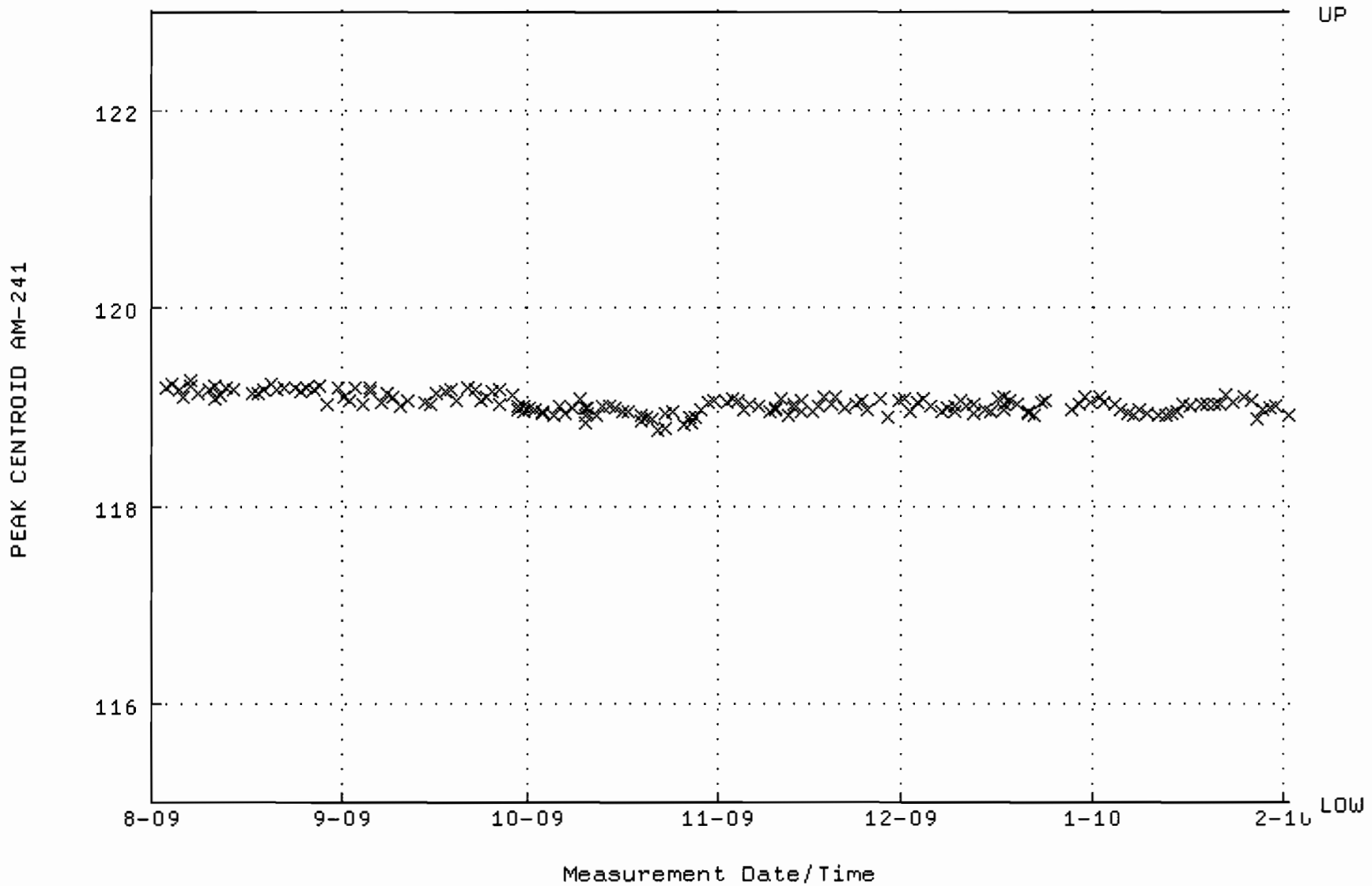

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:22:48 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.32050 +- 2.495234E-02 (1.89 %)

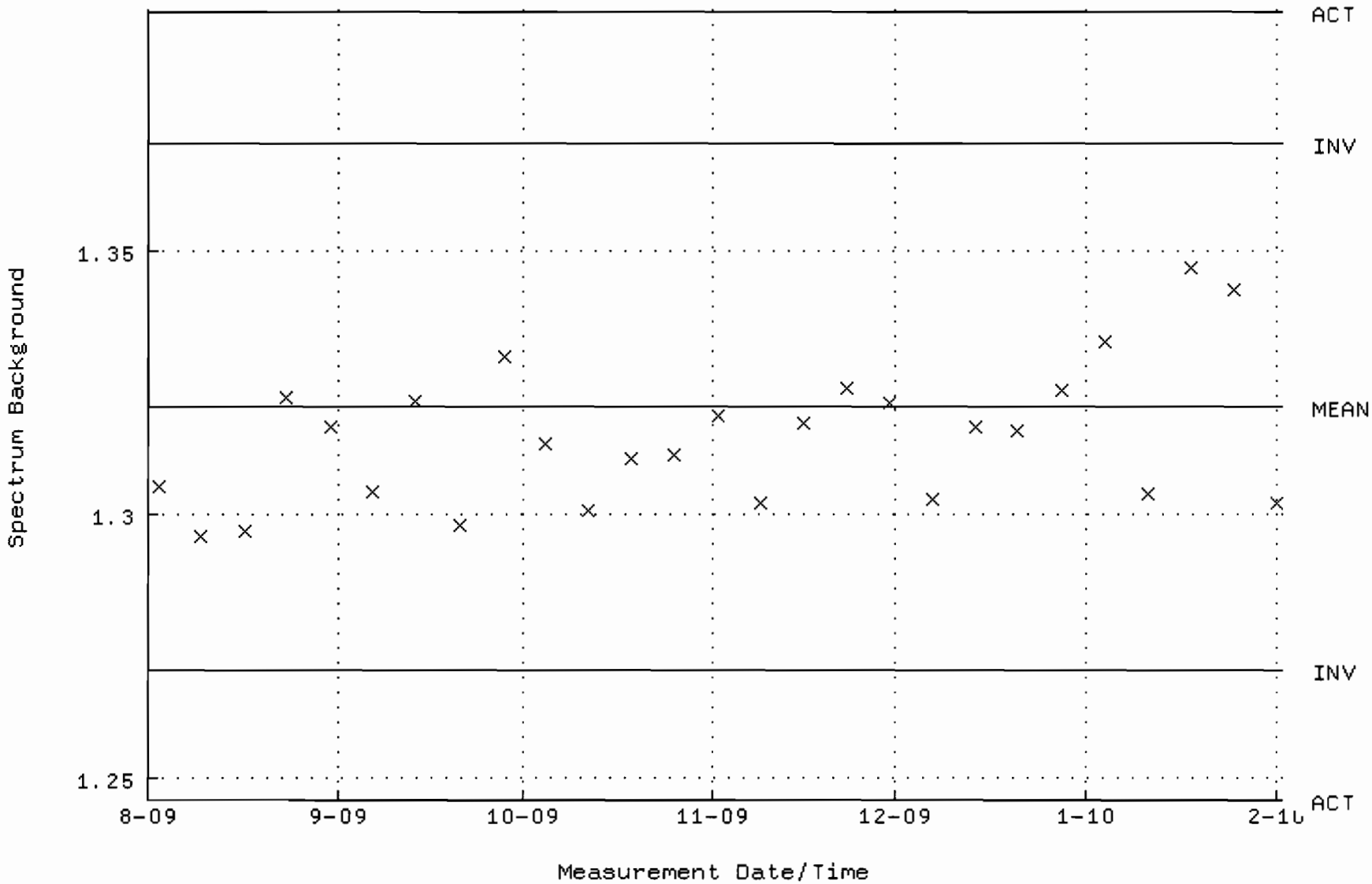

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

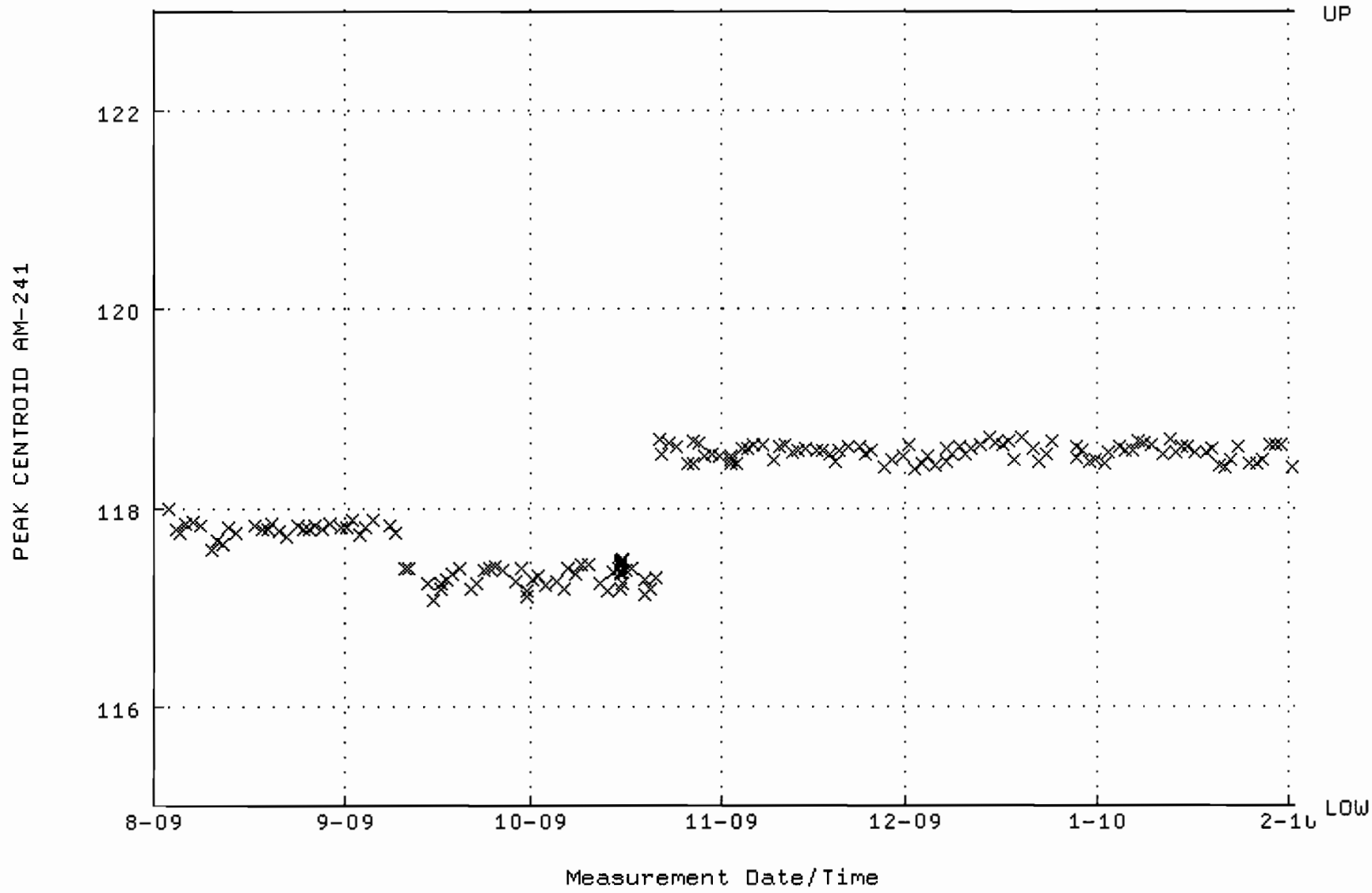

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:13 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.52603 +- 1.215987E-02 (0.80 %)

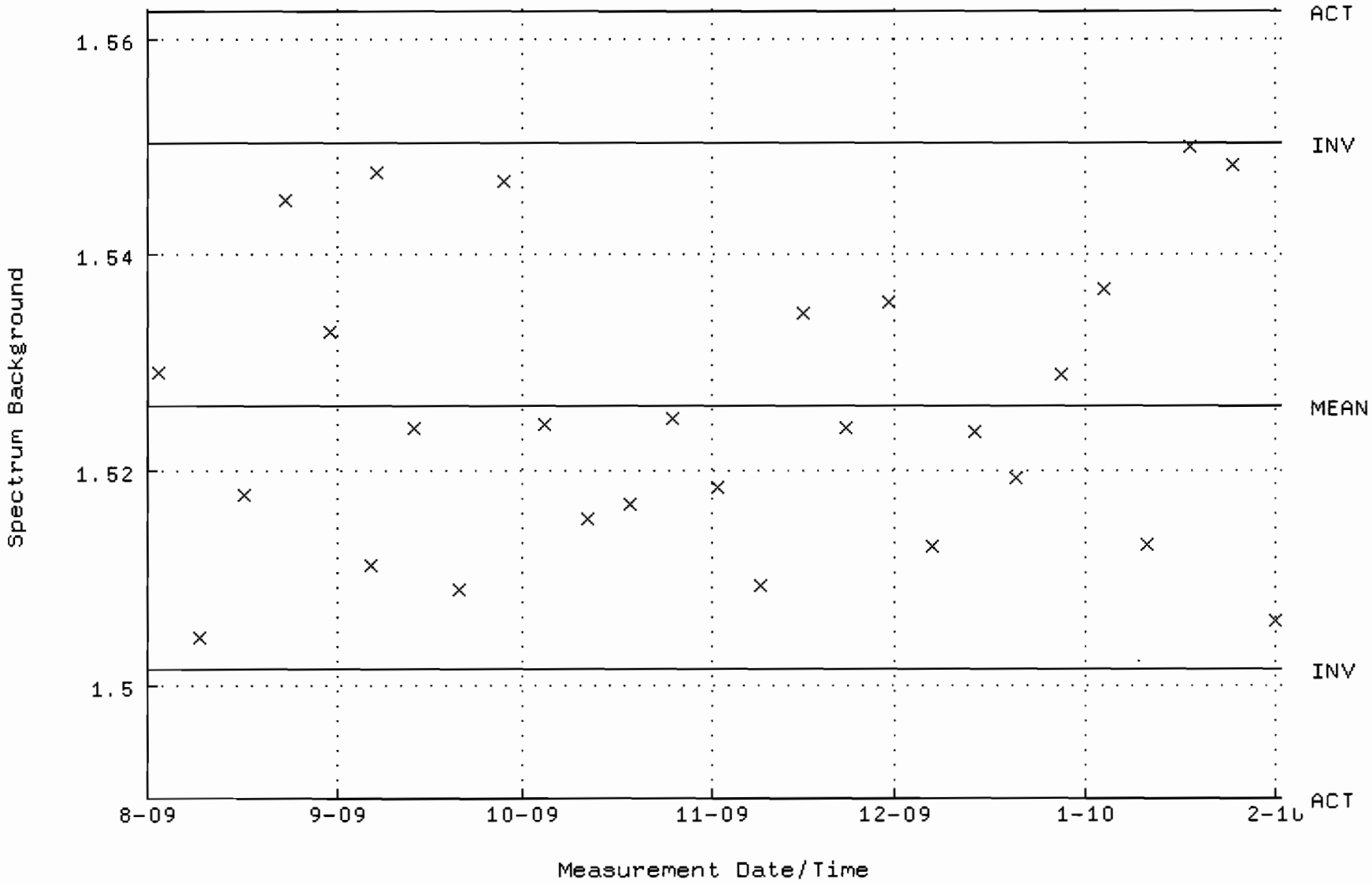

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:13:52 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

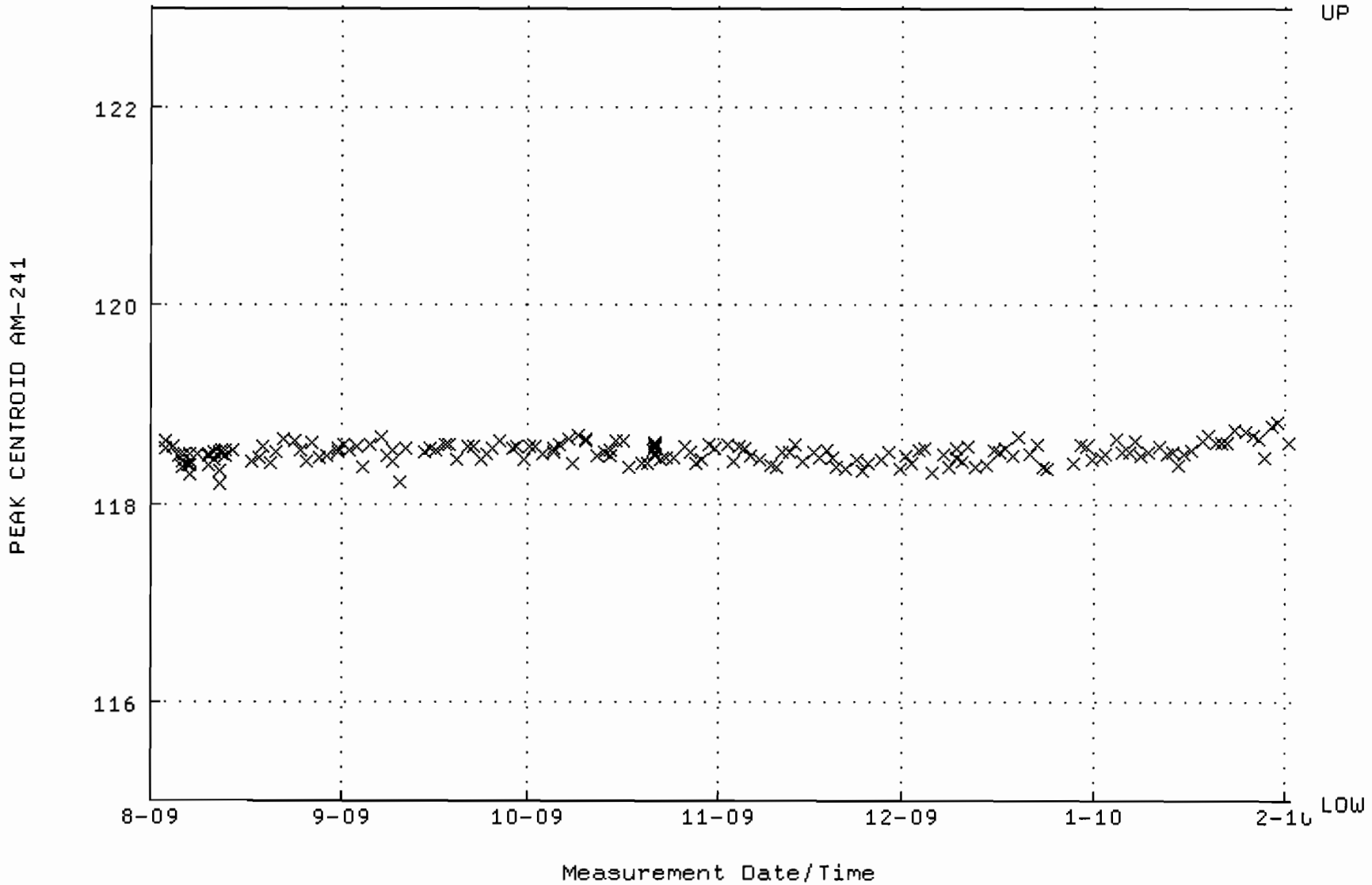

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:26 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

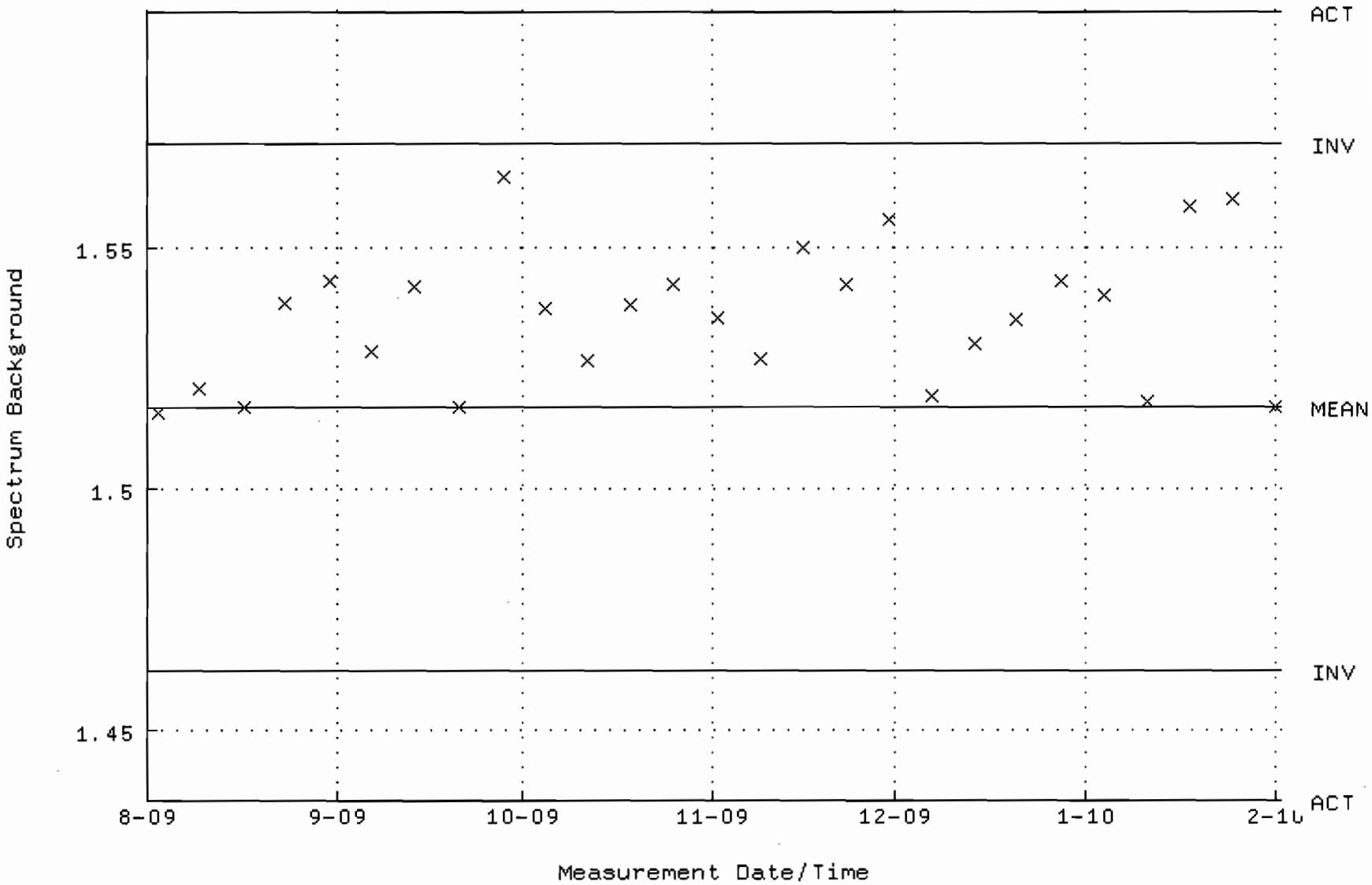

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:36:50 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

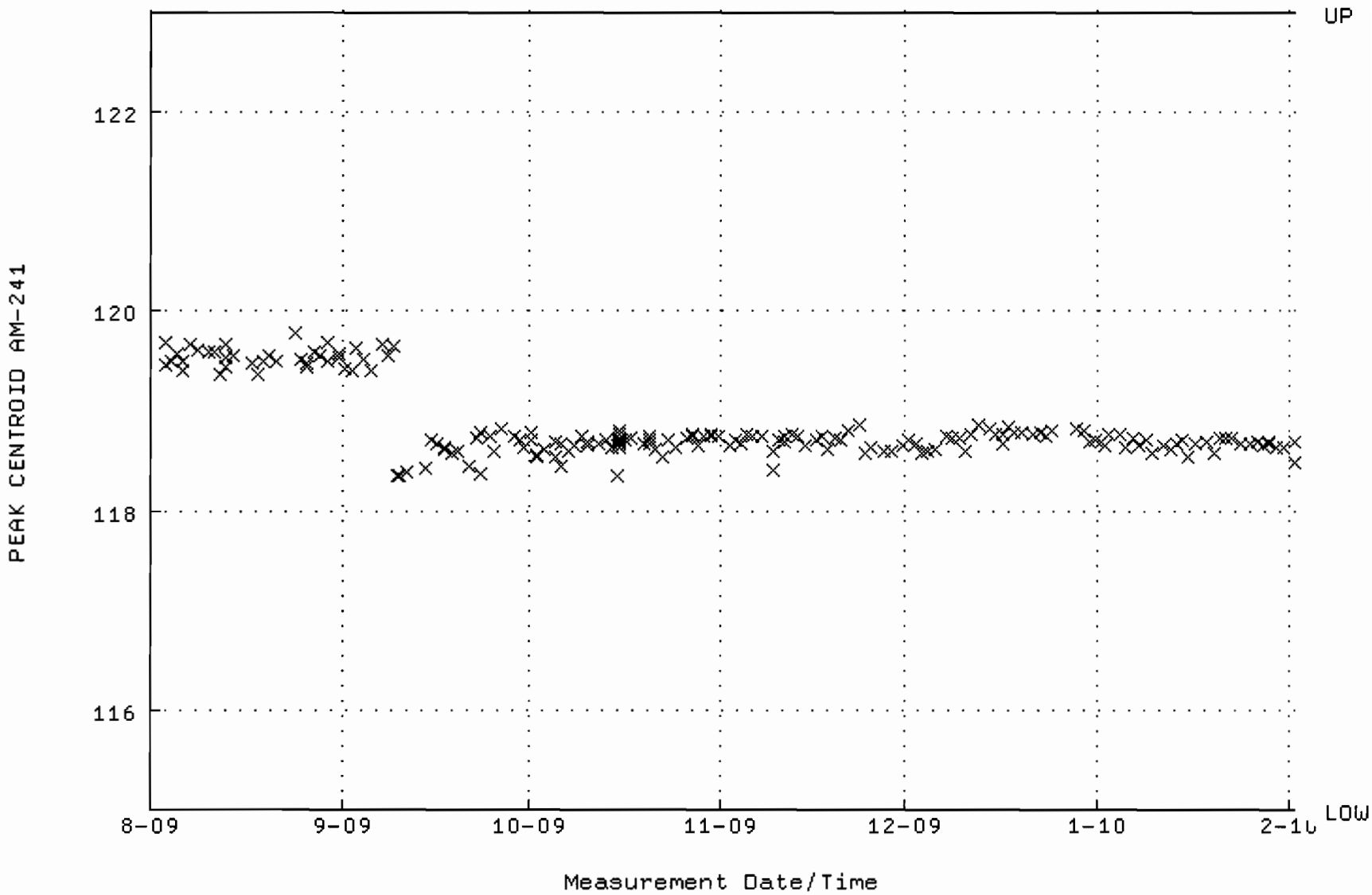

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:43 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

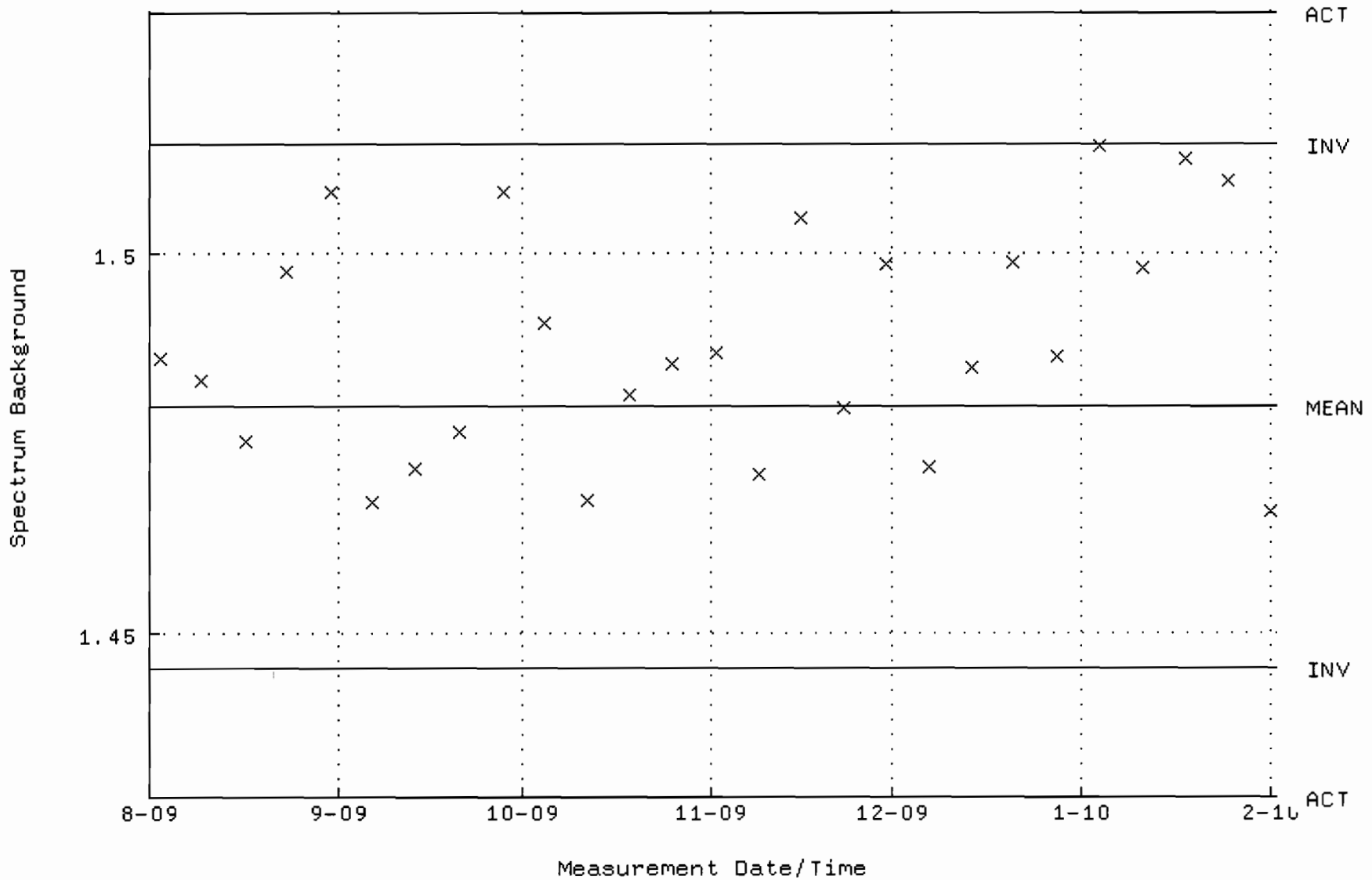

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

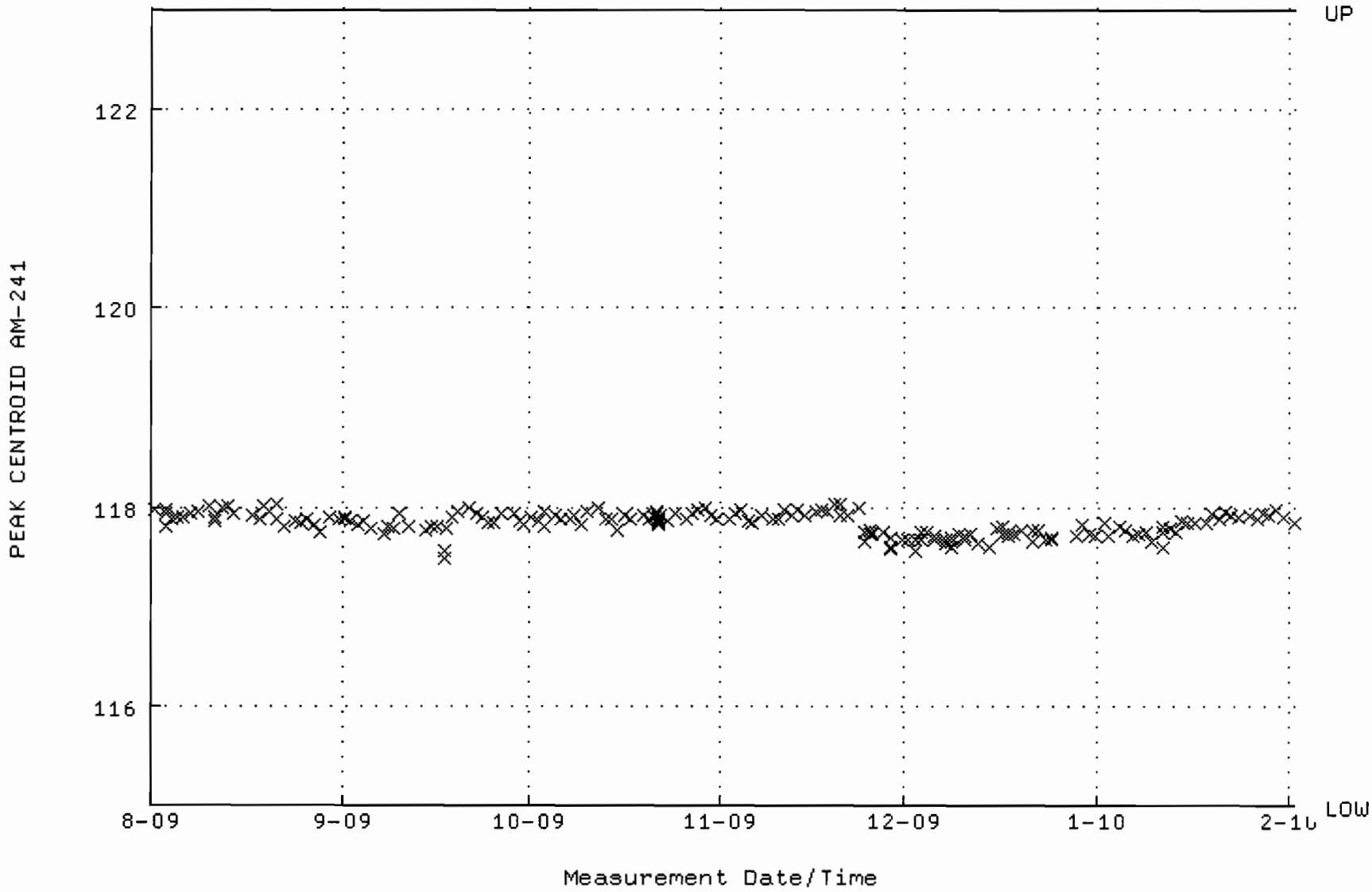

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:23:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)

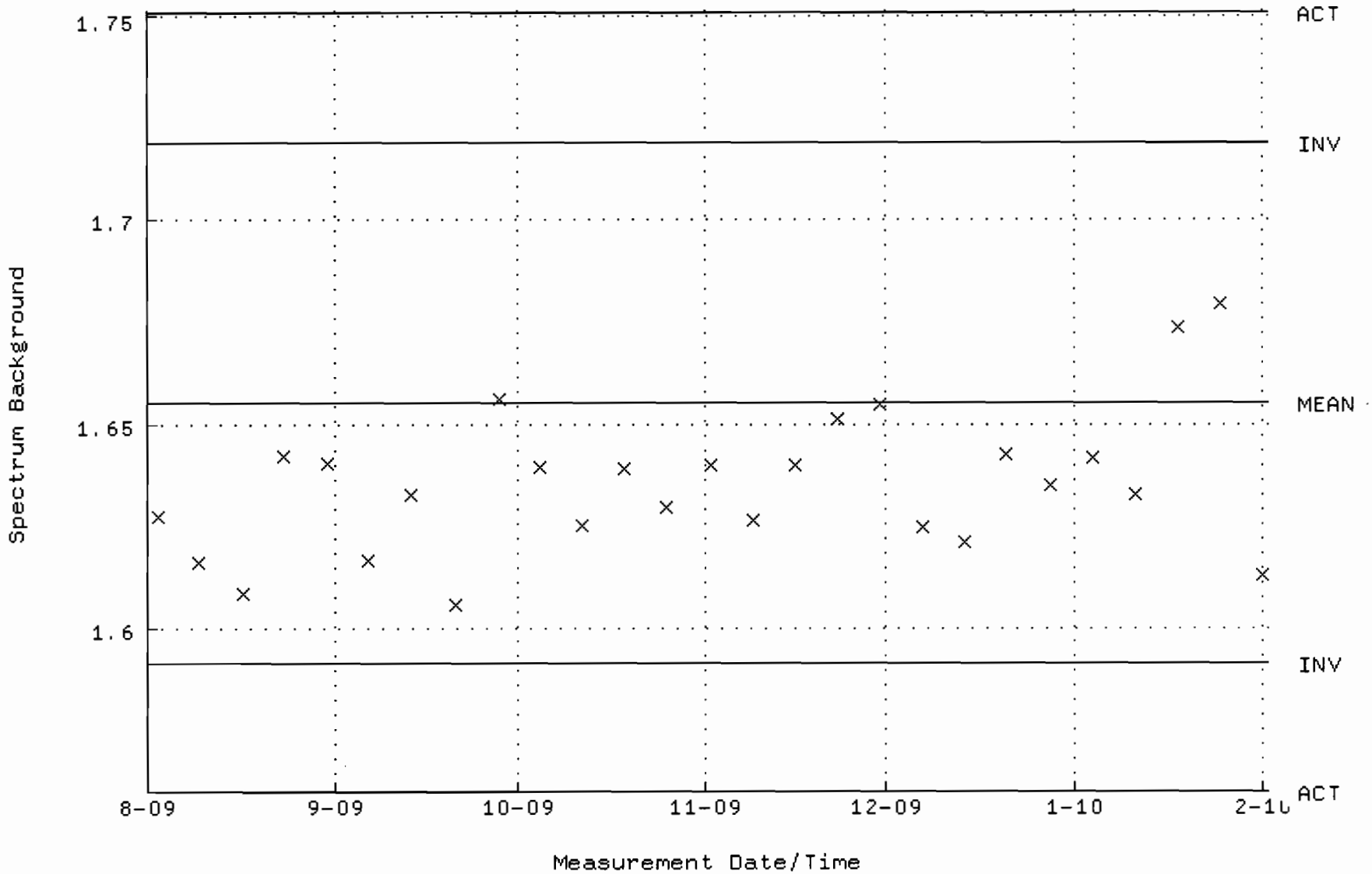

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM12_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:58:23 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

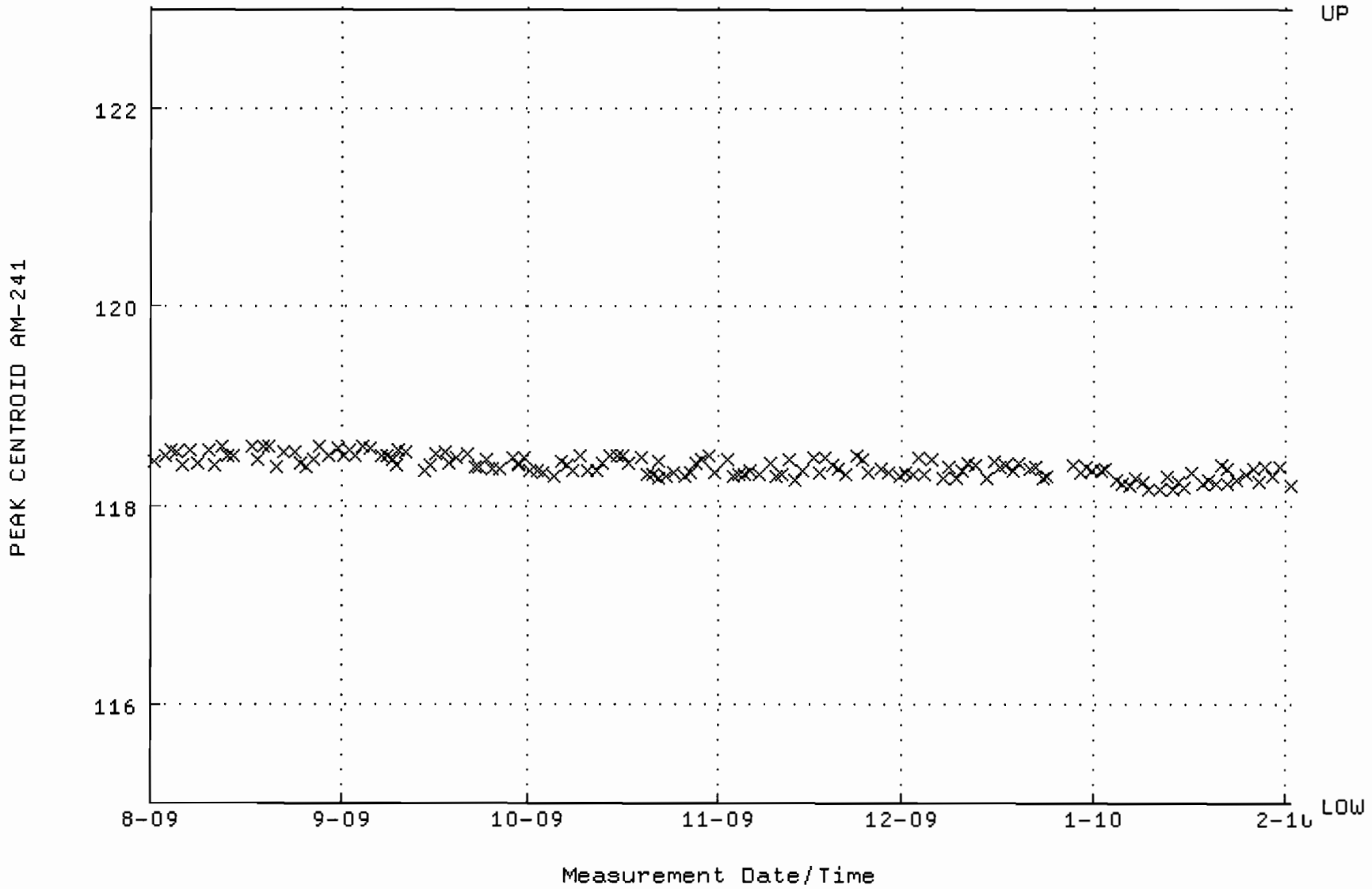

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM12.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:08 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.55746 +- 1.601675E-02 (1.03 %)

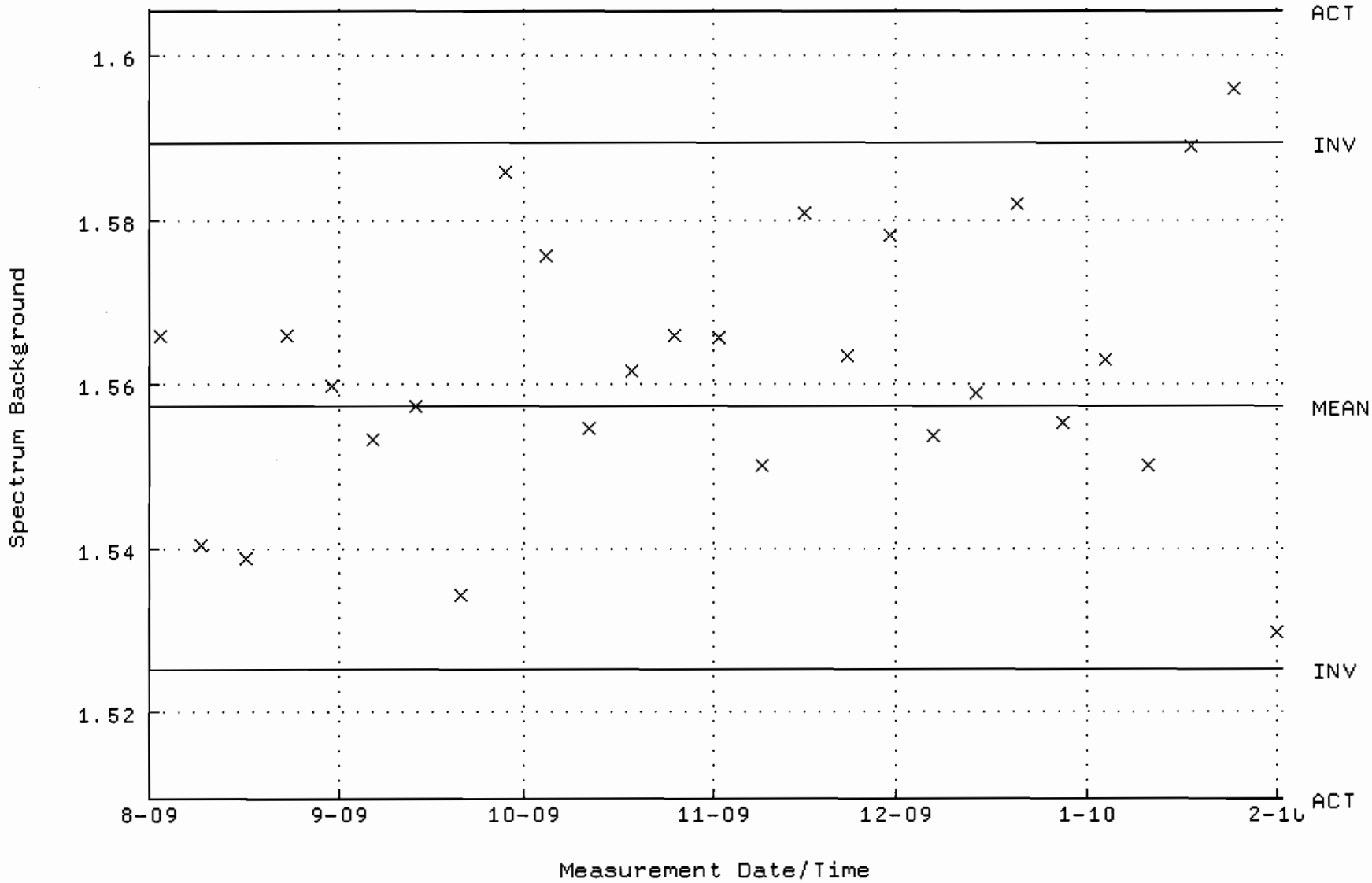

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:15:54 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

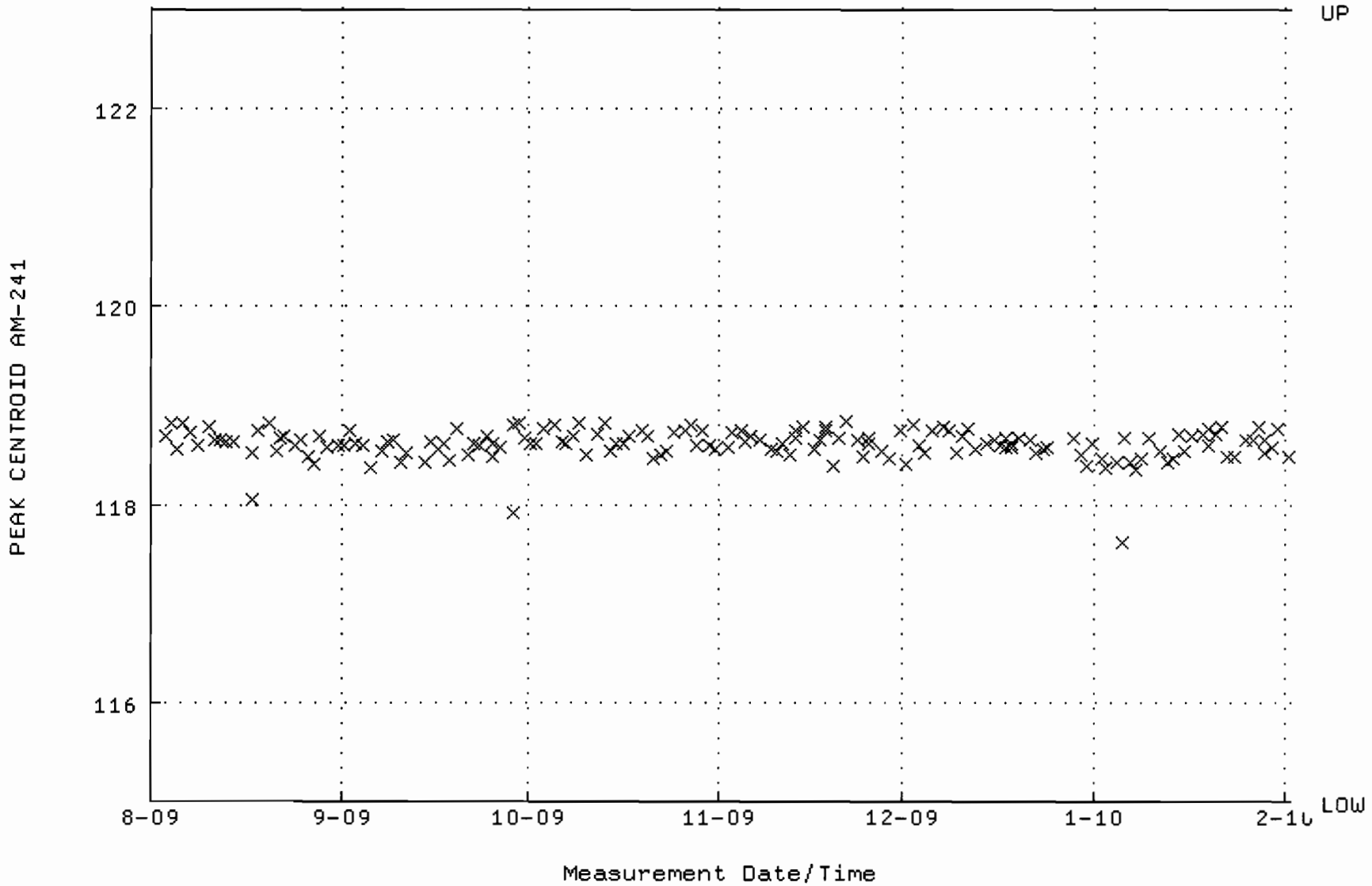

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:33 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

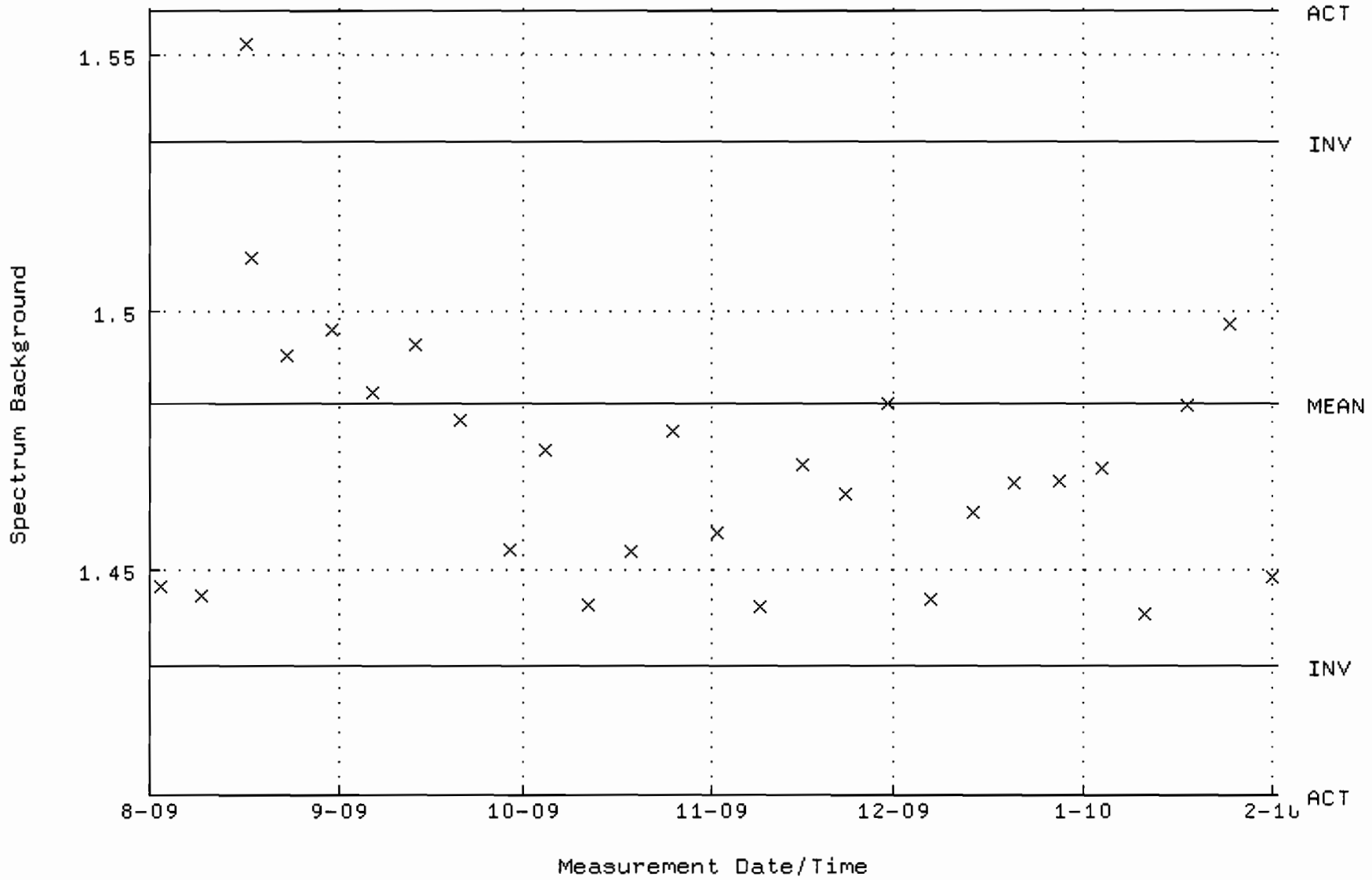

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM15_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:53:43 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

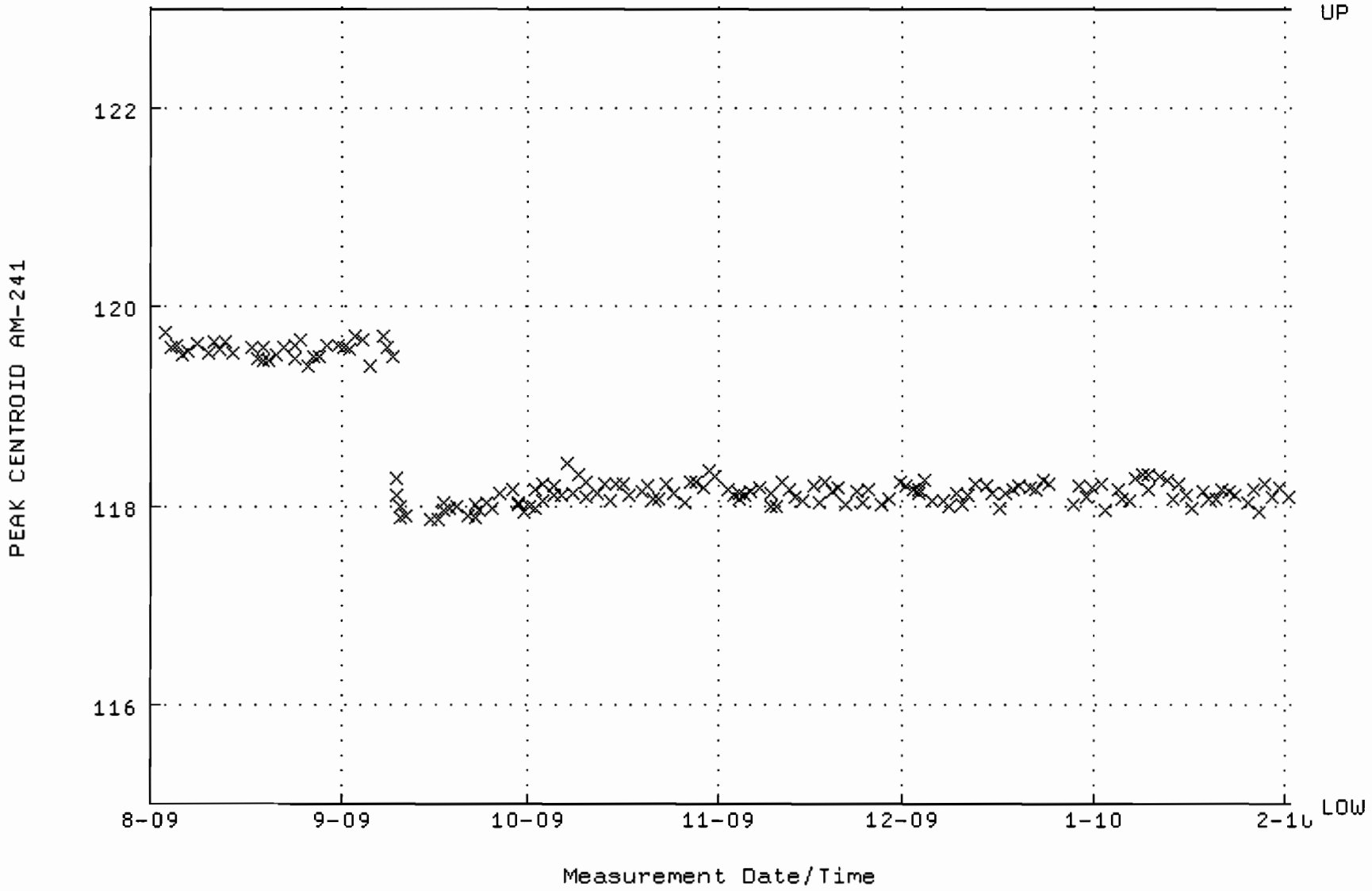

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM15.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:46 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.72024 +- 1.875820E-02 (1.09 %)

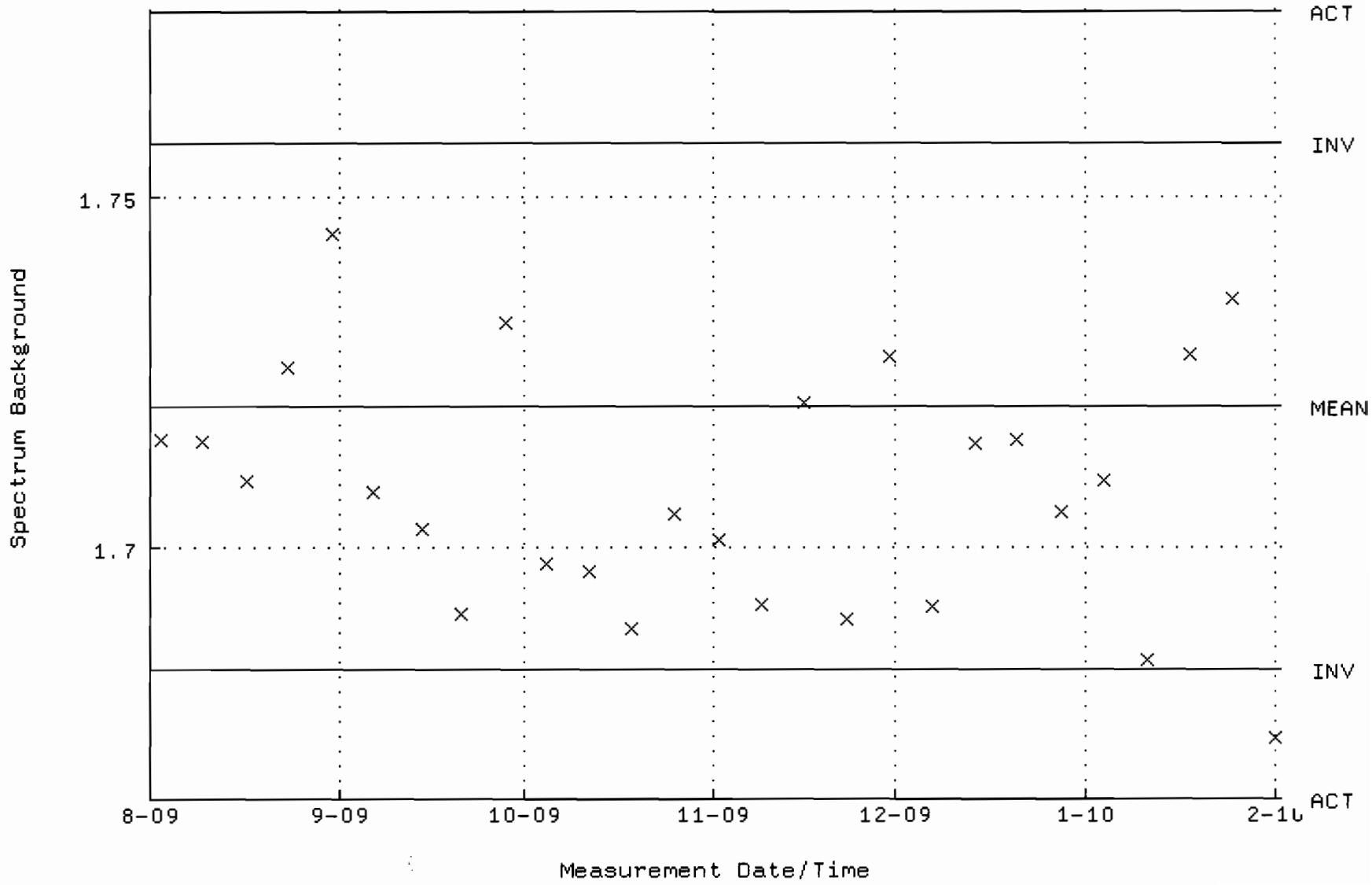

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 1-AUG-2009 13:27:30 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

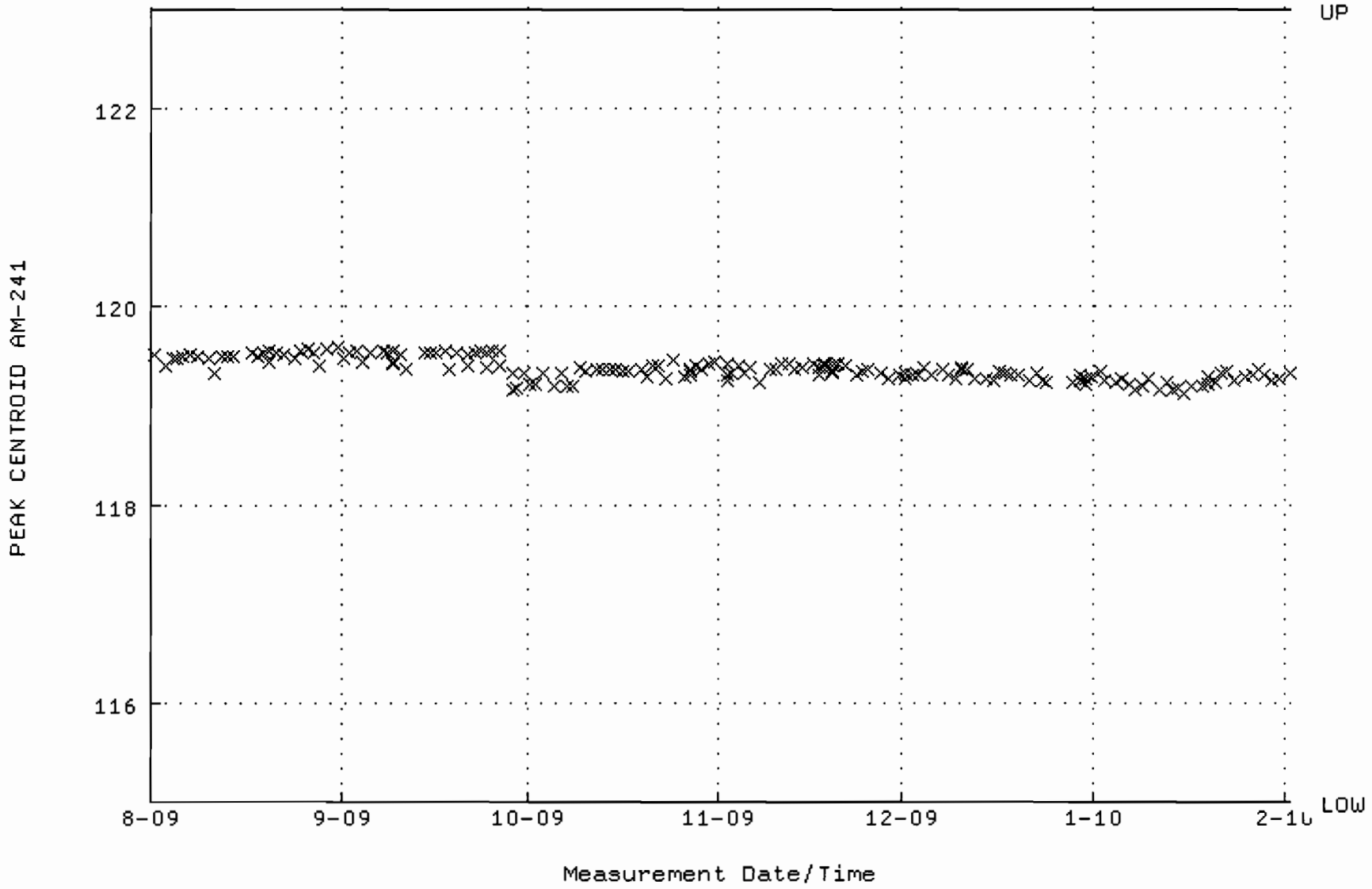

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:24:58 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

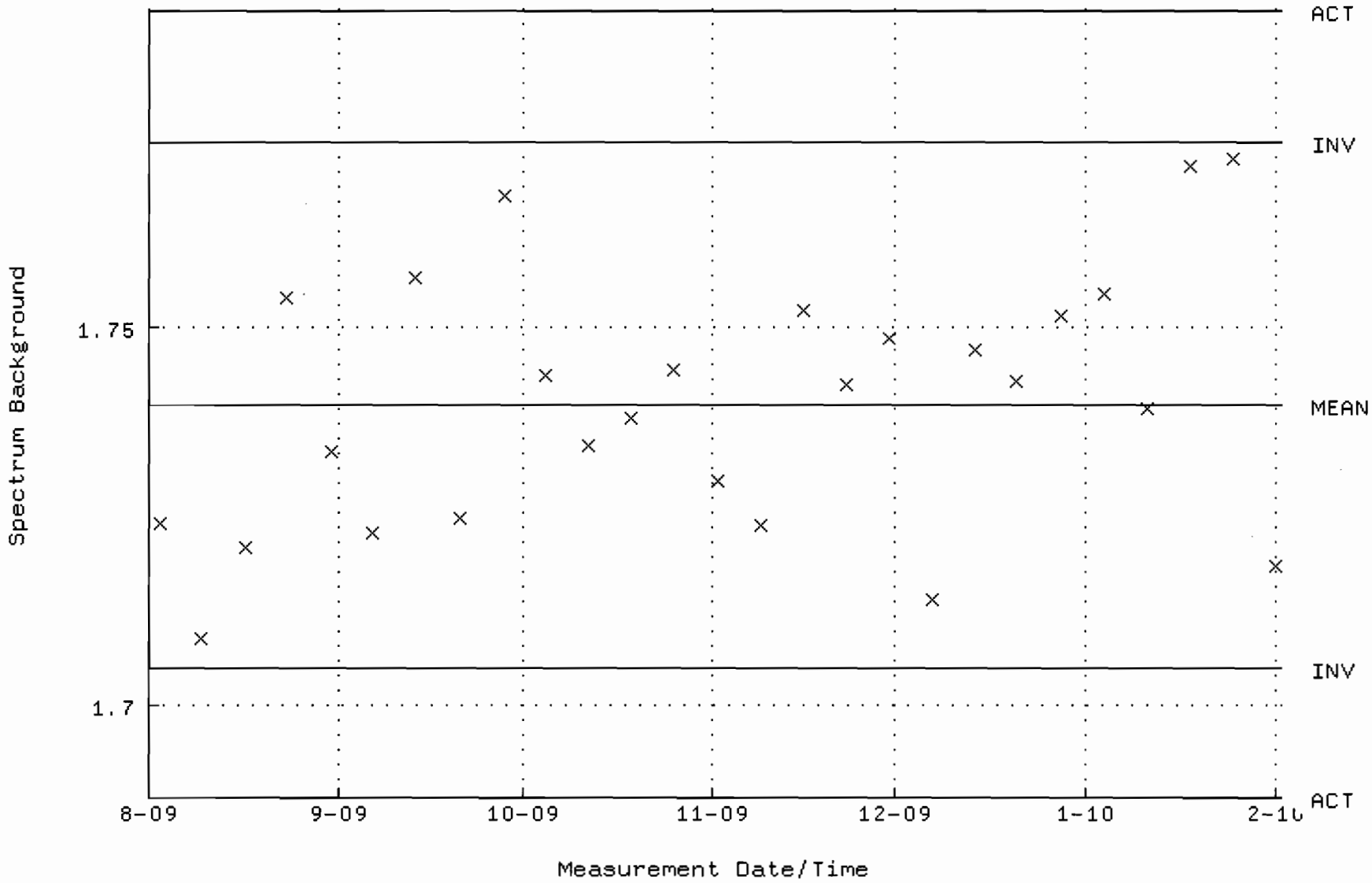

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:55:06 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

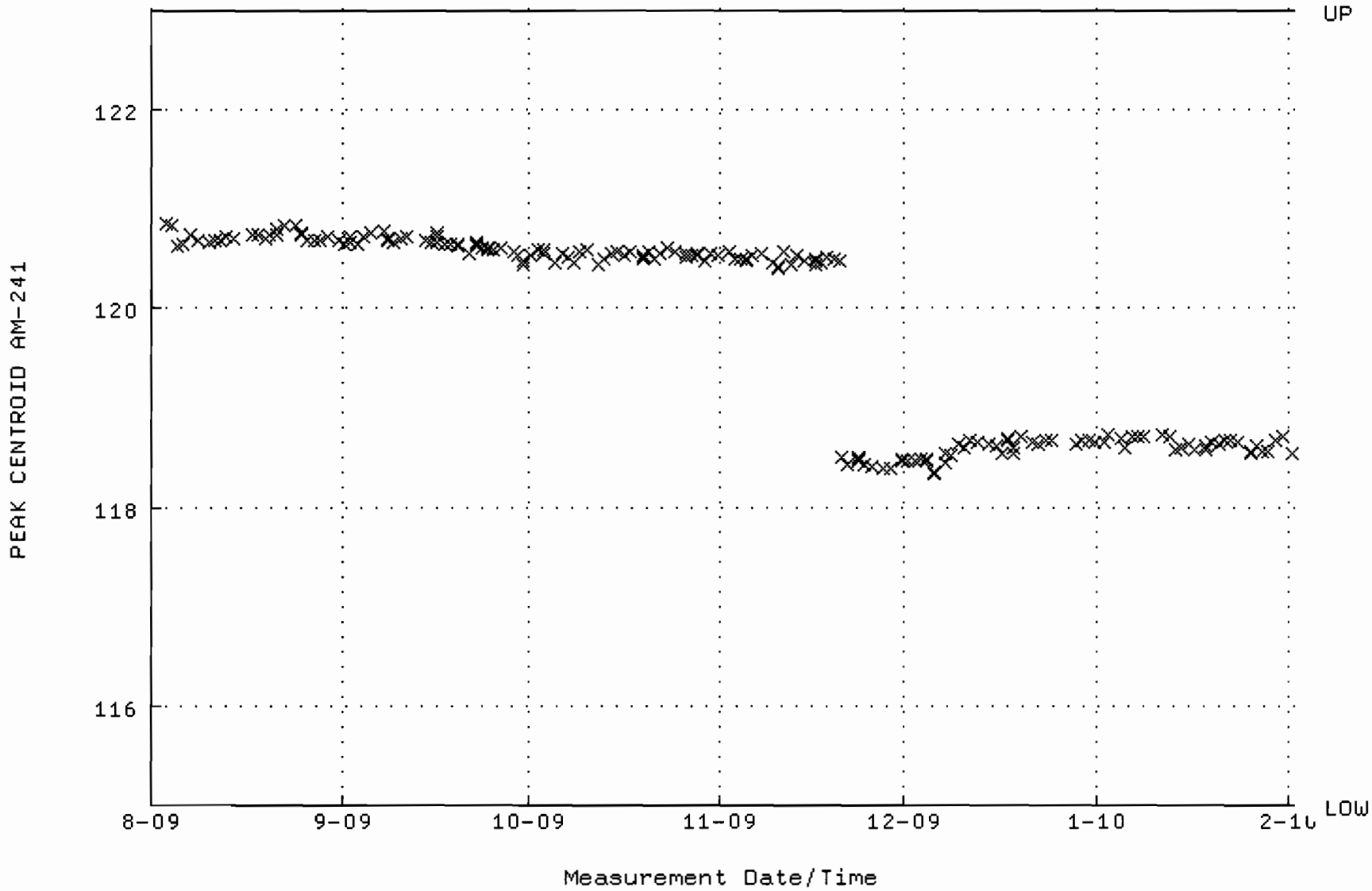

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:10 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

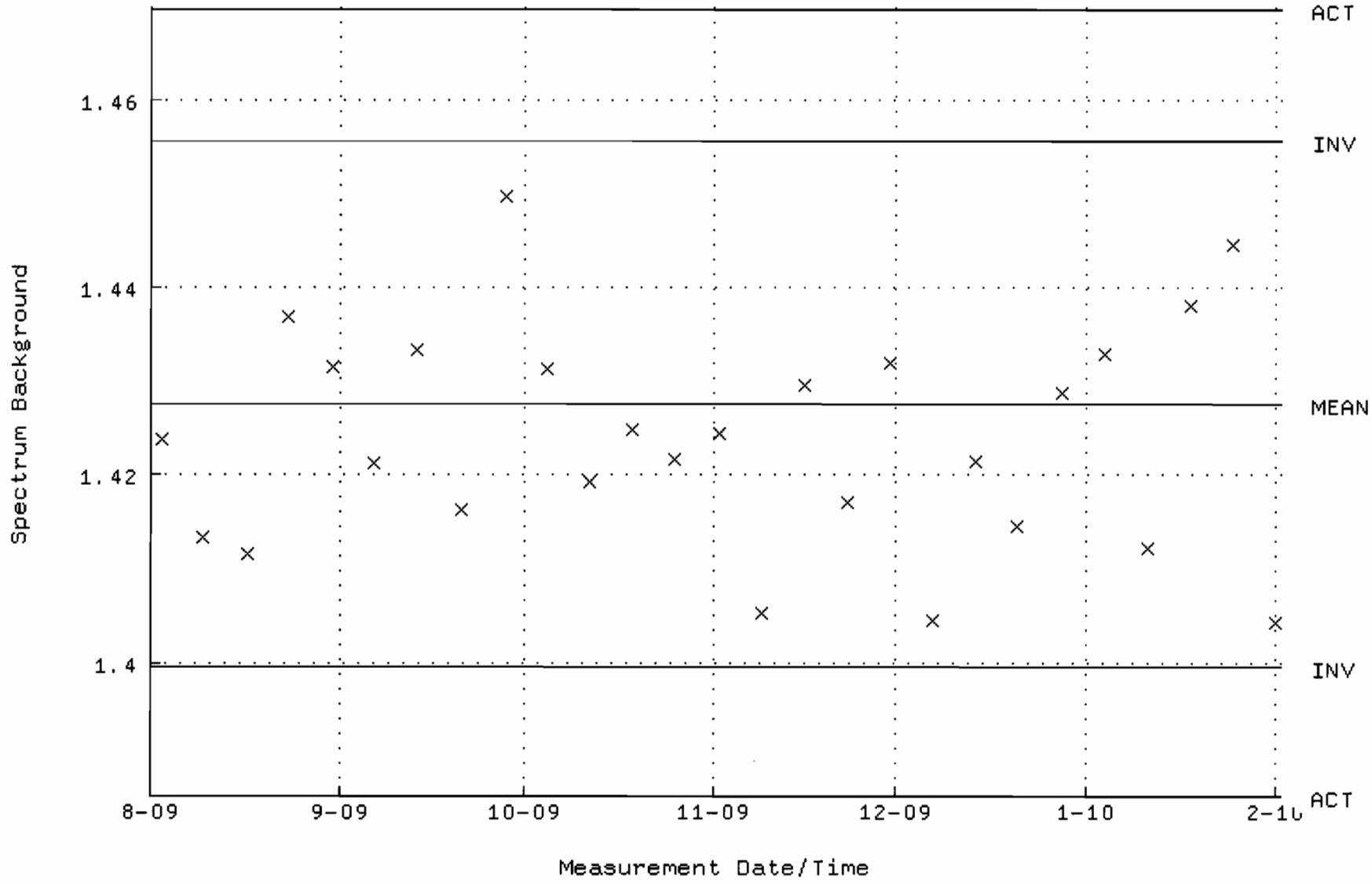

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM18_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:02:47 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

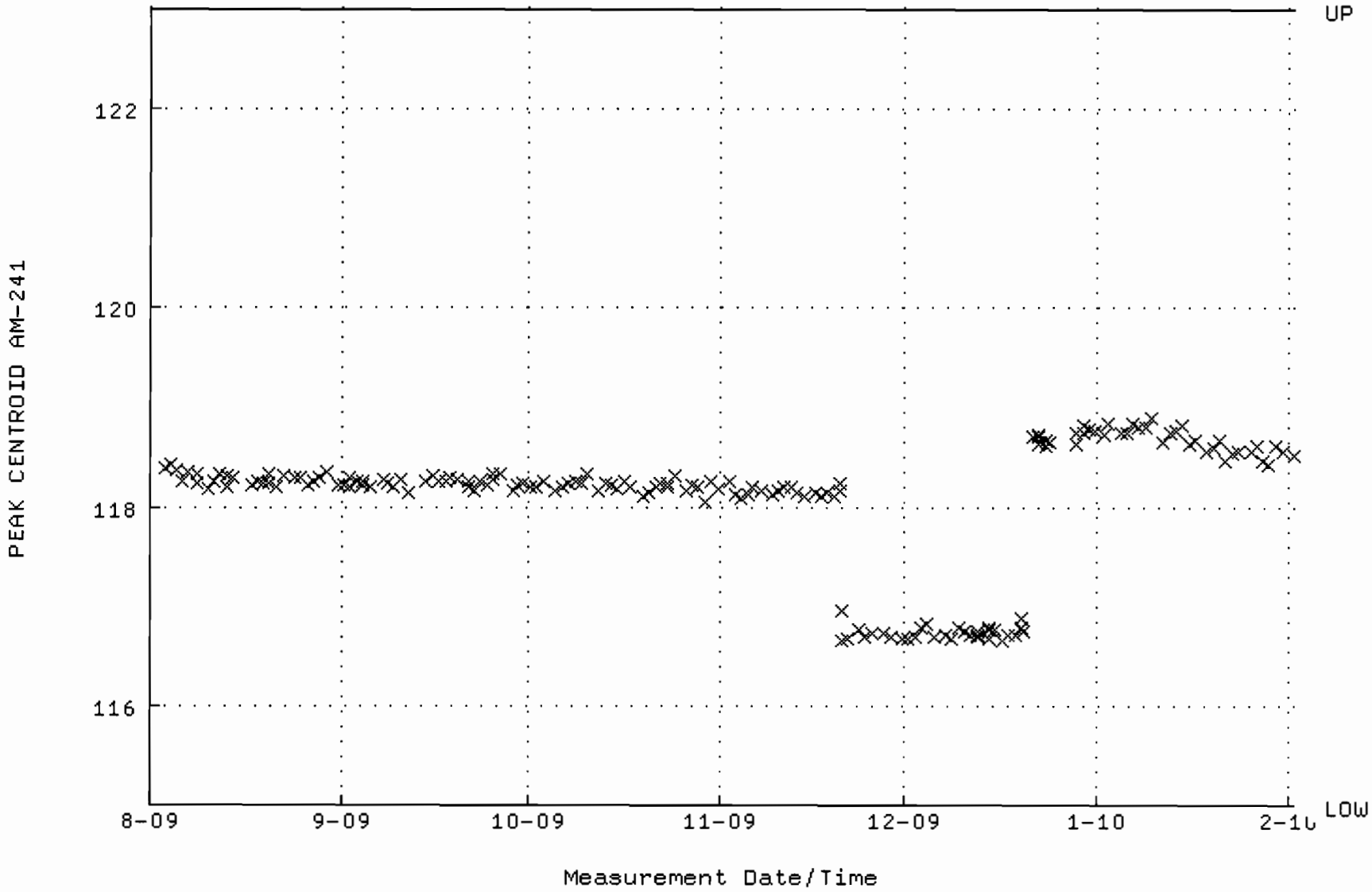

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM18.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:23 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 2.30164 +- 9.930626E-02 (4.31 %)

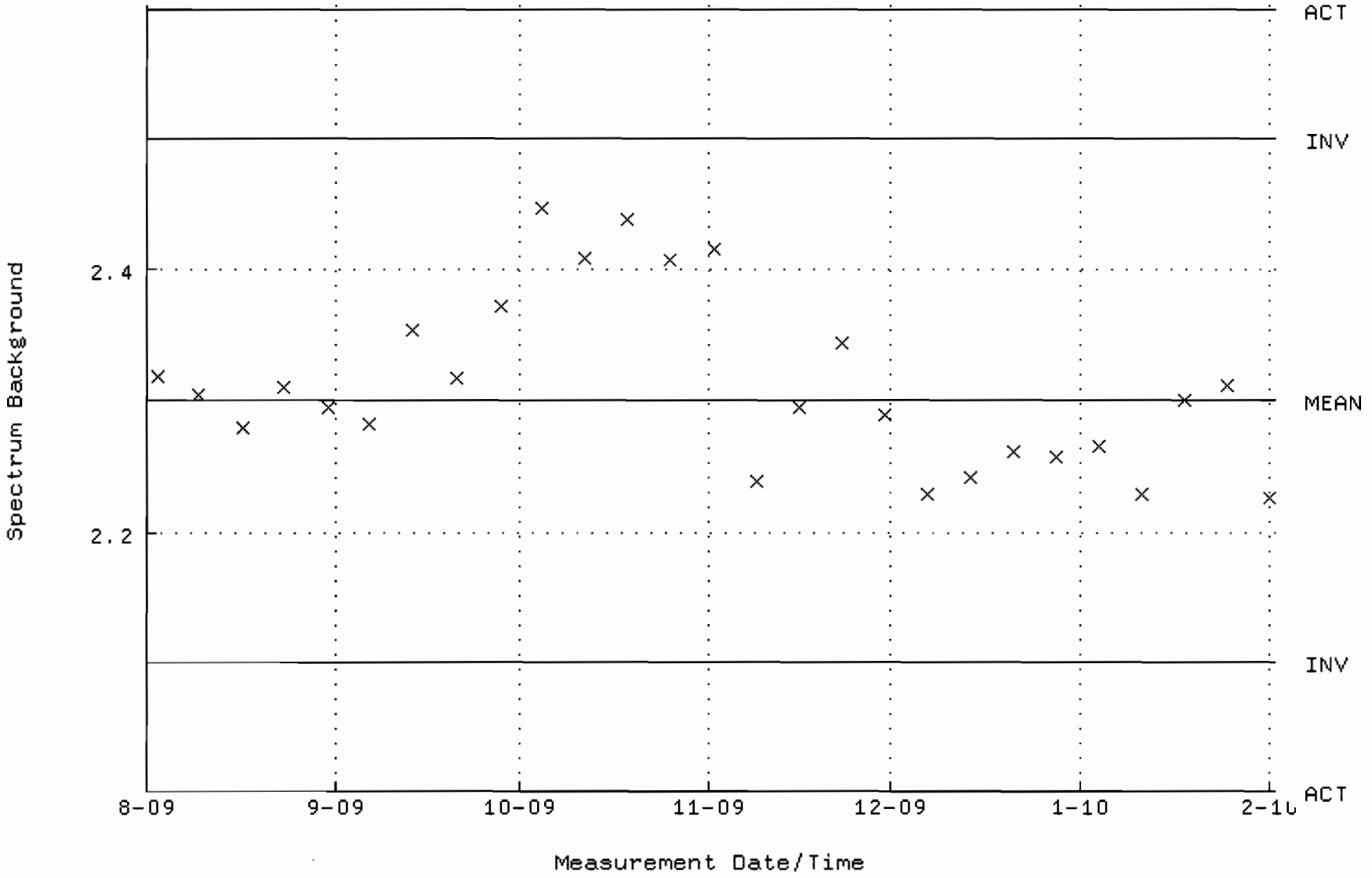

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 10:08:04 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

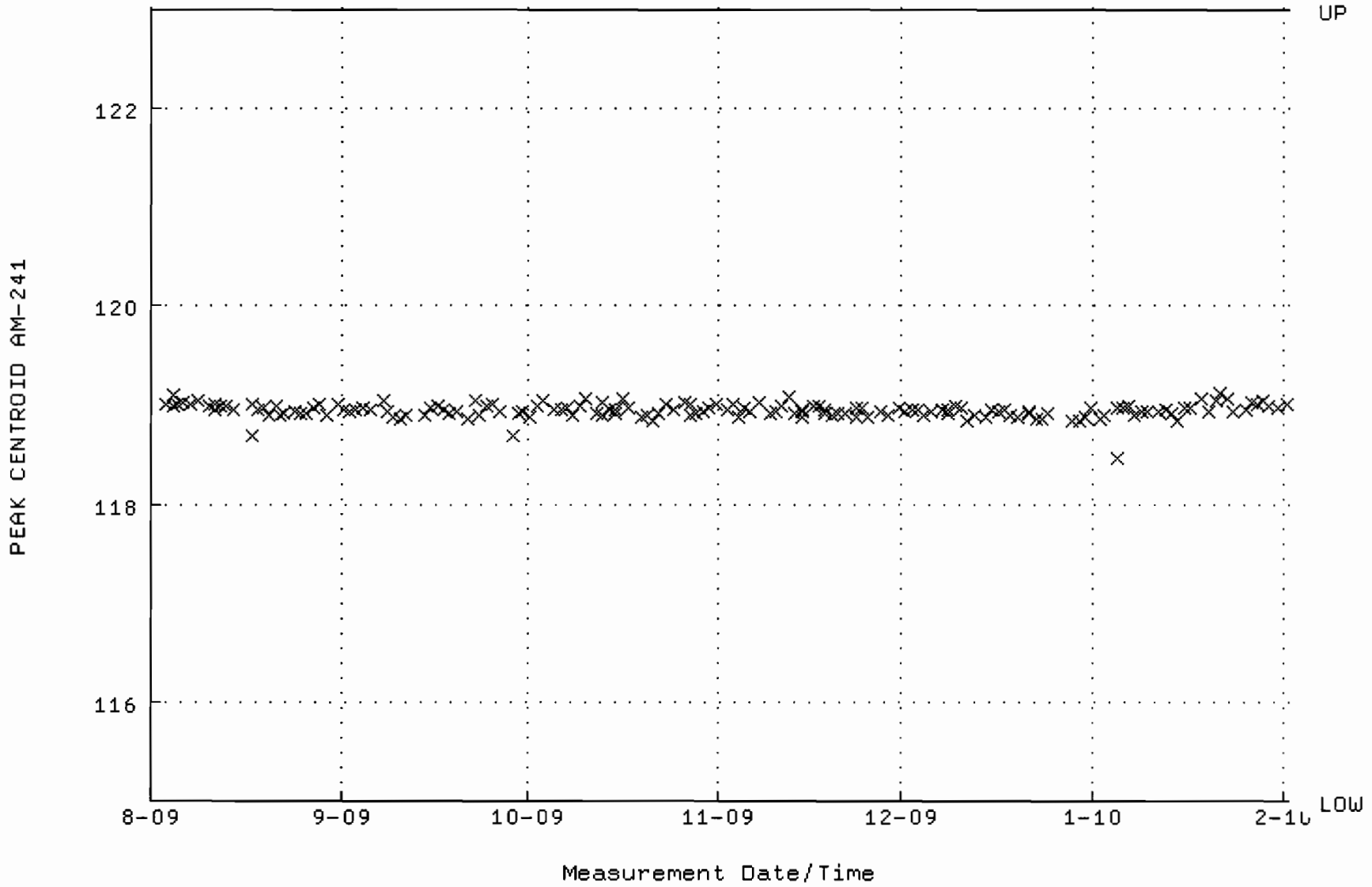

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:41 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

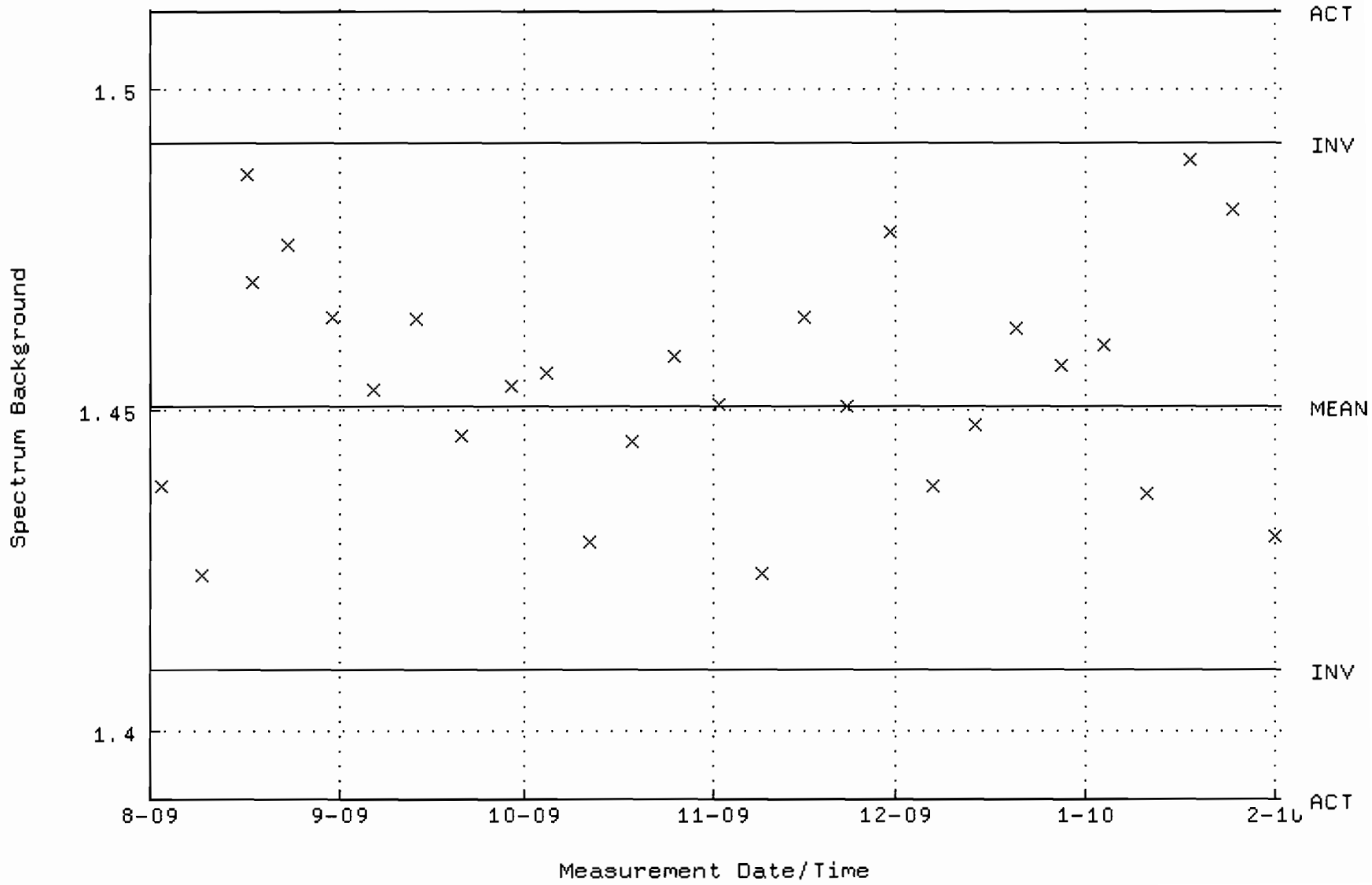

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:19:21 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

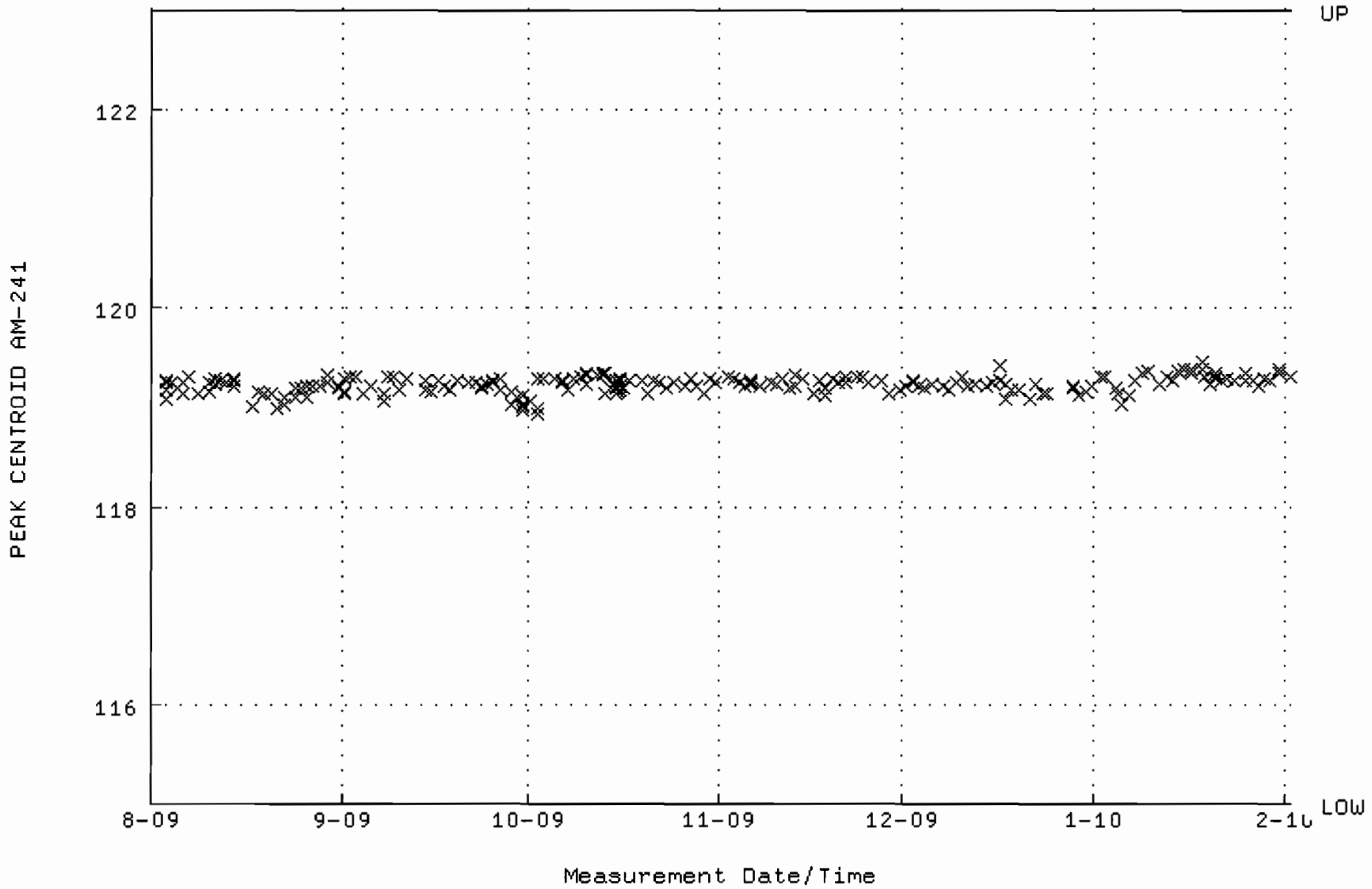

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 2-AUG-2009 16:25:55 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

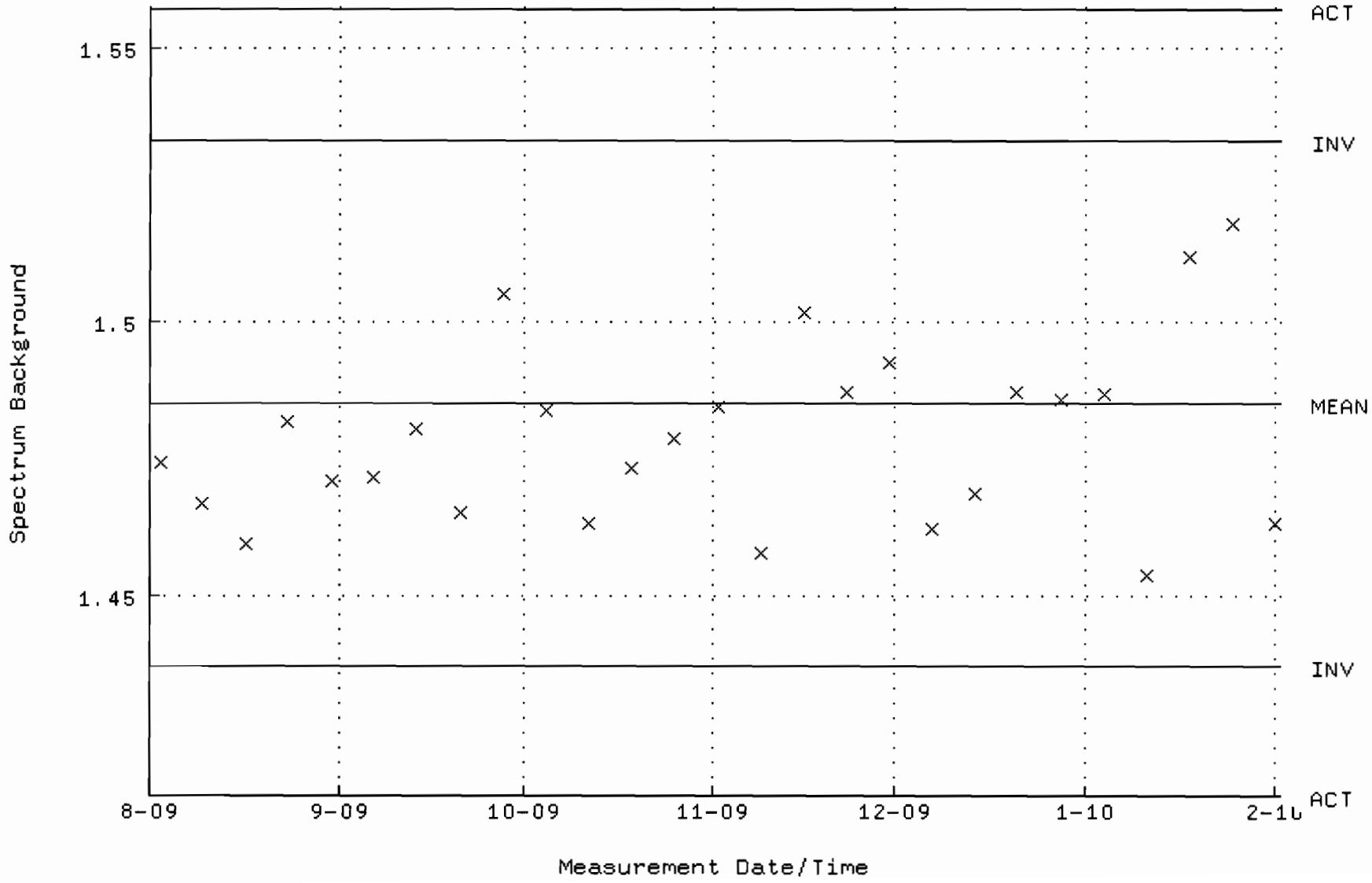

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM22_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-DEC-2009 09:11:39 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

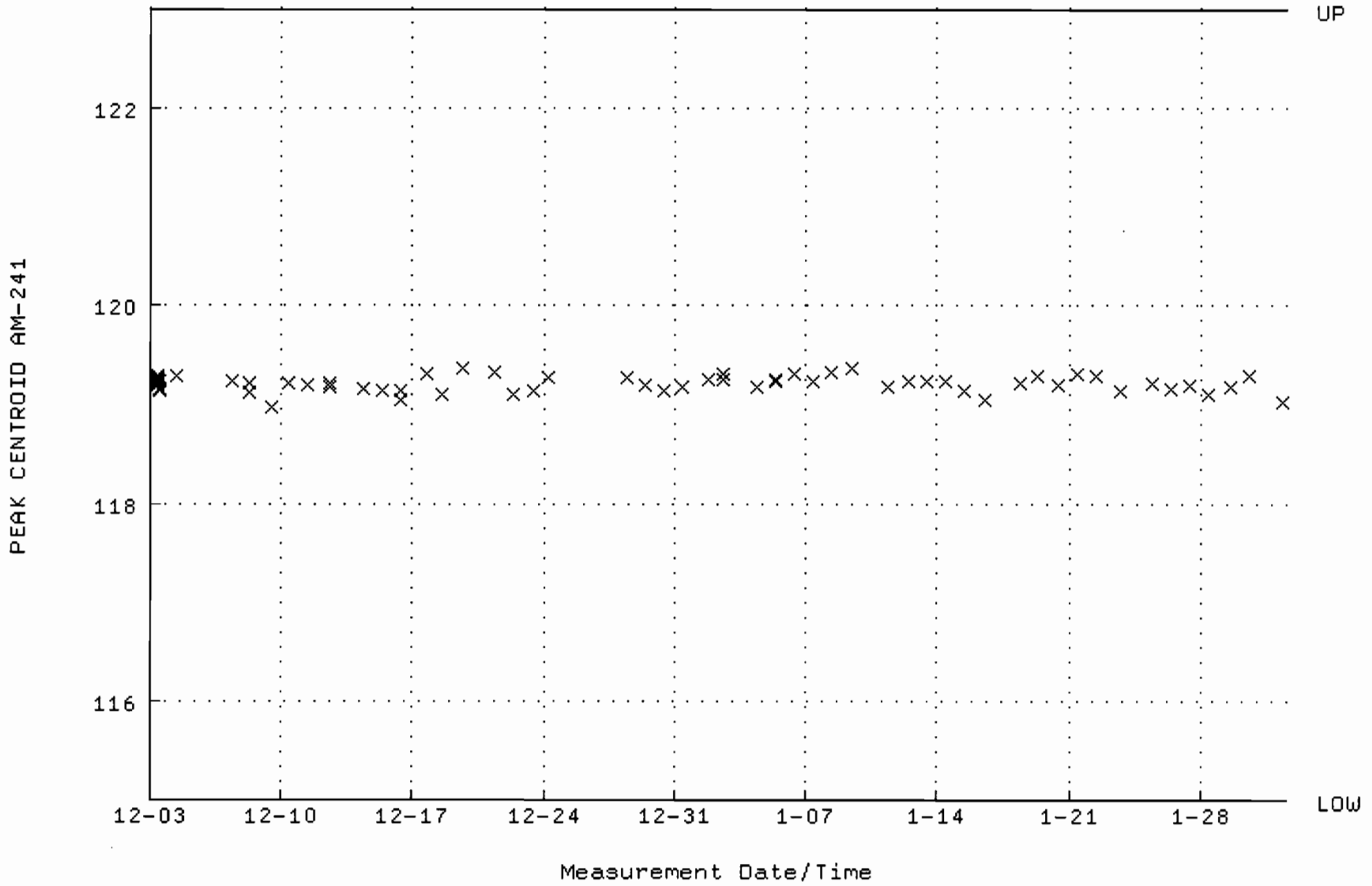

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM22.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 25-NOV-2009 10:28:37 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 3.13961 +- 4.985064E-02 (1.59 %)

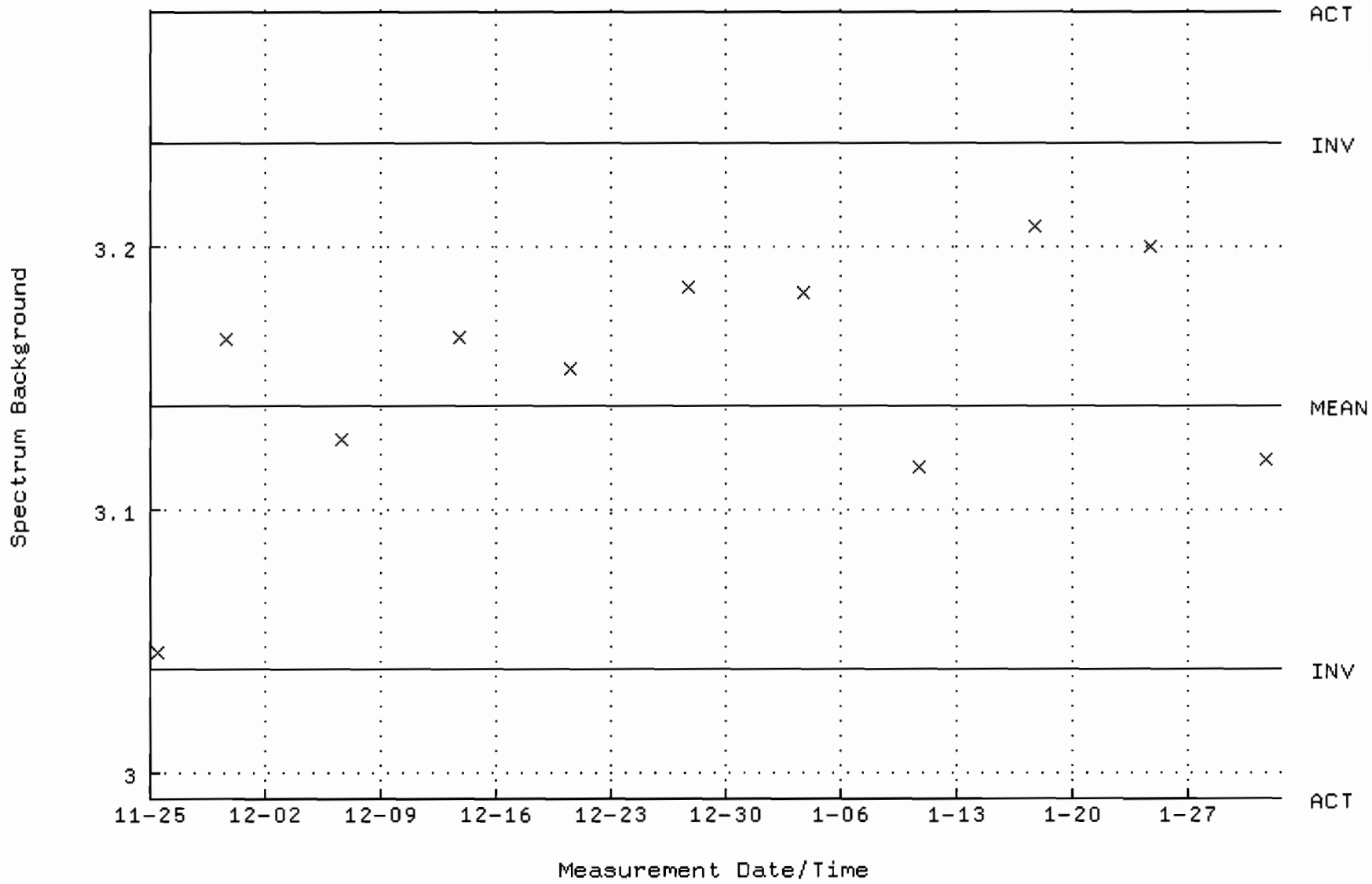

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM23_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 3-AUG-2009 09:16:07 through 1-FEB-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

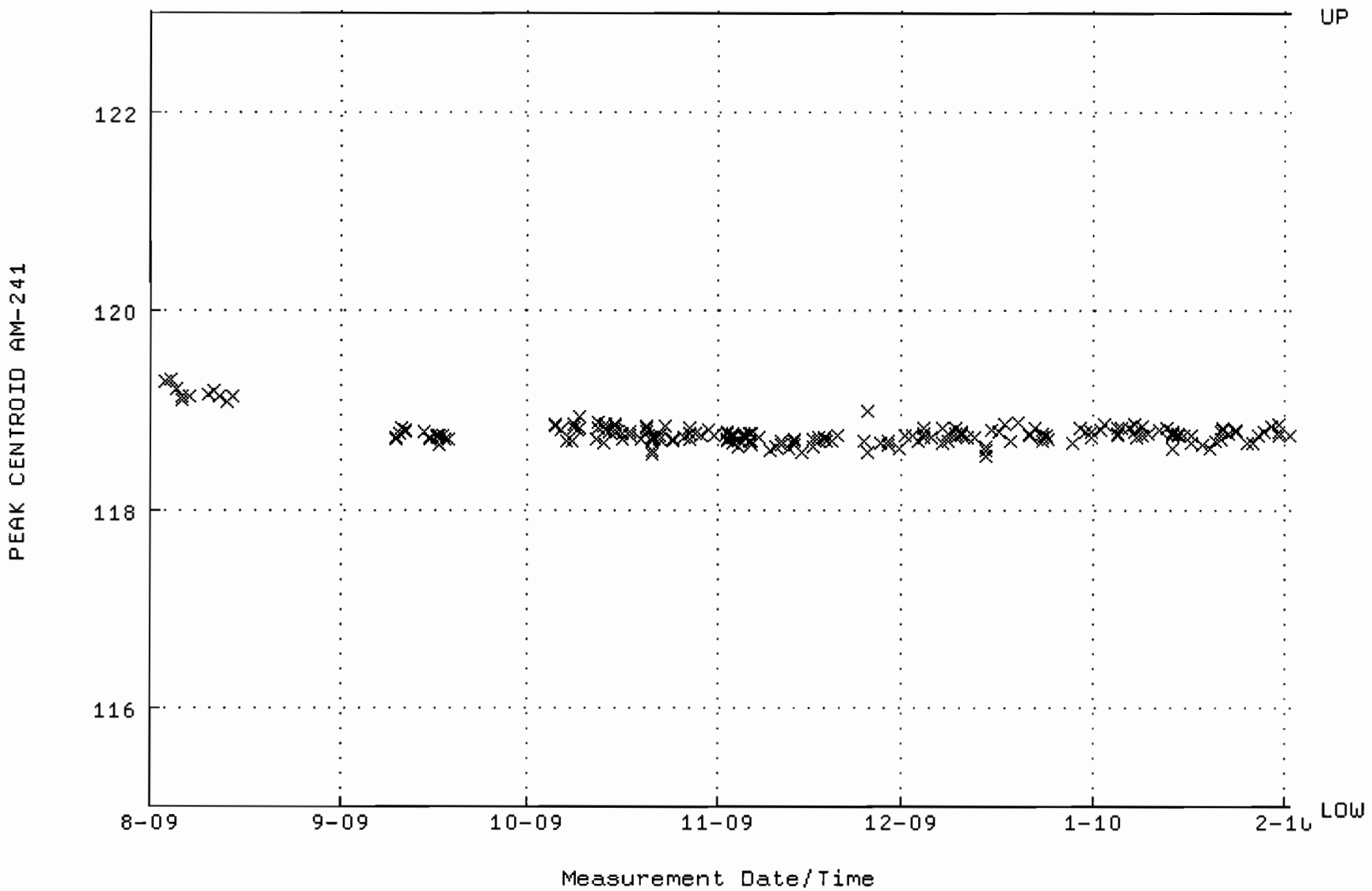

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM23.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-OCT-2009 15:13:53 through 1-FEB-2010 12:00:00
Mean +- Std Dev : 1.61827 +- 0.119991 (7.41 %)

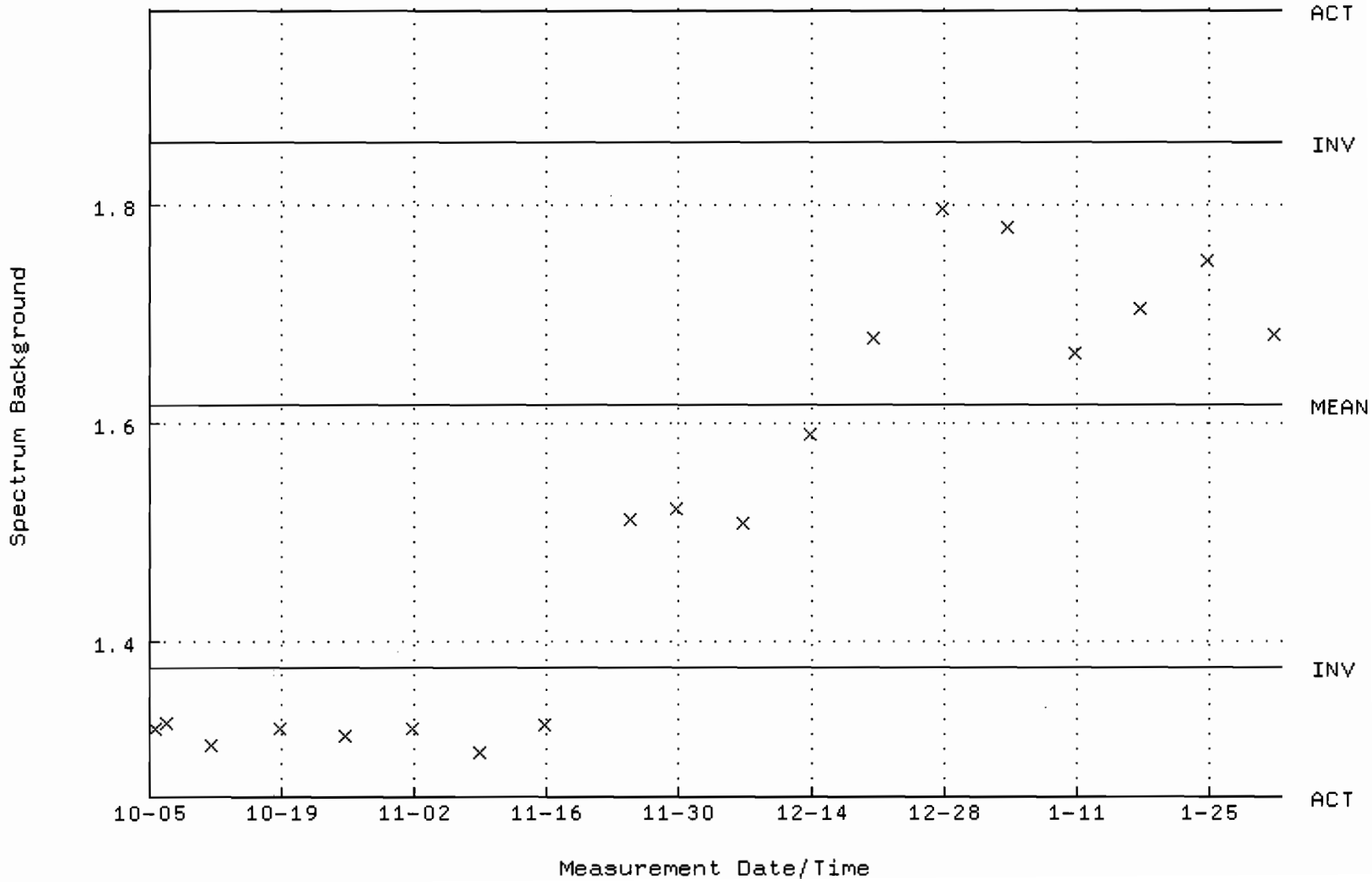

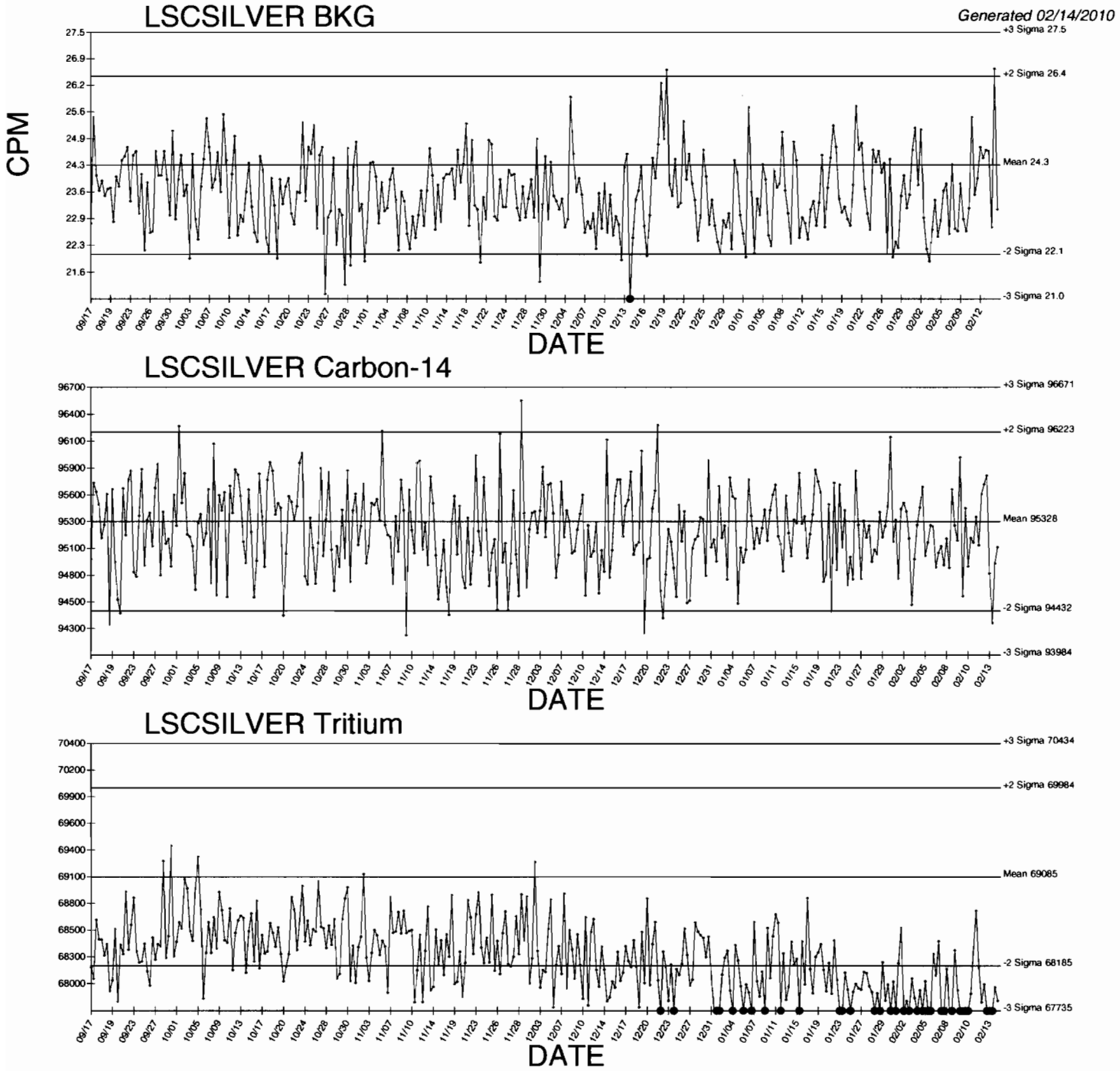

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION
No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

W.F. Case

2C-5-023-061a

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

[illegible] 4/9/09
Amanda L. [illegible] 4/9/09

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

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Laboratory
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

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An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

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Fax 404•352•2837
www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR. 1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR. 3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	

Certificate Value =	1545.8378	pCi/L
Lower Limit =	1437.008431	pCi/L
Upper Limit =	1608.324902	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	85.65823564	
10 % of Mean =	152.26666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Scott C Reid 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 boxes of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM–1	TRM–2	TRM–3	TRM–4
U–238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U–234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th–230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra–225	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb–210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 13
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	LAB USE Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	Douglas E. Perry	DEP	Weston / 7577 / 845-0867

1. Relinquished by	Douglas E. Perry	Org. WESTON	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. Kalal 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01 -> 0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept.
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

Reference LOV (available at SMO)

LAB USE

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking SMO USE
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized and materials being sent to GEL on behalf of Mark Minteer
Please list as separate report.

Abnormal Conditions on Receipt LAB USE

Turnaround Time ☒Normal ☐Rush Required Report Date
QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DEP	Weston / 7577 / 845-0867

1. Relinquished by	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date	
1. Received by	Org.	Date	Time	4. Received by	Org.	Date	
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date	
2. Received by	Org.	Date	Time	5. Received by	Org.	Date	
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date	
3. Received by	Org.	Date	Time	6. Received by	Org.	Date	

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuen

QUALITY CONTROL

Jan 3, 1994

Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridean 5/15/09
Rob Robin 007509

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

1375

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/21/01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

 RC-5-089-094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: $(373\,500 \pm 1100)$ a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}·{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 948721**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245978001	SAMPLE	MXR1	GAM10	14-FEB-10 11:17	DONE	CAN	16-MAR-09 00:00
245978002	SAMPLE	MXR1	GAM16	14-FEB-10 11:17	DONE	CAN	16-NOV-09 00:00
245978003	SAMPLE	MXR1	GAM17	14-FEB-10 11:18	DONE	CAN	06-JAN-10 00:00
245978004	SAMPLE	MXR1	GAM19	14-FEB-10 11:18	DONE	CAN	12-MAR-09 00:00
245978005	SAMPLE	MXR1	GAM20	14-FEB-10 11:19	DONE	CAN	26-AUG-09 00:00
245978006	SAMPLE	MXR1	GAM04	14-FEB-10 11:56	DONE	CAN	05-MAY-09 00:00
245978007	SAMPLE	MXR1	GAM07	14-FEB-10 11:56	DONE	CAN	20-JUL-09 00:00
245978008	SAMPLE	MXR1	GAM15	14-FEB-10 12:01	DONE	CAN	03-FEB-10 00:00
245978009	SAMPLE	MXR1	GAM22	14-FEB-10 12:01	DONE	CAN	02-DEC-09 00:00
245978010	SAMPLE	MXR1	GAM18	14-FEB-10 12:17	DONE	CAN	23-APR-09 00:00
245978011	SAMPLE	MXR1	GAM23	14-FEB-10 12:18	DONE	CAN	02-JUN-09 00:00
245978012	SAMPLE	MXR1	GAM01	14-FEB-10 13:11	DONE	CAN	12-JAN-10 00:00
245978013	SAMPLE	MXR1	GAM06	14-FEB-10 13:11	DONE	CAN	04-FEB-09 00:00
245978014	SAMPLE	MXR1	GAM11	14-FEB-10 13:12	DONE	CAN	18-NOV-09 00:00
245978015	SAMPLE	MXR1	GAM12	14-FEB-10 13:12	DONE	CAN	10-FEB-09 00:00
1202032521	MB	MXR1	GAM14	14-FEB-10 13:13	DONE	CAN	06-MAR-09 00:00
1202032522	DUP	MXR1	GAM10	14-FEB-10 13:18	DONE	CAN	16-MAR-09 00:00
1202032523	LCS	MXR1	GAM04	14-FEB-10 14:00	DONE	CAN	05-MAY-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949823**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1246	15-FEB-10 07:39	DONE		
245955002	SAMPLE	HAKB	1248	15-FEB-10 07:39	DONE		
245960001	SAMPLE	HAKB	1250	15-FEB-10 07:39	DONE		
245960002	SAMPLE	HAKB	1252	15-FEB-10 07:39	DONE		
245960003	SAMPLE	HAKB	1254	15-FEB-10 07:39	DONE		
245960004	SAMPLE	HAKB	1256	15-FEB-10 07:39	DONE		
245960005	SAMPLE	HAKB	1213	15-FEB-10 07:41	DONE		
245960006	SAMPLE	HAKB	1214	15-FEB-10 07:41	DUSE		
245960007	SAMPLE	HAKB	1215	15-FEB-10 07:41	DONE		
245960008	SAMPLE	HAKB	1216	15-FEB-10 07:41	DUSE		
245960009	SAMPLE	HAKB	1217	15-FEB-10 07:41	DONE		
1202034998	MB	HAKB	1218	15-FEB-10 07:41	DONE		
1202034999	DUP	HAKB	1219	15-FEB-10 07:41	DONE		
245960010	SAMPLE	HAKB	1224	15-FEB-10 07:41	DONE		
245960011	SAMPLE	HAKB	1225	15-FEB-10 07:41	DONE		
245978001	SAMPLE	HAKB	1226	15-FEB-10 07:41	DONE		
245978002	SAMPLE	HAKB	1227	15-FEB-10 07:41	DONE		
245978003	SAMPLE	HAKB	1228	15-FEB-10 07:41	DONE		
245978004	SAMPLE	HAKB	1229	15-FEB-10 07:41	DUSE		
245978005	SAMPLE	HAKB	1230	15-FEB-10 07:41	DONE		
245978006	SAMPLE	HAKB	1231	15-FEB-10 07:42	DONE		
245978007	SAMPLE	HAKB	1232	15-FEB-10 07:42	DUSE		
245960006	SAMPLE	HAKB	1233	18-FEB-10 18:42	DUSE		
245960008	SAMPLE	HAKB	1234	18-FEB-10 18:42	DUSE		
245978004	SAMPLE	HAKB	1235	18-FEB-10 18:42	DONE		
1202035000	LCS	HAKB	1236	18-FEB-10 18:42	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949824**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1247	13-FEB-10 21:34	DONE		
245955002	SAMPLE	HAKB	1248	13-FEB-10 21:34	DONE		
245960001	SAMPLE	HAKB	1249	13-FEB-10 21:34	DONE		
245960002	SAMPLE	HAKB	1250	13-FEB-10 21:35	DONE		
245960003	SAMPLE	HAKB	1251	13-FEB-10 21:35	DONE		
245960004	SAMPLE	HAKB	1252	13-FEB-10 21:35	DUSE		
245960005	SAMPLE	HAKB	1253	13-FEB-10 21:35	DONE		
245960006	SAMPLE	HAKB	1254	13-FEB-10 21:35	DONE		
245960007	SAMPLE	HAKB	1255	13-FEB-10 21:35	DONE		
245960008	SAMPLE	HAKB	1256	13-FEB-10 21:35	DONE		
245960009	SAMPLE	HAKB	1025	13-FEB-10 21:40	DONE		
245960010	SAMPLE	HAKB	1026	13-FEB-10 21:40	DONE		
245960011	SAMPLE	HAKB	1027	13-FEB-10 21:40	DONE		
245978001	SAMPLE	HAKB	1028	13-FEB-10 21:40	DONE		
245978002	SAMPLE	HAKB	1029	13-FEB-10 21:40	DUSE		
245978003	SAMPLE	HAKB	1030	13-FEB-10 21:40	DONE		
245978004	SAMPLE	HAKB	1077	13-FEB-10 21:40	DUSE		
245978005	SAMPLE	HAKB	1079	13-FEB-10 21:40	DONE		
245978006	SAMPLE	HAKB	1080	13-FEB-10 21:40	DONE		
245978007	SAMPLE	HAKB	1081	13-FEB-10 21:40	DONE		
1202035001	MB	HAKB	1082	13-FEB-10 21:40	DONE		
245960004	SAMPLE	HAKB	1223	18-FEB-10 18:42	DONE		
245978002	SAMPLE	HAKB	1213	18-FEB-10 18:42	DONE		
245978004	SAMPLE	HAKB	1214	18-FEB-10 18:43	DONE		
1202035002	DUP	HAKB	1221	18-FEB-10 18:43	DONE		
1202035003	LCS	HAKB	1222	18-FEB-10 18:43	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 949825**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245955001	SAMPLE	HAKB	1119	13-FEB-10 21:24	DONE		
245955002	SAMPLE	HAKB	1120	13-FEB-10 21:24	DONE		
245960001	SAMPLE	HAKB	1121	13-FEB-10 21:24	DONE		
245960002	SAMPLE	HAKB	1122	13-FEB-10 21:24	DONE		
245960003	SAMPLE	HAKB	1123	13-FEB-10 21:24	DONE		
245960004	SAMPLE	HAKB	1124	13-FEB-10 21:24	DONE		
245960005	SAMPLE	HAKB	1125	13-FEB-10 21:24	DONE		
245960006	SAMPLE	HAKB	1126	13-FEB-10 21:24	DONE		
245960007	SAMPLE	HAKB	1127	13-FEB-10 21:24	DONE		
245960008	SAMPLE	HAKB	1128	13-FEB-10 21:24	DUSE		
245960009	SAMPLE	HAKB	1129	13-FEB-10 21:24	DONE		
245960010	SAMPLE	HAKB	1130	13-FEB-10 21:24	DONE		
245960011	SAMPLE	HAKB	1131	13-FEB-10 21:24	DONE		
245978001	SAMPLE	HAKB	1132	13-FEB-10 21:24	DONE		
245978002	SAMPLE	HAKB	1133	13-FEB-10 21:24	DUSE		
245978003	SAMPLE	HAKB	1138	13-FEB-10 21:25	DONE		
245978004	SAMPLE	HAKB	1139	13-FEB-10 21:25	DUSE		
245978005	SAMPLE	HAKB	1140	13-FEB-10 21:25	DONE		
245978006	SAMPLE	HAKB	1141	13-FEB-10 21:25	DONE		
245978007	SAMPLE	HAKB	1142	13-FEB-10 21:25	DONE		
1202035005	MB	HAKB	1143	13-FEB-10 21:25	DUSE		
1202035006	DUP	HAKB	1144	13-FEB-10 21:25	DONE		
1202035007	LCS	HAKB	1145	13-FEB-10 21:25	DONE		
245960008	SAMPLE	HAKB	1003	15-FEB-10 21:17	DUSE		
1202035005	MB	HAKB	1004	15-FEB-10 21:17	DONE		

Instrument Run Log

Instrument Type: LSC **Batch ID: 950495**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245978001	SAMPLE	KXK2	LSCSILVER	13-FEB-10 07:13	DONE		
245978002	SAMPLE	KXK2	LSCSILVER	13-FEB-10 08:51	DONE		
245978003	SAMPLE	KXK2	LSCSILVER	13-FEB-10 11:55	DONE		
245978004	SAMPLE	KXK2	LSCSILVER	13-FEB-10 13:33	DONE		
245978005	SAMPLE	KXK2	LSCSILVER	13-FEB-10 15:12	DONE		
245978006	SAMPLE	KXK2	LSCSILVER	13-FEB-10 16:50	DONE		
245978007	SAMPLE	KXK2	LSCSILVER	13-FEB-10 18:29	DONE		
245978008	SAMPLE	KXK2	LSCSILVER	13-FEB-10 20:07	DONE		
245978009	SAMPLE	KXK2	LSCSILVER	13-FEB-10 21:45	DONE		
245978010	SAMPLE	KXK2	LSCSILVER	13-FEB-10 23:24	DONE		
245978011	SAMPLE	KXK2	LSCSILVER	14-FEB-10 01:02	DONE		
245978012	SAMPLE	KXK2	LSCSILVER	14-FEB-10 02:40	DONE		
245978013	SAMPLE	KXK2	LSCSILVER	14-FEB-10 04:19	DONE		
245978014	SAMPLE	KXK2	LSCSILVER	14-FEB-10 05:57	DONE		
245978015	SAMPLE	KXK2	LSCSILVER	14-FEB-10 07:35	DONE		
245979015	SAMPLE	KXK2	LSCSILVER	14-FEB-10 09:13	DONE		
1202036900	MB	KXK2	LSCSILVER	14-FEB-10 10:51	DONE		
1202036901	DUP	KXK2	LSCSILVER	14-FEB-10 12:30	DONE		
1202036902	LCS	KXK2	LSCSILVER	14-FEB-10 14:07	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 951665**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246020012	SAMPLE	CXM2	1217	23-FEB-10 13:25	DONE		
1202039541	MB	CXM2	1218	23-FEB-10 13:26	DONE		
1202039542	DUP	CXM2	1233	23-FEB-10 13:26	DONE		
1202039543	LCS	CXM2	1234	23-FEB-10 13:26	DONE		
245978008	SAMPLE	CXM2	1013	23-FEB-10 21:21	DONE		
245978009	SAMPLE	CXM2	1014	23-FEB-10 21:21	DUSE		
245978010	SAMPLE	CXM2	1016	23-FEB-10 21:21	DONE		
245978011	SAMPLE	CXM2	1017	23-FEB-10 21:21	DUSE		
245978012	SAMPLE	CXM2	1018	23-FEB-10 21:21	DONE		
245978013	SAMPLE	CXM2	1025	23-FEB-10 21:21	DONE		
245978014	SAMPLE	CXM2	1026	23-FEB-10 21:21	DONE		
245978015	SAMPLE	CXM2	1027	23-FEB-10 21:21	DONE		
246020001	SAMPLE	CXM2	1028	23-FEB-10 21:21	DONE		
246020002	SAMPLE	CXM2	1029	23-FEB-10 21:21	DONE		
246020003	SAMPLE	CXM2	1030	23-FEB-10 21:21	DUSE		
246020004	SAMPLE	CXM2	1031	23-FEB-10 21:21	DONE		
246020005	SAMPLE	CXM2	1033	23-FEB-10 21:21	DONE		
246020006	SAMPLE	CXM2	1035	23-FEB-10 21:21	DUSE		
246020007	SAMPLE	CXM2	1036	23-FEB-10 21:21	DONE		
246020008	SAMPLE	CXM2	1095	23-FEB-10 21:21	DONE		
246020009	SAMPLE	CXM2	1097	23-FEB-10 21:21	DONE		
246020010	SAMPLE	CXM2	1099	23-FEB-10 21:21	DONE		
246020011	SAMPLE	CXM2	1100	23-FEB-10 21:21	DONE		
246020003	SAMPLE	CXM2	1209	24-FEB-10 20:00	DONE		
246020006	SAMPLE	CXM2	1210	24-FEB-10 20:00	DONE		
245978009	SAMPLE	CXM2	1229	25-FEB-10 17:00	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 951669**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245978008	SAMPLE	CXM2	1065	23-FEB-10 13:08	DONE		
245978009	SAMPLE	CXM2	1066	23-FEB-10 13:08	DONE		
245978010	SAMPLE	CXM2	1067	23-FEB-10 13:08	DONE		
245978011	SAMPLE	CXM2	1068	23-FEB-10 13:08	DUSE		
245978012	SAMPLE	CXM2	1069	23-FEB-10 13:08	DUSE		
245978013	SAMPLE	CXM2	1070	23-FEB-10 13:08	DUSE		
245978014	SAMPLE	CXM2	1071	23-FEB-10 13:08	DONE		
245978015	SAMPLE	CXM2	1072	23-FEB-10 13:08	DONE		
246020001	SAMPLE	CXM2	1073	23-FEB-10 13:08	DONE		
246020002	SAMPLE	CXM2	1074	23-FEB-10 13:08	DONE		
246020003	SAMPLE	CXM2	1075	23-FEB-10 13:08	DONE		
246020004	SAMPLE	CXM2	1076	23-FEB-10 13:08	DONE		
246020005	SAMPLE	CXM2	1077	23-FEB-10 13:08	DONE		
246020006	SAMPLE	CXM2	1079	23-FEB-10 13:08	DONE		
246020007	SAMPLE	CXM2	1080	23-FEB-10 13:08	DUSE		
246020008	SAMPLE	CXM2	1081	23-FEB-10 13:08	DONE		
246020009	SAMPLE	CXM2	1082	23-FEB-10 13:08	DONE		
246020010	SAMPLE	CXM2	1083	23-FEB-10 13:08	DONE		
246020011	SAMPLE	CXM2	1084	23-FEB-10 13:08	DONE		
246020012	SAMPLE	CXM2	1085	23-FEB-10 13:08	DONE		
1202039555	MB	CXM2	1086	23-FEB-10 13:08	DONE		
1202039557	LCS	CXM2	1088	23-FEB-10 13:08	DONE		
245978011	SAMPLE	CXM2	1043	24-FEB-10 20:01	DONE		
245978012	SAMPLE	CXM2	1044	24-FEB-10 20:01	DONE		
245978013	SAMPLE	CXM2	1045	24-FEB-10 20:01	DONE		
246020007	SAMPLE	CXM2	1046	24-FEB-10 20:01	DONE		
1202039556	DUP	CXM2	1043	25-FEB-10 22:19	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 951672**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202039558	MB	CXM2	1166	24-FEB-10 09:54	DONE		
246020008	SAMPLE	CXM2	1003	24-FEB-10 13:02	DONE		
246020009	SAMPLE	CXM2	1004	24-FEB-10 13:02	DONE		
246020010	SAMPLE	CXM2	1005	24-FEB-10 13:02	DONE		
246020011	SAMPLE	CXM2	1008	24-FEB-10 13:02	DUSE		
246020012	SAMPLE	CXM2	1009	24-FEB-10 13:02	DONE		
1202039559	DUP	CXM2	1010	24-FEB-10 13:02	DONE		
1202039560	LCS	CXM2	1011	24-FEB-10 13:02	DONE		
245978008	SAMPLE	CXM2	1113	24-FEB-10 13:20	DONE		
245978009	SAMPLE	CXM2	1114	24-FEB-10 13:20	DONE		
245978010	SAMPLE	CXM2	1115	24-FEB-10 13:20	DONE		
245978011	SAMPLE	CXM2	1119	24-FEB-10 13:20	DONE		
245978012	SAMPLE	CXM2	1120	24-FEB-10 13:21	DONE		
245978013	SAMPLE	CXM2	1121	24-FEB-10 13:21	DONE		
245978014	SAMPLE	CXM2	1122	24-FEB-10 13:21	DONE		
245978015	SAMPLE	CXM2	1123	24-FEB-10 13:21	DONE		
246020001	SAMPLE	CXM2	1124	24-FEB-10 13:21	DONE		
246020002	SAMPLE	CXM2	1125	24-FEB-10 13:21	DONE		
246020003	SAMPLE	CXM2	1126	24-FEB-10 13:21	DUSE		
246020004	SAMPLE	CXM2	1127	24-FEB-10 13:21	DONE		
246020005	SAMPLE	CXM2	1128	24-FEB-10 13:21	DONE		
246020006	SAMPLE	CXM2	1129	24-FEB-10 13:21	DUSE		
246020007	SAMPLE	CXM2	1130	24-FEB-10 13:21	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 953488**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202044051	MB	HAKB	1167	23-FEB-10 10:41	DONE		
245978002	SAMPLE	HAKB	1125	23-FEB-10 10:43	DONE		
245978004	SAMPLE	HAKB	1126	23-FEB-10 10:43	DONE		
1202044052	DUP	HAKB	1127	23-FEB-10 10:43	DONE		
1202044053	LCS	HAKB	1128	23-FEB-10 10:43	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 954009**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
245978007	SAMPLE	HAKB	1107	19-FEB-10 15:53	DONE		
1202045187	MB	HAKB	1108	19-FEB-10 15:53	DONE		
1202045188	DUP	HAKB	1109	19-FEB-10 15:53	DONE		
1202045189	LCS	HAKB	1111	19-FEB-10 15:53	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957873**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202054058	MB	CXM2	1072	26-FEB-10 23:40	DONE		
1202054059	DUP	CXM2	1073	26-FEB-10 23:40	DONE		
1202054060	LCS	CXM2	1074	26-FEB-10 23:40	DONE		
245978011	SAMPLE	CXM2	1233	27-FEB-10 20:08	DONE		

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1512

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	
	SW-846:6850	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	
	SW-846:7470A	1	RE15-10-8084	W	1/27/2010	
	SW-846:7471A	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	SW-846:8082	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
	SW-846:8321A_MOD	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7978	R	1/27/2010	
	SW-846:9012A	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	

Final Page of REQUEST NUMBER 10-1512

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C

REQUEST NUMBER: 10-1512

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7880	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7880	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7891	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7891	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7892	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7892	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7967	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7967	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7976	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7976	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7968	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7968	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7965	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7965	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7975	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7975	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7978	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7978	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7970	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7970	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7964	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7964	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7973	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7973	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7962	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7962	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7963	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7963	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7977	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7977	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8084	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8084	1	POLY	SW-846:6850	Ice	W

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8084	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:	**Date**	**Time**	**Received By:**	**Date**	**Time**
[signature]	2/1/10	3:00			

Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature

Received for DISPOSAL By:	**Date**	**Time**	**Remarks:**

Printed Name	Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7892 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		0923	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610715	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light grey tuff

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-68 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 **dpm**
Beta/Gamma ≤ 2430 **dpm**

PID Ambient 0.4 / Reading 1.2 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) T L McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	7:54AM	(Signature)	754
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7880 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1412	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610709	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.8	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: whitish Gray tuff

SAMPLE COMMENTS: 2nd depth

LOCATION DESC: 8b-50, mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 44 dpm
Beta/Gamma ≤ 2120 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	7:52 AM	(Signature) Sherri Sherwood	752
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7965 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Allh
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610752	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty clay, some rocks and wood chips

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-70 mesatop

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 55 dpm
Beta/Gamma ≤ 2350 dpm

PID Ambient 0.1 / Reading 0.2 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) [illegible]	1/28/10
(Signature) [signature]	0807 AM	(Signature) [signature]	8:07
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7963 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1015	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610751	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 KC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks

FR RE15-10-8083

SAMPLE COMMENTS: NA

LOCATION DESC: 8b - ~~70~~ 77 12m 1/27/10 mesa Top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 55 **dpm**
Beta/Gamma ≤ 1962 **dpm**

PID Ambient 0.2 / Reading 0.2 = **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Montoya	1/28/10
(Signature)	0806 AM	(Signature)	806
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7977 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1501	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610758	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.6	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None		
1	↓	H3	500 ML POLY	Ice		
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 Le	Ice		
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice		
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

SAMPLE DESC: Dark brown silty sand, numerous rocks, frozen

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-51 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE neg

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 1886 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0813 Am	(Signature) Sherri Sherwood	0813
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7891 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		0910	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610715	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	~~1 GAL~~ POLY 1L RS 01-11-10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, few wood chips

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-68 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

HE NEG

Alpha ≤ 33 dpm
Beta/Gamma ≤ 4490 dpm

PID Ambient 0.2 / Reading 0.8 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/27/10	(Printed Name)	1/27/10
(Signature)	7:53 AM	(Signature)	753
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7975 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1500	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610757	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 SC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: dark brown silty sand numerous rocks, pine needles

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-30 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 44 **dpm**
Beta/Gamma ≤ 2150 **dpm**

PID Ambient 0.0 / Reading 0.4 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0812 Am	(Signature) Sherri Sherwood	0812
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7976 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1510	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610757	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.6	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b - 30 mesa top edge

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2666 dpm

PID Ambient 0.0 / Reading 0.3 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0812 Am	(Signature) Sherri Sherwood	0812
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7962 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		937	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610750	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: grey tuff

SAMPLE COMMENTS: Tuff at 23 ft

LOCATION DESC: 8b-61 mesa top next to pine tree

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 38 **dpm**
Beta/Gamma = 2010 **dpm**

PID Ambient Reading 0.0 / 1.7 **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	0806 AM	(Signature)	806
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-8084 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1417	SUB-MEDIA:	OTHER	
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610756	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7974

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

~~Alpha = ____ dpm~~ 12m 1/27/10
~~Beta/Gamma = ____ dpm~~

~~PID Ambient Reading = ppm~~ 12m 1/27/10

COLLECTED BY (PRINT) TL McFarlane **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Melissa Salazar	1/28/10
(Signature)	0813 Am	(Signature)	813
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7968 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	TLM 1/27/10 ~~AHH~~ ok
TIME COLLECTED (HH:MM)		1136	SUB-MEDIA:	TUFF 1	ok
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610753	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff

SAMPLE COMMENTS: hit tuff at 2ft

LOCATION DESC: 8b-69 mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 38 dpm
Beta/Gamma ≤ 2710 dpm

PID Ambient Reading ~~0.2~~ 0.4 ppm RS 01.27.10 RS 01.27.10 0.0 / 0.5

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarlane

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name)	1/28/10
(Signature)	0809 AM	(Signature)	809
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7978 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	OBT3	ALL/T
TIME COLLECTED (HH:MM)		1528	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610758	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty clay, some sand, and rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-51 mesa top

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 49 dpm
Beta/Gamma ≤ 1984 dpm

PID Ambient Reading 0.0 0.9 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/27/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) E L	07:51 AM	(Signature) Sherri Sherwood	0751
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7967 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1054	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610753	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown sand some clay and few rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 8b-69 mesa top

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 6140 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0808 AM	(Signature)	0808
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7970 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1310	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610754	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.3	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown silty sand

SAMPLE COMMENTS:
NA

LOCATION DESC: 8b-74 mesatop

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 44 dpm
Beta/Gamma = 1900 dpm

PID Ambient 0.0 / Reading 0.1 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Estevan Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature) [signature]	0810 Am	(Signature) Sherri Sherwood	0810
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7964 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1120	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610751	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	3.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Regular	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey and orange tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 8b - ~~70~~ 77 mesa Top 72m 1/27/10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 55 dpm
Beta/Gamma ≤ 2070 dpm

PID Ambient 0.2 / Reading 0.4 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0807 AM	(Signature) Sherri Sherwood	0807
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2499 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-008(b) - Threemile Canyon

SAMPLE ID: RE15-10-7973 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/27/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1351	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(b)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610756	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.7	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+C N	1 ~~GAL~~ POLY liter 1/11/10 AC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Dark brown silty sand, moist, tuff fragments, minor clay

FD: RE15-10-8063

SAMPLE COMMENTS:

NA

LOCATION DESC: 8b - 56 mesatop

FIELD SCREENING/MEASUREMENT RESULTS: HE NEG

Alpha ≤ 49 dpm
Beta/Gamma ≤ 2120 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Esteban Lujan	1/28/10	(Printed Name) Sherri Sherwood	1/28/10
(Signature)	0812 Am	(Signature)	0812
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The soil MS/MSD %R calculations were performed incorrectly. The parent sample result was < the MDL and, thus, a result of 0 µg/kg should have been used to calculate the %Rs. The laboratory subtracted the parent sample concentration. The %Rs were within the acceptance limits when calculated correctly. No sample results were qualified as a result.
2. It should be noted that the aqueous MS and MSD parent sample was from another LANL RN and the raw data for the parent sample was not included in the package. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: DATE: 3/16/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1952

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8084

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512-1

GEL Sample ID: 245975001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:00	per0208066a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:00	per0208066a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:00	per0208066a
	Perchlorate-O(18)			0.480	ug/L		1	08-FEB-10 21:00	per0208066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

LMF
3/16/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7880

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969001

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	22-FEB-10 05:22	per0221107a
	Perchlorate Isotope Ratio						1	22-FEB-10 05:22	per0221107a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	22-FEB-10 05:22	per0221107a
	Perchlorate-O(18)			5.08	ug/kg		1	22-FEB-10 05:22	per0221107a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7891

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969002

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.676	2.7	0.676	ug/kg	U	1	22-FEB-10 05:49	per0221110a
	Perchlorate Isotope Ratio						1	22-FEB-10 05:49	per0221110a
14797-73-0	Perchlorate-101	.676	2.7	0.676	ug/kg	U	1	22-FEB-10 05:49	per0221110a
	Perchlorate-O(18)			6.51	ug/kg		1	22-FEB-10 05:49	per0221110a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7892

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969003

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.537	2.15	0.571	ug/kg	J	1	22-FEB-10 05:58	per0221111a
	Perchlorate Isotope Ratio			3.1			1	22-FEB-10 05:58	per0221111a
14797-73-0	Perchlorate-101	.537	2.15	0.588	ug/kg	J	1	22-FEB-10 05:58	per0221111a
	Perchlorate-O(18)			5.50	ug/kg		1	22-FEB-10 05:58	per0221111a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7967

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969004

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.659	2.64	0.659	ug/kg	U	1	22-FEB-10 06:07	per0221112a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:07	per0221112a
14797-73-0	Perchlorate-101	.659	2.64	0.659	ug/kg	U	1	22-FEB-10 06:07	per0221112a
	Perchlorate-O(18)			6.43	ug/kg		1	22-FEB-10 06:07	per0221112a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7976

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969005

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	22-FEB-10 06:16	per0221113a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:16	per0221113a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	22-FEB-10 06:16	per0221113a
	Perchlorate-O(18)			4.92	ug/kg		1	22-FEB-10 06:16	per0221113a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7968

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969006

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 06:52	per0221117a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:52	per0221117a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 06:52	per0221117a
	Perchlorate-O(18)			5.70	ug/kg		1	22-FEB-10 06:52	per0221117a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7965

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969007

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.643	2.57	0.643	ug/kg	U	1	22-FEB-10 07:02	per0221118a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:02	per0221118a
14797-73-0	Perchlorate-101	.643	2.57	0.643	ug/kg	U	1	22-FEB-10 07:02	per0221118a
	Perchlorate-O(18)			6.51	ug/kg		1	22-FEB-10 07:02	per0221118a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7975

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969008

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.671	2.68	0.671	ug/kg	U	1	22-FEB-10 07:11	per0221119a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:11	per0221119a
14797-73-0	Perchlorate-101	.671	2.68	0.671	ug/kg	U	1	22-FEB-10 07:11	per0221119a
	Perchlorate-O(18)			6.84	ug/kg		1	22-FEB-10 07:11	per0221119a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7978

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969009

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.602	2.41	0.602	ug/kg	U	1	22-FEB-10 07:20	per0221120a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:20	per0221120a
14797-73-0	Perchlorate-101	.602	2.41	0.602	ug/kg	U	1	22-FEB-10 07:20	per0221120a
	Perchlorate-O(18)			6.62	ug/kg		1	22-FEB-10 07:20	per0221120a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7970

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969010

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 91.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	22-FEB-10 07:29	per0221121a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:29	per0221121a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	22-FEB-10 07:29	per0221121a
	Perchlorate-O(18)			5.53	ug/kg		1	22-FEB-10 07:29	per0221121a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7964

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969011

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 07:38	per0221122a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:38	per0221122a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 07:38	per0221122a
	Perchlorate-O(18)			6.01	ug/kg		1	22-FEB-10 07:38	per0221122a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7973

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969012

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	22-FEB-10 07:47	per0221123a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:47	per0221123a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	22-FEB-10 07:47	per0221123a
	Perchlorate-O(18)			6.20	ug/kg		1	22-FEB-10 07:47	per0221123a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7962

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969013

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 94.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.689	ug/kg	J	1	22-FEB-10 07:56	per0221124a
	Perchlorate Isotope Ratio			3.38			1	22-FEB-10 07:56	per0221124a
14797-73-0	Perchlorate-101	.528	2.11	0.650	ug/kg	J	1	22-FEB-10 07:56	per0221124a
	Perchlorate-O(18)			5.51	ug/kg		1	22-FEB-10 07:56	per0221124a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7963

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969014

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	0.631	ug/kg	U	1	22-FEB-10 08:05	per0221125a
	Perchlorate Isotope Ratio						1	22-FEB-10 08:05	per0221125a
14797-73-0	Perchlorate-101	.631	2.52	0.631	ug/kg	U	1	22-FEB-10 08:05	per0221125a
	Perchlorate-O(18)			6.33	ug/kg		1	22-FEB-10 08:05	per0221125a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7977

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969015

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	22-FEB-10 08:14	per0221126a
	Perchlorate Isotope Ratio						1	22-FEB-10 08:14	per0221126a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	22-FEB-10 08:14	per0221126a
	Perchlorate-O(18)			8.10	ug/kg		1	22-FEB-10 08:14	per0221126a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the ICV and CCVs associated with all samples except RE15-10-7964 and -7970, the %Ds were >20% with a positive bias for HMX. The associated results in samples -7965 and -7967 were detects and, thus, were qualified J,HE7c. All other associated sample results were NDs and, thus, were not qualified.
2. The LCS %Rs were > the laboratory's UAL for 2,4-diamino-6-nitrotoluene and 2,6-diamino-4-nitrotoluene. The associated sample results were NDs and, thus, were not qualified.
3. The MS %R was > the laboratory's UAL for 2,6-diamino-4-nitrotoluene. The associated sample results were NDs and, thus, were not qualified.
4. The sample result of HMX in sample -7965 exceeded the calibration range in the original analysis. The original HMX analysis was not reported but was reported by itself at a higher dilution. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: DATE: 3/16/10

DATA VALIDATION COVER SHEET	
5122-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☒	☐	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☒	☐	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☒	☐	☐	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969001

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301022a

Date Analyzed: 02-MAR-10 01:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969001

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220020.wiff

Date Analyzed: 22-FEB-10 22:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7891

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969002

Sample Amount 2

Moisture: 26.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301025a

Date Analyzed: 02-MAR-10 03:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7891

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969002

Sample Amount 2

Moisture: 26.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220023.wiff

Date Analyzed: 22-FEB-10 22:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7892

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969003

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301026a

Date Analyzed: 02-MAR-10 03:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7892

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969003

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220027.wiff

Date Analyzed: 22-FEB-10 23:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7967

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969004

Sample Amount 2

Moisture: 24.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301027a

Date Analyzed: 02-MAR-10 04:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX J,HE7c	205	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7967

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969004

Sample Amount 2

Moisture: 24.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220028.wiff

Date Analyzed: 23-FEB-10 00:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	3770	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7976

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969005

Sample Amount 2

Moisture: 3.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301028a

Date Analyzed: 02-MAR-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7976

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969005

Sample Amount 2

Moisture: 3.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220029.wiff

Date Analyzed: 23-FEB-10 00:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7968

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969006

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301029a

Date Analyzed: 02-MAR-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7968

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969006

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220030.wiff

Date Analyzed: 23-FEB-10 00:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301033a

Date Analyzed: 02-MAR-10 07:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	423	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXP0301042a

Date Analyzed: 02-MAR-10 11:42

Units: ug/kg

Cas No.	Compound		Concentration*	Q
2691-41-0	HMX	J,HE7c	35300	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220031.wiff

Date Analyzed: 23-FEB-10 00:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5310	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7975

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969008

Sample Amount 2

Moisture: 25.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301034a

Date Analyzed: 02-MAR-10 07:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7975

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969008

Sample Amount 2

Moisture: 25.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220032.wiff

Date Analyzed: 23-FEB-10 01:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7978

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969009

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301035a

Date Analyzed: 02-MAR-10 08:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7978

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969009

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220033.wiff

Date Analyzed: 23-FEB-10 01:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7970

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301071a

Date Analyzed: 03-MAR-10 02:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	559	
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	158	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7970

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220034.wiff

Date Analyzed: 23-FEB-10 01:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	812	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7964

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969011

Sample Amount 2

Moisture: 10.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301072a

Date Analyzed: 03-MAR-10 02:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7964

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969011

Sample Amount 2

Moisture: 10.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220035.wiff

Date Analyzed: 23-FEB-10 01:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7973

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969012

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301038a

Date Analyzed: 02-MAR-10 09:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7973

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969012

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220036.wiff

Date Analyzed: 23-FEB-10 02:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7962

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969013

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301039a

Date Analyzed: 02-MAR-10 10:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7962

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969013

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220040.wiff

Date Analyzed: 23-FEB-10 03:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7963

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969014

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301040a

Date Analyzed: 02-MAR-10 10:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7963

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969014

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220041.wiff

Date Analyzed: 23-FEB-10 03:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7977

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969015

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301041a

Date Analyzed: 02-MAR-10 11:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7977

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969015

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220042.wiff

Date Analyzed: 23-FEB-10 03:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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3/16/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: DATE: 3/16/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1512	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245969001	**Date Received:**	02/02/2010 09:10	**%Moisture:**	7.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7880	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	950898	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/10/2010 16:51	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/09/2010 21:07	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	021f2101.d	**Column:**	1 CLP1	**Level:**	LOW
	021b2101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.60	ug/kg	1.20	3.60	1
11104-28-2	Aroclor-1221	U	3.60	ug/kg	1.20	3.60	1
11141-16-5	Aroclor-1232	U	3.60	ug/kg	1.20	3.60	1
53469-21-9	Aroclor-1242	U	3.60	ug/kg	1.20	3.60	1
12672-29-6	Aroclor-1248	U	3.60	ug/kg	1.20	3.60	1
11097-69-1	Aroclor-1254	U	3.60	ug/kg	1.20	3.60	1
11096-82-5	Aroclor-1260	U	3.60	ug/kg	1.20	3.60	1

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3/16/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1512	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245969002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	26
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7891	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 13:39	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.21 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	1 CLP1	**Level:**	LOW
	036b3601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.47	ug/kg	1.49	4.47	1
11104-28-2	Aroclor-1221	U	4.47	ug/kg	1.49	4.47	1
11141-16-5	Aroclor-1232	U	4.47	ug/kg	1.49	4.47	1
53469-21-9	Aroclor-1242	U	4.47	ug/kg	1.49	4.47	1
12672-29-6	Aroclor-1248	U	4.47	ug/kg	1.49	4.47	1
11097-69-1	Aroclor-1254		11.1	ug/kg	1.49	4.47	1
11096-82-5	Aroclor-1260		8.30	ug/kg	1.49	4.47	2
11100-14-4	Aroclor-1268		7.90	ug/kg	1.49	4.47	2

LMF
3/16/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1512**	**Date Collected:**	**01/27/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245969003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7892**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 13:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	1
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	1
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	1
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	1
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	1
11097-69-1	Aroclor-1254	U	3.57	ug/kg	1.19	3.57	1
11096-82-5	Aroclor-1260	U	3.57	ug/kg	1.19	3.57	1

LMF
3/16/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the soil MBs, K, Pb, and Zn were detected. The results for Pb in samples RE15-10-7892, -7963, -7964, -7976, and -7978 were detects >5X but ≤50X the MB concentrations and, thus, were qualified J,I4a. All other associated sample results were detects >50X the MB concentrations and, thus, were not qualified based on professional judgment.
2. In the aqueous ICB and/or CCBs, Tl was detected. The associated sample result was an ND and, thus, was not qualified. In the soil ICB and/or CCBs, K and Pb were detected. The associated sample results were detects >5X the greatest blank concentrations and, thus, were not qualified.
3. In the FR blanks (sample -8084 from this RN and -8083 from RN 10-1514) associated with all field samples, K, Mn, Na, and U were detected. The results for Na in field samples -7965, -7967, -7973, -7975, and -7977 and U in field sample -7880 were detects ≤5X the FR blank concentration and, thus, were qualified U,I4d. All other associated field sample results were detects >5X the FR blank concentration and, thus, were not qualified.
4. There were >10 samples between the bracketing CCVs associated with the analysis of all soil samples except -7880, -7891, -7892, and -7967 for As, Be, Ni, Se, and Tl. The associated sample results for Se and the results for Tl in samples -7968, -7970, and -7976 were ND and, thus were qualified UJ,I7d. All other associated sample results were detects and, thus, were qualified J,I7d.
5. The soil MS %R was < the laboratory's LAL but ≥10% for Pb. The associated sample results were detects and, thus, were qualified J-,I6a. The soil MS %Rs were > the laboratory's UAL for Al, K, Na, and U. The results for Na in samples -7965, -7967, -7973, -7975, and -7977 and U in sample -7880 were qualified ND and, thus, were qualified UJ,I6b. All other associated sample results were detects and, thus, were qualified J+,I6b. The soil MS %Rs were <10% for Fe and < the laboratory's LAL but ≥10% for Mn. However, the associated parent sample results were >4X

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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the spike concentrations and, thus, no sample results were qualified, based on professional judgment.

6. The duplicate RPDs were >35% for Co and Cr, and both the duplicate and parent sample results were ≥5X the PQL. The associated sample results were detects and, thus, were qualified J,I10a.
7. It should be noted that the aqueous matrix QC parent samples were from other LANL RNs. No sample results were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: _____ DATE: 3/17/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☒	☐	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☒	☐	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245975001 **BASIS:** As Received **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8084 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 04:45	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:31	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 04:45	100224-2	948740
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 19:59	021110B-1	948737
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 19:59	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:31	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 19:59	021110B-1	948737
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/25/10 15:31	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:03	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-09-7	Potassium	195	ug/L		50	150	150	1	P	HSC	02/11/10 19:59	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-23-5	Sodium	117	ug/L	J	100	300	300	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/28/10 14:33	100228-5	948740
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:22	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 19:59	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969001 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7880 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	1640000	ug/Kg	N	7250	21300	21300	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-38-2	Arsenic	0.915	mg/kg	J	0.207	1.04	1.04	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-39-3	Barium	19600	ug/Kg		107	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-41-7	Beryllium	0.235	mg/kg		0.0207	0.104	0.104	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-70-2	Calcium	308000	ug/Kg		8530	26700	26700	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-47-3	Chromium J,I10a	8570	ug/Kg	*	160	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-48-4	Cobalt J,I10a	4770	ug/Kg	*	160	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-50-8	Copper	3660	ug/Kg		320	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-89-6	Iron	8040000	ug/Kg		8530	26700	26700	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-92-1	Lead J-,I6a	34400	ug/Kg	EN	267	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-95-4	Magnesium	136000	ug/Kg		9060	32000	32000	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-96-5	Manganese	221000	ug/Kg		213	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-97-6	Mercury	14.4	ug/kg		4	11.8	11.8	1	AV	JXL1	02/18/10 10:11	021810S1-6	950565
7440-02-0	Nickel	3.04	mg/kg		0.104	0.414	0.414	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-09-7	Potassium J+,I6b	616000	ug/Kg	N	6820	26700	26700	1	P	HSC	02/25/10 07:22	022410-1	948756
7782-49-2	Selenium	1.04	mg/kg	U	0.518	1.04	1.04	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-22-4	Silver	533	ug/Kg	U	107	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-23-5	Sodium J+,I6b	423000	ug/Kg	N	7460	26700	26700	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-28-0	Thallium	0.207	mg/kg	U	0.0621	0.207	0.207	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-61-1	Uranium U,I4d	0.606	mg/kg	*N	0.0137	0.0414	0.0414	2	MS	RMJ	02/26/10 04:20	100225-4	948759
7440-62-2	Vanadium	2080	ug/Kg		107	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-66-6	Zinc	23000	ug/Kg		352	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.551	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969002 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7891 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	7040000	ug/Kg	N	8940	26300	26300	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-36-0	Antimony	1310	ug/Kg		434	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-38-2	Arsenic	2.23	mg/kg		0.261	1.3	1.3	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-39-3	Barium	78300	ug/Kg		131	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-41-7	Beryllium	2.95	mg/kg		0.0261	0.13	0.13	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-43-9	Cadmium	259	ug/Kg	J	131	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-70-2	Calcium	27600000	ug/Kg		10500	32900	32900	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-47-3	Chromium J,I10a	10600	ug/Kg	*	197	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-48-4	Cobalt J,I10a	7410	ug/Kg	*	197	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-50-8	Copper	280000	ug/Kg		394	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-89-6	Iron	10400000	ug/Kg		10500	32900	32900	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-92-1	Lead J-,I6a	117000	ug/Kg	EN	329	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-95-4	Magnesium	1660000	ug/Kg		11200	39400	39400	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-96-5	Manganese	200000	ug/Kg		263	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-97-6	Mercury	10	ug/kg	J	4.99	14.7	14.7	1	AV	JXL1	02/18/10 10:21	021810S1-6	950565
7440-02-0	Nickel	7.45	mg/kg		0.13	0.522	0.522	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-09-7	Potassium J+,I6b	1010000	ug/Kg	N	8410	32900	32900	1	P	HSC	02/25/10 08:11	022410-1	948756
7782-49-2	Selenium	1.3	mg/kg	U	0.652	1.3	1.3	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-22-4	Silver	159	ug/Kg	J	131	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-23-5	Sodium J+,I6b	123000	ug/Kg	N	9200	32900	32900	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-28-0	Thallium	0.127	mg/kg	J	0.0783	0.261	0.261	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-61-1	Uranium J+,I6b	213	mg/kg	*N	0.172	0.522	0.522	20	MS	RMJ	02/26/10 04:35	100225-4	948759
7440-62-2	Vanadium	19200	ug/Kg		131	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-66-6	Zinc	44000	ug/Kg		434	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.518	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.553	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969003 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7892 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	4330000	ug/Kg	N	6620	19500	19500	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-36-0	Antimony	974	ug/Kg	U	321	974	974	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-38-2	Arsenic	1.12	mg/kg		0.197	0.984	0.984	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-39-3	Barium	43400	ug/Kg		97.4	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-41-7	Beryllium	0.559	mg/kg		0.0197	0.0984	0.0984	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-43-9	Cadmium	487	ug/Kg	U	97.4	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-70-2	Calcium	2880000	ug/Kg		7790	24300	24300	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-47-3	Chromium J,I10a	23800	ug/Kg	*	146	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-48-4	Cobalt J,I10a	3530	ug/Kg	*	146	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-50-8	Copper	7360	ug/Kg		292	974	974	1	P	HSC	02/25/10 08:18	022410-1	948756
7439-89-6	Iron	7650000	ug/Kg		7790	24300	24300	1	P	HSC	02/25/10 08:18	022410-1	948756
7439-92-1	Lead J,I4a	8150	ug/Kg	EN	243	974	974	1	P	HSC	03/01/10 13:45	030110A-2	948756
7439-95-4	Magnesium	924000	ug/Kg		8280	29200	29200	1	P	HSC	02/25/10 08:18	022410-1	948756
7439-96-5	Manganese	210000	ug/Kg		195	974	974	1	P	HSC	02/25/10 08:18	022410-1	948756
7439-97-6	Mercury	27.7	ug/kg		4.04	11.9	11.9	1	AV	JXL1	02/18/10 10:23	021810S1-6	950565
7440-02-0	Nickel	5.92	mg/kg		0.0984	0.394	0.394	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-09-7	Potassium J+,I6b	572000	ug/Kg	N	6230	24300	24300	1	P	HSC	02/25/10 08:18	022410-1	948756
7782-49-2	Selenium	0.984	mg/kg	U	0.492	0.984	0.984	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-22-4	Silver	487	ug/Kg	U	97.4	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-23-5	Sodium J+,I6b	198000	ug/Kg	N	6820	24300	24300	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-28-0	Thallium	0.0756	mg/kg	J	0.0591	0.197	0.197	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-61-1	Uranium J+,I6b	6.79	mg/kg	*N	0.013	0.0394	0.0394	2	MS	RMJ	02/28/10 03:29	100227-5	948759
7440-62-2	Vanadium	7520	ug/Kg		97.4	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-66-6	Zinc	35400	ug/Kg		321	974	974	1	P	HSC	02/25/10 08:18	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.552	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.546	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969004 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7967 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	4770000	ug/Kg	N	8830	26000	26000	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-36-0	Antimony	4620	ug/Kg		428	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-38-2	Arsenic	1.79	mg/kg		0.242	1.21	1.21	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-39-3	Barium	101000	ug/Kg		130	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-41-7	Beryllium	11.9	mg/kg		0.0242	0.121	0.121	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-43-9	Cadmium	438	ug/Kg	J	130	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-70-2	Calcium	2650000	ug/Kg		10400	32500	32500	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-47-3	Chromium J,I10a	31700	ug/Kg	*	195	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-48-4	Cobalt J,I10a	5550	ug/Kg	*	195	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-50-8	Copper	2200000	ug/Kg		389	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-89-6	Iron	9720000	ug/Kg		10400	32500	32500	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-92-1	Lead J+,I6a	363000	ug/Kg	EN	325	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-95-4	Magnesium	1020000	ug/Kg		11000	38900	38900	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-96-5	Manganese	182000	ug/Kg		260	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-97-6	Mercury	8	ug/kg	J	5.28	15.5	15.5	1	AV	JXL1	02/18/10 10:25	021810S1-6	950565
7440-02-0	Nickel	10	mg/kg		0.121	0.485	0.485	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-09-7	Potassium J+,I6b	676000	ug/Kg	N	8310	32500	32500	1	P	HSC	02/25/10 08:25	022410-1	948756
7782-49-2	Selenium	1.21	mg/kg	U	0.606	1.21	1.21	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-22-4	Silver	1870	ug/Kg		130	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-23-5	Sodium U,I4d	62200	ug/Kg	N	9090	32500	32500	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-28-0	Thallium	0.242	mg/kg	U	0.0727	0.242	0.242	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-61-1	Uranium J+,I6b	295	mg/kg	*N	0.32	0.97	0.97	40	MS	RMJ	02/26/10 04:47	100225-4	948759
7440-62-2	Vanadium	16100	ug/Kg		130	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-66-6	Zinc	75100	ug/Kg		428	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.508	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.544	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.51	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969005 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7976 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	2760000	ug/Kg	N	6830	20100	20100	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-36-0	Antimony	1000	ug/Kg	U	331	1000	1000	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-38-2	Arsenic J,I7d	0.955	mg/kg	J	0.203	1.02	1.02	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-39-3	Barium	32400	ug/Kg		100	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-41-7	Beryllium J,I7d	0.394	mg/kg		0.0203	0.102	0.102	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-43-9	Cadmium	102	ug/Kg	J	100	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-70-2	Calcium	593000	ug/Kg		8030	25100	25100	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-47-3	Chromium J,I10a	7190	ug/Kg	*	151	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-48-4	Cobalt J,I10a	10100	ug/Kg	*	151	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-50-8	Copper	21000	ug/Kg		301	1000	1000	1	P	HSC	02/25/10 08:32	022410-1	948756
7439-89-6	Iron	9830000	ug/Kg		8030	25100	25100	1	P	HSC	02/25/10 08:32	022410-1	948756
7439-92-1	Lead J,I4a	16400	ug/Kg	EN	251	1000	1000	1	P	HSC	03/01/10 13:52	030110A-2	948756
7439-95-4	Magnesium	451000	ug/Kg		8540	30100	30100	1	P	HSC	02/25/10 08:32	022410-1	948756
7439-96-5	Manganese	223000	ug/Kg		201	1000	1000	1	P	HSC	02/25/10 08:32	022410-1	948756
7439-97-6	Mercury	8.03	ug/kg	J	4.19	12.3	12.3	1	AV	JXL1	02/18/10 10:31	021810S1-6	950565
7440-02-0	Nickel J,I7d	3.65	mg/kg		0.102	0.406	0.406	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-09-7	Potassium J+,I6b	613000	ug/Kg	N	6430	25100	25100	1	P	HSC	02/25/10 08:32	022410-1	948756
7782-49-2	Selenium UJ,I7d	1.02	mg/kg	U	0.508	1.02	1.02	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-22-4	Silver	502	ug/Kg	U	100	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-23-5	Sodium J+,I6b	244000	ug/Kg	N	7030	25100	25100	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-28-0	Thallium UJ,I7d	0.203	mg/kg	U	0.061	0.203	0.203	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-61-1	Uranium J+,I6b	5.33	mg/kg	*N	0.0134	0.0406	0.0406	2	MS	RMJ	02/26/10 04:50	100225-4	948759
7440-62-2	Vanadium	7450	ug/Kg		100	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-66-6	Zinc	31400	ug/Kg		331	1000	1000	1	P	HSC	02/25/10 08:32	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.511	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.506	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969006 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7968 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	2880000	ug/Kg	N	7400	21800	21800	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-36-0	Antimony		1340	ug/Kg		359	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-38-2	Arsenic	J,I7d	1.22	mg/kg		0.205	1.03	1.03	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-39-3	Barium		39000	ug/Kg		109	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-41-7	Beryllium	J,I7d	1.23	mg/kg		0.0205	0.103	0.103	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-43-9	Cadmium		544	ug/Kg	U	109	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-70-2	Calcium		913000	ug/Kg		8700	27200	27200	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-47-3	Chromium	J,I10a	33900	ug/Kg	*	163	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-48-4	Cobalt	J,I10a	3430	ug/Kg	*	163	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-50-8	Copper		116000	ug/Kg		326	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-89-6	Iron		6750000	ug/Kg		8700	27200	27200	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-92-1	Lead	J-,I6a	25300	ug/Kg	EN	272	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-95-4	Magnesium		511000	ug/Kg		9250	32600	32600	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-96-5	Manganese		221000	ug/Kg		218	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-97-6	Mercury		5.16	ug/kg	J	3.88	11.4	11.4	1	AV	JXL1	02/18/10 10:33	021810S1-6	950565
7440-02-0	Nickel	J,I7d	5.59	mg/kg		0.103	0.41	0.41	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-09-7	Potassium	J+,I6b	453000	ug/Kg	N	6960	27200	27200	1	P	HSC	02/25/10 08:39	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.03	mg/kg	U	0.513	1.03	1.03	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-22-4	Silver		242	ug/Kg	J	109	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-23-5	Sodium	J+,I6b	166000	ug/Kg	N	7620	27200	27200	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-28-0	Thallium	UJ,I7d	0.205	mg/kg	U	0.0616	0.205	0.205	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-61-1	Uranium	J+,I6b	37.7	mg/kg	*N	0.0677	0.205	0.205	10	MS	RMJ	02/26/10 04:54	100225-4	948759
7440-62-2	Vanadium		4530	ug/Kg		109	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-66-6	Zinc		27800	ug/Kg		359	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.515	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.546	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.589	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969007 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7965 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum J+,I6b	5750000	ug/Kg	N	8370	24600	24600	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-36-0	Antimony	1050	ug/Kg	J	406	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-38-2	Arsenic J,I7d	1.64	mg/kg		0.238	1.19	1.19	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-39-3	Barium	85500	ug/Kg		123	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-41-7	Beryllium J,I7d	1.51	mg/kg		0.0238	0.119	0.119	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-43-9	Cadmium	181	ug/Kg	J	123	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-70-2	Calcium	1740000	ug/Kg		9850	30800	30800	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-47-3	Chromium J,I10a	17800	ug/Kg	*	185	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-48-4	Cobalt J,I10a	2800	ug/Kg	*	185	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-50-8	Copper	49200	ug/Kg		369	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-89-6	Iron	8510000	ug/Kg		9850	30800	30800	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-92-1	Lead J-,I6a	113000	ug/Kg	EN	308	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-95-4	Magnesium	968000	ug/Kg		10500	36900	36900	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-96-5	Manganese	210000	ug/Kg		246	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-97-6	Mercury	17.1	ug/kg		5.07	14.9	14.9	1	AV	JXL1	02/18/10 10:35	021810S1-6	950565
7440-02-0	Nickel J,I7d	5.67	mg/kg		0.119	0.476	0.476	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-09-7	Potassium J+,I6b	801000	ug/Kg	N	7880	30800	30800	1	P	HSC	02/25/10 08:46	022410-1	948756
7782-49-2	Selenium UJ,I7d	1.19	mg/kg	U	0.595	1.19	1.19	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-22-4	Silver	616	ug/Kg	U	123	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-23-5	Sodium U,I4d	60000	ug/Kg	N	8620	30800	30800	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-28-0	Thallium J,I7d	0.0993	mg/kg	J	0.0714	0.238	0.238	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-61-1	Uranium J+,I6b	71.2	mg/kg	*N	0.0786	0.238	0.238	10	MS	RMJ	02/26/10 04:57	100225-4	948759
7440-62-2	Vanadium	13600	ug/Kg		123	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-66-6	Zinc	32900	ug/Kg		406	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.54	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.517	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969008 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7975 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	5160000	ug/Kg	N	8190	24100	24100	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-36-0	Antimony		1210	ug/Kg	U	398	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-38-2	Arsenic	J,I7d	2.21	mg/kg		0.263	1.31	1.31	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-39-3	Barium		63300	ug/Kg		121	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-41-7	Beryllium	J,I7d	1.84	mg/kg		0.0263	0.131	0.131	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-43-9	Cadmium		1170	ug/Kg		121	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-70-2	Calcium		1570000	ug/Kg		9640	30100	30100	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-47-3	Chromium	J,I10a	11100	ug/Kg	*	181	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-48-4	Cobalt	J,I10a	4130	ug/Kg	*	181	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-50-8	Copper		45600	ug/Kg		362	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-89-6	Iron		10700000	ug/Kg		9640	30100	30100	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-92-1	Lead	J-,I6a	46400	ug/Kg	EN	301	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-95-4	Magnesium		946000	ug/Kg		10200	36200	36200	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-96-5	Manganese		249000	ug/Kg		241	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-97-6	Mercury		14.8	ug/kg	U	5.04	14.8	14.8	1	AV	JXL1	02/18/10 10:37	021810S1-6	950565
7440-02-0	Nickel	J,I7d	6.42	mg/kg		0.131	0.525	0.525	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-09-7	Potassium	J+,I6b	1020000	ug/Kg	N	7710	30100	30100	1	P	HSC	02/25/10 08:53	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.31	mg/kg	U	0.657	1.31	1.31	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-22-4	Silver		603	ug/Kg	U	121	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-23-5	Sodium	U,I4d	56300	ug/Kg	N	8440	30100	30100	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-28-0	Thallium	J,I7d	0.132	mg/kg	J	0.0788	0.263	0.263	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-61-1	Uranium	J+,I6b	45.7	mg/kg	*N	0.0867	0.263	0.263	10	MS	RMJ	02/26/10 05:00	100225-4	948759
7440-62-2	Vanadium		22200	ug/Kg		121	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-66-6	Zinc		40700	ug/Kg		398	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.557	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.511	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969009 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7978 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	13300000	ug/Kg	N	7820	23000	23000	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-36-0	Antimony		1150	ug/Kg	U	380	1150	1150	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-38-2	Arsenic	J,I7d	3.38	mg/kg		0.211	1.05	1.05	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-39-3	Barium		138000	ug/Kg		115	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-41-7	Beryllium	J,I7d	1.31	mg/kg		0.0211	0.105	0.105	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-43-9	Cadmium		575	ug/Kg	U	115	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-70-2	Calcium		3240000	ug/Kg		9210	28800	28800	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-47-3	Chromium	J,I10a	11500	ug/Kg	*	173	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-48-4	Cobalt	J,I10a	9040	ug/Kg	*	173	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-50-8	Copper		9910	ug/Kg		345	1150	1150	1	P	HSC	02/25/10 09:14	022410-1	948756
7439-89-6	Iron		15000000	ug/Kg		9210	28800	28800	1	P	HSC	02/25/10 09:14	022410-1	948756
7439-92-1	Lead	J,I4a	14100	ug/Kg	EN	288	1150	1150	1	P	HSC	03/01/10 13:59	030110A-2	948756
7439-95-4	Magnesium		2250000	ug/Kg		9780	34500	34500	1	P	HSC	02/25/10 09:14	022410-1	948756
7439-96-5	Manganese		231000	ug/Kg		230	1150	1150	1	P	HSC	02/25/10 09:14	022410-1	948756
7439-97-6	Mercury		45.7	ug/kg		4.48	13.2	13.2	1	AV	JXL1	02/18/10 10:39	021810S1-6	950565
7440-02-0	Nickel	J,I7d	10.4	mg/kg		0.105	0.422	0.422	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-09-7	Potassium	J+,I6b	1760000	ug/Kg	N	7360	28800	28800	1	P	HSC	02/25/10 09:14	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.05	mg/kg	U	0.527	1.05	1.05	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-22-4	Silver		575	ug/Kg	U	115	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-23-5	Sodium	J+,I6b	137000	ug/Kg	N	8060	28800	28800	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-28-0	Thallium	J,I7d	0.191	mg/kg	J	0.0632	0.211	0.211	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-61-1	Uranium	J+,I6b	2.68	mg/kg	*N	0.0139	0.0422	0.0422	2	MS	RMJ	02/26/10 05:03	100225-4	948759
7440-62-2	Vanadium		24300	ug/Kg		115	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-66-6	Zinc		34500	ug/Kg		380	1150	1150	1	P	HSC	02/25/10 09:14	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.523	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.571	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.548	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969010 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7970 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.8

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	1920000	ug/Kg	N	7140	21000	21000	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-36-0	Antimony		1050	ug/Kg	U	346	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-38-2	Arsenic	J,I7d	1.12	mg/kg		0.211	1.06	1.06	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-39-3	Barium		51300	ug/Kg		105	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-41-7	Beryllium	J,I7d	0.529	mg/kg		0.0211	0.106	0.106	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-43-9	Cadmium		525	ug/Kg	U	105	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-70-2	Calcium		2010000	ug/Kg		8390	26200	26200	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-47-3	Chromium	J,I10a	5680	ug/Kg	*	157	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-48-4	Cobalt	J,I10a	2150	ug/Kg	*	157	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-50-8	Copper		22100	ug/Kg		315	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-89-6	Iron		5510000	ug/Kg		8390	26200	26200	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-92-1	Lead	J-,I6a	33300	ug/Kg	EN	262	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-95-4	Magnesium		494000	ug/Kg		8920	31500	31500	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-96-5	Manganese		169000	ug/Kg		210	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-97-6	Mercury		11.4	ug/kg	U	3.87	11.4	11.4	1	AV	JXL1	02/18/10 10:41	021810S1-6	950565
7440-02-0	Nickel	J,I7d	2.52	mg/kg		0.106	0.422	0.422	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-09-7	Potassium	J+,I6b	477000	ug/Kg	N	6720	26200	26200	1	P	HSC	02/25/10 09:22	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.06	mg/kg	U	0.528	1.06	1.06	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-22-4	Silver		525	ug/Kg	U	105	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-23-5	Sodium	J+,I6b	246000	ug/Kg	N	7350	26200	26200	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-28-0	Thallium	UJ,I7d	0.211	mg/kg	U	0.0633	0.211	0.211	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-61-1	Uranium	J+,I6b	4.23	mg/kg	*N	0.0139	0.0422	0.0422	2	MS	RMJ	02/26/10 05:06	100225-4	948759
7440-62-2	Vanadium		7380	ug/Kg		105	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-66-6	Zinc		56900	ug/Kg		346	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.516	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.574	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969011 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7964 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	8080000	ug/Kg	N	7040	20700	20700	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-36-0	Antimony		1030	ug/Kg	U	341	1030	1030	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-38-2	Arsenic	J,I7d	1.85	mg/kg		0.21	1.05	1.05	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-39-3	Barium		78800	ug/Kg		103	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-41-7	Beryllium	J,I7d	0.685	mg/kg		0.021	0.105	0.105	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-43-9	Cadmium		517	ug/Kg	U	103	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-70-2	Calcium		1920000	ug/Kg		8280	25900	25900	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-47-3	Chromium	J,I10a	13500	ug/Kg	*	155	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-48-4	Cobalt	J,I10a	5370	ug/Kg	*	155	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-50-8	Copper		4950	ug/Kg		310	1030	1030	1	P	HSC	02/25/10 09:29	022410-1	948756
7439-89-6	Iron		10100000	ug/Kg		8280	25900	25900	1	P	HSC	02/25/10 09:29	022410-1	948756
7439-92-1	Lead	J,I4a	9070	ug/Kg	EN	259	1030	1030	1	P	HSC	03/01/10 14:06	030110A-2	948756
7439-95-4	Magnesium		1580000	ug/Kg		8800	31000	31000	1	P	HSC	02/25/10 09:29	022410-1	948756
7439-96-5	Manganese		189000	ug/Kg		207	1030	1030	1	P	HSC	02/25/10 09:29	022410-1	948756
7439-97-6	Mercury		16.2	ug/kg		4.42	13	13	1	AV	JXL1	02/18/10 10:43	021810S1-6	950565
7440-02-0	Nickel	J,I7d	7.05	mg/kg		0.105	0.421	0.421	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-09-7	Potassium	J+,I6b	967000	ug/Kg	N	6620	25900	25900	1	P	HSC	02/25/10 09:29	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.05	mg/kg	U	0.526	1.05	1.05	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-22-4	Silver		517	ug/Kg	U	103	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-23-5	Sodium	J+,I6b	275000	ug/Kg	N	7240	25900	25900	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-28-0	Thallium	J,I7d	0.138	mg/kg	J	0.0631	0.21	0.21	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-61-1	Uranium	J+,I6b	1.79	mg/kg	*N	0.0139	0.0421	0.0421	2	MS	RMJ	02/26/10 05:15	100225-4	948759
7440-62-2	Vanadium		17500	ug/Kg		103	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-66-6	Zinc		23700	ug/Kg		341	1030	1030	1	P	HSC	02/25/10 09:29	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.541	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.532	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.517	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969012 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7973 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	5690000	ug/Kg	N	7460	21900	21900	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-36-0	Antimony		717	ug/Kg	J	362	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-38-2	Arsenic	J,I7d	2.13	mg/kg		0.242	1.21	1.21	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-39-3	Barium		68800	ug/Kg		110	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-41-7	Beryllium	J,I7d	1.06	mg/kg		0.0242	0.121	0.121	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-43-9	Cadmium		549	ug/Kg	U	110	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-70-2	Calcium		1470000	ug/Kg		8780	27400	27400	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-47-3	Chromium	J,I10a	20100	ug/Kg	*	165	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-48-4	Cobalt	J,I10a	4180	ug/Kg	*	165	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-50-8	Copper		19500	ug/Kg		329	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-89-6	Iron		9990000	ug/Kg		8780	27400	27400	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-92-1	Lead	J-,I6a	145000	ug/Kg	EN	274	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-95-4	Magnesium		1070000	ug/Kg		9320	32900	32900	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-96-5	Manganese		274000	ug/Kg		219	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-97-6	Mercury		7.18	ug/kg	J	4.23	12.5	12.5	1	AV	JXL1	02/18/10 10:45	021810S1-6	950565
7440-02-0	Nickel	J,I7d	8.1	mg/kg		0.121	0.484	0.484	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-09-7	Potassium	J+,I6b	993000	ug/Kg	N	7020	27400	27400	1	P	HSC	02/25/10 09:36	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.21	mg/kg	U	0.605	1.21	1.21	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-22-4	Silver		549	ug/Kg	U	110	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-23-5	Sodium	U,I4d	57700	ug/Kg	N	7680	27400	27400	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-28-0	Thallium	J,I7d	0.0767	mg/kg	J	0.0726	0.242	0.242	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-61-1	Uranium	J+,I6b	9.61	mg/kg	*N	0.016	0.0484	0.0484	2	MS	RMJ	02/26/10 05:18	100225-4	948759
7440-62-2	Vanadium		21100	ug/Kg		110	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-66-6	Zinc		20900	ug/Kg		362	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.559	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.591	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969013 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7962 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 94.7

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	4650000	ug/Kg	N	6460	19000	19000	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-36-0	Antimony		950	ug/Kg	U	313	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-38-2	Arsenic	J,I7d	1.24	mg/kg		0.203	1.02	1.02	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-39-3	Barium		47800	ug/Kg		95	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-41-7	Beryllium	J,I7d	0.721	mg/kg		0.0203	0.102	0.102	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-43-9	Cadmium		475	ug/Kg	U	95	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-70-2	Calcium		2150000	ug/Kg		7600	23700	23700	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-47-3	Chromium	J,I10a	5690	ug/Kg	*	142	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-48-4	Cobalt	J,I10a	8030	ug/Kg	*	142	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-50-8	Copper		30000	ug/Kg		285	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-89-6	Iron		7650000	ug/Kg		7600	23700	23700	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-92-1	Lead	J-,I6a	32900	ug/Kg	EN	237	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-95-4	Magnesium		972000	ug/Kg		8070	28500	28500	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-96-5	Manganese		212000	ug/Kg		190	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-97-6	Mercury		13.6	ug/kg		3.95	11.6	11.6	1	AV	JXL1	02/18/10 10:47	021810S1-6	950565
7440-02-0	Nickel	J,I7d	4.43	mg/kg		0.102	0.407	0.407	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-09-7	Potassium	J+,I6b	721000	ug/Kg	N	6080	23700	23700	1	P	HSC	02/25/10 09:43	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.02	mg/kg	U	0.509	1.02	1.02	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-22-4	Silver		475	ug/Kg	U	95	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-23-5	Sodium	J+,I6b	169000	ug/Kg	N	6650	23700	23700	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-28-0	Thallium	J,I7d	0.0926	mg/kg	J	0.061	0.203	0.203	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-61-1	Uranium	J+,I6b	17	mg/kg	*N	0.0134	0.0407	0.0407	2	MS	RMJ	02/26/10 05:21	100225-4	948759
7440-62-2	Vanadium		6880	ug/Kg		95	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-66-6	Zinc		23600	ug/Kg		313	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.556	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.546	g	30	mL	02/17/10	TXB3

LMF
3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969014 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7963 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	4260000	ug/Kg	N	8170	24000	24000	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-36-0	Antimony		1200	ug/Kg	U	397	1200	1200	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-38-2	Arsenic	J,I7d	1.32	mg/kg		0.23	1.15	1.15	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-39-3	Barium		56100	ug/Kg		120	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-41-7	Beryllium	J,I7d	0.684	mg/kg		0.023	0.115	0.115	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-43-9	Cadmium		123	ug/Kg	J	120	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-70-2	Calcium		1030000	ug/Kg		9620	30100	30100	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-47-3	Chromium	J,I10a	12700	ug/Kg	*	180	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-48-4	Cobalt	J,I10a	3310	ug/Kg	*	180	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-50-8	Copper		29000	ug/Kg		361	1200	1200	1	P	HSC	02/25/10 09:50	022410-1	948756
7439-89-6	Iron		8490000	ug/Kg		9620	30100	30100	1	P	HSC	02/25/10 09:50	022410-1	948756
7439-92-1	Lead	J,I4a	17100	ug/Kg	EN	301	1200	1200	1	P	HSC	03/01/10 14:13	030110A-2	948756
7439-95-4	Magnesium		832000	ug/Kg		10200	36100	36100	1	P	HSC	02/25/10 09:50	022410-1	948756
7439-96-5	Manganese		238000	ug/Kg		240	1200	1200	1	P	HSC	02/25/10 09:50	022410-1	948756
7439-97-6	Mercury		9.55	ug/kg	J	4.72	13.9	13.9	1	AV	JXL1	02/18/10 10:49	021810S1-6	950565
7440-02-0	Nickel	J,I7d	5	mg/kg		0.115	0.459	0.459	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-09-7	Potassium	J+,I6b	740000	ug/Kg	N	7690	30100	30100	1	P	HSC	02/25/10 09:50	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.15	mg/kg	U	0.574	1.15	1.15	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-22-4	Silver		601	ug/Kg	U	120	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-23-5	Sodium	J+,I6b	78900	ug/Kg	N	8420	30100	30100	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-28-0	Thallium	J,I7d	0.101	mg/kg	J	0.0689	0.23	0.23	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-61-1	Uranium	J+,I6b	7.41	mg/kg	*N	0.0151	0.0459	0.0459	2	MS	RMJ	02/26/10 05:24	100225-4	948759
7440-62-2	Vanadium		15000	ug/Kg		120	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-66-6	Zinc		28000	ug/Kg		397	1200	1200	1	P	HSC	02/25/10 09:50	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.55	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.546	g	30	mL	02/17/10	TXB3

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3/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969015 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7977 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	J+,I6b	11200000	ug/Kg	N	10400	30600	30600	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-36-0	Antimony		1530	ug/Kg	U	504	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-38-2	Arsenic	J,I7d	2.26	mg/kg		0.285	1.42	1.42	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-39-3	Barium		159000	ug/Kg		153	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-41-7	Beryllium	J,I7d	5.26	mg/kg		0.0285	0.142	0.142	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-43-9	Cadmium		232	ug/Kg	J	153	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-70-2	Calcium		2510000	ug/Kg		12200	38200	38200	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-47-3	Chromium	J,I10a	10400	ug/Kg	*	229	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-48-4	Cobalt	J,I10a	5430	ug/Kg	*	229	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-50-8	Copper		11600	ug/Kg		458	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-89-6	Iron		11400000	ug/Kg		12200	38200	38200	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-92-1	Lead	J-,I6a	33100	ug/Kg	EN	382	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-95-4	Magnesium		2020000	ug/Kg		13000	45800	45800	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-96-5	Manganese		425000	ug/Kg		306	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-97-6	Mercury		18.4	ug/kg		5.87	17.3	17.3	1	AV	JXL1	02/18/10 10:55	021810S1-6	950565
7440-02-0	Nickel	J,I7d	9.14	mg/kg		0.142	0.569	0.569	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-09-7	Potassium	J+,I6b	1890000	ug/Kg	N	9780	38200	38200	1	P	HSC	02/25/10 09:57	022410-1	948756
7782-49-2	Selenium	UJ,I7d	1.42	mg/kg	U	0.711	1.42	1.42	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-22-4	Silver		764	ug/Kg	U	153	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-23-5	Sodium	U,I4d	61200	ug/Kg	N	10700	38200	38200	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-28-0	Thallium	J,I7d	0.205	mg/kg	J	0.0854	0.285	0.285	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-61-1	Uranium	J+,I6b	16.6	mg/kg	*N	0.0188	0.0569	0.0569	2	MS	RMJ	02/26/10 05:27	100225-4	948759
7440-62-2	Vanadium		22800	ug/Kg		153	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-66-6	Zinc		28500	ug/Kg		504	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.513	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.551	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.545	g	30	mL	02/17/10	TXB3

LMF
3/17/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1512 VALIDATION DATE: 3/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Larry Fukui ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the aqueous and soil matrix QC analysis for total CN were performed on parent samples from other LANL RNs. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 3/17/10

VALIDATOR'S SIGNATURE: DATE: 3/17/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1512-1

Client Sample ID:	RE15-10-8084	Project:	LANL01004
Sample ID:	245975001	Client ID:	LANL010
Matrix:	W		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1458	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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3/17/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7880	Project:	LANL01004
Sample ID:	245969001	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	7.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.5	270	ug/kg	1	AXC2 02/10/10	1457	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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3/17/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7891	Project:	LANL01004
Sample ID:	245969002	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	26%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	90.1	331	ug/kg	1	AXC2 02/10/10	1458	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7892	Project:	LANL01004
Sample ID:	245969003	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	6.96%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.3	258	ug/kg	1	AXC2 02/10/10	1459	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7967	Project:	LANL01004
Sample ID:	245969004	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	24.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.1	294	ug/kg	1	AXC2 02/10/10	1500	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

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Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7976	Project:	LANL01004
Sample ID:	245969005	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	3.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.6	245	ug/kg	1	AXC2 02/10/10	1501	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7968	Project:	LANL01004
Sample ID:	245969006	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.3	269	ug/kg	1	AXC2 02/10/10	1502	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7965	Project:	LANL01004
Sample ID:	245969007	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	112	78.0	287	ug/kg	1	AXC2 02/10/10	1503	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7975	Project:	LANL01004
Sample ID:	245969008	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	25.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	89.5	329	ug/kg	1	AXC2 02/10/10	1504	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7978	Project:	LANL01004
Sample ID:	245969009	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	16.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	88.6	77.2	284	ug/kg	1	AXC2 02/10/10	1504	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7970	Project:	LANL01004
Sample ID:	245969010	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.19%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.9	257	ug/kg	1	AXC2 02/10/10	1505	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7964	Project:	LANL01004
Sample ID:	245969011	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.2	269	ug/kg	1	AXC2 02/10/10	1510	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7973	Project:	LANL01004
Sample ID:	245969012	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.2	284	ug/kg	1	AXC2 02/10/10	1511	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7962	Project:	LANL01004
Sample ID:	245969013	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	5.31%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.5	244	ug/kg	1	AXC2 02/10/10	1512	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7963	Project:	LANL01004
Sample ID:	245969014	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	20.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	81.0	298	ug/kg	1	AXC2 02/10/10	1512	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7977	Project:	LANL01004
Sample ID:	245969015	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	36.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	133	96.9	356	ug/kg	1	AXC2 02/10/10	1513	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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3/17/10

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C

REQUEST NUMBER: 10-1512

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245969, 245975

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7880	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7880	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7891	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7891	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7892	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7892	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7967	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7967	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7976	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7976	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7968	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7968	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7965	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7965	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7975	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7975	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7978	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7978	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7970	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7970	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7964	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7964	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7973	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7973	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7962	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7962	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7963	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7963	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7977	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7977	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8084	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8084	1	POLY	SW-846:6850	Ice	W

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8084	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		2/1/10	3100	Dionne Francis		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1512
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	
	SW-846:6850	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	
	SW-846:7470A	1	RE15-10-8084	W	1/27/2010	
	SW-846:7471A	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	SW-846:8082	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
	SW-846:8321A_MOD	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7978	R	1/27/2010	
	SW-846:9012A	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	

Final Page of REQUEST NUMBER 10-1512

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 245969 245975
SDG: 10-1512

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1512
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245969 and 245975
SDG: 10-1512

Table of Contents

Case Narrative **1**

Chain of Custody and Supporting Documentation **5**

Data Review Qualifier Flag Definition Sheet **20**

LC/MS/MS Perchlorate Analysis **22**
- Sample Data Summary 27
- Quality Control Summary 43
- Sample Data 77
- Standards Data 108
- Quality Control 142
- Miscellaneous Data 151

LC/MS/MS Perchlorate Analysis **158**
- Sample Data Summary 163
- Quality Control Summary 165
- Sample Data 192
- Standards Data 195
- Quality Control 217
- Miscellaneous Data 222

LC/MS/MS Explosives Analysis **230**
- Sample Data Summary 237
- Quality Control Summary 269
- Sample Data 351
- Standards Data 460
- Quality Control Data 573
- Miscellaneous Data 605

GC Semivolatile PCB Analysis **615**
- Sample Data Summary 622
- Quality Control Summary 626
- Sample Data 634
- Standards Data 652
- Quality Control Data 809
- Miscellaneous Data 856

Metals Analysis **877**
- Case Narrative 878
- Sample Data Summary 885

Quality Control Summary 901
Standards 973
Raw Data 985
Miscellaneous 1460

Metals Analysis 1511
Case Narrative 1512
Sample Data Summary 1517
Quality Control Summary 1519
Standards 1572
Raw Data 1584
Miscellaneous 1901

General Chemistry Analysis 1948
Case Narrative 1949
Sample Data Summary 1954
Quality Control Summary 1971
Instrument QC Data Summary 1974
Cyanide, Total 1976

General Chemistry Analysis 1987
Case Narrative 1988
Sample Data Summary 1993
Quality Control Summary 1996
Instrument QC Data Summary 1999
Cyanide, Total 2001

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245969 and 245975
SDG # : 10-1512

February 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245969001	RE15-10-7880
245969002	RE15-10-7891
245969003	RE15-10-7892
245969004	RE15-10-7967
245969005	RE15-10-7976
245969006	RE15-10-7968
245969007	RE15-10-7965
245969008	RE15-10-7975
245969009	RE15-10-7978
245969010	RE15-10-7970
245969011	RE15-10-7964
245969012	RE15-10-7973
245969013	RE15-10-7962
245969014	RE15-10-7963
245969015	RE15-10-7977
245975001	RE15-10-8084

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C

REQUEST NUMBER: 10-1512

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245969, 245975

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7880	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7880	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7891	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7891	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7892	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7892	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7967	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7967	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7976	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7976	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7968	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7968	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7965	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7965	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7975	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7975	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7978	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7978	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7970	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7970	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7964	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7964	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7973	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7973	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7962	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7962	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7963	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7963	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7977	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-7977	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8084	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8084	1	POLY	SW-846:6850	Ice	W

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1512C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8084	1	POLY	TCN	Sodium Hydroxide	W

Relinquished By:		Date	Time	Received By:		Date	Time
		2/1/10	3100	Dionne Francis		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1512

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	
	SW-846:6850	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	
	SW-846:7470A	1	RE15-10-8084	W	1/27/2010	
	SW-846:7471A	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:7471A	1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
	SW-846:8082	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
	SW-846:8321A_MOD	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1512

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7978	R	1/27/2010	
	SW-846:9012A	1	RE15-10-7880	R	1/27/2010	
		1	RE15-10-7891	R	1/27/2010	
		1	RE15-10-7892	R	1/27/2010	
		1	RE15-10-7962	R	1/27/2010	
		1	RE15-10-7963	R	1/27/2010	
		1	RE15-10-7964	R	1/27/2010	
		1	RE15-10-7965	R	1/27/2010	
		1	RE15-10-7967	R	1/27/2010	
		1	RE15-10-7968	R	1/27/2010	
		1	RE15-10-7970	R	1/27/2010	
		1	RE15-10-7973	R	1/27/2010	
		1	RE15-10-7975	R	1/27/2010	
		1	RE15-10-7976	R	1/27/2010	
		1	RE15-10-7977	R	1/27/2010	
		1	RE15-10-7978	R	1/27/2010	
		1	RE15-10-8084	W	1/27/2010	

Final Page of REQUEST NUMBER 10-1512

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1512**
Received By: Dionne Francis	**Date Received: February 2, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C 7209 7849 7886 2C 7209 7849 7967 3C 7209 7849 7739 19C
7209 7849 7772 1C 7209 7849 7901 2C 7209 7849 7945 4C
7209 7849 7934 1C 7209 7849 7853 2C 7209 7849 7810 5C
7209 7849 7831 1C 7209 7849 7875 2C 7209 7849 7897 5C
7209 7849 7783 1C 7209 7849 7956 2C 7209 7849 7728 13C
7209 7849 7864 1C 7209 7849 7794 2C 7209 7849 7706 13C
7209 7849 7923 1C 7209 7849 7820 2C 7209 7849 7717 14C
7209 7849 7761 1C 7209 7849 7809 2C 7209 7849 7750 15C
7209 7849 7842 1C 7209 7849 7912 3C 7209 7849 7740 15C

PM (or PMA) review: Initials P. N-W. Date 2/3/10

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CHD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

0c

FedEx Express

TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156146-434 NRIT V3 09-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 2
MPS# 0203 7209 7849 7772
Mstr# 7209 7849 7761 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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1 of 2
TRK# 0201 7209 7849 7934
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

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CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1c

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1 of 2
TRK# 0201 7209 7849 7831
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
TRK# 0201 7209 7849 7783
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

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Part # 150148-434 NRITV3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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MPS# 0263 7209 784[illegible] 7854
Matr# 7209 7[illegible] 7853 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 150148-434 NRITV3 04-08

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

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MPS# 0263 7209 7849 7923
Matr# 7209 7849 7912 0201

TUE - 02 FEB A1
PRIORITY OVERNIGHT

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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
TRK# 0201 7209 7849 7761
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 2
MPS# 0263 7209 7849 7842
Mstr# 7209 7849 7831 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

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2 of 2
MPS# 0263 7209 7849 7901
Mstr# 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7886
Mstr# 7209 7849 7875 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7853
** MASTER **

TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7875
TUE - 02FEB A1
PRIORITY OVERNIGHT

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XX CHSA

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Part # 156148-434 NRT V04.00

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR3A052VA00

2C

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2 of 2
MPS# 0263 7209 7849 7794
Mstr# 7209 7849 7783 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

2C

FedEx Express

1 of 2
TRK# 0201 7209 7849 7956
TUE - 02FEB A1
PRIORITY OVERNIGHT

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XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V04.00

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

3 of 3
MPS# 0263 7209 7849 7820
Mstr# 7209 7849 7809 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

TA00 BLDG 123A DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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FedEx Express

1 of 3

TUE - 02FEB A1

TRK# 0201 7209 7849 7809

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TUE - 02 FEB A1
PRIORITY OVERNIGHT

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CHS

Emp# 133998 01FEB10 SAFA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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FedEx Express

1 of 2

TRK# 0201 7209 7849 7912

TUE - 02FEB A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRT V3.09-05

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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2 of 2

TUE - 02FEB A1
PRIORITY OVERNIGHT

MPS# 0263 7209 7849 7961
Matrix 7209 7849 7956 0201

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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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2 of 2

TUE - 02FEB A1
PRIORITY OVERNIGHT

7209 7849 7945
Matrix 7209 7849 7934 0201

XX CHSA

29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 3
MPS# 0263 7209 7849 7810
Matr# 7209 7849 7808 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

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CHS

Part # 156148-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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1 of 2
TRK# 0201 7209 7849 7897
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

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CHS

Part # 156148-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

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(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

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1 of 2
TRK# 0201 7209 7849 7728
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7706
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

14c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7717
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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XX CHSA

Part # 158143-434 NAIT V3.04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2 of 2
MPS# 0263 7209 7849 7750
Matr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 158143-434 NAIT V3.04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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CHARLESTON SC 29407
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1 of 2
TRK# 0201 7209 7849 7740
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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(843) 556-8171
REF: 6B010AMR2A0515BYDO

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2 of 2
MPS# 0263 7209 7849 7739
Matr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

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Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1512

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950060
Prep Batch Number:	950059

Sample Analysis

Sample ID	Client ID
245969001	RE15-10-7880
245969002	RE15-10-7891
245969003	RE15-10-7892
245969004	RE15-10-7967
245969005	RE15-10-7976
245969006	RE15-10-7968
245969007	RE15-10-7965
245969008	RE15-10-7975
245969009	RE15-10-7978
245969010	RE15-10-7970
245969011	RE15-10-7964
245969012	RE15-10-7973
245969013	RE15-10-7962
245969014	RE15-10-7963

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245969015	RE15-10-7977
1202035645	Interference Check Sample (ICS)
1202035641	Method Blank (MB)
1202035642	Laboratory Control Sample (LCS)
1202035643	245969001(RE15-10-7880) Matrix Spike (MS)
1202035644	245969001(RE15-10-7880) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

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QC Sample Designation
Sample 245969001 (RE15-10-7880) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

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Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Deborah Maier **Date:** 02/25/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7880

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969001

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	22-FEB-10 05:22	per0221107a
	Perchlorate Isotope Ratio						1	22-FEB-10 05:22	per0221107a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	22-FEB-10 05:22	per0221107a
	Perchlorate-O(18)			5.08	ug/kg		1	22-FEB-10 05:22	per0221107a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7891

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969002

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.676	2.7	0.676	ug/kg	U	1	22-FEB-10 05:49	per0221110a
	Perchlorate Isotope Ratio						1	22-FEB-10 05:49	per0221110a
14797-73-0	Perchlorate-101	.676	2.7	0.676	ug/kg	U	1	22-FEB-10 05:49	per0221110a
	Perchlorate-O(18)			6.51	ug/kg		1	22-FEB-10 05:49	per0221110a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7892

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969003

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.537	2.15	0.571	ug/kg	J	1	22-FEB-10 05:58	per0221111a
	Perchlorate Isotope Ratio			3.1			1	22-FEB-10 05:58	per0221111a
14797-73-0	Perchlorate-101	.537	2.15	0.588	ug/kg	J	1	22-FEB-10 05:58	per0221111a
	Perchlorate-O(18)			5.50	ug/kg		1	22-FEB-10 05:58	per0221111a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7967

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969004

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.659	2.64	0.659	ug/kg	U	1	22-FEB-10 06:07	per0221112a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:07	per0221112a
14797-73-0	Perchlorate-101	.659	2.64	0.659	ug/kg	U	1	22-FEB-10 06:07	per0221112a
	Perchlorate-O(18)			6.43	ug/kg		1	22-FEB-10 06:07	per0221112a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7976

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969005

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	22-FEB-10 06:16	per0221113a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:16	per0221113a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	22-FEB-10 06:16	per0221113a
	Perchlorate-O(18)			4.92	ug/kg		1	22-FEB-10 06:16	per0221113a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7968

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969006

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 06:52	per0221117a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:52	per0221117a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 06:52	per0221117a
	Perchlorate-O(18)			5.70	ug/kg		1	22-FEB-10 06:52	per0221117a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7965

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969007

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.643	2.57	0.643	ug/kg	U	1	22-FEB-10 07:02	per0221118a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:02	per0221118a
14797-73-0	Perchlorate-101	.643	2.57	0.643	ug/kg	U	1	22-FEB-10 07:02	per0221118a
	Perchlorate-O(18)			6.51	ug/kg		1	22-FEB-10 07:02	per0221118a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7975

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969008

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.671	2.68	0.671	ug/kg	U	1	22-FEB-10 07:11	per0221119a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:11	per0221119a
14797-73-0	Perchlorate-101	.671	2.68	0.671	ug/kg	U	1	22-FEB-10 07:11	per0221119a
	Perchlorate-O(18)			6.84	ug/kg		1	22-FEB-10 07:11	per0221119a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7978

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969009

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.602	2.41	0.602	ug/kg	U	1	22-FEB-10 07:20	per0221120a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:20	per0221120a
14797-73-0	Perchlorate-101	.602	2.41	0.602	ug/kg	U	1	22-FEB-10 07:20	per0221120a
	Perchlorate-O(18)			6.62	ug/kg		1	22-FEB-10 07:20	per0221120a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7970

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969010

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 91.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	22-FEB-10 07:29	per0221121a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:29	per0221121a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	22-FEB-10 07:29	per0221121a
	Perchlorate-O(18)			5.53	ug/kg		1	22-FEB-10 07:29	per0221121a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7964

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969011

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 07:38	per0221122a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:38	per0221122a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 07:38	per0221122a
	Perchlorate-O(18)			6.01	ug/kg		1	22-FEB-10 07:38	per0221122a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7973

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969012

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	22-FEB-10 07:47	per0221123a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:47	per0221123a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	22-FEB-10 07:47	per0221123a
	Perchlorate-O(18)			6.20	ug/kg		1	22-FEB-10 07:47	per0221123a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7962

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969013

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 94.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.689	ug/kg	J	1	22-FEB-10 07:56	per0221124a
	Perchlorate Isotope Ratio			3.38			1	22-FEB-10 07:56	per0221124a
14797-73-0	Perchlorate-101	.528	2.11	0.650	ug/kg	J	1	22-FEB-10 07:56	per0221124a
	Perchlorate-O(18)			5.51	ug/kg		1	22-FEB-10 07:56	per0221124a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7963

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969014

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	0.631	ug/kg	U	1	22-FEB-10 08:05	per0221125a
	Perchlorate Isotope Ratio						1	22-FEB-10 08:05	per0221125a
14797-73-0	Perchlorate-101	.631	2.52	0.631	ug/kg	U	1	22-FEB-10 08:05	per0221125a
	Perchlorate-O(18)			6.33	ug/kg		1	22-FEB-10 08:05	per0221125a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7977

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969015

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	22-FEB-10 08:14	per0221126a
	Perchlorate Isotope Ratio						1	22-FEB-10 08:14	per0221126a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	22-FEB-10 08:14	per0221126a
	Perchlorate-O(18)			8.10	ug/kg		1	22-FEB-10 08:14	per0221126a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1512

Extract Batch Code: 950059

Date Filtered: 17–FEB–10

Matrix: SOIL

Sample ID: 1202035642

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.23	ug/kg	112		70 – 130
Perchlorate Isotope Ratio		3.31				–
Perchlorate–101	2.00	2.15	ug/kg	107		70 – 130
Perchlorate–O(18)		4.72	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1512

Extract Batch Code: 950059

Date Filtered: 17-FEB-10

Matrix: SOIL

Sample ID: 1202035645

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.13	ug/kg	107		70 – 130
Perchlorate Isotope Ratio		3.28				
Perchlorate-101	2.00	2.07	ug/kg	104		70 – 130
Perchlorate-O(18)		4.72	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ıst Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
rinted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ame: per0221106a
ate: 22-Feb-2010
ime: 05:13:20
I: 1202035645 |LANL|950060|50120|IG|1|
ial: 3:1,C

GWO 02-22-10

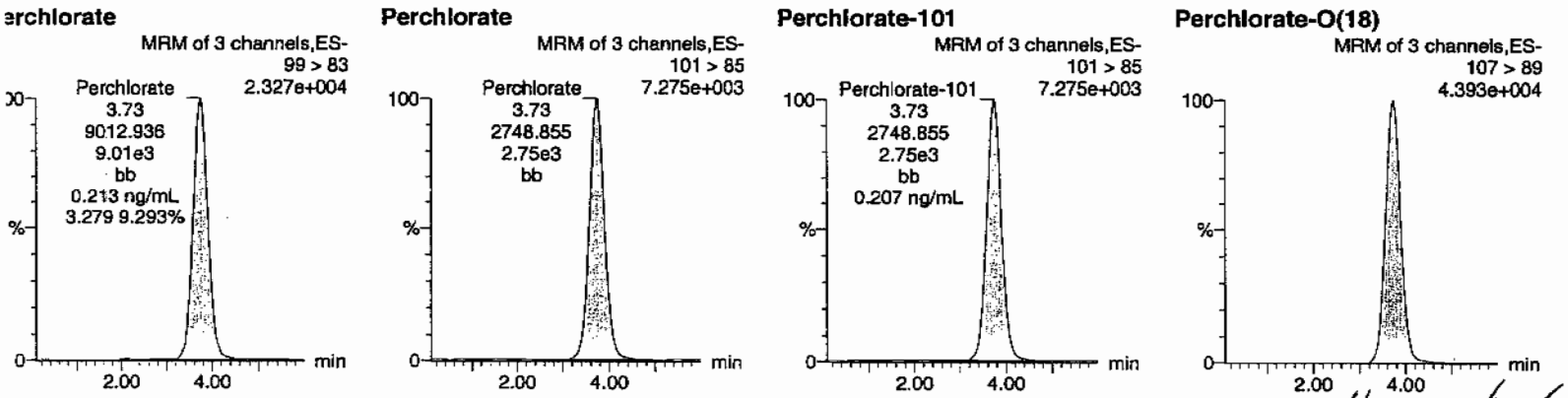

dmm 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202035645	Perchlorate	99 > 83	3.73	9012.936	9012.936	bb			0.2134	106.72	6.72	2114.6...	3.28
202035645	Perchlorate-101	101 > 85	3.73	2748.855	2748.855	bb			0.2074	103.71	3.71	911.143	
202035645	Perchlorate-O(18)	107 > 89	3.72	16885.248	16885.248	bb			0.4725	94.50	-5.50	1552.4...	

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1512

Extract Batch Code: 950059

Date Extracted: 17-FEB-10

GEL MS/PS ID: 1202035643

Client ID: RE15-10-7880

GEL MSD/PSD ID: 1202035644

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.16	0.0297	ug/kg	2.33	106	2.25	103	3.32	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.16		3.2		0		–
Perchlorate-101	2.16	0.0299	ug/kg	2.35	107	2.24	102	4.73	30	75 – 125
Perchlorate-O(18)	0	5.08	ug/kg	5.24		4.97		5.23		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	21–FEB–10	per0221001a	IPB001
Perchlorate–101	0.00	0	NA	21–FEB–10	per0221001a	IPB001
Perchlorate	0.00	0	NA	21–FEB–10	per0221002a	IPB001
Perchlorate–101	0.00	0	NA	21–FEB–10	per0221002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022110a.mdb 22 Feb 2010 10:33:42
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022110a.cdb 22 Feb 2010 10:34:00

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Date: 21-Feb-2010
Time: 13:18:28
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cwl 02-22-10

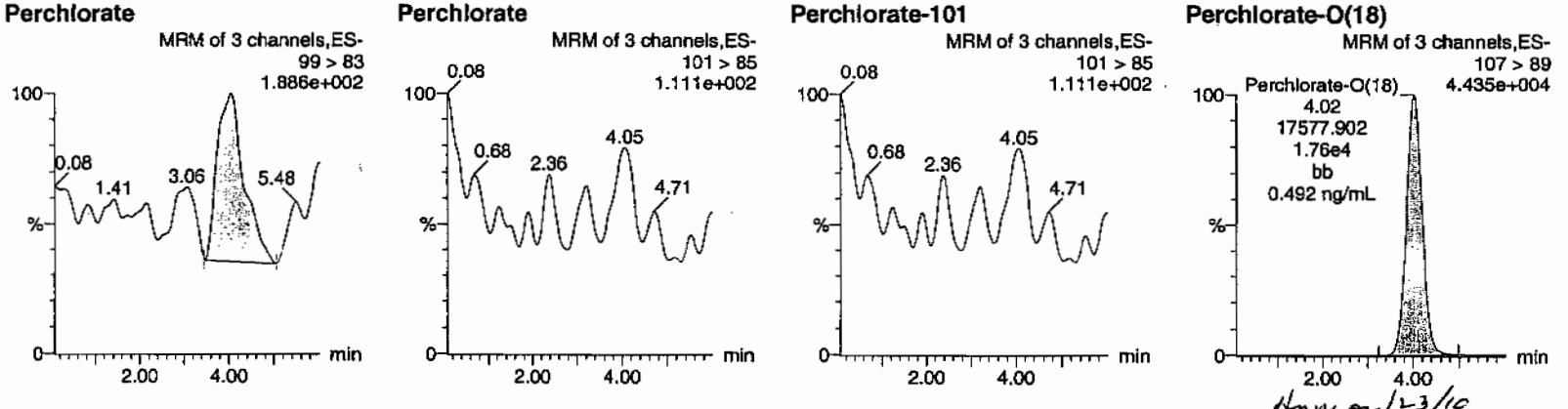

Hnmon 2/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	4.04	84.802	84.802	bb			0.0020			14.343	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	4.02	17577.902	17577.902	bb			0.4919	98.37	-1.63	4964.5...	

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ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charters W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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e: 13:27:31
PB001
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CWJ 02-22-10

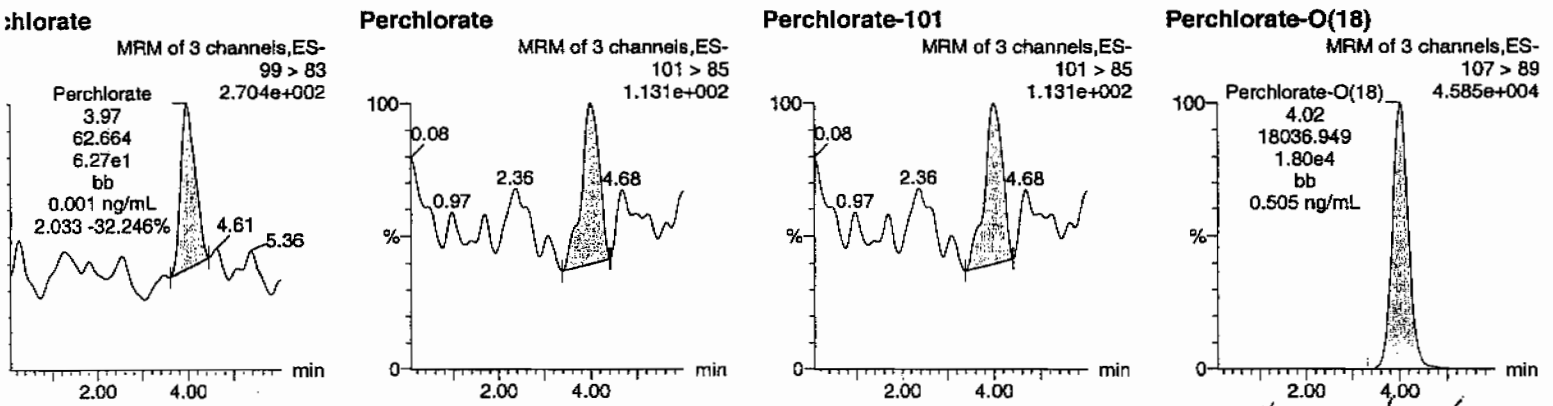

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
01	Perchlorate	99 > 83	3.97	62.664	62.664	bb			0.0015			28.060	2.03
01	Perchlorate-101	101 > 85	3.99	30.829	30.829	bb			0.0023			26.587	
01	Perchlorate-O(18)	107 > 89	4.02	18036.949	18036.949	bb			0.5047	100.94	0.94	13449....	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1512

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	21-FEB-10	per0221008a	IPB002
Perchlorate-101	0.00	0	NA	21-FEB-10	per0221008a	IPB002
Perchlorate	0.00	0	NA	21-FEB-10	per0221010a	IPB003
Perchlorate-101	0.00	0	NA	21-FEB-10	per0221010a	IPB003
Perchlorate	0.00	0	NA	21-FEB-10	per0221021a	IPB004
Perchlorate-101	0.00	0	NA	21-FEB-10	per0221021a	IPB004
Perchlorate	0.00	0	NA	21-FEB-10	per0221034a	IPB005
Perchlorate-101	0.00	0	NA	21-FEB-10	per0221034a	IPB005
Perchlorate	0.00	0	NA	21-FEB-10	per0221039a	IPB006
Perchlorate-101	0.00	0	NA	21-FEB-10	per0221039a	IPB006
Perchlorate	0.00	0	NA	21-FEB-10	per0221047a	IPB007
Perchlorate-101	0.00	0	NA	21-FEB-10	per0221047a	IPB007
Perchlorate	0.00	0	NA	21-FEB-10	per0221058a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	21–FEB–10	per0221058a	IPB008
Perchlorate	0.00	0	NA	21–FEB–10	per0221070a	IPB009
Perchlorate–101	0.00	0	NA	21–FEB–10	per0221070a	IPB009
Perchlorate	0.00	0	NA	22–FEB–10	per0221081a	IPB010
Perchlorate–101	0.00	0	NA	22–FEB–10	per0221081a	IPB010
Perchlorate	0.00	0	NA	22–FEB–10	per0221091a	IPB011
Perchlorate–101	0.00	0	NA	22–FEB–10	per0221091a	IPB011
Perchlorate	0.00	0	NA	22–FEB–10	per0221102a	IPB012
Perchlorate–101	0.00	0	NA	22–FEB–10	per0221102a	IPB012
Perchlorate	0.00	0	NA	22–FEB–10	per0221115a	IPB013
Perchlorate–101	0.00	0	NA	22–FEB–10	per0221115a	IPB013
Perchlorate	0.00	0	NA	22–FEB–10	per0221128a	IPB014
Perchlorate–101	0.00	0	NA	22–FEB–10	per0221128a	IPB014

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ıntify Sample Report MassLynx 4.0 SP4
· GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ıted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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e: 21-Feb-2010
ıe: 14:21:48
IPB002
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CWJ 02-22-10

chlorate

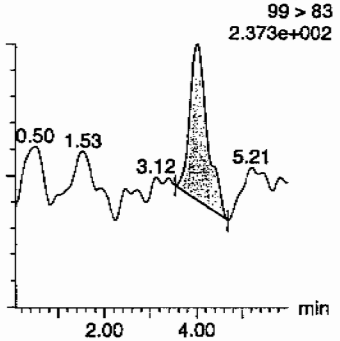

Perchlorate

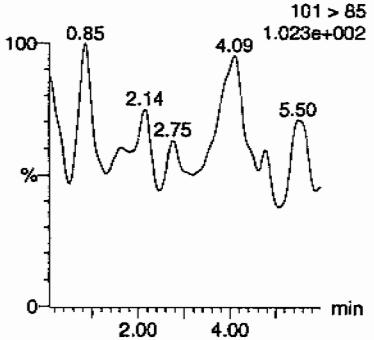

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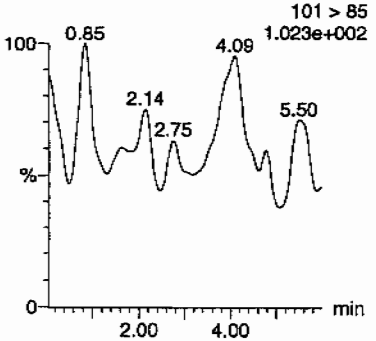

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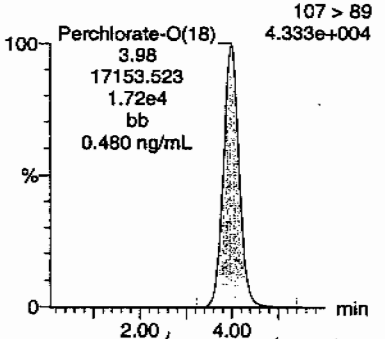

HMK 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)02	Perchlorate	99 > 83	4.00	64.134	64.134	bb			0.0015			9.160	0.00
)02	Perchlorate-101	101 > 85											
)02	Perchlorate-O(18)	107 > 89	3.98	17153.523	17153.523	bb			0.4800	96.00	-4.00	2373.8...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221010a
Date: 21-Feb-2010
Time: 14:39:52
ID: IPB003
Vial: 1:1,A

CWW 02-22-10

Perchlorate

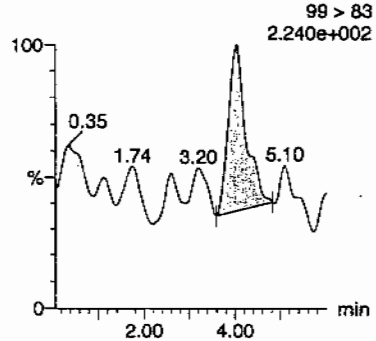

Perchlorate

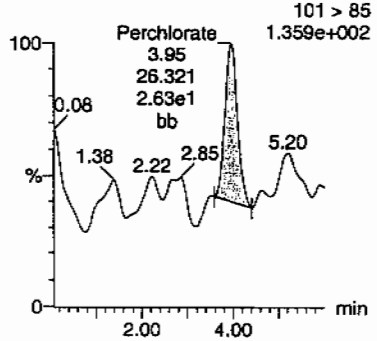

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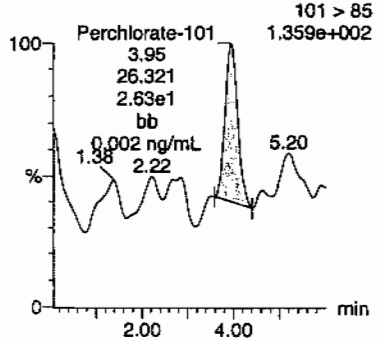

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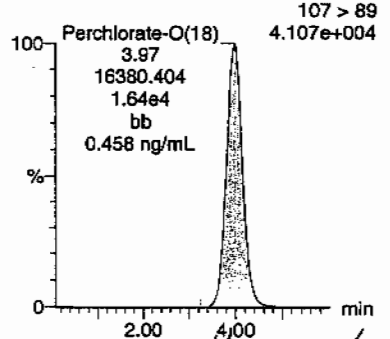

AMM 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	4.02	64.700	64.700	bb			0.0015			13.963	2.46
IPB003	Perchlorate-101	101 > 85	3.95	26.321	26.321	bb			0.0020			38.439	
IPB003	Perchlorate-O(18)	107 > 89	3.97	16380.404	16380.404	bb			0.4584	91.67	-8.33	6874.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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e: 21-Feb-2010
e: 16:21:15
IPB004
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CW 02-22-10

chlorate

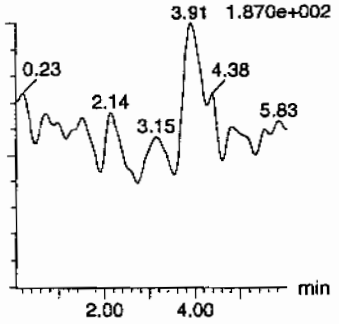

Perchlorate

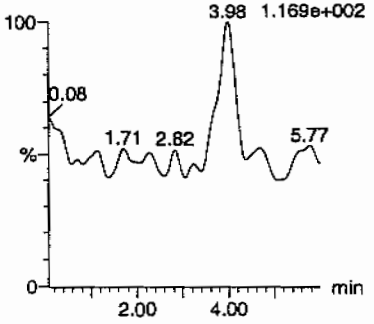

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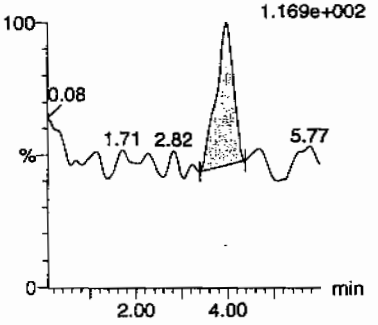

Perchlorate-O(18)

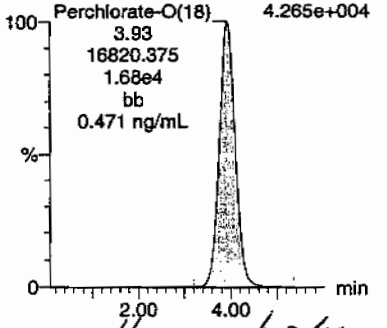

Hmm 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
04	Perchlorate	99 > 83											0.00
04	Perchlorate-101	101 > 85	3.98	27.708	27.708	bb			0.0021			38.242	
04	Perchlorate-O(18)	107 > 89	3.93	16820.375	16820.375	bb			0.4707	94.14	-5.86	10306....	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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Date: 21-Feb-2010
Time: 18:18:56
ID: IPB005
Vial: 1:1,A

AWJ
02-22-10

Perchlorate

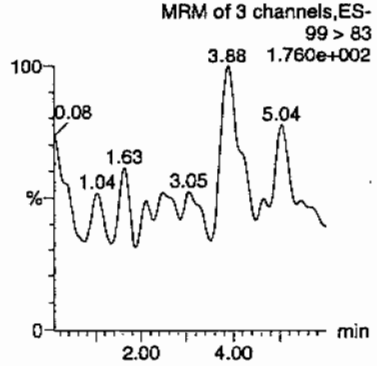

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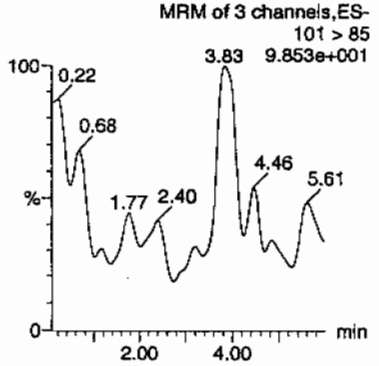

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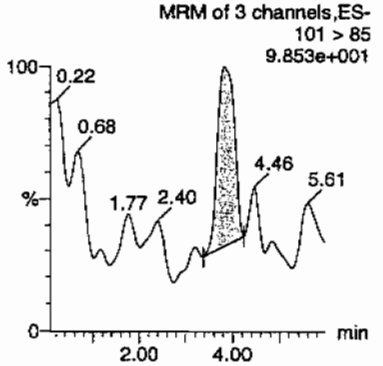

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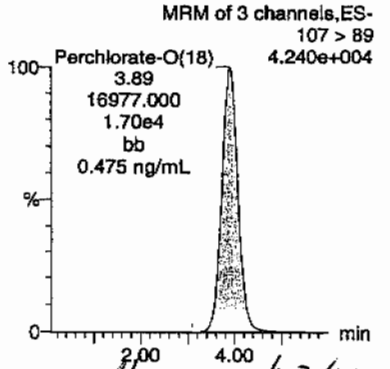

Hnm 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85	3.83	28.036	28.036	bb			0.0021			14.538	
IPB005	Perchlorate-O(18)	107 > 89	3.89	16977.000	16977.000	bb			0.4751	95.01	-4.99	3122.0...	

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ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
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: 21-Feb-2010
ɜ: 19:04:27
PB006
: 1:1,A

02-22-10

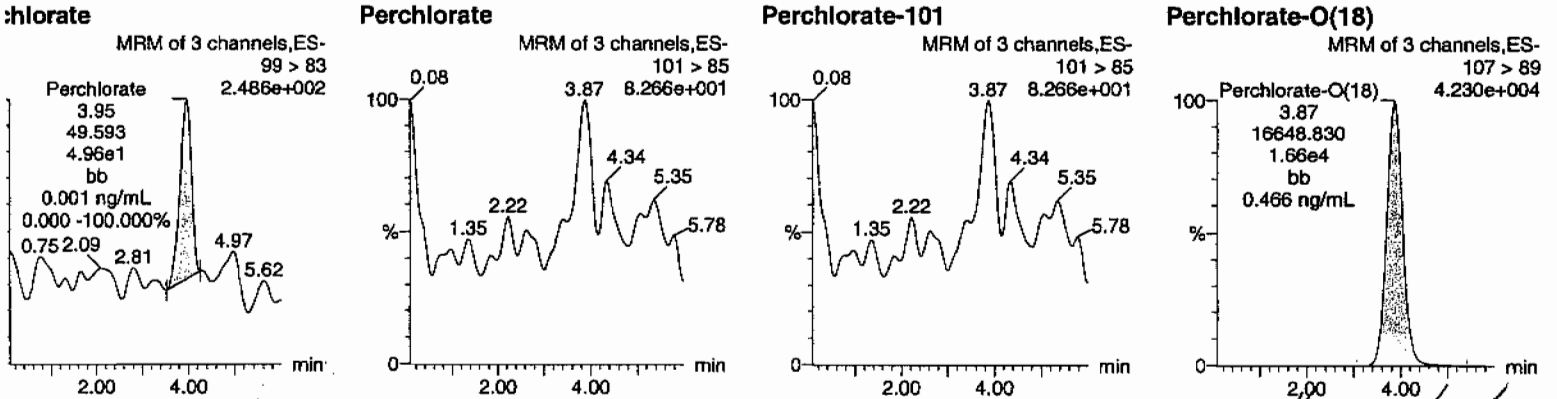

4/min 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)6	Perchlorate	99 > 83	3.95	49.593	49.593	bb			0.0012			21.909	0.00
)6	Perchlorate-101	101 > 85											
)6	Perchlorate-O(18)	107 > 89	3.87	16648.830	16648.830	bb			0.4659	93.18	-6.82	1029.0...	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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Time: 20:17:04
ID: IPB007
Vial: 1:1,A

GWO 02-22-10

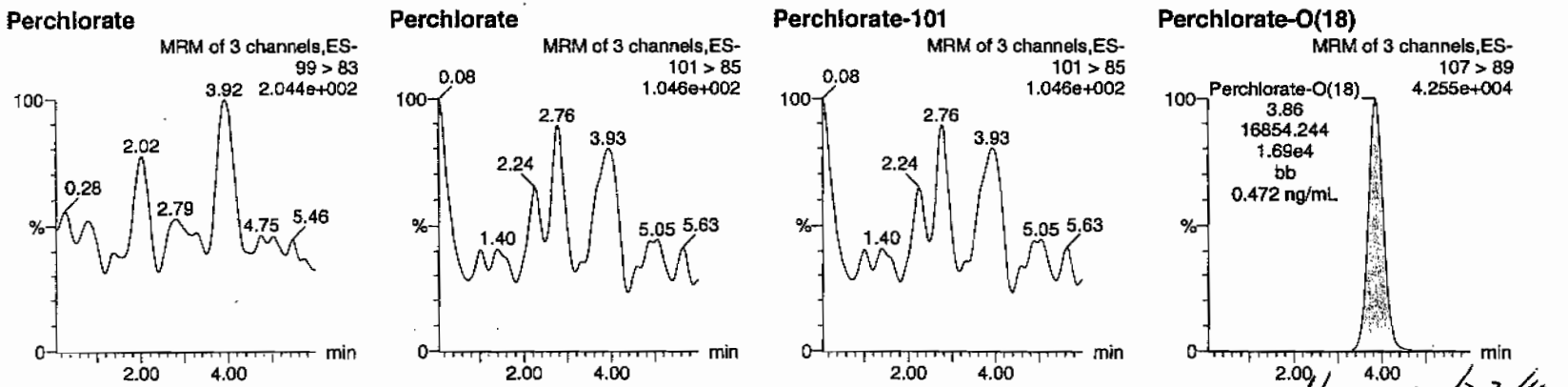

HMW 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	3.86	16854.244	16854.244	bb			0.4716	94.32	-5.68	5102.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221058a
Date: 21-Feb-2010
Time: 21:57:17
ID: IPB008
Vial: 1:1,A

CWW
02-22-10

Perchlorate

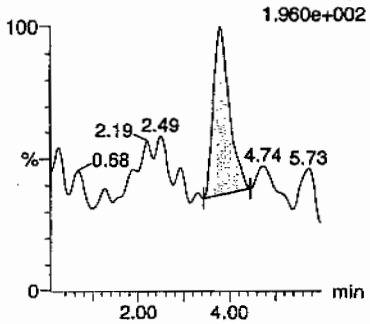

Perchlorate

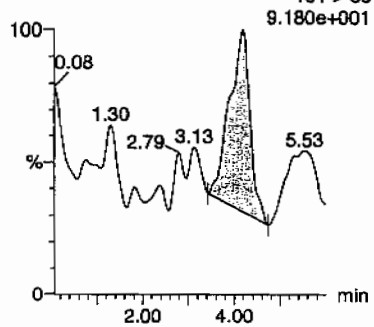

Perchlorate-101

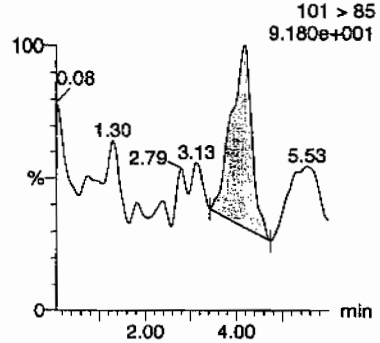

Perchlorate-O(18)

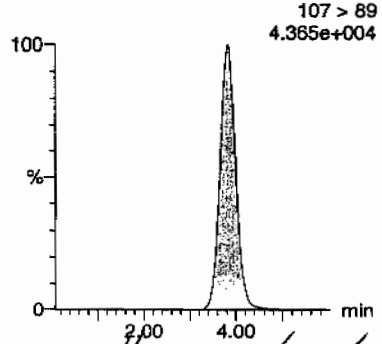

Hmm 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	3.79	50.339	50.339	bb			0.0012			22.450	1.52
IPB008	Perchlorate-101	101 > 85	4.19	33.012	33.012	bb			0.0025			19.317	
IPB008	Perchlorate-O(18)	107 > 89	3.82	17119.211	17119.211	bb			0.4790	95.81 ✓	-4.19	2040.6...	

OKAY
<0.0500

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

l Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221070a
e: 21-Feb-2010
e: 23:46:06
PB009
: 1:1,A

CWW 02-22-10

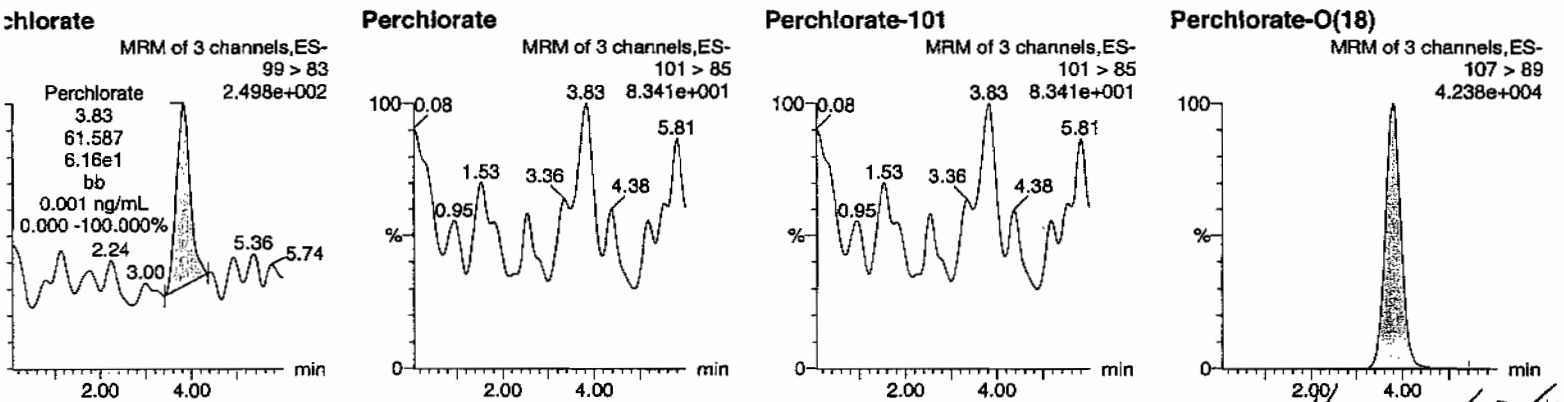

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
09	Perchlorate	99 > 83	3.83	61.587	61.587	bb			0.0015			17.078	0.00
09	Perchlorate-101	101 > 85											
09	Perchlorate-O(18)	107 > 89	3.79	16745.736	16745.736	bb			0.4686	93.72 ✓	-6.28	32026....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221081a
Date: 22-Feb-2010
Time: 01:26:02
ID: IPB010
Vial: 1:1,A

ano 02-22-10

Perchlorate

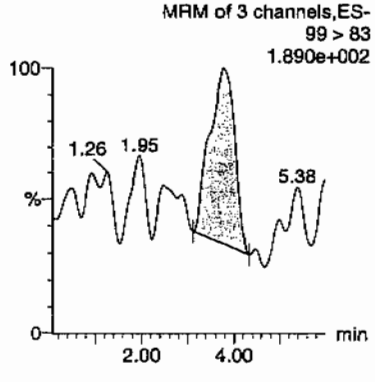

Perchlorate

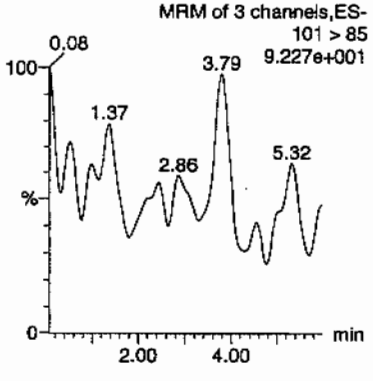

Perchlorate-101

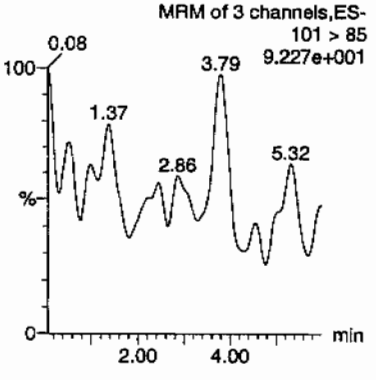

Perchlorate-O(18)

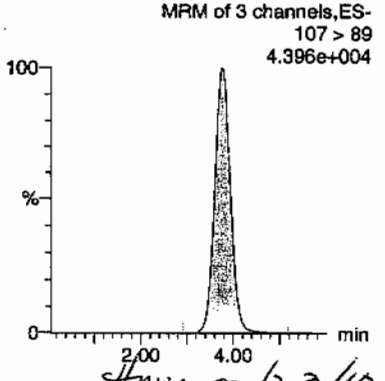

HMW 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83	3.77	78.250	78.250	bb			0.0019			11.419	0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	3.77	17116.012	17116.012	bb			0.4789	95.79	-4.21	699.446	

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

: Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221091a
ɜ: 22-Feb-2010
e: 02:56:59
PB011
: 1:1,A

CWW 02.22-10

ɔhlorate

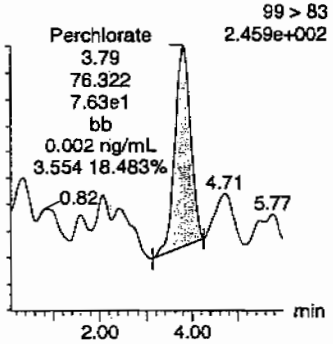

Perchlorate

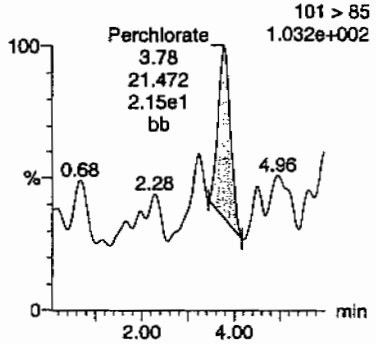

Perchlorate-101

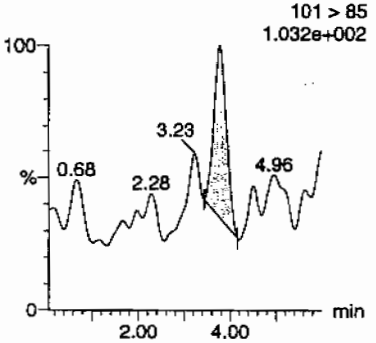

Perchlorate-O(18)

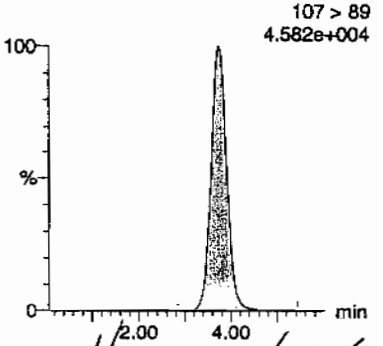

HJW 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
11	Perchlorate	99 > 83	3.79	76.322	76.322	bb			0.0018			22.816	3.55
11	Perchlorate-101	101 > 85	3.78	21.472	21.472	bb			0.0016			13.305	
11	Perchlorate-O(18)	107 > 89	3.73	18082.072	18082.072	bb			0.5060	101.20	1.20	1215.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221102a
Date: 22-Feb-2010
Time: 04:37:01
ID: IPB012
Vial: 1:1,A

GMS 02-22-10

Perchlorate

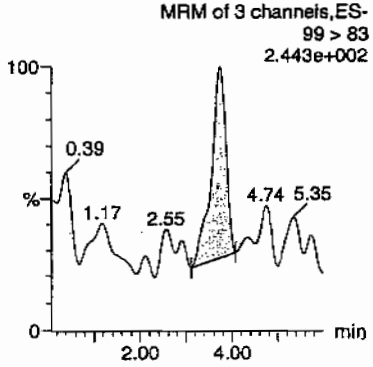

Perchlorate

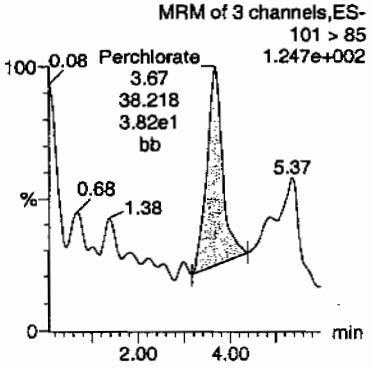

Perchlorate-101

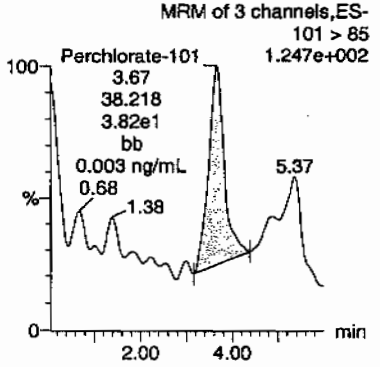

Perchlorate-O(18)

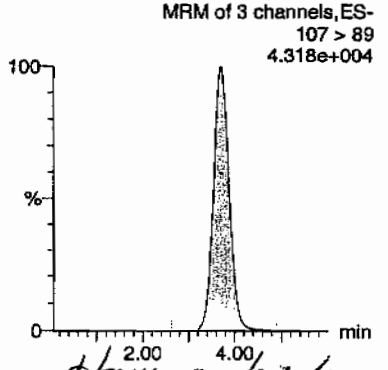

HMK 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB012	Perchlorate	99 > 83	3.73	66.169	66.169	bb			0.0016			8.746	1.73
IPB012	Perchlorate-101	101 > 85	3.67	38.218	38.218	bb			0.0029			15.279	
IPB012	Perchlorate-O(18)	107 > 89	3.71	16801.039	16801.039	bb			0.4701	94.03	-5.97	1957.0...	

OKAY
<0.050

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221115a
Date: 22-Feb-2010
Time: 06:34:48
ID: IPB013
Vial: 1:1,A

CWW
02-22-10

Perchlorate

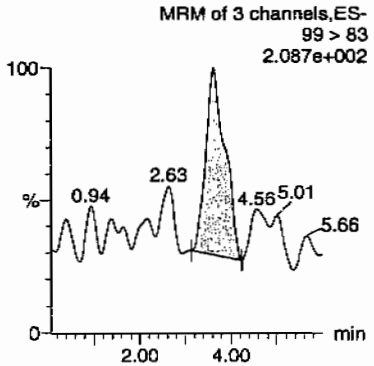

Perchlorate

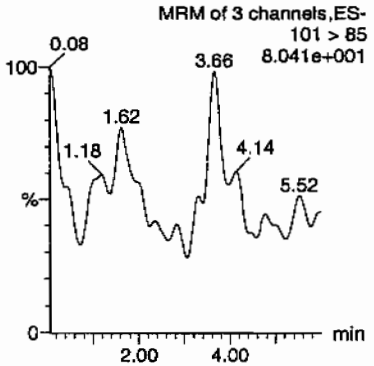

Perchlorate-101

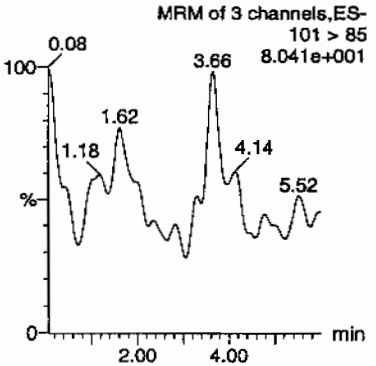

Perchlorate-O(18)

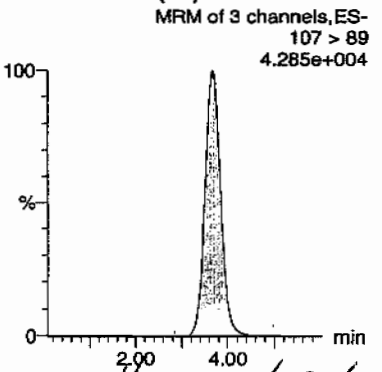

HMM 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB013	Perchlorate	99 > 83	3.62	73.460	73.460	bb			0.0017			18.738	0.00
IPB013	Perchlorate-101	101 > 85											
IPB013	Perchlorate-O(18)	107 > 89	3.68	16744.482	16744.482	bb			0.4686	93.71	-6.29	3052.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221128a
Date: 22-Feb-2010
Time: 08:32:54
ID: IPB014
Vial: 1:1,A

CWW
02-22-10

Perchlorate

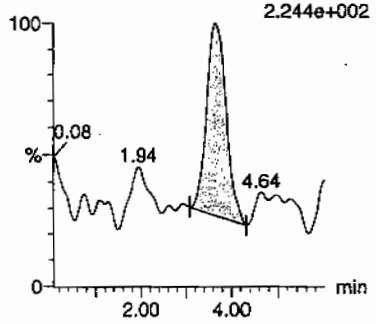

Perchlorate

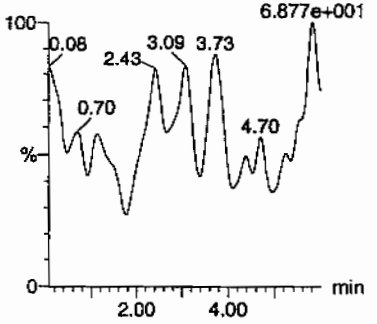

Perchlorate-101

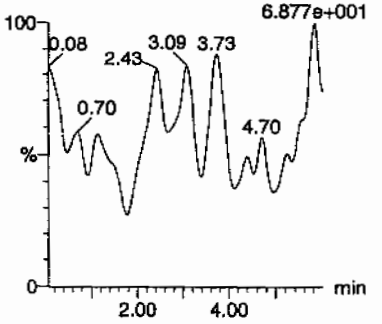

Perchlorate-O(18)

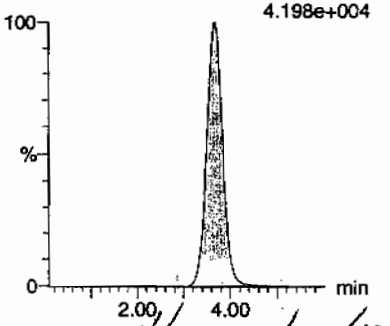

HMM 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB014	Perchlorate	99 > 83	3.66	82.326	82.326	bb			0.0019			19.536	0.00
IPB014	Perchlorate-101	101 > 85											
IPB014	Perchlorate-O(18)	107 > 89	3.66	16438.121	16438.121	bb			0.4600	92.00	-8.00	1940.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY GUNS 01-09-03

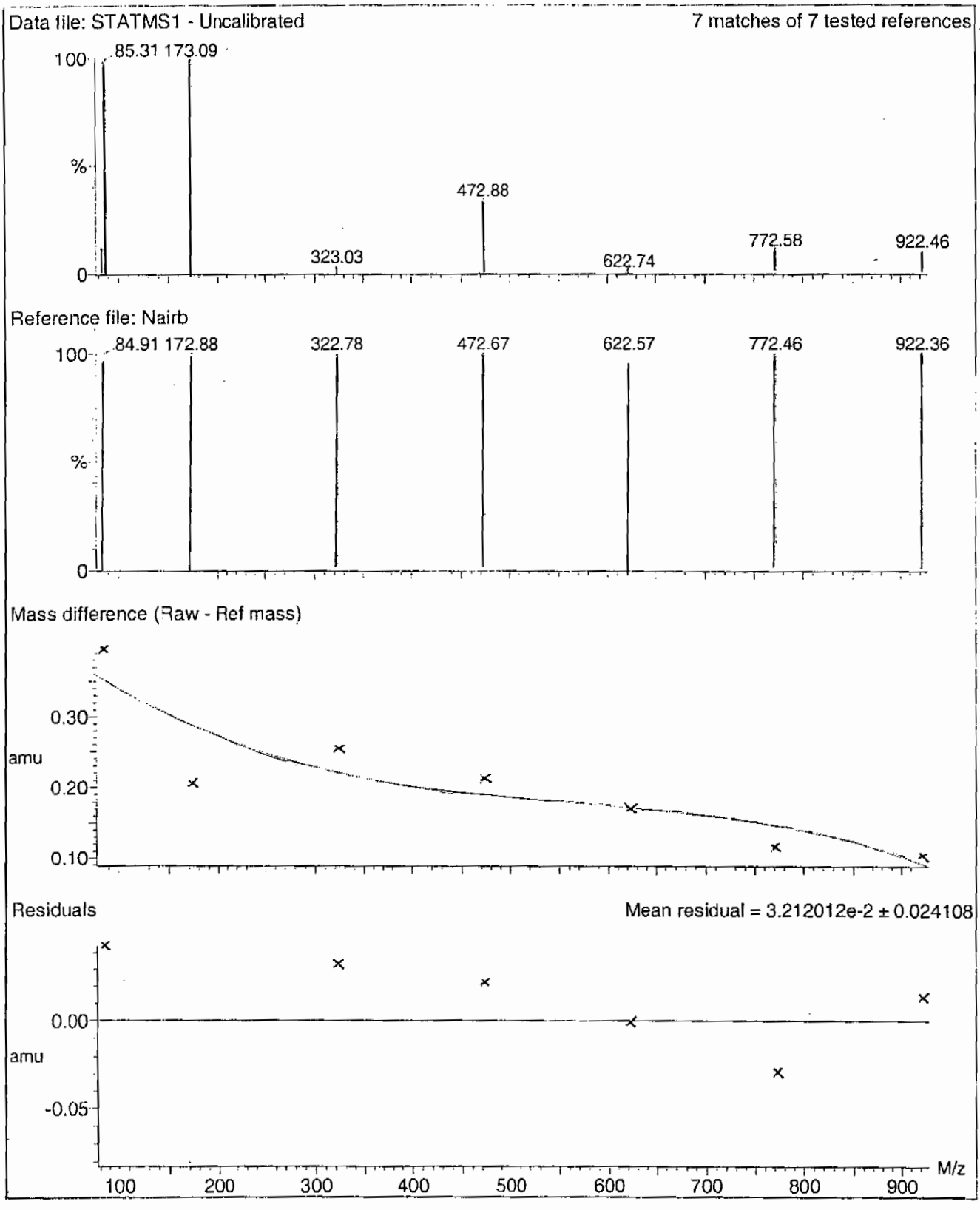

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

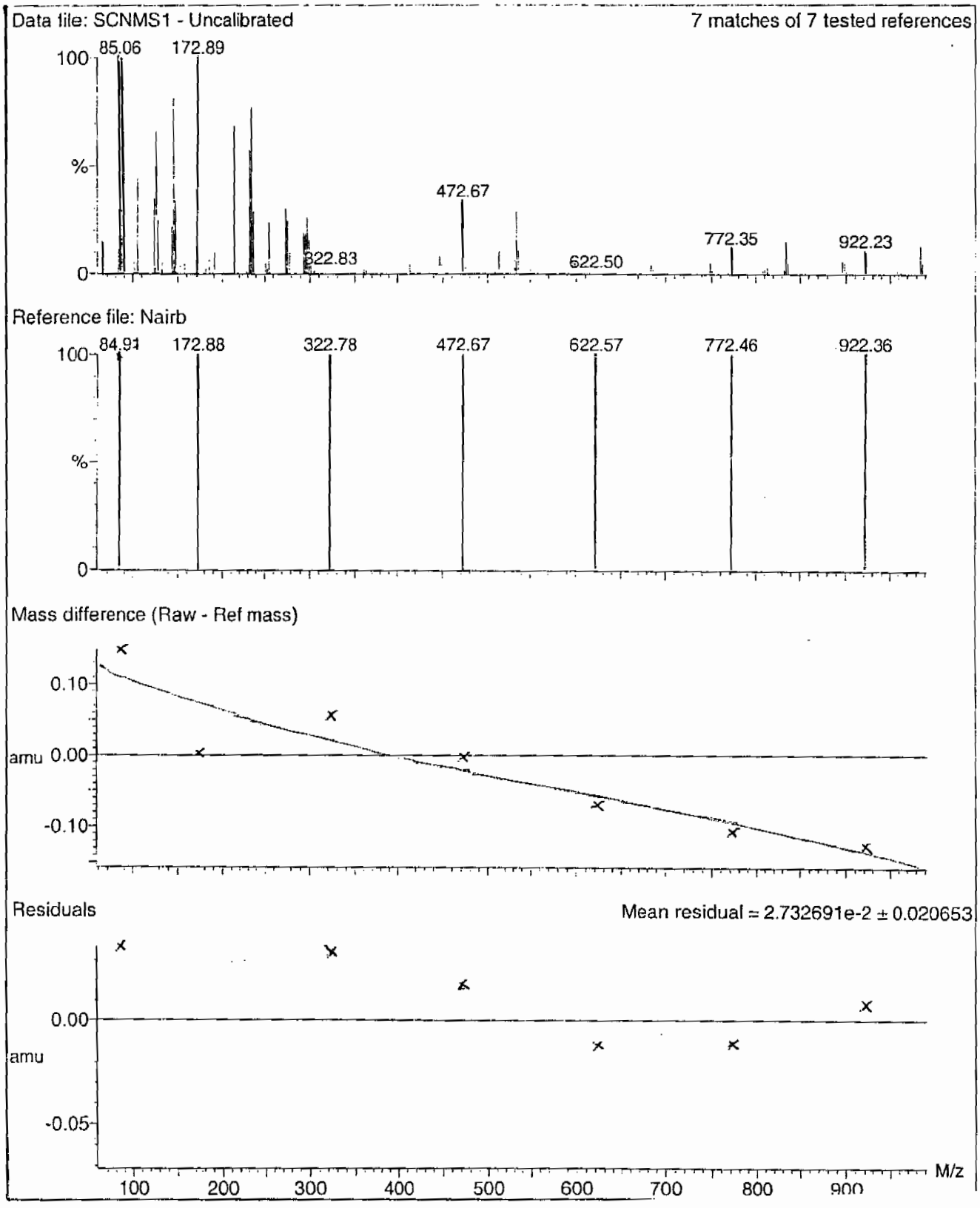

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

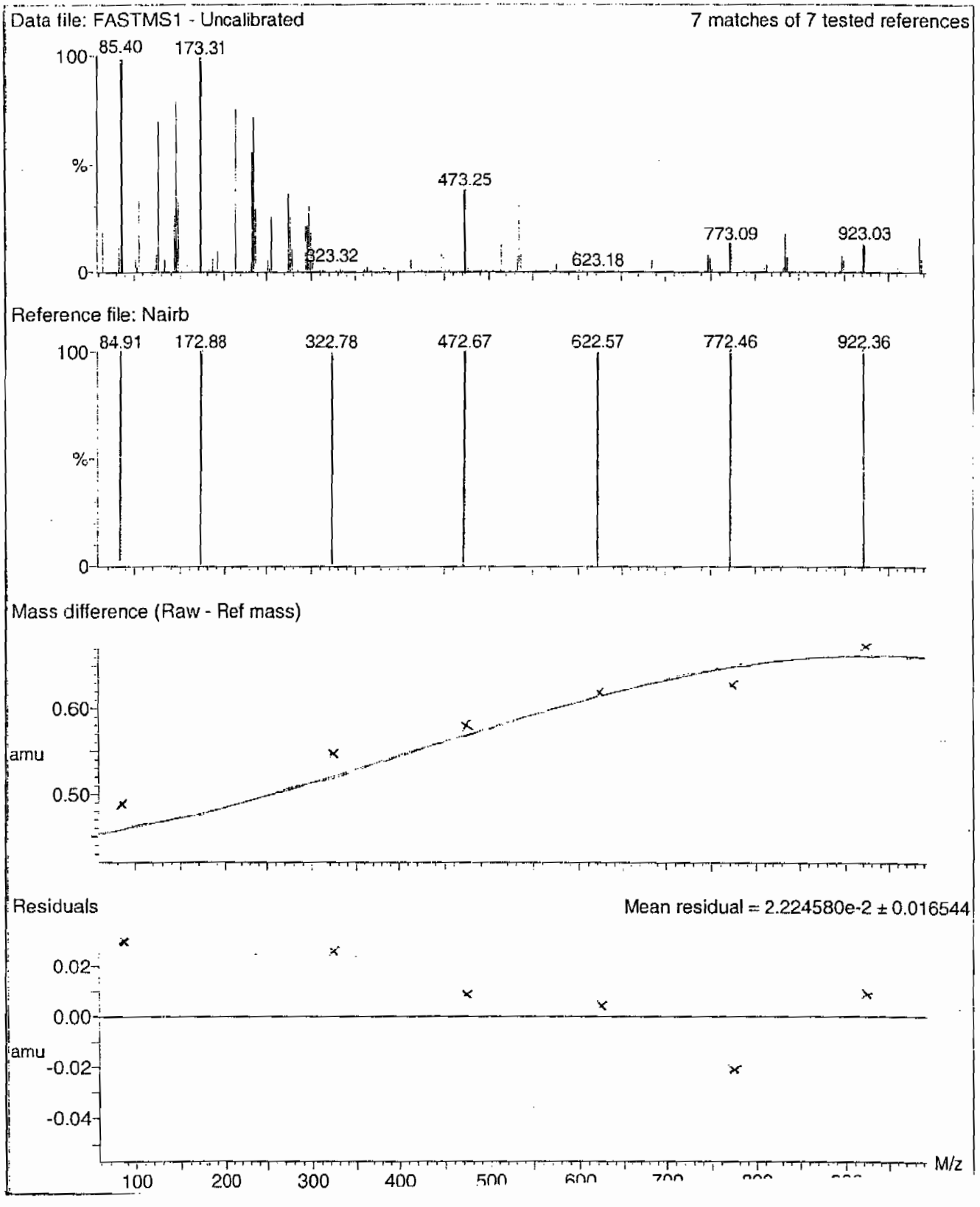

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

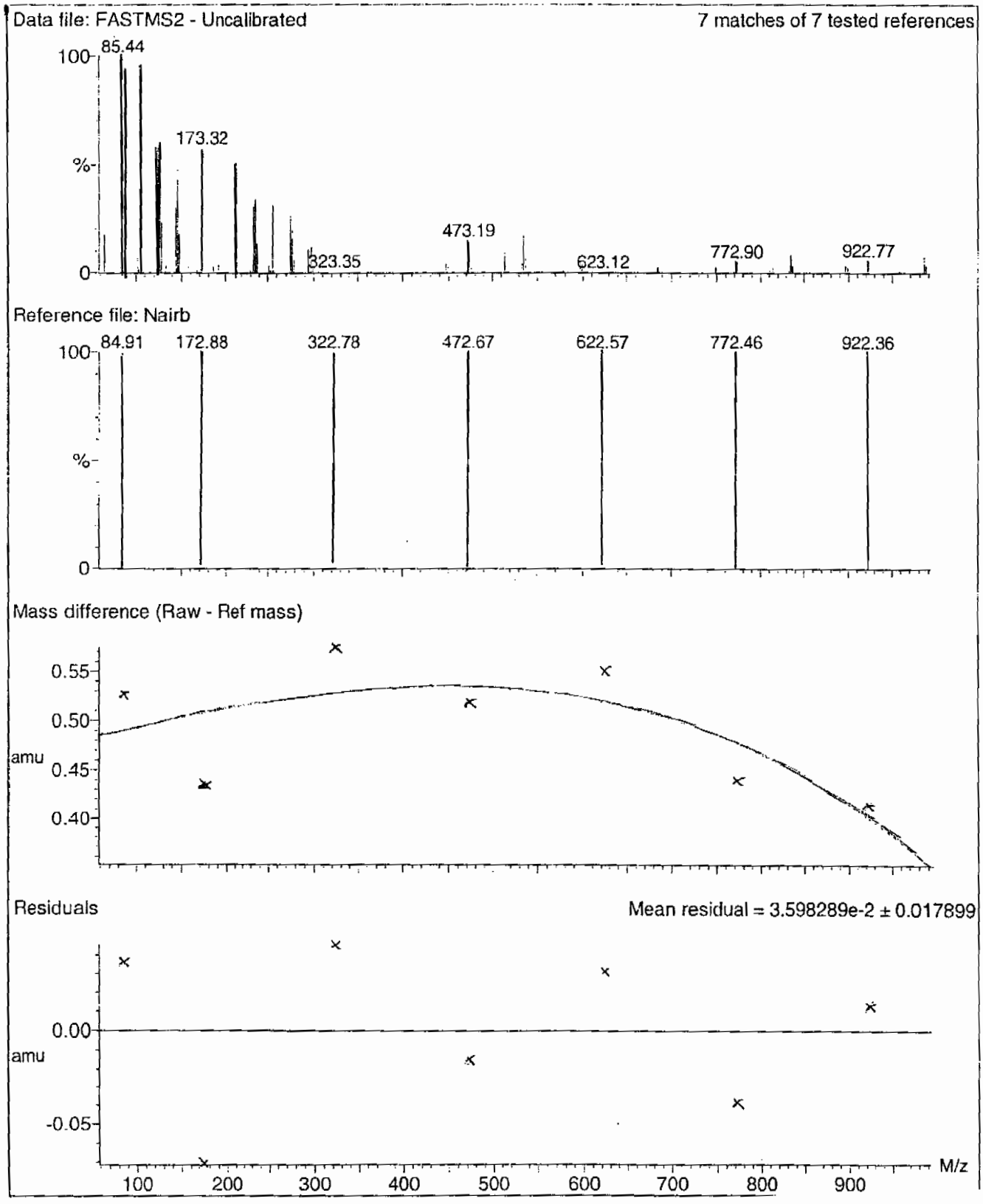

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

Data file: SCNMS2 - Uncalibrated

7 matches of 7 tested references

Reference file: Nairb

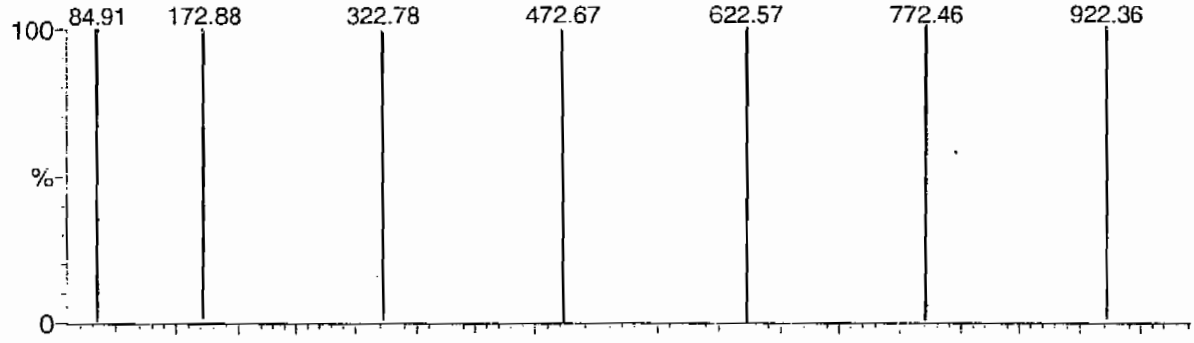

Mass difference (Raw - Ref mass)

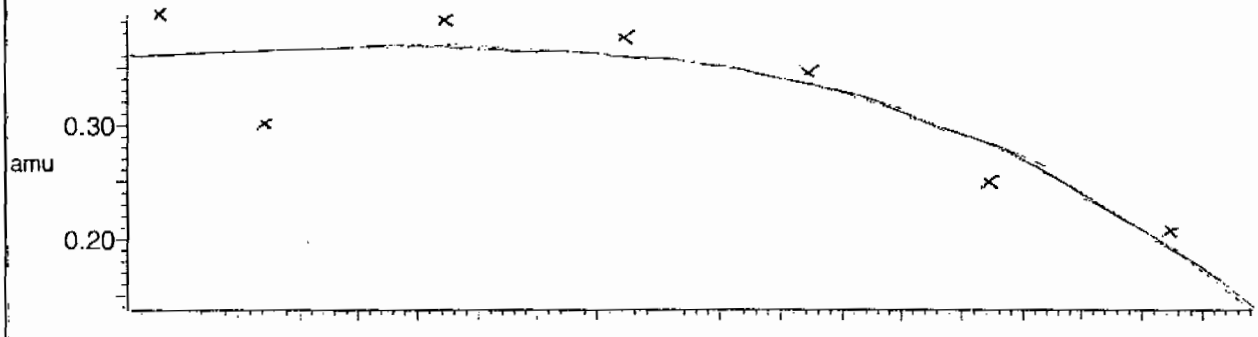

Residuals

Mean residual = 2.782494e-2 ± 0.017442

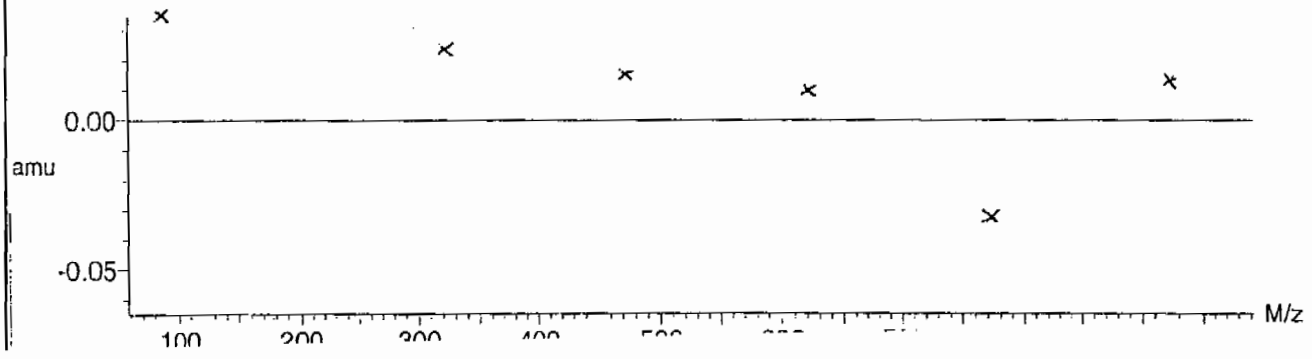

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

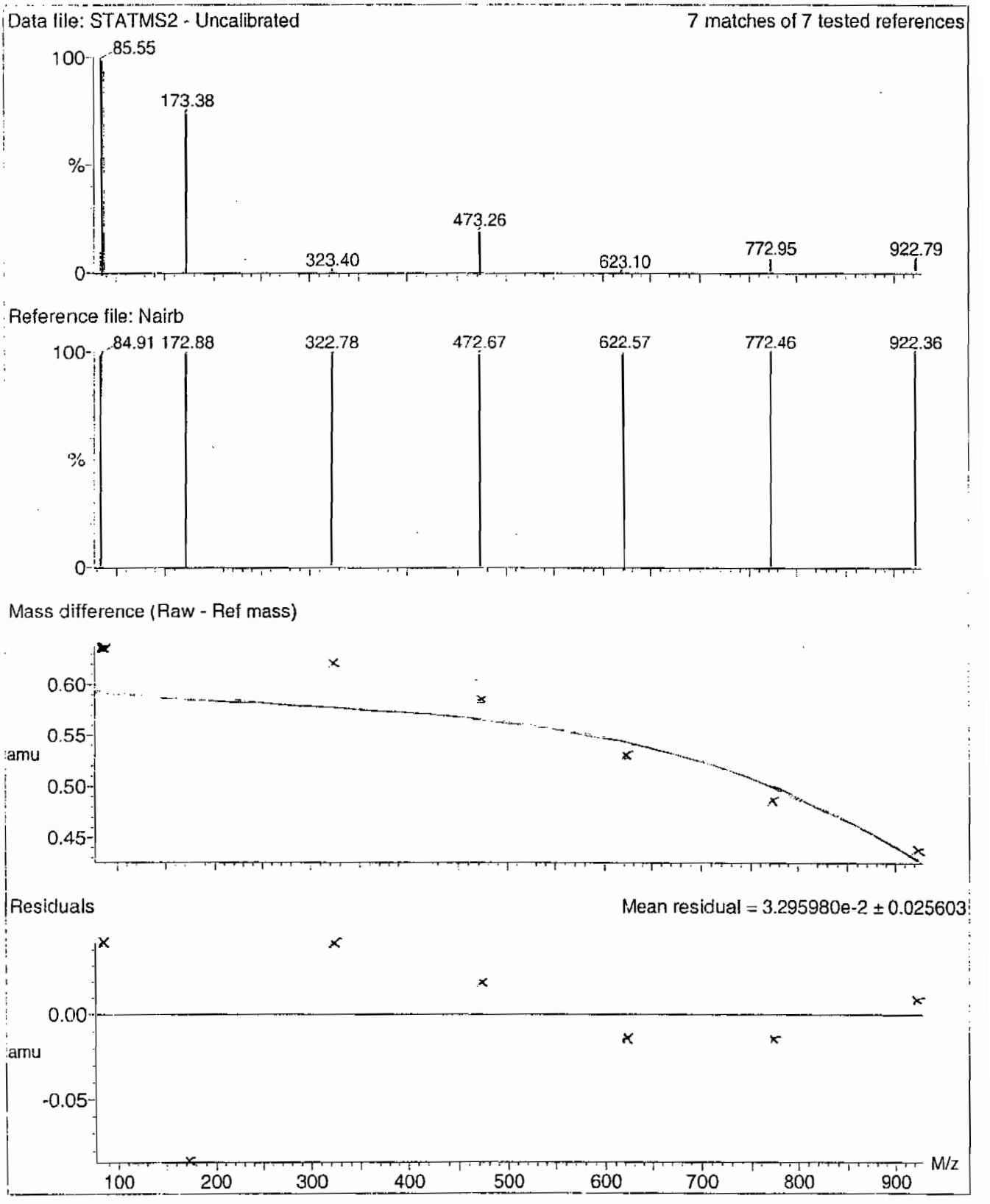

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, February 21, 2010 11:58:13 Eastern Standard Time

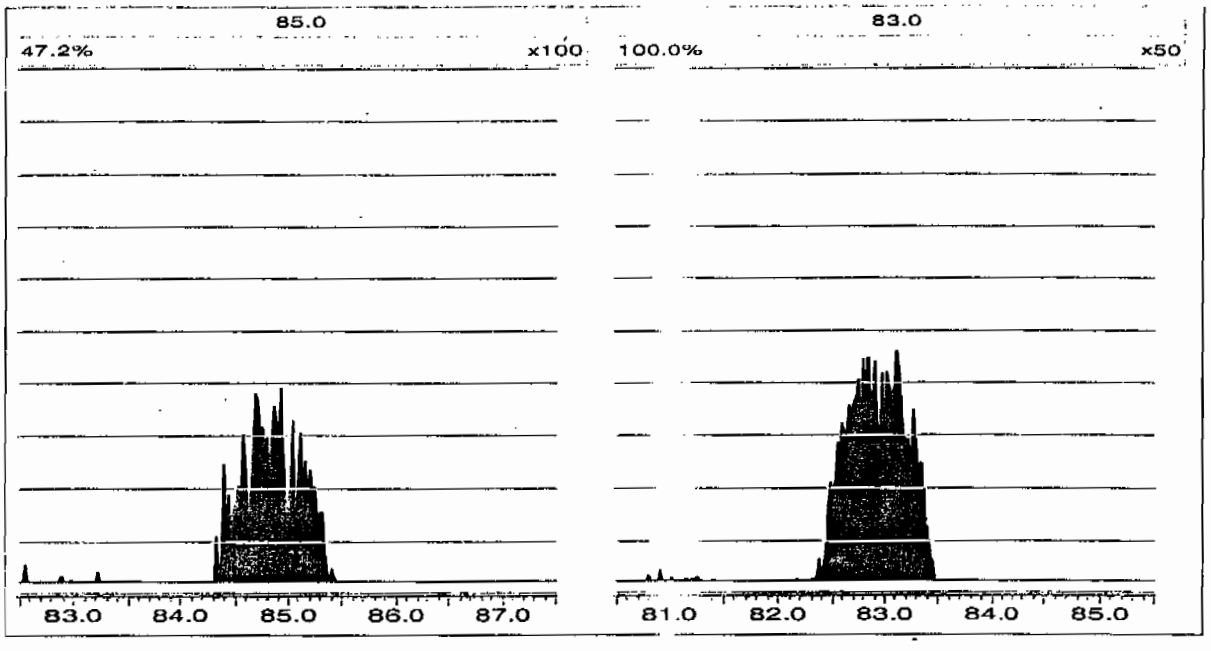

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1512

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0221006a**	**21-FEB-10**	**17665.3**				
Lower Area Limit			**8832.65**				
Upper Area Limit			**35330.6**				
1202035641	per0221104a	22-FEB-10 04:55	17560.2	3.72	3.7313	1.003	
1202035642	per0221105a	22-FEB-10 05:04	16872.3	3.71	3.71883	1.002	
1202035645	per0221106a	22-FEB-10 05:13	16885.2	3.72	3.73128	1.003	
245969001	per0221107a	22-FEB-10 05:22	16793.9	3.69	3.70635	1.004	
1202035643	per0221108a	22-FEB-10 05:31	17304.6	3.69	3.71882	1.008	
1202035644	per0221109a	22-FEB-10 05:40	16421.9	3.69	3.70633	1.004	
245969002	per0221110a	22-FEB-10 05:49	17225.1	3.69	3.70635	1.004	
245969003	per0221111a	22-FEB-10 05:58	18276.7	3.68	3.70635	1.007	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1512

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0221006a**	**21–FEB–10**	**17665.3**				
Lower Area Limit			**8832.65**				
Upper Area Limit			**35330.6**				
245969004	per0221112a	22–FEB–10 06:07	17427.6	3.69	3.71882	1.008	
245969005	per0221113a	22–FEB–10 06:16	16916.6	3.68	3.68158	1	
245969006	per0221117a	22–FEB–10 06:52	18170.4	3.68	3.70637	1.007	
245969007	per0221118a	22–FEB–10 07:02	18091.4	3.68	3.70637	1.007	
245969008	per0221119a	22–FEB–10 07:11	18221.7	3.67	3.69405	1.007	
245969009	per0221120a	22–FEB–10 07:20	19644.8	3.68	3.69402	1.004	
245969010	per0221121a	22–FEB–10 07:29	18139.6	3.68	3.6691	.997	
245969011	per0221122a	22–FEB–10 07:38	19195.1	3.67	3.68158	1.003	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1512

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0221006a**	**21–FEB–10**	**17665.3**				
Lower Area Limit			**8832.65**				
Upper Area Limit			**35330.6**				
245969012	per0221123a	22–FEB–10 07:47	18059.7	3.68	3.70638	1.007	
245969013	per0221124a	22–FEB–10 07:56	18651.5	3.67	3.69402	1.007	
245969014	per0221125a	22–FEB–10 08:05	17922.8	3.66	3.66907	1.002	
245969015	per0221126a	22–FEB–10 08:14	18461.8	3.64	3.66908	1.008	

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from CRL.

SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7880

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969001

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	0.541	ug/kg	U	1	22-FEB-10 05:22	per0221107a
	Perchlorate Isotope Ratio						1	22-FEB-10 05:22	per0221107a
14797-73-0	Perchlorate-101	.541	2.16	0.541	ug/kg	U	1	22-FEB-10 05:22	per0221107a
	Perchlorate-O(18)			5.08	ug/kg		1	22-FEB-10 05:22	per0221107a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221107a
Date: 22-Feb-2010
Time: 05:22:22
ID: 245969001
Vial: 3:1,D

|LANL|950060|50120|1|

CWO 02-22-10

Perchlorate

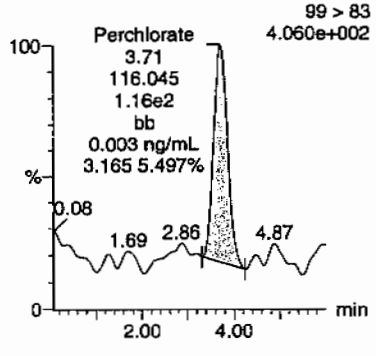

Perchlorate

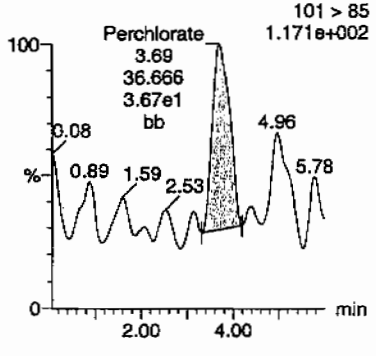

Perchlorate-101

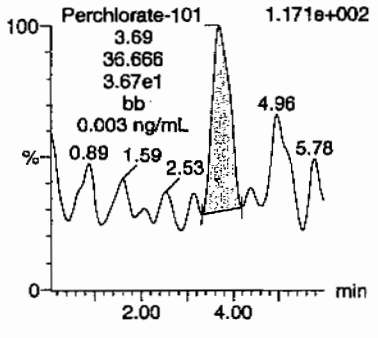

Perchlorate-O(18)

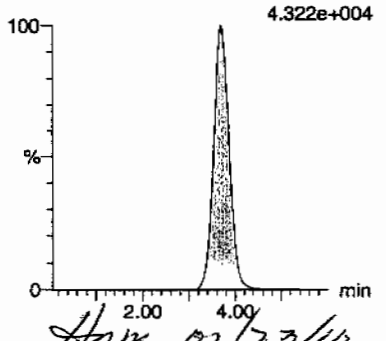

HMK 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245969001	Perchlorate	99 > 83	3.71	116.045	116.045	bb			0.0027			47.922	3.16
245969001	Perchlorate-101	101 > 85	3.69	36.666	36.666	bb			0.0028			10.703	
245969001	Perchlorate-O(18)	107 > 89	3.69	16793.863	16793.863	bb			0.4699	93.99	-6.01	5001.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7891

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969002

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.676	2.7	0.676	ug/kg	U	1	22-FEB-10 05:49	per0221110a
	Perchlorate Isotope Ratio						1	22-FEB-10 05:49	per0221110a
14797-73-0	Perchlorate-101	.676	2.7	0.676	ug/kg	U	1	22-FEB-10 05:49	per0221110a
	Perchlorate-O(18)			6.51	ug/kg		1	22-FEB-10 05:49	per0221110a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

: Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221110a
ɜ: 22-Feb-2010
e: 05:49:24
245969002
: 3:2,A

|LANL|950060|SDZD|1|

GW
02-22-10

chlorate

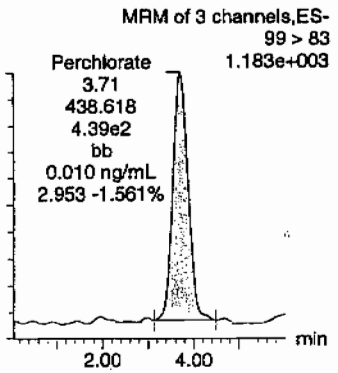

Perchlorate

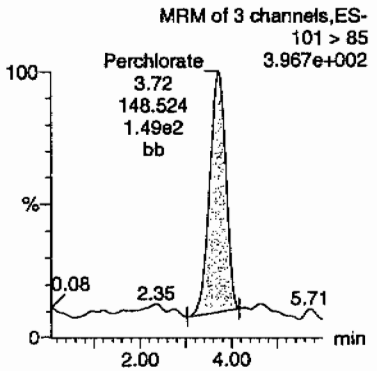

Perchlorate-101

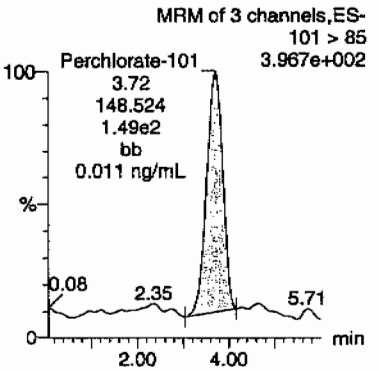

Perchlorate-O(18)

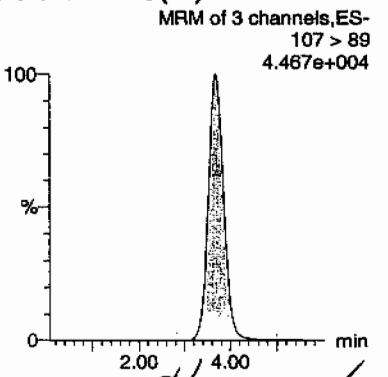

HMW 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)69002	Perchlorate	99 > 83	3.71	438.618	438.618	bb			0.0104			123.093	2.95
)69002	Perchlorate-101	101 > 85	3.72	148.524	148.524	bb			0.0112			67.436	
)69002	Perchlorate-O(18)	107 > 89	3.69	17225.094	17225.094	bb			0.4820	96.40	-3.60	4807.5...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7892

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969003

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 93

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.537	2.15	0.571	ug/kg	J	1	22-FEB-10 05:58	per0221111a
	Perchlorate Isotope Ratio			3.1			1	22-FEB-10 05:58	per0221111a
14797-73-0	Perchlorate-101	.537	2.15	0.588	ug/kg	J	1	22-FEB-10 05:58	per0221111a
	Perchlorate-O(18)			5.50	ug/kg		1	22-FEB-10 05:58	per0221111a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221111a
Date: 22-Feb-2010
Time: 05:58:27
ID: 245969003
Vial: 3:2,B

|LANL|950060|50120|1|

GWD
02-22-10

Perchlorate

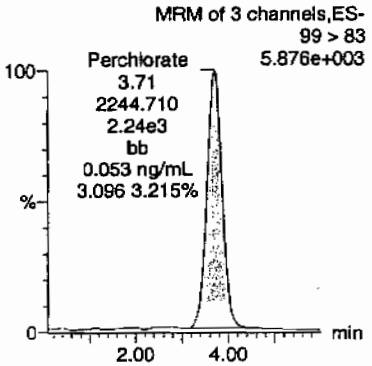

Perchlorate

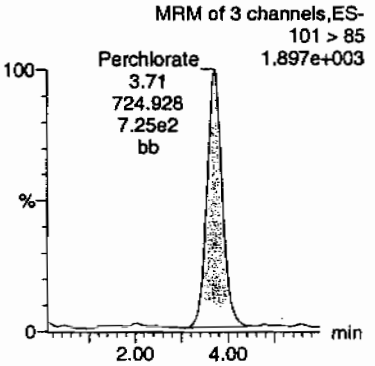

Perchlorate-101

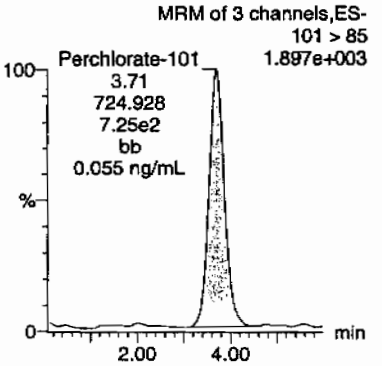

Perchlorate-O(18)

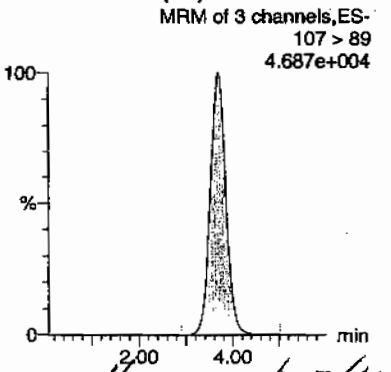

HMM 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245969003	Perchlorate	99 > 83	3.71	2244.710	2244.710	bb			0.0532			690.489	3.10
245969003	Perchlorate-101	101 > 85	3.71	724.928	724.928	bb			0.0547			114.010	
245969003	Perchlorate-O(18)	107 > 89	3.68	18276.682	18276.682	bb			0.5114	102.29	2.29	4189.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7967

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969004

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.659	2.64	0.659	ug/kg	U	1	22-FEB-10 06:07	per0221112a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:07	per0221112a
14797-73-0	Perchlorate-101	.659	2.64	0.659	ug/kg	U	1	22-FEB-10 06:07	per0221112a
	Perchlorate-O(18)			6.43	ug/kg		1	22-FEB-10 06:07	per0221112a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221112a
e: 22-Feb-2010
e: 06:07:29
245969004
l: 3:2,C

LANL|950060|SD120|1|

CWO 02-22-10

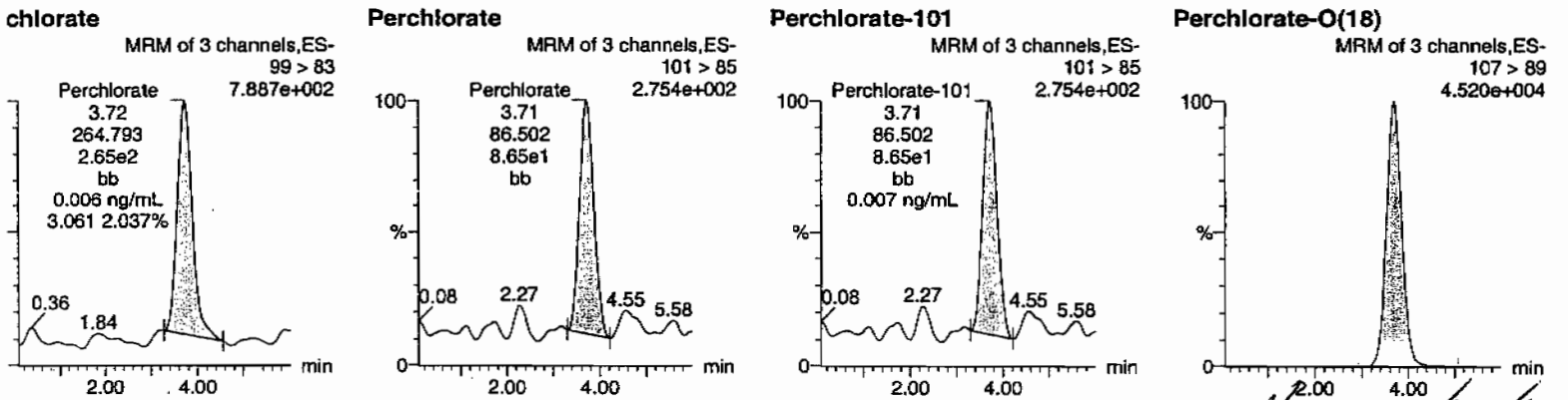

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
969004	Perchlorate	99 > 83	3.72	264.793	264.793	bb			0.0063			40.492	3.06
969004	Perchlorate-101	101 > 85	3.71	86.502	86.502	bb			0.0065			93.584	
969004	Perchlorate-O(18)	107 > 89	3.69	17427.576	17427.576	bb			0.4877	97.53	-2.47	7011.9...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7976

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969005

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 96.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.519	2.08	0.519	ug/kg	U	1	22-FEB-10 06:16	per0221113a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:16	per0221113a
14797-73-0	Perchlorate-101	.519	2.08	0.519	ug/kg	U	1	22-FEB-10 06:16	per0221113a
	Perchlorate-O(18)			4.92	ug/kg		1	22-FEB-10 06:16	per0221113a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ast Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
rinted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ame: per0221113a
ate: 22-Feb-2010
ime: 06:16:31
): 245969005
ial: 3:2,D

LANL | 950060 | 50120 | 1 | 1

WJ 02-22-10

erchlorate

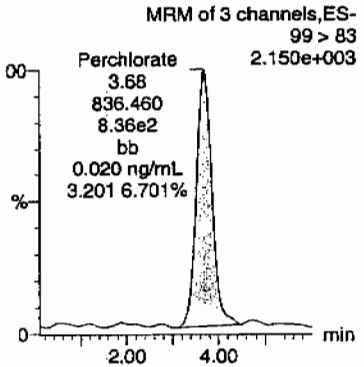

Perchlorate

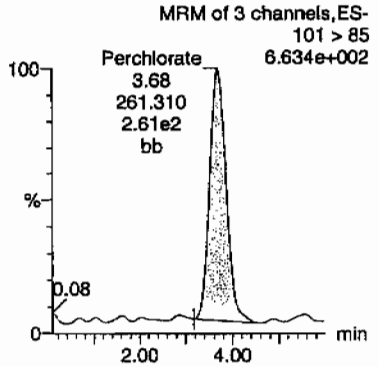

Perchlorate-101

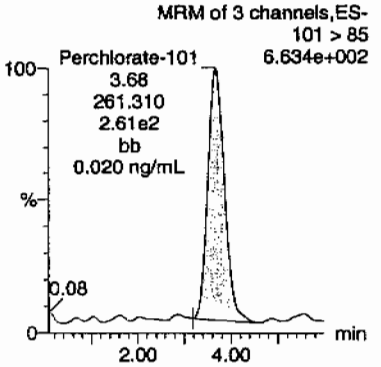

Perchlorate-O(18)

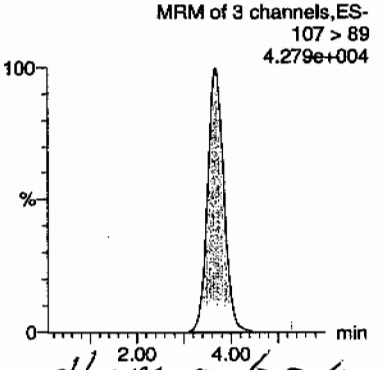

HMM 02/23/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45969005	Perchlorate	99 > 83	3.68	836.460	836.460	bb			0.0198			170.050	3.20
45969005	Perchlorate-101	101 > 85	3.68	261.310	261.310	bb			0.0197			50.310	
45969005	Perchlorate-O(18)	107 > 89	3.68	16916.621	16916.621	bb			0.4734	94.67	-5.33	11059....	

iEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7968

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969006

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 06:52	per0221117a
	Perchlorate Isotope Ratio						1	22-FEB-10 06:52	per0221117a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 06:52	per0221117a
	Perchlorate-O(18)			5.70	ug/kg		1	22-FEB-10 06:52	per0221117a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221117a
Date: 22-Feb-2010
Time: 06:52:52
ID: 245969006 |LANL|950060|50120|1|
Vial: 3:2,E

GWD 02.22.10

Perchlorate

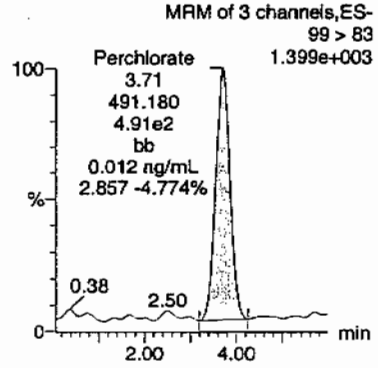

Perchlorate

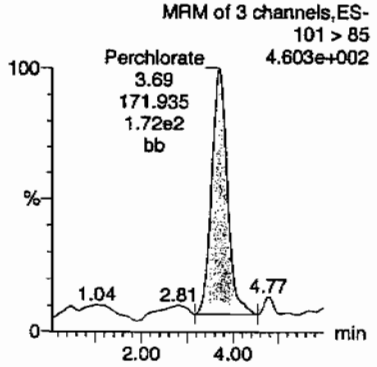

Perchlorate-101

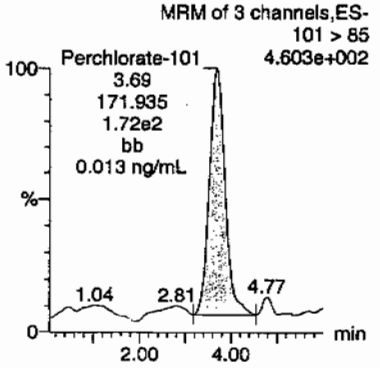

Perchlorate-O(18)

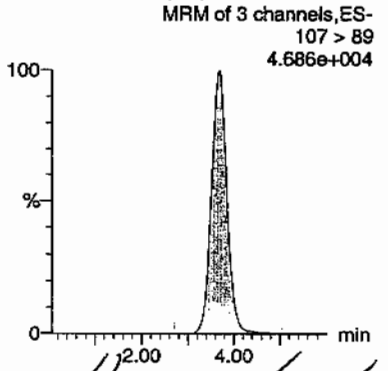

HMM 02.23.10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245969006	Perchlorate	99 > 83	3.71	491.180	491.180	bb			0.0116			153.870	2.86
245969006	Perchlorate-101	101 > 85	3.69	171.935	171.935	bb			0.0130			113.616	
245969006	Perchlorate-O(18)	107 > 89	3.68	18170.389	18170.389	bb			0.5085	101.69	1.69	1689.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7965

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969007

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 78

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.643	2.57	0.643	ug/kg	U	1	22-FEB-10 07:02	per0221118a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:02	per0221118a
14797-73-0	Perchlorate-101	.643	2.57	0.643	ug/kg	U	1	22-FEB-10 07:02	per0221118a
	Perchlorate-O(18)			6.51	ug/kg		1	22-FEB-10 07:02	per0221118a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221118a
e: 22-Feb-2010
e: 07:02:07
245969007
: 3:2,F

|LANL|950060|SD20|1|

GWS 02.22.10

chlorate

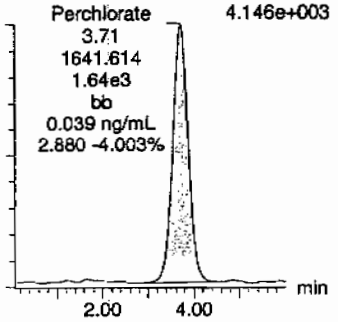

Perchlorate

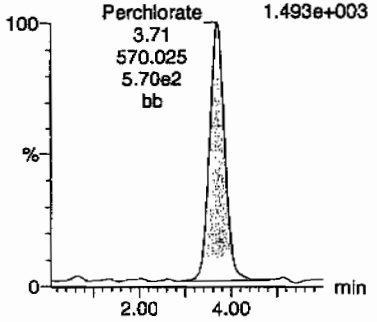

Perchlorate-101

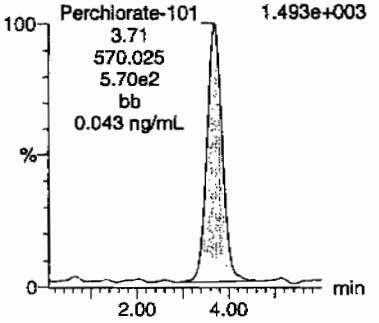

Perchlorate-O(18)

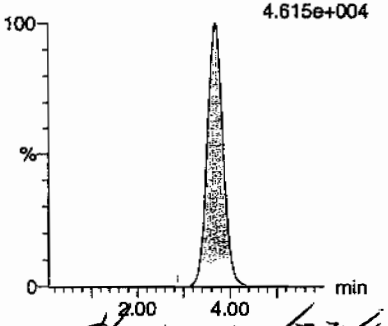

AMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
969007	Perchlorate	99 > 83	3.71	1641.614	1641.614	bb			0.0389			45.134	2.88
969007	Perchlorate-101	101 > 85	3.71	570.025	570.025	bb			0.0430			34.119	
969007	Perchlorate-O(18)	107 > 89	3.68	18091.354	18091.354	bb			0.5062	101.25	1.25	7810.3...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7975

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969008

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.671	2.68	0.671	ug/kg	U	1	22-FEB-10 07:11	per0221119a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:11	per0221119a
14797-73-0	Perchlorate-101	.671	2.68	0.671	ug/kg	U	1	22-FEB-10 07:11	per0221119a
	Perchlorate-O(18)			6.84	ug/kg		1	22-FEB-10 07:11	per0221119a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221119a
: 22-Feb-2010
: 07:11:07
45969008
3:3,A

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02-22-10

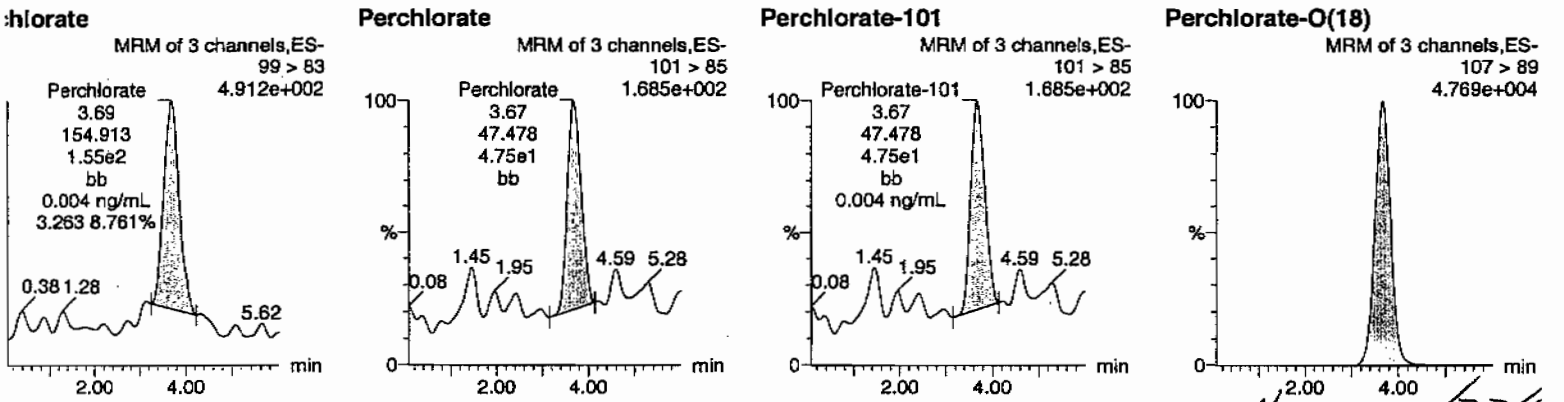

HNM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
39008	Perchlorate	99 > 83	3.69	154.913	154.913	bb			0.0037			94.677	3.26
39008	Perchlorate-101	101 > 85	3.67	47.478	47.478	bb			0.0036			35.367	
39008	Perchlorate-O(18)	107 > 89	3.67	18221.727	18221.727	bb			0.5099	101.98	1.98	9688.3...	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7978

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969009

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.602	2.41	0.602	ug/kg	U	1	22-FEB-10 07:20	per0221120a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:20	per0221120a
14797-73-0	Perchlorate-101	.602	2.41	0.602	ug/kg	U	1	22-FEB-10 07:20	per0221120a
	Perchlorate-O(18)			6.62	ug/kg		1	22-FEB-10 07:20	per0221120a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Iuantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ast Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
rinted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ame: per0221120a
ate: 22-Feb-2010
ime: 07:20:10
): 245969009
ial: 3:3,B

|LANL|950060|5020|1|

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02-22-10

erchlorate

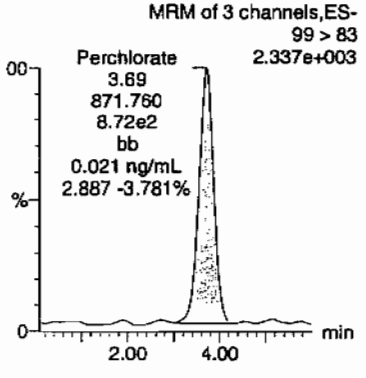

Perchlorate

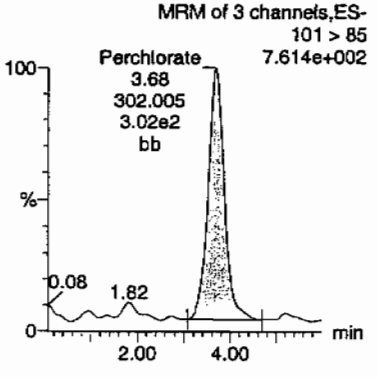

Perchlorate-101

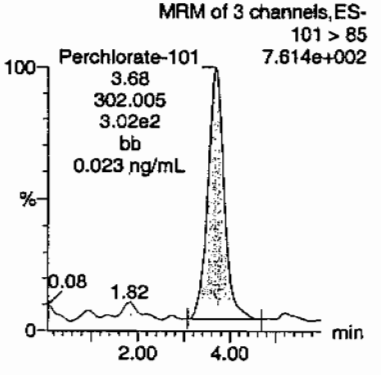

Perchlorate-O(18)

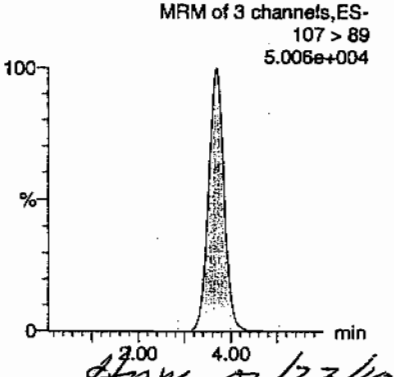

AMM 02/23/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
45969009	Perchlorate	99 > 83	3.69	871.760	871.760	bb			0.0206			146.010	2.89
45969009	Perchlorate-101	101 > 85	3.68	302.005	302.005	bb			0.0228			39.355	
45969009	Perchlorate-O(18)	107 > 89	3.68	19644.795	19644.795	bb			0.5497	109.94	9.94	6118.5...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7970

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969010

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 91.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.545	2.18	0.545	ug/kg	U	1	22-FEB-10 07:29	per0221121a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:29	per0221121a
14797-73-0	Perchlorate-101	.545	2.18	0.545	ug/kg	U	1	22-FEB-10 07:29	per0221121a
	Perchlorate-O(18)			5.53	ug/kg		1	22-FEB-10 07:29	per0221121a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ntify Sample Report **MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221121a
ɜ: 22-Feb-2010
e: 07:29:13
245969010
: 3:3,C

|LANL|950060|SO20|1|

GMO 02-22-10

:hlorate

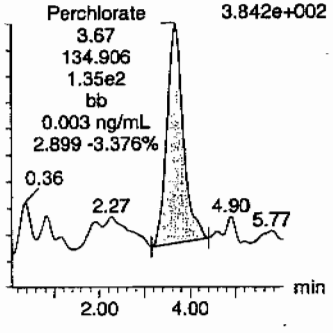

Perchlorate

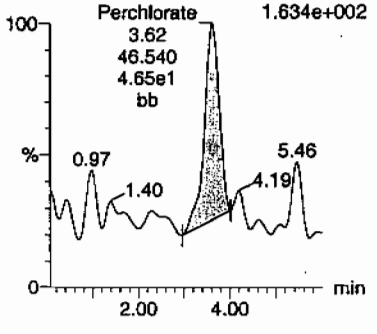

Perchlorate-101

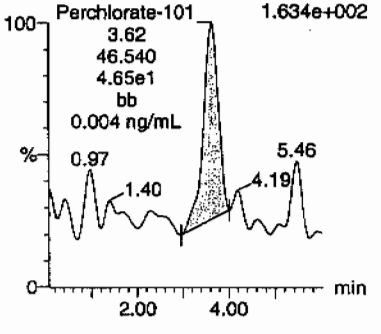

Perchlorate-O(18)

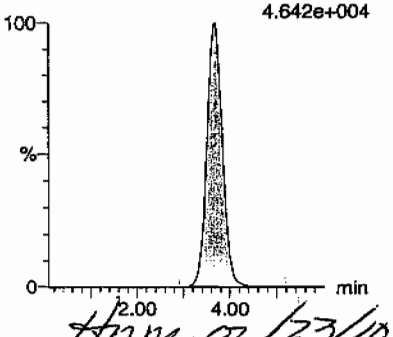

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
69010	Perchlorate	99 > 83	3.67	134.906	134.906	bb			0.0032			91.536	2.90
69010	Perchlorate-101	101 > 85	3.62	46.540	46.540	bb			0.0035			23.410	
69010	Perchlorate-O(18)	107 > 89	3.68	18139.631	18139.631	bb			0.5076	101.52	1.52	8498.7...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7964

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969011

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 07:38	per0221122a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:38	per0221122a
14797-73-0	Perchlorate-101	.56	2.24	0.560	ug/kg	U	1	22-FEB-10 07:38	per0221122a
	Perchlorate-O(18)			6.01	ug/kg		1	22-FEB-10 07:38	per0221122a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221122a
te: 22-Feb-2010
ne: 07:38:15
245969011
ıl: 3:3,D

|LANL|950060|50125|11|

AW 02-22-10

rchlorate

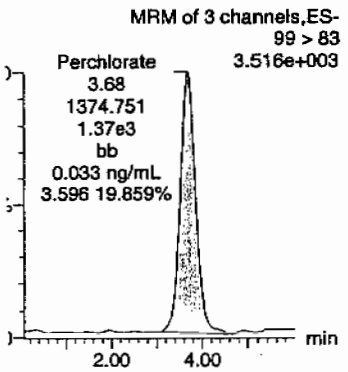

Perchlorate

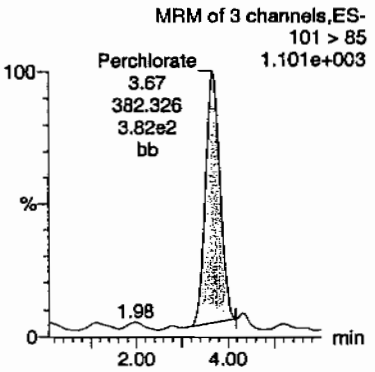

Perchlorate-101

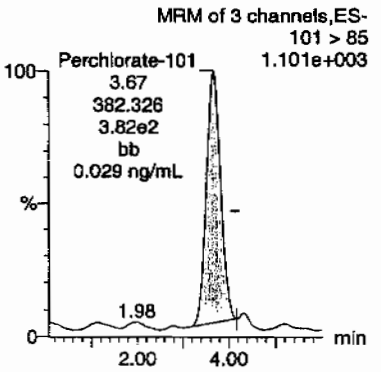

Perchlorate-O(18)

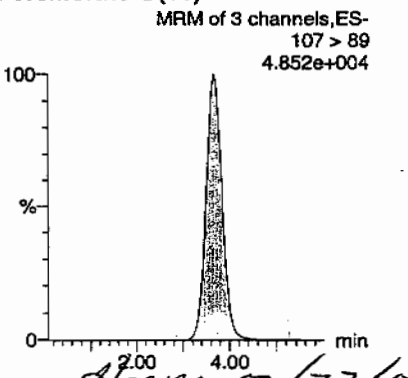

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
969011	Perchlorate	99 > 83	3.68	1374.751	1374.751	bb			0.0326			316.241	3.60
969011	Perchlorate-101	101 > 85	3.67	382.326	382.326	bb			0.0288			50.869	
969011	Perchlorate-O(18)	107 > 89	3.67	19195.102	19195.102	bb			0.5371	107.43	7.43	2295.6...	

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7973

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969012

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.613	2.45	0.613	ug/kg	U	1	22-FEB-10 07:47	per0221123a
	Perchlorate Isotope Ratio						1	22-FEB-10 07:47	per0221123a
14797-73-0	Perchlorate-101	.613	2.45	0.613	ug/kg	U	1	22-FEB-10 07:47	per0221123a
	Perchlorate-O(18)			6.20	ug/kg		1	22-FEB-10 07:47	per0221123a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221123a
te: 22-Feb-2010
ne: 07:47:31
245969012
l: 3:3,E

|LANL| 950060 | 50125 |1|

CWO 02-22-10

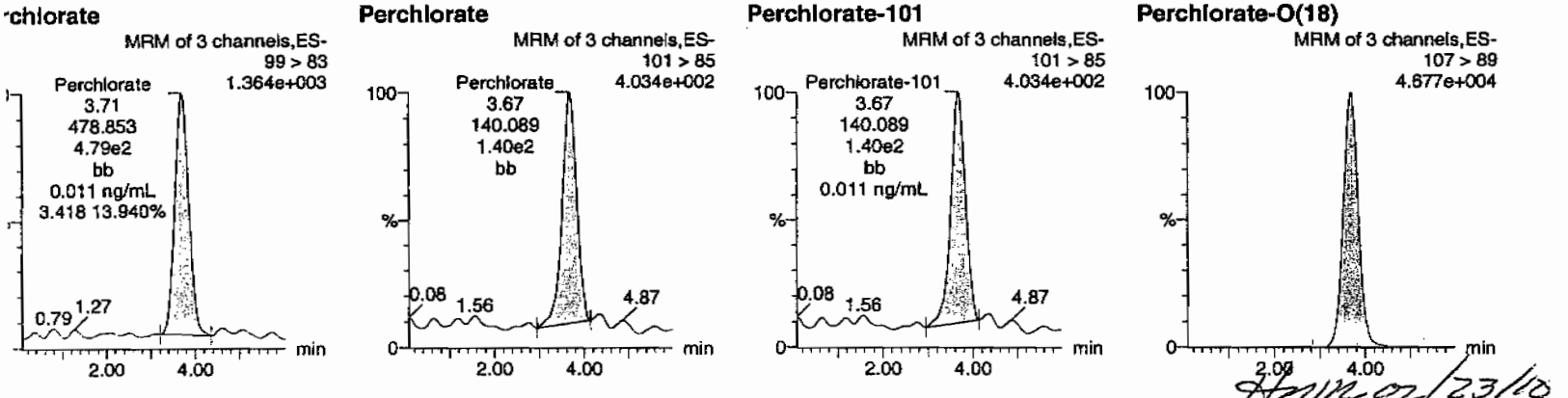

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
969012	Perchlorate	99 > 83	3.71	478.853	478.853	bb			0.0113			53.137	3.42
969012	Perchlorate-101	101 > 85	3.67	140.089	140.089	bb			0.0106			42.604	
969012	Perchlorate-O(18)	107 > 89	3.68	18059.682	18059.682	bb			0.5054	101.07	1.07	7064.3...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7962

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969013

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 94.7

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.528	2.11	0.689	ug/kg	J	1	22-FEB-10 07:56	per0221124a
	Perchlorate Isotope Ratio			3.38			1	22-FEB-10 07:56	per0221124a
14797-73-0	Perchlorate-101	.528	2.11	0.650	ug/kg	J	1	22-FEB-10 07:56	per0221124a
	Perchlorate-O(18)			5.51	ug/kg		1	22-FEB-10 07:56	per0221124a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221124a
: 22-Feb-2010
e: 07:56:32
245969013
: 3:3,F

|LANL|950060|SDWD|11|

CWD 02-22-10

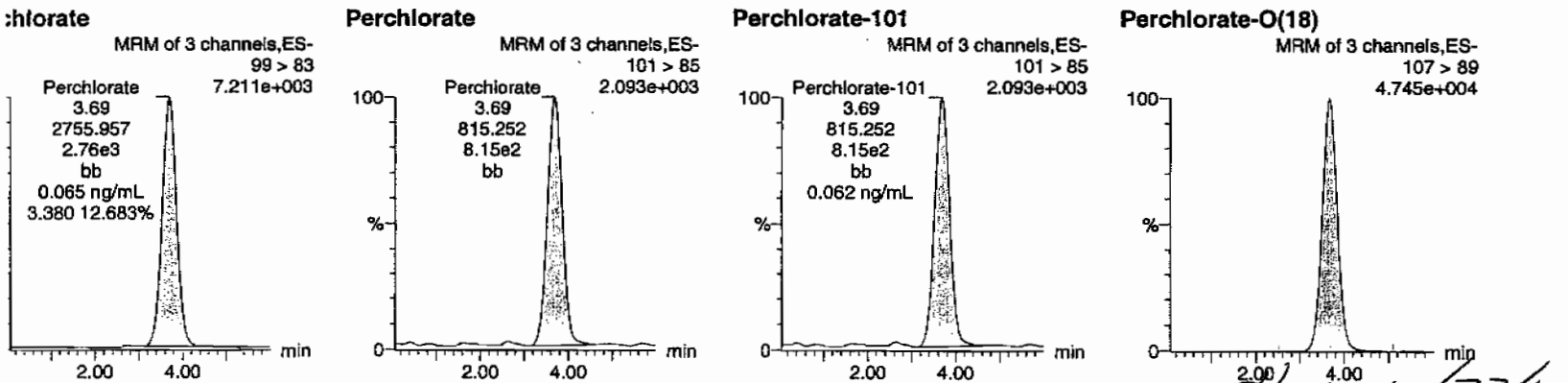

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	ion Ratio
69013	Perchlorate	99 > 83	3.69	2755.957	2755.957	bb			0.0653			454.363	3.38
69013	Perchlorate-101	101 > 85	3.69	815.252	815.252	bb			0.0615			342.282	
69013	Perchlorate-O(18)	107 > 89	3.67	18651.484	18651.484	bb			0.5219	104.38	4.38	4209.9...	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7963

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969014

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.631	2.52	0.631	ug/kg	U	1	22-FEB-10 08:05	per0221125a
	Perchlorate Isotope Ratio						1	22-FEB-10 08:05	per0221125a
14797-73-0	Perchlorate-101	.631	2.52	0.631	ug/kg	U	1	22-FEB-10 08:05	per0221125a
	Perchlorate-O(18)			6.33	ug/kg		1	22-FEB-10 08:05	per0221125a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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antify Sample Report MassLynx 4.0 SP4
› GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221125a
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245969014
l: 3:4,A

|LANL|950060|SOLZO|11|

CMO
02-22-10

chlorate

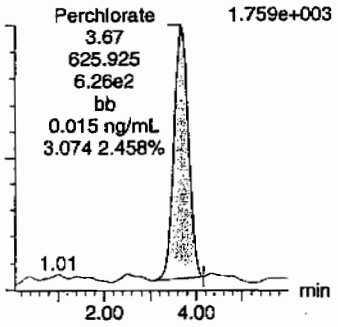

Perchlorate

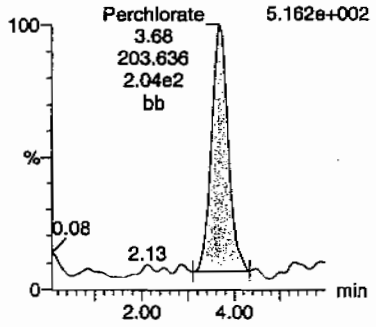

Perchlorate-101

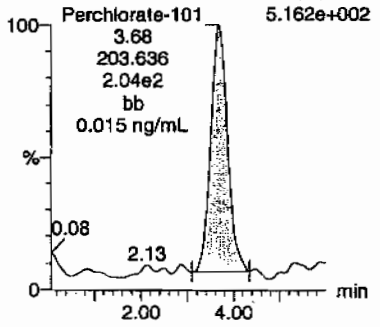

Perchlorate-O(18)

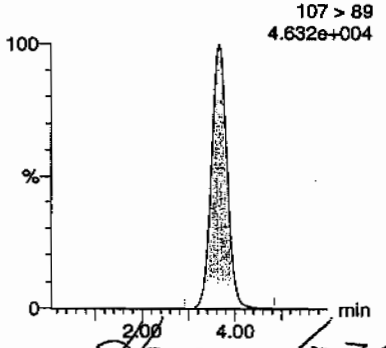

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
969014	Perchlorate	99 > 83	3.67	625.925	625.925	bb			0.0148			137.589	3.07
969014	Perchlorate-101	101 > 85	3.68	203.636	203.636	bb			0.0154			54.097	
969014	Perchlorate-O(18)	107 > 89	3.66	17922.814	17922.814	bb			0.5015	100.31	0.31	2001.6...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7977

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 245969015

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	22-FEB-10 08:14	per0221126a
	Perchlorate Isotope Ratio						1	22-FEB-10 08:14	per0221126a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	22-FEB-10 08:14	per0221126a
	Perchlorate-O(18)			8.10	ug/kg		1	22-FEB-10 08:14	per0221126a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

laset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221126a
te: 22-Feb-2010
ne: 08:14:36
245969015
l: 3:4,B

|LANL|950060|50120|1|

CWO 02-22-10

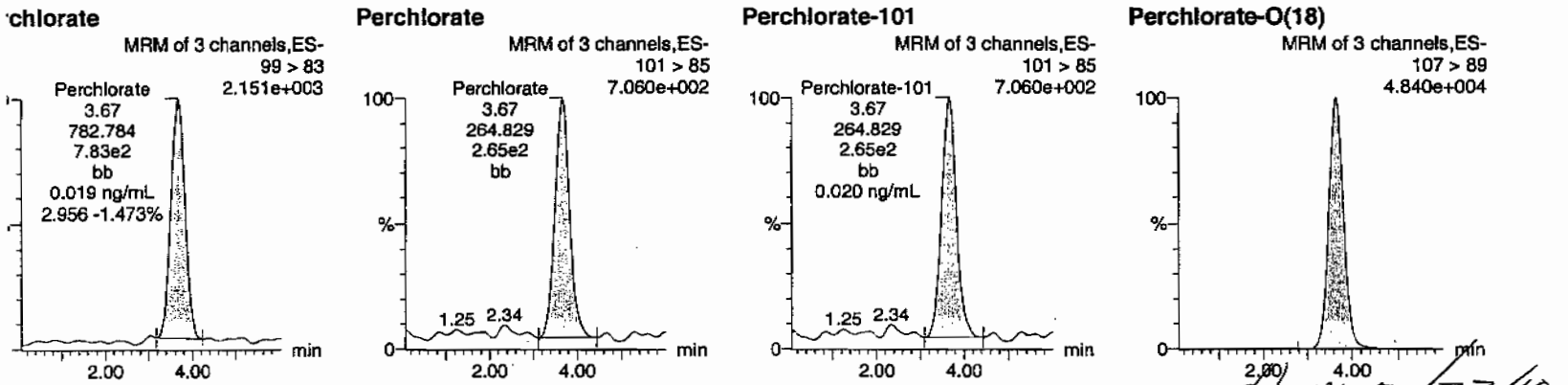

AMW 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
969015	Perchlorate	99 > 83	3.67	782.784	782.784	bb			0.0185			195.401	2.96
969015	Perchlorate-101	101 > 85	3.67	264.829	264.829	bb			0.0200			121.343	
969015	Perchlorate-O(18)	107 > 89	3.64	18461.848	18461.848	bb			0.5166	103.32	3.32	8970.0...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1512

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 21-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 42228.24

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1512

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 21-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 13252.58

Response Type: External Standard

Curve Type: RF

uantify Calibration Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ıst Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
inted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ethod: C:\MassLynx\Perchlorate.PRO\MethDB\per022110a.mdb 22 Feb 2010 10:33:42
ılibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022110a.cdb 22 Feb 2010 10:34:00

ɔmpound name: Perchlorate
ɜsponse Factor: 42228.2
RF SD: 1348.24, % Relative SD: 3.19274
ɜsponse type: External Std, Area
ırve type: RF

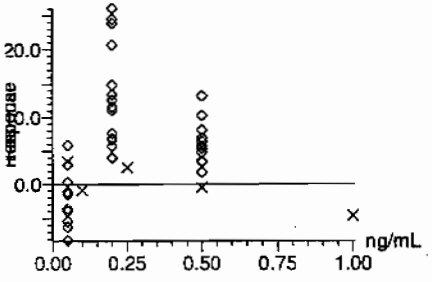

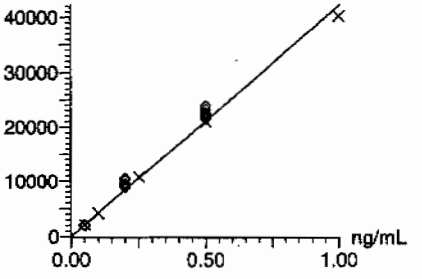

aw
02-22-10

ɔmpound name: Perchlorate-101
ɜsponse Factor: 13252.6
RF SD: 272.534, % Relative SD: 2.05646
ɜsponse type: External Std, Area
ırve type: RF

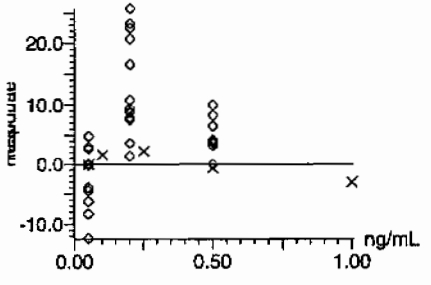

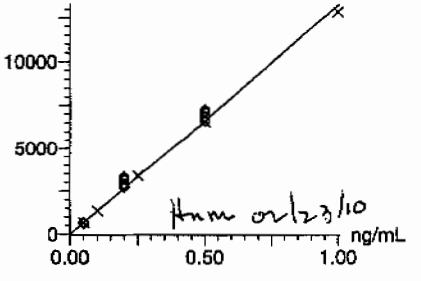

Hmm 02/23/10

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ntify Calibration Report **MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıpound name: Perchlorate-O(18)
onse Factor: 35736.6
SD: 787.598, % Relative SD: 2.2039
onse type: External Std, Area
e type: RF

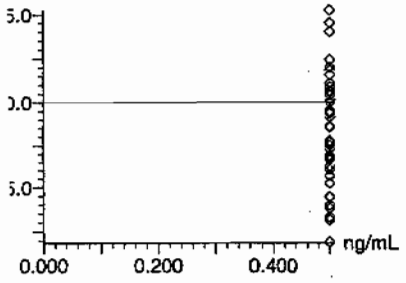

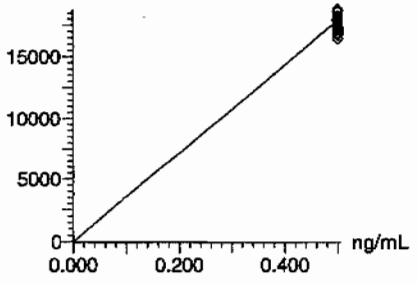

Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1512

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.82	21-FEB-10 14:30	per0221009a
Perchlorate Isotope Ratio		3.11		21-FEB-10 14:30	per0221009a
Perchlorate-101	.5	.52	104.25	21-FEB-10 14:30	per0221009a

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ıst Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
rinted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ame: per0221009a
ate: 21-Feb-2010
me: 14:30:50
: WCL100219-06ICV
al: 1:2,A

Pass
02-22-10

erchlorate

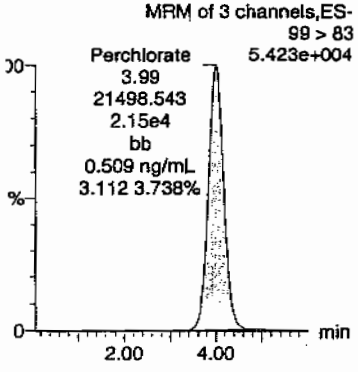

Perchlorate

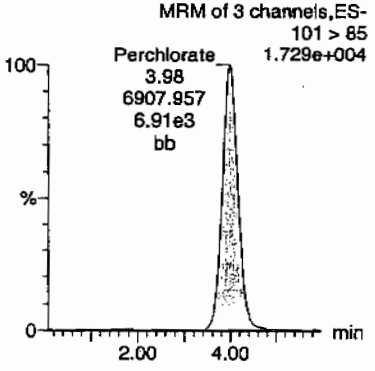

Perchlorate-101

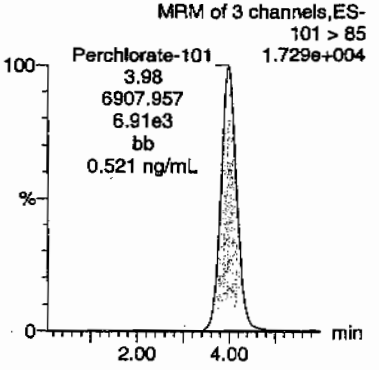

Perchlorate-O(18)

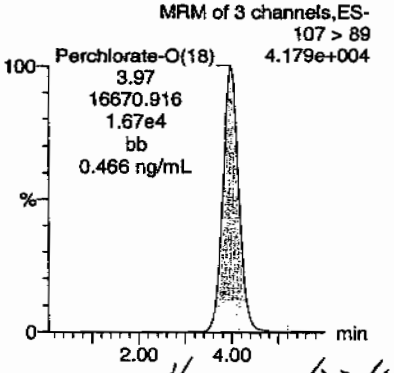

Hmc 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100219-06ICV	Perchlorate	99 > 83	3.99	21498.543	21498.543	bb			0.5091	101.82	1.82	4138.6...	3.11
'CL100219-06ICV	Perchlorate-101	101 > 85	3.98	6907.957	6907.957	bb			0.5213	104.25	4.25	4215.4...	
'CL100219-06ICV	Perchlorate-O(18)	107 > 89	3.97	16670.916	16670.916	bb			0.4665	93.30	-6.70	18341....	

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1512

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103.54	21-FEB-10 16:12	per0221020a
Perchlorate Isotope Ratio		3.16		21-FEB-10 16:12	per0221020a
Perchlorate-101	.5	.52	104.25	21-FEB-10 16:12	per0221020a
Perchlorate	.5	.52	104.82	21-FEB-10 18:09	per0221033a
Perchlorate Isotope Ratio		3.14		21-FEB-10 18:09	per0221033a
Perchlorate-101	.5	.53	106.48	21-FEB-10 18:09	per0221033a
Perchlorate	.5	.53	105.44	21-FEB-10 20:07	per0221046a
Perchlorate Isotope Ratio		3.23		21-FEB-10 20:07	per0221046a
Perchlorate-101	.5	.52	104.04	21-FEB-10 20:07	per0221046a
Perchlorate	.5	.54	108.16	21-FEB-10 21:48	per0221057a
Perchlorate Isotope Ratio		3.24		21-FEB-10 21:48	per0221057a
Perchlorate-101	.5	.53	106.53	21-FEB-10 21:48	per0221057a
Perchlorate	.5	.53	105.81	21-FEB-10 23:36	per0221069a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1512

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.37		21-FEB-10 23:36	per0221069a
Perchlorate-101	.5	.5	99.97	21-FEB-10 23:36	per0221069a
Perchlorate	.5	.52	103.28	22-FEB-10 01:16	per0221080a
Perchlorate Isotope Ratio		3.19		22-FEB-10 01:16	per0221080a
Perchlorate-101	.5	.52	103.17	22-FEB-10 01:16	per0221080a
Perchlorate	.5	.57	113.18	22-FEB-10 02:47	per0221090a
Perchlorate Isotope Ratio		3.28		22-FEB-10 02:47	per0221090a
Perchlorate-101	.5	.55	109.98	22-FEB-10 02:47	per0221090a
Perchlorate	.5	.55	110.28	22-FEB-10 04:27	per0221101a
Perchlorate Isotope Ratio		3.25		22-FEB-10 04:27	per0221101a
Perchlorate-101	.5	.54	108.26	22-FEB-10 04:27	per0221101a
Perchlorate	.5	.53	106.95	22-FEB-10 06:25	per0221114a
Perchlorate Isotope Ratio		3.28		22-FEB-10 06:25	per0221114a

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.5	.52	103.77	22–FEB–10 06:25	per0221114a
Perchlorate	.5	.53	106.44	22–FEB–10 08:23	per0221127a
Perchlorate Isotope Ratio		3.27		22–FEB–10 08:23	per0221127a
Perchlorate–101	.5	.52	103.61	22–FEB–10 08:23	per0221127a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221020a
Date: 21-Feb-2010
Time: 16:12:04
ID: WCL100219-06CCV
Vial: 1:2,A

PWD
AWD
02-22-10

Perchlorate

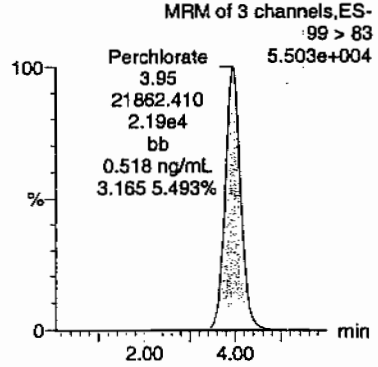

Perchlorate

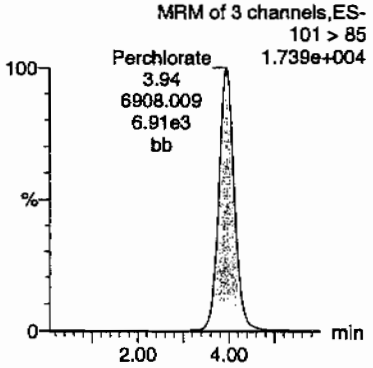

Perchlorate-101

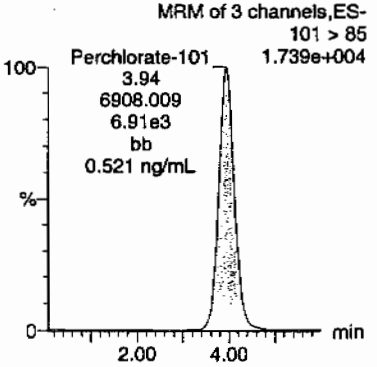

Perchlorate-O(18)

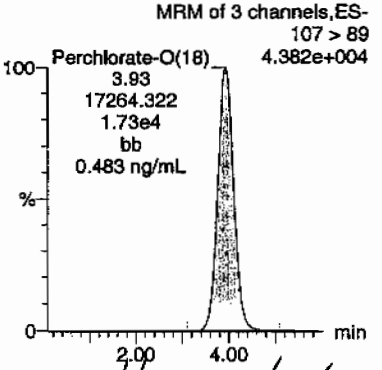

Hmm 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	3.95	21862.410	21862.410	bb			0.5177	103.54	3.54	3416.8...	3.16
WCL100219-06CCV	Perchlorate-101	101 > 85	3.94	6908.009	6908.009	bb			0.5213	104.25	4.25	1685.8...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.93	17264.322	17264.322	bb			0.4831	96.62	-3.38	5384.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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e: 18:09:45
WCL100219-06CCV
: 1:2,A

Rev
and
02-22-10

chlorate

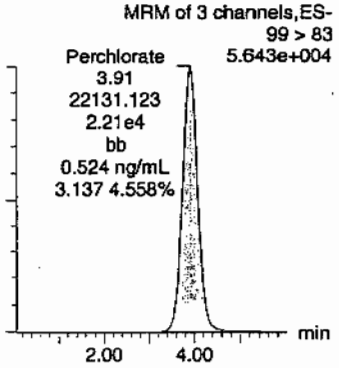

Perchlorate

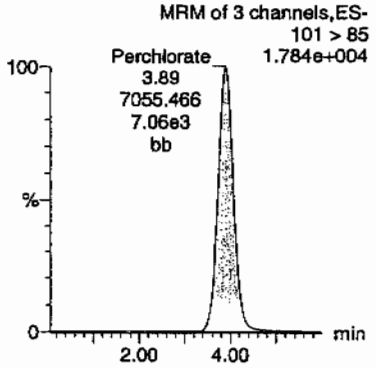

Perchlorate-101

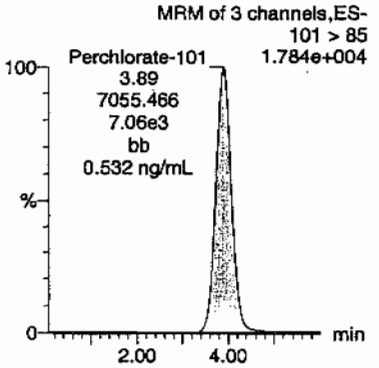

Perchlorate-O(18)

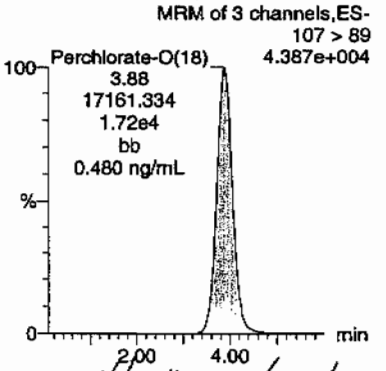

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-06CCV	Perchlorate	99 > 83	3.91	22131.123	22131.123	bb			0.5241	104.82	4.82	8208.2...	3.14
L100219-06CCV	Perchlorate-101	101 > 85	3.89	7055.466	7055.466	bb			0.5324	106.48	6.48	3045.4...	
L100219-06CCV	Perchlorate-O(18)	107 > 89	3.88	17161.334	17161.334	bb			0.4802	96.04	-3.96	3493.5...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ited: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221046a
e: 21-Feb-2010
e: 20:07:47
WCL100219-06CCV
l: 1:2,A

Pass
aw
02-22-10

chlorate

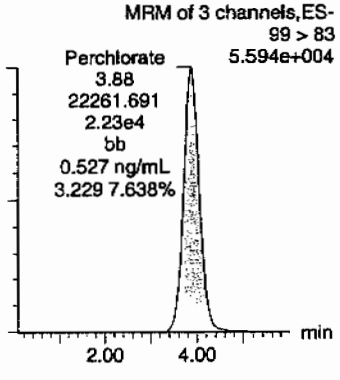

Perchlorate

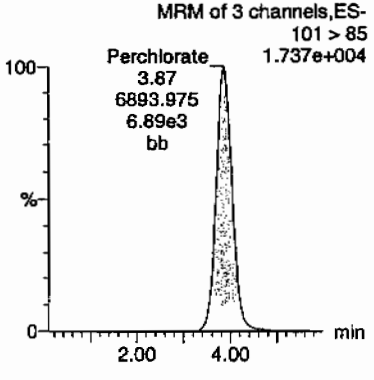

Perchlorate-101

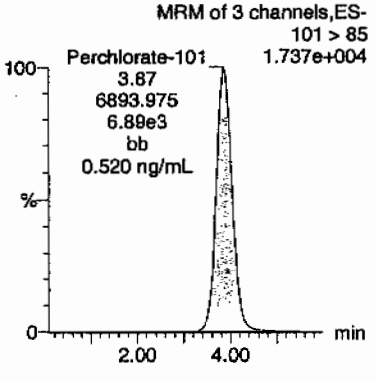

Perchlorate-O(18)

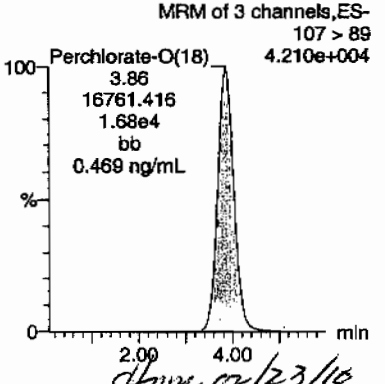

dmm 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
_100219-06CCV	Perchlorate	99 > 83	3.88	22261.691	22261.691	bb			0.5272	105.44	5.44	4786.1...	3.23
_100219-06CCV	Perchlorate-101	101 > 85	3.87	6893.975	6893.975	bb			0.5202	104.04	4.04	3584.6...	
_100219-06CCV	Perchlorate-O(18)	107 > 89	3.86	16761.416	16761.416	bb			0.4690	93.81	-6.19	925.841	

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221057a
e: 21-Feb-2010
e: 21:48:00
WCL100219-06CCV
: 1:2,A

Pass
and
02-22-10

chlorate

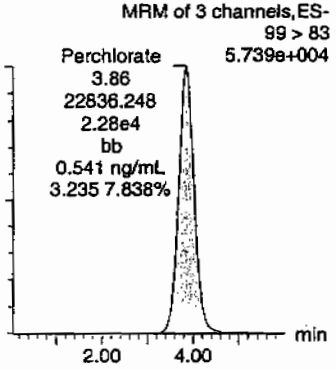

Perchlorate

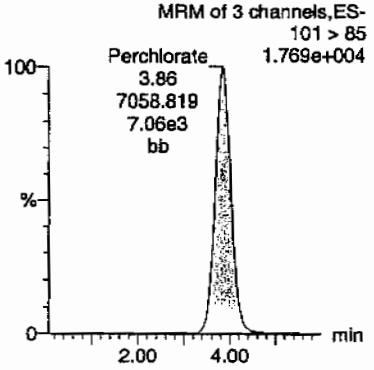

Perchlorate-101

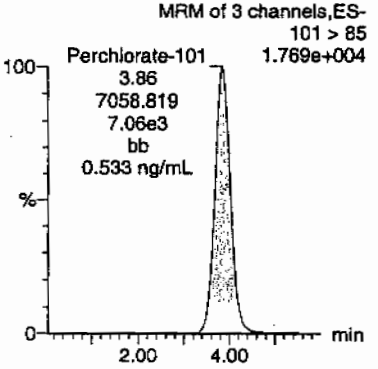

Perchlorate-O(18)

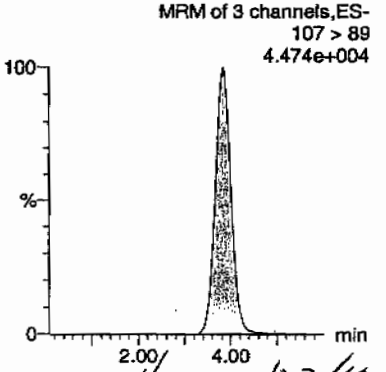

ATM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
.100219-06CCV	Perchlorate	99 > 83	3.86	22836.248	22836.248	bb			0.5408	108.16	8.16	1854.7...	3.24
.100219-06CCV	Perchlorate-101	101 > 85	3.86	7058.819	7058.819	bb			0.5326	106.53	6.53	1961.7...	
.100219-06CCV	Perchlorate-O(18)	107 > 89	3.83	17782.117	17782.117	bb			0.4976	99.52	-0.48	3243.6...	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

Name: per0221069a
Date: 21-Feb-2010
Time: 23:36:49
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
02-22-10

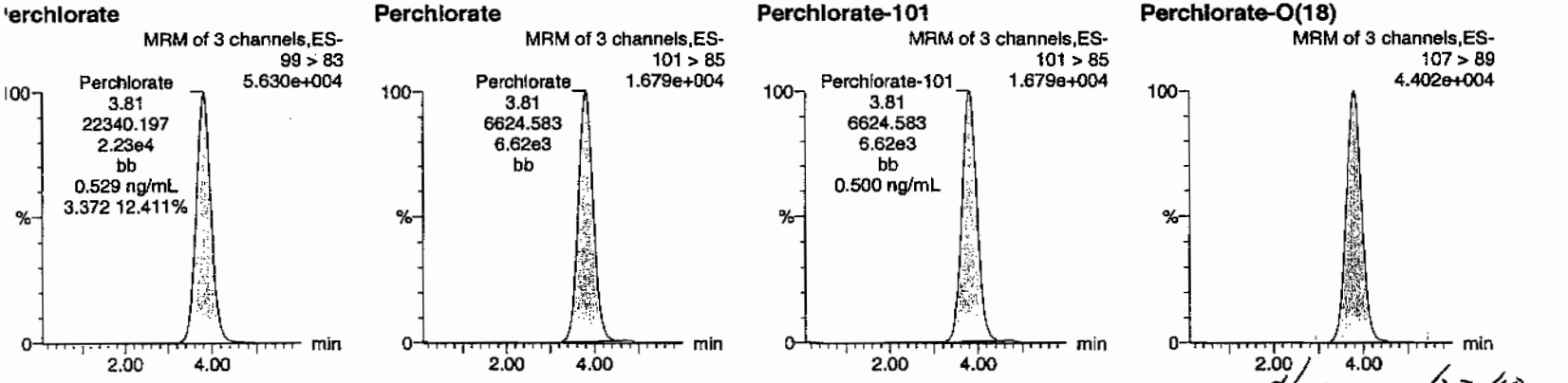

Hmm 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	3.81	22340.197	22340.197	bb			0.5290	105.81	5.81	8199.9...	3.37
WCL100219-06CCV	Perchlorate-101	101 > 85	3.81	6624.583	6624.583	bb			0.4999	99.97	-0.03	1129.8...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.79	17421.932	17421.932	bb			0.4875	97.50	-2.50	4313.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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WCL100219-06CCV
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PWS
02-22-10

chlorate

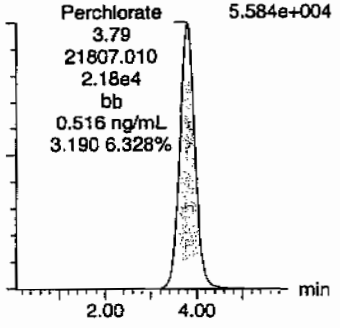

Perchlorate

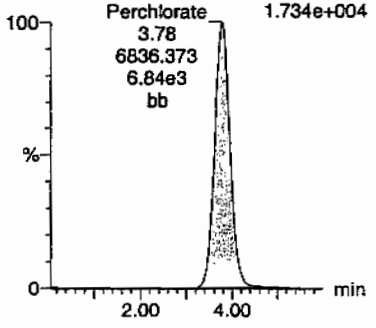

Perchlorate-101

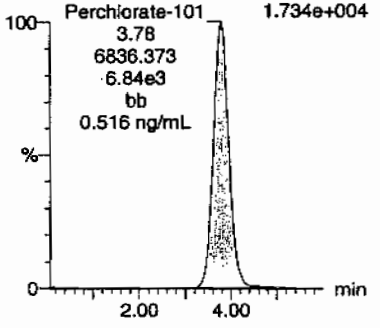

Perchlorate-O(18)

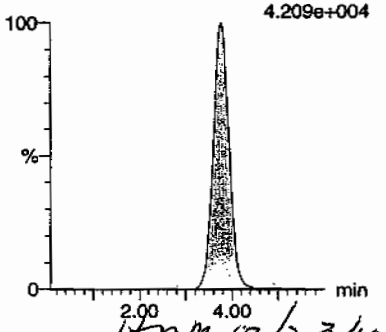

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
_100219-06CCV	Perchlorate	99 > 83	3.79	21807.010	21807.010	bb			0.5164	103.28	3.28	3636.2...	3.19
_100219-06CCV	Perchlorate-101	101 > 85	3.78	6836.373	6836.373	bb			0.5159	103.17	3.17	4238.7...	
_100219-06CCV	Perchlorate-O(18)	107 > 89	3.77	16645.631	16645.631	bb			0.4658	93.16	-6.84	5166.1...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

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ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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PMB
02-22-10

chlorate

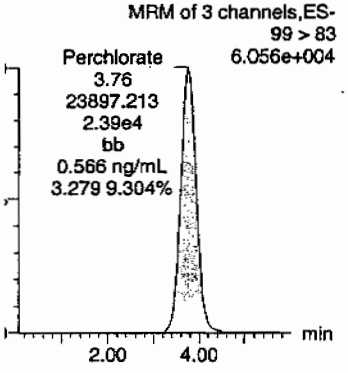

Perchlorate

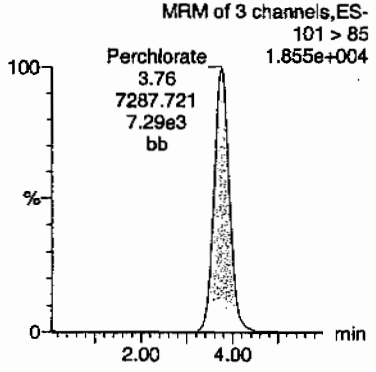

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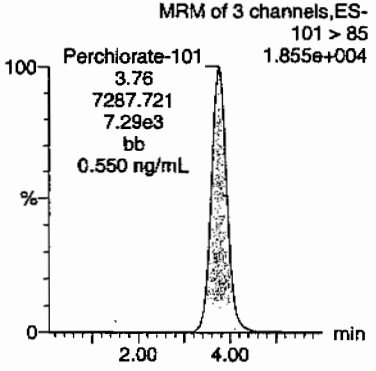

Perchlorate-O(18)

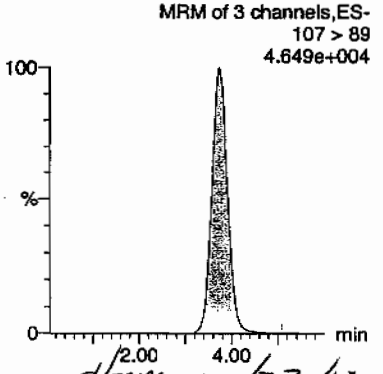

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-06CCV	Perchlorate	99 > 83	3.76	23897.213	23897.213	bb			0.5659	113.18	13.18	4354.0...	3.28
L100219-06CCV	Perchlorate-101	101 > 85	3.76	7287.721	7287.721	bb			0.5499	109.98	9.98	4094.2...	
L100219-06CCV	Perchlorate-O(18)	107 > 89	3.74	18150.475	18150.475	bb			0.5079	101.58	1.58	5185.5...	

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221101a
te: 22-Feb-2010
ne: 04:27:44
WCL100219-06CCV
l: 1:2,A

Pass
and
02-22-10

chlorate

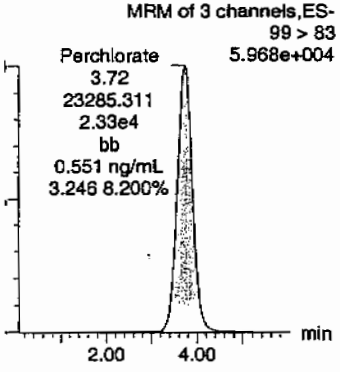

Perchlorate

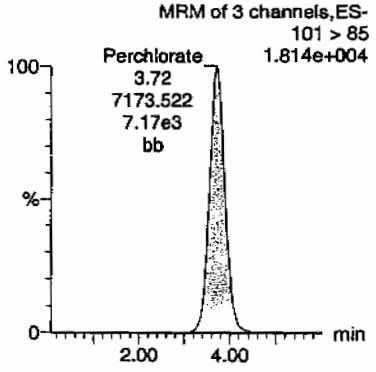

Perchlorate-101

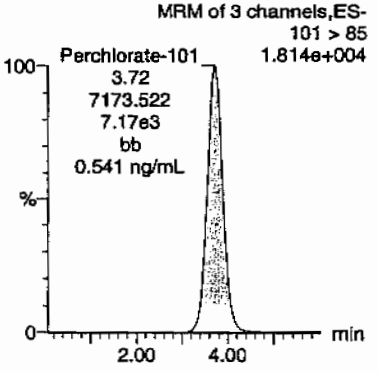

Perchlorate-O(18)

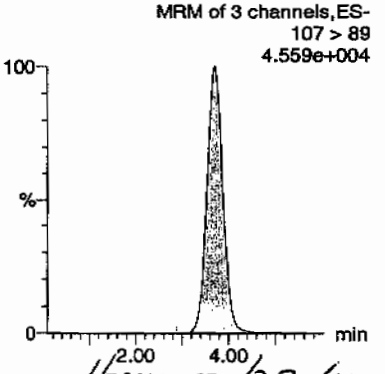

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-06CCV	Perchlorate	99 > 83	3.72	23285.311	23285.311	bb			0.5514	110.28	10.28	5301.8...	3.25
L100219-06CCV	Perchlorate-101	101 > 85	3.72	7173.522	7173.522	bb			0.5413	108.26	8.26	4568.4...	
L100219-06CCV	Perchlorate-O(18)	107 > 89	3.71	17973.590	17973.590	bb			0.5029	100.59	0.59	4175.3...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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te: 22-Feb-2010
me: 06:25:33
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l: 1:2,A

Pam
aw
02-22-10

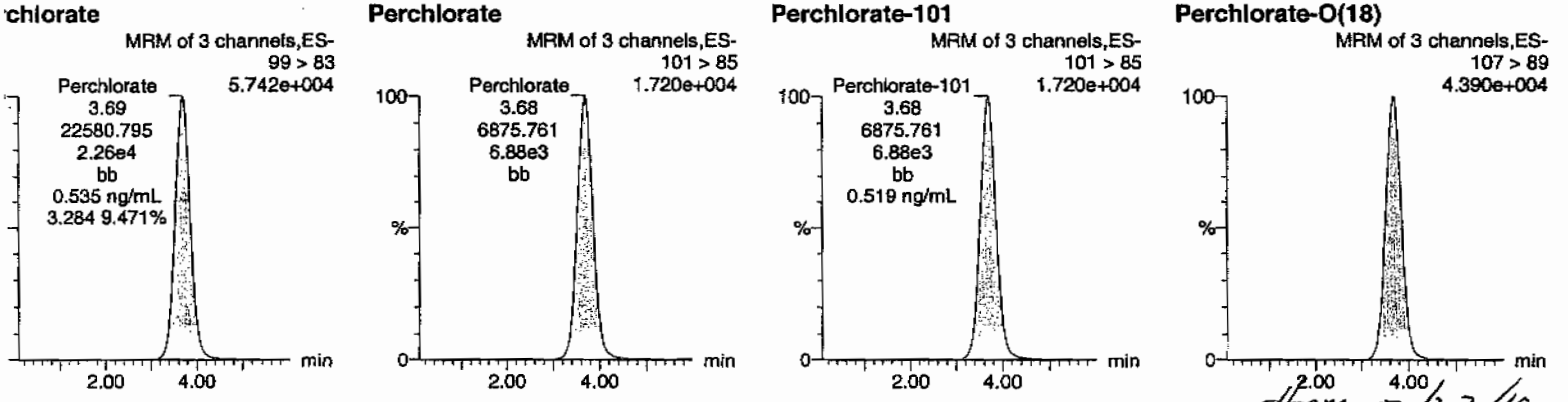

Hmm 02/23/10

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L100219-06CCV	Perchlorate	99 > 83	3.69	22580.795	22580.795	bb			0.5347	106.95	6.95	7881.5...	3.28
_100219-06CCV	Perchlorate-101	101 > 85	3.68	6875.761	6875.761	bb			0.5188	103.77	3.77	4423.9...	
_100219-06CCV	Perchlorate-O(18)	107 > 89	3.67	17319.486	17319.486	bb			0.4846	96.93	-3.07	2086.9...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
inted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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ıte: 22-Feb-2010
ne: 08:23:39
: WCL100219-06CCV
al: 1:2,A

Pass
02-22-10

:rchlorate

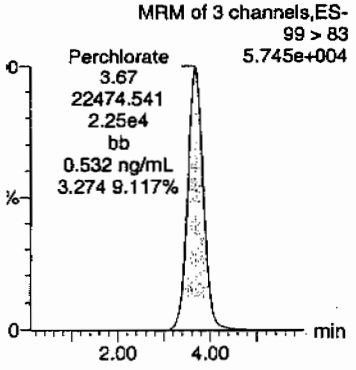

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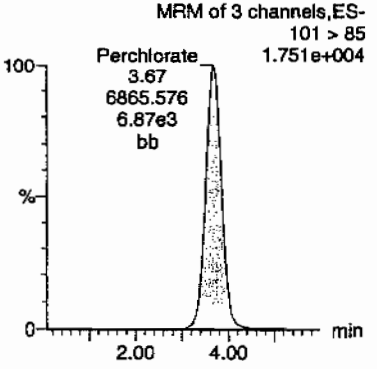

Perchlorate-101

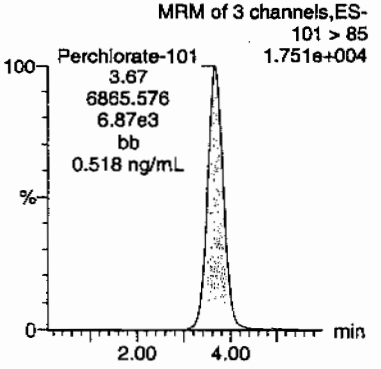

Perchlorate-O(18)

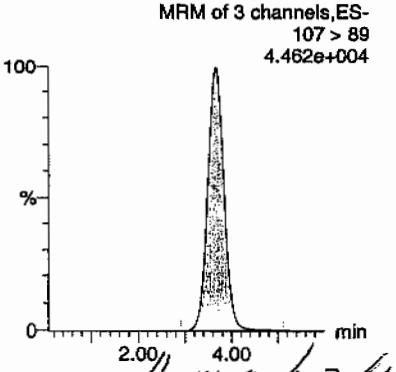

HMK 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	3.67	22474.541	22474.541	bb			0.5322	106.44	6.44	5232.4...	3.27
CL100219-06CCV	Perchlorate-101	101 > 85	3.67	6865.576 ✓	6865.576	bb			0.5181	103.61	3.61	3129.7...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	3.66	17604.570	17604.570	bb			0.4926	98.52	-1.48	9856.4...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	100.37	21–FEB–10 14:48	per0221011a
Perchlorate Isotope Ratio		3.05		21–FEB–10 14:48	per0221011a
Perchlorate–101	.05	.05	104.87	21–FEB–10 14:48	per0221011a
Perchlorate	.05	.05	102.97	21–FEB–10 16:30	per0221022a
Perchlorate Isotope Ratio		3.5		21–FEB–10 16:30	per0221022a
Perchlorate–101	.05	.05	93.78	21–FEB–10 16:30	per0221022a
Perchlorate	.05	.05	91.84	21–FEB–10 18:28	per0221035a
Perchlorate Isotope Ratio		3.06		21–FEB–10 18:28	per0221035a
Perchlorate–101	.05	.05	95.51	21–FEB–10 18:28	per0221035a
Perchlorate	.05	.05	98.9	21–FEB–10 20:26	per0221048a
Perchlorate Isotope Ratio		3.15		21–FEB–10 20:26	per0221048a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	100.09	21–FEB–10 20:26	per0221048a
Perchlorate	.05	.05	96.39	21–FEB–10 22:06	per0221059a
Perchlorate Isotope Ratio		3.2		21–FEB–10 22:06	per0221059a
Perchlorate–101	.05	.05	96.06	21–FEB–10 22:06	per0221059a
Perchlorate	.05	.05	94.61	21–FEB–10 23:55	per0221071a
Perchlorate Isotope Ratio		3.02		21–FEB–10 23:55	per0221071a
Perchlorate–101	.05	.05	99.8	21–FEB–10 23:55	per0221071a
Perchlorate	.05	.05	93.79	22–FEB–10 01:35	per0221082a
Perchlorate Isotope Ratio		3.41		22–FEB–10 01:35	per0221082a
Perchlorate–101	.05	.04	87.61	22–FEB–10 01:35	per0221082a
Perchlorate	.05	.05	98.85	22–FEB–10 03:06	per0221092a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1512

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.44		22-FEB-10 03:06	per0221092a
Perchlorate-101	.05	.05	91.68	22-FEB-10 03:06	per0221092a
Perchlorate	.05	.05	96.07	22-FEB-10 04:46	per0221103a
Perchlorate Isotope Ratio		3.06		22-FEB-10 04:46	per0221103a
Perchlorate-101	.05	.05	99.99	22-FEB-10 04:46	per0221103a
Perchlorate	.05	.05	105.88	22-FEB-10 06:43	per0221116a
Perchlorate Isotope Ratio		3.28		22-FEB-10 06:43	per0221116a
Perchlorate-101	.05	.05	103.01	22-FEB-10 06:43	per0221116a
Perchlorate	.05	.05	98.51	22-FEB-10 08:41	per0221129a
Perchlorate Isotope Ratio		3.06		22-FEB-10 08:41	per0221129a
Perchlorate-101	.05	.05	102.63	22-FEB-10 08:41	per0221129a

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:antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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te: 21-Feb-2010
ne: 14:48:54
WCL100219-07CRI
l: 1:2,B

Pers 02-22-10

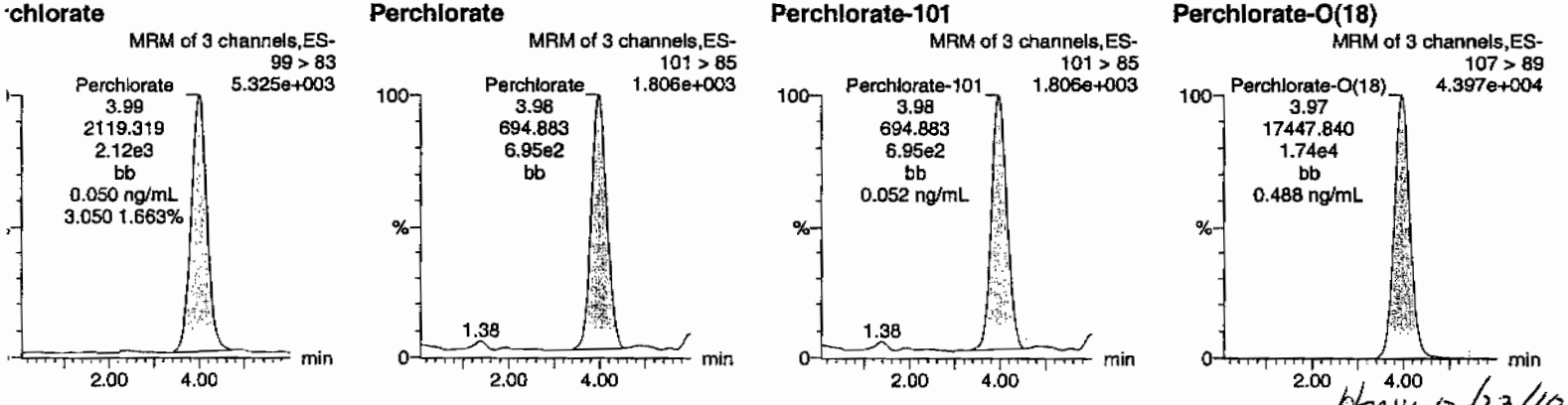

HMW 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-07CRI	Perchlorate	99 > 83	3.99	2119.319	2119.319	bb			0.0502	100.37	0.37	475.986	3.05
L100219-07CRI	Perchlorate-101	101 > 85	3.98	694.883	694.883	bb			0.0524	104.87	4.87	345.958	
L100219-07CRI	Perchlorate-O(18)	107 > 89	3.97	17447.840	17447.840	bb			0.4882	97.65	-2.35	2151.4...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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WCL100219-07CRI
ıl: 1:2,B

Pass
02-22-10

rchlorate

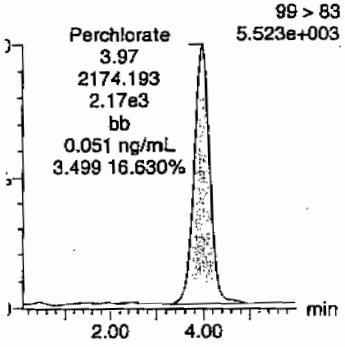

Perchlorate

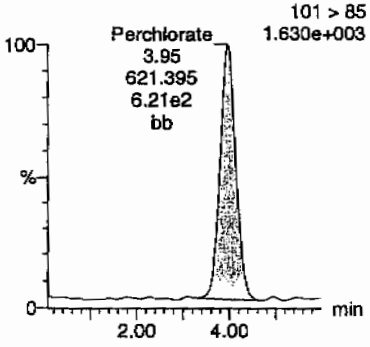

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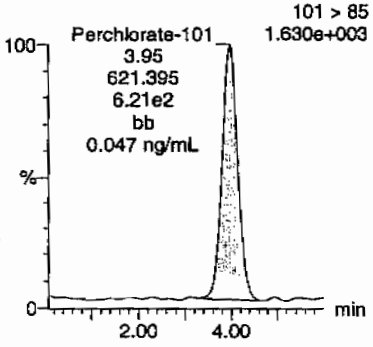

Perchlorate-O(18)

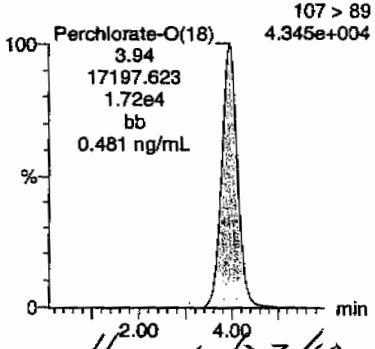

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-07CRI	Perchlorate	99 > 83	3.97	2174.193	2174.193	bb			0.0515	102.97	2.97	111.812	3.50
L100219-07CRI	Perchlorate-101	101 > 85	3.95	621.395	621.395	bb			0.0469	93.78	-6.22	317.832	
L100219-07CRI	Perchlorate-O(18)	107 > 89	3.94	17197.623	17197.623	bb			0.4812	96.25	-3.75	10592....	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

:taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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te: 21-Feb-2010
ne: 18:28:06
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ıl: 1:2,B

Pass
and
02-22-10

rchlorate

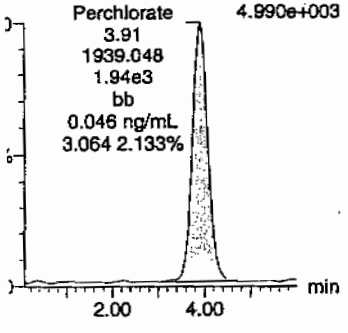

Perchlorate

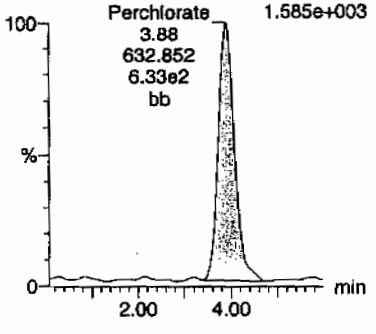

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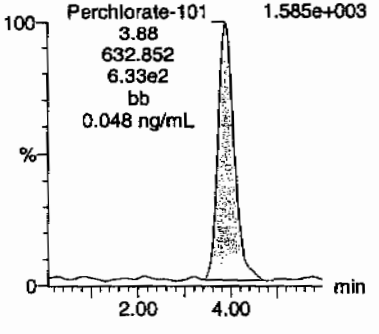

Perchlorate-O(18)

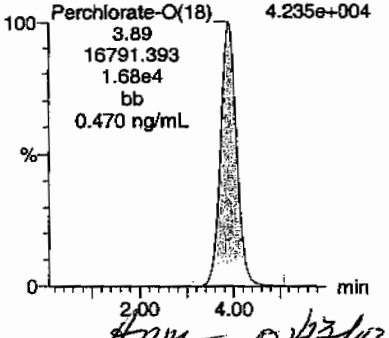

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
:L100219-07CRI	Perchlorate	99 > 83	3.91	1939.048	1939.048	bb			0.0459	91.84	-8.16	355.614	3.06
:L100219-07CRI	Perchlorate-101	101 > 85	3.88	632.852	632.852	bb			0.0478	95.51	-4.49	329.995	
:L100219-07CRI	Perchlorate-O(18)	107 > 89	3.89	16791.393	16791.393	bb			0.4699	93.97	-6.03	2392.7...	

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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ne: 20:26:14
WCL100219-07CRI
l: 1:2,B

Pass
ans
02-22-10

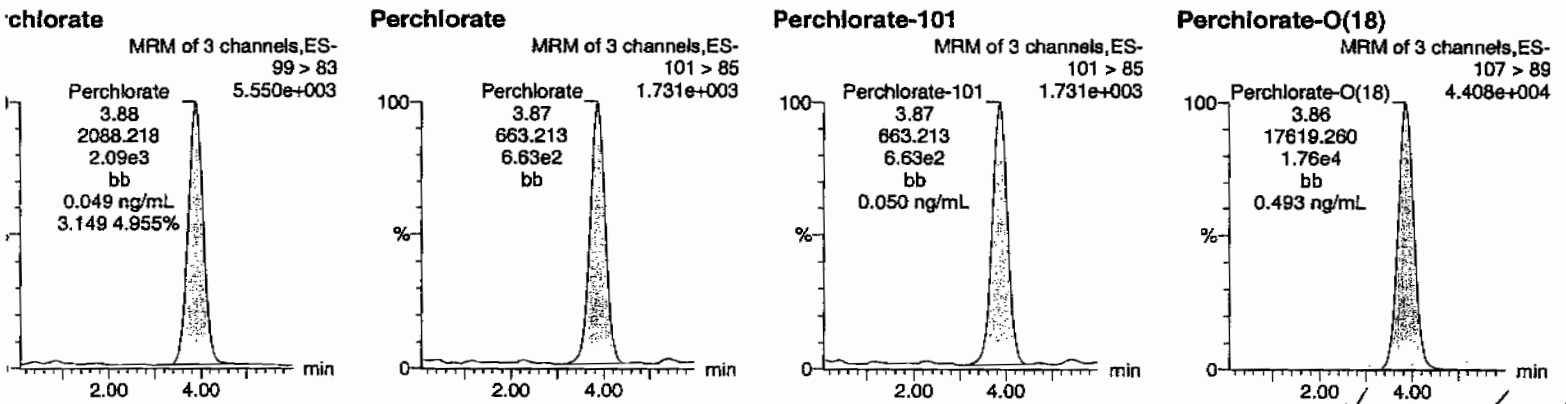

Hmc 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-07CRI	Perchlorate	99 > 83	3.88	2088.218	2088.218	bb			0.0495	98.90	-1.10	560.856	3.15
L100219-07CRI	Perchlorate-101	101 > 85	3.87	663.213	663.213	bb			0.0500	100.09	0.09	193.032	
L100219-07CRI	Perchlorate-O(18)	107 > 89	3.86	17619.260	17619.260	bb			0.4930	98.61	-1.39	2482.2...	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

:aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

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nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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l: 1:2,B

Pwo
aw
02-22-10

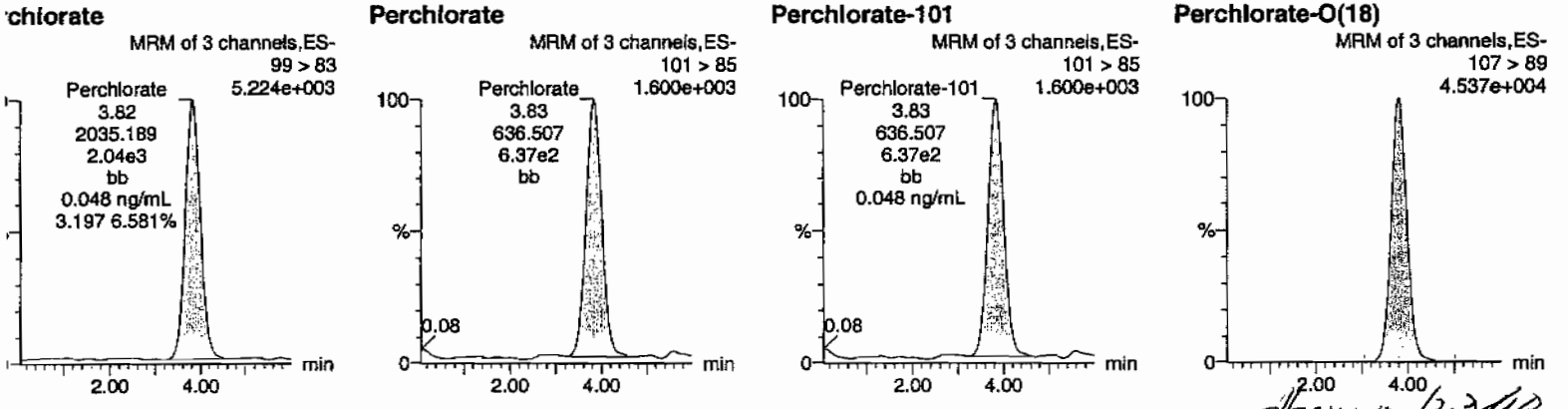

Hmwr 2/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-07CRI	Perchlorate	99 > 83	3.82	2035.189	2035.189	bb			0.0482	96.39	-3.61	488.291	3.20
L100219-07CRI	Perchlorate-101	101 > 85	3.83	636.507	636.507	bb			0.0480	96.06	-3.94	129.668	
L100219-07CRI	Perchlorate-O(18)	107 > 89	3.81	17944.182	17944.182	bb			0.5021	100.42	0.42	19618....	

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Last Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
Printed: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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Date: 21-Feb-2010
Time: 23:55:08
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
and
02-22-10

Perchlorate

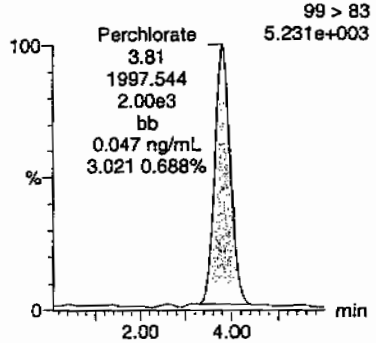

Perchlorate

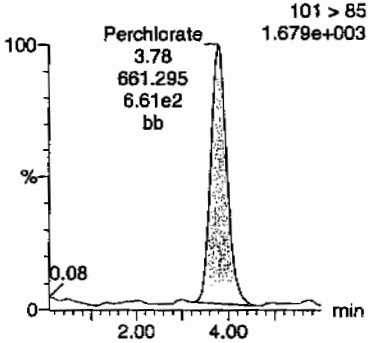

Perchlorate-101

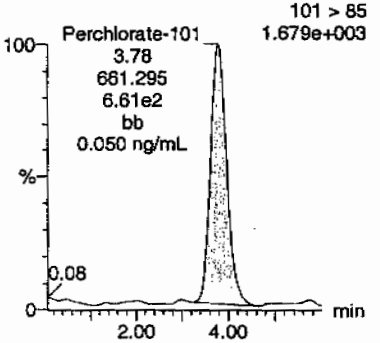

Perchlorate-O(18)

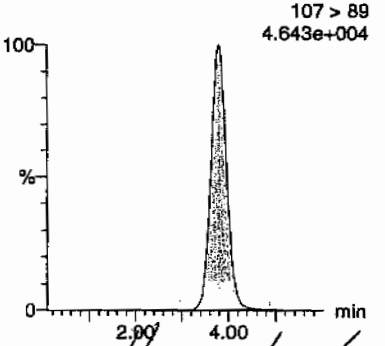

Hmm 02/23/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.81	1997.544	1997.544	bb			0.0473	94.61	-5.39	206.439	3.02
WCL100219-07CRI	Perchlorate-101	101 > 85	3.78	661.295	661.295	bb			0.0499	99.80	-0.20	415.917	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.79	18029.004	18029.004	bb			0.5045	100.90	0.90	3709.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221082a
e: 22-Feb-2010
e: 01:35:04
WCL100219-07CRI
l: 1:2,B

Pass
02-22-10

chlorate

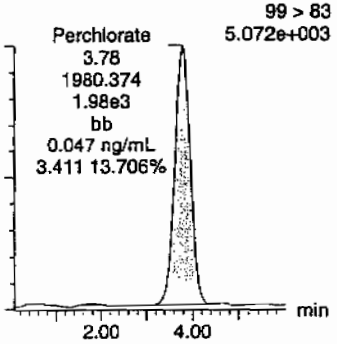

Perchlorate

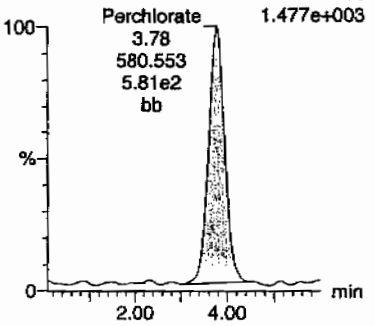

Perchlorate-101

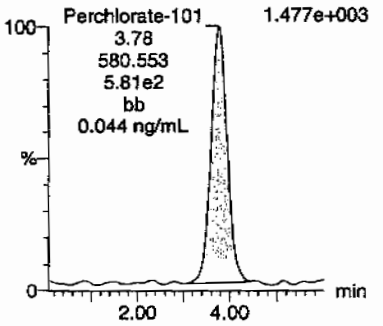

Perchlorate-O(18)

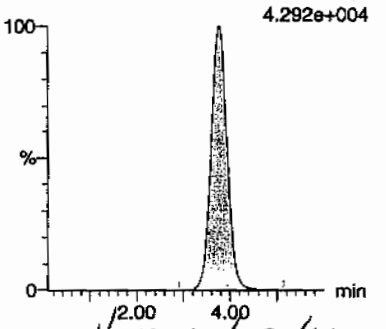

HMK 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-07CRI	Perchlorate	99 > 83	3.78	1980.374	1980.374	bb			0.0469	93.79	-6.21	122.389	3.41
L100219-07CRI	Perchlorate-101	101 > 85	3.78	580.553	580.553	bb			0.0438	87.61	-12.39	208.858	
L100219-07CRI	Perchlorate-O(18)	107 > 89	3.76	17092.373	17092.373	bb			0.4783	95.66	-4.34	961.808	

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221092a
e: 22-Feb-2010
e: 03:06:01
WCL100219-07CRI
: 1:2,B

Pass
02-22-10

chlorate

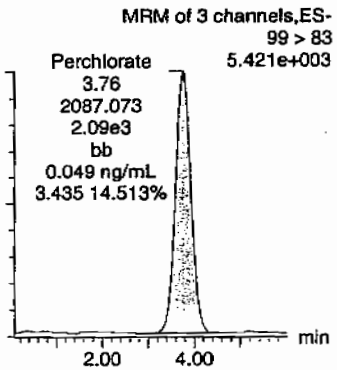

Perchlorate

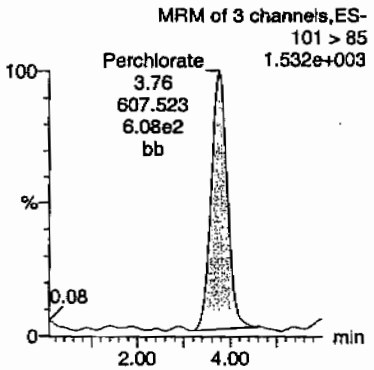

Perchlorate-101

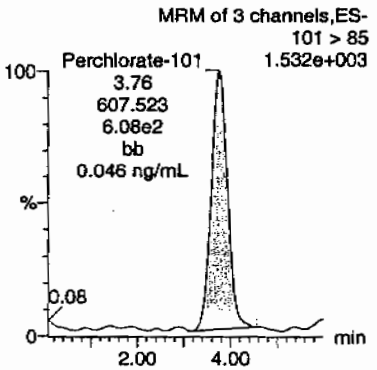

Perchlorate-O(18)

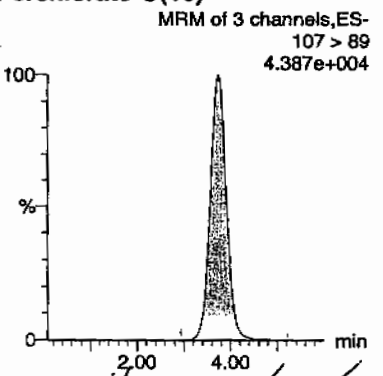

HMK 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
.100219-07CRI	Perchlorate	99 > 83	3.76	2087.073	2087.073	bb			0.0494	98.85	-1.15	567.489	3.44
.100219-07CRI	Perchlorate-101	101 > 85	3.76	607.523	607.523	bb			0.0458	91.68	-8.32	187.286	
.100219-07CRI	Perchlorate-O(18)	107 > 89	3.73	17466.512	17466.512	bb			0.4888	97.75	-2.25	6342.9...	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

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ɜ: 22-Feb-2010
e: 04:46:02
NCL100219-07CRI
: 1:2,B

Pass
02-22-10

:hlorate

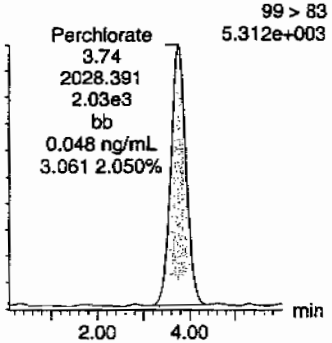

Perchlorate

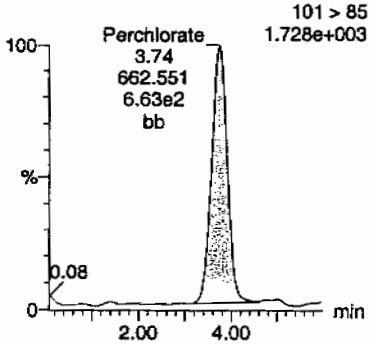

Perchlorate-101

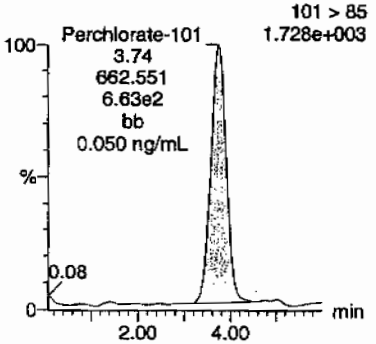

Perchlorate-O(18)

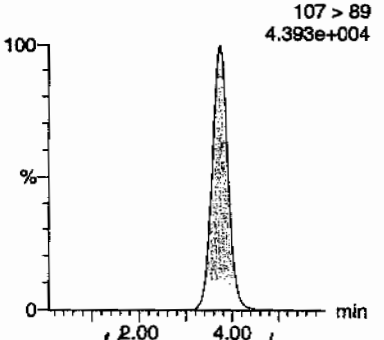

HMM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
.100219-07CRI	Perchlorate	99 > 83	3.74	2028.391	2028.391	bb			0.0480	96.07	-3.93	351.448	3.06
.100219-07CRI	Perchlorate-101	101 > 85	3.74	662.551	662.551	bb			0.0500	99.99	-0.01	393.567	
100219-07CRI	Perchlorate-O(18)	107 > 89	3.73	17273.334	17273.334	bb			0.4834	96.67	-3.33	10252....	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

ıst Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
inted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ame: per0221116a
ate: 22-Feb-2010
me: 06:43:50
: WCL100219-07CRI
al: 1:2,B

Pass
aus
02-22-10

erchlorate

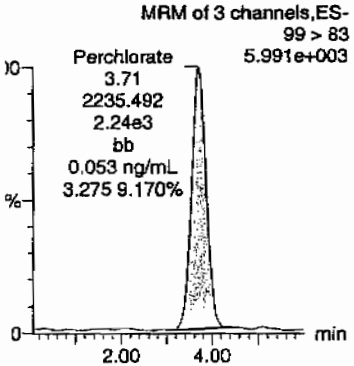

Perchlorate

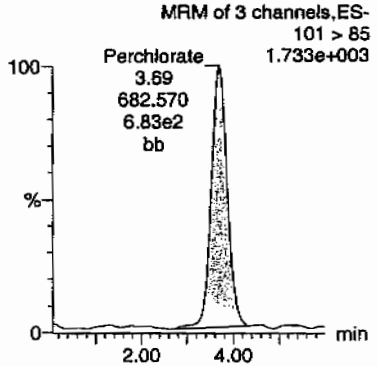

Perchlorate-101

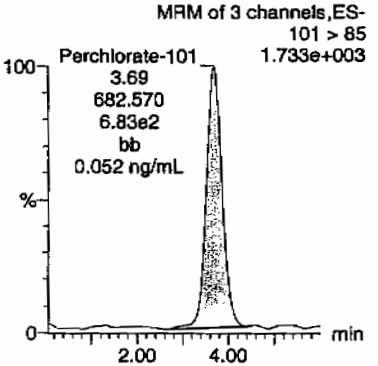

Perchlorate-O(18)

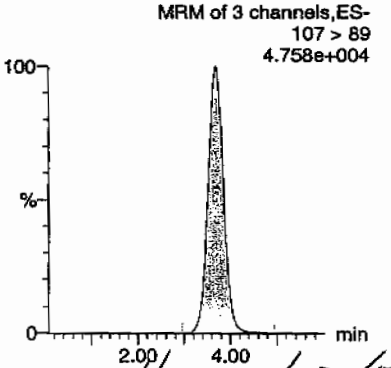

Hmm 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-07CRI	Perchlorate	99 > 83	3.71	2235.492	2235.492	bb			0.0529	105.88	5.88	526.848	3.28
CL100219-07CRI	Perchlorate-101	101 > 85	3.69	682.570	682.570	bb			0.0515	103.01	3.01	126.340	
CL100219-07CRI	Perchlorate-O(18)	107 > 89	3.68	18303.521	18303.521	bb			0.5122	102.44	2.44	4860.8...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

laset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

st Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
nted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

me: per0221129a
te: 22-Feb-2010
ne: 08:41:56
WCL100219-07CRI
l: 1:2,B

Pam
02-22-10

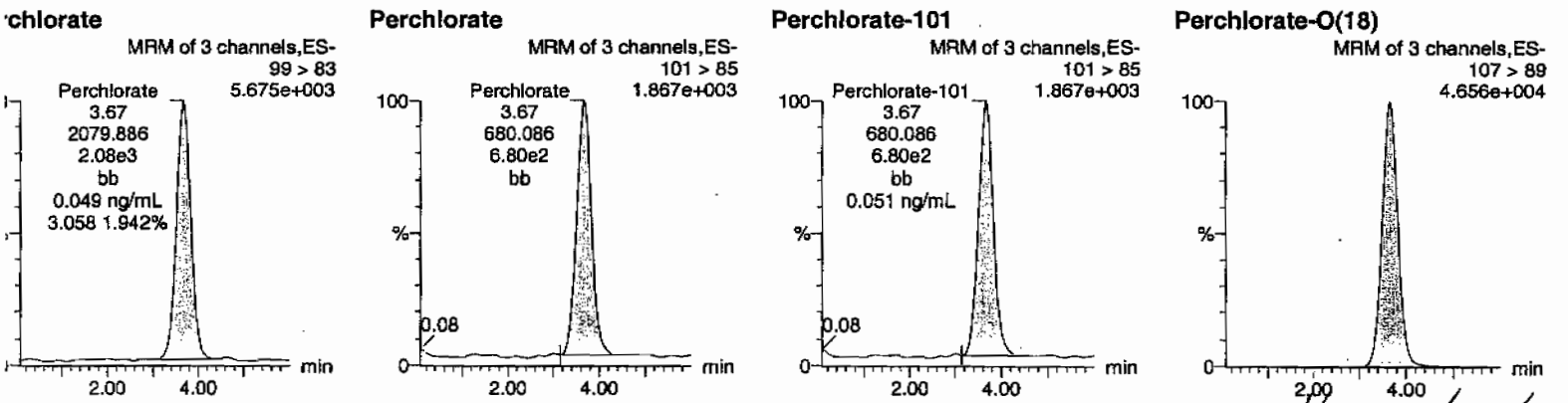

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100219-07CRI	Perchlorate	99 > 83	3.67	2079.886	2079.886	bb			0.0493	98.51	-1.49	289.629	3.06
L100219-07CRI	Perchlorate-101	101 > 85	3.67	680.086	680.086	bb			0.0513	102.63	2.63	429.047	
L100219-07CRI	Perchlorate-O(18)	107 > 89	3.66	17989.350	17989.350	bb			0.5034	100.68	0.68	5974.6...	

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 17-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 1202035641

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	22-FEB-10 04:55	per0221104a
	Perchlorate Isotope Ratio						1	22-FEB-10 04:55	per0221104a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	22-FEB-10 04:55	per0221104a
	Perchlorate-O(18)			4.91	ug/kg		1	22-FEB-10 04:55	per0221104a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221104a
e: 22-Feb-2010
e: 04:55:04
1202035641
: 3:1,A

|LANL|950060|SOLID|MB|1|

GW 02-22-10

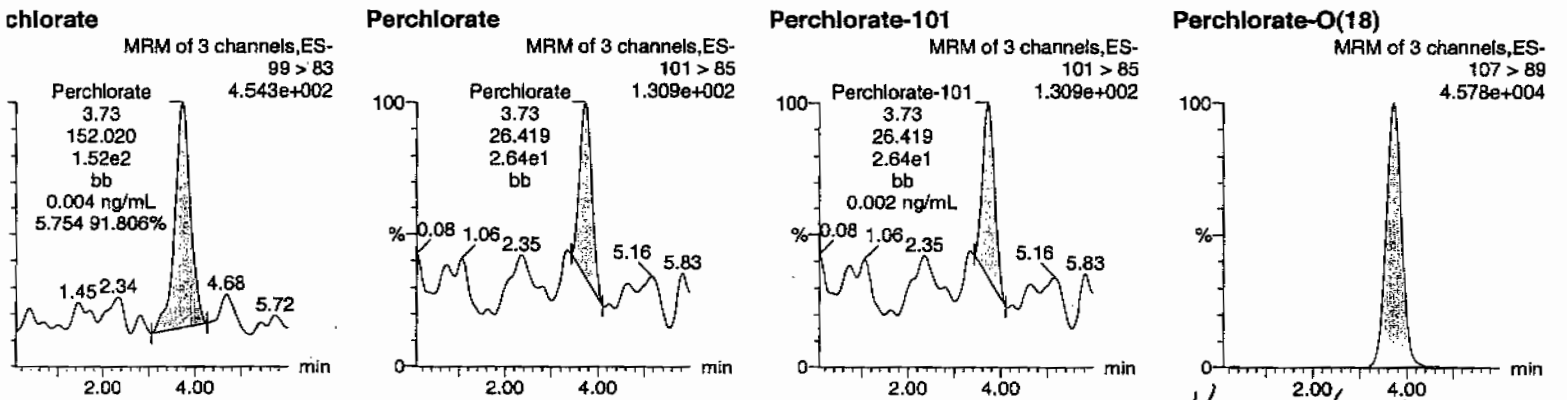

Hmc 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
035641	Perchlorate	99 > 83	3.73	152.020	152.020	bb			0.0036			31.660	5.75
035641	Perchlorate-101	101 > 85	3.73	26.419	26.419	bb			0.0020			19.301	
035641	Perchlorate-O(18)	107 > 89	3.72	17560.178	17560.178	bb			0.4914	98.28	-1.72	9192.5...	

ONLY <0.0500

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 17-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 1202035642

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.23	ug/kg		1	22-FEB-10 05:04	per0221105a
	Perchlorate Isotope Ratio			3.31			1	22-FEB-10 05:04	per0221105a
14797-73-0	Perchlorate-101	.5	2	2.15	ug/kg		1	22-FEB-10 05:04	per0221105a
	Perchlorate-O(18)			4.72	ug/kg		1	22-FEB-10 05:04	per0221105a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

t Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ited: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ne: per0221105a
e: 22-Feb-2010
e: 05:04:19
1202035642 | LANL | 950000 | 50120 | LCS | 1 |
: 3:1,B

CWO 02-22-10

chlorate

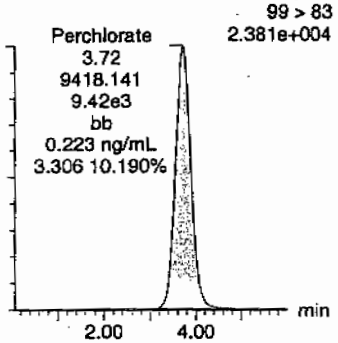

Perchlorate

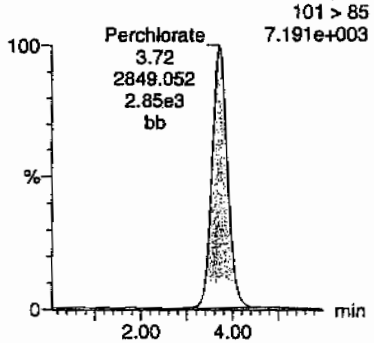

Perchlorate-101

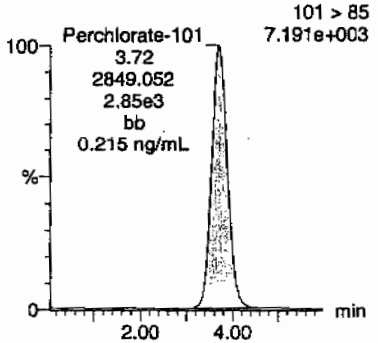

Perchlorate-O(18)

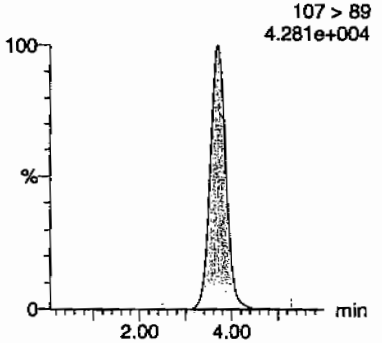

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
035642	Perchlorate	99 > 83	3.72	9418.141	9418.141	bb			0.2230	111.51	11.51	1187.6...	3.31
035642	Perchlorate-101	101 > 85	3.72	2849.052	2849.052	bb			0.2150	107.49	7.49	620.036	
035642	Perchlorate-O(18)	107 > 89	3.71	16872.275	16872.275	bb			0.4721	94.43	-5.57	3638.6...	

$\frac{9418.141}{42228.2} = 0.2230$

HMM 02/23/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7880MS

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 1202035643

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	2.33	ug/kg		1	22-FEB-10 05:31	per0221108a
	Perchlorate Isotope Ratio			3.16			1	22-FEB-10 05:31	per0221108a
14797-73-0	Perchlorate-101	.541	2.16	2.35	ug/kg		1	22-FEB-10 05:31	per0221108a
	Perchlorate-O(18)			5.24	ug/kg		1	22-FEB-10 05:31	per0221108a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ıntify Sample Report **MassLynx 4.0 SP4**
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221108a
ɜ: 22-Feb-2010
e: 05:31:23
l202035643
: 3:1,E

|LANL|950060|50120|MS|1|

GWO 02-22-10

ɔhlorate **Perchlorate** **Perchlorate-101** **Perchlorate-O(18)**

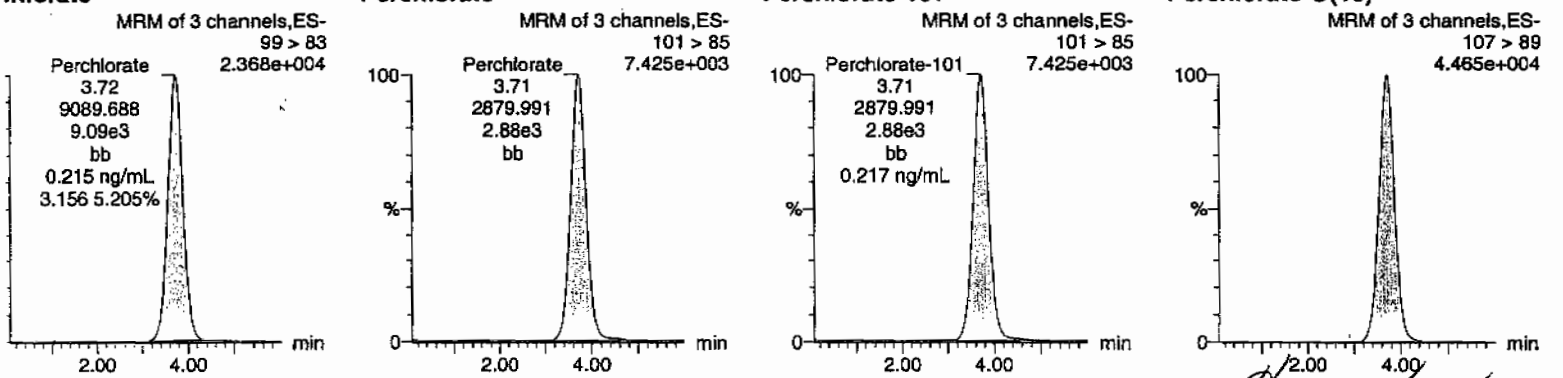

HAM 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
035643	Perchlorate	99 > 83	3.72	9089.688	9089.688	bb			0.2153	107.63	7.63	1708.2...	3.16
035643	Perchlorate-101	101 > 85	3.71	2879.991	2879.991	bb			0.2173	108.66	8.66	899.254	
035643	Perchlorate-O(18)	107 > 89	3.69	17304.617	17304.617	bb			0.4842	96.85	-3.15	15399....	

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950059

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-7880MSD

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512

GEL Sample ID: 1202035644

Date Filtered: 17-FEB-10

Injection Volume (uL): 20

%Solids: 92.5

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.541	2.16	2.25	ug/kg		1	22-FEB-10 05:40	per0221109a
	Perchlorate Isotope Ratio			3.2			1	22-FEB-10 05:40	per0221109a
14797-73-0	Perchlorate-101	.541	2.16	2.24	ug/kg		1	22-FEB-10 05:40	per0221109a
	Perchlorate-O(18)			4.97	ug/kg		1	22-FEB-10 05:40	per0221109a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per022110a.qld

Altered: Monday, February 22, 2010 10:34:02 AM Eastern Standard Time
ted: Monday, February 22, 2010 12:20:25 PM Eastern Standard Time

ıe: per0221109a
: 22-Feb-2010
e: 05:40:24
202035644
: 3:1,F

|LANL|950060|50620|MSD|1|

GWO
02-22-10

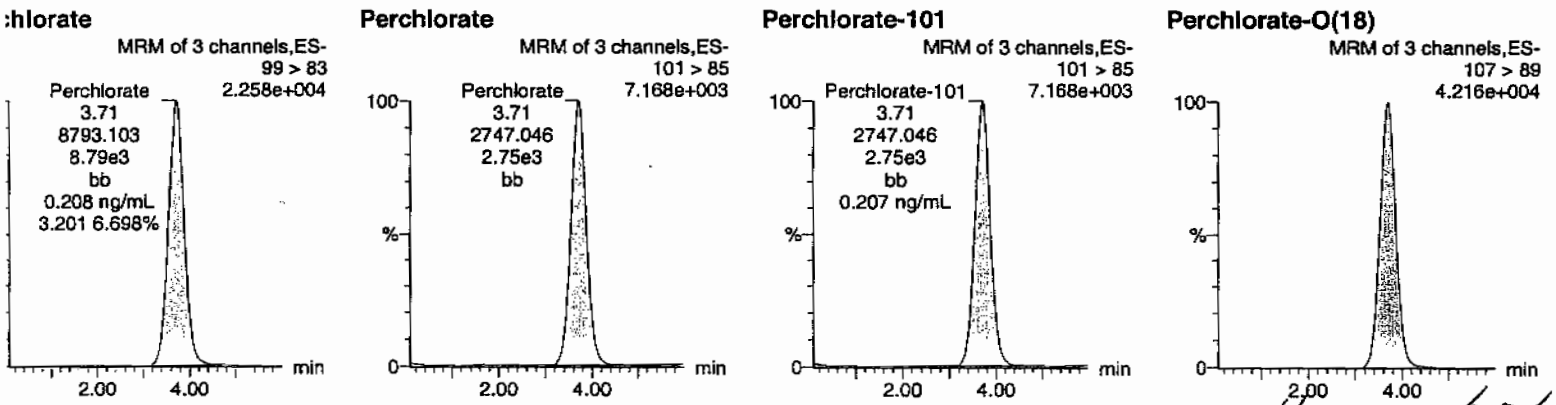

Hmm 02/23/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
035644	Perchlorate	99 > 83	3.71	8793.103	8793.103	bb			0.2082	104.11	4.11	1956.0...	3.20
035644	Perchlorate-101	101 > 85	3.71	2747.046	2747.046	bb			0.2073	103.64	3.64	974.037	
035644	Perchlorate-O(18)	107 > 89	3.69	16421.867	16421.867	bb			0.4595	91.91	-8.09	4505.4...	

$$\frac{8793.103 \mid 10 \mid 100}{42223.2 \mid \mid 92.5} = 2.25$$

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950059 **Verified by:**
Analyst: Michael Penny
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035641 MB	17-FEB-2010 15:44:00	2	20	10
1202035642 LCS	17-FEB-2010 15:44:00	2	20	10
245969001	17-FEB-2010 15:44:00	2	20	10
1202035643 MS (245969001)	17-FEB-2010 15:44:00	2	20	10
1202035644 MSD (245969001)	17-FEB-2010 15:44:00	2	20	10
245969002	17-FEB-2010 15:44:00	2	20	10
245969003	17-FEB-2010 15:44:00	2	20	10
245969004	17-FEB-2010 15:44:00	2	20	10
245969005	17-FEB-2010 15:44:00	2	20	10
245969006	17-FEB-2010 15:44:00	2	20	10
245969007	17-FEB-2010 15:44:00	2	20	10
245969008	17-FEB-2010 15:44:00	2	20	10
245969009	17-FEB-2010 15:44:00	2	20	10
245969010	17-FEB-2010 15:44:00	2	20	10
245969011	17-FEB-2010 15:44:00	2	20	10
245969012	17-FEB-2010 15:44:00	2	20	10
245969013	17-FEB-2010 15:44:00	2	20	10
245969014	17-FEB-2010 15:44:00	2	20	10
245969015	17-FEB-2010 15:44:00	2	20	10
1202035645 ICS	17-FEB-2010 15:44:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
ICS	1202035645	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL	Desalting Cartridge Lot# 091120-1-Ba 7 100112-1-H.
LCS	1202035642	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL	
MS	1202035643	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL	
MSD	1202035644	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL	

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/21/10
Extr. Injection Volume: 20uL
Sequence Number: per022110a
Initial Calibration Date: 02/21/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: [illegible]
Date: 02/23/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0221001a	IPB001	CWW	2/21/2010 13:18			1		USE	B
per0221002a	IPB001	CWW	2/21/2010 13:27			1		USE	B
per0221003a	WCLICAL-01	CWW	2/21/2010 13:36			1		USE	I
per0221004a	WCLICAL-02	CWW	2/21/2010 13:45			1		USE	I
per0221005a	WCLICAL-03	CWW	2/21/2010 13:54			1		USE	I
per0221006a	WCLICAL-04	CWW	2/21/2010 14:03			1		USE	I
per0221007a	WCLICAL-05	CWW	2/21/2010 14:12			1		USE	I
per0221008a	IPB002	CWW	2/21/2010 14:21			1		USE	B
per0221009a	WCLICV	CWW	2/21/2010 14:30			1		USE	C
per0221010a	IPB003	CWW	2/21/2010 14:39			1		USE	B
per0221011a	WCLCRI	CWW	2/21/2010 14:48			1		USE	C
per0221012a	1202042236	CWW	2/21/2010 14:59	952826	VARIOUS	1	LANL	USE	S
per0221013a	1202042237	CWW	2/21/2010 15:08	952826	VARIOUS	1	LANL	USE	S
per0221014a	1202042240	CWW	2/21/2010 15:17	952826	VARIOUS	1	LANL	USE	S
per0221015a	246456001	CWW	2/21/2010 15:26	952826	10-1631-1	1	LANL	USE	S
per0221016a	246456002	CWW	2/21/2010 15:35	952826	10-1631-1	1	LANL	USE	S
per0221017a	246456003	CWW	2/21/2010 15:44	952826	10-1631-1	1	LANL	USE	S
per0221018a	246456004	CWW	2/21/2010 15:53	952826	10-1631-1	1	LANL	USE	S
per0221019a	246456005	CWW	2/21/2010 16:03	952826	10-1631-1	1	LANL	USE	S
per0221020a	WCLCCV	CWW	2/21/2010 16:12			1		USE	C
per0221021a	IPB004	CWW	2/21/2010 16:21			1		USE	B
per0221022a	WCLCRI	CWW	2/21/2010 16:30			1		USE	C
per0221023a	246460001	CWW	2/21/2010 16:39	952826	10-1633-1	1	LANL	USE	S
per0221024a	1202042238	CWW	2/21/2010 16:48	952826	10-1633-1	1	LANL	USE	S
per0221025a	1202042239	CWW	2/21/2010 16:57	952826	10-1633-1	1	LANL	USE	S
per0221026a	246460002	CWW	2/21/2010 17:06	952826	10-1633-1	1	LANL	USE	S
per0221027a	246460003	CWW	2/21/2010 17:15	952826	10-1633-1	1	LANL	USE	S
per0221028a	246460004	CWW	2/21/2010 17:24	952826	10-1633-1	1	LANL	USE	S
per0221029a	246460005	CWW	2/21/2010 17:33	952826	10-1633-1	1	LANL	USE	S

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per0221030a	246460006	CWW	2/21/2010 17:42	952826	10-1633-1	1	LANL	USE	S
per0221031a	246460007	CWW	2/21/2010 17:51	952826	10-1633-1	1	LANL	USE	S
per0221032a	246460008	CWW	2/21/2010 18:00	952826	10-1633-1	1	LANL	USE	S
per0221033a	WCLCCV	CWW	2/21/2010 18:09			1		USE	C
per0221034a	IPB005	CWW	2/21/2010 18:18			1		USE	B
per0221035a	WCLCRI	CWW	2/21/2010 18:28			1		USE	C
per0221036a	246460009	CWW	2/21/2010 18:37	952826	10-1633-1	1	LANL	USE	S
per0221037a	246460010	CWW	2/21/2010 18:46	952826	10-1633-1	1	LANL	USE	S
per0221038a	246460011	CWW	2/21/2010 18:55	952826	10-1633-1	1	LANL	USE	S
per0221039a	IPB006	CWW	2/21/2010 19:04			1		USE	B
per0221040a	1202042241	CWW	2/21/2010 19:13	952829	VARIOUS	1	LANL	USE	S
per0221041a	1202042242	CWW	2/21/2010 19:22	952829	VARIOUS	1	LANL	USE	S
per0221042a	1202042245	CWW	2/21/2010 19:31	952829	VARIOUS	1	LANL	USE	S
per0221043a	246432001	CWW	2/21/2010 19:40	952829	10-1650-1	1	LANL	USE	S
per0221044a	246432002	CWW	2/21/2010 19:49	952829	10-1650-1	1	LANL	USE	S
per0221045a	246432003	CWW	2/21/2010 19:58	952829	10-1650-1	1	LANL	USE	S
per0221046a	WCLCCV	CWW	2/21/2010 20:07			1		USE	C
per0221047a	IPB007	CWW	2/21/2010 20:17			1		USE	B
per0221048a	WCLCRI	CWW	2/21/2010 20:26			1		USE	C
per0221049a	246432004	CWW	2/21/2010 20:35	952829	10-1650-1	1	LANL	USE	S
per0221050a	246432005	CWW	2/21/2010 20:44	952829	10-1650-1	1	LANL	USE	S
per0221051a	246432006	CWW	2/21/2010 20:53	952829	10-1650-1	1	LANL	USE	S
per0221052a	246432007	CWW	2/21/2010 21:02	952829	10-1650-1	1	LANL	USE	S
per0221053a	246432008	CWW	2/21/2010 21:11	952829	10-1650-1	1	LANL	USE	S
per0221054a	246432009	CWW	2/21/2010 21:20	952829	10-1650-1	1	LANL	USE	S
per0221055a	246432010	CWW	2/21/2010 21:29	952829	10-1650-1	1	LANL	USE	S
per0221056a	246470001	CWW	2/21/2010 21:38	952829	10-1638	1	LANL	USE	S
per0221057a	WCLCCV	CWW	2/21/2010 21:48			1		USE	C
per0221058a	IPB008	CWW	2/21/2010 21:57			1		USE	B
per0221059a	WCLCRI	CWW	2/21/2010 22:06			1		USE	C
per0221060a	246470002	CWW	2/21/2010 22:15	952829	10-1638	1	LANL	USE	S
per0221061a	1202042243	CWW	2/21/2010 22:24	952829	10-1638	1	LANL	USE	S
per0221062a	1202042244	CWW	2/21/2010 22:33	952829	10-1638	1	LANL	USE	S
per0221063a	246470003	CWW	2/21/2010 22:42	952829	10-1638	1	LANL	USE	S
per0221064a	246470004	CWW	2/21/2010 22:51	952829	10-1638	1	LANL	USE	S
per0221065a	246470005	CWW	2/21/2010 23:00	952829	10-1638	1	LANL	USE	S
per0221066a	246470006	CWW	2/21/2010 23:09	952829	10-1638	1	LANL	USE	S

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per0221067a	246470007	CWW	2/21/2010 23:18	952829	10-1638	1	LANL	USE	S
per0221068a	246470008	CWW	2/21/2010 23:27	952829	10-1638	1	LANL	USE	S
per0221069a	WCLCCV	CWW	2/21/2010 23:36			1		USE	C
per0221070a	IPB009	CWW	2/21/2010 23:46			1		USE	B
per0221071a	WCLCRI	CWW	2/21/2010 23:55			1		USE	C
per0221072a	1202042428	CWW	2/22/2010 0:04	952903	VARIOUS	1	LANL	USE	S
per0221073a	1202042429	CWW	2/22/2010 0:13	952903	VARIOUS	1	LANL	USE	S
per0221074a	1202042432	CWW	2/22/2010 0:22	952903	VARIOUS	1	LANL	USE	S
per0221075a	246587007	CWW	2/22/2010 0:31	952903	10-1687	1	LANL	USE	S
per0221076a	246592001	CWW	2/22/2010 0:40	952903	10-1689-1	1	LANL	USE	S
per0221077a	246592002	CWW	2/22/2010 0:49	952903	10-1689-1	1	LANL	USE	S
per0221078a	246592003	CWW	2/22/2010 0:58	952903	10-1689-1	1	LANL	USE	S
per0221079a	246592004	CWW	2/22/2010 1:07	952903	10-1689-1	1	LANL	USE	S
per0221080a	WCLCCV	CWW	2/22/2010 1:16			1		USE	C
per0221081a	IPB010	CWW	2/22/2010 1:26			1		USE	B
per0221082a	WCLCRI	CWW	2/22/2010 1:35			1		USE	C
per0221083a	246592005	CWW	2/22/2010 1:44	952903	10-1689-1	1	LANL	USE	S
per0221084a	246592006	CWW	2/22/2010 1:53	952903	10-1689-1	1	LANL	USE	S
per0221085a	246592007	CWW	2/22/2010 2:02	952903	10-1689-1	1	LANL	USE	S
per0221086a	246592008	CWW	2/22/2010 2:11	952903	10-1689-1	1	LANL	USE	S
per0221087a	246592009	CWW	2/22/2010 2:20	952903	10-1689-1	1	LANL	USE	S
per0221088a	246592010	CWW	2/22/2010 2:29	952903	10-1689-1	1	LANL	USE	S
per0221089a	246592011	CWW	2/22/2010 2:38	952903	10-1689-1	1	LANL	USE	S
per0221090a	WCLCCV	CWW	2/22/2010 2:47			1		USE	C
per0221091a	IPB011	CWW	2/22/2010 2:56			1		USE	B
per0221092a	WCLCRI	CWW	2/22/2010 3:06			1		USE	C
per0221093a	246594001	CWW	2/22/2010 3:15	952903	10-1686-1	1	LANL	USE	S
per0221094a	1202042430	CWW	2/22/2010 3:24	952903	10-1686-1	1	LANL	USE	S
per0221095a	1202042431	CWW	2/22/2010 3:33	952903	10-1686-1	1	LANL	USE	S
per0221096a	246594002	CWW	2/22/2010 3:42	952903	10-1686-1	1	LANL	USE	S
per0221097a	246594003	CWW	2/22/2010 3:51	952903	10-1686-1	1	LANL	USE	S
per0221098a	246594004	CWW	2/22/2010 4:00	952903	10-1686-1	1	LANL	USE	S
per0221099a	246594005	CWW	2/22/2010 4:09	952903	10-1686-1	1	LANL	USE	S
per0221100a	246594006	CWW	2/22/2010 4:18	952903	10-1686-1	1	LANL	USE	S
per0221101a	WCLCCV	CWW	2/22/2010 4:27			1		USE	C
per0221102a	IPB012	CWW	2/22/2010 4:37			1		USE	B
per0221103a	WCLCRI	CWW	2/22/2010 4:46			1		USE	C

PROPRIETARY INFORMATION - NO UNAUTHORIZED REPRODUCTION WITHOUT WRITTEN PERMISSION FROM GRM.

per0221104a	1202035641	CWW	2/22/2010 4:55	950060	10-1512	1	LANL	USE	S
per0221105a	1202035642	CWW	2/22/2010 5:04	950060	10-1512	1	LANL	USE	S
per0221106a	1202035645	CWW	2/22/2010 5:13	950060	10-1512	1	LANL	USE	S
per0221107a	245969001	CWW	2/22/2010 5:22	950060	10-1512	1	LANL	USE	S
per0221108a	1202035643	CWW	2/22/2010 5:31	950060	10-1512	1	LANL	USE	S
per0221109a	1202035644	CWW	2/22/2010 5:40	950060	10-1512	1	LANL	USE	S
per0221110a	245969002	CWW	2/22/2010 5:49	950060	10-1512	1	LANL	USE	S
per0221111a	245969003	CWW	2/22/2010 5:58	950060	10-1512	1	LANL	USE	S
per0221112a	245969004	CWW	2/22/2010 6:07	950060	10-1512	1	LANL	USE	S
per0221113a	245969005	CWW	2/22/2010 6:16	950060	10-1512	1	LANL	USE	S
per0221114a	WCLCCV	CWW	2/22/2010 6:25			1		USE	C
per0221115a	IPB013	CWW	2/22/2010 6:34			1		USE	B
per0221116a	WCLCRI	CWW	2/22/2010 6:43			1		USE	C
per0221117a	245969006	CWW	2/22/2010 6:52	950060	10-1512	1	LANL	USE	S
per0221118a	245969007	CWW	2/22/2010 7:02	950060	10-1512	1	LANL	USE	S
per0221119a	245969008	CWW	2/22/2010 7:11	950060	10-1512	1	LANL	USE	S
per0221120a	245969009	CWW	2/22/2010 7:20	950060	10-1512	1	LANL	USE	S
per0221121a	245969010	CWW	2/22/2010 7:29	950060	10-1512	1	LANL	USE	S
per0221122a	245969011	CWW	2/22/2010 7:38	950060	10-1512	1	LANL	USE	S
per0221123a	245969012	CWW	2/22/2010 7:47	950060	10-1512	1	LANL	USE	S
per0221124a	245969013	CWW	2/22/2010 7:56	950060	10-1512	1	LANL	USE	S
per0221125a	245969014	CWW	2/22/2010 8:05	950060	10-1512	1	LANL	USE	S
per0221126a	245969015	CWW	2/22/2010 8:14	950060	10-1512	1	LANL	USE	S
per0221127a	WCLCCV	CWW	2/22/2010 8:23			1		USE	C
per0221128a	IPB014	CWW	2/22/2010 8:32			1		USE	B
per0221129a	WCLCRI	CWW	2/22/2010 8:41			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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1.

LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1512-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950028
Prep Batch Number:	950027

Sample Analysis

Sample ID	Client ID
245975001	RE15-10-8084
1202035573	Interference Check Sample (ICS)
1202035565	Method Blank (MB)
1202035566	Laboratory Control Sample (LCS)
1202035571	245911001(RE16-10-1400) Matrix Spike (MS)
1202035572	245911001(RE16-10-1400) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

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CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245911001 (RE16-10-1400) from SDG 10-1487-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

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Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K Mauer **Date:** 02/11/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8084

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512-1

GEL Sample ID: 245975001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:00	per0208066a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:00	per0208066a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:00	per0208066a
	Perchlorate-O(18)			0.480	ug/L		1	08-FEB-10 21:00	per0208066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1512–1

Extract Batch Code: 950027

Date Filtered: 07–FEB–10

Matrix: WASTE WATER

Sample ID: 1202035566

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.196	ug/L	98.0		85 – 115
Perchlorate Isotope Ratio		3.01				–
Perchlorate–101	0.200	.207	ug/L	103		85 – 115
Perchlorate–O(18)		.483	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1512–1

Extract Batch Code: 950027

Date Filtered: 07–FEB–10

Matrix: WATER

Sample ID: 1202035573

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.211	ug/L	105		70 – 130
Perchlorate Isotope Ratio		3.12				
Perchlorate–101	0.200	.214	ug/L	107		70 – 130
Perchlorate–O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208052a
Date: 08-Feb-2010
Time: 19:28:20
ID: 1202035573
Vial: 2:1,C

|LANL|950028|LLQ|IC5|1|

CWW 02-09-10

Perchlorate

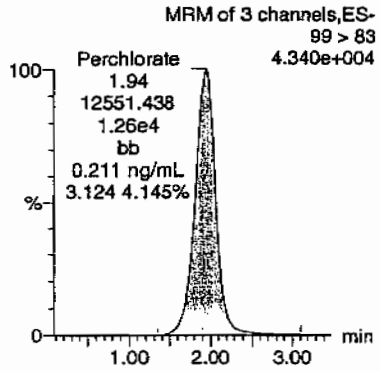

Perchlorate

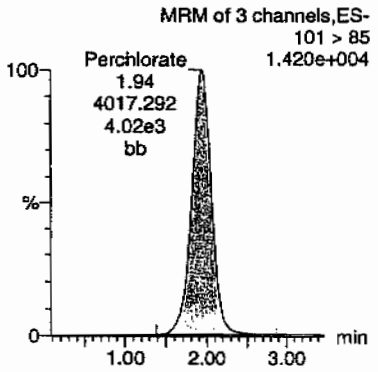

Perchlorate-101

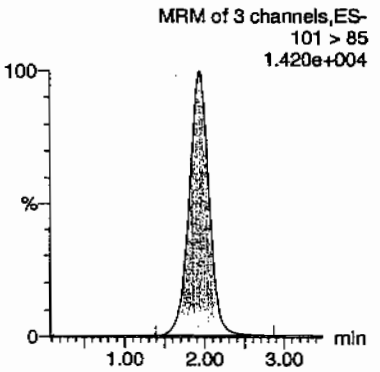

Perchlorate-O(18)

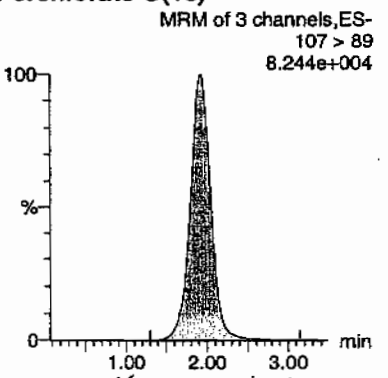

Hmm or holo

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035573	Perchlorate	99 > 83	1.94	12551.438	12551.438	bb			0.2108	105.42	5.42	1217.2...	3.12
1202035573	Perchlorate-101	101 > 85	1.94	4017.292	4017.292	bb			0.2140	107.01	7.01	2883.8...	
1202035573	Perchlorate-O(18)	107 > 89	1.93	23733.555	23733.555	bb			0.4879	97.59	-2.41	5289.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1512-1

Extract Batch Code: 950027

Date Extracted: 07-FEB-10

GEL MS/PS ID: 1202035571

Client ID: RE16-10-1400

GEL MSD/PSD ID: 1202035572

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00204	ug/L	0.192	94.8	.198	98.1	3.39	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3		3.01		0		–
Perchlorate–101	0.200	0.00319	ug/L	0.203	99.9	.209	103	2.76	30	75 – 125
Perchlorate–O(18)	0	0.461	ug/L	0.468		.462		1.31		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1512-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-FEB-10	per0208001a	IPB001
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208001a	IPB001
Perchlorate	0.00	0	NA	08-FEB-10	per0208002a	IPB001
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Name: per0208001a
Date: 08-Feb-2010
Time: 13:54:09
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

Perchlorate

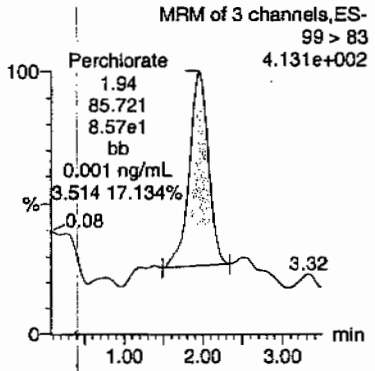

Perchlorate

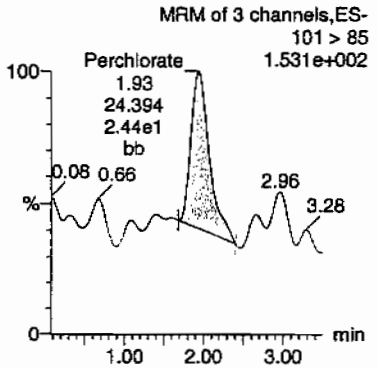

Perchlorate-101

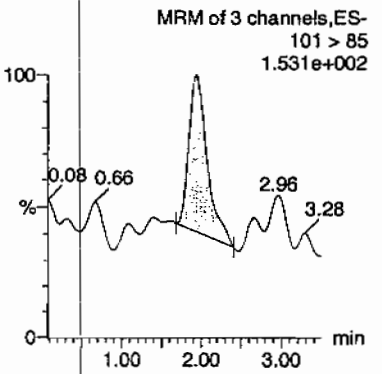

Perchlorate-O(18)

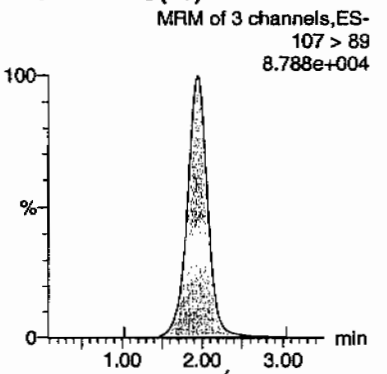

tum 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83	1.94	85.721	85.721	bb			0.0014			29.463	3.51
PB001	Perchlorate-101	101 > 85	1.93	24.394	24.394	bb			0.0013			21.780	
PB001	Perchlorate-O(18)	107 > 89	1.94	25816.436	25816.436	bb			0.5308	106.15	6.15	6489.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208002a
Date: 08-Feb-2010
Time: 14:00:52
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

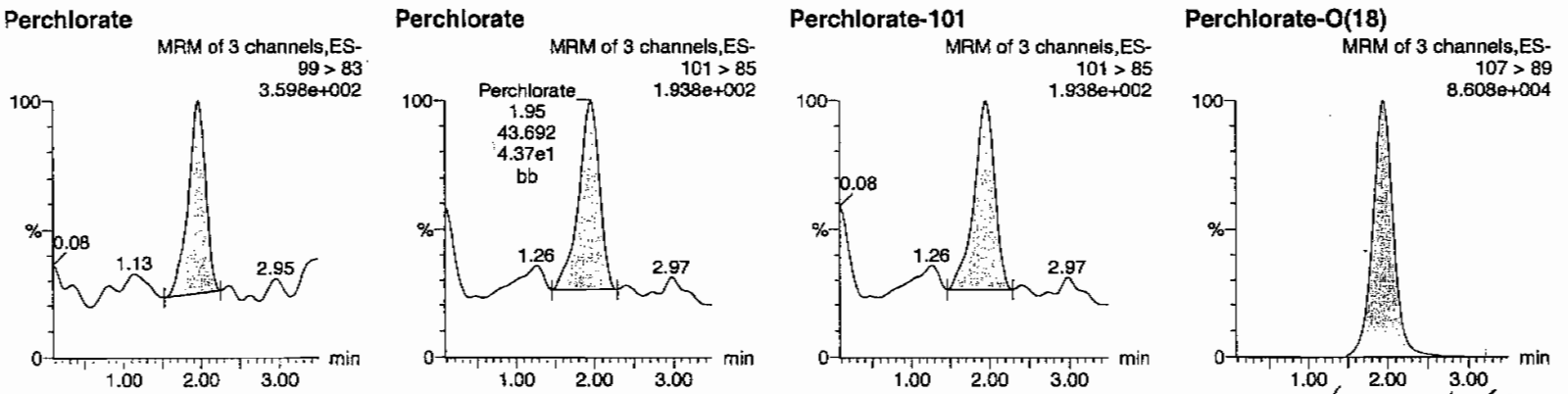

Hrm on 10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio	
IPB001	Perchlorate	99 > 83	1.97	72.177	72.177	bb			0.0012			25.847	1.65	OKAY
IPB001	Perchlorate-101	101 > 85	1.95	43.692	43.692	bb			0.0023			6.442		<0.050
IPB001	Perchlorate-O(18)	107 > 89	1.94	25472.947	25472.947	bb			0.5237	104.74	4.74	6120.9...		

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–FEB–10	per0208008a	IPB002
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208008a	IPB002
Perchlorate	0.00	0	NA	08–FEB–10	per0208010a	IPB003
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208010a	IPB003
Perchlorate	0.00	0	NA	08–FEB–10	per0208022a	IPB004
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208022a	IPB004
Perchlorate	0.00	0	NA	08–FEB–10	per0208026a	IPB005
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208026a	IPB005
Perchlorate	0.00	0	NA	08–FEB–10	per0208035a	IPB006
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208035a	IPB006
Perchlorate	0.00	0	NA	08–FEB–10	per0208048a	IPB007
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208048a	IPB007
Perchlorate	0.00	0	NA	08–FEB–10	per0208061a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208061a	IPB008
Perchlorate	0.00	0	NA	08–FEB–10	per0208074a	IPB009
Perchlorate–101	0.00	0	NA	08–FEB–10	per0208074a	IPB009

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208008a
Date: 08-Feb-2010
Time: 14:40:00
ID: IPB002
Vial: 1:1,A

CWW 02-09-10

Perchlorate

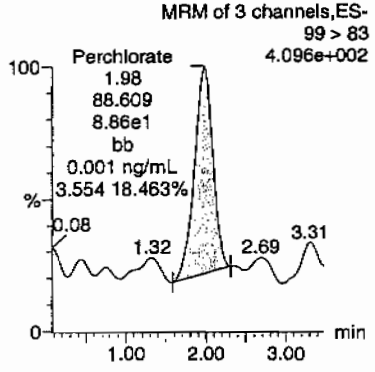

Perchlorate

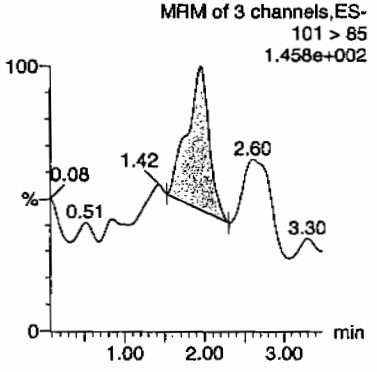

Perchlorate-101

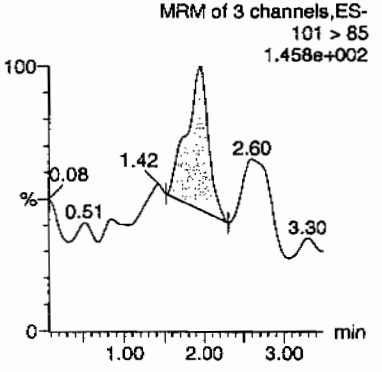

Perchlorate-O(18)

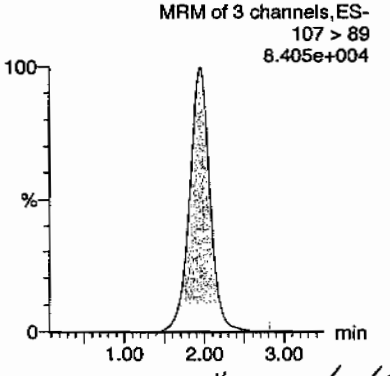

Hmc 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	1.98	88.609	88.609	bb			0.0015			17.608	3.55
IPB002	Perchlorate-101	101 > 85	1.95	24.933	24.933	bb			0.0013			9.796	
IPB002	Perchlorate-O(18)	107 > 89	1.94	24800.170	24800.170	bb			0.5099	101.97	1.97	8413.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208010a
Date: 08-Feb-2010
Time: 14:53:04
ID: IPB003
Vial: 1:1,A

CWW
02-09-10

Perchlorate

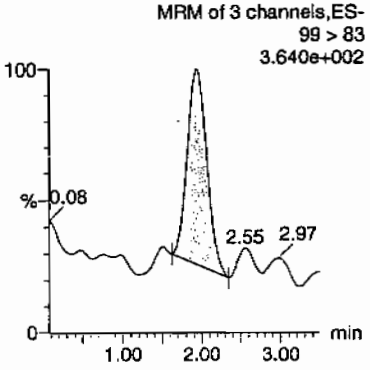

Perchlorate

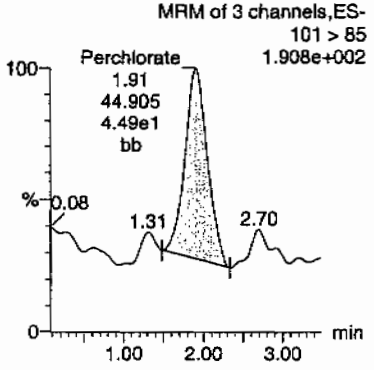

Perchlorate-101

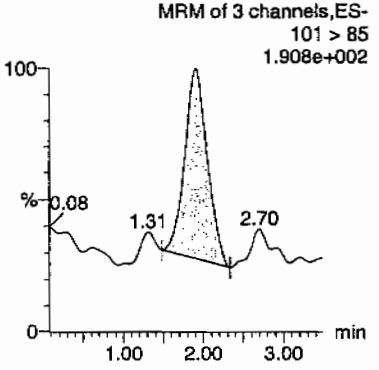

Perchlorate-O(18)

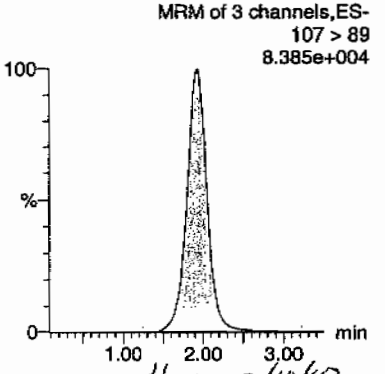

Hmcallolo

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83	1.93	78.058	78.058	bb			0.0013			17.447	1.74
PB003	Perchlorate-101	101 > 85	1.91	44.905	44.905	bb			0.0024			6.119	
PB003	Perchlorate-O(18)	107 > 89	1.93	24645.639	24645.639	bb			0.5067	101.34	1.34	10100....	

OKAY
2-10-2010

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208022a
Date: 08-Feb-2010
Time: 16:11:45
ID: IPB004
Vial: 1:1,A

CWW
02-09-10

Perchlorate

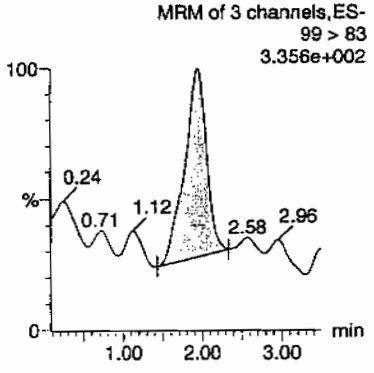

Perchlorate

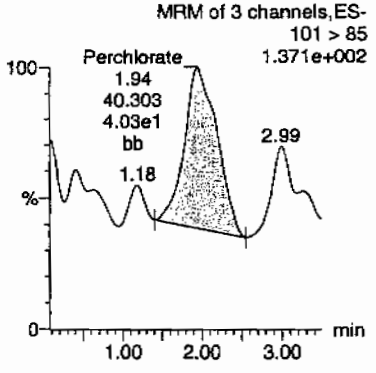

Perchlorate-101

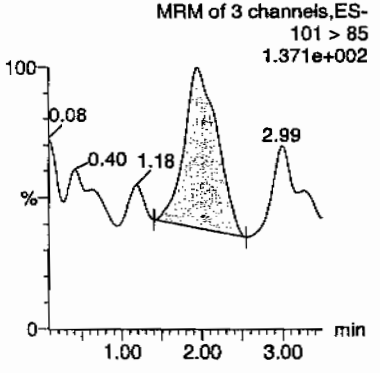

Perchlorate-O(18)

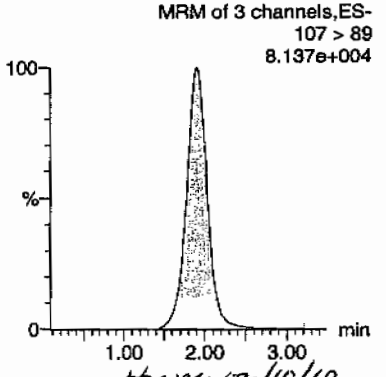

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	1.94	78.709	78.709	bb			0.0013			20.514	1.95
IPB004	Perchlorate-101	101 > 85	1.94	40.303	40.303	bb			0.0021			13.319	
IPB004	Perchlorate-O(18)	107 > 89	1.92	23985.541	23985.541	bb			0.4931	98.62	-1.38	5434.3...	

ckay
< 0.0200

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208026a
Date: 08-Feb-2010
Time: 16:37:55
ID: IPB005
Vial: 1:1,A

CWW
02-09-10

Perchlorate

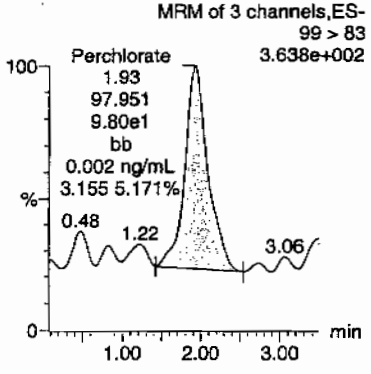

Perchlorate

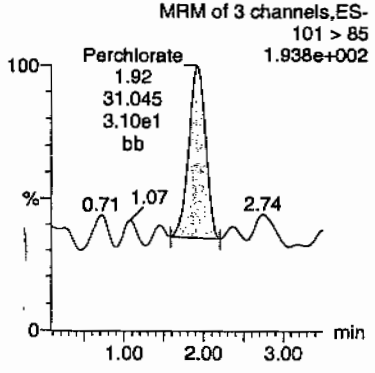

Perchlorate-101

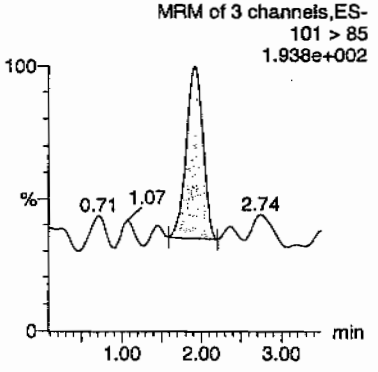

Perchlorate-O(18)

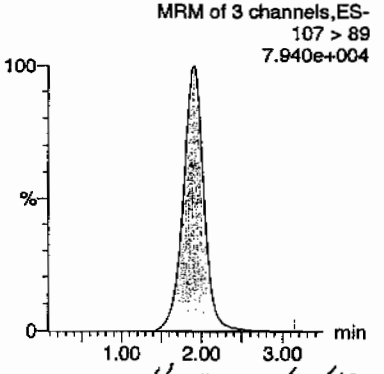

HMM 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83	1.93	97.951	97.951	bb			0.0016			26.012	3.16
PB005	Perchlorate-101	101 > 85	1.92	31.045	31.045	bb			0.0017			24.338	
PB005	Perchlorate-O(18)	107 > 89	1.91	23263.740	23263.740	bb			0.4783	95.66	-4.34	17328....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208035a
Date: 08-Feb-2010
Time: 17:36:50
ID: IPB006
Vial: 1:1,A

CWW
02-09-10

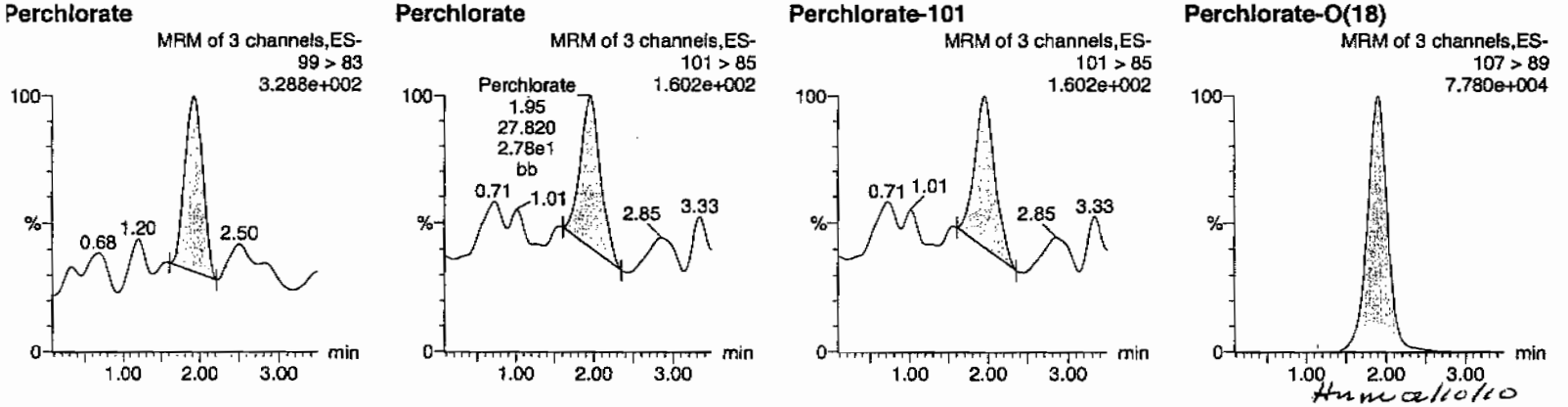

Hmc 2/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	1.92	61.682	61.682	bb			0.0010			7.589	2.22
IPB006	Perchlorate-101	101 > 85	1.95	27.820	27.820	bb			0.0015			8.535	
IPB006	Perchlorate-O(18)	107 > 89	1.89	22700.701	22700.701	bb			0.4667	93.34	-6.66	9296.2...	

Okay
2.0530

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208048a
Date: 08-Feb-2010
Time: 19:01:59
ID: IPB007
Vial: 1:1,A

OWJ
02-09-10

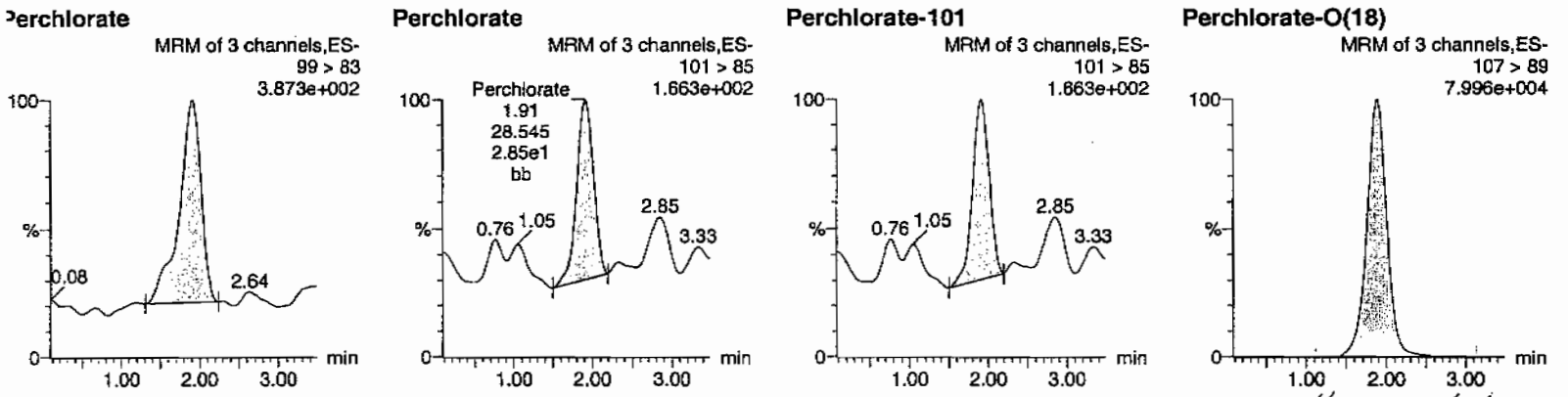

HM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83	1.92	98.695	98.695	bb			0.0017			45.617	3.46
PB007	Perchlorate-101	101 > 85	1.91	28.545	28.545	bb			0.0015			16.585	
PB007	Perchlorate-O(18)	107 > 89	1.88	23201.119	23201.119	bb			0.4770	95.40	-4.60	2781.0...	

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The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208061a
Date: 08-Feb-2010
Time: 20:27:18
ID: IPB008
Vial: 1:1,A

CWW 02-09-10

Perchlorate

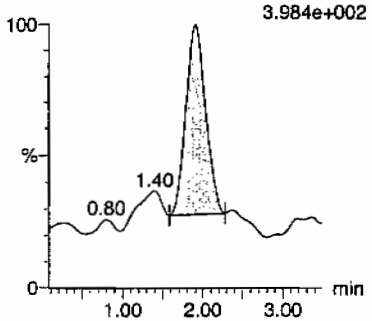

Perchlorate

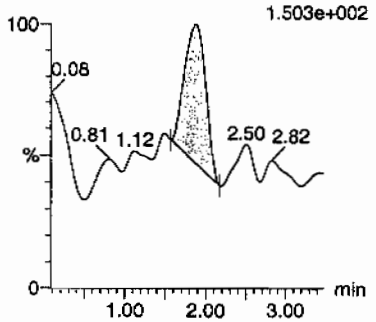

Perchlorate-101

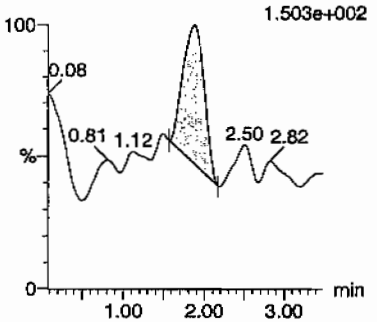

Perchlorate-O(18)

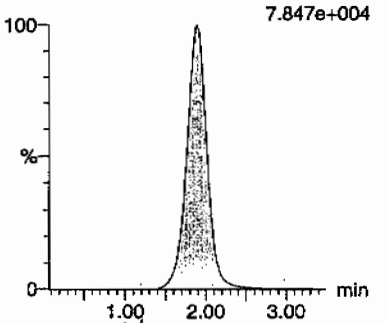

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83	1.91	82.327	82.327	bb			0.0014			25.247	3.44
PB008	Perchlorate-101	101 > 85	1.88	23.921	23.921	bb			0.0013			7.965	
PB008	Perchlorate-O(18)	107 > 89	1.89	22850.625	22850.625	bb			0.4698	93.96	-6.04	9586.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208074a
Date: 08-Feb-2010
Time: 21:52:41
ID: IPB009
Vial: 1:1,A

CWW 02-09-10

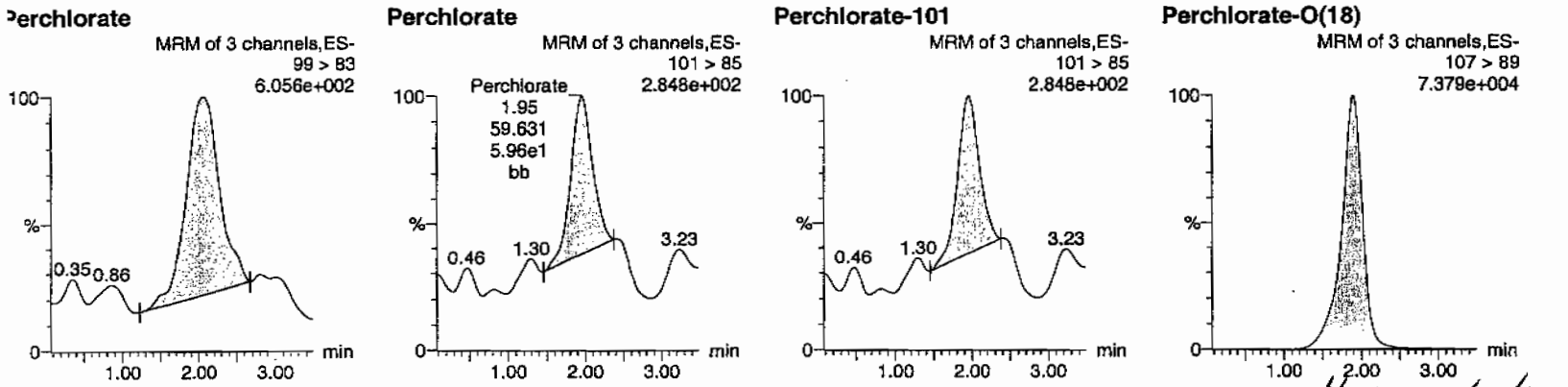

HWW 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB009	Perchlorate	99 > 83	2.05	246.817	246.817	bb			0.0041			12.504	4.14
PB009	Perchlorate-101	101 > 85	1.95	59.631	59.631	bb			0.0032			10.438	
PB009	Perchlorate-O(18)	107 > 89	1.89	23201.656	23201.656	bb			0.4770	95.40	-4.60	2554.5...	

OK 24 LOQ 0.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

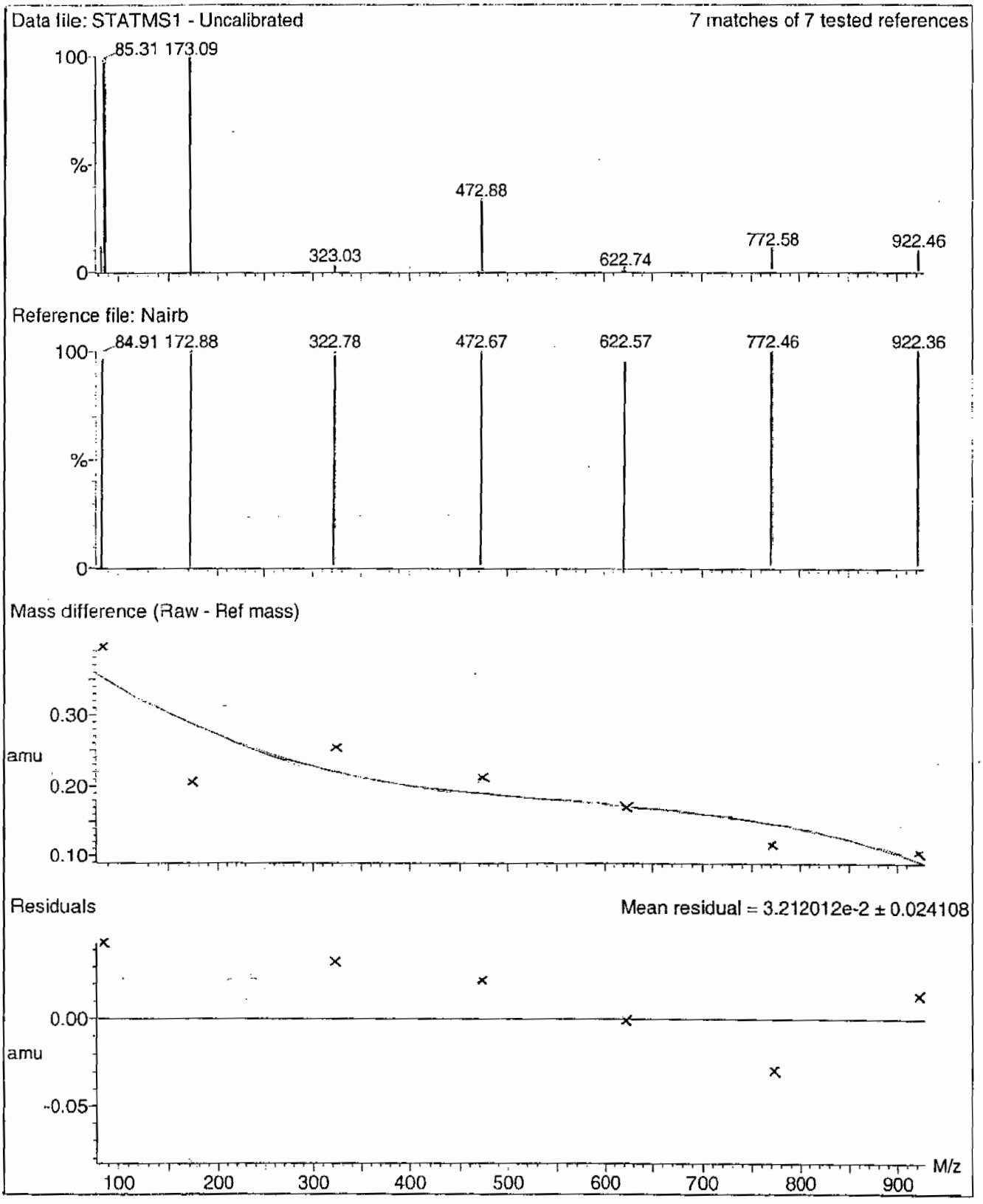

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

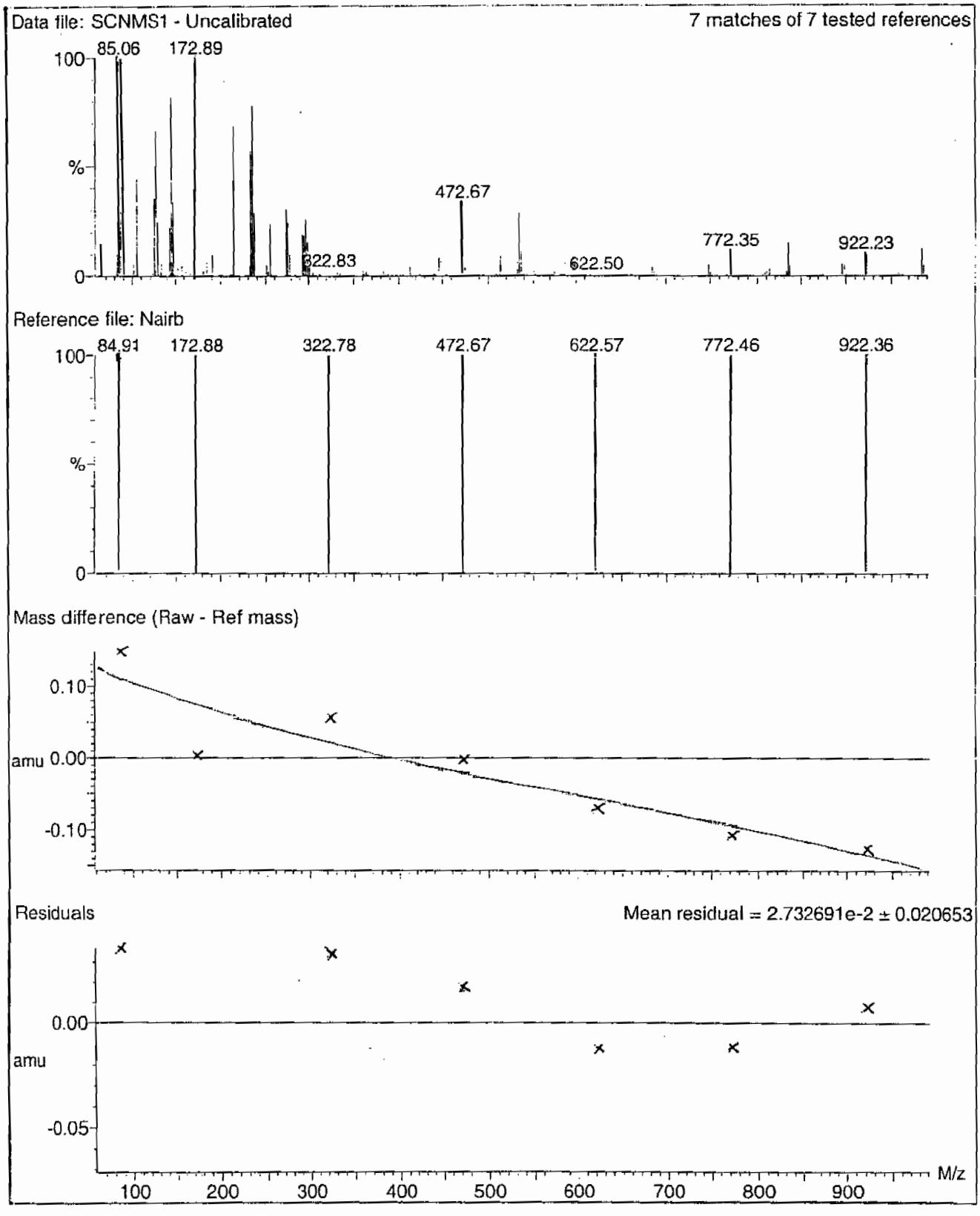

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

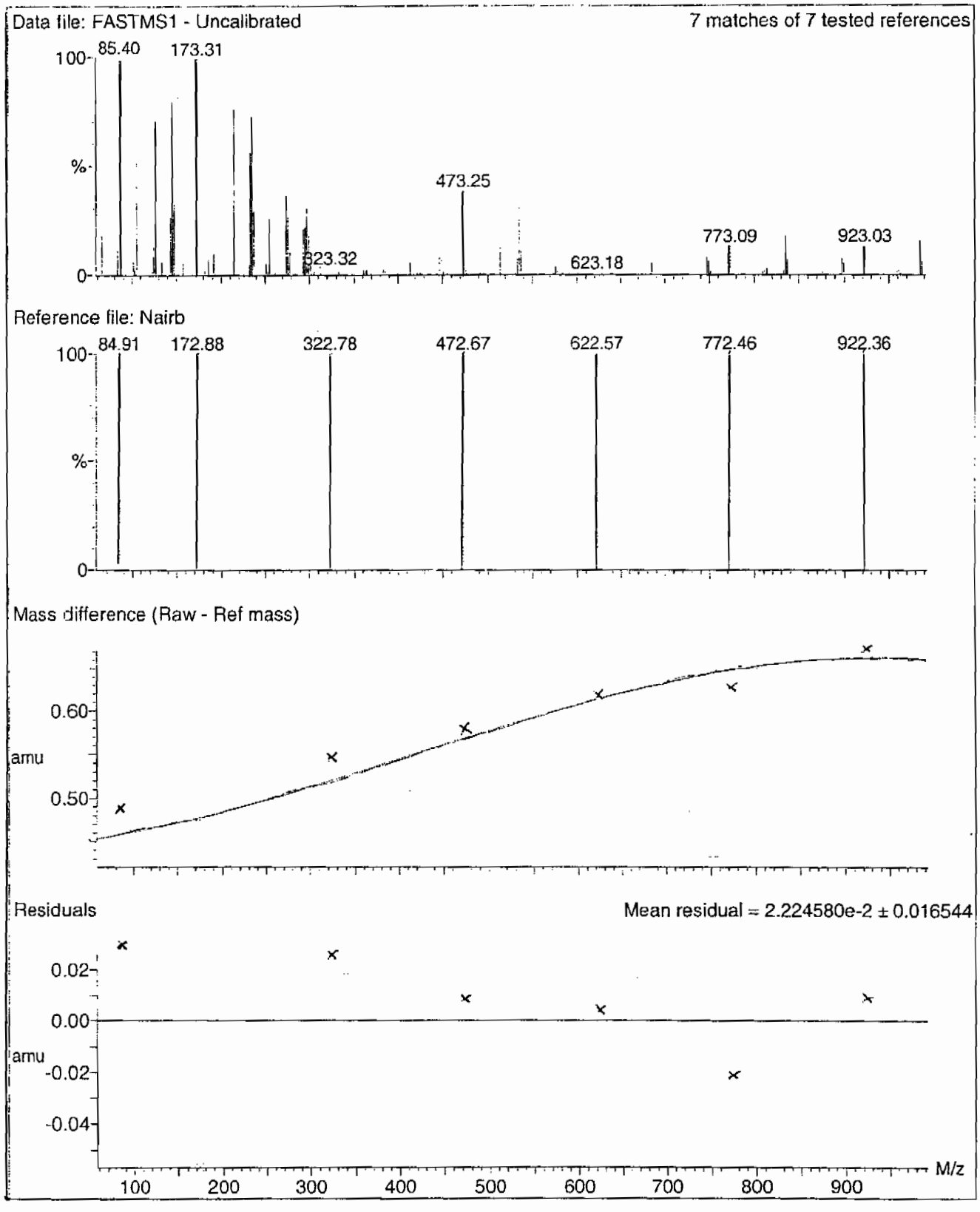

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

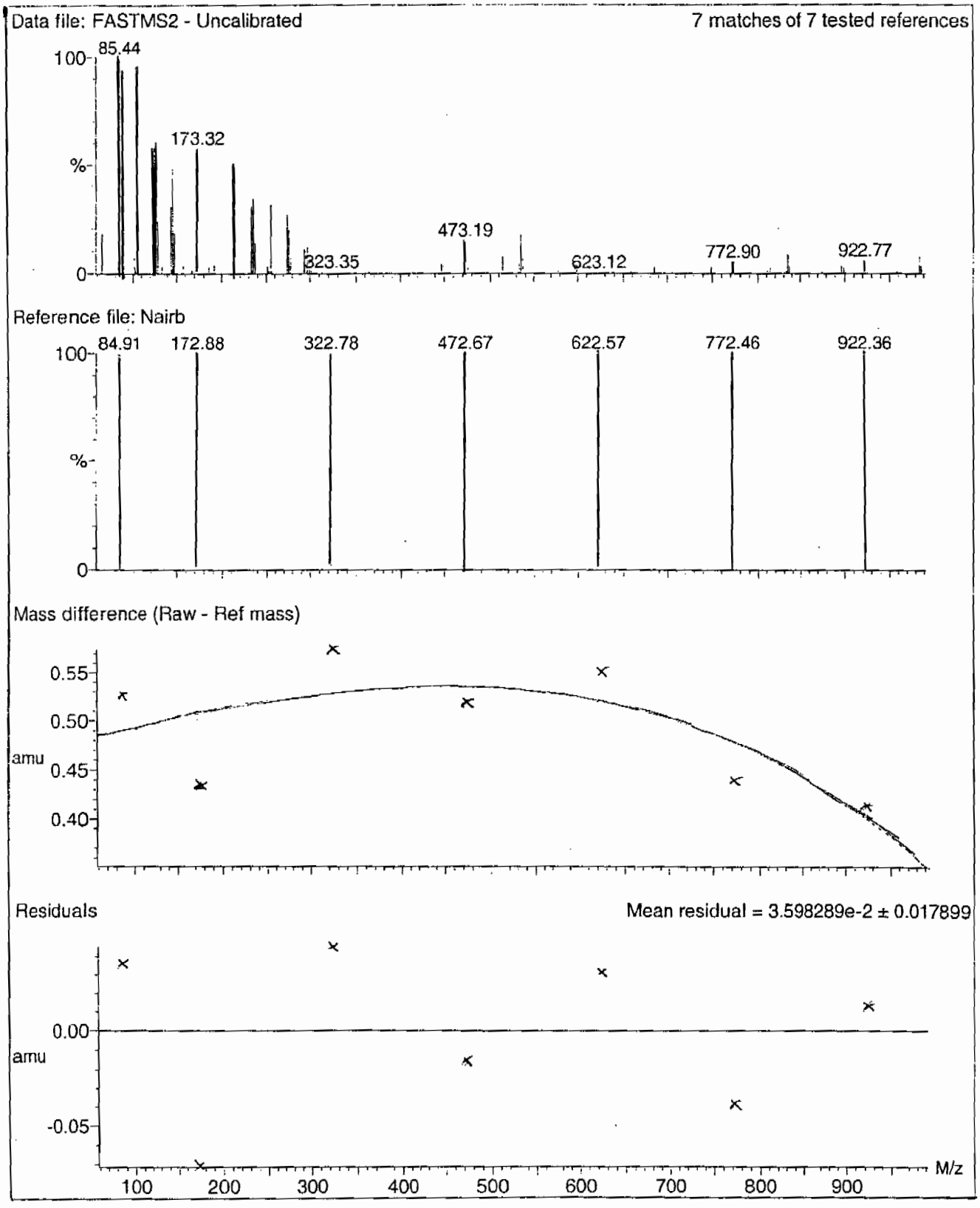

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

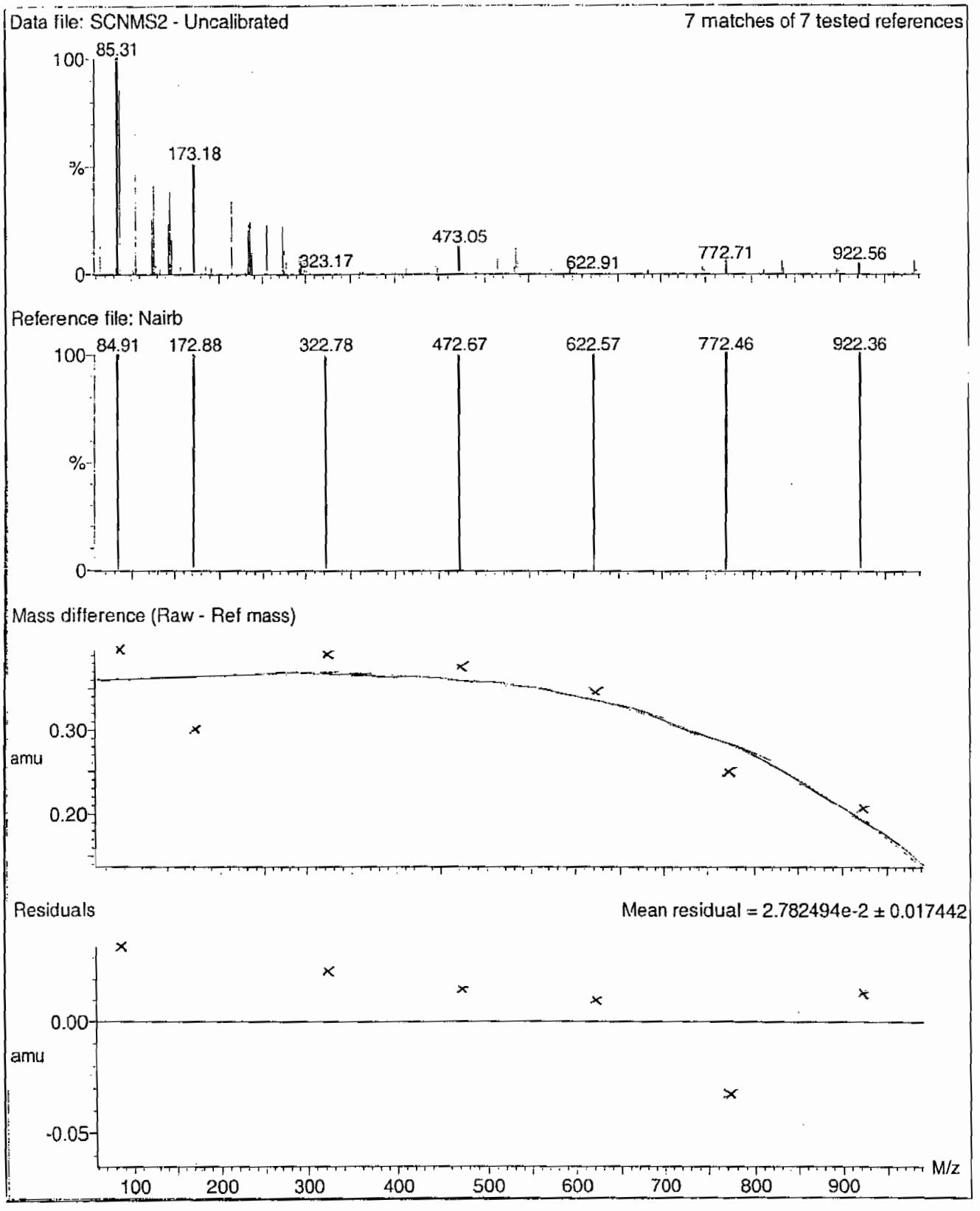

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

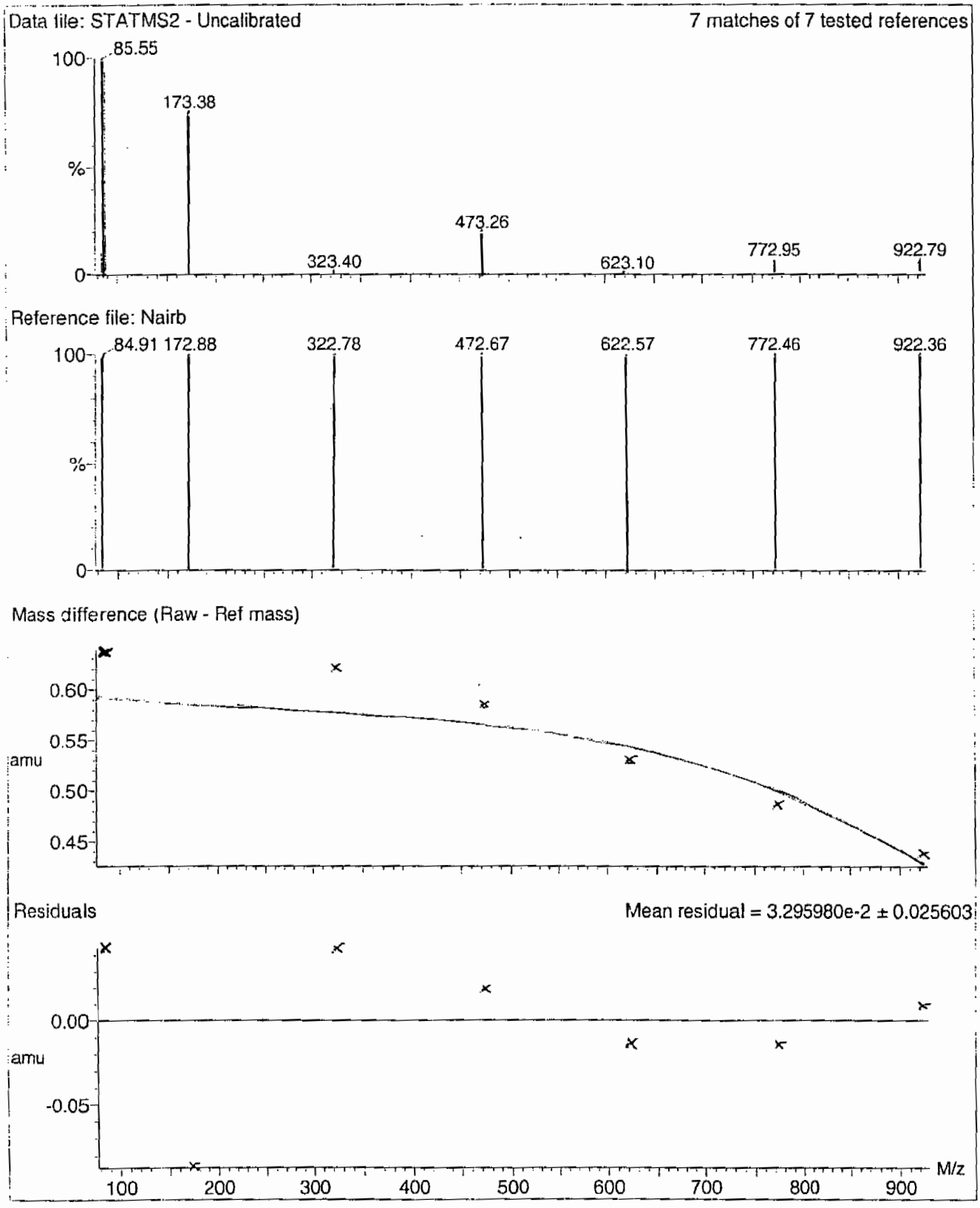

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, February 08, 2010 12:29:43 Eastern Standard Time

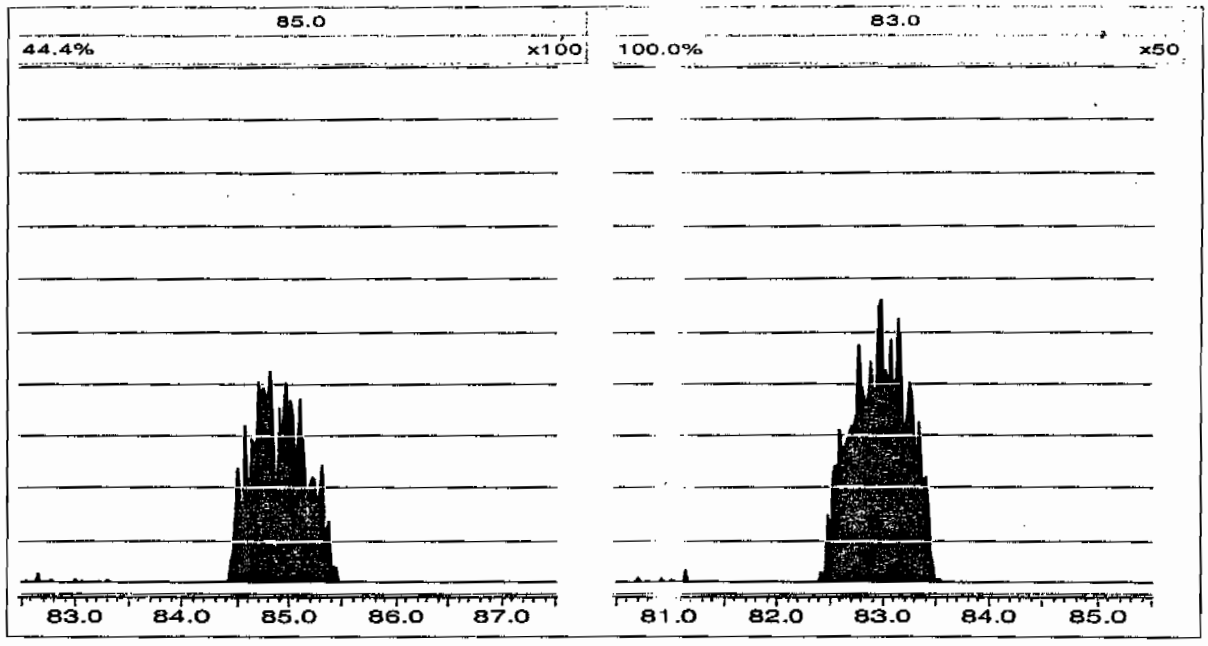

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1512-1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0208006a**	**08-FEB-10**	**24441.6**				
Lower Area Limit			**12220.8**				
Upper Area Limit			**48883.2**				
1202035565	per0208050a	08-FEB-10 19:15	22209.3	1.88	1.89273	1.007	
1202035566	per0208051a	08-FEB-10 19:21	23514.8	1.88	1.89277	1.007	
1202035573	per0208052a	08-FEB-10 19:28	23733.6	1.93	1.94248	1.006	
245975001	per0208066a	08-FEB-10 21:00	23335	1.88	1.89273	1.007	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8084

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1512-1

GEL Sample ID: 245975001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:00	per0208066a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:00	per0208066a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:00	per0208066a
	Perchlorate-O(18)			0.480	ug/L		1	08-FEB-10 21:00	per0208066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208066a
Date: 08-Feb-2010
Time: 21:00:09
ID: 245975001
Vial: 2:3,B

|LANL|950028|LCQ|1|

CWJ
02-09-10

Perchlorate

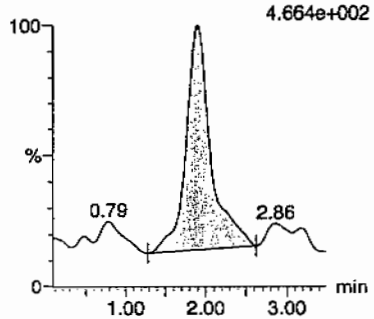

Perchlorate

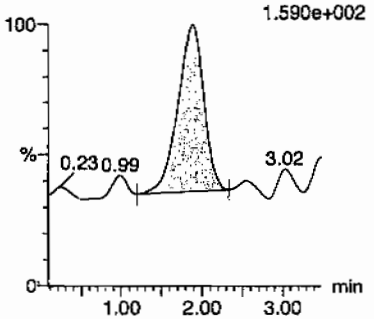

Perchlorate-101

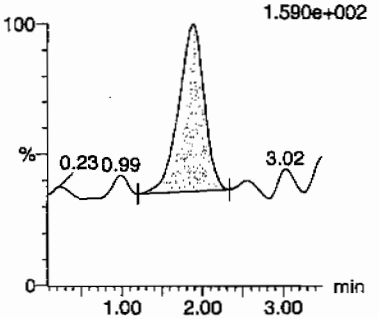

Perchlorate-O(18)

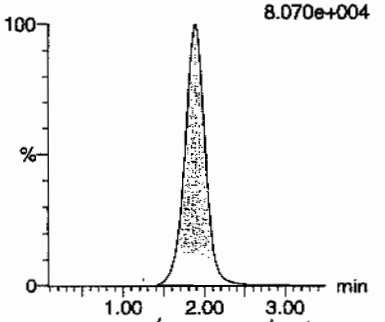

HMW 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245975001	Perchlorate	99 > 83	1.89	142.781	142.781	bb			0.0024			15.546	3.81
245975001	Perchlorate-101	101 > 85	1.88	37.453	37.453	bb			0.0020			15.831	
245975001	Perchlorate-O(18)	107 > 89	1.88	23335.006	23335.006	bb			0.4797	95.95	-4.05	1296.9...	

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1512-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 59530.66

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1512-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 18771.12

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Compound name: Perchlorate
Response Factor: 59530.6
RRF SD: 1393.77, % Relative SD: 2.34126
Response type: External Std, Area
Curve type: RF

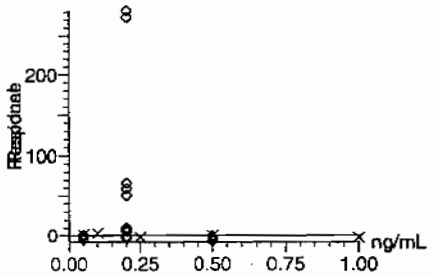

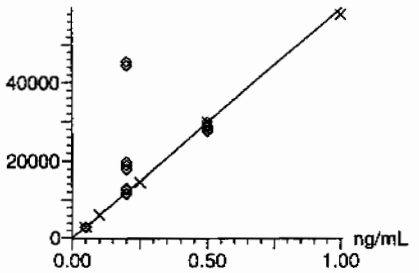

CWW
02-09-10

Compound name: Perchlorate-101
Response Factor: 18771.1
RRF SD: 687.466, % Relative SD: 3.66236
Response type: External Std, Area
Curve type: RF

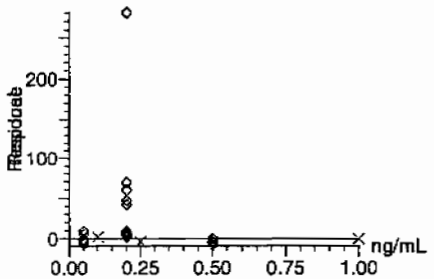

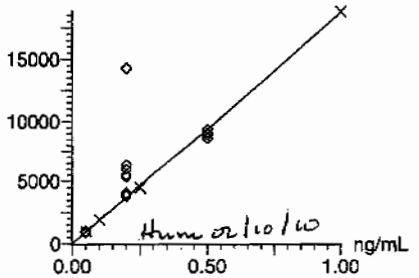

Hum 02/10/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 48640
RRF SD: 647.782, % Relative SD: 1.33179
Response type: External Std, Area
Curve type: RF

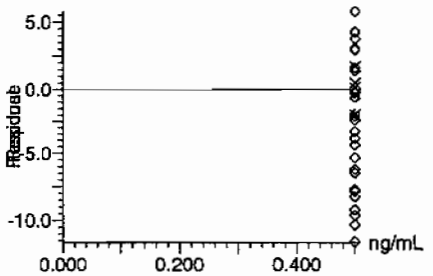

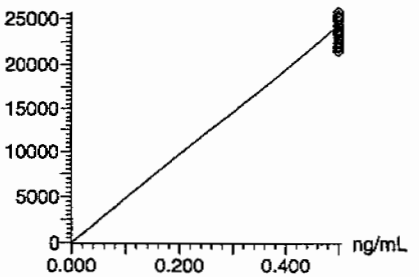

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1512-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	100.59	08-FEB-10 14:46	per0208009a
Perchlorate Isotope Ratio		3.19		08-FEB-10 14:46	per0208009a
Perchlorate-101	.5	.5	99.88	08-FEB-10 14:46	per0208009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208009a
Date: 08-Feb-2010
Time: 14:46:32
ID: WCL100128-06ICV
Vial: 1:2,A

Pwo
cwo
02-09-10

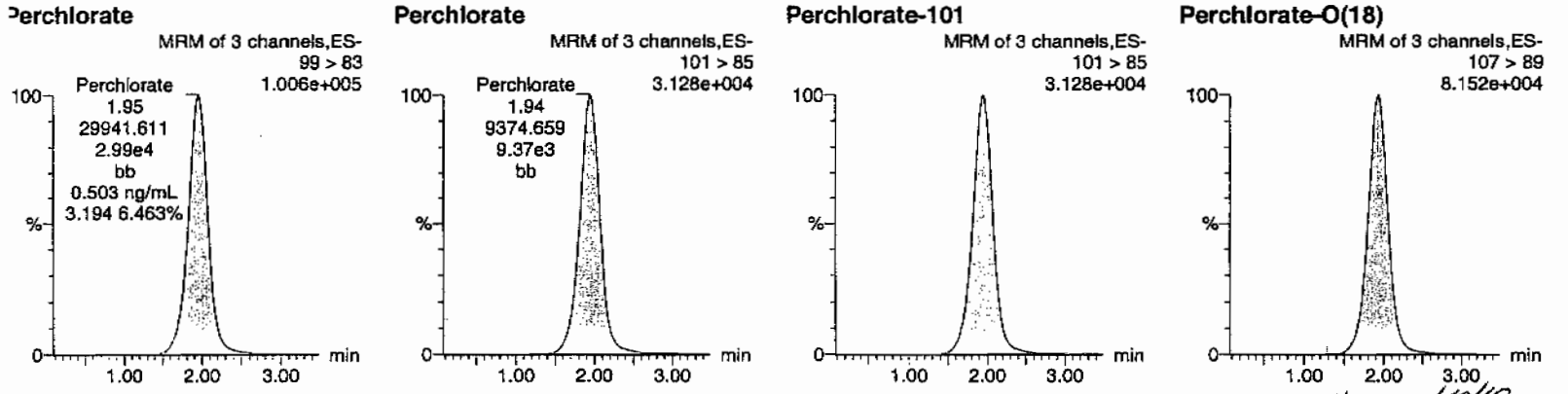

Hrw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	1.95	29941.611	29941.611	bb			0.5030	100.59	0.59	5446.9...	3.19
WCL100128-06ICV	Perchlorate-101	101 > 85	1.94	9374.659	9374.659	bb			0.4994	99.88	-0.12	264.354	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	1.93	24277.504	24277.504	bb			0.4991	99.83	-0.17	3258.6...	

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.49	08–FEB–10 16:05	per0208021a
Perchlorate Isotope Ratio		3.13		08–FEB–10 16:05	per0208021a
Perchlorate–101	.5	.5	99.83	08–FEB–10 16:05	per0208021a
Perchlorate	.5	.49	97.32	08–FEB–10 17:30	per0208034a
Perchlorate Isotope Ratio		3.24		08–FEB–10 17:30	per0208034a
Perchlorate–101	.5	.48	95.26	08–FEB–10 17:30	per0208034a
Perchlorate	.5	.48	95.6	08–FEB–10 18:55	per0208047a
Perchlorate Isotope Ratio		3.13		08–FEB–10 18:55	per0208047a
Perchlorate–101	.5	.49	97	08–FEB–10 18:55	per0208047a
Perchlorate	.5	.47	93.45	08–FEB–10 20:20	per0208060a
Perchlorate Isotope Ratio		3.05		08–FEB–10 20:20	per0208060a
Perchlorate–101	.5	.49	97.09	08–FEB–10 20:20	per0208060a
Perchlorate	.5	.48	96.67	08–FEB–10 21:45	per0208073a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.22		08–FEB–10 21:45	per0208073a
Perchlorate–101	.5	.48	95.12	08–FEB–10 21:45	per0208073a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208021a
Date: 08-Feb-2010
Time: 16:05:12
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-09-10

Perchlorate

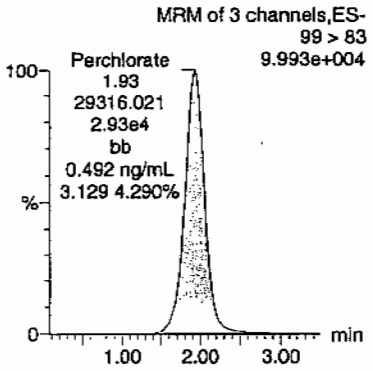

Perchlorate

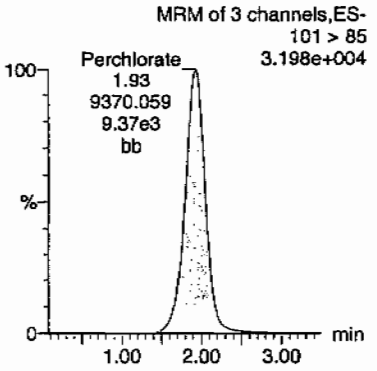

Perchlorate-101

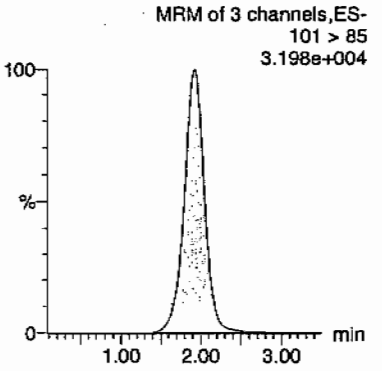

Perchlorate-O(18)

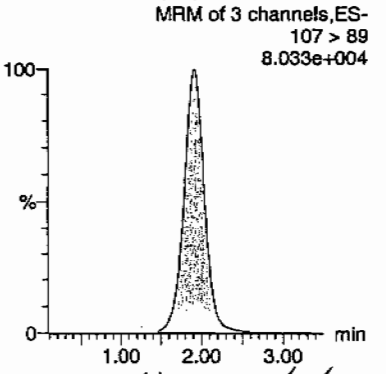

Hum on lodo

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.93	29316.021	29316.021	bb			0.4925	98.49	-1.51	1324.3...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.93	9370.059	9370.059	bb			0.4992	99.83	-0.17	4157.5...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.92	23385.551	23385.551	bb			0.4808	96.16	-3.84	3253.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208034a
Date: 08-Feb-2010
Time: 17:30:17
ID: WCL100128-06CCV
Vial: 1:2,A

PWD
AW
02-09-10

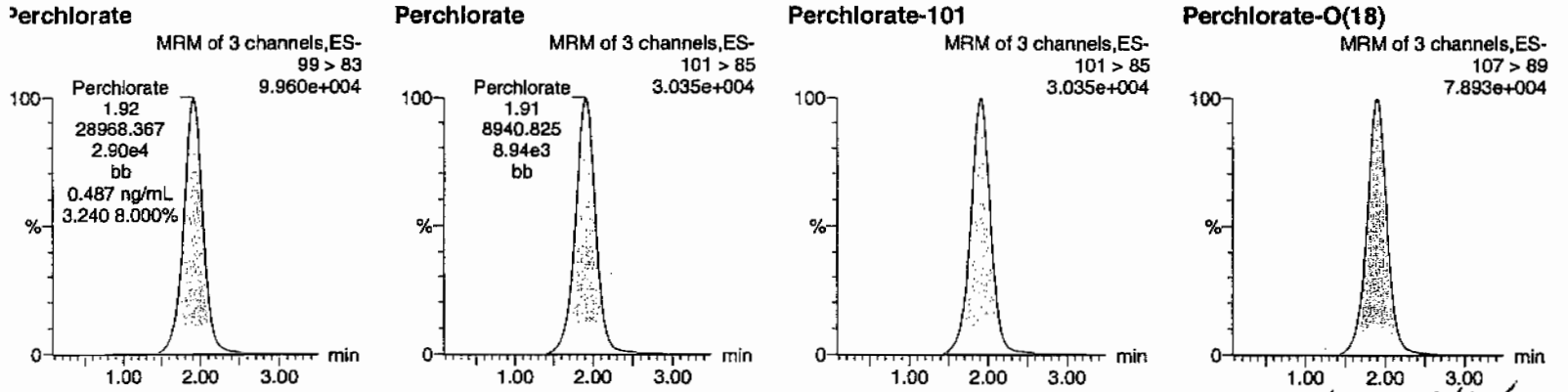

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.92	28968.367	28968.367	bb			0.4866	97.32	-2.68	7606.4...	3.24
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8940.825	8940.825	bb			0.4763	95.26	-4.74	3381.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.91	23019.350	23019.350	bb			0.4733	94.65	-5.35	4411.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208047a
Date: 08-Feb-2010
Time: 18:55:25
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-09-10

Perchlorate

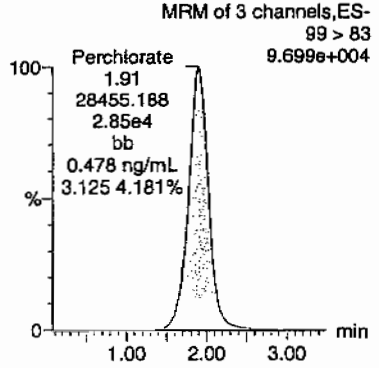

Perchlorate

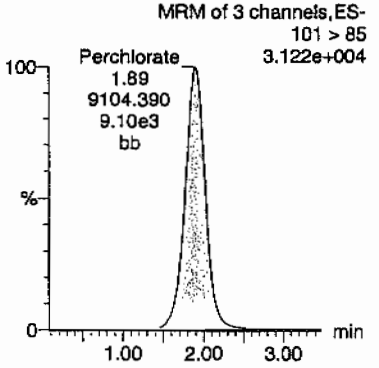

Perchlorate-101

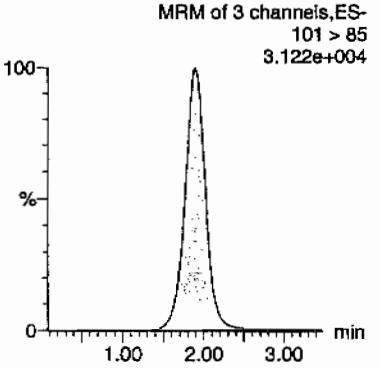

Perchlorate-O(18)

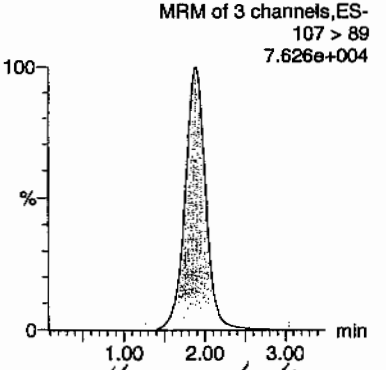

Hmwallio

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28455.188	28455.188	bb			0.4780	95.60	-4.40	6190.9...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9104.390	9104.390	bb			0.4850	97.00	-3.00	681.071	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22404.150	22404.150	bb			0.4606	92.12	-7.88	2959.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208060a
Date: 08-Feb-2010
Time: 20:20:32
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
and
02-09-10

Perchlorate

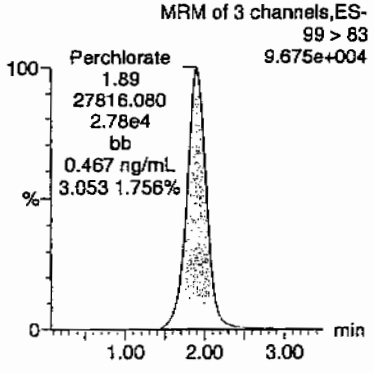

Perchlorate

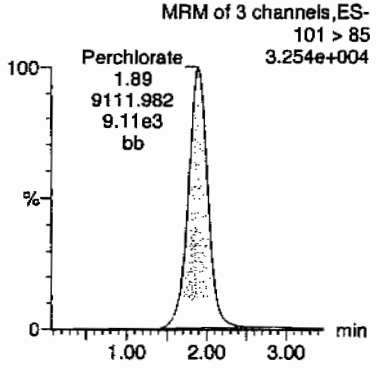

Perchlorate-101

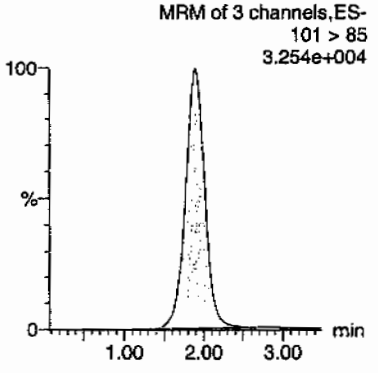

Perchlorate-O(18)

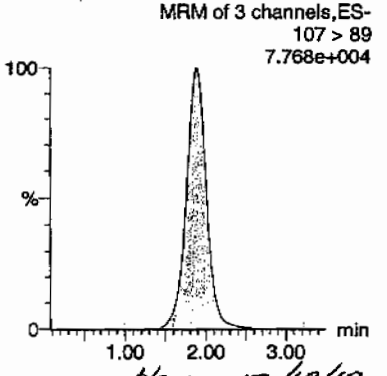

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	27816.080	27816.080	bb			0.4673	93.45	-6.55	1799.5...	3.05
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9111.982	9111.982	bb			0.4854	97.09	-2.91	1434.4...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22435.383	22435.383	bb			0.4613	92.25	-7.75	1805.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208073a
Date: 08-Feb-2010
Time: 21:45:55
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-09-10

Perchlorate

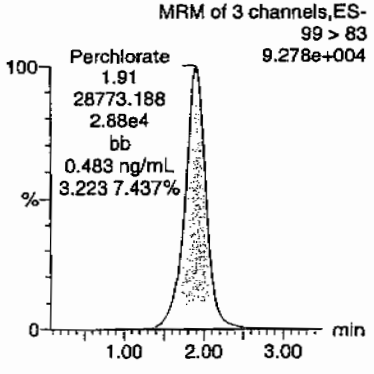

Perchlorate

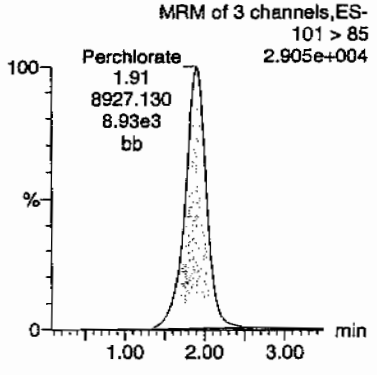

Perchlorate-101

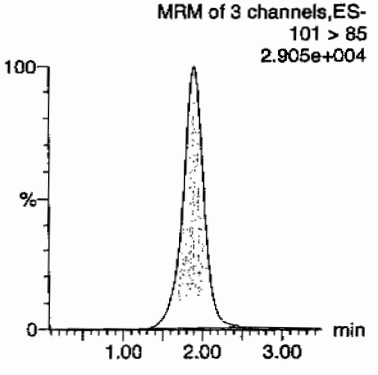

Perchlorate-O(18)

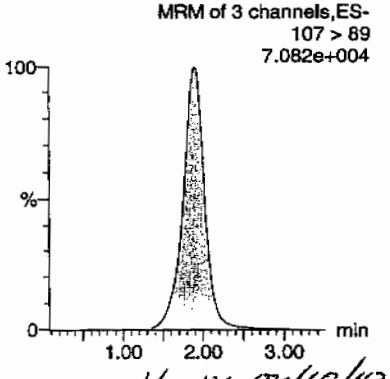

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28773.188	28773.188	bb			0.4833	96.67	-3.33	3174.1...	3.22
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8927.130	8927.130	bb			0.4756	95.12	-4.88	5417.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22077.664	22077.664	bb			0.4539	90.78	-9.22	7805.6...	

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.73	08–FEB–10 14:59	per0208011a
Perchlorate Isotope Ratio		2.96		08–FEB–10 14:59	per0208011a
Perchlorate–101	.05	.05	109.1	08–FEB–10 14:59	per0208011a
Perchlorate	.05	.05	100.29	08–FEB–10 16:18	per0208023a
Perchlorate Isotope Ratio		3.21		08–FEB–10 16:18	per0208023a
Perchlorate–101	.05	.05	98.94	08–FEB–10 16:18	per0208023a
Perchlorate	.05	.05	101.53	08–FEB–10 17:43	per0208036a
Perchlorate Isotope Ratio		3.05		08–FEB–10 17:43	per0208036a
Perchlorate–101	.05	.05	105.49	08–FEB–10 17:43	per0208036a
Perchlorate	.05	.05	101.45	08–FEB–10 19:08	per0208049a
Perchlorate Isotope Ratio		3.36		08–FEB–10 19:08	per0208049a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1512–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	95.78	08–FEB–10 19:08	per0208049a
Perchlorate	.05	.05	97.2	08–FEB–10 20:33	per0208062a
Perchlorate Isotope Ratio		3.14		08–FEB–10 20:33	per0208062a
Perchlorate–101	.05	.05	98.24	08–FEB–10 20:33	per0208062a
Perchlorate	.05	.05	99.1	08–FEB–10 21:59	per0208075a
Perchlorate Isotope Ratio		3.16		08–FEB–10 21:59	per0208075a
Perchlorate–101	.05	.05	99.59	08–FEB–10 21:59	per0208075a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208011a
Date: 08-Feb-2010
Time: 14:59:36
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
CWW
02-09-10

Perchlorate

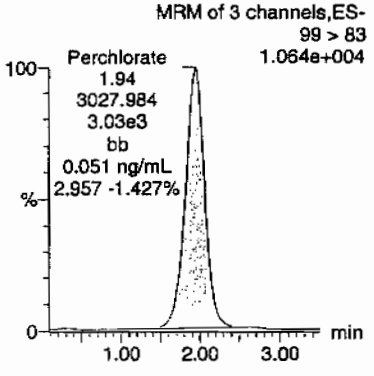

Perchlorate

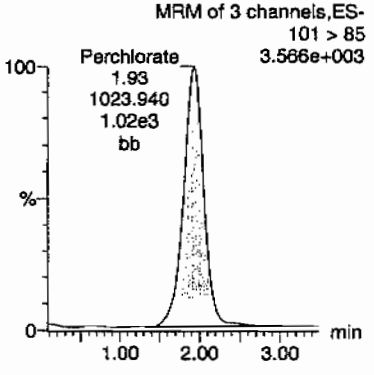

Perchlorate-101

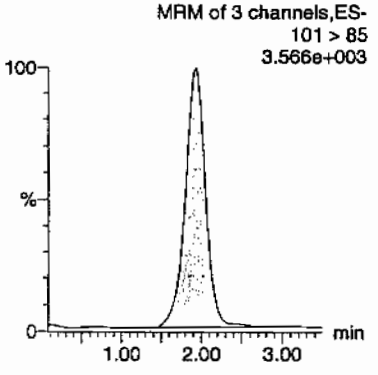

Perchlorate-O(18)

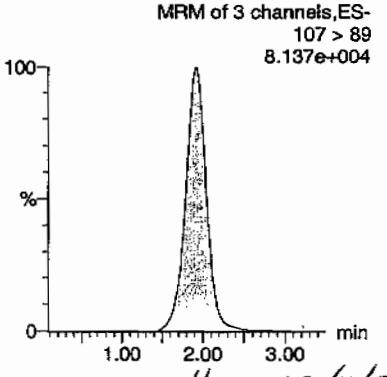

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.94	3027.984	3027.984	bb			0.0509	101.73	1.73	849.198	2.96
WCL100128-07CRI	Perchlorate-101	101 > 85	1.93	1023.940	1023.940	bb			0.0545	109.10	9.10	829.276	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.92	23852.451	23852.451	bb			0.4904	98.08	-1.92	6658.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208023a
Date: 08-Feb-2010
Time: 16:18:17
ID: WCL100128-07CRI
Vial: 1:2,B

Pwm
02-09-10

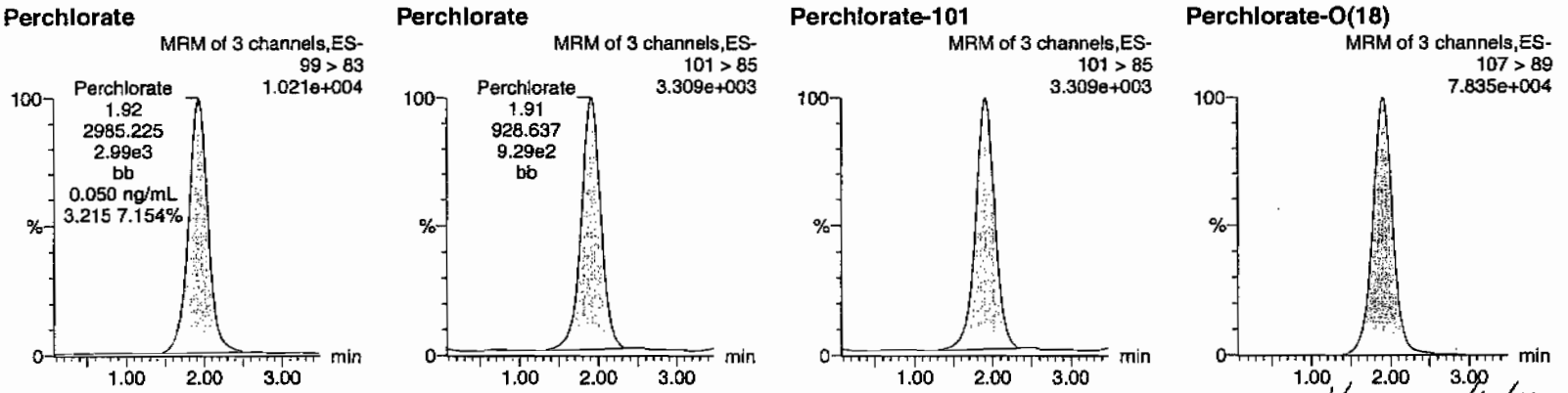

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.92	2985.225	2985.225	bb			0.0501	100.29	0.29	2277.7...	3.21
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	928.637	928.637	bb			0.0495	98.94	-1.06	1285.2...	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.91	22805.957	22805.957	bb			0.4689	93.77	-6.23	2391.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208036a
Date: 08-Feb-2010
Time: 17:43:22
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
ans
02-09-10

Perchlorate

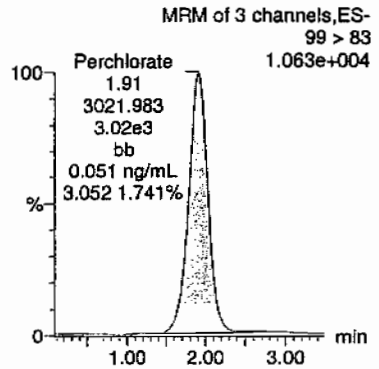

Perchlorate

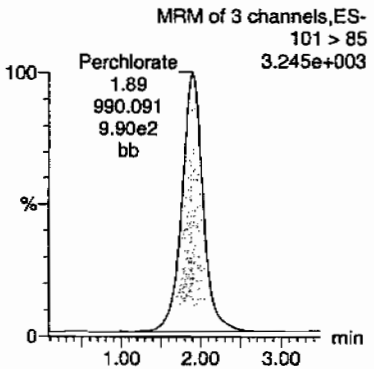

Perchlorate-101

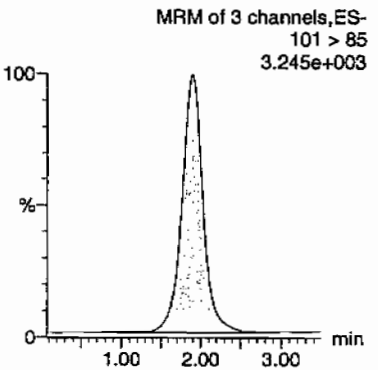

Perchlorate-O(18)

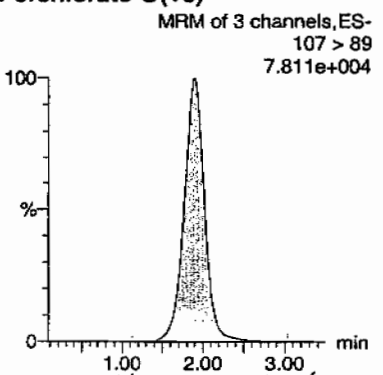

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3021.983	3021.983	bb			0.0508	101.53	1.53	1282.6...	3.05
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	990.091	990.091	bb			0.0527	105.49	5.49	30.390	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22734.426	22734.426	bb			0.4674	93.48	-6.52	4696.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208049a
Date: 08-Feb-2010
Time: 19:08:31
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-09-10

Perchlorate

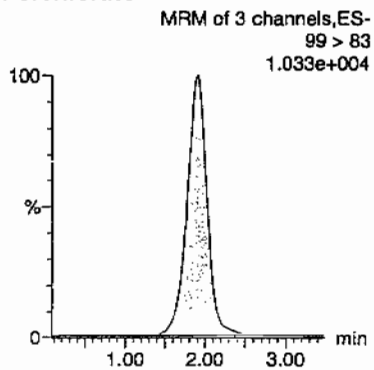

Perchlorate

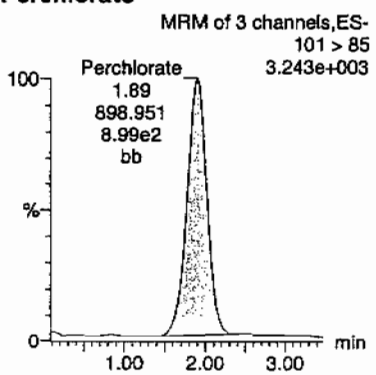

Perchlorate-101

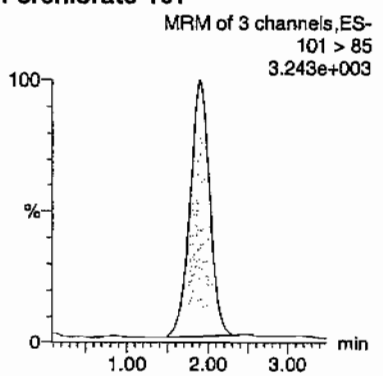

Perchlorate-O(18)

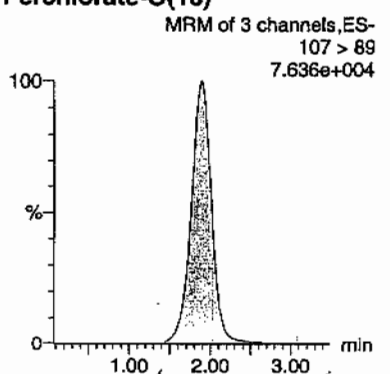

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3019.704	3019.704	bb			0.0507	101.45	1.45	1111.1...	3.36
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	898.951	898.951	bb			0.0479	95.78	-4.22	607.346	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22316.896	22316.896	bb			0.4588	91.76	-8.24	6290.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208062a
Date: 08-Feb-2010
Time: 20:33:51
ID: WCL100128-07CRI
Vial: 1:2,B

Pers
aw
02-09-10

Perchlorate

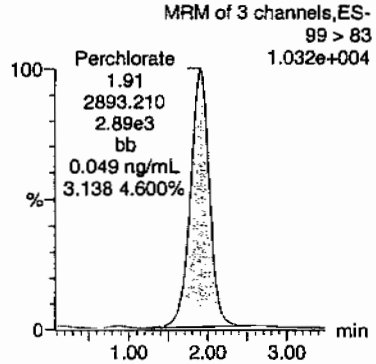

Perchlorate

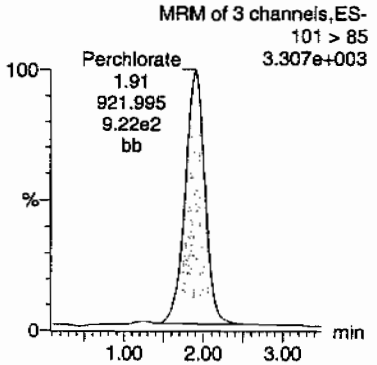

Perchlorate-101

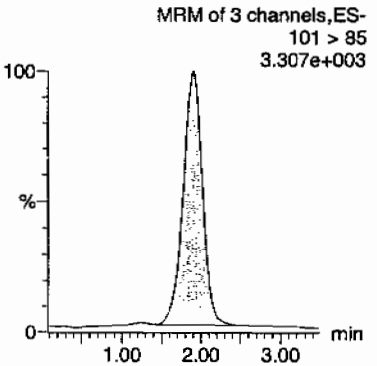

Perchlorate-O(18)

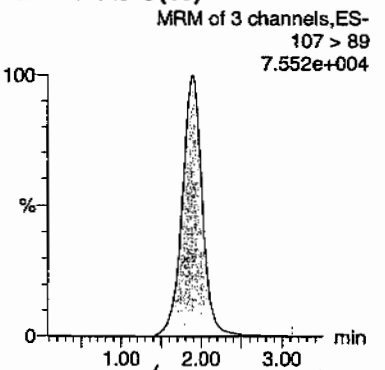

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	2893.210	2893.210	bb			0.0486	97.20	-2.80	767.866	3.14
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	921.995	921.995	bb			0.0491	98.24	-1.76	510.313	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	21979.691	21979.691	bb			0.4519	90.38	-9.62	1938.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208075a
Date: 08-Feb-2010
Time: 21:59:15
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
and
02-24-10

Perchlorate

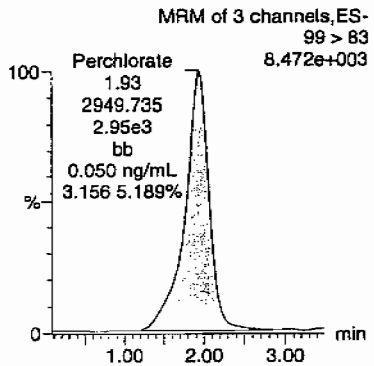

Perchlorate

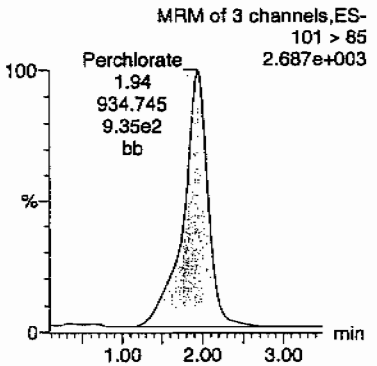

Perchlorate-101

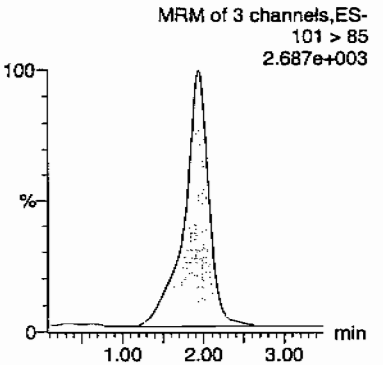

Perchlorate-O(18)

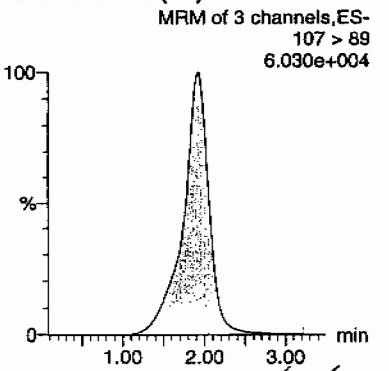

Hmm on 1/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.93	2949.735	2949.735	bb			0.0495	99.10	-0.90	555.102	3.16
WCL100128-07CRI	Perchlorate-101	101 > 85	1.94	934.745	934.745	bb			0.0498	99.59	-0.41	523.923	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.93	21809.545	21809.545	bb			0.4484	89.68	-10.32	1949.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1512-1

GEL Sample ID: 1202035565

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate Isotope Ratio						1	08-FEB-10 19:15	per0208050a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate-O(18)			0.457	ug/L		1	08-FEB-10 19:15	per0208050a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208050a
Date: 08-Feb-2010
Time: 19:15:05
ID: 1202035565
Vial: 2:1,A

LANL | 950028 | LCQ | MB | 1 |

GWJ 02-09-10

Perchlorate

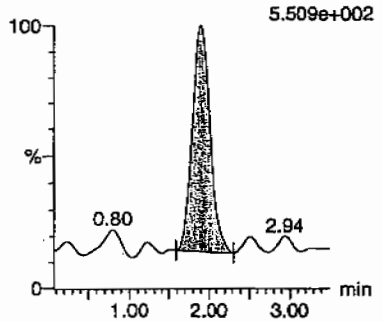

Perchlorate

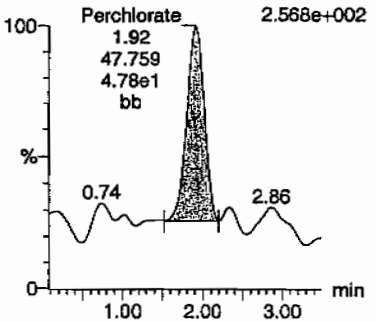

Perchlorate-101

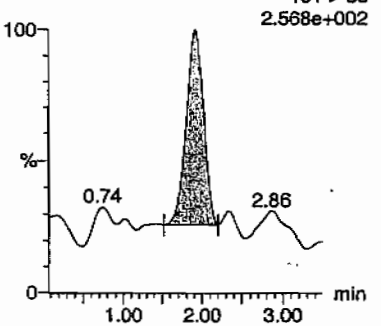

Perchlorate-O(18)

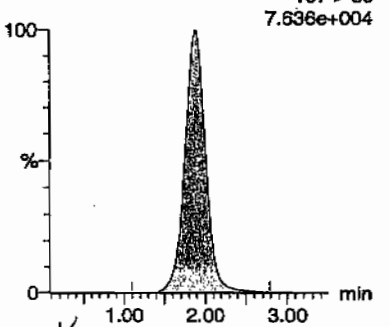

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035565	Perchlorate	99 > 83	1.89	121.925	121.925	bb			0.0020			39.295	2.55
1202035565	Perchlorate-101	101 > 85	1.92	47.759	47.759	bb			0.0025			14.790	
1202035565	Perchlorate-O(18)	107 > 89	1.88	22209.346	22209.346	bb			0.4566	91.32	-8.68	5376.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1512-1

GEL Sample ID: 1202035566

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	08-FEB-10 19:21	per0208051a
	Perchlorate Isotope Ratio			3.01			1	08-FEB-10 19:21	per0208051a
14797-73-0	Perchlorate-101	.05	.2	0.207	ug/L		1	08-FEB-10 19:21	per0208051a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 19:21	per0208051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208051a
Date: 08-Feb-2010
Time: 19:21:48
ID: 1202035566
Vial: 2:1,B

|LANL|950028|LCQ|LCS|11

CWW 02-09-10

Perchlorate

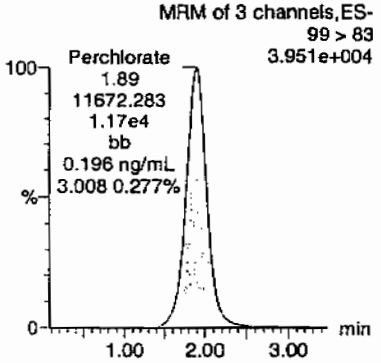

Perchlorate

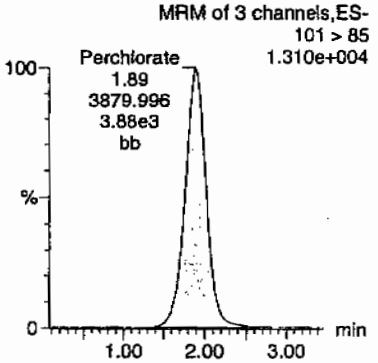

Perchlorate-101

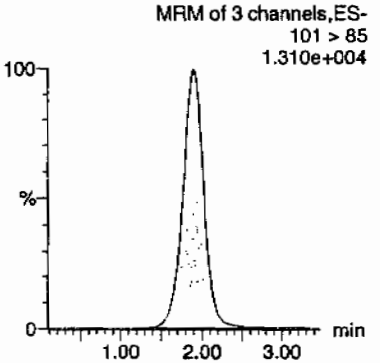

Perchlorate-O(18)

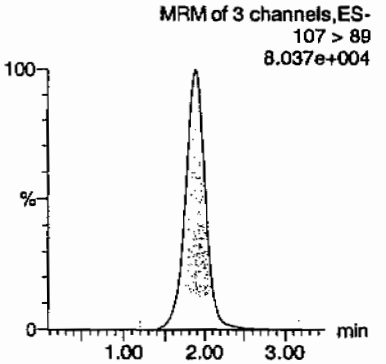

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035566	Perchlorate	99 > 83	1.89	11672.283	11672.283	bb			0.1961	98.04	-1.96	1706.5...	3.01
1202035566	Perchlorate-101	101 > 85	1.89	3879.996	3879.996	bb			0.2067	103.35	3.35	835.288	
1202035566	Perchlorate-O(18)	107 > 89	1.88	23514.770	23514.770	bb			0.4834	96.69	-3.31	6317.6...	

$$\frac{11672.283}{59530.6} = 0.1961$$

AMW 02/10/10

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950027 **Verified by:** _____

Analyst: Charles Wilson

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202035565 MB	07-FEB-2010 14:31:00	10	10	1
1202035566 LCS	07-FEB-2010 14:31:00	10	10	1
245911001	07-FEB-2010 14:31:00	10	10	1
1202035571 MS (245911001)	07-FEB-2010 14:31:00	10	10	1
1202035572 MSD (245911001)	07-FEB-2010 14:31:00	10	10	1
245922001	07-FEB-2010 14:31:00	10	10	1
245934001	07-FEB-2010 14:31:00	10	10	1
245934004	07-FEB-2010 14:31:00	10	10	1
245939001	07-FEB-2010 14:31:00	10	10	1
245939002	07-FEB-2010 14:31:00	10	10	1
245953001	07-FEB-2010 14:31:00	10	10	1
245965001	07-FEB-2010 14:31:00	10	10	1
245975001	07-FEB-2010 14:31:00	10	10	1
245981001	07-FEB-2010 14:31:00	10	10	1
246000001	07-FEB-2010 14:31:00	10	10	1
246007001	07-FEB-2010 14:31:00	10	10	1
246056001	07-FEB-2010 14:31:00	10	10	1
246056002	07-FEB-2010 14:31:00	10	10	1
246056003	07-FEB-2010 14:31:00	10	10	1
246056004	07-FEB-2010 14:31:00	10	10	1
246375001	07-FEB-2010 14:31:00	10	10	1
1202035567 MS (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035568 MSD (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035573 ICS	07-FEB-2010 14:31:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035573	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
LCS	1202035566	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035567	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035571	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035568	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035572	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL

Comments:

Desalting cartridges used: 100105-1-H & 091118-1-Ba

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/08/10
Extr. Injection Volume: 20uL
Sequence Number: per020810a
Initial Calibration Date: 02/08/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 02/10/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0208001a	IPB001	CWW	2/8/2010 13:54			1		USE	B
per0208002a	IPB001	CWW	2/8/2010 14:00			1		USE	B
per0208003a	WCLICAL-01	CWW	2/8/2010 14:07			1		USE	I
per0208004a	WCLICAL-02	CWW	2/8/2010 14:13			1		USE	I
per0208005a	WCLICAL-03	CWW	2/8/2010 14:20			1		USE	I
per0208006a	WCLICAL-04	CWW	2/8/2010 14:26			1		USE	I
per0208007a	WCLICAL-05	CWW	2/8/2010 14:33			1		USE	I
per0208008a	IPB002	CWW	2/8/2010 14:40			1		USE	B
per0208009a	WCLICV	CWW	2/8/2010 14:46			1		USE	C
per0208010a	IPB003	CWW	2/8/2010 14:53			1		USE	B
per0208011a	WCLCRI	CWW	2/8/2010 14:59			1		USE	C
per0208012a	1202035621	CWW	2/8/2010 15:06	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208013a	1202035622	CWW	2/8/2010 15:12	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208014a	1202035625	CWW	2/8/2010 15:19	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208015a	246431001	CWW	2/8/2010 15:25	950048	10-1650	1	LANL	DUSE-RE	S
per0208016a	1202035623	CWW	2/8/2010 15:32	950048	10-1650	1	LANL	DUSE-RE	S
per0208017a	1202035624	CWW	2/8/2010 15:39	950048	10-1650	1	LANL	DUSE-RE	S
per0208018a	246431002	CWW	2/8/2010 15:45	950048	10-1650	1	LANL	DUSE-RE	S
per0208019a	246431003	CWW	2/8/2010 15:52	950048	10-1650	1	LANL	DUSE-RE	S
per0208020a	246431004	CWW	2/8/2010 15:58	950048	10-1650	1	LANL	DUSE-RE	S
per0208021a	WCLCCV	CWW	2/8/2010 16:05			1		USE	C
per0208022a	IPB004	CWW	2/8/2010 16:11			1		USE	B
per0208023a	WCLCRI	CWW	2/8/2010 16:18			1		USE	C
per0208024a	246472001	CWW	2/8/2010 16:24	950048	10-1640	1	LANL	DUSE-RE	S
per0208025a	246472002	CWW	2/8/2010 16:31	950048	10-1640	1	LANL	DUSE-RE	S
per0208026a	IPB005	CWW	2/8/2010 16:37			1		USE	B
per0208027a	1202029082	CWW	2/8/2010 16:44	947249	VARIOUS	1	LANL	USE	S
per0208028a	1202029083	CWW	2/8/2010 16:51	947249	VARIOUS	1	LANL	USE	S
per0208029a	1202029088	CWW	2/8/2010 16:57	947249	VARIOUS	1	LANL	USE	S

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per0208030a	245605003	CWW	2/8/2010 17:04	947249	10-1413	200	LANL	USE	S
per0208031a	245608002	CWW	2/8/2010 17:10	947249	10-1415	1	LANL	USE	S
per0208032a	245673001	CWW	2/8/2010 17:17	947249	10-1442	100	LANL	USE	S
per0208033a	245673003	CWW	2/8/2010 17:23	947249	10-1442	200	LANL	USE	S
per0208034a	WCLCCV	CWW	2/8/2010 17:30			1		USE	C
per0208035a	IPB006	CWW	2/8/2010 17:36			1		USE	B
per0208036a	WCLCRI	CWW	2/8/2010 17:43			1		USE	C
per0208037a	245673006	CWW	2/8/2010 17:49	947249	10-1442	200	LANL	USE	S
per0208038a	245676001	CWW	2/8/2010 17:56	947249	10-1446	1	LANL	USE	S
per0208039a	1202029086	CWW	2/8/2010 18:03	947249	10-1446	1	LANL	USE	S
per0208040a	1202029087	CWW	2/8/2010 18:09	947249	10-1446	1	LANL	USE	S
per0208041a	245791001	CWW	2/8/2010 18:16	947249	10-1467	1	LANL	USE	S
per0208042a	1202029084	CWW	2/8/2010 18:22	947249	10-1467	1	LANL	USE	S
per0208043a	1202029085	CWW	2/8/2010 18:29	947249	10-1467	1	LANL	USE	S
per0208044a	245791003	CWW	2/8/2010 18:35	947249	10-1467	1	LANL	USE	S
per0208045a	245791006	CWW	2/8/2010 18:42	947249	10-1467	1	LANL	USE	S
per0208046a	245791007	CWW	2/8/2010 18:48	947249	10-1467	1	LANL	USE	S
per0208047a	WCLCCV	CWW	2/8/2010 18:55			1		USE	C
per0208048a	IPB007	CWW	2/8/2010 19:01			1		USE	B
per0208049a	WCLCRI	CWW	2/8/2010 19:08			1		USE	C
per0208050a	1202035565	CWW	2/8/2010 19:15	950028	VARIOUS	1	LANL	USE	S
per0208051a	1202035566	CWW	2/8/2010 19:21	950028	VARIOUS	1	LANL	USE	S
per0208052a	1202035573	CWW	2/8/2010 19:28	950028	VARIOUS	1	LANL	USE	S
per0208053a	245911001	CWW	2/8/2010 19:34	950028	10-1487-1	1	LANL	USE	S
per0208054a	1202035571	CWW	2/8/2010 19:41	950028	10-1487-1	1	LANL	USE	S
per0208055a	1202035572	CWW	2/8/2010 19:47	950028	10-1487-1	1	LANL	USE	S
per0208056a	245922001	CWW	2/8/2010 19:54	950028	10-1493-1	1	LANL	USE	S
per0208057a	245934001	CWW	2/8/2010 20:00	950028	10-1502	1	LANL	DUSE-DL	S
per0208058a	245934004	CWW	2/8/2010 20:07	950028	10-1502	1	LANL	DUSE-RA	S
per0208059a	245939001	CWW	2/8/2010 20:14	950028	10-1506-1	1	LANL	USE	S
per0208060a	WCLCCV	CWW	2/8/2010 20:20			1		USE	C
per0208061a	IPB008	CWW	2/8/2010 20:27			1		USE	B
per0208062a	WCLCRI	CWW	2/8/2010 20:33			1		USE	C
per0208063a	245939002	CWW	2/8/2010 20:40	950028	10-1506-1	1	LANL	USE	S
per0208064a	245953001	CWW	2/8/2010 20:47	950028	10-1508-1	1	LANL	USE	S
per0208065a	245965001	CWW	2/8/2010 20:53	950028	10-1511-1	1	LANL	USE	S
per0208066a	245975001	CWW	2/8/2010 21:00	950028	10-1512-1	1	LANL	USE	S

per0208067a	245981001	CWW	2/8/2010 21:06	950028	10-1514-1	1	LANL	USE	S
per0208068a	246000001	CWW	2/8/2010 21:13	950028	10-1517-1	1	LANL	USE	S
per0208069a	246007001	CWW	2/8/2010 21:19	950028	10-1520-1	1	LANL	USE	S
per0208070a	246056001	CWW	2/8/2010 21:26	950028	10-1545-1	1	LANL	USE	S
per0208071a	246056002	CWW	2/8/2010 21:32	950028	10-1545-1	1	LANL	USE	S
per0208072a	246056003	CWW	2/8/2010 21:39	950028	10-1545-1	1	LANL	USE	S
per0208073a	WCLCCV	CWW	2/8/2010 21:45			1		USE	C
per0208074a	IPB009	CWW	2/8/2010 21:52			1		USE	B
per0208075a	WCLCRI	CWW	2/8/2010 21:59			1		USE	C
per0208076a	246056004	CWW	2/8/2010 22:05	950028	10-1545-1	1	LANL	USE	S
per0208077a	246375001	CWW	2/8/2010 22:12	950028	10-1609	1	LANL	USE	S
per0208078a	1202035567	CWW	2/8/2010 22:19	950028	10-1609	1	LANL	USE	S
per0208079a	1202035568	CWW	2/8/2010 22:25	950028	10-1609	1	LANL	USE	S
per0208080a	IPB010	CWW	2/8/2010 22:32			1		USE	B
per0208081a	1262643 Supp	CWW	2/8/2010 22:38	Screen	Inhouse	1	GEL	DUSE	S
per0208082a	1202035625	CWW	2/8/2010 22:45	950048	VARIOUS	1	LANL	DUSE	S
per0208083a	WCLCCV	CWW	2/8/2010 22:52			1		USE	C
per0208084a	IPB011	CWW	2/8/2010 22:58			1		USE	B
per0208085a	WCLCRI	CWW	2/8/2010 23:05			1		USE	C

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208054a
Date: 08-Feb-2010
Time: 19:41:23
ID: 1202035571 |LANL|950028|LZQ|MS|1|
Vial: 2:1,E

WWJ 02-04-10

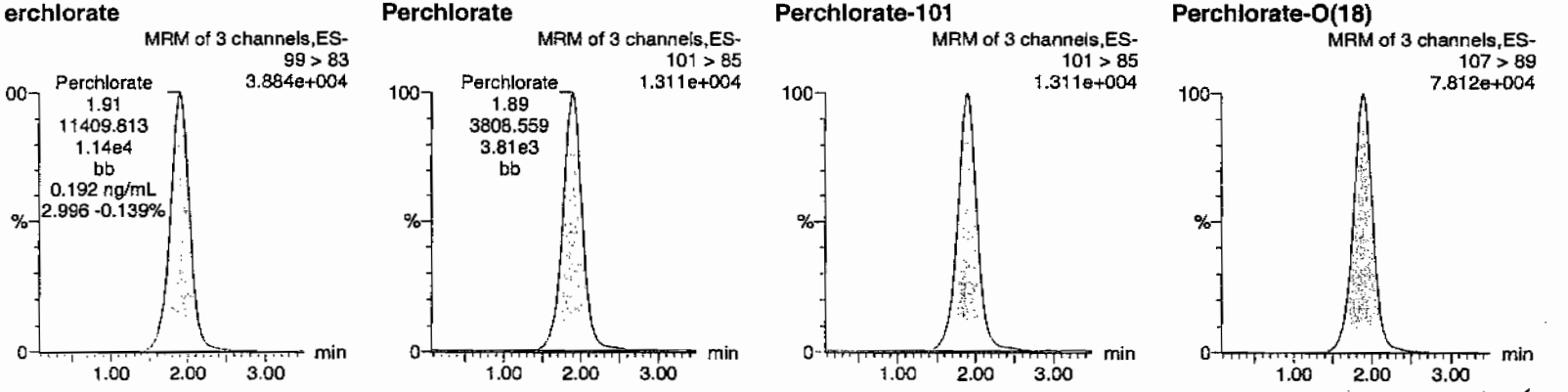

Hmm 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202035571	Perchlorate	99 > 83	1.91	11409.813	11409.813	bb			0.1917	95.83	-4.17	2471.6...	3.00
202035571	Perchlorate-101	101 > 85	1.89	3808.559	3808.559	bb			0.2029	101.45	1.45	676.220	
202035571	Perchlorate-O(18)	107 > 89	1.89	22745.916	22745.916	bb			0.4676	93.53	-6.47	4602.2...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208055a
Date: 08-Feb-2010
Time: 19:47:53
ID: 1202035572
Vial: 2:1,F

|LANL|950028|LLQ|MSD|1|

02-09-10

Perchlorate **Perchlorate** **Perchlorate-101** **Perchlorate-O(18)**

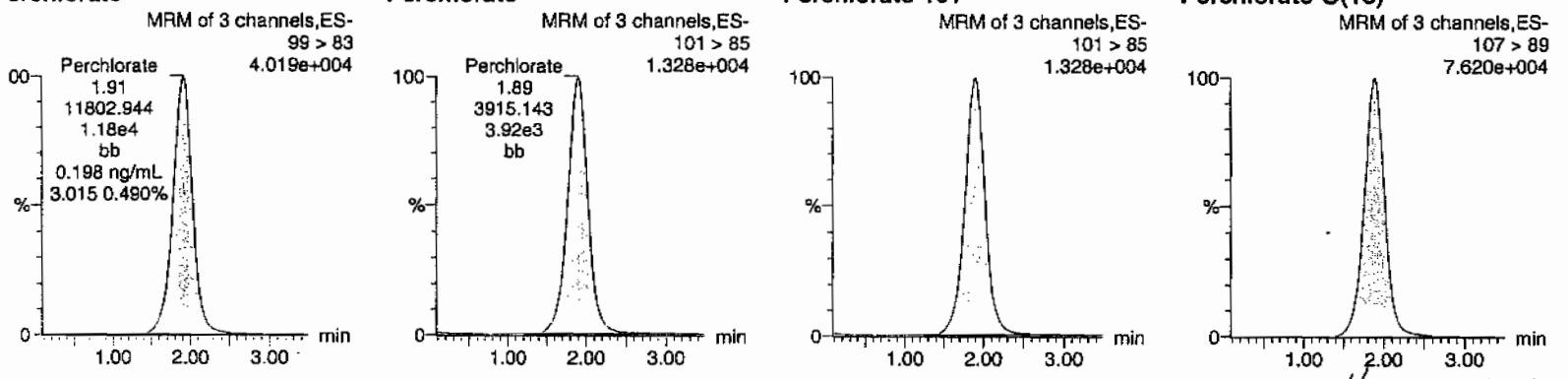

Hmm 02/10/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202035572	Perchlorate	99 > 83	1.91	11802.944	11802.944	bb			0.1983	99.13	-0.87	5921.1...	3.01
202035572	Perchlorate-101	101 > 85	1.89	3915.143	3915.143	bb			0.2086	104.29	4.29	847.965	
202035572	Perchlorate-O(18)	107 > 89	1.89	22449.852	22449.852	bb			0.4616	92.31	-7.69	7045.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1512

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	948575
Prep Batch Number:	948574

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
245969001	RE15-10-7880
245969002	RE15-10-7891
245969003	RE15-10-7892
245969004	RE15-10-7967
245969005	RE15-10-7976
245969006	RE15-10-7968
245969007	RE15-10-7965
245969008	RE15-10-7975
245969009	RE15-10-7978
245969010	RE15-10-7970
245969011	RE15-10-7964
245969012	RE15-10-7973
245969013	RE15-10-7962
245969014	RE15-10-7963

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245969015	RE15-10-7977
1202032101	Method Blank (MB)
1202032102	Laboratory Control Sample (LCS)
1202032103	245969001(RE15-10-7880) Matrix Spike (MS)
1202032104	245969001(RE15-10-7880) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Sample 245969001 (RE15-10-7880) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
Sample 245969011 (RE15-10-7964) failed ISTD acceptance criteria. It was re-analyzed and confirmed the failure. Please see the Form 8 in the data package for the exact recoveries. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 798580.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. Sample 245969007 (RE15-10-7965) was further diluted to bring the over range concentration within the calibration range. The final dilution in each case takes the 1:1 v/v dilution into account.

Sample Re-extraction/Re-analysis
Sample 245969011 (RE15-10-7964) failed ISTD acceptance criteria. It was re-analyzed and confirmed the failure. Please see the Form 8 in the data package for the exact recoveries. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 798580.

Sample 245969010 (RE15-10-7970) failed ISTD acceptance criteria. It was re-analyzed and passed acceptance criteria. The re-analysis is passed and is reported.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

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Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered 2,4-Diamino-6-nitrotoluene at 117% with recovery limits of 52-114% and recovered 2,6-Diamino-4-nitrotoluene at 148% with recovery limits of 64-122%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 798580.

QC Sample Designation
Sample 245969001 (RE15-10-7880) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recovered 2,6-Diamino-4-nitrotoluene at 144%. The recovery limits are 55-130%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 798580.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovered 2,6-Diamino-4-nitrotoluene at 130.4%. The recovery limits are 55-130%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 798580.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the Secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

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Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 798580 was generated fort his SDG.

The LCS recovered 2,4-Diamino-6-nitrotoluene at 117% with recovery limits of 52-114% and recovered 2,6-Diamino-4-nitrotoluene at 148% with recovery limits of 64-122%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported.

The MS recovered 2,6-Diamino-4-nitrotoluene at 144%. The recovery limits are 55-130%. The MSD recovered 2,6-Diamino-4-nitrotoluene at 130.4%. The recovery limits are 55-130%. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported. Please see data exception report 798580.

Sample 245969011 (RE15-10-7964) failed ISTD acceptance criteria. It was re-analyzed and confirmed the failure. Please see the Form 8 in the data package for the exact recoveries. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M Mann **Date:** 03/05/10

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SAMPLE DATA SUMMARY

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969001

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301022a

Date Analyzed: 02-MAR-10 01:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969001

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220020.wiff

Date Analyzed: 22-FEB-10 22:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7891

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969002

Sample Amount 2

Moisture: 26.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301025a

Date Analyzed: 02-MAR-10 03:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7891

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969002

Sample Amount 2

Moisture: 26.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220023.wiff

Date Analyzed: 22-FEB-10 22:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7892

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969003

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301026a

Date Analyzed: 02-MAR-10 03:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7892

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969003

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220027.wiff

Date Analyzed: 22-FEB-10 23:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7967

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969004

Sample Amount 2

Moisture: 24.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301027a

Date Analyzed: 02-MAR-10 04:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	205	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7967

Lab Code: GEI

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969004

Sample Amount 2

Moisture: 24.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220028.wiff

Date Analyzed: 23-FEB-10 00:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	3770	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7976

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969005

Sample Amount 2

Moisture: 3.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301028a

Date Analyzed: 02-MAR-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7976

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969005

Sample Amount 2

Moisture: 3.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220029.wiff

Date Analyzed: 23-FEB-10 00:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7968

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969006

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301029a

Date Analyzed: 02-MAR-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7968

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969006

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220030.wiff

Date Analyzed: 23-FEB-10 00:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301033a

Date Analyzed: 02-MAR-10 07:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	423	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXP0301042a

Date Analyzed: 02-MAR-10 11:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
2691-41-0	HMX	35300	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220031.wiff

Date Analyzed: 23-FEB-10 00:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5310	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7975

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969008

Sample Amount 2

Moisture: 25.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301034a

Date Analyzed: 02-MAR-10 07:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7975

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969008

Sample Amount 2

Moisture: 25.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220032.wiff

Date Analyzed: 23-FEB-10 01:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7978

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969009

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301035a

Date Analyzed: 02-MAR-10 08:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7978

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969009

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220033.wiff

Date Analyzed: 23-FEB-10 01:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7970

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301071a

Date Analyzed: 03-MAR-10 02:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	559	
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	158	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7970

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220034.wiff

Date Analyzed: 23-FEB-10 01:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	812	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7964

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969011

Sample Amount 2

Moisture: 10.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301072a

Date Analyzed: 03-MAR-10 02:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7964

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969011

Sample Amount 2

Moisture: 10.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220035.wiff

Date Analyzed: 23-FEB-10 01:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7973

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969012

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301038a

Date Analyzed: 02-MAR-10 09:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7973

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969012

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220036.wiff

Date Analyzed: 23-FEB-10 02:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7962

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969013

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301039a

Date Analyzed: 02-MAR-10 10:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7962

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969013

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220040.wiff

Date Analyzed: 23-FEB-10 03:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7963

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969014

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301040a

Date Analyzed: 02-MAR-10 10:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7963

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969014

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220041.wiff

Date Analyzed: 23-FEB-10 03:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7977

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969015

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301041a

Date Analyzed: 02-MAR-10 11:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7977

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969015

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220042.wiff

Date Analyzed: 23-FEB-10 03:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1512

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
245969001	RE15-10-7880	91.4	70 – 144	
245969001	RE15-10-7880	116	70 – 144	
245969002	RE15-10-7891	89.4	70 – 144	
245969002	RE15-10-7891	120	70 – 144	
245969003	RE15-10-7892	107	70 – 144	
245969003	RE15-10-7892	129	70 – 144	
245969004	RE15-10-7967	101	70 – 144	
245969004	RE15-10-7967	125	70 – 144	
245969005	RE15-10-7976	97	70 – 144	
245969005	RE15-10-7976	121	70 – 144	
245969006	RE15-10-7968	101	70 – 144	
245969006	RE15-10-7968	119	70 – 144	
245969007	RE15-10-7965	99.3	70 – 144	
245969007	RE15-10-7965	124	70 – 144	
245969007	RE15-10-7965	84.7	70 – 144	
245969008	RE15-10-7975	114	70 – 144	
245969008	RE15-10-7975	124	70 – 144	
245969009	RE15-10-7978	103	70 – 144	
245969009	RE15-10-7978	122	70 – 144	
245969010	RE15-10-7970	99.4	70 – 144	
245969010	RE15-10-7970	125	70 – 144	
245969011	RE15-10-7964	98.5	70 – 144	
245969011	RE15-10-7964	126	70 – 144	
245969012	RE15-10-7973	104	70 – 144	
245969012	RE15-10-7973	130	70 – 144	
245969013	RE15-10-7962	101	70 – 144	
245969013	RE15-10-7962	127	70 – 144	
245969014	RE15-10-7963	84.8	70 – 144	
245969014	RE15-10-7963	122	70 – 144	
245969015	RE15-10-7977	96.6	70 – 144	
245969015	RE15-10-7977	129	70 – 144	
1202032101	MB for batch 948574	95.7	70 – 144	
1202032101	MB for batch 948574	110	70 – 144	
1202032102	LCS for batch 948574	96.3	70 – 144	
1202032102	LCS for batch 948574	114	70 – 144	
1202032103	RE15-10-7880(245969001MS)	103	70 – 144	
1202032103	RE15-10-7880(245969001MS)	122	70 – 144	

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High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1512

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
1202032104	RE15–10–7880(245969001MSD)	101	70 – 144	
1202032104	RE15–10–7880(245969001MSD)	115	70 – 144	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1512

Extract Batch Code: 948574

Date Extracted: 09-FEB-10

GEL LCS ID: 1202032102

GEL LCSDUP ID:

Analysis Date/Time: 02-MAR-10 01:22

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4670	93.3					69 – 126
2,4,6-Trinitrotoluene	5000	5190	104					73 – 149
2,4-Dinitrotoluene	5000	5360	107					87 – 137
2,6-Dinitrotoluene	5000	4850	97.1					89 – 120
2-Amino-4,6-dinitrotoluene	5000	5460	109					90 – 130
4-Amino-2,6-dinitrotoluene	5000	5110	102					84 – 130
HMX	5000	4670	93.5					58 – 138
Nitrobenzene	5000	4970	99.3					71 – 122
PETN	5000	5390	108					64 – 137
RDX	5000	4980	99.6					81 – 137
Tetryl	5000	2580	51.6					51 – 112
m-Dinitrobenzene	5000	4610	92.2					83 – 122
m-Nitrotoluene	5000	4180	83.6					73 – 118
o-Nitrotoluene	5000	4510	90.1					72 – 119
p-Nitrotoluene	5000	4640	92.7					67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1512

Extract Batch Code: 948574

Date Extracted: 09-FEB-10

GEL LCS ID: 1202032102

GEL LCSDUP ID:

Analysis Date/Time: 22-FEB-10 21:44

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	5870	117	*							52 – 114
2,6-Diamino-4-nitrotoluene	5000	7390	148	*							64 – 122
3,5-Dinitroaniline	5000	5110	102								70 – 127
TATB	7500	6400	85.3								28 – 162
tris(o-cresyl) phosphate	5000	4930	98.6								84 – 119

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7880

Lab Code: GEL

GEL Job No (SDG) 10-1512

Extract Batch Code: 948574

Date Extracted: 09-FEB-10

GEL Spike ID: 1202032103

GEL SpikeDup ID: 1202032104

Analysis Date/Time: 02-MAR-10 02:21

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4980	99.6	5440	109	8.84	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	5760	115	5770	115	.091	30	76 – 144
2,4-Dinitrotoluene	5000	0	5400	108	4590	91.9	16.2	30	86 – 135
2,6-Dinitrotoluene	5000	0	5010	100	4890	97.7	2.46	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	5680	114	5590	112	1.67	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5310	106	5290	106	.517	30	72 – 143
HMX	5000	0	5410	108	5280	106	2.41	30	51 – 144
Nitrobenzene	5000	0	4840	96.8	4200	84.1	14.1	30	70 – 122
PETN	5000	0	5750	115	5200	104	9.94	30	60 – 140
RDX	5000	0	5760	115	5270	105	8.91	30	59 – 152
Tetryl	5000	0	3880	77.6	4210	84.1	8.06	30	36 – 124
m-Dinitrobenzene	5000	0	4740	94.8	5110	102	7.56	30	85 – 118
m-Nitrotoluene	5000	0	4480	89.7	4580	91.6	2.1	30	70 – 120
o-Nitrotoluene	5000	0	4640	92.7	4480	89.7	3.34	30	69 – 123
p-Nitrotoluene	5000	0	4830	96.7	4960	99.1	2.52	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-7880

Lab Code: GEL

GEL Job No (SDG) 10-1512

Extract Batch Code: 948574

Date Extracted: 09-FEB-10

GEL Spike ID: 1202032103

GEL SpikeDup ID: 1202032104

Analysis Date/Time: 22-FEB-10 22:16

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
3,5-Dinitroaniline	5000	0	5130	103	5170	103	.777	30	73 – 129
TATB	7500	0	7500	100	8590	115	13.5	30	29 – 155
tris(o-cresyl) phosphate	5000	11	4960	99	4900	97.8	1.22	30	72 – 127
2,6-Diamino-4-nitrotoluene	5000	0	7220	144 *	6520	130 *	10.2	30	55 – 130
2,4-Diamino-6-nitrotoluene	5000	0	6060	121	5970	119	1.5	26	34 – 135

#Column to be used to flag recovery and RPD values with an asterisk

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1512

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01–MAR–10 15:33

GEL Data File: EXP0301001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	506.135
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	544.922
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010
Calibration: Untitled, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301001a
Date: 01-Mar-2010
Time: 15:33:10
ID: XIBLK01
Vial: 1:1,A

MMT 3/2/10

HMX

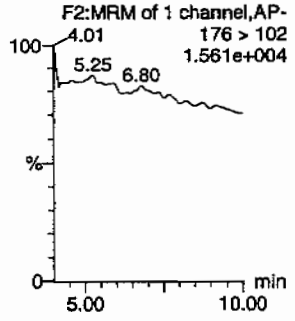

RDX

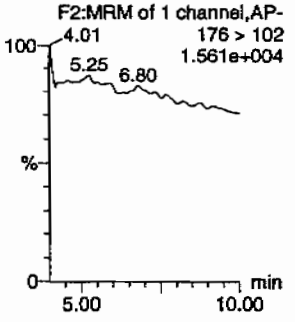

135-Trinitrobenzene

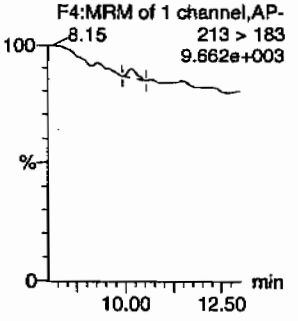

13-Dinitrobenzene-d4

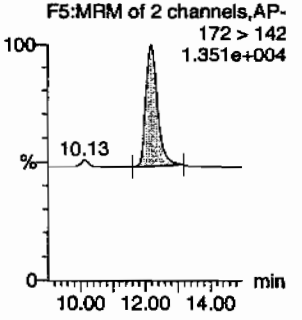

13-Dinitrobenzene

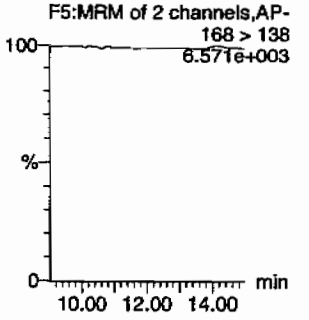

Tetryl

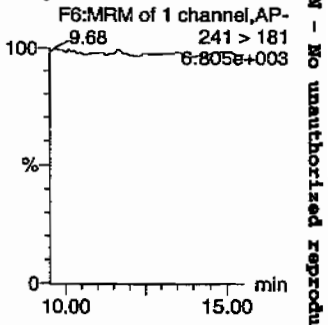

Nitrobenzene

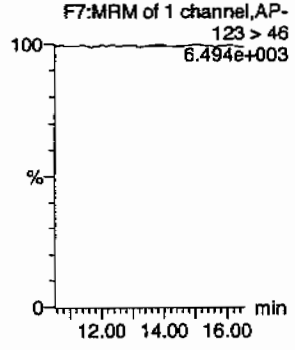

4-Amino-26-dinitrotoluene

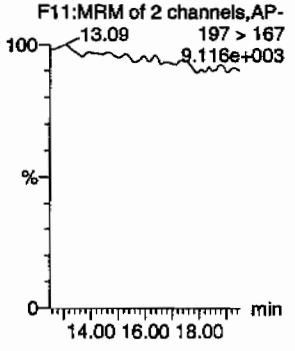

2-Amino-46-dinitrotoluene

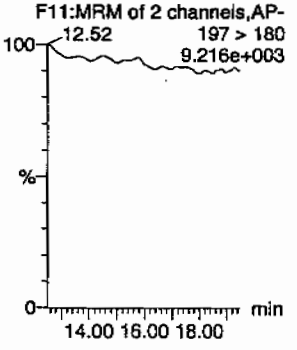

246-Trinitrotoluene

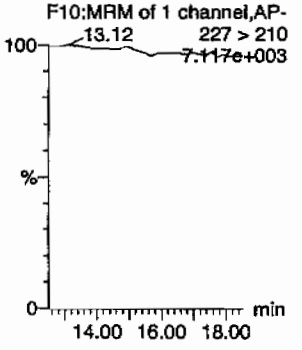

34-dinitrotoluene

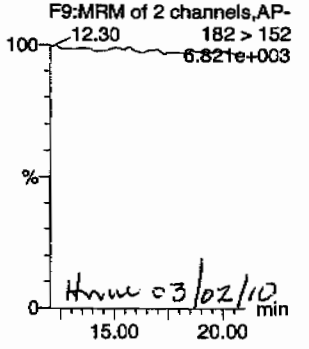

Hmm 03/02/10

26-dinitrotoluene

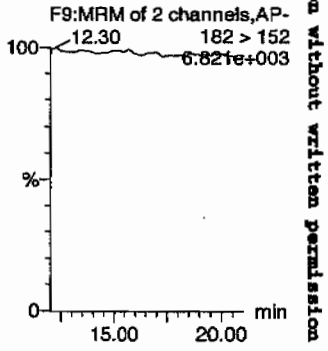

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

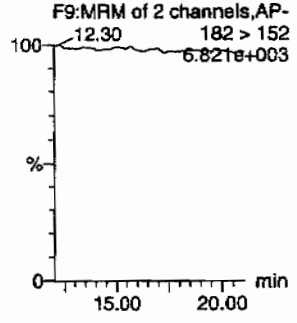

26-dinitrotoluene-d3

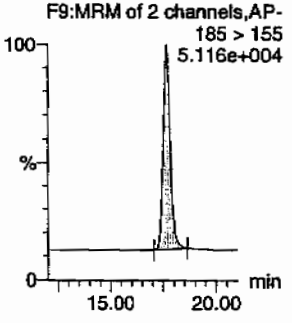

2-Nitrotoluene

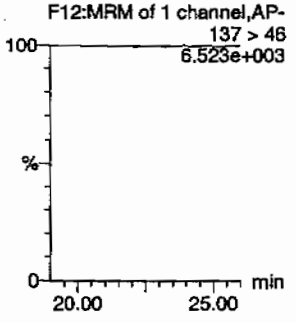

4-Nitrotoluene

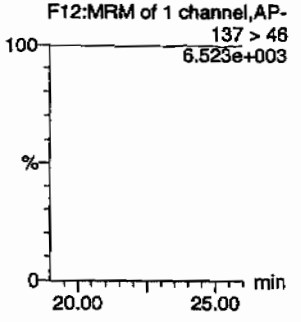

3-Nitrotoluene

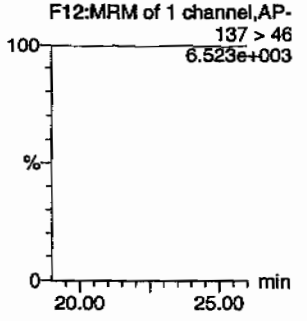

PETN

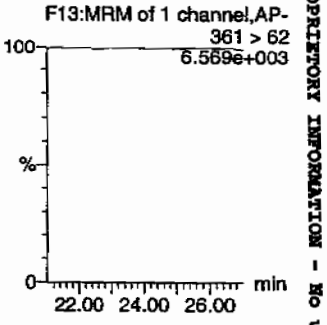

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			2933.636									
XIBLK01	RDX	176 > 102			2933.636									
XIBLK01	135-Trinitrobenzene	213 > 183			2933.636			MM-	02-Mar-10	09:57:26				
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.21	2933.636		2933.636	2933.636	bb			506.1351	101.2	1.2	224.6
XIBLK01	13-Dinitrobenzene	168 > 138			2933.636									
XIBLK01	Tetryl	241 > 181			2933.636									
XIBLK01	Nitrobenzene	123 > 46			2933.636									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			17529.949									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			17529.949									
XIBLK01	246-Trinitrotoluene	227 > 210			17529.949									
XIBLK01	34-dinitrotoluene	182 > 152			17529.949									
XIBLK01	26-dinitrotoluene	182 > 152			17529.949									
XIBLK01	24-dinitrotoluene	182 > 152			17529.949									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.64	17529.949		17529.949	17529.949	bb			544.9221	109.0	9.0	1581.7
XIBLK01	2-Nitrotoluene	137 > 46			17529.949									
XIBLK01	4-Nitrotoluene	137 > 46			17529.949									
XIBLK01	3-Nitrotoluene	137 > 46			17529.949									
XIBLK01	PETN	361 > 62			17529.949									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-MAR-10 16:02

GEL Data File: EXP0301002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3-Dinitrobenzene-d4	500	482.107
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	528.54
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301002a
Date: 01-Mar-2010
Time: 16:02:42
ID: XIBLK01
Vial: 1:1,A

MAP 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
4.01 6.09 9.372e+003

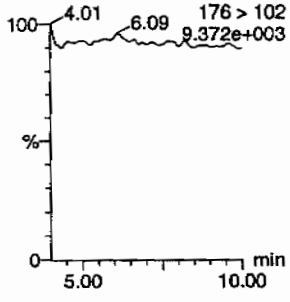

RDX
F2:MRM of 1 channel,AP-
176 > 102
4.01 6.09 9.372e+003

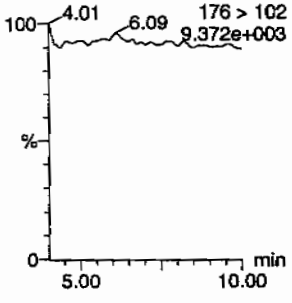

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.755e+003

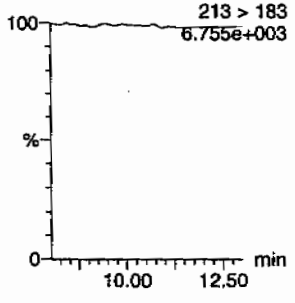

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.309e+004

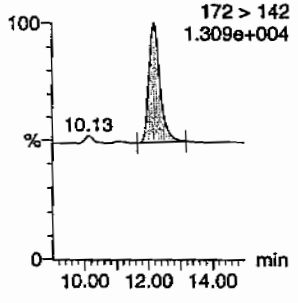

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.442e+003

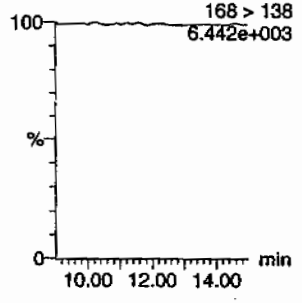

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.498e+003

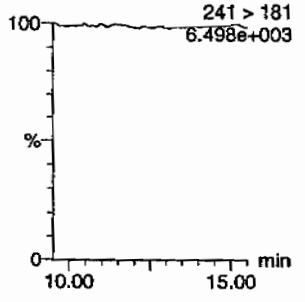

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.453e+003

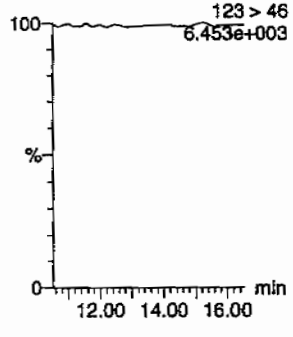

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
17.22 7.239e+003

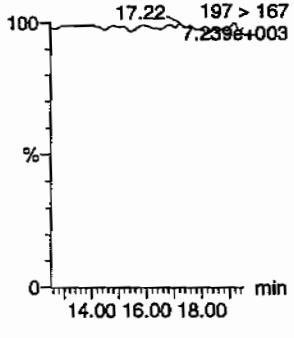

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
12.71 7.245e+003

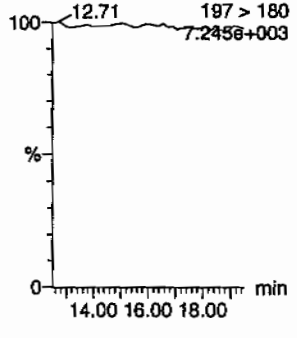

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.537e+003

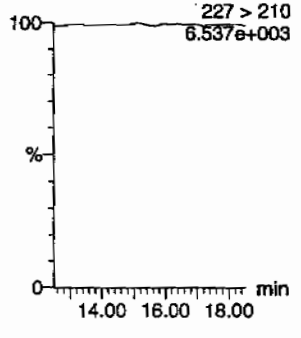

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.530e+003

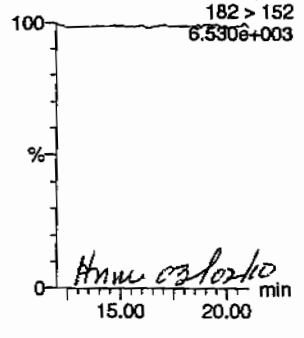

Hmm 03/02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.530e+003

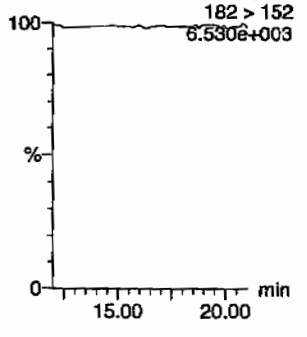

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

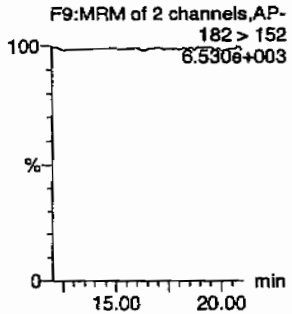

26-dinitrotoluene-d3

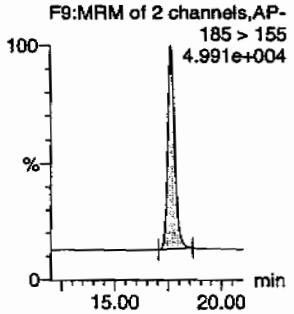

2-Nitrotoluene

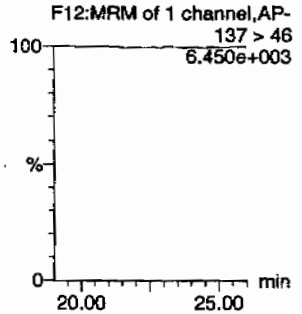

4-Nitrotoluene

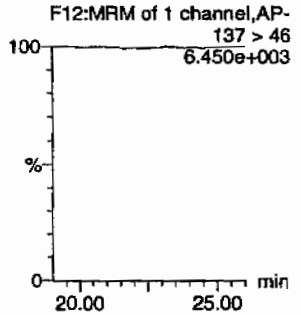

3-Nitrotoluene

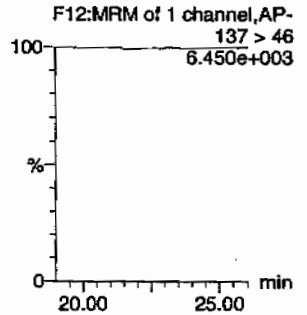

PETN

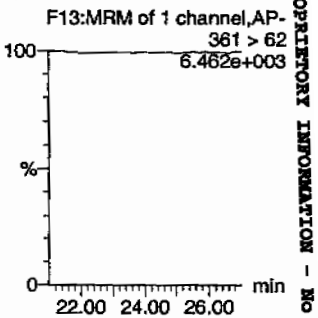

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			2794.367									
XIBLK01	RDX	176 > 102			2794.367									
XIBLK01	135-Trinitrobenzene	213 > 183			2794.367									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.17	2794.367		2794.367	2794.367	bb			482.1072	96.4	-3.6	249.6
XIBLK01	13-Dinitrobenzene	168 > 138			2794.367									
XIBLK01	Tetryl	241 > 181			2794.367									
XIBLK01	Nitrobenzene	123 > 46			2794.367									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			17002.941									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			17002.941									
XIBLK01	246-Trinitrotoluene	227 > 210			17002.941									
XIBLK01	34-dinitrotoluene	182 > 152			17002.941									
XIBLK01	26-dinitrotoluene	182 > 152			17002.941									
XIBLK01	24-dinitrotoluene	182 > 152			17002.941									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.64	17002.941		17002.941	17002.941	bb			528.5399	105.7	5.7	1208.2
XIBLK01	2-Nitrotoluene	137 > 46			17002.941									
XIBLK01	4-Nitrotoluene	137 > 46			17002.941									
XIBLK01	3-Nitrotoluene	137 > 46			17002.941									
XIBLK01	PETN	361 > 62			17002.941									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22-FEB-10 17:01

GEL Data File: EXS02220001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.87
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ran 2/23/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

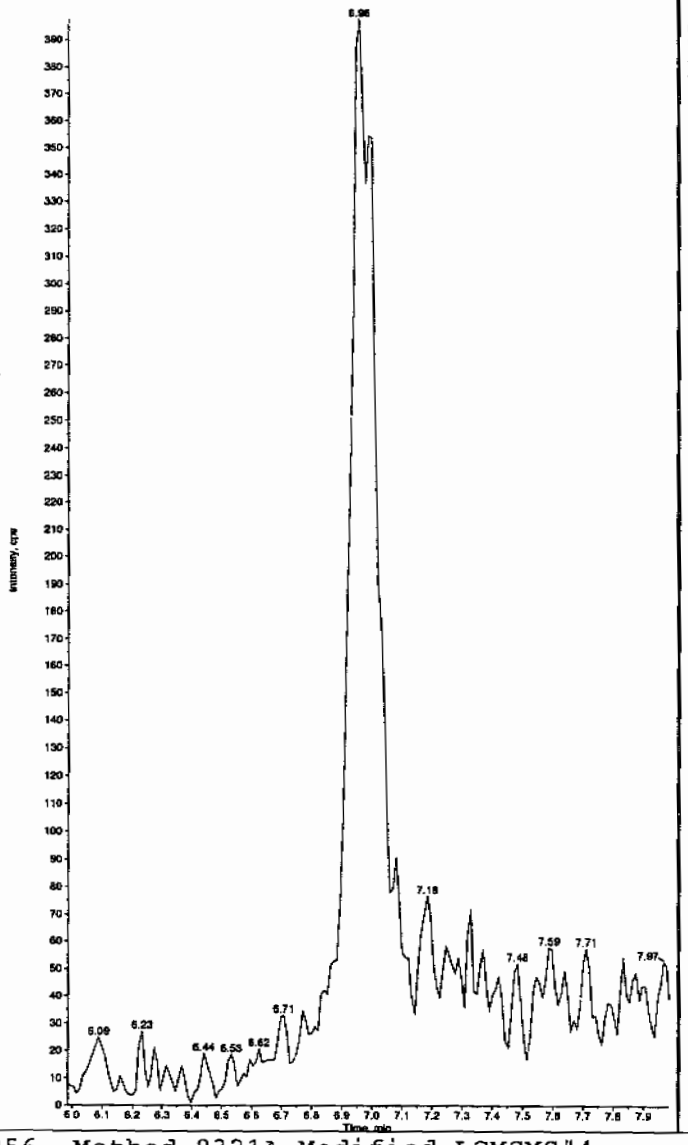

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

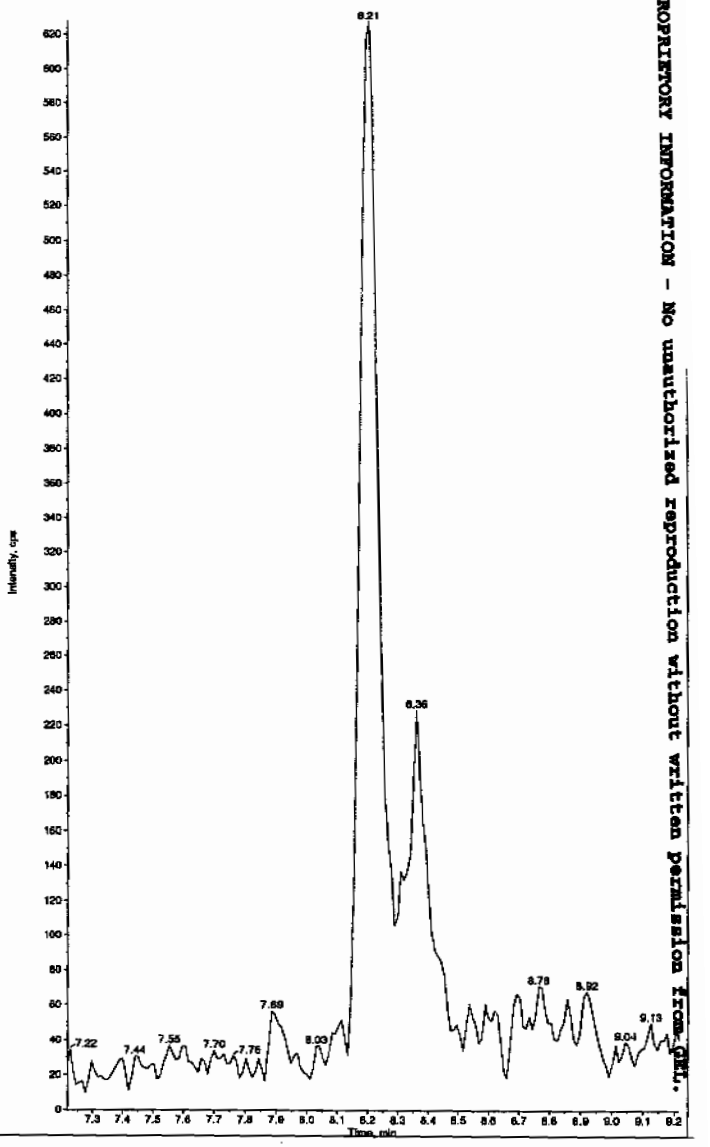

Hm M 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

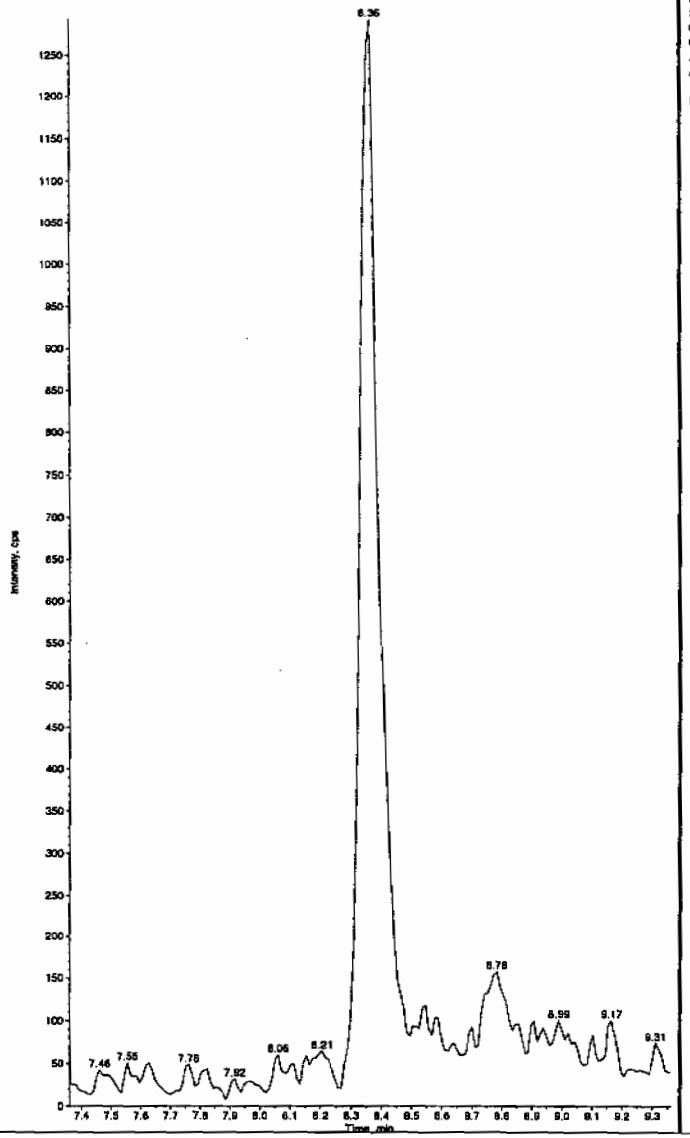

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

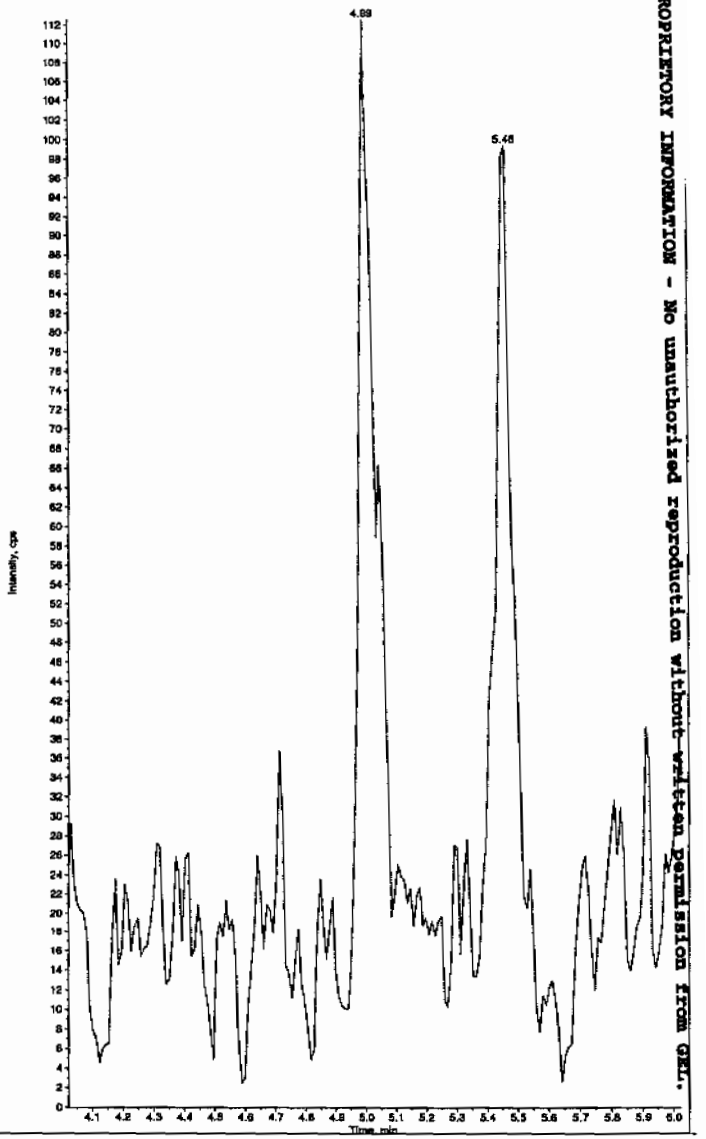

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No

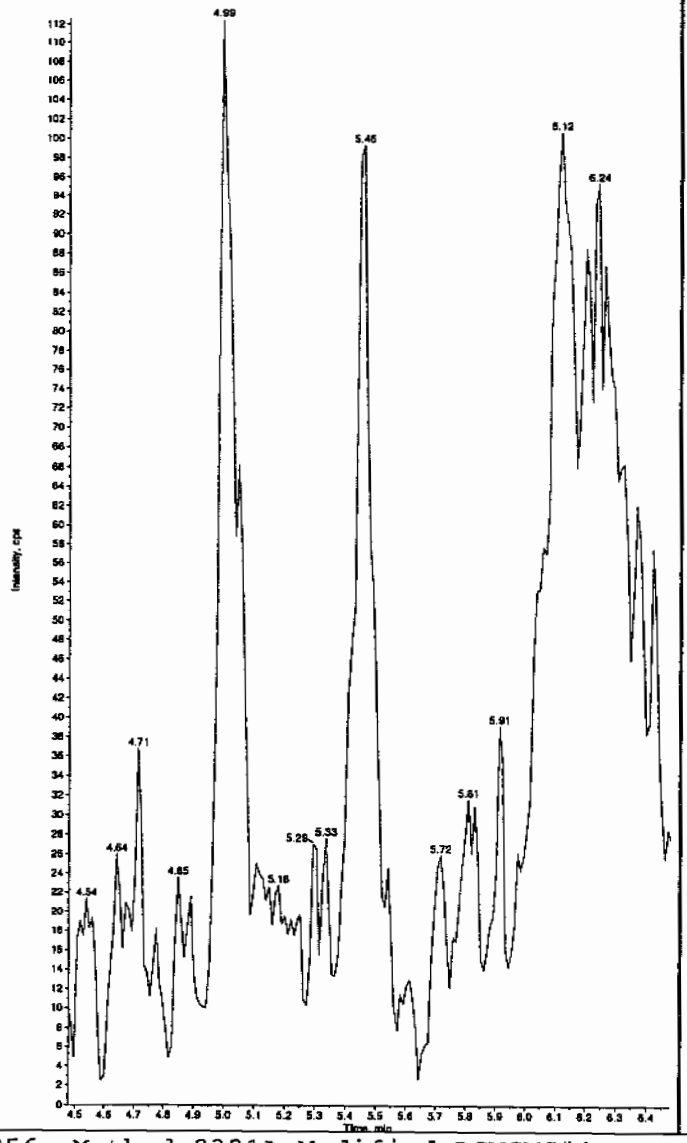

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.87 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:01:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.33e+004 counts
Height: 20889.369 cps
Start Time: 10.7 min
End Time: 11.0 min

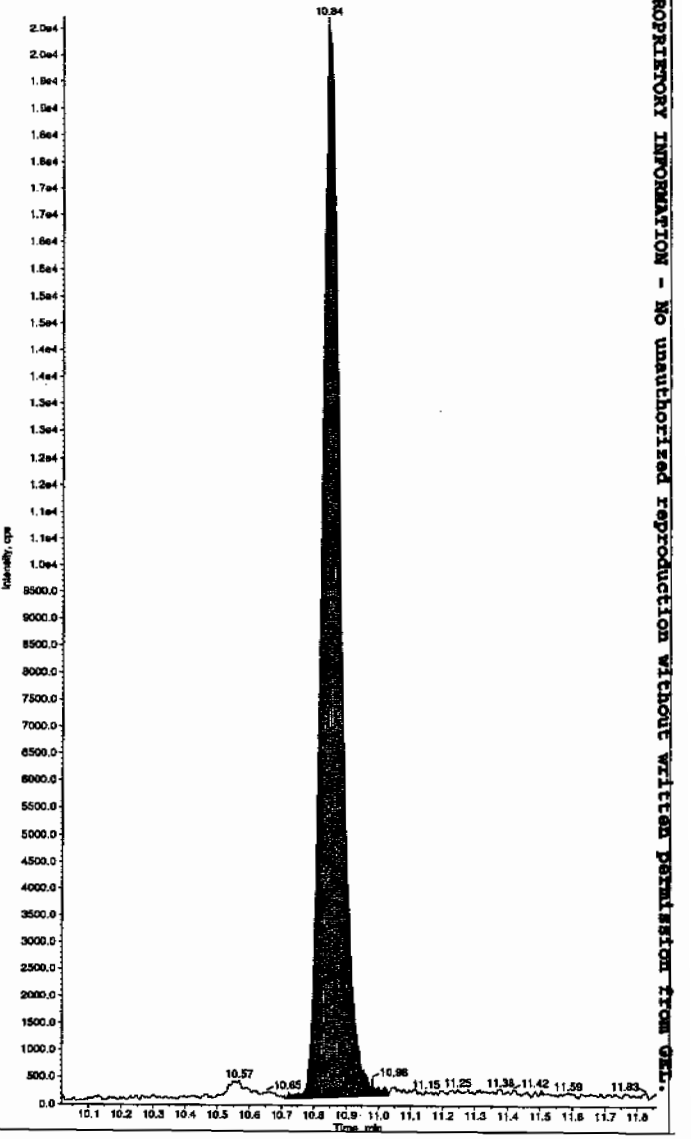

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22-FEB-10 17:17

GEL Data File: EXS02220002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.84
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Sam 2/23/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

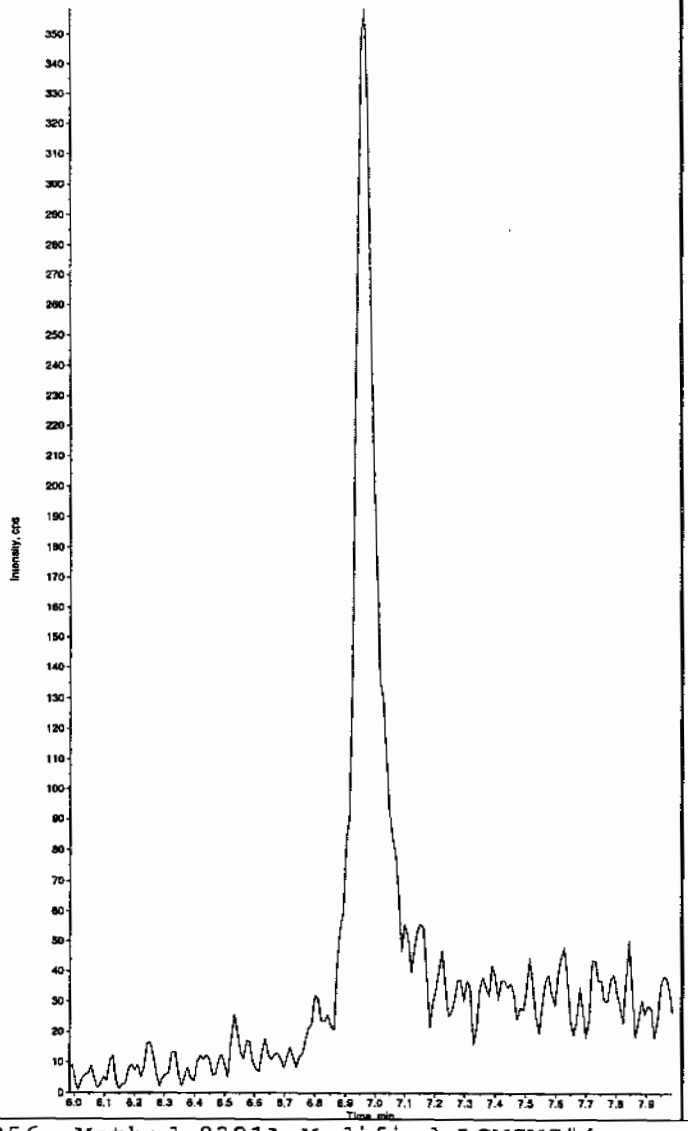

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

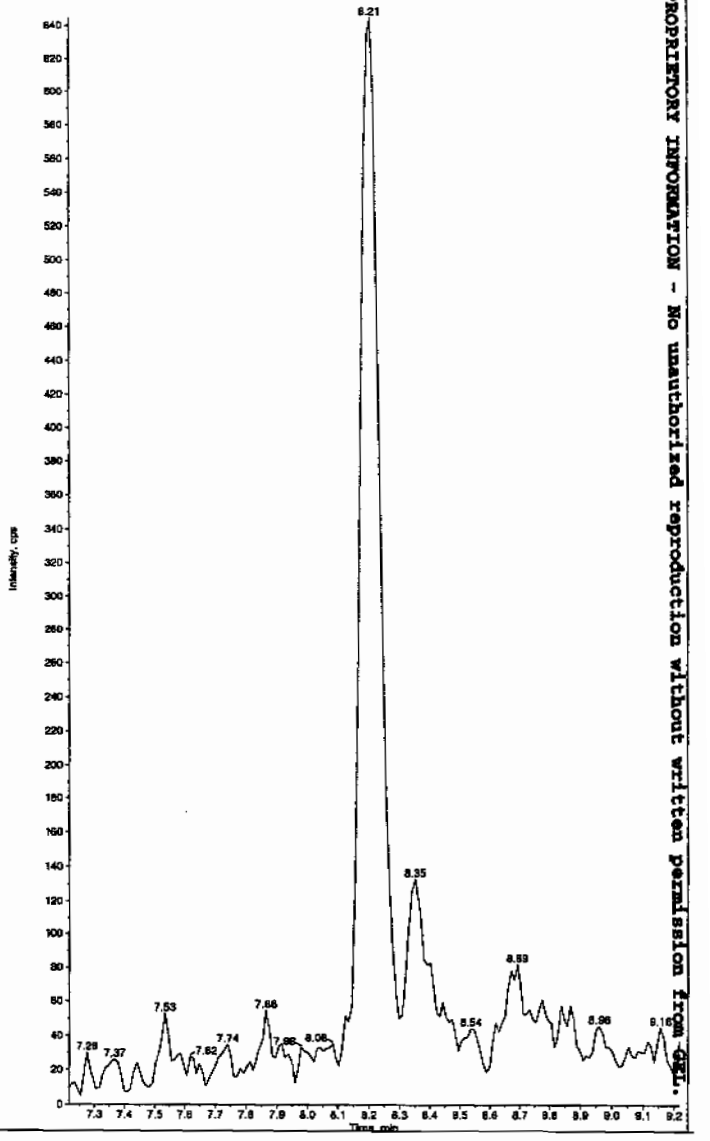

Hm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

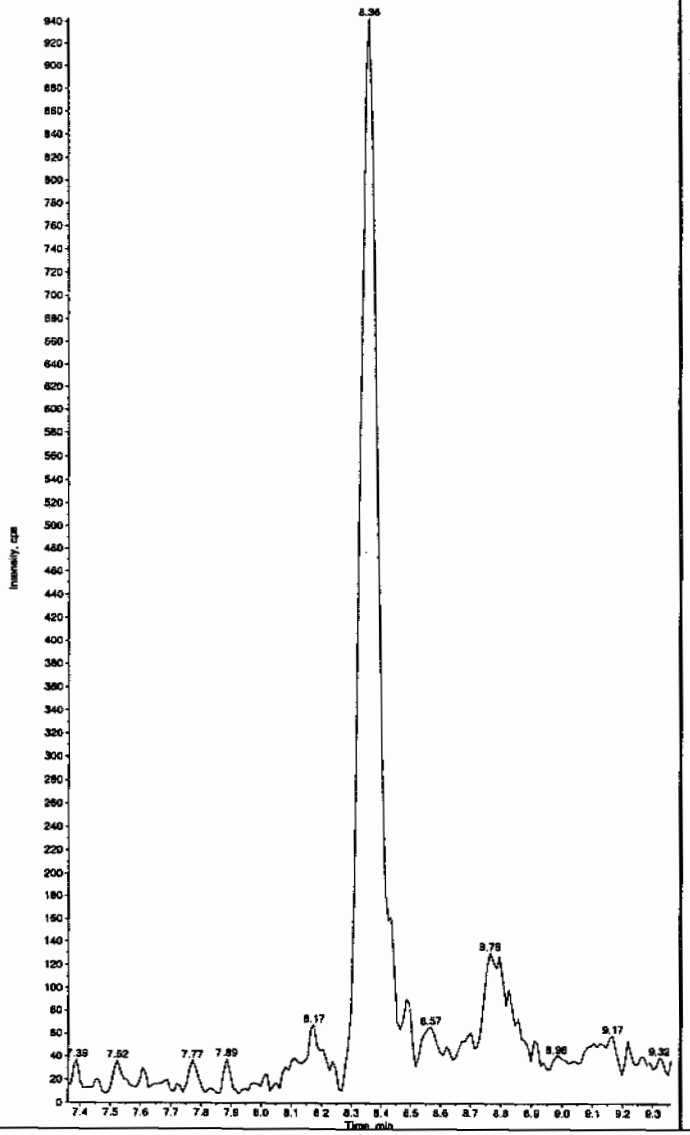

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02220002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

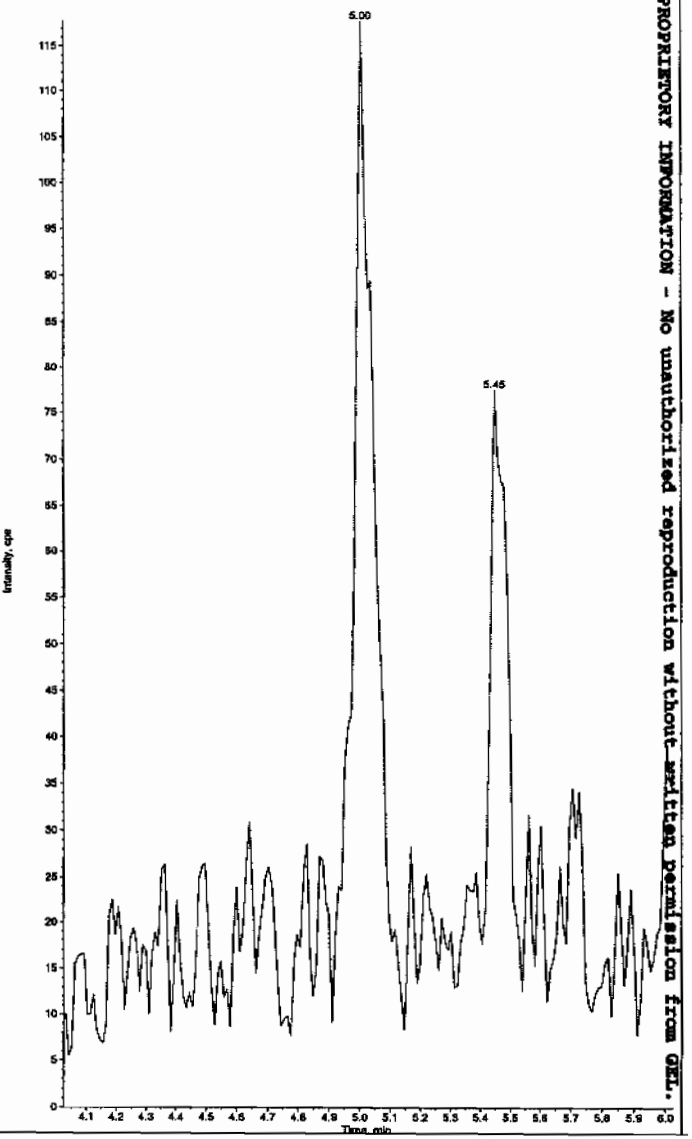

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XI8LK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: **

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No

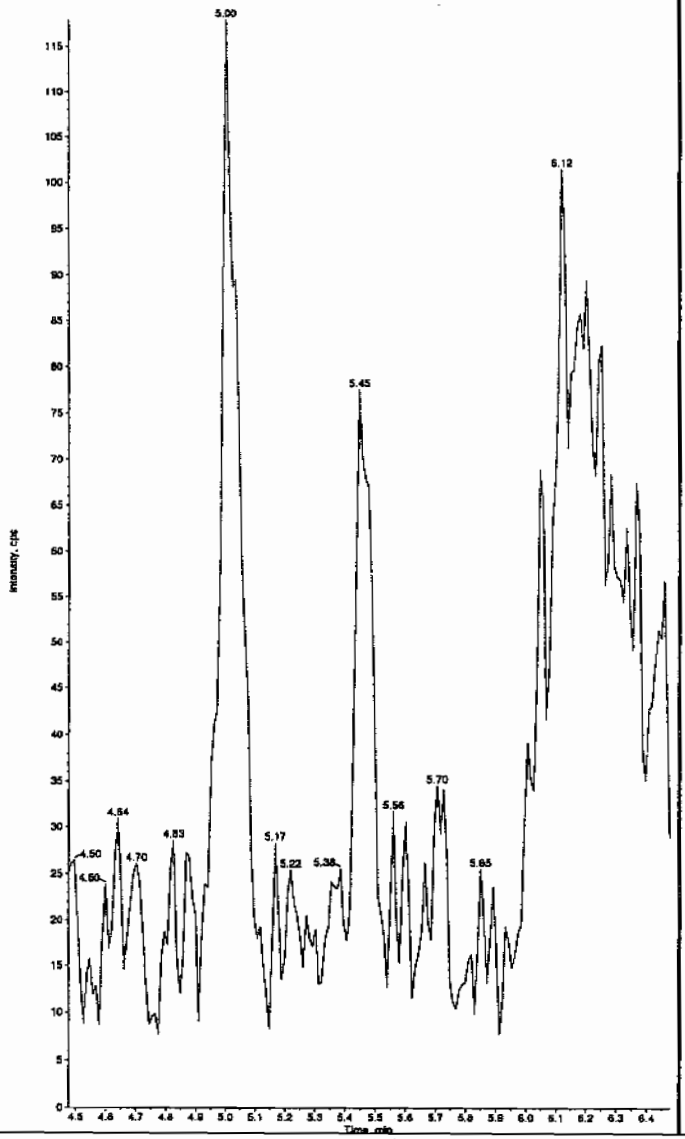

Sample Name: "XI8LK01" Sample ID: "|1|LER" File: "EXS02220002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: **

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.84 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 5:17:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.25e+004 counts
Height: 19383.148 cps
Start Time: 10.7 min
End Time: 11.1 min

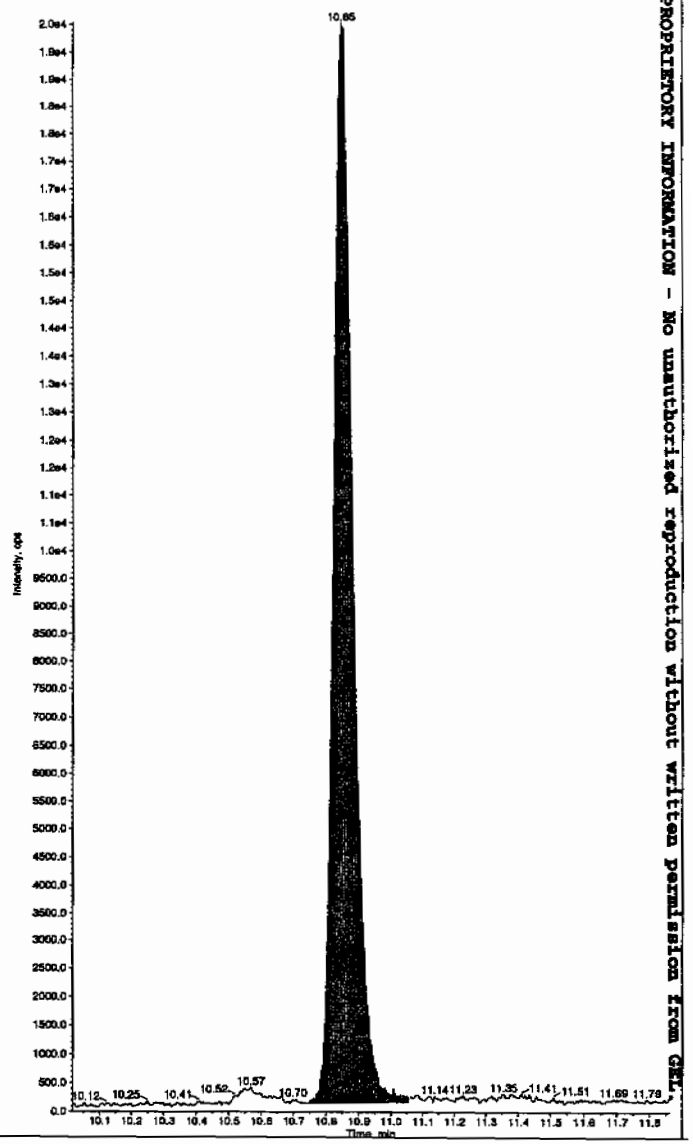

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 01-MAR-10 19:28

GEL Data File: EXP0301009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	489.394
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	463.845
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301009a
Date: 01-Mar-2010
Time: 19:28:59
ID: XIBLK02
Vial: 1:1,A

MMT 3/2/10

HMX
F2:MRM of 1 channel,AP-
4.36 176 > 102
7.053e+003

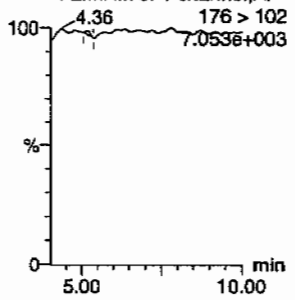

RDX
F2:MRM of 1 channel,AP-
4.36 176 > 102
7.053e+003

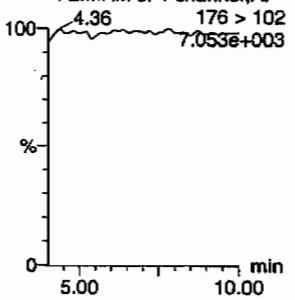

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.577e+003

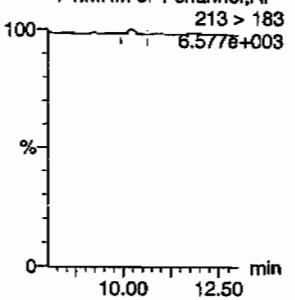

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.326e+004

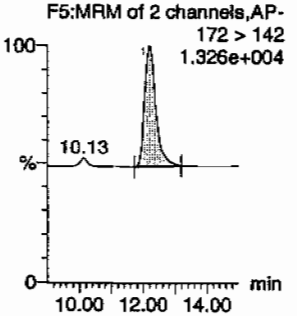

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.472e+003

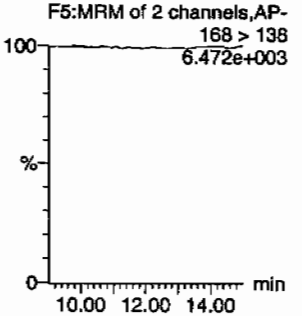

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.493e+003

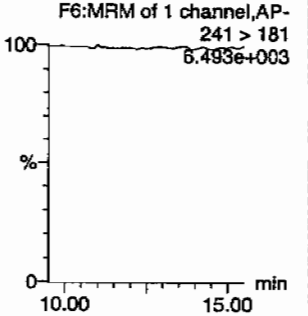

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.485e+003

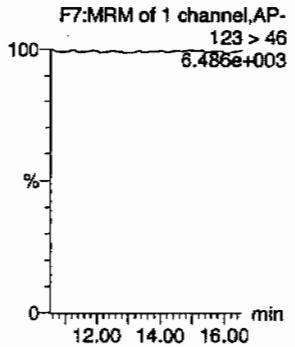

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.627e+003

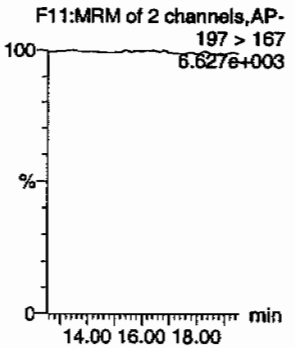

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.636e+003

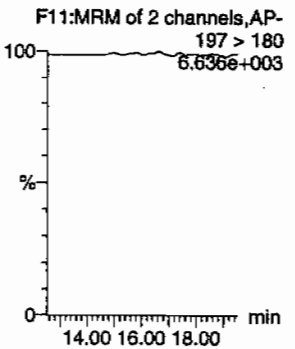

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.469e+003

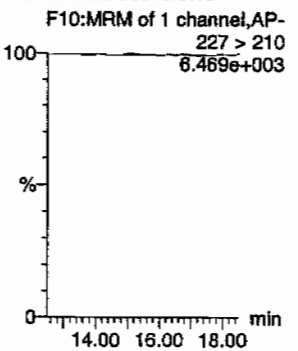

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.504e+003

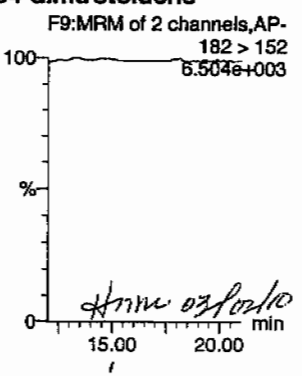

Hmw 03/02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.504e+003

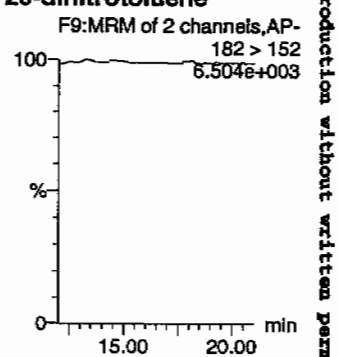

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.504e+003

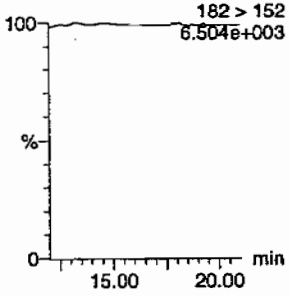

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.408e+004

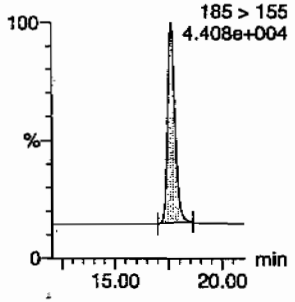

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.486e+003

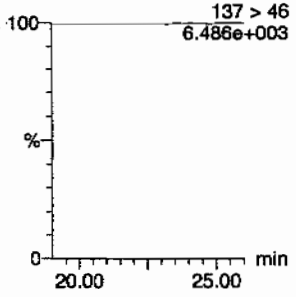

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.486e+003

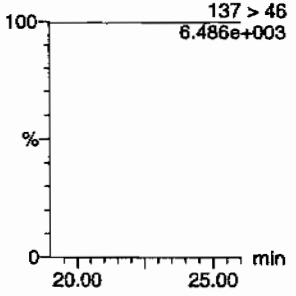

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.486e+003

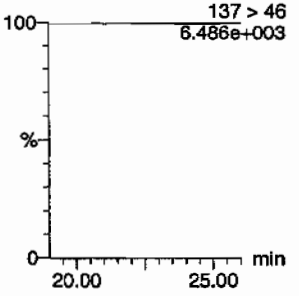

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.481e+003

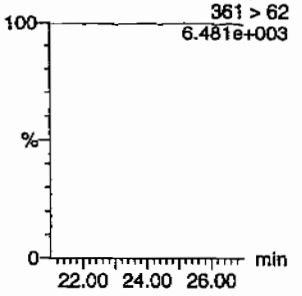

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	µg/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			2836.603			MM-	02-Mar-10	09:58:29				
XIBLK02	RDX	176 > 102			2836.603									
XIBLK02	135-Trinitrobenzene	213 > 183			2836.603			MM-	02-Mar-10	09:57:05				
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.17	2836.603		2836.603	2836.603	bb			489.3941	97.9	-2.1	355.5
XIBLK02	13-Dinitrobenzene	168 > 138			2836.603									
XIBLK02	Tetryl	241 > 181			2836.603									
XIBLK02	Nitrobenzene	123 > 46			2836.603									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			14921.731									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			14921.731									
XIBLK02	246-Trinitrotoluene	227 > 210			14921.731									
XIBLK02	34-dinitrotoluene	182 > 152			14921.731									
XIBLK02	26-dinitrotoluene	182 > 152			14921.731									
XIBLK02	24-dinitrotoluene	182 > 152			14921.731									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.64	14921.731		14921.731	14921.731	bb			463.8451	92.8	-7.2	858.6
XIBLK02	2-Nitrotoluene	137 > 46			14921.731									
XIBLK02	4-Nitrotoluene	137 > 46			14921.731									
XIBLK02	3-Nitrotoluene	137 > 46			14921.731									
XIBLK02	PETN	361 > 62			14921.731									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 01-MAR-10 20:27

GEL Data File: EXP0301011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	593.284
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	629.492
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301011a
Date: 01-Mar-2010
Time: 20:27:57
ID: XIBLK03
Vial: 1:1,A

MATT 3/2/10

HMX

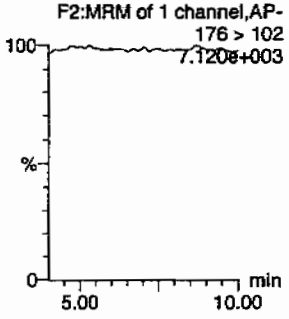

RDX

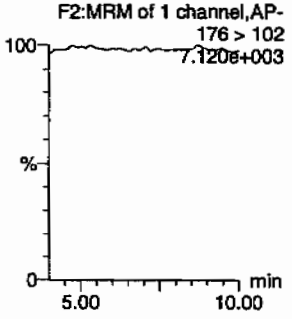

135-Trinitrobenzene

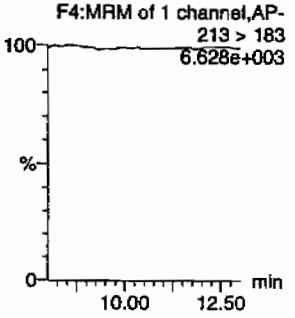

13-Dinitrobenzene-d4

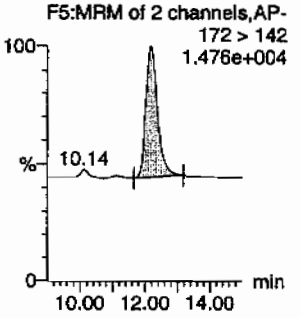

13-Dinitrobenzene

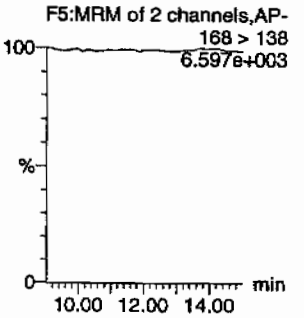

Tetryl

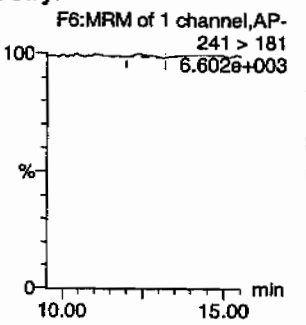

Nitrobenzene

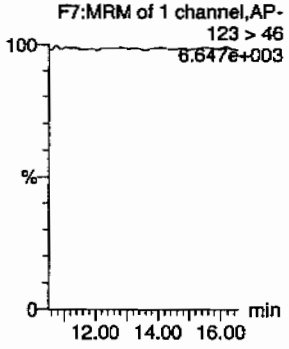

4-Amino-26-dinitrotoluene

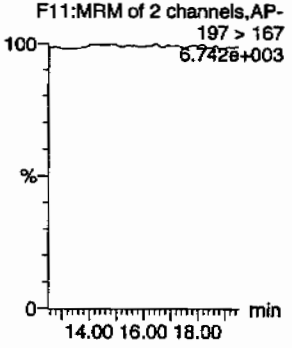

2-Amino-46-dinitrotoluene

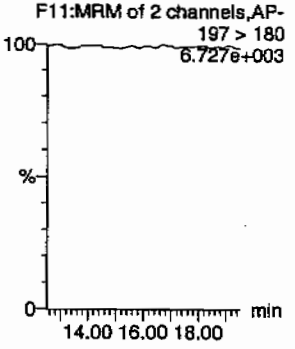

246-Trinitrotoluene

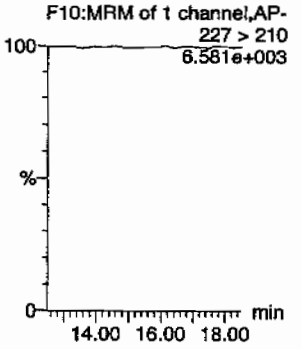

34-dinitrotoluene

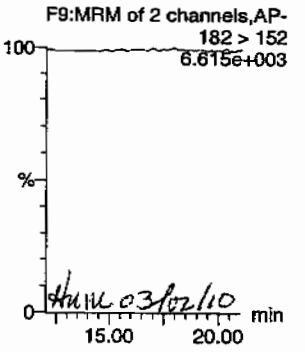

HMM 03/02/10

26-dinitrotoluene

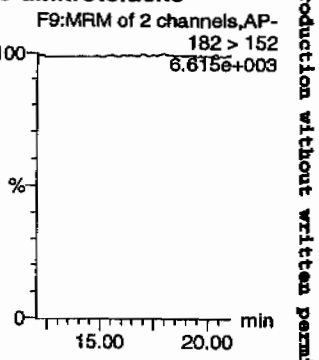

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

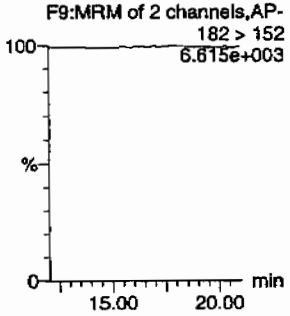

26-dinitrotoluene-d3

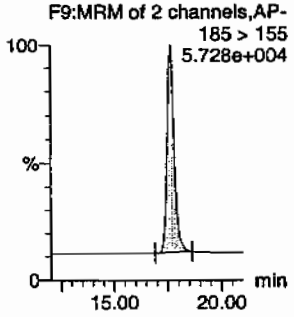

2-Nitrotoluene

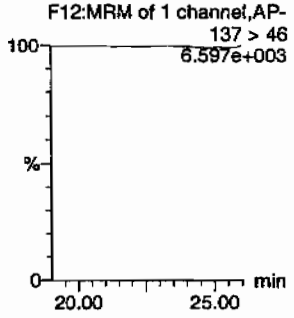

4-Nitrotoluene

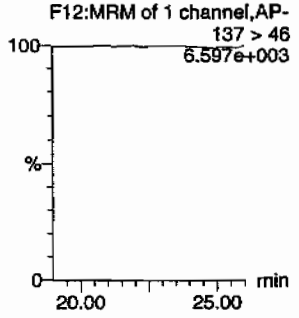

3-Nitrotoluene

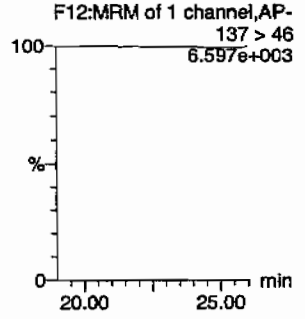

PETN

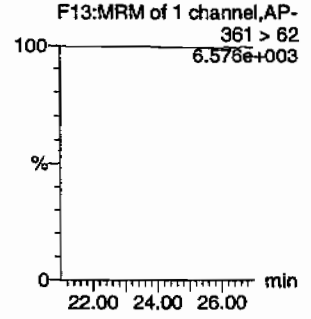

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			3438.767									
XIBLK03	RDX	176 > 102			3438.767									
XIBLK03	135-Trinitrobenzene	213 > 183			3438.767									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.17	3438.767		3438.767	3438.767	bb			593.2844	118.7	18.7	152.6
XIBLK03	13-Dinitrobenzene	168 > 138			3438.767									
XIBLK03	Tetryl	241 > 181			3438.767			MM-	02-Mar-10	09:55:33				
XIBLK03	Nitrobenzene	123 > 46			3438.767									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			20250.545									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			20250.545									
XIBLK03	246-Trinitrotoluene	227 > 210			20250.545									
XIBLK03	34-dinitrotoluene	182 > 152			20250.545									
XIBLK03	26-dinitrotoluene	182 > 152			20250.545									
XIBLK03	24-dinitrotoluene	182 > 152			20250.545									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.62	20250.545		20250.545	20250.545	bb			629.4924	125.9	25.9	1728.6
XIBLK03	2-Nitrotoluene	137 > 46			20250.545									
XIBLK03	4-Nitrotoluene	137 > 46			20250.545									
XIBLK03	3-Nitrotoluene	137 > 46			20250.545									
XIBLK03	PETN	361 > 62			20250.545									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 01-MAR-10 23:54

GEL Data File: EXP0301018a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	606.462
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	554.129
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301018a
Date: 01-Mar-2010
Time: 23:54:20
ID: XIBLK04
Vial: 1:1,A

MMT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.166e+003

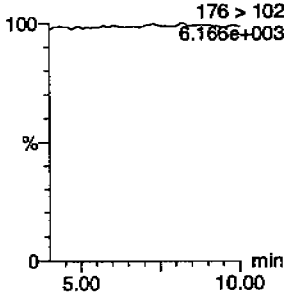

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.166e+003

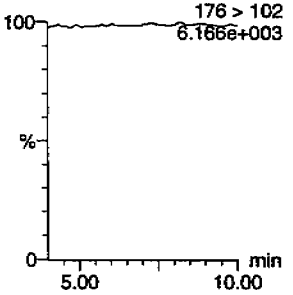

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.912e+003

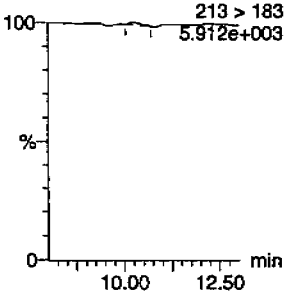

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.421e+004

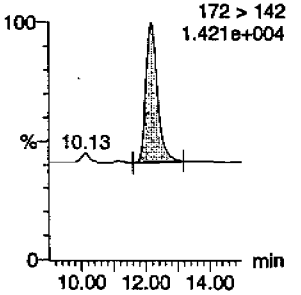

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.883e+003

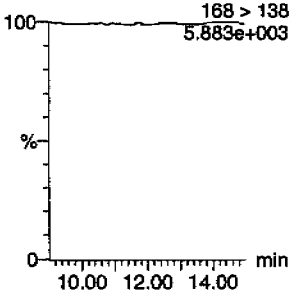

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.885e+003

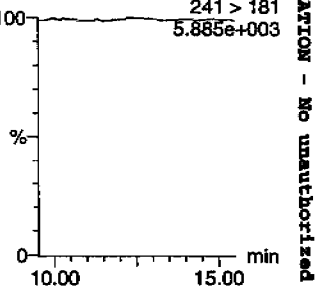

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.907e+003

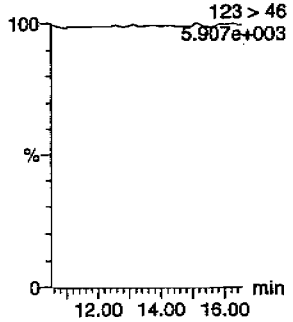

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.009e+003

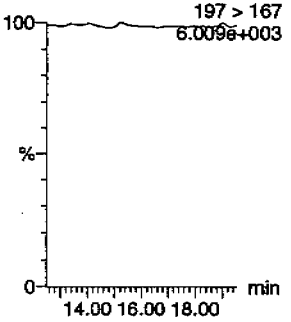

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.014e+003

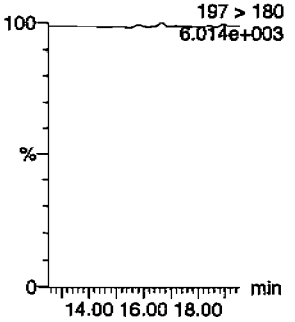

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.913e+003

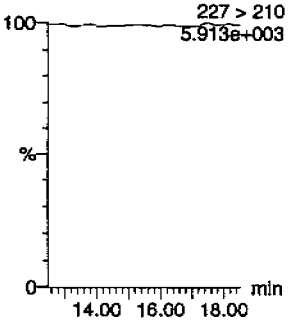

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003

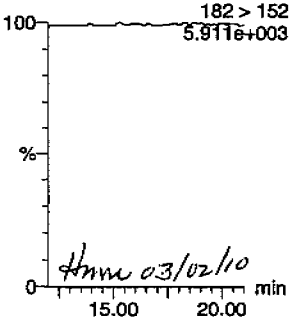

Hmm 03/02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003

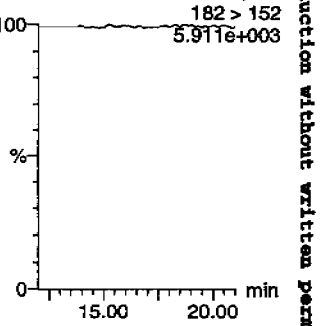

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.911e+003

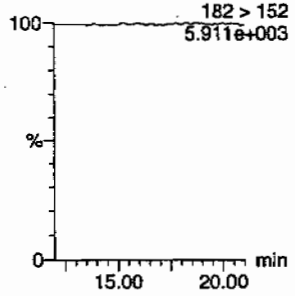

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.106e+004

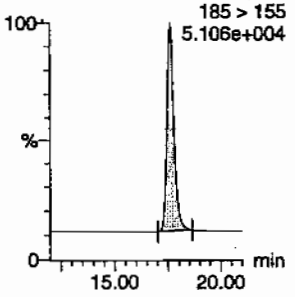

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003

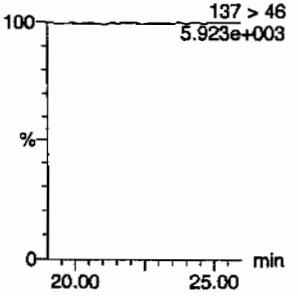

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003

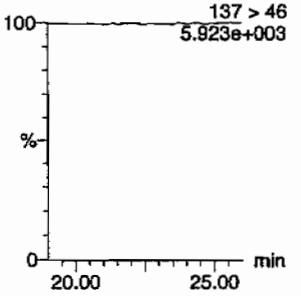

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.923e+003

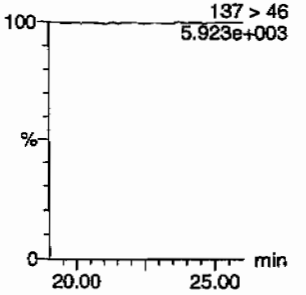

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.934e+003

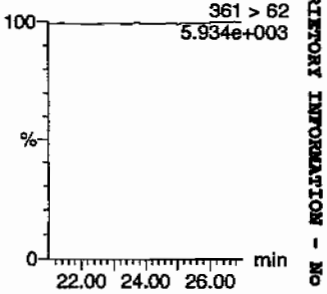

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3515.148									
XIBLK04	RDX	176 > 102			3515.148									
XIBLK04	135-Trinitrobenzene	213 > 183			3515.148			MM-	02-Mar-10	09:56:58				
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.17	3515.148		3515.148	3515.148	bb			606.4623	121.3	21.3	516.3
XIBLK04	13-Dinitrobenzene	168 > 138			3515.148									
XIBLK04	Tetryl	241 > 181			3515.148									
XIBLK04	Nitrobenzene	123 > 46			3515.148									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			17826.121									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			17826.121									
XIBLK04	246-Trinitrotoluene	227 > 210			17826.121									
XIBLK04	34-dinitrotoluene	182 > 152			17826.121									
XIBLK04	26-dinitrotoluene	182 > 152			17826.121									
XIBLK04	24-dinitrotoluene	182 > 152			17826.121									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.62	17826.121		17826.121	17826.121	bb			554.1287	110.8	10.8	2328.6
XIBLK04	2-Nitrotoluene	137 > 46			17826.121									
XIBLK04	4-Nitrotoluene	137 > 46			17826.121									
XIBLK04	3-Nitrotoluene	137 > 46			17826.121									
XIBLK04	PETN	361 > 62			17826.121									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 02-MAR-10 06:17

GEL Data File: EXP0301031a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	455.251
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	499.31
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301031a
Date: 02-Mar-2010
Time: 06:17:40
ID: XIBLK05
Vial: 1:1,A

MMT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.521e+003

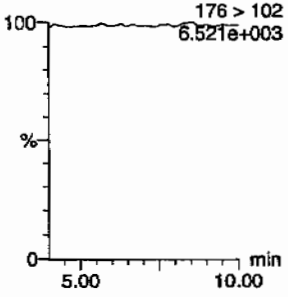

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.521e+003

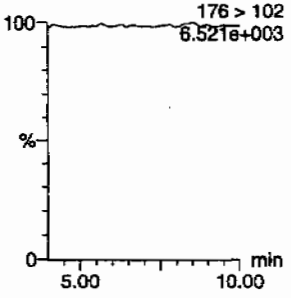

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.356e+003

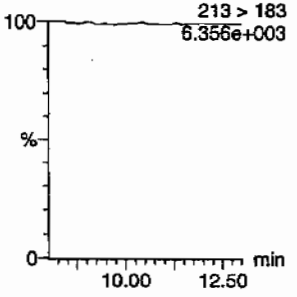

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.270e+004

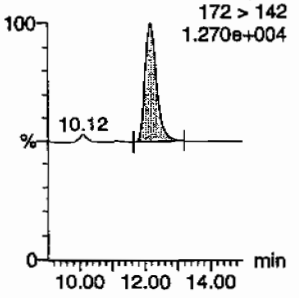

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.366e+003

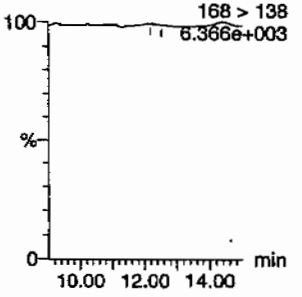

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.361e+003

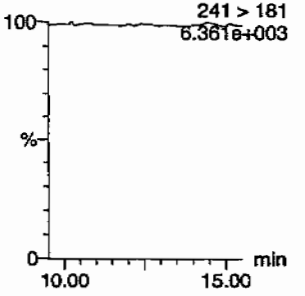

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.345e+003

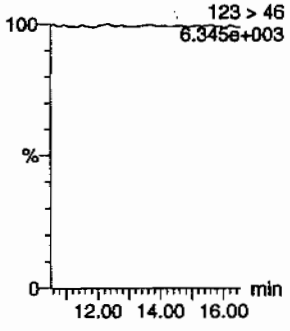

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.396e+003

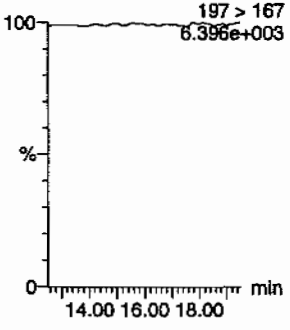

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.414e+003

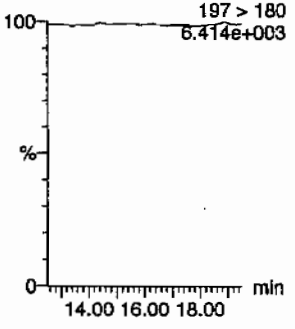

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.322e+003

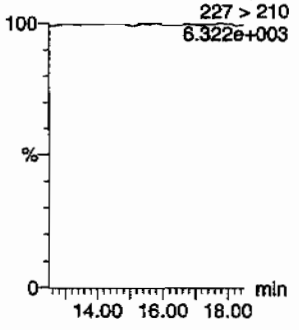

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.358e+003

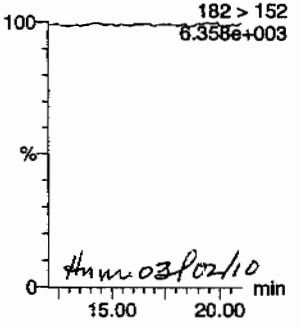

Hmm 03/02/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.358e+003

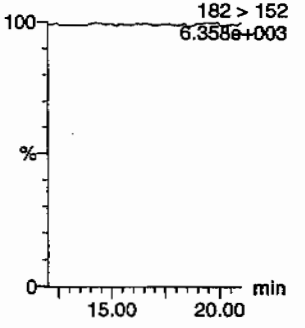

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

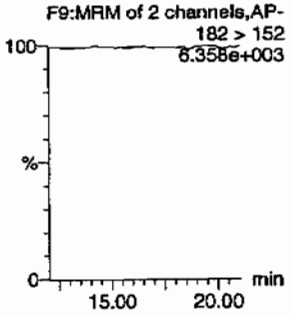

26-dinitrotoluene-d3

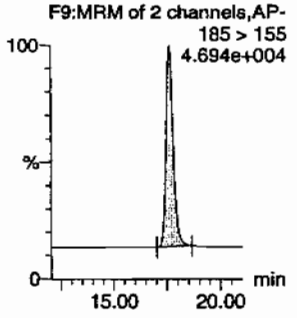

2-Nitrotoluene

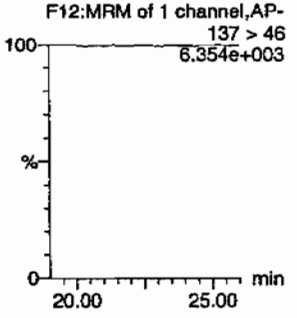

4-Nitrotoluene

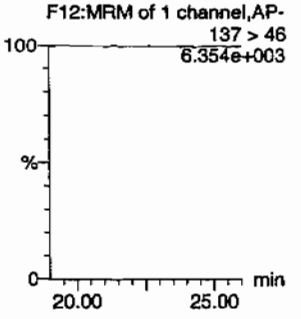

3-Nitrotoluene

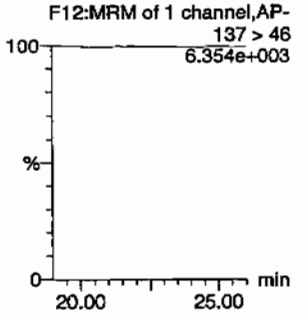

PETN

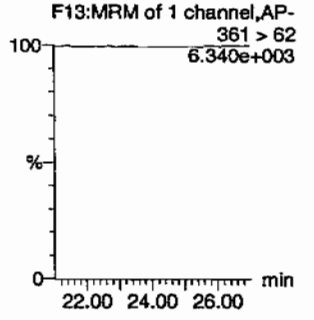

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			2638.707									
XIBLK05	RDX	176 > 102			2638.707									
XIBLK05	135-Trinitrobenzene	213 > 183			2638.707									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.17	2638.707		2638.707	2638.707	bb			455.2515	91.1	-8.9	188.8
XIBLK05	13-Dinitrobenzene	168 > 138			2638.707			MM-	02-Mar-10	09:56:43				
XIBLK05	Tetryl	241 > 181			2638.707									
XIBLK05	Nitrobenzene	123 > 46			2638.707									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			16062.614									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			16062.614									
XIBLK05	246-Trinitrotoluene	227 > 210			16062.614									
XIBLK05	34-dinitrotoluene	182 > 152			16062.614									
XIBLK05	26-dinitrotoluene	182 > 152			16062.614									
XIBLK05	24-dinitrotoluene	182 > 152			16062.614									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.62	16062.614		16062.614	16062.614	bb			499.3097	99.9	-0.1	1757.4
XIBLK05	2-Nitrotoluene	137 > 46			16062.614									
XIBLK05	4-Nitrotoluene	137 > 46			16062.614									
XIBLK05	3-Nitrotoluene	137 > 46			16062.614									
XIBLK05	PETN	361 > 62			16062.614									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 02-MAR-10 12:41

GEL Data File: EXP0301044a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	507.1
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	517.389
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301044a
Date: 02-Mar-2010
Time: 12:41:52
ID: XIBLK06
Vial: 1:1,A

MM 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.121e+003

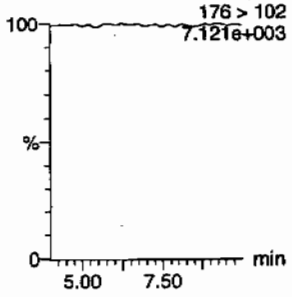

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.121e+003

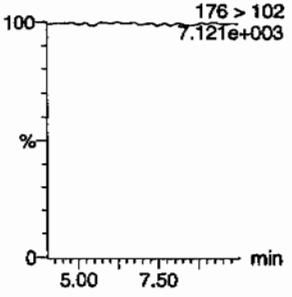

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
7.012e+003

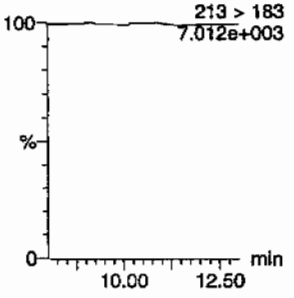

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.394e+004

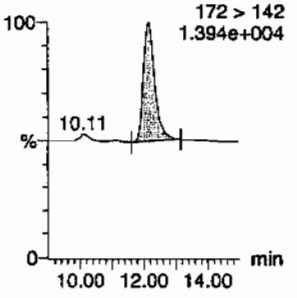

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.977e+003

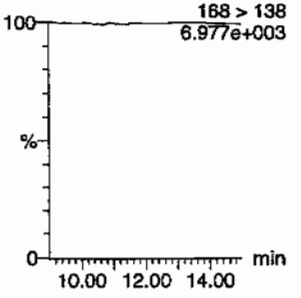

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.005e+003

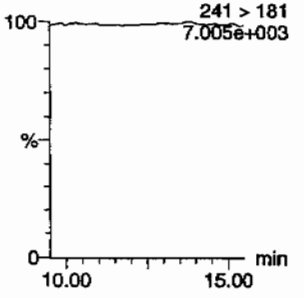

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.981e+003

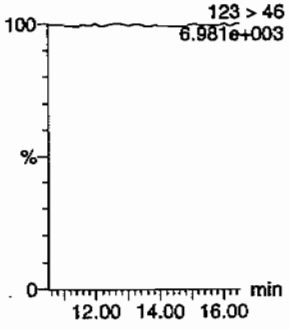

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.081e+003

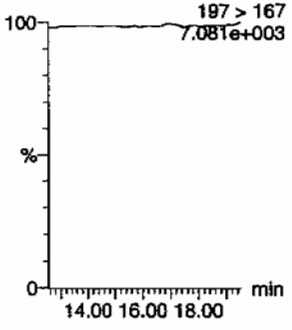

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.060e+003

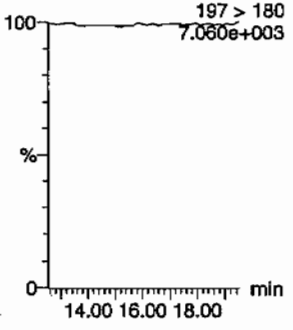

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.010e+003

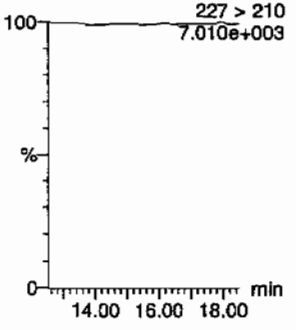

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.026e+003

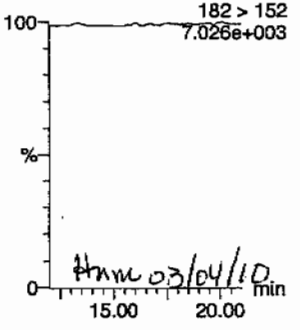

Hmm 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.026e+003

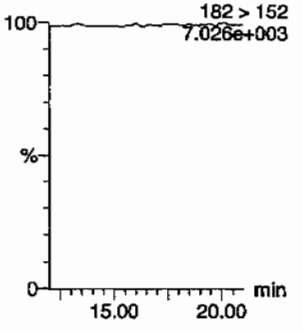

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

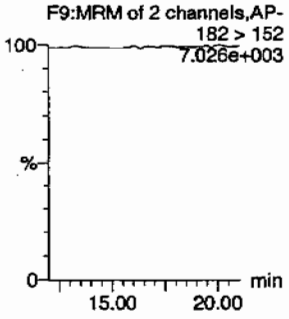

26-dinitrotoluene-d3

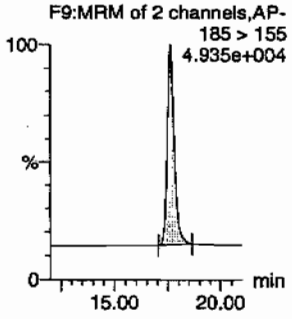

2-Nitrotoluene

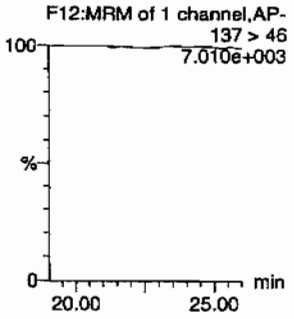

4-Nitrotoluene

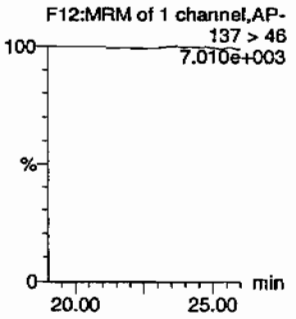

3-Nitrotoluene

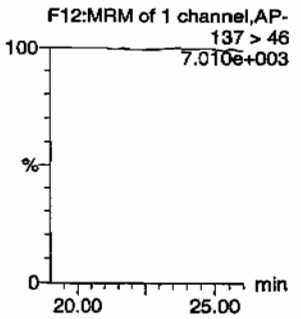

PETN

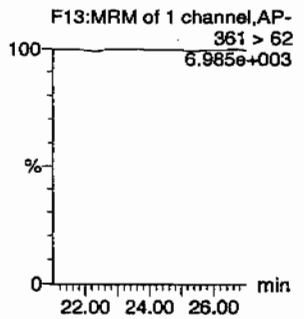

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			2939.228									
XIBLK06	RDX	176 > 102			2939.228									
XIBLK06	135-Trinitrobenzene	213 > 183			2939.228									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.17	2939.228		2939.228	2939.228	bb			507.0999	101.4	1.4	285.5
XIBLK06	13-Dinitrobenzene	168 > 138			2939.228									
XIBLK06	Tetryl	241 > 181			2939.228									
XIBLK06	Nitrobenzene	123 > 46			2939.228									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			16644.225									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			16644.225									
XIBLK06	246-Trinitrotoluene	227 > 210			16644.225									
XIBLK06	34-dinitrotoluene	182 > 152			16644.225									
XIBLK06	26-dinitrotoluene	182 > 152			16644.225									
XIBLK06	24-dinitrotoluene	182 > 152			16644.225									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.63	16644.225		16644.225	16644.225	bb			517.3892	103.5	3.5	1828.0
XIBLK06	2-Nitrotoluene	137 > 46			16644.225									
XIBLK06	4-Nitrotoluene	137 > 46			16644.225									
XIBLK06	3-Nitrotoluene	137 > 46			16644.225									
XIBLK06	PETN	361 > 62			16644.225									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 02-MAR-10 19:12

GEL Data File: EXP0301057a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	498.442
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	513.169
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301057a
Date: 02-Mar-2010
Time: 19:12:15
ID: XIBLK07
Vial: 1:1,A

HMT 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.273e+003

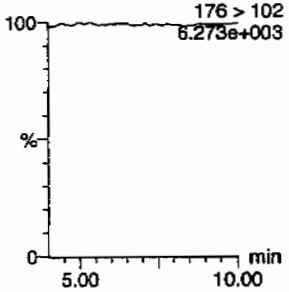

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.273e+003

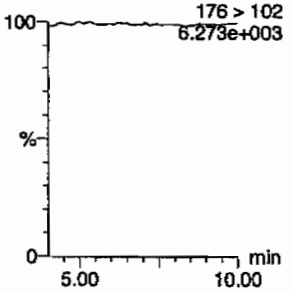

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.160e+003

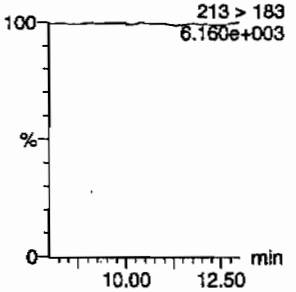

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.307e+004

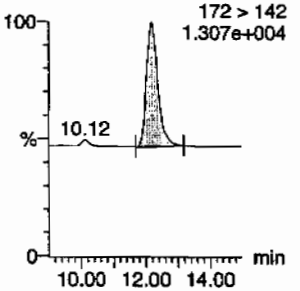

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.182e+003

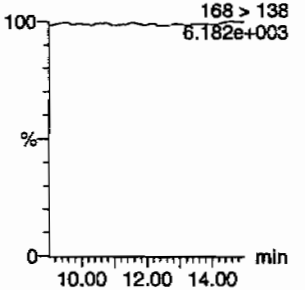

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.176e+003

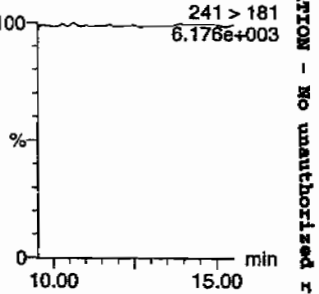

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.226e+003

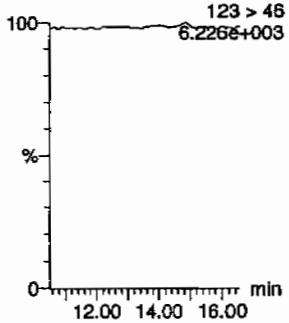

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.240e+003

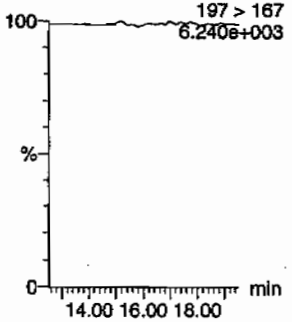

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.235e+003

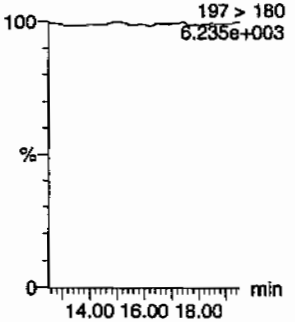

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.165e+003

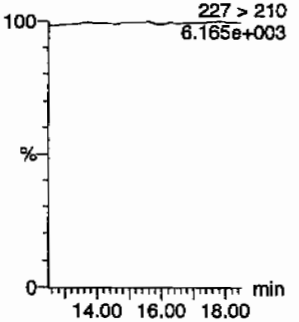

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.198e+003

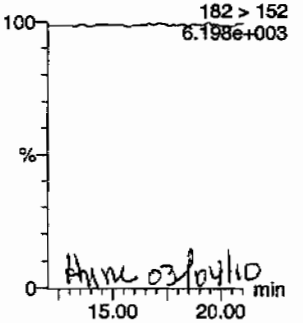

AMC 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.198e+003

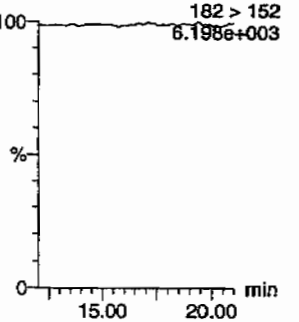

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.198e+003

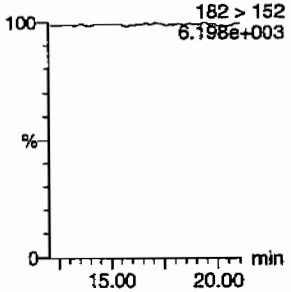

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.816e+004

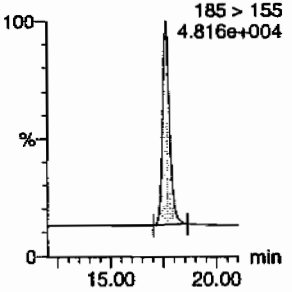

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.165e+003

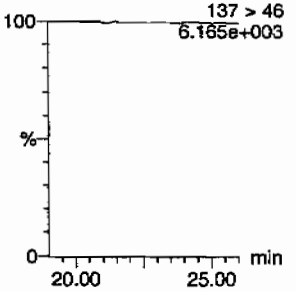

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.165e+003

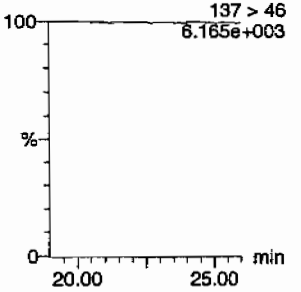

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.165e+003

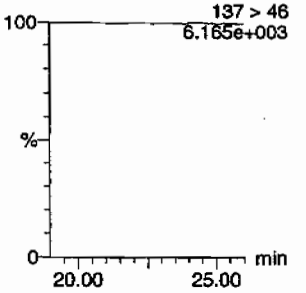

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.146e+003

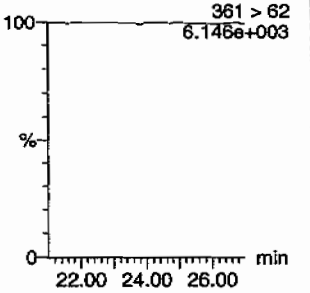

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			2889.043									
XIBLK07	RDX	176 > 102			2889.043									
XIBLK07	135-Trinitrobenzene	213 > 183			2889.043									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.17	2889.043		2889.043	2889.043	bb			498.4415	99.7	-0.3	171.0
XIBLK07	13-Dinitrobenzene	168 > 138			2889.043									
XIBLK07	Tetryl	241 > 181			2889.043									
XIBLK07	Nitrobenzene	123 > 46			2889.043									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			16508.475									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			16508.475									
XIBLK07	246-Trinitrotoluene	227 > 210			16508.475									
XIBLK07	34-dinitrotoluene	182 > 152			16508.475									
XIBLK07	26-dinitrotoluene	182 > 152			16508.475									
XIBLK07	24-dinitrotoluene	182 > 152			16508.475									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.64	16508.475		16508.475	16508.475	bb			513.1694	102.6	2.6	1224.6
XIBLK07	2-Nitrotoluene	137 > 46			16508.475									
XIBLK07	4-Nitrotoluene	137 > 46			16508.475									
XIBLK07	3-Nitrotoluene	137 > 46			16508.475									
XIBLK07	PETN	361 > 62			16508.475									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 03-MAR-10 01:06

GEL Data File: EXP0301069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	575.51
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	589.51
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301069a
Date: 03-Mar-2010
Time: 01:06:20
ID: XIBLK08
Vial: 1:1,A

MMP 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.484e+003

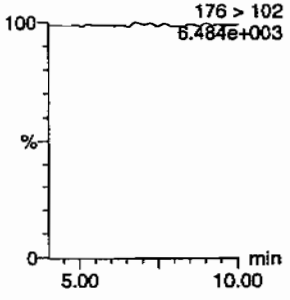

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.484e+003

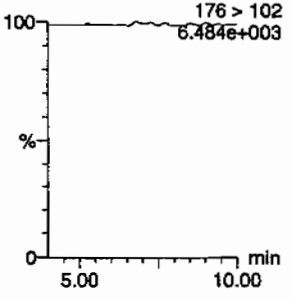

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.362e+003

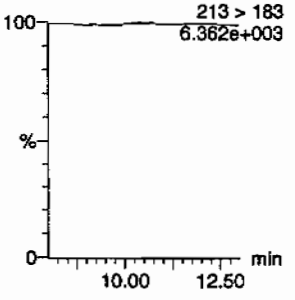

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.420e+004

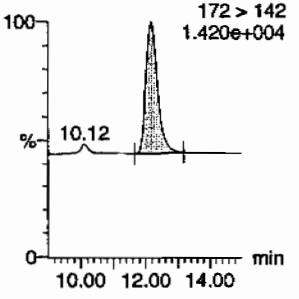

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.351e+003

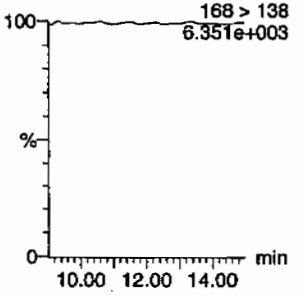

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.365e+003

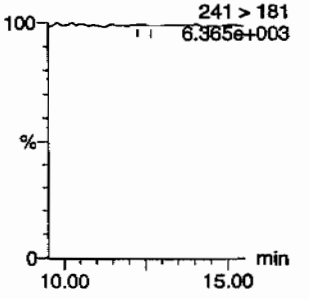

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.353e+003

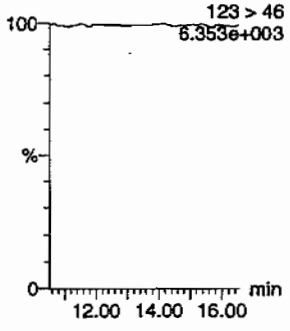

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.390e+003

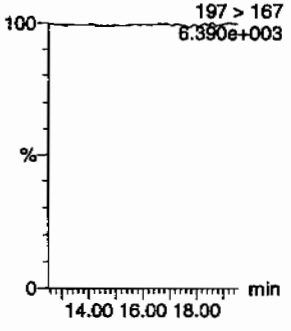

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.387e+003

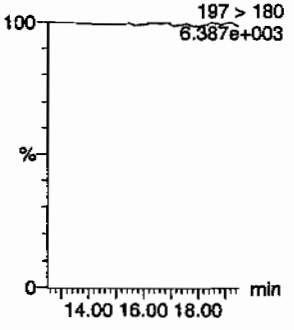

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.338e+003

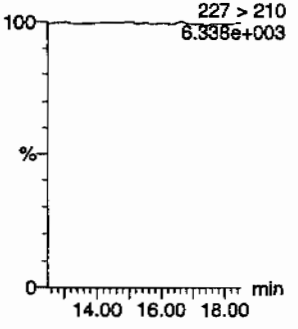

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.367e+003

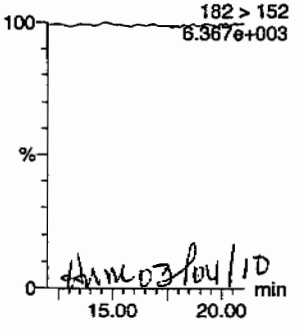

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26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.367e+003

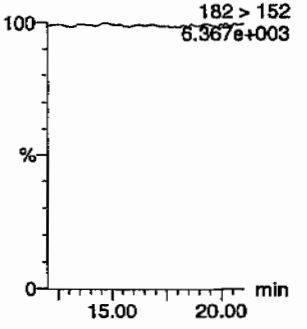

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

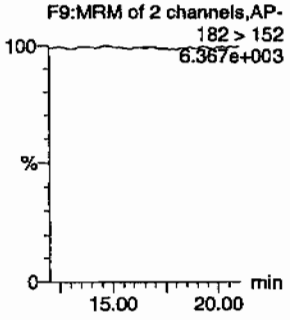

26-dinitrotoluene-d3

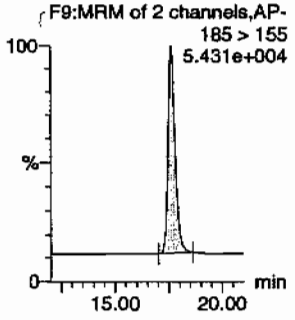

2-Nitrotoluene

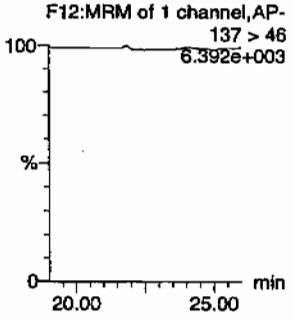

4-Nitrotoluene

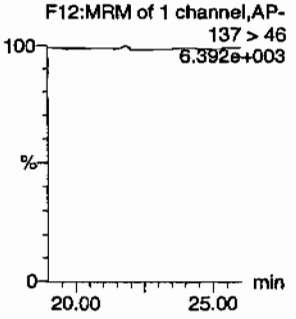

3-Nitrotoluene

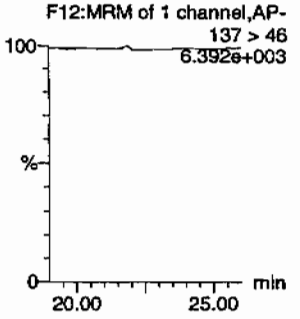

PETN

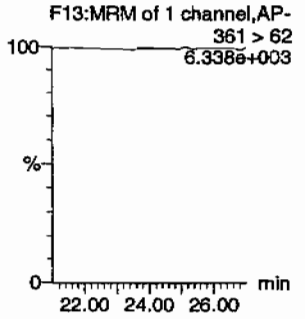

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3335.746									
XIBLK08	RDX	176 > 102			3335.746									
XIBLK08	135-Trinitrobenzene	213 > 183			3335.746									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.17	3335.746		3335.746	3335.746	bb			575.5104	115.1	15.1	206.2
XIBLK08	13-Dinitrobenzene	168 > 138			3335.746									
XIBLK08	Tetryl	241 > 181			3335.746			MM-	03-Mar-10	08:44:06				
XIBLK08	Nitrobenzene	123 > 46			3335.746									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			18964.324									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			18964.324									
XIBLK08	246-Trinitrotoluene	227 > 210			18964.324									
XIBLK08	34-dinitrotoluene	182 > 152			18964.324									
XIBLK08	26-dinitrotoluene	182 > 152			18964.324									
XIBLK08	24-dinitrotoluene	182 > 152			18964.324									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.62	18964.324		18964.324	18964.324	bb			589.5099	117.9	17.9	2280.5
XIBLK08	2-Nitrotoluene	137 > 46			18964.324									
XIBLK08	4-Nitrotoluene	137 > 46			18964.324									
XIBLK08	3-Nitrotoluene	137 > 46			18964.324									
XIBLK08	PETN	361 > 62			18964.324									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1512

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 03–MAR–10 07:29

GEL Data File: EXP0301082a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	556.508
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
2,4–Dinitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	554.089
2,4,6–Trinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301082a
Date: 03-Mar-2010
Time: 07:29:51
ID: XIBLK09
Vial: 1:1,A

HMM 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.306e+003

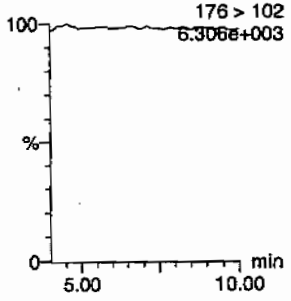

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.306e+003

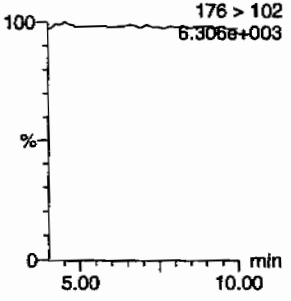

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.094e+003

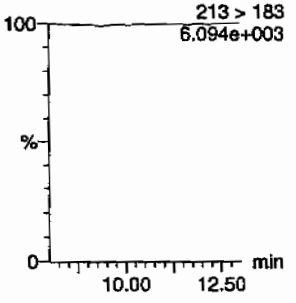

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.368e+004

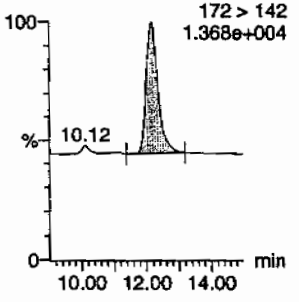

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.131e+003

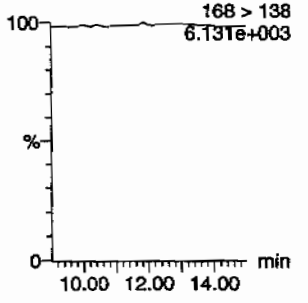

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.089e+003

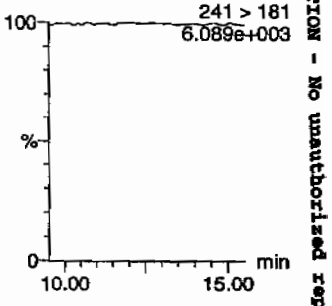

Nitrobenzene
F7:MRM of 1 channel,AP-
11.30
123 > 46
6.258e+003

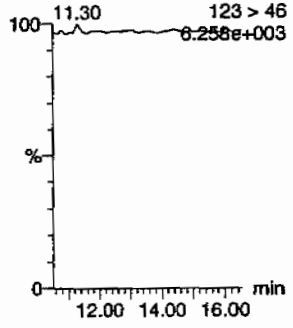

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.196e+003

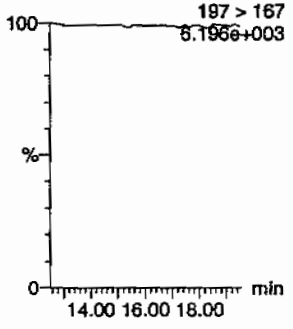

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.254e+003

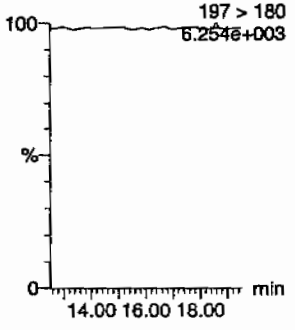

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.130e+003

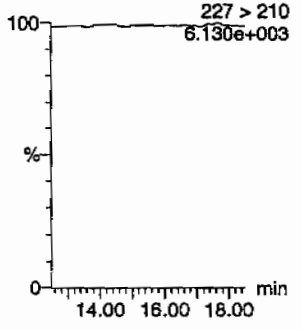

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.134e+003

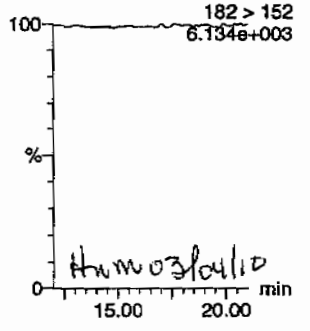

HMM 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.134e+003

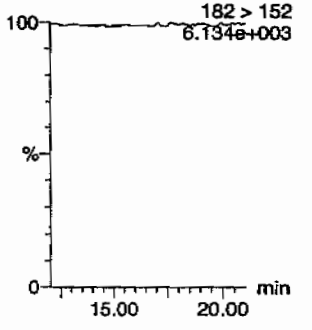

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

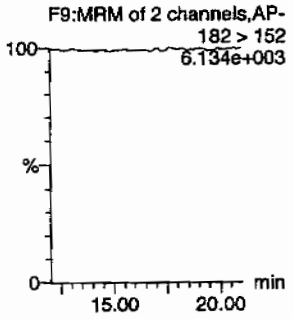

26-dinitrotoluene-d3

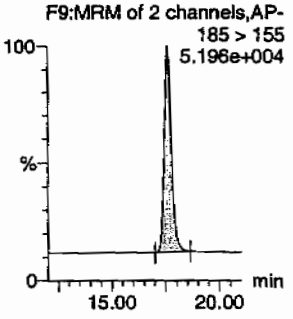

2-Nitrotoluene

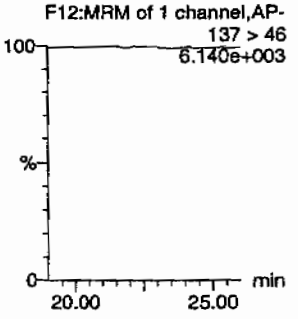

4-Nitrotoluene

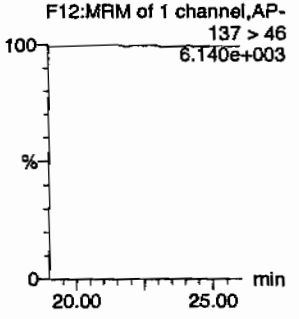

3-Nitrotoluene

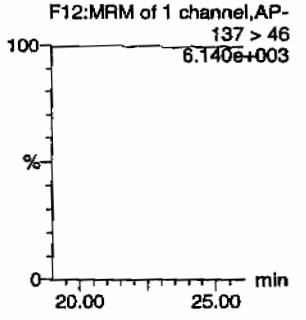

PETN

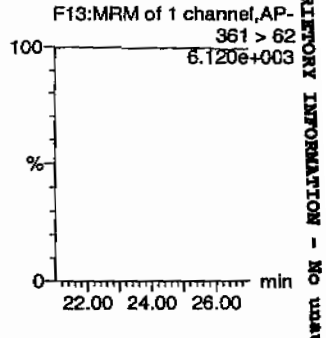

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3211.582									
XIBLK09	RDX	176 > 102			3211.582									
XIBLK09	135-Trinitrobenzene	213 > 183			3211.582									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.17	3211.582		3211.582	3211.582	bb			554.0886	110.8	10.8	286.4
XIBLK09	13-Dinitrobenzene	168 > 138			3211.582									
XIBLK09	Tetryl	241 > 181			3211.582									
XIBLK09	Nitrobenzene	123 > 46			3211.582									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			17902.656									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			17902.656									
XIBLK09	246-Trinitrotoluene	227 > 210			17902.656									
XIBLK09	34-dinitrotoluene	182 > 152			17902.656									
XIBLK09	26-dinitrotoluene	182 > 152			17902.656									
XIBLK09	24-dinitrotoluene	182 > 152			17902.656									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.62	17902.656		17902.656	17902.656	bb			556.5078	111.3	11.3	1976.1
XIBLK09	2-Nitrotoluene	137 > 46			17902.656									
XIBLK09	4-Nitrotoluene	137 > 46			17902.656									
XIBLK09	3-Nitrotoluene	137 > 46			17902.656									
XIBLK09	PETN	361 > 62			17902.656									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1512

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 22–FEB–10 19:23

GEL Data File: EXS02220010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	1.35
tris(o–cresyl) phosphate	0	10.7
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02220010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

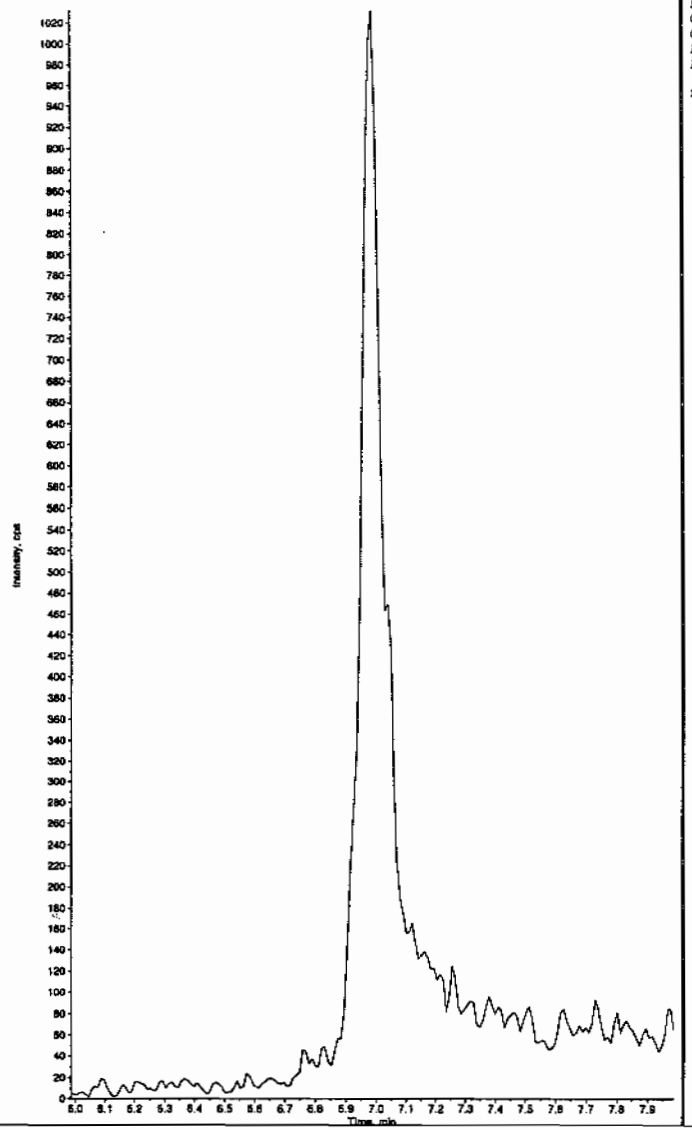

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02220010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

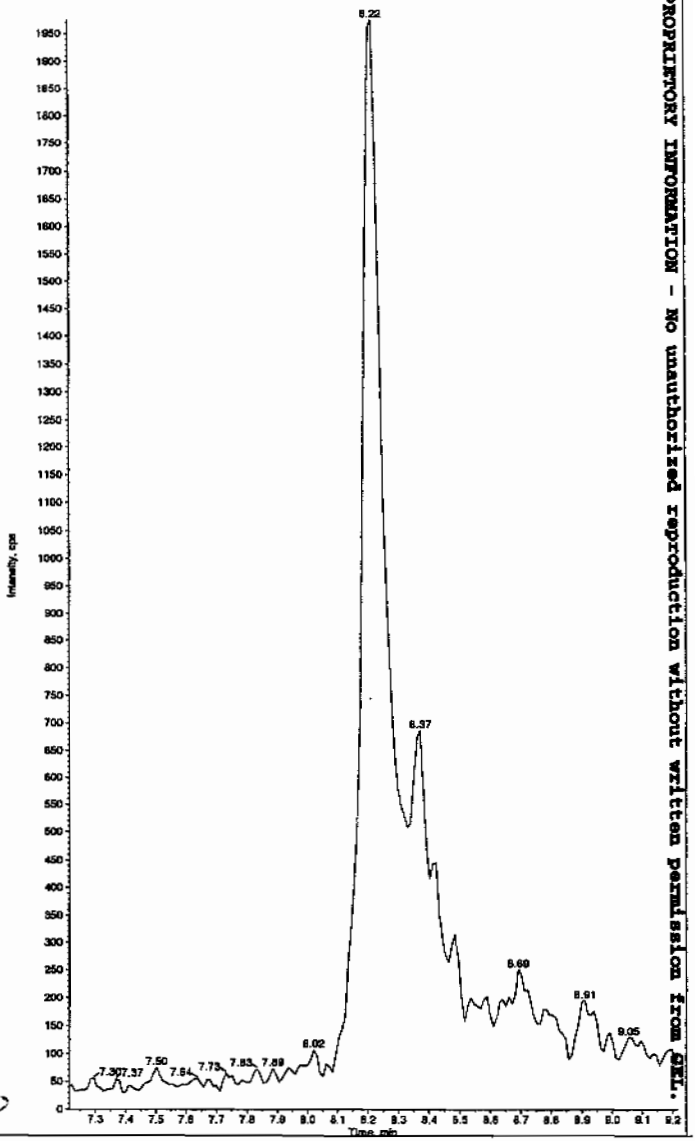

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.35 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 9.14e+003 counts
Height: 1997.357 cps
Start Time: 8.30 min
End Time: 8.59 min

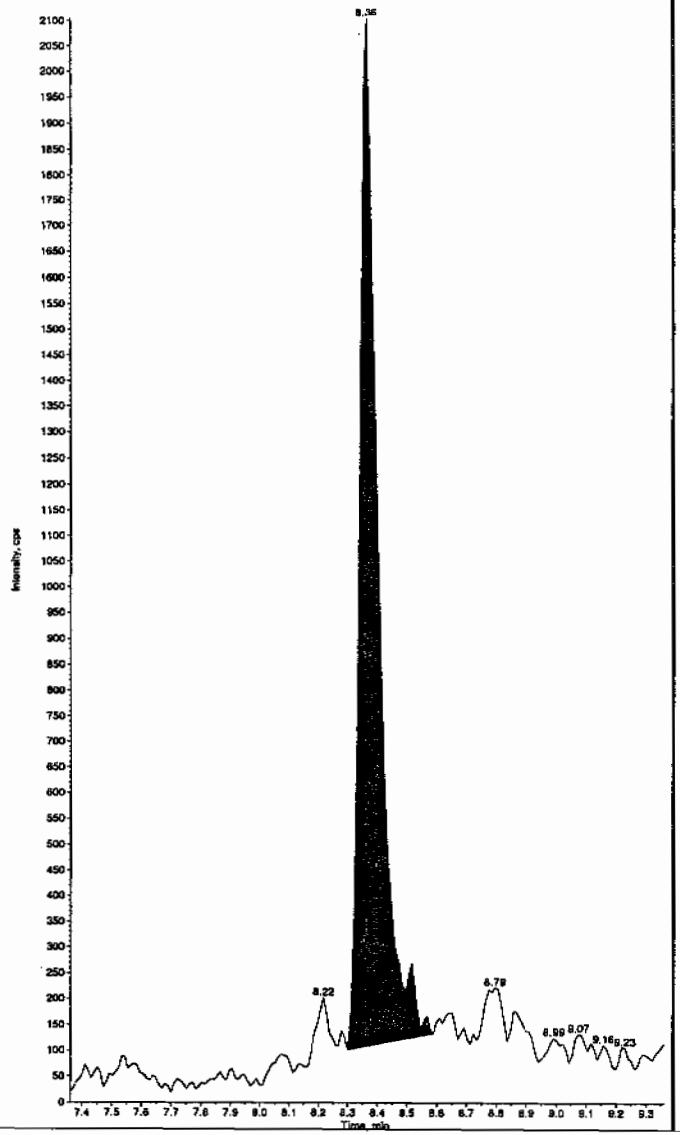

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

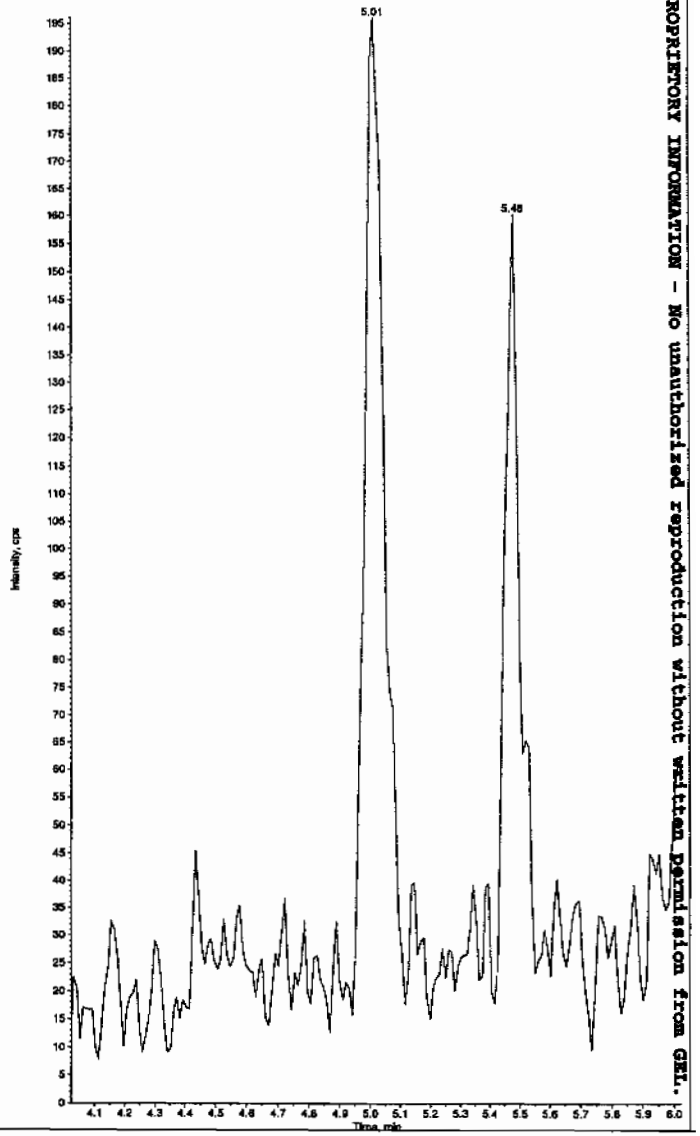

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No

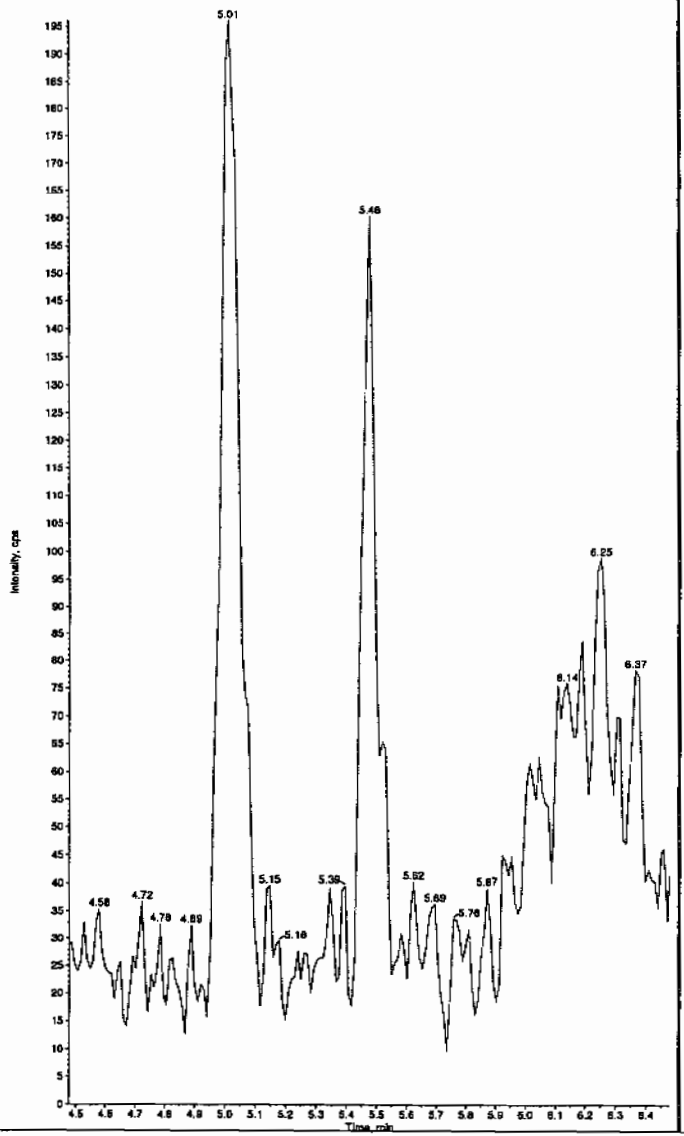

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02220010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 10.7 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:23:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.72e+005 counts
Height: 61036.366 cps
Start Time: 10.8 min
End Time: 11.3 min

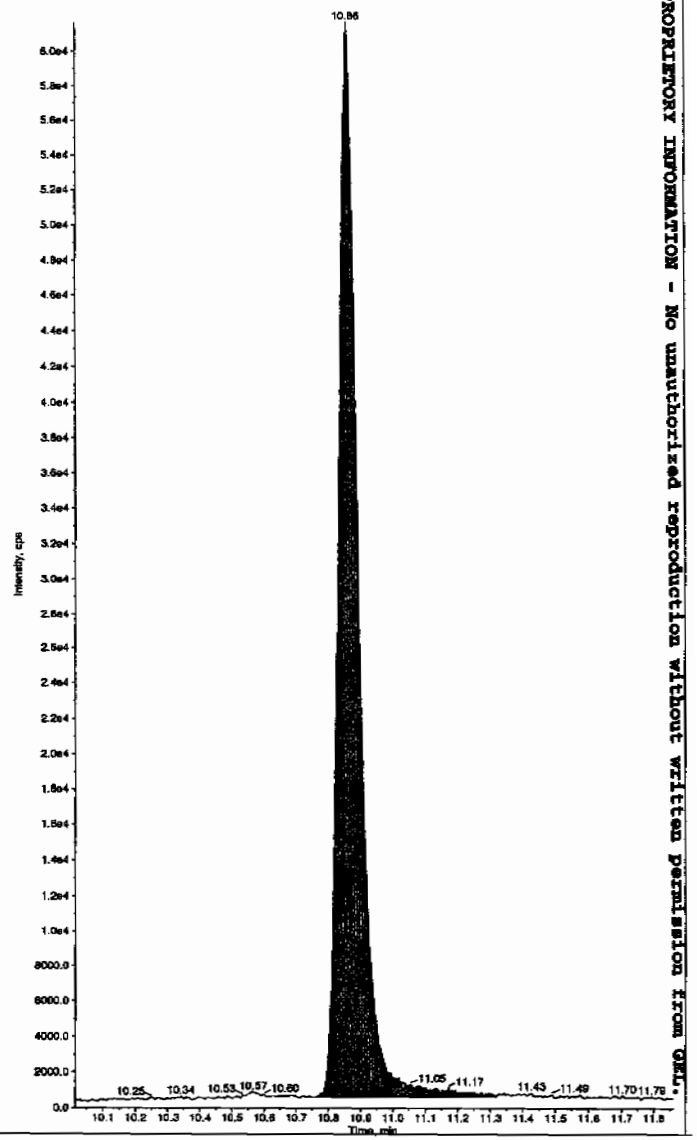

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1512

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 22–FEB–10 19:54

GEL Data File: EXS02220012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	7.18
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rcv 2/23/10

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02220012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

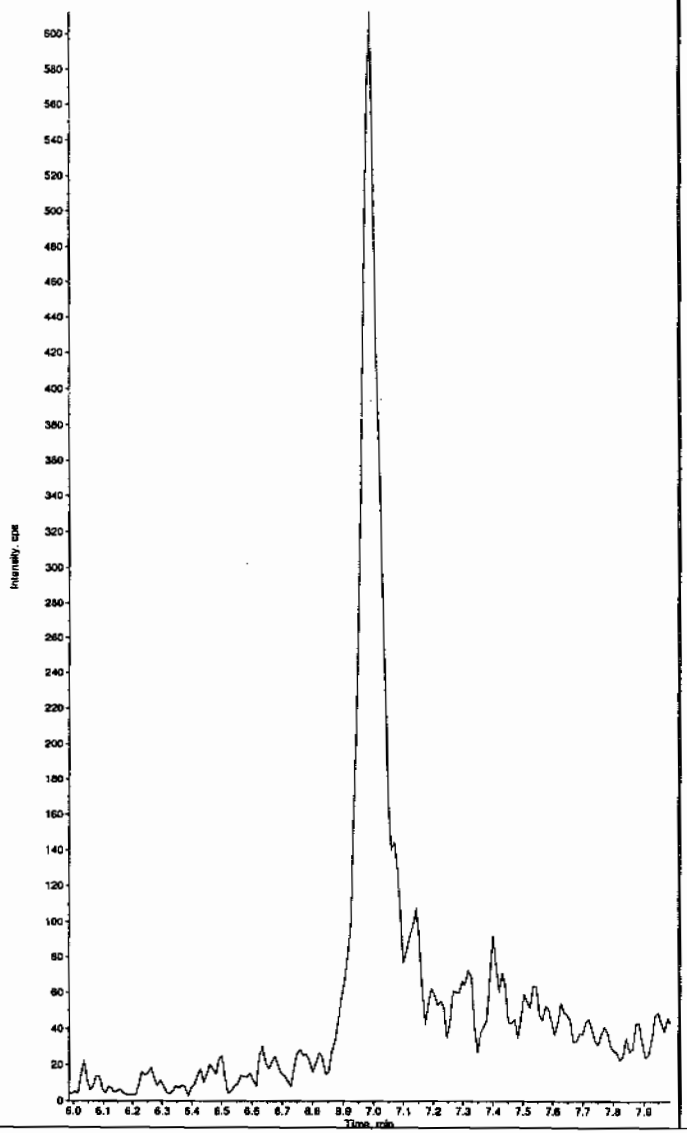

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02220012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

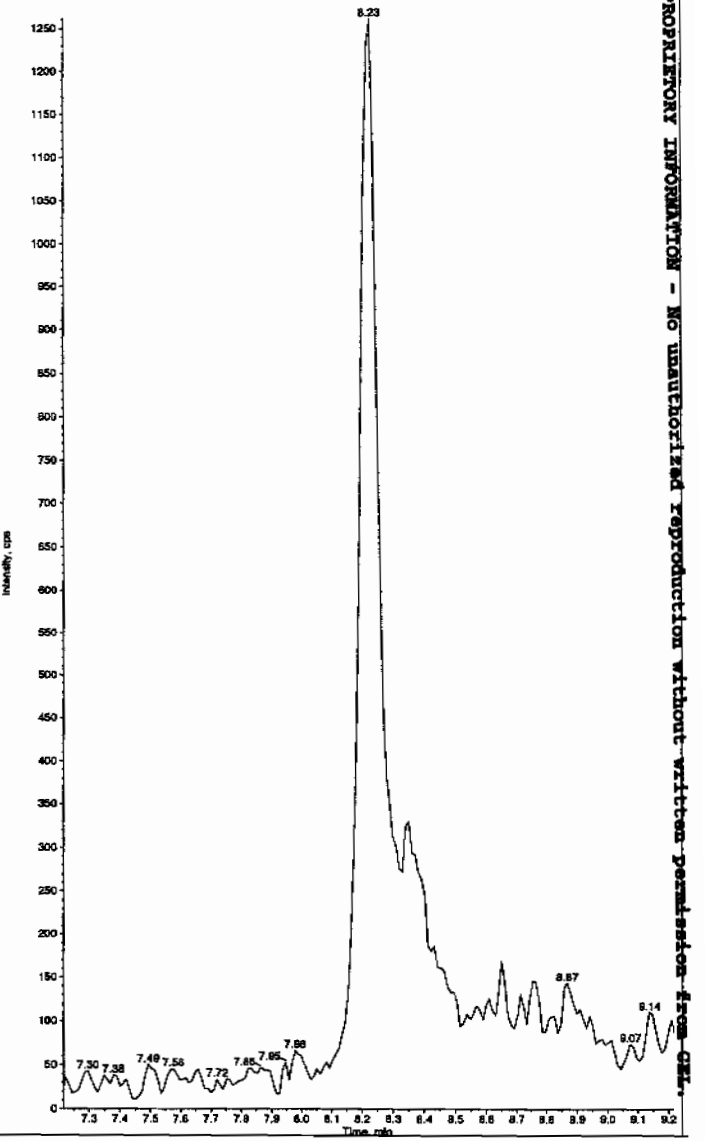

HJ|LK 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

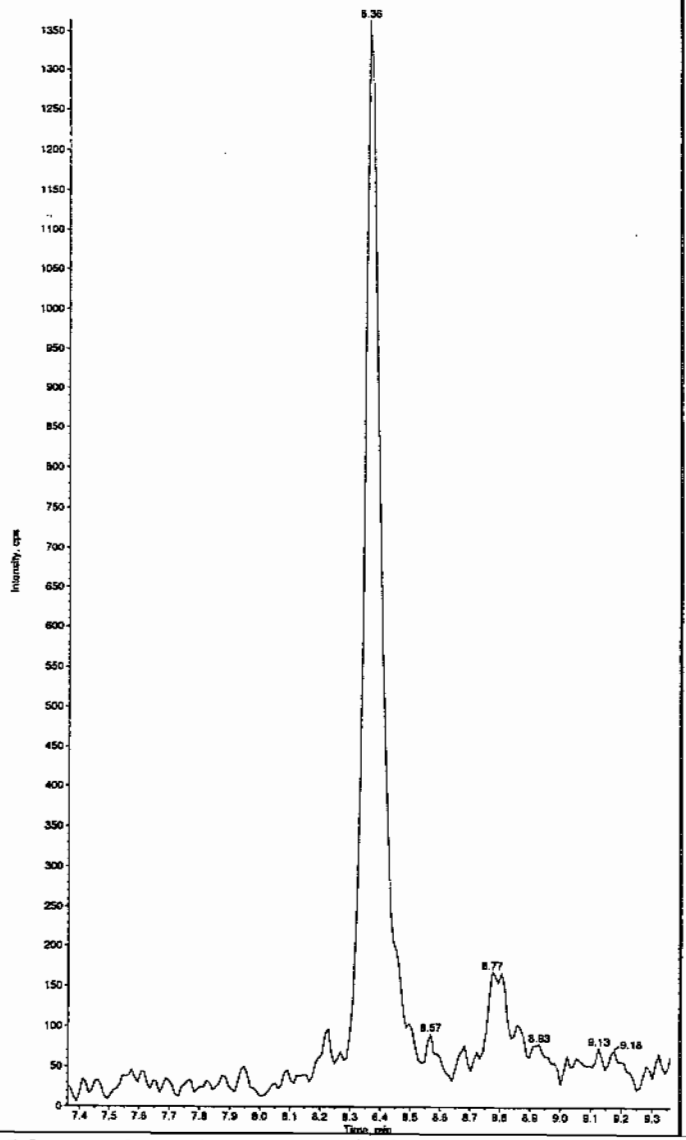

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

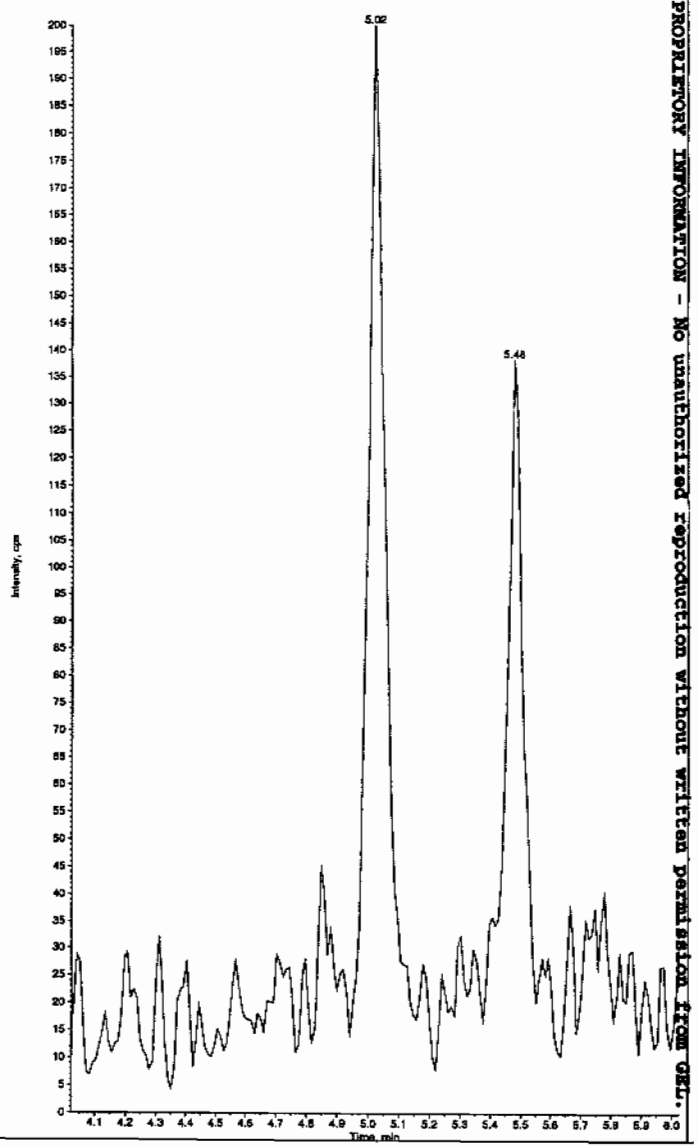

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No

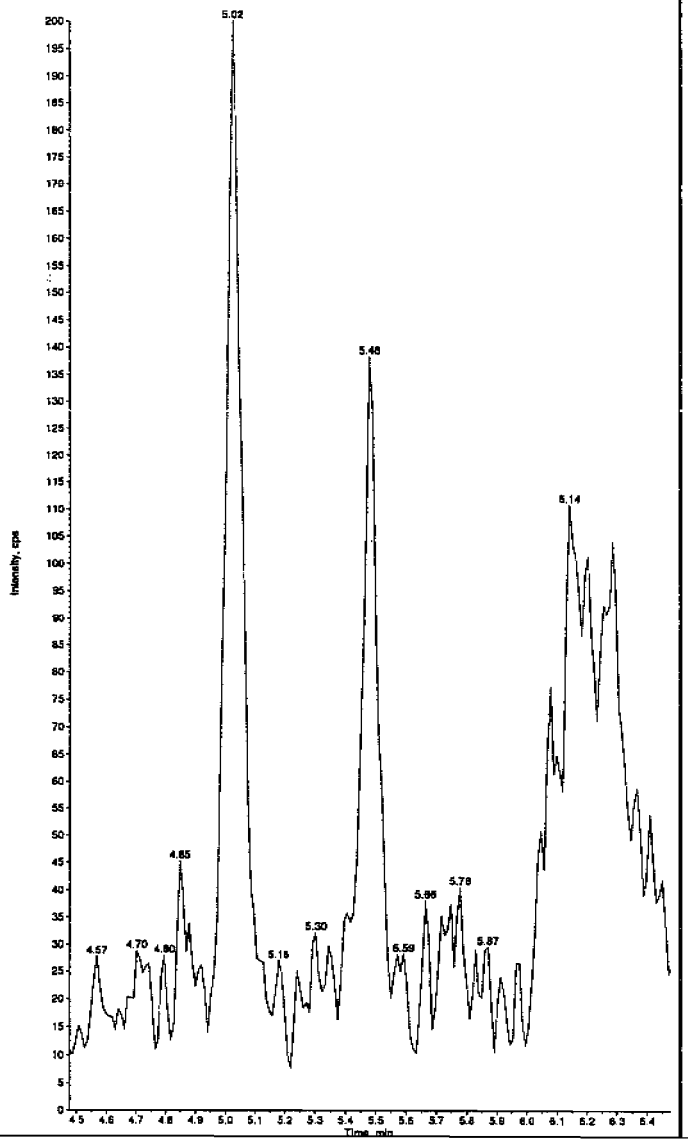

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02220012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 7.18 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:54:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.97e+005 counts
Height: 46330.444 cps
Start Time: 10.7 min
End Time: 11.1 min

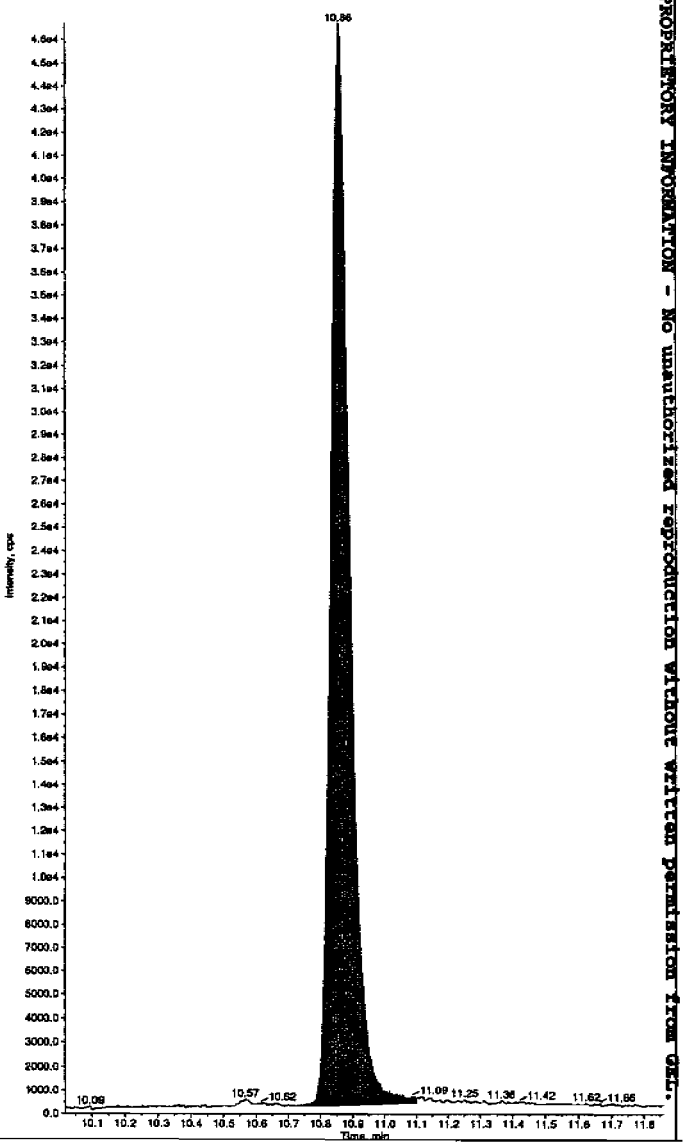

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 22-FEB-10 21:13

GEL Data File: EXS02220017.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	1.15
tris(o-cresyl) phosphate	0	2.53
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 2/23/10

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02220017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

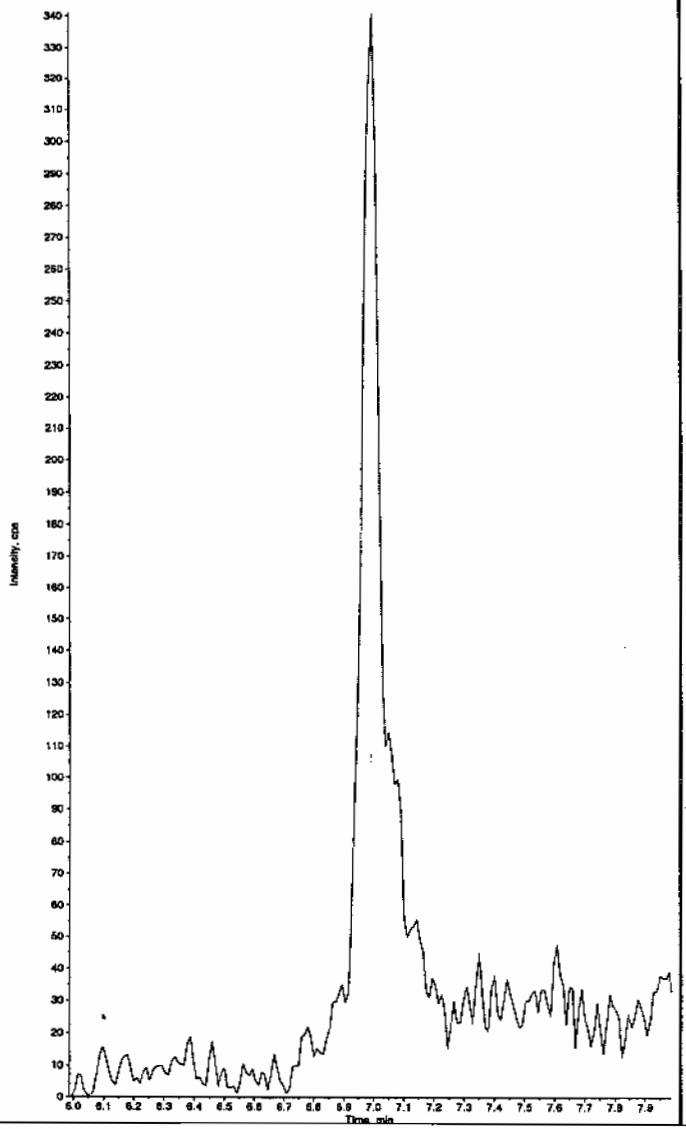

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02220017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

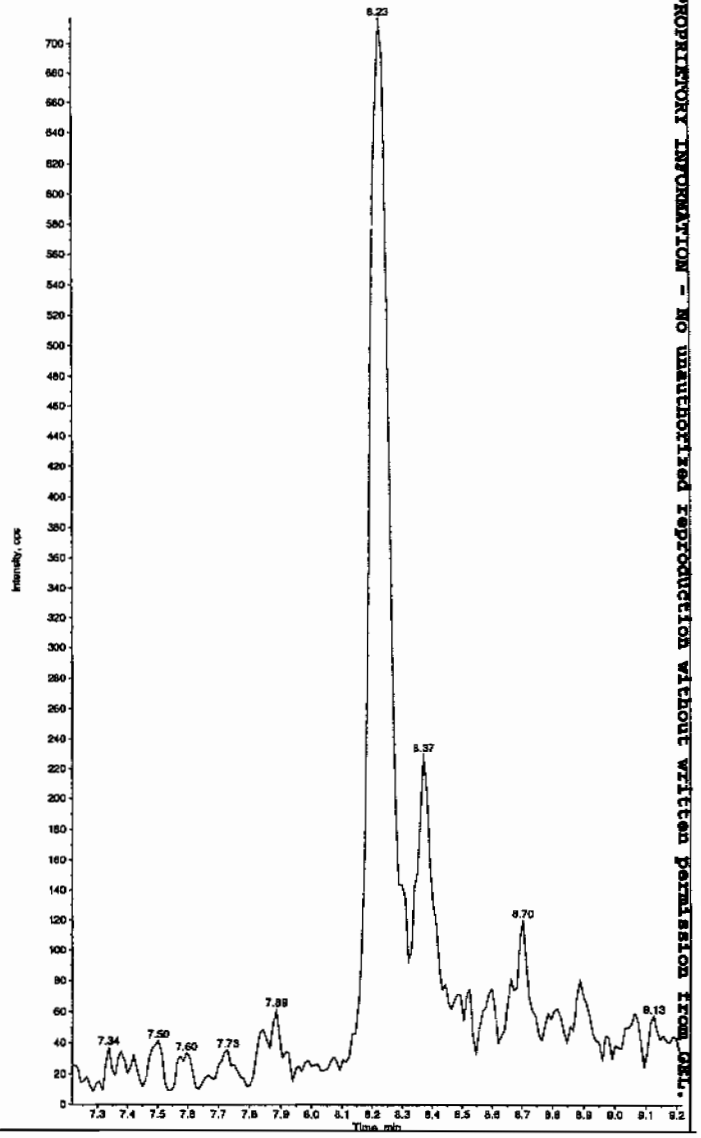

HM 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02220017.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.15 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.37e+003 counts
Height: 1560.241 cps
Start Time: 8.29 min
End Time: 8.59 min

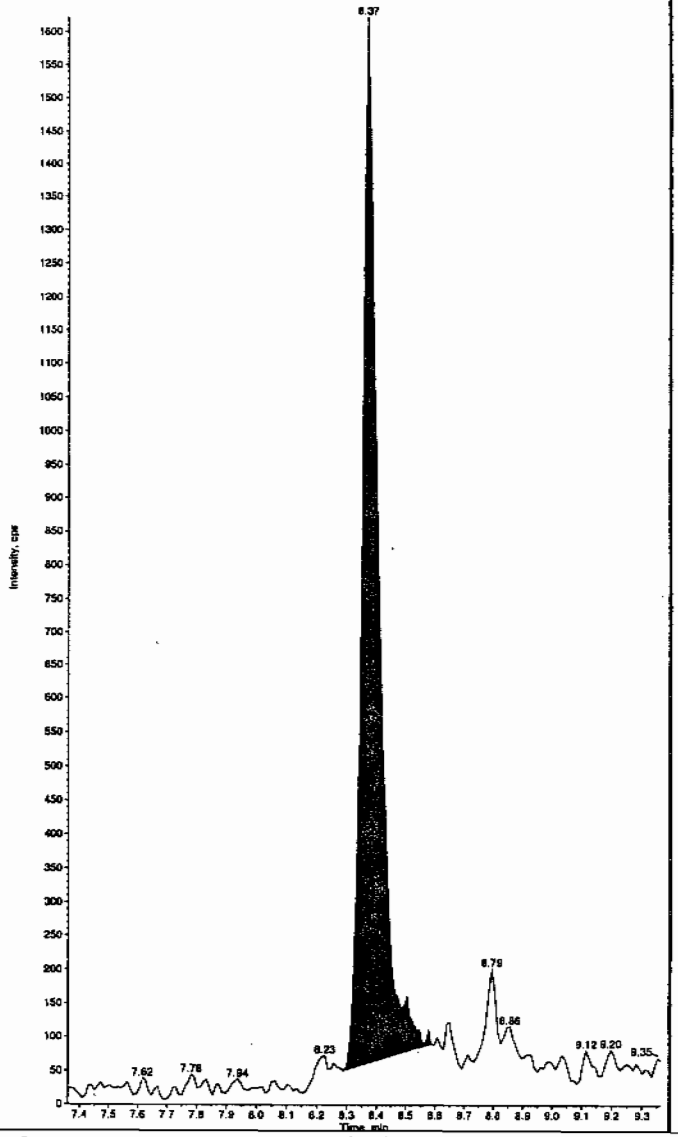

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02220017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

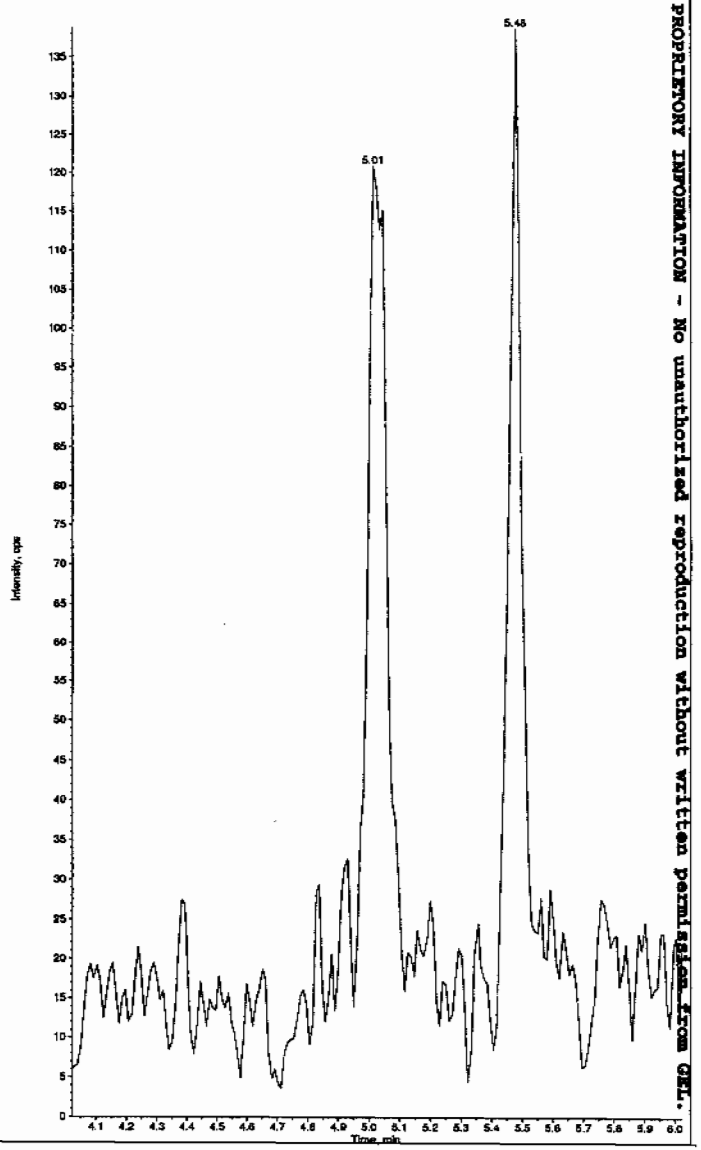

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXSC2220017.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No

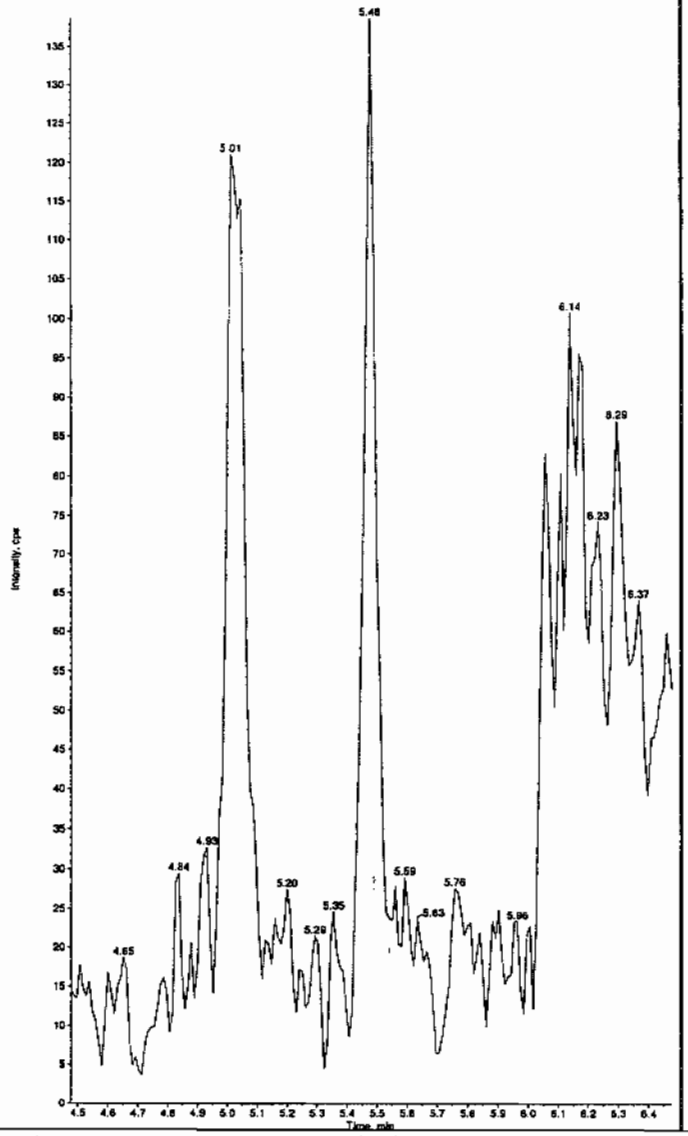

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXSC2220017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.53 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:13:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.75e+004 counts
Height: 23543.831 cps
Start Time: 10.8 min
End Time: 11.0 min

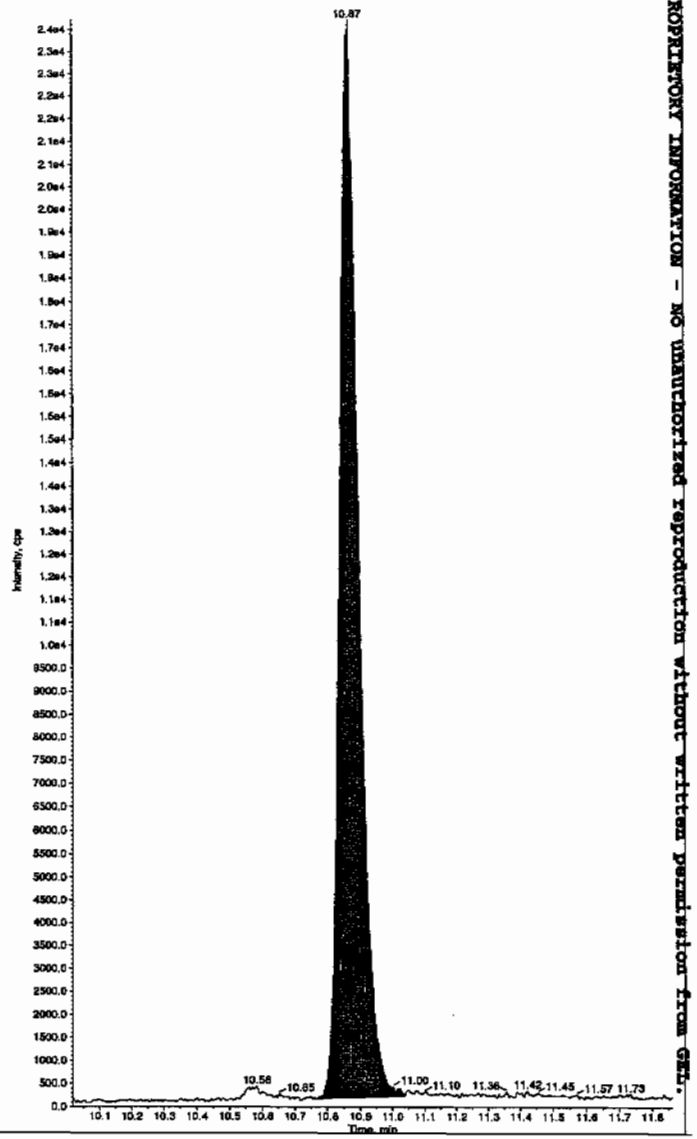

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1512

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 22–FEB–10 23:19

GEL Data File: EXS02220025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.52
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sam 2/23/10

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

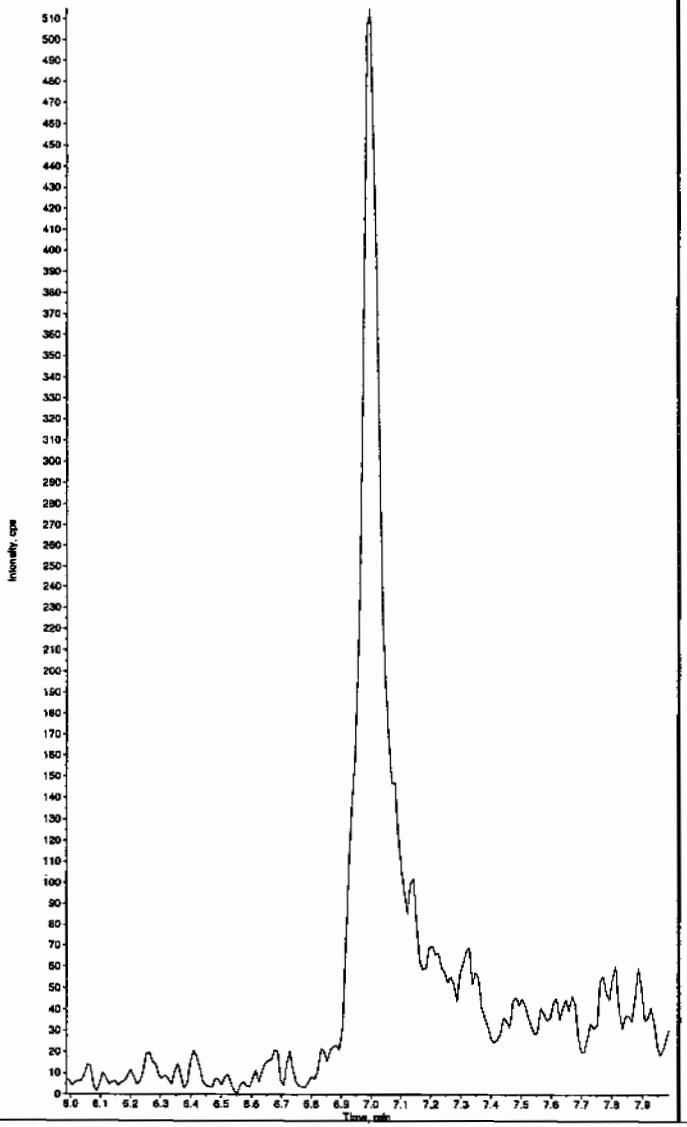

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

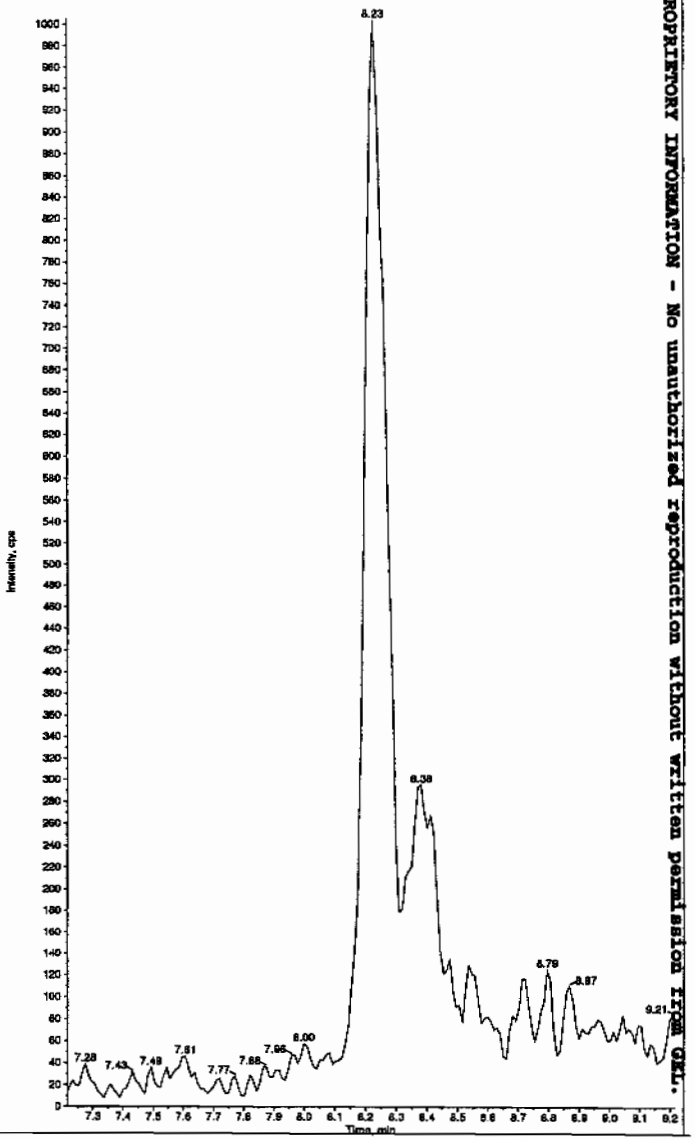

Hmw 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02220025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

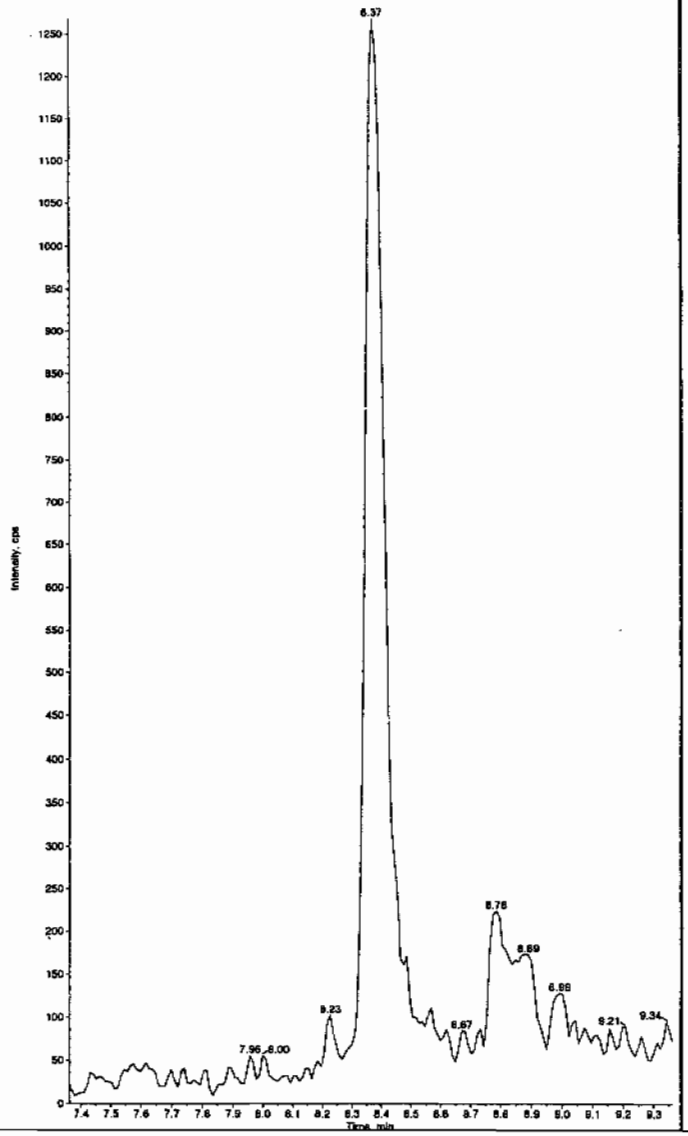

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02220025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

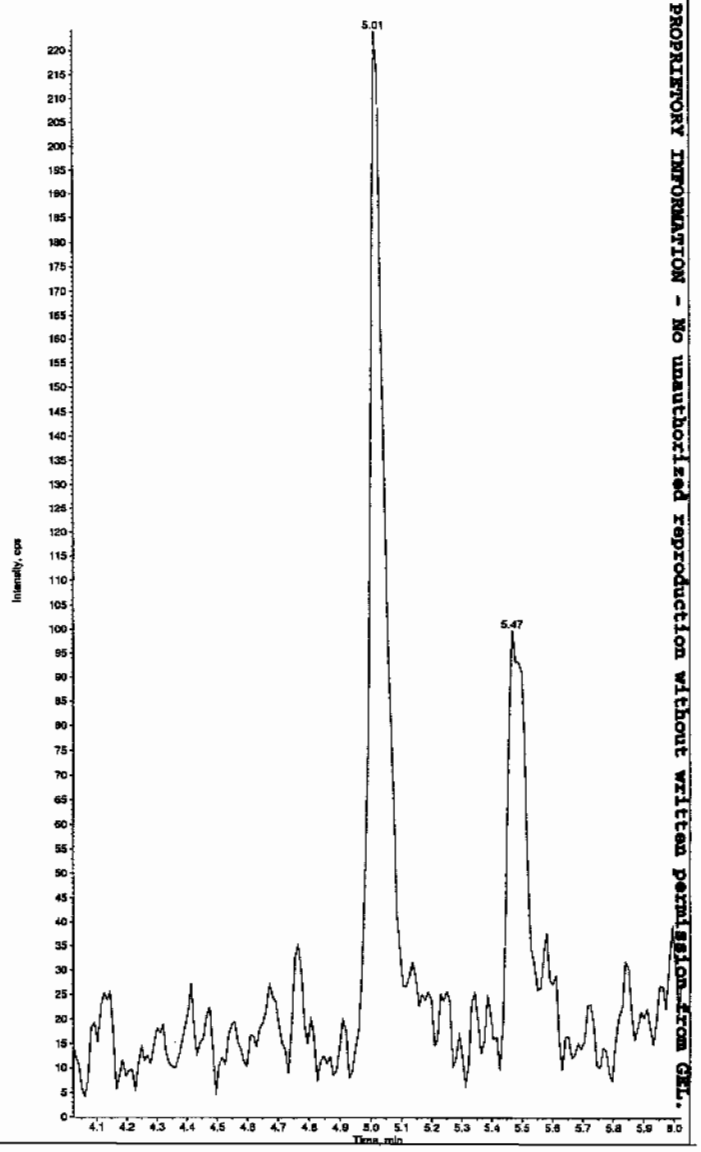

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No

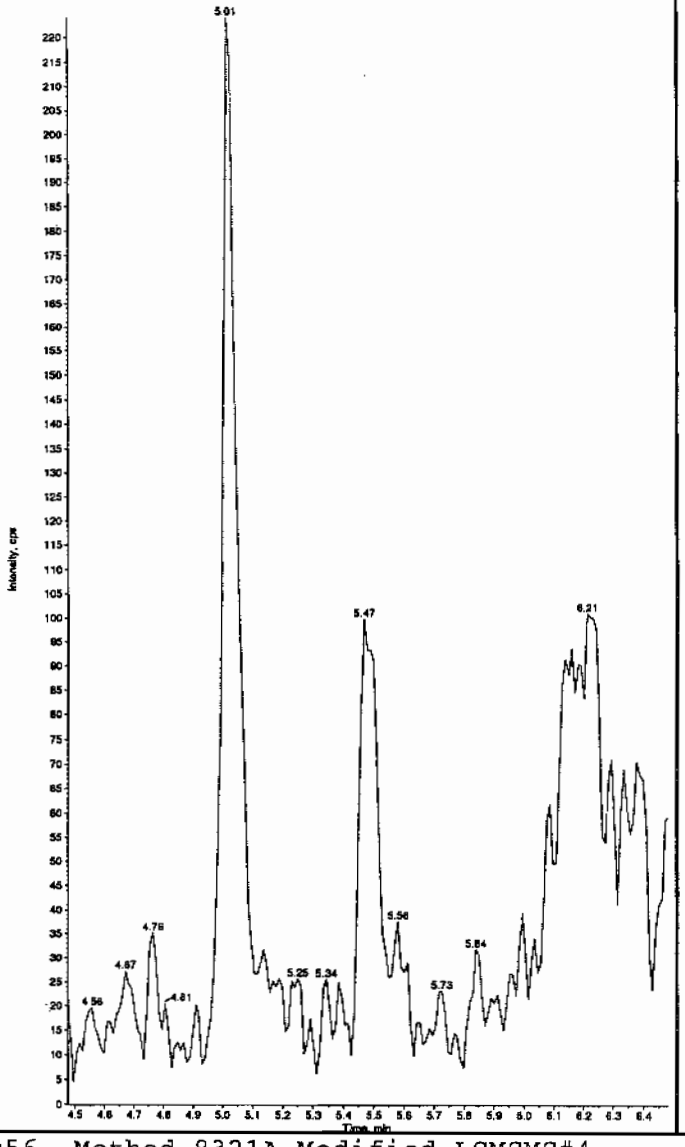

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02220025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.52 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:19:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.40e+005 counts
Height: 33527.149 cps
Start Time: 10.8 min
End Time: 11.2 min

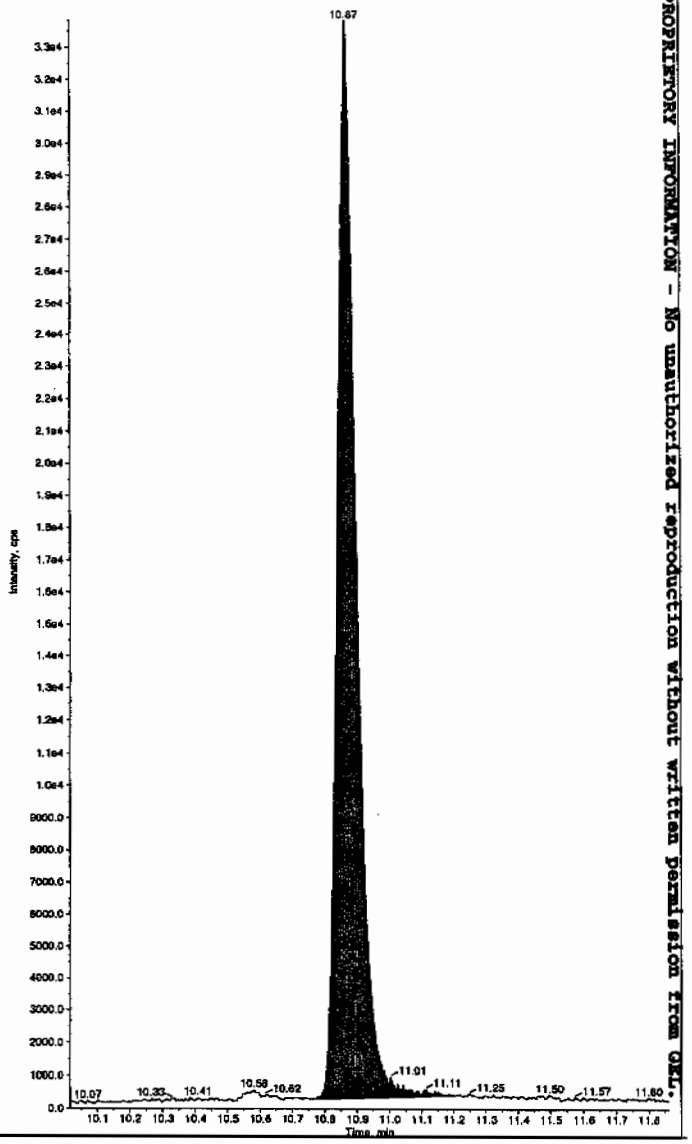

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 23-FEB-10 02:43

GEL Data File: EXS02220038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	1.18
tris(o-cresyl) phosphate	0	4.04
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ken 2/23/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

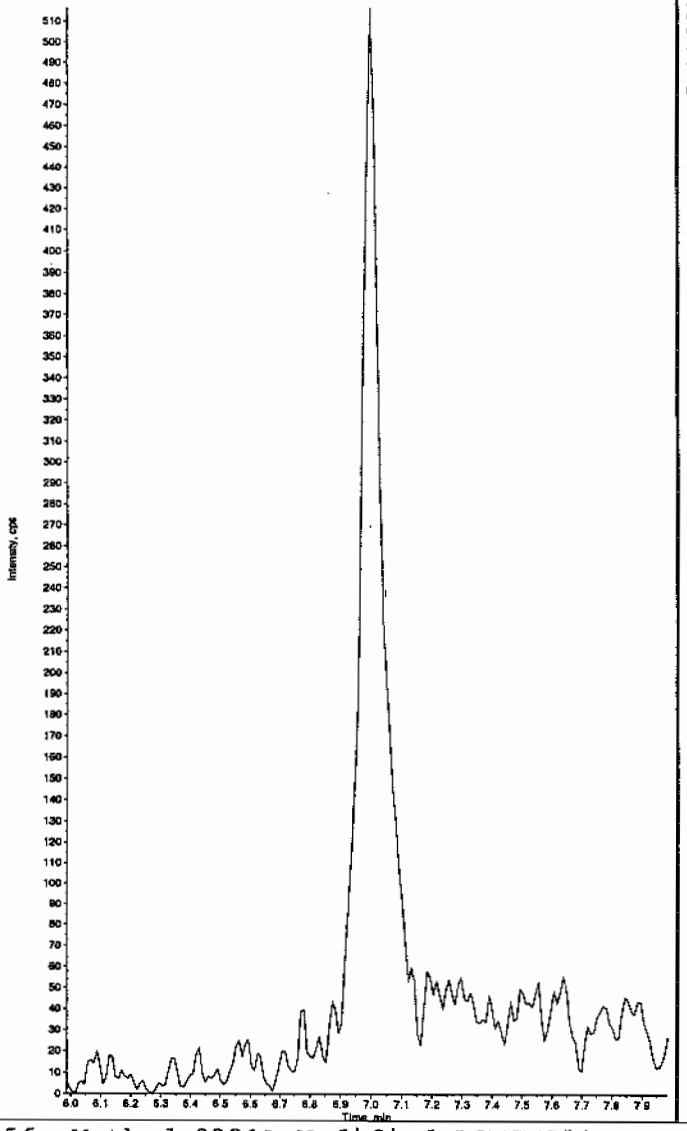

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

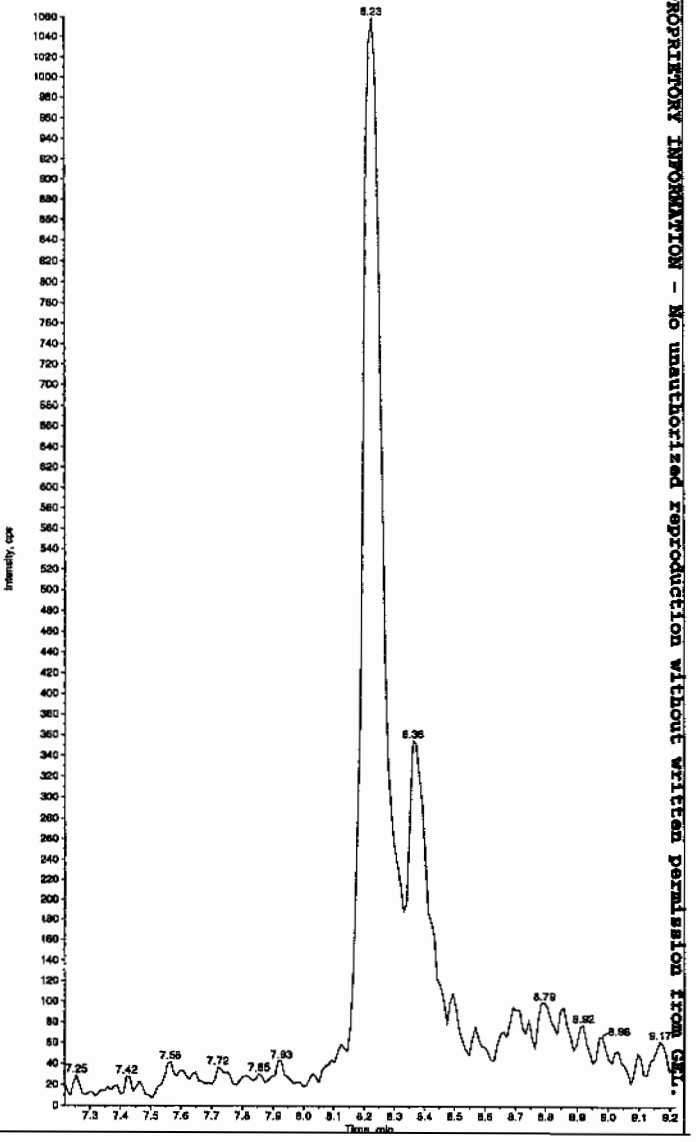

Anne 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02220038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.18 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.82e+003 counts
Height: 1502.971 cps
Start Time: 8.30 min
End Time: 8.65 min

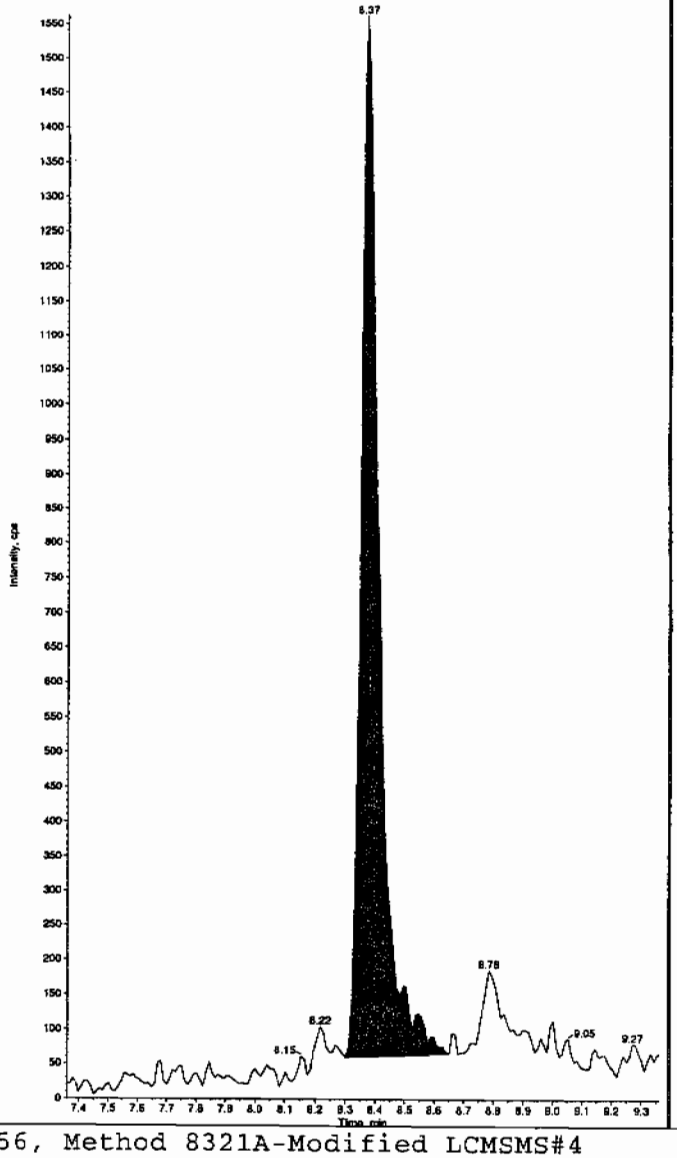

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02220038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

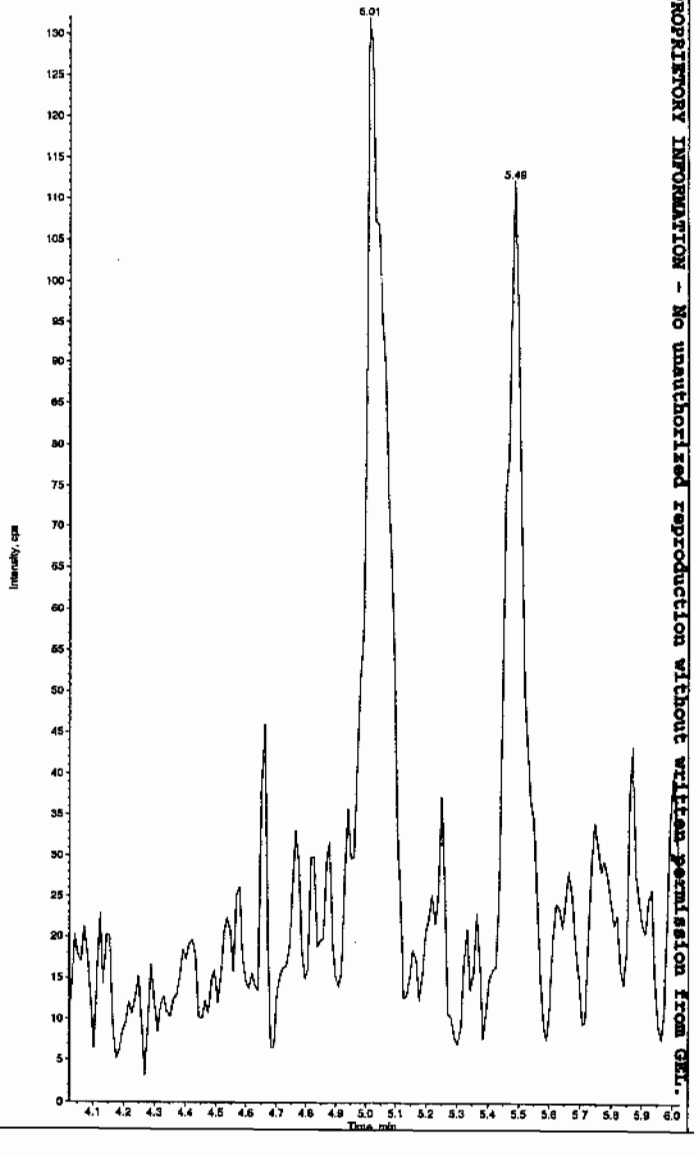

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No

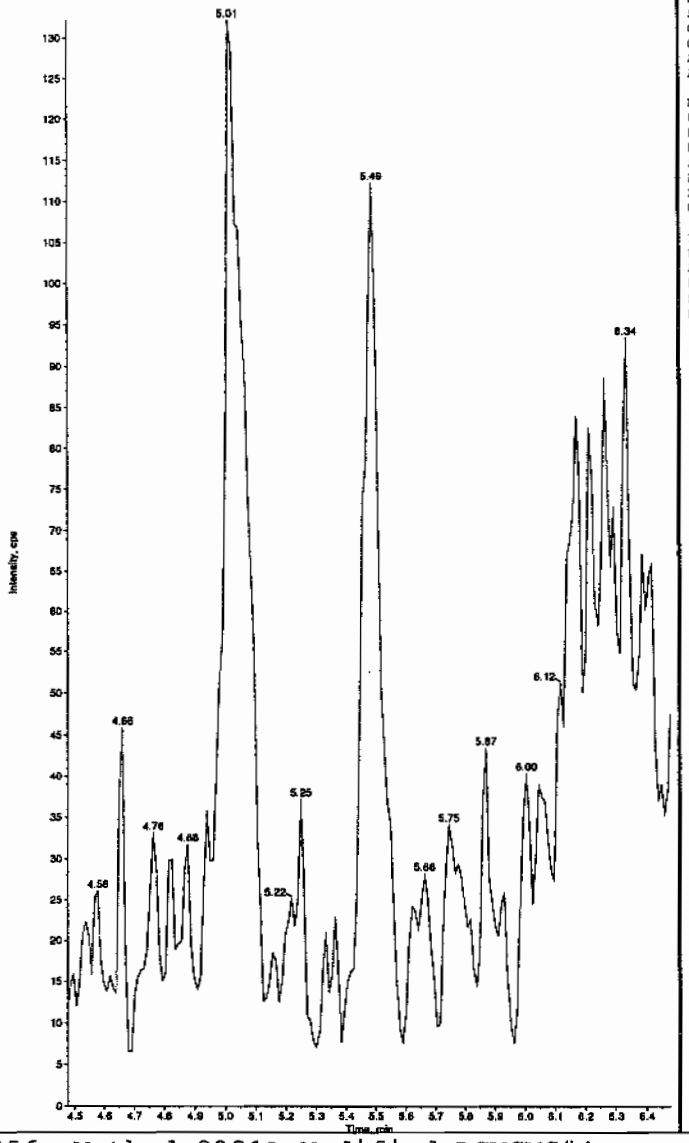

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02220038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.04 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:43:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.30e+005 counts
Height: 31013.344 cps
Start Time: 10.8 min
End Time: 11.1 min

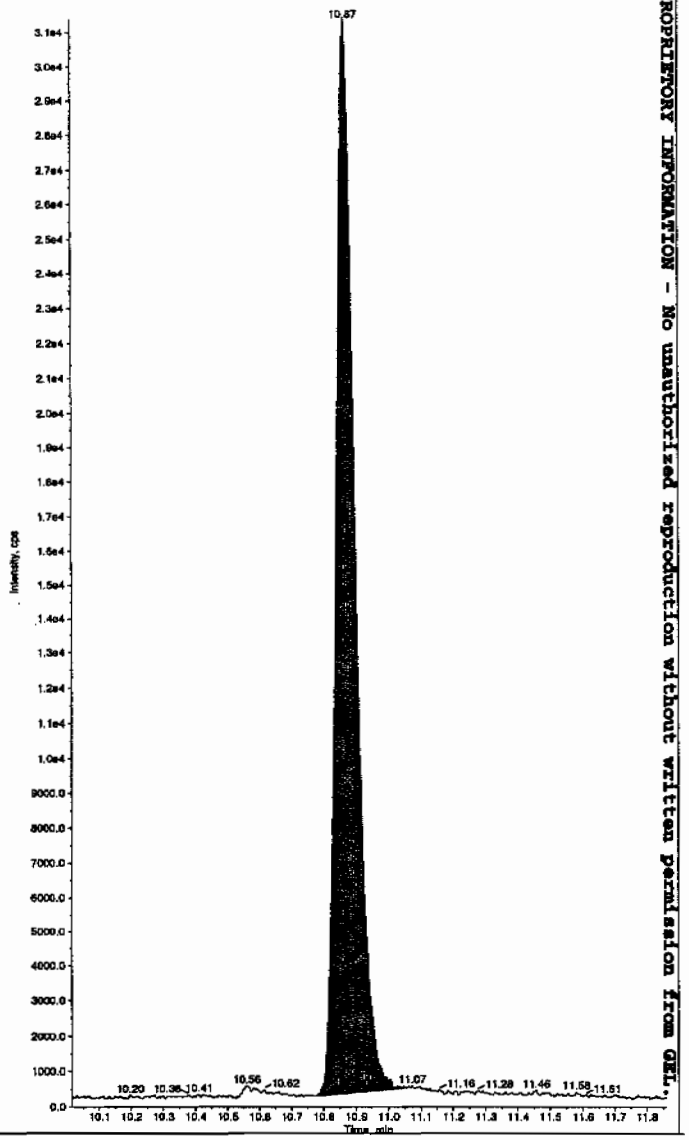

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 23-FEB-10 04:02

GEL Data File: EXS02220043.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.43
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0

Lan 2/23/10

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

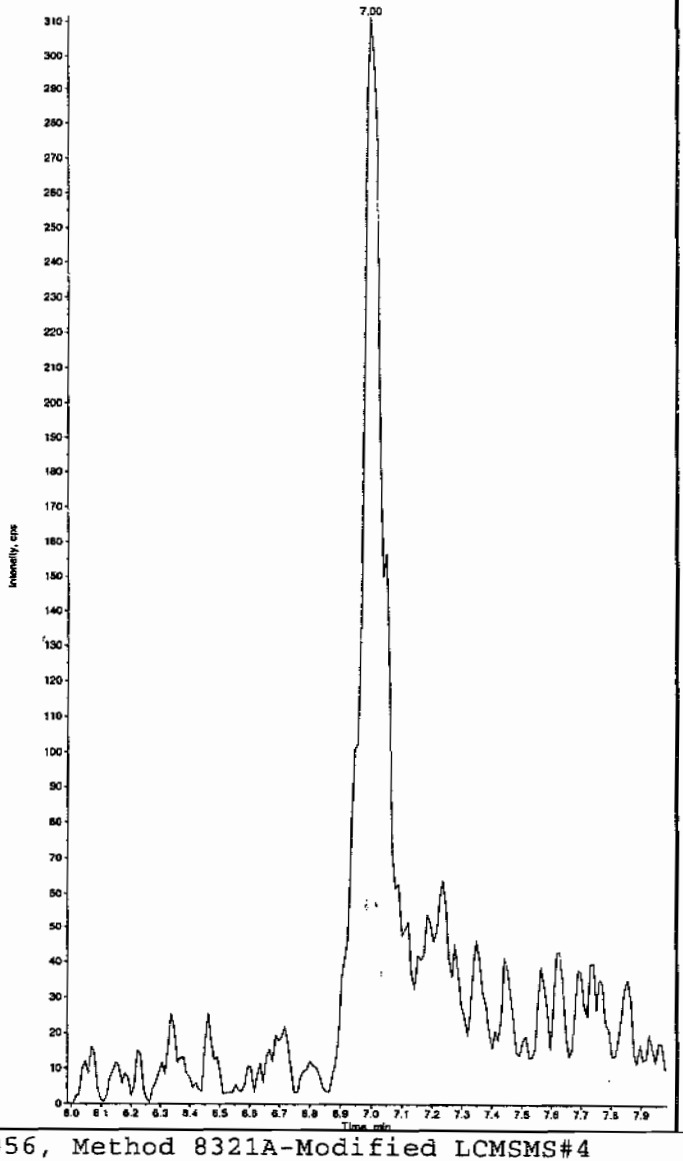

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

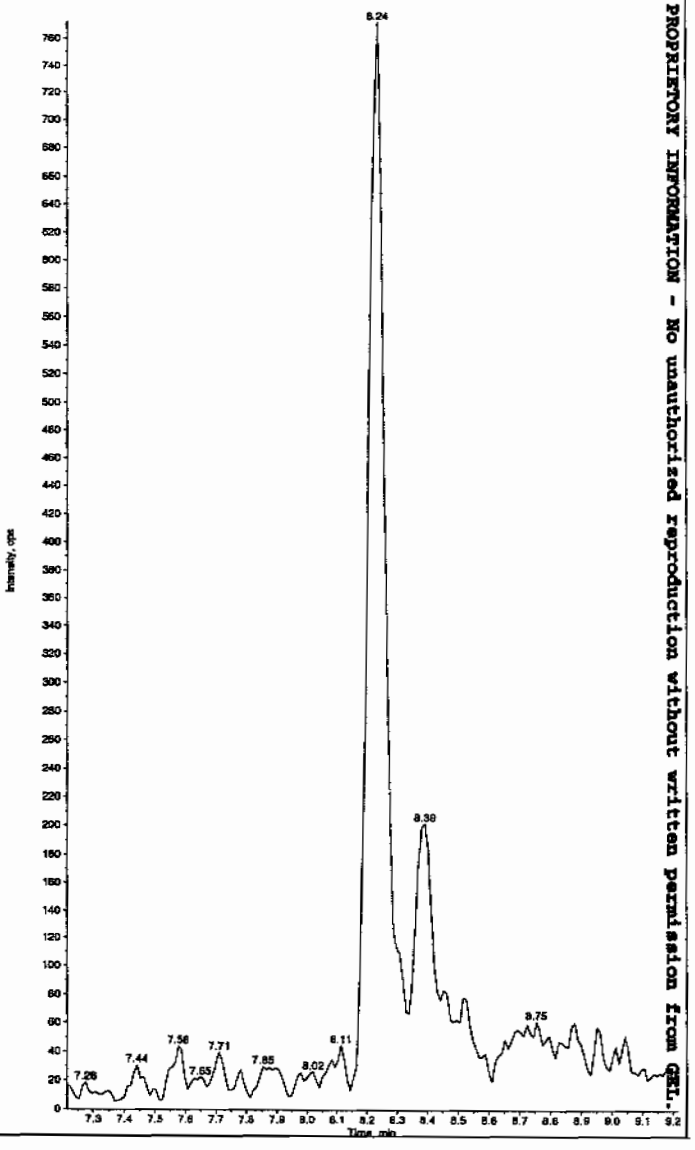

HJW 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XISLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

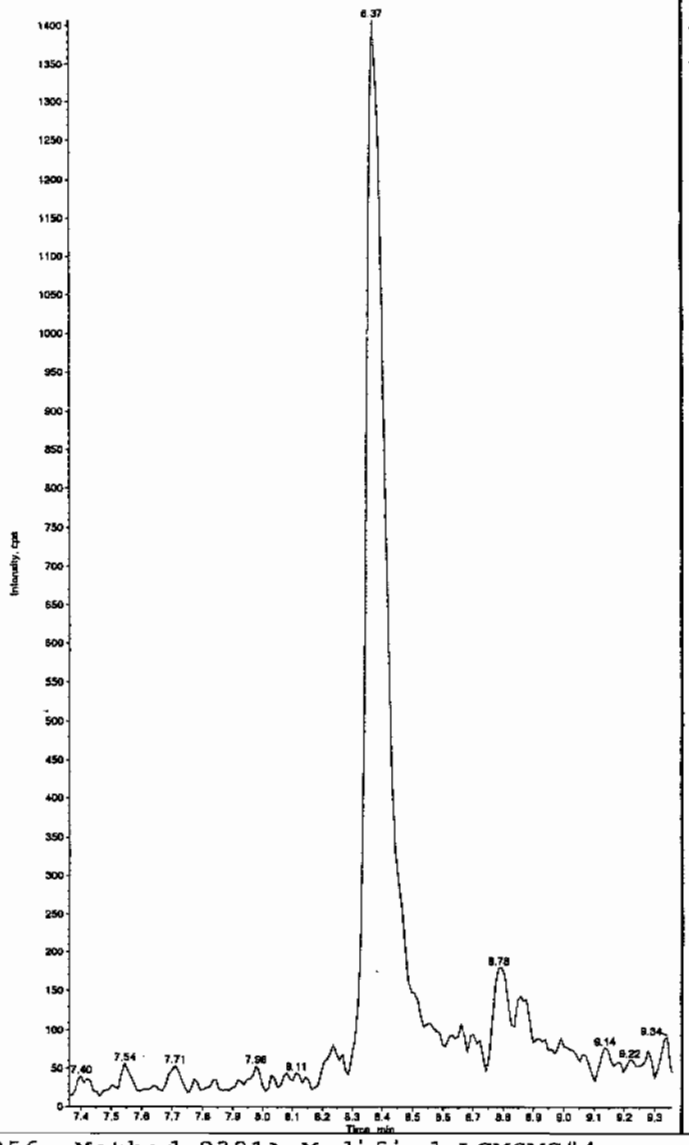

Sample Name: "XISLK07" Sample ID: "[1]LER" File: "EXS02220043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

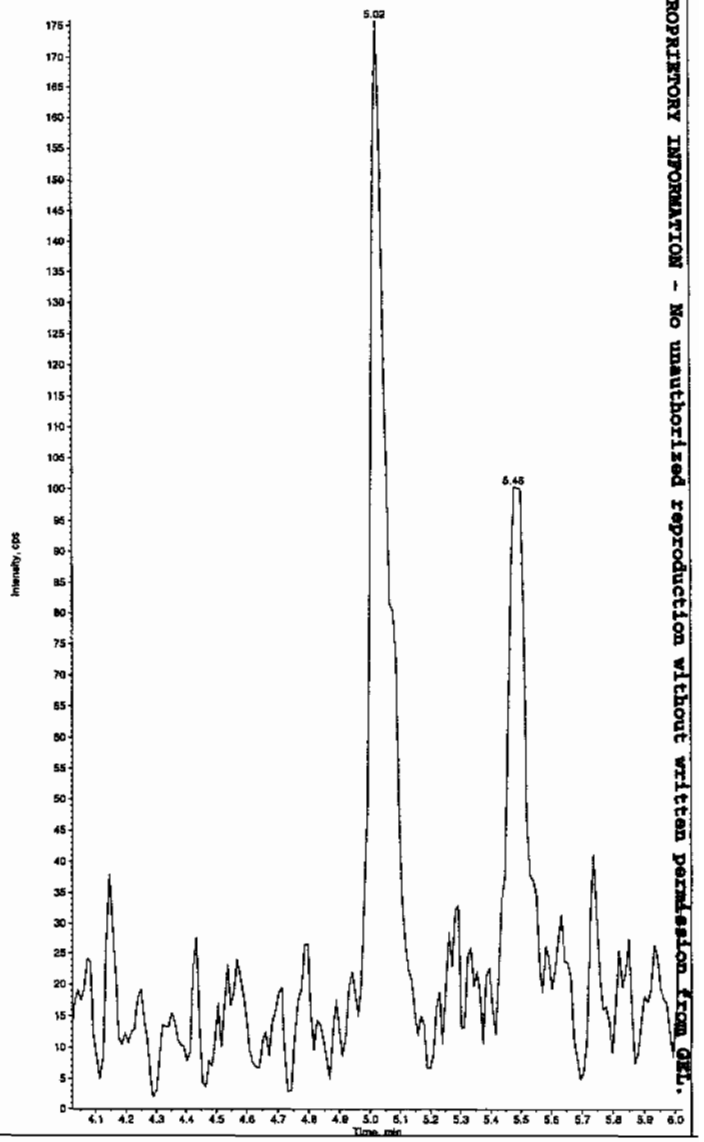

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02220043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No

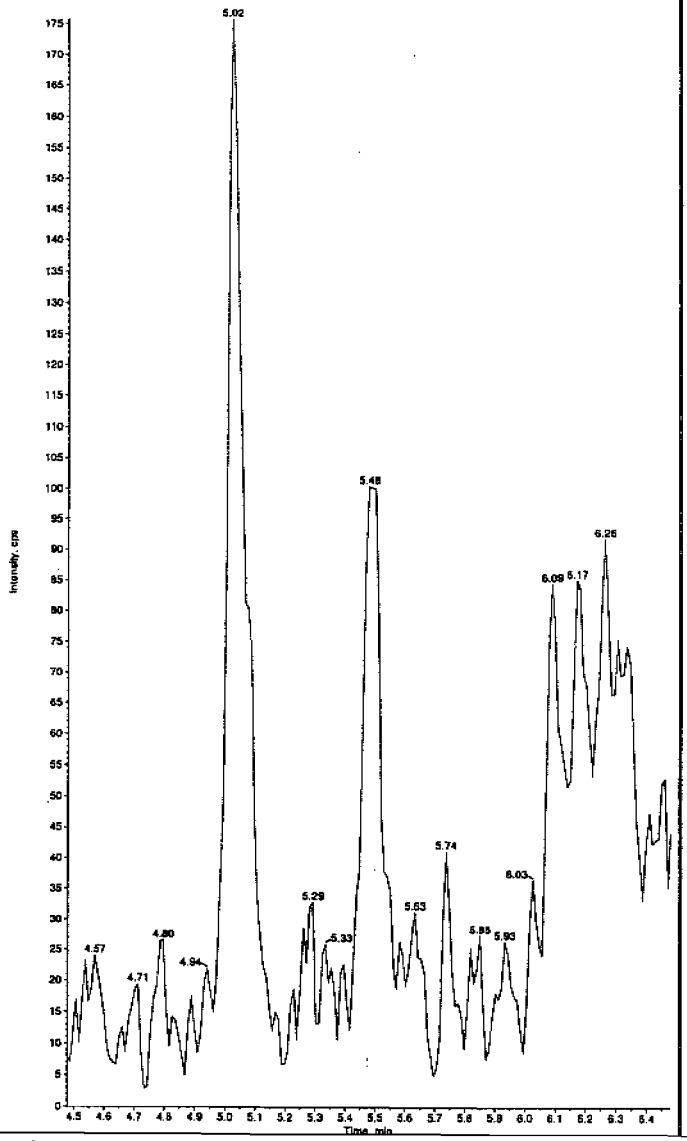

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02220043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.43 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 4:02:12 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.52e+004 counts
Height: 22422.792 cps
Start Time: 10.8 min
End Time: 11.1 min

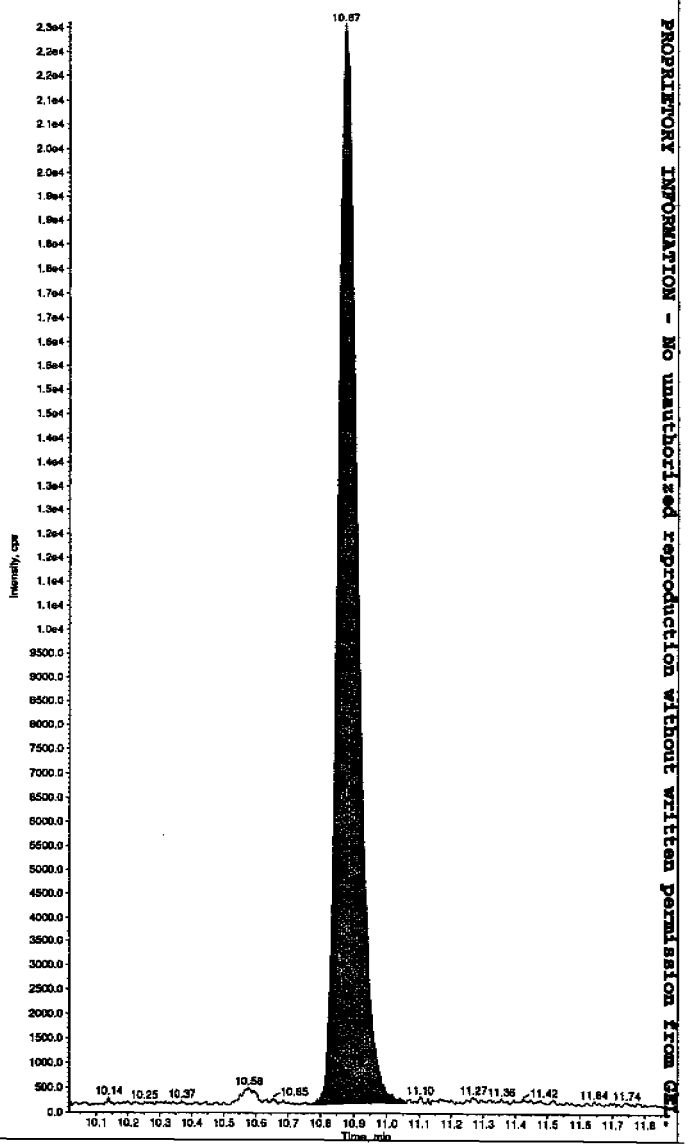

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1512

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 23-FEB-10 06:08

GEL Data File: EXS02220051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.67
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

dar 2/23/10

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

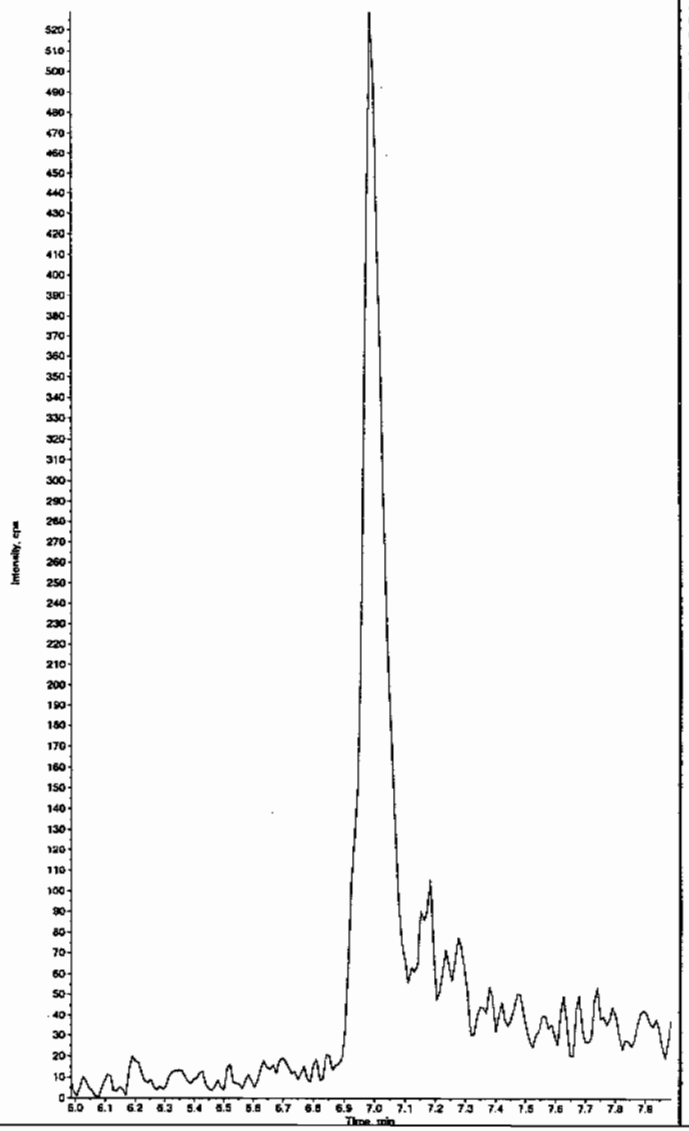

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

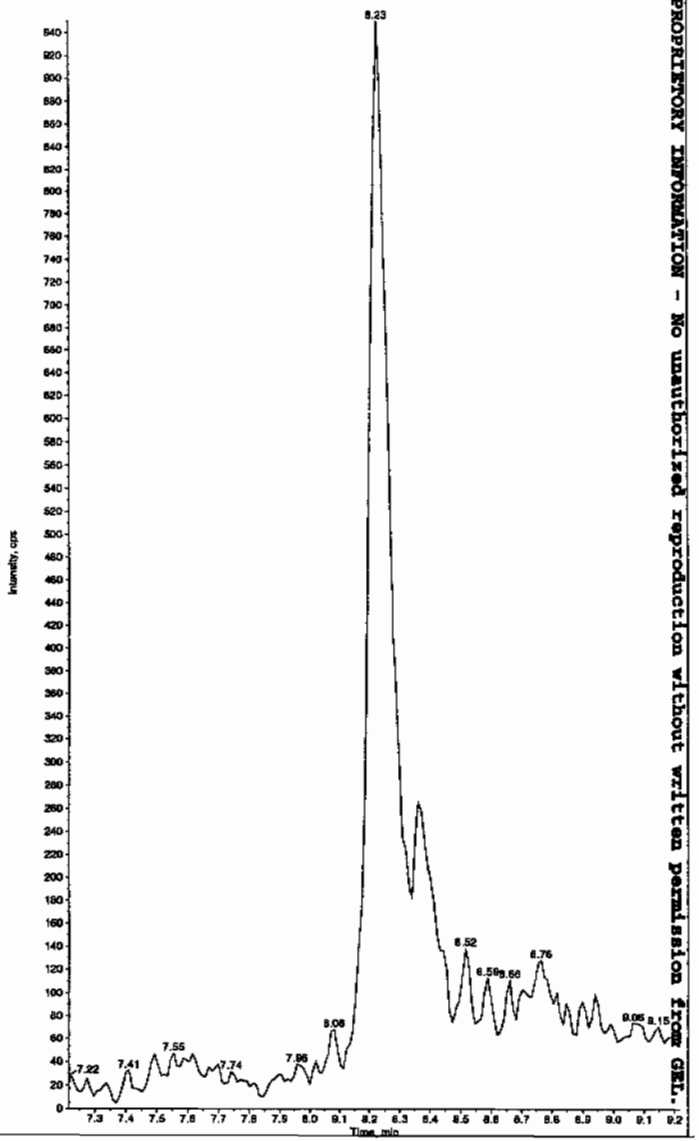

HJM 02/23/10

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02220051.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

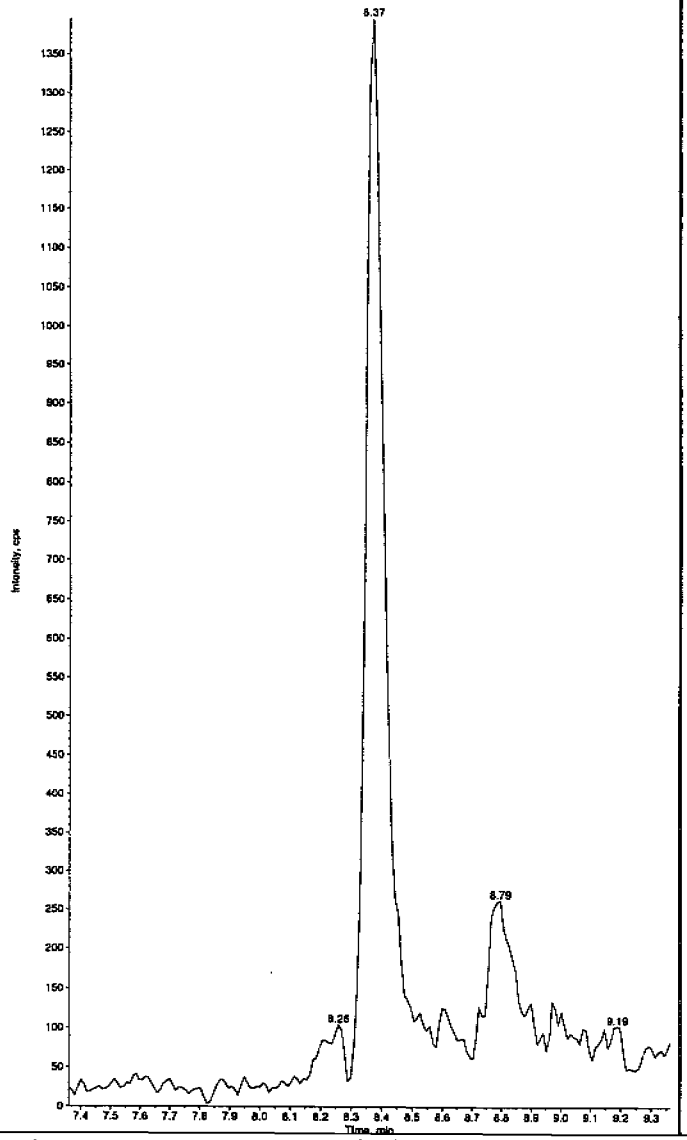

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02220051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

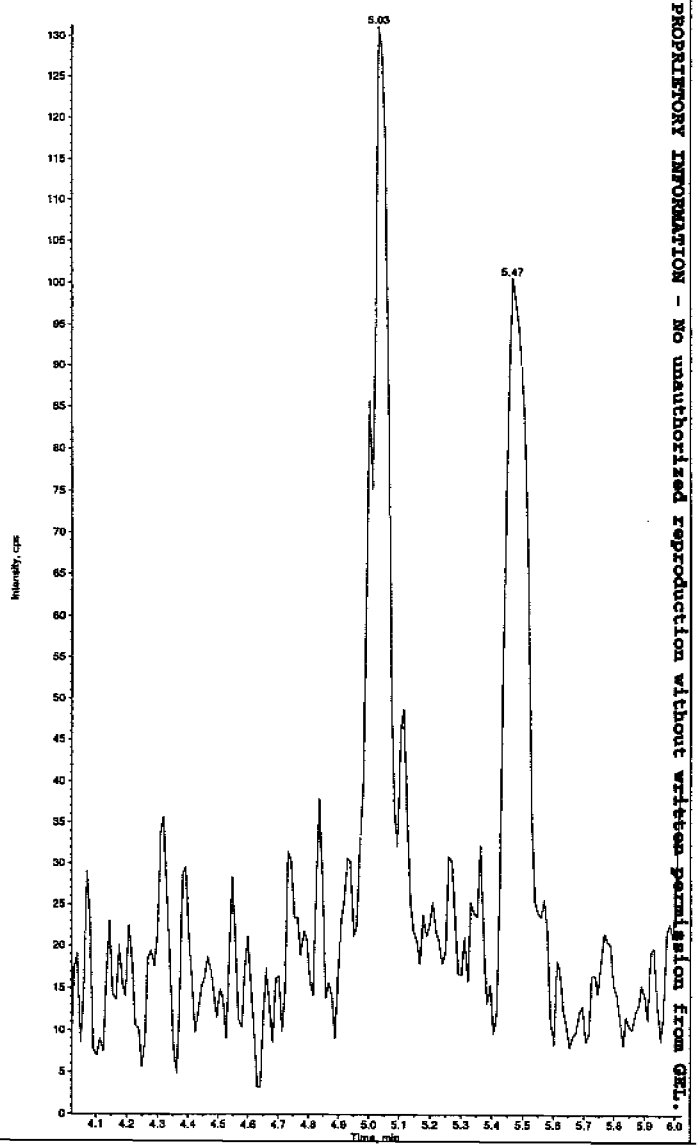

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No

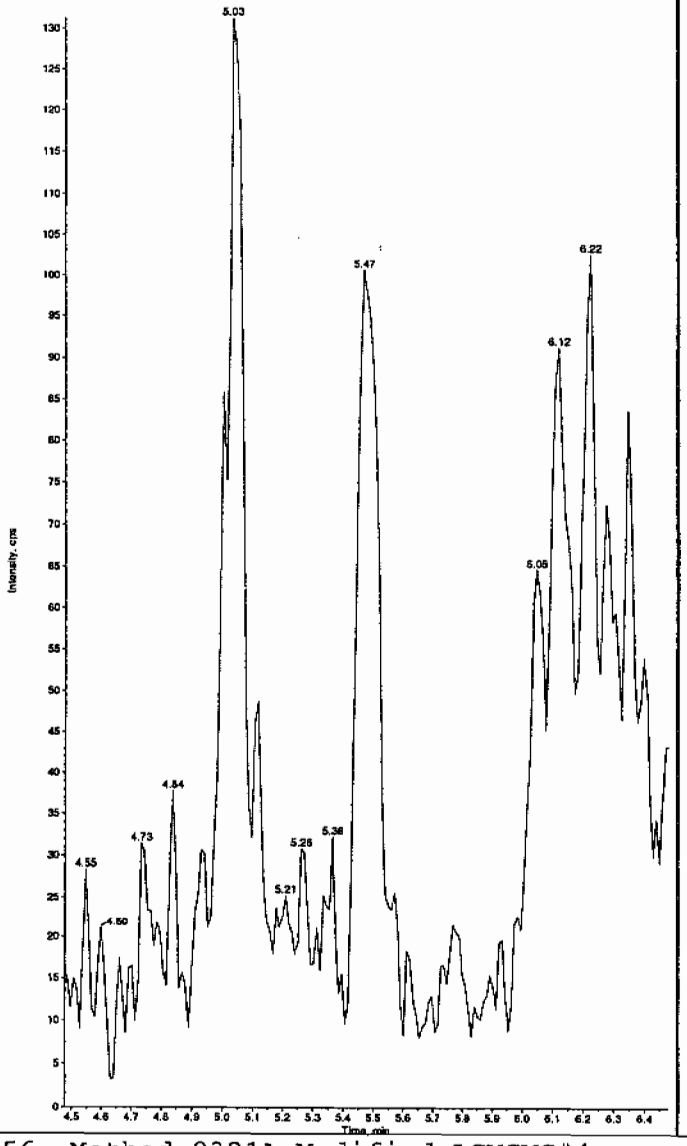

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02220051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.67 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:08:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.65e+005 counts
Height: 37790.951 cps
Start Time: 10.8 min
End Time: 11.2 min

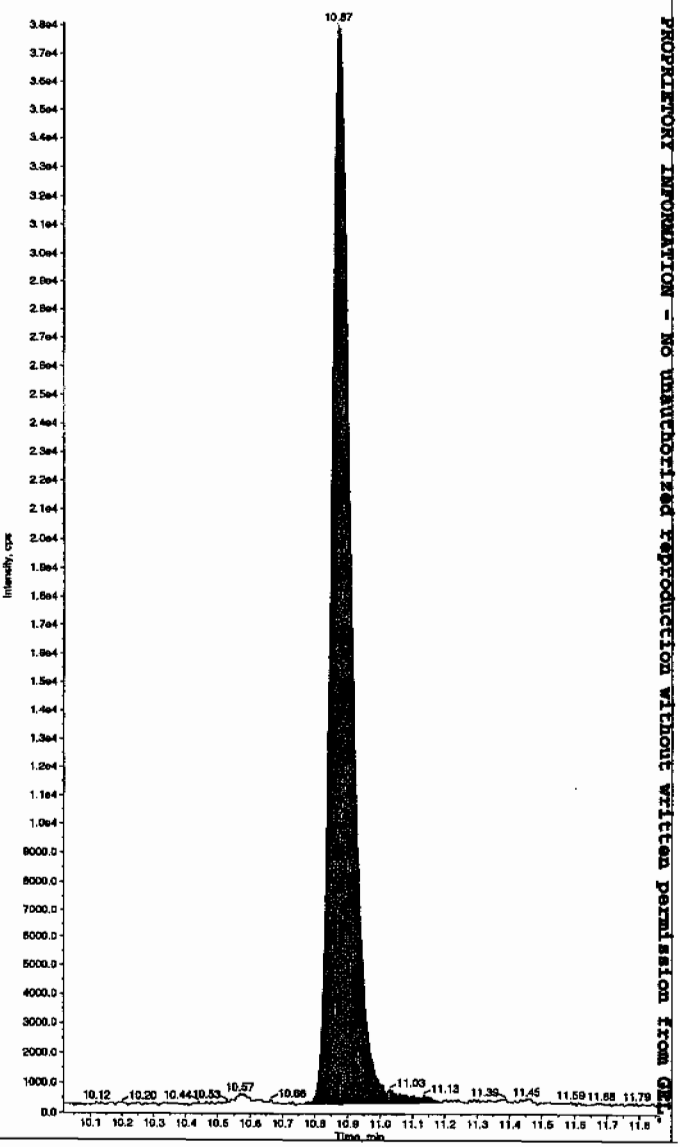

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

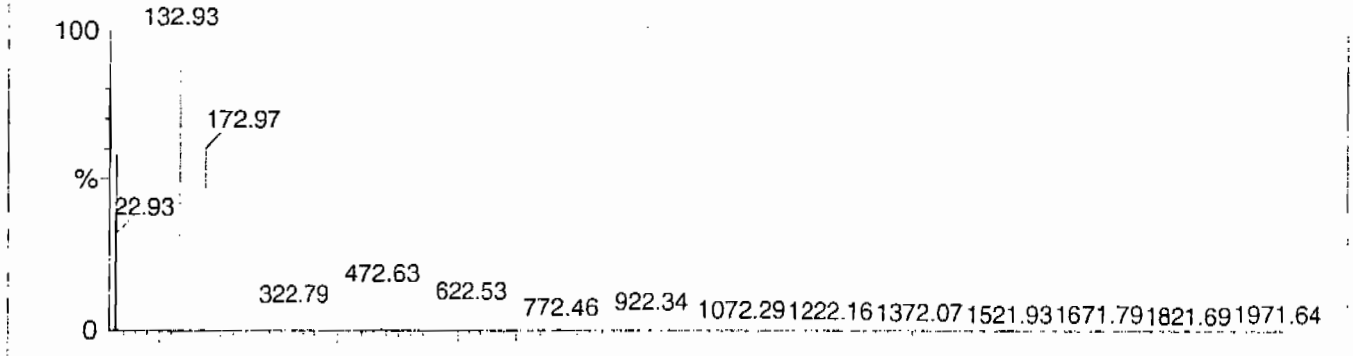

Reference file: Naics2

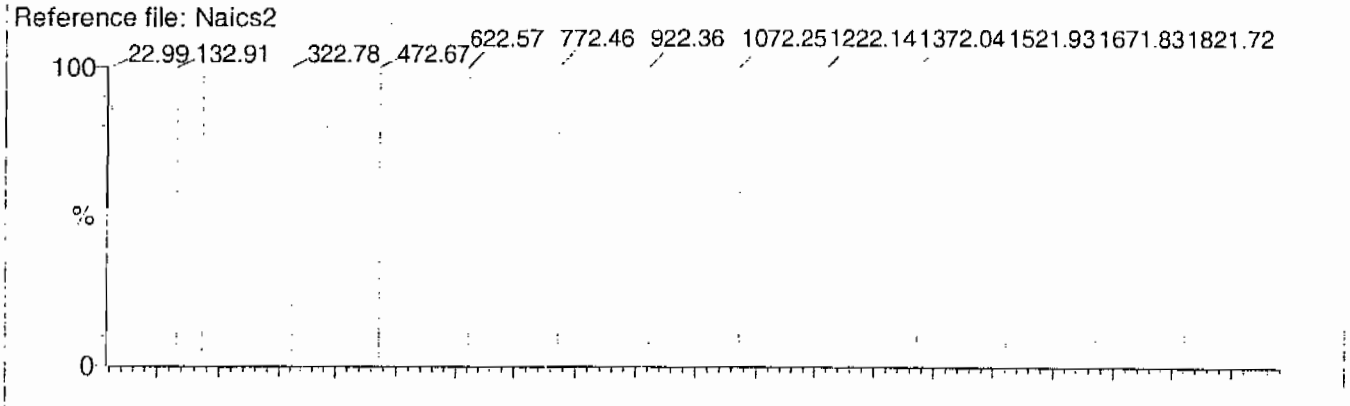

Mass difference (Raw - Ref mass)

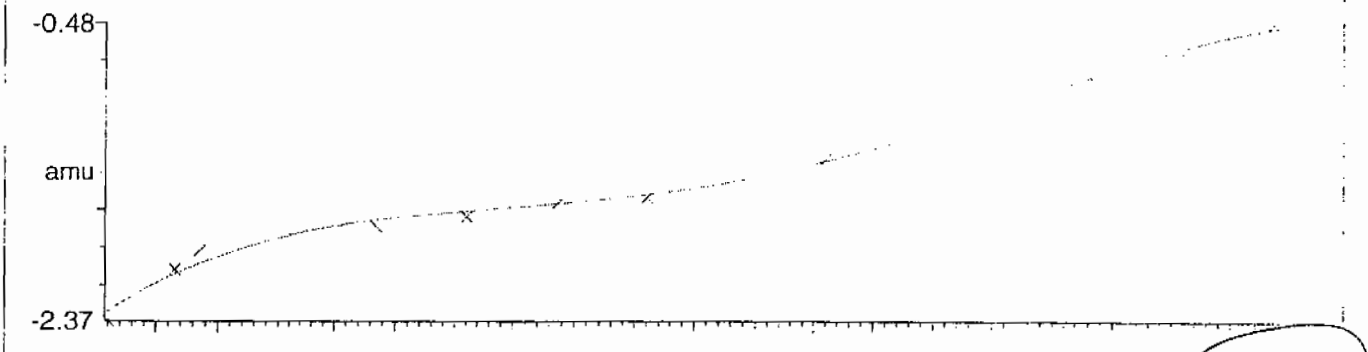

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

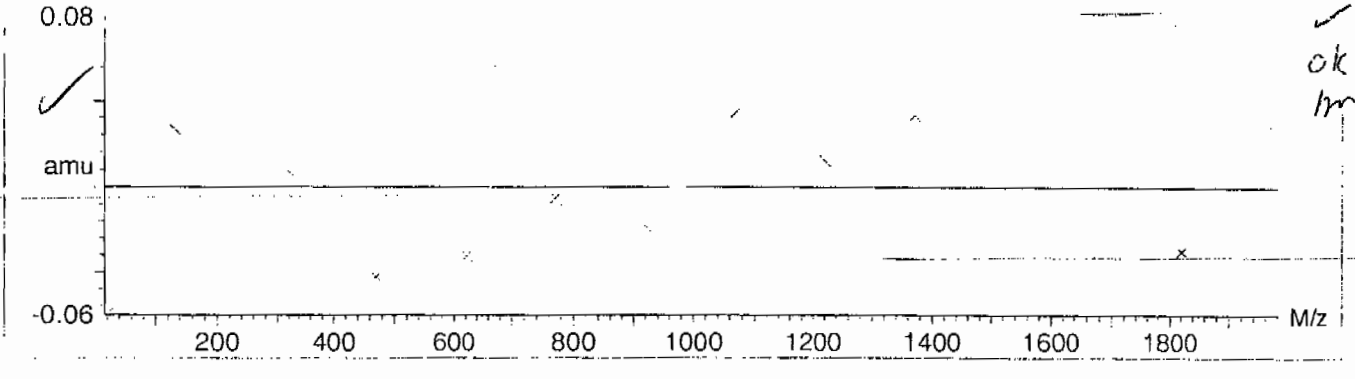

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

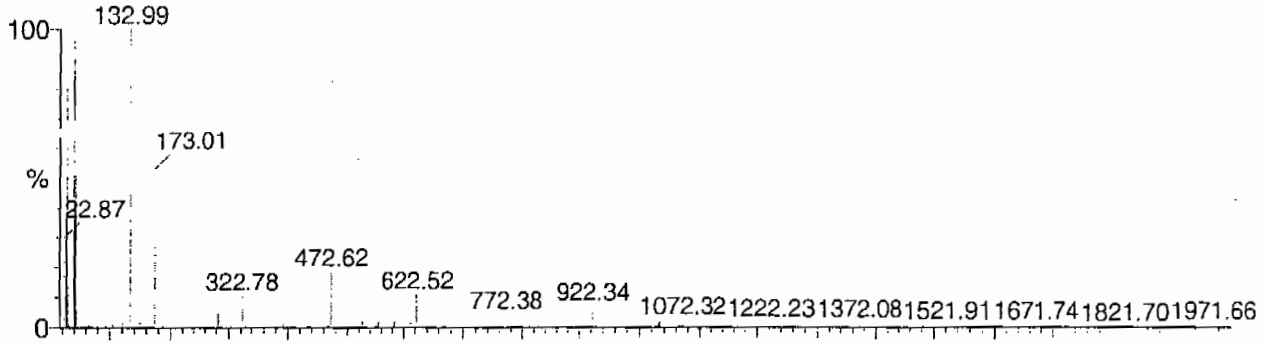

Reference file: Naics2

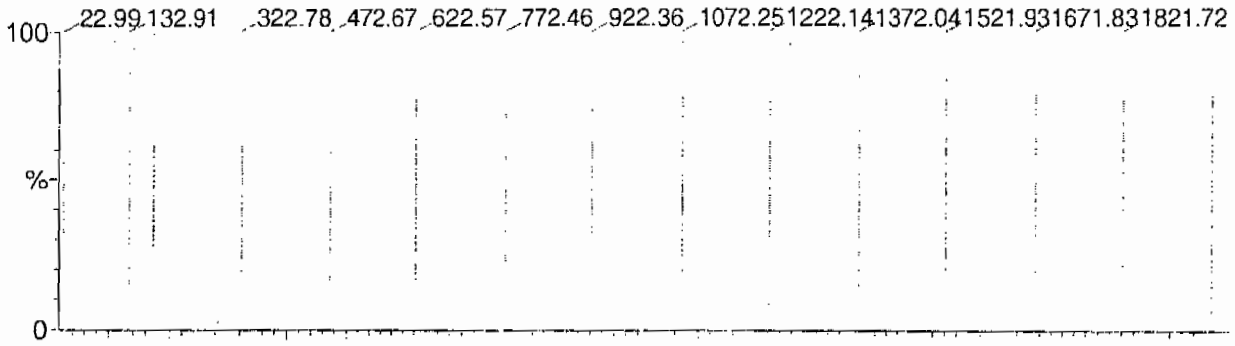

Mass difference (Raw - Ref mass)

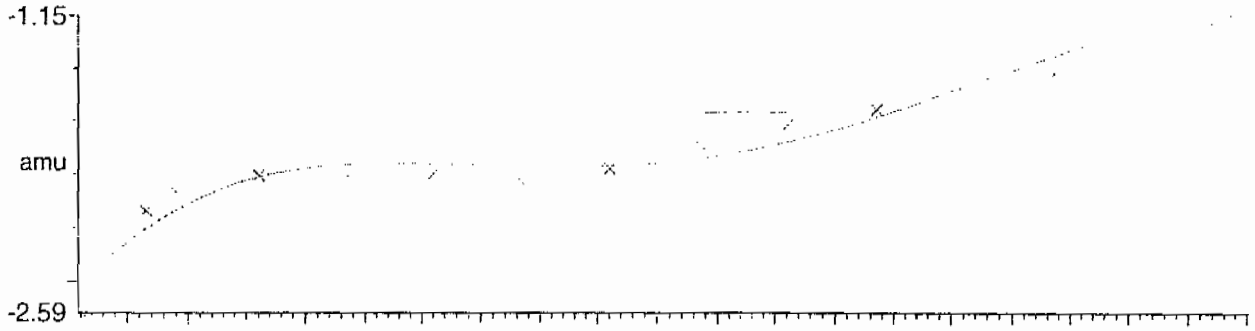

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
jm

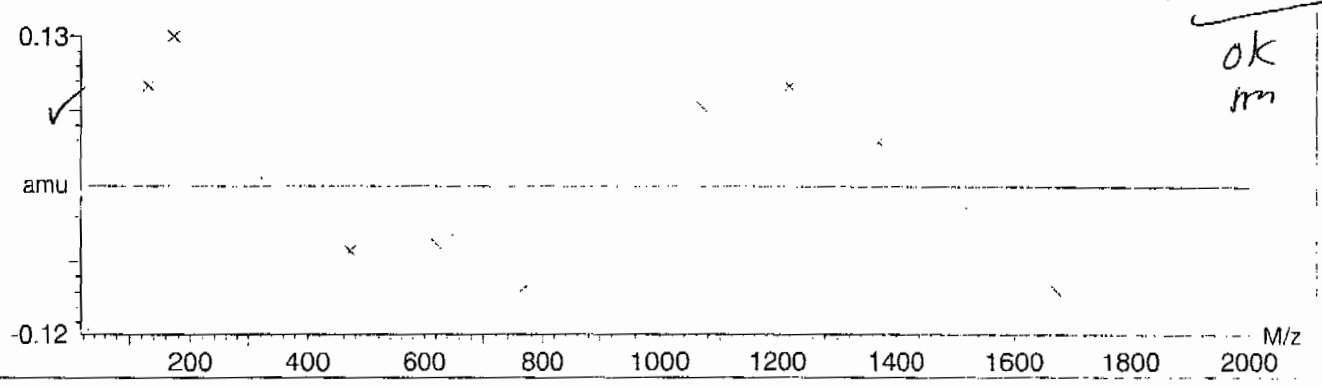

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

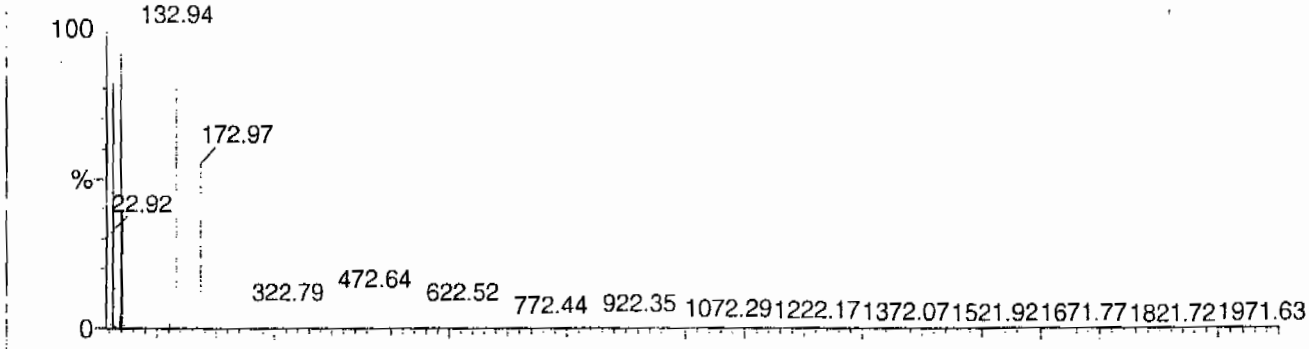

Reference file: Naics2

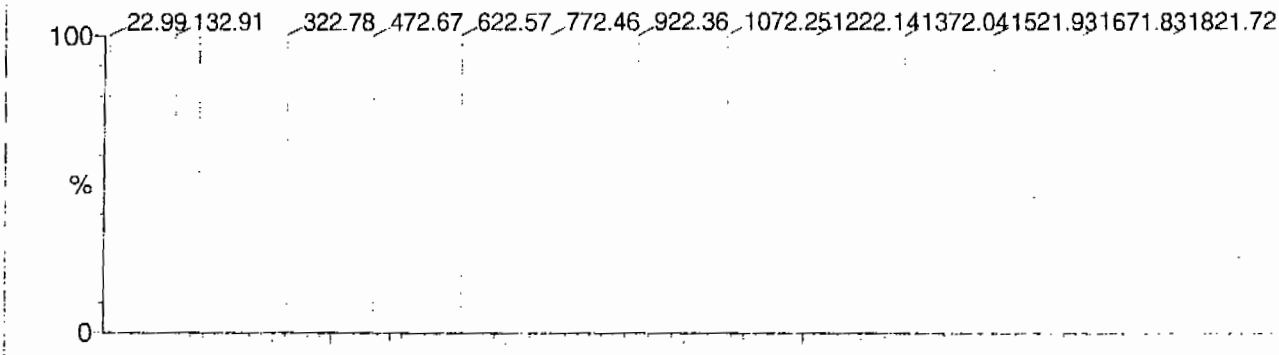

Mass difference (Raw - Ref mass)

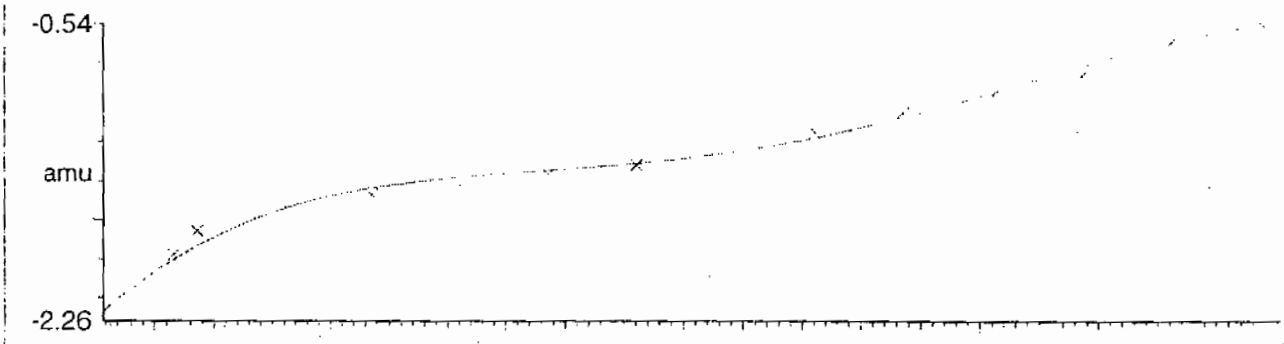

Residuals

Mean residual = 3.486639e-9 ± 0.040487

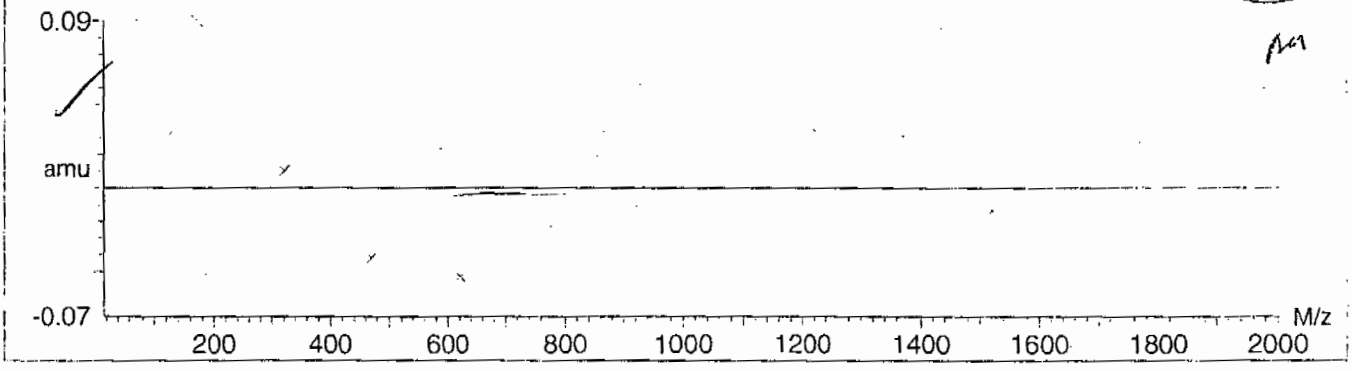

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

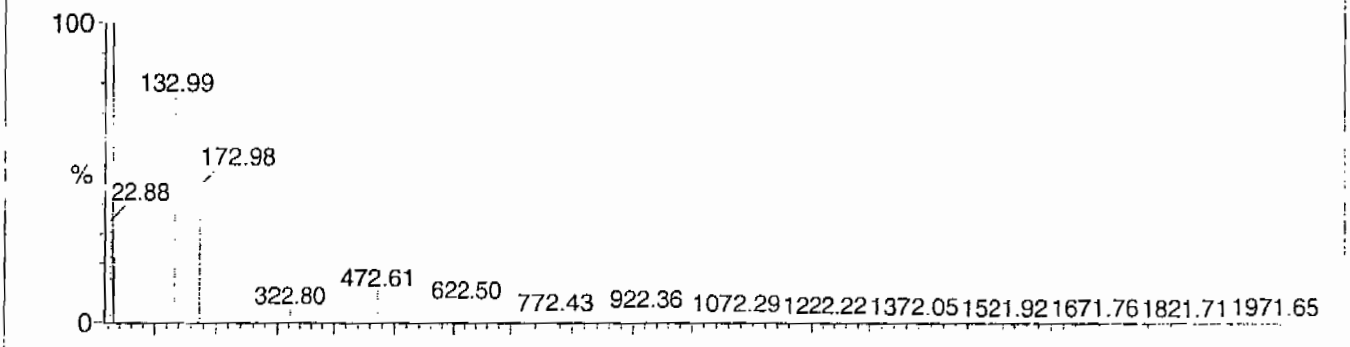

Reference file: Naics2

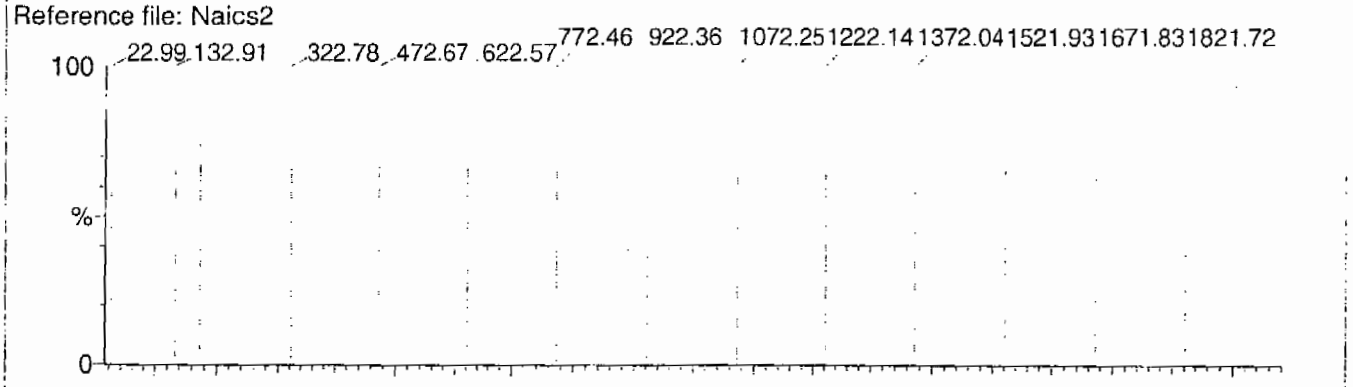

Mass difference (Raw - Ref mass)

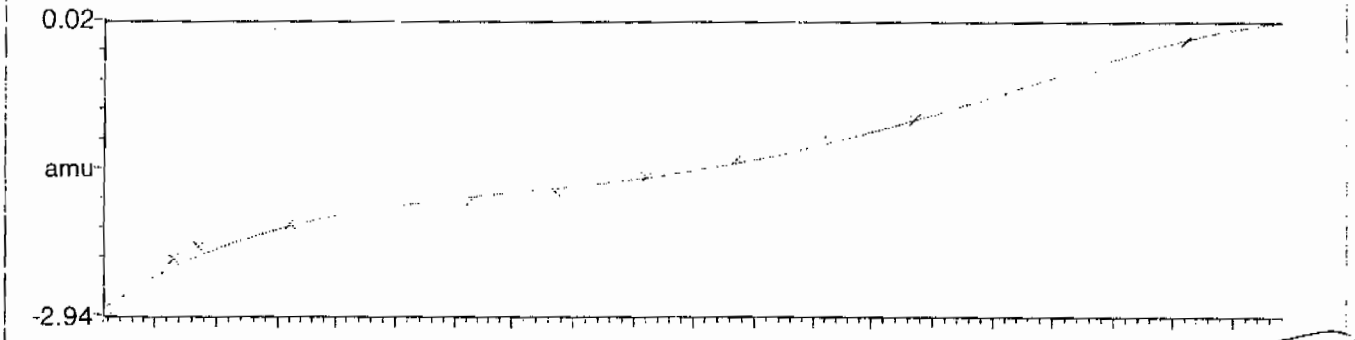

Residuals

Mean residual = 2.048910e-9 ± 0.057803

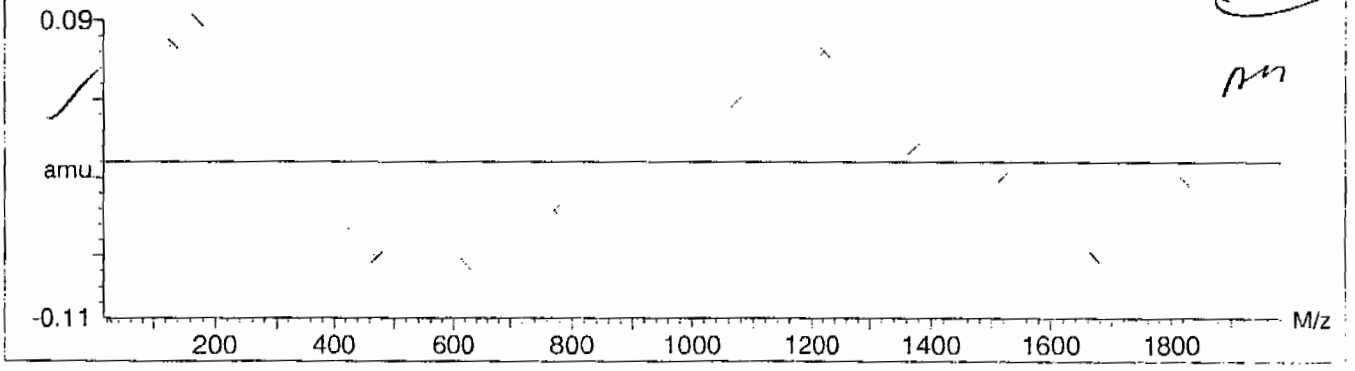

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

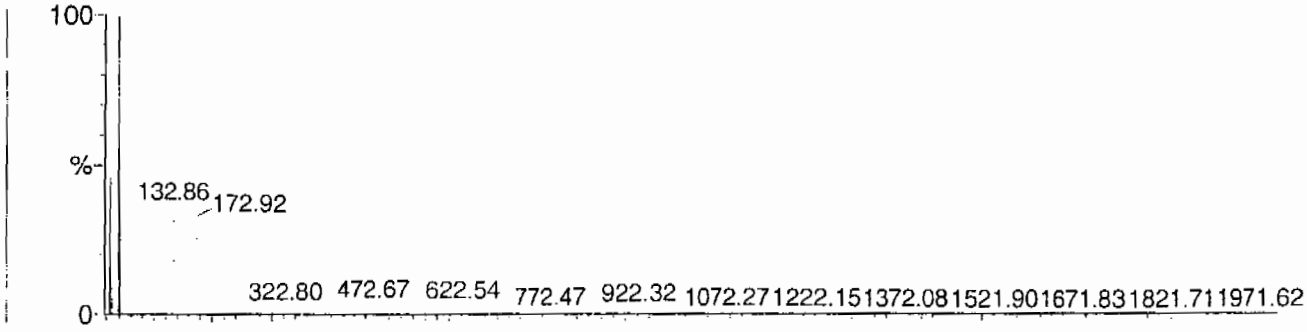

Reference file: Naics2

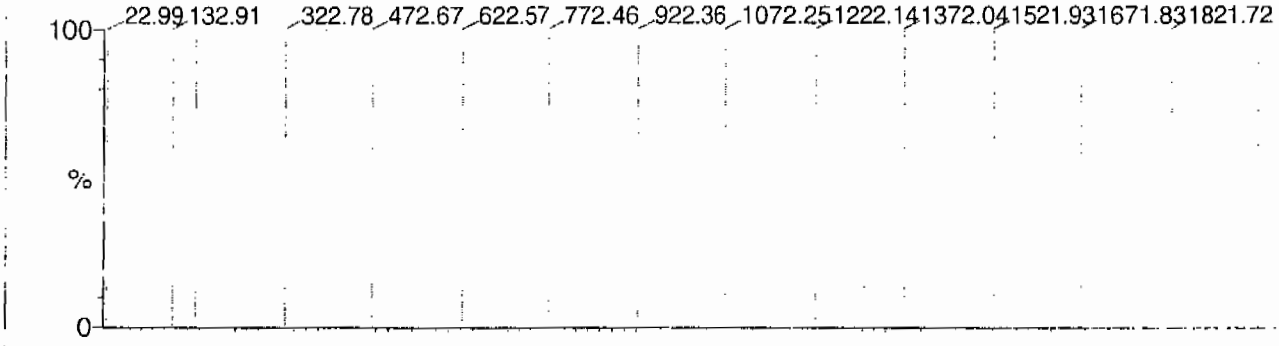

Mass difference (Raw - Ref mass)

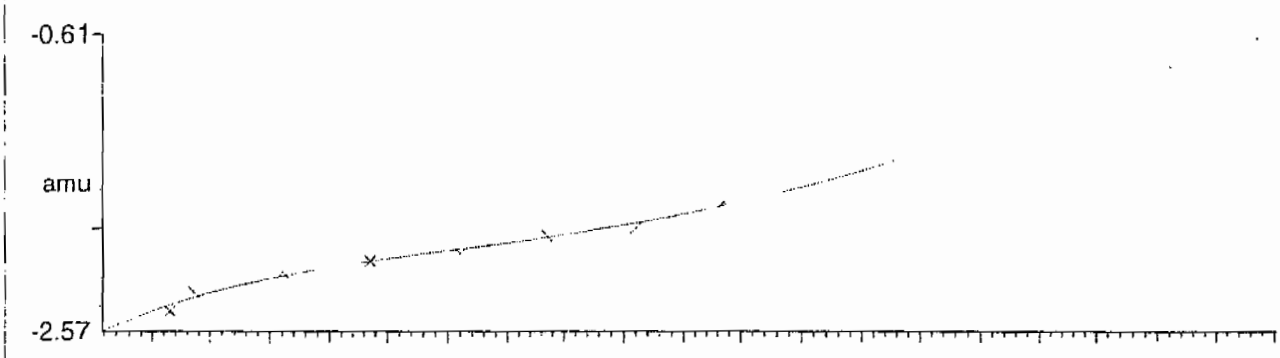

Residuals

Mean residual = -2.623502e-9 ± 0.025622

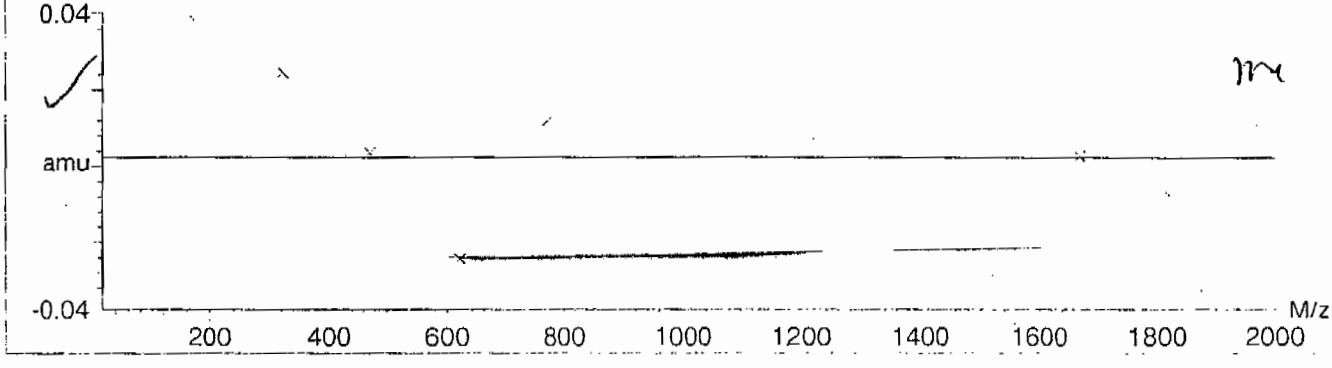

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

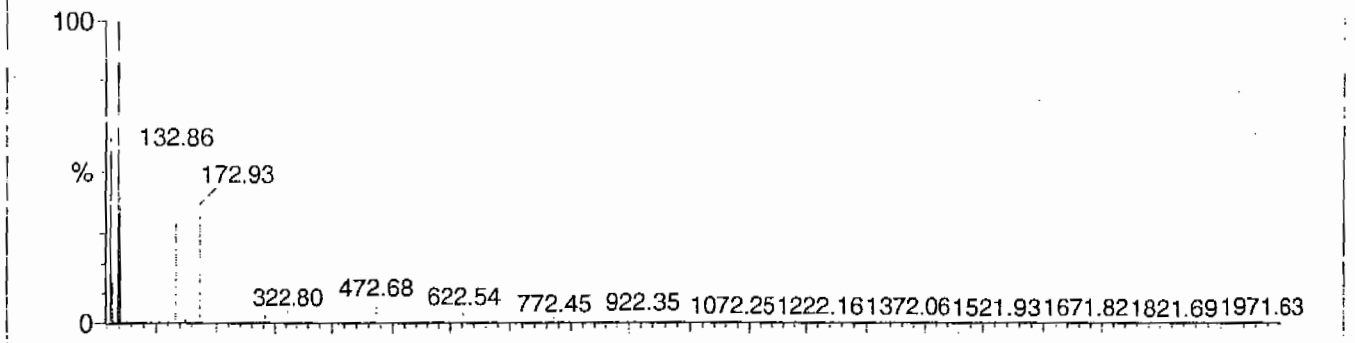

Reference file: Naics2

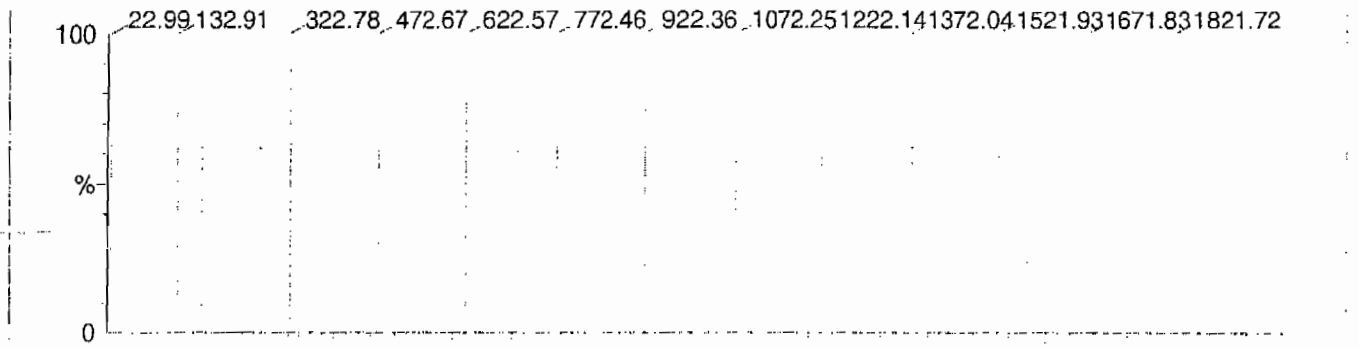

Mass difference (Raw - Ref mass)

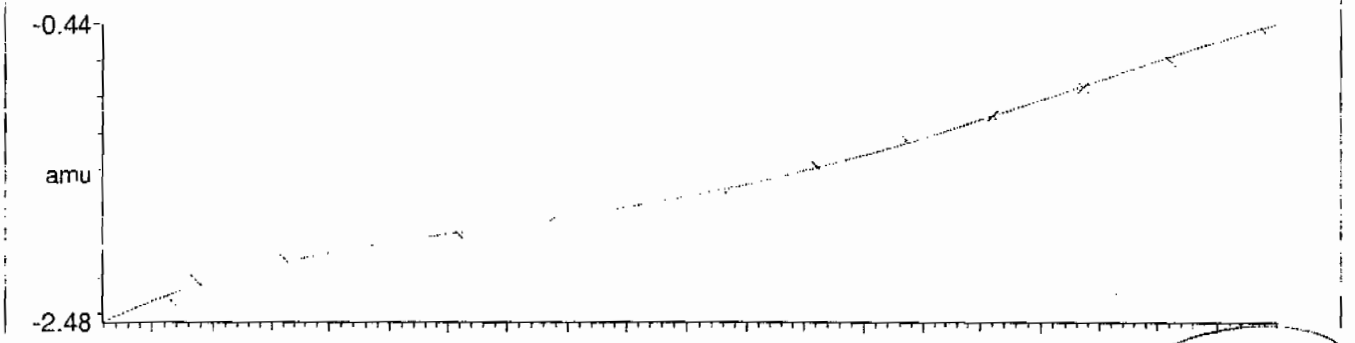

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

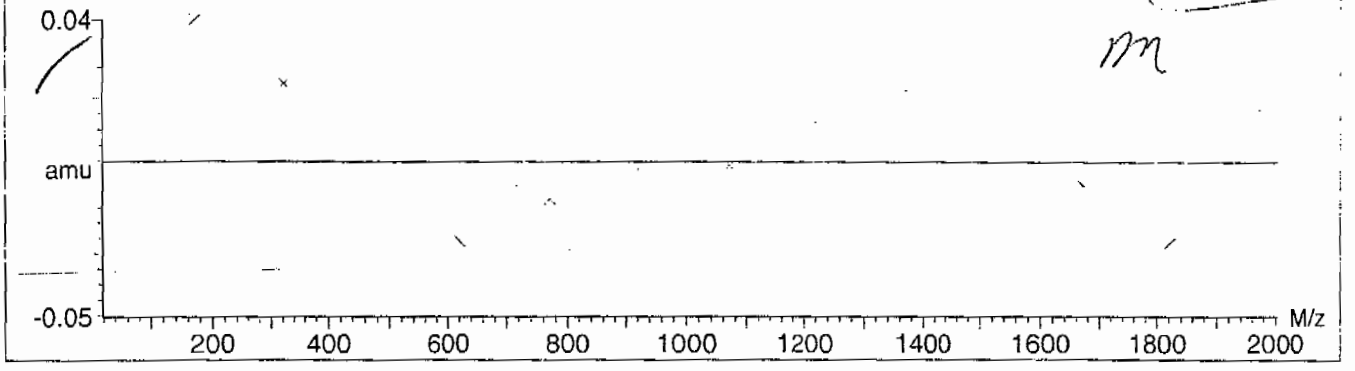

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Mon Mar 01 15:29:45 2010

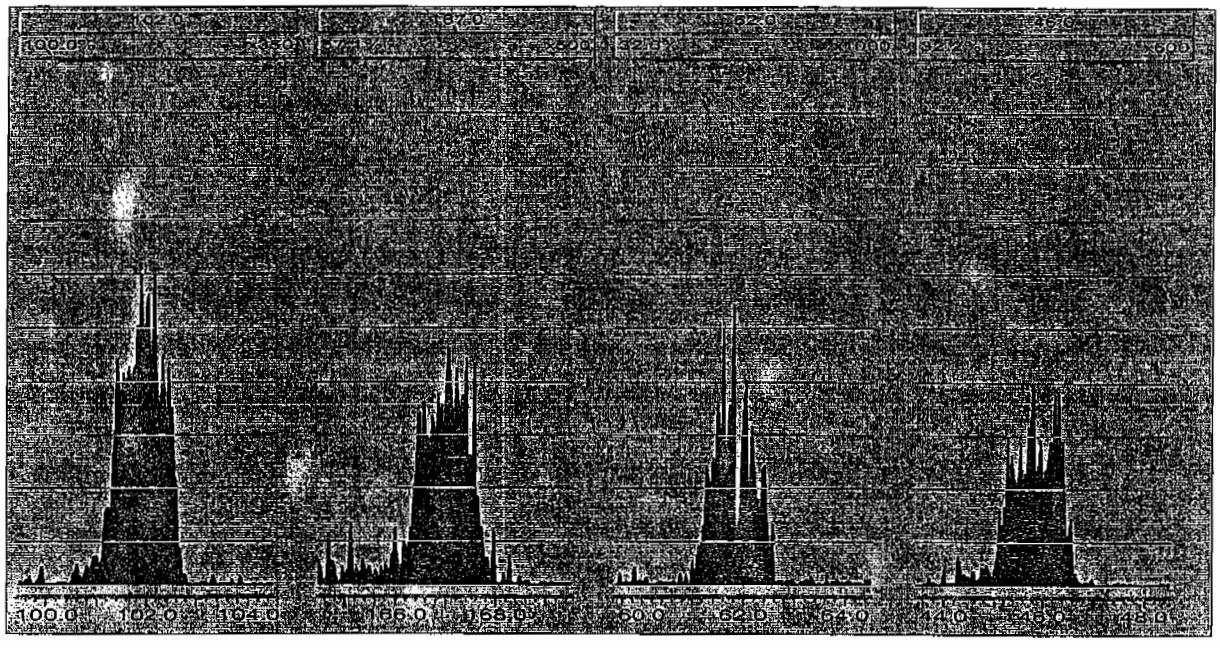

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1512

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			2898.075	12.172	16084.817	17.641
Upper Limit			3767.4975	12.672	20910.2621	18.141
Lower Limit			2028.6525	11.672	11259.3719	17.141
MB for batch 948574	02–mar–10 00:53	EXP0301020a	3031.69	12.173	17820.9	17.618
LCS for batch 948574	02–mar–10 01:22	EXP0301021a	3195.65	12.171	19489.5	17.62
RE15–10–7880	02–mar–10 01:52	EXP0301022a	3005.51	12.173	19601.9	17.617
RE15–10–7880(245969001MS)	02–mar–10 02:21	EXP0301023a	3132.86	12.171	18707.1	17.62
RE15–10–7880(245969001MSD)	02–mar–10 02:51	EXP0301024a	3226.56	12.171	19570.5	17.62
RE15–10–7891	02–mar–10 03:20	EXP0301025a	2837.44	12.177	17557.4	17.619
RE15–10–7892	02–mar–10 03:50	EXP0301026a	3211.5	12.171	17944.4	17.62
RE15–10–7967	02–mar–10 04:19	EXP0301027a	3434.82	12.177	19751	17.618
RE15–10–7976	02–mar–10 04:49	EXP0301028a	2967.61	12.17	18051.6	17.62
RE15–10–7968	02–mar–10 05:18	EXP0301029a	3027.76	12.171	17476.3	17.619
RE15–10–7965	02–mar–10 07:16	EXP0301033a	3533.72	12.171	20642.3	17.619
RE15–10–7975	02–mar–10 07:46	EXP0301034a	3366.21	12.17	17204.5	17.62
RE15–10–7978	02–mar–10 08:15	EXP0301035a	3263.73	12.173	20013.8	17.64
RE15–10–7973	02–mar–10 09:44	EXP0301038a	3285.49	12.175	19737.6	17.62
RE15–10–7962	02–mar–10 10:13	EXP0301039a	3270.32	12.175	19188.2	17.62
RE15–10–7963	02–mar–10 10:42	EXP0301040a	3046.05	12.174	18821.2	17.619
RE15–10–7977	02–mar–10 11:12	EXP0301041a	3054.03	12.171	17111.7	17.62
RE15–10–7965	02–mar–10 11:42	EXP0301042a	2840.41	12.17	16344.4	17.619
RE15–10–7970	03–mar–10 02:05	EXP0301071a	3022.93	12.17	18875.2	17.618
RE15–10–7964	03–mar–10 02:34	EXP0301072a	3690.86	12.17	22118.1 *	17.618

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969001

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301022a

Date Analyzed: 02-MAR-10 01:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301022a
Date: 02-Mar-2010
Time: 01:52:19
ID: 245969001 | LANL | 948575 | Soil | 2 |
Vial: 2:1,C

HMT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.076e+003

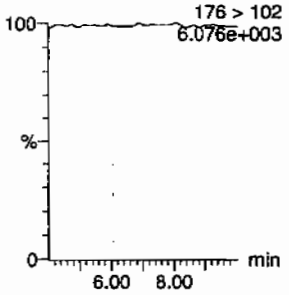

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.076e+003

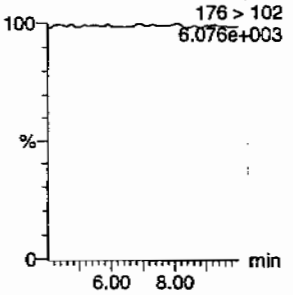

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.929e+003

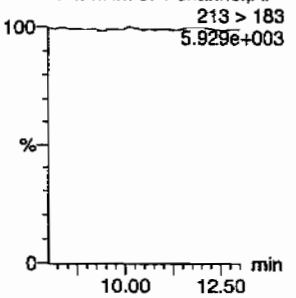

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.299e+004

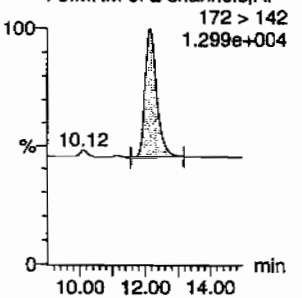

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.895e+003

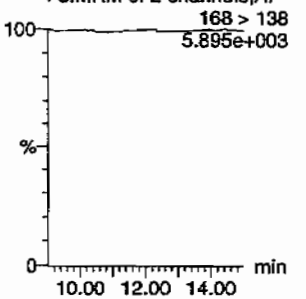

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.927e+003

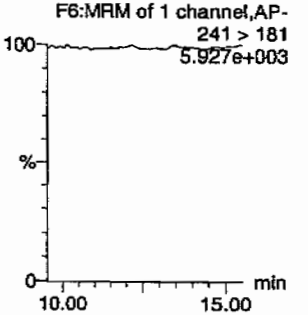

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.989e+003

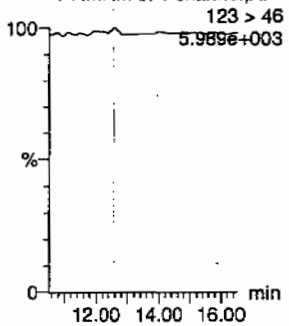

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.029e+003

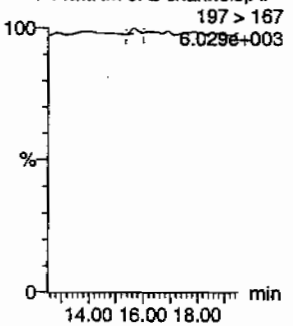

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.981e+003

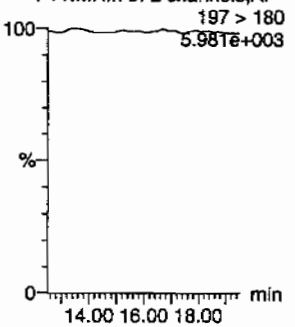

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.907e+003

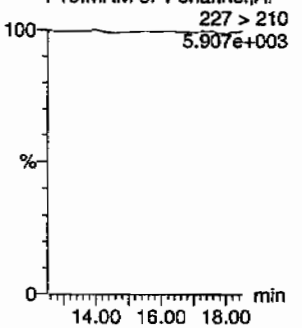

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.491e+004

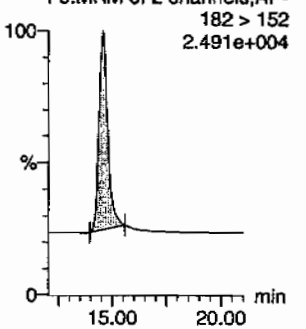

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.55
182 > 152
2.491e+004

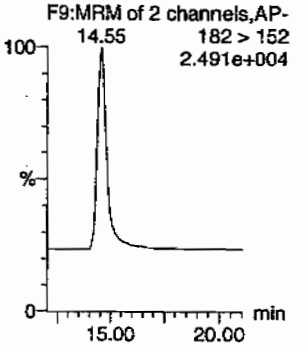

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

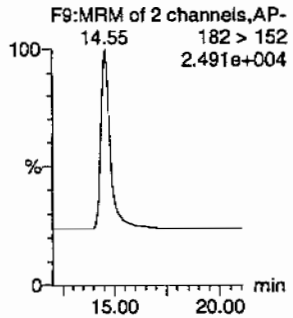

26-dinitrotoluene-d3

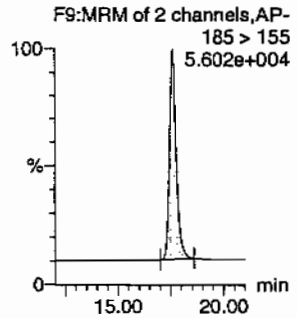

2-Nitrotoluene

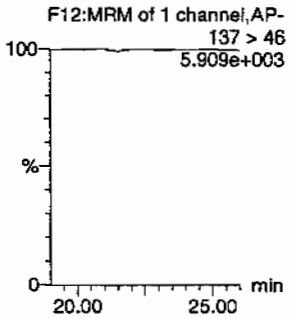

4-Nitrotoluene

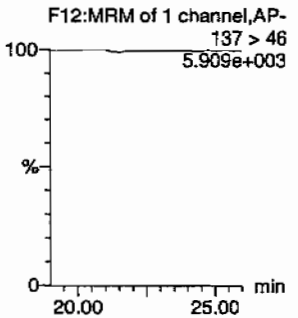

3-Nitrotoluene

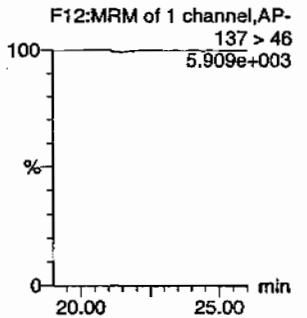

PETN

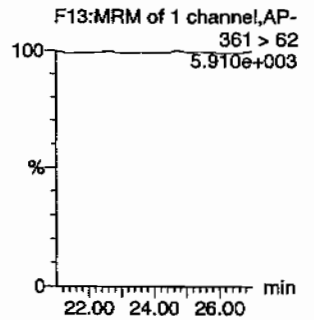

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245969001	HMX	176 > 102			3005.509									
245969001	RDX	176 > 102			3005.509									
245969001	135-Trinitrobenzene	213 > 183			3005.509									
245969001	13-Dinitrobenzene-d4	172 > 142	12.17	3005.509		3005.509	3005.509	bb			518.5352	103.7	3.7	318.2
245969001	13-Dinitrobenzene	168 > 138			3005.509									
245969001	Tetryl	241 > 181			3005.509									
245969001	Nitrobenzene	123 > 46			3005.509									
245969001	4-Amino-26-dinitrotoluene	197 > 167			19601.941			MM-	02-Mar-10	09:47:25				
245969001	2-Amino-46-dinitrotoluene	197 > 180			19601.941									
245969001	246-Trinitrotoluene	227 > 210			19601.941									
245969001	34-dinitrotoluene	182 > 152	14.55	8874.404	19601.941	8874.404	226.365	bb			228.4982	91.4	-8.6	476.2
245969001	26-dinitrotoluene	182 > 152			19601.941									
245969001	24-dinitrotoluene	182 > 152			19601.941									
245969001	26-dinitrotoluene-d3	185 > 155	17.62	19601.941		19601.941	19601.941	bb			609.3304	121.9	21.9	2935.9
245969001	2-Nitrotoluene	137 > 46			19601.941									
245969001	4-Nitrotoluene	137 > 46			19601.941									
245969001	3-Nitrotoluene	137 > 46			19601.941									
245969001	PETN	361 > 62			19601.941									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969001

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220020.wiff

Date Analyzed: 22-FEB-10 22:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/23/10

Sample Name: "245969001" Sample ID: "948575|2|LER" File: "EXS02220020.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:25 PM

Modified: No

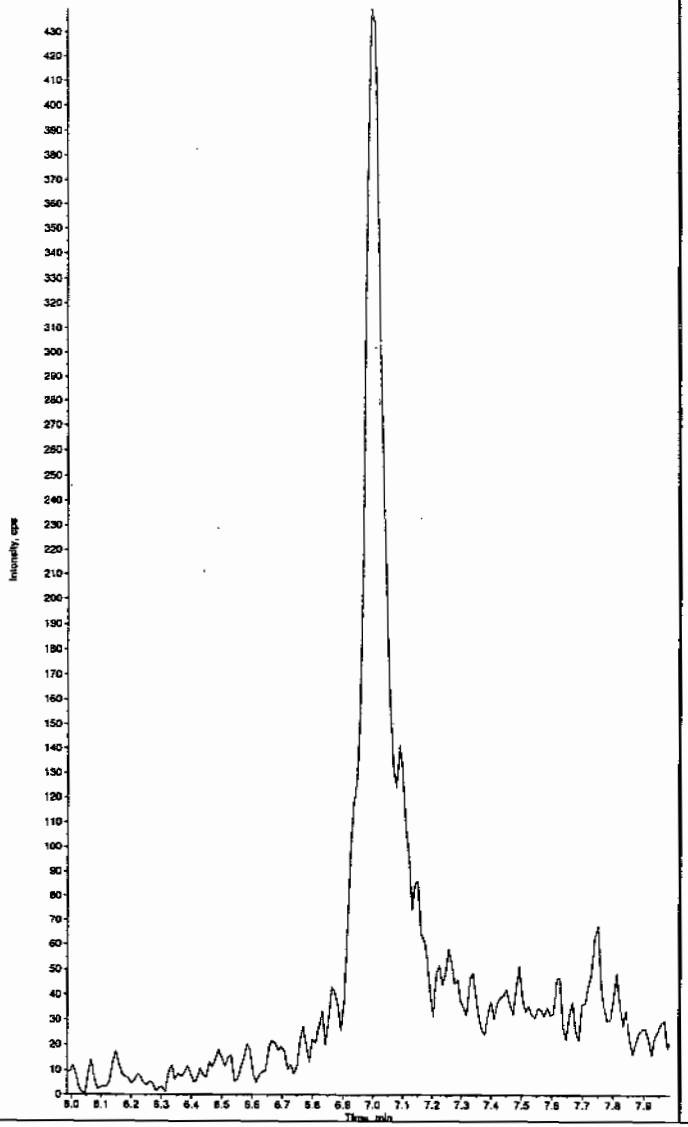

Sample Name: "245969001" Sample ID: "948575|2|LER" File: "EXS02220020.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 PM

Modified: No

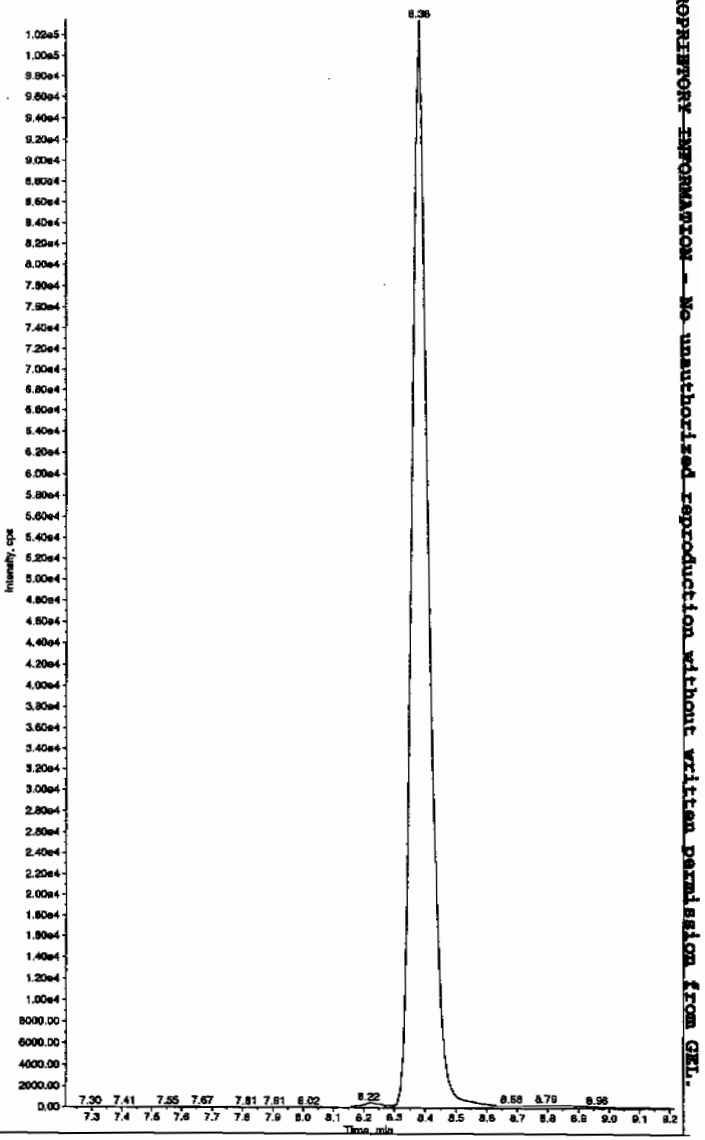

HMIL 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969001" Sample ID: "9485752|LER" File: "EXS02220020.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 290. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.83e+006 counts
Height: 1002356.750 cps
Start Time: 8.28 min
End Time: 8.72 min

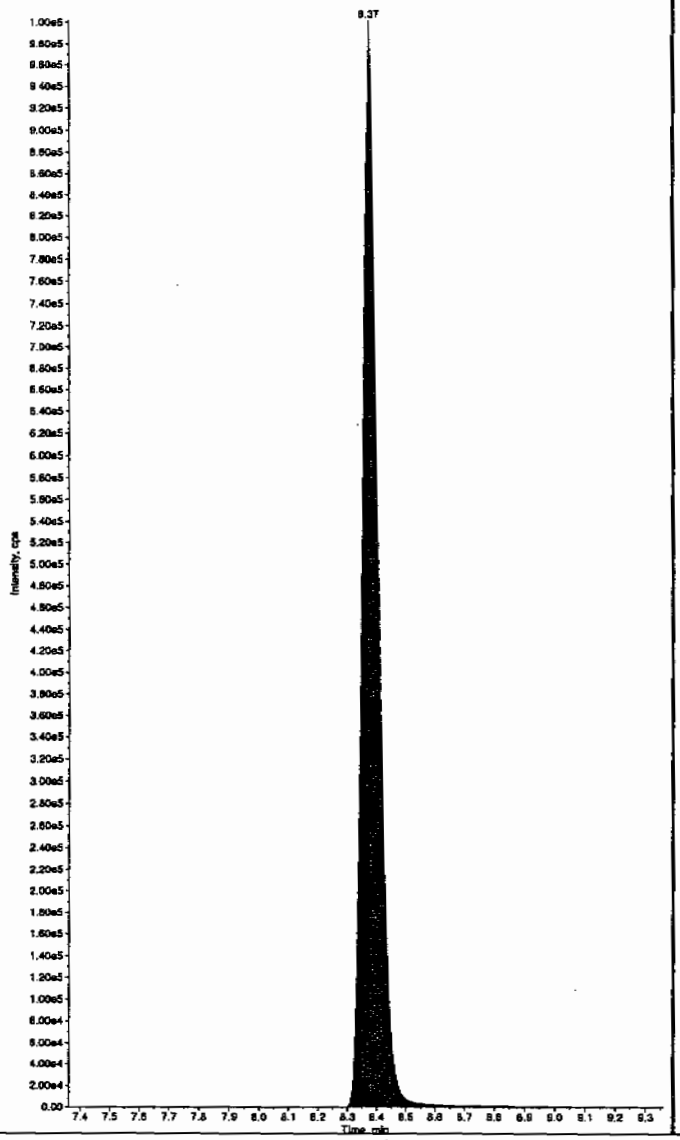

Sample Name: "245969001" Sample ID: "9485752|LER" File: "EXS02220020.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 PM

Modified: No

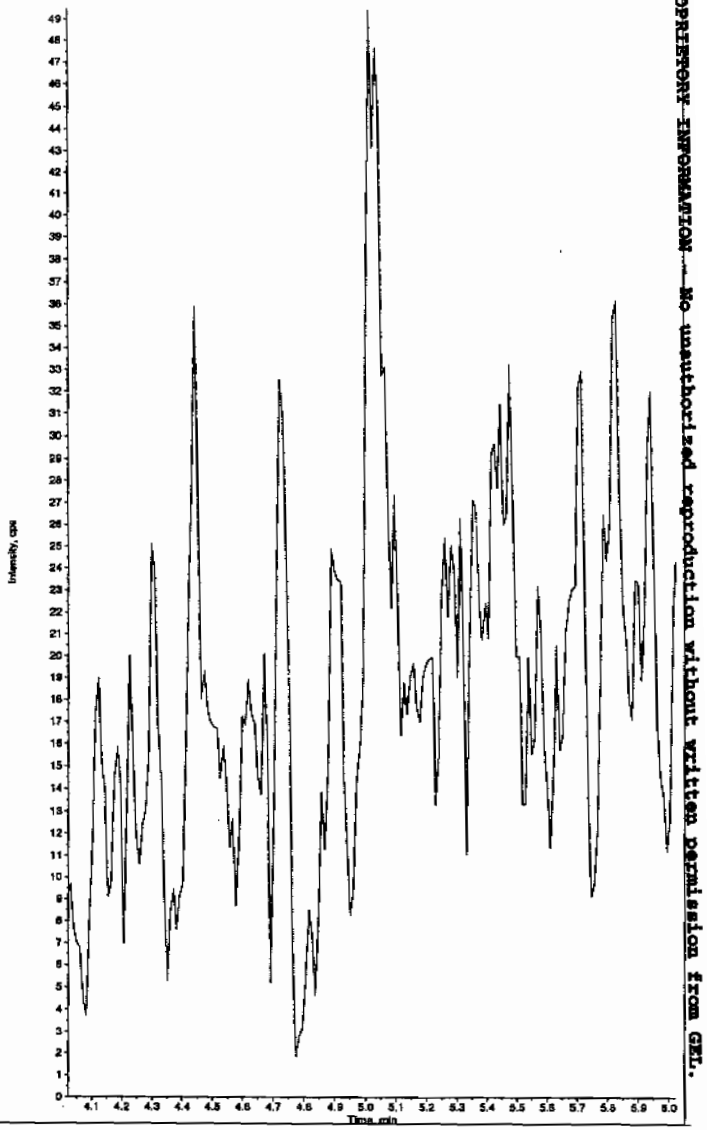

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969001" Sample ID: "948575|2|LER" File: "EXS02220020.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 PM

Modified: No

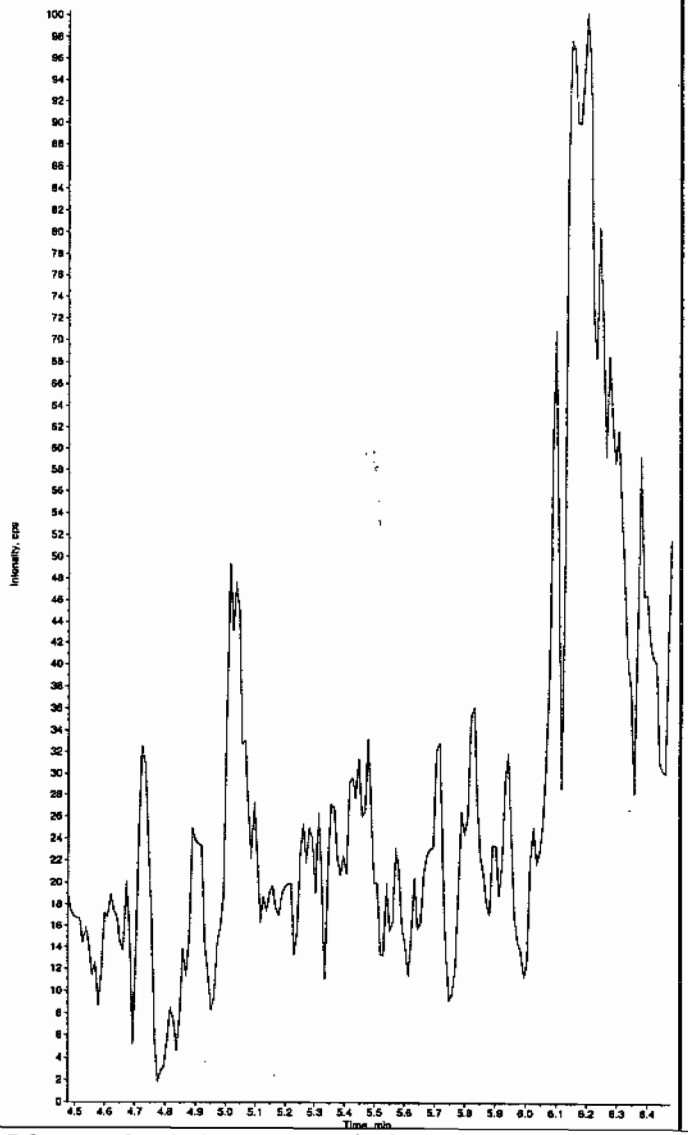

Sample Name: "245969001" Sample ID: "948575|2|LER" File: "EXS02220020.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.10 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:00:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.67e+004 counts
Height: 15522.993 cps
Start Time: 10.7 min
End Time: 11.1 min

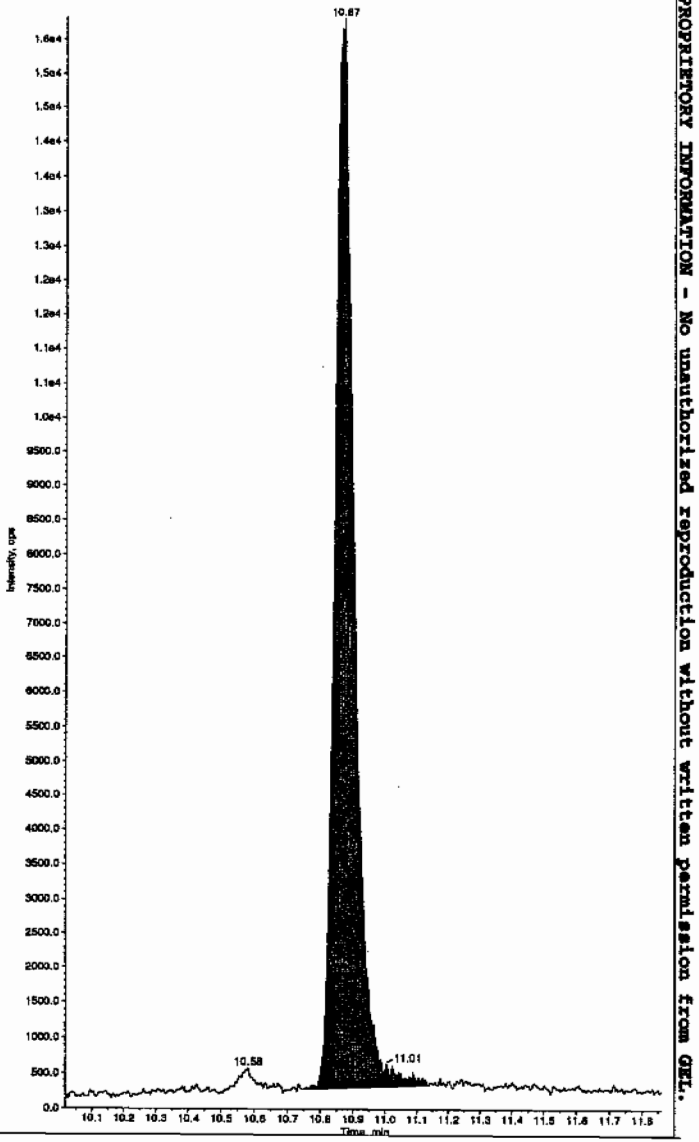

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7891

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969002

Sample Amount 2

Moisture: 26.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301025a

Date Analyzed: 02-MAR-10 03:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301025a
Date: 02-Mar-2010
Time: 03:20:42
ID: 245969002 | LANL | 948575 | Solid | 2 |
Vial: 2:1,F

MOT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.510e+003

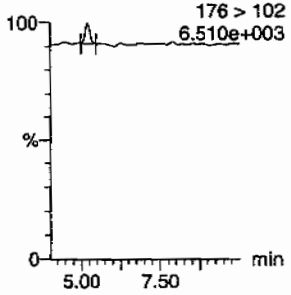

RDX
F2:MRM of 1 channel,AP-
5.20
176 > 102
6.510e+003

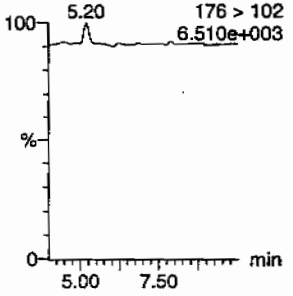

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.808e+003

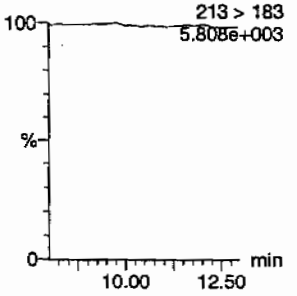

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.257e+004

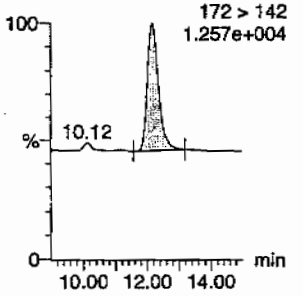

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.823e+003

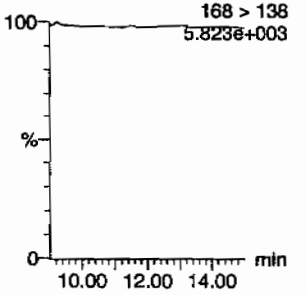

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.786e+003

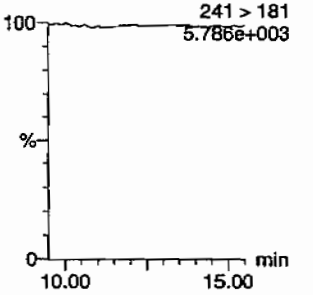

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.761e+003

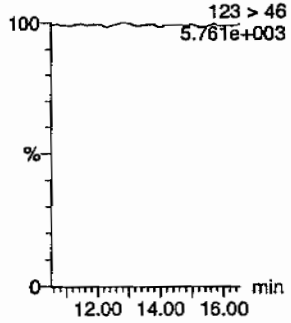

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.832e+003

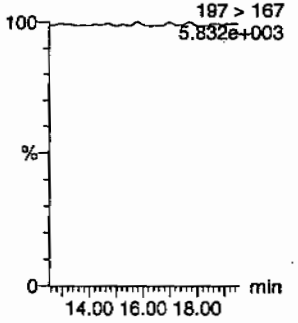

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.833e+003

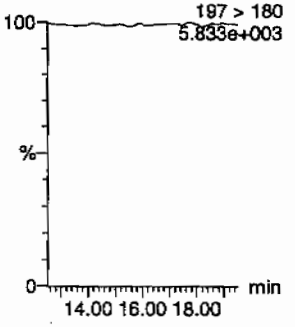

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.767e+003

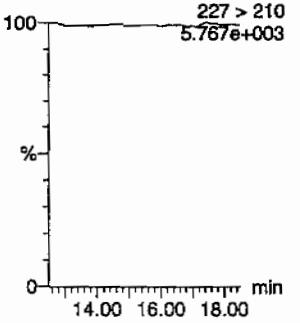

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.260e+004

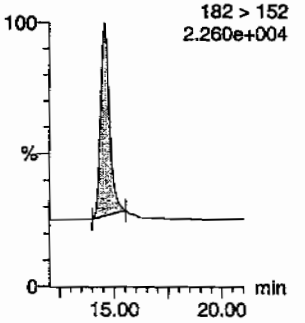

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.260e+004

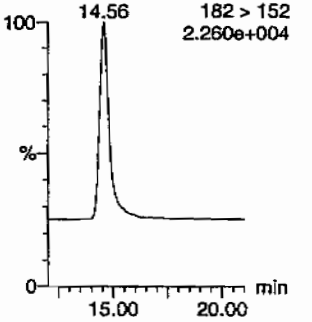

tmm 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

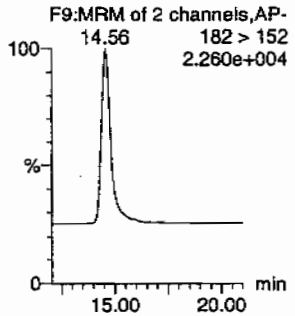

26-dinitrotoluene-d3

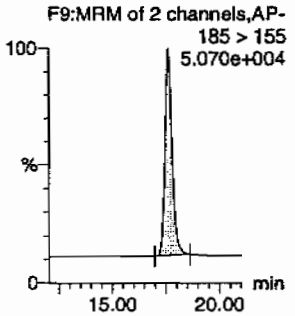

2-Nitrotoluene

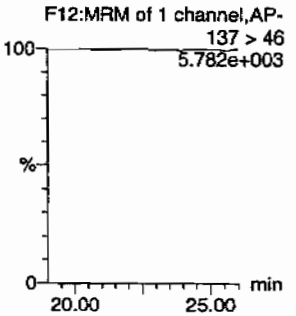

4-Nitrotoluene

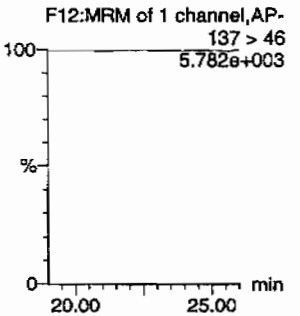

3-Nitrotoluene

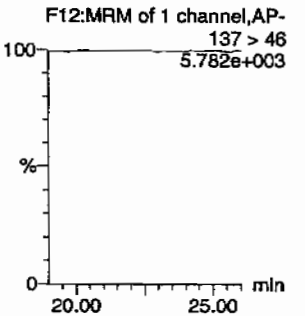

PETN

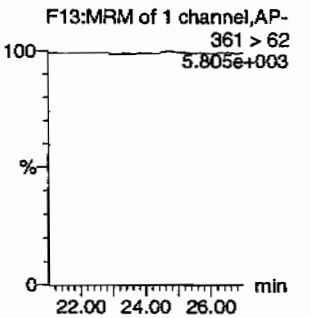

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969002	HMX	176 > 102	5.20	108.585	2837.443	108.585	19.134	bb			5.0158			25.0
245969002	RDX	176 > 102			2837.443									
245969002	135-Trinitrobenzene	213 > 183			2837.443									
245969002	13-Dinitrobenzene-d4	172 > 142	12.18	2837.443		2837.443	2837.443	bb			489.5391	97.9	-2.1	157.6
245969002	13-Dinitrobenzene	168 > 138			2837.443									
245969002	Tetryl	241 > 181			2837.443									
245969002	Nitrobenzene	123 > 46			2837.443									
245969002	4-Amino-26-dinitrotoluene	197 > 167			17557.436									
245969002	2-Amino-46-dinitrotoluene	197 > 180			17557.436									
245969002	246-Trinitrotoluene	227 > 210			17557.436									
245969002	34-dinitrotoluene	182 > 152	14.56	7776.750	17557.436	7776.750	221.466	bb			223.5526	89.4	-10.6	519.3
245969002	26-dinitrotoluene	182 > 152			17557.436									
245969002	24-dinitrotoluene	182 > 152			17557.436									
245969002	26-dinitrotoluene-d3	185 > 155	17.62	17557.436		17557.436	17557.436	bb			545.7765	109.2	9.2	2169.1
245969002	2-Nitrotoluene	137 > 46			17557.436									
245969002	4-Nitrotoluene	137 > 46			17557.436									
245969002	3-Nitrotoluene	137 > 46			17557.436									
245969002	PETN	361 > 62			17557.436									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7891

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969002

Sample Amount 2

Moisture: 26.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220023.wiff

Date Analyzed: 22-FEB-10 22:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

2/23/10

Sample Name: "245969002" Sample ID: "948575[2]LER" File: "EXS02220023.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 20.3 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 4.34e+004 counts
Height: 9665.325 cps
Start Time: 6.83 min
End Time: 7.32 min

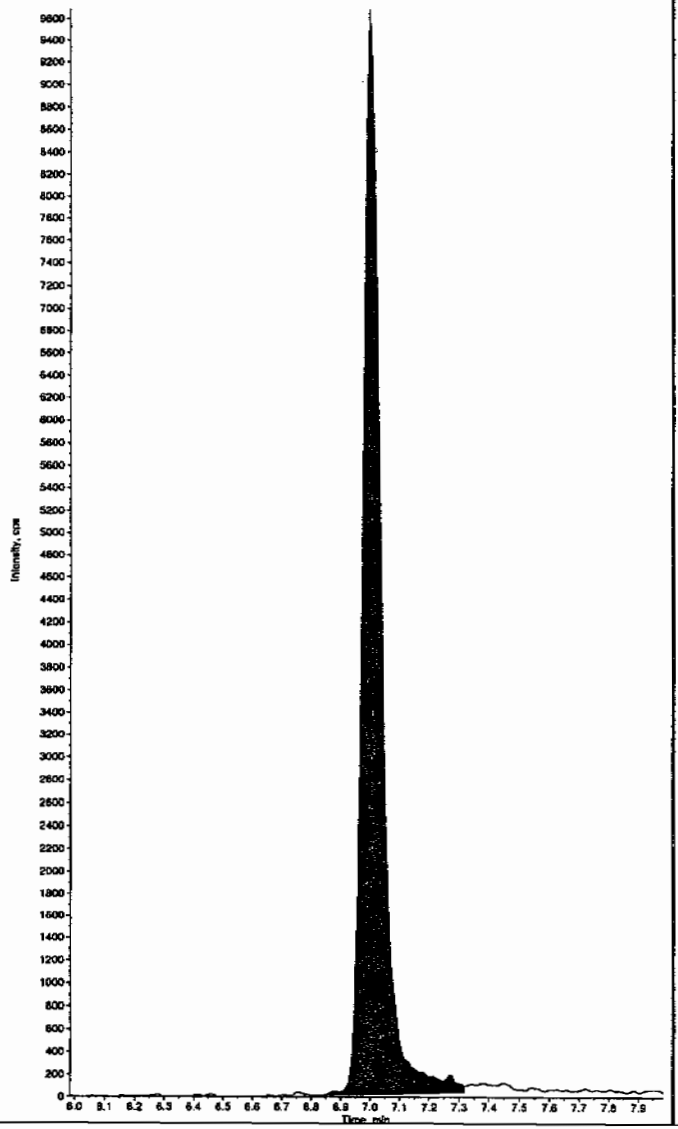

Sample Name: "245969002" Sample ID: "948575[2]LER" File: "EXS02220023.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No

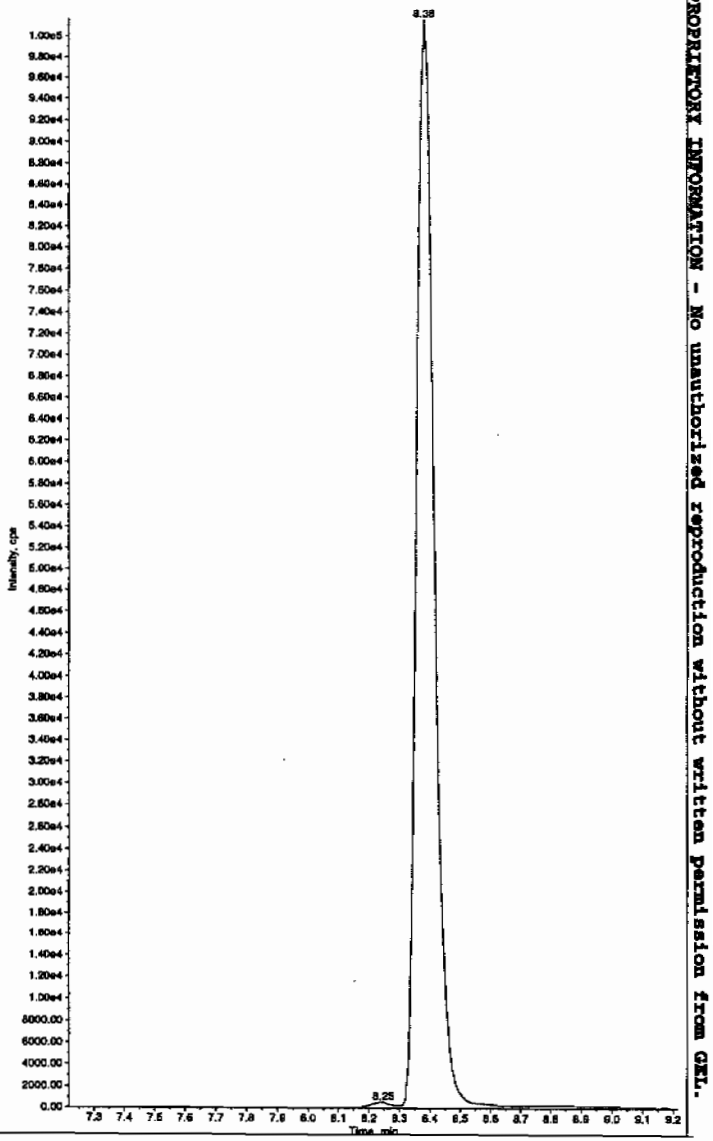

HMW 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969002" Sample ID: "948575|2|LER" File: "EXS02220023.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 301. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.97e+006 counts
Height: 1002885.498 cps
Start Time: 8.26 min
End Time: 8.72 min

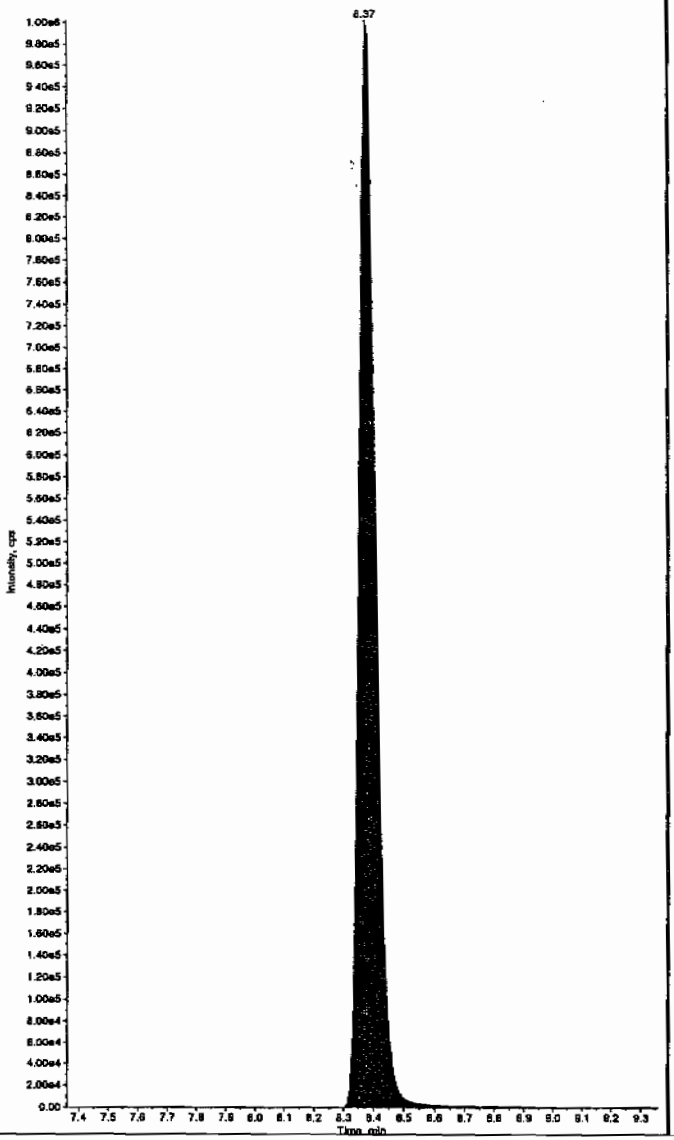

Sample Name: "245969002" Sample ID: "948575|2|LER" File: "EXS02220023.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No

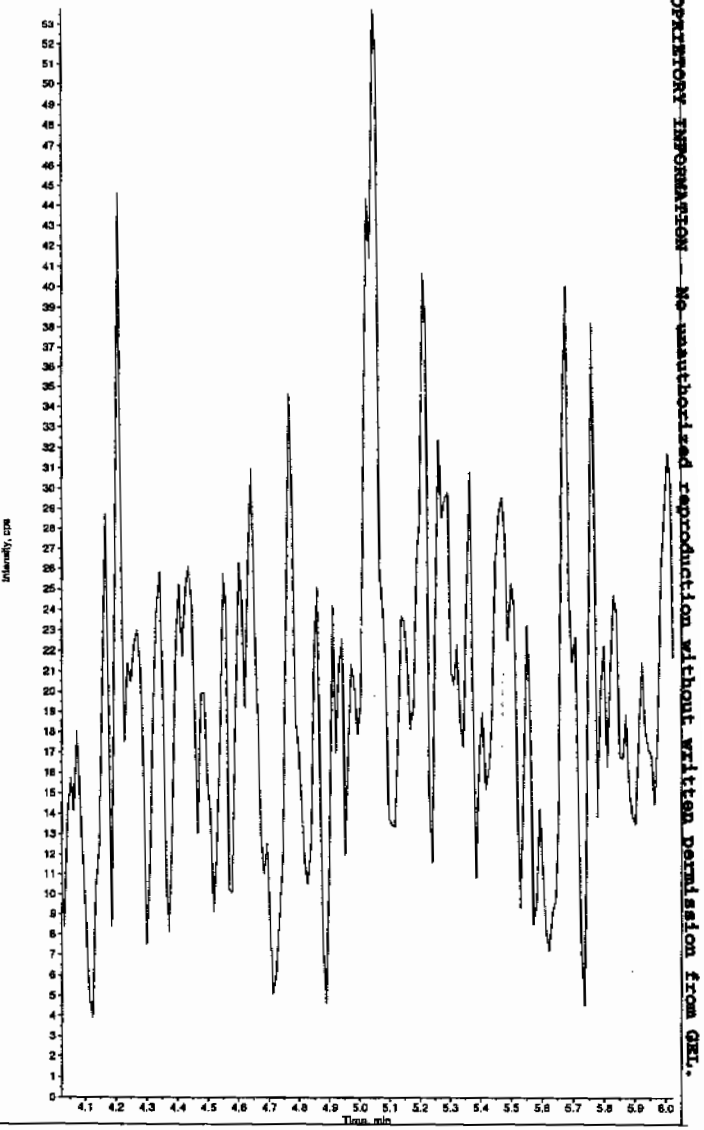

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969002" Sample ID: "948575|2|LER" File: "EXS02220023.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No

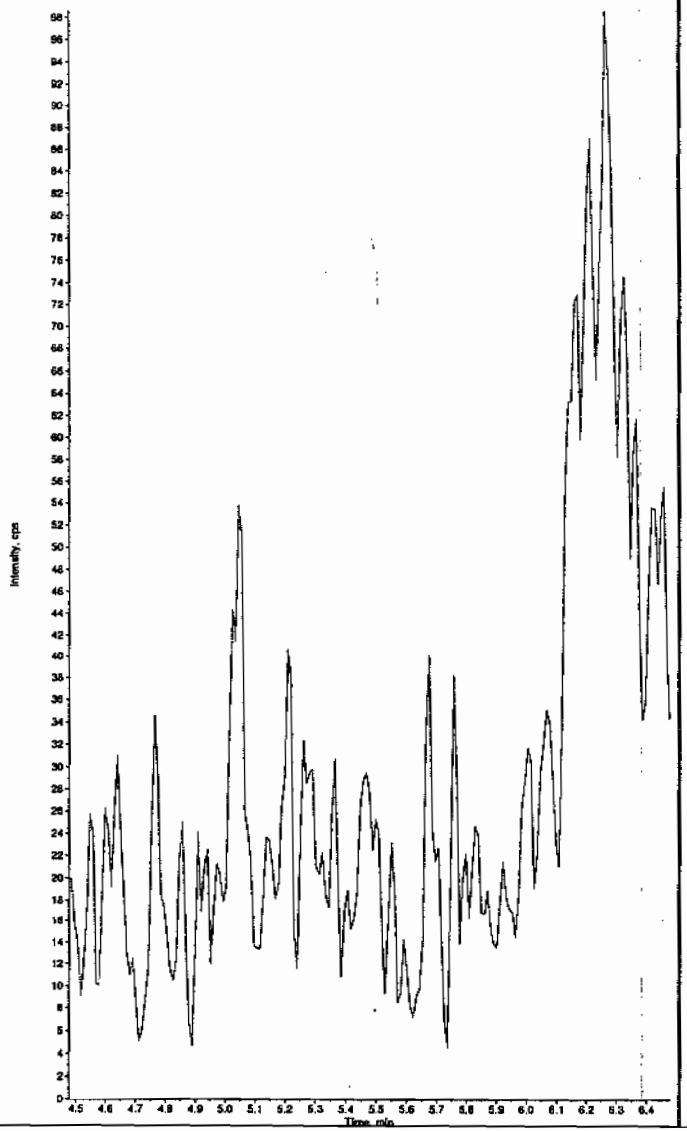

Sample Name: "245969002" Sample ID: "948575|2|LER" File: "EXS02220023.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.87 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:47:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.32e+004 counts
Height: 19400.309 cps
Start Time: 10.8 min
End Time: 11.1 min

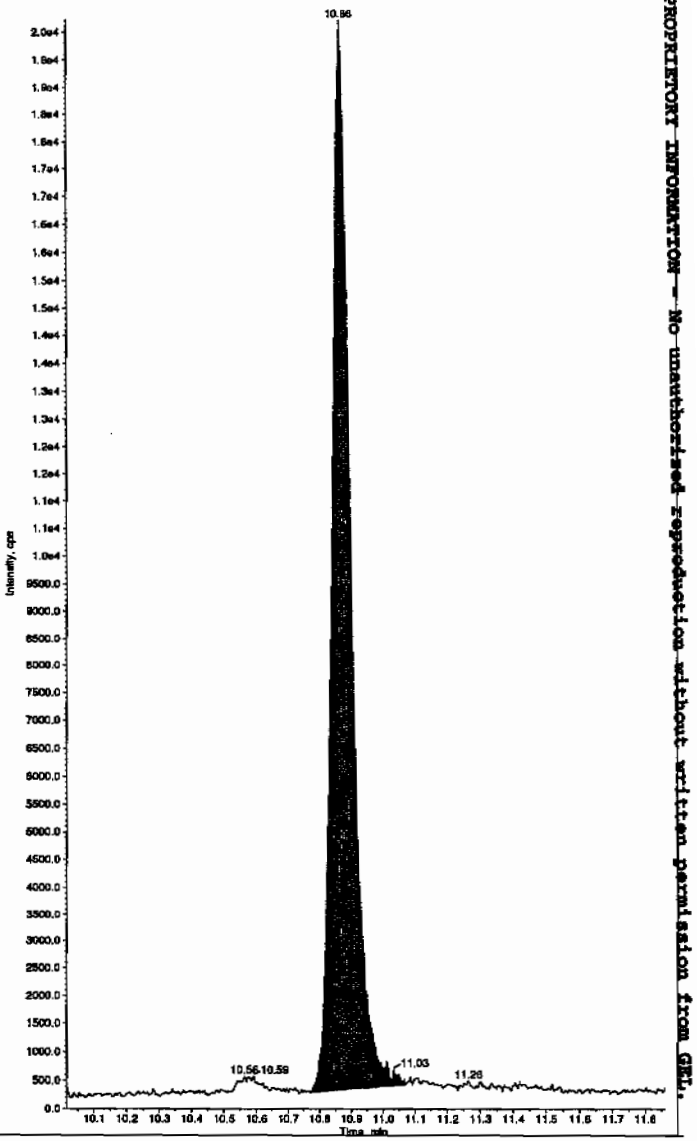

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7892

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969003

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301026a

Date Analyzed: 02-MAR-10 03:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301026a
Date: 02-Mar-2010
Time: 03:50:10
ID: 245969003 | LANL | 948575 | Solids | 2 |
Vial: 2:2,A

MMT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.110e+003

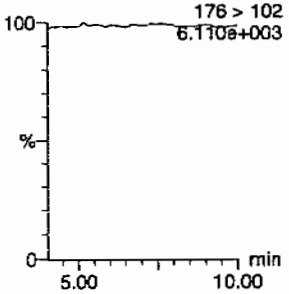

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.110e+003

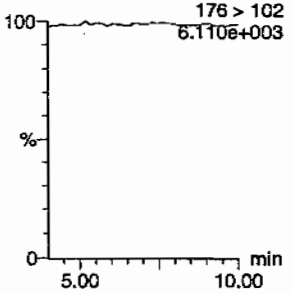

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.932e+003

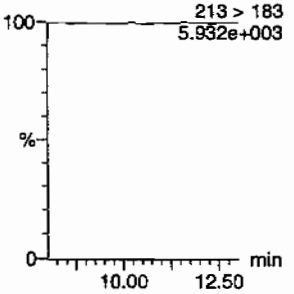

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.362e+004

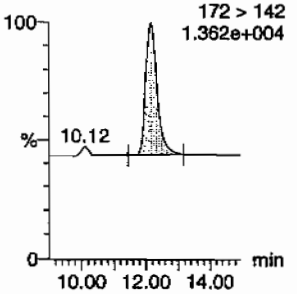

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.990e+003

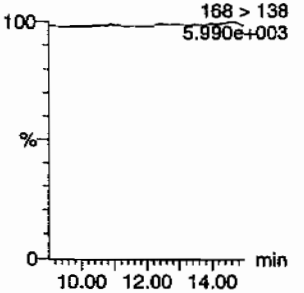

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.968e+003

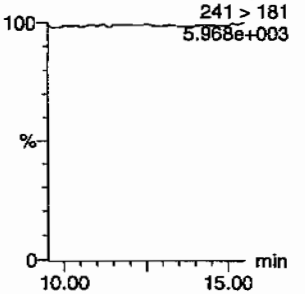

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.970e+003

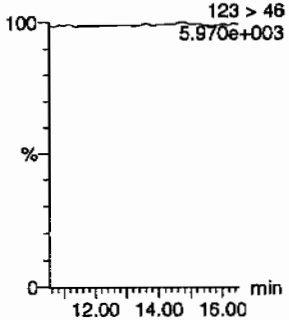

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.120e+003

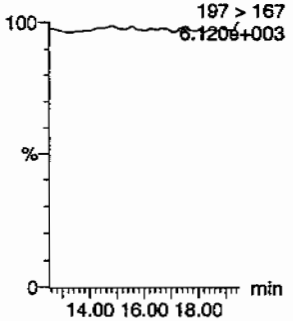

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.022e+003

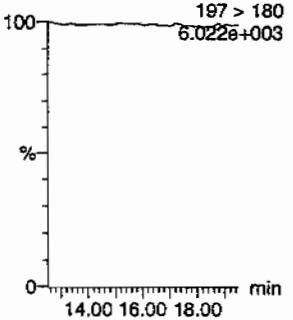

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.967e+003

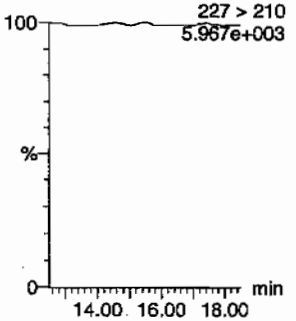

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.674e+004

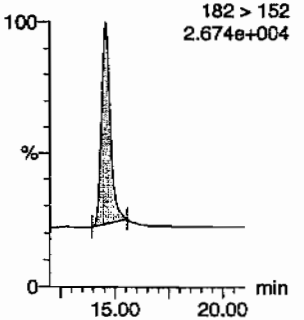

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.674e+004

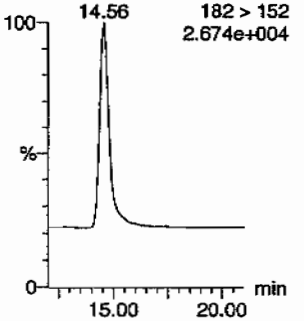

KMM 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

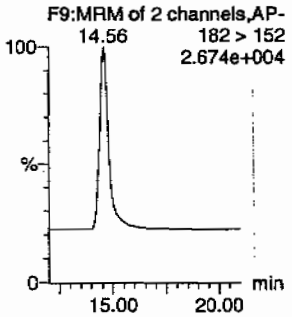

26-dinitrotoluene-d3

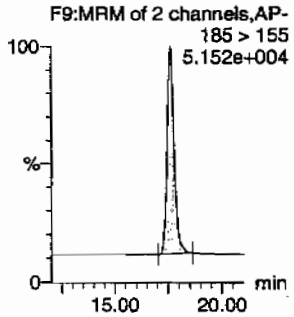

2-Nitrotoluene

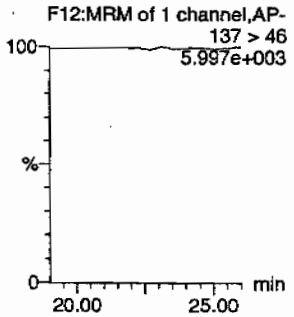

4-Nitrotoluene

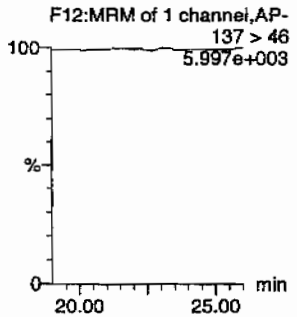

3-Nitrotoluene

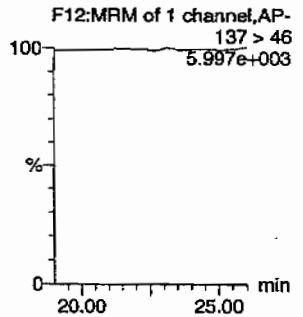

PETN

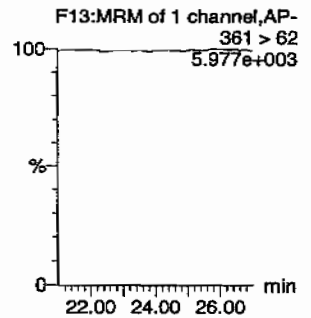

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245969003	HMX	176 > 102			3211.497									
245969003	RDX	176 > 102			3211.497									
245969003	135-Trinitrobenzene	213 > 183			3211.497									
245969003	13-Dinitrobenzene-d4	172 > 142	12.17	3211.497		3211.497	3211.497	bb			554.0739	110.8	10.8	292.0
245969003	13-Dinitrobenzene	168 > 138			3211.497									
245969003	Tetryl	241 > 181			3211.497									
245969003	Nitrobenzene	123 > 46			3211.497									
245969003	4-Amino-26-dinitrotoluene	197 > 167			17944.379									
245969003	2-Amino-46-dinitrotoluene	197 > 180			17944.379									
245969003	246-Trinitrotoluene	227 > 210			17944.379									
245969003	34-dinitrotoluene	182 > 152	14.56	9552.513	17944.379	9552.513	266.170	bb			268.6779	107.5	7.5	909.8
245969003	26-dinitrotoluene	182 > 152			17944.379									
245969003	24-dinitrotoluene	182 > 152			17944.379									
245969003	26-dinitrotoluene-d3	185 > 155	17.62	17944.379		17944.379	17944.379	bb			557.8047	111.6	11.6	1482.7
245969003	2-Nitrotoluene	137 > 46			17944.379									
245969003	4-Nitrotoluene	137 > 46			17944.379									
245969003	3-Nitrotoluene	137 > 46			17944.379									
245969003	PETN	361 > 62			17944.379									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7892

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969003

Sample Amount 2

Moisture: 7.0

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220027.wiff

Date Analyzed: 22-FEB-10 23:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/23/10

Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No

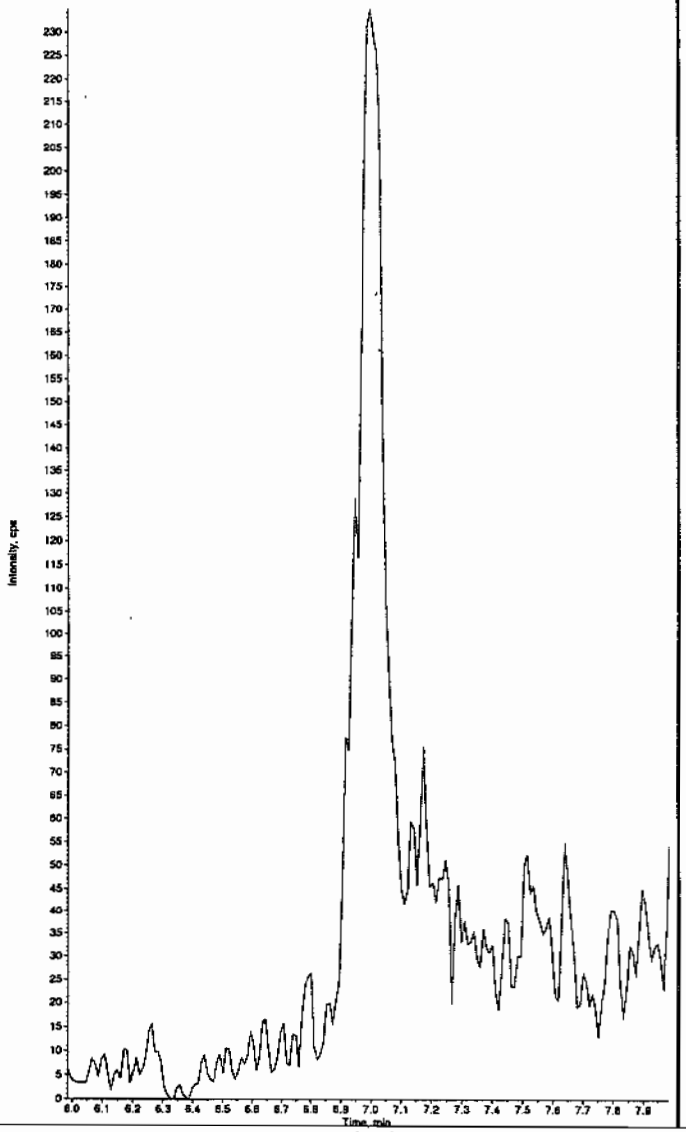

Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No

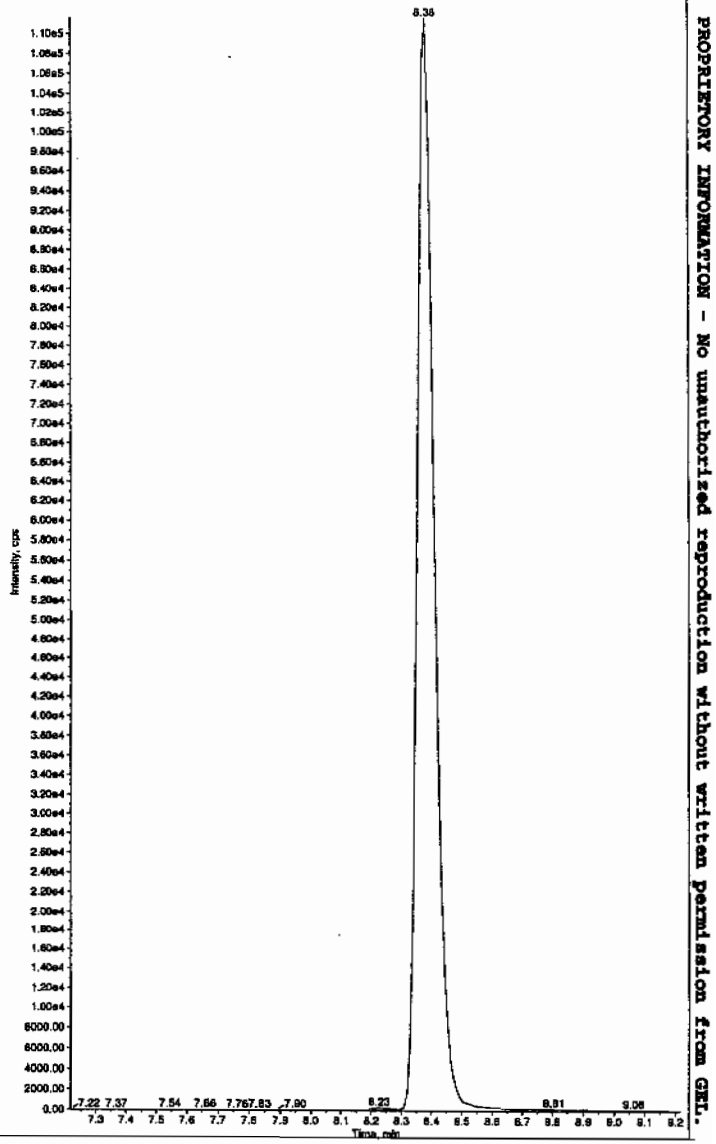

Hmm. 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 323. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.24e+006 counts
Height: 1098804.321 cps
Start Time: 8.28 min
End Time: 8.73 min

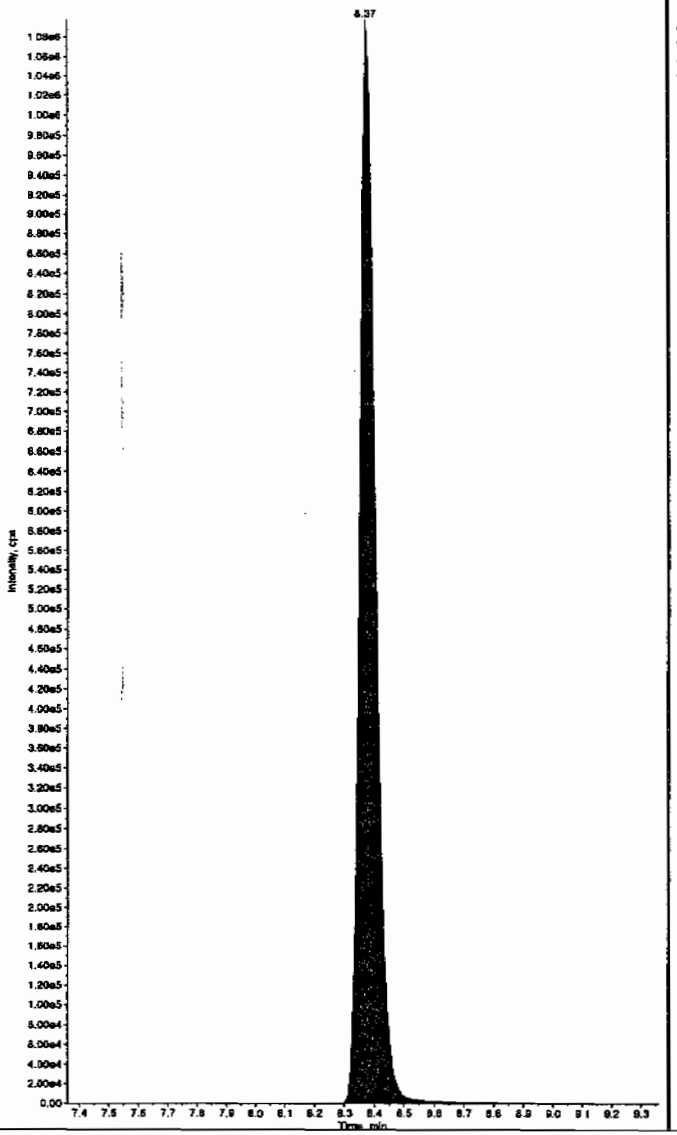

Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No

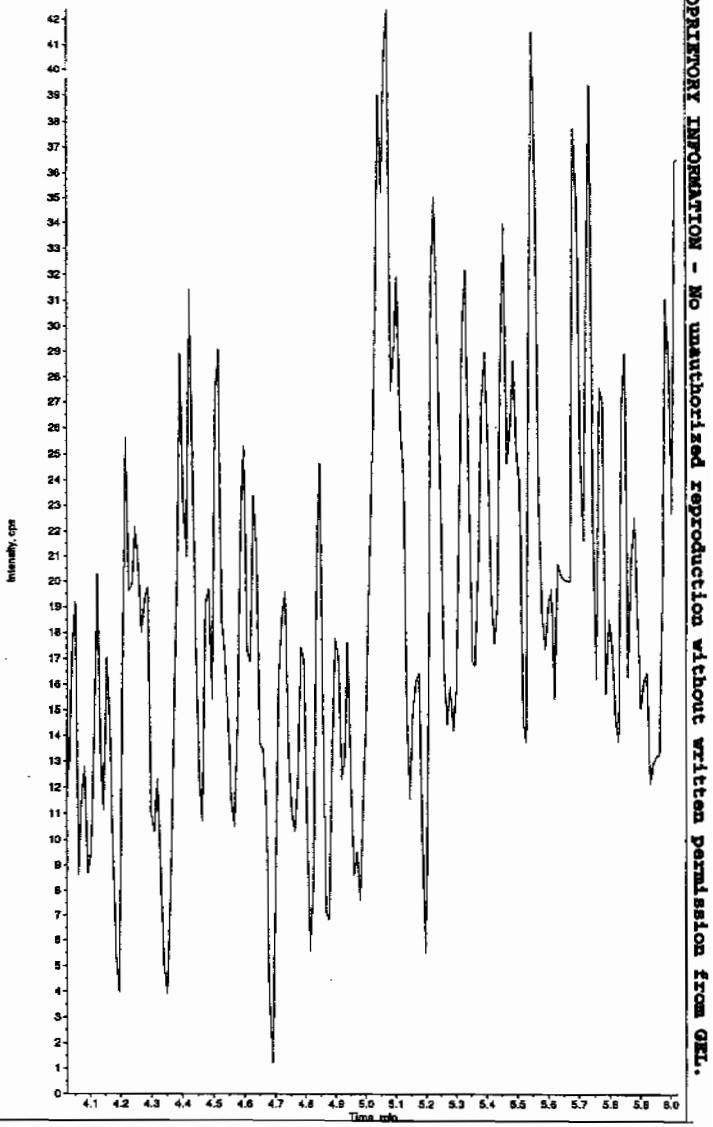

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No

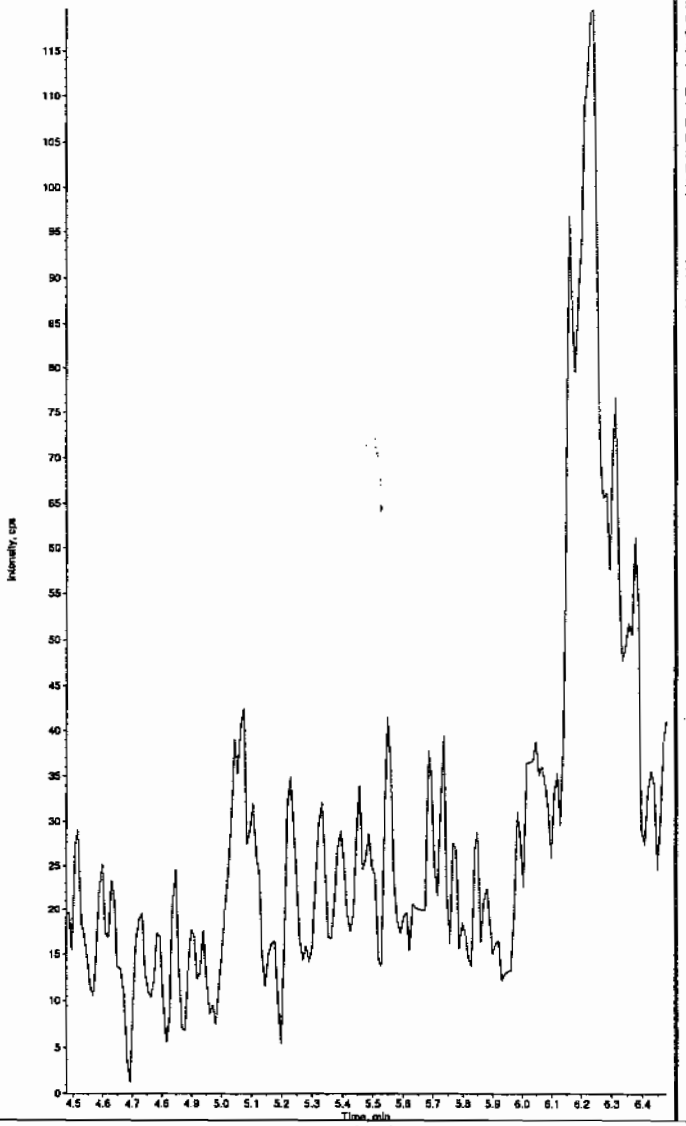

Sample Name: "245969003" Sample ID: "948575|2|LER" File: "EXS02220027.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 2/22/2010
Acq. Time: 11:50:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.00e+004 counts
Height: 9194.028 cps
Start Time: 10.8 min
End Time: 11.1 min

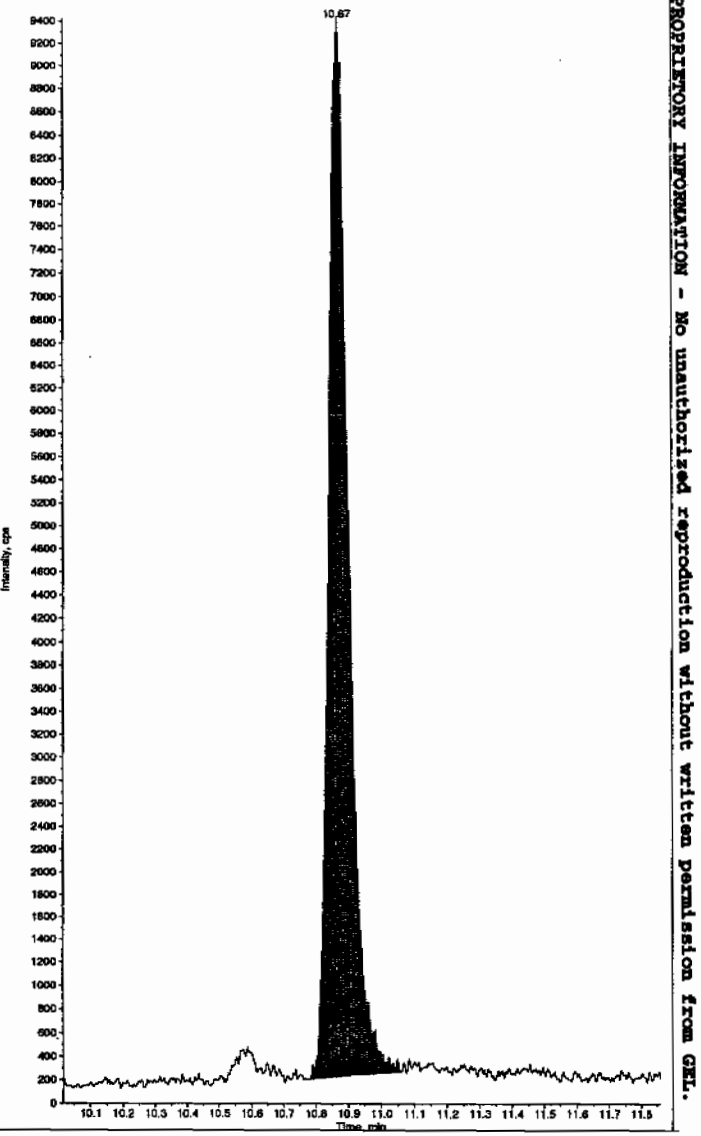

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7967

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969004

Sample Amount 2

Moisture: 24.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301027a

Date Analyzed: 02-MAR-10 04:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	205	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301027a
Date: 02-Mar-2010
Time: 04:19:39
ID: 245969004 | LANL | 948575 | Soil | 2 |
Vial: 2:2,B

3/2/10

HMX

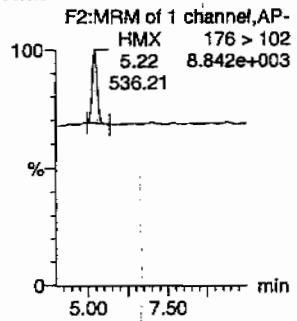

RDX

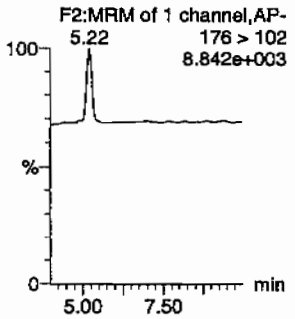

135-Trinitrobenzene

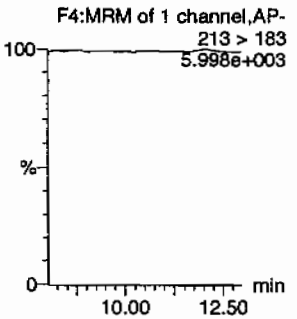

13-Dinitrobenzene-d4

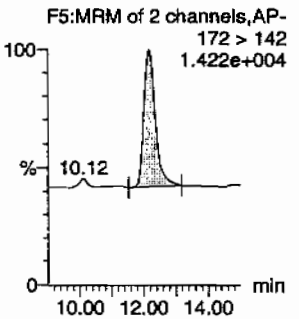

13-Dinitrobenzene

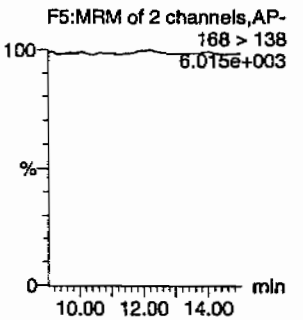

Tetryl

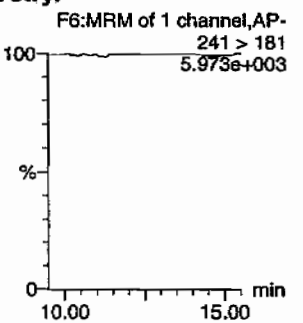

Nitrobenzene

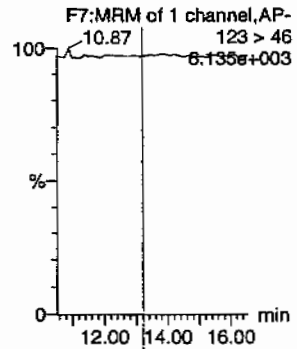

4-Amino-26-dinitrotoluene

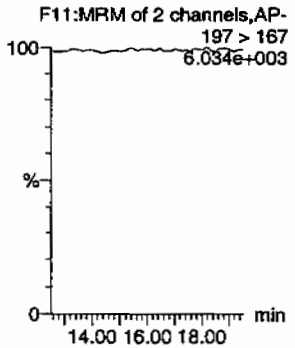

2-Amino-46-dinitrotoluene

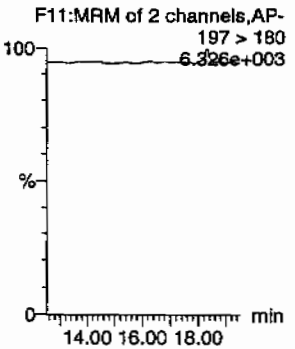

246-Trinitrotoluene

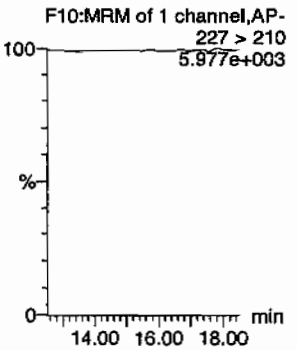

34-dinitrotoluene

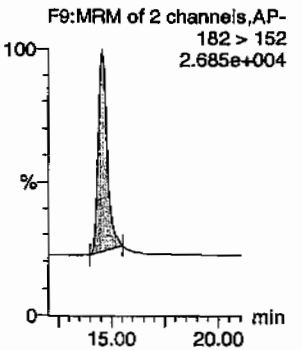

26-dinitrotoluene

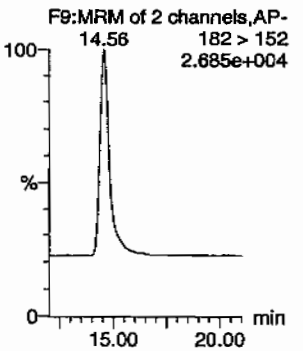

03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

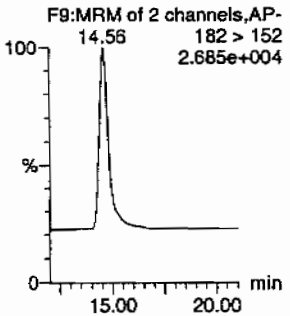

26-dinitrotoluene-d3

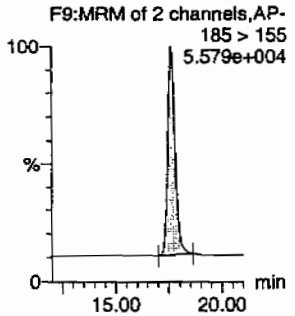

2-Nitrotoluene

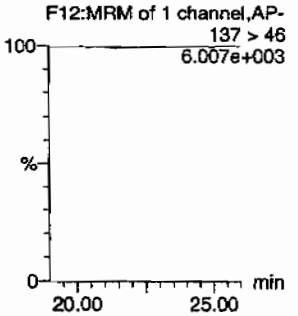

4-Nitrotoluene

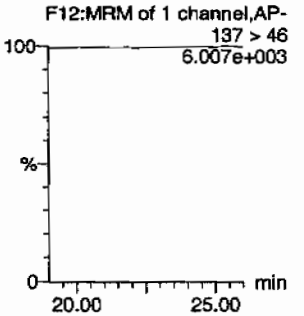

3-Nitrotoluene

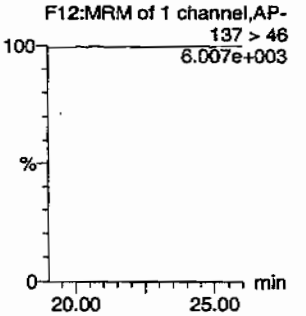

PETN

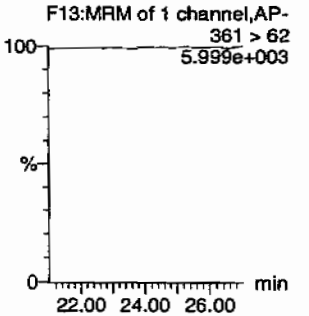

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969004	HMX	176 > 102	5.22	536.209	3434.816	536.209	78.055	bb			20.4610			57.8
245969004	RDX	176 > 102			3434.816									
245969004	135-Trinitrobenzene	213 > 183			3434.816									
245969004	13-Dinitrobenzene-d4	172 > 142	12.18	3434.816		3434.816	3434.816	bb			592.6028	118.5	18.5	371.2
245969004	13-Dinitrobenzene	168 > 138			3434.816									
245969004	Tetryl	241 > 181			3434.816									
245969004	Nitrobenzene	123 > 46			3434.816									
245969004	4-Amino-26-dinitrotoluene	197 > 167			19751.045									
245969004	2-Amino-46-dinitrotoluene	197 > 180			19751.045									
245969004	246-Trinitrotoluene	227 > 210			19751.045									
245969004	34-dinitrotoluene	182 > 152	14.56	9854.593	19751.045	9854.593	249.470	bb			251.8206	100.7	0.7	168.1
245969004	26-dinitrotoluene	182 > 152			19751.045									
245969004	24-dinitrotoluene	182 > 152			19751.045									
245969004	26-dinitrotoluene-d3	185 > 155	17.62	19751.045		19751.045	19751.045	bb			613.9653	122.8	22.8	1057.7
245969004	2-Nitrotoluene	137 > 46			19751.045									
245969004	4-Nitrotoluene	137 > 46			19751.045									
245969004	3-Nitrotoluene	137 > 46			19751.045									
245969004	PETN	361 > 62			19751.045									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7967

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969004

Sample Amount 2

Moisture: 24.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220028.wiff

Date Analyzed: 23-FEB-10 00:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	3770	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 2/23/10

Sample Name: "245969004" Sample ID: "948575[2]LER" File: "EXS02220028.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 377. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 7.22e+005 counts
Height: 164341.553 cps
Start Time: 6.89 min
End Time: 7.58 min

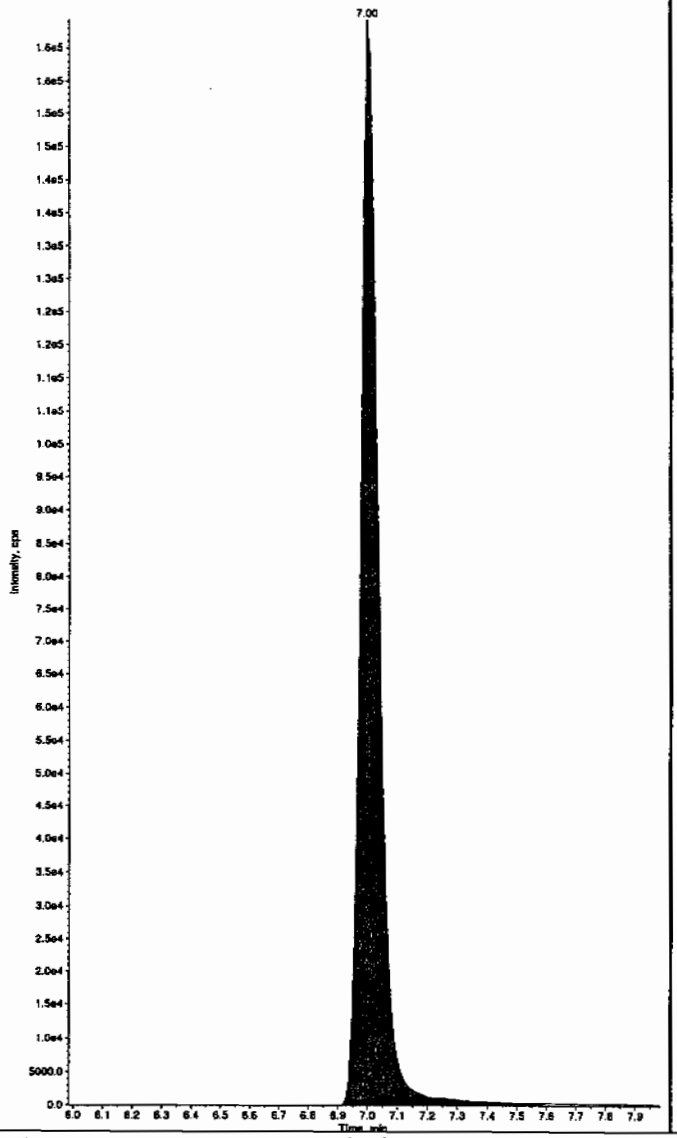

Sample Name: "245969004" Sample ID: "948575[2]LER" File: "EXS02220028.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No

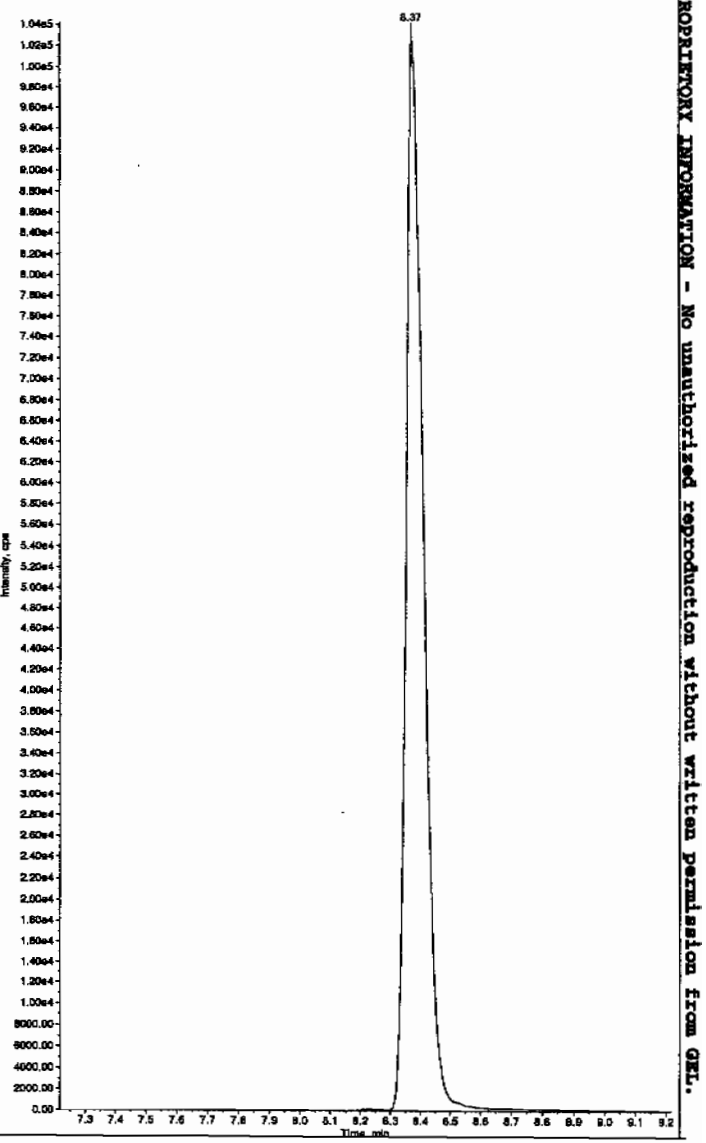

Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969004" Sample ID: "948575|2|LER" File: "EXS02220028.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 313. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.11e+006 counts
Height: 1012753.601 cps
Start Time: 8.26 min
End Time: 8.83 min

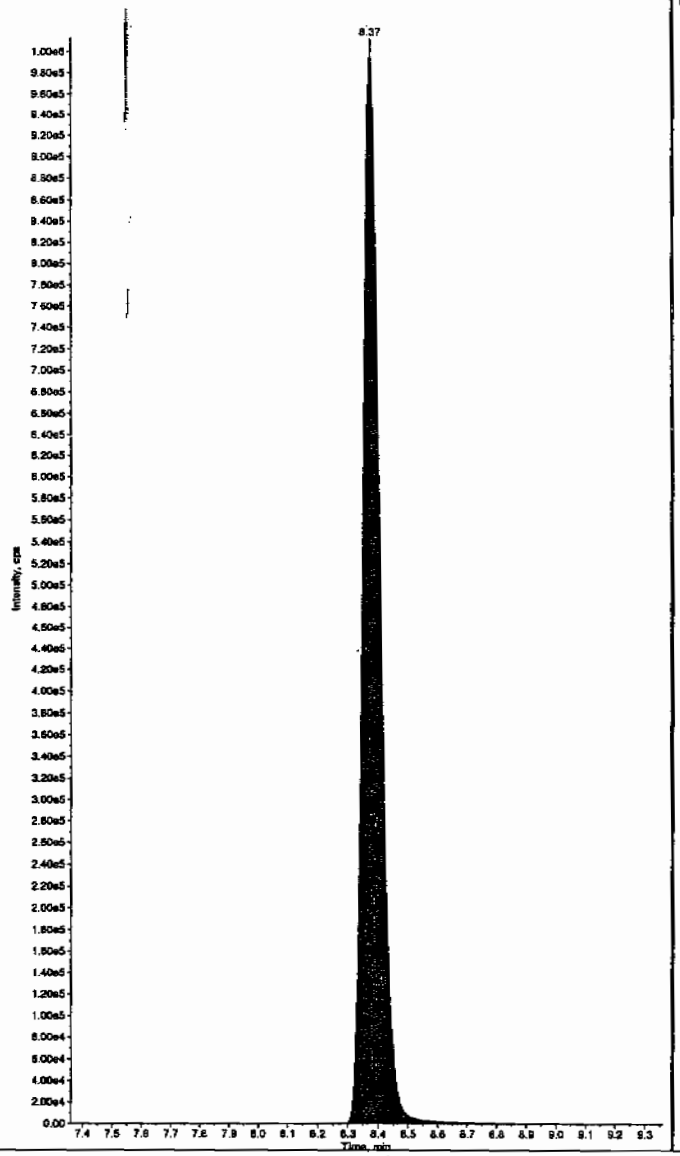

Sample Name: "245969004" Sample ID: "948575|2|LER" File: "EXS02220028.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No

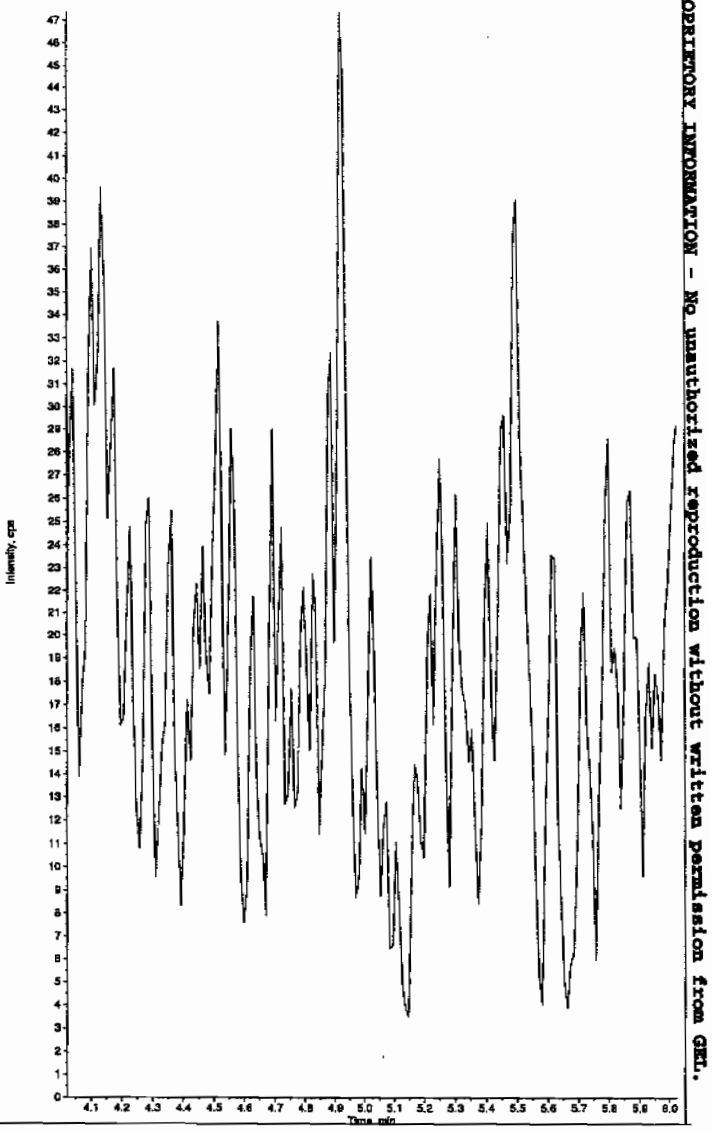

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969004" Sample ID: "948575[2]LER" File: "EX502220028.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No

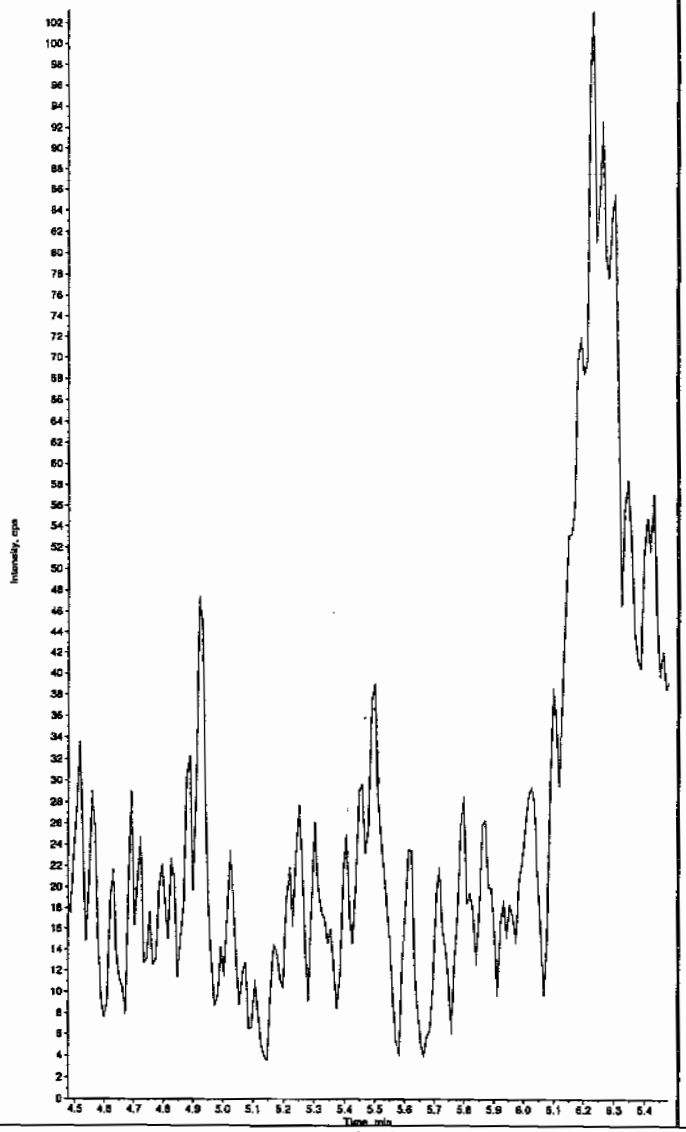

Sample Name: "245969004" Sample ID: "948575[2]LER" File: "EX502220028.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.251 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:06:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.84e+004 counts
Height: 8992.203 cps
Start Time: 10.7 min
End Time: 11.0 min

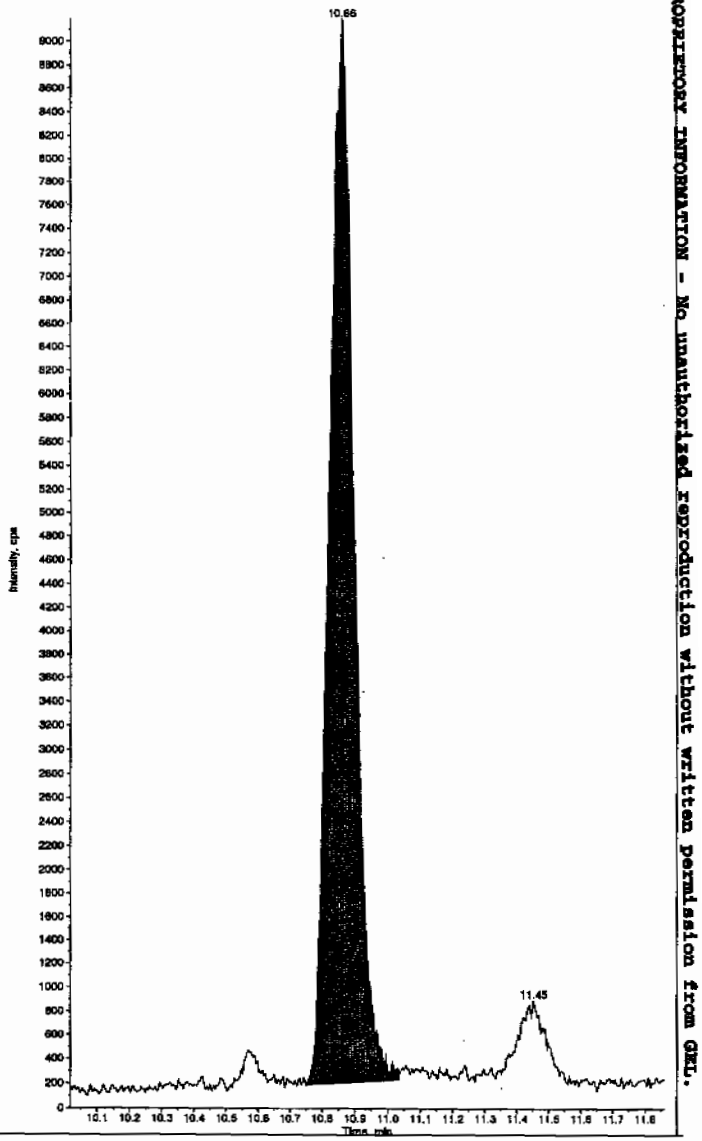

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7976

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969005

Sample Amount 2

Moisture: 3.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301028a

Date Analyzed: 02-MAR-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301028a
Date: 02-Mar-2010
Time: 04:49:08
ID: 245969005 | LANL | 948575 | Solid | 2 |
Vial: 2:2,C

MM 3/2/10

HMX

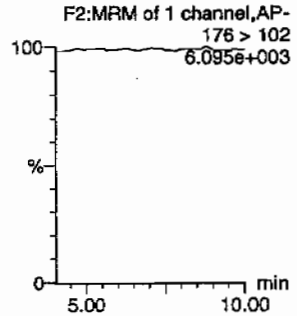

RDX

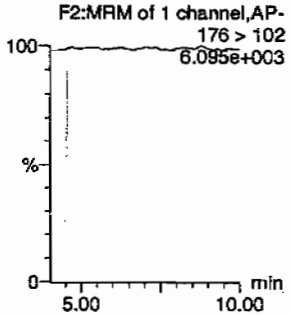

135-Trinitrobenzene

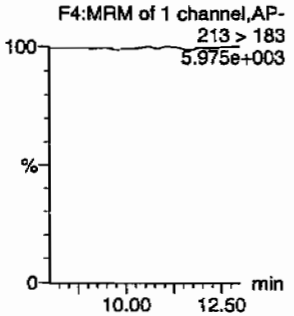

13-Dinitrobenzene-d4

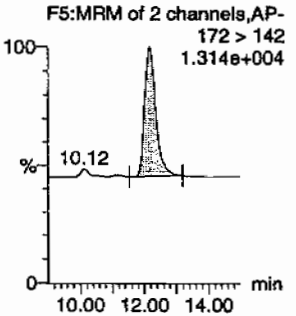

13-Dinitrobenzene

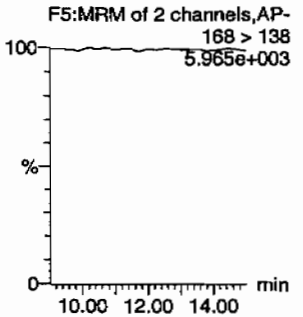

Tetryl

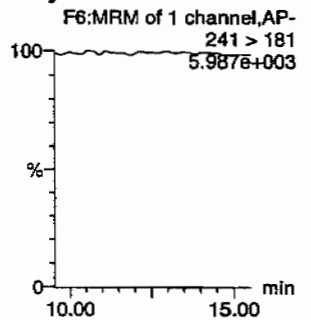

Nitrobenzene

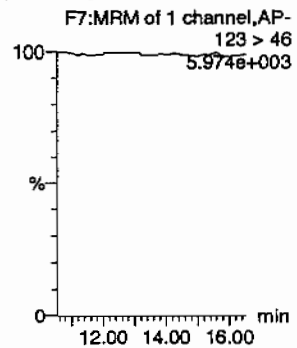

4-Amino-26-dinitrotoluene

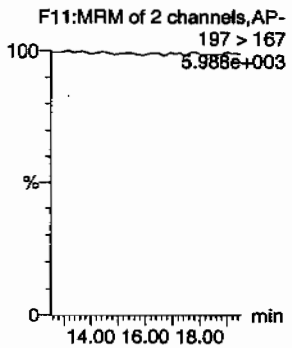

2-Amino-46-dinitrotoluene

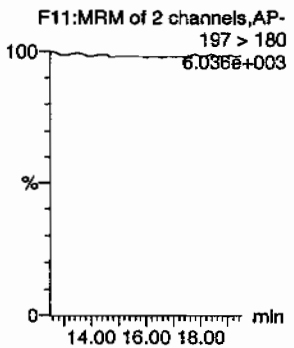

246-Trinitrotoluene

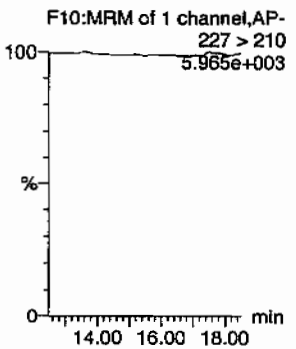

34-dinitrotoluene

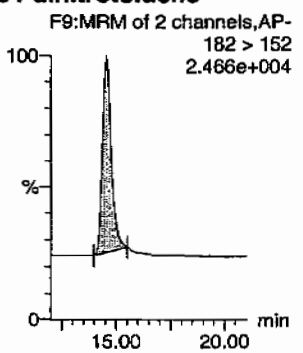

26-dinitrotoluene

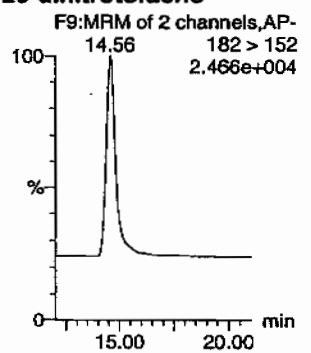

thme 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.466e+004

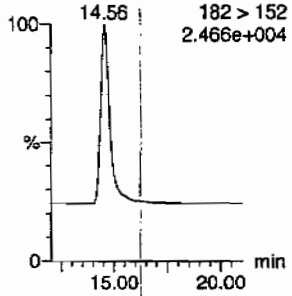

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.166e+004

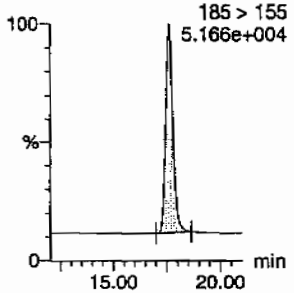

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.991e+003

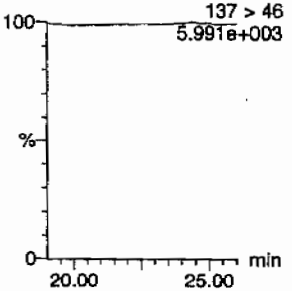

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.991e+003

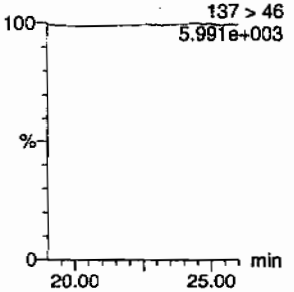

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.991e+003

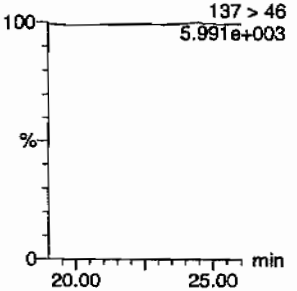

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.969e+003

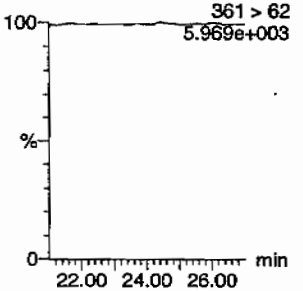

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969005	HMX	176 > 102			2967.610									
245969005	RDX	176 > 102			2967.610									
245969005	135-Trinitrobenzene	213 > 183			2967.610									
245969005	13-Dinitrobenzene-d4	172 > 142	12.17	2967.610		2967.610	2967.610	bb			511.9966	102.4	2.4	325.1
245969005	13-Dinitrobenzene	168 > 138			2967.610									
245969005	Tetryl	241 > 181			2967.610									
245969005	Nitrobenzene	123 > 46			2967.610									
245969005	4-Amino-26-dinitrotoluene	197 > 167			18051.559									
245969005	2-Amino-46-dinitrotoluene	197 > 180			18051.559									
245969005	246-Trinitrotoluene	227 > 210			18051.559									
245969005	34-dinitrotoluene	182 > 152	14.56	8671.126	18051.559	8671.126	240.177	bb			242.4396	97.0	-3.0	1133.5
245969005	26-dinitrotoluene	182 > 152			18051.559									
245969005	24-dinitrotoluene	182 > 152			18051.559									
245969005	26-dinitrotoluene-d3	185 > 155	17.62	18051.559		18051.559	18051.559	bb			561.1364	112.2	12.2	2363.8
245969005	2-Nitrotoluene	137 > 46			18051.559									
245969005	4-Nitrotoluene	137 > 46			18051.559									
245969005	3-Nitrotoluene	137 > 46			18051.559									
245969005	PETN	361 > 62			18051.559									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7976

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969005

Sample Amount 2

Moisture: 3.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220029.wiff

Date Analyzed: 23-FEB-10 00:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 2/23/10

Sample Name: "245969005" Sample ID: "946575|2|LER" File: "EXS02220029.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No

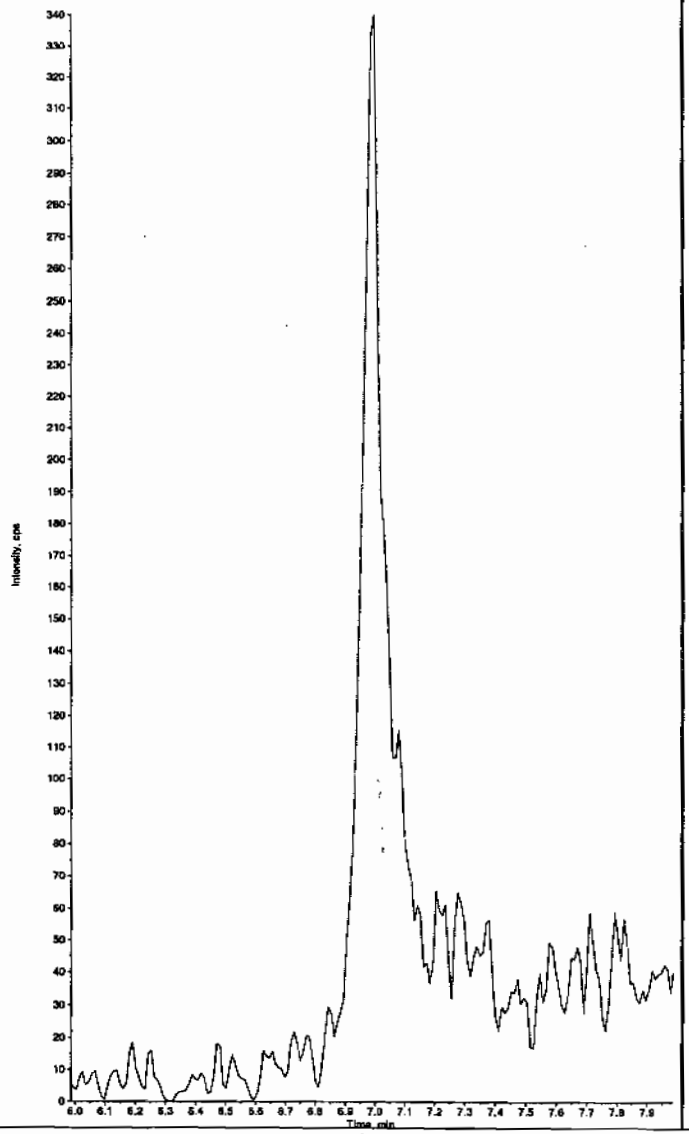

Sample Name: "245969005" Sample ID: "946575|2|LER" File: "EXS02220029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No

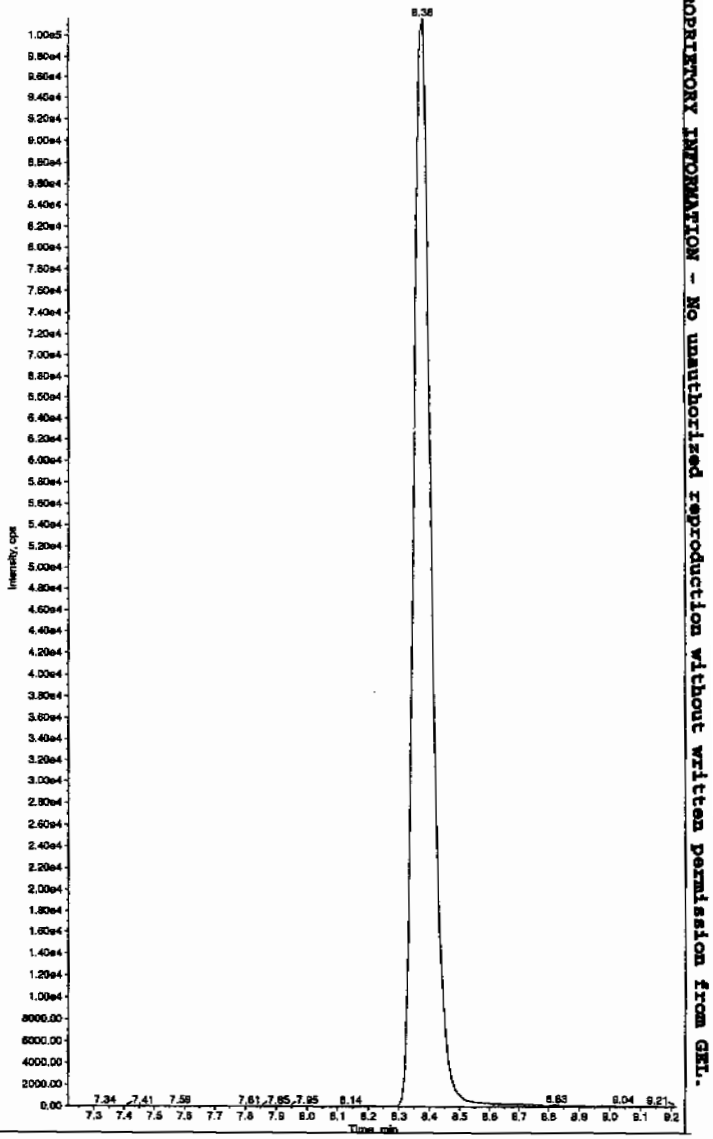

Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969005" Sample ID: "948575|2|LER" File: "EXS02220029.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 303. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.00e+006 counts
Height: 1009346.375 cps
Start Time: 8.27 min
End Time: 8.86 min

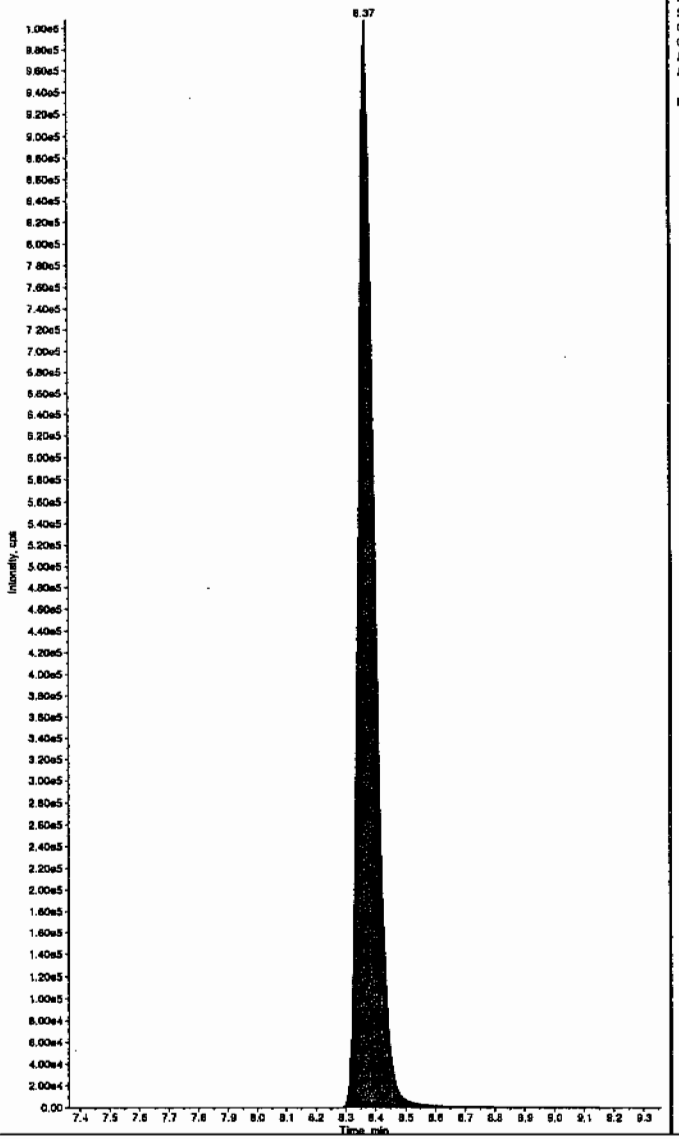

Sample Name: "245969005" Sample ID: "948575|2|LER" File: "EXS02220029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No

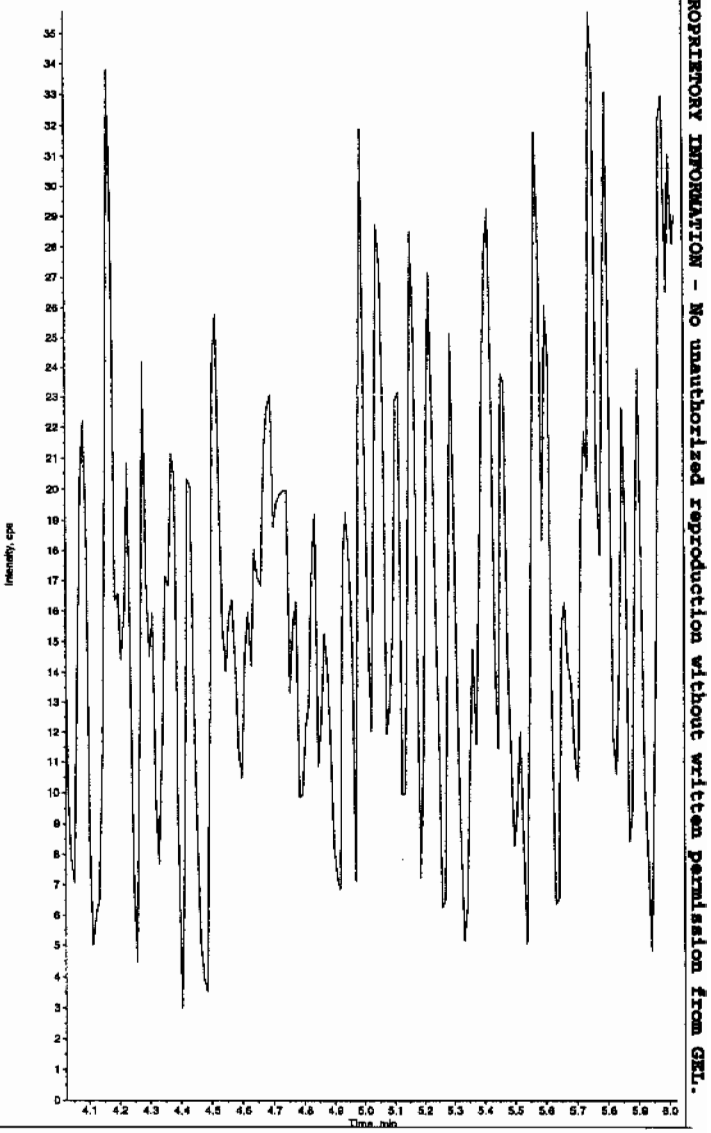

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245969005" Sample ID: "948575[2]LER" File: "EXS02220029.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No

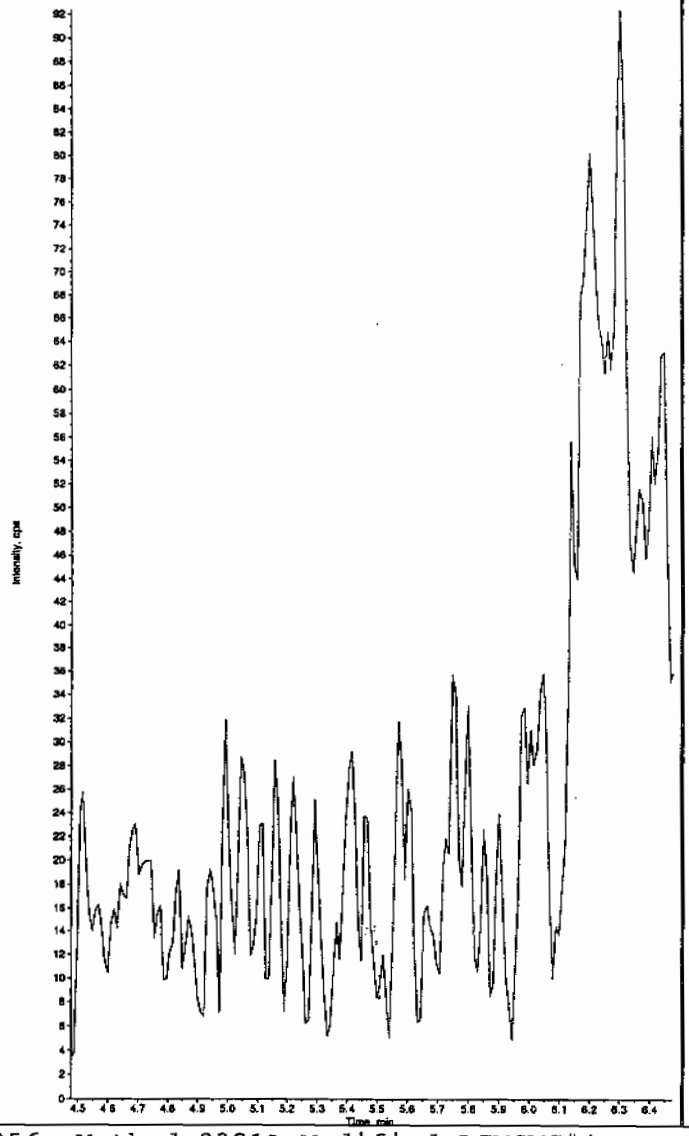

Sample Name: "245969005" Sample ID: "948575[2]LER" File: "EXS02220029.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:22:02 AM

Modified: No

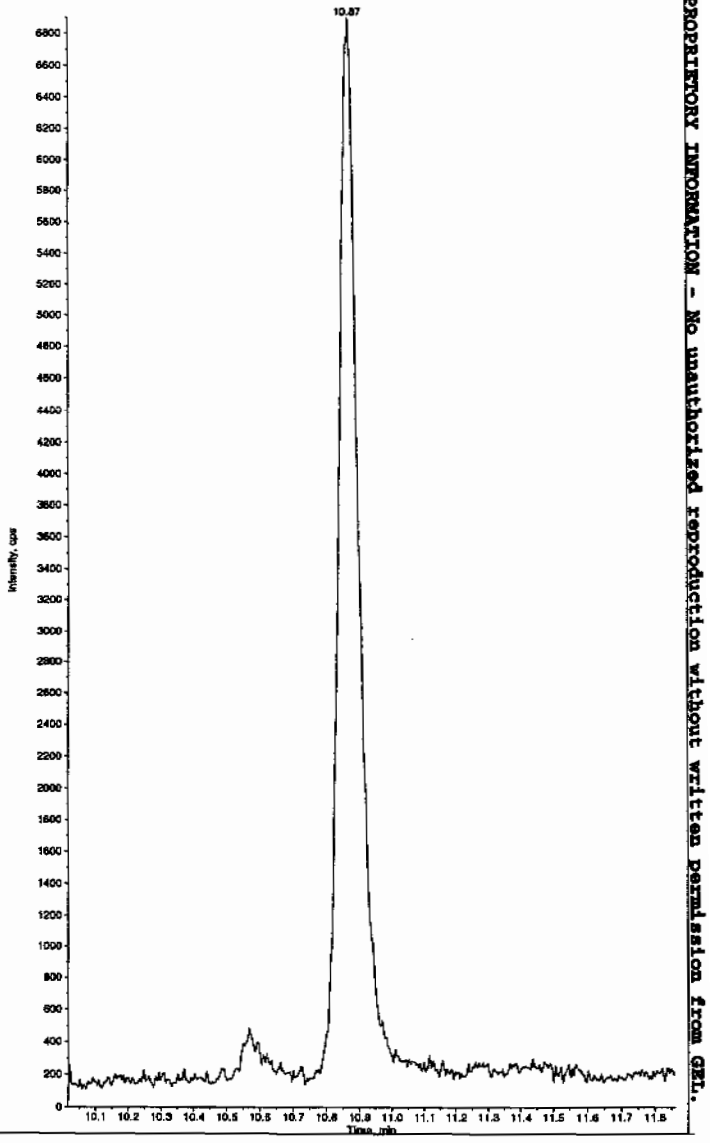

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7968

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969006

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301029a

Date Analyzed: 02-MAR-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301029a
Date: 02-Mar-2010
Time: 05:18:37
ID: 245969006 | LANL | 948575 | Soils | 2 |
Vial: 2:2,D

MM 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.005e+003

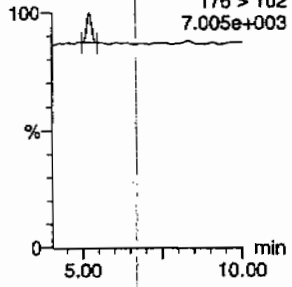

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
7.005e+003

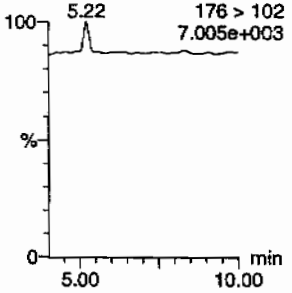

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.063e+003

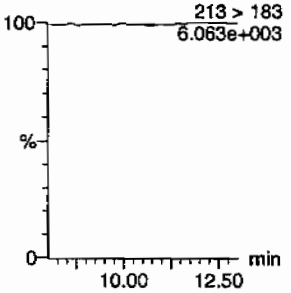

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.320e+004

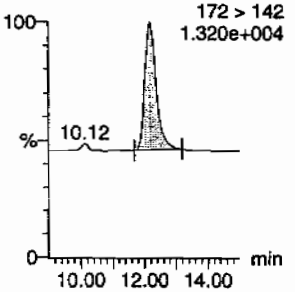

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.076e+003

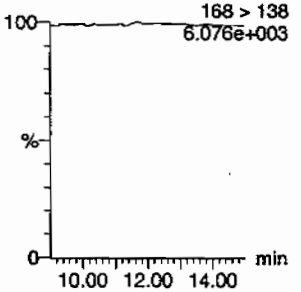

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.087e+003

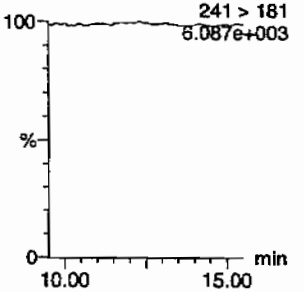

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.076e+003

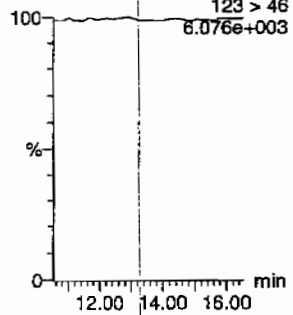

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.095e+003

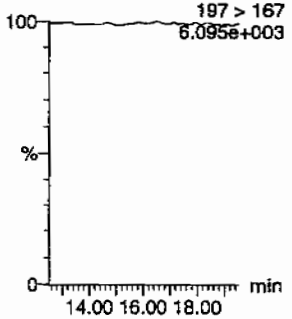

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.112e+003

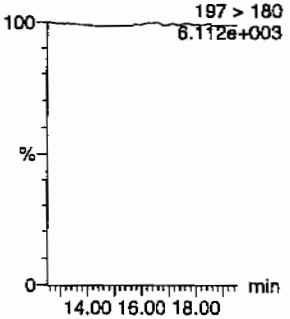

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.089e+003

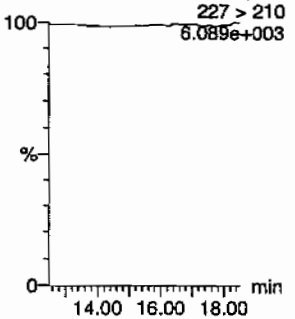

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.509e+004

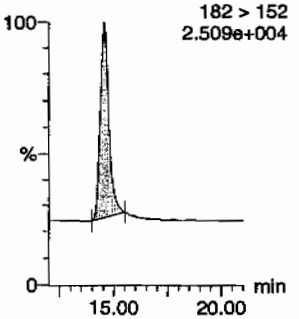

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.509e+004

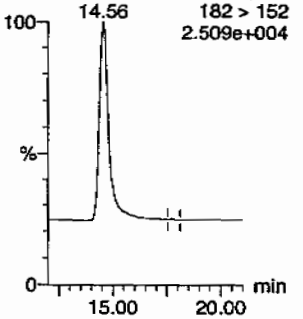

HMW 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.509e+004

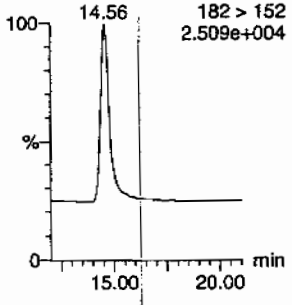

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.060e+004

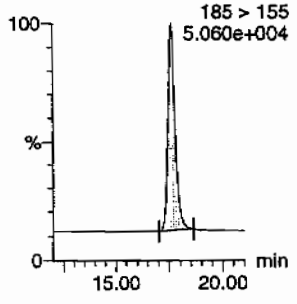

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.099e+003

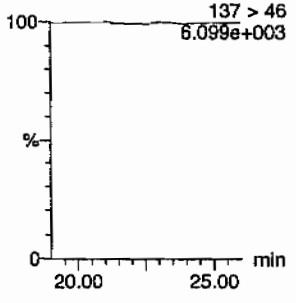

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.099e+003

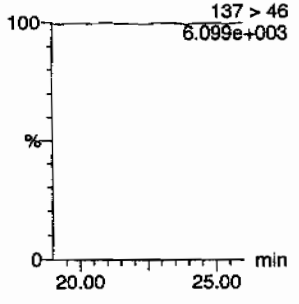

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.099e+003

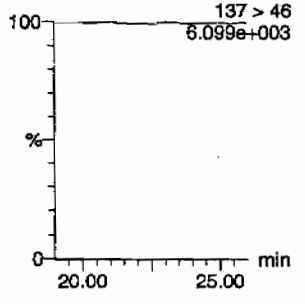

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.073e+003

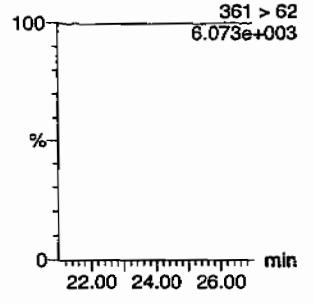

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
245969006	HMX	176 > 102	5.22	173.332	3027.761	173.332	28.624	bb			7.5033			40.4
245969006	RDX	176 > 102			3027.761									
245969006	135-Trinitrobenzene	213 > 183			3027.761									
245969006	13-Dinitrobenzene-d4	172 > 142	12.17	3027.761		3027.761	3027.761	bb			522.3743	104.5	4.5	155.8
245969006	13-Dinitrobenzene	168 > 138			3027.761									
245969006	Tetryl	241 > 181			3027.761									
245969006	Nitrobenzene	123 > 46			3027.761									
245969006	4-Amino-26-dinitrotoluene	197 > 167			17476.256									
245969006	2-Amino-46-dinitrotoluene	197 > 180			17476.256									
245969006	246-Trinitrotoluene	227 > 210			17476.256									
245969006	34-dinitrotoluene	182 > 152	14.56	8711.428	17476.256	8711.428	249.236	bb			251.5844	100.6	0.6	480.4
245969006	26-dinitrotoluene	182 > 152			17476.256			MM-	02-Mar-10	09:38:31				
245969006	24-dinitrotoluene	182 > 152			17476.256									
245969006	26-dinitrotoluene-d3	185 > 155	17.62	17476.256		17476.256	17476.256	bb			543.2530	108.7	8.7	2074.1
245969006	2-Nitrotoluene	137 > 46			17476.256									
245969006	4-Nitrotoluene	137 > 46			17476.256									
245969006	3-Nitrotoluene	137 > 46			17476.256									
245969006	PETN	361 > 62			17476.256									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7968

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969006

Sample Amount 2

Moisture: 10.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220030.wiff

Date Analyzed: 23-FEB-10 00:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No

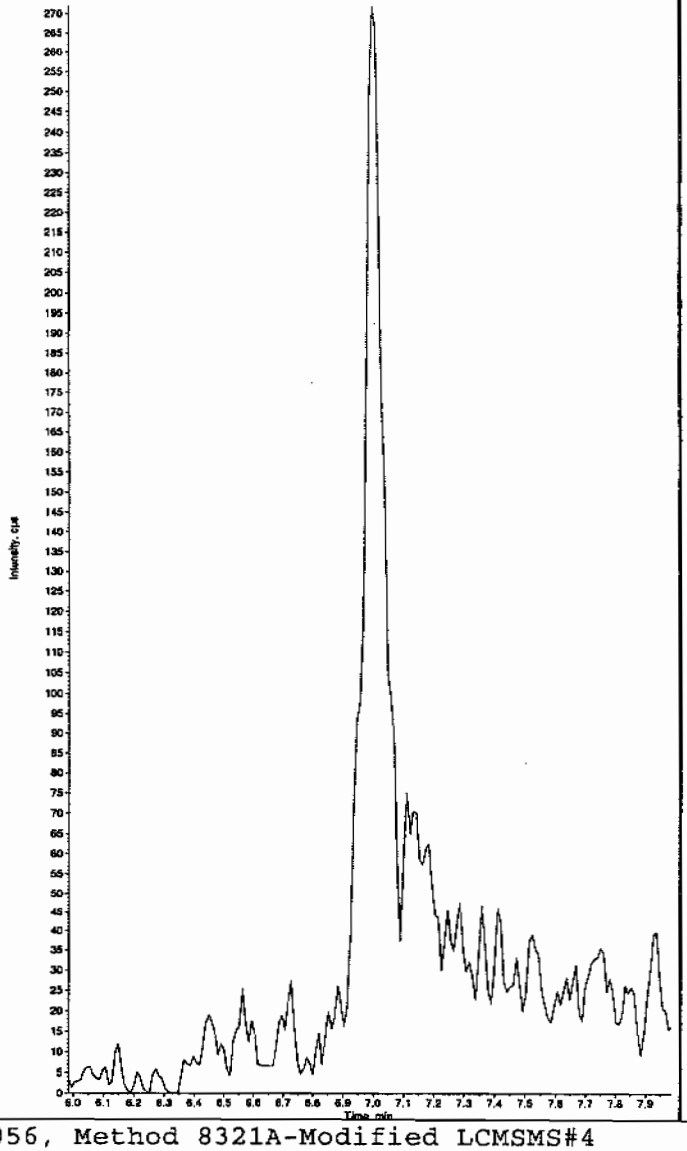

Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No

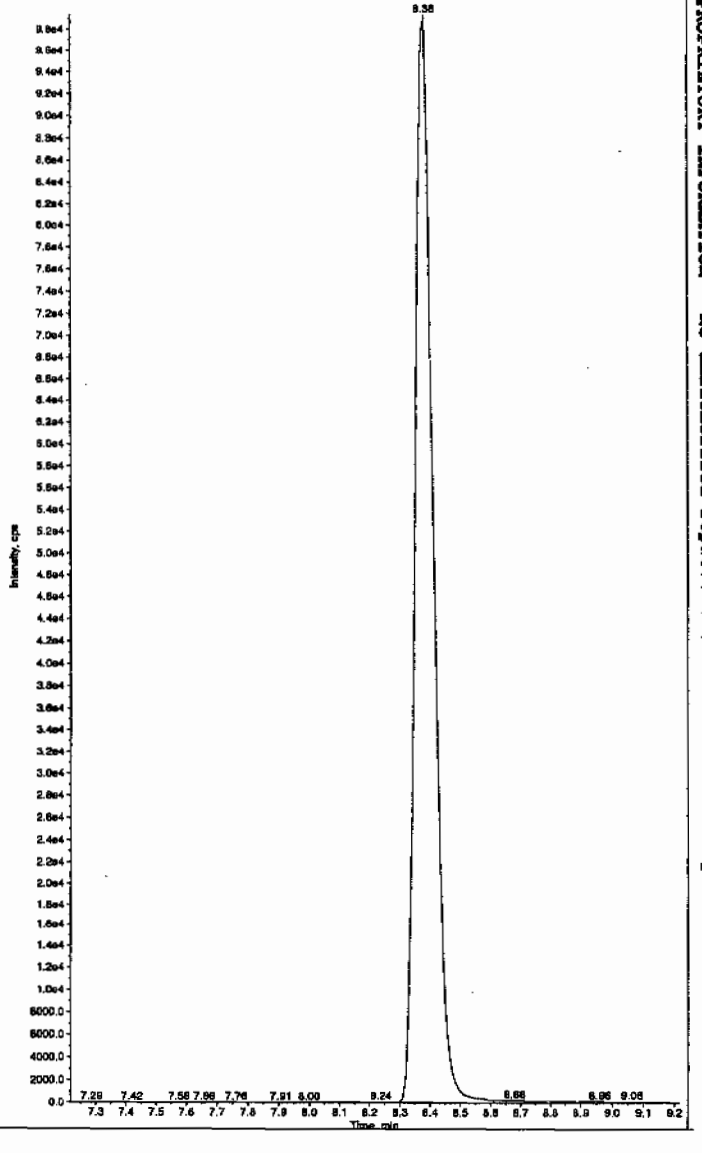

Ken 2/23/10

Hinc 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 298. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.93e+006 counts
Height: 1009873.474 cps
Start Time: 8.26 min
End Time: 8.84 min

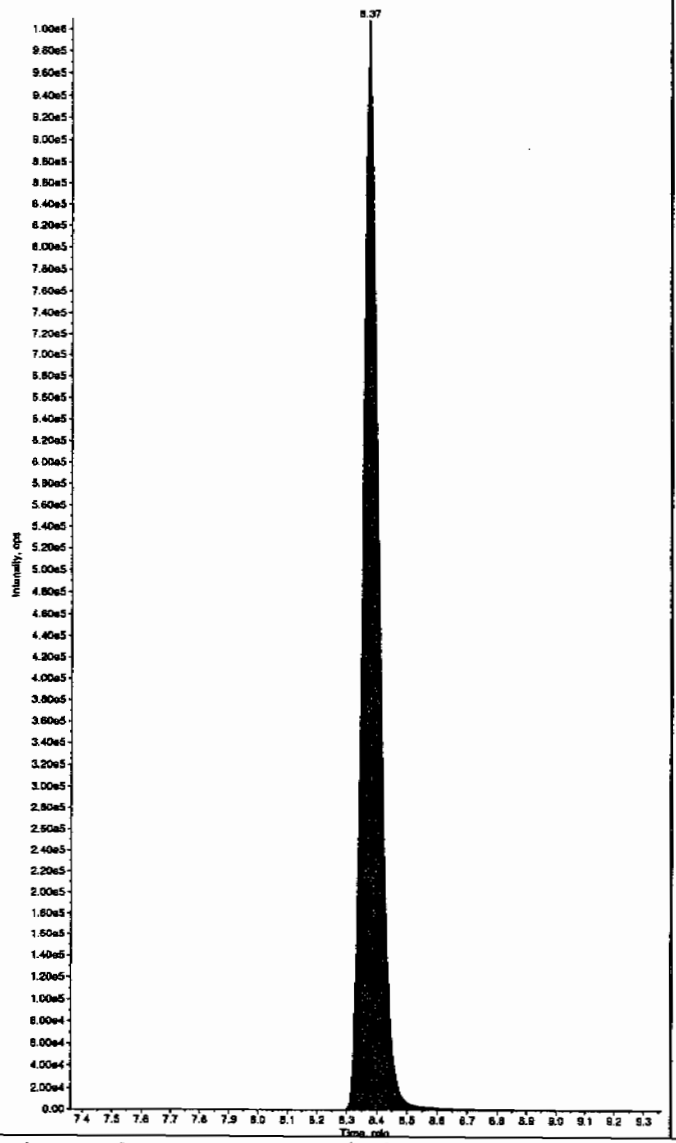

Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No

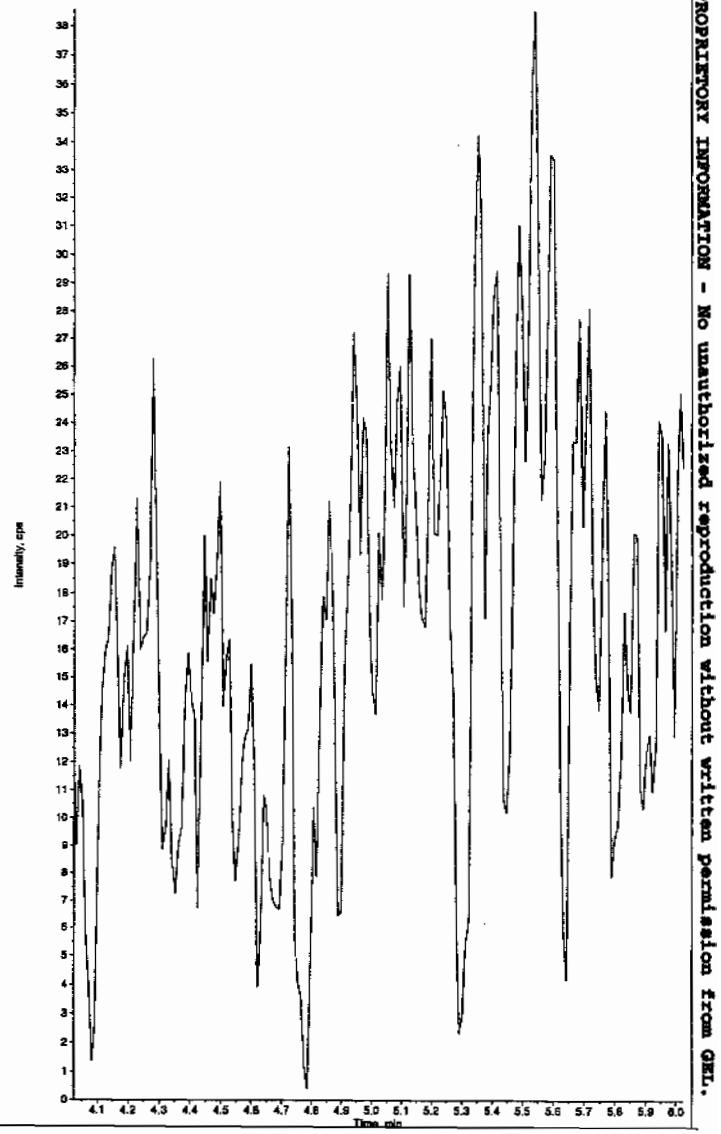

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No

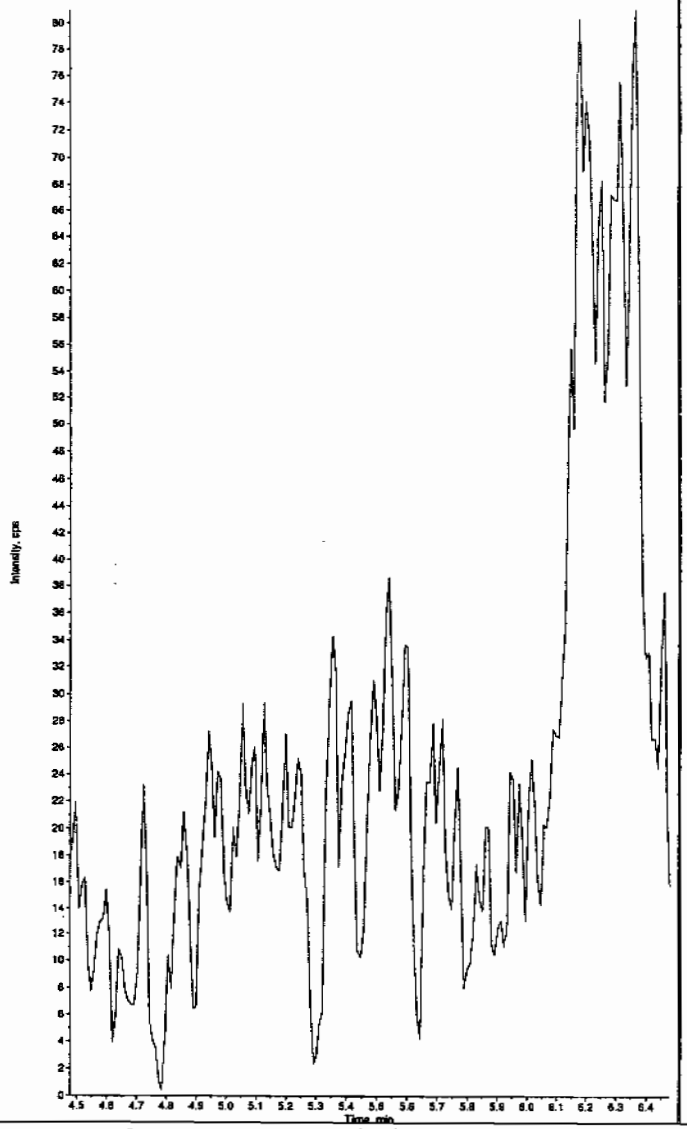

Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220030.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:37:43 AM

Modified: No

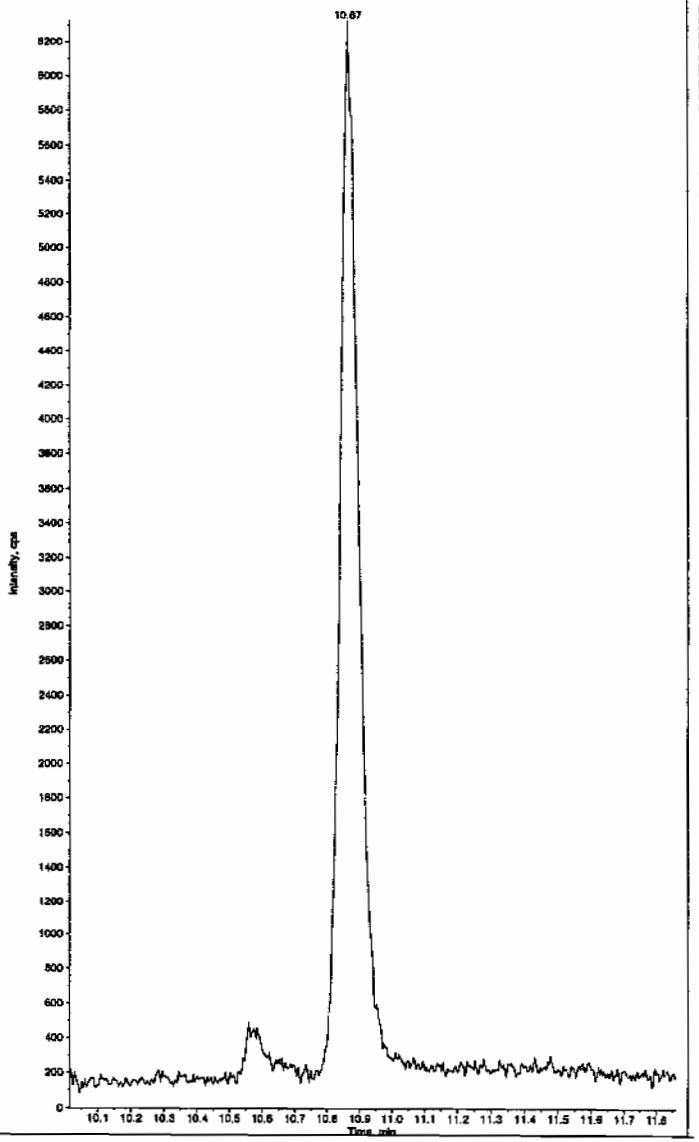

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEI

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301033a

Date Analyzed: 02-MAR-10 07:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	423	J
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030110expa.cdb, Time: Tue Mar 02 09:59:16 2010

Use 10x for HMX

See EXP0301042a

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301033a
Date: 02-Mar-2010
Time: 07:16:36
ID: 245969007 | LANL | 948575 | Solids | 2 |
Vial: 2:2,E

MH 3/3/10

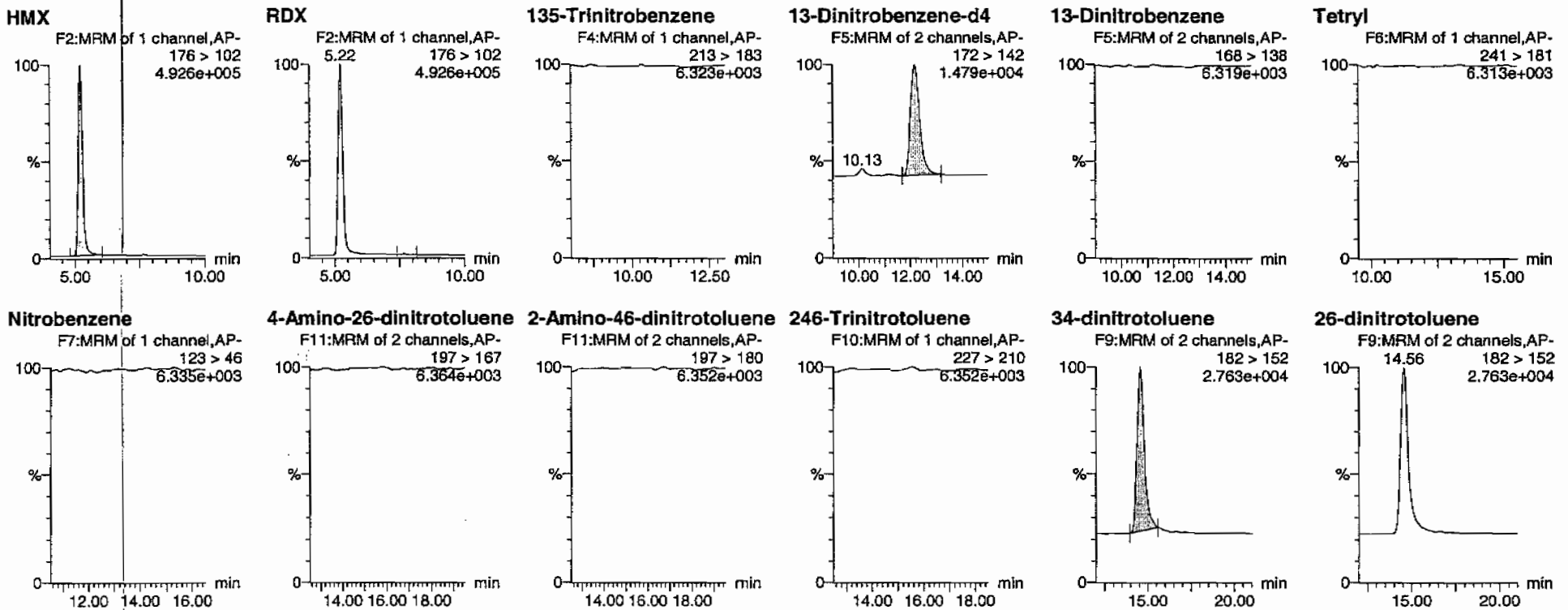

HMW 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.763e+004

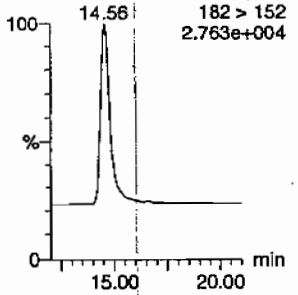

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.863e+004

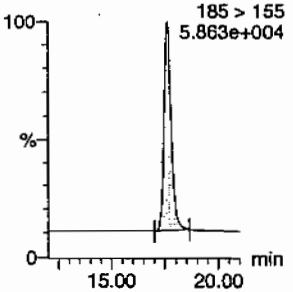

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.318e+003

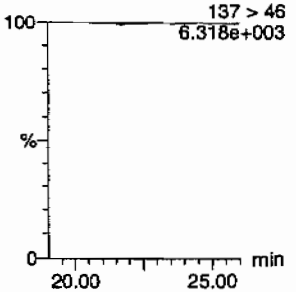

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.318e+003

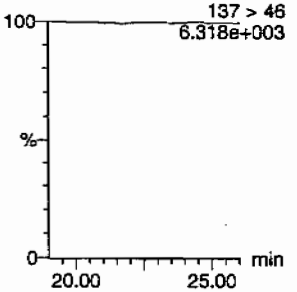

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.318e+003

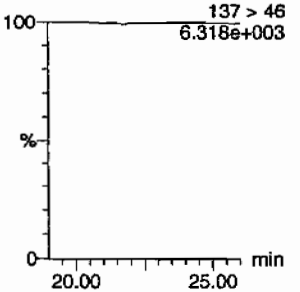

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.301e+003

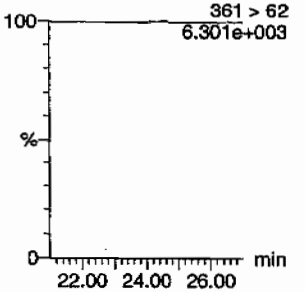

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
245969007	HMX	176 > 102	5.22	100862.047	3533.722	100862.047	14271.361	bb			3741.0...			4976.6
245969007	RDX	176 > 102	7.64	821.333	3533.722	821.333	116.214	bb			42.3424			38.0
245969007	135-Trinitrobenzene	213 > 183			3533.722									
245969007	13-Dinitrobenzene-d4	172 > 142	12.17	3533.722		3533.722	3533.722	bb			609.6669	121.9	21.9	696.6
245969007	13-Dinitrobenzene	168 > 138			3533.722									
245969007	Tetryl	241 > 181			3533.722									
245969007	Nitrobenzene	123 > 46			3533.722									
245969007	4-Amino-26-dinitrotoluene	197 > 167			20642.258									
245969007	2-Amino-46-dinitrotoluene	197 > 180			20642.258									
245969007	246-Trinitrotoluene	227 > 210			20642.258									
245969007	34-dinitrotoluene	182 > 152	14.56	10148.735	20642.258	10148.735	245.824	bb			248.1404	99.3	-0.7	824.5
245969007	26-dinitrotoluene	182 > 152			20642.258									
245969007	24-dinitrotoluene	182 > 152			20642.258									
245969007	26-dinitrotoluene-d3	185 > 155	17.62	20642.258		20642.258	20642.258	bb			641.6689	128.3	28.3	1567.8
245969007	2-Nitrotoluene	137 > 46			20642.258									
245969007	4-Nitrotoluene	137 > 46			20642.258									
245969007	3-Nitrotoluene	137 > 46			20642.258									
245969007	PETN	361 > 62			20642.258									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXP0301042a

Date Analyzed: 02-MAR-10 11:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
2691-41-0	HMX	35300	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301042a
Date: 02-Mar-2010
Time: 11:42:42
ID: 245969007 | LANL | 948575 | SOLID | DL | 10 |
Vial: 2:4,B

Report HHK w/ EXP 0301033a

MMP 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.215e+004

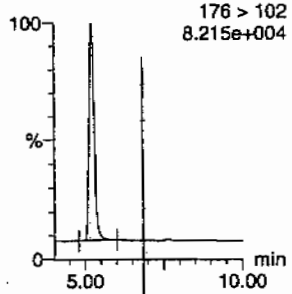

RDX
F2:MRM of 1 channel,AP-
5.22
176 > 102
8.215e+004

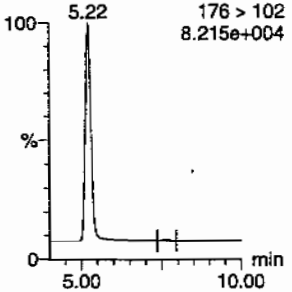

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.289e+003

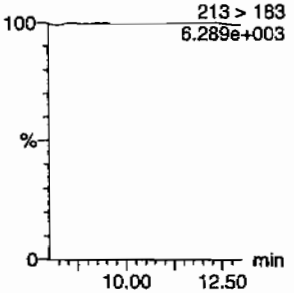

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.317e+004

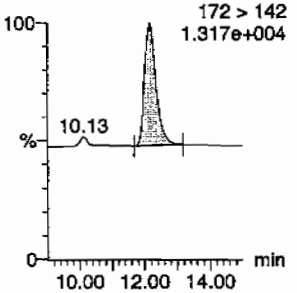

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.290e+003

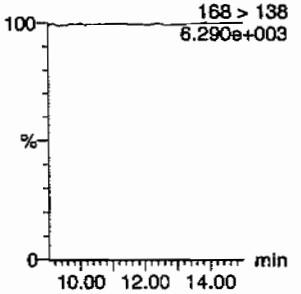

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.315e+003

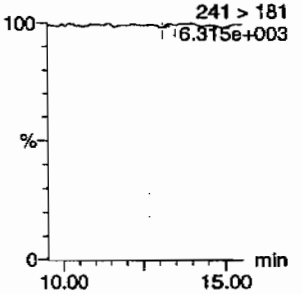

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.319e+003

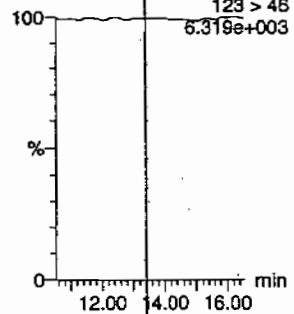

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.321e+003

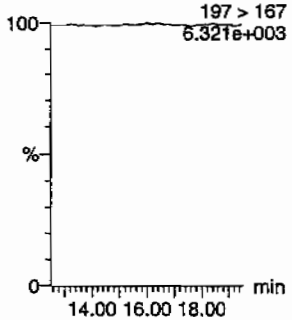

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.328e+003

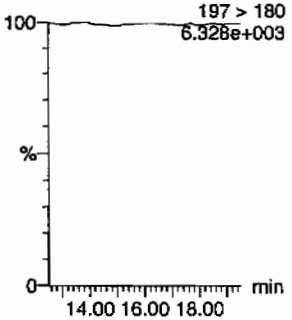

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.294e+003

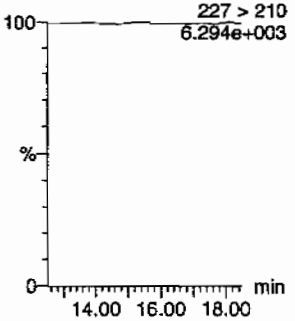

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.340e+003

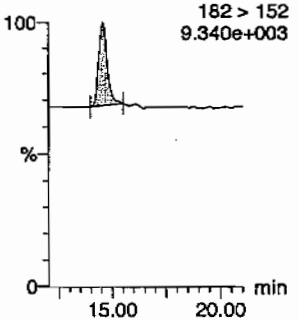

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
9.340e+003

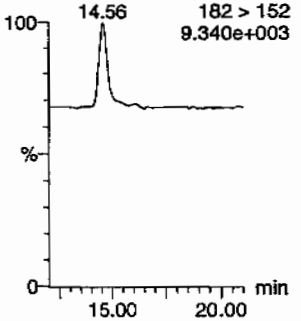

HHK 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

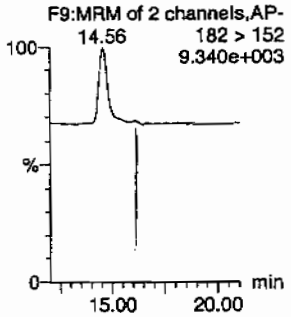

26-dinitrotoluene-d3

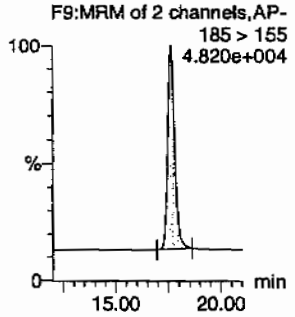

2-Nitrotoluene

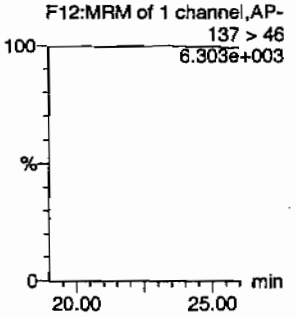

4-Nitrotoluene

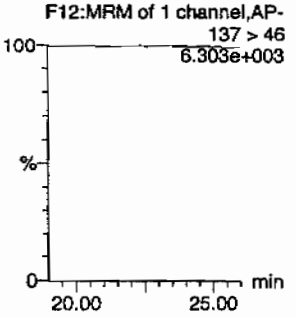

3-Nitrotoluene

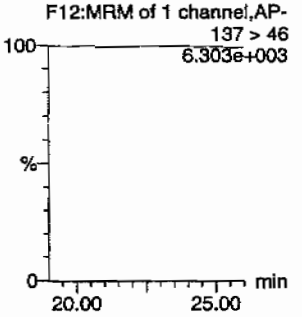

PETN

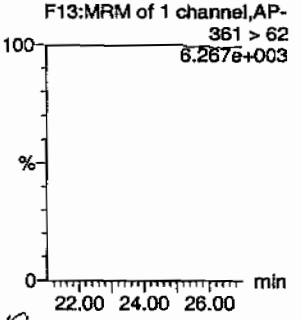

x10

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969007	HMX	176 > 102	5.22	15321.056	2840.407	15321.056	2696.983	bb			706.9745	3530		2341.3
245969007	RDX	176 > 102	7.64	128.065	2840.407	128.065	22.543	bb			8.2137			18.0
245969007	135-Trinitrobenzene	213 > 183			2840.407									
245969007	13-Dinitrobenzene-d4	172 > 142	12.17	2840.407		2840.407	2840.407	bb			490.0504	98.0	-2.0	229.4
245969007	13-Dinitrobenzene	168 > 138			2840.407									
245969007	Tetryl	241 > 181			2840.407			MM-	03-Mar-10	08:43:51				
245969007	Nitrobenzene	123 > 46			2840.407									
245969007	4-Amino-26-dinitrotoluene	197 > 167			16344.418									
245969007	2-Amino-46-dinitrotoluene	197 > 180			16344.418									
245969007	246-Trinitrotoluene	227 > 210			16344.418									
245969007	34-dinitrotoluene	182 > 152	14.56	1371.781	16344.418	1371.781	41.965	bb			42.3602	16.9	-83.1	123.2
245969007	26-dinitrotoluene	182 > 152			16344.418									
245969007	24-dinitrotoluene	182 > 152			16344.418									
245969007	26-dinitrotoluene-d3	185 > 155	17.62	16344.418		16344.418	16344.418	bb			508.0696	101.6	1.6	1333.9
245969007	2-Nitrotoluene	137 > 46			16344.418									
245969007	4-Nitrotoluene	137 > 46			16344.418									
245969007	3-Nitrotoluene	137 > 46			16344.418									
245969007	PETN	361 > 62			16344.418									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7965

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969007

Sample Amount 2

Moisture: 22.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220031.wiff

Date Analyzed: 23-FEB-10 00:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5310	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 2/23/10

Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 531. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 1.01e+006 counts
Height: 227989.014 cps
Start Time: 6.88 min
End Time: 7.71 min

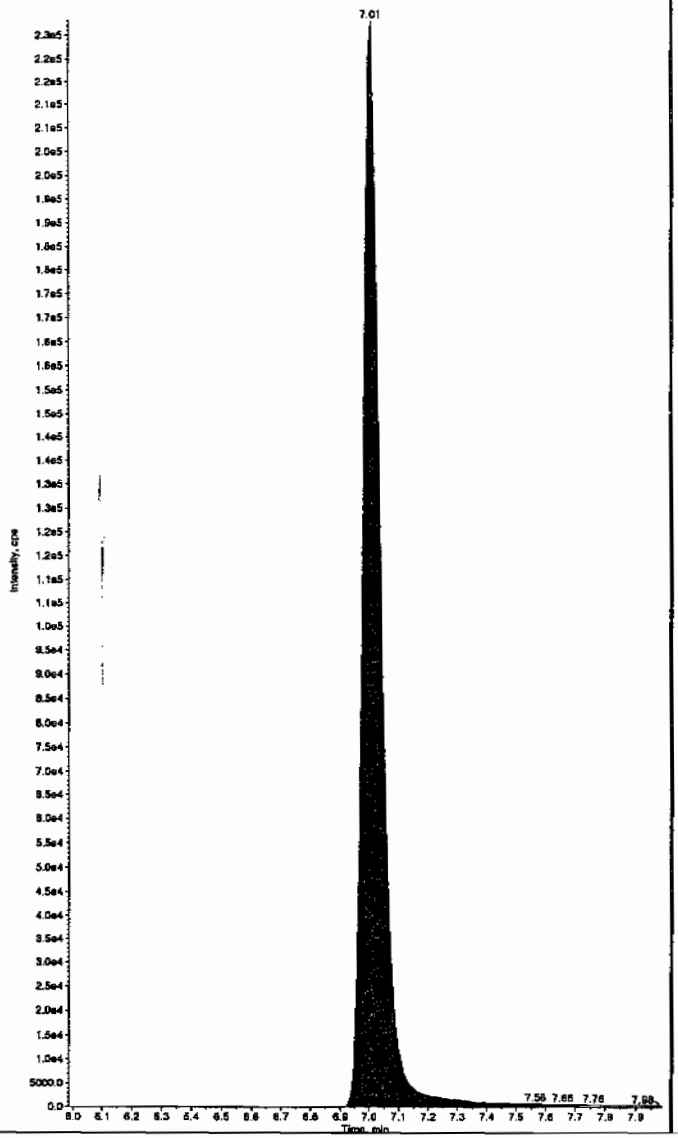

Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No

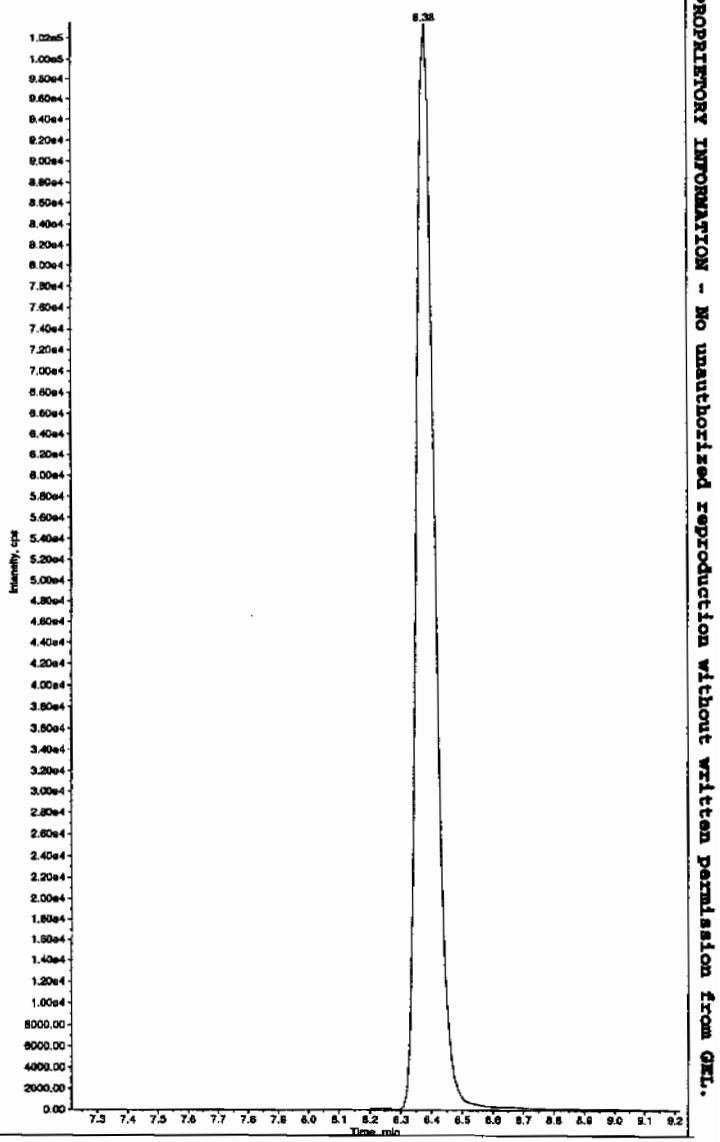

HMC 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 309. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.07e+006 counts
Height: 1019402.100 cps
Start Time: 8.28 min
End Time: 8.92 min

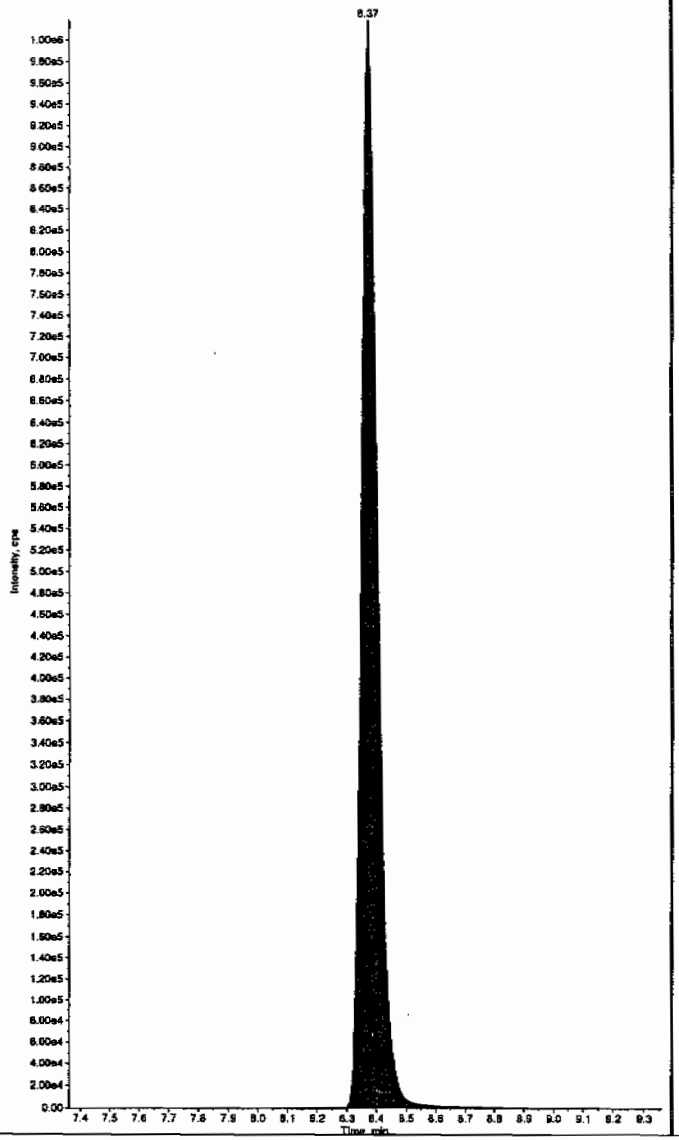

Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No

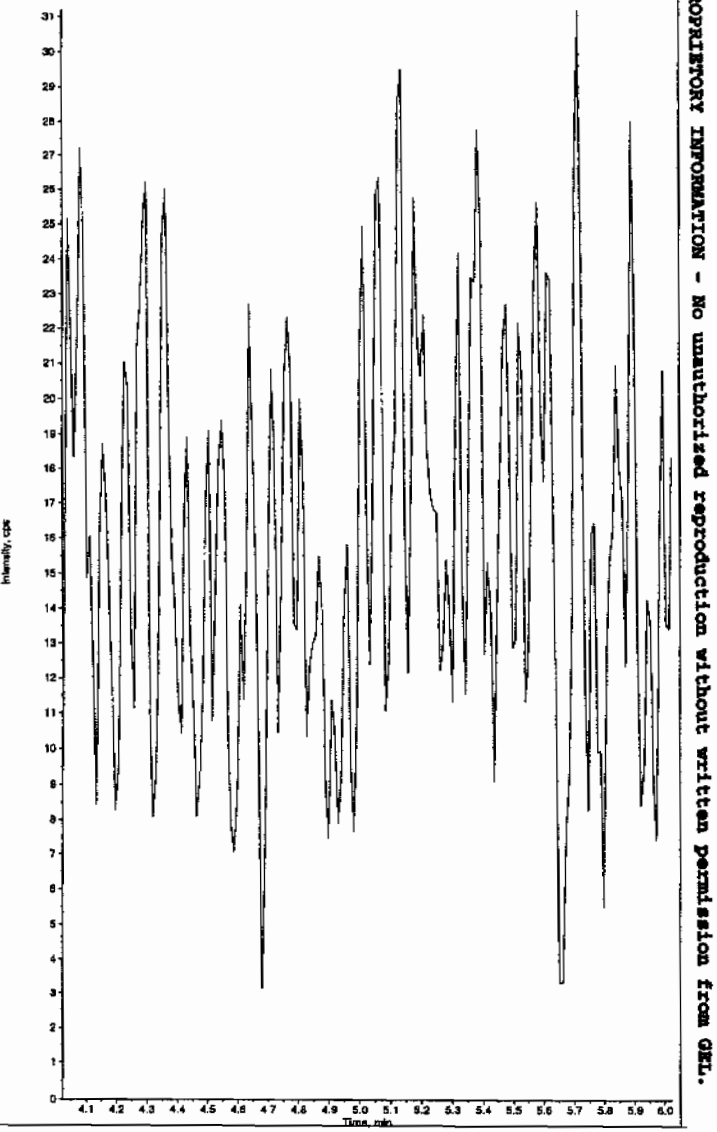

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No

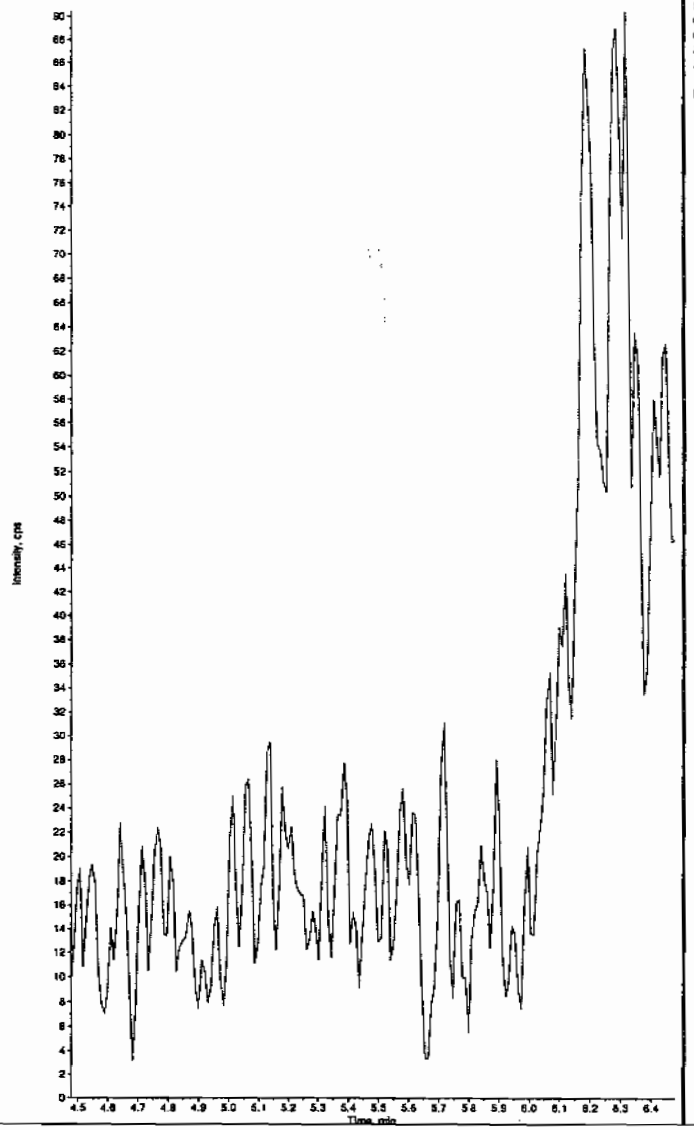

Sample Name: "245969007" Sample ID: "948575|2|LER" File: "EXS02220031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 12:53:26 AM

Modified: No

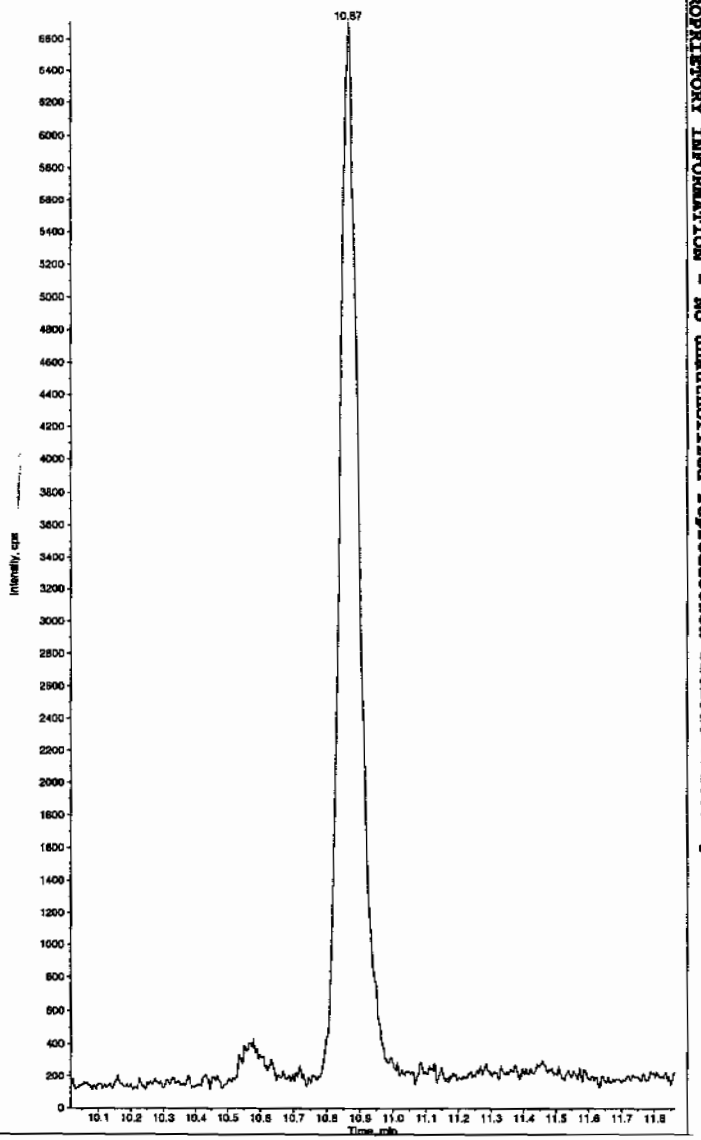

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7975

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969008

Sample Amount 2

Moisture: 25.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301034a

Date Analyzed: 02-MAR-10 07:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301034a
Date: 02-Mar-2010
Time: 07:46:07
ID: 245969008 | LANL | 948575 | Soil | 2-1
Vial: 2:2,F

3/3/10

HMX
F2:MRM of 1 channel,AP-
5.20 176 > 102
6.464e+003

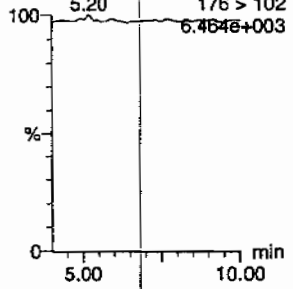

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
6.464e+003

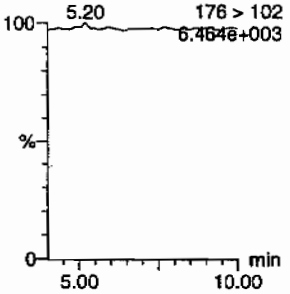

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.264e+003

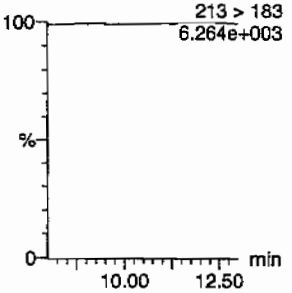

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.435e+004

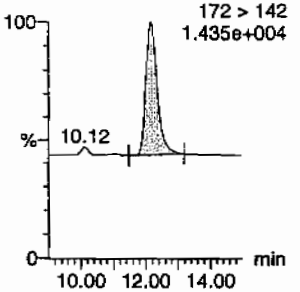

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.252e+003

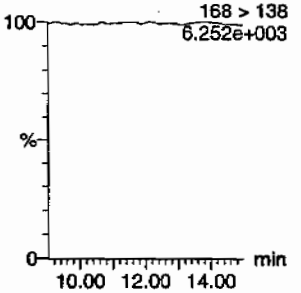

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.249e+003

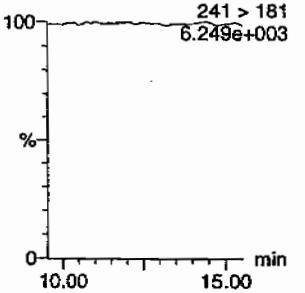

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.271e+003

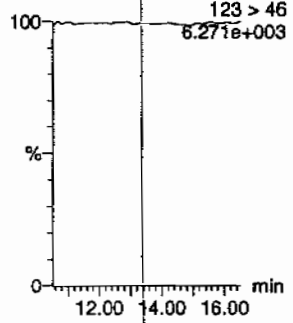

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.343e+003

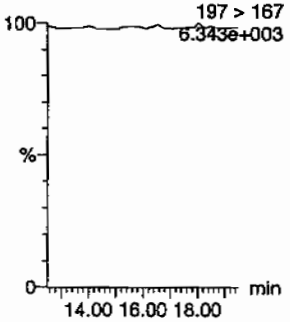

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.304e+003

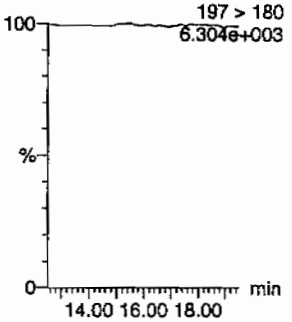

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.281e+003

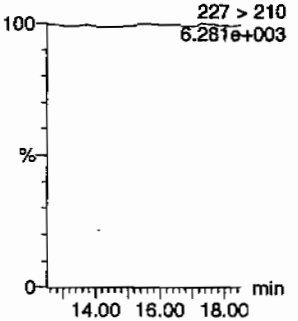

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.733e+004

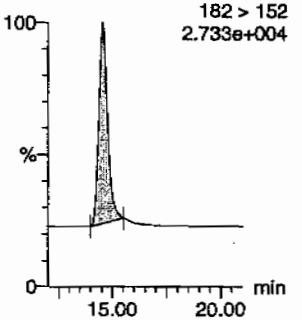

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56 182 > 152
2.733e+004

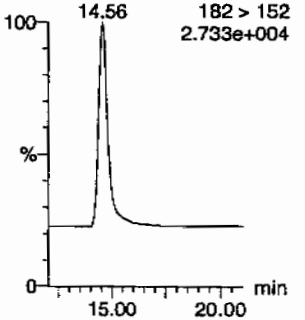

HM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

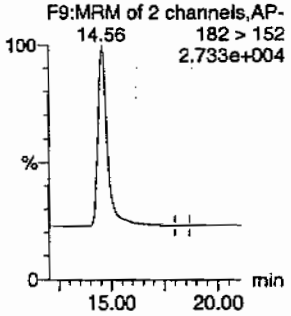

26-dinitrotoluene-d3

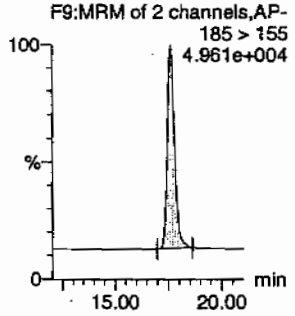

2-Nitrotoluene

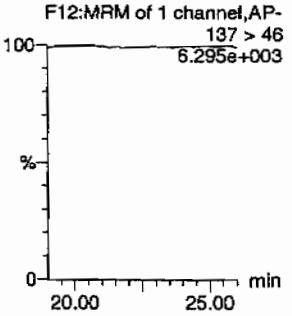

4-Nitrotoluene

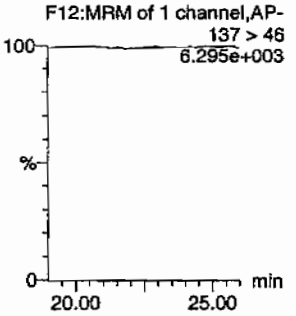

3-Nitrotoluene

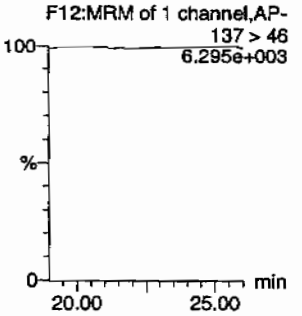

PETN

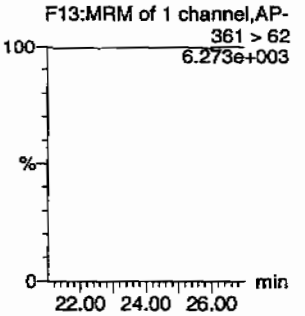

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969008	HMX	176 > 102			3366.211									
245969008	RDX	176 > 102			3366.211									
245969008	135-Trinitrobenzene	213 > 183			3366.211									
245969008	13-Dinitrobenzene-d4	172 > 142	12.17	3366.211		3366.211	3366.211	bb			580.7665	116.2	16.2	318.8
245969008	13-Dinitrobenzene	168 > 138			3366.211									
245969008	Tetryl	241 > 181			3366.211									
245969008	Nitrobenzene	123 > 46			3366.211									
245969008	4-Amino-26-dinitrotoluene	197 > 167			17204.547									
245969008	2-Amino-46-dinitrotoluene	197 > 180			17204.547									
245969008	246-Trinitrotoluene	227 > 210			17204.547									
245969008	34-dinitrotoluene	182 > 152	14.56	9707.890	17204.547	9707.890	282.132	bb			284.7897	113.9	13.9	581.2
245969008	26-dinitrotoluene	182 > 152			17204.547									
245969008	24-dinitrotoluene	182 > 152			17204.547			MM-	03-Mar-10	08:56:49				
245969008	26-dinitrotoluene-d3	185 > 155	17.62	17204.547		17204.547	17204.547	bb			534.8069	107.0	7.0	1578.6
245969008	2-Nitrotoluene	137 > 46			17204.547									
245969008	4-Nitrotoluene	137 > 46			17204.547									
245969008	3-Nitrotoluene	137 > 46			17204.547									
245969008	PETN	361 > 62			17204.547									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7975

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969008

Sample Amount 2

Moisture: 25.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220032.wiff

Date Analyzed: 23-FEB-10 01:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Jan 2/23/10

Sample Name: "245969008" Sample ID: "948575|2|LER" File: "EXS02220032.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No

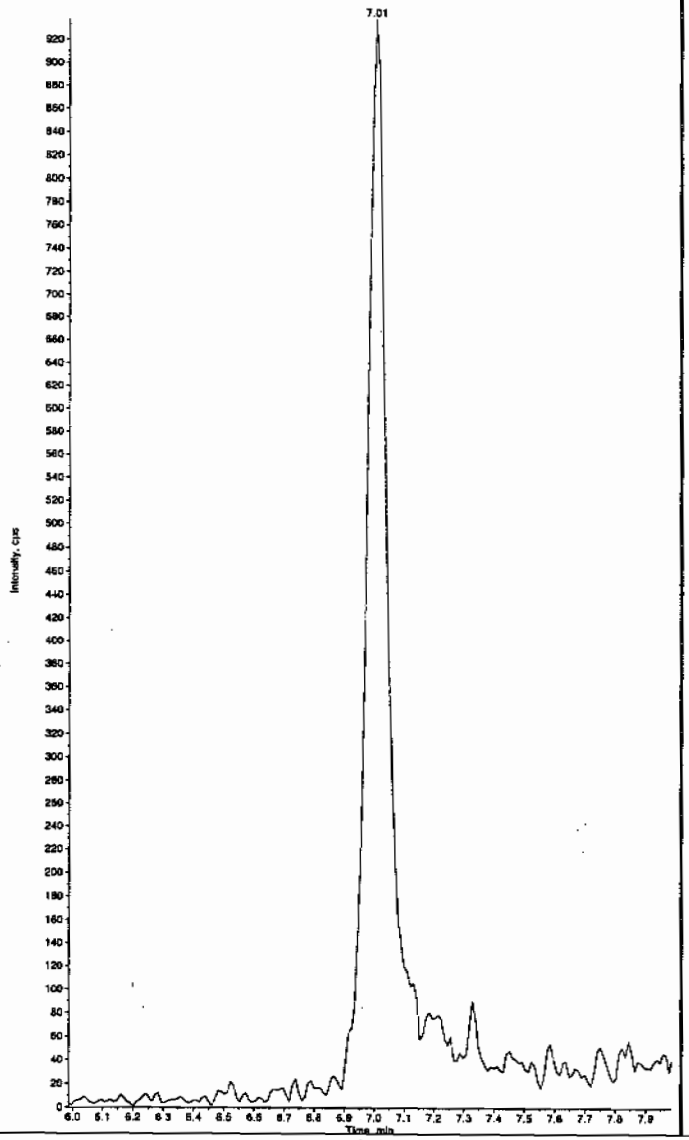

Sample Name: "245969008" Sample ID: "948575|2|LER" File: "EXS02220032.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No

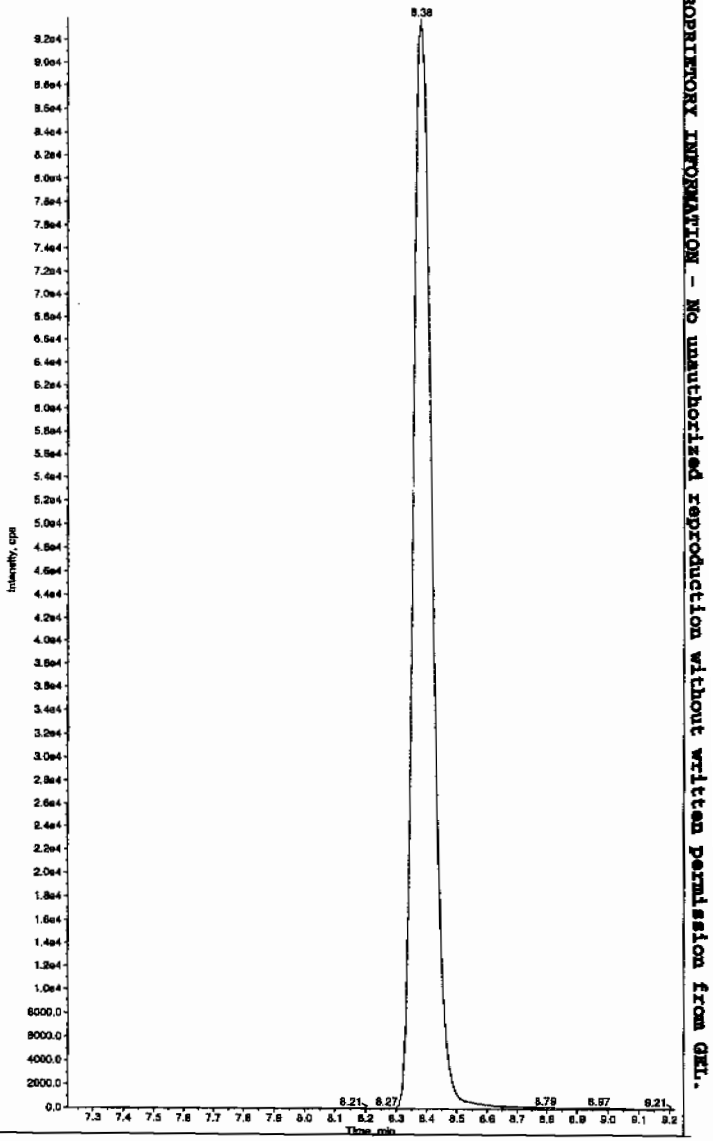

HMK 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969006" Sample ID: "948575|2|LER" File: "EXS02220032.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 309. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 4.07e+006 counts
Height: 995893.005 cps
Start Time: 8.28 min
End Time: 8.83 min

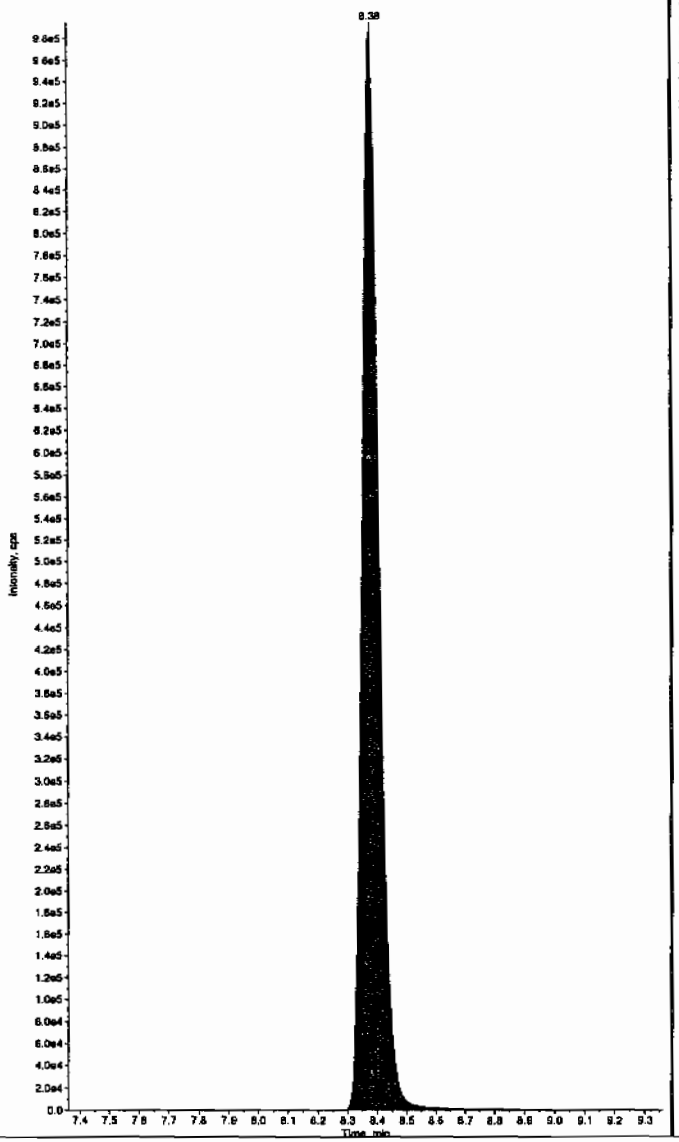

Sample Name: "245969008" Sample ID: "948575|2|LER" File: "EXS02220032.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No

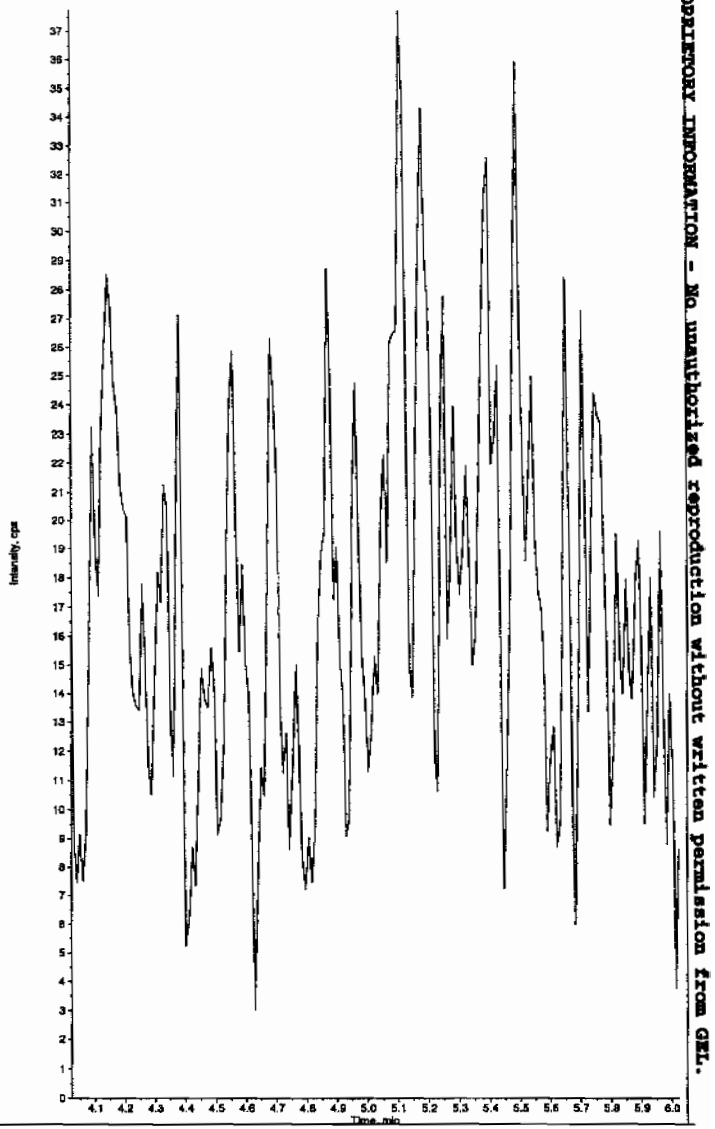

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969006" Sample ID: "948575[2]LER" File: "EXS02220032.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No

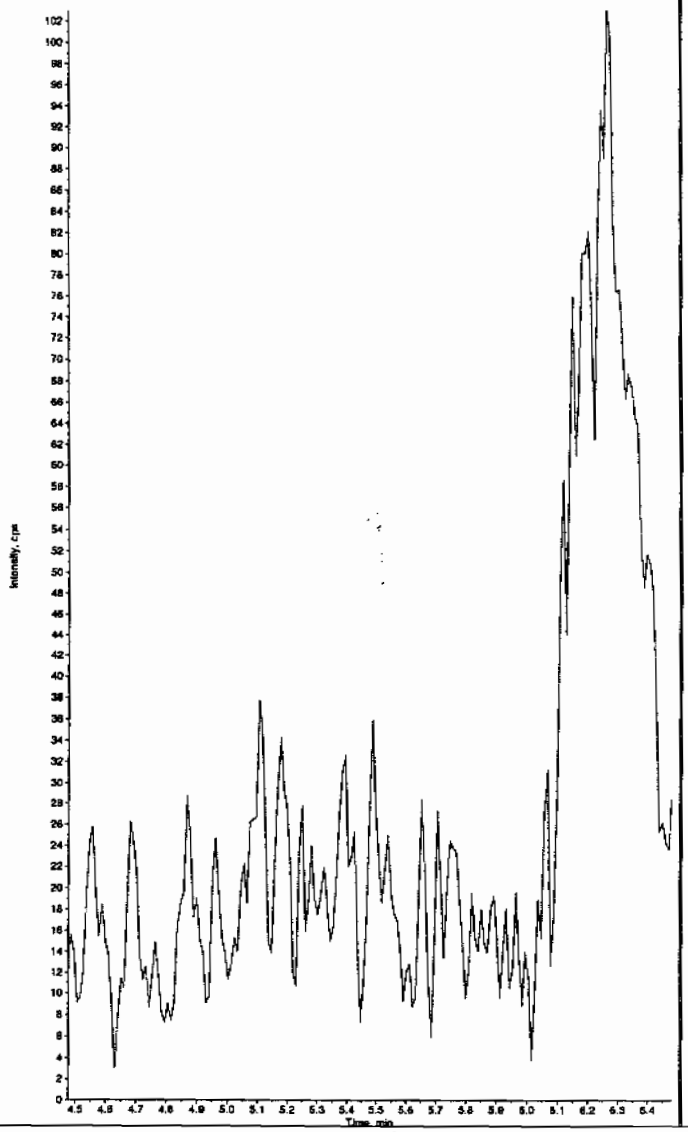

Sample Name: "245969006" Sample ID: "948575[2]LER" File: "EXS02220032.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:09:09 AM

Modified: No

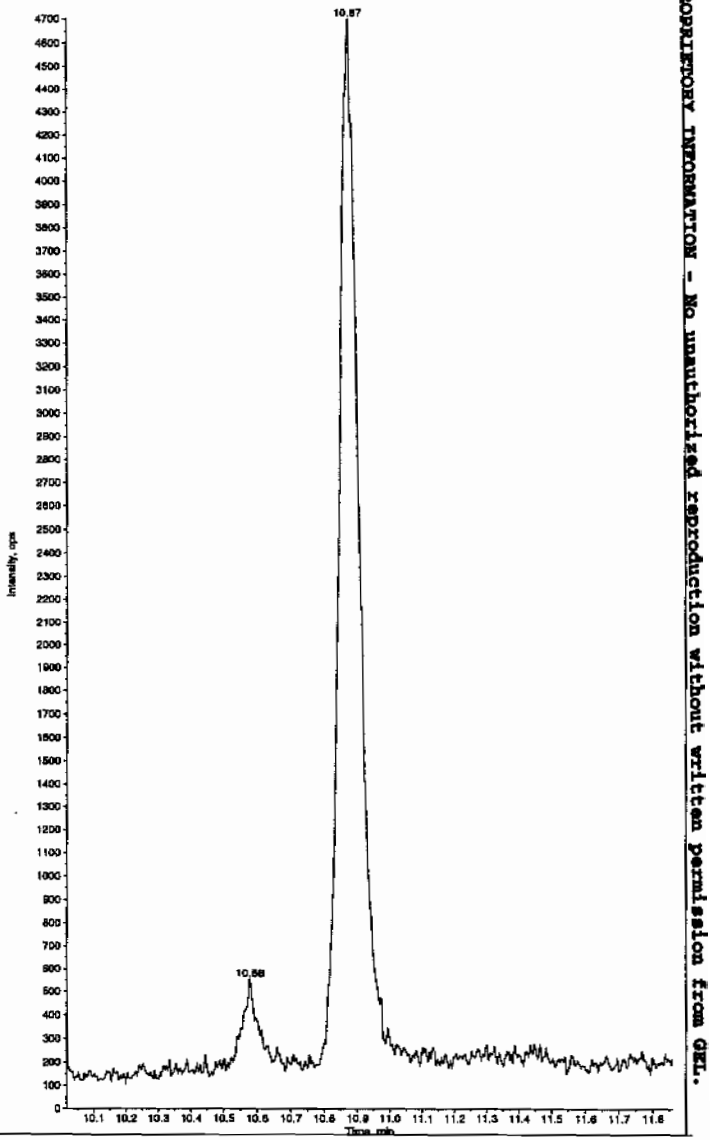

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7978

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969009

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301035a

Date Analyzed: 02-MAR-10 08:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301035a
Date: 02-Mar-2010
Time: 08:15:35
ID: 245969009 | LANL | 948575 | Soil | 2 |
Vial: 2:3,A

LMM 3/3/10

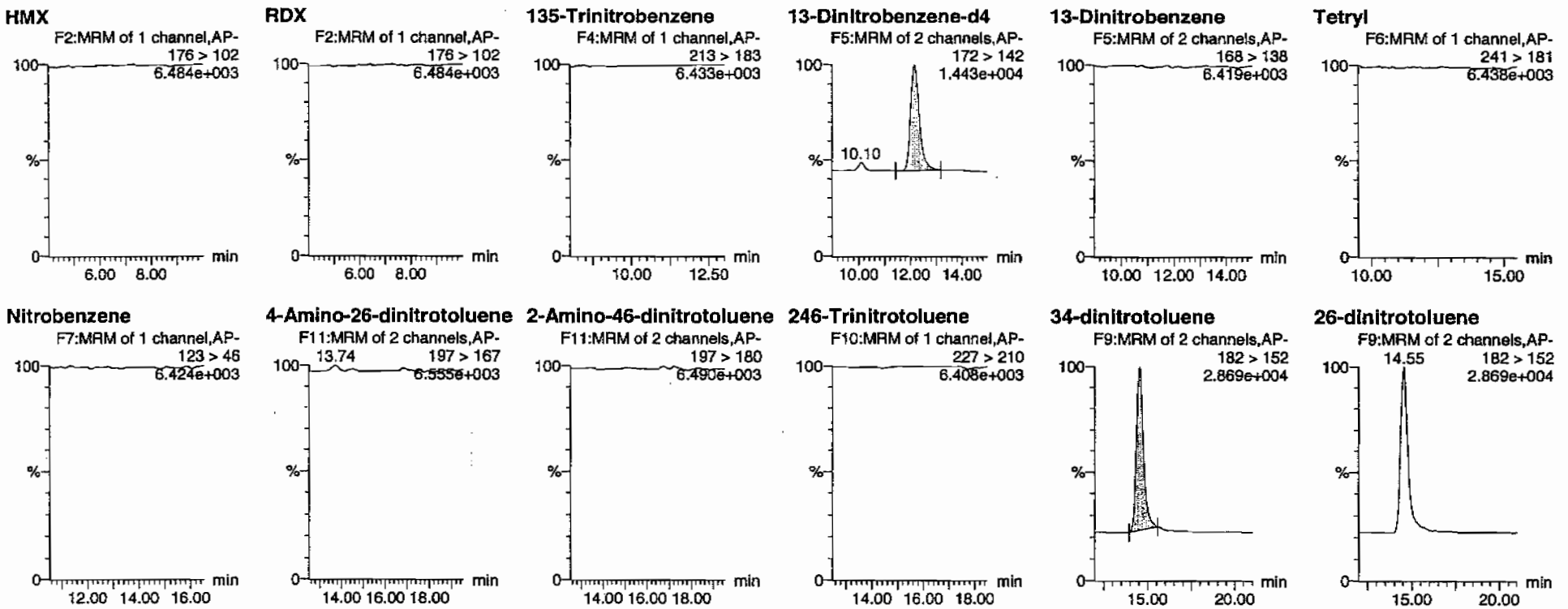

HMM 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

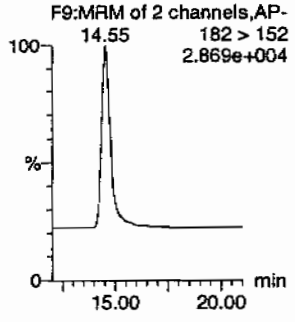

26-dinitrotoluene-d3

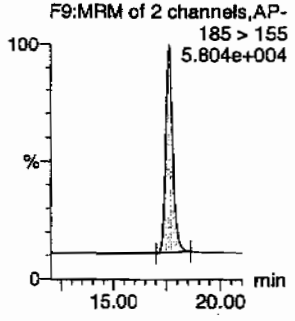

2-Nitrotoluene

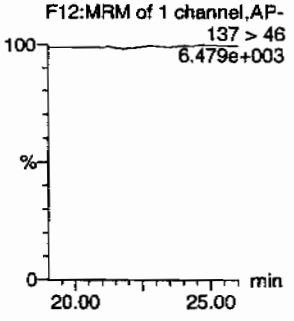

4-Nitrotoluene

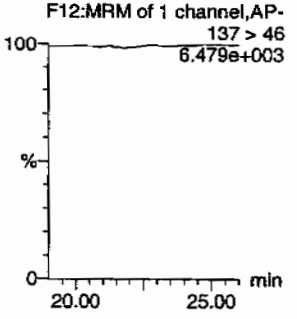

3-Nitrotoluene

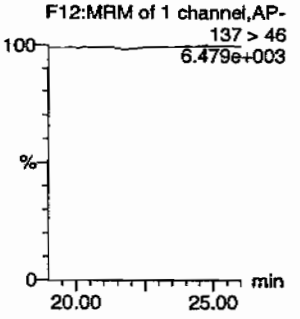

PETN

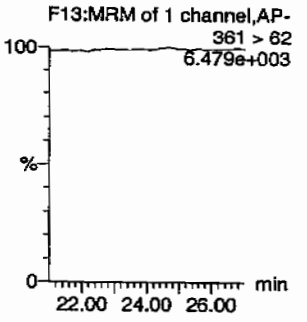

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969009	HMX	176 > 102			3263.733									
245969009	RDX	176 > 102			3263.733									
245969009	135-Trinitrobenzene	213 > 183			3263.733									
245969009	13-Dinitrobenzene-d4	172 > 142	12.17	3263.733		3263.733	3263.733	bb			563.0861	112.6	12.6	251.1
245969009	13-Dinitrobenzene	168 > 138			3263.733									
245969009	Tetryl	241 > 181			3263.733									
245969009	Nitrobenzene	123 > 46			3263.733									
245969009	4-Amino-26-dinitrotoluene	197 > 167			20013.813									
245969009	2-Amino-46-dinitrotoluene	197 > 180			20013.813									
245969009	246-Trinitrotoluene	227 > 210			20013.813									
245969009	34-dinitrotoluene	182 > 152	14.55	10187.454	20013.813	10187.454	254.511	bb			256.9085	102.8	2.8	887.6
245969009	26-dinitrotoluene	182 > 152			20013.813									
245969009	24-dinitrotoluene	182 > 152			20013.813									
245969009	26-dinitrotoluene-d3	185 > 155	17.64	20013.813		20013.813	20013.813	bb			622.1335	124.4	24.4	1923.0
245969009	2-Nitrotoluene	137 > 46			20013.813									
245969009	4-Nitrotoluene	137 > 46			20013.813									
245969009	3-Nitrotoluene	137 > 46			20013.813									
245969009	PETN	361 > 62			20013.813									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7978

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969009

Sample Amount 2

Moisture: 16.9

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220033.wiff

Date Analyzed: 23-FEB-10 01:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sam 2/23/10

Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No

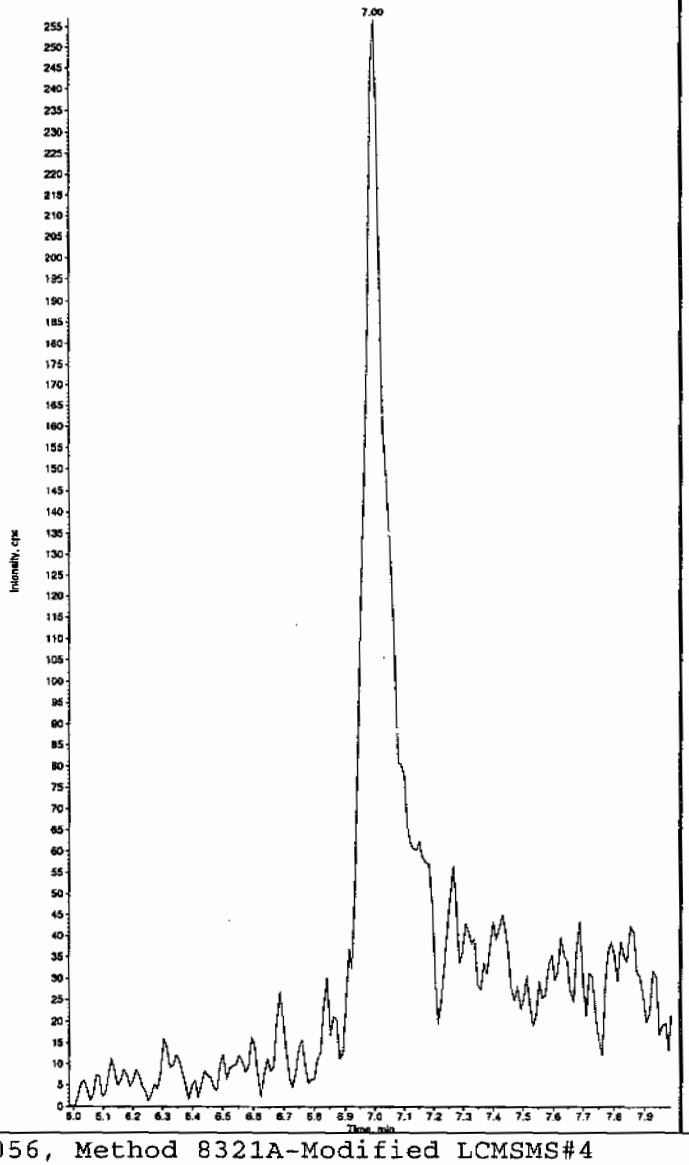

Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No

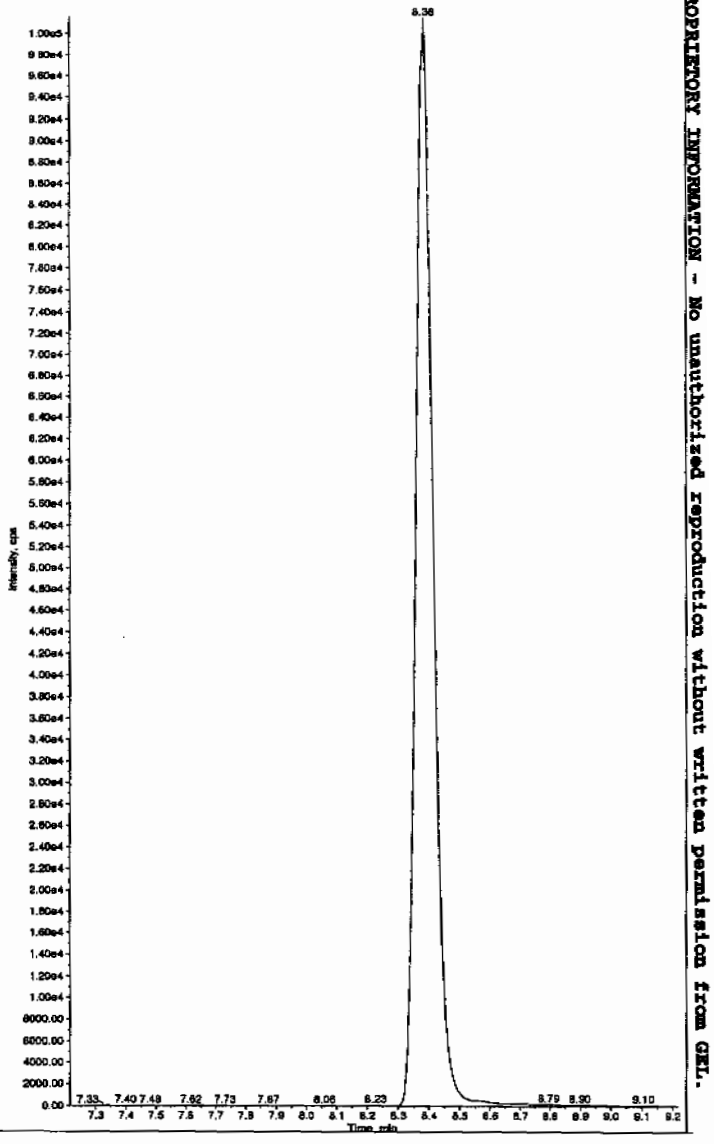

Hm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 305. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 4.02e+006 counts
Height: 1028659.790 cps
Start Time: 8.25 min
End Time: 8.92 min

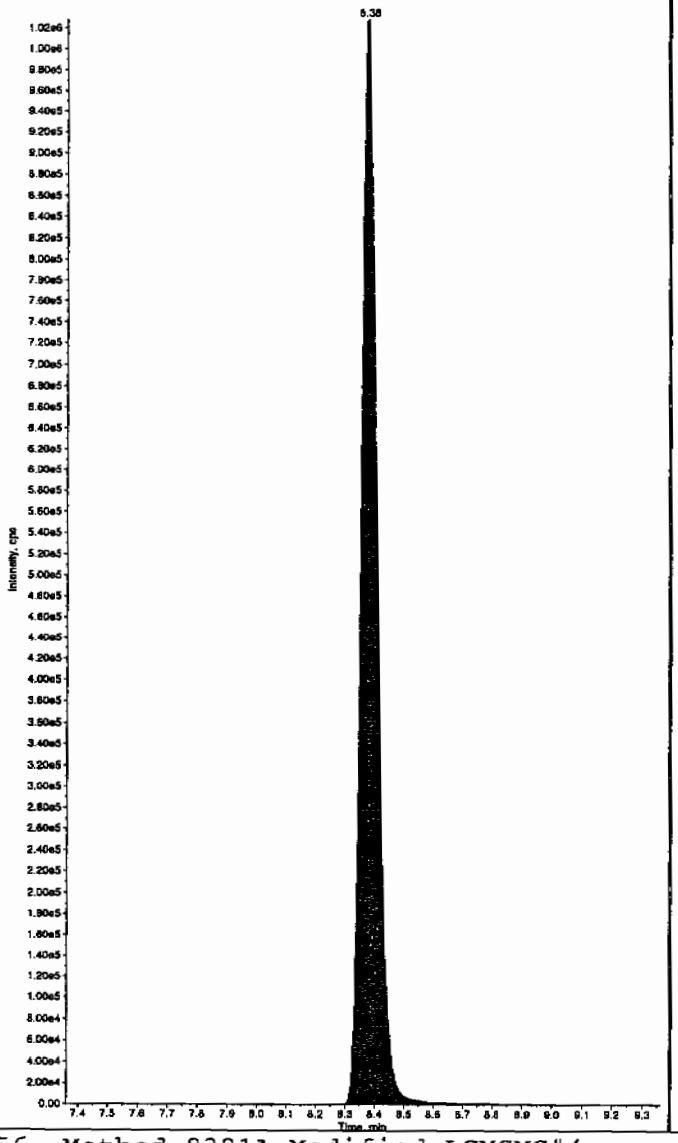

Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No

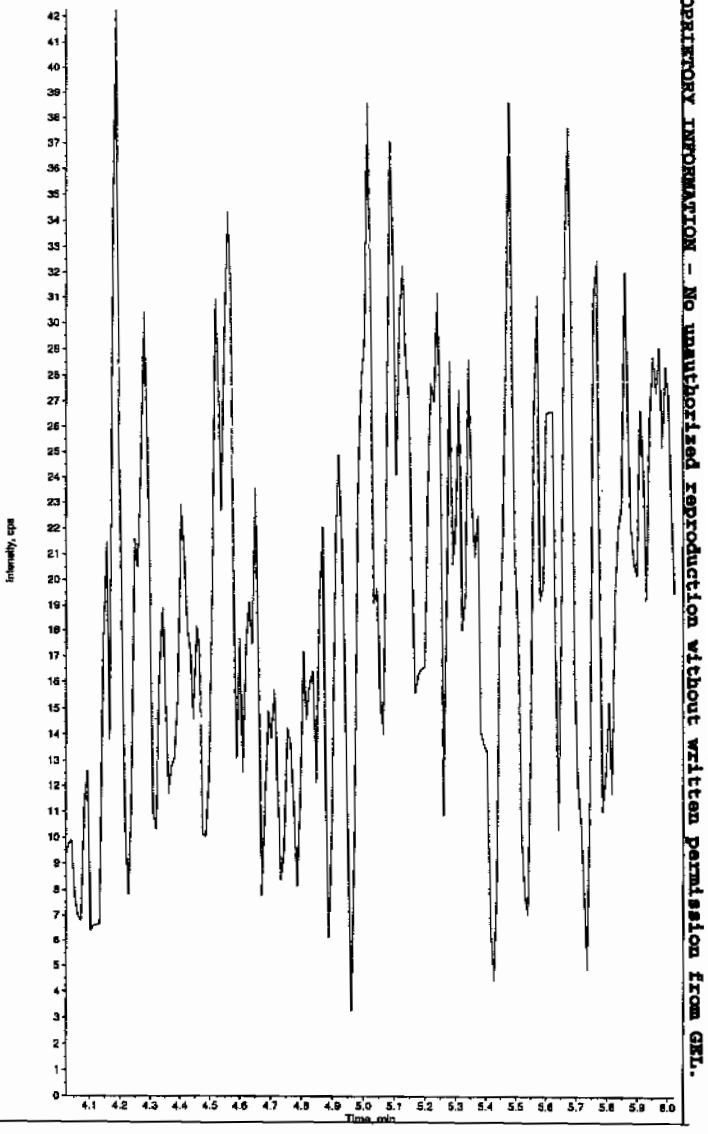

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No

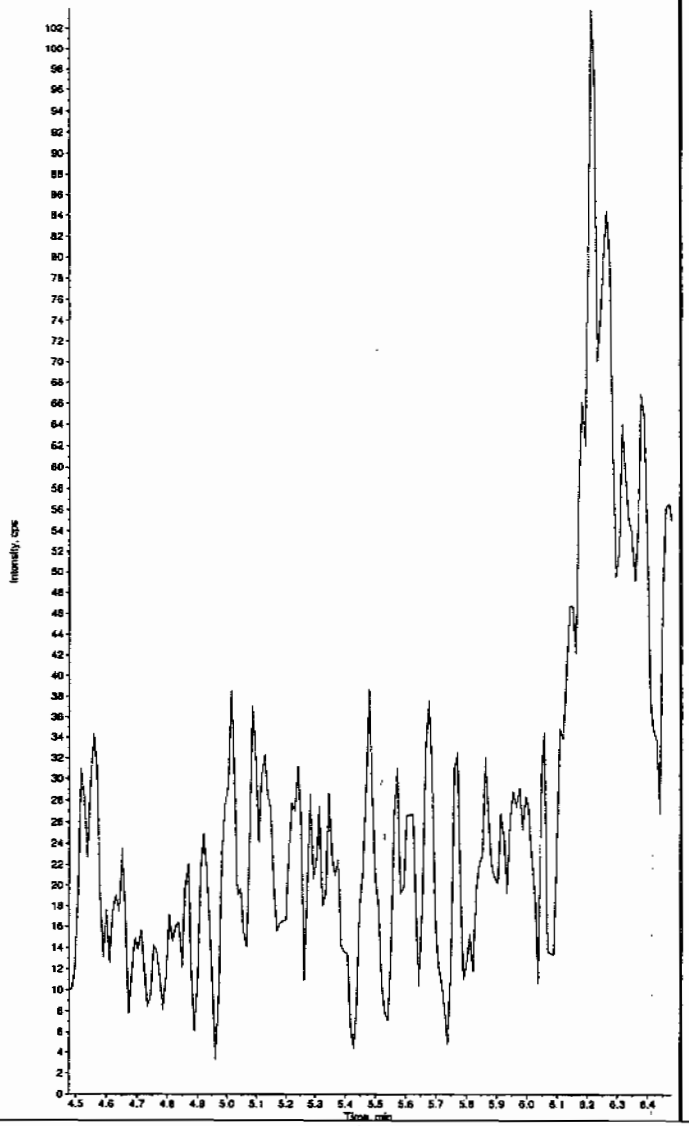

Sample Name: "245969009" Sample ID: "948575|2|LER" File: "EXS02220033.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:24:51 AM

Modified: No

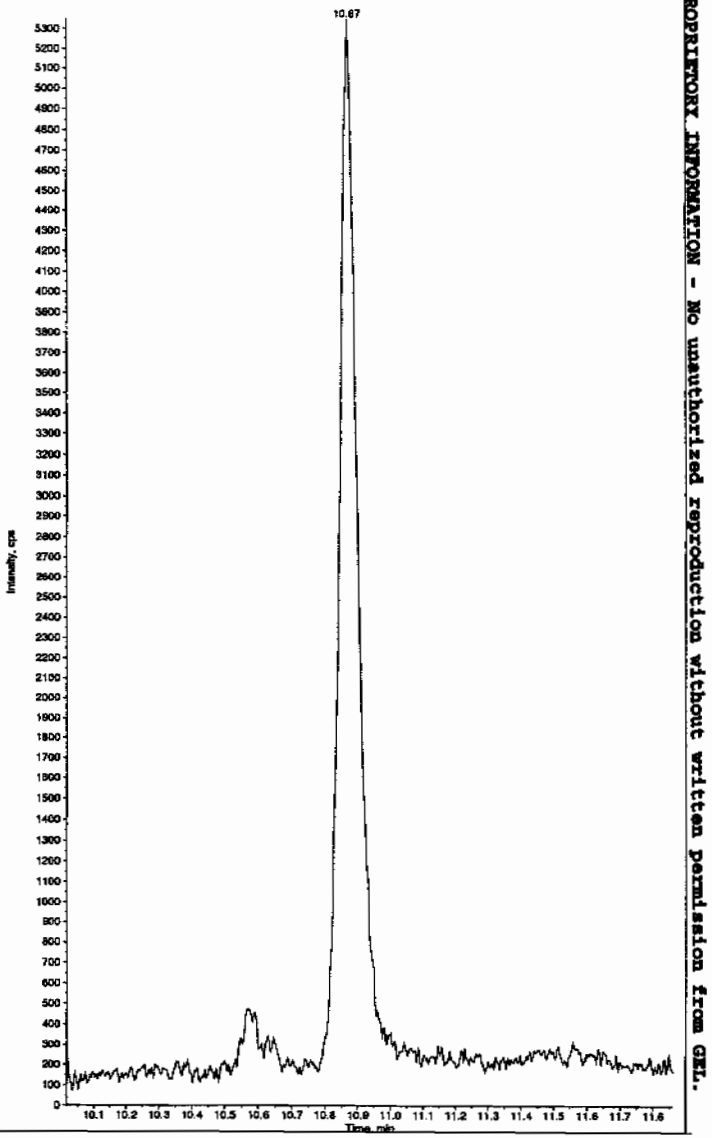

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7970

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301071a

Date Analyzed: 03-MAR-10 02:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	559	
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	158	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030110expa.cdb, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301071a
Date: 03-Mar-2010
Time: 02:05:19
ID: 245969010 | LANL | 948575 | Solid | 2 |
Vial: 2:4,C

HMP
3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
9.946e+003
7.64

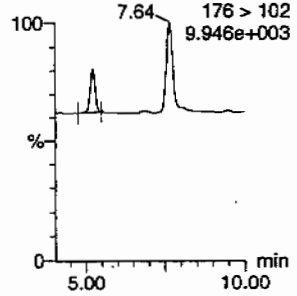

RDX
F2:MRM of 1 channel,AP-
RDX
176 > 102
9.946e+003
7.64
927.11

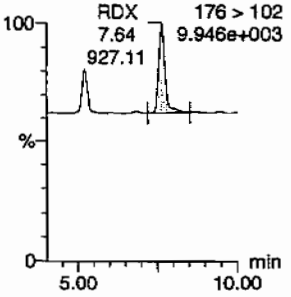

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.141e+003

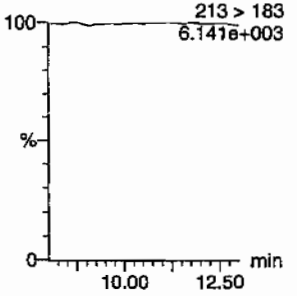

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.326e+004
10.12

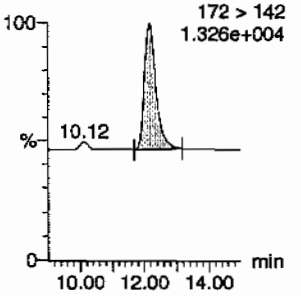

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.143e+003

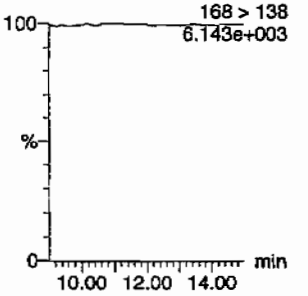

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.161e+003

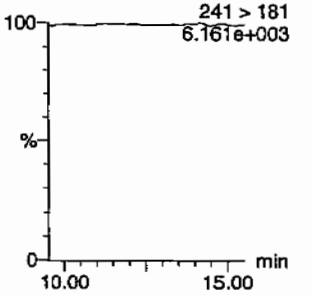

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.159e+003

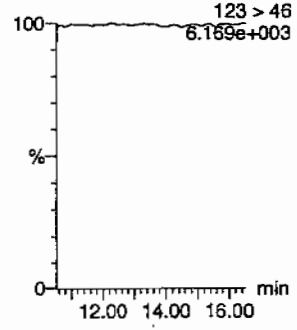

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.163e+003

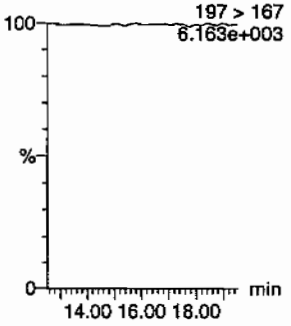

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.183e+003

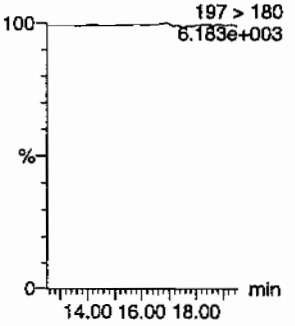

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.139e+003

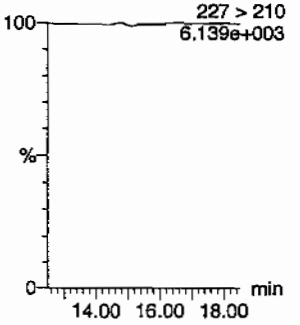

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.586e+004

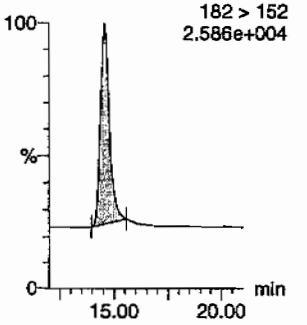

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.586e+004

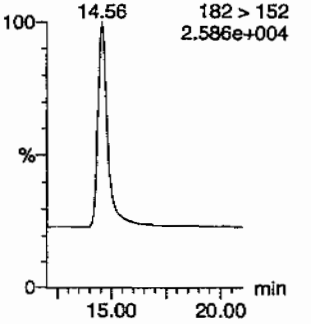

HMM
03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

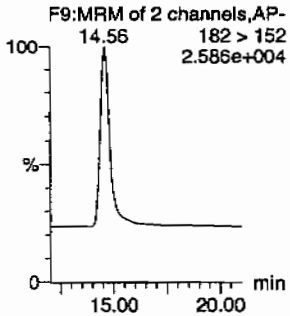

26-dinitrotoluene-d3

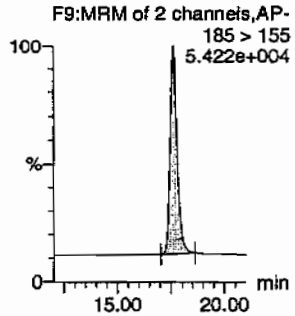

2-Nitrotoluene

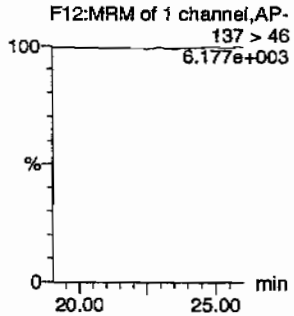

4-Nitrotoluene

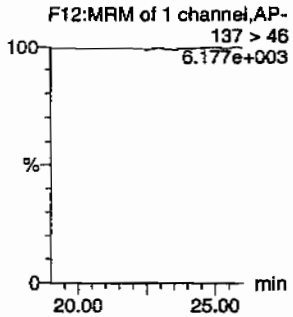

3-Nitrotoluene

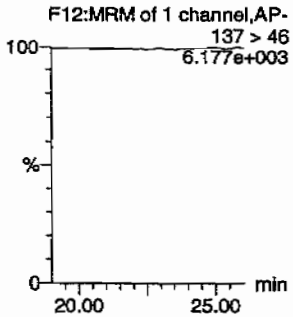

PETN

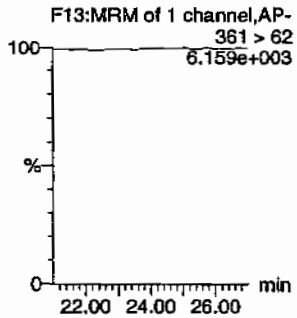

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969010	HMX	176 > 102	5.20	364.926	3022.925	364.926	60.360	bb			15.8224			47.0
245969010	RDX	176 > 102	7.64	927.107	3022.925	927.107	153.346	bb			55.8715			95.9
245969010	135-Trinitrobenzene	213 > 183			3022.925									
245969010	13-Dinitrobenzene-d4	172 > 142	12.17	3022.925		3022.925	3022.925	bb			521.5400	104.3	4.3	309.9
245969010	13-Dinitrobenzene	168 > 138			3022.925									
245969010	Tetryl	241 > 181			3022.925									
245969010	Nitrobenzene	123 > 46			3022.925									
245969010	4-Amino-26-dinitrotoluene	197 > 167			18875.246									
245969010	2-Amino-46-dinitrotoluene	197 > 180			18875.246									
245969010	246-Trinitrotoluene	227 > 210			18875.246									
245969010	34-dinitrotoluene	182 > 152	14.56	9291.354	18875.246	9291.354	246.125	bb			248.4443	99.4	-0.6	348.2
245969010	26-dinitrotoluene	182 > 152			18875.246									
245969010	24-dinitrotoluene	182 > 152			18875.246									
245969010	26-dinitrotoluene-d3	185 > 155	17.62	18875.246		18875.246	18875.246	bb			586.7409	117.3	17.3	2229.6
245969010	2-Nitrotoluene	137 > 46			18875.246									
245969010	4-Nitrotoluene	137 > 46			18875.246									
245969010	3-Nitrotoluene	137 > 46			18875.246									
245969010	PETN	361 > 62			18875.246									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7970

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969010

Sample Amount 2

Moisture: 8.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220034.wiff

Date Analyzed: 23-FEB-10 01:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	812	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 2/23/10

Sample Name: "245969010" Sample ID: "948575|2|LER" File: "EXS02220034.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 81.2 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.61e+005 counts
Height: 35954.834 cps
Start Time: 6.86 min
End Time: 7.55 min

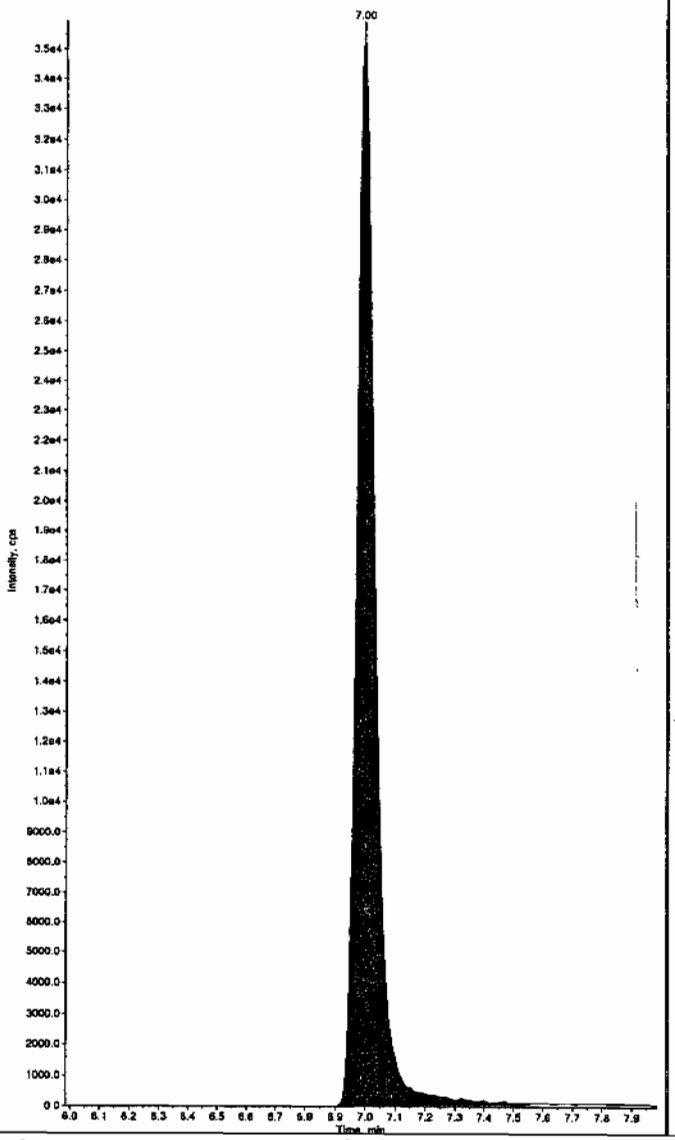

Sample Name: "245969010" Sample ID: "948575|2|LER" File: "EXS02220034.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No

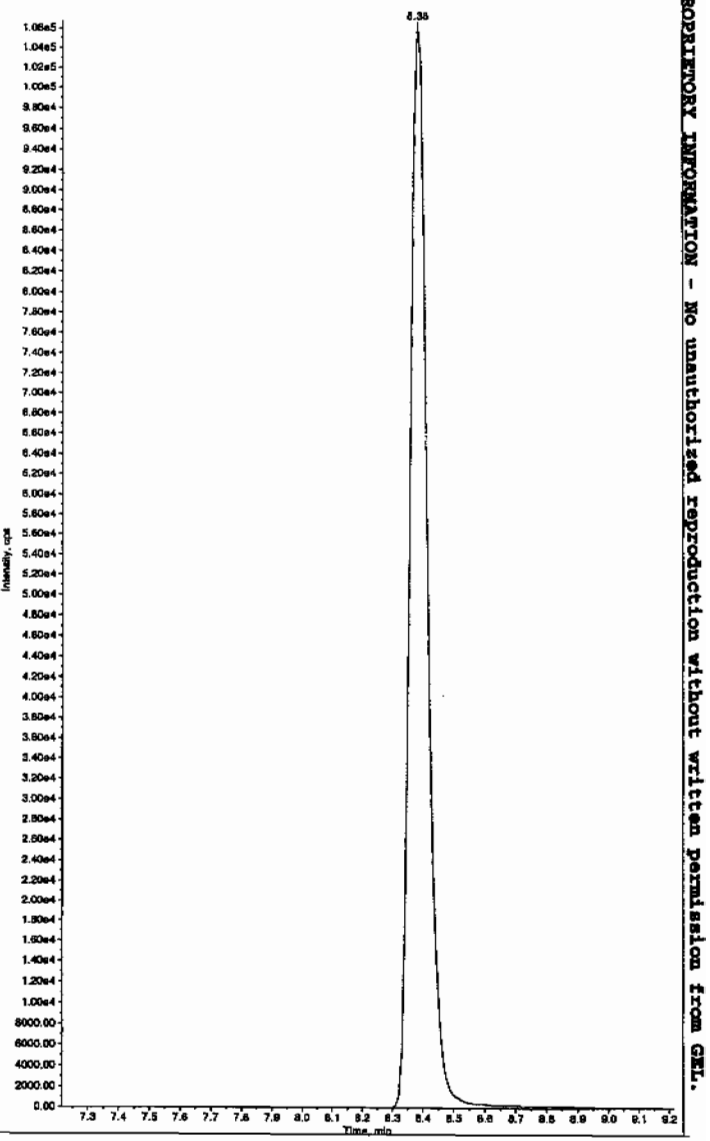

Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245969010" Sample ID: "948575|2|LER" File: "EXS02220034.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 312. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 4.11e+006 counts
Height: 1086439.697 cps
Start Time: 8.25 min
End Time: 8.75 min

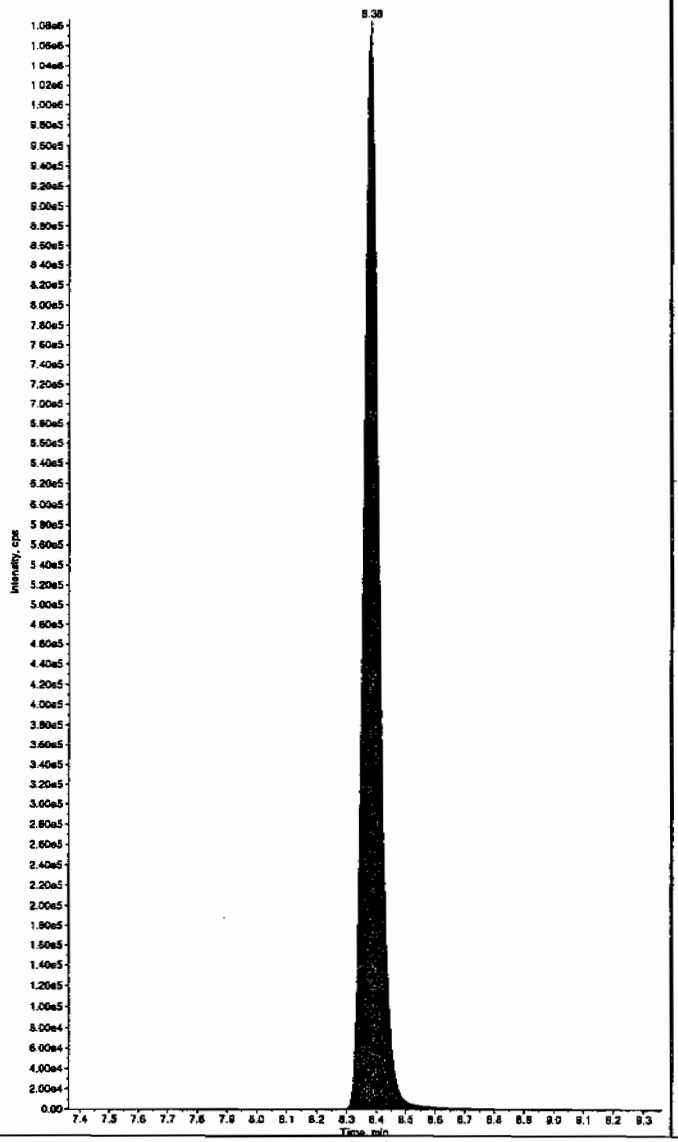

Sample Name: "245969010" Sample ID: "948575|2|LER" File: "EXS02220034.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No

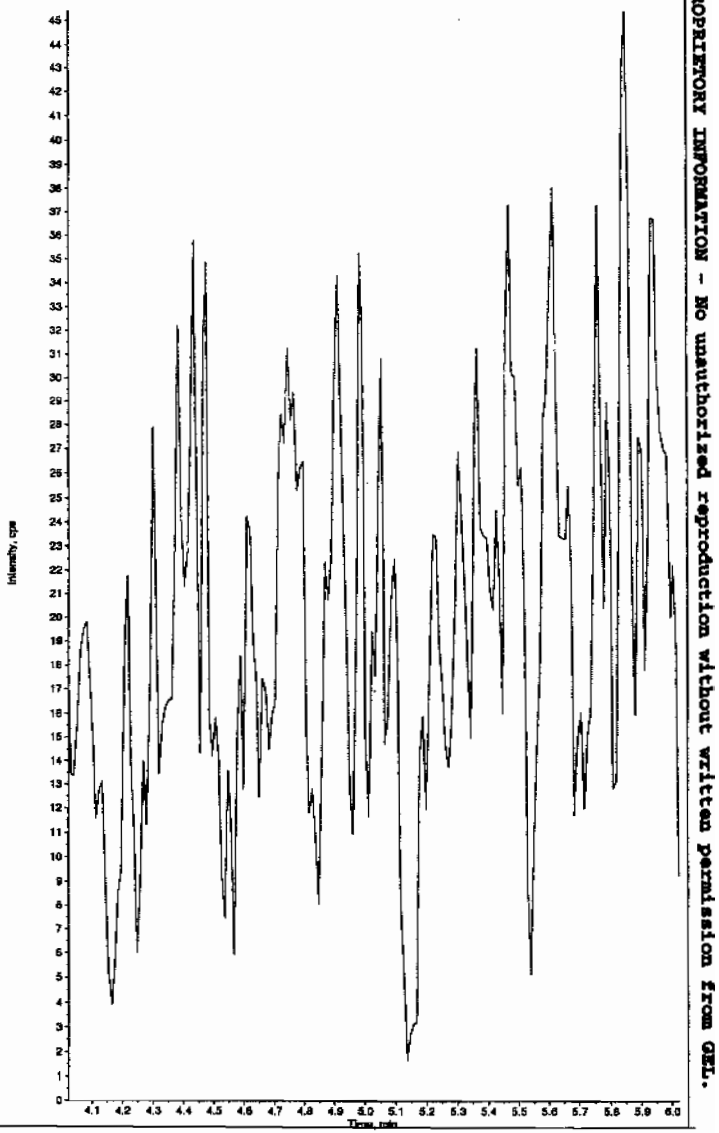

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245969010" Sample ID: "946575|2|LER" File: "EXS02220034.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No

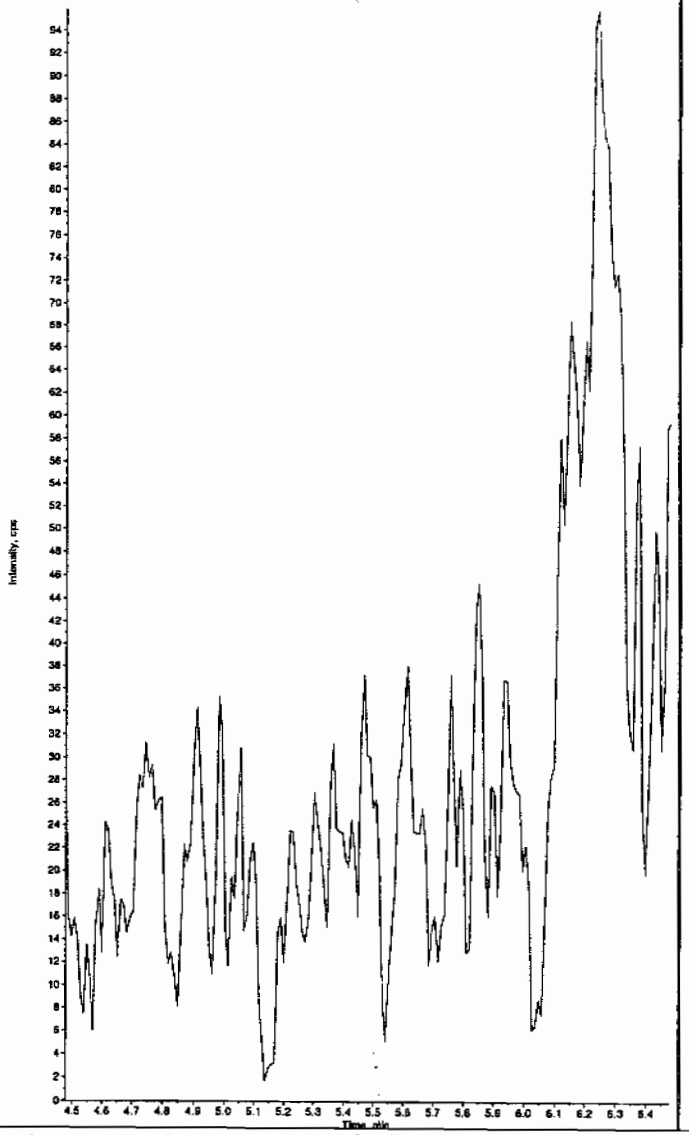

Sample Name: "245969010" Sample ID: "946575|2|LER" File: "EXS02220034.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:40:34 AM

Modified: No

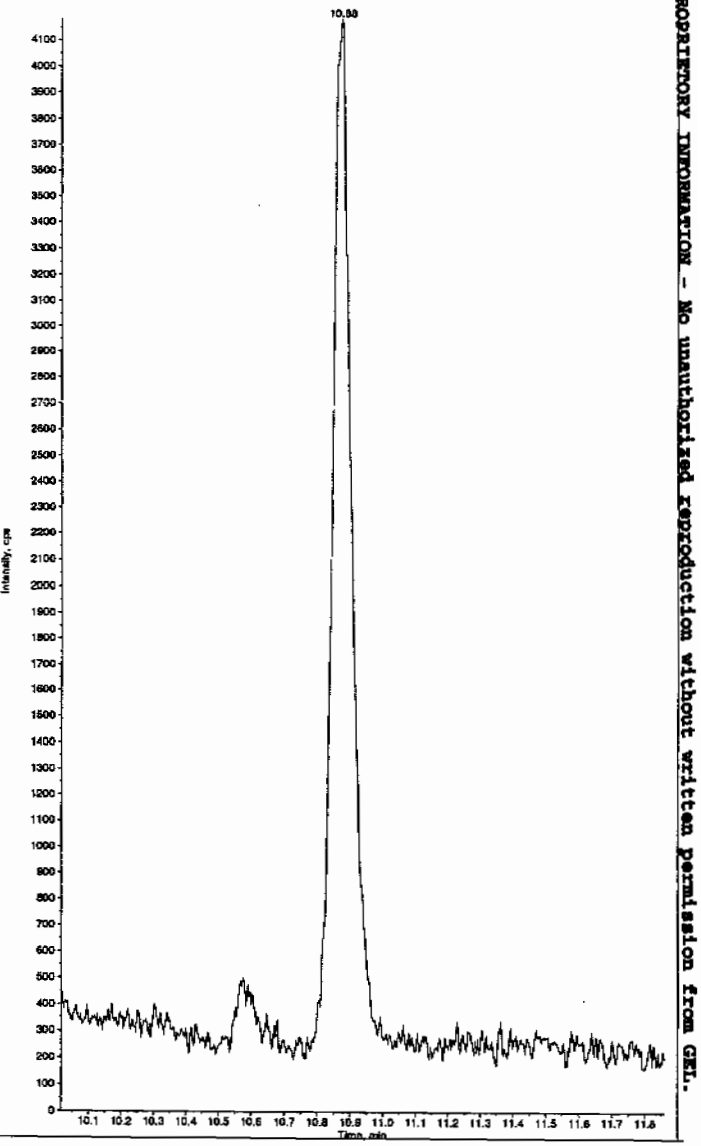

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7964

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969011

Sample Amount 2

Moisture: 10.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301072a

Date Analyzed: 03-MAR-10 02:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301072a
Date: 03-Mar-2010
Time: 02:34:51
ID: 245969011 | LANL | 948575 | Soil | 2-1 |
Vial: 2:4,D

MMT 3/3/10

PBQ #2

Confirmed By EXP0301037a

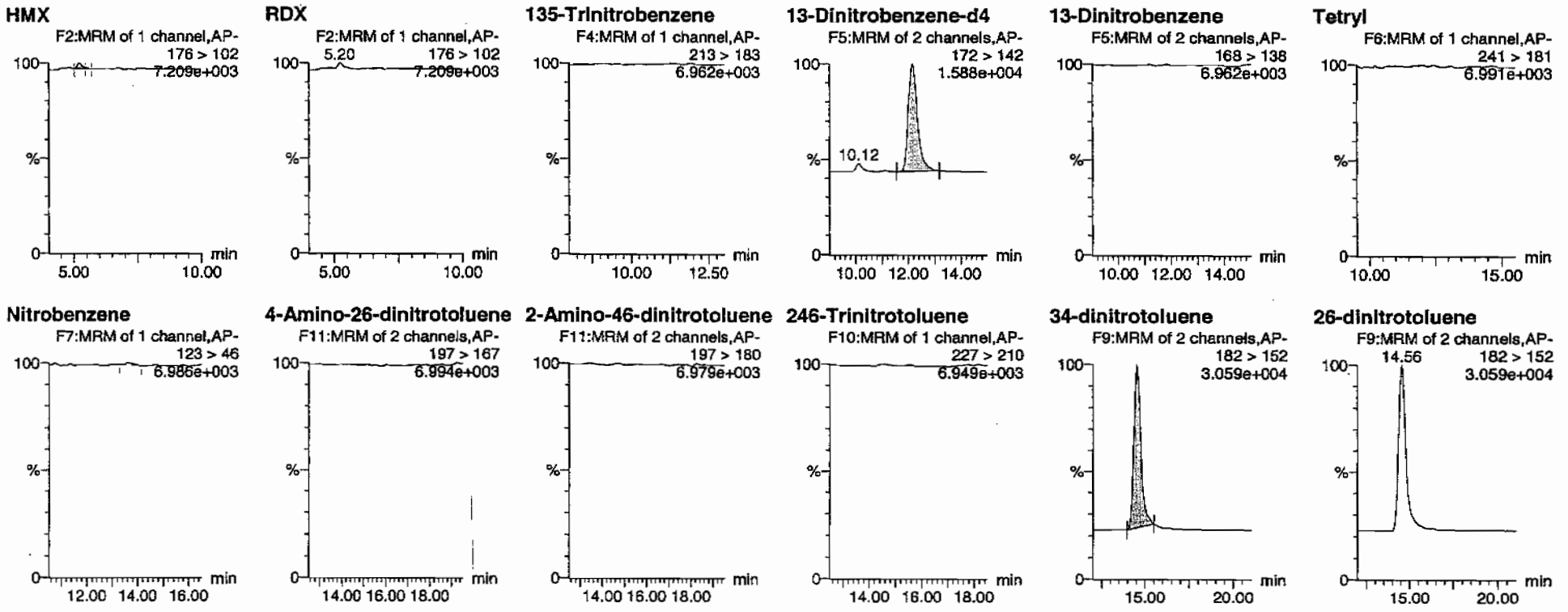

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

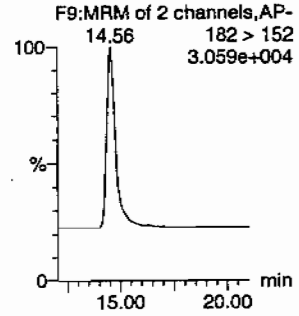

26-dinitrotoluene-d3

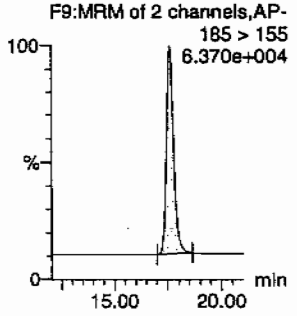

2-Nitrotoluene

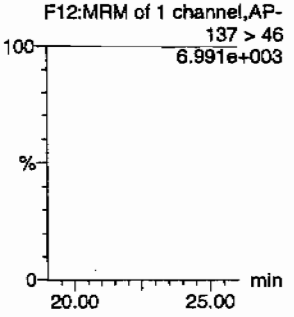

4-Nitrotoluene

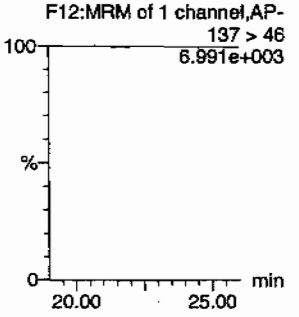

3-Nitrotoluene

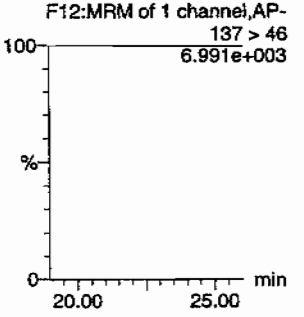

PETN

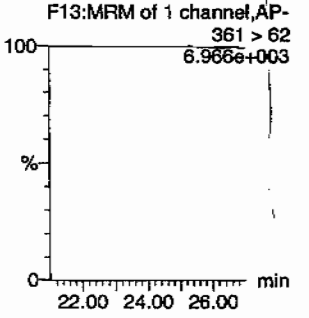

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969011	HMX	176 > 102	5.20	58.108	3690.864	58.108	7.872	MM	03-Mar-10	08:39:20	2.0635			9.3
245969011	RDX	176 > 102			3690.864									
245969011	135-Trinitrobenzene	213 > 183			3690.864									
245969011	13-Dinitrobenzene-d4	172 > 142	12.17	3690.864		3690.864	3690.864	bb			636.7783	127.4	27.4	93.1
245969011	13-Dinitrobenzene	168 > 138			3690.864									
245969011	Tetryl	241 > 181			3690.864									
245969011	Nitrobenzene	123 > 46			3690.864			MM-	03-Mar-10	08:44:37				
245969011	4-Amino-26-dinitrotoluene	197 > 167			22118.084									
245969011	2-Amino-46-dinitrotoluene	197 > 180			22118.084									
245969011	246-Trinitrotoluene	227 > 210			22118.084									
245969011	34-dinitrotoluene	182 > 152	14.56	10786.782	22118.084	10786.782	243.845	bb			246.1428	98.5	-1.5	494.8
245969011	26-dinitrotoluene	182 > 152			22118.084									
245969011	24-dinitrotoluene	182 > 152			22118.084									
245969011	26-dinitrotoluene-d3	185 > 155	17.62	22118.084		22118.084	22118.084	bb			687.5452	137.5	37.5	1351.8
245969011	2-Nitrotoluene	137 > 46			22118.084									
245969011	4-Nitrotoluene	137 > 46			22118.084									
245969011	3-Nitrotoluene	137 > 46			22118.084									
245969011	PETN	361 > 62			22118.084									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7964

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969011

Sample Amount 2

Moisture: 10.7

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220035.wiff

Date Analyzed: 23-FEB-10 01:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 2/23/10

Sample Name: "245969011" Sample ID: "946575|2|LER" File: "EXS02220035.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No

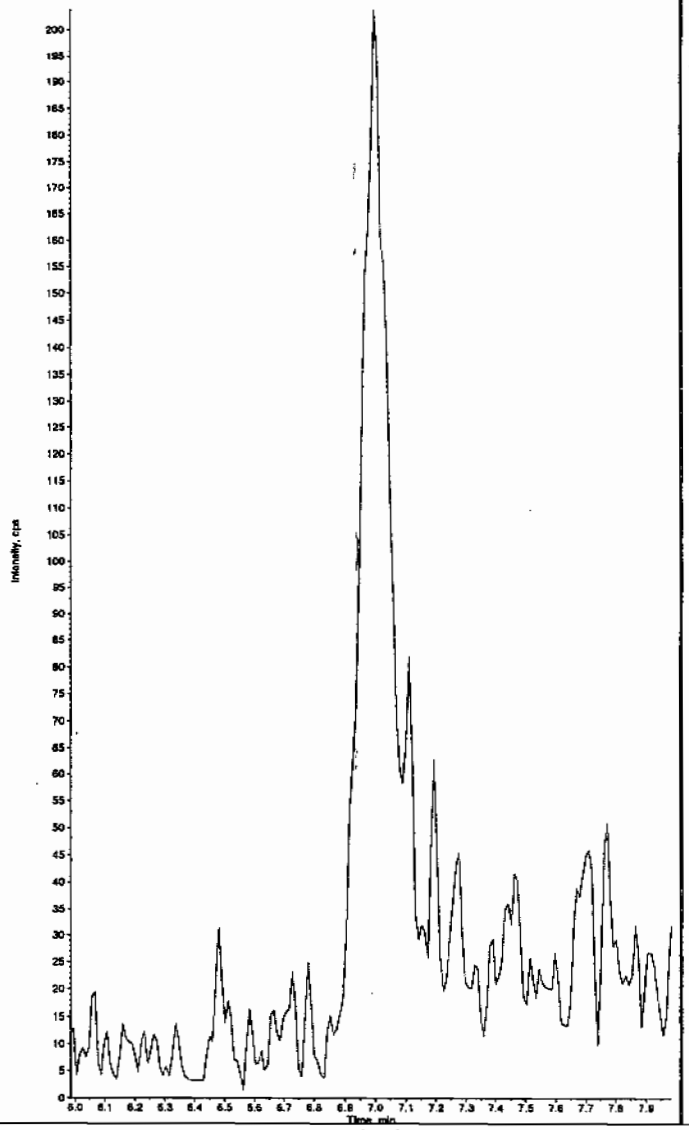

Sample Name: "245969011" Sample ID: "946575|2|LER" File: "EXS02220035.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No

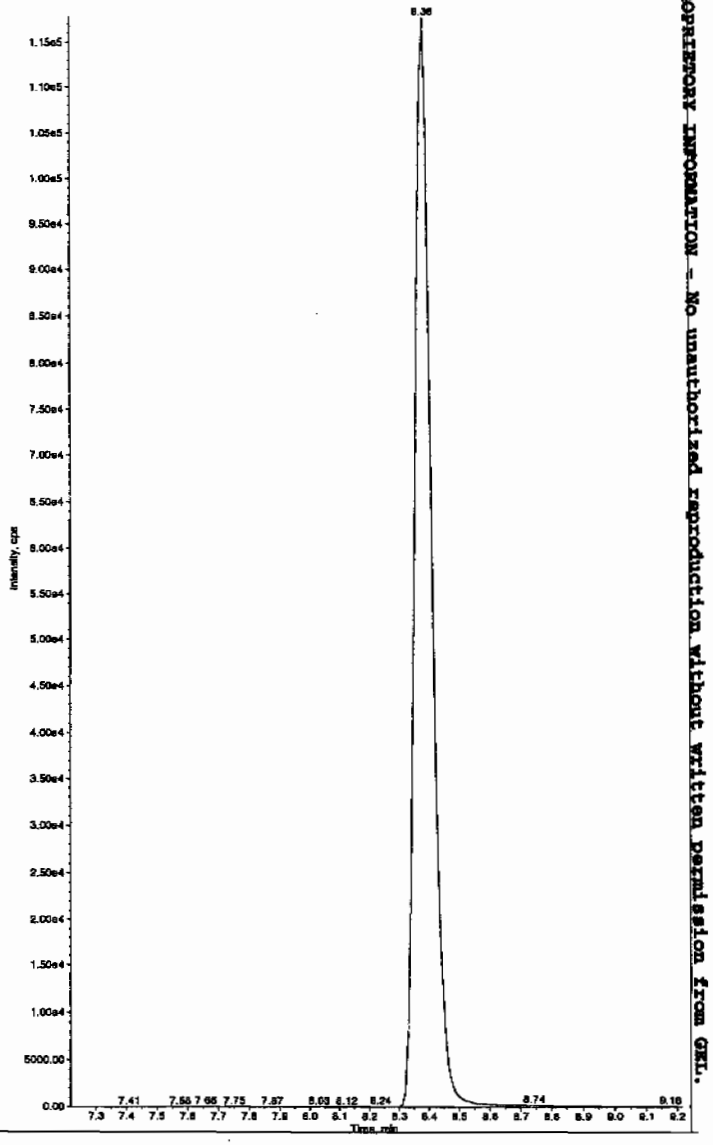

Hnilica 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 316. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No
Proc. Algorithm: Intelliquan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.15e+006 counts
Height: 1071908.813 cps
Start Time: 8.26 min
End Time: 8.87 min

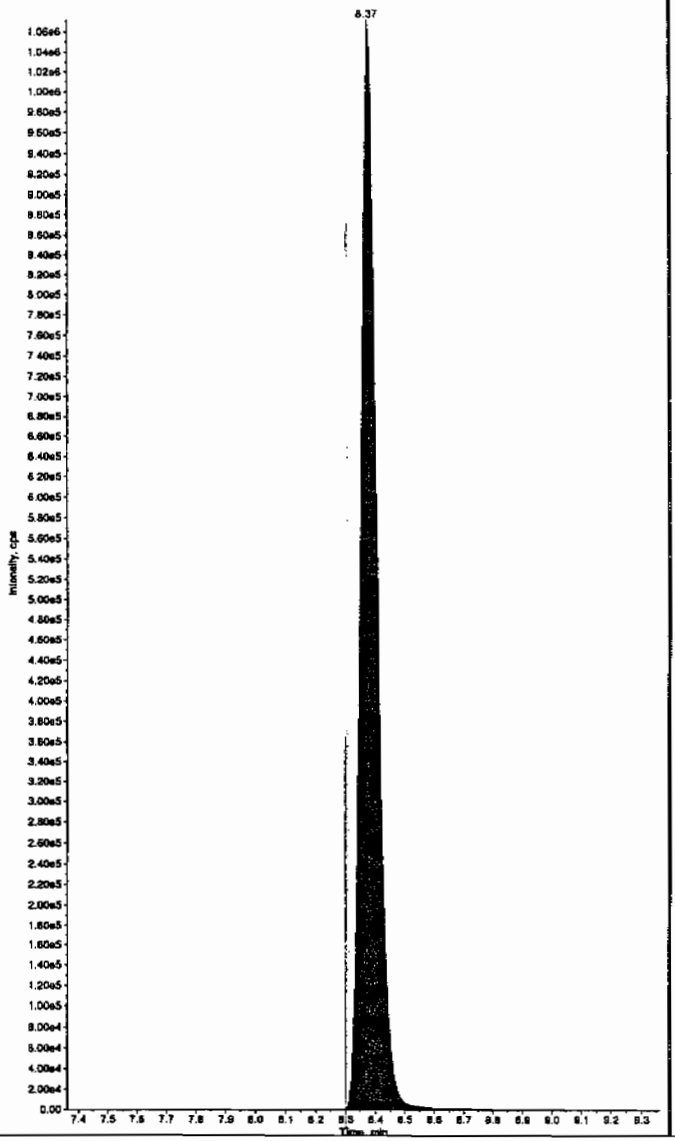

Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "*"

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No

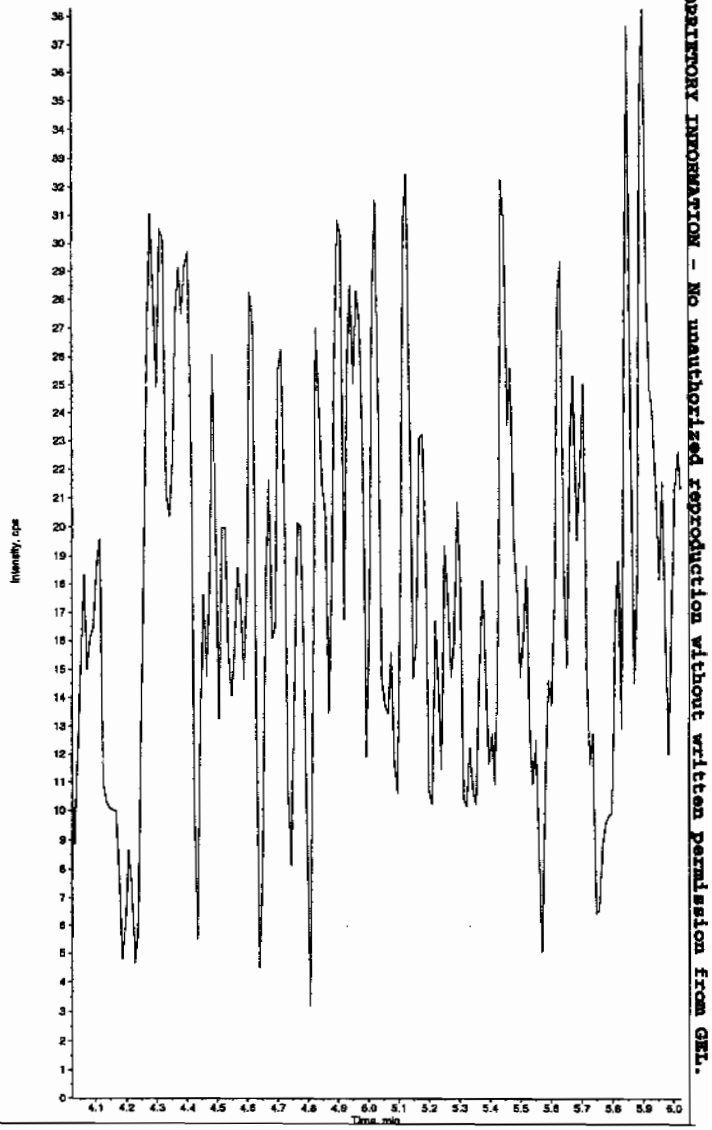

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No

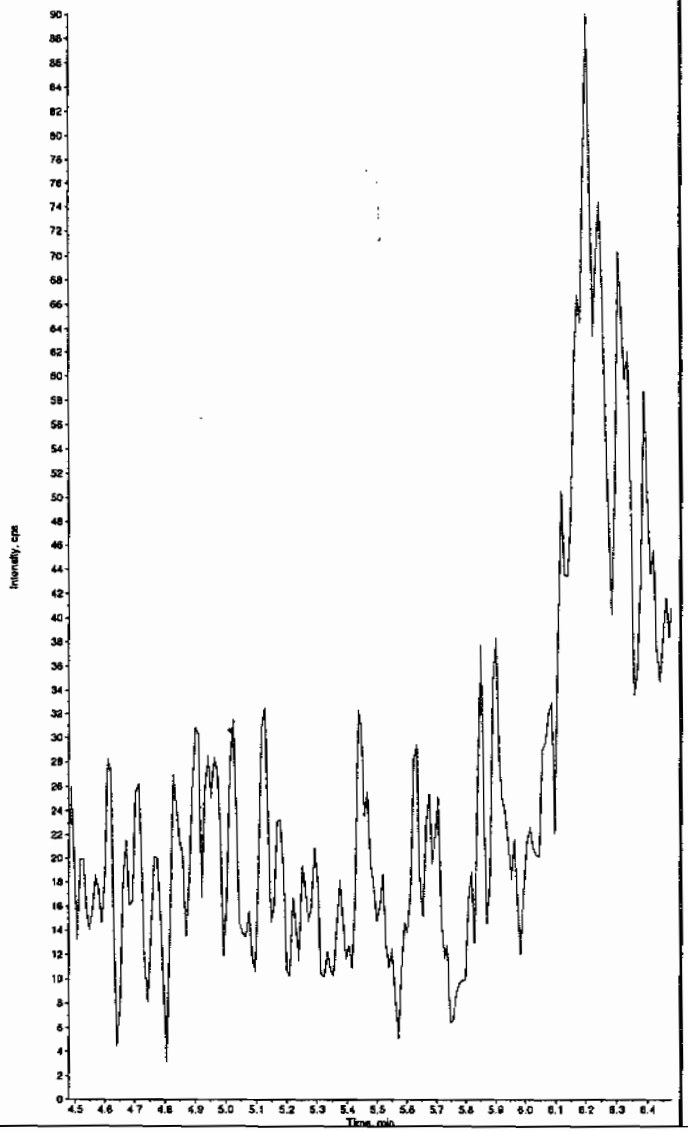

Sample Name: "245969011" Sample ID: "948575|2|LER" File: "EXS02220035.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 1:56:17 AM

Modified: No

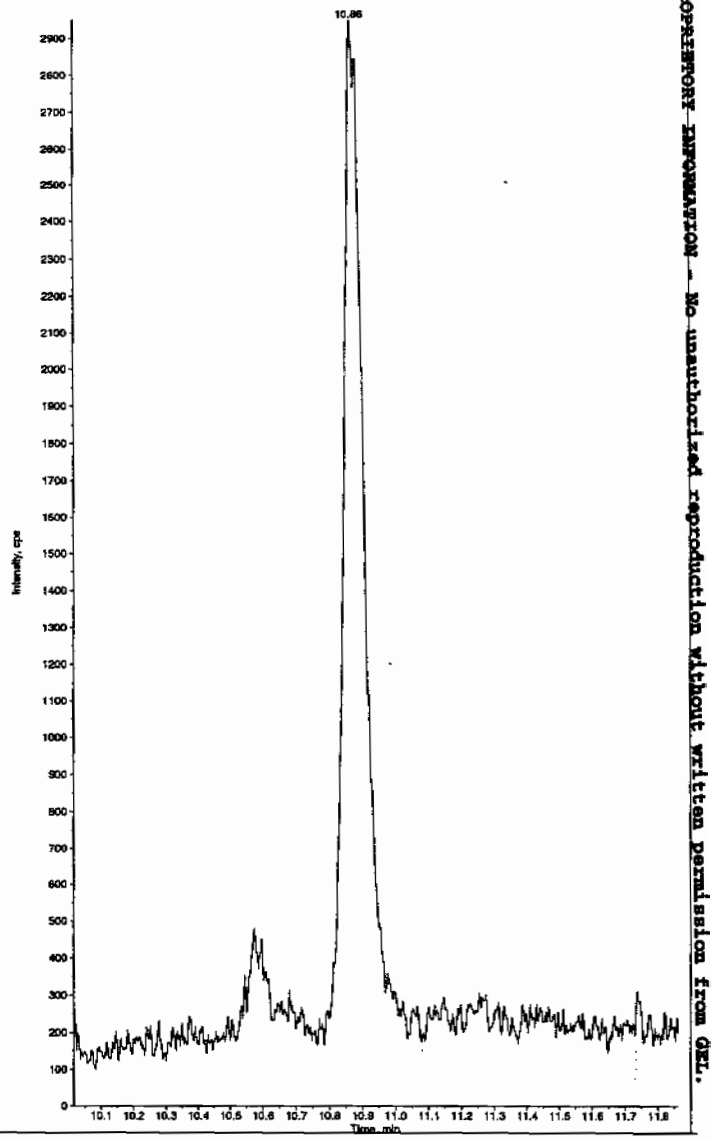

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7973

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969012

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301038a

Date Analyzed: 02-MAR-10 09:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301038a
Date: 02-Mar-2010
Time: 09:44:03
ID: 245969012 | LANL | 948575 | SOLID | 21
Vial: 2:3,D

MMT 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.140e+003

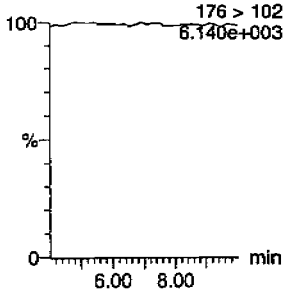

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.140e+003

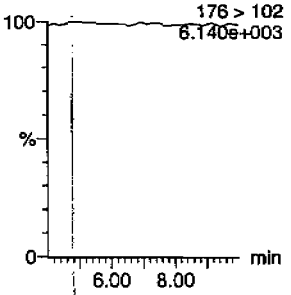

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.052e+003

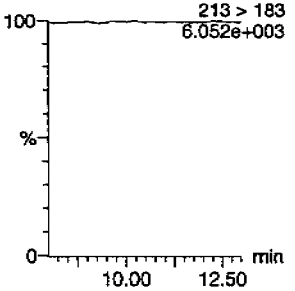

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.393e+004

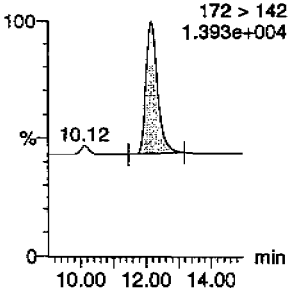

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.047e+003

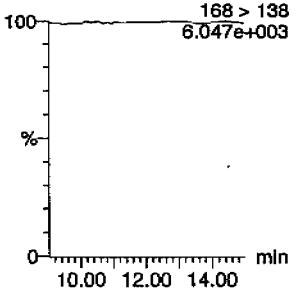

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.098e+003

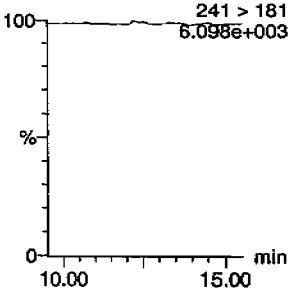

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.072e+003

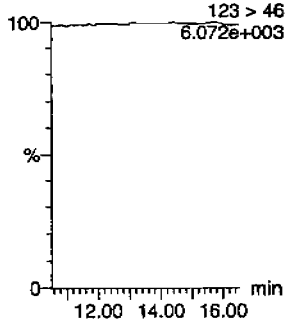

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.102e+003

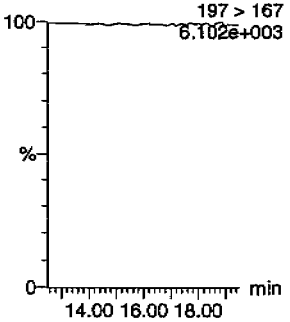

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.085e+003

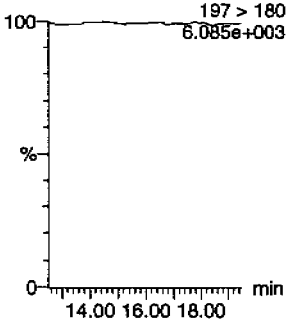

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.093e+003

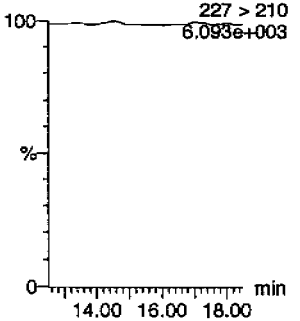

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.765e+004

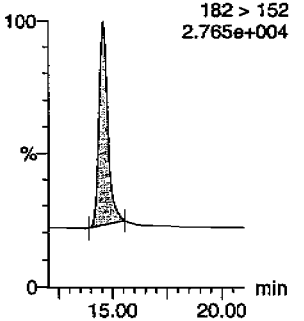

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.765e+004

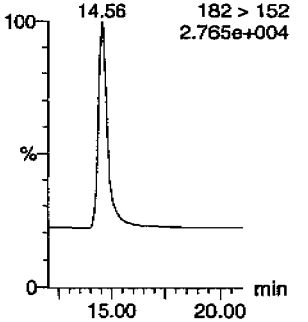

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

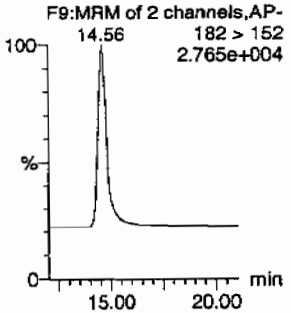

26-dinitrotoluene-d3

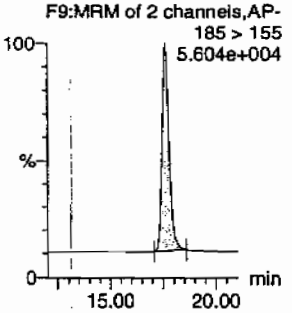

2-Nitrotoluene

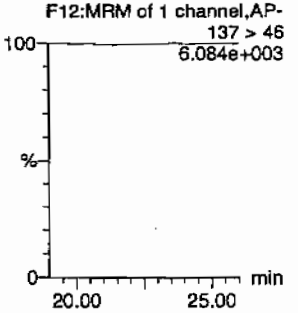

4-Nitrotoluene

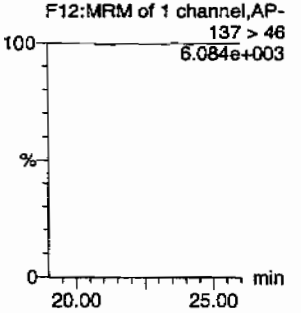

3-Nitrotoluene

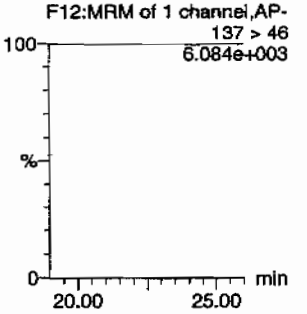

PETN

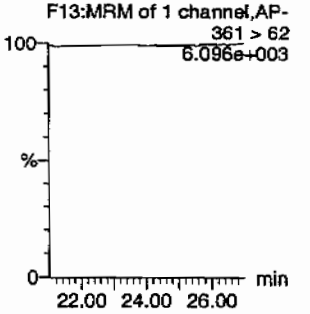

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969012	HMX	176 > 102			3285.488									
245969012	RDX	176 > 102			3285.488									
245969012	135-Trinitrobenzene	213 > 183			3285.488									
245969012	13-Dinitrobenzene-d4	172 > 142	12.17	3285.488		3285.488	3285.488	bb			566.8395	113.4	13.4	365.2
245969012	13-Dinitrobenzene	168 > 138			3285.488									
245969012	Tetryl	241 > 181			3285.488									
245969012	Nitrobenzene	123 > 46			3285.488									
245969012	4-Amino-26-dinitrotoluene	197 > 167			19737.643									
245969012	2-Amino-46-dinitrotoluene	197 > 180			19737.643									
245969012	246-Trinitrotoluene	227 > 210			19737.643									
245969012	34-dinitrotoluene	182 > 152	14.56	10120.990	19737.643	10120.990	256.388	bb			258.8036	103.5	3.5	396.3
245969012	26-dinitrotoluene	182 > 152			19737.643									
245969012	24-dinitrotoluene	182 > 152			19737.643									
245969012	26-dinitrotoluene-d3	185 > 155	17.62	19737.643		19737.643	19737.643	bb			613.5487	122.7	22.7	689.6
245969012	2-Nitrotoluene	137 > 46			19737.643									
245969012	4-Nitrotoluene	137 > 46			19737.643									
245969012	3-Nitrotoluene	137 > 46			19737.643									
245969012	PETN	361 > 62			19737.643									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7973

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969012

Sample Amount 2

Moisture: 18.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220036.wiff

Date Analyzed: 23-FEB-10 02:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCR 2/23/10

Sample Name: "245969012" Sample ID: "948575|2|LER" File: "EXS02220036.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No

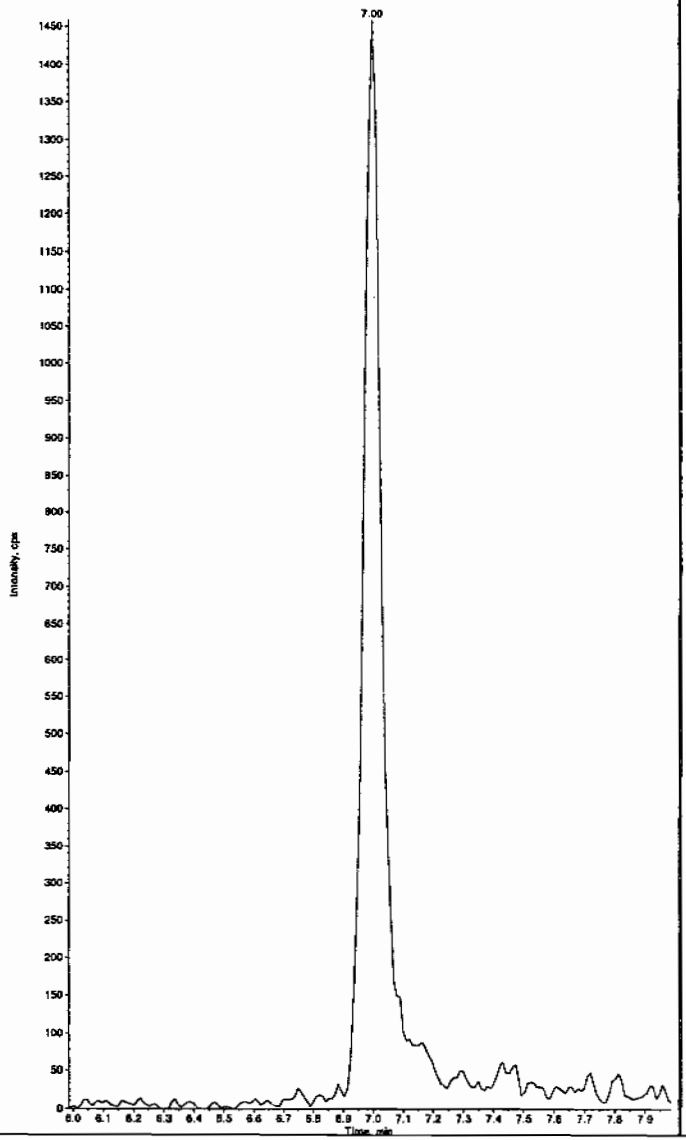

Sample Name: "245969012" Sample ID: "948575|2|LER" File: "EXS02220036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No

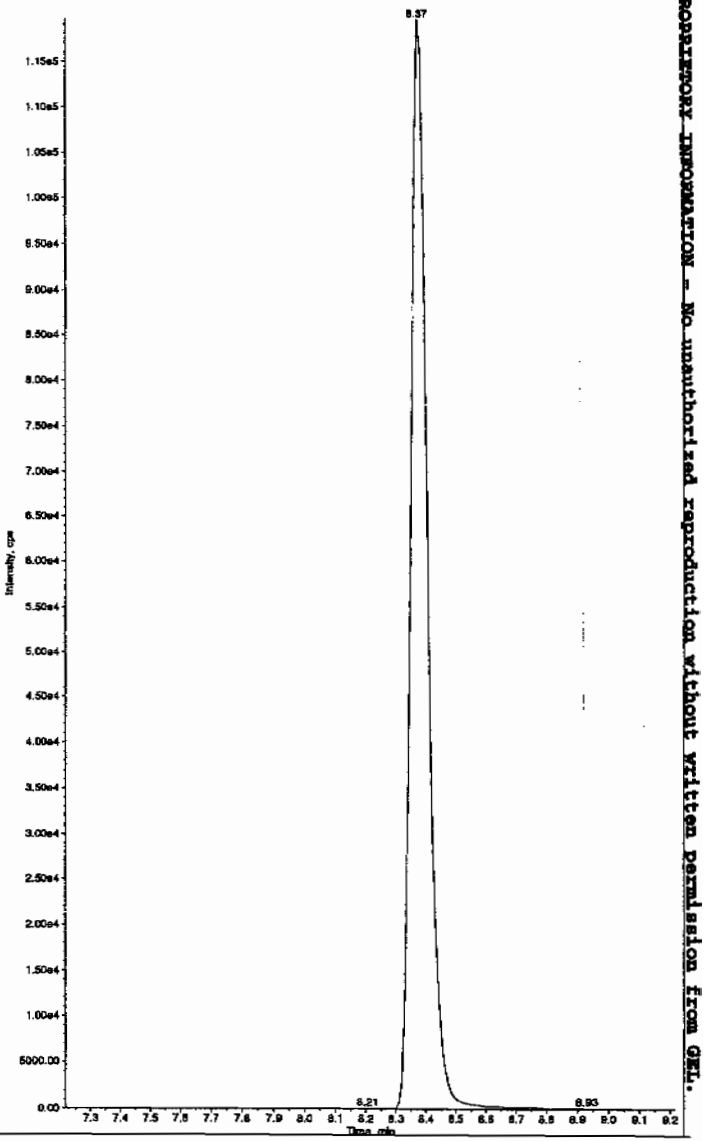

HMLCR 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969012" Sample ID: "948575[2]LER" File: "EXS02220036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 325. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.27e+006 counts
Height: 1097712.153 cps
Start Time: 8.28 min
End Time: 8.89 min

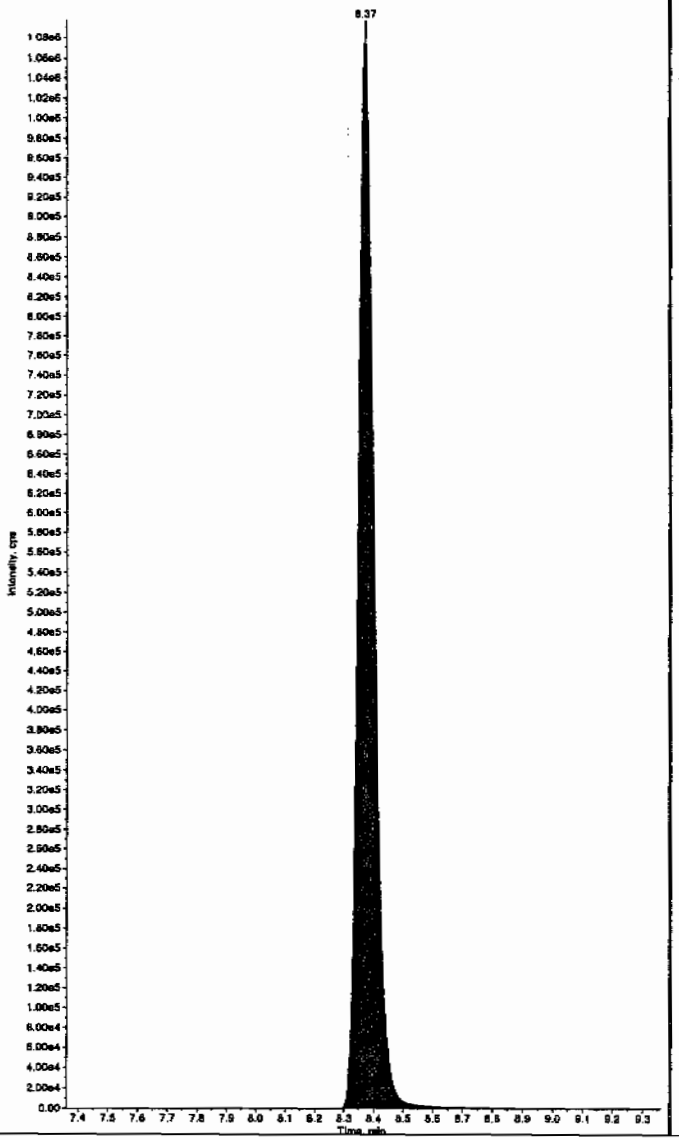

Sample Name: "245969012" Sample ID: "948575[2]LER" File: "EXS02220036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No

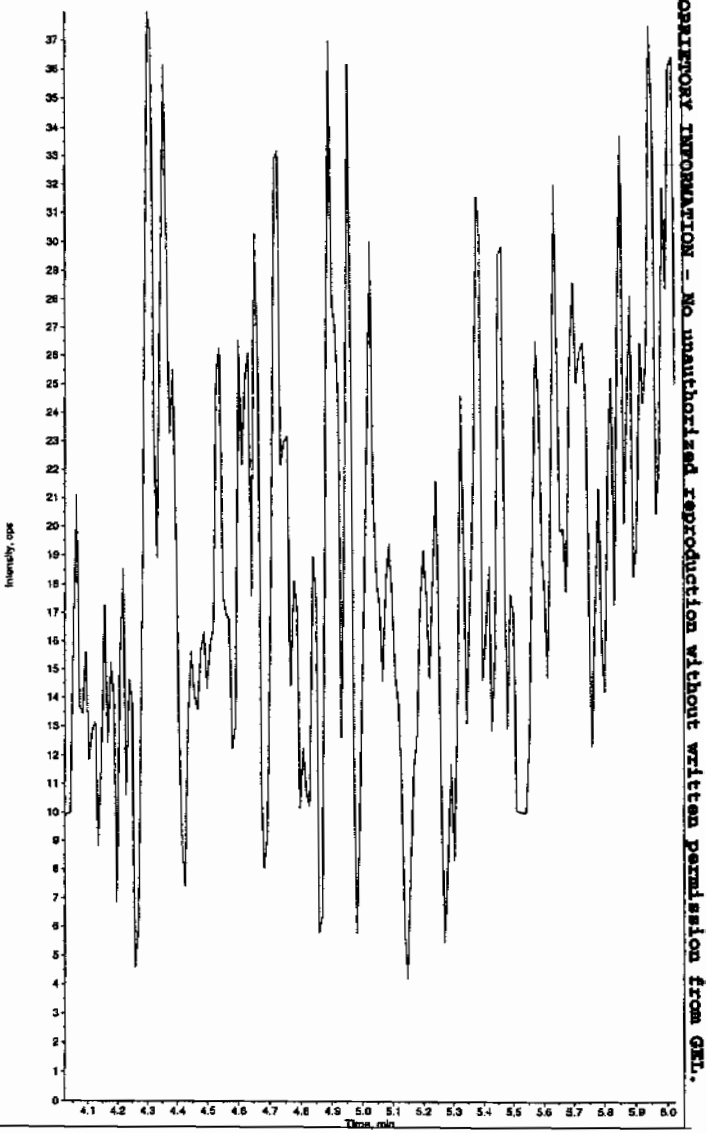

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969012" Sample ID: "948575|2|LER" File: "EXS02220036.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No

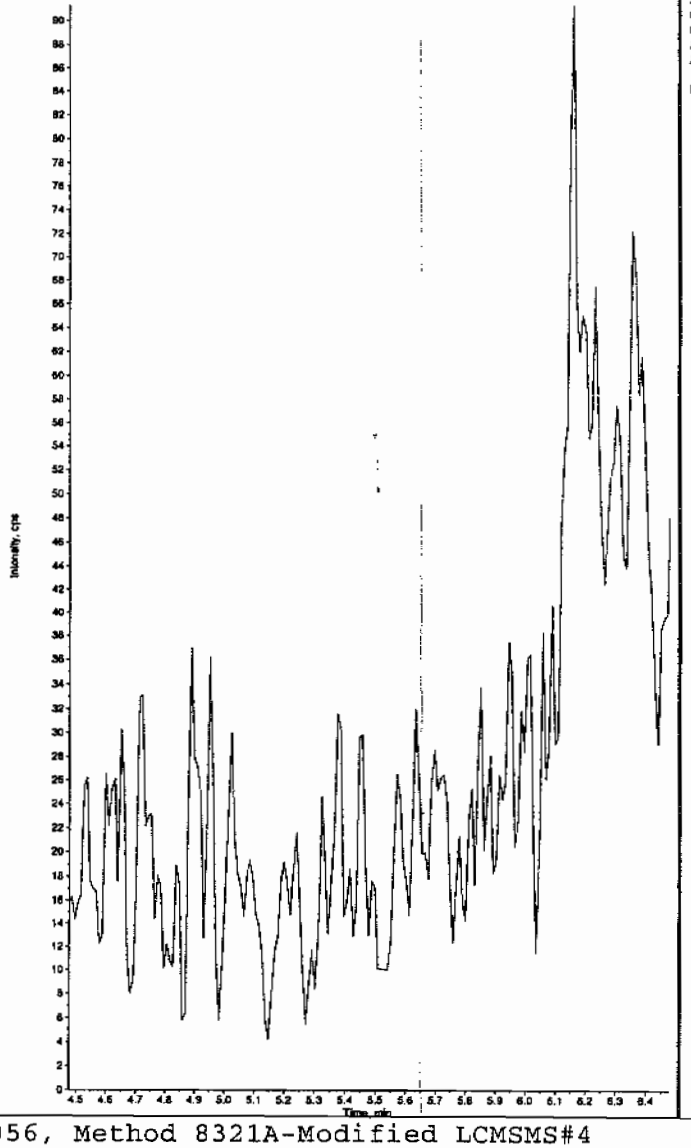

Sample Name: "245969012" Sample ID: "948575|2|LER" File: "EXS02220036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:11:59 AM

Modified: No

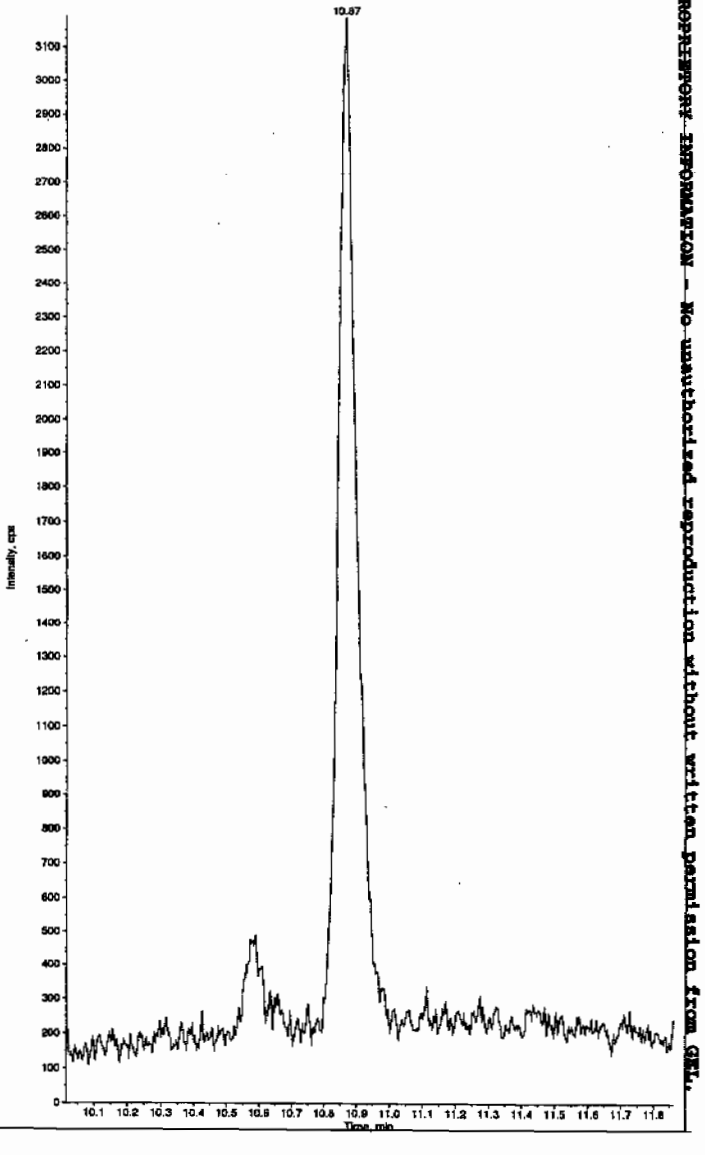

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7962

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969013

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301039a

Date Analyzed: 02-MAR-10 10:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301039a
Date: 02-Mar-2010
Time: 10:13:31
ID: 245969013 | LANL | 948575 | Soil | 2 |
Vial: 2:3,E

MAT 3/3/10

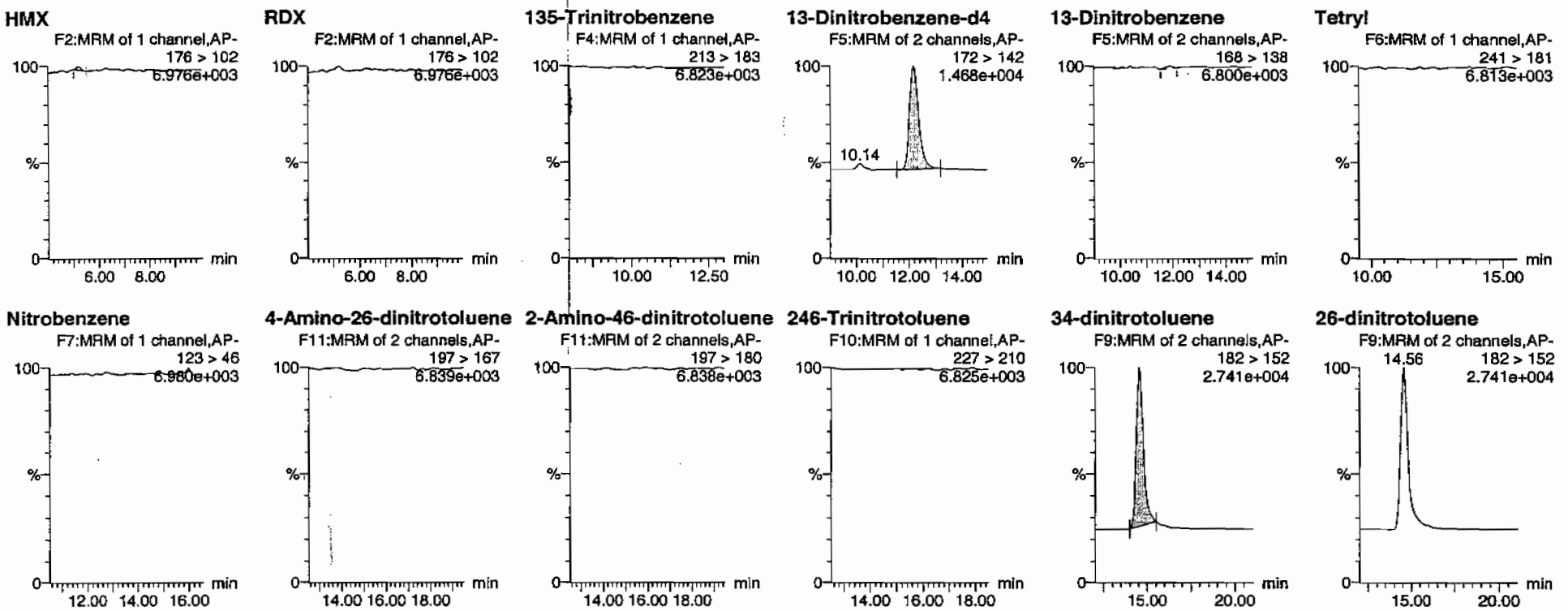

HMW 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

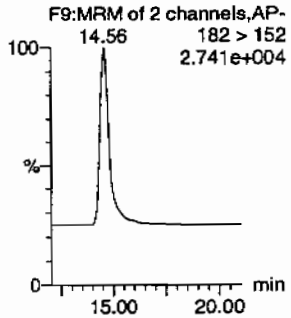

26-dinitrotoluene-d3

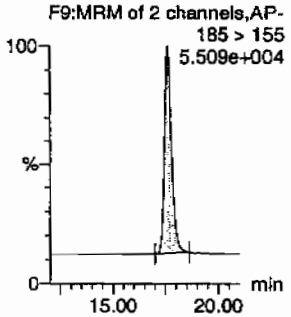

2-Nitrotoluene

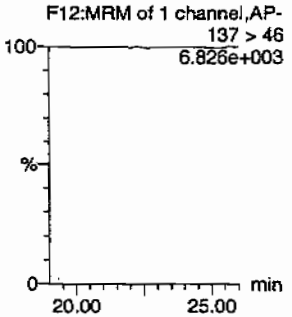

4-Nitrotoluene

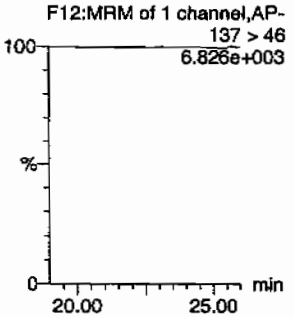

3-Nitrotoluene

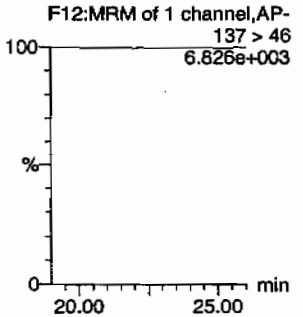

PETN

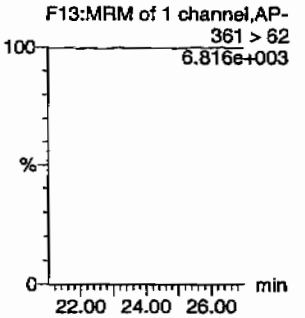

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969013	HMX	176 > 102	5.19	31.229	3270.320	31.229	4.775	bb			1.2516			5.3
245969013	RDX	176 > 102			3270.320									
245969013	135-Trinitrobenzene	213 > 183			3270.320									
245969013	13-Dinitrobenzene-d4	172 > 142	12.17	3270.320		3270.320	3270.320	bb			564.2226	112.8	12.8	340.2
245969013	13-Dinitrobenzene	168 > 138			3270.320			MM-	03-Mar-10	08:43:33				
245969013	Tetryl	241 > 181			3270.320									
245969013	Nitrobenzene	123 > 46			3270.320									
245969013	4-Amino-26-dinitrotoluene	197 > 167			19188.160									
245969013	2-Amino-46-dinitrotoluene	197 > 180			19188.160									
245969013	246-Trinitrotoluene	227 > 210			19188.160									
245969013	34-dinitrotoluene	182 > 152	14.56	9571.954	19188.160	9571.954	249.423	bb			251.7735	100.7	0.7	535.2
245969013	26-dinitrotoluene	182 > 152			19188.160									
245969013	24-dinitrotoluene	182 > 152			19188.160									
245969013	26-dinitrotoluene-d3	185 > 155	17.62	19188.160		19188.160	19188.160	bb			596.4679	119.3	19.3	1567.9
245969013	2-Nitrotoluene	137 > 46			19188.160									
245969013	4-Nitrotoluene	137 > 46			19188.160									
245969013	3-Nitrotoluene	137 > 46			19188.160									
245969013	PETN	361 > 62			19188.160									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7962

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969013

Sample Amount 2

Moisture: 5.3

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220040.wiff

Date Analyzed: 23-FEB-10 03:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "245969013" Sample ID: "948575|2|LER" File: "EXS02220040.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No

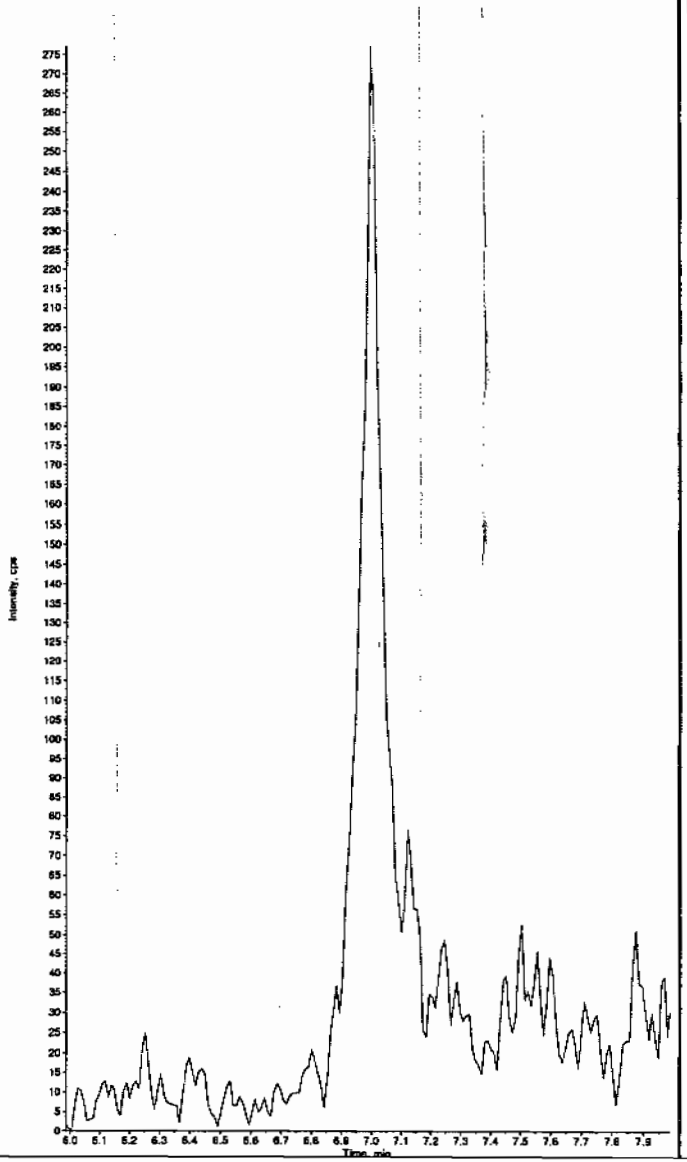

Sample Name: "245969013" Sample ID: "948575|2|LER" File: "EXS02220040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No

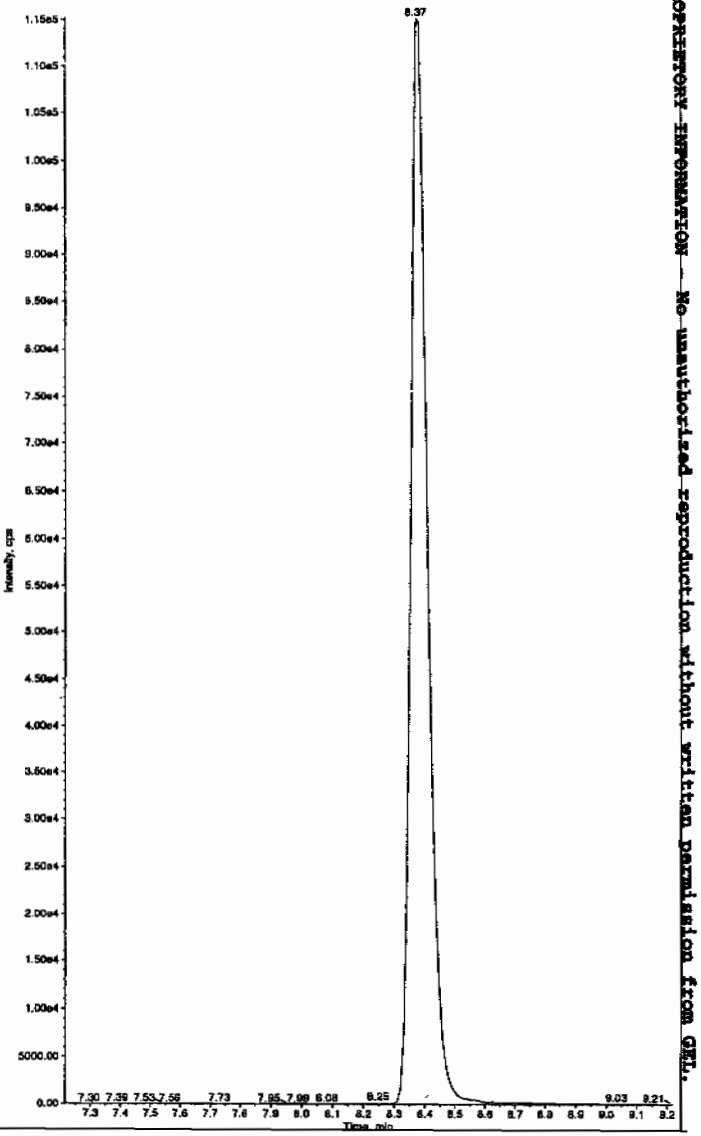

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969013" Sample ID: "948575[2]LER" File: "EXS02220040.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 318. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.18e+006 counts
Height: 1085193.604 cps
Start Time: 8.25 min
End Time: 8.86 min

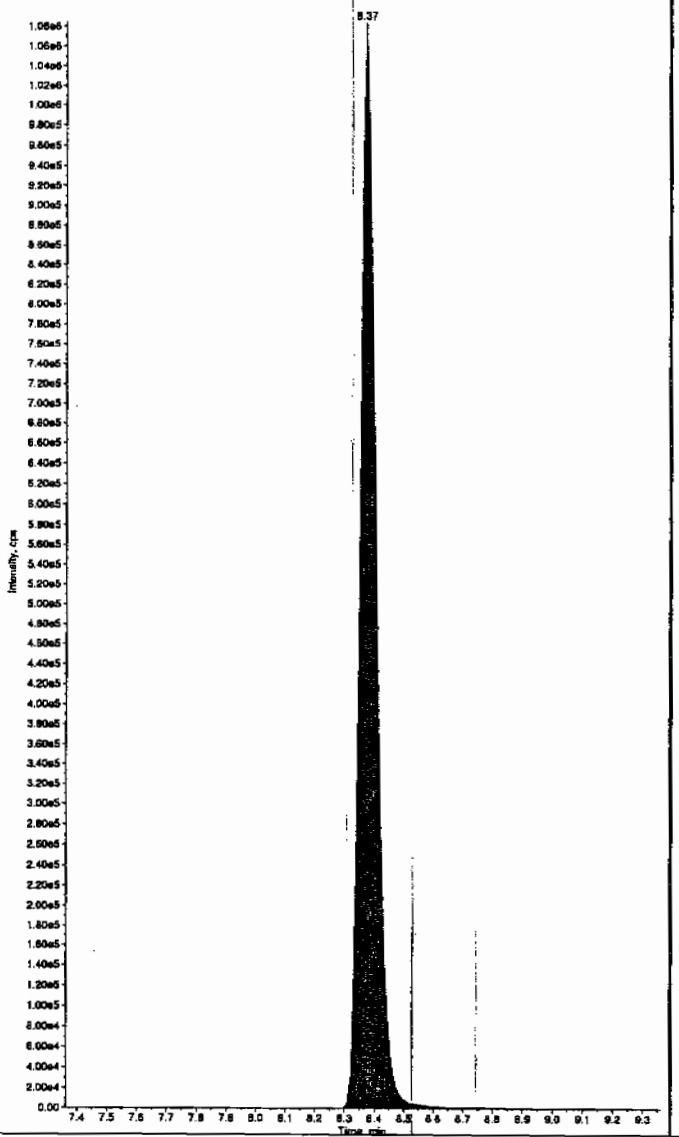

Sample Name: "245969013" Sample ID: "948575[2]LER" File: "EXS02220040.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No

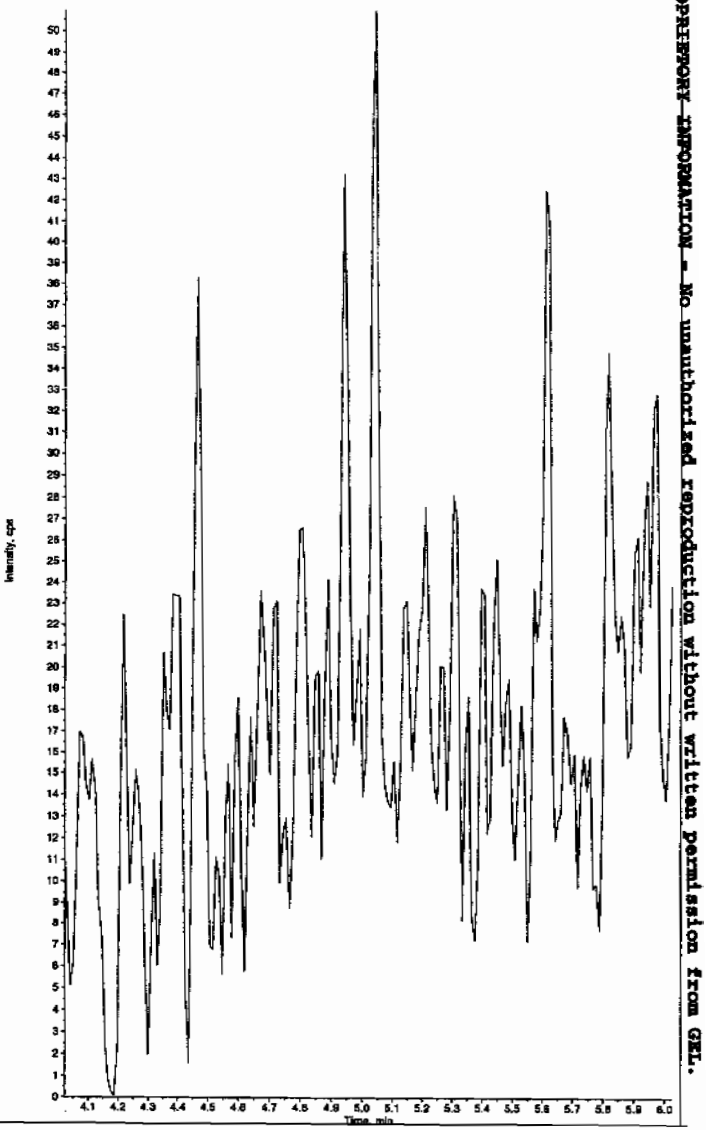

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969013" Sample ID: "948575|2|LER" File: "EXS02220040.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No

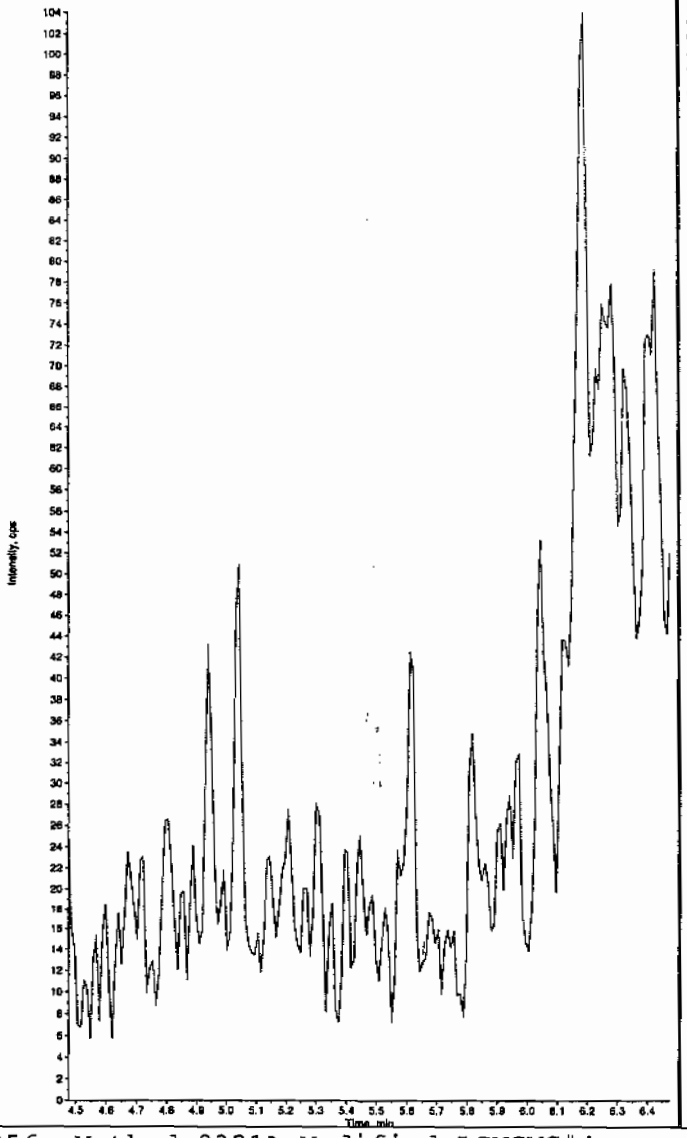

Sample Name: "245969013" Sample ID: "948575|2|LER" File: "EXS02220040.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:14:56 AM

Modified: No

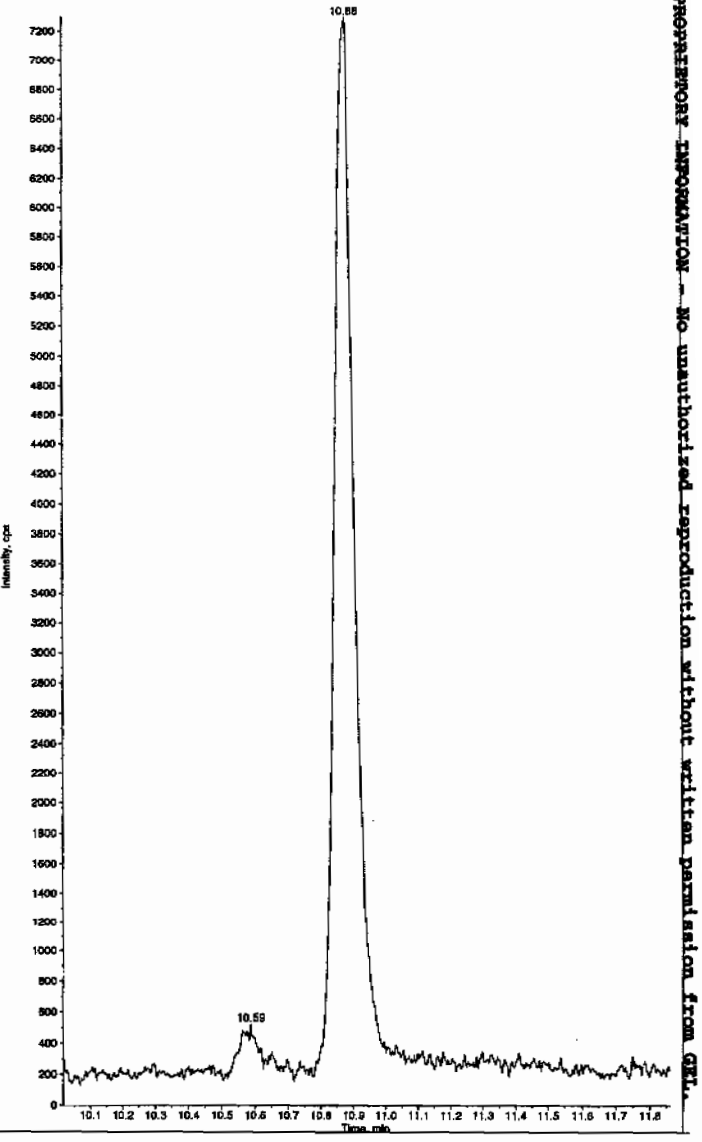

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7963

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969014

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301040a

Date Analyzed: 02-MAR-10 10:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301040a
Date: 02-Mar-2010
Time: 10:42:59
ID: 245969014 | LANL | 948575 | Solids | 2 |
Vial: 2:3,F

MAH 3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.656e+003

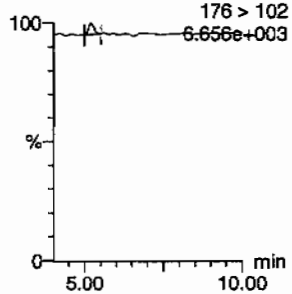

RDX
F2:MRM of 1 channel,AP-
5.20
176 > 102
6.656e+003

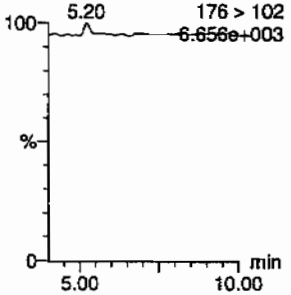

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.334e+003

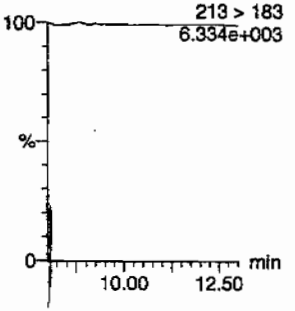

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.374e+004

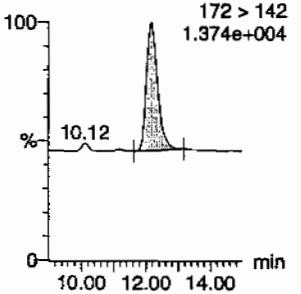

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.338e+003

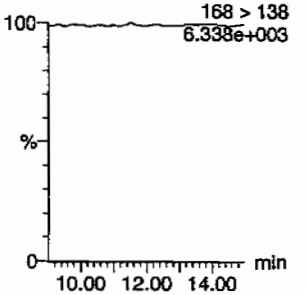

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.337e+003

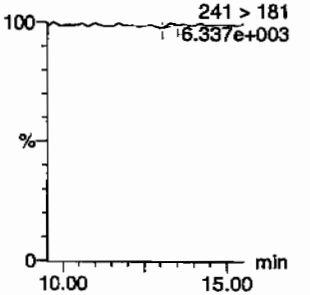

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.319e+003

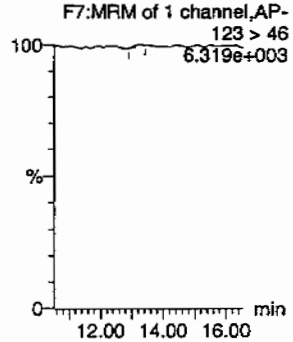

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.336e+003

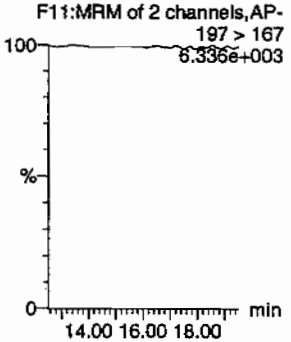

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.333e+003

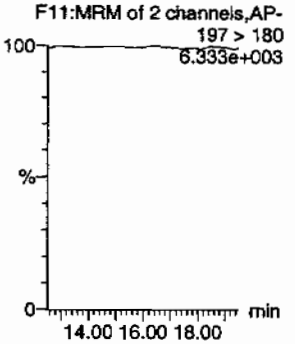

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.324e+003

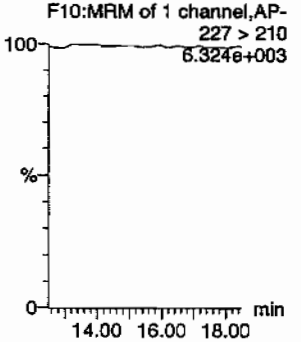

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.337e+004

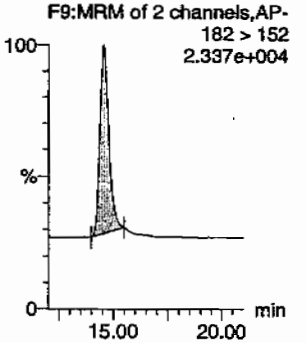

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.337e+004

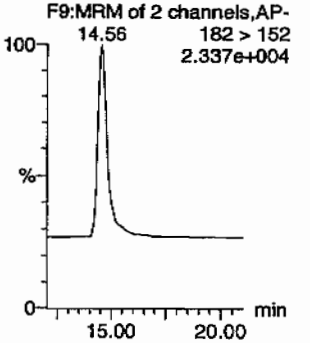

HMM 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

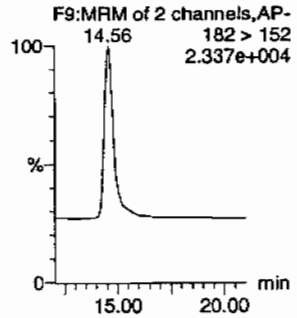

26-dinitrotoluene-d3

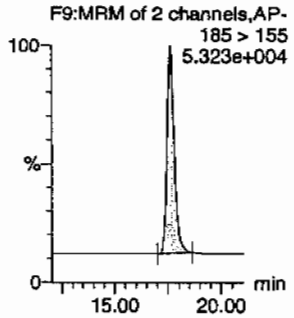

2-Nitrotoluene

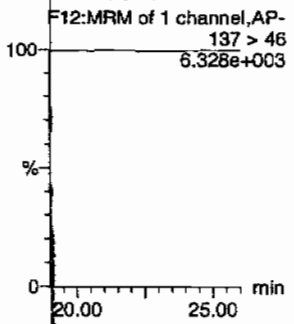

4-Nitrotoluene

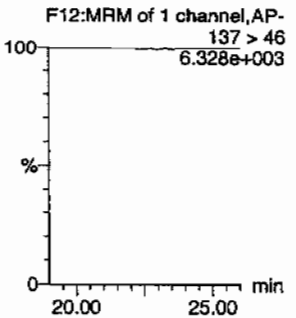

3-Nitrotoluene

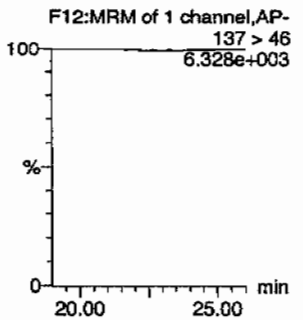

PETN

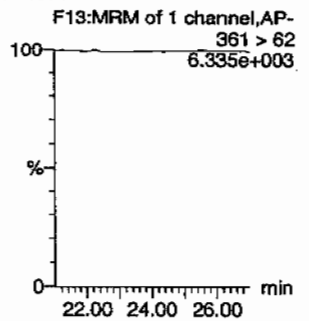

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	[] ng/mL	%Rec	%Dev	S/N
245969014	HMX	176 > 102	5.20	69.933	3046.055	69.933	11.479	bb			3.0091			13.5
245969014	RDX	176 > 102			3046.055									
245969014	135-Trinitrobenzene	213 > 183			3046.055									
245969014	13-Dinitrobenzene-d4	172 > 142	12.17	3046.055		3046.055	3046.055	bb			525.5305	105.1	5.1	330.5
245969014	13-Dinitrobenzene	168 > 138			3046.055									
245969014	Tetryl	241 > 181			3046.055			MM-	03-Mar-10	08:43:44				
245969014	Nitrobenzene	123 > 46			3046.055			MM-	03-Mar-10	08:44:55				
245969014	4-Amino-26-dinitrotoluene	197 > 167			18821.217									
245969014	2-Amino-46-dinitrotoluene	197 > 180			18821.217									
245969014	246-Trinitrotoluene	227 > 210			18821.217									
245969014	34-dinitrotoluene	182 > 152	14.56	7903.866	18821.217	7903.866	209.972	bb			211.9506	84.8	-15.2	504.4
245969014	26-dinitrotoluene	182 > 152			18821.217									
245969014	24-dinitrotoluene	182 > 152			18821.217									
245969014	26-dinitrotoluene-d3	185 > 155	17.62	18821.217		18821.217	18821.217	bb			585.0614	117.0	17.0	1789.2
245969014	2-Nitrotoluene	137 > 46			18821.217									
245969014	4-Nitrotoluene	137 > 46			18821.217									
245969014	3-Nitrotoluene	137 > 46			18821.217									
245969014	PETN	361 > 62			18821.217									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7963

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969014

Sample Amount 2

Moisture: 20.8

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220041.wiff

Date Analyzed: 23-FEB-10 03:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Jan 2/23/10

Sample Name: "245969014" Sample ID: "948575|2|LER" File: "EXS02220041.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 8.30 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 2.02e+004 counts
Height: 4710.355 cps
Start Time: 6.89 min
End Time: 7.21 min

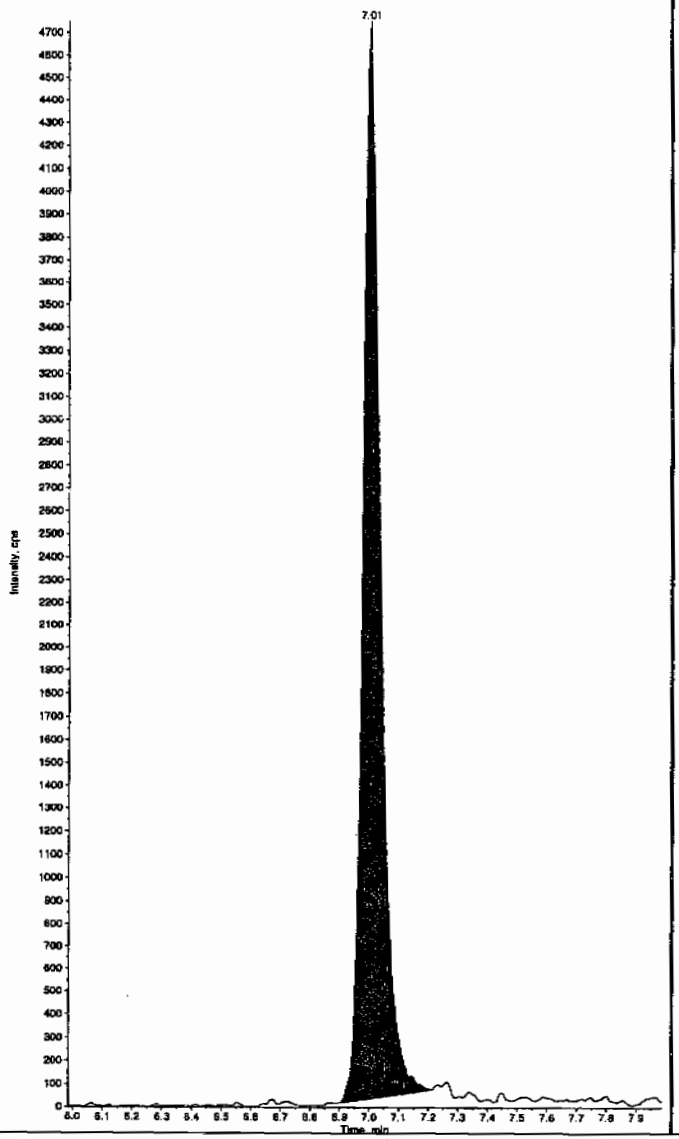

Sample Name: "245969014" Sample ID: "948575|2|LER" File: "EXS02220041.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No

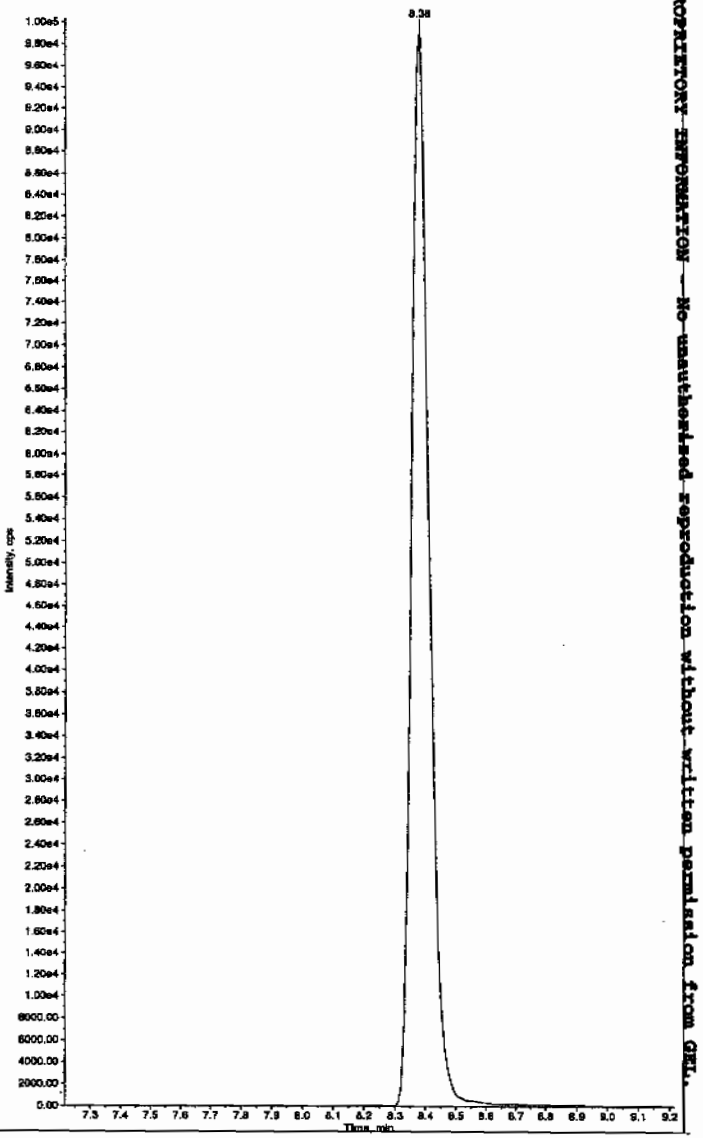

HW 2/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969014" Sample ID: "948575|2|LER" File: "EXS02220041.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 305. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.02e+006 counts
Height: 1019647.217 cps
Start Time: 8.25 min
End Time: 8.72 min

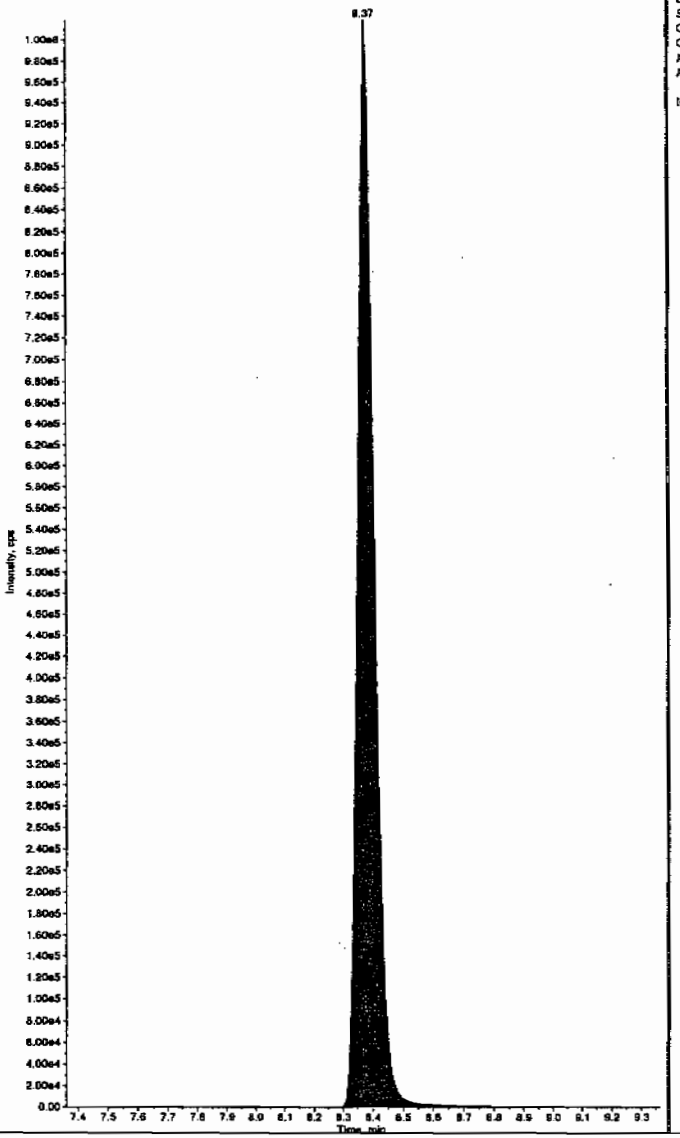

Sample Name: "245969014" Sample ID: "948575|2|LER" File: "EXS02220041.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No

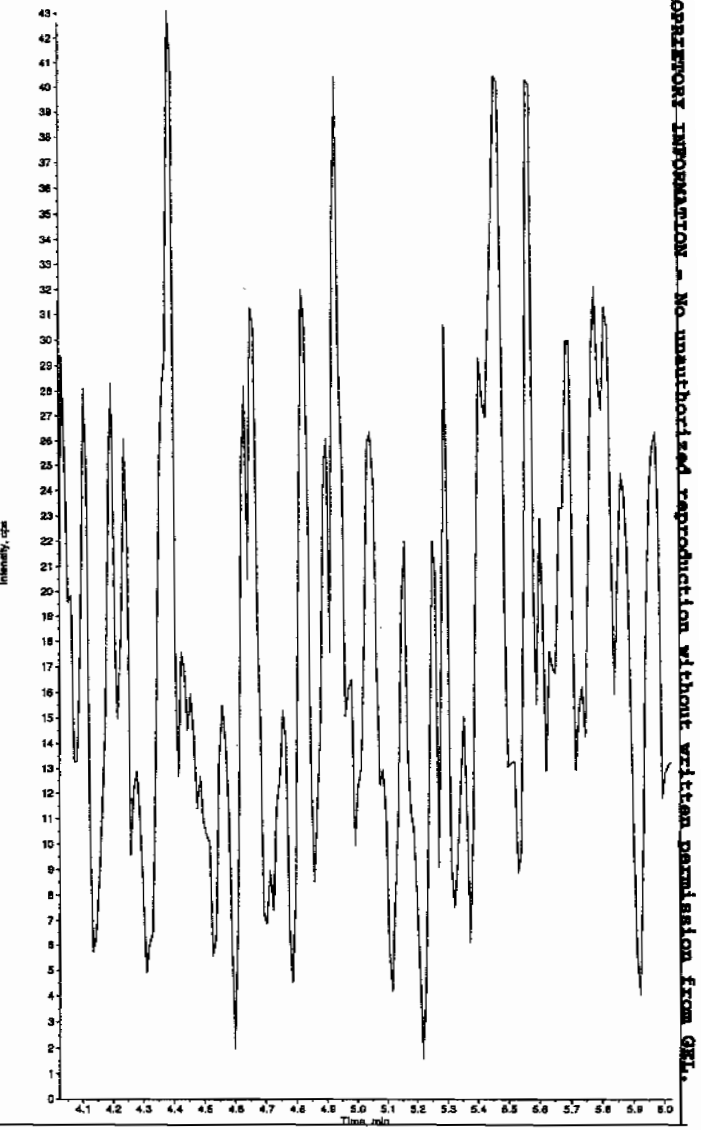

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969014" Sample ID: "946575|2|LER" File: "EXS02220041.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No

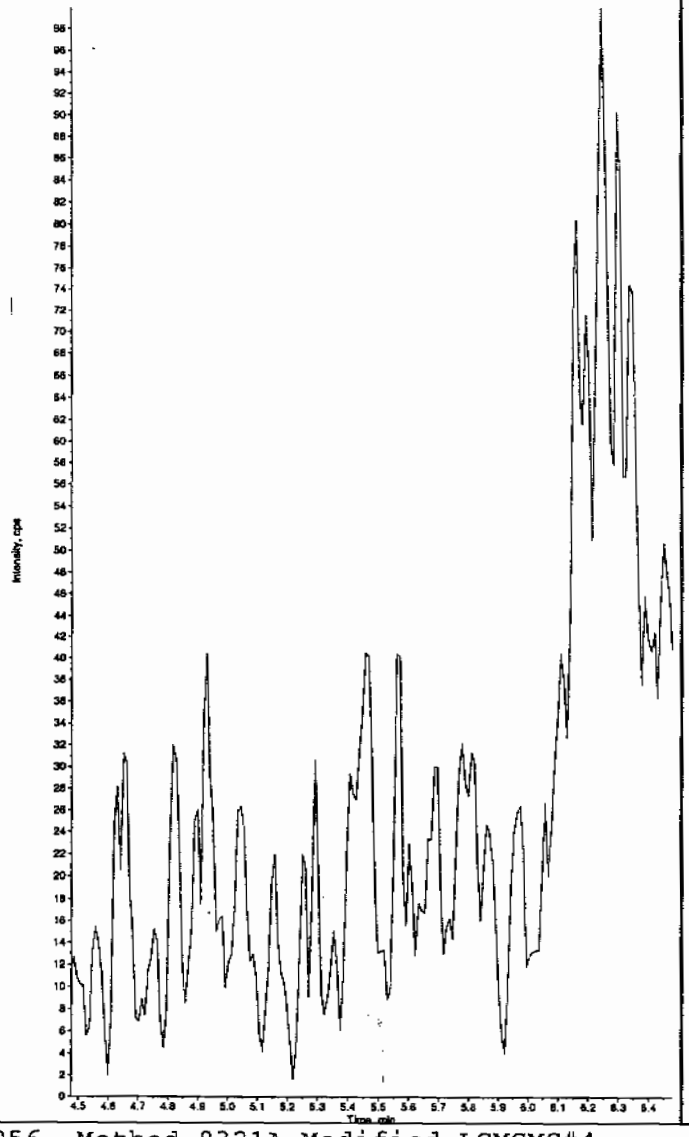

Sample Name: "245969014" Sample ID: "946575|2|LER" File: "EXS02220041.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:30:47 AM

Modified: No

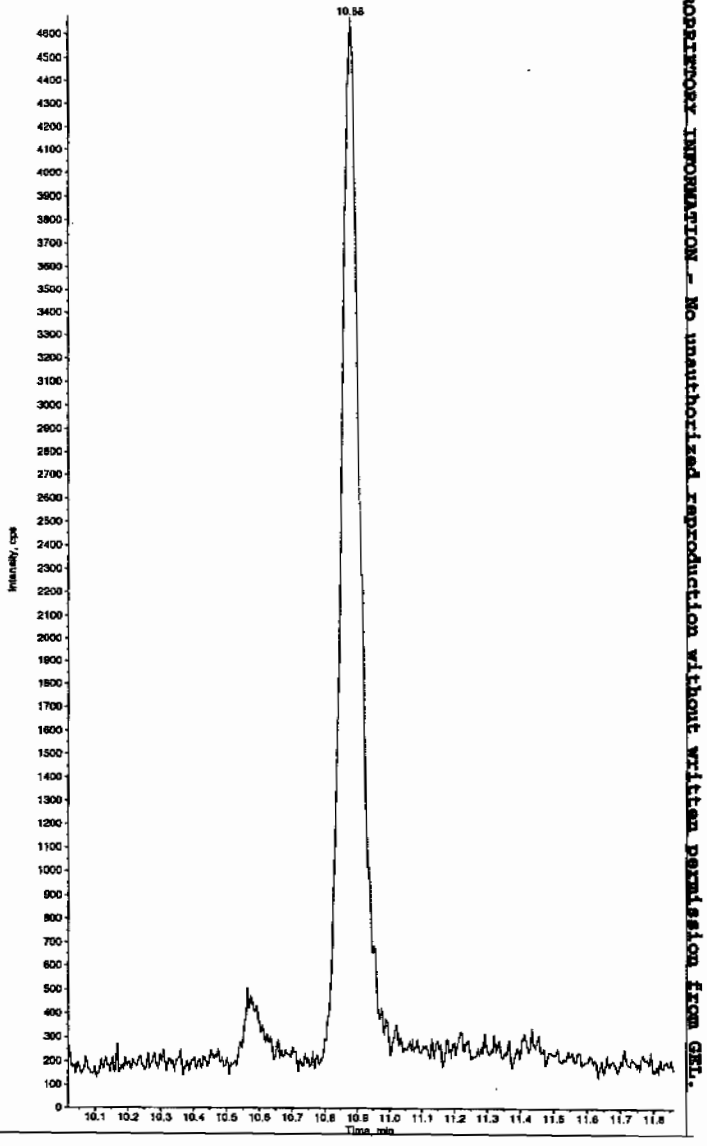

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7977

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969015

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301041a

Date Analyzed: 02-MAR-10 11:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301041a
Date: 02-Mar-2010
Time: 11:12:27
ID: 245969015 | LANL | 948575 | Soil | 2 |
Vial: 2:4,A

MM 3/3/10

HMX

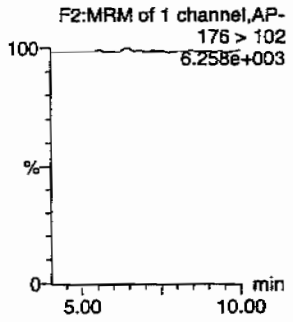

RDX

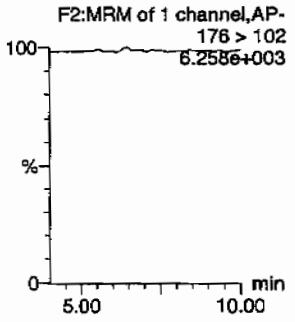

135-Trinitrobenzene

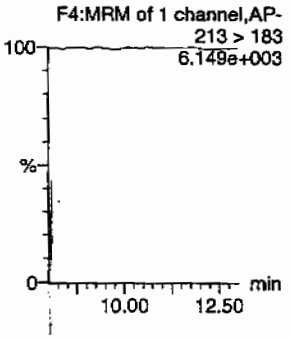

13-Dinitrobenzene-d4

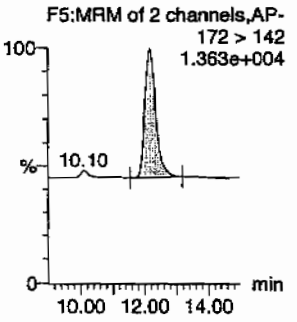

13-Dinitrobenzene

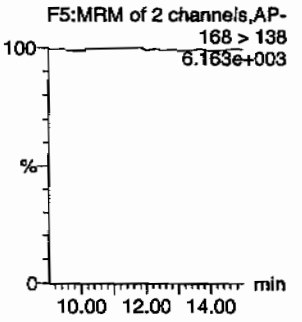

Tetryl

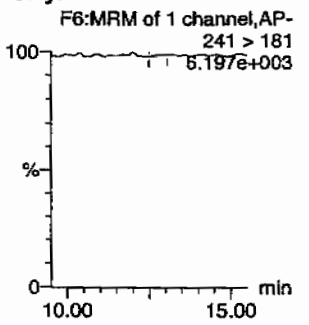

Nitrobenzene

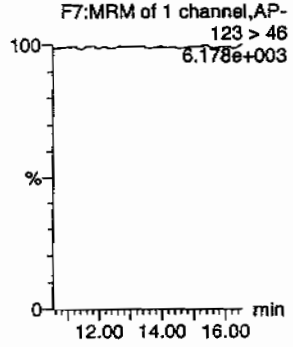

4-Amino-26-dinitrotoluene

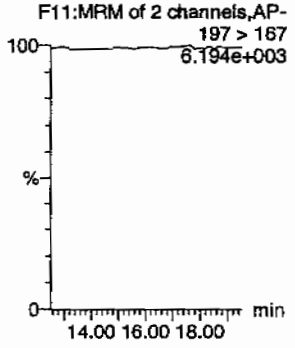

2-Amino-46-dinitrotoluene

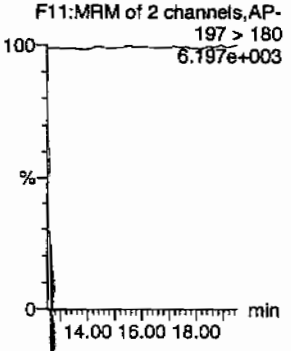

246-Trinitrotoluene

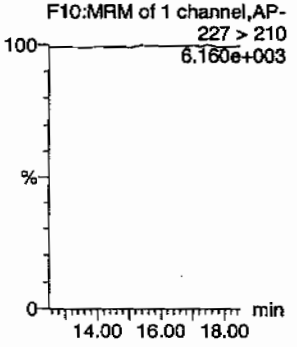

34-dinitrotoluene

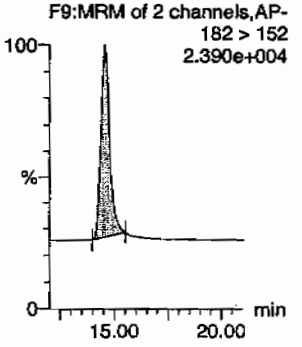

26-dinitrotoluene

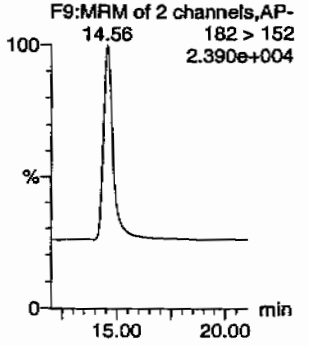

Hmc 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

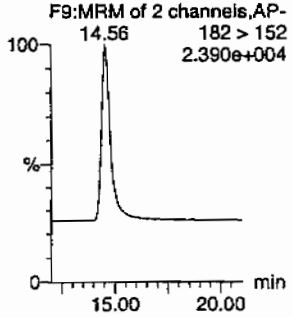

26-dinitrotoluene-d3

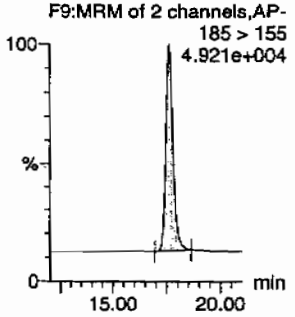

2-Nitrotoluene

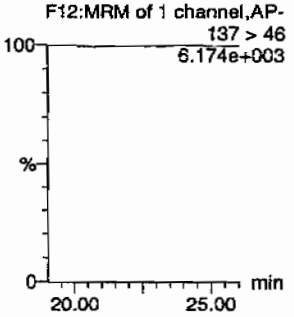

4-Nitrotoluene

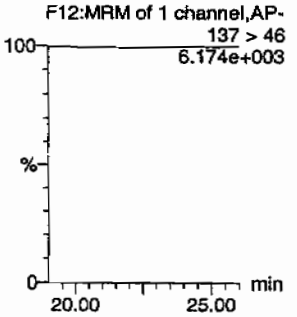

3-Nitrotoluene

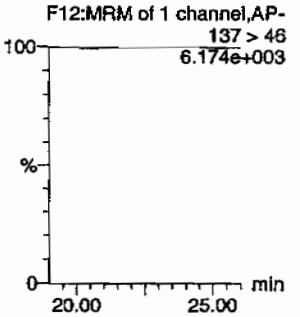

PETN

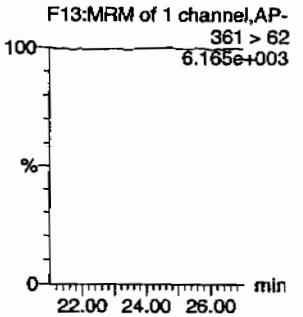

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969015	HMX	176 > 102			3054.025									
245969015	RDX	176 > 102			3054.025									
245969015	135-Trinitrobenzene	213 > 183			3054.025									
245969015	13-Dinitrobenzene-d4	172 > 142	12.17	3054.025		3054.025	3054.025	bb			526.9056	105.4	5.4	329.1
245969015	13-Dinitrobenzene	168 > 138			3054.025									
245969015	Tetryl	241 > 181			3054.025			MM-	03-Mar-10	08:43:48				
245969015	Nitrobenzene	123 > 46			3054.025									
245969015	4-Amino-26-dinitrotoluene	197 > 167			17111.732									
245969015	2-Amino-46-dinitrotoluene	197 > 180			17111.732									
245969015	246-Trinitrotoluene	227 > 210			17111.732									
245969015	34-dinitrotoluene	182 > 152	14.56	8191.717	17111.732	8191.717	239.360	bb			241.6149	96.6	-3.4	651.0
245969015	26-dinitrotoluene	182 > 152			17111.732									
245969015	24-dinitrotoluene	182 > 152			17111.732									
245969015	26-dinitrotoluene-d3	185 > 155	17.62	17111.732		17111.732	17111.732	bb			531.9217	106.4	6.4	2096.5
245969015	2-Nitrotoluene	137 > 46			17111.732									
245969015	4-Nitrotoluene	137 > 46			17111.732									
245969015	3-Nitrotoluene	137 > 46			17111.732									
245969015	PETN	361 > 62			17111.732									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7977

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 245969015

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220042.wiff

Date Analyzed: 23-FEB-10 03:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Run 2/23/10

Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No

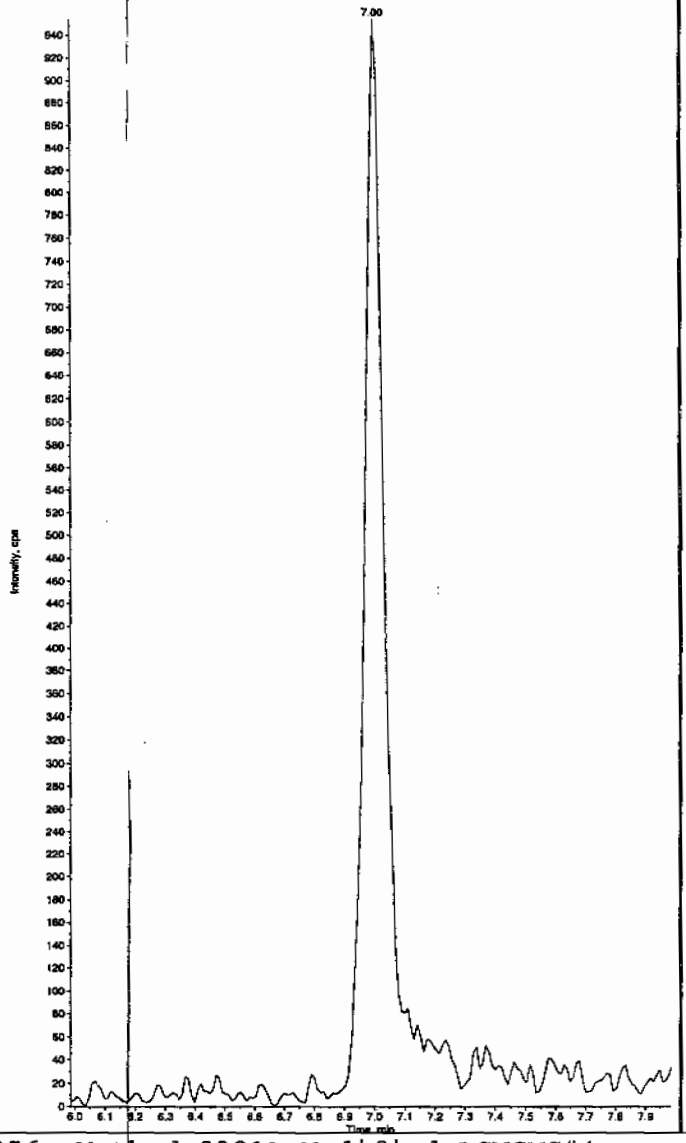

Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No

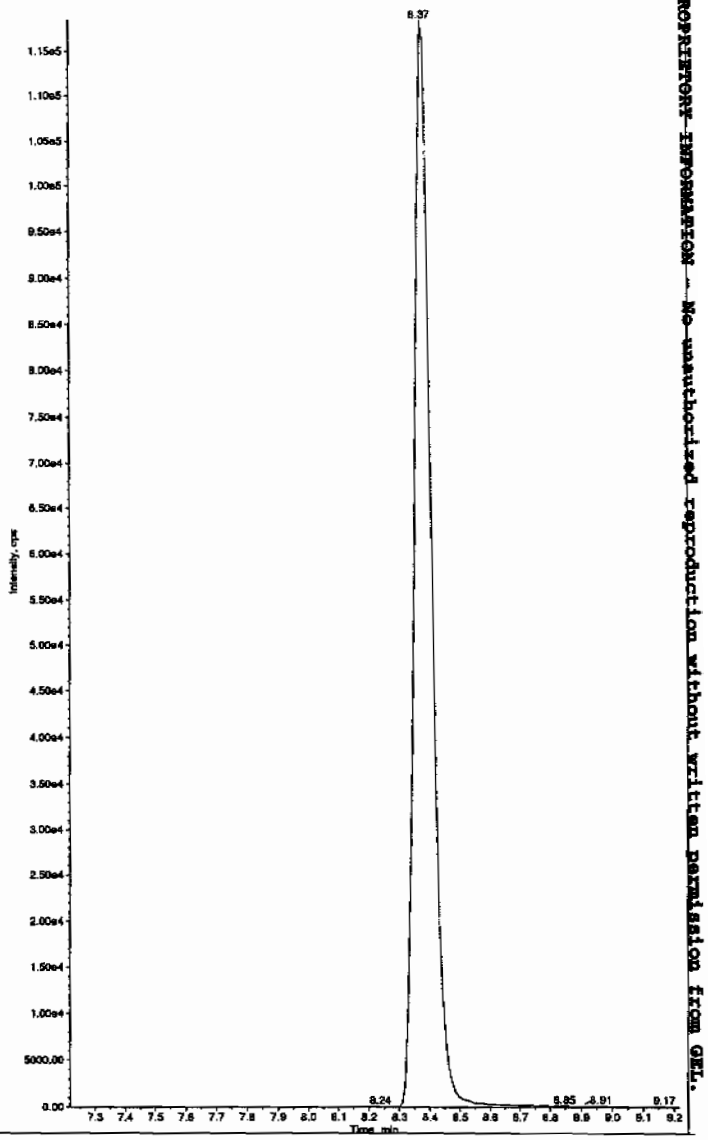

HMC 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 322. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.23e+006 counts
Height: 1114277.954 cps
Start Time: 8.26 min
End Time: 8.89 min

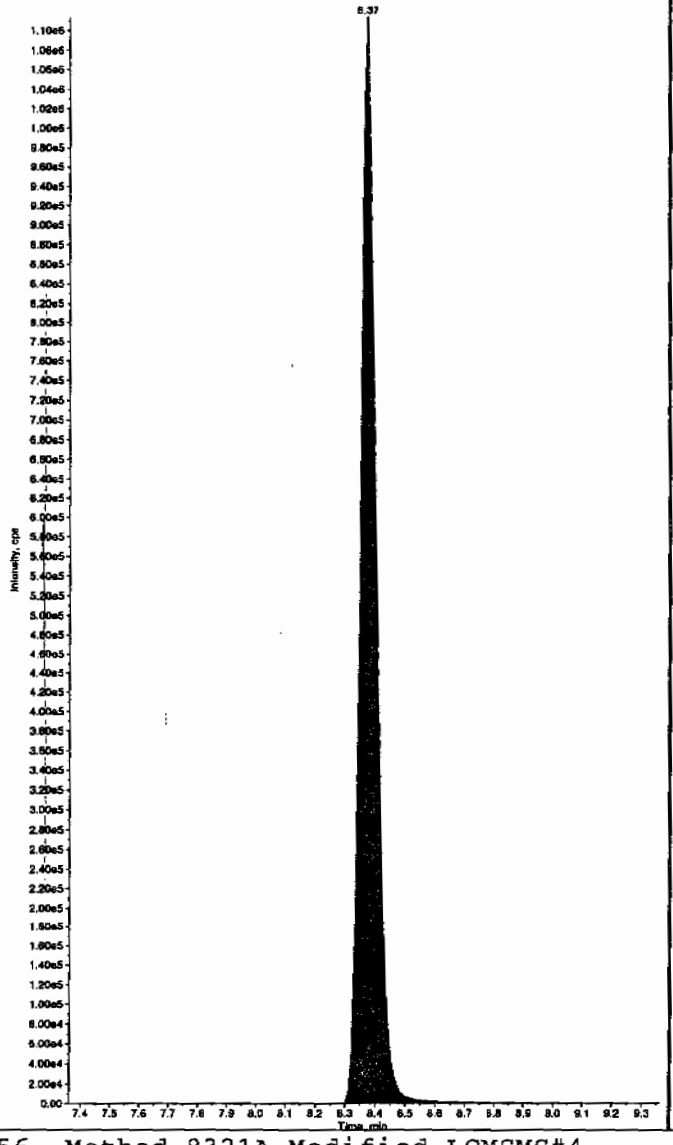

Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No

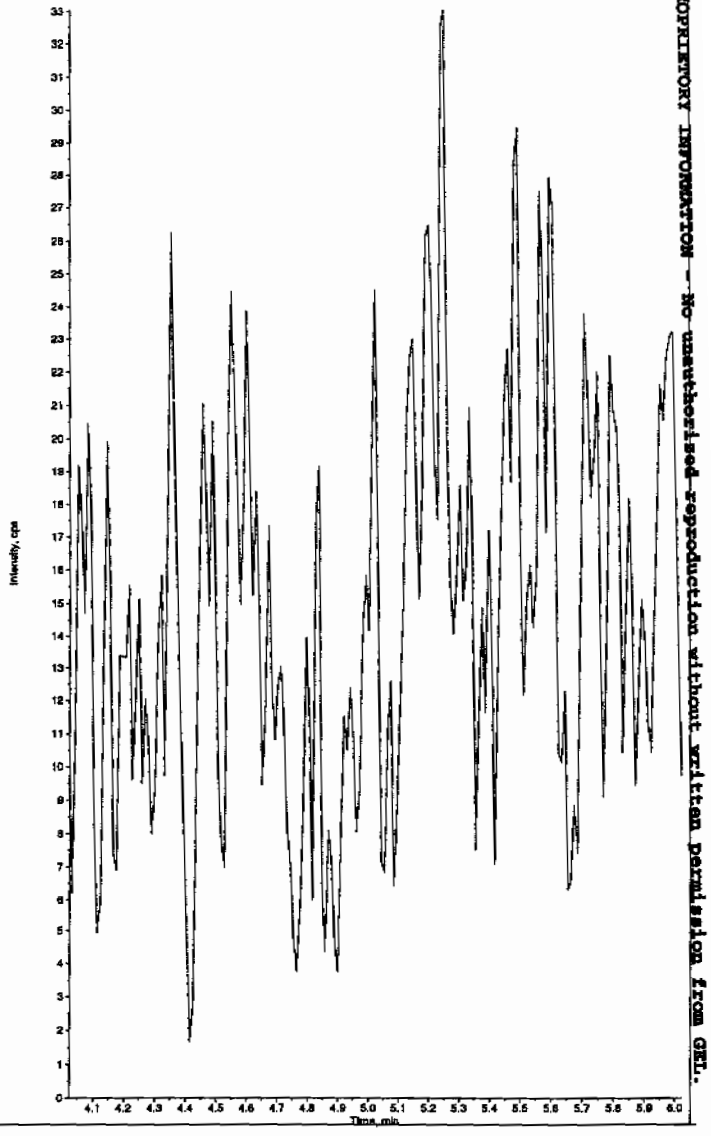

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No

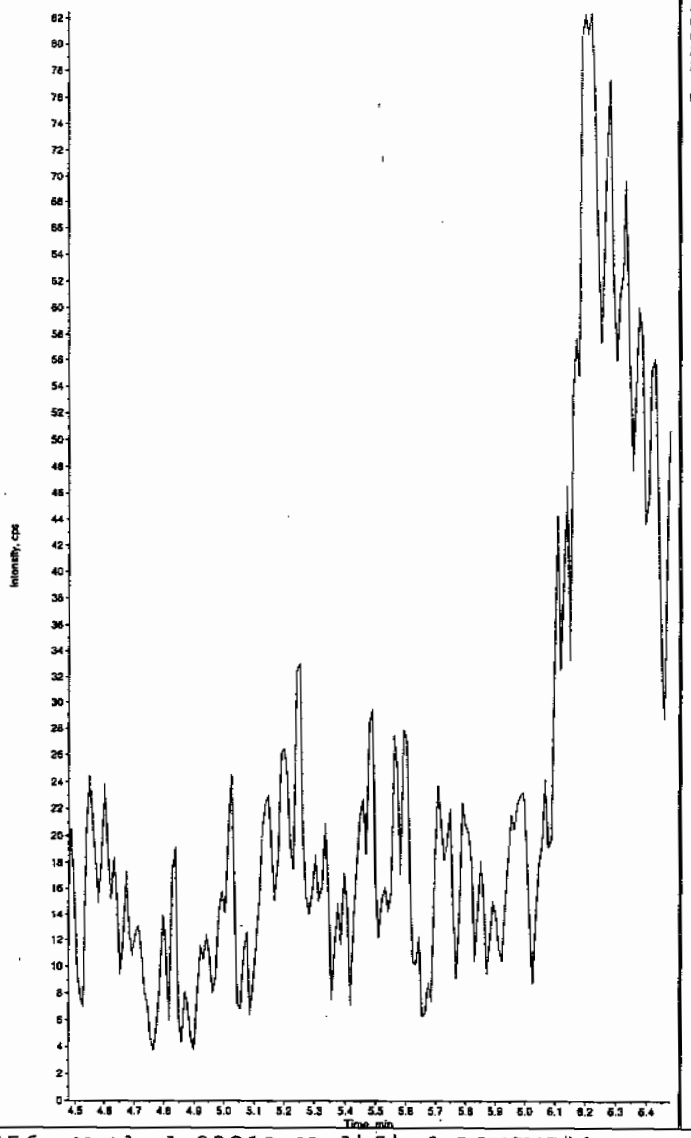

Sample Name: "245969015" Sample ID: "948575|2|LER" File: "EXS02220042.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 3:46:29 AM

Modified: No

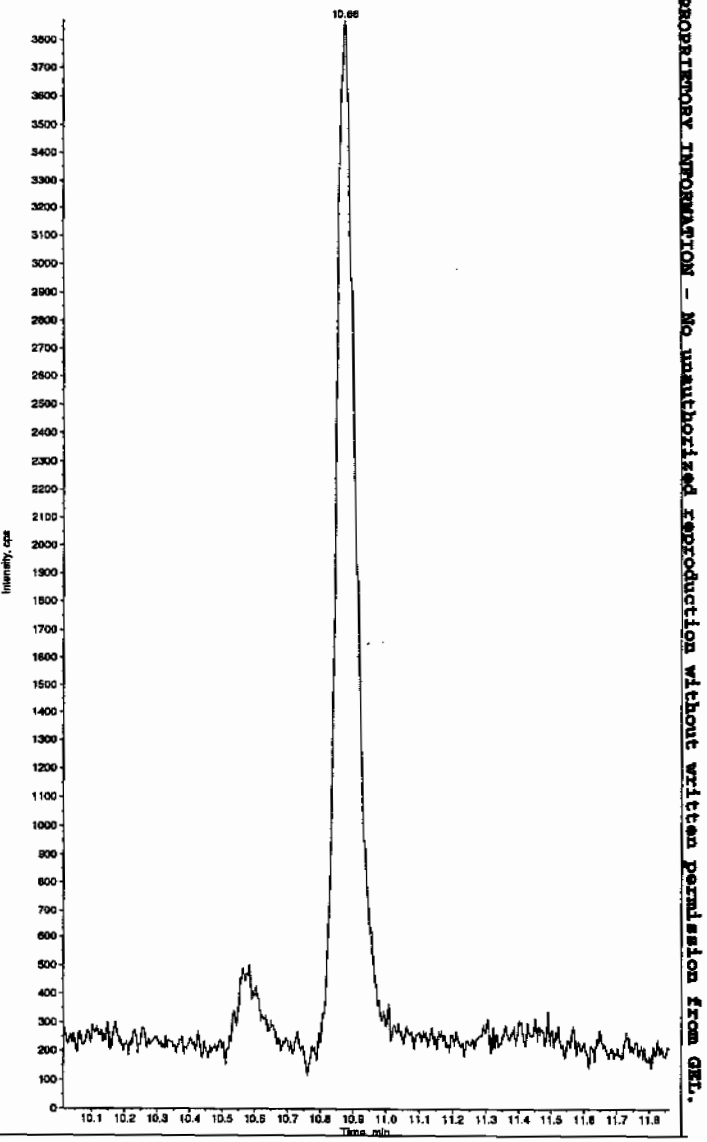

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1512

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0301003a	EXP0301004a	EXP0301005a	EXP0301006a	EXP0301007a	EXP0301008a			
Parmname									
1,3,5-Trinitrobenzene	3.94	3.776	3.064	3.285	3.334	3.259	3.443	9.828	
1,3-Dinitrobenzene-d4	5.612	5.852	6.175	5.983	5.62	5.535	5.796	4.328	
2,4,6-Trinitrotoluene	.267	.261	.328	.334	.377	.324	0.315	13.943	
2,4-Dinitrotoluene	.208	.246	.25	.254	.288	.263	0.252	10.426	
2,6-Dinitrotoluene	1.209	1.096	1.096	1.117	1.133	1.119	1.128	3.735	
2,6-Dinitrotoluene-d3	33.172	35.403	31.893	32.922	29.123	30.505	32.170	6.832	
2-Amino-4,6-dinitrotoluene	.315	.372	.358	.403	.402	.411	0.377	9.673	
3,4-Dinitrotoluene	.839	1.005	1.146	.983	1.067	.904	0.991	11.122	
4-Amino-2,6-dinitrotoluene	.235	.284	.272	.293	.32	.29	0.282	10.019	
HMX	3.849	3.259	3.73	4.343	4.56	3.148	3.815	14.813	
Nitrobenzene	.876	.868	1.079	.879	.84	.791	0.889	11.103	
RDX	2.412	2.499	2.592	3.205	3.222	2.537	2.745	13.408	
m-Dinitrobenzene	1.471	1.362	1.238	1.234	1.361	1.205	1.312	7.875	
m-Nitrotoluene	.123	.1	.094	.091	.094	.087	0.098	13.106	
o-Nitrotoluene	.16	.185	.191	.153	.156	.151	0.166	10.588	
p-Nitrotoluene	.067	.081	.106	.072	.076	.073	0.079	17.87	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1512

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0301003a	EXP0301004a	EXP0301005a	EXP0301006a	EXP0301007a	EXP0301008a					
Parmname:											
PETN	2325.51	4729.22	15138.1	24668.9	39677.2	43783.1	2.313	-.00087	17.184	.9959	
Tetryl	191.472	392.536	1477.14	2445.29	4498.25	4869.09	1.206	-.0003128	3.667	.9968	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030110expa.mdb, Time: Tue Mar 02 09:26:02 2010
Calibration: Untitled, Time: Tue Mar 02 09:59:16 2010

Compound name: HMX
Response Factor: 3.81482
RRF SD: 0.565071, % Relative SD: 14.8125
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

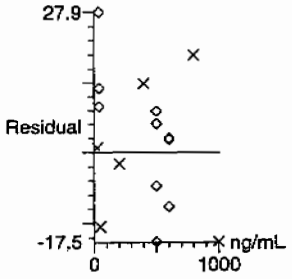

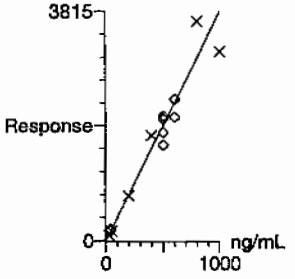

MM
3/2/10

Compound name: RDX
Response Factor: 2.74462
RRF SD: 0.368004, % Relative SD: 13.4082
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

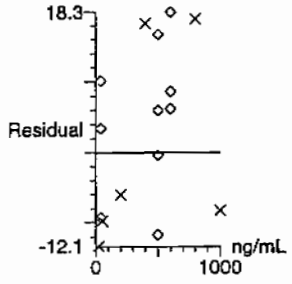

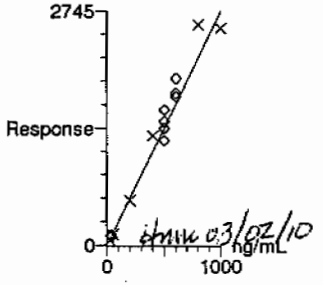

MM 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.44305
RRF SD: 0.338375, % Relative SD: 9.82776
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

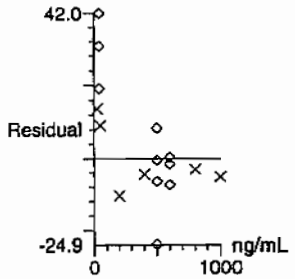

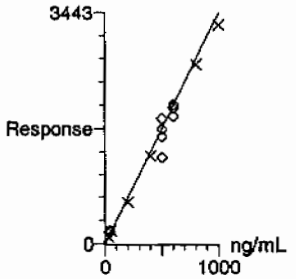

Compound name: 13-Dinitrobenzene-d4
Response Factor: 5.79615
RRF SD: 0.25088, % Relative SD: 4.32839
Response type: External Std, Area
Curve type: RF

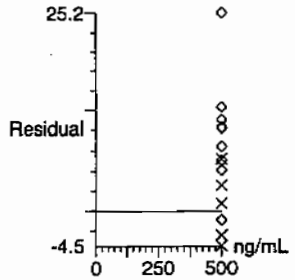

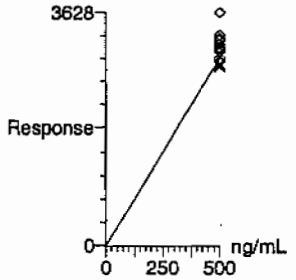

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Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.31187
RRF SD: 0.103314, % Relative SD: 7.87531
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

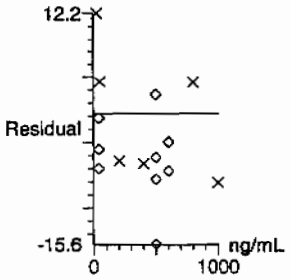

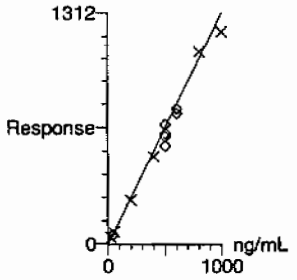

Compound name: Tetryl
Coefficient of Determination: 0.996770
Calibration curve: -0.000312791 * x^2 + 1.20554 * x + 3.66734
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

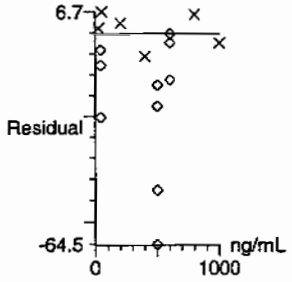

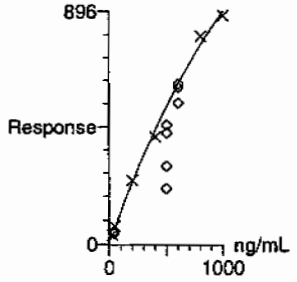

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: Nitrobenzene
Response Factor: 0.888932
RRF SD: 0.0986941, % Relative SD: 11.1025
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

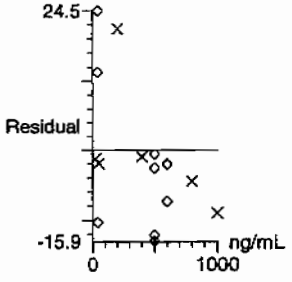

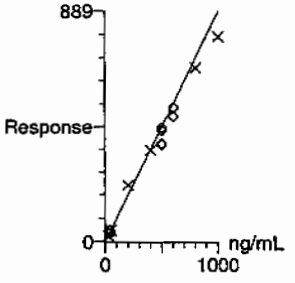

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.282269
RRF SD: 0.0282816, % Relative SD: 10.0194
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

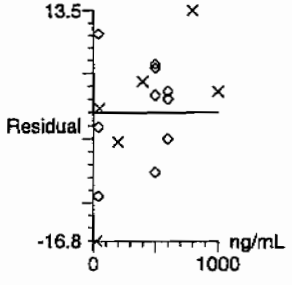

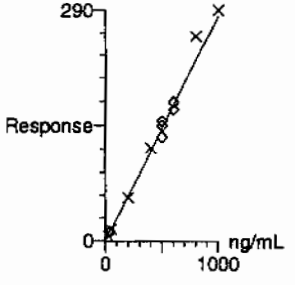

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.377019
RRF SD: 0.0364675, % Relative SD: 9.67257
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

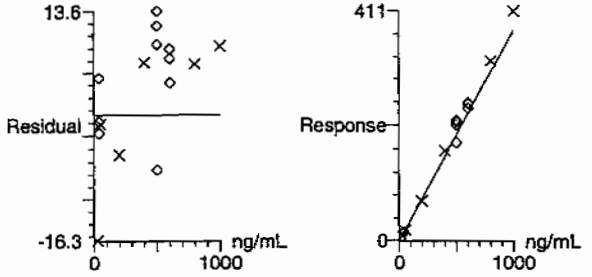

Compound name: 246-Trinitrotoluene
Response Factor: 0.31518
RRF SD: 0.0439443, % Relative SD: 13.9426
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

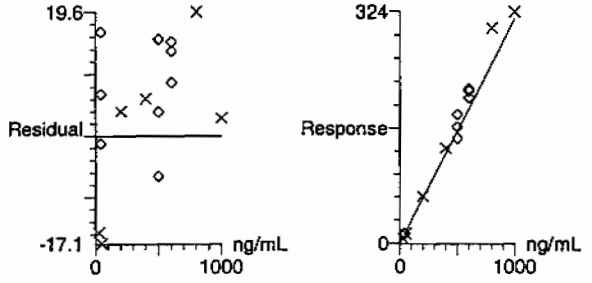

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Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.990666
RRF SD: 0.110182, % Relative SD: 11.122
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

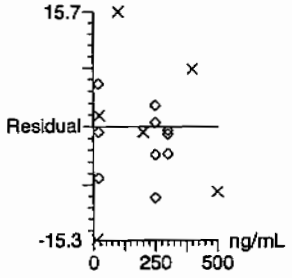

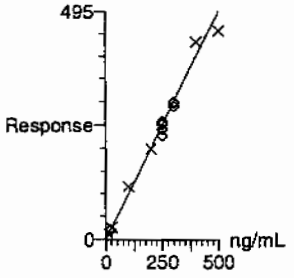

Compound name: 26-dinitrotoluene
Response Factor: 1.12824
RRF SD: 0.0421371, % Relative SD: 3.73478
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

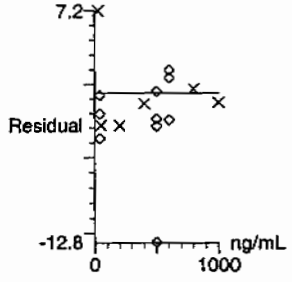

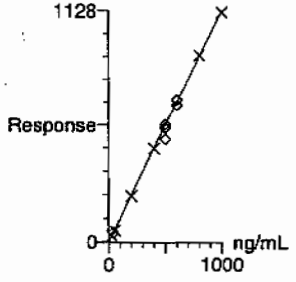

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.251541
RRF SD: 0.0262257, % Relative SD: 10.426
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

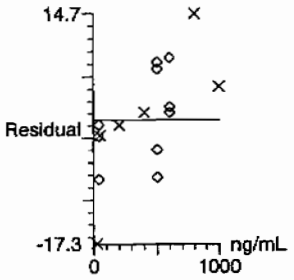

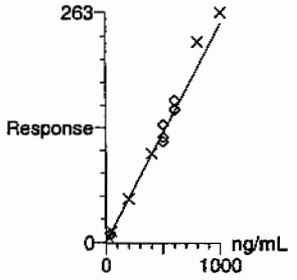

Compound name: 26-dinitrotoluene-d3
Response Factor: 32.1696
RRF SD: 2.19789, % Relative SD: 6.83218
Response type: External Std, Area
Curve type: RF

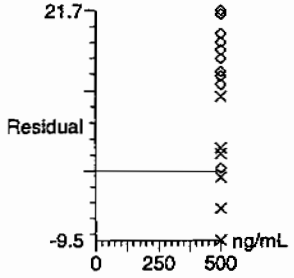

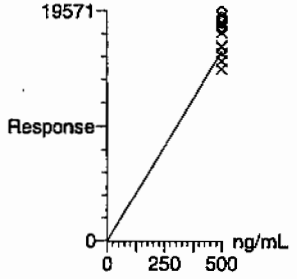

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.165882
RRF SD: 0.0175634, % Relative SD: 10.5879
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

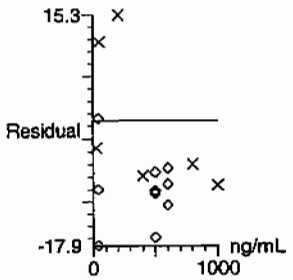

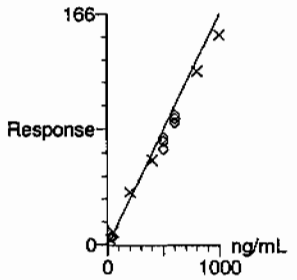

Compound name: 4-Nitrotoluene
Response Factor: 0.0792496
RRF SD: 0.014162, % Relative SD: 17.8701
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

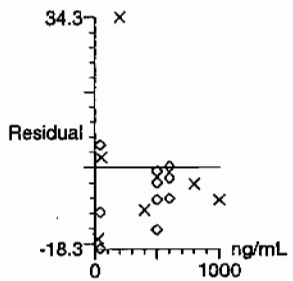

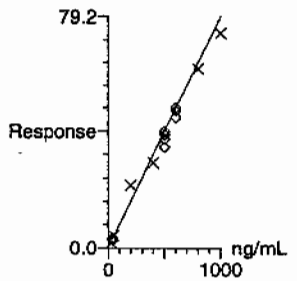

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0982133
RRF SD: 0.0128718, % Relative SD: 13.106
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

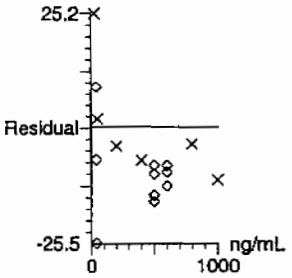

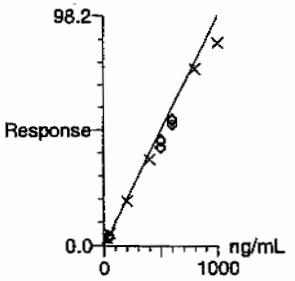

Compound name: PETN
Coefficient of Determination: 0.995946
Calibration curve: -0.000869973 * x^2 + 2.31341 * x + 17.1838
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

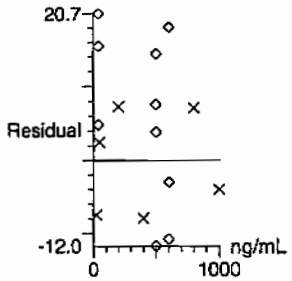

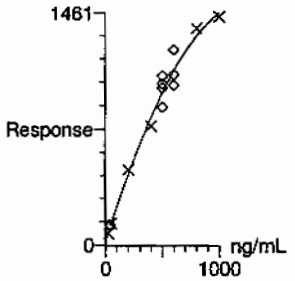

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0301010a

Analysis Date: 01-MAR-10 19:58

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	600.673	100	
1,3,5-Trinitrobenzene	600	553.636	92	
1,3-Dinitrobenzene-d4	500	552.255	110	
2,4,6-Trinitrotoluene	600	650.963	108	
2,4-Dinitrotoluene	600	610.999	102	
2,6-Dinitrotoluene	600	612.154	102	
2,6-Dinitrotoluene-d3	500	563.698	113	
2-Amino-4,6-dinitrotoluene	600	644.551	107	
3,4-Dinitrotoluene	300	296.974	99	
4-Amino-2,6-dinitrotoluene	600	579.777	97	
HMX	600	536.335	89	
Nitrobenzene	600	585.727	98	
PETN	600	533.297	89	
RDX	600	709.645	118	
Tetryl	600	514.366	86	
m-Dinitrobenzene	600	559.17	93	
m-Nitrotoluene	600	522.296	87	
o-Nitrotoluene	600	546.617	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301010a
Date: 01-Mar-2010
Time: 19:58:29
ID: WXX100301-07ICV
Vial: 1:1,B

MAT 3/2/10

HMX

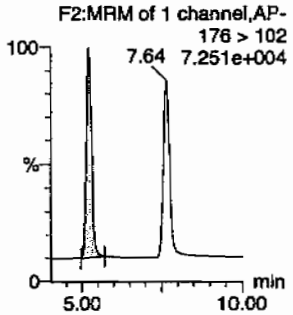

RDX

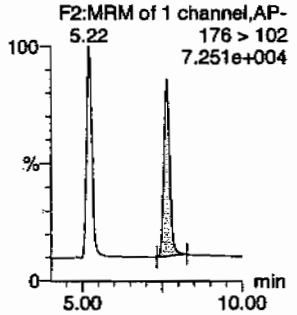

135-Trinitrobenzene

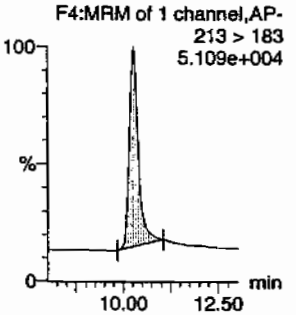

13-Dinitrobenzene-d4

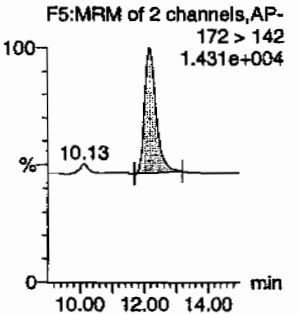

13-Dinitrobenzene

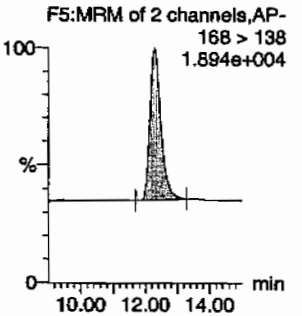

Tetryl

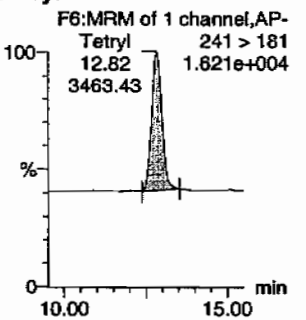

Nitrobenzene

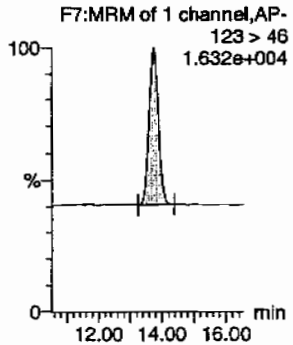

4-Amino-26-dinitrotoluene

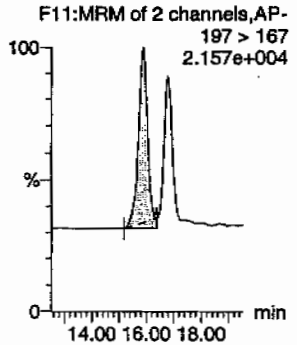

2-Amino-46-dinitrotoluene

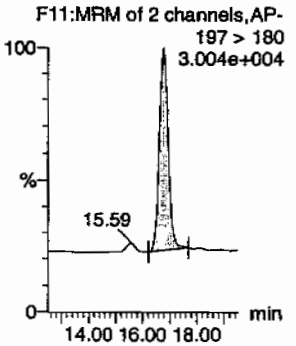

246-Trinitrotoluene

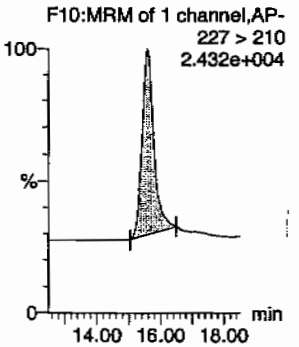

34-dinitrotoluene

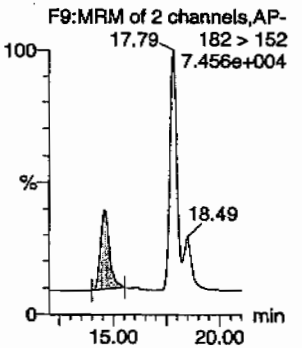

26-dinitrotoluene

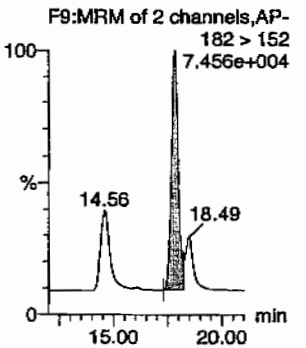

Hmm 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

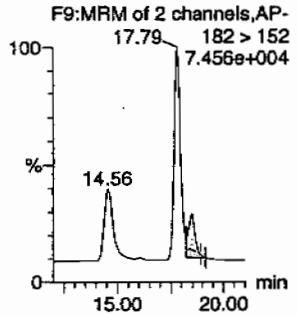

26-dinitrotoluene-d3

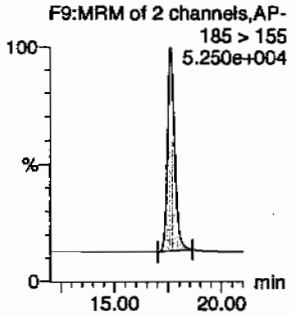

2-Nitrotoluene

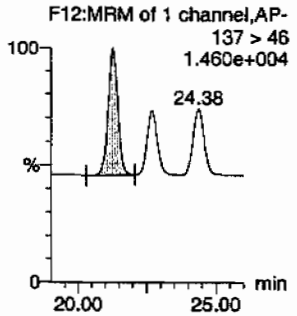

4-Nitrotoluene

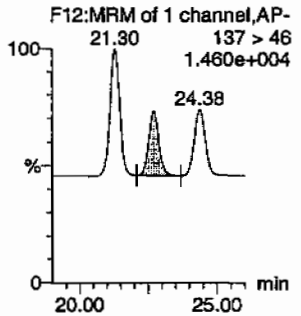

3-Nitrotoluene

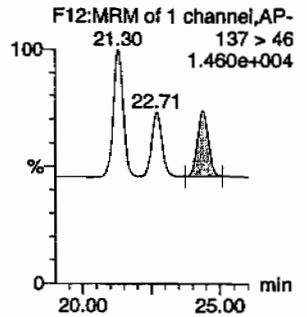

PETN

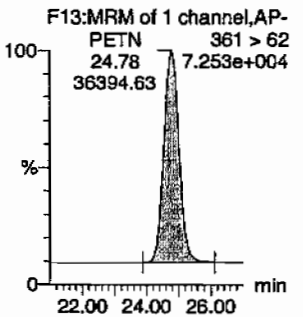

ID	Name	Trace	RT	Area	S Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07ICV	HMX	176 > 102	5.22	13098.474	3200.957	13098.474	2046.025	bb			536.3354	89.4	-10.6	1184.6
WXX100301-07ICV	RDX	176 > 102	7.64	12469.034	3200.957	12469.034	1947.704	bb			709.6451	118.3	18.3	994.7
WXX100301-07ICV	135-Trinitrobenzene	213 > 183	10.27	12203.332	3200.957	12203.332	1906.201	bb			553.6364	92.3	-7.7	963.4
WXX100301-07ICV	13-Dinitrobenzene-d4	172 > 142	12.17	3200.957		3200.957	3200.957	bb			552.2555	110.5	10.5	294.2
WXX100301-07ICV	13-Dinitrobenzene	168 > 138	12.31	4696.164	3200.957	4696.164	733.556	bb			559.1698	93.2	-6.8	388.3
WXX100301-07ICV	Tetryl	241 > 181	12.82	3463.432	3200.957	3463.432	540.999	bb			514.3662	85.7	-14.3	378.0
WXX100301-07ICV	Nitrobenzene	123 > 46	13.72	3333.296	3200.957	3333.296	520.672	bb			585.7272	97.6	-2.4	362.0
WXX100301-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.89	5935.360	18133.975	5935.360	163.653	MM	02-Mar-10	09:46:04	579.7767	96.6	-3.4	265.0
WXX100301-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.79	8813.408	18133.975	8813.408	243.008	bb			644.5509	107.4	7.4	424.6
WXX100301-07ICV	246-Trinitrotoluene	227 > 210	15.58	7441.112	18133.975	7441.112	205.170	bb			650.9626	108.5	8.5	640.1
WXX100301-07ICV	34-dinitrotoluene	182 > 152	14.56	10670.113	18133.975	10670.113	294.202	bb			296.9742	99.0	-1.0	440.7
WXX100301-07ICV	26-dinitrotoluene	182 > 152	17.79	25048.648	18133.975	25048.648	690.655	MM	02-Mar-10	09:37:31	612.1544	102.0	2.0	1325.9
WXX100301-07ICV	24-dinitrotoluene	182 > 152	18.49	5574.063	18133.975	5574.063	153.691	MM	02-Mar-10	09:28:46	610.9991	101.8	1.8	275.6
WXX100301-07ICV	26-dinitrotoluene-d3	185 > 155	17.64	18133.975		18133.975	18133.975	bb			563.6984	112.7	12.7	1372.6
WXX100301-07ICV	2-Nitrotoluene	137 > 46	21.30	3288.563	18133.975	3288.563	90.674	bb			546.6170	91.1	-8.9	801.1
WXX100301-07ICV	4-Nitrotoluene	137 > 46	22.71	1726.468	18133.975	1726.468	47.603	bb			600.6731	100.1	0.1	401.9
WXX100301-07ICV	3-Nitrotoluene	137 > 46	24.38	1860.416	18133.975	1860.416	51.296	bb			522.2960	87.0	-13.0	411.6
WXX100301-07ICV	PETN	361 > 62	24.78	36394.633	18133.975	36394.633	1003.493	bb			533.2968	88.9	-11.1	2990.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/01/10
Time of Injection: 1958
Standard Number: WXX100301-07ICV
Data File: EXP0301010a

HMX	89.4
RDX	118.3
135-TNB	92.3
13-DNB	93.2
Tetryl	85.7
Nitrobenzene	97.6
4A-26-DNT	96.6
2A-46-DNT	107.4
246-TNT	108.5
34-DNT(surr)	99.0
26-DNT	102.0
24-DNT	101.8
2-NT	91.1
4-NT	100.1
3-NT	87.0
PETN	88.9
Total	1558.9
Average	97.4

MTT 3/2/10

Hmc 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1512

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02220003.wifl	EXS02220004.wifl	EXS02220005.wifl	EXS02220006.wifl	EXS02220007.wifl	EXS02220008.wifl	EXS02220009.wifl					
Parmname:												
3,4-Dinitrotoluene	349000	660000	1640000	3130000	4800000	6040000	11400000	-9720	14000	-2.69	.9977	
3,5-Dinitroaniline	385000	817000	1720000	3510000	5180000	7210000	12200000	-71000	7870	-.865	.9993	
TATB	100000	195000	464000	973000	1450000	1810000	3550000	4110	1940	-.085	.9997	
tris(o-cresyl) phosphate	1130000	2200000	5170000	9780000	14700000	18100000	29900000	43000	21500	-3.29	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1512

Lab Code: GEL

Run Date: 01-MAR-10,22-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Average RF

Calibration Level:	19	20	21	22	23	24	25	Ave RF	RSD	Q
Data File:	EXS02220003.w	EXS02220004.w	EXS02220005.w	EXS02220006.w	EXS02220007.w	EXS02220008.w	EXS02220009.w			
Parmname										
2,6-Diamino-4-nitrotoluene	1550	1760	1990	1780	2210	1890	2120	1900.000	12	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1512

Lab Code: GEL

Run Date: 01-MAR-10.22-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Linear

Calibration Level:	19	20	21	22	23	24	25	Slope	Intercept	COD	Q
Data File:	3XS02220003.w	3XS02220004.w	3XS02220005.w	3XS02220006.w	3XS02220007.w	3XS02220008.w	3XS02220009.w				
Parmname											
2,4-Diamino-6-nitrotoluene	50600	96100	236000	641000	956000	1340000	2550000	1300	-27000	.999	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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022210ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit Quadratic Weighting None Iterate No
a0 4.11e+003
a1 1.94e+003
a2 -0.0847
Correlation coefficient 0.9997
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit Quadratic Weighting None Iterate No
a0 -7.1e+004
a1 7.87e+003
a2 -0.865
Correlation coefficient 0.9993
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit Quadratic Weighting None Iterate No
a0 -9.72e+003
a1 1.4e+004
a2 -2.69
Correlation coefficient 0.9977
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.9e+003
Standard deviation 228
%RSD 12
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Sam 2/23/10

Shirley 02/23/10

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022210ICAL

Fit Linear Weighting None Iterate No
Intercept -2.7e+004
Slope 1.3e+003
Correlation coefficient 0.9990
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit Quadratic Weighting None Iterate No
a0 4.3e+004
a1 2.15e+004
a2 -3.29
Correlation coefficient 0.9999
Use Area

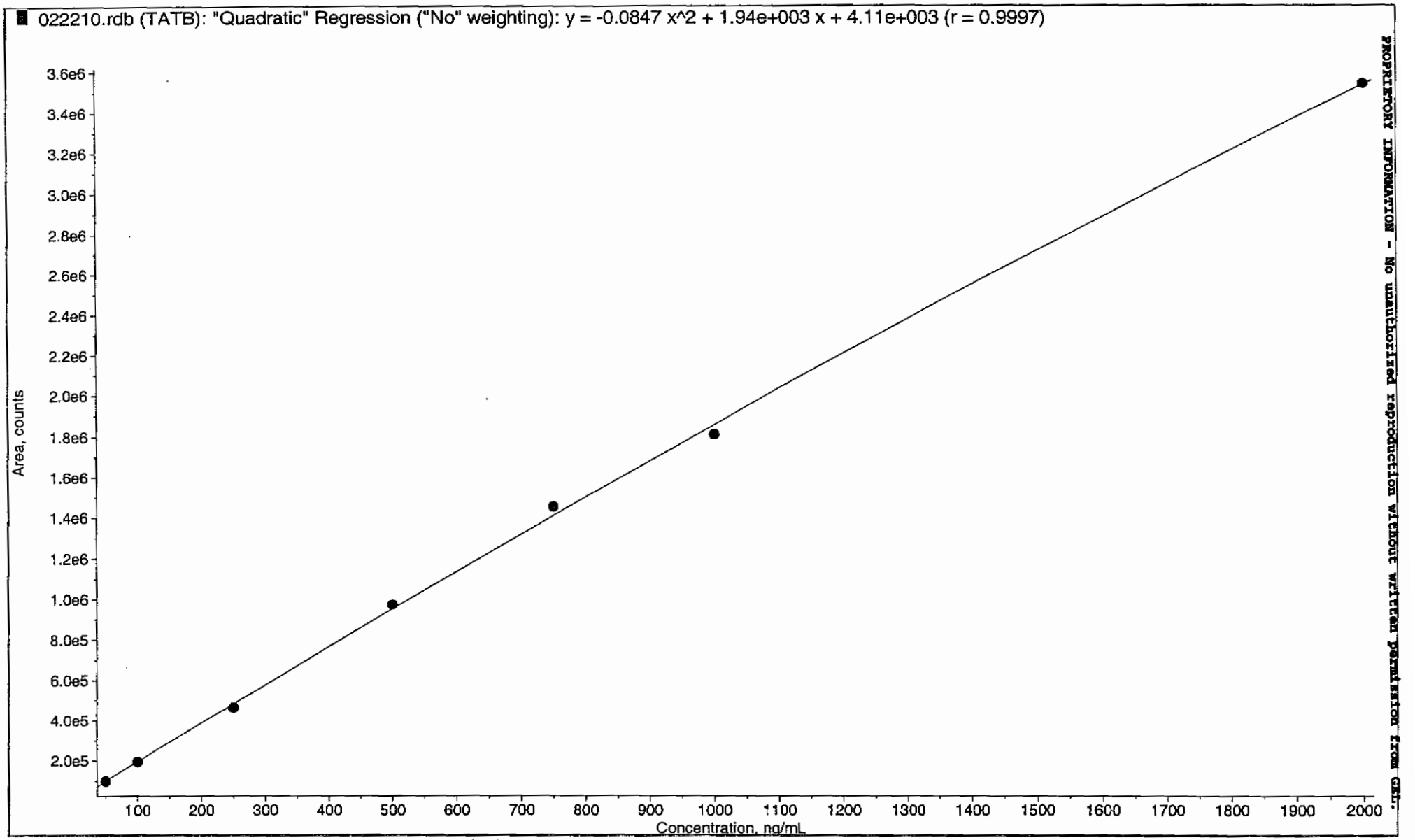

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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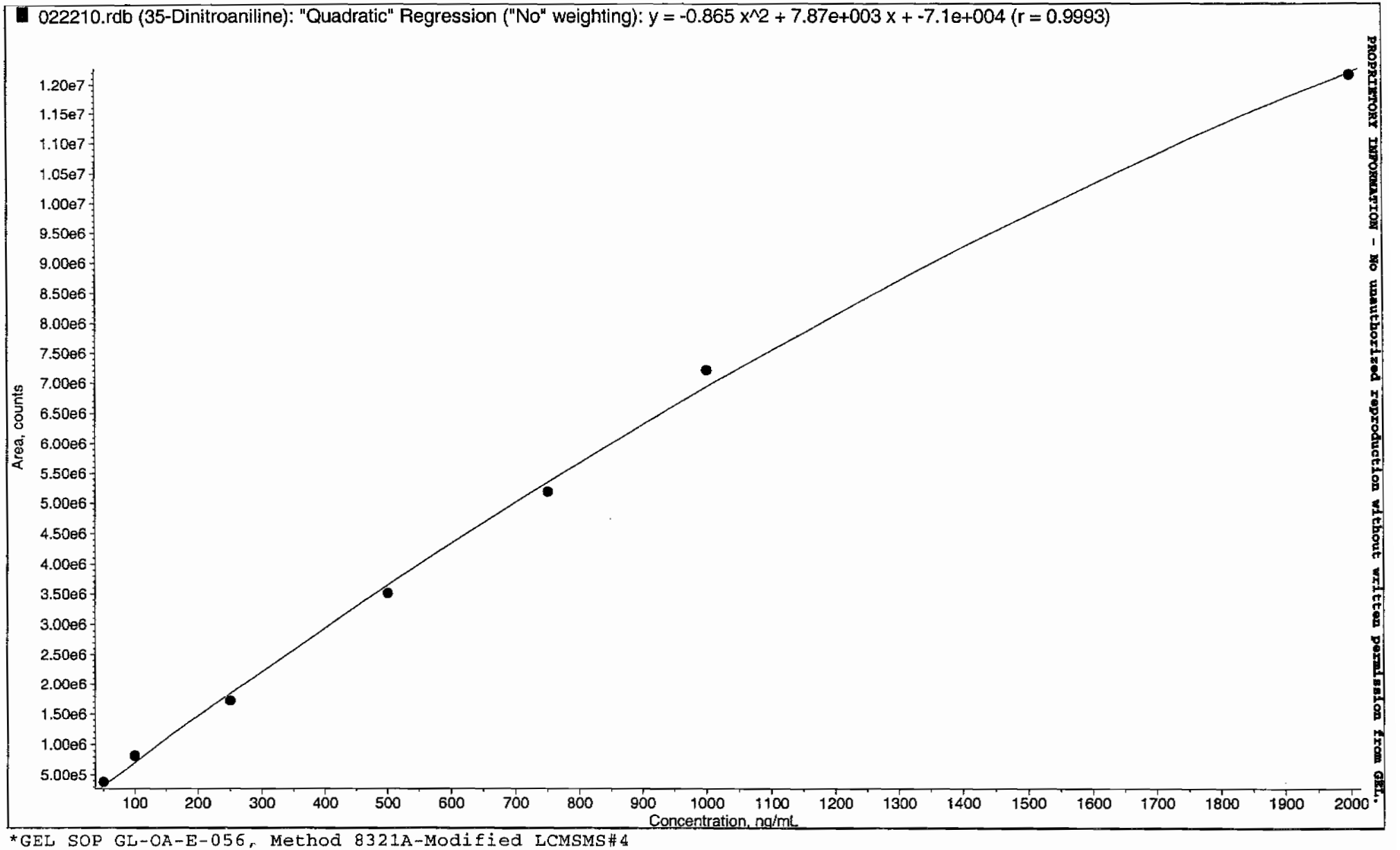

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

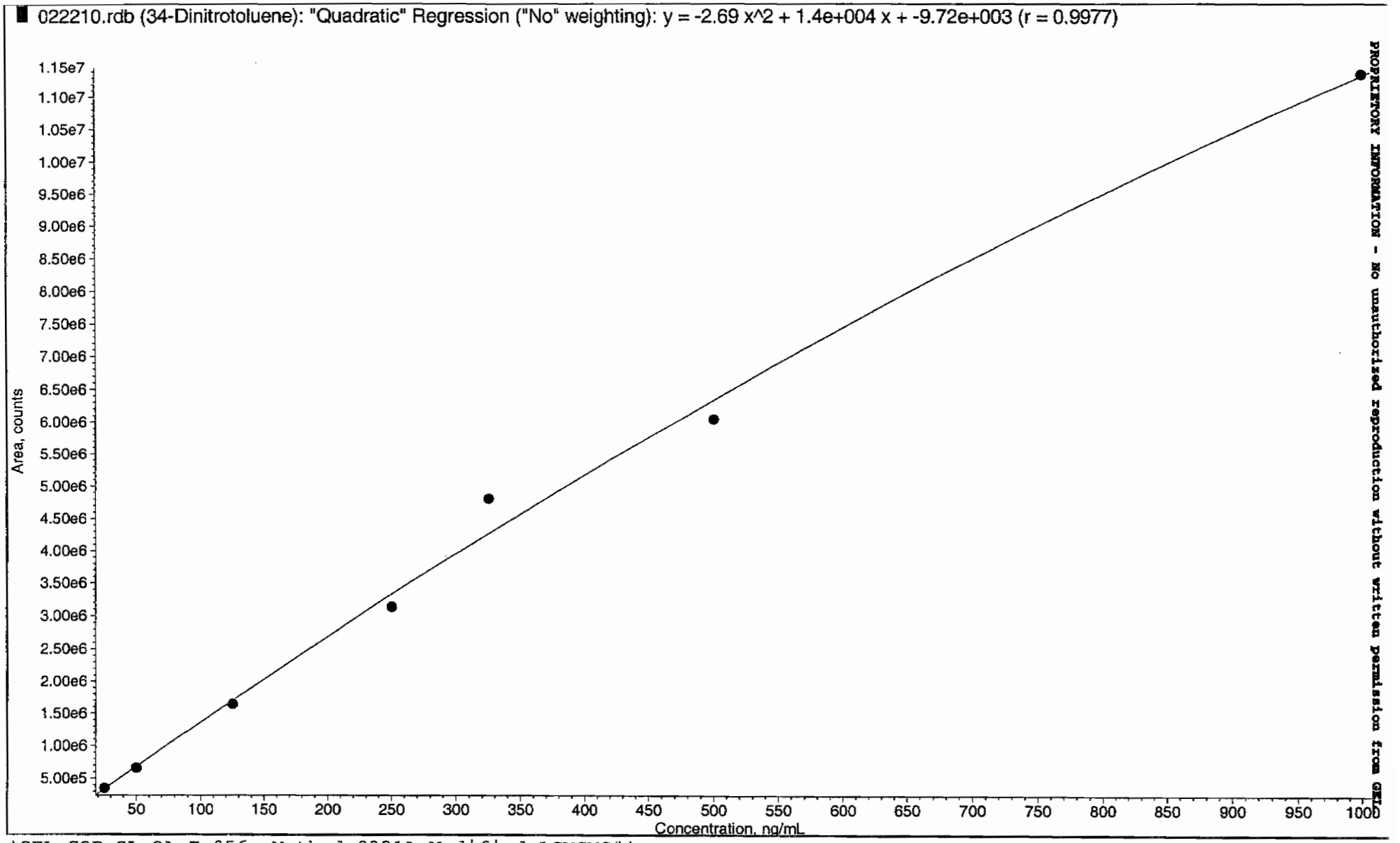

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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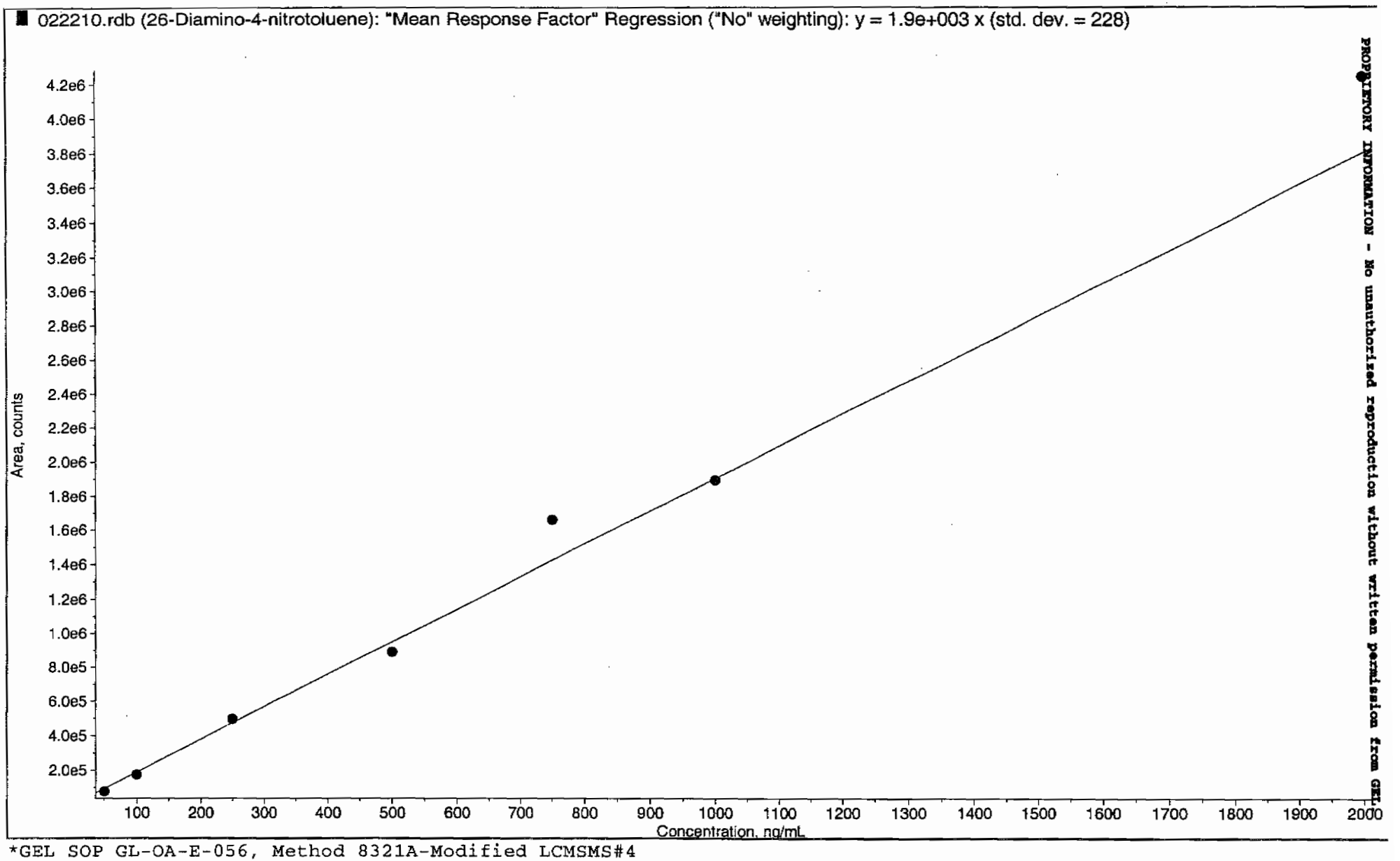

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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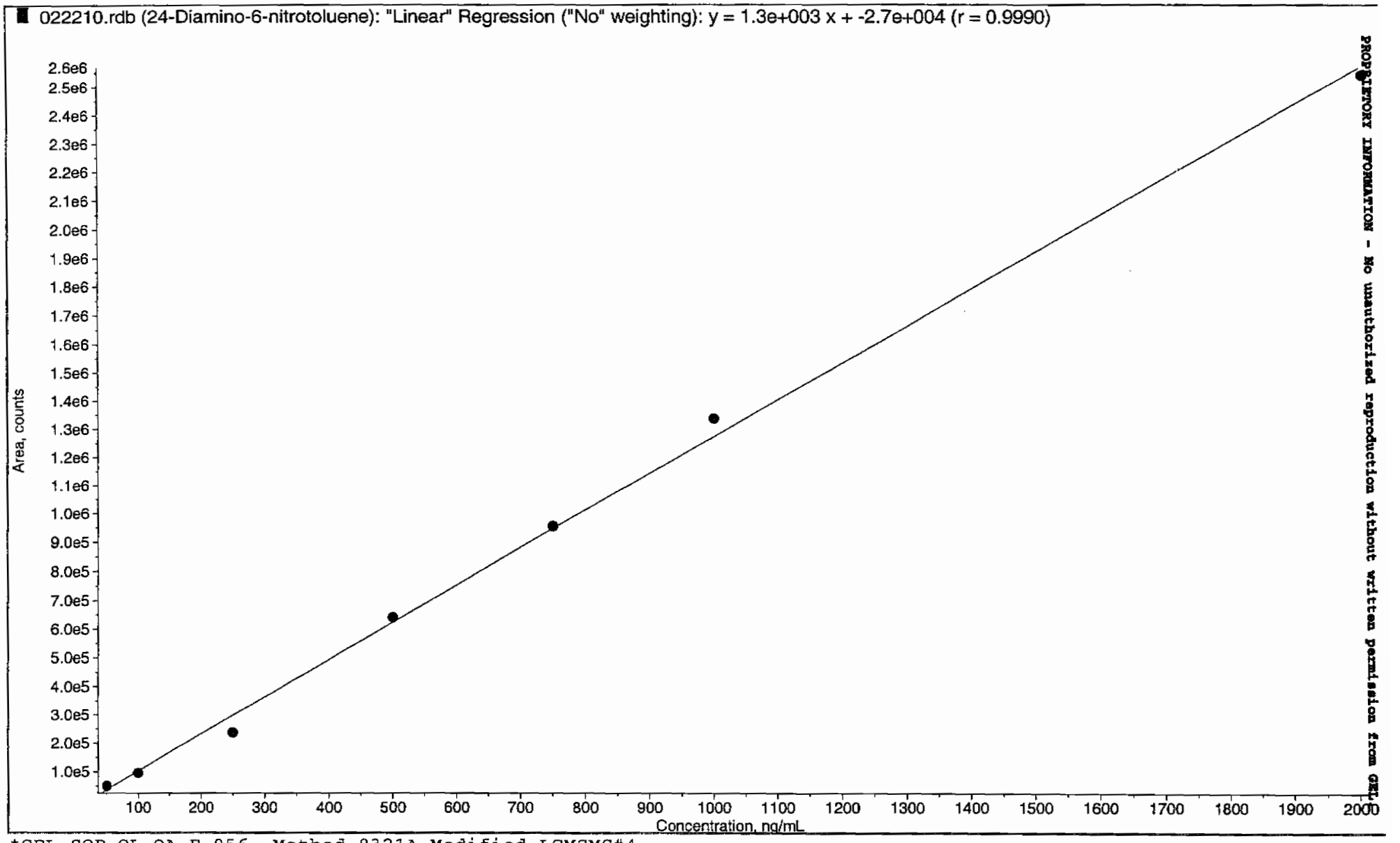

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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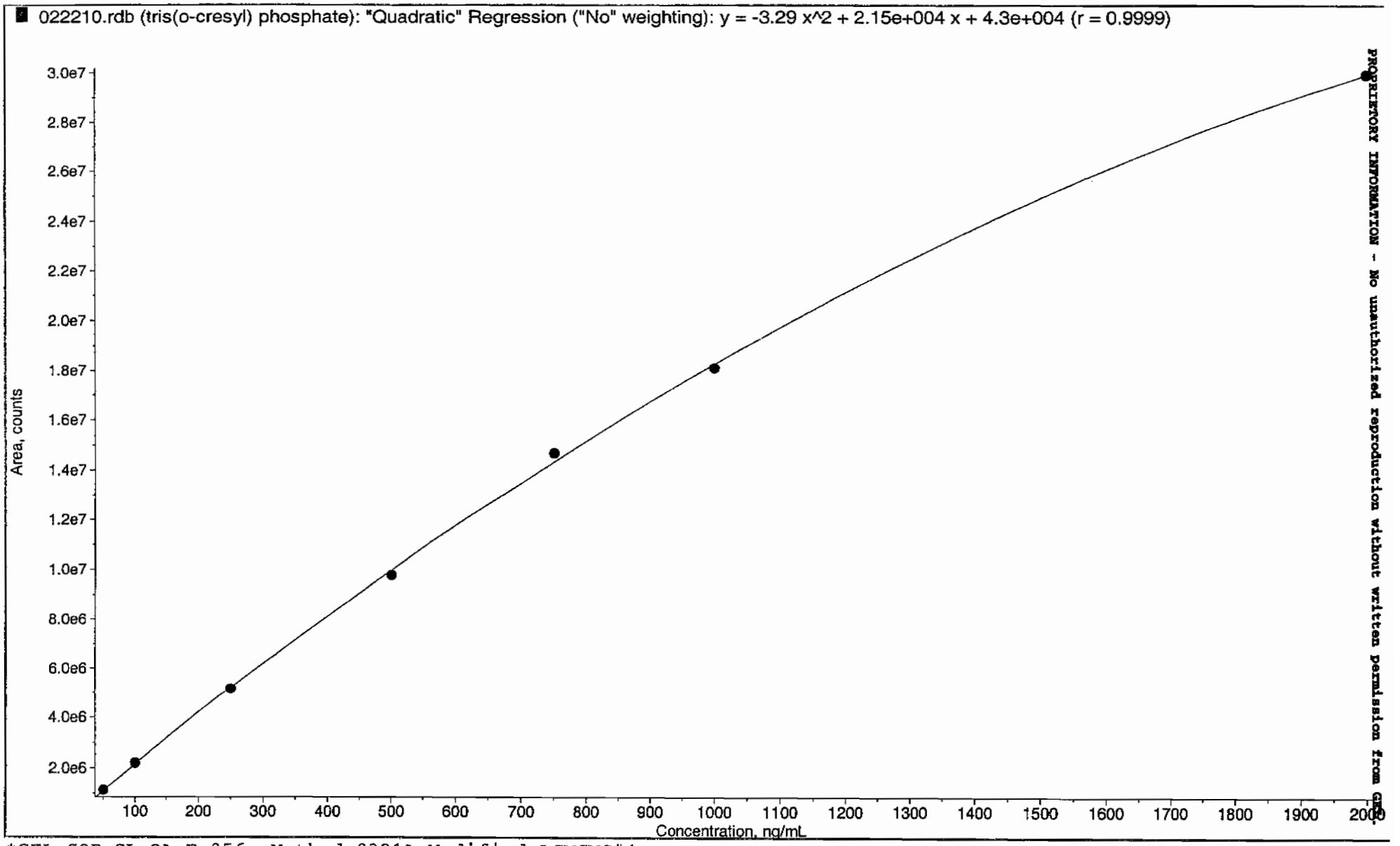

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02220011.wiff

Analysis Date: 22-FEB-10 19:38

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	562	112	
2,6-Diamino-4-nitrotoluene	500	578	116	
3,4-Dinitrotoluene	250	228	91	
3,5-Dinitroaniline	500	469	94	
TATB	500	461	92	
tris(o-cresyl) phosphate	500	492	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 2/23/10

Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 461. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 8.79e+005 counts
Height: 191509.689 cps
Start Time: 6.87 min
End Time: 7.50 min

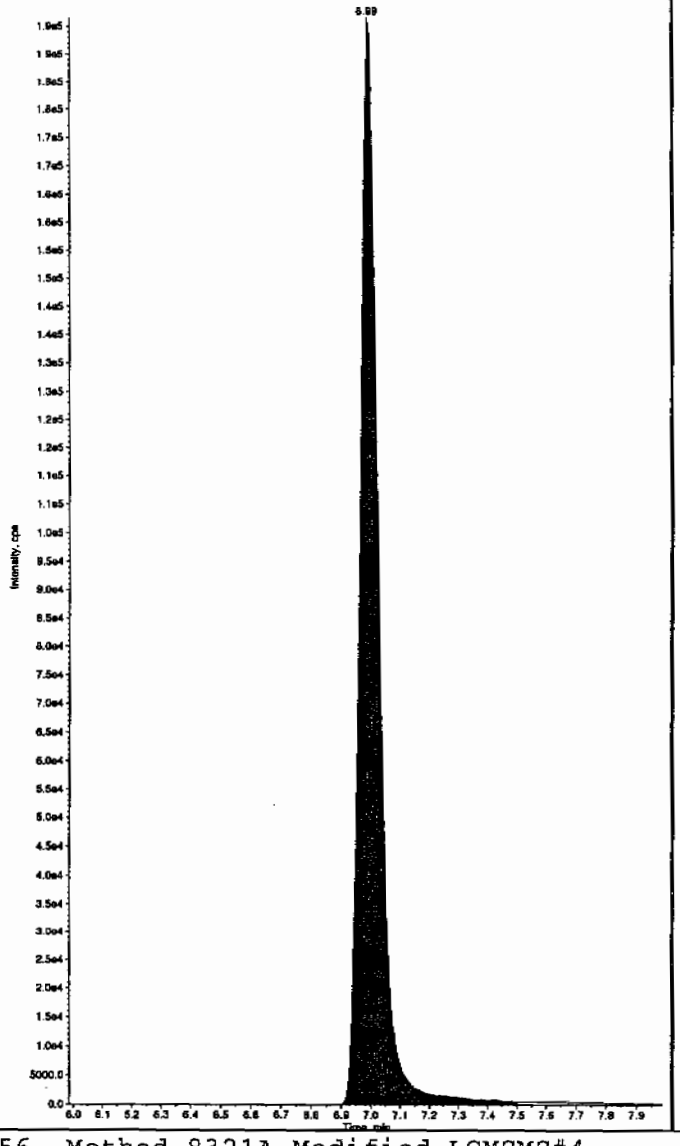

Sample Name: "WXX100222-26ICV" Sample ID: "|1|LER" File: "EXS02220011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 3.28e+006 counts
Height: 838502.686 cps
Start Time: 8.14 min
End Time: 8.32 min

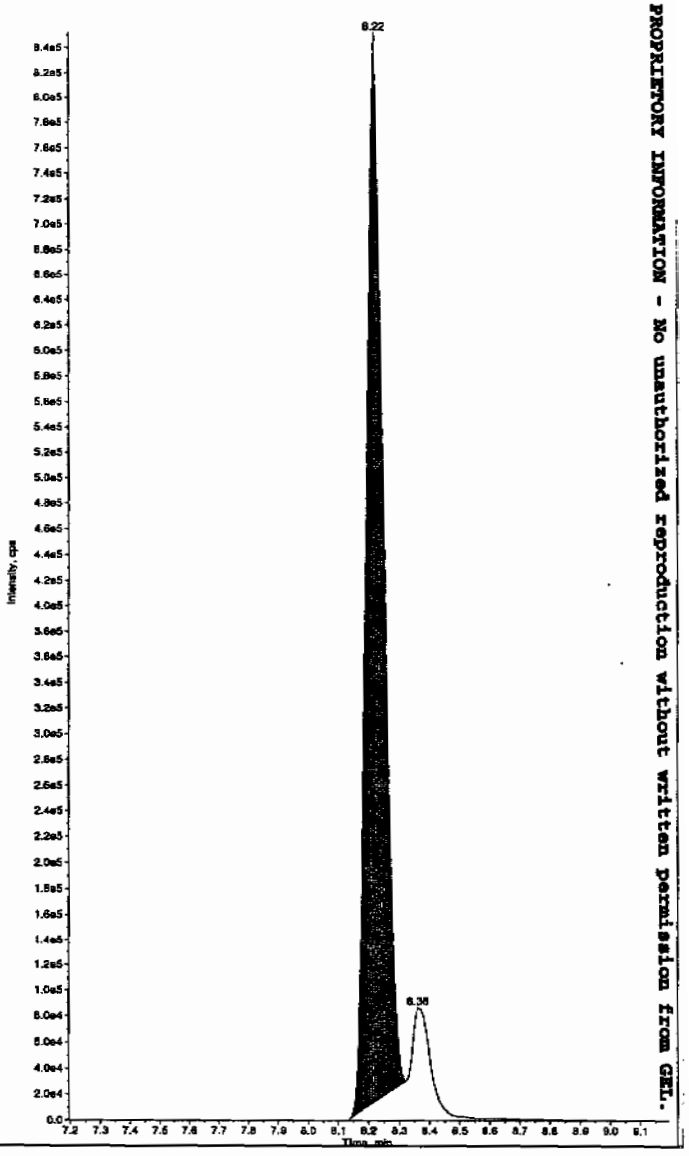

Hmm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Scan 2/23/10

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 461. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 8.79e+005 counts
Height: 191509.689 cps
Start Time: 6.87 min
End Time: 7.50 min

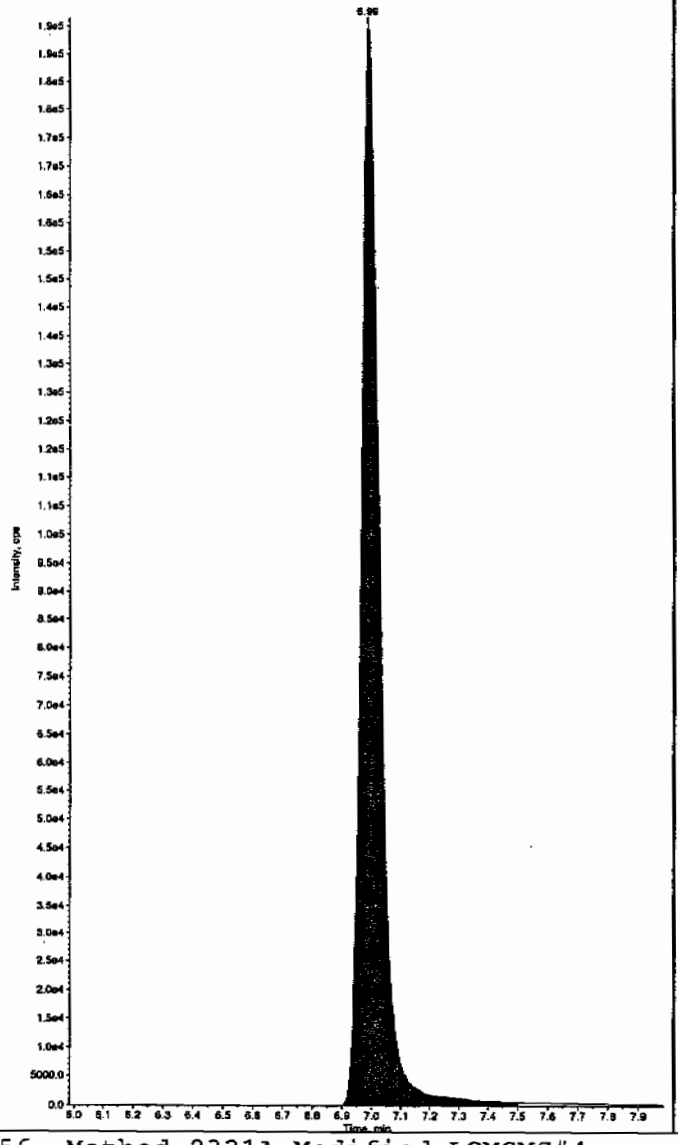

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 469. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 3.43e+006 counts
Height: 850566.030 cps
Start Time: 8.14 min
End Time: 8.32 min

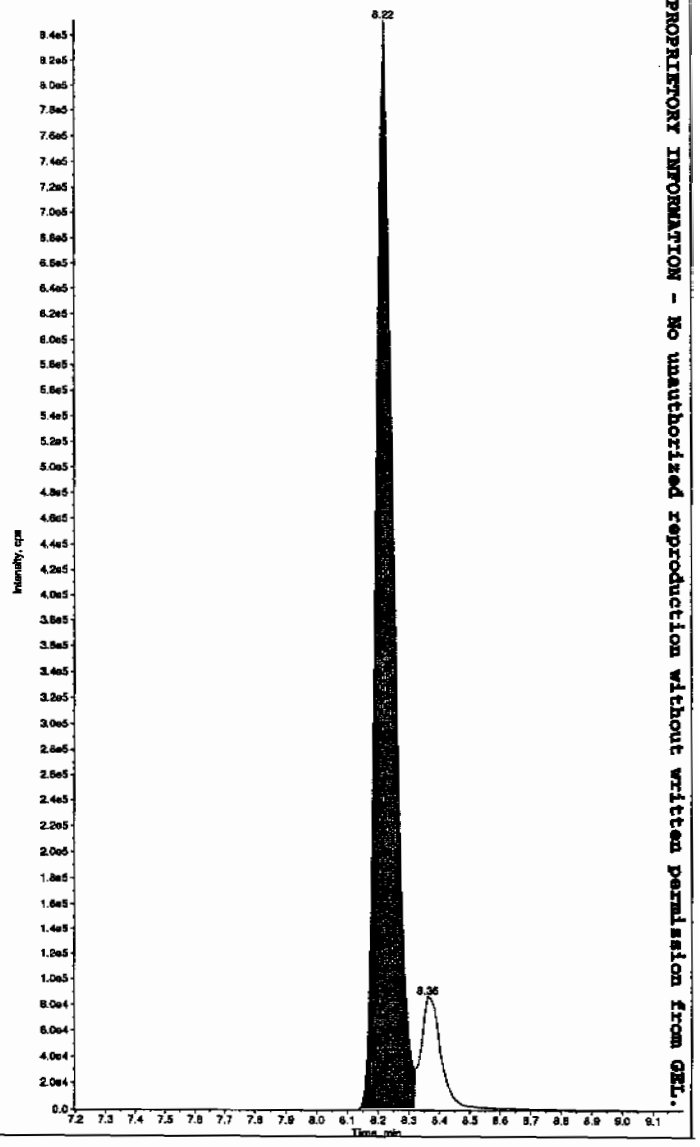

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "*"

```
Sample Index:          1
Sample Type:          QC
Concentration:      250.     ng/mL
Calculated Conc:    228.     ng/mL
Acq. Date:       2/22/2010
Acq. Time:       7:38:57 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         15.0    sec
Expected RT:        8.36   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.36   min
Area:        3.05e+006   counts
Height:        803488.770  cps
Start Time:         8.29   min
End Time:           8.64   min
```

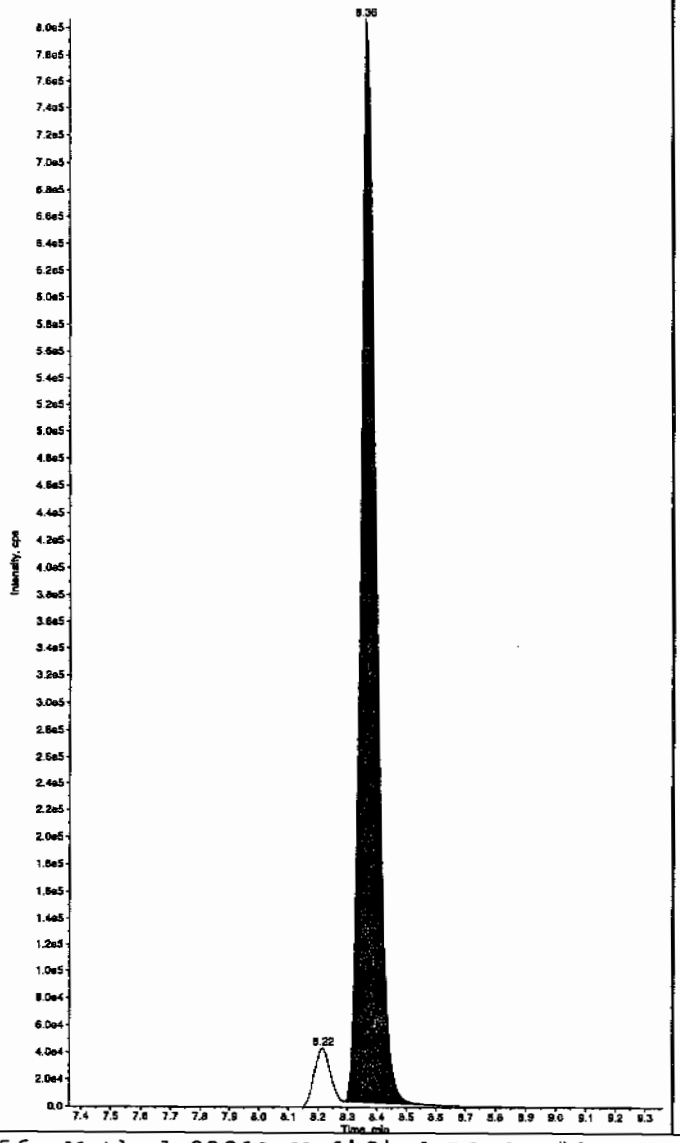

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "*"

```
Sample Index:          1
Sample Type:          QC
Concentration:      500.     ng/mL
Calculated Conc:    578.     ng/mL
Acq. Date:       2/22/2010
Acq. Time:       7:38:57 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.02   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.02   min
Area:        1.10e+006   counts
Height:        256377.838  cps
Start Time:         4.91   min
End Time:           5.31   min
```

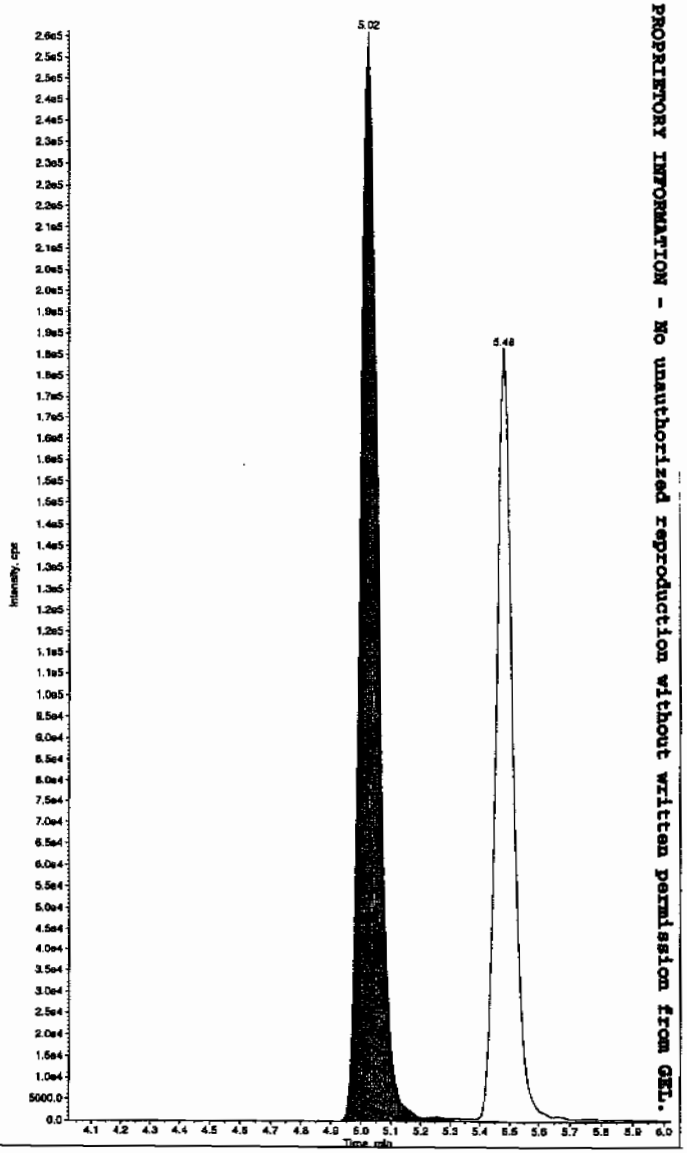

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 562. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 7.04e+005 counts
Height: 181330.688 cps
Start Time: 5.38 min
End Time: 5.72 min

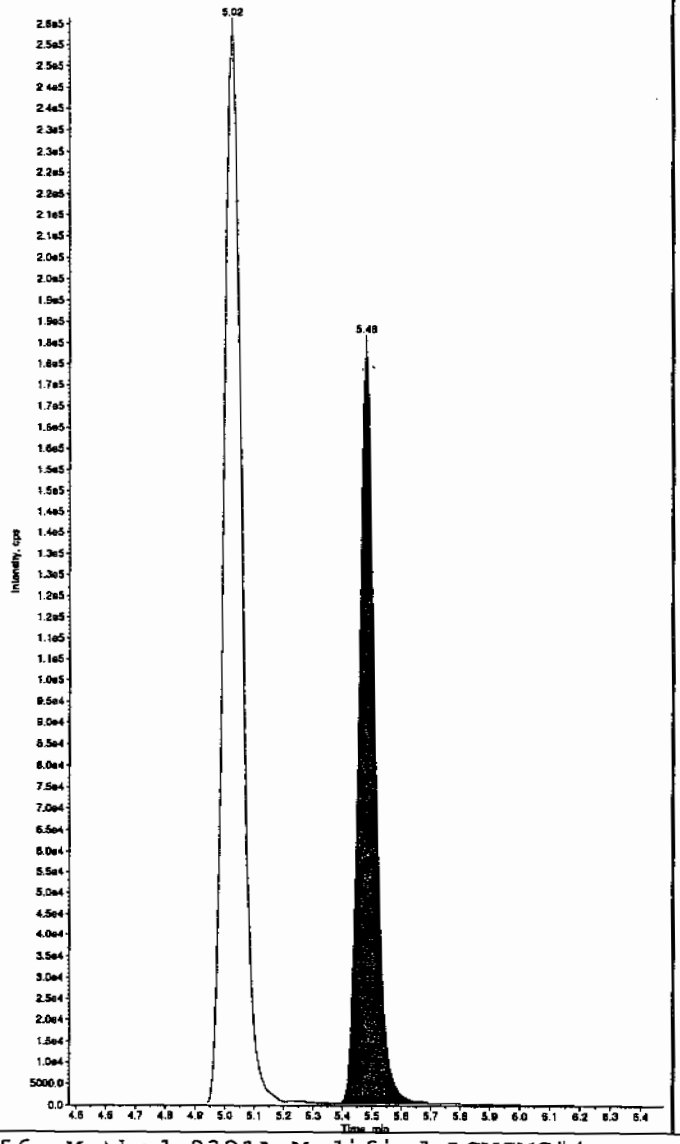

Sample Name: "WXX100222-25ICV" Sample ID: "[1]LER" File: "EXS02220011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 492. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 7:38:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.83e+006 counts
Height: 2255017.334 cps
Start Time: 10.8 min
End Time: 11.2 min

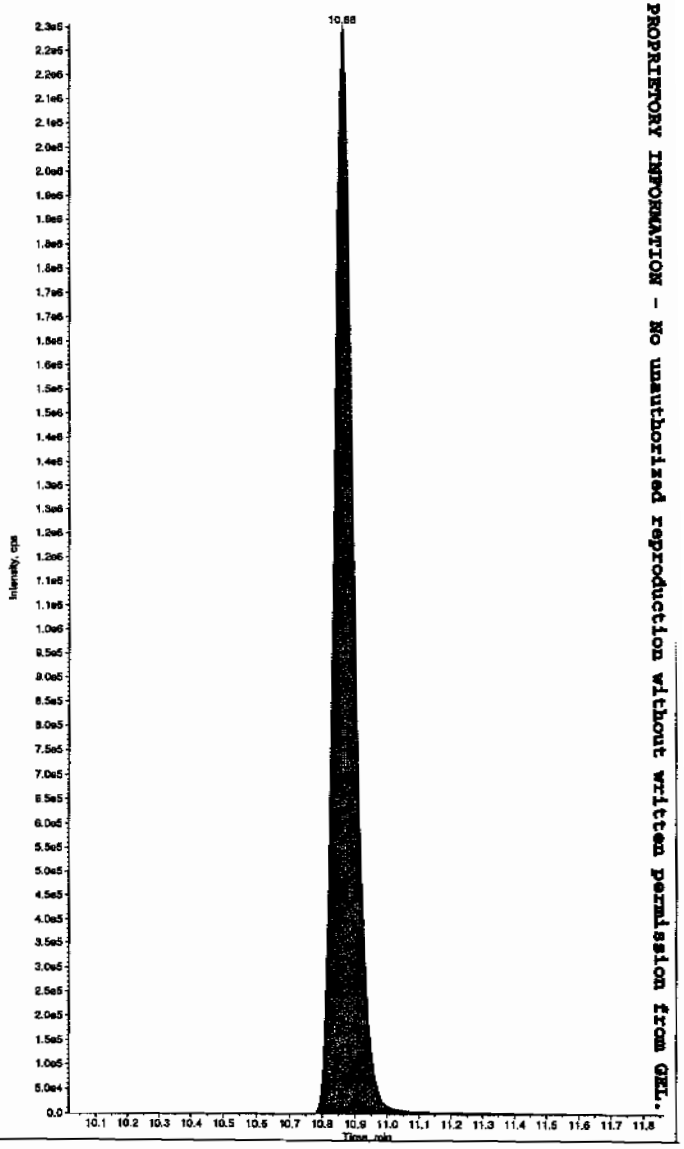

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301012a

Analysis Date: 01-MAR-10 20:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	39.044	98	
3,4-Dinitrotoluene	20	21.135	106	
4-Amino-2,6-dinitrotoluene	40	44.136	110	
HMX	40	43.681	109	
Nitrobenzene	40	34.954	87	
PETN	40	42.016	105	
RDX	40	36.598	91	
Tetryl	40	29.639	74	
m-Dinitrobenzene	40	37.394	93	
m-Nitrotoluene	40	29.818	75	
o-Nitrotoluene	40	36.123	90	
p-Nitrotoluene	40	42.037	105	
1,3,5-Trinitrobenzene	40	48.081	120	
1,3-Dinitrobenzene-d4	500	625.96	125	
2,4,6-Trinitrotoluene	40	39.523	99	
2,4-Dinitrotoluene	40	39.691	99	
2,6-Dinitrotoluene	40	39.923	100	
2,6-Dinitrotoluene-d3	500	592.475	118	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301012a
Date: 01-Mar-2010
Time: 20:57:26
ID: WXX100301-08CRI
Vial: 1:1,C

MATT 3/2/10

HMX

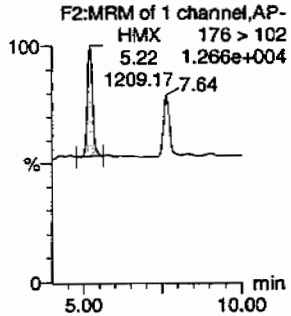

RDX

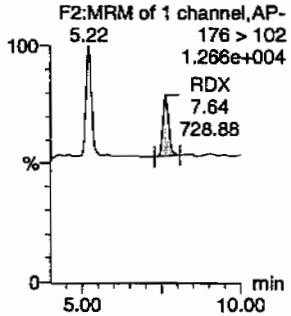

135-Trinitrobenzene

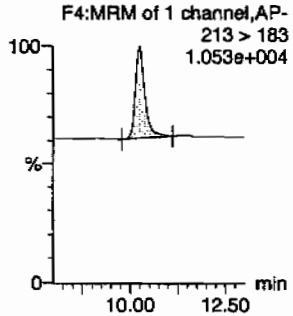

13-Dinitrobenzene-d4

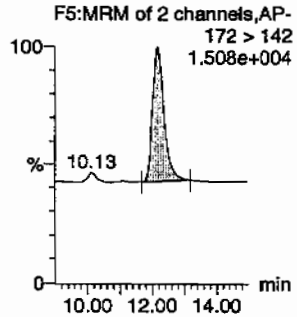

13-Dinitrobenzene

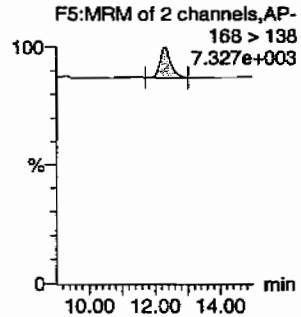

Tetryl

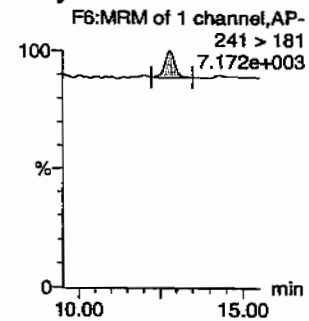

Nitrobenzene

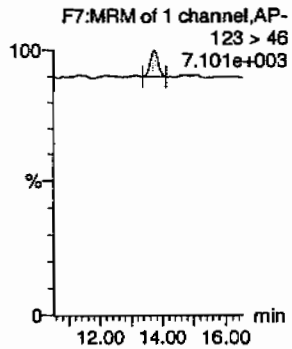

4-Amino-26-dinitrotoluene

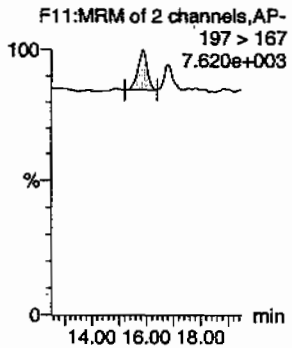

2-Amino-46-dinitrotoluene

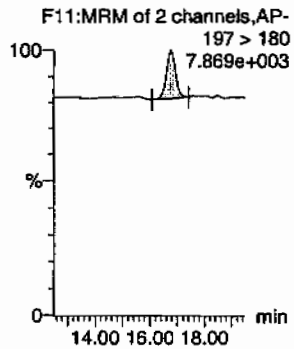

246-Trinitrotoluene

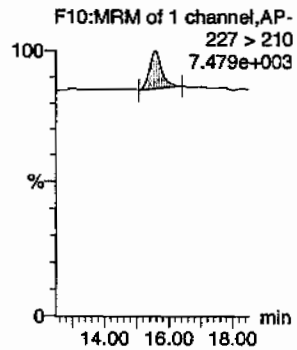

34-dinitrotoluene

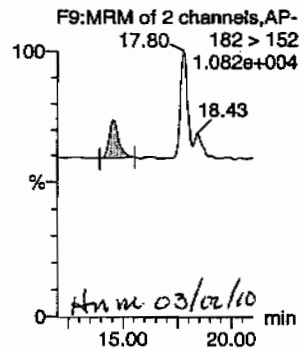

Hnm 03/02/10

26-dinitrotoluene

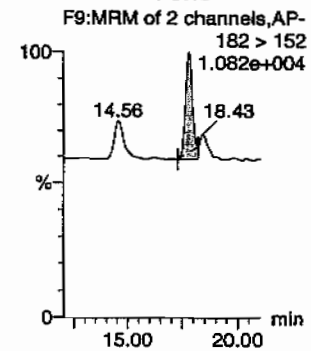

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

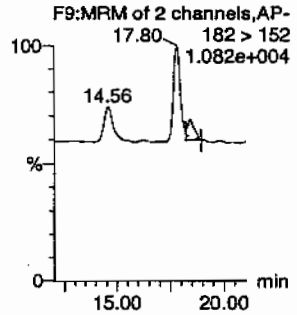

26-dinitrotoluene-d3

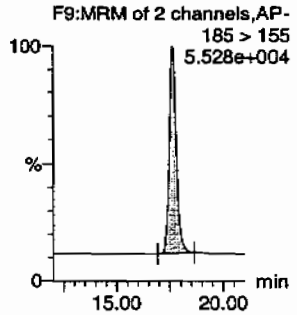

2-Nitrotoluene

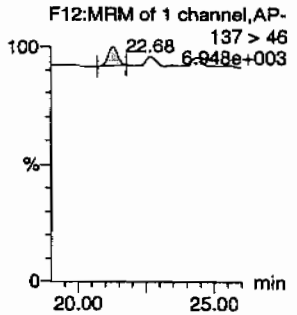

4-Nitrotoluene

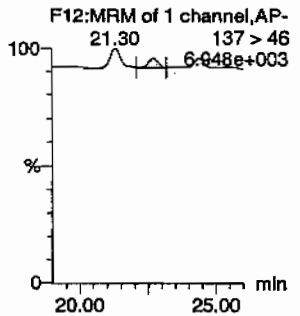

3-Nitrotoluene

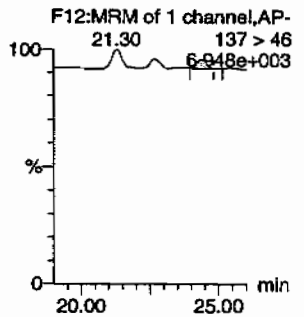

PETN

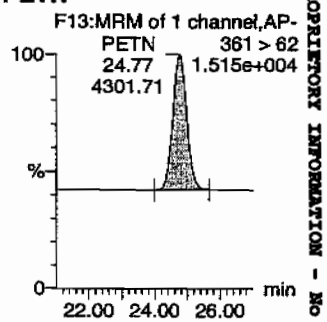

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1209.170	3628.160	1209.170	166.637	bb			43.6814	109.2	9.2	113.9
WXX100301-08CRI	RDX	176 > 102	7.64	728.884	3628.160	728.884	100.448	bb			36.5982	91.5	-8.5	63.0
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1201.239	3628.160	1201.239	165.544	bb			48.0805	120.2	20.2	248.5
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3628.160		3628.160	3628.160	bb			625.9601	125.2	25.2	268.9
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	355.969	3628.160	355.969	49.056	bb			37.3944	93.5	-6.5	37.6
WXX100301-08CRI	Tetryl	241 > 181	12.82	283.892	3628.160	283.892	39.123	bb			29.6389	74.1	-25.9	28.1
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	225.469	3628.160	225.469	31.072	bb			34.9544	87.4	-12.6	14.1
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	474.895	19059.697	474.895	12.458	MM	02-Mar-10	09:46:12	44.1355	110.3	10.3	26.7
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	561.125	19059.697	561.125	14.720	bb			39.0436	97.6	-2.4	75.2
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	474.848	19059.697	474.848	12.457	bb			39.5230	98.8	-1.2	43.7
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	798.141	19059.697	798.141	20.938	bb			21.1352	105.7	5.7	67.8
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.80	1717.012	19059.697	1717.012	45.043	MM	02-Mar-10	09:37:38	39.9234	99.8	-0.2	189.9
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.43	380.581	19059.697	380.581	9.984	MM	02-Mar-10	09:28:55	39.6911	99.2	-0.8	41.9
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	19059.697		19059.697	19059.697	bb			592.4746	118.5	18.5	2157.9
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.30	228.420	19059.697	228.420	5.992	bb			36.1234	90.3	-9.7	52.1
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.68	126.991	19059.697	126.991	3.331	bb			42.0368	105.1	5.1	27.3
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.38	111.634	19059.697	111.634	2.929	MM	02-Mar-10	09:27:09	29.8181	74.5	-25.5	24.7
WXX100301-08CRI	PETN	361 > 62	24.77	4301.707	19059.697	4301.707	112.848	bb			42.0160	105.0	5.0	1201.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/01/10
Time of Injection	2057
Standard Number	WXX100301-08CRI
Data File	EXP0301012a

HMX	109.2
RDX	91.5
135-TNB	120.2
13-DNB	93.5
Tetryl	74.1
Nitrobenzene	87.4
4A-26-DNT	110.3
2A-46-DNT	97.6
246-TNT	98.8
34-DNT(surr)	105.7
26-DNT	99.8
24-DNT	99.2
2-NT	90.3
4-NT	105.1
3-NT	74.5
PETN	105.0
Total	1562.2
Average	97.6

MATT 3/2/10

Hmc 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301017a

Analysis Date: 01-MAR-10 23:24

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	647.393	108	
Tetryl	600	583.501	97	
m-Dinitrobenzene	600	579.417	97	
m-Nitrotoluene	600	540.344	90	
o-Nitrotoluene	600	527.736	88	
p-Nitrotoluene	600	558.211	93	
1,3,5-Trinitrobenzene	600	590.293	98	
1,3-Dinitrobenzene-d4	500	531.866	106	
2,4,6-Trinitrotoluene	600	689.425	115	
2,4-Dinitrotoluene	600	651.929	109	
2,6-Dinitrotoluene	600	585.717	98	
2,6-Dinitrotoluene-d3	500	566.557	113	
2-Amino-4,6-dinitrotoluene	600	624.405	104	
3,4-Dinitrotoluene	300	298.589	100	
4-Amino-2,6-dinitrotoluene	600	616.104	103	
HMX	600	617.233	103	
Nitrobenzene	600	584.33	97	
PETN	600	581.43	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301017a
Date: 01-Mar-2010
Time: 23:24:52
ID: WXX100301-07CCV
Vial: 1:1,B

MEP 3/2/10

HMX

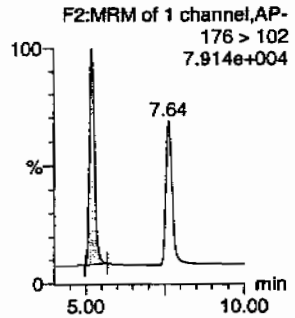

RDX

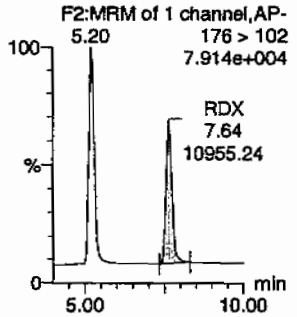

135-Trinitrobenzene

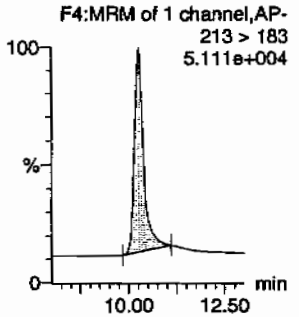

13-Dinitrobenzene-d4

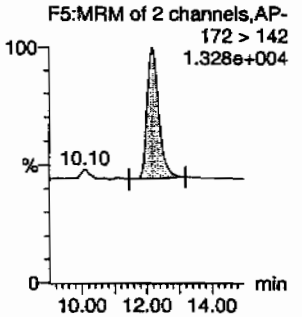

13-Dinitrobenzene

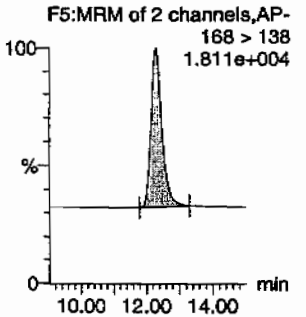

Tetryl

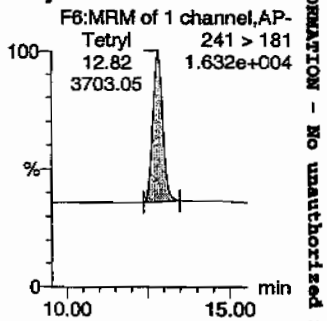

Nitrobenzene

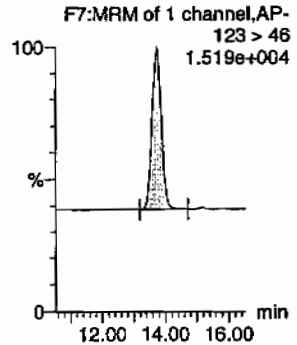

4-Amino-26-dinitrotoluene

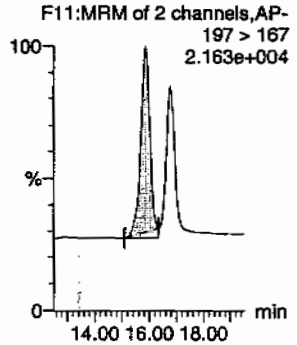

2-Amino-46-dinitrotoluene

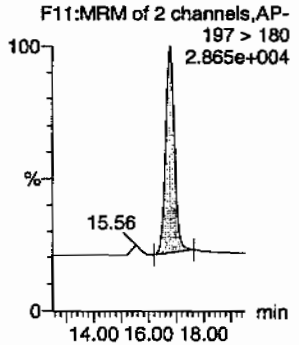

246-Trinitrotoluene

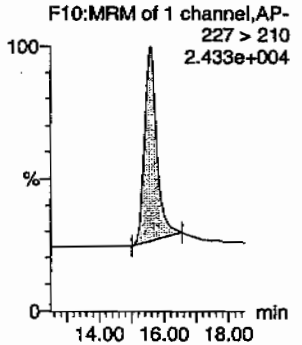

34-dinitrotoluene

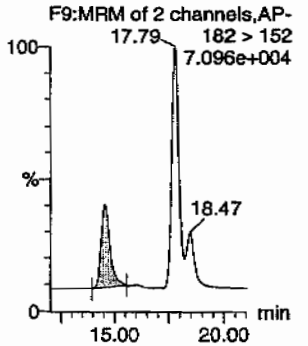

26-dinitrotoluene

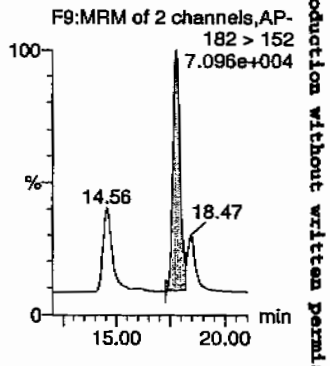

Hnm 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

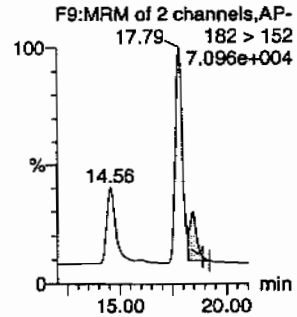

26-dinitrotoluene-d3

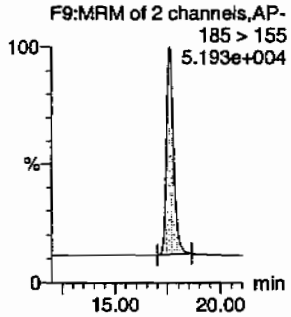

2-Nitrotoluene

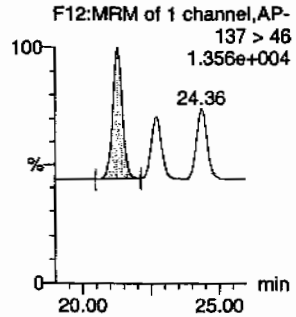

4-Nitrotoluene

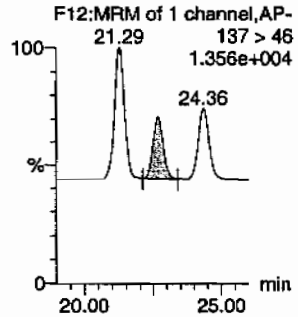

3-Nitrotoluene

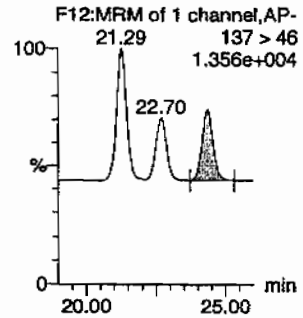

PETN

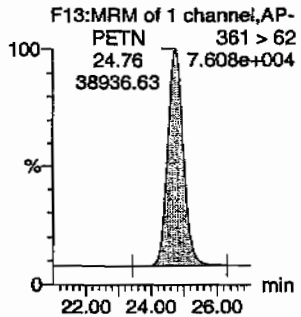

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.20	14517.626	3082.776	14517.626	2354.635	bb			617.2332	102.9	2.9	1021.8
WXX100301-07CCV	RDX	176 > 102	7.64	10955.236	3082.776	10955.236	1776.846	bb			647.3930	107.9	7.9	676.8
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	12530.938	3082.776	12530.938	2032.411	bb			590.2931	98.4	-1.6	1341.1
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3082.776		3082.776	3082.776	bb			531.8659	106.4	6.4	261.7
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4686.547	3082.776	4686.547	760.118	bb			579.4171	96.6	-3.4	272.4
WXX100301-07CCV	Tetryl	241 > 181	12.82	3703.050	3082.776	3703.050	600.603	bb			583.5012	97.3	-2.7	411.1
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	3202.571	3082.776	3202.571	519.430	bb			584.3299	97.4	-2.6	338.7
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	6339.237	18225.936	6339.237	173.907	MM	02-Mar-10	09:46:40	616.1038	102.7	2.7	695.4
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	8581.235	18225.936	8581.235	235.413	bb			624.4049	104.1	4.1	418.3
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	7920.737	18225.936	7920.737	217.293	bb			689.4249	114.9	14.9	367.3
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	10782.521	18225.936	10782.521	295.802	bb			298.5886	99.5	-0.5	148.0
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	24088.418	18225.936	24088.418	660.828	MM	02-Mar-10	09:37:53	585.7174	97.6	-2.4	423.9
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.47	5977.618	18225.936	5977.618	163.987	MM	02-Mar-10	09:29:15	651.9286	108.7	8.7	95.7
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	18225.936		18225.936	18225.936	bb			566.5570	113.3	13.3	1002.3
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.29	3191.069	18225.936	3191.069	87.542	bb			527.7355	88.0	-12.0	216.6
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1612.560	18225.936	1612.560	44.238	bb			558.2114	93.0	-7.0	104.1
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.36	1934.462	18225.936	1934.462	53.069	bb			540.3436	90.1	-9.9	118.2
WXX100301-07CCV	PETN	361 > 62	24.76	38936.629	18225.936	38936.629	1068.165	bb			581.4295	96.9	-3.1	5222.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/01/10
Time of Injection: 2324
Standard Number: WXX100301-07CCV
Data File: EXP0301017a

HMX		102.9
RDX		107.9
135-TNB		98.4
13-DNB		96.6
Tetryl		97.3
Nitrobenzene		97.4
4A-26-DNT		102.7
2A-46-DNT		104.1
246-TNT		114.9
34-DNT(surr)		99.5
26-DNT		97.6
24-DNT		108.7
2-NT		88.0
4-NT		93.0
3-NT		90.1
PETN		96.9
Total		1596.0
Average		99.8

MATT 3/2/10

Hmm 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301019a

Analysis Date: 02–MAR–10 00:23

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p–Nitrotoluene	40	35.984	90	
1,3,5–Trinitrobenzene	40	52.926	132	*
1,3–Dinitrobenzene–d4	500	525.871	105	
2,4,6–Trinitrotoluene	40	42.691	107	
2,4–Dinitrotoluene	40	39.054	98	
2,6–Dinitrotoluene	40	39.257	98	
2,6–Dinitrotoluene–d3	500	558.185	112	
2–Amino–4,6–dinitrotoluene	40	39.63	99	
3,4–Dinitrotoluene	20	19.858	99	
4–Amino–2,6–dinitrotoluene	40	39.257	98	
HMX	40	51.161	128	
Nitrobenzene	40	45.545	114	
PETN	40	48.277	121	
RDX	40	41.262	103	
Tetryl	40	37.992	95	
m–Dinitrobenzene	40	38.309	96	
m–Nitrotoluene	40	43.591	109	
o–Nitrotoluene	40	32.824	82	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301019a
Date: 02-Mar-2010
Time: 00:23:49
ID: WXX100301-08CRI
Vial: 1:1,C

HMM 3/2/10

HMX

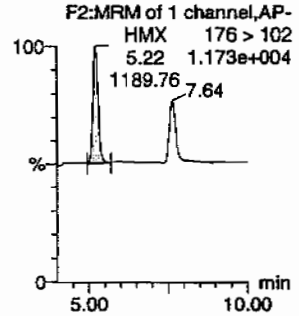

RDX

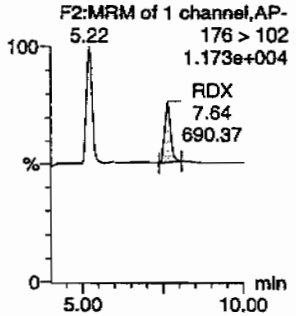

135-Trinitrobenzene

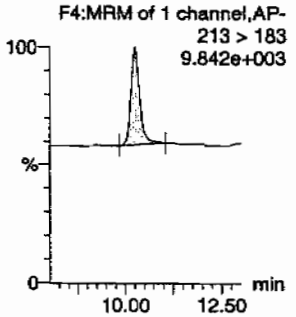

13-Dinitrobenzene-d4

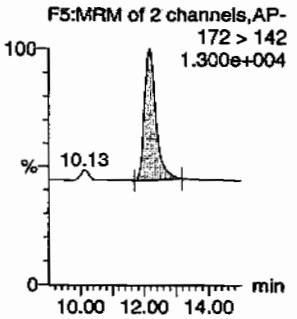

13-Dinitrobenzene

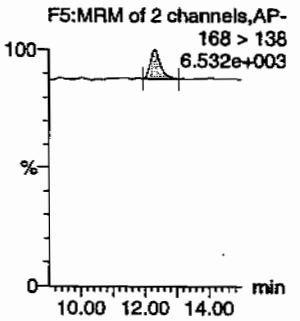

Tetryl

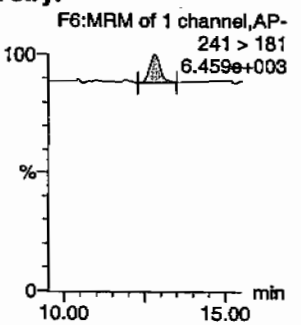

Nitrobenzene

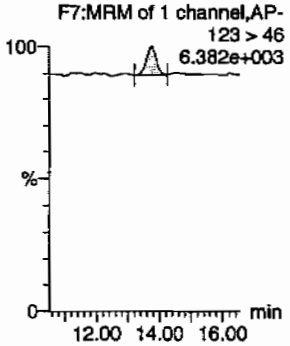

4-Amino-26-dinitrotoluene

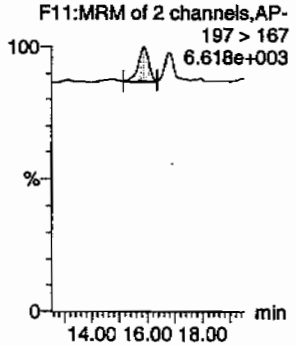

2-Amino-46-dinitrotoluene

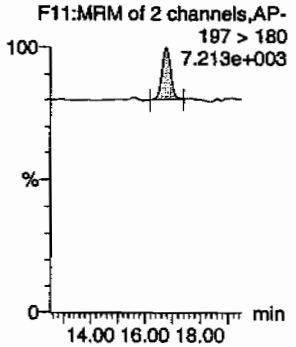

246-Trinitrotoluene

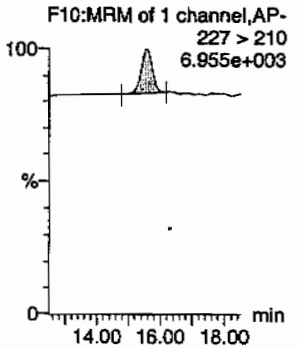

34-dinitrotoluene

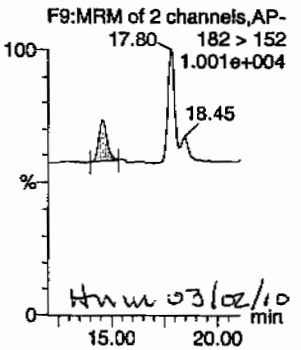

26-dinitrotoluene

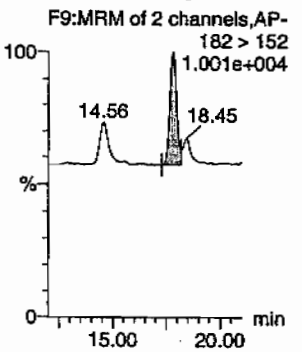

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

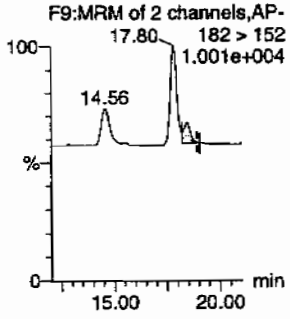

26-dinitrotoluene-d3

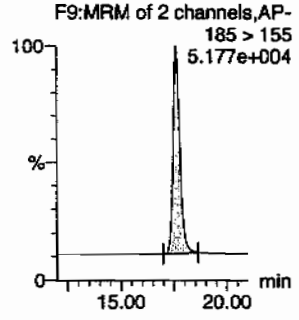

2-Nitrotoluene

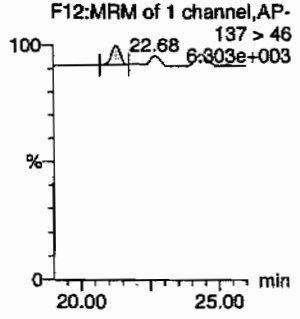

4-Nitrotoluene

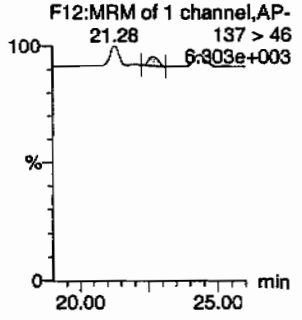

3-Nitrotoluene

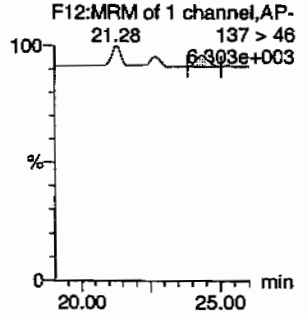

PETN

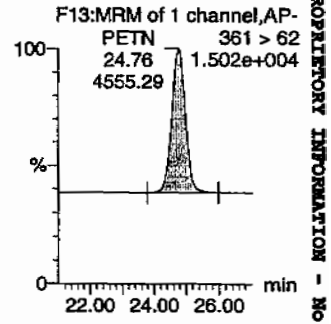

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1189.756	3048.029	1189.756	195.168	bb			51.1605	127.9	27.9	142.9
WXX100301-08CRI	RDX	176 > 102	7.64	690.369	3048.029	690.369	113.248	bb			41.2620	103.2	3.2	75.1
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1110.860	3048.029	1110.860	182.226	bb			52.9257	132.3	32.3	172.2
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3048.029		3048.029	3048.029	bb			525.8711	105.2	5.2	119.6
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	306.363	3048.029	306.363	50.256	bb			38.3087	95.8	-4.2	26.9
WXX100301-08CRI	Tetryl	241 > 181	12.82	298.811	3048.029	298.811	49.017	bb			37.9924	95.0	-5.0	30.5
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	246.808	3048.029	246.808	40.486	bb			45.5451	113.9	13.9	15.3
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	397.960	17956.605	397.960	11.081	MM	02-Mar-10	09:47:07	39.2574	98.1	-1.9	21.8
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	536.586	17956.605	536.586	14.941	bb			39.6298	99.1	-0.9	69.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	483.222	17956.605	483.222	13.455	bb			42.6907	106.7	6.7	38.2
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	706.510	17956.605	706.510	19.673	bb			19.8581	99.3	-0.7	43.3
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.80	1590.641	17956.605	1590.641	44.291	MM	02-Mar-10	09:38:00	39.2570	98.1	-1.9	117.4
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.45	352.801	17956.605	352.801	9.824	MM	02-Mar-10	09:29:27	39.0542	97.6	-2.4	24.3
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	17956.605		17956.605	17956.605	bb			558.1848	111.6	11.6	1259.1
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.28	195.546	17956.605	195.546	5.445	bb			32.8242	82.1	-17.9	36.0
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.68	102.414	17956.605	102.414	2.852	bb			35.9839	90.0	-10.0	17.3
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.35	153.752	17956.605	153.752	4.281	bb			43.5909	109.0	9.0	21.2
WXX100301-08CRI	PETN	361 > 62	24.76	4555.286	17956.605	4555.286	126.842	bb			48.2774	120.7	20.7	1918.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/02/10
Time of Injection	0023
Standard Number	WXX100301-08CRI
Data File	EXP0301019a

HMX	127.9
RDX	103.2
135-TNB	132.3
13-DNB	95.8
Tetryl	95.0
Nitrobenzene	113.9
4A-26-DNT	98.1
2A-46-DNT	99.1
246-TNT	106.7
34-DNT(surr)	99.3
26-DNT	98.1
24-DNT	97.6
2-NT	82.1
4-NT	90.0
3-NT	109.0
PETN	120.7
Total	1668.8
Average	104.3

MJT 3/2/10

Hm m. 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301030a

Analysis Date: 02–MAR–10 05:48

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2–Amino–4,6–dinitrotoluene	600	651.99	109	
3,4–Dinitrotoluene	300	289.207	96	
4–Amino–2,6–dinitrotoluene	600	610.451	102	
HMX	600	614.974	102	
Nitrobenzene	600	545.928	91	
PETN	600	712.654	119	
RDX	600	633.914	106	
Tetryl	600	599.969	100	
m–Dinitrobenzene	600	580.256	97	
m–Nitrotoluene	600	548.818	91	
o–Nitrotoluene	600	560.002	93	
p–Nitrotoluene	600	586.006	98	
1,3,5–Trinitrobenzene	600	602.258	100	
1,3–Dinitrobenzene–d4	500	494.372	99	
2,4,6–Trinitrotoluene	600	680.786	113	
2,4–Dinitrotoluene	600	606.313	101	
2,6–Dinitrotoluene	600	608.101	101	
2,6–Dinitrotoluene–d3	500	501.765	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301030a
Date: 02-Mar-2010
Time: 05:48:04
ID: WXX100301-07CCV
Vial: 1:1,B

MAT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.366e+004

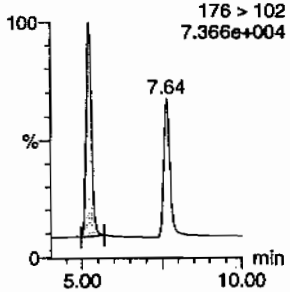

RDX
F2:MRM of 1 channel,AP-
5.20
176 > 102
7.366e+004

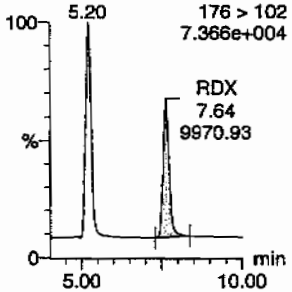

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.816e+004

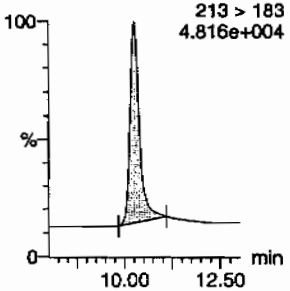

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.287e+004

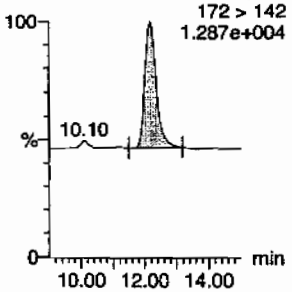

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.749e+004

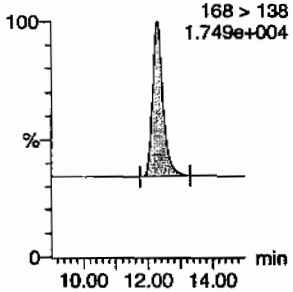

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.82
3520.84
241 > 181
1.574e+004

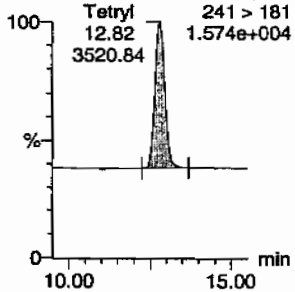

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.421e+004

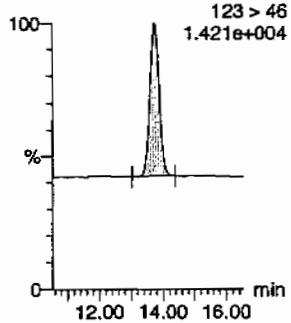

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.991e+004

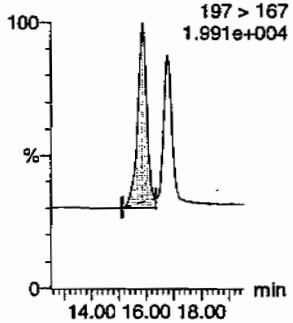

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.711e+004

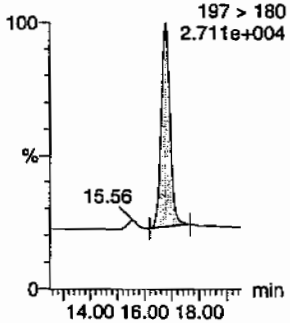

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.219e+004

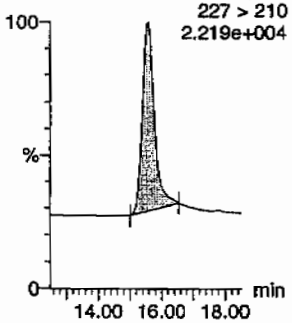

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.79
182 > 152
6.491e+004

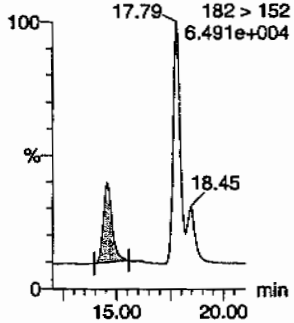

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.491e+004

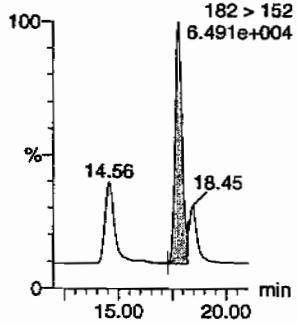

Hmw 03/02/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

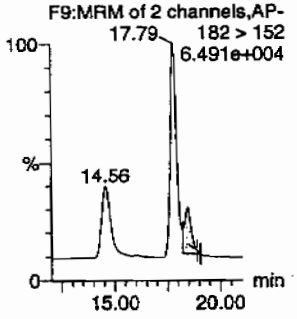

26-dinitrotoluene-d3

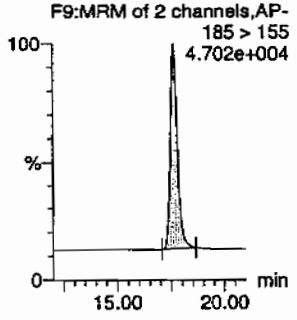

2-Nitrotoluene

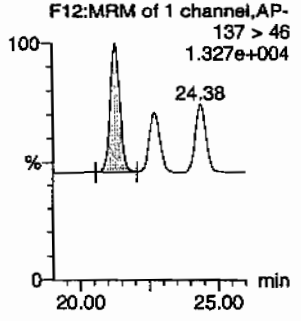

4-Nitrotoluene

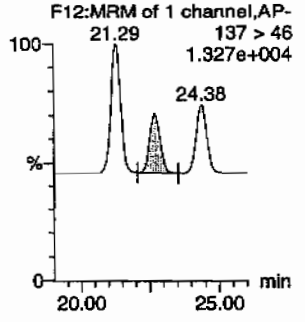

3-Nitrotoluene

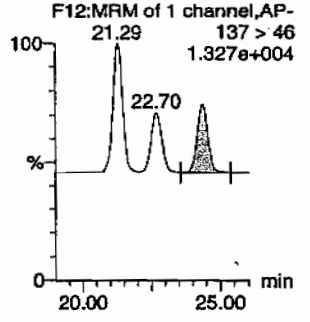

PETN

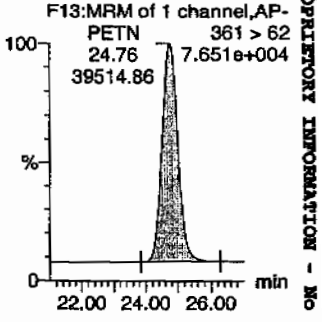

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.20	13444.806	2865.454	13444.806	2346.017	bb			614.9740	102.5	2.5	2571.7
WXX100301-07CCV	RDX	176 > 102	7.64	9970.935	2865.454	9970.935	1739.853	bb			633.9145	105.7	5.7	1663.7
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	11883.659	2865.454	11883.659	2073.608	bb			602.2583	100.4	0.4	192.1
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2865.454		2865.454	2865.454	bb			494.3718	98.9	-1.1	270.3
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4362.471	2865.454	4362.471	761.218	bb			580.2557	96.7	-3.3	110.3
WXX100301-07CCV	Tetryl	241 > 181	12.82	3520.838	2865.454	3520.838	614.360	bb			599.9689	100.0	-0.0	333.0
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	2781.172	2865.454	2781.172	485.293	bb			545.9285	91.0	-9.0	216.3
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5562.768	16141.602	5562.768	172.312	MM	02-Mar-10	09:47:59	610.4513	101.7	1.7	311.5
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	7935.624	16141.602	7935.624	245.813	bb			651.9898	108.7	8.7	359.4
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	6927.009	16141.602	6927.009	214.570	bb			680.7856	113.5	13.5	252.6
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	9249.384	16141.602	9249.384	286.508	bb			289.2070	96.4	-3.6	565.8
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	22148.932	16141.602	22148.932	686.082	MM	02-Mar-10	09:38:36	608.1012	101.4	1.4	1714.5
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.45	4923.592	16141.602	4923.592	152.512	MM	02-Mar-10	09:30:10	606.3134	101.1	1.1	367.7
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	16141.602		16141.602	16141.602	bb			501.7650	100.4	0.4	1182.6
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.29	2998.927	16141.602	2998.927	92.894	bb			560.0016	93.3	-6.7	1564.0
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1499.257	16141.602	1499.257	46.441	bb			586.0061	97.7	-2.3	725.1
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	1740.106	16141.602	1740.106	53.901	bb			548.8185	91.5	-8.5	831.2
WXX100301-07CCV	PETN	361 > 62	24.76	39514.859	16141.602	39514.859	1224.007	bb			712.6541	118.8	18.8	12578.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 0548
Standard Number: WXX100301-07CCV
Data File: EXP0301030a

HMX	102.5
RDX	105.7
135-TNB	100.4
13-DNB	96.7
Tetryl	100.0
Nitrobenzene	91.0
4A-26-DNT	101.7
2A-46-DNT	108.7
246-TNT	113.5
34-DNT(surr)	96.4
26-DNT	101.4
24-DNT	101.1
2-NT	93.3
4-NT	97.7
3-NT	91.5
PETN	118.8
Total	1620.4
Average	101.3

MTT 3/2/10

HMM 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301032a

Analysis Date: 02-MAR-10 06:47

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	56.807	142	*
1,3-Dinitrobenzene-d4	500	493.808	99	
2,4,6-Trinitrotoluene	40	46.587	116	
2,4-Dinitrotoluene	40	36.621	92	
2,6-Dinitrotoluene	40	38.39	96	
2,6-Dinitrotoluene-d3	500	575.349	115	
2-Amino-4,6-dinitrotoluene	40	41.902	105	
3,4-Dinitrotoluene	20	18.621	93	
4-Amino-2,6-dinitrotoluene	40	35.659	89	
HMX	40	45.151	113	
Nitrobenzene	40	49.82	125	
PETN	40	46.402	116	
RDX	40	43.703	109	
Tetryl	40	36.051	90	
m-Dinitrobenzene	40	39.792	99	
m-Nitrotoluene	40	37.14	93	
o-Nitrotoluene	40	40.127	100	
p-Nitrotoluene	40	32.699	82	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301032a
Date: 02-Mar-2010
Time: 06:47:09
ID: WXX100301-08CRI
Vial: 1:1,C

MMT 3/2/10

HMX

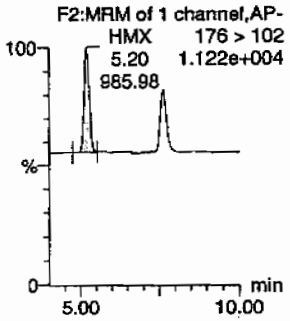

RDX

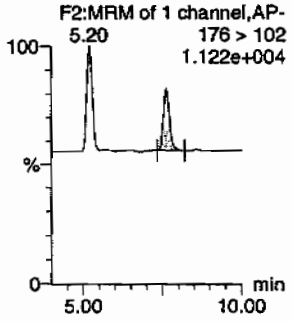

135-Trinitrobenzene

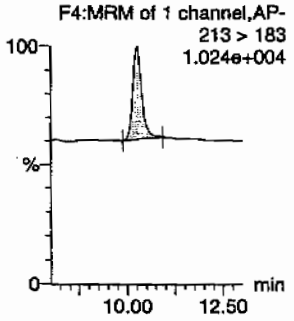

13-Dinitrobenzene-d4

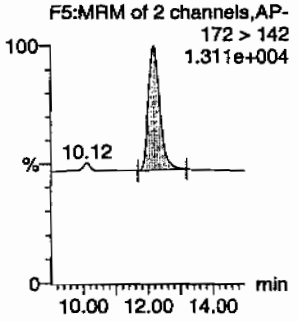

13-Dinitrobenzene

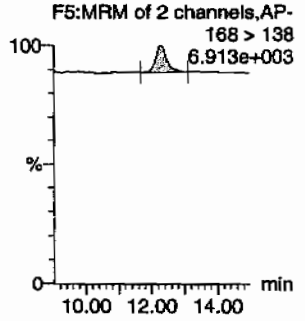

Tetryl

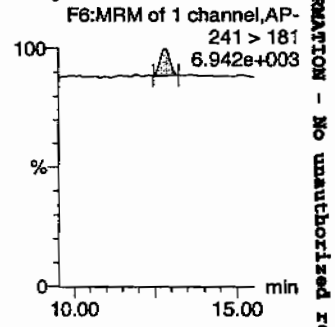

Nitrobenzene

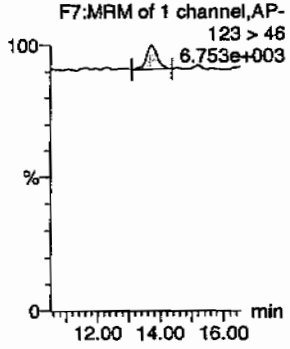

4-Amino-26-dinitrotoluene

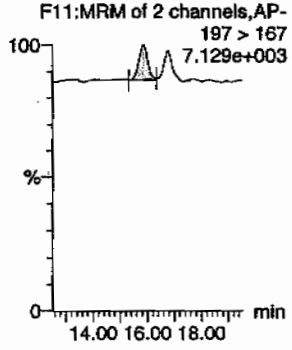

2-Amino-46-dinitrotoluene

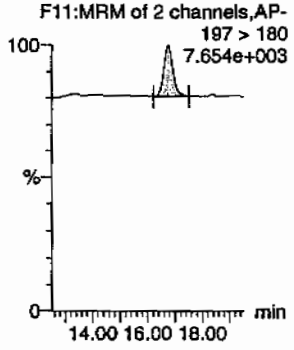

246-Trinitrotoluene

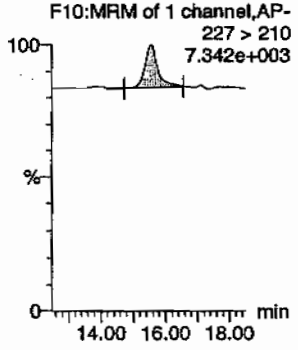

34-dinitrotoluene

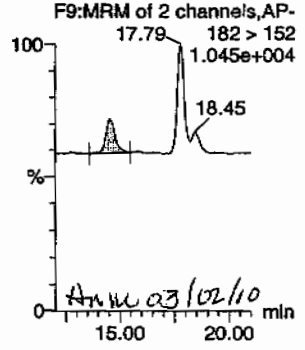

AMW 03/02/10

26-dinitrotoluene

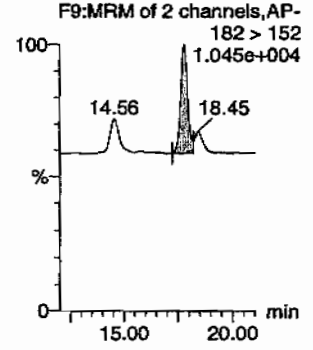

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

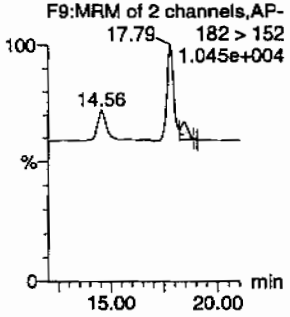

26-dinitrotoluene-d3

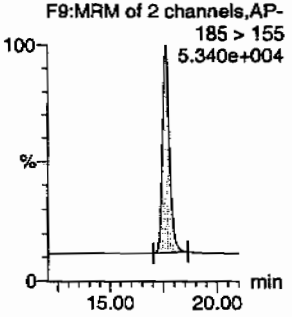

2-Nitrotoluene

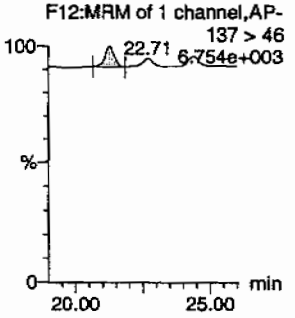

4-Nitrotoluene

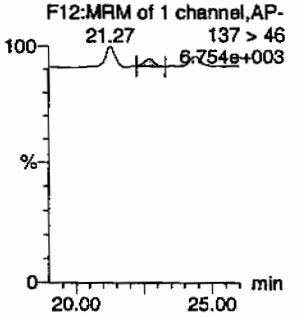

3-Nitrotoluene

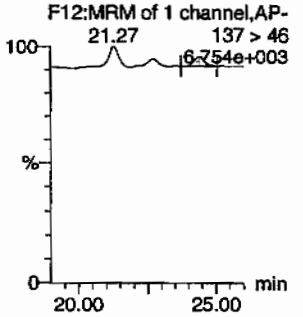

PETN

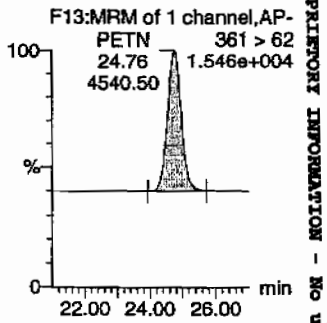

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.20	985.979	2862.189	985.979	172.242	bb			45.1508	112.9	12.9	191.8
WXX100301-08CRI	RDX	176 > 102	7.64	686.625	2862.189	686.625	119.948	bb			43.7028	109.3	9.3	115.5
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.25	1119.636	2862.189	1119.636	195.591	bb			56.8074	142.0	42.0	145.8
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	2862.189		2862.189	2862.189	bb			493.8085	98.8	-1.2	676.0
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.27	298.819	2862.189	298.819	52.201	bb			39.7915	99.5	-0.5	28.1
WXX100301-08CRI	Tetryl	241 > 181	12.82	267.449	2862.189	267.449	46.721	bb			36.0505	90.1	-9.9	36.1
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	253.513	2862.189	253.513	44.287	bb			49.8199	124.5	24.5	18.3
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	372.598	18508.766	372.598	10.065	MM	02-Mar-10	09:48:09	35.6591	89.1	-10.9	31.0
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	584.791	18508.766	584.791	15.798	bb			41.9015	104.8	4.8	54.6
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.55	543.539	18508.766	543.539	14.683	bb			46.5870	116.5	16.5	34.9
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	682.884	18508.766	682.884	18.448	bb			18.6214	93.1	-6.9	50.9
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1603.357	18508.766	1603.357	43.313	MM	02-Mar-10	09:38:44	38.3904	96.0	-4.0	158.3
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.45	340.997	18508.766	340.997	9.212	MM	02-Mar-10	09:30:20	36.6214	91.6	-8.4	30.3
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	18508.766		18508.766	18508.766	bb			575.3488	115.1	15.1	766.4
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.27	246.403	18508.766	246.403	6.656	bb			40.1272	100.3	0.3	65.8
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.71	95.927	18508.766	95.927	2.591	bb			32.6991	81.7	-18.3	24.5
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.40	135.025	18508.766	135.025	3.648	bb			37.1395	92.8	-7.2	32.5
WXX100301-08CRI	PETN	361 > 62	24.76	4540.501	18508.766	4540.501	122.658	bb			46.4023	116.0	16.0	1315.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/02/10
Time of Injection	0647
Standard Number	WXX100301-08CRI
Data File	EXP0301032a

HMX	112.9
RDX	109.3
135-TNB	142.0
13-DNB	99.5
Tetryl	90.1
Nitrobenzene	124.5
4A-26-DNT	89.1
2A-46-DNT	104.8
246-TNT	116.5
34-DNT(surr)	93.1
26-DNT	96.0
24-DNT	91.6
2-NT	100.3
4-NT	81.7
3-NT	92.8
PETN	116.0
Total	1660.2
Average	103.8

MPP 3/2/10

Hmw 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301043a

Analysis Date: 02-MAR-10 12:12

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	583.866	97	
m-Nitrotoluene	600	483.41	81	
o-Nitrotoluene	600	523.965	87	
p-Nitrotoluene	600	533.33	89	
1,3,5-Trinitrobenzene	600	588.95	98	
1,3-Dinitrobenzene-d4	500	488.117	98	
2,4,6-Trinitrotoluene	600	582.004	97	
2,4-Dinitrotoluene	600	656.909	109	
2,6-Dinitrotoluene	600	614.349	102	
2,6-Dinitrotoluene-d3	500	563.804	113	
2-Amino-4,6-dinitrotoluene	600	721.579	120	*
3,4-Dinitrotoluene	300	252.075	84	
4-Amino-2,6-dinitrotoluene	600	528.132	88	
HMX	600	750.903	125	*
Nitrobenzene	600	564.338	94	
PETN	600	561.884	94	
RDX	600	599.348	100	
Tetryl	600	539.471	90	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301043a
Date: 02-Mar-2010
Time: 12:12:16
ID: WXX100301-07CCV
Vial: 1:1,B

MATT 3/3/10

HMX

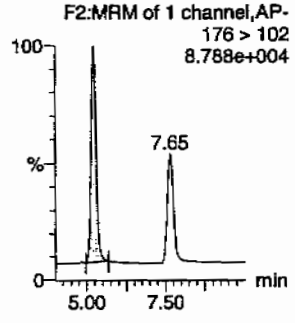

RDX

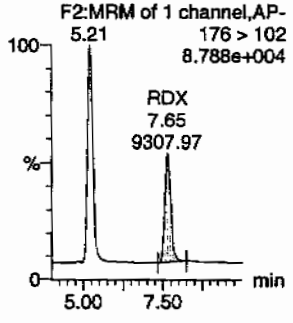

135-Trinitrobenzene

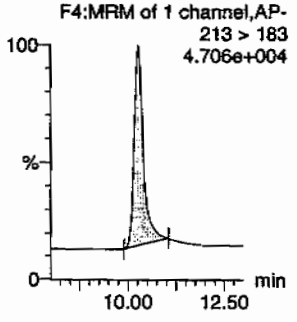

13-Dinitrobenzene-d4

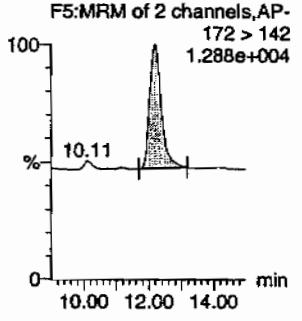

13-Dinitrobenzene

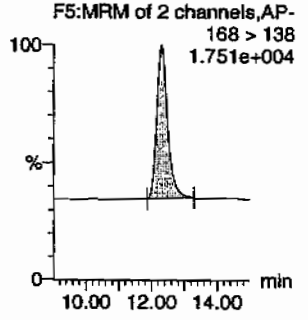

Tetryl

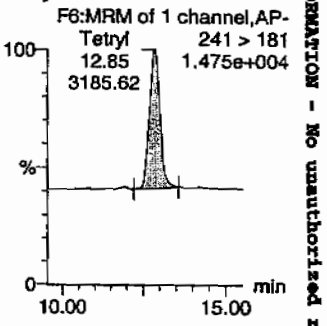

Nitrobenzene

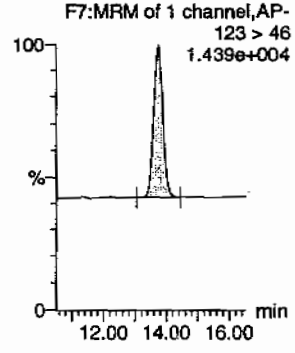

4-Amino-26-dinitrotoluene

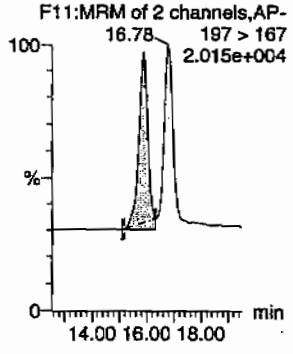

2-Amino-46-dinitrotoluene

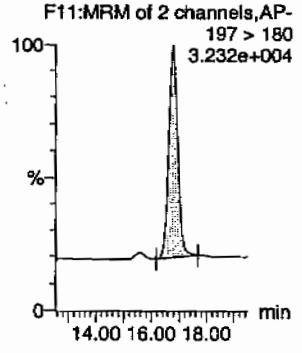

246-Trinitrotoluene

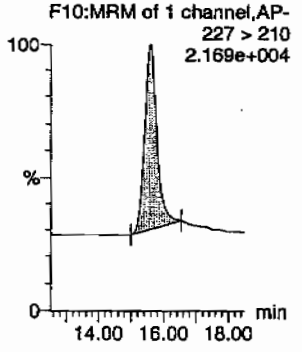

34-dinitrotoluene

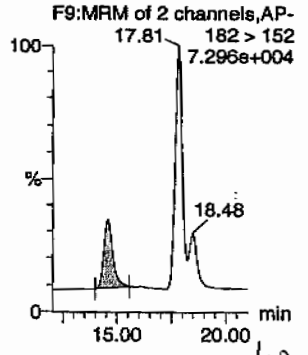

Hmc 03/04/10

26-dinitrotoluene

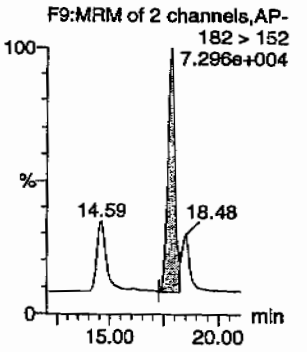

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

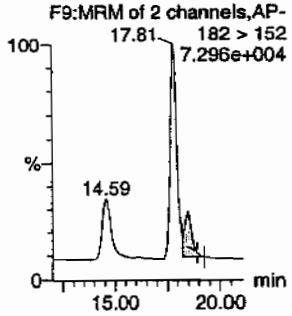

26-dinitrotoluene-d3

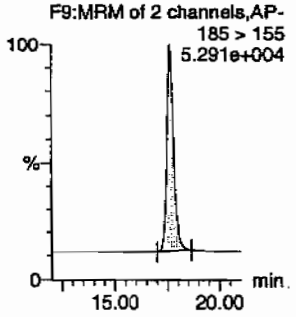

2-Nitrotoluene

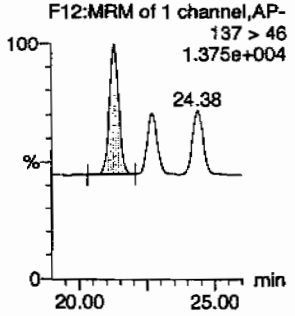

4-Nitrotoluene

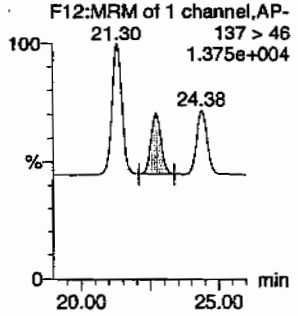

3-Nitrotoluene

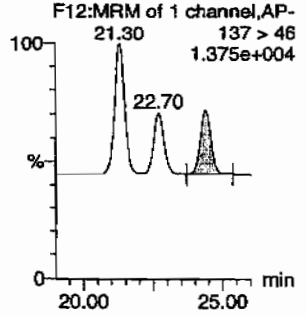

PETN

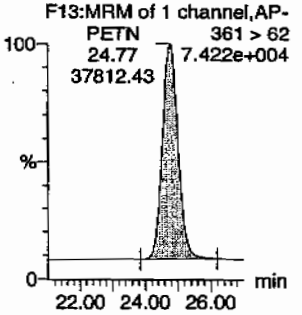

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.21	16208.861	2829.203	16208.861	2864.563	bb			750.9033	125.2	25.2	2295.4
WXX100301-07CCV	RDX	176 > 102	7.65	9307.974	2829.203	9307.974	1644.982	bb			599.3483	99.9	-0.1	1159.0
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.26	11474.052	2829.203	11474.052	2027.789	bb			588.9505	98.2	-1.8	790.1
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2829.203		2829.203	2829.203	bb			488.1174	97.6	-2.4	347.7
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4334.083	2829.203	4334.083	765.955	bb			583.8663	97.3	-2.7	278.1
WXX100301-07CCV	Tetryl	241 > 181	12.85	3185.622	2829.203	3185.622	562.989	bb			539.4714	89.9	-10.1	301.9
WXX100301-07CCV	Nitrobenzene	123 > 46	13.74	2838.587	2829.203	2838.587	501.658	bb			564.3382	94.1	-5.9	216.0
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.88	5407.666	18137.371	5407.666	149.075	MM	03-Mar-10	08:45:19	528.1317	88.0	-12.0	671.8
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.78	9868.511	18137.371	9868.511	272.049	bb			721.5786	120.3	20.3	701.2
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.57	6654.099	18137.371	6654.099	183.436	bb			582.0043	97.0	-3.0	270.5
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.59	9058.592	18137.371	9058.592	249.722	bb			252.0746	84.0	-16.0	344.6
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.81	25143.154	18137.371	25143.154	693.131	MM	03-Mar-10	08:56:41	614.3490	102.4	2.4	1225.3
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.48	5994.011	18137.371	5994.011	165.239	MM	03-Mar-10	08:57:01	656.9086	109.5	9.5	264.3
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.63	18137.371		18137.371	18137.371	bb			563.8039	112.8	12.8	1665.1
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.30	3152.875	18137.371	3152.875	86.917	bb			523.9652	87.3	-12.7	426.3
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1533.195	18137.371	1533.195	42.266	bb			533.3297	88.9	-11.1	199.5
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	1722.228	18137.371	1722.228	47.477	bb			483.4104	80.6	-19.4	209.6
WXX100301-07CCV	PETN	361 > 62	24.77	37812.434	18137.371	37812.434	1042.390	bb			561.8844	93.6	-6.4	3954.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 1212
Standard Number: WXX100301-07CCV
Data File: EXP0301043a

HMX		125.2
RDX		99.9
135-TNB		98.2
13-DNB		97.3
Tetryl		89.9
Nitrobenzene		94.1
4A-26-DNT		88.0
2A-46-DNT		120.3
246-TNT		97.0
34-DNT(surr)		84.0
26-DNT		102.4
24-DNT		109.5
2-NT		87.3
4-NT		88.9
3-NT		80.6
PETN		93.6
Total		1556.2
Average		97.3

3/3/10

4mm-03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301045a

Analysis Date: 02-MAR-10 13:11

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	44.598	111	
Nitrobenzene	40	33.284	83	
PETN	40	44.336	111	
RDX	40	40.437	101	
Tetryl	40	37.348	93	
m-Dinitrobenzene	40	41.99	105	
m-Nitrotoluene	40	45.416	114	
o-Nitrotoluene	40	39.436	99	
p-Nitrotoluene	40	37.7	94	
1,3,5-Trinitrobenzene	40	52.342	131	*
1,3-Dinitrobenzene-d4	500	567.192	113	
2,4,6-Trinitrotoluene	40	43.217	108	
2,4-Dinitrotoluene	40	40.629	102	
2,6-Dinitrotoluene	40	39.638	99	
2,6-Dinitrotoluene-d3	500	584.534	117	
2-Amino-4,6-dinitrotoluene	40	44.683	112	
3,4-Dinitrotoluene	20	18.858	94	
4-Amino-2,6-dinitrotoluene	40	41.968	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301045a
Date: 02-Mar-2010
Time: 13:11:21
ID: WXX100301-08CRI
Vial: 1:1,C

MM 3/3/10

HMX

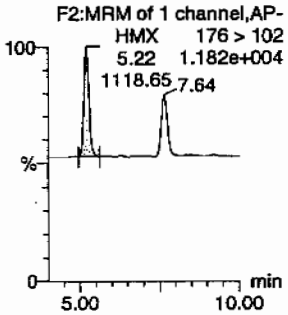

RDX

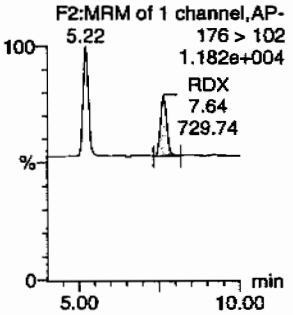

135-Trinitrobenzene

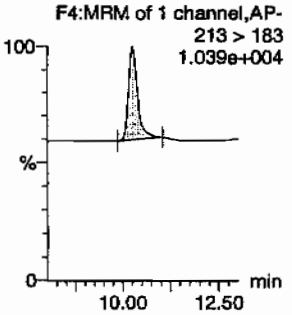

13-Dinitrobenzene-d4

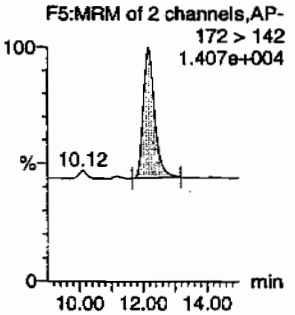

13-Dinitrobenzene

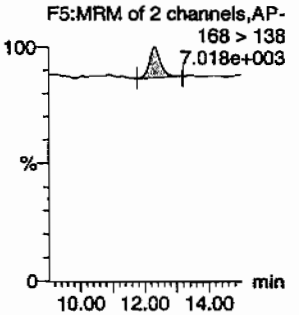

Tetryl

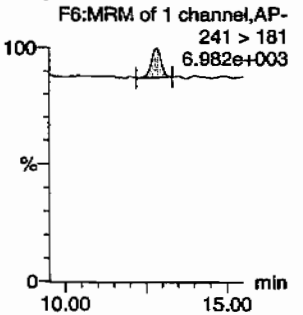

Nitrobenzene

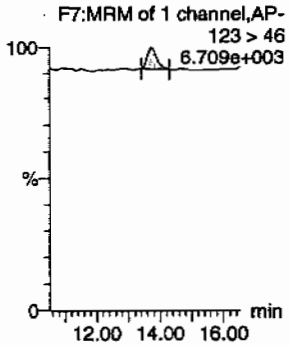

4-Amino-26-dinitrotoluene

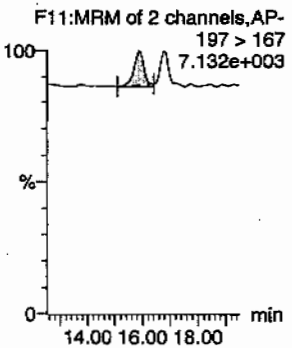

2-Amino-46-dinitrotoluene

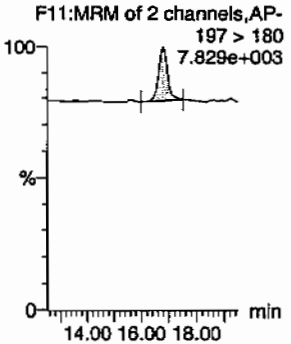

246-Trinitrotoluene

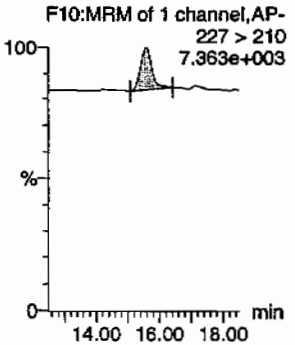

34-dinitrotoluene

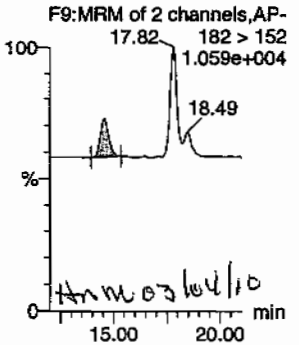

26-dinitrotoluene

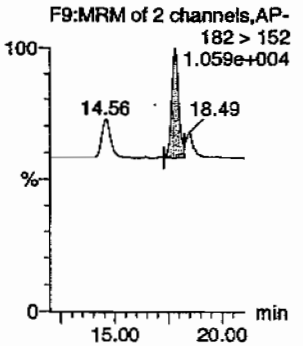

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

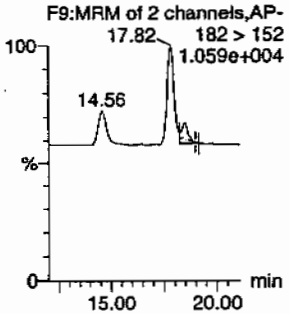

26-dinitrotoluene-d3

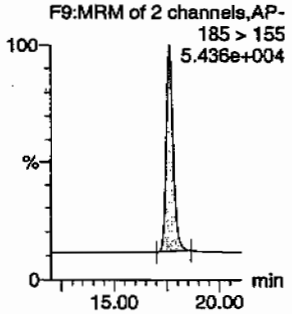

2-Nitrotoluene

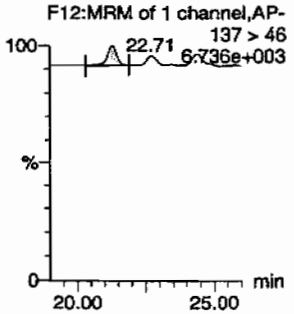

4-Nitrotoluene

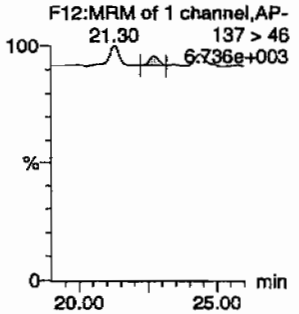

3-Nitrotoluene

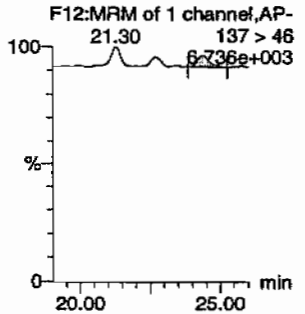

PETN

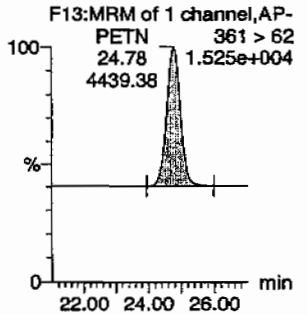

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1118.648	3287.534	1118.648	170.135	bb			44.5984	111.5	11.5	229.0
WXX100301-08CRI	RDX	176 > 102	7.64	729.735	3287.534	729.735	110.985	bb			40.4374	101.1	1.1	127.8
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1184.930	3287.534	1184.930	180.216	bb			52.3418	130.9	30.9	176.0
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3287.534		3287.534	3287.534	bb			567.1925	113.4	13.4	252.1
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	362.192	3287.534	362.192	55.086	bb			41.9903	105.0	5.0	39.5
WXX100301-08CRI	Tetryl	241 > 181	12.82	317.284	3287.534	317.284	48.256	bb			37.3481	93.4	-6.6	24.4
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	194.537	3287.534	194.537	29.587	bb			33.2838	83.2	-16.8	18.3
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.89	445.521	18804.244	445.521	11.846	MM	03-Mar-10	08:45:25	41.9681	104.9	4.9	22.0
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	633.568	18804.244	633.568	16.846	bb			44.6831	111.7	11.7	75.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	512.274	18804.244	512.274	13.621	bb			43.2173	108.0	8.0	102.3
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	702.612	18804.244	702.612	18.682	bb			18.8583	94.3	-5.7	23.2
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.82	1681.909	18804.244	1681.909	44.722	MM	03-Mar-10	08:56:34	39.6384	99.1	-0.9	67.1
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.49	384.351	18804.244	384.351	10.220	MM	03-Mar-10	08:57:13	40.6288	101.6	1.6	14.2
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	18804.244		18804.244	18804.244	bb			584.5338	116.9	16.9	1585.0
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.30	246.023	18804.244	246.023	6.542	bb			39.4357	98.6	-1.4	83.2
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.71	112.363	18804.244	112.363	2.988	bb			37.6999	94.2	-5.8	40.4
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.39	167.752	18804.244	167.752	4.460	bb			45.4163	113.5	13.5	49.2
WXX100301-08CRI	PETN	361 > 62	24.78	4439.381	18804.244	4439.381	118.042	bb			44.3364	110.8	10.8	1079.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/02/10
Time of Injection	1311
Standard Number	WXX100301-08CRI
Data File	EXP0301045a

HMX	111.5
RDX	101.1
135-TNB	130.9
13-DNB	105.0
Tetryl	93.4
Nitrobenzene	83.2
4A-26-DNT	104.9
2A-46-DNT	111.7
246-TNT	108.0
34-DNT(surr)	94.3
26-DNT	99.1
24-DNT	101.6
2-NT	98.6
4-NT	94.2
3-NT	113.5
PETN	110.8
Total	1661.8
Average	103.9

HMM 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301056a

Analysis Date: 02-MAR-10 18:42

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	663.068	111	
1,3-Dinitrobenzene-d4	500	453.09	91	
2,4,6-Trinitrotoluene	600	691.385	115	
2,4-Dinitrotoluene	600	651.233	109	
2,6-Dinitrotoluene	600	612.072	102	
2,6-Dinitrotoluene-d3	500	486.839	97	
2-Amino-4,6-dinitrotoluene	600	682.306	114	
3,4-Dinitrotoluene	300	294.085	98	
4-Amino-2,6-dinitrotoluene	600	628.379	105	
HMX	600	655.741	109	
Nitrobenzene	600	593.858	99	
PETN	600	708.678	118	
RDX	600	661.836	110	
Tetryl	600	576.331	96	
m-Dinitrobenzene	600	617.22	103	
m-Nitrotoluene	600	550.813	92	
o-Nitrotoluene	600	566.894	94	
p-Nitrotoluene	600	589.286	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301056a
Date: 02-Mar-2010
Time: 18:42:39
ID: WXX100301-07CCV
Vial: 1:1,B

3/3/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.286e+004

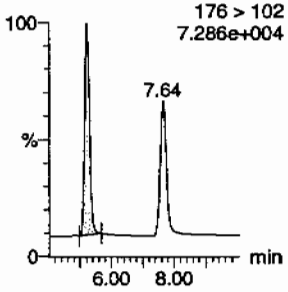

RDX
F2:MRM of 1 channel,AP-
5.21
176 > 102
7.286e+004

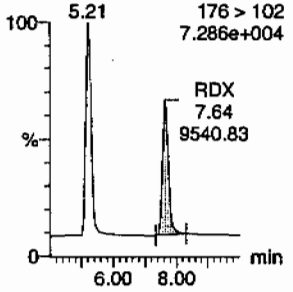

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.888e+004

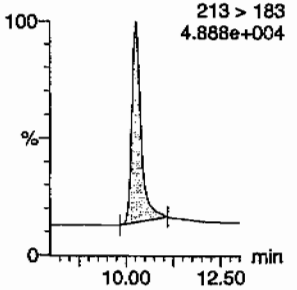

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.254e+004

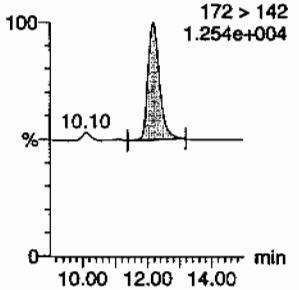

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.717e+004

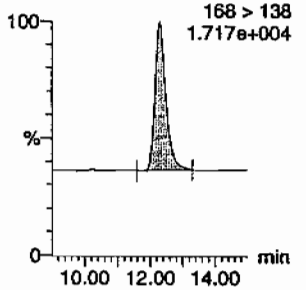

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.83
3122.84
241 > 181
1.496e+004

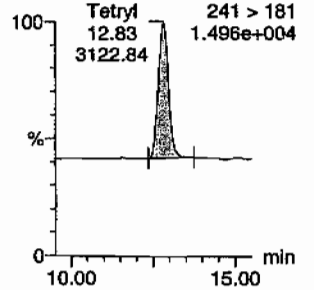

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.430e+004

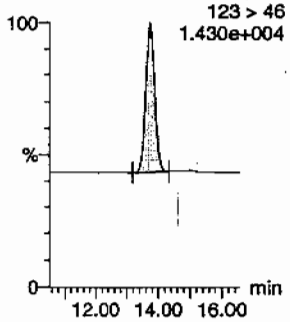

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.020e+004

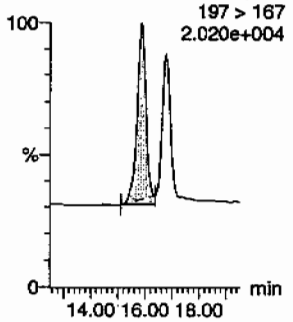

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.769e+004

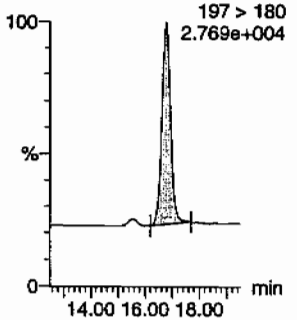

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.210e+004

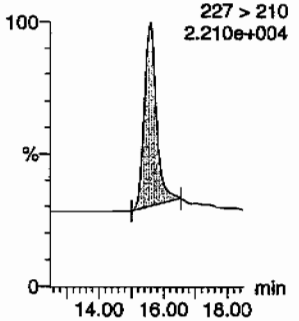

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.79
182 > 152
6.441e+004

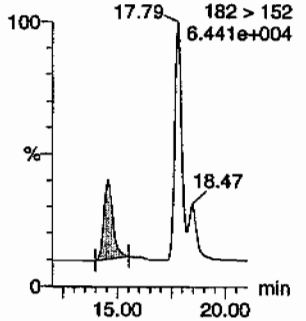

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.441e+004

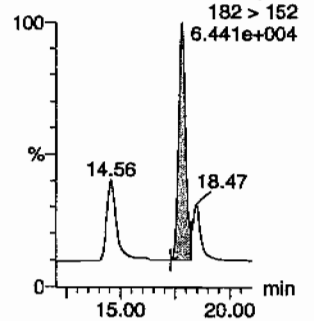

03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

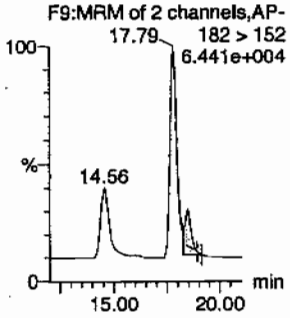

26-dinitrotoluene-d3

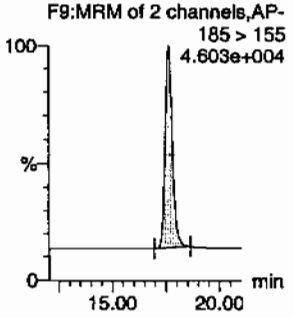

2-Nitrotoluene

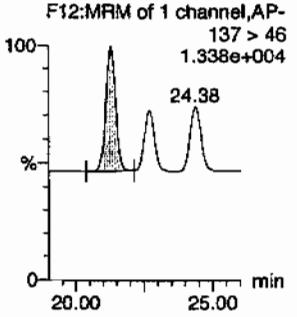

4-Nitrotoluene

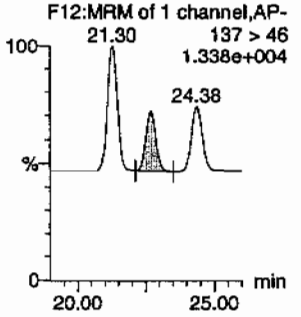

3-Nitrotoluene

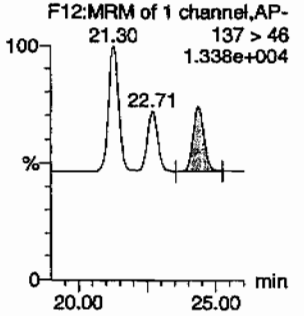

PETN

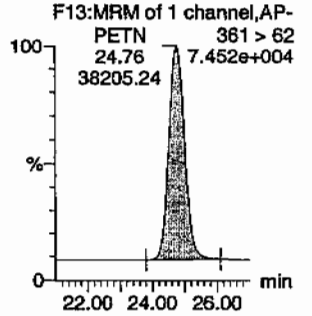

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.21	13138.960	2626.177	13138.960	2501.537	bb			655.7414	109.3	9.3	970.9
WXX100301-07CCV	RDX	176 > 102	7.64	9540.825	2626.177	9540.825	1816.486	bb			661.8357	110.3	10.3	613.2
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	11991.019	2626.177	11991.019	2282.980	bb			663.0682	110.5	10.5	615.6
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.18	2626.177		2626.177	2626.177	bb			453.0897	90.6	-9.4	344.9
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4252.885	2626.177	4252.885	809.710	bb			617.2199	102.9	2.9	361.1
WXX100301-07CCV	Tetryl	241 > 181	12.83	3122.841	2626.177	3122.841	594.560	bb			576.3308	96.1	-3.9	412.3
WXX100301-07CCV	Nitrobenzene	123 > 46	13.71	2772.714	2626.177	2772.714	527.899	bb			593.8577	99.0	-1.0	141.0
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5555.793	15661.421	5555.793	177.372	MM	03-Mar-10	08:45:58	628.3789	104.7	4.7	323.6
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.79	8057.564	15661.421	8057.564	257.242	bb			682.3056	113.7	13.7	383.5
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	6825.581	15661.421	6825.581	217.911	bb			691.3846	115.2	15.2	242.5
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	9125.598	15661.421	9125.598	291.340	bb			294.0850	98.0	-2.0	291.2
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	21630.381	15661.421	21630.381	690.563	MM	03-Mar-10	08:55:54	612.0723	102.0	2.0	870.9
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.47	5131.042	15661.421	5131.042	163.812	MM	03-Mar-10	08:58:11	651.2326	108.5	8.5	191.7
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	15661.421		15661.421	15661.421	bb			486.8385	97.4	-2.6	1427.6
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.30	2945.527	15661.421	2945.527	94.038	bb			566.8940	94.5	-5.5	256.2
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.71	1462.799	15661.421	1462.799	46.701	bb			589.2861	98.2	-1.8	121.3
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	1694.477	15661.421	1694.477	54.097	bb			550.8130	91.8	-8.2	131.0
WXX100301-07CCV	PETN	361 > 62	24.76	38205.238	15661.421	38205.238	1219.725	bb			708.6776	118.1	18.1	8165.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/02/10
Time of Injection: 1842
Standard Number: WXX100301-07CCV
Data File: EXP0301056a

HMX		109.3
RDX		110.3
135-TNB		110.5
13-DNB		102.9
Tetryl		96.1
Nitrobenzene		99.0
4A-26-DNT		104.7
2A-46-DNT		113.7
246-TNT		115.2
34-DNT(surr)		98.0
26-DNT		102.0
24-DNT		108.5
2-NT		94.5
4-NT		98.2
3-NT		91.8
PETN		118.1
Total		1672.8
Average		104.6

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

3/3/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301058a

Analysis Date: 02-MAR-10 19:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	54.949	137	*
1,3-Dinitrobenzene-d4	500	526.73	105	
2,4,6-Trinitrotoluene	40	42.619	107	
2,4-Dinitrotoluene	40	40.949	102	
2,6-Dinitrotoluene	40	39.716	99	
2,6-Dinitrotoluene-d3	500	543.465	109	
2-Amino-4,6-dinitrotoluene	40	45.865	115	
3,4-Dinitrotoluene	20	20.539	103	
4-Amino-2,6-dinitrotoluene	40	39.394	98	
HMX	40	47.031	118	
Nitrobenzene	40	43.335	108	
PETN	40	52.803	132	*
RDX	40	40.001	100	
Tetryl	40	39.676	99	
m-Dinitrobenzene	40	30.191	75	
m-Nitrotoluene	40	44.578	111	
o-Nitrotoluene	40	40.684	102	
p-Nitrotoluene	40	40.786	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301058a
Date: 02-Mar-2010
Time: 19:41:43
ID: WXX100301-08CRI
Vial: 1:1,C

MATT 3/3/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 1.157e+004
1095.51 7.64

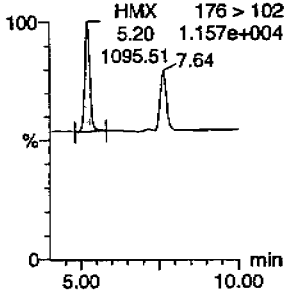

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
1.157e+004
RDX
7.64
670.36

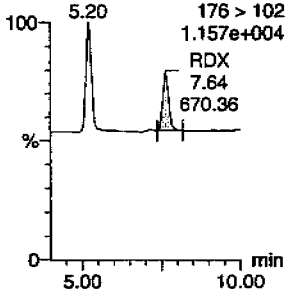

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.032e+004

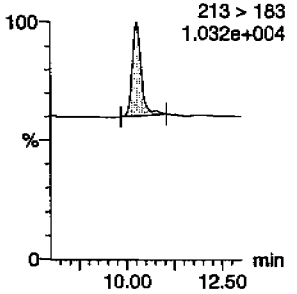

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.352e+004

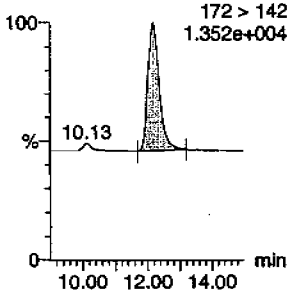

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.841e+003

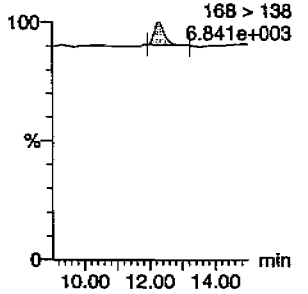

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.007e+003

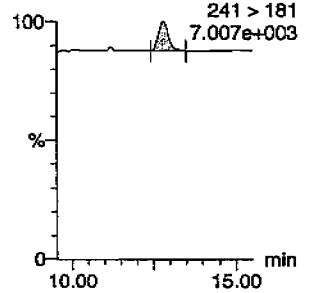

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.802e+003

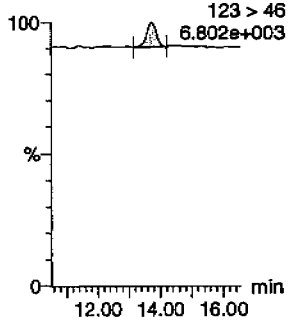

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.252e+003

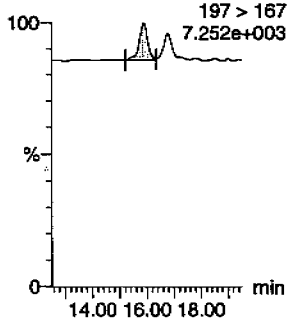

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.647e+003

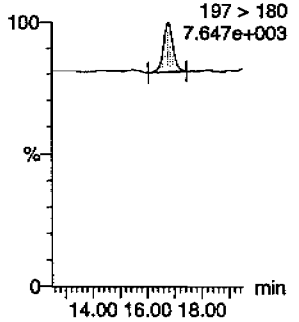

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.297e+003

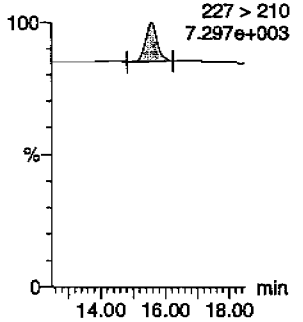

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.79 182 > 152
1.040e+004
18.52

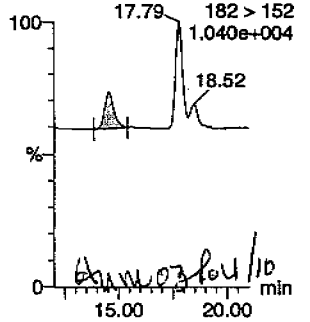

Anm 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.040e+004
14.56
18.52

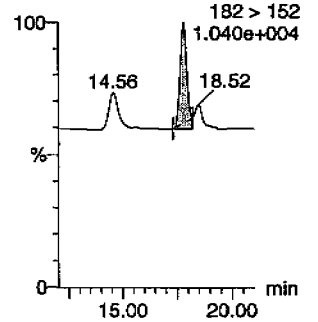

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

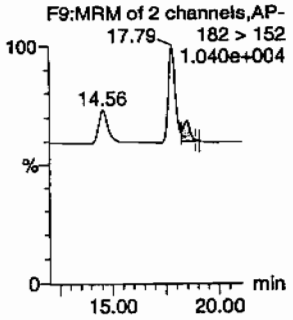

26-dinitrotoluene-d3

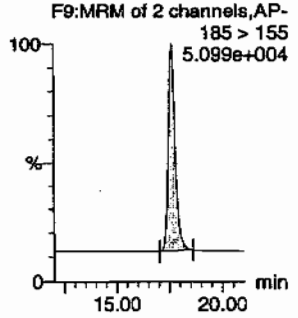

2-Nitrotoluene

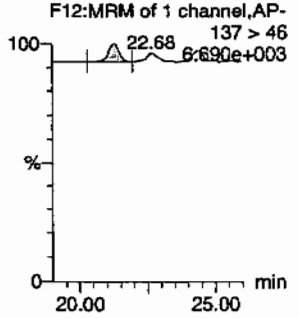

4-Nitrotoluene

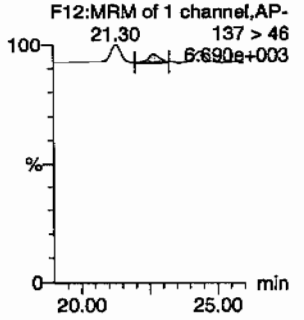

3-Nitrotoluene

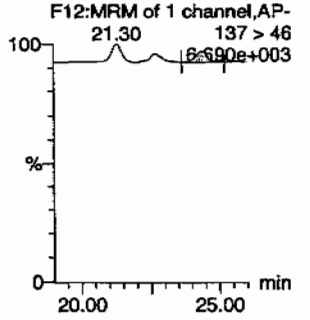

PETN

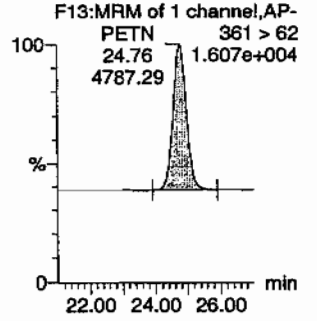

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.20	1095.506	3053.009	1095.506	179.414	bb			47.0308	117.6	17.6	153.7
WXX100301-08CRI	RDX	176 > 102	7.64	670.361	3053.009	670.361	109.787	bb			40.0008	100.0	0.0	84.2
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1155.212	3053.009	1155.212	189.192	bb			54.9490	137.4	37.4	160.1
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3053.009		3053.009	3053.009	bb			526.7303	105.3	5.3	171.3
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	241.838	3053.009	241.838	39.606	bb			30.1909	75.5	-24.5	29.4
WXX100301-08CRI	Tetryl	241 > 181	12.82	311.444	3053.009	311.444	51.006	bb			39.6762	99.2	-0.8	31.1
WXX100301-08CRI	Nitrobenzene	123 > 46	13.72	235.215	3053.009	235.215	38.522	bb			43.3349	108.3	8.3	31.8
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.89	388.816	17483.064	388.816	11.120	MM	03-Mar-10	08:46:06	39.3943	98.5	-1.5	28.5
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	604.638	17483.064	604.638	17.292	bb			45.8653	114.7	14.7	73.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	469.685	17483.064	469.685	13.433	bb			42.6187	106.5	6.5	49.4
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	711.467	17483.064	711.467	20.347	bb			20.5390	102.7	2.7	53.9
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1566.794	17483.064	1566.794	44.809	MM	03-Mar-10	08:55:43	39.7159	99.3	-0.7	159.0
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.52	360.159	17483.064	360.159	10.300	MM	03-Mar-10	08:58:23	40.9485	102.4	2.4	33.8
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	17483.064		17483.064	17483.064	bb			543.4647	108.7	8.7	1571.5
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.30	235.979	17483.064	235.979	6.749	bb			40.6842	101.7	1.7	103.7
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.68	113.019	17483.064	113.019	3.232	bb			40.7856	102.0	2.0	47.3
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.38	153.088	17483.064	153.088	4.378	bb			44.5783	111.4	11.4	61.5
WXX100301-08CRI	PETN	361 > 62	24.76	4787.289	17483.064	4787.289	136.912	bb			52.8026	132.0	32.0	1269.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/02/10
Time of Injection	1941
Standard Number	WXX100301-08CRI
Data File	EXP0301058a

HMX	117.6
RDX	100.0
135-TNB	137.4
13-DNB	75.5
Tetryl	99.2
Nitrobenzene	108.3
4A-26-DNT	98.5
2A-46-DNT	114.7
246-TNT	106.5
34-DNT(surr)	102.7
26-DNT	99.3
24-DNT	102.4
2-NT	101.7
4-NT	102.0
3-NT	111.4
PETN	132.0
Total	1709.2
Average	106.8

KMT 3/3/10

Hmx on low to

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301068a

Analysis Date: 03-MAR-10 00:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	600	618.87	103	
2,6-Dinitrotoluene-d3	500	562.762	113	
2-Amino-4,6-dinitrotoluene	600	672.055	112	
3,4-Dinitrotoluene	300	301.113	100	
4-Amino-2,6-dinitrotoluene	600	621.473	104	
HMX	600	594.011	99	
Nitrobenzene	600	603.396	101	
PETN	600	563.001	94	
RDX	600	653.924	109	
Tetryl	600	574.954	96	
m-Dinitrobenzene	600	607.15	101	
m-Nitrotoluene	600	622	104	
o-Nitrotoluene	600	561.005	94	
p-Nitrotoluene	600	634.214	106	
1,3,5-Trinitrobenzene	600	625.261	104	
1,3-Dinitrobenzene-d4	500	521.037	104	
2,4,6-Trinitrotoluene	600	703.496	117	
2,4-Dinitrotoluene	600	657.764	110	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301068a
Date: 03-Mar-2010
Time: 00:36:45
ID: WXX100301-07CCV
Vial: 1:1,B

KATT 3/3/10

HMX

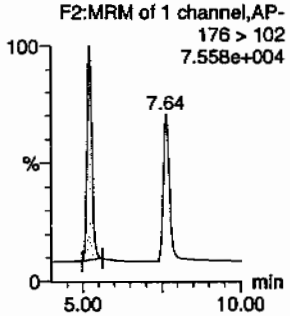

RDX

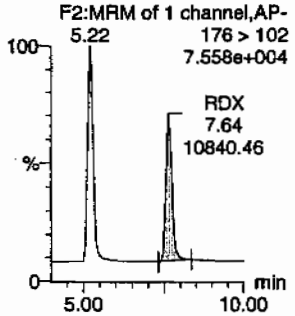

135-Trinitrobenzene

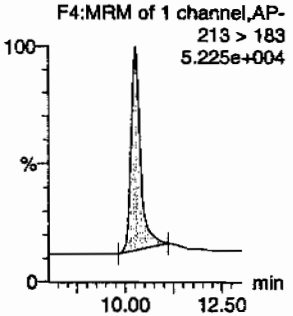

13-Dinitrobenzene-d4

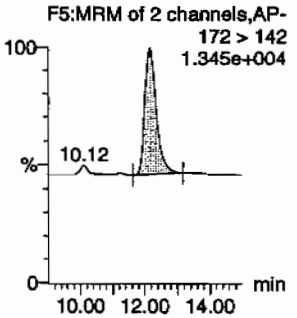

13-Dinitrobenzene

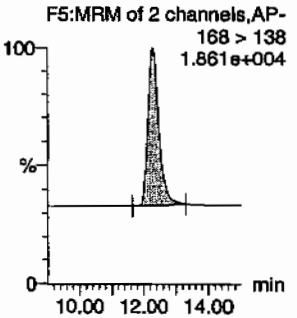

Tetryl

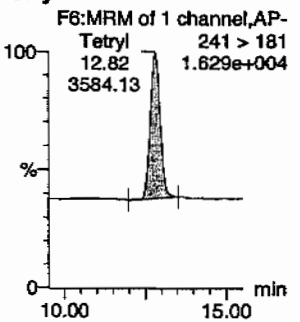

Nitrobenzene

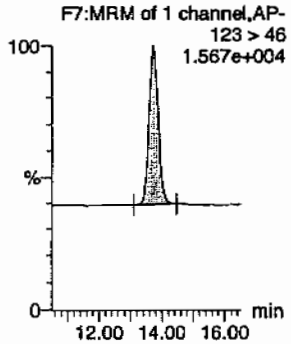

4-Amino-26-dinitrotoluene

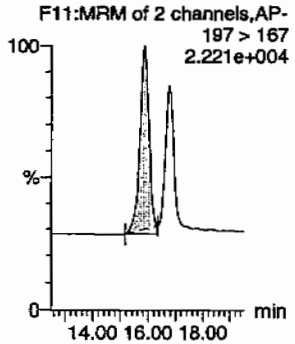

2-Amino-46-dinitrotoluene

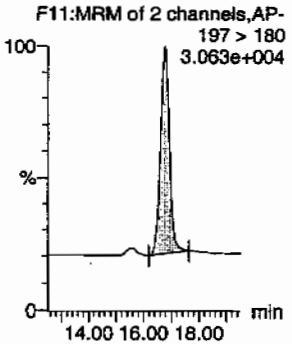

246-Trinitrotoluene

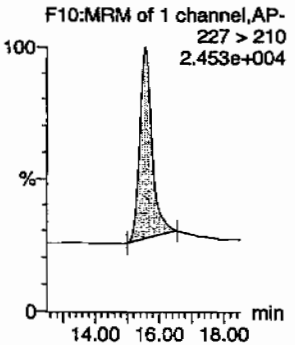

34-dinitrotoluene

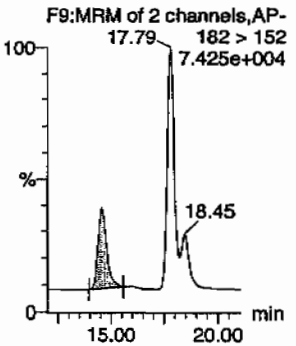

26-dinitrotoluene

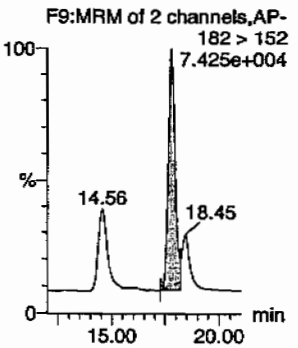

Khme 03/04/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

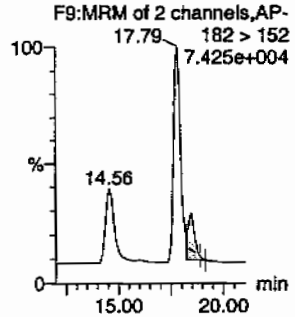

26-dinitrotoluene-d3

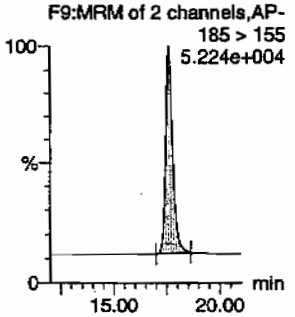

2-Nitrotoluene

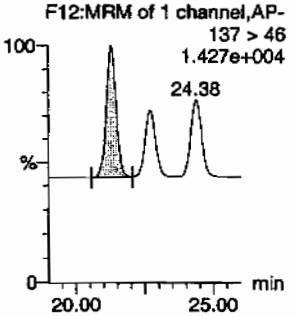

4-Nitrotoluene

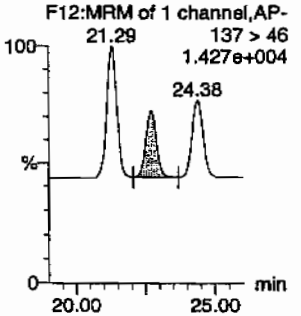

3-Nitrotoluene

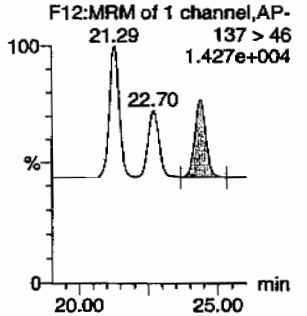

PETN

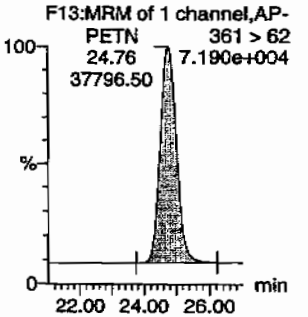

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.22	13686.972	3020.010	13686.972	2266.047	bb			594.0112	99.0	-1.0	2017.6
WXX100301-07CCV	RDX	176 > 102	7.64	10840.460	3020.010	10840.460	1794.772	bb			653.9244	109.0	9.0	1378.6
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	13002.997	3020.010	13002.997	2152.807	bb			625.2607	104.2	4.2	504.6
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3020.010		3020.010	3020.010	bb			521.0370	104.2	4.2	355.7
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4810.877	3020.010	4810.877	796.500	bb			607.1502	101.2	1.2	395.0
WXX100301-07CCV	Tetryl	241 > 181	12.82	3584.126	3020.010	3584.126	593.396	bb			574.9541	95.8	-4.2	310.5
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	3239.733	3020.010	3239.733	536.378	bb			603.3957	100.6	0.6	203.6
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	6351.652	18103.846	6351.652	175.423	MM	03-Mar-10	08:46:33	621.4735	103.6	3.6	444.3
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	9174.229	18103.846	9174.229	253.378	bb			672.0554	112.0	12.0	280.1
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	8028.257	18103.846	8028.257	221.728	bb			703.4960	117.2	17.2	371.1
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	10800.842	18103.846	10800.842	298.302	bb			301.1130	100.4	0.4	490.4
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	25281.350	18103.846	25281.350	698.231	MM	03-Mar-10	08:55:30	618.8696	103.1	3.1	1467.1
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.45	5990.723	18103.846	5990.723	165.454	MM	03-Mar-10	08:58:38	657.7640	109.6	9.6	310.3
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	18103.846		18103.846	18103.846	bb			562.7618	112.6	12.6	1275.0
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.29	3369.519	18103.846	3369.519	93.061	bb			561.0054	93.5	-6.5	348.8
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1819.844	18103.846	1819.844	50.261	bb			634.2143	105.7	5.7	177.8
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	2211.880	18103.846	2211.880	61.089	bb			622.0000	103.7	3.7	205.2
WXX100301-07CCV	PETN	361 > 62	24.76	37796.500	18103.846	37796.500	1043.880	bb			563.0009	93.8	-6.2	4013.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/03/10
Time of Injection: 0036
Standard Number: WXX100301-07CCV
Data File: EXP0301068a

HMX	99.0
RDX	109.0
135-TNB	104.2
13-DNB	101.2
Tetryl	95.8
Nitrobenzene	100.6
4A-26-DNT	103.6
2A-46-DNT	112.0
246-TNT	117.2
34-DNT(surr)	100.4
26-DNT	103.1
24-DNT	109.6
2-NT	93.5
4-NT	105.7
3-NT	103.7
PETN	93.8
Total	1652.4
Average	103.3

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301070a

Analysis Date: 03-MAR-10 01:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	40	42.921	107	
2,4-Dinitrotoluene	40	44.869	112	
2,6-Dinitrotoluene	40	39.409	99	
2,6-Dinitrotoluene-d3	500	621.51	124	
2-Amino-4,6-dinitrotoluene	40	47.604	119	
3,4-Dinitrotoluene	20	18.932	95	
4-Amino-2,6-dinitrotoluene	40	42.217	106	
HMX	40	49.129	123	
Nitrobenzene	40	36.502	91	
PETN	40	47.635	119	
RDX	40	42.752	107	
Tetryl	40	36.156	90	
m-Dinitrobenzene	40	43.178	108	
m-Nitrotoluene	40	41.745	104	
o-Nitrotoluene	40	37.385	93	
p-Nitrotoluene	40	41.194	103	
1,3,5-Trinitrobenzene	40	50.024	125	
1,3-Dinitrobenzene-d4	500	599.39	120	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301070a
Date: 03-Mar-2010
Time: 01:35:49
ID: WXX100301-08CRI
Vial: 1:1,C

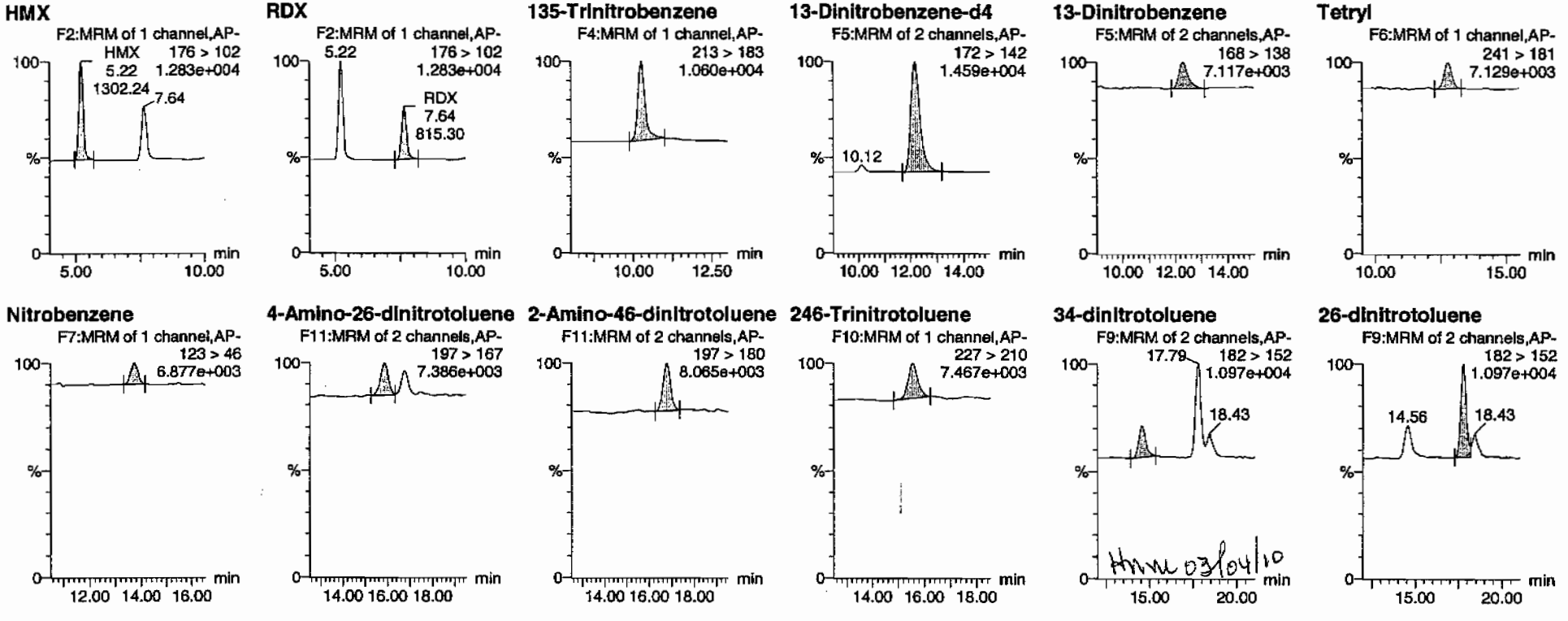

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

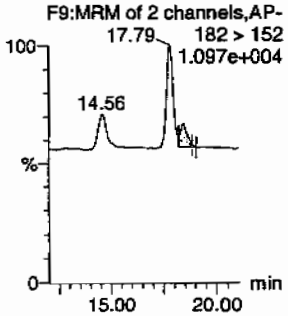

26-dinitrotoluene-d3

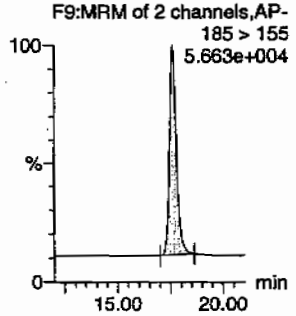

2-Nitrotoluene

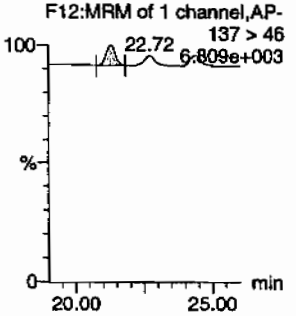

4-Nitrotoluene

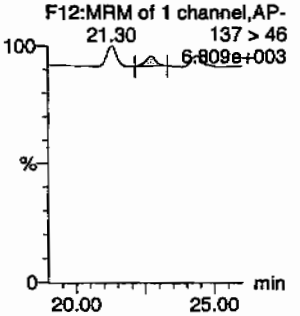

3-Nitrotoluene

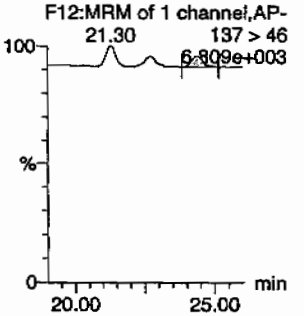

PETN

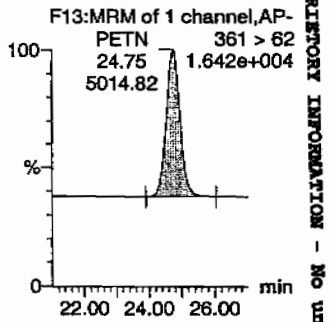

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1302.244	3474.158	1302.244	187.419	bb			49.1291	122.8	22.8	190.8
WXX100301-08CRI	RDX	176 > 102	7.64	815.297	3474.158	815.297	117.337	bb			42.7518	106.9	6.9	102.4
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.27	1196.755	3474.158	1196.755	172.237	bb			50.0244	125.1	25.1	250.0
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3474.158		3474.158	3474.158	bb			599.3904	119.9	19.9	657.7
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	393.580	3474.158	393.580	56.644	bb			43.1781	107.9	7.9	53.6
WXX100301-08CRI	Tetryl	241 > 181	12.82	325.501	3474.158	325.501	46.846	bb			36.1561	90.4	-9.6	25.8
WXX100301-08CRI	Nitrobenzene	123 > 46	13.76	225.458	3474.158	225.458	32.448	bb			36.5021	91.3	-8.7	24.8
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	476.509	19993.752	476.509	11.916	MM	03-Mar-10	08:46:42	42.2166	105.5	5.5	58.7
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	717.676	19993.752	717.676	17.948	bb			47.6037	119.0	19.0	66.5
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.55	540.942	19993.752	540.942	13.528	bb			42.9208	107.3	7.3	54.8
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	749.975	19993.752	749.975	18.755	bb			18.9319	94.7	-5.3	51.3
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1777.950	19993.752	1777.950	44.463	MM	03-Mar-10	08:55:19	39.4090	98.5	-1.5	150.3
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.43	451.310	19993.752	451.310	11.286	MM	03-Mar-10	08:58:49	44.8686	112.2	12.2	35.6
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	19993.752		19993.752	19993.752	bb			621.5099	124.3	24.3	3720.8
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.30	247.985	19993.752	247.985	6.202	bb			37.3853	93.5	-6.5	85.9
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.72	130.542	19993.752	130.542	3.265	bb			41.1935	103.0	3.0	42.2
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.38	163.944	19993.752	163.944	4.100	bb			41.7447	104.4	4.4	47.7
WXX100301-08CRI	PETN	361 > 62	24.75	5014.823	19993.752	5014.823	125.410	bb			47.6353	119.1	19.1	1827.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/03/10
Time of Injection	0135
Standard Number	WXX100301-08CRI
Data File	EXP0301070a

HMX	122.8
RDX	106.9
135-TNB	125.1
13-DNB	107.9
Tetryl	90.4
Nitrobenzene	91.3
4A-26-DNT	105.5
2A-46-DNT	119.0
246-TNT	107.3
34-DNT(surr)	94.7
26-DNT	98.5
24-DNT	112.2
2-NT	93.5
4-NT	103.0
3-NT	104.4
PETN	119.1
Total	1701.6
Average	106.4

MRP 3/3/10

HMK 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0301081a

Analysis Date: 03-MAR-10 07:00

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	597.421	100	
1,3-Dinitrobenzene-d4	500	541.498	108	
2,4,6-Trinitrotoluene	600	710.046	118	
2,4-Dinitrotoluene	600	678.751	113	
2,6-Dinitrotoluene	600	618.273	103	
2,6-Dinitrotoluene-d3	500	564.163	113	
2-Amino-4,6-dinitrotoluene	600	652.34	109	
3,4-Dinitrotoluene	300	313.63	105	
4-Amino-2,6-dinitrotoluene	600	563.974	94	
HMX	600	654.039	109	
Nitrobenzene	600	549.595	92	
PETN	600	494.993	82	
RDX	600	611.075	102	
Tetryl	600	521.429	87	
m-Dinitrobenzene	600	581.641	97	
m-Nitrotoluene	600	494.415	82	
o-Nitrotoluene	600	483.022	81	
p-Nitrotoluene	600	520.182	87	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301081a
Date: 03-Mar-2010
Time: 07:00:23
ID: WXX100301-07CCV
Vial: 1:1,B

MM 3/3/10

HMX

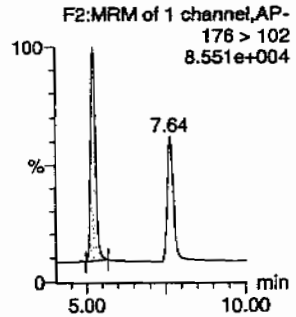

RDX

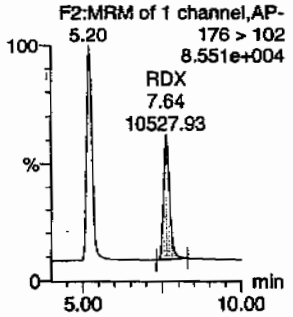

135-Trinitrobenzene

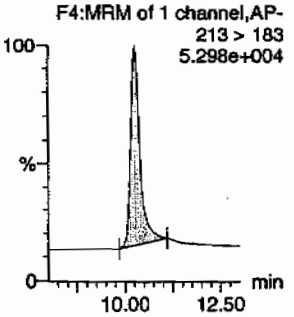

13-Dinitrobenzene-d4

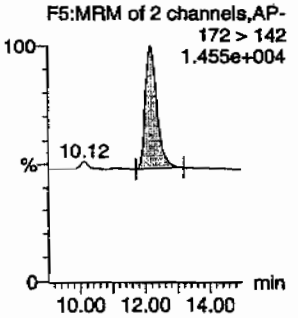

13-Dinitrobenzene

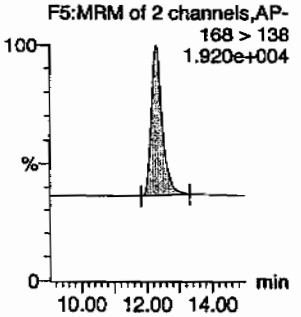

Tetryl

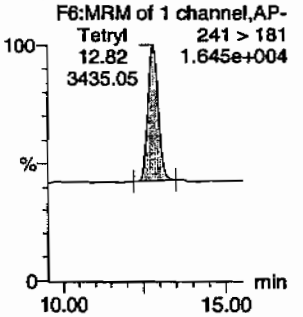

Nitrobenzene

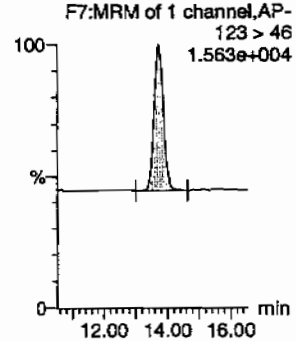

4-Amino-26-dinitrotoluene

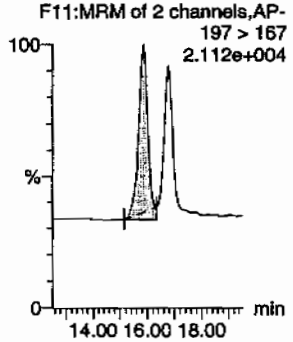

2-Amino-46-dinitrotoluene

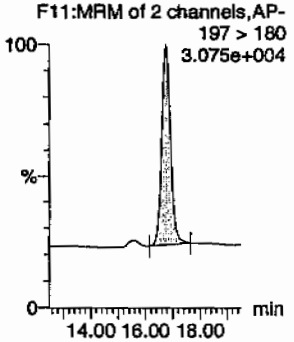

246-Trinitrotoluene

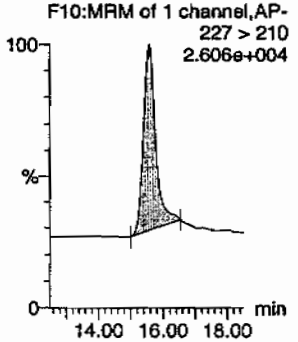

34-dinitrotoluene

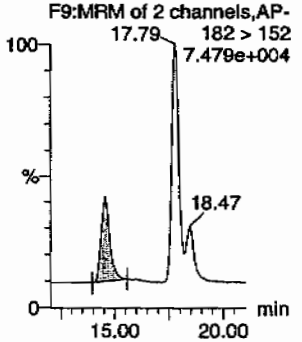

MM 03/04/10

26-dinitrotoluene

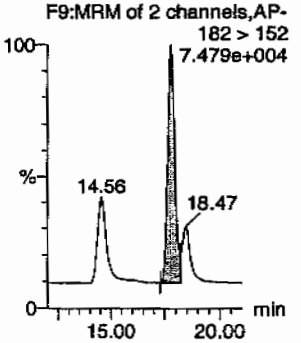

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

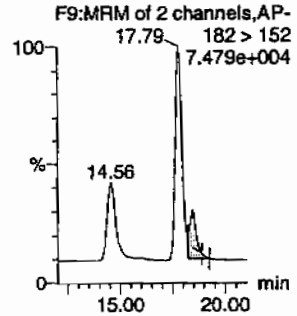

26-dinitrotoluene-d3

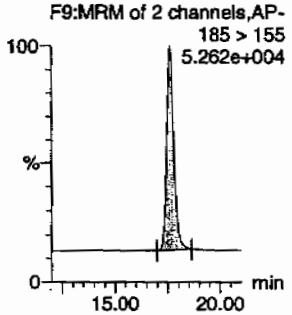

2-Nitrotoluene

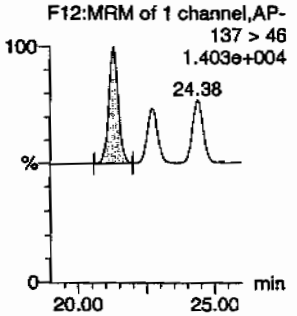

4-Nitrotoluene

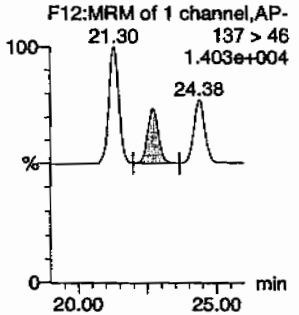

3-Nitrotoluene

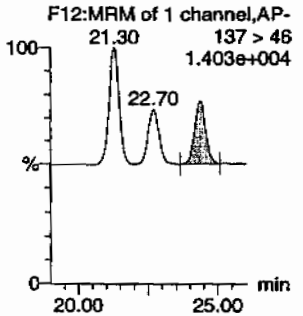

PETN

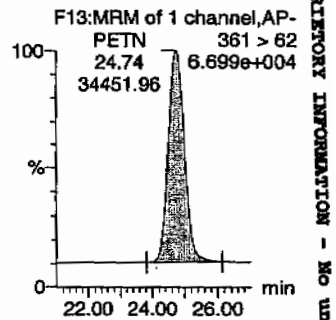

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100301-07CCV	HMX	176 > 102	5.20	15661.918	3138.605	15661.918	2495.044	bb			654.0394	109.0	9.0	3102.5
WXX100301-07CCV	RDX	176 > 102	7.64	10527.930	3138.605	10527.930	1677.167	bb			611.0751	101.8	1.8	1822.8
WXX100301-07CCV	135-Trinitrobenzene	213 > 183	10.27	12911.929	3138.605	12911.929	2056.953	bb			597.4211	99.6	-0.4	1467.1
WXX100301-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3138.605		3138.605	3138.605	bb			541.4980	108.3	8.3	166.7
WXX100301-07CCV	13-Dinitrobenzene	168 > 138	12.31	4789.737	3138.605	4789.737	763.036	bb			581.6414	96.9	-3.1	257.6
WXX100301-07CCV	Tetryl	241 > 181	12.82	3435.049	3138.605	3435.049	547.225	bb			521.4288	86.9	-13.1	219.6
WXX100301-07CCV	Nitrobenzene	123 > 46	13.72	3066.749	3138.605	3066.749	488.553	bb			549.5952	91.6	-8.4	340.0
WXX100301-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5778.337	18148.918	5778.337	159.192	MM	03-Mar-10	08:47:27	563.9737	94.0	-6.0	205.9
WXX100301-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	8927.271	18148.918	8927.271	245.945	bb			652.3405	108.7	8.7	535.8
WXX100301-07CCV	246-Trinitrotoluene	227 > 210	15.58	8123.173	18148.918	8123.173	223.792	bb			710.0455	118.3	18.3	153.9
WXX100301-07CCV	34-dinitrotoluene	182 > 152	14.56	11277.819	18148.918	11277.819	310.702	bb			313.6296	104.5	4.5	278.4
WXX100301-07CCV	26-dinitrotoluene	182 > 152	17.79	25319.865	18148.918	25319.865	697.559	MM	03-Mar-10	08:54:25	618.2731	103.0	3.0	783.2
WXX100301-07CCV	24-dinitrotoluene	182 > 152	18.47	6197.255	18148.918	6197.255	170.733	MM	03-Mar-10	09:00:43	678.7508	113.1	13.1	175.4
WXX100301-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	18148.918		18148.918	18148.918	bb			564.1629	112.8	12.8	1480.8
WXX100301-07CCV	2-Nitrotoluene	137 > 46	21.30	2908.356	18148.918	2908.356	80.125	bb			483.0219	80.5	-19.5	479.2
WXX100301-07CCV	4-Nitrotoluene	137 > 46	22.70	1496.350	18148.918	1496.350	41.224	bb			520.1818	86.7	-13.3	228.8
WXX100301-07CCV	3-Nitrotoluene	137 > 46	24.38	1762.555	18148.918	1762.555	48.558	bb			494.4149	82.4	-17.6	262.9
WXX100301-07CCV	PETN	361 > 62	24.74	34451.961	18148.918	34451.961	949.146	bb			494.9929	82.5	-17.5	509.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/03/10
Time of Injection: 0700
Standard Number: WXX100301-07CCV
Data File: EXP0301081a

HMX		109.0
RDX		101.8
135-TNB		99.6
13-DNB		96.9
Tetryl		86.9
Nitrobenzene		91.6
4A-26-DNT		94.0
2A-46-DNT		108.7
246-TNT		118.3
34-DNT(surr)		104.5
26-DNT		103.0
24-DNT		113.1
2-NT		80.5
4-NT		86.7
3-NT		82.4
PETN		82.5
Total		1559.5
Average		97.5

MHT 3/3/10

Hmm 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0301083a

Analysis Date: 03-MAR-10 07:59

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	30.064	75	
Tetryl	40	29.332	73	
m-Dinitrobenzene	40	42.74	107	
m-Nitrotoluene	40	29.241	73	
o-Nitrotoluene	40	36.839	92	
p-Nitrotoluene	40	41.871	105	
1,3,5-Trinitrobenzene	40	49.866	125	
1,3-Dinitrobenzene-d4	500	643.486	129	
2,4,6-Trinitrotoluene	40	47.216	118	
2,4-Dinitrotoluene	40	42.604	107	
2,6-Dinitrotoluene	40	40.372	101	
2,6-Dinitrotoluene-d3	500	642.665	129	
2-Amino-4,6-dinitrotoluene	40	41.73	104	
3,4-Dinitrotoluene	20	17.556	88	
4-Amino-2,6-dinitrotoluene	40	40.477	101	
HMX	40	36.066	90	
Nitrobenzene	40	30.414	76	
PETN	40	46.771	117	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301083a
Date: 03-Mar-2010
Time: 07:59:21
ID: WXX100301-08CRI
Vial: 1:1,C

MAP 3/3/10

HMX

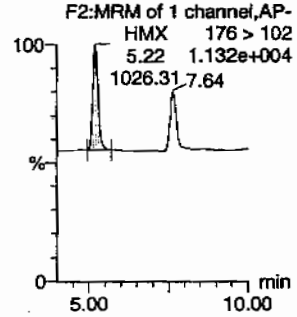

RDX

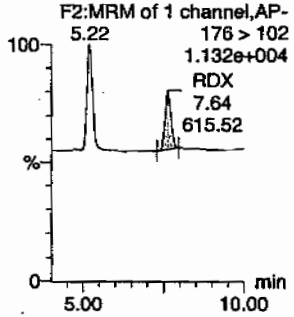

135-Trinitrobenzene

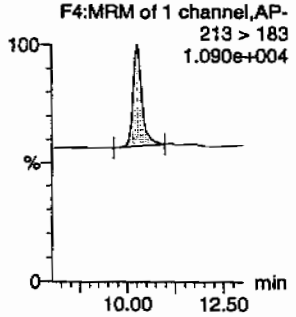

13-Dinitrobenzene-d4

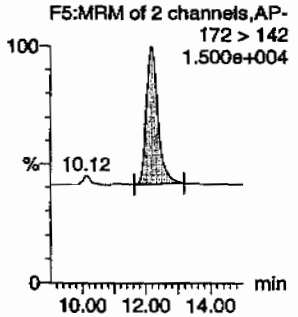

13-Dinitrobenzene

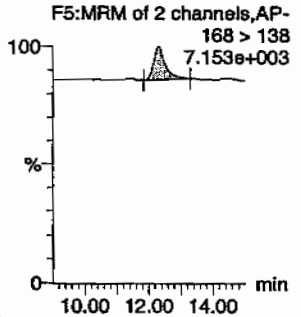

Tetryl

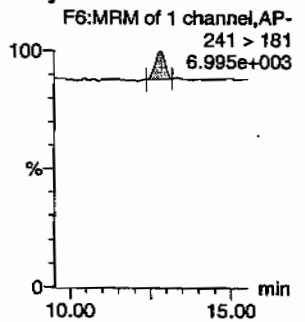

Nitrobenzene

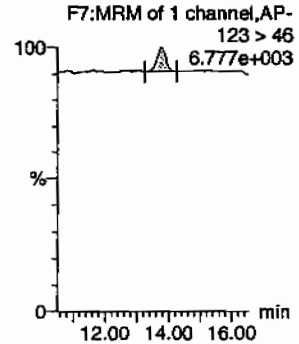

4-Amino-26-dinitrotoluene

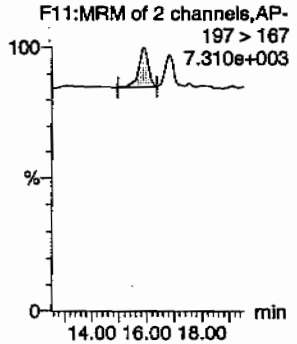

2-Amino-46-dinitrotoluene

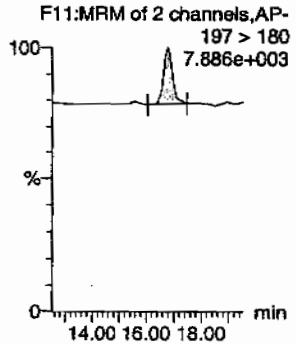

246-Trinitrotoluene

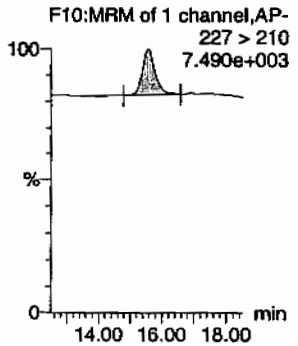

34-dinitrotoluene

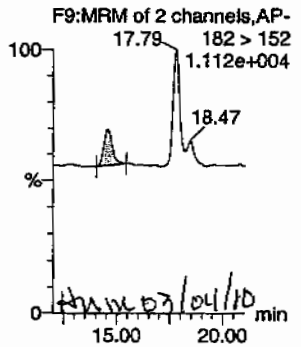

26-dinitrotoluene

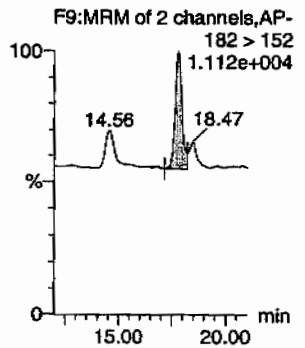

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

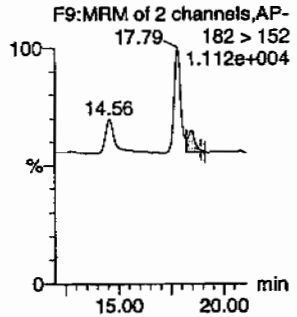

26-dinitrotoluene-d3

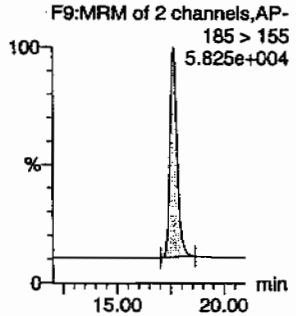

2-Nitrotoluene

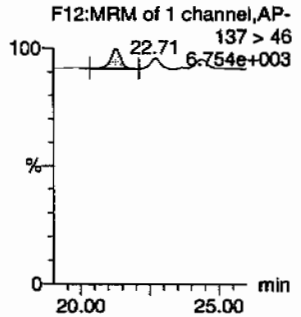

4-Nitrotoluene

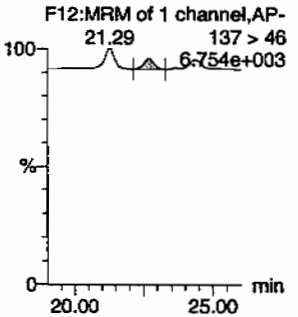

3-Nitrotoluene

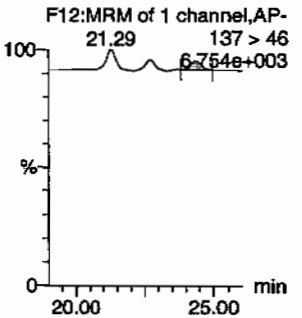

PETN

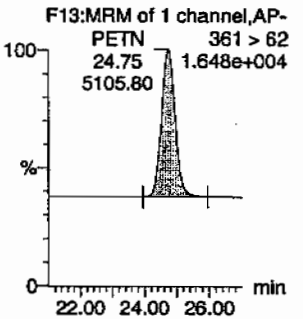

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100301-08CRI	HMX	176 > 102	5.22	1026.314	3729.741	1026.314	137.585	bb			36.0659	90.2	-9.8	161.9
WXX100301-08CRI	RDX	176 > 102	7.64	615.518	3729.741	615.518	82.515	bb			30.0642	75.2	-24.8	89.5
WXX100301-08CRI	135-Trinitrobenzene	213 > 183	10.25	1280.718	3729.741	1280.718	171.690	bb			49.8656	124.7	24.7	150.7
WXX100301-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3729.741		3729.741	3729.741	bb			643.4857	128.7	28.7	565.7
WXX100301-08CRI	13-Dinitrobenzene	168 > 138	12.31	418.249	3729.741	418.249	56.069	bb			42.7402	106.9	6.9	44.2
WXX100301-08CRI	Tetryl	241 > 181	12.82	289.126	3729.741	289.126	38.760	bb			29.3324	73.3	-26.7	24.6
WXX100301-08CRI	Nitrobenzene	123 > 46	13.76	201.672	3729.741	201.672	27.036	bb			30.4136	76.0	-24.0	25.4
WXX100301-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	472.425	20674.299	472.425	11.425	MM	03-Mar-10	08:47:36	40.4770	101.2	1.2	36.8
WXX100301-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	650.540	20674.299	650.540	15.733	bb			41.7301	104.3	4.3	75.3
WXX100301-08CRI	246-Trinitrotoluene	227 > 210	15.58	615.329	20674.299	615.329	14.881	bb			47.2159	118.0	18.0	69.2
WXX100301-08CRI	34-dinitrotoluene	182 > 152	14.56	719.132	20674.299	719.132	17.392	bb			17.5558	87.8	-12.2	34.6
WXX100301-08CRI	26-dinitrotoluene	182 > 152	17.79	1883.394	20674.299	1883.394	45.549	MM	03-Mar-10	08:49:29	40.3720	100.9	0.9	109.4
WXX100301-08CRI	24-dinitrotoluene	182 > 152	18.47	443.117	20674.299	443.117	10.717	MM	03-Mar-10	09:00:13	42.6039	106.5	6.5	23.7
WXX100301-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	20674.299		20674.299	20674.299	bb			642.6649	128.5	28.5	1440.0
WXX100301-08CRI	2-Nitrotoluene	137 > 46	21.29	252.676	20674.299	252.676	6.111	bb			36.8386	92.1	-7.9	51.1
WXX100301-08CRI	4-Nitrotoluene	137 > 46	22.71	137.205	20674.299	137.205	3.318	bb			41.8709	104.7	4.7	27.4
WXX100301-08CRI	3-Nitrotoluene	137 > 46	24.37	118.745	20674.299	118.745	2.872	bb			29.2405	73.1	-26.9	22.9
WXX100301-08CRI	PETN	361 > 62	24.75	5105.803	20674.299	5105.803	123.482	bb			46.7713	116.9	16.9	557.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/03/10
Time of Injection	0759
Standard Number	WXX100301-08CRI
Data File	EXP0301083a

HMX		90.2
RDX		75.2
135-TNB		124.7
13-DNB		106.9
Tetryl		73.3
Nitrobenzene		76.0
4A-26-DNT		101.2
2A-46-DNT		104.3
246-TNT		118.0
34-DNT(surr)		87.8
26-DNT		100.9
24-DNT		106.5
2-NT		92.1
4-NT		104.7
3-NT		73.1
PETN		116.9
Total		1551.8
Average		97.0

MHP 3/3/10

HMK 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02220013.wiff

Analysis Date: 22-FEB-10 20:10

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	144	144	
2,6-Diamino-4-nitrotoluene	100	138	138	
3,4-Dinitrotoluene	50	46.4	93	
3,5-Dinitroaniline	100	100	100	
TATB	100	92.4	92	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.83e+005 counts
Height: 39346.195 cps
Start Time: 6.87 min
End Time: 7.70 min

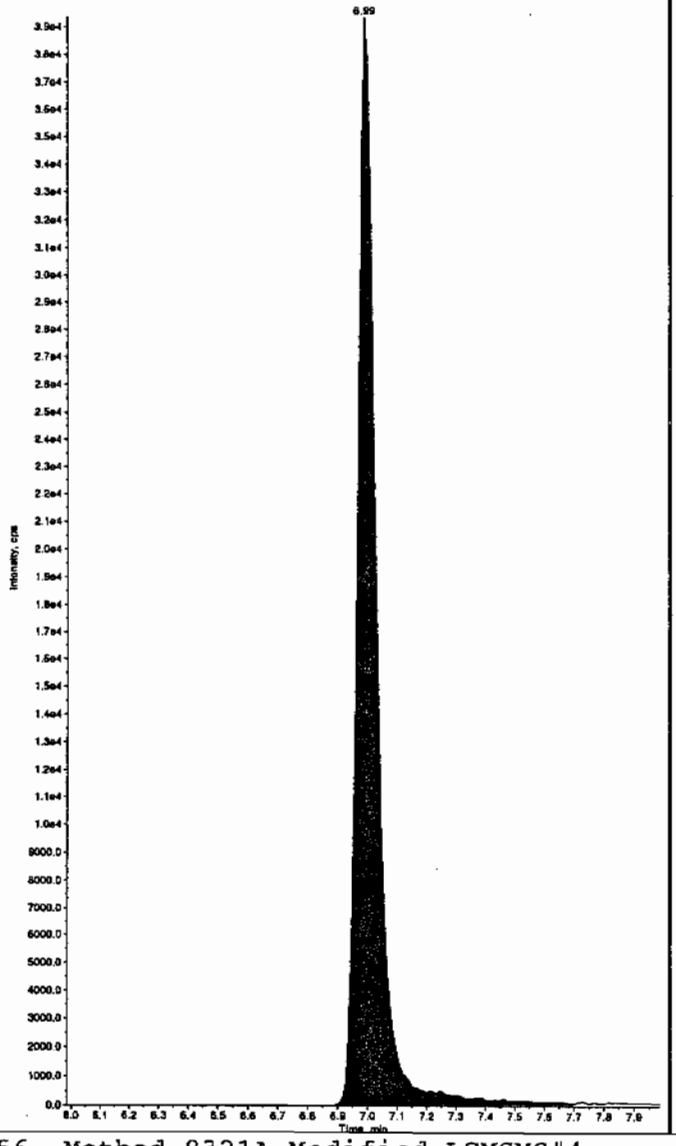

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 7.08e+005 counts
Height: 169761.169 cps
Start Time: 8.10 min
End Time: 8.33 min

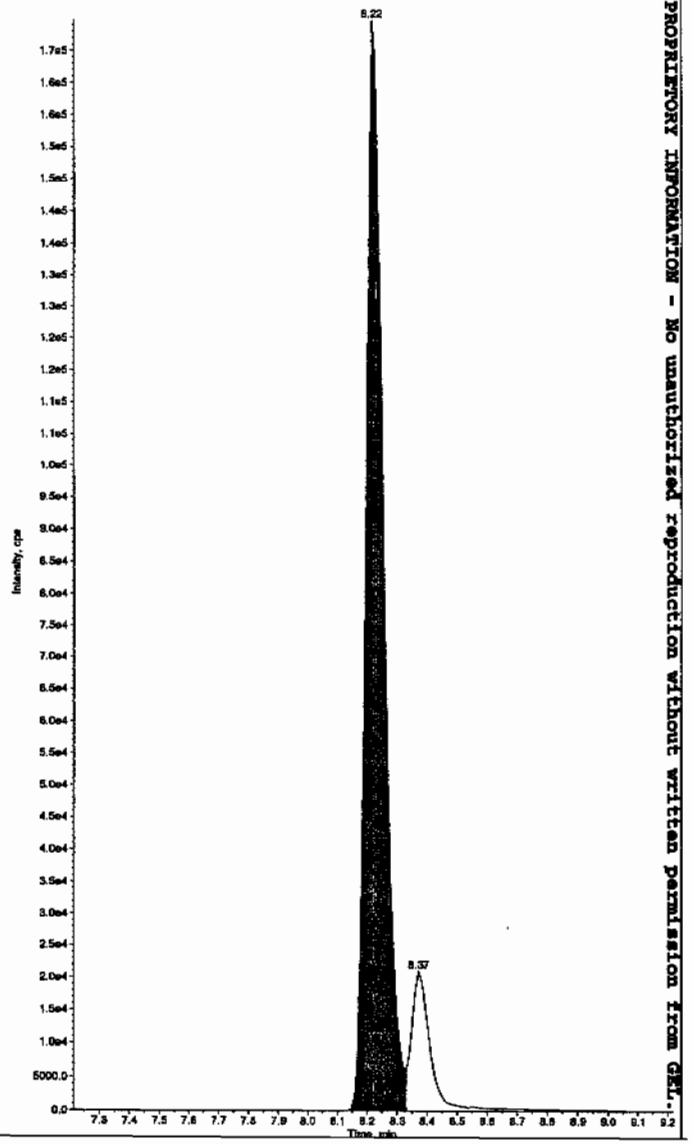

Hmm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 46.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.36e+005 counts
Height: 169130.783 cps
Start Time: 8.29 min
End Time: 8.57 min

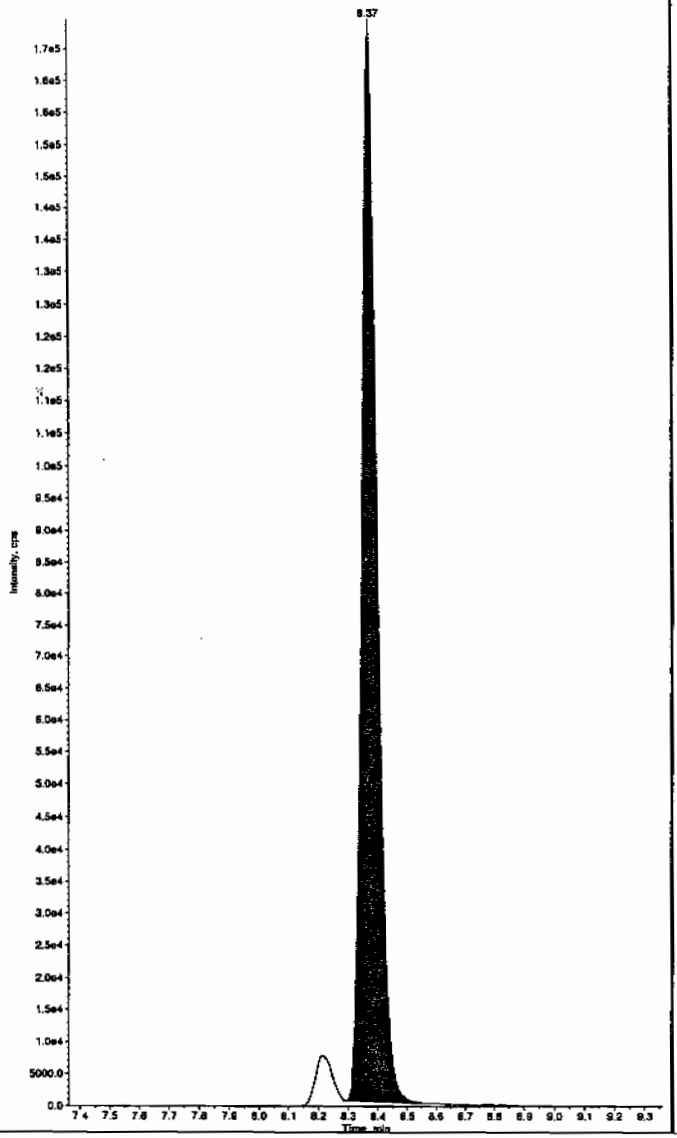

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 138. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.63e+005 counts
Height: 60650.684 cps
Start Time: 4.89 min
End Time: 5.27 min

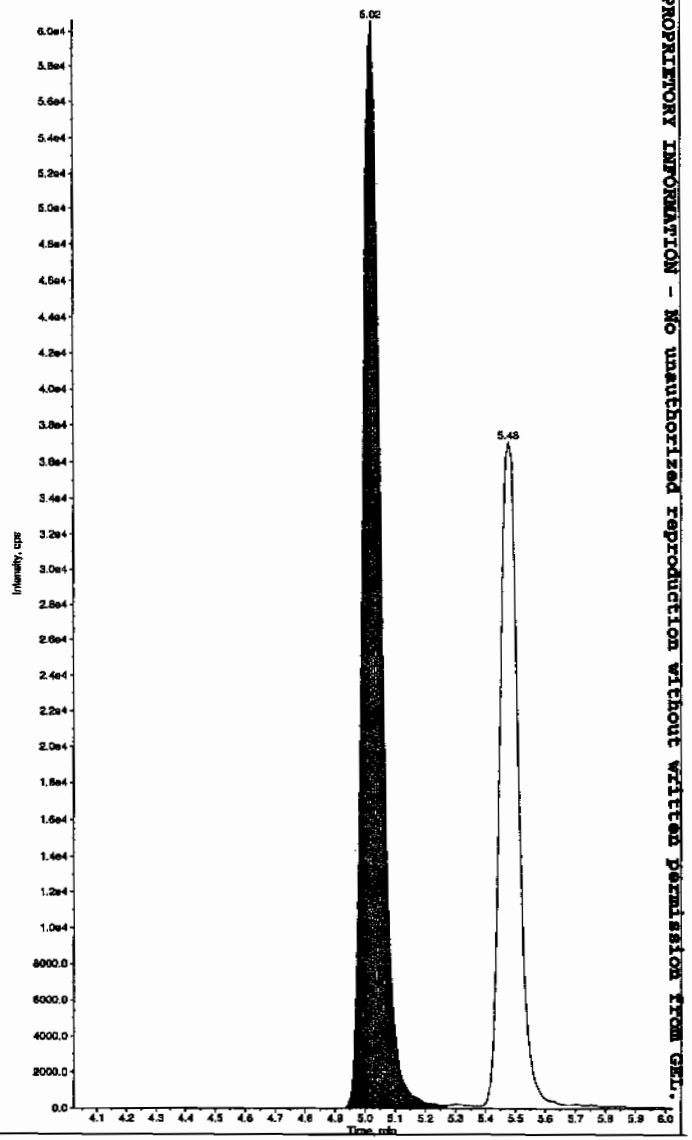

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 144. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.61e+005 counts
Height: 37082.989 cps
Start Time: 5.37 min
End Time: 5.83 min

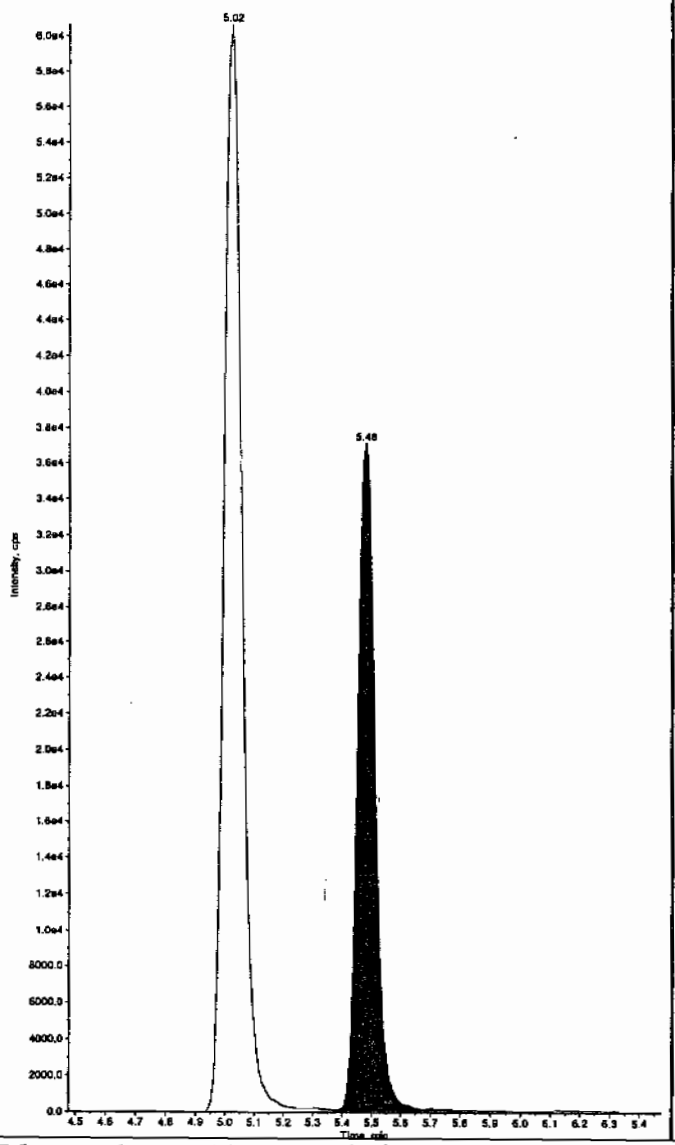

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 8:10:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.20e+006 counts
Height: 530816.833 cps
Start Time: 10.8 min
End Time: 11.2 min

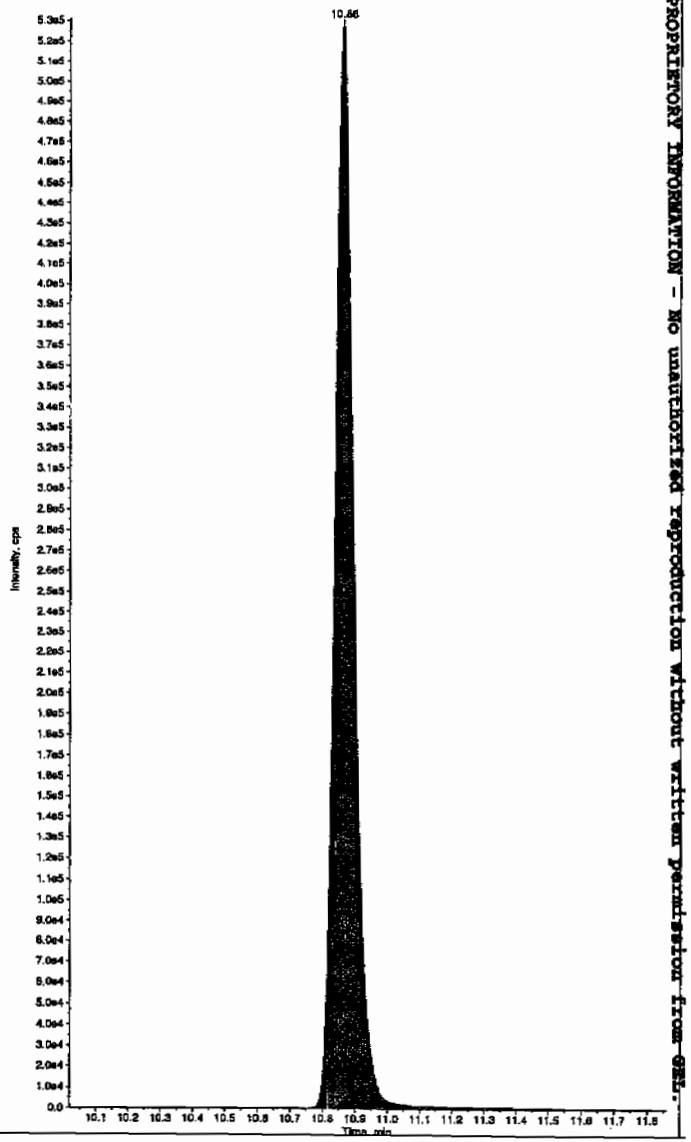

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02220024.wiff

Analysis Date: 22-FEB-10 23:03

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	608	122	
2,6-Diamino-4-nitrotoluene	500	589	118	
3,4-Dinitrotoluene	250	240	96	
3,5-Dinitroaniline	500	502	100	
TATB	500	434	87	
tris(o-cresyl) phosphate	500	474	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 434. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.29e+005 counts
Height: 176679.764 cps
Start Time: 6.88 min
End Time: 7.69 min

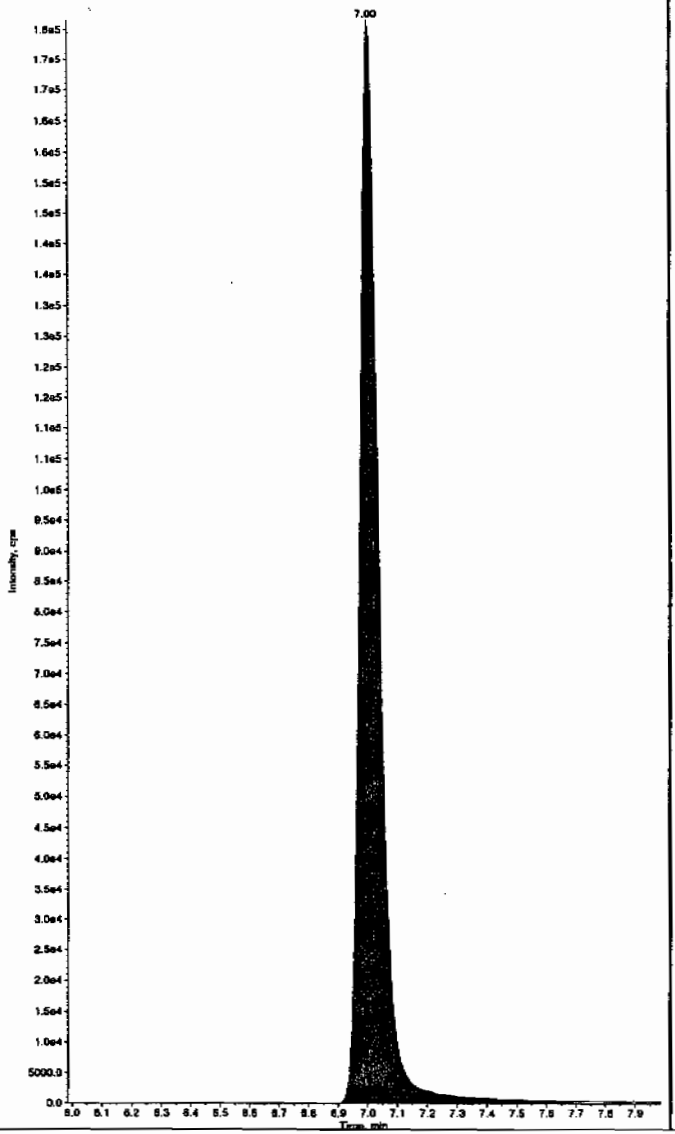

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.66e+006 counts
Height: 888949.829 cps
Start Time: 8.13 min
End Time: 8.33 min

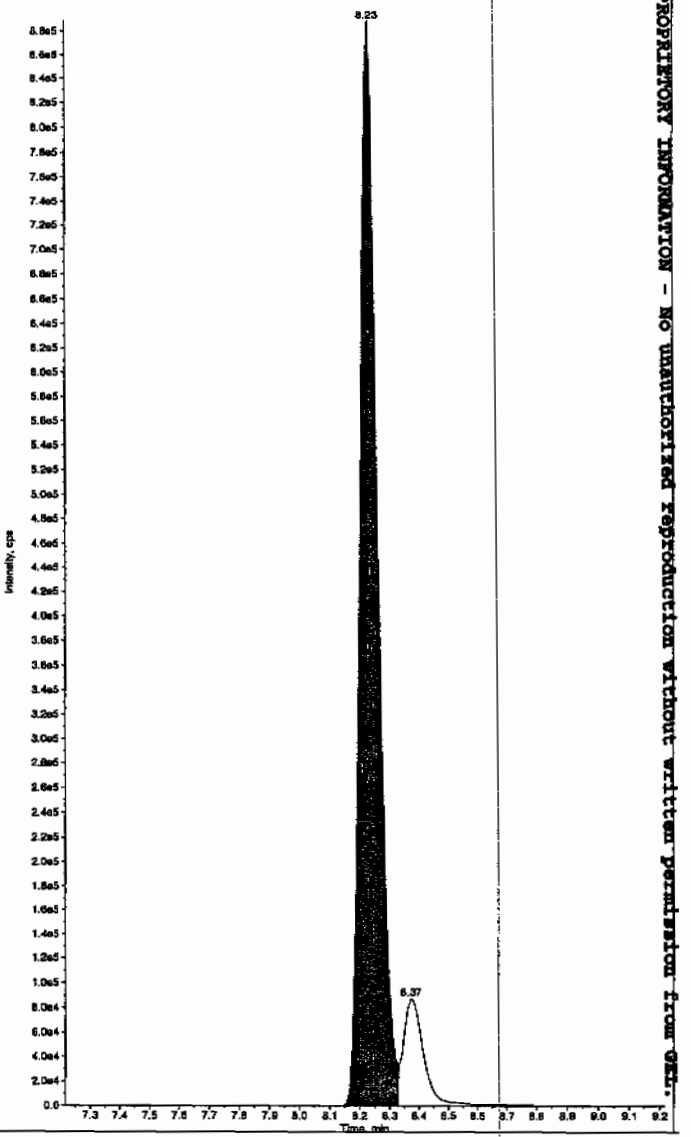

Hmc 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 240. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.21e+006 counts
Height: 793470.642 cps
Start Time: 8.30 min
End Time: 8.60 min

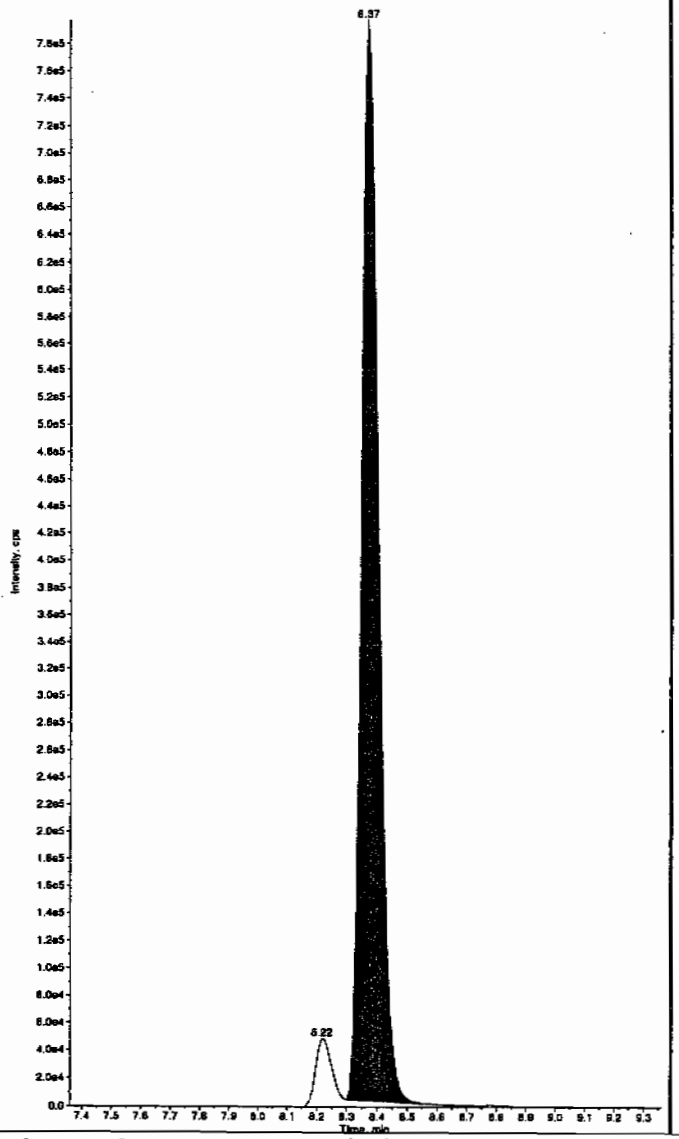

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 589. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:03:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.12e+006 counts
Height: 280152.069 cps
Start Time: 4.92 min
End Time: 5.32 min

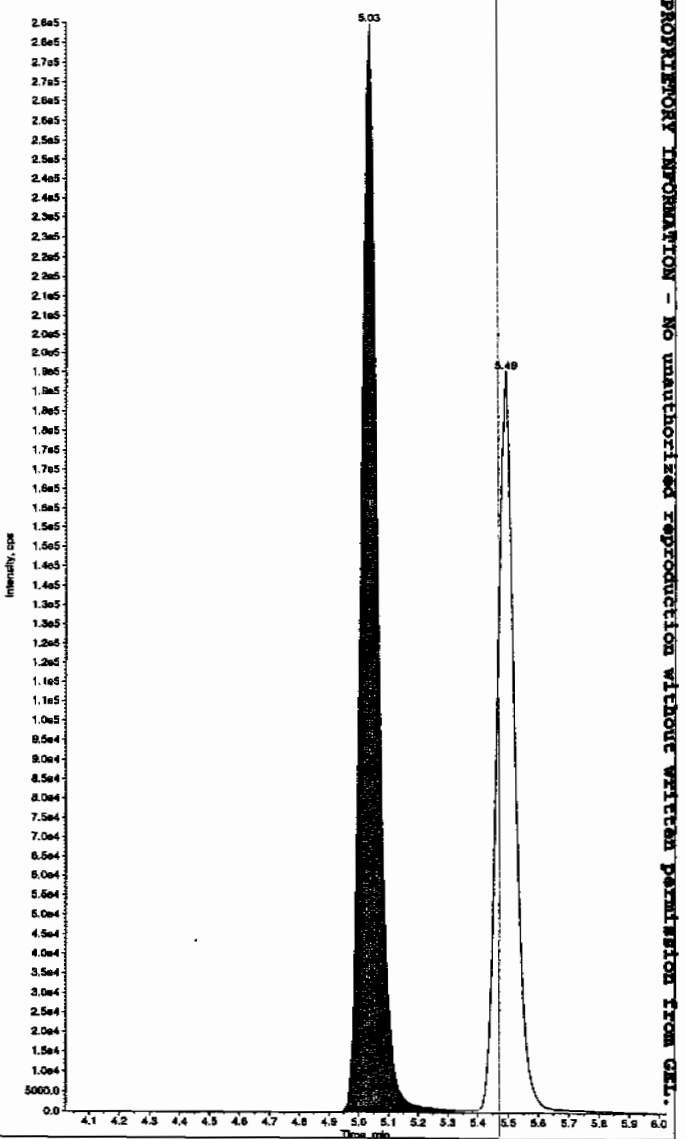

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.    ng/mL
Calculated Conc:     608.    ng/mL
Acq. Date:        2/22/2010
Acq. Time:        11:03:13 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.48   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.49   min
Area:          7.64e+005   counts
Height:        190601.074  cps
Start Time:         5.36   min
End Time:           5.93   min
```

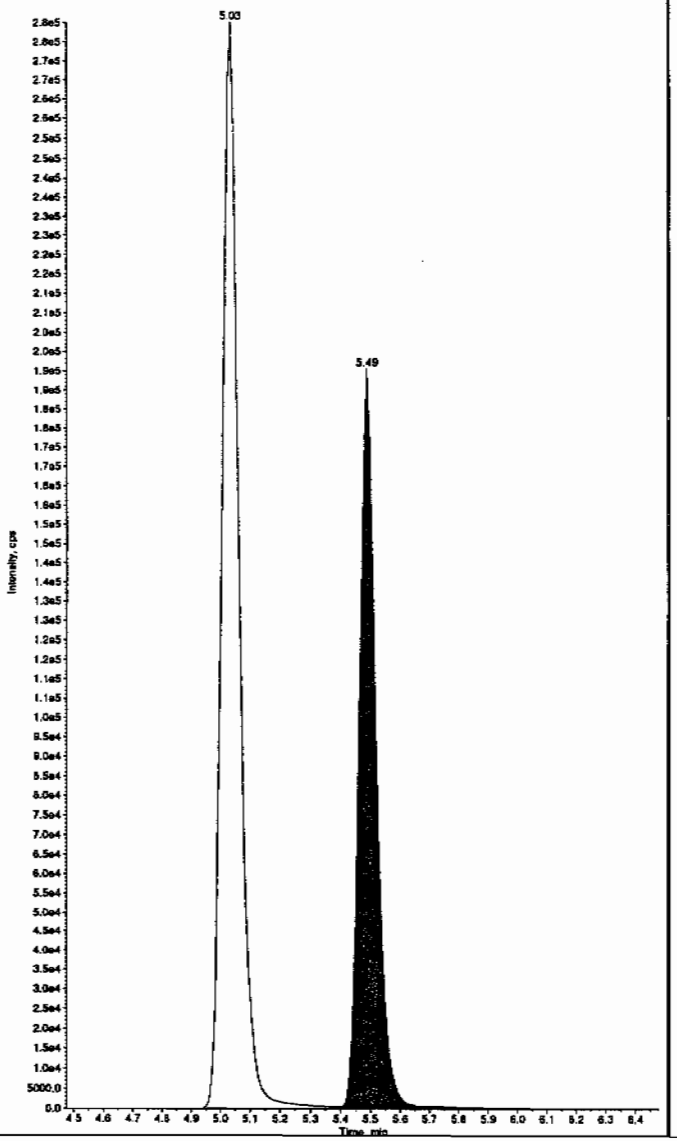

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.    ng/mL
Calculated Conc:     474.    ng/mL
Acq. Date:        2/22/2010
Acq. Time:        11:03:13 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9   min
Area:          9.50e+006   counts
Height:        2173984.131 cps
Start Time:         10.8   min
End Time:           11.2   min
```

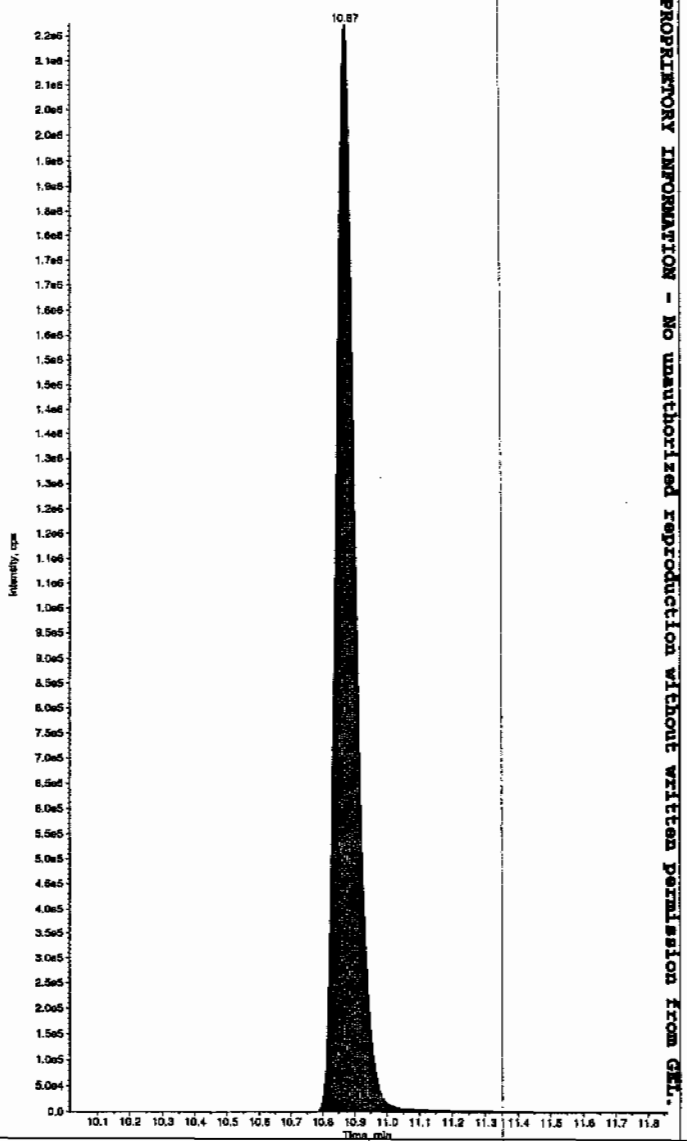

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02220026.wiff

Analysis Date: 22–FEB–10 23:34

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	125	125	
2,6–Diamino–4–nitrotoluene	100	106	106	
3,4–Dinitrotoluene	50	47.3	95	
3,5–Dinitroaniline	100	103	103	
TATB	100	87.6	88	
tris(o–cresyl) phosphate	100	99.4	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.6 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.73e+005 counts
Height: 36736.000 cps
Start Time: 6.89 min
End Time: 7.54 min

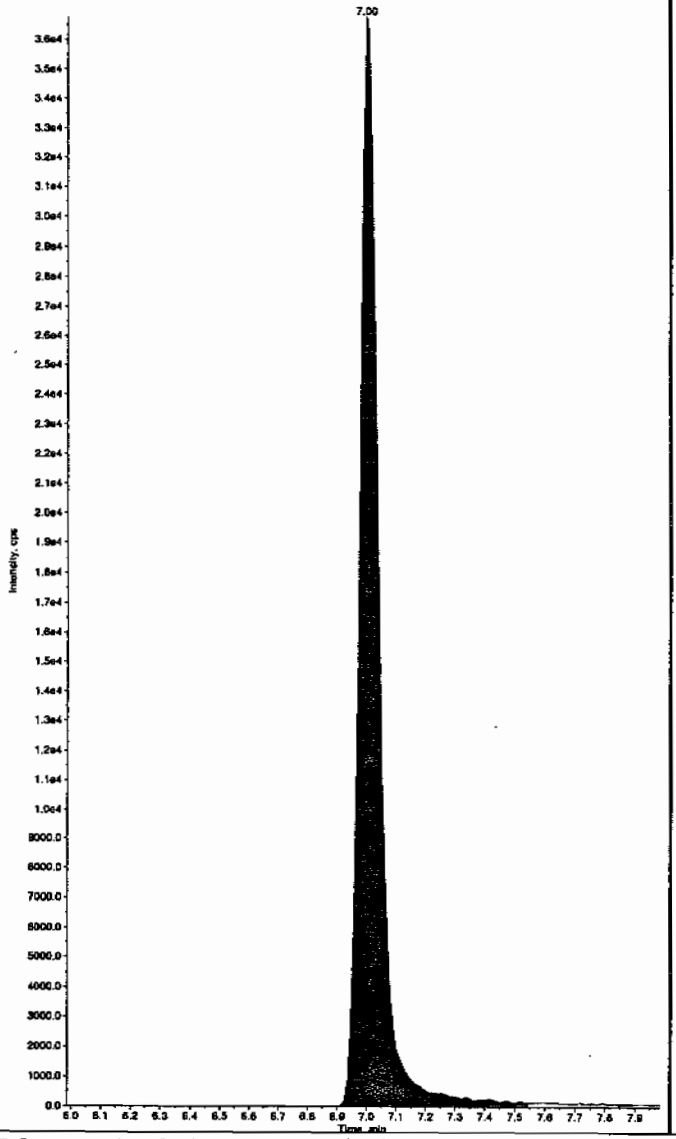

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 7.34e+005 counts
Height: 162769.363 cps
Start Time: 8.11 min
End Time: 8.33 min

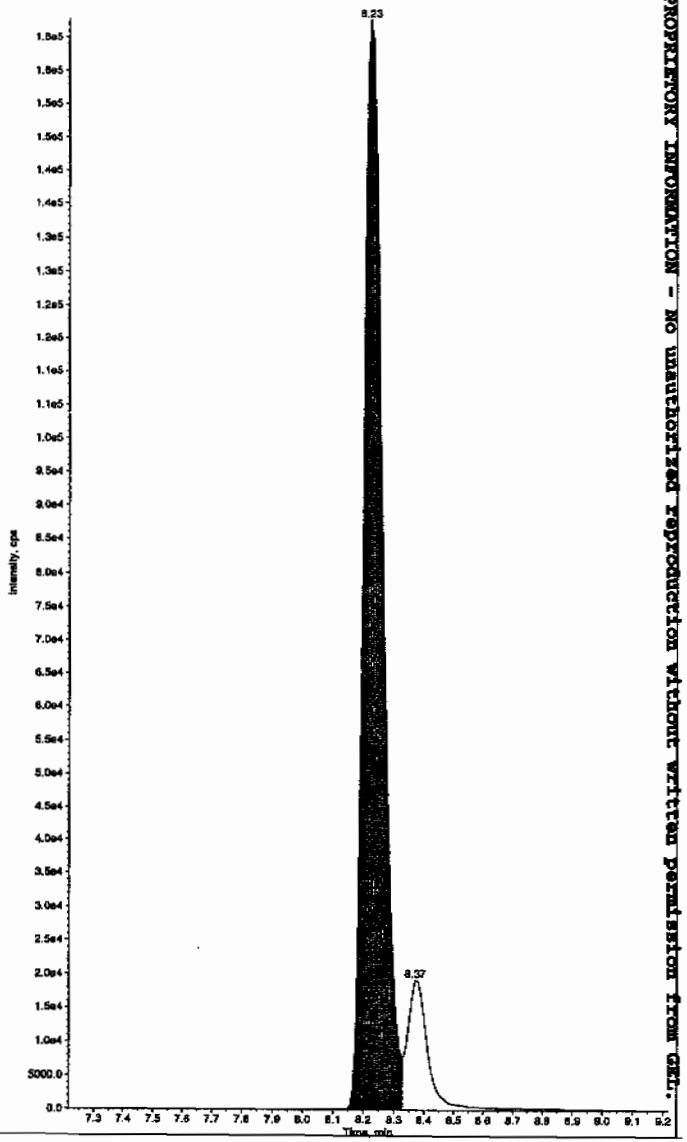

Hmm 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "162.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 47.3 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.48e+005 counts
Height: 171754.425 cps
Start Time: 8.30 min
End Time: 8.57 min

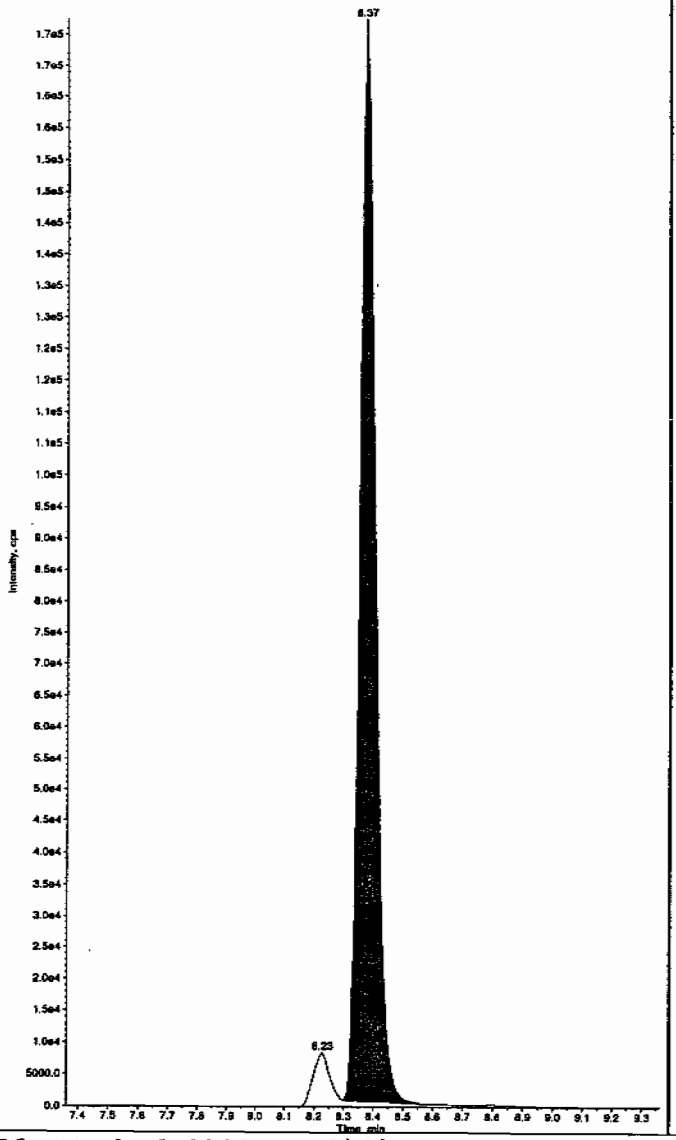

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 2.02e+005 counts
Height: 43339.493 cps
Start Time: 4.91 min
End Time: 5.32 min

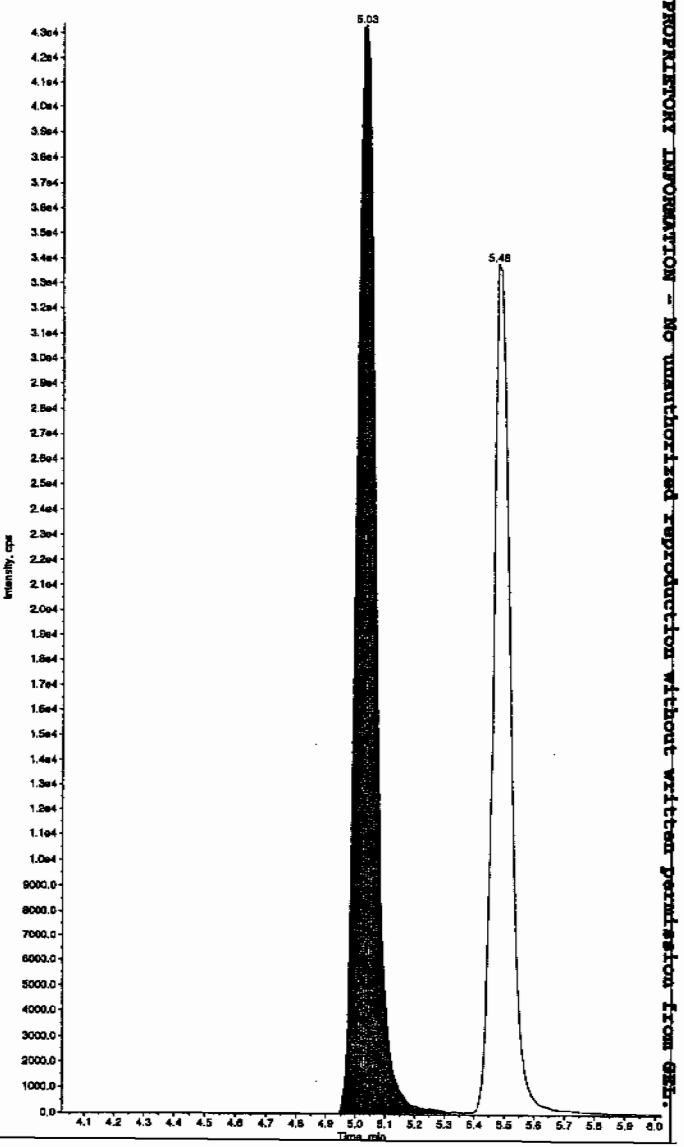

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 125. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.36e+005 counts
Height: 33829.556 cps
Start Time: 5.36 min
End Time: 5.87 min

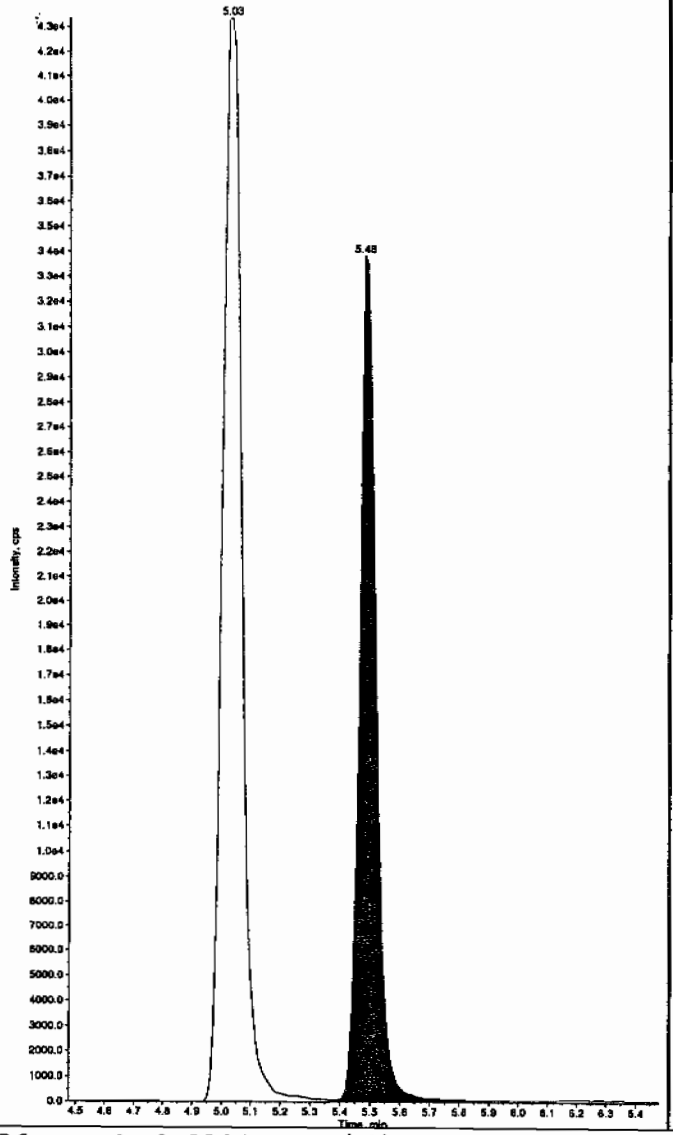

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.4 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 11:34:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.15e+006 counts
Height: 510783.722 cps
Start Time: 10.8 min
End Time: 11.2 min

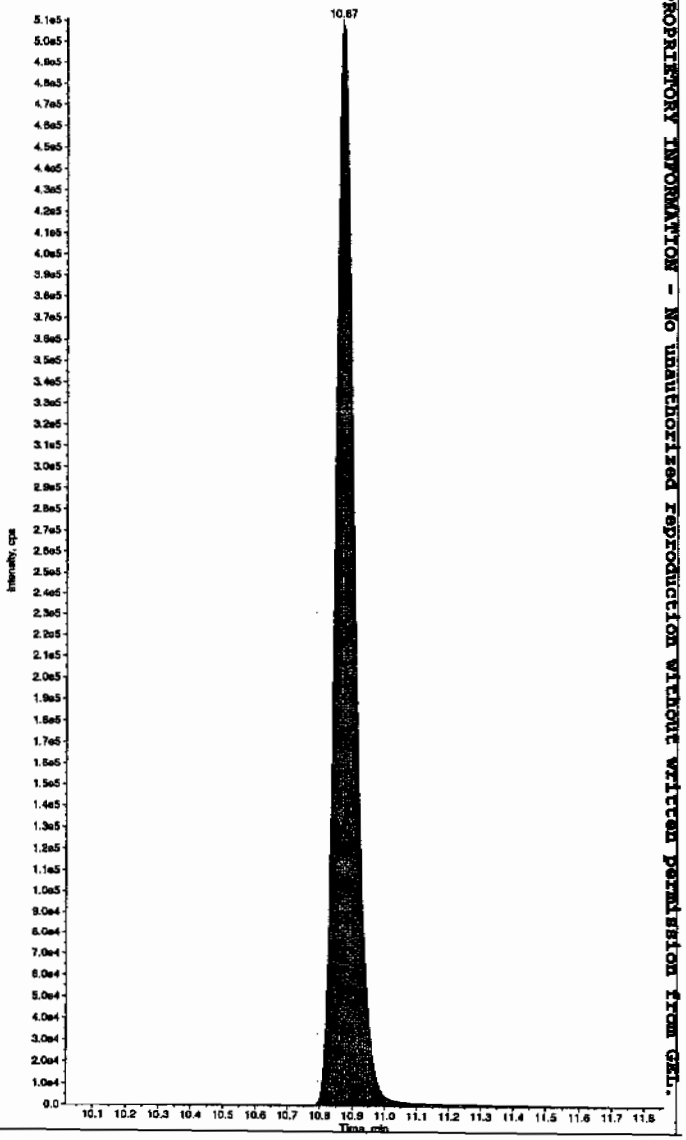

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02220037.wiff

Analysis Date: 23-FEB-10 02:27

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	599	120	
2,6-Diamino-4-nitrotoluene	500	568	114	
3,4-Dinitrotoluene	250	263	105	
3,5-Dinitroaniline	500	547	109	
TATB	500	445	89	
tris(o-cresyl) phosphate	500	485	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 445. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.50e+005 counts
Height: 186114.761 cps
Start Time: 6.87 min
End Time: 7.55 min

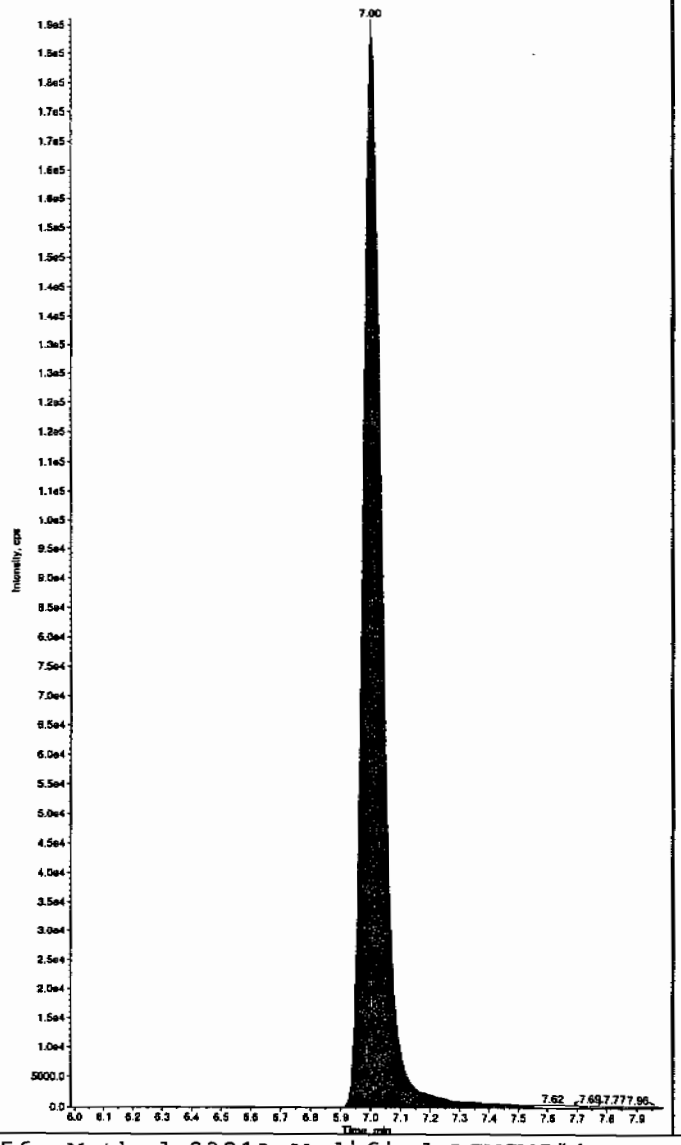

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 547. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.97e+006 counts
Height: 1008123.047 cps
Start Time: 8.13 min
End Time: 8.33 min

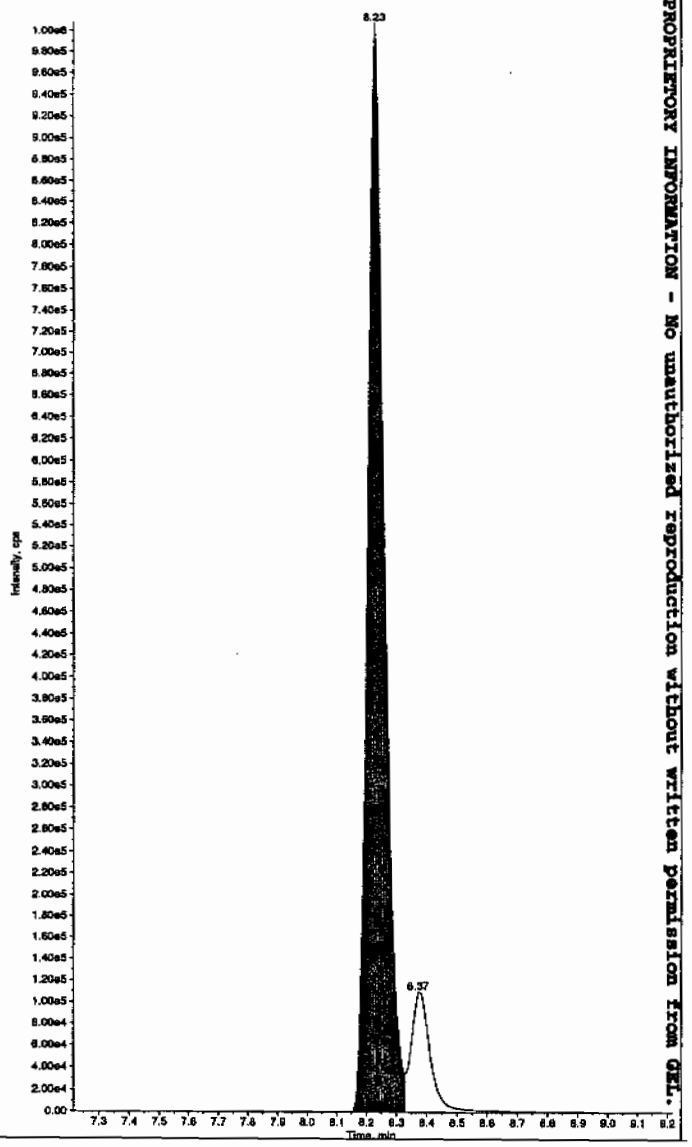

Hmm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-25CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 261. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.49e+006 counts
Height: 933031.006 cps
Start Time: 8.30 min
End Time: 8.59 min

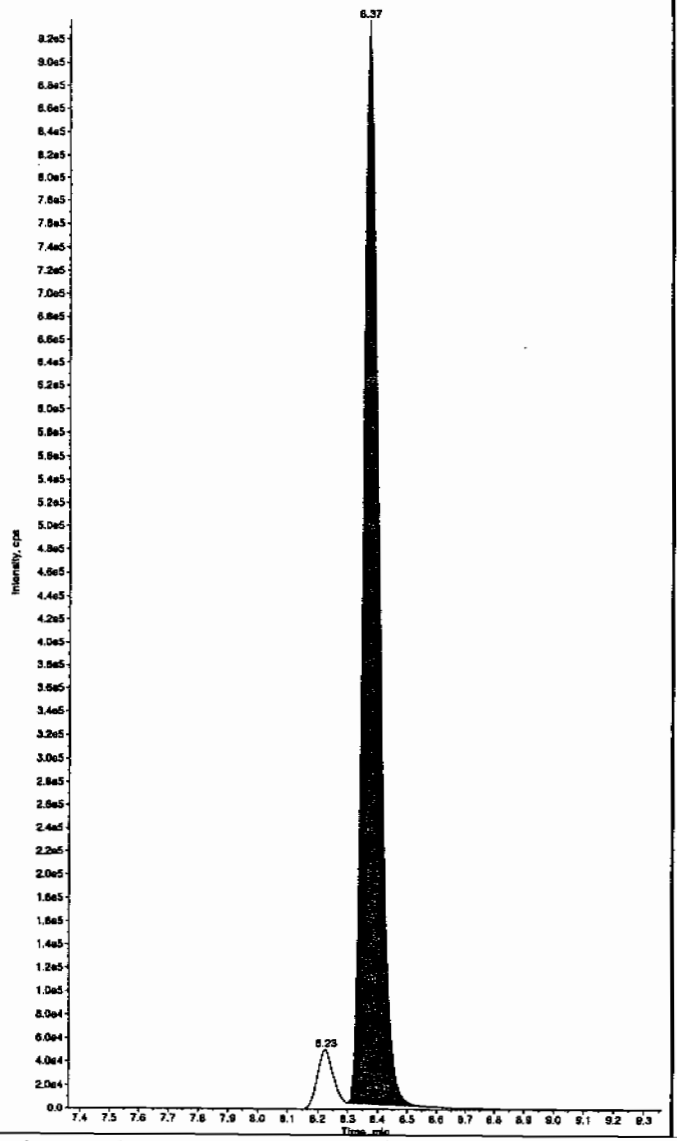

Sample Name: "WXX100222-25CCV" Sample ID: "[1]LER" File: "EXS02220037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 568. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.08e+006 counts
Height: 245930.420 cps
Start Time: 4.92 min
End Time: 5.32 min

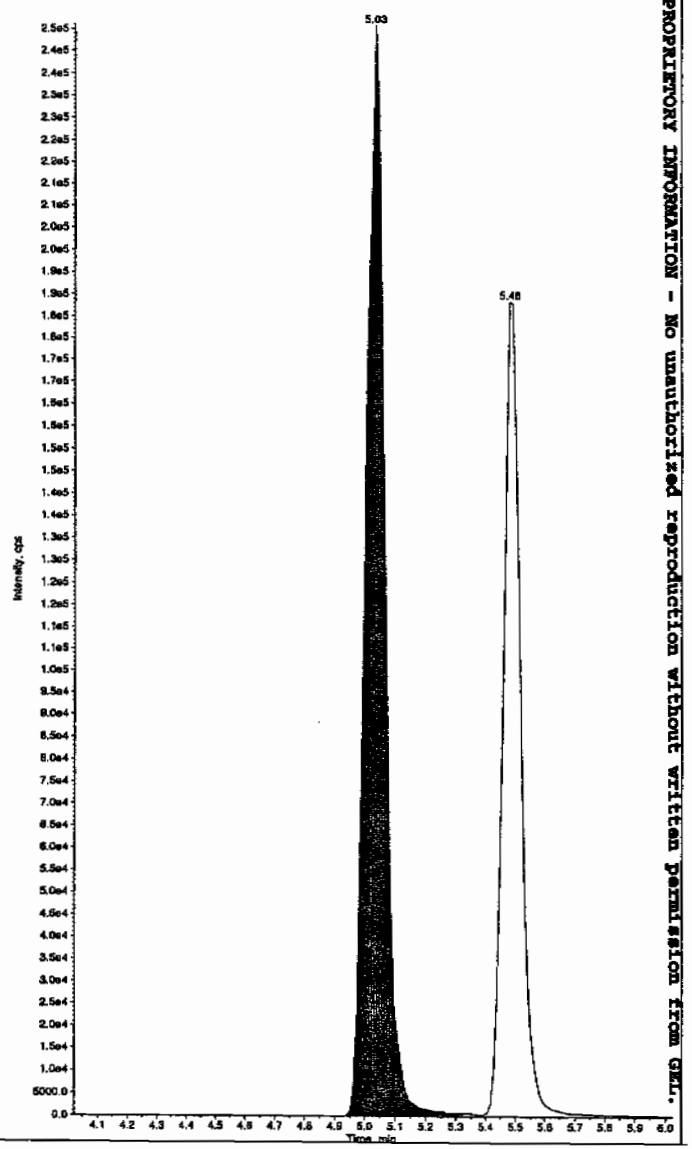

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-25CCV" Sample ID: "|1|LER" File: "EXS02220037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 599. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 7.53e+005 counts
Height: 183671.036 cps
Start Time: 5.38 min
End Time: 6.04 min

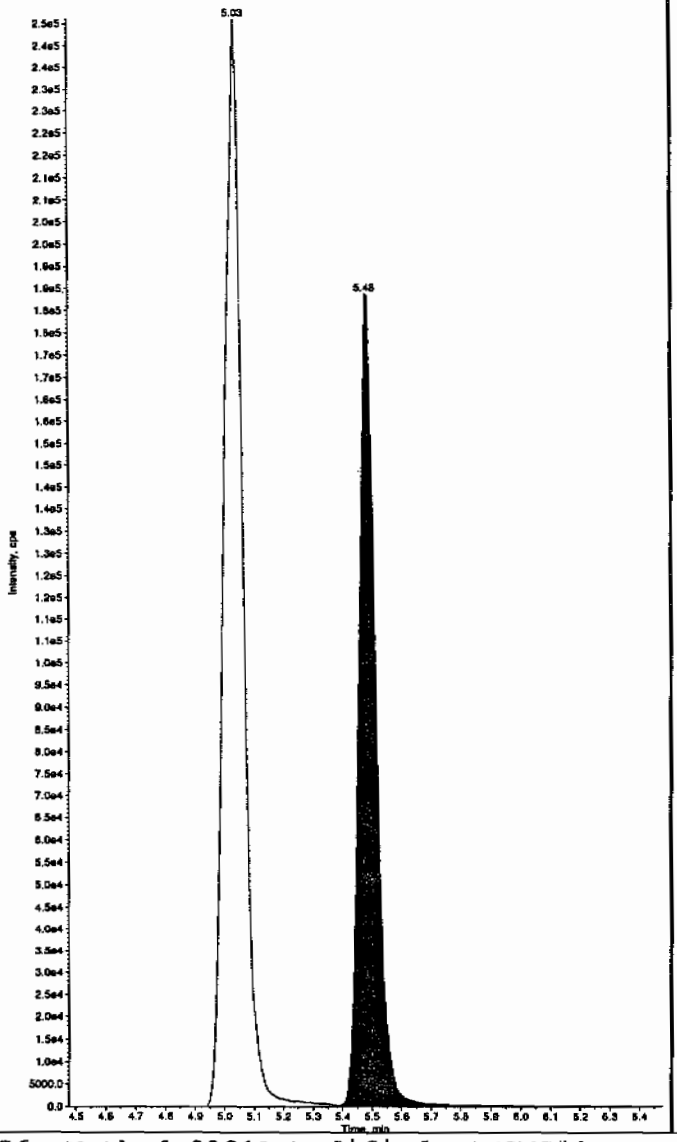

Sample Name: "WXX100222-25CCV" Sample ID: "|1|LER" File: "EXS02220037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:27:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.71e+006 counts
Height: 2276301.025 cps
Start Time: 10.8 min
End Time: 11.2 min

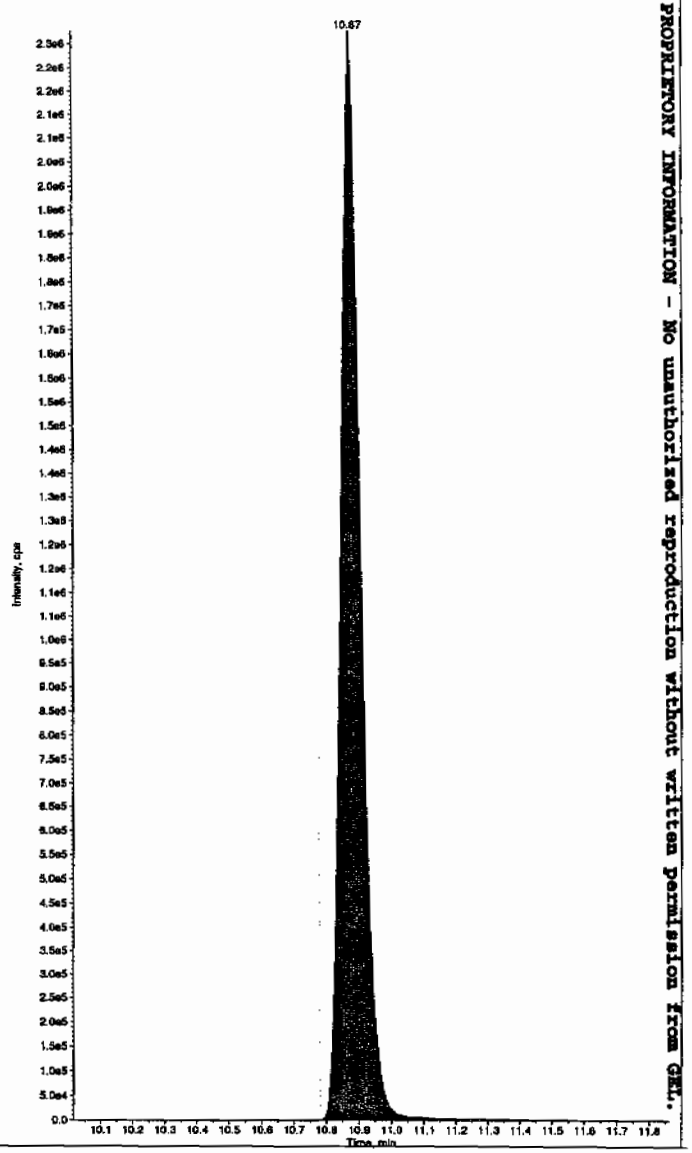

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETORY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02220039.wiff

Analysis Date: 23-FEB-10 02:59

LCMSMS ID: 1358

Column ID: JSphere ODS--H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	120	120	
2,6-Diamino-4-nitrotoluene	100	125	125	
3,4-Dinitrotoluene	50	53.4	107	
3,5-Dinitroaniline	100	114	114	
TATB	100	91.3	91	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.3 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.80e+005 counts
Height: 40684.280 cps
Start Time: 6.85 min
End Time: 7.52 min

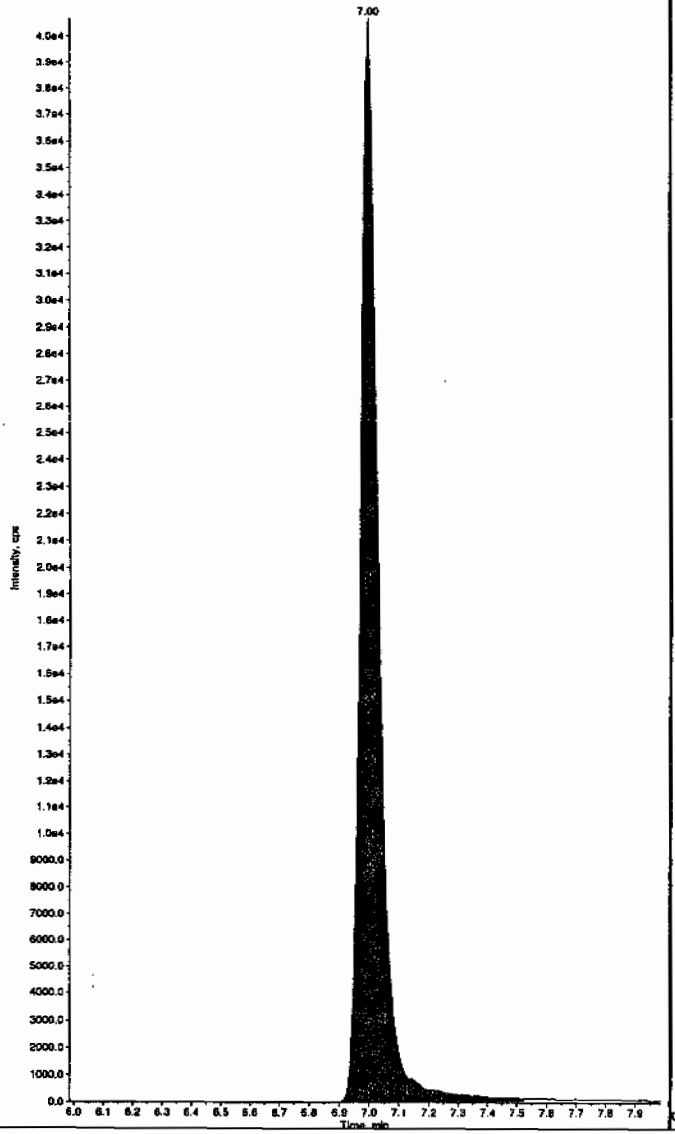

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 8.16e+005 counts
Height: 203416.260 cps
Start Time: 8.12 min
End Time: 8.33 min

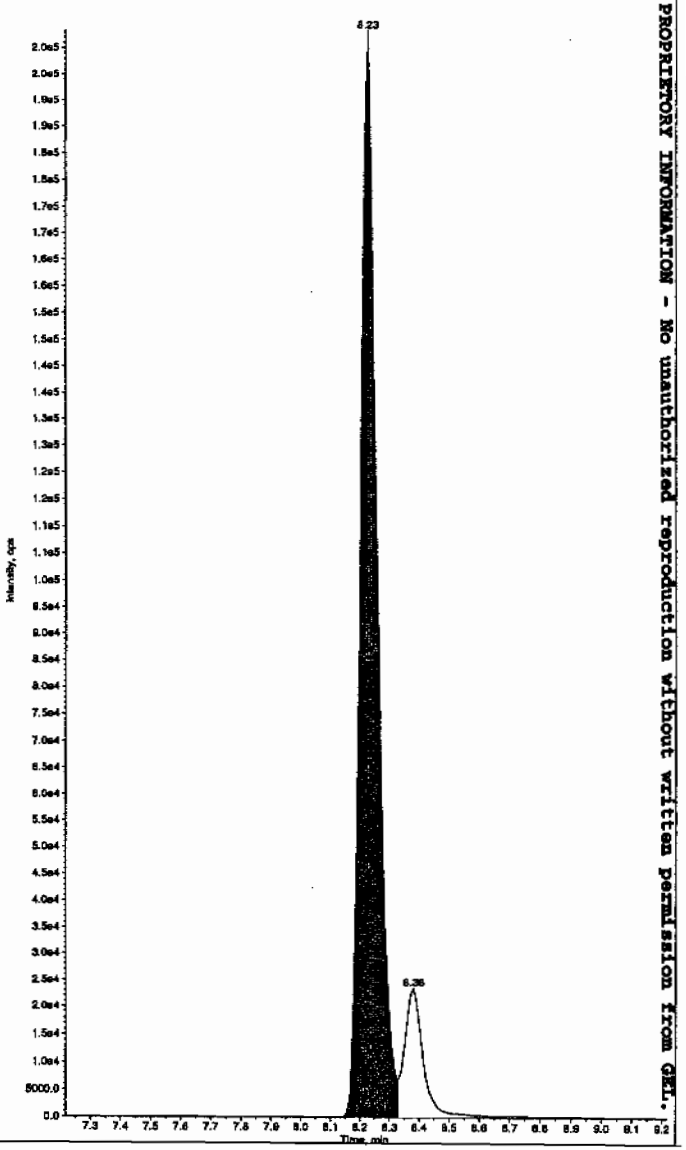

HMM 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       50.0     ng/mL
Calculated Conc:     53.4     ng/mL
Acq. Date:       2/23/2010
Acq. Time:       2:59:14 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          15.0     sec
Expected RT:         8.36    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.37    min
Area:        7.31e+005    counts
Height:        199268.600   cps
Start Time:          8.30    min
End Time:            8.61    min
```

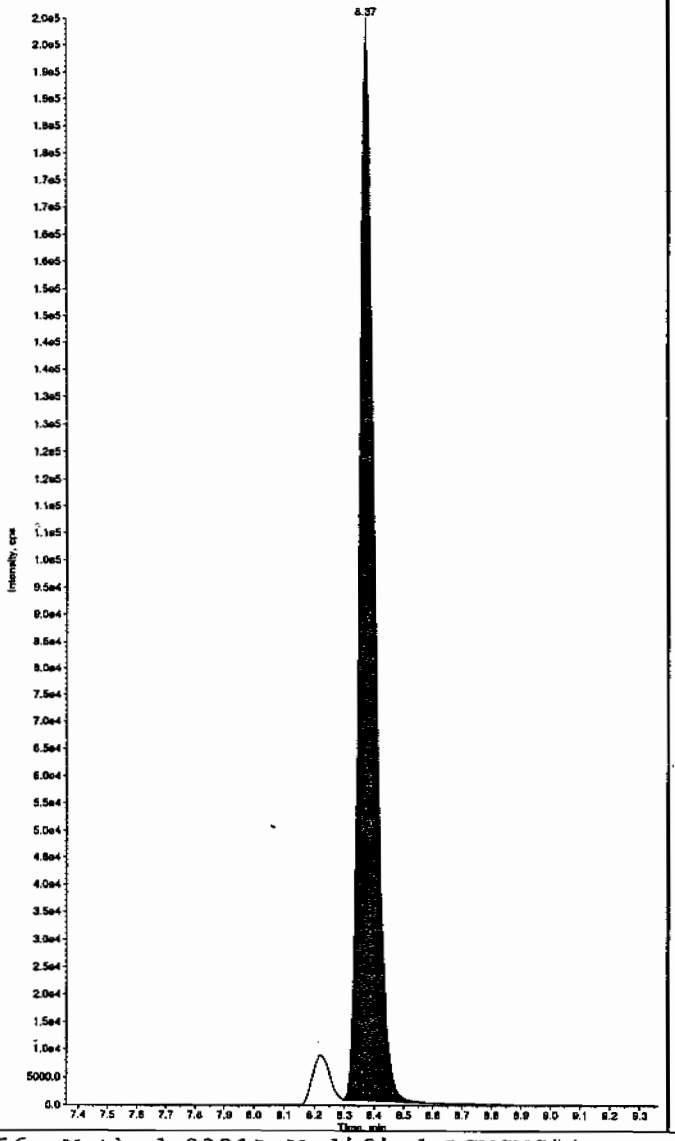

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.     ng/mL
Calculated Conc:     125.     ng/mL
Acq. Date:       2/23/2010
Acq. Time:       2:59:14 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:         5.02    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      5.02    min
Area:        2.37e+005    counts
Height:        56829.735    cps
Start Time:          4.92    min
End Time:            5.27    min
```

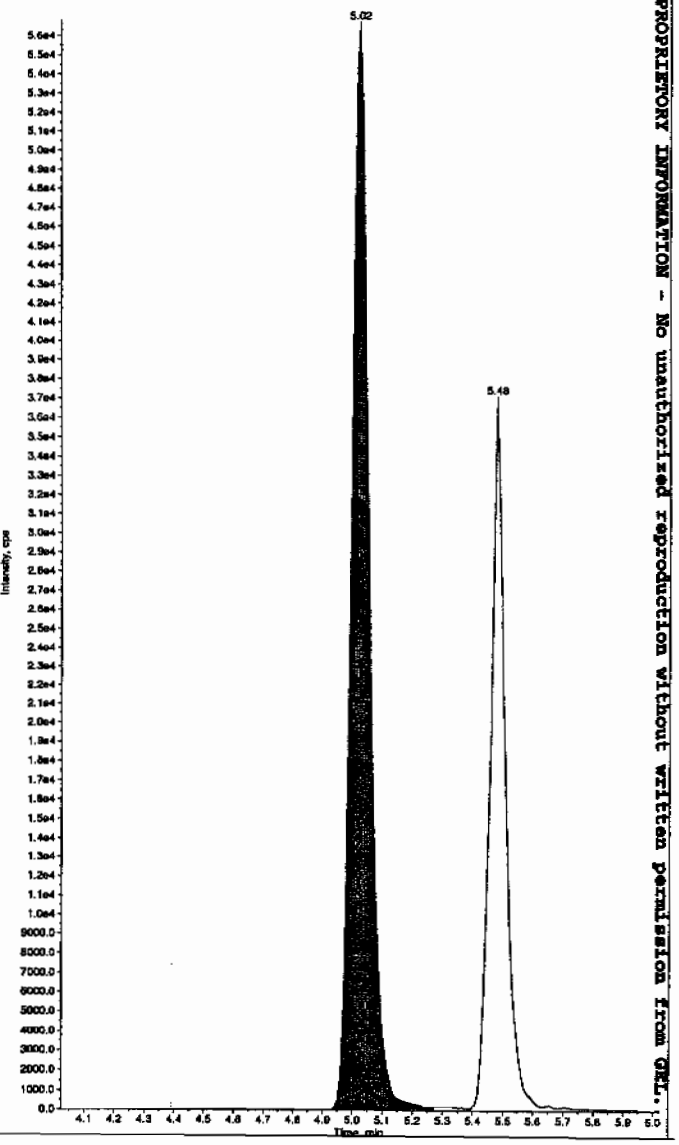

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 120. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.29e+005 counts
Height: 37130.470 cps
Start Time: 5.38 min
End Time: 5.85 min

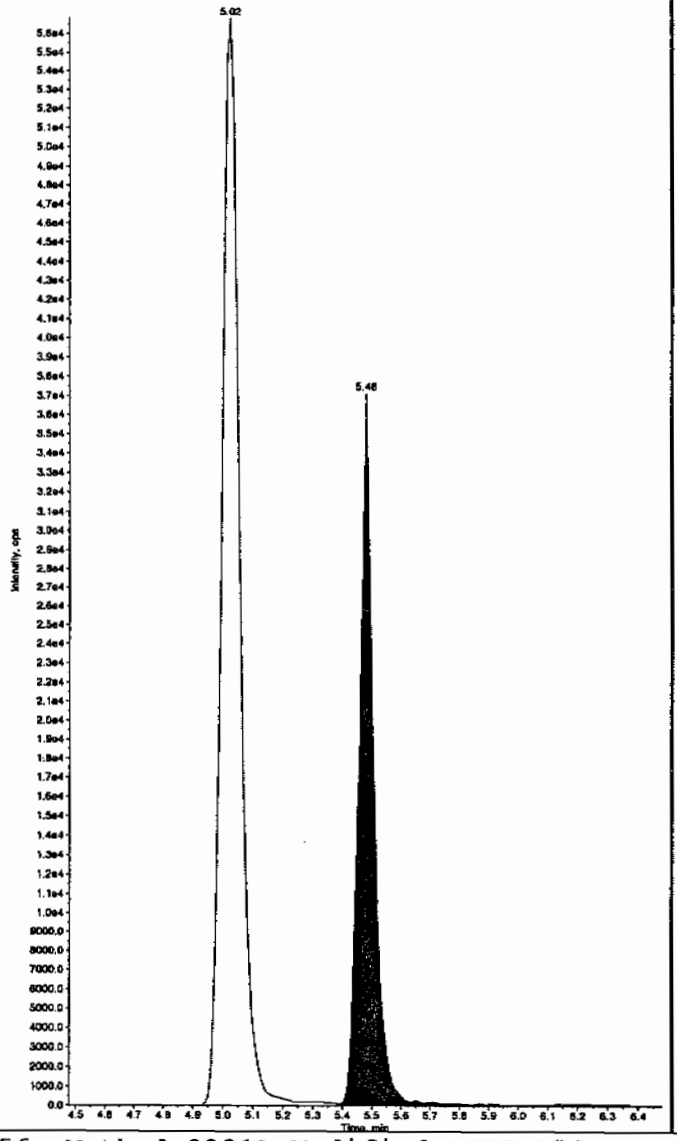

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 2:59:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.23e+006 counts
Height: 538292.603 cps
Start Time: 10.6 min
End Time: 11.2 min

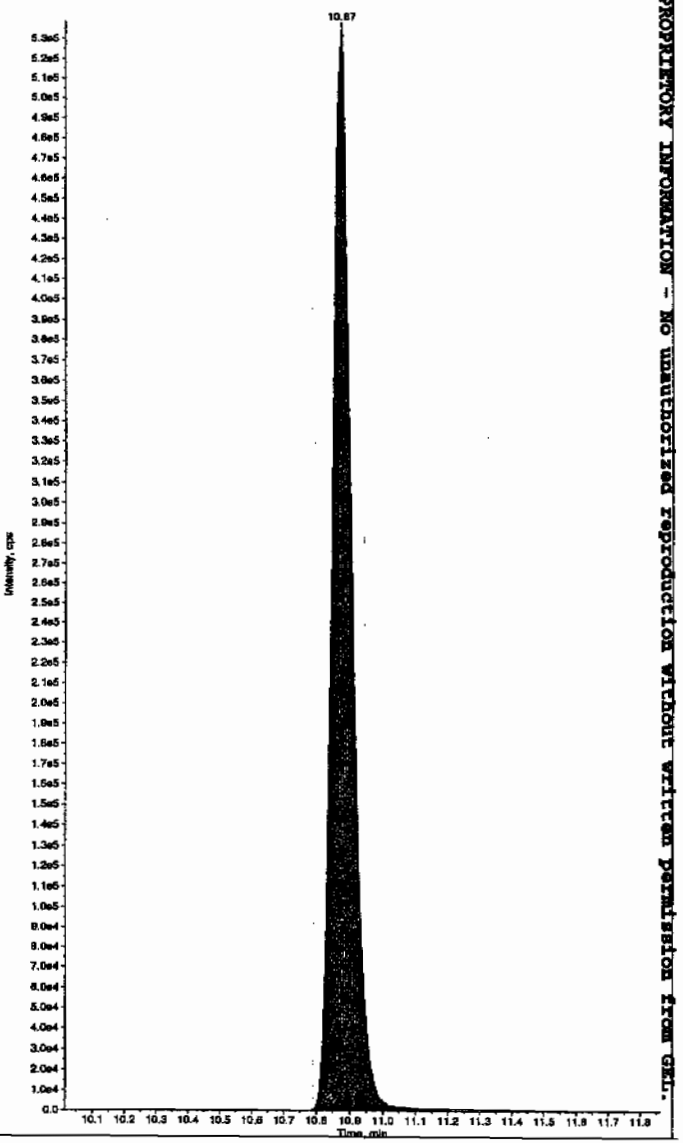

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02220050.wiff

Analysis Date: 23-FEB-10 05:52

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	590	118	
2,6-Diamino-4-nitrotoluene	500	623	125	
3,4-Dinitrotoluene	250	250	100	
3,5-Dinitroaniline	500	530	106	
TATB	500	448	90	
tris(o-cresyl) phosphate	500	493	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 2/23/10

Sample Name: "WXX100222-26CCV" Sample ID: "|1|LER" File: "EXS02220050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 8.55e+005 counts
Height: 189822.083 cps
Start Time: 6.88 min
End Time: 7.59 min

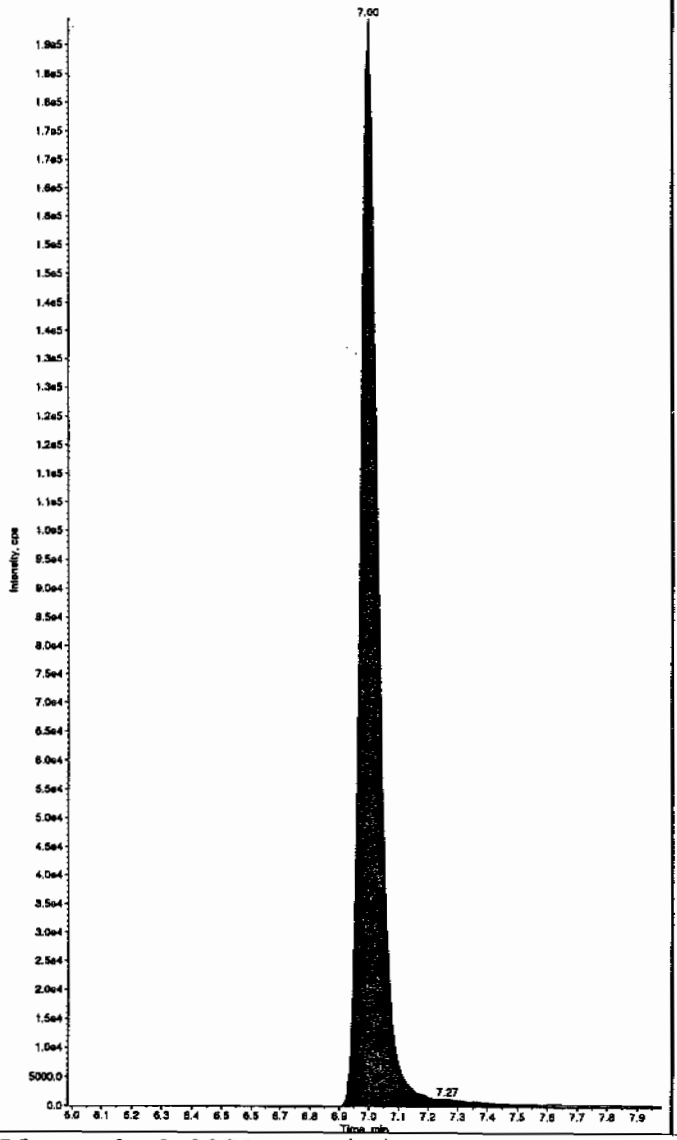

Sample Name: "WXX100222-26CCV" Sample ID: "|1|LER" File: "EXS02220050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 530. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.86e+006 counts
Height: 923200.134 cps
Start Time: 8.12 min
End Time: 8.33 min

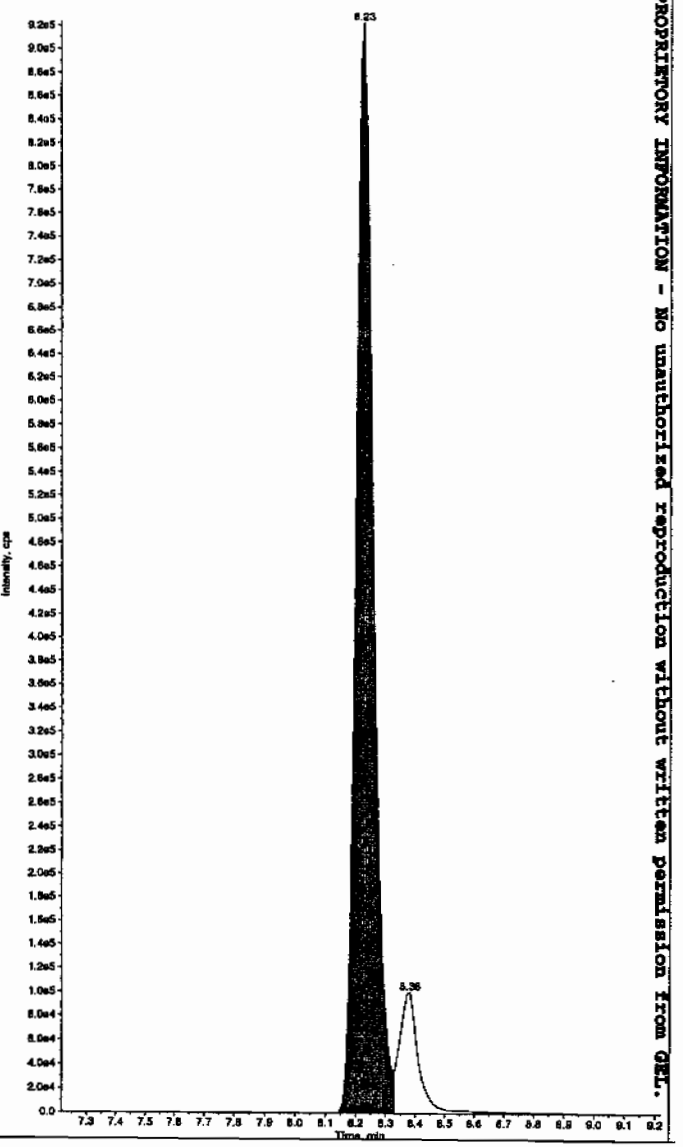

Hrm 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 250. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.34e+006 counts
Height: 877578.186 cps
Start Time: 8.30 min
End Time: 8.60 min

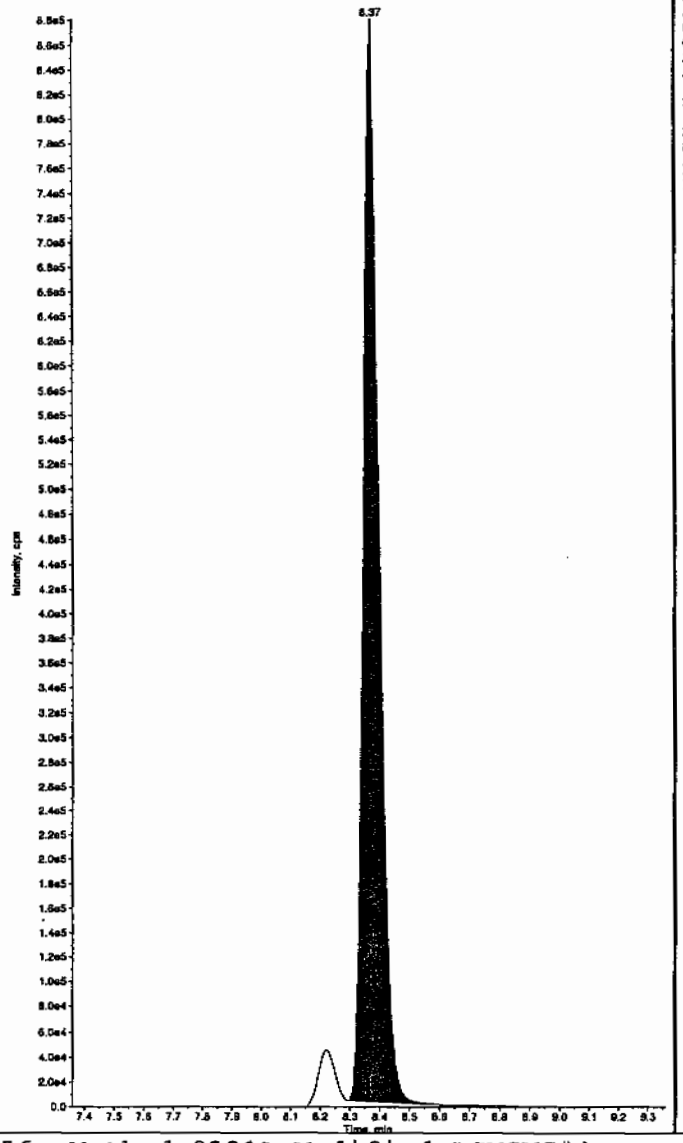

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 623. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.19e+006 counts
Height: 270338.470 cps
Start Time: 4.88 min
End Time: 5.31 min

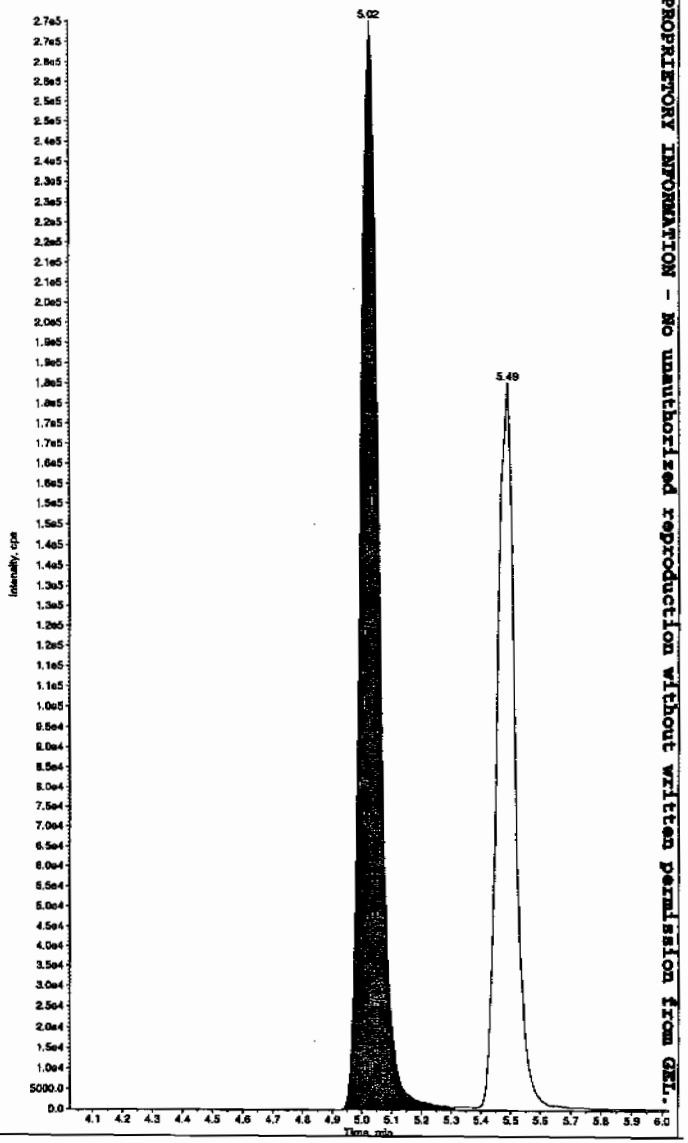

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 590. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 7.42e+005 counts
Height: 180096.237 cps
Start Time: 5.38 min
End Time: 5.79 min

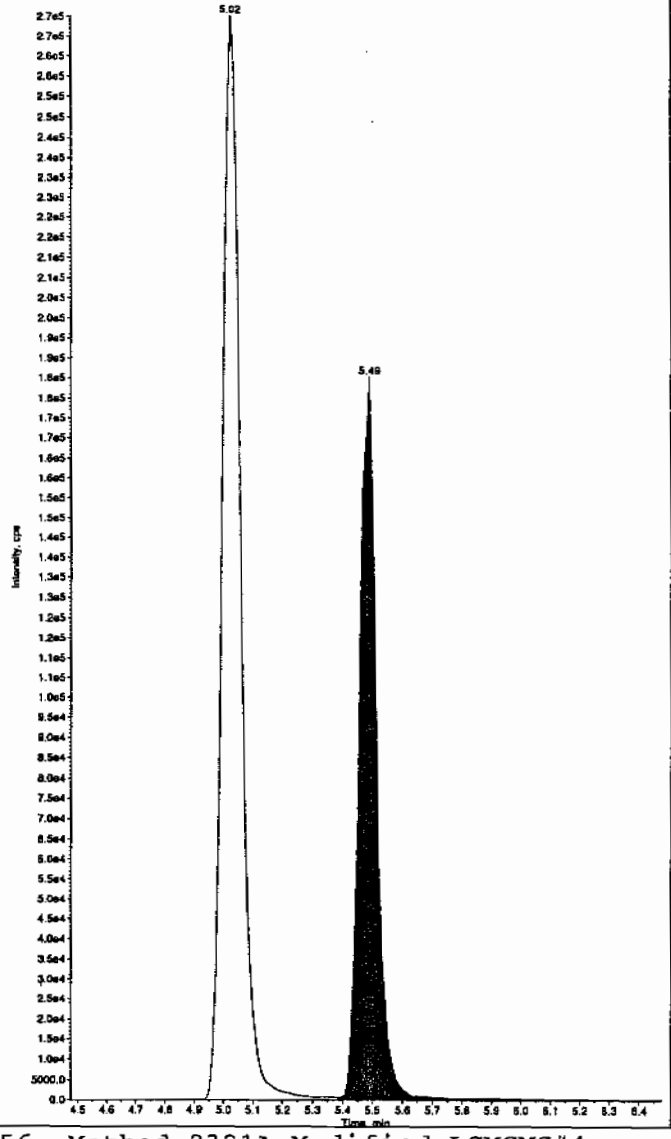

Sample Name: "WXX100222-26CCV" Sample ID: "[1]LER" File: "EXS02220050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 5:52:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.86e+006 counts
Height: 2315829.346 cps
Start Time: 10.8 min
End Time: 11.2 min

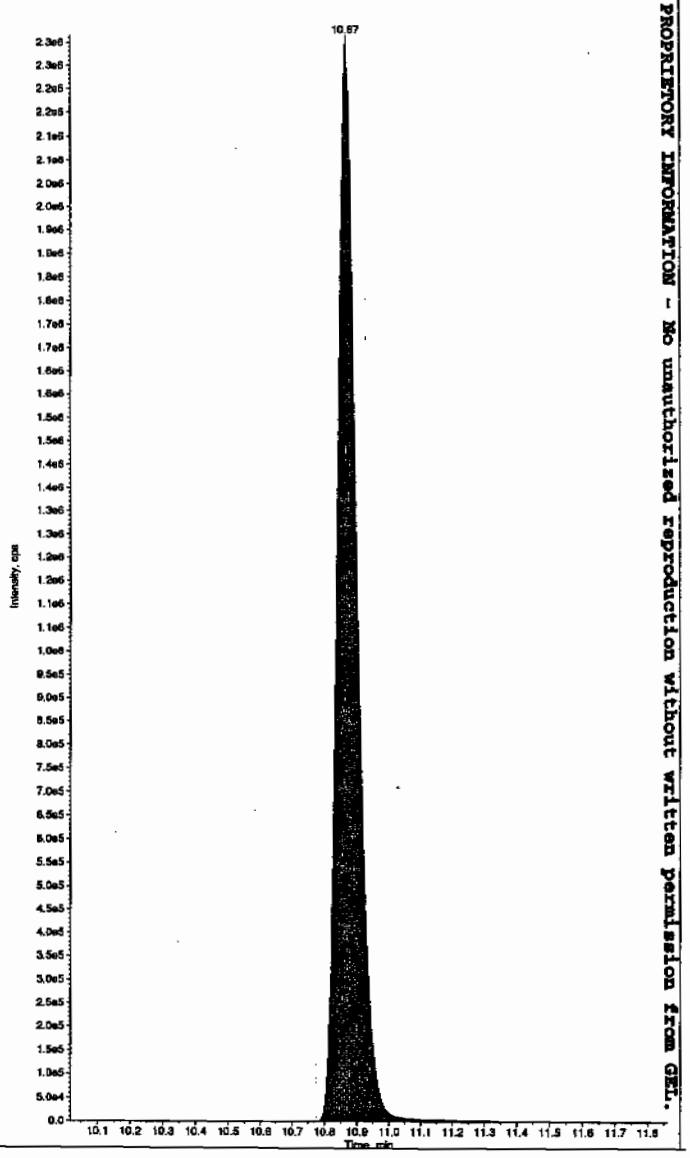

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1512

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02220052.wiff

Analysis Date: 23-FEB-10 06:24

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	129	129	
2,6-Diamino-4-nitrotoluene	100	140	140	
3,4-Dinitrotoluene	50	50.5	101	
3,5-Dinitroaniline	100	111	111	
TATB	100	95.9	96	
tris(o-cresyl) phosphate	100	107	107	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 2/23/10

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.9 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.89e+005 counts
Height: 41713.528 cps
Start Time: 6.86 min
End Time: 7.53 min

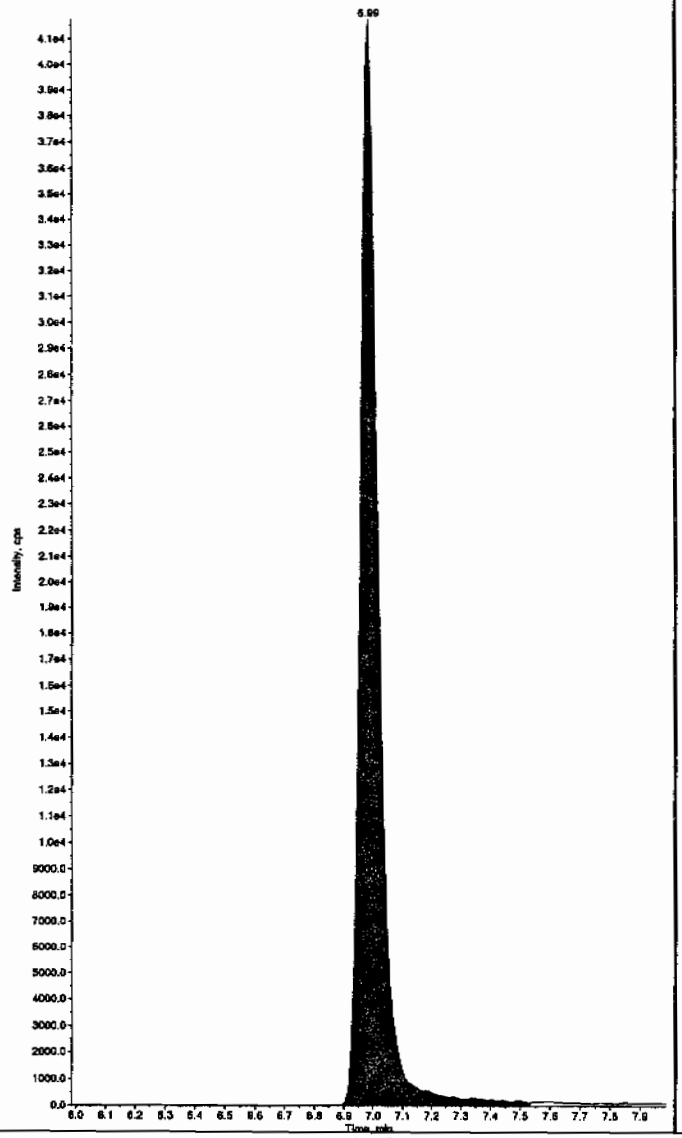

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 7.89e+005 counts
Height: 184727.554 cps
Start Time: 8.11 min
End Time: 8.32 min

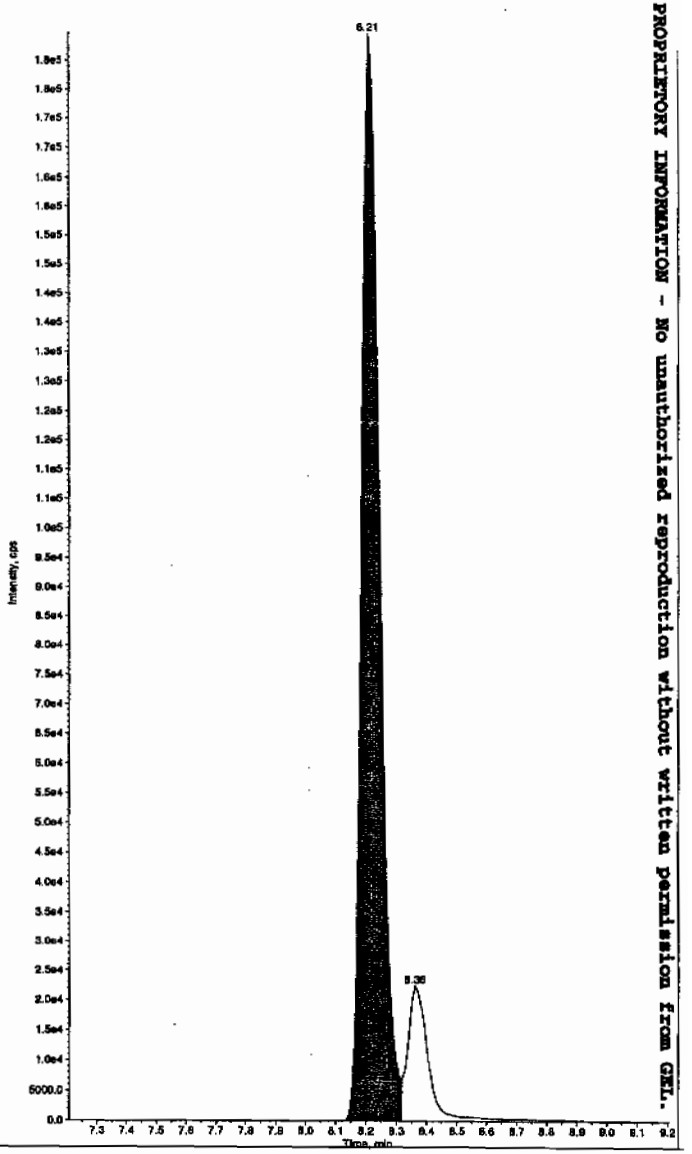

HJM 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 50.5 ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 6.92e+005 counts
Height: 180392.654 cps
Start Time: 8.28 min
End Time: 8.66 min

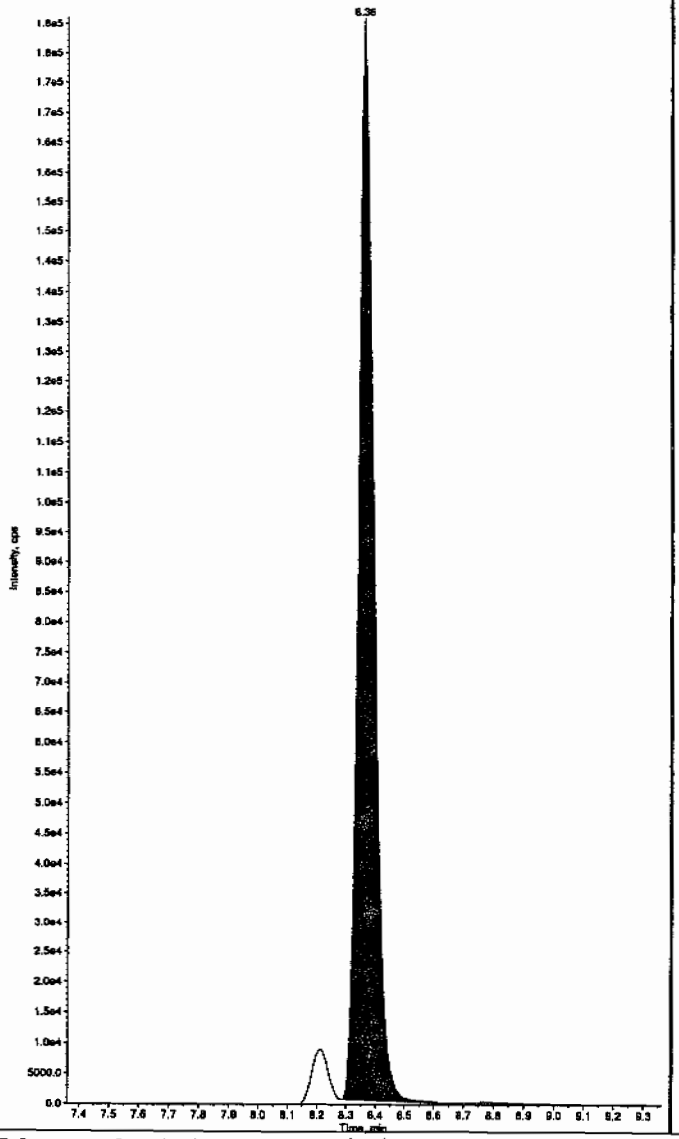

Sample Name: "WXX100222-27CRI" Sample ID: "|1|LER" File: "EXS02220052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 140. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.66e+005 counts
Height: 62152.336 cps
Start Time: 4.86 min
End Time: 5.31 min

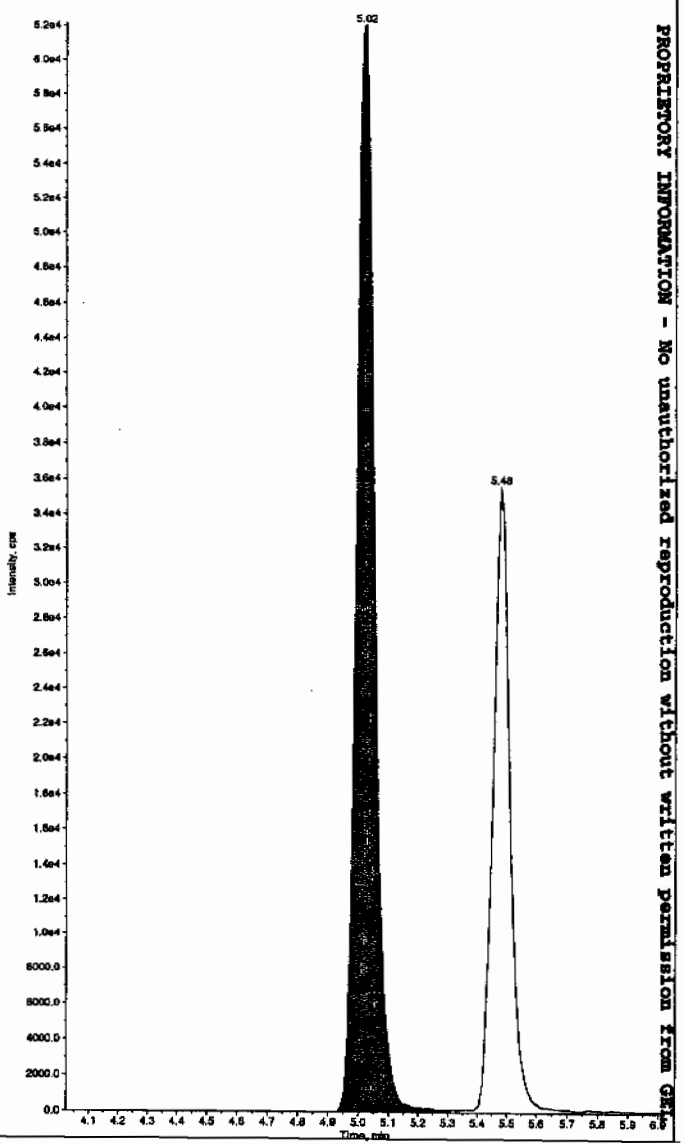

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 129. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.41e+005 counts
Height: 35624.271 cps
Start Time: 5.38 min
End Time: 5.74 min

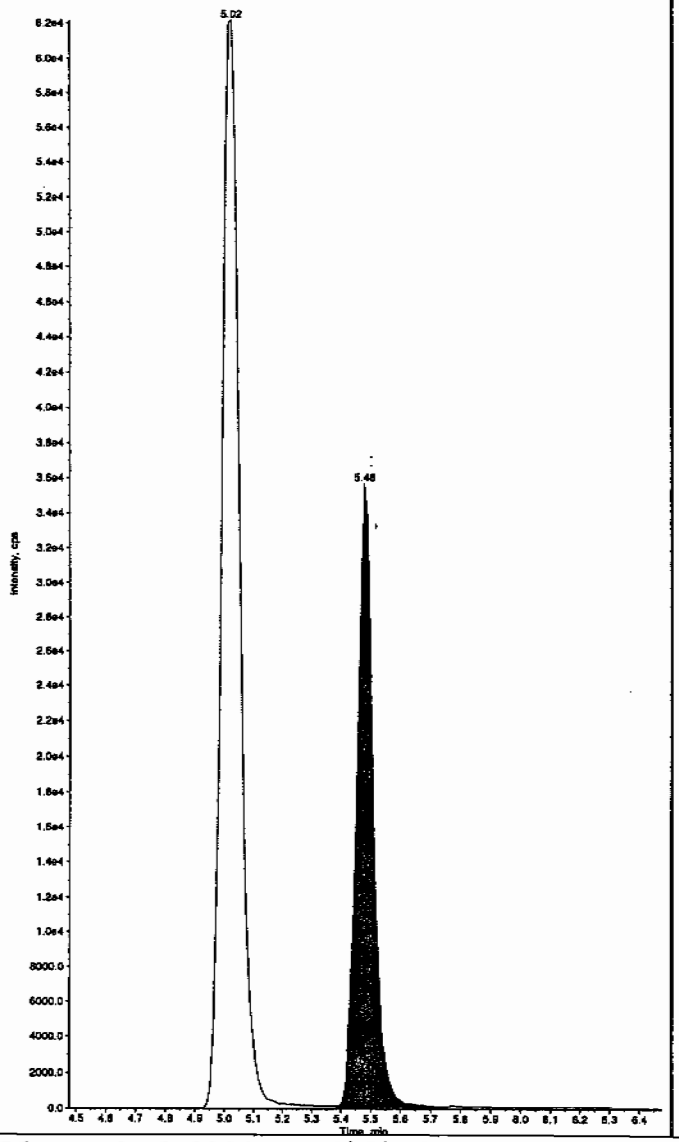

Sample Name: "WXX100222-27CRI" Sample ID: "[1]LER" File: "EXS02220052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/23/2010
Acq. Time: 6:24:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.31e+006 counts
Height: 560037.781 cps
Start Time: 10.8 min
End Time: 11.2 min

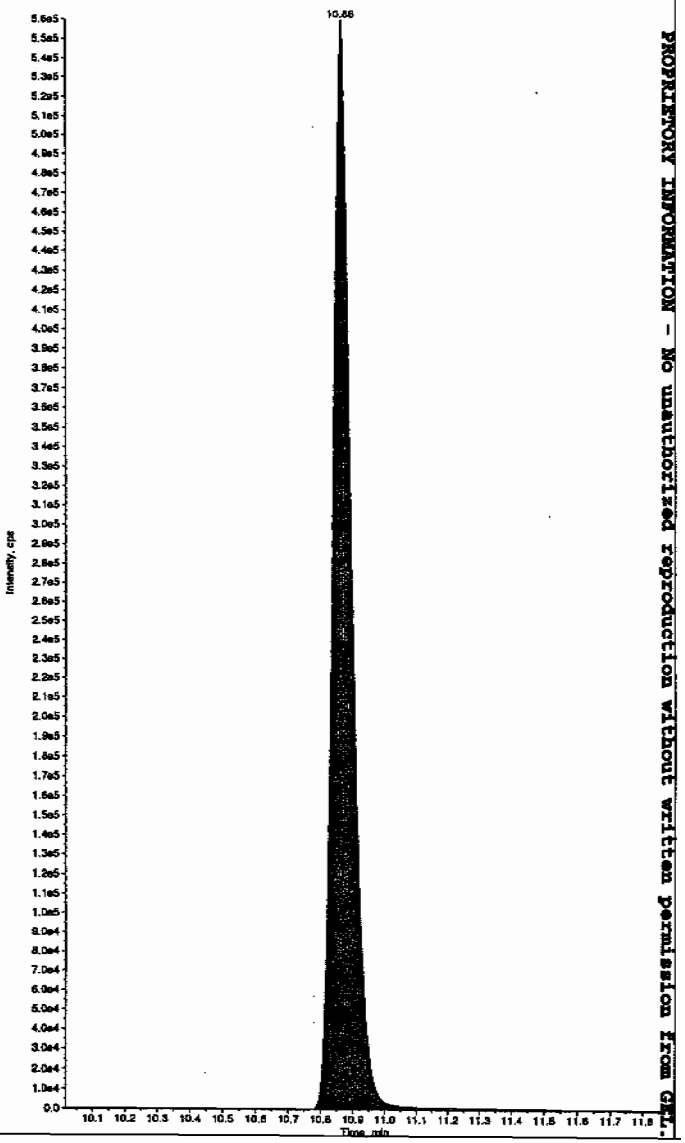

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948574

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 1202032101

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301020a

Date Analyzed: 02-MAR-10 00:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301020a
Date: 02-Mar-2010
Time: 00:53:19
ID: 1202032101 | LANL | 940575 | Soil | MB | 2 |
Vial: 2:1,A

LATT 3/2/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.010e+003

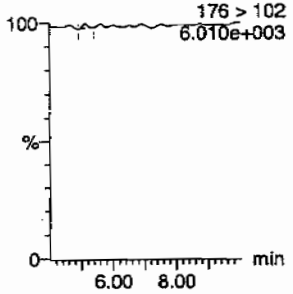

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.010e+003

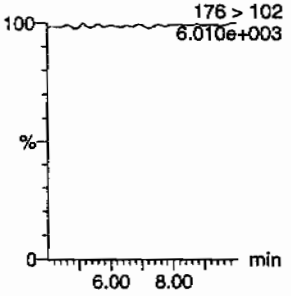

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.863e+003

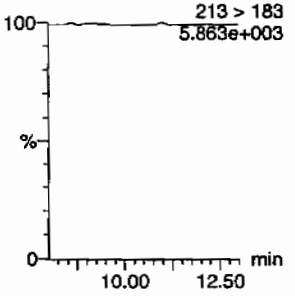

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.322e+004

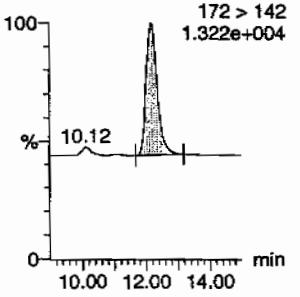

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.853e+003

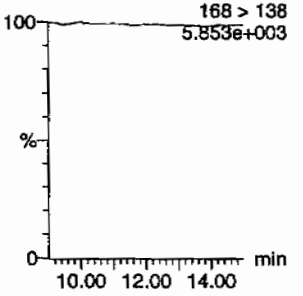

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.860e+003

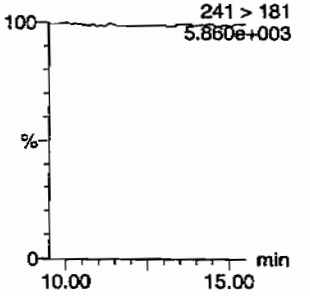

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.872e+003

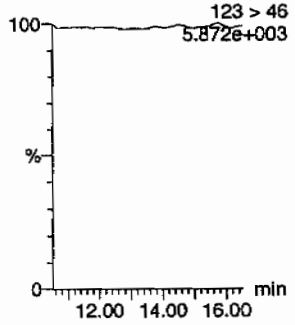

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.887e+003

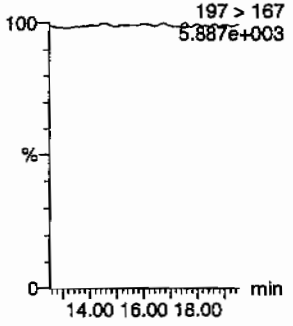

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.875e+003

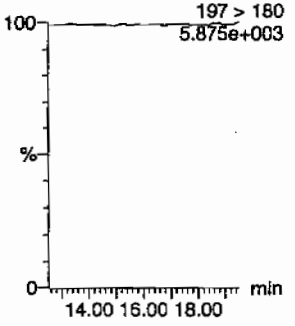

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.827e+003

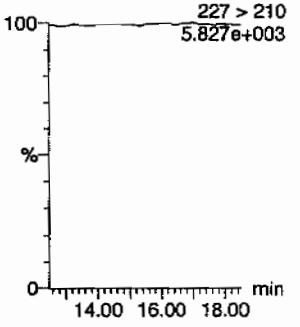

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.408e+004

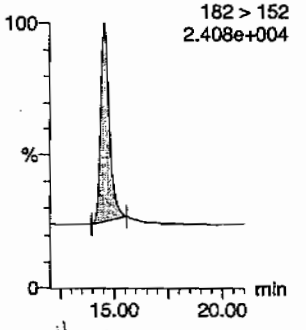

Amu 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.55 182 > 152
2.408e+004

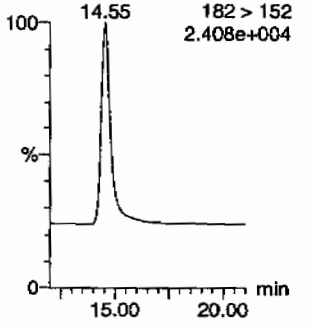

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

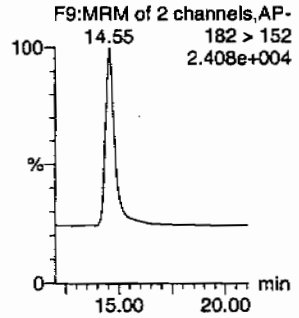

26-dinitrotoluene-d3

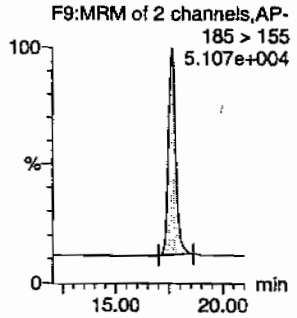

2-Nitrotoluene

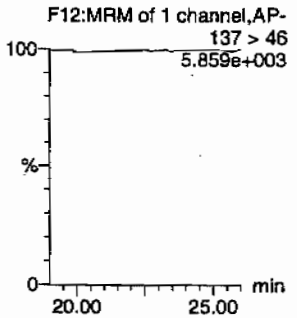

4-Nitrotoluene

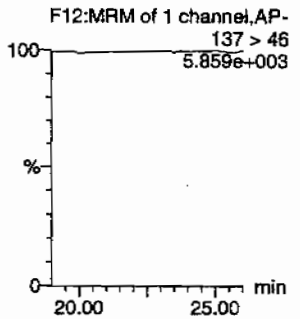

3-Nitrotoluene

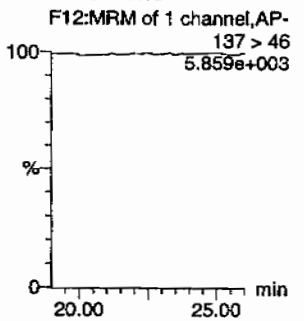

PETN

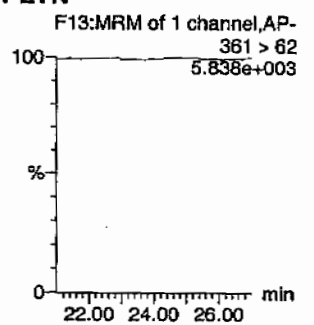

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032101	HMX	176 > 102			3031.689			MM-	02-Mar-10	09:58:36				
1202032101	RDX	176 > 102			3031.689									
1202032101	135-Trinitrobenzene	213 > 183			3031.689									
1202032101	13-Dinitrobenzene-d4	172 > 142	12.17	3031.689		3031.689	3031.689	bb			523.0520	104.6	4.6	247.4
1202032101	13-Dinitrobenzene	168 > 138			3031.689									
1202032101	Tetryl	241 > 181			3031.689									
1202032101	Nitrobenzene	123 > 46			3031.689									
1202032101	4-Amino-26-dinitrotoluene	197 > 167			17820.910									
1202032101	2-Amino-46-dinitrotoluene	197 > 180			17820.910									
1202032101	246-Trinitrotoluene	227 > 210			17820.910									
1202032101	34-dinitrotoluene	182 > 152	14.55	8445.984	17820.910	8445.984	236.968	bb			239.2010	95.7	-4.3	510.7
1202032101	26-dinitrotoluene	182 > 152			17820.910									
1202032101	24-dinitrotoluene	182 > 152			17820.910									
1202032101	26-dinitrotoluene-d3	185 > 155	17.62	17820.910		17820.910	17820.910	bb			553.9667	110.8	10.8	2577.0
1202032101	2-Nitrotoluene	137 > 46			17820.910									
1202032101	4-Nitrotoluene	137 > 46			17820.910									
1202032101	3-Nitrotoluene	137 > 46			17820.910									
1202032101	PETN	361 > 62			17820.910									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948574

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 1202032101

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220018.wiff

Date Analyzed: 22-FEB-10 21:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 2/23/10

Sample Name: "1202032101" Sample ID: "948575|2|LER" File: "EXS02220018.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No

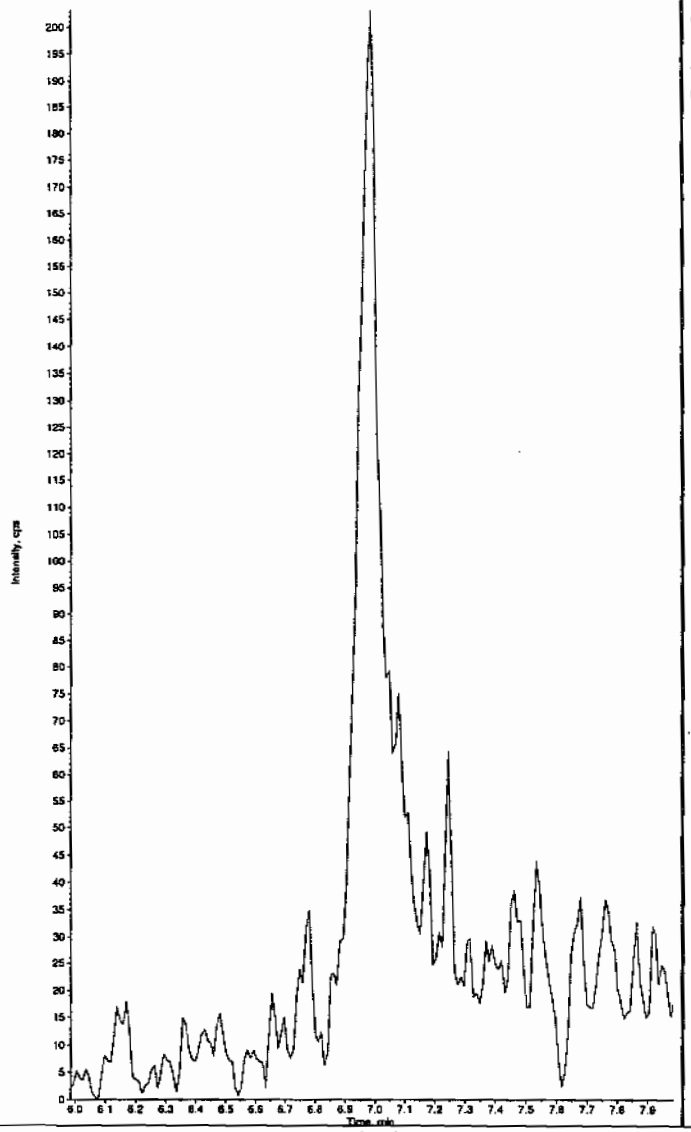

Sample Name: "1202032101" Sample ID: "948575|2|LER" File: "EXS02220018.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No

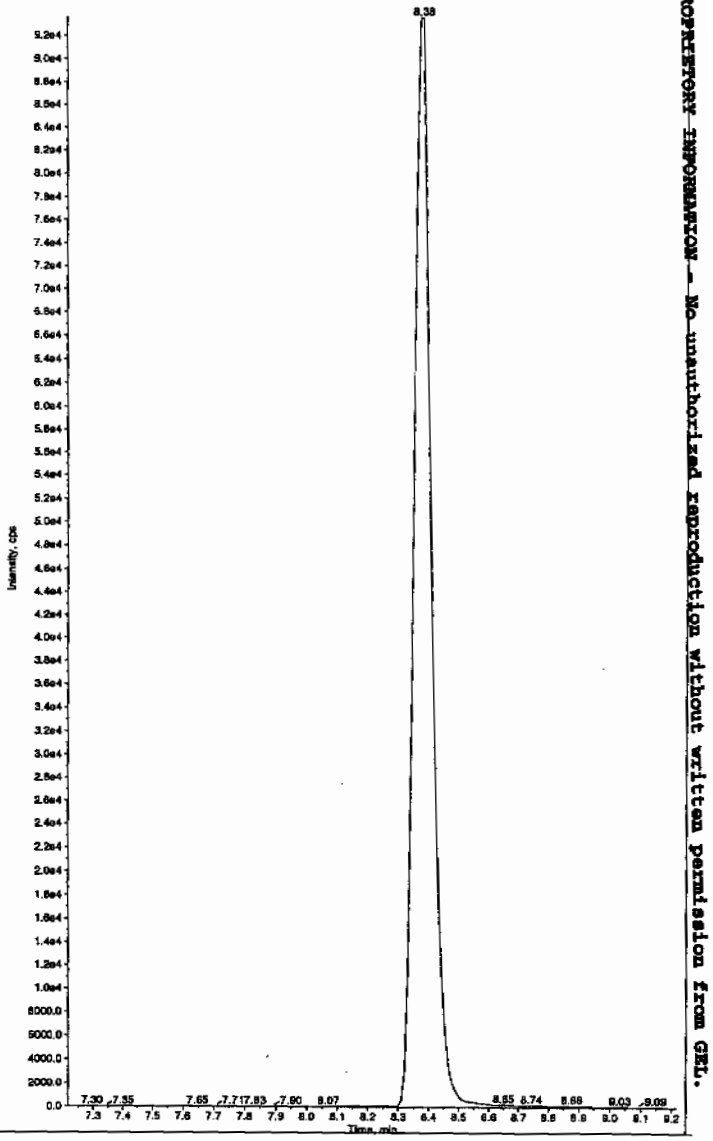

HMC 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032101" Sample ID: "948575[2]LER" File: "EXS02220018.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 276. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.66e+006 counts
Height: 953784.973 cps
Start Time: 8.26 min
End Time: 8.90 min

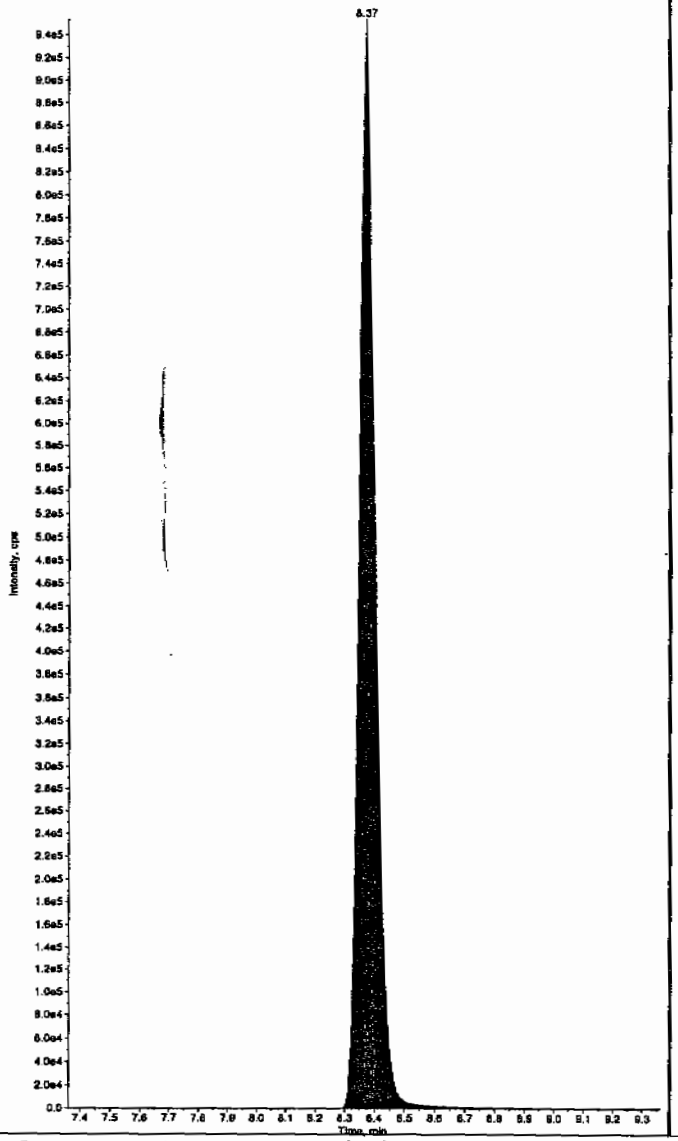

Sample Name: "1202032101" Sample ID: "948575[2]LER" File: "EXS02220018.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No

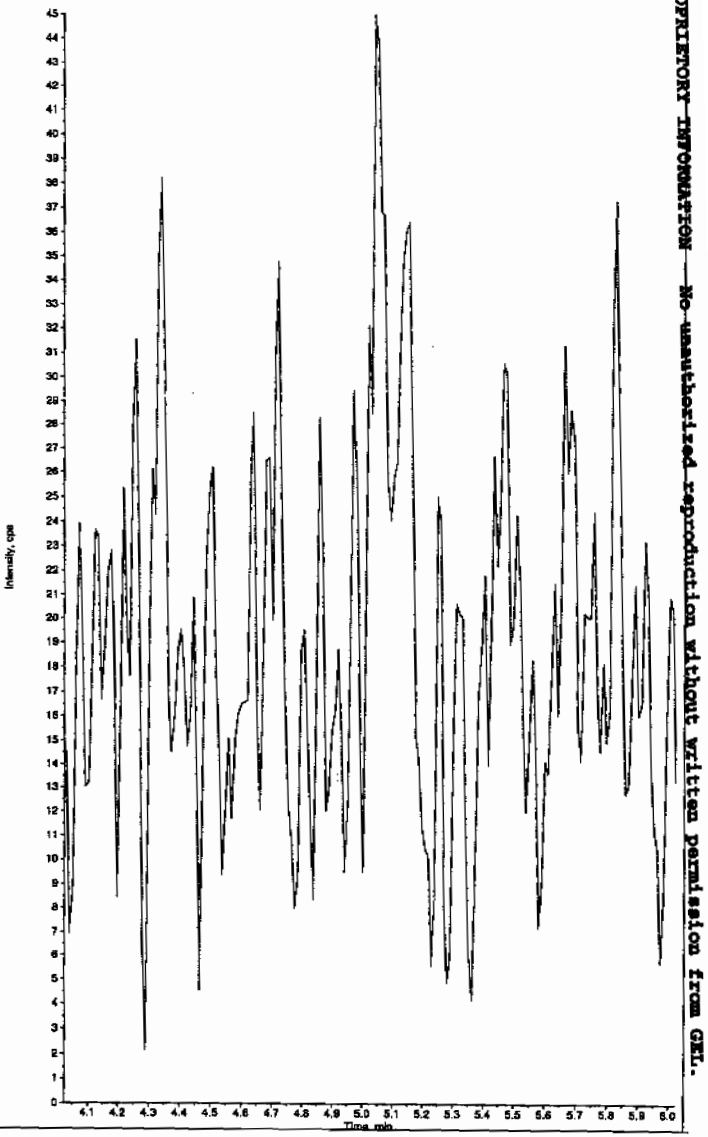

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032101" Sample ID: "948575[2]LER" File: "EXS02220018.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration:. N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No

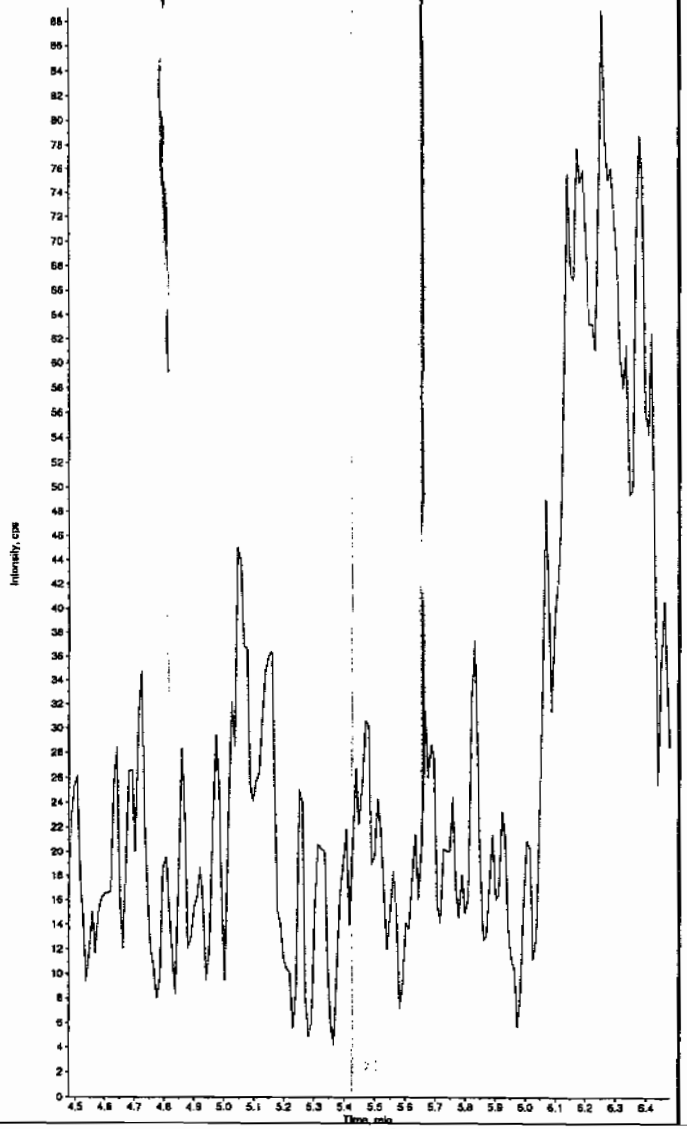

Sample Name: "1202032101" Sample ID: "948575[2]LER" File: "EXS02220018.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:28:52 PM

Modified: No

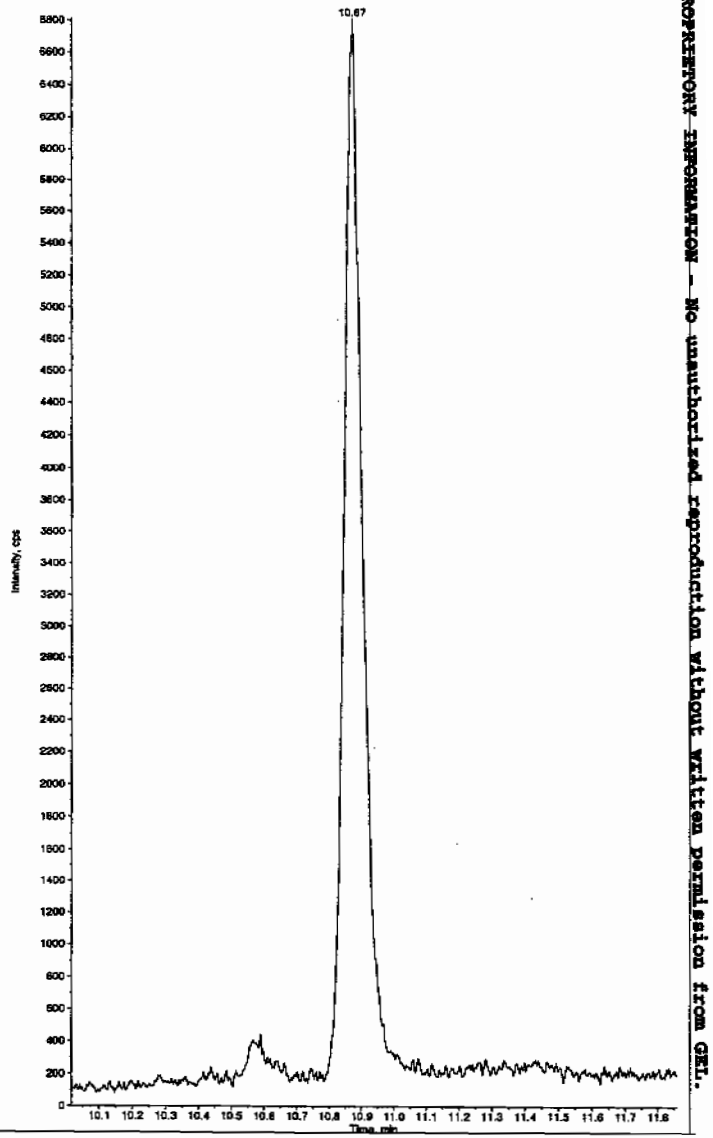

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948574

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 1202032102

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301021a

Date Analyzed: 02-MAR-10 01:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5190	
121-14-2	2,4-Dinitrotoluene	5360	
121-82-4	RDX	4980	
19406-51-0	4-Amino-2,6-dinitrotoluene	5110	
2691-41-0	HMX	4670	
35572-78-2	2-Amino-4,6-dinitrotoluene	5460	
479-45-8	Tetryl	2580	
606-20-2	2,6-Dinitrotoluene	4850	
78-11-5	PETN	5390	
88-72-2	o-Nitrotoluene	4510	
98-95-3	Nitrobenzene	4970	
99-08-1	m-Nitrotoluene	4180	
99-35-4	1,3,5-Trinitrobenzene	4670	
99-65-0	m-Dinitrobenzene	4610	
99-99-0	p-Nitrotoluene	4640	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301021a
Date: 02-Mar-2010
Time: 01:22:51
ID: 1202032102 | LANU | 948575 | Soil | LCS | 2 |
Vial: 2:1,B

MM 3/2/10

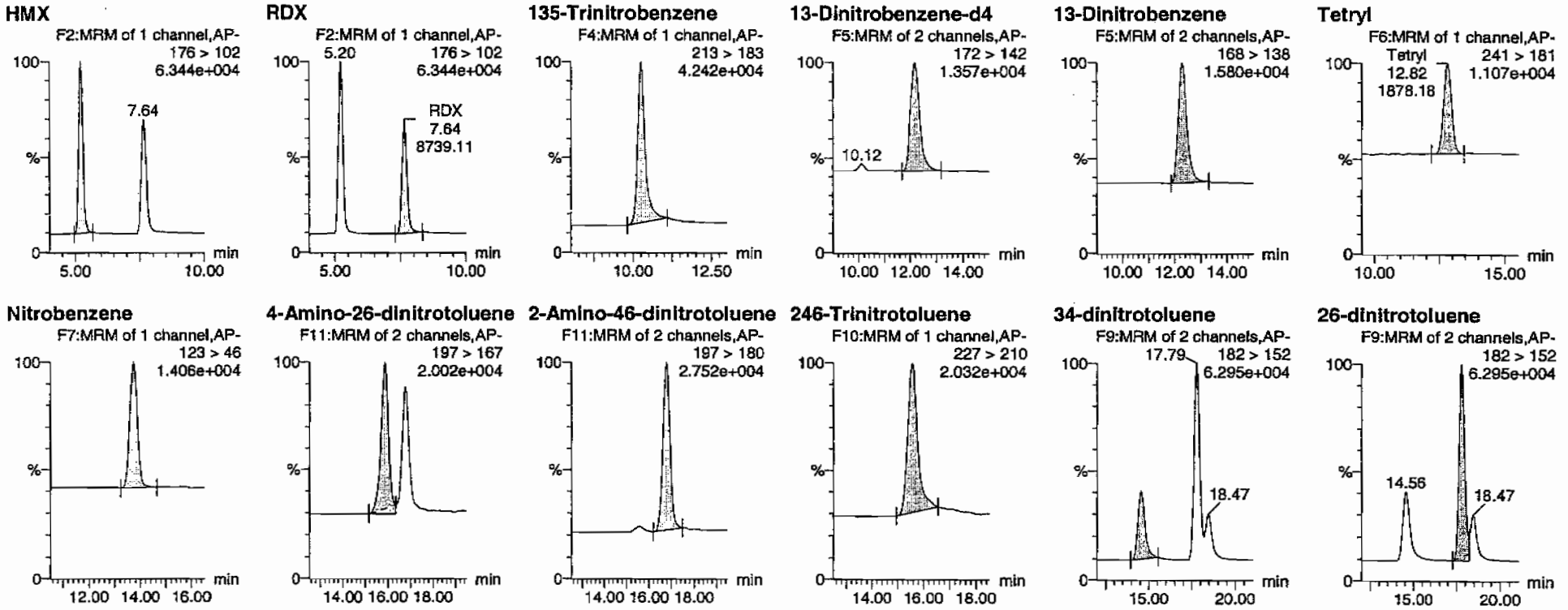

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

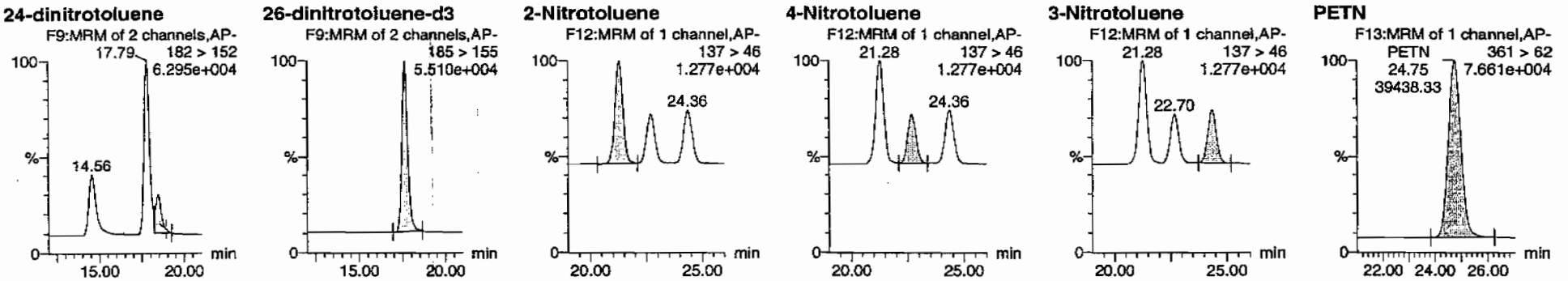

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032102	HMX	176 > 102	5.20	11394.322	3195.654	11394.322	1782.784	bb			467.3308	93.5	-6.5	1678.0
1202032102	RDX	176 > 102	7.64	8739.109	3195.654	8739.109	1367.343	bb			498.1907	99.6	-0.4	1117.0
1202032102	135-Trinitrobenzene	213 > 183	10.27	10265.632	3195.654	10265.632	1606.186	bb			466.5004	93.3	-6.7	1506.7
1202032102	13-Dinitrobenzene-d4	172 > 142	12.17	3195.654		3195.654	3195.654	bb			551.3406	110.3	10.3	324.5
1202032102	13-Dinitrobenzene	168 > 138	12.31	3865.627	3195.654	3865.627	604.826	bb			461.0420	92.2	-7.8	570.0
1202032102	Tetryl	241 > 181	12.82	1878.180	3195.654	1878.180	293.865	bb			257.9896	51.6	-48.4	140.5
1202032102	Nitrobenzene	123 > 46	13.72	2821.921	3195.654	2821.921	441.525	bb			496.6912	99.3	-0.7	315.1
1202032102	4-Amino-26-dinitrotoluene	197 > 167	15.86	5622.575	19489.529	5622.575	144.246	MM	02-Mar-10	09:47:16	511.0232	102.2	2.2	141.7
1202032102	2-Amino-46-dinitrotoluene	197 > 180	16.79	8026.065	19489.529	8026.065	205.907	bb			546.1446	109.2	9.2	676.3
1202032102	246-Trinitrotoluene	227 > 210	15.58	6378.817	19489.529	6378.817	163.647	bb			519.2184	103.8	3.8	517.1
1202032102	34-dinitrotoluene	182 > 152	14.56	9293.979	19489.529	9293.979	238.435	bb			240.6817	96.3	-3.7	464.6
1202032102	26-dinitrotoluene	182 > 152	17.79	21342.297	19489.529	21342.297	547.532	MM	02-Mar-10	09:38:13	485.2992	97.1	-2.9	1357.2
1202032102	24-dinitrotoluene	182 > 152	18.47	5250.836	19489.529	5250.836	134.709	MM	02-Mar-10	09:29:36	535.5362	107.1	7.1	297.8
1202032102	26-dinitrotoluene-d3	185 > 155	17.62	19489.529		19489.529	19489.529	bb			605.8360	121.2	21.2	1483.3
1202032102	2-Nitrotoluene	137 > 46	21.28	2913.165	19489.529	2913.165	74.737	bb			450.5404	90.1	-9.9	804.0
1202032102	4-Nitrotoluene	137 > 46	22.70	1432.241	19489.529	1432.241	36.744	bb			463.6470	92.7	-7.3	382.8
1202032102	3-Nitrotoluene	137 > 46	24.36	1600.967	19489.529	1600.967	41.072	bb			418.1968	83.6	-16.4	415.5
1202032102	PETN	361 > 62	24.75	39438.332	19489.529	39438.332	1011.783	bb			539.3026	107.9	7.9	7048.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948574

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 1202032102

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220019.wiff

Date Analyzed: 22-FEB-10 21:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6400	
59229-75-3	2,6-Diamino-4-nitrotoluene	7390	
618-87-1	3,5-Dinitroaniline	5110	
6629-29-4	2,4-Diamino-6-nitrotoluene	5870	
78-30-8	tris(o-cresyl) phosphate	4930	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Ran 2/23/10

Sample Name: "1202032102" Sample ID: "948575[2]LER" File: "EXS02220019.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 640. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.21e+006 counts
Height: 274630.432 cps
Start Time: 6.85 min
End Time: 7.59 min

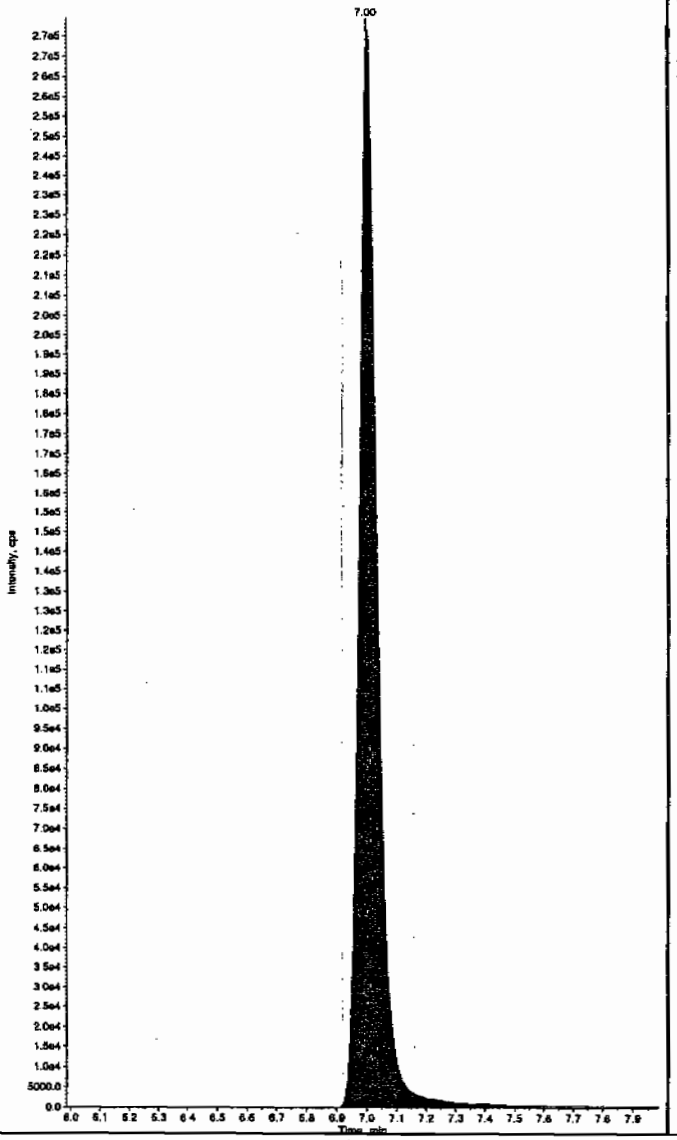

Sample Name: "1202032102" Sample ID: "948575[2]LER" File: "EXS02220019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 492. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.59e+006 counts
Height: 841992.432 cps
Start Time: 8.15 min
End Time: 8.33 min

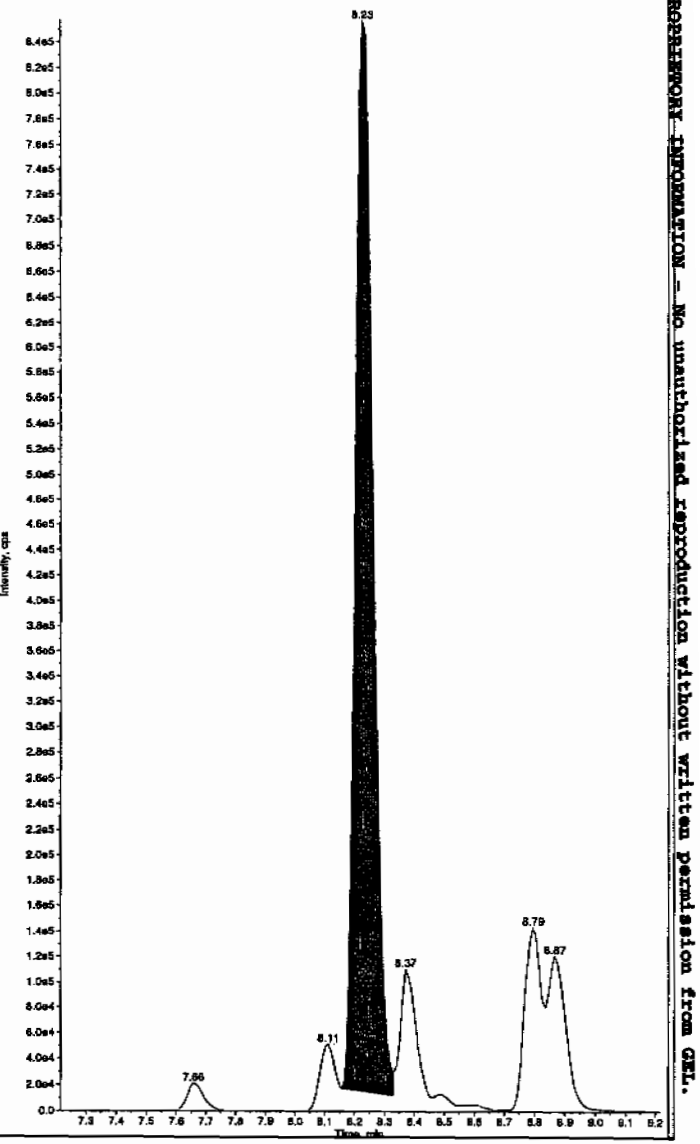

HMM 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Lan 2/23/10

Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 640. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.21e+006 counts
Height: 274630.432 cps
Start Time: 6.85 min
End Time: 7.59 min

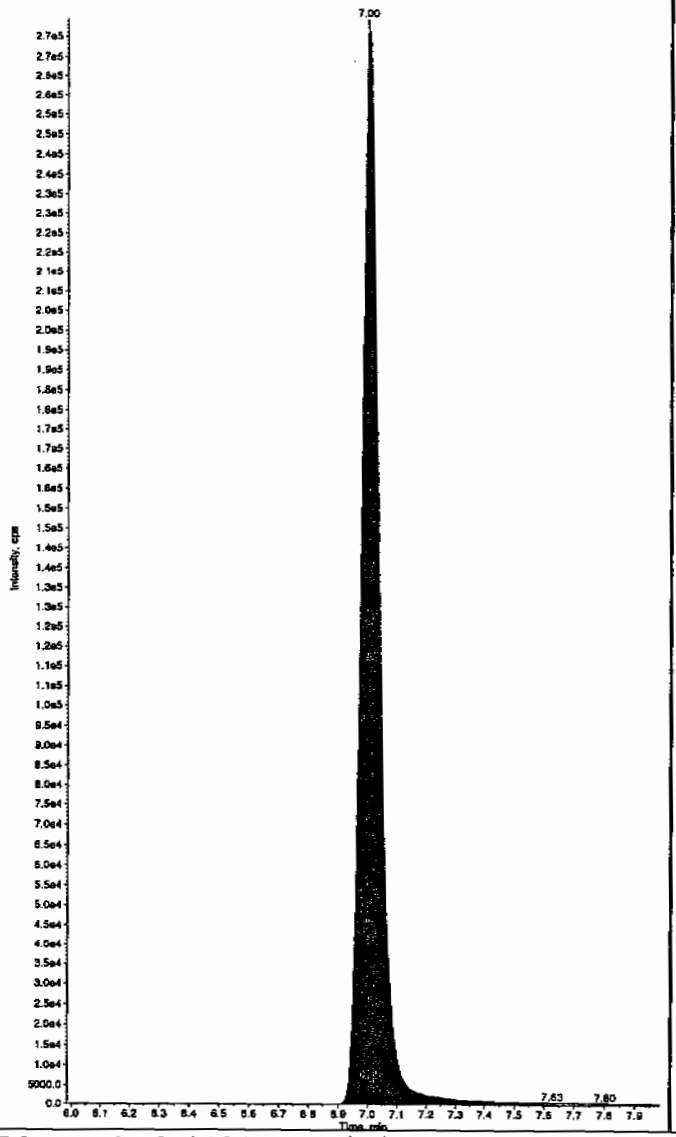

Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 511. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.73e+006 counts
Height: 859921.244 cps
Start Time: 8.15 min
End Time: 8.33 min

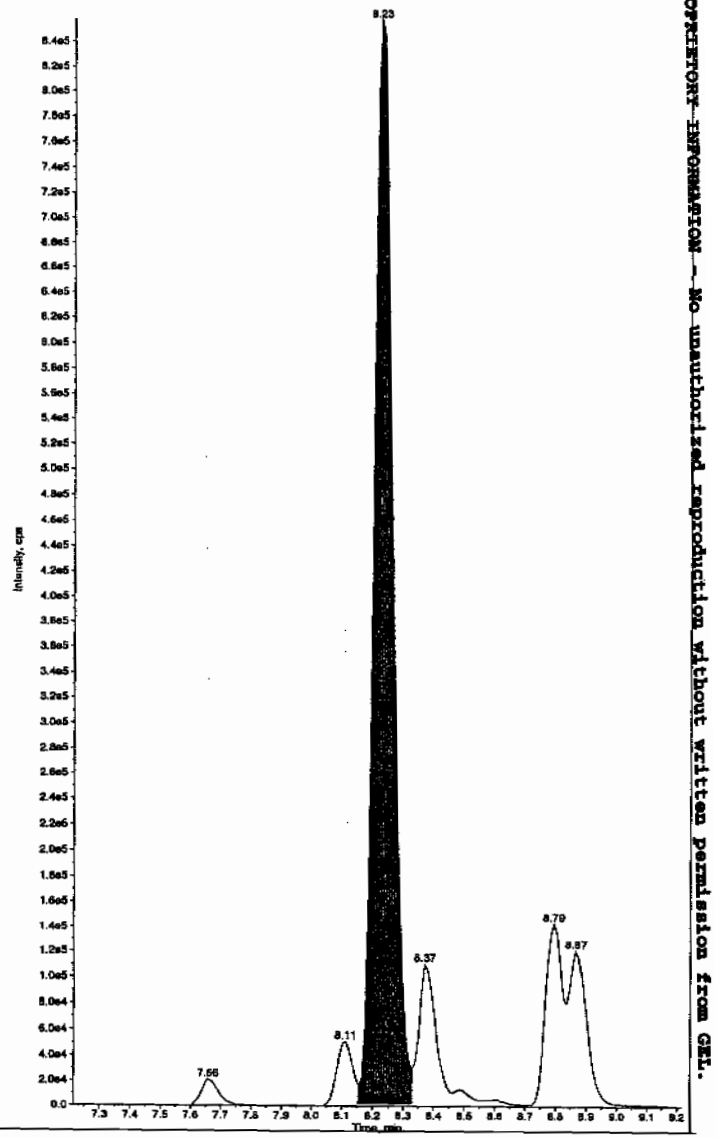

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 285. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.77e+006 counts
Height: 1020063.599 cps
Start Time: 8.30 min
End Time: 8.59 min

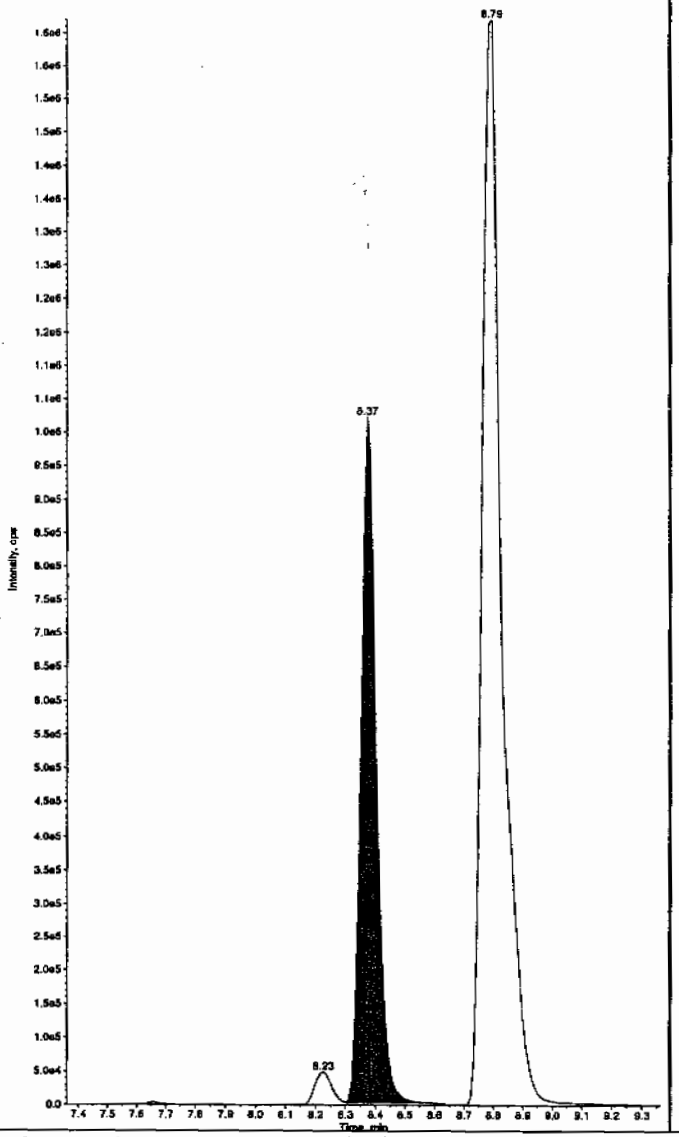

Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 739. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.41e+006 counts
Height: 347869.385 cps
Start Time: 4.91 min
End Time: 5.25 min

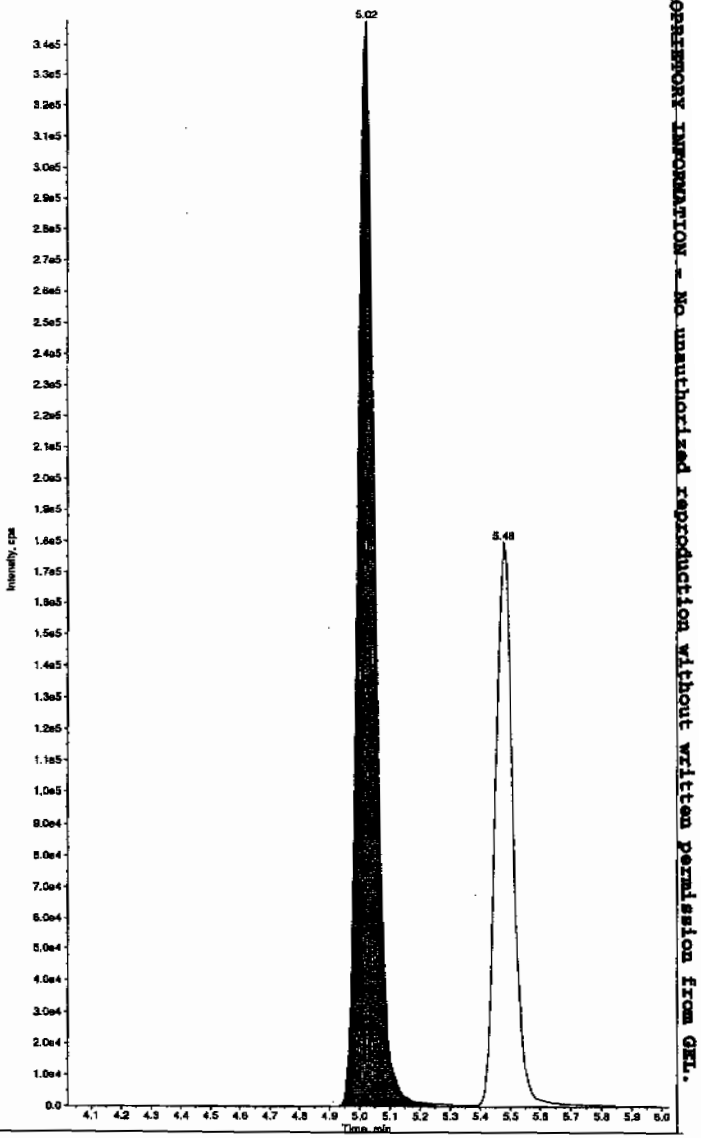

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 587. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.43 min
Area: 7.37e+005 counts
Height: 179965.256 cps
Start Time: 5.32 min
End Time: 5.87 min

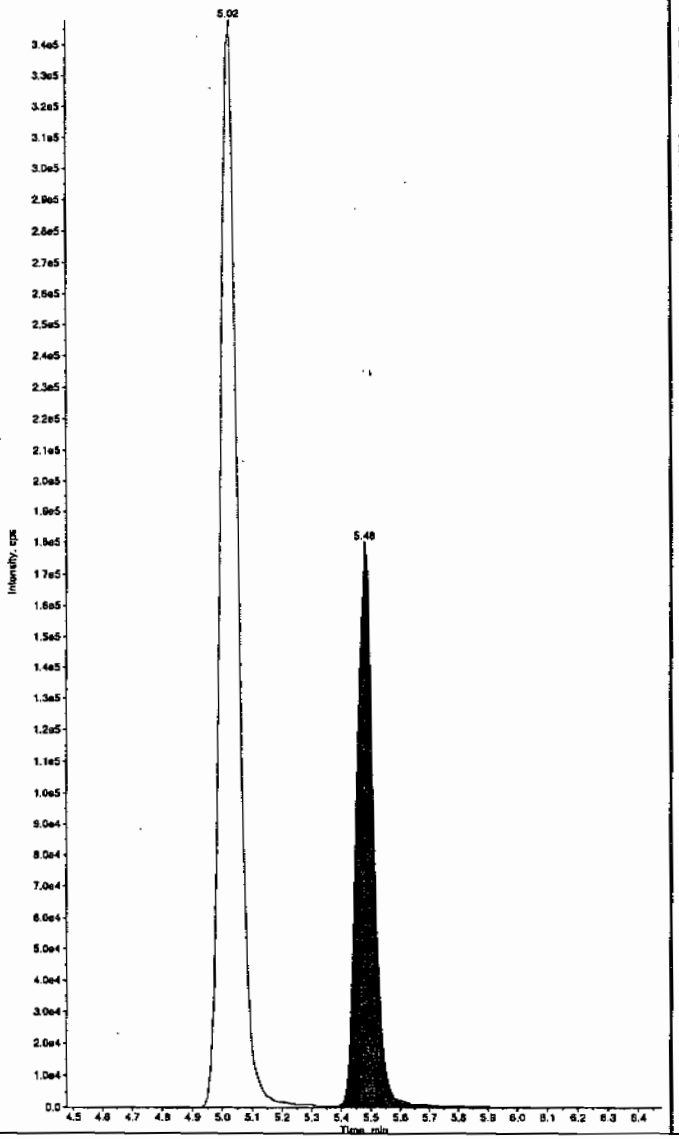

Sample Name: "1202032102" Sample ID: "948575|2|LER" File: "EXS02220019.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 493. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 9:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.84e+006 counts
Height: 2309523.926 cps
Start Time: 10.8 min
End Time: 11.2 min

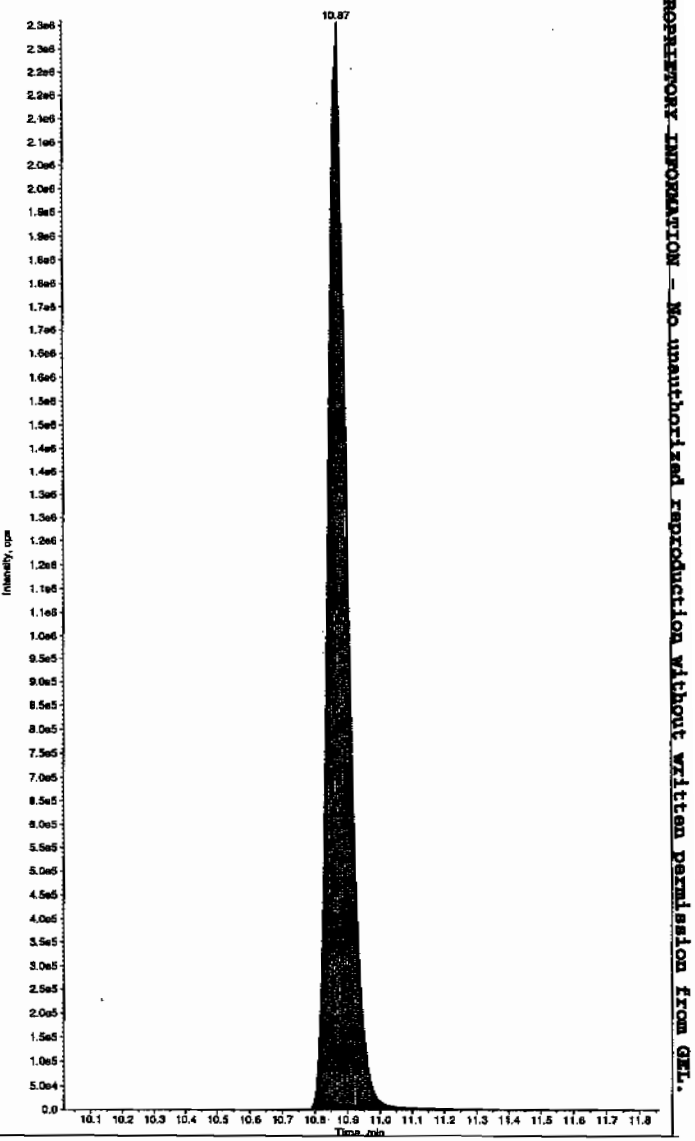

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880(245969001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 1202032103

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301023a

Date Analyzed: 02-MAR-10 02:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5760	
121-14-2	2,4-Dinitrotoluene	5400	
121-82-4	RDX	5760	
19406-51-0	4-Amino-2,6-dinitrotoluene	5310	
2691-41-0	HMX	5410	
35572-78-2	2-Amino-4,6-dinitrotoluene	5680	
479-45-8	Tetryl	3880	
606-20-2	2,6-Dinitrotoluene	5010	
78-11-5	PETN	5750	
88-72-2	o-Nitrotoluene	4640	
98-95-3	Nitrobenzene	4840	
99-08-1	m-Nitrotoluene	4480	
99-35-4	1,3,5-Trinitrobenzene	4980	
99-65-0	m-Dinitrobenzene	4740	
99-99-0	p-Nitrotoluene	4830	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301023a
Date: 02-Mar-2010
Time: 02:21:47
ID: 1202032103 | LANL | 948575 | Solids | 24596900 1MS | 2 |
Vial: 2:1,D

MMT 3/2/10

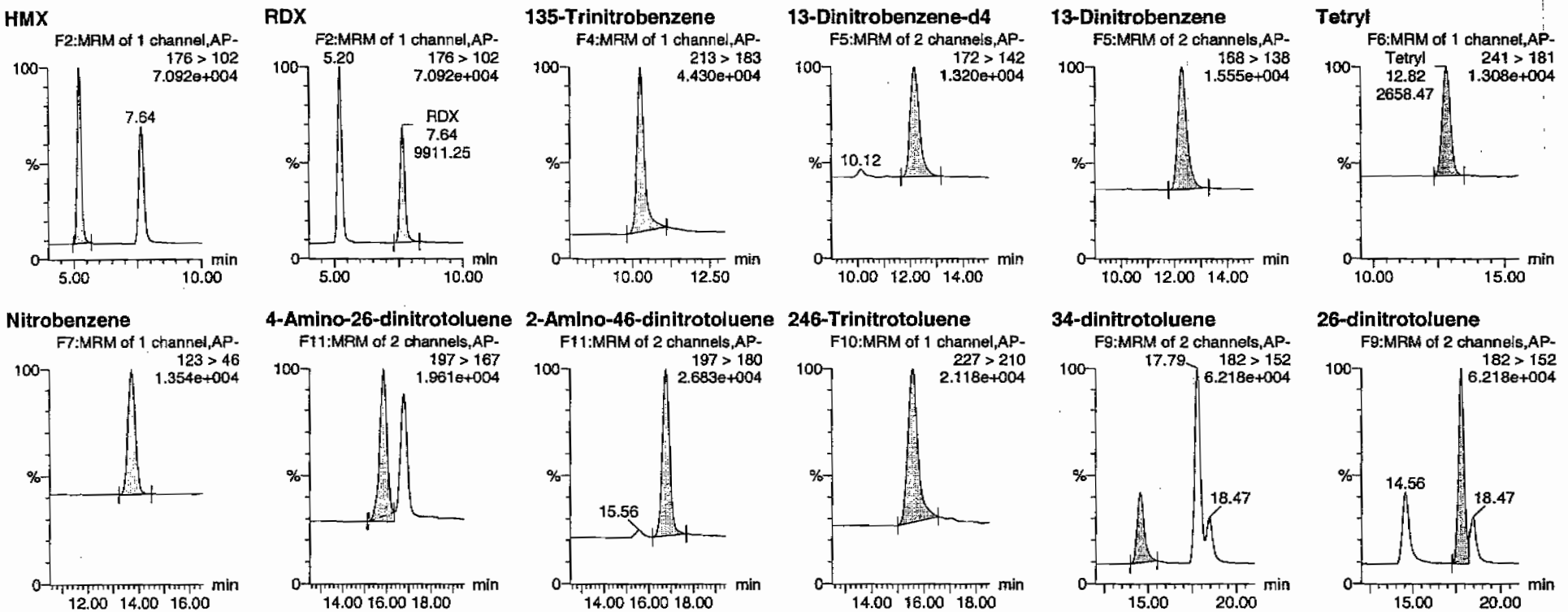

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

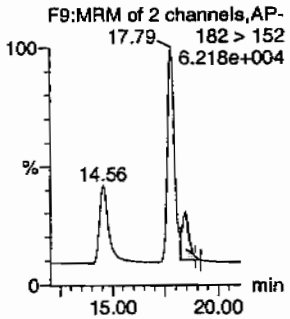

26-dinitrotoluene-d3

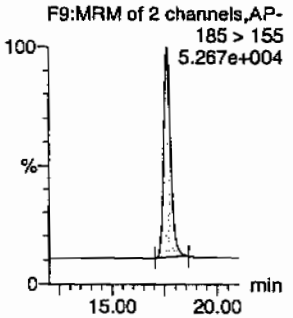

2-Nitrotoluene

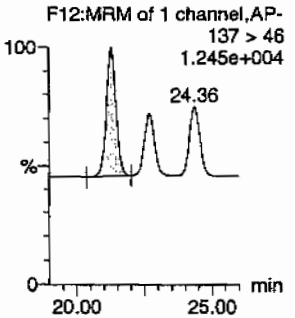

4-Nitrotoluene

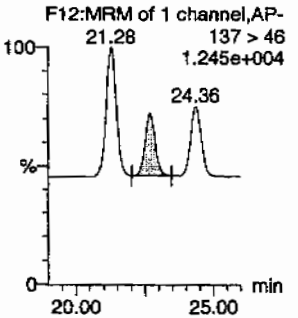

3-Nitrotoluene

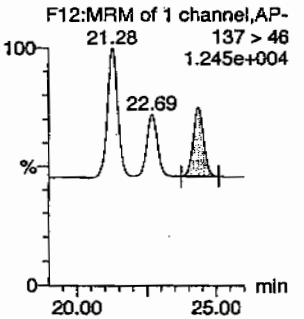

PETN

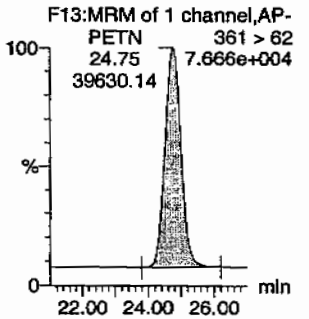

ID	Name	Trace?	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032103	HMX	176 > 102	5.20	12940.093	3132.861	12940.093	2065.220	bb			541.3671	108.3	8.3	1789.3
1202032103	RDX	176 > 102	7.64	9911.247	3132.861	9911.247	1581.820	bb			576.3355	115.3	15.3	1195.3
1202032103	135-Trinitrobenzene	213 > 183	10.27	10739.134	3132.861	10739.134	1713.950	bb			497.7992	99.6	-0.4	1545.1
1202032103	13-Dinitrobenzene-d4	172 > 142	12.17	3132.861		3132.861	3132.861	bb			540.5070	108.1	8.1	447.8
1202032103	13-Dinitrobenzene	168 > 138	12.31	3896.040	3132.861	3896.040	621.802	bb			473.9828	94.8	-5.2	469.1
1202032103	Tetryl	241 > 181	12.82	2658.474	3132.861	2658.474	424.289	bb			387.9597	77.6	-22.4	149.7
1202032103	Nitrobenzene	123 > 46	13.72	2696.619	3132.861	2696.619	430.376	bb			484.1498	96.8	-3.2	370.8
1202032103	4-Amino-26-dinitrotoluene	197 > 167	15.86	5610.943	18707.076	5610.943	149.968	MM	02-Mar-10	09:47:34	531.2962	106.3	6.3	246.6
1202032103	2-Amino-46-dinitrotoluene	197 > 180	16.76	8011.845	18707.076	8011.845	214.139	bb			567.9799	113.6	13.6	827.0
1202032103	246-Trinitrotoluene	227 > 210	15.58	6795.883	18707.076	6795.883	181.639	bb			576.3035	115.3	15.3	393.6
1202032103	34-dinitrotoluene	182 > 152	14.56	9526.818	18707.076	9526.818	254.631	bb			257.0305	102.8	2.8	173.1
1202032103	26-dinitrotoluene	182 > 152	17.79	21134.502	18707.076	21134.502	564.880	MM	02-Mar-10	09:38:18	500.6749	100.1	0.1	480.9
1202032103	24-dinitrotoluene	182 > 152	18.47	5082.194	18707.076	5082.194	135.836	MM	02-Mar-10	09:29:47	540.0165	108.0	8.0	107.6
1202032103	26-dinitrotoluene-d3	185 > 155	17.62	18707.076		18707.076	18707.076	bb			581.5133	116.3	16.3	560.7
1202032103	2-Nitrotoluene	137 > 46	21.28	2877.472	18707.076	2877.472	76.909	bb			463.6339	92.7	-7.3	361.0
1202032103	4-Nitrotoluene	137 > 46	22.69	1433.065	18707.076	1433.065	38.303	bb			483.3177	96.7	-3.3	174.4
1202032103	3-Nitrotoluene	137 > 46	24.36	1647.396	18707.076	1647.396	44.031	bb			448.3237	89.7	-10.3	194.4
1202032103	PETN	361 > 62	24.75	39630.141	18707.076	39630.141	1059.229	bb			574.5955	114.9	14.9	7906.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880(245969001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 1202032103

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220021.wiff

Date Analyzed: 22-FEB-10 22:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7500	
59229-75-3	2,6-Diamino-4-nitrotoluene	7220	
618-87-1	3,5-Dinitroaniline	5130	
6629-29-4	2,4-Diamino-6-nitrotoluene	6060	
78-30-8	tris(o-cresyl) phosphate	4960	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Scan 2/23/10

Sample Name: "1202032103" Sample ID: "948575|2|LER" File: "EXS02220021.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 750. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.41e+006 counts
Height: 315534.302 cps
Start Time: 6.86 min
End Time: 7.64 min

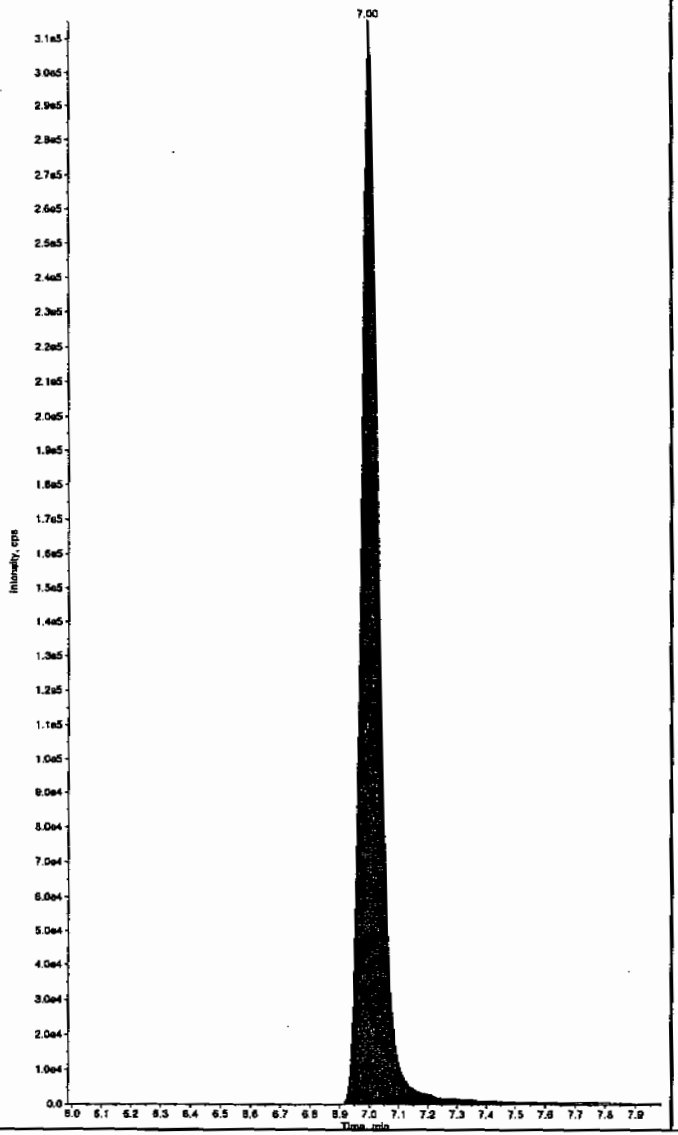

Sample Name: "1202032103" Sample ID: "948575|2|LER" File: "EXS02220021.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 488. ng/mL
Acq. Date: 3/22/2010
Acq. Time: 10:16:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.56e+006 counts
Height: 887927.612 cps
Start Time: 8.15 min
End Time: 8.33 min

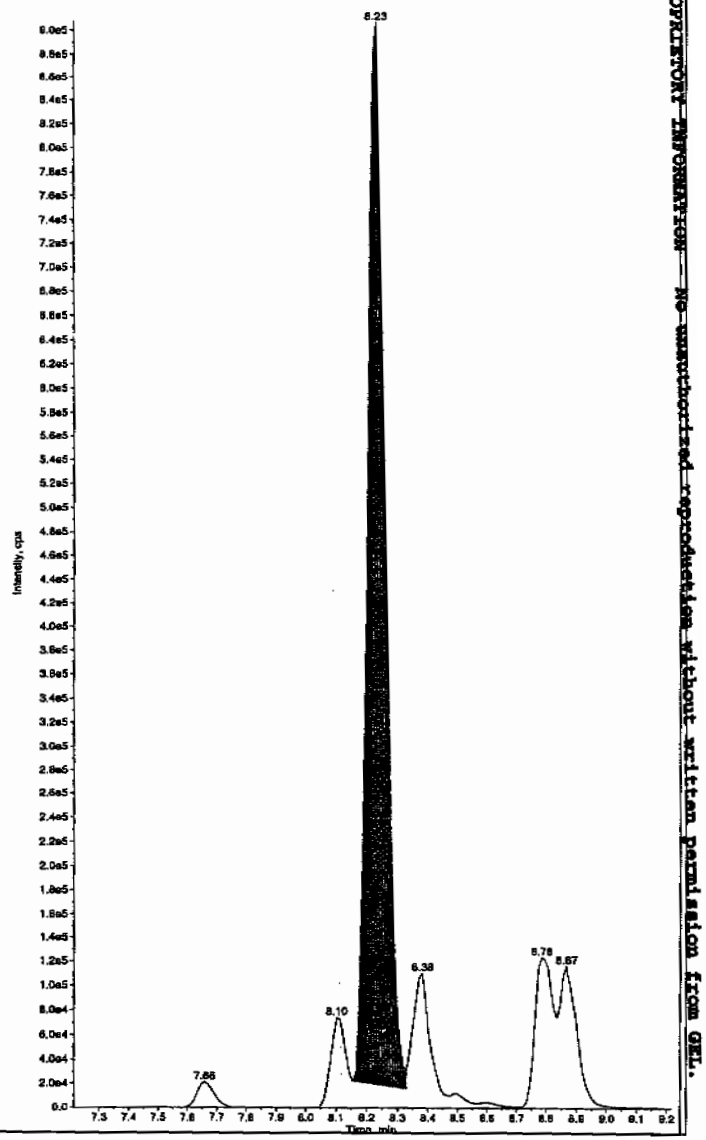

Hmc 02/23/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lan 2/23/10

Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 750. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.41e+006 counts
Height: 315534.302 cps
Start Time: 6.88 min
End Time: 7.64 min

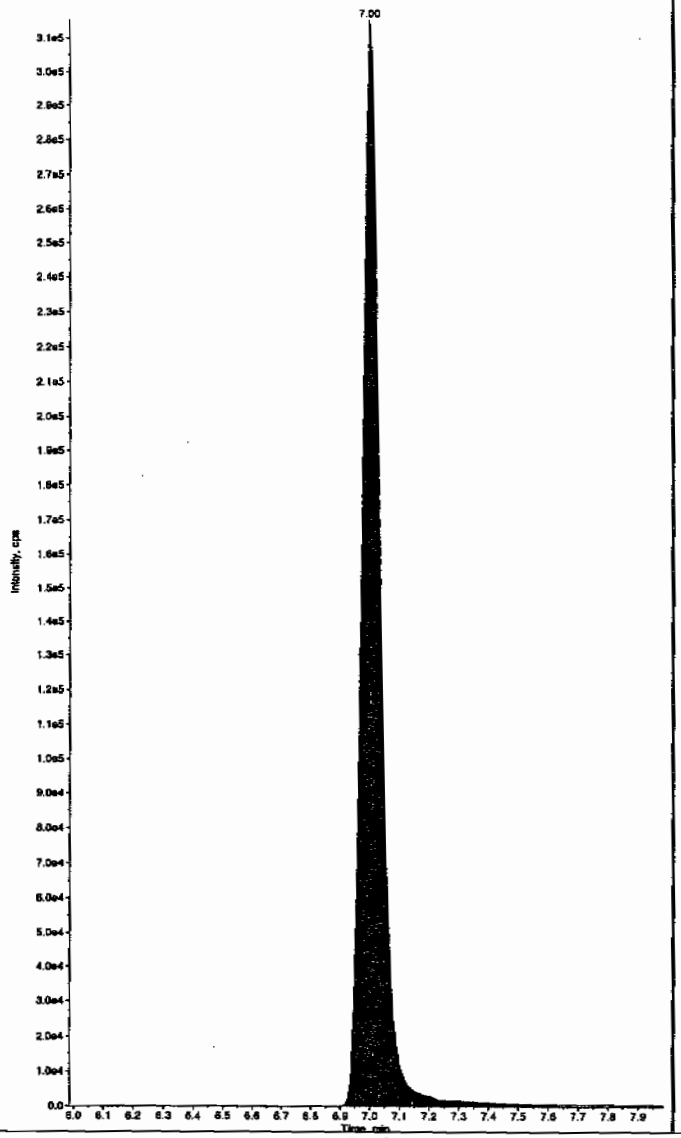

Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 513. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 3.74e+006 counts
Height: 911883.083 cps
Start Time: 8.15 min
End Time: 8.33 min

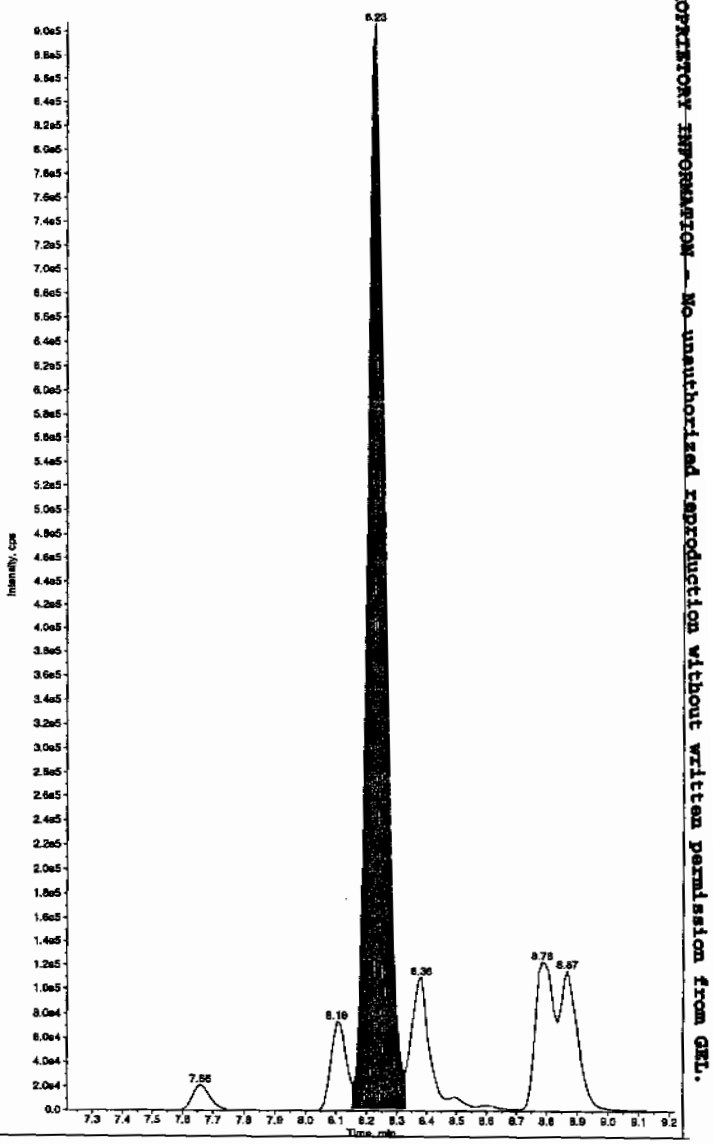

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 306. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.03e+006 counts
Height: 1043250.732 cps
Start Time: 8.30 min
End Time: 8.62 min

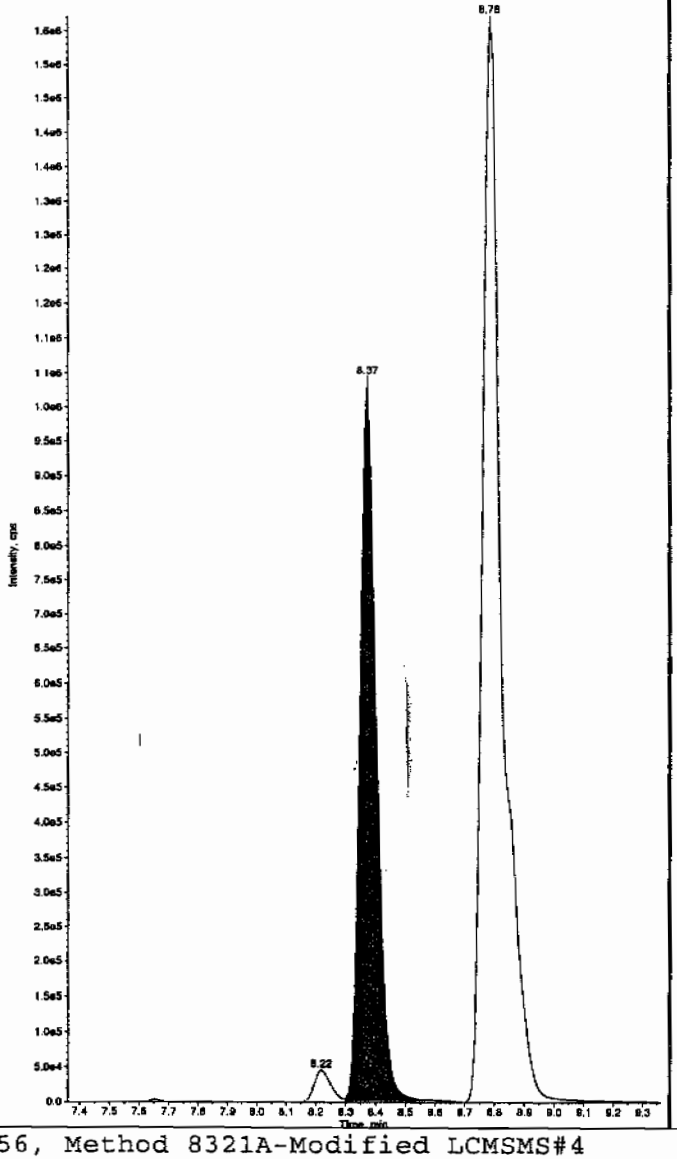

Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 722. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.37e+006 counts
Height: 319889.038 cps
Start Time: 4.92 min
End Time: 5.29 min

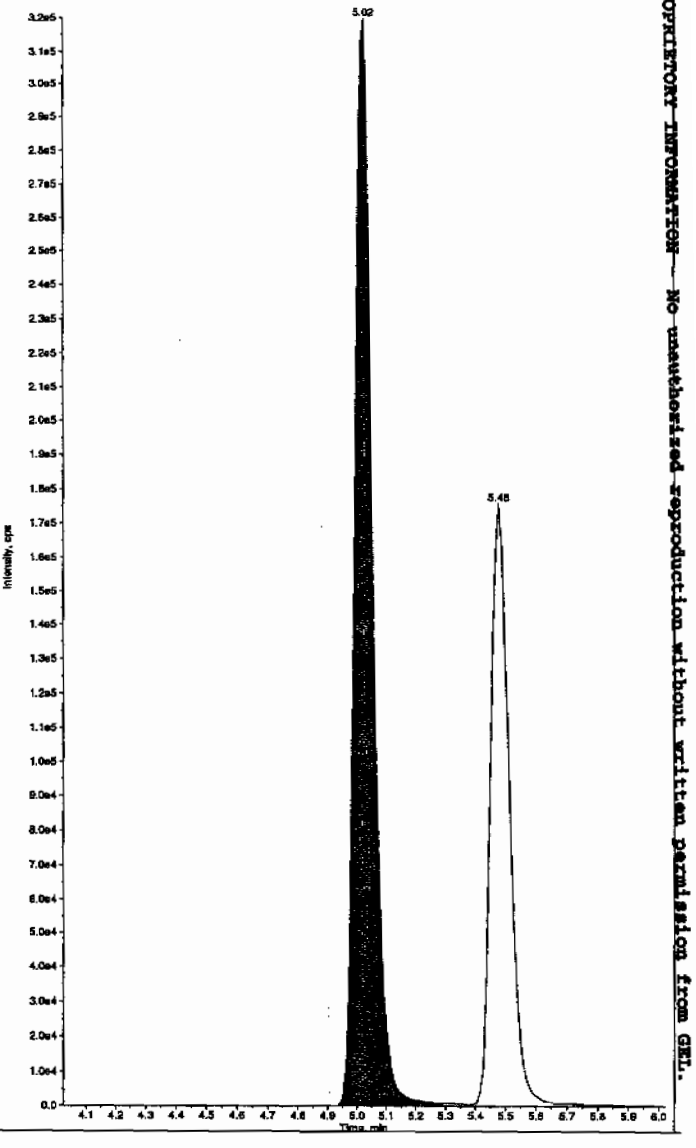

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 606. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 7.61e+005 counts
Height: 175936.920 cps
Start Time: 5.38 min
End Time: 6.03 min

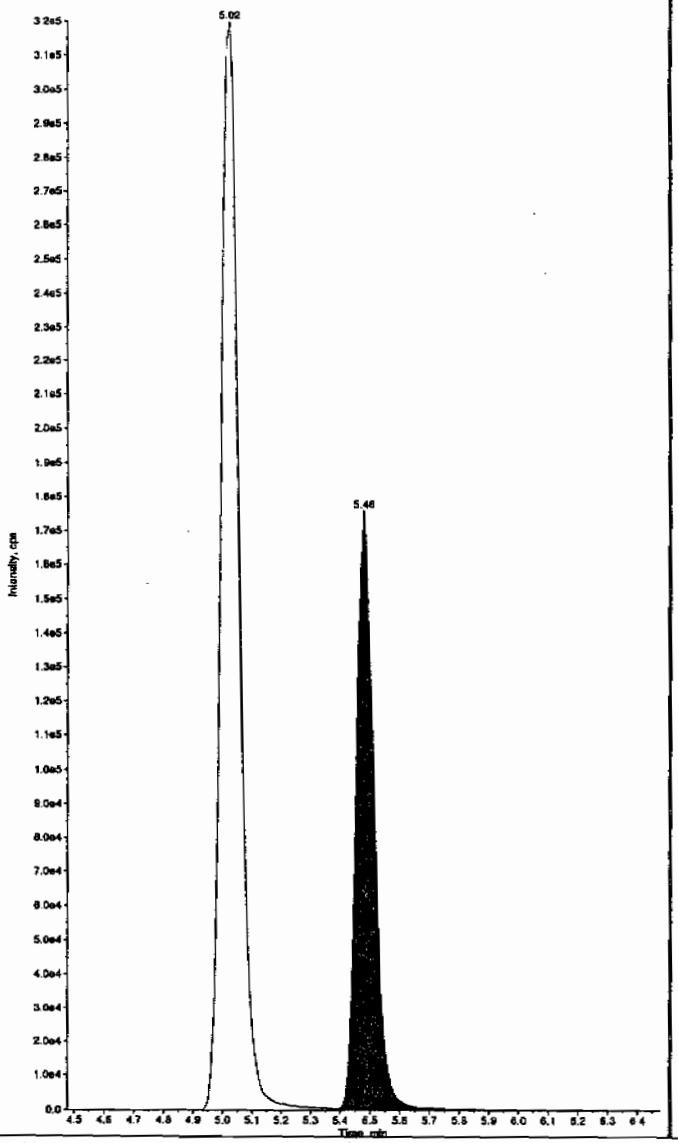

Sample Name: "1202032103" Sample ID: "948575[2]LER" File: "EXS02220021.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 496. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:16:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.91e+006 counts
Height: 2312869.141 cps
Start Time: 10.8 min
End Time: 11.2 min

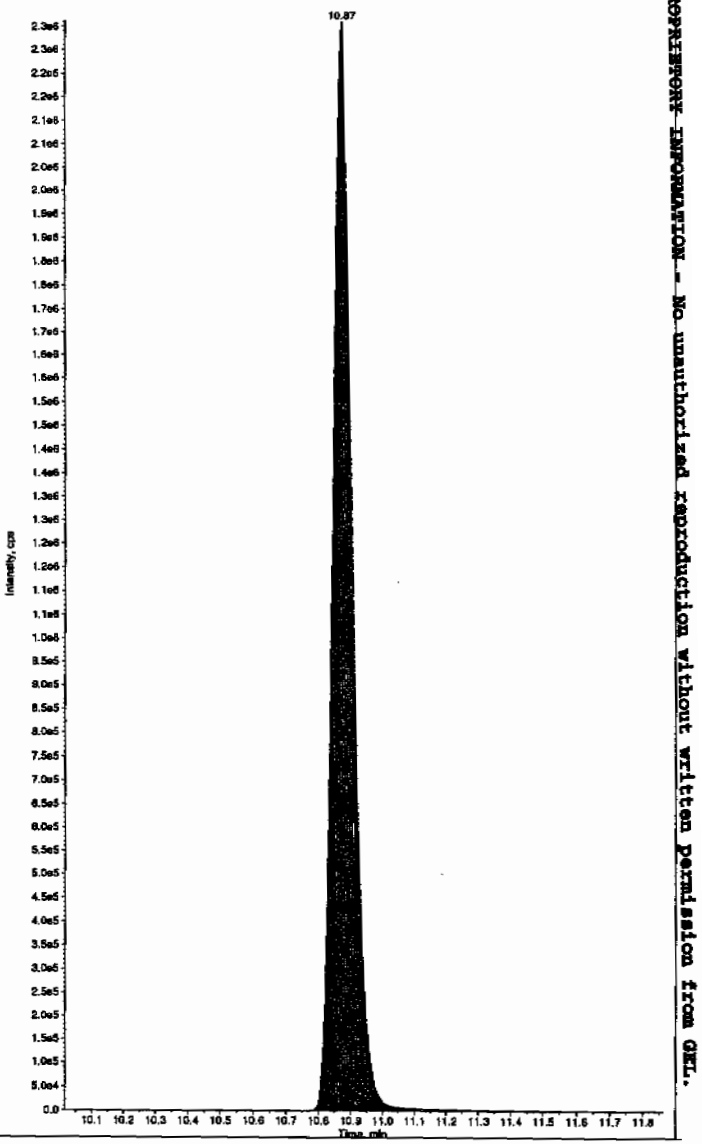

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880(245969001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 1202032104

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0301024a

Date Analyzed: 02-MAR-10 02:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5770	
121-14-2	2,4-Dinitrotoluene	4590	
121-82-4	RDX	5270	
19406-51-0	4-Amino-2,6-dinitrotoluene	5290	
2691-41-0	HMX	5280	
35572-78-2	2-Amino-4,6-dinitrotoluene	5590	
479-45-8	Tetryl	4210	
606-20-2	2,6-Dinitrotoluene	4890	
78-11-5	PETN	5200	
88-72-2	o-Nitrotoluene	4480	
98-95-3	Nitrobenzene	4200	
99-08-1	m-Nitrotoluene	4580	
99-35-4	1,3,5-Trinitrobenzene	5440	
99-65-0	m-Dinitrobenzene	5110	
99-99-0	p-Nitrotoluene	4960	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301024a
Date: 02-Mar-2010
Time: 02:51:15
ID: 1202032104
Vial: 2:1,E

LANU | 948575 | SOLID | 245969001 MSD | 2 |

MTP 3/2/10

HMX

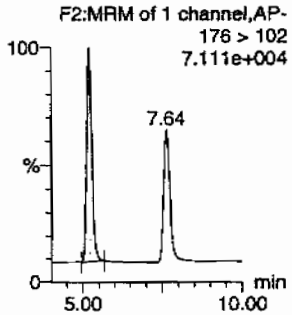

RDX

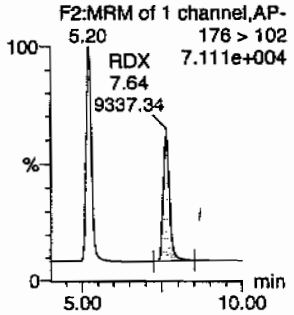

135-Trinitrobenzene

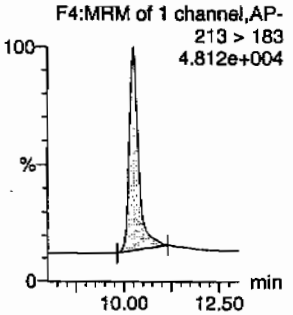

13-Dinitrobenzene-d4

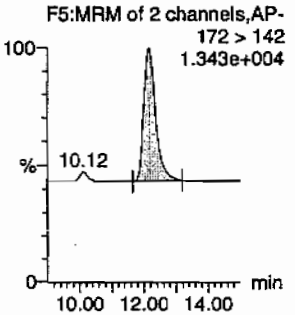

13-Dinitrobenzene

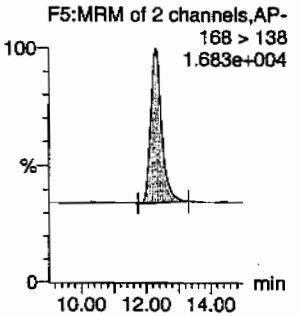

Tetryl

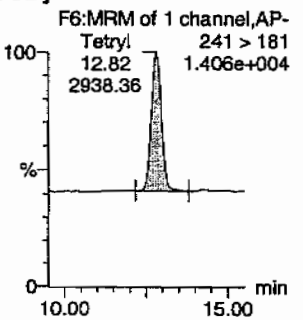

Nitrobenzene

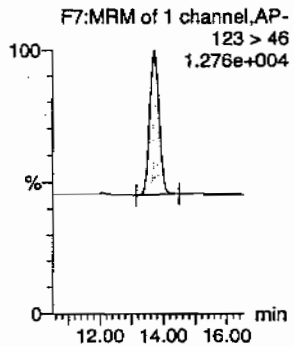

4-Amino-26-dinitrotoluene

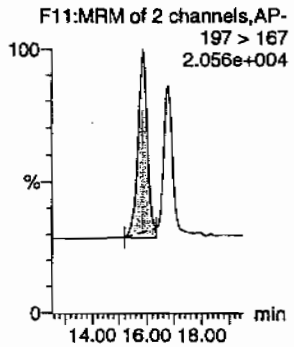

2-Amino-46-dinitrotoluene

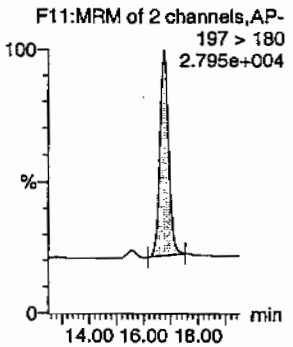

246-Trinitrotoluene

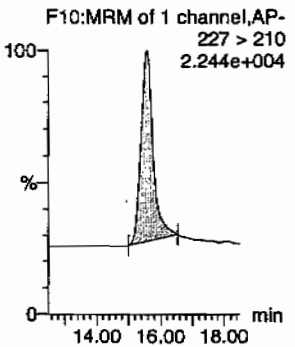

34-dinitrotoluene

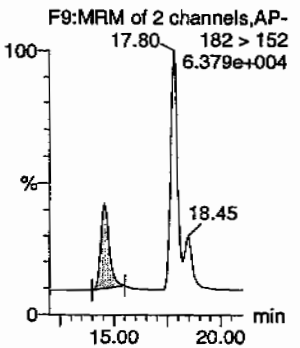

26-dinitrotoluene

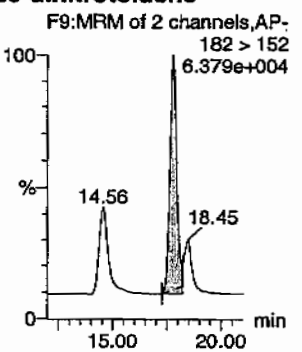

HMM 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA.qld, Time: Tue Mar 02 09:59:16 2010

24-dinitrotoluene

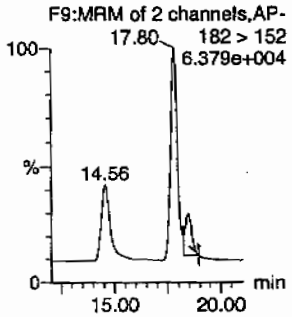

26-dinitrotoluene-d3

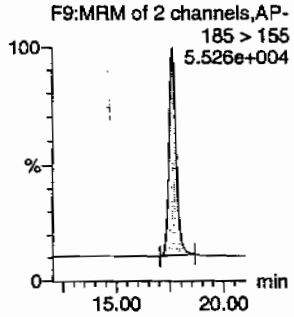

2-Nitrotoluene

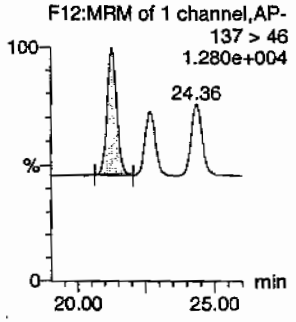

4-Nitrotoluene

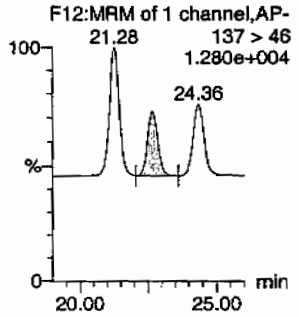

3-Nitrotoluene

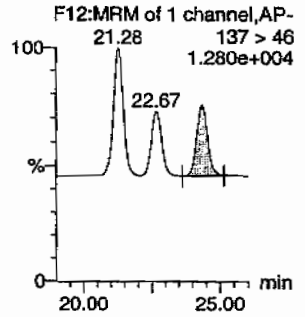

PETN

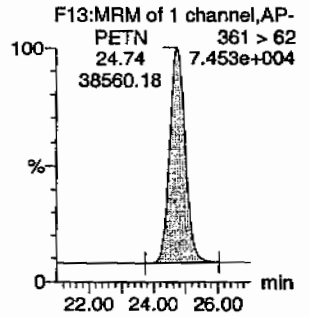

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032104	HMX	176 > 102	5.20	13010.215	3226.557	13010.215	2016.114	bb			528.4948	105.7	5.7	1832.0
1202032104	RDX	176 > 102	7.64	9337.340	3226.557	9337.340	1446.951	bb			527.1959	105.4	5.4	1132.2
1202032104	135-Trinitrobenzene	213 > 183	10.27	12083.594	3226.557	12083.594	1872.521	bb			543.8547	108.8	8.8	957.2
1202032104	13-Dinitrobenzene-d4	172 > 142	12.17	3226.557		3226.557	3226.557	bb			556.6722	111.3	11.3	351.9
1202032104	13-Dinitrobenzene	168 > 138	12.27	4327.925	3226.557	4327.925	670.672	bb			511.2351	102.2	2.2	464.8
1202032104	Tetryl	241 > 181	12.82	2938.358	3226.557	2938.358	455.340	bb			420.5544	84.1	-15.9	231.6
1202032104	Nitrobenzene	123 > 46	13.72	2411.343	3226.557	2411.343	373.671	bb			420.3596	84.1	-15.9	282.3
1202032104	4-Amino-26-dinitrotoluene	197 > 167	15.86	5839.637	19570.504	5839.637	149.195	MM	02-Mar-10	09:47:48	528.5555	105.7	5.7	251.9
1202032104	2-Amino-46-dinitrotoluene	197 > 180	16.76	8242.811	19570.504	8242.811	210.593	bb			558.5727	111.7	11.7	749.6
1202032104	246-Trinitrotoluene	227 > 210	15.58	7116.040	19570.504	7116.040	181.805	bb			576.8297	115.4	15.4	400.9
1202032104	34-dinitrotoluene	182 > 152	14.56	9749.124	19570.504	9749.124	249.077	bb			251.4237	100.6	0.6	578.8
1202032104	26-dinitrotoluene	182 > 152	17.80	21572.969	19570.504	21572.969	551.160	MM	02-Mar-10	09:38:25	488.5147	97.7	-2.3	1600.9
1202032104	24-dinitrotoluene	182 > 152	18.45	4521.657	19570.504	4521.657	115.522	MM	02-Mar-10	09:29:55	459.2586	91.9	-8.1	325.1
1202032104	26-dinitrotoluene-d3	185 > 155	17.62	19570.504		19570.504	19570.504	bb			608.3532	121.7	21.7	1305.3
1202032104	2-Nitrotoluene	137 > 46	21.28	2911.315	19570.504	2911.315	74.380	bb			448.3913	89.7	-10.3	194.7
1202032104	4-Nitrotoluene	137 > 46	22.67	1537.434	19570.504	1537.434	39.279	bb			495.6409	99.1	-0.9	97.3
1202032104	3-Nitrotoluene	137 > 46	24.36	1760.025	19570.504	1760.025	44.966	bb			457.8429	91.6	-8.4	107.6
1202032104	PETN	361 > 62	24.74	38560.184	19570.504	38560.184	985.161	bb			520.1735	104.0	4.0	10453.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7880(245969001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1512

Matrix: SOIL

GEL Sample ID: 1202032104

Sample Amount 2

Moisture: 7.5

Amount Units g

Date Received: 02-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948574

Concentrated Extract Volume (mL) 10

Date Extracted: 09-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02220022.wiff

Date Analyzed: 22-FEB-10 22:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	8590	
59229-75-3	2,6-Diamino-4-nitrotoluene	6520	
618-87-1	3,5-Dinitroaniline	5170	
6629-29-4	2,4-Diamino-6-nitrotoluene	5970	
78-30-8	tris(o-cresyl) phosphate	4900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Clar 2/23/10

Sample Name: "1202032104" Sample ID: "948575|2|LER" File: "EXS02220022.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 859. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.61e+006 counts
Height: 359192.444 cps
Start Time: 6.89 min
End Time: 7.48 min

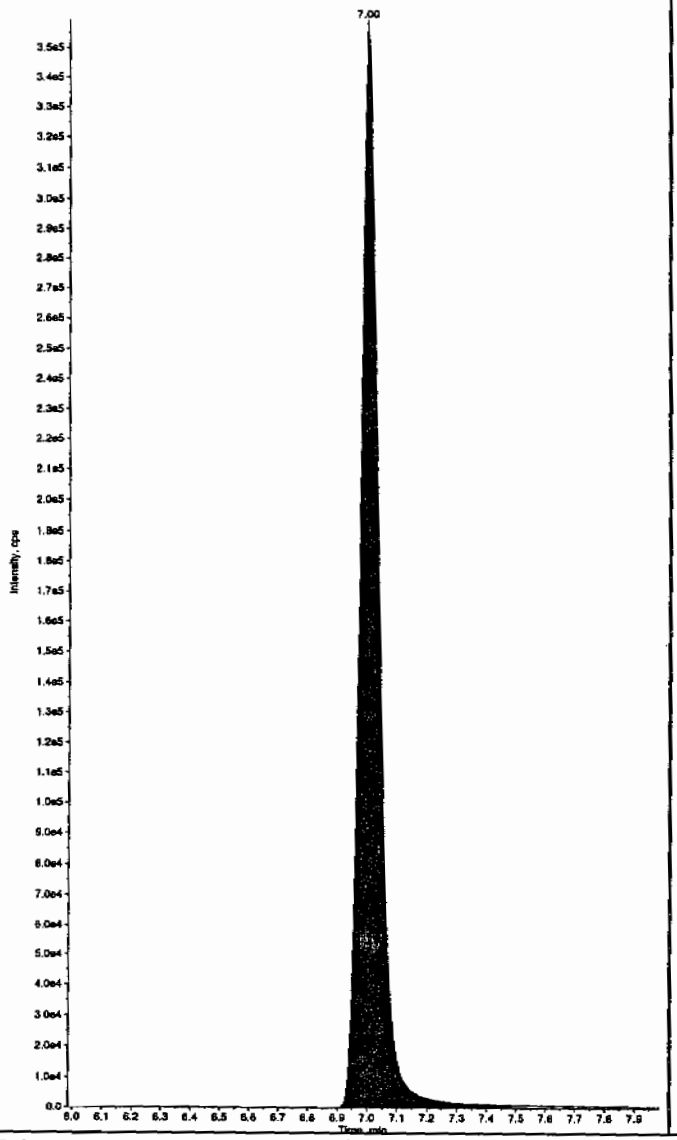

Sample Name: "1202032104" Sample ID: "948575|2|LER" File: "EXS02220022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 493. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 3.60e+006 counts
Height: 873784.790 cps
Start Time: 8.16 min
End Time: 8.33 min

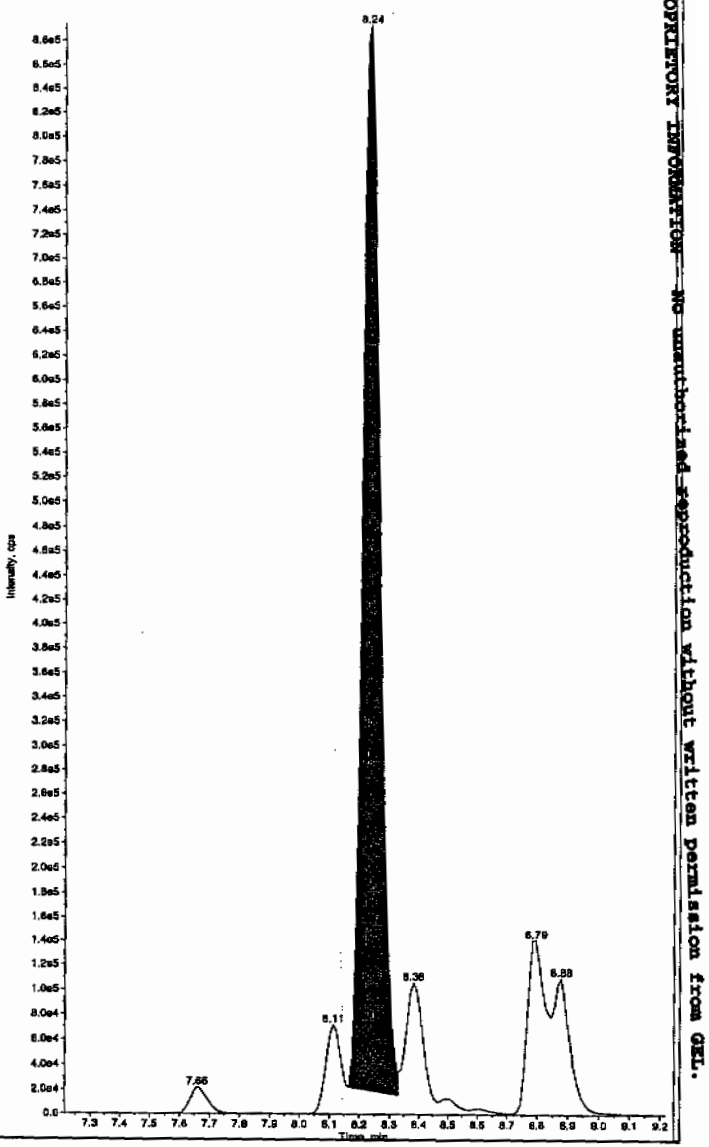

Hmm, 02/23/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Ran 2/23/10

Sample Name: "1202032104" Sample ID: "948575|2|LER" File: "EXS02220022.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 859. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.99 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.61e+006 counts
Height: 359192.444 cps
Start Time: 6.89 min
End Time: 7.48 min

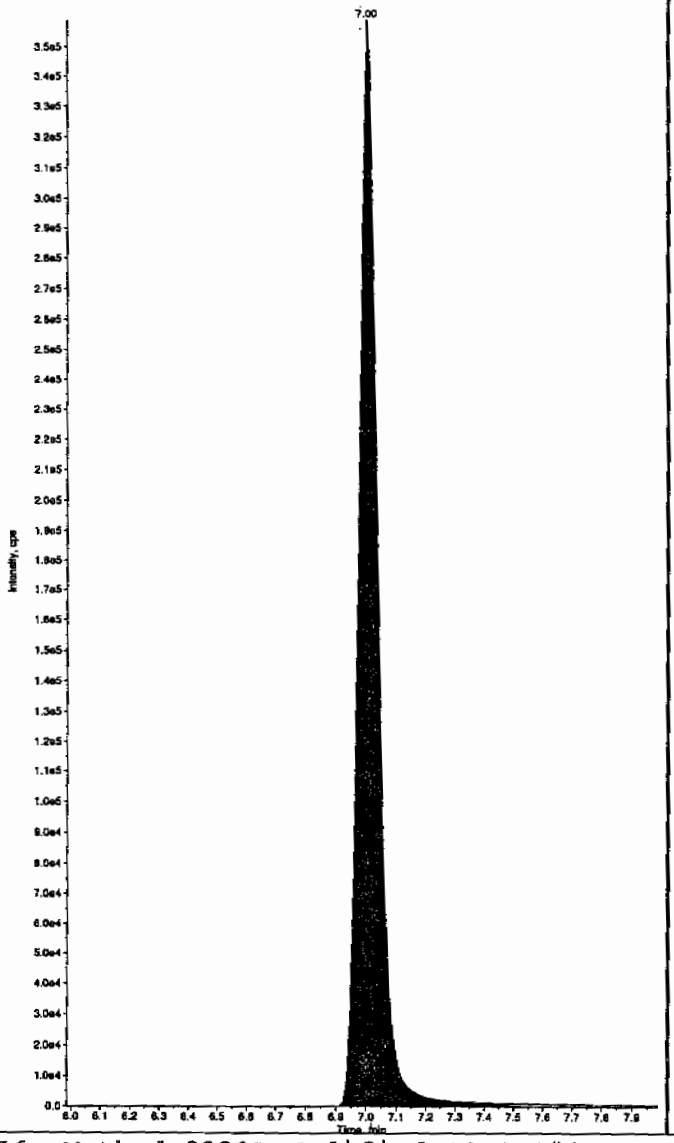

Sample Name: "1202032104" Sample ID: "948575|2|LER" File: "EXS02220022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 517. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.77e+006 counts
Height: 897055.203 cps
Start Time: 8.16 min
End Time: 8.33 min

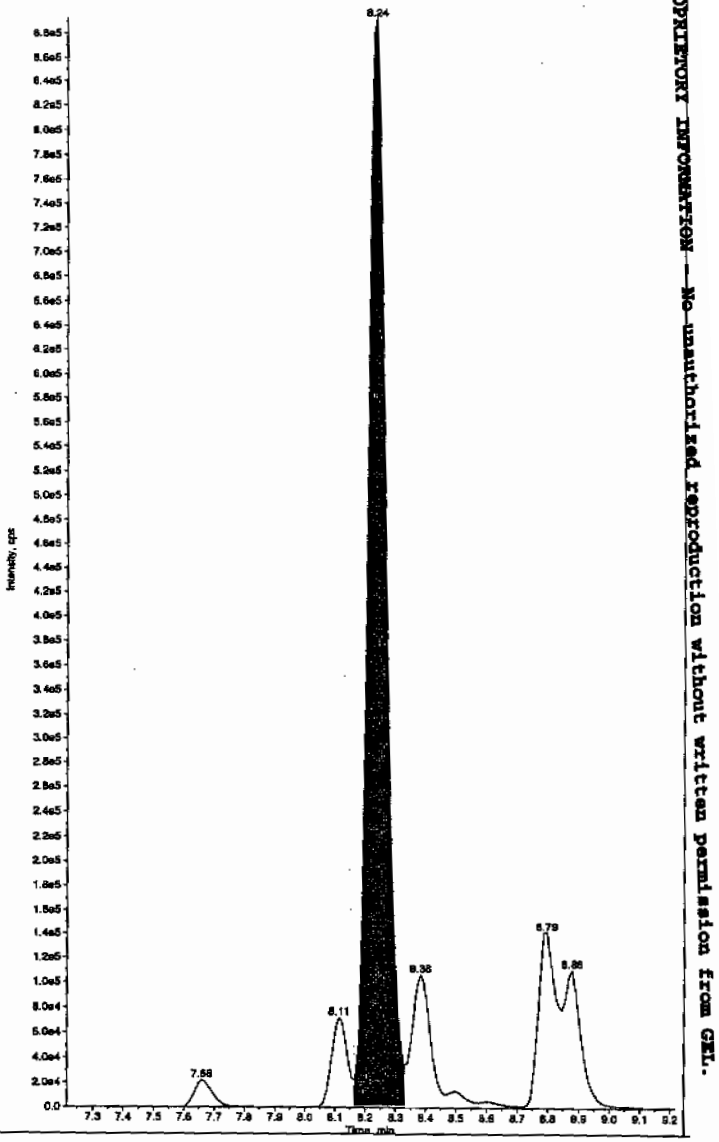

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "1202032104" Sample ID: "948575[2]LER" File: "EXS02220022.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 288. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 3.80e+006 counts
Height: 949209.656 cps
Start Time: 8.30 min
End Time: 8.57 min

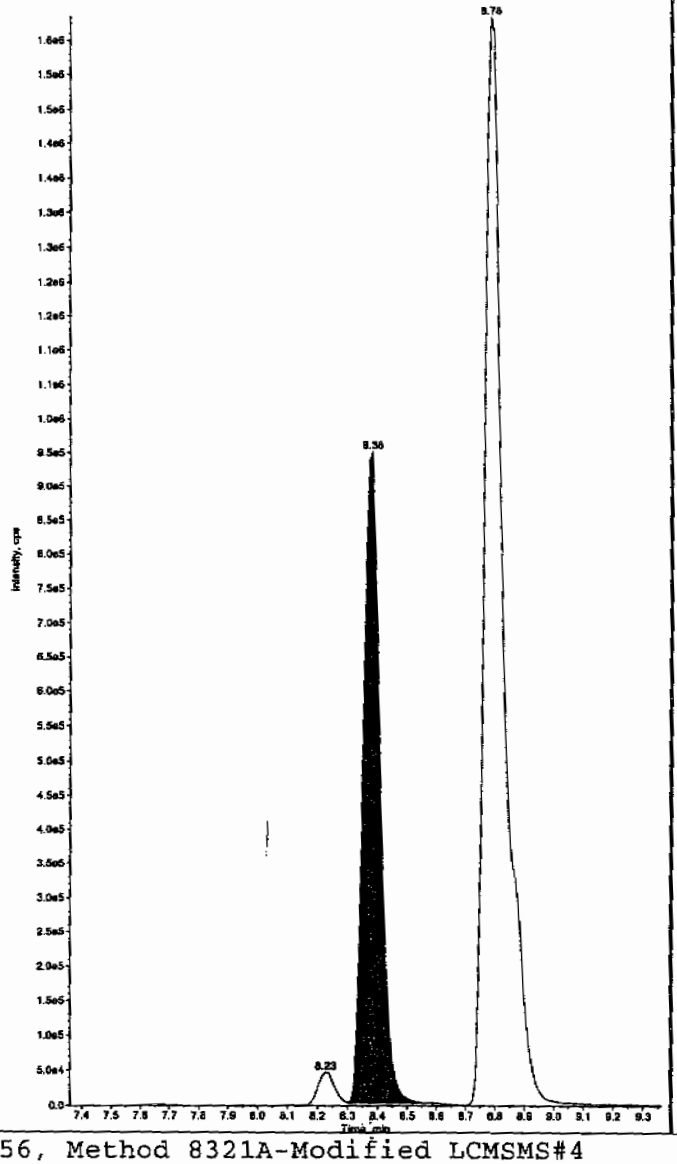

Sample Name: "1202032104" Sample ID: "948575[2]LER" File: "EXS02220022.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 652. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.24e+006 counts
Height: 291128.540 cps
Start Time: 4.92 min
End Time: 5.32 min

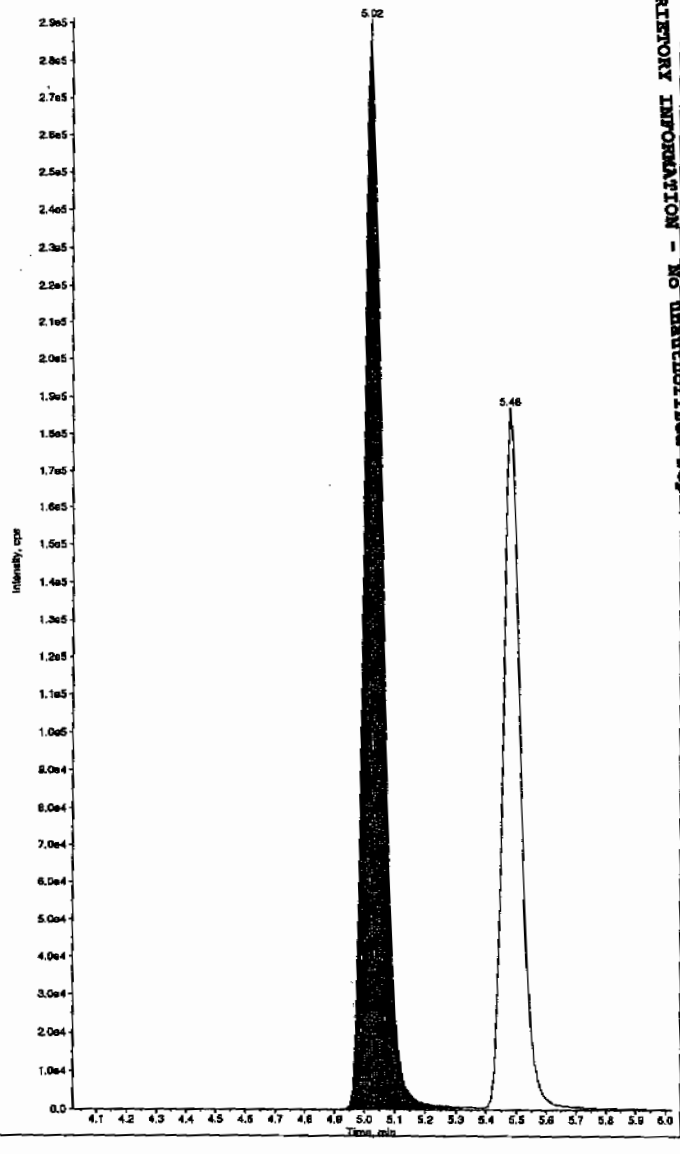

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032104" Sample ID: "946575[2]LER" File: "EXS02220022.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 597. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 7.50e+005 counts
Height: 187111.496 cps
Start Time: 5.37 min
End Time: 5.90 min

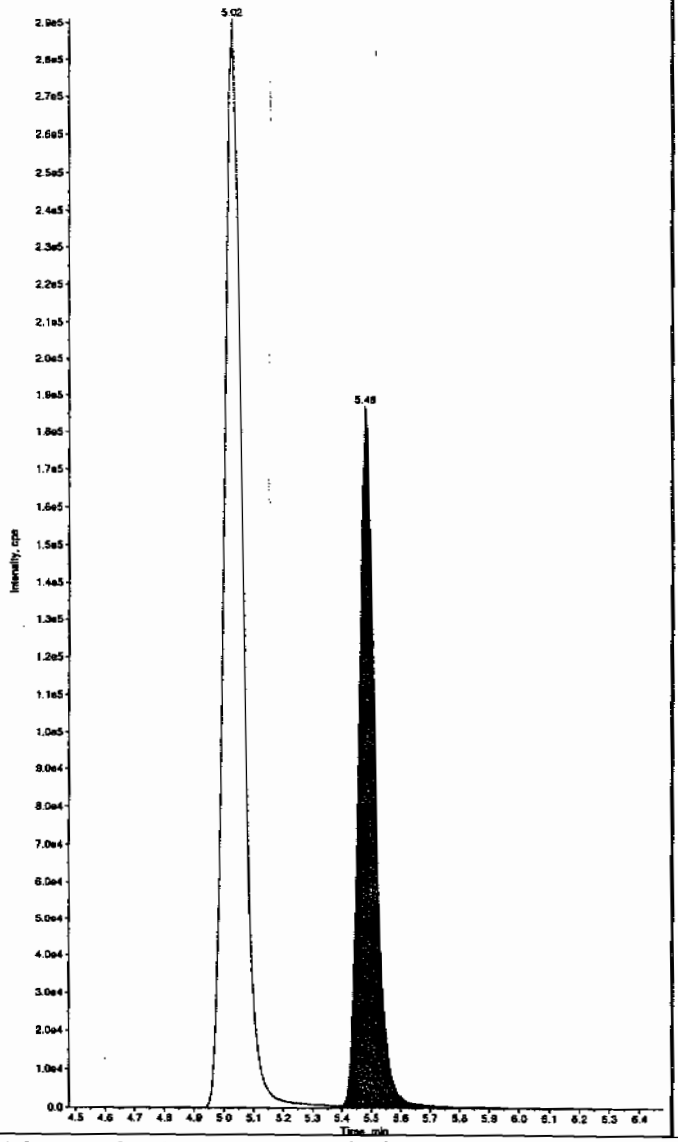

Sample Name: "1202032104" Sample ID: "946575[2]LER" File: "EXS02220022.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 490. ng/mL
Acq. Date: 2/22/2010
Acq. Time: 10:31:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.80e+006 counts
Height: 2251750.732 cps
Start Time: 10.8 min
End Time: 11.2 min

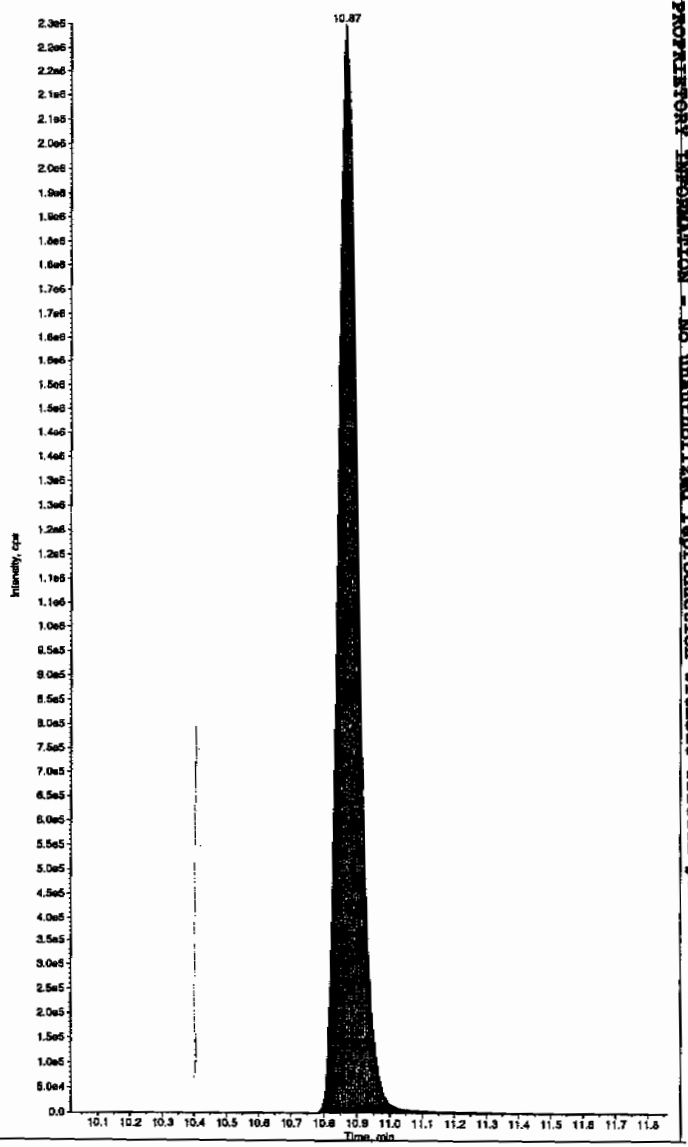

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 948574 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202032101 MB	09-FEB-2010 18:24:00	2	10	5
1202032102 LCS	09-FEB-2010 18:24:00	2	10	5
245969001	09-FEB-2010 18:24:00	2	10	5
1202032103 MS (245969001)	09-FEB-2010 18:24:00	2	10	5
1202032104 MSD (245969001)	09-FEB-2010 18:24:00	2	10	5
245969002	09-FEB-2010 18:24:00	2	10	5
245969003	09-FEB-2010 18:24:00	2	10	5
245969004	09-FEB-2010 18:24:00	2	10	5
245969005	09-FEB-2010 18:24:00	2	10	5
245969006	09-FEB-2010 18:24:00	2	10	5
245969007	09-FEB-2010 18:24:00	2	10	5
245969008	09-FEB-2010 18:24:00	2	10	5
245969009	09-FEB-2010 18:24:00	2	10	5
245969010	09-FEB-2010 18:24:00	2	10	5
245969011	09-FEB-2010 18:24:00	2	10	5
245969012	09-FEB-2010 18:24:00	2	10	5
245969013	09-FEB-2010 18:24:00	2	10	5
245969014	09-FEB-2010 18:24:00	2	10	5
245969015	09-FEB-2010 18:24:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202032102	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202032102	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MS	1202032103	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202032103	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
MSD	1202032104	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202032104	8321 LANL Explosives Mix 10mg/L	UXX100122-01.2	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100204-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date:03/01/10
Extr. Injection Volume: 50uL
Sequence Number: 030110expA
Initial Calibration Date: 03/01/10

Method: SW846 8321A-Modified
Int. Std.: UXX1000220-01
Mobile Phase Lot#: 1277087, 1268566
Standard-Samp Reagent Lot#: 1274562, 1271949

Reviewed BY: [illegible]
Date: 03/04/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100301-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0301001a	XIBLK01	MAP	3/1/10 15:33			1		USE	B
EXP0301002a	XIBLK01	MAP	3/1/10 16:02			1		USE	B
EXP0301003a	WXXICAL-01	MAP	3/1/10 16:32			1		USE	I
EXP0301004a	WXXICAL-02	MAP	3/1/10 17:01			1		USE	I
EXP0301005a	WXXICAL-03	MAP	3/1/10 17:31			1		USE	I
EXP0301006a	WXXICAL-04	MAP	3/1/10 18:00			1		USE	I
EXP0301007a	WXXICAL-05	MAP	3/1/10 18:30			1		USE	I
EXP0301008a	WXXICAL-06	MAP	3/1/10 18:59			1		USE	I
EXP0301009a	XIBLK02	MAP	3/1/10 19:28			1		USE	B
EXP0301010a	WXXICV	MAP	3/1/10 19:58			1		USE	C
EXP0301011a	XIBLK03	MAP	3/1/10 20:27			1		USE	B
EXP0301012a	WXXCRI	MAP	3/1/10 20:57			1		USE	C
EXP0301013a	1202035702	MAP	3/1/10 21:26	950093	10-1637	2	LANL	USE	S
EXP0301014a	1202035703	MAP	3/1/10 21:56	950093	10-1637	2	LANL	USE	S
EXP0301015a	246469004	MAP	3/1/10 22:25	950093	10-1637	2	LANL	USE	S
EXP0301016a	246469009	MAP	3/1/10 22:55	950093	10-1637	2	LANL	USE	S
EXP0301017a	WXXCCV	MAP	3/1/10 23:24			1		USE	C
EXP0301018a	XIBLK04	MAP	3/1/10 23:54			1		USE	B
EXP0301019a	WXXCRI	MAP	3/2/10 0:23			1		USE	C
EXP0301020a	1202032101	MAP	3/2/10 0:53	948575	10-1512	2	LANL	USE	S
EXP0301021a	1202032102	MAP	3/2/10 1:22	948575	10-1512	2	LANL	USE	S
EXP0301022a	245969001	MAP	3/2/10 1:52	948575	10-1512	2	LANL	USE	S
EXP0301023a	1202032103	MAP	3/2/10 2:21	948575	10-1512	2	LANL	USE	S
EXP0301024a	1202032104	MAP	3/2/10 2:51	948575	10-1512	2	LANL	USE	S
EXP0301025a	245969002	MAP	3/2/10 3:20	948575	10-1512	2	LANL	USE	S
EXP0301026a	245969003	MAP	3/2/10 3:50	948575	10-1512	2	LANL	USE	S
EXP0301027a	245969004	MAP	3/2/10 4:19	948575	10-1512	2	LANL	USE	S
EXP0301028a	245969005	MAP	3/2/10 4:49	948575	10-1512	2	LANL	USE	S
EXP0301029a	245969006	MAP	3/2/10 5:18	948575	10-1512	2	LANL	USE	S

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EXP0301030a	WXXCCV	MAP	3/2/10 5:48			1		USE	C
EXP0301031a	XIBLK05	MAP	3/2/10 6:17			1		USE	B
EXP0301032a	WXXCRI	MAP	3/2/10 6:47			1		USE	C
EXP0301033a	245969007	MAP	3/2/10 7:16	948575	10-1512	2	LANL	USE	S
EXP0301034a	245969008	MAP	3/2/10 7:46	948575	10-1512	2	LANL	USE	S
EXP0301035a	245969009	MAP	3/2/10 8:15	948575	10-1512	2	LANL	USE	S
EXP0301036a	245969010	MAP	3/2/10 8:45	948575	10-1512	2	LANL	DUSE-RA	S
EXP0301037a	245969011	MAP	3/2/10 9:14	948575	10-1512	2	LANL	DUSE-RA	S
EXP0301038a	245969012	MAP	3/2/10 9:44	948575	10-1512	2	LANL	USE	S
EXP0301039a	245969013	MAP	3/2/10 10:13	948575	10-1512	2	LANL	USE	S
EXP0301040a	245969014	MAP	3/2/10 10:42	948575	10-1512	2	LANL	USE	S
EXP0301041a	245969015	MAP	3/2/10 11:12	948575	10-1512	2	LANL	USE	S
EXP0301042a	245969007	MAP	3/2/10 11:42	948575	10-1512	10	LANL	USE	S
EXP0301043a	WXXCCV	MAP	3/2/10 12:12			1		USE	C
EXP0301044a	XIBLK06	MAP	3/2/10 12:41			1		USE	B
EXP0301045a	WXXCRI	MAP	3/2/10 13:11			1		USE	C
EXP0301046a	1202032105	MAP	3/2/10 13:47	948577	10-1514	2	LANL	USE	S
EXP0301047a	1202032106	MAP	3/2/10 14:17	948577	10-1514	2	LANL	USE	S
EXP0301048a	245979001	MAP	3/2/10 14:46	948577	10-1514	2	LANL	USE	S
EXP0301049a	1202032107	MAP	3/2/10 15:16	948577	10-1514	2	LANL	USE	S
EXP0301050a	1202032108	MAP	3/2/10 15:45	948577	10-1514	2	LANL	USE	S
EXP0301051a	245979002	MAP	3/2/10 16:15	948577	10-1514	2	LANL	USE	S
EXP0301052a	245979003	MAP	3/2/10 16:44	948577	10-1514	2	LANL	USE	S
EXP0301053a	245979004	MAP	3/2/10 17:14	948577	10-1514	2	LANL	USE	S
EXP0301054a	245979005	MAP	3/2/10 17:43	948577	10-1514	2	LANL	USE	S
EXP0301055a	245979006	MAP	3/2/10 18:13	948577	10-1514	2	LANL	USE	S
EXP0301056a	WXXCCV	MAP	3/2/10 18:42			1		USE	C
EXP0301057a	XIBLK07	MAP	3/2/10 19:12			1		USE	B
EXP0301058a	WXXCRI	MAP	3/2/10 19:41			1		USE	C
EXP0301059a	245979007	MAP	3/2/10 20:11	948577	10-1514	2	LANL	USE	S
EXP0301060a	245979008	MAP	3/2/10 20:40	948577	10-1514	2	LANL	USE	S
EXP0301061a	245979009	MAP	3/2/10 21:10	948577	10-1514	2	LANL	USE	S
EXP0301062a	245979010	MAP	3/2/10 21:39	948577	10-1514	2	LANL	USE	S
EXP0301063a	245979011	MAP	3/2/10 22:09	948577	10-1514	2	LANL	USE	S
EXP0301064a	245979012	MAP	3/2/10 22:38	948577	10-1514	2	LANL	USE	S
EXP0301065a	245979013	MAP	3/2/10 23:08	948577	10-1514	2	LANL	DUSE-RA	S
EXP0301066a	245979014	MAP	3/2/10 23:37	948577	10-1514	2	LANL	USE	S

EXP0301067a	245979015	MAP	3/3/10 0:07	948577	10-1514	2	LANL	DUSE-RA	S
EXP0301068a	WXXCCV	MAP	3/3/10 0:36			1		USE	C
EXP0301069a	XIBLK08	MAP	3/3/10 1:06			1		USE	B
EXP0301070a	WXXCRI	MAP	3/3/10 1:35			1		USE	C
EXP0301071a	245969010	MAP	3/3/10 2:05	948575	10-1512	2	LANL	USE	S
EXP0301072a	245969011	MAP	3/3/10 2:34	948575	10-1512	2	LANL	USE	S
EXP0301073a	1202032038	MAP	3/3/10 3:04	948588	Various	2	LANL	USE	S
EXP0301074a	1202032039	MAP	3/3/10 3:33	948588	Various	2	LANL	DUSE-RA	S
EXP0301075a	1202032154	MAP	3/3/10 4:03	948588	Various	2	LANL	USE	S
EXP0301076a	245928018	MAP	3/3/10 4:32	948588	10-1495	2	LANL	DUSE-RA	S
EXP0301077a	245928025	MAP	3/3/10 5:02	948588	10-1495	2	LANL	DUSE-RA	S
EXP0301078a	245932006	MAP	3/3/10 5:31	948588	10-1501	2	LANL	DUSE-RA	S
EXP0301079a	1202032040	MAP	3/3/10 6:01	948588	10-1501	2	LANL	DUSE-RA	S
EXP0301080a	1202032041	MAP	3/3/10 6:30	948588	10-1501	2	LANL	DUSE-RA	S
EXP0301081a	WXXCCV	MAP	3/3/10 7:00			1		USE	C
EXP0301082a	XIBLK09	MAP	3/3/10 7:29			1		USE	B
EXP0301083a	WXXCRI	MAP	3/3/10 7:59			1		USE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/22/10 Method: 8321A-Modified Reviewed By: HMK
Extr. Injection Volume: 10uL Int. Std.: N/A Date: 02/23/10
Sequence Number: 022210exs Mobile Phase Lot#:1263794, 1258141 SOP: GL-OA-E-056 Rev.12
Initial Calibration Date: 022210 Standard-Samp Reagent Lot# :1260901, 1261217 Alt Check Std. ID: WXX100222-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02220001.wiff	XIBLK01	LER	2/22/2010 17:01			1		USE	B
EXS02220002.wiff	XIBLK01	LER	2/22/2010 17:17			1		USE	B
EXS02220003.wiff	WXXICAL-19	LER	2/22/2010 17:33			1		USE	I
EXS02220004.wiff	WXXICAL-20	LER	2/22/2010 17:49			1		USE	I
EXS02220005.wiff	WXXICAL-21	LER	2/22/2010 18:04			1		USE	I
EXS02220006.wiff	WXXICAL-22	LER	2/22/2010 18:20			1		USE	I
EXS02220007.wiff	WXXICAL-23	LER	2/22/2010 18:36			1		USE	I
EXS02220008.wiff	WXXICAL-24	LER	2/22/2010 18:51			1		USE	I
EXS02220009.wiff	WXXICAL-25	LER	2/22/2010 19:07			1		USE	I
EXS02220010.wiff	XIBLK02	LER	2/22/2010 19:23			1		USE	B
EXS02220011.wiff	WXXICV	LER	2/22/2010 19:38			1		USE	C
EXS02220012.wiff	XIBLK03	LER	2/22/2010 19:54			1		USE	B
EXS02220013.wiff	WXXCRI	LER	2/22/2010 20:10			1		USE	C
EXS02220014.wiff	246469007	LER	2/22/2010 20:26	950093	10-1637	2	LANL	USE	S
EXS02220015.wiff	246469008	LER	2/22/2010 20:41	950093	10-1637	2	LANL	USE	S
EXS02220016.wiff	246469009	LER	2/22/2010 20:57	950093	10-1637	2	LANL	USE	S
EXS02220017.wiff	XIBLK04	LER	2/22/2010 21:13			1		USE	B
EXS02220018.wiff	1202032101	LER	2/22/2010 21:28	948575	10-1512	2	LANL	USE	S
EXS02220019.wiff	1202032102	LER	2/22/2010 21:44	948575	10-1512	2	LANL	USE	S
EXS02220020.wiff	245969001	LER	2/22/2010 22:00	948575	10-1512	2	LANL	USE	S
EXS02220021.wiff	1202032103	LER	2/22/2010 22:16	948575	10-1512	2	LANL	USE	S
EXS02220022.wiff	1202032104	LER	2/22/2010 22:31	948575	10-1512	2	LANL	USE	S
EXS02220023.wiff	245969002	LER	2/22/2010 22:47	948575	10-1512	2	LANL	USE	S
EXS02220024.wiff	WXXCCV	LER	2/22/2010 23:03			1		USE	C
EXS02220025.wiff	XIBLK05	LER	2/22/2010 23:19			1		USE	B
EXS02220026.wiff	WXXCRI	LER	2/22/2010 23:34			1		USE	C
EXS02220027.wiff	245969003	LER	2/22/2010 23:50	948575	10-1512	2	LANL	USE	S
EXS02220028.wiff	245969004	LER	2/23/2010 0:06	948575	10-1512	2	LANL	USE	S
EXS02220029.wiff	245969005	LER	2/23/2010 0:22	948575	10-1512	2	LANL	USE	S
EXS02220030.wiff	245969006	LER	2/23/2010 0:37	948575	10-1512	2	LANL	USE	S

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EXS02220031.wiff	245969007	LER	2/23/2010 0:53	948575	10-1512	2	LANL	USE	S
EXS02220032.wiff	245969008	LER	2/23/2010 1:09	948575	10-1512	2	LANL	USE	S
EXS02220033.wiff	245969009	LER	2/23/2010 1:24	948575	10-1512	2	LANL	USE	S
EXS02220034.wiff	245969010	LER	2/23/2010 1:40	948575	10-1512	2	LANL	USE	S
EXS02220035.wiff	245969011	LER	2/23/2010 1:56	948575	10-1512	2	LANL	USE	S
EXS02220036.wiff	245969012	LER	2/23/2010 2:11	948575	10-1512	2	LANL	USE	S
EXS02220037.wiff	WXXCCV	LER	2/23/2010 2:27			1		USE	C
EXS02220038.wiff	XIBLK06	LER	2/23/2010 2:43			1		USE	B
EXS02220039.wiff	WXXCRI	LER	2/23/2010 2:59			1		USE	C
EXS02220040.wiff	245969013	LER	2/23/2010 3:14	948575	10-1512	2	LANL	USE	S
EXS02220041.wiff	245969014	LER	2/23/2010 3:30	948575	10-1512	2	LANL	USE	S
EXS02220042.wiff	245969015	LER	2/23/2010 3:46	948575	10-1512	2	LANL	USE	S
EXS02220043.wiff	XIBLK07	LER	2/23/2010 4:02			1		USE	B
EXS02220044.wiff	1202032105	LER	2/23/2010 4:18	948577	10-1514	2	LANL	USE	S
EXS02220045.wiff	1202032106	LER	2/23/2010 4:33	948577	10-1514	2	LANL	USE	S
EXS02220046.wiff	245979001	LER	2/23/2010 4:49	948577	10-1514	2	LANL	USE	S
EXS02220047.wiff	1202032107	LER	2/23/2010 5:05	948577	10-1514	2	LANL	USE	S
EXS02220048.wiff	1202032108	LER	2/23/2010 5:21	948577	10-1514	2	LANL	USE	S
EXS02220049.wiff	245979002	LER	2/23/2010 5:36	948577	10-1514	2	LANL	USE	S
EXS02220050.wiff	WXXCCV	LER	2/23/2010 5:52			1		USE	C
EXS02220051.wiff	XIBLK08	LER	2/23/2010 6:08			1		USE	B
EXS02220052.wiff	WXXCRI	LER	2/23/2010 6:24			1		USE	C

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qld, Time: Wed Mar 03 09:00:43 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0301037a
Date: 02-Mar-2010
Time: 09:14:34
ID: 245969011 | LANC | 940575 | SOLID | 2 |
Vial: 2:3,C

MAP 3/3/10

SUSE/RA - P 2 of 2

CONFIRMS EXP0301072a

HMX

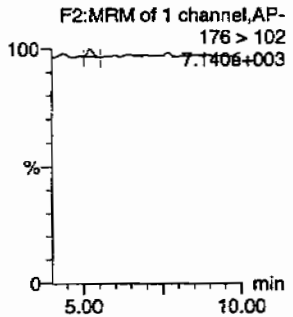

RDX

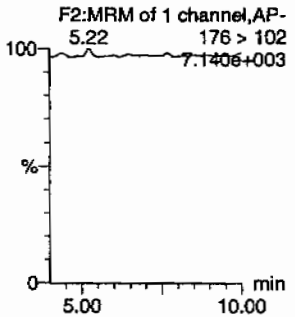

135-Trinitrobenzene

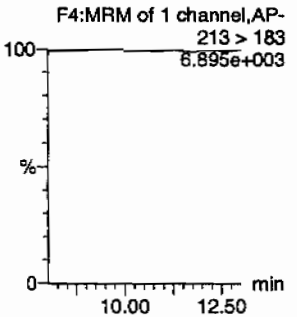

13-Dinitrobenzene-d4

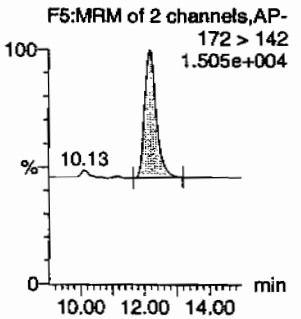

13-Dinitrobenzene

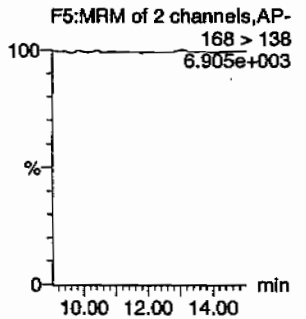

Tetryl

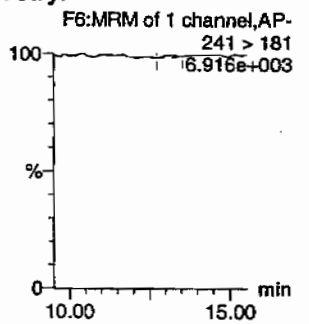

Nitrobenzene

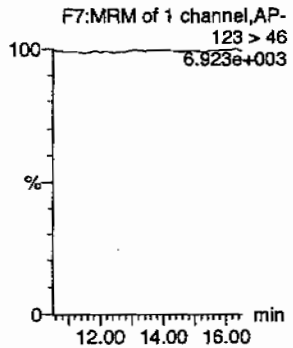

4-Amino-26-dinitrotoluene

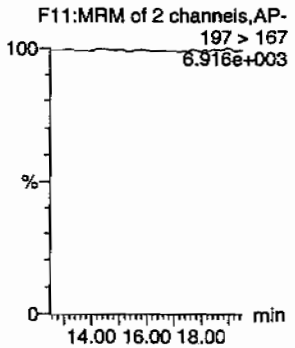

2-Amino-46-dinitrotoluene

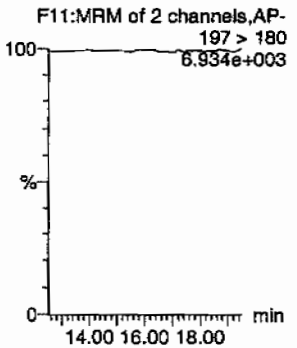

246-Trinitrotoluene

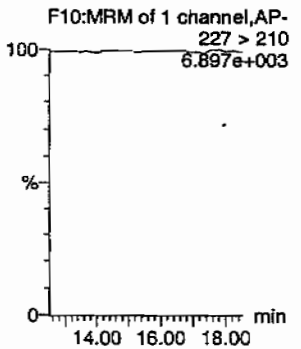

34-dinitrotoluene

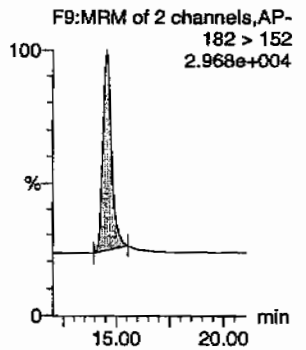

26-dinitrotoluene

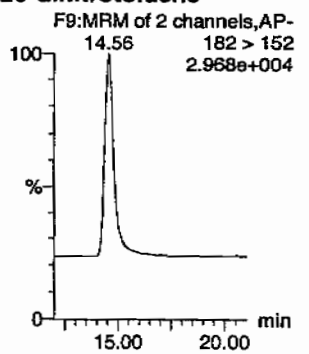

Hzme 03/04/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030110expA1.qid, Time: Wed Mar 03 09:00:43 2010

24-dinitrotoluene

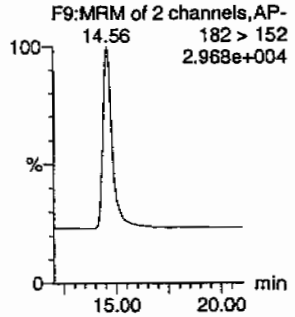

26-dinitrotoluene-d3

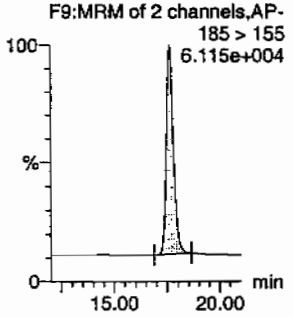

2-Nitrotoluene

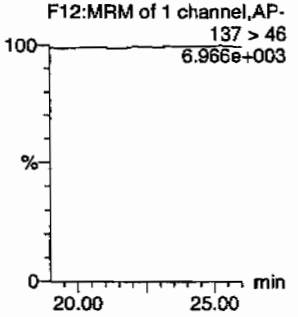

4-Nitrotoluene

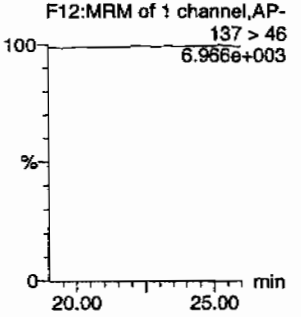

3-Nitrotoluene

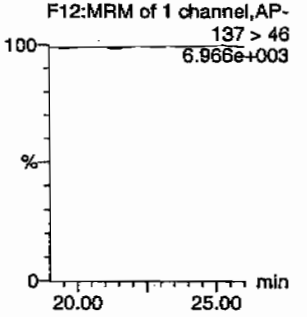

PETN

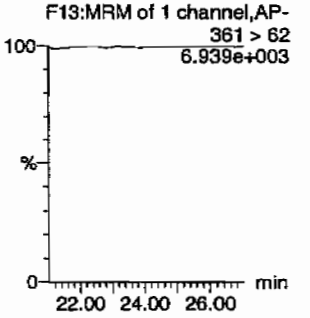

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
245969011	HMX	176 > 102	5.22	47.429	3437.149	47.429	6.899	bb			1.8086			9.3
245969011	RDX	176 > 102			3437.149									
245969011	135-Trinitrobenzene	213 > 183			3437.149									
245969011	13-Dinitrobenzene-d4	172 > 142	12.17	3437.149		3437.149	3437.149	bb			593.0053	118.6	18.6	325.4
245969011	13-Dinitrobenzene	168 > 138			3437.149									
245969011	Tetryl	241 > 181			3437.149			MM-	03-Mar-10	08:43:38				
245969011	Nitrobenzene	123 > 46			3437.149									
245969011	4-Amino-26-dinitrotoluene	197 > 167			21307.240									
245969011	2-Amino-46-dinitrotoluene	197 > 180			21307.240									
245969011	246-Trinitrotoluene	227 > 210			21307.240									
245969011	34-dinitrotoluene	182 > 152	14.56	10610.395	21307.240	10610.395	248.986	bb			251.3316	100.5	0.5	764.9
245969011	26-dinitrotoluene	182 > 152			21307.240									
245969011	24-dinitrotoluene	182 > 152			21307.240									
245969011	26-dinitrotoluene-d3	185 > 155	17.62	21307.240		21307.240	21307.240	bb			662.3400	132.5	32.5	1307.8
245969011	2-Nitrotoluene	137 > 46			21307.240									
245969011	4-Nitrotoluene	137 > 46			21307.240									
245969011	3-Nitrotoluene	137 > 46			21307.240									
245969011	PETN	361 > 62			21307.240									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 798580
Revision No.: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
03-MAR-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
948575	See Below		

Potentially affected work order(s)(SDG): 245969(10-1512)

Application Issues:

Other

Failed Recovery for MSD/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. The Laboratory Control Sample (1202032102) did not meet spike recovery limits for 2,4-Diamino-6-nitrotoluene at 117% with recovery limits of 52-114% and 2,6-Diamino-4-nitrotoluene at 148% with recovery limits of 64-122%. 2. The Matrix Spike (1202032103) did not meet spike recovery limits for 2,6-Diamino-4-nitrotoluene at 144%. The recovery limits are 55-130%. 3. The Matrix Spike Duplicate (1202032104) did not meet spike recovery limits for 2,6-Diamino-4-nitrotoluene at 130.4%. The recovery limits are 55-130%.	1., 2. & 3. Since there were no target analytes detected that exhibited a high bias in the associated samples, the data are reported with the appropriate DER. The discrepancies are noted in the case narrative.
4. The internal standard responses were outside of the acceptance criteria in the following sample: 245969011. Please see the Form 8 in the data package for the exact recoveries.	4. The sample was re-analyzed and similar recoveries were observed. The re-analysis data are reported with the appropriate DER. The discrepancy is noted in the case narrative. The confirmation raw data are located in the Miscellaneous Section of the data package.

Originator's Name:
Michael Penny 03-MAR-10

Data Validator/Group Leader:
Herbert Maier 04-MAR-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1512

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	949033, 950898
Prep Batch Number:	949031, 950897

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
245969002	RE15-10-7891
245969003	RE15-10-7892
1202033246	Method Blank (MB) (Batch 949033)
1202033247	Laboratory Control Sample (LCS) (Batch 949033)
245969001	RE15-10-7880
1202037813	Method Blank (MB) (Batch 950898)
1202037814	Laboratory Control Sample (LCS) (Batch 950898)
1202037815	245969001(RE15-10-7880) Matrix Spike (MS) (Batch 950898)
1202037816	245969001(RE15-10-7880) Matrix Spike Duplicate (MSD) (Batch 950898)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

One or more of the five quantified peaks did not meet the acceptance criteria in Aroclor-1254 and Aroclor-1268 standards analyzed for this SDG; however the average concentration of the five peaks met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 245969001(RE15-10-7880) was selected for the matrix spike and matrix spike duplicate analysis in both batches 949033 and 950898. However the MS and MSD in batch 949033 were not reportable. The MS and MSD results in batch 950898 were reported in this data package.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 245969001(RE15-10-7880) was re-extracted and re-analyzed. The second analysis was reported.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/1/10

Roadmap for LANL 10-1512 PCB

This roadmap was analyzed by yip00818 on 02-12-2010, 13:50.
This roadmap was reviewed by jim01140 on 02-16-2010, 09:13.
This roadmap was packaged by yml on 02-27-2010, 07:54.
This roadmap was validated by jim01140 on 03-01-2010, 09:56.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/020510.b/033f3301.d	245969001	sample	05-FEB-2010	13:01	10-1512.sub	RE15-10-7880	1.00000	949033	RE RESULT DID NOT MATCH WITH MS/MSD
□	N	/chem/ecd1a.i/021010b.b/021f2101.d	245969001	sample	10-FEB-2010	16:51	10-1512.sub	RE15-10-7880	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/021010b.b/024f2401.d	245969002	sample	10-FEB-2010	17:29	10-1512.sub	RE15-10-7891	1.00000	950898	DUSE CONFIRMATION FOR AR1268 HIT
□	N	/chem/ecd1a.i/020510.b/036f3601.d	245969002	sample	05-FEB-2010	13:39	10-1512.sub	RE15-10-7891	1.00000	949033	AR1268 RE TO CONFIRM
□	N	/chem/ecd1a.i/020510.b/037f3701.d	245969003	sample	05-FEB-2010	13:52	10-1512.sub	RE15-10-7892	1.00000	949033	UPLOAD BOTH COLUMNS ,USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd1a.i/020510.b/033b3301.d	245969001	sample	05-FEB-2010	13:01	10-1512.sub	RE15-10-7880	1.00000	949033	RE RESULT DID NOT MATCH WITH MS/MSD
□	N	/chem/ecd1a.i/021010b.b/021b2101.d	245969001	sample	10-FEB-2010	16:51	10-1512.sub	RE15-10-7880	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/021010b.b/024b2401.d	245969002	sample	10-FEB-2010	17:29	10-1512.sub	RE15-10-7891	1.00000	950898	DUSE CONFIRMATION FOR AR1268 HIT
□	N	/chem/ecd1a.i/020510.b/036b3601.d	245969002	sample	05-FEB-2010	13:39	10-1512.sub	RE15-10-7891	1.00000	949033	AR1268 RE TO CONFIRM
□	N	/chem/ecd1a.i/020510.b/037b3701.d	245969003	sample	05-FEB-2010	13:52	10-1512.sub	RE15-10-7892	1.00000	949033	UPLOAD BOTH COLUMNS ,USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/020510.b/012f1201-4.d	1202033246	mb	05-FEB-2010	08:52	10-1512.sub	PBLK01	1.00000	949033	
□	N	/chem/ecd1a.i/021010b.b/015f1501.d	1202037813	mb	10-FEB-2010	15:36	10-1512.sub	PBLK02	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER
□	N	/chem/ecd1a.i/020510.b/013f1301-4.d	1202033247	lcs	05-FEB-2010	09:02	10-1512.sub	PBLK01LCS	1.00000	949033	
□	N	/chem/ecd1a.i/021010b.b/016f1601.d	1202037814	lcs	10-FEB-2010	15:48	10-1512.sub	PBLK02LCS	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/020510.b/034f3401.d	1202033248	ms	05-FEB-2010	13:14	10-1512.sub	RE15-10-7880MS	1.00000	949033	DUSE
□	N	/chem/ecd1a.i/021010b.b/022f2201.d	1202037815	ms	10-FEB-2010	17:04	10-1512.sub	RE15-10-7880MS	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/020510.b/035f3501.d	1202033249	msd	05-FEB-2010	13:27	10-1512.sub	RE15-10-7880MSD	1.00000	949033	DUSE
□	N	/chem/ecd1a.i/021010b.b/023f2301.d	1202037816	msd	10-FEB-2010	17:17	10-1512.sub	RE15-10-7880MSD	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd1a.i/020510.b/012b1201-4.d	1202033246	mb	05-FEB-2010	08:52	10-1512.sub	PBLK01	1.00000	949033	
□	N	/chem/ecd1a.i/021010b.b/015b1501.d	1202037813	mb	10-FEB-2010	15:36	10-1512.sub	PBLK02	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER

☐	N	/chem/ecd1a.i/020510.b/013b1301-4.d	1202033247	lcs	05-FEB-2010	09:02	10-1512.sub	PBLK01LCS	1.00000	949033	
☐	N	/chem/ecd1a.i/021010b.b/016b1601.d	1202037814	lcs	10-FEB-2010	15:48	10-1512.sub	PBLK02LCS	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER
■	N	/chem/ecd1a.i/020510.b/034b3401.d	1202033248	ms	05-FEB-2010	13:14	10-1512.sub	RE15-10-7880MS	1.00000	949033	DUSE
☐	N	/chem/ecd1a.i/021010b.b/022b2201.d	1202037815	ms	10-FEB-2010	17:04	10-1512.sub	RE15-10-7880MS	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/021010b.b/023b2301.d	1202037816	msd	10-FEB-2010	17:17	10-1512.sub	RE15-10-7880MSD	1.00000	950898	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1512	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245969001	**Date Received:**	02/02/2010 09:10	**%Moisture:**	7.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7880	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	950898	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/10/2010 16:51	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/09/2010 21:07	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	021f2101.d	**Column:**	1 CLP1	**Level:**	LOW
	021b2101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.60	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260	U	3.60	ug/kg	1.20	3.60	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1512	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245969002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	26
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7891	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 13:39	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.21 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	1 CLP1	**Level:**	LOW
	036b3601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.47	ug/kg	1.49	4.47	1
11104-28-2	Aroclor-1221	U	4.47	ug/kg	1.49	4.47	1
11141-16-5	Aroclor-1232	U	4.47	ug/kg	1.49	4.47	1
53469-21-9	Aroclor-1242	U	4.47	ug/kg	1.49	4.47	1
12672-29-6	Aroclor-1248	U	4.47	ug/kg	1.49	4.47	1
11097-69-1	Aroclor-1254		11.1	ug/kg	1.49	4.47	1
11096-82-5	Aroclor-1260		8.30	ug/kg	1.49	4.47	2
11100-14-4	Aroclor-1268		7.90	ug/kg	1.49	4.47	2

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1512**	**Date Collected:**	**01/27/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245969003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–7892**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 13:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.57	ug/kg	1.19	3.57	1
11104–28–2	Aroclor–1221	U	3.57	ug/kg	1.19	3.57	1
11141–16–5	Aroclor–1232	U	3.57	ug/kg	1.19	3.57	1
53469–21–9	Aroclor–1242	U	3.57	ug/kg	1.19	3.57	1
12672–29–6	Aroclor–1248	U	3.57	ug/kg	1.19	3.57	1
11097–69–1	Aroclor–1254	U	3.57	ug/kg	1.19	3.57	1
11096–82–5	Aroclor–1260	U	3.57	ug/kg	1.19	3.57	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–1512

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202033246	MB for batch 949031	61	61	56	67
1202033247	LCS for batch 949031	63	62	61	67
245969002	RE15–10–7891	72	70	83	83
245969003	RE15–10–7892	66	65	58	75
1202037813	MB for batch 950897	70	62	58	67
1202037814	LCS for batch 950897	69	61	55	67
245969001	RE15–10–7880	51	47	54	52
1202037815	RE15–10–7880MS	68	61	67	65
1202037816	RE15–10–7880MSD	72	65	71	68

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1512
Client ID: LCS for batch 949031
Lab Sample ID: 1202033247
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/05/2010 09:02
Dilution: 1
Prep Batch ID: 949031
Batch ID: 949033

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	20.2	61	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	23.7	71	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1512
Client ID: LCS for batch 950897
Lab Sample ID: 1202037814
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/10/2010 15:48
Dilution: 1
Prep Batch ID: 950897
Batch ID: 950898

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	23.8	71	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	26.2	79	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1512
Client ID: RE15-10-7880MS
Lab Sample ID: 1202037815
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 7.5
Analysis Date: 02/10/2010 17:04
Prep Batch ID: 950897
Batch ID: 950898

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	36.0	0.00	U	24.0	67	23-119
11096-82-5	MS	Aroclor-1260	36.0	0.00	U	28.0	78	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10–1512**	**Sample Type:**	**Matrix Spike Duplicate**
Client ID:	**RE15–10–7880MSD**	**Matrix:**	**R**
Lab Sample ID:	**1202037816**	**%Moisture:**	**7.5**
Instrument:	**ECD1A.I**	**Analysis Date:**	**02/10/2010 17:17**
Analyst:	**YS1**	**Prep Batch ID:**	**950897**
Inj. Vol:	**1 uL**	**Batch ID:**	**950898**

Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	36.0	0.00	U	26.1	72	23–119	8	0–28
11096–82–5	MSD Aroclor–1260	36.0	0.00	U	30.1	84	28–124	7	0–30

Method Blank Summary

SDG Number:	10-1512	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 949031	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202033246				
Column:	CLP2 CLP1	Prep Date:	02/04/2010 20:32	Analyzed:	02/05/10 08:52
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 949031	1202033247	013f1301-1.d 013b1301-1.d	02/05/10	0902
02 RE15-10-7891	245969002	036f3601.d 036b3601.d	02/05/10	1339
03 RE15-10-7892	245969003	037f3701.d 037b3701.d	02/05/10	1352

Method Blank Summary

SDG Number:	10-1512	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 950897	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	015b1501.d 015f1501.d
Lab Sample ID:	1202037813				
Column:	CLP2 CLP1	Prep Date:	02/09/2010 21:07	Analyzed:	02/10/10 15:36
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 950897	1202037814	016f1601.d 016b1601.d	02/10/10	1548
02	RE15-10-7880	245969001	021f2101.d 021b2101.d	02/10/10	1651
03	RE15-10-7880MS	1202037815	022f2201.d 022b2201.d	02/10/10	1704
04	RE15-10-7880MSD	1202037816	023f2301.d 023b2301.d	02/10/10	1717

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1512	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245969001	**Date Received:**	02/02/2010 09:10	**%Moisture:**	7.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7880	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	950898	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/10/2010 16:51	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/09/2010 21:07	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	021f2101.d	**Column:**	1 CLP1	**Level:**	LOW
	021b2101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.60	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260	U	3.60	ug/kg	1.20	3.60	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/021f2101.d
Lab Smp Id: 245969001 Client Smp ID: RE15-10-7880
Inj Date : 10-FEB-2010 16:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969001|1|
Misc Info : |ECD82P_1S|950898|2|SVA|LANL|SOIL|RE15-10-7880|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 16-Feb-2010 08:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	7.50240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.963	1.962	0.001	40988824	102.819	3.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.278	-0.004	35117768	108.617	3.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021010b.b/021f2101.d

Date : 10-FEB-2010 16:51

Client ID: RE15-10-7880

Sample Info: |245969001|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

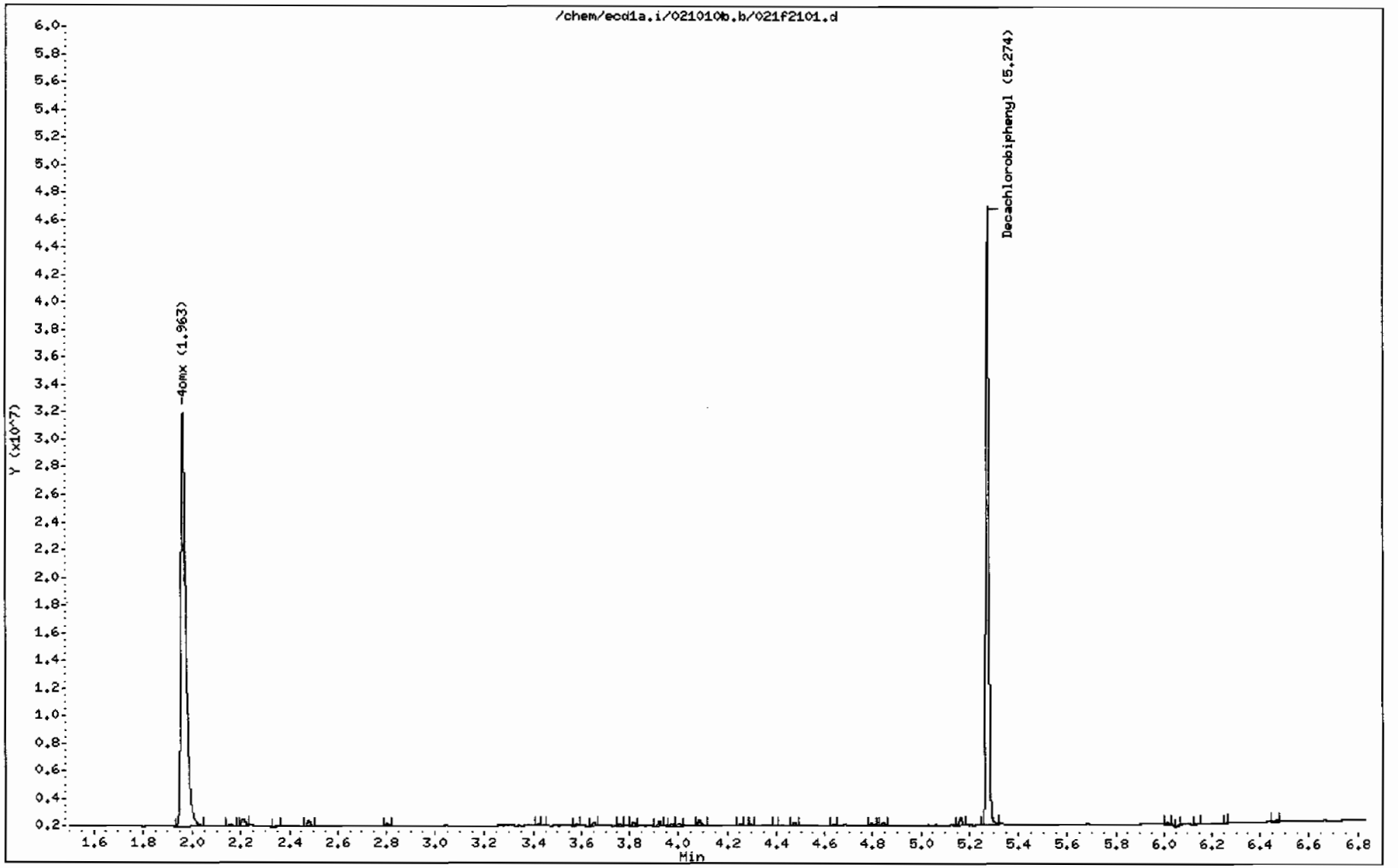

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/021b2101.d
Lab Smp Id: 245969001 Client Smp ID: RE15-10-7880
Inj Date : 10-FEB-2010 16:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969001|1|
Misc Info : |ECD82P_1S|950898|2|SVA|LANL|SOIL|RE15-10-7880|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 21
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	7.50240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.294	0.001	26734405	93.0723	3.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.943	-0.002	22497812	103.377	3.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021010b.b/021b2101.d

Date : 10-FEB-2010 16:51

Client ID: RE15-10-7880

Sample Info: |245969001|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

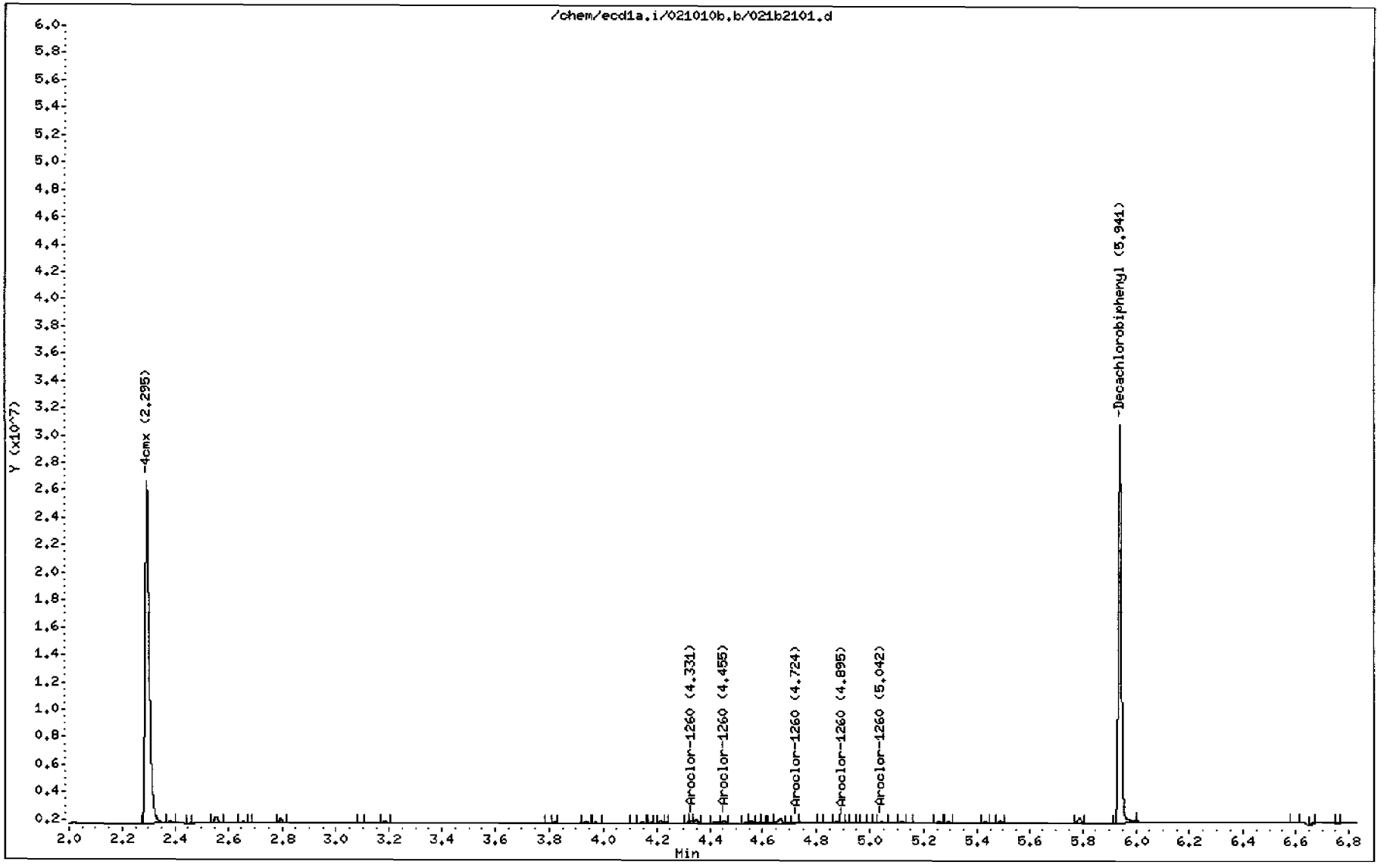

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1512	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	245969002	**Date Received:**	02/02/2010 09:10	**%Moisture:**	26
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–7891	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	949033	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/05/2010 13:39	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/04/2010 20:32	**Aliquot:**	30.21 g	**Final Volume:**	1 mL
Data File:	036f3601.d	**Column:**	1 CLP1	**Level:**	LOW
	036b3601.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.47	ug/kg	1.49	4.47	1
11104–28–2	Aroclor–1221	U	4.47	ug/kg	1.49	4.47	1
11141–16–5	Aroclor–1232	U	4.47	ug/kg	1.49	4.47	1
53469–21–9	Aroclor–1242	U	4.47	ug/kg	1.49	4.47	1
12672–29–6	Aroclor–1248	U	4.47	ug/kg	1.49	4.47	1
11097–69–1	Aroclor–1254		11.1	ug/kg	1.49	4.47	1
11096–82–5	Aroclor–1260		8.30	ug/kg	1.49	4.47	2
11100–14–4	Aroclor–1268		7.90	ug/kg	1.49	4.47	2

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/036f3601.d
Lab Smp Id: 245969002 Client Smp ID: RE15-10-7891
Inj Date : 05-FEB-2010 13:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969002|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7891|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.21000	Weight of sample extracted (g)
M	26.00050	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	57651001	144.616	6.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	53443236	165.297	7.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.266	-0.002	2542920	203.670	9.1	80.00- 120.00	100.00
3.419	3.421	-0.002	4071367	243.475	10.9	118.05- 158.05	160.11
3.652	3.655	-0.003	4874285	235.314	10.5	160.50- 200.50	191.68
3.816	3.818	-0.002	2786580	177.555	7.9	116.88- 156.88	109.58

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
3.923	3.926	-0.003	5827029	384.052	17.2	110.22- 150.22	229.15
Average of Peak Concentrations =					11.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.760	3.762	-0.002	3818677	216.521	9.7	80.00- 120.00	100.00
3.923	3.925	-0.002	5827029	218.552	9.8	132.59- 172.59	152.59
4.153	4.155	-0.002	2525856	158.643	7.1	71.05- 111.05	66.14
4.295	4.297	-0.002	2819707	170.368	7.6	74.81- 114.81	73.84
4.475	4.477	-0.002	3241638	87.2924	3.9	197.56- 237.56	84.89
Average of Peak Concentrations =					7.6		
9 Aroclor-1268					CAS #: 11100-14-4		
4.660	4.663	-0.003	7403225	141.054	6.3	80.00- 120.00	100.00
4.682	4.686	-0.004	7162874	148.860	6.6	74.24- 114.24	96.75
4.796	4.799	-0.003	5444950	147.051	6.6	54.84- 94.84	73.55
4.999	5.001	-0.002	3070874	188.464	8.4	17.12- 57.12	41.48
5.164	5.167	-0.003	22549297	208.255	9.3	228.13- 268.13	304.59
Average of Peak Concentrations =					7.4		

Data File: /chem/ecd1a.i/020510.b/036f3601.d

Date : 05-FEB-2010 13:39

Client ID: RE15-10-7891

Sample Info: |245969002|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

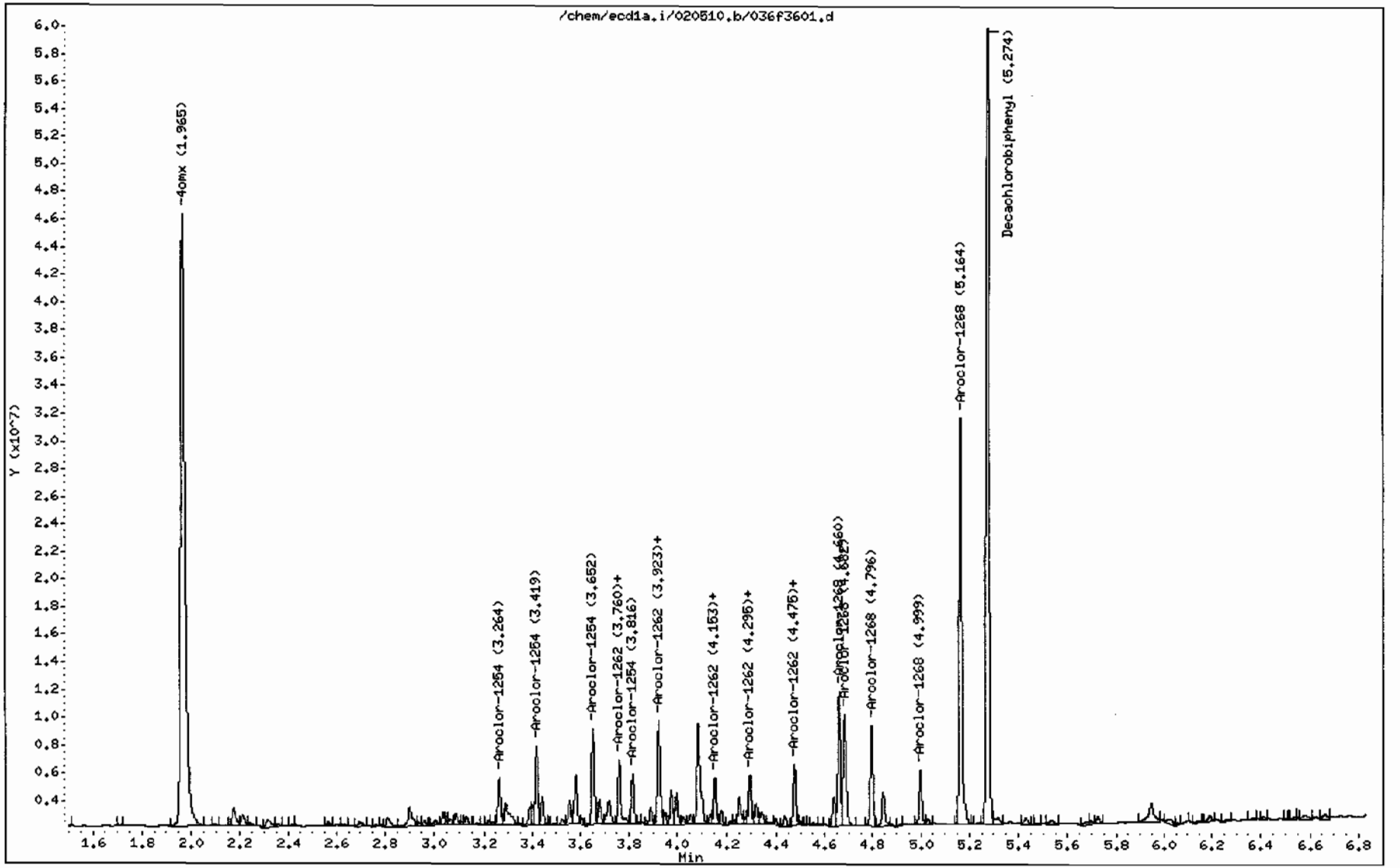

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/036b3601.d
Lab Smp Id: 245969002 Client Smp ID: RE15-10-7891
Inj Date : 05-FEB-2010 13:39
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969002|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7891|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 36
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.21000	Weight of sample extracted (g)
M	26.00050	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	40346548	140.461	6.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	36244959	166.545	7.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.400	3.401	-0.001	846216	131.497	5.9	80.00- 120.00	100.00
3.821	3.824	-0.003	2037402	176.256	7.9	160.72- 200.72	240.77
3.938	3.940	-0.002	3078644	247.653	11.1	179.44- 219.44	363.81
4.216	4.216	0.000	2245310	133.016	6.0	255.74- 295.74	265.34

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
6 Aroclor-1254 (continued)							
4.351	4.353	-0.002	1971991	158.578	7.1	176.59- 216.59	233.04
Average of Peak Concentrations =					7.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.332	-0.002	3382089	267.479	12.0	80.00- 120.00	100.00
4.455	4.457	-0.002	3139755	206.290	9.2	101.42- 141.42	92.83
4.721	4.722	-0.001	2175987	186.772	8.4	72.62- 112.62	64.34
4.896	4.896	0.000	2096555	173.937	7.8	76.48- 116.48	61.99
5.042	5.043	-0.001	2474857	94.9371	4.2	194.90- 234.90	73.18
Average of Peak Concentrations =					8.3		
9 Aroclor-1268					CAS #: 11100-14-4		
5.254	5.255	-0.001	5934474	163.685	7.3	80.00- 120.00	100.00
5.281	5.283	-0.002	5124554	152.596	6.8	75.81- 115.81	86.35
5.431	5.433	-0.002	4207532	161.938	7.2	55.31- 95.31	70.90
5.596	5.598	-0.002	2057263	181.310	8.1	17.23- 57.23	34.67
5.788	5.790	-0.002	14836775	221.193	9.9	217.43- 257.43	250.01
Average of Peak Concentrations =					7.9		

Data File: /chem/ecd1a.i/020510.b/036b3601.d
Date : 05-FEB-2010 13:39
Client ID: RE15-10-7891
Sample Info: 1245969002|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

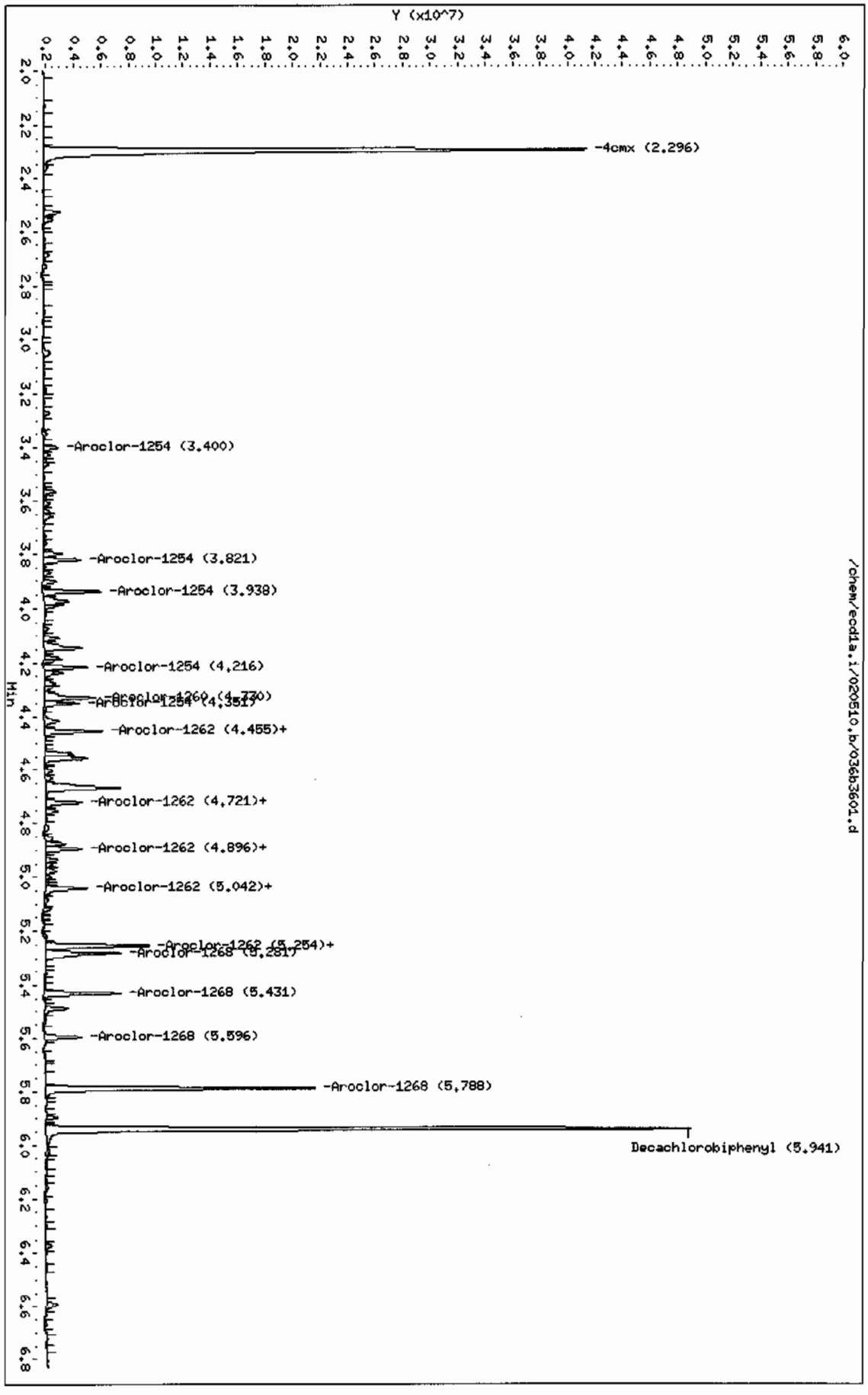

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1512**	**Date Collected:**	**01/27/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**245969003**	**Date Received:**	**02/02/2010 09:10**	**%Moisture:**	**7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7892**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 13:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**037f3701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	037b3701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.57	ug/kg	1.19	3.57	1
11104-28-2	Aroclor-1221	U	3.57	ug/kg	1.19	3.57	1
11141-16-5	Aroclor-1232	U	3.57	ug/kg	1.19	3.57	1
53469-21-9	Aroclor-1242	U	3.57	ug/kg	1.19	3.57	1
12672-29-6	Aroclor-1248	U	3.57	ug/kg	1.19	3.57	1
11097-69-1	Aroclor-1254	U	3.57	ug/kg	1.19	3.57	1
11096-82-5	Aroclor-1260	U	3.57	ug/kg	1.19	3.57	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/037f3701.d
Lab Smp Id: 245969003 Client Smp ID: RE15-10-7892
Inj Date : 05-FEB-2010 13:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969003|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7892|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	6.96360	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	52765754	132.361	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	37800391	116.915	4.2	80.00- 120.00	100.00

Data File: /chem/ecdia.i/020510.b/037f3701.d
Date : 05-FEB-2010 13:52
Client ID: RE15-10-7892
Sample Info: 1245969003|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

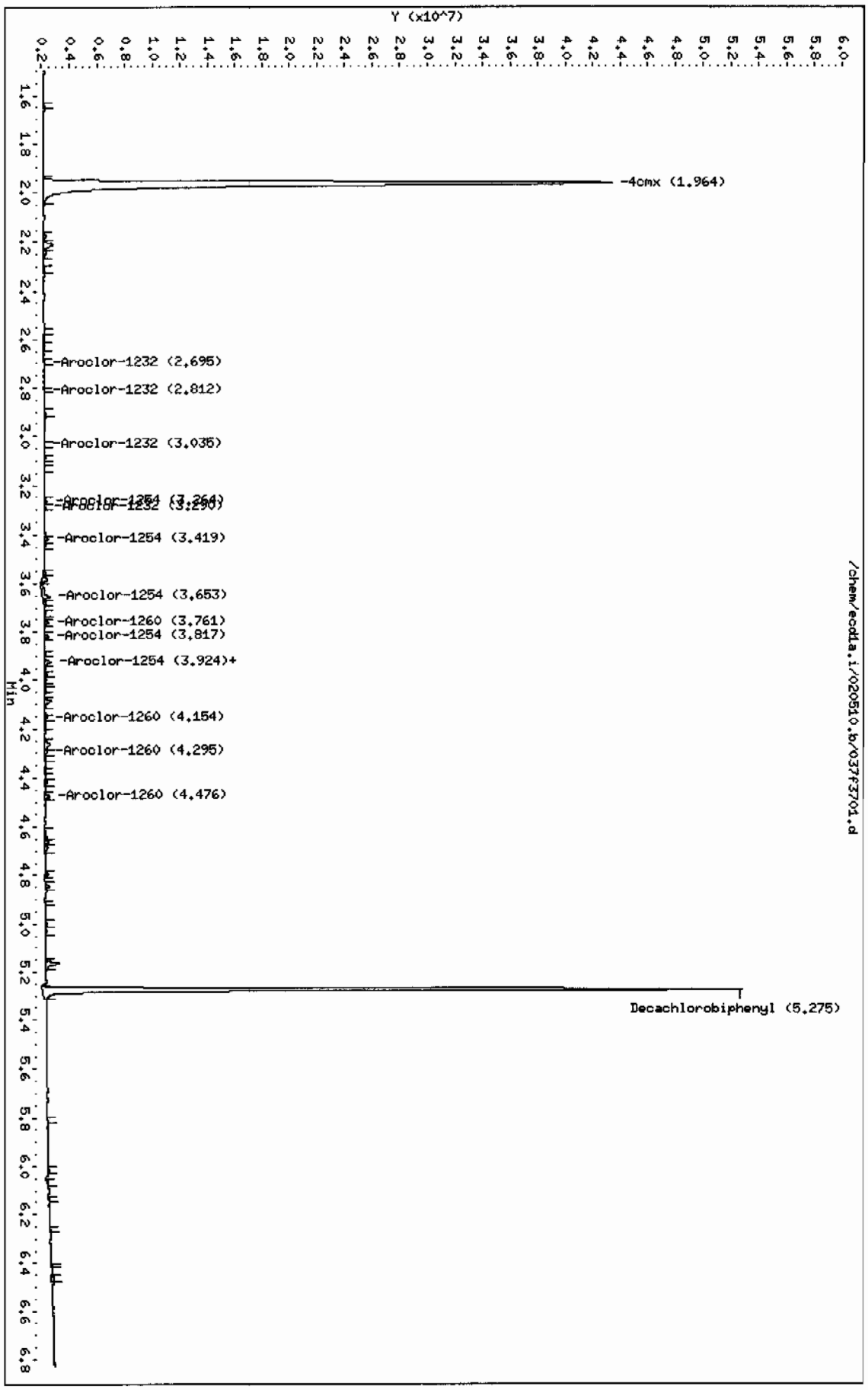

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/037b3701.d
Lab Smp Id: 245969003 Client Smp ID: RE15-10-7892
Inj Date : 05-FEB-2010 13:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |245969003|1|
Misc Info : |ECD82P_1S|949033|SVA|LANL|SOIL|RE15-10-7892|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	6.96360	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	37406607	130.226	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	32842253	150.910	5.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/037b3701.d
Date : 05-FEB-2010 13:52
Client ID: RE15-10-7892
Sample Info: |245969003|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

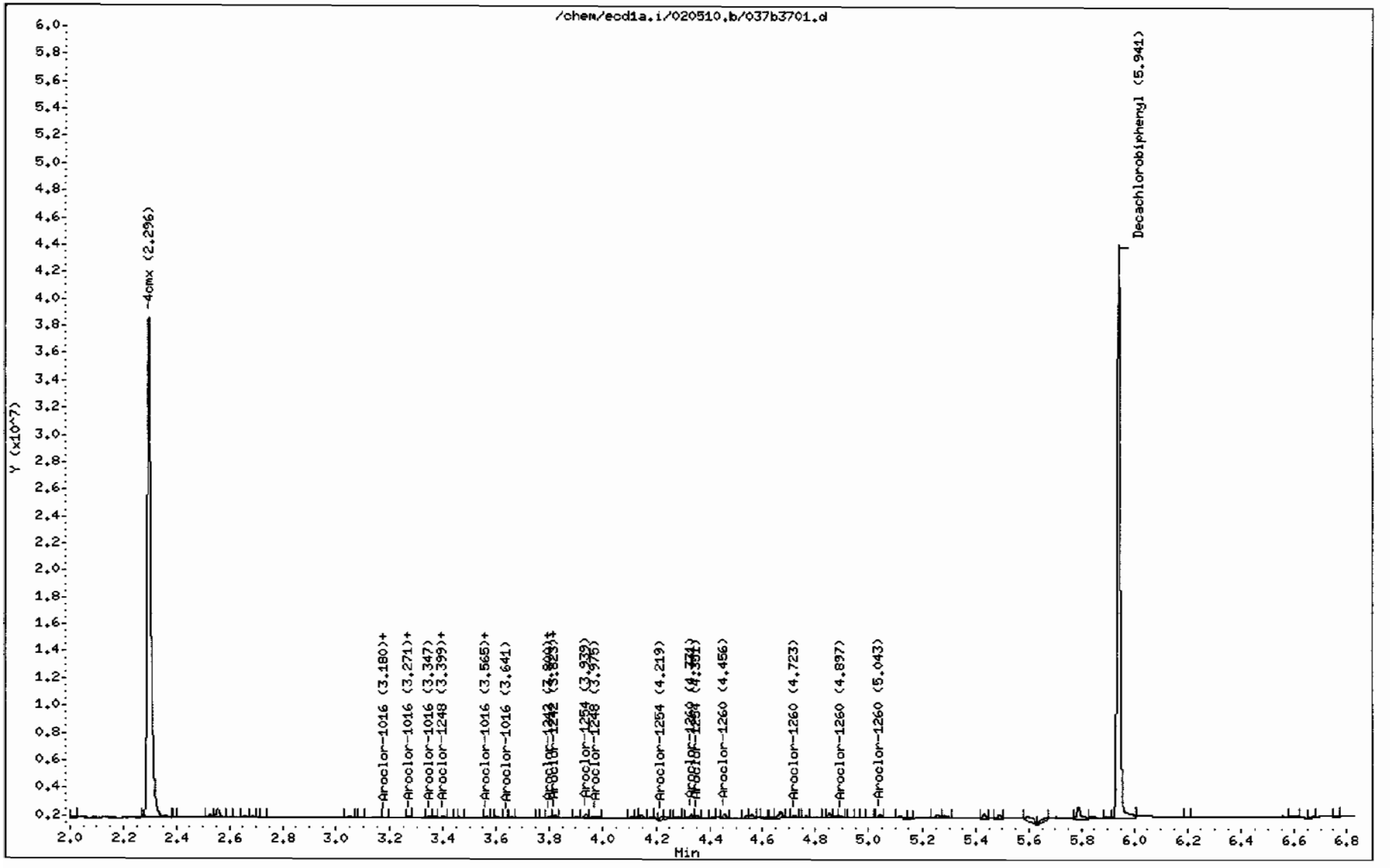

STANDARDS DATA

Report Date: 08-Feb-2010 09:31

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006f0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018f1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010f1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007f0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019f1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011f1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008f0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020f2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012f1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013f1301.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021f2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009f0901.d
Cal Level: 5 , Cal Amount: 4000.00000		

22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010f1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022f2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014f1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 15:29	AR1660	/chem/ecd1a.i/020510.b/046f4601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 14:05	AR1660	/chem/ecd1a.i/020510.b/038f3801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 12:40	AR1660	/chem/ecd1a.i/020510.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 10:51	AR1660	/chem/ecd1a.i/020510.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:20	AR1268	/chem/ecd1a.i/020510.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:59	AR1221	/chem/ecd1a.i/020510.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:48	AR1232	/chem/ecd1a.i/020510.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:38	AR1248	/chem/ecd1a.i/020510.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:27	AR1242	/chem/ecd1a.i/020510.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:17	AR1254	/chem/ecd1a.i/020510.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:06	AR1660	/chem/ecd1a.i/020510.b/002f0201.d

Report Date: 08-Feb-2010 09:45

Calibration History

Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006b0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018b1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010b1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007b0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019b1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011b1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008b0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020b2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012b1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021b2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009b0901.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013b1301.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010b1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022b2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d

14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014b1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 15:29	AR1660	/chem/ecd1a.i/020510.b/046b4601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 14:05	AR1660	/chem/ecd1a.i/020510.b/038b3801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 12:40	AR1660	/chem/ecd1a.i/020510.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 10:51	AR1660	/chem/ecd1a.i/020510.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:38	AR1248	/chem/ecd1a.i/020510.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:20	AR1268	/chem/ecd1a.i/020510.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:59	AR1221	/chem/ecd1a.i/020510.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:48	AR1232	/chem/ecd1a.i/020510.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 08:09	AR1262	/chem/ecd1a.i/020510.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:27	AR1242	/chem/ecd1a.i/020510.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:17	AR1254	/chem/ecd1a.i/020510.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
05-FEB-2010 07:06	AR1660	/chem/ecd1a.i/020510.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.419	2.389-2.449	1.466e+04
	2.707	2.677-2.737	1.832e+04
	2.788	2.758-2.818	1.202e+04
	2.826	2.796-2.856	7.180e+03
	3.036	3.006-3.066	9.290e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.077	2.047-2.107	4.301e+03
	2.170	2.140-2.200	2.440e+03
	2.195	2.165-2.225	1.027e+04
3 Aroclor-1232	2.421	2.391-2.451	6.849e+03
	2.709	2.679-2.739	8.426e+03
	2.789	2.759-2.819	5.627e+03
	3.038	3.008-3.068	3.983e+03
	3.291	3.261-3.321	3.858e+03
4 Aroclor-1242	2.420	2.390-2.450	1.166e+04
	2.708	2.678-2.738	1.345e+04
	2.826	2.796-2.856	5.506e+03
	3.037	3.007-3.067	7.245e+03
	3.290	3.260-3.320	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.088	3.058-3.118	7.848e+03
	3.240	3.210-3.270	6.870e+03
	3.291	3.261-3.321	1.331e+04
	3.422	3.392-3.452	1.101e+04
	3.655	3.625-3.685	7.455e+03
6 Aroclor-1254	3.266	3.236-3.296	1.249e+04
	3.421	3.391-3.451	1.672e+04
	3.655	3.625-3.685	2.071e+04
	3.818	3.788-3.848	1.569e+04
	3.926	3.896-3.956	1.517e+04
7 Aroclor-1260	3.762	3.732-3.792	1.764e+04
	3.925	3.895-3.955	2.666e+04
	4.155	4.125-4.185	1.592e+04
	4.297	4.267-4.327	1.655e+04
	4.477	4.447-4.507	3.714e+04
8 Aroclor-1262	3.763	3.733-3.793	1.500e+04
	3.926	3.896-3.956	2.038e+04
	4.156	4.126-4.186	2.520e+04
	4.299	4.269-4.329	2.299e+04
	4.478	4.448-4.508	4.717e+04
9 Aroclor-1268	4.663	4.633-4.693	5.248e+04
	4.686	4.656-4.716	4.812e+04
	4.799	4.769-4.829	3.703e+04
	5.001	4.971-5.031	1.629e+04
	5.167	5.137-5.197	1.083e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.965	1.935-1.995	3.986e+05
$ 12 Decachlorobiphenyl	5.275	5.245-5.305	3.233e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 08-Feb-2010 09:06 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.192	3.162-3.222	1.248e+04
	3.275	3.245-3.305	8.547e+03
	3.339	3.309-3.369	5.291e+03
	3.565	3.535-3.595	6.814e+03
	3.641	3.611-3.671	6.405e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.492	2.462-2.522	3.640e+03
	2.586	2.556-2.616	2.329e+03
	2.627	2.597-2.657	8.119e+03
3 Aroclor-1232	2.895	2.865-2.925	5.892e+03
	3.193	3.163-3.223	6.222e+03
	3.276	3.246-3.306	4.345e+03
	3.567	3.537-3.597	3.111e+03
	3.800	3.770-3.830	3.193e+03
4 Aroclor-1242	3.192	3.162-3.222	1.059e+04
	3.275	3.245-3.305	8.054e+03
	3.566	3.536-3.596	5.962e+03
	3.800	3.770-3.830	6.057e+03
	3.828	3.798-3.858	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.401	3.371-3.431	8.054e+03
	3.566	3.536-3.596	9.874e+03
	3.800	3.770-3.830	1.122e+04
	3.827	3.797-3.857	1.248e+04
	3.965	3.935-3.995	1.210e+04
6 Aroclor-1254	3.401	3.371-3.431	6.435e+03
	3.824	3.794-3.854	1.156e+04
	3.940	3.910-3.970	1.243e+04
	4.216	4.186-4.246	1.688e+04
	4.353	4.323-4.383	1.244e+04
7 Aroclor-1260	4.332	4.302-4.362	1.264e+04
	4.457	4.427-4.487	1.522e+04
	4.722	4.692-4.752	1.165e+04
	4.896	4.866-4.926	1.205e+04
	5.043	5.013-5.073	2.607e+04
8 Aroclor-1262	4.457	4.427-4.487	1.356e+04
	4.723	4.693-4.753	1.889e+04
	4.897	4.867-4.927	1.747e+04
	5.044	5.014-5.074	3.453e+04
	5.257	5.227-5.287	2.487e+04
9 Aroclor-1268	5.255	5.225-5.285	3.626e+04
	5.283	5.253-5.313	3.358e+04
	5.433	5.403-5.463	2.598e+04
	5.598	5.568-5.628	1.135e+04
	5.790	5.760-5.820	6.708e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.296	2.266-2.326	2.872e+05
$ 12 Decachlorobiphenyl	5.942	5.912-5.972	2.176e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17274	15624	14668	13618	12110	14659	13.365
(2)	20414	18506	18422	17664	16607	18323	7.617
(3)	13811	12507	11857	11466	10478	12024	10.320
(4)	8094	7393	7100	6874	6439	7180	8.612
(5)	10520	9736	9158	8813	8222	9290	9.475
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	19303	18084	17596	17320	15881	17637	7.037
(2)	28906	27177	26621	26372	24235	26662	6.298
(3)	17466	16264	15774	15593	14511	15922	6.750
(4)	17694	16895	16482	16357	15325	16551	5.206
(5)	38673	37803	37114	37178	34909	37135	3.753
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25041	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor-1268(1)	55111	53385	52967	52495	48466	52485	4.676
(2)	51014	48609	47960	48222	44786	48118	4.620
(3)	39244	37391	36973	36968	34562	37028	4.505
(4)	17802	16531	16072	16029	15038	16294	6.158
(5)	113064	109648	108755	109096	100824	108277	4.162
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	416570	402663	398822	398666	376523	398649	3.607
$ 12 Decachlorobiphenyl	349811	330143	318231	316573	301823	323316	5.537

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14228	12876	12485	11870	10964	12485	9.713
(2)	10308	9112	8344	7935	7035	8547	14.474
(3)	6330	5599	5139	4929	4456	5291	13.452
(4)	8280	7111	6551	6409	5718	6814	14.062
(5)	7890	6662	6193	5904	5375	6405	14.872
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 29-JAN-2010 08:59
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Cal Date : 08-Feb-2010 09:06 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	14858	13325	12348	11932	10758	12644	12.198
(2)	17461	15979	14935	14482	13243	15220	10.456
(3)	13572	12242	11423	10976	10040	11651	11.471
(4)	14023	12666	11806	11380	10392	12054	11.383
(5)	28927	27037	25880	25311	23188	26068	8.140
8 Aroclor-1262(1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268(1)	40076	37508	36193	35765	31736	36256	8.369
(2)	36699	34342	33454	33223	30195	33583	6.968
(3)	29294	26633	25688	25340	22957	25982	8.826
(4)	12990	11609	11161	10996	9978	11347	9.656
(5)	67306	67058	67598	69416	64002	67076	2.911
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	314910	295845	285456	280701	259306	287244	7.105
$ 12 Decachlorobiphenyl	251054	227132	210476	206848	192632	217628	10.274

Report Date: 11-Feb-2010 08:48

Calibration History

Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 09-FEB-2010 09:18

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013f1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006f0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018f1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
09-FEB-2010 08:36	AR1254	/chem/ecd1a.i/020910.b/011f1101.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010f1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014f1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007f0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019f1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
09-FEB-2010 08:47	AR1254	/chem/ecd1a.i/020910.b/012f1201.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011f1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015f1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008f0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020f2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
09-FEB-2010 08:57	AR1254	/chem/ecd1a.i/020910.b/013f1301.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012f1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
09-FEB-2010 09:08	AR1254	/chem/ecd1a.i/020910.b/014f1401.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013f1301.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021f2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016f1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009f0901.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017f1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010f1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022f2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d

09-FEB-2010 09:18	AR1254	/chem/ecd1a.i/020910.b/015f1501.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014f1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
11-FEB-2010 06:46	AR1242	/chem/ecd1a.i/021110.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 17:42	AR1660	/chem/ecd1a.i/021010b.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 15:15	AR1660	/chem/ecd1a.i/021010b.b/013f1301.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:05	AR1660	/chem/ecd1a.i/021010b.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:05	AR1660	/chem/ecd1a.i/021010b.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 14:01	AR1232	/chem/ecd1a.i/021010b.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 14:32	AR1268	/chem/ecd1a.i/021010b.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 14:22	AR1262	/chem/ecd1a.i/021010b.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 14:11	AR1221	/chem/ecd1a.i/021010b.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:37	AR1248	/chem/ecd1a.i/021010b.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:27	AR1242	/chem/ecd1a.i/021010b.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:16	AR1254	/chem/ecd1a.i/021010b.b/003f0301.d

Report Date: 11-Feb-2010 08:48

Calibration History

Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 09-FEB-2010 09:18

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-JAN-2010 08:01	AR1262	/chem/ecd1a.i/012210.b/013b1301.d
22-JAN-2010 06:48	AR1232	/chem/ecd1a.i/012210.b/006b0601.d
28-JAN-2010 12:18	AR1268	/chem/ecd1a.i/012810a.b/018b1801.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
09-FEB-2010 08:36	AR1254	/chem/ecd1a.i/020910.b/011b1101.d
29-JAN-2010 07:46	AR1660	/chem/ecd1a.i/012910.b/010b1001.d
Cal Level: 2 , Cal Amount: 250.00000		
22-JAN-2010 08:12	AR1262	/chem/ecd1a.i/012210.b/014b1401.d
22-JAN-2010 06:58	AR1232	/chem/ecd1a.i/012210.b/007b0701.d
28-JAN-2010 12:29	AR1268	/chem/ecd1a.i/012810a.b/019b1901.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
09-FEB-2010 08:47	AR1254	/chem/ecd1a.i/020910.b/012b1201.d
29-JAN-2010 07:57	AR1660	/chem/ecd1a.i/012910.b/011b1101.d
Cal Level: 3 , Cal Amount: 500.00000		
22-JAN-2010 08:22	AR1262	/chem/ecd1a.i/012210.b/015b1501.d
22-JAN-2010 07:09	AR1232	/chem/ecd1a.i/012210.b/008b0801.d
28-JAN-2010 12:39	AR1268	/chem/ecd1a.i/012810a.b/020b2001.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
09-FEB-2010 08:57	AR1254	/chem/ecd1a.i/020910.b/013b1301.d
29-JAN-2010 08:07	AR1660	/chem/ecd1a.i/012910.b/012b1201.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
28-JAN-2010 12:50	AR1268	/chem/ecd1a.i/012810a.b/021b2101.d
22-JAN-2010 08:36	AR1262	/chem/ecd1a.i/012210.b/016b1601.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
22-JAN-2010 07:19	AR1232	/chem/ecd1a.i/012210.b/009b0901.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
09-FEB-2010 09:08	AR1254	/chem/ecd1a.i/020910.b/014b1401.d
29-JAN-2010 08:18	AR1660	/chem/ecd1a.i/012910.b/013b1301.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-JAN-2010 08:47	AR1262	/chem/ecd1a.i/012210.b/017b1701.d
22-JAN-2010 07:30	AR1232	/chem/ecd1a.i/012210.b/010b1001.d
28-JAN-2010 13:00	AR1268	/chem/ecd1a.i/012810a.b/022b2201.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d

09-FEB-2010 09:18	AR1254	/chem/ecd1a.i/020910.b/015b1501.d
29-JAN-2010 08:59	AR1660	/chem/ecd1a.i/012910.b/014b1401.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 17:42	AR1660	/chem/ecd1a.i/021010b.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 15:15	AR1660	/chem/ecd1a.i/021010b.b/013b1301.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 14:32	AR1268	/chem/ecd1a.i/021010b.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 14:22	AR1262	/chem/ecd1a.i/021010b.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 14:11	AR1221	/chem/ecd1a.i/021010b.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 14:01	AR1232	/chem/ecd1a.i/021010b.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:27	AR1242	/chem/ecd1a.i/021010b.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:37	AR1248	/chem/ecd1a.i/021010b.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:16	AR1254	/chem/ecd1a.i/021010b.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
10-FEB-2010 13:05	AR1660	/chem/ecd1a.i/021010b.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 11-Feb-2010 07:52 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.418	2.388-2.448	1.466e+04
	2.706	2.676-2.736	1.832e+04
	2.787	2.757-2.817	1.202e+04
	2.825	2.795-2.855	7.180e+03
	3.036	3.006-3.066	9.290e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.076	2.046-2.106	4.301e+03
	2.169	2.139-2.199	2.440e+03
	2.195	2.165-2.225	1.027e+04
3 Aroclor-1232	2.421	2.391-2.451	6.849e+03
	2.710	2.680-2.740	8.426e+03
	2.791	2.761-2.821	5.627e+03
	3.040	3.010-3.070	3.983e+03
	3.295	3.265-3.325	3.858e+03
4 Aroclor-1242	2.417	2.387-2.447	1.166e+04
	2.706	2.676-2.736	1.345e+04
	2.825	2.795-2.855	5.506e+03
	3.035	3.005-3.065	7.245e+03
	3.289	3.259-3.319	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.087	3.057-3.117	7.848e+03
	3.238	3.208-3.268	6.870e+03
	3.289	3.259-3.319	1.331e+04
	3.421	3.391-3.451	1.101e+04
	3.654	3.624-3.684	7.455e+03
6 Aroclor-1254	3.264	3.234-3.294	1.578e+04
	3.419	3.389-3.449	2.135e+04
	3.653	3.623-3.683	2.726e+04
	3.816	3.786-3.846	2.062e+04
	3.925	3.895-3.955	1.959e+04
7 Aroclor-1260	3.762	3.732-3.792	1.764e+04
	3.926	3.896-3.956	2.666e+04
	4.156	4.126-4.186	1.592e+04
	4.299	4.269-4.329	1.655e+04
	4.478	4.448-4.508	3.714e+04
8 Aroclor-1262	3.763	3.733-3.793	1.500e+04
	3.925	3.895-3.955	2.038e+04
	4.156	4.126-4.186	2.520e+04
	4.299	4.269-4.329	2.299e+04
	4.478	4.448-4.508	4.717e+04
9 Aroclor-1268	4.662	4.632-4.692	5.248e+04
	4.685	4.655-4.715	4.812e+04
	4.798	4.768-4.828	3.703e+04
	5.001	4.971-5.031	1.629e+04
	5.167	5.137-5.197	1.083e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.962	1.932-1.992	3.986e+05
$ 12 Decachlorobiphenyl	5.278	5.248-5.308	3.233e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 11-Feb-2010 06:54 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.191	3.161-3.221	1.248e+04
	3.274	3.244-3.304	8.547e+03
	3.337	3.307-3.367	5.291e+03
	3.565	3.535-3.595	6.814e+03
	3.640	3.610-3.670	6.405e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.491	2.461-2.521	3.640e+03
	2.586	2.556-2.616	2.329e+03
	2.626	2.596-2.656	8.119e+03
3 Aroclor-1232	2.895	2.865-2.925	5.892e+03
	3.194	3.164-3.224	6.222e+03
	3.277	3.247-3.307	4.345e+03
	3.568	3.538-3.598	3.111e+03
	3.802	3.772-3.832	3.193e+03
4 Aroclor-1242	3.191	3.161-3.221	1.059e+04
	3.274	3.244-3.304	8.054e+03
	3.565	3.535-3.595	5.962e+03
	3.799	3.769-3.829	6.057e+03
	3.826	3.796-3.856	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.399	3.369-3.429	8.054e+03
	3.565	3.535-3.595	9.874e+03
	3.799	3.769-3.829	1.122e+04
	3.826	3.796-3.856	1.248e+04
	3.964	3.934-3.994	1.210e+04
6 Aroclor-1254	3.399	3.369-3.429	6.631e+03
	3.821	3.791-3.851	1.170e+04
	3.938	3.908-3.968	1.289e+04
	4.215	4.185-4.245	1.768e+04
	4.351	4.321-4.381	1.318e+04
7 Aroclor-1260	4.331	4.301-4.361	1.264e+04
	4.457	4.427-4.487	1.522e+04
	4.723	4.693-4.753	1.165e+04
	4.896	4.866-4.926	1.205e+04
	5.044	5.014-5.074	2.607e+04
8 Aroclor-1262	4.457	4.427-4.487	1.356e+04
	4.723	4.693-4.753	1.889e+04
	4.896	4.866-4.926	1.747e+04
	5.044	5.014-5.074	3.453e+04
	5.257	5.227-5.287	2.487e+04
9 Aroclor-1268	5.255	5.225-5.285	3.626e+04
	5.283	5.253-5.313	3.358e+04
	5.433	5.403-5.463	2.598e+04
	5.597	5.567-5.627	1.135e+04
	5.790	5.760-5.820	6.708e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.294	2.264-2.324	2.872e+05
$ 12 Decachlorobiphenyl	5.943	5.913-5.973	2.176e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 09-FEB-2010 09:18
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Cal Date : 11-Feb-2010 07:52 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013f1301.d
Level 2: /chem/ecd1a.i/012210.b/014f1401.d
Level 3: /chem/ecd1a.i/012210.b/015f1501.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/012210.b/017f1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	17274	15624	14668	13618	12110	14659	13.365
(2)	20414	18506	18422	17664	16607	18323	7.617
(3)	13811	12507	11857	11466	10478	12024	10.320
(4)	8094	7393	7100	6874	6439	7180	8.612
(5)	10520	9736	9158	8813	8222	9290	9.475
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	8031	7459	6765	6313	5679	6849	13.524
(2)	9246	8871	8229	8095	7686	8426	7.427
(3)	6376	6076	5599	5256	4827	5627	11.031
(4)	4642	4328	3905	3655	3384	3983	12.710
(5)	4445	4061	3757	3587	3443	3858	10.378
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 09-FEB-2010 09:18
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Cal Date : 11-Feb-2010 07:52 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	18218	16468	15766	15064	13404	15784	11.233
(2)	24302	22248	21155	20648	18377	21346	10.182
(3)	29883	28006	27625	26757	24011	27256	7.865
(4)	22385	20901	20953	20353	18513	20621	6.778
(5)	21764	19914	20167	19029	17098	19594	8.725
7 Aroclor-1260(1)	19303	18084	17596	17320	15881	17637	7.037
(2)	28906	27177	26621	26372	24235	26662	6.298
(3)	17466	16264	15774	15593	14511	15922	6.750
(4)	17694	16895	16482	16357	15325	16551	5.206
(5)	38673	37803	37114	37178	34909	37135	3.753
8 Aroclor-1262(1)	16796	15375	14585	14470	13775	15000	7.687
(2)	22563	20964	19865	19587	18936	20383	6.975
(3)	27641	25661	24522	24605	23554	25197	6.179
(4)	25041	23378	22465	22352	21708	22989	5.624
(5)	49563	47861	46825	46728	44852	47166	3.655
9 Aroclor-1268(1)	55111	53385	52967	52495	48466	52485	4.676
(2)	51014	48609	47960	48222	44786	48118	4.620
(3)	39244	37391	36973	36968	34562	37028	4.505
(4)	17802	16531	16072	16029	15038	16294	6.158
(5)	113064	109648	108755	109096	100824	108277	4.162
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	416570	402663	398822	398666	376523	398649	3.607
$ 12 Decachlorobiphenyl	349811	330143	318231	316573	301823	323316	5.537

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 09-FEB-2010 09:18
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Cal Date : 11-Feb-2010 06:54 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/012210.b/013b1301.d
Level 2: /chem/ecd1a.i/012210.b/014b1401.d
Level 3: /chem/ecd1a.i/012210.b/015b1501.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/012210.b/017b1701.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14228	12876	12485	11870	10964	12485	9.713
(2)	10308	9112	8344	7935	7035	8547	14.474
(3)	6330	5599	5139	4929	4456	5291	13.452
(4)	8280	7111	6551	6409	5718	6814	14.062
(5)	7890	6662	6193	5904	5375	6405	14.872
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	7405	6518	5773	5260	4504	5892	19.017
(2)	7294	6687	6058	5769	5299	6222	12.576
(3)	5336	4800	4249	3912	3427	4345	17.180
(4)	3854	3418	3039	2783	2462	3111	17.466
(5)	3940	3492	3102	2870	2562	3193	16.853
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 09-FEB-2010 09:18
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Cal Date : 11-Feb-2010 06:54 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	8119	7134	6511	6102	5288	6631	16.115
(2)	13835	12411	11575	10994	9701	11703	13.219
(3)	15198	13631	12780	12111	10729	12890	12.960
(4)	20285	18437	17626	16945	15125	17683	10.740
(5)	15441	13882	13241	12228	11123	13183	12.432
7 Aroclor-1260(1)	14858	13325	12348	11932	10758	12644	12.198
(2)	17461	15979	14935	14482	13243	15220	10.456
(3)	13572	12242	11423	10976	10040	11651	11.471
(4)	14023	12666	11806	11380	10392	12054	11.383
(5)	28927	27037	25880	25311	23188	26068	8.140
8 Aroclor-1262(1)	15849	14211	13033	12748	11945	13557	11.192
(2)	21776	19630	18382	17939	16725	18890	10.157
(3)	20222	18124	16968	16542	15497	17471	10.323
(4)	38743	35618	34053	33297	30946	34532	8.384
(5)	28740	25266	23755	23937	22633	24866	9.485
9 Aroclor-1268(1)	40076	37508	36193	35765	31736	36256	8.369
(2)	36699	34342	33454	33223	30195	33583	6.968
(3)	29294	26633	25688	25340	22957	25982	8.826
(4)	12990	11609	11161	10996	9978	11347	9.656
(5)	67306	67058	67598	69416	64002	67076	2.911
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
$ 11 4cmx	314910	295845	285456	280701	259306	287244	7.105
$ 12 Decachlorobiphenyl	251054	227132	210476	206848	192632	217628	10.274

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002F0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	12837.588	0.01	-12.4	15.0
(2)	18322.626	16881.446	0.01	-7.9	15.0
(3)	12023.655	10579.542	0.01	-12.0	15.0
(4)	7180.129	6340.762	0.01	-11.7	15.0
(5)	9289.783	8310.417	0.01	-10.5	15.0
Aroclor-1260	17636.550	17492.483	0.01	-0.8	15.0
(2)	26662.025	26719.248	0.01	0.2	15.0
(3)	15921.638	15874.558	0.01	-0.3	15.0
(4)	16550.665	16698.516	0.01	0.9	15.0
(5)	37135.384	38229.555	0.01	2.9	15.0
4cmx	398648.98	371361.76	0.01	-6.8	15.0
Decachlorobiphenyl	323316.27	306305.72	0.01	-5.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0706

Lab File ID: 002B0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	11513.111	0.01	-7.8	15.0
(2)	8546.824	7680.091	0.01	-10.1	15.0
(3)	5290.741	4732.691	0.01	-10.5	15.0
(4)	6813.513	6037.895	0.01	-11.4	15.0
(5)	6404.782	5752.367	0.01	-10.2	15.0
Aroclor-1260	12644.310	12622.486	0.01	-0.2	15.0
(2)	15220.096	15319.189	0.01	0.6	15.0
(3)	11650.528	11665.669	0.01	0.1	15.0
(4)	12053.523	12022.139	0.01	-0.3	15.0
(5)	26068.381	27036.683	0.01	3.7	15.0
4cmx	287243.52	273128.74	0.01	-4.9	15.0
Decachlorobiphenyl	217628.16	208183.20	0.01	-4.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0717

Lab File ID: 003F0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1254	12485.476	13316.408	0.01	6.6	15.0	
(2)	16721.938	18383.138	0.01	9.9	15.0	
(3)	20713.923	24035.597	0.01	16.0	15.0	<-
(4)	15694.205	18227.087	0.01	16.1	15.0	<-
(5)	15172.491	17340.088	0.01	14.3	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0717

Lab File ID: 003B0301 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0722 0804

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	6435.255	6210.292	0.01	-3.5	15.0
(2)	11559.316	11223.428	0.01	-2.9	15.0
(3)	12431.285	12385.662	0.01	-0.4	15.0
(4)	16880.060	17124.358	0.01	1.4	15.0
(5)	12435.475	12208.508	0.01	-1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0820

Lab File ID: 009F0901 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1268	52484.978	48680.194	0.01	-7.2	15.0
(2)	48118.088	45876.697	0.01	-4.6	15.0
(3)	37027.541	36431.401	0.01	-1.6	15.0
(4)	16294.262	18070.217	0.01	10.9	15.0
(5)	108277.36	120791.94	0.01	11.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 0820

Lab File ID: 009B0901 Init. Calib. Date(s): 01/28/10 01/28/10

Heated Purge: (Y/N) N Init. Calib. Times: 1218 1300

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1268	36255.530	33206.637	0.01	-8.4	15.0	
(2)	33582.584	31815.832	0.01	-5.3	15.0	
(3)	25982.381	25007.382	0.01	-3.8	15.0	
(4)	11346.665	12362.596	0.01	9.0	15.0	
(5)	67076.083	78842.117	0.01	17.5	15.0	<-

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022F2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14089.870	0.01	-3.9	15.0
(2)	18322.626	18254.738	0.01	-0.4	15.0
(3)	12023.655	11539.563	0.01	-4.0	15.0
(4)	7180.129	6922.359	0.01	-3.6	15.0
(5)	9289.783	8923.226	0.01	-3.9	15.0
Aroclor-1260	17636.550	19002.908	0.01	7.7	15.0
(2)	26662.025	28995.739	0.01	8.8	15.0
(3)	15921.638	17302.329	0.01	8.7	15.0
(4)	16550.665	18016.442	0.01	8.8	15.0
(5)	37135.384	41342.662	0.01	11.3	15.0
4cmx	398648.98	405041.02	0.01	1.6	15.0
Decachlorobiphenyl	323316.27	329068.95	0.01	1.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1051

Lab File ID: 022B2201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12553.097	0.01	0.5	15.0
(2)	8546.824	8166.106	0.01	-4.4	15.0
(3)	5290.741	5045.053	0.01	-4.6	15.0
(4)	6813.513	6628.314	0.01	-2.7	15.0
(5)	6404.782	6123.430	0.01	-4.4	15.0
Aroclor-1260	12644.310	13388.386	0.01	5.9	15.0
(2)	15220.096	16291.509	0.01	7.0	15.0
(3)	11650.528	12420.565	0.01	6.6	15.0
(4)	12053.523	12892.266	0.01	7.0	15.0
(5)	26068.381	28894.660	0.01	10.8	15.0
4cmx	287243.52	289912.86	0.01	0.9	15.0
Decachlorobiphenyl	217628.16	222287.65	0.01	2.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031F3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14012.608	0.01	-4.4	15.0
(2)	18322.626	18319.018	0.01	-0.0	15.0
(3)	12023.655	11547.801	0.01	-4.0	15.0
(4)	7180.129	6929.943	0.01	-3.5	15.0
(5)	9289.783	8939.715	0.01	-3.8	15.0
Aroclor-1260	17636.550	18972.127	0.01	7.6	15.0
(2)	26662.025	28835.947	0.01	8.2	15.0
(3)	15921.638	17204.186	0.01	8.0	15.0
(4)	16550.665	18148.577	0.01	9.6	15.0
(5)	37135.384	41262.622	0.01	11.1	15.0
4cmx	398648.98	404599.75	0.01	1.5	15.0
Decachlorobiphenyl	323316.27	326299.17	0.01	0.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1240

Lab File ID: 031B3101 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12359.615	0.01	-1.0	15.0
(2)	8546.824	8069.931	0.01	-5.6	15.0
(3)	5290.741	4988.684	0.01	-5.7	15.0
(4)	6813.513	6345.906	0.01	-6.9	15.0
(5)	6404.782	6017.327	0.01	-6.0	15.0
Aroclor-1260	12644.310	13242.341	0.01	4.7	15.0
(2)	15220.096	16223.303	0.01	6.6	15.0
(3)	11650.528	12301.397	0.01	5.6	15.0
(4)	12053.523	12694.909	0.01	5.3	15.0
(5)	26068.381	28307.638	0.01	8.6	15.0
4cmx	287243.52	286907.88	0.01	-0.1	15.0
Decachlorobiphenyl	217628.16	219266.81	0.01	0.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1405

Lab File ID: 038F3801 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14172.898	0.01	-3.3	15.0
(2)	18322.626	18691.498	0.01	2.0	15.0
(3)	12023.655	11643.904	0.01	-3.2	15.0
(4)	7180.129	7005.692	0.01	-2.4	15.0
(5)	9289.783	8940.138	0.01	-3.8	15.0
Aroclor-1260	17636.550	18974.874	0.01	7.6	15.0
(2)	26662.025	28991.130	0.01	8.7	15.0
(3)	15921.638	17263.530	0.01	8.4	15.0
(4)	16550.665	18206.068	0.01	10.0	15.0
(5)	37135.384	41419.819	0.01	11.5	15.0
4cmx	398648.98	407669.94	0.01	2.3	15.0
Decachlorobiphenyl	323316.27	326596.68	0.01	1.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/05/10 Time: 1405

Lab File ID: 038B3801 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12213.804	0.01	-2.2	15.0
(2)	8546.824	8148.079	0.01	-4.7	15.0
(3)	5290.741	5044.334	0.01	-4.6	15.0
(4)	6813.513	6398.182	0.01	-6.1	15.0
(5)	6404.782	5872.077	0.01	-8.3	15.0
Aroclor-1260	12644.310	13353.624	0.01	5.6	15.0
(2)	15220.096	16258.936	0.01	6.8	15.0
(3)	11650.528	12402.697	0.01	6.4	15.0
(4)	12053.523	12828.373	0.01	6.4	15.0
(5)	26068.381	28683.670	0.01	10.0	15.0
4cmx	287243.52	288262.96	0.01	0.4	15.0
Decachlorobiphenyl	217628.16	222901.40	0.01	2.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1305

Lab File ID: 002F0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14776.277	0.01	0.8	15.0
(2)	18322.626	19013.408	0.01	3.8	15.0
(3)	12023.655	12098.804	0.01	0.6	15.0
(4)	7180.129	7274.798	0.01	1.3	15.0
(5)	9289.783	9316.562	0.01	0.3	15.0
Aroclor-1260	17636.550	19413.373	0.01	10.1	15.0
(2)	26662.025	29174.461	0.01	9.4	15.0
(3)	15921.638	17296.560	0.01	8.6	15.0
(4)	16550.665	18262.385	0.01	10.3	15.0
(5)	37135.384	40605.322	0.01	9.3	15.0
4cmx	398648.98	428397.18	0.01	7.5	15.0
Decachlorobiphenyl	323316.27	314726.32	0.01	-2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1305

Lab File ID: 002B0201 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	11735.725	0.01	-6.0	15.0
(2)	8546.824	7689.432	0.01	-10.0	15.0
(3)	5290.741	4730.507	0.01	-10.6	15.0
(4)	6813.513	6232.074	0.01	-8.5	15.0
(5)	6404.782	5765.135	0.01	-10.0	15.0
Aroclor-1260	12644.310	12439.224	0.01	-1.6	15.0
(2)	15220.096	15036.431	0.01	-1.2	15.0
(3)	11650.528	11433.819	0.01	-1.9	15.0
(4)	12053.523	11827.307	0.01	-1.9	15.0
(5)	26068.381	26195.852	0.01	0.5	15.0
4cmx	287243.52	274495.70	0.01	-4.4	15.0
Decachlorobiphenyl	217628.16	198120.56	0.01	-9.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1515

Lab File ID: 013F1301 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	15595.706	0.01	6.4	15.0
(2)	18322.626	19738.894	0.01	7.7	15.0
(3)	12023.655	12462.762	0.01	3.6	15.0
(4)	7180.129	7532.736	0.01	4.9	15.0
(5)	9289.783	9639.403	0.01	3.8	15.0
Aroclor-1260	17636.550	19867.936	0.01	12.6	15.0
(2)	26662.025	29816.672	0.01	11.8	15.0
(3)	15921.638	17778.957	0.01	11.7	15.0
(4)	16550.665	18563.902	0.01	12.2	15.0
(5)	37135.384	41518.291	0.01	11.8	15.0
4cmx	398648.98	439389.22	0.01	10.2	15.0
Decachlorobiphenyl	323316.27	323231.43	0.01	-0.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1515

Lab File ID: 013B1301 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12169.689	0.01	-2.5	15.0
(2)	8546.824	7824.979	0.01	-8.4	15.0
(3)	5290.741	4842.342	0.01	-8.5	15.0
(4)	6813.513	6075.793	0.01	-10.8	15.0
(5)	6404.782	5779.567	0.01	-9.8	15.0
Aroclor-1260	12644.310	12584.029	0.01	-0.5	15.0
(2)	15220.096	15266.696	0.01	0.3	15.0
(3)	11650.528	11631.343	0.01	-0.2	15.0
(4)	12053.523	12041.627	0.01	-0.1	15.0
(5)	26068.381	26770.404	0.01	2.7	15.0
4cmx	287243.52	279677.92	0.01	-2.6	15.0
Decachlorobiphenyl	217628.16	201352.01	0.01	-7.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1742

Lab File ID: 025F2501 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	14658.821	14818.779	0.01	1.1	15.0
(2)	18322.626	20050.915	0.01	9.4	15.0
(3)	12023.655	12428.854	0.01	3.4	15.0
(4)	7180.129	7458.975	0.01	3.9	15.0
(5)	9289.783	9526.714	0.01	2.6	15.0
Aroclor-1260	17636.550	18433.263	0.01	4.5	15.0
(2)	26662.025	27635.610	0.01	3.6	15.0
(3)	15921.638	16532.015	0.01	3.8	15.0
(4)	16550.665	17311.603	0.01	4.6	15.0
(5)	37135.384	38637.628	0.01	4.0	15.0
4cmx	398648.98	438525.20	0.01	10.0	15.0
Decachlorobiphenyl	323316.27	321926.14	0.01	-0.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

Instrument ID: ECD1A Calibration Date: 02/10/10 Time: 1742

Lab File ID: 025B2501 Init. Calib. Date(s): 01/29/10 01/29/10

Heated Purge: (Y/N) N Init. Calib. Times: 0746 0859

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12484.762	12038.249	0.01	-3.6	15.0
(2)	8546.824	7854.497	0.01	-8.1	15.0
(3)	5290.741	4834.706	0.01	-8.6	15.0
(4)	6813.513	6155.126	0.01	-9.7	15.0
(5)	6404.782	5773.190	0.01	-9.9	15.0
Aroclor-1260	12644.310	11824.429	0.01	-6.5	15.0
(2)	15220.096	14326.865	0.01	-5.9	15.0
(3)	11650.528	10885.542	0.01	-6.6	15.0
(4)	12053.523	11330.069	0.01	-6.0	15.0
(5)	26068.381	24982.184	0.01	-4.2	15.0
4cmx	287243.52	280560.43	0.01	-2.3	15.0
Decachlorobiphenyl	217628.16	205023.37	0.01	-5.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	37136176	100.000	93.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.275	0.000	30630572	100.000	94.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.419	2.419	0.000	12837588	1000.00	876	80.00- 120.00	100.00
2.707	2.707	0.000	16881446	1000.00	921	111.50- 151.50	131.50
2.788	2.788	0.000	10579542	1000.00	880	62.41- 102.41	82.41
2.826	2.826	0.000	6340762	1000.00	883	29.39- 69.39	49.39
3.036	3.036	0.000	8310417	1000.00	894	44.74- 84.74	64.74
Average of Peak Amounts =					891		
7 Aroclor-1260					CAS #: 11096-82-5		
3.762	3.762	0.000	17492483	1000.00	992	80.00- 120.00	100.00
3.925	3.925	0.000	26719248	1000.00	1000	132.75- 172.75	152.75
4.155	4.155	0.000	15874558	1000.00	997	70.75- 110.75	90.75
4.297	4.297	0.000	16698516	1000.00	1010	75.46- 115.46	95.46
4.477	4.477	0.000	38229555	1000.00	1030	198.55- 238.55	218.55
Average of Peak Amounts =					1.01e+03		

Data File: /chem/ecd1a.i/020510.b/002f0201.d

Date : 05-FEB-2010 07:06

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

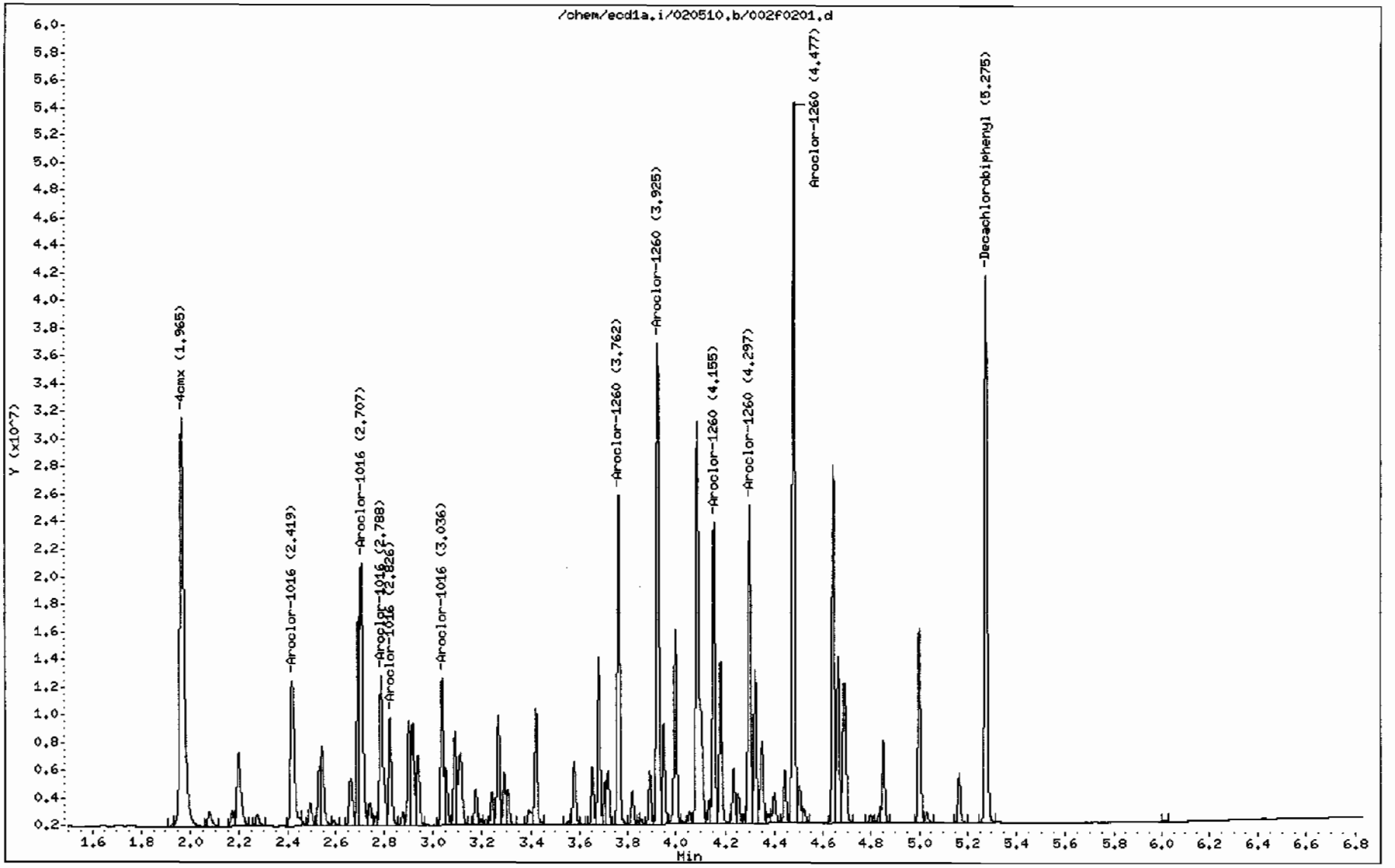

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 05-FEB-2010 07:06
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	27312874	100.000	95.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.942	5.942	0.000	20818320	100.000	95.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	11513111	1000.00	922	80.00- 120.00	100.00(M)
3.275	3.275	0.000	7680091	1000.00	898	46.71- 86.71	66.71
3.339	3.339	0.000	4732691	1000.00	894	21.11- 61.11	41.11
3.565	3.565	0.000	6037895	1000.00	886	32.44- 72.44	52.44
3.641	3.641	0.000	5752367	1000.00	898	29.96- 69.96	49.96
Average of Peak Amounts =					900		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.332	0.000	12622486	1000.00	998	80.00- 120.00	100.00
4.457	4.457	0.000	15319189	1000.00	1010	101.36- 141.36	121.36
4.722	4.722	0.000	11665669	1000.00	1000	72.42- 112.42	92.42
4.896	4.896	0.000	12022139	1000.00	997	75.24- 115.24	95.24
5.043	5.043	0.000	27036683	1000.00	1040	194.19- 234.19	214.19
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/002b0201.d

Date : 05-FEB-2010 07:06

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

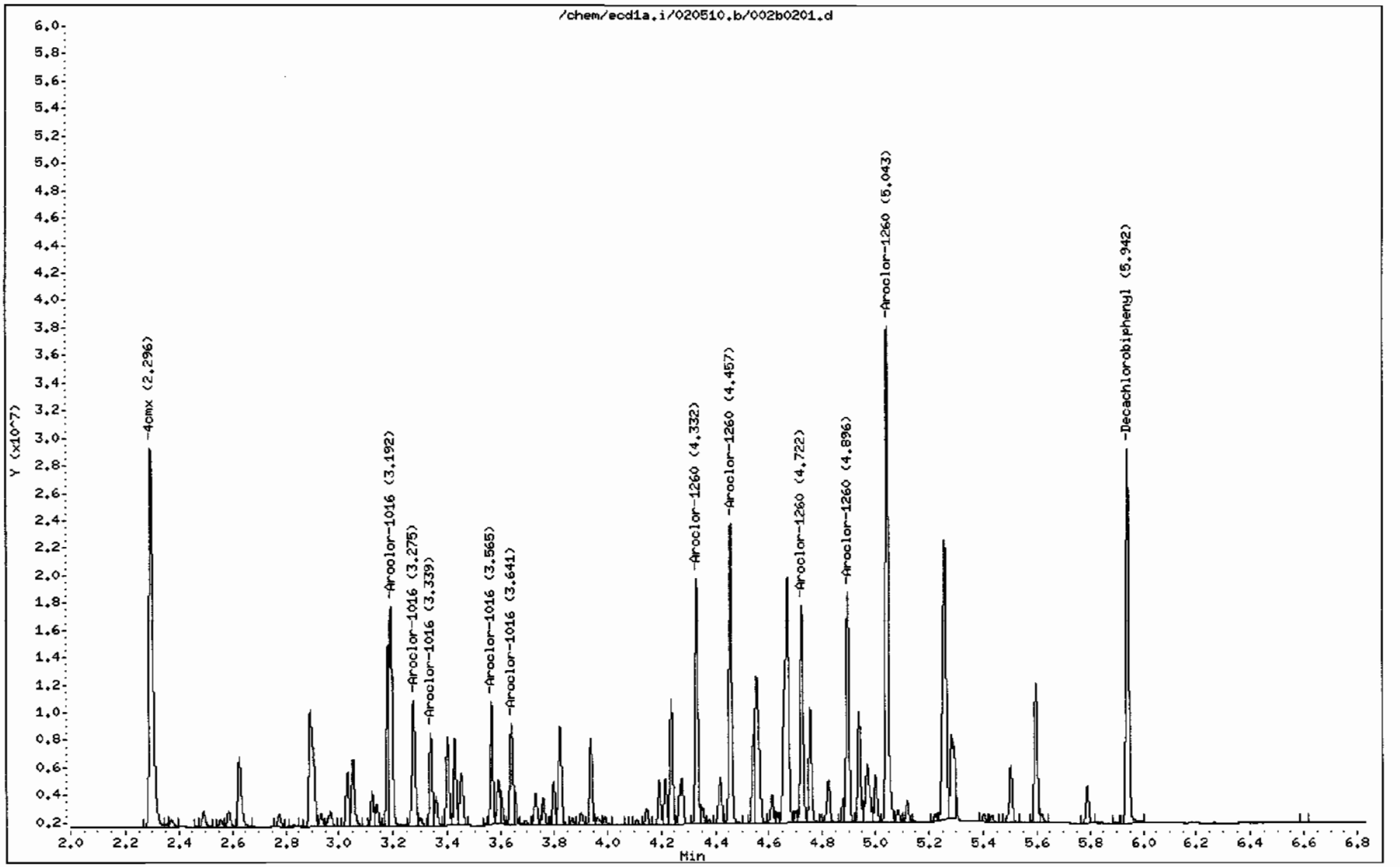

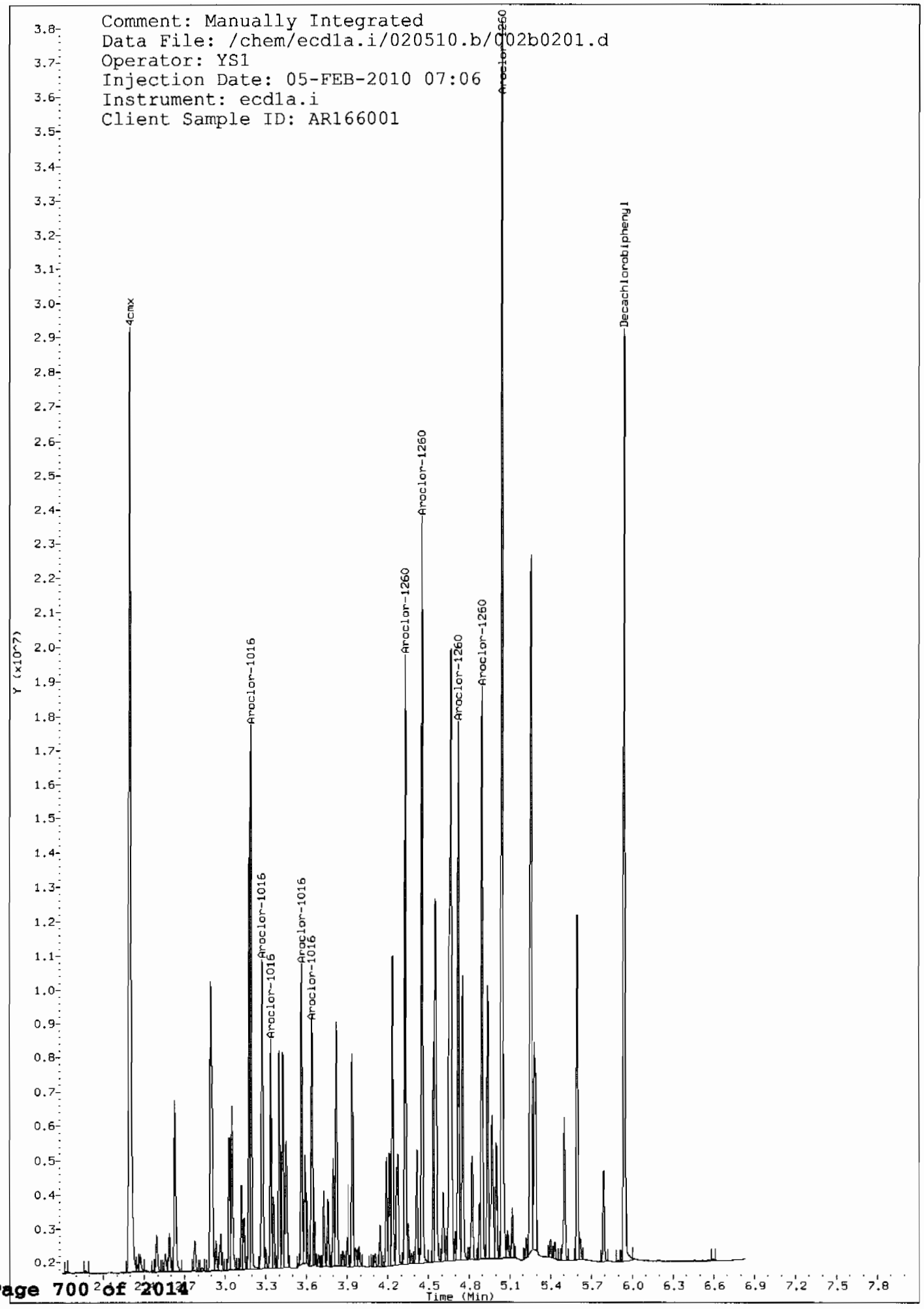
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

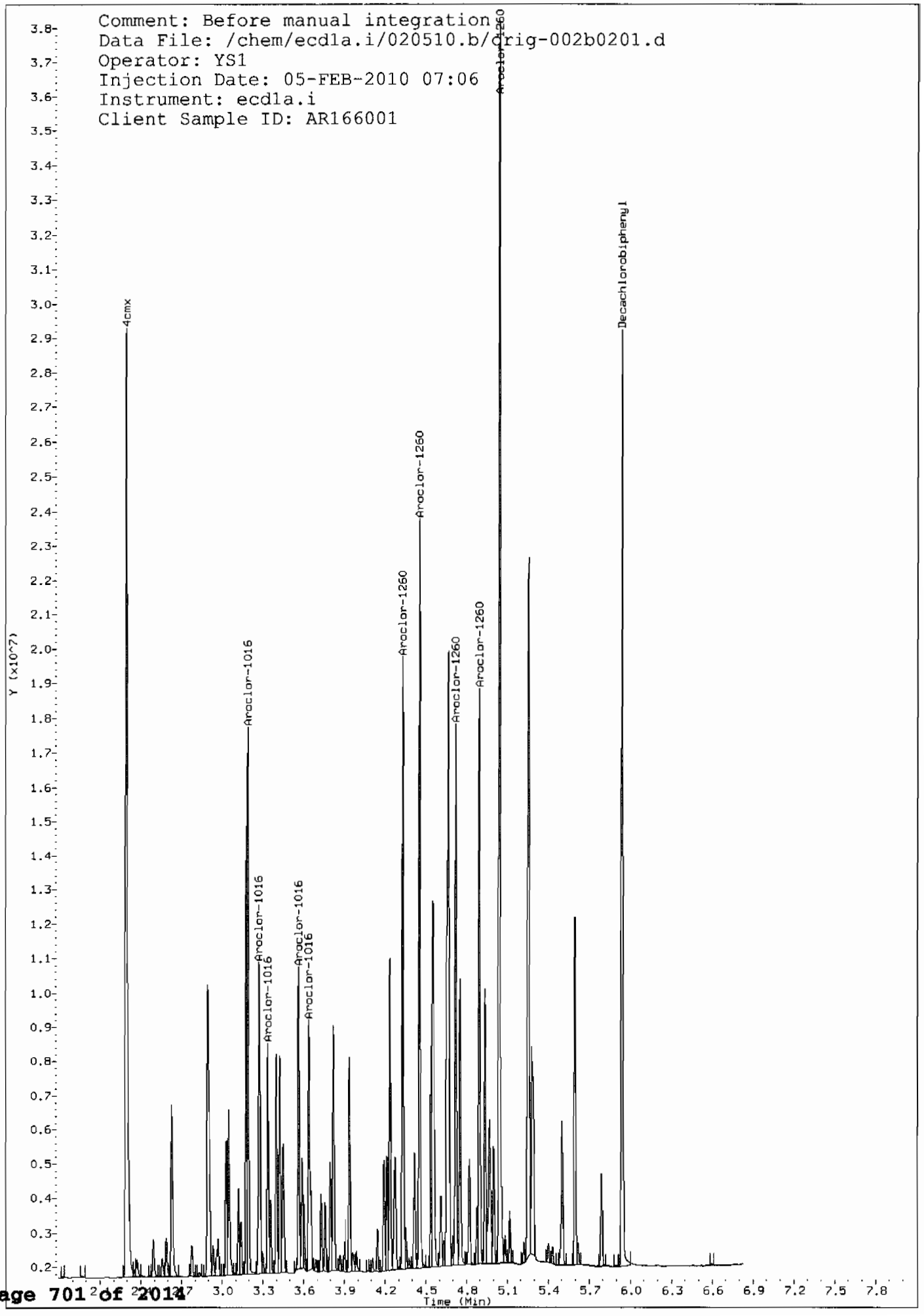
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/drig-002b0201.d
Operator: YS1
Injection Date: 05-FEB-2010 07:06
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.266	3.266	0.000	13316408	1000.00	1070	80.00- 120.00	100.00
3.421	3.421	0.000	18383138	1000.00	1100	118.05- 158.05	138.05
3.655	3.655	0.000	24035597	1000.00	1160	160.50- 200.50	180.50
3.818	3.818	0.000	18227087	1000.00	1160	116.88- 156.88	136.88
3.926	3.926	0.000	17340088	1000.00	1140	110.22- 150.22	130.22

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/020510.b/003f0301.d

Date : 05-FEB-2010 07:17

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

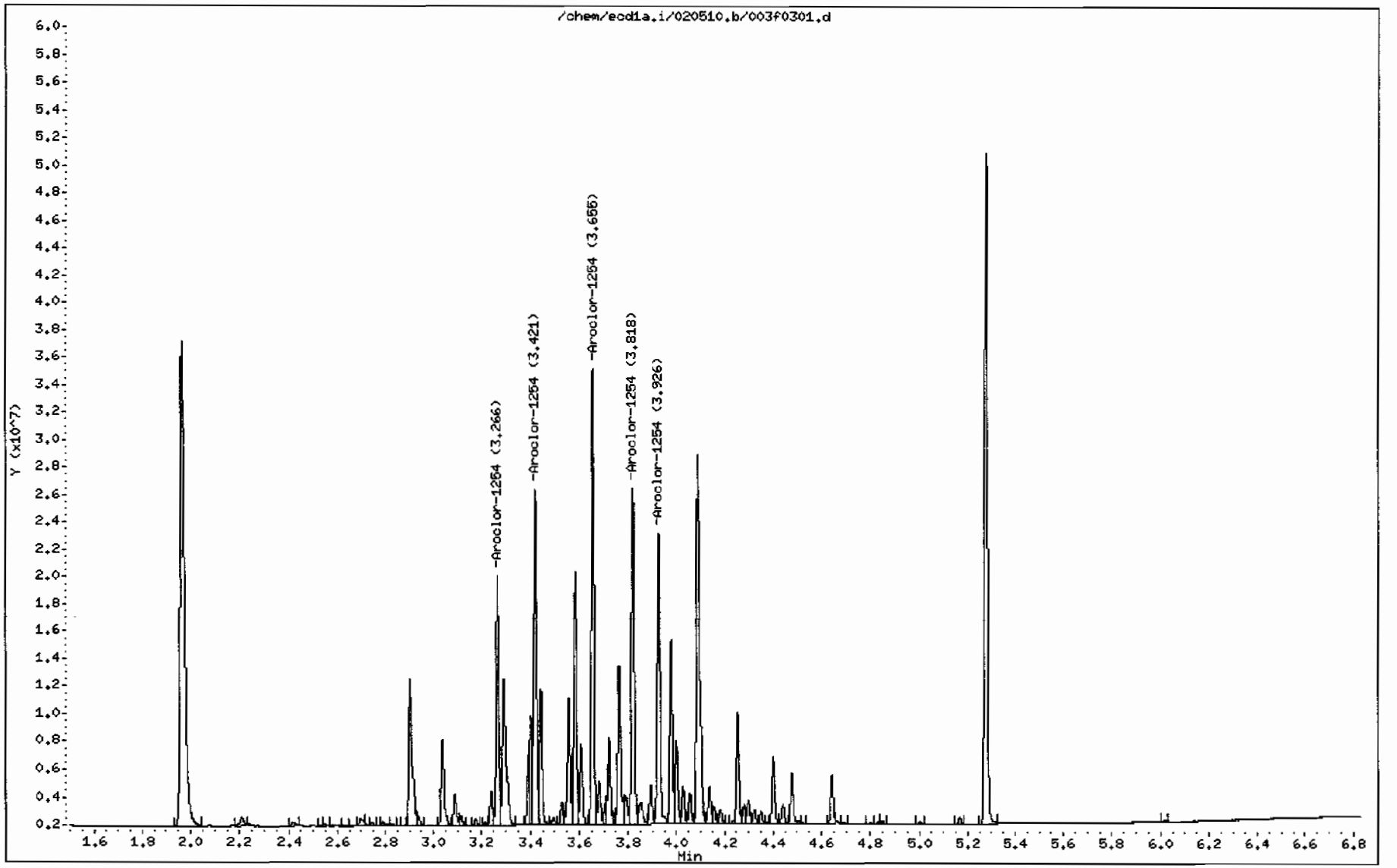

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 05-FEB-2010 07:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.401	3.401	0.000	6210292	1000.00	965	80.00- 120.00	100.00
3.824	3.824	0.000	11223428	1000.00	971	160.72- 200.72	180.72
3.940	3.940	0.000	12385662	1000.00	996	179.44- 219.44	199.44
4.216	4.216	0.000	17124358	1000.00	1010	255.74- 295.74	275.74
4.353	4.353	0.000	12208508	1000.00	982	176.59- 216.59	196.59
Average of Peak Amounts =					986		

Data File: /chem/ecd1a.i/020510.b/003b0301.d

Date : 05-FEB-2010 07:17

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

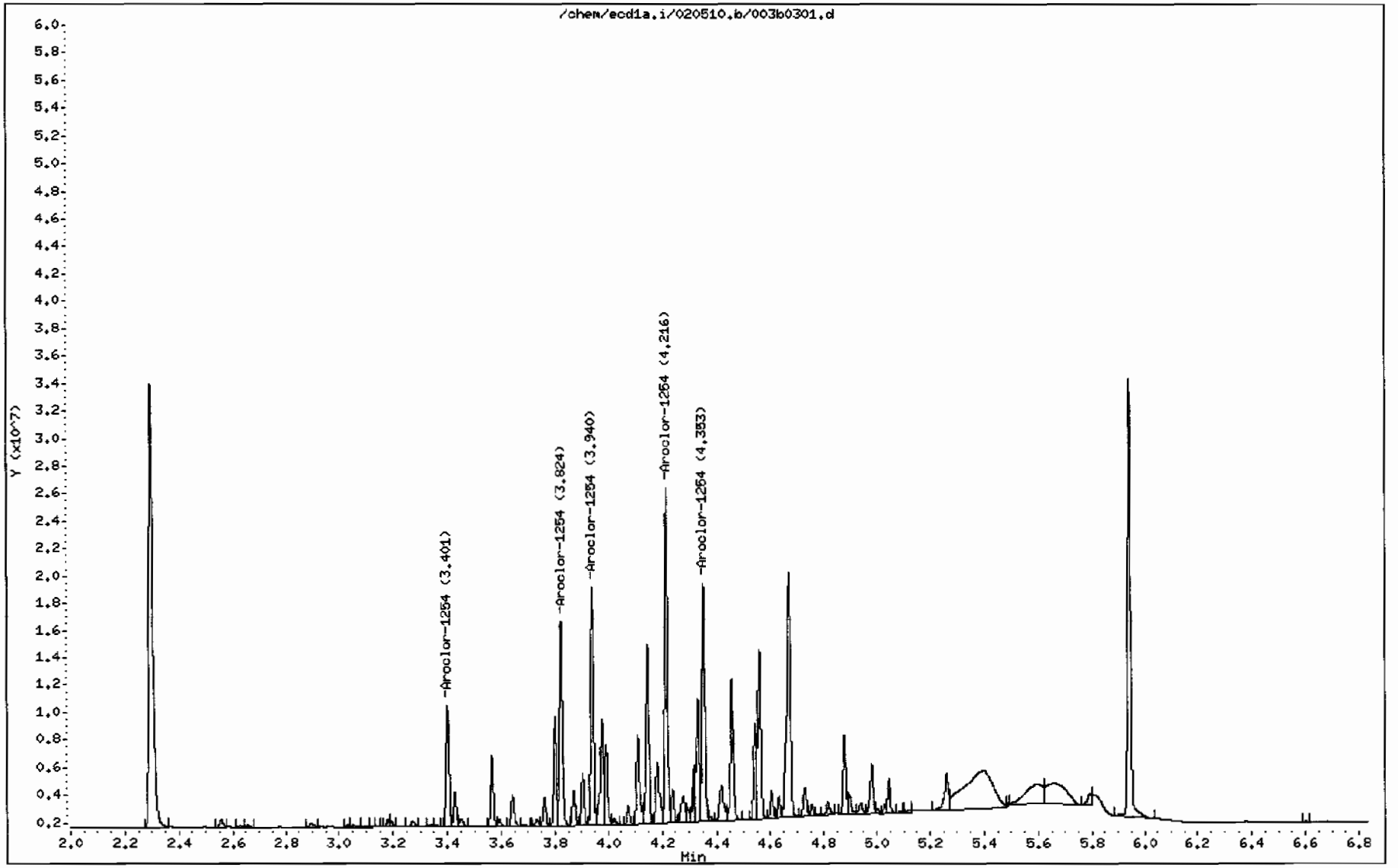

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.420	2.420	0.000	11255044	1000.00	965	80.00- 120.00	100.00
2.708	2.708	0.000	14293317	1000.00	1060	106.99- 146.99	126.99
2.826	2.826	0.000	5433097	1000.00	987	28.27- 68.27	48.27
3.037	3.037	0.000	7156483	1000.00	988	43.58- 83.58	63.58
3.290	3.290	0.000	6999007	1000.00	1030	42.19- 82.19	62.19

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/004f0401.d

Page 1

Date : 05-FEB-2010 07:27

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR091217-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

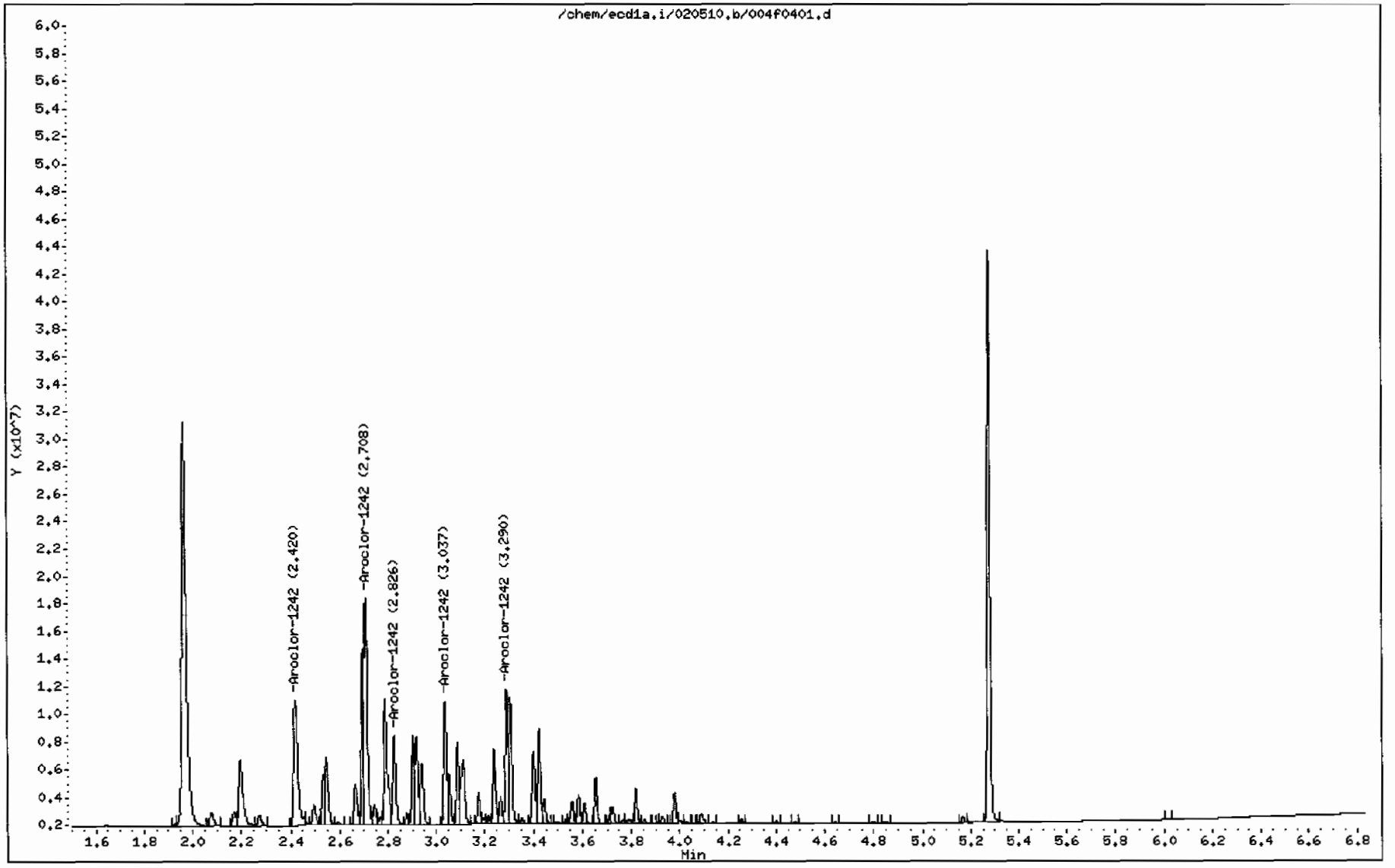

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 05-FEB-2010 07:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.192	3.192	0.000	10109273	1000.00	955	80.00- 120.00	100.00
3.275	3.275	0.000	6573360	1000.00	816	45.02- 85.02	65.02
3.566	3.566	0.000	5197092	1000.00	872	31.41- 71.41	51.41
3.800	3.800	0.000	5378692	1000.00	888	33.21- 73.21	53.21
3.828	3.828	0.000	6016980	1000.00	898	39.52- 79.52	59.52
Average of Peak Amounts =					886		

Data File: /chem/ecd1a.i/020510.b/004b0401.d

Page 1

Date : 05-FEB-2010 07:27

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR091217-42

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

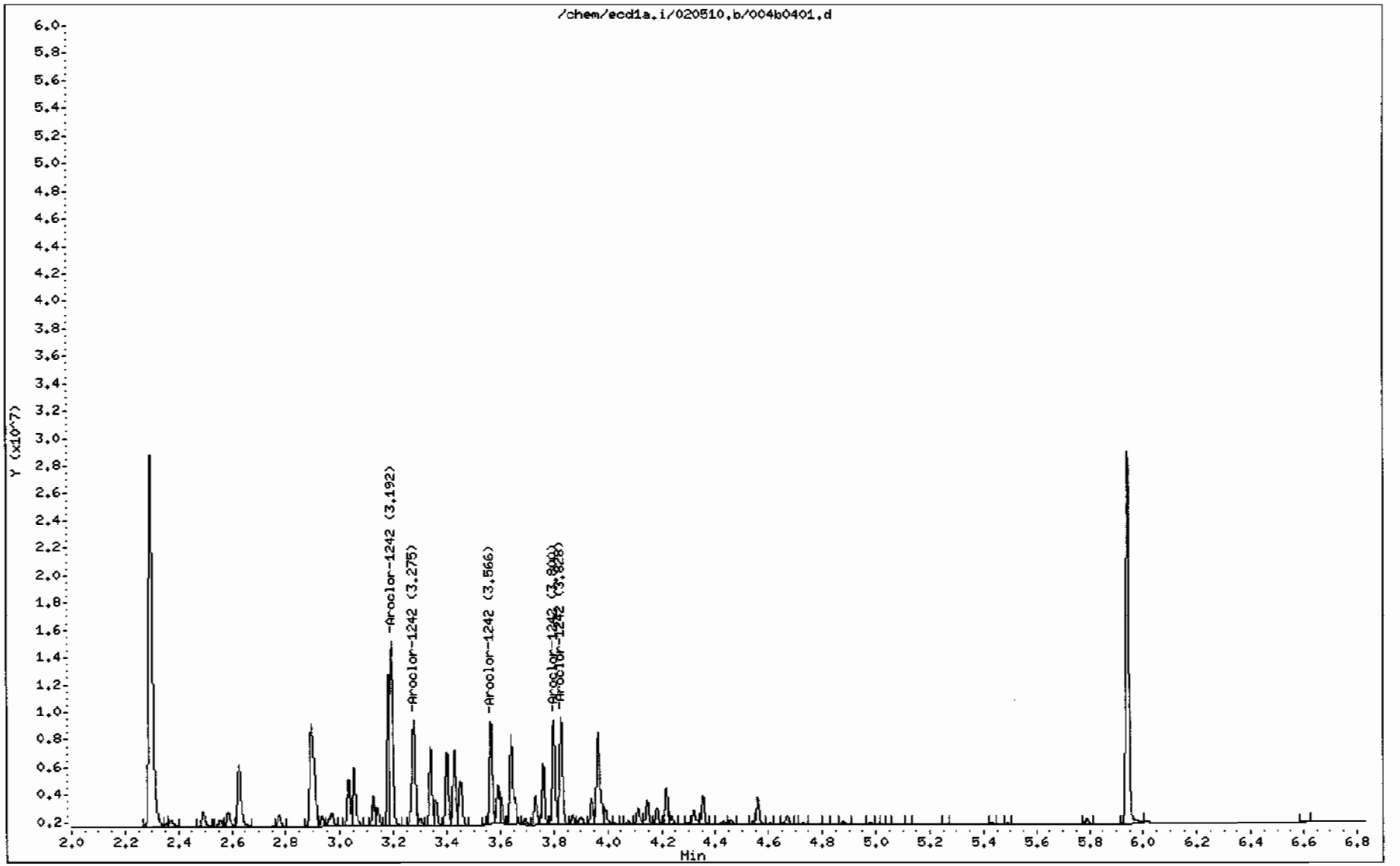

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.088	3.088	0.000	8241247	1000.00	1050	80.00- 120.00	100.00
3.240	3.240	0.000	7125731	1000.00	1040	66.46- 106.46	86.46
3.291	3.291	0.000	14052338	1000.00	1060	150.51- 190.51	170.51
3.422	3.422	0.000	11222456	1000.00	1020	116.17- 156.17	136.17
3.655	3.655	0.000	7182031	1000.00	963	67.15- 107.15	87.15

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/020510.b/005f0501.d

Page 1

Date : 05-FEB-2010 07:38

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR091217-48

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

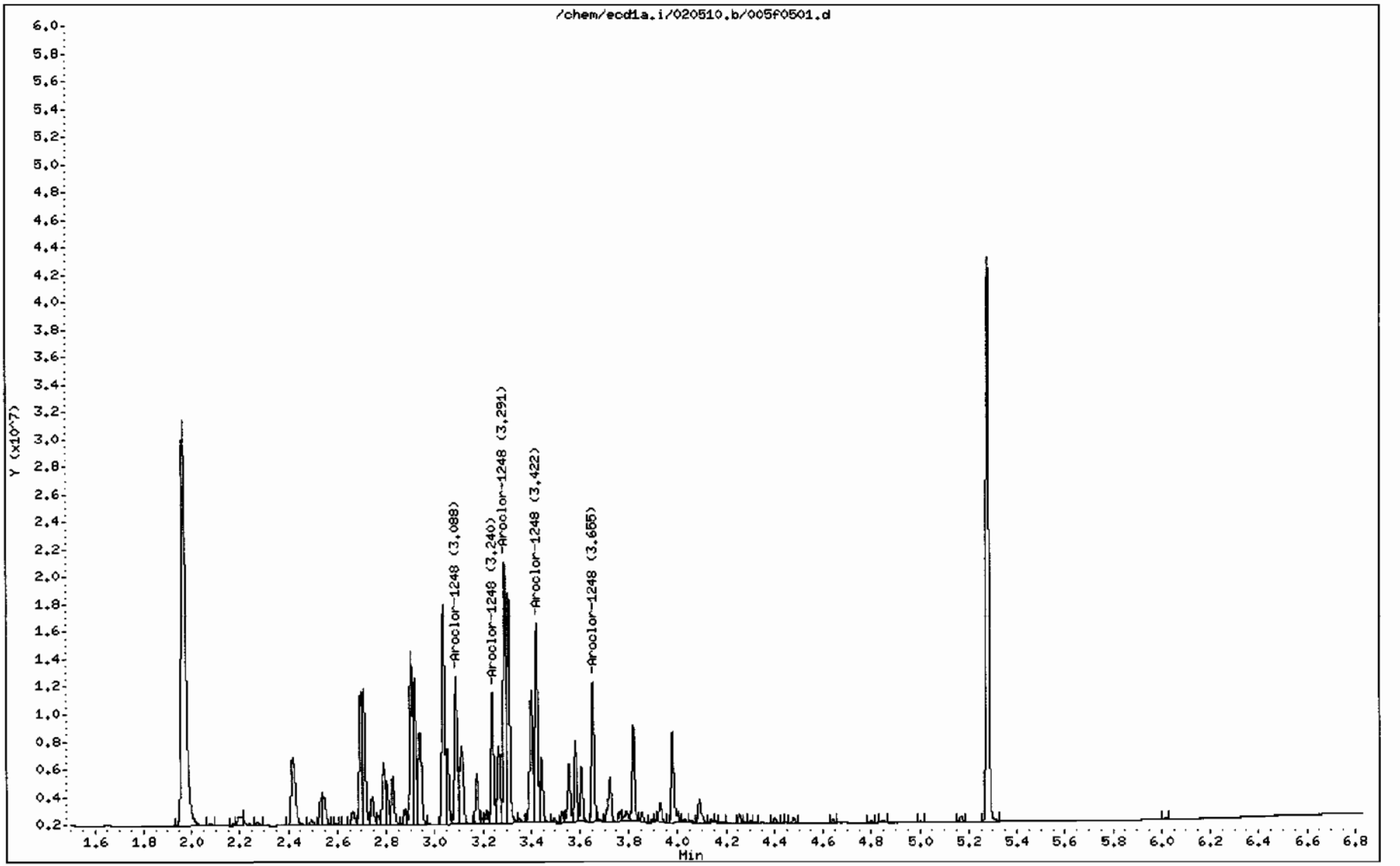

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 05-FEB-2010 07:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.401	3.401	0.000	7358985	1000.00	914	80.00- 120.00	100.00
3.566	3.566	0.000	9216148	1000.00	933	105.24- 145.24	125.24
3.800	3.800	0.000	10436092	1000.00	930	121.81- 161.81	141.81
3.827	3.827	0.000	11626532	1000.00	931	137.99- 177.99	157.99
3.965	3.965	0.000	11178442	1000.00	924	131.90- 171.90	151.90
Average of Peak Amounts =					926		

Data File: /chem/ecd1a.i/020510.b/005b0501.d
Date : 05-FEB-2010 07:38
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

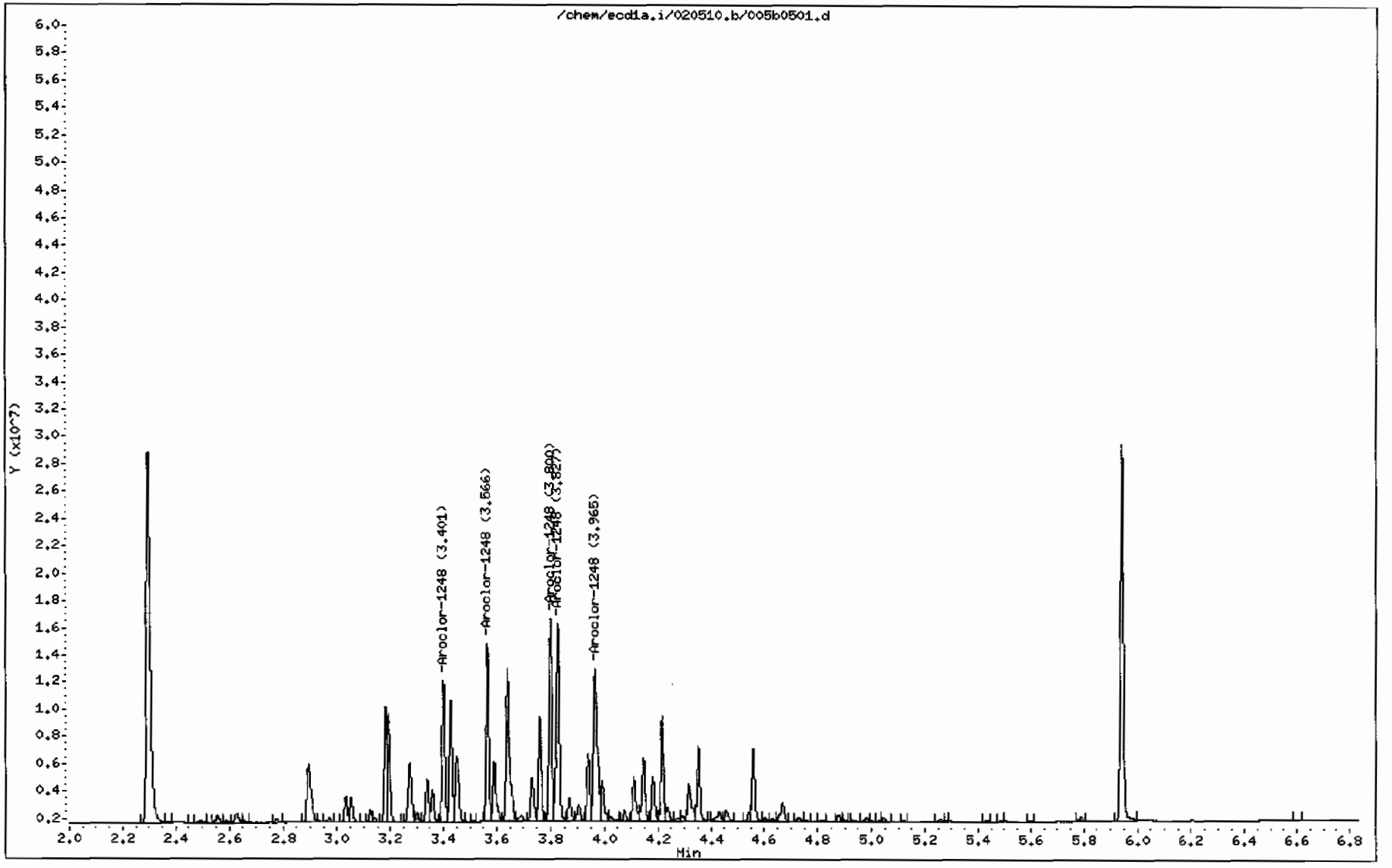

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.421	2.421	0.000	6684520	1000.00	976	80.00- 120.00	100.00
2.709	2.709	0.000	8973672	1000.00	1060	114.25- 154.25	134.25
2.789	2.789	0.000	5627474	1000.00	1000	64.19- 104.19	84.19
3.038	3.038	0.000	4163606	1000.00	1040	42.29- 82.29	62.29
3.291	3.291	0.000	3786517	1000.00	981	36.65- 76.65	56.65

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd1a.i/020510.b/006f0601.d

Page 1

Date : 05-FEB-2010 07:48

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

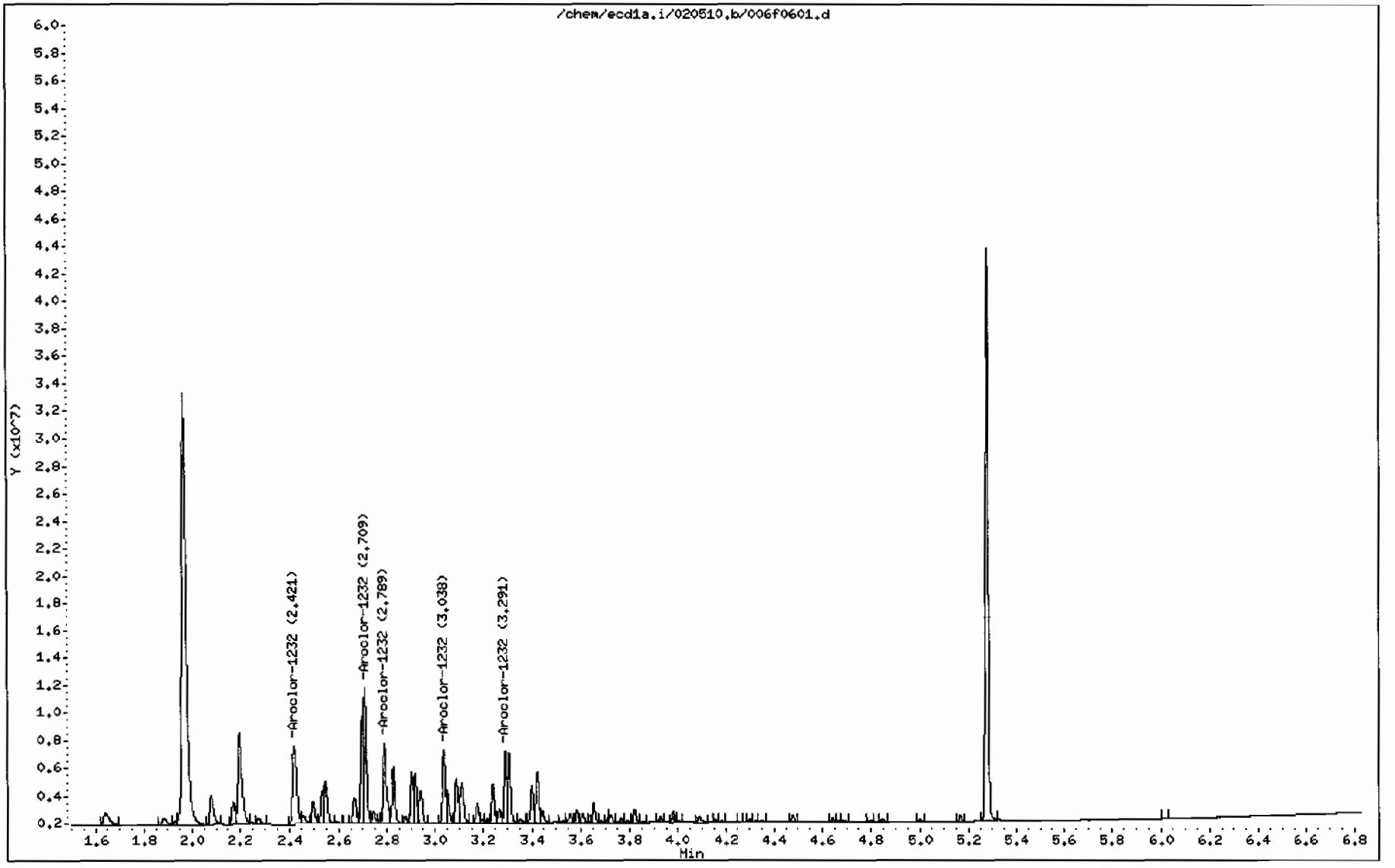

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.895	2.895	0.000	5518314	1000.00	937	80.00- 120.00	100.00
3.193	3.193	0.000	6067838	1000.00	975	89.96- 129.96	109.96
3.276	3.276	0.000	4176572	1000.00	961	55.69- 95.69	75.69
3.567	3.567	0.000	3101183	1000.00	997	36.20- 76.20	56.20
3.800	3.800	0.000	3042822	1000.00	953	35.14- 75.14	55.14
		Average of Peak Amounts =			965		

Data File: /chem/ecd1a.i/020510.b/006b0601.d

Date : 05-FEB-2010 07:48

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

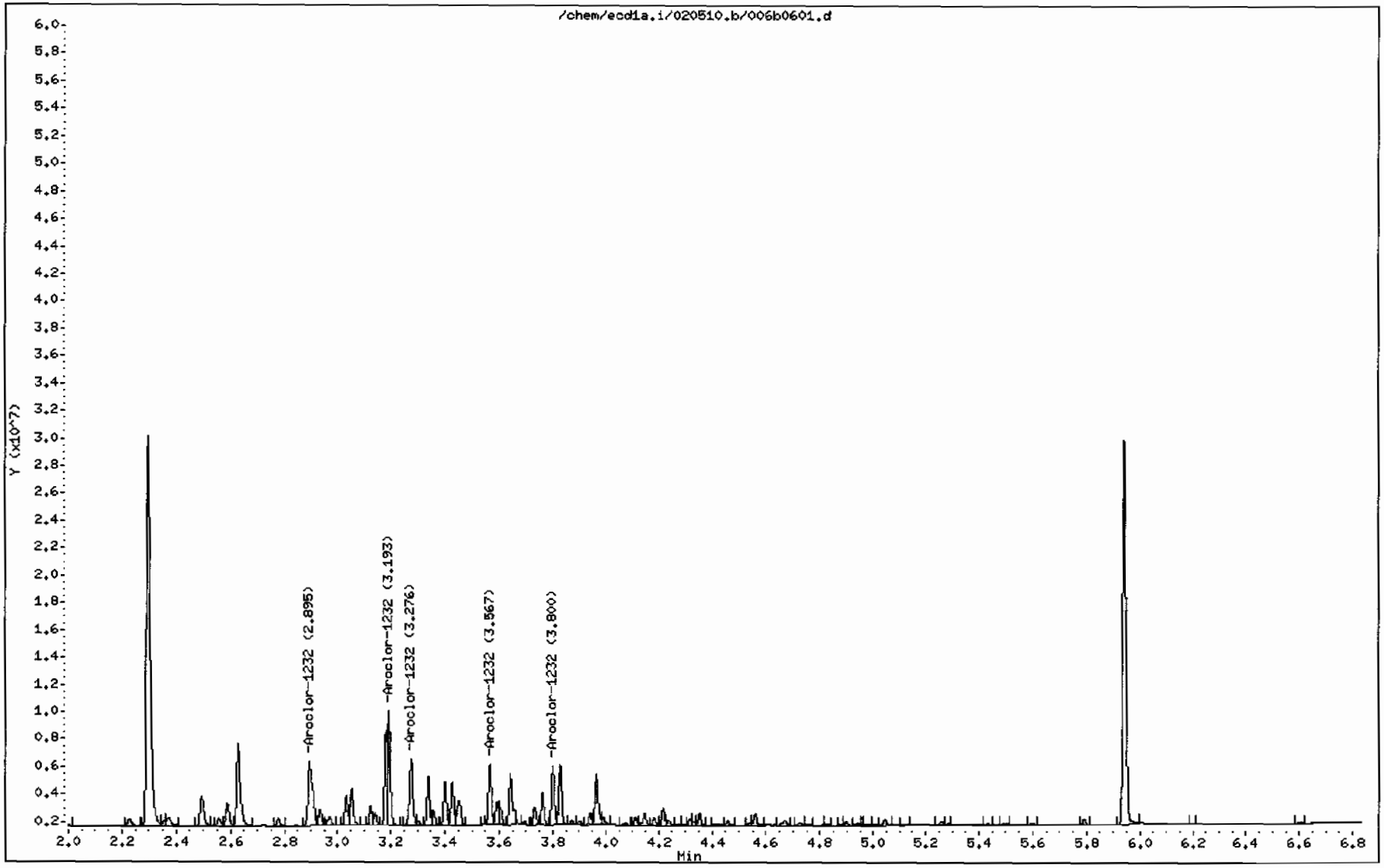

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.077	2.077	0.000	4201820	1000.00	977	80.00- 120.00	100.00
2.170	2.170	0.000	2263486	1000.00	927	33.87- 73.87	53.87
2.195	2.195	0.000	10281522	1000.00	1000	224.69- 264.69	244.69
Average of Peak Amounts =					968		

Data File: /chem/ecd1a.i/020510.b/007f0701.d

Date : 05-FEB-2010 07:59

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

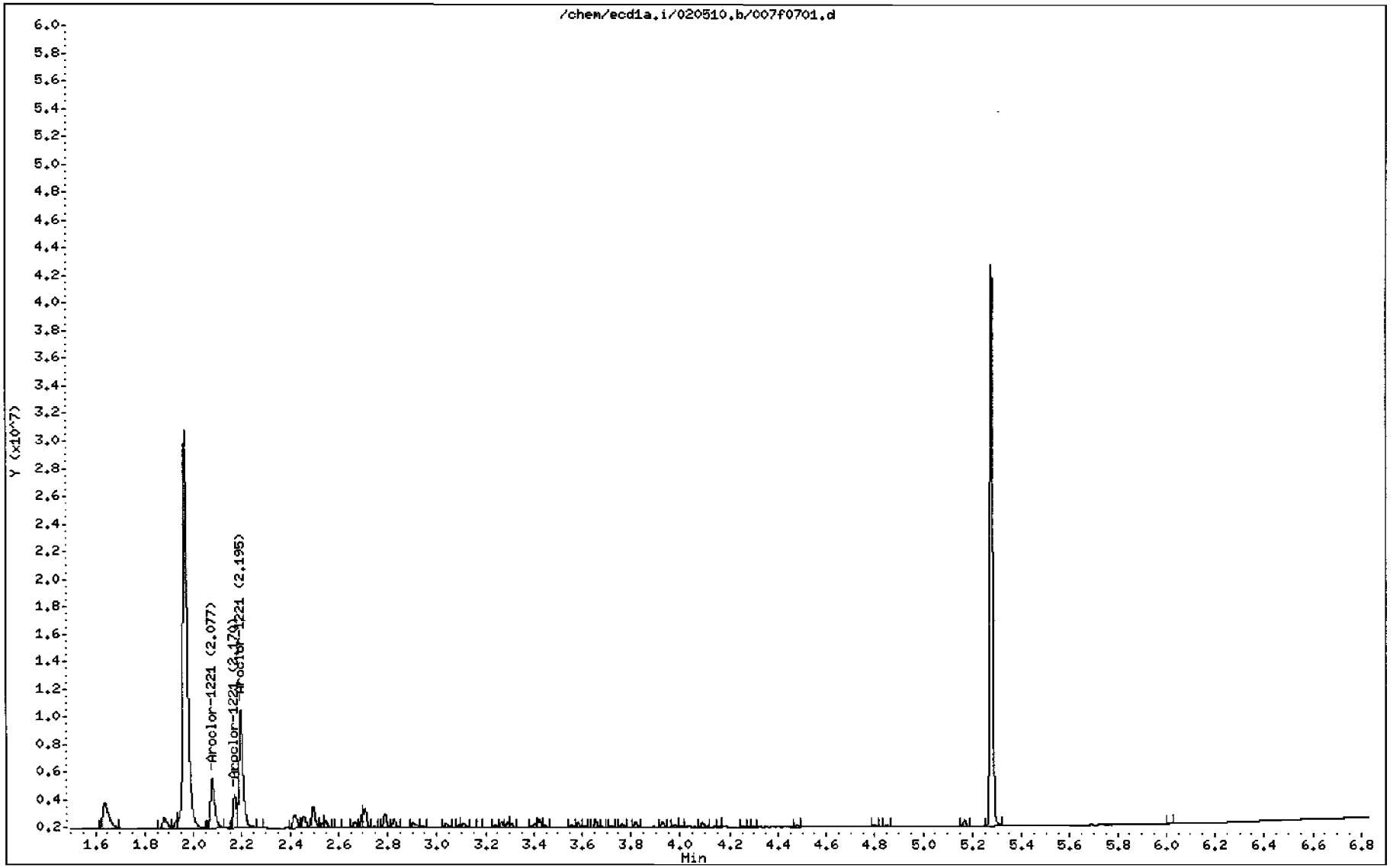

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR123201
Inj Date : 05-FEB-2010 07:59
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:25 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.492	2.492	0.000	3283686	1000.00	902	80.00- 120.00	100.00
2.586	2.586	0.000	2130872	1000.00	915	44.89- 84.89	64.89
2.627	2.627	0.000	7321346	1000.00	902	202.96- 242.96	222.96
Average of Peak Amounts =					906		

Data File: /chem/ecd1a.i/020510.b/007b0701.d

Date : 05-FEB-2010 07:59

Client ID: AR123201

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

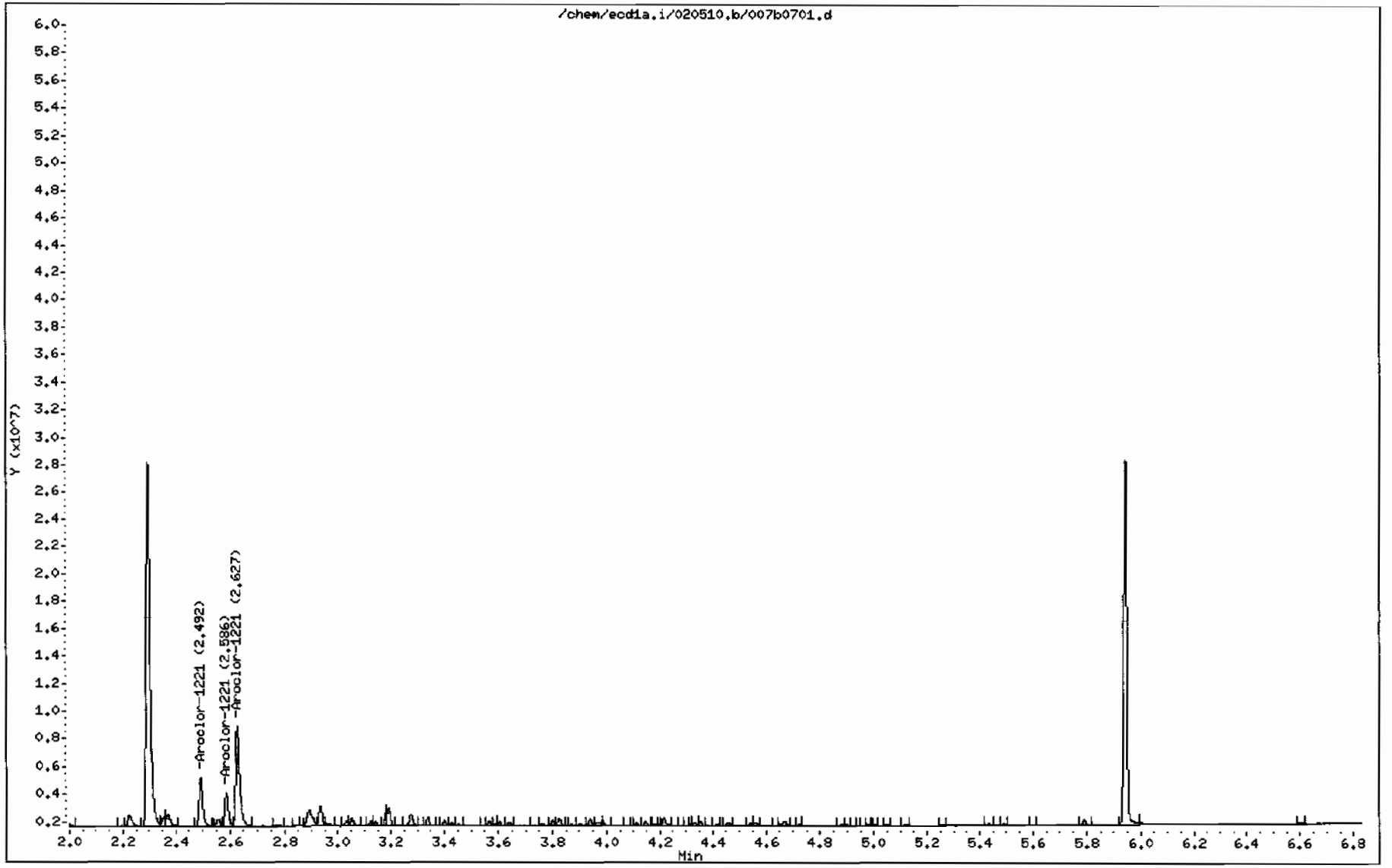

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/009f0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 05-FEB-2010 08:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
4.663	4.663	0.000	48680193	1000.00	928	80.00- 120.00	100.00
4.686	4.686	0.000	45876696	1000.00	953	74.24- 114.24	94.24
4.799	4.799	0.000	36431401	1000.00	984	54.84- 94.84	74.84
5.001	5.001	0.000	18070217	1000.00	1110	17.12- 57.12	37.12
5.167	5.167	0.000	120791943	1000.00	1120	228.13- 268.13	248.13

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/020510.b/009f0901.d

Date : 05-FEB-2010 08:20

Client ID: AR126801

Sample Info: IWAR100107-68

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

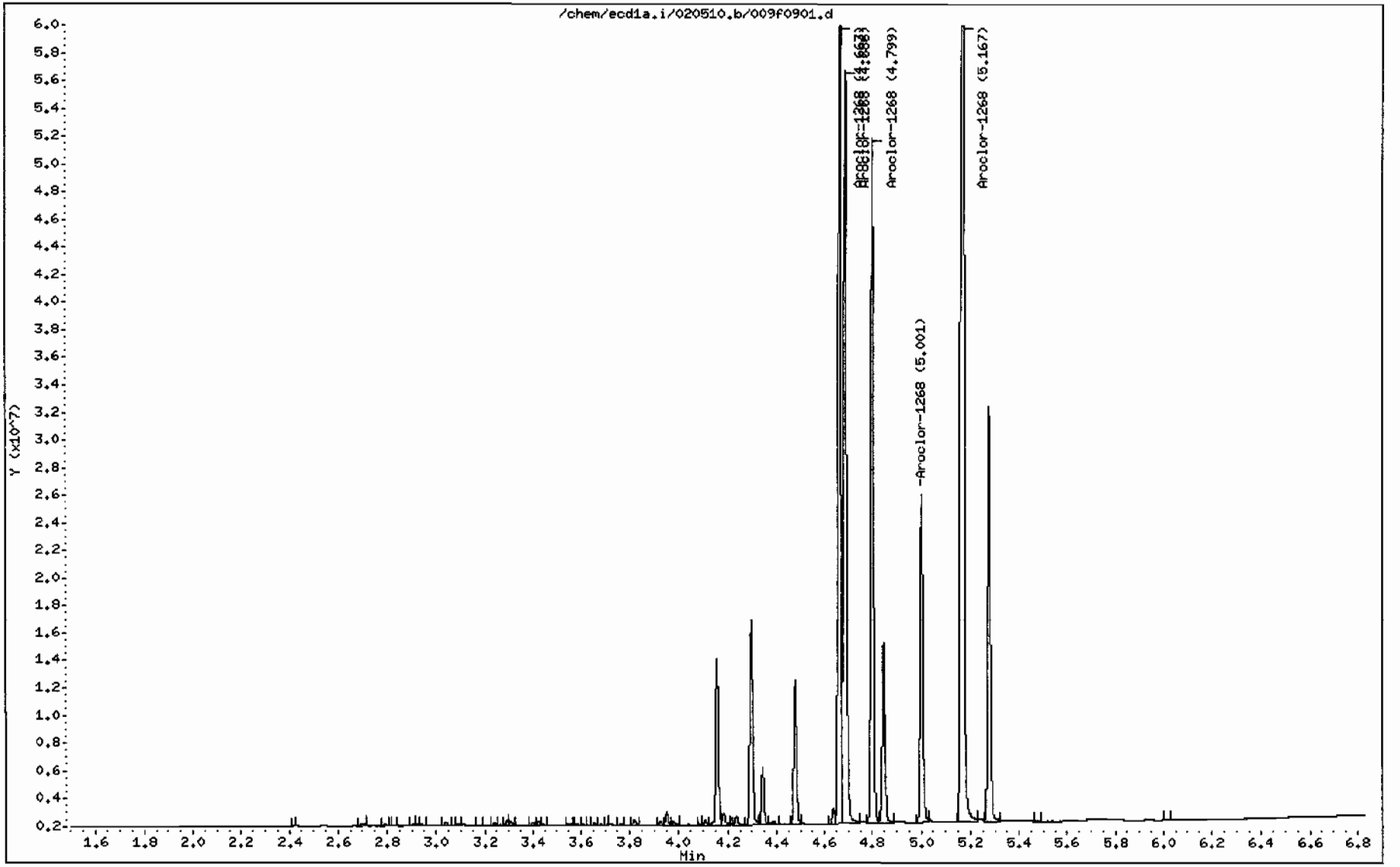

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/009b0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 05-FEB-2010 08:20
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
5.255	5.255	0.000	33206637	1000.00	916	80.00- 120.00	100.00
5.283	5.283	0.000	31815831	1000.00	947	75.81- 115.81	95.81
5.433	5.433	0.000	25007381	1000.00	962	55.31- 95.31	75.31
5.598	5.598	0.000	12362596	1000.00	1090	17.23- 57.23	37.23
5.790	5.790	0.000	78842117	1000.00	1180	217.43- 257.43	237.43

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/020510.b/009b0901.d

Date : 05-FEB-2010 08:20

Client ID: AR126801

Sample Info: IWAR100107-68

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

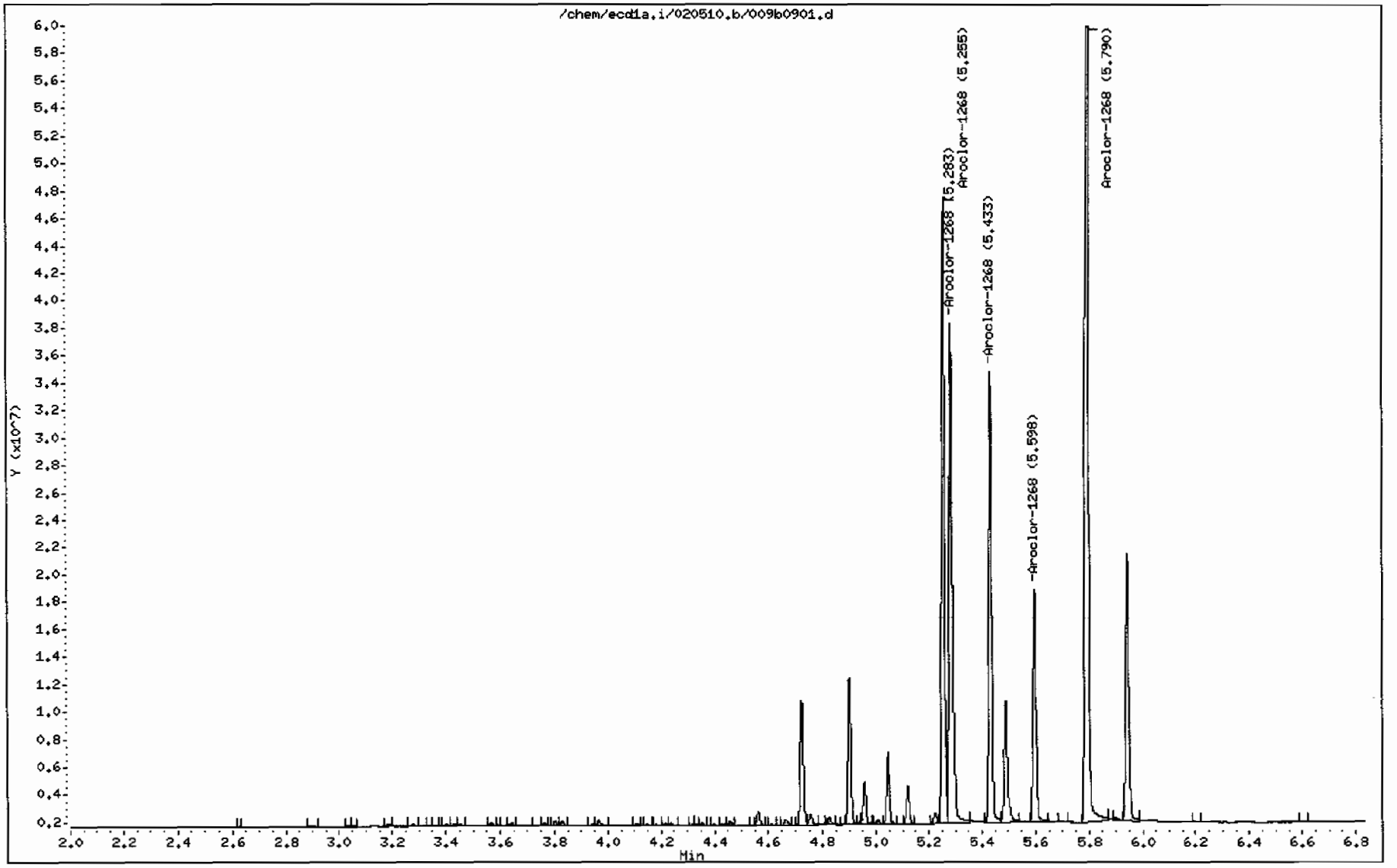

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022f2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 08-Feb-2010 09:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	40504102	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32906895	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	14089870	1000.00	961	80.00- 120.00	100.00
2.707	2.707	0.000	18254738	1000.00	996	106.82- 146.82	129.56
2.787	2.788	-0.001	11539563	1000.00	960	60.66- 100.66	81.90
2.826	2.826	0.000	6922359	1000.00	964	28.59- 68.59	49.13
3.036	3.036	0.000	8923226	1000.00	960	42.97- 82.97	63.33
Average of Peak Amounts =					968		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	19002907	1000.00	1080	80.00- 120.00	100.00(M)
3.924	3.925	-0.001	28995739	1000.00	1090	132.12- 172.12	152.59
4.154	4.155	-0.001	17302329	1000.00	1090	70.53- 110.53	91.05
4.297	4.297	0.000	18016442	1000.00	1090	75.55- 115.55	94.81
4.476	4.477	-0.001	41342662	1000.00	1110	197.21- 237.21	217.56
Average of Peak Amounts =					1.09e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/020510.b/022f2201.d
Date : 05-FEB-2010 10:51
Client ID: AR166002
Sample Info: IWAR100203-60 02
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

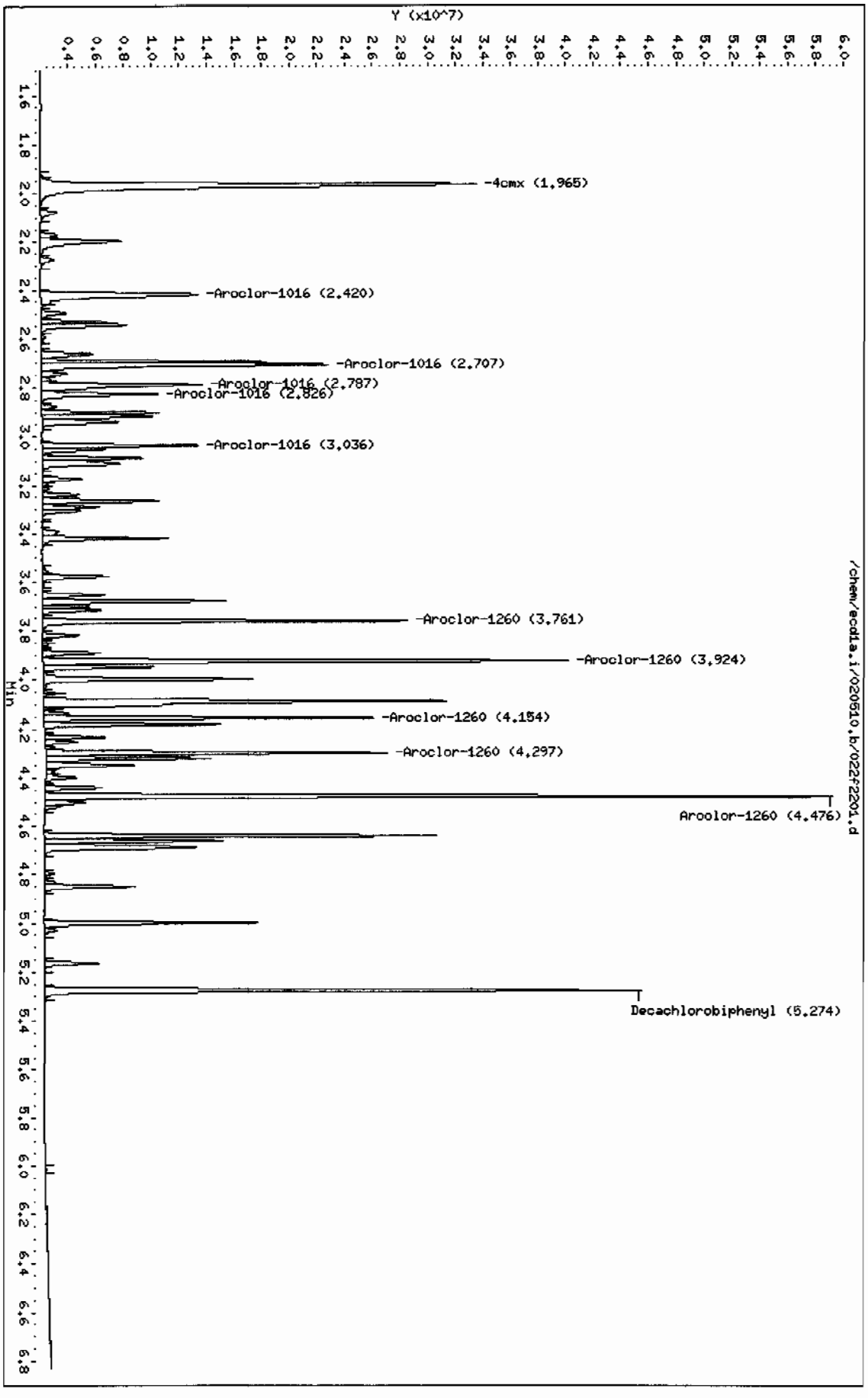

Page 1

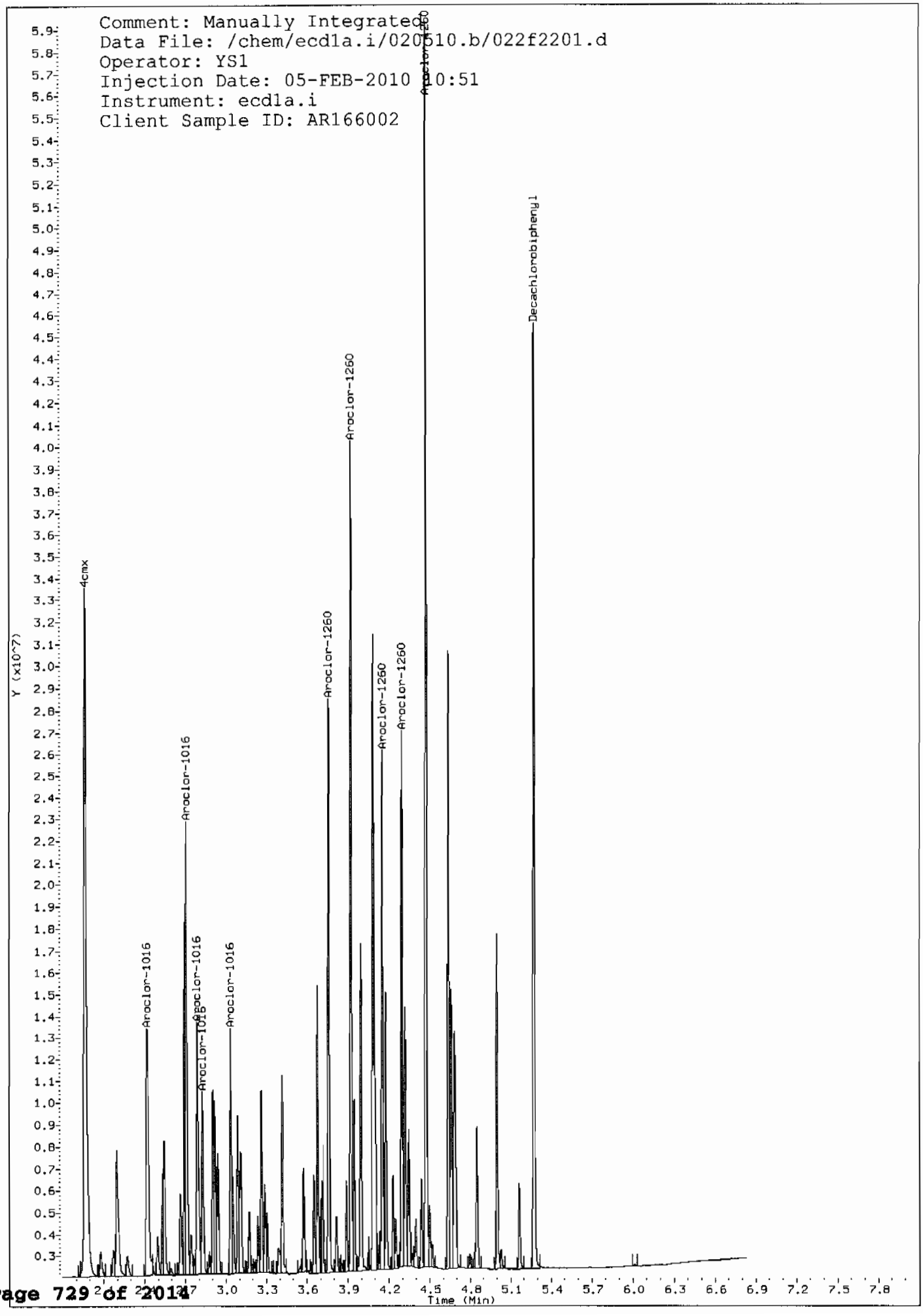
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

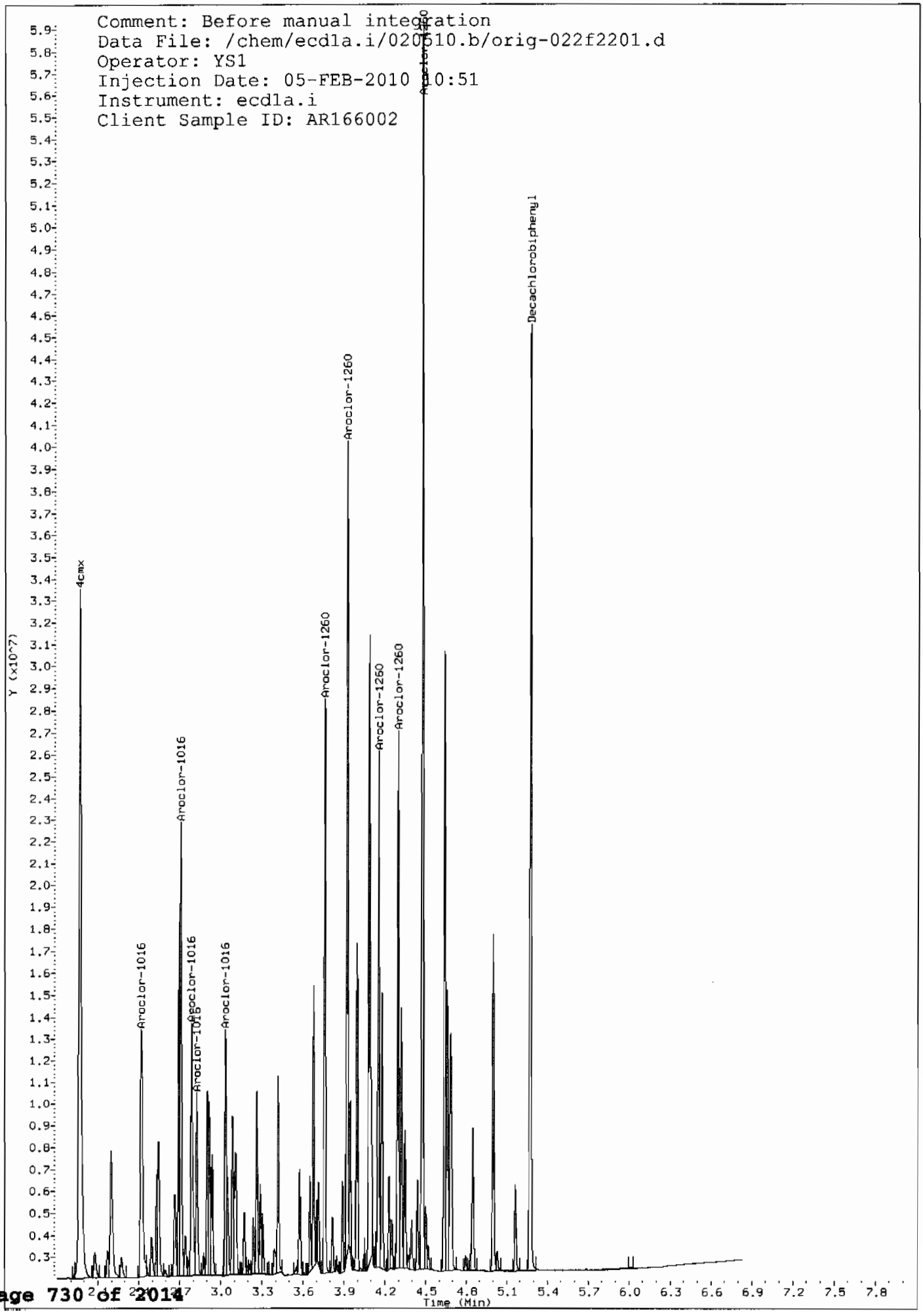
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-022f2201.d
Operator: YS1
Injection Date: 05-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/022b2201.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 05-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	28991286	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	22228765	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12553096	1000.00	1000	80.00- 120.00	100.00
3.275	3.275	0.000	8166105	1000.00	955	45.05- 85.05	65.05
3.338	3.339	-0.001	5045053	1000.00	954	20.19- 60.19	40.19
3.565	3.565	0.000	6628313	1000.00	973	32.80- 72.80	52.80
3.641	3.641	0.000	6123429	1000.00	956	28.78- 68.78	48.78
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13388385	1000.00	1060	80.00- 120.00	100.00
4.456	4.457	-0.001	16291509	1000.00	1070	101.68- 141.68	121.68
4.722	4.722	0.000	12420564	1000.00	1070	72.77- 112.77	92.77
4.896	4.896	0.000	12892265	1000.00	1070	76.29- 116.29	96.29
5.042	5.043	-0.001	28894660	1000.00	1110	195.82- 235.82	215.82
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/020510.b/022b2201.d

Date : 05-FEB-2010 10:51

Client ID: AR166002

Sample Info: IWAR100203-60 02

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

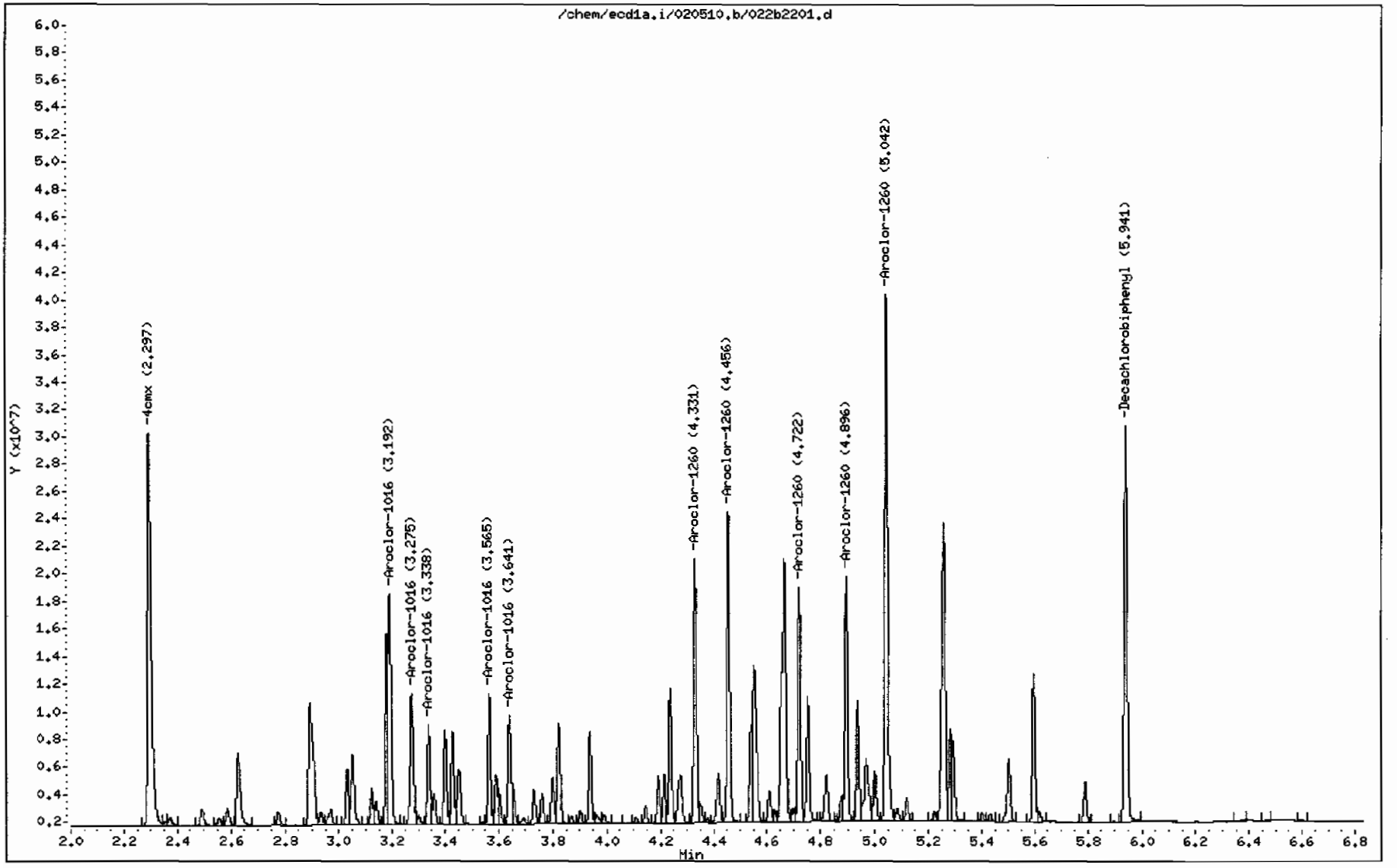

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031f3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.966	1.965	0.001	40459975	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32629917	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	14012607	1000.00	956	80.00- 120.00	100.00
2.708	2.707	0.001	18319018	1000.00	1000	110.73- 150.73	130.73
2.788	2.788	0.000	11547800	1000.00	960	62.41- 102.41	82.41
2.826	2.826	0.000	6929943	1000.00	965	29.46- 69.46	49.46
3.036	3.036	0.000	8939714	1000.00	962	43.80- 83.80	63.80
Average of Peak Amounts =					969		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	18972126	1000.00	1080	80.00- 120.00	100.00
3.924	3.925	-0.001	28835947	1000.00	1080	131.99- 171.99	151.99
4.154	4.155	-0.001	17204186	1000.00	1080	70.68- 110.68	90.68
4.297	4.297	0.000	18148577	1000.00	1100	75.66- 115.66	95.66
4.476	4.477	-0.001	41262621	1000.00	1110	197.49- 237.49	217.49
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd1a.i/020510.b/031f3101.d

Date : 05-FEB-2010 12:40

Client ID: AR166003

Sample Info: IWAR100203-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

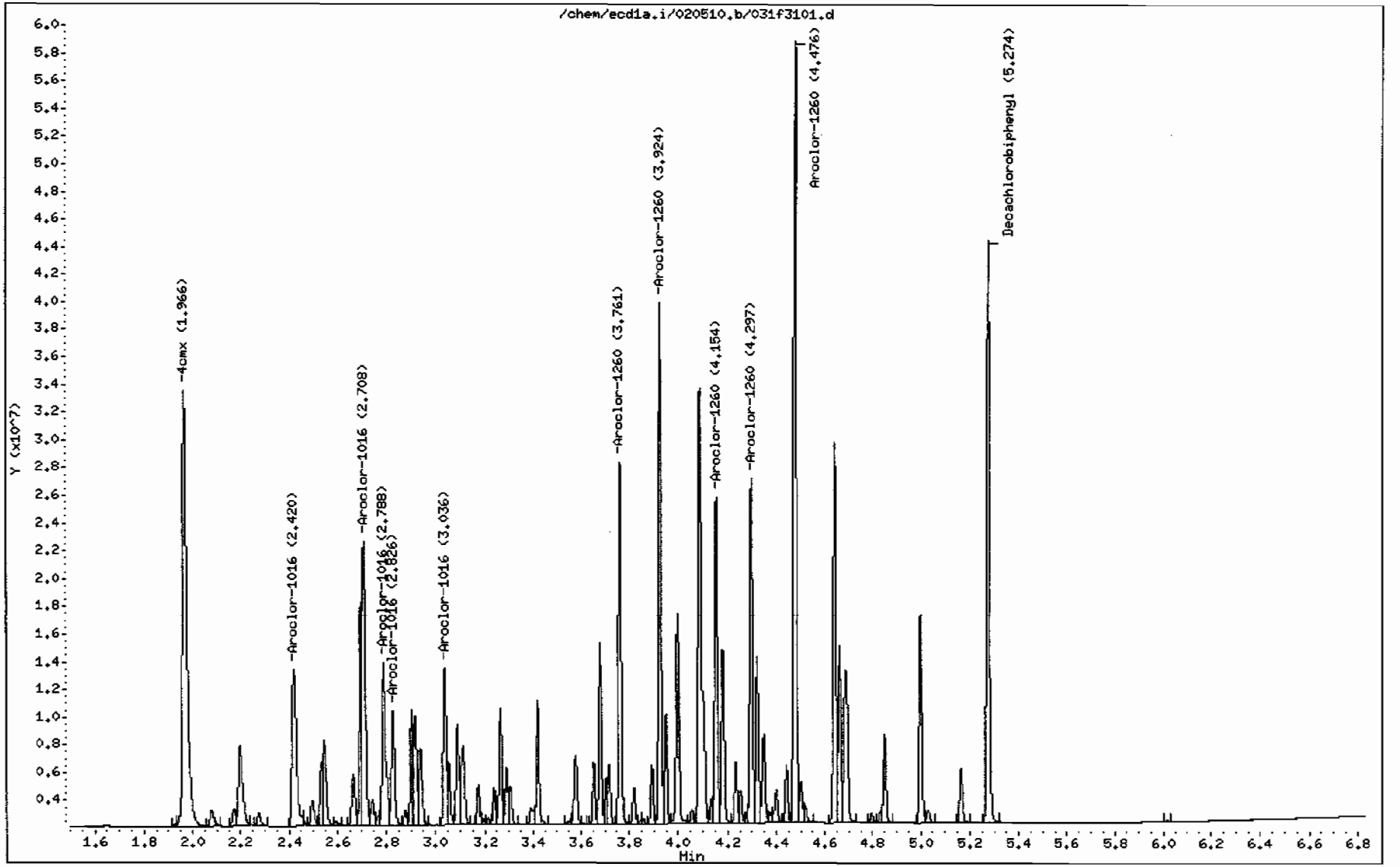

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/031b3101.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 05-FEB-2010 12:40
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 13:50 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	28690788	100.000	99.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	21926681	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12359615	1000.00	990	80.00- 120.00	100.00(M)
3.275	3.275	0.000	8069931	1000.00	944	45.29- 85.29	65.29
3.338	3.339	-0.001	4988684	1000.00	943	20.36- 60.36	40.36
3.565	3.565	0.000	6345906	1000.00	931	31.34- 71.34	51.34
3.641	3.641	0.000	6017327	1000.00	940	38.11- 78.11	58.11
Average of Peak Amounts =					950		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13242341	1000.00	1050	80.00- 120.00	100.00
4.456	4.457	-0.001	16223303	1000.00	1060	102.51- 142.51	122.51
4.722	4.722	0.000	12301397	1000.00	1060	72.89- 112.89	92.89
4.895	4.896	-0.001	12694909	1000.00	1050	75.87- 115.87	95.87
5.043	5.043	0.000	28307638	1000.00	1080	193.77- 233.77	213.77
Average of Peak Amounts =					1.06e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/031b3101.d

Date : 05-FEB-2010 12:40

Client ID: AR166003

Sample Info: |WAR100203-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

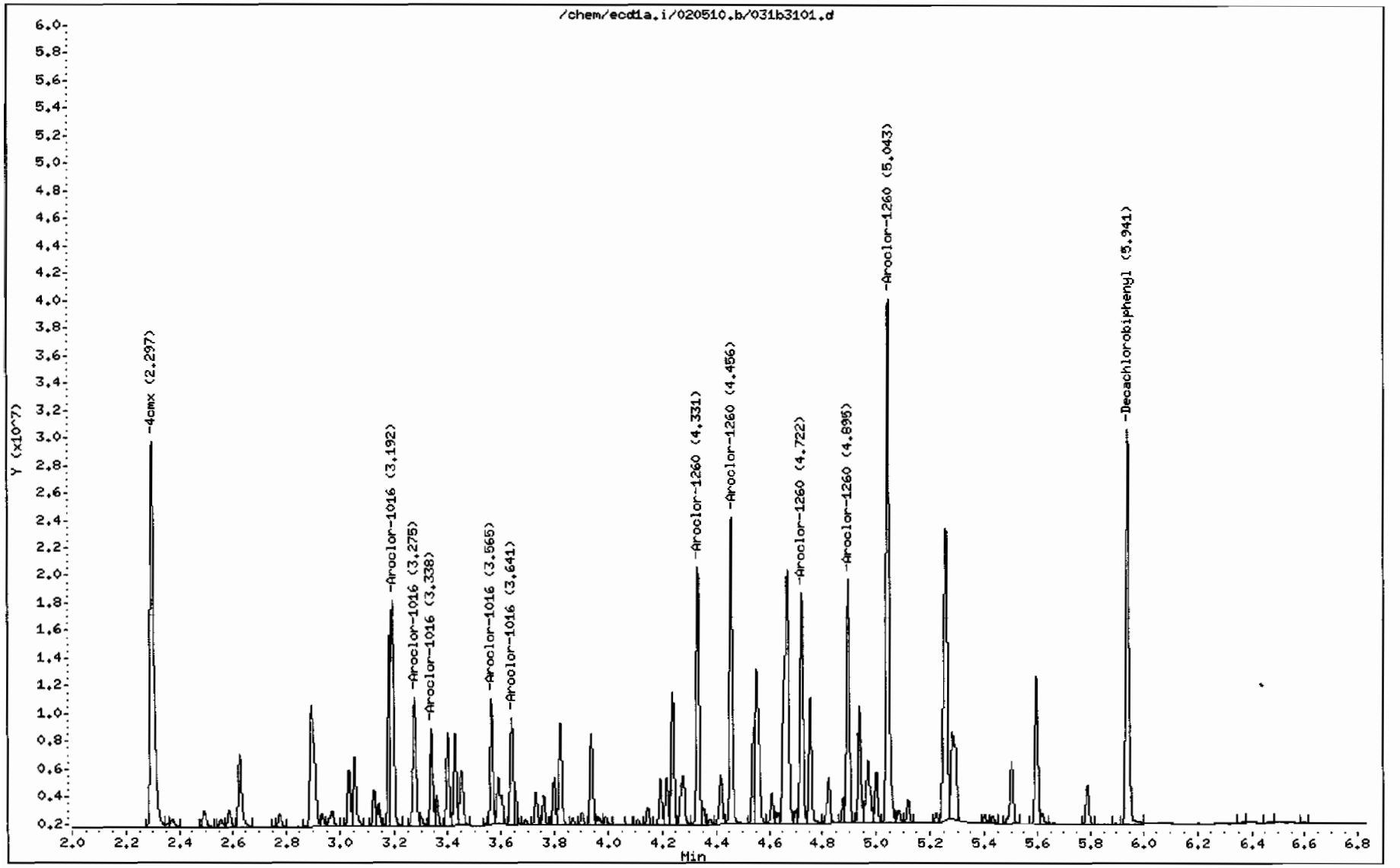

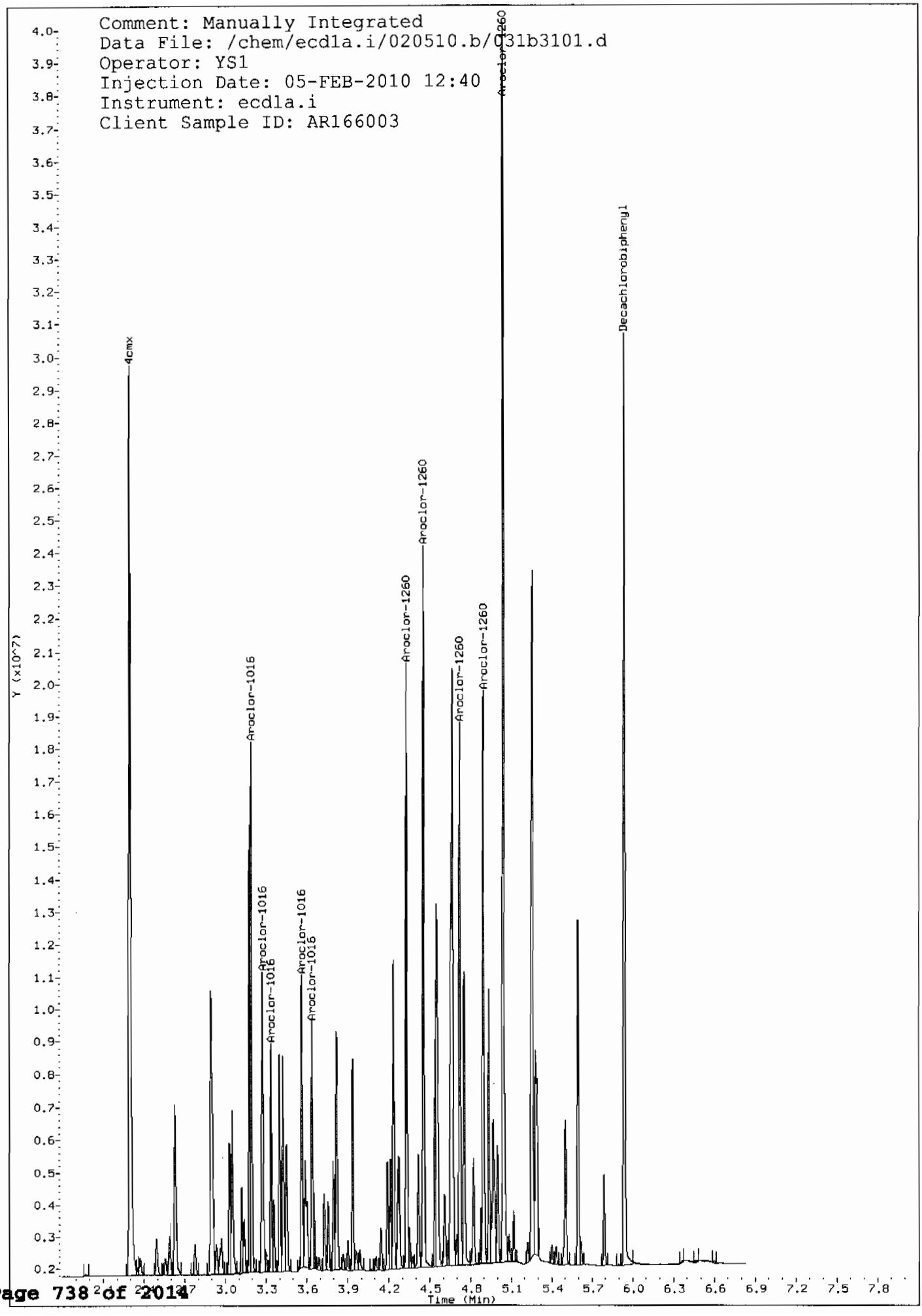
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Data File: /chem/ecd1a.i/020510.b/031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

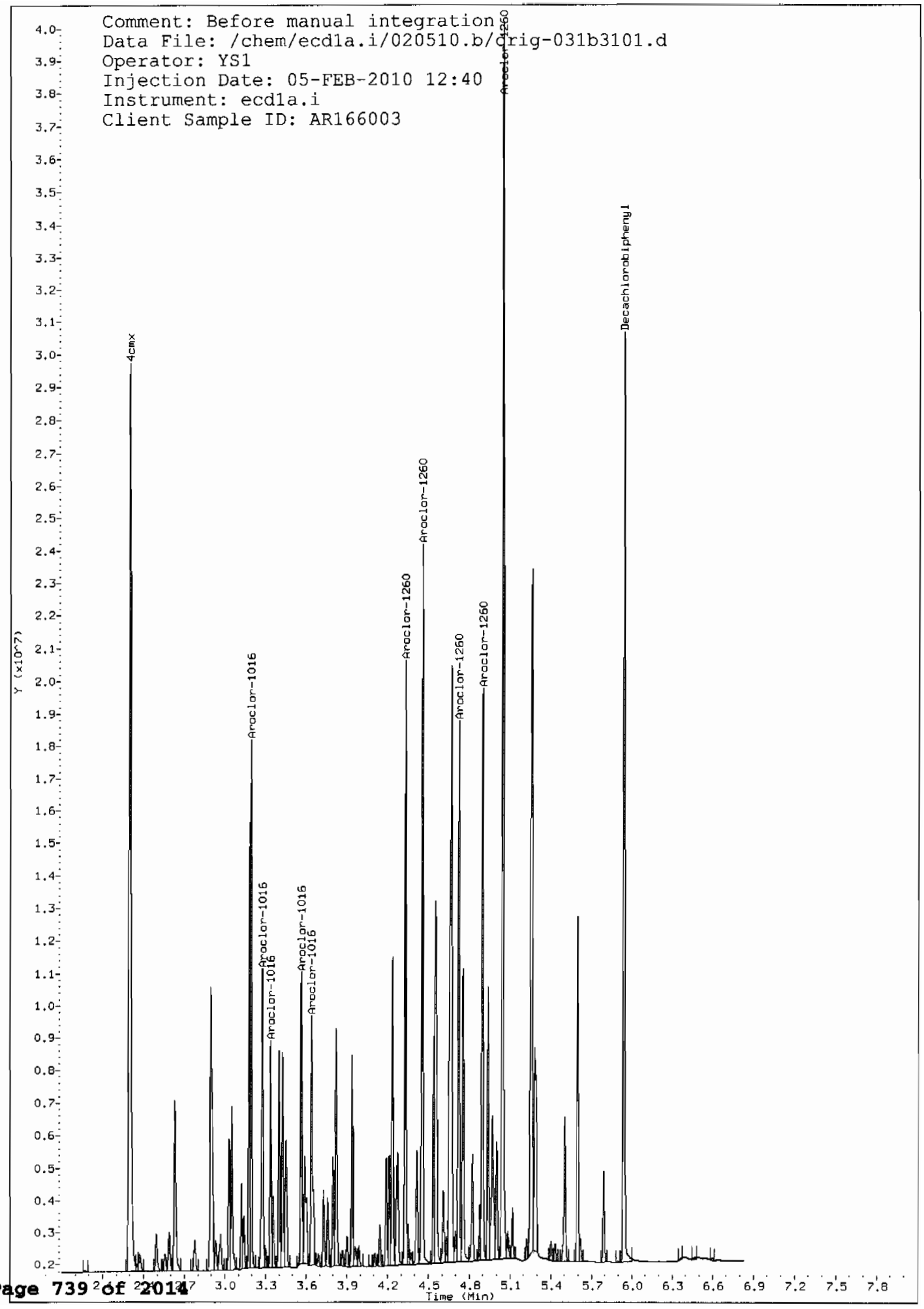
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/Crig-031b3101.d
Operator: YS1
Injection Date: 05-FEB-2010 12:40
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/038f3801.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 05-FEB-2010 14:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 14:20 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	40766994	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.275	-0.001	32659668	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.419	2.419	0.000	14172898	1000.00	967	80.00- 120.00	100.00
2.707	2.707	0.000	18691498	1000.00	1020	111.88- 151.88	131.88
2.787	2.788	-0.001	11643904	1000.00	968	62.16- 102.16	82.16
2.825	2.826	-0.001	7005692	1000.00	976	29.43- 69.43	49.43
3.035	3.036	-0.001	8940138	1000.00	962	43.08- 83.08	63.08
Average of Peak Amounts =					979		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	18974874	1000.00	1080	80.00- 120.00	100.00
3.923	3.925	-0.002	28991130	1000.00	1090	132.79- 172.79	152.79
4.153	4.155	-0.002	17263530	1000.00	1080	70.98- 110.98	90.98
4.297	4.297	0.000	18206068	1000.00	1100	75.95- 115.95	95.95
4.476	4.477	-0.001	41419819	1000.00	1120	198.29- 238.29	218.29
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd1a.i/020510.b/038f3801.d
Date : 05-FEB-2010 14:05
Client ID: AR166004
Sample Info: IWAR100203-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

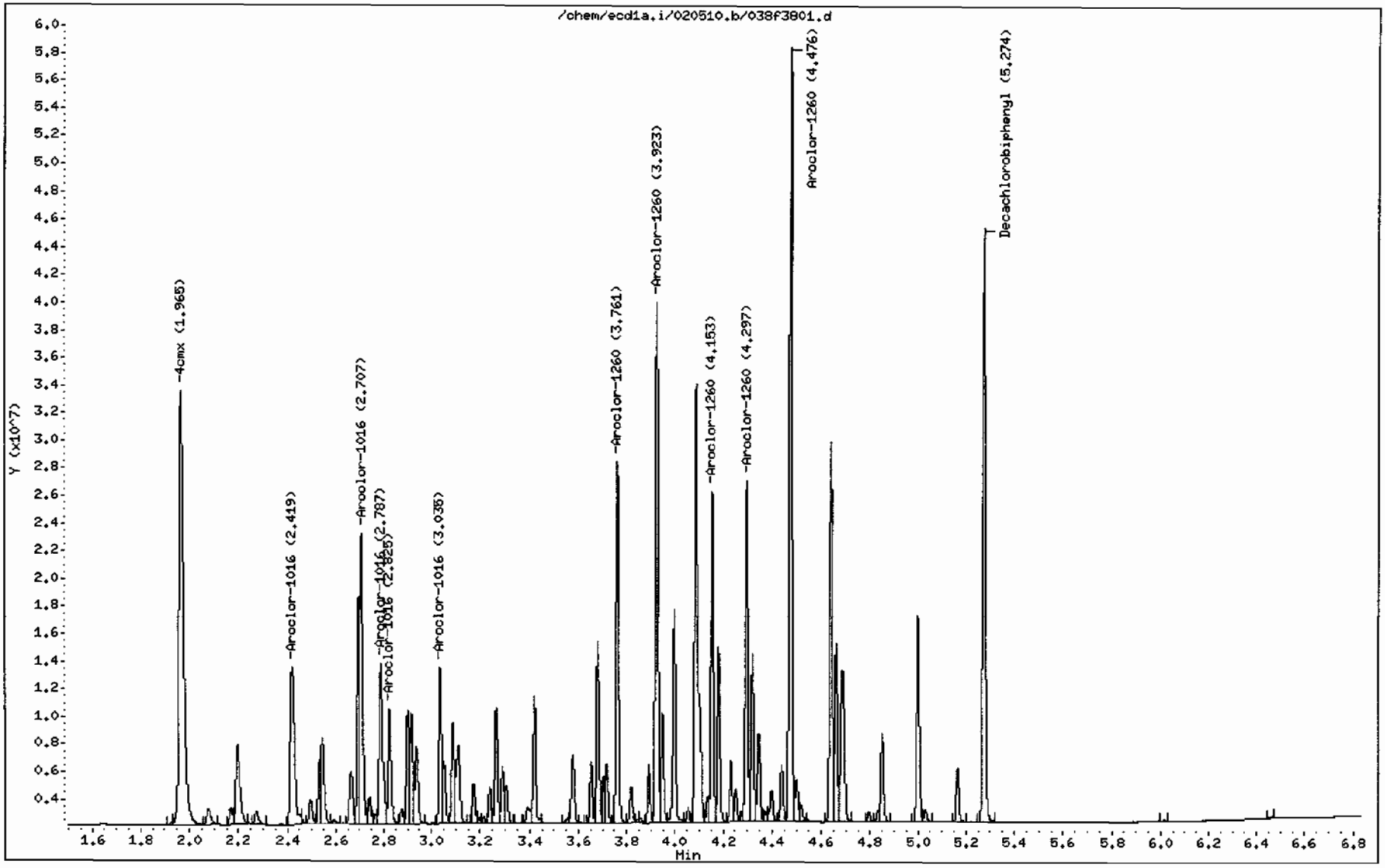

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/038b3801.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 05-FEB-2010 14:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 14:20 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.296	2.296	0.000	28826296	100.000	100	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.942	-0.001	22290140	100.000	102	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	12213804	1000.00	978	80.00- 120.00	100.00(M)
3.274	3.275	-0.001	8148079	1000.00	953	46.71- 86.71	66.71
3.337	3.339	-0.002	5044334	1000.00	953	21.30- 61.30	41.30
3.564	3.565	-0.001	6398182	1000.00	939	32.38- 72.38	52.38
3.640	3.641	-0.001	5872077	1000.00	917	28.08- 68.08	48.08
Average of Peak Amounts =					948		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.332	-0.001	13353624	1000.00	1060	80.00- 120.00	100.00
4.456	4.457	-0.001	16258936	1000.00	1070	101.76- 141.76	121.76
4.722	4.722	0.000	12402697	1000.00	1060	72.88- 112.88	92.88
4.895	4.896	-0.001	12828373	1000.00	1060	76.07- 116.07	96.07
5.042	5.043	-0.001	28683670	1000.00	1100	194.80- 234.80	214.80
Average of Peak Amounts =					1.07e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/020510.b/038b3801.d
Date : 05-FEB-2010 14:05
Client ID: AR166004
Sample Info: IWAR100203-60 04
Column phase: CLP2

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

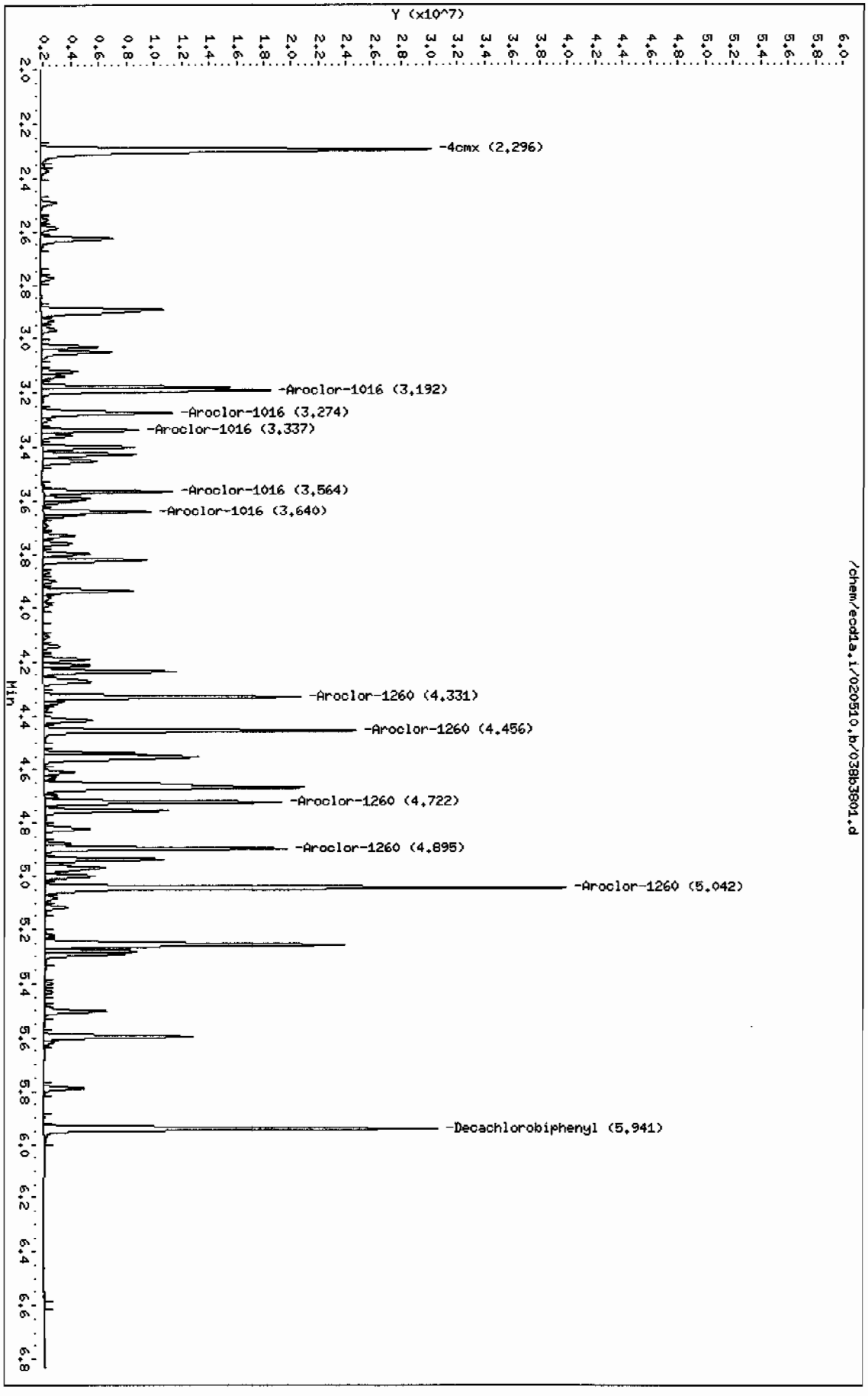

Page 1

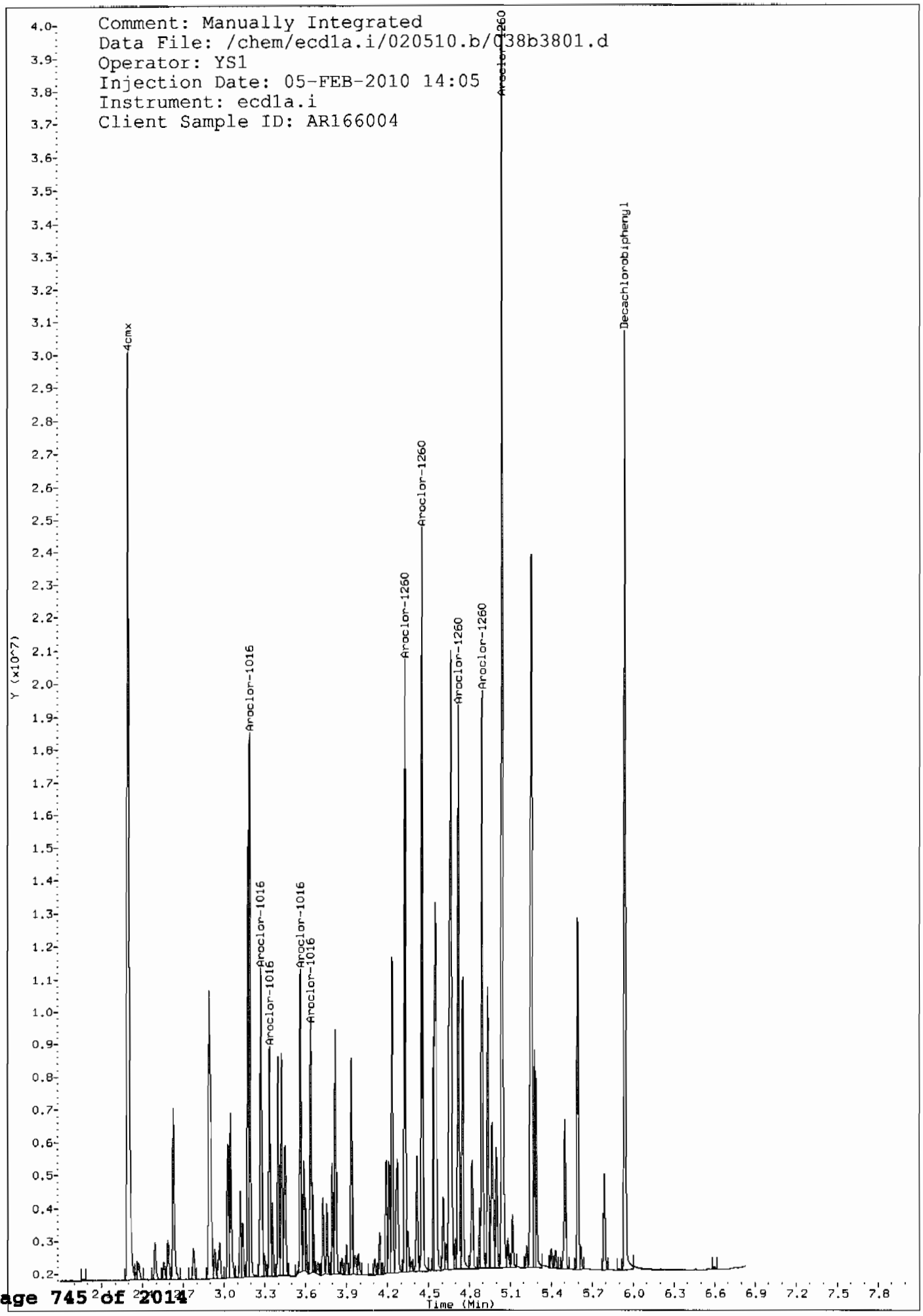
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/038b3801.d
Operator: YS1
Injection Date: 05-FEB-2010 14:05
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

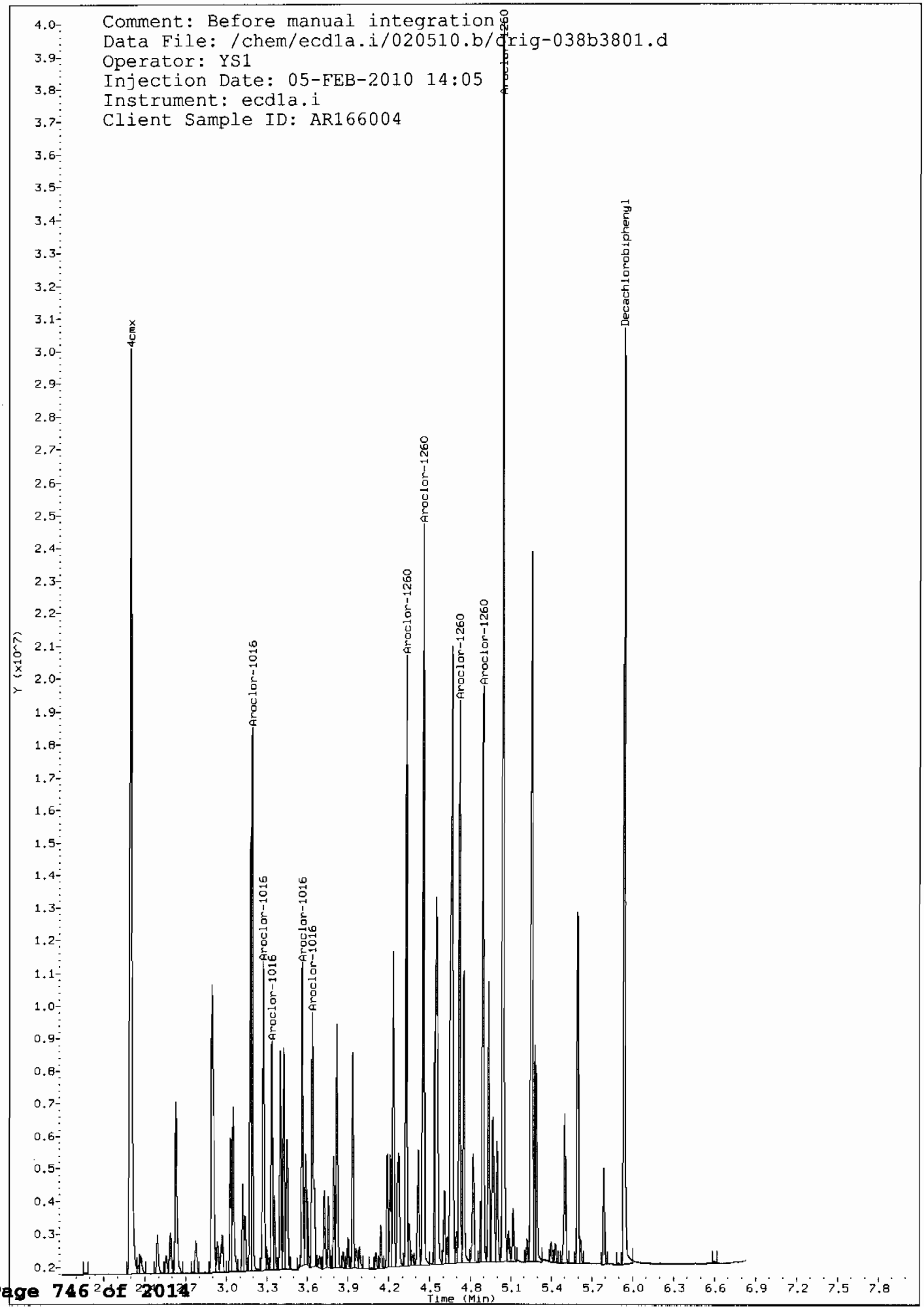
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-038b3801.d
Operator: YS1
Injection Date: 05-FEB-2010 14:05
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 10-FEB-2010 13:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 15:35 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	42839718	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.278	5.278	0.000	31472632	100.000	97.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.418	0.000	14776276	1000.00	1010	80.00- 120.00	100.00
2.706	2.706	0.000	19013407	1000.00	1040	108.68- 148.68	128.68
2.787	2.787	0.000	12098803	1000.00	1010	61.88- 101.88	81.88
2.825	2.825	0.000	7274798	1000.00	1010	29.23- 69.23	49.23
3.036	3.036	0.000	9316562	1000.00	1000	43.05- 83.05	63.05
Average of Peak Amounts =					1.01e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.762	3.762	0.000	19413372	1000.00	1100	80.00- 120.00	100.00
3.926	3.926	0.000	29174461	1000.00	1090	130.28- 170.28	150.28
4.156	4.156	0.000	17296559	1000.00	1090	69.10- 109.10	89.10
4.299	4.299	0.000	18262384	1000.00	1100	74.07- 114.07	94.07
4.478	4.478	0.000	40605322	1000.00	1090	189.16- 229.16	209.16
Average of Peak Amounts =					1.1e+03		

Data File: /chem/ecd1a.i/021010b.b/002f0201.d
Date : 10-FEB-2010 13:05
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

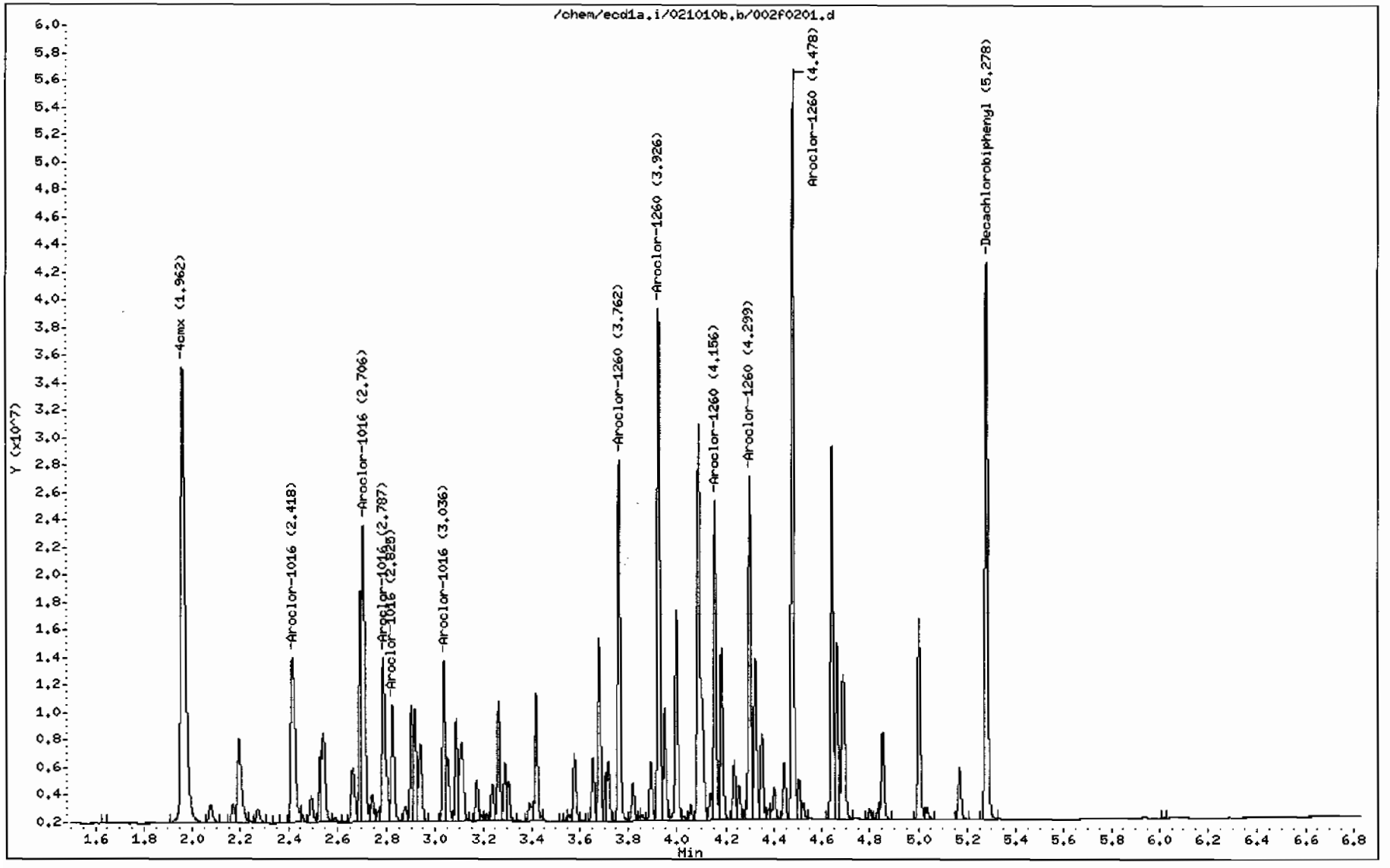

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 10-FEB-2010 13:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	27449570	100.000	95.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.943	0.000	19812056	100.000	91.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.191	3.191	0.000	11735725	1000.00	940	80.00- 120.00	100.00
3.274	3.274	0.000	7689432	1000.00	900	45.52- 85.52	65.52
3.337	3.337	0.000	4730507	1000.00	894	20.31- 60.31	40.31
3.565	3.565	0.000	6232074	1000.00	915	33.10- 73.10	53.10
3.640	3.640	0.000	5765135	1000.00	900	29.12- 69.12	49.12
Average of Peak Amounts =					910		
7 Aroclor-1260					CAS #: 11096-82-5		
4.331	4.331	0.000	12439224	1000.00	984	80.00- 120.00	100.00
4.457	4.457	0.000	15036431	1000.00	988	100.88- 140.88	120.88
4.723	4.723	0.000	11433819	1000.00	981	71.92- 111.92	91.92
4.896	4.896	0.000	11827307	1000.00	981	75.08- 115.08	95.08
5.044	5.044	0.000	26195852	1000.00	1000	190.59- 230.59	210.59
Average of Peak Amounts =					988		

Data File: /chem/ecd1a.i/021010b.b/002b0201.d

Date : 10-FEB-2010 13:05

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

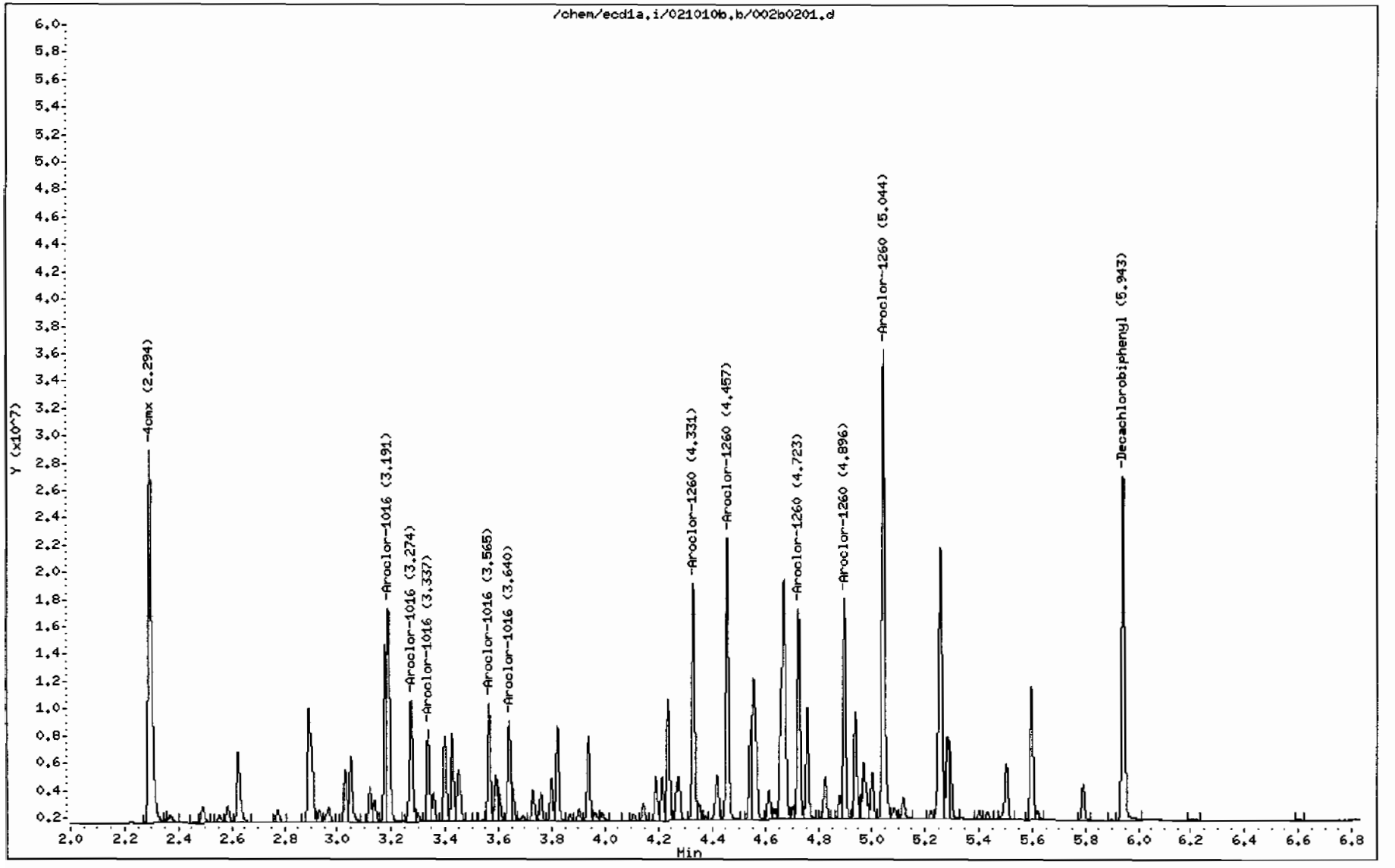

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 10-FEB-2010 13:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.264	3.264	0.000	14862120	1000.00	942	80.00- 120.00	100.00
3.419	3.419	0.000	19889004	1000.00	932	113.82- 153.82	133.82
3.653	3.653	0.000	26256931	1000.00	963	156.67- 196.67	176.67
3.816	3.816	0.000	19806466	1000.00	960	113.27- 153.27	133.27
3.925	3.925	0.000	18999823	1000.00	970	107.84- 147.84	127.84
		Average of Peak Amounts =			953		

Data File: /chem/ecd1a.i/021010b.b/003f0301.d

Date : 10-FEB-2010 13:16

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

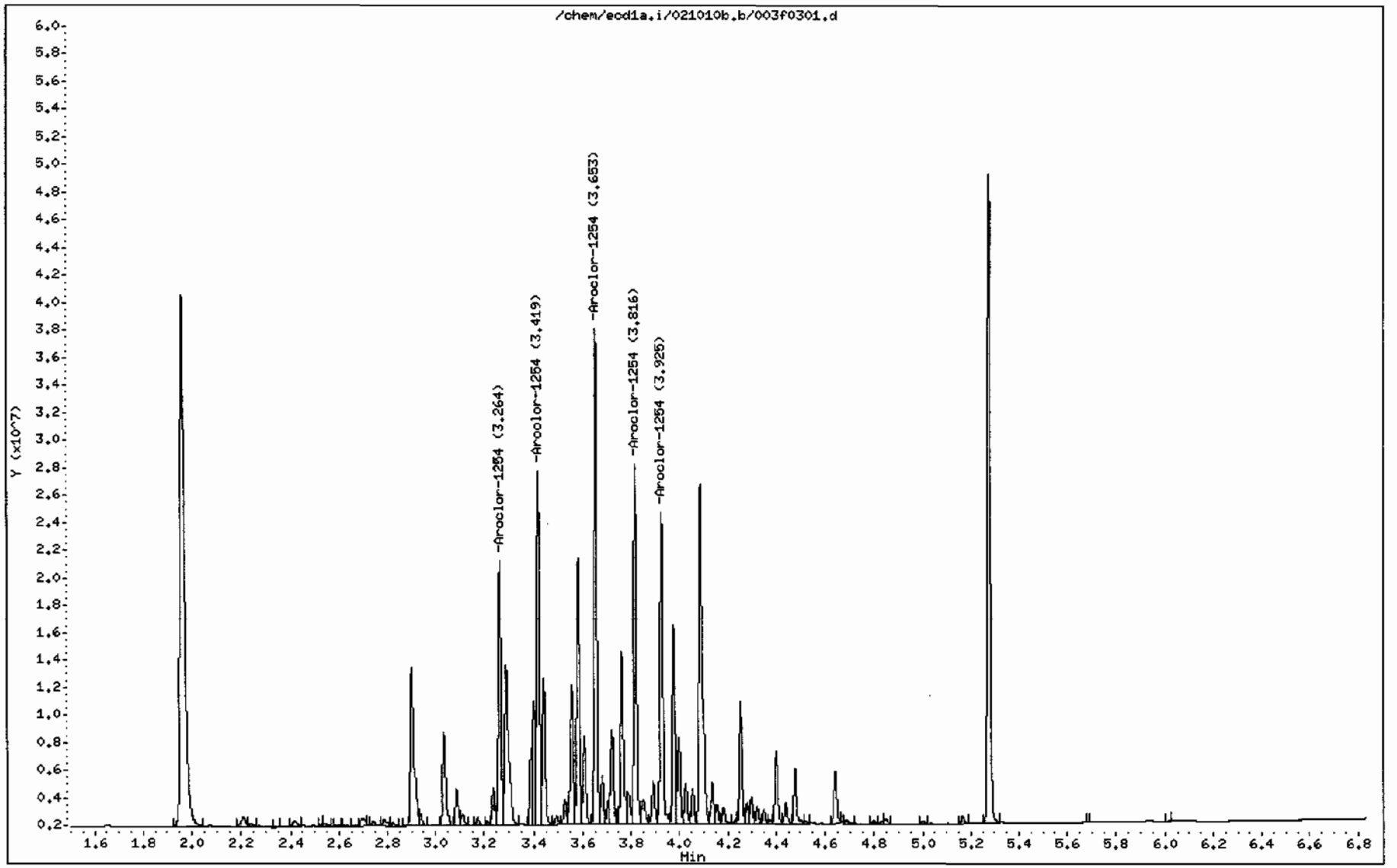

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 10-FEB-2010 13:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.399	3.399	0.000	6134221	1000.00	925	80.00- 120.00	100.00
3.821	3.821	0.000	10370414	1000.00	886	149.06- 189.06	169.06
3.938	3.938	0.000	12132656	1000.00	941	177.79- 217.79	197.79
4.215	4.215	0.000	16880562	1000.00	954	255.19- 295.19	275.19
4.351	4.351	0.000	12485538	1000.00	947	183.54- 223.54	203.54
Average of Peak Amounts =					931		

Data File: /chem/ecd1a.i/021010b.b/003b0301.d

Date : 10-FEB-2010 13:16

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

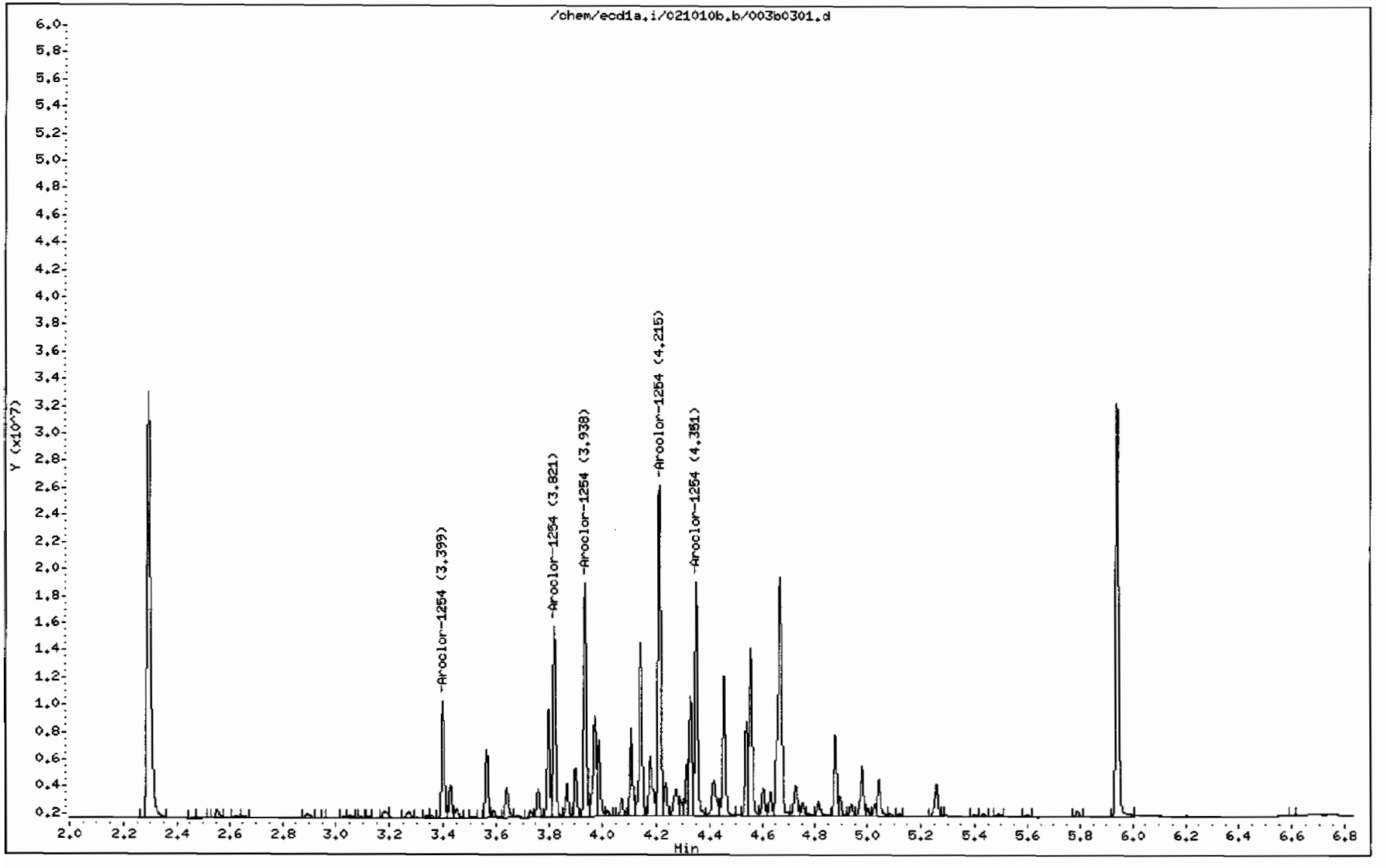

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 10-FEB-2010 13:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.417	2.417	0.000	12604061	1000.00	1080	80.00- 120.00	100.00
2.706	2.706	0.000	15477446	1000.00	1150	102.80- 142.80	122.80
2.825	2.825	0.000	6033090	1000.00	1100	27.87- 67.87	47.87
3.035	3.035	0.000	7942384	1000.00	1100	43.01- 83.01	63.01
3.289	3.289	0.000	7572953	1000.00	1110	40.08- 80.08	60.08

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/021010b.b/004f0401.d
Date : 10-FEB-2010 13:27
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

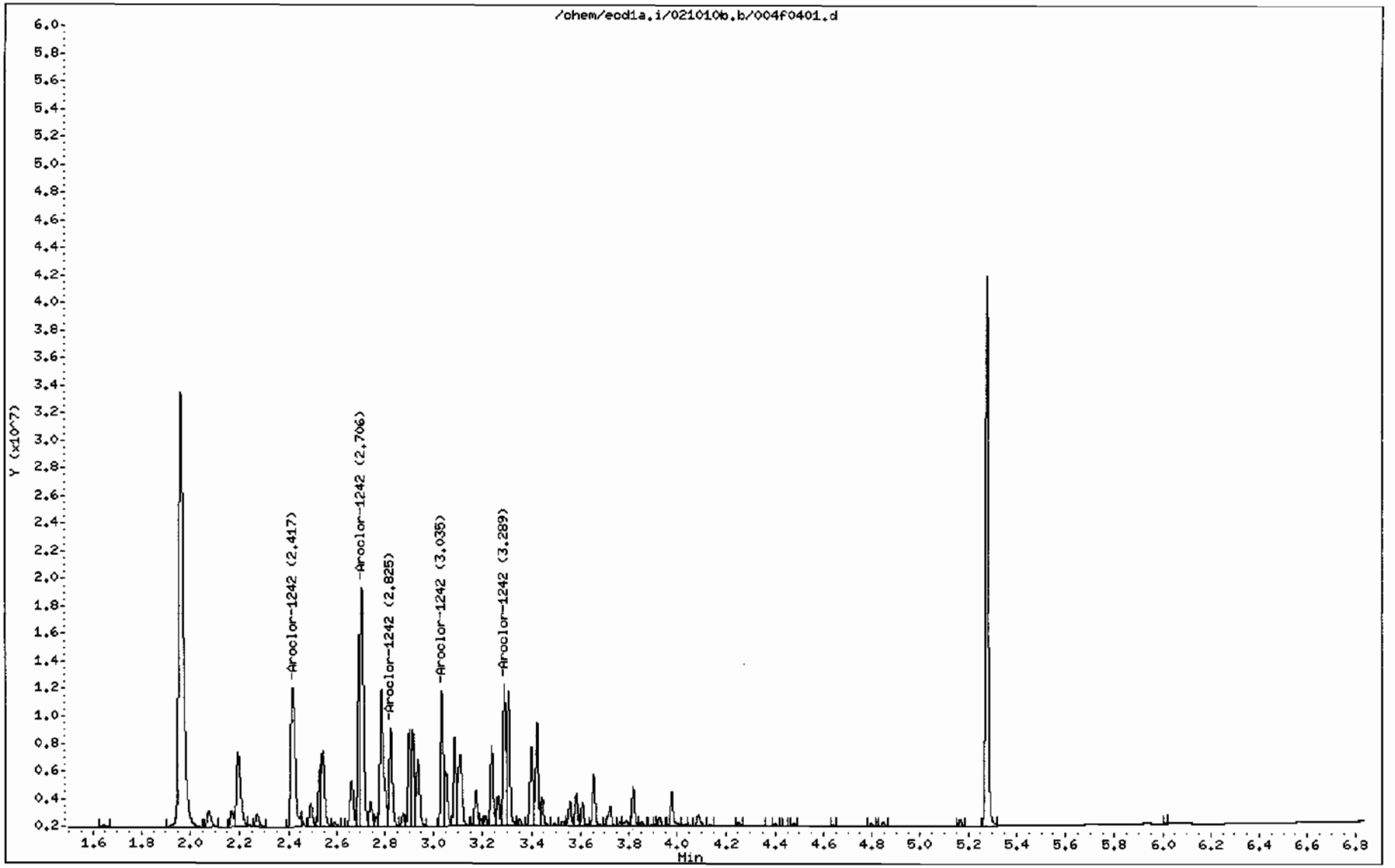

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 10-FEB-2010 13:27
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 14:03 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.191	3.191	0.000	9856923	1000.00	931	80.00- 120.00	100.00
3.274	3.274	0.000	6476461	1000.00	804	45.70- 85.70	65.70
3.565	3.565	0.000	5071271	1000.00	850	31.45- 71.45	51.45
3.799	3.799	0.000	5198330	1000.00	858	32.74- 72.74	52.74
3.826	3.826	0.000	5799878	1000.00	865	38.84- 78.84	58.84
		Average of Peak Amounts =			862		

Data File: /chem/ecd1a.i/021010b.b/004b0401.d

Date : 10-FEB-2010 13:27

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

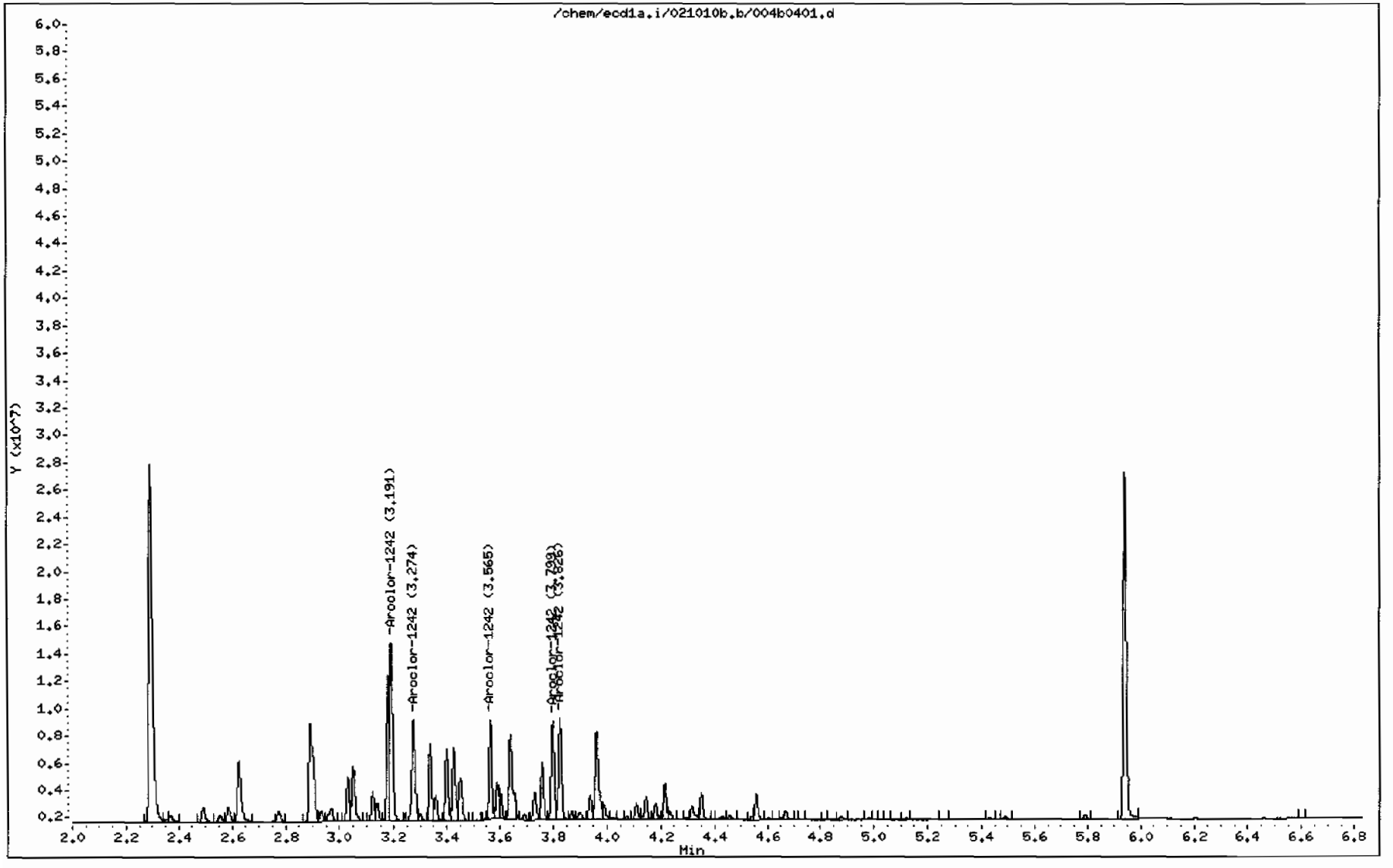

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/021010b.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 10-FEB-2010 13:37
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecdla.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.087	3.087	0.000	9646914	1000.00	1230	80.00- 120.00	100.00
3.238	3.238	0.000	8327596	1000.00	1210	66.32- 106.32	86.32
3.289	3.289	0.000	16249593	1000.00	1220	148.44- 188.44	168.44
3.421	3.421	0.000	13232365	1000.00	1200	117.17- 157.17	137.17
3.654	3.654	0.000	8607374	1000.00	1150	69.22- 109.22	89.22

Average of Peak Amounts = 1.2e+03

Data File: /chem/ecd1a.i/021010b.b/005f0501.d
Date : 10-FEB-2010 13:37
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

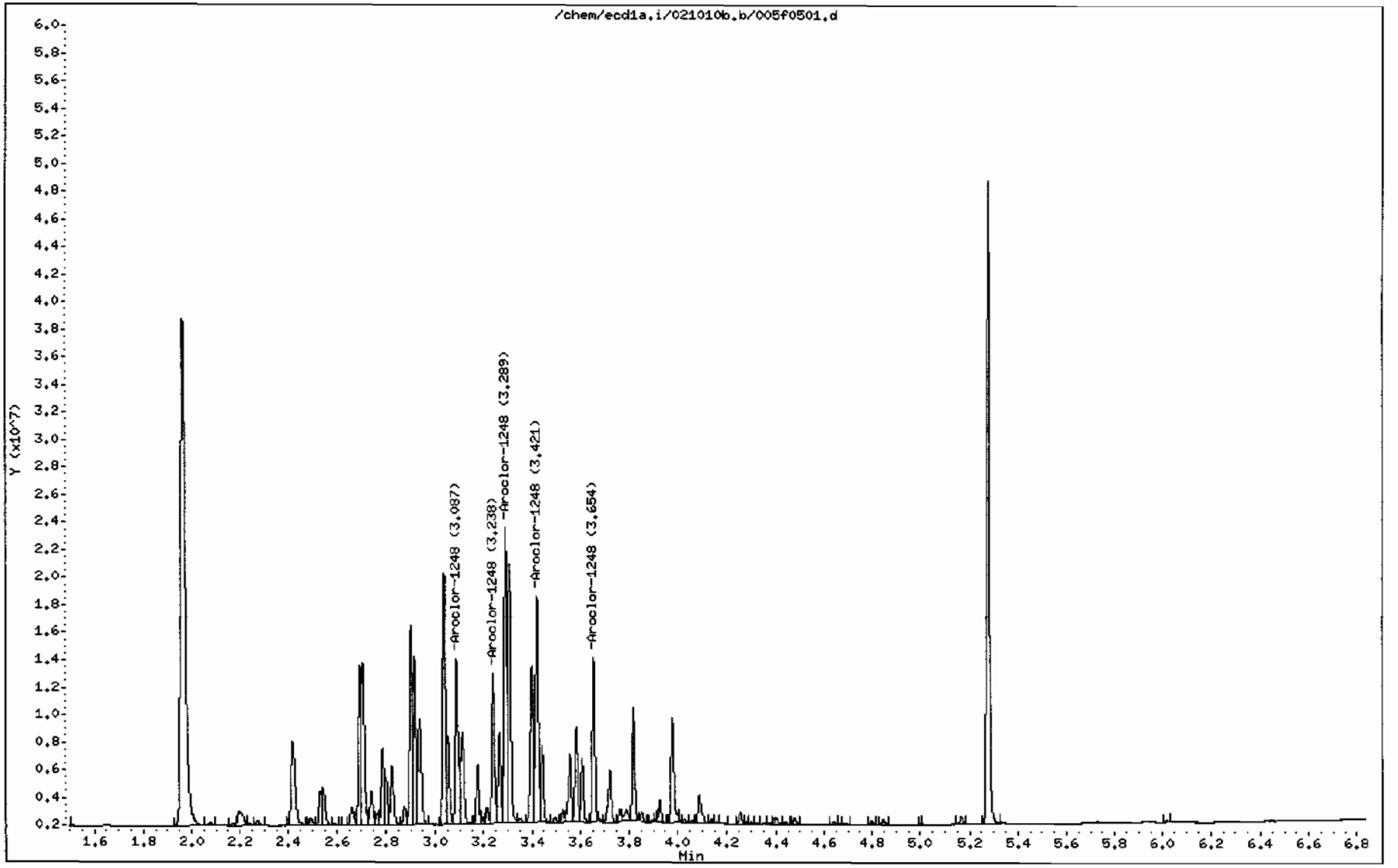

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 10-FEB-2010 13:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 13:51 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.399	3.399	0.000	7590613	1000.00	942	80.00- 120.00	100.00
3.565	3.565	0.000	9535062	1000.00	966	105.62- 145.62	125.62
3.799	3.799	0.000	10944029	1000.00	975	124.18- 164.18	144.18
3.826	3.826	0.000	12182625	1000.00	976	140.50- 180.50	160.50
3.964	3.964	0.000	11735967	1000.00	970	134.61- 174.61	154.61
		Average of Peak Amounts			966		

Data File: /chem/ecd1a.i/021010b.b/005b0501.d

Date : 10-FEB-2010 13:37

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

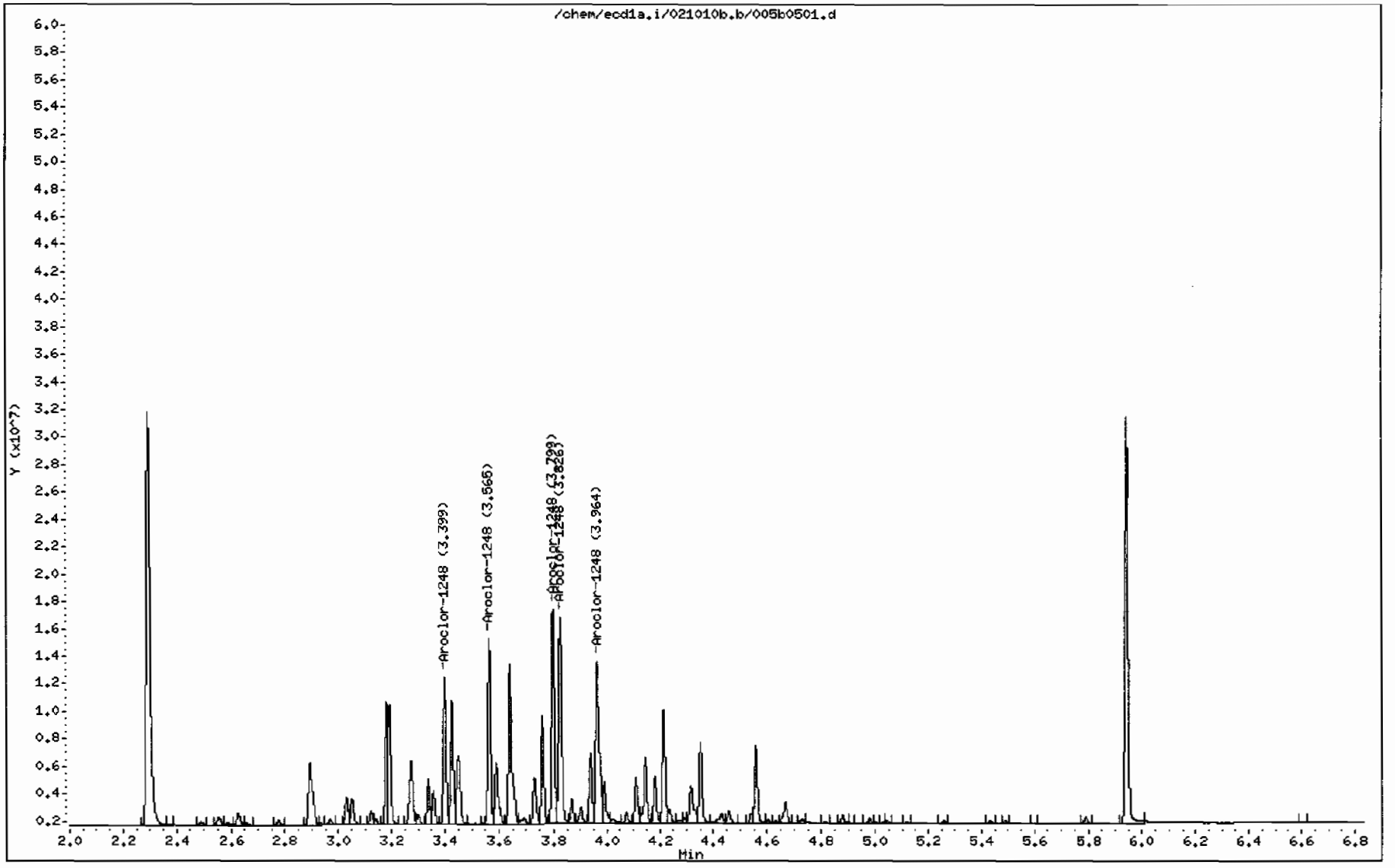

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 10-FEB-2010 14:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 11-Feb-2010 07:52 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 76 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.421	2.421	0.000	7498432	1000.00	1090	80.00- 120.00	100.00
2.710	2.710	0.000	9847806	1000.00	1170	111.33- 151.33	131.33
2.791	2.791	0.000	6307812	1000.00	1120	64.12- 104.12	84.12
3.040	3.040	0.000	4621432	1000.00	1160	41.63- 81.63	61.63
3.295	3.295	0.000	4258058	1000.00	1100	36.79- 76.79	56.79

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/021010b.b/006f0601.d

Date : 10-FEB-2010 14:01

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

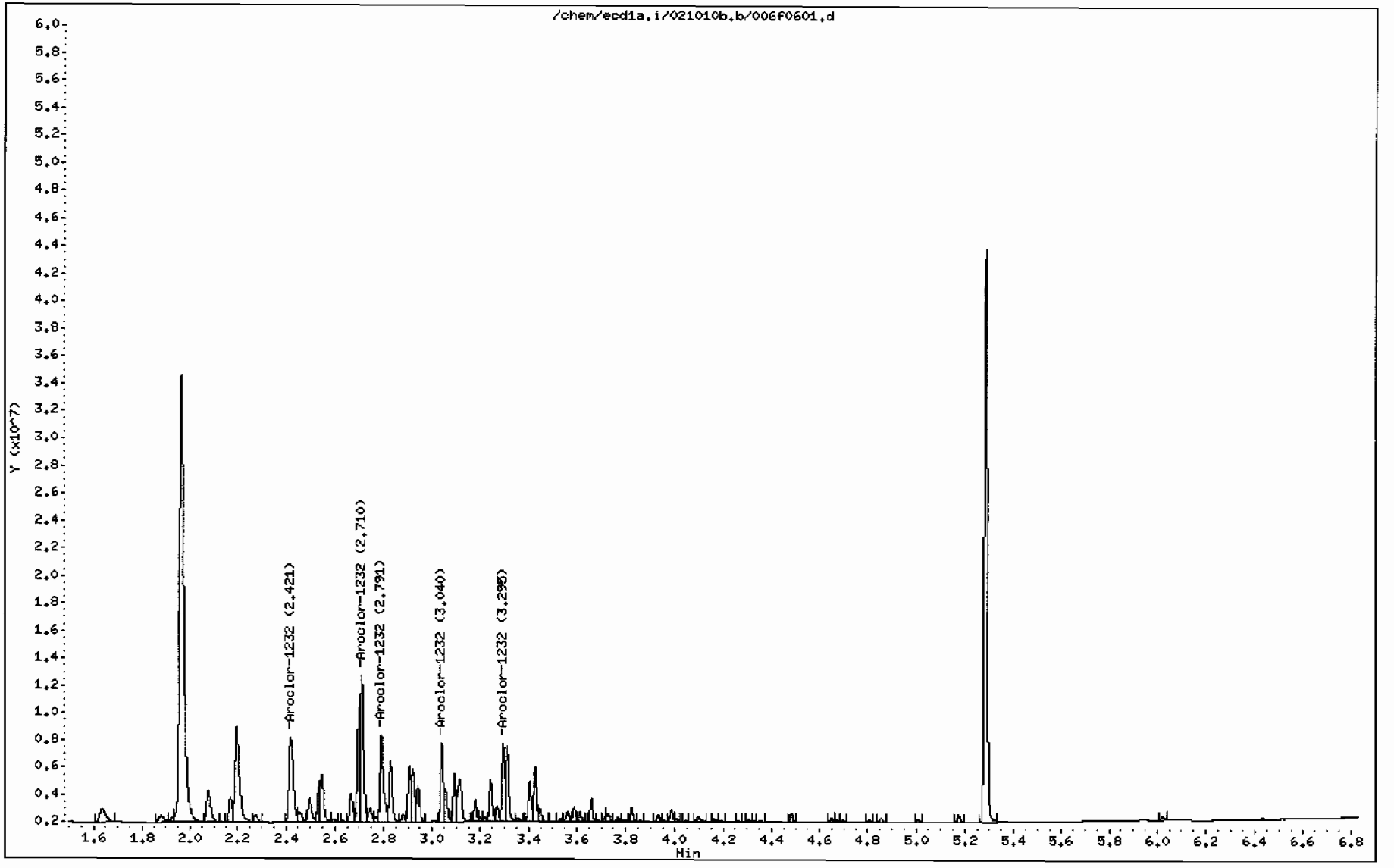

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 10-FEB-2010 14:01
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 15:12 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 76 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.895	2.895	0.000	5415236	1000.00	919	80.00- 120.00	100.00
3.194	3.194	0.000	5934560	1000.00	954	89.59- 129.59	109.59
3.277	3.277	0.000	4101022	1000.00	944	55.73- 95.73	75.73
3.568	3.568	0.000	3049355	1000.00	980	36.31- 76.31	56.31
3.802	3.802	0.000	2969250	1000.00	930	34.83- 74.83	54.83
Average of Peak Amounts =					945		

Data File: /chem/ecd1a.i/021010b.b/006b0601.d
Date : 10-FEB-2010 14:01
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

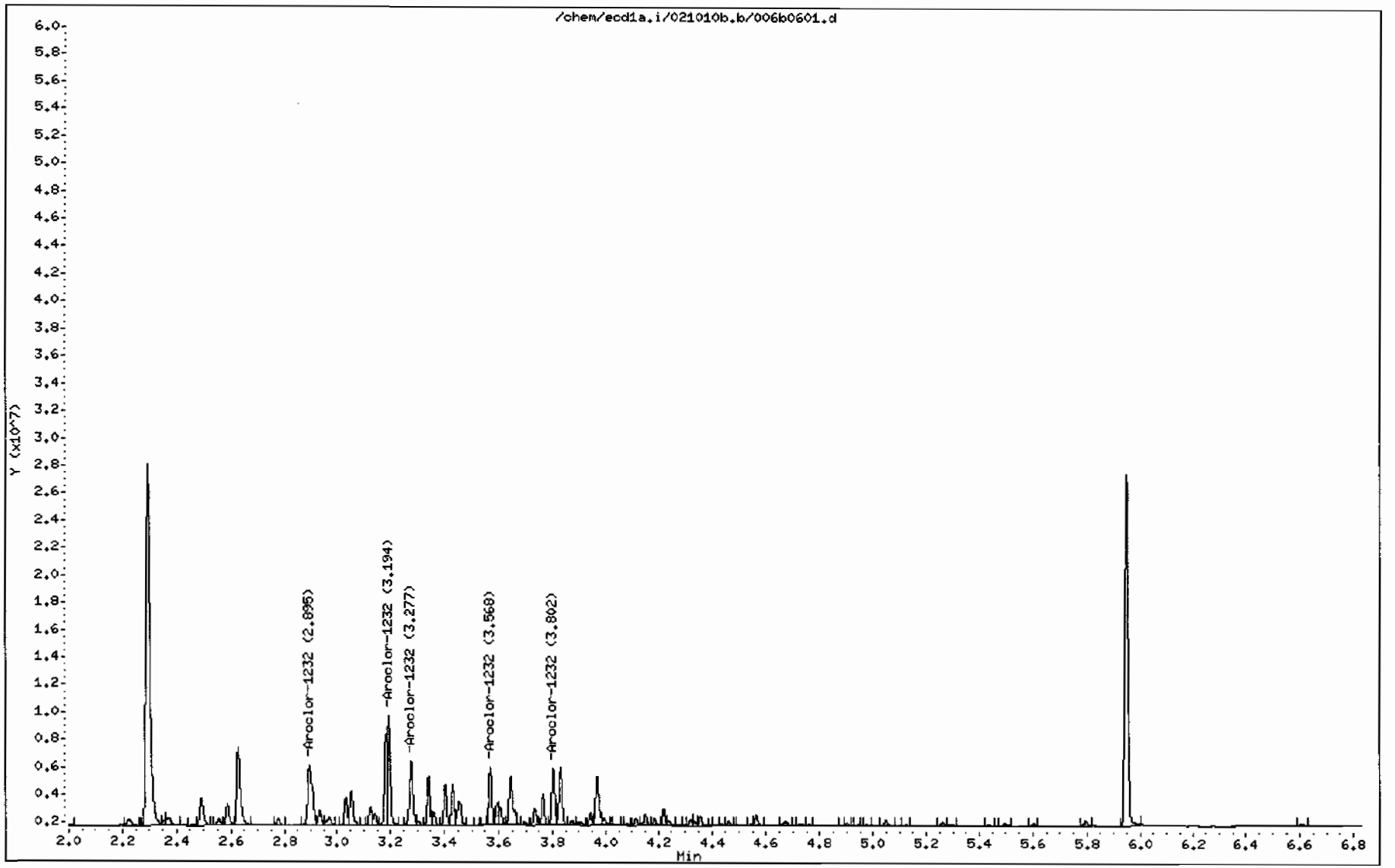

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 10-FEB-2010 14:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 15:15 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.076	2.076	0.000	4915893	1000.00	1140	80.00- 120.00	100.00
2.169	2.169	0.000	2675476	1000.00	1100	34.43- 74.43	54.43
2.195	2.195	0.000	11790911	1000.00	1150	219.85- 259.85	239.85

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd1a.i/021010b.b/007f0701.d

Date : 10-FEB-2010 14:11

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

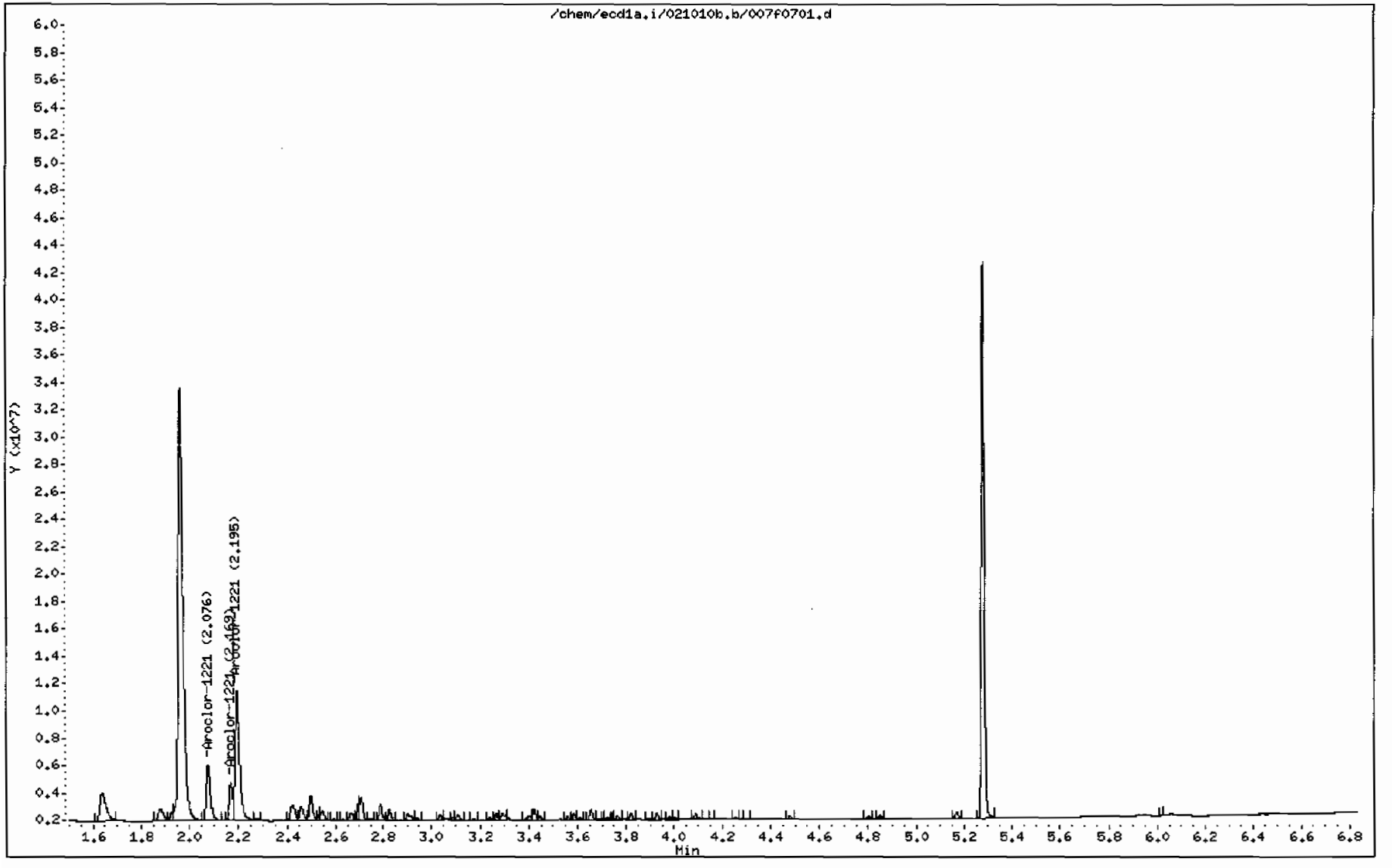

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 10-FEB-2010 14:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 15:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.491	2.491	0.000	3548255	1000.00	975	80.00- 120.00	100.00
2.586	2.586	0.000	2188828	1000.00	940	41.69- 81.69	61.69
2.626	2.626	0.000	7418216	1000.00	914	189.07- 229.07	209.07
Average of Peak Amounts =					943		

Data File: /chem/ecd1a.i/021010b.b/007b0701.d

Date : 10-FEB-2010 14:11

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

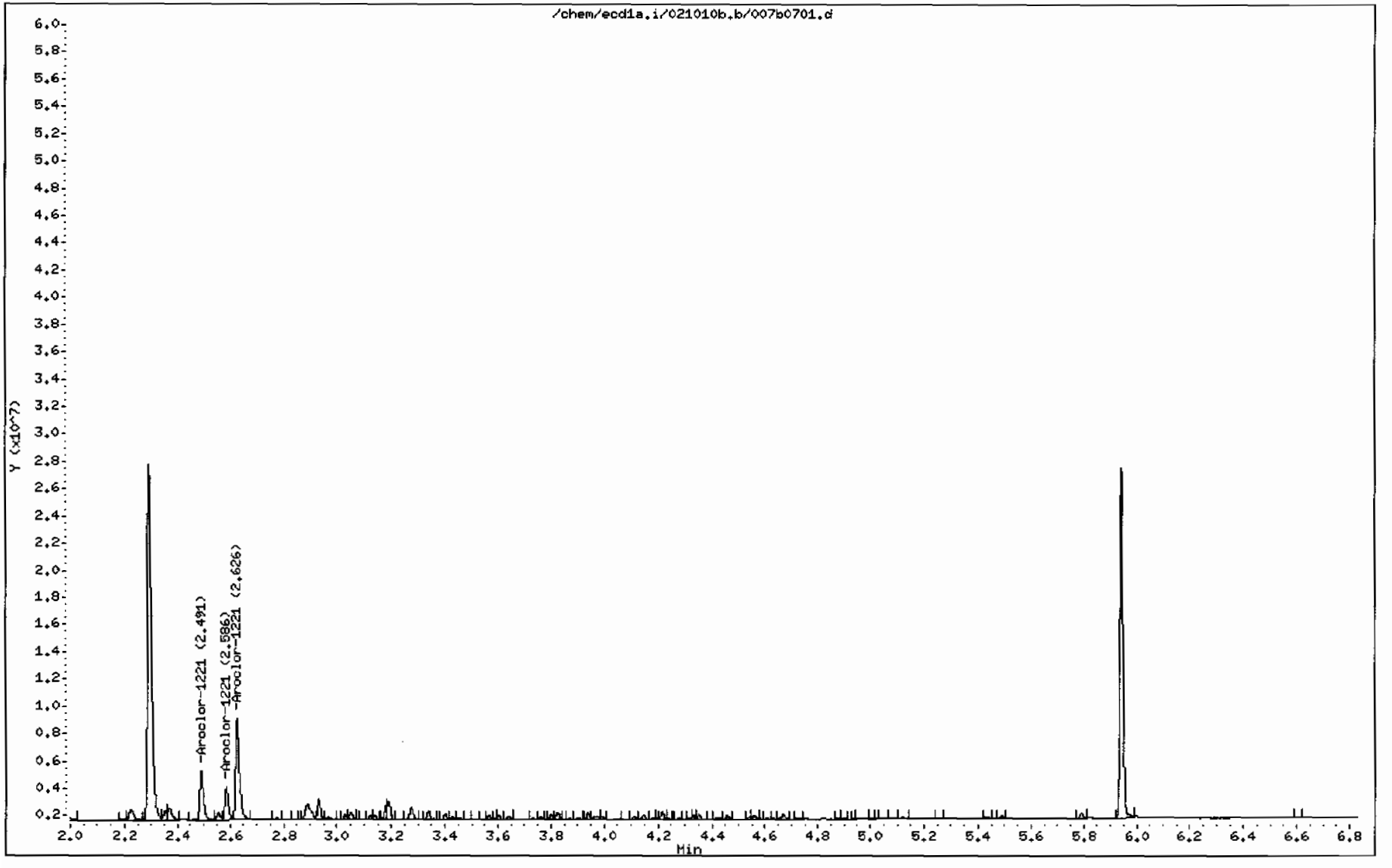

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/009f0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 10-FEB-2010 14:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 15:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
4.662	4.662	0.000	49167849	1000.00	937	80.00- 120.00	100.00
4.685	4.685	0.000	46891661	1000.00	974	75.37- 115.37	95.37
4.798	4.798	0.000	37041350	1000.00	1000	55.34- 95.34	75.34
5.001	5.001	0.000	18556074	1000.00	1140	17.74- 57.74	37.74
5.167	5.167	0.000	117519312	1000.00	1080	219.02- 259.02	239.02

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/021010b.b/009f0901.d
Date : 10-FEB-2010 14:32
Client ID: AR126801
Sample Info: IWAR100107-68

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

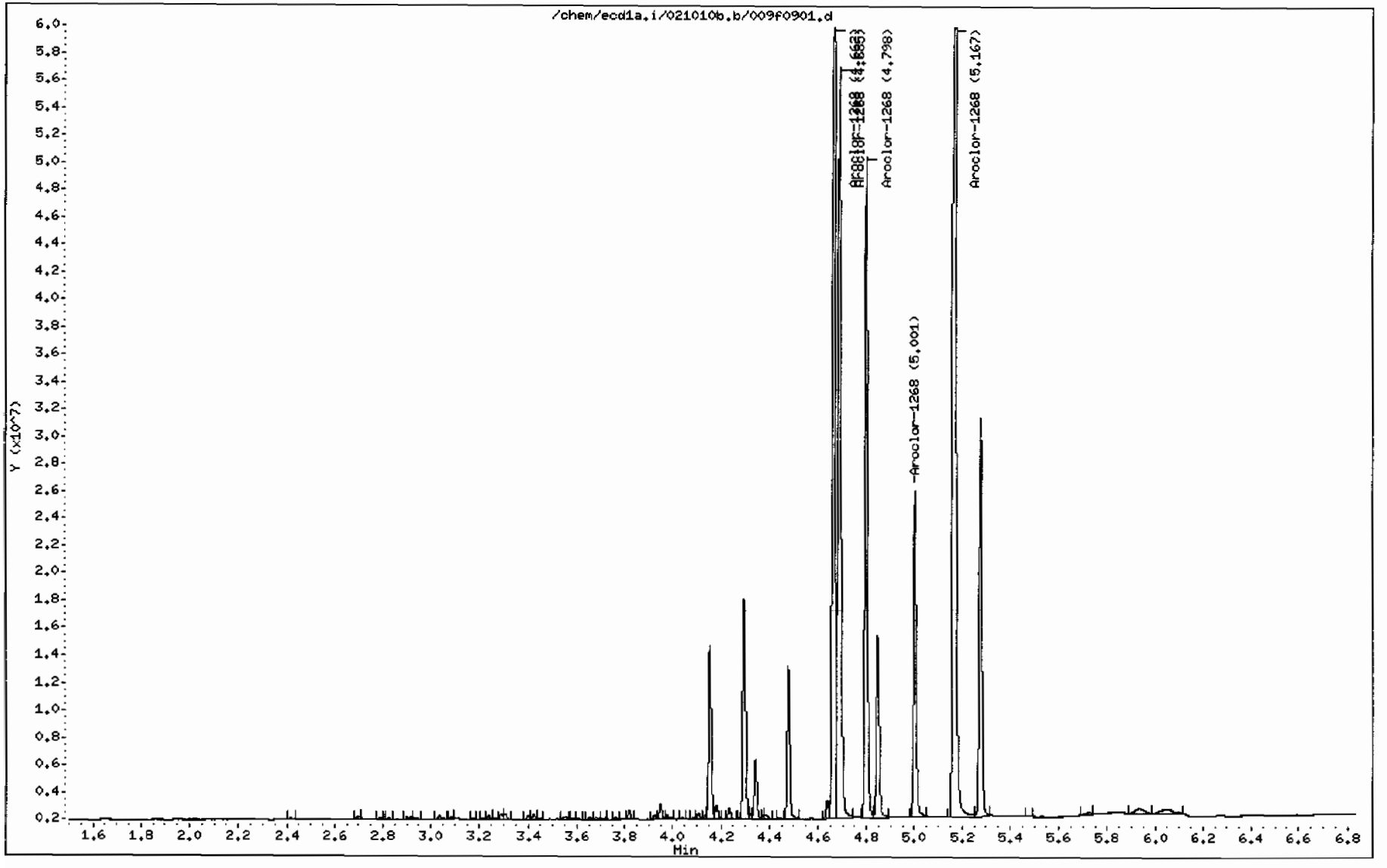

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/009b0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 10-FEB-2010 14:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100107-68
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 15:14 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
5.255	5.255	0.000	31440810	1000.00	867	80.00- 120.00	100.00
5.283	5.283	0.000	30209004	1000.00	900	76.08- 116.08	96.08
5.433	5.433	0.000	23642882	1000.00	910	55.20- 95.20	75.20
5.597	5.597	0.000	11736345	1000.00	1030	17.33- 57.33	37.33
5.790	5.790	0.000	73598593	1000.00	1100	214.09- 254.09	234.09
Average of Peak Amounts =					962		

Data File: /chem/ecd1a.i/021010b.b/009b0901.d

Date : 10-FEB-2010 14:32

Client ID: AR126801

Sample Info: IWAR100107-68

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

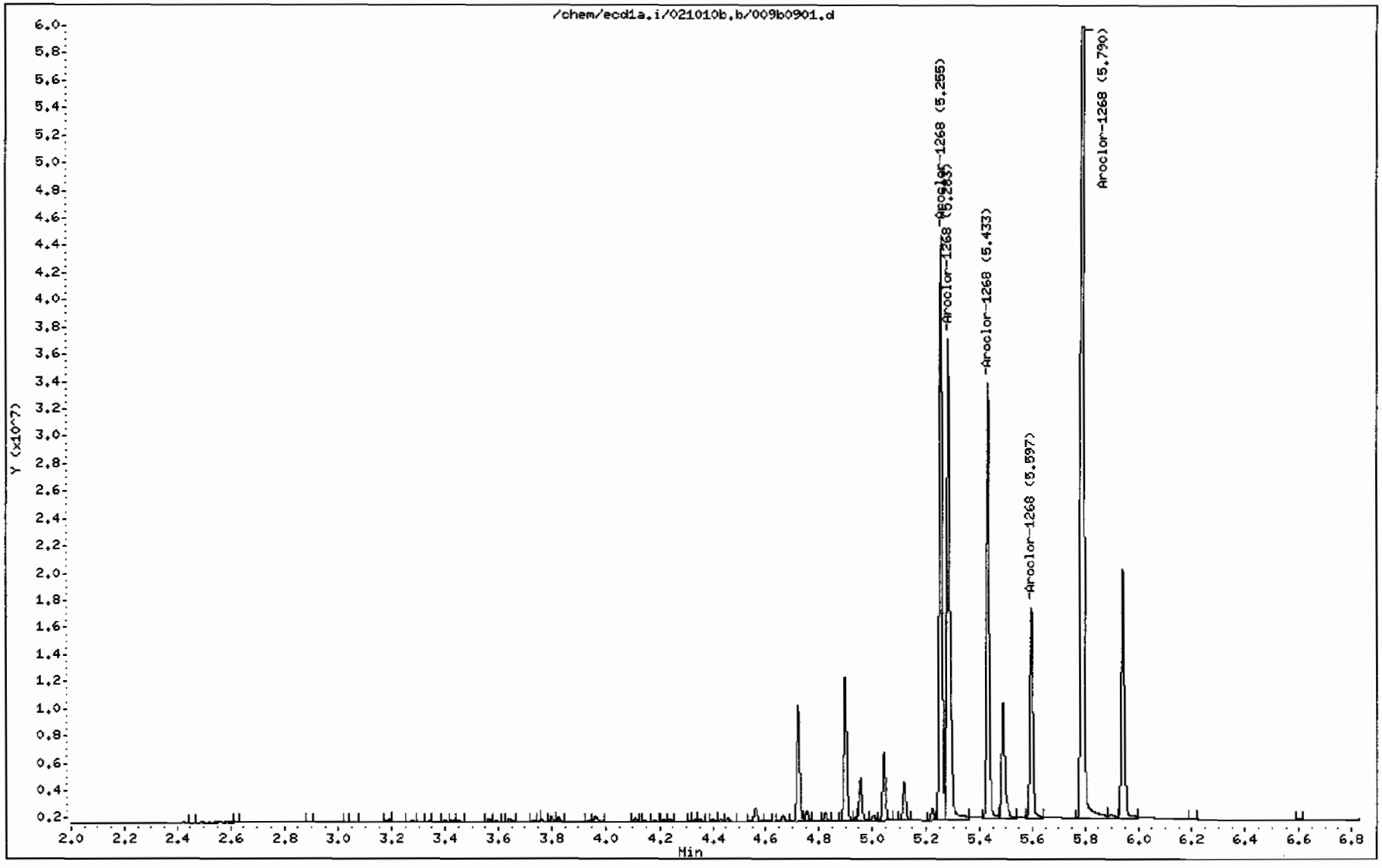

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/013f1301.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 10-FEB-2010 15:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 10-Feb-2010 15:37 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.962	0.002	43938922	100.000	110	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.278	-0.003	32323143	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.419	2.418	0.001	15595706	1000.00	1060	80.00- 120.00	100.00
2.706	2.706	0.000	19738893	1000.00	1080	106.57- 146.57	126.57
2.787	2.787	0.000	12462761	1000.00	1040	59.91- 99.91	79.91
2.825	2.825	0.000	7532735	1000.00	1050	28.30- 68.30	48.30
3.035	3.036	-0.001	9639403	1000.00	1040	41.81- 81.81	61.81
Average of Peak Amounts =					1.05e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.761	3.762	-0.001	19867936	1000.00	1130	80.00- 120.00	100.00
3.925	3.926	-0.001	29816672	1000.00	1120	130.07- 170.07	150.07
4.155	4.156	-0.001	17778956	1000.00	1120	69.49- 109.49	89.49
4.297	4.299	-0.002	18563902	1000.00	1120	73.44- 113.44	93.44
4.476	4.478	-0.002	41518290	1000.00	1120	188.97- 228.97	208.97
Average of Peak Amounts =					1.12e+03		

Data File: /chem/ecd1a.i/021010b.b/013f1301.d
Date : 10-FEB-2010 15:15
Client ID: AR166002
Sample Info: IWAR100203-60 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

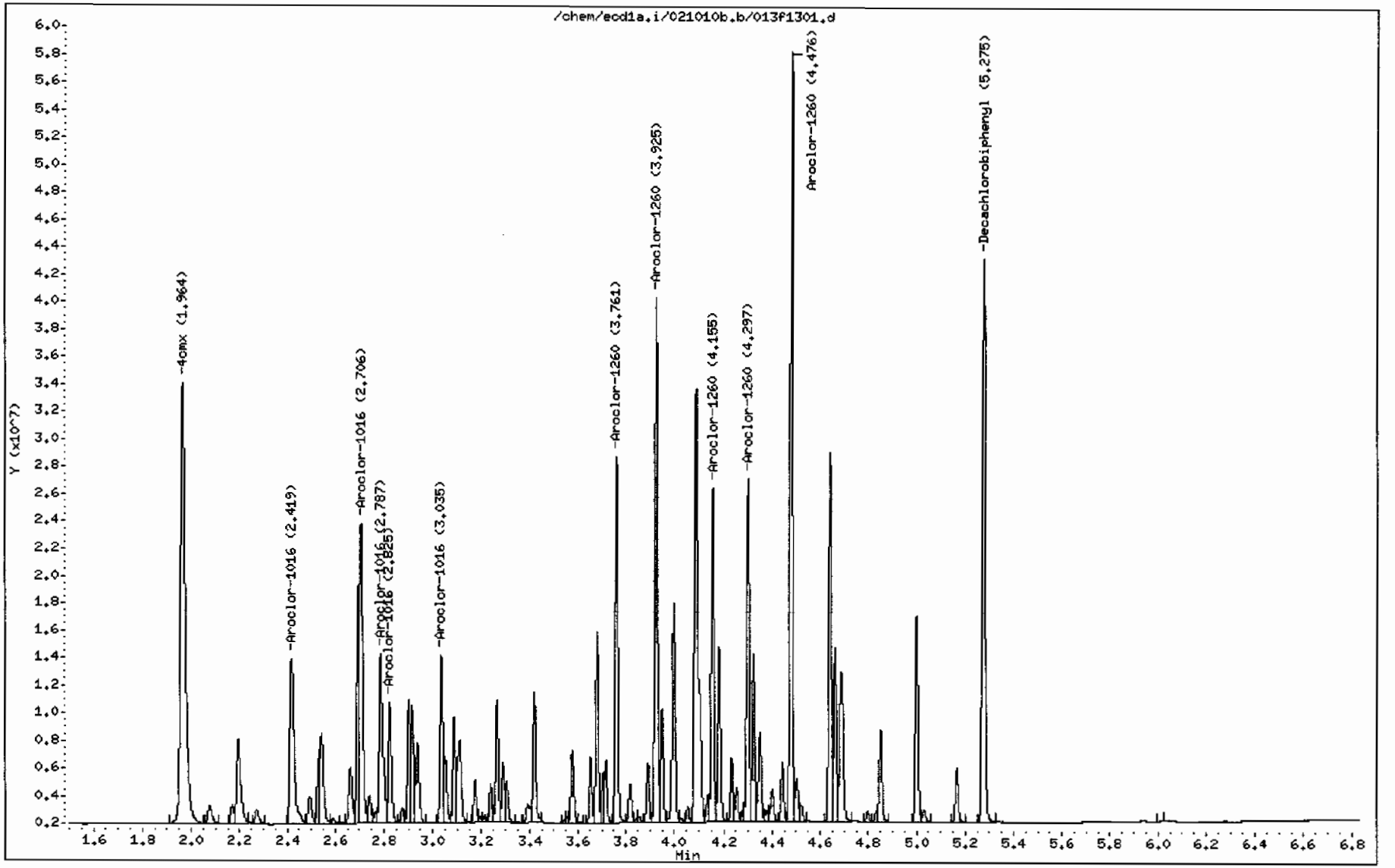

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/013b1301.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 10-FEB-2010 15:15
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 10-Feb-2010 15:36 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.294	0.001	27967792	100.000	97.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.943	-0.002	20135201	100.000	92.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.191	-0.001	12169689	1000.00	975	80.00- 120.00	100.00(M)
3.274	3.274	0.000	7824979	1000.00	916	44.30- 84.30	64.30
3.337	3.337	0.000	4842342	1000.00	915	19.79- 59.79	39.79
3.565	3.565	0.000	6075793	1000.00	892	29.93- 69.93	49.93
3.640	3.640	0.000	5779567	1000.00	902	27.49- 67.49	56.21
Average of Peak Amounts =					920		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.331	-0.001	12584029	1000.00	995	80.00- 120.00	100.00
4.455	4.457	-0.002	15266696	1000.00	1000	101.32- 141.32	121.32
4.722	4.723	-0.001	11631343	1000.00	998	72.43- 112.43	92.43
4.895	4.896	-0.001	12041627	1000.00	999	75.69- 115.69	95.69
5.043	5.044	-0.001	26770404	1000.00	1030	192.73- 232.73	212.73
Average of Peak Amounts =					1e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021010b.b/013b1301.d
Date : 10-FEB-2010 15:15
Client ID: AR166002
Sample Info: !WAR100203-60 02

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

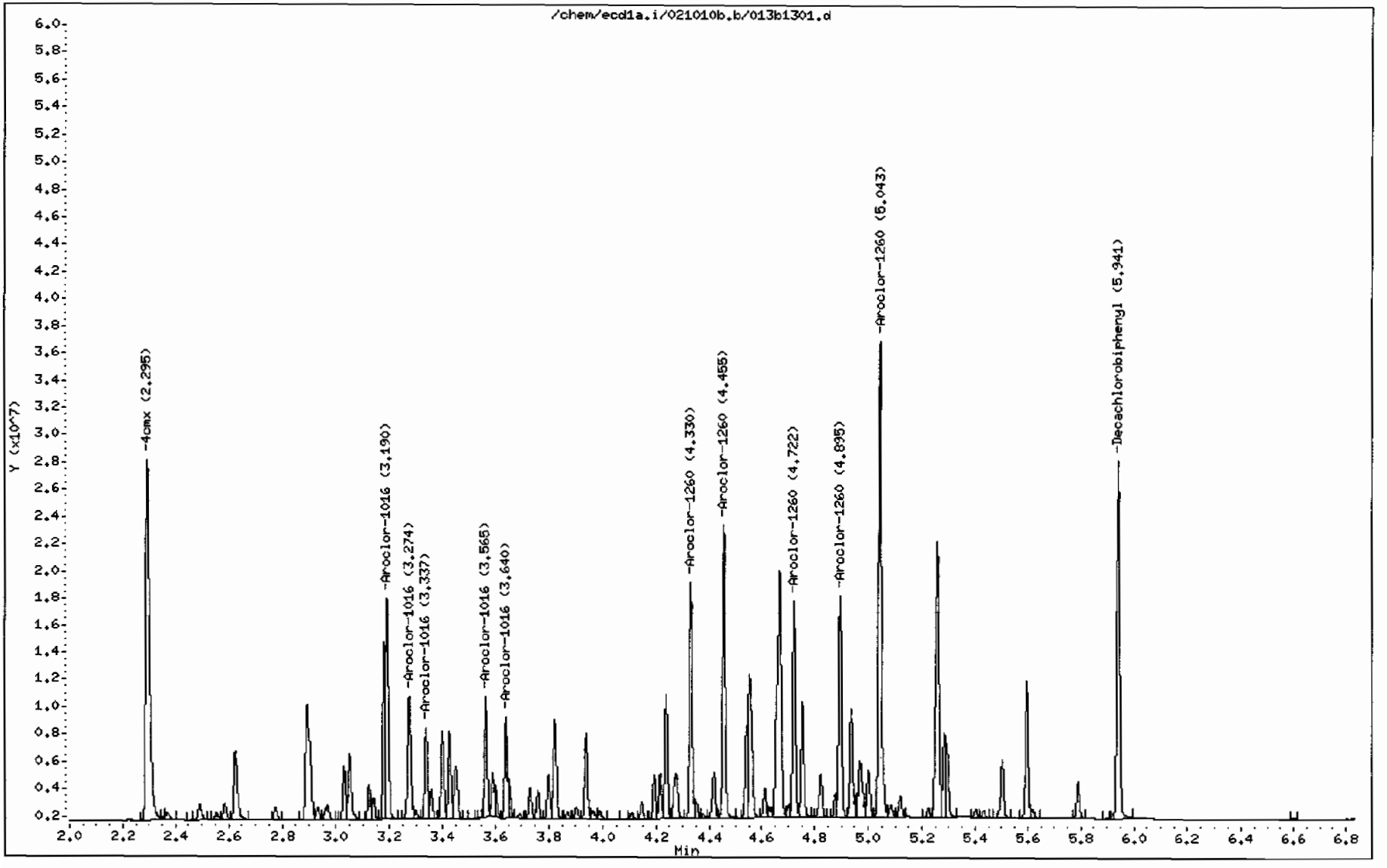

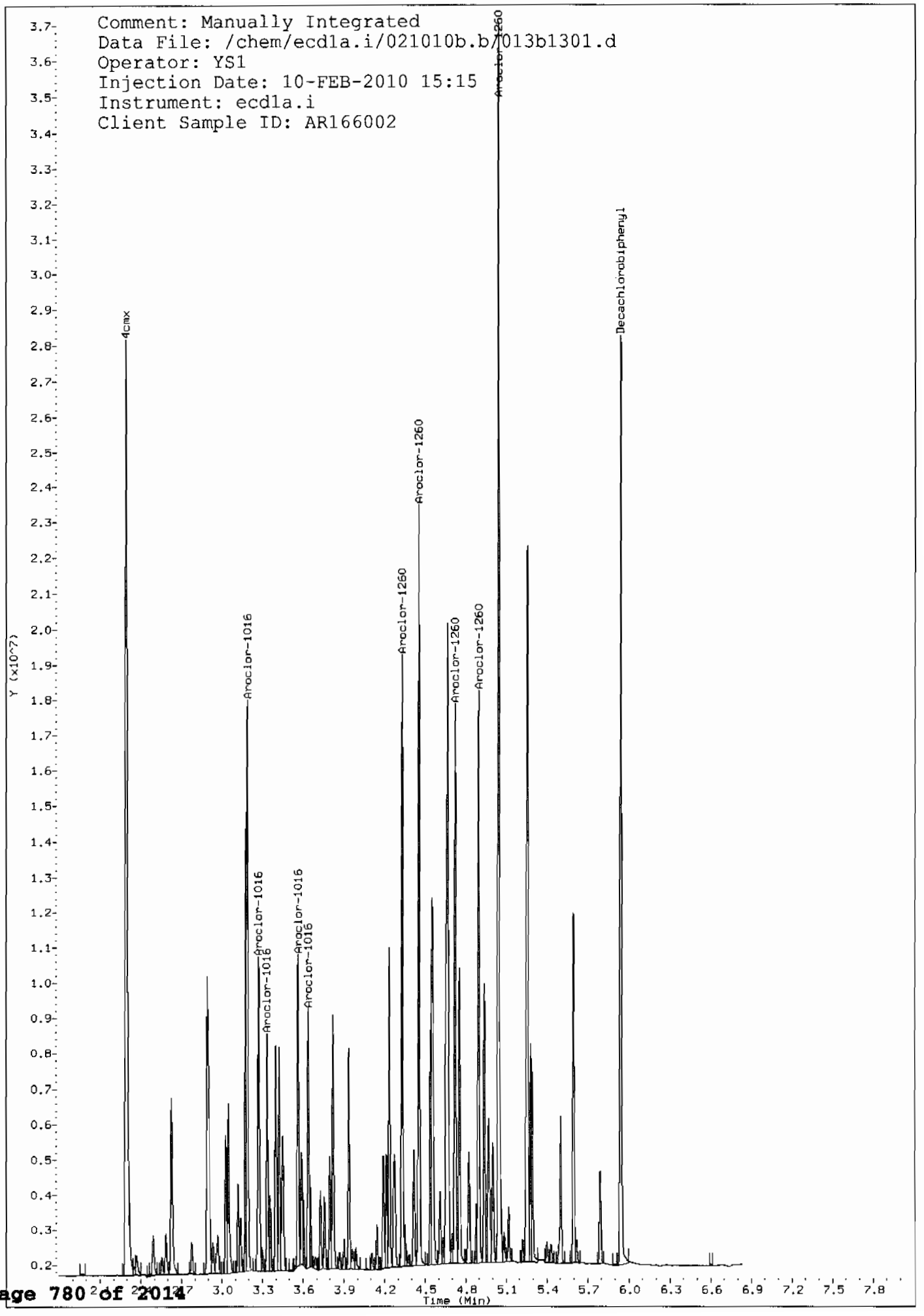
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/013b1301.d
Operator: YS1
Injection Date: 10-FEB-2010 15:15
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

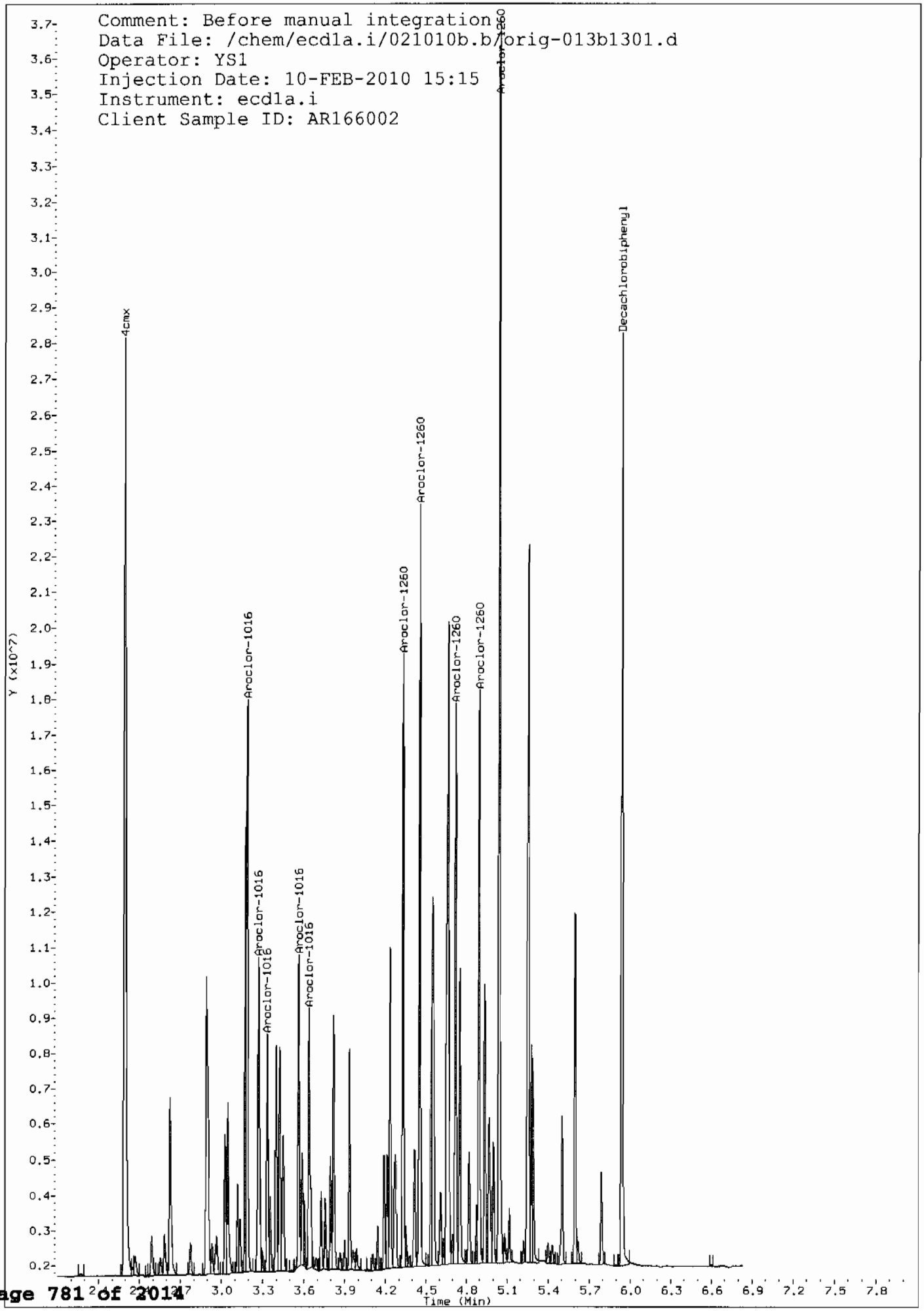
Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-013b1301.d
Operator: YS1
Injection Date: 10-FEB-2010 15:15
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/025f2501.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 10-FEB-2010 17:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.963	1.962	0.001	43852520	100.000	110	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.278	-0.004	32192614	100.000	99.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.418	0.000	14818778	1000.00	1010	80.00- 120.00	100.00
2.706	2.706	0.000	20050915	1000.00	1090	115.31- 155.31	135.31
2.786	2.787	-0.001	12428853	1000.00	1030	63.87- 103.87	83.87
2.824	2.825	-0.001	7458975	1000.00	1040	30.33- 70.33	50.33
3.034	3.036	-0.002	9526714	1000.00	1020	44.29- 84.29	64.29
Average of Peak Amounts =					1.04e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.760	3.762	-0.002	18433263	1000.00	1040	80.00- 120.00	100.00
3.923	3.926	-0.003	27635609	1000.00	1040	129.92- 169.92	149.92
4.153	4.156	-0.003	16532014	1000.00	1040	69.69- 109.69	89.69
4.296	4.299	-0.003	17311603	1000.00	1040	73.92- 113.92	93.92
4.476	4.478	-0.002	38637628	1000.00	1040	189.61- 229.61	209.61
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/021010b.b/025f2501.d
Date : 10-FEB-2010 17:42
Client ID: AR166003
Sample Info: IWAR100203-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

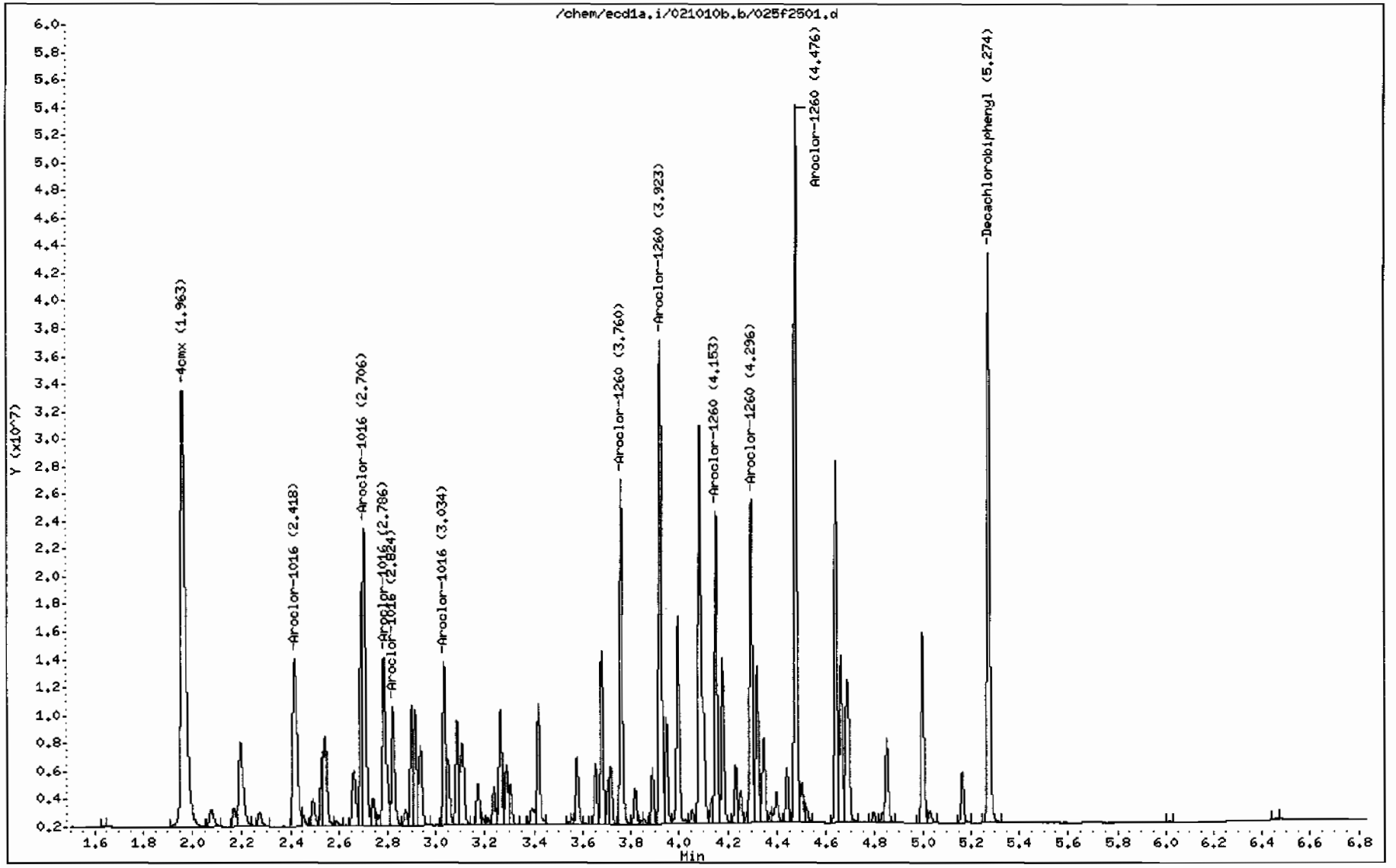

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/025b2501.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 10-FEB-2010 17:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	28056043	100.000	97.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.943	-0.002	20502337	100.000	94.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.191	-0.001	12038249	1000.00	964	80.00- 120.00	100.00(M)
3.273	3.274	-0.001	7854497	1000.00	919	45.25- 85.25	65.25
3.337	3.337	0.000	4834706	1000.00	914	20.16- 60.16	40.16
3.564	3.565	-0.001	6155126	1000.00	903	31.13- 71.13	51.13
3.639	3.640	-0.001	5773190	1000.00	901	37.39- 77.39	57.39
Average of Peak Amounts =					920		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.331	-0.001	11824429	1000.00	935	80.00- 120.00	100.00
4.455	4.457	-0.002	14326865	1000.00	941	101.16- 141.16	121.16
4.721	4.723	-0.002	10885542	1000.00	934	72.06- 112.06	92.06
4.895	4.896	-0.001	11330069	1000.00	940	75.82- 115.82	95.82
5.042	5.044	-0.002	24982184	1000.00	958	191.28- 231.28	211.28
Average of Peak Amounts =					942		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021010b.b/025b2501.d

Date : 10-FEB-2010 17:42

Client ID: AR166003

Sample Info: IWAR100203-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

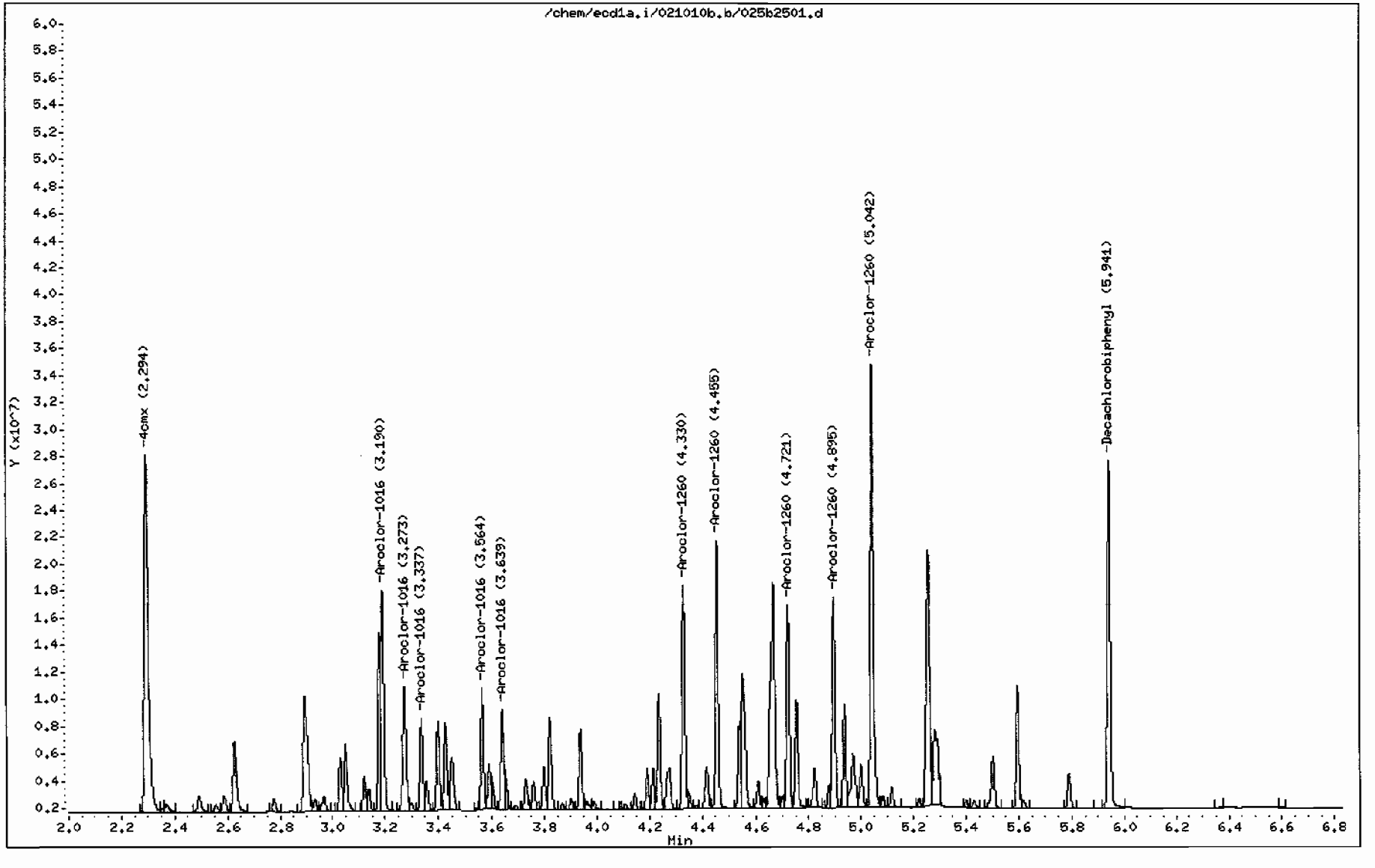

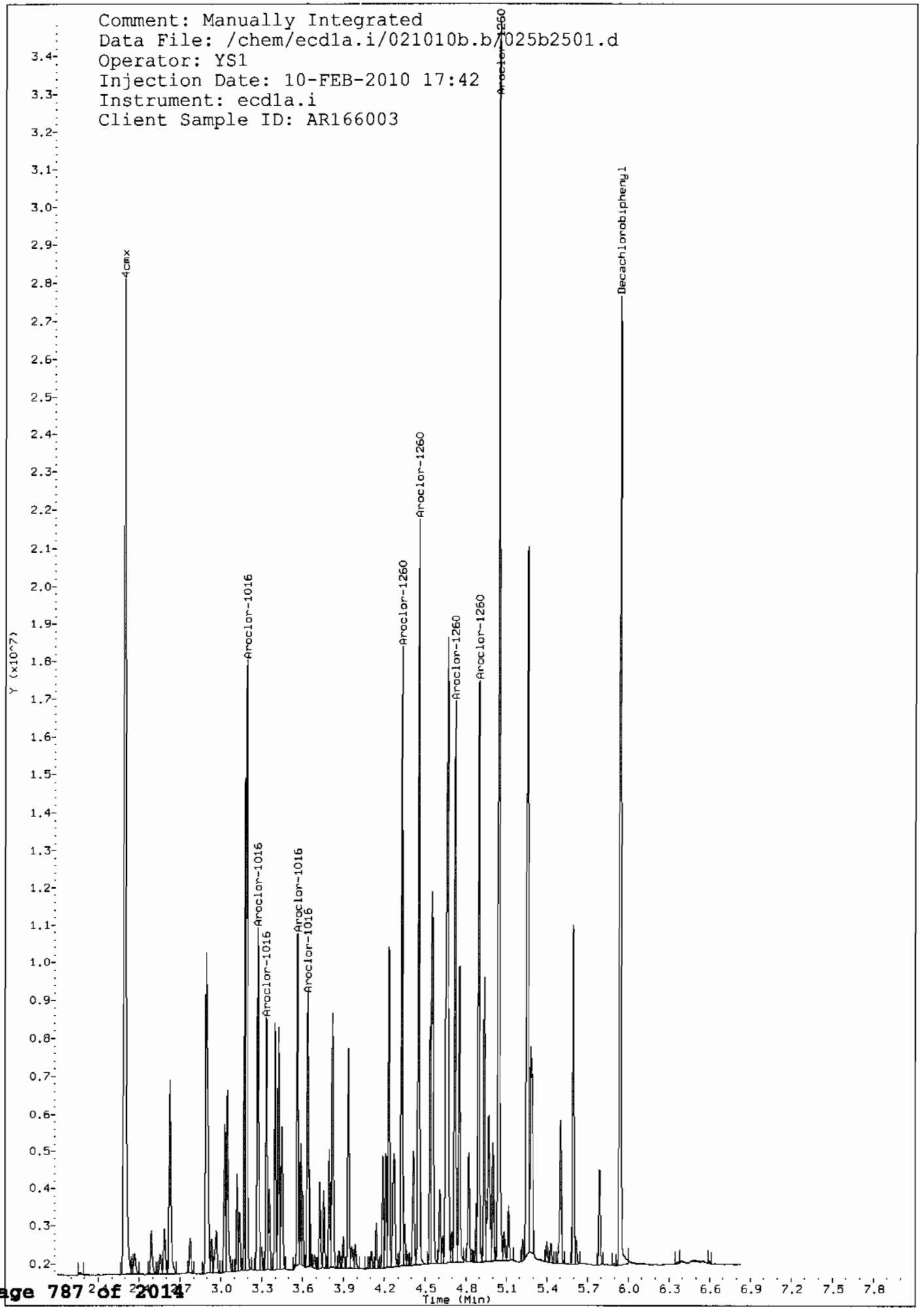
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/025b2501.d
Operator: YS1
Injection Date: 10-FEB-2010 17:42
Instrument: ecd1a.i
Client Sample ID: AR166003
4CMX
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

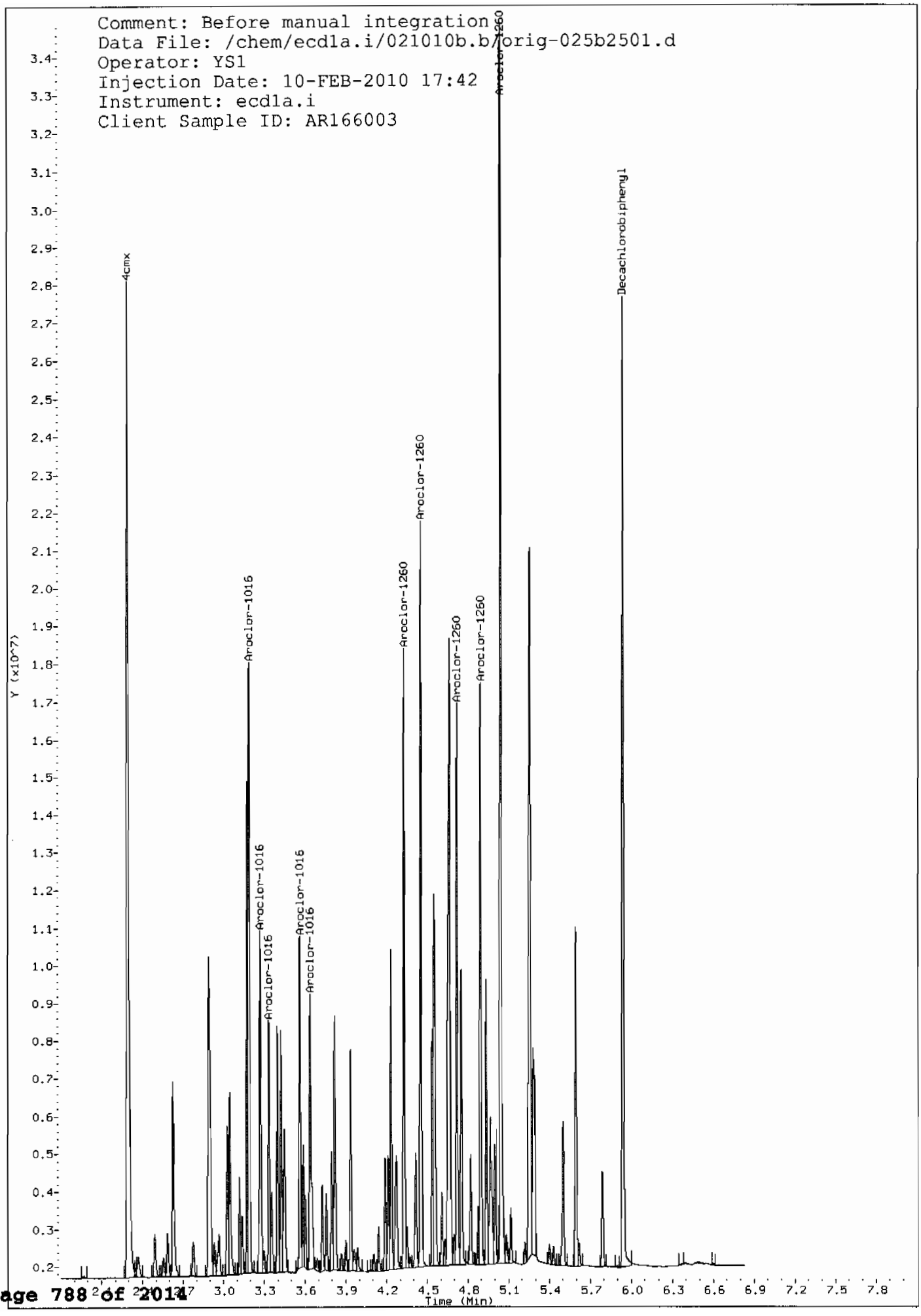
Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-025b2501.d
Operator: YS1
Injection Date: 10-FEB-2010 17:42
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134		
09	AR126802	WAR091214-18	12/14/09	1144		
10	AR126803	WAR091214-19	12/14/09	1155		
11	AR126804	WAR091214-20	12/14/09	1206		
12	AR126805	IAR090817-02	12/14/09	1216		
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PIBLK01	WAR100105-99	01/28/10	0916	1.97	5.28
02	ZZZZZ	ZZZZZ	01/28/10	0927		
03	AR125401	WAR091216-54	01/28/10	0937		
04	AR124201	WAR091217-42	01/28/10	0948		
05	AR124801	WAR091217-48	01/28/10	0958		
06	AR123201	WAR100104-32	01/28/10	1009		
07	AR122101	WAR100104-21	01/28/10	1019		
08	AR126201	WAR100104-62	01/28/10	1030		
09	ZZZZZ	ZZZZZ	01/28/10	1040		
10	AR166001	WAR100128-01	01/28/10	1051	1.97	5.28
11	AR166002	WAR100128-02	01/28/10	1101	1.97	5.28
12	AR166003	WAR100128-03	01/28/10	1112	1.97	5.28
13	AR166004	WAR100128-04	01/28/10	1122	1.97	5.28
14	AR166005	IAR100104-01	01/28/10	1134	1.97	5.28
15	AR166001	WAR100104-60	01/28/10	1144	1.97	5.28
16	ZZZZZ	ZZZZZ	01/28/10	1155		
17	DDTANALOGSTD	WAR091219-DD	01/28/10	1205		
18	AR126801	WAR100128-05	01/28/10	1218		
19	AR126802	WAR100128-06	01/28/10	1229		
20	AR126803	WAR100128-07	01/28/10	1239		
21	AR126804	WAR100128-08	01/28/10	1250		
22	AR126805	IAR100104-05	01/28/10	1300		
23	AR126801	WAR100107-68	01/28/10	1311		
24	PIBLK02	WAR100105-99	01/28/10	1321	1.97	5.28
25	ZZZZZ	ZZZZZ	01/28/10	1332	1.97	5.28
26	ZZZZZ	ZZZZZ	01/28/10	1342	1.97	5.28
27	ZZZZZ	ZZZZZ	01/28/10	1353	1.97	5.28
28	ZZZZZ	ZZZZZ	01/28/10	1405	1.97	5.28
29	ZZZZZ	ZZZZZ	01/28/10	1418	1.97	5.28
30	ZZZZZ	ZZZZZ	01/28/10	1430	1.97	5.28
31	ZZZZZ	ZZZZZ	01/28/10	1443	1.97	5.28
32	AR166002	WAR100104-60	01/28/10	1456	1.97	5.28

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/28/10 01/28/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01	PIBLK01	WAR100105-99	01/28/10	0916	2.30	5.94
02	ZZZZZ	ZZZZZ	01/28/10	0927		
03	AR125401	WAR091216-54	01/28/10	0937		
04	AR124201	WAR091217-42	01/28/10	0948		
05	AR124801	WAR091217-48	01/28/10	0958		
06	AR123201	WAR100104-32	01/28/10	1009		
07	AR122101	WAR100104-21	01/28/10	1019		
08	AR126201	WAR100104-62	01/28/10	1030		
09	ZZZZZ	ZZZZZ	01/28/10	1040		
10	AR166001	WAR100128-01	01/28/10	1051	2.30	5.94
11	AR166002	WAR100128-02	01/28/10	1101	2.30	5.94
12	AR166003	WAR100128-03	01/28/10	1112	2.30	5.95
13	AR166004	WAR100128-04	01/28/10	1122	2.30	5.95
14	AR166005	IAR100104-01	01/28/10	1134	2.30	5.95
15	AR166001	WAR100104-60	01/28/10	1144	2.30	5.94
16	ZZZZZ	ZZZZZ	01/28/10	1155		
17	DDTANALOGSTD	WAR091219-DD	01/28/10	1205		
18	AR126801	WAR100128-05	01/28/10	1218		
19	AR126802	WAR100128-06	01/28/10	1229		
20	AR126803	WAR100128-07	01/28/10	1239		
21	AR126804	WAR100128-08	01/28/10	1250		
22	AR126805	IAR100104-05	01/28/10	1300		
23	AR126801	WAR100107-68	01/28/10	1311		
24	PIBLK02	WAR100105-99	01/28/10	1321	2.30	5.94
25	ZZZZZ	ZZZZZ	01/28/10	1332	2.30	5.94
26	ZZZZZ	ZZZZZ	01/28/10	1342	2.30	5.94
27	ZZZZZ	ZZZZZ	01/28/10	1353	2.30	5.94
28	ZZZZZ	ZZZZZ	01/28/10	1405	2.30	5.94
29	ZZZZZ	ZZZZZ	01/28/10	1418	2.30	5.94
30	ZZZZZ	ZZZZZ	01/28/10	1430	2.30	5.94
31	ZZZZZ	ZZZZZ	01/28/10	1443	2.30	5.94
32	AR166002	WAR100104-60	01/28/10	1456	2.30	5.94

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	1.96	5.28
02	ZZZZZ	ZZZZZ	01/29/10	0622	1.97	5.28
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	1.96	5.28
11	AR166002	WAR100129-02	01/29/10	0757	1.97	5.28
12	AR166003	WAR100129-03	01/29/10	0807	1.97	5.28
13	AR166004	WAR100129-04	01/29/10	0818	1.97	5.28
14	AR166005	IAR100104-01	01/29/10	0859	1.97	5.29
15	AR166001	WAR100104-60	01/29/10	0909	1.97	5.28
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	1.97	5.28
18	ZZZZZ	ZZZZZ	01/29/10	0941	1.97	5.28
19	ZZZZZ	ZZZZZ	01/29/10	0951	1.97	5.28
20	ZZZZZ	ZZZZZ	01/29/10	1002	1.97	5.28
21	ZZZZZ	ZZZZZ	01/29/10	1014	1.97	5.28
22	ZZZZZ	ZZZZZ	01/29/10	1027	1.96	5.28
23	ZZZZZ	ZZZZZ	01/29/10	1040	1.97	5.28
24	ZZZZZ	ZZZZZ	01/29/10	1052	1.97	5.28
25	ZZZZZ	ZZZZZ	01/29/10	1105	1.97	5.28
26	ZZZZZ	ZZZZZ	01/29/10	1117	1.96	5.28
27	ZZZZZ	ZZZZZ	01/29/10	1130	1.96	5.28
28	AR166002	WAR100104-60	01/29/10	1142	1.97	5.28
29	PIBLK03	WAR100105-99	01/29/10	1153	1.97	5.28
30	ZZZZZ	ZZZZZ	01/29/10	1203	1.97	5.28
31	ZZZZZ	ZZZZZ	01/29/10	1216	1.97	5.28
32	ZZZZZ	ZZZZZ	01/29/10	1228	1.97	5.28

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 01/29/10 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	01/29/10	0612	2.30	5.94
02	ZZZZZ	ZZZZZ	01/29/10	0622	2.30	5.94
03	AR125401	WAR091216-54	01/29/10	0633		
04	AR124201	WAR091217-42	01/29/10	0643		
05	AR124801	WAR091217-48	01/29/10	0654		
06	AR123201	WAR100104-32	01/29/10	0704		
07	AR122101	WAR100104-21	01/29/10	0715		
08	AR126201	WAR100104-62	01/29/10	0725		
09	AR126801	WAR100107-68	01/29/10	0736		
10	AR166001	WAR100129-01	01/29/10	0746	2.30	5.94
11	AR166002	WAR100129-02	01/29/10	0757	2.30	5.94
12	AR166003	WAR100129-03	01/29/10	0807	2.30	5.94
13	AR166004	WAR100129-04	01/29/10	0818	2.30	5.94
14	AR166005	IAR100104-01	01/29/10	0859	2.30	5.95
15	AR166001	WAR100104-60	01/29/10	0909	2.30	5.95
16	DDTANALOGSTD	WAR091219-DD	01/29/10	0920		
17	PIBLK02	WAR100105-99	01/29/10	0930	2.30	5.94
18	ZZZZZ	ZZZZZ	01/29/10	0941	2.30	5.94
19	ZZZZZ	ZZZZZ	01/29/10	0951	2.30	5.94
20	ZZZZZ	ZZZZZ	01/29/10	1002	2.30	5.94
21	ZZZZZ	ZZZZZ	01/29/10	1014	2.30	5.94
22	ZZZZZ	ZZZZZ	01/29/10	1027	2.30	5.94
23	ZZZZZ	ZZZZZ	01/29/10	1040	2.30	5.94
24	ZZZZZ	ZZZZZ	01/29/10	1052	2.30	5.94
25	ZZZZZ	ZZZZZ	01/29/10	1105	2.30	5.94
26	ZZZZZ	ZZZZZ	01/29/10	1117	2.30	5.94
27	ZZZZZ	ZZZZZ	01/29/10	1130	2.30	5.94
28	AR166002	WAR100104-60	01/29/10	1142	2.30	5.94
29	PIBLK03	WAR100105-99	01/29/10	1153	2.30	5.94
30	ZZZZZ	ZZZZZ	01/29/10	1203	2.30	5.94
31	ZZZZZ	ZZZZZ	01/29/10	1216	2.30	5.94
32	ZZZZZ	ZZZZZ	01/29/10	1228	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/05/10	0656	1.96	5.27
02	AR166001	WAR100203-60	02/05/10	0706	1.96	5.27
03	AR125401	WAR091216-54	02/05/10	0717		
04	AR124201	WAR091217-42	02/05/10	0727		
05	AR124801	WAR091217-48	02/05/10	0738		
06	AR123201	WAR100104-32	02/05/10	0748		
07	AR122101	WAR100104-21	02/05/10	0759		
08	AR166002	WAR100104-62	02/05/10	0809		
09	AR126801	WAR100107-68	02/05/10	0820		
10	DDTANALOGSTD	WAR091219-DD	02/05/10	0831		
11	PIBLK02	WAR100105-99	02/05/10	0841	1.97	5.28
12	PBLK01	1202033246	02/05/10	0852	1.97	5.28
13	PBLK01LCS	1202033247	02/05/10	0902	1.96	5.28
14	ZZZZZ	ZZZZZ	02/05/10	0913	1.96	5.28
15	ZZZZZ	ZZZZZ	02/05/10	0923	1.96	5.28
16	ZZZZZ	ZZZZZ	02/05/10	0936	1.96	5.27
17	ZZZZZ	ZZZZZ	02/05/10	0948	1.96	5.27
18	ZZZZZ	ZZZZZ	02/05/10	1001	1.96	5.27
19	ZZZZZ	ZZZZZ	02/05/10	1013	1.97	5.28
20	ZZZZZ	ZZZZZ	02/05/10	1026	1.96	5.28
21	ZZZZZ	ZZZZZ	02/05/10	1039	1.96	5.27
22	AR166002	WAR100203-60	02/05/10	1051	1.96	5.27
23	PIBLK03	WAR100105-99	02/05/10	1102	1.97	5.28
24	ZZZZZ	ZZZZZ	02/05/10	1112	1.97	5.28
25	ZZZZZ	ZZZZZ	02/05/10	1125	1.96	5.27
26	ZZZZZ	ZZZZZ	02/05/10	1137	1.96	5.27
27	ZZZZZ	ZZZZZ	02/05/10	1150	1.97	5.27
28	ZZZZZ	ZZZZZ	02/05/10	1203	1.96	5.27
29	ZZZZZ	ZZZZZ	02/05/10	1215	1.96	5.27
30	ZZZZZ	ZZZZZ	02/05/10	1228	1.96	5.27
31	AR166003	WAR100203-60	02/05/10	1240	1.97	5.27
32	PIBLK04	WAR100105-99	02/05/10	1251	1.97	5.28

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.27

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/05/10	1301	1.97	5.28
02	ZZZZZ	ZZZZZ	02/05/10	1314	1.96	5.28
03	ZZZZZ	ZZZZZ	02/05/10	1327	1.96	5.27
04	RE15-10-7891	245969002	02/05/10	1339	1.96	5.27
05	RE15-10-7892	245969003	02/05/10	1352	1.96	5.28
06	AR166004	WAR100203-60	02/05/10	1405	1.96	5.27
07	PIBLK05	WAR100105-99	02/05/10	1415	1.96	5.28
08	ZZZZZ	ZZZZZ	02/05/10	1426	1.97	5.28
09	ZZZZZ	ZZZZZ	02/05/10	1436	1.97	5.28
10	ZZZZZ	ZZZZZ	02/05/10	1447	1.97	5.28
11	ZZZZZ	ZZZZZ	02/05/10	1457	1.97	5.28
12	ZZZZZ	ZZZZZ	02/05/10	1508	1.97	5.28
13	ZZZZZ	ZZZZZ	02/05/10	1518	1.97	5.28
14	AR166005	WAR100203-60	02/05/10	1529	1.96	5.28
15	PIBLK06	WAR100105-99	02/05/10	1539	1.97	5.28
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/05/10	0656	2.29	5.94
02	AR166001	WAR100203-60	02/05/10	0706	2.30	5.94
03	AR125401	WAR091216-54	02/05/10	0717		
04	AR124201	WAR091217-42	02/05/10	0727		
05	AR124801	WAR091217-48	02/05/10	0738		
06	AR123201	WAR100104-32	02/05/10	0748		
07	AR123201	WAR100104-21	02/05/10	0759		
08	AR126201	WAR100104-62	02/05/10	0809		
09	AR126801	WAR100107-68	02/05/10	0820		
10	DDTANALOGSTD	WAR091219-DD	02/05/10	0831		
11	PIBLK02	WAR100105-99	02/05/10	0841	2.30	5.94
12	PBLK01	1202033246	02/05/10	0852	2.30	5.94
13	PBLK01LCS	1202033247	02/05/10	0902	2.29	5.94
14	ZZZZZ	ZZZZZ	02/05/10	0913	2.30	5.94
15	ZZZZZ	ZZZZZ	02/05/10	0923	2.30	5.94
16	ZZZZZ	ZZZZZ	02/05/10	0936	2.30	5.94
17	ZZZZZ	ZZZZZ	02/05/10	0948	2.30	5.94
18	ZZZZZ	ZZZZZ	02/05/10	1001	2.30	5.94
19	ZZZZZ	ZZZZZ	02/05/10	1013	2.30	5.94
20	ZZZZZ	ZZZZZ	02/05/10	1026	2.30	5.94
21	ZZZZZ	ZZZZZ	02/05/10	1039	2.30	5.94
22	AR166002	WAR100203-60	02/05/10	1051	2.30	5.94
23	PIBLK03	WAR100105-99	02/05/10	1102	2.30	5.94
24	ZZZZZ	ZZZZZ	02/05/10	1112	2.30	5.94
25	ZZZZZ	ZZZZZ	02/05/10	1125	2.30	5.94
26	ZZZZZ	ZZZZZ	02/05/10	1137	2.30	5.94
27	ZZZZZ	ZZZZZ	02/05/10	1150	2.30	5.94
28	ZZZZZ	ZZZZZ	02/05/10	1203	2.30	5.94
29	ZZZZZ	ZZZZZ	02/05/10	1215	2.30	5.94
30	ZZZZZ	ZZZZZ	02/05/10	1228	2.30	5.94
31	AR166003	WAR100203-60	02/05/10	1240	2.30	5.94
32	PIBLK04	WAR100105-99	02/05/10	1251	2.30	5.94

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/05/10	1301	2.30	5.94
02	ZZZZZ	ZZZZZ	02/05/10	1314	2.29	5.94
03	ZZZZZ	ZZZZZ	02/05/10	1327	2.30	5.94
04	RE15-10-7891	245969002	02/05/10	1339	2.30	5.94
05	RE15-10-7892	245969003	02/05/10	1352	2.30	5.94
06	AR166004	WAR100203-60	02/05/10	1405	2.30	5.94
07	PIBLK05	WAR100105-99	02/05/10	1415	2.30	5.94
08	ZZZZZ	ZZZZZ	02/05/10	1426	2.30	5.94
09	ZZZZZ	ZZZZZ	02/05/10	1436	2.30	5.94
10	ZZZZZ	ZZZZZ	02/05/10	1447	2.30	5.94
11	ZZZZZ	ZZZZZ	02/05/10	1457	2.30	5.94
12	ZZZZZ	ZZZZZ	02/05/10	1508	2.30	5.94
13	ZZZZZ	ZZZZZ	02/05/10	1518	2.30	5.94
14	AR166005	WAR100203-60	02/05/10	1529	2.30	5.94
15	PIBLK06	WAR100105-99	02/05/10	1539	2.30	5.94
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.96 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/10/10	1255	1.96	5.28
02	AR166001	WAR100203-60	02/10/10	1305	1.96	5.28
03	AR125401	WAR091216-54	02/10/10	1316		
04	AR124201	WAR091217-42	02/10/10	1327		
05	AR124801	WAR091217-48	02/10/10	1337		
06	AR123201	WAR100104-32	02/10/10	1401		
07	AR122101	WAR100104-21	02/10/10	1411		
08	AR126201	WAR100104-62	02/10/10	1422		
09	AR126801	WAR100107-68	02/10/10	1432		
10	DDTANALOGSTD	WAR091219-DD	02/10/10	1443		
11	PIBLK02	WAR100105-99	02/10/10	1453	1.96	5.28
12	ZZZZZ	ZZZZZ	02/10/10	1504	1.96	5.28
13	AR166002	WAR100203-60	02/10/10	1515	1.96	5.28
14	PIBLK03	WAR100105-99	02/10/10	1525	1.96	5.28
15	PBLK02	1202037813	02/10/10	1536	1.96	5.28
16	PBLK02LCS	1202037814	02/10/10	1548	1.96	5.28
17	ZZZZZ	ZZZZZ	02/10/10	1601	1.96	5.27
18	ZZZZZ	ZZZZZ	02/10/10	1614	1.96	5.27
19	ZZZZZ	ZZZZZ	02/10/10	1626	1.96	5.27
20	ZZZZZ	ZZZZZ	02/10/10	1639	1.96	5.27
21	RE15-10-7880	245969001	02/10/10	1651	1.96	5.27
22	RE15-10-7880MS	1202037815	02/10/10	1704	1.96	5.27
23	RE15-10-7880MSD	1202037816	02/10/10	1717	1.96	5.27
24	ZZZZZ	ZZZZZ	02/10/10	1729	1.96	5.27
25	AR166003	WAR100203-60	02/10/10	1742	1.96	5.27
26	PIBLK04	WAR100105-99	02/10/10	1752	1.97	5.28
27	ZZZZZ	ZZZZZ	02/10/10	1803	1.96	5.28
28	ZZZZZ	ZZZZZ	02/10/10	1813	1.96	5.28
29	ZZZZZ	ZZZZZ	02/10/10	2023	1.94	5.29
30	ZZZZZ	ZZZZZ	02/10/10	2034	1.96	5.28
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1512

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 01/29/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/10/10	1255	2.29	5.95
02	AR166001	WAR100203-60	02/10/10	1305	2.29	5.94
03	AR125401	WAR091216-54	02/10/10	1316		
04	AR124201	WAR091217-42	02/10/10	1327		
05	AR124801	WAR091217-48	02/10/10	1337		
06	AR123201	WAR100104-32	02/10/10	1401		
07	AR122101	WAR100104-21	02/10/10	1411		
08	AR126201	WAR100104-62	02/10/10	1422		
09	AR126801	WAR100107-68	02/10/10	1432		
10	DDTANALOGSTD	WAR091219-DD	02/10/10	1443		
11	PIBLK02	WAR100105-99	02/10/10	1453	2.29	5.94
12	ZZZZZ	ZZZZZ	02/10/10	1504	2.30	5.94
13	AR166002	WAR100203-60	02/10/10	1515	2.29	5.94
14	PIBLK03	WAR100105-99	02/10/10	1525	2.29	5.94
15	PBLK02	1202037813	02/10/10	1536	2.29	5.94
16	PBLK02LCS	1202037814	02/10/10	1548	2.29	5.94
17	ZZZZZ	ZZZZZ	02/10/10	1601	2.29	5.94
18	ZZZZZ	ZZZZZ	02/10/10	1614	2.29	5.94
19	ZZZZZ	ZZZZZ	02/10/10	1626	2.29	5.94
20	ZZZZZ	ZZZZZ	02/10/10	1639	2.29	5.94
21	RE15-10-7880	245969001	02/10/10	1651	2.29	5.94
22	RE15-10-7880MS	1202037815	02/10/10	1704	2.29	5.94
23	RE15-10-7880MSD	1202037816	02/10/10	1717	2.29	5.94
24	ZZZZZ	ZZZZZ	02/10/10	1729	2.29	5.94
25	AR166003	WAR100203-60	02/10/10	1742	2.29	5.94
26	PIBLK04	WAR100105-99	02/10/10	1752	2.30	5.94
27	ZZZZZ	ZZZZZ	02/10/10	1803	2.29	5.94
28	ZZZZZ	ZZZZZ	02/10/10	1813	2.30	5.94
29	ZZZZZ	ZZZZZ	02/10/10	2023		5.95
30	ZZZZZ	ZZZZZ	02/10/10	2034	2.29	5.94
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1512 **Client ID:** LCS for batch 949031

Lab Sample ID: 1202033247

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 09:02	**Analyzed:**	05–FEB–10 09:02

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							.689
Column 1	1	2.42	2.39 – 2.45	20.2		ug/kg	
	2	2.71	2.68 – 2.74	20.8		ug/kg	
	3	2.79	2.76 – 2.82	20		ug/kg	
	4	2.83	2.8 – 2.86	20.2		ug/kg	
	5	3.04	3.01 – 3.07	20		ug/kg	
					20.2		
Column 2	1	3.19	3.16 – 3.22	20.9		ug/kg	
	2	3.27	3.24 – 3.3	20.3		ug/kg	
	3	3.34	3.31 – 3.37	19.5		ug/kg	
	4	3.57	3.53 – 3.59	19.8		ug/kg	
	5	3.64	3.61 – 3.67	20		ug/kg	
					20.1		
Aroclor–1260							.412
Column 1	1	3.76	3.73 – 3.79	23.2		ug/kg	
	2	3.93	3.89 – 3.95	23.4		ug/kg	
	3	4.16	4.12 – 4.18	23.7		ug/kg	
	4	4.3	4.27 – 4.33	23.9		ug/kg	
	5	4.48	4.45 – 4.51	24.4		ug/kg	
					23.7		
Column 2	1	4.33	4.3 – 4.36	22.9		ug/kg	
	2	4.46	4.43 – 4.49	23.5		ug/kg	
	3	4.72	4.69 – 4.75	23.7		ug/kg	
	4	4.9	4.87 – 4.93	23.4		ug/kg	
	5	5.04	5.01 – 5.07	24.6		ug/kg	
					23.6		

Identification Summary

SDG Number: 10-1512 **Client ID:** LCS for batch 950897

Lab Sample ID: 1202037814

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	10-FEB-10 15:48	**Analyzed:**	10-FEB-10 15:48

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							10
Column 1	1	2.42	2.39 – 2.45	23		ug/kg	
	2	2.71	2.68 – 2.74	25.1		ug/kg	
	3	2.79	2.76 – 2.82	23.6		ug/kg	
	4	2.82	2.79 – 2.85	23.5		ug/kg	
	5	3.03	3.01 – 3.07	23.9		ug/kg	
					23.8		
Column 2	1	3.19	3.16 – 3.22	22.1		ug/kg	
	2	3.27	3.24 – 3.3	21.6		ug/kg	
	3	3.34	3.31 – 3.37	21		ug/kg	
	4	3.56	3.53 – 3.59	21.6		ug/kg	
	5	3.64	3.61 – 3.67	21.5		ug/kg	
					21.6		
Aroclor-1260							5.64
Column 1	1	3.76	3.73 – 3.79	26.9		ug/kg	
	2	3.92	3.9 – 3.96	26.6		ug/kg	
	3	4.15	4.13 – 4.19	27.1		ug/kg	
	4	4.3	4.27 – 4.33	22.5		ug/kg	
	5	4.48	4.45 – 4.51	28		ug/kg	
					26.2		
Column 2	1	4.33	4.3 – 4.36	24		ug/kg	
	2	4.46	4.43 – 4.49	24.5		ug/kg	
	3	4.72	4.69 – 4.75	24.7		ug/kg	
	4	4.9	4.87 – 4.93	24.8		ug/kg	
	5	5.04	5.01 – 5.07	26		ug/kg	
					24.8		

Identification Summary

SDG Number: 10–1512 **Client ID:** RE15–10–7880MS

Lab Sample ID: 1202037815

Data File:	022f2201.d	**Data File:**	022b2201.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	10–FEB–10 17:04	**Analyzed:**	10–FEB–10 17:04

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							10.6
Column 1	1	2.42	2.39 – 2.45	23.2		ug/kg	
	2	2.71	2.68 – 2.74	24.6		ug/kg	
	3	2.79	2.76 – 2.82	24		ug/kg	
	4	2.82	2.79 – 2.85	23.9		ug/kg	
	5	3.03	3.01 – 3.07	24.3		ug/kg	
					24		
Column 2	1	3.19	3.16 – 3.22	22.5		ug/kg	
	2	3.27	3.24 – 3.3	21.5		ug/kg	
	3	3.34	3.31 – 3.37	21		ug/kg	
	4	3.56	3.53 – 3.59	21.4		ug/kg	
	5	3.64	3.61 – 3.67	21.4		ug/kg	
					21.6		
Aroclor–1260							6.03
Column 1	1	3.76	3.73 – 3.79	27.9		ug/kg	
	2	3.92	3.9 – 3.96	27.2		ug/kg	
	3	4.15	4.13 – 4.19	28.1		ug/kg	
	4	4.3	4.27 – 4.33	28.3		ug/kg	
	5	4.48	4.45 – 4.51	28.4		ug/kg	
					28		
Column 2	1	4.33	4.3 – 4.36	25.6		ug/kg	
	2	4.46	4.43 – 4.49	26.4		ug/kg	
	3	4.72	4.69 – 4.75	26.4		ug/kg	
	4	4.9	4.87 – 4.93	26.1		ug/kg	
	5	5.04	5.01 – 5.07	27.1		ug/kg	
					26.3		

Identification Summary

SDG Number: 10–1512 **Client ID:** RE15–10–7880MSD

Lab Sample ID: 1202037816

Data File:	023f2301.d	**Data File:**	023b2301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	10–FEB–10 17:17	**Analyzed:**	10–FEB–10 17:17

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							13.5
Column 1	1	2.42	2.39 – 2.45	26		ug/kg	
	2	2.7	2.68 – 2.74	27.8		ug/kg	
	3	2.79	2.76 – 2.82	26		ug/kg	
	4	2.82	2.79 – 2.85	25.5		ug/kg	
	5	3.03	3.01 – 3.07	25.4		ug/kg	
					26.1		
Column 2	1	3.19	3.16 – 3.22	23.9		ug/kg	
	2	3.27	3.24 – 3.3	22.9		ug/kg	
	3	3.34	3.31 – 3.37	22.3		ug/kg	
	4	3.56	3.53 – 3.59	22.6		ug/kg	
	5	3.64	3.61 – 3.67	22.4		ug/kg	
					22.8		
Aroclor–1260							8.45
Column 1	1	3.76	3.73 – 3.79	29.9		ug/kg	
	2	3.92	3.9 – 3.96	30.2		ug/kg	
	3	4.15	4.13 – 4.19	30.2		ug/kg	
	4	4.3	4.27 – 4.33	30.1		ug/kg	
	5	4.48	4.45 – 4.51	30.3		ug/kg	
					30.1		
Column 2	1	4.33	4.3 – 4.36	27		ug/kg	
	2	4.46	4.43 – 4.49	27.9		ug/kg	
	3	4.72	4.69 – 4.75	27.7		ug/kg	
	4	4.89	4.87 – 4.93	27.4		ug/kg	
	5	5.04	5.01 – 5.07	28.5		ug/kg	
					27.7		

Identification Summary

SDG Number: 10–1512 **Client ID:** RE15–10–7891

Lab Sample ID: 245969002

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 13:39	**Analyzed:**	05–FEB–10 13:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							38
Column 1	1	3.26	3.24 – 3.3	9.11		ug/kg	
	2	3.42	3.39 – 3.45	10.9		ug/kg	
	3	3.65	3.62 – 3.68	10.5		ug/kg	
	4	3.82	3.79 – 3.85	7.94		ug/kg	
	5	3.92	3.9 – 3.96	17.2		ug/kg	
					11.1		
Column 2	1	3.4	3.37 – 3.43	5.88		ug/kg	
	2	3.82	3.79 – 3.85	7.88		ug/kg	
	3	3.94	3.91 – 3.97	11.1		ug/kg	
	4	4.22	4.19 – 4.25	5.95		ug/kg	
	5	4.35	4.32 – 4.38	7.09		ug/kg	
					7.58		
Aroclor–1260							8.76
Column 1	1	3.76	3.73 – 3.79	9.68		ug/kg	
	2	3.92	3.89 – 3.95	9.78		ug/kg	
	3	4.15	4.12 – 4.18	7.1		ug/kg	
	4	4.29	4.27 – 4.33	7.62		ug/kg	
	5	4.47	4.45 – 4.51	3.9		ug/kg	
					7.62		
Column 2	1	4.33	4.3 – 4.36	12		ug/kg	
	2	4.45	4.43 – 4.49	9.23		ug/kg	
	3	4.72	4.69 – 4.75	8.35		ug/kg	
	4	4.9	4.87 – 4.93	7.78		ug/kg	
	5	5.04	5.01 – 5.07	4.25		ug/kg	
					8.31		

Identification Summary

SDG Number: 10–1512 **Client ID:** RE15–10–7891

Lab Sample ID: 245969002

Data File:	036f3601.d	**Data File:**	036b3601.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	05–FEB–10 13:39	**Analyzed:**	05–FEB–10 13:39

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1268							5.49
Column 1	1	4.66	4.63 – 4.69	6.31		ug/kg	
	2	4.68	4.66 – 4.72	6.66		ug/kg	
	3	4.8	4.77 – 4.83	6.58		ug/kg	
	4	5	4.97 – 5.03	8.43		ug/kg	
	5	5.16	5.14 – 5.2	9.32		ug/kg	
					7.46		
Column 2	1	5.25	5.23 – 5.29	7.32		ug/kg	
	2	5.28	5.25 – 5.31	6.83		ug/kg	
	3	5.43	5.4 – 5.46	7.24		ug/kg	
	4	5.6	5.57 – 5.63	8.11		ug/kg	
	5	5.79	5.76 – 5.82	9.89		ug/kg	
					7.88		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1512**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033246**				
Client Sample:	**QC for batch 949031**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 949031**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 08:52**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1
11100-14-4	Aroclor-1268	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/020510.b/012f1201-4.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecdla.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecdla.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.965	1.965	0.000	48584892	121.874	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	36515828	112.942	3.8	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/012f1201-4.d

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Sample Info: |1202033246|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

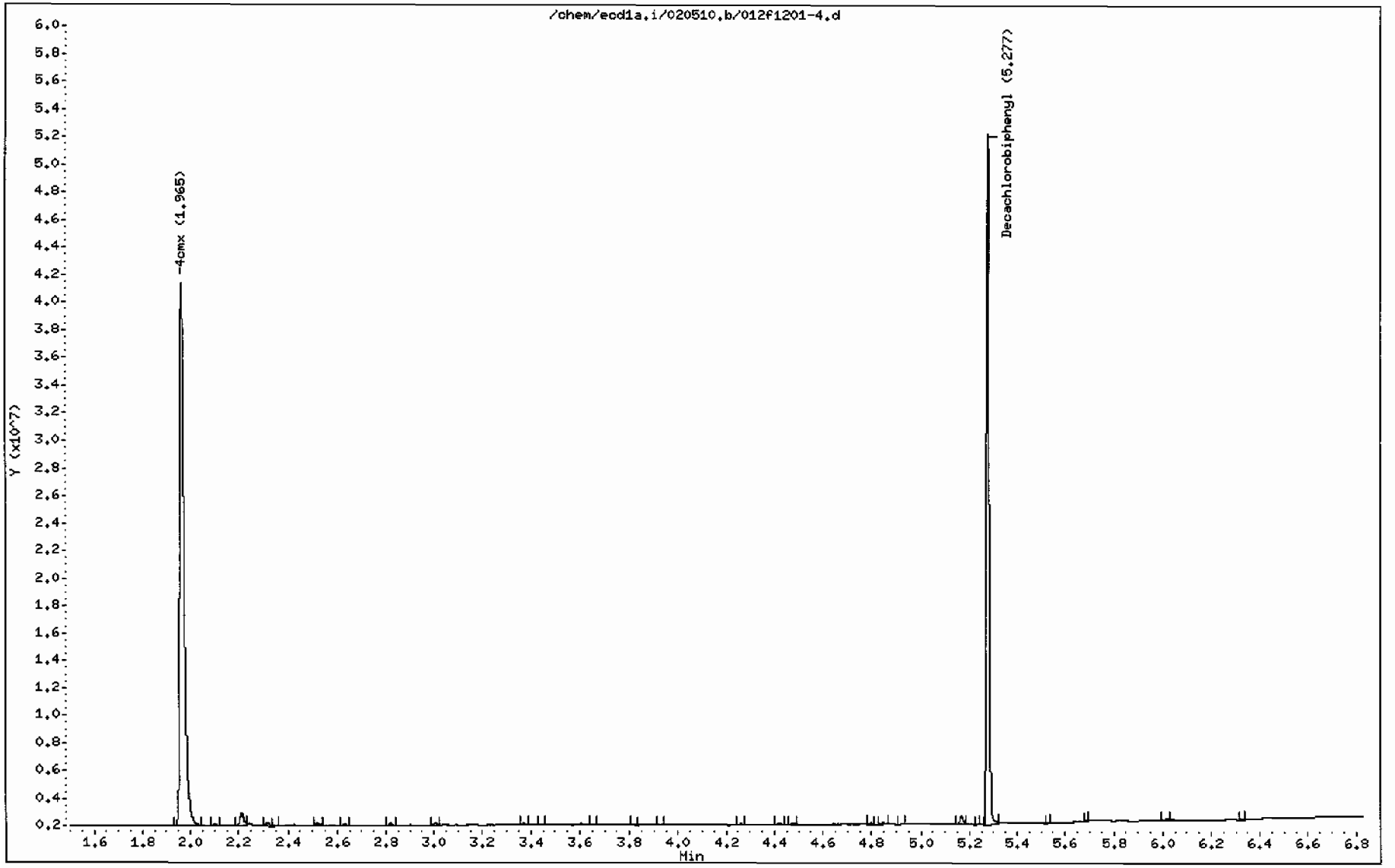

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/012b1201-4.d
Lab Smp Id: 1202033246 Client Smp ID: PBLK01
Inj Date : 05-FEB-2010 08:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033246|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.297	2.296	0.001	34903615	121.512	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	29195934	134.155	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/020510.b/012b1201-4.d

Date : 05-FEB-2010 08:52

Client ID: PBLK01

Sample Info: |1202033246|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

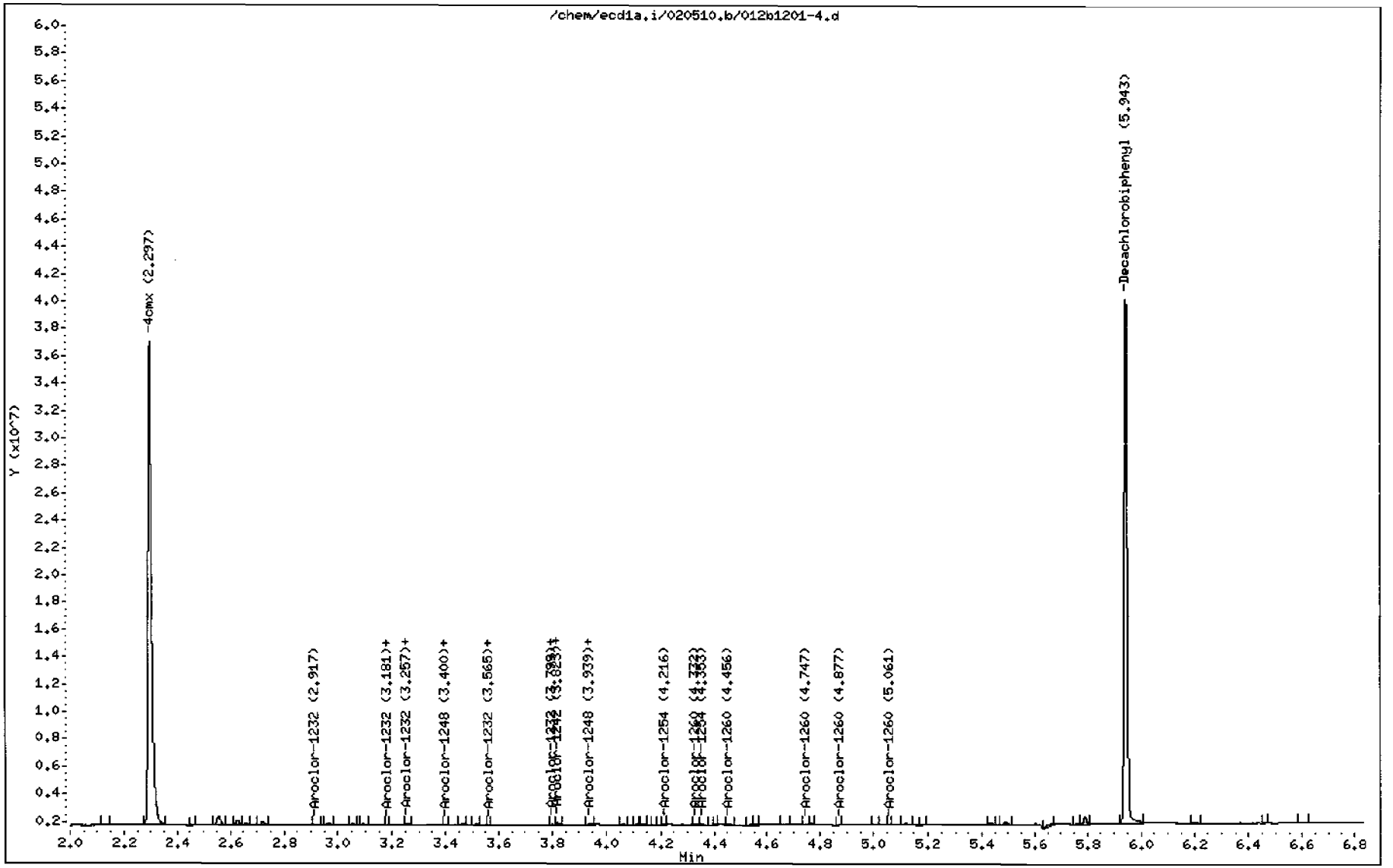

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1512**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202037813**				
Client Sample:	**QC for batch 950897**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 950897**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**950898**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 15:36**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:07**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/015f1501.d
Lab Smp Id: 1202037813 Client Smp ID: PBLK02
Inj Date : 10-FEB-2010 15:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037813|1|
Misc Info : |ECD82P_1S|950898|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 11-Feb-2010 06:04 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.962	0.002	55496273	139.211	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.278	-0.001	37513425	116.027	3.9	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021010b.b/015f1501.d
Date : 10-FEB-2010 15:36
Client ID: PBLK02
Sample Info: |1202037813|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

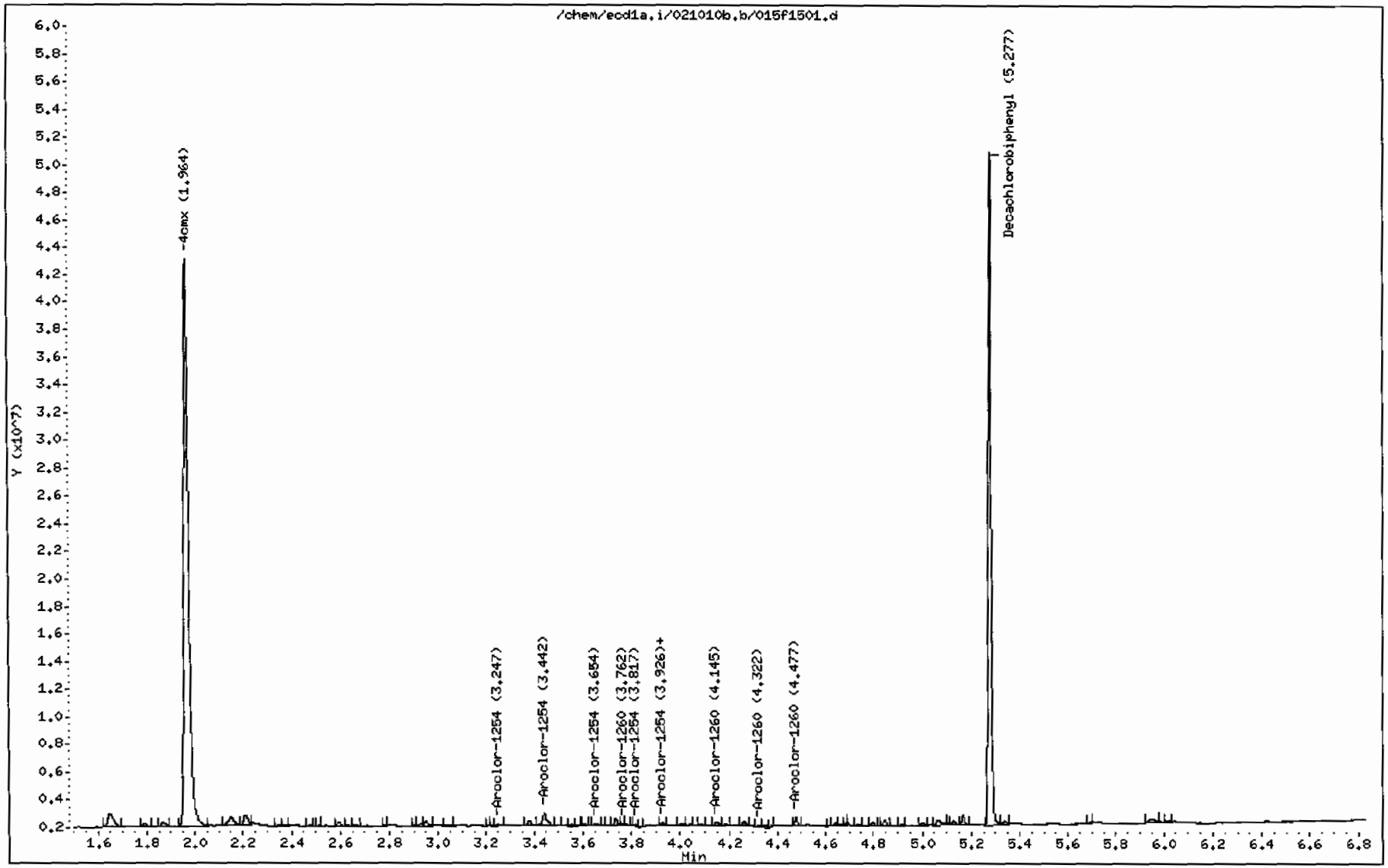

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/015b1501.d
Lab Smp Id: 1202037813 Client Smp ID: PBLK02
Inj Date : 10-FEB-2010 15:36
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037813|1|
Misc Info : |ECD82P_1S|950898|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:06 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 15 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.294	0.001	35469517	123.482	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.942	5.943	-0.001	28948374	133.018	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/021010b.b/015b1501.d
Date : 10-FEB-2010 15:36
Client ID: PBLK02
Sample Info: |1202037813|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

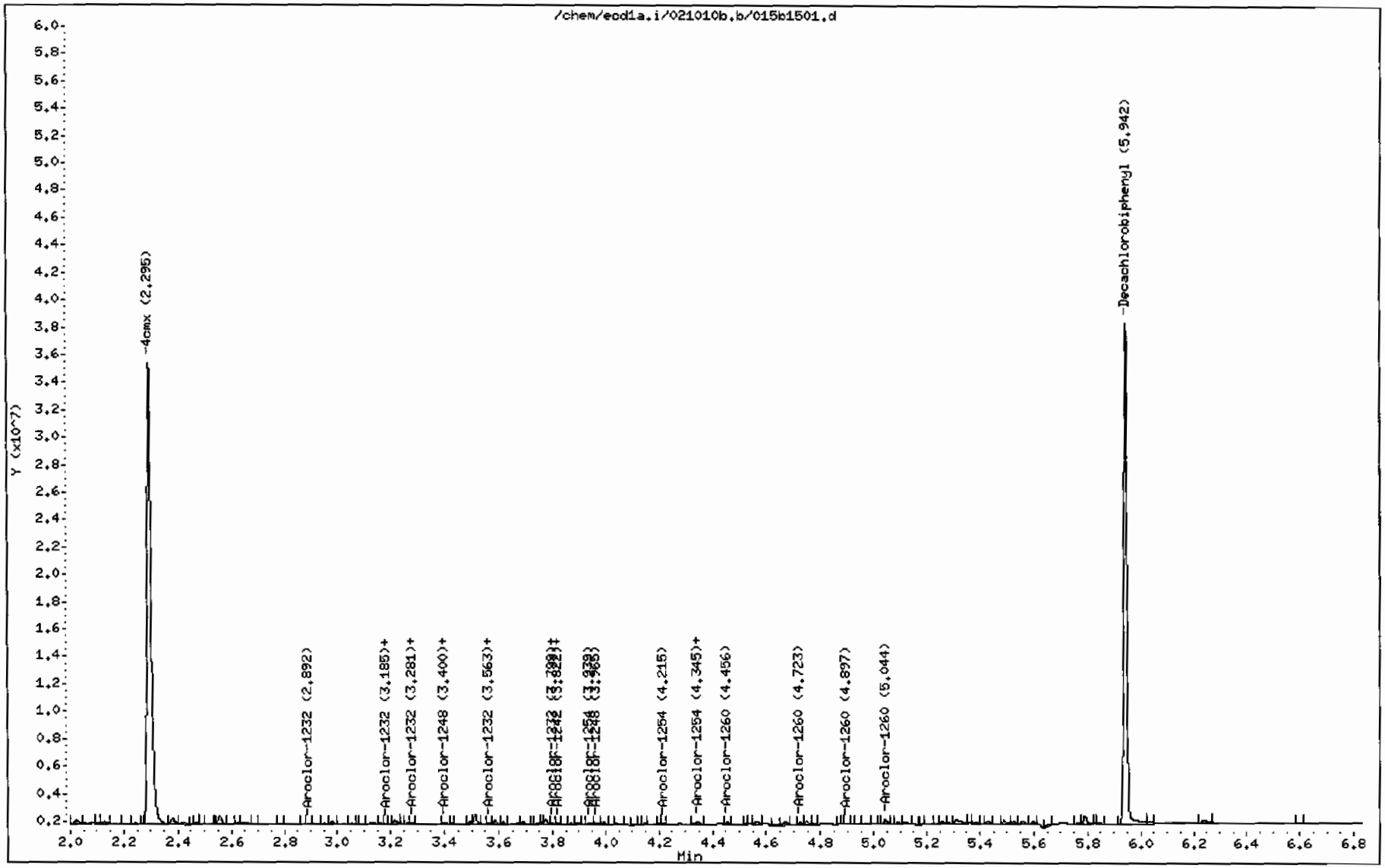

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1512**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202033247**				
Client Sample:	**QC for batch 949031**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 949031**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**949033**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/05/2010 09:02**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/04/2010 20:32**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		20.2	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		23.7	ug/kg	1.11	3.33	1
11100-14-4	Aroclor-1268	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013f1301-4.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-F-8082-121409.m
Meth Date : 05-Feb-2010 08:39 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.964	1.965	-0.001	50013903	125.458	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.277	5.275	0.002	39702847	122.799	4.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.420	2.419	0.001	8867856	604.950	20.2	80.00- 120.00	100.00
2.708	2.707	0.001	11431437	623.897	20.8	111.50- 151.50	128.91
2.789	2.788	0.001	7213810	599.968	20.0	62.41- 102.41	81.35
2.826	2.826	0.000	4356989	606.812	20.2	29.39- 69.39	49.13

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.037	3.036	0.001	5584390	601.132	20.0	44.74- 84.74	62.97
Average of Peak Concentrations =					20.2		
7 Aroclor-1260					CAS #: 11096-82-5		
3.763	3.762	0.001	12251339	694.656	23.2	80.00- 120.00	100.00
3.926	3.925	0.001	18755441	703.451	23.4	132.75- 172.75	153.09
4.156	4.155	0.001	11339517	712.208	23.7	70.75- 110.75	92.56
4.299	4.297	0.002	11864393	716.853	23.9	75.46- 115.46	96.84
4.478	4.477	0.001	27215780	732.880	24.4	198.55- 238.55	222.15
Average of Peak Concentrations =					23.7		

Data File: /chem/ecdia.i/020510.b/013F1301-4.d
Date : 05-FEB-2010 09:02
Client ID: PBLK01LCS
Sample Info: 1120203324714
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

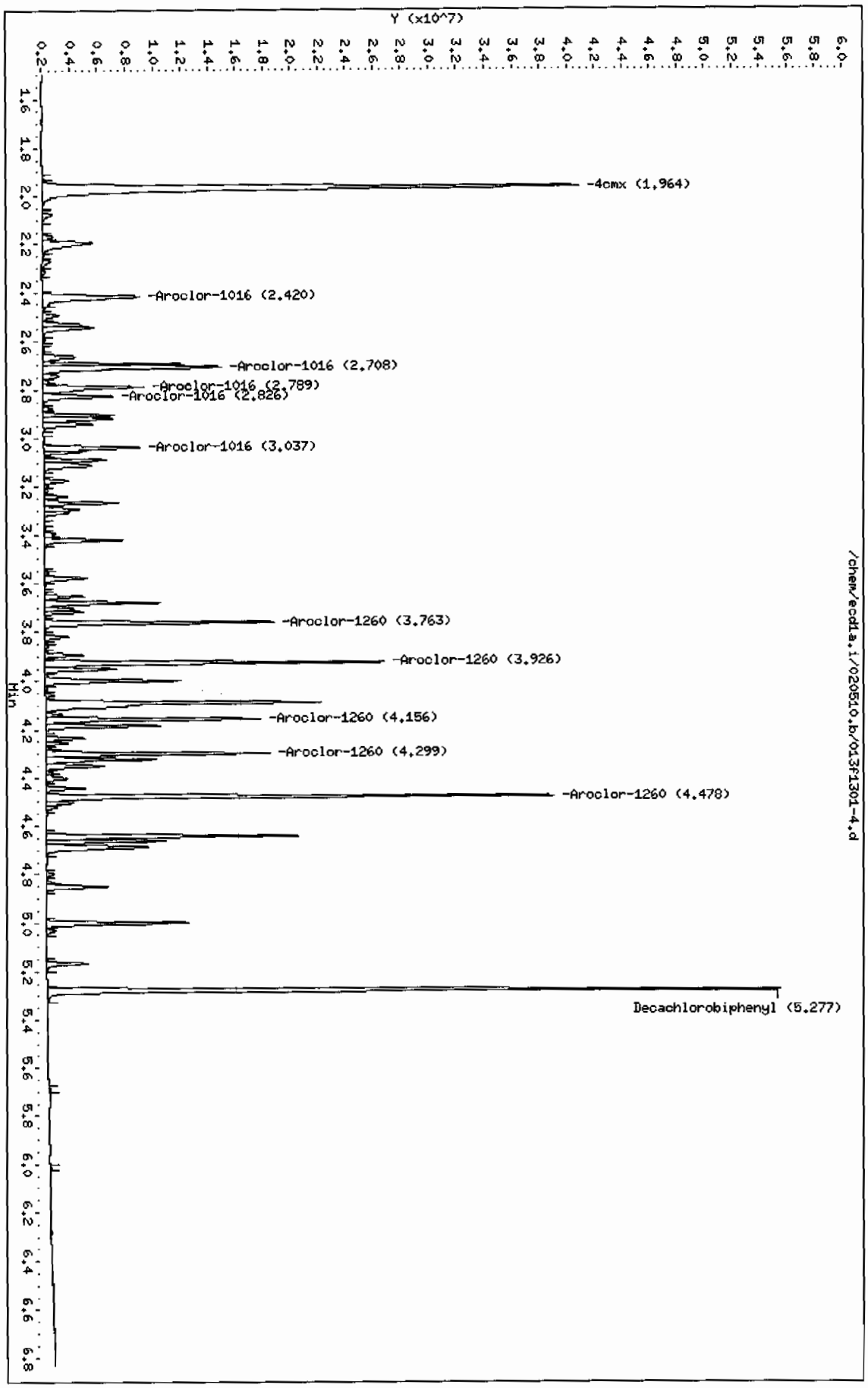

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/020510.b/013b1301-4.d
Lab Smp Id: 1202033247 Client Smp ID: PBLK01LCS
Inj Date : 05-FEB-2010 09:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202033247|1|
Misc Info : |ECD82P_1S|949033|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/020510.b/ECD1-B-8082-121409.m
Meth Date : 05-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.295	2.296	-0.001	35785063	124.581	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.943	5.942	0.001	29148749	133.938	4.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.192	3.192	0.000	7837768	627.787	20.9	80.00- 120.00	100.00(M)
3.275	3.275	0.000	5207354	609.274	20.3	46.71- 86.71	66.44
3.340	3.339	0.001	3101086	586.135	19.5	21.11- 61.11	39.57
3.566	3.565	0.001	4040701	593.042	19.8	32.44- 72.44	51.55

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.642	3.641	0.001	3840836	599.683	20.0	29.96- 69.96	49.00
Average of Peak Concentrations =					20.1		
7 Aroclor-1260					CAS #: 11096-82-5		
4.332	4.332	0.000	8683387	686.743	22.9	80.00- 120.00	100.00
4.457	4.457	0.000	10720030	704.334	23.5	101.36- 141.36	123.45
4.723	4.722	0.001	8290264	711.578	23.7	72.42- 112.42	95.47
4.896	4.896	0.000	8478479	703.403	23.4	75.24- 115.24	97.64
5.044	5.043	0.001	19273891	739.359	24.6	194.19- 234.19	221.96
Average of Peak Concentrations =					23.6		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/020510.b/013b1301-4.d
Date : 05-FEB-2010 09:02
Client ID: PBLK01LCS
Sample Info: |1202033247|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

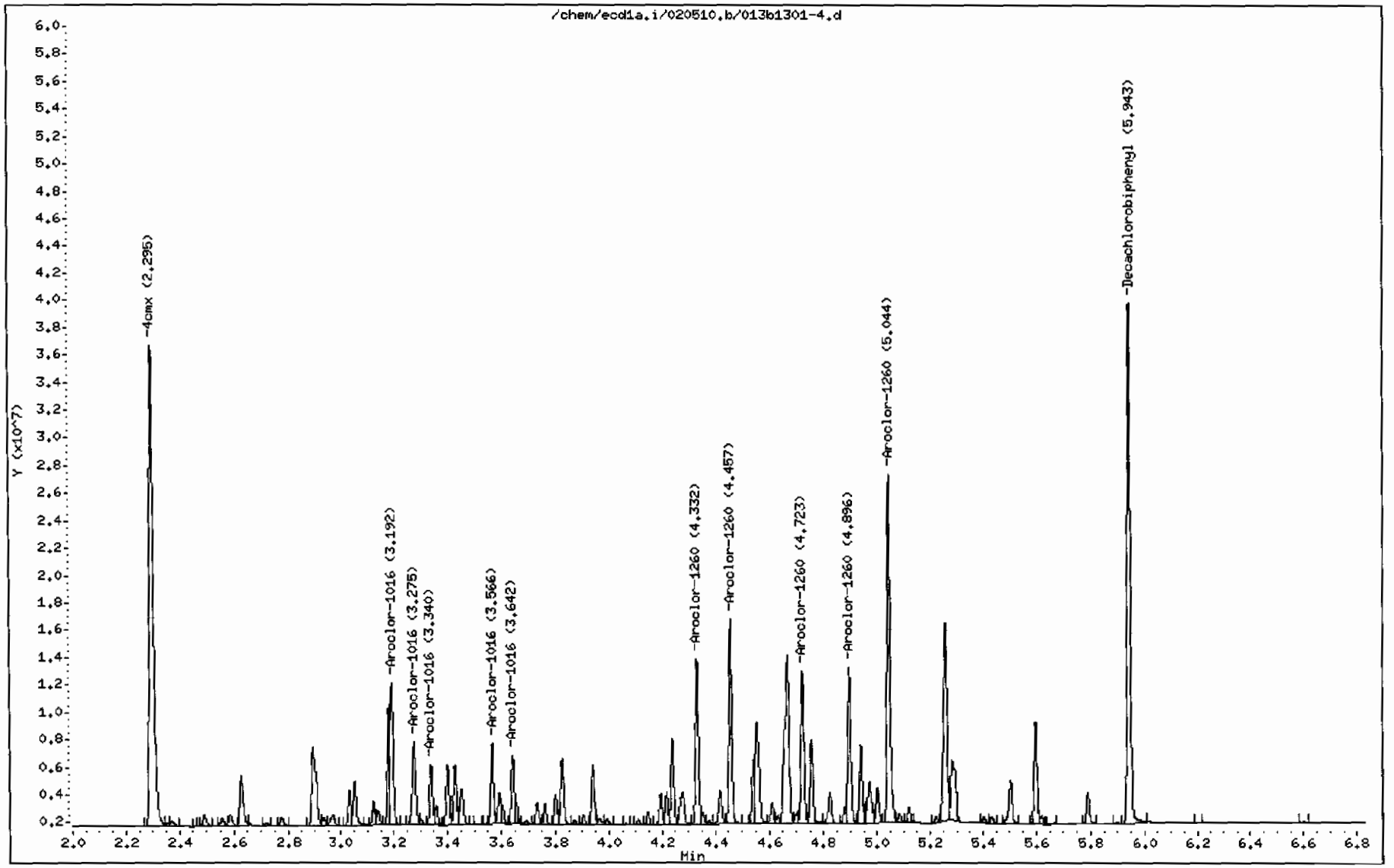

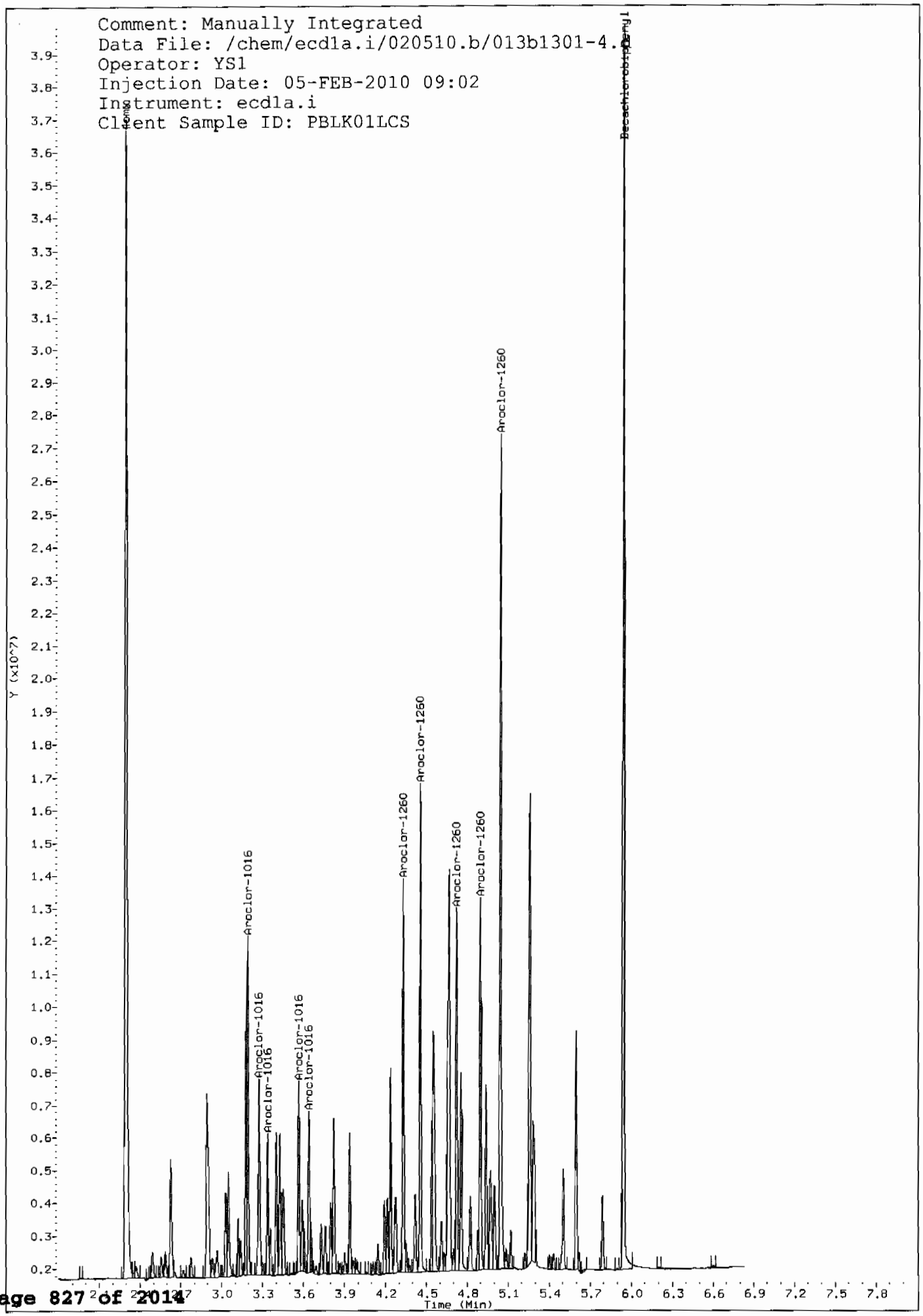
Comment: Manually Integrated
Data File: /chem/ecd1a.i/020510.b/013b1301-4.
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

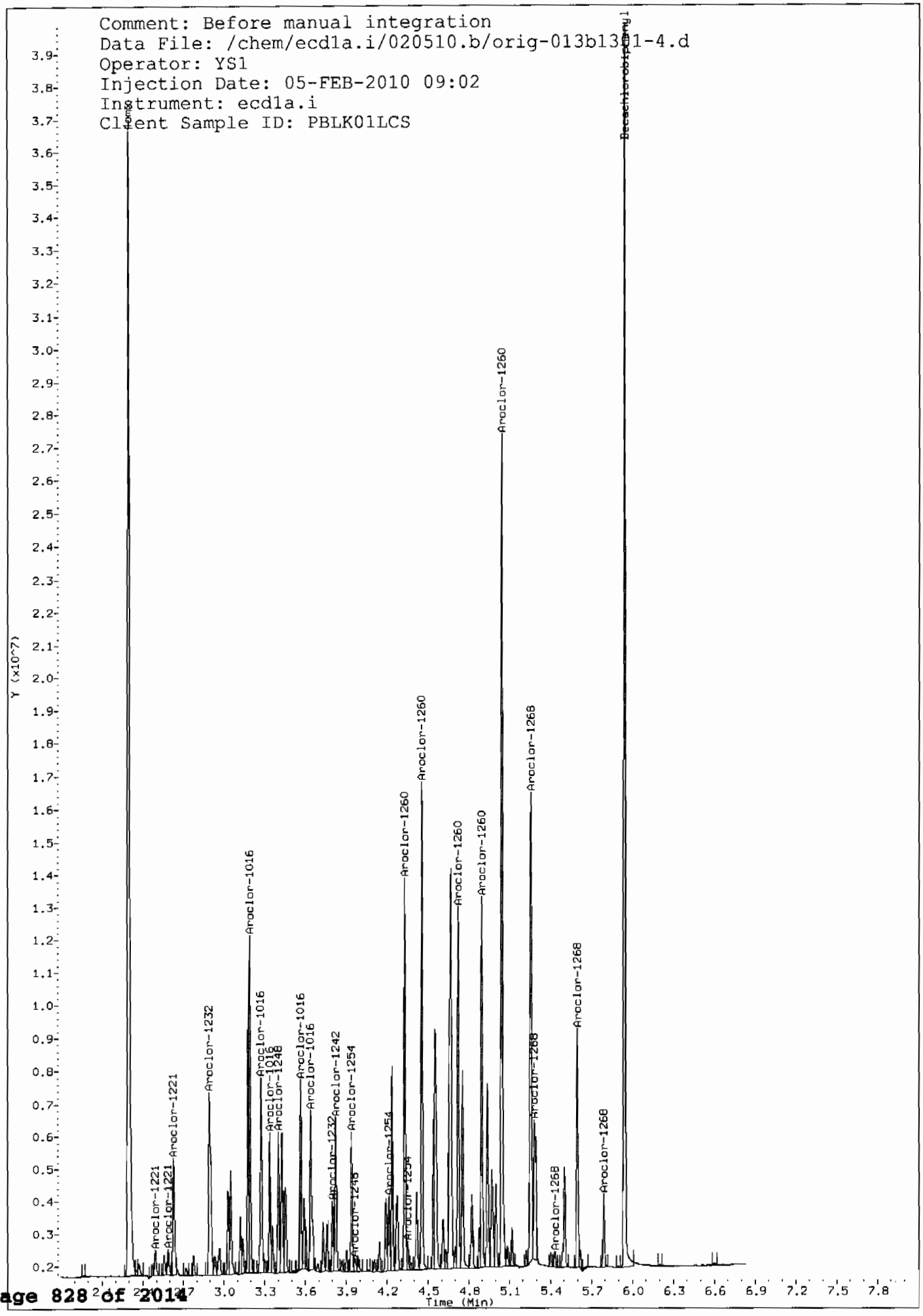
Comment: Before manual integration
Data File: /chem/ecd1a.i/020510.b/orig-013b1301-4.d
Operator: YS1
Injection Date: 05-FEB-2010 09:02
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1268
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1512**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202037814**				
Client Sample:	**QC for batch 950897**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 950897**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**950898**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/10/2010 15:48**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/09/2010 21:07**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		23.8	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		26.2	ug/kg	1.11	3.33	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/016f1601.d
Lab Smp Id: 1202037814 Client Smp ID: PBLK02LCS
Inj Date : 10-FEB-2010 15:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037814|1|
Misc Info : |ECD82P_1S|950898|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 11-Feb-2010 07:52 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.963	1.962	0.001	55335273	138.807	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.276	5.278	-0.002	35582415	110.055	3.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.418	0.000	10133640	691.300	23.0	80.00- 120.00	100.00
2.706	2.706	0.000	13790584	752.653	25.1	115.31- 155.31	136.09
2.787	2.787	0.000	8530446	709.472	23.6	63.87- 103.87	84.18
2.824	2.825	-0.001	5065609	705.504	23.5	30.33- 70.33	49.99

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.034	3.036	-0.002	6652717	716.133	23.9	44.29- 84.29	65.65
		Average of Peak Concentrations =			23.8		
7 Aroclor-1260					CAS #: 11096-82-5		
3.760	3.762	-0.002	14216245	806.067	26.9	80.00- 120.00	100.00
3.923	3.926	-0.003	21316040	799.491	26.6	129.92- 169.92	149.94
4.153	4.156	-0.003	12938180	812.616	27.1	69.69- 109.69	91.01
4.296	4.299	-0.003	11170189	674.909	22.5	73.92- 113.92	78.57
4.476	4.478	-0.002	31233709	841.077	28.0	189.61- 229.61	219.70
		Average of Peak Concentrations =			26.2		

Data File: /chem/ecdia.i/021010b.b/016f1601.d
Date : 10-FEB-2010 15:48
Client ID: PBLK02LCS
Sample Info: 1120203781411
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

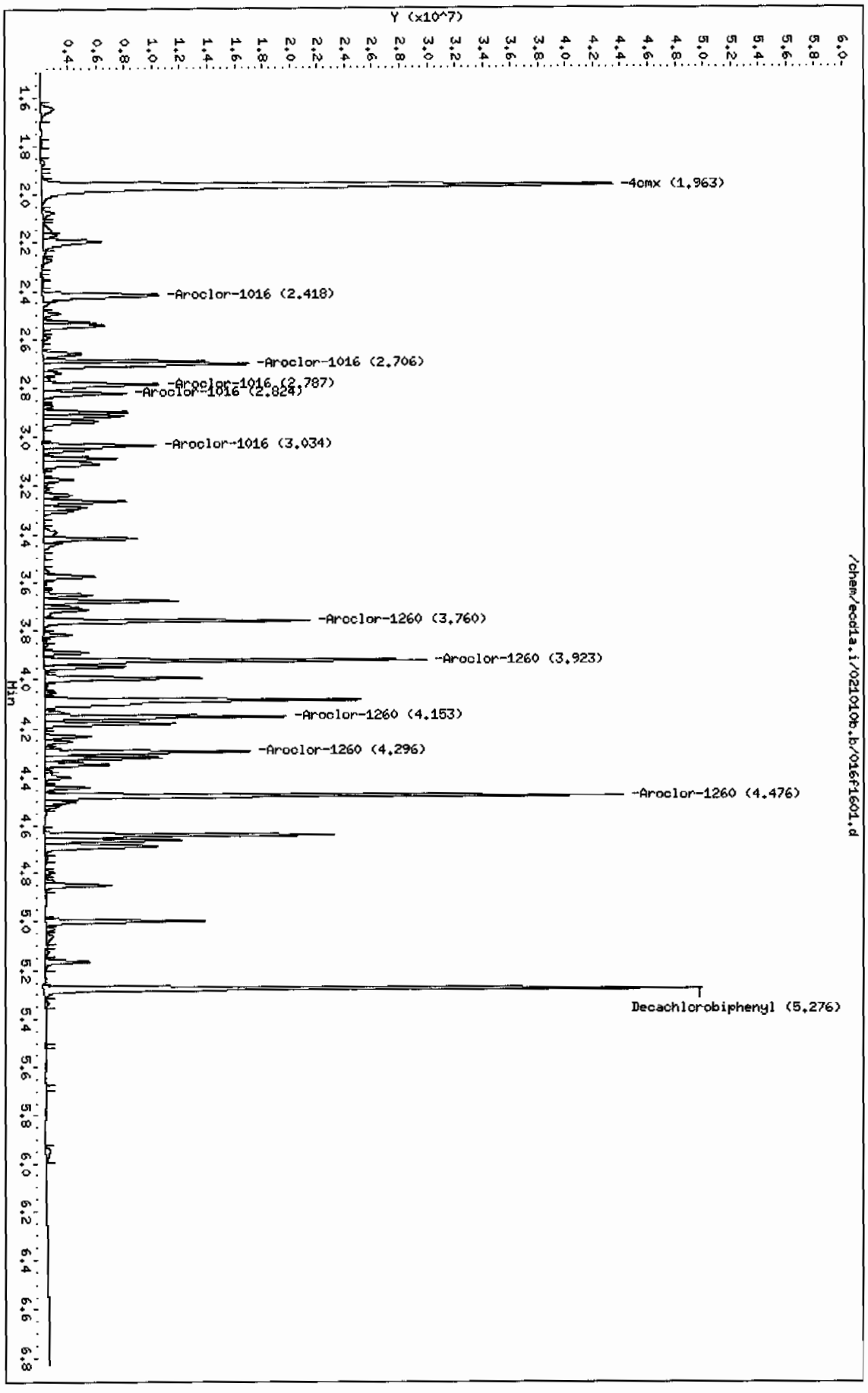

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/016b1601.d
Lab Smp Id: 1202037814 Client Smp ID: PBLK02LCS
Inj Date : 10-FEB-2010 15:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037814|1|
Misc Info : |ECD82P_1S|950898|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	35118580	122.261	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.943	-0.002	29093918	133.686	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.191	3.191	0.000	8270781	662.470	22.1	80.00- 120.00	100.00(M)
3.273	3.274	-0.001	5540819	648.290	21.6	45.25- 85.25	66.99
3.338	3.337	0.001	3335698	630.479	21.0	20.16- 60.16	40.33
3.564	3.565	-0.001	4406465	646.724	21.6	31.13- 71.13	53.28

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.640	3.640	0.000	4138247	646.118	21.5	37.39- 77.39	59.98
Average of Peak Concentrations =					21.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.331	-0.001	9091332	719.006	24.0	80.00- 120.00	100.00
4.455	4.457	-0.002	11176356	734.316	24.5	101.16- 141.16	122.93
4.721	4.723	-0.002	8620806	739.950	24.7	72.06- 112.06	94.82
4.895	4.896	-0.001	8984089	745.350	24.8	75.82- 115.82	98.82
5.043	5.044	-0.001	20325162	779.686	26.0	191.28- 231.28	223.57
Average of Peak Concentrations =					24.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021010b.b/016b1601.d
Date : 10-FEB-2010 15:48
Client ID: PBLK02LCS
Sample Info: 1120203781411
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

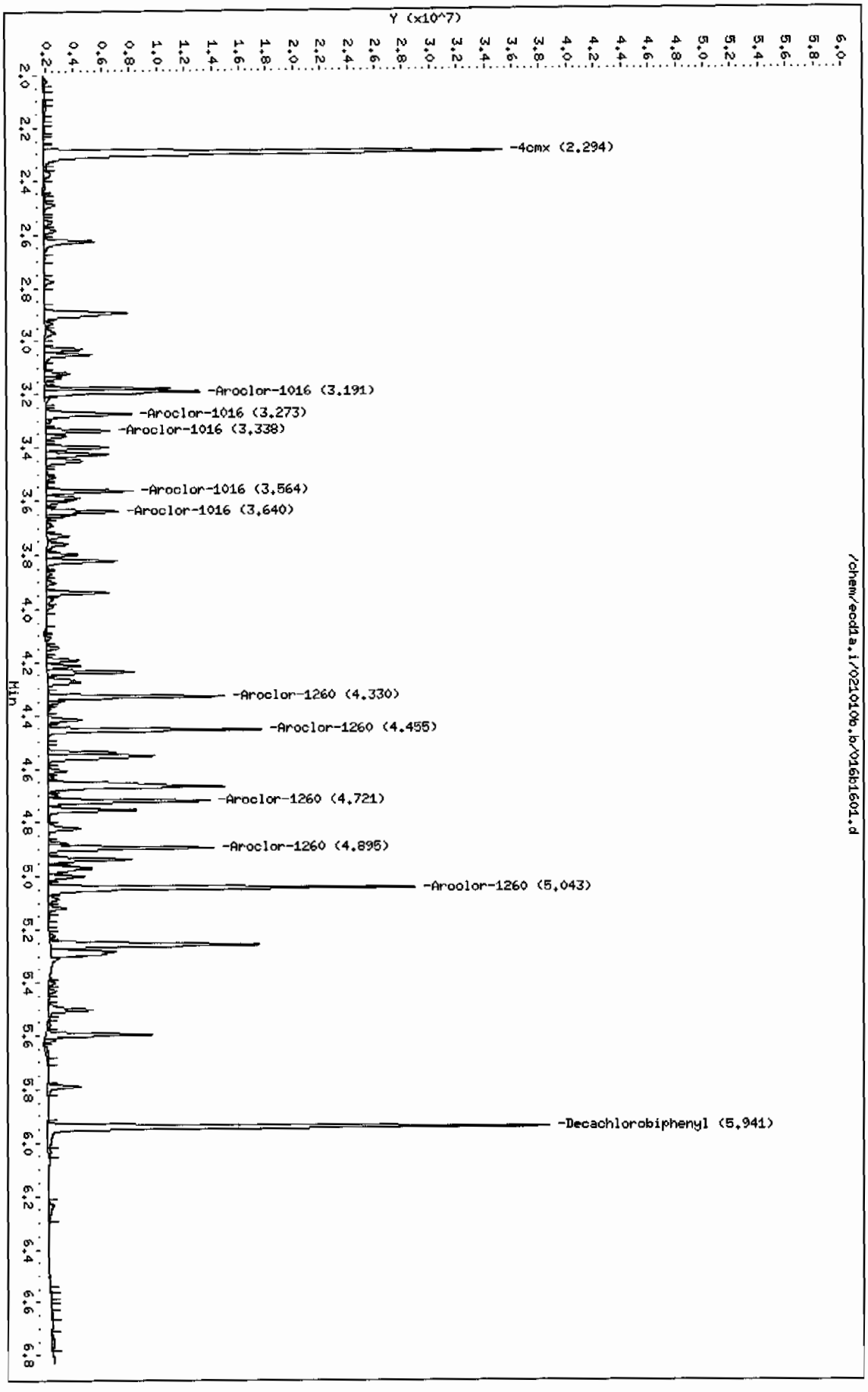

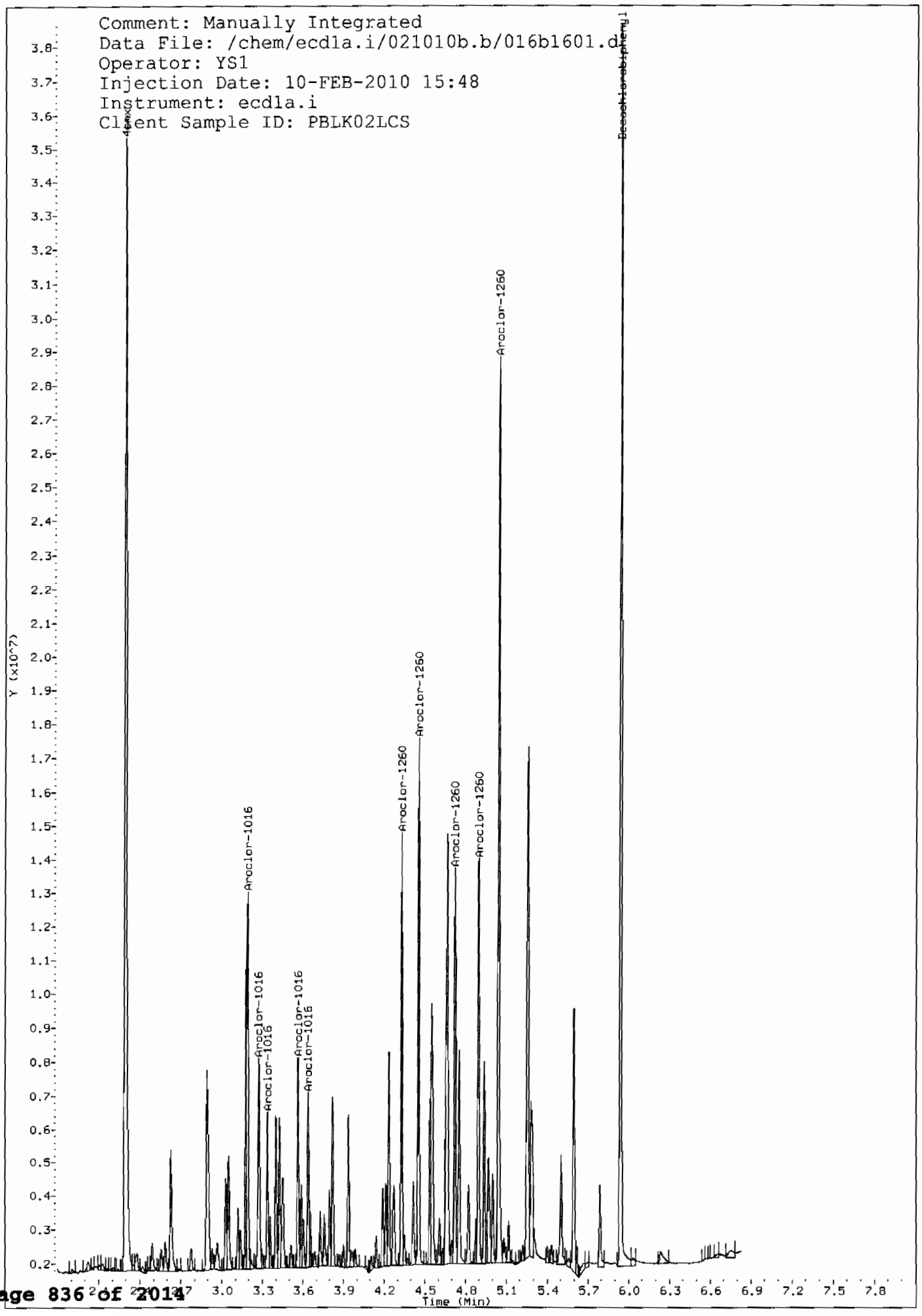
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/016b1601.d
Operator: YS1
Injection Date: 10-FEB-2010 15:48
Instrument: ecd1a.i
Client Sample ID: PBLK02LCS
4,4'-DDE
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

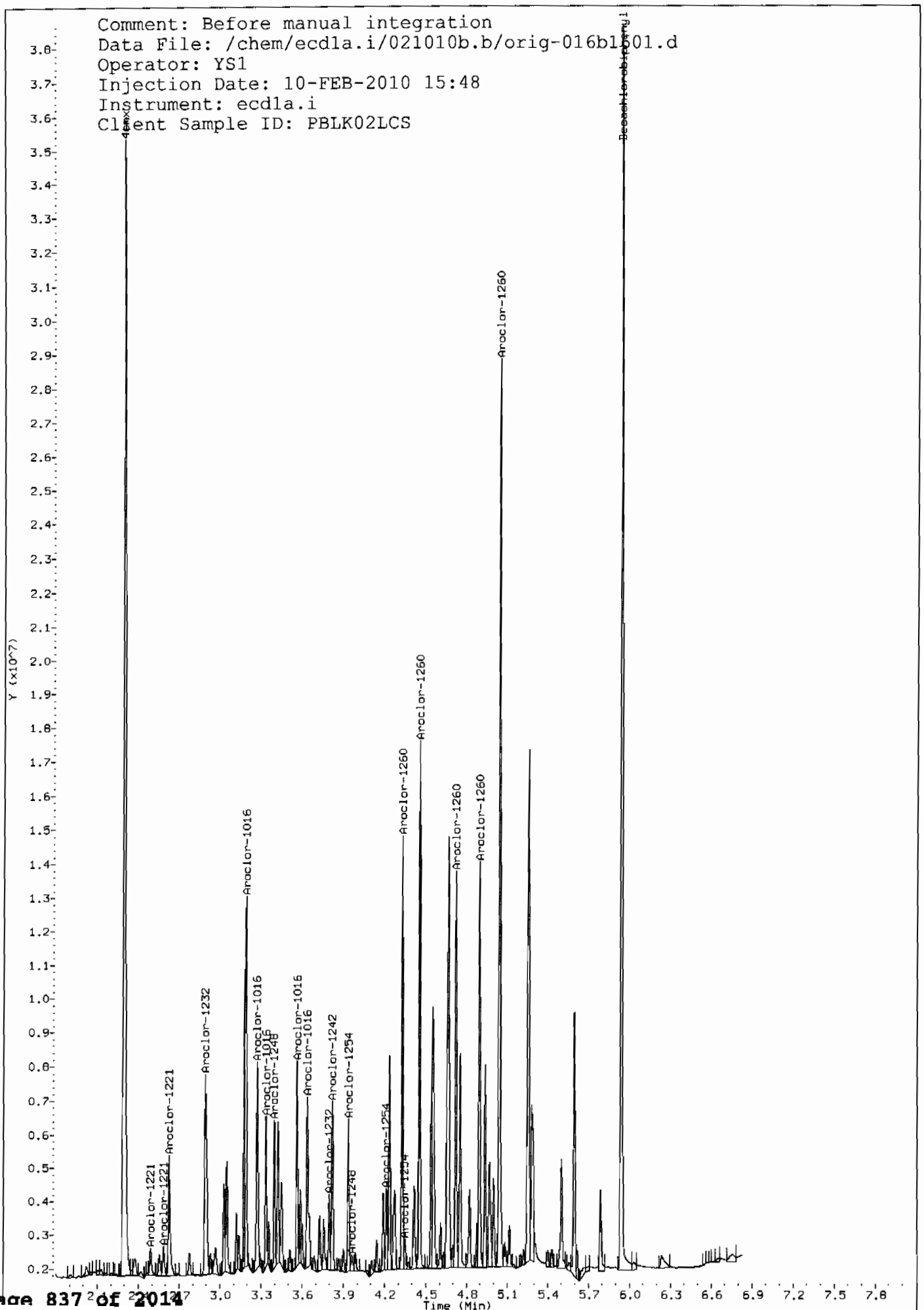
Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-016b1501.d
Operator: YS1
Injection Date: 10-FEB-2010 15:48
Instrument: ecd1a.i
Client Sample ID: PBLK02LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1512	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	1202037815	**Date Received:**	02/02/2010 09:10	**%Moisture:**	7.5
Client Sample:	QC for batch 950897	**Client:**	LANL010	**Project:**	QC
Client ID:	RE15–10–7880MS	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	950898	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/10/2010 17:04	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/09/2010 21:07	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	022f2201.d	**Column:**	1 CLP1	**Level:**	LOW
	022b2201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		24.0	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260		28.0	ug/kg	1.20	3.60	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/022f2201.d
Lab Smp Id: 1202037815 Client Smp ID: RE15-10-7880MS
Inj Date : 10-FEB-2010 17:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037815|1|
Misc Info : |ECD82P_1S|950898|2|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 16-Feb-2010 08:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	7.50240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	54196229	135.950	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.275	5.278	-0.003	43345578	134.066	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.418	2.418	0.000	9442218	644.132	23.2	80.00- 120.00	100.00
2.705	2.706	-0.001	12534639	684.107	24.6	115.31- 155.31	132.75
2.786	2.787	-0.001	8030482	667.890	24.0	63.87- 103.87	85.05
2.824	2.825	-0.001	4774071	664.900	23.9	30.33- 70.33	50.56

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.034	3.036	-0.002	6263895	674.278	24.2	44.29- 84.29	66.34
Average of Peak Concentrations =					24.0		
7 Aroclor-1260					CAS #: 11096-82-5		
3.760	3.762	-0.002	13689169	776.182	27.9	80.00- 120.00	100.00
3.923	3.926	-0.003	20140248	755.391	27.2	129.92- 169.92	147.13
4.153	4.156	-0.003	12426902	780.504	28.1	69.69- 109.69	90.78
4.296	4.299	-0.003	12999150	785.416	28.2	73.92- 113.92	94.96
4.475	4.478	-0.003	29363009	790.702	28.4	189.61- 229.61	214.50
Average of Peak Concentrations =					28.0		

Data File: /chem/ecd1a.i/021010b.b/022f2201.d
Date : 10-FEB-2010 17:04
Client ID: RE15-10-7880MS
Sample Info: |1202037815|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

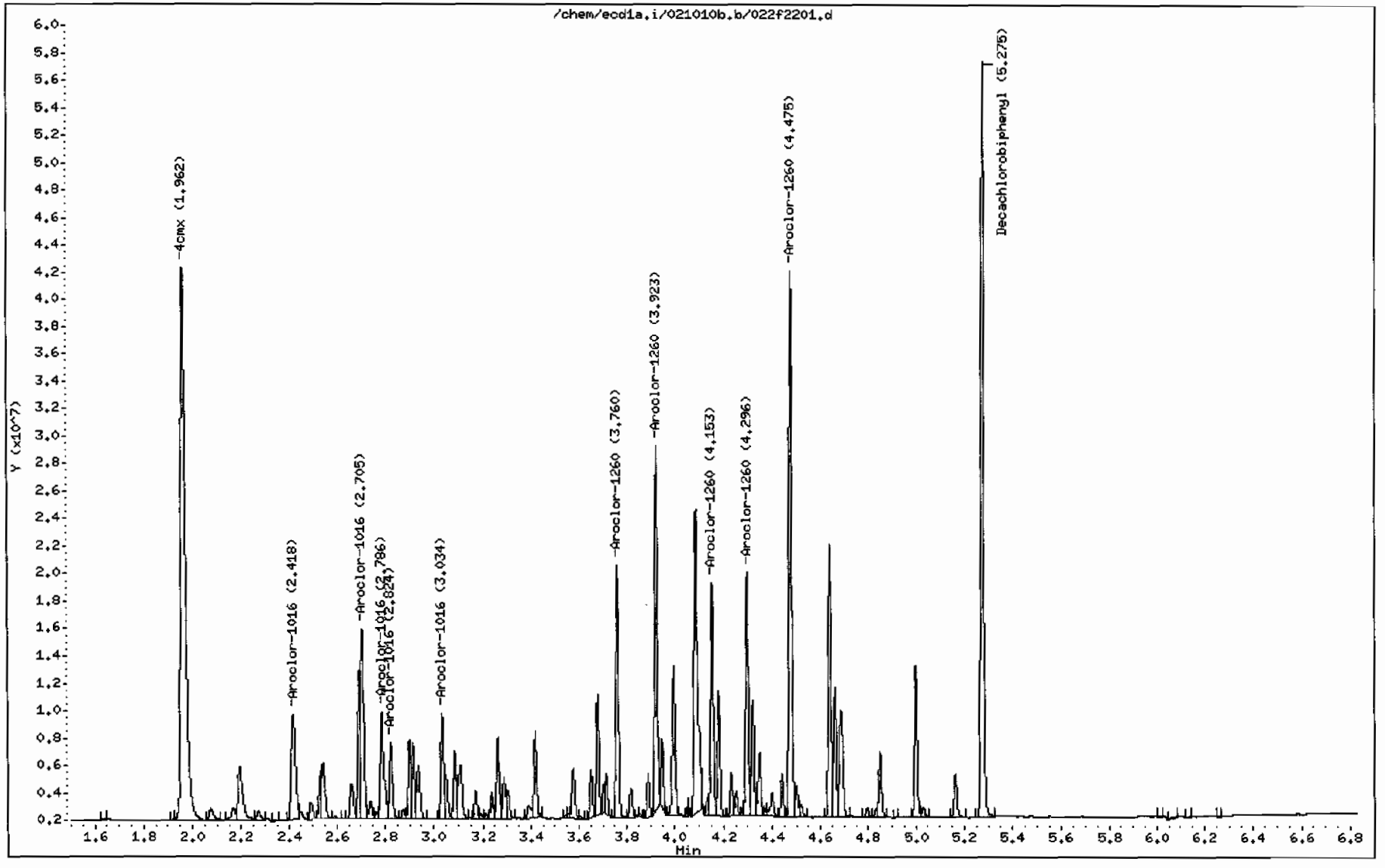

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/022b2201.d
Lab Smp Id: 1202037815 Client Smp ID: RE15-10-7880MS
Inj Date : 10-FEB-2010 17:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037815|1|
Misc Info : |ECD82P_1S|950898|2|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 22 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	7.50240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.294	2.294	0.000	34981975	121.785	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.941	5.943	-0.002	28186723	129.518	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.191	-0.001	7819871	626.353	22.5	80.00- 120.00	100.00(M)
3.273	3.274	-0.001	5119543	598.999	21.5	45.25- 85.25	65.47
3.337	3.337	0.000	3089356	583.918	21.0	20.16- 60.16	39.51
3.564	3.565	-0.001	4052724	594.807	21.4	31.13- 71.13	51.83

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.640	3.640	0.000	3818929	596.262	21.4	27.96- 67.96	48.84
Average of Peak Concentrations =					21.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.331	-0.001	9001558	711.906	25.6	80.00- 120.00	100.00
4.455	4.457	-0.002	11166980	733.700	26.4	101.16- 141.16	124.06
4.721	4.723	-0.002	8563633	735.043	26.4	72.06- 112.06	95.14
4.895	4.896	-0.001	8744094	725.439	26.1	75.82- 115.82	97.14
5.042	5.044	-0.002	19672360	754.644	27.1	191.28- 231.28	218.54
Average of Peak Concentrations =					26.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021010b.b/022b2201.d
Date : 10-FEB-2010 17:04
Client ID: RE15-10-7880MS
Sample Info: |1202037815|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

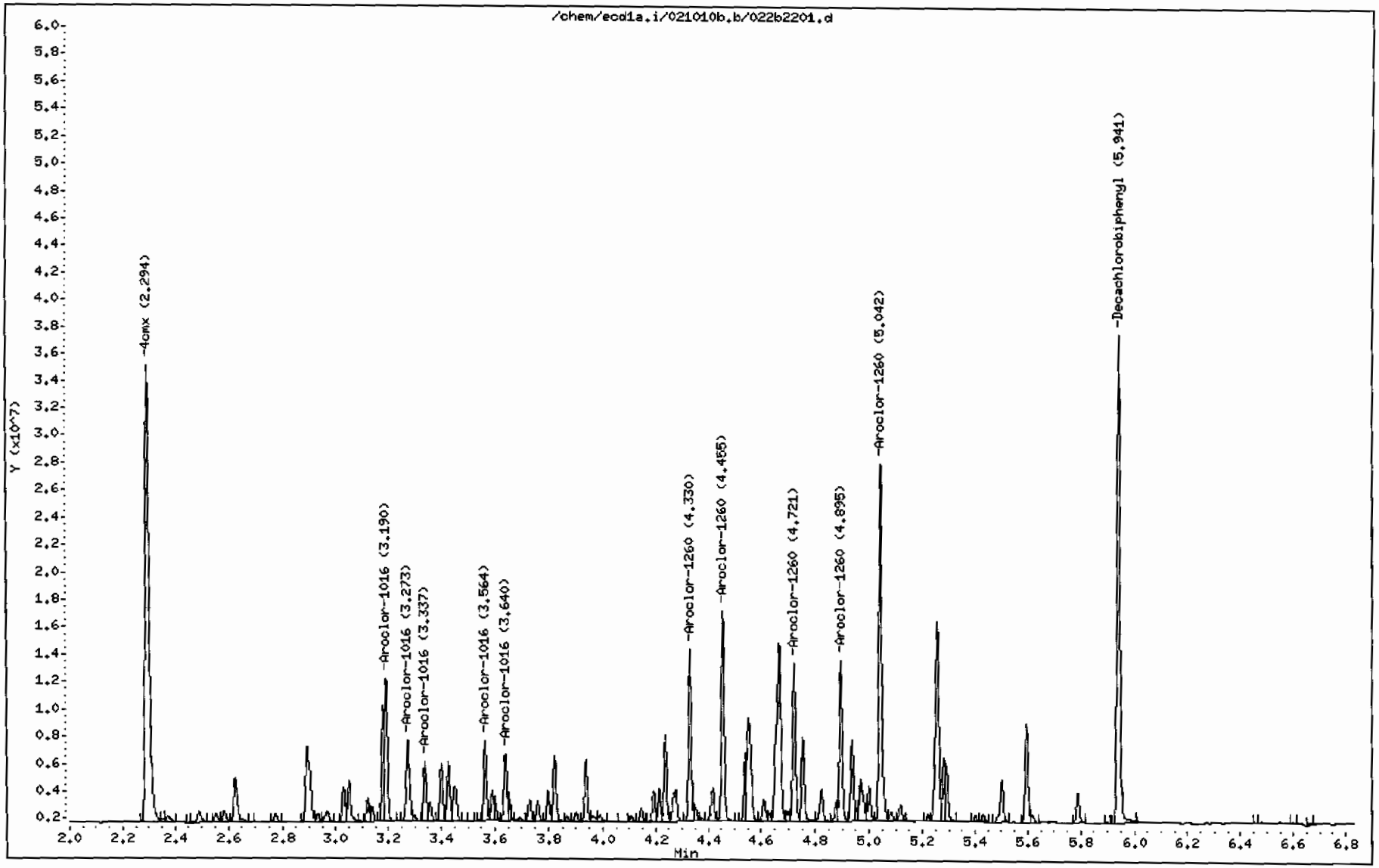

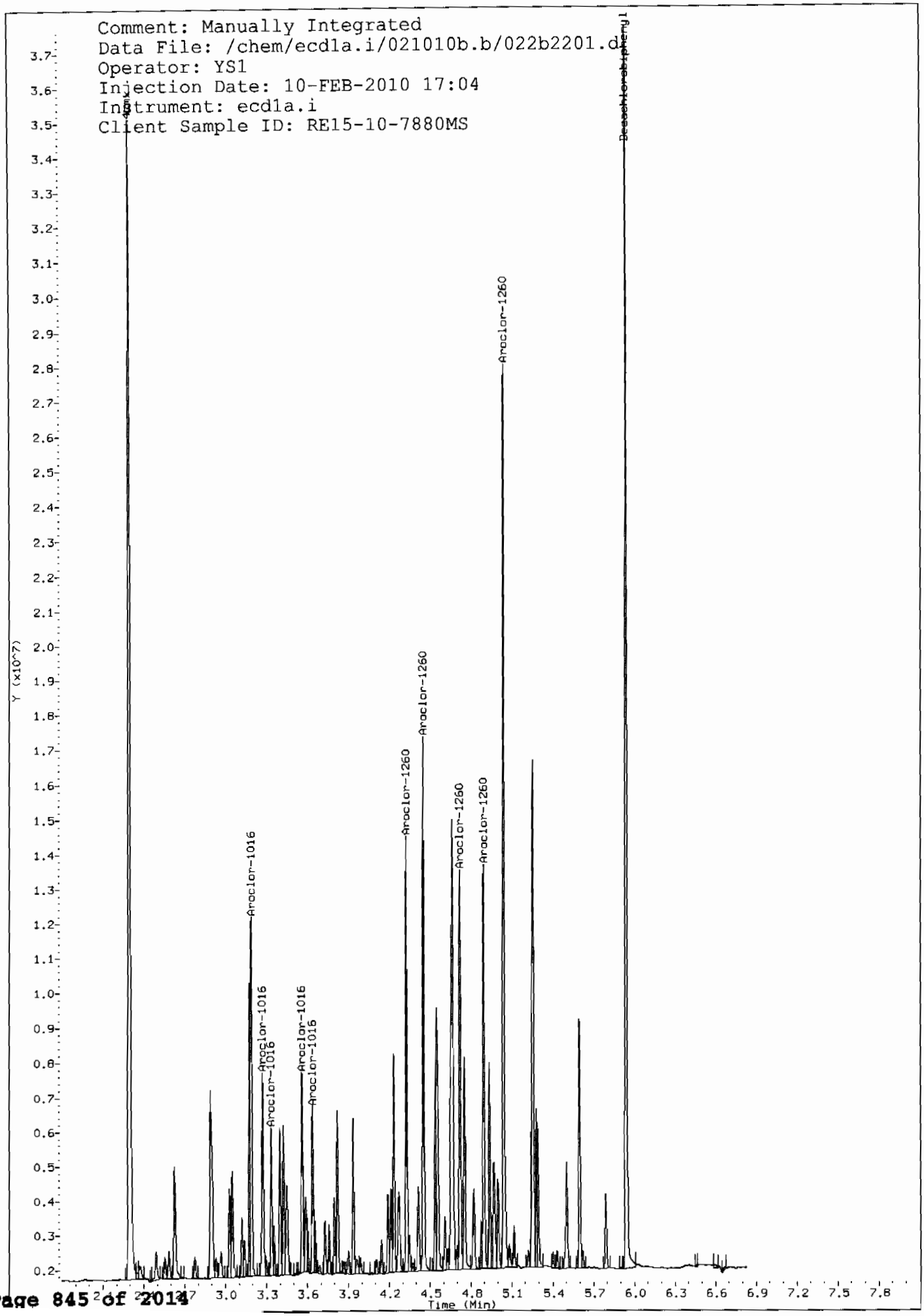
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/022b2201.d
Operator: YS1
Injection Date: 10-FEB-2010 17:04
Instrument: ecd1a.i
Client Sample ID: RE15-10-7880MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)

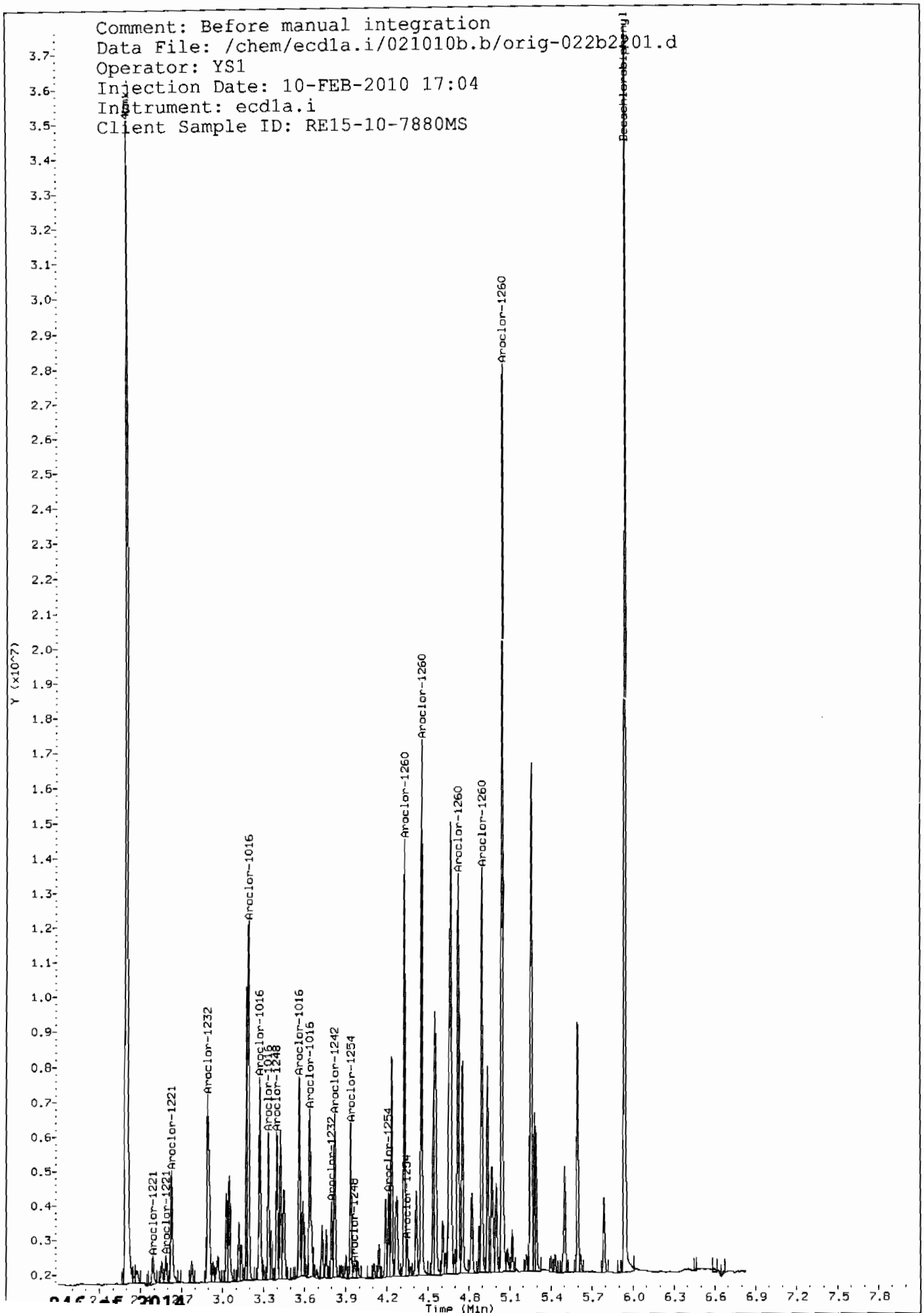
Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-022b2201.d
Operator: YS1
Injection Date: 10-FEB-2010 17:04
Instrument: ecd1a.i
Client Sample ID: RE15-10-7880MS
Y (x10^7)
Time (Min)
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1242
Aroclor-1254
Aroclor-1260

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1512	**Date Collected:**	01/27/2010 12:00	**Matrix:**	R
Lab Sample ID:	1202037816	**Date Received:**	02/02/2010 09:10	**%Moisture:**	7.5
Client Sample:	QC for batch 950897	**Client:**	LANL010	**Project:**	QC
Client ID:	RE15–10–7880MSD	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	950898	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/10/2010 17:17	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/09/2010 21:07	**Aliquot:**	30.01 g	**Final Volume:**	1 mL
Data File:	023f2301.d	**Column:**	1 CLP1	**Level:**	LOW
	023b2301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		26.1	ug/kg	1.20	3.60	1
11104–28–2	Aroclor–1221	U	3.60	ug/kg	1.20	3.60	1
11141–16–5	Aroclor–1232	U	3.60	ug/kg	1.20	3.60	1
53469–21–9	Aroclor–1242	U	3.60	ug/kg	1.20	3.60	1
12672–29–6	Aroclor–1248	U	3.60	ug/kg	1.20	3.60	1
11097–69–1	Aroclor–1254	U	3.60	ug/kg	1.20	3.60	1
11096–82–5	Aroclor–1260		30.1	ug/kg	1.20	3.60	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/023f2301.d
Lab Smp Id: 1202037816 Client Smp ID: RE15-10-7880MSD
Inj Date : 10-FEB-2010 17:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037816|1|
Misc Info : |ECD82P_1S|950898|2|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-F-8082-121409.m
Meth Date : 16-Feb-2010 08:42 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017f1701.d
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	7.50240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.962	1.962	0.000	57442491	144.093	5.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.274	5.278	-0.004	46009969	142.306	5.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.417	2.418	-0.001	10572906	721.266	26.0	80.00- 120.00	100.00
2.704	2.706	-0.002	14128634	771.103	27.8	115.31- 155.31	133.63
2.785	2.787	-0.002	8666837	720.815	26.0	63.87- 103.87	81.97
2.824	2.825	-0.001	5079315	707.413	25.5	30.33- 70.33	48.04

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.034	3.036	-0.002	6553208	705.421	25.4	44.29- 84.29	61.98
Average of Peak Concentrations =					26.1		
7 Aroclor-1260					CAS #: 11096-82-5		
3.760	3.762	-0.002	14617781	828.834	29.8	80.00- 120.00	100.00
3.923	3.926	-0.003	22356215	838.504	30.2	129.92- 169.92	152.94
4.153	4.156	-0.003	13354082	838.738	30.2	69.69- 109.69	91.36
4.295	4.299	-0.004	13828555	835.529	30.1	73.92- 113.92	94.60
4.475	4.478	-0.003	31258722	841.750	30.3	189.61- 229.61	213.84
Average of Peak Concentrations =					30.1		

Data File: /chem/ecd1a.i/021010b.b/023f2301.d
Date : 10-FEB-2010 17:17
Client ID: RE15-10-7880MSD
Sample Info: |1202037816|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

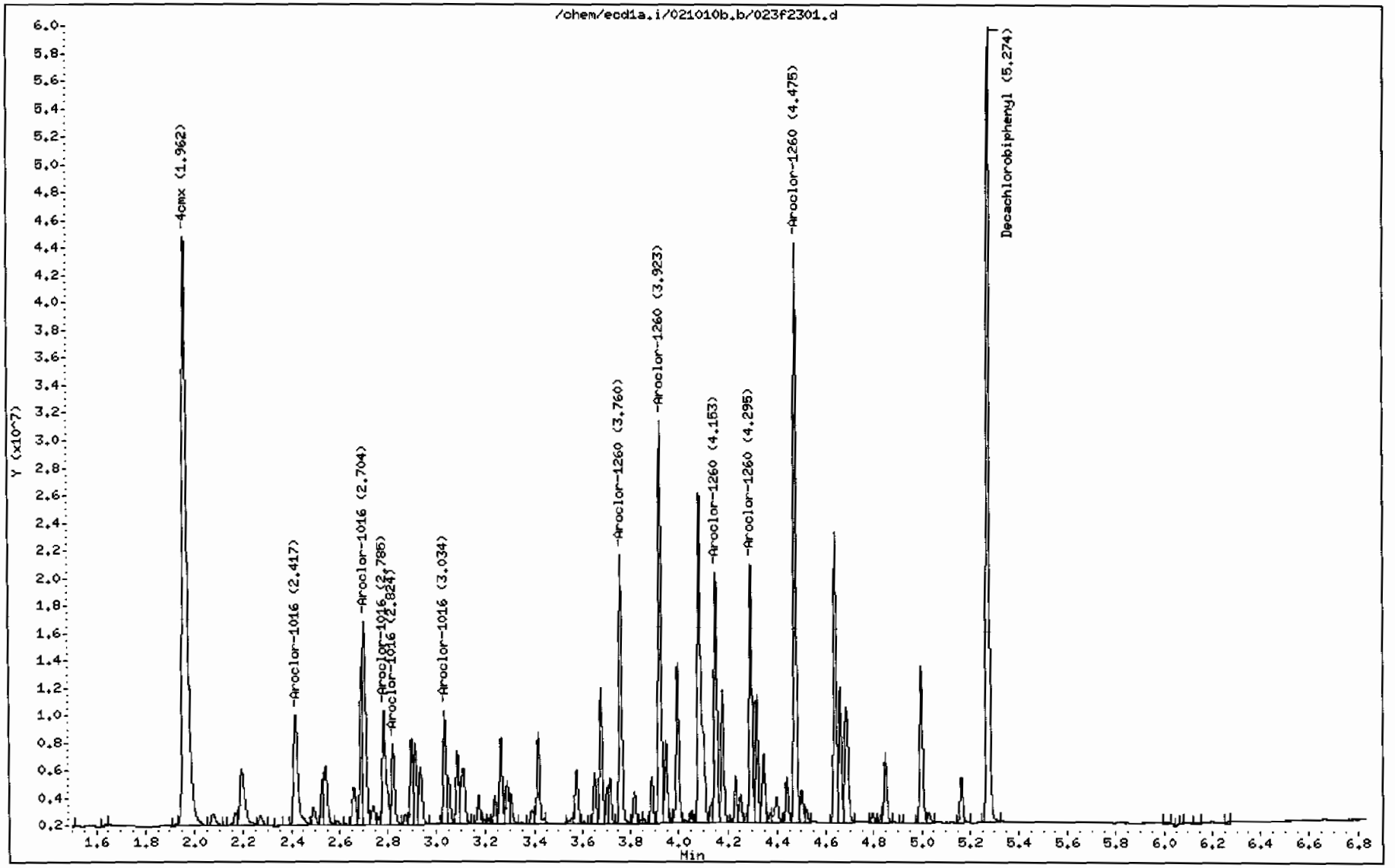

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/021010b.b/023b2301.d
Lab Smp Id: 1202037816 Client Smp ID: RE15-10-7880MSD
Inj Date : 10-FEB-2010 17:17
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202037816|1|
Misc Info : |ECD82P_1S|950898|2|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/021010b.b/ECD1-B-8082-121409.m
Meth Date : 11-Feb-2010 06:54 yip00818 Quant Type: ESTD
Cal Date : 22-JAN-2010 08:47 Cal File: 017b1701.d
Als bottle: 23 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1512.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.01000	Weight of sample extracted (g)
M	7.50240	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.293	2.294	-0.001	37098190	129.152	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.940	5.943	-0.003	29673443	136.349	4.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.190	3.191	-0.001	8281162	663.302	23.9	80.00- 120.00	100.00(M)
3.273	3.274	-0.001	5431677	635.520	22.9	45.25- 85.25	65.59
3.337	3.337	0.000	3278568	619.680	22.3	20.16- 60.16	39.59
3.564	3.565	-0.001	4275453	627.496	22.6	31.13- 71.13	51.63

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.640	3.640	0.000	3974206	620.506	22.4	27.96- 67.96	47.99
Average of Peak Concentrations =					22.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.330	4.331	-0.001	9474938	749.344	27.0	80.00- 120.00	100.00
4.455	4.457	-0.002	11773548	773.553	27.9	101.16- 141.16	124.26
4.721	4.723	-0.002	8967607	769.717	27.7	72.06- 112.06	94.65
4.894	4.896	-0.002	9161663	760.082	27.4	75.82- 115.82	96.69
5.042	5.044	-0.002	20628284	791.314	28.5	191.28- 231.28	217.71
Average of Peak Concentrations =					27.7		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/021010b.b/023b2301.d
Date : 10-FEB-2010 17:17
Client ID: RE15-10-7880MSD
Sample Info: 1120203781611
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25

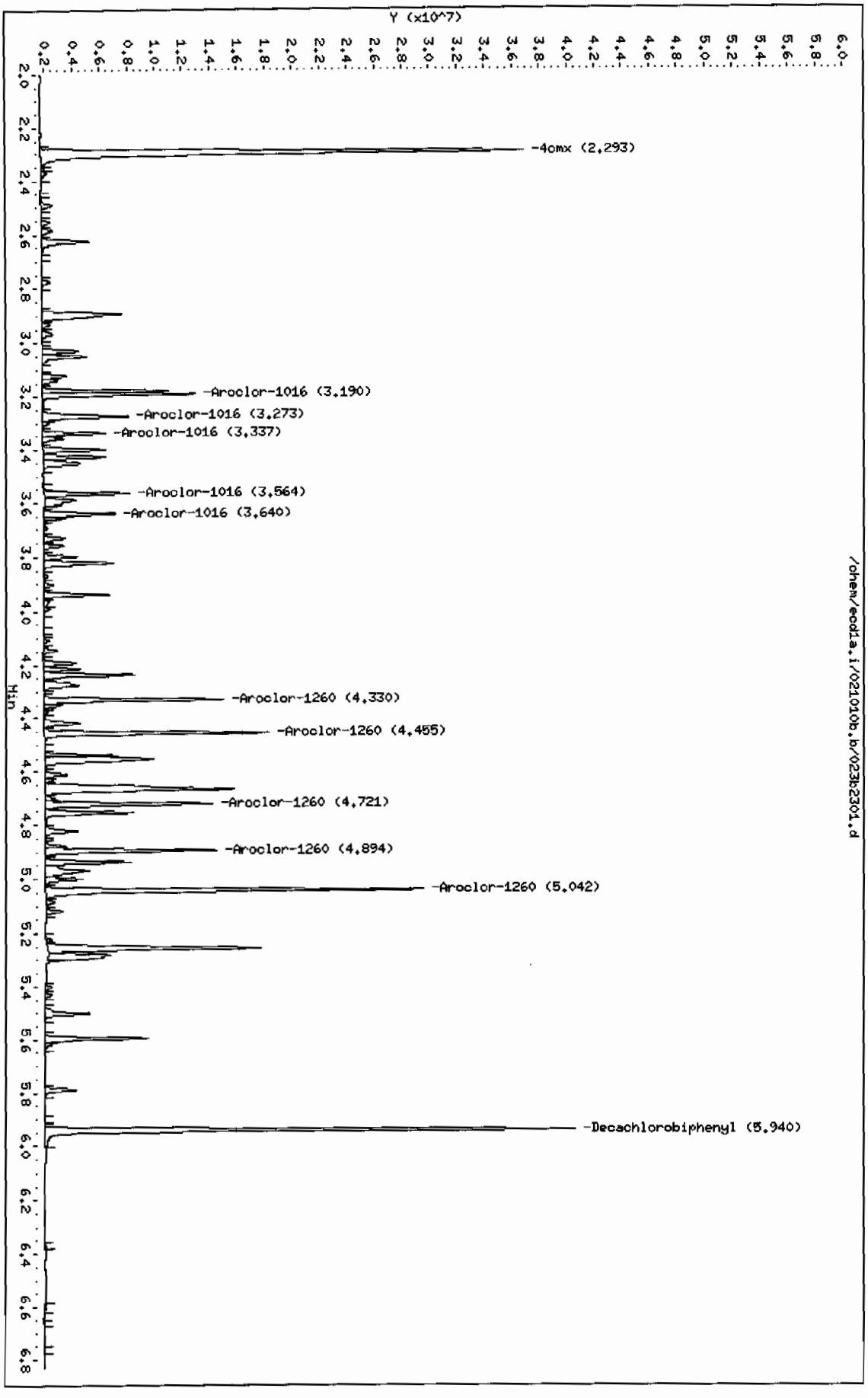

Page 1

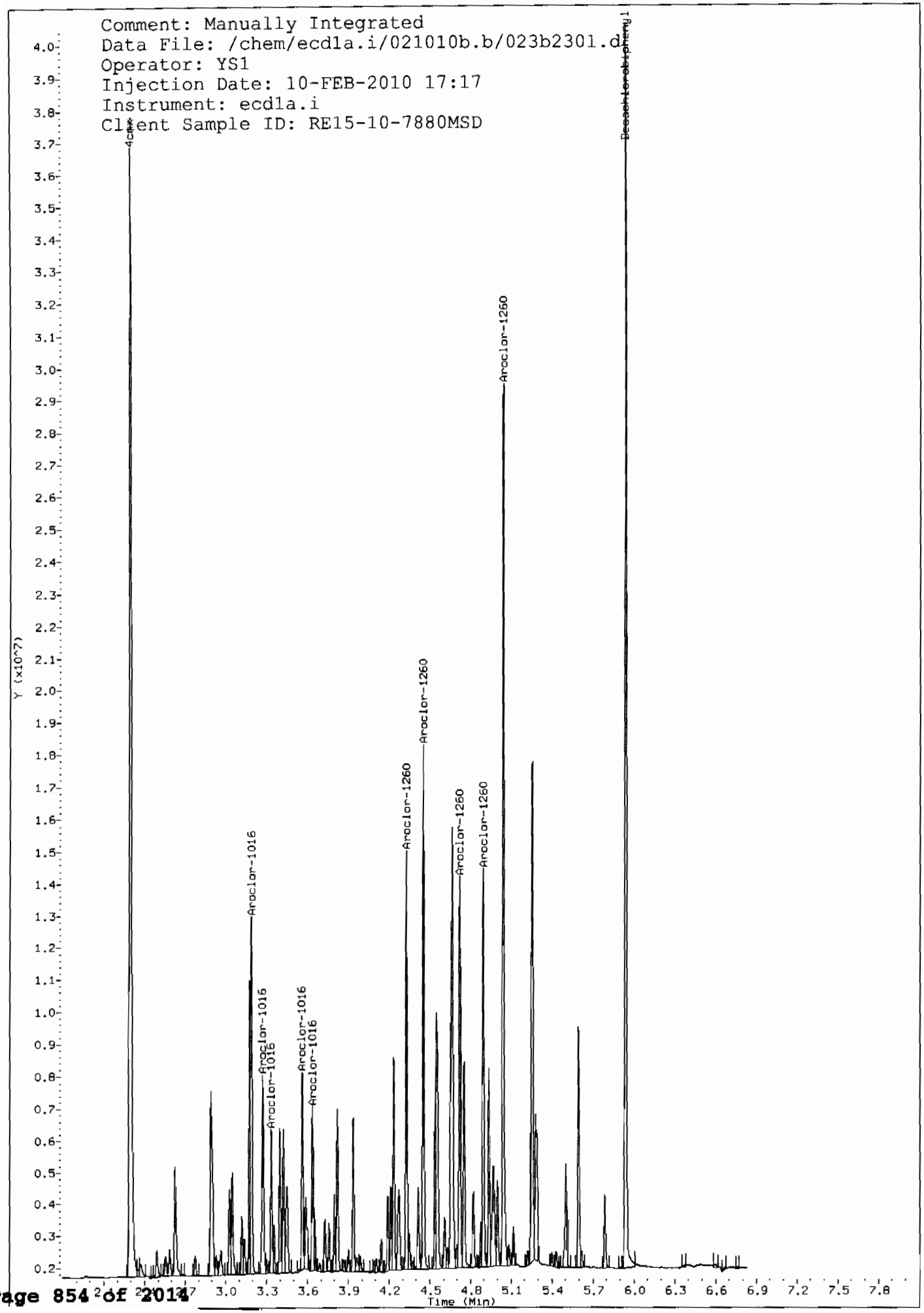
Comment: Manually Integrated
Data File: /chem/ecd1a.i/021010b.b/023b2301.d
Operator: YS1
Injection Date: 10-FEB-2010 17:17
Instrument: ecd1a.i
Client Sample ID: RE15-10-7880MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

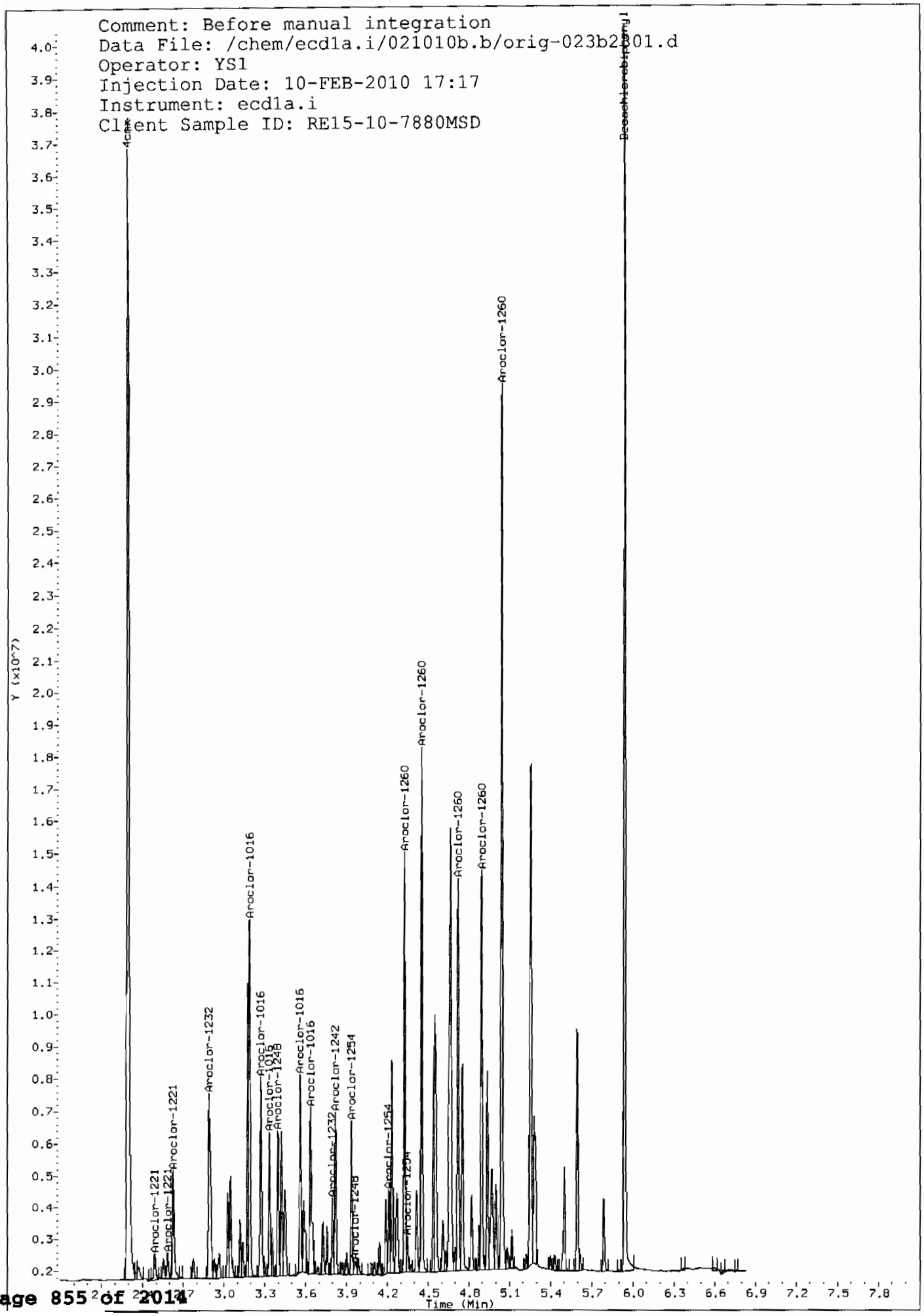
Comment: Before manual integration
Data File: /chem/ecd1a.i/021010b.b/orig-023b2001.d
Operator: YS1
Injection Date: 10-FEB-2010 17:17
Instrument: ecd1a.i
Client Sample ID: RE15-10-7880MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
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Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1248
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44	121409		1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54	121409		1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05	121409		1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15	121409		1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26	121409		1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36	121409		1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47	121409		1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58	121409		1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08	121409		1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19	121409		1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29	121409		1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40	121409		1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50	121409		1.0	DUSE	
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01	121409		1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11	121409		1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409	1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409	1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409	1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409	1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409	1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409	1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409	1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409	1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409	1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409	1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR091111-01	YS1	14-DEC-2009 09:07		121409	1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409	1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409	1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409	1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409	1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409	1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409	1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409	1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409	1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409	1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409	1.0	AR1660 I-CAL LEVEL 3	
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409	1.0	AR1660 I-CAL LEVEL 4	
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409	1.0	AR1660 I-CAL LEVEL 5	
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409	1.0	PASSED ON BOTH COLUMNS	
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409	1.0	AR1268 I-CAL LEVEL 1	

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409		1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409		1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264		5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409		1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409		1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521		5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409		1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409		1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782		1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012810a.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	28-JAN-2010 09:16		012810a	1.0		CLEAN
002f0201.d	WAR100104-60 01	YS1	28-JAN-2010 09:27		012810a	1.0		DUSE RE-I-CAL
003f0301.d	WAR091216-54	YS1	28-JAN-2010 09:37		012810a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	28-JAN-2010 09:48		012810a	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	28-JAN-2010 09:58		012810a	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	28-JAN-2010 10:09		012810a	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	28-JAN-2010 10:19		012810a	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	28-JAN-2010 10:30		012810a	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	28-JAN-2010 10:40		012810a	1.0		DUSE RE-I-CAL
010f1001.d	WAR100128-01 60	YS1	28-JAN-2010 10:51		012810a	1.0		AR1660 I-CAL LEVEL 1
011f1101.d	WAR100128-02 60	YS1	28-JAN-2010 11:01		012810a	1.0		AR1660 I-CAL LEVEL 2
012f1201.d	WAR100128-03 60	YS1	28-JAN-2010 11:12		012810a	1.0		AR1660 I-CAL LEVEL 3
013f1301.d	WAR100128-04 60	YS1	28-JAN-2010 11:22		012810a	1.0		AR1660 I-CAL LEVEL 4
014f1401.d	IAR100104-01-01	YS1	28-JAN-2010 11:34		012810a	1.0		AR1660 I-CAL LEVEL 5
015f1501.d	WAR100104-60 01	YS1	28-JAN-2010 11:44		012810a	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012810a.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |

016f1601.d	WAR100122-68	YS1	28-JAN-2010 11:55		012810a	1.0		DUSE RE-ICAL
017f1701.d	WAR091219-DDT	YS1	28-JAN-2010 12:05		012810a	1.0		DDT ANALOG STANDARD
018f1801.d	WAR100128-05 68	YS1	28-JAN-2010 12:18		012810a	1.0		AR1268 I-CAL LEVEL 1
019f1901.d	WAR100128-06 68	YS1	28-JAN-2010 12:29		012810a	1.0		AR1268 I-CAL LEVEL 2
020f2001.d	WAR100128-07 68	YS1	28-JAN-2010 12:39		012810a	1.0		AR1268 I-CAL LEVEL 3
021f2101.d	WAR100128-08 68	YS1	28-JAN-2010 12:50		012810a	1.0		AR1268 I-CAL LEVEL 4
022f2201.d	IAR100104-05	YS1	28-JAN-2010 13:00		012810a	1.0		AR1268 I-CAL LEVEL 5
023f2301.d	WAR100107-68	YS1	28-JAN-2010 13:11		012810a	1.0		PASSED ON BOTH COLUMNS
024f2401.d	WAR100105-99 02	YS1	28-JAN-2010 13:21		012810a	1.0		CLEAN
025f2501.d	1202026135	YS1	28-JAN-2010 13:32	945965	245586	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	1202026136	YS1	28-JAN-2010 13:42	945965	245586	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245586001	YS1	28-JAN-2010 13:53	945965	245586	250.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202026137	YS1	28-JAN-2010 14:05	945965	245586	250.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	1202026138	YS1	28-JAN-2010 14:18	945965	245586	250.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	245586002	YS1	28-JAN-2010 14:30	945965	245586	50.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245586003	YS1	28-JAN-2010 14:43	945965	245586	1.0	NNES	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	WAR100104-60 02	YS1	28-JAN-2010 14:56		012810a	1.0		PASSED ON BOTH COLUMNS
033f3301.d	WAR091216-54 02	YS1	28-JAN-2010 15:06		012810a	1.0		PASSED ON BOTH COLUMNS
034f3401.d	WAR091217-42 02	YS1	28-JAN-2010 15:16		012810a	1.0		PASSED ON BOTH COLUMNS
035f3501.d	WAR091217-48 02	YS1	28-JAN-2010 15:27		012810a	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR100104-32 02	YS1	28-JAN-2010 15:38		012810a	1.0		PATTERN ONLY
037f3701.d	WAR100104-21 02	YS1	28-JAN-2010 15:48		012810a	1.0		PATTERN ONLY
038f3801.d	WAR100104-62 02	YS1	28-JAN-2010 15:58		012810a	1.0		PATTERN ONLY
039f3901.d	WAR100122-68 02	YS1	28-JAN-2010 16:09		012810a	1.0		PASSED ON BOTH COLUMNS

040f4001.d	WAR100105-99 03	YS1	28-JAN-2010 16:19		012810a	1.0		CLEAN	
041f4101.d	245096008	YS1	28-JAN-2010 16:30	944883	10-1299	20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
042f4201.d	245096009	YS1	28-JAN-2010 16:43	944883	10-1299	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
043f4301.d	245096010	YS1	28-JAN-2010 16:55	944883	10-1299	20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
044f4401.d	245096011	YS1	28-JAN-2010 17:08	944883	10-1299	20.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
045f4501.d	245099015	YS1	28-JAN-2010 17:20	944883	10-1301	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
046f4601.d	245114003	YS1	28-JAN-2010 17:33	944883	10-1324	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
047f4701.d	1202023863	YS1	28-JAN-2010 17:45	944883	10-1324	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
048f4801.d	1202023864	YS1	28-JAN-2010 17:58	944883	10-1324	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER	
049f4901.d	245114004	YS1	28-JAN-2010 18:11	944883	10-1324	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
050f5001.d	245114005	YS1	28-JAN-2010 18:23	944883	10-1324	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
051f5101.d	WAR100104-60 03	YS1	28-JAN-2010 18:38		012810a	1.0		PASSED ON BOTH COLUMNS	
052f5201.d	WAR100105-99 04	YS1	28-JAN-2010 18:50		012810a	1.0		CLEAN	
053f5301.d	245114006	YS1	28-JAN-2010 19:03	944883	10-1324	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER	
054f5401.d	WAR100104-60 04	YS1	28-JAN-2010 19:17		012810a	1.0		PASSED ON BOTH COLUMNS	
055f5501.d	WAR100105-99 05	YS1	28-JAN-2010 19:30		012810a	1.0		CLEAN	

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202026131	YS1	28-JAN-2010 19:42	945963	10-1372	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	1202026132	YS1	28-JAN-2010 19:55	945963	10-1372	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	245376001	YS1	28-JAN-2010 20:08	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	245376002	YS1	28-JAN-2010 20:20	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	245376003	YS1	28-JAN-2010 20:33	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	245376004	YS1	28-JAN-2010 20:45	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	245376005	YS1	28-JAN-2010 20:58	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	245376006	YS1	28-JAN-2010 21:10	945963	10-1372	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	245376007	YS1	28-JAN-2010 21:23	945963	10-1372	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	245381002	YS1	28-JAN-2010 21:36	945963	10-1380		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100104-60 05	YS1	28-JAN-2010 21:48		012810a		1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100105-99 06	YS1	28-JAN-2010 22:01		012810a		1.0		CLEAN
068f6801.d	245384001	YS1	28-JAN-2010 22:13	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202026133	YS1	28-JAN-2010 22:26	945963	10-1382		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	1202026134	YS1	28-JAN-2010 22:39	945963	10-1382		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	245384002	YS1	28-JAN-2010 22:51	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
072f7201.d	245384003	YS1	28-JAN-2010 23:04	945963	10-1382		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	245384004	YS1	28-JAN-2010 23:16	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	245384005	YS1	28-JAN-2010 23:29	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	245384006	YS1	28-JAN-2010 23:41	945963	10-1382		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/012810a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	245384007	YS1	28-JAN-2010 23:54	945963	10-1382	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	245384008	YS1	29-JAN-2010 00:07	945963	10-1382	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100104-60 06	YS1	29-JAN-2010 00:19		012810a	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100105-99 07	YS1	29-JAN-2010 00:32		012810a	1.0		CLEAN
080f8001.d	245384012	YS1	29-JAN-2010 00:45	945963	10-1382	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	WAR100104-60 07	YS1	29-JAN-2010 00:57		012810a	1.0		PASSED ON BOTH COLUMNS
082f8201.d	WAR100105-99 08	YS1	29-JAN-2010 01:10		012810a	1.0		CLEAN
083f8301.d	1202026309	YS1	29-JAN-2010 01:22	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	1202026310	YS1	29-JAN-2010 01:35	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	1202026313	YS1	29-JAN-2010 01:48	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	245309001	YS1	29-JAN-2010 02:00	946042	EUI-7483	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	1202026311	YS1	29-JAN-2010 02:13	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	1202026312	YS1	29-JAN-2010 02:25	946042	EUI-7483	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

089f8901.d	WAR100104-60 08	YS1	29-JAN-2010 02:38		012810a	1.0	PASSED ON BOTH COLUMNS
090f9001.d	WAR100105-99 09	YS1	29-JAN-2010 02:51		012810a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 01/29/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/012910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	29-JAN-2010 06:12		012910	1.0		CLEAN
002f0201.d	WAR100104-60 01	YS1	29-JAN-2010 06:22		012910	1.0		DUSE RE I-CAL
003f0301.d	WAR091216-54	YS1	29-JAN-2010 06:33		012910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	29-JAN-2010 06:43		012910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	29-JAN-2010 06:54		012910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	29-JAN-2010 07:04		012910	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	29-JAN-2010 07:15		012910	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	29-JAN-2010 07:25		012910	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	29-JAN-2010 07:36		012910	1.0		PATTERN ONLY
010f1001.d	WAR100129-01 60	YS1	29-JAN-2010 07:46		012910	1.0		AR1660 I-CAL LEVEL 1
011f1101.d	WAR100129-02 60	YS1	29-JAN-2010 07:57		012910	1.0		AR1660 I-CAL LEVEL 2
012f1201.d	WAR100129-03 60	YS1	29-JAN-2010 08:07		012910	1.0		AR1660 I-CAL LEVEL 3
013f1301.d	WAR100129-04 60	YS1	29-JAN-2010 08:18		012910	1.0		AR1660 I-CAL LEVEL 4
014f1401.d	IAR100104-01	YS1	29-JAN-2010 08:59		012910	1.0		AR1660 I-CAL LEVEL 5
015f1501.d	WAR100104-60 01	YS1	29-JAN-2010 09:09		012910	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/012910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091219-DDT	YS1	29-JAN-2010 09:20		012910		1.0		DDT ANALOG STANDARD
017f1701.d	WAR100105-99 02	YS1	29-JAN-2010 09:30		012910		1.0		CLEAN
018f1801.d	1202027001	YS1	29-JAN-2010 09:41	946348	10-1416		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	1202027002	YS1	29-JAN-2010 09:51	946348	10-1416		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245609001	YS1	29-JAN-2010 10:02	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245609002	YS1	29-JAN-2010 10:14	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	245609003	YS1	29-JAN-2010 10:27	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202027003	YS1	29-JAN-2010 10:40	946348	10-1416		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	1202027004	YS1	29-JAN-2010 10:52	946348	10-1416		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245609004	YS1	29-JAN-2010 11:05	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	245609005	YS1	29-JAN-2010 11:17	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	245609006	YS1	29-JAN-2010 11:30	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	WAR100104-60 02	YS1	29-JAN-2010 11:42		012910		1.0		PASSED ON BOTH COLUMNS
029f2901.d	WAR100105-99 03	YS1	29-JAN-2010 11:53		012910		1.0		CLEAN
030f3001.d	245609007	YS1	29-JAN-2010 12:03	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	245609008	YS1	29-JAN-2010 12:16	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	245609009	YS1	29-JAN-2010 12:28	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	245609010	YS1	29-JAN-2010 12:41	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	245609011	YS1	29-JAN-2010 12:54	946348	10-1416		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	245609012	YS1	29-JAN-2010 13:06	946348	10-1416		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/012910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	245609013	YS1	29-JAN-2010 13:19	946348	10-1416	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	245609014	YS1	29-JAN-2010 13:31	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	245609015	YS1	29-JAN-2010 13:44	946348	10-1416	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	245609016	YS1	29-JAN-2010 13:56	946348	10-1416	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100104-60 03	YS1	29-JAN-2010 14:09		012910	1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/08/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/020510.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	05-FEB-2010 06:56		020510	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	05-FEB-2010 07:06		020510	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091216-54	YS1	05-FEB-2010 07:17		020510	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	05-FEB-2010 07:27		020510	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	05-FEB-2010 07:38		020510	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	05-FEB-2010 07:48		020510	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	05-FEB-2010 07:59		020510	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	05-FEB-2010 08:09		020510	1.0		PASSED ON BOTH COLUMNS
009f0901.d	WAR100107-68	YS1	05-FEB-2010 08:20		020510	1.0		PASSED ON BOTH COLUMNS
010f1001.d	WAR091219-DDT	YS1	05-FEB-2010 08:31		020510	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100105-99 02	YS1	05-FEB-2010 08:41		020510	1.0		CLEAN
012f1201.d	1202033246	YS1	05-FEB-2010 08:52	949033	10-1462	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202033247	YS1	05-FEB-2010 09:02	949033	10-1462	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	245786001	YS1	05-FEB-2010 09:13	949033	10-1462	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	245795001	YS1	05-FEB-2010 09:23	949033	10-1470	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/020510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	245795002	YS1	05-FEB-2010 09:36	949033	10-1470		1.0	LANL	AR1268 RE TO CONFIRM
017f1701.d	245795003	YS1	05-FEB-2010 09:48	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	245795004	YS1	05-FEB-2010 10:01	949033	10-1470		1.0	LANL	AR1268 RE TO CONFIRM
019f1901.d	245795005	YS1	05-FEB-2010 10:13	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	245795006	YS1	05-FEB-2010 10:26	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	245795007	YS1	05-FEB-2010 10:39	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	WAR100203-60 02	YS1	05-FEB-2010 10:51		020510		1.0		PASSED ON BOTH COLUMNS
023f2301.d	WAR100105-99 03	YS1	05-FEB-2010 11:02		020510		1.0		CLEAN
024f2401.d	245795008	YS1	05-FEB-2010 11:12	949033	10-1470		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	245803006	YS1	05-FEB-2010 11:25	949033	10-1473		1.0	LANL	AR1268 RE TO CONFIRM
026f2601.d	245803007	YS1	05-FEB-2010 11:37	949033	10-1473		1.0	LANL	AR1268 RE TO CONFIRM
027f2701.d	245803008	YS1	05-FEB-2010 11:50	949033	10-1473		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	245959001	YS1	05-FEB-2010 12:03	949033	10-1510		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	245959002	YS1	05-FEB-2010 12:15	949033	10-1510		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	245959012	YS1	05-FEB-2010 12:28	949033	10-1510		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	WAR100203-60 03	YS1	05-FEB-2010 12:40		020510		1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100105-99 04	YS1	05-FEB-2010 12:51		020510		1.0		CLEAN
033f3301.d	245969001	YS1	05-FEB-2010 13:01	949033	10-1512		1.0	LANL	RE RESULT DID NOT MATCH WITH MS/MSD
034f3401.d	1202033248	YS1	05-FEB-2010 13:14	949033	10-1512		1.0	QC A	DUSE
035f3501.d	1202033249	YS1	05-FEB-2010 13:27	949033	10-1512		1.0	QC A	DUSE
036f3601.d	245969002	YS1	05-FEB-2010 13:39	949033	10-1512		1.0	LANL	AR1268 RE TO CONFIRM

Instrument Batch: /chem/ecd1a.i/020510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
037f3701.d	245969003	YS1	05-FEB-2010 13:52	949033	10-1512	1.0	LANL	UPLOAD BOTH COLUMNS ,USE HIGHER
038f3801.d	WAR100203-60 04	YS1	05-FEB-2010 14:05		020510	1.0		PASSED ON BOTH COLUMNS
039f3901.d	WAR100105-99 05	YS1	05-FEB-2010 14:15		020510	1.0		CLEAN
040f4001.d	1202026314	YS1	05-FEB-2010 14:26	946047	020510	1.0	QC A	REPORT FROM ECD 8

041f4101.d	1202026315	YS1	05-FEB-2010 14:36	946047			1.0	QC A	REPORT FROM ECD 8
042f4201.d	243861001	YS1	05-FEB-2010 14:47	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
043f4301.d	243861002	YS1	05-FEB-2010 14:57	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
044f4401.d	243861003	YS1	05-FEB-2010 15:08	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
045f4501.d	243861004	YS1	05-FEB-2010 15:18	946047	2010MDLVECD11262-L		1.0	QCQA	UPLOAD BOTH COLUMNS
046f4601.d	WAR100203-60 05	YS1	05-FEB-2010 15:29		020510		1.0		PASSED ON BOTH COLUMNS
047f4701.d	WAR100105-99 06	YS1	05-FEB-2010 15:39		020510		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/11/2010 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/021010b.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	YS1	10-FEB-2010 12:55		021010b	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	10-FEB-2010 13:05		021010b	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR091216-54	YS1	10-FEB-2010 13:16		021010b	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091217-42	YS1	10-FEB-2010 13:27		021010b	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	10-FEB-2010 13:37		021010b	1.0		PATTERN ONLY
006f0601.d	WAR100104-32	YS1	10-FEB-2010 14:01		021010b	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	10-FEB-2010 14:11		021010b	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	10-FEB-2010 14:22		021010b	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	10-FEB-2010 14:32		021010b	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	10-FEB-2010 14:43		021010b	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100105-99 02	YS1	10-FEB-2010 14:53		021010b	1.0		CLEAN
012f1201.d	245480001	YS1	10-FEB-2010 15:04	949975	SP4012	10.0	ORNL	UPLOAD BOTH COLUMNS, USE FRONT
013f1301.d	WAR100203-60 02	YS1	10-FEB-2010 15:15		021010b	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100105-99 03	YS1	10-FEB-2010 15:25		021010b	1.0		CLEAN
015f1501.d	1202037813	YS1	10-FEB-2010 15:36	950898	10-1512	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/021010b.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202037814	YS1	10-FEB-2010 15:48	950898	10-1512	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	245795002	YS1	10-FEB-2010 16:01	950898	10-1470	1.0	SVA	DUSE CONFIRMATION FOR AR1268 HIT
018f1801.d	245795004	YS1	10-FEB-2010 16:14	950898	10-1470	1.0	SVA	DUSE CONFIRMATION FOR AR1268 HIT
019f1901.d	245803006	YS1	10-FEB-2010 16:26	950898	10-1473	1.0	SVA	DUSE CONFIRMATION FOR AR1268 HIT
020f2001.d	245803007	YS1	10-FEB-2010 16:39	950898	10-1473	1.0	SVA	DUSE CONFIRMATION FOR AR1268 HIT
021f2101.d	245969001	YS1	10-FEB-2010 16:51	950898	10-1512	1.0	SVA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1202037815	YS1	10-FEB-2010 17:04	950898	10-1512	1.0	SVA	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202037816	YS1	10-FEB-2010 17:17	950898	10-1512	1.0	SVA	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	245969002	YS1	10-FEB-2010 17:29	950898	10-1512	1.0	SVA	DUSE CONFIRMATION FOR AR1268 HIT
025f2501.d	WAR100203-60 03	YS1	10-FEB-2010 17:42		021010b	1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100105-99 04	YS1	10-FEB-2010 17:52		021010b	1.0		CLEAN
027f2701.d	WAR100105-99 05	YS1	10-FEB-2010 18:03		021010b	1.0		CLEAN
028f2801.d	WAR100105-99 05	YS1	10-FEB-2010 18:13		021010b	1.0		CLEAN
029f2901.d	WE100210-07SCR	YS1	10-FEB-2010 20:23		021010b	1.0		SCREEN FOR PREP
030f3001.d	WAR100105-99 05	YS1	10-FEB-2010 20:34		021010b	1.0		CLEAN

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 949031 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202033246 MB	04-FEB-2010 20:32:00	30	H2SO4/KMn2		2	9	1	0.03333
1202033247 LCS	04-FEB-2010 20:32:00	30	H2SO4/KMn2		2	9	1	0.03333
245786001	04-FEB-2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795001	04-FEB-2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795002	04-FEB-2010 20:32:00	30.19	H2SO4/KMn2		2	9	1	0.03312
245795003	04-FEB-2010 20:32:00	30.18	H2SO4/KMn2		2	9	1	0.03313
245795004	04-FEB-2010 20:32:00	30.01	H2SO4/KMn2		2	9	1	0.03332
245795005	04-FEB-2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
245795006	04-FEB-2010 20:32:00	30.03	H2SO4/KMn2		2	9	1	0.0333
245795007	04-FEB-2010 20:32:00	30.01	H2SO4/KMn2		2	9	1	0.03332
245795008	04-FEB-2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245803006	04-FEB-2010 20:32:00	30.11	H2SO4/KMn2		2	9	1	0.03321
245803007	04-FEB-2010 20:32:00	30.04	H2SO4/KMn2		2	9	1	0.03329
245803008	04-FEB-2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245959001	04-FEB-2010 20:32:00	30.19	H2SO4/KMn2		2	9	1	0.03312
245959002	04-FEB-2010 20:32:00	30.02	H2SO4/KMn2		2	9	1	0.03331
245959012	04-FEB-2010 20:32:00	30.03	H2SO4/KMn2		2	9	1	0.0333
245969001	04-FEB-2010 20:32:00	30.05	H2SO4/KMn2		2	9	1	0.03328
1202033248 MS (245969001)	04-FEB-2010 20:32:00	30.26	H2SO4/KMn2		2	9	1	0.03305
1202033249 MSD (245969001)	04-FEB-2010 20:32:00	30.04	H2SO4/KMn2		2	9	1	0.03329
245969002	04-FEB-2010 20:32:00	30.21	H2SO4/KMn2		2	9	1	0.0331
245969003	04-FEB-2010 20:32:00	30.11	H2SO4/KMn2		2	9	1	0.03321

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202033247	PCB Laboratory Control	WE100126-07	1	mL
MS	1202033248	PCB Laboratory Control	WE100126-07	1	mL
MSD	1202033249	PCB Laboratory Control	WE100126-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100108-15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/4/10
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 950897 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202037813 MB	09–FEB–2010 21:07:00	30	H2SO4/KMl2		2	9	1	0.03333
1202037814 LCS	09–FEB–2010 21:07:00	30	H2SO4/KMl2		2	9	1	0.03333
245795002 – 2	09–FEB–2010 21:07:00	30.11	H2SO4/KMl2		2	9	1	0.03321
245795004 – 2	09–FEB–2010 21:07:00	30.17	H2SO4/KMl2		2	9	1	0.03315
245803006 – 2	09–FEB–2010 21:07:00	30.03	H2SO4/KMl2		2	9	1	0.0333
245803007 – 2	09–FEB–2010 21:07:00	30.19	H2SO4/KMl2		2	9	1	0.03312
245969001 – 2	09–FEB–2010 21:07:00	30.01	H2SO4/KMl2		2	9	1	0.03332
1202037815 – 2 MS (245969001)	09–FEB–2010 21:07:00	30.06	H2SO4/KMl2		2	9	1	0.03327
1202037816 – 2 MSD (245969001)	09–FEB–2010 21:07:00	30.01	H2SO4/KMl2		2	9	1	0.03332
245969002 – 2	09–FEB–2010 21:07:00	30.18	H2SO4/KMl2		2	9	1	0.03313

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202037814	PCB Laboratory Control	WE100126–07	1	mL
MS	1202037815	PCB Laboratory Control	WE100126–07	1	mL
MSD	1202037816	PCB Laboratory Control	WE100126–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100127–15	1	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Acetone	1264558	150	mL
REGNT	All	Hexane	1264562–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/9/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1512

Sample Analysis

Sample ID	Client ID
245969001	RE15-10-7880
245969002	RE15-10-7891
245969003	RE15-10-7892
245969004	RE15-10-7967
245969005	RE15-10-7976
245969006	RE15-10-7968
245969007	RE15-10-7965
245969008	RE15-10-7975
245969009	RE15-10-7978
245969010	RE15-10-7970
245969011	RE15-10-7964
245969012	RE15-10-7973
245969013	RE15-10-7962
245969014	RE15-10-7963
245969015	RE15-10-7977
1202032590	Method Blank (MB) **ICP**
1202032595	Laboratory Control Sample (LCS)
1202032592	245969001(RE15-10-7880L) Serial Dilution (SD)
1202032591	245969001(RE15-10-7880D) Sample Duplicate (DUP)
1202032593	245969001(RE15-10-7880S) Matrix Spike (MS)

1202032594	245969001(RE15-10-7880SD) Matrix Spike Duplicate (MSD)
1202032600	Method Blank (MB) **ICP-MS**
1202032605	Laboratory Control Sample (LCS)
1202032602	245969001(RE15-10-7880L) Serial Dilution (SD)
1202032601	245969001(RE15-10-7880D) Sample Duplicate (DUP)
1202032603	245969001(RE15-10-7880S) Matrix Spike (MS)
1202032604	245969001(RE15-10-7880SD) Matrix Spike Duplicate (MSD)
1202037115	Method Blank (MB) **CVAA**
1202037116	Laboratory Control Sample (LCS)
1202037119	245969001(RE15-10-7880L) Serial Dilution (SD)
1202037117	245969001(RE15-10-7880D) Sample Duplicate (DUP)
1202037118	245969001(RE15-10-7880S) Matrix Spike (MS)
1202037120	245969001(RE15-10-7880SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	948756, 948759 and 950565
Prep Batch :	948754, 948758 and 950563
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of uranium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The laboratory control sample (LCS) met the recommended acceptance criteria for percent recovery (%R) for all elements of interest, with the exception of antimony. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 245969001 (RE15-10-7880).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, lead, potassium, sodium and uranium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, lead, potassium and sodium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of uranium, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of chromium, cobalt and uranium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exception of lead, as indicated by the "E" qualifier.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples 245969002 (RE15-10-7891), 245969004 (RE15-10-7967), 245969006 (RE15-10-7968), 245969007 (RE15-10-7965) and 245969008 (RE15-10-7975) required dilutions for uranium in order to bring over range concentrations within the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 796063 and 797331. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969001 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7880 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 92.5

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1640000	ug/Kg	N	7250	21300	21300	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-36-0	Antimony	1070	ug/Kg	U	352	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-38-2	Arsenic	0.915	mg/kg	J	0.207	1.04	1.04	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-39-3	Barium	19600	ug/Kg		107	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-41-7	Beryllium	0.235	mg/kg		0.0207	0.104	0.104	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-43-9	Cadmium	533	ug/Kg	U	107	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-70-2	Calcium	308000	ug/Kg		8530	26700	26700	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-47-3	Chromium	8570	ug/Kg	*	160	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-48-4	Cobalt	4770	ug/Kg	*	160	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-50-8	Copper	3660	ug/Kg		320	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-89-6	Iron	8040000	ug/Kg		8530	26700	26700	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-92-1	Lead	34400	ug/Kg	EN	267	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-95-4	Magnesium	136000	ug/Kg		9060	32000	32000	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-96-5	Manganese	221000	ug/Kg		213	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756
7439-97-6	Mercury	14.4	ug/kg		4	11.8	11.8	1	AV	JXL1	02/18/10 10:11	021810S1-6	950565
7440-02-0	Nickel	3.04	mg/kg		0.104	0.414	0.414	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-09-7	Potassium	616000	ug/Kg	N	6820	26700	26700	1	P	HSC	02/25/10 07:22	022410-1	948756
7782-49-2	Selenium	1.04	mg/kg	U	0.518	1.04	1.04	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-22-4	Silver	533	ug/Kg	U	107	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-23-5	Sodium	423000	ug/Kg	N	7460	26700	26700	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-28-0	Thallium	0.207	mg/kg	U	0.0621	0.207	0.207	2	MS	RMJ	02/25/10 11:24	100224-3	948759
7440-61-1	Uranium	0.606	mg/kg	*N	0.0137	0.0414	0.0414	2	MS	RMJ	02/26/10 04:20	100225-4	948759
7440-62-2	Vanadium	2080	ug/Kg		107	533	533	1	P	HSC	02/25/10 07:22	022410-1	948756
7440-66-6	Zinc	23000	ug/Kg		352	1070	1070	1	P	HSC	02/25/10 07:22	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.551	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969002 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7891 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7040000	ug/Kg	N	8940	26300	26300	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-36-0	Antimony	1310	ug/Kg		434	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-38-2	Arsenic	2.23	mg/kg		0.261	1.3	1.3	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-39-3	Barium	78300	ug/Kg		131	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-41-7	Beryllium	2.95	mg/kg		0.0261	0.13	0.13	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-43-9	Cadmium	259	ug/Kg	J	131	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-70-2	Calcium	27600000	ug/Kg		10500	32900	32900	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-47-3	Chromium	10600	ug/Kg	*	197	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-48-4	Cobalt	7410	ug/Kg	*	197	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-50-8	Copper	280000	ug/Kg		394	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-89-6	Iron	10400000	ug/Kg		10500	32900	32900	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-92-1	Lead	117000	ug/Kg	EN	329	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-95-4	Magnesium	1660000	ug/Kg		11200	39400	39400	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-96-5	Manganese	200000	ug/Kg		263	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756
7439-97-6	Mercury	10	ug/kg	J	4.99	14.7	14.7	1	AV	JXL1	02/18/10 10:21	021810S1-6	950565
7440-02-0	Nickel	7.45	mg/kg		0.13	0.522	0.522	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-09-7	Potassium	1010000	ug/Kg	N	8410	32900	32900	1	P	HSC	02/25/10 08:11	022410-1	948756
7782-49-2	Selenium	1.3	mg/kg	U	0.652	1.3	1.3	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-22-4	Silver	159	ug/Kg	J	131	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-23-5	Sodium	123000	ug/Kg	N	9200	32900	32900	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-28-0	Thallium	0.127	mg/kg	J	0.0783	0.261	0.261	2	MS	RMJ	02/25/10 11:54	100224-3	948759
7440-61-1	Uranium	213	mg/kg	*N	0.172	0.522	0.522	20	MS	RMJ	02/26/10 04:35	100225-4	948759
7440-62-2	Vanadium	19200	ug/Kg		131	657	657	1	P	HSC	02/25/10 08:11	022410-1	948756
7440-66-6	Zinc	44000	ug/Kg		434	1310	1310	1	P	HSC	02/25/10 08:11	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.518	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.553	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969003 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7892 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 93

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4330000	ug/Kg	N	6620	19500	19500	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-36-0	Antimony	974	ug/Kg	U	321	974	974	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-38-2	Arsenic	1.12	mg/kg		0.197	0.984	0.984	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-39-3	Barium	43400	ug/Kg		97.4	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-41-7	Beryllium	0.559	mg/kg		0.0197	0.0984	0.0984	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-43-9	Cadmium	487	ug/Kg	U	97.4	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-70-2	Calcium	2880000	ug/Kg		7790	24300	24300	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-47-3	Chromium	23800	ug/Kg	*	146	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-48-4	Cobalt	3530	ug/Kg	*	146	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-50-8	Copper	7360	ug/Kg		292	974	974	1	P	HSC	02/25/10 08:18	022410-1	948756
7439-89-6	Iron	7650000	ug/Kg		7790	24300	24300	1	P	HSC	02/25/10 08:18	022410-1	948756
7439-92-1	Lead	8150	ug/Kg	EN	243	974	974	1	P	HSC	03/01/10 13:45	030110A-2	948756
7439-95-4	Magnesium	924000	ug/Kg		8280	29200	29200	1	P	HSC	02/25/10 08:18	022410-1	948756
7439-96-5	Manganese	210000	ug/Kg		195	974	974	1	P	HSC	02/25/10 08:18	022410-1	948756
7439-97-6	Mercury	27.7	ug/kg		4.04	11.9	11.9	1	AV	JXL1	02/18/10 10:23	021810S1-6	950565
7440-02-0	Nickel	5.92	mg/kg		0.0984	0.394	0.394	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-09-7	Potassium	572000	ug/Kg	N	6230	24300	24300	1	P	HSC	02/25/10 08:18	022410-1	948756
7782-49-2	Selenium	0.984	mg/kg	U	0.492	0.984	0.984	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-22-4	Silver	487	ug/Kg	U	97.4	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-23-5	Sodium	198000	ug/Kg	N	6820	24300	24300	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-28-0	Thallium	0.0756	mg/kg	J	0.0591	0.197	0.197	2	MS	RMJ	02/25/10 12:00	100224-3	948759
7440-61-1	Uranium	6.79	mg/kg	*N	0.013	0.0394	0.0394	2	MS	RMJ	02/28/10 03:29	100227-5	948759
7440-62-2	Vanadium	7520	ug/Kg		97.4	487	487	1	P	HSC	02/25/10 08:18	022410-1	948756
7440-66-6	Zinc	35400	ug/Kg		321	974	974	1	P	HSC	02/25/10 08:18	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.552	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.546	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969004 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7967 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4770000	ug/Kg	N	8830	26000	26000	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-36-0	Antimony	4620	ug/Kg		428	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-38-2	Arsenic	1.79	mg/kg		0.242	1.21	1.21	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-39-3	Barium	101000	ug/Kg		130	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-41-7	Beryllium	11.9	mg/kg		0.0242	0.121	0.121	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-43-9	Cadmium	438	ug/Kg	J	130	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-70-2	Calcium	2650000	ug/Kg		10400	32500	32500	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-47-3	Chromium	31700	ug/Kg	*	195	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-48-4	Cobalt	5550	ug/Kg	*	195	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-50-8	Copper	2200000	ug/Kg		389	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-89-6	Iron	9720000	ug/Kg		10400	32500	32500	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-92-1	Lead	363000	ug/Kg	EN	325	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-95-4	Magnesium	1020000	ug/Kg		11000	38900	38900	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-96-5	Manganese	182000	ug/Kg		260	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756
7439-97-6	Mercury	8	ug/kg	J	5.28	15.5	15.5	1	AV	JXL1	02/18/10 10:25	021810S1-6	950565
7440-02-0	Nickel	10	mg/kg		0.121	0.485	0.485	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-09-7	Potassium	676000	ug/Kg	N	8310	32500	32500	1	P	HSC	02/25/10 08:25	022410-1	948756
7782-49-2	Selenium	1.21	mg/kg	U	0.606	1.21	1.21	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-22-4	Silver	1870	ug/Kg		130	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-23-5	Sodium	62200	ug/Kg	N	9090	32500	32500	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-28-0	Thallium	0.242	mg/kg	U	0.0727	0.242	0.242	2	MS	RMJ	02/25/10 12:06	100224-3	948759
7440-61-1	Uranium	295	mg/kg	*N	0.32	0.97	0.97	40	MS	RMJ	02/26/10 04:47	100225-4	948759
7440-62-2	Vanadium	16100	ug/Kg		130	649	649	1	P	HSC	02/25/10 08:25	022410-1	948756
7440-66-6	Zinc	75100	ug/Kg		428	1300	1300	1	P	HSC	02/25/10 08:25	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.508	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.544	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.51	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969005 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7976 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 96.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2760000	ug/Kg	N	6830	20100	20100	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-36-0	Antimony	1000	ug/Kg	U	331	1000	1000	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-38-2	Arsenic	0.955	mg/kg	J	0.203	1.02	1.02	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-39-3	Barium	32400	ug/Kg		100	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-41-7	Beryllium	0.394	mg/kg		0.0203	0.102	0.102	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-43-9	Cadmium	102	ug/Kg	J	100	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-70-2	Calcium	593000	ug/Kg		8030	25100	25100	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-47-3	Chromium	7190	ug/Kg	*	151	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-48-4	Cobalt	10100	ug/Kg	*	151	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-50-8	Copper	21000	ug/Kg		301	1000	1000	1	P	HSC	02/25/10 08:32	022410-1	948756
7439-89-6	Iron	9830000	ug/Kg		8030	25100	25100	1	P	HSC	02/25/10 08:32	022410-1	948756
7439-92-1	Lead	16400	ug/Kg	EN	251	1000	1000	1	P	HSC	03/01/10 13:52	030110A-2	948756
7439-95-4	Magnesium	451000	ug/Kg		8540	30100	30100	1	P	HSC	02/25/10 08:32	022410-1	948756
7439-96-5	Manganese	223000	ug/Kg		201	1000	1000	1	P	HSC	02/25/10 08:32	022410-1	948756
7439-97-6	Mercury	8.03	ug/kg	J	4.19	12.3	12.3	1	AV	JXL1	02/18/10 10:31	021810S1-6	950565
7440-02-0	Nickel	3.65	mg/kg		0.102	0.406	0.406	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-09-7	Potassium	613000	ug/Kg	N	6430	25100	25100	1	P	HSC	02/25/10 08:32	022410-1	948756
7782-49-2	Selenium	1.02	mg/kg	U	0.508	1.02	1.02	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-22-4	Silver	502	ug/Kg	U	100	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-23-5	Sodium	244000	ug/Kg	N	7030	25100	25100	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-28-0	Thallium	0.203	mg/kg	U	0.061	0.203	0.203	2	MS	RMJ	02/25/10 12:23	100224-3	948759
7440-61-1	Uranium	5.33	mg/kg	*N	0.0134	0.0406	0.0406	2	MS	RMJ	02/26/10 04:50	100225-4	948759
7440-62-2	Vanadium	7450	ug/Kg		100	502	502	1	P	HSC	02/25/10 08:32	022410-1	948756
7440-66-6	Zinc	31400	ug/Kg		331	1000	1000	1	P	HSC	02/25/10 08:32	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.511	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.506	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969006 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7968 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2880000	ug/Kg	N	7400	21800	21800	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-36-0	Antimony	1340	ug/Kg		359	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-38-2	Arsenic	1.22	mg/kg		0.205	1.03	1.03	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-39-3	Barium	39000	ug/Kg		109	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-41-7	Beryllium	1.23	mg/kg		0.0205	0.103	0.103	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-43-9	Cadmium	544	ug/Kg	U	109	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-70-2	Calcium	913000	ug/Kg		8700	27200	27200	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-47-3	Chromium	33900	ug/Kg	*	163	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-48-4	Cobalt	3430	ug/Kg	*	163	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-50-8	Copper	116000	ug/Kg		326	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-89-6	Iron	6750000	ug/Kg		8700	27200	27200	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-92-1	Lead	25300	ug/Kg	EN	272	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-95-4	Magnesium	511000	ug/Kg		9250	32600	32600	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-96-5	Manganese	221000	ug/Kg		218	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756
7439-97-6	Mercury	5.16	ug/kg	J	3.88	11.4	11.4	1	AV	JXL1	02/18/10 10:33	021810S1-6	950565
7440-02-0	Nickel	5.59	mg/kg		0.103	0.41	0.41	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-09-7	Potassium	453000	ug/Kg	N	6960	27200	27200	1	P	HSC	02/25/10 08:39	022410-1	948756
7782-49-2	Selenium	1.03	mg/kg	U	0.513	1.03	1.03	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-22-4	Silver	242	ug/Kg	J	109	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-23-5	Sodium	166000	ug/Kg	N	7620	27200	27200	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-28-0	Thallium	0.205	mg/kg	U	0.0616	0.205	0.205	2	MS	RMJ	02/25/10 12:29	100224-3	948759
7440-61-1	Uranium	37.7	mg/kg	*N	0.0677	0.205	0.205	10	MS	RMJ	02/26/10 04:54	100225-4	948759
7440-62-2	Vanadium	4530	ug/Kg		109	544	544	1	P	HSC	02/25/10 08:39	022410-1	948756
7440-66-6	Zinc	27800	ug/Kg		359	1090	1090	1	P	HSC	02/25/10 08:39	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.515	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.546	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.589	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969007 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7965 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 78

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5750000	ug/Kg	N	8370	24600	24600	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-36-0	Antimony	1050	ug/Kg	J	406	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-38-2	Arsenic	1.64	mg/kg		0.238	1.19	1.19	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-39-3	Barium	85500	ug/Kg		123	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-41-7	Beryllium	1.51	mg/kg		0.0238	0.119	0.119	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-43-9	Cadmium	181	ug/Kg	J	123	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-70-2	Calcium	1740000	ug/Kg		9850	30800	30800	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-47-3	Chromium	17800	ug/Kg	*	185	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-48-4	Cobalt	2800	ug/Kg	*	185	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-50-8	Copper	49200	ug/Kg		369	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-89-6	Iron	8510000	ug/Kg		9850	30800	30800	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-92-1	Lead	113000	ug/Kg	EN	308	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-95-4	Magnesium	968000	ug/Kg		10500	36900	36900	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-96-5	Manganese	210000	ug/Kg		246	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756
7439-97-6	Mercury	17.1	ug/kg		5.07	14.9	14.9	1	AV	JXL1	02/18/10 10:35	021810S1-6	950565
7440-02-0	Nickel	5.67	mg/kg		0.119	0.476	0.476	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-09-7	Potassium	801000	ug/Kg	N	7880	30800	30800	1	P	HSC	02/25/10 08:46	022410-1	948756
7782-49-2	Selenium	1.19	mg/kg	U	0.595	1.19	1.19	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-22-4	Silver	616	ug/Kg	U	123	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-23-5	Sodium	60000	ug/Kg	N	8620	30800	30800	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-28-0	Thallium	0.0993	mg/kg	J	0.0714	0.238	0.238	2	MS	RMJ	02/25/10 12:35	100224-3	948759
7440-61-1	Uranium	71.2	mg/kg	*N	0.0786	0.238	0.238	10	MS	RMJ	02/26/10 04:57	100225-4	948759
7440-62-2	Vanadium	13600	ug/Kg		123	616	616	1	P	HSC	02/25/10 08:46	022410-1	948756
7440-66-6	Zinc	32900	ug/Kg		406	1230	1230	1	P	HSC	02/25/10 08:46	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.54	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.517	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969008 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7975 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5160000	ug/Kg	N	8190	24100	24100	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-36-0	Antimony	1210	ug/Kg	U	398	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-38-2	Arsenic	2.21	mg/kg		0.263	1.31	1.31	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-39-3	Barium	63300	ug/Kg		121	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-41-7	Beryllium	1.84	mg/kg		0.0263	0.131	0.131	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-43-9	Cadmium	1170	ug/Kg		121	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-70-2	Calcium	1570000	ug/Kg		9640	30100	30100	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-47-3	Chromium	11100	ug/Kg	*	181	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-48-4	Cobalt	4130	ug/Kg	*	181	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-50-8	Copper	45600	ug/Kg		362	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-89-6	Iron	10700000	ug/Kg		9640	30100	30100	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-92-1	Lead	46400	ug/Kg	EN	301	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-95-4	Magnesium	946000	ug/Kg		10200	36200	36200	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-96-5	Manganese	249000	ug/Kg		241	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756
7439-97-6	Mercury	14.8	ug/kg	U	5.04	14.8	14.8	1	AV	JXL1	02/18/10 10:37	021810S1-6	950565
7440-02-0	Nickel	6.42	mg/kg		0.131	0.525	0.525	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-09-7	Potassium	1020000	ug/Kg	N	7710	30100	30100	1	P	HSC	02/25/10 08:53	022410-1	948756
7782-49-2	Selenium	1.31	mg/kg	U	0.657	1.31	1.31	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-22-4	Silver	603	ug/Kg	U	121	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-23-5	Sodium	56300	ug/Kg	N	8440	30100	30100	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-28-0	Thallium	0.132	mg/kg	J	0.0788	0.263	0.263	2	MS	RMJ	02/25/10 12:41	100224-3	948759
7440-61-1	Uranium	45.7	mg/kg	*N	0.0867	0.263	0.263	10	MS	RMJ	02/26/10 05:00	100225-4	948759
7440-62-2	Vanadium	22200	ug/Kg		121	603	603	1	P	HSC	02/25/10 08:53	022410-1	948756
7440-66-6	Zinc	40700	ug/Kg		398	1210	1210	1	P	HSC	02/25/10 08:53	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.557	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.511	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969009 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7978 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13300000	ug/Kg	N	7820	23000	23000	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-36-0	Antimony	1150	ug/Kg	U	380	1150	1150	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-38-2	Arsenic	3.38	mg/kg		0.211	1.05	1.05	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-39-3	Barium	138000	ug/Kg		115	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-41-7	Beryllium	1.31	mg/kg		0.0211	0.105	0.105	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-43-9	Cadmium	575	ug/Kg	U	115	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-70-2	Calcium	3240000	ug/Kg		9210	28800	28800	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-47-3	Chromium	11500	ug/Kg	*	173	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-48-4	Cobalt	9040	ug/Kg	*	173	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-50-8	Copper	9910	ug/Kg		345	1150	1150	1	P	HSC	02/25/10 09:14	022410-1	948756
7439-89-6	Iron	15000000	ug/Kg		9210	28800	28800	1	P	HSC	02/25/10 09:14	022410-1	948756
7439-92-1	Lead	14100	ug/Kg	EN	288	1150	1150	1	P	HSC	03/01/10 13:59	030110A-2	948756
7439-95-4	Magnesium	2250000	ug/Kg		9780	34500	34500	1	P	HSC	02/25/10 09:14	022410-1	948756
7439-96-5	Manganese	231000	ug/Kg		230	1150	1150	1	P	HSC	02/25/10 09:14	022410-1	948756
7439-97-6	Mercury	45.7	ug/kg		4.48	13.2	13.2	1	AV	JXL1	02/18/10 10:39	021810S1-6	950565
7440-02-0	Nickel	10.4	mg/kg		0.105	0.422	0.422	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-09-7	Potassium	1760000	ug/Kg	N	7360	28800	28800	1	P	HSC	02/25/10 09:14	022410-1	948756
7782-49-2	Selenium	1.05	mg/kg	U	0.527	1.05	1.05	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-22-4	Silver	575	ug/Kg	U	115	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-23-5	Sodium	137000	ug/Kg	N	8060	28800	28800	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-28-0	Thallium	0.191	mg/kg	J	0.0632	0.211	0.211	2	MS	RMJ	02/25/10 12:47	100224-3	948759
7440-61-1	Uranium	2.68	mg/kg	*N	0.0139	0.0422	0.0422	2	MS	RMJ	02/26/10 05:03	100225-4	948759
7440-62-2	Vanadium	24300	ug/Kg		115	575	575	1	P	HSC	02/25/10 09:14	022410-1	948756
7440-66-6	Zinc	34500	ug/Kg		380	1150	1150	1	P	HSC	02/25/10 09:14	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.523	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.571	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.548	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969010 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7970 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	1920000	ug/Kg	N	7140	21000	21000	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-36-0	Antimony	1050	ug/Kg	U	346	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-38-2	Arsenic	1.12	mg/kg		0.211	1.06	1.06	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-39-3	Barium	51300	ug/Kg		105	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-41-7	Beryllium	0.529	mg/kg		0.0211	0.106	0.106	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-43-9	Cadmium	525	ug/Kg	U	105	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-70-2	Calcium	2010000	ug/Kg		8390	26200	26200	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-47-3	Chromium	5680	ug/Kg	*	157	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-48-4	Cobalt	2150	ug/Kg	*	157	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-50-8	Copper	22100	ug/Kg		315	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-89-6	Iron	5510000	ug/Kg		8390	26200	26200	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-92-1	Lead	33300	ug/Kg	EN	262	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-95-4	Magnesium	494000	ug/Kg		8920	31500	31500	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-96-5	Manganese	169000	ug/Kg		210	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756
7439-97-6	Mercury	11.4	ug/kg	U	3.87	11.4	11.4	1	AV	JXL1	02/18/10 10:41	021810S1-6	950565
7440-02-0	Nickel	2.52	mg/kg		0.106	0.422	0.422	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-09-7	Potassium	477000	ug/Kg	N	6720	26200	26200	1	P	HSC	02/25/10 09:22	022410-1	948756
7782-49-2	Selenium	1.06	mg/kg	U	0.528	1.06	1.06	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-22-4	Silver	525	ug/Kg	U	105	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-23-5	Sodium	246000	ug/Kg	N	7350	26200	26200	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-28-0	Thallium	0.211	mg/kg	U	0.0633	0.211	0.211	2	MS	RMJ	02/25/10 12:53	100224-3	948759
7440-61-1	Uranium	4.23	mg/kg	*N	0.0139	0.0422	0.0422	2	MS	RMJ	02/26/10 05:06	100225-4	948759
7440-62-2	Vanadium	7380	ug/Kg		105	525	525	1	P	HSC	02/25/10 09:22	022410-1	948756
7440-66-6	Zinc	56900	ug/Kg		346	1050	1050	1	P	HSC	02/25/10 09:22	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.516	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.574	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969011 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7964 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8080000	ug/Kg	N	7040	20700	20700	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-36-0	Antimony	1030	ug/Kg	U	341	1030	1030	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-38-2	Arsenic	1.85	mg/kg		0.21	1.05	1.05	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-39-3	Barium	78800	ug/Kg		103	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-41-7	Beryllium	0.685	mg/kg		0.021	0.105	0.105	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-43-9	Cadmium	517	ug/Kg	U	103	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-70-2	Calcium	1920000	ug/Kg		8280	25900	25900	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-47-3	Chromium	13500	ug/Kg	*	155	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-48-4	Cobalt	5370	ug/Kg	*	155	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-50-8	Copper	4950	ug/Kg		310	1030	1030	1	P	HSC	02/25/10 09:29	022410-1	948756
7439-89-6	Iron	10100000	ug/Kg		8280	25900	25900	1	P	HSC	02/25/10 09:29	022410-1	948756
7439-92-1	Lead	9070	ug/Kg	EN	259	1030	1030	1	P	HSC	03/01/10 14:06	030110A-2	948756
7439-95-4	Magnesium	1580000	ug/Kg		8800	31000	31000	1	P	HSC	02/25/10 09:29	022410-1	948756
7439-96-5	Manganese	189000	ug/Kg		207	1030	1030	1	P	HSC	02/25/10 09:29	022410-1	948756
7439-97-6	Mercury	16.2	ug/kg		4.42	13	13	1	AV	JXL1	02/18/10 10:43	021810S1-6	950565
7440-02-0	Nickel	7.05	mg/kg		0.105	0.421	0.421	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-09-7	Potassium	967000	ug/Kg	N	6620	25900	25900	1	P	HSC	02/25/10 09:29	022410-1	948756
7782-49-2	Selenium	1.05	mg/kg	U	0.526	1.05	1.05	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-22-4	Silver	517	ug/Kg	U	103	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-23-5	Sodium	275000	ug/Kg	N	7240	25900	25900	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-28-0	Thallium	0.138	mg/kg	J	0.0631	0.21	0.21	2	MS	RMJ	02/25/10 12:59	100224-3	948759
7440-61-1	Uranium	1.79	mg/kg	*N	0.0139	0.0421	0.0421	2	MS	RMJ	02/26/10 05:15	100225-4	948759
7440-62-2	Vanadium	17500	ug/Kg		103	517	517	1	P	HSC	02/25/10 09:29	022410-1	948756
7440-66-6	Zinc	23700	ug/Kg		341	1030	1030	1	P	HSC	02/25/10 09:29	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.541	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.532	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.517	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969012 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7973 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	5690000	ug/Kg	N	7460	21900	21900	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-36-0	Antimony	717	ug/Kg	J	362	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-38-2	Arsenic	2.13	mg/kg		0.242	1.21	1.21	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-39-3	Barium	68800	ug/Kg		110	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-41-7	Beryllium	1.06	mg/kg		0.0242	0.121	0.121	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-43-9	Cadmium	549	ug/Kg	U	110	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-70-2	Calcium	1470000	ug/Kg		8780	27400	27400	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-47-3	Chromium	20100	ug/Kg	*	165	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-48-4	Cobalt	4180	ug/Kg	*	165	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-50-8	Copper	19500	ug/Kg		329	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-89-6	Iron	9990000	ug/Kg		8780	27400	27400	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-92-1	Lead	145000	ug/Kg	EN	274	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-95-4	Magnesium	1070000	ug/Kg		9320	32900	32900	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-96-5	Manganese	274000	ug/Kg		219	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756
7439-97-6	Mercury	7.18	ug/kg	J	4.23	12.5	12.5	1	AV	JXL1	02/18/10 10:45	021810S1-6	950565
7440-02-0	Nickel	8.1	mg/kg		0.121	0.484	0.484	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-09-7	Potassium	993000	ug/Kg	N	7020	27400	27400	1	P	HSC	02/25/10 09:36	022410-1	948756
7782-49-2	Selenium	1.21	mg/kg	U	0.605	1.21	1.21	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-22-4	Silver	549	ug/Kg	U	110	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-23-5	Sodium	57700	ug/Kg	N	7680	27400	27400	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-28-0	Thallium	0.0767	mg/kg	J	0.0726	0.242	0.242	2	MS	RMJ	02/25/10 13:04	100224-3	948759
7440-61-1	Uranium	9.61	mg/kg	*N	0.016	0.0484	0.0484	2	MS	RMJ	02/26/10 05:18	100225-4	948759
7440-62-2	Vanadium	21100	ug/Kg		110	549	549	1	P	HSC	02/25/10 09:36	022410-1	948756
7440-66-6	Zinc	20900	ug/Kg		362	1100	1100	1	P	HSC	02/25/10 09:36	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.559	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.591	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969013 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7962 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 94.7

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4650000	ug/Kg	N	6460	19000	19000	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-36-0	Antimony	950	ug/Kg	U	313	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-38-2	Arsenic	1.24	mg/kg		0.203	1.02	1.02	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-39-3	Barium	47800	ug/Kg		95	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-41-7	Beryllium	0.721	mg/kg		0.0203	0.102	0.102	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-43-9	Cadmium	475	ug/Kg	U	95	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-70-2	Calcium	2150000	ug/Kg		7600	23700	23700	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-47-3	Chromium	5690	ug/Kg	*	142	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-48-4	Cobalt	8030	ug/Kg	*	142	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-50-8	Copper	30000	ug/Kg		285	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-89-6	Iron	7650000	ug/Kg		7600	23700	23700	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-92-1	Lead	32900	ug/Kg	EN	237	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-95-4	Magnesium	972000	ug/Kg		8070	28500	28500	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-96-5	Manganese	212000	ug/Kg		190	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756
7439-97-6	Mercury	13.6	ug/kg		3.95	11.6	11.6	1	AV	JXL1	02/18/10 10:47	021810S1-6	950565
7440-02-0	Nickel	4.43	mg/kg		0.102	0.407	0.407	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-09-7	Potassium	721000	ug/Kg	N	6080	23700	23700	1	P	HSC	02/25/10 09:43	022410-1	948756
7782-49-2	Selenium	1.02	mg/kg	U	0.509	1.02	1.02	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-22-4	Silver	475	ug/Kg	U	95	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-23-5	Sodium	169000	ug/Kg	N	6650	23700	23700	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-28-0	Thallium	0.0926	mg/kg	J	0.061	0.203	0.203	2	MS	RMJ	02/25/10 13:10	100224-3	948759
7440-61-1	Uranium	17	mg/kg	*N	0.0134	0.0407	0.0407	2	MS	RMJ	02/26/10 05:21	100225-4	948759
7440-62-2	Vanadium	6880	ug/Kg		95	475	475	1	P	HSC	02/25/10 09:43	022410-1	948756
7440-66-6	Zinc	23600	ug/Kg		313	950	950	1	P	HSC	02/25/10 09:43	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.556	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.519	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.546	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969014 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7963 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4260000	ug/Kg	N	8170	24000	24000	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-36-0	Antimony	1200	ug/Kg	U	397	1200	1200	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-38-2	Arsenic	1.32	mg/kg		0.23	1.15	1.15	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-39-3	Barium	56100	ug/Kg		120	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-41-7	Beryllium	0.684	mg/kg		0.023	0.115	0.115	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-43-9	Cadmium	123	ug/Kg	J	120	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-70-2	Calcium	1030000	ug/Kg		9620	30100	30100	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-47-3	Chromium	12700	ug/Kg	*	180	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-48-4	Cobalt	3310	ug/Kg	*	180	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-50-8	Copper	29000	ug/Kg		361	1200	1200	1	P	HSC	02/25/10 09:50	022410-1	948756
7439-89-6	Iron	8490000	ug/Kg		9620	30100	30100	1	P	HSC	02/25/10 09:50	022410-1	948756
7439-92-1	Lead	17100	ug/Kg	EN	301	1200	1200	1	P	HSC	03/01/10 14:13	030110A-2	948756
7439-95-4	Magnesium	832000	ug/Kg		10200	36100	36100	1	P	HSC	02/25/10 09:50	022410-1	948756
7439-96-5	Manganese	238000	ug/Kg		240	1200	1200	1	P	HSC	02/25/10 09:50	022410-1	948756
7439-97-6	Mercury	9.55	ug/kg	J	4.72	13.9	13.9	1	AV	JXL1	02/18/10 10:49	021810S1-6	950565
7440-02-0	Nickel	5	mg/kg		0.115	0.459	0.459	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-09-7	Potassium	740000	ug/Kg	N	7690	30100	30100	1	P	HSC	02/25/10 09:50	022410-1	948756
7782-49-2	Selenium	1.15	mg/kg	U	0.574	1.15	1.15	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-22-4	Silver	601	ug/Kg	U	120	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-23-5	Sodium	78900	ug/Kg	N	8420	30100	30100	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-28-0	Thallium	0.101	mg/kg	J	0.0689	0.23	0.23	2	MS	RMJ	02/25/10 13:16	100224-3	948759
7440-61-1	Uranium	7.41	mg/kg	*N	0.0151	0.0459	0.0459	2	MS	RMJ	02/26/10 05:24	100225-4	948759
7440-62-2	Vanadium	15000	ug/Kg		120	601	601	1	P	HSC	02/25/10 09:50	022410-1	948756
7440-66-6	Zinc	28000	ug/Kg		397	1200	1200	1	P	HSC	02/25/10 09:50	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.55	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.546	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245969015 **BASIS:** Dry Weight **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-7977 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11200000	ug/Kg	N	10400	30600	30600	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-36-0	Antimony	1530	ug/Kg	U	504	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-38-2	Arsenic	2.26	mg/kg		0.285	1.42	1.42	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-39-3	Barium	159000	ug/Kg		153	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-41-7	Beryllium	5.26	mg/kg		0.0285	0.142	0.142	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-43-9	Cadmium	232	ug/Kg	J	153	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-70-2	Calcium	2510000	ug/Kg		12200	38200	38200	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-47-3	Chromium	10400	ug/Kg	*	229	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-48-4	Cobalt	5430	ug/Kg	*	229	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-50-8	Copper	11600	ug/Kg		458	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-89-6	Iron	11400000	ug/Kg		12200	38200	38200	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-92-1	Lead	33100	ug/Kg	EN	382	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-95-4	Magnesium	2020000	ug/Kg		13000	45800	45800	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-96-5	Manganese	425000	ug/Kg		306	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756
7439-97-6	Mercury	18.4	ug/kg		5.87	17.3	17.3	1	AV	JXL1	02/18/10 10:55	021810S1-6	950565
7440-02-0	Nickel	9.14	mg/kg		0.142	0.569	0.569	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-09-7	Potassium	1890000	ug/Kg	N	9780	38200	38200	1	P	HSC	02/25/10 09:57	022410-1	948756
7782-49-2	Selenium	1.42	mg/kg	U	0.711	1.42	1.42	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-22-4	Silver	764	ug/Kg	U	153	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-23-5	Sodium	61200	ug/Kg	N	10700	38200	38200	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-28-0	Thallium	0.205	mg/kg	J	0.0854	0.285	0.285	2	MS	RMJ	02/25/10 13:22	100224-3	948759
7440-61-1	Uranium	16.6	mg/kg	*N	0.0188	0.0569	0.0569	2	MS	RMJ	02/26/10 05:27	100225-4	948759
7440-62-2	Vanadium	22800	ug/Kg		153	764	764	1	P	HSC	02/25/10 09:57	022410-1	948756
7440-66-6	Zinc	28500	ug/Kg		504	1530	1530	1	P	HSC	02/25/10 09:57	022410-1	948756

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948756	948754	SW846 3050B	0.513	g	50	mL	02/10/10	FGA
948759	948758	SW846 3050B	0.551	g	50	mL	02/10/10	FGA
950565	950563	SW846 7471A Prep	0.545	g	30	mL	02/17/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	90.0 – 110.0	AV	18–FEB–10 09:57	021810S1–6
	Aluminum	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Barium	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Calcium	5250	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Copper	524	ug/L	500	ug/L	104.7	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Iron	5310	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Lead	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Potassium	2540	ug/L	2500	ug/L	101.7	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Silver	253	ug/L	250	ug/L	101.3	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Sodium	2600	ug/L	2500	ug/L	103.8	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Vanadium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Arsenic	47.6	ug/L	50	ug/L	95.2	90.0 – 110.0	MS	25–FEB–10 10:20	100224–3
	Beryllium	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	25–FEB–10 10:20	100224–3
	Nickel	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	25–FEB–10 10:20	100224–3
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	25–FEB–10 10:20	100224–3
	Thallium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	25–FEB–10 10:20	100224–3
	Uranium	54.3	ug/L	50	ug/L	108.5	90.0 – 110.0	MS	26–FEB–10 03:52	100225–4
	Uranium	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	28–FEB–10 03:08	100227–5
	Lead	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–MAR–10 12:04	030110A–2
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	18–FEB–10 10:03	021810S1–6
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Antimony	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	24–FEB–10 14:02	022410–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Cobalt	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Copper	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Lead	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Magnesium	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Potassium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Silver	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Zinc	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Arsenic	46.8	ug/L	50	ug/L	93.6	90.0 – 110.0	MS	25–FEB–10 10:49	100224–3
	Beryllium	51.9	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	25–FEB–10 10:49	100224–3
	Nickel	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 10:49	100224–3
	Selenium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	25–FEB–10 10:49	100224–3
	Thallium	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	25–FEB–10 10:49	100224–3
	Uranium	54.8	ug/L	50	ug/L	109.6	90.0 – 110.0	MS	26–FEB–10 04:08	100225–4
	Uranium	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	28–FEB–10 03:23	100227–5
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	01–MAR–10 12:51	030110A–2
CCV02										
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 – 120.0	AV	18–FEB–10 10:27	021810S1–6
	Aluminum	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	24–FEB–10 14:39	022410–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Copper	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Lead	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Potassium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Silver	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Sodium	10300	ug/L	10000	ug/L	103	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24–FEB–10 14:39	022410–1
	Arsenic	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	25–FEB–10 11:13	100224–3
	Beryllium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	25–FEB–10 11:13	100224–3
	Nickel	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	25–FEB–10 11:13	100224–3
	Selenium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	25–FEB–10 11:13	100224–3
	Thallium	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	25–FEB–10 11:13	100224–3
	Uranium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	26–FEB–10 04:38	100225–4
	Uranium	53.2	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	28–FEB–10 03:32	100227–5
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–MAR–10 13:12	030110A–2
CCV03										
	Mercury	5.22	ug/L	5	ug/L	104.5	80.0 – 120.0	AV	18–FEB–10 10:51	021810S1–6
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	24–FEB–10 16:03	022410–1
	Antimony	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24–FEB–10 16:03	022410–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24–FEB–10 16:03	022410–1
	Cadmium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24–FEB–10 16:03	022410–1
	Calcium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	24–FEB–10 16:03	022410–1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	24–FEB–10 16:03	022410–1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	24–FEB–10 16:03	022410–1
	Copper	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	24–FEB–10 16:03	022410–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Lead	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Silver	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Vanadium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Arsenic	47.5	ug/L	50	ug/L	94.9	90.0 – 110.0	MS	25-FEB-10 12:11	100224-3
	Beryllium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	25-FEB-10 12:11	100224-3
	Nickel	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	25-FEB-10 12:11	100224-3
	Selenium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	25-FEB-10 12:11	100224-3
	Thallium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	25-FEB-10 12:11	100224-3
	Uranium	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	26-FEB-10 05:09	100225-4
	Lead	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01-MAR-10 14:20	030110A-2
CCV04										
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	18-FEB-10 11:15	021810S1-6
	Aluminum	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Antimony	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Cadmium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Calcium	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Cobalt	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Iron	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 16:32	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Silver	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Sodium	10500	ug/L	10000	ug/L	104.6	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24-FEB-10 16:32	022410-1
	Arsenic	45.5	ug/L	50	ug/L	91	90.0 – 110.0	MS	25-FEB-10 13:28	100224-3
	Beryllium	48.3	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	25-FEB-10 13:28	100224-3
	Nickel	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	25-FEB-10 13:28	100224-3
	Selenium	48.3	ug/L	50	ug/L	96.7	90.0 – 110.0	MS	25-FEB-10 13:28	100224-3
	Thallium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	25-FEB-10 13:28	100224-3
	Uranium	53.7	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	26-FEB-10 05:30	100225-4
CCV05										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Antimony	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Cadmium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Calcium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Copper	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Iron	4890	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Lead	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Magnesium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Manganese	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Silver	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24-FEB-10 16:52	022410-1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	24-FEB-10 16:52	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV06										
	Aluminum	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Antimony	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Cadmium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Calcium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Chromium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Iron	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Lead	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Manganese	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Sodium	10200	ug/L	10000	ug/L	102	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	24-FEB-10 18:15	022410-1
CCV07										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Magnesium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24-FEB-10 19:39	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Silver	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24-FEB-10 19:39	022410-1
CCV08										
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Antimony	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Cadmium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Iron	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Lead	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Sodium	9520	ug/L	10000	ug/L	95.2	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Vanadium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	24-FEB-10 21:01	022410-1
CCV09										
	Aluminum	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	24-FEB-10 22:16	022410-1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24-FEB-10 22:16	022410-1
	Barium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24-FEB-10 22:16	022410-1
	Cadmium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24-FEB-10 22:16	022410-1
	Calcium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	24-FEB-10 22:16	022410-1
	Chromium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24-FEB-10 22:16	022410-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Lead	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Magnesium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Potassium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Silver	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Sodium	10600	ug/L	10000	ug/L	105.7	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
CCV10										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Cadmium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Cobalt	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Copper	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Iron	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Magnesium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Potassium	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Sodium	9890	ug/L	10000	ug/L	98.9	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Vanadium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Zinc	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	24–FEB–10 23:34	022410–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV11										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Antimony	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Cadmium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Cobalt	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Iron	4720	ug/L	5000	ug/L	94.4	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Lead	689	ug/L	500	ug/L	137.8	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	25-FEB-10 00:37	022410-1
CCV12										
	Aluminum	5370	ug/L	5000	ug/L	107.3	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Antimony	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Cadmium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Calcium	5310	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Chromium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Lead	664	ug/L	500	ug/L	132.9	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Magnesium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	25-FEB-10 01:48	022410-1
	Manganese	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	25-FEB-10 01:48	022410-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5380	ug/L	5000	ug/L	107.6	90.0 – 110.0	P	25–FEB–10 01:48	022410–1
	Silver	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25–FEB–10 01:48	022410–1
	Sodium	10400	ug/L	10000	ug/L	103.9	90.0 – 110.0	P	25–FEB–10 01:48	022410–1
	Vanadium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	25–FEB–10 01:48	022410–1
	Zinc	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	25–FEB–10 01:48	022410–1
CCV13										
	Aluminum	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Antimony	520	ug/L	500	ug/L	104	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Cadmium	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Chromium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Cobalt	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Iron	4650	ug/L	5000	ug/L	93	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Lead	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Magnesium	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Manganese	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Silver	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Sodium	9720	ug/L	10000	ug/L	97.2	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Vanadium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
	Zinc	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	25–FEB–10 03:04	022410–1
CCV14										
	Aluminum	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Antimony	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Barium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Cadmium	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Calcium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Chromium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	25–FEB–10 04:23	022410–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Copper	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Iron	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Lead	530	ug/L	500	ug/L	106.1	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Magnesium	5230	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Manganese	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Potassium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Silver	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Sodium	10300	ug/L	10000	ug/L	102.9	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
	Zinc	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25–FEB–10 04:23	022410–1
CCV15										
	Aluminum	5350	ug/L	5000	ug/L	107	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Antimony	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Cadmium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Calcium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Chromium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Copper	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Iron	4760	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Lead	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Magnesium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Potassium	5350	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Silver	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Vanadium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	25–FEB–10 05:34	022410–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	25–FEB–10 05:34	022410–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV16										
	Aluminum	5520	ug/L	5000	ug/L	110.5	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Antimony	520	ug/L	500	ug/L	104	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Barium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Cadmium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Calcium	5410	ug/L	5000	ug/L	108.1	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Chromium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Cobalt	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Iron	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Lead	524	ug/L	500	ug/L	104.7	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Manganese	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Potassium	5520	ug/L	5000	ug/L	110.3	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Vanadium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	25–FEB–10 06:36	022410–1
CCV17										
	Aluminum	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Barium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Cadmium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Calcium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Cobalt	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Copper	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Iron	4630	ug/L	5000	ug/L	92.7	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Lead	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Magnesium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	25–FEB–10 06:55	022410–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Silver	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Sodium	9720	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	25–FEB–10 06:55	022410–1
CCV18										
	Aluminum	5270	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Antimony	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Barium	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Calcium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Cobalt	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Copper	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Iron	4660	ug/L	5000	ug/L	93.3	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Lead	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Manganese	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Potassium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Sodium	10000	ug/L	10000	ug/L	100.2	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Vanadium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	25–FEB–10 07:57	022410–1
CCV19										
	Aluminum	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Antimony	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Cadmium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Calcium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	25–FEB–10 09:01	022410–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Iron	4700	ug/L	5000	ug/L	94	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Lead	495	ug/L	500	ug/L	99	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Magnesium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Manganese	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Potassium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Silver	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Sodium	10200	ug/L	10000	ug/L	102.1	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
	Zinc	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	25–FEB–10 09:01	022410–1
CCV20										
	Aluminum	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Antimony	490	ug/L	500	ug/L	98	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Cadmium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Calcium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Cobalt	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Iron	4660	ug/L	5000	ug/L	93.3	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Lead	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Magnesium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Manganese	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Potassium	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Silver	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Sodium	10200	ug/L	10000	ug/L	102	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	25–FEB–10 10:05	022410–1
	Zinc	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	25–FEB–10 10:05	022410–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.218	ug/L	.2	ug/L	109	70.0 – 130.0	AV	18–FEB–10 10:01	021810S1–6
	Nickel	2.35	ug/L	2	ug/L	117.3	70.0 – 130.0	MS	25–FEB–10 10:31	100224–3
	Thallium	1.1	ug/L	1	ug/L	110.2	70.0 – 130.0	MS	25–FEB–10 10:31	100224–3
	Beryllium	.511	ug/L	.5	ug/L	102.2	70.0 – 130.0	MS	25–FEB–10 10:31	100224–3
	Selenium	5.67	ug/L	5	ug/L	113.3	70.0 – 130.0	MS	25–FEB–10 10:31	100224–3
	Arsenic	5.44	ug/L	5	ug/L	108.7	70.0 – 130.0	MS	25–FEB–10 10:31	100224–3
	Uranium	.253	ug/L	.2	ug/L	126.5	70.0 – 130.0	MS	26–FEB–10 03:58	100225–4
	Uranium	.267	ug/L	.2	ug/L	133.5	70.0 – 130.0	MS	28–FEB–10 03:14	100227–5
PQL01										
	Aluminum	204	ug/L	200	ug/L	102.1	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Iron	103	ug/L	100	ug/L	103.2	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Lead	11.1	ug/L	10	ug/L	110.5	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Magnesium	253	ug/L	300	ug/L	84.5	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Manganese	10.4	ug/L	10	ug/L	104.3	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Potassium	162	ug/L	150	ug/L	107.9	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Silver	4.97	ug/L	5	ug/L	99.4	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Sodium	317	ug/L	300	ug/L	105.8	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Antimony	11.4	ug/L	10	ug/L	114.3	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Barium	5.11	ug/L	5	ug/L	102.3	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Cadmium	5.3	ug/L	5	ug/L	106	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Chromium	4.81	ug/L	5	ug/L	96.3	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Cobalt	5.02	ug/L	5	ug/L	100.4	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Copper	9.61	ug/L	10	ug/L	96.1	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Vanadium	5.28	ug/L	5	ug/L	105.6	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Zinc	9.96	ug/L	10	ug/L	99.6	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Calcium	209	ug/L	200	ug/L	104.4	70.0 – 130.0	P	24–FEB–10 13:28	022410–1
	Lead	10.8	ug/L	10	ug/L	107.7	70.0 – 130.0	P	01–MAR–10 12:18	030110A–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.129	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 09:59	021810S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 13:21	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 13:21	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 13:21	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 13:21	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 13:21	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 13:21	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	25–FEB–10 10:25	100224–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	25–FEB–10 10:25	100224–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	25–FEB–10 10:25	100224–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	25–FEB–10 10:25	100224–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	25–FEB–10 10:25	100224–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 03:55	100225–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	28–FEB–10 03:11	100227–5
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 12:11	030110A–2
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:05	021810S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 14:09	022410–1
	Antimony	7.02	+/–10	J	3.3	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:09	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 14:09	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 14:09	022410–1
	Lead	5.55	+/–10	J	2.5	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 14:09	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Potassium	110.64	+/–250	J	64.0	250	SOL	P	24–FEB–10 14:09	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 14:09	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	25–FEB–10 10:55	100224–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	25–FEB–10 10:55	100224–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	25–FEB–10 10:55	100224–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	25–FEB–10 10:55	100224–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	25–FEB–10 10:55	100224–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 04:11	100225–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	28–FEB–10 03:26	100227–5
	Lead	6.08	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 12:58	030110A–2
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:29	021810S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 14:46	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 14:46	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 14:46	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 14:46	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 14:46	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 14:46	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 14:46	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	25–FEB–10 11:18	100224–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	25–FEB–10 11:18	100224–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	25–FEB–10 11:18	100224–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	25–FEB–10 11:18	100224–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	25–FEB–10 11:18	100224–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 04:41	100225–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	28–FEB–10 03:35	100227–5
	Lead	2.54	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 13:19	030110A–2
CCB03										
	Mercury	–0.08	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 10:53	021810S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 16:10	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 16:10	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 16:10	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 16:10	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 16:10	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 16:10	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	25–FEB–10 12:17	100224–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	25–FEB–10 12:17	100224–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	25–FEB–10 12:17	100224–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	25–FEB–10 12:17	100224–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	25–FEB–10 12:17	100224–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 05:12	100225–4
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 14:27	030110A–2
CCB04										
	Mercury	–0.106	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 11:17	021810S1–6
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 16:39	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 16:39	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:39	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:39	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 16:39	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 16:39	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 16:39	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 16:39	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 16:39	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 16:39	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 16:39	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 16:39	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 16:39	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:39	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 16:39	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:39	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 16:39	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	25–FEB–10 13:34	100224–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	25–FEB–10 13:34	100224–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	25–FEB–10 13:34	100224–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	25–FEB–10 13:34	100224–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	25–FEB–10 13:34	100224–3
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	26–FEB–10 05:33	100225–4
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 17:00	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 17:00	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 17:00	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 17:00	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 17:00	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 17:00	022410–1
	Magnesium	–136.6	+/–300	J	85.0	300	SOL	P	24–FEB–10 17:00	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 17:00	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 17:00	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 17:00	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 17:00	022410–1
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 18:22	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 18:22	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 18:22	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 18:22	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 18:22	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 18:22	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 18:22	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 18:22	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 18:22	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 18:22	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 18:22	022410–1
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 19:46	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 19:46	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 19:46	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 19:46	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 19:46	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 19:46	022410–1
	Magnesium	–85.33	+/–300	J	85.0	300	SOL	P	24–FEB–10 19:46	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 19:46	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 19:46	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 19:46	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 19:46	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 21:08	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 21:08	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 21:08	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 21:08	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 21:08	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 21:08	022410–1
	Magnesium	–134.18	+/–300	J	85.0	300	SOL	P	24–FEB–10 21:08	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 21:08	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 21:08	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 21:08	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 21:08	022410–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 22:23	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 22:23	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 22:23	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 22:23	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 22:23	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 22:23	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 22:23	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 22:23	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 22:23	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 22:23	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 22:23	022410–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 23:41	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 23:41	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 23:41	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 23:41	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 23:41	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 23:41	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 23:41	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 23:41	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 23:41	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	24–FEB–10 23:41	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 23:41	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 23:41	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 23:41	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 23:41	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 23:41	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 23:41	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 23:41	022410–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 00:44	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 00:44	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 00:44	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 00:44	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 00:44	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 00:44	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 00:44	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 00:44	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 00:44	022410–1
	Lead	173.02	+/–10		2.5	10.0	SOL	P	25–FEB–10 00:44	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	25–FEB–10 00:44	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 00:44	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	25–FEB–10 00:44	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 00:44	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 00:44	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 00:44	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 00:44	022410–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 01:55	022410–1
	Antimony	3.34	+/–10	J	3.3	10.0	SOL	P	25–FEB–10 01:55	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 01:55	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 01:55	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 01:55	022410–1
	Lead	107.38	+/–10		2.5	10.0	SOL	P	25–FEB–10 01:55	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	25–FEB–10 01:55	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 01:55	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	25–FEB–10 01:55	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 01:55	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 01:55	022410–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 03:12	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 03:12	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 03:12	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 03:12	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 03:12	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 03:12	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 03:12	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 03:12	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 03:12	022410–1
	Lead	23.1	+/–10		2.5	10.0	SOL	P	25–FEB–10 03:12	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	25–FEB–10 03:12	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 03:12	022410–1
	Potassium	71.68	+/–250	J	64.0	250	SOL	P	25–FEB–10 03:12	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 03:12	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 03:12	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 03:12	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 03:12	022410–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 04:30	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 04:30	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 04:30	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 04:30	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 04:30	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 04:30	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 04:30	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 04:30	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 04:30	022410–1
	Lead	14.05	+/–10		2.5	10.0	SOL	P	25–FEB–10 04:30	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	25–FEB–10 04:30	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 04:30	022410–1
	Potassium	79.34	+/–250	J	64.0	250	SOL	P	25–FEB–10 04:30	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 04:30	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 04:30	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 04:30	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 04:30	022410–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 05:41	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 05:41	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 05:41	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 05:41	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 05:41	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 05:41	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 05:41	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 05:41	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 05:41	022410–1
	Lead	10.39	+/–10		2.5	10.0	SOL	P	25–FEB–10 05:41	022410–1
	Magnesium	–88.87	+/–300	J	85.0	300	SOL	P	25–FEB–10 05:41	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 05:41	022410–1
	Potassium	92.62	+/–250	J	64.0	250	SOL	P	25–FEB–10 05:41	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 05:41	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 05:41	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 05:41	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 05:41	022410–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 06:43	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 06:43	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 06:43	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 06:43	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 06:43	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 06:43	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 06:43	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 06:43	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 06:43	022410–1
	Lead	8.23	+/–10	J	2.5	10.0	SOL	P	25–FEB–10 06:43	022410–1
	Magnesium	–110.03	+/–300	J	85.0	300	SOL	P	25–FEB–10 06:43	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 06:43	022410–1
	Potassium	86.72	+/–250	J	64.0	250	SOL	P	25–FEB–10 06:43	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 06:43	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 06:43	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 06:43	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 06:43	022410–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 07:02	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 07:02	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 07:02	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 07:02	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 07:02	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 07:02	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 07:02	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 07:02	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 07:02	022410–1
	Lead	8.31	+/–10	J	2.5	10.0	SOL	P	25–FEB–10 07:02	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	25–FEB–10 07:02	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 07:02	022410–1
	Potassium	92.57	+/–250	J	64.0	250	SOL	P	25–FEB–10 07:02	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 07:02	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 07:02	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 07:02	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 07:02	022410–1
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 08:04	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 08:04	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 08:04	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 08:04	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 08:04	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 08:04	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 08:04	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 08:04	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 08:04	022410–1
	Lead	5.22	+/–10	J	2.5	10.0	SOL	P	25–FEB–10 08:04	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	25–FEB–10 08:04	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 08:04	022410–1
	Potassium	72.49	+/–250	J	64.0	250	SOL	P	25–FEB–10 08:04	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 08:04	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 08:04	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 08:04	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 08:04	022410–1
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 09:08	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 09:08	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 09:08	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 09:08	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 09:08	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 09:08	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 09:08	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 09:08	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 09:08	022410–1
	Lead	6.02	+/–10	J	2.5	10.0	SOL	P	25–FEB–10 09:08	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	25–FEB–10 09:08	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 09:08	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	25–FEB–10 09:08	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 09:08	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 09:08	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 09:08	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 09:08	022410–1
CCB20										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 10:12	022410–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1512

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 10:12	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 10:12	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 10:12	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 10:12	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 10:12	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 10:12	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 10:12	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 10:12	022410-1
	Lead	5.68	+/-10	J	2.5	10.0	SOL	P	25-FEB-10 10:12	022410-1
	Magnesium	-103.57	+/-300	J	85.0	300	SOL	P	25-FEB-10 10:12	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 10:12	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 10:12	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 10:12	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	25-FEB-10 10:12	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 10:12	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 10:12	022410-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1512

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032590								
	Aluminum	6020	ug/Kg	+/–17700	U	P	6020	17700
	Antimony	292	ug/Kg	+/–885	U	P	292	885
	Barium	88.5	ug/Kg	+/–442	U	P	88.5	442
	Cadmium	88.5	ug/Kg	+/–442	U	P	88.5	442
	Calcium	7080	ug/Kg	+/–22100	U	P	7080	22100
	Chromium	133	ug/Kg	+/–442	U	P	133	442
	Silver	88.5	ug/Kg	+/–442	U	P	88.5	442
	Sodium	6190	ug/Kg	+/–22100	U	P	6190	22100
	Vanadium	88.5	ug/Kg	+/–442	U	P	88.5	442
	Potassium	6320	ug/Kg	+/–22100	J	P	5660	22100
	Manganese	177	ug/Kg	+/–885	U	P	177	885
	Magnesium	–13400	ug/Kg	+/–26500	J	P	7520	26500
	Lead	422	ug/Kg	+/–885	J	P	221	885
	Iron	7080	ug/Kg	+/–22100	U	P	7080	22100
	Copper	265	ug/Kg	+/–885	U	P	265	885
	Cobalt	133	ug/Kg	+/–442	U	P	133	442
	Zinc	318	ug/Kg	+/–885	J	P	292	885
1202032600								
	Arsenic	0.187	mg/kg	+/–0.933	U	MS	0.187	0.933
	Beryllium	0.0187	mg/kg	+/–0.0933	U	MS	0.0187	0.0933
	Nickel	0.0933	mg/kg	+/–0.373	U	MS	0.0933	0.373
	Selenium	0.466	mg/kg	+/–0.933	U	MS	0.466	0.933
	Thallium	0.056	mg/kg	+/–0.187	U	MS	0.056	0.187
	Uranium	0.0123	mg/kg	+/–0.0373	U	MS	0.0123	0.0373
1202037115								
	Mercury	–4.4	ug/kg	+/–10.9	J	AV	3.72	10.9

METALS
-4-
Interference Check Sample

SDG No: 10-1512

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	520000	ug/L	500000	ug/L	104	80.0 - 120.0	24-FEB-10 13:35	022410-1
	Antimony	-5.41	ug/L					24-FEB-10 13:35	022410-1
	Barium	1.08	ug/L					24-FEB-10 13:35	022410-1
	Cadmium	-1.24	ug/L					24-FEB-10 13:35	022410-1
	Calcium	487000	ug/L	500000	ug/L	97.5	80.0 - 120.0	24-FEB-10 13:35	022410-1
	Chromium	3.41	ug/L					24-FEB-10 13:35	022410-1
	Cobalt	-1.42	ug/L					24-FEB-10 13:35	022410-1
	Copper	3.17	ug/L					24-FEB-10 13:35	022410-1
	Iron	190000	ug/L	200000	ug/L	95.1	80.0 - 120.0	24-FEB-10 13:35	022410-1
	Lead	-9.68	ug/L					24-FEB-10 13:35	022410-1
	Magnesium	501000	ug/L	500000	ug/L	100	80.0 - 120.0	24-FEB-10 13:35	022410-1
	Manganese	-0.422	ug/L					24-FEB-10 13:35	022410-1
	Potassium	-180.0	ug/L					24-FEB-10 13:35	022410-1
	Silver	-1.2	ug/L					24-FEB-10 13:35	022410-1
	Sodium	64.0	ug/L					24-FEB-10 13:35	022410-1
	Vanadium	-0.642	ug/L					24-FEB-10 13:35	022410-1
	Zinc	-2.44	ug/L					24-FEB-10 13:35	022410-1
ICSAB01									
	Aluminum	518000	ug/L	500000	ug/L	104	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Antimony	536	ug/L	500	ug/L	107	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Barium	485	ug/L	500	ug/L	97	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Cadmium	447	ug/L	500	ug/L	89.4	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Calcium	483000	ug/L	500000	ug/L	96.7	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Chromium	475	ug/L	500	ug/L	95.1	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Cobalt	428	ug/L	500	ug/L	85.6	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Copper	538	ug/L	500	ug/L	108	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Iron	187000	ug/L	200000	ug/L	93.5	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Lead	445	ug/L	500	ug/L	89.1	80.0 - 120.0	24-FEB-10 13:41	022410-1
	Magnesium	493000	ug/L	500000	ug/L	98.7	80.0 - 120.0	24-FEB-10 13:41	022410-1

METALS
–4–
Interference Check Sample

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	472	ug/L	500	ug/L	94.5	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Potassium	5440	ug/L	5000	ug/L	109	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Silver	266	ug/L	250	ug/L	107	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Sodium	5520	ug/L	5000	ug/L	110	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Vanadium	499	ug/L	500	ug/L	99.9	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Zinc	479	ug/L	500	ug/L	95.9	80.0 – 120.0	24–FEB–10 13:41	022410–1

METALS
-4-
Interference Check Sample

SDG No: 10-1512

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	9.4	ug/L					01-MAR-10 12:25	030110A-2
ICSAB01									
	Lead	485	ug/L	500	ug/L	97.1	80.0 - 120.0	01-MAR-10 12:31	030110A-2

METALS
–4–
Interference Check Sample

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.183	ug/L					25–FEB–10 10:37	100224–3
	Beryllium	0.094	ug/L					25–FEB–10 10:37	100224–3
	Nickel	4.18	ug/L					25–FEB–10 10:37	100224–3
	Selenium	–2.27	ug/L					25–FEB–10 10:37	100224–3
	Thallium	0.003	ug/L					25–FEB–10 10:37	100224–3
ICSAB01									
	Arsenic	21.0	ug/L	20	ug/L	105	80.0 – 120.0	25–FEB–10 10:43	100224–3
	Beryllium	19.0	ug/L	20	ug/L	95.1	80.0 – 120.0	25–FEB–10 10:43	100224–3
	Nickel	22.8	ug/L	23.31	ug/L	98	80.0 – 120.0	25–FEB–10 10:43	100224–3
	Selenium	18.8	ug/L	20	ug/L	93.9	80.0 – 120.0	25–FEB–10 10:43	100224–3
	Thallium	19.2	ug/L	20	ug/L	96.1	80.0 – 120.0	25–FEB–10 10:43	100224–3

METALS
–4–
Interference Check Sample

SDG No: 10–1512

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.003	ug/L					26–FEB–10 04:01	100225–4
ICSAB01									
	Uranium	23.2	ug/L	20	ug/L	116	80.0 – 120.0	26–FEB–10 04:05	100225–4

METALS
-4-
Interference Check Sample

SDG No: 10-1512

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	-0.002	ug/L					28-FEB-10 03:17	100227-5
ICSAB01									
	Uranium	22.4	ug/L	20	ug/L	112	80.0 - 120.0	28-FEB-10 03:20	100227-5

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1512 **Client ID** RE15–10–7880S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.5

Sample ID: 245969001 **Spike ID:** 1202032593

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75–125	2870000		1640000		507000	243	N	P
Antimony	ug/Kg	75–125	47100		352	U	50700	92.8		P
Barium	ug/Kg	75–125	67100		19600		50700	93.7		P
Cadmium	ug/Kg	75–125	48400		107	U	50700	95.4		P
Calcium	ug/Kg	75–125	927000		308000		507000	122		P
Chromium	ug/Kg	75–125	54000		8570		50700	89.5		P
Cobalt	ug/Kg	75–125	50400		4770		50700	90.1		P
Copper	ug/Kg	75–125	54000		3660		50700	99.3		P
Iron	ug/Kg		7400000		8040000		507000	–125	N/A	P
Lead	ug/Kg	75–125	62800		34400		50700	55.9	N	P
Magnesium	ug/Kg	75–125	730000		136000		507000	117		P
Manganese	ug/Kg		255000		221000		50700	65.9	N/A	P
Potassium	ug/Kg	75–125	1390000		616000		507000	154	N	P
Silver	ug/Kg	75–125	48700		107	U	50700	95.9		P
Sodium	ug/Kg	75–125	1140000		423000		507000	142	N	P
Vanadium	ug/Kg	75–125	49900		2080		50700	94.3		P
Zinc	ug/Kg	75–125	70600		23000		50700	93.9		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1512 **Client ID** RE15–10–7880SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.5

Sample ID: 245969001 **Spike ID:** 1202032594

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg	75–125	2820000		1640000		513000	231	N	P
Antimony	ug/Kg	75–125	47200		352	U	51300	92		P
Barium	ug/Kg	75–125	65800		19600		51300	90.2		P
Cadmium	ug/Kg	75–125	47500		107	U	51300	92.7		P
Calcium	ug/Kg	75–125	935000		308000		513000	122		P
Chromium	ug/Kg	75–125	53600		8570		51300	87.8		P
Cobalt	ug/Kg	75–125	50100		4770		51300	88.4		P
Copper	ug/Kg	75–125	55800		3660		51300	102		P
Iron	ug/Kg		6870000		8040000		513000	–228	N/A	P
Lead	ug/Kg	75–125	67500		34400		51300	64.5	N	P
Magnesium	ug/Kg	75–125	746000		136000		513000	119		P
Manganese	ug/Kg		271000		221000		51300	95.9	N/A	P
Potassium	ug/Kg	75–125	1350000		616000		513000	143	N	P
Silver	ug/Kg	75–125	49100		107	U	51300	95.6		P
Sodium	ug/Kg	75–125	1150000		423000		513000	142	N	P
Vanadium	ug/Kg	75–125	50400		2080		51300	94.3		P
Zinc	ug/Kg	75–125	72500		23000		51300	96.5		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1512 **Client ID** RE15–10–7880S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.5

Sample ID: 245969001 **Spike ID:** 1202032603

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/kg	75–125	5.29		0.235		5.21	97		MS
Nickel	mg/kg	75–125	8.65		3.04		5.21	108		MS
Selenium	mg/kg	75–125	2.14		0.518	U	2.08	95.5		MS
Thallium	mg/kg	75–125	9.34		0.0621	U	10.4	89.4		MS
Uranium	mg/kg	75–125	1380		0.606		5.21	26400	N	MS
Arsenic	mg/kg	75–125	8.77		0.915	J	8.33	94.3		MS

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1512 **Client ID** RE15–10–7880SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.5

Sample ID: 245969001 **Spike ID:** 1202032604

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/kg	75–125	4.96		0.235		5.11	92.5		MS
Nickel	mg/kg	75–125	8.3		3.04		5.11	103		MS
Selenium	mg/kg	75–125	2.01		0.518	U	2.04	91.3		MS
Thallium	mg/kg	75–125	8.84		0.0621	U	10.2	86.2		MS
Uranium	mg/kg	75–125	6.46		0.606		5.11	115		MS
Arsenic	mg/kg	75–125	8.46		0.915	J	8.17	92.3		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1512 **Client ID** RE15–10–7880S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.5

Sample ID: 245969001 **Spike ID:** 1202037118

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	136		14.4		122	99.4		AV

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1512 **Client ID** RE15–10–7880SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.5

Sample ID: 245969001 **Spike ID:** 1202037120

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	130		14.4		112	103		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7880D

Sample ID: 245969001 **Duplicate ID:** 1202032591 **Percent Solids for Dup:** 92.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	1640000		1520000		7.26		P
Antimony	ug/Kg		352	U	354	U			P
Barium	ug/Kg	+/–20%	19600		18000		8.18		P
Cadmium	ug/Kg		107	U	107	U			P
Calcium	ug/Kg	+/–20%	308000		291000		5.94		P
Chromium	ug/Kg	+/–20%	8570		5270		47.8	*	P
Cobalt	ug/Kg	+/–20%	4770		8490		56.1	*	P
Copper	ug/Kg	+/–1070	3660		2900		23.4		P
Iron	ug/Kg	+/–20%	8040000		7410000		8.16		P
Lead	ug/Kg	+/–20%	34400		35300		2.44		P
Magnesium	ug/Kg	+/–32200	136000		136000		.396		P
Manganese	ug/Kg	+/–20%	221000		239000		7.7		P
Potassium	ug/Kg	+/–20%	616000		593000		3.69		P
Silver	ug/Kg		107	U	107	U			P
Sodium	ug/Kg	+/–20%	423000		399000		5.73		P
Vanadium	ug/Kg	+/–536	2080		2060		.931		P
Zinc	ug/Kg	+/–20%	23000		23000		.105		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7880SD

Sample ID: 1202032593 **Duplicate ID:** 1202032594 **Percent Solids for Dup:** 92.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20	2870000		2820000		1.58		P
Antimony	ug/Kg	+/–20	47100		47200		.239		P
Barium	ug/Kg	+/–20	67100		65800		1.88		P
Cadmium	ug/Kg	+/–20	48400		47500		1.71		P
Calcium	ug/Kg	+/–20	927000		935000		.829		P
Chromium	ug/Kg	+/–20	54000		53600		.694		P
Cobalt	ug/Kg	+/–20	50400		50100		.71		P
Copper	ug/Kg	+/–20	54000		55800		3.21		P
Iron	ug/Kg	+/–20	7400000		6870000		7.47		P
Lead	ug/Kg	+/–20	62800		67500		7.24		P
Magnesium	ug/Kg	+/–20	730000		746000		2.18		P
Manganese	ug/Kg	+/–20	255000		271000		6		P
Potassium	ug/Kg	+/–20	1390000		1350000		3.15		P
Silver	ug/Kg	+/–20	48700		49100		.805		P
Sodium	ug/Kg	+/–20	1140000		1150000		.794		P
Vanadium	ug/Kg	+/–20	49900		50400		1.08		P
Zinc	ug/Kg	+/–20	70600		72500		2.63		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7880D

Sample ID: 245969001 **Duplicate ID:** 1202032601 **Percent Solids for Dup:** 92.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–1.06	0.915	J	0.991	J	7.95		MS
Beryllium	mg/kg	+/–.106	0.235		0.224		4.9		MS
Nickel	mg/kg	+/–20%	3.04		3.17		4.36		MS
Selenium	mg/kg		0.518	U	0.528	U			MS
Thallium	mg/kg		0.0621	U	0.0633	U			MS
Uranium	mg/kg	+/–20%	0.606		0.791		26.6	*	MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7880SD

Sample ID: 1202032603 **Duplicate ID:** 1202032604 **Percent Solids for Dup:** 92.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	8.77		8.46		3.61		MS
Beryllium	mg/kg	+/–20	5.29		4.96		6.4		MS
Nickel	mg/kg	+/–20	8.65		8.3		4.14		MS
Selenium	mg/kg	+/–20	2.14		2.01		6.02		MS
Thallium	mg/kg	+/–20	9.34		8.84		5.49		MS
Uranium	mg/kg	+/–20	1380		6.46		198	*	MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7880D

Sample ID: 245969001 **Duplicate ID:** 1202037117 **Percent Solids for Dup:** 92.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–13	14.4		10.8	J	28.4		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–7880SD

Sample ID: 1202037118 **Duplicate ID:** 1202037120 **Percent Solids for Dup:** 92.5

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	136		130		4.54		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1512

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032595								
	Aluminum	ug/Kg	10500000	9140000		87	56–144	P
	Antimony	ug/Kg	173000	118000		68.2	71–130	P
	Barium	ug/Kg	198000	184000		92.7	80–120	P
	Cadmium	ug/Kg	60700	57500		94.7	81–120	P
	Calcium	ug/Kg	9870000	9620000		97.4	83–117	P
	Chromium	ug/Kg	236000	227000		96.1	80–120	P
	Cobalt	ug/Kg	91200	86800		95.2	81–120	P
	Copper	ug/Kg	174000	178000		102	81–118	P
	Iron	ug/Kg	18000000	15600000		86.7	51–149	P
	Lead	ug/Kg	86000	79600		92.5	79–121	P
	Magnesium	ug/Kg	4000000	3500000		87.6	79–122	P
	Manganese	ug/Kg	558000	502000		89.9	81–119	P
	Potassium	ug/Kg	4300000	4130000		96.1	74–127	P
	Silver	ug/Kg	30100	28900		96.1	66–134	P
	Sodium	ug/Kg	1020000	957000		93.9	74–127	P
	Vanadium	ug/Kg	115000	114000		99	79–121	P
	Zinc	ug/Kg	594000	559000		94	80–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1512

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032605								
	Beryllium	mg/kg	77.6	75.7		97.5	84–116	MS
	Nickel	mg/kg	134	134		99.9	78–123	MS
	Selenium	mg/kg	286	278		97.2	77–123	MS
	Thallium	mg/kg	121	116		95.8	78–122	MS
	Uranium	mg/kg	2.13	1.89		88.9	73–127	MS
	Arsenic	mg/kg	104	98.9		95.1	78–123	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1512

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202037116								
	Mercury	ug/kg	5150	5920		115	71.6-128.3	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1512 **Client ID** RE15–10–7880L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245969001 **Serial Dilution ID:** 1202032592

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	15400		15300		.649		10	P
Antimony	3.3	U	16.5	U				P
Barium	183		192		4.92		10	P
Cadmium	1	U	5	U				P
Calcium	2890		2940		1.73			P
Chromium	80.4		82		1.99		10	P
Cobalt	44.7		47.5		6.26			P
Copper	34.4		33.6	J	2.47			P
Iron	75400		76500		1.46		10	P
Lead	323		369		14.1	E	10	P
Magnesium	1280		835	J	34.8			P
Manganese	2080		2190		5.29		10	P
Potassium	5770		5950		3.12		10	P
Silver	1	U	5	U				P
Sodium	3970		3680		7.3		10	P
Vanadium	19.5		21	J	7.44			P
Zinc	216		229		5.79		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1512 **Client ID** RE15-10-7880L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245969001 **Serial Dilution ID:** 1202032602

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	4.42	J	5	U	100			MS
Beryllium	1.14		1.22	J	6.58			MS
Nickel	14.7		14.8		.34			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	2.92		5.55		90.1			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1512 **Client ID** RE15-10-7880L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245969001 **Serial Dilution ID:** 1202037119

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.245		.34	U	100			AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1512 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948754						
1202032590	MB for batch 948754	MB	S	10–FEB–10	.565g	50mL	
1202032595	LCS for batch 948754	LCS	S	10–FEB–10	.505g	50mL	
1202032593	RE15–10–7880S	MS	S	10–FEB–10	.533g	50mL	
1202032594	RE15–10–7880SD	MSD	S	10–FEB–10	.527g	50mL	
1202032591	RE15–10–7880D	DUP	S	10–FEB–10	.504g	50mL	
245969001	RE15–10–7880	SAMPLE	S	10–FEB–10	.507g	50mL	
245969002	RE15–10–7891	SAMPLE	S	10–FEB–10	.514g	50mL	
245969003	RE15–10–7892	SAMPLE	S	10–FEB–10	.552g	50mL	
245969004	RE15–10–7967	SAMPLE	S	10–FEB–10	.508g	50mL	
245969005	RE15–10–7976	SAMPLE	S	10–FEB–10	.517g	50mL	
245969006	RE15–10–7968	SAMPLE	S	10–FEB–10	.515g	50mL	
245969007	RE15–10–7965	SAMPLE	S	10–FEB–10	.522g	50mL	
245969008	RE15–10–7975	SAMPLE	S	10–FEB–10	.557g	50mL	
245969009	RE15–10–7978	SAMPLE	S	10–FEB–10	.523g	50mL	
245969010	RE15–10–7970	SAMPLE	S	10–FEB–10	.519g	50mL	
245969011	RE15–10–7964	SAMPLE	S	10–FEB–10	.541g	50mL	
245969012	RE15–10–7973	SAMPLE	S	10–FEB–10	.559g	50mL	
245969013	RE15–10–7962	SAMPLE	S	10–FEB–10	.556g	50mL	
245969014	RE15–10–7963	SAMPLE	S	10–FEB–10	.525g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1512 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245969015	RE15-10-7977	SAMPLE	S	10-FEB-10	.513g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1512 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948758						
1202032600	MB for batch 948758	MB	S	10-FEB-10	.536g	50mL	
1202032605	LCS for batch 948758	LCS	S	10-FEB-10	.522g	50mL	
1202032603	RE15-10-7880S	MS	S	10-FEB-10	.519g	50mL	
1202032604	RE15-10-7880SD	MSD	S	10-FEB-10	.529g	50mL	
1202032601	RE15-10-7880D	DUP	S	10-FEB-10	.512g	50mL	
245969001	RE15-10-7880	SAMPLE	S	10-FEB-10	.522g	50mL	
245969002	RE15-10-7891	SAMPLE	S	10-FEB-10	.518g	50mL	
245969003	RE15-10-7892	SAMPLE	S	10-FEB-10	.546g	50mL	
245969004	RE15-10-7967	SAMPLE	S	10-FEB-10	.544g	50mL	
245969005	RE15-10-7976	SAMPLE	S	10-FEB-10	.511g	50mL	
245969006	RE15-10-7968	SAMPLE	S	10-FEB-10	.546g	50mL	
245969007	RE15-10-7965	SAMPLE	S	10-FEB-10	.54g	50mL	
245969008	RE15-10-7975	SAMPLE	S	10-FEB-10	.511g	50mL	
245969009	RE15-10-7978	SAMPLE	S	10-FEB-10	.571g	50mL	
245969010	RE15-10-7970	SAMPLE	S	10-FEB-10	.516g	50mL	
245969011	RE15-10-7964	SAMPLE	S	10-FEB-10	.532g	50mL	
245969012	RE15-10-7973	SAMPLE	S	10-FEB-10	.507g	50mL	
245969013	RE15-10-7962	SAMPLE	S	10-FEB-10	.519g	50mL	
245969014	RE15-10-7963	SAMPLE	S	10-FEB-10	.55g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1512 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245969015	RE15-10-7977	SAMPLE	S	10-FEB-10	.551g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1512 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	950563						
1202037115	MB for batch 950563	MB	S	17-FEB-10	.549g	30mL	
1202037116	LCS for batch 950563	LCS	S	17-FEB-10	.204g	30mL	
1202037118	RE15-10-7880S	MS	S	17-FEB-10	.53g	30mL	
1202037120	RE15-10-7880SD	MSD	S	17-FEB-10	.578g	30mL	
1202037117	RE15-10-7880D	DUP	S	17-FEB-10	.5g	30mL	
245969001	RE15-10-7880	SAMPLE	S	17-FEB-10	.551g	30mL	
245969002	RE15-10-7891	SAMPLE	S	17-FEB-10	.553g	30mL	
245969003	RE15-10-7892	SAMPLE	S	17-FEB-10	.543g	30mL	
245969004	RE15-10-7967	SAMPLE	S	17-FEB-10	.51g	30mL	
245969005	RE15-10-7976	SAMPLE	S	17-FEB-10	.506g	30mL	
245969006	RE15-10-7968	SAMPLE	S	17-FEB-10	.589g	30mL	
245969007	RE15-10-7965	SAMPLE	S	17-FEB-10	.517g	30mL	
245969008	RE15-10-7975	SAMPLE	S	17-FEB-10	.543g	30mL	
245969009	RE15-10-7978	SAMPLE	S	17-FEB-10	.548g	30mL	
245969010	RE15-10-7970	SAMPLE	S	17-FEB-10	.574g	30mL	
245969011	RE15-10-7964	SAMPLE	S	17-FEB-10	.517g	30mL	
245969012	RE15-10-7973	SAMPLE	S	17-FEB-10	.591g	30mL	
245969013	RE15-10-7962	SAMPLE	S	17-FEB-10	.546g	30mL	
245969014	RE15-10-7963	SAMPLE	S	17-FEB-10	.546g	30mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1512 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
245969015	RE15-10-7977	SAMPLE	S	17-FEB-10	.545g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1512
Method MS
Data File: 100224–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:02			X		X											X		X			X			
S10	1	10:08			X		X											X		X			X			
S100	1	10:14			X		X											X		X			X			
ICV01	1	10:20			X		X											X		X			X			
ICB01	1	10:25			X		X											X		X			X			
CRDL01	1	10:31			X		X											X		X			X			
ICSA01	1	10:37			X		X											X		X			X			
ICSAB01	1	10:43			X		X											X		X			X			
CCV01	1	10:49			X		X											X		X			X			
CCB01	1	10:55			X		X											X		X			X			
1202032600	2	11:01			X		X											X		X			X			
1202032605	40	11:07			X		X											X		X			X			
CCV02	1	11:13			X		X											X		X			X			
CCB02	1	11:18			X		X											X		X			X			
245969001	2	11:24			X		X											X		X			X			
1202032601	2	11:30			X		X											X		X			X			
1202032603	2	11:36			X		X											X		X			X			
1202032604	2	11:42			X		X											X		X			X			
1202032602	10	11:48			X		X											X		X			X			
245969002	2	11:54			X		X											X		X			X			
245969003	2	12:00			X		X											X		X			X			
245969004	2	12:06			X		X											X		X			X			
CCV03	1	12:11			X		X											X		X			X			
CCB03	1	12:17			X		X											X		X			X			
245969005	2	12:23			X		X											X		X			X			
245969006	2	12:29			X		X											X		X			X			
245969007	2	12:35			X		X											X		X			X			
245969008	2	12:41			X		X											X		X			X			
245969009	2	12:47			X		X											X		X			X			
245969010	2	12:53			X		X											X		X			X			
245969011	2	12:59			X		X											X		X			X			
245969012	2	13:04			X		X											X		X			X			
245969013	2	13:10			X		X											X		X			X			
245969014	2	13:16			X		X											X		X			X			
245969015	2	13:22			X		X											X		X			X			
CCV04	1	13:28			X		X											X		X			X			
CCB04	1	13:34			X		X											X		X			X			

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26–FEB–10 **End Date:** 26–FEB–10

Client Sdg: 10–1512
Method MS
Data File: 100225–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	03:43																						X		
S10	1	03:46																						X		
S100	1	03:49																						X		
ICV01	1	03:52																						X		
ICB01	1	03:55																						X		
CRDL01	1	03:58																						X		
ICSA01	1	04:01																						X		
ICSAB01	1	04:05																						X		
CCV01	1	04:08																						X		
CCB01	1	04:11																						X		
1202032600	2	04:14																						X		
1202032605	40	04:17																						X		
245969001	2	04:20																						X		
1202032601	2	04:23																						X		
1202032603	2	04:26																						X		
1202032604	2	04:29																						X		
1202032602	10	04:32																						X		
245969002	20	04:35																						X		
CCV02	1	04:38																						X		
CCB02	1	04:41																						X		
ZZZZZZ	2	04:44																								
245969004	40	04:47																						X		
245969005	2	04:50																						X		
245969006	10	04:54																						X		
245969007	10	04:57																						X		
245969008	10	05:00																						X		
245969009	2	05:03																						X		
245969010	2	05:06																						X		
CCV03	1	05:09																						X		
CCB03	1	05:12																						X		
245969011	2	05:15																						X		
245969012	2	05:18																						X		
245969013	2	05:21																						X		
245969014	2	05:24																						X		
245969015	2	05:27																						X		
CCV04	1	05:30																						X		
CCB04	1	05:33																						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 28–FEB–10 **End Date:** 28–FEB–10

Client Sdg: 10–1512
Method MS
Data File: 100227–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	02:58																						X		
S10	1	03:02																						X		
S100	1	03:05																						X		
ICV01	1	03:08																						X		
ICB01	1	03:11																						X		
CRDL01	1	03:14																						X		
ICSA01	1	03:17																						X		
ICSAB01	1	03:20																						X		
CCV01	1	03:23																						X		
CCB01	1	03:26																						X		
245969003	2	03:29																						X		
CCV02	1	03:32																						X		
CCB02	1	03:35																						X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 24-FEB-10
End Date: 25-FEB-10
Client Sdg: 10-1512
Method P
Data File: 022410-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	12:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	12:47		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	12:54	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	13:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	13:09	X						X				X		X							X				
ICV01	1	13:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	13:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	13:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	13:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	13:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	13:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	13:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	14:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	14:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	14:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR04	1	14:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	14:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	14:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	14:55																								
ZZZZZZ	1	15:01																								
ZZZZZZ	1	15:08																								
ZZZZZZ	1	15:15																								
ZZZZZZ	1	15:22																								
ZZZZZZ	1	15:29																								
ZZZZZZ	1	15:36																								
ZZZZZZ	1	15:43																								
ZZZZZZ	1	15:49																								
ZZZZZZ	1	15:56																								
CCV03	1	16:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	16:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	16:18																								
ZZZZZZ	1	16:25																								
CCV04	1	16:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	16:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV05	1	16:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	17:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:07																								
ZZZZZZ	1	17:14																								
ZZZZZZ	1	17:20																								
ZZZZZZ	1	17:27																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	17:34																							
ZZZZZZ	1	17:41																							
ZZZZZZ	1	17:48																							
ZZZZZZ	1	17:55																							
ZZZZZZ	1	18:01																							
ZZZZZZ	1	18:08																							
CCV06	1	18:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	18:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:29																							
ZZZZZZ	1	18:36																							
ZZZZZZ	1	18:43																							
ZZZZZZ	1	18:50																							
ZZZZZZ	1	18:57																							
ZZZZZZ	1	19:04																							
ZZZZZZ	1	19:11																							
ZZZZZZ	1	19:18																							
ZZZZZZ	1	19:25																							
ZZZZZZ	1	19:32																							
CCV07	1	19:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	19:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:53																							
ZZZZZZ	1	19:59																							
ZZZZZZ	1	20:06																							
ZZZZZZ	1	20:13																							
ZZZZZZ	1	20:20																							
ZZZZZZ	1	20:27																							
ZZZZZZ	1	20:34																							
ZZZZZZ	1	20:40																							
ZZZZZZ	1	20:47																							
ZZZZZZ	1	20:54																							
CCV08	1	21:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	21:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:15																							
ZZZZZZ	1	21:22																							
ZZZZZZ	1	21:28																							
ZZZZZZ	1	21:35																							
ZZZZZZ	1	21:42																							
ZZZZZZ	1	21:49																							
ZZZZZZ	1	21:56																							
ZZZZZZ	1	22:03																							

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	5	22:10																								
CCV09	1	22:16	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	22:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:30																								
ZZZZZZ	1	22:37																								
ZZZZZZ	1	22:45																								
ZZZZZZ	1	22:52																								
ZZZZZZ	1	22:59																								
ZZZZZZ	1	23:06																								
ZZZZZZ	1	23:13																								
ZZZZZZ	1	23:20																								
ZZZZZZ	1	23:27																								
CCV10	1	23:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	23:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:48																								
ZZZZZZ	1	23:55																								
ZZZZZZ	1	00:01																								
ZZZZZZ	1	00:08																								
ZZZZZZ	1	00:15																								
ZZZZZZ	1	00:23																								
ZZZZZZ	5	00:30																								
CCV11	1	00:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	00:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	00:51																								
ZZZZZZ	1	00:58																								
ZZZZZZ	1	01:05																								
ZZZZZZ	1	01:12																								
ZZZZZZ	1	01:19																								
ZZZZZZ	1	01:27																								
ZZZZZZ	1	01:34																								
ZZZZZZ	1	01:41																								
CCV12	1	01:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	01:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	02:01																								
ZZZZZZ	1	02:09																								
ZZZZZZ	1	02:15																								
ZZZZZZ	1	02:22																								
ZZZZZZ	1	02:29																								
ZZZZZZ	1	02:36																								
ZZZZZZ	5	02:43																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	02:50																								
ZZZZZZ	1	02:57																								
CCV13	1	03:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB13	1	03:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	03:18																								
ZZZZZZ	1	03:26																								
ZZZZZZ	1	03:33																								
ZZZZZZ	1	03:40																								
ZZZZZZ	1	03:47																								
ZZZZZZ	1	03:54																								
ZZZZZZ	1	04:01																								
ZZZZZZ	1	04:09																								
ZZZZZZ	1	04:16																								
CCV14	1	04:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB14	1	04:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	04:37																								
ZZZZZZ	1	04:44																								
ZZZZZZ	1	04:51																								
ZZZZZZ	1	04:58																								
ZZZZZZ	1	05:06																								
ZZZZZZ	1	05:13																								
ZZZZZZ	1	05:20																								
ZZZZZZ	1	05:27																								
CCV15	1	05:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB15	1	05:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	05:48																								
ZZZZZZ	1	05:55																								
ZZZZZZ	1	06:01																								
ZZZZZZ	1	06:08																								
ZZZZZZ	1	06:15																								
ZZZZZZ	1	06:22																								
ZZZZZZ	5	06:29																								
CCV16	1	06:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB16	1	06:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV17	1	06:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB17	1	07:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032590	1	07:09	X	X		X		X	X	X	X	X	X		X	X			X		X	X			X	X
1202032595	1	07:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969001	1	07:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032591	1	07:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
1202032593	1	07:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032594	1	07:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032592	5	07:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV18	1	07:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB18	1	08:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969002	1	08:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969003	1	08:18	X	X		X		X	X	X	X	X	X		X	X			X		X	X			X	X
245969004	1	08:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969005	1	08:32	X	X		X		X	X	X	X	X	X		X	X			X		X	X			X	X
245969006	1	08:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969007	1	08:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969008	1	08:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV19	1	09:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB19	1	09:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969009	1	09:14	X	X		X		X	X	X	X	X	X		X	X			X		X	X			X	X
245969010	1	09:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969011	1	09:29	X	X		X		X	X	X	X	X	X		X	X			X		X	X			X	X
245969012	1	09:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969013	1	09:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245969014	1	09:50	X	X		X		X	X	X	X	X	X		X	X			X		X	X			X	X
245969015	1	09:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV20	1	10:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB20	1	10:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 01–MAR–10 **End Date:** 01–MAR–10

Client Sdg: 10–1512
Method P
Data File: 030110A–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:32												X												
S0.1	1	11:38												X												
S0.5	1	11:44												X												
SCAL	1	11:52												X												
S10	1	11:59																								
ICV01	1	12:04												X												
ICB01	1	12:11												X												
PQL01	1	12:18												X												
ICSA01	1	12:25												X												
ICSAB01	1	12:31												X												
LR01	1	12:37												X												
LR02	1	12:44												X												
CCV01	1	12:51												X												
CCB01	1	12:58												X												
LR03	1	13:05												X												
CCV02	1	13:12												X												
CCB02	1	13:19												X												
1202032590	1	13:31												X												
ZZZZZZ	1	13:38																								
245969003	1	13:45												X												
245969005	1	13:52												X												
245969009	1	13:59												X												
245969011	1	14:06												X												
245969014	1	14:13												X												
CCV03	1	14:20												X												
CCB03	1	14:27												X												

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 18-FEB-10 **End Date:** 18-FEB-10

Client Sdg: 10-1512
Method AV
Data File: 021810S1-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:45															X									
S0.2	1	09:47															X									
S0.5	1	09:49															X									
S2.0	1	09:51															X									
S5.0	1	09:53															X									
S10	1	09:55															X									
ICV01	1	09:57															X									
ICB01	1	09:59															X									
CRDL01	1	10:01															X									
CCV01	1	10:03															X									
CCB01	1	10:05															X									
1202037115	1	10:07															X									
1202037116	10	10:09															X									
245969001	1	10:11															X									
1202037117	1	10:13															X									
1202037118	1	10:15															X									
1202037120	1	10:17															X									
1202037119	5	10:19															X									
245969002	1	10:21															X									
245969003	1	10:23															X									
245969004	1	10:25															X									
CCV02	1	10:27															X									
CCB02	1	10:29															X									
245969005	1	10:31															X									
245969006	1	10:33															X									
245969007	1	10:35															X									
245969008	1	10:37															X									
245969009	1	10:39															X									
245969010	1	10:41															X									
245969011	1	10:43															X									
245969012	1	10:45															X									
245969013	1	10:47															X									
245969014	1	10:49															X									
CCV03	1	10:51															X									
CCB03	1	10:53															X									
245969015	1	10:55															X									
ZZZZZZ	1	10:57																								
ZZZZZZ	10	10:59																								
ZZZZZZ	1	11:01																								
ZZZZZZ	1	11:03																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:05																							
ZZZZZZ	1	11:07																							
ZZZZZZ	5	11:09																							
ZZZZZZ	1	11:11																							
ZZZZZZ	1	11:13																							
CCV04	1	11:15														X									
CCB04	1	11:17														X									

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1512

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1512

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1512

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1512
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
–11–
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10–1512
Contract: LANL01004
Instrument: OPTIMA3 **Effective Dates:** 01–FEB–10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	–0.02515	0.00000	0.00000	0.00000	–20.5057
Arsenic	188.979	–0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	–0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	–0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	–2.33100
Copper	324.752	–0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	–2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	–10.4683
Manganese	257.61	–0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	–0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	–3.27508	0.00000	0.00000	0.00000	–3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	–0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	–4.77918	0.00000
Tin	189.927	–0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	–0.01931	0.00000	–14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1512
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1512

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1512

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 030110

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

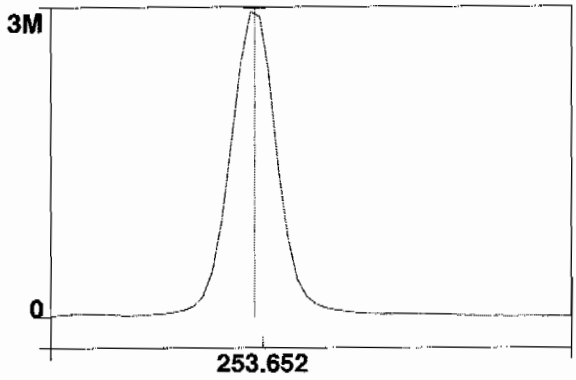

Intensity: 3188246.6 cps
Conc:

1

==========

Analysis Begun

Start Time: 2/24/2010 12:41:03 **Plasma On Time:** 00:00:00
Logged In Analyst: Optima3 **Technique:** ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601 **Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location:** 8
Sample ID: S0 **Date Collected:** 2/24/2010 12:41:05
Analyst: **Data Type:** Original
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3896.6	3896.6	99.4	%	12:43:18
1	Y RADIAL	4390.8	4390.8	99.54	%	12:42:58
1	Al 396.153Radial†	-128.6	-129.3	[0.00]	ug/L	12:42:58
1	Ca 317.933Radial†	18.8	18.9	[0.00]	ug/L	12:43:18
1	Fe 238.204 Radial†	11.3	11.3	[0.00]	ug/L	12:43:18
1	K 766.490 Radial†	2645.3	2660.3	[0.00]	ug/L	12:42:58
1	Mg 279.077 IEC†	3.1	3.1	[0.00]	ug/L	12:43:18
1	Na 589.592 Radial†	-826.1	-830.8	[0.00]	ug/L	12:42:58
1	Sr 421.552†	71.0	71.4	[0.00]	ug/L	12:42:58
1	Sc 361.383	877876.1	877876.1	100.07	%	12:44:14
1	Y 371.029	757025.6	757025.6	100.16	%	12:44:14
1	Ag 328.068†	216.3	216.1	[0.00]	ug/L	12:44:14
1	As 188.979†	-23.1	-23.1	[0.00]	ug/L	12:44:34
1	B 249.677†	-385.0	-384.7	[0.00]	ug/L	12:44:34
1	Ba 233.527†	0.0	0.0	[0.00]	ug/L	12:44:34
1	Be 313.107†	-3714.2	-3711.5	[0.00]	ug/L	12:44:14
1	Cd 226.502†	-194.6	-194.4	[0.00]	ug/L	12:44:34
1	Co 228.616†	-57.4	-57.3	[0.00]	ug/L	12:44:34
1	Cr 267.716†	72.2	72.1	[0.00]	ug/L	12:44:34
1	Cu 324.752†	6029.5	6025.1	[0.00]	ug/L	12:44:14
1	Mn 257.610†	440.8	440.4	[0.00]	ug/L	12:44:34
1	Mo 202.031†	15.1	15.1	[0.00]	ug/L	12:44:34
1	Ni 231.604†	63.6	63.5	[0.00]	ug/L	12:44:34
1	P 214.914†	215.4	215.2	[0.00]	ug/L	12:44:34
1	Pb 220.353†	-56.7	-56.7	[0.00]	ug/L	12:44:34
1	S 181.975 Axial†	38.6	38.6	[0.00]	ug/L	12:44:34
1	Sb 206.836†	37.5	37.5	[0.00]	ug/L	12:44:34
1	Se 196.026†	-32.0	-31.9	[0.00]	ug/L	12:44:34
1	Si 251.611†	557.4	557.0	[0.00]	ug/L	12:44:34
1	Sn 189.927†	17.3	17.3	[0.00]	ug/L	12:44:34
1	Ti 334.940†	-1321.0	-1320.1	[0.00]	ug/L	12:44:14
1	Tl 190.801†	-31.5	-31.4	[0.00]	ug/L	12:44:34
1	U 409.014†	-2936.7	-2934.6	[0.00]	ug/L	12:44:14
1	V 292.402†	-1480.7	-1479.6	[0.00]	ug/L	12:44:14
1	Zn 213.857†	606.9	606.4	[0.00]	ug/L	12:44:34
1	SiO2†	548.2	547.8	[0.00]	ug/L	12:45:30
2	Sc Radial	3933.1	3933.1	100	%	12:43:43
2	Y RADIAL	4456.7	4456.7	101.0	%	12:43:23
2	Al 396.153Radial†	-92.2	-91.8	[0.00]	ug/L	12:43:23
2	Ca 317.933Radial†	20.4	20.4	[0.00]	ug/L	12:43:43
2	Fe 238.204 Radial†	10.6	10.6	[0.00]	ug/L	12:43:43
2	K 766.490 Radial†	2597.3	2587.9	[0.00]	ug/L	12:43:23
2	Mg 279.077 IEC†	5.5	5.4	[0.00]	ug/L	12:43:43
2	Na 589.592 Radial†	-800.9	-798.0	[0.00]	ug/L	12:43:23
2	Sr 421.552†	21.6	21.6	[0.00]	ug/L	12:43:23
2	Sc 361.383	880112.3	880112.3	100.33	%	12:44:40
2	Y 371.029	760544.3	760544.3	100.62	%	12:44:40

2	Ag 328.068†	279.3	278.4	[0.00]	ug/L	12:44:40
2	As 188.979†	-17.2	-17.2	[0.00]	ug/L	12:45:00
2	B 249.677†	-387.2	-385.9	[0.00]	ug/L	12:45:00
2	Ba 233.527†	2.1	2.1	[0.00]	ug/L	12:45:00
2	Be 313.107†	-3758.8	-3746.5	[0.00]	ug/L	12:44:40
2	Cd 226.502†	-206.9	-206.2	[0.00]	ug/L	12:45:00
2	Co 228.616†	-66.3	-66.0	[0.00]	ug/L	12:45:00
2	Cr 267.716†	88.2	87.9	[0.00]	ug/L	12:45:00
2	Cu 324.752†	6059.3	6039.5	[0.00]	ug/L	12:44:40
2	Mn 257.610†	467.5	466.0	[0.00]	ug/L	12:45:00
2	Mo 202.031†	5.7	5.7	[0.00]	ug/L	12:45:00
2	Ni 231.604†	64.4	64.2	[0.00]	ug/L	12:45:00
2	P 214.914†	222.5	221.8	[0.00]	ug/L	12:45:00
2	Pb 220.353†	-54.4	-54.3	[0.00]	ug/L	12:45:00
2	S 181.975 Axial†	43.0	42.8	[0.00]	ug/L	12:45:00
2	Sb 206.836†	34.3	34.2	[0.00]	ug/L	12:45:00
2	Se 196.026†	-28.5	-28.4	[0.00]	ug/L	12:45:00
2	Si 251.611†	547.2	545.4	[0.00]	ug/L	12:45:00
2	Sn 189.927†	5.6	5.6	[0.00]	ug/L	12:45:00
2	Ti 334.940†	-1450.8	-1446.1	[0.00]	ug/L	12:44:40
2	Tl 190.801†	-33.6	-33.5	[0.00]	ug/L	12:45:00
2	U 409.014†	-2845.2	-2835.9	[0.00]	ug/L	12:44:40
2	V 292.402†	-1518.7	-1513.8	[0.00]	ug/L	12:44:40
2	Zn 213.857†	610.6	608.6	[0.00]	ug/L	12:45:00
2	SiO2†	580.4	578.5	[0.00]	ug/L	12:45:35
3	Sc Radial	3926.7	3926.7	100	%	12:44:08
3	Y RADIAL	4385.1	4385.1	99.42	%	12:43:48
3	Al 396.153Radial†	-116.4	-116.1	[0.00]	ug/L	12:43:48
3	Ca 317.933Radial†	19.8	19.8	[0.00]	ug/L	12:44:08
3	Fe 238.204 Radial†	12.0	12.0	[0.00]	ug/L	12:44:08
3	K 766.490 Radial†	2676.0	2670.6	[0.00]	ug/L	12:43:48
3	Mg 279.077 IEC†	3.7	3.7	[0.00]	ug/L	12:44:08
3	Na 589.592 Radial†	-832.2	-830.5	[0.00]	ug/L	12:43:48
3	Sr 421.552†	14.3	14.2	[0.00]	ug/L	12:43:48
3	Sc 361.383	873705.1	873705.1	99.598	%	12:45:05
3	Y 371.029	749962.1	749962.1	99.222	%	12:45:05
3	Ag 328.068†	225.8	226.8	[0.00]	ug/L	12:45:05
3	As 188.979†	-14.4	-14.5	[0.00]	ug/L	12:45:25
3	B 249.677†	-422.3	-424.0	[0.00]	ug/L	12:45:25
3	Ba 233.527†	-6.3	-6.4	[0.00]	ug/L	12:45:25
3	Be 313.107†	-3813.2	-3828.6	[0.00]	ug/L	12:45:05
3	Cd 226.502†	-187.4	-188.2	[0.00]	ug/L	12:45:25
3	Co 228.616†	-75.9	-76.2	[0.00]	ug/L	12:45:25
3	Cr 267.716†	72.7	73.0	[0.00]	ug/L	12:45:25
3	Cu 324.752†	5884.0	5907.8	[0.00]	ug/L	12:45:05
3	Mn 257.610†	467.9	469.8	[0.00]	ug/L	12:45:25
3	Mo 202.031†	9.6	9.6	[0.00]	ug/L	12:45:25
3	Ni 231.604†	59.4	59.6	[0.00]	ug/L	12:45:25
3	P 214.914†	193.8	194.5	[0.00]	ug/L	12:45:25
3	Pb 220.353†	-63.1	-63.4	[0.00]	ug/L	12:45:25
3	S 181.975 Axial†	40.8	41.0	[0.00]	ug/L	12:45:25
3	Sb 206.836†	38.3	38.4	[0.00]	ug/L	12:45:25
3	Se 196.026†	-22.8	-22.9	[0.00]	ug/L	12:45:25
3	Si 251.611†	570.2	572.5	[0.00]	ug/L	12:45:25
3	Sn 189.927†	8.5	8.6	[0.00]	ug/L	12:45:25
3	Ti 334.940†	-1350.6	-1356.1	[0.00]	ug/L	12:45:05
3	Tl 190.801†	-32.7	-32.8	[0.00]	ug/L	12:45:25
3	U 409.014†	-2877.8	-2889.4	[0.00]	ug/L	12:45:05
3	V 292.402†	-1517.6	-1523.7	[0.00]	ug/L	12:45:05
3	Zn 213.857†	600.7	603.1	[0.00]	ug/L	12:45:25
3	SiO2†	534.7	536.9	[0.00]	ug/L	12:45:41

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	877231.2	3251.90	0.37%	100.00	%
Sc Radial	3918.8	19.47	0.50%	100	%
Y 371.029	755844.0	5389.12	0.71%	100.00	%
Y RADIAL	4410.9	39.77	0.90%	100.0	%
Ag 328.068†	240.4	33.31	13.85%	[0.00]	ug/L

Al 396.153Radial†	-112.4	19.01	16.91%	[0.00]	ug/L
As 188.979†	-18.2	4.39	24.06%	[0.00]	ug/L
B 249.677†	-398.2	22.32	5.61%	[0.00]	ug/L
Ba 233.527†	-1.4	4.39	310.28%	[0.00]	ug/L
Be 313.107†	-3762.2	60.09	1.60%	[0.00]	ug/L
Ca 317.933Radial†	19.7	0.74	3.76%	[0.00]	ug/L
Cd 226.502†	-196.3	9.16	4.67%	[0.00]	ug/L
Co 228.616†	-66.5	9.45	14.20%	[0.00]	ug/L
Cr 267.716†	77.7	8.87	11.42%	[0.00]	ug/L
Cu 324.752†	5990.8	72.25	1.21%	[0.00]	ug/L
Fe 238.204 Radial†	11.3	0.71	6.25%	[0.00]	ug/L
K 766.490 Radial†	2639.6	45.10	1.71%	[0.00]	ug/L
Mg 279.077 IEC†	4.1	1.22	29.95%	[0.00]	ug/L
Mn 257.610†	458.7	15.96	3.48%	[0.00]	ug/L
Mo 202.031†	10.1	4.73	46.62%	[0.00]	ug/L
Na 589.592 Radial†	-819.8	18.85	2.30%	[0.00]	ug/L
Ni 231.604†	62.4	2.49	3.99%	[0.00]	ug/L
P 214.914†	210.5	14.20	6.75%	[0.00]	ug/L
Pb 220.353†	-58.1	4.73	8.14%	[0.00]	ug/L
S 181.975 Axial†	40.8	2.13	5.23%	[0.00]	ug/L
Sb 206.836†	36.7	2.22	6.05%	[0.00]	ug/L
Se 196.026†	-27.7	4.54	16.36%	[0.00]	ug/L
Si 251.611†	558.3	13.60	2.44%	[0.00]	ug/L
Sn 189.927†	10.5	6.10	58.21%	[0.00]	ug/L
Sr 421.552†	35.7	31.09	87.02%	[0.00]	ug/L
Ti 334.940†	-1374.1	64.90	4.72%	[0.00]	ug/L
Tl 190.801†	-32.6	1.05	3.21%	[0.00]	ug/L
U 409.014†	-2886.6	49.42	1.71%	[0.00]	ug/L
V 292.402†	-1505.7	23.15	1.54%	[0.00]	ug/L
Zn 213.857†	606.0	2.76	0.46%	[0.00]	ug/L
SiO2†	554.4	21.58	3.89%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/24/2010 12:47:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4005.8	4005.8	102	%	12:50:03
1	Y RADIAL	4421.1	4421.1	100.2	%	12:50:03
1	K 766.490 Radial†	7828.1	5018.5	[1000]	ug/L	12:49:43
1	Sr 421.552†	14342.5	13995.4	[100]	ug/L	12:50:03
1	Sc 361.383	912251.6	912251.6	103.99	%	12:51:00
1	Y 371.029	767312.1	767312.1	101.52	%	12:51:00
1	Ag 328.068†	21835.8	20757.1	[100]	ug/L	12:51:05
1	As 188.979†	198.9	209.5	[100]	ug/L	12:51:25
1	B 249.677†	3460.9	3726.2	[100]	ug/L	12:51:05
1	Ba 233.527†	12816.7	12326.1	[100]	ug/L	12:51:05
1	Be 313.107†	261235.4	254969.0	[100]	ug/L	12:51:00
1	Cd 226.502†	8472.7	8343.7	[100]	ug/L	12:51:05
1	Co 228.616†	4664.2	4551.7	[100]	ug/L	12:51:25
1	Cr 267.716†	9056.1	8630.8	[100]	ug/L	12:51:05
1	Cu 324.752†	38425.7	30959.8	[100]	ug/L	12:51:05
1	Mn 257.610†	89289.5	85403.0	[100]	ug/L	12:51:05
1	Mo 202.031†	1368.6	1305.9	[100]	ug/L	12:51:25
1	Ni 231.604†	3925.6	3712.5	[100]	ug/L	12:51:25
1	P 214.914†	1032.8	782.6	[500]	ug/L	12:51:25
1	Pb 220.353†	757.9	786.9	[100]	ug/L	12:51:25
1	S 181.975 Axial†	173.6	126.2	[200]	ug/L	12:51:25
1	Sb 206.836†	319.8	270.9	[100]	ug/L	12:51:25
1	Se 196.026†	114.7	138.1	[100]	ug/L	12:51:25
1	Si 251.611†	15820.1	14654.5	[500]	ug/L	12:51:05
1	Sn 189.927†	563.2	531.1	[100]	ug/L	12:51:25
1	Ti 334.940†	62252.0	61236.3	[100]	ug/L	12:51:05
1	Tl 190.801†	284.5	306.2	[100]	ug/L	12:51:25
1	U 409.014†	823.0	3678.0	[100]	ug/L	12:51:00
1	V 292.402†	12731.0	13747.9	[100]	ug/L	12:51:05
1	Zn 213.857†	10501.6	9492.4	[100]	ug/L	12:51:05
1	SiO2†	15859.3	14696.0	[1069.5]	ug/L	12:52:31
2	Sc Radial	4014.4	4014.4	102	%	12:50:28
2	Y RADIAL	4429.4	4429.4	100.4	%	12:50:28
2	K 766.490 Radial†	7827.2	5001.2	[1000]	ug/L	12:50:08
2	Sr 421.552†	14370.6	13992.6	[100]	ug/L	12:50:28
2	Sc 361.383	913537.5	913537.5	104.14	%	12:51:31
2	Y 371.029	770025.1	770025.1	101.88	%	12:51:31
2	Ag 328.068†	22061.3	20944.1	[100]	ug/L	12:51:36
2	As 188.979†	191.0	201.6	[100]	ug/L	12:51:56
2	B 249.677†	3542.8	3800.2	[100]	ug/L	12:51:36
2	Ba 233.527†	12960.8	12447.1	[100]	ug/L	12:51:36
2	Be 313.107†	262476.2	255807.0	[100]	ug/L	12:51:31
2	Cd 226.502†	8580.1	8435.4	[100]	ug/L	12:51:36
2	Co 228.616†	4674.2	4555.0	[100]	ug/L	12:51:56
2	Cr 267.716†	9092.1	8653.1	[100]	ug/L	12:51:36
2	Cu 324.752†	38833.0	31298.9	[100]	ug/L	12:51:36
2	Mn 257.610†	90310.7	86262.8	[100]	ug/L	12:51:36
2	Mo 202.031†	1386.0	1320.7	[100]	ug/L	12:51:56
2	Ni 231.604†	3948.1	3728.8	[100]	ug/L	12:51:56
2	P 214.914†	1023.5	772.3	[500]	ug/L	12:51:56
2	Pb 220.353†	753.7	781.9	[100]	ug/L	12:51:56
2	S 181.975 Axial†	178.6	130.7	[200]	ug/L	12:51:56
2	Sb 206.836†	328.6	278.8	[100]	ug/L	12:51:56
2	Se 196.026†	131.5	154.0	[100]	ug/L	12:51:56
2	Si 251.611†	15981.8	14788.3	[500]	ug/L	12:51:36
2	Sn 189.927†	567.0	534.0	[100]	ug/L	12:51:56
2	Ti 334.940†	62812.3	61690.1	[100]	ug/L	12:51:36
2	Tl 190.801†	288.1	309.2	[100]	ug/L	12:51:56
2	U 409.014†	775.5	3631.3	[100]	ug/L	12:51:31

2	V 292.402†	12904.7	13897.5	[100]	ug/L	12:51:36
2	Zn 213.857†	10628.4	9600.0	[100]	ug/L	12:51:36
2	SiO2†	15791.1	14609.1	[1069.5]	ug/L	12:52:37
3	Sc Radial	4034.1	4034.1	103	%	12:50:53
3	Y RADIAL	4460.1	4460.1	101.1	%	12:50:53
3	K 766.490 Radial†	7747.9	4886.8	[1000]	ug/L	12:50:33
3	Sr 421.552†	14406.4	13958.9	[100]	ug/L	12:50:53
3	Sc 361.383	917853.3	917853.3	104.63	%	12:52:01
3	Y 371.029	772132.1	772132.1	102.15	%	12:52:01
3	Ag 328.068†	21942.6	20731.0	[100]	ug/L	12:52:06
3	As 188.979†	203.5	212.7	[100]	ug/L	12:52:26
3	B 249.677†	3497.8	3741.2	[100]	ug/L	12:52:06
3	Ba 233.527†	12850.1	12282.8	[100]	ug/L	12:52:06
3	Be 313.107†	263723.4	255813.8	[100]	ug/L	12:52:01
3	Cd 226.502†	8478.9	8299.9	[100]	ug/L	12:52:06
3	Co 228.616†	4695.0	4553.8	[100]	ug/L	12:52:26
3	Cr 267.716†	9036.4	8558.7	[100]	ug/L	12:52:06
3	Cu 324.752†	38599.7	30900.6	[100]	ug/L	12:52:06
3	Mn 257.610†	89449.5	85031.9	[100]	ug/L	12:52:06
3	Mo 202.031†	1376.6	1305.6	[100]	ug/L	12:52:26
3	Ni 231.604†	3946.9	3709.8	[100]	ug/L	12:52:26
3	P 214.914†	1025.1	769.2	[500]	ug/L	12:52:26
3	Pb 220.353†	759.5	784.0	[100]	ug/L	12:52:26
3	S 181.975 Axial†	177.3	128.6	[200]	ug/L	12:52:26
3	Sb 206.836†	318.4	267.6	[100]	ug/L	12:52:26
3	Se 196.026†	122.0	144.4	[100]	ug/L	12:52:26
3	Si 251.611†	15853.0	14593.1	[500]	ug/L	12:52:06
3	Sn 189.927†	568.3	532.7	[100]	ug/L	12:52:26
3	Ti 334.940†	62266.2	60884.5	[100]	ug/L	12:52:06
3	Tl 190.801†	284.5	304.5	[100]	ug/L	12:52:26
3	U 409.014†	873.3	3721.2	[100]	ug/L	12:52:01
3	V 292.402†	12660.5	13605.9	[100]	ug/L	12:52:06
3	Zn 213.857†	10587.7	9513.1	[100]	ug/L	12:52:06
3	SiO2†	15645.8	14399.0	[1069.5]	ug/L	12:52:42

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	914547.5	2934.26	0.32%	104.25	%
Sc Radial	4018.1	14.52	0.36%	103	%
Y 371.029	769823.1	2416.34	0.31%	101.85	%
Y RADIAL	4436.9	20.55	0.46%	100.6	%
Ag 328.068†	20810.8	116.25	0.56%	[100]	ug/L
As 188.979†	208.0	5.71	2.75%	[100]	ug/L
B 249.677†	3755.9	39.08	1.04%	[100]	ug/L
Ba 233.527†	12352.0	85.16	0.69%	[100]	ug/L
Be 313.107†	255529.9	485.76	0.19%	[100]	ug/L
Cd 226.502†	8359.7	69.12	0.83%	[100]	ug/L
Co 228.616†	4553.5	1.67	0.04%	[100]	ug/L
Cr 267.716†	8614.2	49.31	0.57%	[100]	ug/L
Cu 324.752†	31053.1	214.93	0.69%	[100]	ug/L
K 766.490 Radial†	4968.8	71.55	1.44%	[1000]	ug/L
Mn 257.610†	85565.9	631.38	0.74%	[100]	ug/L
Mo 202.031†	1310.7	8.66	0.66%	[100]	ug/L
Ni 231.604†	3717.0	10.29	0.28%	[100]	ug/L
P 214.914†	774.7	7.02	0.91%	[500]	ug/L
Pb 220.353†	784.3	2.54	0.32%	[100]	ug/L
S 181.975 Axial†	128.5	2.26	1.76%	[200]	ug/L
Sb 206.836†	272.4	5.80	2.13%	[100]	ug/L
Se 196.026†	145.5	8.02	5.51%	[100]	ug/L
Si 251.611†	14678.6	99.81	0.68%	[500]	ug/L
Sn 189.927†	532.6	1.47	0.28%	[100]	ug/L
Sr 421.552†	13982.3	20.28	0.15%	[100]	ug/L
Ti 334.940†	61270.3	403.85	0.66%	[100]	ug/L
Tl 190.801†	306.6	2.39	0.78%	[100]	ug/L
U 409.014†	3676.8	45.00	1.22%	[100]	ug/L
V 292.402†	13750.4	145.82	1.06%	[100]	ug/L
Zn 213.857†	9535.2	57.07	0.60%	[100]	ug/L
SiO2†	14568.0	152.72	1.05%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/24/2010 12:54:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3959.7	3959.7	101	%	12:57:04
1	Y RADIAL	4531.2	4531.2	102.7	%	12:56:44
1	Al 396.153Radial†	5299.7	5357.4	[5000]	ug/L	12:56:44
1	Ca 317.933Radial†	2504.8	2459.2	[5000]	ug/L	12:57:04
1	K 766.490 Radial†	28970.2	26031.7	[5000]	ug/L	12:56:44
1	Mg 279.077 IEC†	114.3	109.0	[5000]	ug/L	12:57:04
1	Sr 421.552†	74496.5	73692.2	[500]	ug/L	12:56:44
1	Sc 361.383	897125.4	897125.4	102.27	%	12:58:02
1	Y 371.029	748525.9	748525.9	99.032	%	12:58:02
1	Ag 328.068†	107053.3	104438.9	[500]	ug/L	12:58:07
1	As 188.979†	1070.9	1065.4	[500]	ug/L	12:58:27
1	B 249.677†	19759.8	19719.9	[500]	ug/L	12:58:07
1	Ba 233.527†	63021.1	61625.0	[500]	ug/L	12:58:07
1	Be 313.107†	1311064.9	1285753.6	[500]	ug/L	12:58:02
1	Cd 226.502†	42580.3	41832.3	[500]	ug/L	12:58:07
1	Co 228.616†	23629.3	23171.9	[500]	ug/L	12:58:07
1	Cr 267.716†	44167.4	43110.3	[500]	ug/L	12:58:07
1	Cu 324.752†	168199.0	158478.3	[500]	ug/L	12:58:07
1	Mn 257.610†	435613.3	425494.6	[500]	ug/L	12:58:02
1	Mo 202.031†	6724.4	6565.1	[500]	ug/L	12:58:27
1	Ni 231.604†	19643.7	19145.6	[500]	ug/L	12:58:07
1	P 214.914†	4299.3	3993.5	[2500]	ug/L	12:58:27
1	Pb 220.353†	3963.4	3933.6	[500]	ug/L	12:58:27
1	S 181.975 Axial†	723.9	667.0	[1000]	ug/L	12:58:27
1	Sb 206.836†	1435.8	1367.3	[500]	ug/L	12:58:27
1	Se 196.026†	731.1	742.6	[500]	ug/L	12:58:27
1	Si 251.611†	76752.3	74491.9	[2500]	ug/L	12:58:07
1	Sn 189.927†	2742.3	2671.0	[500]	ug/L	12:58:27
1	Ti 334.940†	312680.9	307121.1	[500]	ug/L	12:58:07
1	Tl 190.801†	1515.9	1514.9	[500]	ug/L	12:58:27
1	U 409.014†	15062.9	17615.5	[500]	ug/L	12:58:07
1	V 292.402†	69312.6	69281.2	[500]	ug/L	12:58:07
1	Zn 213.857†	49818.2	48107.4	[500]	ug/L	12:58:07
1	SiO2†	76507.0	74256.1	[5347.5]	ug/L	12:59:34
2	Sc Radial	3933.2	3933.2	100	%	12:57:29
2	Y RADIAL	4459.3	4459.3	101.1	%	12:57:09
2	Al 396.153Radial†	5244.5	5337.7	[5000]	ug/L	12:57:09
2	Ca 317.933Radial†	2485.6	2456.8	[5000]	ug/L	12:57:29
2	K 766.490 Radial†	28957.5	26211.9	[5000]	ug/L	12:57:09
2	Mg 279.077 IEC†	114.5	110.0	[5000]	ug/L	12:57:29
2	Sr 421.552†	73720.2	73414.8	[500]	ug/L	12:57:09
2	Sc 361.383	905003.4	905003.4	103.17	%	12:58:33
2	Y 371.029	755053.0	755053.0	99.895	%	12:58:33
2	Ag 328.068†	107573.6	104032.0	[500]	ug/L	12:58:38
2	As 188.979†	1079.9	1065.0	[500]	ug/L	12:58:58
2	B 249.677†	19869.0	19657.5	[500]	ug/L	12:58:38
2	Ba 233.527†	63498.4	61551.2	[500]	ug/L	12:58:38
2	Be 313.107†	1324029.2	1287160.3	[500]	ug/L	12:58:33
2	Cd 226.502†	42949.2	41827.5	[500]	ug/L	12:58:38
2	Co 228.616†	23774.0	23111.0	[500]	ug/L	12:58:38
2	Cr 267.716†	44412.4	42971.8	[500]	ug/L	12:58:38
2	Cu 324.752†	168924.0	157749.4	[500]	ug/L	12:58:38
2	Mn 257.610†	439858.6	425901.7	[500]	ug/L	12:58:33
2	Mo 202.031†	6721.4	6505.0	[500]	ug/L	12:58:58
2	Ni 231.604†	19793.6	19123.7	[500]	ug/L	12:58:38
2	P 214.914†	4301.9	3959.3	[2500]	ug/L	12:58:58
2	Pb 220.353†	3958.2	3894.8	[500]	ug/L	12:58:58
2	S 181.975 Axial†	735.7	672.3	[1000]	ug/L	12:58:58
2	Sb 206.836†	1436.7	1355.9	[500]	ug/L	12:58:58

2	Se 196.026†	726.6	732.0	[500]	ug/L	12:58:58
2	Si 251.611†	77292.3	74362.0	[2500]	ug/L	12:58:38
2	Sn 189.927†	2746.6	2651.9	[500]	ug/L	12:58:58
2	Ti 334.940†	314167.7	305900.8	[500]	ug/L	12:58:38
2	Tl 190.801†	1521.2	1507.1	[500]	ug/L	12:58:58
2	U 409.014†	15023.8	17449.3	[500]	ug/L	12:58:38
2	V 292.402†	69648.6	69017.0	[500]	ug/L	12:58:38
2	Zn 213.857†	50222.2	48075.0	[500]	ug/L	12:58:38
2	SiO2†	76326.3	73429.6	[5347.5]	ug/L	12:59:40
3	Sc Radial	3958.2	3958.2	101	%	12:57:55
3	Y RADIAL	4421.5	4421.5	100.2	%	12:57:35
3	Al 396.153Radial†	5185.2	5246.0	[5000]	ug/L	12:57:35
3	Ca 317.933Radial†	2501.0	2456.4	[5000]	ug/L	12:57:55
3	K 766.490 Radial†	28377.0	25454.7	[5000]	ug/L	12:57:35
3	Mg 279.077 IEC†	113.2	108.0	[5000]	ug/L	12:57:55
3	Sr 421.552†	72815.9	72054.9	[500]	ug/L	12:57:35
3	Sc 361.383	899796.5	899796.5	102.57	%	12:59:04
3	Y 371.029	750250.2	750250.2	99.260	%	12:59:04
3	Ag 328.068†	107424.7	104490.3	[500]	ug/L	12:59:09
3	As 188.979†	1092.1	1082.9	[500]	ug/L	12:59:29
3	B 249.677†	19835.0	19735.8	[500]	ug/L	12:59:09
3	Ba 233.527†	63425.2	61836.0	[500]	ug/L	12:59:09
3	Be 313.107†	1311646.2	1282514.5	[500]	ug/L	12:59:04
3	Cd 226.502†	42936.9	42056.3	[500]	ug/L	12:59:09
3	Co 228.616†	23728.0	23199.5	[500]	ug/L	12:59:09
3	Cr 267.716†	44364.5	43174.2	[500]	ug/L	12:59:09
3	Cu 324.752†	167878.7	157677.8	[500]	ug/L	12:59:09
3	Mn 257.610†	436632.8	425224.0	[500]	ug/L	12:59:04
3	Mo 202.031†	6787.8	6607.4	[500]	ug/L	12:59:29
3	Ni 231.604†	19669.6	19113.8	[500]	ug/L	12:59:09
3	P 214.914†	4317.1	3998.3	[2500]	ug/L	12:59:29
3	Pb 220.353†	3990.8	3948.8	[500]	ug/L	12:59:29
3	S 181.975 Axial†	729.2	670.1	[1000]	ug/L	12:59:29
3	Sb 206.836†	1442.2	1369.4	[500]	ug/L	12:59:29
3	Se 196.026†	729.7	739.2	[500]	ug/L	12:59:29
3	Si 251.611†	77120.7	74628.3	[2500]	ug/L	12:59:09
3	Sn 189.927†	2757.9	2678.2	[500]	ug/L	12:59:29
3	Ti 334.940†	313399.4	306913.9	[500]	ug/L	12:59:09
3	Tl 190.801†	1530.3	1524.5	[500]	ug/L	12:59:29
3	U 409.014†	14852.9	17367.0	[500]	ug/L	12:59:09
3	V 292.402†	69433.5	69197.9	[500]	ug/L	12:59:09
3	Zn 213.857†	50097.8	48235.4	[500]	ug/L	12:59:09
3	SiO2†	76717.8	74239.4	[5347.5]	ug/L	12:59:45

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	900641.8	4006.45	0.44%	102.67	%
Sc Radial	3950.4	14.89	0.38%	101	%
Y 371.029	751276.3	3382.41	0.45%	99.396	%
Y RADIAL	4470.7	55.69	1.25%	101.4	%
Ag 328.068†	104320.4	251.07	0.24%	[500]	ug/L
Al 396.153Radial†	5313.7	59.46	1.12%	[5000]	ug/L
As 188.979†	1071.1	10.25	0.96%	[500]	ug/L
B 249.677†	19704.4	41.40	0.21%	[500]	ug/L
Ba 233.527†	61670.7	147.80	0.24%	[500]	ug/L
Be 313.107†	1285142.8	2382.35	0.19%	[500]	ug/L
Ca 317.933Radial†	2457.5	1.55	0.06%	[5000]	ug/L
Cd 226.502†	41905.4	130.75	0.31%	[500]	ug/L
Co 228.616†	23160.8	45.28	0.20%	[500]	ug/L
Cr 267.716†	43085.4	103.50	0.24%	[500]	ug/L
Cu 324.752†	157968.5	442.96	0.28%	[500]	ug/L
K 766.490 Radial†	25899.5	395.55	1.53%	[5000]	ug/L
Mg 279.077 IEC†	109.0	1.01	0.92%	[5000]	ug/L
Mn 257.610†	425540.1	341.15	0.08%	[500]	ug/L
Mo 202.031†	6559.2	51.47	0.78%	[500]	ug/L
Ni 231.604†	19127.7	16.28	0.09%	[500]	ug/L
P 214.914†	3983.7	21.24	0.53%	[2500]	ug/L
Pb 220.353†	3925.8	27.83	0.71%	[500]	ug/L
S 181.975 Axial†	669.8	2.64	0.39%	[1000]	ug/L

Sb 206.836†	1364.2	7.24	0.53%	[500]	ug/L
Se 196.026†	737.9	5.41	0.73%	[500]	ug/L
Si 251.611†	74494.1	133.14	0.18%	[2500]	ug/L
Sn 189.927†	2667.0	13.62	0.51%	[500]	ug/L
Sr 421.552†	73054.0	876.27	1.20%	[500]	ug/L
Ti 334.940†	306645.3	653.00	0.21%	[500]	ug/L
Tl 190.801†	1515.5	8.69	0.57%	[500]	ug/L
U 409.014†	17477.3	126.58	0.72%	[500]	ug/L
V 292.402†	69165.3	135.09	0.20%	[500]	ug/L
Zn 213.857†	48139.3	84.84	0.18%	[500]	ug/L
SiO2†	73975.0	472.42	0.64%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/24/2010 13:01:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3880.9	3880.9	99.0	%	13:04:09
1	Y RADIAL	4366.3	4366.3	98.99	%	13:03:49
1	Al 396.153Radial†	10508.7	10723.7	[10000]	ug/L	13:03:49
1	Ca 317.933Radial†	4948.7	4977.4	[10000]	ug/L	13:03:49
1	Fe 238.204 Radial†	739.4	735.3	[10000]	ug/L	13:04:09
1	K 766.490 Radial†	54503.6	52395.8	[10000]	ug/L	13:03:49
1	Mg 279.077 IEC†	217.4	215.4	[10000]	ug/L	13:04:09
1	Na 589.592 Radial†	31922.6	33053.9	[10000]	ug/L	13:03:49
1	Sr 421.552†	143109.9	144470.8	[1000]	ug/L	13:03:49
1	Sc 361.383	862098.1	862098.1	98.275	%	13:05:12
1	Y 371.029	730592.8	730592.8	96.659	%	13:05:12
1	Ag 328.068†	213991.6	217507.6	[1000]	ug/L	13:05:12
1	As 188.979†	2199.7	2256.5	[1000]	ug/L	13:05:32
1	B 249.677†	40577.2	41687.7	[1000]	ug/L	13:05:12
1	Ba 233.527†	126278.9	128497.0	[1000]	ug/L	13:05:12
1	Be 313.107†	2643845.8	2694017.5	[1000]	ug/L	13:05:07
1	Cd 226.502†	85249.3	86942.0	[1000]	ug/L	13:05:12
1	Co 228.616†	47146.8	48040.9	[1000]	ug/L	13:05:12
1	Cr 267.716†	88467.4	89942.6	[1000]	ug/L	13:05:12
1	Cu 324.752†	331740.6	331573.1	[1000]	ug/L	13:05:12
1	Mn 257.610†	873120.1	887987.9	[1000]	ug/L	13:05:07
1	Mo 202.031†	13513.2	13740.3	[1000]	ug/L	13:05:32
1	Ni 231.604†	39004.7	39626.9	[1000]	ug/L	13:05:12
1	P 214.914†	8438.2	8375.9	[5000]	ug/L	13:05:32
1	Pb 220.353†	8018.1	8217.0	[1000]	ug/L	13:05:32
1	S 181.975 Axial†	1417.0	1401.1	[2000]	ug/L	13:05:32
1	Sb 206.836†	2869.6	2883.3	[1000]	ug/L	13:05:32
1	Se 196.026†	1473.1	1526.7	[1000]	ug/L	13:05:32
1	Si 251.611†	153638.7	155777.3	[5000]	ug/L	13:05:12
1	Sn 189.927†	5532.1	5618.7	[1000]	ug/L	13:05:32
1	Ti 334.940†	629710.8	642138.6	[1000]	ug/L	13:05:12
1	Tl 190.801†	3059.8	3146.1	[1000]	ug/L	13:05:32
1	U 409.014†	33013.1	36479.2	[1000]	ug/L	13:05:12
1	V 292.402†	140898.6	144877.6	[1000]	ug/L	13:05:12
1	Zn 213.857†	98955.1	100086.1	[1000]	ug/L	13:05:12
1	SiO2†	154057.4	156207.2	[10695]	ug/L	13:06:41
2	Sc Radial	3870.6	3870.6	98.8	%	13:04:34
2	Y RADIAL	4379.4	4379.4	99.29	%	13:04:14
2	Al 396.153Radial†	10539.9	10783.7	[10000]	ug/L	13:04:14
2	Ca 317.933Radial†	4960.3	5002.4	[10000]	ug/L	13:04:14
2	Fe 238.204 Radial†	735.6	733.4	[10000]	ug/L	13:04:34
2	K 766.490 Radial†	54665.8	52707.5	[10000]	ug/L	13:04:14
2	Mg 279.077 IEC†	221.2	219.8	[10000]	ug/L	13:04:34
2	Na 589.592 Radial†	32289.0	33511.2	[10000]	ug/L	13:04:14
2	Sr 421.552†	144136.6	145897.3	[1000]	ug/L	13:04:14
2	Sc 361.383	862519.3	862519.3	98.323	%	13:05:44
2	Y 371.029	730370.7	730370.7	96.630	%	13:05:44
2	Ag 328.068†	214513.9	217932.4	[1000]	ug/L	13:05:44
2	As 188.979†	2212.0	2268.0	[1000]	ug/L	13:06:04
2	B 249.677†	40609.6	41700.5	[1000]	ug/L	13:05:44
2	Ba 233.527†	126652.9	128814.6	[1000]	ug/L	13:05:44
2	Be 313.107†	2629012.2	2677617.0	[1000]	ug/L	13:05:38
2	Cd 226.502†	85562.0	87217.7	[1000]	ug/L	13:05:44
2	Co 228.616†	47342.7	48216.7	[1000]	ug/L	13:05:44
2	Cr 267.716†	88487.6	89919.2	[1000]	ug/L	13:05:44
2	Cu 324.752†	332651.7	332334.9	[1000]	ug/L	13:05:44
2	Mn 257.610†	868761.6	883121.1	[1000]	ug/L	13:05:38
2	Mo 202.031†	13507.4	13727.7	[1000]	ug/L	13:06:04
2	Ni 231.604†	39139.1	39744.2	[1000]	ug/L	13:05:44

2	P 214.914†	8465.6	8399.4	[5000]	ug/L	13:06:04
2	Pb 220.353†	7995.5	8190.0	[1000]	ug/L	13:06:04
2	S 181.975 Axial†	1420.9	1404.3	[2000]	ug/L	13:06:04
2	Sb 206.836†	2875.8	2888.2	[1000]	ug/L	13:06:04
2	Se 196.026†	1486.2	1539.3	[1000]	ug/L	13:06:04
2	Si 251.611†	154172.3	156243.7	[5000]	ug/L	13:05:44
2	Sn 189.927†	5555.0	5639.2	[1000]	ug/L	13:06:04
2	Ti 334.940†	631308.0	643450.1	[1000]	ug/L	13:05:44
2	Tl 190.801†	3069.3	3154.2	[1000]	ug/L	13:06:04
2	U 409.014†	33087.8	36538.8	[1000]	ug/L	13:05:44
2	V 292.402†	140835.9	144743.8	[1000]	ug/L	13:05:44
2	Zn 213.857†	99266.4	100353.5	[1000]	ug/L	13:05:44
2	SiO2†	151317.5	153344.1	[10695]	ug/L	13:06:46
3	Sc Radial	3888.1	3888.1	99.2	%	13:04:59
3	Y RADIAL	4297.5	4297.5	97.43	%	13:04:39
3	Al 396.153Radial†	10402.0	10596.6	[10000]	ug/L	13:04:39
3	Ca 317.933Radial†	4857.0	4875.7	[10000]	ug/L	13:04:39
3	Fe 238.204 Radial†	737.7	732.2	[10000]	ug/L	13:04:59
3	K 766.490 Radial†	53748.1	51533.5	[10000]	ug/L	13:04:39
3	Mg 279.077 IEC†	220.0	217.7	[10000]	ug/L	13:04:59
3	Na 589.592 Radial†	31437.0	32505.4	[10000]	ug/L	13:04:39
3	Sr 421.552†	141054.9	142134.5	[1000]	ug/L	13:04:39
3	Sc 361.383	859586.0	859586.0	97.989	%	13:06:15
3	Y 371.029	727059.1	727059.1	96.192	%	13:06:15
3	Ag 328.068†	213575.5	217719.3	[1000]	ug/L	13:06:15
3	As 188.979†	2207.6	2271.2	[1000]	ug/L	13:06:35
3	B 249.677†	40605.4	41837.2	[1000]	ug/L	13:06:15
3	Ba 233.527†	125588.7	128168.1	[1000]	ug/L	13:06:15
3	Be 313.107†	2624977.6	2682624.1	[1000]	ug/L	13:06:10
3	Cd 226.502†	84961.5	86901.8	[1000]	ug/L	13:06:15
3	Co 228.616†	47045.8	48078.0	[1000]	ug/L	13:06:15
3	Cr 267.716†	87921.2	89648.3	[1000]	ug/L	13:06:15
3	Cu 324.752†	331178.0	331985.5	[1000]	ug/L	13:06:15
3	Mn 257.610†	869310.7	886696.8	[1000]	ug/L	13:06:10
3	Mo 202.031†	13519.7	13787.1	[1000]	ug/L	13:06:35
3	Ni 231.604†	38715.6	39447.9	[1000]	ug/L	13:06:15
3	P 214.914†	8449.3	8412.3	[5000]	ug/L	13:06:35
3	Pb 220.353†	7981.9	8203.9	[1000]	ug/L	13:06:35
3	S 181.975 Axial†	1416.6	1404.9	[2000]	ug/L	13:06:35
3	Sb 206.836†	2891.6	2914.3	[1000]	ug/L	13:06:35
3	Se 196.026†	1494.8	1553.2	[1000]	ug/L	13:06:35
3	Si 251.611†	153322.8	155911.9	[5000]	ug/L	13:06:15
3	Sn 189.927†	5545.6	5648.9	[1000]	ug/L	13:06:35
3	Ti 334.940†	627308.7	641559.9	[1000]	ug/L	13:06:15
3	Tl 190.801†	3061.7	3157.1	[1000]	ug/L	13:06:35
3	U 409.014†	32986.5	36550.2	[1000]	ug/L	13:06:15
3	V 292.402†	140217.5	144601.5	[1000]	ug/L	13:06:15
3	Zn 213.857†	98578.6	99996.2	[1000]	ug/L	13:06:15
3	SiO2†	154226.8	156838.3	[10695]	ug/L	13:06:51

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	861401.1	1586.02	0.18%	98.195	%
Sc Radial	3879.9	8.80	0.23%	99.0	%
Y 371.029	729340.9	1979.20	0.27%	96.494	%
Y RADIAL	4347.7	43.98	1.01%	98.57	%
Ag 328.068†	217719.8	212.42	0.10%	[1000]	ug/L
Al 396.153Radial†	10701.3	95.53	0.89%	[10000]	ug/L
As 188.979†	2265.2	7.71	0.34%	[1000]	ug/L
B 249.677†	41741.8	82.83	0.20%	[1000]	ug/L
Ba 233.527†	128493.2	323.24	0.25%	[1000]	ug/L
Be 313.107†	2684752.8	8404.92	0.31%	[1000]	ug/L
Ca 317.933Radial†	4951.8	67.11	1.36%	[10000]	ug/L
Cd 226.502†	87020.5	171.97	0.20%	[1000]	ug/L
Co 228.616†	48111.9	92.67	0.19%	[1000]	ug/L
Cr 267.716†	89836.7	163.59	0.18%	[1000]	ug/L
Cu 324.752†	331964.5	381.32	0.11%	[1000]	ug/L
Fe 238.204 Radial†	733.7	1.59	0.22%	[10000]	ug/L
K 766.490 Radial†	52212.3	608.15	1.16%	[10000]	ug/L

Mg 279.077 IEC†	217.6	2.22	1.02%	[10000]	ug/L
Mn 257.610†	885935.3	2521.17	0.28%	[1000]	ug/L
Mo 202.031†	13751.7	31.30	0.23%	[1000]	ug/L
Na 589.592 Radial†	33023.5	503.61	1.53%	[10000]	ug/L
Ni 231.604†	39606.3	149.23	0.38%	[1000]	ug/L
P 214.914†	8395.9	18.47	0.22%	[5000]	ug/L
Pb 220.353†	8203.6	13.53	0.16%	[1000]	ug/L
S 181.975 Axial†	1403.4	2.07	0.15%	[2000]	ug/L
Sb 206.836†	2895.2	16.67	0.58%	[1000]	ug/L
Se 196.026†	1539.7	13.25	0.86%	[1000]	ug/L
Si 251.611†	155977.6	240.04	0.15%	[5000]	ug/L
Sn 189.927†	5635.6	15.44	0.27%	[1000]	ug/L
Sr 421.552†	144167.5	1899.60	1.32%	[1000]	ug/L
Ti 334.940†	642382.9	968.50	0.15%	[1000]	ug/L
Tl 190.801†	3152.5	5.73	0.18%	[1000]	ug/L
U 409.014†	36522.7	38.15	0.10%	[1000]	ug/L
V 292.402†	144741.0	138.09	0.10%	[1000]	ug/L
Zn 213.857†	100145.3	185.88	0.19%	[1000]	ug/L
SiO2†	155463.2	1862.13	1.20%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/24/2010 13:09:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3780.3	3780.3	96.5	%	13:11:16
1	Y RADIAL	4156.9	4156.9	94.24	%	13:11:16
1	Al 396.153Radial†	52348.5	54379.2	[50000]	ug/L	13:10:56
1	Ca 317.933Radial†	23503.8	24345.4	[50000]	ug/L	13:10:56
1	Fe 238.204 Radial†	1374.2	1413.2	[20000]	ug/L	13:11:16
1	Mg 279.077 IEC†	1004.5	1037.2	[50000]	ug/L	13:11:16
1	Na 589.592 Radial†	62730.7	65849.2	[20000]	ug/L	13:10:56
1	Sc 361.383	860273.3	860273.3	98.067	%	13:12:13
1	Y 371.029	713382.4	713382.4	94.382	%	13:12:13
2	Sc Radial	3848.6	3848.6	98.2	%	13:11:41
2	Y RADIAL	4208.0	4208.0	95.40	%	13:11:41
2	Al 396.153Radial†	52279.8	53346.7	[50000]	ug/L	13:11:21
2	Ca 317.933Radial†	23456.6	23865.2	[50000]	ug/L	13:11:21
2	Fe 238.204 Radial†	1390.5	1404.5	[20000]	ug/L	13:11:41
2	Mg 279.077 IEC†	1013.0	1027.4	[50000]	ug/L	13:11:41
2	Na 589.592 Radial†	62730.1	64695.1	[20000]	ug/L	13:11:21
2	Sc 361.383	871844.5	871844.5	99.386	%	13:12:19
2	Y 371.029	722628.9	722628.9	95.606	%	13:12:19
3	Sc Radial	3854.8	3854.8	98.4	%	13:12:06
3	Y RADIAL	4211.5	4211.5	95.48	%	13:12:06
3	Al 396.153Radial†	51229.1	52192.0	[50000]	ug/L	13:11:46
3	Ca 317.933Radial†	23058.4	23421.6	[50000]	ug/L	13:11:46
3	Fe 238.204 Radial†	1383.5	1395.1	[20000]	ug/L	13:12:06
3	Mg 279.077 IEC†	1007.7	1020.4	[50000]	ug/L	13:12:06
3	Na 589.592 Radial†	61330.9	63168.9	[20000]	ug/L	13:11:46
3	Sc 361.383	865956.5	865956.5	98.715	%	13:12:24
3	Y 371.029	717851.7	717851.7	94.974	%	13:12:24

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	866024.8	5785.90	0.67%	98.723	%
Sc Radial	3827.9	41.34	1.08%	97.7	%
Y 371.029	717954.3	4624.13	0.64%	94.987	%
Y RADIAL	4192.1	30.56	0.73%	95.04	%
Al 396.153Radial†	53306.0	1094.15	2.05%	[50000]	ug/L
Ca 317.933Radial†	23877.4	462.04	1.94%	[50000]	ug/L
Fe 238.204 Radial†	1404.3	9.05	0.64%	[20000]	ug/L
Mg 279.077 IEC†	1028.3	8.45	0.82%	[50000]	ug/L
Na 589.592 Radial†	64571.1	1344.43	2.08%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	215.8	0.00000	0.999854	
Al 396.153Radial	3	Lin Thru 0	0.0	1.066	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.239	0.00000	0.999740	
B 249.677	3	Lin Thru 0	0.0	41.25	0.00000	0.999714	
Ba 233.527	3	Lin Thru 0	0.0	127.4	0.00000	0.999867	
Be 313.107	3	Lin Thru 0	0.0	2661	0.00000	0.999847	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4784	0.00000	0.999971	
Cd 226.502	3	Lin Thru 0	0.0	86.36	0.00000	0.999886	
Co 228.616	3	Lin Thru 0	0.0	47.74	0.00000	0.999880	
Cr 267.716	3	Lin Thru 0	0.0	89.08	0.00000	0.999861	
Cu 324.752	3	Lin Thru 0	0.0	328.6	0.00000	0.999799	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0708	0.00000	0.999842	
K 766.490 Radial	3	Lin Thru 0	0.0	5.211	0.00000	0.999986	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0206	0.00000	0.999923
Mn 257.610	3	Lin Thru 0	0.0	878.8	0.00000	0.999872
Mo 202.031	3	Lin Thru 0	0.0	13.62	0.00000	0.999823
Na 589.592 Radia	2	Lin Thru 0	0.0	3.243	0.00000	0.999959
Ni 231.604	3	Lin Thru 0	0.0	39.32	0.00000	0.999894
P 214.914	3	Lin Thru 0	0.0	1.661	0.00000	0.999771
Pb 220.353	3	Lin Thru 0	0.0	8.131	0.00000	0.999846
S 181.975 Axial	3	Lin Thru 0	0.0	0.6949	0.00000	0.999810
Sb 206.836	3	Lin Thru 0	0.0	2.861	0.00000	0.999721
Se 196.026	3	Lin Thru 0	0.0	1.526	0.00000	0.999852
Si 251.611	3	Lin Thru 0	0.0	30.90	0.00000	0.999828
Sn 189.927	3	Lin Thru 0	0.0	5.573	0.00000	0.999760
Sr 421.552	3	Lin Thru 0	0.0	144.5	0.00000	0.999981
Ti 334.940	3	Lin Thru 0	0.0	636.4	0.00000	0.999829
Tl 190.801	3	Lin Thru 0	0.0	3.128	0.00000	0.999879
U 409.014	3	Lin Thru 0	0.0	36.21	0.00000	0.999850
V 292.402	3	Lin Thru 0	0.0	143.4	0.00000	0.999835
Zn 213.857	3	Lin Thru 0	0.0	99.34	0.00000	0.999873
SiO2	3	Lin Thru 0	0.0	14.39	0.00000	0.999800

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/24/2010 13:14:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4002.5	4002.5	102	%			13:16:28
1	Y RADIAL	4387.7	4387.7	99.47	%			13:16:28
1	Al 396.153Radial†	5568.5	5564.5	5193.6	ug/L	5193.6	ppb	13:16:28
1	Ca 317.933Radial†	2581.1	2507.4	5241.7	ug/L	5241.7	ppb	13:16:49
1	Fe 238.204 Radial†	390.7	371.2	5255.5	ug/L	5255.5	ppb	13:16:49
1	K 766.490 Radial†	16204.1	13225.5	2534.4	ug/L	2534.4	ppb	13:16:28
1	Mg 279.077 IEC†	115.3	108.8	5276.4	ug/L	5276.4	ppb	13:16:49
1	Na 589.592 Radial†	7802.4	8459.0	2608.1	ug/L	2608.1	ppb	13:16:28
1	Sr 421.552†	79385.6	77689.3	537.54	ug/L	537.54	ppb	13:16:28
1	Sc 361.383	910091.3	910091.3	103.75	%			13:17:46
1	Y 371.029	762006.8	762006.8	100.82	%			13:17:46
1	Ag 328.068†	56217.1	53946.9	253.08	ug/L	253.08	ppb	13:17:46
1	As 188.979†	1087.5	1066.5	480.49	ug/L	480.49	ppb	13:18:06
1	B 249.677†	22056.9	21658.7	522.80	ug/L	522.80	ppb	13:17:46
1	Ba 233.527†	69368.8	66865.6	525.97	ug/L	525.97	ppb	13:17:46
1	Be 313.107†	698166.4	676720.3	255.43	ug/L	255.43	ppb	13:17:46
1	Cd 226.502†	44207.9	42807.9	495.57	ug/L	495.57	ppb	13:18:06
1	Co 228.616†	25271.8	24425.8	511.81	ug/L	511.81	ppb	13:18:06
1	Cr 267.716†	46315.4	44565.5	501.29	ug/L	501.29	ppb	13:17:46
1	Cu 324.752†	184507.5	171854.9	522.98	ug/L	522.98	ppb	13:17:46
1	Mn 257.610†	459927.2	442862.2	504.25	ug/L	504.25	ppb	13:17:46
1	Mo 202.031†	7354.4	7078.7	520.16	ug/L	520.16	ppb	13:18:06
1	Ni 231.604†	19739.1	18964.0	482.00	ug/L	482.00	ppb	13:18:06
1	P 214.914†	4633.2	4255.4	2459.8	ug/L	2459.8	ppb	13:18:06
1	Pb 220.353†	4263.1	4167.3	514.11	ug/L	514.11	ppb	13:18:06
1	S 181.975 Axial†	1781.8	1676.7	2411.8	ug/L	2411.8	ppb	13:18:06
1	Sb 206.836†	1471.8	1382.0	501.73	ug/L	501.73	ppb	13:18:06
1	Se 196.026†	4059.6	3940.8	2599.6	ug/L	2599.6	ppb	13:18:06
1	Si 251.611†	156795.7	150576.0	4866.1	ug/L	4866.1	ppb	13:17:46
1	Sn 189.927†	3008.1	2889.0	518.99	ug/L	518.99	ppb	13:18:06
1	Ti 334.940†	324728.6	314377.8	493.89	ug/L	493.89	ppb	13:17:46
1	Tl 190.801†	1627.4	1601.2	515.28	ug/L	515.28	ppb	13:18:06
1	U 409.014†	15221.6	17558.6	483.15	ug/L	483.15	ppb	13:17:46
1	V 292.402†	72012.9	70918.4	501.41	ug/L	501.41	ppb	13:17:46
1	Zn 213.857†	51785.9	49310.1	491.81	ug/L	491.81	ppb	13:17:46
1	SiO2†	153306.5	147216.7	10217	ug/L	10217	ppb	13:19:04
2	Sc Radial	4016.6	4016.6	102	%			13:16:54
2	Y RADIAL	4409.0	4409.0	99.96	%			13:16:54
2	Al 396.153Radial†	5568.1	5544.9	5175.0	ug/L	5175.0	ppb	13:16:54
2	Ca 317.933Radial†	2593.7	2510.8	5248.9	ug/L	5248.9	ppb	13:17:14
2	Fe 238.204 Radial†	396.0	375.0	5308.8	ug/L	5308.8	ppb	13:17:14
2	K 766.490 Radial†	16360.7	13322.6	2553.0	ug/L	2553.0	ppb	13:16:54
2	Mg 279.077 IEC†	112.8	106.0	5140.6	ug/L	5140.6	ppb	13:17:14
2	Na 589.592 Radial†	7843.2	8472.0	2612.1	ug/L	2612.1	ppb	13:16:54
2	Sr 421.552†	79566.0	77592.3	536.86	ug/L	536.86	ppb	13:16:54
2	Sc 361.383	897996.3	897996.3	102.37	%			13:18:12
2	Y 371.029	751687.1	751687.1	99.450	%			13:18:12
2	Ag 328.068†	55639.3	54112.3	253.87	ug/L	253.87	ppb	13:18:12
2	As 188.979†	1097.5	1090.3	491.16	ug/L	491.16	ppb	13:18:32
2	B 249.677†	21785.1	21679.6	523.29	ug/L	523.29	ppb	13:18:12
2	Ba 233.527†	68356.1	66776.9	525.27	ug/L	525.27	ppb	13:18:12
2	Be 313.107†	688510.6	676351.8	255.29	ug/L	255.29	ppb	13:18:12
2	Cd 226.502†	44012.9	43191.5	500.01	ug/L	500.01	ppb	13:18:32
2	Co 228.616†	25177.8	24662.1	516.77	ug/L	516.77	ppb	13:18:32
2	Cr 267.716†	45780.1	44643.8	502.18	ug/L	502.18	ppb	13:18:12
2	Cu 324.752†	182271.7	172066.1	523.62	ug/L	523.62	ppb	13:18:12
2	Mn 257.610†	453911.4	442956.5	504.37	ug/L	504.37	ppb	13:18:12
2	Mo 202.031†	7316.1	7136.8	524.43	ug/L	524.43	ppb	13:18:32
2	Ni 231.604†	19677.9	19160.4	486.99	ug/L	486.99	ppb	13:18:32

2	P 214.914†	4596.9	4280.1	2474.5	ug/L	2474.5 ppb	13:18:32
2	Pb 220.353†	4237.4	4197.5	517.83	ug/L	517.83 ppb	13:18:32
2	S 181.975 Axial†	1757.4	1676.0	2410.8	ug/L	2410.8 ppb	13:18:32
2	Sb 206.836†	1461.5	1391.0	505.04	ug/L	505.04 ppb	13:18:32
2	Se 196.026†	4056.1	3990.0	2632.1	ug/L	2632.1 ppb	13:18:32
2	Si 251.611†	154707.8	150572.1	4865.9	ug/L	4865.9 ppb	13:18:12
2	Sn 189.927†	2993.6	2913.9	523.46	ug/L	523.46 ppb	13:18:32
2	Ti 334.940†	320615.0	314575.2	494.22	ug/L	494.22 ppb	13:18:12
2	Tl 190.801†	1619.2	1614.3	519.45	ug/L	519.45 ppb	13:18:32
2	U 409.014†	14892.7	17434.9	479.72	ug/L	479.72 ppb	13:18:12
2	V 292.402†	71135.6	70996.3	502.00	ug/L	502.00 ppb	13:18:12
2	Zn 213.857†	51226.3	49435.7	493.04	ug/L	493.04 ppb	13:18:12
2	SiO2†	153714.0	149605.1	10383	ug/L	10383 ppb	13:19:09
3	Sc Radial	3969.6	3969.6	101	%		13:17:19
3	Y RADIAL	4372.6	4372.6	99.13	%		13:17:19
3	Al 396.153Radial†	5517.9	5559.6	5189.2	ug/L	5189.2 ppb	13:17:19
3	Ca 317.933Radial†	2573.3	2520.7	5269.5	ug/L	5269.5 ppb	13:17:39
3	Fe 238.204 Radial†	394.6	378.2	5354.1	ug/L	5354.1 ppb	13:17:39
3	K 766.490 Radial†	16096.4	13250.7	2539.2	ug/L	2539.2 ppb	13:17:19
3	Mg 279.077 IEC†	111.9	106.4	5156.7	ug/L	5156.7 ppb	13:17:39
3	Na 589.592 Radial†	7604.2	8326.6	2567.3	ug/L	2567.3 ppb	13:17:19
3	Sr 421.552†	78330.9	77292.4	534.79	ug/L	534.79 ppb	13:17:19
3	Sc 361.383	909994.2	909994.2	103.73	%		13:18:38
3	Y 371.029	760463.9	760463.9	100.61	%		13:18:38
3	Ag 328.068†	56219.3	53954.8	253.15	ug/L	253.15 ppb	13:18:38
3	As 188.979†	1095.7	1074.5	484.12	ug/L	484.12 ppb	13:18:58
3	B 249.677†	22183.4	21782.9	525.80	ug/L	525.80 ppb	13:18:38
3	Ba 233.527†	69189.4	66699.8	524.67	ug/L	524.67 ppb	13:18:38
3	Be 313.107†	696913.9	675584.7	255.00	ug/L	255.00 ppb	13:18:38
3	Cd 226.502†	44019.2	42630.7	493.51	ug/L	493.51 ppb	13:18:58
3	Co 228.616†	25198.2	24357.5	510.37	ug/L	510.37 ppb	13:18:58
3	Cr 267.716†	46286.1	44542.0	501.04	ug/L	501.04 ppb	13:18:38
3	Cu 324.752†	184903.4	172255.5	524.20	ug/L	524.20 ppb	13:18:38
3	Mn 257.610†	459425.8	442426.1	503.77	ug/L	503.77 ppb	13:18:38
3	Mo 202.031†	7310.3	7036.9	517.10	ug/L	517.10 ppb	13:18:58
3	Ni 231.604†	19679.0	18908.1	480.58	ug/L	480.58 ppb	13:18:58
3	P 214.914†	4580.5	4205.0	2429.1	ug/L	2429.1 ppb	13:18:58
3	Pb 220.353†	4232.3	4138.0	510.49	ug/L	510.49 ppb	13:18:58
3	S 181.975 Axial†	1777.9	1673.1	2406.6	ug/L	2406.6 ppb	13:18:58
3	Sb 206.836†	1475.7	1385.9	502.96	ug/L	502.96 ppb	13:18:58
3	Se 196.026†	4052.3	3934.1	2595.6	ug/L	2595.6 ppb	13:18:58
3	Si 251.611†	156929.5	150721.2	4870.8	ug/L	4870.8 ppb	13:18:38
3	Sn 189.927†	2978.9	2861.2	514.00	ug/L	514.00 ppb	13:18:58
3	Ti 334.940†	324622.4	314309.0	493.80	ug/L	493.80 ppb	13:18:38
3	Tl 190.801†	1629.4	1603.3	515.94	ug/L	515.94 ppb	13:18:58
3	U 409.014†	15231.2	17569.5	483.44	ug/L	483.44 ppb	13:18:38
3	V 292.402†	71959.9	70874.7	501.05	ug/L	501.05 ppb	13:18:38
3	Zn 213.857†	51795.2	49324.3	491.95	ug/L	491.95 ppb	13:18:38
3	SiO2†	155095.5	148957.1	10338	ug/L	10338 ppb	13:19:14

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906027.3	103.28	%	0.793				0.77%
Sc Radial	3996.3	102	%	0.6				0.60%
Y 371.029	758052.6	100.29	%	0.736				0.73%
Y RADIAL	4389.8	99.52	%	0.415				0.42%
Ag 328.068†	54004.6	253.36	ug/L	0.437	253.36	ppb	0.437	0.17%
QC value within limits for Ag 328.068 Recovery = 101.35%								
Al 396.153Radial†	5556.3	5185.9	ug/L	9.69	5185.9	ppb	9.69	0.19%
QC value within limits for Al 396.153Radial Recovery = 103.72%								
As 188.979†	1077.1	485.26	ug/L	5.424	485.26	ppb	5.424	1.12%
QC value within limits for As 188.979 Recovery = 97.05%								
B 249.677†	21707.1	523.96	ug/L	1.611	523.96	ppb	1.611	0.31%
QC value within limits for B 249.677 Recovery = 104.79%								
Ba 233.527†	66780.7	525.30	ug/L	0.650	525.30	ppb	0.650	0.12%
QC value within limits for Ba 233.527 Recovery = 105.06%								
Be 313.107†	676218.9	255.24	ug/L	0.218	255.24	ppb	0.218	0.09%
QC value within limits for Be 313.107 Recovery = 102.10%								
Ca 317.933Radial†	2513.0	5253.4	ug/L	14.44	5253.4	ppb	14.44	0.27%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.07%
Cd 226.502†            42876.7      496.36 ug/L         3.322      496.36 ppb          3.322   0.67%
   QC value within limits for Cd 226.502  Recovery = 99.27%
Co 228.616†            24481.8      512.99 ug/L         3.356      512.99 ppb          3.356   0.65%
   QC value within limits for Co 228.616  Recovery = 102.60%
Cr 267.716†            44583.7      501.50 ug/L         0.599      501.50 ppb          0.599   0.12%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           172058.8      523.60 ug/L         0.612      523.60 ppb          0.612   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.72%
Fe 238.204 Radial†       374.8      5306.1 ug/L        49.34      5306.1 ppb         49.34   0.93%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.12%
K 766.490 Radial†      13266.3      2542.2 ug/L         9.66      2542.2 ppb          9.66   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 101.69%
Mg 279.077 IEC†          107.1      5191.2 ug/L        74.19      5191.2 ppb         74.19   1.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.82%
Mn 257.610†           442748.2      504.13 ug/L         0.318      504.13 ppb          0.318   0.06%
   QC value within limits for Mn 257.610  Recovery = 100.83%
Mo 202.031†             7084.1      520.57 ug/L         3.680      520.57 ppb          3.680   0.71%
   QC value within limits for Mo 202.031  Recovery = 104.11%
Na 589.592 Radial†      8419.2      2595.9 ug/L        24.81      2595.9 ppb         24.81   0.96%
   QC value within limits for Na 589.592 Radial  Recovery = 103.83%
Ni 231.604†            19010.8      483.19 ug/L         3.368      483.19 ppb          3.368   0.70%
   QC value within limits for Ni 231.604  Recovery = 96.64%
P 214.914†              4246.9      2454.5 ug/L        23.18      2454.5 ppb         23.18   0.94%
   QC value within limits for P 214.914  Recovery = 98.18%
Pb 220.353†             4167.6      514.15 ug/L         3.669      514.15 ppb          3.669   0.71%
   QC value within limits for Pb 220.353  Recovery = 102.83%
S 181.975 Axial†        1675.2      2409.7 ug/L         2.73      2409.7 ppb          2.73   0.11%
   QC value within limits for S 181.975 Axial  Recovery = 96.39%
Sb 206.836†             1386.3      503.25 ug/L         1.671      503.25 ppb          1.671   0.33%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†             3955.0      2609.1 ug/L        20.01      2609.1 ppb         20.01   0.77%
   QC value within limits for Se 196.026  Recovery = 104.36%
Si 251.611†           150623.1      4867.6 ug/L         2.79      4867.6 ppb          2.79   0.06%
   QC value within limits for Si 251.611  Recovery = 97.35%
Sn 189.927†             2888.0      518.82 ug/L         4.734      518.82 ppb          4.734   0.91%
   QC value within limits for Sn 189.927  Recovery = 103.76%
Sr 421.552†            77524.7      536.40 ug/L         1.432      536.40 ppb          1.432   0.27%
   QC value within limits for Sr 421.552  Recovery = 107.28%
Ti 334.940†           314420.7      493.97 ug/L         0.219      493.97 ppb          0.219   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.79%
Tl 190.801†             1606.3      516.89 ug/L         2.239      516.89 ppb          2.239   0.43%
   QC value within limits for Tl 190.801  Recovery = 103.38%
U 409.014†             17521.0      482.10 ug/L         2.065      482.10 ppb          2.065   0.43%
   QC value within limits for U 409.014  Recovery = 96.42%
V 292.402†             70929.8      501.49 ug/L         0.479      501.49 ppb          0.479   0.10%
   QC value within limits for V 292.402  Recovery = 100.30%
Zn 213.857†            49356.7      492.27 ug/L         0.671      492.27 ppb          0.671   0.14%
   QC value within limits for Zn 213.857  Recovery = 98.45%
SiO2†                 148593.0       10312 ug/L          85.8       10312 ppb           85.8   0.83%
   QC value within limits for SiO2  Recovery = 96.42%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/24/2010 13:21:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3888.0	3888.0	99.2	%			13:23:38
1	Y RADIAL	4425.2	4425.2	100.3	%			13:23:18
1	Al 396.153Radial†	-125.8	-14.4	-13.548	ug/L	-13.548	ppb	13:23:18
1	Ca 317.933Radial†	15.2	-4.4	-9.1159	ug/L	-9.1159	ppb	13:23:38
1	Fe 238.204 Radial†	10.0	-1.2	-17.144	ug/L	-17.144	ppb	13:23:38
1	K 766.490 Radial†	2698.9	80.7	15.469	ug/L	15.469	ppb	13:23:18
1	Mg 279.077 IEC†	3.2	-0.8	-39.302	ug/L	-39.302	ppb	13:23:38
1	Na 589.592 Radial†	-711.1	103.0	31.763	ug/L	31.763	ppb	13:23:18
1	Sr 421.552†	28.0	-7.5	-0.0519	ug/L	-0.0519	ppb	13:23:18
1	Sc 361.383	889352.7	889352.7	101.38	%			13:24:35
1	Y 371.029	752996.9	752996.9	99.623	%			13:24:35
1	Ag 328.068†	285.8	41.5	0.1870	ug/L	0.1870	ppb	13:24:35
1	As 188.979†	-14.8	3.7	1.6321	ug/L	1.6321	ppb	13:24:55
1	B 249.677†	-200.2	200.8	4.8708	ug/L	4.8708	ppb	13:24:55
1	Ba 233.527†	6.7	8.0	0.0622	ug/L	0.0622	ppb	13:24:55
1	Be 313.107†	-3638.6	173.2	0.0648	ug/L	0.0648	ppb	13:24:35
1	Cd 226.502†	-192.8	6.0	0.0718	ug/L	0.0718	ppb	13:24:55
1	Co 228.616†	-65.4	2.1	0.0444	ug/L	0.0444	ppb	13:24:55
1	Cr 267.716†	63.8	-14.8	-0.1677	ug/L	-0.1677	ppb	13:24:55
1	Cu 324.752†	5979.5	-92.8	-0.2829	ug/L	-0.2829	ppb	13:24:35
1	Mn 257.610†	471.7	6.5	0.0073	ug/L	0.0073	ppb	13:24:55
1	Mo 202.031†	14.3	4.0	0.2904	ug/L	0.2904	ppb	13:24:55
1	Ni 231.604†	64.6	1.2	0.0317	ug/L	0.0317	ppb	13:24:55
1	P 214.914†	210.3	-3.1	-1.7875	ug/L	-1.7875	ppb	13:24:55
1	Pb 220.353†	-39.7	19.0	2.3329	ug/L	2.3329	ppb	13:24:55
1	S 181.975 Axial†	33.4	-7.9	-11.298	ug/L	-11.298	ppb	13:24:55
1	Sb 206.836†	42.2	4.9	1.7528	ug/L	1.7528	ppb	13:24:55
1	Se 196.026†	-26.3	1.8	1.1257	ug/L	1.1257	ppb	13:24:55
1	Si 251.611†	587.7	21.4	0.6887	ug/L	0.6887	ppb	13:24:55
1	Sn 189.927†	17.1	6.4	1.1457	ug/L	1.1457	ppb	13:24:55
1	Ti 334.940†	-1475.1	-81.0	-0.1250	ug/L	-0.1250	ppb	13:24:35
1	Tl 190.801†	-27.6	5.4	1.7165	ug/L	1.7165	ppb	13:24:55
1	U 409.014†	-2941.4	-14.7	-0.4036	ug/L	-0.4036	ppb	13:24:35
1	V 292.402†	-1540.9	-14.3	-0.0942	ug/L	-0.0942	ppb	13:24:35
1	Zn 213.857†	618.7	4.2	0.0455	ug/L	0.0455	ppb	13:24:55
1	SiO2†	612.6	49.8	3.4541	ug/L	3.4541	ppb	13:25:51
2	Sc Radial	3974.7	3974.7	101	%			13:24:03
2	Y RADIAL	4459.8	4459.8	101.1	%			13:23:43
2	Al 396.153Radial†	-95.5	18.3	17.171	ug/L	17.171	ppb	13:23:43
2	Ca 317.933Radial†	16.0	-3.9	-8.2566	ug/L	-8.2566	ppb	13:24:03
2	Fe 238.204 Radial†	11.2	-0.3	-4.1237	ug/L	-4.1237	ppb	13:24:03
2	K 766.490 Radial†	2661.5	-15.5	-2.9732	ug/L	-2.9732	ppb	13:23:43
2	Mg 279.077 IEC†	1.8	-2.3	-110.94	ug/L	-110.94	ppb	13:24:03
2	Na 589.592 Radial†	-764.7	65.9	20.305	ug/L	20.305	ppb	13:23:43
2	Sr 421.552†	32.3	-3.9	-0.0266	ug/L	-0.0266	ppb	13:23:43
2	Sc 361.383	894802.7	894802.7	102.00	%			13:25:00
2	Y 371.029	757537.6	757537.6	100.22	%			13:25:00
2	Ag 328.068†	246.6	1.4	0.0092	ug/L	0.0092	ppb	13:25:00
2	As 188.979†	-18.4	0.2	0.0777	ug/L	0.0777	ppb	13:25:21
2	B 249.677†	-214.2	188.2	4.5643	ug/L	4.5643	ppb	13:25:21
2	Ba 233.527†	16.1	17.2	0.1359	ug/L	0.1359	ppb	13:25:21
2	Be 313.107†	-3693.5	141.2	0.0526	ug/L	0.0526	ppb	13:25:00
2	Cd 226.502†	-188.1	11.9	0.1374	ug/L	0.1374	ppb	13:25:21
2	Co 228.616†	-61.7	6.1	0.1270	ug/L	0.1270	ppb	13:25:21
2	Cr 267.716†	71.7	-7.4	-0.0817	ug/L	-0.0817	ppb	13:25:21
2	Cu 324.752†	5911.2	-195.6	-0.5940	ug/L	-0.5940	ppb	13:25:00
2	Mn 257.610†	450.9	-16.7	-0.0148	ug/L	-0.0148	ppb	13:25:21
2	Mo 202.031†	8.4	-1.9	-0.1378	ug/L	-0.1378	ppb	13:25:21
2	Ni 231.604†	72.1	8.2	0.2083	ug/L	0.2083	ppb	13:25:21

2	P 214.914†	213.4	-1.3	-0.6319 ug/L	-0.6319 ppb	13:25:21
2	Pb 220.353†	-37.2	21.6	2.6617 ug/L	2.6617 ppb	13:25:21
2	S 181.975 Axial†	39.8	-1.8	-2.6215 ug/L	-2.6215 ppb	13:25:21
2	Sb 206.836†	46.4	8.8	3.1197 ug/L	3.1197 ppb	13:25:21
2	Se 196.026†	-15.5	12.6	8.2171 ug/L	8.2171 ppb	13:25:21
2	Si 251.611†	599.1	29.0	0.9412 ug/L	0.9412 ppb	13:25:21
2	Sn 189.927†	25.4	14.4	2.5852 ug/L	2.5852 ppb	13:25:21
2	Ti 334.940†	-1531.3	-127.1	-0.1906 ug/L	-0.1906 ppb	13:25:00
2	Tl 190.801†	-27.7	5.5	1.7437 ug/L	1.7437 ppb	13:25:21
2	U 409.014†	-3046.0	-99.6	-2.7487 ug/L	-2.7487 ppb	13:25:00
2	V 292.402†	-1472.3	62.3	0.4260 ug/L	0.4260 ppb	13:25:00
2	Zn 213.857†	627.0	8.6	0.0869 ug/L	0.0869 ppb	13:25:21
2	SiO2†	578.2	12.5	0.8715 ug/L	0.8715 ppb	13:25:56
3	Sc Radial	3920.0	3920.0	100 %		13:24:29
3	Y RADIAL	4491.9	4491.9	101.8 %		13:24:08
3	Al 396.153Radial†	-113.0	-0.5	-0.4953 ug/L	-0.4953 ppb	13:24:08
3	Ca 317.933Radial†	18.1	-1.6	-3.2438 ug/L	-3.2438 ppb	13:24:29
3	Fe 238.204 Radial†	9.2	-2.2	-30.471 ug/L	-30.471 ppb	13:24:29
3	K 766.490 Radial†	2722.4	82.0	15.724 ug/L	15.724 ppb	13:24:08
3	Mg 279.077 IEC†	4.2	0.1	6.6210 ug/L	6.6210 ppb	13:24:29
3	Na 589.592 Radial†	-783.4	36.6	11.299 ug/L	11.299 ppb	13:24:08
3	Sr 421.552†	33.5	-2.2	-0.0152 ug/L	-0.0152 ppb	13:24:08
3	Sc 361.383	878206.7	878206.7	100.11 %		13:25:26
3	Y 371.029	743925.8	743925.8	98.423 %		13:25:26
3	Ag 328.068†	260.2	19.5	0.0848 ug/L	0.0848 ppb	13:25:26
3	As 188.979†	-21.9	-3.6	-1.6279 ug/L	-1.6279 ppb	13:25:46
3	B 249.677†	-188.0	210.5	5.1077 ug/L	5.1077 ppb	13:25:46
3	Ba 233.527†	8.6	10.0	0.0774 ug/L	0.0774 ppb	13:25:46
3	Be 313.107†	-3636.2	130.1	0.0489 ug/L	0.0489 ppb	13:25:26
3	Cd 226.502†	-193.6	2.8	0.0353 ug/L	0.0353 ppb	13:25:46
3	Co 228.616†	-62.8	3.8	0.0815 ug/L	0.0815 ppb	13:25:46
3	Cr 267.716†	52.0	-25.7	-0.2899 ug/L	-0.2899 ppb	13:25:46
3	Cu 324.752†	5930.1	-67.2	-0.2035 ug/L	-0.2035 ppb	13:25:26
3	Mn 257.610†	460.3	1.1	-0.0021 ug/L	-0.0021 ppb	13:25:46
3	Mo 202.031†	12.2	2.0	0.1472 ug/L	0.1472 ppb	13:25:46
3	Ni 231.604†	72.8	10.2	0.2605 ug/L	0.2605 ppb	13:25:46
3	P 214.914†	197.3	-13.4	-7.9870 ug/L	-7.9870 ppb	13:25:46
3	Pb 220.353†	-64.7	-6.5	-0.7917 ug/L	-0.7917 ppb	13:25:46
3	S 181.975 Axial†	35.9	-4.9	-7.0867 ug/L	-7.0867 ppb	13:25:46
3	Sb 206.836†	32.9	-3.9	-1.3173 ug/L	-1.3173 ppb	13:25:46
3	Se 196.026†	-19.3	8.5	5.4677 ug/L	5.4677 ppb	13:25:46
3	Si 251.611†	616.0	57.0	1.8421 ug/L	1.8421 ppb	13:25:46
3	Sn 189.927†	22.1	11.5	2.0730 ug/L	2.0730 ppb	13:25:46
3	Ti 334.940†	-1381.2	-5.5	-0.0075 ug/L	-0.0075 ppb	13:25:26
3	Tl 190.801†	-39.0	-6.4	-2.0518 ug/L	-2.0518 ppb	13:25:46
3	U 409.014†	-3063.6	-173.6	-4.7906 ug/L	-4.7906 ppb	13:25:26
3	V 292.402†	-1519.0	-11.7	-0.0838 ug/L	-0.0838 ppb	13:25:26
3	Zn 213.857†	612.3	5.6	0.0593 ug/L	0.0593 ppb	13:25:46
3	SiO2†	572.9	17.9	1.2380 ug/L	1.2380 ppb	13:26:01

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887454.0	101.17	%	0.964				0.95%
Sc Radial	3927.6	100	%	1.1				1.12%
Y 371.029	751486.8	99.424	%	0.9169				0.92%
Y RADIAL	4459.0	101.1	%	0.76				0.75%
Ag 328.068†	20.8	0.0937	ug/L	0.08922	0.0937	ppb	0.08922	95.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.1	1.0426	ug/L	15.41673	1.0426	ppb	15.41673	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.0273	ug/L	1.63058	0.0273	ppb	1.63058	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	199.8	4.8476	ug/L	0.27246	4.8476	ppb	0.27246	5.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.7	0.0918	ug/L	0.03894	0.0918	ppb	0.03894	42.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	148.1	0.0554	ug/L	0.00833	0.0554	ppb	0.00833	15.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.3	-6.8721	ug/L	3.17145	-6.8721	ppb	3.17145	46.15%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.9      0.0815 ug/L       0.05175      0.0815 ppb        0.05175  63.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.0      0.0843 ug/L       0.04140      0.0843 ppb        0.04140  49.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -16.0     -0.1798 ug/L       0.10464     -0.1798 ppb        0.10464  58.21%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -118.5     -0.3601 ug/L       0.20638     -0.3601 ppb        0.20638  57.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.2     -17.246 ug/L       13.1738     -17.246 ppb        13.1738  76.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          49.1      9.4068 ug/L      10.72214      9.4068 ppb       10.72214 113.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0     -47.873 ug/L       59.2467     -47.873 ppb        59.2467 123.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -3.0     -0.0032 ug/L       0.01112     -0.0032 ppb        0.01112 347.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.4      0.0999 ug/L       0.21798      0.0999 ppb        0.21798 218.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         68.5      21.122 ug/L       10.2562      21.122 ppb        10.2562  48.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.6      0.1668 ug/L       0.11988      0.1668 ppb        0.11988  71.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.9     -3.4688 ug/L       3.95530     -3.4688 ppb        3.95530 114.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                11.4      1.4010 ug/L       1.90603      1.4010 ppb        1.90603 136.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.9     -7.0019 ug/L       4.33863     -7.0019 ppb        4.33863  61.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.3      1.1850 ug/L       2.27230      1.1850 ppb        2.27230 191.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.6      4.9368 ug/L       3.57535      4.9368 ppb        3.57535  72.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                35.8      1.1574 ug/L       0.60631      1.1574 ppb        0.60631  52.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.8      1.9346 ug/L       0.72965      1.9346 ppb        0.72965  37.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.5     -0.0313 ug/L       0.01879     -0.0313 ppb        0.01879  60.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -71.2     -0.1077 ug/L       0.09277     -0.1077 ppb        0.09277  86.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.5      0.4695 ug/L       2.18352      0.4695 ppb        2.18352 465.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -96.0     -2.6476 ug/L       2.19521     -2.6476 ppb        2.19521  82.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.1      0.0827 ug/L       0.29738      0.0827 ppb        0.29738 359.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 6.1      0.0639 ug/L       0.02108      0.0639 ppb        0.02108  32.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      26.7      1.8545 ug/L       1.39736      1.8545 ppb        1.39736  75.35%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/24/2010 13:28:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3886.9	3886.9	99.2	%			13:30:26
1	Y RADIAL	4390.7	4390.7	99.54	%			13:30:06
1	Al 396.153Radial†	106.1	219.4	205.29	ug/L	205.29	ppb	13:30:06
1	Ca 317.933Radial†	120.0	101.3	211.78	ug/L	211.78	ppb	13:30:26
1	Fe 238.204 Radial†	17.0	5.8	82.580	ug/L	82.580	ppb	13:30:26
1	K 766.490 Radial†	3487.9	877.0	168.08	ug/L	168.08	ppb	13:30:06
1	Mg 279.077 IEC†	11.6	7.7	371.90	ug/L	371.90	ppb	13:30:26
1	Na 589.592 Radial†	168.2	989.4	305.06	ug/L	305.06	ppb	13:30:06
1	Sr 421.552†	744.5	714.9	4.9454	ug/L	4.9454	ppb	13:30:06
1	Sc 361.383	884473.5	884473.5	100.83	%			13:31:23
1	Y 371.029	750126.1	750126.1	99.244	%			13:31:23
1	Ag 328.068†	1296.3	1045.3	4.8408	ug/L	4.8408	ppb	13:31:23
1	As 188.979†	41.1	59.1	26.412	ug/L	26.412	ppb	13:31:43
1	B 249.677†	1615.1	2000.1	48.463	ug/L	48.463	ppb	13:31:23
1	Ba 233.527†	663.7	659.7	5.1902	ug/L	5.1902	ppb	13:31:43
1	Be 313.107†	9757.7	13439.9	5.0621	ug/L	5.0621	ppb	13:31:23
1	Cd 226.502†	267.8	461.9	5.3541	ug/L	5.3541	ppb	13:31:43
1	Co 228.616†	182.3	247.4	5.1947	ug/L	5.1947	ppb	13:31:43
1	Cr 267.716†	514.9	433.0	4.8546	ug/L	4.8546	ppb	13:31:43
1	Cu 324.752†	9250.5	3184.0	9.6636	ug/L	9.6636	ppb	13:31:23
1	Mn 257.610†	9733.2	9194.7	10.456	ug/L	10.456	ppb	13:31:23
1	Mo 202.031†	151.4	140.1	10.292	ug/L	10.292	ppb	13:31:43
1	Ni 231.604†	279.6	214.8	5.4604	ug/L	5.4604	ppb	13:31:43
1	P 214.914†	449.7	235.5	139.92	ug/L	139.92	ppb	13:31:43
1	Pb 220.353†	32.5	90.4	11.173	ug/L	11.173	ppb	13:31:43
1	S 181.975 Axial†	107.6	65.9	94.759	ug/L	94.759	ppb	13:31:43
1	Sb 206.836†	63.8	26.6	9.6596	ug/L	9.6596	ppb	13:31:43
1	Se 196.026†	26.5	54.0	35.666	ug/L	35.666	ppb	13:31:43
1	Si 251.611†	3725.9	3137.1	101.39	ug/L	101.39	ppb	13:31:23
1	Sn 189.927†	65.4	54.4	9.7926	ug/L	9.7926	ppb	13:31:43
1	Ti 334.940†	1839.9	3198.9	4.9993	ug/L	4.9993	ppb	13:31:23
1	Tl 190.801†	35.9	68.2	21.869	ug/L	21.869	ppb	13:31:43
1	U 409.014†	-935.5	1958.7	54.068	ug/L	54.068	ppb	13:31:23
1	V 292.402†	-811.4	700.9	5.1240	ug/L	5.1240	ppb	13:31:23
1	Zn 213.857†	1628.5	1009.1	10.098	ug/L	10.098	ppb	13:31:43
1	SiO2†	3713.8	3129.0	217.17	ug/L	217.17	ppb	13:32:39
2	Sc Radial	3953.9	3953.9	101	%			13:30:51
2	Y RADIAL	4543.6	4543.6	103.0	%			13:30:31
2	Al 396.153Radial†	110.7	222.1	207.83	ug/L	207.83	ppb	13:30:31
2	Ca 317.933Radial†	119.3	98.6	206.13	ug/L	206.13	ppb	13:30:51
2	Fe 238.204 Radial†	19.5	8.0	113.72	ug/L	113.72	ppb	13:30:51
2	K 766.490 Radial†	3515.0	844.2	161.80	ug/L	161.80	ppb	13:30:31
2	Mg 279.077 IEC†	7.2	3.1	148.44	ug/L	148.44	ppb	13:30:51
2	Na 589.592 Radial†	245.5	1063.1	327.79	ug/L	327.79	ppb	13:30:31
2	Sr 421.552†	781.2	738.6	5.1092	ug/L	5.1092	ppb	13:30:31
2	Sc 361.383	890366.7	890366.7	101.50	%			13:31:48
2	Y 371.029	754202.4	754202.4	99.783	%			13:31:48
2	Ag 328.068†	1343.0	1082.8	5.0298	ug/L	5.0298	ppb	13:31:48
2	As 188.979†	48.7	66.3	29.639	ug/L	29.639	ppb	13:32:08
2	B 249.677†	1596.7	1971.4	47.764	ug/L	47.764	ppb	13:31:48
2	Ba 233.527†	661.8	653.5	5.1424	ug/L	5.1424	ppb	13:32:08
2	Be 313.107†	9826.4	13443.6	5.0636	ug/L	5.0636	ppb	13:31:48
2	Cd 226.502†	267.4	459.7	5.3248	ug/L	5.3248	ppb	13:32:08
2	Co 228.616†	166.8	230.9	4.8486	ug/L	4.8486	ppb	13:32:08
2	Cr 267.716†	498.5	413.4	4.6399	ug/L	4.6399	ppb	13:32:08
2	Cu 324.752†	9281.3	3153.6	9.5760	ug/L	9.5760	ppb	13:31:48
2	Mn 257.610†	9753.0	9150.4	10.418	ug/L	10.418	ppb	13:31:48
2	Mo 202.031†	147.4	135.1	9.9289	ug/L	9.9289	ppb	13:32:08
2	Ni 231.604†	274.1	207.6	5.2770	ug/L	5.2770	ppb	13:32:08

2	P 214.914†	457.1	239.9	142.58 ug/L	142.58 ppb	13:32:08
2	Pb 220.353†	32.5	90.1	11.136 ug/L	11.136 ppb	13:32:08
2	S 181.975 Axial†	116.1	73.6	105.92 ug/L	105.92 ppb	13:32:08
2	Sb 206.836†	72.9	35.1	12.645 ug/L	12.645 ppb	13:32:08
2	Se 196.026†	19.7	47.2	31.285 ug/L	31.285 ppb	13:32:08
2	Si 251.611†	3700.9	3088.0	99.802 ug/L	99.802 ppb	13:31:48
2	Sn 189.927†	72.8	61.3	11.024 ug/L	11.024 ppb	13:32:08
2	Ti 334.940†	1876.9	3223.3	5.0579 ug/L	5.0579 ppb	13:31:48
2	Tl 190.801†	32.2	64.3	20.608 ug/L	20.608 ppb	13:32:08
2	U 409.014†	-1166.5	1737.3	47.952 ug/L	47.952 ppb	13:31:48
2	V 292.402†	-797.0	720.5	5.2349 ug/L	5.2349 ppb	13:31:48
2	Zn 213.857†	1611.9	982.1	9.8224 ug/L	9.8224 ppb	13:32:08
2	SiO2†	3770.4	3160.4	219.36 ug/L	219.36 ppb	13:32:44
3	Sc Radial	3892.5	3892.5	99.3 %		13:31:16
3	Y RADIAL	4435.2	4435.2	100.6 %		13:30:56
3	Al 396.153Radial†	99.9	213.0	199.28 ug/L	199.28 ppb	13:30:56
3	Ca 317.933Radial†	118.6	99.7	208.46 ug/L	208.46 ppb	13:31:16
3	Fe 238.204 Radial†	19.2	8.0	113.34 ug/L	113.34 ppb	13:31:16
3	K 766.490 Radial†	3428.5	812.1	155.64 ug/L	155.64 ppb	13:30:56
3	Mg 279.077 IEC†	9.0	4.9	239.90 ug/L	239.90 ppb	13:31:16
3	Na 589.592 Radial†	213.9	1035.1	319.16 ug/L	319.16 ppb	13:30:56
3	Sr 421.552†	747.3	716.6	4.9573 ug/L	4.9573 ppb	13:30:56
3	Sc 361.383	883324.4	883324.4	100.69 %		13:32:13
3	Y 371.029	748072.9	748072.9	98.972 %		13:32:13
3	Ag 328.068†	1334.7	1085.0	5.0386 ug/L	5.0386 ppb	13:32:13
3	As 188.979†	47.1	65.0	29.068 ug/L	29.068 ppb	13:32:33
3	B 249.677†	1640.0	2026.9	49.109 ug/L	49.109 ppb	13:32:13
3	Ba 233.527†	639.5	636.5	5.0101 ug/L	5.0101 ppb	13:32:33
3	Be 313.107†	9556.6	13252.9	4.9918 ug/L	4.9918 ppb	13:32:13
3	Cd 226.502†	255.9	450.4	5.2179 ug/L	5.2179 ppb	13:32:33
3	Co 228.616†	173.6	238.9	5.0151 ug/L	5.0151 ppb	13:32:33
3	Cr 267.716†	522.3	441.0	4.9489 ug/L	4.9489 ppb	13:32:33
3	Cu 324.752†	9210.2	3155.9	9.5813 ug/L	9.5813 ppb	13:32:13
3	Mn 257.610†	9689.8	9164.2	10.430 ug/L	10.430 ppb	13:32:13
3	Mo 202.031†	138.0	126.9	9.3305 ug/L	9.3305 ppb	13:32:33
3	Ni 231.604†	290.7	226.3	5.7517 ug/L	5.7517 ppb	13:32:33
3	P 214.914†	438.2	224.6	133.37 ug/L	133.37 ppb	13:32:33
3	Pb 220.353†	29.9	87.8	10.850 ug/L	10.850 ppb	13:32:33
3	S 181.975 Axial†	106.6	65.1	93.592 ug/L	93.592 ppb	13:32:33
3	Sb 206.836†	70.5	33.3	11.987 ug/L	11.987 ppb	13:32:33
3	Se 196.026†	29.4	57.0	37.703 ug/L	37.703 ppb	13:32:33
3	Si 251.611†	3660.2	3076.6	99.441 ug/L	99.441 ppb	13:32:13
3	Sn 189.927†	68.2	57.2	10.302 ug/L	10.302 ppb	13:32:33
3	Ti 334.940†	1836.3	3197.7	5.0090 ug/L	5.0090 ppb	13:32:13
3	Tl 190.801†	29.7	62.1	19.913 ug/L	19.913 ppb	13:32:33
3	U 409.014†	-1043.1	1850.7	51.082 ug/L	51.082 ppb	13:32:13
3	V 292.402†	-755.6	755.3	5.4770 ug/L	5.4770 ppb	13:32:13
3	Zn 213.857†	1612.7	995.5	9.9546 ug/L	9.9546 ppb	13:32:33
3	SiO2†	3695.2	3115.3	216.25 ug/L	216.25 ppb	13:32:49

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	886054.8	101.01	%	0.431				0.43%
Sc Radial	3911.1	99.8	%	0.95				0.95%
Y 371.029	750800.5	99.333	%	0.4128				0.42%
Y RADIAL	4456.5	101.0	%	1.78				1.76%
Ag 328.068†	1071.0	4.9697	ug/L	0.11176	4.9697	ppb	0.11176	2.25%
QC value within limits for Ag 328.068 Recovery = 99.39%								
Al 396.153Radial†	218.2	204.13	ug/L	4.392	204.13	ppb	4.392	2.15%
QC value within limits for Al 396.153Radial Recovery = 102.07%								
As 188.979†	63.4	28.373	ug/L	1.7222	28.373	ppb	1.7222	6.07%
QC value within limits for As 188.979 Recovery = 94.58%								
B 249.677†	1999.4	48.445	ug/L	0.6727	48.445	ppb	0.6727	1.39%
QC value within limits for B 249.677 Recovery = 96.89%								
Ba 233.527†	649.9	5.1142	ug/L	0.09327	5.1142	ppb	0.09327	1.82%
QC value within limits for Ba 233.527 Recovery = 102.28%								
Be 313.107†	13378.8	5.0392	ug/L	0.04101	5.0392	ppb	0.04101	0.81%
QC value within limits for Be 313.107 Recovery = 100.78%								
Ca 317.933Radial†	99.9	208.79	ug/L	2.840	208.79	ppb	2.840	1.36%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.40%
Cd 226.502†              457.4      5.2989 ug/L       0.07172      5.2989 ppb        0.07172   1.35%
   QC value within limits for Cd 226.502  Recovery = 105.98%
Co 228.616†              239.1      5.0195 ug/L       0.17310      5.0195 ppb        0.17310   3.45%
   QC value within limits for Co 228.616  Recovery = 100.39%
Cr 267.716†              429.2      4.8145 ug/L       0.15835      4.8145 ppb        0.15835   3.29%
   QC value within limits for Cr 267.716  Recovery = 96.29%
Cu 324.752†             3164.5      9.6070 ug/L       0.04909      9.6070 ppb        0.04909   0.51%
   QC value within limits for Cu 324.752  Recovery = 96.07%
Fe 238.204 Radial†         7.3      103.21 ug/L        17.871      103.21 ppb         17.871  17.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.21%
K 766.490 Radial†        844.4      161.84 ug/L         6.222      161.84 ppb          6.222   3.84%
   QC value within limits for K 766.490 Radial  Recovery = 107.89%
Mg 279.077 IEC†            5.2      253.41 ug/L       112.343      253.41 ppb        112.343  44.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 84.47%
Mn 257.610†             9169.8      10.434 ug/L        0.0196      10.434 ppb         0.0196   0.19%
   QC value within limits for Mn 257.610  Recovery = 104.34%
Mo 202.031†              134.0      9.8503 ug/L       0.48540      9.8503 ppb        0.48540   4.93%
   QC value within limits for Mo 202.031  Recovery = 98.50%
Na 589.592 Radial†      1029.2      317.34 ug/L        11.472      317.34 ppb         11.472   3.62%
   QC value within limits for Na 589.592 Radial  Recovery = 105.78%
Ni 231.604†              216.2      5.4964 ug/L       0.23936      5.4964 ppb        0.23936   4.35%
   QC value within limits for Ni 231.604  Recovery = 109.93%
P 214.914†               233.3      138.62 ug/L         4.736      138.62 ppb          4.736   3.42%
   QC value within limits for P 214.914  Recovery = 92.41%
Pb 220.353†               89.4      11.053 ug/L        0.1771      11.053 ppb         0.1771   1.60%
   QC value within limits for Pb 220.353  Recovery = 110.53%
S 181.975 Axial†          68.2      98.091 ug/L        6.8062      98.091 ppb         6.8062   6.94%
   QC value within limits for S 181.975 Axial  Recovery = 98.09%
Sb 206.836†               31.7      11.430 ug/L        1.5685      11.430 ppb         1.5685  13.72%
   QC value within limits for Sb 206.836  Recovery = 114.30%
Se 196.026†               52.7      34.884 ug/L        3.2797      34.884 ppb         3.2797   9.40%
   QC value within limits for Se 196.026  Recovery = 116.28%
Si 251.611†             3100.6      100.21 ug/L         1.034      100.21 ppb          1.034   1.03%
   QC value within limits for Si 251.611  Recovery = 100.21%
Sn 189.927†               57.6      10.373 ug/L        0.6188      10.373 ppb         0.6188   5.97%
   QC value within limits for Sn 189.927  Recovery = 103.73%
Sr 421.552†              723.4      5.0040 ug/L       0.09134      5.0040 ppb        0.09134   1.83%
   QC value within limits for Sr 421.552  Recovery = 100.08%
Ti 334.940†             3206.6      5.0221 ug/L       0.03144      5.0221 ppb        0.03144   0.63%
   QC value within limits for Ti 334.940  Recovery = 100.44%
Tl 190.801†               64.9      20.797 ug/L        0.9919      20.797 ppb         0.9919   4.77%
   QC value within limits for Tl 190.801  Recovery = 103.98%
U 409.014†              1848.9      51.034 ug/L        3.0584      51.034 ppb         3.0584   5.99%
   QC value within limits for U 409.014  Recovery = 102.07%
V 292.402†               725.5      5.2786 ug/L       0.18053      5.2786 ppb        0.18053   3.42%
   QC value within limits for V 292.402  Recovery = 105.57%
Zn 213.857†              995.6      9.9583 ug/L       0.13788      9.9583 ppb        0.13788   1.38%
   QC value within limits for Zn 213.857  Recovery = 99.58%
SiO2†                   3134.9      217.59 ug/L         1.601      217.59 ppb          1.601   0.74%
   QC value within limits for SiO2  Recovery = 102.16%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/24/2010 13:35:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3579.0	3579.0	91.3	%			13:37:14
1	Y RADIAL	3936.7	3936.7	89.25	%			13:37:14
1	Al 396.153Radial†	498697.7	546158.2	512230	ug/L	512230	ppb	13:36:54
1	Ca 317.933Radial†	210027.0	229948.0	480710	ug/L	480710	ppb	13:36:54
1	Fe 238.204 Radial†	12266.0	13419.2	189420	ug/L	189420	ppb	13:37:14
1	K 766.490 Radial†	2317.6	-102.0	-180.37	ug/L	-180.37	ppb	13:36:54
1	Mg 279.077 IEC†	9430.8	10322.2	500290	ug/L	500290	ppb	13:37:14
1	Na 589.592 Radial†	-578.6	186.2	57.412	ug/L	57.412	ppb	13:37:14
1	Sr 421.552†	540.5	556.0	0.2581	ug/L	0.2581	ppb	13:37:14
1	Sc 361.383	752109.3	752109.3	85.737	%			13:38:11
1	Y 371.029	620836.9	620836.9	82.138	%			13:38:11
1	Ag 328.068†	-9722.3	-11580.1	-1.9309	ug/L	-1.9309	ppb	13:38:11
1	As 188.979†	-83.7	-79.4	8.7794	ug/L	8.7794	ppb	13:38:31
1	B 249.677†	453.9	927.7	-8.2727	ug/L	-8.2727	ppb	13:38:11
1	Ba 233.527†	-512.4	-596.3	1.1226	ug/L	1.1226	ppb	13:38:31
1	Be 313.107†	-3937.2	-830.0	-0.3618	ug/L	-0.3618	ppb	13:38:11
1	Cd 226.502†	1201.2	1597.3	-1.0580	ug/L	-1.0580	ppb	13:38:31
1	Co 228.616†	1.0	67.6	-1.3196	ug/L	-1.3196	ppb	13:38:31
1	Cr 267.716†	-1035.5	-1285.5	3.5901	ug/L	3.5901	ppb	13:38:31
1	Cu 324.752†	3172.2	-2290.8	3.0294	ug/L	3.0294	ppb	13:38:11
1	Mn 257.610†	1340.3	1104.6	-0.4986	ug/L	-0.4986	ppb	13:38:11
1	Mo 202.031†	-246.5	-297.6	-1.4261	ug/L	-1.4261	ppb	13:38:31
1	Ni 231.604†	174.0	140.4	3.5711	ug/L	3.5711	ppb	13:38:31
1	P 214.914†	184.9	5.1	-21.112	ug/L	-21.112	ppb	13:38:31
1	Pb 220.353†	-770.5	-840.6	-10.497	ug/L	-10.497	ppb	13:38:31
1	S 181.975 Axial†	67.8	38.3	-40.887	ug/L	-40.887	ppb	13:38:31
1	Sb 206.836†	62.4	36.1	-4.8098	ug/L	-4.8098	ppb	13:38:31
1	Se 196.026†	-795.8	-900.4	-4.1061	ug/L	-4.1061	ppb	13:38:31
1	Si 251.611†	487.9	10.8	0.6173	ug/L	0.6173	ppb	13:38:31
1	Sn 189.927†	-358.6	-428.7	-2.3916	ug/L	-2.3916	ppb	13:38:31
1	Ti 334.940†	-13166.7	-13983.0	1.6088	ug/L	1.6088	ppb	13:38:11
1	Tl 190.801†	-84.7	-66.2	-21.395	ug/L	-21.395	ppb	13:38:31
1	U 409.014†	-1052.0	1659.6	24.268	ug/L	24.268	ppb	13:38:11
1	V 292.402†	875.7	2527.1	-0.4927	ug/L	-0.4927	ppb	13:38:31
1	Zn 213.857†	2741.2	2591.2	-2.2750	ug/L	-2.2750	ppb	13:38:31
1	SiO2†	512.4	43.2	3.5965	ug/L	3.5965	ppb	13:39:28
2	Sc Radial	3527.7	3527.7	90.0	%			13:37:39
2	Y RADIAL	3875.7	3875.7	87.87	%			13:37:39
2	Al 396.153Radial†	496990.4	552197.0	517890	ug/L	517890	ppb	13:37:19
2	Ca 317.933Radial†	208493.4	231586.4	484130	ug/L	484130	ppb	13:37:19
2	Fe 238.204 Radial†	12191.7	13531.9	191010	ug/L	191010	ppb	13:37:39
2	K 766.490 Radial†	2326.8	-54.9	-172.49	ug/L	-172.49	ppb	13:37:19
2	Mg 279.077 IEC†	9342.6	10374.2	502810	ug/L	502810	ppb	13:37:39
2	Na 589.592 Radial†	-541.5	218.2	67.285	ug/L	67.285	ppb	13:37:39
2	Sr 421.552†	552.6	578.1	0.3851	ug/L	0.3851	ppb	13:37:39
2	Sc 361.383	757243.3	757243.3	86.322	%			13:38:37
2	Y 371.029	625612.2	625612.2	82.770	%			13:38:37
2	Ag 328.068†	-9548.5	-11302.0	-0.1941	ug/L	-0.1941	ppb	13:38:37
2	As 188.979†	-94.6	-91.3	3.8179	ug/L	3.8179	ppb	13:38:57
2	B 249.677†	422.3	887.5	-9.5048	ug/L	-9.5048	ppb	13:38:37
2	Ba 233.527†	-507.3	-586.2	1.2494	ug/L	1.2494	ppb	13:38:57
2	Be 313.107†	-3887.3	-741.0	-0.3277	ug/L	-0.3277	ppb	13:38:37
2	Cd 226.502†	1205.8	1593.1	-1.2718	ug/L	-1.2718	ppb	13:38:57
2	Co 228.616†	-4.2	61.7	-1.4662	ug/L	-1.4662	ppb	13:38:57
2	Cr 267.716†	-1051.2	-1295.5	3.6318	ug/L	3.6318	ppb	13:38:57
2	Cu 324.752†	3191.0	-2294.1	3.1082	ug/L	3.1082	ppb	13:38:37
2	Mn 257.610†	1313.4	1062.8	-0.4924	ug/L	-0.4924	ppb	13:38:37
2	Mo 202.031†	-240.9	-289.2	-0.6460	ug/L	-0.6460	ppb	13:38:57
2	Ni 231.604†	183.0	149.5	3.8021	ug/L	3.8021	ppb	13:38:57

2	P 214.914†	168.6	-15.2	-33.149 ug/L	-33.149 ppb	13:38:57
2	Pb 220.353†	-795.0	-862.8	-12.176 ug/L	-12.176 ppb	13:38:57
2	S 181.975 Axial†	62.0	31.0	-52.486 ug/L	-52.486 ppb	13:38:57
2	Sb 206.836†	56.6	28.9	-7.4361 ug/L	-7.4361 ppb	13:38:57
2	Se 196.026†	-793.2	-891.2	6.8776 ug/L	6.8776 ppb	13:38:57
2	Si 251.611†	497.2	17.7	0.8340 ug/L	0.8340 ppb	13:38:57
2	Sn 189.927†	-337.7	-401.7	2.9641 ug/L	2.9641 ppb	13:38:57
2	Ti 334.940†	-13091.6	-13791.9	2.1660 ug/L	2.1660 ppb	13:38:37
2	Tl 190.801†	-64.3	-41.9	-13.609 ug/L	-13.609 ppb	13:38:57
2	U 409.014†	-1323.7	1353.1	15.623 ug/L	15.623 ppb	13:38:37
2	V 292.402†	857.6	2499.2	-0.8777 ug/L	-0.8777 ppb	13:38:57
2	Zn 213.857†	2774.9	2608.6	-2.3394 ug/L	-2.3394 ppb	13:38:57
2	SiO2†	495.7	19.9	1.9590 ug/L	1.9590 ppb	13:39:33
3	Sc Radial	3526.0	3526.0	90.0 %		13:38:05
3	Y RADIAL	3875.8	3875.8	87.87 %		13:38:05
3	Al 396.153Radial†	509370.4	566227.4	531050 ug/L	531050 ppb	13:37:45
3	Ca 317.933Radial†	214024.4	237847.4	497220 ug/L	497220 ppb	13:37:45
3	Fe 238.204 Radial†	12116.2	13454.6	189920 ug/L	189920 ppb	13:38:05
3	K 766.490 Radial†	2276.8	-109.1	-187.27 ug/L	-187.27 ppb	13:37:45
3	Mg 279.077 IEC†	9289.7	10320.5	500210 ug/L	500210 ppb	13:38:05
3	Na 589.592 Radial†	-541.2	218.2	67.291 ug/L	67.291 ppb	13:38:05
3	Sr 421.552†	548.3	573.6	0.2566 ug/L	0.2566 ppb	13:38:05
3	Sc 361.383	755740.9	755740.9	86.151 %		13:39:02
3	Y 371.029	623884.9	623884.9	82.541 %		13:39:02
3	Ag 328.068†	-9673.4	-11468.9	-1.4795 ug/L	-1.4795 ppb	13:39:02
3	As 188.979†	-75.6	-69.5	13.323 ug/L	13.323 ppb	13:39:22
3	B 249.677†	399.9	862.4	-9.9362 ug/L	-9.9362 ppb	13:39:02
3	Ba 233.527†	-543.3	-629.2	0.8794 ug/L	0.8794 ppb	13:39:22
3	Be 313.107†	-3936.8	-807.5	-0.3540 ug/L	-0.3540 ppb	13:39:02
3	Cd 226.502†	1186.2	1573.2	-1.3897 ug/L	-1.3897 ppb	13:39:22
3	Co 228.616†	-5.4	60.2	-1.4823 ug/L	-1.4823 ppb	13:39:22
3	Cr 267.716†	-1089.8	-1342.7	2.9988 ug/L	2.9988 ppb	13:39:22
3	Cu 324.752†	3272.9	-2191.7	3.3624 ug/L	3.3624 ppb	13:39:02
3	Mn 257.610†	1475.6	1254.0	-0.2761 ug/L	-0.2761 ppb	13:39:02
3	Mo 202.031†	-251.3	-301.8	-1.5005 ug/L	-1.5005 ppb	13:39:22
3	Ni 231.604†	196.4	165.5	4.2092 ug/L	4.2092 ppb	13:39:22
3	P 214.914†	155.1	-30.4	-38.275 ug/L	-38.275 ppb	13:39:22
3	Pb 220.353†	-774.0	-840.4	-6.3731 ug/L	-6.3731 ppb	13:39:22
3	S 181.975 Axial†	64.8	34.4	-50.051 ug/L	-50.051 ppb	13:39:22
3	Sb 206.836†	66.0	39.9	-3.9982 ug/L	-3.9982 ppb	13:39:22
3	Se 196.026†	-801.0	-902.0	-3.7489 ug/L	-3.7489 ppb	13:39:22
3	Si 251.611†	461.6	-22.5	-0.4560 ug/L	-0.4560 ppb	13:39:22
3	Sn 189.927†	-360.8	-429.3	0.3998 ug/L	0.3998 ppb	13:39:22
3	Ti 334.940†	-13393.6	-14172.7	3.5363 ug/L	3.5363 ppb	13:39:02
3	Tl 190.801†	-85.7	-66.9	-21.615 ug/L	-21.615 ppb	13:39:22
3	U 409.014†	-1336.9	1334.8	15.241 ug/L	15.241 ppb	13:39:02
3	V 292.402†	884.0	2531.8	-0.5548 ug/L	-0.5548 ppb	13:39:22
3	Zn 213.857†	2725.5	2557.6	-2.6931 ug/L	-2.6931 ppb	13:39:22
3	SiO2†	452.6	-29.1	-1.4188 ug/L	-1.4188 ppb	13:39:38

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	755031.2	86.070	%	0.3009				0.35%
Sc Radial	3544.3	90.4	%	0.77				0.85%
Y 371.029	623444.7	82.483	%	0.3199				0.39%
Y RADIAL	3896.1	88.33	%	0.797				0.90%
Ag 328.068†	-11450.3	-1.2015	ug/L	0.90116	-1.2015	ppb	0.90116	75.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	554860.9	520390	ug/L	9656.7	520390	ppb	9656.7	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.08%								
As 188.979†	-80.1	8.6402	ug/L	4.75425	8.6402	ppb	4.75425	55.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	892.5	-9.2379	ug/L	0.86328	-9.2379	ppb	0.86328	9.34%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-603.9	1.0838	ug/L	0.18798	1.0838	ppb	0.18798	17.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-792.8	-0.3478	ug/L	0.01788	-0.3478	ppb	0.01788	5.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	233127.3	487350	ug/L	8715.4	487350	ppb	8715.4	1.79%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.47%
Cd 226.502†            1587.8     -1.2399 ug/L       0.16812     -1.2399 ppb        0.16812  13.56%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              63.2     -1.4227 ug/L       0.08966     -1.4227 ppb        0.08966   6.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1307.9      3.4069 ug/L       0.35405      3.4069 ppb        0.35405  10.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2258.9      3.1667 ug/L       0.17402      3.1667 ppb        0.17402   5.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    13468.6      190110 ug/L         812.9      190110 ppb          812.9   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.06%
K 766.490 Radial†       -88.7     -180.04 ug/L         7.397     -180.04 ppb          7.397   4.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       10339.0      501100 ug/L        1479.9      501100 ppb         1479.9   0.30%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.22%
Mn 257.610†            1140.5     -0.4224 ug/L       0.12673     -0.4224 ppb        0.12673  30.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -296.2     -1.1909 ug/L       0.47334     -1.1909 ppb        0.47334  39.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       207.6      63.996 ug/L        5.7020      63.996 ppb         5.7020   8.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              151.8      3.8608 ug/L       0.32308      3.8608 ppb        0.32308   8.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.5     -30.845 ug/L        8.8106     -30.845 ppb         8.8106  28.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -847.9     -9.6820 ug/L       2.98596     -9.6820 ppb        2.98596  30.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          34.6     -47.808 ug/L        6.1164     -47.808 ppb         6.1164  12.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               35.0     -5.4147 ug/L       1.79698     -5.4147 ppb        1.79698  33.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -897.9     -0.3258 ug/L       6.24089     -0.3258 ppb        6.24089 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                2.0      0.3318 ug/L       0.69081      0.3318 ppb        0.69081 208.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -419.9      0.3241 ug/L       2.67867      0.3241 ppb        2.67867 826.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              569.3      0.2999 ug/L       0.07378      0.2999 ppb        0.07378  24.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -13982.5      2.4370 ug/L       0.99191      2.4370 ppb        0.99191  40.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -58.4     -18.873 ug/L        4.5599     -18.873 ppb         4.5599  24.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1449.2      18.377 ug/L        5.1050      18.377 ppb         5.1050  27.78%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2519.3     -0.6417 ug/L       0.20670     -0.6417 ppb        0.20670  32.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2585.8     -2.4358 ug/L       0.22510     -2.4358 ppb        0.22510   9.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    11.3      1.3789 ug/L       2.55748      1.3789 ppb        2.55748 185.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/24/2010 13:41:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3544.0	3544.0	90.4	%			13:44:03
1	Y RADIAL	3889.0	3889.0	88.17	%			13:44:03
1	Al 396.153Radial†	502369.0	555616.9	521080	ug/L	521080	ppb	13:43:43
1	Ca 317.933Radial†	210391.1	232624.5	486300	ug/L	486300	ppb	13:43:43
1	Fe 238.204 Radial†	11970.1	13224.8	186680	ug/L	186680	ppb	13:44:03
1	K 766.490 Radial†	28907.3	29325.2	5462.0	ug/L	5462.0	ppb	13:43:43
1	Mg 279.077 IEC†	9207.4	10177.2	493270	ug/L	493270	ppb	13:44:03
1	Na 589.592 Radial†	15629.9	18102.9	5581.6	ug/L	5581.6	ppb	13:43:43
1	Sr 421.552†	66679.5	73696.4	506.31	ug/L	506.31	ppb	13:43:43
1	Sc 361.383	771349.2	771349.2	87.930	%			13:45:01
1	Y 371.029	635031.0	635031.0	84.016	%			13:45:01
1	Ag 328.068†	40762.5	46117.5	266.06	ug/L	266.06	ppb	13:45:01
1	As 188.979†	906.5	1049.2	515.34	ug/L	515.34	ppb	13:45:21
1	B 249.677†	18899.9	21892.5	499.24	ug/L	499.24	ppb	13:45:01
1	Ba 233.527†	53585.0	60941.9	485.03	ug/L	485.03	ppb	13:45:01
1	Be 313.107†	560557.9	641267.1	242.09	ug/L	242.09	ppb	13:45:01
1	Cd 226.502†	35237.2	40270.4	447.42	ug/L	447.42	ppb	13:45:21
1	Co 228.616†	18018.5	20558.3	428.05	ug/L	428.05	ppb	13:45:21
1	Cr 267.716†	35779.9	40613.6	474.19	ug/L	474.19	ppb	13:45:01
1	Cu 324.752†	158407.7	174161.4	539.58	ug/L	539.58	ppb	13:45:01
1	Mn 257.610†	366309.0	416133.0	471.80	ug/L	471.80	ppb	13:45:01
1	Mo 202.031†	5509.0	6255.1	479.51	ug/L	479.51	ppb	13:45:21
1	Ni 231.604†	15024.1	17024.0	432.71	ug/L	432.71	ppb	13:45:21
1	P 214.914†	3798.5	4109.4	2352.0	ug/L	2352.0	ppb	13:45:21
1	Pb 220.353†	2439.7	2832.7	444.38	ug/L	444.38	ppb	13:45:21
1	S 181.975 Axial†	1669.9	1858.4	2576.6	ug/L	2576.6	ppb	13:45:21
1	Sb 206.836†	1362.0	1512.3	528.40	ug/L	528.40	ppb	13:45:21
1	Se 196.026†	2531.7	2907.0	2483.1	ug/L	2483.1	ppb	13:45:21
1	Si 251.611†	140010.4	158671.1	5128.7	ug/L	5128.7	ppb	13:45:01
1	Sn 189.927†	2002.9	2267.3	482.49	ug/L	482.49	ppb	13:45:21
1	Ti 334.940†	270764.6	309306.2	510.57	ug/L	510.57	ppb	13:45:01
1	Tl 190.801†	1146.4	1336.3	430.70	ug/L	430.70	ppb	13:45:21
1	U 409.014†	14157.0	18986.9	502.00	ug/L	502.00	ppb	13:45:01
1	V 292.402†	62854.5	72988.1	498.09	ug/L	498.09	ppb	13:45:01
1	Zn 213.857†	45128.8	50717.5	479.13	ug/L	479.13	ppb	13:45:01
1	SiO2†	140658.7	159412.3	11066	ug/L	11066	ppb	13:46:19
2	Sc Radial	3552.5	3552.5	90.7	%			13:44:29
2	Y RADIAL	3877.9	3877.9	87.92	%			13:44:29
2	Al 396.153Radial†	508992.0	561586.1	526680	ug/L	526680	ppb	13:44:08
2	Ca 317.933Radial†	212481.2	234370.2	489950	ug/L	489950	ppb	13:44:08
2	Fe 238.204 Radial†	12008.0	13234.8	186820	ug/L	186820	ppb	13:44:29
2	K 766.490 Radial†	29295.8	29676.8	5528.2	ug/L	5528.2	ppb	13:44:08
2	Mg 279.077 IEC†	9219.7	10166.2	492740	ug/L	492740	ppb	13:44:29
2	Na 589.592 Radial†	15603.6	18032.2	5559.8	ug/L	5559.8	ppb	13:44:08
2	Sr 421.552†	67349.1	74257.7	510.17	ug/L	510.17	ppb	13:44:08
2	Sc 361.383	768844.9	768844.9	87.645	%			13:45:27
2	Y 371.029	633977.1	633977.1	83.877	%			13:45:27
2	Ag 328.068†	40655.2	46146.1	266.20	ug/L	266.20	ppb	13:45:27
2	As 188.979†	901.6	1046.9	514.36	ug/L	514.36	ppb	13:45:47
2	B 249.677†	18586.9	21605.3	492.26	ug/L	492.26	ppb	13:45:27
2	Ba 233.527†	53366.3	60890.9	484.64	ug/L	484.64	ppb	13:45:27
2	Be 313.107†	560843.3	643669.2	242.99	ug/L	242.99	ppb	13:45:27
2	Cd 226.502†	34895.0	40010.5	444.40	ug/L	444.40	ppb	13:45:47
2	Co 228.616†	17845.7	20428.0	425.31	ug/L	425.31	ppb	13:45:47
2	Cr 267.716†	35787.6	40755.0	475.79	ug/L	475.79	ppb	13:45:27
2	Cu 324.752†	156939.6	173073.0	536.28	ug/L	536.28	ppb	13:45:27
2	Mn 257.610†	365173.9	416194.7	471.90	ug/L	471.90	ppb	13:45:27
2	Mo 202.031†	5466.6	6227.1	477.50	ug/L	477.50	ppb	13:45:47
2	Ni 231.604†	14898.0	16935.8	430.47	ug/L	430.47	ppb	13:45:47

2	P 214.914†	3761.0	4080.7	2336.6 ug/L	2336.6 ppb	13:45:47
2	Pb 220.353†	2428.1	2828.5	445.06 ug/L	445.06 ppb	13:45:47
2	S 181.975 Axial†	1619.7	1807.2	2502.0 ug/L	2502.0 ppb	13:45:47
2	Sb 206.836†	1383.5	1541.8	538.47 ug/L	538.47 ppb	13:45:47
2	Se 196.026†	2472.8	2849.1	2445.6 ug/L	2445.6 ppb	13:45:47
2	Si 251.611†	139473.1	158576.7	5125.7 ug/L	5125.7 ppb	13:45:27
2	Sn 189.927†	1978.4	2246.8	479.46 ug/L	479.46 ppb	13:45:47
2	Ti 334.940†	269310.3	308649.8	510.07 ug/L	510.07 ppb	13:45:27
2	Tl 190.801†	1146.6	1340.8	432.13 ug/L	432.13 ppb	13:45:47
2	U 409.014†	13819.2	18653.9	492.79 ug/L	492.79 ppb	13:45:27
2	V 292.402†	62858.7	73225.7	499.67 ug/L	499.67 ppb	13:45:27
2	Zn 213.857†	44974.0	50708.1	479.04 ug/L	479.04 ppb	13:45:27
2	SiO2†	140832.5	160131.6	11116 ug/L	11116 ppb	13:46:24
3	Sc Radial	3562.2	3562.2	90.9 %		13:44:54
3	Y RADIAL	3908.3	3908.3	88.61 %		13:44:54
3	Al 396.153Radial†	491528.9	540851.0	507230 ug/L	507230 ppb	13:44:34
3	Ca 317.933Radial†	206193.9	226817.4	474160 ug/L	474160 ppb	13:44:34
3	Fe 238.204 Radial†	12072.2	13269.5	187310 ug/L	187310 ppb	13:44:54
3	K 766.490 Radial†	28351.1	28549.9	5317.3 ug/L	5317.3 ppb	13:44:34
3	Mg 279.077 IEC†	9271.3	10195.5	494150 ug/L	494150 ppb	13:44:54
3	Na 589.592 Radial†	15205.4	17547.5	5410.4 ug/L	5410.4 ppb	13:44:34
3	Sr 421.552†	65002.1	71474.1	491.03 ug/L	491.03 ppb	13:44:34
3	Sc 361.383	773529.9	773529.9	88.179 %		13:45:53
3	Y 371.029	636974.7	636974.7	84.273 %		13:45:53
3	Ag 328.068†	40958.4	46209.0	266.85 ug/L	266.85 ppb	13:45:53
3	As 188.979†	908.4	1048.5	515.17 ug/L	515.17 ppb	13:46:13
3	B 249.677†	18901.7	21833.9	497.71 ug/L	497.71 ppb	13:45:53
3	Ba 233.527†	53818.9	61035.4	485.79 ug/L	485.79 ppb	13:45:53
3	Be 313.107†	564385.8	643810.9	243.05 ug/L	243.05 ppb	13:45:53
3	Cd 226.502†	35486.2	40439.8	449.32 ug/L	449.32 ppb	13:46:13
3	Co 228.616†	18169.6	20671.9	430.42 ug/L	430.42 ppb	13:46:13
3	Cr 267.716†	35994.8	40742.6	475.70 ug/L	475.70 ppb	13:45:53
3	Cu 324.752†	158602.6	173874.4	538.74 ug/L	538.74 ppb	13:45:53
3	Mn 257.610†	368718.0	417690.4	473.59 ug/L	473.59 ppb	13:45:53
3	Mo 202.031†	5549.3	6283.1	481.47 ug/L	481.47 ppb	13:46:13
3	Ni 231.604†	15178.9	17151.4	435.95 ug/L	435.95 ppb	13:46:13
3	P 214.914†	3790.8	4088.4	2335.6 ug/L	2335.6 ppb	13:46:13
3	Pb 220.353†	2482.3	2873.2	446.25 ug/L	446.25 ppb	13:46:13
3	S 181.975 Axial†	1671.0	1854.2	2573.2 ug/L	2573.2 ppb	13:46:13
3	Sb 206.836†	1397.3	1548.0	541.30 ug/L	541.30 ppb	13:46:13
3	Se 196.026†	2539.2	2907.3	2485.4 ug/L	2485.4 ppb	13:46:13
3	Si 251.611†	140631.7	158926.7	5137.0 ug/L	5137.0 ppb	13:45:53
3	Sn 189.927†	2009.9	2268.8	480.57 ug/L	480.57 ppb	13:46:13
3	Ti 334.940†	271430.4	309193.1	508.69 ug/L	508.69 ppb	13:45:53
3	Tl 190.801†	1173.2	1363.1	439.26 ug/L	439.26 ppb	13:46:13
3	U 409.014†	14112.1	18890.7	499.27 ug/L	499.27 ppb	13:45:53
3	V 292.402†	63290.8	73281.4	500.09 ug/L	500.09 ppb	13:45:53
3	Zn 213.857†	45344.3	50817.2	480.02 ug/L	480.02 ppb	13:45:53
3	SiO2†	140723.0	159034.3	11040 ug/L	11040 ppb	13:46:29

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	771241.4	87.918	%	0.2672				0.30%
Sc Radial	3552.9	90.7	%	0.23				0.26%
Y 371.029	635327.6	84.055	%	0.2012				0.24%
Y RADIAL	3891.8	88.23	%	0.348				0.39%
Ag 328.068†	46157.5	266.37	ug/L	0.423	266.37	ppb	0.423	0.16%
QC value within limits for Ag 328.068 Recovery = 106.55%								
Al 396.153Radial†	552684.7	518330	ug/L	10011.0	518330	ppb	10011.0	1.93%
QC value within limits for Al 396.153Radial Recovery = 103.67%								
As 188.979†	1048.2	514.96	ug/L	0.524	514.96	ppb	0.524	0.10%
QC value within limits for As 188.979 Recovery = 102.99%								
B 249.677†	21777.3	496.40	ug/L	3.668	496.40	ppb	3.668	0.74%
QC value within limits for B 249.677 Recovery = 99.28%								
Ba 233.527†	60956.1	485.15	ug/L	0.585	485.15	ppb	0.585	0.12%
QC value within limits for Ba 233.527 Recovery = 97.03%								
Be 313.107†	642915.7	242.71	ug/L	0.536	242.71	ppb	0.536	0.22%
QC value within limits for Be 313.107 Recovery = 97.08%								
Ca 317.933Radial†	231270.7	483470	ug/L	8266.3	483470	ppb	8266.3	1.71%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.69%
Cd 226.502†            40240.2      447.05 ug/L        2.484      447.05 ppb        2.484   0.56%
   QC value within limits for Cd 226.502  Recovery = 89.41%
Co 228.616†            20552.8      427.93 ug/L        2.558      427.93 ppb        2.558   0.60%
   QC value within limits for Co 228.616  Recovery = 85.59%
Cr 267.716†            40703.7      475.23 ug/L        0.901      475.23 ppb        0.901   0.19%
   QC value within limits for Cr 267.716  Recovery = 95.05%
Cu 324.752†           173702.9      538.20 ug/L        1.715      538.20 ppb        1.715   0.32%
   QC value within limits for Cu 324.752  Recovery = 107.64%
Fe 238.204 Radial†     13243.0      186940 ug/L        331.0      186940 ppb        331.0   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.47%
K 766.490 Radial†      29184.0      5435.8 ug/L       107.86      5435.8 ppb       107.86   1.98%
   QC value within limits for K 766.490 Radial  Recovery = 108.72%
Mg 279.077 IEC†        10179.6      493390 ug/L        716.2      493390 ppb        716.2   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.68%
Mn 257.610†           416672.7      472.43 ug/L        1.009      472.43 ppb        1.009   0.21%
   QC value within limits for Mn 257.610  Recovery = 94.49%
Mo 202.031†             6255.1      479.49 ug/L        1.982      479.49 ppb        1.982   0.41%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†     17894.2      5517.3 ug/L        93.22      5517.3 ppb        93.22   1.69%
   QC value within limits for Na 589.592 Radial  Recovery = 110.35%
Ni 231.604†            17037.1      433.04 ug/L        2.755      433.04 ppb        2.755   0.64%
   QC value within limits for Ni 231.604  Recovery = 86.61%
P 214.914†              4092.9      2341.4 ug/L         9.19      2341.4 ppb         9.19   0.39%
   QC value within limits for P 214.914  Recovery = 93.66%
Pb 220.353†             2844.8      445.23 ug/L        0.943      445.23 ppb        0.943   0.21%
   QC value within limits for Pb 220.353  Recovery = 89.05%
S 181.975 Axial†        1839.9      2550.6 ug/L        42.14      2550.6 ppb        42.14   1.65%
   QC value within limits for S 181.975 Axial  Recovery = 102.02%
Sb 206.836†             1534.0      536.06 ug/L        6.780      536.06 ppb        6.780   1.26%
   QC value within limits for Sb 206.836  Recovery = 107.21%
Se 196.026†             2887.8      2471.4 ug/L        22.39      2471.4 ppb        22.39   0.91%
   QC value within limits for Se 196.026  Recovery = 98.86%
Si 251.611†           158724.9      5130.5 ug/L         5.84      5130.5 ppb         5.84   0.11%
   QC value within limits for Si 251.611  Recovery = 102.61%
Sn 189.927†             2261.0      480.84 ug/L        1.536      480.84 ppb        1.536   0.32%
   QC value within limits for Sn 189.927  Recovery = 96.17%
Sr 421.552†            73142.7      502.50 ug/L       10.124      502.50 ppb       10.124   2.01%
   QC value within limits for Sr 421.552  Recovery = 100.50%
Ti 334.940†           309049.7      509.78 ug/L        0.973      509.78 ppb        0.973   0.19%
   QC value within limits for Ti 334.940  Recovery = 101.96%
Tl 190.801†             1346.7      434.03 ug/L        4.587      434.03 ppb        4.587   1.06%
   QC value within limits for Tl 190.801  Recovery = 86.81%
U 409.014†             18843.8      498.02 ug/L        4.732      498.02 ppb        4.732   0.95%
   QC value within limits for U 409.014  Recovery = 99.60%
V 292.402†             73165.1      499.28 ug/L        1.052      499.28 ppb        1.052   0.21%
   QC value within limits for V 292.402  Recovery = 99.86%
Zn 213.857†            50747.6      479.40 ug/L        0.544      479.40 ppb        0.544   0.11%
   QC value within limits for Zn 213.857  Recovery = 95.88%
SiO2†                 159526.1       11074 ug/L         38.8       11074 ppb         38.8   0.35%
   QC value within limits for SiO2  Recovery = 103.54%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/24/2010 13:48:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3468.7	3468.7	88.5	%			13:50:52
1	Y RADIAL	3837.9	3837.9	87.01	%			13:50:52
1	Al 396.153Radial†	488307.2	551778.7	517500	ug/L	517500	ppb	13:50:32
1	Ca 317.933Radial†	203936.0	230377.5	481610	ug/L	481610	ppb	13:50:32
1	Fe 238.204 Radial†	27514.6	31073.4	438610	ug/L	438610	ppb	13:50:52
1	K 766.490 Radial†	2419.3	93.6	-346.34	ug/L	-346.34	ppb	13:50:32
1	Mg 279.077 IEC†	9016.2	10182.1	493240	ug/L	493240	ppb	13:50:52
1	Na 589.592 Radial†	1495172.9	1689995.2	521070	ug/L	521070	ppb	13:50:32
1	Sr 421.552†	754.1	816.3	2.0521	ug/L	2.0521	ppb	13:50:52
1	Sc 361.383	750786.8	750786.8	85.586	%			13:51:50
1	Y 371.029	622054.4	622054.4	82.299	%			13:51:50
1	Ag 328.068†	-23006.2	-27121.2	-8.3338	ug/L	-8.3338	ppb	13:51:50
1	As 188.979†	-192.1	-206.2	10.666	ug/L	10.666	ppb	13:52:11
1	B 249.677†	1496.8	2147.1	-19.189	ug/L	-19.189	ppb	13:51:50
1	Ba 233.527†	-1560.8	-1822.2	-0.8859	ug/L	-0.8859	ppb	13:52:11
1	Be 313.107†	-9848.1	-7744.5	-2.9341	ug/L	-2.9341	ppb	13:51:50
1	Cd 226.502†	3079.5	3794.4	1.2798	ug/L	1.2798	ppb	13:52:11
1	Co 228.616†	208.2	309.8	0.0800	ug/L	0.0800	ppb	13:52:11
1	Cr 267.716†	-994.7	-1239.9	22.458	ug/L	22.458	ppb	13:52:11
1	Cu 324.752†	373.2	-5554.8	-1.1997	ug/L	-1.1997	ppb	13:51:50
1	Mn 257.610†	-19933.2	-23749.0	-3.8910	ug/L	-3.8910	ppb	13:51:50
1	Mo 202.031†	-468.7	-557.8	-1.1730	ug/L	-1.1730	ppb	13:52:11
1	Ni 231.604†	253.9	234.2	5.9514	ug/L	5.9514	ppb	13:52:11
1	P 214.914†	512.3	388.1	12.004	ug/L	12.004	ppb	13:52:11
1	Pb 220.353†	-538.6	-571.1	-3.2250	ug/L	-3.2250	ppb	13:52:11
1	S 181.975 Axial†	74.0	45.7	-31.241	ug/L	-31.241	ppb	13:52:11
1	Sb 206.836†	104.7	85.6	9.1558	ug/L	9.1558	ppb	13:52:11
1	Se 196.026†	-1910.7	-2204.7	-81.423	ug/L	-81.423	ppb	13:52:11
1	Si 251.611†	-490.0	-1130.8	-36.087	ug/L	-36.087	ppb	13:52:11
1	Sn 189.927†	-368.8	-441.4	-18.820	ug/L	-18.820	ppb	13:52:11
1	Ti 334.940†	-6880.1	-6664.7	7.8453	ug/L	7.8453	ppb	13:51:50
1	Tl 190.801†	-88.5	-70.8	-22.942	ug/L	-22.942	ppb	13:52:11
1	U 409.014†	418077.4	491374.9	13519	ug/L	13519	ppb	13:51:50
1	V 292.402†	2566.6	4504.5	2.4700	ug/L	2.4700	ppb	13:52:11
1	Zn 213.857†	5217.9	5490.6	-10.382	ug/L	-10.382	ppb	13:52:11
1	SiO2†	-432.6	-1059.8	-72.538	ug/L	-72.538	ppb	13:53:07
2	Sc Radial	3478.3	3478.3	88.8	%			13:51:18
2	Y RADIAL	3838.2	3838.2	87.02	%			13:51:18
2	Al 396.153Radial†	487020.0	548813.7	514720	ug/L	514720	ppb	13:50:58
2	Ca 317.933Radial†	203394.4	229134.7	479010	ug/L	479010	ppb	13:50:58
2	Fe 238.204 Radial†	27553.2	31031.5	438020	ug/L	438020	ppb	13:51:18
2	K 766.490 Radial†	2572.8	259.0	-312.90	ug/L	-312.90	ppb	13:50:58
2	Mg 279.077 IEC†	9021.2	10159.7	492150	ug/L	492150	ppb	13:51:18
2	Na 589.592 Radial†	1493113.0	1683036.1	518920	ug/L	518920	ppb	13:50:58
2	Sr 421.552†	740.4	798.4	1.9480	ug/L	1.9480	ppb	13:51:18
2	Sc 361.383	742911.5	742911.5	84.688	%			13:52:16
2	Y 371.029	615612.6	615612.6	81.447	%			13:52:16
2	Ag 328.068†	-22744.4	-27097.1	-8.3287	ug/L	-8.3287	ppb	13:52:16
2	As 188.979†	-191.1	-207.4	9.9744	ug/L	9.9744	ppb	13:52:36
2	B 249.677†	1338.8	1979.1	-23.168	ug/L	-23.168	ppb	13:52:16
2	Ba 233.527†	-1541.5	-1818.8	-0.8785	ug/L	-0.8785	ppb	13:52:36
2	Be 313.107†	-9714.6	-7708.9	-2.9234	ug/L	-2.9234	ppb	13:52:16
2	Cd 226.502†	3043.1	3789.6	1.2751	ug/L	1.2751	ppb	13:52:36
2	Co 228.616†	206.2	310.0	0.0929	ug/L	0.0929	ppb	13:52:36
2	Cr 267.716†	-1010.1	-1270.4	22.080	ug/L	22.080	ppb	13:52:36
2	Cu 324.752†	371.4	-5552.2	-1.1944	ug/L	-1.1944	ppb	13:52:16
2	Mn 257.610†	-19556.0	-23550.5	-3.6791	ug/L	-3.6791	ppb	13:52:16
2	Mo 202.031†	-483.7	-581.3	-2.9767	ug/L	-2.9767	ppb	13:52:36
2	Ni 231.604†	248.5	230.9	5.8697	ug/L	5.8697	ppb	13:52:36

2	P 214.914†	502.1	382.4	8.3391	ug/L	8.3391 ppb	13:52:36
2	Pb 220.353†	-576.5	-622.7	-10.118	ug/L	-10.118 ppb	13:52:36
2	S 181.975 Axial†	77.4	50.6	-23.588	ug/L	-23.588 ppb	13:52:36
2	Sb 206.836†	57.5	31.1	-9.8311	ug/L	-9.8311 ppb	13:52:36
2	Se 196.026†	-1874.9	-2186.1	-71.076	ug/L	-71.076 ppb	13:52:36
2	Si 251.611†	-430.8	-1067.0	-34.001	ug/L	-34.001 ppb	13:52:36
2	Sn 189.927†	-360.6	-436.3	-18.333	ug/L	-18.333 ppb	13:52:36
2	Ti 334.940†	-7442.4	-7413.9	6.4309	ug/L	6.4309 ppb	13:52:16
2	Tl 190.801†	-104.1	-90.4	-29.202	ug/L	-29.202 ppb	13:52:36
2	U 409.014†	412102.3	489497.7	13467	ug/L	13467 ppb	13:52:16
2	V 292.402†	2453.3	4402.5	1.7016	ug/L	1.7016 ppb	13:52:36
2	Zn 213.857†	5168.7	5497.2	-10.227	ug/L	-10.227 ppb	13:52:36
2	SiO2†	-492.2	-1135.6	-77.760	ug/L	-77.760 ppb	13:53:12
3	Sc Radial	3489.1	3489.1	89.0	%		13:51:43
3	Y RADIAL	3863.1	3863.1	87.58	%		13:51:43
3	Al 396.153Radial†	487601.6	547765.9	513740	ug/L	513740 ppb	13:51:23
3	Ca 317.933Radial†	203078.5	228069.5	476780	ug/L	476780 ppb	13:51:23
3	Fe 238.204 Radial†	27513.9	30891.1	436040	ug/L	436040 ppb	13:51:43
3	K 766.490 Radial†	2457.1	120.1	-337.68	ug/L	-337.68 ppb	13:51:23
3	Mg 279.077 IEC†	8999.2	10103.5	489430	ug/L	489430 ppb	13:51:43
3	Na 589.592 Radial†	1489428.8	1673683.2	516040	ug/L	516040 ppb	13:51:23
3	Sr 421.552†	767.1	825.9	2.1544	ug/L	2.1544 ppb	13:51:43
3	Sc 361.383	756603.2	756603.2	86.249	%		13:52:42
3	Y 371.029	626649.0	626649.0	82.907	%		13:52:42
3	Ag 328.068†	-23278.8	-27230.7	-9.5249	ug/L	-9.5249 ppb	13:52:42
3	As 188.979†	-196.8	-210.0	8.3641	ug/L	8.3641 ppb	13:53:02
3	B 249.677†	1443.2	2071.6	-20.604	ug/L	-20.604 ppb	13:52:42
3	Ba 233.527†	-1573.6	-1823.0	-0.9702	ug/L	-0.9702 ppb	13:53:02
3	Be 313.107†	-9779.0	-7575.9	-2.8781	ug/L	-2.8781 ppb	13:52:42
3	Cd 226.502†	3081.5	3769.1	1.2428	ug/L	1.2428 ppb	13:53:02
3	Co 228.616†	210.2	310.3	0.1318	ug/L	0.1318 ppb	13:53:02
3	Cr 267.716†	-1020.1	-1260.4	22.004	ug/L	22.004 ppb	13:53:02
3	Cu 324.752†	389.6	-5539.0	-1.2604	ug/L	-1.2604 ppb	13:52:42
3	Mn 257.610†	-19815.4	-23433.4	-3.6302	ug/L	-3.6302 ppb	13:52:42
3	Mo 202.031†	-488.9	-577.0	-2.8368	ug/L	-2.8368 ppb	13:53:02
3	Ni 231.604†	247.1	224.0	5.6939	ug/L	5.6939 ppb	13:53:02
3	P 214.914†	504.5	374.4	4.9145	ug/L	4.9145 ppb	13:53:02
3	Pb 220.353†	-530.8	-557.3	-2.0945	ug/L	-2.0945 ppb	13:53:02
3	S 181.975 Axial†	75.7	46.9	-28.770	ug/L	-28.770 ppb	13:53:02
3	Sb 206.836†	73.8	48.9	-3.5421	ug/L	-3.5421 ppb	13:53:02
3	Se 196.026†	-1873.7	-2144.7	-50.134	ug/L	-50.134 ppb	13:53:02
3	Si 251.611†	-380.0	-999.0	-31.803	ug/L	-31.803 ppb	13:53:02
3	Sn 189.927†	-359.5	-427.3	-17.006	ug/L	-17.006 ppb	13:53:02
3	Ti 334.940†	-8714.7	-8730.1	4.2858	ug/L	4.2858 ppb	13:52:42
3	Tl 190.801†	-123.5	-110.6	-35.681	ug/L	-35.681 ppb	13:53:02
3	U 409.014†	419759.0	489569.3	13469	ug/L	13469 ppb	13:52:42
3	V 292.402†	2602.8	4523.5	2.7917	ug/L	2.7917 ppb	13:53:02
3	Zn 213.857†	5190.5	5411.9	-10.787	ug/L	-10.787 ppb	13:53:02
3	SiO2†	-420.5	-1042.0	-71.260	ug/L	-71.260 ppb	13:53:18

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	750100.5	85.508	%	0.7833				0.92%
Sc Radial	3478.7	88.8	%	0.26				0.29%
Y 371.029	621438.7	82.218	%	0.7335				0.89%
Y RADIAL	3846.4	87.20	%	0.328				0.38%
Ag 328.068†	-27149.6	-8.7291	ug/L	0.68915	-8.7291	ppb	0.68915	7.89%
Al 396.153Radial†	549452.8	515320	ug/L	1952.0	515320	ppb	1952.0	0.38%
QC value within limits for Al 396.153Radial Recovery = 103.06%								
As 188.979†	-207.9	9.6682	ug/L	1.18114	9.6682	ppb	1.18114	12.22%
B 249.677†	2065.9	-20.987	ug/L	2.0170	-20.987	ppb	2.0170	9.61%
Ba 233.527†	-1821.4	-0.9115	ug/L	0.05096	-0.9115	ppb	0.05096	5.59%
Be 313.107†	-7676.4	-2.9119	ug/L	0.02973	-2.9119	ppb	0.02973	1.02%
Ca 317.933Radial†	229193.9	479130	ug/L	2414.8	479130	ppb	2414.8	0.50%
QC value within limits for Ca 317.933Radial Recovery = 95.83%								
Cd 226.502†	3784.4	1.2659	ug/L	0.02015	1.2659	ppb	0.02015	1.59%
Co 228.616†	310.0	0.1016	ug/L	0.02695	0.1016	ppb	0.02695	26.53%
Cr 267.716†	-1256.9	22.181	ug/L	0.2434	22.181	ppb	0.2434	1.10%
Cu 324.752†	-5548.7	-1.2182	ug/L	0.03668	-1.2182	ppb	0.03668	3.01%

Fe 238.204 Radial†	30998.7	437550 ug/L	1347.6	437550 ppb	1347.6	0.31%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.51%						
K 766.490 Radial†	157.6	-332.31 ug/L	17.357	-332.31 ppb	17.357	5.22%
Mg 279.077 IEC†	10148.4	491610 ug/L	1961.9	491610 ppb	1961.9	0.40%
QC value within limits for Mg 279.077 IEC Recovery = 98.32%						
Mn 257.610†	-23577.6	-3.7334 ug/L	0.13866	-3.7334 ppb	0.13866	3.71%
Mo 202.031†	-572.0	-2.3288 ug/L	1.00344	-2.3288 ppb	1.00344	43.09%
Na 589.592 Radial†	1682238.2	518680 ug/L	2523.7	518680 ppb	2523.7	0.49%
QC value within limits for Na 589.592 Radial Recovery = 103.74%						
Ni 231.604†	229.7	5.8383 ug/L	0.13156	5.8383 ppb	0.13156	2.25%
P 214.914†	381.6	8.4194 ug/L	3.54567	8.4194 ppb	3.54567	42.11%
Pb 220.353†	-583.7	-5.1458 ug/L	4.34301	-5.1458 ppb	4.34301	84.40%
S 181.975 Axial†	47.7	-27.866 ug/L	3.9058	-27.866 ppb	3.9058	14.02%
Sb 206.836†	55.2	-1.4058 ug/L	9.67201	-1.4058 ppb	9.67201	688.00%
Se 196.026†	-2178.5	-67.544 ug/L	15.9409	-67.544 ppb	15.9409	23.60%
Si 251.611†	-1065.6	-33.964 ug/L	2.1422	-33.964 ppb	2.1422	6.31%
Sn 189.927†	-435.0	-18.053 ug/L	0.9387	-18.053 ppb	0.9387	5.20%
Sr 421.552†	813.5	2.0515 ug/L	0.10322	2.0515 ppb	0.10322	5.03%
Ti 334.940†	-7602.9	6.1874 ug/L	1.79220	6.1874 ppb	1.79220	28.97%
Tl 190.801†	-90.6	-29.275 ug/L	6.3698	-29.275 ppb	6.3698	21.76%
U 409.014†	490147.3	13485 ug/L	29.3	13485 ppb	29.3	0.22%
QC value less than the lower limit for U 409.014 Recovery = 89.90%						
V 292.402†	4476.8	2.3211 ug/L	0.56011	2.3211 ppb	0.56011	24.13%
Zn 213.857†	5466.6	-10.465 ug/L	0.2894	-10.465 ppb	0.2894	2.77%
SiO2†	-1079.2	-73.852 ug/L	3.4436	-73.852 ppb	3.4436	4.66%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/24/2010 13:55:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3755.1	3755.1	95.8	%			13:57:46
1	Y RADIAL	4233.7	4233.7	95.98	%			13:57:26
1	Al 396.153Radial†	373.7	502.4	12.258	ug/L	12.258	ppb	13:57:26
1	Ca 317.933Radial†	30.3	12.0	25.045	ug/L	25.045	ppb	13:57:46
1	Fe 238.204 Radial†	-7.0	-18.6	9.4874	ug/L	9.4874	ppb	13:57:46
1	K 766.490 Radial†	1536547.3	1600901.5	307200	ug/L	307200	ppb	13:57:21
1	Mg 279.077 IEC†	-4.6	-8.9	-332.35	ug/L	-332.35	ppb	13:57:46
1	Na 589.592 Radial†	-207.8	602.9	185.88	ug/L	185.88	ppb	13:57:26
1	Sr 421.552†	1357129.4	1416264.8	9799.9	ug/L	9799.9	ppb	13:57:21
1	Sc 361.383	867704.4	867704.4	98.914	%			13:59:03
1	Y 371.029	715999.5	715999.5	94.728	%			13:59:03
1	Ag 328.068†	-8007.1	-8335.4	0.7870	ug/L	0.7870	ppb	13:59:08
1	As 188.979†	20923.1	21171.1	9515.8	ug/L	9515.8	ppb	13:59:08
1	B 249.677†	197438.5	200004.5	4823.1	ug/L	4823.1	ppb	13:59:08
1	Ba 233.527†	1631925.0	1649843.7	12968	ug/L	12968	ppb	13:59:03
1	Be 313.107†	7328086.3	7412305.2	2807.7	ug/L	2807.7	ppb	13:58:56
1	Cd 226.502†	802576.9	811584.9	9404.0	ug/L	9404.0	ppb	13:59:03
1	Co 228.616†	429667.2	434451.1	9098.6	ug/L	9098.6	ppb	13:59:08
1	Cr 267.716†	2048510.5	2070923.9	23262	ug/L	23262	ppb	13:59:03
1	Cu 324.752†	6395075.1	6459297.3	19656	ug/L	19656	ppb	13:58:56
1	Mn 257.610†	8000483.7	8087864.0	9203.5	ug/L	9203.5	ppb	13:58:56
1	Mo 202.031†	127518.1	128908.0	9464.0	ug/L	9464.0	ppb	13:59:08
1	Ni 231.604†	361475.3	365381.6	9287.3	ug/L	9287.3	ppb	13:59:08
1	P 214.914†	29896.6	30014.4	14259	ug/L	14259	ppb	13:59:08
1	Pb 220.353†	191166.1	193323.1	23789	ug/L	23789	ppb	13:59:08
1	S 181.975 Axial†	35706.3	36057.5	51888	ug/L	51888	ppb	13:59:08
1	Sb 206.836†	29721.4	30011.1	10844	ug/L	10844	ppb	13:59:08
1	Se 196.026†	14821.8	15012.2	9863.3	ug/L	9863.3	ppb	13:59:08
1	Si 251.611†	1415805.2	1430791.3	46182	ug/L	46182	ppb	13:59:03
1	Sn 189.927†	55584.4	56184.2	10081	ug/L	10081	ppb	13:59:08
1	Ti 334.940†	6151049.1	6219956.9	9765.7	ug/L	9765.7	ppb	13:58:56
1	Tl 190.801†	28932.1	29282.4	9429.1	ug/L	9429.1	ppb	13:59:08
1	U 409.014†	-1761.6	1105.6	-21.464	ug/L	-21.464	ppb	13:59:08
1	V 292.402†	1384474.8	1401180.9	9885.2	ug/L	9885.2	ppb	13:59:03
1	Zn 213.857†	1348344.9	1362542.6	13630	ug/L	13630	ppb	13:59:03
1	SiO2†	1424198.9	1439281.1	99766	ug/L	99766	ppb	13:59:53
2	Sc Radial	3762.7	3762.7	96.0	%			13:58:16
2	Y RADIAL	4105.6	4105.6	93.08	%			13:57:56
2	Al 396.153Radial†	361.4	488.8	-0.2516	ug/L	-0.2516	ppb	13:57:56
2	Ca 317.933Radial†	28.2	9.7	20.219	ug/L	20.219	ppb	13:58:16
2	Fe 238.204 Radial†	-7.7	-19.3	-0.5570	ug/L	-0.5570	ppb	13:58:16
2	K 766.490 Radial†	1554297.3	1616159.3	310130	ug/L	310130	ppb	13:57:51
2	Mg 279.077 IEC†	-2.6	-6.7	-227.63	ug/L	-227.63	ppb	13:58:16
2	Na 589.592 Radial†	-264.2	544.7	167.93	ug/L	167.93	ppb	13:57:56
2	Sr 421.552†	1369933.4	1426748.5	9872.5	ug/L	9872.5	ppb	13:57:51
2	Sc 361.383	861919.3	861919.3	98.255	%			13:59:22
2	Y 371.029	711492.0	711492.0	94.132	%			13:59:22
2	Ag 328.068†	-8021.4	-8404.3	0.5572	ug/L	0.5572	ppb	13:59:27
2	As 188.979†	20787.2	21174.7	9519.1	ug/L	9519.1	ppb	13:59:27
2	B 249.677†	196145.7	200028.4	4823.7	ug/L	4823.7	ppb	13:59:27
2	Ba 233.527†	1628256.0	1657183.1	13026	ug/L	13026	ppb	13:59:22
2	Be 313.107†	7432593.3	7568394.2	2866.8	ug/L	2866.8	ppb	13:59:16
2	Cd 226.502†	801317.0	815748.5	9452.2	ug/L	9452.2	ppb	13:59:22
2	Co 228.616†	427144.6	434799.3	9105.4	ug/L	9105.4	ppb	13:59:27
2	Cr 267.716†	2042538.8	2078746.4	23350	ug/L	23350	ppb	13:59:22
2	Cu 324.752†	6475808.6	6584859.4	20038	ug/L	20038	ppb	13:59:16
2	Mn 257.610†	8104106.2	8247615.4	9385.3	ug/L	9385.3	ppb	13:59:16
2	Mo 202.031†	126598.8	128837.6	9458.8	ug/L	9458.8	ppb	13:59:27
2	Ni 231.604†	359202.1	365520.8	9290.8	ug/L	9290.8	ppb	13:59:27

2	P 214.914†	29727.0	30044.6	14202 ug/L	14202 ppb	13:59:27
2	Pb 220.353†	190171.6	193608.1	23824 ug/L	23824 ppb	13:59:27
2	S 181.975 Axial†	35472.2	36061.6	51894 ug/L	51894 ppb	13:59:27
2	Sb 206.836†	29516.1	30003.7	10841 ug/L	10841 ppb	13:59:27
2	Se 196.026†	14688.4	14977.1	9840.2 ug/L	9840.2 ppb	13:59:27
2	Si 251.611†	1408873.0	1433343.0	46265 ug/L	46265 ppb	13:59:22
2	Sn 189.927†	55282.5	56254.1	10093 ug/L	10093 ppb	13:59:27
2	Ti 334.940†	6228525.0	6340547.7	9955.1 ug/L	9955.1 ppb	13:59:16
2	Tl 190.801†	28737.0	29280.0	9430.7 ug/L	9430.7 ppb	13:59:27
2	U 409.014†	-1701.3	1155.1	-20.294 ug/L	-20.294 ppb	13:59:27
2	V 292.402†	1378505.8	1404500.4	9908.1 ug/L	9908.1 ppb	13:59:22
2	Zn 213.857†	1345230.6	1368522.3	13690 ug/L	13690 ppb	13:59:22
2	SiO2†	1411018.3	1435530.4	99505 ug/L	99505 ppb	13:59:59
3	Sc Radial	3788.7	3788.7	96.7 %		13:58:47
3	Y RADIAL	4223.7	4223.7	95.76 %		13:58:27
3	Al 396.153Radial†	370.8	495.9	-2.2803 ug/L	-2.2803 ppb	13:58:27
3	Ca 317.933Radial†	25.3	6.5	13.519 ug/L	13.519 ppb	13:58:47
3	Fe 238.204 Radial†	-7.2	-18.8	11.971 ug/L	11.971 ppb	13:58:47
3	K 766.490 Radial†	1559142.3	1610028.7	308950 ug/L	308950 ppb	13:58:22
3	Mg 279.077 IEC†	-3.0	-7.2	-247.42 ug/L	-247.42 ppb	13:58:47
3	Na 589.592 Radial†	-221.0	591.1	182.27 ug/L	182.27 ppb	13:58:27
3	Sr 421.552†	1373522.5	1420640.4	9830.2 ug/L	9830.2 ppb	13:58:22
3	Sc 361.383	860982.1	860982.1	98.148 %		13:59:42
3	Y 371.029	709940.5	709940.5	93.927 %		13:59:42
3	Ag 328.068†	-8138.1	-8532.1	-0.0355 ug/L	-0.0355 ppb	13:59:47
3	As 188.979†	21300.3	21720.6	9762.6 ug/L	9762.6 ppb	13:59:47
3	B 249.677†	200239.4	204416.6	4929.6 ug/L	4929.6 ppb	13:59:47
3	Ba 233.527†	1627336.3	1658049.8	13033 ug/L	13033 ppb	13:59:42
3	Be 313.107†	7439530.6	7583696.5	2872.6 ug/L	2872.6 ppb	13:59:35
3	Cd 226.502†	801403.9	816724.8	9463.7 ug/L	9463.7 ppb	13:59:42
3	Co 228.616†	434713.0	442983.7	9277.3 ug/L	9277.3 ppb	13:59:47
3	Cr 267.716†	2039723.8	2078141.1	23343 ug/L	23343 ppb	13:59:42
3	Cu 324.752†	6458784.5	6574688.1	20007 ug/L	20007 ppb	13:59:35
3	Mn 257.610†	8121943.3	8274767.2	9416.2 ug/L	9416.2 ppb	13:59:35
3	Mo 202.031†	128860.9	131282.8	9638.3 ug/L	9638.3 ppb	13:59:47
3	Ni 231.604†	365882.0	372724.8	9473.9 ug/L	9473.9 ppb	13:59:47
3	P 214.914†	30446.3	30810.4	14671 ug/L	14671 ppb	13:59:47
3	Pb 220.353†	193738.8	197453.3	24297 ug/L	24297 ppb	13:59:47
3	S 181.975 Axial†	36311.7	36956.2	53181 ug/L	53181 ppb	13:59:47
3	Sb 206.836†	30113.5	30645.1	11072 ug/L	11072 ppb	13:59:47
3	Se 196.026†	15158.0	15471.8	10165 ug/L	10165 ppb	13:59:47
3	Si 251.611†	1412452.1	1438550.5	46431 ug/L	46431 ppb	13:59:42
3	Sn 189.927†	56386.5	57440.2	10306 ug/L	10306 ppb	13:59:47
3	Ti 334.940†	6231589.1	6350569.8	9970.9 ug/L	9970.9 ppb	13:59:35
3	Tl 190.801†	29248.4	29833.0	9607.1 ug/L	9607.1 ppb	13:59:47
3	U 409.014†	-1667.4	1187.7	-19.379 ug/L	-19.379 ppb	13:59:47
3	V 292.402†	1376930.5	1404422.5	9910.1 ug/L	9910.1 ppb	13:59:42
3	Zn 213.857†	1346478.4	1371284.0	13717 ug/L	13717 ppb	13:59:42
3	SiO2†	1395286.9	1421065.3	98495 ug/L	98495 ppb	14:00:05

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863535.3	98.439	%	0.4150				0.42%
Sc Radial	3768.8	96.2	%	0.45				0.47%
Y 371.029	712477.3	94.262	%	0.4164				0.44%
Y RADIAL	4187.7	94.94	%	1.614				1.70%
Ag 328.068†	-8424.0	0.4362	ug/L	0.42440	0.4362	ppb	0.42440	97.29%
Al 396.153Radial†	495.7	3.2420	ug/L	7.87361	3.2420	ppb	7.87361	242.86%
As 188.979†	21355.5	9599.2	ug/L	141.52	9599.2	ppb	141.52	1.47%
QC value within limits for As 188.979 Recovery = 95.99%								
B 249.677†	201483.2	4858.8	ug/L	61.31	4858.8	ppb	61.31	1.26%
QC value within limits for B 249.677 Recovery = 97.18%								
Ba 233.527†	1655025.6	13009	ug/L	35.4	13009	ppb	35.4	0.27%
QC value less than the lower limit for Ba 233.527 Recovery = 86.73%								
Be 313.107†	7521465.3	2849.0	ug/L	35.90	2849.0	ppb	35.90	1.26%
QC value within limits for Be 313.107 Recovery = 94.97%								
Ca 317.933Radial†	9.4	19.594	ug/L	5.7887	19.594	ppb	5.7887	29.54%
Cd 226.502†	814686.1	9440.0	ug/L	31.65	9440.0	ppb	31.65	0.34%
QC value within limits for Cd 226.502 Recovery = 94.40%								

Co 228.616†	437411.4	9160.4 ug/L	101.26	9160.4 ppb	101.26	1.11%
QC value within limits for Co 228.616 Recovery = 91.60%						
Cr 267.716†	2075937.2	23318 ug/L	48.9	23318 ppb	48.9	0.21%
QC value within limits for Cr 267.716 Recovery = 93.27%						
Cu 324.752†	6539615.0	19901 ug/L	212.2	19901 ppb	212.2	1.07%
QC value within limits for Cu 324.752 Recovery = 99.50%						
Fe 238.204 Radial†	-18.9	6.9670 ug/L	6.63327	6.9670 ppb	6.63327	95.21%
K 766.490 Radial†	1609029.8	308760 ug/L	1473.3	308760 ppb	1473.3	0.48%
QC value within limits for K 766.490 Radial Recovery = 102.92%						
Mg 279.077 IEC†	-7.6	-269.13 ug/L	55.636	-269.13 ppb	55.636	20.67%
Mn 257.610†	8203415.5	9335.0 ug/L	114.92	9335.0 ppb	114.92	1.23%
QC value within limits for Mn 257.610 Recovery = 93.35%						
Mo 202.031†	129676.1	9520.4 ug/L	102.18	9520.4 ppb	102.18	1.07%
QC value within limits for Mo 202.031 Recovery = 95.20%						
Na 589.592 Radial†	579.6	178.69 ug/L	9.494	178.69 ppb	9.494	5.31%
Ni 231.604†	367875.7	9350.7 ug/L	106.76	9350.7 ppb	106.76	1.14%
QC value within limits for Ni 231.604 Recovery = 93.51%						
P 214.914†	30289.8	14377 ug/L	255.9	14377 ppb	255.9	1.78%
QC value within limits for P 214.914 Recovery = 95.85%						
Pb 220.353†	194794.8	23970 ug/L	283.9	23970 ppb	283.9	1.18%
QC value within limits for Pb 220.353 Recovery = 95.88%						
S 181.975 Axial†	36358.4	52321 ug/L	745.0	52321 ppb	745.0	1.42%
QC value within limits for S 181.975 Axial Recovery = 104.64%						
Sb 206.836†	30220.0	10919 ug/L	132.7	10919 ppb	132.7	1.22%
QC value within limits for Sb 206.836 Recovery = 109.19%						
Se 196.026†	15153.7	9956.2 ug/L	181.18	9956.2 ppb	181.18	1.82%
QC value within limits for Se 196.026 Recovery = 99.56%						
Si 251.611†	1434228.3	46293 ug/L	126.8	46293 ppb	126.8	0.27%
QC value within limits for Si 251.611 Recovery = 92.59%						
Sn 189.927†	56626.2	10160 ug/L	126.6	10160 ppb	126.6	1.25%
QC value within limits for Sn 189.927 Recovery = 101.60%						
Sr 421.552†	1421217.9	9834.2 ug/L	36.44	9834.2 ppb	36.44	0.37%
QC value within limits for Sr 421.552 Recovery = 98.34%						
Ti 334.940†	6303691.5	9897.2 ug/L	114.20	9897.2 ppb	114.20	1.15%
QC value within limits for Ti 334.940 Recovery = 98.97%						
Tl 190.801†	29465.1	9489.0 ug/L	102.27	9489.0 ppb	102.27	1.08%
QC value within limits for Tl 190.801 Recovery = 94.89%						
U 409.014†	1149.5	-20.379 ug/L	1.0450	-20.379 ppb	1.0450	5.13%
V 292.402†	1403367.9	9901.1 ug/L	13.80	9901.1 ppb	13.80	0.14%
QC value within limits for V 292.402 Recovery = 99.01%						
Zn 213.857†	1367449.6	13679 ug/L	44.2	13679 ppb	44.2	0.32%
QC value within limits for Zn 213.857 Recovery = 91.19%						
SiO2†	1431958.9	99255 ug/L	671.2	99255 ppb	671.2	0.68%
QC value within limits for SiO2 Recovery = 92.76%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 14:02:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3833.5	3833.5	97.8	%			14:04:28
1	Y RADIAL	4288.4	4288.4	97.22	%			14:04:08
1	Al 396.153Radial†	5161.8	5389.1	5030.7	ug/L	5030.7	ppb	14:04:08
1	Ca 317.933Radial†	2438.7	2473.3	5170.5	ug/L	5170.5	ppb	14:04:28
1	Fe 238.204 Radial†	358.5	355.2	5028.5	ug/L	5028.5	ppb	14:04:28
1	K 766.490 Radial†	29347.8	27361.6	5244.2	ug/L	5244.2	ppb	14:04:08
1	Mg 279.077 IEC†	108.8	107.1	5193.3	ug/L	5193.3	ppb	14:04:28
1	Na 589.592 Radial†	32043.9	33577.1	10353	ug/L	10353	ppb	14:04:08
1	Sr 421.552†	71002.9	72548.1	501.96	ug/L	501.96	ppb	14:04:08
1	Sc 361.383	889079.5	889079.5	101.35	%			14:05:25
1	Y 371.029	740429.7	740429.7	97.961	%			14:05:25
1	Ag 328.068†	107283.0	105612.9	492.35	ug/L	492.35	ppb	14:05:30
1	As 188.979†	1165.0	1167.7	525.67	ug/L	525.67	ppb	14:05:50
1	B 249.677†	21245.2	21360.3	515.65	ug/L	515.65	ppb	14:05:30
1	Ba 233.527†	63506.2	62661.3	492.95	ug/L	492.95	ppb	14:05:30
1	Be 313.107†	1313103.7	1299366.8	489.40	ug/L	489.40	ppb	14:05:25
1	Cd 226.502†	43099.5	42721.4	494.60	ug/L	494.60	ppb	14:05:30
1	Co 228.616†	23840.3	23589.1	494.22	ug/L	494.22	ppb	14:05:30
1	Cr 267.716†	44460.3	43790.1	492.55	ug/L	492.55	ppb	14:05:30
1	Cu 324.752†	167969.2	159740.0	486.10	ug/L	486.10	ppb	14:05:30
1	Mn 257.610†	437818.1	431524.8	491.33	ug/L	491.33	ppb	14:05:25
1	Mo 202.031†	6739.0	6639.1	487.87	ug/L	487.87	ppb	14:05:50
1	Ni 231.604†	19747.3	19421.7	493.65	ug/L	493.65	ppb	14:05:30
1	P 214.914†	4296.1	4028.3	2330.3	ug/L	2330.3	ppb	14:05:50
1	Pb 220.353†	4047.6	4051.8	499.83	ug/L	499.83	ppb	14:05:50
1	S 181.975 Axial†	743.1	692.4	995.41	ug/L	995.41	ppb	14:05:50
1	Sb 206.836†	1481.6	1425.2	515.75	ug/L	515.75	ppb	14:05:50
1	Se 196.026†	727.5	745.5	505.50	ug/L	505.50	ppb	14:05:50
1	Si 251.611†	77428.7	75838.5	2448.0	ug/L	2448.0	ppb	14:05:30
1	Sn 189.927†	2773.6	2726.2	489.78	ug/L	489.78	ppb	14:05:50
1	Ti 334.940†	312897.5	310101.7	487.17	ug/L	487.17	ppb	14:05:30
1	Tl 190.801†	1510.5	1522.9	490.21	ug/L	490.21	ppb	14:05:50
1	U 409.014†	15037.5	17723.7	487.75	ug/L	487.75	ppb	14:05:30
1	V 292.402†	69425.5	70006.0	494.64	ug/L	494.64	ppb	14:05:30
1	Zn 213.857†	50577.8	49297.7	491.70	ug/L	491.70	ppb	14:05:30
1	SiO2†	77322.4	75737.6	5250.1	ug/L	5250.1	ppb	14:06:58
2	Sc Radial	3795.3	3795.3	96.8	%			14:04:53
2	Y RADIAL	4344.0	4344.0	98.48	%			14:04:33
2	Al 396.153Radial†	5215.6	5497.7	5132.5	ug/L	5132.5	ppb	14:04:33
2	Ca 317.933Radial†	2425.2	2484.4	5193.6	ug/L	5193.6	ppb	14:04:53
2	Fe 238.204 Radial†	356.9	357.2	5056.7	ug/L	5056.7	ppb	14:04:53
2	K 766.490 Radial†	29771.1	28100.0	5385.8	ug/L	5385.8	ppb	14:04:33
2	Mg 279.077 IEC†	109.5	109.0	5285.0	ug/L	5285.0	ppb	14:04:53
2	Na 589.592 Radial†	32466.0	34341.9	10589	ug/L	10589	ppb	14:04:33
2	Sr 421.552†	71942.8	74247.5	513.72	ug/L	513.72	ppb	14:04:33
2	Sc 361.383	896321.6	896321.6	102.18	%			14:05:56
2	Y 371.029	747444.8	747444.8	98.889	%			14:05:56
2	Ag 328.068†	107173.2	104650.2	487.89	ug/L	487.89	ppb	14:06:01
2	As 188.979†	1153.5	1147.2	516.49	ug/L	516.49	ppb	14:06:21
2	B 249.677†	21168.3	21115.7	509.74	ug/L	509.74	ppb	14:06:01
2	Ba 233.527†	63467.3	62116.9	488.68	ug/L	488.68	ppb	14:06:01
2	Be 313.107†	1321919.5	1297526.6	488.70	ug/L	488.70	ppb	14:05:56
2	Cd 226.502†	43082.9	42361.5	490.43	ug/L	490.43	ppb	14:06:01
2	Co 228.616†	23765.2	23325.6	488.70	ug/L	488.70	ppb	14:06:01
2	Cr 267.716†	44397.2	43373.9	487.88	ug/L	487.88	ppb	14:06:01
2	Cu 324.752†	167536.0	157976.9	480.74	ug/L	480.74	ppb	14:06:01
2	Mn 257.610†	439584.9	429763.6	489.33	ug/L	489.33	ppb	14:05:56
2	Mo 202.031†	6775.7	6621.2	486.56	ug/L	486.56	ppb	14:06:21
2	Ni 231.604†	19775.7	19292.1	490.36	ug/L	490.36	ppb	14:06:01

2	P 214.914†	4344.4	4041.4	2339.2 ug/L	2339.2 ppb	14:06:21
2	Pb 220.353†	4056.8	4028.5	496.99 ug/L	496.99 ppb	14:06:21
2	S 181.975 Axial†	752.7	695.9	1000.4 ug/L	1000.4 ppb	14:06:21
2	Sb 206.836†	1480.8	1412.5	511.27 ug/L	511.27 ppb	14:06:21
2	Se 196.026†	742.9	754.8	511.68 ug/L	511.68 ppb	14:06:21
2	Si 251.611†	77312.0	75107.1	2424.4 ug/L	2424.4 ppb	14:06:01
2	Sn 189.927†	2786.4	2716.5	488.05 ug/L	488.05 ppb	14:06:21
2	Ti 334.940†	312816.0	307527.5	483.13 ug/L	483.13 ppb	14:06:01
2	Tl 190.801†	1531.3	1531.3	492.88 ug/L	492.88 ppb	14:06:21
2	U 409.014†	14962.7	17530.6	482.43 ug/L	482.43 ppb	14:06:01
2	V 292.402†	69546.2	69570.6	491.58 ug/L	491.58 ppb	14:06:01
2	Zn 213.857†	50377.3	48698.3	485.69 ug/L	485.69 ppb	14:06:01
2	SiO2†	76690.7	74502.9	5164.4 ug/L	5164.4 ppb	14:07:03
3	Sc Radial	3784.2	3784.2	96.6 %		14:05:18
3	Y RADIAL	4338.3	4338.3	98.35 %		14:04:58
3	Al 396.153Radial†	5230.2	5528.6	5161.4 ug/L	5161.4 ppb	14:04:58
3	Ca 317.933Radial†	2411.6	2477.7	5179.6 ug/L	5179.6 ppb	14:05:18
3	Fe 238.204 Radial†	357.4	358.8	5078.9 ug/L	5078.9 ppb	14:05:18
3	K 766.490 Radial†	29550.1	27961.3	5359.2 ug/L	5359.2 ppb	14:04:58
3	Mg 279.077 IEC†	108.6	108.3	5253.0 ug/L	5253.0 ppb	14:05:18
3	Na 589.592 Radial†	32234.9	34201.0	10545 ug/L	10545 ppb	14:04:58
3	Sr 421.552†	71668.6	74181.4	513.26 ug/L	513.26 ppb	14:04:58
3	Sc 361.383	894225.6	894225.6	101.94 %		14:06:27
3	Y 371.029	746441.3	746441.3	98.756 %		14:06:27
3	Ag 328.068†	107579.6	105294.7	490.90 ug/L	490.90 ppb	14:06:32
3	As 188.979†	1168.7	1164.8	524.35 ug/L	524.35 ppb	14:06:53
3	B 249.677†	21172.1	21168.0	510.99 ug/L	510.99 ppb	14:06:32
3	Ba 233.527†	63649.9	62441.6	491.23 ug/L	491.23 ppb	14:06:32
3	Be 313.107†	1322527.0	1301155.0	490.07 ug/L	490.07 ppb	14:06:27
3	Cd 226.502†	43299.7	42673.0	494.03 ug/L	494.03 ppb	14:06:32
3	Co 228.616†	23872.3	23485.2	492.05 ug/L	492.05 ppb	14:06:32
3	Cr 267.716†	44612.2	43686.7	491.40 ug/L	491.40 ppb	14:06:32
3	Cu 324.752†	167868.2	158687.2	482.90 ug/L	482.90 ppb	14:06:32
3	Mn 257.610†	439438.9	430628.8	490.32 ug/L	490.32 ppb	14:06:27
3	Mo 202.031†	6797.4	6658.1	489.27 ug/L	489.27 ppb	14:06:53
3	Ni 231.604†	19835.6	19396.2	493.01 ug/L	493.01 ppb	14:06:32
3	P 214.914†	4359.8	4066.4	2353.9 ug/L	2353.9 ppb	14:06:53
3	Pb 220.353†	4077.3	4057.9	500.62 ug/L	500.62 ppb	14:06:53
3	S 181.975 Axial†	742.6	687.7	988.69 ug/L	988.69 ppb	14:06:53
3	Sb 206.836†	1500.0	1434.8	519.16 ug/L	519.16 ppb	14:06:53
3	Se 196.026†	749.0	762.5	516.80 ug/L	516.80 ppb	14:06:53
3	Si 251.611†	77715.2	75679.9	2442.9 ug/L	2442.9 ppb	14:06:32
3	Sn 189.927†	2802.8	2739.0	492.08 ug/L	492.08 ppb	14:06:53
3	Ti 334.940†	313382.3	308800.7	485.13 ug/L	485.13 ppb	14:06:32
3	Tl 190.801†	1529.6	1533.1	493.46 ug/L	493.46 ppb	14:06:53
3	U 409.014†	14645.9	17254.1	474.78 ug/L	474.78 ppb	14:06:32
3	V 292.402†	69568.2	69751.8	492.86 ug/L	492.86 ppb	14:06:32
3	Zn 213.857†	50536.9	48970.4	488.40 ug/L	488.40 ppb	14:06:32
3	SiO2†	76671.2	74659.7	5175.2 ug/L	5175.2 ppb	14:07:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893208.9	101.82	%	0.425				0.42%
Sc Radial	3804.4	97.1	%	0.66				0.68%
Y 371.029	744771.9	98.535	%	0.5019				0.51%
Y RADIAL	4323.5	98.02	%	0.694				0.71%
Ag 328.068†	105185.9	490.38	ug/L	2.274	490.38	ppb	2.274	0.46%
QC value within limits for Ag 328.068 Recovery = 98.08%								
Al 396.153Radial†	5471.8	5108.2	ug/L	68.69	5108.2	ppb	68.69	1.34%
QC value within limits for Al 396.153Radial Recovery = 102.16%								
As 188.979†	1159.9	522.17	ug/L	4.961	522.17	ppb	4.961	0.95%
QC value within limits for As 188.979 Recovery = 104.43%								
B 249.677†	21214.7	512.13	ug/L	3.119	512.13	ppb	3.119	0.61%
QC value within limits for B 249.677 Recovery = 102.43%								
Ba 233.527†	62406.6	490.95	ug/L	2.152	490.95	ppb	2.152	0.44%
QC value within limits for Ba 233.527 Recovery = 98.19%								
Be 313.107†	1299349.5	489.39	ug/L	0.684	489.39	ppb	0.684	0.14%
QC value within limits for Be 313.107 Recovery = 97.88%								
Ca 317.933Radial†	2478.5	5181.2	ug/L	11.62	5181.2	ppb	11.62	0.22%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.62%
Cd 226.502†            42585.3      493.02 ug/L         2.263      493.02 ppb          2.263   0.46%
   QC value within limits for Cd 226.502  Recovery = 98.60%
Co 228.616†            23466.6      491.65 ug/L         2.779      491.65 ppb          2.779   0.57%
   QC value within limits for Co 228.616  Recovery = 98.33%
Cr 267.716†            43616.9      490.61 ug/L         2.433      490.61 ppb          2.433   0.50%
   QC value within limits for Cr 267.716  Recovery = 98.12%
Cu 324.752†           158801.4      483.24 ug/L         2.697      483.24 ppb          2.697   0.56%
   QC value within limits for Cu 324.752  Recovery = 96.65%
Fe 238.204 Radial†       357.1      5054.7 ug/L        25.24      5054.7 ppb         25.24   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.09%
K 766.490 Radial†      27807.6      5329.7 ug/L        75.26      5329.7 ppb         75.26   1.41%
   QC value within limits for K 766.490 Radial  Recovery = 106.59%
Mg 279.077 IEC†          108.2      5243.8 ug/L        46.57      5243.8 ppb         46.57   0.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.88%
Mn 257.610†           430639.0      490.33 ug/L         1.003      490.33 ppb          1.003   0.20%
   QC value within limits for Mn 257.610  Recovery = 98.07%
Mo 202.031†             6639.5      487.90 ug/L         1.354      487.90 ppb          1.354   0.28%
   QC value within limits for Mo 202.031  Recovery = 97.58%
Na 589.592 Radial†     34040.0       10495 ug/L        125.5       10495 ppb         125.5   1.20%
   QC value within limits for Na 589.592 Radial  Recovery = 104.95%
Ni 231.604†            19370.0      492.34 ug/L         1.745      492.34 ppb          1.745   0.35%
   QC value within limits for Ni 231.604  Recovery = 98.47%
P 214.914†              4045.4      2341.1 ug/L        11.91      2341.1 ppb         11.91   0.51%
   QC value within limits for P 214.914  Recovery = 93.64%
Pb 220.353†             4046.1      499.15 ug/L         1.906      499.15 ppb          1.906   0.38%
   QC value within limits for Pb 220.353  Recovery = 99.83%
S 181.975 Axial†         692.0      994.83 ug/L         5.874      994.83 ppb          5.874   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 99.48%
Sb 206.836†             1424.2      515.39 ug/L         3.959      515.39 ppb          3.959   0.77%
   QC value within limits for Sb 206.836  Recovery = 103.08%
Se 196.026†              754.3      511.33 ug/L         5.660      511.33 ppb          5.660   1.11%
   QC value within limits for Se 196.026  Recovery = 102.27%
Si 251.611†            75541.8      2438.4 ug/L        12.44      2438.4 ppb         12.44   0.51%
   QC value within limits for Si 251.611  Recovery = 97.54%
Sn 189.927†             2727.2      489.97 ug/L         2.021      489.97 ppb          2.021   0.41%
   QC value within limits for Sn 189.927  Recovery = 97.99%
Sr 421.552†            73659.0      509.65 ug/L         6.661      509.65 ppb          6.661   1.31%
   QC value within limits for Sr 421.552  Recovery = 101.93%
Ti 334.940†           308810.0      485.14 ug/L         2.023      485.14 ppb          2.023   0.42%
   QC value within limits for Ti 334.940  Recovery = 97.03%
Tl 190.801†             1529.1      492.19 ug/L         1.732      492.19 ppb          1.732   0.35%
   QC value within limits for Tl 190.801  Recovery = 98.44%
U 409.014†             17502.8      481.65 ug/L         6.520      481.65 ppb          6.520   1.35%
   QC value within limits for U 409.014  Recovery = 96.33%
V 292.402†             69776.1      493.03 ug/L         1.537      493.03 ppb          1.537   0.31%
   QC value within limits for V 292.402  Recovery = 98.61%
Zn 213.857†            48988.8      488.60 ug/L         3.009      488.60 ppb          3.009   0.62%
   QC value within limits for Zn 213.857  Recovery = 97.72%
SiO2†                  74966.7      5196.6 ug/L        46.71      5196.6 ppb         46.71   0.90%
   QC value within limits for SiO2  Recovery = 97.18%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 14:09:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3915.0	3915.0	99.9	%			14:11:32
1	Y RADIAL	4487.3	4487.3	101.7	%			14:11:12
1	Al 396.153Radial†	-103.6	8.8	8.1442	ug/L	8.1442	ppb	14:11:12
1	Ca 317.933Radial†	18.1	-1.6	-3.2969	ug/L	-3.2969	ppb	14:11:32
1	Fe 238.204 Radial†	9.2	-2.1	-29.731	ug/L	-29.731	ppb	14:11:32
1	K 766.490 Radial†	3144.3	507.7	97.413	ug/L	97.413	ppb	14:11:12
1	Mg 279.077 IEC†	3.0	-1.1	-51.712	ug/L	-51.712	ppb	14:11:32
1	Na 589.592 Radial†	-618.1	201.1	62.009	ug/L	62.009	ppb	14:11:12
1	Sr 421.552†	55.2	19.5	0.1352	ug/L	0.1352	ppb	14:11:12
1	Sc 361.383	875131.7	875131.7	99.761	%			14:12:28
1	Y 371.029	751129.4	751129.4	99.376	%			14:12:28
1	Ag 328.068†	295.7	56.0	0.2515	ug/L	0.2515	ppb	14:12:28
1	As 188.979†	3.0	21.3	9.4927	ug/L	9.4927	ppb	14:12:48
1	B 249.677†	301.4	700.3	16.985	ug/L	16.985	ppb	14:12:28
1	Ba 233.527†	21.8	23.3	0.1822	ug/L	0.1822	ppb	14:12:48
1	Be 313.107†	-3672.0	81.3	0.0302	ug/L	0.0302	ppb	14:12:28
1	Cd 226.502†	-137.0	58.9	0.6853	ug/L	0.6853	ppb	14:12:48
1	Co 228.616†	-64.3	2.1	0.0471	ug/L	0.0471	ppb	14:12:48
1	Cr 267.716†	96.4	19.0	0.2107	ug/L	0.2107	ppb	14:12:48
1	Cu 324.752†	6170.2	194.2	0.5899	ug/L	0.5899	ppb	14:12:28
1	Mn 257.610†	503.6	46.1	0.0516	ug/L	0.0516	ppb	14:12:48
1	Mo 202.031†	27.6	17.5	1.2836	ug/L	1.2836	ppb	14:12:48
1	Ni 231.604†	66.6	4.4	0.1106	ug/L	0.1106	ppb	14:12:48
1	P 214.914†	208.0	-2.0	-1.2717	ug/L	-1.2717	ppb	14:12:48
1	Pb 220.353†	-13.6	44.5	5.4815	ug/L	5.4815	ppb	14:12:48
1	S 181.975 Axial†	37.1	-3.6	-5.2194	ug/L	-5.2194	ppb	14:12:48
1	Sb 206.836†	55.8	19.2	6.7557	ug/L	6.7557	ppb	14:12:48
1	Se 196.026†	-15.5	12.2	7.9006	ug/L	7.9006	ppb	14:12:48
1	Si 251.611†	686.7	130.0	4.1915	ug/L	4.1915	ppb	14:12:48
1	Sn 189.927†	18.3	7.8	1.4029	ug/L	1.4029	ppb	14:12:48
1	Ti 334.940†	-1483.4	-112.9	-0.1734	ug/L	-0.1734	ppb	14:12:28
1	Tl 190.801†	-29.0	3.5	1.1061	ug/L	1.1061	ppb	14:12:48
1	U 409.014†	-2906.3	-26.6	-0.7325	ug/L	-0.7325	ppb	14:12:28
1	V 292.402†	-1476.5	25.6	0.1990	ug/L	0.1990	ppb	14:12:28
1	Zn 213.857†	771.9	167.7	1.6913	ug/L	1.6913	ppb	14:12:48
1	SiO2†	677.2	124.5	8.6144	ug/L	8.6144	ppb	14:13:45
2	Sc Radial	3899.3	3899.3	99.5	%			14:11:57
2	Y RADIAL	4476.7	4476.7	101.5	%			14:11:37
2	Al 396.153Radial†	-132.6	-20.9	-19.589	ug/L	-19.589	ppb	14:11:37
2	Ca 317.933Radial†	21.3	1.7	3.5520	ug/L	3.5520	ppb	14:11:57
2	Fe 238.204 Radial†	12.8	1.6	21.930	ug/L	21.930	ppb	14:11:57
2	K 766.490 Radial†	3272.7	649.5	124.62	ug/L	124.62	ppb	14:11:37
2	Mg 279.077 IEC†	2.9	-1.2	-56.011	ug/L	-56.011	ppb	14:11:57
2	Na 589.592 Radial†	-685.1	131.2	40.466	ug/L	40.466	ppb	14:11:37
2	Sr 421.552†	48.2	12.7	0.0882	ug/L	0.0882	ppb	14:11:37
2	Sc 361.383	878637.4	878637.4	100.16	%			14:12:54
2	Y 371.029	758602.1	758602.1	100.36	%			14:12:54
2	Ag 328.068†	209.1	-31.7	-0.1422	ug/L	-0.1422	ppb	14:12:54
2	As 188.979†	-0.1	18.2	8.1167	ug/L	8.1167	ppb	14:13:14
2	B 249.677†	348.6	746.2	18.088	ug/L	18.088	ppb	14:12:54
2	Ba 233.527†	14.5	15.9	0.1238	ug/L	0.1238	ppb	14:13:14
2	Be 313.107†	-3699.0	69.1	0.0256	ug/L	0.0256	ppb	14:12:54
2	Cd 226.502†	-147.0	49.6	0.5717	ug/L	0.5717	ppb	14:13:14
2	Co 228.616†	-57.3	9.3	0.1957	ug/L	0.1957	ppb	14:13:14
2	Cr 267.716†	83.4	5.6	0.0639	ug/L	0.0639	ppb	14:13:14
2	Cu 324.752†	5936.0	-64.2	-0.1942	ug/L	-0.1942	ppb	14:12:54
2	Mn 257.610†	494.5	34.9	0.0442	ug/L	0.0442	ppb	14:13:14
2	Mo 202.031†	17.0	6.9	0.5056	ug/L	0.5056	ppb	14:13:14
2	Ni 231.604†	75.9	13.4	0.3401	ug/L	0.3401	ppb	14:13:14

2	P 214.914†	205.6	-5.3	-3.1380	ug/L	-3.1380 ppb	14:13:14
2	Pb 220.353†	-7.5	50.6	6.2233	ug/L	6.2233 ppb	14:13:14
2	S 181.975 Axial†	49.5	8.6	12.352	ug/L	12.352 ppb	14:13:14
2	Sb 206.836†	56.8	20.0	7.0381	ug/L	7.0381 ppb	14:13:14
2	Se 196.026†	-19.0	8.8	5.8099	ug/L	5.8099 ppb	14:13:14
2	Si 251.611†	699.6	140.1	4.5277	ug/L	4.5277 ppb	14:13:14
2	Sn 189.927†	22.0	11.5	2.0645	ug/L	2.0645 ppb	14:13:14
2	Ti 334.940†	-1462.5	-86.1	-0.1302	ug/L	-0.1302 ppb	14:12:54
2	Tl 190.801†	-25.3	7.4	2.3529	ug/L	2.3529 ppb	14:13:14
2	U 409.014†	-2896.0	-4.8	-0.1345	ug/L	-0.1345 ppb	14:12:54
2	V 292.402†	-1587.8	-79.6	-0.5521	ug/L	-0.5521 ppb	14:12:54
2	Zn 213.857†	788.1	180.9	1.8154	ug/L	1.8154 ppb	14:13:14
2	SiO2†	723.3	167.8	11.646	ug/L	11.646 ppb	14:13:50
3	Sc Radial	3841.4	3841.4	98.0	%		14:12:22
3	Y RADIAL	4383.9	4383.9	99.39	%		14:12:02
3	Al 396.153Radial†	-96.4	14.1	13.186	ug/L	13.186 ppb	14:12:02
3	Ca 317.933Radial†	22.3	3.1	6.5002	ug/L	6.5002 ppb	14:12:22
3	Fe 238.204 Radial†	11.6	0.5	7.4480	ug/L	7.4480 ppb	14:12:22
3	K 766.490 Radial†	3148.9	572.7	109.88	ug/L	109.88 ppb	14:12:02
3	Mg 279.077 IEC†	3.3	-0.7	-31.994	ug/L	-31.994 ppb	14:12:22
3	Na 589.592 Radial†	-650.0	156.7	48.306	ug/L	48.306 ppb	14:12:02
3	Sr 421.552†	74.8	40.6	0.2808	ug/L	0.2808 ppb	14:12:02
3	Sc 361.383	872334.1	872334.1	99.442	%		14:13:19
3	Y 371.029	751244.0	751244.0	99.391	%		14:13:19
3	Ag 328.068†	253.4	14.4	0.0742	ug/L	0.0742 ppb	14:13:19
3	As 188.979†	5.6	23.8	10.641	ug/L	10.641 ppb	14:13:39
3	B 249.677†	326.7	726.7	17.619	ug/L	17.619 ppb	14:13:19
3	Ba 233.527†	10.8	12.2	0.0960	ug/L	0.0960 ppb	14:13:39
3	Be 313.107†	-3587.8	154.3	0.0575	ug/L	0.0575 ppb	14:13:19
3	Cd 226.502†	-170.7	24.7	0.2833	ug/L	0.2833 ppb	14:13:39
3	Co 228.616†	-68.1	-1.9	-0.0376	ug/L	-0.0376 ppb	14:13:39
3	Cr 267.716†	96.7	19.5	0.2225	ug/L	0.2225 ppb	14:13:39
3	Cu 324.752†	5973.1	15.9	0.0525	ug/L	0.0525 ppb	14:13:19
3	Mn 257.610†	487.8	31.8	0.0382	ug/L	0.0382 ppb	14:13:39
3	Mo 202.031†	23.3	13.3	0.9794	ug/L	0.9794 ppb	14:13:39
3	Ni 231.604†	57.8	-4.3	-0.1092	ug/L	-0.1092 ppb	14:13:39
3	P 214.914†	192.1	-17.4	-10.454	ug/L	-10.454 ppb	14:13:39
3	Pb 220.353†	-17.9	40.2	4.9428	ug/L	4.9428 ppb	14:13:39
3	S 181.975 Axial†	39.0	-1.6	-2.3318	ug/L	-2.3318 ppb	14:13:39
3	Sb 206.836†	57.1	20.7	7.2786	ug/L	7.2786 ppb	14:13:39
3	Se 196.026†	-16.2	11.5	7.5398	ug/L	7.5398 ppb	14:13:39
3	Si 251.611†	674.1	119.6	3.8565	ug/L	3.8565 ppb	14:13:39
3	Sn 189.927†	21.3	10.9	1.9641	ug/L	1.9641 ppb	14:13:39
3	Ti 334.940†	-1498.1	-132.5	-0.2017	ug/L	-0.2017 ppb	14:13:19
3	Tl 190.801†	-38.8	-6.5	-2.0738	ug/L	-2.0738 ppb	14:13:39
3	U 409.014†	-3119.6	-250.5	-6.9178	ug/L	-6.9178 ppb	14:13:19
3	V 292.402†	-1511.1	-13.9	-0.0980	ug/L	-0.0980 ppb	14:13:19
3	Zn 213.857†	791.7	190.1	1.9135	ug/L	1.9135 ppb	14:13:39
3	SiO2†	679.9	129.3	8.9599	ug/L	8.9599 ppb	14:13:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875367.7	99.788	%	0.3600				0.36%
Sc Radial	3885.3	99.1	%	0.99				1.00%
Y 371.029	753658.5	99.711	%	0.5665				0.57%
Y RADIAL	4449.3	100.9	%	1.29				1.28%
Ag 328.068†	12.9	0.0612	ug/L	0.19715	0.0612	ppb	0.19715	322.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.7	0.5802	ug/L	17.64831	0.5802	ppb	17.64831	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	21.1	9.4167	ug/L	1.26369	9.4167	ppb	1.26369	13.42%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	724.4	17.564	ug/L	0.5539	17.564	ppb	0.5539	3.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.1	0.1340	ug/L	0.04400	0.1340	ppb	0.04400	32.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	101.6	0.0378	ug/L	0.01723	0.0378	ppb	0.01723	45.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.1	2.2518	ug/L	5.02630	2.2518	ppb	5.02630	223.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                44.4      0.5134 ug/L       0.20725      0.5134 ppb        0.20725  40.37%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.1      0.0684 ug/L       0.11807      0.0684 ppb        0.11807 172.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.7      0.1657 ug/L       0.08840      0.1657 ppb        0.08840  53.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                48.6      0.1494 ug/L       0.40095      0.1494 ppb        0.40095 268.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.1176 ug/L      26.64871     -0.1176 ppb       26.64871 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         576.6      110.64 ug/L        13.619      110.64 ppb         13.619  12.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0     -46.572 ug/L       12.8072     -46.572 ppb        12.8072  27.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                37.6      0.0447 ug/L       0.00673      0.0447 ppb        0.00673  15.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.6      0.9229 ug/L       0.39207      0.9229 ppb        0.39207  42.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        163.0      50.260 ug/L       10.9036      50.260 ppb        10.9036  21.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.5      0.1138 ug/L       0.22467      0.1138 ppb        0.22467 197.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.2     -4.9545 ug/L       4.85312     -4.9545 ppb        4.85312  97.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                45.1      5.5492 ug/L       0.64290      5.5492 ppb        0.64290  11.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.1      1.6001 ug/L       9.42233      1.6001 ppb        9.42233 588.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                20.0      7.0241 ug/L       0.26176      7.0241 ppb        0.26176   3.73%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.8      7.0834 ug/L       1.11755      7.0834 ppb        1.11755  15.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               129.9      4.1919 ug/L       0.33561      4.1919 ppb        0.33561   8.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.1      1.8105 ug/L       0.35656      1.8105 ppb        0.35656  19.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                24.3      0.1681 ug/L       0.10046      0.1681 ppb        0.10046  59.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -110.5     -0.1684 ug/L       0.03603     -0.1684 ppb        0.03603  21.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.4      0.4617 ug/L       2.28263      0.4617 ppb        2.28263 494.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -94.0     -2.5949 ug/L       3.75567     -2.5949 ppb        3.75567 144.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -22.6     -0.1504 ug/L       0.37829     -0.1504 ppb        0.37829 251.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               179.6      1.8067 ug/L       0.11135      1.8067 ppb        0.11135   6.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     140.5      9.7401 ug/L       1.65962      9.7401 ppb        1.65962  17.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/24/2010 14:25:36 **Plasma On Time: 00:00:00**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/24/2010 12:00:19**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 36**
Sample ID: LR1 **Date Collected: 2/24/2010 14:25:37**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3815.2	3815.2	97.4	%			14:27:31
1	Y RADIAL	4260.9	4260.9	96.60	%			14:27:31
1	Al 396.153Radial†	-126.4	-17.5	-15.092	ug/L	-15.092	ppb	14:27:31

1	Ca 317.933Radial†	22.0	2.9	6.0589 ug/L	6.0589 ppb	14:27:51
1	Fe 238.204 Radial†	25520.2	26201.8	369850 ug/L	369850 ppb	14:27:31
1	K 766.490 Radial†	2681.6	114.8	22.061 ug/L	22.061 ppb	14:27:31
1	Mg 279.077 IEC†	12.4	8.7	32.450 ug/L	32.450 ppb	14:27:51
1	Na 589.592 Radial†	-637.2	165.3	50.954 ug/L	50.954 ppb	14:27:31
1	Sr 421.552†	139.2	107.3	0.7424 ug/L	0.7424 ppb	14:27:31
1	Sc 361.383	868251.3	868251.3	98.976 %		14:28:48
1	Y 371.029	730637.8	730637.8	96.665 %		14:28:48
1	Ag 328.068†	-25133.1	-25633.5	-4.9088 ug/L	-4.9088 ppb	14:28:48
1	As 188.979†	-197.8	-181.6	5.6062 ug/L	5.6062 ppb	14:29:08
1	B 249.677†	2055.0	2474.5	-0.1135 ug/L	-0.1135 ppb	14:28:48
1	Ba 233.527†	-1749.1	-1765.7	-2.4777 ug/L	-2.4777 ppb	14:28:48
1	Be 313.107†	-3624.2	100.5	0.0375 ug/L	0.0375 ppb	14:28:48
1	Cd 226.502†	2941.5	3168.2	-1.4997 ug/L	-1.4997 ppb	14:28:48
1	Co 228.616†	716.8	790.7	11.158 ug/L	11.158 ppb	14:29:08
1	Cr 267.716†	-602.7	-686.7	27.516 ug/L	27.516 ppb	14:28:48
1	Cu 324.752†	-898.4	-6898.5	-1.4577 ug/L	-1.4577 ppb	14:28:48
1	Mn 257.610†	-32391.6	-33185.4	-1.2521 ug/L	-1.2521 ppb	14:28:48
1	Mo 202.031†	-344.3	-358.0	2.4277 ug/L	2.4277 ppb	14:28:48
1	Ni 231.604†	133.9	72.9	1.8435 ug/L	1.8435 ppb	14:29:08
1	P 214.914†	664.5	460.8	-16.342 ug/L	-16.342 ppb	14:29:08
1	Pb 220.353†	213.4	273.8	-6.3651 ug/L	-6.3651 ppb	14:29:08
1	S 181.975 Axial†	54.7	14.5	20.860 ug/L	20.860 ppb	14:29:08
1	Sb 206.836†	33.2	-3.2	-5.6674 ug/L	-5.6674 ppb	14:29:08
1	Se 196.026†	-1671.2	-1660.7	65.515 ug/L	65.515 ppb	14:29:08
1	Si 251.611†	-527.3	-1091.0	-34.981 ug/L	-34.981 ppb	14:28:48
1	Sn 189.927†	-14.1	-24.7	-25.668 ug/L	-25.668 ppb	14:29:08
1	Ti 334.940†	-1423.0	-63.7	-0.1632 ug/L	-0.1632 ppb	14:28:48
1	Tl 190.801†	-43.2	-11.1	-3.8950 ug/L	-3.8950 ppb	14:29:08
1	U 409.014†	-202.3	2682.2	31.921 ug/L	31.921 ppb	14:28:48
1	V 292.402†	6640.4	8214.7	3.1969 ug/L	3.1969 ppb	14:28:48
1	Zn 213.857†	4062.2	3498.2	-20.117 ug/L	-20.117 ppb	14:29:08
1	SiO2†	-463.0	-1022.2	-70.320 ug/L	-70.320 ppb	14:30:05
2	Sc Radial	3865.8	3865.8	98.6 %		14:27:56
2	Y RADIAL	4274.0	4274.0	96.90 %		14:27:56
2	Al 396.153Radial†	-128.4	-17.8	-15.426 ug/L	-15.426 ppb	14:27:56
2	Ca 317.933Radial†	20.0	0.6	1.2557 ug/L	1.2557 ppb	14:28:16
2	Fe 238.204 Radial†	25670.8	26011.6	367160 ug/L	367160 ppb	14:27:56
2	K 766.490 Radial†	2652.8	49.5	9.5321 ug/L	9.5321 ppb	14:27:56
2	Mg 279.077 IEC†	9.9	5.9	-97.232 ug/L	-97.232 ppb	14:28:16
2	Na 589.592 Radial†	-642.2	168.8	52.030 ug/L	52.030 ppb	14:27:56
2	Sr 421.552†	140.2	106.4	0.7363 ug/L	0.7363 ppb	14:27:56
2	Sc 361.383	868044.1	868044.1	98.953 %		14:29:14
2	Y 371.029	729533.9	729533.9	96.519 %		14:29:14
2	Ag 328.068†	-25207.2	-25714.4	-6.1038 ug/L	-6.1038 ppb	14:29:14
2	As 188.979†	-192.0	-175.8	7.5739 ug/L	7.5739 ppb	14:29:34
2	B 249.677†	2100.3	2520.7	1.4424 ug/L	1.4424 ppb	14:29:14
2	Ba 233.527†	-1821.8	-1839.7	-3.1400 ug/L	-3.1400 ppb	14:29:14
2	Be 313.107†	-3663.9	59.5	0.0217 ug/L	0.0217 ppb	14:29:14
2	Cd 226.502†	2956.7	3184.3	-1.0372 ug/L	-1.0372 ppb	14:29:14
2	Co 228.616†	712.9	787.0	11.121 ug/L	11.121 ppb	14:29:34
2	Cr 267.716†	-562.2	-645.8	27.721 ug/L	27.721 ppb	14:29:14
2	Cu 324.752†	-881.3	-6881.4	-1.5443 ug/L	-1.5443 ppb	14:29:14
2	Mn 257.610†	-32193.8	-32993.3	-1.2932 ug/L	-1.2932 ppb	14:29:14
2	Mo 202.031†	-329.9	-343.5	3.2835 ug/L	3.2835 ppb	14:29:14
2	Ni 231.604†	127.8	66.7	1.6856 ug/L	1.6856 ppb	14:29:34
2	P 214.914†	653.2	449.6	-20.948 ug/L	-20.948 ppb	14:29:34
2	Pb 220.353†	210.9	271.2	-6.3836 ug/L	-6.3836 ppb	14:29:34
2	S 181.975 Axial†	38.7	-1.7	-2.4662 ug/L	-2.4662 ppb	14:29:34
2	Sb 206.836†	33.5	-2.9	-5.5268 ug/L	-5.5268 ppb	14:29:34
2	Se 196.026†	-1674.4	-1664.4	54.714 ug/L	54.714 ppb	14:29:34
2	Si 251.611†	-573.4	-1137.8	-36.507 ug/L	-36.507 ppb	14:29:14
2	Sn 189.927†	-18.0	-28.7	-26.218 ug/L	-26.218 ppb	14:29:34
2	Ti 334.940†	-1558.5	-200.9	-0.3661 ug/L	-0.3661 ppb	14:29:14
2	Tl 190.801†	-43.0	-10.9	-3.8401 ug/L	-3.8401 ppb	14:29:34
2	U 409.014†	-430.1	2452.0	25.867 ug/L	25.867 ppb	14:29:14
2	V 292.402†	6631.4	8207.2	3.5360 ug/L	3.5360 ppb	14:29:14
2	Zn 213.857†	4092.5	3529.8	-19.396 ug/L	-19.396 ppb	14:29:34
2	SiO2†	-527.4	-1087.3	-74.878 ug/L	-74.878 ppb	14:30:11
3	Sc Radial	3918.9	3918.9	100 %		14:28:21
3	Y RADIAL	4324.4	4324.4	98.04 %		14:28:21

3	Al 396.153Radial†	-135.1	-22.7	-19.994 ug/L	-19.994 ppb	14:28:21
3	Ca 317.933Radial†	14.8	-4.9	-10.250 ug/L	-10.250 ppb	14:28:41
3	Fe 238.204 Radial†	25752.7	25740.7	363340 ug/L	363340 ppb	14:28:21
3	K 766.490 Radial†	2662.1	22.5	4.3457 ug/L	4.3457 ppb	14:28:21
3	Mg 279.077 IEC†	10.3	6.2	-79.162 ug/L	-79.162 ppb	14:28:41
3	Na 589.592 Radial†	-709.0	110.7	34.146 ug/L	34.146 ppb	14:28:21
3	Sr 421.552†	100.3	64.6	0.4471 ug/L	0.4471 ppb	14:28:21
3	Sc 361.383	868469.9	868469.9	99.001 %		14:29:40
3	Y 371.029	729469.5	729469.5	96.511 %		14:29:40
3	Ag 328.068†	-25196.2	-25690.8	-7.1714 ug/L	-7.1714 ppb	14:29:40
3	As 188.979†	-208.3	-192.2	-0.6545 ug/L	-0.6545 ppb	14:30:00
3	B 249.677†	2130.9	2550.6	2.7890 ug/L	2.7890 ppb	14:29:40
3	Ba 233.527†	-1770.5	-1787.0	-2.8428 ug/L	-2.8428 ppb	14:29:40
3	Be 313.107†	-3638.3	87.2	0.0323 ug/L	0.0323 ppb	14:29:40
3	Cd 226.502†	2939.0	3164.9	-0.8661 ug/L	-0.8661 ppb	14:29:40
3	Co 228.616†	718.7	792.5	11.287 ug/L	11.287 ppb	14:30:00
3	Cr 267.716†	-606.6	-690.4	26.857 ug/L	26.857 ppb	14:29:40
3	Cu 324.752†	-923.9	-6923.9	-1.8769 ug/L	-1.8769 ppb	14:29:40
3	Mn 257.610†	-32222.7	-33006.5	-1.6865 ug/L	-1.6865 ppb	14:29:40
3	Mo 202.031†	-354.9	-368.6	1.1440 ug/L	1.1440 ppb	14:29:40
3	Ni 231.604†	147.5	86.6	2.1913 ug/L	2.1913 ppb	14:30:00
3	P 214.914†	673.5	469.8	-5.7264 ug/L	-5.7264 ppb	14:30:00
3	Pb 220.353†	215.6	275.8	-5.4080 ug/L	-5.4080 ppb	14:30:00
3	S 181.975 Axial†	51.8	11.5	16.524 ug/L	16.524 ppb	14:30:00
3	Sb 206.836†	24.8	-11.7	-8.5985 ug/L	-8.5985 ppb	14:30:00
3	Se 196.026†	-1661.9	-1650.9	51.625 ug/L	51.625 ppb	14:30:00
3	Si 251.611†	-456.1	-1019.1	-32.643 ug/L	-32.643 ppb	14:29:40
3	Sn 189.927†	-20.8	-31.5	-26.506 ug/L	-26.506 ppb	14:30:00
3	Ti 334.940†	-1501.2	-142.2	-0.2770 ug/L	-0.2770 ppb	14:29:40
3	Tl 190.801†	-46.3	-14.1	-4.8844 ug/L	-4.8844 ppb	14:30:00
3	U 409.014†	-384.8	2497.9	27.574 ug/L	27.574 ppb	14:29:40
3	V 292.402†	6607.1	8179.5	3.8763 ug/L	3.8763 ppb	14:29:40
3	Zn 213.857†	4037.0	3471.7	-19.411 ug/L	-19.411 ppb	14:30:00
3	SiO2†	-570.3	-1130.4	-77.824 ug/L	-77.824 ppb	14:30:16

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868255.1	98.977	%	0.0243				0.02%
Sc Radial	3866.6	98.7	%	1.32				1.34%
Y 371.029	729880.4	96.565	%	0.0869				0.09%
Y RADIAL	4286.4	97.18	%	0.761				0.78%
Ag 328.068†	-25679.6	-6.0613	ug/L	1.13191	-6.0613	ppb	1.13191	18.67%
Al 396.153Radial†	-19.3	-16.837	ug/L	2.7385	-16.837	ppb	2.7385	16.26%
As 188.979†	-183.2	4.1752	ug/L	4.29678	4.1752	ppb	4.29678	102.91%
B 249.677†	2515.3	1.3726	ug/L	1.45253	1.3726	ppb	1.45253	105.82%
Ba 233.527†	-1797.5	-2.8202	ug/L	0.33174	-2.8202	ppb	0.33174	11.76%
Be 313.107†	82.4	0.0305	ug/L	0.00809	0.0305	ppb	0.00809	26.54%
Ca 317.933Radial†	-0.5	-0.9785	ug/L	8.38093	-0.9785	ppb	8.38093	856.47%
Cd 226.502†	3172.4	-1.1343	ug/L	0.32777	-1.1343	ppb	0.32777	28.90%
Co 228.616†	790.0	11.189	ug/L	0.0872	11.189	ppb	0.0872	0.78%
Cr 267.716†	-674.3	27.365	ug/L	0.4519	27.365	ppb	0.4519	1.65%
Cu 324.752†	-6901.3	-1.6263	ug/L	0.22129	-1.6263	ppb	0.22129	13.61%
Fe 238.204 Radial†	25984.7	366780	ug/L	3270.9	366780	ppb	3270.9	0.89%
K 766.490 Radial†	62.3	11.980	ug/L	9.1077	11.980	ppb	9.1077	76.03%
Mg 279.077 IEC†	6.9	-47.981	ug/L	70.2390	-47.981	ppb	70.2390	146.39%
Mn 257.610†	-33061.7	-1.4106	ug/L	0.23983	-1.4106	ppb	0.23983	17.00%
Mo 202.031†	-356.7	2.2850	ug/L	1.07689	2.2850	ppb	1.07689	47.13%
Na 589.592 Radial†	148.3	45.710	ug/L	10.0293	45.710	ppb	10.0293	21.94%
Ni 231.604†	75.4	1.9068	ug/L	0.25871	1.9068	ppb	0.25871	13.57%
P 214.914†	460.1	-14.339	ug/L	7.8061	-14.339	ppb	7.8061	54.44%
Pb 220.353†	273.6	-6.0522	ug/L	0.55801	-6.0522	ppb	0.55801	9.22%
S 181.975 Axial†	8.1	11.639	ug/L	12.4064	11.639	ppb	12.4064	106.59%
Sb 206.836†	-5.9	-6.5975	ug/L	1.73429	-6.5975	ppb	1.73429	26.29%
Se 196.026†	-1658.7	57.285	ug/L	7.2930	57.285	ppb	7.2930	12.73%
Si 251.611†	-1082.6	-34.710	ug/L	1.9464	-34.710	ppb	1.9464	5.61%
Sn 189.927†	-28.3	-26.131	ug/L	0.4257	-26.131	ppb	0.4257	1.63%
Sr 421.552†	92.8	0.6419	ug/L	0.16875	0.6419	ppb	0.16875	26.29%
Ti 334.940†	-135.6	-0.2688	ug/L	0.10169	-0.2688	ppb	0.10169	37.83%
Tl 190.801†	-12.0	-4.2065	ug/L	0.58771	-4.2065	ppb	0.58771	13.97%

U 409.014†	2544.0	28.454	ug/L	3.1211	28.454	ppb	3.1211	10.97%
V 292.402†	8200.5	3.5364	ug/L	0.33968	3.5364	ppb	0.33968	9.61%
Zn 213.857†	3499.9	-19.641	ug/L	0.4119	-19.641	ppb	0.4119	2.10%
SiO2†	-1080.0	-74.341	ug/L	3.7807	-74.341	ppb	3.7807	5.09%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 2/24/2010 14:32:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3829.7	3829.7	97.7	%			14:34:41
1	Y RADIAL	4261.6	4261.6	96.62	%			14:34:21
1	Al 396.153Radial†	-126.7	-17.2	-16.187	ug/L	-16.187	ppb	14:34:21
1	Ca 317.933Radial†	20.6	1.4	2.8867	ug/L	2.8867	ppb	14:34:41
1	Fe 238.204 Radial†	10.3	-0.8	-11.290	ug/L	-11.290	ppb	14:34:41
1	K 766.490 Radial†	2831.9	258.2	49.543	ug/L	49.543	ppb	14:34:21
1	Mg 279.077 IEC†	-0.6	-4.7	-227.51	ug/L	-227.51	ppb	14:34:41
1	Na 589.592 Radial†	-766.7	35.3	10.880	ug/L	10.880	ppb	14:34:21
1	Sr 421.552†	47.1	12.4	0.0859	ug/L	0.0859	ppb	14:34:21
1	Sc 361.383	902919.9	902919.9	102.93	%			14:35:38
1	Y 371.029	764651.5	764651.5	101.17	%			14:35:38
1	Ag 328.068†	242.6	-4.7	-0.0105	ug/L	-0.0105	ppb	14:35:43
1	As 188.979†	-8.4	10.1	4.5036	ug/L	4.5036	ppb	14:36:03
1	B 249.677†	-240.7	164.3	3.9979	ug/L	3.9979	ppb	14:36:03
1	Ba 233.527†	1268344.7	1232260.8	9670.0	ug/L	9670.0	ppb	14:35:38
1	Be 313.107†	-3678.8	188.0	0.0706	ug/L	0.0706	ppb	14:35:43
1	Cd 226.502†	-165.8	35.2	0.4052	ug/L	0.4052	ppb	14:36:03
1	Co 228.616†	-274.0	-199.7	0.4738	ug/L	0.4738	ppb	14:36:03
1	Cr 267.716†	92.8	12.4	0.1459	ug/L	0.1459	ppb	14:36:03
1	Cu 324.752†	6070.7	-92.8	-0.2730	ug/L	-0.2730	ppb	14:35:43
1	Mn 257.610†	478.4	6.0	0.0150	ug/L	0.0150	ppb	14:36:03
1	Mo 202.031†	13.1	2.6	0.1894	ug/L	0.1894	ppb	14:36:03
1	Ni 231.604†	59.7	-4.5	-0.1111	ug/L	-0.1111	ppb	14:36:03
1	P 214.914†	218.6	1.9	1.2048	ug/L	1.2048	ppb	14:36:03
1	Pb 220.353†	-67.9	-7.9	-0.9689	ug/L	-0.9689	ppb	14:36:03
1	S 181.975 Axial†	40.0	-1.9	-2.7547	ug/L	-2.7547	ppb	14:36:03
1	Sb 206.836†	41.4	3.6	1.2606	ug/L	1.2606	ppb	14:36:03
1	Se 196.026†	-21.2	7.1	4.6308	ug/L	4.6308	ppb	14:36:03
1	Si 251.611†	608.5	32.9	1.0610	ug/L	1.0610	ppb	14:36:03
1	Sn 189.927†	16.0	5.1	0.9165	ug/L	0.9165	ppb	14:36:03
1	Ti 334.940†	-1428.4	-13.7	0.0054	ug/L	0.0054	ppb	14:35:43
1	Tl 190.801†	-39.0	-5.3	-1.6870	ug/L	-1.6870	ppb	14:36:03
1	U 409.014†	-3647.6	-657.2	-18.146	ug/L	-18.146	ppb	14:35:38
1	V 292.402†	-1548.5	1.2	-0.0263	ug/L	-0.0263	ppb	14:35:43
1	Zn 213.857†	623.8	0.0	0.0031	ug/L	0.0031	ppb	14:36:03
1	SiO2†	590.1	18.9	1.3113	ug/L	1.3113	ppb	14:37:09
2	Sc Radial	3860.9	3860.9	98.5	%			14:35:06
2	Y RADIAL	4356.5	4356.5	98.77	%			14:34:46
2	Al 396.153Radial†	-107.2	3.6	3.3425	ug/L	3.3425	ppb	14:34:46
2	Ca 317.933Radial†	24.5	5.2	10.883	ug/L	10.883	ppb	14:35:06
2	Fe 238.204 Radial†	11.8	0.7	9.2609	ug/L	9.2609	ppb	14:35:06
2	K 766.490 Radial†	2981.7	386.8	74.218	ug/L	74.218	ppb	14:34:46
2	Mg 279.077 IEC†	0.1	-3.9	-190.26	ug/L	-190.26	ppb	14:35:06
2	Na 589.592 Radial†	-742.8	65.9	20.305	ug/L	20.305	ppb	14:34:46
2	Sr 421.552†	54.5	19.6	0.1358	ug/L	0.1358	ppb	14:34:46
2	Sc 361.383	901041.5	901041.5	102.71	%			14:36:08
2	Y 371.029	761397.1	761397.1	100.73	%			14:36:08
2	Ag 328.068†	272.3	24.7	0.1317	ug/L	0.1317	ppb	14:36:13
2	As 188.979†	-11.5	7.0	3.1307	ug/L	3.1307	ppb	14:36:33
2	B 249.677†	-247.4	157.4	3.8264	ug/L	3.8264	ppb	14:36:33
2	Ba 233.527†	1270090.4	1236529.3	9703.5	ug/L	9703.5	ppb	14:36:08
2	Be 313.107†	-3645.0	213.5	0.0798	ug/L	0.0798	ppb	14:36:13
2	Cd 226.502†	-168.8	31.9	0.3656	ug/L	0.3656	ppb	14:36:33
2	Co 228.616†	-280.0	-206.1	0.3553	ug/L	0.3553	ppb	14:36:33
2	Cr 267.716†	87.8	7.8	0.0950	ug/L	0.0950	ppb	14:36:33
2	Cu 324.752†	5880.9	-265.3	-0.7980	ug/L	-0.7980	ppb	14:36:13
2	Mn 257.610†	451.9	-18.8	-0.0127	ug/L	-0.0127	ppb	14:36:33
2	Mo 202.031†	12.7	2.2	0.1645	ug/L	0.1645	ppb	14:36:33
2	Ni 231.604†	80.2	15.6	0.3997	ug/L	0.3997	ppb	14:36:33

2	P 214.914†	205.8	-10.1	-5.9263 ug/L	-5.9263 ppb	14:36:33
2	Pb 220.353†	-40.3	18.9	2.3272 ug/L	2.3272 ppb	14:36:33
2	S 181.975 Axial†	40.0	-1.8	-2.6595 ug/L	-2.6595 ppb	14:36:33
2	Sb 206.836†	40.1	2.4	0.8471 ug/L	0.8471 ppb	14:36:33
2	Se 196.026†	-22.7	5.7	3.7529 ug/L	3.7529 ppb	14:36:33
2	Si 251.611†	561.2	-11.9	-0.3886 ug/L	-0.3886 ppb	14:36:33
2	Sn 189.927†	15.4	4.5	0.8111 ug/L	0.8111 ppb	14:36:33
2	Ti 334.940†	-1533.4	-118.8	-0.1628 ug/L	-0.1628 ppb	14:36:13
2	Tl 190.801†	-32.0	1.4	0.4730 ug/L	0.4730 ppb	14:36:33
2	U 409.014†	-3552.7	-572.2	-15.803 ug/L	-15.803 ppb	14:36:08
2	V 292.402†	-1491.4	53.7	0.3417 ug/L	0.3417 ppb	14:36:13
2	Zn 213.857†	625.0	2.5	0.0222 ug/L	0.0222 ppb	14:36:33
2	SiO2†	641.3	70.0	4.8600 ug/L	4.8600 ppb	14:37:15
3	Sc Radial	3860.5	3860.5	98.5 %		14:35:31
3	Y RADIAL	4376.3	4376.3	99.22 %		14:35:11
3	Al 396.153Radial†	-134.0	-23.6	-22.081 ug/L	-22.081 ppb	14:35:11
3	Ca 317.933Radial†	19.7	0.3	0.6806 ug/L	0.6806 ppb	14:35:31
3	Fe 238.204 Radial†	12.2	1.1	15.397 ug/L	15.397 ppb	14:35:31
3	K 766.490 Radial†	2735.9	137.6	26.405 ug/L	26.405 ppb	14:35:11
3	Mg 279.077 IEC†	2.5	-1.5	-73.448 ug/L	-73.448 ppb	14:35:31
3	Na 589.592 Radial†	-747.7	60.7	18.724 ug/L	18.724 ppb	14:35:11
3	Sr 421.552†	27.4	-7.9	-0.0544 ug/L	-0.0544 ppb	14:35:11
3	Sc 361.383	900331.6	900331.6	102.63 %		14:36:39
3	Y 371.029	760478.0	760478.0	100.61 %		14:36:39
3	Ag 328.068†	245.9	-0.8	0.0182 ug/L	0.0182 ppb	14:36:44
3	As 188.979†	-20.5	-1.7	-0.7568 ug/L	-0.7568 ppb	14:37:04
3	B 249.677†	-231.9	172.3	4.1865 ug/L	4.1865 ppb	14:37:04
3	Ba 233.527†	1266018.5	1233536.9	9680.0 ug/L	9680.0 ppb	14:36:39
3	Be 313.107†	-3728.4	129.4	0.0485 ug/L	0.0485 ppb	14:36:44
3	Cd 226.502†	-153.7	46.5	0.5336 ug/L	0.5336 ppb	14:37:04
3	Co 228.616†	-277.3	-203.6	0.3944 ug/L	0.3944 ppb	14:37:04
3	Cr 267.716†	106.7	26.3	0.3047 ug/L	0.3047 ppb	14:37:04
3	Cu 324.752†	6125.7	-22.3	-0.0572 ug/L	-0.0572 ppb	14:36:44
3	Mn 257.610†	465.5	-5.2	-0.0014 ug/L	-0.0014 ppb	14:37:04
3	Mo 202.031†	6.6	-3.7	-0.2735 ug/L	-0.2735 ppb	14:37:04
3	Ni 231.604†	70.2	5.9	0.1529 ug/L	0.1529 ppb	14:37:04
3	P 214.914†	208.8	-7.1	-4.2655 ug/L	-4.2655 ppb	14:37:04
3	Pb 220.353†	-41.4	17.8	2.1849 ug/L	2.1849 ppb	14:37:04
3	S 181.975 Axial†	38.6	-3.2	-4.6504 ug/L	-4.6504 ppb	14:37:04
3	Sb 206.836†	31.2	-6.3	-2.2044 ug/L	-2.2044 ppb	14:37:04
3	Se 196.026†	-19.9	8.4	5.5368 ug/L	5.5368 ppb	14:37:04
3	Si 251.611†	572.9	-0.1	-0.0003 ug/L	-0.0003 ppb	14:37:04
3	Sn 189.927†	11.8	1.0	0.1836 ug/L	0.1836 ppb	14:37:04
3	Ti 334.940†	-1436.3	-25.4	-0.0261 ug/L	-0.0261 ppb	14:36:44
3	Tl 190.801†	-40.2	-6.6	-2.0880 ug/L	-2.0880 ppb	14:37:04
3	U 409.014†	-3616.7	-637.3	-17.600 ug/L	-17.600 ppb	14:36:39
3	V 292.402†	-1445.9	96.9	0.6341 ug/L	0.6341 ppb	14:36:44
3	Zn 213.857†	640.2	17.8	0.1756 ug/L	0.1756 ppb	14:37:04
3	SiO2†	586.1	16.7	1.1660 ug/L	1.1660 ppb	14:37:20

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901431.0	102.76	%	0.152				0.15%
Sc Radial	3850.4	98.3	%	0.46				0.46%
Y 371.029	762175.5	100.84	%	0.290				0.29%
Y RADIAL	4331.5	98.20	%	1.390				1.42%
Ag 328.068†	6.4	0.0465	ug/L	0.07523	0.0465	ppb	0.07523	161.94%
Al 396.153Radial†	-12.4	-11.642	ug/L	13.3074	-11.642	ppb	13.3074	114.31%
As 188.979†	5.1	2.2925	ug/L	2.72852	2.2925	ppb	2.72852	119.02%
B 249.677†	164.7	4.0036	ug/L	0.18013	4.0036	ppb	0.18013	4.50%
Ba 233.527†	1234109.0	9684.5	ug/L	17.19	9684.5	ppb	17.19	0.18%
Be 313.107†	177.0	0.0663	ug/L	0.01607	0.0663	ppb	0.01607	24.23%
Ca 317.933Radial†	2.3	4.8168	ug/L	5.36809	4.8168	ppb	5.36809	111.45%
Cd 226.502†	37.9	0.4348	ug/L	0.08779	0.4348	ppb	0.08779	20.19%
Co 228.616†	-203.1	0.4078	ug/L	0.06035	0.4078	ppb	0.06035	14.80%
Cr 267.716†	15.5	0.1818	ug/L	0.10938	0.1818	ppb	0.10938	60.15%
Cu 324.752†	-126.8	-0.3761	ug/L	0.38102	-0.3761	ppb	0.38102	101.32%
Fe 238.204 Radial†	0.3	4.4561	ug/L	13.97703	4.4561	ppb	13.97703	313.66%
K 766.490 Radial†	260.9	50.056	ug/L	23.9107	50.056	ppb	23.9107	47.77%

Mg 279.077 IEC†	-3.4	-163.74	ug/L	80.383	-163.74	ppb	80.383 49.09%
Mn 257.610†	-6.0	0.0003	ug/L	0.01395	0.0003	ppb	0.01395 >999.9%
Mo 202.031†	0.4	0.0268	ug/L	0.26038	0.0268	ppb	0.26038 971.71%
Na 589.592 Radial†	54.0	16.636	ug/L	5.0473	16.636	ppb	5.0473 30.34%
Ni 231.604†	5.7	0.1472	ug/L	0.25546	0.1472	ppb	0.25546 173.58%
P 214.914†	-5.1	-2.9957	ug/L	3.73127	-2.9957	ppb	3.73127 124.56%
Pb 220.353†	9.6	1.1811	ug/L	1.86330	1.1811	ppb	1.86330 157.76%
S 181.975 Axial†	-2.3	-3.3548	ug/L	1.12297	-3.3548	ppb	1.12297 33.47%
Sb 206.836†	-0.1	-0.0322	ug/L	1.89244	-0.0322	ppb	1.89244 >999.9%
Se 196.026†	7.1	4.6402	ug/L	0.89196	4.6402	ppb	0.89196 19.22%
Si 251.611†	6.9	0.2241	ug/L	0.75039	0.2241	ppb	0.75039 334.91%
Sn 189.927†	3.5	0.6371	ug/L	0.39622	0.6371	ppb	0.39622 62.19%
Sr 421.552†	8.1	0.0558	ug/L	0.09862	0.0558	ppb	0.09862 176.89%
Ti 334.940†	-52.6	-0.0612	ug/L	0.08943	-0.0612	ppb	0.08943 146.15%
Tl 190.801†	-3.5	-1.1007	ug/L	1.37751	-1.1007	ppb	1.37751 125.15%
U 409.014†	-622.2	-17.183	ug/L	1.2262	-17.183	ppb	1.2262 7.14%
V 292.402†	50.6	0.3165	ug/L	0.33093	0.3165	ppb	0.33093 104.56%
Zn 213.857†	6.8	0.0670	ug/L	0.09459	0.0670	ppb	0.09459 141.20%
SiO2†	35.2	2.4458	ug/L	2.09207	2.4458	ppb	2.09207 85.54%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 14:39:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3813.6	3813.6	97.3	%			14:41:43
1	Y RADIAL	4271.0	4271.0	96.83	%			14:41:23
1	Al 396.153Radial†	5208.5	5464.7	5101.7	ug/L	5101.7	ppb	14:41:23
1	Ca 317.933Radial†	2425.6	2472.9	5169.5	ug/L	5169.5	ppb	14:41:43
1	Fe 238.204 Radial†	357.8	356.3	5044.2	ug/L	5044.2	ppb	14:41:43
1	K 766.490 Radial†	28527.0	26674.4	5112.3	ug/L	5112.3	ppb	14:41:23
1	Mg 279.077 IEC†	105.5	104.3	5058.9	ug/L	5058.9	ppb	14:41:43
1	Na 589.592 Radial†	31800.0	33497.1	10328	ug/L	10328	ppb	14:41:23
1	Sr 421.552†	71096.1	73021.8	505.24	ug/L	505.24	ppb	14:41:23
1	Sc 361.383	897318.0	897318.0	102.29	%			14:42:40
1	Y 371.029	748412.4	748412.4	99.017	%			14:42:40
1	Ag 328.068†	107466.1	104820.0	488.68	ug/L	488.68	ppb	14:42:45
1	As 188.979†	1091.7	1085.5	488.93	ug/L	488.93	ppb	14:43:05
1	B 249.677†	19987.5	19938.3	481.19	ug/L	481.19	ppb	14:42:45
1	Ba 233.527†	63683.8	62259.6	489.80	ug/L	489.80	ppb	14:42:45
1	Be 313.107†	1334439.9	1308330.1	492.77	ug/L	492.77	ppb	14:42:40
1	Cd 226.502†	43040.7	42273.4	489.41	ug/L	489.41	ppb	14:42:45
1	Co 228.616†	23858.7	23391.2	490.07	ug/L	490.07	ppb	14:42:45
1	Cr 267.716†	44493.9	43420.2	488.40	ug/L	488.40	ppb	14:42:45
1	Cu 324.752†	168486.9	158724.5	483.01	ug/L	483.01	ppb	14:42:45
1	Mn 257.610†	443160.9	432781.8	492.77	ug/L	492.77	ppb	14:42:40
1	Mo 202.031†	6762.2	6600.7	485.05	ug/L	485.05	ppb	14:43:05
1	Ni 231.604†	19832.5	19326.1	491.23	ug/L	491.23	ppb	14:42:45
1	P 214.914†	4313.8	4006.8	2317.9	ug/L	2317.9	ppb	14:43:05
1	Pb 220.353†	4001.0	3969.5	489.73	ug/L	489.73	ppb	14:43:05
1	S 181.975 Axial†	741.7	684.3	983.78	ug/L	983.78	ppb	14:43:05
1	Sb 206.836†	1426.6	1358.0	492.08	ug/L	492.08	ppb	14:43:05
1	Se 196.026†	730.5	741.9	503.19	ug/L	503.19	ppb	14:43:05
1	Si 251.611†	77333.7	75044.2	2422.4	ug/L	2422.4	ppb	14:42:45
1	Sn 189.927†	2752.7	2680.6	481.60	ug/L	481.60	ppb	14:43:05
1	Ti 334.940†	313933.6	308280.1	484.32	ug/L	484.32	ppb	14:42:45
1	Tl 190.801†	1524.2	1522.7	490.16	ug/L	490.16	ppb	14:43:05
1	U 409.014†	14843.8	17398.1	478.77	ug/L	478.77	ppb	14:42:45
1	V 292.402†	69782.5	69726.1	492.63	ug/L	492.63	ppb	14:42:45
1	Zn 213.857†	50248.6	48517.7	483.86	ug/L	483.86	ppb	14:42:45
1	SiO2†	76980.2	74702.6	5178.3	ug/L	5178.3	ppb	14:44:13
2	Sc Radial	3801.6	3801.6	97.0	%			14:42:08
2	Y RADIAL	4267.4	4267.4	96.75	%			14:41:48
2	Al 396.153Radial†	5185.3	5457.6	5094.9	ug/L	5094.9	ppb	14:41:48
2	Ca 317.933Radial†	2420.4	2475.3	5174.7	ug/L	5174.7	ppb	14:42:08
2	Fe 238.204 Radial†	356.8	356.5	5046.7	ug/L	5046.7	ppb	14:42:08
2	K 766.490 Radial†	28525.8	26765.4	5129.8	ug/L	5129.8	ppb	14:41:48
2	Mg 279.077 IEC†	110.3	109.6	5316.2	ug/L	5316.2	ppb	14:42:08
2	Na 589.592 Radial†	31683.7	33480.1	10323	ug/L	10323	ppb	14:41:48
2	Sr 421.552†	70922.6	73072.9	505.59	ug/L	505.59	ppb	14:41:48
2	Sc 361.383	897850.4	897850.4	102.35	%			14:43:11
2	Y 371.029	747514.0	747514.0	98.898	%			14:43:11
2	Ag 328.068†	107690.3	104976.8	489.40	ug/L	489.40	ppb	14:43:16
2	As 188.979†	1097.8	1090.8	491.30	ug/L	491.30	ppb	14:43:36
2	B 249.677†	20055.8	19993.5	482.52	ug/L	482.52	ppb	14:43:16
2	Ba 233.527†	63750.8	62288.1	490.02	ug/L	490.02	ppb	14:43:16
2	Be 313.107†	1336788.7	1309851.4	493.34	ug/L	493.34	ppb	14:43:11
2	Cd 226.502†	43138.2	42343.8	490.22	ug/L	490.22	ppb	14:43:16
2	Co 228.616†	23940.2	23456.9	491.45	ug/L	491.45	ppb	14:43:16
2	Cr 267.716†	44587.4	43485.8	489.14	ug/L	489.14	ppb	14:43:16
2	Cu 324.752†	168542.3	158681.0	482.88	ug/L	482.88	ppb	14:43:16
2	Mn 257.610†	444660.3	433989.9	494.13	ug/L	494.13	ppb	14:43:11
2	Mo 202.031†	6792.1	6626.0	486.91	ug/L	486.91	ppb	14:43:36
2	Ni 231.604†	19773.0	19256.4	489.45	ug/L	489.45	ppb	14:43:16

2	P 214.914†	4360.6	4049.9	2343.9 ug/L	2343.9 ppb	14:43:36
2	Pb 220.353†	4021.3	3987.1	491.89 ug/L	491.89 ppb	14:43:36
2	S 181.975 Axial†	742.4	684.6	984.14 ug/L	984.14 ppb	14:43:36
2	Sb 206.836†	1453.3	1383.2	501.03 ug/L	501.03 ppb	14:43:36
2	Se 196.026†	748.6	759.2	514.51 ug/L	514.51 ppb	14:43:36
2	Si 251.611†	77481.0	75143.4	2425.6 ug/L	2425.6 ppb	14:43:16
2	Sn 189.927†	2795.1	2720.4	488.75 ug/L	488.75 ppb	14:43:36
2	Ti 334.940†	313873.3	308039.3	483.92 ug/L	483.92 ppb	14:43:16
2	Tl 190.801†	1531.9	1529.3	492.26 ug/L	492.26 ppb	14:43:36
2	U 409.014†	14953.9	17497.1	481.50 ug/L	481.50 ppb	14:43:16
2	V 292.402†	69592.1	69499.6	491.09 ug/L	491.09 ppb	14:43:16
2	Zn 213.857†	50418.8	48654.8	485.25 ug/L	485.25 ppb	14:43:16
2	SiO2†	76690.2	74374.6	5155.5 ug/L	5155.5 ppb	14:44:18
3	Sc Radial	3795.4	3795.4	96.9 %		14:42:33
3	Y RADIAL	4265.4	4265.4	96.70 %		14:42:13
3	Al 396.153Radial†	5173.9	5454.6	5092.0 ug/L	5092.0 ppb	14:42:13
3	Ca 317.933Radial†	2424.4	2483.5	5191.9 ug/L	5191.9 ppb	14:42:33
3	Fe 238.204 Radial†	355.3	355.5	5032.9 ug/L	5032.9 ppb	14:42:33
3	K 766.490 Radial†	28354.5	26637.0	5105.1 ug/L	5105.1 ppb	14:42:13
3	Mg 279.077 IEC†	105.9	105.2	5102.2 ug/L	5102.2 ppb	14:42:33
3	Na 589.592 Radial†	31397.3	33238.1	10248 ug/L	10248 ppb	14:42:13
3	Sr 421.552†	70498.2	72755.1	503.39 ug/L	503.39 ppb	14:42:13
3	Sc 361.383	888451.7	888451.7	101.28 %		14:43:42
3	Y 371.029	740912.2	740912.2	98.024 %		14:43:42
3	Ag 328.068†	107485.0	105887.1	493.63 ug/L	493.63 ppb	14:43:47
3	As 188.979†	1102.4	1106.8	498.45 ug/L	498.45 ppb	14:44:08
3	B 249.677†	19977.4	20123.3	485.67 ug/L	485.67 ppb	14:43:47
3	Ba 233.527†	63409.9	62610.5	492.56 ug/L	492.56 ppb	14:43:47
3	Be 313.107†	1315040.4	1302194.5	490.47 ug/L	490.47 ppb	14:43:42
3	Cd 226.502†	42954.6	42608.4	493.29 ug/L	493.29 ppb	14:43:47
3	Co 228.616†	23716.2	23483.3	492.00 ug/L	492.00 ppb	14:43:47
3	Cr 267.716†	44432.6	43793.8	492.60 ug/L	492.60 ppb	14:43:47
3	Cu 324.752†	168005.5	159892.9	486.57 ug/L	486.57 ppb	14:43:47
3	Mn 257.610†	438325.3	432330.8	492.25 ug/L	492.25 ppb	14:43:42
3	Mo 202.031†	6776.8	6681.1	490.95 ug/L	490.95 ppb	14:44:08
3	Ni 231.604†	19707.0	19395.7	492.99 ug/L	492.99 ppb	14:43:47
3	P 214.914†	4353.0	4087.5	2365.8 ug/L	2365.8 ppb	14:44:08
3	Pb 220.353†	3999.9	4007.5	494.41 ug/L	494.41 ppb	14:44:08
3	S 181.975 Axial†	736.1	686.0	986.27 ug/L	986.27 ppb	14:44:08
3	Sb 206.836†	1447.1	1392.1	504.21 ug/L	504.21 ppb	14:44:08
3	Se 196.026†	740.1	758.5	514.01 ug/L	514.01 ppb	14:44:08
3	Si 251.611†	77186.3	75653.2	2442.0 ug/L	2442.0 ppb	14:43:47
3	Sn 189.927†	2764.6	2719.2	488.52 ug/L	488.52 ppb	14:44:08
3	Ti 334.940†	313106.9	310526.6	487.85 ug/L	487.85 ppb	14:43:47
3	Tl 190.801†	1532.7	1545.9	497.60 ug/L	497.60 ppb	14:44:08
3	U 409.014†	14747.7	17448.0	480.14 ug/L	480.14 ppb	14:43:47
3	V 292.402†	69442.5	70071.2	495.12 ug/L	495.12 ppb	14:43:47
3	Zn 213.857†	50140.7	48901.4	487.71 ug/L	487.71 ppb	14:43:47
3	SiO2†	76994.2	75467.4	5231.3 ug/L	5231.3 ppb	14:44:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894540.0	101.97	%	0.602				0.59%
Sc Radial	3803.5	97.1	%	0.24				0.24%
Y 371.029	745612.9	98.646	%	0.5419				0.55%
Y RADIAL	4267.9	96.76	%	0.065				0.07%
Ag 328.068†	105228.0	490.57	ug/L	2.674	490.57	ppb	2.674	0.55%
QC value within limits for Ag 328.068 Recovery = 98.11%								
Al 396.153Radial†	5458.9	5096.2	ug/L	4.98	5096.2	ppb	4.98	0.10%
QC value within limits for Al 396.153Radial Recovery = 101.92%								
As 188.979†	1094.3	492.89	ug/L	4.955	492.89	ppb	4.955	1.01%
QC value within limits for As 188.979 Recovery = 98.58%								
B 249.677†	20018.4	483.13	ug/L	2.301	483.13	ppb	2.301	0.48%
QC value within limits for B 249.677 Recovery = 96.63%								
Ba 233.527†	62386.1	490.79	ug/L	1.533	490.79	ppb	1.533	0.31%
QC value within limits for Ba 233.527 Recovery = 98.16%								
Be 313.107†	1306792.0	492.19	ug/L	1.518	492.19	ppb	1.518	0.31%
QC value within limits for Be 313.107 Recovery = 98.44%								
Ca 317.933Radial†	2477.2	5178.7	ug/L	11.69	5178.7	ppb	11.69	0.23%

```
   QC value within limits for Ca 317.933Radial  Recovery = 103.57%
Cd 226.502†            42408.6      490.97 ug/L         2.047      490.97 ppb          2.047   0.42%
   QC value within limits for Cd 226.502  Recovery = 98.19%
Co 228.616†            23443.8      491.18 ug/L         0.997      491.18 ppb          0.997   0.20%
   QC value within limits for Co 228.616  Recovery = 98.24%
Cr 267.716†            43566.6      490.05 ug/L         2.241      490.05 ppb          2.241   0.46%
   QC value within limits for Cr 267.716  Recovery = 98.01%
Cu 324.752†           159099.5      484.15 ug/L         2.092      484.15 ppb          2.092   0.43%
   QC value within limits for Cu 324.752  Recovery = 96.83%
Fe 238.204 Radial†       356.1      5041.3 ug/L          7.36      5041.3 ppb           7.36   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      26692.3      5115.7 ug/L         12.67      5115.7 ppb          12.67   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 102.31%
Mg 279.077 IEC†          106.4      5159.1 ug/L        137.75      5159.1 ppb         137.75   2.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.18%
Mn 257.610†           433034.1      493.05 ug/L         0.972      493.05 ppb          0.972   0.20%
   QC value within limits for Mn 257.610  Recovery = 98.61%
Mo 202.031†             6635.9      487.64 ug/L         3.017      487.64 ppb          3.017   0.62%
   QC value within limits for Mo 202.031  Recovery = 97.53%
Na 589.592 Radial†     33405.1       10300 ug/L          44.7       10300 ppb           44.7   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 103.00%
Ni 231.604†            19326.1      491.22 ug/L         1.771      491.22 ppb          1.771   0.36%
   QC value within limits for Ni 231.604  Recovery = 98.24%
P 214.914†              4048.1      2342.5 ug/L         24.01      2342.5 ppb          24.01   1.03%
   QC value within limits for P 214.914  Recovery = 93.70%
Pb 220.353†             3988.0      492.01 ug/L         2.345      492.01 ppb          2.345   0.48%
   QC value within limits for Pb 220.353  Recovery = 98.40%
S 181.975 Axial†         685.0      984.73 ug/L         1.346      984.73 ppb          1.346   0.14%
   QC value within limits for S 181.975 Axial  Recovery = 98.47%
Sb 206.836†             1377.8      499.10 ug/L         6.292      499.10 ppb          6.292   1.26%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†              753.2      510.57 ug/L         6.397      510.57 ppb          6.397   1.25%
   QC value within limits for Se 196.026  Recovery = 102.11%
Si 251.611†            75280.3      2430.0 ug/L         10.54      2430.0 ppb          10.54   0.43%
   QC value within limits for Si 251.611  Recovery = 97.20%
Sn 189.927†             2706.7      486.29 ug/L         4.066      486.29 ppb          4.066   0.84%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†            72949.9      504.74 ug/L         1.181      504.74 ppb          1.181   0.23%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†           308948.7      485.37 ug/L         2.161      485.37 ppb          2.161   0.45%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†             1532.6      493.34 ug/L         3.838      493.34 ppb          3.838   0.78%
   QC value within limits for Tl 190.801  Recovery = 98.67%
U 409.014†             17447.7      480.13 ug/L         1.366      480.13 ppb          1.366   0.28%
   QC value within limits for U 409.014  Recovery = 96.03%
V 292.402†             69765.6      492.95 ug/L         2.035      492.95 ppb          2.035   0.41%
   QC value within limits for V 292.402  Recovery = 98.59%
Zn 213.857†            48691.3      485.61 ug/L         1.948      485.61 ppb          1.948   0.40%
   QC value within limits for Zn 213.857  Recovery = 97.12%
SiO2†                  74848.2      5188.3 ug/L         38.90      5188.3 ppb          38.90   0.75%
   QC value within limits for SiO2  Recovery = 97.02%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 14:46:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3682.8	3682.8	94.0	%			14:48:46
1	Y RADIAL	4067.2	4067.2	92.21	%			14:48:26
1	Al 396.153Radial†	-98.8	7.2	6.7744	ug/L	6.7744	ppb	14:48:26
1	Ca 317.933Radial†	16.7	-1.9	-3.9722	ug/L	-3.9722	ppb	14:48:46
1	Fe 238.204 Radial†	9.7	-1.0	-14.139	ug/L	-14.139	ppb	14:48:46
1	K 766.490 Radial†	2748.3	284.9	54.664	ug/L	54.664	ppb	14:48:26
1	Mg 279.077 IEC†	2.9	-1.0	-49.993	ug/L	-49.993	ppb	14:48:46
1	Na 589.592 Radial†	-718.7	55.0	16.959	ug/L	16.959	ppb	14:48:26
1	Sr 421.552†	41.3	8.2	0.0570	ug/L	0.0570	ppb	14:48:26
1	Sc 361.383	895247.1	895247.1	102.05	%			14:49:43
1	Y 371.029	758562.0	758562.0	100.36	%			14:49:43
1	Ag 328.068†	198.4	-46.0	-0.2156	ug/L	-0.2156	ppb	14:49:43
1	As 188.979†	-17.6	1.0	0.4478	ug/L	0.4478	ppb	14:50:03
1	B 249.677†	-209.5	193.0	4.6808	ug/L	4.6808	ppb	14:50:03
1	Ba 233.527†	29.4	30.2	0.2380	ug/L	0.2380	ppb	14:50:03
1	Be 313.107†	-3586.5	247.9	0.0933	ug/L	0.0933	ppb	14:49:43
1	Cd 226.502†	-179.4	20.5	0.2394	ug/L	0.2394	ppb	14:50:03
1	Co 228.616†	-64.7	3.1	0.0665	ug/L	0.0665	ppb	14:50:03
1	Cr 267.716†	73.5	-5.7	-0.0646	ug/L	-0.0646	ppb	14:50:03
1	Cu 324.752†	5986.4	-124.8	-0.3813	ug/L	-0.3813	ppb	14:49:43
1	Mn 257.610†	448.7	-19.1	-0.0211	ug/L	-0.0211	ppb	14:50:03
1	Mo 202.031†	16.9	6.4	0.4684	ug/L	0.4684	ppb	14:50:03
1	Ni 231.604†	74.2	10.2	0.2604	ug/L	0.2604	ppb	14:50:03
1	P 214.914†	206.4	-8.3	-4.8584	ug/L	-4.8584	ppb	14:50:03
1	Pb 220.353†	-61.6	-2.3	-0.2752	ug/L	-0.2752	ppb	14:50:03
1	S 181.975 Axial†	35.4	-6.1	-8.8491	ug/L	-8.8491	ppb	14:50:03
1	Sb 206.836†	42.3	4.7	1.6931	ug/L	1.6931	ppb	14:50:03
1	Se 196.026†	-28.5	-0.2	-0.1591	ug/L	-0.1591	ppb	14:50:03
1	Si 251.611†	578.2	8.3	0.2613	ug/L	0.2613	ppb	14:50:03
1	Sn 189.927†	23.4	12.5	2.2394	ug/L	2.2394	ppb	14:50:03
1	Ti 334.940†	-1358.1	43.3	0.0710	ug/L	0.0710	ppb	14:49:43
1	Tl 190.801†	-31.9	1.4	0.4307	ug/L	0.4307	ppb	14:50:03
1	U 409.014†	-2900.2	44.8	1.2389	ug/L	1.2389	ppb	14:49:43
1	V 292.402†	-1430.6	103.9	0.7346	ug/L	0.7346	ppb	14:49:43
1	Zn 213.857†	661.7	42.3	0.4268	ug/L	0.4268	ppb	14:50:03
1	SiO2†	627.2	60.2	4.1714	ug/L	4.1714	ppb	14:50:59
2	Sc Radial	3902.0	3902.0	99.6	%			14:49:11
2	Y RADIAL	4377.1	4377.1	99.24	%			14:48:51
2	Al 396.153Radial†	-126.9	-15.0	-14.101	ug/L	-14.101	ppb	14:48:51
2	Ca 317.933Radial†	21.8	2.2	4.5475	ug/L	4.5475	ppb	14:49:11
2	Fe 238.204 Radial†	12.5	1.2	16.803	ug/L	16.803	ppb	14:49:11
2	K 766.490 Radial†	2756.1	128.4	24.634	ug/L	24.634	ppb	14:48:51
2	Mg 279.077 IEC†	0.6	-3.5	-168.77	ug/L	-168.77	ppb	14:49:11
2	Na 589.592 Radial†	-774.7	41.8	12.877	ug/L	12.877	ppb	14:48:51
2	Sr 421.552†	25.9	-9.8	-0.0676	ug/L	-0.0676	ppb	14:48:51
2	Sc 361.383	889931.0	889931.0	101.45	%			14:50:08
2	Y 371.029	753903.0	753903.0	99.743	%			14:50:08
2	Ag 328.068†	289.7	45.2	0.2204	ug/L	0.2204	ppb	14:50:08
2	As 188.979†	-23.1	-4.5	-1.9988	ug/L	-1.9988	ppb	14:50:28
2	B 249.677†	-228.0	173.5	4.2030	ug/L	4.2030	ppb	14:50:28
2	Ba 233.527†	32.9	33.8	0.2675	ug/L	0.2675	ppb	14:50:28
2	Be 313.107†	-3670.0	144.6	0.0540	ug/L	0.0540	ppb	14:50:08
2	Cd 226.502†	-167.9	30.8	0.3542	ug/L	0.3542	ppb	14:50:28
2	Co 228.616†	-62.3	5.1	0.1074	ug/L	0.1074	ppb	14:50:28
2	Cr 267.716†	74.3	-4.4	-0.0454	ug/L	-0.0454	ppb	14:50:28
2	Cu 324.752†	6105.8	27.9	0.0878	ug/L	0.0878	ppb	14:50:08
2	Mn 257.610†	444.9	-20.2	-0.0144	ug/L	-0.0144	ppb	14:50:28
2	Mo 202.031†	13.3	3.0	0.2214	ug/L	0.2214	ppb	14:50:28
2	Ni 231.604†	57.9	-5.4	-0.1370	ug/L	-0.1370	ppb	14:50:28

2	P 214.914†	197.6	-15.7	-9.4878 ug/L	-9.4878 ppb	14:50:28
2	Pb 220.353†	-48.9	9.9	1.2151 ug/L	1.2151 ppb	14:50:28
2	S 181.975 Axial†	37.6	-3.7	-5.3510 ug/L	-5.3510 ppb	14:50:28
2	Sb 206.836†	48.0	10.6	3.7416 ug/L	3.7416 ppb	14:50:28
2	Se 196.026†	-21.0	7.1	4.6764 ug/L	4.6764 ppb	14:50:28
2	Si 251.611†	586.1	19.4	0.6263 ug/L	0.6263 ppb	14:50:28
2	Sn 189.927†	25.9	15.0	2.6994 ug/L	2.6994 ppb	14:50:28
2	Ti 334.940†	-1498.5	-103.0	-0.1459 ug/L	-0.1459 ppb	14:50:08
2	Tl 190.801†	-35.5	-2.4	-0.7751 ug/L	-0.7751 ppb	14:50:28
2	U 409.014†	-3065.5	-135.2	-3.7348 ug/L	-3.7348 ppb	14:50:08
2	V 292.402†	-1421.2	104.7	0.7206 ug/L	0.7206 ppb	14:50:08
2	Zn 213.857†	662.5	47.0	0.4714 ug/L	0.4714 ppb	14:50:28
2	SiO2†	619.8	56.5	3.9239 ug/L	3.9239 ppb	14:51:04
3	Sc Radial	3896.8	3896.8	99.4 %		14:49:36
3	Y RADIAL	4548.4	4548.4	103.1 %		14:49:16
3	Al 396.153Radial†	-99.8	12.1	11.328 ug/L	11.328 ppb	14:49:16
3	Ca 317.933Radial†	19.9	0.4	0.7604 ug/L	0.7604 ppb	14:49:36
3	Fe 238.204 Radial†	10.7	-0.6	-8.1655 ug/L	-8.1655 ppb	14:49:36
3	K 766.490 Radial†	2738.7	114.5	21.975 ug/L	21.975 ppb	14:49:16
3	Mg 279.077 IEC†	4.7	0.7	32.689 ug/L	32.689 ppb	14:49:36
3	Na 589.592 Radial†	-766.2	49.2	15.174 ug/L	15.174 ppb	14:49:16
3	Sr 421.552†	66.1	30.7	0.2127 ug/L	0.2127 ppb	14:49:16
3	Sc 361.383	900462.2	900462.2	102.65 %		14:50:33
3	Y 371.029	761741.5	761741.5	100.78 %		14:50:33
3	Ag 328.068†	290.7	42.8	0.1976 ug/L	0.1976 ppb	14:50:33
3	As 188.979†	-23.4	-4.5	-2.0280 ug/L	-2.0280 ppb	14:50:53
3	B 249.677†	-241.7	162.7	3.9456 ug/L	3.9456 ppb	14:50:53
3	Ba 233.527†	33.7	34.2	0.2693 ug/L	0.2693 ppb	14:50:53
3	Be 313.107†	-3760.7	98.5	0.0369 ug/L	0.0369 ppb	14:50:33
3	Cd 226.502†	-173.8	27.0	0.3130 ug/L	0.3130 ppb	14:50:53
3	Co 228.616†	-53.8	14.1	0.2956 ug/L	0.2956 ppb	14:50:53
3	Cr 267.716†	92.9	12.8	0.1433 ug/L	0.1433 ppb	14:50:53
3	Cu 324.752†	6036.2	-110.3	-0.3361 ug/L	-0.3361 ppb	14:50:33
3	Mn 257.610†	439.1	-30.9	-0.0373 ug/L	-0.0373 ppb	14:50:53
3	Mo 202.031†	9.9	-0.5	-0.0345 ug/L	-0.0345 ppb	14:50:53
3	Ni 231.604†	63.2	-0.9	-0.0223 ug/L	-0.0223 ppb	14:50:53
3	P 214.914†	200.8	-14.9	-8.8541 ug/L	-8.8541 ppb	14:50:53
3	Pb 220.353†	-56.3	3.2	0.4003 ug/L	0.4003 ppb	14:50:53
3	S 181.975 Axial†	38.4	-3.4	-4.9324 ug/L	-4.9324 ppb	14:50:53
3	Sb 206.836†	50.0	12.0	4.2034 ug/L	4.2034 ppb	14:50:53
3	Se 196.026†	-24.1	4.2	2.7418 ug/L	2.7418 ppb	14:50:53
3	Si 251.611†	568.1	-4.9	-0.1587 ug/L	-0.1587 ppb	14:50:53
3	Sn 189.927†	16.6	5.6	1.0137 ug/L	1.0137 ppb	14:50:53
3	Ti 334.940†	-1433.9	-22.8	-0.0384 ug/L	-0.0384 ppb	14:50:33
3	Tl 190.801†	-28.3	5.0	1.5859 ug/L	1.5859 ppb	14:50:53
3	U 409.014†	-2971.3	-8.1	-0.2222 ug/L	-0.2222 ppb	14:50:33
3	V 292.402†	-1486.5	57.5	0.4017 ug/L	0.4017 ppb	14:50:33
3	Zn 213.857†	665.1	41.9	0.4237 ug/L	0.4237 ppb	14:50:53
3	SiO2†	602.1	32.2	2.2358 ug/L	2.2358 ppb	14:51:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895213.4	102.05	%	0.600				0.59%
Sc Radial	3827.2	97.7	%	3.19				3.27%
Y 371.029	758068.8	100.29	%	0.522				0.52%
Y RADIAL	4330.9	98.19	%	5.530				5.63%
Ag 328.068†	14.0	0.0675	ug/L	0.24541	0.0675	ppb	0.24541	363.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	1.3337	ug/L	13.55939	1.3337	ppb	13.55939	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.7	-1.1930	ug/L	1.42102	-1.1930	ppb	1.42102	119.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	176.4	4.2765	ug/L	0.37307	4.2765	ppb	0.37307	8.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	32.7	0.2583	ug/L	0.01757	0.2583	ppb	0.01757	6.80%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	163.6	0.0614	ug/L	0.02891	0.0614	ppb	0.02891	47.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.2	0.4452	ug/L	4.26860	0.4452	ppb	4.26860	958.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                26.1      0.3022 ug/L       0.05816      0.3022 ppb        0.05816  19.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.4      0.1565 ug/L       0.12221      0.1565 ppb        0.12221  78.10%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.9      0.0111 ug/L       0.11487      0.0111 ppb        0.11487 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.1     -0.2099 ug/L       0.25882     -0.2099 ppb        0.25882 123.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -1.8337 ug/L      16.41405     -1.8337 ppb       16.41405 895.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         175.9      33.758 ug/L       18.1542      33.758 ppb        18.1542  53.78%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.3     -62.024 ug/L      101.2660     -62.024 ppb       101.2660 163.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -23.4     -0.0243 ug/L       0.01179     -0.0243 ppb        0.01179  48.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.0      0.2184 ug/L       0.25146      0.2184 ppb        0.25146 115.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         48.7      15.003 ug/L        2.0464      15.003 ppb         2.0464  13.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.3      0.0337 ug/L       0.20455      0.0337 ppb        0.20455 606.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.9     -7.7335 ug/L       2.50992     -7.7335 ppb        2.50992  32.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.6      0.4468 ug/L       0.74623      0.4468 ppb        0.74623 167.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.4     -6.3775 ug/L       2.15070     -6.3775 ppb        2.15070  33.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.1      3.2127 ug/L       1.33610      3.2127 ppb        1.33610  41.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.7      2.4197 ug/L       2.43378      2.4197 ppb        2.43378 100.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 7.6      0.2430 ug/L       0.39286      0.2430 ppb        0.39286 161.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.1      1.9842 ug/L       0.87138      1.9842 ppb        0.87138  43.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.7      0.0674 ug/L       0.14043      0.0674 ppb        0.14043 208.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -27.5     -0.0377 ug/L       0.10845     -0.0377 ppb        0.10845 287.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.3      0.4138 ug/L       1.18060      0.4138 ppb        1.18060 285.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -32.8     -0.9060 ug/L       2.55637     -0.9060 ppb        2.55637 282.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 88.7      0.6190 ug/L       0.18828      0.6190 ppb        0.18828  30.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                43.7      0.4406 ug/L       0.02666      0.4406 ppb        0.02666   6.05%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      49.6      3.4437 ug/L       1.05336      3.4437 ppb        1.05336  30.59%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 16:03:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3841.1	3841.1	98.0	%			16:05:54
1	Y RADIAL	4330.5	4330.5	98.18	%			16:05:34
1	Al 396.153Radial†	5213.3	5431.1	5070.2	ug/L	5070.2	ppb	16:05:34
1	Ca 317.933Radial†	2445.7	2475.5	5175.1	ug/L	5175.1	ppb	16:05:54
1	Fe 238.204 Radial†	358.5	354.4	5017.6	ug/L	5017.6	ppb	16:05:54
1	K 766.490 Radial†	28720.2	26661.5	5109.8	ug/L	5109.8	ppb	16:05:34
1	Mg 279.077 IEC†	105.2	103.3	5007.4	ug/L	5007.4	ppb	16:05:54
1	Na 589.592 Radial†	32199.8	33670.9	10382	ug/L	10382	ppb	16:05:34
1	Sr 421.552†	71792.3	73208.6	506.53	ug/L	506.53	ppb	16:05:34
1	Sc 361.383	902357.4	902357.4	102.86	%			16:06:51
1	Y 371.029	751235.4	751235.4	99.390	%			16:06:51
1	Ag 328.068†	107390.8	104160.1	485.60	ug/L	485.60	ppb	16:06:56
1	As 188.979†	1088.0	1075.9	484.63	ug/L	484.63	ppb	16:07:16
1	B 249.677†	19507.4	19362.5	467.24	ug/L	467.24	ppb	16:06:56
1	Ba 233.527†	63509.9	61742.9	485.73	ug/L	485.73	ppb	16:06:56
1	Be 313.107†	1340459.0	1306896.0	492.22	ug/L	492.22	ppb	16:06:51
1	Cd 226.502†	42994.2	41993.3	486.16	ug/L	486.16	ppb	16:06:56
1	Co 228.616†	23824.9	23228.0	486.66	ug/L	486.66	ppb	16:06:56
1	Cr 267.716†	44373.9	43060.6	484.36	ug/L	484.36	ppb	16:06:56
1	Cu 324.752†	167995.8	157327.2	478.76	ug/L	478.76	ppb	16:06:56
1	Mn 257.610†	447043.3	434136.6	494.31	ug/L	494.31	ppb	16:06:51
1	Mo 202.031†	6800.2	6600.7	485.05	ug/L	485.05	ppb	16:07:16
1	Ni 231.604†	19731.3	19119.4	485.97	ug/L	485.97	ppb	16:06:56
1	P 214.914†	4336.4	4005.2	2317.8	ug/L	2317.8	ppb	16:07:16
1	Pb 220.353†	3989.6	3936.7	485.68	ug/L	485.68	ppb	16:07:16
1	S 181.975 Axial†	721.1	660.3	949.18	ug/L	949.18	ppb	16:07:16
1	Sb 206.836†	1439.3	1362.5	493.67	ug/L	493.67	ppb	16:07:16
1	Se 196.026†	733.5	740.9	502.41	ug/L	502.41	ppb	16:07:16
1	Si 251.611†	77075.7	74371.2	2400.6	ug/L	2400.6	ppb	16:06:56
1	Sn 189.927†	2771.5	2683.8	482.18	ug/L	482.18	ppb	16:07:16
1	Ti 334.940†	313695.9	306335.0	481.27	ug/L	481.27	ppb	16:06:56
1	Tl 190.801†	1512.6	1503.1	483.89	ug/L	483.89	ppb	16:07:16
1	U 409.014†	15037.1	17505.0	481.73	ug/L	481.73	ppb	16:06:56
1	V 292.402†	69513.5	69083.5	488.17	ug/L	488.17	ppb	16:06:56
1	Zn 213.857†	50103.7	48102.5	479.73	ug/L	479.73	ppb	16:06:56
1	SiO2†	77571.6	74857.2	5189.0	ug/L	5189.0	ppb	16:08:24
2	Sc Radial	3834.5	3834.5	97.8	%			16:06:19
2	Y RADIAL	4298.3	4298.3	97.45	%			16:05:59
2	Al 396.153Radial†	5173.1	5399.2	5040.4	ug/L	5040.4	ppb	16:05:59
2	Ca 317.933Radial†	2451.7	2485.9	5196.8	ug/L	5196.8	ppb	16:06:19
2	Fe 238.204 Radial†	364.8	361.5	5116.5	ug/L	5116.5	ppb	16:06:19
2	K 766.490 Radial†	28536.2	26523.8	5083.4	ug/L	5083.4	ppb	16:05:59
2	Mg 279.077 IEC†	105.5	103.7	5028.3	ug/L	5028.3	ppb	16:06:19
2	Na 589.592 Radial†	31734.1	33251.4	10252	ug/L	10252	ppb	16:05:59
2	Sr 421.552†	70979.7	72503.9	501.66	ug/L	501.66	ppb	16:05:59
2	Sc 361.383	900895.4	900895.4	102.70	%			16:07:22
2	Y 371.029	750805.6	750805.6	99.333	%			16:07:22
2	Ag 328.068†	107666.1	104597.6	487.66	ug/L	487.66	ppb	16:07:27
2	As 188.979†	1089.6	1079.2	486.15	ug/L	486.15	ppb	16:07:47
2	B 249.677†	19683.4	19564.6	472.13	ug/L	472.13	ppb	16:07:27
2	Ba 233.527†	63487.9	61821.7	486.35	ug/L	486.35	ppb	16:07:27
2	Be 313.107†	1336402.5	1305060.8	491.53	ug/L	491.53	ppb	16:07:22
2	Cd 226.502†	42944.5	42012.7	486.38	ug/L	486.38	ppb	16:07:27
2	Co 228.616†	23767.9	23210.1	486.27	ug/L	486.27	ppb	16:07:27
2	Cr 267.716†	44293.0	43051.9	484.27	ug/L	484.27	ppb	16:07:27
2	Cu 324.752†	168429.2	158014.2	480.85	ug/L	480.85	ppb	16:07:27
2	Mn 257.610†	444761.5	432620.0	492.59	ug/L	492.59	ppb	16:07:22
2	Mo 202.031†	6757.0	6569.4	482.76	ug/L	482.76	ppb	16:07:47
2	Ni 231.604†	19703.6	19123.5	486.08	ug/L	486.08	ppb	16:07:27

2	P 214.914†	4327.9	4003.7	2316.4 ug/L	2316.4 ppb	16:07:47
2	Pb 220.353†	3987.1	3940.5	486.13 ug/L	486.13 ppb	16:07:47
2	S 181.975 Axial†	730.7	670.7	964.20 ug/L	964.20 ppb	16:07:47
2	Sb 206.836†	1447.9	1373.1	497.31 ug/L	497.31 ppb	16:07:47
2	Se 196.026†	732.3	740.8	502.70 ug/L	502.70 ppb	16:07:47
2	Si 251.611†	77198.1	74612.0	2408.4 ug/L	2408.4 ppb	16:07:27
2	Sn 189.927†	2768.1	2684.9	482.38 ug/L	482.38 ppb	16:07:47
2	Ti 334.940†	313857.3	306987.1	482.30 ug/L	482.30 ppb	16:07:27
2	Tl 190.801†	1523.9	1516.4	488.15 ug/L	488.15 ppb	16:07:47
2	U 409.014†	14941.6	17435.7	479.81 ug/L	479.81 ppb	16:07:27
2	V 292.402†	69460.5	69141.6	488.52 ug/L	488.52 ppb	16:07:27
2	Zn 213.857†	49985.0	48066.0	479.34 ug/L	479.34 ppb	16:07:27
2	SiO2†	78536.4	75919.0	5262.9 ug/L	5262.9 ppb	16:08:29
3	Sc Radial	3779.8	3779.8	96.5 %		16:06:44
3	Y RADIAL	4247.4	4247.4	96.29 %		16:06:24
3	Al 396.153Radial†	5109.2	5409.5	5049.9 ug/L	5049.9 ppb	16:06:24
3	Ca 317.933Radial†	2420.0	2489.4	5204.0 ug/L	5204.0 ppb	16:06:44
3	Fe 238.204 Radial†	354.6	356.4	5044.7 ug/L	5044.7 ppb	16:06:44
3	K 766.490 Radial†	28088.4	26481.6	5075.3 ug/L	5075.3 ppb	16:06:24
3	Mg 279.077 IEC†	109.6	109.6	5313.2 ug/L	5313.2 ppb	16:06:44
3	Na 589.592 Radial†	31453.5	33429.9	10307 ug/L	10307 ppb	16:06:24
3	Sr 421.552†	70139.8	72683.3	502.90 ug/L	502.90 ppb	16:06:24
3	Sc 361.383	897093.6	897093.6	102.26 %		16:07:53
3	Y 371.029	748254.4	748254.4	98.996 %		16:07:53
3	Ag 328.068†	107614.9	104991.8	489.47 ug/L	489.47 ppb	16:07:58
3	As 188.979†	1084.3	1078.6	485.86 ug/L	485.86 ppb	16:08:18
3	B 249.677†	19676.2	19638.7	473.93 ug/L	473.93 ppb	16:07:58
3	Ba 233.527†	63449.4	62046.0	488.12 ug/L	488.12 ppb	16:07:58
3	Be 313.107†	1337824.5	1311966.1	494.13 ug/L	494.13 ppb	16:07:53
3	Cd 226.502†	42925.9	42171.7	488.23 ug/L	488.23 ppb	16:07:58
3	Co 228.616†	23790.7	23330.5	488.80 ug/L	488.80 ppb	16:07:58
3	Cr 267.716†	44526.3	43462.8	488.88 ug/L	488.88 ppb	16:07:58
3	Cu 324.752†	168129.0	158415.7	482.07 ug/L	482.07 ppb	16:07:58
3	Mn 257.610†	444244.4	433949.7	494.09 ug/L	494.09 ppb	16:07:53
3	Mo 202.031†	6755.4	6595.7	484.69 ug/L	484.69 ppb	16:08:18
3	Ni 231.604†	19698.0	19199.4	488.00 ug/L	488.00 ppb	16:07:58
3	P 214.914†	4341.5	4034.9	2335.0 ug/L	2335.0 ppb	16:08:18
3	Pb 220.353†	3982.6	3952.5	487.62 ug/L	487.62 ppb	16:08:18
3	S 181.975 Axial†	739.8	682.7	981.43 ug/L	981.43 ppb	16:08:18
3	Sb 206.836†	1439.1	1370.5	496.50 ug/L	496.50 ppb	16:08:18
3	Se 196.026†	737.3	748.7	507.62 ug/L	507.62 ppb	16:08:18
3	Si 251.611†	77059.1	74794.6	2414.3 ug/L	2414.3 ppb	16:07:58
3	Sn 189.927†	2772.3	2700.5	485.17 ug/L	485.17 ppb	16:08:18
3	Ti 334.940†	314103.5	308523.0	484.69 ug/L	484.69 ppb	16:07:58
3	Tl 190.801†	1518.4	1517.3	488.45 ug/L	488.45 ppb	16:08:18
3	U 409.014†	14995.9	17550.5	482.97 ug/L	482.97 ppb	16:07:58
3	V 292.402†	69613.4	69577.7	491.61 ug/L	491.61 ppb	16:07:58
3	Zn 213.857†	50031.8	48318.0	481.87 ug/L	481.87 ppb	16:07:58
3	SiO2†	77394.1	75126.1	5207.7 ug/L	5207.7 ppb	16:08:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	900115.5	102.61	%	0.310				0.30%
Sc Radial	3818.5	97.4	%	0.86				0.88%
Y 371.029	750098.5	99.240	%	0.2132				0.21%
Y RADIAL	4292.0	97.31	%	0.950				0.98%
Ag 328.068†	104583.2	487.57	ug/L	1.938	487.57	ppb	1.938	0.40%
QC value within limits for Ag 328.068 Recovery = 97.51%								
Al 396.153Radial†	5413.3	5053.5	ug/L	15.26	5053.5	ppb	15.26	0.30%
QC value within limits for Al 396.153Radial Recovery = 101.07%								
As 188.979†	1077.9	485.55	ug/L	0.809	485.55	ppb	0.809	0.17%
QC value within limits for As 188.979 Recovery = 97.11%								
B 249.677†	19521.9	471.10	ug/L	3.460	471.10	ppb	3.460	0.73%
QC value within limits for B 249.677 Recovery = 94.22%								
Ba 233.527†	61870.2	486.73	ug/L	1.238	486.73	ppb	1.238	0.25%
QC value within limits for Ba 233.527 Recovery = 97.35%								
Be 313.107†	1307974.3	492.63	ug/L	1.348	492.63	ppb	1.348	0.27%
QC value within limits for Be 313.107 Recovery = 98.53%								
Ca 317.933Radial†	2483.6	5192.0	ug/L	15.06	5192.0	ppb	15.06	0.29%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.84%
Cd 226.502†            42059.2      486.92 ug/L         1.136      486.92 ppb          1.136   0.23%
   QC value within limits for Cd 226.502  Recovery = 97.38%
Co 228.616†            23256.2      487.24 ug/L         1.358      487.24 ppb          1.358   0.28%
   QC value within limits for Co 228.616  Recovery = 97.45%
Cr 267.716†            43191.8      485.84 ug/L         2.636      485.84 ppb          2.636   0.54%
   QC value within limits for Cr 267.716  Recovery = 97.17%
Cu 324.752†           157919.0      480.56 ug/L         1.676      480.56 ppb          1.676   0.35%
   QC value within limits for Cu 324.752  Recovery = 96.11%
Fe 238.204 Radial†       357.4      5059.6 ug/L        51.12      5059.6 ppb         51.12   1.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.19%
K 766.490 Radial†      26555.6      5089.5 ug/L        18.03      5089.5 ppb         18.03   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 101.79%
Mg 279.077 IEC†          105.5      5116.3 ug/L       170.84      5116.3 ppb        170.84   3.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.33%
Mn 257.610†           433568.7      493.67 ug/L         0.934      493.67 ppb          0.934   0.19%
   QC value within limits for Mn 257.610  Recovery = 98.73%
Mo 202.031†             6588.6      484.17 ug/L         1.232      484.17 ppb          1.232   0.25%
   QC value within limits for Mo 202.031  Recovery = 96.83%
Na 589.592 Radial†     33450.7       10314 ug/L        64.9        10314 ppb         64.9   0.63%
   QC value within limits for Na 589.592 Radial  Recovery = 103.14%
Ni 231.604†            19147.5      486.68 ug/L         1.145      486.68 ppb          1.145   0.24%
   QC value within limits for Ni 231.604  Recovery = 97.34%
P 214.914†              4014.6      2323.0 ug/L        10.39      2323.0 ppb         10.39   0.45%
   QC value within limits for P 214.914  Recovery = 92.92%
Pb 220.353†             3943.2      486.48 ug/L         1.014      486.48 ppb          1.014   0.21%
   QC value within limits for Pb 220.353  Recovery = 97.30%
S 181.975 Axial†         671.2      964.94 ug/L        16.136      964.94 ppb         16.136   1.67%
   QC value within limits for S 181.975 Axial  Recovery = 96.49%
Sb 206.836†             1368.7      495.83 ug/L         1.913      495.83 ppb          1.913   0.39%
   QC value within limits for Sb 206.836  Recovery = 99.17%
Se 196.026†              743.5      504.24 ug/L         2.923      504.24 ppb          2.923   0.58%
   QC value within limits for Se 196.026  Recovery = 100.85%
Si 251.611†            74592.6      2407.8 ug/L         6.88      2407.8 ppb          6.88   0.29%
   QC value within limits for Si 251.611  Recovery = 96.31%
Sn 189.927†             2689.7      483.24 ug/L         1.670      483.24 ppb          1.670   0.35%
   QC value within limits for Sn 189.927  Recovery = 96.65%
Sr 421.552†            72798.6      503.69 ug/L         2.534      503.69 ppb          2.534   0.50%
   QC value within limits for Sr 421.552  Recovery = 100.74%
Ti 334.940†           307281.7      482.75 ug/L         1.752      482.75 ppb          1.752   0.36%
   QC value within limits for Ti 334.940  Recovery = 96.55%
Tl 190.801†             1512.3      486.83 ug/L         2.549      486.83 ppb          2.549   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.37%
U 409.014†             17497.1      481.50 ug/L         1.596      481.50 ppb          1.596   0.33%
   QC value within limits for U 409.014  Recovery = 96.30%
V 292.402†             69267.6      489.43 ug/L         1.892      489.43 ppb          1.892   0.39%
   QC value within limits for V 292.402  Recovery = 97.89%
Zn 213.857†            48162.2      480.31 ug/L         1.365      480.31 ppb          1.365   0.28%
   QC value within limits for Zn 213.857  Recovery = 96.06%
SiO2†                  75300.8      5219.9 ug/L        38.40      5219.9 ppb         38.40   0.74%
   QC value within limits for SiO2  Recovery = 97.61%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 16:10:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3909.4	3909.4	99.8	%			16:12:57
1	Y RADIAL	4434.3	4434.3	100.5	%			16:12:37
1	Al 396.153Radial†	-128.8	-16.7	-15.623	ug/L	-15.623	ppb	16:12:37
1	Ca 317.933Radial†	17.3	-2.3	-4.8296	ug/L	-4.8296	ppb	16:12:57
1	Fe 238.204 Radial†	8.7	-2.6	-37.022	ug/L	-37.022	ppb	16:12:57
1	K 766.490 Radial†	2699.8	66.7	12.793	ug/L	12.793	ppb	16:12:37
1	Mg 279.077 IEC†	5.3	1.2	59.058	ug/L	59.058	ppb	16:12:57
1	Na 589.592 Radial†	-721.7	96.3	29.691	ug/L	29.691	ppb	16:12:37
1	Sr 421.552†	49.5	13.9	0.0963	ug/L	0.0963	ppb	16:12:37
1	Sc 361.383	888069.3	888069.3	101.24	%			16:13:54
1	Y 371.029	752015.1	752015.1	99.493	%			16:13:54
1	Ag 328.068†	309.0	64.8	0.2892	ug/L	0.2892	ppb	16:13:54
1	As 188.979†	-18.0	0.4	0.1817	ug/L	0.1817	ppb	16:14:14
1	B 249.677†	-407.6	-4.5	-0.1026	ug/L	-0.1026	ppb	16:14:14
1	Ba 233.527†	25.7	26.8	0.2091	ug/L	0.2091	ppb	16:14:14
1	Be 313.107†	-3718.2	89.3	0.0334	ug/L	0.0334	ppb	16:13:54
1	Cd 226.502†	-192.5	6.2	0.0751	ug/L	0.0751	ppb	16:14:14
1	Co 228.616†	-55.1	12.1	0.2528	ug/L	0.2528	ppb	16:14:14
1	Cr 267.716†	65.5	-13.0	-0.1491	ug/L	-0.1491	ppb	16:14:14
1	Cu 324.752†	5932.4	-130.8	-0.3995	ug/L	-0.3995	ppb	16:13:54
1	Mn 257.610†	458.0	-6.3	-0.0133	ug/L	-0.0133	ppb	16:14:14
1	Mo 202.031†	5.3	-4.9	-0.3632	ug/L	-0.3632	ppb	16:14:14
1	Ni 231.604†	71.0	7.7	0.1951	ug/L	0.1951	ppb	16:14:14
1	P 214.914†	224.9	11.6	7.0984	ug/L	7.0984	ppb	16:14:14
1	Pb 220.353†	-53.1	5.7	0.7017	ug/L	0.7017	ppb	16:14:14
1	S 181.975 Axial†	34.8	-6.4	-9.2214	ug/L	-9.2214	ppb	16:14:14
1	Sb 206.836†	38.3	1.2	0.4075	ug/L	0.4075	ppb	16:14:14
1	Se 196.026†	-17.7	10.2	6.5978	ug/L	6.5978	ppb	16:14:14
1	Si 251.611†	554.1	-11.0	-0.3501	ug/L	-0.3501	ppb	16:14:14
1	Sn 189.927†	12.7	2.1	0.3714	ug/L	0.3714	ppb	16:14:14
1	Ti 334.940†	-1438.0	-46.4	-0.0779	ug/L	-0.0779	ppb	16:13:54
1	Tl 190.801†	-19.5	13.3	4.2655	ug/L	4.2655	ppb	16:14:14
1	U 409.014†	-2954.2	-31.6	-0.8671	ug/L	-0.8671	ppb	16:13:54
1	V 292.402†	-1540.4	-15.9	-0.1111	ug/L	-0.1111	ppb	16:13:54
1	Zn 213.857†	628.9	15.2	0.1576	ug/L	0.1576	ppb	16:14:14
1	SiO2†	542.1	-18.9	-1.3044	ug/L	-1.3044	ppb	16:15:10
2	Sc Radial	3921.9	3921.9	100	%			16:13:22
2	Y RADIAL	4392.9	4392.9	99.59	%			16:13:02
2	Al 396.153Radial†	-102.0	10.4	9.8029	ug/L	9.8029	ppb	16:13:02
2	Ca 317.933Radial†	20.5	0.8	1.6838	ug/L	1.6838	ppb	16:13:22
2	Fe 238.204 Radial†	13.3	2.0	27.919	ug/L	27.919	ppb	16:13:22
2	K 766.490 Radial†	2735.2	93.5	17.924	ug/L	17.924	ppb	16:13:02
2	Mg 279.077 IEC†	2.2	-1.8	-89.541	ug/L	-89.541	ppb	16:13:22
2	Na 589.592 Radial†	-750.1	70.3	21.673	ug/L	21.673	ppb	16:13:02
2	Sr 421.552†	71.6	35.8	0.2475	ug/L	0.2475	ppb	16:13:02
2	Sc 361.383	879313.6	879313.6	100.24	%			16:14:19
2	Y 371.029	744024.7	744024.7	98.436	%			16:14:19
2	Ag 328.068†	352.9	111.7	0.5289	ug/L	0.5289	ppb	16:14:19
2	As 188.979†	-11.5	6.8	3.0231	ug/L	3.0231	ppb	16:14:39
2	B 249.677†	-415.8	-16.6	-0.4061	ug/L	-0.4061	ppb	16:14:39
2	Ba 233.527†	-7.0	-5.6	-0.0421	ug/L	-0.0421	ppb	16:14:39
2	Be 313.107†	-3658.2	112.6	0.0420	ug/L	0.0420	ppb	16:14:19
2	Cd 226.502†	-184.2	12.5	0.1414	ug/L	0.1414	ppb	16:14:39
2	Co 228.616†	-69.1	-2.4	-0.0504	ug/L	-0.0504	ppb	16:14:39
2	Cr 267.716†	69.3	-8.6	-0.0922	ug/L	-0.0922	ppb	16:14:39
2	Cu 324.752†	5898.0	-106.7	-0.3227	ug/L	-0.3227	ppb	16:14:19
2	Mn 257.610†	466.7	6.9	0.0142	ug/L	0.0142	ppb	16:14:39
2	Mo 202.031†	9.3	-0.9	-0.0624	ug/L	-0.0624	ppb	16:14:39
2	Ni 231.604†	62.8	0.2	0.0060	ug/L	0.0060	ppb	16:14:39

2	P 214.914†	195.7	-15.2	-9.1169 ug/L	-9.1169 ppb	16:14:39
2	Pb 220.353†	-64.1	-5.9	-0.7229 ug/L	-0.7229 ppb	16:14:39
2	S 181.975 Axial†	41.0	0.1	0.1469 ug/L	0.1469 ppb	16:14:39
2	Sb 206.836†	50.0	13.2	4.6398 ug/L	4.6398 ppb	16:14:39
2	Se 196.026†	-19.5	8.3	5.4936 ug/L	5.4936 ppb	16:14:39
2	Si 251.611†	559.5	-0.1	-0.0025 ug/L	-0.0025 ppb	16:14:39
2	Sn 189.927†	18.7	8.2	1.4718 ug/L	1.4718 ppb	16:14:39
2	Ti 334.940†	-1469.0	-91.4	-0.1356 ug/L	-0.1356 ppb	16:14:19
2	Tl 190.801†	-27.0	5.6	1.7947 ug/L	1.7947 ppb	16:14:39
2	U 409.014†	-2938.0	-44.5	-1.2310 ug/L	-1.2310 ppb	16:14:19
2	V 292.402†	-1441.9	67.1	0.4594 ug/L	0.4594 ppb	16:14:19
2	Zn 213.857†	627.3	19.8	0.1953 ug/L	0.1953 ppb	16:14:39
2	SiO2†	535.3	-20.4	-1.4163 ug/L	-1.4163 ppb	16:15:15
3	Sc Radial	3903.4	3903.4	99.6 %		16:13:47
3	Y RADIAL	4392.0	4392.0	99.57 %		16:13:27
3	Al 396.153Radial†	-130.4	-18.5	-17.375 ug/L	-17.375 ppb	16:13:27
3	Ca 317.933Radial†	16.2	-3.4	-7.1550 ug/L	-7.1550 ppb	16:13:47
3	Fe 238.204 Radial†	11.4	0.2	2.3723 ug/L	2.3723 ppb	16:13:47
3	K 766.490 Radial†	2730.8	102.0	19.569 ug/L	19.569 ppb	16:13:27
3	Mg 279.077 IEC†	0.3	-3.8	-185.31 ug/L	-185.31 ppb	16:13:47
3	Na 589.592 Radial†	-759.8	57.0	17.572 ug/L	17.572 ppb	16:13:27
3	Sr 421.552†	79.2	43.8	0.3033 ug/L	0.3033 ppb	16:13:27
3	Sc 361.383	898768.4	898768.4	102.46 %		16:14:44
3	Y 371.029	761250.3	761250.3	100.72 %		16:14:44
3	Ag 328.068†	368.1	118.9	0.5555 ug/L	0.5555 ppb	16:14:44
3	As 188.979†	-29.5	-10.6	-4.7208 ug/L	-4.7208 ppb	16:15:04
3	B 249.677†	-431.5	-23.0	-0.5572 ug/L	-0.5572 ppb	16:15:04
3	Ba 233.527†	12.7	13.9	0.1116 ug/L	0.1116 ppb	16:15:04
3	Be 313.107†	-3665.7	184.3	0.0691 ug/L	0.0691 ppb	16:14:44
3	Cd 226.502†	-177.7	22.9	0.2651 ug/L	0.2651 ppb	16:15:04
3	Co 228.616†	-62.1	5.9	0.1236 ug/L	0.1236 ppb	16:15:04
3	Cr 267.716†	71.9	-7.5	-0.0826 ug/L	-0.0826 ppb	16:15:04
3	Cu 324.752†	6104.8	-32.3	-0.0989 ug/L	-0.0989 ppb	16:14:44
3	Mn 257.610†	454.2	-15.4	-0.0098 ug/L	-0.0098 ppb	16:15:04
3	Mo 202.031†	9.4	-1.0	-0.0711 ug/L	-0.0711 ppb	16:15:04
3	Ni 231.604†	80.5	16.1	0.4089 ug/L	0.4089 ppb	16:15:04
3	P 214.914†	201.5	-13.9	-8.3280 ug/L	-8.3280 ppb	16:15:04
3	Pb 220.353†	-58.8	0.7	0.0831 ug/L	0.0831 ppb	16:15:04
3	S 181.975 Axial†	41.7	-0.1	-0.0892 ug/L	-0.0892 ppb	16:15:04
3	Sb 206.836†	37.3	-0.3	-0.0662 ug/L	-0.0662 ppb	16:15:04
3	Se 196.026†	-26.9	1.5	0.9995 ug/L	0.9995 ppb	16:15:04
3	Si 251.611†	543.4	-28.0	-0.9037 ug/L	-0.9037 ppb	16:15:04
3	Sn 189.927†	18.8	7.9	1.4164 ug/L	1.4164 ppb	16:15:04
3	Ti 334.940†	-1457.8	-48.7	-0.0630 ug/L	-0.0630 ppb	16:14:44
3	Tl 190.801†	-28.5	4.8	1.5278 ug/L	1.5278 ppb	16:15:04
3	U 409.014†	-2907.2	49.1	1.3562 ug/L	1.3562 ppb	16:14:44
3	V 292.402†	-1356.3	181.9	1.2661 ug/L	1.2661 ppb	16:14:44
3	Zn 213.857†	632.2	11.0	0.1083 ug/L	0.1083 ppb	16:15:04
3	SiO2†	600.6	31.8	2.2124 ug/L	2.2124 ppb	16:15:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888717.1	101.31	%	1.111				1.10%
Sc Radial	3911.6	99.8	%	0.24				0.24%
Y 371.029	752430.0	99.548	%	1.1405				1.15%
Y RADIAL	4406.4	99.90	%	0.548				0.55%
Ag 328.068†	98.5	0.4579	ug/L	0.14672	0.4579	ppb	0.14672	32.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.3	-7.7317	ug/L	15.21069	-7.7317	ppb	15.21069	196.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.5053	ug/L	3.91738	-0.5053	ppb	3.91738	775.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14.7	-0.3553	ug/L	0.23149	-0.3553	ppb	0.23149	65.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.7	0.0929	ug/L	0.12665	0.0929	ppb	0.12665	136.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	128.7	0.0482	ug/L	0.01862	0.0482	ppb	0.01862	38.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.6	-3.4336	ug/L	4.58179	-3.4336	ppb	4.58179	133.44%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.8      0.1605 ug/L       0.09644      0.1605 ppb        0.09644  60.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 5.2      0.1087 ug/L       0.15217      0.1087 ppb        0.15217 140.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -9.7     -0.1079 ug/L       0.03595     -0.1079 ppb        0.03595  33.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -89.9     -0.2737 ug/L       0.15619     -0.2737 ppb        0.15619  57.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.2     -2.2437 ug/L      32.71547     -2.2437 ppb       32.71547 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         87.4      16.762 ug/L        3.5344      16.762 ppb         3.5344  21.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.5     -71.931 ug/L      123.1320     -71.931 ppb      123.1320 171.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -5.0     -0.0029 ug/L       0.01498     -0.0029 ppb        0.01498 508.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -2.3     -0.1656 ug/L       0.17119     -0.1656 ppb        0.17119 103.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        74.5      22.979 ug/L        6.1638      22.979 ppb         6.1638  26.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.0      0.2033 ug/L       0.20159      0.2033 ppb        0.20159  99.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.8     -3.4489 ug/L       9.14267     -3.4489 ppb        9.14267 265.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                0.2      0.0206 ug/L       0.71433      0.0206 ppb        0.71433 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.1     -3.0546 ug/L       5.34192     -3.0546 ppb        5.34192 174.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.7      1.6604 ug/L       2.59115      1.6604 ppb        2.59115 156.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                6.7      4.3636 ug/L       2.96529      4.3636 ppb        2.96529  67.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -13.0     -0.4188 ug/L       0.45452     -0.4188 ppb        0.45452 108.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.1      1.0865 ug/L       0.61997      1.0865 ppb        0.61997  57.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               31.2      0.2157 ug/L       0.10710      0.2157 ppb        0.10710  49.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -62.2     -0.0922 ug/L       0.03832     -0.0922 ppb        0.03832  41.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                7.9      2.5293 ug/L       1.50950      2.5293 ppb        1.50950  59.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -9.0     -0.2473 ug/L       1.40053     -0.2473 ppb        1.40053 566.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                77.7      0.5381 ug/L       0.69197      0.5381 ppb        0.69197 128.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               15.3      0.1537 ug/L       0.04364      0.1537 ppb        0.04364  28.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -2.5     -0.1694 ug/L       2.06350     -0.1694 ppb        2.06350 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 16:32:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3853.4	3853.4	98.3	%			16:34:22
1	Y RADIAL	4424.2	4424.2	100.3	%			16:34:02
1	Al 396.153Radial†	5304.3	5506.8	5141.0	ug/L	5141.0	ppb	16:34:02
1	Ca 317.933Radial†	2466.3	2488.5	5202.2	ug/L	5202.2	ppb	16:34:22
1	Fe 238.204 Radial†	365.6	360.4	5102.3	ug/L	5102.3	ppb	16:34:22
1	K 766.490 Radial†	29180.7	27036.7	5181.7	ug/L	5181.7	ppb	16:34:02
1	Mg 279.077 IEC†	111.6	109.4	5303.4	ug/L	5303.4	ppb	16:34:22
1	Na 589.592 Radial†	33016.6	34397.1	10606	ug/L	10606	ppb	16:34:02
1	Sr 421.552†	72921.7	74124.3	512.87	ug/L	512.87	ppb	16:34:02
1	Sc 361.383	901308.0	901308.0	102.74	%			16:35:19
1	Y 371.029	750322.1	750322.1	99.269	%			16:35:19
1	Ag 328.068†	107679.0	104562.1	487.49	ug/L	487.49	ppb	16:35:24
1	As 188.979†	1114.6	1103.1	496.79	ug/L	496.79	ppb	16:35:44
1	B 249.677†	19767.7	19637.8	473.90	ug/L	473.90	ppb	16:35:24
1	Ba 233.527†	63808.6	62105.5	488.58	ug/L	488.58	ppb	16:35:24
1	Be 313.107†	1335058.8	1303157.3	490.82	ug/L	490.82	ppb	16:35:19
1	Cd 226.502†	43267.4	42307.9	489.80	ug/L	489.80	ppb	16:35:24
1	Co 228.616†	23882.2	23310.8	488.40	ug/L	488.40	ppb	16:35:24
1	Cr 267.716†	44640.8	43370.6	487.85	ug/L	487.85	ppb	16:35:24
1	Cu 324.752†	168309.1	157822.3	480.27	ug/L	480.27	ppb	16:35:24
1	Mn 257.610†	444999.6	432653.5	492.62	ug/L	492.62	ppb	16:35:19
1	Mo 202.031†	6849.3	6656.2	489.13	ug/L	489.13	ppb	16:35:44
1	Ni 231.604†	19833.2	19241.0	489.06	ug/L	489.06	ppb	16:35:24
1	P 214.914†	4400.2	4072.1	2357.8	ug/L	2357.8	ppb	16:35:44
1	Pb 220.353†	4052.5	4002.4	493.78	ug/L	493.78	ppb	16:35:44
1	S 181.975 Axial†	754.6	693.6	997.20	ug/L	997.20	ppb	16:35:44
1	Sb 206.836†	1452.5	1377.0	498.90	ug/L	498.90	ppb	16:35:44
1	Se 196.026†	754.3	761.9	516.46	ug/L	516.46	ppb	16:35:44
1	Si 251.611†	77439.0	74812.0	2414.8	ug/L	2414.8	ppb	16:35:24
1	Sn 189.927†	2800.2	2715.0	487.77	ug/L	487.77	ppb	16:35:44
1	Ti 334.940†	314411.8	307386.9	482.90	ug/L	482.90	ppb	16:35:24
1	Tl 190.801†	1548.9	1540.1	495.73	ug/L	495.73	ppb	16:35:44
1	U 409.014†	14982.1	17468.5	480.70	ug/L	480.70	ppb	16:35:24
1	V 292.402†	69674.2	69318.7	489.85	ug/L	489.85	ppb	16:35:24
1	Zn 213.857†	50309.0	48359.0	482.27	ug/L	482.27	ppb	16:35:24
1	SiO2†	77254.5	74636.4	5173.6	ug/L	5173.6	ppb	16:36:52
2	Sc Radial	3866.7	3866.7	98.7	%			16:34:47
2	Y RADIAL	4351.8	4351.8	98.66	%			16:34:27
2	Al 396.153Radial†	5255.4	5438.7	5077.2	ug/L	5077.2	ppb	16:34:27
2	Ca 317.933Radial†	2498.1	2512.1	5251.6	ug/L	5251.6	ppb	16:34:47
2	Fe 238.204 Radial†	367.8	361.4	5116.1	ug/L	5116.1	ppb	16:34:47
2	K 766.490 Radial†	28697.8	26445.0	5068.2	ug/L	5068.2	ppb	16:34:27
2	Mg 279.077 IEC†	106.7	104.1	5047.5	ug/L	5047.5	ppb	16:34:47
2	Na 589.592 Radial†	32554.4	33812.9	10425	ug/L	10425	ppb	16:34:27
2	Sr 421.552†	71796.4	72728.4	503.21	ug/L	503.21	ppb	16:34:27
2	Sc 361.383	900354.2	900354.2	102.64	%			16:35:50
2	Y 371.029	750012.2	750012.2	99.228	%			16:35:50
2	Ag 328.068†	108731.7	105698.8	492.78	ug/L	492.78	ppb	16:35:55
2	As 188.979†	1098.6	1088.7	490.40	ug/L	490.40	ppb	16:36:15
2	B 249.677†	20067.6	19950.4	481.46	ug/L	481.46	ppb	16:35:55
2	Ba 233.527†	64499.6	62844.5	494.40	ug/L	494.40	ppb	16:35:55
2	Be 313.107†	1336059.5	1305508.8	491.72	ug/L	491.72	ppb	16:35:50
2	Cd 226.502†	43705.3	42779.1	495.26	ug/L	495.26	ppb	16:35:55
2	Co 228.616†	24163.0	23609.0	494.63	ug/L	494.63	ppb	16:35:55
2	Cr 267.716†	45019.4	43785.6	492.51	ug/L	492.51	ppb	16:35:55
2	Cu 324.752†	170258.0	159894.7	486.57	ug/L	486.57	ppb	16:35:55
2	Mn 257.610†	444794.7	432912.7	492.93	ug/L	492.93	ppb	16:35:50
2	Mo 202.031†	6798.7	6614.0	486.04	ug/L	486.04	ppb	16:36:15
2	Ni 231.604†	20052.8	19475.4	495.02	ug/L	495.02	ppb	16:35:55

2	P 214.914†	4378.9	4056.0	2346.8 ug/L	2346.8 ppb	16:36:15
2	Pb 220.353†	4027.4	3982.1	491.26 ug/L	491.26 ppb	16:36:15
2	S 181.975 Axial†	741.9	682.1	980.55 ug/L	980.55 ppb	16:36:15
2	Sb 206.836†	1461.6	1387.4	502.49 ug/L	502.49 ppb	16:36:15
2	Se 196.026†	743.1	751.7	509.85 ug/L	509.85 ppb	16:36:15
2	Si 251.611†	78425.0	75852.6	2448.5 ug/L	2448.5 ppb	16:35:55
2	Sn 189.927†	2808.4	2725.8	489.72 ug/L	489.72 ppb	16:36:15
2	Ti 334.940†	317758.5	310971.9	488.56 ug/L	488.56 ppb	16:35:55
2	Tl 190.801†	1535.5	1528.6	492.06 ug/L	492.06 ppb	16:36:15
2	U 409.014†	15128.6	17626.6	485.06 ug/L	485.06 ppb	16:35:55
2	V 292.402†	70473.6	70169.4	495.73 ug/L	495.73 ppb	16:35:55
2	Zn 213.857†	50906.2	48992.8	488.61 ug/L	488.61 ppb	16:35:55
2	SiO2†	77229.7	74691.8	5177.5 ug/L	5177.5 ppb	16:36:57
3	Sc Radial	3865.6	3865.6	98.6 %		16:35:12
3	Y RADIAL	4300.0	4300.0	97.49 %		16:34:52
3	Al 396.153Radial†	5207.1	5391.1	5032.5 ug/L	5032.5 ppb	16:34:52
3	Ca 317.933Radial†	2482.6	2497.1	5220.2 ug/L	5220.2 ppb	16:35:12
3	Fe 238.204 Radial†	362.1	355.7	5036.1 ug/L	5036.1 ppb	16:35:12
3	K 766.490 Radial†	28576.3	26329.8	5046.1 ug/L	5046.1 ppb	16:34:52
3	Mg 279.077 IEC†	108.7	106.1	5145.5 ug/L	5145.5 ppb	16:35:12
3	Na 589.592 Radial†	32323.8	33588.2	10356 ug/L	10356 ppb	16:34:52
3	Sr 421.552†	71283.5	72228.4	499.75 ug/L	499.75 ppb	16:34:52
3	Sc 361.383	902180.9	902180.9	102.84 %		16:36:21
3	Y 371.029	749784.8	749784.8	99.198 %		16:36:21
3	Ag 328.068†	109651.1	106378.3	495.91 ug/L	495.91 ppb	16:36:26
3	As 188.979†	1112.2	1099.7	495.31 ug/L	495.31 ppb	16:36:46
3	B 249.677†	20203.0	20042.6	483.69 ug/L	483.69 ppb	16:36:26
3	Ba 233.527†	64876.6	63083.8	496.27 ug/L	496.27 ppb	16:36:26
3	Be 313.107†	1335885.2	1302703.6	490.67 ug/L	490.67 ppb	16:36:21
3	Cd 226.502†	44068.7	43046.3	498.36 ug/L	498.36 ppb	16:36:26
3	Co 228.616†	24377.4	23769.7	497.99 ug/L	497.99 ppb	16:36:26
3	Cr 267.716†	45340.8	44009.2	495.02 ug/L	495.02 ppb	16:36:26
3	Cu 324.752†	171734.6	160994.5	489.91 ug/L	489.91 ppb	16:36:26
3	Mn 257.610†	446112.7	433316.8	493.37 ug/L	493.37 ppb	16:36:21
3	Mo 202.031†	6840.8	6641.4	488.04 ug/L	488.04 ppb	16:36:46
3	Ni 231.604†	20175.0	19554.6	497.03 ug/L	497.03 ppb	16:36:26
3	P 214.914†	4406.9	4074.5	2357.3 ug/L	2357.3 ppb	16:36:46
3	Pb 220.353†	4060.2	4006.1	494.21 ug/L	494.21 ppb	16:36:46
3	S 181.975 Axial†	745.9	684.4	983.98 ug/L	983.98 ppb	16:36:46
3	Sb 206.836†	1467.9	1390.6	503.62 ug/L	503.62 ppb	16:36:46
3	Se 196.026†	744.1	751.3	509.31 ug/L	509.31 ppb	16:36:46
3	Si 251.611†	79050.2	76305.8	2463.2 ug/L	2463.2 ppb	16:36:26
3	Sn 189.927†	2807.8	2719.7	488.62 ug/L	488.62 ppb	16:36:46
3	Ti 334.940†	320019.6	312543.6	491.02 ug/L	491.02 ppb	16:36:26
3	Tl 190.801†	1542.0	1531.9	493.12 ug/L	493.12 ppb	16:36:46
3	U 409.014†	15277.4	17741.5	488.24 ug/L	488.24 ppb	16:36:26
3	V 292.402†	70853.3	70399.5	497.38 ug/L	497.38 ppb	16:36:26
3	Zn 213.857†	51225.1	49202.4	490.71 ug/L	490.71 ppb	16:36:26
3	SiO2†	77939.4	75229.6	5214.8 ug/L	5214.8 ppb	16:37:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901281.0	102.74	%	0.104				0.10%
Sc Radial	3861.9	98.5	%	0.19				0.19%
Y 371.029	750039.7	99.232	%	0.0357				0.04%
Y RADIAL	4358.6	98.82	%	1.414				1.43%
Ag 328.068†	105546.4	492.06	ug/L	4.255	492.06	ppb	4.255	0.86%
QC value within limits for Ag 328.068 Recovery = 98.41%								
Al 396.153Radial†	5445.5	5083.6	ug/L	54.50	5083.6	ppb	54.50	1.07%
QC value within limits for Al 396.153Radial Recovery = 101.67%								
As 188.979†	1097.1	494.17	ug/L	3.344	494.17	ppb	3.344	0.68%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	19876.9	479.68	ug/L	5.133	479.68	ppb	5.133	1.07%
QC value within limits for B 249.677 Recovery = 95.94%								
Ba 233.527†	62678.0	493.08	ug/L	4.010	493.08	ppb	4.010	0.81%
QC value within limits for Ba 233.527 Recovery = 98.62%								
Be 313.107†	1303789.9	491.07	ug/L	0.567	491.07	ppb	0.567	0.12%
QC value within limits for Be 313.107 Recovery = 98.21%								
Ca 317.933Radial†	2499.2	5224.7	ug/L	25.01	5224.7	ppb	25.01	0.48%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.49%
Cd 226.502†            42711.1      494.48 ug/L         4.336      494.48 ppb          4.336   0.88%
   QC value within limits for Cd 226.502  Recovery = 98.90%
Co 228.616†            23563.2      493.67 ug/L         4.869      493.67 ppb          4.869   0.99%
   QC value within limits for Co 228.616  Recovery = 98.73%
Cr 267.716†            43721.8      491.79 ug/L         3.639      491.79 ppb          3.639   0.74%
   QC value within limits for Cr 267.716  Recovery = 98.36%
Cu 324.752†           159570.5      485.59 ug/L         4.898      485.59 ppb          4.898   1.01%
   QC value within limits for Cu 324.752  Recovery = 97.12%
Fe 238.204 Radial†       359.2      5084.9 ug/L        42.74      5084.9 ppb         42.74   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.70%
K 766.490 Radial†      26603.8      5098.7 ug/L        72.73      5098.7 ppb         72.73   1.43%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†          106.5      5165.5 ug/L       129.08      5165.5 ppb        129.08   2.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.31%
Mn 257.610†           432961.0      492.97 ug/L         0.380      492.97 ppb          0.380   0.08%
   QC value within limits for Mn 257.610  Recovery = 98.59%
Mo 202.031†             6637.2      487.74 ug/L         1.571      487.74 ppb          1.571   0.32%
   QC value within limits for Mo 202.031  Recovery = 97.55%
Na 589.592 Radial†     33932.7       10462 ug/L       128.7         10462 ppb        128.7   1.23%
   QC value within limits for Na 589.592 Radial  Recovery = 104.62%
Ni 231.604†            19423.6      493.70 ug/L         4.144      493.70 ppb          4.144   0.84%
   QC value within limits for Ni 231.604  Recovery = 98.74%
P 214.914†              4067.5      2354.0 ug/L         6.22      2354.0 ppb          6.22   0.26%
   QC value within limits for P 214.914  Recovery = 94.16%
Pb 220.353†             3996.8      493.08 ug/L         1.596      493.08 ppb          1.596   0.32%
   QC value within limits for Pb 220.353  Recovery = 98.62%
S 181.975 Axial†         686.7      987.24 ug/L         8.790      987.24 ppb          8.790   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 98.72%
Sb 206.836†             1385.0      501.67 ug/L         2.468      501.67 ppb          2.468   0.49%
   QC value within limits for Sb 206.836  Recovery = 100.33%
Se 196.026†              755.0      511.87 ug/L         3.980      511.87 ppb          3.980   0.78%
   QC value within limits for Se 196.026  Recovery = 102.37%
Si 251.611†            75656.8      2442.2 ug/L        24.79      2442.2 ppb         24.79   1.02%
   QC value within limits for Si 251.611  Recovery = 97.69%
Sn 189.927†             2720.1      488.70 ug/L         0.978      488.70 ppb          0.978   0.20%
   QC value within limits for Sn 189.927  Recovery = 97.74%
Sr 421.552†            73027.0      505.28 ug/L         6.799      505.28 ppb          6.799   1.35%
   QC value within limits for Sr 421.552  Recovery = 101.06%
Ti 334.940†           310300.8      487.49 ug/L         4.160      487.49 ppb          4.160   0.85%
   QC value within limits for Ti 334.940  Recovery = 97.50%
Tl 190.801†             1533.6      493.64 ug/L         1.890      493.64 ppb          1.890   0.38%
   QC value within limits for Tl 190.801  Recovery = 98.73%
U 409.014†             17612.2      484.67 ug/L         3.781      484.67 ppb          3.781   0.78%
   QC value within limits for U 409.014  Recovery = 96.93%
V 292.402†             69962.5      494.32 ug/L         3.959      494.32 ppb          3.959   0.80%
   QC value within limits for V 292.402  Recovery = 98.86%
Zn 213.857†            48851.4      487.20 ug/L         4.391      487.20 ppb          4.391   0.90%
   QC value within limits for Zn 213.857  Recovery = 97.44%
SiO2†                  74852.6      5188.6 ug/L        22.77      5188.6 ppb         22.77   0.44%
   QC value within limits for SiO2  Recovery = 97.03%
All analyte(s) passed QC.
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Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 16:39:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3847.2	3847.2	98.2	%			16:41:25
1	Y RADIAL	4338.5	4338.5	98.36	%			16:41:05
1	Al 396.153Radial†	-107.9	2.5	2.3419	ug/L	2.3419	ppb	16:41:05
1	Ca 317.933Radial†	26.6	7.4	15.478	ug/L	15.478	ppb	16:41:25
1	Fe 238.204 Radial†	11.4	0.3	3.5917	ug/L	3.5917	ppb	16:41:25
1	K 766.490 Radial†	2656.1	65.9	12.634	ug/L	12.634	ppb	16:41:05
1	Mg 279.077 IEC†	5.4	1.4	68.977	ug/L	68.977	ppb	16:41:25
1	Na 589.592 Radial†	-767.7	37.7	11.635	ug/L	11.635	ppb	16:41:05
1	Sr 421.552†	87.5	53.4	0.3694	ug/L	0.3694	ppb	16:41:05
1	Sc 361.383	882214.3	882214.3	100.57	%			16:42:22
1	Y 371.029	746032.5	746032.5	98.702	%			16:42:22
1	Ag 328.068†	229.8	-11.9	-0.0508	ug/L	-0.0508	ppb	16:42:22
1	As 188.979†	-27.7	-9.3	-4.1508	ug/L	-4.1508	ppb	16:42:42
1	B 249.677†	-422.9	-22.3	-0.5418	ug/L	-0.5418	ppb	16:42:42
1	Ba 233.527†	0.8	2.2	0.0188	ug/L	0.0188	ppb	16:42:42
1	Be 313.107†	-3723.1	60.1	0.0224	ug/L	0.0224	ppb	16:42:22
1	Cd 226.502†	-192.4	5.0	0.0570	ug/L	0.0570	ppb	16:42:42
1	Co 228.616†	-69.1	-2.2	-0.0466	ug/L	-0.0466	ppb	16:42:42
1	Cr 267.716†	65.5	-12.5	-0.1389	ug/L	-0.1389	ppb	16:42:42
1	Cu 324.752†	5968.2	-56.3	-0.1701	ug/L	-0.1701	ppb	16:42:22
1	Mn 257.610†	447.4	-13.8	-0.0182	ug/L	-0.0182	ppb	16:42:42
1	Mo 202.031†	7.2	-3.0	-0.2222	ug/L	-0.2222	ppb	16:42:42
1	Ni 231.604†	54.7	-8.1	-0.2059	ug/L	-0.2059	ppb	16:42:42
1	P 214.914†	202.5	-9.1	-5.4517	ug/L	-5.4517	ppb	16:42:42
1	Pb 220.353†	-42.1	16.3	1.9991	ug/L	1.9991	ppb	16:42:42
1	S 181.975 Axial†	47.9	6.8	9.7815	ug/L	9.7815	ppb	16:42:42
1	Sb 206.836†	47.0	10.0	3.5256	ug/L	3.5256	ppb	16:42:42
1	Se 196.026†	-22.4	5.5	3.6271	ug/L	3.6271	ppb	16:42:42
1	Si 251.611†	546.0	-15.4	-0.4943	ug/L	-0.4943	ppb	16:42:42
1	Sn 189.927†	18.0	7.5	1.3400	ug/L	1.3400	ppb	16:42:42
1	Ti 334.940†	-1428.9	-46.8	-0.0762	ug/L	-0.0762	ppb	16:42:22
1	Tl 190.801†	-39.1	-6.3	-2.0129	ug/L	-2.0129	ppb	16:42:42
1	U 409.014†	-2972.9	-69.5	-1.9188	ug/L	-1.9188	ppb	16:42:22
1	V 292.402†	-1444.1	69.7	0.4801	ug/L	0.4801	ppb	16:42:22
1	Zn 213.857†	630.8	21.2	0.2144	ug/L	0.2144	ppb	16:42:42
1	SiO2†	563.6	6.0	0.4238	ug/L	0.4238	ppb	16:43:38
2	Sc Radial	3840.5	3840.5	98.0	%			16:41:50
2	Y RADIAL	4332.1	4332.1	98.21	%			16:41:30
2	Al 396.153Radial†	-118.7	-8.7	-8.1576	ug/L	-8.1576	ppb	16:41:30
2	Ca 317.933Radial†	24.4	5.2	10.948	ug/L	10.948	ppb	16:41:50
2	Fe 238.204 Radial†	12.2	1.1	15.961	ug/L	15.961	ppb	16:41:50
2	K 766.490 Radial†	2839.3	257.6	49.429	ug/L	49.429	ppb	16:41:30
2	Mg 279.077 IEC†	3.3	-0.7	-32.415	ug/L	-32.415	ppb	16:41:50
2	Na 589.592 Radial†	-829.3	-26.4	-8.1372	ug/L	-8.1372	ppb	16:41:30
2	Sr 421.552†	49.5	14.8	0.1022	ug/L	0.1022	ppb	16:41:30
2	Sc 361.383	907960.1	907960.1	103.50	%			16:42:47
2	Y 371.029	768066.0	768066.0	101.62	%			16:42:47
2	Ag 328.068†	339.1	87.2	0.4113	ug/L	0.4113	ppb	16:42:47
2	As 188.979†	-21.2	-2.3	-1.0083	ug/L	-1.0083	ppb	16:43:07
2	B 249.677†	-347.9	62.1	1.5044	ug/L	1.5044	ppb	16:43:07
2	Ba 233.527†	95.8	94.0	0.7400	ug/L	0.7400	ppb	16:43:07
2	Be 313.107†	-3863.4	29.5	0.0113	ug/L	0.0113	ppb	16:42:47
2	Cd 226.502†	-187.6	15.0	0.1725	ug/L	0.1725	ppb	16:43:07
2	Co 228.616†	-76.2	-7.1	-0.1471	ug/L	-0.1471	ppb	16:43:07
2	Cr 267.716†	72.6	-7.5	-0.0820	ug/L	-0.0820	ppb	16:43:07
2	Cu 324.752†	6100.4	-96.8	-0.2946	ug/L	-0.2946	ppb	16:42:47
2	Mn 257.610†	529.5	52.8	0.0630	ug/L	0.0630	ppb	16:43:07
2	Mo 202.031†	14.7	4.1	0.3023	ug/L	0.3023	ppb	16:43:07
2	Ni 231.604†	68.9	4.2	0.1061	ug/L	0.1061	ppb	16:43:07

2	P 214.914†	208.5	-9.1	-5.4381	ug/L	-5.4381 ppb	16:43:07
2	Pb 220.353†	-47.7	12.0	1.4725	ug/L	1.4725 ppb	16:43:07
2	S 181.975 Axial†	40.9	-1.2	-1.7952	ug/L	-1.7952 ppb	16:43:07
2	Sb 206.836†	40.4	2.4	0.8321	ug/L	0.8321 ppb	16:43:07
2	Se 196.026†	-27.2	1.5	1.0025	ug/L	1.0025 ppb	16:43:07
2	Si 251.611†	607.3	28.4	0.9148	ug/L	0.9148 ppb	16:43:07
2	Sn 189.927†	11.4	0.5	0.0913	ug/L	0.0913 ppb	16:43:07
2	Ti 334.940†	-1367.6	52.8	0.0863	ug/L	0.0863 ppb	16:42:47
2	Tl 190.801†	-28.4	5.1	1.6415	ug/L	1.6415 ppb	16:43:07
2	U 409.014†	-2926.4	59.2	1.6333	ug/L	1.6333 ppb	16:42:47
2	V 292.402†	-1421.1	132.7	0.9293	ug/L	0.9293 ppb	16:42:47
2	Zn 213.857†	654.5	26.3	0.2623	ug/L	0.2623 ppb	16:43:07
2	SiO2†	548.9	-24.1	-1.6825	ug/L	-1.6825 ppb	16:43:43
3	Sc Radial	3854.5	3854.5	98.4	%		16:42:15
3	Y RADIAL	4387.9	4387.9	99.48	%		16:41:55
3	Al 396.153Radial†	-123.6	-13.3	-12.481	ug/L	-12.481 ppb	16:41:55
3	Ca 317.933Radial†	23.6	4.3	8.9288	ug/L	8.9288 ppb	16:42:15
3	Fe 238.204 Radial†	10.7	-0.4	-5.9007	ug/L	-5.9007 ppb	16:42:15
3	K 766.490 Radial†	2772.7	179.3	34.404	ug/L	34.404 ppb	16:41:55
3	Mg 279.077 IEC†	2.2	-1.9	-90.064	ug/L	-90.064 ppb	16:42:15
3	Na 589.592 Radial†	-748.1	59.2	18.254	ug/L	18.254 ppb	16:41:55
3	Sr 421.552†	50.4	15.5	0.1073	ug/L	0.1073 ppb	16:41:55
3	Sc 361.383	890931.8	890931.8	101.56	%		16:43:12
3	Y 371.029	754044.7	754044.7	99.762	%		16:43:12
3	Ag 328.068†	298.4	53.4	0.2538	ug/L	0.2538 ppb	16:43:12
3	As 188.979†	-29.4	-10.7	-4.7749	ug/L	-4.7749 ppb	16:43:32
3	B 249.677†	-376.7	27.3	0.6627	ug/L	0.6627 ppb	16:43:32
3	Ba 233.527†	22.4	23.4	0.1852	ug/L	0.1852 ppb	16:43:32
3	Be 313.107†	-3661.4	157.1	0.0591	ug/L	0.0591 ppb	16:43:12
3	Cd 226.502†	-173.9	25.0	0.2890	ug/L	0.2890 ppb	16:43:32
3	Co 228.616†	-71.4	-3.8	-0.0789	ug/L	-0.0789 ppb	16:43:32
3	Cr 267.716†	81.4	2.5	0.0308	ug/L	0.0308 ppb	16:43:32
3	Cu 324.752†	6028.7	-54.8	-0.1632	ug/L	-0.1632 ppb	16:43:12
3	Mn 257.610†	472.9	6.9	0.0109	ug/L	0.0109 ppb	16:43:32
3	Mo 202.031†	16.8	6.4	0.4686	ug/L	0.4686 ppb	16:43:32
3	Ni 231.604†	75.8	12.2	0.3108	ug/L	0.3108 ppb	16:43:32
3	P 214.914†	210.3	-3.4	-2.0373	ug/L	-2.0373 ppb	16:43:32
3	Pb 220.353†	-61.0	-1.9	-0.2377	ug/L	-0.2377 ppb	16:43:32
3	S 181.975 Axial†	43.8	2.4	3.4054	ug/L	3.4054 ppb	16:43:32
3	Sb 206.836†	40.8	3.4	1.2035	ug/L	1.2035 ppb	16:43:32
3	Se 196.026†	-25.5	2.6	1.6989	ug/L	1.6989 ppb	16:43:32
3	Si 251.611†	556.5	-10.3	-0.3401	ug/L	-0.3401 ppb	16:43:32
3	Sn 189.927†	8.4	-2.2	-0.3951	ug/L	-0.3951 ppb	16:43:32
3	Ti 334.940†	-1373.1	22.1	0.0463	ug/L	0.0463 ppb	16:43:12
3	Tl 190.801†	-32.9	0.2	0.0615	ug/L	0.0615 ppb	16:43:32
3	U 409.014†	-3188.9	-253.3	-6.9938	ug/L	-6.9938 ppb	16:43:12
3	V 292.402†	-1436.0	91.8	0.6321	ug/L	0.6321 ppb	16:43:12
3	Zn 213.857†	636.3	20.5	0.2053	ug/L	0.2053 ppb	16:43:32
3	SiO2†	579.6	16.3	1.1216	ug/L	1.1216 ppb	16:43:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893702.1	101.88	%	1.493				1.47%
Sc Radial	3847.4	98.2	%	0.18				0.18%
Y 371.029	756047.7	100.03	%	1.475				1.48%
Y RADIAL	4352.8	98.68	%	0.692				0.70%
Ag 328.068†	42.9	0.2048	ug/L	0.23492	0.2048	ppb	0.23492	114.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.5	-6.0990	ug/L	7.62303	-6.0990	ppb	7.62303	124.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.4	-3.3113	ug/L	2.01876	-3.3113	ppb	2.01876	60.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	22.4	0.5417	ug/L	1.02842	0.5417	ppb	1.02842	189.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	39.9	0.3147	ug/L	0.37765	0.3147	ppb	0.37765	120.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	82.2	0.0309	ug/L	0.02502	0.0309	ppb	0.02502	80.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.6	11.785	ug/L	3.3536	11.785	ppb	3.3536	28.46%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              15.0      0.1729 ug/L       0.11604      0.1729 ppb        0.11604  67.13%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -4.4     -0.0909 ug/L       0.05127     -0.0909 ppb        0.05127  56.43%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.9     -0.0634 ug/L       0.08641     -0.0634 ppb        0.08641 136.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -69.3     -0.2093 ug/L       0.07399     -0.2093 ppb        0.07399  35.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      4.5508 ug/L      10.96251      4.5508 ppb       10.96251 240.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       167.6     32.156 ug/L       18.5000     32.156 ppb        18.5000  57.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.4    -17.834 ug/L       80.5169    -17.834 ppb        80.5169 451.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.3      0.0186 ug/L       0.04115      0.0186 ppb        0.04115 221.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.5      0.1829 ug/L       0.36053      0.1829 ppb        0.36053 197.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       23.5      7.2507 ug/L      13.73103      7.2507 ppb       13.73103 189.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               2.8      0.0703 ug/L       0.26023      0.0703 ppb        0.26023 370.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.2     -4.3090 ug/L       1.96737     -4.3090 ppb        1.96737  45.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.8      1.0780 ug/L       1.16941      1.0780 ppb        1.16941 108.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.6      3.7972 ug/L       5.79828      3.7972 ppb        5.79828 152.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.3      1.8537 ug/L       1.45977      1.8537 ppb        1.45977  78.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.2      2.1095 ug/L       1.35961      2.1095 ppb        1.35961  64.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               0.9      0.0268 ug/L       0.77289      0.0268 ppb        0.77289 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.9      0.3454 ug/L       0.89502      0.3454 ppb        0.89502 259.14%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              27.9      0.1930 ug/L       0.15281      0.1930 ppb        0.15281  79.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               9.4      0.0188 ug/L       0.08466      0.0188 ppb        0.08466 449.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.3     -0.1033 ug/L       1.83278     -0.1033 ppb        1.83278 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -87.9     -2.4264 ug/L       4.33588     -2.4264 ppb        4.33588 178.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               98.0      0.6805 ug/L       0.22849      0.6805 ppb        0.22849  33.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.7      0.2273 ug/L       0.03064      0.2273 ppb        0.03064  13.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -0.6     -0.0457 ug/L       1.45981     -0.0457 ppb        1.45981 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/24/2010 16:52:57 Plasma On Time: 00:00:00
Logged In Analyst: Optima3 Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 Autosampler Location: 1
Sample ID: CCV Date Collected: 2/24/2010 16:52:58
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3874.5	3874.5	98.9	%			16:54:51
1	Y RADIAL	4228.4	4228.4	95.86	%			16:54:51
1	Al 396.153Radial†	5087.0	5257.7	4907.9	ug/L	4907.9	ppb	16:54:51
1	Ca 317.933Radial†	2422.1	2430.1	5080.2	ug/L	5080.2	ppb	16:55:11
1	Fe 238.204 Radial†	358.6	351.4	4974.4	ug/L	4974.4	ppb	16:55:11
1	K 766.490 Radial†	28051.4	25733.0	4931.9	ug/L	4931.9	ppb	16:54:51
1	Mg 279.077 IEC†	104.0	101.1	4902.6	ug/L	4902.6	ppb	16:55:11
1	Na 589.592 Radial†	30584.6	31754.6	9790.8	ug/L	9790.8	ppb	16:54:51
1	Sr 421.552†	68864.7	69617.5	481.68	ug/L	481.68	ppb	16:54:51
1	Sc 361.383	900794.5	900794.5	102.69	%			16:56:08
1	Y 371.029	747978.0	747978.0	98.959	%			16:56:08
1	Ag 328.068†	105774.9	102767.5	479.11	ug/L	479.11	ppb	16:56:14
1	As 188.979†	1082.4	1072.3	483.11	ug/L	483.11	ppb	16:56:34
1	B 249.677†	19361.3	19253.1	464.61	ug/L	464.61	ppb	16:56:14
1	Ba 233.527†	62708.4	61069.4	480.43	ug/L	480.43	ppb	16:56:14
1	Be 313.107†	1318956.9	1288217.3	485.22	ug/L	485.22	ppb	16:56:08
1	Cd 226.502†	42591.0	41673.2	482.46	ug/L	482.46	ppb	16:56:14
1	Co 228.616†	23606.0	23055.1	483.00	ug/L	483.00	ppb	16:56:14
1	Cr 267.716†	43734.7	42512.9	478.20	ug/L	478.20	ppb	16:56:14
1	Cu 324.752†	165690.3	155365.4	472.79	ug/L	472.79	ppb	16:56:14
1	Mn 257.610†	440704.6	428717.7	488.15	ug/L	488.15	ppb	16:56:08
1	Mo 202.031†	6682.9	6497.9	477.50	ug/L	477.50	ppb	16:56:34
1	Ni 231.604†	19517.2	18944.2	481.52	ug/L	481.52	ppb	16:56:14
1	P 214.914†	4323.8	4000.2	2315.9	ug/L	2315.9	ppb	16:56:34
1	Pb 220.353†	3980.4	3934.4	485.35	ug/L	485.35	ppb	16:56:34
1	S 181.975 Axial†	731.5	671.6	965.50	ug/L	965.50	ppb	16:56:34
1	Sb 206.836†	1432.1	1357.9	491.83	ug/L	491.83	ppb	16:56:34
1	Se 196.026†	725.3	734.0	497.79	ug/L	497.79	ppb	16:56:34
1	Si 251.611†	76328.8	73773.8	2381.4	ug/L	2381.4	ppb	16:56:14
1	Sn 189.927†	2759.7	2677.0	480.94	ug/L	480.94	ppb	16:56:34
1	Ti 334.940†	319498.4	312514.9	490.99	ug/L	490.99	ppb	16:56:08
1	Tl 190.801†	1514.1	1507.0	485.23	ug/L	485.23	ppb	16:56:34
1	U 409.014†	14604.0	17108.6	470.80	ug/L	470.80	ppb	16:56:14
1	V 292.402†	68353.2	68070.9	480.97	ug/L	480.97	ppb	16:56:14
1	Zn 213.857†	49584.7	47681.6	475.53	ug/L	475.53	ppb	16:56:14
1	SiO2†	75891.3	73351.7	5084.6	ug/L	5084.6	ppb	16:57:42
2	Sc Radial	3897.9	3897.9	99.5	%			16:55:16
2	Y RADIAL	4283.1	4283.1	97.10	%			16:55:16
2	Al 396.153Radial†	5112.2	5252.1	4902.6	ug/L	4902.6	ppb	16:55:16
2	Ca 317.933Radial†	2426.7	2420.0	5059.1	ug/L	5059.1	ppb	16:55:36
2	Fe 238.204 Radial†	352.7	343.3	4860.0	ug/L	4860.0	ppb	16:55:36
2	K 766.490 Radial†	28235.2	25747.2	4934.6	ug/L	4934.6	ppb	16:55:16
2	Mg 279.077 IEC†	108.5	105.0	5093.3	ug/L	5093.3	ppb	16:55:36
2	Na 589.592 Radial†	30796.8	31782.0	9799.2	ug/L	9799.2	ppb	16:55:16
2	Sr 421.552†	69281.5	69617.9	481.69	ug/L	481.69	ppb	16:55:16
2	Sc 361.383	896537.7	896537.7	102.20	%			16:56:40
2	Y 371.029	745698.4	745698.4	98.658	%			16:56:40

2	Ag 328.068†	106225.4	103697.4	483.40 ug/L	483.40 ppb	16:56:45
2	As 188.979†	1082.0	1076.9	485.12 ug/L	485.12 ppb	16:57:05
2	B 249.677†	19604.5	19580.6	472.55 ug/L	472.55 ppb	16:56:45
2	Ba 233.527†	63095.5	61738.2	485.68 ug/L	485.68 ppb	16:56:45
2	Be 313.107†	1312700.1	1288193.9	485.21 ug/L	485.21 ppb	16:56:40
2	Cd 226.502†	42788.6	42063.4	486.99 ug/L	486.99 ppb	16:56:45
2	Co 228.616†	23694.6	23250.9	487.11 ug/L	487.11 ppb	16:56:45
2	Cr 267.716†	44056.5	43030.0	484.00 ug/L	484.00 ppb	16:56:45
2	Cu 324.752†	166290.3	156718.6	476.90 ug/L	476.90 ppb	16:56:45
2	Mn 257.610†	437477.9	427598.2	486.85 ug/L	486.85 ppb	16:56:40
2	Mo 202.031†	6684.4	6530.3	479.87 ug/L	479.87 ppb	16:57:05
2	Ni 231.604†	19572.9	19088.9	485.19 ug/L	485.19 ppb	16:56:45
2	P 214.914†	4324.1	4020.5	2327.4 ug/L	2327.4 ppb	16:57:05
2	Pb 220.353†	3967.1	3939.8	486.04 ug/L	486.04 ppb	16:57:05
2	S 181.975 Axial†	732.2	675.6	971.30 ug/L	971.30 ppb	16:57:05
2	Sb 206.836†	1427.2	1359.8	492.58 ug/L	492.58 ppb	16:57:05
2	Se 196.026†	726.0	738.1	500.07 ug/L	500.07 ppb	16:57:05
2	Si 251.611†	76736.4	74525.6	2405.7 ug/L	2405.7 ppb	16:56:45
2	Sn 189.927†	2759.1	2689.2	483.13 ug/L	483.13 ppb	16:57:05
2	Ti 334.940†	316820.6	311372.1	489.17 ug/L	489.17 ppb	16:56:40
2	Tl 190.801†	1525.1	1524.9	490.88 ug/L	490.88 ppb	16:57:05
2	U 409.014†	14523.9	17097.7	470.50 ug/L	470.50 ppb	16:56:45
2	V 292.402†	68650.1	68677.5	485.26 ug/L	485.26 ppb	16:56:45
2	Zn 213.857†	49793.9	48115.5	479.89 ug/L	479.89 ppb	16:56:45
2	SiO2†	76285.1	74087.9	5135.7 ug/L	5135.7 ppb	16:57:47
3	Sc Radial	3889.2	3889.2	99.2 %		16:55:41
3	Y RADIAL	4279.8	4279.8	97.03 %		16:55:41
3	Al 396.153Radial†	5112.7	5264.0	4913.5 ug/L	4913.5 ppb	16:55:41
3	Ca 317.933Radial†	2391.8	2390.4	4997.1 ug/L	4997.1 ppb	16:56:01
3	Fe 238.204 Radial†	349.1	340.5	4820.6 ug/L	4820.6 ppb	16:56:01
3	K 766.490 Radial†	28327.7	25903.6	4964.6 ug/L	4964.6 ppb	16:55:41
3	Mg 279.077 IEC†	104.3	101.0	4895.9 ug/L	4895.9 ppb	16:56:01
3	Na 589.592 Radial†	30968.1	32023.4	9873.7 ug/L	9873.7 ppb	16:55:41
3	Sr 421.552†	69314.1	69805.5	482.99 ug/L	482.99 ppb	16:55:41
3	Sc 361.383	887434.2	887434.2	101.16 %		16:57:11
3	Y 371.029	737924.1	737924.1	97.629 %		16:57:11
3	Ag 328.068†	105879.3	104421.6	486.76 ug/L	486.76 ppb	16:57:16
3	As 188.979†	1085.1	1090.9	491.37 ug/L	491.37 ppb	16:57:36
3	B 249.677†	19499.3	19673.3	474.80 ug/L	474.80 ppb	16:57:16
3	Ba 233.527†	62800.9	62080.3	488.37 ug/L	488.37 ppb	16:57:16
3	Be 313.107†	1302369.7	1291158.3	486.33 ug/L	486.33 ppb	16:57:11
3	Cd 226.502†	42781.2	42485.6	491.89 ug/L	491.89 ppb	16:57:16
3	Co 228.616†	23644.5	23439.1	491.06 ug/L	491.06 ppb	16:57:16
3	Cr 267.716†	43894.5	43312.1	487.17 ug/L	487.17 ppb	16:57:16
3	Cu 324.752†	165499.8	157606.3	479.60 ug/L	479.60 ppb	16:57:16
3	Mn 257.610†	435384.8	429920.4	489.50 ug/L	489.50 ppb	16:57:11
3	Mo 202.031†	6671.3	6584.4	483.84 ug/L	483.84 ppb	16:57:36
3	Ni 231.604†	19565.8	19278.4	490.01 ug/L	490.01 ppb	16:57:16
3	P 214.914†	4311.6	4051.5	2345.6 ug/L	2345.6 ppb	16:57:36
3	Pb 220.353†	3950.2	3962.9	488.89 ug/L	488.89 ppb	16:57:36
3	S 181.975 Axial†	732.3	683.1	982.04 ug/L	982.04 ppb	16:57:36
3	Sb 206.836†	1432.1	1378.9	499.40 ug/L	499.40 ppb	16:57:36
3	Se 196.026†	727.7	747.1	505.86 ug/L	505.86 ppb	16:57:36
3	Si 251.611†	76288.7	74853.3	2416.2 ug/L	2416.2 ppb	16:57:16
3	Sn 189.927†	2748.0	2705.9	486.13 ug/L	486.13 ppb	16:57:36
3	Ti 334.940†	314858.3	312612.4	491.13 ug/L	491.13 ppb	16:57:11
3	Tl 190.801†	1507.3	1522.6	490.16 ug/L	490.16 ppb	16:57:36
3	U 409.014†	14397.3	17118.4	471.07 ug/L	471.07 ppb	16:57:16
3	V 292.402†	68487.9	69206.1	489.00 ug/L	489.00 ppb	16:57:16
3	Zn 213.857†	49701.0	48523.5	483.97 ug/L	483.97 ppb	16:57:16
3	SiO2†	77026.9	75586.9	5239.8 ug/L	5239.8 ppb	16:57:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894922.1	102.02	%	0.778				0.76%
Sc Radial	3887.2	99.2	%	0.30				0.30%
Y 371.029	743866.8	98.415	%	0.6974				0.71%
Y RADIAL	4263.8	96.67	%	0.696				0.72%
Ag 328.068†	103628.8	483.09	ug/L	3.834	483.09	ppb	3.834	0.79%

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   QC value within limits for Ag 328.068  Recovery = 96.62%
Al 396.153Radial†       5257.9      4908.0 ug/L          5.47      4908.0 ppb          5.47   0.11%
   QC value within limits for Al 396.153Radial  Recovery = 98.16%
As 188.979†             1080.0      486.53 ug/L         4.309      486.53 ppb         4.309   0.89%
   QC value within limits for As 188.979  Recovery = 97.31%
B 249.677†             19502.3      470.65 ug/L         5.354      470.65 ppb         5.354   1.14%
   QC value within limits for B 249.677  Recovery = 94.13%
Ba 233.527†            61629.3      484.83 ug/L         4.041      484.83 ppb         4.041   0.83%
   QC value within limits for Ba 233.527  Recovery = 96.97%
Be 313.107†          1289189.8      485.59 ug/L         0.642      485.59 ppb         0.642   0.13%
   QC value within limits for Be 313.107  Recovery = 97.12%
Ca 317.933Radial†       2413.5      5045.4 ug/L         43.21      5045.4 ppb         43.21   0.86%
   QC value within limits for Ca 317.933Radial  Recovery = 100.91%
Cd 226.502†            42074.1      487.11 ug/L         4.716      487.11 ppb         4.716   0.97%
   QC value within limits for Cd 226.502  Recovery = 97.42%
Co 228.616†            23248.4      487.06 ug/L         4.031      487.06 ppb         4.031   0.83%
   QC value within limits for Co 228.616  Recovery = 97.41%
Cr 267.716†            42951.7      483.12 ug/L         4.548      483.12 ppb         4.548   0.94%
   QC value within limits for Cr 267.716  Recovery = 96.62%
Cu 324.752†           156563.4      476.43 ug/L         3.430      476.43 ppb         3.430   0.72%
   QC value within limits for Cu 324.752  Recovery = 95.29%
Fe 238.204 Radial†       345.0      4885.0 ug/L         79.92      4885.0 ppb         79.92   1.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.70%
K 766.490 Radial†      25794.6      4943.7 ug/L         18.16      4943.7 ppb         18.16   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 98.87%
Mg 279.077 IEC†          102.4      4963.9 ug/L        112.06      4963.9 ppb        112.06   2.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.28%
Mn 257.610†           428745.4      488.17 ug/L         1.323      488.17 ppb         1.323   0.27%
   QC value within limits for Mn 257.610  Recovery = 97.63%
Mo 202.031†             6537.5      480.40 ug/L         3.203      480.40 ppb         3.203   0.67%
   QC value within limits for Mo 202.031  Recovery = 96.08%
Na 589.592 Radial†     31853.3      9821.2 ug/L         45.61      9821.2 ppb         45.61   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 98.21%
Ni 231.604†            19103.8      485.57 ug/L         4.261      485.57 ppb         4.261   0.88%
   QC value within limits for Ni 231.604  Recovery = 97.11%
P 214.914†              4024.1      2329.7 ug/L         14.98      2329.7 ppb         14.98   0.64%
   QC value within limits for P 214.914  Recovery = 93.19%
Pb 220.353†             3945.7      486.76 ug/L         1.877      486.76 ppb         1.877   0.39%
   QC value within limits for Pb 220.353  Recovery = 97.35%
S 181.975 Axial†         676.8      972.95 ug/L         8.392      972.95 ppb         8.392   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 97.29%
Sb 206.836†             1365.5      494.60 ug/L         4.171      494.60 ppb         4.171   0.84%
   QC value within limits for Sb 206.836  Recovery = 98.92%
Se 196.026†              739.7      501.24 ug/L         4.159      501.24 ppb         4.159   0.83%
   QC value within limits for Se 196.026  Recovery = 100.25%
Si 251.611†            74384.3      2401.1 ug/L         17.87      2401.1 ppb         17.87   0.74%
   QC value within limits for Si 251.611  Recovery = 96.04%
Sn 189.927†             2690.7      483.40 ug/L         2.602      483.40 ppb         2.602   0.54%
   QC value within limits for Sn 189.927  Recovery = 96.68%
Sr 421.552†            69680.3      482.12 ug/L         0.751      482.12 ppb         0.751   0.16%
   QC value within limits for Sr 421.552  Recovery = 96.42%
Ti 334.940†           312166.4      490.43 ug/L         1.091      490.43 ppb         1.091   0.22%
   QC value within limits for Ti 334.940  Recovery = 98.09%
Tl 190.801†             1518.2      488.76 ug/L         3.077      488.76 ppb         3.077   0.63%
   QC value within limits for Tl 190.801  Recovery = 97.75%
U 409.014†             17108.2      470.79 ug/L         0.284      470.79 ppb         0.284   0.06%
   QC value within limits for U 409.014  Recovery = 94.16%
V 292.402†             68651.5      485.08 ug/L         4.016      485.08 ppb         4.016   0.83%
   QC value within limits for V 292.402  Recovery = 97.02%
Zn 213.857†            48106.9      479.80 ug/L         4.218      479.80 ppb         4.218   0.88%
   QC value within limits for Zn 213.857  Recovery = 95.96%
SiO2†                  74342.2      5153.4 ug/L         79.07      5153.4 ppb         79.07   1.53%
   QC value within limits for SiO2  Recovery = 96.37%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 17:00:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3852.2	3852.2	98.3	%			17:02:13
1	Y RADIAL	4377.8	4377.8	99.25	%			17:01:53
1	Al 396.153Radial†	-110.2	0.3	0.2697	ug/L	0.2697	ppb	17:01:53
1	Ca 317.933Radial†	24.1	4.8	10.091	ug/L	10.091	ppb	17:02:13
1	Fe 238.204 Radial†	11.8	0.7	9.7941	ug/L	9.7941	ppb	17:02:13
1	K 766.490 Radial†	2757.5	165.6	31.763	ug/L	31.763	ppb	17:01:53
1	Mg 279.077 IEC†	0.3	-3.7	-181.48	ug/L	-181.48	ppb	17:02:13
1	Na 589.592 Radial†	-777.0	29.3	9.0403	ug/L	9.0403	ppb	17:01:53
1	Sr 421.552†	76.4	42.0	0.2907	ug/L	0.2907	ppb	17:01:53
1	Sc 361.383	900409.9	900409.9	102.64	%			17:03:10
1	Y 371.029	760595.5	760595.5	100.63	%			17:03:10
1	Ag 328.068†	340.0	90.8	0.4225	ug/L	0.4225	ppb	17:03:15
1	As 188.979†	-24.7	-5.8	-2.5798	ug/L	-2.5798	ppb	17:03:35
1	B 249.677†	-362.4	45.1	1.0929	ug/L	1.0929	ppb	17:03:35
1	Ba 233.527†	-5.1	-3.5	-0.0274	ug/L	-0.0274	ppb	17:03:35
1	Be 313.107†	-3767.8	91.4	0.0342	ug/L	0.0342	ppb	17:03:15
1	Cd 226.502†	-182.4	18.5	0.2142	ug/L	0.2142	ppb	17:03:35
1	Co 228.616†	-74.8	-6.3	-0.1327	ug/L	-0.1327	ppb	17:03:35
1	Cr 267.716†	74.4	-5.2	-0.0575	ug/L	-0.0575	ppb	17:03:35
1	Cu 324.752†	6038.4	-107.8	-0.3282	ug/L	-0.3282	ppb	17:03:15
1	Mn 257.610†	467.6	-3.2	0.0048	ug/L	0.0048	ppb	17:03:35
1	Mo 202.031†	8.8	-1.6	-0.1154	ug/L	-0.1154	ppb	17:03:35
1	Ni 231.604†	82.5	17.9	0.4558	ug/L	0.4558	ppb	17:03:35
1	P 214.914†	211.6	-4.3	-2.5174	ug/L	-2.5174	ppb	17:03:35
1	Pb 220.353†	-62.4	-2.6	-0.3254	ug/L	-0.3254	ppb	17:03:35
1	S 181.975 Axial†	43.8	1.8	2.6235	ug/L	2.6235	ppb	17:03:35
1	Sb 206.836†	40.3	2.6	0.9401	ug/L	0.9401	ppb	17:03:35
1	Se 196.026†	-22.3	6.1	3.9981	ug/L	3.9981	ppb	17:03:35
1	Si 251.611†	569.3	-3.7	-0.1183	ug/L	-0.1183	ppb	17:03:35
1	Sn 189.927†	29.3	18.0	3.2339	ug/L	3.2339	ppb	17:03:35
1	Ti 334.940†	-1438.0	-26.9	-0.0266	ug/L	-0.0266	ppb	17:03:15
1	Tl 190.801†	-28.1	5.2	1.6536	ug/L	1.6536	ppb	17:03:35
1	U 409.014†	-2916.7	45.0	1.2410	ug/L	1.2410	ppb	17:03:10
1	V 292.402†	-1552.0	-6.4	-0.0485	ug/L	-0.0485	ppb	17:03:15
1	Zn 213.857†	838.0	210.3	2.1135	ug/L	2.1135	ppb	17:03:35
1	SiO2†	569.5	0.5	0.0351	ug/L	0.0351	ppb	17:04:41
2	Sc Radial	3844.3	3844.3	98.1	%			17:02:38
2	Y RADIAL	4449.9	4449.9	100.9	%			17:02:18
2	Al 396.153Radial†	-116.9	-6.8	-6.3661	ug/L	-6.3661	ppb	17:02:18
2	Ca 317.933Radial†	16.2	-3.2	-6.6141	ug/L	-6.6141	ppb	17:02:38
2	Fe 238.204 Radial†	10.8	-0.3	-4.1409	ug/L	-4.1409	ppb	17:02:38
2	K 766.490 Radial†	2663.2	75.2	14.419	ug/L	14.419	ppb	17:02:18
2	Mg 279.077 IEC†	1.9	-2.2	-105.81	ug/L	-105.81	ppb	17:02:38
2	Na 589.592 Radial†	-750.4	54.8	16.909	ug/L	16.909	ppb	17:02:18
2	Sr 421.552†	27.9	-7.3	-0.0503	ug/L	-0.0503	ppb	17:02:18
2	Sc 361.383	901998.5	901998.5	102.82	%			17:03:40
2	Y 371.029	761476.1	761476.1	100.75	%			17:03:40
2	Ag 328.068†	326.6	77.3	0.3584	ug/L	0.3584	ppb	17:03:45
2	As 188.979†	-27.2	-8.2	-3.6601	ug/L	-3.6601	ppb	17:04:06
2	B 249.677†	-390.4	18.5	0.4488	ug/L	0.4488	ppb	17:04:06
2	Ba 233.527†	6.5	7.7	0.0618	ug/L	0.0618	ppb	17:04:06
2	Be 313.107†	-3797.5	68.9	0.0255	ug/L	0.0255	ppb	17:03:45
2	Cd 226.502†	-182.6	18.7	0.2169	ug/L	0.2169	ppb	17:04:06
2	Co 228.616†	-53.7	14.3	0.3013	ug/L	0.3013	ppb	17:04:06
2	Cr 267.716†	65.5	-14.0	-0.1568	ug/L	-0.1568	ppb	17:04:06
2	Cu 324.752†	6039.0	-117.6	-0.3586	ug/L	-0.3586	ppb	17:03:45
2	Mn 257.610†	467.4	-4.2	-0.0009	ug/L	-0.0009	ppb	17:04:06
2	Mo 202.031†	17.9	7.3	0.5340	ug/L	0.5340	ppb	17:04:06
2	Ni 231.604†	84.5	19.7	0.5017	ug/L	0.5017	ppb	17:04:06

2	P 214.914†	214.8	-1.6	-0.9130 ug/L	-0.9130 ppb	17:04:06
2	Pb 220.353†	-59.5	0.2	0.0301 ug/L	0.0301 ppb	17:04:06
2	S 181.975 Axial†	38.5	-3.3	-4.7860 ug/L	-4.7860 ppb	17:04:06
2	Sb 206.836†	56.7	18.4	6.4562 ug/L	6.4562 ppb	17:04:06
2	Se 196.026†	-24.3	4.1	2.6565 ug/L	2.6565 ppb	17:04:06
2	Si 251.611†	562.5	-11.3	-0.3708 ug/L	-0.3708 ppb	17:04:06
2	Sn 189.927†	13.3	2.4	0.4323 ug/L	0.4323 ppb	17:04:06
2	Ti 334.940†	-1522.1	-106.2	-0.1594 ug/L	-0.1594 ppb	17:03:45
2	Tl 190.801†	-38.9	-5.2	-1.6802 ug/L	-1.6802 ppb	17:04:06
2	U 409.014†	-2936.9	30.4	0.8394 ug/L	0.8394 ppb	17:03:40
2	V 292.402†	-1462.2	83.6	0.5912 ug/L	0.5912 ppb	17:03:45
2	Zn 213.857†	834.6	205.6	2.0681 ug/L	2.0681 ppb	17:04:06
2	SiO2†	601.4	30.5	2.1033 ug/L	2.1033 ppb	17:04:46
3	Sc Radial	3832.9	3832.9	97.8 %		17:03:04
3	Y RADIAL	4350.0	4350.0	98.62 %		17:02:44
3	Al 396.153Radial†	-123.5	-13.8	-12.957 ug/L	-12.957 ppb	17:02:44
3	Ca 317.933Radial†	20.2	0.9	1.9596 ug/L	1.9596 ppb	17:03:04
3	Fe 238.204 Radial†	12.6	1.6	22.079 ug/L	22.079 ppb	17:03:04
3	K 766.490 Radial†	2846.6	270.7	51.962 ug/L	51.962 ppb	17:02:44
3	Mg 279.077 IEC†	1.5	-2.5	-122.52 ug/L	-122.52 ppb	17:03:04
3	Na 589.592 Radial†	-889.2	-89.3	-27.540 ug/L	-27.540 ppb	17:02:44
3	Sr 421.552†	29.9	-5.2	-0.0357 ug/L	-0.0357 ppb	17:02:44
3	Sc 361.383	903980.0	903980.0	103.05 %		17:04:11
3	Y 371.029	762638.1	762638.1	100.90 %		17:04:11
3	Ag 328.068†	344.8	94.2	0.4434 ug/L	0.4434 ppb	17:04:16
3	As 188.979†	-21.5	-2.6	-1.1479 ug/L	-1.1479 ppb	17:04:36
3	B 249.677†	-397.4	12.6	0.3017 ug/L	0.3017 ppb	17:04:36
3	Ba 233.527†	12.6	13.6	0.1076 ug/L	0.1076 ppb	17:04:36
3	Be 313.107†	-3797.5	77.1	0.0289 ug/L	0.0289 ppb	17:04:16
3	Cd 226.502†	-189.2	12.6	0.1438 ug/L	0.1438 ppb	17:04:36
3	Co 228.616†	-67.4	1.1	0.0226 ug/L	0.0226 ppb	17:04:36
3	Cr 267.716†	79.4	-0.6	-0.0048 ug/L	-0.0048 ppb	17:04:36
3	Cu 324.752†	6022.9	-146.1	-0.4436 ug/L	-0.4436 ppb	17:04:16
3	Mn 257.610†	504.4	30.7	0.0421 ug/L	0.0421 ppb	17:04:36
3	Mo 202.031†	11.1	0.6	0.0449 ug/L	0.0449 ppb	17:04:36
3	Ni 231.604†	57.6	-6.6	-0.1673 ug/L	-0.1673 ppb	17:04:36
3	P 214.914†	214.8	-2.1	-1.1683 ug/L	-1.1683 ppb	17:04:36
3	Pb 220.353†	-40.0	19.3	2.3688 ug/L	2.3688 ppb	17:04:36
3	S 181.975 Axial†	39.7	-2.3	-3.2499 ug/L	-3.2499 ppb	17:04:36
3	Sb 206.836†	38.6	0.7	0.2578 ug/L	0.2578 ppb	17:04:36
3	Se 196.026†	-23.3	5.2	3.4507 ug/L	3.4507 ppb	17:04:36
3	Si 251.611†	567.9	-7.2	-0.2350 ug/L	-0.2350 ppb	17:04:36
3	Sn 189.927†	14.3	3.4	0.6142 ug/L	0.6142 ppb	17:04:36
3	Ti 334.940†	-1437.6	-21.0	-0.0229 ug/L	-0.0229 ppb	17:04:16
3	Tl 190.801†	-32.5	1.0	0.3191 ug/L	0.3191 ppb	17:04:36
3	U 409.014†	-2967.8	6.7	0.1816 ug/L	0.1816 ppb	17:04:11
3	V 292.402†	-1537.0	14.2	0.0943 ug/L	0.0943 ppb	17:04:16
3	Zn 213.857†	815.8	185.6	1.8668 ug/L	1.8668 ppb	17:04:36
3	SiO2†	572.6	1.2	0.0855 ug/L	0.0855 ppb	17:04:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902129.5	102.84	%	0.204				0.20%
Sc Radial	3843.2	98.1	%	0.25				0.25%
Y 371.029	761569.9	100.76	%	0.136				0.13%
Y RADIAL	4392.5	99.58	%	1.169				1.17%
Ag 328.068†	87.4	0.4081	ug/L	0.04427	0.4081	ppb	0.04427	10.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.8	-6.3511	ug/L	6.61330	-6.3511	ppb	6.61330	104.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.5	-2.4626	ug/L	1.26019	-2.4626	ppb	1.26019	51.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	25.4	0.6145	ug/L	0.42084	0.6145	ppb	0.42084	68.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.9	0.0473	ug/L	0.06867	0.0473	ppb	0.06867	145.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.1	0.0296	ug/L	0.00440	0.0296	ppb	0.00440	14.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	1.8121	ug/L	8.35340	1.8121	ppb	8.35340	460.98%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.6      0.1916 ug/L       0.04145      0.1916 ppb        0.04145  21.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.0      0.0637 ug/L       0.21988      0.0637 ppb        0.21988 344.96%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.6     -0.0730 ug/L       0.07716     -0.0730 ppb        0.07716 105.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -123.8     -0.3768 ug/L       0.05982     -0.3768 ppb        0.05982  15.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      9.2439 ug/L      13.11841      9.2439 ppb       13.11841 141.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         170.5     32.715 ug/L       18.7895     32.715 ppb        18.7895  57.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8   -136.60 ug/L        39.756   -136.60 ppb         39.756  29.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 7.8      0.0154 ug/L       0.02337      0.0154 ppb        0.02337 152.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.1      0.1545 ug/L       0.33830      0.1545 ppb        0.33830 218.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -1.7     -0.5305 ug/L      23.71980     -0.5305 ppb       23.71980 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.4      0.2634 ug/L       0.37373      0.2634 ppb        0.37373 141.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.7     -1.5329 ug/L       0.86212     -1.5329 ppb        0.86212  56.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.6      0.6912 ug/L       1.46373      0.6912 ppb        1.46373 211.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.3     -1.8042 ug/L       3.91063     -1.8042 ppb        3.91063 216.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.2      2.5514 ug/L       3.39886      2.5514 ppb        3.39886 133.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.1      3.3684 ug/L       0.67455      3.3684 ppb        0.67455  20.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -7.4     -0.2414 ug/L       0.12639     -0.2414 ppb        0.12639  52.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.0      1.4268 ug/L       1.56764      1.4268 ppb        1.56764 109.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.9      0.0682 ug/L       0.19277      0.0682 ppb        0.19277 282.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -51.4     -0.0696 ug/L       0.07779     -0.0696 ppb        0.07779 111.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.3      0.0975 ug/L       1.67795      0.0975 ppb        1.67795 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 27.3      0.7540 ug/L       0.53483      0.7540 ppb        0.53483  70.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 30.5      0.2123 ug/L       0.33577      0.2123 ppb        0.33577 158.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               200.5      2.0161 ug/L       0.13130      2.0161 ppb        0.13130   6.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      10.7      0.7413 ug/L       1.17979      0.7413 ppb        1.17979 159.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 18:15:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4007.2	4007.2	102	%			18:17:17
1	Y RADIAL	4427.1	4427.1	100.4	%			18:17:17
1	Al 396.153Radial†	5205.1	5202.8	4856.0	ug/L	4856.0	ppb	18:17:17
1	Ca 317.933Radial†	2451.6	2377.8	4970.9	ug/L	4970.9	ppb	18:17:37
1	Fe 238.204 Radial†	363.8	344.5	4878.0	ug/L	4878.0	ppb	18:17:37
1	K 766.490 Radial†	28844.7	25569.2	4900.4	ug/L	4900.4	ppb	18:17:17
1	Mg 279.077 IEC†	109.2	102.7	4979.4	ug/L	4979.4	ppb	18:17:37
1	Na 589.592 Radial†	32811.6	32908.0	10146	ug/L	10146	ppb	18:17:17
1	Sr 421.552†	71918.3	70297.0	486.39	ug/L	486.39	ppb	18:17:17
1	Sc 361.383	900772.2	900772.2	102.68	%			18:18:35
1	Y 371.029	746520.2	746520.2	98.766	%			18:18:35
1	Ag 328.068†	110303.0	107179.9	499.61	ug/L	499.61	ppb	18:18:40
1	As 188.979†	1110.8	1100.0	495.49	ug/L	495.49	ppb	18:19:00
1	B 249.677†	20331.5	20198.4	487.47	ug/L	487.47	ppb	18:18:40
1	Ba 233.527†	65882.3	64162.0	504.75	ug/L	504.75	ppb	18:18:40
1	Be 313.107†	1345256.2	1313861.1	494.88	ug/L	494.88	ppb	18:18:35
1	Cd 226.502†	44997.0	44017.3	509.63	ug/L	509.63	ppb	18:18:40
1	Co 228.616†	24898.3	24314.2	509.38	ug/L	509.38	ppb	18:18:40
1	Cr 267.716†	46063.9	44782.4	503.69	ug/L	503.69	ppb	18:18:40
1	Cu 324.752†	173440.5	162916.9	495.76	ug/L	495.76	ppb	18:18:40
1	Mn 257.610†	451130.3	438881.6	499.70	ug/L	499.70	ppb	18:18:35
1	Mo 202.031†	6811.9	6623.7	486.73	ug/L	486.73	ppb	18:19:00
1	Ni 231.604†	20620.4	20019.1	508.84	ug/L	508.84	ppb	18:18:40
1	P 214.914†	4436.6	4110.1	2377.7	ug/L	2377.7	ppb	18:19:00
1	Pb 220.353†	4061.1	4013.1	495.04	ug/L	495.04	ppb	18:19:00
1	S 181.975 Axial†	747.2	686.9	987.54	ug/L	987.54	ppb	18:19:00
1	Sb 206.836†	1470.0	1394.9	505.23	ug/L	505.23	ppb	18:19:00
1	Se 196.026†	741.3	749.7	507.74	ug/L	507.74	ppb	18:19:00
1	Si 251.611†	80233.3	77578.1	2504.3	ug/L	2504.3	ppb	18:18:40
1	Sn 189.927†	2842.8	2758.1	495.47	ug/L	495.47	ppb	18:19:00
1	Ti 334.940†	324453.0	317347.7	498.54	ug/L	498.54	ppb	18:18:40
1	Tl 190.801†	1553.9	1545.9	497.61	ug/L	497.61	ppb	18:19:00
1	U 409.014†	15252.1	17740.1	488.20	ug/L	488.20	ppb	18:18:40
1	V 292.402†	71727.8	71358.9	504.06	ug/L	504.06	ppb	18:18:40
1	Zn 213.857†	52252.8	50281.2	501.51	ug/L	501.51	ppb	18:18:40
1	SiO2†	78244.6	75645.3	5243.8	ug/L	5243.8	ppb	18:20:07
2	Sc Radial	3906.6	3906.6	99.7	%			18:17:42
2	Y RADIAL	4280.9	4280.9	97.05	%			18:17:42
2	Al 396.153Radial†	5145.4	5273.9	4922.6	ug/L	4922.6	ppb	18:17:42
2	Ca 317.933Radial†	2469.9	2458.0	5138.4	ug/L	5138.4	ppb	18:18:02
2	Fe 238.204 Radial†	363.6	353.4	5003.1	ug/L	5003.1	ppb	18:18:02
2	K 766.490 Radial†	28194.8	25643.5	4914.5	ug/L	4914.5	ppb	18:17:42
2	Mg 279.077 IEC†	109.5	105.7	5127.1	ug/L	5127.1	ppb	18:18:02
2	Na 589.592 Radial†	32140.8	33061.3	10194	ug/L	10194	ppb	18:17:42
2	Sr 421.552†	70756.3	70942.4	490.85	ug/L	490.85	ppb	18:17:42
2	Sc 361.383	904006.0	904006.0	103.05	%			18:19:06
2	Y 371.029	749349.6	749349.6	99.141	%			18:19:06
2	Ag 328.068†	108179.6	104735.1	488.28	ug/L	488.28	ppb	18:19:11
2	As 188.979†	1118.4	1103.5	496.96	ug/L	496.96	ppb	18:19:31
2	B 249.677†	19877.4	19686.9	475.08	ug/L	475.08	ppb	18:19:11
2	Ba 233.527†	64530.8	62620.9	492.63	ug/L	492.63	ppb	18:19:11
2	Be 313.107†	1339035.3	1303138.0	490.82	ug/L	490.82	ppb	18:19:06
2	Cd 226.502†	44007.8	42900.6	496.68	ug/L	496.68	ppb	18:19:11
2	Co 228.616†	24371.3	23716.0	496.88	ug/L	496.88	ppb	18:19:11
2	Cr 267.716†	44890.2	43482.9	489.10	ug/L	489.10	ppb	18:19:11
2	Cu 324.752†	169242.2	158238.9	481.54	ug/L	481.54	ppb	18:19:11
2	Mn 257.610†	448671.0	434923.5	495.20	ug/L	495.20	ppb	18:19:06
2	Mo 202.031†	6855.6	6642.4	488.11	ug/L	488.11	ppb	18:19:31
2	Ni 231.604†	20115.7	19457.5	494.56	ug/L	494.56	ppb	18:19:11

2	P 214.914†	4463.4	4120.7	2386.8 ug/L	2386.8 ppb	18:19:31
2	Pb 220.353†	4098.9	4035.6	497.83 ug/L	497.83 ppb	18:19:31
2	S 181.975 Axial†	754.1	691.0	993.38 ug/L	993.38 ppb	18:19:31
2	Sb 206.836†	1497.1	1416.0	512.60 ug/L	512.60 ppb	18:19:31
2	Se 196.026†	737.4	743.3	503.95 ug/L	503.95 ppb	18:19:31
2	Si 251.611†	78408.5	75527.8	2438.0 ug/L	2438.0 ppb	18:19:11
2	Sn 189.927†	2836.5	2742.0	492.62 ug/L	492.62 ppb	18:19:31
2	Ti 334.940†	316707.3	308701.2	484.98 ug/L	484.98 ppb	18:19:11
2	Tl 190.801†	1565.5	1551.7	499.43 ug/L	499.43 ppb	18:19:31
2	U 409.014†	14653.4	17106.0	470.70 ug/L	470.70 ppb	18:19:11
2	V 292.402†	70012.4	69444.4	490.70 ug/L	490.70 ppb	18:19:11
2	Zn 213.857†	51078.0	48959.1	488.29 ug/L	488.29 ppb	18:19:11
2	SiO2†	78790.6	75902.6	5261.6 ug/L	5261.6 ppb	18:20:13
3	Sc Radial	3918.5	3918.5	100.0 %		18:18:08
3	Y RADIAL	4310.4	4310.4	97.72 %		18:18:08
3	Al 396.153Radial†	5243.1	5356.0	4998.1 ug/L	4998.1 ppb	18:18:08
3	Ca 317.933Radial†	2467.6	2448.1	5117.8 ug/L	5117.8 ppb	18:18:28
3	Fe 238.204 Radial†	364.3	353.1	4999.5 ug/L	4999.5 ppb	18:18:28
3	K 766.490 Radial†	28596.9	25959.7	4975.2 ug/L	4975.2 ppb	18:18:08
3	Mg 279.077 IEC†	109.4	105.3	5106.4 ug/L	5106.4 ppb	18:18:28
3	Na 589.592 Radial†	32437.9	33260.5	10255 ug/L	10255 ppb	18:18:08
3	Sr 421.552†	71686.1	71656.5	495.79 ug/L	495.79 ppb	18:18:08
3	Sc 361.383	846314.1	846314.1	96.476 %		18:19:37
3	Y 371.029	702011.8	702011.8	92.878 %		18:19:37
3	Ag 328.068†	109395.2	113151.1	527.40 ug/L	527.40 ppb	18:19:42
3	As 188.979†	1108.4	1167.2	525.67 ug/L	525.67 ppb	18:20:02
3	B 249.677†	20208.9	21345.4	515.18 ug/L	515.18 ppb	18:19:42
3	Ba 233.527†	65352.4	67741.2	532.89 ug/L	532.89 ppb	18:19:42
3	Be 313.107†	1345878.2	1398807.2	526.86 ug/L	526.86 ppb	18:19:37
3	Cd 226.502†	44497.7	46319.5	536.30 ug/L	536.30 ppb	18:19:42
3	Co 228.616†	24653.6	25620.7	536.77 ug/L	536.77 ppb	18:19:42
3	Cr 267.716†	45547.9	47134.2	530.13 ug/L	530.13 ppb	18:19:42
3	Cu 324.752†	171682.2	171963.2	523.28 ug/L	523.28 ppb	18:19:42
3	Mn 257.610†	450107.7	466092.0	530.67 ug/L	530.67 ppb	18:19:37
3	Mo 202.031†	6810.2	7048.8	517.95 ug/L	517.95 ppb	18:20:02
3	Ni 231.604†	20259.6	20937.3	532.17 ug/L	532.17 ppb	18:19:42
3	P 214.914†	4432.7	4384.2	2537.4 ug/L	2537.4 ppb	18:20:02
3	Pb 220.353†	4035.0	4240.5	523.10 ug/L	523.10 ppb	18:20:02
3	S 181.975 Axial†	743.7	730.1	1049.7 ug/L	1049.7 ppb	18:20:02
3	Sb 206.836†	1459.4	1476.1	534.65 ug/L	534.65 ppb	18:20:02
3	Se 196.026†	761.1	816.7	552.12 ug/L	552.12 ppb	18:20:02
3	Si 251.611†	79523.7	81870.5	2642.9 ug/L	2642.9 ppb	18:19:42
3	Sn 189.927†	2812.6	2904.9	521.84 ug/L	521.84 ppb	18:20:02
3	Ti 334.940†	321086.3	334190.1	525.00 ug/L	525.00 ppb	18:19:42
3	Tl 190.801†	1537.0	1625.8	523.35 ug/L	523.35 ppb	18:20:02
3	U 409.014†	15003.5	18438.2	507.40 ug/L	507.40 ppb	18:19:42
3	V 292.402†	71004.7	75104.3	530.61 ug/L	530.61 ppb	18:19:42
3	Zn 213.857†	51669.4	52950.9	528.18 ug/L	528.18 ppb	18:19:42
3	SiO2†	78130.5	80430.3	5575.5 ug/L	5575.5 ppb	18:20:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	883697.4	100.74	%	3.695				3.67%
Sc Radial	3944.1	101	%	1.4				1.39%
Y 371.029	732627.2	96.928	%	3.5128				3.62%
Y RADIAL	4339.5	98.38	%	1.753				1.78%
Ag 328.068†	108355.4	505.09	ug/L	20.129	505.09	ppb	20.129	3.99%
QC value within limits for Ag 328.068 Recovery = 101.02%								
Al 396.153Radial†	5277.6	4925.6	ug/L	71.12	4925.6	ppb	71.12	1.44%
QC value within limits for Al 396.153Radial Recovery = 98.51%								
As 188.979†	1123.5	506.04	ug/L	17.020	506.04	ppb	17.020	3.36%
QC value within limits for As 188.979 Recovery = 101.21%								
B 249.677†	20410.3	492.57	ug/L	20.530	492.57	ppb	20.530	4.17%
QC value within limits for B 249.677 Recovery = 98.51%								
Ba 233.527†	64841.4	510.09	ug/L	20.659	510.09	ppb	20.659	4.05%
QC value within limits for Ba 233.527 Recovery = 102.02%								
Be 313.107†	1338602.1	504.18	ug/L	19.742	504.18	ppb	19.742	3.92%
QC value within limits for Be 313.107 Recovery = 100.84%								
Ca 317.933Radial†	2428.0	5075.7	ug/L	91.34	5075.7	ppb	91.34	1.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.51%
Cd 226.502†            44412.5      514.20 ug/L        20.202      514.20 ppb        20.202   3.93%
   QC value within limits for Cd 226.502  Recovery = 102.84%
Co 228.616†            24550.3      514.34 ug/L        20.402      514.34 ppb        20.402   3.97%
   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            45133.2      507.64 ug/L        20.798      507.64 ppb        20.798   4.10%
   QC value within limits for Cr 267.716  Recovery = 101.53%
Cu 324.752†           164373.0      500.19 ug/L        21.222      500.19 ppb        21.222   4.24%
   QC value within limits for Cu 324.752  Recovery = 100.04%
Fe 238.204 Radial†       350.3      4960.2 ug/L         71.22      4960.2 ppb         71.22   1.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.20%
K 766.490 Radial†      25724.2      4930.0 ug/L         39.73      4930.0 ppb         39.73   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 98.60%
Mg 279.077 IEC†          104.6      5071.0 ug/L         80.01      5071.0 ppb         80.01   1.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.42%
Mn 257.610†           446632.4      508.52 ug/L        19.311      508.52 ppb        19.311   3.80%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†            6771.6      497.60 ug/L        17.639      497.60 ppb        17.639   3.54%
   QC value within limits for Mo 202.031  Recovery = 99.52%
Na 589.592 Radial†     33076.6       10198 ug/L          54.5       10198 ppb          54.5   0.53%
   QC value within limits for Na 589.592 Radial  Recovery = 101.98%
Ni 231.604†            20138.0      511.86 ug/L        18.987      511.86 ppb        18.987   3.71%
   QC value within limits for Ni 231.604  Recovery = 102.37%
P 214.914†              4205.0      2434.0 ug/L         89.69      2434.0 ppb         89.69   3.69%
   QC value within limits for P 214.914  Recovery = 97.36%
Pb 220.353†             4096.4      505.32 ug/L        15.456      505.32 ppb        15.456   3.06%
   QC value within limits for Pb 220.353  Recovery = 101.06%
S 181.975 Axial†         702.7      1010.2 ug/L         34.33      1010.2 ppb         34.33   3.40%
   QC value within limits for S 181.975 Axial  Recovery = 101.02%
Sb 206.836†             1429.0      517.49 ug/L        15.305      517.49 ppb        15.305   2.96%
   QC value within limits for Sb 206.836  Recovery = 103.50%
Se 196.026†              769.9      521.27 ug/L        26.782      521.27 ppb        26.782   5.14%
   QC value within limits for Se 196.026  Recovery = 104.25%
Si 251.611†            78325.5      2528.4 ug/L        104.53      2528.4 ppb        104.53   4.13%
   QC value within limits for Si 251.611  Recovery = 101.14%
Sn 189.927†             2801.7      503.31 ug/L        16.109      503.31 ppb        16.109   3.20%
   QC value within limits for Sn 189.927  Recovery = 100.66%
Sr 421.552†            70965.3      491.01 ug/L         4.705      491.01 ppb         4.705   0.96%
   QC value within limits for Sr 421.552  Recovery = 98.20%
Ti 334.940†           320079.7      502.84 ug/L        20.354      502.84 ppb        20.354   4.05%
   QC value within limits for Ti 334.940  Recovery = 100.57%
Tl 190.801†             1574.5      506.80 ug/L        14.362      506.80 ppb        14.362   2.83%
   QC value within limits for Tl 190.801  Recovery = 101.36%
U 409.014†             17761.5      488.77 ug/L        18.354      488.77 ppb        18.354   3.76%
   QC value within limits for U 409.014  Recovery = 97.75%
V 292.402†             71969.2      508.46 ug/L        20.310      508.46 ppb        20.310   3.99%
   QC value within limits for V 292.402  Recovery = 101.69%
Zn 213.857†            50730.4      505.99 ug/L        20.319      505.99 ppb        20.319   4.02%
   QC value within limits for Zn 213.857  Recovery = 101.20%
SiO2†                  77326.1      5360.3 ug/L        186.56      5360.3 ppb        186.56   3.48%
   QC value within limits for SiO2  Recovery = 100.24%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 18:22:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3866.6	3866.6	98.7	%			18:24:39
1	Y RADIAL	4306.0	4306.0	97.62	%			18:24:19
1	Al 396.153Radial†	-103.1	7.9	7.4068	ug/L	7.4068	ppb	18:24:19
1	Ca 317.933Radial†	20.5	1.1	2.3703	ug/L	2.3703	ppb	18:24:39
1	Fe 238.204 Radial†	10.7	-0.5	-7.4116	ug/L	-7.4116	ppb	18:24:39
1	K 766.490 Radial†	2776.0	173.9	33.366	ug/L	33.366	ppb	18:24:19
1	Mg 279.077 IEC†	5.0	1.0	46.301	ug/L	46.301	ppb	18:24:39
1	Na 589.592 Radial†	-775.2	34.1	10.522	ug/L	10.522	ppb	18:24:19
1	Sr 421.552†	40.9	5.7	0.0395	ug/L	0.0395	ppb	18:24:19
1	Sc 361.383	912740.2	912740.2	104.05	%			18:25:36
1	Y 371.029	767528.5	767528.5	101.55	%			18:25:36
1	Ag 328.068†	335.8	82.4	0.3785	ug/L	0.3785	ppb	18:25:41
1	As 188.979†	-24.0	-4.8	-2.1542	ug/L	-2.1542	ppb	18:26:01
1	B 249.677†	-471.9	-55.3	-1.3401	ug/L	-1.3401	ppb	18:26:01
1	Ba 233.527†	14.2	15.1	0.1196	ug/L	0.1196	ppb	18:26:01
1	Be 313.107†	-3792.0	117.7	0.0441	ug/L	0.0441	ppb	18:25:41
1	Cd 226.502†	-190.6	13.1	0.1534	ug/L	0.1534	ppb	18:26:01
1	Co 228.616†	-66.4	2.8	0.0579	ug/L	0.0579	ppb	18:26:01
1	Cr 267.716†	90.0	8.8	0.0970	ug/L	0.0970	ppb	18:26:01
1	Cu 324.752†	5923.7	-297.6	-0.9081	ug/L	-0.9081	ppb	18:25:41
1	Mn 257.610†	447.8	-28.3	-0.0349	ug/L	-0.0349	ppb	18:26:01
1	Mo 202.031†	9.8	-0.8	-0.0570	ug/L	-0.0570	ppb	18:26:01
1	Ni 231.604†	73.3	8.0	0.2045	ug/L	0.2045	ppb	18:26:01
1	P 214.914†	214.0	-4.8	-2.6866	ug/L	-2.6866	ppb	18:26:01
1	Pb 220.353†	-57.5	2.9	0.3576	ug/L	0.3576	ppb	18:26:01
1	S 181.975 Axial†	44.9	2.3	3.3471	ug/L	3.3471	ppb	18:26:01
1	Sb 206.836†	41.6	3.3	1.1617	ug/L	1.1617	ppb	18:26:01
1	Se 196.026†	-21.8	6.8	4.4580	ug/L	4.4580	ppb	18:26:01
1	Si 251.611†	580.6	-0.3	-0.0085	ug/L	-0.0085	ppb	18:26:01
1	Sn 189.927†	20.0	8.8	1.5755	ug/L	1.5755	ppb	18:26:01
1	Ti 334.940†	-1479.5	-47.9	-0.0805	ug/L	-0.0805	ppb	18:25:41
1	Tl 190.801†	-44.9	-10.6	-3.3780	ug/L	-3.3780	ppb	18:26:01
1	U 409.014†	-2857.0	140.7	3.8867	ug/L	3.8867	ppb	18:25:36
1	V 292.402†	-1477.5	85.7	0.6062	ug/L	0.6062	ppb	18:25:41
1	Zn 213.857†	807.9	170.4	1.7163	ug/L	1.7163	ppb	18:26:01
1	SiO2†	570.9	-5.7	-0.3975	ug/L	-0.3975	ppb	18:27:07
2	Sc Radial	3849.9	3849.9	98.2	%			18:25:04
2	Y RADIAL	4397.0	4397.0	99.69	%			18:24:44
2	Al 396.153Radial†	-115.7	-5.3	-4.9982	ug/L	-4.9982	ppb	18:24:44
2	Ca 317.933Radial†	18.8	-0.5	-1.0274	ug/L	-1.0274	ppb	18:25:04
2	Fe 238.204 Radial†	13.8	2.8	38.959	ug/L	38.959	ppb	18:25:04
2	K 766.490 Radial†	2723.9	133.1	25.535	ug/L	25.535	ppb	18:24:44
2	Mg 279.077 IEC†	2.3	-1.8	-86.396	ug/L	-86.396	ppb	18:25:04
2	Na 589.592 Radial†	-799.8	5.7	1.7573	ug/L	1.7573	ppb	18:24:44
2	Sr 421.552†	28.9	-6.3	-0.0437	ug/L	-0.0437	ppb	18:24:44
2	Sc 361.383	908778.7	908778.7	103.60	%			18:26:06
2	Y 371.029	764914.1	764914.1	101.20	%			18:26:06
2	Ag 328.068†	373.1	119.8	0.5667	ug/L	0.5667	ppb	18:26:11
2	As 188.979†	-21.9	-2.9	-1.2848	ug/L	-1.2848	ppb	18:26:31
2	B 249.677†	-473.4	-58.7	-1.4304	ug/L	-1.4304	ppb	18:26:31
2	Ba 233.527†	-5.9	-4.3	-0.0320	ug/L	-0.0320	ppb	18:26:31
2	Be 313.107†	-3831.2	64.0	0.0237	ug/L	0.0237	ppb	18:26:11
2	Cd 226.502†	-183.1	19.5	0.2218	ug/L	0.2218	ppb	18:26:31
2	Co 228.616†	-64.1	4.7	0.0974	ug/L	0.0974	ppb	18:26:31
2	Cr 267.716†	55.3	-24.3	-0.2698	ug/L	-0.2698	ppb	18:26:31
2	Cu 324.752†	5966.5	-231.4	-0.7029	ug/L	-0.7029	ppb	18:26:11
2	Mn 257.610†	487.0	11.4	0.0203	ug/L	0.0203	ppb	18:26:31
2	Mo 202.031†	11.3	0.8	0.0601	ug/L	0.0601	ppb	18:26:31
2	Ni 231.604†	58.6	-5.9	-0.1502	ug/L	-0.1502	ppb	18:26:31

2	P 214.914†	216.0	-2.0	-1.0630 ug/L	-1.0630 ppb	18:26:31
2	Pb 220.353†	-64.2	-3.9	-0.4845 ug/L	-0.4845 ppb	18:26:31
2	S 181.975 Axial†	43.5	1.2	1.6986 ug/L	1.6986 ppb	18:26:31
2	Sb 206.836†	44.3	6.1	2.1669 ug/L	2.1669 ppb	18:26:31
2	Se 196.026†	-23.9	4.7	3.2101 ug/L	3.2101 ppb	18:26:31
2	Si 251.611†	551.1	-26.3	-0.8519 ug/L	-0.8519 ppb	18:26:31
2	Sn 189.927†	28.0	16.5	2.9653 ug/L	2.9653 ppb	18:26:31
2	Ti 334.940†	-1516.2	-89.5	-0.1343 ug/L	-0.1343 ppb	18:26:11
2	Tl 190.801†	-34.2	-0.5	-0.1567 ug/L	-0.1567 ppb	18:26:31
2	U 409.014†	-2936.3	52.3	1.4398 ug/L	1.4398 ppb	18:26:06
2	V 292.402†	-1524.4	34.2	0.2346 ug/L	0.2346 ppb	18:26:11
2	Zn 213.857†	830.3	195.5	1.9639 ug/L	1.9639 ppb	18:26:31
2	SiO2†	591.7	16.8	1.1651 ug/L	1.1651 ppb	18:27:12
3	Sc Radial	3831.7	3831.7	97.8 %		18:25:29
3	Y RADIAL	4372.3	4372.3	99.13 %		18:25:09
3	Al 396.153Radial†	-141.4	-32.2	-30.227 ug/L	-30.227 ppb	18:25:09
3	Ca 317.933Radial†	17.5	-1.8	-3.6608 ug/L	-3.6608 ppb	18:25:29
3	Fe 238.204 Radial†	11.1	-0.0	-0.1367 ug/L	-0.1367 ppb	18:25:29
3	K 766.490 Radial†	2801.4	225.5	43.271 ug/L	43.271 ppb	18:25:09
3	Mg 279.077 IEC†	1.3	-2.7	-132.68 ug/L	-132.68 ppb	18:25:29
3	Na 589.592 Radial†	-762.7	39.7	12.251 ug/L	12.251 ppb	18:25:09
3	Sr 421.552†	56.8	22.3	0.1546 ug/L	0.1546 ppb	18:25:09
3	Sc 361.383	905741.5	905741.5	103.25 %		18:26:36
3	Y 371.029	763648.4	763648.4	101.03 %		18:26:36
3	Ag 328.068†	313.9	63.6	0.2958 ug/L	0.2958 ppb	18:26:42
3	As 188.979†	-25.0	-6.0	-2.6860 ug/L	-2.6860 ppb	18:27:02
3	B 249.677†	-475.0	-61.9	-1.4997 ug/L	-1.4997 ppb	18:27:02
3	Ba 233.527†	-0.8	0.6	0.0058 ug/L	0.0058 ppb	18:27:02
3	Be 313.107†	-3892.6	-7.9	-0.0032 ug/L	-0.0032 ppb	18:26:42
3	Cd 226.502†	-205.0	-2.3	-0.0271 ug/L	-0.0271 ppb	18:27:02
3	Co 228.616†	-66.7	1.9	0.0418 ug/L	0.0418 ppb	18:27:02
3	Cr 267.716†	69.5	-10.4	-0.1160 ug/L	-0.1160 ppb	18:27:02
3	Cu 324.752†	6023.7	-156.7	-0.4770 ug/L	-0.4770 ppb	18:26:42
3	Mn 257.610†	481.4	7.5	0.0140 ug/L	0.0140 ppb	18:27:02
3	Mo 202.031†	16.3	5.6	0.4113 ug/L	0.4113 ppb	18:27:02
3	Ni 231.604†	44.0	-19.8	-0.5034 ug/L	-0.5034 ppb	18:27:02
3	P 214.914†	217.1	-0.3	-0.0499 ug/L	-0.0499 ppb	18:27:02
3	Pb 220.353†	-56.9	3.0	0.3693 ug/L	0.3693 ppb	18:27:02
3	S 181.975 Axial†	51.3	8.8	12.722 ug/L	12.722 ppb	18:27:02
3	Sb 206.836†	43.9	5.8	2.0753 ug/L	2.0753 ppb	18:27:02
3	Se 196.026†	-33.1	-4.4	-2.8544 ug/L	-2.8544 ppb	18:27:02
3	Si 251.611†	571.6	-4.8	-0.1588 ug/L	-0.1588 ppb	18:27:02
3	Sn 189.927†	22.2	11.0	1.9694 ug/L	1.9694 ppb	18:27:02
3	Ti 334.940†	-1476.5	-56.0	-0.0778 ug/L	-0.0778 ppb	18:26:42
3	Tl 190.801†	-24.4	8.9	2.8458 ug/L	2.8458 ppb	18:27:02
3	U 409.014†	-2961.9	17.9	0.4958 ug/L	0.4958 ppb	18:26:36
3	V 292.402†	-1501.5	51.4	0.3628 ug/L	0.3628 ppb	18:26:42
3	Zn 213.857†	832.3	200.0	2.0176 ug/L	2.0176 ppb	18:27:02
3	SiO2†	603.2	29.8	2.0593 ug/L	2.0593 ppb	18:27:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909086.8	103.63	%	0.400				0.39%
Sc Radial	3849.4	98.2	%	0.45				0.45%
Y 371.029	765363.7	101.26	%	0.262				0.26%
Y RADIAL	4358.4	98.81	%	1.068				1.08%
Ag 328.068†	88.6	0.4137	ug/L	0.13885	0.4137	ppb	0.13885	33.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.9	-9.2730	ug/L	19.17786	-9.2730	ppb	19.17786	206.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.6	-2.0417	ug/L	0.70734	-2.0417	ppb	0.70734	34.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-58.6	-1.4234	ug/L	0.08000	-1.4234	ppb	0.08000	5.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.8	0.0311	ug/L	0.07889	0.0311	ppb	0.07889	253.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	57.9	0.0215	ug/L	0.02369	0.0215	ppb	0.02369	109.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-0.7726	ug/L	3.02359	-0.7726	ppb	3.02359	391.34%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.1      0.1160 ug/L       0.12856      0.1160 ppb        0.12856 110.79%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.1      0.0657 ug/L       0.02863      0.0657 ppb        0.02863  43.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -8.6     -0.0963 ug/L       0.18422     -0.0963 ppb        0.18422 191.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -228.5     -0.6960 ug/L       0.21563     -0.6960 ppb        0.21563  30.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.7      10.470 ug/L       24.9388      10.470 ppb        24.9388 238.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       177.5      34.057 ug/L        8.8879      34.057 ppb         8.8879  26.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -57.593 ug/L       92.9040     -57.593 ppb        92.9040 161.31%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -3.2     -0.0002 ug/L       0.03019     -0.0002 ppb        0.03019 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.9      0.1382 ug/L       0.24371      0.1382 ppb        0.24371 176.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       26.5      8.1769 ug/L       5.62635      8.1769 ppb        5.62635  68.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -5.9     -0.1497 ug/L       0.35396     -0.1497 ppb        0.35396 236.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.3     -1.2665 ug/L       1.33007     -1.2665 ppb        1.33007 105.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.7      0.0808 ug/L       0.48960      0.0808 ppb        0.48960 605.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.1      5.9226 ug/L       5.94605      5.9226 ppb        5.94605 100.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.0      1.8013 ug/L       0.55582      1.8013 ppb        0.55582  30.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.4      1.6046 ug/L       3.91166      1.6046 ppb        3.91166 243.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -10.4     -0.3397 ug/L       0.44983     -0.3397 ppb        0.44983 132.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.1      2.1700 ug/L       0.71630      2.1700 ppb        0.71630  33.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               7.2      0.0501 ug/L       0.09956      0.0501 ppb        0.09956 198.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -64.5     -0.0975 ug/L       0.03188     -0.0975 ppb        0.03188  32.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.7     -0.2296 ug/L       3.11254     -0.2296 ppb        3.11254 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               70.3      1.9408 ug/L       1.75006      1.9408 ppb        1.75006  90.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               57.1      0.4012 ug/L       0.18874      0.4012 ppb        0.18874  47.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             188.6      1.8993 ug/L       0.16069      1.8993 ppb        0.16069   8.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    13.6      0.9423 ug/L       1.24345      0.9423 ppb        1.24345 131.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 19:39:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4022.1	4022.1	103	%			19:41:01
1	Y RADIAL	4407.0	4407.0	99.91	%			19:41:01
1	Al 396.153Radial†	5328.8	5304.4	4951.0	ug/L	4951.0	ppb	19:41:01
1	Ca 317.933Radial†	2477.1	2393.8	5004.3	ug/L	5004.3	ppb	19:41:21
1	Fe 238.204 Radial†	365.4	344.7	4880.4	ug/L	4880.4	ppb	19:41:21
1	K 766.490 Radial†	29126.9	25739.4	4933.1	ug/L	4933.1	ppb	19:41:01
1	Mg 279.077 IEC†	109.6	102.7	4980.0	ug/L	4980.0	ppb	19:41:21
1	Na 589.592 Radial†	32398.5	32386.4	9985.6	ug/L	9985.6	ppb	19:41:01
1	Sr 421.552†	72276.7	70385.2	487.00	ug/L	487.00	ppb	19:41:01
1	Sc 361.383	901596.9	901596.9	102.78	%			19:42:18
1	Y 371.029	748196.3	748196.3	98.988	%			19:42:18
1	Ag 328.068†	108458.1	105286.6	490.80	ug/L	490.80	ppb	19:42:24
1	As 188.979†	1117.3	1105.3	497.78	ug/L	497.78	ppb	19:42:44
1	B 249.677†	19931.8	19791.3	477.62	ug/L	477.62	ppb	19:42:24
1	Ba 233.527†	64643.9	62898.3	494.81	ug/L	494.81	ppb	19:42:24
1	Be 313.107†	1346231.1	1313611.4	494.76	ug/L	494.76	ppb	19:42:18
1	Cd 226.502†	44054.0	43059.7	498.53	ug/L	498.53	ppb	19:42:24
1	Co 228.616†	24420.4	23827.0	499.21	ug/L	499.21	ppb	19:42:24
1	Cr 267.716†	45041.5	43746.6	492.06	ug/L	492.06	ppb	19:42:24
1	Cu 324.752†	169860.7	159279.5	484.69	ug/L	484.69	ppb	19:42:24
1	Mn 257.610†	450768.3	438127.5	498.84	ug/L	498.84	ppb	19:42:18
1	Mo 202.031†	6885.2	6689.0	491.52	ug/L	491.52	ppb	19:42:44
1	Ni 231.604†	20223.6	19614.6	498.56	ug/L	498.56	ppb	19:42:24
1	P 214.914†	4491.3	4159.4	2409.6	ug/L	2409.6	ppb	19:42:44
1	Pb 220.353†	4102.2	4049.4	499.55	ug/L	499.55	ppb	19:42:44
1	S 181.975 Axial†	756.7	695.4	999.79	ug/L	999.79	ppb	19:42:44
1	Sb 206.836†	1476.5	1399.9	507.06	ug/L	507.06	ppb	19:42:44
1	Se 196.026†	759.7	766.9	519.04	ug/L	519.04	ppb	19:42:44
1	Si 251.611†	78554.5	75873.3	2449.1	ug/L	2449.1	ppb	19:42:24
1	Sn 189.927†	2837.2	2750.1	494.04	ug/L	494.04	ppb	19:42:44
1	Ti 334.940†	317840.6	310625.0	487.99	ug/L	487.99	ppb	19:42:24
1	Tl 190.801†	1561.3	1551.7	499.45	ug/L	499.45	ppb	19:42:44
1	U 409.014†	14712.4	17201.4	473.34	ug/L	473.34	ppb	19:42:24
1	V 292.402†	70268.0	69874.7	493.77	ug/L	493.77	ppb	19:42:24
1	Zn 213.857†	51139.7	49151.6	490.22	ug/L	490.22	ppb	19:42:24
1	SiO2†	79027.1	76337.0	5291.7	ug/L	5291.7	ppb	19:43:51
2	Sc Radial	4019.7	4019.7	103	%			19:41:26
2	Y RADIAL	4423.9	4423.9	100.3	%			19:41:26
2	Al 396.153Radial†	5264.8	5245.1	4895.6	ug/L	4895.6	ppb	19:41:26
2	Ca 317.933Radial†	2470.9	2389.3	4994.8	ug/L	4994.8	ppb	19:41:46
2	Fe 238.204 Radial†	361.0	340.7	4823.2	ug/L	4823.2	ppb	19:41:46
2	K 766.490 Radial†	28982.2	25615.5	4909.4	ug/L	4909.4	ppb	19:41:26
2	Mg 279.077 IEC†	108.8	102.0	4944.4	ug/L	4944.4	ppb	19:41:46
2	Na 589.592 Radial†	31761.6	31784.5	9800.0	ug/L	9800.0	ppb	19:41:26
2	Sr 421.552†	70977.5	69160.9	478.53	ug/L	478.53	ppb	19:41:26
2	Sc 361.383	912302.5	912302.5	104.00	%			19:42:49
2	Y 371.029	757281.3	757281.3	100.19	%			19:42:49
2	Ag 328.068†	107959.2	103568.5	482.81	ug/L	482.81	ppb	19:42:55
2	As 188.979†	1114.0	1089.5	490.61	ug/L	490.61	ppb	19:43:15
2	B 249.677†	19809.4	19446.1	469.29	ug/L	469.29	ppb	19:42:55
2	Ba 233.527†	64444.9	61968.9	487.50	ug/L	487.50	ppb	19:42:55
2	Be 313.107†	1344485.9	1296562.4	488.33	ug/L	488.33	ppb	19:42:49
2	Cd 226.502†	43930.4	42437.8	491.33	ug/L	491.33	ppb	19:42:55
2	Co 228.616†	24252.6	23386.8	490.00	ug/L	490.00	ppb	19:42:55
2	Cr 267.716†	44948.8	43143.2	485.27	ug/L	485.27	ppb	19:42:55
2	Cu 324.752†	169034.2	156545.3	476.38	ug/L	476.38	ppb	19:42:55
2	Mn 257.610†	449773.9	432024.6	491.89	ug/L	491.89	ppb	19:42:49
2	Mo 202.031†	6903.2	6627.7	487.02	ug/L	487.02	ppb	19:43:15
2	Ni 231.604†	20115.1	19279.3	490.04	ug/L	490.04	ppb	19:42:55

2	P 214.914†	4506.7	4123.0	2389.4 ug/L	2389.4 ppb	19:43:15
2	Pb 220.353†	4108.2	4008.4	494.49 ug/L	494.49 ppb	19:43:15
2	S 181.975 Axial†	755.3	685.5	985.53 ug/L	985.53 ppb	19:43:15
2	Sb 206.836†	1485.4	1391.6	504.04 ug/L	504.04 ppb	19:43:15
2	Se 196.026†	766.0	764.3	517.17 ug/L	517.17 ppb	19:43:15
2	Si 251.611†	78286.8	74718.9	2411.8 ug/L	2411.8 ppb	19:42:55
2	Sn 189.927†	2862.2	2741.7	492.54 ug/L	492.54 ppb	19:43:15
2	Ti 334.940†	316161.6	305381.5	479.76 ug/L	479.76 ppb	19:42:55
2	Tl 190.801†	1559.9	1532.5	493.26 ug/L	493.26 ppb	19:43:15
2	U 409.014†	14517.3	16845.8	463.55 ug/L	463.55 ppb	19:42:55
2	V 292.402†	70052.2	68864.9	486.66 ug/L	486.66 ppb	19:42:55
2	Zn 213.857†	51008.2	48441.2	483.14 ug/L	483.14 ppb	19:42:55
2	SiO2†	79371.5	75765.9	5252.1 ug/L	5252.1 ppb	19:43:56
3	Sc Radial	3895.9	3895.9	99.4 %		19:41:51
3	Y RADIAL	4289.0	4289.0	97.24 %		19:41:51
3	Al 396.153Radial†	5216.5	5359.6	5003.0 ug/L	5003.0 ppb	19:41:51
3	Ca 317.933Radial†	2474.7	2469.6	5162.7 ug/L	5162.7 ppb	19:42:11
3	Fe 238.204 Radial†	359.6	350.4	4960.8 ug/L	4960.8 ppb	19:42:11
3	K 766.490 Radial†	28817.2	26347.1	5049.6 ug/L	5049.6 ppb	19:41:51
3	Mg 279.077 IEC†	106.5	103.0	4995.5 ug/L	4995.5 ppb	19:42:11
3	Na 589.592 Radial†	32020.1	33028.3	10184 ug/L	10184 ppb	19:41:51
3	Sr 421.552†	71150.6	71533.5	494.94 ug/L	494.94 ppb	19:41:51
3	Sc 361.383	903666.2	903666.2	103.01 %		19:43:20
3	Y 371.029	749820.8	749820.8	99.203 %		19:43:20
3	Ag 328.068†	109605.0	106158.3	494.88 ug/L	494.88 ppb	19:43:26
3	As 188.979†	1116.5	1102.1	496.38 ug/L	496.38 ppb	19:43:46
3	B 249.677†	20272.1	20077.3	484.54 ug/L	484.54 ppb	19:43:26
3	Ba 233.527†	65320.9	63411.5	498.85 ug/L	498.85 ppb	19:43:26
3	Be 313.107†	1347492.1	1311835.9	494.10 ug/L	494.10 ppb	19:43:20
3	Cd 226.502†	44676.7	43566.0	504.39 ug/L	504.39 ppb	19:43:26
3	Co 228.616†	24633.8	23979.7	502.39 ug/L	502.39 ppb	19:43:26
3	Cr 267.716†	45624.4	44212.1	497.29 ug/L	497.29 ppb	19:43:26
3	Cu 324.752†	171509.2	160501.3	488.41 ug/L	488.41 ppb	19:43:26
3	Mn 257.610†	450845.0	437197.6	497.79 ug/L	497.79 ppb	19:43:20
3	Mo 202.031†	6836.4	6626.3	486.93 ug/L	486.93 ppb	19:43:46
3	Ni 231.604†	20434.7	19774.5	502.62 ug/L	502.62 ppb	19:43:26
3	P 214.914†	4440.0	4099.6	2372.8 ug/L	2372.8 ppb	19:43:46
3	Pb 220.353†	4067.2	4006.4	494.25 ug/L	494.25 ppb	19:43:46
3	S 181.975 Axial†	746.5	683.9	983.21 ug/L	983.21 ppb	19:43:46
3	Sb 206.836†	1468.0	1388.4	502.92 ug/L	502.92 ppb	19:43:46
3	Se 196.026†	735.6	741.8	502.87 ug/L	502.87 ppb	19:43:46
3	Si 251.611†	79512.4	76628.1	2473.6 ug/L	2473.6 ppb	19:43:26
3	Sn 189.927†	2839.6	2746.0	493.34 ug/L	493.34 ppb	19:43:46
3	Ti 334.940†	320934.7	312920.5	491.62 ug/L	491.62 ppb	19:43:26
3	Tl 190.801†	1560.9	1547.8	498.19 ug/L	498.19 ppb	19:43:46
3	U 409.014†	14949.1	17398.4	478.76 ug/L	478.76 ppb	19:43:26
3	V 292.402†	71043.9	70471.3	497.86 ug/L	497.86 ppb	19:43:26
3	Zn 213.857†	51746.7	49626.9	494.96 ug/L	494.96 ppb	19:43:26
3	SiO2†	78594.9	75741.3	5250.4 ug/L	5250.4 ppb	19:44:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	905855.2	103.26	%	0.647				0.63%
Sc Radial	3979.2	102	%	1.8				1.81%
Y 371.029	751766.1	99.460	%	0.6410				0.64%
Y RADIAL	4373.3	99.15	%	1.666				1.68%
Ag 328.068†	105004.5	489.50	ug/L	6.141	489.50	ppb	6.141	1.25%
QC value within limits for Ag 328.068 Recovery = 97.90%								
Al 396.153Radial†	5303.0	4949.9	ug/L	53.70	4949.9	ppb	53.70	1.08%
QC value within limits for Al 396.153Radial Recovery = 99.00%								
As 188.979†	1099.0	494.93	ug/L	3.798	494.93	ppb	3.798	0.77%
QC value within limits for As 188.979 Recovery = 98.99%								
B 249.677†	19771.6	477.15	ug/L	7.634	477.15	ppb	7.634	1.60%
QC value within limits for B 249.677 Recovery = 95.43%								
Ba 233.527†	62759.6	493.72	ug/L	5.753	493.72	ppb	5.753	1.17%
QC value within limits for Ba 233.527 Recovery = 98.74%								
Be 313.107†	1307336.6	492.40	ug/L	3.535	492.40	ppb	3.535	0.72%
QC value within limits for Be 313.107 Recovery = 98.48%								
Ca 317.933Radial†	2417.6	5053.9	ug/L	94.33	5053.9	ppb	94.33	1.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.08%
Cd 226.502†            43021.2      498.09 ug/L         6.542      498.09 ppb          6.542   1.31%
   QC value within limits for Cd 226.502  Recovery = 99.62%
Co 228.616†            23731.2      497.20 ug/L         6.437      497.20 ppb          6.437   1.29%
   QC value within limits for Co 228.616  Recovery = 99.44%
Cr 267.716†            43700.6      491.54 ug/L         6.028      491.54 ppb          6.028   1.23%
   QC value within limits for Cr 267.716  Recovery = 98.31%
Cu 324.752†           158775.3      483.16 ug/L         6.163      483.16 ppb          6.163   1.28%
   QC value within limits for Cu 324.752  Recovery = 96.63%
Fe 238.204 Radial†       345.2      4888.1 ug/L        69.14      4888.1 ppb         69.14   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.76%
K 766.490 Radial†      25900.7      4964.0 ug/L        75.04      4964.0 ppb         75.04   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 99.28%
Mg 279.077 IEC†          102.6      4973.3 ug/L        26.21      4973.3 ppb         26.21   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.47%
Mn 257.610†           435783.3      496.17 ug/L         3.746      496.17 ppb          3.746   0.75%
   QC value within limits for Mn 257.610  Recovery = 99.23%
Mo 202.031†             6647.7      488.49 ug/L         2.629      488.49 ppb          2.629   0.54%
   QC value within limits for Mo 202.031  Recovery = 97.70%
Na 589.592 Radial†     32399.7      9989.7 ug/L       191.78      9989.7 ppb        191.78   1.92%
   QC value within limits for Na 589.592 Radial  Recovery = 99.90%
Ni 231.604†            19556.1      497.07 ug/L         6.423      497.07 ppb          6.423   1.29%
   QC value within limits for Ni 231.604  Recovery = 99.41%
P 214.914†              4127.3      2390.6 ug/L        18.45      2390.6 ppb         18.45   0.77%
   QC value within limits for P 214.914  Recovery = 95.62%
Pb 220.353†             4021.4      496.10 ug/L         2.995      496.10 ppb          2.995   0.60%
   QC value within limits for Pb 220.353  Recovery = 99.22%
S 181.975 Axial†         688.3      989.51 ug/L         8.982      989.51 ppb          8.982   0.91%
   QC value within limits for S 181.975 Axial  Recovery = 98.95%
Sb 206.836†             1393.3      504.67 ug/L         2.141      504.67 ppb          2.141   0.42%
   QC value within limits for Sb 206.836  Recovery = 100.93%
Se 196.026†              757.7      513.03 ug/L         8.844      513.03 ppb          8.844   1.72%
   QC value within limits for Se 196.026  Recovery = 102.61%
Si 251.611†            75740.1      2444.8 ug/L        31.11      2444.8 ppb         31.11   1.27%
   QC value within limits for Si 251.611  Recovery = 97.79%
Sn 189.927†             2745.9      493.31 ug/L         0.751      493.31 ppb          0.751   0.15%
   QC value within limits for Sn 189.927  Recovery = 98.66%
Sr 421.552†            70359.9      486.82 ug/L         8.209      486.82 ppb          8.209   1.69%
   QC value within limits for Sr 421.552  Recovery = 97.36%
Ti 334.940†           309642.3      486.46 ug/L         6.074      486.46 ppb          6.074   1.25%
   QC value within limits for Ti 334.940  Recovery = 97.29%
Tl 190.801†             1544.0      496.97 ug/L         3.270      496.97 ppb          3.270   0.66%
   QC value within limits for Tl 190.801  Recovery = 99.39%
U 409.014†             17148.5      471.89 ug/L         7.712      471.89 ppb          7.712   1.63%
   QC value within limits for U 409.014  Recovery = 94.38%
V 292.402†             69737.0      492.76 ug/L         5.664      492.76 ppb          5.664   1.15%
   QC value within limits for V 292.402  Recovery = 98.55%
Zn 213.857†            49073.2      489.44 ug/L         5.948      489.44 ppb          5.948   1.22%
   QC value within limits for Zn 213.857  Recovery = 97.89%
SiO2†                  75948.0      5264.8 ug/L        23.35      5264.8 ppb         23.35   0.44%
   QC value within limits for SiO2  Recovery = 98.45%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 19:46:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4019.3	4019.3	103	%			19:48:03
1	Y RADIAL	4457.9	4457.9	101.1	%			19:48:03
1	Al 396.153Radial†	-113.6	1.6	1.5545	ug/L	1.5545	ppb	19:48:03
1	Ca 317.933Radial†	23.0	2.8	5.8395	ug/L	5.8395	ppb	19:48:23
1	Fe 238.204 Radial†	12.7	1.1	15.023	ug/L	15.023	ppb	19:48:23
1	K 766.490 Radial†	2671.1	-35.3	-6.7737	ug/L	-6.7737	ppb	19:48:03
1	Mg 279.077 IEC†	3.0	-1.1	-54.278	ug/L	-54.278	ppb	19:48:23
1	Na 589.592 Radial†	-819.9	20.4	6.2805	ug/L	6.2805	ppb	19:48:03
1	Sr 421.552†	33.8	-2.7	-0.0189	ug/L	-0.0189	ppb	19:48:03
1	Sc 361.383	903727.8	903727.8	103.02	%			19:49:20
1	Y 371.029	761295.1	761295.1	100.72	%			19:49:20
1	Ag 328.068†	282.7	34.0	0.1624	ug/L	0.1624	ppb	19:49:25
1	As 188.979†	-28.2	-9.2	-4.0843	ug/L	-4.0843	ppb	19:49:45
1	B 249.677†	-476.8	-64.6	-1.5689	ug/L	-1.5689	ppb	19:49:45
1	Ba 233.527†	6.6	7.8	0.0616	ug/L	0.0616	ppb	19:49:45
1	Be 313.107†	-3844.3	30.6	0.0112	ug/L	0.0112	ppb	19:49:25
1	Cd 226.502†	-174.3	27.0	0.3114	ug/L	0.3114	ppb	19:49:45
1	Co 228.616†	-76.7	-8.0	-0.1670	ug/L	-0.1670	ppb	19:49:45
1	Cr 267.716†	66.1	-13.5	-0.1504	ug/L	-0.1504	ppb	19:49:45
1	Cu 324.752†	5894.2	-269.4	-0.8182	ug/L	-0.8182	ppb	19:49:25
1	Mn 257.610†	463.3	-9.1	-0.0066	ug/L	-0.0066	ppb	19:49:45
1	Mo 202.031†	7.1	-3.2	-0.2368	ug/L	-0.2368	ppb	19:49:45
1	Ni 231.604†	64.2	-0.1	-0.0032	ug/L	-0.0032	ppb	19:49:45
1	P 214.914†	206.9	-9.7	-5.6603	ug/L	-5.6603	ppb	19:49:45
1	Pb 220.353†	-75.3	-15.0	-1.8471	ug/L	-1.8471	ppb	19:49:45
1	S 181.975 Axial†	41.1	-0.9	-1.2792	ug/L	-1.2792	ppb	19:49:45
1	Sb 206.836†	28.7	-8.8	-3.0810	ug/L	-3.0810	ppb	19:49:45
1	Se 196.026†	-29.0	-0.4	-0.2003	ug/L	-0.2003	ppb	19:49:45
1	Si 251.611†	555.0	-19.6	-0.6301	ug/L	-0.6301	ppb	19:49:45
1	Sn 189.927†	16.6	5.7	1.0153	ug/L	1.0153	ppb	19:49:45
1	Ti 334.940†	-1505.1	-86.9	-0.1307	ug/L	-0.1307	ppb	19:49:25
1	Tl 190.801†	-33.0	0.5	0.1676	ug/L	0.1676	ppb	19:49:45
1	U 409.014†	-3020.8	-45.6	-1.2606	ug/L	-1.2606	ppb	19:49:20
1	V 292.402†	-1579.6	-27.6	-0.2016	ug/L	-0.2016	ppb	19:49:25
1	Zn 213.857†	830.4	200.0	2.0121	ug/L	2.0121	ppb	19:49:45
1	SiO2†	564.6	-6.4	-0.4380	ug/L	-0.4380	ppb	19:50:51
2	Sc Radial	3955.1	3955.1	101	%			19:48:28
2	Y RADIAL	4385.2	4385.2	99.42	%			19:48:28
2	Al 396.153Radial†	-124.9	-11.3	-10.640	ug/L	-10.640	ppb	19:48:28
2	Ca 317.933Radial†	17.8	-2.0	-4.2251	ug/L	-4.2251	ppb	19:48:48
2	Fe 238.204 Radial†	10.5	-0.9	-12.950	ug/L	-12.950	ppb	19:48:48
2	K 766.490 Radial†	2714.5	50.0	9.5871	ug/L	9.5871	ppb	19:48:28
2	Mg 279.077 IEC†	2.4	-1.7	-84.438	ug/L	-84.438	ppb	19:48:48
2	Na 589.592 Radial†	-786.5	40.4	12.468	ug/L	12.468	ppb	19:48:28
2	Sr 421.552†	47.9	11.7	0.0810	ug/L	0.0810	ppb	19:48:28
2	Sc 361.383	921254.5	921254.5	105.02	%			19:49:50
2	Y 371.029	775340.2	775340.2	102.58	%			19:49:50
2	Ag 328.068†	227.7	-23.6	-0.1156	ug/L	-0.1156	ppb	19:49:55
2	As 188.979†	-19.7	-0.5	-0.2467	ug/L	-0.2467	ppb	19:50:15
2	B 249.677†	-486.9	-65.4	-1.5835	ug/L	-1.5835	ppb	19:50:15
2	Ba 233.527†	-1.5	-0.0	0.0004	ug/L	0.0004	ppb	19:50:15
2	Be 313.107†	-3875.8	71.6	0.0269	ug/L	0.0269	ppb	19:49:55
2	Cd 226.502†	-183.5	21.6	0.2517	ug/L	0.2517	ppb	19:50:15
2	Co 228.616†	-70.2	-0.4	-0.0064	ug/L	-0.0064	ppb	19:50:15
2	Cr 267.716†	65.5	-15.3	-0.1746	ug/L	-0.1746	ppb	19:50:15
2	Cu 324.752†	5988.8	-288.1	-0.8802	ug/L	-0.8802	ppb	19:49:55
2	Mn 257.610†	472.5	-8.8	-0.0078	ug/L	-0.0078	ppb	19:50:15
2	Mo 202.031†	15.8	4.9	0.3593	ug/L	0.3593	ppb	19:50:15
2	Ni 231.604†	56.9	-8.3	-0.2109	ug/L	-0.2109	ppb	19:50:15

2	P 214.914†	211.8	-8.8	-5.1297	ug/L	-5.1297 ppb	19:50:15
2	Pb 220.353†	-67.3	-6.0	-0.7323	ug/L	-0.7323 ppb	19:50:15
2	S 181.975 Axial†	41.2	-1.5	-2.2136	ug/L	-2.2136 ppb	19:50:15
2	Sb 206.836†	48.9	9.8	3.4557	ug/L	3.4557 ppb	19:50:15
2	Se 196.026†	-35.1	-5.6	-3.7342	ug/L	-3.7342 ppb	19:50:15
2	Si 251.611†	587.8	1.4	0.0421	ug/L	0.0421 ppb	19:50:15
2	Sn 189.927†	13.7	2.5	0.4572	ug/L	0.4572 ppb	19:50:15
2	Ti 334.940†	-1455.2	-11.6	-0.0139	ug/L	-0.0139 ppb	19:49:55
2	Tl 190.801†	-36.2	-1.9	-0.6217	ug/L	-0.6217 ppb	19:50:15
2	U 409.014†	-2848.4	174.4	4.8170	ug/L	4.8170 ppb	19:49:50
2	V 292.402†	-1514.1	63.9	0.4604	ug/L	0.4604 ppb	19:49:55
2	Zn 213.857†	822.0	176.7	1.7828	ug/L	1.7828 ppb	19:50:15
2	SiO2†	606.0	22.7	1.5652	ug/L	1.5652 ppb	19:50:56
3	Sc Radial	3920.9	3920.9	100	%		19:48:53
3	Y RADIAL	4339.7	4339.7	98.39	%		19:48:53
3	Al 396.153Radial†	-106.8	5.7	5.3103	ug/L	5.3103 ppb	19:48:53
3	Ca 317.933Radial†	23.4	3.7	7.6982	ug/L	7.6982 ppb	19:49:14
3	Fe 238.204 Radial†	10.2	-1.1	-15.373	ug/L	-15.373 ppb	19:49:14
3	K 766.490 Radial†	2811.1	170.0	32.620	ug/L	32.620 ppb	19:48:53
3	Mg 279.077 IEC†	1.7	-2.4	-117.26	ug/L	-117.26 ppb	19:49:14
3	Na 589.592 Radial†	-802.1	18.1	5.5653	ug/L	5.5653 ppb	19:48:53
3	Sr 421.552†	57.1	21.3	0.1475	ug/L	0.1475 ppb	19:48:53
3	Sc 361.383	908750.7	908750.7	103.59	%		19:50:21
3	Y 371.029	765115.4	765115.4	101.23	%		19:50:21
3	Ag 328.068†	252.8	3.7	0.0125	ug/L	0.0125 ppb	19:50:26
3	As 188.979†	-31.5	-12.1	-5.4158	ug/L	-5.4158 ppb	19:50:46
3	B 249.677†	-509.8	-93.9	-2.2723	ug/L	-2.2723 ppb	19:50:46
3	Ba 233.527†	4.8	6.1	0.0475	ug/L	0.0475 ppb	19:50:46
3	Be 313.107†	-3847.0	48.6	0.0179	ug/L	0.0179 ppb	19:50:26
3	Cd 226.502†	-170.7	31.5	0.3664	ug/L	0.3664 ppb	19:50:46
3	Co 228.616†	-88.1	-18.5	-0.3847	ug/L	-0.3847 ppb	19:50:46
3	Cr 267.716†	76.8	-3.6	-0.0417	ug/L	-0.0417 ppb	19:50:46
3	Cu 324.752†	6021.7	-177.9	-0.5426	ug/L	-0.5426 ppb	19:50:26
3	Mn 257.610†	474.6	-0.6	0.0026	ug/L	0.0026 ppb	19:50:46
3	Mo 202.031†	19.7	8.9	0.6535	ug/L	0.6535 ppb	19:50:46
3	Ni 231.604†	76.1	11.0	0.2811	ug/L	0.2811 ppb	19:50:46
3	P 214.914†	197.4	-20.0	-11.882	ug/L	-11.882 ppb	19:50:46
3	Pb 220.353†	-49.3	10.6	1.3036	ug/L	1.3036 ppb	19:50:46
3	S 181.975 Axial†	41.4	-0.9	-1.2586	ug/L	-1.2586 ppb	19:50:46
3	Sb 206.836†	43.1	4.9	1.7445	ug/L	1.7445 ppb	19:50:46
3	Se 196.026†	-31.3	-2.4	-1.6425	ug/L	-1.6425 ppb	19:50:46
3	Si 251.611†	584.8	6.2	0.1918	ug/L	0.1918 ppb	19:50:46
3	Sn 189.927†	16.4	5.4	0.9633	ug/L	0.9633 ppb	19:50:46
3	Ti 334.940†	-1545.1	-117.4	-0.1741	ug/L	-0.1741 ppb	19:50:26
3	Tl 190.801†	-31.9	1.7	0.5585	ug/L	0.5585 ppb	19:50:46
3	U 409.014†	-2967.3	22.2	0.6148	ug/L	0.6148 ppb	19:50:21
3	V 292.402†	-1528.1	30.6	0.2239	ug/L	0.2239 ppb	19:50:26
3	Zn 213.857†	811.2	177.0	1.7831	ug/L	1.7831 ppb	19:50:46
3	SiO2†	600.1	24.9	1.7135	ug/L	1.7135 ppb	19:51:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	911244.4	103.88	%	1.029				0.99%
Sc Radial	3965.1	101	%	1.3				1.26%
Y 371.029	767250.3	101.51	%	0.961				0.95%
Y RADIAL	4394.3	99.62	%	1.352				1.36%
Ag 328.068†	4.7	0.0198	ug/L	0.13912	0.0198	ppb	0.13912	703.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.2584	ug/L	8.33889	-1.2584	ppb	8.33889	662.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.3	-3.2489	ug/L	2.68390	-3.2489	ppb	2.68390	82.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-74.6	-1.8083	ug/L	0.40197	-1.8083	ppb	0.40197	22.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.6	0.0365	ug/L	0.03203	0.0365	ppb	0.03203	87.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	50.3	0.0186	ug/L	0.00787	0.0186	ppb	0.00787	42.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	3.1042	ug/L	6.41502	3.1042	ppb	6.41502	206.66%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              26.7      0.3098 ug/L       0.05734      0.3098 ppb        0.05734  18.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -8.9     -0.1861 ug/L       0.18984     -0.1861 ppb        0.18984 102.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -10.8     -0.1222 ug/L       0.07081     -0.1222 ppb        0.07081  57.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -245.1     -0.7470 ug/L       0.17970     -0.7470 ppb        0.17970  24.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -4.4333 ug/L      16.89277     -4.4333 ppb       16.89277 381.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        61.6      11.811 ug/L       19.7909      11.811 ppb        19.7909 167.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.8     -85.326 ug/L       31.5006     -85.326 ppb        31.5006  36.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -6.1     -0.0039 ug/L       0.00571     -0.0039 ppb        0.00571 144.74%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.5      0.2587 ug/L       0.45357      0.2587 ppb        0.45357 175.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       26.3      8.1046 ug/L       3.79559      8.1046 ppb        3.79559  46.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.9      0.0223 ug/L       0.24701      0.0223 ppb        0.24701 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -12.8     -7.5573 ug/L       3.75467     -7.5573 ppb        3.75467  49.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -3.5     -0.4252 ug/L       1.59764     -0.4252 ppb        1.59764 375.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.1     -1.5838 ug/L       0.54551     -1.5838 ppb        0.54551  34.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.0      0.7064 ug/L       3.38975      0.7064 ppb        3.38975 479.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.8     -1.8590 ug/L       1.77687     -1.8590 ppb        1.77687  95.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -4.0     -0.1321 ug/L       0.43776     -0.1321 ppb        0.43776 331.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.8119 ug/L       0.30833      0.8119 ppb        0.30833  37.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              10.1      0.0699 ug/L       0.08374      0.0699 ppb        0.08374 119.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -72.0     -0.1063 ug/L       0.08288     -0.1063 ppb        0.08288  78.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.1      0.0348 ug/L       0.60123      0.0348 ppb        0.60123 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               50.3      1.3904 ug/L       3.11214      1.3904 ppb        3.11214 223.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               22.3      0.1609 ug/L       0.33545      0.1609 ppb        0.33545 208.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             184.6      1.8593 ug/L       0.13232      1.8593 ppb        0.13232   7.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    13.7      0.9469 ug/L       1.20162      0.9469 ppb        1.20162 126.90%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 21:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3858.0	3858.0	98.4	%			21:03:18
1	Y RADIAL	4233.7	4233.7	95.98	%			21:03:18
1	Al 396.153Radial†	5186.6	5380.8	5022.6	ug/L	5022.6	ppb	21:03:18
1	Ca 317.933Radial†	2413.8	2432.2	5084.5	ug/L	5084.5	ppb	21:03:38
1	Fe 238.204 Radial†	342.7	336.7	4767.9	ug/L	4767.9	ppb	21:03:38
1	K 766.490 Radial†	28347.6	26155.1	5013.0	ug/L	5013.0	ppb	21:03:18
1	Mg 279.077 IEC†	106.8	104.4	5061.6	ug/L	5061.6	ppb	21:03:38
1	Na 589.592 Radial†	29637.4	30924.7	9534.9	ug/L	9534.9	ppb	21:03:18
1	Sr 421.552†	68707.9	69756.0	482.64	ug/L	482.64	ppb	21:03:18
1	Sc 361.383	896787.2	896787.2	102.23	%			21:04:36
1	Y 371.029	744443.2	744443.2	98.492	%			21:04:36
1	Ag 328.068†	106580.8	104016.2	484.87	ug/L	484.87	ppb	21:04:41
1	As 188.979†	1138.0	1131.4	509.31	ug/L	509.31	ppb	21:05:01
1	B 249.677†	19369.9	19345.7	466.86	ug/L	466.86	ppb	21:04:41
1	Ba 233.527†	63470.6	62088.0	488.43	ug/L	488.43	ppb	21:04:41
1	Be 313.107†	1340598.8	1315126.9	495.31	ug/L	495.31	ppb	21:04:36
1	Cd 226.502†	43391.9	42641.9	493.70	ug/L	493.70	ppb	21:04:41
1	Co 228.616†	23916.2	23461.2	491.57	ug/L	491.57	ppb	21:04:41
1	Cr 267.716†	44335.1	43290.6	486.92	ug/L	486.92	ppb	21:04:41
1	Cu 324.752†	166346.0	156727.8	476.93	ug/L	476.93	ppb	21:04:41
1	Mn 257.610†	447548.3	437330.0	497.92	ug/L	497.92	ppb	21:04:36
1	Mo 202.031†	6875.4	6715.3	493.44	ug/L	493.44	ppb	21:05:01
1	Ni 231.604†	19794.7	19300.6	490.58	ug/L	490.58	ppb	21:04:41
1	P 214.914†	4474.5	4166.4	2415.5	ug/L	2415.5	ppb	21:05:01
1	Pb 220.353†	4098.3	4067.0	501.76	ug/L	501.76	ppb	21:05:01
1	S 181.975 Axial†	758.7	701.3	1008.3	ug/L	1008.3	ppb	21:05:01
1	Sb 206.836†	1473.5	1404.7	508.79	ug/L	508.79	ppb	21:05:01
1	Se 196.026†	756.3	767.6	519.15	ug/L	519.15	ppb	21:05:01
1	Si 251.611†	77038.5	74800.2	2414.4	ug/L	2414.4	ppb	21:04:41
1	Sn 189.927†	2829.5	2757.3	495.36	ug/L	495.36	ppb	21:05:01
1	Ti 334.940†	311388.1	305971.8	480.69	ug/L	480.69	ppb	21:04:41
1	Tl 190.801†	1554.3	1553.0	499.83	ug/L	499.83	ppb	21:05:01
1	U 409.014†	14381.9	16954.9	466.56	ug/L	466.56	ppb	21:04:41
1	V 292.402†	69168.2	69165.5	488.87	ug/L	488.87	ppb	21:04:41
1	Zn 213.857†	50298.5	48595.6	484.70	ug/L	484.70	ppb	21:04:41
1	SiO2†	77483.3	75239.2	5215.4	ug/L	5215.4	ppb	21:06:08
2	Sc Radial	3806.9	3806.9	97.1	%			21:03:43
2	Y RADIAL	4214.9	4214.9	95.56	%			21:03:43
2	Al 396.153Radial†	5182.2	5446.9	5084.8	ug/L	5084.8	ppb	21:03:43
2	Ca 317.933Radial†	2408.8	2459.9	5142.4	ug/L	5142.4	ppb	21:04:03
2	Fe 238.204 Radial†	343.5	342.3	4846.2	ug/L	4846.2	ppb	21:04:03
2	K 766.490 Radial†	28222.4	26412.4	5062.3	ug/L	5062.3	ppb	21:03:43
2	Mg 279.077 IEC†	108.5	107.6	5215.9	ug/L	5215.9	ppb	21:04:03
2	Na 589.592 Radial†	29409.2	31093.4	9586.9	ug/L	9586.9	ppb	21:03:43
2	Sr 421.552†	68252.7	70223.2	485.87	ug/L	485.87	ppb	21:03:43
2	Sc 361.383	899900.0	899900.0	102.58	%			21:05:07
2	Y 371.029	747247.5	747247.5	98.863	%			21:05:07
2	Ag 328.068†	108993.2	106007.2	494.14	ug/L	494.14	ppb	21:05:12
2	As 188.979†	1112.5	1102.7	496.63	ug/L	496.63	ppb	21:05:32
2	B 249.677†	20072.8	19965.4	481.84	ug/L	481.84	ppb	21:05:12
2	Ba 233.527†	64998.3	63362.4	498.45	ug/L	498.45	ppb	21:05:12
2	Be 313.107†	1346836.2	1316671.1	495.91	ug/L	495.91	ppb	21:05:07
2	Cd 226.502†	44217.7	43300.1	501.32	ug/L	501.32	ppb	21:05:12
2	Co 228.616†	24498.1	23947.5	501.73	ug/L	501.73	ppb	21:05:12
2	Cr 267.716†	45203.1	43986.7	494.75	ug/L	494.75	ppb	21:05:12
2	Cu 324.752†	170725.7	160434.3	488.20	ug/L	488.20	ppb	21:05:12
2	Mn 257.610†	450137.9	438340.1	499.07	ug/L	499.07	ppb	21:05:07
2	Mo 202.031†	6837.9	6655.5	489.06	ug/L	489.06	ppb	21:05:32
2	Ni 231.604†	20246.1	19673.7	500.06	ug/L	500.06	ppb	21:05:12

2	P 214.914†	4450.2	4127.6	2389.8 ug/L	2389.8 ppb	21:05:32
2	Pb 220.353†	4059.1	4015.0	495.34 ug/L	495.34 ppb	21:05:32
2	S 181.975 Axial†	752.1	692.4	995.39 ug/L	995.39 ppb	21:05:32
2	Sb 206.836†	1473.6	1399.8	506.95 ug/L	506.95 ppb	21:05:32
2	Se 196.026†	747.5	756.5	512.10 ug/L	512.10 ppb	21:05:32
2	Si 251.611†	79016.0	76467.3	2468.4 ug/L	2468.4 ppb	21:05:12
2	Sn 189.927†	2829.6	2747.8	493.66 ug/L	493.66 ppb	21:05:32
2	Ti 334.940†	318823.6	312166.4	490.41 ug/L	490.41 ppb	21:05:12
2	Tl 190.801†	1544.2	1537.9	495.03 ug/L	495.03 ppb	21:05:32
2	U 409.014†	14837.4	17350.2	477.45 ug/L	477.45 ppb	21:05:12
2	V 292.402†	70439.7	70171.0	495.81 ug/L	495.81 ppb	21:05:12
2	Zn 213.857†	51420.1	49518.7	493.91 ug/L	493.91 ppb	21:05:12
2	SiO2†	78157.9	75634.7	5243.0 ug/L	5243.0 ppb	21:06:13
3	Sc Radial	3883.5	3883.5	99.1 %		21:04:08
3	Y RADIAL	4270.0	4270.0	96.81 %		21:04:08
3	Al 396.153Radial†	5252.3	5412.5	5052.4 ug/L	5052.4 ppb	21:04:08
3	Ca 317.933Radial†	2439.8	2442.4	5105.8 ug/L	5105.8 ppb	21:04:28
3	Fe 238.204 Radial†	347.7	339.5	4807.2 ug/L	4807.2 ppb	21:04:28
3	K 766.490 Radial†	28536.0	26156.1	5013.2 ug/L	5013.2 ppb	21:04:08
3	Mg 279.077 IEC†	111.1	108.1	5240.8 ug/L	5240.8 ppb	21:04:28
3	Na 589.592 Radial†	29516.4	30604.8	9436.3 ug/L	9436.3 ppb	21:04:08
3	Sr 421.552†	68898.4	69489.7	480.80 ug/L	480.80 ppb	21:04:08
3	Sc 361.383	897279.5	897279.5	102.29 %		21:05:38
3	Y 371.029	744168.1	744168.1	98.455 %		21:05:38
3	Ag 328.068†	107879.4	105228.6	490.51 ug/L	490.51 ppb	21:05:43
3	As 188.979†	1119.0	1112.3	500.85 ug/L	500.85 ppb	21:06:03
3	B 249.677†	19811.0	19766.5	477.05 ug/L	477.05 ppb	21:05:43
3	Ba 233.527†	64059.2	62629.4	492.69 ug/L	492.69 ppb	21:05:43
3	Be 313.107†	1340467.4	1314278.9	495.01 ug/L	495.01 ppb	21:05:38
3	Cd 226.502†	43570.8	42793.5	495.46 ug/L	495.46 ppb	21:05:43
3	Co 228.616†	24110.3	23638.2	495.26 ug/L	495.26 ppb	21:05:43
3	Cr 267.716†	44674.2	43598.3	490.38 ug/L	490.38 ppb	21:05:43
3	Cu 324.752†	168898.9	159134.4	484.25 ug/L	484.25 ppb	21:05:43
3	Mn 257.610†	448556.4	438075.3	498.76 ug/L	498.76 ppb	21:05:38
3	Mo 202.031†	6855.6	6692.3	491.76 ug/L	491.76 ppb	21:06:03
3	Ni 231.604†	19978.7	19469.8	494.88 ug/L	494.88 ppb	21:05:43
3	P 214.914†	4466.2	4155.9	2407.7 ug/L	2407.7 ppb	21:06:03
3	Pb 220.353†	4066.1	4033.3	497.60 ug/L	497.60 ppb	21:06:03
3	S 181.975 Axial†	754.1	696.4	1001.2 ug/L	1001.2 ppb	21:06:03
3	Sb 206.836†	1468.1	1398.6	506.62 ug/L	506.62 ppb	21:06:03
3	Se 196.026†	745.6	756.7	512.14 ug/L	512.14 ppb	21:06:03
3	Si 251.611†	77901.8	75602.9	2440.4 ug/L	2440.4 ppb	21:05:43
3	Sn 189.927†	2835.0	2761.2	496.06 ug/L	496.06 ppb	21:06:03
3	Ti 334.940†	315218.2	309549.2	486.30 ug/L	486.30 ppb	21:05:43
3	Tl 190.801†	1550.4	1548.3	498.36 ug/L	498.36 ppb	21:06:03
3	U 409.014†	14672.4	17231.1	474.18 ug/L	474.18 ppb	21:05:43
3	V 292.402†	69817.2	69762.9	493.01 ug/L	493.01 ppb	21:05:43
3	Zn 213.857†	50735.0	48995.4	488.68 ug/L	488.68 ppb	21:05:43
3	SiO2†	79150.3	76827.4	5325.8 ug/L	5325.8 ppb	21:06:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897988.9	102.37	%	0.191				0.19%
Sc Radial	3849.5	98.2	%	0.99				1.01%
Y 371.029	745286.2	98.603	%	0.2254				0.23%
Y RADIAL	4239.5	96.12	%	0.636				0.66%
Ag 328.068†	105084.0	489.84	ug/L	4.670	489.84	ppb	4.670	0.95%
QC value within limits for Ag 328.068 Recovery = 97.97%								
Al 396.153Radial†	5413.4	5053.3	ug/L	31.11	5053.3	ppb	31.11	0.62%
QC value within limits for Al 396.153Radial Recovery = 101.07%								
As 188.979†	1115.5	502.26	ug/L	6.460	502.26	ppb	6.460	1.29%
QC value within limits for As 188.979 Recovery = 100.45%								
B 249.677†	19692.5	475.25	ug/L	7.652	475.25	ppb	7.652	1.61%
QC value within limits for B 249.677 Recovery = 95.05%								
Ba 233.527†	62693.2	493.19	ug/L	5.028	493.19	ppb	5.028	1.02%
QC value within limits for Ba 233.527 Recovery = 98.64%								
Be 313.107†	1315359.0	495.41	ug/L	0.462	495.41	ppb	0.462	0.09%
QC value within limits for Be 313.107 Recovery = 99.08%								
Ca 317.933Radial†	2444.8	5110.9	ug/L	29.31	5110.9	ppb	29.31	0.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.22%
Cd 226.502†            42911.8      496.83 ug/L         3.991      496.83 ppb          3.991   0.80%
   QC value within limits for Cd 226.502  Recovery = 99.37%
Co 228.616†            23682.3      496.18 ug/L         5.142      496.18 ppb          5.142   1.04%
   QC value within limits for Co 228.616  Recovery = 99.24%
Cr 267.716†            43625.2      490.68 ug/L         3.923      490.68 ppb          3.923   0.80%
   QC value within limits for Cr 267.716  Recovery = 98.14%
Cu 324.752†           158765.5      483.13 ug/L         5.722      483.13 ppb          5.722   1.18%
   QC value within limits for Cu 324.752  Recovery = 96.63%
Fe 238.204 Radial†       339.5      4807.1 ug/L        39.13      4807.1 ppb         39.13   0.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.14%
K 766.490 Radial†      26241.2      5029.5 ug/L        28.42      5029.5 ppb         28.42   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 100.59%
Mg 279.077 IEC†          106.7      5172.7 ug/L        97.06      5172.7 ppb         97.06   1.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.45%
Mn 257.610†           437915.1      498.58 ug/L         0.596      498.58 ppb          0.596   0.12%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†             6687.7      491.42 ug/L         2.211      491.42 ppb          2.211   0.45%
   QC value within limits for Mo 202.031  Recovery = 98.28%
Na 589.592 Radial†     30874.3      9519.4 ug/L        76.51      9519.4 ppb         76.51   0.80%
   QC value within limits for Na 589.592 Radial  Recovery = 95.19%
Ni 231.604†            19481.4      495.17 ug/L         4.748      495.17 ppb          4.748   0.96%
   QC value within limits for Ni 231.604  Recovery = 99.03%
P 214.914†              4150.0      2404.3 ug/L        13.17      2404.3 ppb         13.17   0.55%
   QC value within limits for P 214.914  Recovery = 96.17%
Pb 220.353†             4038.5      498.23 ug/L         3.253      498.23 ppb          3.253   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.65%
S 181.975 Axial†         696.7      1001.6 ug/L         6.45      1001.6 ppb          6.45   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 100.16%
Sb 206.836†             1401.0      507.45 ug/L         1.168      507.45 ppb          1.168   0.23%
   QC value within limits for Sb 206.836  Recovery = 101.49%
Se 196.026†              760.2      514.46 ug/L         4.061      514.46 ppb          4.061   0.79%
   QC value within limits for Se 196.026  Recovery = 102.89%
Si 251.611†            75623.5      2441.0 ug/L        27.01      2441.0 ppb         27.01   1.11%
   QC value within limits for Si 251.611  Recovery = 97.64%
Sn 189.927†             2755.4      495.03 ug/L         1.234      495.03 ppb          1.234   0.25%
   QC value within limits for Sn 189.927  Recovery = 99.01%
Sr 421.552†            69823.0      483.11 ug/L         2.569      483.11 ppb          2.569   0.53%
   QC value within limits for Sr 421.552  Recovery = 96.62%
Ti 334.940†           309229.1      485.80 ug/L         4.880      485.80 ppb          4.880   1.00%
   QC value within limits for Ti 334.940  Recovery = 97.16%
Tl 190.801†             1546.4      497.74 ug/L         2.458      497.74 ppb          2.458   0.49%
   QC value within limits for Tl 190.801  Recovery = 99.55%
U 409.014†             17178.8      472.73 ug/L         5.587      472.73 ppb          5.587   1.18%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             69699.8      492.56 ug/L         3.496      492.56 ppb          3.496   0.71%
   QC value within limits for V 292.402  Recovery = 98.51%
Zn 213.857†            49036.6      489.10 ug/L         4.617      489.10 ppb          4.617   0.94%
   QC value within limits for Zn 213.857  Recovery = 97.82%
SiO2†                  75900.4      5261.4 ug/L        57.47      5261.4 ppb         57.47   1.09%
   QC value within limits for SiO2  Recovery = 98.39%
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 21:08:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3831.7	3831.7	97.8	%			21:10:40
1	Y RADIAL	4302.3	4302.3	97.54	%			21:10:20
1	Al 396.153Radial†	-116.2	-6.4	-5.9973	ug/L	-5.9973	ppb	21:10:20
1	Ca 317.933Radial†	10.9	-8.5	-17.804	ug/L	-17.804	ppb	21:10:40
1	Fe 238.204 Radial†	11.6	0.5	6.9759	ug/L	6.9759	ppb	21:10:40
1	K 766.490 Radial†	2755.0	178.0	34.163	ug/L	34.163	ppb	21:10:20
1	Mg 279.077 IEC†	1.6	-2.5	-120.62	ug/L	-120.62	ppb	21:10:40
1	Na 589.592 Radial†	-818.6	-17.4	-5.3608	ug/L	-5.3608	ppb	21:10:20
1	Sr 421.552†	34.5	-0.4	-0.0029	ug/L	-0.0029	ppb	21:10:20
1	Sc 361.383	917543.4	917543.4	104.60	%			21:11:37
1	Y 371.029	774367.1	774367.1	102.45	%			21:11:37
1	Ag 328.068†	226.1	-24.2	-0.1128	ug/L	-0.1128	ppb	21:11:42
1	As 188.979†	-25.4	-6.0	-2.6739	ug/L	-2.6739	ppb	21:12:02
1	B 249.677†	-441.6	-24.0	-0.5821	ug/L	-0.5821	ppb	21:12:02
1	Ba 233.527†	16.6	17.2	0.1363	ug/L	0.1363	ppb	21:12:02
1	Be 313.107†	-3792.7	136.2	0.0508	ug/L	0.0508	ppb	21:11:42
1	Cd 226.502†	-183.1	21.2	0.2457	ug/L	0.2457	ppb	21:12:02
1	Co 228.616†	-66.0	3.5	0.0725	ug/L	0.0725	ppb	21:12:02
1	Cr 267.716†	85.0	3.6	0.0397	ug/L	0.0397	ppb	21:12:02
1	Cu 324.752†	6027.1	-228.4	-0.6977	ug/L	-0.6977	ppb	21:11:42
1	Mn 257.610†	477.5	-2.2	0.0031	ug/L	0.0031	ppb	21:12:02
1	Mo 202.031†	9.2	-1.4	-0.1015	ug/L	-0.1015	ppb	21:12:02
1	Ni 231.604†	74.0	8.3	0.2119	ug/L	0.2119	ppb	21:12:02
1	P 214.914†	211.4	-8.4	-4.9457	ug/L	-4.9457	ppb	21:12:02
1	Pb 220.353†	-67.3	-6.3	-0.7730	ug/L	-0.7730	ppb	21:12:02
1	S 181.975 Axial†	41.5	-1.2	-1.6659	ug/L	-1.6659	ppb	21:12:02
1	Sb 206.836†	43.1	4.5	1.5437	ug/L	1.5437	ppb	21:12:02
1	Se 196.026†	-23.0	5.8	3.8248	ug/L	3.8248	ppb	21:12:02
1	Si 251.611†	575.1	-8.5	-0.2722	ug/L	-0.2722	ppb	21:12:02
1	Sn 189.927†	2.2	-8.3	-1.5008	ug/L	-1.5008	ppb	21:12:02
1	Ti 334.940†	-1551.6	-109.3	-0.1667	ug/L	-0.1667	ppb	21:11:42
1	Tl 190.801†	-27.9	5.9	1.8704	ug/L	1.8704	ppb	21:12:02
1	U 409.014†	-2818.0	192.4	5.3119	ug/L	5.3119	ppb	21:11:37
1	V 292.402†	-1523.5	49.1	0.3477	ug/L	0.3477	ppb	21:11:42
1	Zn 213.857†	818.3	176.3	1.7730	ug/L	1.7730	ppb	21:12:02
1	SiO2†	584.5	4.4	0.3098	ug/L	0.3098	ppb	21:13:08
2	Sc Radial	3844.7	3844.7	98.1	%			21:11:05
2	Y RADIAL	4390.6	4390.6	99.54	%			21:10:45
2	Al 396.153Radial†	-113.3	-3.0	-2.8759	ug/L	-2.8759	ppb	21:10:45
2	Ca 317.933Radial†	20.6	1.3	2.7728	ug/L	2.7728	ppb	21:11:05
2	Fe 238.204 Radial†	10.0	-1.1	-16.198	ug/L	-16.198	ppb	21:11:05
2	K 766.490 Radial†	2764.6	178.2	34.197	ug/L	34.197	ppb	21:10:45
2	Mg 279.077 IEC†	1.8	-2.3	-109.25	ug/L	-109.25	ppb	21:11:05
2	Na 589.592 Radial†	-793.7	10.8	3.3209	ug/L	3.3209	ppb	21:10:45
2	Sr 421.552†	17.6	-17.8	-0.1231	ug/L	-0.1231	ppb	21:10:45
2	Sc 361.383	907310.6	907310.6	103.43	%			21:12:07
2	Y 371.029	764712.4	764712.4	101.17	%			21:12:07
2	Ag 328.068†	278.1	28.5	0.1286	ug/L	0.1286	ppb	21:12:12
2	As 188.979†	-16.7	2.1	0.9348	ug/L	0.9348	ppb	21:12:32
2	B 249.677†	-471.3	-57.4	-1.3902	ug/L	-1.3902	ppb	21:12:32
2	Ba 233.527†	11.6	12.6	0.0991	ug/L	0.0991	ppb	21:12:32
2	Be 313.107†	-3804.5	83.8	0.0316	ug/L	0.0316	ppb	21:12:12
2	Cd 226.502†	-182.3	20.0	0.2336	ug/L	0.2336	ppb	21:12:32
2	Co 228.616†	-68.7	0.1	0.0040	ug/L	0.0040	ppb	21:12:32
2	Cr 267.716†	74.4	-5.7	-0.0651	ug/L	-0.0651	ppb	21:12:32
2	Cu 324.752†	6011.4	-178.7	-0.5440	ug/L	-0.5440	ppb	21:12:12
2	Mn 257.610†	467.9	-6.4	-0.0044	ug/L	-0.0044	ppb	21:12:32
2	Mo 202.031†	17.5	6.7	0.4929	ug/L	0.4929	ppb	21:12:32
2	Ni 231.604†	63.1	-1.5	-0.0373	ug/L	-0.0373	ppb	21:12:32

2	P 214.914†	208.6	-8.8	-5.1796 ug/L	-5.1796 ppb	21:12:32
2	Pb 220.353†	-54.4	5.5	0.6791 ug/L	0.6791 ppb	21:12:32
2	S 181.975 Axial†	44.3	2.1	2.9851 ug/L	2.9851 ppb	21:12:32
2	Sb 206.836†	38.3	0.4	0.1480 ug/L	0.1480 ppb	21:12:32
2	Se 196.026†	-26.0	2.6	1.6778 ug/L	1.6778 ppb	21:12:32
2	Si 251.611†	564.7	-12.3	-0.4050 ug/L	-0.4050 ppb	21:12:32
2	Sn 189.927†	14.3	3.4	0.6089 ug/L	0.6089 ppb	21:12:32
2	Ti 334.940†	-1407.9	12.8	0.0300 ug/L	0.0300 ppb	21:12:12
2	Tl 190.801†	-35.7	-1.9	-0.6133 ug/L	-0.6133 ppb	21:12:32
2	U 409.014†	-3026.8	-39.9	-1.0992 ug/L	-1.0992 ppb	21:12:07
2	V 292.402†	-1532.4	24.1	0.1730 ug/L	0.1730 ppb	21:12:12
2	Zn 213.857†	817.9	184.7	1.8631 ug/L	1.8631 ppb	21:12:32
2	SiO2†	599.3	25.0	1.7254 ug/L	1.7254 ppb	21:13:13
3	Sc Radial	3825.4	3825.4	97.6 %		21:11:30
3	Y RADIAL	4320.6	4320.6	97.95 %		21:11:10
3	Al 396.153Radial†	-95.9	14.2	13.291 ug/L	13.291 ppb	21:11:10
3	Ca 317.933Radial†	14.3	-5.0	-10.424 ug/L	-10.424 ppb	21:11:30
3	Fe 238.204 Radial†	7.9	-3.2	-44.934 ug/L	-44.934 ppb	21:11:30
3	K 766.490 Radial†	2769.4	197.4	37.895 ug/L	37.895 ppb	21:11:10
3	Mg 279.077 IEC†	0.5	-3.6	-172.68 ug/L	-172.68 ppb	21:11:30
3	Na 589.592 Radial†	-888.4	-90.4	-27.865 ug/L	-27.865 ppb	21:11:10
3	Sr 421.552†	26.8	-8.2	-0.0568 ug/L	-0.0568 ppb	21:11:10
3	Sc 361.383	895442.5	895442.5	102.08 %		21:12:37
3	Y 371.029	755161.9	755161.9	99.910 %		21:12:37
3	Ag 328.068†	265.8	20.0	0.0753 ug/L	0.0753 ppb	21:12:42
3	As 188.979†	-18.0	0.6	0.2589 ug/L	0.2589 ppb	21:13:02
3	B 249.677†	-459.0	-51.4	-1.2389 ug/L	-1.2389 ppb	21:13:02
3	Ba 233.527†	-5.4	-3.9	-0.0322 ug/L	-0.0322 ppb	21:13:02
3	Be 313.107†	-3732.3	105.8	0.0397 ug/L	0.0397 ppb	21:12:42
3	Cd 226.502†	-186.2	13.8	0.1656 ug/L	0.1656 ppb	21:13:02
3	Co 228.616†	-69.0	-1.1	-0.0221 ug/L	-0.0221 ppb	21:13:02
3	Cr 267.716†	82.9	3.5	0.0334 ug/L	0.0334 ppb	21:13:02
3	Cu 324.752†	6037.3	-76.3	-0.2370 ug/L	-0.2370 ppb	21:12:42
3	Mn 257.610†	471.3	2.9	0.0060 ug/L	0.0060 ppb	21:13:02
3	Mo 202.031†	8.4	-1.9	-0.1434 ug/L	-0.1434 ppb	21:13:02
3	Ni 231.604†	65.7	1.9	0.0478 ug/L	0.0478 ppb	21:13:02
3	P 214.914†	203.5	-11.1	-6.6160 ug/L	-6.6160 ppb	21:13:02
3	Pb 220.353†	-68.9	-9.4	-1.1472 ug/L	-1.1472 ppb	21:13:02
3	S 181.975 Axial†	37.2	-4.3	-6.2514 ug/L	-6.2514 ppb	21:13:02
3	Sb 206.836†	41.9	4.3	1.5156 ug/L	1.5156 ppb	21:13:02
3	Se 196.026†	-24.9	3.3	2.0248 ug/L	2.0248 ppb	21:13:02
3	Si 251.611†	568.9	-1.0	-0.0313 ug/L	-0.0313 ppb	21:13:02
3	Sn 189.927†	14.9	4.1	0.7372 ug/L	0.7372 ppb	21:13:02
3	Ti 334.940†	-1418.1	-15.2	-0.0131 ug/L	-0.0131 ppb	21:12:42
3	Tl 190.801†	-34.4	-1.1	-0.3611 ug/L	-0.3611 ppb	21:13:02
3	U 409.014†	-2783.1	160.1	4.4273 ug/L	4.4273 ppb	21:12:37
3	V 292.402†	-1538.9	-1.9	-0.0036 ug/L	-0.0036 ppb	21:12:42
3	Zn 213.857†	808.4	186.0	1.8787 ug/L	1.8787 ppb	21:13:02
3	SiO2†	558.7	-7.1	-0.4888 ug/L	-0.4888 ppb	21:13:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906765.5	103.37	%	1.261				1.22%
Sc Radial	3833.9	97.8	%	0.25				0.26%
Y 371.029	764747.1	101.18	%	1.270				1.26%
Y RADIAL	4337.8	98.34	%	1.056				1.07%
Ag 328.068†	8.1	0.0304	ug/L	0.12684	0.0304	ppb	0.12684	417.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.6	1.4725	ug/L	10.35311	1.4725	ppb	10.35311	703.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.4934	ug/L	1.91838	-0.4934	ppb	1.91838	388.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-44.3	-1.0704	ug/L	0.42958	-1.0704	ppb	0.42958	40.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.7	0.0677	ug/L	0.08849	0.0677	ppb	0.08849	130.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	108.6	0.0407	ug/L	0.00965	0.0407	ppb	0.00965	23.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.1	-8.4851	ug/L	10.42446	-8.4851	ppb	10.42446	122.86%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.3      0.2149 ug/L       0.04319      0.2149 ppb        0.04319  20.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.8      0.0181 ug/L       0.04885      0.0181 ppb        0.04885 269.18%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.5      0.0027 ug/L       0.05877      0.0027 ppb        0.05877 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -161.1     -0.4929 ug/L       0.23456     -0.4929 ppb        0.23456  47.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.3     -18.052 ug/L       26.0046     -18.052 ppb        26.0046 144.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         184.5      35.418 ug/L        2.1451      35.418 ppb         2.1451   6.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8     -134.18 ug/L        33.819     -134.18 ppb         33.819  25.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -1.9      0.0016 ug/L       0.00536      0.0016 ppb        0.00536 342.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.1      0.0827 ug/L       0.35590      0.0827 ppb        0.35590 430.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -32.3     -9.9682 ug/L      16.09529     -9.9682 ppb       16.09529 161.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.9      0.0742 ug/L       0.12666      0.0742 ppb        0.12666 170.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.5     -5.5805 ug/L       0.90441     -5.5805 ppb        0.90441  16.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.4     -0.4137 ug/L       0.96472     -0.4137 ppb        0.96472 233.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.1     -1.6440 ug/L       4.61830     -1.6440 ppb        4.61830 280.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.1      1.0691 ug/L       0.79783      1.0691 ppb        0.79783  74.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.9      2.5091 ug/L       1.15258      2.5091 ppb        1.15258  45.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -7.3     -0.2362 ug/L       0.18946     -0.2362 ppb        0.18946  80.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.3     -0.0516 ug/L       1.25674     -0.0516 ppb        1.25674 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -8.8     -0.0609 ug/L       0.06024     -0.0609 ppb        0.06024  98.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -37.2     -0.0499 ug/L       0.10336     -0.0499 ppb        0.10336 206.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.2987 ug/L       1.36699      0.2987 ppb        1.36699 457.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                104.2      2.8800 ug/L       3.47433      2.8800 ppb        3.47433 120.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 23.7      0.1724 ug/L       0.17566      0.1724 ppb        0.17566 101.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               182.3      1.8383 ug/L       0.05704      1.8383 ppb        0.05704   3.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       7.5      0.5155 ug/L       1.12137      0.5155 ppb        1.12137 217.54%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 22:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3810.4	3810.4	97.2	%			22:19:02
1	Y RADIAL	4133.5	4133.5	93.71	%			22:18:42
1	Al 396.153Radial†	5311.6	5575.2	5204.9	ug/L	5204.9	ppb	22:18:42
1	Ca 317.933Radial†	2469.3	2519.9	5267.8	ug/L	5267.8	ppb	22:19:02
1	Fe 238.204 Radial†	357.4	356.3	5043.5	ug/L	5043.5	ppb	22:19:02
1	K 766.490 Radial†	29031.9	27218.3	5216.5	ug/L	5216.5	ppb	22:18:42
1	Mg 279.077 IEC†	108.0	107.0	5188.7	ug/L	5188.7	ppb	22:19:02
1	Na 589.592 Radial†	32927.6	34684.1	10694	ug/L	10694	ppb	22:18:42
1	Sr 421.552†	72851.9	74888.9	518.16	ug/L	518.16	ppb	22:18:42
1	Sc 361.383	891177.9	891177.9	101.59	%			22:20:00
1	Y 371.029	741068.6	741068.6	98.045	%			22:20:00
1	Ag 328.068†	107477.3	105554.9	492.10	ug/L	492.10	ppb	22:20:05
1	As 188.979†	1111.7	1112.6	501.04	ug/L	501.04	ppb	22:20:25
1	B 249.677†	19769.8	19858.6	479.24	ug/L	479.24	ppb	22:20:05
1	Ba 233.527†	63878.8	62880.6	494.67	ug/L	494.67	ppb	22:20:05
1	Be 313.107†	1318940.3	1302061.3	490.42	ug/L	490.42	ppb	22:20:00
1	Cd 226.502†	43583.8	43098.0	498.96	ug/L	498.96	ppb	22:20:05
1	Co 228.616†	23981.7	23673.0	495.98	ug/L	495.98	ppb	22:20:05
1	Cr 267.716†	44503.7	43729.5	491.88	ug/L	491.88	ppb	22:20:05
1	Cu 324.752†	167613.3	158999.4	483.85	ug/L	483.85	ppb	22:20:05
1	Mn 257.610†	441011.5	433651.0	493.75	ug/L	493.75	ppb	22:20:00
1	Mo 202.031†	6822.6	6705.7	492.76	ug/L	492.76	ppb	22:20:25
1	Ni 231.604†	19906.8	19532.8	496.48	ug/L	496.48	ppb	22:20:05
1	P 214.914†	4414.3	4134.7	2394.9	ug/L	2394.9	ppb	22:20:25
1	Pb 220.353†	4046.9	4041.7	498.64	ug/L	498.64	ppb	22:20:25
1	S 181.975 Axial†	737.2	684.9	984.56	ug/L	984.56	ppb	22:20:25
1	Sb 206.836†	1458.2	1398.7	506.66	ug/L	506.66	ppb	22:20:25
1	Se 196.026†	758.2	774.1	524.29	ug/L	524.29	ppb	22:20:25
1	Si 251.611†	77952.9	76174.6	2458.9	ug/L	2458.9	ppb	22:20:05
1	Sn 189.927†	2812.2	2757.7	495.45	ug/L	495.45	ppb	22:20:25
1	Ti 334.940†	313787.8	310251.1	487.42	ug/L	487.42	ppb	22:20:05
1	Tl 190.801†	1556.4	1564.6	503.56	ug/L	503.56	ppb	22:20:25
1	U 409.014†	14614.1	17272.0	475.28	ug/L	475.28	ppb	22:20:05
1	V 292.402†	69577.6	69994.4	494.61	ug/L	494.61	ppb	22:20:05
1	Zn 213.857†	50452.8	49057.2	489.26	ug/L	489.26	ppb	22:20:05
1	SiO2†	78410.5	76629.0	5312.0	ug/L	5312.0	ppb	22:21:32
2	Sc Radial	3840.5	3840.5	98.0	%			22:19:27
2	Y RADIAL	4329.4	4329.4	98.15	%			22:19:07
2	Al 396.153Radial†	5213.6	5432.4	5072.2	ug/L	5072.2	ppb	22:19:07
2	Ca 317.933Radial†	2453.9	2484.2	5193.3	ug/L	5193.3	ppb	22:19:27
2	Fe 238.204 Radial†	361.7	357.7	5063.4	ug/L	5063.4	ppb	22:19:27
2	K 766.490 Radial†	28672.0	26617.2	5101.3	ug/L	5101.3	ppb	22:19:07
2	Mg 279.077 IEC†	108.5	106.7	5171.4	ug/L	5171.4	ppb	22:19:27
2	Na 589.592 Radial†	32391.6	33872.1	10444	ug/L	10444	ppb	22:19:07
2	Sr 421.552†	71524.7	72947.9	504.73	ug/L	504.73	ppb	22:19:07
2	Sc 361.383	940275.3	940275.3	107.19	%			22:20:31
2	Y 371.029	782720.1	782720.1	103.56	%			22:20:31
2	Ag 328.068†	108052.7	100567.5	468.92	ug/L	468.92	ppb	22:20:36
2	As 188.979†	1116.0	1059.4	477.17	ug/L	477.17	ppb	22:20:56
2	B 249.677†	20019.5	19075.4	460.31	ug/L	460.31	ppb	22:20:36
2	Ba 233.527†	64174.4	59873.0	471.02	ug/L	471.02	ppb	22:20:36
2	Be 313.107†	1327038.3	1241824.4	467.73	ug/L	467.73	ppb	22:20:31
2	Cd 226.502†	43674.4	40942.3	473.98	ug/L	473.98	ppb	22:20:36
2	Co 228.616†	24088.6	22540.0	472.25	ug/L	472.25	ppb	22:20:36
2	Cr 267.716†	44683.9	41610.2	468.07	ug/L	468.07	ppb	22:20:36
2	Cu 324.752†	169016.0	151692.9	461.63	ug/L	461.63	ppb	22:20:36
2	Mn 257.610†	442501.0	412373.2	469.54	ug/L	469.54	ppb	22:20:31
2	Mo 202.031†	6864.9	6394.5	469.91	ug/L	469.91	ppb	22:20:56
2	Ni 231.604†	19941.9	18542.3	471.30	ug/L	471.30	ppb	22:20:36

2	P 214.914†	4458.3	3948.9	2287.2 ug/L	2287.2 ppb	22:20:56
2	Pb 220.353†	4060.4	3846.2	474.53 ug/L	474.53 ppb	22:20:56
2	S 181.975 Axial†	752.1	660.8	949.99 ug/L	949.99 ppb	22:20:56
2	Sb 206.836†	1466.1	1331.1	482.18 ug/L	482.18 ppb	22:20:56
2	Se 196.026†	755.1	732.2	496.84 ug/L	496.84 ppb	22:20:56
2	Si 251.611†	78523.3	72700.1	2346.7 ug/L	2346.7 ppb	22:20:36
2	Sn 189.927†	2822.2	2622.4	471.17 ug/L	471.17 ppb	22:20:56
2	Ti 334.940†	315407.5	295634.0	464.46 ug/L	464.46 ppb	22:20:36
2	Tl 190.801†	1546.6	1475.5	474.90 ug/L	474.90 ppb	22:20:56
2	U 409.014†	14645.5	16550.2	455.39 ug/L	455.39 ppb	22:20:36
2	V 292.402†	69775.3	66602.6	470.62 ug/L	470.62 ppb	22:20:36
2	Zn 213.857†	50757.9	46748.6	466.21 ug/L	466.21 ppb	22:20:36
2	SiO2†	78336.2	72529.4	5027.7 ug/L	5027.7 ppb	22:21:37
3	Sc Radial	3852.8	3852.8	98.3 %		22:19:52
3	Y RADIAL	4362.4	4362.4	98.90 %		22:19:32
3	Al 396.153Radial†	5285.0	5488.0	5123.5 ug/L	5123.5 ppb	22:19:32
3	Ca 317.933Radial†	2460.0	2482.4	5189.6 ug/L	5189.6 ppb	22:19:52
3	Fe 238.204 Radial†	360.9	355.7	5036.3 ug/L	5036.3 ppb	22:19:52
3	K 766.490 Radial†	28971.3	26828.1	5141.7 ug/L	5141.7 ppb	22:19:32
3	Mg 279.077 IEC†	105.8	103.5	5018.4 ug/L	5018.4 ppb	22:19:52
3	Na 589.592 Radial†	32943.2	34327.4	10584 ug/L	10584 ppb	22:19:32
3	Sr 421.552†	72590.8	73798.8	510.62 ug/L	510.62 ppb	22:19:32
3	Sc 361.383	898053.4	898053.4	102.37 %		22:21:02
3	Y 371.029	744982.0	744982.0	98.563 %		22:21:02
3	Ag 328.068†	109058.7	106289.7	495.51 ug/L	495.51 ppb	22:21:07
3	As 188.979†	1098.2	1091.0	491.46 ug/L	491.46 ppb	22:21:27
3	B 249.677†	20265.7	20194.0	487.35 ug/L	487.35 ppb	22:21:07
3	Ba 233.527†	64899.7	63396.4	498.73 ug/L	498.73 ppb	22:21:07
3	Be 313.107†	1339381.5	1312088.9	494.20 ug/L	494.20 ppb	22:21:02
3	Cd 226.502†	44166.0	43338.3	501.75 ug/L	501.75 ppb	22:21:07
3	Co 228.616†	24466.7	23966.0	502.10 ug/L	502.10 ppb	22:21:07
3	Cr 267.716†	45233.2	44106.8	496.12 ug/L	496.12 ppb	22:21:07
3	Cu 324.752†	170696.8	160748.3	489.17 ug/L	489.17 ppb	22:21:07
3	Mn 257.610†	447756.8	436916.4	497.48 ug/L	497.48 ppb	22:21:02
3	Mo 202.031†	6785.0	6617.5	486.29 ug/L	486.29 ppb	22:21:27
3	Ni 231.604†	20309.6	19776.3	502.67 ug/L	502.67 ppb	22:21:07
3	P 214.914†	4405.1	4092.5	2368.3 ug/L	2368.3 ppb	22:21:27
3	Pb 220.353†	4049.9	4014.1	495.21 ug/L	495.21 ppb	22:21:27
3	S 181.975 Axial†	739.4	681.4	979.62 ug/L	979.62 ppb	22:21:27
3	Sb 206.836†	1471.2	1400.4	507.05 ug/L	507.05 ppb	22:21:27
3	Se 196.026†	741.0	751.6	509.51 ug/L	509.51 ppb	22:21:27
3	Si 251.611†	79313.1	76915.9	2482.9 ug/L	2482.9 ppb	22:21:07
3	Sn 189.927†	2800.4	2725.0	489.56 ug/L	489.56 ppb	22:21:27
3	Ti 334.940†	319127.9	313102.7	491.90 ug/L	491.90 ppb	22:21:07
3	Tl 190.801†	1538.1	1535.0	494.12 ug/L	494.12 ppb	22:21:27
3	U 409.014†	14929.2	17469.6	480.73 ug/L	480.73 ppb	22:21:07
3	V 292.402†	70510.9	70381.7	497.22 ug/L	497.22 ppb	22:21:07
3	Zn 213.857†	51302.3	49506.8	493.74 ug/L	493.74 ppb	22:21:07
3	SiO2†	77938.1	75576.6	5239.0 ug/L	5239.0 ppb	22:21:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909835.5	103.72	%	3.031				2.92%
Sc Radial	3834.6	97.9	%	0.56				0.57%
Y 371.029	756256.9	100.05	%	3.043				3.04%
Y RADIAL	4275.1	96.92	%	2.806				2.89%
Ag 328.068†	104137.4	485.51	ug/L	14.467	485.51	ppb	14.467	2.98%
QC value within limits for Ag 328.068 Recovery = 97.10%								
Al 396.153Radial†	5498.5	5133.5	ug/L	66.96	5133.5	ppb	66.96	1.30%
QC value within limits for Al 396.153Radial Recovery = 102.67%								
As 188.979†	1087.7	489.89	ug/L	12.012	489.89	ppb	12.012	2.45%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	19709.4	475.64	ug/L	13.875	475.64	ppb	13.875	2.92%
QC value within limits for B 249.677 Recovery = 95.13%								
Ba 233.527†	62050.0	488.14	ug/L	14.964	488.14	ppb	14.964	3.07%
QC value within limits for Ba 233.527 Recovery = 97.63%								
Be 313.107†	1285324.9	484.11	ug/L	14.315	484.11	ppb	14.315	2.96%
QC value within limits for Be 313.107 Recovery = 96.82%								
Ca 317.933Radial†	2495.5	5216.9	ug/L	44.11	5216.9	ppb	44.11	0.85%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.34%
Cd 226.502†            42459.5      491.56 ug/L        15.293      491.56 ppb        15.293   3.11%
   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†            23393.0      490.11 ug/L        15.770      490.11 ppb        15.770   3.22%
   QC value within limits for Co 228.616  Recovery = 98.02%
Cr 267.716†            43148.8      485.35 ug/L        15.121      485.35 ppb        15.121   3.12%
   QC value within limits for Cr 267.716  Recovery = 97.07%
Cu 324.752†           157146.9      478.22 ug/L        14.609      478.22 ppb        14.609   3.05%
   QC value within limits for Cu 324.752  Recovery = 95.64%
Fe 238.204 Radial†       356.6      5047.8 ug/L         14.05      5047.8 ppb         14.05   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      26887.9      5153.2 ug/L         58.45      5153.2 ppb         58.45   1.13%
   QC value within limits for K 766.490 Radial  Recovery = 103.06%
Mg 279.077 IEC†          105.7      5126.2 ug/L         93.72      5126.2 ppb         93.72   1.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.52%
Mn 257.610†           427646.9      486.92 ug/L        15.167      486.92 ppb        15.167   3.11%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†             6572.6      482.99 ug/L        11.777      482.99 ppb        11.777   2.44%
   QC value within limits for Mo 202.031  Recovery = 96.60%
Na 589.592 Radial†     34294.6       10574 ug/L         125.5       10574 ppb         125.5   1.19%
   QC value within limits for Na 589.592 Radial  Recovery = 105.74%
Ni 231.604†            19283.8      490.15 ug/L        16.613      490.15 ppb        16.613   3.39%
   QC value within limits for Ni 231.604  Recovery = 98.03%
P 214.914†              4058.7      2350.1 ug/L         56.11      2350.1 ppb         56.11   2.39%
   QC value within limits for P 214.914  Recovery = 94.00%
Pb 220.353†             3967.3      489.46 ug/L        13.045      489.46 ppb        13.045   2.67%
   QC value within limits for Pb 220.353  Recovery = 97.89%
S 181.975 Axial†         675.7      971.39 ug/L        18.694      971.39 ppb        18.694   1.92%
   QC value within limits for S 181.975 Axial  Recovery = 97.14%
Sb 206.836†             1376.7      498.63 ug/L        14.249      498.63 ppb        14.249   2.86%
   QC value within limits for Sb 206.836  Recovery = 99.73%
Se 196.026†              752.6      510.21 ug/L        13.738      510.21 ppb        13.738   2.69%
   QC value within limits for Se 196.026  Recovery = 102.04%
Si 251.611†            75263.5      2429.5 ug/L         72.70      2429.5 ppb         72.70   2.99%
   QC value within limits for Si 251.611  Recovery = 97.18%
Sn 189.927†             2701.7      485.39 ug/L        12.666      485.39 ppb        12.666   2.61%
   QC value within limits for Sn 189.927  Recovery = 97.08%
Sr 421.552†            73878.5      511.17 ug/L         6.732      511.17 ppb         6.732   1.32%
   QC value within limits for Sr 421.552  Recovery = 102.23%
Ti 334.940†           306329.3      481.26 ug/L        14.721      481.26 ppb        14.721   3.06%
   QC value within limits for Ti 334.940  Recovery = 96.25%
Tl 190.801†             1525.0      490.86 ug/L        14.606      490.86 ppb        14.606   2.98%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†             17097.3      470.47 ug/L        13.333      470.47 ppb        13.333   2.83%
   QC value within limits for U 409.014  Recovery = 94.09%
V 292.402†             68992.9      487.48 ug/L        14.658      487.48 ppb        14.658   3.01%
   QC value within limits for V 292.402  Recovery = 97.50%
Zn 213.857†            48437.5      483.07 ug/L        14.773      483.07 ppb        14.773   3.06%
   QC value within limits for Zn 213.857  Recovery = 96.61%
SiO2†                  74911.7      5192.9 ug/L        147.65      5192.9 ppb        147.65   2.84%
   QC value within limits for SiO2  Recovery = 97.11%
All analyte(s) passed QC.
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Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 22:23:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3810.6	3810.6	97.2	%			22:26:05
1	Y RADIAL	4397.6	4397.6	99.70	%			22:25:45
1	Al 396.153Radial†	-104.7	4.7	4.4551	ug/L	4.4551	ppb	22:25:45
1	Ca 317.933Radial†	23.8	4.8	10.068	ug/L	10.068	ppb	22:26:05
1	Fe 238.204 Radial†	11.6	0.6	8.0666	ug/L	8.0666	ppb	22:26:05
1	K 766.490 Radial†	2762.9	201.7	38.709	ug/L	38.709	ppb	22:25:45
1	Mg 279.077 IEC†	2.3	-1.7	-83.085	ug/L	-83.085	ppb	22:26:05
1	Na 589.592 Radial†	-815.9	-19.3	-5.9415	ug/L	-5.9415	ppb	22:25:45
1	Sr 421.552†	58.1	24.0	0.1663	ug/L	0.1663	ppb	22:25:45
1	Sc 361.383	890284.6	890284.6	101.49	%			22:27:01
1	Y 371.029	751075.4	751075.4	99.369	%			22:27:01
1	Ag 328.068†	168.6	-74.3	-0.3393	ug/L	-0.3393	ppb	22:27:06
1	As 188.979†	-11.6	6.9	3.0670	ug/L	3.0670	ppb	22:27:26
1	B 249.677†	-358.5	45.0	1.0900	ug/L	1.0900	ppb	22:27:26
1	Ba 233.527†	-11.1	-9.5	-0.0724	ug/L	-0.0724	ppb	22:27:26
1	Be 313.107†	-3815.2	2.9	0.0009	ug/L	0.0009	ppb	22:27:06
1	Cd 226.502†	-168.6	30.1	0.3481	ug/L	0.3481	ppb	22:27:26
1	Co 228.616†	-77.4	-9.7	-0.2058	ug/L	-0.2058	ppb	22:27:26
1	Cr 267.716†	64.6	-14.0	-0.1559	ug/L	-0.1559	ppb	22:27:26
1	Cu 324.752†	6067.4	-12.3	-0.0377	ug/L	-0.0377	ppb	22:27:06
1	Mn 257.610†	527.6	61.1	0.0737	ug/L	0.0737	ppb	22:27:26
1	Mo 202.031†	0.3	-9.8	-0.7223	ug/L	-0.7223	ppb	22:27:26
1	Ni 231.604†	57.4	-5.9	-0.1496	ug/L	-0.1496	ppb	22:27:26
1	P 214.914†	211.8	-1.8	-1.0715	ug/L	-1.0715	ppb	22:27:26
1	Pb 220.353†	-63.4	-4.3	-0.5363	ug/L	-0.5363	ppb	22:27:26
1	S 181.975 Axial†	37.7	-3.7	-5.2704	ug/L	-5.2704	ppb	22:27:26
1	Sb 206.836†	40.4	3.1	1.1055	ug/L	1.1055	ppb	22:27:26
1	Se 196.026†	-21.8	6.3	4.1466	ug/L	4.1466	ppb	22:27:26
1	Si 251.611†	760.5	191.1	6.1916	ug/L	6.1916	ppb	22:27:26
1	Sn 189.927†	21.6	10.8	1.9452	ug/L	1.9452	ppb	22:27:26
1	Ti 334.940†	-1461.6	-66.1	-0.0963	ug/L	-0.0963	ppb	22:27:06
1	Tl 190.801†	-28.4	4.6	1.4728	ug/L	1.4728	ppb	22:27:26
1	U 409.014†	-2884.4	44.5	1.2292	ug/L	1.2292	ppb	22:27:01
1	V 292.402†	-1401.3	124.9	0.8605	ug/L	0.8605	ppb	22:27:06
1	Zn 213.857†	831.6	213.3	2.1473	ug/L	2.1473	ppb	22:27:26
1	SiO2†	791.9	225.9	15.717	ug/L	15.717	ppb	22:28:32
2	Sc Radial	3807.4	3807.4	97.2	%			22:26:30
2	Y RADIAL	4284.6	4284.6	97.14	%			22:26:10
2	Al 396.153Radial†	-129.0	-20.3	-19.055	ug/L	-19.055	ppb	22:26:10
2	Ca 317.933Radial†	19.2	0.1	0.1254	ug/L	0.1254	ppb	22:26:30
2	Fe 238.204 Radial†	11.2	0.2	3.0851	ug/L	3.0851	ppb	22:26:30
2	K 766.490 Radial†	2826.0	269.1	51.636	ug/L	51.636	ppb	22:26:10
2	Mg 279.077 IEC†	4.4	0.4	21.619	ug/L	21.619	ppb	22:26:30
2	Na 589.592 Radial†	-826.7	-31.2	-9.6056	ug/L	-9.6056	ppb	22:26:10
2	Sr 421.552†	49.0	14.7	0.1018	ug/L	0.1018	ppb	22:26:10
2	Sc 361.383	907108.3	907108.3	103.41	%			22:27:32
2	Y 371.029	764442.6	764442.6	101.14	%			22:27:32
2	Ag 328.068†	240.7	-7.6	-0.0335	ug/L	-0.0335	ppb	22:27:37
2	As 188.979†	-19.0	-0.2	-0.0712	ug/L	-0.0712	ppb	22:27:57
2	B 249.677†	-362.6	47.6	1.1533	ug/L	1.1533	ppb	22:27:57
2	Ba 233.527†	-18.4	-16.4	-0.1284	ug/L	-0.1284	ppb	22:27:57
2	Be 313.107†	-3759.3	126.7	0.0475	ug/L	0.0475	ppb	22:27:37
2	Cd 226.502†	-189.0	13.4	0.1550	ug/L	0.1550	ppb	22:27:57
2	Co 228.616†	-67.3	1.5	0.0301	ug/L	0.0301	ppb	22:27:57
2	Cr 267.716†	93.2	12.4	0.1402	ug/L	0.1402	ppb	22:27:57
2	Cu 324.752†	6026.5	-162.7	-0.4946	ug/L	-0.4946	ppb	22:27:37
2	Mn 257.610†	513.2	37.6	0.0422	ug/L	0.0422	ppb	22:27:57
2	Mo 202.031†	8.0	-2.4	-0.1791	ug/L	-0.1791	ppb	22:27:57
2	Ni 231.604†	48.8	-15.2	-0.3874	ug/L	-0.3874	ppb	22:27:57

2	P 214.914†	194.5	-22.4	-13.376 ug/L	-13.376 ppb	22:27:57
2	Pb 220.353†	-68.2	-7.9	-0.9746 ug/L	-0.9746 ppb	22:27:57
2	S 181.975 Axial†	47.0	4.6	6.6842 ug/L	6.6842 ppb	22:27:57
2	Sb 206.836†	34.0	-3.8	-1.3246 ug/L	-1.3246 ppb	22:27:57
2	Se 196.026†	-21.5	7.0	4.5760 ug/L	4.5760 ppb	22:27:57
2	Si 251.611†	767.1	183.6	5.9419 ug/L	5.9419 ppb	22:27:57
2	Sn 189.927†	15.7	4.7	0.8500 ug/L	0.8500 ppb	22:27:57
2	Ti 334.940†	-1456.5	-34.4	-0.0556 ug/L	-0.0556 ppb	22:27:37
2	Tl 190.801†	-28.7	4.8	1.5347 ug/L	1.5347 ppb	22:27:57
2	U 409.014†	-3010.7	-25.0	-0.6897 ug/L	-0.6897 ppb	22:27:32
2	V 292.402†	-1543.1	13.4	0.0894 ug/L	0.0894 ppb	22:27:37
2	Zn 213.857†	843.0	209.2	2.1090 ug/L	2.1090 ppb	22:27:57
2	SiO2†	765.6	186.0	12.929 ug/L	12.929 ppb	22:28:37
3	Sc Radial	3811.0	3811.0	97.2 %		22:26:55
3	Y RADIAL	4274.0	4274.0	96.90 %		22:26:35
3	Al 396.153Radial†	-125.7	-16.8	-15.798 ug/L	-15.798 ppb	22:26:35
3	Ca 317.933Radial†	18.3	-0.8	-1.7318 ug/L	-1.7318 ppb	22:26:55
3	Fe 238.204 Radial†	11.5	0.5	7.0417 ug/L	7.0417 ppb	22:26:55
3	K 766.490 Radial†	2626.1	60.7	11.657 ug/L	11.657 ppb	22:26:35
3	Mg 279.077 IEC†	3.9	-0.1	-3.4089 ug/L	-3.4089 ppb	22:26:55
3	Na 589.592 Radial†	-799.0	-1.8	-0.5630 ug/L	-0.5630 ppb	22:26:35
3	Sr 421.552†	45.3	10.8	0.0750 ug/L	0.0750 ppb	22:26:35
3	Sc 361.383	908326.4	908326.4	103.54 %		22:28:02
3	Y 371.029	765068.3	765068.3	101.22 %		22:28:02
3	Ag 328.068†	233.0	-15.4	-0.0730 ug/L	-0.0730 ppb	22:28:07
3	As 188.979†	-25.8	-6.7	-2.9978 ug/L	-2.9978 ppb	22:28:27
3	B 249.677†	-331.2	78.3	1.8989 ug/L	1.8989 ppb	22:28:27
3	Ba 233.527†	16.0	16.9	0.1332 ug/L	0.1332 ppb	22:28:27
3	Be 313.107†	-3785.9	105.9	0.0398 ug/L	0.0398 ppb	22:28:07
3	Cd 226.502†	-186.5	16.2	0.1876 ug/L	0.1876 ppb	22:28:27
3	Co 228.616†	-79.4	-10.1	-0.2114 ug/L	-0.2114 ppb	22:28:27
3	Cr 267.716†	75.8	-4.4	-0.0513 ug/L	-0.0513 ppb	22:28:27
3	Cu 324.752†	6032.0	-165.3	-0.5060 ug/L	-0.5060 ppb	22:28:07
3	Mn 257.610†	496.0	20.3	0.0240 ug/L	0.0240 ppb	22:28:27
3	Mo 202.031†	16.2	5.5	0.4055 ug/L	0.4055 ppb	22:28:27
3	Ni 231.604†	67.7	2.9	0.0745 ug/L	0.0745 ppb	22:28:27
3	P 214.914†	205.0	-12.6	-7.4574 ug/L	-7.4574 ppb	22:28:27
3	Pb 220.353†	-56.9	3.1	0.3836 ug/L	0.3836 ppb	22:28:27
3	S 181.975 Axial†	49.2	6.7	9.6140 ug/L	9.6140 ppb	22:28:27
3	Sb 206.836†	40.0	1.9	0.6909 ug/L	0.6909 ppb	22:28:27
3	Se 196.026†	-19.2	9.2	6.0305 ug/L	6.0305 ppb	22:28:27
3	Si 251.611†	759.8	175.5	5.6726 ug/L	5.6726 ppb	22:28:27
3	Sn 189.927†	19.6	8.4	1.5129 ug/L	1.5129 ppb	22:28:27
3	Ti 334.940†	-1431.2	-8.1	-0.0154 ug/L	-0.0154 ppb	22:28:07
3	Tl 190.801†	-32.2	1.5	0.4801 ug/L	0.4801 ppb	22:28:27
3	U 409.014†	-2756.9	224.1	6.1875 ug/L	6.1875 ppb	22:28:02
3	V 292.402†	-1512.1	45.4	0.3327 ug/L	0.3327 ppb	22:28:07
3	Zn 213.857†	843.2	208.3	2.0957 ug/L	2.0957 ppb	22:28:27
3	SiO2†	766.0	185.4	12.874 ug/L	12.874 ppb	22:28:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	901906.4	102.81	%	1.149				1.12%
Sc Radial	3809.7	97.2	%	0.05				0.05%
Y 371.029	760195.4	100.58	%	1.046				1.04%
Y RADIAL	4318.8	97.91	%	1.553				1.59%
Ag 328.068†	-32.4	-0.1486	ug/L	0.16628	-0.1486	ppb	0.16628	111.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.8	-10.133	ug/L	12.7378	-10.133	ppb	12.7378	125.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0007	ug/L	3.03305	-0.0007	ppb	3.03305	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	57.0	1.3807	ug/L	0.44987	1.3807	ppb	0.44987	32.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0225	ug/L	0.13777	-0.0225	ppb	0.13777	611.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	78.5	0.0294	ug/L	0.02499	0.0294	ppb	0.02499	85.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.3	2.8205	ug/L	6.34473	2.8205	ppb	6.34473	224.95%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                19.9      0.2302 ug/L       0.10336      0.2302 ppb        0.10336  44.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.1     -0.1290 ug/L       0.13786     -0.1290 ppb        0.13786 106.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.0     -0.0223 ug/L       0.15017     -0.0223 ppb        0.15017 673.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -113.4     -0.3461 ug/L       0.26715     -0.3461 ppb        0.26715  77.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      6.0645 ug/L       2.63059      6.0645 ppb        2.63059  43.38%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         177.2      34.000 ug/L       20.4013      34.000 ppb        20.4013  60.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -21.625 ug/L       54.6772     -21.625 ppb        54.6772 252.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                39.7      0.0466 ug/L       0.02517      0.0466 ppb        0.02517  54.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.3     -0.1653 ug/L       0.56403     -0.1653 ppb        0.56403 341.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -17.4     -5.3700 ug/L       4.54834     -5.3700 ppb        4.54834  84.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.1     -0.1542 ug/L       0.23096     -0.1542 ppb        0.23096 149.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.3     -7.3017 ug/L       6.15378     -7.3017 ppb        6.15378  84.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.0     -0.3758 ug/L       0.69319     -0.3758 ppb        0.69319 184.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      3.6759 ug/L       7.88500      3.6759 ppb        7.88500 214.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1573 ug/L       1.29998      0.1573 ppb        1.29998 826.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.5      4.9177 ug/L       0.98736      4.9177 ppb        0.98736  20.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               183.4      5.9354 ug/L       0.25953      5.9354 ppb        0.25953   4.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.0      1.4360 ug/L       0.55164      1.4360 ppb        0.55164  38.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.5      0.1144 ug/L       0.04690      0.1144 ppb        0.04690  41.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -36.2     -0.0557 ug/L       0.04044     -0.0557 ppb        0.04044  72.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.6      1.1625 ug/L       0.59180      1.1625 ppb        0.59180  50.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 81.2      2.2424 ug/L       3.54878      2.2424 ppb        3.54878 158.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 61.2      0.4276 ug/L       0.39419      0.4276 ppb        0.39419  92.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               210.3      2.1173 ug/L       0.02678      2.1173 ppb        0.02678   1.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     199.1      13.840 ug/L        1.6257      13.840 ppb         1.6257  11.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 59
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 23:34:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3861.9	3861.9	98.5	%			23:36:39
1	Y RADIAL	4265.2	4265.2	96.70	%			23:36:39
1	Al 396.153Radial†	5231.1	5420.6	5060.1	ug/L	5060.1	ppb	23:36:39
1	Ca 317.933Radial†	2459.6	2476.2	5176.5	ug/L	5176.5	ppb	23:36:59
1	Fe 238.204 Radial†	354.7	348.6	4936.0	ug/L	4936.0	ppb	23:36:59
1	K 766.490 Radial†	28383.3	26162.4	5014.2	ug/L	5014.2	ppb	23:36:39
1	Mg 279.077 IEC†	106.5	104.0	5042.7	ug/L	5042.7	ppb	23:36:59
1	Na 589.592 Radial†	31056.7	32334.6	9969.6	ug/L	9969.6	ppb	23:36:39
1	Sr 421.552†	70201.6	71201.4	492.64	ug/L	492.64	ppb	23:36:39
1	Sc 361.383	901214.8	901214.8	102.73	%			23:37:56
1	Y 371.029	749764.9	749764.9	99.196	%			23:37:56
1	Ag 328.068†	107960.0	104846.5	488.77	ug/L	488.77	ppb	23:38:02
1	As 188.979†	1121.5	1109.9	499.80	ug/L	499.80	ppb	23:38:22
1	B 249.677†	19598.8	19475.5	469.98	ug/L	469.98	ppb	23:38:02
1	Ba 233.527†	63969.9	62268.9	489.86	ug/L	489.86	ppb	23:38:02
1	Be 313.107†	1343428.8	1311438.9	493.93	ug/L	493.93	ppb	23:37:56
1	Cd 226.502†	43643.1	42677.9	494.11	ug/L	494.11	ppb	23:38:02
1	Co 228.616†	24038.2	23465.1	491.63	ug/L	491.63	ppb	23:38:02
1	Cr 267.716†	44781.1	43511.7	489.42	ug/L	489.42	ppb	23:38:02
1	Cu 324.752†	168385.4	157913.5	480.54	ug/L	480.54	ppb	23:38:02
1	Mn 257.610†	447827.0	435450.4	495.80	ug/L	495.80	ppb	23:37:56
1	Mo 202.031†	6883.7	6690.4	491.63	ug/L	491.63	ppb	23:38:22
1	Ni 231.604†	20019.4	19424.2	493.72	ug/L	493.72	ppb	23:38:02
1	P 214.914†	4459.9	4130.7	2393.1	ug/L	2393.1	ppb	23:38:22
1	Pb 220.353†	4105.6	4054.5	500.19	ug/L	500.19	ppb	23:38:22
1	S 181.975 Axial†	747.0	686.3	986.70	ug/L	986.70	ppb	23:38:22
1	Sb 206.836†	1489.3	1413.0	511.60	ug/L	511.60	ppb	23:38:22
1	Se 196.026†	753.7	761.4	515.62	ug/L	515.62	ppb	23:38:22
1	Si 251.611†	77972.2	75338.8	2431.8	ug/L	2431.8	ppb	23:38:02
1	Sn 189.927†	2825.6	2739.9	492.25	ug/L	492.25	ppb	23:38:22
1	Ti 334.940†	315308.0	308290.9	484.34	ug/L	484.34	ppb	23:38:02
1	Tl 190.801†	1545.3	1536.7	494.66	ug/L	494.66	ppb	23:38:22
1	U 409.014†	14971.7	17459.9	480.48	ug/L	480.48	ppb	23:38:02
1	V 292.402†	69981.8	69625.1	492.04	ug/L	492.04	ppb	23:38:02
1	Zn 213.857†	50731.5	48775.4	486.46	ug/L	486.46	ppb	23:38:02
1	SiO2†	79023.2	76365.8	5293.7	ug/L	5293.7	ppb	23:39:29
2	Sc Radial	3941.0	3941.0	101	%			23:37:04
2	Y RADIAL	4324.0	4324.0	98.03	%			23:37:04
2	Al 396.153Radial†	5306.6	5389.1	5030.9	ug/L	5030.9	ppb	23:37:04
2	Ca 317.933Radial†	2460.1	2426.6	5072.8	ug/L	5072.8	ppb	23:37:24
2	Fe 238.204 Radial†	356.8	343.5	4863.0	ug/L	4863.0	ppb	23:37:24
2	K 766.490 Radial†	28903.2	26100.9	5002.5	ug/L	5002.5	ppb	23:37:04
2	Mg 279.077 IEC†	113.2	108.5	5258.5	ug/L	5258.5	ppb	23:37:24
2	Na 589.592 Radial†	31430.7	32073.5	9889.1	ug/L	9889.1	ppb	23:37:04
2	Sr 421.552†	71135.6	70699.4	489.17	ug/L	489.17	ppb	23:37:04
2	Sc 361.383	919929.9	919929.9	104.87	%			23:38:27
2	Y 371.029	763583.0	763583.0	101.02	%			23:38:27
2	Ag 328.068†	109292.8	103979.5	484.73	ug/L	484.73	ppb	23:38:33
2	As 188.979†	1130.6	1096.3	493.71	ug/L	493.71	ppb	23:38:53
2	B 249.677†	20108.6	19573.4	472.37	ug/L	472.37	ppb	23:38:33
2	Ba 233.527†	65121.1	62099.9	488.53	ug/L	488.53	ppb	23:38:33
2	Be 313.107†	1371644.8	1311741.8	494.04	ug/L	494.04	ppb	23:38:27
2	Cd 226.502†	44416.4	42551.1	492.64	ug/L	492.64	ppb	23:38:33
2	Co 228.616†	24531.9	23459.8	491.51	ug/L	491.51	ppb	23:38:33
2	Cr 267.716†	45497.5	43308.0	487.13	ug/L	487.13	ppb	23:38:33
2	Cu 324.752†	171084.5	157152.8	478.22	ug/L	478.22	ppb	23:38:33
2	Mn 257.610†	458267.0	436537.7	497.02	ug/L	497.02	ppb	23:38:27
2	Mo 202.031†	6915.4	6584.3	483.83	ug/L	483.83	ppb	23:38:53
2	Ni 231.604†	20297.9	19293.3	490.39	ug/L	490.39	ppb	23:38:33

2	P 214.914†	4463.1	4045.4	2342.2 ug/L	2342.2 ppb	23:38:53
2	Pb 220.353†	4093.5	3961.6	488.76 ug/L	488.76 ppb	23:38:53
2	S 181.975 Axial†	748.0	672.5	966.83 ug/L	966.83 ppb	23:38:53
2	Sb 206.836†	1469.3	1364.4	494.30 ug/L	494.30 ppb	23:38:53
2	Se 196.026†	752.7	745.5	504.95 ug/L	504.95 ppb	23:38:53
2	Si 251.611†	79259.9	75022.7	2421.7 ug/L	2421.7 ppb	23:38:33
2	Sn 189.927†	2829.2	2687.4	482.81 ug/L	482.81 ppb	23:38:53
2	Ti 334.940†	320011.7	306532.4	481.55 ug/L	481.55 ppb	23:38:33
2	Tl 190.801†	1557.7	1518.0	488.66 ug/L	488.66 ppb	23:38:53
2	U 409.014†	14850.8	17048.1	469.12 ug/L	469.12 ppb	23:38:33
2	V 292.402†	71009.2	69219.0	489.10 ug/L	489.10 ppb	23:38:33
2	Zn 213.857†	51578.4	48578.3	484.51 ug/L	484.51 ppb	23:38:33
2	SiO2†	79362.0	75124.0	5207.6 ug/L	5207.6 ppb	23:39:34
3	Sc Radial	3907.0	3907.0	99.7 %		23:37:29
3	Y RADIAL	4286.3	4286.3	97.18 %		23:37:29
3	Al 396.153Radial†	5264.4	5392.7	5033.8 ug/L	5033.8 ppb	23:37:29
3	Ca 317.933Radial†	2433.2	2420.9	5060.9 ug/L	5060.9 ppb	23:37:49
3	Fe 238.204 Radial†	349.2	338.9	4798.5 ug/L	4798.5 ppb	23:37:49
3	K 766.490 Radial†	28498.9	25945.3	4972.6 ug/L	4972.6 ppb	23:37:29
3	Mg 279.077 IEC†	102.4	98.6	4781.7 ug/L	4781.7 ppb	23:37:49
3	Na 589.592 Radial†	30923.6	31836.7	9816.1 ug/L	9816.1 ppb	23:37:29
3	Sr 421.552†	70551.2	70728.4	489.37 ug/L	489.37 ppb	23:37:29
3	Sc 361.383	898849.8	898849.8	102.46 %		23:38:58
3	Y 371.029	746977.6	746977.6	98.827 %		23:38:58
3	Ag 328.068†	108084.7	105244.7	490.58 ug/L	490.58 ppb	23:39:04
3	As 188.979†	1108.7	1100.3	495.49 ug/L	495.49 ppb	23:39:24
3	B 249.677†	19715.1	19639.2	473.96 ug/L	473.96 ppb	23:39:04
3	Ba 233.527†	64176.9	62634.8	492.74 ug/L	492.74 ppb	23:39:04
3	Be 313.107†	1336376.7	1307997.2	492.65 ug/L	492.65 ppb	23:38:58
3	Cd 226.502†	43719.4	42864.1	496.28 ug/L	496.28 ppb	23:39:04
3	Co 228.616†	24121.7	23608.1	494.63 ug/L	494.63 ppb	23:39:04
3	Cr 267.716†	44943.0	43784.4	492.47 ug/L	492.47 ppb	23:39:04
3	Cu 324.752†●	168733.1	158684.1	482.88 ug/L	482.88 ppb	23:39:04
3	Mn 257.610†	446146.1	434956.9	495.23 ug/L	495.23 ppb	23:38:58
3	Mo 202.031†	6863.2	6688.0	491.44 ug/L	491.44 ppb	23:39:24
3	Ni 231.604†	20088.9	19543.2	496.75 ug/L	496.75 ppb	23:39:04
3	P 214.914†	4437.3	4120.0	2386.3 ug/L	2386.3 ppb	23:39:24
3	Pb 220.353†	4058.1	4018.6	495.79 ug/L	495.79 ppb	23:39:24
3	S 181.975 Axial†	748.4	689.6	991.35 ug/L	991.35 ppb	23:39:24
3	Sb 206.836†	1462.7	1390.8	503.80 ug/L	503.80 ppb	23:39:24
3	Se 196.026†	743.9	753.8	510.20 ug/L	510.20 ppb	23:39:24
3	Si 251.611†	78236.0	75796.0	2446.6 ug/L	2446.6 ppb	23:39:04
3	Sn 189.927†	2798.5	2720.7	488.79 ug/L	488.79 ppb	23:39:24
3	Ti 334.940†	315790.0	309568.9	486.36 ug/L	486.36 ppb	23:39:04
3	Tl 190.801†	1540.9	1536.4	494.56 ug/L	494.56 ppb	23:39:24
3	U 409.014†	14687.8	17221.1	473.90 ug/L	473.90 ppb	23:39:04
3	V 292.402†	69991.1	69813.4	493.35 ug/L	493.35 ppb	23:39:04
3	Zn 213.857†	50780.5	48953.1	488.25 ug/L	488.25 ppb	23:39:04
3	SiO2†	79845.2	77370.4	5363.5 ug/L	5363.5 ppb	23:39:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906664.8	103.36	%	1.316				1.27%
Sc Radial	3903.3	99.6	%	1.01				1.02%
Y 371.029	753441.8	99.682	%	1.1765				1.18%
Y RADIAL	4291.8	97.30	%	0.676				0.69%
Ag 328.068†	104690.2	488.03	ug/L	2.997	488.03	ppb	2.997	0.61%
QC value within limits for Ag 328.068 Recovery = 97.61%								
Al 396.153Radial†	5400.8	5041.6	ug/L	16.06	5041.6	ppb	16.06	0.32%
QC value within limits for Al 396.153Radial Recovery = 100.83%								
As 188.979†	1102.2	496.33	ug/L	3.131	496.33	ppb	3.131	0.63%
QC value within limits for As 188.979 Recovery = 99.27%								
B 249.677†	19562.7	472.10	ug/L	2.005	472.10	ppb	2.005	0.42%
QC value within limits for B 249.677 Recovery = 94.42%								
Ba 233.527†	62334.5	490.38	ug/L	2.149	490.38	ppb	2.149	0.44%
QC value within limits for Ba 233.527 Recovery = 98.08%								
Be 313.107†	1310392.6	493.54	ug/L	0.777	493.54	ppb	0.777	0.16%
QC value within limits for Be 313.107 Recovery = 98.71%								
Ca 317.933Radial†	2441.2	5103.4	ug/L	63.56	5103.4	ppb	63.56	1.25%

```
   QC value within limits for Ca 317.933Radial  Recovery = 102.07%
Cd 226.502†            42697.7      494.34 ug/L         1.830      494.34 ppb          1.830   0.37%
   QC value within limits for Cd 226.502  Recovery = 98.87%
Co 228.616†            23511.0      492.59 ug/L         1.764      492.59 ppb          1.764   0.36%
   QC value within limits for Co 228.616  Recovery = 98.52%
Cr 267.716†            43534.7      489.67 ug/L         2.682      489.67 ppb          2.682   0.55%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           157916.8      480.55 ug/L         2.327      480.55 ppb          2.327   0.48%
   QC value within limits for Cu 324.752  Recovery = 96.11%
Fe 238.204 Radial†       343.7      4865.8 ug/L        68.78      4865.8 ppb         68.78   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.32%
K 766.490 Radial†      26069.5      4996.4 ug/L        21.42      4996.4 ppb         21.42   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 99.93%
Mg 279.077 IEC†          103.7      5027.6 ug/L       238.77      5027.6 ppb        238.77   4.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.55%
Mn 257.610†           435648.3      496.02 ug/L         0.913      496.02 ppb          0.913   0.18%
   QC value within limits for Mn 257.610  Recovery = 99.20%
Mo 202.031†             6654.2      488.97 ug/L         4.449      488.97 ppb          4.449   0.91%
   QC value within limits for Mo 202.031  Recovery = 97.79%
Na 589.592 Radial†     32081.6      9891.6 ug/L        76.79      9891.6 ppb         76.79   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 98.92%
Ni 231.604†            19420.3      493.62 ug/L         3.178      493.62 ppb          3.178   0.64%
   QC value within limits for Ni 231.604  Recovery = 98.72%
P 214.914†              4098.7      2373.9 ug/L        27.63      2373.9 ppb         27.63   1.16%
   QC value within limits for P 214.914  Recovery = 94.96%
Pb 220.353†             4011.6      494.92 ug/L         5.767      494.92 ppb          5.767   1.17%
   QC value within limits for Pb 220.353  Recovery = 98.98%
S 181.975 Axial†         682.8      981.63 ug/L        13.021      981.63 ppb         13.021   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†             1389.4      503.23 ug/L         8.666      503.23 ppb          8.666   1.72%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†              753.5      510.26 ug/L         5.336      510.26 ppb          5.336   1.05%
   QC value within limits for Se 196.026  Recovery = 102.05%
Si 251.611†            75385.8      2433.4 ug/L        12.54      2433.4 ppb         12.54   0.52%
   QC value within limits for Si 251.611  Recovery = 97.34%
Sn 189.927†             2716.0      487.95 ug/L         4.774      487.95 ppb          4.774   0.98%
   QC value within limits for Sn 189.927  Recovery = 97.59%
Sr 421.552†            70876.4      490.39 ug/L         1.950      490.39 ppb          1.950   0.40%
   QC value within limits for Sr 421.552  Recovery = 98.08%
Ti 334.940†           308130.7      484.08 ug/L         2.413      484.08 ppb          2.413   0.50%
   QC value within limits for Ti 334.940  Recovery = 96.82%
Tl 190.801†             1530.4      492.62 ug/L         3.435      492.62 ppb          3.435   0.70%
   QC value within limits for Tl 190.801  Recovery = 98.52%
U 409.014†             17243.0      474.50 ug/L         5.704      474.50 ppb          5.704   1.20%
   QC value within limits for U 409.014  Recovery = 94.90%
V 292.402†             69552.5      491.50 ug/L         2.179      491.50 ppb          2.179   0.44%
   QC value within limits for V 292.402  Recovery = 98.30%
Zn 213.857†            48768.9      486.41 ug/L         1.869      486.41 ppb          1.869   0.38%
   QC value within limits for Zn 213.857  Recovery = 97.28%
SiO2†                  76286.7      5288.3 ug/L        78.10      5288.3 ppb         78.10   1.48%
   QC value within limits for SiO2  Recovery = 98.89%
All analyte(s) passed QC.
```

Sequence No.: 60
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 23:41:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3861.2	3861.2	98.5	%			23:44:01
1	Y RADIAL	4266.9	4266.9	96.74	%			23:43:41
1	Al 396.153Radial†	-102.0	8.9	8.2760	ug/L	8.2760	ppb	23:43:41
1	Ca 317.933Radial†	17.4	-2.0	-4.2512	ug/L	-4.2512	ppb	23:44:01
1	Fe 238.204 Radial†	9.2	-1.9	-27.494	ug/L	-27.494	ppb	23:44:01
1	K 766.490 Radial†	2739.7	141.0	27.060	ug/L	27.060	ppb	23:43:41
1	Mg 279.077 IEC†	5.1	1.1	51.068	ug/L	51.068	ppb	23:44:01
1	Na 589.592 Radial†	-822.4	-14.9	-4.6061	ug/L	-4.6061	ppb	23:43:41
1	Sr 421.552†	44.2	9.1	0.0629	ug/L	0.0629	ppb	23:43:41
1	Sc 361.383	892687.0	892687.0	101.76	%			23:44:58
1	Y 371.029	754727.0	754727.0	99.852	%			23:44:58
1	Ag 328.068†	155.4	-87.7	-0.4105	ug/L	-0.4105	ppb	23:44:58
1	As 188.979†	-28.6	-9.9	-4.4270	ug/L	-4.4270	ppb	23:45:18
1	B 249.677†	-496.8	-90.0	-2.1781	ug/L	-2.1781	ppb	23:45:18
1	Ba 233.527†	6.1	7.4	0.0579	ug/L	0.0579	ppb	23:45:18
1	Be 313.107†	-3683.5	142.5	0.0533	ug/L	0.0533	ppb	23:44:58
1	Cd 226.502†	-183.9	15.5	0.1819	ug/L	0.1819	ppb	23:45:18
1	Co 228.616†	-67.4	0.3	0.0090	ug/L	0.0090	ppb	23:45:18
1	Cr 267.716†	61.9	-16.8	-0.1894	ug/L	-0.1894	ppb	23:45:18
1	Cu 324.752†	5950.3	-143.5	-0.4357	ug/L	-0.4357	ppb	23:44:58
1	Mn 257.610†	496.4	29.0	0.0282	ug/L	0.0282	ppb	23:45:18
1	Mo 202.031†	17.7	7.3	0.5302	ug/L	0.5302	ppb	23:45:18
1	Ni 231.604†	52.5	-10.8	-0.2752	ug/L	-0.2752	ppb	23:45:18
1	P 214.914†	215.6	1.4	0.9500	ug/L	0.9500	ppb	23:45:18
1	Pb 220.353†	-72.2	-12.9	-1.5753	ug/L	-1.5753	ppb	23:45:18
1	S 181.975 Axial†	36.6	-4.8	-6.9570	ug/L	-6.9570	ppb	23:45:18
1	Sb 206.836†	34.5	-2.8	-0.9509	ug/L	-0.9509	ppb	23:45:18
1	Se 196.026†	-24.2	3.9	2.4986	ug/L	2.4986	ppb	23:45:18
1	Si 251.611†	641.6	72.2	2.3295	ug/L	2.3295	ppb	23:45:18
1	Sn 189.927†	13.6	2.9	0.5185	ug/L	0.5185	ppb	23:45:18
1	Ti 334.940†	-1466.0	-66.6	-0.1075	ug/L	-0.1075	ppb	23:44:58
1	Tl 190.801†	-39.5	-6.2	-1.9828	ug/L	-1.9828	ppb	23:45:18
1	U 409.014†	-3091.6	-151.4	-4.1784	ug/L	-4.1784	ppb	23:44:58
1	V 292.402†	-1499.2	32.4	0.2309	ug/L	0.2309	ppb	23:44:58
1	Zn 213.857†	839.1	218.5	2.2062	ug/L	2.2062	ppb	23:45:18
1	SiO2†	680.6	114.4	7.9354	ug/L	7.9354	ppb	23:46:14
2	Sc Radial	3889.2	3889.2	99.2	%			23:44:26
2	Y RADIAL	4521.5	4521.5	102.5	%			23:44:06
2	Al 396.153Radial†	-121.4	-9.9	-9.2769	ug/L	-9.2769	ppb	23:44:06
2	Ca 317.933Radial†	17.6	-1.9	-4.0132	ug/L	-4.0132	ppb	23:44:26
2	Fe 238.204 Radial†	10.3	-1.0	-14.065	ug/L	-14.065	ppb	23:44:26
2	K 766.490 Radial†	2761.7	143.1	27.466	ug/L	27.466	ppb	23:44:06
2	Mg 279.077 IEC†	3.2	-0.8	-40.636	ug/L	-40.636	ppb	23:44:26
2	Na 589.592 Radial†	-867.5	-54.3	-16.755	ug/L	-16.755	ppb	23:44:06
2	Sr 421.552†	31.9	-3.6	-0.0250	ug/L	-0.0250	ppb	23:44:06
2	Sc 361.383	898607.6	898607.6	102.44	%			23:45:23
2	Y 371.029	759669.5	759669.5	100.51	%			23:45:23
2	Ag 328.068†	278.6	31.6	0.1492	ug/L	0.1492	ppb	23:45:23
2	As 188.979†	-24.2	-5.4	-2.4145	ug/L	-2.4145	ppb	23:45:43
2	B 249.677†	-471.7	-62.2	-1.5062	ug/L	-1.5062	ppb	23:45:43
2	Ba 233.527†	-9.5	-7.9	-0.0608	ug/L	-0.0608	ppb	23:45:43
2	Be 313.107†	-3778.1	74.0	0.0279	ug/L	0.0279	ppb	23:45:23
2	Cd 226.502†	-193.5	7.3	0.0851	ug/L	0.0851	ppb	23:45:43
2	Co 228.616†	-64.1	3.9	0.0816	ug/L	0.0816	ppb	23:45:43
2	Cr 267.716†	63.9	-15.3	-0.1697	ug/L	-0.1697	ppb	23:45:43
2	Cu 324.752†	6024.9	-109.2	-0.3299	ug/L	-0.3299	ppb	23:45:23
2	Mn 257.610†	527.0	55.8	0.0637	ug/L	0.0637	ppb	23:45:43
2	Mo 202.031†	7.4	-3.0	-0.2184	ug/L	-0.2184	ppb	23:45:43
2	Ni 231.604†	54.5	-9.3	-0.2357	ug/L	-0.2357	ppb	23:45:43

2	P 214.914†	215.9	0.3	0.2565 ug/L	0.2565 ppb	23:45:43
2	Pb 220.353†	-59.6	-0.1	-0.0085 ug/L	-0.0085 ppb	23:45:43
2	S 181.975 Axial†	39.5	-2.2	-3.1953 ug/L	-3.1953 ppb	23:45:43
2	Sb 206.836†	41.4	3.7	1.2870 ug/L	1.2870 ppb	23:45:43
2	Se 196.026†	-24.7	3.7	2.3641 ug/L	2.3641 ppb	23:45:43
2	Si 251.611†	646.3	72.6	2.3519 ug/L	2.3519 ppb	23:45:43
2	Sn 189.927†	12.9	2.1	0.3768 ug/L	0.3768 ppb	23:45:43
2	Ti 334.940†	-1385.4	21.6	0.0393 ug/L	0.0393 ppb	23:45:23
2	Tl 190.801†	-39.5	-6.0	-1.9077 ug/L	-1.9077 ppb	23:45:43
2	U 409.014†	-3172.7	-210.6	-5.8139 ug/L	-5.8139 ppb	23:45:23
2	V 292.402†	-1450.4	89.8	0.6134 ug/L	0.6134 ppb	23:45:23
2	Zn 213.857†	839.2	213.2	2.1501 ug/L	2.1501 ppb	23:45:43
2	SiO2†	649.7	79.8	5.5539 ug/L	5.5539 ppb	23:46:19
3	Sc Radial	3895.0	3895.0	99.4 %		23:44:51
3	Y RADIAL	4413.6	4413.6	100.1 %		23:44:31
3	Al 396.153Radial†	-147.5	-36.0	-33.797 ug/L	-33.797 ppb	23:44:31
3	Ca 317.933Radial†	18.0	-1.5	-3.1918 ug/L	-3.1918 ppb	23:44:51
3	Fe 238.204 Radial†	8.5	-2.8	-39.059 ug/L	-39.059 ppb	23:44:51
3	K 766.490 Radial†	2739.8	117.0	22.458 ug/L	22.458 ppb	23:44:31
3	Mg 279.077 IEC†	2.1	-2.0	-95.317 ug/L	-95.317 ppb	23:44:51
3	Na 589.592 Radial†	-873.1	-58.7	-18.105 ug/L	-18.105 ppb	23:44:31
3	Sr 421.552†	55.5	20.1	0.1392 ug/L	0.1392 ppb	23:44:31
3	Sc 361.383	893412.1	893412.1	101.84 %		23:45:49
3	Y 371.029	754487.6	754487.6	99.821 %		23:45:49
3	Ag 328.068†	242.9	-1.9	-0.0215 ug/L	-0.0215 ppb	23:45:49
3	As 188.979†	-21.3	-2.7	-1.2155 ug/L	-1.2155 ppb	23:46:09
3	B 249.677†	-481.8	-74.9	-1.8088 ug/L	-1.8088 ppb	23:46:09
3	Ba 233.527†	0.3	1.7	0.0121 ug/L	0.0121 ppb	23:46:09
3	Be 313.107†	-3788.1	42.7	0.0161 ug/L	0.0161 ppb	23:45:49
3	Cd 226.502†	-198.1	1.7	0.0240 ug/L	0.0240 ppb	23:46:09
3	Co 228.616†	-66.9	0.8	0.0185 ug/L	0.0185 ppb	23:46:09
3	Cr 267.716†	55.4	-23.3	-0.2656 ug/L	-0.2656 ppb	23:46:09
3	Cu 324.752†	6069.2	-31.5	-0.0982 ug/L	-0.0982 ppb	23:45:49
3	Mn 257.610†	514.4	46.3	0.0528 ug/L	0.0528 ppb	23:46:09
3	Mo 202.031†	12.9	2.6	0.1855 ug/L	0.1855 ppb	23:46:09
3	Ni 231.604†	68.3	4.6	0.1172 ug/L	0.1172 ppb	23:46:09
3	P 214.914†	207.8	-6.4	-3.8186 ug/L	-3.8186 ppb	23:46:09
3	Pb 220.353†	-55.0	4.1	0.5074 ug/L	0.5074 ppb	23:46:09
3	S 181.975 Axial†	43.0	1.4	2.0914 ug/L	2.0914 ppb	23:46:09
3	Sb 206.836†	38.9	1.5	0.5412 ug/L	0.5412 ppb	23:46:09
3	Se 196.026†	-29.1	-0.8	-0.6668 ug/L	-0.6668 ppb	23:46:09
3	Si 251.611†	625.4	55.8	1.8032 ug/L	1.8032 ppb	23:46:09
3	Sn 189.927†	16.7	6.0	1.0698 ug/L	1.0698 ppb	23:46:09
3	Ti 334.940†	-1391.9	7.4	0.0189 ug/L	0.0189 ppb	23:45:49
3	Tl 190.801†	-32.4	0.7	0.2337 ug/L	0.2337 ppb	23:46:09
3	U 409.014†	-2924.3	15.3	0.4279 ug/L	0.4279 ppb	23:45:49
3	V 292.402†	-1552.8	-19.0	-0.1249 ug/L	-0.1249 ppb	23:45:49
3	Zn 213.857†	819.2	198.3	2.0012 ug/L	2.0012 ppb	23:46:09
3	SiO2†	697.8	130.8	9.0854 ug/L	9.0854 ppb	23:46:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894902.2	102.01	%	0.368				0.36%
Sc Radial	3881.8	99.1	%	0.46				0.47%
Y 371.029	756294.7	100.06	%	0.387				0.39%
Y RADIAL	4400.7	99.77	%	2.897				2.90%
Ag 328.068†	-19.3	-0.0943	ug/L	0.28684	-0.0943	ppb	0.28684	304.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.4	-11.599	ug/L	21.1322	-11.599	ppb	21.1322	182.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.0	-2.6857	ug/L	1.62282	-2.6857	ppb	1.62282	60.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-75.7	-1.8310	ug/L	0.33649	-1.8310	ppb	0.33649	18.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.4	0.0031	ug/L	0.05991	0.0031	ppb	0.05991	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	86.4	0.0324	ug/L	0.01904	0.0324	ppb	0.01904	58.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.8	-3.8187	ug/L	0.55583	-3.8187	ppb	0.55583	14.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.2      0.0970 ug/L       0.07960      0.0970 ppb        0.07960  82.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.7      0.0364 ug/L       0.03948      0.0364 ppb        0.03948 108.59%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -18.5     -0.2082 ug/L       0.05068     -0.2082 ppb        0.05068  24.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -94.7     -0.2879 ug/L       0.17265     -0.2879 ppb        0.17265  59.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.9     -26.873 ug/L      12.5090     -26.873 ppb       12.5090  46.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         133.7      25.661 ug/L       2.7815      25.661 ppb        2.7815  10.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -28.295 ug/L      73.9688     -28.295 ppb       73.9688 261.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                43.7      0.0482 ug/L       0.01818      0.0482 ppb        0.01818  37.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.3      0.1658 ug/L       0.37468      0.1658 ppb        0.37468 226.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -42.7     -13.156 ug/L       7.4348     -13.156 ppb        7.4348  56.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.2     -0.1312 ug/L       0.21604     -0.1312 ppb        0.21604 164.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.6     -0.8707 ug/L       2.57641     -0.8707 ppb        2.57641 295.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.9     -0.3588 ug/L       1.08464     -0.3588 ppb        1.08464 302.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.9     -2.6870 ug/L       4.54554     -2.6870 ppb        4.54554 169.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.8      0.2924 ug/L       1.13948      0.2924 ppb        1.13948 389.64%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.3986 ug/L       1.78999      1.3986 ppb        1.78999 127.98%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                66.9      2.1615 ug/L       0.31056      2.1615 ppb        0.31056  14.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.6      0.6550 ug/L       0.36614      0.6550 ppb        0.36614  55.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.5      0.0590 ug/L       0.08217      0.0590 ppb        0.08217 139.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -12.5     -0.0164 ug/L       0.07951     -0.0164 ppb        0.07951 484.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.8     -1.2189 ug/L       1.25858     -1.2189 ppb        1.25858 103.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -115.6     -3.1881 ug/L       3.23658     -3.1881 ppb        3.23658 101.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                34.4      0.2398 ug/L       0.36922      0.2398 ppb        0.36922 153.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               210.0      2.1192 ug/L       0.10593      2.1192 ppb        0.10593   5.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     108.3      7.5249 ug/L       1.80117      7.5249 ppb        1.80117  23.94%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/25/2010 00:37:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3810.9	3810.9	97.2	%			00:39:15
1	Y RADIAL	4201.0	4201.0	95.24	%			00:39:15
1	Al 396.153Radial†	5137.1	5394.9	5035.7	ug/L	5035.7	ppb	00:39:15
1	Ca 317.933Radial†	2378.2	2425.8	5071.2	ug/L	5071.2	ppb	00:39:35
1	Fe 238.204 Radial†	338.1	336.3	4762.3	ug/L	4762.3	ppb	00:39:35
1	K 766.490 Radial†	28167.4	26325.1	5045.4	ug/L	5045.4	ppb	00:39:15
1	Mg 279.077 IEC†	104.2	103.1	4999.7	ug/L	4999.7	ppb	00:39:35
1	Na 589.592 Radial†	31376.0	33083.9	10201	ug/L	10201	ppb	00:39:15
1	Sr 421.552†	69868.8	71810.8	496.86	ug/L	496.86	ppb	00:39:15
1	Sc 361.383	878818.4	878818.4	100.18	%			00:40:32
1	Y 371.029	731972.8	731972.8	96.842	%			00:40:32
1	Ag 328.068†	106234.8	105802.6	493.16	ug/L	493.16	ppb	00:40:37
1	As 188.979†	1092.4	1108.7	499.22	ug/L	499.22	ppb	00:40:57
1	B 249.677†	19447.4	19810.5	478.12	ug/L	478.12	ppb	00:40:37
1	Ba 233.527†	62969.0	62856.7	494.48	ug/L	494.48	ppb	00:40:37
1	Be 313.107†	1313043.2	1314433.9	495.07	ug/L	495.07	ppb	00:40:32
1	Cd 226.502†	42958.6	43077.3	498.75	ug/L	498.75	ppb	00:40:37
1	Co 228.616†	23633.3	23657.1	495.66	ug/L	495.66	ppb	00:40:37
1	Cr 267.716†	44043.2	43885.9	493.61	ug/L	493.61	ppb	00:40:37
1	Cu 324.752†	165545.4	159255.6	484.62	ug/L	484.62	ppb	00:40:37
1	Mn 257.610†	438085.5	436835.5	497.36	ug/L	497.36	ppb	00:40:32
1	Mo 202.031†	6760.4	6738.0	495.11	ug/L	495.11	ppb	00:40:57
1	Ni 231.604†	19647.0	19549.1	496.89	ug/L	496.89	ppb	00:40:37
1	P 214.914†	4385.7	4167.3	2414.5	ug/L	2414.5	ppb	00:40:57
1	Pb 220.353†	5541.8	5589.9	689.06	ug/L	689.06	ppb	00:40:57
1	S 181.975 Axial†	730.2	688.1	989.18	ug/L	989.18	ppb	00:40:57
1	Sb 206.836†	1447.1	1407.8	509.93	ug/L	509.93	ppb	00:40:57
1	Se 196.026†	752.8	779.2	526.77	ug/L	526.77	ppb	00:40:57
1	Si 251.611†	76837.2	76140.1	2457.7	ug/L	2457.7	ppb	00:40:37
1	Sn 189.927†	2782.3	2766.8	497.06	ug/L	497.06	ppb	00:40:57
1	Ti 334.940†	309374.8	310190.1	487.32	ug/L	487.32	ppb	00:40:37
1	Tl 190.801†	1528.4	1558.2	501.52	ug/L	501.52	ppb	00:40:57
1	U 409.014†	14294.6	17155.4	472.08	ug/L	472.08	ppb	00:40:37
1	V 292.402†	68593.0	69974.8	494.53	ug/L	494.53	ppb	00:40:37
1	Zn 213.857†	49998.1	49301.8	491.76	ug/L	491.76	ppb	00:40:37
1	SiO2†	78789.3	78092.6	5413.6	ug/L	5413.6	ppb	00:42:05
2	Sc Radial	3860.5	3860.5	98.5	%			00:39:40
2	Y RADIAL	4286.6	4286.6	97.18	%			00:39:40
2	Al 396.153Radial†	5192.2	5383.1	5024.6	ug/L	5024.6	ppb	00:39:40
2	Ca 317.933Radial†	2382.2	2398.5	5014.0	ug/L	5014.0	ppb	00:40:00
2	Fe 238.204 Radial†	335.5	329.2	4661.9	ug/L	4661.9	ppb	00:40:00
2	K 766.490 Radial†	28455.5	26245.8	5030.2	ug/L	5030.2	ppb	00:39:40
2	Mg 279.077 IEC†	103.0	100.5	4871.2	ug/L	4871.2	ppb	00:40:00
2	Na 589.592 Radial†	31503.2	32798.9	10113	ug/L	10113	ppb	00:39:40
2	Sr 421.552†	70492.0	71521.2	494.86	ug/L	494.86	ppb	00:39:40
2	Sc 361.383	869965.8	869965.8	99.172	%			00:41:03
2	Y 371.029	723572.4	723572.4	95.730	%			00:41:03
2	Ag 328.068†	107870.8	108531.3	505.82	ug/L	505.82	ppb	00:41:08
2	As 188.979†	1087.7	1115.0	502.15	ug/L	502.15	ppb	00:41:28
2	B 249.677†	19943.6	20508.4	495.02	ug/L	495.02	ppb	00:41:08
2	Ba 233.527†	63851.8	64386.5	506.51	ug/L	506.51	ppb	00:41:08
2	Be 313.107†	1316445.0	1331201.2	501.40	ug/L	501.40	ppb	00:41:03
2	Cd 226.502†	43442.4	44001.5	509.47	ug/L	509.47	ppb	00:41:08
2	Co 228.616†	24020.2	24287.3	508.84	ug/L	508.84	ppb	00:41:08
2	Cr 267.716†	44733.8	45029.7	506.45	ug/L	506.45	ppb	00:41:08
2	Cu 324.752†	168744.9	164163.4	499.54	ug/L	499.54	ppb	00:41:08
2	Mn 257.610†	440309.1	443527.6	504.97	ug/L	504.97	ppb	00:41:03
2	Mo 202.031†	6713.4	6759.4	496.67	ug/L	496.67	ppb	00:41:28
2	Ni 231.604†	19895.1	19998.8	508.32	ug/L	508.32	ppb	00:41:08

2	P 214.914†	4299.4	4124.8	2386.0 ug/L	2386.0 ppb	00:41:28
2	Pb 220.353†	5490.5	5594.5	689.62 ug/L	689.62 ppb	00:41:28
2	S 181.975 Axial†	731.1	696.4	1001.3 ug/L	1001.3 ppb	00:41:28
2	Sb 206.836†	1419.0	1394.1	505.15 ug/L	505.15 ppb	00:41:28
2	Se 196.026†	722.3	756.1	511.31 ug/L	511.31 ppb	00:41:28
2	Si 251.611†	77969.0	78061.8	2519.9 ug/L	2519.9 ppb	00:41:08
2	Sn 189.927†	2742.7	2755.1	494.97 ug/L	494.97 ppb	00:41:28
2	Ti 334.940†	314368.5	318368.0	500.16 ug/L	500.16 ppb	00:41:08
2	Tl 190.801†	1524.7	1570.1	505.38 ug/L	505.38 ppb	00:41:28
2	U 409.014†	14557.9	17566.0	483.41 ug/L	483.41 ppb	00:41:08
2	V 292.402†	69764.4	71852.7	507.67 ug/L	507.67 ppb	00:41:08
2	Zn 213.857†	50733.4	50551.0	504.26 ug/L	504.26 ppb	00:41:08
2	SiO2†	78454.8	78555.6	5445.7 ug/L	5445.7 ppb	00:42:10
3	Sc Radial	3786.5	3786.5	96.6 %		00:40:05
3	Y RADIAL	4152.9	4152.9	94.15 %		00:40:05
3	Al 396.153Radial†	5131.9	5423.7	5062.3 ug/L	5062.3 ppb	00:40:05
3	Ca 317.933Radial†	2358.6	2421.4	5061.9 ug/L	5061.9 ppb	00:40:25
3	Fe 238.204 Radial†	333.6	333.9	4728.7 ug/L	4728.7 ppb	00:40:25
3	K 766.490 Radial†	28070.6	26412.0	5062.1 ug/L	5062.1 ppb	00:40:05
3	Mg 279.077 IEC†	101.9	101.4	4917.1 ug/L	4917.1 ppb	00:40:25
3	Na 589.592 Radial†	30904.9	32804.8	10115 ug/L	10115 ppb	00:40:05
3	Sr 421.552†	69192.9	71575.5	495.23 ug/L	495.23 ppb	00:40:05
3	Sc 361.383	875247.0	875247.0	99.774 %		00:41:34
3	Y 371.029	729645.0	729645.0	96.534 %		00:41:34
3	Ag 328.068†	107549.5	107552.9	501.29 ug/L	501.29 ppb	00:41:39
3	As 188.979†	1118.7	1139.5	513.04 ug/L	513.04 ppb	00:41:59
3	B 249.677†	19849.1	20292.3	489.78 ug/L	489.78 ppb	00:41:39
3	Ba 233.527†	63681.9	63827.7	502.12 ug/L	502.12 ppb	00:41:39
3	Be 313.107†	1308613.1	1315341.9	495.43 ug/L	495.43 ppb	00:41:34
3	Cd 226.502†	43392.0	43686.6	505.82 ug/L	505.82 ppb	00:41:39
3	Co 228.616†	23900.6	24021.3	503.30 ug/L	503.30 ppb	00:41:39
3	Cr 267.716†	44652.7	44676.2	502.49 ug/L	502.49 ppb	00:41:39
3	Cu 324.752†	167962.8	162352.8	494.03 ug/L	494.03 ppb	00:41:39
3	Mn 257.610†	435898.9	436428.4	496.89 ug/L	496.89 ppb	00:41:34
3	Mo 202.031†	6876.2	6881.6	505.65 ug/L	505.65 ppb	00:41:59
3	Ni 231.604†	19948.3	19931.1	506.60 ug/L	506.60 ppb	00:41:39
3	P 214.914†	4450.1	4249.7	2462.4 ug/L	2462.4 ppb	00:41:59
3	Pb 220.353†	5513.0	5583.6	688.31 ug/L	688.31 ppb	00:41:59
3	S 181.975 Axial†	743.7	704.6	1013.0 ug/L	1013.0 ppb	00:41:59
3	Sb 206.836†	1476.7	1443.3	522.72 ug/L	522.72 ppb	00:41:59
3	Se 196.026†	751.4	780.8	527.77 ug/L	527.77 ppb	00:41:59
3	Si 251.611†	77762.9	77380.8	2497.7 ug/L	2497.7 ppb	00:41:39
3	Sn 189.927†	2829.8	2825.8	507.65 ug/L	507.65 ppb	00:41:59
3	Ti 334.940†	313931.7	316017.5	496.47 ug/L	496.47 ppb	00:41:39
3	Tl 190.801†	1553.8	1589.9	511.69 ug/L	511.69 ppb	00:41:59
3	U 409.014†	14717.3	17637.3	485.37 ug/L	485.37 ppb	00:41:39
3	V 292.402†	69660.1	71323.7	504.10 ug/L	504.10 ppb	00:41:39
3	Zn 213.857†	50650.4	50159.2	500.32 ug/L	500.32 ppb	00:41:39
3	SiO2†	76820.5	76440.3	5298.5 ug/L	5298.5 ppb	00:42:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	874677.1	99.709	%	0.5077				0.51%
Sc Radial	3819.3	97.5	%	0.96				0.99%
Y 371.029	728396.8	96.369	%	0.5738				0.60%
Y RADIAL	4213.5	95.53	%	1.535				1.61%
Ag 328.068†	107295.6	500.09	ug/L	6.412	500.09	ppb	6.412	1.28%
QC value within limits for Ag 328.068 Recovery = 100.02%								
Al 396.153Radial†	5400.6	5040.9	ug/L	19.35	5040.9	ppb	19.35	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.82%								
As 188.979†	1121.1	504.80	ug/L	7.282	504.80	ppb	7.282	1.44%
QC value within limits for As 188.979 Recovery = 100.96%								
B 249.677†	20203.7	487.64	ug/L	8.651	487.64	ppb	8.651	1.77%
QC value within limits for B 249.677 Recovery = 97.53%								
Ba 233.527†	63690.3	501.03	ug/L	6.088	501.03	ppb	6.088	1.22%
QC value within limits for Ba 233.527 Recovery = 100.21%								
Be 313.107†	1320325.7	497.30	ug/L	3.555	497.30	ppb	3.555	0.71%
QC value within limits for Be 313.107 Recovery = 99.46%								
Ca 317.933Radial†	2415.2	5049.0	ug/L	30.66	5049.0	ppb	30.66	0.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.98%
Cd 226.502†            43588.5      504.68 ug/L         5.451      504.68 ppb          5.451   1.08%
   QC value within limits for Cd 226.502  Recovery = 100.94%
Co 228.616†            23988.6      502.60 ug/L         6.617      502.60 ppb          6.617   1.32%
   QC value within limits for Co 228.616  Recovery = 100.52%
Cr 267.716†            44530.6      500.85 ug/L         6.577      500.85 ppb          6.577   1.31%
   QC value within limits for Cr 267.716  Recovery = 100.17%
Cu 324.752†           161923.9      492.73 ug/L         7.546      492.73 ppb          7.546   1.53%
   QC value within limits for Cu 324.752  Recovery = 98.55%
Fe 238.204 Radial†       333.2      4717.6 ug/L        51.09      4717.6 ppb          51.09   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.35%
K 766.490 Radial†      26327.6      5045.9 ug/L        15.94      5045.9 ppb          15.94   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†          101.7      4929.3 ug/L        65.08      4929.3 ppb          65.08   1.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.59%
Mn 257.610†           438930.5      499.74 ug/L         4.534      499.74 ppb          4.534   0.91%
   QC value within limits for Mn 257.610  Recovery = 99.95%
Mo 202.031†             6793.0      499.15 ug/L         5.688      499.15 ppb          5.688   1.14%
   QC value within limits for Mo 202.031  Recovery = 99.83%
Na 589.592 Radial†     32895.9       10143 ug/L          50.2       10143 ppb           50.2   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 101.43%
Ni 231.604†            19826.3      503.94 ug/L         6.163      503.94 ppb          6.163   1.22%
   QC value within limits for Ni 231.604  Recovery = 100.79%
P 214.914†              4180.6      2421.0 ug/L        38.59      2421.0 ppb          38.59   1.59%
   QC value within limits for P 214.914  Recovery = 96.84%
Pb 220.353†             5589.4      689.00 ug/L         0.655      689.00 ppb          0.655   0.10%
   QC value greater than the upper limit for Pb 220.353  Recovery = 137.80%
S 181.975 Axial†         696.4      1001.2 ug/L        11.92      1001.2 ppb          11.92   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 100.12%
Sb 206.836†             1415.1      512.60 ug/L         9.088      512.60 ppb          9.088   1.77%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†              772.0      521.95 ug/L         9.227      521.95 ppb          9.227   1.77%
   QC value within limits for Se 196.026  Recovery = 104.39%
Si 251.611†            77194.2      2491.8 ug/L        31.51      2491.8 ppb          31.51   1.26%
   QC value within limits for Si 251.611  Recovery = 99.67%
Sn 189.927†             2782.6      499.89 ug/L         6.798      499.89 ppb          6.798   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.98%
Sr 421.552†            71635.8      495.65 ug/L         1.065      495.65 ppb          1.065   0.21%
   QC value within limits for Sr 421.552  Recovery = 99.13%
Ti 334.940†           314858.5      494.65 ug/L         6.613      494.65 ppb          6.613   1.34%
   QC value within limits for Ti 334.940  Recovery = 98.93%
Tl 190.801†             1572.7      506.19 ug/L         5.135      506.19 ppb          5.135   1.01%
   QC value within limits for Tl 190.801  Recovery = 101.24%
U 409.014†             17452.9      480.29 ug/L         7.173      480.29 ppb          7.173   1.49%
   QC value within limits for U 409.014  Recovery = 96.06%
V 292.402†             71050.4      502.10 ug/L         6.791      502.10 ppb          6.791   1.35%
   QC value within limits for V 292.402  Recovery = 100.42%
Zn 213.857†            50004.0      498.78 ug/L         6.390      498.78 ppb          6.390   1.28%
   QC value within limits for Zn 213.857  Recovery = 99.76%
SiO2†                  77696.1      5385.9 ug/L        77.42      5385.9 ppb          77.42   1.44%
   QC value within limits for SiO2  Recovery = 100.72%
QC Failed.  Continue with analysis.
```

Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/25/2010 00:44:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3793.2	3793.2	96.8	%			00:46:37
1	Y RADIAL	4340.6	4340.6	98.41	%			00:46:17
1	Al 396.153Radial†	-100.2	8.9	8.3036	ug/L	8.3036	ppb	00:46:17
1	Ca 317.933Radial†	15.5	-3.6	-7.6126	ug/L	-7.6126	ppb	00:46:37
1	Fe 238.204 Radial†	11.8	0.9	12.332	ug/L	12.332	ppb	00:46:37
1	K 766.490 Radial†	2772.0	224.1	43.020	ug/L	43.020	ppb	00:46:17
1	Mg 279.077 IEC†	3.9	-0.0	-0.6866	ug/L	-0.6866	ppb	00:46:37
1	Na 589.592 Radial†	-837.2	-45.1	-13.916	ug/L	-13.916	ppb	00:46:17
1	Sr 421.552†	40.5	6.1	0.0426	ug/L	0.0426	ppb	00:46:17
1	Sc 361.383	894458.3	894458.3	101.96	%			00:47:34
1	Y 371.029	753878.7	753878.7	99.740	%			00:47:34
1	Ag 328.068†	272.6	26.9	0.1276	ug/L	0.1276	ppb	00:47:39
1	As 188.979†	-16.4	2.2	0.9872	ug/L	0.9872	ppb	00:47:59
1	B 249.677†	-277.9	125.6	3.0445	ug/L	3.0445	ppb	00:47:59
1	Ba 233.527†	16.7	17.8	0.1396	ug/L	0.1396	ppb	00:47:59
1	Be 313.107†	-3727.1	106.9	0.0400	ug/L	0.0400	ppb	00:47:39
1	Cd 226.502†	-174.3	25.3	0.2921	ug/L	0.2921	ppb	00:47:59
1	Co 228.616†	-76.6	-8.5	-0.1775	ug/L	-0.1775	ppb	00:47:59
1	Cr 267.716†	81.6	2.3	0.0270	ug/L	0.0270	ppb	00:47:59
1	Cu 324.752†	6033.1	-73.9	-0.2244	ug/L	-0.2244	ppb	00:47:39
1	Mn 257.610†	525.4	56.6	0.0656	ug/L	0.0656	ppb	00:47:59
1	Mo 202.031†	19.2	8.7	0.6412	ug/L	0.6412	ppb	00:47:59
1	Ni 231.604†	60.6	-3.1	-0.0775	ug/L	-0.0775	ppb	00:47:59
1	P 214.914†	208.5	-6.1	-3.5959	ug/L	-3.5959	ppb	00:47:59
1	Pb 220.353†	1410.1	1441.1	177.24	ug/L	177.24	ppb	00:47:59
1	S 181.975 Axial†	38.9	-2.7	-3.8791	ug/L	-3.8791	ppb	00:47:59
1	Sb 206.836†	43.0	5.4	1.9458	ug/L	1.9458	ppb	00:47:59
1	Se 196.026†	-20.1	8.1	5.3176	ug/L	5.3176	ppb	00:47:59
1	Si 251.611†	680.4	109.0	3.5183	ug/L	3.5183	ppb	00:47:59
1	Sn 189.927†	22.7	11.8	2.1179	ug/L	2.1179	ppb	00:47:59
1	Ti 334.940†	-1449.2	-47.2	-0.0753	ug/L	-0.0753	ppb	00:47:39
1	Tl 190.801†	-32.2	1.0	0.3167	ug/L	0.3167	ppb	00:47:59
1	U 409.014†	-2927.8	15.2	0.4183	ug/L	0.4183	ppb	00:47:34
1	V 292.402†	-1560.3	-24.6	-0.1631	ug/L	-0.1631	ppb	00:47:39
1	Zn 213.857†	965.3	340.6	3.4280	ug/L	3.4280	ppb	00:47:59
1	SiO2†	673.3	106.0	7.3468	ug/L	7.3468	ppb	00:49:05
2	Sc Radial	3823.9	3823.9	97.6	%			00:47:02
2	Y RADIAL	4348.7	4348.7	98.59	%			00:46:42
2	Al 396.153Radial†	-119.4	-10.0	-9.3726	ug/L	-9.3726	ppb	00:46:42
2	Ca 317.933Radial†	19.6	0.4	0.8983	ug/L	0.8983	ppb	00:47:02
2	Fe 238.204 Radial†	13.5	2.5	35.843	ug/L	35.843	ppb	00:47:02
2	K 766.490 Radial†	2867.2	298.7	57.331	ug/L	57.331	ppb	00:46:42
2	Mg 279.077 IEC†	3.2	-0.8	-36.743	ug/L	-36.743	ppb	00:47:02
2	Na 589.592 Radial†	-889.2	-91.4	-28.196	ug/L	-28.196	ppb	00:46:42
2	Sr 421.552†	46.4	11.9	0.0821	ug/L	0.0821	ppb	00:46:42
2	Sc 361.383	898915.6	898915.6	102.47	%			00:48:04
2	Y 371.029	758223.6	758223.6	100.31	%			00:48:04
2	Ag 328.068†	244.6	-1.8	0.0008	ug/L	0.0008	ppb	00:48:09
2	As 188.979†	-20.7	-2.0	-0.8727	ug/L	-0.8727	ppb	00:48:29
2	B 249.677†	-295.1	110.3	2.6681	ug/L	2.6681	ppb	00:48:29
2	Ba 233.527†	11.0	12.1	0.0960	ug/L	0.0960	ppb	00:48:29
2	Be 313.107†	-3622.4	227.2	0.0853	ug/L	0.0853	ppb	00:48:09
2	Cd 226.502†	-174.9	25.6	0.2931	ug/L	0.2931	ppb	00:48:29
2	Co 228.616†	-80.9	-12.5	-0.2612	ug/L	-0.2612	ppb	00:48:29
2	Cr 267.716†	80.4	0.7	0.0107	ug/L	0.0107	ppb	00:48:29
2	Cu 324.752†	5882.1	-250.5	-0.7618	ug/L	-0.7618	ppb	00:48:09
2	Mn 257.610†	513.0	41.9	0.0527	ug/L	0.0527	ppb	00:48:29
2	Mo 202.031†	11.7	1.2	0.0928	ug/L	0.0928	ppb	00:48:29
2	Ni 231.604†	65.6	1.6	0.0399	ug/L	0.0399	ppb	00:48:29

2	P 214.914†	208.1	-7.4	-4.3339 ug/L	-4.3339 ppb	00:48:29
2	Pb 220.353†	1382.3	1407.1	173.05 ug/L	173.05 ppb	00:48:29
2	S 181.975 Axial†	45.7	3.8	5.4226 ug/L	5.4226 ppb	00:48:29
2	Sb 206.836†	42.1	4.3	1.5614 ug/L	1.5614 ppb	00:48:29
2	Se 196.026†	-25.8	2.5	1.7679 ug/L	1.7679 ppb	00:48:29
2	Si 251.611†	673.6	99.0	3.2024 ug/L	3.2024 ppb	00:48:29
2	Sn 189.927†	25.4	14.3	2.5624 ug/L	2.5624 ppb	00:48:29
2	Ti 334.940†	-1416.0	-7.8	-0.0102 ug/L	-0.0102 ppb	00:48:09
2	Tl 190.801†	-35.4	-2.0	-0.6427 ug/L	-0.6427 ppb	00:48:29
2	U 409.014†	-2867.0	88.7	2.4461 ug/L	2.4461 ppb	00:48:04
2	V 292.402†	-1547.8	-4.8	-0.0332 ug/L	-0.0332 ppb	00:48:09
2	Zn 213.857†	954.9	325.8	3.2752 ug/L	3.2752 ppb	00:48:29
2	SiO2†	689.6	118.5	8.2357 ug/L	8.2357 ppb	00:49:10
3	Sc Radial	3791.0	3791.0	96.7 %		00:47:27
3	Y RADIAL	4415.1	4415.1	100.1 %		00:47:07
3	Al 396.153Radial†	-114.0	-5.4	-5.0747 ug/L	-5.0747 ppb	00:47:07
3	Ca 317.933Radial†	22.0	3.1	6.4381 ug/L	6.4381 ppb	00:47:27
3	Fe 238.204 Radial†	10.9	-0.1	-1.1097 ug/L	-1.1097 ppb	00:47:27
3	K 766.490 Radial†	2799.8	254.6	48.862 ug/L	48.862 ppb	00:47:07
3	Mg 279.077 IEC†	6.6	2.8	134.90 ug/L	134.90 ppb	00:47:27
3	Na 589.592 Radial†	-883.9	-93.9	-28.954 ug/L	-28.954 ppb	00:47:07
3	Sr 421.552†	50.1	16.1	0.1112 ug/L	0.1112 ppb	00:47:07
3	Sc 361.383	907115.8	907115.8	103.41 %		00:48:34
3	Y 371.029	766249.5	766249.5	101.38 %		00:48:34
3	Ag 328.068†	239.6	-8.7	-0.0378 ug/L	-0.0378 ppb	00:48:39
3	As 188.979†	-14.2	4.5	2.0231 ug/L	2.0231 ppb	00:48:59
3	B 249.677†	-305.7	102.6	2.4883 ug/L	2.4883 ppb	00:48:59
3	Ba 233.527†	-0.8	0.6	0.0056 ug/L	0.0056 ppb	00:48:59
3	Be 313.107†	-3661.4	221.5	0.0831 ug/L	0.0831 ppb	00:48:39
3	Cd 226.502†	-181.4	20.8	0.2410 ug/L	0.2410 ppb	00:48:59
3	Co 228.616†	-65.7	3.0	0.0638 ug/L	0.0638 ppb	00:48:59
3	Cr 267.716†	65.1	-14.7	-0.1644 ug/L	-0.1644 ppb	00:48:59
3	Cu 324.752†	5998.8	-189.6	-0.5759 ug/L	-0.5759 ppb	00:48:39
3	Mn 257.610†	513.5	37.9	0.0375 ug/L	0.0375 ppb	00:48:59
3	Mo 202.031†	10.7	0.2	0.0164 ug/L	0.0164 ppb	00:48:59
3	Ni 231.604†	65.6	1.0	0.0250 ug/L	0.0250 ppb	00:48:59
3	P 214.914†	213.6	-4.0	-2.2665 ug/L	-2.2665 ppb	00:48:59
3	Pb 220.353†	1359.0	1372.3	168.78 ug/L	168.78 ppb	00:48:59
3	S 181.975 Axial†	33.7	-8.3	-11.885 ug/L	-11.885 ppb	00:48:59
3	Sb 206.836†	38.3	0.4	0.1667 ug/L	0.1667 ppb	00:48:59
3	Se 196.026†	-18.8	9.6	6.2780 ug/L	6.2780 ppb	00:48:59
3	Si 251.611†	653.1	73.3	2.3707 ug/L	2.3707 ppb	00:48:59
3	Sn 189.927†	23.1	11.9	2.1345 ug/L	2.1345 ppb	00:48:59
3	Ti 334.940†	-1457.5	-35.4	-0.0648 ug/L	-0.0648 ppb	00:48:39
3	Tl 190.801†	-33.5	0.1	0.0436 ug/L	0.0436 ppb	00:48:59
3	U 409.014†	-3063.1	-75.6	-2.0874 ug/L	-2.0874 ppb	00:48:34
3	V 292.402†	-1511.1	44.3	0.3082 ug/L	0.3082 ppb	00:48:39
3	Zn 213.857†	944.1	307.0	3.0911 ug/L	3.0911 ppb	00:48:59
3	SiO2†	664.0	87.8	6.0985 ug/L	6.0985 ppb	00:49:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900163.2	102.61	%	0.732				0.71%
Sc Radial	3802.7	97.0	%	0.47				0.48%
Y 371.029	759450.6	100.48	%	0.830				0.83%
Y RADIAL	4368.1	99.03	%	0.928				0.94%
Ag 328.068†	5.5	0.0302	ug/L	0.08651	0.0302	ppb	0.08651	286.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.2	-2.0479	ug/L	9.21862	-2.0479	ppb	9.21862	450.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.6	0.7125	ug/L	1.46735	0.7125	ppb	1.46735	205.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.8	2.7336	ug/L	0.28385	2.7336	ppb	0.28385	10.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.2	0.0804	ug/L	0.06834	0.0804	ppb	0.06834	84.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.2	0.0695	ug/L	0.02556	0.0695	ppb	0.02556	36.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.0	-0.0921	ug/L	7.07752	-0.0921	ppb	7.07752	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.9      0.2754 ug/L       0.02979      0.2754 ppb        0.02979  10.81%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.0     -0.1250 ug/L       0.16874     -0.1250 ppb        0.16874 135.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.9     -0.0422 ug/L       0.10613     -0.0422 ppb        0.10613 251.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -171.3     -0.5207 ug/L       0.27290     -0.5207 ppb        0.27290  52.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1      15.688 ug/L       18.7035      15.688 ppb        18.7035 119.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         259.1      49.738 ug/L        7.1958      49.738 ppb         7.1958  14.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      32.490 ug/L       90.5024      32.490 ppb        90.5024 278.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                45.5      0.0519 ug/L       0.01409      0.0519 ppb        0.01409  27.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.2501 ug/L       0.34083      0.2501 ppb        0.34083 136.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -76.8     -23.689 ug/L        8.4718     -23.689 ppb         8.4718  35.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.2     -0.0042 ug/L       0.06393     -0.0042 ppb        0.06393 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.8     -3.3988 ug/L       1.04768     -3.3988 ppb        1.04768  30.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              1406.8      173.02 ug/L         4.231      173.02 ppb          4.231   2.45%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.4     -3.4472 ug/L       8.66187     -3.4472 ppb        8.66187 251.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.4      1.2246 ug/L       0.93613      1.2246 ppb        0.93613  76.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.7      4.4545 ug/L       2.37574      4.4545 ppb        2.37574  53.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                93.7      3.0305 ug/L       0.59284      3.0305 ppb        0.59284  19.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                12.7      2.2716 ug/L       0.25197      2.2716 ppb        0.25197  11.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.4      0.0786 ug/L       0.03442      0.0786 ppb        0.03442  43.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -30.1     -0.0501 ug/L       0.03496     -0.0501 ppb        0.03496  69.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.0942 ug/L       0.49432     -0.0942 ppb        0.49432 524.94%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  9.4      0.2590 ug/L       2.27096      0.2590 ppb        2.27096 876.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  5.0      0.0373 ug/L       0.24342      0.0373 ppb        0.24342 652.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               324.5      3.2648 ug/L       0.16870      3.2648 ppb        0.16870   5.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     104.1      7.2270 ug/L       1.07362      7.2270 ppb        1.07362  14.86%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 78
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 01:48:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3751.5	3751.5	95.7	%			01:50:23
1	Y RADIAL	4178.2	4178.2	94.72	%			01:50:03
1	Al 396.153Radial†	5311.3	5660.6	5284.6	ug/L	5284.6	ppb	01:50:03
1	Ca 317.933Radial†	2454.1	2543.9	5318.0	ug/L	5318.0	ppb	01:50:23
1	Fe 238.204 Radial†	343.3	347.3	4916.7	ug/L	4916.7	ppb	01:50:23
1	K 766.490 Radial†	29141.5	27801.7	5328.6	ug/L	5328.6	ppb	01:50:03
1	Mg 279.077 IEC†	106.6	107.3	5201.9	ug/L	5201.9	ppb	01:50:23
1	Na 589.592 Radial†	31291.4	33506.9	10331	ug/L	10331	ppb	01:50:03
1	Sr 421.552†	71387.4	74535.9	515.72	ug/L	515.72	ppb	01:50:03
1	Sc 361.383	893450.3	893450.3	101.85	%			01:51:20
1	Y 371.029	742912.7	742912.7	98.289	%			01:51:20
1	Ag 328.068†	109836.4	107602.1	501.57	ug/L	501.57	ppb	01:51:26
1	As 188.979†	1141.3	1138.8	512.77	ug/L	512.77	ppb	01:51:46
1	B 249.677†	19904.4	19941.3	481.24	ug/L	481.24	ppb	01:51:26
1	Ba 233.527†	65002.3	63823.7	502.09	ug/L	502.09	ppb	01:51:26
1	Be 313.107†	1372437.5	1351285.4	508.94	ug/L	508.94	ppb	01:51:20
1	Cd 226.502†	44130.0	43525.2	503.93	ug/L	503.93	ppb	01:51:26
1	Co 228.616†	24419.2	24042.4	503.73	ug/L	503.73	ppb	01:51:26
1	Cr 267.716†	45420.6	44518.4	500.73	ug/L	500.73	ppb	01:51:26
1	Cu 324.752†	171346.6	162245.3	493.71	ug/L	493.71	ppb	01:51:26
1	Mn 257.610†	457591.3	448825.8	511.01	ug/L	511.01	ppb	01:51:20
1	Mo 202.031†	6969.2	6832.5	502.06	ug/L	502.06	ppb	01:51:46
1	Ni 231.604†	20230.3	19800.6	503.29	ug/L	503.29	ppb	01:51:26
1	P 214.914†	4464.1	4172.5	2415.8	ug/L	2415.8	ppb	01:51:46
1	Pb 220.353†	5442.5	5401.8	665.97	ug/L	665.97	ppb	01:51:46
1	S 181.975 Axial†	750.5	696.1	1000.7	ug/L	1000.7	ppb	01:51:46
1	Sb 206.836†	1497.3	1433.4	519.04	ug/L	519.04	ppb	01:51:46
1	Se 196.026†	760.1	774.0	523.87	ug/L	523.87	ppb	01:51:46
1	Si 251.611†	79292.3	77294.6	2495.0	ug/L	2495.0	ppb	01:51:26
1	Sn 189.927†	2842.4	2780.3	499.53	ug/L	499.53	ppb	01:51:46
1	Ti 334.940†	320493.1	316049.1	496.53	ug/L	496.53	ppb	01:51:26
1	Tl 190.801†	1572.3	1576.3	507.40	ug/L	507.40	ppb	01:51:46
1	U 409.014†	15147.8	17759.5	488.73	ug/L	488.73	ppb	01:51:26
1	V 292.402†	71059.4	71275.1	503.70	ug/L	503.70	ppb	01:51:26
1	Zn 213.857†	51472.1	49931.7	498.02	ug/L	498.02	ppb	01:51:26
1	SiO2†	80686.3	78667.1	5453.3	ug/L	5453.3	ppb	01:52:53
2	Sc Radial	3789.7	3789.7	96.7	%			01:50:48
2	Y RADIAL	4263.3	4263.3	96.65	%			01:50:28
2	Al 396.153Radial†	5431.5	5729.0	5348.6	ug/L	5348.6	ppb	01:50:28
2	Ca 317.933Radial†	2472.4	2536.9	5303.5	ug/L	5303.5	ppb	01:50:48
2	Fe 238.204 Radial†	345.5	346.0	4898.7	ug/L	4898.7	ppb	01:50:48
2	K 766.490 Radial†	29501.6	27867.3	5341.2	ug/L	5341.2	ppb	01:50:28
2	Mg 279.077 IEC†	110.0	109.6	5315.9	ug/L	5315.9	ppb	01:50:48
2	Na 589.592 Radial†	31572.3	33468.0	10319	ug/L	10319	ppb	01:50:28
2	Sr 421.552†	72571.3	75008.6	518.99	ug/L	518.99	ppb	01:50:28
2	Sc 361.383	894788.0	894788.0	102.00	%			01:51:51
2	Y 371.029	744407.6	744407.6	98.487	%			01:51:51
2	Ag 328.068†	110561.7	108151.9	504.12	ug/L	504.12	ppb	01:51:57
2	As 188.979†	1140.0	1135.9	511.49	ug/L	511.49	ppb	01:52:17
2	B 249.677†	20105.9	20109.7	485.32	ug/L	485.32	ppb	01:51:57
2	Ba 233.527†	65433.0	64150.6	504.66	ug/L	504.66	ppb	01:51:57
2	Be 313.107†	1378804.9	1355513.2	510.53	ug/L	510.53	ppb	01:51:51
2	Cd 226.502†	44339.2	43665.5	505.55	ug/L	505.55	ppb	01:51:57
2	Co 228.616†	24574.4	24158.7	506.16	ug/L	506.16	ppb	01:51:57
2	Cr 267.716†	45759.3	44783.8	503.71	ug/L	503.71	ppb	01:51:57
2	Cu 324.752†	172514.9	163139.2	496.43	ug/L	496.43	ppb	01:51:57
2	Mn 257.610†	459182.8	449714.3	512.01	ug/L	512.01	ppb	01:51:51
2	Mo 202.031†	7008.7	6861.0	504.15	ug/L	504.15	ppb	01:52:17
2	Ni 231.604†	20350.7	19888.9	505.53	ug/L	505.53	ppb	01:51:57

2	P 214.914†	4498.2	4199.4	2431.5 ug/L	2431.5 ppb	01:52:17
2	Pb 220.353†	5402.1	5354.2	660.13 ug/L	660.13 ppb	01:52:17
2	S 181.975 Axial†	763.0	707.2	1016.7 ug/L	1016.7 ppb	01:52:17
2	Sb 206.836†	1496.2	1430.2	517.99 ug/L	517.99 ppb	01:52:17
2	Se 196.026†	767.3	780.0	527.72 ug/L	527.72 ppb	01:52:17
2	Si 251.611†	79742.2	77619.2	2505.5 ug/L	2505.5 ppb	01:51:57
2	Sn 189.927†	2853.1	2786.7	500.66 ug/L	500.66 ppb	01:52:17
2	Ti 334.940†	323054.1	318089.4	499.73 ug/L	499.73 ppb	01:51:57
2	Tl 190.801†	1591.1	1592.4	512.57 ug/L	512.57 ppb	01:52:17
2	U 409.014†	15122.9	17712.7	487.44 ug/L	487.44 ppb	01:51:57
2	V 292.402†	71660.4	71760.0	507.11 ug/L	507.11 ppb	01:51:57
2	Zn 213.857†	51610.1	49991.4	498.61 ug/L	498.61 ppb	01:51:57
2	SiO2†	80393.2	78261.4	5425.1 ug/L	5425.1 ppb	01:52:58
3	Sc Radial	3711.3	3711.3	94.7 %		01:51:13
3	Y RADIAL	4245.6	4245.6	96.25 %		01:50:53
3	Al 396.153Radial†	5434.8	5851.0	5462.6 ug/L	5462.6 ppb	01:50:53
3	Ca 317.933Radial†	2430.1	2546.3	5323.0 ug/L	5323.0 ppb	01:51:13
3	Fe 238.204 Radial†	339.7	347.4	4919.0 ug/L	4919.0 ppb	01:51:13
3	K 766.490 Radial†	29530.0	28541.2	5470.4 ug/L	5470.4 ppb	01:50:53
3	Mg 279.077 IEC†	104.7	106.5	5163.1 ug/L	5163.1 ppb	01:51:13
3	Na 589.592 Radial†	31563.7	34148.0	10529 ug/L	10529 ppb	01:50:53
3	Sr 421.552†	72483.8	76500.1	529.31 ug/L	529.31 ppb	01:50:53
3	Sc 361.383	880564.6	880564.6	100.38 %		01:52:22
3	Y 371.029	733791.9	733791.9	97.082 %		01:52:22
3	Ag 328.068†	112054.0	111389.4	519.18 ug/L	519.18 ppb	01:52:28
3	As 188.979†	1154.7	1168.6	526.19 ug/L	526.19 ppb	01:52:48
3	B 249.677†	20514.2	20834.8	502.86 ug/L	502.86 ppb	01:52:28
3	Ba 233.527†	66402.8	66152.9	520.41 ug/L	520.41 ppb	01:52:28
3	Be 313.107†	1354270.1	1352905.6	509.59 ug/L	509.59 ppb	01:52:22
3	Cd 226.502†	45006.9	45032.8	521.40 ug/L	521.40 ppb	01:52:28
3	Co 228.616†	24846.4	24818.8	519.99 ug/L	519.99 ppb	01:52:28
3	Cr 267.716†	46538.8	46285.0	520.58 ug/L	520.58 ppb	01:52:28
3	Cu 324.752†	175449.2	168794.2	513.63 ug/L	513.63 ppb	01:52:28
3	Mn 257.610†	450004.9	447842.7	509.89 ug/L	509.89 ppb	01:52:22
3	Mo 202.031†	7054.5	7017.7	515.66 ug/L	515.66 ppb	01:52:48
3	Ni 231.604†	20658.2	20517.5	521.51 ug/L	521.51 ppb	01:52:28
3	P 214.914†	4517.1	4289.5	2482.5 ug/L	2482.5 ppb	01:52:48
3	Pb 220.353†	5373.8	5411.6	667.23 ug/L	667.23 ppb	01:52:48
3	S 181.975 Axial†	764.1	720.4	1035.7 ug/L	1035.7 ppb	01:52:48
3	Sb 206.836†	1509.4	1467.0	531.29 ug/L	531.29 ppb	01:52:48
3	Se 196.026†	780.4	805.2	544.35 ug/L	544.35 ppb	01:52:48
3	Si 251.611†	80834.2	79969.9	2581.4 ug/L	2581.4 ppb	01:52:28
3	Sn 189.927†	2882.4	2861.0	514.01 ug/L	514.01 ppb	01:52:48
3	Ti 334.940†	327691.7	327825.3	515.03 ug/L	515.03 ppb	01:52:28
3	Tl 190.801†	1591.0	1617.6	520.64 ug/L	520.64 ppb	01:52:48
3	U 409.014†	15537.5	18365.3	505.42 ug/L	505.42 ppb	01:52:28
3	V 292.402†	72801.4	74031.5	523.12 ug/L	523.12 ppb	01:52:28
3	Zn 213.857†	52424.5	51620.0	514.88 ug/L	514.88 ppb	01:52:28
3	SiO2†	79202.4	78348.1	5430.8 ug/L	5430.8 ppb	01:53:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889601.0	101.41	%	0.895				0.88%
Sc Radial	3750.8	95.7	%	1.00				1.04%
Y 371.029	740370.8	97.953	%	0.7602				0.78%
Y RADIAL	4229.0	95.88	%	1.018				1.06%
Ag 328.068†	109047.8	508.29	ug/L	9.516	508.29	ppb	9.516	1.87%
QC value within limits for Ag 328.068 Recovery = 101.66%								
Al 396.153Radial†	5746.9	5365.3	ug/L	90.13	5365.3	ppb	90.13	1.68%
QC value within limits for Al 396.153Radial Recovery = 107.31%								
As 188.979†	1147.7	516.82	ug/L	8.141	516.82	ppb	8.141	1.58%
QC value within limits for As 188.979 Recovery = 103.36%								
B 249.677†	20295.3	489.81	ug/L	11.486	489.81	ppb	11.486	2.34%
QC value within limits for B 249.677 Recovery = 97.96%								
Ba 233.527†	64709.0	509.05	ug/L	9.919	509.05	ppb	9.919	1.95%
QC value within limits for Ba 233.527 Recovery = 101.81%								
Be 313.107†	1353234.8	509.69	ug/L	0.803	509.69	ppb	0.803	0.16%
QC value within limits for Be 313.107 Recovery = 101.94%								
Ca 317.933Radial†	2542.4	5314.8	ug/L	10.14	5314.8	ppb	10.14	0.19%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.30%
Cd 226.502†            44074.5      510.29 ug/L         9.653      510.29 ppb          9.653   1.89%
   QC value within limits for Cd 226.502  Recovery = 102.06%
Co 228.616†            24340.0      509.96 ug/L         8.768      509.96 ppb          8.768   1.72%
   QC value within limits for Co 228.616  Recovery = 101.99%
Cr 267.716†            45195.7      508.34 ug/L        10.705      508.34 ppb         10.705   2.11%
   QC value within limits for Cr 267.716  Recovery = 101.67%
Cu 324.752†           164726.2      501.26 ug/L        10.801      501.26 ppb         10.801   2.15%
   QC value within limits for Cu 324.752  Recovery = 100.25%
Fe 238.204 Radial†       346.9      4911.5 ug/L        11.13      4911.5 ppb          11.13   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.23%
K 766.490 Radial†      28070.1      5380.0 ug/L        78.49      5380.0 ppb          78.49   1.46%
   QC value within limits for K 766.490 Radial  Recovery = 107.60%
Mg 279.077 IEC†          107.8      5227.0 ug/L        79.44      5227.0 ppb          79.44   1.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.54%
Mn 257.610†           448794.2      510.97 ug/L         1.061      510.97 ppb          1.061   0.21%
   QC value within limits for Mn 257.610  Recovery = 102.19%
Mo 202.031†             6903.7      507.29 ug/L         7.320      507.29 ppb          7.320   1.44%
   QC value within limits for Mo 202.031  Recovery = 101.46%
Na 589.592 Radial†     33707.6       10393 ug/L        117.7       10393 ppb          117.7   1.13%
   QC value within limits for Na 589.592 Radial  Recovery = 103.93%
Ni 231.604†            20069.0      510.11 ug/L         9.937      510.11 ppb          9.937   1.95%
   QC value within limits for Ni 231.604  Recovery = 102.02%
P 214.914†              4220.5      2443.3 ug/L        34.82      2443.3 ppb          34.82   1.43%
   QC value within limits for P 214.914  Recovery = 97.73%
Pb 220.353†             5389.2      664.44 ug/L         3.787      664.44 ppb          3.787   0.57%
   QC value greater than the upper limit for Pb 220.353  Recovery = 132.89%
S 181.975 Axial†         707.9      1017.7 ug/L        17.51      1017.7 ppb          17.51   1.72%
   QC value within limits for S 181.975 Axial  Recovery = 101.77%
Sb 206.836†             1443.5      522.77 ug/L         7.395      522.77 ppb          7.395   1.41%
   QC value within limits for Sb 206.836  Recovery = 104.55%
Se 196.026†              786.4      531.98 ug/L        10.884      531.98 ppb         10.884   2.05%
   QC value within limits for Se 196.026  Recovery = 106.40%
Si 251.611†            78294.6      2527.3 ug/L        47.15      2527.3 ppb          47.15   1.87%
   QC value within limits for Si 251.611  Recovery = 101.09%
Sn 189.927†             2809.3      504.73 ug/L         8.052      504.73 ppb          8.052   1.60%
   QC value within limits for Sn 189.927  Recovery = 100.95%
Sr 421.552†            75348.2      521.34 ug/L         7.094      521.34 ppb          7.094   1.36%
   QC value within limits for Sr 421.552  Recovery = 104.27%
Ti 334.940†           320654.6      503.76 ug/L         9.886      503.76 ppb          9.886   1.96%
   QC value within limits for Ti 334.940  Recovery = 100.75%
Tl 190.801†             1595.4      513.54 ug/L         6.676      513.54 ppb          6.676   1.30%
   QC value within limits for Tl 190.801  Recovery = 102.71%
U 409.014†             17945.8      493.86 ug/L        10.027      493.86 ppb         10.027   2.03%
   QC value within limits for U 409.014  Recovery = 98.77%
V 292.402†             72355.5      511.31 ug/L        10.367      511.31 ppb         10.367   2.03%
   QC value within limits for V 292.402  Recovery = 102.26%
Zn 213.857†            50514.4      503.84 ug/L         9.565      503.84 ppb          9.565   1.90%
   QC value within limits for Zn 213.857  Recovery = 100.77%
SiO2†                  78425.5      5436.4 ug/L        14.94      5436.4 ppb          14.94   0.27%
   QC value within limits for SiO2  Recovery = 101.66%
QC Failed.  Continue with analysis.
```

Sequence No.: 79
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 01:55:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3904.2	3904.2	99.6	%			01:57:26
1	Y RADIAL	4278.1	4278.1	96.99	%			01:57:06
1	Al 396.153Radial†	-92.0	20.1	18.802	ug/L	18.802	ppb	01:57:06
1	Ca 317.933Radial†	19.9	0.3	0.5597	ug/L	0.5597	ppb	01:57:26
1	Fe 238.204 Radial†	11.8	0.5	7.5867	ug/L	7.5867	ppb	01:57:26
1	K 766.490 Radial†	2841.1	212.1	40.688	ug/L	40.688	ppb	01:57:06
1	Mg 279.077 IEC†	3.7	-0.3	-15.760	ug/L	-15.760	ppb	01:57:26
1	Na 589.592 Radial†	-757.7	59.2	18.252	ug/L	18.252	ppb	01:57:06
1	Sr 421.552†	26.9	-8.7	-0.0601	ug/L	-0.0601	ppb	01:57:06
1	Sc 361.383	878431.0	878431.0	100.14	%			01:58:23
1	Y 371.029	741529.1	741529.1	98.106	%			01:58:23
1	Ag 328.068†	260.7	20.0	0.0981	ug/L	0.0981	ppb	01:58:23
1	As 188.979†	-23.1	-4.8	-2.1303	ug/L	-2.1303	ppb	01:58:43
1	B 249.677†	-456.4	-57.6	-1.3977	ug/L	-1.3977	ppb	01:58:43
1	Ba 233.527†	19.4	20.8	0.1634	ug/L	0.1634	ppb	01:58:43
1	Be 313.107†	-3735.2	32.1	0.0118	ug/L	0.0118	ppb	01:58:23
1	Cd 226.502†	-181.3	15.2	0.1751	ug/L	0.1751	ppb	01:58:43
1	Co 228.616†	-59.4	7.2	0.1522	ug/L	0.1522	ppb	01:58:43
1	Cr 267.716†	82.7	4.9	0.0570	ug/L	0.0570	ppb	01:58:43
1	Cu 324.752†	5947.6	-51.3	-0.1540	ug/L	-0.1540	ppb	01:58:23
1	Mn 257.610†	525.9	66.4	0.0770	ug/L	0.0770	ppb	01:58:43
1	Mo 202.031†	14.0	3.8	0.2804	ug/L	0.2804	ppb	01:58:43
1	Ni 231.604†	63.8	1.2	0.0315	ug/L	0.0315	ppb	01:58:43
1	P 214.914†	203.1	-7.7	-4.6008	ug/L	-4.6008	ppb	01:58:43
1	Pb 220.353†	849.2	906.1	111.45	ug/L	111.45	ppb	01:58:43
1	S 181.975 Axial†	41.5	0.7	0.9818	ug/L	0.9818	ppb	01:58:43
1	Sb 206.836†	52.1	15.3	5.3843	ug/L	5.3843	ppb	01:58:43
1	Se 196.026†	-25.9	1.9	1.2899	ug/L	1.2899	ppb	01:58:43
1	Si 251.611†	611.0	51.8	1.6739	ug/L	1.6739	ppb	01:58:43
1	Sn 189.927†	16.1	5.6	1.0023	ug/L	1.0023	ppb	01:58:43
1	Ti 334.940†	-1439.6	-63.6	-0.0971	ug/L	-0.0971	ppb	01:58:23
1	Tl 190.801†	-27.7	4.9	1.5635	ug/L	1.5635	ppb	01:58:43
1	U 409.014†	-3005.7	-115.0	-3.1775	ug/L	-3.1775	ppb	01:58:23
1	V 292.402†	-1486.9	20.8	0.1416	ug/L	0.1416	ppb	01:58:23
1	Zn 213.857†	780.0	172.9	1.7390	ug/L	1.7390	ppb	01:58:43
1	SiO2†	615.9	60.6	4.2068	ug/L	4.2068	ppb	01:59:39
2	Sc Radial	3807.5	3807.5	97.2	%			01:57:51
2	Y RADIAL	4388.9	4388.9	99.50	%			01:57:31
2	Al 396.153Radial†	-109.2	0.0	0.0381	ug/L	0.0381	ppb	01:57:31
2	Ca 317.933Radial†	19.1	0.0	0.0552	ug/L	0.0552	ppb	01:57:51
2	Fe 238.204 Radial†	10.2	-0.8	-11.336	ug/L	-11.336	ppb	01:57:51
2	K 766.490 Radial†	2689.5	128.6	24.682	ug/L	24.682	ppb	01:57:31
2	Mg 279.077 IEC†	1.6	-2.5	-118.97	ug/L	-118.97	ppb	01:57:51
2	Na 589.592 Radial†	-858.8	-64.1	-19.777	ug/L	-19.777	ppb	01:57:31
2	Sr 421.552†	4.4	-31.2	-0.2156	ug/L	-0.2156	ppb	01:57:31
2	Sc 361.383	891701.1	891701.1	101.65	%			01:58:48
2	Y 371.029	753557.3	753557.3	99.697	%			01:58:48
2	Ag 328.068†	251.7	7.2	0.0327	ug/L	0.0327	ppb	01:58:48
2	As 188.979†	-24.2	-5.5	-2.4633	ug/L	-2.4633	ppb	01:59:08
2	B 249.677†	-450.7	-45.2	-1.0939	ug/L	-1.0939	ppb	01:59:08
2	Ba 233.527†	0.3	1.7	0.0121	ug/L	0.0121	ppb	01:59:08
2	Be 313.107†	-3785.2	38.4	0.0146	ug/L	0.0146	ppb	01:58:48
2	Cd 226.502†	-178.4	20.8	0.2406	ug/L	0.2406	ppb	01:59:08
2	Co 228.616†	-62.7	4.8	0.1009	ug/L	0.1009	ppb	01:59:08
2	Cr 267.716†	96.0	16.8	0.1888	ug/L	0.1888	ppb	01:59:08
2	Cu 324.752†	6037.9	-50.8	-0.1526	ug/L	-0.1526	ppb	01:58:48
2	Mn 257.610†	523.9	56.7	0.0682	ug/L	0.0682	ppb	01:59:08
2	Mo 202.031†	8.4	-1.8	-0.1366	ug/L	-0.1366	ppb	01:59:08
2	Ni 231.604†	59.7	-3.7	-0.0943	ug/L	-0.0943	ppb	01:59:08

2	P 214.914†	211.8	-2.2	-1.2692 ug/L	-1.2692 ppb	01:59:08
2	Pb 220.353†	831.1	875.8	107.71 ug/L	107.71 ppb	01:59:08
2	S 181.975 Axial†	41.2	-0.2	-0.3414 ug/L	-0.3414 ppb	01:59:08
2	Sb 206.836†	38.2	0.9	0.3113 ug/L	0.3113 ppb	01:59:08
2	Se 196.026†	-26.9	1.3	0.7834 ug/L	0.7834 ppb	01:59:08
2	Si 251.611†	607.6	39.4	1.2774 ug/L	1.2774 ppb	01:59:08
2	Sn 189.927†	11.6	0.9	0.1665 ug/L	0.1665 ppb	01:59:08
2	Ti 334.940†	-1337.0	58.8	0.1042 ug/L	0.1042 ppb	01:58:48
2	Tl 190.801†	-31.6	1.5	0.4837 ug/L	0.4837 ppb	01:59:08
2	U 409.014†	-3111.5	-174.4	-4.8146 ug/L	-4.8146 ppb	01:58:48
2	V 292.402†	-1576.8	-45.6	-0.3297 ug/L	-0.3297 ppb	01:58:48
2	Zn 213.857†	797.4	178.4	1.7982 ug/L	1.7982 ppb	01:59:08
2	SiO2†	629.4	64.8	4.5044 ug/L	4.5044 ppb	01:59:44
3	Sc Radial	3794.1	3794.1	96.8 %		01:58:16
3	Y RADIAL	4276.4	4276.4	96.95 %		01:57:56
3	Al 396.153Radial†	-102.8	6.3	5.8953 ug/L	5.8953 ppb	01:57:56
3	Ca 317.933Radial†	23.1	4.2	8.7458 ug/L	8.7458 ppb	01:58:16
3	Fe 238.204 Radial†	10.3	-0.7	-10.062 ug/L	-10.062 ppb	01:58:16
3	K 766.490 Radial†	2770.7	222.2	42.646 ug/L	42.646 ppb	01:57:56
3	Mg 279.077 IEC†	1.6	-2.4	-116.03 ug/L	-116.03 ppb	01:58:16
3	Na 589.592 Radial†	-833.1	-40.7	-12.548 ug/L	-12.548 ppb	01:57:56
3	Sr 421.552†	75.3	42.0	0.2907 ug/L	0.2907 ppb	01:57:56
3	Sc 361.383	900277.4	900277.4	102.63 %		01:59:13
3	Y 371.029	761244.3	761244.3	100.71 %		01:59:13
3	Ag 328.068†	219.0	-27.0	-0.1230 ug/L	-0.1230 ppb	01:59:13
3	As 188.979†	-19.2	-0.4	-0.1866 ug/L	-0.1866 ppb	01:59:33
3	B 249.677†	-459.8	-49.8	-1.2058 ug/L	-1.2058 ppb	01:59:33
3	Ba 233.527†	-1.7	-0.3	-0.0013 ug/L	-0.0013 ppb	01:59:33
3	Be 313.107†	-3731.5	126.2	0.0474 ug/L	0.0474 ppb	01:59:13
3	Cd 226.502†	-164.8	35.6	0.4132 ug/L	0.4132 ppb	01:59:33
3	Co 228.616†	-54.8	13.2	0.2751 ug/L	0.2751 ppb	01:59:33
3	Cr 267.716†	69.9	-9.6	-0.1066 ug/L	-0.1066 ppb	01:59:33
3	Cu 324.752†	6073.0	-73.2	-0.2213 ug/L	-0.2213 ppb	01:59:13
3	Mn 257.610†	524.9	52.8	0.0638 ug/L	0.0638 ppb	01:59:33
3	Mo 202.031†	6.1	-4.2	-0.3073 ug/L	-0.3073 ppb	01:59:33
3	Ni 231.604†	72.2	7.9	0.2020 ug/L	0.2020 ppb	01:59:33
3	P 214.914†	206.1	-9.7	-5.7786 ug/L	-5.7786 ppb	01:59:33
3	Pb 220.353†	799.8	837.4	102.99 ug/L	102.99 ppb	01:59:33
3	S 181.975 Axial†	41.5	-0.4	-0.5192 ug/L	-0.5192 ppb	01:59:33
3	Sb 206.836†	50.4	12.4	4.3208 ug/L	4.3208 ppb	01:59:33
3	Se 196.026†	-26.4	2.0	1.2824 ug/L	1.2824 ppb	01:59:33
3	Si 251.611†	613.2	39.2	1.2724 ug/L	1.2724 ppb	01:59:33
3	Sn 189.927†	5.0	-5.6	-0.9990 ug/L	-0.9990 ppb	01:59:33
3	Ti 334.940†	-1416.7	-6.3	0.0024 ug/L	0.0024 ppb	01:59:13
3	Tl 190.801†	-28.0	5.3	1.7054 ug/L	1.7054 ppb	01:59:33
3	U 409.014†	-3103.6	-137.5	-3.7954 ug/L	-3.7954 ppb	01:59:13
3	V 292.402†	-1463.3	79.8	0.5442 ug/L	0.5442 ppb	01:59:13
3	Zn 213.857†	789.1	162.9	1.6404 ug/L	1.6404 ppb	01:59:33
3	SiO2†	606.5	36.6	2.5493 ug/L	2.5493 ppb	01:59:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890136.5	101.47	%	1.255				1.24%
Sc Radial	3835.3	97.9	%	1.53				1.57%
Y 371.029	752110.2	99.506	%	1.3147				1.32%
Y RADIAL	4314.5	97.81	%	1.462				1.49%
Ag 328.068†	0.1	0.0026	ug/L	0.11359	0.0026	ppb	0.11359	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.8	8.2452	ug/L	9.60018	8.2452	ppb	9.60018	116.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.6	-1.5934	ug/L	1.22964	-1.5934	ppb	1.22964	77.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-50.8	-1.2325	ug/L	0.15366	-1.2325	ppb	0.15366	12.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.0581	ug/L	0.09149	0.0581	ppb	0.09149	157.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.6	0.0246	ug/L	0.01978	0.0246	ppb	0.01978	80.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	3.1202	ug/L	4.87843	3.1202	ppb	4.87843	156.35%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.9      0.2763 ug/L       0.12298      0.2763 ppb        0.12298  44.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.4      0.1761 ug/L       0.08956      0.1761 ppb        0.08956  50.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.0      0.0464 ug/L       0.14801      0.0464 ppb        0.14801 319.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -58.5     -0.1760 ug/L       0.03928     -0.1760 ppb        0.03928  22.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -4.6036 ug/L      10.57633     -4.6036 ppb       10.57633 229.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         187.6      36.005 ug/L        9.8552      36.005 ppb         9.8552  27.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.7     -83.589 ug/L       58.7599     -83.589 ppb        58.7599  70.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                58.6      0.0697 ug/L       0.00670      0.0697 ppb        0.00670   9.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.7     -0.0545 ug/L       0.30231     -0.0545 ppb        0.30231 554.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -15.2     -4.6910 ug/L      20.19557     -4.6910 ppb       20.19557 430.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.8      0.0464 ug/L       0.14870      0.0464 ppb        0.14870 320.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.5     -3.8829 ug/L       2.33884     -3.8829 ppb        2.33884  60.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               873.1      107.38 ug/L         4.238      107.38 ppb          4.238   3.95%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.0404 ug/L       0.82010      0.0404 ppb        0.82010 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.6      3.3388 ug/L       2.67528      3.3388 ppb        2.67528  80.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7      1.1185 ug/L       0.29028      1.1185 ppb        0.29028  25.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                43.5      1.4079 ug/L       0.23037      1.4079 ppb        0.23037  16.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.3      0.0566 ug/L       1.00515      0.0566 ppb        1.00515 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.7      0.0050 ug/L       0.25935      0.0050 ppb        0.25935 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -3.7      0.0032 ug/L       0.10067      0.0032 ppb        0.10067 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.9      1.2509 ug/L       0.66819      1.2509 ppb        0.66819  53.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -142.3     -3.9292 ug/L       0.82674     -3.9292 ppb        0.82674  21.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.3      0.1187 ug/L       0.43742      0.1187 ppb        0.43742 368.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               171.4      1.7259 ug/L       0.07971      1.7259 ppb        0.07971   4.62%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      54.0      3.7535 ug/L       1.05345      3.7535 ppb        1.05345  28.07%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 89
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 03:04:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4065.6	4065.6	104	%			03:06:50
1	Y RADIAL	4474.7	4474.7	101.4	%			03:06:50
1	Al 396.153Radial†	5404.7	5322.0	4966.6	ug/L	4966.6	ppb	03:06:50
1	Ca 317.933Radial†	2441.3	2333.5	4878.2	ug/L	4878.2	ppb	03:07:10
1	Fe 238.204 Radial†	338.4	314.9	4460.2	ug/L	4460.2	ppb	03:07:10
1	K 766.490 Radial†	29493.9	25789.3	4942.9	ug/L	4942.9	ppb	03:06:50
1	Mg 279.077 IEC†	107.4	99.5	4823.1	ug/L	4823.1	ppb	03:07:10
1	Na 589.592 Radial†	30990.7	30691.4	9463.0	ug/L	9463.0	ppb	03:06:50
1	Sr 421.552†	71434.0	68818.9	476.16	ug/L	476.16	ppb	03:06:50
1	Sc 361.383	894644.9	894644.9	101.99	%			03:08:07
1	Y 371.029	744690.0	744690.0	98.524	%			03:08:07
1	Ag 328.068†	113030.7	110590.2	515.32	ug/L	515.32	ppb	03:08:12
1	As 188.979†	1154.5	1150.2	517.92	ug/L	517.92	ppb	03:08:33
1	B 249.677†	20852.1	20844.4	503.17	ug/L	503.17	ppb	03:08:12
1	Ba 233.527†	66842.6	65542.9	515.60	ug/L	515.60	ppb	03:08:12
1	Be 313.107†	1380668.5	1357556.9	511.34	ug/L	511.34	ppb	03:08:07
1	Cd 226.502†	45359.2	44672.6	517.27	ug/L	517.27	ppb	03:08:12
1	Co 228.616†	25114.9	24692.6	517.34	ug/L	517.34	ppb	03:08:12
1	Cr 267.716†	46823.4	45834.3	515.47	ug/L	515.47	ppb	03:08:12
1	Cu 324.752†	176815.2	167382.8	509.32	ug/L	509.32	ppb	03:08:12
1	Mn 257.610†	459519.7	450116.7	512.45	ug/L	512.45	ppb	03:08:07
1	Mo 202.031†	7105.8	6957.4	511.19	ug/L	511.19	ppb	03:08:33
1	Ni 231.604†	20809.3	20341.8	517.04	ug/L	517.04	ppb	03:08:12
1	P 214.914†	4579.6	4280.0	2477.8	ug/L	2477.8	ppb	03:08:33
1	Pb 220.353†	4372.7	4345.7	536.07	ug/L	536.07	ppb	03:08:33
1	S 181.975 Axial†	773.2	717.4	1031.4	ug/L	1031.4	ppb	03:08:33
1	Sb 206.836†	1529.2	1462.8	529.72	ug/L	529.72	ppb	03:08:33
1	Se 196.026†	788.7	801.1	540.23	ug/L	540.23	ppb	03:08:33
1	Si 251.611†	81535.4	79390.0	2562.7	ug/L	2562.7	ppb	03:08:12
1	Sn 189.927†	2924.4	2857.0	513.23	ug/L	513.23	ppb	03:08:33
1	Ti 334.940†	333303.1	328189.6	515.57	ug/L	515.57	ppb	03:08:07
1	Tl 190.801†	1602.8	1604.2	516.39	ug/L	516.39	ppb	03:08:33
1	U 409.014†	15585.5	18168.7	500.05	ug/L	500.05	ppb	03:08:12
1	V 292.402†	73158.8	73240.5	517.59	ug/L	517.59	ppb	03:08:12
1	Zn 213.857†	52924.1	51288.0	511.64	ug/L	511.64	ppb	03:08:12
1	SiO2†	79943.4	77832.9	5395.1	ug/L	5395.1	ppb	03:09:40
2	Sc Radial	3923.0	3923.0	100	%			03:07:15
2	Y RADIAL	4322.6	4322.6	98.00	%			03:07:15
2	Al 396.153Radial†	5424.2	5530.8	5162.7	ug/L	5162.7	ppb	03:07:15
2	Ca 317.933Radial†	2466.3	2444.0	5109.1	ug/L	5109.1	ppb	03:07:35
2	Fe 238.204 Radial†	343.3	331.6	4695.5	ug/L	4695.5	ppb	03:07:35
2	K 766.490 Radial†	29569.4	26898.2	5155.5	ug/L	5155.5	ppb	03:07:15
2	Mg 279.077 IEC†	108.8	104.6	5074.1	ug/L	5074.1	ppb	03:07:35
2	Na 589.592 Radial†	30848.0	31634.8	9753.9	ug/L	9753.9	ppb	03:07:15
2	Sr 421.552†	71392.9	71281.0	493.19	ug/L	493.19	ppb	03:07:15
2	Sc 361.383	899506.6	899506.6	102.54	%			03:08:38
2	Y 371.029	747149.5	747149.5	98.850	%			03:08:38
2	Ag 328.068†	112007.2	108993.0	507.97	ug/L	507.97	ppb	03:08:44
2	As 188.979†	1155.3	1144.9	515.52	ug/L	515.52	ppb	03:09:04
2	B 249.677†	20669.6	20556.0	496.15	ug/L	496.15	ppb	03:08:44
2	Ba 233.527†	66507.4	64861.8	510.25	ug/L	510.25	ppb	03:08:44
2	Be 313.107†	1355962.8	1326145.9	499.51	ug/L	499.51	ppb	03:08:38
2	Cd 226.502†	45216.6	44293.1	512.85	ug/L	512.85	ppb	03:08:44
2	Co 228.616†	25014.7	24461.8	512.51	ug/L	512.51	ppb	03:08:44
2	Cr 267.716†	46404.9	45178.0	508.12	ug/L	508.12	ppb	03:08:44
2	Cu 324.752†	174971.9	164648.1	501.01	ug/L	501.01	ppb	03:08:44
2	Mn 257.610†	453646.1	441953.2	503.17	ug/L	503.17	ppb	03:08:38
2	Mo 202.031†	7065.9	6880.8	505.59	ug/L	505.59	ppb	03:09:04
2	Ni 231.604†	20669.2	20094.9	510.76	ug/L	510.76	ppb	03:08:44

2	P 214.914†	4562.7	4239.2	2454.7 ug/L	2454.7 ppb	03:09:04
2	Pb 220.353†	4383.9	4333.5	534.58 ug/L	534.58 ppb	03:09:04
2	S 181.975 Axial†	782.3	722.1	1038.2 ug/L	1038.2 ppb	03:09:04
2	Sb 206.836†	1511.0	1436.9	520.44 ug/L	520.44 ppb	03:09:04
2	Se 196.026†	772.4	781.0	527.76 ug/L	527.76 ppb	03:09:04
2	Si 251.611†	81175.6	78607.1	2537.4 ug/L	2537.4 ppb	03:08:44
2	Sn 189.927†	2899.9	2817.6	506.20 ug/L	506.20 ppb	03:09:04
2	Ti 334.940†	328248.1	321493.4	505.06 ug/L	505.06 ppb	03:08:38
2	Tl 190.801†	1605.8	1598.6	514.51 ug/L	514.51 ppb	03:09:04
2	U 409.014†	15446.7	17950.8	494.02 ug/L	494.02 ppb	03:08:44
2	V 292.402†	72601.9	72309.7	510.99 ug/L	510.99 ppb	03:08:44
2	Zn 213.857†	52585.7	50677.4	505.51 ug/L	505.51 ppb	03:08:44
2	SiO2†	80024.0	77487.9	5371.3 ug/L	5371.3 ppb	03:09:46
3	Sc Radial	3830.9	3830.9	97.8 %		03:07:40
3	Y RADIAL	4238.3	4238.3	96.09 %		03:07:40
3	Al 396.153Radial†	5400.6	5637.0	5262.7 ug/L	5262.7 ppb	03:07:40
3	Ca 317.933Radial†	2460.5	2497.3	5220.6 ug/L	5220.6 ppb	03:08:00
3	Fe 238.204 Radial†	342.5	339.0	4800.1 ug/L	4800.1 ppb	03:08:00
3	K 766.490 Radial†	29417.6	27453.2	5261.9 ug/L	5261.9 ppb	03:07:40
3	Mg 279.077 IEC†	105.7	104.0	5044.1 ug/L	5044.1 ppb	03:08:00
3	Na 589.592 Radial†	30723.2	32248.1	9943.0 ug/L	9943.0 ppb	03:07:40
3	Sr 421.552†	71354.8	72956.7	504.79 ug/L	504.79 ppb	03:07:40
3	Sc 361.383	912475.1	912475.1	104.02 %		03:09:10
3	Y 371.029	757066.0	757066.0	100.16 %		03:09:10
3	Ag 328.068†	112365.2	107784.8	502.38 ug/L	502.38 ppb	03:09:15
3	As 188.979†	1130.0	1104.6	497.66 ug/L	497.66 ppb	03:09:35
3	B 249.677†	20760.2	20356.6	491.32 ug/L	491.32 ppb	03:09:15
3	Ba 233.527†	66685.6	64111.3	504.35 ug/L	504.35 ppb	03:09:15
3	Be 313.107†	1405148.2	1354637.3	510.24 ug/L	510.24 ppb	03:09:10
3	Cd 226.502†	45313.5	43759.5	506.65 ug/L	506.65 ppb	03:09:15
3	Co 228.616†	25138.6	24234.1	507.69 ug/L	507.69 ppb	03:09:15
3	Cr 267.716†	46514.2	44640.0	502.09 ug/L	502.09 ppb	03:09:15
3	Cu 324.752†	175499.9	162730.5	495.18 ug/L	495.18 ppb	03:09:15
3	Mn 257.610†	469642.6	451044.1	513.53 ug/L	513.53 ppb	03:09:10
3	Mo 202.031†	7033.7	6751.9	496.14 ug/L	496.14 ppb	03:09:35
3	Ni 231.604†	20721.4	19858.6	504.76 ug/L	504.76 ppb	03:09:15
3	P 214.914†	4542.0	4156.0	2405.7 ug/L	2405.7 ppb	03:09:35
3	Pb 220.353†	4370.2	4259.5	525.48 ug/L	525.48 ppb	03:09:35
3	S 181.975 Axial†	777.6	706.8	1016.1 ug/L	1016.1 ppb	03:09:35
3	Sb 206.836†	1500.0	1405.3	509.02 ug/L	509.02 ppb	03:09:35
3	Se 196.026†	772.6	770.5	521.17 ug/L	521.17 ppb	03:09:35
3	Si 251.611†	81238.6	77542.4	2503.1 ug/L	2503.1 ppb	03:09:15
3	Sn 189.927†	2885.6	2763.6	496.52 ug/L	496.52 ppb	03:09:35
3	Ti 334.940†	340609.7	328827.9	516.61 ug/L	516.61 ppb	03:09:10
3	Tl 190.801†	1594.6	1565.6	504.14 ug/L	504.14 ppb	03:09:35
3	U 409.014†	15561.9	17847.4	491.17 ug/L	491.17 ppb	03:09:15
3	V 292.402†	72805.1	71498.7	505.17 ug/L	505.17 ppb	03:09:15
3	Zn 213.857†	52689.2	50048.1	499.20 ug/L	499.20 ppb	03:09:15
3	SiO2†	80189.4	76537.7	5305.5 ug/L	5305.5 ppb	03:09:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902208.8	102.85	%	1.051				1.02%
Sc Radial	3939.8	101	%	3.0				3.00%
Y 371.029	749635.1	99.179	%	0.8668				0.87%
Y RADIAL	4345.2	98.51	%	2.716				2.76%
Ag 328.068†	109122.7	508.56	ug/L	6.490	508.56	ppb	6.490	1.28%
QC value within limits for Ag 328.068 Recovery = 101.71%								
Al 396.153Radial†	5496.6	5130.7	ug/L	150.64	5130.7	ppb	150.64	2.94%
QC value within limits for Al 396.153Radial Recovery = 102.61%								
As 188.979†	1133.2	510.37	ug/L	11.068	510.37	ppb	11.068	2.17%
QC value within limits for As 188.979 Recovery = 102.07%								
B 249.677†	20585.7	496.88	ug/L	5.961	496.88	ppb	5.961	1.20%
QC value within limits for B 249.677 Recovery = 99.38%								
Ba 233.527†	64838.7	510.06	ug/L	5.628	510.06	ppb	5.628	1.10%
QC value within limits for Ba 233.527 Recovery = 102.01%								
Be 313.107†	1346113.3	507.03	ug/L	6.536	507.03	ppb	6.536	1.29%
QC value within limits for Be 313.107 Recovery = 101.41%								
Ca 317.933Radial†	2424.9	5069.3	ug/L	174.66	5069.3	ppb	174.66	3.45%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.39%
Cd 226.502†            44241.7      512.26 ug/L         5.334      512.26 ppb          5.334   1.04%
   QC value within limits for Cd 226.502  Recovery = 102.45%
Co 228.616†            24462.9      512.51 ug/L         4.823      512.51 ppb          4.823   0.94%
   QC value within limits for Co 228.616  Recovery = 102.50%
Cr 267.716†            45217.4      508.56 ug/L         6.705      508.56 ppb          6.705   1.32%
   QC value within limits for Cr 267.716  Recovery = 101.71%
Cu 324.752†           164920.5      501.84 ug/L         7.103      501.84 ppb          7.103   1.42%
   QC value within limits for Cu 324.752  Recovery = 100.37%
Fe 238.204 Radial†       328.5      4651.9 ug/L       174.12      4651.9 ppb        174.12   3.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.04%
K 766.490 Radial†      26713.6      5120.1 ug/L       162.43      5120.1 ppb        162.43   3.17%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          102.7      4980.4 ug/L       137.05      4980.4 ppb        137.05   2.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.61%
Mn 257.610†           447704.7      509.72 ug/L         5.693      509.72 ppb          5.693   1.12%
   QC value within limits for Mn 257.610  Recovery = 101.94%
Mo 202.031†             6863.4      504.31 ug/L         7.608      504.31 ppb          7.608   1.51%
   QC value within limits for Mo 202.031  Recovery = 100.86%
Na 589.592 Radial†     31524.8      9719.9 ug/L       241.78      9719.9 ppb        241.78   2.49%
   QC value within limits for Na 589.592 Radial  Recovery = 97.20%
Ni 231.604†            20098.4      510.85 ug/L         6.142      510.85 ppb          6.142   1.20%
   QC value within limits for Ni 231.604  Recovery = 102.17%
P 214.914†              4225.1      2446.1 ug/L        36.85      2446.1 ppb         36.85   1.51%
   QC value within limits for P 214.914  Recovery = 97.84%
Pb 220.353†             4312.9      532.04 ug/L         5.734      532.04 ppb          5.734   1.08%
   QC value within limits for Pb 220.353  Recovery = 106.41%
S 181.975 Axial†         715.4      1028.5 ug/L        11.32      1028.5 ppb         11.32   1.10%
   QC value within limits for S 181.975 Axial  Recovery = 102.85%
Sb 206.836†             1435.0      519.73 ug/L        10.371      519.73 ppb         10.371   2.00%
   QC value within limits for Sb 206.836  Recovery = 103.95%
Se 196.026†              784.2      529.72 ug/L         9.678      529.72 ppb          9.678   1.83%
   QC value within limits for Se 196.026  Recovery = 105.94%
Si 251.611†            78513.2      2534.4 ug/L        29.91      2534.4 ppb         29.91   1.18%
   QC value within limits for Si 251.611  Recovery = 101.38%
Sn 189.927†             2812.7      505.31 ug/L         8.387      505.31 ppb          8.387   1.66%
   QC value within limits for Sn 189.927  Recovery = 101.06%
Sr 421.552†            71018.9      491.38 ug/L        14.401      491.38 ppb         14.401   2.93%
   QC value within limits for Sr 421.552  Recovery = 98.28%
Ti 334.940†           326170.3      512.42 ug/L         6.387      512.42 ppb          6.387   1.25%
   QC value within limits for Ti 334.940  Recovery = 102.48%
Tl 190.801†             1589.5      511.68 ug/L         6.597      511.68 ppb          6.597   1.29%
   QC value within limits for Tl 190.801  Recovery = 102.34%
U 409.014†             17989.0      495.08 ug/L         4.534      495.08 ppb          4.534   0.92%
   QC value within limits for U 409.014  Recovery = 99.02%
V 292.402†             72349.6      511.25 ug/L         6.212      511.25 ppb          6.212   1.22%
   QC value within limits for V 292.402  Recovery = 102.25%
Zn 213.857†            50671.2      505.45 ug/L         6.217      505.45 ppb          6.217   1.23%
   QC value within limits for Zn 213.857  Recovery = 101.09%
SiO2†                  77286.2      5357.3 ug/L        46.41      5357.3 ppb         46.41   0.87%
   QC value within limits for SiO2  Recovery = 100.18%
All analyte(s) passed QC.
```

Sequence No.: 90
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 03:12:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3911.8	3911.8	99.8	%			03:14:16
1	Y RADIAL	4632.2	4632.2	105.0	%			03:13:56
1	Al 396.153Radial†	-94.0	18.3	17.128	ug/L	17.128	ppb	03:13:56
1	Ca 317.933Radial†	27.3	7.7	16.068	ug/L	16.068	ppb	03:14:16
1	Fe 238.204 Radial†	13.6	2.3	32.455	ug/L	32.455	ppb	03:14:16
1	K 766.490 Radial†	2910.3	276.0	52.950	ug/L	52.950	ppb	03:13:56
1	Mg 279.077 IEC†	2.8	-1.3	-61.093	ug/L	-61.093	ppb	03:14:16
1	Na 589.592 Radial†	-821.4	-3.1	-0.9709	ug/L	-0.9709	ppb	03:13:56
1	Sr 421.552†	39.6	3.9	0.0272	ug/L	0.0272	ppb	03:13:56
1	Sc 361.383	891465.9	891465.9	101.62	%			03:15:13
1	Y 371.029	752397.8	752397.8	99.544	%			03:15:13
1	Ag 328.068†	257.4	12.9	0.0713	ug/L	0.0713	ppb	03:15:13
1	As 188.979†	-25.7	-7.1	-3.1514	ug/L	-3.1514	ppb	03:15:33
1	B 249.677†	-383.7	20.7	0.4963	ug/L	0.4963	ppb	03:15:33
1	Ba 233.527†	15.2	16.4	0.1296	ug/L	0.1296	ppb	03:15:33
1	Be 313.107†	-3768.8	53.6	0.0201	ug/L	0.0201	ppb	03:15:13
1	Cd 226.502†	-164.6	34.3	0.3932	ug/L	0.3932	ppb	03:15:33
1	Co 228.616†	-63.1	4.5	0.0936	ug/L	0.0936	ppb	03:15:33
1	Cr 267.716†	55.7	-22.9	-0.2530	ug/L	-0.2530	ppb	03:15:33
1	Cu 324.752†	6000.7	-85.9	-0.2582	ug/L	-0.2582	ppb	03:15:13
1	Mn 257.610†	551.7	84.2	0.1015	ug/L	0.1015	ppb	03:15:33
1	Mo 202.031†	12.1	1.8	0.1341	ug/L	0.1341	ppb	03:15:33
1	Ni 231.604†	59.7	-3.7	-0.0934	ug/L	-0.0934	ppb	03:15:33
1	P 214.914†	201.1	-12.6	-7.5508	ug/L	-7.5508	ppb	03:15:33
1	Pb 220.353†	142.4	198.2	24.377	ug/L	24.377	ppb	03:15:33
1	S 181.975 Axial†	45.7	4.2	6.0323	ug/L	6.0323	ppb	03:15:33
1	Sb 206.836†	37.0	-0.3	-0.1026	ug/L	-0.1026	ppb	03:15:33
1	Se 196.026†	-22.7	5.4	3.6162	ug/L	3.6162	ppb	03:15:33
1	Si 251.611†	620.6	52.3	1.6917	ug/L	1.6917	ppb	03:15:33
1	Sn 189.927†	11.0	0.3	0.0556	ug/L	0.0556	ppb	03:15:33
1	Ti 334.940†	-1421.5	-24.8	-0.0305	ug/L	-0.0305	ppb	03:15:13
1	Tl 190.801†	-26.0	7.0	2.2435	ug/L	2.2435	ppb	03:15:33
1	U 409.014†	-3026.7	-91.8	-2.5373	ug/L	-2.5373	ppb	03:15:13
1	V 292.402†	-1544.4	-14.1	-0.1070	ug/L	-0.1070	ppb	03:15:13
1	Zn 213.857†	788.7	170.0	1.7077	ug/L	1.7077	ppb	03:15:33
1	SiO2†	622.3	58.0	4.0241	ug/L	4.0241	ppb	03:16:30
2	Sc Radial	3787.1	3787.1	96.6	%			03:14:41
2	Y RADIAL	4258.2	4258.2	96.54	%			03:14:21
2	Al 396.153Radial†	-128.9	-21.0	-19.709	ug/L	-19.709	ppb	03:14:21
2	Ca 317.933Radial†	22.9	4.0	8.3781	ug/L	8.3781	ppb	03:14:41
2	Fe 238.204 Radial†	7.5	-3.6	-50.813	ug/L	-50.813	ppb	03:14:41
2	K 766.490 Radial†	2902.2	363.5	69.758	ug/L	69.758	ppb	03:14:21
2	Mg 279.077 IEC†	3.4	-0.6	-27.006	ug/L	-27.006	ppb	03:14:41
2	Na 589.592 Radial†	-785.7	6.7	2.0720	ug/L	2.0720	ppb	03:14:21
2	Sr 421.552†	3.2	-32.4	-0.2244	ug/L	-0.2244	ppb	03:14:21
2	Sc 361.383	887897.4	887897.4	101.22	%			03:15:39
2	Y 371.029	749479.4	749479.4	99.158	%			03:15:39
2	Ag 328.068†	202.7	-40.1	-0.1957	ug/L	-0.1957	ppb	03:15:39
2	As 188.979†	-24.9	-6.3	-2.8317	ug/L	-2.8317	ppb	03:15:59
2	B 249.677†	-388.0	14.9	0.3689	ug/L	0.3689	ppb	03:15:59
2	Ba 233.527†	4.9	6.2	0.0488	ug/L	0.0488	ppb	03:15:59
2	Be 313.107†	-3729.8	77.2	0.0288	ug/L	0.0288	ppb	03:15:39
2	Cd 226.502†	-175.0	23.4	0.2750	ug/L	0.2750	ppb	03:15:59
2	Co 228.616†	-63.6	3.7	0.0788	ug/L	0.0788	ppb	03:15:59
2	Cr 267.716†	56.9	-21.5	-0.2434	ug/L	-0.2434	ppb	03:15:59
2	Cu 324.752†	5993.8	-69.0	-0.2102	ug/L	-0.2102	ppb	03:15:39
2	Mn 257.610†	561.0	95.5	0.1047	ug/L	0.1047	ppb	03:15:59
2	Mo 202.031†	12.5	2.2	0.1562	ug/L	0.1562	ppb	03:15:59
2	Ni 231.604†	59.9	-3.3	-0.0829	ug/L	-0.0829	ppb	03:15:59

2	P 214.914†	208.9	-4.1	-2.3881 ug/L	-2.3881 ppb	03:15:59
2	Pb 220.353†	138.5	195.0	23.981 ug/L	23.981 ppb	03:15:59
2	S 181.975 Axial†	46.0	4.6	6.6891 ug/L	6.6891 ppb	03:15:59
2	Sb 206.836†	52.7	15.3	5.3600 ug/L	5.3600 ppb	03:15:59
2	Se 196.026†	-26.4	1.6	0.9086 ug/L	0.9086 ppb	03:15:59
2	Si 251.611†	613.8	48.1	1.5543 ug/L	1.5543 ppb	03:15:59
2	Sn 189.927†	10.1	-0.5	-0.0875 ug/L	-0.0875 ppb	03:15:59
2	Ti 334.940†	-1444.0	-52.6	-0.0773 ug/L	-0.0773 ppb	03:15:39
2	Tl 190.801†	-33.4	-0.4	-0.1276 ug/L	-0.1276 ppb	03:15:59
2	U 409.014†	-3076.5	-153.0	-4.2180 ug/L	-4.2180 ppb	03:15:39
2	V 292.402†	-1434.5	88.4	0.6177 ug/L	0.6177 ppb	03:15:39
2	Zn 213.857†	763.9	148.7	1.5048 ug/L	1.5048 ppb	03:15:59
2	SiO2†	633.2	71.2	4.9454 ug/L	4.9454 ppb	03:16:35
3	Sc Radial	3767.4	3767.4	96.1 %		03:15:07
3	Y RADIAL	4380.1	4380.1	99.30 %		03:14:47
3	Al 396.153Radial†	-128.2	-20.9	-19.625 ug/L	-19.625 ppb	03:14:47
3	Ca 317.933Radial†	27.5	8.9	18.657 ug/L	18.657 ppb	03:15:07
3	Fe 238.204 Radial†	10.5	-0.4	-5.5768 ug/L	-5.5768 ppb	03:15:07
3	K 766.490 Radial†	3000.2	481.1	92.331 ug/L	92.331 ppb	03:14:47
3	Mg 279.077 IEC†	1.7	-2.3	-111.77 ug/L	-111.77 ppb	03:15:07
3	Na 589.592 Radial†	-853.6	-68.2	-21.020 ug/L	-21.020 ppb	03:14:47
3	Sr 421.552†	-4.0	-39.9	-0.2760 ug/L	-0.2760 ppb	03:14:47
3	Sc 361.383	876204.0	876204.0	99.883 %		03:16:04
3	Y 371.029	739159.9	739159.9	97.793 %		03:16:04
3	Ag 328.068†	139.5	-100.8	-0.4623 ug/L	-0.4623 ppb	03:16:04
3	As 188.979†	-15.3	2.9	1.2945 ug/L	1.2945 ppb	03:16:24
3	B 249.677†	-389.0	8.7	0.2129 ug/L	0.2129 ppb	03:16:24
3	Ba 233.527†	25.5	26.9	0.2123 ug/L	0.2123 ppb	03:16:24
3	Be 313.107†	-3734.8	23.0	0.0086 ug/L	0.0086 ppb	03:16:04
3	Cd 226.502†	-155.4	40.7	0.4709 ug/L	0.4709 ppb	03:16:24
3	Co 228.616†	-71.0	-4.5	-0.0936 ug/L	-0.0936 ppb	03:16:24
3	Cr 267.716†	84.3	6.7	0.0778 ug/L	0.0778 ppb	03:16:24
3	Cu 324.752†	6016.8	33.1	0.1033 ug/L	0.1033 ppb	03:16:04
3	Mn 257.610†	511.3	53.1	0.0645 ug/L	0.0645 ppb	03:16:24
3	Mo 202.031†	17.5	7.4	0.5428 ug/L	0.5428 ppb	03:16:24
3	Ni 231.604†	79.6	17.3	0.4392 ug/L	0.4392 ppb	03:16:24
3	P 214.914†	185.6	-24.7	-14.879 ug/L	-14.879 ppb	03:16:24
3	Pb 220.353†	112.0	170.3	20.940 ug/L	20.940 ppb	03:16:24
3	S 181.975 Axial†	43.4	2.7	3.8563 ug/L	3.8563 ppb	03:16:24
3	Sb 206.836†	41.2	4.5	1.5923 ug/L	1.5923 ppb	03:16:24
3	Se 196.026†	-21.1	6.7	4.3537 ug/L	4.3537 ppb	03:16:24
3	Si 251.611†	628.5	70.9	2.2888 ug/L	2.2888 ppb	03:16:24
3	Sn 189.927†	10.2	-0.3	-0.0544 ug/L	-0.0544 ppb	03:16:24
3	Ti 334.940†	-1384.4	-11.9	-0.0048 ug/L	-0.0048 ppb	03:16:04
3	Tl 190.801†	-33.9	-1.4	-0.4341 ug/L	-0.4341 ppb	03:16:24
3	U 409.014†	-3074.5	-191.5	-5.2864 ug/L	-5.2864 ppb	03:16:04
3	V 292.402†	-1421.5	82.5	0.5714 ug/L	0.5714 ppb	03:16:04
3	Zn 213.857†	777.8	172.7	1.7364 ug/L	1.7364 ppb	03:16:24
3	SiO2†	629.0	75.3	5.2175 ug/L	5.2175 ppb	03:16:40

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885189.1	100.91	%	0.910				0.90%
Sc Radial	3822.1	97.5	%	2.00				2.05%
Y 371.029	747012.4	98.832	%	0.9202				0.93%
Y RADIAL	4423.5	100.3	%	4.32				4.31%
Ag 328.068†	-42.7	-0.1956	ug/L	0.26680	-0.1956	ppb	0.26680	136.42%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.9	-7.4022	ug/L	21.24374	-7.4022	ppb	21.24374	286.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.5	-1.5629	ug/L	2.47969	-1.5629	ppb	2.47969	158.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	14.8	0.3594	ug/L	0.14192	0.3594	ppb	0.14192	39.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.5	0.1302	ug/L	0.08176	0.1302	ppb	0.08176	62.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	51.3	0.0192	ug/L	0.01014	0.0192	ppb	0.01014	52.96%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.9	14.368	ug/L	5.3461	14.368	ppb	5.3461	37.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                32.8      0.3797 ug/L       0.09860      0.3797 ppb        0.09860  25.97%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.2      0.0263 ug/L       0.10409      0.0263 ppb        0.10409 395.75%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -12.5     -0.1395 ug/L       0.18831     -0.1395 ppb        0.18831 134.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -40.6     -0.1217 ug/L       0.19635     -0.1217 ppb        0.19635 161.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -7.9781 ug/L      41.68571     -7.9781 ppb       41.68571 522.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         373.5      71.680 ug/L       19.7604      71.680 ppb        19.7604  27.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.4     -66.623 ug/L       42.6518     -66.623 ppb        42.6518  64.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                77.6      0.0902 ug/L       0.02237      0.0902 ppb        0.02237  24.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.8      0.2777 ug/L       0.22983      0.2777 ppb        0.22983  82.77%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -21.5     -6.6397 ug/L      12.54640     -6.6397 ppb       12.54640 188.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.4      0.0876 ug/L       0.30451      0.0876 ppb        0.30451 347.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.8     -8.2727 ug/L       6.27676     -8.2727 ppb        6.27676  75.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               187.8      23.099 ug/L        1.8805      23.099 ppb         1.8805   8.14%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      5.5259 ug/L       1.48272      5.5259 ppb        1.48272  26.83%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.5      2.2832 ug/L       2.79605      2.2832 ppb        2.79605 122.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.6      2.9595 ug/L       1.81402      2.9595 ppb        1.81402  61.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                57.1      1.8449 ug/L       0.39053      1.8449 ppb        0.39053  21.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.2     -0.0288 ug/L       0.07495     -0.0288 ppb        0.07495 260.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -22.8     -0.1578 ug/L       0.16223     -0.1578 ppb        0.16223 102.82%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -29.7     -0.0376 ug/L       0.03677     -0.0376 ppb        0.03677  97.91%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.8      0.5606 ug/L       1.46547      0.5606 ppb        1.46547 261.39%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -145.4     -4.0139 ug/L       1.38586     -4.0139 ppb        1.38586  34.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                52.3      0.3607 ug/L       0.40569      0.3607 ppb        0.40569 112.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               163.8      1.6497 ug/L       0.12623      1.6497 ppb        0.12623   7.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     68.2      4.7290 ug/L       0.62543      4.7290 ppb        0.62543  13.23%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 100
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 04:23:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3798.4	3798.4	96.9	%			04:25:34
1	Y RADIAL	4215.3	4215.3	95.57	%			04:25:14
1	Al 396.153Radial†	5326.8	5608.1	5235.1	ug/L	5235.1	ppb	04:25:14
1	Ca 317.933Radial†	2490.0	2549.2	5329.2	ug/L	5329.2	ppb	04:25:34
1	Fe 238.204 Radial†	349.8	349.5	4949.4	ug/L	4949.4	ppb	04:25:34
1	K 766.490 Radial†	29367.8	27659.6	5301.3	ug/L	5301.3	ppb	04:25:14
1	Mg 279.077 IEC†	106.0	105.3	5105.0	ug/L	5105.0	ppb	04:25:34
1	Na 589.592 Radial†	31357.0	33171.3	10228	ug/L	10228	ppb	04:25:14
1	Sr 421.552†	71270.6	73495.3	508.51	ug/L	508.51	ppb	04:25:14
1	Sc 361.383	884263.5	884263.5	100.80	%			04:26:31
1	Y 371.029	734776.9	734776.9	97.213	%			04:26:31
1	Ag 328.068†	110806.4	109684.7	511.26	ug/L	511.26	ppb	04:26:37
1	As 188.979†	1151.9	1161.0	522.81	ug/L	522.81	ppb	04:26:57
1	B 249.677†	20143.2	20381.3	491.87	ug/L	491.87	ppb	04:26:37
1	Ba 233.527†	65853.4	65331.1	513.94	ug/L	513.94	ppb	04:26:37
1	Be 313.107†	1353085.4	1346086.8	507.02	ug/L	507.02	ppb	04:26:31
1	Cd 226.502†	44871.1	44710.5	517.66	ug/L	517.66	ppb	04:26:37
1	Co 228.616†	24716.8	24586.8	515.11	ug/L	515.11	ppb	04:26:37
1	Cr 267.716†	45946.6	45503.5	511.80	ug/L	511.80	ppb	04:26:37
1	Cu 324.752†	173034.0	165667.1	504.12	ug/L	504.12	ppb	04:26:37
1	Mn 257.610†	452313.6	448257.7	510.37	ug/L	510.37	ppb	04:26:31
1	Mo 202.031†	6988.7	6923.0	508.71	ug/L	508.71	ppb	04:26:57
1	Ni 231.604†	20488.4	20263.0	515.04	ug/L	515.04	ppb	04:26:37
1	P 214.914†	4541.5	4294.8	2487.4	ug/L	2487.4	ppb	04:26:57
1	Pb 220.353†	4288.8	4312.8	532.03	ug/L	532.03	ppb	04:26:57
1	S 181.975 Axial†	772.3	725.4	1042.8	ug/L	1042.8	ppb	04:26:57
1	Sb 206.836†	1492.4	1443.8	522.96	ug/L	522.96	ppb	04:26:57
1	Se 196.026†	763.9	785.6	531.58	ug/L	531.58	ppb	04:26:57
1	Si 251.611†	80285.2	79088.4	2552.9	ug/L	2552.9	ppb	04:26:37
1	Sn 189.927†	2861.4	2828.2	508.11	ug/L	508.11	ppb	04:26:57
1	Ti 334.940†	327228.8	326000.5	512.17	ug/L	512.17	ppb	04:26:31
1	Tl 190.801†	1589.4	1609.4	518.04	ug/L	518.04	ppb	04:26:57
1	U 409.014†	15267.0	18032.2	496.24	ug/L	496.24	ppb	04:26:37
1	V 292.402†	71676.6	72612.3	513.10	ug/L	513.10	ppb	04:26:37
1	Zn 213.857†	52100.0	51079.6	509.49	ug/L	509.49	ppb	04:26:37
1	SiO2†	79826.1	78636.8	5451.1	ug/L	5451.1	ppb	04:28:04
2	Sc Radial	3826.9	3826.9	97.7	%			04:25:59
2	Y RADIAL	4355.2	4355.2	98.74	%			04:25:39
2	Al 396.153Radial†	5451.8	5695.1	5316.7	ug/L	5316.7	ppb	04:25:39
2	Ca 317.933Radial†	2507.8	2548.3	5327.3	ug/L	5327.3	ppb	04:25:59
2	Fe 238.204 Radial†	350.4	347.5	4920.2	ug/L	4920.2	ppb	04:25:59
2	K 766.490 Radial†	29914.2	27992.9	5365.2	ug/L	5365.2	ppb	04:25:39
2	Mg 279.077 IEC†	112.5	111.1	5388.8	ug/L	5388.8	ppb	04:25:59
2	Na 589.592 Radial†	31895.0	33480.6	10323	ug/L	10323	ppb	04:25:39
2	Sr 421.552†	72629.5	74337.7	514.34	ug/L	514.34	ppb	04:25:39
2	Sc 361.383	887618.8	887618.8	101.18	%			04:27:03
2	Y 371.029	738348.7	738348.7	97.685	%			04:27:03
2	Ag 328.068†	111708.3	110160.5	513.46	ug/L	513.46	ppb	04:27:08
2	As 188.979†	1150.3	1155.1	520.17	ug/L	520.17	ppb	04:27:28
2	B 249.677†	20454.4	20613.2	497.49	ug/L	497.49	ppb	04:27:08
2	Ba 233.527†	66325.3	65550.5	515.67	ug/L	515.67	ppb	04:27:08
2	Be 313.107†	1362302.3	1350121.8	508.54	ug/L	508.54	ppb	04:27:03
2	Cd 226.502†	45016.5	44686.0	517.38	ug/L	517.38	ppb	04:27:08
2	Co 228.616†	24959.8	24734.2	518.20	ug/L	518.20	ppb	04:27:08
2	Cr 267.716†	46362.1	45741.9	514.48	ug/L	514.48	ppb	04:27:08
2	Cu 324.752†	174161.2	166132.2	505.54	ug/L	505.54	ppb	04:27:08
2	Mn 257.610†	454414.2	448637.5	510.79	ug/L	510.79	ppb	04:27:03
2	Mo 202.031†	7018.5	6926.2	508.94	ug/L	508.94	ppb	04:27:28
2	Ni 231.604†	20580.2	20276.9	515.39	ug/L	515.39	ppb	04:27:08

2	P 214.914†	4546.6	4282.9	2480.0 ug/L	2480.0 ppb	04:27:28
2	Pb 220.353†	4302.2	4309.9	531.70 ug/L	531.70 ppb	04:27:28
2	S 181.975 Axial†	775.8	725.9	1043.6 ug/L	1043.6 ppb	04:27:28
2	Sb 206.836†	1502.2	1447.9	524.40 ug/L	524.40 ppb	04:27:28
2	Se 196.026†	760.4	779.3	527.33 ug/L	527.33 ppb	04:27:28
2	Si 251.611†	80914.3	79409.1	2563.3 ug/L	2563.3 ppb	04:27:08
2	Sn 189.927†	2872.0	2827.9	508.07 ug/L	508.07 ppb	04:27:28
2	Ti 334.940†	328793.8	326320.1	512.65 ug/L	512.65 ppb	04:27:03
2	Tl 190.801†	1583.8	1597.8	514.32 ug/L	514.32 ppb	04:27:28
2	U 409.014†	15458.3	18164.0	499.87 ug/L	499.87 ppb	04:27:08
2	V 292.402†	72456.2	73114.0	516.62 ug/L	516.62 ppb	04:27:08
2	Zn 213.857†	52300.6	51082.5	509.52 ug/L	509.52 ppb	04:27:08
2	SiO2†	80483.8	78987.5	5475.4 ug/L	5475.4 ppb	04:28:10
3	Sc Radial	3800.6	3800.6	97.0 %		04:26:24
3	Y RADIAL	4285.2	4285.2	97.15 %		04:26:04
3	Al 396.153Radial†	5414.6	5695.4	5317.1 ug/L	5317.1 ppb	04:26:04
3	Ca 317.933Radial†	2493.0	2550.9	5332.6 ug/L	5332.6 ppb	04:26:24
3	Fe 238.204 Radial†	348.0	347.5	4919.7 ug/L	4919.7 ppb	04:26:24
3	K 766.490 Radial†	29503.5	27781.8	5324.7 ug/L	5324.7 ppb	04:26:04
3	Mg 279.077 IEC†	108.1	107.4	5206.8 ug/L	5206.8 ppb	04:26:24
3	Na 589.592 Radial†	31639.2	33443.4	10311 ug/L	10311 ppb	04:26:04
3	Sr 421.552†	71706.8	73902.0	511.33 ug/L	511.33 ppb	04:26:04
3	Sc 361.383	893296.8	893296.8	101.83 %		04:27:34
3	Y 371.029	743012.3	743012.3	98.302 %		04:27:34
3	Ag 328.068†	111615.1	109367.4	509.78 ug/L	509.78 ppb	04:27:39
3	As 188.979†	1151.3	1148.9	517.40 ug/L	517.40 ppb	04:27:59
3	B 249.677†	20437.4	20468.1	493.99 ug/L	493.99 ppb	04:27:39
3	Ba 233.527†	66103.9	64916.5	510.68 ug/L	510.68 ppb	04:27:39
3	Be 313.107†	1370390.7	1349506.9	508.30 ug/L	508.30 ppb	04:27:34
3	Cd 226.502†	45096.3	44481.6	515.01 ug/L	515.01 ppb	04:27:39
3	Co 228.616†	24844.0	24463.7	512.53 ug/L	512.53 ppb	04:27:39
3	Cr 267.716†	46286.8	45376.7	510.38 ug/L	510.38 ppb	04:27:39
3	Cu 324.752†	173897.9	164779.6	501.43 ug/L	501.43 ppb	04:27:39
3	Mn 257.610†	457061.5	448382.7	510.51 ug/L	510.51 ppb	04:27:34
3	Mo 202.031†	7027.7	6891.2	506.37 ug/L	506.37 ppb	04:27:59
3	Ni 231.604†	20619.0	20185.7	513.08 ug/L	513.08 ppb	04:27:39
3	P 214.914†	4560.9	4268.4	2472.1 ug/L	2472.1 ppb	04:27:59
3	Pb 220.353†	4295.5	4276.4	527.57 ug/L	527.57 ppb	04:27:59
3	S 181.975 Axial†	771.9	717.2	1031.1 ug/L	1031.1 ppb	04:27:59
3	Sb 206.836†	1505.7	1441.9	522.21 ug/L	522.21 ppb	04:27:59
3	Se 196.026†	777.1	790.9	534.92 ug/L	534.92 ppb	04:27:59
3	Si 251.611†	80619.6	78611.4	2537.5 ug/L	2537.5 ppb	04:27:39
3	Sn 189.927†	2887.5	2825.1	507.56 ug/L	507.56 ppb	04:27:59
3	Ti 334.940†	330717.3	326143.6	512.39 ug/L	512.39 ppb	04:27:34
3	Tl 190.801†	1598.5	1602.3	515.80 ug/L	515.80 ppb	04:27:59
3	U 409.014†	15148.0	17762.2	488.79 ug/L	488.79 ppb	04:27:39
3	V 292.402†	72238.9	72445.4	511.90 ug/L	511.90 ppb	04:27:39
3	Zn 213.857†	52266.4	50720.4	505.89 ug/L	505.89 ppb	04:27:39
3	SiO2†	80725.6	78719.4	5456.9 ug/L	5456.9 ppb	04:28:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888393.0	101.27	%	0.521				0.51%
Sc Radial	3808.6	97.2	%	0.41				0.42%
Y 371.029	738712.6	97.733	%	0.5464				0.56%
Y RADIAL	4285.2	97.15	%	1.585				1.63%
Ag 328.068†	109737.5	511.50	ug/L	1.854	511.50	ppb	1.854	0.36%
QC value within limits for Ag 328.068 Recovery = 102.30%								
Al 396.153Radial†	5666.2	5289.6	ug/L	47.22	5289.6	ppb	47.22	0.89%
QC value within limits for Al 396.153Radial Recovery = 105.79%								
As 188.979†	1155.0	520.13	ug/L	2.706	520.13	ppb	2.706	0.52%
QC value within limits for As 188.979 Recovery = 104.03%								
B 249.677†	20487.5	494.45	ug/L	2.838	494.45	ppb	2.838	0.57%
QC value within limits for B 249.677 Recovery = 98.89%								
Ba 233.527†	65266.0	513.43	ug/L	2.531	513.43	ppb	2.531	0.49%
QC value within limits for Ba 233.527 Recovery = 102.69%								
Be 313.107†	1348571.8	507.95	ug/L	0.817	507.95	ppb	0.817	0.16%
QC value within limits for Be 313.107 Recovery = 101.59%								
Ca 317.933Radial†	2549.5	5329.7	ug/L	2.71	5329.7	ppb	2.71	0.05%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.59%
Cd 226.502†            44626.0      516.68 ug/L         1.456      516.68 ppb          1.456   0.28%
   QC value within limits for Cd 226.502  Recovery = 103.34%
Co 228.616†            24594.9      515.28 ug/L         2.840      515.28 ppb          2.840   0.55%
   QC value within limits for Co 228.616  Recovery = 103.06%
Cr 267.716†            45540.7      512.22 ug/L         2.082      512.22 ppb          2.082   0.41%
   QC value within limits for Cr 267.716  Recovery = 102.44%
Cu 324.752†           165526.3      503.70 ug/L         2.088      503.70 ppb          2.088   0.41%
   QC value within limits for Cu 324.752  Recovery = 100.74%
Fe 238.204 Radial†       348.2      4929.8 ug/L        16.98      4929.8 ppb         16.98   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.60%
K 766.490 Radial†      27811.4      5330.4 ug/L        32.33      5330.4 ppb         32.33   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 106.61%
Mg 279.077 IEC†          107.9      5233.5 ug/L       143.76      5233.5 ppb        143.76   2.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.67%
Mn 257.610†           448426.0      510.55 ug/L         0.213      510.55 ppb          0.213   0.04%
   QC value within limits for Mn 257.610  Recovery = 102.11%
Mo 202.031†             6913.5      508.01 ug/L         1.421      508.01 ppb          1.421   0.28%
   QC value within limits for Mo 202.031  Recovery = 101.60%
Na 589.592 Radial†     33365.1       10287 ug/L        52.1        10287 ppb         52.1   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 102.87%
Ni 231.604†            20241.9      514.50 ug/L         1.247      514.50 ppb          1.247   0.24%
   QC value within limits for Ni 231.604  Recovery = 102.90%
P 214.914†              4282.0      2479.9 ug/L         7.67      2479.9 ppb          7.67   0.31%
   QC value within limits for P 214.914  Recovery = 99.19%
Pb 220.353†             4299.7      530.43 ug/L         2.486      530.43 ppb          2.486   0.47%
   QC value within limits for Pb 220.353  Recovery = 106.09%
S 181.975 Axial†         722.8      1039.2 ug/L         7.02      1039.2 ppb          7.02   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 103.92%
Sb 206.836†             1444.6      523.19 ug/L         1.114      523.19 ppb          1.114   0.21%
   QC value within limits for Sb 206.836  Recovery = 104.64%
Se 196.026†              785.2      531.28 ug/L         3.801      531.28 ppb          3.801   0.72%
   QC value within limits for Se 196.026  Recovery = 106.26%
Si 251.611†            79036.3      2551.3 ug/L        12.97      2551.3 ppb         12.97   0.51%
   QC value within limits for Si 251.611  Recovery = 102.05%
Sn 189.927†             2827.1      507.91 ug/L         0.310      507.91 ppb          0.310   0.06%
   QC value within limits for Sn 189.927  Recovery = 101.58%
Sr 421.552†            73911.7      511.40 ug/L         2.915      511.40 ppb          2.915   0.57%
   QC value within limits for Sr 421.552  Recovery = 102.28%
Ti 334.940†           326154.7      512.40 ug/L         0.238      512.40 ppb          0.238   0.05%
   QC value within limits for Ti 334.940  Recovery = 102.48%
Tl 190.801†             1603.2      516.05 ug/L         1.871      516.05 ppb          1.871   0.36%
   QC value within limits for Tl 190.801  Recovery = 103.21%
U 409.014†             17986.1      494.96 ug/L         5.651      494.96 ppb          5.651   1.14%
   QC value within limits for U 409.014  Recovery = 98.99%
V 292.402†             72723.9      513.87 ug/L         2.453      513.87 ppb          2.453   0.48%
   QC value within limits for V 292.402  Recovery = 102.77%
Zn 213.857†            50960.8      508.30 ug/L         2.085      508.30 ppb          2.085   0.41%
   QC value within limits for Zn 213.857  Recovery = 101.66%
SiO2†                  78781.2      5461.1 ug/L        12.73      5461.1 ppb         12.73   0.23%
   QC value within limits for SiO2  Recovery = 102.12%
All analyte(s) passed QC.
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Sequence No.: 101
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 04:30:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3844.5	3844.5	98.1	%			04:32:38
1	Y RADIAL	4298.2	4298.2	97.45	%			04:32:18
1	Al 396.153Radial†	-119.5	-9.3	-8.7750	ug/L	-8.7750	ppb	04:32:18
1	Ca 317.933Radial†	27.4	8.3	17.284	ug/L	17.284	ppb	04:32:38
1	Fe 238.204 Radial†	12.0	0.9	13.363	ug/L	13.363	ppb	04:32:38
1	K 766.490 Radial†	2958.4	376.0	72.148	ug/L	72.148	ppb	04:32:18
1	Mg 279.077 IEC†	2.3	-1.7	-82.214	ug/L	-82.214	ppb	04:32:38
1	Na 589.592 Radial†	-794.3	10.1	3.1153	ug/L	3.1153	ppb	04:32:18
1	Sr 421.552†	54.8	20.2	0.1395	ug/L	0.1395	ppb	04:32:18
1	Sc 361.383	891630.6	891630.6	101.64	%			04:33:34
1	Y 371.029	750847.9	750847.9	99.339	%			04:33:34
1	Ag 328.068†	184.9	-58.5	-0.2677	ug/L	-0.2677	ppb	04:33:39
1	As 188.979†	-18.0	0.5	0.2221	ug/L	0.2221	ppb	04:33:59
1	B 249.677†	-480.7	-74.7	-1.8129	ug/L	-1.8129	ppb	04:33:59
1	Ba 233.527†	10.2	11.4	0.0901	ug/L	0.0901	ppb	04:33:59
1	Be 313.107†	-3717.8	104.5	0.0391	ug/L	0.0391	ppb	04:33:39
1	Cd 226.502†	-191.5	7.8	0.0896	ug/L	0.0896	ppb	04:33:59
1	Co 228.616†	-68.9	-1.2	-0.0251	ug/L	-0.0251	ppb	04:33:59
1	Cr 267.716†	51.1	-27.4	-0.3068	ug/L	-0.3068	ppb	04:33:59
1	Cu 324.752†	5920.5	-165.9	-0.5044	ug/L	-0.5044	ppb	04:33:39
1	Mn 257.610†	555.4	87.7	0.1045	ug/L	0.1045	ppb	04:33:59
1	Mo 202.031†	12.8	2.5	0.1839	ug/L	0.1839	ppb	04:33:59
1	Ni 231.604†	73.4	9.7	0.2473	ug/L	0.2473	ppb	04:33:59
1	P 214.914†	225.2	11.1	6.7553	ug/L	6.7553	ppb	04:33:59
1	Pb 220.353†	61.5	118.6	14.580	ug/L	14.580	ppb	04:33:59
1	S 181.975 Axial†	39.6	-1.8	-2.6499	ug/L	-2.6499	ppb	04:33:59
1	Sb 206.836†	43.3	5.9	2.0906	ug/L	2.0906	ppb	04:33:59
1	Se 196.026†	-24.6	3.5	2.3598	ug/L	2.3598	ppb	04:33:59
1	Si 251.611†	610.4	42.2	1.3647	ug/L	1.3647	ppb	04:33:59
1	Sn 189.927†	15.5	4.8	0.8631	ug/L	0.8631	ppb	04:33:59
1	Ti 334.940†	-1442.9	-45.5	-0.0626	ug/L	-0.0626	ppb	04:33:39
1	Tl 190.801†	-30.9	2.2	0.6952	ug/L	0.6952	ppb	04:33:59
1	U 409.014†	-2911.9	21.7	0.5982	ug/L	0.5982	ppb	04:33:34
1	V 292.402†	-1536.7	-6.2	-0.0431	ug/L	-0.0431	ppb	04:33:39
1	Zn 213.857†	765.4	147.0	1.4768	ug/L	1.4768	ppb	04:33:59
1	SiO2†	654.7	89.7	6.2312	ug/L	6.2312	ppb	04:35:05
2	Sc Radial	3827.7	3827.7	97.7	%			04:33:03
2	Y RADIAL	4299.5	4299.5	97.47	%			04:32:43
2	Al 396.153Radial†	-137.4	-28.3	-26.539	ug/L	-26.539	ppb	04:32:43
2	Ca 317.933Radial†	24.7	5.6	11.796	ug/L	11.796	ppb	04:33:03
2	Fe 238.204 Radial†	12.5	1.5	20.820	ug/L	20.820	ppb	04:33:03
2	K 766.490 Radial†	2970.2	401.3	77.009	ug/L	77.009	ppb	04:32:43
2	Mg 279.077 IEC†	0.9	-3.2	-154.25	ug/L	-154.25	ppb	04:33:03
2	Na 589.592 Radial†	-860.4	-61.1	-18.835	ug/L	-18.835	ppb	04:32:43
2	Sr 421.552†	52.7	18.3	0.1263	ug/L	0.1263	ppb	04:32:43
2	Sc 361.383	900214.6	900214.6	102.62	%			04:34:05
2	Y 371.029	758714.0	758714.0	100.38	%			04:34:05
2	Ag 328.068†	197.6	-47.9	-0.2162	ug/L	-0.2162	ppb	04:34:10
2	As 188.979†	-22.8	-4.0	-1.7615	ug/L	-1.7615	ppb	04:34:30
2	B 249.677†	-494.9	-84.1	-2.0415	ug/L	-2.0415	ppb	04:34:30
2	Ba 233.527†	21.9	22.8	0.1795	ug/L	0.1795	ppb	04:34:30
2	Be 313.107†	-3739.6	118.1	0.0440	ug/L	0.0440	ppb	04:34:10
2	Cd 226.502†	-157.2	43.1	0.4975	ug/L	0.4975	ppb	04:34:30
2	Co 228.616†	-64.9	3.3	0.0696	ug/L	0.0696	ppb	04:34:30
2	Cr 267.716†	66.9	-12.4	-0.1381	ug/L	-0.1381	ppb	04:34:30
2	Cu 324.752†	6035.5	-109.4	-0.3326	ug/L	-0.3326	ppb	04:34:10
2	Mn 257.610†	570.3	97.0	0.1188	ug/L	0.1188	ppb	04:34:30
2	Mo 202.031†	11.0	0.6	0.0473	ug/L	0.0473	ppb	04:34:30
2	Ni 231.604†	70.1	5.9	0.1491	ug/L	0.1491	ppb	04:34:30

2	P 214.914†	213.0	-2.9	-1.6987	ug/L	-1.6987 ppb	04:34:30
2	Pb 220.353†	49.6	106.5	13.090	ug/L	13.090 ppb	04:34:30
2	S 181.975 Axial†	34.9	-6.8	-9.7380	ug/L	-9.7380 ppb	04:34:30
2	Sb 206.836†	39.9	2.1	0.7663	ug/L	0.7663 ppb	04:34:30
2	Se 196.026†	-28.1	0.3	0.2730	ug/L	0.2730 ppb	04:34:30
2	Si 251.611†	621.0	46.8	1.5153	ug/L	1.5153 ppb	04:34:30
2	Sn 189.927†	18.4	7.5	1.3407	ug/L	1.3407 ppb	04:34:30
2	Ti 334.940†	-1510.8	-98.2	-0.1406	ug/L	-0.1406 ppb	04:34:10
2	Tl 190.801†	-42.4	-8.8	-2.7989	ug/L	-2.7989 ppb	04:34:30
2	U 409.014†	-2913.4	47.6	1.3120	ug/L	1.3120 ppb	04:34:05
2	V 292.402†	-1527.9	16.8	0.1143	ug/L	0.1143 ppb	04:34:10
2	Zn 213.857†	753.4	128.1	1.2863	ug/L	1.2863 ppb	04:34:30
2	SiO2†	612.2	42.2	2.9285	ug/L	2.9285 ppb	04:35:10
3	Sc Radial	3815.5	3815.5	97.4	%		04:33:28
3	Y RADIAL	4377.5	4377.5	99.24	%		04:33:08
3	Al 396.153Radial†	-99.0	10.7	10.022	ug/L	10.022 ppb	04:33:08
3	Ca 317.933Radial†	26.6	7.6	15.895	ug/L	15.895 ppb	04:33:28
3	Fe 238.204 Radial†	9.6	-1.5	-21.066	ug/L	-21.066 ppb	04:33:28
3	K 766.490 Radial†	3021.0	463.1	88.874	ug/L	88.874 ppb	04:33:08
3	Mg 279.077 IEC†	3.7	-0.3	-14.936	ug/L	-14.936 ppb	04:33:28
3	Na 589.592 Radial†	-843.9	-47.0	-14.497	ug/L	-14.497 ppb	04:33:08
3	Sr 421.552†	41.4	6.7	0.0466	ug/L	0.0466 ppb	04:33:08
3	Sc 361.383	889140.8	889140.8	101.36	%		04:34:35
3	Y 371.029	749291.6	749291.6	99.133	%		04:34:35
3	Ag 328.068†	295.4	51.0	0.2303	ug/L	0.2303 ppb	04:34:40
3	As 188.979†	-25.0	-6.4	-2.8505	ug/L	-2.8505 ppb	04:35:00
3	B 249.677†	-505.3	-100.3	-2.4292	ug/L	-2.4292 ppb	04:35:00
3	Ba 233.527†	14.8	16.0	0.1258	ug/L	0.1258 ppb	04:35:00
3	Be 313.107†	-3859.7	-45.8	-0.0172	ug/L	-0.0172 ppb	04:34:40
3	Cd 226.502†	-187.2	11.6	0.1368	ug/L	0.1368 ppb	04:35:00
3	Co 228.616†	-58.8	8.5	0.1789	ug/L	0.1789 ppb	04:35:00
3	Cr 267.716†	79.5	0.7	0.0065	ug/L	0.0065 ppb	04:35:00
3	Cu 324.752†	5996.4	-74.6	-0.2288	ug/L	-0.2288 ppb	04:34:40
3	Mn 257.610†	535.2	69.2	0.0773	ug/L	0.0773 ppb	04:35:00
3	Mo 202.031†	10.2	-0.1	-0.0081	ug/L	-0.0081 ppb	04:35:00
3	Ni 231.604†	68.1	4.7	0.1194	ug/L	0.1194 ppb	04:35:00
3	P 214.914†	200.6	-12.6	-7.5002	ug/L	-7.5002 ppb	04:35:00
3	Pb 220.353†	60.4	117.7	14.484	ug/L	14.484 ppb	04:35:00
3	S 181.975 Axial†	45.6	4.2	6.0809	ug/L	6.0809 ppb	04:35:00
3	Sb 206.836†	49.3	12.0	4.1986	ug/L	4.1986 ppb	04:35:00
3	Se 196.026†	-26.9	1.2	0.7363	ug/L	0.7363 ppb	04:35:00
3	Si 251.611†	610.7	44.2	1.4298	ug/L	1.4298 ppb	04:35:00
3	Sn 189.927†	16.5	5.8	1.0444	ug/L	1.0444 ppb	04:35:00
3	Ti 334.940†	-1398.9	-6.1	-0.0066	ug/L	-0.0066 ppb	04:34:40
3	Tl 190.801†	-23.4	9.5	3.0287	ug/L	3.0287 ppb	04:35:00
3	U 409.014†	-2893.3	32.1	0.8874	ug/L	0.8874 ppb	04:34:35
3	V 292.402†	-1475.0	50.4	0.3561	ug/L	0.3561 ppb	04:34:40
3	Zn 213.857†	762.9	146.6	1.4785	ug/L	1.4785 ppb	04:35:00
3	SiO2†	624.2	61.4	4.2673	ug/L	4.2673 ppb	04:35:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893662.0	101.87	%	0.662				0.65%
Sc Radial	3829.3	97.7	%	0.37				0.38%
Y 371.029	752951.2	99.617	%	0.6683				0.67%
Y RADIAL	4325.1	98.05	%	1.030				1.05%
Ag 328.068†	-18.4	-0.0845	ug/L	0.27385	-0.0845	ppb	0.27385	324.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.0	-8.4304	ug/L	18.28284	-8.4304	ppb	18.28284	216.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-1.4633	ug/L	1.55786	-1.4633	ppb	1.55786	106.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-86.4	-2.0946	ug/L	0.31153	-2.0946	ppb	0.31153	14.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.7	0.1318	ug/L	0.04503	0.1318	ppb	0.04503	34.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	58.9	0.0220	ug/L	0.03403	0.0220	ppb	0.03403	154.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.2	14.992	ug/L	2.8536	14.992	ppb	2.8536	19.03%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              20.9      0.2413 ug/L      0.22312      0.2413 ppb       0.22312  92.46%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.5      0.0745 ug/L      0.10209      0.0745 ppb       0.10209 137.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.0     -0.1461 ug/L      0.15682     -0.1461 ppb       0.15682 107.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -116.6     -0.3552 ug/L      0.13920     -0.3552 ppb       0.13920  39.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      4.3721 ug/L     22.34347      4.3721 ppb      22.34347 511.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       413.5     79.344 ug/L       8.6038     79.344 ppb        8.6038  10.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.7    -83.801 ug/L      69.6730    -83.801 ppb       69.6730  83.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              84.7      0.1002 ug/L      0.02106      0.1002 ppb       0.02106  21.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.0      0.0744 ug/L      0.09883      0.0744 ppb       0.09883 132.87%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -32.7    -10.072 ug/L      11.6250    -10.072 ppb       11.6250 115.42%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.8      0.1720 ug/L      0.06693      0.1720 ppb       0.06693  38.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.5     -0.8145 ug/L      7.16874     -0.8145 ppb       7.16874 880.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             114.3     14.052 ug/L        0.8340     14.052 ppb        0.8340   5.94%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -2.1023 ug/L      7.92366     -2.1023 ppb       7.92366 376.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.7      2.3518 ug/L      1.73100      2.3518 ppb       1.73100  73.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7      1.1230 ug/L      1.09584      1.1230 ppb       1.09584  97.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              44.4      1.4366 ug/L      0.07552      1.4366 ppb       0.07552   5.26%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               6.0      1.0827 ug/L      0.24107      1.0827 ppb       0.24107  22.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              15.1      0.1041 ug/L      0.05026      0.1041 ppb       0.05026  48.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -49.9     -0.0699 ug/L      0.06731     -0.0699 ppb       0.06731  96.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      0.3083 ug/L      2.93300      0.3083 ppb       2.93300 951.26%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               33.8      0.9325 ug/L      0.35906      0.9325 ppb       0.35906  38.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               20.3      0.1425 ug/L      0.20107      0.1425 ppb       0.20107 141.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             140.6      1.4139 ug/L      0.11050      1.4139 ppb       0.11050   7.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    64.4      4.4757 ug/L      1.66119      4.4757 ppb       1.66119  37.12%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 110
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 05:34:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3786.5	3786.5	96.6	%			05:37:02
1	Y RADIAL	4276.4	4276.4	96.95	%			05:36:42
1	Al 396.153Radial†	5497.7	5802.2	5417.8	ug/L	5417.8	ppb	05:36:42
1	Ca 317.933Radial†	2456.2	2522.4	5273.1	ug/L	5273.1	ppb	05:37:02
1	Fe 238.204 Radial†	340.0	340.6	4822.0	ug/L	4822.0	ppb	05:37:02
1	K 766.490 Radial†	29788.7	28190.1	5403.2	ug/L	5403.2	ppb	05:36:42
1	Mg 279.077 IEC†	108.6	108.4	5253.8	ug/L	5253.8	ppb	05:37:02
1	Na 589.592 Radial†	30978.7	32881.0	10138	ug/L	10138	ppb	05:36:42
1	Sr 421.552†	72013.6	74494.3	515.43	ug/L	515.43	ppb	05:36:42
1	Sc 361.383	919927.0	919927.0	104.87	%			05:38:01
1	Y 371.029	765904.3	765904.3	101.33	%			05:38:01
1	Ag 328.068†	111197.7	105796.4	493.17	ug/L	493.17	ppb	05:38:01
1	As 188.979†	1156.8	1121.4	505.03	ug/L	505.03	ppb	05:38:21
1	B 249.677†	20180.4	19642.0	474.04	ug/L	474.04	ppb	05:38:01
1	Ba 233.527†	66231.9	63159.3	496.86	ug/L	496.86	ppb	05:38:01
1	Be 313.107†	1387634.0	1326993.0	499.82	ug/L	499.82	ppb	05:38:01
1	Cd 226.502†	45161.2	43261.4	500.87	ug/L	500.87	ppb	05:38:01
1	Co 228.616†	24446.6	23378.5	489.79	ug/L	489.79	ppb	05:38:21
1	Cr 267.716†	46273.8	44048.5	495.45	ug/L	495.45	ppb	05:38:01
1	Cu 324.752†	174102.5	160031.2	486.99	ug/L	486.99	ppb	05:38:01
1	Mn 257.610†	459958.9	438152.4	498.85	ug/L	498.85	ppb	05:38:01
1	Mo 202.031†	7059.3	6721.5	493.91	ug/L	493.91	ppb	05:38:21
1	Ni 231.604†	20375.6	19367.5	492.28	ug/L	492.28	ppb	05:38:21
1	P 214.914†	4576.6	4153.7	2405.9	ug/L	2405.9	ppb	05:38:21
1	Pb 220.353†	4309.2	4167.4	514.17	ug/L	514.17	ppb	05:38:21
1	S 181.975 Axial†	774.3	697.6	1002.8	ug/L	1002.8	ppb	05:38:21
1	Sb 206.836†	1492.0	1386.0	502.12	ug/L	502.12	ppb	05:38:21
1	Se 196.026†	765.5	757.7	512.85	ug/L	512.85	ppb	05:38:21
1	Si 251.611†	80452.9	76160.6	2458.4	ug/L	2458.4	ppb	05:38:01
1	Sn 189.927†	2863.9	2720.5	488.79	ug/L	488.79	ppb	05:38:21
1	Ti 334.940†	332748.0	318678.5	500.67	ug/L	500.67	ppb	05:38:01
1	Tl 190.801†	1589.5	1548.3	498.50	ug/L	498.50	ppb	05:38:21
1	U 409.014†	14587.2	16796.8	462.17	ug/L	462.17	ppb	05:38:01
1	V 292.402†	72111.9	70270.7	496.54	ug/L	496.54	ppb	05:38:01
1	Zn 213.857†	52352.5	49316.7	491.93	ug/L	491.93	ppb	05:38:01
1	SiO2†	80941.8	76630.7	5312.1	ug/L	5312.1	ppb	05:39:22
2	Sc Radial	3861.7	3861.7	98.5	%			05:37:27
2	Y RADIAL	4418.6	4418.6	100.2	%			05:37:07
2	Al 396.153Radial†	5388.3	5580.4	5209.2	ug/L	5209.2	ppb	05:37:07
2	Ca 317.933Radial†	2455.1	2471.7	5167.1	ug/L	5167.1	ppb	05:37:27
2	Fe 238.204 Radial†	336.9	330.5	4680.7	ug/L	4680.7	ppb	05:37:27
2	K 766.490 Radial†	29470.9	27267.3	5226.3	ug/L	5226.3	ppb	05:37:07
2	Mg 279.077 IEC†	103.2	100.7	4881.7	ug/L	4881.7	ppb	05:37:27
2	Na 589.592 Radial†	30414.8	31684.6	9769.2	ug/L	9769.2	ppb	05:37:07
2	Sr 421.552†	70615.4	71624.5	495.57	ug/L	495.57	ppb	05:37:07
2	Sc 361.383	908617.0	908617.0	103.58	%			05:38:29
2	Y 371.029	755854.8	755854.8	100.00	%			05:38:29
2	Ag 328.068†	111985.3	107876.7	502.79	ug/L	502.79	ppb	05:38:29
2	As 188.979†	1145.7	1124.4	506.39	ug/L	506.39	ppb	05:38:49
2	B 249.677†	20359.5	20054.4	484.03	ug/L	484.03	ppb	05:38:29
2	Ba 233.527†	66818.0	64511.4	507.49	ug/L	507.49	ppb	05:38:29
2	Be 313.107†	1396453.2	1351978.5	509.23	ug/L	509.23	ppb	05:38:29
2	Cd 226.502†	45574.4	44196.4	511.72	ug/L	511.72	ppb	05:38:29
2	Co 228.616†	24700.9	23914.2	501.02	ug/L	501.02	ppb	05:38:49
2	Cr 267.716†	46641.8	44953.0	505.60	ug/L	505.60	ppb	05:38:29
2	Cu 324.752†	175513.4	163460.0	497.40	ug/L	497.40	ppb	05:38:29
2	Mn 257.610†	463832.2	447351.5	509.32	ug/L	509.32	ppb	05:38:29
2	Mo 202.031†	7139.0	6882.3	505.70	ug/L	505.70	ppb	05:38:49
2	Ni 231.604†	20553.2	19780.8	502.78	ug/L	502.78	ppb	05:38:49

2	P 214.914†	4587.9	4218.9	2443.2 ug/L	2443.2 ppb	05:38:49
2	Pb 220.353†	4336.1	4244.5	523.65 ug/L	523.65 ppb	05:38:49
2	S 181.975 Axial†	777.0	709.3	1019.7 ug/L	1019.7 ppb	05:38:49
2	Sb 206.836†	1507.8	1419.0	514.11 ug/L	514.11 ppb	05:38:49
2	Se 196.026†	764.9	766.2	518.03 ug/L	518.03 ppb	05:38:49
2	Si 251.611†	81150.1	77788.6	2510.9 ug/L	2510.9 ppb	05:38:29
2	Sn 189.927†	2909.3	2798.3	502.74 ug/L	502.74 ppb	05:38:49
2	Ti 334.940†	335525.1	325309.4	511.09 ug/L	511.09 ppb	05:38:29
2	Tl 190.801†	1600.3	1577.6	507.93 ug/L	507.93 ppb	05:38:49
2	U 409.014†	14918.4	17289.6	475.77 ug/L	475.77 ppb	05:38:29
2	V 292.402†	72707.4	71701.6	506.71 ug/L	506.71 ppb	05:38:29
2	Zn 213.857†	52718.7	50291.6	501.68 ug/L	501.68 ppb	05:38:29
2	SiO2†	81797.4	78417.5	5435.9 ug/L	5435.9 ppb	05:39:27
3	Sc Radial	3799.7	3799.7	97.0 %		05:37:52
3	Y RADIAL	4399.4	4399.4	99.74 %		05:37:32
3	Al 396.153Radial†	5521.4	5807.0	5421.4 ug/L	5421.4 ppb	05:37:32
3	Ca 317.933Radial†	2441.5	2498.4	5223.0 ug/L	5223.0 ppb	05:37:52
3	Fe 238.204 Radial†	337.2	336.5	4764.7 ug/L	4764.7 ppb	05:37:52
3	K 766.490 Radial†	30030.1	28332.1	5430.5 ug/L	5430.5 ppb	05:37:32
3	Mg 279.077 IEC†	105.0	104.2	5053.9 ug/L	5053.9 ppb	05:37:52
3	Na 589.592 Radial†	31005.6	32797.6	10112 ug/L	10112 ppb	05:37:32
3	Sr 421.552†	72537.1	74775.9	517.38 ug/L	517.38 ppb	05:37:32
3	Sc 361.383	893474.7	893474.7	101.85 %		05:38:56
3	Y 371.029	742884.1	742884.1	98.285 %		05:38:56
3	Ag 328.068†	110542.0	108292.0	504.75 ug/L	504.75 ppb	05:38:56
3	As 188.979†	1154.1	1151.3	518.46 ug/L	518.46 ppb	05:39:16
3	B 249.677†	20247.1	20277.2	489.40 ug/L	489.40 ppb	05:38:56
3	Ba 233.527†	65821.4	64626.1	508.39 ug/L	508.39 ppb	05:38:56
3	Be 313.107†	1375969.8	1354716.5	510.26 ug/L	510.26 ppb	05:38:56
3	Cd 226.502†	44849.1	44230.0	512.11 ug/L	512.11 ppb	05:38:56
3	Co 228.616†	24672.6	24290.6	508.92 ug/L	508.92 ppb	05:39:16
3	Cr 267.716†	45986.9	45073.2	506.96 ug/L	506.96 ppb	05:38:56
3	Cu 324.752†	173945.5	164792.3	501.46 ug/L	501.46 ppb	05:38:56
3	Mn 257.610†	457468.1	448692.5	510.85 ug/L	510.85 ppb	05:38:56
3	Mo 202.031†	7119.0	6979.5	512.84 ug/L	512.84 ppb	05:39:16
3	Ni 231.604†	20511.7	20076.3	510.29 ug/L	510.29 ppb	05:39:16
3	P 214.914†	4594.2	4300.2	2491.4 ug/L	2491.4 ppb	05:39:16
3	Pb 220.353†	4326.7	4306.2	531.29 ug/L	531.29 ppb	05:39:16
3	S 181.975 Axial†	780.2	725.2	1042.5 ug/L	1042.5 ppb	05:39:16
3	Sb 206.836†	1501.0	1437.0	520.65 ug/L	520.65 ppb	05:39:16
3	Se 196.026†	769.8	783.6	529.67 ug/L	529.67 ppb	05:39:16
3	Si 251.611†	80144.4	78129.1	2521.8 ug/L	2521.8 ppb	05:38:56
3	Sn 189.927†	2898.2	2835.0	509.33 ug/L	509.33 ppb	05:39:16
3	Ti 334.940†	331343.6	326693.7	513.26 ug/L	513.26 ppb	05:38:56
3	Tl 190.801†	1605.9	1609.3	518.07 ug/L	518.07 ppb	05:39:16
3	U 409.014†	14589.4	17210.8	473.58 ug/L	473.58 ppb	05:38:56
3	V 292.402†	71742.6	71943.9	508.49 ug/L	508.49 ppb	05:38:56
3	Zn 213.857†	51989.0	50437.8	503.09 ug/L	503.09 ppb	05:38:56
3	SiO2†	82306.6	80255.8	5563.5 ug/L	5563.5 ppb	05:39:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907339.6	103.43	%	1.513				1.46%
Sc Radial	3816.0	97.4	%	1.02				1.05%
Y 371.029	754881.1	99.873	%	1.5269				1.53%
Y RADIAL	4364.8	98.96	%	1.750				1.77%
Ag 328.068†	107321.7	500.23	ug/L	6.200	500.23	ppb	6.200	1.24%
QC value within limits for Ag 328.068 Recovery = 100.05%								
Al 396.153Radial†	5729.9	5349.5	ug/L	121.46	5349.5	ppb	121.46	2.27%
QC value within limits for Al 396.153Radial Recovery = 106.99%								
As 188.979†	1132.4	509.96	ug/L	7.392	509.96	ppb	7.392	1.45%
QC value within limits for As 188.979 Recovery = 101.99%								
B 249.677†	19991.2	482.49	ug/L	7.793	482.49	ppb	7.793	1.62%
QC value within limits for B 249.677 Recovery = 96.50%								
Ba 233.527†	64099.0	504.25	ug/L	6.414	504.25	ppb	6.414	1.27%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1344562.6	506.44	ug/L	5.756	506.44	ppb	5.756	1.14%
QC value within limits for Be 313.107 Recovery = 101.29%								
Ca 317.933Radial†	2497.5	5221.1	ug/L	53.00	5221.1	ppb	53.00	1.02%

```
   QC value within limits for Ca 317.933Radial  Recovery = 104.42%
Cd 226.502†            43895.9      508.23 ug/L        6.379      508.23 ppb        6.379   1.26%
   QC value within limits for Cd 226.502  Recovery = 101.65%
Co 228.616†            23861.1      499.91 ug/L        9.611      499.91 ppb        9.611   1.92%
   QC value within limits for Co 228.616  Recovery = 99.98%
Cr 267.716†            44691.5      502.67 ug/L        6.289      502.67 ppb        6.289   1.25%
   QC value within limits for Cr 267.716  Recovery = 100.53%
Cu 324.752†           162761.2      495.28 ug/L        7.469      495.28 ppb        7.469   1.51%
   QC value within limits for Cu 324.752  Recovery = 99.06%
Fe 238.204 Radial†       335.9      4755.8 ug/L       71.06      4755.8 ppb        71.06   1.49%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.12%
K 766.490 Radial†      27929.8      5353.3 ug/L      110.85      5353.3 ppb       110.85   2.07%
   QC value within limits for K 766.490 Radial  Recovery = 107.07%
Mg 279.077 IEC†          104.4      5063.2 ug/L      186.23      5063.2 ppb       186.23   3.68%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.26%
Mn 257.610†           444732.1      506.34 ug/L        6.530      506.34 ppb        6.530   1.29%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†             6861.1      504.15 ug/L        9.561      504.15 ppb        9.561   1.90%
   QC value within limits for Mo 202.031  Recovery = 100.83%
Na 589.592 Radial†     32454.4       10007 ug/L        206.0       10007 ppb        206.0   2.06%
   QC value within limits for Na 589.592 Radial  Recovery = 100.07%
Ni 231.604†            19741.5      501.79 ug/L        9.050      501.79 ppb        9.050   1.80%
   QC value within limits for Ni 231.604  Recovery = 100.36%
P 214.914†              4224.3      2446.8 ug/L       42.88      2446.8 ppb        42.88   1.75%
   QC value within limits for P 214.914  Recovery = 97.87%
Pb 220.353†             4239.3      523.03 ug/L        8.575      523.03 ppb        8.575   1.64%
   QC value within limits for Pb 220.353  Recovery = 104.61%
S 181.975 Axial†         710.7      1021.7 ug/L       19.92      1021.7 ppb        19.92   1.95%
   QC value within limits for S 181.975 Axial  Recovery = 102.17%
Sb 206.836†             1414.0      512.29 ug/L        9.400      512.29 ppb        9.400   1.83%
   QC value within limits for Sb 206.836  Recovery = 102.46%
Se 196.026†              769.2      520.18 ug/L        8.615      520.18 ppb        8.615   1.66%
   QC value within limits for Se 196.026  Recovery = 104.04%
Si 251.611†            77359.4      2497.1 ug/L       33.93      2497.1 ppb        33.93   1.36%
   QC value within limits for Si 251.611  Recovery = 99.88%
Sn 189.927†             2784.6      500.29 ug/L       10.486      500.29 ppb       10.486   2.10%
   QC value within limits for Sn 189.927  Recovery = 100.06%
Sr 421.552†            73631.6      509.46 ug/L       12.066      509.46 ppb       12.066   2.37%
   QC value within limits for Sr 421.552  Recovery = 101.89%
Ti 334.940†           323560.5      508.34 ug/L        6.734      508.34 ppb        6.734   1.32%
   QC value within limits for Ti 334.940  Recovery = 101.67%
Tl 190.801†             1578.4      508.17 ug/L        9.786      508.17 ppb        9.786   1.93%
   QC value within limits for Tl 190.801  Recovery = 101.63%
U 409.014†             17099.1      470.51 ug/L        7.304      470.51 ppb        7.304   1.55%
   QC value within limits for U 409.014  Recovery = 94.10%
V 292.402†             71305.4      503.91 ug/L        6.445      503.91 ppb        6.445   1.28%
   QC value within limits for V 292.402  Recovery = 100.78%
Zn 213.857†            50015.4      498.90 ug/L        6.078      498.90 ppb        6.078   1.22%
   QC value within limits for Zn 213.857  Recovery = 99.78%
SiO2†                  78434.7      5437.1 ug/L       125.71      5437.1 ppb       125.71   2.31%
   QC value within limits for SiO2  Recovery = 101.68%
All analyte(s) passed QC.
```

Sequence No.: 111
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 05:41:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3745.4	3745.4	95.6	%			05:43:54
1	Y RADIAL	4285.4	4285.4	97.16	%			05:43:34
1	Al 396.153Radial†	-132.5	-26.2	-24.592	ug/L	-24.592	ppb	05:43:34
1	Ca 317.933Radial†	26.8	8.3	17.439	ug/L	17.439	ppb	05:43:54
1	Fe 238.204 Radial†	10.0	-0.9	-12.734	ug/L	-12.734	ppb	05:43:54
1	K 766.490 Radial†	3025.5	526.0	100.95	ug/L	100.95	ppb	05:43:34
1	Mg 279.077 IEC†	1.2	-2.8	-135.64	ug/L	-135.64	ppb	05:43:54
1	Na 589.592 Radial†	-846.3	-65.7	-20.262	ug/L	-20.262	ppb	05:43:34
1	Sr 421.552†	9.1	-26.2	-0.1815	ug/L	-0.1815	ppb	05:43:34
1	Sc 361.383	893047.0	893047.0	101.80	%			05:44:51
1	Y 371.029	755041.3	755041.3	99.894	%			05:44:51
1	Ag 328.068†	252.3	7.4	0.0383	ug/L	0.0383	ppb	05:44:51
1	As 188.979†	-27.9	-9.1	-4.0716	ug/L	-4.0716	ppb	05:45:11
1	B 249.677†	-454.0	-47.7	-1.1547	ug/L	-1.1547	ppb	05:45:11
1	Ba 233.527†	24.8	25.8	0.2016	ug/L	0.2016	ppb	05:45:11
1	Be 313.107†	-3732.7	95.6	0.0359	ug/L	0.0359	ppb	05:44:51
1	Cd 226.502†	-193.8	5.9	0.0674	ug/L	0.0674	ppb	05:45:11
1	Co 228.616†	-66.6	1.1	0.0233	ug/L	0.0233	ppb	05:45:11
1	Cr 267.716†	68.6	-10.3	-0.1130	ug/L	-0.1130	ppb	05:45:11
1	Cu 324.752†	5966.0	-130.4	-0.3915	ug/L	-0.3915	ppb	05:44:51
1	Mn 257.610†	531.6	63.5	0.0765	ug/L	0.0765	ppb	05:45:11
1	Mo 202.031†	14.3	3.9	0.2850	ug/L	0.2850	ppb	05:45:11
1	Ni 231.604†	55.3	-8.1	-0.2059	ug/L	-0.2059	ppb	05:45:11
1	P 214.914†	200.5	-13.6	-8.0911	ug/L	-8.0911	ppb	05:45:11
1	Pb 220.353†	25.5	83.1	10.220	ug/L	10.220	ppb	05:45:11
1	S 181.975 Axial†	47.9	6.3	9.0497	ug/L	9.0497	ppb	05:45:11
1	Sb 206.836†	37.9	0.5	0.1924	ug/L	0.1924	ppb	05:45:11
1	Se 196.026†	-28.3	-0.0	-0.0509	ug/L	-0.0509	ppb	05:45:11
1	Si 251.611†	606.6	37.5	1.2110	ug/L	1.2110	ppb	05:45:11
1	Sn 189.927†	9.7	-0.9	-0.1607	ug/L	-0.1607	ppb	05:45:11
1	Ti 334.940†	-1402.1	-3.2	0.0132	ug/L	0.0132	ppb	05:44:51
1	Tl 190.801†	-45.4	-12.1	-3.8577	ug/L	-3.8577	ppb	05:45:11
1	U 409.014†	-3338.2	-392.4	-10.835	ug/L	-10.835	ppb	05:44:51
1	V 292.402†	-1553.9	-20.7	-0.1615	ug/L	-0.1615	ppb	05:44:51
1	Zn 213.857†	747.3	128.1	1.2928	ug/L	1.2928	ppb	05:45:11
1	SiO2†	637.3	71.6	4.9660	ug/L	4.9660	ppb	05:46:07
2	Sc Radial	3750.4	3750.4	95.7	%			05:44:19
2	Y RADIAL	4233.7	4233.7	95.98	%			05:43:59
2	Al 396.153Radial†	-126.0	-19.3	-18.117	ug/L	-18.117	ppb	05:43:59
2	Ca 317.933Radial†	27.5	9.1	19.025	ug/L	19.025	ppb	05:44:19
2	Fe 238.204 Radial†	10.9	0.1	1.1854	ug/L	1.1854	ppb	05:44:19
2	K 766.490 Radial†	2968.1	461.8	88.607	ug/L	88.607	ppb	05:43:59
2	Mg 279.077 IEC†	2.3	-1.7	-81.696	ug/L	-81.696	ppb	05:44:19
2	Na 589.592 Radial†	-810.0	-26.6	-8.2107	ug/L	-8.2107	ppb	05:43:59
2	Sr 421.552†	21.0	-13.8	-0.0956	ug/L	-0.0956	ppb	05:43:59
2	Sc 361.383	890981.8	890981.8	101.57	%			05:45:16
2	Y 371.029	752653.1	752653.1	99.578	%			05:45:16
2	Ag 328.068†	252.4	8.1	0.0462	ug/L	0.0462	ppb	05:45:16
2	As 188.979†	-23.7	-5.1	-2.2933	ug/L	-2.2933	ppb	05:45:36
2	B 249.677†	-469.3	-63.8	-1.5466	ug/L	-1.5466	ppb	05:45:36
2	Ba 233.527†	2.6	3.9	0.0328	ug/L	0.0328	ppb	05:45:36
2	Be 313.107†	-3779.9	40.6	0.0151	ug/L	0.0151	ppb	05:45:16
2	Cd 226.502†	-180.0	19.0	0.2192	ug/L	0.2192	ppb	05:45:36
2	Co 228.616†	-77.0	-9.3	-0.1936	ug/L	-0.1936	ppb	05:45:36
2	Cr 267.716†	74.2	-4.6	-0.0482	ug/L	-0.0482	ppb	05:45:36
2	Cu 324.752†	5967.7	-115.2	-0.3468	ug/L	-0.3468	ppb	05:45:16
2	Mn 257.610†	529.2	62.3	0.0743	ug/L	0.0743	ppb	05:45:36
2	Mo 202.031†	18.0	7.6	0.5591	ug/L	0.5591	ppb	05:45:36
2	Ni 231.604†	69.6	6.0	0.1536	ug/L	0.1536	ppb	05:45:36

2	P 214.914†	209.1	-4.6	-2.7012 ug/L	-2.7012 ppb	05:45:36
2	Pb 220.353†	28.5	86.2	10.596 ug/L	10.596 ppb	05:45:36
2	S 181.975 Axial†	39.2	-2.2	-3.1812 ug/L	-3.1812 ppb	05:45:36
2	Sb 206.836†	39.5	2.2	0.7670 ug/L	0.7670 ppb	05:45:36
2	Se 196.026†	-30.1	-1.9	-1.2442 ug/L	-1.2442 ppb	05:45:36
2	Si 251.611†	605.2	37.6	1.2094 ug/L	1.2094 ppb	05:45:36
2	Sn 189.927†	10.6	-0.0	-0.0044 ug/L	-0.0044 ppb	05:45:36
2	Ti 334.940†	-1427.8	-31.7	-0.0377 ug/L	-0.0377 ppb	05:45:16
2	Tl 190.801†	-46.7	-13.4	-4.2732 ug/L	-4.2732 ppb	05:45:36
2	U 409.014†	-3170.5	-235.0	-6.4888 ug/L	-6.4888 ppb	05:45:16
2	V 292.402†	-1409.6	117.8	0.8155 ug/L	0.8155 ppb	05:45:16
2	Zn 213.857†	757.7	140.0	1.4087 ug/L	1.4087 ppb	05:45:36
2	SiO2†	625.4	61.4	4.2508 ug/L	4.2508 ppb	05:46:12
3	Sc Radial	3739.4	3739.4	95.4 %		05:44:44
3	Y RADIAL	4201.5	4201.5	95.25 %		05:44:24
3	Al 396.153Radial†	-118.1	-11.4	-10.682 ug/L	-10.682 ppb	05:44:24
3	Ca 317.933Radial†	30.2	11.9	24.967 ug/L	24.967 ppb	05:44:44
3	Fe 238.204 Radial†	10.5	-0.4	-5.2246 ug/L	-5.2246 ppb	05:44:44
3	K 766.490 Radial†	2957.8	460.1	88.302 ug/L	88.302 ppb	05:44:24
3	Mg 279.077 IEC†	2.9	-1.0	-49.271 ug/L	-49.271 ppb	05:44:44
3	Na 589.592 Radial†	-930.5	-155.4	-47.919 ug/L	-47.919 ppb	05:44:24
3	Sr 421.552†	25.9	-8.6	-0.0594 ug/L	-0.0594 ppb	05:44:24
3	Sc 361.383	888844.4	888844.4	101.32 %		05:45:41
3	Y 371.029	750348.4	750348.4	99.273 %		05:45:41
3	Ag 328.068†	319.2	74.6	0.3508 ug/L	0.3508 ppb	05:45:41
3	As 188.979†	-25.8	-7.2	-3.2176 ug/L	-3.2176 ppb	05:46:01
3	B 249.677†	-510.5	-105.6	-2.5577 ug/L	-2.5577 ppb	05:46:01
3	Ba 233.527†	15.7	16.9	0.1338 ug/L	0.1338 ppb	05:46:01
3	Be 313.107†	-3741.1	70.0	0.0262 ug/L	0.0262 ppb	05:45:41
3	Cd 226.502†	-200.6	-1.7	-0.0199 ug/L	-0.0199 ppb	05:46:01
3	Co 228.616†	-83.3	-15.7	-0.3285 ug/L	-0.3285 ppb	05:46:01
3	Cr 267.716†	55.2	-23.2	-0.2577 ug/L	-0.2577 ppb	05:46:01
3	Cu 324.752†	5987.4	-81.6	-0.2453 ug/L	-0.2453 ppb	05:45:41
3	Mn 257.610†	544.3	78.5	0.0908 ug/L	0.0908 ppb	05:46:01
3	Mo 202.031†	11.2	0.9	0.0641 ug/L	0.0641 ppb	05:46:01
3	Ni 231.604†	89.3	25.7	0.6541 ug/L	0.6541 ppb	05:46:01
3	P 214.914†	201.3	-11.8	-7.0522 ug/L	-7.0522 ppb	05:46:01
3	Pb 220.353†	26.5	84.2	10.360 ug/L	10.360 ppb	05:46:01
3	S 181.975 Axial†	42.8	1.5	2.0908 ug/L	2.0908 ppb	05:46:01
3	Sb 206.836†	46.5	9.2	3.2205 ug/L	3.2205 ppb	05:46:01
3	Se 196.026†	-38.5	-10.3	-6.7407 ug/L	-6.7407 ppb	05:46:01
3	Si 251.611†	637.0	70.4	2.2773 ug/L	2.2773 ppb	05:46:01
3	Sn 189.927†	11.8	1.2	0.2150 ug/L	0.2150 ppb	05:46:01
3	Ti 334.940†	-1420.7	-28.1	-0.0340 ug/L	-0.0340 ppb	05:45:41
3	Tl 190.801†	-40.4	-7.3	-2.3365 ug/L	-2.3365 ppb	05:46:01
3	U 409.014†	-3150.9	-223.1	-6.1609 ug/L	-6.1609 ppb	05:45:41
3	V 292.402†	-1446.3	78.3	0.5350 ug/L	0.5350 ppb	05:45:41
3	Zn 213.857†	747.0	131.2	1.3173 ug/L	1.3173 ppb	05:46:01
3	SiO2†	626.6	64.0	4.4472 ug/L	4.4472 ppb	05:46:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890957.7	101.56	%	0.240				0.24%
Sc Radial	3745.0	95.6	%	0.14				0.15%
Y 371.029	752680.9	99.582	%	0.3105				0.31%
Y RADIAL	4240.2	96.13	%	0.961				1.00%
Ag 328.068†	30.0	0.1451	ug/L	0.17817	0.1451	ppb	0.17817	122.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-19.0	-17.797	ug/L	6.9608	-17.797	ppb	6.9608	39.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.1	-3.1942	ug/L	0.88936	-3.1942	ppb	0.88936	27.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-72.4	-1.7530	ug/L	0.72390	-1.7530	ppb	0.72390	41.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.5	0.1227	ug/L	0.08495	0.1227	ppb	0.08495	69.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	68.7	0.0257	ug/L	0.01039	0.0257	ppb	0.01039	40.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.8	20.477	ug/L	3.9685	20.477	ppb	3.9685	19.38%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.7      0.0889 ug/L       0.12101      0.0889 ppb        0.12101 136.15%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -8.0     -0.1663 ug/L       0.17745     -0.1663 ppb        0.17745 106.73%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -12.7     -0.1396 ug/L       0.10724     -0.1396 ppb        0.10724  76.79%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -109.1     -0.3279 ug/L       0.07492     -0.3279 ppb        0.07492  22.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -5.5912 ug/L       6.96718     -5.5912 ppb        6.96718 124.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         482.6      92.619 ug/L        7.2147      92.619 ppb         7.2147   7.79%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.8     -88.871 ug/L       43.6315     -88.871 ppb        43.6315  49.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                68.1      0.0806 ug/L       0.00893      0.0806 ppb        0.00893  11.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.1      0.3027 ug/L       0.24798      0.3027 ppb        0.24798  81.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -82.6     -25.464 ug/L       20.3590     -25.464 ppb        20.3590  79.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.9      0.2006 ug/L       0.43195      0.2006 ppb        0.43195 215.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.0     -5.9482 ug/L       2.85954     -5.9482 ppb        2.85954  48.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                84.5      10.392 ug/L        0.1905      10.392 ppb         0.1905   1.83%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.8      2.6531 ug/L       6.13481      2.6531 ppb        6.13481 231.23%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.0      1.3933 ug/L       1.60824      1.3933 ppb        1.60824 115.43%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.1     -2.6786 ug/L       3.56808     -2.6786 ppb        3.56808 133.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                48.5      1.5659 ug/L       0.61613      1.5659 ppb        0.61613  39.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.1      0.0166 ug/L       0.18873      0.0166 ppb        0.18873 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -16.2     -0.1122 ug/L       0.06271     -0.1122 ppb        0.06271  55.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -21.0     -0.0195 ug/L       0.02838     -0.0195 ppb        0.02838 145.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -10.9     -3.4891 ug/L       1.01962     -3.4891 ppb        1.01962  29.22%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -283.5     -7.8281 ug/L       2.60896     -7.8281 ppb        2.60896  33.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 58.5      0.3963 ug/L       0.50306      0.3963 ppb        0.50306 126.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               133.1      1.3396 ug/L       0.06107      1.3396 ppb        0.06107   4.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      65.7      4.5547 ug/L       0.36947      4.5547 ppb        0.36947   8.11%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 119
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 06:36:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3663.7	3663.7	93.5	%			06:38:51
1	Y RADIAL	4263.5	4263.5	96.66	%			06:38:31
1	Al 396.153Radial†	5504.5	6000.3	5603.2	ug/L	5603.2	ppb	06:38:31
1	Ca 317.933Radial†	2445.9	2596.6	5428.1	ug/L	5428.1	ppb	06:38:51
1	Fe 238.204 Radial†	334.2	346.1	4901.0	ug/L	4901.0	ppb	06:38:51
1	K 766.490 Radial†	29837.3	29275.7	5611.5	ug/L	5611.5	ppb	06:38:31
1	Mg 279.077 IEC†	106.1	109.4	5306.2	ug/L	5306.2	ppb	06:38:51
1	Na 589.592 Radial†	29988.1	32896.4	10143	ug/L	10143	ppb	06:38:31
1	Sr 421.552†	70738.8	75629.7	523.28	ug/L	523.28	ppb	06:38:31
1	Sc 361.383	906609.3	906609.3	103.35	%			06:39:49
1	Y 371.029	753058.2	753058.2	99.631	%			06:39:49
1	Ag 328.068†	111398.4	107548.2	501.32	ug/L	501.32	ppb	06:39:54
1	As 188.979†	1155.1	1135.9	511.64	ug/L	511.64	ppb	06:40:14
1	B 249.677†	20529.6	20262.6	489.03	ug/L	489.03	ppb	06:39:54
1	Ba 233.527†	66204.6	64060.7	503.95	ug/L	503.95	ppb	06:39:54
1	Be 313.107†	1403278.5	1361568.3	512.84	ug/L	512.84	ppb	06:39:49
1	Cd 226.502†	45192.5	43924.3	508.55	ug/L	508.55	ppb	06:39:54
1	Co 228.616†	24887.4	24147.5	505.89	ug/L	505.89	ppb	06:39:54
1	Cr 267.716†	46369.8	44789.6	503.78	ug/L	503.78	ppb	06:39:54
1	Cu 324.752†	173568.5	161953.3	492.83	ug/L	492.83	ppb	06:39:54
1	Mn 257.610†	465593.4	450047.4	512.39	ug/L	512.39	ppb	06:39:49
1	Mo 202.031†	7057.1	6818.2	501.02	ug/L	501.02	ppb	06:40:14
1	Ni 231.604†	20685.0	19952.3	507.14	ug/L	507.14	ppb	06:39:54
1	P 214.914†	4586.3	4227.2	2449.1	ug/L	2449.1	ppb	06:40:14
1	Pb 220.353†	4298.7	4217.5	520.38	ug/L	520.38	ppb	06:40:14
1	S 181.975 Axial†	778.7	712.7	1024.5	ug/L	1024.5	ppb	06:40:14
1	Sb 206.836†	1507.6	1422.1	515.08	ug/L	515.08	ppb	06:40:14
1	Se 196.026†	772.0	774.7	524.28	ug/L	524.28	ppb	06:40:14
1	Si 251.611†	80613.6	77443.0	2499.8	ug/L	2499.8	ppb	06:39:54
1	Sn 189.927†	2912.2	2807.3	504.39	ug/L	504.39	ppb	06:40:14
1	Ti 334.940†	336287.8	326764.7	513.38	ug/L	513.38	ppb	06:39:49
1	Tl 190.801†	1599.8	1580.5	508.89	ug/L	508.89	ppb	06:40:14
1	U 409.014†	15073.5	17471.6	480.78	ug/L	480.78	ppb	06:39:54
1	V 292.402†	72356.1	71517.2	505.34	ug/L	505.34	ppb	06:39:54
1	Zn 213.857†	52451.8	50146.1	500.16	ug/L	500.16	ppb	06:39:54
1	SiO2†	79773.9	76634.4	5312.1	ug/L	5312.1	ppb	06:41:22
2	Sc Radial	3693.8	3693.8	94.3	%			06:39:16
2	Y RADIAL	4161.9	4161.9	94.36	%			06:38:56
2	Al 396.153Radial†	5395.8	5837.0	5449.7	ug/L	5449.7	ppb	06:38:56
2	Ca 317.933Radial†	2449.0	2578.6	5390.5	ug/L	5390.5	ppb	06:39:16
2	Fe 238.204 Radial†	333.6	342.6	4851.9	ug/L	4851.9	ppb	06:39:16
2	K 766.490 Radial†	29314.9	28461.3	5455.3	ug/L	5455.3	ppb	06:38:56
2	Mg 279.077 IEC†	103.8	106.1	5143.2	ug/L	5143.2	ppb	06:39:16
2	Na 589.592 Radial†	29505.4	32122.8	9904.3	ug/L	9904.3	ppb	06:38:56
2	Sr 421.552†	69771.6	73986.8	511.92	ug/L	511.92	ppb	06:38:56
2	Sc 361.383	889395.1	889395.1	101.39	%			06:40:20
2	Y 371.029	739438.9	739438.9	97.830	%			06:40:20
2	Ag 328.068†	111690.9	109923.0	512.35	ug/L	512.35	ppb	06:40:25
2	As 188.979†	1144.1	1146.7	516.46	ug/L	516.46	ppb	06:40:45
2	B 249.677†	20670.7	20786.2	501.70	ug/L	501.70	ppb	06:40:25
2	Ba 233.527†	66265.5	65360.6	514.18	ug/L	514.18	ppb	06:40:25
2	Be 313.107†	1387877.5	1372658.3	517.02	ug/L	517.02	ppb	06:40:20
2	Cd 226.502†	45298.4	44875.1	519.58	ug/L	519.58	ppb	06:40:25
2	Co 228.616†	24916.5	24642.3	516.27	ug/L	516.27	ppb	06:40:25
2	Cr 267.716†	46502.6	45788.9	515.00	ug/L	515.00	ppb	06:40:25
2	Cu 324.752†	174138.3	165765.9	504.42	ug/L	504.42	ppb	06:40:25
2	Mn 257.610†	460630.0	453871.4	516.75	ug/L	516.75	ppb	06:40:20
2	Mo 202.031†	7040.1	6933.7	509.49	ug/L	509.49	ppb	06:40:45
2	Ni 231.604†	20757.6	20411.3	518.81	ug/L	518.81	ppb	06:40:25

2	P 214.914†	4557.1	4284.3	2481.2 ug/L	2481.2 ppb	06:40:45
2	Pb 220.353†	4252.3	4252.2	524.64 ug/L	524.64 ppb	06:40:45
2	S 181.975 Axial†	771.7	720.4	1035.6 ug/L	1035.6 ppb	06:40:45
2	Sb 206.836†	1494.2	1437.1	520.65 ug/L	520.65 ppb	06:40:45
2	Se 196.026†	766.0	783.3	529.77 ug/L	529.77 ppb	06:40:45
2	Si 251.611†	80785.8	79122.6	2554.0 ug/L	2554.0 ppb	06:40:25
2	Sn 189.927†	2901.6	2851.4	512.30 ug/L	512.30 ppb	06:40:45
2	Ti 334.940†	333084.0	329902.7	518.31 ug/L	518.31 ppb	06:40:20
2	Tl 190.801†	1598.6	1609.3	518.08 ug/L	518.08 ppb	06:40:45
2	U 409.014†	15084.2	17764.6	488.85 ug/L	488.85 ppb	06:40:25
2	V 292.402†	72501.8	73015.9	515.92 ug/L	515.92 ppb	06:40:25
2	Zn 213.857†	52526.4	51202.0	510.71 ug/L	510.71 ppb	06:40:25
2	SiO2†	81177.3	79512.6	5511.9 ug/L	5511.9 ppb	06:41:27
3	Sc Radial	3694.2	3694.2	94.3 %		06:39:41
3	Y RADIAL	4177.7	4177.7	94.71 %		06:39:21
3	Al 396.153Radial†	5464.3	5909.0	5517.1 ug/L	5517.1 ppb	06:39:21
3	Ca 317.933Radial†	2453.4	2582.9	5399.6 ug/L	5399.6 ppb	06:39:41
3	Fe 238.204 Radial†	328.7	337.4	4777.9 ug/L	4777.9 ppb	06:39:41
3	K 766.490 Radial†	29440.3	28590.6	5480.1 ug/L	5480.1 ppb	06:39:21
3	Mg 279.077 IEC†	106.9	109.3	5301.0 ug/L	5301.0 ppb	06:39:41
3	Na 589.592 Radial†	29485.0	32097.4	9896.5 ug/L	9896.5 ppb	06:39:21
3	Sr 421.552†	69941.7	74158.2	513.10 ug/L	513.10 ppb	06:39:21
3	Sc 361.383	890322.5	890322.5	101.49 %		06:40:51
3	Y 371.029	740396.9	740396.9	97.956 %		06:40:51
3	Ag 328.068†	111248.3	109372.1	509.76 ug/L	509.76 ppb	06:40:57
3	As 188.979†	1152.2	1153.5	519.46 ug/L	519.46 ppb	06:41:17
3	B 249.677†	20604.5	20699.8	499.63 ug/L	499.63 ppb	06:40:57
3	Ba 233.527†	65923.1	64955.2	510.98 ug/L	510.98 ppb	06:40:57
3	Be 313.107†	1391465.0	1374767.0	517.81 ug/L	517.81 ppb	06:40:51
3	Cd 226.502†	44996.2	44530.8	515.59 ug/L	515.59 ppb	06:40:57
3	Co 228.616†	24731.7	24434.6	511.92 ug/L	511.92 ppb	06:40:57
3	Cr 267.716†	46243.4	45485.8	511.59 ug/L	511.59 ppb	06:40:57
3	Cu 324.752†	173498.8	164956.9	501.96 ug/L	501.96 ppb	06:40:57
3	Mn 257.610†	461161.1	453921.5	516.79 ug/L	516.79 ppb	06:40:51
3	Mo 202.031†	7074.5	6960.3	511.43 ug/L	511.43 ppb	06:41:17
3	Ni 231.604†	20591.5	20226.3	514.11 ug/L	514.11 ppb	06:40:57
3	P 214.914†	4550.7	4273.3	2475.1 ug/L	2475.1 ppb	06:41:17
3	Pb 220.353†	4265.8	4261.2	525.77 ug/L	525.77 ppb	06:41:17
3	S 181.975 Axial†	781.0	728.7	1047.6 ug/L	1047.6 ppb	06:41:17
3	Sb 206.836†	1506.8	1447.9	524.47 ug/L	524.47 ppb	06:41:17
3	Se 196.026†	765.3	781.8	528.53 ug/L	528.53 ppb	06:41:17
3	Si 251.611†	80300.7	78561.7	2535.9 ug/L	2535.9 ppb	06:40:57
3	Sn 189.927†	2904.0	2850.8	512.19 ug/L	512.19 ppb	06:41:17
3	Ti 334.940†	333507.1	329977.3	518.42 ug/L	518.42 ppb	06:40:51
3	Tl 190.801†	1603.6	1612.6	519.15 ug/L	519.15 ppb	06:41:17
3	U 409.014†	15150.8	17814.6	490.25 ug/L	490.25 ppb	06:40:57
3	V 292.402†	72091.3	72536.9	512.63 ug/L	512.63 ppb	06:40:57
3	Zn 213.857†	52256.8	50882.4	507.54 ug/L	507.54 ppb	06:40:57
3	SiO2†	80488.0	78750.1	5458.9 ug/L	5458.9 ppb	06:41:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	895442.3	102.08	%	1.104				1.08%
Sc Radial	3683.9	94.0	%	0.45				0.48%
Y 371.029	744298.0	98.472	%	1.0057				1.02%
Y RADIAL	4201.0	95.24	%	1.239				1.30%
Ag 328.068†	108947.8	507.81	ug/L	5.764	507.81	ppb	5.764	1.14%
QC value within limits for Ag 328.068 Recovery = 101.56%								
Al 396.153Radial†	5915.4	5523.3	ug/L	76.98	5523.3	ppb	76.98	1.39%
QC value greater than the upper limit for Al 396.153Radial Recovery = 110.47%								
As 188.979†	1145.4	515.85	ug/L	3.942	515.85	ppb	3.942	0.76%
QC value within limits for As 188.979 Recovery = 103.17%								
B 249.677†	20582.8	496.79	ug/L	6.799	496.79	ppb	6.799	1.37%
QC value within limits for B 249.677 Recovery = 99.36%								
Ba 233.527†	64792.2	509.71	ug/L	5.230	509.71	ppb	5.230	1.03%
QC value within limits for Ba 233.527 Recovery = 101.94%								
Be 313.107†	1369664.5	515.89	ug/L	2.671	515.89	ppb	2.671	0.52%
QC value within limits for Be 313.107 Recovery = 103.18%								
Ca 317.933Radial†	2586.0	5406.1	ug/L	19.61	5406.1	ppb	19.61	0.36%

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   QC value within limits for Ca 317.933Radial  Recovery = 108.12%
Cd 226.502†            44443.4      514.57 ug/L         5.582      514.57 ppb          5.582   1.08%
   QC value within limits for Cd 226.502  Recovery = 102.91%
Co 228.616†            24408.1      511.36 ug/L         5.210      511.36 ppb          5.210   1.02%
   QC value within limits for Co 228.616  Recovery = 102.27%
Cr 267.716†            45354.8      510.12 ug/L         5.754      510.12 ppb          5.754   1.13%
   QC value within limits for Cr 267.716  Recovery = 102.02%
Cu 324.752†           164225.4      499.74 ug/L         6.108      499.74 ppb          6.108   1.22%
   QC value within limits for Cu 324.752  Recovery = 99.95%
Fe 238.204 Radial†       342.1      4843.6 ug/L        61.98      4843.6 ppb         61.98   1.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.87%
K 766.490 Radial†      28775.9      5515.6 ug/L        83.94      5515.6 ppb         83.94   1.52%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 110.31%
Mg 279.077 IEC†          108.3      5250.1 ug/L        92.69      5250.1 ppb         92.69   1.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.00%
Mn 257.610†           452613.4      515.31 ug/L         2.526      515.31 ppb          2.526   0.49%
   QC value within limits for Mn 257.610  Recovery = 103.06%
Mo 202.031†             6904.1      507.31 ug/L         5.539      507.31 ppb          5.539   1.09%
   QC value within limits for Mo 202.031  Recovery = 101.46%
Na 589.592 Radial†     32372.2      9981.2 ug/L       140.03      9981.2 ppb        140.03   1.40%
   QC value within limits for Na 589.592 Radial  Recovery = 99.81%
Ni 231.604†            20196.6      513.35 ug/L         5.870      513.35 ppb          5.870   1.14%
   QC value within limits for Ni 231.604  Recovery = 102.67%
P 214.914†              4261.6      2468.5 ug/L        17.07      2468.5 ppb         17.07   0.69%
   QC value within limits for P 214.914  Recovery = 98.74%
Pb 220.353†             4243.6      523.60 ug/L         2.842      523.60 ppb          2.842   0.54%
   QC value within limits for Pb 220.353  Recovery = 104.72%
S 181.975 Axial†         720.6      1035.9 ug/L        11.56      1035.9 ppb         11.56   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 103.59%
Sb 206.836†             1435.7      520.07 ug/L         4.720      520.07 ppb          4.720   0.91%
   QC value within limits for Sb 206.836  Recovery = 104.01%
Se 196.026†              779.9      527.52 ug/L         2.879      527.52 ppb          2.879   0.55%
   QC value within limits for Se 196.026  Recovery = 105.50%
Si 251.611†            78375.8      2529.9 ug/L        27.61      2529.9 ppb         27.61   1.09%
   QC value within limits for Si 251.611  Recovery = 101.20%
Sn 189.927†             2836.5      509.63 ug/L         4.533      509.63 ppb          4.533   0.89%
   QC value within limits for Sn 189.927  Recovery = 101.93%
Sr 421.552†            74591.6      516.10 ug/L         6.249      516.10 ppb          6.249   1.21%
   QC value within limits for Sr 421.552  Recovery = 103.22%
Ti 334.940†           328881.5      516.70 ug/L         2.878      516.70 ppb          2.878   0.56%
   QC value within limits for Ti 334.940  Recovery = 103.34%
Tl 190.801†             1600.8      515.37 ug/L         5.639      515.37 ppb          5.639   1.09%
   QC value within limits for Tl 190.801  Recovery = 103.07%
U 409.014†             17683.6      486.62 ug/L         5.111      486.62 ppb          5.111   1.05%
   QC value within limits for U 409.014  Recovery = 97.32%
V 292.402†             72356.7      511.30 ug/L         5.414      511.30 ppb          5.414   1.06%
   QC value within limits for V 292.402  Recovery = 102.26%
Zn 213.857†            50743.5      506.14 ug/L         5.411      506.14 ppb          5.411   1.07%
   QC value within limits for Zn 213.857  Recovery = 101.23%
SiO2†                  78299.1      5427.6 ug/L       103.49      5427.6 ppb        103.49   1.91%
   QC value within limits for SiO2  Recovery = 101.50%
QC Failed.  Continue with analysis.
```

Sequence No.: 120
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 06:43:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3719.5	3719.5	94.9	%			06:45:55
1	Y RADIAL	4101.4	4101.4	92.98	%			06:45:35
1	Al 396.153Radial†	-109.6	-3.1	-2.9022	ug/L	-2.9022	ppb	06:45:35
1	Ca 317.933Radial†	25.5	7.1	14.926	ug/L	14.926	ppb	06:45:55
1	Fe 238.204 Radial†	10.7	-0.0	-0.3936	ug/L	-0.3936	ppb	06:45:55
1	K 766.490 Radial†	2962.2	481.4	92.383	ug/L	92.383	ppb	06:45:35
1	Mg 279.077 IEC†	2.8	-1.1	-52.172	ug/L	-52.172	ppb	06:45:55
1	Na 589.592 Radial†	-845.3	-70.8	-21.839	ug/L	-21.839	ppb	06:45:35
1	Sr 421.552†	56.5	23.8	0.1643	ug/L	0.1643	ppb	06:45:35
1	Sc 361.383	884218.9	884218.9	100.80	%			06:46:52
1	Y 371.029	746767.6	746767.6	98.799	%			06:46:52
1	Ag 328.068†	209.2	-32.9	-0.1470	ug/L	-0.1470	ppb	06:46:52
1	As 188.979†	-23.1	-4.7	-2.0995	ug/L	-2.0995	ppb	06:47:12
1	B 249.677†	-277.6	122.8	2.9775	ug/L	2.9775	ppb	06:47:12
1	Ba 233.527†	30.1	31.2	0.2443	ug/L	0.2443	ppb	06:47:12
1	Be 313.107†	-3662.8	128.3	0.0480	ug/L	0.0480	ppb	06:46:52
1	Cd 226.502†	-178.5	19.2	0.2203	ug/L	0.2203	ppb	06:47:12
1	Co 228.616†	-64.0	3.0	0.0634	ug/L	0.0634	ppb	06:47:12
1	Cr 267.716†	74.5	-3.8	-0.0397	ug/L	-0.0397	ppb	06:47:12
1	Cu 324.752†	5988.7	-49.4	-0.1455	ug/L	-0.1455	ppb	06:46:52
1	Mn 257.610†	521.6	58.7	0.0689	ug/L	0.0689	ppb	06:47:12
1	Mo 202.031†	12.9	2.6	0.1929	ug/L	0.1929	ppb	06:47:12
1	Ni 231.604†	67.8	4.8	0.1226	ug/L	0.1226	ppb	06:47:12
1	P 214.914†	208.6	-3.6	-2.1093	ug/L	-2.1093	ppb	06:47:12
1	Pb 220.353†	4.4	62.4	7.6796	ug/L	7.6796	ppb	06:47:12
1	S 181.975 Axial†	46.1	4.9	7.0930	ug/L	7.0930	ppb	06:47:12
1	Sb 206.836†	46.1	9.1	3.1740	ug/L	3.1740	ppb	06:47:12
1	Se 196.026†	-30.7	-2.7	-1.7486	ug/L	-1.7486	ppb	06:47:12
1	Si 251.611†	625.3	62.0	2.0051	ug/L	2.0051	ppb	06:47:12
1	Sn 189.927†	10.2	-0.4	-0.0686	ug/L	-0.0686	ppb	06:47:12
1	Ti 334.940†	-1448.3	-62.7	-0.0884	ug/L	-0.0884	ppb	06:46:52
1	Tl 190.801†	-38.7	-5.8	-1.8696	ug/L	-1.8696	ppb	06:47:12
1	U 409.014†	-3231.2	-319.1	-8.8114	ug/L	-8.8114	ppb	06:46:52
1	V 292.402†	-1573.3	-55.2	-0.3998	ug/L	-0.3998	ppb	06:46:52
1	Zn 213.857†	792.4	180.1	1.8123	ug/L	1.8123	ppb	06:47:12
1	SiO2†	642.3	82.8	5.7518	ug/L	5.7518	ppb	06:48:08
2	Sc Radial	3729.8	3729.8	95.2	%			06:46:20
2	Y RADIAL	4203.7	4203.7	95.30	%			06:46:00
2	Al 396.153Radial†	-116.6	-10.1	-9.5324	ug/L	-9.5324	ppb	06:46:00
2	Ca 317.933Radial†	27.0	8.7	18.115	ug/L	18.115	ppb	06:46:20
2	Fe 238.204 Radial†	12.7	2.1	29.010	ug/L	29.010	ppb	06:46:20
2	K 766.490 Radial†	2909.4	417.2	80.072	ug/L	80.072	ppb	06:46:00
2	Mg 279.077 IEC†	1.8	-2.2	-105.33	ug/L	-105.33	ppb	06:46:20
2	Na 589.592 Radial†	-896.9	-122.6	-37.792	ug/L	-37.792	ppb	06:46:00
2	Sr 421.552†	73.7	41.7	0.2885	ug/L	0.2885	ppb	06:46:00
2	Sc 361.383	866218.9	866218.9	98.745	%			06:47:17
2	Y 371.029	732138.4	732138.4	96.864	%			06:47:17
2	Ag 328.068†	213.0	-24.7	-0.0984	ug/L	-0.0984	ppb	06:47:17
2	As 188.979†	-20.7	-2.7	-1.1970	ug/L	-1.1970	ppb	06:47:37
2	B 249.677†	-301.3	93.1	2.2526	ug/L	2.2526	ppb	06:47:37
2	Ba 233.527†	9.0	10.5	0.0833	ug/L	0.0833	ppb	06:47:37
2	Be 313.107†	-3643.8	72.0	0.0268	ug/L	0.0268	ppb	06:47:17
2	Cd 226.502†	-169.4	24.7	0.2810	ug/L	0.2810	ppb	06:47:37
2	Co 228.616†	-70.9	-5.3	-0.1090	ug/L	-0.1090	ppb	06:47:37
2	Cr 267.716†	54.4	-22.6	-0.2469	ug/L	-0.2469	ppb	06:47:37
2	Cu 324.752†	5837.0	-79.5	-0.2352	ug/L	-0.2352	ppb	06:47:17
2	Mn 257.610†	512.6	60.3	0.0758	ug/L	0.0758	ppb	06:47:37
2	Mo 202.031†	21.2	11.3	0.8324	ug/L	0.8324	ppb	06:47:37
2	Ni 231.604†	72.7	11.2	0.2845	ug/L	0.2845	ppb	06:47:37

2	P 214.914†	210.3	2.4	1.5021 ug/L	1.5021 ppb	06:47:37
2	Pb 220.353†	10.9	69.1	8.4978 ug/L	8.4978 ppb	06:47:37
2	S 181.975 Axial†	46.4	6.2	8.8568 ug/L	8.8568 ppb	06:47:37
2	Sb 206.836†	27.2	-9.1	-3.1477 ug/L	-3.1477 ppb	06:47:37
2	Se 196.026†	-32.7	-5.3	-3.3982 ug/L	-3.3982 ppb	06:47:37
2	Si 251.611†	621.4	71.0	2.2862 ug/L	2.2862 ppb	06:47:37
2	Sn 189.927†	19.0	8.7	1.5657 ug/L	1.5657 ppb	06:47:37
2	Ti 334.940†	-1432.7	-76.8	-0.1053 ug/L	-0.1053 ppb	06:47:17
2	Tl 190.801†	-26.1	6.2	1.9783 ug/L	1.9783 ppb	06:47:37
2	U 409.014†	-3195.3	-349.3	-9.6483 ug/L	-9.6483 ppb	06:47:17
2	V 292.402†	-1509.7	-23.2	-0.1744 ug/L	-0.1744 ppb	06:47:17
2	Zn 213.857†	785.5	189.5	1.9015 ug/L	1.9015 ppb	06:47:37
2	SiO2†	680.8	135.1	9.3634 ug/L	9.3634 ppb	06:48:13
3	Sc Radial	3741.9	3741.9	95.5 %		06:46:45
3	Y RADIAL	4323.1	4323.1	98.01 %		06:46:25
3	Al 396.153Radial†	-105.2	2.2	2.1053 ug/L	2.1053 ppb	06:46:25
3	Ca 317.933Radial†	30.1	11.8	24.668 ug/L	24.668 ppb	06:46:45
3	Fe 238.204 Radial†	8.6	-2.3	-32.697 ug/L	-32.697 ppb	06:46:45
3	K 766.490 Radial†	2956.8	457.0	87.704 ug/L	87.704 ppb	06:46:25
3	Mg 279.077 IEC†	0.5	-3.6	-172.59 ug/L	-172.59 ppb	06:46:45
3	Na 589.592 Radial†	-921.7	-145.5	-44.846 ug/L	-44.846 ppb	06:46:25
3	Sr 421.552†	72.0	39.7	0.2743 ug/L	0.2743 ppb	06:46:25
3	Sc 361.383	878184.1	878184.1	100.11 %		06:47:43
3	Y 371.029	742511.5	742511.5	98.236 %		06:47:43
3	Ag 328.068†	228.4	-12.3	-0.0618 ug/L	-0.0618 ppb	06:47:43
3	As 188.979†	-23.4	-5.2	-2.3177 ug/L	-2.3177 ppb	06:48:03
3	B 249.677†	-300.6	98.0	2.3806 ug/L	2.3806 ppb	06:48:03
3	Ba 233.527†	5.8	7.2	0.0554 ug/L	0.0554 ppb	06:48:03
3	Be 313.107†	-3557.2	208.8	0.0782 ug/L	0.0782 ppb	06:47:43
3	Cd 226.502†	-176.3	20.1	0.2351 ug/L	0.2351 ppb	06:48:03
3	Co 228.616†	-66.3	0.3	0.0058 ug/L	0.0058 ppb	06:48:03
3	Cr 267.716†	76.0	-1.8	-0.0202 ug/L	-0.0202 ppb	06:48:03
3	Cu 324.752†	5873.9	-123.2	-0.3725 ug/L	-0.3725 ppb	06:47:43
3	Mn 257.610†	544.2	84.8	0.1004 ug/L	0.1004 ppb	06:48:03
3	Mo 202.031†	3.9	-6.2	-0.4586 ug/L	-0.4586 ppb	06:48:03
3	Ni 231.604†	72.2	9.6	0.2450 ug/L	0.2450 ppb	06:48:03
3	P 214.914†	195.1	-15.6	-9.3176 ug/L	-9.3176 ppb	06:48:03
3	Pb 220.353†	11.2	69.3	8.5251 ug/L	8.5251 ppb	06:48:03
3	S 181.975 Axial†	38.4	-2.5	-3.5262 ug/L	-3.5262 ppb	06:48:03
3	Sb 206.836†	41.3	4.6	1.5684 ug/L	1.5684 ppb	06:48:03
3	Se 196.026†	-26.2	1.6	0.9206 ug/L	0.9206 ppb	06:48:03
3	Si 251.611†	619.0	60.0	1.9475 ug/L	1.9475 ppb	06:48:03
3	Sn 189.927†	2.3	-8.2	-1.4565 ug/L	-1.4565 ppb	06:48:03
3	Ti 334.940†	-1438.1	-62.4	-0.0773 ug/L	-0.0773 ppb	06:47:43
3	Tl 190.801†	-31.3	1.3	0.4214 ug/L	0.4214 ppb	06:48:03
3	U 409.014†	-3166.1	-276.0	-7.6189 ug/L	-7.6189 ppb	06:47:43
3	V 292.402†	-1534.3	-27.0	-0.2078 ug/L	-0.2078 ppb	06:47:43
3	Zn 213.857†	786.3	179.4	1.8101 ug/L	1.8101 ppb	06:48:03
3	SiO2†	704.4	149.2	10.382 ug/L	10.382 ppb	06:48:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	876207.3	99.883	%	1.0444				1.05%
Sc Radial	3730.4	95.2	%	0.29				0.30%
Y 371.029	740472.5	97.966	%	0.9955				1.02%
Y RADIAL	4209.4	95.43	%	2.516				2.64%
Ag 328.068†	-23.3	-0.1024	ug/L	0.04275	-0.1024	ppb	0.04275	41.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-3.4431	ug/L	5.83769	-3.4431	ppb	5.83769	169.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.2	-1.8714	ug/L	0.59412	-1.8714	ppb	0.59412	31.75%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	104.6	2.5369	ug/L	0.38686	2.5369	ppb	0.38686	15.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.3	0.1277	ug/L	0.10198	0.1277	ppb	0.10198	79.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	136.4	0.0510	ug/L	0.02586	0.0510	ppb	0.02586	50.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	19.236	ug/L	4.9667	19.236	ppb	4.9667	25.82%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              21.3      0.2455 ug/L       0.03164      0.2455 ppb        0.03164  12.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.7     -0.0133 ug/L       0.08776     -0.0133 ppb        0.08776 662.08%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.4     -0.1023 ug/L       0.12565     -0.1023 ppb        0.12565 122.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -84.0     -0.2510 ug/L       0.11433     -0.2510 ppb        0.11433  45.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.1     -1.3600 ug/L      30.86476     -1.3600 ppb       30.86476 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       451.9      86.720 ug/L        6.2141      86.720 ppb         6.2141   7.17%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -110.03 ug/L        60.347     -110.03 ppb         60.347  54.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              68.0      0.0817 ug/L       0.01653      0.0817 ppb        0.01653  20.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.6      0.1889 ug/L       0.64547      0.1889 ppb        0.64547 341.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -113.0     -34.826 ug/L       11.7870     -34.826 ppb        11.7870  33.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               8.5      0.2174 ug/L       0.08440      0.2174 ppb        0.08440  38.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -5.6     -3.3083 ug/L       5.50858     -3.3083 ppb        5.50858 166.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              66.9      8.2341 ug/L       0.48047      8.2341 ppb        0.48047   5.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.9      4.1412 ug/L       6.69848      4.1412 ppb        6.69848 161.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.5      0.5316 ug/L       3.28590      0.5316 ppb        3.28590 618.16%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.1     -1.4087 ug/L       2.17936     -1.4087 ppb        2.17936 154.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              64.3      2.0796 ug/L       0.18120      2.0796 ppb        0.18120   8.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.1      0.0135 ug/L       1.51281      0.0135 ppb        1.51281 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              35.0      0.2424 ug/L       0.06801      0.2424 ppb        0.06801  28.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -67.3     -0.0904 ug/L       0.01410     -0.0904 ppb        0.01410  15.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.1767 ug/L       1.93560      0.1767 ppb        1.93560 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -314.8     -8.6929 ug/L       1.01990     -8.6929 ppb        1.01990  11.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -35.1     -0.2607 ug/L       0.12162     -0.2607 ppb        0.12162  46.66%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             183.0      1.8413 ug/L       0.05213      1.8413 ppb        0.05213   2.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   122.4      8.4992 ug/L       2.43330      8.4992 ppb        2.43330  28.63%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 121
Sample ID: 245969002|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:
User canceled analysis.

Autosampler Location: 134
Date Collected: 2/25/2010 06:50:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Analysis Begun

Start Time: 2/25/2010 06:55:07
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601

Plasma On Time: 00:00:00
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 110
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 06:55:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3736.6	3736.6	95.4	%			06:57:19
1	Y RADIAL	4222.8	4222.8	95.74	%			06:56:59
1	Al 396.153Radial†	5170.1	5534.6	5166.9	ug/L	5166.9	ppb	06:56:59
1	Ca 317.933Radial†	2334.0	2428.2	5076.1	ug/L	5076.1	ppb	06:57:19
1	Fe 238.204 Radial†	323.6	328.0	4644.7	ug/L	4644.7	ppb	06:57:19
1	K 766.490 Radial†	28093.5	26823.6	5141.2	ug/L	5141.2	ppb	06:56:59
1	Mg 279.077 IEC†	99.7	100.5	4871.5	ug/L	4871.5	ppb	06:57:19
1	Na 589.592 Radial†	29468.6	31725.1	9781.7	ug/L	9781.7	ppb	06:56:59
1	Sr 421.552†	68031.0	71312.1	493.41	ug/L	493.41	ppb	06:56:59
1	Sc 361.383	876888.1	876888.1	99.961	%			06:58:16
1	Y 371.029	730319.6	730319.6	96.623	%			06:58:16
1	Ag 328.068†	106238.6	106039.8	494.23	ug/L	494.23	ppb	06:58:21
1	As 188.979†	1093.3	1112.0	500.70	ug/L	500.70	ppb	06:58:41
1	B 249.677†	19542.3	19948.1	481.47	ug/L	481.47	ppb	06:58:21
1	Ba 233.527†	62967.0	62993.1	495.55	ug/L	495.55	ppb	06:58:21
1	Be 313.107†	1317506.2	1321783.8	497.83	ug/L	497.83	ppb	06:58:16
1	Cd 226.502†	43036.0	43249.1	500.75	ug/L	500.75	ppb	06:58:21
1	Co 228.616†	23642.7	23718.5	496.94	ug/L	496.94	ppb	06:58:21
1	Cr 267.716†	44178.0	44117.6	496.20	ug/L	496.20	ppb	06:58:21
1	Cu 324.752†	165578.3	159652.3	485.82	ug/L	485.82	ppb	06:58:21
1	Mn 257.610†	437364.7	437077.0	497.63	ug/L	497.63	ppb	06:58:16
1	Mo 202.031†	6709.1	6701.6	492.43	ug/L	492.43	ppb	06:58:41
1	Ni 231.604†	19676.0	19621.2	498.73	ug/L	498.73	ppb	06:58:21
1	P 214.914†	4343.6	4134.7	2394.8	ug/L	2394.8	ppb	06:58:41
1	Pb 220.353†	4084.9	4144.6	511.33	ug/L	511.33	ppb	06:58:41
1	S 181.975 Axial†	746.0	705.5	1014.2	ug/L	1014.2	ppb	06:58:41
1	Sb 206.836†	1435.3	1399.1	506.81	ug/L	506.81	ppb	06:58:41
1	Se 196.026†	744.7	772.8	522.16	ug/L	522.16	ppb	06:58:41
1	Si 251.611†	76810.3	76282.0	2462.3	ug/L	2462.3	ppb	06:58:21
1	Sn 189.927†	2762.6	2753.2	494.64	ug/L	494.64	ppb	06:58:41
1	Ti 334.940†	309277.9	310773.0	488.24	ug/L	488.24	ppb	06:58:21
1	Tl 190.801†	1520.8	1554.0	500.17	ug/L	500.17	ppb	06:58:41
1	U 409.014†	14269.3	17161.5	472.26	ug/L	472.26	ppb	06:58:21
1	V 292.402†	68741.2	70273.7	496.59	ug/L	496.59	ppb	06:58:21
1	Zn 213.857†	50010.0	49423.5	492.99	ug/L	492.99	ppb	06:58:21
1	SiO2†	76188.3	75663.7	5244.9	ug/L	5244.9	ppb	06:59:49
2	Sc Radial	3759.1	3759.1	95.9	%			06:57:44
2	Y RADIAL	4272.1	4272.1	96.85	%			06:57:24
2	Al 396.153Radial†	5238.4	5573.4	5203.6	ug/L	5203.6	ppb	06:57:24

2	Ca 317.933Radial†	2323.6	2402.7	5022.9 ug/L	5022.9 ppb	06:57:44
2	Fe 238.204 Radial†	320.0	322.3	4563.5 ug/L	4563.5 ppb	06:57:44
2	K 766.490 Radial†	28499.1	27070.6	5188.6 ug/L	5188.6 ppb	06:57:24
2	Mg 279.077 IEC†	99.8	100.0	4849.3 ug/L	4849.3 ppb	06:57:44
2	Na 589.592 Radial†	29869.2	31958.3	9853.6 ug/L	9853.6 ppb	06:57:24
2	Sr 421.552†	69102.8	72003.7	498.20 ug/L	498.20 ppb	06:57:24
2	Sc 361.383	884627.7	884627.7	100.84 %		06:58:47
2	Y 371.029	735562.0	735562.0	97.317 %		06:58:47
2	Ag 328.068†	105988.3	104861.7	488.73 ug/L	488.73 ppb	06:58:52
2	As 188.979†	1087.5	1096.6	493.78 ug/L	493.78 ppb	06:59:12
2	B 249.677†	19530.8	19765.8	477.07 ug/L	477.07 ppb	06:58:52
2	Ba 233.527†	62867.8	62343.5	490.44 ug/L	490.44 ppb	06:58:52
2	Be 313.107†	1311537.1	1304333.2	491.26 ug/L	491.26 ppb	06:58:47
2	Cd 226.502†	42929.9	42767.2	495.18 ug/L	495.18 ppb	06:58:52
2	Co 228.616†	23654.3	23523.1	492.84 ug/L	492.84 ppb	06:58:52
2	Cr 267.716†	44028.5	43582.7	490.18 ug/L	490.18 ppb	06:58:52
2	Cu 324.752†	165523.7	158149.0	481.24 ug/L	481.24 ppb	06:58:52
2	Mn 257.610†	436614.7	432505.3	492.42 ug/L	492.42 ppb	06:58:47
2	Mo 202.031†	6683.1	6617.1	486.22 ug/L	486.22 ppb	06:59:12
2	Ni 231.604†	19711.0	19483.7	495.23 ug/L	495.23 ppb	06:58:52
2	P 214.914†	4324.0	4077.3	2361.1 ug/L	2361.1 ppb	06:59:12
2	Pb 220.353†	4039.1	4063.5	501.36 ug/L	501.36 ppb	06:59:12
2	S 181.975 Axial†	740.5	693.5	996.93 ug/L	996.93 ppb	06:59:12
2	Sb 206.836†	1414.2	1365.7	494.86 ug/L	494.86 ppb	06:59:12
2	Se 196.026†	739.2	760.8	514.04 ug/L	514.04 ppb	06:59:12
2	Si 251.611†	76607.9	75409.0	2434.2 ug/L	2434.2 ppb	06:58:52
2	Sn 189.927†	2735.7	2702.3	485.50 ug/L	485.50 ppb	06:59:12
2	Ti 334.940†	309002.4	307792.9	483.56 ug/L	483.56 ppb	06:58:52
2	Tl 190.801†	1501.7	1521.7	489.82 ug/L	489.82 ppb	06:59:12
2	U 409.014†	14340.1	17106.8	470.77 ug/L	470.77 ppb	06:58:52
2	V 292.402†	68664.2	69595.7	491.79 ug/L	491.79 ppb	06:58:52
2	Zn 213.857†	49964.7	48940.9	488.17 ug/L	488.17 ppb	06:58:52
2	SiO2†	77098.7	75899.7	5261.5 ug/L	5261.5 ppb	06:59:54
3	Sc Radial	3681.2	3681.2	93.9 %		06:58:09
3	Y RADIAL	4616.3	4616.3	104.7 %		06:57:49
3	Al 396.153Radial†	4936.1	5367.2	5009.8 ug/L	5009.8 ppb	06:57:49
3	Ca 317.933Radial†	2340.1	2471.5	5166.7 ug/L	5166.7 ppb	06:58:09
3	Fe 238.204 Radial†	322.1	331.5	4694.8 ug/L	4694.8 ppb	06:58:09
3	K 766.490 Radial†	27225.0	26342.7	5049.0 ug/L	5049.0 ppb	06:57:49
3	Mg 279.077 IEC†	99.8	102.2	4955.5 ug/L	4955.5 ppb	06:58:09
3	Na 589.592 Radial†	28289.2	30935.0	9538.1 ug/L	9538.1 ppb	06:57:49
3	Sr 421.552†	65265.7	69442.8	480.47 ug/L	480.47 ppb	06:57:49
3	Sc 361.383	877994.2	877994.2	100.09 %		06:59:18
3	Y 371.029	730600.0	730600.0	96.660 %		06:59:18
3	Ag 328.068†	106623.9	106290.8	495.41 ug/L	495.41 ppb	06:59:23
3	As 188.979†	1099.8	1117.1	503.02 ug/L	503.02 ppb	06:59:43
3	B 249.677†	19649.5	20030.6	483.45 ug/L	483.45 ppb	06:59:23
3	Ba 233.527†	63283.1	63229.5	497.41 ug/L	497.41 ppb	06:59:23
3	Be 313.107†	1301423.8	1304055.0	491.17 ug/L	491.17 ppb	06:59:18
3	Cd 226.502†	43230.1	43388.8	502.37 ug/L	502.37 ppb	06:59:23
3	Co 228.616†	23802.4	23848.2	499.66 ug/L	499.66 ppb	06:59:23
3	Cr 267.716†	44400.2	44283.9	498.07 ug/L	498.07 ppb	06:59:23
3	Cu 324.752†	166760.3	160624.6	488.78 ug/L	488.78 ppb	06:59:23
3	Mn 257.610†	432753.2	431918.4	491.76 ug/L	491.76 ppb	06:59:18
3	Mo 202.031†	6751.0	6735.0	494.89 ug/L	494.89 ppb	06:59:43
3	Ni 231.604†	19835.4	19755.7	502.15 ug/L	502.15 ppb	06:59:23
3	P 214.914†	4366.3	4152.0	2404.5 ug/L	2404.5 ppb	06:59:43
3	Pb 220.353†	4087.7	4142.2	511.01 ug/L	511.01 ppb	06:59:43
3	S 181.975 Axial†	747.6	706.2	1015.3 ug/L	1015.3 ppb	06:59:43
3	Sb 206.836†	1439.6	1401.6	507.81 ug/L	507.81 ppb	06:59:43
3	Se 196.026†	732.5	759.6	513.70 ug/L	513.70 ppb	06:59:43
3	Si 251.611†	77100.4	76475.1	2468.5 ug/L	2468.5 ppb	06:59:23
3	Sn 189.927†	2787.2	2774.3	498.43 ug/L	498.43 ppb	06:59:43
3	Ti 334.940†	310943.7	312047.5	490.25 ug/L	490.25 ppb	06:59:23
3	Tl 190.801†	1514.1	1545.4	497.40 ug/L	497.40 ppb	06:59:43
3	U 409.014†	14538.6	17412.6	479.18 ug/L	479.18 ppb	06:59:23
3	V 292.402†	69165.9	70611.5	498.99 ug/L	498.99 ppb	06:59:23
3	Zn 213.857†	50278.1	49628.4	495.02 ug/L	495.02 ppb	06:59:23
3	SiO2†	76980.6	76359.3	5293.2 ug/L	5293.2 ppb	06:59:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879836.7	100.30	%	0.477				0.48%
Sc Radial	3725.6	95.1	%	1.02				1.08%
Y 371.029	732160.5	96.867	%	0.3902				0.40%
Y RADIAL	4370.4	99.08	%	4.861				4.91%
Ag 328.068†	105730.8	492.79	ug/L	3.566	492.79	ppb	3.566	0.72%
QC value within limits for Ag 328.068 Recovery = 98.56%								
Al 396.153Radial†	5491.7	5126.8	ug/L	102.96	5126.8	ppb	102.96	2.01%
QC value within limits for Al 396.153Radial Recovery = 102.54%								
As 188.979†	1108.6	499.17	ug/L	4.803	499.17	ppb	4.803	0.96%
QC value within limits for As 188.979 Recovery = 99.83%								
B 249.677†	19914.8	480.67	ug/L	3.265	480.67	ppb	3.265	0.68%
QC value within limits for B 249.677 Recovery = 96.13%								
Ba 233.527†	62855.4	494.47	ug/L	3.610	494.47	ppb	3.610	0.73%
QC value within limits for Ba 233.527 Recovery = 98.89%								
Be 313.107†	1310057.3	493.42	ug/L	3.818	493.42	ppb	3.818	0.77%
QC value within limits for Be 313.107 Recovery = 98.68%								
Ca 317.933Radial†	2434.1	5088.5	ug/L	72.71	5088.5	ppb	72.71	1.43%
QC value within limits for Ca 317.933Radial Recovery = 101.77%								
Cd 226.502†	43135.0	499.43	ug/L	3.773	499.43	ppb	3.773	0.76%
QC value within limits for Cd 226.502 Recovery = 99.89%								
Co 228.616†	23696.6	496.48	ug/L	3.431	496.48	ppb	3.431	0.69%
QC value within limits for Co 228.616 Recovery = 99.30%								
Cr 267.716†	43994.7	494.82	ug/L	4.123	494.82	ppb	4.123	0.83%
QC value within limits for Cr 267.716 Recovery = 98.96%								
Cu 324.752†	159475.3	485.28	ug/L	3.797	485.28	ppb	3.797	0.78%
QC value within limits for Cu 324.752 Recovery = 97.06%								
Fe 238.204 Radial†	327.3	4634.3	ug/L	66.27	4634.3	ppb	66.27	1.43%
QC value within limits for Fe 238.204 Radial Recovery = 92.69%								
K 766.490 Radial†	26745.6	5126.2	ug/L	71.00	5126.2	ppb	71.00	1.38%
QC value within limits for K 766.490 Radial Recovery = 102.52%								
Mg 279.077 IEC†	100.9	4892.1	ug/L	55.97	4892.1	ppb	55.97	1.14%
QC value within limits for Mg 279.077 IEC Recovery = 97.84%								
Mn 257.610†	433833.6	493.93	ug/L	3.215	493.93	ppb	3.215	0.65%
QC value within limits for Mn 257.610 Recovery = 98.79%								
Mo 202.031†	6684.6	491.18	ug/L	4.468	491.18	ppb	4.468	0.91%
QC value within limits for Mo 202.031 Recovery = 98.24%								
Na 589.592 Radial†	31539.5	9724.5	ug/L	165.36	9724.5	ppb	165.36	1.70%
QC value within limits for Na 589.592 Radial Recovery = 97.24%								
Ni 231.604†	19620.2	498.70	ug/L	3.456	498.70	ppb	3.456	0.69%
QC value within limits for Ni 231.604 Recovery = 99.74%								
P 214.914†	4121.3	2386.8	ug/L	22.78	2386.8	ppb	22.78	0.95%
QC value within limits for P 214.914 Recovery = 95.47%								
Pb 220.353†	4116.8	507.90	ug/L	5.667	507.90	ppb	5.667	1.12%
QC value within limits for Pb 220.353 Recovery = 101.58%								
S 181.975 Axial†	701.7	1008.8	ug/L	10.31	1008.8	ppb	10.31	1.02%
QC value within limits for S 181.975 Axial Recovery = 100.88%								
Sb 206.836†	1388.8	503.16	ug/L	7.206	503.16	ppb	7.206	1.43%
QC value within limits for Sb 206.836 Recovery = 100.63%								
Se 196.026†	764.4	516.64	ug/L	4.789	516.64	ppb	4.789	0.93%
QC value within limits for Se 196.026 Recovery = 103.33%								
Si 251.611†	76055.4	2455.0	ug/L	18.33	2455.0	ppb	18.33	0.75%
QC value within limits for Si 251.611 Recovery = 98.20%								
Sn 189.927†	2743.3	492.86	ug/L	6.648	492.86	ppb	6.648	1.35%
QC value within limits for Sn 189.927 Recovery = 98.57%								
Sr 421.552†	70919.5	490.69	ug/L	9.167	490.69	ppb	9.167	1.87%
QC value within limits for Sr 421.552 Recovery = 98.14%								
Ti 334.940†	310204.5	487.35	ug/L	3.433	487.35	ppb	3.433	0.70%
QC value within limits for Ti 334.940 Recovery = 97.47%								
Tl 190.801†	1540.4	495.80	ug/L	5.362	495.80	ppb	5.362	1.08%
QC value within limits for Tl 190.801 Recovery = 99.16%								
U 409.014†	17227.0	474.07	ug/L	4.489	474.07	ppb	4.489	0.95%
QC value within limits for U 409.014 Recovery = 94.81%								
V 292.402†	70160.3	495.79	ug/L	3.664	495.79	ppb	3.664	0.74%
QC value within limits for V 292.402 Recovery = 99.16%								
Zn 213.857†	49330.9	492.06	ug/L	3.517	492.06	ppb	3.517	0.71%
QC value within limits for Zn 213.857 Recovery = 98.41%								
SiO2†	75974.2	5266.5	ug/L	24.53	5266.5	ppb	24.53	0.47%
QC value within limits for SiO2 Recovery = 98.49%								

Sequence No.: 111
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 07:02:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3669.1	3669.1	93.6	%			07:04:22
1	Y RADIAL	4112.9	4112.9	93.24	%			07:04:02
1	Al 396.153Radial†	-138.3	-35.3	-33.107	ug/L	-33.107	ppb	07:04:02
1	Ca 317.933Radial†	22.2	4.0	8.3823	ug/L	8.3823	ppb	07:04:22
1	Fe 238.204 Radial†	10.6	0.0	0.3320	ug/L	0.3320	ppb	07:04:22
1	K 766.490 Radial†	2986.4	550.0	105.55	ug/L	105.55	ppb	07:04:02
1	Mg 279.077 IEC†	3.9	0.1	3.7408	ug/L	3.7408	ppb	07:04:22
1	Na 589.592 Radial†	-848.4	-86.4	-26.638	ug/L	-26.638	ppb	07:04:02
1	Sr 421.552†	37.1	3.9	0.0272	ug/L	0.0272	ppb	07:04:02
1	Sc 361.383	905496.7	905496.7	103.22	%			07:05:19
1	Y 371.029	764527.5	764527.5	101.15	%			07:05:19
1	Ag 328.068†	302.5	52.7	0.2476	ug/L	0.2476	ppb	07:05:24
1	As 188.979†	-20.7	-1.8	-0.8175	ug/L	-0.8175	ppb	07:05:44
1	B 249.677†	-324.7	83.6	2.0278	ug/L	2.0278	ppb	07:05:44
1	Ba 233.527†	13.5	14.5	0.1151	ug/L	0.1151	ppb	07:05:44
1	Be 313.107†	-3665.8	210.8	0.0787	ug/L	0.0787	ppb	07:05:24
1	Cd 226.502†	-191.4	10.8	0.1249	ug/L	0.1249	ppb	07:05:44
1	Co 228.616†	-74.8	-5.9	-0.1236	ug/L	-0.1236	ppb	07:05:44
1	Cr 267.716†	64.4	-15.3	-0.1700	ug/L	-0.1700	ppb	07:05:44
1	Cu 324.752†	6097.4	-83.8	-0.2545	ug/L	-0.2545	ppb	07:05:24
1	Mn 257.610†	529.2	54.0	0.0613	ug/L	0.0613	ppb	07:05:44
1	Mo 202.031†	10.5	0.1	0.0050	ug/L	0.0050	ppb	07:05:44
1	Ni 231.604†	67.7	3.2	0.0807	ug/L	0.0807	ppb	07:05:44
1	P 214.914†	195.3	-21.3	-12.786	ug/L	-12.786	ppb	07:05:44
1	Pb 220.353†	11.4	69.1	8.4943	ug/L	8.4943	ppb	07:05:44
1	S 181.975 Axial†	49.6	7.2	10.375	ug/L	10.375	ppb	07:05:44
1	Sb 206.836†	41.5	3.5	1.2635	ug/L	1.2635	ppb	07:05:44
1	Se 196.026†	-31.5	-2.7	-1.7925	ug/L	-1.7925	ppb	07:05:44
1	Si 251.611†	587.1	10.5	0.3394	ug/L	0.3394	ppb	07:05:44
1	Sn 189.927†	22.0	10.8	1.9453	ug/L	1.9453	ppb	07:05:44
1	Ti 334.940†	-1561.0	-138.2	-0.2160	ug/L	-0.2160	ppb	07:05:24
1	Tl 190.801†	-34.7	-1.0	-0.3252	ug/L	-0.3252	ppb	07:05:44
1	U 409.014†	-3003.0	-22.6	-0.6250	ug/L	-0.6250	ppb	07:05:19
1	V 292.402†	-1441.8	108.9	0.7582	ug/L	0.7582	ppb	07:05:24
1	Zn 213.857†	737.8	108.8	1.0947	ug/L	1.0947	ppb	07:05:44
1	SiO2†	603.3	30.1	2.0910	ug/L	2.0910	ppb	07:06:50
2	Sc Radial	3718.3	3718.3	94.9	%			07:04:47
2	Y RADIAL	4213.2	4213.2	95.52	%			07:04:27
2	Al 396.153Radial†	-139.8	-34.9	-32.744	ug/L	-32.744	ppb	07:04:27
2	Ca 317.933Radial†	26.3	8.0	16.739	ug/L	16.739	ppb	07:04:47
2	Fe 238.204 Radial†	12.7	2.1	29.107	ug/L	29.107	ppb	07:04:47
2	K 766.490 Radial†	2956.8	476.7	91.492	ug/L	91.492	ppb	07:04:27
2	Mg 279.077 IEC†	0.6	-3.4	-166.75	ug/L	-166.75	ppb	07:04:47
2	Na 589.592 Radial†	-887.7	-115.9	-35.720	ug/L	-35.720	ppb	07:04:27
2	Sr 421.552†	-5.0	-41.0	-0.2836	ug/L	-0.2836	ppb	07:04:27
2	Sc 361.383	896537.4	896537.4	102.20	%			07:05:49
2	Y 371.029	756194.9	756194.9	100.05	%			07:05:49
2	Ag 328.068†	326.3	78.8	0.3771	ug/L	0.3771	ppb	07:05:54
2	As 188.979†	-18.5	0.1	0.0685	ug/L	0.0685	ppb	07:06:14
2	B 249.677†	-346.3	59.4	1.4360	ug/L	1.4360	ppb	07:06:14
2	Ba 233.527†	17.9	18.9	0.1497	ug/L	0.1497	ppb	07:06:14
2	Be 313.107†	-3774.1	69.4	0.0258	ug/L	0.0258	ppb	07:05:54
2	Cd 226.502†	-185.1	15.1	0.1718	ug/L	0.1718	ppb	07:06:14
2	Co 228.616†	-67.5	0.5	0.0086	ug/L	0.0086	ppb	07:06:14
2	Cr 267.716†	72.5	-6.8	-0.0719	ug/L	-0.0719	ppb	07:06:14
2	Cu 324.752†	6040.8	-80.1	-0.2406	ug/L	-0.2406	ppb	07:05:54
2	Mn 257.610†	523.0	53.0	0.0700	ug/L	0.0700	ppb	07:06:14
2	Mo 202.031†	4.3	-5.9	-0.4343	ug/L	-0.4343	ppb	07:06:14
2	Ni 231.604†	66.7	2.8	0.0716	ug/L	0.0716	ppb	07:06:14

2	P 214.914†	214.1	-1.0	-0.5938	ug/L	-0.5938 ppb	07:06:14
2	Pb 220.353†	9.5	67.4	8.2759	ug/L	8.2759 ppb	07:06:14
2	S 181.975 Axial†	41.1	-0.5	-0.7830	ug/L	-0.7830 ppb	07:06:14
2	Sb 206.836†	36.1	-1.4	-0.4728	ug/L	-0.4728 ppb	07:06:14
2	Se 196.026†	-24.3	4.0	2.6858	ug/L	2.6858 ppb	07:06:14
2	Si 251.611†	575.4	4.7	0.1579	ug/L	0.1579 ppb	07:06:14
2	Sn 189.927†	17.6	6.8	1.2128	ug/L	1.2128 ppb	07:06:14
2	Ti 334.940†	-1477.8	-71.9	-0.0959	ug/L	-0.0959 ppb	07:05:54
2	Tl 190.801†	-32.8	0.5	0.1644	ug/L	0.1644 ppb	07:06:14
2	U 409.014†	-3060.6	-108.1	-2.9888	ug/L	-2.9888 ppb	07:05:49
2	V 292.402†	-1511.6	26.6	0.1663	ug/L	0.1663 ppb	07:05:54
2	Zn 213.857†	742.4	120.3	1.2070	ug/L	1.2070 ppb	07:06:14
2	SiO2†	615.6	47.9	3.3429	ug/L	3.3429 ppb	07:06:55
3	Sc Radial	3725.5	3725.5	95.1	%		07:05:12
3	Y RADIAL	4234.7	4234.7	96.01	%		07:04:52
3	Al 396.153Radial†	-119.3	-13.0	-12.230	ug/L	-12.230 ppb	07:04:52
3	Ca 317.933Radial†	25.9	7.6	15.825	ug/L	15.825 ppb	07:05:12
3	Fe 238.204 Radial†	7.9	-3.1	-43.166	ug/L	-43.166 ppb	07:05:12
3	K 766.490 Radial†	2908.9	420.3	80.676	ug/L	80.676 ppb	07:04:52
3	Mg 279.077 IEC†	3.3	-0.6	-30.126	ug/L	-30.126 ppb	07:05:12
3	Na 589.592 Radial†	-968.0	-198.4	-61.186	ug/L	-61.186 ppb	07:04:52
3	Sr 421.552†	0.1	-35.6	-0.2465	ug/L	-0.2465 ppb	07:04:52
3	Sc 361.383	901896.1	901896.1	102.81	%		07:06:19
3	Y 371.029	761425.3	761425.3	100.74	%		07:06:19
3	Ag 328.068†	236.6	-10.3	-0.0630	ug/L	-0.0630 ppb	07:06:24
3	As 188.979†	-21.3	-2.5	-1.1211	ug/L	-1.1211 ppb	07:06:44
3	B 249.677†	-309.1	97.6	2.3735	ug/L	2.3735 ppb	07:06:44
3	Ba 233.527†	5.2	6.5	0.0500	ug/L	0.0500 ppb	07:06:44
3	Be 313.107†	-3749.4	115.3	0.0436	ug/L	0.0436 ppb	07:06:24
3	Cd 226.502†	-195.5	6.1	0.0752	ug/L	0.0752 ppb	07:06:44
3	Co 228.616†	-71.0	-2.6	-0.0527	ug/L	-0.0527 ppb	07:06:44
3	Cr 267.716†	85.5	5.5	0.0568	ug/L	0.0568 ppb	07:06:44
3	Cu 324.752†	6127.4	-31.0	-0.0979	ug/L	-0.0979 ppb	07:06:24
3	Mn 257.610†	537.7	64.3	0.0701	ug/L	0.0701 ppb	07:06:44
3	Mo 202.031†	15.0	4.4	0.3213	ug/L	0.3213 ppb	07:06:44
3	Ni 231.604†	61.5	-2.6	-0.0662	ug/L	-0.0662 ppb	07:06:44
3	P 214.914†	208.9	-7.3	-4.3309	ug/L	-4.3309 ppb	07:06:44
3	Pb 220.353†	8.5	66.4	8.1728	ug/L	8.1728 ppb	07:06:44
3	S 181.975 Axial†	45.2	3.1	4.4895	ug/L	4.4895 ppb	07:06:44
3	Sb 206.836†	33.2	-4.4	-1.5077	ug/L	-1.5077 ppb	07:06:44
3	Se 196.026†	-24.5	3.9	2.4306	ug/L	2.4306 ppb	07:06:44
3	Si 251.611†	590.2	15.7	0.5040	ug/L	0.5040 ppb	07:06:44
3	Sn 189.927†	18.7	7.7	1.3921	ug/L	1.3921 ppb	07:06:44
3	Ti 334.940†	-1350.9	60.2	0.0980	ug/L	0.0980 ppb	07:06:24
3	Tl 190.801†	-32.4	1.1	0.3444	ug/L	0.3444 ppb	07:06:44
3	U 409.014†	-2874.0	91.2	2.5238	ug/L	2.5238 ppb	07:06:19
3	V 292.402†	-1531.8	15.8	0.1251	ug/L	0.1251 ppb	07:06:24
3	Zn 213.857†	744.3	117.9	1.1939	ug/L	1.1939 ppb	07:06:44
3	SiO2†	637.3	65.4	4.5391	ug/L	4.5391 ppb	07:07:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901310.0	102.74	%	0.514				0.50%
Sc Radial	3704.3	94.5	%	0.78				0.83%
Y 371.029	760715.9	100.64	%	0.557				0.55%
Y RADIAL	4186.9	94.92	%	1.474				1.55%
Ag 328.068†	40.4	0.1872	ug/L	0.22615	0.1872	ppb	0.22615	120.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-27.8	-26.027	ug/L	11.9496	-26.027	ppb	11.9496	45.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-0.6234	ug/L	0.61807	-0.6234	ppb	0.61807	99.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	80.2	1.9458	ug/L	0.47410	1.9458	ppb	0.47410	24.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.3	0.1049	ug/L	0.05060	0.1049	ppb	0.05060	48.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	131.8	0.0494	ug/L	0.02694	0.0494	ppb	0.02694	54.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.5	13.649	ug/L	4.5837	13.649	ppb	4.5837	33.58%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.7      0.1240 ug/L       0.04828      0.1240 ppb        0.04828  38.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -2.7     -0.0559 ug/L       0.06618     -0.0559 ppb        0.06618 118.40%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.5     -0.0617 ug/L       0.11372     -0.0617 ppb        0.11372 184.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -64.9     -0.1977 ug/L       0.08665     -0.1977 ppb        0.08665  43.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -4.5757 ug/L      36.38529     -4.5757 ppb       36.38529 795.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       482.3      92.573 ug/L       12.4727      92.573 ppb        12.4727  13.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.3     -64.379 ug/L       90.2598     -64.379 ppb        90.2598 140.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              57.1      0.0671 ug/L       0.00504      0.0671 ppb        0.00504   7.51%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.5     -0.0360 ug/L       0.37945     -0.0360 ppb        0.37945 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -133.6     -41.181 ug/L       17.9097     -41.181 ppb        17.9097  43.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.1      0.0287 ug/L       0.08228      0.0287 ppb        0.08228 286.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -9.9     -5.9036 ug/L       6.24639     -5.9036 ppb        6.24639 105.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              67.6      8.3143 ug/L       0.16420      8.3143 ppb        0.16420   1.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.3      4.6937 ug/L       5.58172      4.6937 ppb        5.58172 118.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.8     -0.2390 ug/L       1.40032     -0.2390 ppb        1.40032 585.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.7      1.1079 ug/L       2.51511      1.1079 ppb        2.51511 227.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              10.3      0.3338 ug/L       0.17313      0.3338 ppb        0.17313  51.87%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.4      1.5167 ug/L       0.38185      1.5167 ppb        0.38185  25.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -24.2     -0.1676 ug/L       0.16972     -0.1676 ppb        0.16972 101.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -50.0     -0.0713 ug/L       0.15845     -0.0713 ppb        0.15845 222.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.2      0.0612 ug/L       0.34655      0.0612 ppb        0.34655 566.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -13.2     -0.3633 ug/L       2.76560     -0.3633 ppb        2.76560 761.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               50.4      0.3499 ug/L       0.35426      0.3499 ppb        0.35426 101.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             115.7      1.1652 ug/L       0.06138      1.1652 ppb        0.06138   5.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    47.8      3.3243 ug/L       1.22417      3.3243 ppb        1.22417  36.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 112
Sample ID: 1202032590|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 127
Date Collected: 2/25/2010 07:09:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032590|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3799.9	3799.9	97.0	%			07:11:24
1	Y RADIAL	4322.3	4322.3	97.99	%			07:11:04
1	Al 396.153Radial†	-93.2	16.3	15.225	ug/L	15.225	ppb	07:11:04
1	Ca 317.933Radial†	33.4	14.8	30.908	ug/L	30.908	ppb	07:11:24
1	Fe 238.204 Radial†	14.3	3.4	47.982	ug/L	47.982	ppb	07:11:24
1	K 766.490 Radial†	2900.6	351.8	67.497	ug/L	67.497	ppb	07:11:04
1	Mg 279.077 IEC†	-1.0	-5.1	-247.74	ug/L	-247.74	ppb	07:11:24
1	Na 589.592 Radial†	-829.5	-35.6	-10.988	ug/L	-10.988	ppb	07:11:04
1	Sr 421.552†	106.3	73.9	0.5112	ug/L	0.5112	ppb	07:11:04
1	Sc 361.383	884448.5	884448.5	100.82	%			07:12:21
1	Y 371.029	746715.4	746715.4	98.792	%			07:12:21
1	Ag 328.068†	232.9	-9.4	-0.0198	ug/L	-0.0198	ppb	07:12:21
1	As 188.979†	-21.5	-3.1	-1.3760	ug/L	-1.3760	ppb	07:12:41
1	B 249.677†	-435.8	-34.0	-0.8331	ug/L	-0.8331	ppb	07:12:41
1	Ba 233.527†	98.3	99.0	0.7789	ug/L	0.7789	ppb	07:12:41
1	Be 313.107†	-3377.2	412.6	0.1571	ug/L	0.1571	ppb	07:12:21
1	Cd 226.502†	-178.9	18.8	0.2119	ug/L	0.2119	ppb	07:12:41
1	Co 228.616†	-60.2	6.8	0.1407	ug/L	0.1407	ppb	07:12:41
1	Cr 267.716†	150.4	71.5	0.8115	ug/L	0.8115	ppb	07:12:41
1	Cu 324.752†	5995.1	-44.6	-0.1281	ug/L	-0.1281	ppb	07:12:21
1	Mn 257.610†	1862.6	1388.7	1.5951	ug/L	1.5951	ppb	07:12:21
1	Mo 202.031†	18.1	7.9	0.5806	ug/L	0.5806	ppb	07:12:41
1	Ni 231.604†	92.4	29.2	0.7435	ug/L	0.7435	ppb	07:12:41
1	P 214.914†	223.5	11.1	6.7526	ug/L	6.7526	ppb	07:12:41
1	Pb 220.353†	62.9	120.5	14.823	ug/L	14.823	ppb	07:12:41
1	S 181.975 Axial†	48.6	7.4	10.717	ug/L	10.717	ppb	07:12:41
1	Sb 206.836†	38.2	1.2	0.5034	ug/L	0.5034	ppb	07:12:41
1	Se 196.026†	-24.4	3.6	2.4966	ug/L	2.4966	ppb	07:12:41
1	Si 251.611†	2111.0	1535.5	49.679	ug/L	49.679	ppb	07:12:41
1	Sn 189.927†	41.8	31.0	5.5607	ug/L	5.5607	ppb	07:12:41
1	Ti 334.940†	-801.9	578.8	0.9377	ug/L	0.9377	ppb	07:12:21
1	Tl 190.801†	-42.5	-9.5	-3.0386	ug/L	-3.0386	ppb	07:12:41
1	U 409.014†	-3255.2	-342.1	-9.4531	ug/L	-9.4531	ppb	07:12:21
1	V 292.402†	-1457.2	60.4	0.3979	ug/L	0.3979	ppb	07:12:21
1	Zn 213.857†	961.8	347.9	3.4904	ug/L	3.4904	ppb	07:12:41
1	SiO2†	2077.3	1505.9	104.64	ug/L	104.64	ppb	07:13:37
2	Sc Radial	3752.4	3752.4	95.8	%			07:11:49
2	Y RADIAL	4342.8	4342.8	98.46	%			07:11:29
2	Al 396.153Radial†	-85.4	23.2	21.761	ug/L	21.761	ppb	07:11:29
2	Ca 317.933Radial†	32.9	14.7	30.793	ug/L	30.793	ppb	07:11:49
2	Fe 238.204 Radial†	14.3	3.6	50.409	ug/L	50.409	ppb	07:11:49
2	K 766.490 Radial†	2893.3	382.0	73.304	ug/L	73.304	ppb	07:11:29
2	Mg 279.077 IEC†	1.5	-2.5	-123.35	ug/L	-123.35	ppb	07:11:49
2	Na 589.592 Radial†	-861.9	-80.3	-24.764	ug/L	-24.764	ppb	07:11:29
2	Sr 421.552†	117.8	87.3	0.6040	ug/L	0.6040	ppb	07:11:29
2	Sc 361.383	880612.2	880612.2	100.39	%			07:12:46
2	Y 371.029	742753.5	742753.5	98.268	%			07:12:46
2	Ag 328.068†	197.1	-44.1	-0.1829	ug/L	-0.1829	ppb	07:12:46
2	As 188.979†	-15.9	2.4	1.0785	ug/L	1.0785	ppb	07:13:06
2	B 249.677†	-435.4	-35.5	-0.8697	ug/L	-0.8697	ppb	07:13:06
2	Ba 233.527†	107.5	108.5	0.8538	ug/L	0.8538	ppb	07:13:06
2	Be 313.107†	-3447.3	328.1	0.1257	ug/L	0.1257	ppb	07:12:46
2	Cd 226.502†	-162.0	34.9	0.3983	ug/L	0.3983	ppb	07:13:06
2	Co 228.616†	-55.8	10.9	0.2262	ug/L	0.2262	ppb	07:13:06
2	Cr 267.716†	160.0	81.7	0.9247	ug/L	0.9247	ppb	07:13:06
2	Cu 324.752†	6102.7	88.5	0.2755	ug/L	0.2755	ppb	07:12:46
2	Mn 257.610†	1903.5	1437.5	1.6458	ug/L	1.6458	ppb	07:12:46
2	Mo 202.031†	10.2	0.0	0.0058	ug/L	0.0058	ppb	07:13:06
2	Ni 231.604†	74.8	12.1	0.3064	ug/L	0.3064	ppb	07:13:06

2	P 214.914†	223.4	12.0	7.1880	ug/L	7.1880 ppb	07:13:06
2	Pb 220.353†	73.8	131.6	16.187	ug/L	16.187 ppb	07:13:06
2	S 181.975 Axial†	42.7	1.7	2.4453	ug/L	2.4453 ppb	07:13:06
2	Sb 206.836†	41.8	4.9	1.7796	ug/L	1.7796 ppb	07:13:06
2	Se 196.026†	-26.4	1.5	1.1262	ug/L	1.1262 ppb	07:13:06
2	Si 251.611†	2021.9	1455.8	47.109	ug/L	47.109 ppb	07:13:06
2	Sn 189.927†	38.0	27.4	4.9137	ug/L	4.9137 ppb	07:13:06
2	Ti 334.940†	-698.0	678.7	1.0831	ug/L	1.0831 ppb	07:12:46
2	Tl 190.801†	-34.5	-1.8	-0.5735	ug/L	-0.5735 ppb	07:13:06
2	U 409.014†	-3120.6	-222.0	-6.1370	ug/L	-6.1370 ppb	07:12:46
2	V 292.402†	-1467.5	43.9	0.2829	ug/L	0.2829 ppb	07:12:46
2	Zn 213.857†	966.8	357.1	3.5847	ug/L	3.5847 ppb	07:13:06
2	SiO2†	2111.2	1548.6	107.62	ug/L	107.62 ppb	07:13:42
3	Sc Radial	3779.6	3779.6	96.4	%		07:12:14
3	Y RADIAL	4346.0	4346.0	98.53	%		07:11:54
3	Al 396.153Radial†	-76.7	32.9	30.788	ug/L	30.788 ppb	07:11:54
3	Ca 317.933Radial†	33.1	14.6	30.600	ug/L	30.600 ppb	07:12:14
3	Fe 238.204 Radial†	15.7	5.0	70.646	ug/L	70.646 ppb	07:12:14
3	K 766.490 Radial†	2914.7	382.4	73.395	ug/L	73.395 ppb	07:11:54
3	Mg 279.077 IEC†	2.3	-1.7	-81.803	ug/L	-81.803 ppb	07:12:14
3	Na 589.592 Radial†	-902.9	-116.4	-35.901	ug/L	-35.901 ppb	07:11:54
3	Sr 421.552†	119.4	88.1	0.6090	ug/L	0.6090 ppb	07:11:54
3	Sc 361.383	871798.9	871798.9	99.381	%		07:13:12
3	Y 371.029	736295.3	736295.3	97.414	%		07:13:12
3	Ag 328.068†	210.8	-28.3	-0.1096	ug/L	-0.1096 ppb	07:13:12
3	As 188.979†	-18.0	0.2	0.0948	ug/L	0.0948 ppb	07:13:32
3	B 249.677†	-365.2	30.7	0.7316	ug/L	0.7316 ppb	07:13:32
3	Ba 233.527†	107.8	109.9	0.8637	ug/L	0.8637 ppb	07:13:32
3	Be 313.107†	-3293.0	448.7	0.1710	ug/L	0.1710 ppb	07:13:12
3	Cd 226.502†	-185.2	9.9	0.1070	ug/L	0.1070 ppb	07:13:32
3	Co 228.616†	-44.8	21.5	0.4487	ug/L	0.4487 ppb	07:13:32
3	Cr 267.716†	164.6	87.9	0.9939	ug/L	0.9939 ppb	07:13:32
3	Cu 324.752†	5914.2	-39.7	-0.1158	ug/L	-0.1158 ppb	07:13:12
3	Mn 257.610†	1843.3	1396.1	1.5989	ug/L	1.5989 ppb	07:13:12
3	Mo 202.031†	19.4	9.4	0.6955	ug/L	0.6955 ppb	07:13:32
3	Ni 231.604†	83.3	21.4	0.5432	ug/L	0.5432 ppb	07:13:32
3	P 214.914†	202.6	-6.7	-3.9909	ug/L	-3.9909 ppb	07:13:32
3	Pb 220.353†	74.0	132.6	16.309	ug/L	16.309 ppb	07:13:32
3	S 181.975 Axial†	38.6	-2.0	-2.8196	ug/L	-2.8196 ppb	07:13:32
3	Sb 206.836†	35.2	-1.3	-0.3617	ug/L	-0.3617 ppb	07:13:32
3	Se 196.026†	-20.1	7.5	5.1470	ug/L	5.1470 ppb	07:13:32
3	Si 251.611†	2039.8	1494.2	48.341	ug/L	48.341 ppb	07:13:32
3	Sn 189.927†	38.4	28.2	5.0558	ug/L	5.0558 ppb	07:13:32
3	Ti 334.940†	-693.0	676.8	1.0749	ug/L	1.0749 ppb	07:13:12
3	Tl 190.801†	-36.2	-3.9	-1.2159	ug/L	-1.2159 ppb	07:13:32
3	U 409.014†	-2949.4	-81.2	-2.2529	ug/L	-2.2529 ppb	07:13:12
3	V 292.402†	-1559.4	-63.4	-0.4499	ug/L	-0.4499 ppb	07:13:12
3	Zn 213.857†	968.3	368.3	3.6933	ug/L	3.6933 ppb	07:13:32
3	SiO2†	2116.7	1575.5	109.47	ug/L	109.47 ppb	07:13:47

Mean Data: 1202032590|948756|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878953.2	100.20	%	0.739				0.74%
Sc Radial	3777.3	96.4	%	0.61				0.63%
Y 371.029	741921.4	98.158	%	0.6959				0.71%
Y RADIAL	4337.0	98.33	%	0.292				0.30%
Ag 328.068†	-27.2	-0.1041	ug/L	0.08169	-0.1041	ppb	0.08169	78.47%
Al 396.153Radial†	24.1	22.591	ug/L	7.8151	22.591	ppb	7.8151	34.59%
As 188.979†	-0.2	-0.0676	ug/L	1.23531	-0.0676	ppb	1.23531	>999.9%
B 249.677†	-12.9	-0.3237	ug/L	0.91412	-0.3237	ppb	0.91412	282.36%
Ba 233.527†	105.8	0.8321	ug/L	0.04634	0.8321	ppb	0.04634	5.57%
Be 313.107†	396.5	0.1513	ug/L	0.02321	0.1513	ppb	0.02321	15.34%
Ca 317.933Radial†	14.7	30.767	ug/L	0.1559	30.767	ppb	0.1559	0.51%
Cd 226.502†	21.2	0.2391	ug/L	0.14757	0.2391	ppb	0.14757	61.72%
Co 228.616†	13.1	0.2719	ug/L	0.15900	0.2719	ppb	0.15900	58.49%
Cr 267.716†	80.4	0.9100	ug/L	0.09210	0.9100	ppb	0.09210	10.12%
Cu 324.752†	1.4	0.0105	ug/L	0.22951	0.0105	ppb	0.22951	>999.9%
Fe 238.204 Radial†	4.0	56.346	ug/L	12.4438	56.346	ppb	12.4438	22.08%
K 766.490 Radial†	372.1	71.399	ug/L	3.3790	71.399	ppb	3.3790	4.73%

Mg 279.077 IEC†	-3.1	-150.96	ug/L	86.347	-150.96	ppb	86.347	57.20%
Mn 257.610†	1407.4	1.6133	ug/L	0.02822	1.6133	ppb	0.02822	1.75%
Mo 202.031†	5.8	0.4273	ug/L	0.36952	0.4273	ppb	0.36952	86.48%
Na 589.592 Radial†	-77.5	-23.884	ug/L	12.4795	-23.884	ppb	12.4795	52.25%
Ni 231.604†	20.9	0.5310	ug/L	0.21881	0.5310	ppb	0.21881	41.20%
P 214.914†	5.5	3.3166	ug/L	6.33223	3.3166	ppb	6.33223	190.93%
Pb 220.353†	128.2	15.773	ug/L	0.8252	15.773	ppb	0.8252	5.23%
S 181.975 Axial†	2.4	3.4477	ug/L	6.82392	3.4477	ppb	6.82392	197.93%
Sb 206.836†	1.6	0.6404	ug/L	1.07722	0.6404	ppb	1.07722	168.21%
Se 196.026†	4.2	2.9233	ug/L	2.04408	2.9233	ppb	2.04408	69.92%
Si 251.611†	1495.2	48.376	ug/L	1.2857	48.376	ppb	1.2857	2.66%
Sn 189.927†	28.8	5.1767	ug/L	0.34001	5.1767	ppb	0.34001	6.57%
Sr 421.552†	83.1	0.5748	ug/L	0.05507	0.5748	ppb	0.05507	9.58%
Ti 334.940†	644.8	1.0319	ug/L	0.08170	1.0319	ppb	0.08170	7.92%
Tl 190.801†	-5.1	-1.6093	ug/L	1.27876	-1.6093	ppb	1.27876	79.46%
U 409.014†	-215.1	-5.9477	ug/L	3.60384	-5.9477	ppb	3.60384	60.59%
V 292.402†	13.6	0.0770	ug/L	0.45991	0.0770	ppb	0.45991	597.61%
Zn 213.857†	357.8	3.5895	ug/L	0.10153	3.5895	ppb	0.10153	2.83%
SiO2†	1543.3	107.24	ug/L	2.439	107.24	ppb	2.439	2.27%

Sequence No.: 113
Sample ID: 1202032595|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 128
Date Collected: 2/25/2010 07:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032595|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3914.4	3914.4	99.9	%			07:18:13
1	Y RADIAL	4702.1	4702.1	106.6	%			07:18:13
1	Al 396.153Radial†	97671.5	97893.0	91788	ug/L	91788	ppb	07:17:53
1	Ca 317.933Radial†	46156.6	46188.5	96557	ug/L	96557	ppb	07:17:53
1	Fe 238.204 Radial†	11183.3	11184.5	157900	ug/L	157900	ppb	07:18:13
1	K 766.490 Radial†	218539.3	216143.9	41440	ug/L	41440	ppb	07:17:53
1	Mg 279.077 IEC†	734.6	731.4	35303	ug/L	35303	ppb	07:18:13
1	Na 589.592 Radial†	30509.1	31363.0	9670.0	ug/L	9670.0	ppb	07:17:53
1	Sr 421.552†	321996.2	322320.2	2229.6	ug/L	2229.6	ppb	07:17:53
1	Sc 361.383	898191.6	898191.6	102.39	%			07:19:15
1	Y 371.029	813297.6	813297.6	107.60	%			07:19:15
1	Ag 328.068†	53839.8	52343.0	294.62	ug/L	294.62	ppb	07:19:15
1	As 188.979†	2235.8	2201.8	1065.6	ug/L	1065.6	ppb	07:19:20
1	B 249.677†	60904.9	59881.8	1423.6	ug/L	1423.6	ppb	07:19:15
1	Ba 233.527†	242692.1	237030.0	1867.5	ug/L	1867.5	ppb	07:19:15
1	Be 313.107†	2086324.3	2041399.6	779.33	ug/L	779.33	ppb	07:19:15
1	Cd 226.502†	53400.0	52350.1	590.71	ug/L	590.71	ppb	07:19:20
1	Co 228.616†	44066.6	43104.8	890.45	ug/L	890.45	ppb	07:19:20
1	Cr 267.716†	209152.1	204193.6	2309.0	ug/L	2309.0	ppb	07:19:15
1	Cu 324.752†	613359.6	593055.3	1813.2	ug/L	1813.2	ppb	07:19:15
1	Mn 257.610†	4581210.1	4473843.2	5105.1	ug/L	5105.1	ppb	07:19:15
1	Mo 202.031†	6693.3	6527.0	492.60	ug/L	492.60	ppb	07:19:20
1	Ni 231.604†	52815.6	51520.6	1309.8	ug/L	1309.8	ppb	07:19:20
1	P 214.914†	14138.9	13598.4	7732.9	ug/L	7732.9	ppb	07:19:20
1	Pb 220.353†	6755.5	6656.0	822.16	ug/L	822.16	ppb	07:19:20
1	S 181.975 Axial†	2852.3	2744.9	3932.8	ug/L	3932.8	ppb	07:19:20
1	Sb 206.836†	3592.3	3471.8	1221.4	ug/L	1221.4	ppb	07:19:20
1	Se 196.026†	3771.0	3710.7	2924.0	ug/L	2924.0	ppb	07:19:20
1	Si 251.611†	1249141.0	1219432.5	39453	ug/L	39453	ppb	07:19:15
1	Sn 189.927†	5717.7	5573.8	1008.2	ug/L	1008.2	ppb	07:19:20
1	Ti 334.940†	3494876.0	3414692.9	5375.1	ug/L	5375.1	ppb	07:19:15
1	Tl 190.801†	3604.6	3553.1	1198.7	ug/L	1198.7	ppb	07:19:20
1	U 409.014†	-8579.4	-5492.6	-174.80	ug/L	-174.80	ppb	07:19:15
1	V 292.402†	172041.5	169532.4	1159.8	ug/L	1159.8	ppb	07:19:15
1	Zn 213.857†	582389.7	568192.9	5685.3	ug/L	5685.3	ppb	07:19:15
1	SiO2†	1244385.8	1214792.2	84410	ug/L	84410	ppb	07:19:55
2	Sc Radial	3910.0	3910.0	99.8	%			07:18:39
2	Y RADIAL	4716.9	4716.9	106.9	%			07:18:39
2	Al 396.153Radial†	98538.4	98874.0	92709	ug/L	92709	ppb	07:18:19
2	Ca 317.933Radial†	46630.4	46716.4	97661	ug/L	97661	ppb	07:18:19
2	Fe 238.204 Radial†	11105.3	11119.1	156970	ug/L	156970	ppb	07:18:39
2	K 766.490 Radial†	221215.6	219076.9	42002	ug/L	42002	ppb	07:18:19
2	Mg 279.077 IEC†	733.9	731.5	35310	ug/L	35310	ppb	07:18:39
2	Na 589.592 Radial†	30647.0	31536.2	9723.5	ug/L	9723.5	ppb	07:18:19
2	Sr 421.552†	325253.6	325954.4	2254.7	ug/L	2254.7	ppb	07:18:19
2	Sc 361.383	918596.5	918596.5	104.72	%			07:19:29
2	Y 371.029	829639.7	829639.7	109.76	%			07:19:29
2	Ag 328.068†	54009.0	51336.5	289.57	ug/L	289.57	ppb	07:19:29
2	As 188.979†	2179.7	2099.8	1019.1	ug/L	1019.1	ppb	07:19:34
2	B 249.677†	61526.8	59154.4	1406.2	ug/L	1406.2	ppb	07:19:29
2	Ba 233.527†	244358.2	233355.9	1838.6	ug/L	1838.6	ppb	07:19:29
2	Be 313.107†	2097144.5	2006470.2	766.01	ug/L	766.01	ppb	07:19:29
2	Cd 226.502†	52020.0	49873.8	562.09	ug/L	562.09	ppb	07:19:34
2	Co 228.616†	43016.4	41145.8	849.56	ug/L	849.56	ppb	07:19:34
2	Cr 267.716†	210351.1	200801.0	2270.8	ug/L	2270.8	ppb	07:19:29
2	Cu 324.752†	616309.8	582566.0	1781.2	ug/L	1781.2	ppb	07:19:29
2	Mn 257.610†	4608651.7	4400660.7	5021.7	ug/L	5021.7	ppb	07:19:29
2	Mo 202.031†	6508.4	6205.1	468.91	ug/L	468.91	ppb	07:19:34
2	Ni 231.604†	51542.4	49158.9	1249.7	ug/L	1249.7	ppb	07:19:34

2	P 214.914†	13678.7	12852.2	7290.5	ug/L	7290.5 ppb	07:19:34
2	Pb 220.353†	6557.4	6320.3	781.14	ug/L	781.14 ppb	07:19:34
2	S 181.975 Axial†	2776.1	2610.3	3738.9	ug/L	3738.9 ppb	07:19:34
2	Sb 206.836†	3451.5	3259.3	1146.0	ug/L	1146.0 ppb	07:19:34
2	Se 196.026†	3626.6	3491.0	2777.1	ug/L	2777.1 ppb	07:19:34
2	Si 251.611†	1256504.5	1199364.5	38804	ug/L	38804 ppb	07:19:29
2	Sn 189.927†	5554.5	5293.9	958.20	ug/L	958.20 ppb	07:19:34
2	Ti 334.940†	3515288.1	3358365.1	5286.8	ug/L	5286.8 ppb	07:19:29
2	Tl 190.801†	3510.5	3385.0	1144.0	ug/L	1144.0 ppb	07:19:34
2	U 409.014†	-8413.4	-5147.9	-165.09	ug/L	-165.09 ppb	07:19:29
2	V 292.402†	172960.9	166678.0	1139.8	ug/L	1139.8 ppb	07:19:29
2	Zn 213.857†	586224.4	559220.1	5595.5	ug/L	5595.5 ppb	07:19:29
2	SiO2†	1236351.2	1180122.6	82001	ug/L	82001 ppb	07:20:01
3	Sc Radial	3924.2	3924.2	100	%		07:19:04
3	Y RADIAL	4738.5	4738.5	107.4	%		07:19:04
3	Al 396.153Radial†	98502.1	98478.4	92337	ug/L	92337 ppb	07:18:44
3	Ca 317.933Radial†	46561.3	46477.3	97161	ug/L	97161 ppb	07:18:44
3	Fe 238.204 Radial†	11232.3	11205.4	158190	ug/L	158190 ppb	07:19:04
3	K 766.490 Radial†	220585.7	217641.3	41727	ug/L	41727 ppb	07:18:44
3	Mg 279.077 IEC†	741.7	736.6	35556	ug/L	35556 ppb	07:19:04
3	Na 589.592 Radial†	30405.3	31183.1	9614.6	ug/L	9614.6 ppb	07:18:44
3	Sr 421.552†	324142.3	323658.7	2238.8	ug/L	2238.8 ppb	07:18:44
3	Sc 361.383	901289.0	901289.0	102.74	%		07:19:43
3	Y 371.029	814747.3	814747.3	107.79	%		07:19:43
3	Ag 328.068†	53530.2	51860.9	292.43	ug/L	292.43 ppb	07:19:43
3	As 188.979†	2226.3	2185.1	1057.8	ug/L	1057.8 ppb	07:19:48
3	B 249.677†	60735.6	59512.6	1414.6	ug/L	1414.6 ppb	07:19:43
3	Ba 233.527†	241943.8	235487.1	1855.3	ug/L	1855.3 ppb	07:19:43
3	Be 313.107†	2072801.2	2021234.6	771.67	ug/L	771.67 ppb	07:19:43
3	Cd 226.502†	53494.8	52263.2	589.67	ug/L	589.67 ppb	07:19:48
3	Co 228.616†	44186.7	43073.7	889.87	ug/L	889.87 ppb	07:19:48
3	Cr 267.716†	208314.6	202676.5	2292.0	ug/L	2292.0 ppb	07:19:43
3	Cu 324.752†	609361.5	587105.2	1795.1	ug/L	1795.1 ppb	07:19:43
3	Mn 257.610†	4564012.1	4441727.4	5068.6	ug/L	5068.6 ppb	07:19:43
3	Mo 202.031†	6676.4	6488.0	489.76	ug/L	489.76 ppb	07:19:48
3	Ni 231.604†	53000.8	51523.6	1309.9	ug/L	1309.9 ppb	07:19:48
3	P 214.914†	14074.5	13488.4	7670.1	ug/L	7670.1 ppb	07:19:48
3	Pb 220.353†	6655.2	6535.7	807.47	ug/L	807.47 ppb	07:19:48
3	S 181.975 Axial†	2835.9	2719.4	3896.0	ug/L	3896.0 ppb	07:19:48
3	Sb 206.836†	3563.3	3431.4	1207.3	ug/L	1207.3 ppb	07:19:48
3	Se 196.026†	3747.0	3674.7	2901.3	ug/L	2901.3 ppb	07:19:48
3	Si 251.611†	1243862.3	1210101.9	39151	ug/L	39151 ppb	07:19:43
3	Sn 189.927†	5738.2	5574.6	1008.4	ug/L	1008.4 ppb	07:19:48
3	Ti 334.940†	3481084.7	3389539.1	5335.7	ug/L	5335.7 ppb	07:19:43
3	Tl 190.801†	3591.4	3528.1	1190.2	ug/L	1190.2 ppb	07:19:48
3	U 409.014†	-8348.4	-5239.0	-167.79	ug/L	-167.79 ppb	07:19:43
3	V 292.402†	171211.6	168147.2	1150.1	ug/L	1150.1 ppb	07:19:43
3	Zn 213.857†	580265.0	564170.1	5644.7	ug/L	5644.7 ppb	07:19:43
3	SiO2†	1250106.1	1216182.9	84506	ug/L	84506 ppb	07:20:07

Mean Data: 1202032595|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906025.7	103.28	%	1.254				1.21%
Sc Radial	3916.2	99.9	%	0.19				0.19%
Y 371.029	819228.2	108.39	%	1.197				1.10%
Y RADIAL	4719.2	107.0	%	0.41				0.39%
Ag 328.068†	51846.8	292.21	ug/L	2.532	292.21	ppb	2.532	0.87%
Al 396.153Radial†	98415.1	92278	ug/L	463.4	92278	ppb	463.4	0.50%
As 188.979†	2162.2	1047.5	ug/L	24.91	1047.5	ppb	24.91	2.38%
B 249.677†	59516.3	1414.8	ug/L	8.69	1414.8	ppb	8.69	0.61%
Ba 233.527†	235291.0	1853.8	ug/L	14.51	1853.8	ppb	14.51	0.78%
Be 313.107†	2023034.8	772.33	ug/L	6.689	772.33	ppb	6.689	0.87%
Ca 317.933Radial†	46460.7	97126	ug/L	552.5	97126	ppb	552.5	0.57%
Cd 226.502†	51495.7	580.82	ug/L	16.231	580.82	ppb	16.231	2.79%
Co 228.616†	42441.4	876.63	ug/L	23.443	876.63	ppb	23.443	2.67%
Cr 267.716†	202557.0	2290.6	ug/L	19.14	2290.6	ppb	19.14	0.84%
Cu 324.752†	587575.5	1796.5	ug/L	16.03	1796.5	ppb	16.03	0.89%
Fe 238.204 Radial†	11169.7	157690	ug/L	636.3	157690	ppb	636.3	0.40%
K 766.490 Radial†	217620.7	41723	ug/L	281.3	41723	ppb	281.3	0.67%

Mg 279.077 IEC†	733.2	35390	ug/L	144.0	35390	ppb	144.0	0.41%
Mn 257.610†	4438743.7	5065.2	ug/L	41.79	5065.2	ppb	41.79	0.83%
Mo 202.031†	6406.7	483.75	ug/L	12.937	483.75	ppb	12.937	2.67%
Na 589.592 Radial†	31360.8	9669.4	ug/L	54.44	9669.4	ppb	54.44	0.56%
Ni 231.604†	50734.4	1289.8	ug/L	34.69	1289.8	ppb	34.69	2.69%
P 214.914†	13313.0	7564.5	ug/L	239.36	7564.5	ppb	239.36	3.16%
Pb 220.353†	6504.0	803.59	ug/L	20.784	803.59	ppb	20.784	2.59%
S 181.975 Axial†	2691.5	3855.9	ug/L	103.01	3855.9	ppb	103.01	2.67%
Sb 206.836†	3387.5	1191.6	ug/L	40.06	1191.6	ppb	40.06	3.36%
Se 196.026†	3625.5	2867.5	ug/L	79.08	2867.5	ppb	79.08	2.76%
Si 251.611†	1209633.0	39136	ug/L	324.8	39136	ppb	324.8	0.83%
Sn 189.927†	5480.7	991.59	ug/L	28.921	991.59	ppb	28.921	2.92%
Sr 421.552†	323977.8	2241.1	ug/L	12.71	2241.1	ppb	12.71	0.57%
Ti 334.940†	3387532.4	5332.5	ug/L	44.26	5332.5	ppb	44.26	0.83%
Tl 190.801†	3488.7	1177.6	ug/L	29.43	1177.6	ppb	29.43	2.50%
U 409.014†	-5293.2	-169.23	ug/L	5.011	-169.23	ppb	5.011	2.96%
V 292.402†	168119.2	1149.9	ug/L	9.99	1149.9	ppb	9.99	0.87%
Zn 213.857†	563861.0	5641.8	ug/L	44.95	5641.8	ppb	44.95	0.80%
SiO2†	1203699.2	83639	ug/L	1419.4	83639	ppb	1419.4	1.70%

Sequence No.: 114
Sample ID: 245969001|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 129
Date Collected: 2/25/2010 07:22:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969001|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	3824.0	3824.0	97.6	%			07:24:32
1	Y RADIAL	5430.8	5430.8	123.1	%			07:24:12
1	Al 396.153Radial†	15600.1	16099.4	15099	ug/L	15099	ppb	07:24:12
1	Ca 317.933Radial†	1360.5	1374.5	2873.5	ug/L	2873.5	ppb	07:24:32
1	Fe 238.204 Radial†	5138.8	5254.9	74176	ug/L	74176	ppb	07:24:12
1	K 766.490 Radial†	31432.7	29572.5	5671.7	ug/L	5671.7	ppb	07:24:12
1	Mg 279.077 IEC†	29.7	26.4	1203.1	ug/L	1203.1	ppb	07:24:32
1	Na 589.592 Radial†	11610.9	12718.6	3921.5	ug/L	3921.5	ppb	07:24:12
1	Sr 421.552†	2608.0	2637.0	18.225	ug/L	18.225	ppb	07:24:12
1	Sc 361.383	910443.8	910443.8	103.79	%			07:25:29
1	Y 371.029	952683.3	952683.3	126.04	%			07:25:29
1	Ag 328.068†	-4847.9	-4911.4	0.3453	ug/L	0.3453	ppb	07:25:35
1	As 188.979†	-15.4	3.4	28.538	ug/L	28.538	ppb	07:25:55
1	B 249.677†	629.2	1004.5	12.170	ug/L	12.170	ppb	07:25:35
1	Ba 233.527†	24147.5	23268.0	184.92	ug/L	184.92	ppb	07:25:35
1	Be 313.107†	-5795.4	-1821.8	1.8395	ug/L	1.8395	ppb	07:25:35
1	Cd 226.502†	492.6	670.9	0.0924	ug/L	0.0924	ppb	07:25:55
1	Co 228.616†	2325.8	2307.5	45.000	ug/L	45.000	ppb	07:25:55
1	Cr 267.716†	6896.8	6567.5	80.928	ug/L	80.928	ppb	07:25:35
1	Cu 324.752†	16730.0	10128.9	34.891	ug/L	34.891	ppb	07:25:35
1	Mn 257.610†	1888487.8	1819137.7	2077.3	ug/L	2077.3	ppb	07:25:29
1	Mo 202.031†	57.4	45.2	9.1087	ug/L	9.1087	ppb	07:25:55
1	Ni 231.604†	2283.7	2138.0	54.346	ug/L	54.346	ppb	07:25:55
1	P 214.914†	861.8	619.9	311.13	ug/L	311.13	ppb	07:25:55
1	Pb 220.353†	2725.2	2683.9	325.25	ug/L	325.25	ppb	07:25:55
1	S 181.975 Axial†	52.2	9.5	10.780	ug/L	10.780	ppb	07:25:55
1	Sb 206.836†	47.4	8.9	-1.4532	ug/L	-1.4532	ppb	07:25:55
1	Se 196.026†	-354.2	-313.5	25.827	ug/L	25.827	ppb	07:25:55
1	Si 251.611†	791874.7	762429.1	24671	ug/L	24671	ppb	07:25:29
1	Sn 189.927†	58.0	45.4	4.3894	ug/L	4.3894	ppb	07:25:55
1	Ti 334.940†	732907.1	707545.0	1112.2	ug/L	1112.2	ppb	07:25:29
1	Tl 190.801†	-115.6	-78.8	-6.3552	ug/L	-6.3552	ppb	07:25:55
1	U 409.014†	-12623.5	-9276.3	-264.78	ug/L	-264.78	ppb	07:25:29
1	V 292.402†	3252.7	4639.8	19.926	ug/L	19.926	ppb	07:25:55
1	Zn 213.857†	24318.0	22824.9	218.28	ug/L	218.28	ppb	07:25:35
1	SiO2†	792761.8	763287.8	53045	ug/L	53045	ppb	07:27:03
2	Sc Radial	3764.3	3764.3	96.1	%			07:24:57
2	Y RADIAL	5565.6	5565.6	126.2	%			07:24:37
2	Al 396.153Radial†	15927.7	16694.0	15657	ug/L	15657	ppb	07:24:37
2	Ca 317.933Radial†	1366.4	1402.8	2932.6	ug/L	2932.6	ppb	07:24:57
2	Fe 238.204 Radial†	5252.0	5456.2	77018	ug/L	77018	ppb	07:24:37
2	K 766.490 Radial†	32069.7	30746.6	5896.9	ug/L	5896.9	ppb	07:24:37
2	Mg 279.077 IEC†	30.8	28.0	1275.3	ug/L	1275.3	ppb	07:24:57
2	Na 589.592 Radial†	11883.3	13190.9	4067.1	ug/L	4067.1	ppb	07:24:37
2	Sr 421.552†	2606.8	2678.1	18.509	ug/L	18.509	ppb	07:24:37
2	Sc 361.383	919693.6	919693.6	104.84	%			07:26:01
2	Y 371.029	960354.6	960354.6	127.06	%			07:26:01
2	Ag 328.068†	-4869.4	-4885.0	1.3326	ug/L	1.3326	ppb	07:26:06
2	As 188.979†	-20.1	-0.9	27.233	ug/L	27.233	ppb	07:26:26
2	B 249.677†	680.7	1047.5	12.752	ug/L	12.752	ppb	07:26:06
2	Ba 233.527†	24062.3	22952.7	182.53	ug/L	182.53	ppb	07:26:06
2	Be 313.107†	-5699.3	-1674.0	1.8917	ug/L	1.8917	ppb	07:26:06
2	Cd 226.502†	487.4	661.2	-0.3135	ug/L	-0.3135	ppb	07:26:26
2	Co 228.616†	2331.8	2290.6	44.609	ug/L	44.609	ppb	07:26:26
2	Cr 267.716†	6857.3	6463.0	80.021	ug/L	80.021	ppb	07:26:06
2	Cu 324.752†	16589.3	9832.6	34.136	ug/L	34.136	ppb	07:26:06
2	Mn 257.610†	1907541.1	1819010.8	2077.5	ug/L	2077.5	ppb	07:26:01
2	Mo 202.031†	58.1	45.3	9.3384	ug/L	9.3384	ppb	07:26:26
2	Ni 231.604†	2247.1	2080.9	52.896	ug/L	52.896	ppb	07:26:26

2	P 214.914†	867.7	617.1	307.51 ug/L	307.51 ppb	07:26:26
2	Pb 220.353†	2703.6	2636.8	319.27 ug/L	319.27 ppb	07:26:26
2	S 181.975 Axial†	73.5	29.3	39.231 ug/L	39.231 ppb	07:26:26
2	Sb 206.836†	50.6	11.6	-0.5901 ug/L	-0.5901 ppb	07:26:26
2	Se 196.026†	-357.0	-312.7	35.193 ug/L	35.193 ppb	07:26:26
2	Si 251.611†	800785.3	763254.6	24698 ug/L	24698 ppb	07:26:01
2	Sn 189.927†	50.3	37.5	2.8306 ug/L	2.8306 ppb	07:26:26
2	Ti 334.940†	739348.6	706586.8	1110.7 ug/L	1110.7 ppb	07:26:01
2	Tl 190.801†	-108.4	-70.8	-3.7952 ug/L	-3.7952 ppb	07:26:26
2	U 409.014†	-12510.2	-9046.0	-258.74 ug/L	-258.74 ppb	07:26:01
2	V 292.402†	3187.1	4545.6	18.872 ug/L	18.872 ppb	07:26:26
2	Zn 213.857†	24151.7	22430.5	213.89 ug/L	213.89 ppb	07:26:06
2	SiO2†	791386.8	754293.9	52420 ug/L	52420 ppb	07:27:09
3	Sc Radial	3821.2	3821.2	97.5 %		07:25:22
3	Y RADIAL	5425.1	5425.1	123.0 %		07:25:02
3	Al 396.153Radial†	15825.9	16342.8	15327 ug/L	15327 ppb	07:25:02
3	Ca 317.933Radial†	1358.3	1373.4	2871.1 ug/L	2871.1 ppb	07:25:22
3	Fe 238.204 Radial†	5191.8	5313.2	74998 ug/L	74998 ppb	07:25:02
3	K 766.490 Radial†	31827.5	30001.4	5754.0 ug/L	5754.0 ppb	07:25:02
3	Mg 279.077 IEC†	32.9	29.7	1360.9 ug/L	1360.9 ppb	07:25:22
3	Na 589.592 Radial†	11580.7	12696.5	3914.7 ug/L	3914.7 ppb	07:25:02
3	Sr 421.552†	2590.4	2620.9	18.114 ug/L	18.114 ppb	07:25:02
3	Sc 361.383	911287.4	911287.4	103.88 %		07:26:32
3	Y 371.029	951088.6	951088.6	125.83 %		07:26:32
3	Ag 328.068†	-4790.2	-4851.6	0.8769 ug/L	0.8769 ppb	07:26:37
3	As 188.979†	-25.5	-6.3	24.330 ug/L	24.330 ppb	07:26:57
3	B 249.677†	674.6	1047.6	13.084 ug/L	13.084 ppb	07:26:37
3	Ba 233.527†	23883.1	22992.0	182.78 ug/L	182.78 ppb	07:26:37
3	Be 313.107†	-5699.6	-1724.4	1.8686 ug/L	1.8686 ppb	07:26:37
3	Cd 226.502†	477.6	656.0	-0.1663 ug/L	-0.1663 ppb	07:26:57
3	Co 228.616†	2303.7	2284.1	44.507 ug/L	44.507 ppb	07:26:57
3	Cr 267.716†	6840.9	6507.6	80.334 ug/L	80.334 ppb	07:26:37
3	Cu 324.752†	16451.6	9846.1	34.075 ug/L	34.075 ppb	07:26:37
3	Mn 257.610†	1886471.5	1815512.3	2073.3 ug/L	2073.3 ppb	07:26:32
3	Mo 202.031†	66.5	53.9	9.8132 ug/L	9.8132 ppb	07:26:57
3	Ni 231.604†	2271.4	2124.1	53.993 ug/L	53.993 ppb	07:26:57
3	P 214.914†	865.8	622.9	312.54 ug/L	312.54 ppb	07:26:57
3	Pb 220.353†	2719.5	2675.9	324.23 ug/L	324.23 ppb	07:26:57
3	S 181.975 Axial†	66.8	23.5	30.913 ug/L	30.913 ppb	07:26:57
3	Sb 206.836†	61.5	22.5	3.2905 ug/L	3.2905 ppb	07:26:57
3	Se 196.026†	-355.3	-314.3	27.875 ug/L	27.875 ppb	07:26:57
3	Si 251.611†	791832.9	761682.5	24647 ug/L	24647 ppb	07:26:32
3	Sn 189.927†	54.9	42.4	3.8091 ug/L	3.8091 ppb	07:26:57
3	Ti 334.940†	731401.2	705441.7	1108.9 ug/L	1108.9 ppb	07:26:32
3	Tl 190.801†	-102.3	-65.9	-2.2562 ug/L	-2.2562 ppb	07:26:57
3	U 409.014†	-12728.2	-9365.9	-267.34 ug/L	-267.34 ppb	07:26:32
3	V 292.402†	3236.3	4621.0	19.687 ug/L	19.687 ppb	07:26:57
3	Zn 213.857†	23952.2	22451.0	214.39 ug/L	214.39 ppb	07:26:37
3	SiO2†	789480.9	759422.4	52776 ug/L	52776 ppb	07:27:15

Mean Data: 245969001|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	913808.2	104.17	%	0.583				0.56%
Sc Radial	3803.1	97.0	%	0.86				0.89%
Y 371.029	954708.8	126.31	%	0.655				0.52%
Y RADIAL	5473.8	124.1	%	1.80				1.45%
Ag 328.068†	-4882.7	0.8516	ug/L	0.49414	0.8516	ppb	0.49414	58.02%
Al 396.153Radial†	16378.7	15361	ug/L	280.4	15361	ppb	280.4	1.83%
As 188.979†	-1.3	26.701	ug/L	2.1539	26.701	ppb	2.1539	8.07%
B 249.677†	1033.2	12.669	ug/L	0.4625	12.669	ppb	0.4625	3.65%
Ba 233.527†	23070.9	183.41	ug/L	1.314	183.41	ppb	1.314	0.72%
Be 313.107†	-1740.1	1.8666	ug/L	0.02613	1.8666	ppb	0.02613	1.40%
Ca 317.933Radial†	1383.6	2892.4	ug/L	34.87	2892.4	ppb	34.87	1.21%
Cd 226.502†	662.7	-0.1291	ug/L	0.20544	-0.1291	ppb	0.20544	159.10%
Co 228.616†	2294.1	44.705	ug/L	0.2601	44.705	ppb	0.2601	0.58%
Cr 267.716†	6512.7	80.427	ug/L	0.4607	80.427	ppb	0.4607	0.57%
Cu 324.752†	9935.8	34.367	ug/L	0.4545	34.367	ppb	0.4545	1.32%
Fe 238.204 Radial†	5341.4	75397	ug/L	1462.3	75397	ppb	1462.3	1.94%
K 766.490 Radial†	30106.8	5774.2	ug/L	113.97	5774.2	ppb	113.97	1.97%

Mg 279.077 IEC†	28.0	1279.7	ug/L	79.00	1279.7	ppb	79.00	6.17%
Mn 257.610†	1817887.0	2076.0	ug/L	2.38	2076.0	ppb	2.38	0.11%
Mo 202.031†	48.1	9.4201	ug/L	0.35930	9.4201	ppb	0.35930	3.81%
Na 589.592 Radial†	12868.6	3967.7	ug/L	86.11	3967.7	ppb	86.11	2.17%
Ni 231.604†	2114.3	53.745	ug/L	0.7562	53.745	ppb	0.7562	1.41%
P 214.914†	620.0	310.39	ug/L	2.596	310.39	ppb	2.596	0.84%
Pb 220.353†	2665.6	322.92	ug/L	3.199	322.92	ppb	3.199	0.99%
S 181.975 Axial†	20.7	26.975	ug/L	14.6289	26.975	ppb	14.6289	54.23%
Sb 206.836†	14.3	0.4157	ug/L	2.52675	0.4157	ppb	2.52675	607.77%
Se 196.026†	-313.5	29.632	ug/L	4.9236	29.632	ppb	4.9236	16.62%
Si 251.611†	762455.4	24672	ug/L	25.4	24672	ppb	25.4	0.10%
Sn 189.927†	41.7	3.6763	ug/L	0.78784	3.6763	ppb	0.78784	21.43%
Sr 421.552†	2645.3	18.283	ug/L	0.2039	18.283	ppb	0.2039	1.12%
Ti 334.940†	706524.5	1110.6	ug/L	1.66	1110.6	ppb	1.66	0.15%
Tl 190.801†	-71.8	-4.1355	ug/L	2.07058	-4.1355	ppb	2.07058	50.07%
U 409.014†	-9229.4	-263.62	ug/L	4.417	-263.62	ppb	4.417	1.68%
V 292.402†	4602.1	19.495	ug/L	0.5528	19.495	ppb	0.5528	2.84%
Zn 213.857†	22568.8	215.52	ug/L	2.400	215.52	ppb	2.400	1.11%
SiO2†	759001.3	52747	ug/L	313.5	52747	ppb	313.5	0.59%

Sequence No.: 115
Sample ID: 1202032591|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 130
Date Collected: 2/25/2010 07:29:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032591|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4050.0	4050.0	103	%			07:31:22
1	Y RADIAL	5534.8	5534.8	125.5	%			07:31:22
1	Al 396.153Radial†	14707.9	14344.0	13453	ug/L	13453	ppb	07:31:22
1	Ca 317.933Radial†	1244.9	1184.9	2477.0	ug/L	2477.0	ppb	07:31:42
1	Fe 238.204 Radial†	4801.2	4634.4	65418	ug/L	65418	ppb	07:31:22
1	K 766.490 Radial†	30822.6	27184.7	5213.7	ug/L	5213.7	ppb	07:31:22
1	Mg 279.077 IEC†	30.8	25.7	1176.8	ug/L	1176.8	ppb	07:31:42
1	Na 589.592 Radial†	11022.6	11485.4	3541.2	ug/L	3541.2	ppb	07:31:22
1	Sr 421.552†	2108.7	2004.7	13.853	ug/L	13.853	ppb	07:31:22
1	Sc 361.383	917846.1	917846.1	104.63	%			07:32:39
1	Y 371.029	958230.6	958230.6	126.78	%			07:32:39
1	Ag 328.068†	-4671.1	-4704.8	-1.3878	ug/L	-1.3878	ppb	07:32:44
1	As 188.979†	-20.7	-1.5	23.865	ug/L	23.865	ppb	07:33:05
1	B 249.677†	410.6	790.6	8.3126	ug/L	8.3126	ppb	07:32:44
1	Ba 233.527†	22077.5	21101.9	167.65	ug/L	167.65	ppb	07:32:44
1	Be 313.107†	-5664.5	-1651.7	1.7977	ug/L	1.7977	ppb	07:32:44
1	Cd 226.502†	434.3	611.3	0.2976	ug/L	0.2976	ppb	07:33:05
1	Co 228.616†	3995.8	3885.6	78.289	ug/L	78.289	ppb	07:33:05
1	Cr 267.716†	4012.3	3757.1	48.544	ug/L	48.544	ppb	07:33:05
1	Cu 324.752†	14096.8	7482.3	26.376	ug/L	26.376	ppb	07:32:44
1	Mn 257.610†	2043466.8	1952584.2	2228.3	ug/L	2228.3	ppb	07:32:39
1	Mo 202.031†	57.8	45.1	8.4188	ug/L	8.4188	ppb	07:33:05
1	Ni 231.604†	1771.9	1631.1	41.434	ug/L	41.434	ppb	07:33:05
1	P 214.914†	879.5	630.1	325.54	ug/L	325.54	ppb	07:33:05
1	Pb 220.353†	2734.2	2671.4	324.31	ug/L	324.31	ppb	07:33:05
1	S 181.975 Axial†	50.5	7.5	8.2180	ug/L	8.2180	ppb	07:33:05
1	Sb 206.836†	36.9	-1.5	-4.8144	ug/L	-4.8144	ppb	07:33:05
1	Se 196.026†	-352.2	-308.9	1.5783	ug/L	1.5783	ppb	07:33:05
1	Si 251.611†	776504.5	741585.6	23997	ug/L	23997	ppb	07:32:39
1	Sn 189.927†	56.9	43.9	4.5635	ug/L	4.5635	ppb	07:33:05
1	Ti 334.940†	707849.3	677900.9	1065.6	ug/L	1065.6	ppb	07:32:39
1	Tl 190.801†	-105.3	-68.1	-2.7164	ug/L	-2.7164	ppb	07:33:05
1	U 409.014†	-12905.8	-9448.1	-268.45	ug/L	-268.45	ppb	07:32:39
1	V 292.402†	2998.9	4371.8	19.385	ug/L	19.385	ppb	07:33:05
1	Zn 213.857†	23991.1	22323.4	214.63	ug/L	214.63	ppb	07:32:44
1	SiO2†	777181.3	742236.4	51582	ug/L	51582	ppb	07:34:13
2	Sc Radial	3606.4	3606.4	92.0	%			07:31:47
2	Y RADIAL	5074.8	5074.8	115.1	%			07:31:47
2	Al 396.153Radial†	14764.0	16155.6	15152	ug/L	15152	ppb	07:31:47
2	Ca 317.933Radial†	1293.4	1385.8	2897.0	ug/L	2897.0	ppb	07:32:07
2	Fe 238.204 Radial†	4815.4	5221.3	73703	ug/L	73703	ppb	07:31:47
2	K 766.490 Radial†	30802.7	30831.9	5913.3	ug/L	5913.3	ppb	07:31:47
2	Mg 279.077 IEC†	29.2	27.7	1266.2	ug/L	1266.2	ppb	07:32:07
2	Na 589.592 Radial†	11087.2	12867.6	3967.4	ug/L	3967.4	ppb	07:31:47
2	Sr 421.552†	2132.1	2281.1	15.763	ug/L	15.763	ppb	07:31:47
2	Sc 361.383	909743.1	909743.1	103.71	%			07:33:10
2	Y 371.029	948331.6	948331.6	125.47	%			07:33:10
2	Ag 328.068†	-4636.0	-4710.7	1.1242	ug/L	1.1242	ppb	07:33:16
2	As 188.979†	-23.1	-4.1	24.678	ug/L	24.678	ppb	07:33:36
2	B 249.677†	523.9	903.4	9.6987	ug/L	9.6987	ppb	07:33:16
2	Ba 233.527†	21802.0	21024.3	167.30	ug/L	167.30	ppb	07:33:16
2	Be 313.107†	-5487.8	-1529.5	1.8456	ug/L	1.8456	ppb	07:33:16
2	Cd 226.502†	434.5	615.2	-0.5116	ug/L	-0.5116	ppb	07:33:36
2	Co 228.616†	4032.0	3954.4	79.609	ug/L	79.609	ppb	07:33:36
2	Cr 267.716†	3997.9	3777.3	49.559	ug/L	49.559	ppb	07:33:36
2	Cu 324.752†	14100.3	7605.7	27.187	ug/L	27.187	ppb	07:33:16
2	Mn 257.610†	2028345.5	1955398.9	2232.4	ug/L	2232.4	ppb	07:33:10
2	Mo 202.031†	51.4	39.4	8.6498	ug/L	8.6498	ppb	07:33:36
2	Ni 231.604†	1793.9	1667.3	42.354	ug/L	42.354	ppb	07:33:36

2	P 214.914†	880.3	638.3	324.16	ug/L	324.16 ppb	07:33:36
2	Pb 220.353†	2779.1	2737.9	331.95	ug/L	331.95 ppb	07:33:36
2	S 181.975 Axial†	51.6	9.0	10.100	ug/L	10.100 ppb	07:33:36
2	Sb 206.836†	53.8	15.1	0.8187	ug/L	0.8187 ppb	07:33:36
2	Se 196.026†	-340.9	-301.0	32.534	ug/L	32.534 ppb	07:33:36
2	Si 251.611†	771065.4	742951.1	24041	ug/L	24041 ppb	07:33:10
2	Sn 189.927†	47.8	35.6	2.6660	ug/L	2.6660 ppb	07:33:36
2	Ti 334.940†	702186.8	678466.5	1066.5	ug/L	1066.5 ppb	07:33:10
2	Tl 190.801†	-109.7	-73.2	-4.3334	ug/L	-4.3334 ppb	07:33:36
2	U 409.014†	-12605.7	-9268.6	-264.44	ug/L	-264.44 ppb	07:33:10
2	V 292.402†	3072.2	4468.1	18.853	ug/L	18.853 ppb	07:33:36
2	Zn 213.857†	23692.9	22240.2	212.55	ug/L	212.55 ppb	07:33:16
2	SiO2†	776660.7	748350.4	52007	ug/L	52007 ppb	07:34:19
3	Sc Radial	3812.8	3812.8	97.3	%		07:32:12
3	Y RADIAL	5292.9	5292.9	120.0	%		07:32:12
3	Al 396.153Radial†	14408.5	14921.6	13994	ug/L	13994 ppb	07:32:12
3	Ca 317.933Radial†	1300.8	1317.3	2753.9	ug/L	2753.9 ppb	07:32:32
3	Fe 238.204 Radial†	4705.4	4824.9	68107	ug/L	68107 ppb	07:32:12
3	K 766.490 Radial†	30310.2	28513.4	5468.5	ug/L	5468.5 ppb	07:32:12
3	Mg 279.077 IEC†	32.6	29.5	1358.3	ug/L	1358.3 ppb	07:32:32
3	Na 589.592 Radial†	10766.2	11885.4	3664.6	ug/L	3664.6 ppb	07:32:12
3	Sr 421.552†	2090.5	2112.9	14.600	ug/L	14.600 ppb	07:32:12
3	Sc 361.383	904810.0	904810.0	103.14	%		07:33:42
3	Y 371.029	943271.1	943271.1	124.80	%		07:33:42
3	Ag 328.068†	-4529.0	-4631.4	-0.2264	ug/L	-0.2264 ppb	07:33:47
3	As 188.979†	-26.2	-7.2	21.982	ug/L	21.982 ppb	07:34:07
3	B 249.677†	478.8	862.4	9.6138	ug/L	9.6138 ppb	07:33:47
3	Ba 233.527†	21938.6	21271.3	169.06	ug/L	169.06 ppb	07:33:47
3	Be 313.107†	-5609.7	-1676.6	1.7886	ug/L	1.7886 ppb	07:33:47
3	Cd 226.502†	433.6	616.6	0.0828	ug/L	0.0828 ppb	07:34:07
3	Co 228.616†	3998.0	3942.7	79.445	ug/L	79.445 ppb	07:34:07
3	Cr 267.716†	4000.4	3800.7	49.289	ug/L	49.289 ppb	07:34:07
3	Cu 324.752†	14216.8	7792.7	27.461	ug/L	27.461 ppb	07:33:47
3	Mn 257.610†	2012503.7	1950703.4	2226.5	ug/L	2226.5 ppb	07:33:42
3	Mo 202.031†	47.2	35.6	7.9331	ug/L	7.9331 ppb	07:34:07
3	Ni 231.604†	1783.4	1666.6	42.337	ug/L	42.337 ppb	07:34:07
3	P 214.914†	876.9	639.6	329.05	ug/L	329.05 ppb	07:34:07
3	Pb 220.353†	2749.4	2723.7	330.57	ug/L	330.57 ppb	07:34:07
3	S 181.975 Axial†	58.2	15.6	19.883	ug/L	19.883 ppb	07:34:07
3	Sb 206.836†	46.1	8.0	-1.5735	ug/L	-1.5735 ppb	07:34:07
3	Se 196.026†	-346.9	-308.6	10.117	ug/L	10.117 ppb	07:34:07
3	Si 251.611†	766296.8	742381.6	24022	ug/L	24022 ppb	07:33:42
3	Sn 189.927†	53.8	41.6	4.0502	ug/L	4.0502 ppb	07:34:07
3	Ti 334.940†	697851.6	677955.0	1065.7	ug/L	1065.7 ppb	07:33:42
3	Tl 190.801†	-117.6	-81.4	-7.0099	ug/L	-7.0099 ppb	07:34:07
3	U 409.014†	-12585.0	-9314.8	-265.08	ug/L	-265.08 ppb	07:33:42
3	V 292.402†	3010.6	4424.5	19.361	ug/L	19.361 ppb	07:34:07
3	Zn 213.857†	23718.7	22389.7	214.89	ug/L	214.89 ppb	07:33:47
3	SiO2†	777037.7	752799.0	52316	ug/L	52316 ppb	07:34:25

Mean Data: 1202032591|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910799.7	103.83	%	0.750				0.72%
Sc Radial	3823.0	97.6	%	5.66				5.81%
Y 371.029	949944.4	125.68	%	1.007				0.80%
Y RADIAL	5300.9	120.2	%	5.22				4.34%
Ag 328.068†	-4682.3	-0.1633	ug/L	1.25722	-0.1633	ppb	1.25722	769.79%
Al 396.153Radial†	15140.4	14200	ug/L	867.9	14200	ppb	867.9	6.11%
As 188.979†	-4.2	23.508	ug/L	1.3826	23.508	ppb	1.3826	5.88%
B 249.677†	852.2	9.2084	ug/L	0.77693	9.2084	ppb	0.77693	8.44%
Ba 233.527†	21132.5	168.00	ug/L	0.935	168.00	ppb	0.935	0.56%
Be 313.107†	-1619.3	1.8106	ug/L	0.03065	1.8106	ppb	0.03065	1.69%
Ca 317.933Radial†	1296.0	2709.3	ug/L	213.50	2709.3	ppb	213.50	7.88%
Cd 226.502†	614.4	-0.0437	ug/L	0.41916	-0.0437	ppb	0.41916	958.72%
Co 228.616†	3927.6	79.114	ug/L	0.7197	79.114	ppb	0.7197	0.91%
Cr 267.716†	3778.4	49.131	ug/L	0.5253	49.131	ppb	0.5253	1.07%
Cu 324.752†	7626.9	27.008	ug/L	0.5642	27.008	ppb	0.5642	2.09%
Fe 238.204 Radial†	4893.6	69076	ug/L	4226.5	69076	ppb	4226.5	6.12%
K 766.490 Radial†	28843.3	5531.8	ug/L	354.07	5531.8	ppb	354.07	6.40%

Mg 279.077 IEC†	27.6	1267.1	ug/L	90.78	1267.1	ppb	90.78	7.16%
Mn 257.610†	1952895.5	2229.0	ug/L	3.01	2229.0	ppb	3.01	0.14%
Mo 202.031†	40.0	8.3339	ug/L	0.36583	8.3339	ppb	0.36583	4.39%
Na 589.592 Radial†	12079.4	3724.4	ug/L	219.29	3724.4	ppb	219.29	5.89%
Ni 231.604†	1655.0	42.042	ug/L	0.5264	42.042	ppb	0.5264	1.25%
P 214.914†	636.0	326.25	ug/L	2.520	326.25	ppb	2.520	0.77%
Pb 220.353†	2711.0	328.94	ug/L	4.072	328.94	ppb	4.072	1.24%
S 181.975 Axial†	10.7	12.734	ug/L	6.2625	12.734	ppb	6.2625	49.18%
Sb 206.836†	7.2	-1.8564	ug/L	2.82716	-1.8564	ppb	2.82716	152.29%
Se 196.026†	-306.2	14.743	ug/L	15.9882	14.743	ppb	15.9882	108.45%
Si 251.611†	742306.1	24020	ug/L	22.2	24020	ppb	22.2	0.09%
Sn 189.927†	40.4	3.7599	ug/L	0.98151	3.7599	ppb	0.98151	26.10%
Sr 421.552†	2132.9	14.739	ug/L	0.9623	14.739	ppb	0.9623	6.53%
Ti 334.940†	678107.5	1065.9	ug/L	0.51	1065.9	ppb	0.51	0.05%
Tl 190.801†	-74.2	-4.6866	ug/L	2.16846	-4.6866	ppb	2.16846	46.27%
U 409.014†	-9343.8	-265.99	ug/L	2.155	-265.99	ppb	2.155	0.81%
V 292.402†	4421.5	19.200	ug/L	0.2999	19.200	ppb	0.2999	1.56%
Zn 213.857†	22317.8	214.02	ug/L	1.284	214.02	ppb	1.284	0.60%
SiO2†	747795.3	51968	ug/L	368.6	51968	ppb	368.6	0.71%

Sequence No.: 116
Sample ID: 1202032593|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 131
Date Collected: 2/25/2010 07:36:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032593|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3763.7	3763.7	96.0	%			07:38:52
1	Y RADIAL	5519.8	5519.8	125.1	%			07:38:32
1	Al 396.153Radial†	28887.2	30189.9	28292	ug/L	28292	ppb	07:38:32
1	Ca 317.933Radial†	4209.7	4363.5	9121.8	ug/L	9121.8	ppb	07:38:32
1	Fe 238.204 Radial†	4985.3	5179.4	73123	ug/L	73123	ppb	07:38:32
1	K 766.490 Radial†	71297.7	71596.1	13730	ug/L	13730	ppb	07:38:32
1	Mg 279.077 IEC†	148.3	150.3	7216.0	ug/L	7216.0	ppb	07:38:52
1	Na 589.592 Radial†	34426.1	36664.5	11305	ug/L	11305	ppb	07:38:32
1	Sr 421.552†	70458.2	73325.9	507.31	ug/L	507.31	ppb	07:38:32
1	Sc 361.383	898332.0	898332.0	102.41	%			07:39:51
1	Y 371.029	970819.1	970819.1	128.44	%			07:39:51
1	Ag 328.068†	101165.1	98548.5	480.79	ug/L	480.79	ppb	07:39:51
1	As 188.979†	1083.7	1076.5	512.53	ug/L	512.53	ppb	07:40:11
1	B 249.677†	20120.6	20046.3	472.70	ug/L	472.70	ppb	07:39:51
1	Ba 233.527†	85944.5	83927.1	661.93	ug/L	661.93	ppb	07:39:51
1	Be 313.107†	1333810.2	1306242.6	495.03	ug/L	495.03	ppb	07:39:51
1	Cd 226.502†	42689.5	41883.0	477.81	ug/L	477.81	ppb	07:39:51
1	Co 228.616†	24650.9	24138.4	501.95	ug/L	501.95	ppb	07:40:11
1	Cr 267.716†	47964.5	46760.1	532.51	ug/L	532.51	ppb	07:39:51
1	Cu 324.752†	184064.9	173750.6	532.51	ug/L	532.51	ppb	07:39:51
1	Mn 257.610†	2257583.3	2204096.3	2515.1	ug/L	2515.1	ppb	07:39:51
1	Mo 202.031†	6512.0	6348.9	471.90	ug/L	471.90	ppb	07:40:11
1	Ni 231.604†	20839.9	20287.9	515.68	ug/L	515.68	ppb	07:40:11
1	P 214.914†	1711.8	1461.1	727.39	ug/L	727.39	ppb	07:40:11
1	Pb 220.353†	5133.4	5071.0	622.64	ug/L	622.64	ppb	07:40:11
1	S 181.975 Axial†	3601.0	3475.6	4996.2	ug/L	4996.2	ppb	07:40:11
1	Sb 206.836†	1371.6	1302.6	466.82	ug/L	466.82	ppb	07:40:11
1	Se 196.026†	399.8	418.2	503.15	ug/L	503.15	ppb	07:40:11
1	Si 251.611†	1258135.1	1228024.6	39732	ug/L	39732	ppb	07:39:51
1	Sn 189.927†	2841.7	2764.5	493.44	ug/L	493.44	ppb	07:40:11
1	Ti 334.940†	1188145.4	1161611.2	1825.7	ug/L	1825.7	ppb	07:39:51
1	Tl 190.801†	1421.4	1420.6	478.19	ug/L	478.19	ppb	07:40:11
1	U 409.014†	3849.7	6645.9	174.01	ug/L	174.01	ppb	07:39:51
1	V 292.402†	71673.3	71495.4	492.84	ug/L	492.84	ppb	07:39:51
1	Zn 213.857†	72984.9	70664.5	696.40	ug/L	696.40	ppb	07:39:51
1	SiO2†	1260406.1	1230246.1	85484	ug/L	85484	ppb	07:41:12
2	Sc Radial	3746.8	3746.8	95.6	%			07:39:17
2	Y RADIAL	5611.6	5611.6	127.2	%			07:38:57
2	Al 396.153Radial†	29358.6	30818.8	28882	ug/L	28882	ppb	07:38:57
2	Ca 317.933Radial†	4288.3	4465.5	9335.2	ug/L	9335.2	ppb	07:38:57
2	Fe 238.204 Radial†	5025.3	5244.7	74045	ug/L	74045	ppb	07:38:57
2	K 766.490 Radial†	72474.1	73161.8	14031	ug/L	14031	ppb	07:38:57
2	Mg 279.077 IEC†	146.0	148.7	7136.4	ug/L	7136.4	ppb	07:39:17
2	Na 589.592 Radial†	34862.3	37282.6	11495	ug/L	11495	ppb	07:38:57
2	Sr 421.552†	71709.7	74966.2	518.66	ug/L	518.66	ppb	07:38:57
2	Sc 361.383	903667.1	903667.1	103.01	%			07:40:19
2	Y 371.029	975989.2	975989.2	129.13	%			07:40:19
2	Ag 328.068†	101849.9	98630.0	481.44	ug/L	481.44	ppb	07:40:19
2	As 188.979†	1084.0	1070.6	510.12	ug/L	510.12	ppb	07:40:39
2	B 249.677†	20361.8	20164.3	475.43	ug/L	475.43	ppb	07:40:19
2	Ba 233.527†	86378.7	83853.2	661.38	ug/L	661.38	ppb	07:40:19
2	Be 313.107†	1339604.2	1304177.4	494.25	ug/L	494.25	ppb	07:40:19
2	Cd 226.502†	42956.1	41895.7	477.86	ug/L	477.86	ppb	07:40:19
2	Co 228.616†	24599.2	23946.1	497.90	ug/L	497.90	ppb	07:40:39
2	Cr 267.716†	48269.1	46779.3	532.81	ug/L	532.81	ppb	07:40:19
2	Cu 324.752†	185665.3	174243.1	534.05	ug/L	534.05	ppb	07:40:19
2	Mn 257.610†	2270926.1	2204033.5	2515.1	ug/L	2515.1	ppb	07:40:19
2	Mo 202.031†	6513.3	6312.7	469.31	ug/L	469.31	ppb	07:40:39
2	Ni 231.604†	20793.6	20122.9	511.48	ug/L	511.48	ppb	07:40:39

2	P 214.914†	1683.2	1423.4	703.76 ug/L	703.76 ppb	07:40:39
2	Pb 220.353†	5146.1	5053.7	620.54 ug/L	620.54 ppb	07:40:39
2	S 181.975 Axial†	3590.7	3444.9	4951.9 ug/L	4951.9 ppb	07:40:39
2	Sb 206.836†	1370.3	1293.5	463.44 ug/L	463.44 ppb	07:40:39
2	Se 196.026†	401.7	417.7	505.69 ug/L	505.69 ppb	07:40:39
2	Si 251.611†	1267057.1	1229432.2	39777 ug/L	39777 ppb	07:40:19
2	Sn 189.927†	2826.5	2733.4	487.85 ug/L	487.85 ppb	07:40:39
2	Ti 334.940†	1196478.9	1162851.0	1827.7 ug/L	1827.7 ppb	07:40:19
2	Tl 190.801†	1409.1	1400.5	471.79 ug/L	471.79 ppb	07:40:39
2	U 409.014†	4177.8	6942.2	182.09 ug/L	182.09 ppb	07:40:19
2	V 292.402†	72083.6	71480.5	492.57 ug/L	492.57 ppb	07:40:19
2	Zn 213.857†	73611.3	70851.8	698.17 ug/L	698.17 ppb	07:40:19
2	SiO2†	1269686.6	1231988.7	85605 ug/L	85605 ppb	07:41:18
3	Sc Radial	3788.0	3788.0	96.7 %		07:39:42
3	Y RADIAL	5442.2	5442.2	123.4 %		07:39:22
3	Al 396.153Radial†	28463.3	29558.7	27700 ug/L	27700 ppb	07:39:22
3	Ca 317.933Radial†	4166.0	4290.2	8968.7 ug/L	8968.7 ppb	07:39:22
3	Fe 238.204 Radial†	4929.7	5088.6	71842 ug/L	71842 ppb	07:39:22
3	K 766.490 Radial†	70481.3	70275.7	13477 ug/L	13477 ppb	07:39:22
3	Mg 279.077 IEC†	149.8	150.9	7246.7 ug/L	7246.7 ppb	07:39:42
3	Na 589.592 Radial†	33617.9	35598.7	10976 ug/L	10976 ppb	07:39:22
3	Sr 421.552†	69200.9	71554.9	495.06 ug/L	495.06 ppb	07:39:22
3	Sc 361.383	905350.7	905350.7	103.21 %		07:40:46
3	Y 371.029	978501.8	978501.8	129.46 %		07:40:46
3	Ag 328.068†	101544.9	98150.5	478.54 ug/L	478.54 ppb	07:40:46
3	As 188.979†	1080.9	1065.6	507.34 ug/L	507.34 ppb	07:41:06
3	B 249.677†	20251.9	20021.1	472.33 ug/L	472.33 ppb	07:40:46
3	Ba 233.527†	86480.8	83796.2	660.86 ug/L	660.86 ppb	07:40:46
3	Be 313.107†	1340969.6	1303082.2	493.82 ug/L	493.82 ppb	07:40:46
3	Cd 226.502†	42737.4	41606.3	474.74 ug/L	474.74 ppb	07:40:46
3	Co 228.616†	24374.8	23684.2	492.45 ug/L	492.45 ppb	07:41:06
3	Cr 267.716†	48221.4	46646.0	531.10 ug/L	531.10 ppb	07:40:46
3	Cu 324.752†	184940.3	173205.4	530.78 ug/L	530.78 ppb	07:40:46
3	Mn 257.610†	2267294.5	2196415.2	2506.2 ug/L	2506.2 ppb	07:40:46
3	Mo 202.031†	6443.7	6233.4	463.32 ug/L	463.32 ppb	07:41:06
3	Ni 231.604†	20642.8	19939.2	506.82 ug/L	506.82 ppb	07:41:06
3	P 214.914†	1682.3	1419.6	703.53 ug/L	703.53 ppb	07:41:06
3	Pb 220.353†	5103.0	5002.7	614.24 ug/L	614.24 ppb	07:41:06
3	S 181.975 Axial†	3553.9	3402.7	4891.4 ug/L	4891.4 ppb	07:41:06
3	Sb 206.836†	1373.8	1294.5	463.70 ug/L	463.70 ppb	07:41:06
3	Se 196.026†	384.5	400.3	487.40 ug/L	487.40 ppb	07:41:06
3	Si 251.611†	1262742.4	1222964.2	39568 ug/L	39568 ppb	07:40:46
3	Sn 189.927†	2818.5	2720.4	485.59 ug/L	485.59 ppb	07:41:06
3	Ti 334.940†	1193617.2	1157918.4	1819.9 ug/L	1819.9 ppb	07:40:46
3	Tl 190.801†	1404.6	1393.5	469.49 ug/L	469.49 ppb	07:41:06
3	U 409.014†	4081.1	6840.9	179.55 ug/L	179.55 ppb	07:40:46
3	V 292.402†	71917.9	71189.9	490.79 ug/L	490.79 ppb	07:40:46
3	Zn 213.857†	73251.8	70370.6	693.69 ug/L	693.69 ppb	07:40:46
3	SiO2†	1259358.4	1219689.2	84750 ug/L	84750 ppb	07:41:24

Mean Data: 1202032593|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902450.0	102.87	%	0.418				0.41%
Sc Radial	3766.2	96.1	%	0.53				0.55%
Y 371.029	975103.4	129.01	%	0.518				0.40%
Y RADIAL	5524.5	125.2	%	1.92				1.53%
Ag 328.068†	98443.0	480.26	ug/L	1.521	480.26	ppb	1.521	0.32%
Al 396.153Radial†	30189.2	28291	ug/L	590.8	28291	ppb	590.8	2.09%
As 188.979†	1070.9	510.00	ug/L	2.596	510.00	ppb	2.596	0.51%
B 249.677†	20077.2	473.49	ug/L	1.692	473.49	ppb	1.692	0.36%
Ba 233.527†	83858.8	661.39	ug/L	0.536	661.39	ppb	0.536	0.08%
Be 313.107†	1304500.8	494.37	ug/L	0.609	494.37	ppb	0.609	0.12%
Ca 317.933Radial†	4373.1	9141.9	ug/L	184.07	9141.9	ppb	184.07	2.01%
Cd 226.502†	41795.0	476.80	ug/L	1.791	476.80	ppb	1.791	0.38%
Co 228.616†	23922.9	497.43	ug/L	4.768	497.43	ppb	4.768	0.96%
Cr 267.716†	46728.5	532.14	ug/L	0.912	532.14	ppb	0.912	0.17%
Cu 324.752†	173733.0	532.44	ug/L	1.637	532.44	ppb	1.637	0.31%
Fe 238.204 Radial†	5170.9	73004	ug/L	1106.4	73004	ppb	1106.4	1.52%
K 766.490 Radial†	71677.8	13746	ug/L	277.1	13746	ppb	277.1	2.02%

Mg 279.077 IEC†	150.0	7199.7	ug/L	56.92	7199.7	ppb	56.92	0.79%
Mn 257.610†	2201515.0	2512.1	ug/L	5.13	2512.1	ppb	5.13	0.20%
Mo 202.031†	6298.3	468.18	ug/L	4.401	468.18	ppb	4.401	0.94%
Na 589.592 Radial†	36515.2	11259	ug/L	262.6	11259	ppb	262.6	2.33%
Ni 231.604†	20116.7	511.33	ug/L	4.433	511.33	ppb	4.433	0.87%
P 214.914†	1434.7	711.56	ug/L	13.709	711.56	ppb	13.709	1.93%
Pb 220.353†	5042.4	619.14	ug/L	4.374	619.14	ppb	4.374	0.71%
S 181.975 Axial†	3441.1	4946.5	ug/L	52.60	4946.5	ppb	52.60	1.06%
Sb 206.836†	1296.9	464.65	ug/L	1.879	464.65	ppb	1.879	0.40%
Se 196.026†	412.0	498.74	ug/L	9.908	498.74	ppb	9.908	1.99%
Si 251.611†	1226807.0	39692	ug/L	110.0	39692	ppb	110.0	0.28%
Sn 189.927†	2739.4	488.96	ug/L	4.044	488.96	ppb	4.044	0.83%
Sr 421.552†	73282.4	507.01	ug/L	11.804	507.01	ppb	11.804	2.33%
Ti 334.940†	1160793.5	1824.4	ug/L	4.06	1824.4	ppb	4.06	0.22%
Tl 190.801†	1404.9	473.15	ug/L	4.511	473.15	ppb	4.511	0.95%
U 409.014†	6809.7	178.55	ug/L	4.130	178.55	ppb	4.130	2.31%
V 292.402†	71388.6	492.07	ug/L	1.113	492.07	ppb	1.113	0.23%
Zn 213.857†	70629.0	696.08	ug/L	2.256	696.08	ppb	2.256	0.32%
SiO2†	1227308.0	85280	ug/L	462.4	85280	ppb	462.4	0.54%

Sequence No.: 117
Sample ID: 1202032594|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 132
Date Collected: 2/25/2010 07:43:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032594|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3912.5	3912.5	99.8	%			07:45:50
1	Y RADIAL	5453.4	5453.4	123.6	%			07:45:30
1	Al 396.153Radial†	29603.7	29764.2	27893	ug/L	27893	ppb	07:45:30
1	Ca 317.933Radial†	4436.5	4424.1	9248.6	ug/L	9248.6	ppb	07:45:30
1	Fe 238.204 Radial†	4816.9	4813.4	67957	ug/L	67957	ppb	07:45:30
1	K 766.490 Radial†	72064.5	69541.9	13336	ug/L	13336	ppb	07:45:30
1	Mg 279.077 IEC†	154.0	150.2	7215.0	ug/L	7215.0	ppb	07:45:50
1	Na 589.592 Radial†	36222.7	37101.3	11439	ug/L	11439	ppb	07:45:30
1	Sr 421.552†	72830.5	72913.0	504.46	ug/L	504.46	ppb	07:45:30
1	Sc 361.383	890084.6	890084.6	101.47	%			07:46:49
1	Y 371.029	971922.6	971922.6	128.59	%			07:46:49
1	Ag 328.068†	100308.7	98619.8	479.53	ug/L	479.53	ppb	07:46:49
1	As 188.979†	1073.4	1076.1	511.96	ug/L	511.96	ppb	07:47:09
1	B 249.677†	19791.1	19903.6	470.10	ug/L	470.10	ppb	07:46:49
1	Ba 233.527†	82836.1	81641.3	643.83	ug/L	643.83	ppb	07:46:49
1	Be 313.107†	1316445.7	1301197.5	493.34	ug/L	493.34	ppb	07:46:49
1	Cd 226.502†	41371.1	40970.0	467.77	ug/L	467.77	ppb	07:47:09
1	Co 228.616†	24064.9	23783.9	494.40	ug/L	494.40	ppb	07:47:09
1	Cr 267.716†	46870.9	46116.3	524.79	ug/L	524.79	ppb	07:46:49
1	Cu 324.752†	186132.6	177453.9	543.50	ug/L	543.50	ppb	07:46:49
1	Mn 257.610†	2354651.4	2320189.8	2646.7	ug/L	2646.7	ppb	07:46:49
1	Mo 202.031†	6407.9	6305.2	468.29	ug/L	468.29	ppb	07:47:09
1	Ni 231.604†	20556.6	20197.3	513.38	ug/L	513.38	ppb	07:47:09
1	P 214.914†	1737.0	1501.5	753.45	ug/L	753.45	ppb	07:47:09
1	Pb 220.353†	5420.4	5400.2	663.60	ug/L	663.60	ppb	07:47:09
1	S 181.975 Axial†	3552.8	3460.7	4974.8	ug/L	4974.8	ppb	07:47:09
1	Sb 206.836†	1353.3	1297.1	464.48	ug/L	464.48	ppb	07:47:09
1	Se 196.026†	419.3	441.0	501.99	ug/L	501.99	ppb	07:47:09
1	Si 251.611†	1241145.4	1222664.1	39558	ug/L	39558	ppb	07:46:49
1	Sn 189.927†	2784.1	2733.4	488.19	ug/L	488.19	ppb	07:47:09
1	Ti 334.940†	1236848.7	1220361.8	1918.1	ug/L	1918.1	ppb	07:46:49
1	Tl 190.801†	1397.0	1409.4	476.02	ug/L	476.02	ppb	07:47:09
1	U 409.014†	3572.2	6407.2	168.02	ug/L	168.02	ppb	07:46:49
1	V 292.402†	70862.7	71345.1	492.39	ug/L	492.39	ppb	07:46:49
1	Zn 213.857†	73427.8	71761.5	708.21	ug/L	708.21	ppb	07:46:49
1	SiO2†	1250914.5	1232296.0	85626	ug/L	85626	ppb	07:48:10
2	Sc Radial	3938.3	3938.3	100	%			07:46:15
2	Y RADIAL	5471.4	5471.4	124.0	%			07:45:55
2	Al 396.153Radial†	28608.2	28579.0	26781	ug/L	26781	ppb	07:45:55
2	Ca 317.933Radial†	4268.0	4227.2	8837.1	ug/L	8837.1	ppb	07:45:55
2	Fe 238.204 Radial†	4634.0	4599.7	64941	ug/L	64941	ppb	07:45:55
2	K 766.490 Radial†	69755.8	66770.9	12805	ug/L	12805	ppb	07:45:55
2	Mg 279.077 IEC†	156.2	151.3	7274.7	ug/L	7274.7	ppb	07:46:15
2	Na 589.592 Radial†	34598.8	35247.3	10868	ug/L	10868	ppb	07:45:55
2	Sr 421.552†	70003.4	69621.1	481.68	ug/L	481.68	ppb	07:45:55
2	Sc 361.383	895905.6	895905.6	102.13	%			07:47:16
2	Y 371.029	977618.4	977618.4	129.34	%			07:47:16
2	Ag 328.068†	100820.2	98478.3	477.95	ug/L	477.95	ppb	07:47:16
2	As 188.979†	1069.5	1065.5	506.50	ug/L	506.50	ppb	07:47:36
2	B 249.677†	19954.3	19936.6	471.42	ug/L	471.42	ppb	07:47:16
2	Ba 233.527†	83247.4	81513.6	642.74	ug/L	642.74	ppb	07:47:16
2	Be 313.107†	1324285.1	1300443.6	493.05	ug/L	493.05	ppb	07:47:16
2	Cd 226.502†	41202.0	40539.4	463.09	ug/L	463.09	ppb	07:47:36
2	Co 228.616†	23879.5	23448.3	487.40	ug/L	487.40	ppb	07:47:36
2	Cr 267.716†	47011.9	45954.3	522.68	ug/L	522.68	ppb	07:47:16
2	Cu 324.752†	187758.1	177853.6	544.56	ug/L	544.56	ppb	07:47:16
2	Mn 257.610†	2365786.6	2316014.9	2641.6	ug/L	2641.6	ppb	07:47:16
2	Mo 202.031†	6391.7	6248.3	463.87	ug/L	463.87	ppb	07:47:36
2	Ni 231.604†	20477.5	19988.2	508.06	ug/L	508.06	ppb	07:47:36

2	P 214.914†	1711.3	1465.1	733.45 ug/L	733.45 ppb	07:47:36
2	Pb 220.353†	5401.5	5347.0	657.14 ug/L	657.14 ppb	07:47:36
2	S 181.975 Axial†	3527.3	3413.0	4906.3 ug/L	4906.3 ppb	07:47:36
2	Sb 206.836†	1355.3	1290.3	462.02 ug/L	462.02 ppb	07:47:36
2	Se 196.026†	408.6	427.8	483.96 ug/L	483.96 ppb	07:47:36
2	Si 251.611†	1246326.5	1219789.5	39465 ug/L	39465 ppb	07:47:16
2	Sn 189.927†	2772.6	2704.3	483.07 ug/L	483.07 ppb	07:47:36
2	Ti 334.940†	1244064.5	1219507.0	1916.7 ug/L	1916.7 ppb	07:47:16
2	Tl 190.801†	1394.4	1397.9	472.36 ug/L	472.36 ppb	07:47:36
2	U 409.014†	3656.2	6466.6	170.01 ug/L	170.01 ppb	07:47:16
2	V 292.402†	71344.1	71362.7	492.90 ug/L	492.90 ppb	07:47:16
2	Zn 213.857†	73912.1	71765.5	708.74 ug/L	708.74 ppb	07:47:16
2	SiO2†	1234690.0	1208399.4	83966 ug/L	83966 ppb	07:48:16
3	Sc Radial	3790.3	3790.3	96.7 %		07:46:40
3	Y RADIAL	5485.5	5485.5	124.4 %		07:46:20
3	Al 396.153Radial†	28716.6	29802.4	27929 ug/L	27929 ppb	07:46:20
3	Ca 317.933Radial†	4302.0	4428.1	9257.0 ug/L	9257.0 ppb	07:46:20
3	Fe 238.204 Radial†	4673.0	4820.0	68051 ug/L	68051 ppb	07:46:20
3	K 766.490 Radial†	69989.5	69722.3	13371 ug/L	13371 ppb	07:46:20
3	Mg 279.077 IEC†	151.6	152.7	7336.2 ug/L	7336.2 ppb	07:46:40
3	Na 589.592 Radial†	34828.1	36828.4	11355 ug/L	11355 ppb	07:46:20
3	Sr 421.552†	70112.1	72453.0	501.27 ug/L	501.27 ppb	07:46:20
3	Sc 361.383	901919.8	901919.8	102.81 %		07:47:44
3	Y 371.029	985693.6	985693.6	130.41 %		07:47:44
3	Ag 328.068†	101426.2	98409.4	478.58 ug/L	478.58 ppb	07:47:44
3	As 188.979†	1061.5	1050.7	500.55 ug/L	500.55 ppb	07:48:04
3	B 249.677†	19971.2	19822.7	468.16 ug/L	468.16 ppb	07:47:44
3	Ba 233.527†	83265.1	80987.3	638.70 ug/L	638.70 ppb	07:47:44
3	Be 313.107†	1329431.6	1296802.8	491.66 ug/L	491.66 ppb	07:47:44
3	Cd 226.502†	41180.2	40249.2	459.41 ug/L	459.41 ppb	07:48:04
3	Co 228.616†	23837.5	23251.5	483.25 ug/L	483.25 ppb	07:48:04
3	Cr 267.716†	47059.6	45693.7	520.05 ug/L	520.05 ppb	07:47:44
3	Cu 324.752†	188347.8	177201.4	542.74 ug/L	542.74 ppb	07:47:44
3	Mn 257.610†	2365453.6	2300244.4	2624.0 ug/L	2624.0 ppb	07:47:44
3	Mo 202.031†	6390.3	6205.2	460.96 ug/L	460.96 ppb	07:48:04
3	Ni 231.604†	20453.5	19831.1	504.07 ug/L	504.07 ppb	07:48:04
3	P 214.914†	1703.7	1446.6	720.46 ug/L	720.46 ppb	07:48:04
3	Pb 220.353†	5409.4	5319.4	653.64 ug/L	653.64 ppb	07:48:04
3	S 181.975 Axial†	3520.4	3383.2	4863.3 ug/L	4863.3 ppb	07:48:04
3	Sb 206.836†	1344.2	1270.7	455.05 ug/L	455.05 ppb	07:48:04
3	Se 196.026†	394.6	411.6	482.99 ug/L	482.99 ppb	07:48:04
3	Si 251.611†	1245977.0	1211312.0	39191 ug/L	39191 ppb	07:47:44
3	Sn 189.927†	2791.8	2704.9	483.07 ug/L	483.07 ppb	07:48:04
3	Ti 334.940†	1246233.6	1213494.0	1907.3 ug/L	1907.3 ppb	07:47:44
3	Tl 190.801†	1394.6	1389.0	469.36 ug/L	469.36 ppb	07:48:04
3	U 409.014†	3499.6	6290.4	164.80 ug/L	164.80 ppb	07:47:44
3	V 292.402†	71483.7	71032.6	490.10 ug/L	490.10 ppb	07:47:44
3	Zn 213.857†	73852.9	71225.3	702.86 ug/L	702.86 ppb	07:47:44
3	SiO2†	1242074.2	1207520.0	83905 ug/L	83905 ppb	07:48:22

Mean Data: 1202032594|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895970.0	102.14	%	0.675				0.66%
Sc Radial	3880.4	99.0	%	2.02				2.04%
Y 371.029	978411.5	129.45	%	0.915				0.71%
Y RADIAL	5470.1	124.0	%	0.37				0.29%
Ag 328.068†	98502.5	478.69	ug/L	0.794	478.69	ppb	0.794	0.17%
Al 396.153Radial†	29381.9	27534	ug/L	652.3	27534	ppb	652.3	2.37%
As 188.979†	1064.1	506.34	ug/L	5.706	506.34	ppb	5.706	1.13%
B 249.677†	19887.6	469.89	ug/L	1.638	469.89	ppb	1.638	0.35%
Ba 233.527†	81380.8	641.76	ug/L	2.704	641.76	ppb	2.704	0.42%
Be 313.107†	1299481.3	492.69	ug/L	0.896	492.69	ppb	0.896	0.18%
Ca 317.933Radial†	4359.8	9114.2	ug/L	240.03	9114.2	ppb	240.03	2.63%
Cd 226.502†	40586.2	463.42	ug/L	4.191	463.42	ppb	4.191	0.90%
Co 228.616†	23494.6	488.35	ug/L	5.635	488.35	ppb	5.635	1.15%
Cr 267.716†	45921.5	522.51	ug/L	2.373	522.51	ppb	2.373	0.45%
Cu 324.752†	177503.0	543.60	ug/L	0.913	543.60	ppb	0.913	0.17%
Fe 238.204 Radial†	4744.4	66983	ug/L	1768.9	66983	ppb	1768.9	2.64%
K 766.490 Radial†	68678.4	13170	ug/L	317.3	13170	ppb	317.3	2.41%

Mg 279.077 IEC†	151.4	7275.3 ug/L	60.59	7275.3 ppb	60.59	0.83%
Mn 257.610†	2312149.7	2637.4 ug/L	11.91	2637.4 ppb	11.91	0.45%
Mo 202.031†	6252.9	464.37 ug/L	3.692	464.37 ppb	3.692	0.80%
Na 589.592 Radial†	36392.3	11221 ug/L	308.6	11221 ppb	308.6	2.75%
Ni 231.604†	20005.5	508.50 ug/L	4.668	508.50 ppb	4.668	0.92%
P 214.914†	1471.1	735.79 ug/L	16.616	735.79 ppb	16.616	2.26%
Pb 220.353†	5355.5	658.13 ug/L	5.052	658.13 ppb	5.052	0.77%
S 181.975 Axial†	3418.9	4914.8 ug/L	56.22	4914.8 ppb	56.22	1.14%
Sb 206.836†	1286.0	460.52 ug/L	4.893	460.52 ppb	4.893	1.06%
Se 196.026†	426.8	489.65 ug/L	10.702	489.65 ppb	10.702	2.19%
Si 251.611†	1217921.8	39405 ug/L	190.9	39405 ppb	190.9	0.48%
Sn 189.927†	2714.2	484.78 ug/L	2.954	484.78 ppb	2.954	0.61%
Sr 421.552†	71662.4	495.80 ug/L	12.334	495.80 ppb	12.334	2.49%
Ti 334.940†	1217787.6	1914.0 ug/L	5.87	1914.0 ppb	5.87	0.31%
Tl 190.801†	1398.8	472.58 ug/L	3.332	472.58 ppb	3.332	0.70%
U 409.014†	6388.1	167.61 ug/L	2.631	167.61 ppb	2.631	1.57%
V 292.402†	71246.8	491.79 ug/L	1.489	491.79 ppb	1.489	0.30%
Zn 213.857†	71584.1	706.60 ug/L	3.251	706.60 ppb	3.251	0.46%
SiO2†	1216071.8	84499 ug/L	976.8	84499 ppb	976.8	1.16%

Sequence No.: 118
Sample ID: 1202032592|948756|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 133
Date Collected: 2/25/2010 07:50:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032592|948756|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3812.5	3812.5	97.3	%			07:52:48
1	Y RADIAL	4558.6	4558.6	103.3	%			07:52:28
1	Al 396.153Radial†	3002.6	3198.7	3000.0	ug/L	3000.0	ppb	07:52:28
1	Ca 317.933Radial†	297.4	286.0	597.89	ug/L	597.89	ppb	07:52:48
1	Fe 238.204 Radial†	1062.9	1081.2	15262	ug/L	15262	ppb	07:52:48
1	K 766.490 Radial†	8599.2	6199.4	1189.0	ug/L	1189.0	ppb	07:52:28
1	Mg 279.077 IEC†	7.9	4.0	179.46	ug/L	179.46	ppb	07:52:48
1	Na 589.592 Radial†	1571.9	2435.5	750.92	ug/L	750.92	ppb	07:52:28
1	Sr 421.552†	543.5	523.0	3.6142	ug/L	3.6142	ppb	07:52:28
1	Sc 361.383	877962.5	877962.5	100.08	%			07:53:45
1	Y 371.029	772674.6	772674.6	102.23	%			07:53:45
1	Ag 328.068†	-655.9	-895.7	0.6074	ug/L	0.6074	ppb	07:53:45
1	As 188.979†	-18.5	-0.2	5.4637	ug/L	5.4637	ppb	07:54:05
1	B 249.677†	-213.7	184.7	1.9693	ug/L	1.9693	ppb	07:53:45
1	Ba 233.527†	4855.2	4852.6	38.559	ug/L	38.559	ppb	07:53:45
1	Be 313.107†	-4160.9	-395.2	0.3732	ug/L	0.3732	ppb	07:53:45
1	Cd 226.502†	-32.0	164.3	0.3227	ug/L	0.3227	ppb	07:54:05
1	Co 228.616†	423.5	489.7	9.5695	ug/L	9.5695	ppb	07:54:05
1	Cr 267.716†	1414.5	1335.6	16.477	ug/L	16.477	ppb	07:54:05
1	Cu 324.752†	7902.7	1905.3	6.6378	ug/L	6.6378	ppb	07:53:45
1	Mn 257.610†	385484.4	384704.5	439.27	ug/L	439.27	ppb	07:53:45
1	Mo 202.031†	20.5	10.3	1.9494	ug/L	1.9494	ppb	07:54:05
1	Ni 231.604†	523.2	460.3	11.701	ug/L	11.701	ppb	07:54:05
1	P 214.914†	360.3	149.5	77.286	ug/L	77.286	ppb	07:54:05
1	Pb 220.353†	557.1	614.7	74.589	ug/L	74.589	ppb	07:54:05
1	S 181.975 Axial†	46.8	6.0	8.0054	ug/L	8.0054	ppb	07:54:05
1	Sb 206.836†	31.5	-5.3	-2.7834	ug/L	-2.7834	ppb	07:54:05
1	Se 196.026†	-98.5	-70.7	1.2648	ug/L	1.2648	ppb	07:54:05
1	Si 251.611†	157889.3	157199.5	5086.8	ug/L	5086.8	ppb	07:53:45
1	Sn 189.927†	17.6	7.1	0.5003	ug/L	0.5003	ppb	07:54:05
1	Ti 334.940†	144982.6	146235.9	229.88	ug/L	229.88	ppb	07:53:45
1	Tl 190.801†	-47.2	-14.6	-0.7268	ug/L	-0.7268	ppb	07:54:05
1	U 409.014†	-4983.2	-2092.5	-59.554	ug/L	-59.554	ppb	07:53:45
1	V 292.402†	-536.4	969.7	4.1941	ug/L	4.1941	ppb	07:53:45
1	Zn 213.857†	5424.0	4813.4	46.088	ug/L	46.088	ppb	07:54:05
1	SiO2†	157865.5	157179.6	10923	ug/L	10923	ppb	07:55:02
2	Sc Radial	3791.3	3791.3	96.7	%			07:53:13
2	Y RADIAL	4542.3	4542.3	103.0	%			07:52:53
2	Al 396.153Radial†	3078.9	3294.9	3090.1	ug/L	3090.1	ppb	07:52:53
2	Ca 317.933Radial†	285.2	275.1	575.07	ug/L	575.07	ppb	07:53:13
2	Fe 238.204 Radial†	1062.2	1086.6	15338	ug/L	15338	ppb	07:53:13
2	K 766.490 Radial†	8582.2	6231.3	1195.1	ug/L	1195.1	ppb	07:52:53
2	Mg 279.077 IEC†	7.3	3.5	153.18	ug/L	153.18	ppb	07:53:13
2	Na 589.592 Radial†	1505.6	2376.0	732.58	ug/L	732.58	ppb	07:52:53
2	Sr 421.552†	536.3	518.6	3.5842	ug/L	3.5842	ppb	07:52:53
2	Sc 361.383	882028.0	882028.0	100.55	%			07:54:10
2	Y 371.029	775438.3	775438.3	102.59	%			07:54:10
2	Ag 328.068†	-716.0	-952.5	0.3642	ug/L	0.3642	ppb	07:54:10
2	As 188.979†	-17.6	0.7	5.8878	ug/L	5.8878	ppb	07:54:30
2	B 249.677†	-150.8	248.2	3.4985	ug/L	3.4985	ppb	07:54:10
2	Ba 233.527†	4824.9	4800.1	38.149	ug/L	38.149	ppb	07:54:10
2	Be 313.107†	-4140.8	-356.1	0.3858	ug/L	0.3858	ppb	07:54:10
2	Cd 226.502†	-36.6	159.9	0.2639	ug/L	0.2639	ppb	07:54:30
2	Co 228.616†	419.3	483.6	9.4415	ug/L	9.4415	ppb	07:54:30
2	Cr 267.716†	1406.0	1320.7	16.315	ug/L	16.315	ppb	07:54:30
2	Cu 324.752†	7962.9	1928.9	6.7115	ug/L	6.7115	ppb	07:54:10
2	Mn 257.610†	385257.8	382703.9	437.00	ug/L	437.00	ppb	07:54:10
2	Mo 202.031†	15.6	5.3	1.5884	ug/L	1.5884	ppb	07:54:30
2	Ni 231.604†	514.2	449.0	11.413	ug/L	11.413	ppb	07:54:30

2	P 214.914†	337.5	125.2	62.602	ug/L	62.602 ppb	07:54:30
2	Pb 220.353†	552.9	608.0	73.765	ug/L	73.765 ppb	07:54:30
2	S 181.975 Axial†	40.8	-0.3	-0.9606	ug/L	-0.9606 ppb	07:54:30
2	Sb 206.836†	38.3	1.4	-0.4612	ug/L	-0.4612 ppb	07:54:30
2	Se 196.026†	-95.3	-67.0	3.9191	ug/L	3.9191 ppb	07:54:30
2	Si 251.611†	159003.3	157580.2	5099.1	ug/L	5099.1 ppb	07:54:10
2	Sn 189.927†	15.1	4.5	0.0338	ug/L	0.0338 ppb	07:54:30
2	Ti 334.940†	145077.1	145662.2	228.98	ug/L	228.98 ppb	07:54:10
2	Tl 190.801†	-50.5	-17.6	-1.7127	ug/L	-1.7127 ppb	07:54:30
2	U 409.014†	-4871.9	-1958.8	-55.872	ug/L	-55.872 ppb	07:54:10
2	V 292.402†	-569.9	938.9	3.9701	ug/L	3.9701 ppb	07:54:10
2	Zn 213.857†	5435.0	4799.4	45.937	ug/L	45.937 ppb	07:54:30
2	SiO2†	160782.6	159353.8	11074	ug/L	11074 ppb	07:55:07
3	Sc Radial	3788.7	3788.7	96.7	%		07:53:38
3	Y RADIAL	4615.2	4615.2	104.6	%		07:53:18
3	Al 396.153Radial†	3086.9	3305.4	3100.0	ug/L	3100.0 ppb	07:53:18
3	Ca 317.933Radial†	292.1	282.5	590.57	ug/L	590.57 ppb	07:53:38
3	Fe 238.204 Radial†	1063.4	1088.6	15366	ug/L	15366 ppb	07:53:38
3	K 766.490 Radial†	8586.2	6241.5	1197.1	ug/L	1197.1 ppb	07:53:18
3	Mg 279.077 IEC†	7.6	3.8	167.45	ug/L	167.45 ppb	07:53:38
3	Na 589.592 Radial†	1481.6	2352.2	725.25	ug/L	725.25 ppb	07:53:18
3	Sr 421.552†	565.6	549.3	3.7962	ug/L	3.7962 ppb	07:53:18
3	Sc 361.383	892871.1	892871.1	101.78	%		07:54:36
3	Y 371.029	783808.2	783808.2	103.70	%		07:54:36
3	Ag 328.068†	-875.3	-1100.4	-0.3113	ug/L	-0.3113 ppb	07:54:36
3	As 188.979†	-28.0	-9.2	1.4588	ug/L	1.4588 ppb	07:54:56
3	B 249.677†	-201.8	200.0	2.3244	ug/L	2.3244 ppb	07:54:36
3	Ba 233.527†	4912.3	4827.7	38.367	ug/L	38.367 ppb	07:54:36
3	Be 313.107†	-4173.1	-337.8	0.3944	ug/L	0.3944 ppb	07:54:36
3	Cd 226.502†	-35.0	161.9	0.2835	ug/L	0.2835 ppb	07:54:56
3	Co 228.616†	426.7	485.7	9.4860	ug/L	9.4860 ppb	07:54:56
3	Cr 267.716†	1420.6	1318.0	16.288	ug/L	16.288 ppb	07:54:56
3	Cu 324.752†	8084.6	1952.2	6.7838	ug/L	6.7838 ppb	07:54:36
3	Mn 257.610†	391031.0	383722.8	438.16	ug/L	438.16 ppb	07:54:36
3	Mo 202.031†	22.7	12.2	2.0924	ug/L	2.0924 ppb	07:54:56
3	Ni 231.604†	497.7	426.5	10.841	ug/L	10.841 ppb	07:54:56
3	P 214.914†	340.1	123.7	61.688	ug/L	61.688 ppb	07:54:56
3	Pb 220.353†	551.2	599.7	72.747	ug/L	72.747 ppb	07:54:56
3	S 181.975 Axial†	38.5	-3.0	-4.8727	ug/L	-4.8727 ppb	07:54:56
3	Sb 206.836†	29.5	-7.7	-3.6286	ug/L	-3.6286 ppb	07:54:56
3	Se 196.026†	-82.5	-53.4	12.945	ug/L	12.945 ppb	07:54:56
3	Si 251.611†	161090.4	157710.4	5103.3	ug/L	5103.3 ppb	07:54:36
3	Sn 189.927†	19.8	9.0	0.8389	ug/L	0.8389 ppb	07:54:56
3	Ti 334.940†	147332.9	146126.2	229.71	ug/L	229.71 ppb	07:54:36
3	Tl 190.801†	-46.4	-13.0	-0.2249	ug/L	-0.2249 ppb	07:54:56
3	U 409.014†	-4909.9	-1937.3	-55.282	ug/L	-55.282 ppb	07:54:36
3	V 292.402†	-512.8	1001.9	4.4131	ug/L	4.4131 ppb	07:54:36
3	Zn 213.857†	5402.1	4701.4	44.950	ug/L	44.950 ppb	07:54:56
3	SiO2†	158530.1	155198.9	10786	ug/L	10786 ppb	07:55:12

Mean Data: 1202032592|948756|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884287.2	100.80	%	0.879				0.87%
Sc Radial	3797.5	96.9	%	0.33				0.34%
Y 371.029	777307.0	102.84	%	0.767				0.75%
Y RADIAL	4572.0	103.7	%	0.87				0.84%
Ag 328.068†	-982.9	0.2201	ug/L	0.47599	0.2201	ppb	0.47599	216.29%
Al 396.153Radial†	3266.3	3063.4	ug/L	55.12	3063.4	ppb	55.12	1.80%
As 188.979†	-2.9	4.2701	ug/L	2.44389	4.2701	ppb	2.44389	57.23%
B 249.677†	211.0	2.5974	ug/L	0.80030	2.5974	ppb	0.80030	30.81%
Ba 233.527†	4826.8	38.359	ug/L	0.2053	38.359	ppb	0.2053	0.54%
Be 313.107†	-363.0	0.3845	ug/L	0.01066	0.3845	ppb	0.01066	2.77%
Ca 317.933Radial†	281.2	587.84	ug/L	11.651	587.84	ppb	11.651	1.98%
Cd 226.502†	162.0	0.2901	ug/L	0.02997	0.2901	ppb	0.02997	10.33%
Co 228.616†	486.3	9.4990	ug/L	0.06500	9.4990	ppb	0.06500	0.68%
Cr 267.716†	1324.8	16.360	ug/L	0.1023	16.360	ppb	0.1023	0.63%
Cu 324.752†	1928.8	6.7110	ug/L	0.07297	6.7110	ppb	0.07297	1.09%
Fe 238.204 Radial†	1085.5	15322	ug/L	53.9	15322	ppb	53.9	0.35%
K 766.490 Radial†	6224.1	1193.7	ug/L	4.22	1193.7	ppb	4.22	0.35%

Mg 279.077 IEC†	3.8	166.70	ug/L	13.155	166.70	ppb	13.155	7.89%
Mn 257.610†	383710.4	438.15	ug/L	1.134	438.15	ppb	1.134	0.26%
Mo 202.031†	9.3	1.8767	ug/L	0.25976	1.8767	ppb	0.25976	13.84%
Na 589.592 Radial†	2387.9	736.25	ug/L	13.221	736.25	ppb	13.221	1.80%
Ni 231.604†	445.3	11.318	ug/L	0.4376	11.318	ppb	0.4376	3.87%
P 214.914†	132.8	67.192	ug/L	8.7536	67.192	ppb	8.7536	13.03%
Pb 220.353†	607.5	73.700	ug/L	0.9226	73.700	ppb	0.9226	1.25%
S 181.975 Axial†	0.9	0.7240	ug/L	6.60224	0.7240	ppb	6.60224	911.88%
Sb 206.836†	-3.8	-2.2910	ug/L	1.64011	-2.2910	ppb	1.64011	71.59%
Se 196.026†	-63.7	6.0429	ug/L	6.12277	6.0429	ppb	6.12277	101.32%
Si 251.611†	157496.7	5096.4	ug/L	8.59	5096.4	ppb	8.59	0.17%
Sn 189.927†	6.9	0.4577	ug/L	0.40425	0.4577	ppb	0.40425	88.33%
Sr 421.552†	530.3	3.6649	ug/L	0.11470	3.6649	ppb	0.11470	3.13%
Ti 334.940†	146008.1	229.52	ug/L	0.480	229.52	ppb	0.480	0.21%
Tl 190.801†	-15.1	-0.8882	ug/L	0.75689	-0.8882	ppb	0.75689	85.22%
U 409.014†	-1996.2	-56.903	ug/L	2.3152	-56.903	ppb	2.3152	4.07%
V 292.402†	970.2	4.1924	ug/L	0.22152	4.1924	ppb	0.22152	5.28%
Zn 213.857†	4771.4	45.658	ug/L	0.6181	45.658	ppb	0.6181	1.35%
SiO2†	157244.1	10928	ug/L	144.4	10928	ppb	144.4	1.32%

Sequence No.: 119
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 07:57:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3695.4	3695.4	94.3	%			07:59:36
1	Y RADIAL	4259.0	4259.0	96.56	%			07:59:16
1	Al 396.153Radial†	5297.5	5730.2	5350.8	ug/L	5350.8	ppb	07:59:16
1	Ca 317.933Radial†	2348.6	2470.9	5165.4	ug/L	5165.4	ppb	07:59:36
1	Fe 238.204 Radial†	321.2	329.3	4662.9	ug/L	4662.9	ppb	07:59:36
1	K 766.490 Radial†	28430.2	27509.1	5272.6	ug/L	5272.6	ppb	07:59:16
1	Mg 279.077 IEC†	98.4	100.2	4860.2	ug/L	4860.2	ppb	07:59:36
1	Na 589.592 Radial†	30367.3	33022.7	10182	ug/L	10182	ppb	07:59:16
1	Sr 421.552†	70197.1	74404.6	514.81	ug/L	514.81	ppb	07:59:16
1	Sc 361.383	890236.3	890236.3	101.48	%			08:00:34
1	Y 371.029	741805.5	741805.5	98.143	%			08:00:34
1	Ag 328.068†	107874.1	106057.8	494.32	ug/L	494.32	ppb	08:00:39
1	As 188.979†	1089.4	1091.7	491.67	ug/L	491.67	ppb	08:00:59
1	B 249.677†	19856.8	19965.0	481.89	ug/L	481.89	ppb	08:00:39
1	Ba 233.527†	63679.2	62750.3	493.65	ug/L	493.65	ppb	08:00:39
1	Be 313.107†	1319557.9	1304043.2	491.16	ug/L	491.16	ppb	08:00:34
1	Cd 226.502†	43362.5	42925.3	497.00	ug/L	497.00	ppb	08:00:39
1	Co 228.616†	23824.1	23542.6	493.23	ug/L	493.23	ppb	08:00:39
1	Cr 267.716†	44773.5	44041.8	495.35	ug/L	495.35	ppb	08:00:39
1	Cu 324.752†	168493.7	160041.5	487.00	ug/L	487.00	ppb	08:00:39
1	Mn 257.610†	435906.7	429080.0	488.53	ug/L	488.53	ppb	08:00:34
1	Mo 202.031†	6683.6	6575.9	483.20	ug/L	483.20	ppb	08:00:59
1	Ni 231.604†	19950.9	19597.0	498.11	ug/L	498.11	ppb	08:00:39
1	P 214.914†	4279.2	4006.1	2317.1	ug/L	2317.1	ppb	08:00:59
1	Pb 220.353†	3981.9	3981.9	491.33	ug/L	491.33	ppb	08:00:59
1	S 181.975 Axial†	729.2	677.7	974.27	ug/L	974.27	ppb	08:00:59
1	Sb 206.836†	1409.4	1352.1	490.01	ug/L	490.01	ppb	08:00:59
1	Se 196.026†	722.2	739.4	500.35	ug/L	500.35	ppb	08:00:59
1	Si 251.611†	77622.4	75930.1	2451.1	ug/L	2451.1	ppb	08:00:39
1	Sn 189.927†	2739.1	2688.6	483.05	ug/L	483.05	ppb	08:00:59
1	Ti 334.940†	313805.4	310595.2	487.98	ug/L	487.98	ppb	08:00:39
1	Tl 190.801†	1493.3	1504.1	484.18	ug/L	484.18	ppb	08:00:59
1	U 409.014†	14572.9	17246.6	474.61	ug/L	474.61	ppb	08:00:39
1	V 292.402†	69961.6	70445.2	497.66	ug/L	497.66	ppb	08:00:39
1	Zn 213.857†	50619.3	49273.8	491.48	ug/L	491.48	ppb	08:00:39
1	SiO2†	74903.5	73254.8	5077.7	ug/L	5077.7	ppb	08:02:06
2	Sc Radial	3685.1	3685.1	94.0	%			08:00:01
2	Y RADIAL	4208.3	4208.3	95.41	%			07:59:41
2	Al 396.153Radial†	5188.1	5629.6	5256.5	ug/L	5256.5	ppb	07:59:41
2	Ca 317.933Radial†	2316.9	2444.2	5109.6	ug/L	5109.6	ppb	08:00:01
2	Fe 238.204 Radial†	320.0	328.9	4657.4	ug/L	4657.4	ppb	08:00:01
2	K 766.490 Radial†	27975.4	27110.2	5196.1	ug/L	5196.1	ppb	07:59:41
2	Mg 279.077 IEC†	99.8	102.1	4950.4	ug/L	4950.4	ppb	08:00:01
2	Na 589.592 Radial†	29801.4	32511.4	10024	ug/L	10024	ppb	07:59:41
2	Sr 421.552†	68886.2	73219.8	506.61	ug/L	506.61	ppb	07:59:41
2	Sc 361.383	893766.8	893766.8	101.88	%			08:01:05
2	Y 371.029	745581.9	745581.9	98.642	%			08:01:05
2	Ag 328.068†	106073.4	103870.5	484.15	ug/L	484.15	ppb	08:01:10
2	As 188.979†	1081.0	1079.2	486.00	ug/L	486.00	ppb	08:01:30
2	B 249.677†	19435.5	19474.1	470.02	ug/L	470.02	ppb	08:01:10
2	Ba 233.527†	62475.5	61321.0	482.41	ug/L	482.41	ppb	08:01:10
2	Be 313.107†	1323459.4	1302736.1	490.65	ug/L	490.65	ppb	08:01:05
2	Cd 226.502†	42535.2	41944.5	485.64	ug/L	485.64	ppb	08:01:10
2	Co 228.616†	23386.7	23020.5	482.31	ug/L	482.31	ppb	08:01:10
2	Cr 267.716†	44095.7	43202.2	485.92	ug/L	485.92	ppb	08:01:10
2	Cu 324.752†	165766.3	156708.6	476.86	ug/L	476.86	ppb	08:01:10
2	Mn 257.610†	436082.8	427556.0	486.79	ug/L	486.79	ppb	08:01:05
2	Mo 202.031†	6671.5	6538.0	480.42	ug/L	480.42	ppb	08:01:30
2	Ni 231.604†	19594.7	19169.8	487.25	ug/L	487.25	ppb	08:01:10

2	P 214.914†	4279.7	3990.1	2309.4 ug/L	2309.4 ppb	08:01:30
2	Pb 220.353†	4016.0	3999.8	493.51 ug/L	493.51 ppb	08:01:30
2	S 181.975 Axial†	742.2	687.6	988.53 ug/L	988.53 ppb	08:01:30
2	Sb 206.836†	1417.6	1354.6	490.81 ug/L	490.81 ppb	08:01:30
2	Se 196.026†	722.7	737.1	498.78 ug/L	498.78 ppb	08:01:30
2	Si 251.611†	76205.9	74237.7	2396.3 ug/L	2396.3 ppb	08:01:10
2	Sn 189.927†	2744.2	2682.9	482.03 ug/L	482.03 ppb	08:01:30
2	Ti 334.940†	307904.1	303581.7	476.95 ug/L	476.95 ppb	08:01:10
2	Tl 190.801†	1514.4	1518.9	488.90 ug/L	488.90 ppb	08:01:30
2	U 409.014†	14473.0	17091.8	470.36 ug/L	470.36 ppb	08:01:10
2	V 292.402†	68695.0	68929.7	487.06 ug/L	487.06 ppb	08:01:10
2	Zn 213.857†	49705.3	48179.6	480.55 ug/L	480.55 ppb	08:01:10
2	SiO2†	75586.9	73634.1	5104.2 ug/L	5104.2 ppb	08:02:11
3	Sc Radial	3758.2	3758.2	95.9 %		08:00:26
3	Y RADIAL	4221.7	4221.7	95.71 %		08:00:06
3	Al 396.153Radial†	5226.0	5561.8	5192.7 ug/L	5192.7 ppb	08:00:06
3	Ca 317.933Radial†	2358.4	2439.5	5099.8 ug/L	5099.8 ppb	08:00:26
3	Fe 238.204 Radial†	326.9	329.6	4667.0 ug/L	4667.0 ppb	08:00:26
3	K 766.490 Radial†	28126.5	26689.4	5115.4 ug/L	5115.4 ppb	08:00:06
3	Mg 279.077 IEC†	102.6	103.0	4992.0 ug/L	4992.0 ppb	08:00:26
3	Na 589.592 Radial†	29876.9	31973.9	9858.4 ug/L	9858.4 ppb	08:00:06
3	Sr 421.552†	69048.5	71964.7	497.92 ug/L	497.92 ppb	08:00:06
3	Sc 361.383	885985.3	885985.3	101.00 %		08:01:36
3	Y 371.029	739878.7	739878.7	97.888 %		08:01:36
3	Ag 328.068†	106022.6	104734.6	488.17 ug/L	488.17 ppb	08:01:41
3	As 188.979†	1095.2	1102.6	496.48 ug/L	496.48 ppb	08:02:01
3	B 249.677†	19430.6	19636.8	473.95 ug/L	473.95 ppb	08:01:41
3	Ba 233.527†	62483.1	61867.2	486.70 ug/L	486.70 ppb	08:01:41
3	Be 313.107†	1313223.6	1304010.3	491.14 ug/L	491.14 ppb	08:01:36
3	Cd 226.502†	42546.3	42322.2	490.01 ug/L	490.01 ppb	08:01:41
3	Co 228.616†	23408.5	23243.8	486.99 ug/L	486.99 ppb	08:01:41
3	Cr 267.716†	44060.8	43547.7	489.80 ug/L	489.80 ppb	08:01:41
3	Cu 324.752†	165594.7	157967.7	480.69 ug/L	480.69 ppb	08:01:41
3	Mn 257.610†	432183.3	427454.2	486.67 ug/L	486.67 ppb	08:01:36
3	Mo 202.031†	6695.0	6618.7	486.34 ug/L	486.34 ppb	08:02:01
3	Ni 231.604†	19533.0	19277.5	489.99 ug/L	489.99 ppb	08:01:41
3	P 214.914†	4288.4	4035.5	2336.0 ug/L	2336.0 ppb	08:02:01
3	Pb 220.353†	4024.4	4042.8	498.80 ug/L	498.80 ppb	08:02:01
3	S 181.975 Axial†	728.0	680.0	977.62 ug/L	977.62 ppb	08:02:01
3	Sb 206.836†	1389.3	1338.9	485.48 ug/L	485.48 ppb	08:02:01
3	Se 196.026†	725.9	746.5	505.02 ug/L	505.02 ppb	08:02:01
3	Si 251.611†	76262.3	74950.4	2419.3 ug/L	2419.3 ppb	08:01:41
3	Sn 189.927†	2742.7	2705.1	486.01 ug/L	486.01 ppb	08:02:01
3	Ti 334.940†	308086.4	306416.4	481.40 ug/L	481.40 ppb	08:01:41
3	Tl 190.801†	1496.8	1514.6	487.53 ug/L	487.53 ppb	08:02:01
3	U 409.014†	14278.4	17023.9	468.47 ug/L	468.47 ppb	08:01:41
3	V 292.402†	68655.6	69482.9	490.99 ug/L	490.99 ppb	08:01:41
3	Zn 213.857†	49726.5	48629.1	485.05 ug/L	485.05 ppb	08:01:41
3	SiO2†	75917.1	74612.6	5172.0 ug/L	5172.0 ppb	08:02:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889996.1	101.46	%	0.444				0.44%
Sc Radial	3712.9	94.7	%	1.01				1.06%
Y 371.029	742422.1	98.224	%	0.3838				0.39%
Y RADIAL	4229.7	95.89	%	0.596				0.62%
Ag 328.068†	104887.7	488.88	ug/L	5.124	488.88	ppb	5.124	1.05%
QC value within limits for Ag 328.068 Recovery = 97.78%								
Al 396.153Radial†	5640.5	5266.7	ug/L	79.50	5266.7	ppb	79.50	1.51%
QC value within limits for Al 396.153Radial Recovery = 105.33%								
As 188.979†	1091.2	491.38	ug/L	5.245	491.38	ppb	5.245	1.07%
QC value within limits for As 188.979 Recovery = 98.28%								
B 249.677†	19692.0	475.28	ug/L	6.046	475.28	ppb	6.046	1.27%
QC value within limits for B 249.677 Recovery = 95.06%								
Ba 233.527†	61979.5	487.59	ug/L	5.672	487.59	ppb	5.672	1.16%
QC value within limits for Ba 233.527 Recovery = 97.52%								
Be 313.107†	1303596.5	490.98	ug/L	0.290	490.98	ppb	0.290	0.06%
QC value within limits for Be 313.107 Recovery = 98.20%								
Ca 317.933Radial†	2451.5	5124.9	ug/L	35.36	5124.9	ppb	35.36	0.69%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.50%
Cd 226.502†            42397.3      490.88 ug/L         5.732      490.88 ppb          5.732   1.17%
   QC value within limits for Cd 226.502  Recovery = 98.18%
Co 228.616†            23269.0      487.51 ug/L         5.479      487.51 ppb          5.479   1.12%
   QC value within limits for Co 228.616  Recovery = 97.50%
Cr 267.716†            43597.2      490.36 ug/L         4.744      490.36 ppb          4.744   0.97%
   QC value within limits for Cr 267.716  Recovery = 98.07%
Cu 324.752†           158239.3      481.52 ug/L         5.120      481.52 ppb          5.120   1.06%
   QC value within limits for Cu 324.752  Recovery = 96.30%
Fe 238.204 Radial†       329.3      4662.4 ug/L          4.79      4662.4 ppb           4.79   0.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.25%
K 766.490 Radial†      27102.9      5194.7 ug/L         78.59      5194.7 ppb          78.59   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 103.89%
Mg 279.077 IEC†          101.8      4934.2 ug/L         67.40      4934.2 ppb          67.40   1.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.68%
Mn 257.610†           428030.1      487.33 ug/L         1.039      487.33 ppb          1.039   0.21%
   QC value within limits for Mn 257.610  Recovery = 97.47%
Mo 202.031†             6577.5      483.32 ug/L         2.965      483.32 ppb          2.965   0.61%
   QC value within limits for Mo 202.031  Recovery = 96.66%
Na 589.592 Radial†     32502.7       10021 ug/L         161.7       10021 ppb          161.7   1.61%
   QC value within limits for Na 589.592 Radial  Recovery = 100.21%
Ni 231.604†            19348.1      491.79 ug/L         5.648      491.79 ppb          5.648   1.15%
   QC value within limits for Ni 231.604  Recovery = 98.36%
P 214.914†              4010.6      2320.8 ug/L         13.70      2320.8 ppb          13.70   0.59%
   QC value within limits for P 214.914  Recovery = 92.83%
Pb 220.353†             4008.1      494.55 ug/L         3.840      494.55 ppb          3.840   0.78%
   QC value within limits for Pb 220.353  Recovery = 98.91%
S 181.975 Axial†         681.8      980.14 ug/L         7.460      980.14 ppb          7.460   0.76%
   QC value within limits for S 181.975 Axial  Recovery = 98.01%
Sb 206.836†             1348.5      488.77 ug/L         2.874      488.77 ppb          2.874   0.59%
   QC value within limits for Sb 206.836  Recovery = 97.75%
Se 196.026†              741.0      501.38 ug/L         3.245      501.38 ppb          3.245   0.65%
   QC value within limits for Se 196.026  Recovery = 100.28%
Si 251.611†            75039.4      2422.2 ug/L         27.48      2422.2 ppb          27.48   1.13%
   QC value within limits for Si 251.611  Recovery = 96.89%
Sn 189.927†             2692.2      483.70 ug/L         2.065      483.70 ppb          2.065   0.43%
   QC value within limits for Sn 189.927  Recovery = 96.74%
Sr 421.552†            73196.3      506.45 ug/L         8.442      506.45 ppb          8.442   1.67%
   QC value within limits for Sr 421.552  Recovery = 101.29%
Ti 334.940†           306864.4      482.11 ug/L         5.550      482.11 ppb          5.550   1.15%
   QC value within limits for Ti 334.940  Recovery = 96.42%
Tl 190.801†             1512.5      486.87 ug/L         2.429      486.87 ppb          2.429   0.50%
   QC value within limits for Tl 190.801  Recovery = 97.37%
U 409.014†             17120.8      471.15 ug/L         3.145      471.15 ppb          3.145   0.67%
   QC value within limits for U 409.014  Recovery = 94.23%
V 292.402†             69619.3      491.91 ug/L         5.357      491.91 ppb          5.357   1.09%
   QC value within limits for V 292.402  Recovery = 98.38%
Zn 213.857†            48694.2      485.70 ug/L         5.493      485.70 ppb          5.493   1.13%
   QC value within limits for Zn 213.857  Recovery = 97.14%
SiO2†                  73833.8      5118.0 ug/L         48.63      5118.0 ppb          48.63   0.95%
   QC value within limits for SiO2  Recovery = 95.71%
All analyte(s) passed QC.
```

Sequence No.: 120
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 08:04:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3762.4	3762.4	96.0	%			08:06:39
1	Y RADIAL	4268.0	4268.0	96.76	%			08:06:19
1	Al 396.153Radial†	-109.9	-2.1	-1.9438	ug/L	-1.9438	ppb	08:06:19
1	Ca 317.933Radial†	26.2	7.6	15.932	ug/L	15.932	ppb	08:06:39
1	Fe 238.204 Radial†	10.5	-0.4	-5.4731	ug/L	-5.4731	ppb	08:06:39
1	K 766.490 Radial†	2830.5	308.6	59.225	ug/L	59.225	ppb	08:06:19
1	Mg 279.077 IEC†	3.3	-0.7	-32.814	ug/L	-32.814	ppb	08:06:39
1	Na 589.592 Radial†	-931.0	-149.9	-46.231	ug/L	-46.231	ppb	08:06:19
1	Sr 421.552†	25.1	-9.6	-0.0665	ug/L	-0.0665	ppb	08:06:19
1	Sc 361.383	878440.5	878440.5	100.14	%			08:07:36
1	Y 371.029	743603.2	743603.2	98.381	%			08:07:36
1	Ag 328.068†	188.8	-51.8	-0.2359	ug/L	-0.2359	ppb	08:07:36
1	As 188.979†	-29.4	-11.2	-4.9841	ug/L	-4.9841	ppb	08:07:56
1	B 249.677†	-267.7	130.8	3.1719	ug/L	3.1719	ppb	08:07:56
1	Ba 233.527†	20.5	21.9	0.1710	ug/L	0.1710	ppb	08:07:56
1	Be 313.107†	-3621.0	146.2	0.0547	ug/L	0.0547	ppb	08:07:36
1	Cd 226.502†	-173.3	23.2	0.2683	ug/L	0.2683	ppb	08:07:56
1	Co 228.616†	-46.4	20.2	0.4236	ug/L	0.4236	ppb	08:07:56
1	Cr 267.716†	59.2	-18.5	-0.2053	ug/L	-0.2053	ppb	08:07:56
1	Cu 324.752†	5989.4	-9.6	-0.0245	ug/L	-0.0245	ppb	08:07:36
1	Mn 257.610†	518.7	59.3	0.0682	ug/L	0.0682	ppb	08:07:56
1	Mo 202.031†	11.0	0.9	0.0651	ug/L	0.0651	ppb	08:07:56
1	Ni 231.604†	88.2	25.6	0.6512	ug/L	0.6512	ppb	08:07:56
1	P 214.914†	193.8	-16.9	-10.186	ug/L	-10.186	ppb	08:07:56
1	Pb 220.353†	-10.3	47.8	5.8814	ug/L	5.8814	ppb	08:07:56
1	S 181.975 Axial†	41.5	0.6	0.8518	ug/L	0.8518	ppb	08:07:56
1	Sb 206.836†	43.0	6.2	2.1639	ug/L	2.1639	ppb	08:07:56
1	Se 196.026†	-28.8	-1.0	-0.7018	ug/L	-0.7018	ppb	08:07:56
1	Si 251.611†	589.2	30.1	0.9731	ug/L	0.9731	ppb	08:07:56
1	Sn 189.927†	7.1	-3.4	-0.6122	ug/L	-0.6122	ppb	08:07:56
1	Ti 334.940†	-1436.7	-60.7	-0.0864	ug/L	-0.0864	ppb	08:07:36
1	Tl 190.801†	-21.7	11.0	3.5004	ug/L	3.5004	ppb	08:07:56
1	U 409.014†	-3223.5	-332.4	-9.1787	ug/L	-9.1787	ppb	08:07:36
1	V 292.402†	-1556.4	-48.6	-0.3554	ug/L	-0.3554	ppb	08:07:36
1	Zn 213.857†	756.4	149.4	1.5003	ug/L	1.5003	ppb	08:07:56
1	SiO2†	622.1	66.9	4.6458	ug/L	4.6458	ppb	08:08:52
2	Sc Radial	3763.1	3763.1	96.0	%			08:07:04
2	Y RADIAL	4277.2	4277.2	96.97	%			08:06:44
2	Al 396.153Radial†	-116.6	-9.1	-8.5227	ug/L	-8.5227	ppb	08:06:44
2	Ca 317.933Radial†	28.4	9.9	20.650	ug/L	20.650	ppb	08:07:04
2	Fe 238.204 Radial†	12.5	1.7	24.472	ug/L	24.472	ppb	08:07:04
2	K 766.490 Radial†	2881.3	361.0	69.289	ug/L	69.289	ppb	08:06:44
2	Mg 279.077 IEC†	0.2	-3.9	-189.74	ug/L	-189.74	ppb	08:07:04
2	Na 589.592 Radial†	-1008.2	-230.1	-70.958	ug/L	-70.958	ppb	08:06:44
2	Sr 421.552†	19.3	-15.6	-0.1081	ug/L	-0.1081	ppb	08:06:44
2	Sc 361.383	876998.7	876998.7	99.973	%			08:08:01
2	Y 371.029	743800.7	743800.7	98.407	%			08:08:01
2	Ag 328.068†	280.8	40.5	0.2020	ug/L	0.2020	ppb	08:08:01
2	As 188.979†	-25.8	-7.6	-3.3800	ug/L	-3.3800	ppb	08:08:21
2	B 249.677†	-282.0	116.1	2.8120	ug/L	2.8120	ppb	08:08:21
2	Ba 233.527†	19.5	20.9	0.1651	ug/L	0.1651	ppb	08:08:21
2	Be 313.107†	-3525.1	236.2	0.0884	ug/L	0.0884	ppb	08:08:01
2	Cd 226.502†	-185.2	11.0	0.1235	ug/L	0.1235	ppb	08:08:21
2	Co 228.616†	-70.4	-3.9	-0.0795	ug/L	-0.0795	ppb	08:08:21
2	Cr 267.716†	76.1	-1.5	-0.0116	ug/L	-0.0116	ppb	08:08:21
2	Cu 324.752†	5843.7	-145.5	-0.4369	ug/L	-0.4369	ppb	08:08:01
2	Mn 257.610†	531.0	72.4	0.0926	ug/L	0.0926	ppb	08:08:21
2	Mo 202.031†	19.0	8.8	0.6503	ug/L	0.6503	ppb	08:08:21
2	Ni 231.604†	72.8	10.3	0.2630	ug/L	0.2630	ppb	08:08:21

2	P 214.914†	194.0	-16.5	-9.8342 ug/L	-9.8342 ppb	08:08:21
2	Pb 220.353†	-8.9	49.3	6.0552 ug/L	6.0552 ppb	08:08:21
2	S 181.975 Axial†	34.3	-6.5	-9.3474 ug/L	-9.3474 ppb	08:08:21
2	Sb 206.836†	43.5	6.8	2.4020 ug/L	2.4020 ppb	08:08:21
2	Se 196.026†	-21.2	6.6	4.3958 ug/L	4.3958 ppb	08:08:21
2	Si 251.611†	595.4	37.2	1.1967 ug/L	1.1967 ppb	08:08:21
2	Sn 189.927†	15.5	5.1	0.9086 ug/L	0.9086 ppb	08:08:21
2	Ti 334.940†	-1476.7	-103.0	-0.1400 ug/L	-0.1400 ppb	08:08:01
2	Tl 190.801†	-42.0	-9.4	-3.0076 ug/L	-3.0076 ppb	08:08:21
2	U 409.014†	-3180.4	-294.6	-8.1376 ug/L	-8.1376 ppb	08:08:01
2	V 292.402†	-1487.5	17.8	0.1104 ug/L	0.1104 ppb	08:08:01
2	Zn 213.857†	755.0	149.1	1.4965 ug/L	1.4965 ppb	08:08:21
2	SiO2†	626.8	72.6	5.0254 ug/L	5.0254 ppb	08:08:57
3	Sc Radial	3751.9	3751.9	95.7 %		08:07:29
3	Y RADIAL	4329.6	4329.6	98.16 %		08:07:09
3	Al 396.153Radial†	-101.9	6.0	5.6257 ug/L	5.6257 ppb	08:07:09
3	Ca 317.933Radial†	26.1	7.6	15.924 ug/L	15.924 ppb	08:07:29
3	Fe 238.204 Radial†	14.0	3.3	47.152 ug/L	47.152 ppb	08:07:29
3	K 766.490 Radial†	2970.9	463.5	88.955 ug/L	88.955 ppb	08:07:09
3	Mg 279.077 IEC†	4.0	0.1	4.7267 ug/L	4.7267 ppb	08:07:29
3	Na 589.592 Radial†	-971.5	-194.9	-60.095 ug/L	-60.095 ppb	08:07:09
3	Sr 421.552†	32.0	-2.3	-0.0163 ug/L	-0.0163 ppb	08:07:09
3	Sc 361.383	881977.7	881977.7	100.54 %		08:08:27
3	Y 371.029	748867.6	748867.6	99.077 %		08:08:27
3	Ag 328.068†	241.2	-0.5	0.0177 ug/L	0.0177 ppb	08:08:27
3	As 188.979†	-12.7	5.6	2.5264 ug/L	2.5264 ppb	08:08:47
3	B 249.677†	-326.8	73.2	1.7659 ug/L	1.7659 ppb	08:08:47
3	Ba 233.527†	9.6	11.0	0.0873 ug/L	0.0873 ppb	08:08:47
3	Be 313.107†	-3573.9	207.5	0.0777 ug/L	0.0777 ppb	08:08:27
3	Cd 226.502†	-178.0	19.2	0.2168 ug/L	0.2168 ppb	08:08:47
3	Co 228.616†	-59.1	7.8	0.1629 ug/L	0.1629 ppb	08:08:47
3	Cr 267.716†	94.7	16.5	0.1927 ug/L	0.1927 ppb	08:08:47
3	Cu 324.752†	5938.1	-84.7	-0.2509 ug/L	-0.2509 ppb	08:08:27
3	Mn 257.610†	528.9	67.4	0.0811 ug/L	0.0811 ppb	08:08:47
3	Mo 202.031†	13.8	3.6	0.2693 ug/L	0.2693 ppb	08:08:47
3	Ni 231.604†	82.3	19.4	0.4936 ug/L	0.4936 ppb	08:08:47
3	P 214.914†	203.6	-8.0	-4.8170 ug/L	-4.8170 ppb	08:08:47
3	Pb 220.353†	-27.9	30.4	3.7350 ug/L	3.7350 ppb	08:08:47
3	S 181.975 Axial†	35.0	-6.0	-8.5700 ug/L	-8.5700 ppb	08:08:47
3	Sb 206.836†	44.9	7.9	2.7769 ug/L	2.7769 ppb	08:08:47
3	Se 196.026†	-27.2	0.7	0.5907 ug/L	0.5907 ppb	08:08:47
3	Si 251.611†	597.8	36.2	1.1691 ug/L	1.1691 ppb	08:08:47
3	Sn 189.927†	8.3	-2.2	-0.4016 ug/L	-0.4016 ppb	08:08:47
3	Ti 334.940†	-1450.6	-68.7	-0.1030 ug/L	-0.1030 ppb	08:08:27
3	Tl 190.801†	-29.5	3.3	1.0477 ug/L	1.0477 ppb	08:08:47
3	U 409.014†	-3176.7	-273.0	-7.5434 ug/L	-7.5434 ppb	08:08:27
3	V 292.402†	-1534.7	-20.7	-0.1620 ug/L	-0.1620 ppb	08:08:27
3	Zn 213.857†	751.7	141.6	1.4156 ug/L	1.4156 ppb	08:08:47
3	SiO2†	690.4	132.3	9.1849 ug/L	9.1849 ppb	08:09:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879139.0	100.22	%	0.292				0.29%
Sc Radial	3759.1	95.9	%	0.16				0.17%
Y 371.029	745423.8	98.621	%	0.3948				0.40%
Y RADIAL	4291.6	97.30	%	0.753				0.77%
Ag 328.068†	-3.9	-0.0054	ug/L	0.21987	-0.0054	ppb	0.21987	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.7	-1.6136	ug/L	7.08001	-1.6136	ppb	7.08001	438.77%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.9459	ug/L	3.95528	-1.9459	ppb	3.95528	203.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	106.7	2.5833	ug/L	0.73040	2.5833	ppb	0.73040	28.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.9	0.1411	ug/L	0.04674	0.1411	ppb	0.04674	33.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	196.6	0.0736	ug/L	0.01722	0.0736	ppb	0.01722	23.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.4	17.502	ug/L	2.7263	17.502	ppb	2.7263	15.58%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                17.8      0.2029 ug/L       0.07340      0.2029 ppb        0.07340  36.18%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.0      0.1690 ug/L       0.25163      0.1690 ppb        0.25163 148.88%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.2     -0.0081 ug/L       0.19903     -0.0081 ppb        0.19903 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -79.9     -0.2374 ug/L       0.20656     -0.2374 ppb        0.20656  86.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.6      22.050 ug/L       26.3960      22.050 ppb        26.3960 119.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         377.7      72.490 ug/L       15.1212      72.490 ppb        15.1212  20.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.5     -72.610 ug/L      103.1621     -72.610 ppb       103.1621 142.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                66.4      0.0807 ug/L       0.01220      0.0807 ppb        0.01220  15.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.4      0.3282 ug/L       0.29705      0.3282 ppb        0.29705  90.50%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -191.7     -59.095 ug/L       12.3942     -59.095 ppb        12.3942  20.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                18.5      0.4693 ug/L       0.19521      0.4693 ppb        0.19521  41.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.8     -8.2792 ug/L       3.00348     -8.2792 ppb        3.00348  36.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                42.5      5.2239 ug/L       1.29234      5.2239 ppb        1.29234  24.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.0     -5.6885 ug/L       5.67743     -5.6885 ppb        5.67743  99.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.0      2.4476 ug/L       0.30905      2.4476 ppb        0.30905  12.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      1.4282 ug/L       2.64998      1.4282 ppb        2.64998 185.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                34.5      1.1130 ug/L       0.12192      1.1130 ppb        0.12192  10.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.2     -0.0351 ug/L       0.82398     -0.0351 ppb        0.82398 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.2     -0.0637 ug/L       0.04597     -0.0637 ppb        0.04597  72.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -77.5     -0.1098 ug/L       0.02742     -0.1098 ppb        0.02742  24.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.6      0.5135 ug/L       3.28673      0.5135 ppb        3.28673 640.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -300.0     -8.2866 ug/L       0.82775     -8.2866 ppb        0.82775   9.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -17.2     -0.1357 ug/L       0.23400     -0.1357 ppb        0.23400 172.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               146.7      1.4708 ug/L       0.04787      1.4708 ppb        0.04787   3.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      90.6      6.2854 ug/L       2.51821      6.2854 ppb        2.51821  40.06%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 121
Sample ID: 245969002|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 134
Date Collected: 2/25/2010 08:11:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969002|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3592.6	3592.6	91.7	%			08:13:27
1	Y RADIAL	4506.1	4506.1	102.2	%			08:13:07
1	Al 396.153Radial†	53812.8	58811.7	55158	ug/L	55158	ppb	08:13:07
1	Ca 317.933Radial†	94611.0	103182.6	215700	ug/L	215700	ppb	08:13:07
1	Fe 238.204 Radial†	5317.6	5789.1	81717	ug/L	81717	ppb	08:13:07
1	K 766.490 Radial†	40723.4	41781.7	7944.8	ug/L	7944.8	ppb	08:13:07
1	Mg 279.077 IEC†	251.9	270.7	13041	ug/L	13041	ppb	08:13:27
1	Na 589.592 Radial†	2072.6	3080.6	949.82	ug/L	949.82	ppb	08:13:07
1	Sr 421.552†	122212.7	133274.6	920.59	ug/L	920.59	ppb	08:13:07
1	Sc 361.383	868107.7	868107.7	98.960	%			08:14:25
1	Y 371.029	796553.7	796553.7	105.39	%			08:14:25
1	Ag 328.068†	-4075.3	-4358.6	1.6953	ug/L	1.6953	ppb	08:14:25
1	As 188.979†	-9.8	8.3	38.491	ug/L	38.491	ppb	08:14:45
1	B 249.677†	984.8	1393.4	20.340	ug/L	20.340	ppb	08:14:25
1	Ba 233.527†	74726.6	75513.4	595.41	ug/L	595.41	ppb	08:14:25
1	Be 313.107†	29332.7	33403.1	16.646	ug/L	16.646	ppb	08:14:25
1	Cd 226.502†	646.0	849.1	1.6475	ug/L	1.6475	ppb	08:14:45
1	Co 228.616†	2803.1	2899.1	56.016	ug/L	56.016	ppb	08:14:45
1	Cr 267.716†	6520.3	6511.2	80.634	ug/L	80.634	ppb	08:14:25
1	Cu 324.752†	698105.1	699451.2	2132.2	ug/L	2132.2	ppb	08:14:25
1	Mn 257.610†	1318648.7	1332048.5	1523.3	ug/L	1523.3	ppb	08:14:25
1	Mo 202.031†	-50.9	-61.5	4.3926	ug/L	4.3926	ppb	08:14:45
1	Ni 231.604†	2114.1	2073.9	52.708	ug/L	52.708	ppb	08:14:45
1	P 214.914†	2569.2	2385.7	960.97	ug/L	960.97	ppb	08:14:45
1	Pb 220.353†	7000.1	7131.8	881.55	ug/L	881.55	ppb	08:14:45
1	S 181.975 Axial†	282.4	244.5	341.55	ug/L	341.55	ppb	08:14:45
1	Sb 206.836†	97.2	61.5	12.863	ug/L	12.863	ppb	08:14:45
1	Se 196.026†	-401.1	-377.6	6.9800	ug/L	6.9800	ppb	08:14:45
1	Si 251.611†	990380.8	1000231.0	32366	ug/L	32366	ppb	08:14:25
1	Sn 189.927†	-233.4	-246.3	-10.566	ug/L	-10.566	ppb	08:14:45
1	Ti 334.940†	1133955.8	1147247.3	1830.1	ug/L	1830.1	ppb	08:14:25
1	Tl 190.801†	-123.5	-92.2	-7.8295	ug/L	-7.8295	ppb	08:14:45
1	U 409.014†	38051.4	41337.9	1132.0	ug/L	1132.0	ppb	08:14:25
1	V 292.402†	20830.5	22555.1	145.81	ug/L	145.81	ppb	08:14:25
1	Zn 213.857†	34928.0	34689.1	333.75	ug/L	333.75	ppb	08:14:25
1	SiO2†	990968.1	1000828.4	69553	ug/L	69553	ppb	08:15:43
2	Sc Radial	3808.3	3808.3	97.2	%			08:13:52
2	Y RADIAL	4786.5	4786.5	108.5	%			08:13:32
2	Al 396.153Radial†	54401.8	56093.1	52608	ug/L	52608	ppb	08:13:32
2	Ca 317.933Radial†	95726.7	98485.2	205880	ug/L	205880	ppb	08:13:32
2	Fe 238.204 Radial†	5358.0	5502.2	77666	ug/L	77666	ppb	08:13:32
2	K 766.490 Radial†	41126.3	39680.3	7544.9	ug/L	7544.9	ppb	08:13:32
2	Mg 279.077 IEC†	254.4	257.7	12413	ug/L	12413	ppb	08:13:52
2	Na 589.592 Radial†	2101.5	2982.3	919.51	ug/L	919.51	ppb	08:13:32
2	Sr 421.552†	123339.4	126883.3	876.44	ug/L	876.44	ppb	08:13:32
2	Sc 361.383	856768.7	856768.7	97.667	%			08:14:50
2	Y 371.029	787658.3	787658.3	104.21	%			08:14:50
2	Ag 328.068†	-3913.7	-4247.5	1.1024	ug/L	1.1024	ppb	08:14:50
2	As 188.979†	-5.4	12.7	39.543	ug/L	39.543	ppb	08:15:11
2	B 249.677†	973.2	1394.7	21.028	ug/L	21.028	ppb	08:14:50
2	Ba 233.527†	73708.0	75469.8	594.95	ug/L	594.95	ppb	08:14:50
2	Be 313.107†	28945.2	33398.7	16.658	ug/L	16.658	ppb	08:14:50
2	Cd 226.502†	636.8	848.3	2.0566	ug/L	2.0566	ppb	08:15:11
2	Co 228.616†	2785.2	2918.2	56.463	ug/L	56.463	ppb	08:15:11
2	Cr 267.716†	6506.6	6584.3	81.072	ug/L	81.072	ppb	08:14:50
2	Cu 324.752†	691414.4	701936.9	2139.5	ug/L	2139.5	ppb	08:14:50
2	Mn 257.610†	1303639.1	1334315.4	1525.5	ug/L	1525.5	ppb	08:14:50
2	Mo 202.031†	-47.8	-59.1	4.1413	ug/L	4.1413	ppb	08:15:11
2	Ni 231.604†	2119.6	2107.8	53.570	ug/L	53.570	ppb	08:15:11

2	P 214.914†	2534.9	2384.9	961.60	ug/L	961.60 ppb	08:15:11
2	Pb 220.353†	6995.3	7220.5	892.22	ug/L	892.22 ppb	08:15:11
2	S 181.975 Axial†	286.5	252.5	353.57	ug/L	353.57 ppb	08:15:11
2	Sb 206.836†	86.9	52.3	9.7750	ug/L	9.7750 ppb	08:15:11
2	Se 196.026†	-403.6	-385.5	-10.815	ug/L	-10.815 ppb	08:15:11
2	Si 251.611†	978769.0	1001586.8	32410	ug/L	32410 ppb	08:14:50
2	Sn 189.927†	-218.2	-233.9	-9.8577	ug/L	-9.8577 ppb	08:15:11
2	Ti 334.940†	1122942.0	1151135.5	1835.0	ug/L	1835.0 ppb	08:14:50
2	Tl 190.801†	-123.4	-93.8	-8.2964	ug/L	-8.2964 ppb	08:15:11
2	U 409.014†	37520.3	41303.0	1131.5	ug/L	1131.5 ppb	08:14:50
2	V 292.402†	20677.9	22677.5	147.24	ug/L	147.24 ppb	08:14:50
2	Zn 213.857†	34563.0	34782.5	335.28	ug/L	335.28 ppb	08:14:50
2	SiO2†	993234.7	1016402.0	70635	ug/L	70635 ppb	08:15:49
3	Sc Radial	3743.4	3743.4	95.5	%		08:14:17
3	Y RADIAL	4708.6	4708.6	106.8	%		08:13:57
3	Al 396.153Radial†	53801.7	56435.1	52929	ug/L	52929 ppb	08:13:57
3	Ca 317.933Radial†	94864.4	99289.8	207570	ug/L	207570 ppb	08:13:57
3	Fe 238.204 Radial†	5336.5	5575.2	78697	ug/L	78697 ppb	08:13:57
3	K 766.490 Radial†	40790.2	40061.9	7617.5	ug/L	7617.5 ppb	08:13:57
3	Mg 279.077 IEC†	250.4	258.1	12432	ug/L	12432 ppb	08:14:17
3	Na 589.592 Radial†	2130.9	3050.5	940.55	ug/L	940.55 ppb	08:13:57
3	Sr 421.552†	121930.1	127607.7	881.44	ug/L	881.44 ppb	08:13:57
3	Sc 361.383	855270.3	855270.3	97.497	%		08:15:16
3	Y 371.029	786788.3	786788.3	104.09	%		08:15:16
3	Ag 328.068†	-4025.9	-4369.6	0.8262	ug/L	0.8262 ppb	08:15:16
3	As 188.979†	-21.8	-4.1	32.256	ug/L	32.256 ppb	08:15:36
3	B 249.677†	888.8	1309.9	18.803	ug/L	18.803 ppb	08:15:16
3	Ba 233.527†	73749.0	75644.1	596.35	ug/L	596.35 ppb	08:15:16
3	Be 313.107†	28889.0	33393.0	16.650	ug/L	16.650 ppb	08:15:16
3	Cd 226.502†	656.8	870.0	2.2015	ug/L	2.2015 ppb	08:15:36
3	Co 228.616†	2790.4	2928.5	56.668	ug/L	56.668 ppb	08:15:36
3	Cr 267.716†	6462.1	6550.3	80.786	ug/L	80.786 ppb	08:15:16
3	Cu 324.752†	686806.5	698450.9	2129.0	ug/L	2129.0 ppb	08:15:16
3	Mn 257.610†	1300607.4	1333544.5	1524.8	ug/L	1524.8 ppb	08:15:16
3	Mo 202.031†	-60.7	-72.4	3.2647	ug/L	3.2647 ppb	08:15:36
3	Ni 231.604†	2105.1	2096.7	53.289	ug/L	53.289 ppb	08:15:36
3	P 214.914†	2567.4	2422.8	985.73	ug/L	985.73 ppb	08:15:36
3	Pb 220.353†	7028.2	7266.8	897.90	ug/L	897.90 ppb	08:15:36
3	S 181.975 Axial†	295.2	262.0	367.04	ug/L	367.04 ppb	08:15:36
3	Sb 206.836†	80.0	45.4	7.2574	ug/L	7.2574 ppb	08:15:36
3	Se 196.026†	-409.3	-392.1	-11.954	ug/L	-11.954 ppb	08:15:36
3	Si 251.611†	975837.3	1000335.7	32370	ug/L	32370 ppb	08:15:16
3	Sn 189.927†	-235.7	-252.2	-12.892	ug/L	-12.892 ppb	08:15:36
3	Ti 334.940†	1119384.0	1149500.7	1832.6	ug/L	1832.6 ppb	08:15:16
3	Tl 190.801†	-125.5	-96.2	-9.0757	ug/L	-9.0757 ppb	08:15:36
3	U 409.014†	37503.9	41353.5	1132.8	ug/L	1132.8 ppb	08:15:16
3	V 292.402†	20523.6	22556.3	146.23	ug/L	146.23 ppb	08:15:16
3	Zn 213.857†	34408.1	34685.6	334.17	ug/L	334.17 ppb	08:15:16
3	SiO2†	987980.3	1012794.4	70385	ug/L	70385 ppb	08:15:55

Mean Data: 245969002|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	860048.9	98.041	%	0.8002				0.82%
Sc Radial	3714.8	94.8	%	2.82				2.98%
Y 371.029	790333.4	104.56	%	0.715				0.68%
Y RADIAL	4667.1	105.8	%	3.28				3.10%
Ag 328.068†	-4325.3	1.2080	ug/L	0.44405	1.2080	ppb	0.44405	36.76%
Al 396.153Radial†	57113.3	53565	ug/L	1388.8	53565	ppb	1388.8	2.59%
As 188.979†	5.6	36.763	ug/L	3.9386	36.763	ppb	3.9386	10.71%
B 249.677†	1366.0	20.057	ug/L	1.1392	20.057	ppb	1.1392	5.68%
Ba 233.527†	75542.4	595.57	ug/L	0.712	595.57	ppb	0.712	0.12%
Be 313.107†	33398.3	16.651	ug/L	0.0062	16.651	ppb	0.0062	0.04%
Ca 317.933Radial†	100319.2	209720	ug/L	5251.7	209720	ppb	5251.7	2.50%
Cd 226.502†	855.8	1.9686	ug/L	0.28732	1.9686	ppb	0.28732	14.60%
Co 228.616†	2915.3	56.383	ug/L	0.3333	56.383	ppb	0.3333	0.59%
Cr 267.716†	6548.6	80.831	ug/L	0.2222	80.831	ppb	0.2222	0.27%
Cu 324.752†	699946.3	2133.6	ug/L	5.41	2133.6	ppb	5.41	0.25%
Fe 238.204 Radial†	5622.2	79360	ug/L	2105.1	79360	ppb	2105.1	2.65%
K 766.490 Radial†	40508.0	7702.4	ug/L	213.07	7702.4	ppb	213.07	2.77%

Mg 279.077 IEC†	262.2	12629	ug/L	357.2	12629	ppb	357.2	2.83%
Mn 257.610†	1333302.8	1524.5	ug/L	1.12	1524.5	ppb	1.12	0.07%
Mo 202.031†	-64.3	3.9329	ug/L	0.59213	3.9329	ppb	0.59213	15.06%
Na 589.592 Radial†	3037.8	936.63	ug/L	15.529	936.63	ppb	15.529	1.66%
Ni 231.604†	2092.8	53.189	ug/L	0.4396	53.189	ppb	0.4396	0.83%
P 214.914†	2397.8	969.43	ug/L	14.116	969.43	ppb	14.116	1.46%
Pb 220.353†	7206.4	890.56	ug/L	8.301	890.56	ppb	8.301	0.93%
S 181.975 Axial†	253.0	354.05	ug/L	12.748	354.05	ppb	12.748	3.60%
Sb 206.836†	53.1	9.9652	ug/L	2.80768	9.9652	ppb	2.80768	28.17%
Se 196.026†	-385.0	-5.2628	ug/L	10.61788	-5.2628	ppb	10.61788	201.75%
Si 251.611†	1000717.8	32382	ug/L	24.4	32382	ppb	24.4	0.08%
Sn 189.927†	-244.2	-11.105	ug/L	1.5875	-11.105	ppb	1.5875	14.29%
Sr 421.552†	129255.2	892.82	ug/L	24.177	892.82	ppb	24.177	2.71%
Ti 334.940†	1149294.5	1832.6	ug/L	2.42	1832.6	ppb	2.42	0.13%
Tl 190.801†	-94.1	-8.4005	ug/L	0.62958	-8.4005	ppb	0.62958	7.49%
U 409.014†	41331.5	1132.1	ug/L	0.64	1132.1	ppb	0.64	0.06%
V 292.402†	22596.3	146.43	ug/L	0.732	146.43	ppb	0.732	0.50%
Zn 213.857†	34719.0	334.40	ug/L	0.791	334.40	ppb	0.791	0.24%
SiO2†	1010008.2	70191	ug/L	566.5	70191	ppb	566.5	0.81%

Sequence No.: 122
Sample ID: 245969003|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 135
Date Collected: 2/25/2010 08:18:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969003|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3816.9	3816.9	97.4	%			08:20:21
1	Y RADIAL	4850.5	4850.5	110.0	%			08:20:01
1	Al 396.153Radial†	45781.4	47116.4	44189	ug/L	44189	ppb	08:20:01
1	Ca 317.933Radial†	13732.5	14079.5	29433	ug/L	29433	ppb	08:20:01
1	Fe 238.204 Radial†	5417.0	5550.3	78345	ug/L	78345	ppb	08:20:01
1	K 766.490 Radial†	32217.7	30438.4	5829.7	ug/L	5829.7	ppb	08:20:01
1	Mg 279.077 IEC†	196.6	197.8	9506.8	ug/L	9506.8	ppb	08:20:21
1	Na 589.592 Radial†	5549.7	6517.7	2009.6	ug/L	2009.6	ppb	08:20:01
1	Sr 421.552†	22746.2	23317.9	161.13	ug/L	161.13	ppb	08:20:01
1	Sc 361.383	909838.5	909838.5	103.72	%			08:21:18
1	Y 371.029	849455.0	849455.0	112.38	%			08:21:18
1	Ag 328.068†	-5341.0	-5390.0	-0.7614	ug/L	-0.7614	ppb	08:21:23
1	As 188.979†	-20.6	-1.6	28.884	ug/L	28.884	ppb	08:21:44
1	B 249.677†	398.8	782.7	6.1399	ug/L	6.1399	ppb	08:21:23
1	Ba 233.527†	58299.2	56211.2	443.69	ug/L	443.69	ppb	08:21:23
1	Be 313.107†	2365.6	6043.0	5.2154	ug/L	5.2154	ppb	08:21:23
1	Cd 226.502†	533.4	710.6	0.1783	ug/L	0.1783	ppb	08:21:44
1	Co 228.616†	1906.9	1905.1	36.171	ug/L	36.171	ppb	08:21:44
1	Cr 267.716†	21922.6	21059.3	244.07	ug/L	244.07	ppb	08:21:23
1	Cu 324.752†	30357.5	23278.8	75.098	ug/L	75.098	ppb	08:21:23
1	Mn 257.610†	1960754.9	1890025.5	2158.1	ug/L	2158.1	ppb	08:21:18
1	Mo 202.031†	25.4	14.3	7.4834	ug/L	7.4834	ppb	08:21:44
1	Ni 231.604†	5304.4	5051.9	128.46	ug/L	128.46	ppb	08:21:44
1	P 214.914†	643.3	409.7	180.23	ug/L	180.23	ppb	08:21:44
1	Pb 220.353†	679.7	713.4	88.851	ug/L	88.851	ppb	08:21:44
1	S 181.975 Axial†	189.7	142.1	196.21	ug/L	196.21	ppb	08:21:44
1	Sb 206.836†	67.2	28.1	3.4406	ug/L	3.4406	ppb	08:21:44
1	Se 196.026†	-414.1	-371.5	0.5292	ug/L	0.5292	ppb	08:21:44
1	Si 251.611†	1113608.8	1073140.3	34725	ug/L	34725	ppb	08:21:18
1	Sn 189.927†	-147.0	-152.2	-26.585	ug/L	-26.585	ppb	08:21:44
1	Ti 334.940†	854605.6	825351.8	1300.1	ug/L	1300.1	ppb	08:21:18
1	Tl 190.801†	-118.1	-81.3	-5.2954	ug/L	-5.2954	ppb	08:21:44
1	U 409.014†	-10609.1	-7342.2	-212.21	ug/L	-212.21	ppb	08:21:18
1	V 292.402†	11846.0	12927.2	77.081	ug/L	77.081	ppb	08:21:23
1	Zn 213.857†	39206.1	37194.9	361.78	ug/L	361.78	ppb	08:21:23
1	SiO2†	1122124.1	1081354.3	75149	ug/L	75149	ppb	08:22:52
2	Sc Radial	3824.3	3824.3	97.6	%			08:20:46
2	Y RADIAL	4965.3	4965.3	112.6	%			08:20:26
2	Al 396.153Radial†	46856.6	48127.3	45137	ug/L	45137	ppb	08:20:26
2	Ca 317.933Radial†	14061.0	14388.9	30080	ug/L	30080	ppb	08:20:26
2	Fe 238.204 Radial†	5518.9	5644.0	79668	ug/L	79668	ppb	08:20:26
2	K 766.490 Radial†	33018.0	31194.6	5974.5	ug/L	5974.5	ppb	08:20:26
2	Mg 279.077 IEC†	197.0	197.8	9506.4	ug/L	9506.4	ppb	08:20:46
2	Na 589.592 Radial†	5764.5	6726.8	2074.0	ug/L	2074.0	ppb	08:20:26
2	Sr 421.552†	23321.9	23862.7	164.89	ug/L	164.89	ppb	08:20:26
2	Sc 361.383	914605.1	914605.1	104.26	%			08:21:49
2	Y 371.029	855087.6	855087.6	113.13	%			08:21:49
2	Ag 328.068†	-5295.6	-5319.6	-0.0458	ug/L	-0.0458	ppb	08:21:55
2	As 188.979†	-17.9	1.1	30.373	ug/L	30.373	ppb	08:22:15
2	B 249.677†	244.7	632.9	2.2949	ug/L	2.2949	ppb	08:21:55
2	Ba 233.527†	58244.6	55865.9	441.02	ug/L	441.02	ppb	08:21:55
2	Be 313.107†	2383.7	6048.5	5.2175	ug/L	5.2175	ppb	08:21:55
2	Cd 226.502†	545.7	719.7	0.1483	ug/L	0.1483	ppb	08:22:15
2	Co 228.616†	1893.0	1882.2	35.669	ug/L	35.669	ppb	08:22:15
2	Cr 267.716†	21884.2	20912.3	242.54	ug/L	242.54	ppb	08:21:55
2	Cu 324.752†	30241.8	23015.2	74.363	ug/L	74.363	ppb	08:21:55
2	Mn 257.610†	1970713.4	1889724.5	2157.9	ug/L	2157.9	ppb	08:21:49
2	Mo 202.031†	19.4	8.5	7.1666	ug/L	7.1666	ppb	08:22:15
2	Ni 231.604†	5357.5	5076.2	129.08	ug/L	129.08	ppb	08:22:15

2	P 214.914†	635.0	398.5	172.85	ug/L	172.85 ppb	08:22:15
2	Pb 220.353†	687.9	717.9	89.464	ug/L	89.464 ppb	08:22:15
2	S 181.975 Axial†	205.7	156.5	216.69	ug/L	216.69 ppb	08:22:15
2	Sb 206.836†	67.2	27.8	3.2944	ug/L	3.2944 ppb	08:22:15
2	Se 196.026†	-411.9	-367.3	7.4254	ug/L	7.4254 ppb	08:22:15
2	Si 251.611†	1118746.7	1072472.6	34704	ug/L	34704 ppb	08:21:49
2	Sn 189.927†	-139.8	-144.6	-25.177	ug/L	-25.177 ppb	08:22:15
2	Ti 334.940†	859111.3	825379.2	1300.3	ug/L	1300.3 ppb	08:21:49
2	Tl 190.801†	-109.5	-72.5	-2.4664	ug/L	-2.4664 ppb	08:22:15
2	U 409.014†	-10451.4	-7137.7	-206.71	ug/L	-206.71 ppb	08:21:49
2	V 292.402†	11772.2	12796.8	75.985	ug/L	75.985 ppb	08:21:55
2	Zn 213.857†	39021.4	36820.8	357.82	ug/L	357.82 ppb	08:21:55
2	SiO2†	1100310.4	1054793.5	73303	ug/L	73303 ppb	08:22:58
3	Sc Radial	3828.1	3828.1	97.7	%		08:21:11
3	Y RADIAL	4855.7	4855.7	110.1	%		08:20:51
3	Al 396.153Radial†	45713.8	46909.0	43995	ug/L	43995 ppb	08:20:51
3	Ca 317.933Radial†	13643.6	13947.1	29157	ug/L	29157 ppb	08:20:51
3	Fe 238.204 Radial†	5398.8	5515.3	77852	ug/L	77852 ppb	08:20:51
3	K 766.490 Radial†	32314.0	30439.8	5830.0	ug/L	5830.0 ppb	08:20:51
3	Mg 279.077 IEC†	196.2	196.7	9457.8	ug/L	9457.8 ppb	08:21:11
3	Na 589.592 Radial†	5555.3	6506.6	2006.2	ug/L	2006.2 ppb	08:20:51
3	Sr 421.552†	22760.3	23263.7	160.76	ug/L	160.76 ppb	08:20:51
3	Sc 361.383	897157.8	897157.8	102.27	%		08:22:21
3	Y 371.029	838961.5	838961.5	111.00	%		08:22:21
3	Ag 328.068†	-5272.6	-5395.9	-0.9292	ug/L	-0.9292 ppb	08:22:26
3	As 188.979†	-15.7	2.9	30.774	ug/L	30.774 ppb	08:22:46
3	B 249.677†	302.2	693.7	4.0613	ug/L	4.0613 ppb	08:22:26
3	Ba 233.527†	58539.9	57241.1	451.76	ug/L	451.76 ppb	08:22:26
3	Be 313.107†	2408.5	6117.2	5.2470	ug/L	5.2470 ppb	08:22:26
3	Cd 226.502†	539.6	723.9	0.3855	ug/L	0.3855 ppb	08:22:46
3	Co 228.616†	1914.6	1938.6	36.877	ug/L	36.877 ppb	08:22:46
3	Cr 267.716†	22000.9	21434.6	248.24	ug/L	248.24 ppb	08:22:26
3	Cu 324.752†	30681.8	24009.5	77.297	ug/L	77.297 ppb	08:22:26
3	Mn 257.610†	1939980.2	1896432.9	2165.3	ug/L	2165.3 ppb	08:22:21
3	Mo 202.031†	23.2	12.5	7.3080	ug/L	7.3080 ppb	08:22:46
3	Ni 231.604†	5389.6	5207.4	132.42	ug/L	132.42 ppb	08:22:46
3	P 214.914†	649.3	424.3	188.93	ug/L	188.93 ppb	08:22:46
3	Pb 220.353†	706.9	749.3	93.271	ug/L	93.271 ppb	08:22:46
3	S 181.975 Axial†	200.6	155.3	215.30	ug/L	215.30 ppb	08:22:46
3	Sb 206.836†	59.1	21.1	0.9670	ug/L	0.9670 ppb	08:22:46
3	Se 196.026†	-418.8	-381.7	-7.6890	ug/L	-7.6890 ppb	08:22:46
3	Si 251.611†	1099114.0	1074143.5	34758	ug/L	34758 ppb	08:22:21
3	Sn 189.927†	-150.4	-157.6	-27.558	ug/L	-27.558 ppb	08:22:46
3	Ti 334.940†	843756.4	826389.9	1301.7	ug/L	1301.7 ppb	08:22:21
3	Tl 190.801†	-124.0	-88.7	-7.6257	ug/L	-7.6257 ppb	08:22:46
3	U 409.014†	-10510.4	-7390.4	-213.49	ug/L	-213.49 ppb	08:22:21
3	V 292.402†	11909.3	13150.5	78.701	ug/L	78.701 ppb	08:22:26
3	Zn 213.857†	39472.3	37989.5	369.83	ug/L	369.83 ppb	08:22:26
3	SiO2†	1104579.3	1079491.3	75020	ug/L	75020 ppb	08:23:04

Mean Data: 245969003|948756|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907200.5	103.42	%	1.028				0.99%
Sc Radial	3823.1	97.6	%	0.15				0.15%
Y 371.029	847834.7	112.17	%	1.083				0.97%
Y RADIAL	4890.5	110.9	%	1.47				1.33%
Ag 328.068†	-5368.5	-0.5788	ug/L	0.46913	-0.5788	ppb	0.46913	81.05%
Al 396.153Radial†	47384.2	44440	ug/L	611.3	44440	ppb	611.3	1.38%
As 188.979†	0.8	30.010	ug/L	0.9956	30.010	ppb	0.9956	3.32%
B 249.677†	703.1	4.1654	ug/L	1.92461	4.1654	ppb	1.92461	46.20%
Ba 233.527†	56439.4	445.49	ug/L	5.592	445.49	ppb	5.592	1.26%
Be 313.107†	6069.6	5.2266	ug/L	0.01765	5.2266	ppb	0.01765	0.34%
Ca 317.933Radial†	14138.5	29557	ug/L	473.9	29557	ppb	473.9	1.60%
Cd 226.502†	718.0	0.2374	ug/L	0.12915	0.2374	ppb	0.12915	54.41%
Co 228.616†	1908.6	36.239	ug/L	0.6071	36.239	ppb	0.6071	1.68%
Cr 267.716†	21135.4	244.95	ug/L	2.949	244.95	ppb	2.949	1.20%
Cu 324.752†	23434.5	75.586	ug/L	1.5264	75.586	ppb	1.5264	2.02%
Fe 238.204 Radial†	5569.9	78621	ug/L	939.0	78621	ppb	939.0	1.19%
K 766.490 Radial†	30690.9	5878.1	ug/L	83.53	5878.1	ppb	83.53	1.42%

Mg 279.077 IEC†	197.4	9490.3	ug/L	28.16	9490.3	ppb	28.16	0.30%
Mn 257.610†	1892060.9	2160.4	ug/L	4.25	2160.4	ppb	4.25	0.20%
Mo 202.031†	11.8	7.3193	ug/L	0.15871	7.3193	ppb	0.15871	2.17%
Na 589.592 Radial†	6583.7	2029.9	ug/L	38.24	2029.9	ppb	38.24	1.88%
Ni 231.604†	5111.8	129.99	ug/L	2.128	129.99	ppb	2.128	1.64%
P 214.914†	410.9	180.67	ug/L	8.053	180.67	ppb	8.053	4.46%
Pb 220.353†	726.9	90.529	ug/L	2.3946	90.529	ppb	2.3946	2.65%
S 181.975 Axial†	151.3	209.40	ug/L	11.448	209.40	ppb	11.448	5.47%
Sb 206.836†	25.7	2.5673	ug/L	1.38786	2.5673	ppb	1.38786	54.06%
Se 196.026†	-373.5	0.0885	ug/L	7.56685	0.0885	ppb	7.56685	>999.9%
Si 251.611†	1073252.1	34729	ug/L	27.2	34729	ppb	27.2	0.08%
Sn 189.927†	-151.5	-26.440	ug/L	1.1973	-26.440	ppb	1.1973	4.53%
Sr 421.552†	23481.4	162.26	ug/L	2.289	162.26	ppb	2.289	1.41%
Ti 334.940†	825707.0	1300.7	ug/L	0.89	1300.7	ppb	0.89	0.07%
Tl 190.801†	-80.8	-5.1292	ug/L	2.58366	-5.1292	ppb	2.58366	50.37%
U 409.014†	-7290.1	-210.80	ug/L	3.603	-210.80	ppb	3.603	1.71%
V 292.402†	12958.2	77.256	ug/L	1.3665	77.256	ppb	1.3665	1.77%
Zn 213.857†	37335.1	363.14	ug/L	6.120	363.14	ppb	6.120	1.69%
SiO2†	1071879.7	74491	ug/L	1030.4	74491	ppb	1030.4	1.38%

Sequence No.: 123
Sample ID: 245969004|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 136
Date Collected: 2/25/2010 08:25:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969004|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3837.8	3837.8	97.9	%			08:27:30
1	Y RADIAL	4607.4	4607.4	104.5	%			08:27:10
1	Al 396.153Radial†	38042.8	38958.7	36539	ug/L	36539	ppb	08:27:10
1	Ca 317.933Radial†	9519.5	9700.9	20280	ug/L	20280	ppb	08:27:10
1	Fe 238.204 Radial†	5178.0	5276.0	74474	ug/L	74474	ppb	08:27:10
1	K 766.490 Radial†	29183.8	27160.5	5204.6	ug/L	5204.6	ppb	08:27:10
1	Mg 279.077 IEC†	164.1	163.5	7849.3	ug/L	7849.3	ppb	08:27:30
1	Na 589.592 Radial†	725.7	1560.9	481.25	ug/L	481.25	ppb	08:27:10
1	Sr 421.552†	12706.2	12938.8	89.379	ug/L	89.379	ppb	08:27:10
1	Sc 361.383	901638.2	901638.2	102.78	%			08:28:29
1	Y 371.029	809101.9	809101.9	107.05	%			08:28:29
1	Ag 328.068†	3126.0	2801.0	13.914	ug/L	13.914	ppb	08:28:35
1	As 188.979†	-31.0	-11.9	28.580	ug/L	28.580	ppb	08:28:55
1	B 249.677†	-480.8	-69.5	-13.916	ug/L	-13.916	ppb	08:28:35
1	Ba 233.527†	100945.5	98214.4	773.18	ug/L	773.18	ppb	08:28:35
1	Be 313.107†	225164.6	222831.7	88.047	ug/L	88.047	ppb	08:28:29
1	Cd 226.502†	317.1	504.8	3.5025	ug/L	3.5025	ppb	08:28:55
1	Co 228.616†	2272.8	2277.8	42.912	ug/L	42.912	ppb	08:28:55
1	Cr 267.716†	22623.5	21933.4	242.73	ug/L	242.73	ppb	08:28:35
1	Cu 324.752†	5746208.5	5584670.0	16984	ug/L	16984	ppb	08:28:29
1	Mn 257.610†	1262887.6	1228243.0	1404.7	ug/L	1404.7	ppb	08:28:29
1	Mo 202.031†	-81.6	-89.5	-0.5510	ug/L	-0.5510	ppb	08:28:55
1	Ni 231.604†	6203.6	5973.2	151.89	ug/L	151.89	ppb	08:28:55
1	P 214.914†	7175.7	6771.0	650.44	ug/L	650.44	ppb	08:28:35
1	Pb 220.353†	23299.0	22726.4	2785.1	ug/L	2785.1	ppb	08:28:35
1	S 181.975 Axial†	236.4	189.2	265.45	ug/L	265.45	ppb	08:28:55
1	Sb 206.836†	164.3	123.1	36.390	ug/L	36.390	ppb	08:28:55
1	Se 196.026†	-418.7	-379.6	-16.786	ug/L	-16.786	ppb	08:28:55
1	Si 251.611†	946008.7	919842.3	29765	ug/L	29765	ppb	08:28:29
1	Sn 189.927†	454.6	431.8	76.805	ug/L	76.805	ppb	08:28:55
1	Ti 334.940†	1239616.2	1207434.3	1887.5	ug/L	1887.5	ppb	08:28:29
1	Tl 190.801†	-167.8	-130.7	-19.727	ug/L	-19.727	ppb	08:28:55
1	U 409.014†	1001046.1	976834.8	26965	ug/L	26965	ppb	08:28:29
1	V 292.402†	10945.3	12154.7	123.49	ug/L	123.49	ppb	08:28:35
1	Zn 213.857†	62898.3	60589.7	574.82	ug/L	574.82	ppb	08:28:35
1	SiO2†	948460.2	922231.3	64091	ug/L	64091	ppb	08:30:06
2	Sc Radial	3852.4	3852.4	98.3	%			08:27:55
2	Y RADIAL	4697.8	4697.8	106.5	%			08:27:35
2	Al 396.153Radial†	38770.8	39551.4	37095	ug/L	37095	ppb	08:27:35
2	Ca 317.933Radial†	9663.1	9809.9	20508	ug/L	20508	ppb	08:27:35
2	Fe 238.204 Radial†	5276.4	5356.0	75602	ug/L	75602	ppb	08:27:35
2	K 766.490 Radial†	29416.3	27283.6	5228.2	ug/L	5228.2	ppb	08:27:35
2	Mg 279.077 IEC†	163.1	161.8	7766.9	ug/L	7766.9	ppb	08:27:55
2	Na 589.592 Radial†	752.6	1585.4	488.81	ug/L	488.81	ppb	08:27:35
2	Sr 421.552†	12912.0	13098.8	90.485	ug/L	90.485	ppb	08:27:35
2	Sc 361.383	900621.3	900621.3	102.67	%			08:29:02
2	Y 371.029	808042.2	808042.2	106.91	%			08:29:02
2	Ag 328.068†	3231.1	2906.8	14.776	ug/L	14.776	ppb	08:29:07
2	As 188.979†	-18.6	0.1	34.199	ug/L	34.199	ppb	08:29:27
2	B 249.677†	-514.9	-103.3	-14.920	ug/L	-14.920	ppb	08:29:07
2	Ba 233.527†	101730.7	99090.0	780.08	ug/L	780.08	ppb	08:29:07
2	Be 313.107†	224515.0	222446.3	87.897	ug/L	87.897	ppb	08:29:02
2	Cd 226.502†	293.3	482.0	3.1164	ug/L	3.1164	ppb	08:29:27
2	Co 228.616†	2279.4	2286.8	43.091	ug/L	43.091	ppb	08:29:27
2	Cr 267.716†	22782.3	22112.9	244.86	ug/L	244.86	ppb	08:29:07
2	Cu 324.752†	5740119.7	5585051.4	16985	ug/L	16985	ppb	08:29:02
2	Mn 257.610†	1260813.0	1227609.5	1404.1	ug/L	1404.1	ppb	08:29:02
2	Mo 202.031†	-79.4	-87.5	-0.3104	ug/L	-0.3104	ppb	08:29:27
2	Ni 231.604†	6212.7	5988.9	152.29	ug/L	152.29	ppb	08:29:27

2	P 214.914†	7267.5	6868.2	707.96 ug/L	707.96 ppb	08:29:07
2	Pb 220.353†	23401.8	22852.1	2800.6 ug/L	2800.6 ppb	08:29:07
2	S 181.975 Axial†	245.4	198.2	278.31 ug/L	278.31 ppb	08:29:27
2	Sb 206.836†	159.9	119.1	34.949 ug/L	34.949 ppb	08:29:27
2	Se 196.026†	-410.6	-372.2	-8.4096 ug/L	-8.4096 ppb	08:29:27
2	Si 251.611†	945347.7	920237.6	29778 ug/L	29778 ppb	08:29:02
2	Sn 189.927†	453.4	431.2	76.667 ug/L	76.667 ppb	08:29:27
2	Ti 334.940†	1236753.7	1206007.8	1885.3 ug/L	1885.3 ppb	08:29:02
2	Tl 190.801†	-161.1	-124.4	-17.730 ug/L	-17.730 ppb	08:29:27
2	U 409.014†	998926.1	975869.4	26938 ug/L	26938 ppb	08:29:02
2	V 292.402†	11129.1	12345.7	124.61 ug/L	124.61 ppb	08:29:07
2	Zn 213.857†	63423.6	61170.3	580.49 ug/L	580.49 ppb	08:29:07
2	SiO2†	950588.2	925346.0	64308 ug/L	64308 ppb	08:30:12
3	Sc Radial	3829.1	3829.1	97.7 %		08:28:21
3	Y RADIAL	4632.8	4632.8	105.0 %		08:28:00
3	Al 396.153Radial†	38130.1	39136.1	36705 ug/L	36705 ppb	08:28:00
3	Ca 317.933Radial†	9568.1	9772.6	20430 ug/L	20430 ppb	08:28:00
3	Fe 238.204 Radial†	5172.1	5282.0	74558 ug/L	74558 ppb	08:28:00
3	K 766.490 Radial†	29034.6	27075.4	5188.2 ug/L	5188.2 ppb	08:28:00
3	Mg 279.077 IEC†	166.4	166.2	7979.4 ug/L	7979.4 ppb	08:28:21
3	Na 589.592 Radial†	682.2	1517.9	468.02 ug/L	468.02 ppb	08:28:00
3	Sr 421.552†	12758.4	13021.6	89.951 ug/L	89.951 ppb	08:28:00
3	Sc 361.383	908181.1	908181.1	103.53 %		08:29:35
3	Y 371.029	812948.7	812948.7	107.56 %		08:29:35
3	Ag 328.068†	3277.9	2925.8	14.628 ug/L	14.628 ppb	08:29:40
3	As 188.979†	-15.6	3.2	35.239 ug/L	35.239 ppb	08:30:00
3	B 249.677†	-547.4	-130.5	-15.407 ug/L	-15.407 ppb	08:29:40
3	Ba 233.527†	102698.4	99199.9	780.92 ug/L	780.92 ppb	08:29:40
3	Be 313.107†	224897.5	220995.4	87.331 ug/L	87.331 ppb	08:29:35
3	Cd 226.502†	321.9	507.2	3.4960 ug/L	3.4960 ppb	08:30:00
3	Co 228.616†	2251.2	2241.0	42.169 ug/L	42.169 ppb	08:30:00
3	Cr 267.716†	23003.1	22141.4	245.13 ug/L	245.13 ppb	08:29:40
3	Cu 324.752†	5764374.4	5561939.0	16915 ug/L	16915 ppb	08:29:35
3	Mn 257.610†	1265417.0	1221834.0	1397.4 ug/L	1397.4 ppb	08:29:35
3	Mo 202.031†	-70.0	-77.8	0.3203 ug/L	0.3203 ppb	08:30:00
3	Ni 231.604†	6194.8	5921.2	150.57 ug/L	150.57 ppb	08:30:00
3	P 214.914†	7346.1	6885.3	732.95 ug/L	732.95 ppb	08:29:40
3	Pb 220.353†	23694.1	22944.7	2812.0 ug/L	2812.0 ppb	08:29:40
3	S 181.975 Axial†	245.1	196.0	275.13 ug/L	275.13 ppb	08:30:00
3	Sb 206.836†	162.4	120.2	35.404 ug/L	35.404 ppb	08:30:00
3	Se 196.026†	-429.0	-386.6	-21.109 ug/L	-21.109 ppb	08:30:00
3	Si 251.611†	949245.4	916337.7	29652 ug/L	29652 ppb	08:29:35
3	Sn 189.927†	458.1	432.0	76.856 ug/L	76.856 ppb	08:30:00
3	Ti 334.940†	1241022.2	1200103.4	1876.0 ug/L	1876.0 ppb	08:29:35
3	Tl 190.801†	-159.6	-121.6	-16.963 ug/L	-16.963 ppb	08:30:00
3	U 409.014†	1003514.3	972202.0	26837 ug/L	26837 ppb	08:29:35
3	V 292.402†	11267.3	12389.0	124.89 ug/L	124.89 ppb	08:29:40
3	Zn 213.857†	63967.2	61181.3	580.86 ug/L	580.86 ppb	08:29:40
3	SiO2†	948470.8	915593.4	63630 ug/L	63630 ppb	08:30:18

Mean Data: 245969004|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903480.2	102.99	%	0.468				0.45%
Sc Radial	3839.8	98.0	%	0.30				0.31%
Y 371.029	810030.9	107.17	%	0.342				0.32%
Y RADIAL	4646.0	105.3	%	1.06				1.00%
Ag 328.068†	2877.9	14.439	ug/L	0.4605	14.439	ppb	0.4605	3.19%
Al 396.153Radial†	39215.4	36779	ug/L	285.3	36779	ppb	285.3	0.78%
As 188.979†	-2.9	32.672	ug/L	3.5820	32.672	ppb	3.5820	10.96%
B 249.677†	-101.1	-14.747	ug/L	0.7602	-14.747	ppb	0.7602	5.16%
Ba 233.527†	98834.8	778.06	ug/L	4.249	778.06	ppb	4.249	0.55%
Be 313.107†	222091.1	87.758	ug/L	0.3778	87.758	ppb	0.3778	0.43%
Ca 317.933Radial†	9761.2	20406	ug/L	115.9	20406	ppb	115.9	0.57%
Cd 226.502†	498.0	3.3716	ug/L	0.22107	3.3716	ppb	0.22107	6.56%
Co 228.616†	2268.5	42.724	ug/L	0.4890	42.724	ppb	0.4890	1.14%
Cr 267.716†	22062.6	244.24	ug/L	1.315	244.24	ppb	1.315	0.54%
Cu 324.752†	5577220.1	16961	ug/L	40.3	16961	ppb	40.3	0.24%
Fe 238.204 Radial†	5304.7	74878	ug/L	628.8	74878	ppb	628.8	0.84%
K 766.490 Radial†	27173.2	5207.0	ug/L	20.07	5207.0	ppb	20.07	0.39%

Mg 279.077 IEC†	163.8	7865.2	ug/L	107.14	7865.2	ppb	107.14	1.36%
Mn 257.610†	1225895.5	1402.1	ug/L	4.05	1402.1	ppb	4.05	0.29%
Mo 202.031†	-84.9	-0.1804	ug/L	0.44997	-0.1804	ppb	0.44997	249.47%
Na 589.592 Radial†	1554.7	479.36	ug/L	10.524	479.36	ppb	10.524	2.20%
Ni 231.604†	5961.1	151.58	ug/L	0.901	151.58	ppb	0.901	0.59%
P 214.914†	6841.5	697.12	ug/L	42.311	697.12	ppb	42.311	6.07%
Pb 220.353†	22841.1	2799.2	ug/L	13.51	2799.2	ppb	13.51	0.48%
S 181.975 Axial†	194.5	272.96	ug/L	6.696	272.96	ppb	6.696	2.45%
Sb 206.836†	120.8	35.581	ug/L	0.7370	35.581	ppb	0.7370	2.07%
Se 196.026†	-379.5	-15.435	ug/L	6.4569	-15.435	ppb	6.4569	41.83%
Si 251.611†	918805.9	29731	ug/L	69.5	29731	ppb	69.5	0.23%
Sn 189.927†	431.6	76.776	ug/L	0.0979	76.776	ppb	0.0979	0.13%
Sr 421.552†	13019.7	89.938	ug/L	0.5530	89.938	ppb	0.5530	0.61%
Ti 334.940†	1204515.2	1883.0	ug/L	6.08	1883.0	ppb	6.08	0.32%
Tl 190.801†	-125.6	-18.140	ug/L	1.4266	-18.140	ppb	1.4266	7.86%
U 409.014†	974968.7	26914	ug/L	67.5	26914	ppb	67.5	0.25%
V 292.402†	12296.5	124.33	ug/L	0.742	124.33	ppb	0.742	0.60%
Zn 213.857†	60980.4	578.73	ug/L	3.387	578.73	ppb	3.387	0.59%
SiO2†	921056.9	64009	ug/L	346.2	64009	ppb	346.2	0.54%

Sequence No.: 124
Sample ID: 245969005|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 137
Date Collected: 2/25/2010 08:32:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969005|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3861.9	3861.9	98.5	%			08:34:45
1	Y RADIAL	5239.6	5239.6	118.8	%			08:34:25
1	Al 396.153Radial†	28828.6	29366.0	27542	ug/L	27542	ppb	08:34:25
1	Ca 317.933Radial†	2731.6	2752.2	5753.5	ug/L	5753.5	ppb	08:34:45
1	Fe 238.204 Radial†	6869.9	6959.9	98243	ug/L	98243	ppb	08:34:25
1	K 766.490 Radial†	33964.0	31824.9	6103.5	ug/L	6103.5	ppb	08:34:25
1	Mg 279.077 IEC†	94.2	91.5	4333.3	ug/L	4333.3	ppb	08:34:45
1	Na 589.592 Radial†	7059.4	7983.2	2461.4	ug/L	2461.4	ppb	08:34:25
1	Sr 421.552†	9035.6	9133.0	63.154	ug/L	63.154	ppb	08:34:25
1	Sc 361.383	891450.4	891450.4	101.62	%			08:35:43
1	Y 371.029	884218.0	884218.0	116.98	%			08:35:43
1	Ag 328.068†	-6535.3	-6671.5	-0.2488	ug/L	-0.2488	ppb	08:35:48
1	As 188.979†	-53.1	-34.0	29.616	ug/L	29.616	ppb	08:36:08
1	B 249.677†	654.2	1042.0	8.9965	ug/L	8.9965	ppb	08:35:48
1	Ba 233.527†	42382.6	41707.9	330.49	ug/L	330.49	ppb	08:35:48
1	Be 313.107†	-9110.6	-5203.1	3.7530	ug/L	3.7530	ppb	08:35:48
1	Cd 226.502†	789.1	972.8	1.1098	ug/L	1.1098	ppb	08:36:08
1	Co 228.616†	5263.9	5246.5	103.35	ug/L	103.35	ppb	08:36:08
1	Cr 267.716†	5841.7	5670.9	73.215	ug/L	73.215	ppb	08:36:08
1	Cu 324.752†	76139.3	68934.1	215.08	ug/L	215.08	ppb	08:35:48
1	Mn 257.610†	2004195.0	1971768.0	2253.3	ug/L	2253.3	ppb	08:35:43
1	Mo 202.031†	21.5	11.0	8.5018	ug/L	8.5018	ppb	08:36:08
1	Ni 231.604†	2068.6	1973.2	50.117	ug/L	50.117	ppb	08:36:08
1	P 214.914†	1021.6	794.8	364.63	ug/L	364.63	ppb	08:36:08
1	Pb 220.353†	1431.5	1466.7	175.47	ug/L	175.47	ppb	08:36:08
1	S 181.975 Axial†	140.2	97.2	134.67	ug/L	134.67	ppb	08:36:08
1	Sb 206.836†	63.9	26.2	-0.5393	ug/L	-0.5393	ppb	08:36:08
1	Se 196.026†	-481.1	-445.7	14.186	ug/L	14.186	ppb	08:36:08
1	Si 251.611†	868882.0	854464.4	27649	ug/L	27649	ppb	08:35:43
1	Sn 189.927†	53.9	42.6	3.0256	ug/L	3.0256	ppb	08:36:08
1	Ti 334.940†	1624634.5	1600094.5	2514.9	ug/L	2514.9	ppb	08:35:43
1	Tl 190.801†	-146.9	-112.0	-4.8755	ug/L	-4.8755	ppb	08:36:08
1	U 409.014†	-10325.8	-7274.5	-212.22	ug/L	-212.22	ppb	08:35:43
1	V 292.402†	12091.5	13404.3	76.185	ug/L	76.185	ppb	08:35:48
1	Zn 213.857†	34609.9	33451.8	321.44	ug/L	321.44	ppb	08:35:48
1	SiO2†	857643.4	843409.0	58613	ug/L	58613	ppb	08:37:16
2	Sc Radial	3821.4	3821.4	97.5	%			08:35:10
2	Y RADIAL	5146.5	5146.5	116.7	%			08:34:50
2	Al 396.153Radial†	28297.1	29131.0	27321	ug/L	27321	ppb	08:34:50
2	Ca 317.933Radial†	2721.0	2770.7	5792.2	ug/L	5792.2	ppb	08:35:10
2	Fe 238.204 Radial†	6739.5	6900.0	97399	ug/L	97399	ppb	08:34:50
2	K 766.490 Radial†	33377.9	31589.3	6058.3	ug/L	6058.3	ppb	08:34:50
2	Mg 279.077 IEC†	94.5	92.9	4400.4	ug/L	4400.4	ppb	08:35:10
2	Na 589.592 Radial†	6835.7	7829.7	2414.1	ug/L	2414.1	ppb	08:34:50
2	Sr 421.552†	8873.4	9064.0	62.675	ug/L	62.675	ppb	08:34:50
2	Sc 361.383	907348.7	907348.7	103.43	%			08:36:14
2	Y 371.029	895881.2	895881.2	118.53	%			08:36:14
2	Ag 328.068†	-6431.1	-6458.0	0.4691	ug/L	0.4691	ppb	08:36:19
2	As 188.979†	-47.7	-27.8	31.954	ug/L	31.954	ppb	08:36:39
2	B 249.677†	527.3	908.0	5.8925	ug/L	5.8925	ppb	08:36:19
2	Ba 233.527†	42154.0	40756.2	322.99	ug/L	322.99	ppb	08:36:19
2	Be 313.107†	-8888.9	-4831.7	3.8366	ug/L	3.8366	ppb	08:36:19
2	Cd 226.502†	799.5	969.2	1.1555	ug/L	1.1555	ppb	08:36:39
2	Co 228.616†	5228.2	5121.2	100.79	ug/L	100.79	ppb	08:36:39
2	Cr 267.716†	5815.1	5544.4	71.710	ug/L	71.710	ppb	08:36:39
2	Cu 324.752†	75350.3	66858.4	208.72	ug/L	208.72	ppb	08:36:19
2	Mn 257.610†	2024207.5	1956559.5	2235.9	ug/L	2235.9	ppb	08:36:14
2	Mo 202.031†	34.7	23.4	9.3491	ug/L	9.3491	ppb	08:36:39
2	Ni 231.604†	2066.4	1935.4	49.158	ug/L	49.158	ppb	08:36:39

2	P 214.914†	1036.2	791.3	364.42 ug/L	364.42 ppb	08:36:39
2	Pb 220.353†	1421.6	1432.5	171.31 ug/L	171.31 ppb	08:36:39
2	S 181.975 Axial†	140.8	95.3	132.04 ug/L	132.04 ppb	08:36:39
2	Sb 206.836†	61.9	23.2	-1.4798 ug/L	-1.4798 ppb	08:36:39
2	Se 196.026†	-489.1	-445.1	11.941 ug/L	11.941 ppb	08:36:39
2	Si 251.611†	878627.9	848905.4	27469 ug/L	27469 ppb	08:36:14
2	Sn 189.927†	61.6	49.0	4.2335 ug/L	4.2335 ppb	08:36:39
2	Ti 334.940†	1637373.3	1584398.2	2490.2 ug/L	2490.2 ppb	08:36:14
2	Tl 190.801†	-154.3	-116.6	-6.6192 ug/L	-6.6192 ppb	08:36:39
2	U 409.014†	-10472.7	-7238.5	-211.13 ug/L	-211.13 ppb	08:36:14
2	V 292.402†	11938.8	13048.2	73.867 ug/L	73.867 ppb	08:36:19
2	Zn 213.857†	34315.5	32570.5	312.70 ug/L	312.70 ppb	08:36:19
2	SiO2†	869314.0	839904.6	58370 ug/L	58370 ppb	08:37:22
3	Sc Radial	3640.6	3640.6	92.9 %		08:35:35
3	Y RADIAL	5615.4	5615.4	127.3 %		08:35:15
3	Al 396.153Radial†	27202.5	29393.8	27568 ug/L	27568 ppb	08:35:15
3	Ca 317.933Radial†	2759.8	2951.0	6169.1 ug/L	6169.1 ppb	08:35:35
3	Fe 238.204 Radial†	6462.8	6945.4	98039 ug/L	98039 ppb	08:35:15
3	K 766.490 Radial†	32206.9	32028.6	6142.4 ug/L	6142.4 ppb	08:35:15
3	Mg 279.077 IEC†	96.7	100.1	4749.4 ug/L	4749.4 ppb	08:35:35
3	Na 589.592 Radial†	6527.1	7845.7	2419.0 ug/L	2419.0 ppb	08:35:15
3	Sr 421.552†	8508.2	9122.7	63.079 ug/L	63.079 ppb	08:35:15
3	Sc 361.383	937527.2	937527.2	106.87 %		08:36:45
3	Y 371.029	921354.3	921354.3	121.90 %		08:36:45
3	Ag 328.068†	-6577.8	-6395.2	0.9350 ug/L	0.9350 ppb	08:36:50
3	As 188.979†	-51.0	-29.5	30.709 ug/L	30.709 ppb	08:37:10
3	B 249.677†	524.7	889.2	5.3402 ug/L	5.3402 ppb	08:36:50
3	Ba 233.527†	42432.9	39705.3	314.76 ug/L	314.76 ppb	08:36:50
3	Be 313.107†	-9068.9	-4723.4	3.7036 ug/L	3.7036 ppb	08:36:50
3	Cd 226.502†	797.0	942.0	0.7769 ug/L	0.7769 ppb	08:37:10
3	Co 228.616†	5237.6	4967.3	97.712 ug/L	97.712 ppb	08:37:10
3	Cr 267.716†	5825.4	5373.1	69.841 ug/L	69.841 ppb	08:37:10
3	Cu 324.752†	76410.6	65505.5	204.63 ug/L	204.63 ppb	08:36:50
3	Mn 257.610†	2024080.2	1893444.9	2164.1 ug/L	2164.1 ppb	08:36:45
3	Mo 202.031†	25.5	13.7	8.6900 ug/L	8.6900 ppb	08:37:10
3	Ni 231.604†	2097.0	1899.7	48.252 ug/L	48.252 ppb	08:37:10
3	P 214.914†	1021.8	745.6	337.22 ug/L	337.22 ppb	08:37:10
3	Pb 220.353†	1430.5	1396.6	166.88 ug/L	166.88 ppb	08:37:10
3	S 181.975 Axial†	135.9	86.3	119.05 ug/L	119.05 ppb	08:37:10
3	Sb 206.836†	34.1	-4.8	-11.066 ug/L	-11.066 ppb	08:37:10
3	Se 196.026†	-509.3	-448.8	11.469 ug/L	11.469 ppb	08:37:10
3	Si 251.611†	880122.1	822959.7	26630 ug/L	26630 ppb	08:36:45
3	Sn 189.927†	49.6	36.0	1.9196 ug/L	1.9196 ppb	08:37:10
3	Ti 334.940†	1639797.8	1535710.1	2413.7 ug/L	2413.7 ppb	08:36:45
3	Tl 190.801†	-151.7	-109.4	-5.2794 ug/L	-5.2794 ppb	08:37:10
3	U 409.014†	-10264.2	-6717.4	-196.81 ug/L	-196.81 ppb	08:36:45
3	V 292.402†	12136.9	12862.0	72.582 ug/L	72.582 ppb	08:36:50
3	Zn 213.857†	34590.5	31759.8	304.46 ug/L	304.46 ppb	08:36:50
3	SiO2†	865470.9	809254.7	56240 ug/L	56240 ppb	08:37:28

Mean Data: 245969005|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912108.8	103.98	%	2.668				2.57%
Sc Radial	3774.6	96.3	%	3.01				3.12%
Y 371.029	900484.5	119.14	%	2.513				2.11%
Y RADIAL	5333.8	120.9	%	5.63				4.65%
Ag 328.068†	-6508.2	0.3851	ug/L	0.59633	0.3851	ppb	0.59633	154.85%
Al 396.153Radial†	29296.9	27477	ug/L	135.4	27477	ppb	135.4	0.49%
As 188.979†	-30.4	30.760	ug/L	1.1698	30.760	ppb	1.1698	3.80%
B 249.677†	946.4	6.7431	ug/L	1.97101	6.7431	ppb	1.97101	29.23%
Ba 233.527†	40723.2	322.75	ug/L	7.868	322.75	ppb	7.868	2.44%
Be 313.107†	-4919.4	3.7644	ug/L	0.06723	3.7644	ppb	0.06723	1.79%
Ca 317.933Radial†	2824.6	5904.9	ug/L	229.62	5904.9	ppb	229.62	3.89%
Cd 226.502†	961.3	1.0141	ug/L	0.20665	1.0141	ppb	0.20665	20.38%
Co 228.616†	5111.7	100.62	ug/L	2.823	100.62	ppb	2.823	2.81%
Cr 267.716†	5529.4	71.589	ug/L	1.6904	71.589	ppb	1.6904	2.36%
Cu 324.752†	67099.4	209.48	ug/L	5.267	209.48	ppb	5.267	2.51%
Fe 238.204 Radial†	6935.1	97894	ug/L	440.8	97894	ppb	440.8	0.45%
K 766.490 Radial†	31814.3	6101.4	ug/L	42.13	6101.4	ppb	42.13	0.69%

Mg 279.077 IEC†	94.8	4494.4	ug/L	223.42	4494.4	ppb	223.42	4.97%
Mn 257.610†	1940590.8	2217.8	ug/L	47.27	2217.8	ppb	47.27	2.13%
Mo 202.031†	16.0	8.8469	ug/L	0.44492	8.8469	ppb	0.44492	5.03%
Na 589.592 Radial†	7886.2	2431.5	ug/L	26.02	2431.5	ppb	26.02	1.07%
Ni 231.604†	1936.1	49.176	ug/L	0.9328	49.176	ppb	0.9328	1.90%
P 214.914†	777.2	355.42	ug/L	15.764	355.42	ppb	15.764	4.44%
Pb 220.353†	1431.9	171.22	ug/L	4.295	171.22	ppb	4.295	2.51%
S 181.975 Axial†	92.9	128.59	ug/L	8.366	128.59	ppb	8.366	6.51%
Sb 206.836†	14.9	-4.3616	ug/L	5.82496	-4.3616	ppb	5.82496	133.55%
Se 196.026†	-446.5	12.532	ug/L	1.4518	12.532	ppb	1.4518	11.58%
Si 251.611†	842109.9	27250	ug/L	544.1	27250	ppb	544.1	2.00%
Sn 189.927†	42.5	3.0596	ug/L	1.15728	3.0596	ppb	1.15728	37.83%
Sr 421.552†	9106.6	62.969	ug/L	0.2573	62.969	ppb	0.2573	0.41%
Ti 334.940†	1573401.0	2472.9	ug/L	52.75	2472.9	ppb	52.75	2.13%
Tl 190.801†	-112.7	-5.5914	ug/L	0.91277	-5.5914	ppb	0.91277	16.32%
U 409.014†	-7076.8	-206.72	ug/L	8.600	-206.72	ppb	8.600	4.16%
V 292.402†	13104.9	74.211	ug/L	1.8259	74.211	ppb	1.8259	2.46%
Zn 213.857†	32594.0	312.87	ug/L	8.489	312.87	ppb	8.489	2.71%
SiO2†	830856.1	57741	ug/L	1305.8	57741	ppb	1305.8	2.26%

Sequence No.: 125
Sample ID: 245969006|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 138
Date Collected: 2/25/2010 08:39:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969006|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3885.7	3885.7	99.2	%			08:41:55
1	Y RADIAL	5160.1	5160.1	117.0	%			08:41:35
1	Al 396.153Radial†	27594.6	27941.9	26206	ug/L	26206	ppb	08:41:35
1	Ca 317.933Radial†	3972.0	3986.2	8333.1	ug/L	8333.1	ppb	08:41:35
1	Fe 238.204 Radial†	4335.6	4361.2	61561	ug/L	61561	ppb	08:41:35
1	K 766.490 Radial†	23841.0	21404.3	4103.3	ug/L	4103.3	ppb	08:41:35
1	Mg 279.077 IEC†	101.1	97.9	4683.3	ug/L	4683.3	ppb	08:41:55
1	Na 589.592 Radial†	4123.0	4977.9	1534.8	ug/L	1534.8	ppb	08:41:35
1	Sr 421.552†	9692.3	9739.1	67.328	ug/L	67.328	ppb	08:41:35
1	Sc 361.383	898399.5	898399.5	102.41	%			08:42:52
1	Y 371.029	885368.9	885368.9	117.14	%			08:42:52
1	Ag 328.068†	-3508.0	-3665.7	1.9431	ug/L	1.9431	ppb	08:42:57
1	As 188.979†	-15.3	3.3	26.780	ug/L	26.780	ppb	08:43:17
1	B 249.677†	200.4	593.9	4.3014	ug/L	4.3014	ppb	08:42:57
1	Ba 233.527†	46654.8	45556.9	359.49	ug/L	359.49	ppb	08:42:57
1	Be 313.107†	21799.8	25048.3	12.269	ug/L	12.269	ppb	08:42:57
1	Cd 226.502†	385.2	572.4	0.3918	ug/L	0.3918	ppb	08:43:17
1	Co 228.616†	1654.2	1681.8	31.759	ug/L	31.759	ppb	08:43:17
1	Cr 267.716†	28037.7	27299.4	312.34	ug/L	312.34	ppb	08:42:57
1	Cu 324.752†	365919.2	351306.6	1072.3	ug/L	1072.3	ppb	08:42:57
1	Mn 257.610†	1827124.5	1783614.5	2035.5	ug/L	2035.5	ppb	08:42:52
1	Mo 202.031†	110.9	98.1	12.082	ug/L	12.082	ppb	08:43:17
1	Ni 231.604†	6425.0	6211.2	157.95	ug/L	157.95	ppb	08:43:17
1	P 214.914†	1450.6	1206.0	470.64	ug/L	470.64	ppb	08:43:17
1	Pb 220.353†	1910.9	1924.0	234.95	ug/L	234.95	ppb	08:43:17
1	S 181.975 Axial†	80.9	38.2	50.001	ug/L	50.001	ppb	08:43:17
1	Sb 206.836†	92.3	53.4	13.615	ug/L	13.615	ppb	08:43:17
1	Se 196.026†	-325.1	-289.7	2.0163	ug/L	2.0163	ppb	08:43:17
1	Si 251.611†	901240.2	879446.7	28458	ug/L	28458	ppb	08:42:52
1	Sn 189.927†	39.3	27.9	2.9578	ug/L	2.9578	ppb	08:43:17
1	Ti 334.940†	818420.6	800510.8	1258.5	ug/L	1258.5	ppb	08:42:52
1	Tl 190.801†	-103.0	-68.0	-1.8501	ug/L	-1.8501	ppb	08:43:17
1	U 409.014†	1204.6	4062.9	104.49	ug/L	104.49	ppb	08:42:52
1	V 292.402†	6068.8	7431.5	41.816	ug/L	41.816	ppb	08:42:57
1	Zn 213.857†	27863.2	26600.6	256.11	ug/L	256.11	ppb	08:42:57
1	SiO2†	902304.7	880489.9	61190	ug/L	61190	ppb	08:44:26
2	Sc Radial	3889.5	3889.5	99.3	%			08:42:20
2	Y RADIAL	5289.6	5289.6	119.9	%			08:42:00
2	Al 396.153Radial†	28355.7	28681.5	26899	ug/L	26899	ppb	08:42:00
2	Ca 317.933Radial†	4055.5	4066.4	8500.8	ug/L	8500.8	ppb	08:42:00
2	Fe 238.204 Radial†	4431.2	4453.2	62859	ug/L	62859	ppb	08:42:00
2	K 766.490 Radial†	24572.5	22117.8	4240.2	ug/L	4240.2	ppb	08:42:00
2	Mg 279.077 IEC†	102.0	98.6	4717.4	ug/L	4717.4	ppb	08:42:20
2	Na 589.592 Radial†	4141.6	4992.5	1539.3	ug/L	1539.3	ppb	08:42:00
2	Sr 421.552†	9923.1	9962.1	68.870	ug/L	68.870	ppb	08:42:00
2	Sc 361.383	908423.7	908423.7	103.56	%			08:43:23
2	Y 371.029	894433.6	894433.6	118.34	%			08:43:23
2	Ag 328.068†	-3527.8	-3647.1	2.4268	ug/L	2.4268	ppb	08:43:29
2	As 188.979†	-17.6	1.3	26.164	ug/L	26.164	ppb	08:43:49
2	B 249.677†	173.4	565.7	3.4072	ug/L	3.4072	ppb	08:43:29
2	Ba 233.527†	47027.9	45414.6	358.41	ug/L	358.41	ppb	08:43:29
2	Be 313.107†	22123.4	25125.9	12.295	ug/L	12.295	ppb	08:43:29
2	Cd 226.502†	387.3	570.3	0.2310	ug/L	0.2310	ppb	08:43:49
2	Co 228.616†	1653.4	1663.1	31.356	ug/L	31.356	ppb	08:43:49
2	Cr 267.716†	28311.1	27261.3	312.04	ug/L	312.04	ppb	08:43:29
2	Cu 324.752†	369361.7	350688.2	1070.4	ug/L	1070.4	ppb	08:43:29
2	Mn 257.610†	1842272.4	1778555.7	2029.9	ug/L	2029.9	ppb	08:43:23
2	Mo 202.031†	135.3	120.5	13.829	ug/L	13.829	ppb	08:43:49
2	Ni 231.604†	6373.0	6091.8	154.91	ug/L	154.91	ppb	08:43:49

2	P 214.914†	1437.4	1177.6	453.02 ug/L	453.02 ppb	08:43:49
2	Pb 220.353†	1898.4	1891.4	230.95 ug/L	230.95 ppb	08:43:49
2	S 181.975 Axial†	85.9	42.1	55.574 ug/L	55.574 ppb	08:43:49
2	Sb 206.836†	88.4	48.7	11.932 ug/L	11.932 ppb	08:43:49
2	Se 196.026†	-332.6	-293.4	3.5956 ug/L	3.5956 ppb	08:43:49
2	Si 251.611†	909885.5	878084.5	28414 ug/L	28414 ppb	08:43:23
2	Sn 189.927†	24.8	13.4	0.3091 ug/L	0.3091 ppb	08:43:49
2	Ti 334.940†	826592.2	799583.7	1257.1 ug/L	1257.1 ppb	08:43:23
2	Tl 190.801†	-112.4	-75.9	-4.4300 ug/L	-4.4300 ppb	08:43:49
2	U 409.014†	1178.0	4024.2	103.27 ug/L	103.27 ppb	08:43:23
2	V 292.402†	6120.9	7416.4	41.546 ug/L	41.546 ppb	08:43:29
2	Zn 213.857†	28052.5	26483.3	254.75 ug/L	254.75 ppb	08:43:29
2	SiO2†	923839.5	891563.3	61959 ug/L	61959 ppb	08:44:32
3	Sc Radial	3859.8	3859.8	98.5 %		08:42:45
3	Y RADIAL	5135.4	5135.4	116.4 %		08:42:25
3	Al 396.153Radial†	27599.5	28134.0	26386 ug/L	26386 ppb	08:42:25
3	Ca 317.933Radial†	3950.4	3991.1	8343.4 ug/L	8343.4 ppb	08:42:25
3	Fe 238.204 Radial†	4315.1	4369.8	61681 ug/L	61681 ppb	08:42:25
3	K 766.490 Radial†	23973.0	21700.0	4160.1 ug/L	4160.1 ppb	08:42:25
3	Mg 279.077 IEC†	100.5	98.0	4685.5 ug/L	4685.5 ppb	08:42:45
3	Na 589.592 Radial†	3963.4	4843.7	1493.5 ug/L	1493.5 ppb	08:42:25
3	Sr 421.552†	9671.5	9783.7	67.637 ug/L	67.637 ppb	08:42:25
3	Sc 361.383	904934.7	904934.7	103.16 %		08:43:55
3	Y 371.029	891991.0	891991.0	118.01 %		08:43:55
3	Ag 328.068†	-3457.9	-3592.4	2.3166 ug/L	2.3166 ppb	08:44:00
3	As 188.979†	-5.9	12.5	30.872 ug/L	30.872 ppb	08:44:20
3	B 249.677†	179.9	572.6	3.7665 ug/L	3.7665 ppb	08:44:00
3	Ba 233.527†	46834.3	45401.9	358.27 ug/L	358.27 ppb	08:44:00
3	Be 313.107†	21944.1	25034.5	12.257 ug/L	12.257 ppb	08:44:00
3	Cd 226.502†	395.0	579.2	0.4569 ug/L	0.4569 ppb	08:44:20
3	Co 228.616†	1645.9	1662.0	31.353 ug/L	31.353 ppb	08:44:20
3	Cr 267.716†	28156.7	27217.1	311.43 ug/L	311.43 ppb	08:44:00
3	Cu 324.752†	367540.7	350298.1	1069.2 ug/L	1069.2 ppb	08:44:00
3	Mn 257.610†	1832007.8	1775464.2	2026.3 ug/L	2026.3 ppb	08:43:55
3	Mo 202.031†	134.7	120.4	13.729 ug/L	13.729 ppb	08:44:20
3	Ni 231.604†	6387.2	6129.2	155.86 ug/L	155.86 ppb	08:44:20
3	P 214.914†	1430.5	1176.2	453.28 ug/L	453.28 ppb	08:44:20
3	Pb 220.353†	1889.3	1889.5	230.74 ug/L	230.74 ppb	08:44:20
3	S 181.975 Axial†	88.7	45.2	60.123 ug/L	60.123 ppb	08:44:20
3	Sb 206.836†	86.8	47.4	11.530 ug/L	11.530 ppb	08:44:20
3	Se 196.026†	-326.0	-288.3	3.2992 ug/L	3.2992 ppb	08:44:20
3	Si 251.611†	905974.2	877680.6	28401 ug/L	28401 ppb	08:43:55
3	Sn 189.927†	25.3	14.0	0.4589 ug/L	0.4589 ppb	08:44:20
3	Ti 334.940†	822340.9	798539.9	1255.4 ug/L	1255.4 ppb	08:43:55
3	Tl 190.801†	-117.7	-81.5	-6.2466 ug/L	-6.2466 ppb	08:44:20
3	U 409.014†	1298.3	4145.1	106.75 ug/L	106.75 ppb	08:43:55
3	V 292.402†	6067.6	7387.5	41.523 ug/L	41.523 ppb	08:44:00
3	Zn 213.857†	28008.2	26544.8	255.55 ug/L	255.55 ppb	08:44:00
3	SiO2†	906306.3	878006.4	61017 ug/L	61017 ppb	08:44:38

Mean Data: 245969006|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903919.3	103.04	%	0.580				0.56%
Sc Radial	3878.4	99.0	%	0.41				0.42%
Y 371.029	890597.8	117.83	%	0.621				0.53%
Y RADIAL	5195.0	117.8	%	1.88				1.59%
Ag 328.068†	-3635.1	2.2288	ug/L	0.25350	2.2288	ppb	0.25350	11.37%
Al 396.153Radial†	28252.5	26497	ug/L	359.9	26497	ppb	359.9	1.36%
As 188.979†	5.7	27.939	ug/L	2.5589	27.939	ppb	2.5589	9.16%
B 249.677†	577.4	3.8250	ug/L	0.44996	3.8250	ppb	0.44996	11.76%
Ba 233.527†	45457.8	358.72	ug/L	0.665	358.72	ppb	0.665	0.19%
Be 313.107†	25069.6	12.273	ug/L	0.0194	12.273	ppb	0.0194	0.16%
Ca 317.933Radial†	4014.6	8392.5	ug/L	93.98	8392.5	ppb	93.98	1.12%
Cd 226.502†	573.9	0.3599	ug/L	0.11628	0.3599	ppb	0.11628	32.30%
Co 228.616†	1669.0	31.489	ug/L	0.2336	31.489	ppb	0.2336	0.74%
Cr 267.716†	27259.2	311.94	ug/L	0.466	311.94	ppb	0.466	0.15%
Cu 324.752†	350764.3	1070.6	ug/L	1.54	1070.6	ppb	1.54	0.14%
Fe 238.204 Radial†	4394.7	62034	ug/L	717.2	62034	ppb	717.2	1.16%
K 766.490 Radial†	21740.7	4167.9	ug/L	68.76	4167.9	ppb	68.76	1.65%

Mg 279.077 IEC†	98.2	4695.4	ug/L	19.08	4695.4	ppb	19.08	0.41%
Mn 257.610†	1779211.5	2030.6	ug/L	4.67	2030.6	ppb	4.67	0.23%
Mo 202.031†	113.0	13.213	ug/L	0.9812	13.213	ppb	0.9812	7.43%
Na 589.592 Radial†	4938.1	1522.5	ug/L	25.28	1522.5	ppb	25.28	1.66%
Ni 231.604†	6144.1	156.24	ug/L	1.554	156.24	ppb	1.554	0.99%
P 214.914†	1186.6	458.98	ug/L	10.099	458.98	ppb	10.099	2.20%
Pb 220.353†	1901.6	232.21	ug/L	2.370	232.21	ppb	2.370	1.02%
S 181.975 Axial†	41.8	55.233	ug/L	5.0693	55.233	ppb	5.0693	9.18%
Sb 206.836†	49.8	12.359	ug/L	1.1062	12.359	ppb	1.1062	8.95%
Se 196.026†	-290.5	2.9703	ug/L	0.83944	2.9703	ppb	0.83944	28.26%
Si 251.611†	878403.9	28424	ug/L	30.0	28424	ppb	30.0	0.11%
Sn 189.927†	18.5	1.2420	ug/L	1.48787	1.2420	ppb	1.48787	119.80%
Sr 421.552†	9828.3	67.945	ug/L	0.8157	67.945	ppb	0.8157	1.20%
Ti 334.940†	799544.8	1257.0	ug/L	1.55	1257.0	ppb	1.55	0.12%
Tl 190.801†	-75.1	-4.1755	ug/L	2.20923	-4.1755	ppb	2.20923	52.91%
U 409.014†	4077.4	104.84	ug/L	1.763	104.84	ppb	1.763	1.68%
V 292.402†	7411.8	41.628	ug/L	0.1632	41.628	ppb	0.1632	0.39%
Zn 213.857†	26542.9	255.47	ug/L	0.680	255.47	ppb	0.680	0.27%
SiO2†	883353.2	61389	ug/L	501.6	61389	ppb	501.6	0.82%

Sequence No.: 126
Sample ID: 245969007|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 139
Date Collected: 2/25/2010 08:46:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969007|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3775.6	3775.6	96.3	%			08:49:04
1	Y RADIAL	4992.4	4992.4	113.2	%			08:48:44
1	Al 396.153Radial†	48606.9	50563.0	47422	ug/L	47422	ppb	08:48:44
1	Ca 317.933Radial†	6653.9	6886.6	14396	ug/L	14396	ppb	08:48:44
1	Fe 238.204 Radial†	4795.5	4966.1	70098	ug/L	70098	ppb	08:48:44
1	K 766.490 Radial†	35954.8	34678.9	6649.2	ug/L	6649.2	ppb	08:48:44
1	Mg 279.077 IEC†	164.3	166.5	7999.7	ug/L	7999.7	ppb	08:49:04
1	Na 589.592 Radial†	764.7	1613.5	497.48	ug/L	497.48	ppb	08:48:44
1	Sr 421.552†	12963.4	13419.4	92.748	ug/L	92.748	ppb	08:48:44
1	Sc 361.383	916385.3	916385.3	104.46	%			08:50:02
1	Y 371.029	843284.7	843284.7	111.57	%			08:50:02
1	Ag 328.068†	-4299.9	-4356.6	1.3008	ug/L	1.3008	ppb	08:50:07
1	As 188.979†	-16.6	2.3	31.895	ug/L	31.895	ppb	08:50:27
1	B 249.677†	149.7	541.5	1.6683	ug/L	1.6683	ppb	08:50:07
1	Ba 233.527†	91619.7	87706.5	690.66	ug/L	690.66	ppb	08:50:07
1	Be 313.107†	23967.8	26705.9	13.818	ug/L	13.818	ppb	08:50:07
1	Cd 226.502†	567.1	739.1	1.4555	ug/L	1.4555	ppb	08:50:27
1	Co 228.616†	1273.2	1285.3	22.687	ug/L	22.687	ppb	08:50:27
1	Cr 267.716†	12803.1	12178.4	143.38	ug/L	143.38	ppb	08:50:07
1	Cu 324.752†	141156.8	129134.9	396.44	ug/L	396.44	ppb	08:50:07
1	Mn 257.610†	1562019.9	1494821.1	1707.6	ug/L	1707.6	ppb	08:50:02
1	Mo 202.031†	-28.7	-37.6	2.8518	ug/L	2.8518	ppb	08:50:27
1	Ni 231.604†	3461.3	3250.9	82.665	ug/L	82.665	ppb	08:50:27
1	P 214.914†	1366.7	1097.8	538.07	ug/L	538.07	ppb	08:50:27
1	Pb 220.353†	7707.2	7436.0	916.81	ug/L	916.81	ppb	08:50:27
1	S 181.975 Axial†	230.0	179.3	249.17	ug/L	249.17	ppb	08:50:27
1	Sb 206.836†	77.4	37.4	5.7105	ug/L	5.7105	ppb	08:50:27
1	Se 196.026†	-366.0	-322.6	6.8456	ug/L	6.8456	ppb	08:50:27
1	Si 251.611†	1136202.4	1087097.9	35177	ug/L	35177	ppb	08:50:02
1	Sn 189.927†	-40.5	-49.2	-10.301	ug/L	-10.301	ppb	08:50:27
1	Ti 334.940†	1106104.7	1060218.5	1667.1	ug/L	1667.1	ppb	08:50:02
1	Tl 190.801†	-111.3	-74.0	-2.0402	ug/L	-2.0402	ppb	08:50:27
1	U 409.014†	13389.4	15703.9	425.35	ug/L	425.35	ppb	08:50:02
1	V 292.402†	16529.9	17329.3	109.76	ug/L	109.76	ppb	08:50:07
1	Zn 213.857†	29378.6	27517.3	265.45	ug/L	265.45	ppb	08:50:07
1	SiO2†	1129647.6	1080827.0	75113	ug/L	75113	ppb	08:51:36
2	Sc Radial	3831.4	3831.4	97.8	%			08:49:29
2	Y RADIAL	4507.7	4507.7	102.2	%			08:49:09
2	Al 396.153Radial†	49507.2	50749.1	47596	ug/L	47596	ppb	08:49:09
2	Ca 317.933Radial†	6747.2	6881.5	14386	ug/L	14386	ppb	08:49:09
2	Fe 238.204 Radial†	4890.2	4990.4	70442	ug/L	70442	ppb	08:49:09
2	K 766.490 Radial†	36175.8	34361.5	6588.3	ug/L	6588.3	ppb	08:49:09
2	Mg 279.077 IEC†	167.1	166.9	8016.9	ug/L	8016.9	ppb	08:49:29
2	Na 589.592 Radial†	756.2	1593.2	491.23	ug/L	491.23	ppb	08:49:09
2	Sr 421.552†	13084.1	13346.8	92.247	ug/L	92.247	ppb	08:49:09
2	Sc 361.383	907571.7	907571.7	103.46	%			08:50:33
2	Y 371.029	837391.0	837391.0	110.79	%			08:50:33
2	Ag 328.068†	-4440.9	-4532.9	0.5941	ug/L	0.5941	ppb	08:50:38
2	As 188.979†	-21.8	-2.8	29.846	ug/L	29.846	ppb	08:50:58
2	B 249.677†	164.2	556.9	1.9864	ug/L	1.9864	ppb	08:50:38
2	Ba 233.527†	93073.7	89963.6	708.39	ug/L	708.39	ppb	08:50:38
2	Be 313.107†	24486.3	27429.9	14.133	ug/L	14.133	ppb	08:50:38
2	Cd 226.502†	543.6	721.7	1.2200	ug/L	1.2200	ppb	08:50:58
2	Co 228.616†	1269.8	1293.9	22.831	ug/L	22.831	ppb	08:50:58
2	Cr 267.716†	12996.3	12484.1	146.84	ug/L	146.84	ppb	08:50:38
2	Cu 324.752†	143628.3	132836.0	407.71	ug/L	407.71	ppb	08:50:38
2	Mn 257.610†	1562816.6	1510112.2	1725.0	ug/L	1725.0	ppb	08:50:33
2	Mo 202.031†	-21.4	-30.8	3.3758	ug/L	3.3758	ppb	08:50:58
2	Ni 231.604†	3466.0	3287.7	83.600	ug/L	83.600	ppb	08:50:58

2	P 214.914†	1359.4	1103.4	539.03 ug/L	539.03 ppb	08:50:58
2	Pb 220.353†	7726.8	7526.6	927.95 ug/L	927.95 ppb	08:50:58
2	S 181.975 Axial†	219.3	171.2	237.46 ug/L	237.46 ppb	08:50:58
2	Sb 206.836†	89.9	50.2	10.130 ug/L	10.130 ppb	08:50:58
2	Se 196.026†	-367.0	-327.0	5.0147 ug/L	5.0147 ppb	08:50:58
2	Si 251.611†	1136925.5	1098359.3	35542 ug/L	35542 ppb	08:50:33
2	Sn 189.927†	-41.8	-50.9	-10.614 ug/L	-10.614 ppb	08:50:58
2	Ti 334.940†	1107750.8	1072092.3	1685.7 ug/L	1685.7 ppb	08:50:33
2	Tl 190.801†	-115.1	-78.6	-3.3038 ug/L	-3.3038 ppb	08:50:58
2	U 409.014†	13579.0	16011.6	433.80 ug/L	433.80 ppb	08:50:33
2	V 292.402†	16778.7	17723.5	112.46 ug/L	112.46 ppb	08:50:38
2	Zn 213.857†	29856.1	28252.0	272.78 ug/L	272.78 ppb	08:50:38
2	SiO2†	1144707.9	1105885.4	76854 ug/L	76854 ppb	08:51:42
3	Sc Radial	3991.0	3991.0	102 %		08:49:55
3	Y RADIAL	4831.9	4831.9	109.5 %		08:49:35
3	Al 396.153Radial†	48805.8	48036.0	45052 ug/L	45052 ppb	08:49:35
3	Ca 317.933Radial†	6695.5	6554.8	13703 ug/L	13703 ppb	08:49:35
3	Fe 238.204 Radial†	4825.2	4726.6	66719 ug/L	66719 ppb	08:49:35
3	K 766.490 Radial†	36014.0	32723.4	6274.2 ug/L	6274.2 ppb	08:49:35
3	Mg 279.077 IEC†	164.3	157.3	7556.9 ug/L	7556.9 ppb	08:49:55
3	Na 589.592 Radial†	730.1	1536.7	473.80 ug/L	473.80 ppb	08:49:35
3	Sr 421.552†	12916.5	12647.3	87.412 ug/L	87.412 ppb	08:49:35
3	Sc 361.383	921583.9	921583.9	105.06 %		08:51:04
3	Y 371.029	849747.5	849747.5	112.42 %		08:51:04
3	Ag 328.068†	-4220.5	-4257.8	0.7311 ug/L	0.7311 ppb	08:51:09
3	As 188.979†	-32.6	-12.7	24.258 ug/L	24.258 ppb	08:51:29
3	B 249.677†	259.7	645.4	4.7362 ug/L	4.7362 ppb	08:51:09
3	Ba 233.527†	91223.8	86834.9	683.72 ug/L	683.72 ppb	08:51:09
3	Be 313.107†	24057.1	26661.5	13.771 ug/L	13.771 ppb	08:51:09
3	Cd 226.502†	563.8	733.0	1.7321 ug/L	1.7321 ppb	08:51:29
3	Co 228.616†	1276.8	1281.8	22.689 ug/L	22.689 ppb	08:51:29
3	Cr 267.716†	12816.5	12122.0	142.42 ug/L	142.42 ppb	08:51:09
3	Cu 324.752†	141121.9	128339.4	393.84 ug/L	393.84 ppb	08:51:09
3	Mn 257.610†	1557785.4	1482355.6	1693.1 ug/L	1693.1 ppb	08:51:04
3	Mo 202.031†	-21.4	-30.5	3.1008 ug/L	3.1008 ppb	08:51:29
3	Ni 231.604†	3473.1	3243.5	82.477 ug/L	82.477 ppb	08:51:29
3	P 214.914†	1374.7	1098.0	540.84 ug/L	540.84 ppb	08:51:29
3	Pb 220.353†	7735.2	7421.1	914.84 ug/L	914.84 ppb	08:51:29
3	S 181.975 Axial†	218.5	167.2	232.18 ug/L	232.18 ppb	08:51:29
3	Sb 206.836†	89.6	48.6	9.7969 ug/L	9.7969 ppb	08:51:29
3	Se 196.026†	-357.2	-312.3	3.0771 ug/L	3.0771 ppb	08:51:29
3	Si 251.611†	1131964.3	1076928.3	34848 ug/L	34848 ppb	08:51:04
3	Sn 189.927†	-38.8	-47.4	-9.8963 ug/L	-9.8963 ppb	08:51:29
3	Ti 334.940†	1103452.3	1051720.9	1653.7 ug/L	1653.7 ppb	08:51:04
3	Tl 190.801†	-108.0	-70.3	-1.0370 ug/L	-1.0370 ppb	08:51:29
3	U 409.014†	13272.2	15520.0	420.66 ug/L	420.66 ppb	08:51:04
3	V 292.402†	16531.7	17241.8	109.64 ug/L	109.64 ppb	08:51:09
3	Zn 213.857†	29291.2	27275.5	263.53 ug/L	263.53 ppb	08:51:09
3	SiO2†	1135135.8	1079951.1	75052 ug/L	75052 ppb	08:51:47

Mean Data: 245969007|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915180.3	104.33	%	0.807				0.77%
Sc Radial	3866.0	98.7	%	2.85				2.89%
Y 371.029	843474.4	111.59	%	0.818				0.73%
Y RADIAL	4777.3	108.3	%	5.60				5.17%
Ag 328.068†	-4382.4	0.8754	ug/L	0.37479	0.8754	ppb	0.37479	42.82%
Al 396.153Radial†	49782.7	46690	ug/L	1421.4	46690	ppb	1421.4	3.04%
As 188.979†	-4.4	28.666	ug/L	3.9529	28.666	ppb	3.9529	13.79%
B 249.677†	581.3	2.7970	ug/L	1.68694	2.7970	ppb	1.68694	60.31%
Ba 233.527†	88168.3	694.26	ug/L	12.723	694.26	ppb	12.723	1.83%
Be 313.107†	26932.5	13.907	ug/L	0.1965	13.907	ppb	0.1965	1.41%
Ca 317.933Radial†	6774.3	14162	ug/L	397.4	14162	ppb	397.4	2.81%
Cd 226.502†	731.3	1.4692	ug/L	0.25632	1.4692	ppb	0.25632	17.45%
Co 228.616†	1287.0	22.735	ug/L	0.0824	22.735	ppb	0.0824	0.36%
Cr 267.716†	12261.5	144.22	ug/L	2.326	144.22	ppb	2.326	1.61%
Cu 324.752†	130103.4	399.33	ug/L	7.375	399.33	ppb	7.375	1.85%
Fe 238.204 Radial†	4894.4	69086	ug/L	2057.5	69086	ppb	2057.5	2.98%
K 766.490 Radial†	33921.3	6503.9	ug/L	201.26	6503.9	ppb	201.26	3.09%

Mg 279.077 IEC†	163.6	7857.8	ug/L	260.75	7857.8	ppb	260.75	3.32%
Mn 257.610†	1495763.0	1708.6	ug/L	15.99	1708.6	ppb	15.99	0.94%
Mo 202.031†	-33.0	3.1095	ug/L	0.26212	3.1095	ppb	0.26212	8.43%
Na 589.592 Radial†	1581.1	487.50	ug/L	12.268	487.50	ppb	12.268	2.52%
Ni 231.604†	3260.7	82.914	ug/L	0.6018	82.914	ppb	0.6018	0.73%
P 214.914†	1099.7	539.31	ug/L	1.404	539.31	ppb	1.404	0.26%
Pb 220.353†	7461.2	919.87	ug/L	7.070	919.87	ppb	7.070	0.77%
S 181.975 Axial†	172.6	239.60	ug/L	8.696	239.60	ppb	8.696	3.63%
Sb 206.836†	45.4	8.5460	ug/L	2.46126	8.5460	ppb	2.46126	28.80%
Se 196.026†	-320.6	4.9791	ug/L	1.88452	4.9791	ppb	1.88452	37.85%
Si 251.611†	1087461.8	35189	ug/L	346.9	35189	ppb	346.9	0.99%
Sn 189.927†	-49.2	-10.271	ug/L	0.3601	-10.271	ppb	0.3601	3.51%
Sr 421.552†	13137.8	90.802	ug/L	2.9471	90.802	ppb	2.9471	3.25%
Ti 334.940†	1061343.9	1668.8	ug/L	16.10	1668.8	ppb	16.10	0.96%
Tl 190.801†	-74.3	-2.1270	ug/L	1.13591	-2.1270	ppb	1.13591	53.40%
U 409.014†	15745.2	426.60	ug/L	6.660	426.60	ppb	6.660	1.56%
V 292.402†	17431.5	110.62	ug/L	1.594	110.62	ppb	1.594	1.44%
Zn 213.857†	27681.6	267.25	ug/L	4.879	267.25	ppb	4.879	1.83%
SiO2†	1088887.8	75673	ug/L	1023.4	75673	ppb	1023.4	1.35%

Sequence No.: 127
Sample ID: 245969008|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 140
Date Collected: 2/25/2010 08:53:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969008|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3864.9	3864.9	98.6	%			08:56:13
1	Y RADIAL	4635.2	4635.2	105.1	%			08:55:53
1	Al 396.153Radial†	44837.2	45575.5	42744	ug/L	42744	ppb	08:55:53
1	Ca 317.933Radial†	6157.2	6223.5	13010	ug/L	13010	ppb	08:55:53
1	Fe 238.204 Radial†	6176.3	6251.2	88239	ug/L	88239	ppb	08:55:53
1	K 766.490 Radial†	45908.7	43910.0	8421.0	ug/L	8421.0	ppb	08:55:53
1	Mg 279.077 IEC†	166.6	164.8	7899.1	ug/L	7899.1	ppb	08:56:13
1	Na 589.592 Radial†	639.9	1468.6	452.82	ug/L	452.82	ppb	08:55:53
1	Sr 421.552†	18148.2	18365.9	126.99	ug/L	126.99	ppb	08:55:53
1	Sc 361.383	916683.3	916683.3	104.50	%			08:57:11
1	Y 371.029	813894.7	813894.7	107.68	%			08:57:11
1	Ag 328.068†	-6180.9	-6155.3	-0.9854	ug/L	-0.9854	ppb	08:57:16
1	As 188.979†	-71.6	-50.3	29.628	ug/L	29.628	ppb	08:57:36
1	B 249.677†	560.1	934.2	8.1969	ug/L	8.1969	ppb	08:57:16
1	Ba 233.527†	69438.8	66451.8	524.60	ug/L	524.60	ppb	08:57:16
1	Be 313.107†	9062.9	12435.0	12.903	ug/L	12.903	ppb	08:57:16
1	Cd 226.502†	1479.0	1611.6	9.6351	ug/L	9.6351	ppb	08:57:36
1	Co 228.616†	2075.3	2052.6	34.347	ug/L	34.347	ppb	08:57:36
1	Cr 267.716†	7821.3	7407.0	91.716	ug/L	91.716	ppb	08:57:16
1	Cu 324.752†	134882.3	123086.5	379.08	ug/L	379.08	ppb	08:57:16
1	Mn 257.610†	1880258.7	1798877.5	2055.4	ug/L	2055.4	ppb	08:57:11
1	Mo 202.031†	32.6	21.1	8.5530	ug/L	8.5530	ppb	08:57:36
1	Ni 231.604†	2270.6	2110.4	53.648	ug/L	53.648	ppb	08:57:36
1	P 214.914†	1563.4	1285.6	639.06	ug/L	639.06	ppb	08:57:36
1	Pb 220.353†	3206.8	3126.8	383.90	ug/L	383.90	ppb	08:57:36
1	S 181.975 Axial†	506.0	443.4	630.03	ug/L	630.03	ppb	08:57:36
1	Sb 206.836†	80.4	40.3	0.4598	ug/L	0.4598	ppb	08:57:36
1	Se 196.026†	-467.5	-419.6	-0.0751	ug/L	-0.0751	ppb	08:57:36
1	Si 251.611†	1007757.9	963827.7	31188	ug/L	31188	ppb	08:57:11
1	Sn 189.927†	-40.5	-49.3	-11.591	ug/L	-11.591	ppb	08:57:36
1	Ti 334.940†	2409142.8	2306832.3	3625.9	ug/L	3625.9	ppb	08:57:11
1	Tl 190.801†	-154.5	-115.2	2.4536	ug/L	2.4536	ppb	08:57:36
1	U 409.014†	7270.2	9843.9	261.58	ug/L	261.58	ppb	08:57:16
1	V 292.402†	28403.7	28687.0	184.01	ug/L	184.01	ppb	08:57:16
1	Zn 213.857†	37182.6	34976.3	338.03	ug/L	338.03	ppb	08:57:16
1	SiO2†	1020128.9	975670.2	67805	ug/L	67805	ppb	08:58:45
2	Sc Radial	3877.2	3877.2	98.9	%			08:56:38
2	Y RADIAL	4791.4	4791.4	108.6	%			08:56:18
2	Al 396.153Radial†	45908.6	46513.7	43624	ug/L	43624	ppb	08:56:18
2	Ca 317.933Radial†	6296.2	6344.1	13262	ug/L	13262	ppb	08:56:18
2	Fe 238.204 Radial†	6337.0	6393.7	90250	ug/L	90250	ppb	08:56:18
2	K 766.490 Radial†	46824.9	44687.8	8570.2	ug/L	8570.2	ppb	08:56:18
2	Mg 279.077 IEC†	168.5	166.3	7966.5	ug/L	7966.5	ppb	08:56:38
2	Na 589.592 Radial†	762.3	1590.3	490.32	ug/L	490.32	ppb	08:56:18
2	Sr 421.552†	18585.2	18748.9	129.64	ug/L	129.64	ppb	08:56:18
2	Sc 361.383	917843.8	917843.8	104.63	%			08:57:42
2	Y 371.029	815291.7	815291.7	107.87	%			08:57:42
2	Ag 328.068†	-5950.5	-5927.6	0.6811	ug/L	0.6811	ppb	08:57:47
2	As 188.979†	-72.1	-50.6	30.164	ug/L	30.164	ppb	08:58:07
2	B 249.677†	529.0	903.8	7.1341	ug/L	7.1341	ppb	08:57:47
2	Ba 233.527†	69302.1	66237.0	522.97	ug/L	522.97	ppb	08:57:47
2	Be 313.107†	9314.0	12664.1	13.051	ug/L	13.051	ppb	08:57:47
2	Cd 226.502†	1484.6	1615.2	9.4679	ug/L	9.4679	ppb	08:58:07
2	Co 228.616†	2079.7	2054.2	34.294	ug/L	34.294	ppb	08:58:07
2	Cr 267.716†	7863.5	7437.8	92.253	ug/L	92.253	ppb	08:57:47
2	Cu 324.752†	134153.9	122227.1	376.57	ug/L	376.57	ppb	08:57:47
2	Mn 257.610†	1895648.5	1811311.4	2069.8	ug/L	2069.8	ppb	08:57:42
2	Mo 202.031†	24.4	13.2	8.1297	ug/L	8.1297	ppb	08:58:07
2	Ni 231.604†	2242.7	2081.0	52.901	ug/L	52.901	ppb	08:58:07

2	P 214.914†	1584.5	1303.9	649.18	ug/L	649.18 ppb	08:58:07
2	Pb 220.353†	3227.3	3142.6	385.81	ug/L	385.81 ppb	08:58:07
2	S 181.975 Axial†	510.8	447.4	635.69	ug/L	635.69 ppb	08:58:07
2	Sb 206.836†	79.4	39.2	-0.0222	ug/L	-0.0222 ppb	08:58:07
2	Se 196.026†	-483.8	-434.6	-3.6564	ug/L	-3.6564 ppb	08:58:07
2	Si 251.611†	1016318.1	970789.9	31414	ug/L	31414 ppb	08:57:42
2	Sn 189.927†	-27.4	-36.7	-9.4018	ug/L	-9.4018 ppb	08:58:07
2	Ti 334.940†	2430360.7	2324196.5	3653.2	ug/L	3653.2 ppb	08:57:42
2	Tl 190.801†	-156.6	-117.1	2.1535	ug/L	2.1535 ppb	08:58:07
2	U 409.014†	7290.4	9854.4	261.65	ug/L	261.65 ppb	08:57:47
2	V 292.402†	28333.5	28585.5	182.97	ug/L	182.97 ppb	08:57:47
2	Zn 213.857†	36977.3	34735.1	335.31	ug/L	335.31 ppb	08:57:47
2	SiO2†	1025689.0	979750.0	68088	ug/L	68088 ppb	08:58:50
3	Sc Radial	3938.1	3938.1	100	%		08:57:03
3	Y RADIAL	4724.1	4724.1	107.1	%		08:56:43
3	Al 396.153Radial†	45083.4	44974.6	42180	ug/L	42180 ppb	08:56:43
3	Ca 317.933Radial†	6215.4	6165.3	12889	ug/L	12889 ppb	08:56:43
3	Fe 238.204 Radial†	6251.7	6209.7	87652	ug/L	87652 ppb	08:56:43
3	K 766.490 Radial†	46153.1	43287.0	8301.5	ug/L	8301.5 ppb	08:56:43
3	Mg 279.077 IEC†	165.3	160.4	7687.7	ug/L	7687.7 ppb	08:57:03
3	Na 589.592 Radial†	672.0	1488.5	458.94	ug/L	458.94 ppb	08:56:43
3	Sr 421.552†	18277.8	18152.4	125.51	ug/L	125.51 ppb	08:56:43
3	Sc 361.383	910820.8	910820.8	103.83	%		08:58:13
3	Y 371.029	808634.8	808634.8	106.98	%		08:58:13
3	Ag 328.068†	-6055.1	-6072.2	-0.7730	ug/L	-0.7730 ppb	08:58:18
3	As 188.979†	-56.2	-35.9	36.213	ug/L	36.213 ppb	08:58:38
3	B 249.677†	500.2	880.0	6.9793	ug/L	6.9793 ppb	08:58:18
3	Ba 233.527†	69448.2	66888.5	528.01	ug/L	528.01 ppb	08:58:18
3	Be 313.107†	9223.8	12645.8	13.064	ug/L	13.064 ppb	08:58:18
3	Cd 226.502†	1499.1	1640.1	10.025	ug/L	10.025 ppb	08:58:38
3	Co 228.616†	2060.2	2050.7	34.241	ug/L	34.241 ppb	08:58:38
3	Cr 267.716†	7915.4	7545.8	93.221	ug/L	93.221 ppb	08:58:18
3	Cu 324.752†	134581.8	123627.9	380.70	ug/L	380.70 ppb	08:58:18
3	Mn 257.610†	1888050.0	1817963.0	2077.1	ug/L	2077.1 ppb	08:58:13
3	Mo 202.031†	23.9	12.8	7.9001	ug/L	7.9001 ppb	08:58:38
3	Ni 231.604†	2263.6	2117.7	53.833	ug/L	53.833 ppb	08:58:38
3	P 214.914†	1577.6	1308.9	653.08	ug/L	653.08 ppb	08:58:38
3	Pb 220.353†	3205.7	3145.6	386.15	ug/L	386.15 ppb	08:58:38
3	S 181.975 Axial†	511.3	451.6	641.98	ug/L	641.98 ppb	08:58:38
3	Sb 206.836†	85.0	45.1	2.1066	ug/L	2.1066 ppb	08:58:38
3	Se 196.026†	-468.2	-423.2	-4.2456	ug/L	-4.2456 ppb	08:58:38
3	Si 251.611†	1011535.1	973673.0	31507	ug/L	31507 ppb	08:58:13
3	Sn 189.927†	-24.1	-33.7	-8.7889	ug/L	-8.7889 ppb	08:58:38
3	Ti 334.940†	2417654.6	2329869.4	3662.1	ug/L	3662.1 ppb	08:58:13
3	Tl 190.801†	-158.5	-120.1	1.2969	ug/L	1.2969 ppb	08:58:38
3	U 409.014†	7094.0	9719.0	258.20	ug/L	258.20 ppb	08:58:18
3	V 292.402†	28349.2	28809.4	184.89	ug/L	184.89 ppb	08:58:18
3	Zn 213.857†	37014.4	35043.4	338.79	ug/L	338.79 ppb	08:58:18
3	SiO2†	1028424.6	989943.6	68797	ug/L	68797 ppb	08:58:56

Mean Data: 245969008|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915116.0	104.32	%	0.429				0.41%
Sc Radial	3893.4	99.4	%	1.00				1.01%
Y 371.029	812607.0	107.51	%	0.464				0.43%
Y RADIAL	4716.9	106.9	%	1.78				1.66%
Ag 328.068†	-6051.7	-0.3591	ug/L	0.90708	-0.3591	ppb	0.90708	252.60%
Al 396.153Radial†	45687.9	42850	ug/L	727.5	42850	ppb	727.5	1.70%
As 188.979†	-45.6	32.002	ug/L	3.6570	32.002	ppb	3.6570	11.43%
B 249.677†	906.0	7.4368	ug/L	0.66280	7.4368	ppb	0.66280	8.91%
Ba 233.527†	66525.8	525.19	ug/L	2.571	525.19	ppb	2.571	0.49%
Be 313.107†	12581.7	13.006	ug/L	0.0896	13.006	ppb	0.0896	0.69%
Ca 317.933Radial†	6244.3	13054	ug/L	190.7	13054	ppb	190.7	1.46%
Cd 226.502†	1622.3	9.7092	ug/L	0.28564	9.7092	ppb	0.28564	2.94%
Co 228.616†	2052.5	34.294	ug/L	0.0532	34.294	ppb	0.0532	0.16%
Cr 267.716†	7463.5	92.397	ug/L	0.7630	92.397	ppb	0.7630	0.83%
Cu 324.752†	122980.5	378.79	ug/L	2.080	378.79	ppb	2.080	0.55%
Fe 238.204 Radial†	6284.9	88714	ug/L	1362.4	88714	ppb	1362.4	1.54%
K 766.490 Radial†	43961.6	8430.9	ug/L	134.61	8430.9	ppb	134.61	1.60%

Mg 279.077 IEC†	163.8	7851.1	ug/L	145.48	7851.1	ppb	145.48	1.85%
Mn 257.610†	1809384.0	2067.4	ug/L	11.02	2067.4	ppb	11.02	0.53%
Mo 202.031†	15.7	8.1943	ug/L	0.33121	8.1943	ppb	0.33121	4.04%
Na 589.592 Radial†	1515.8	467.36	ug/L	20.115	467.36	ppb	20.115	4.30%
Ni 231.604†	2103.0	53.461	ug/L	0.4939	53.461	ppb	0.4939	0.92%
P 214.914†	1299.5	647.11	ug/L	7.236	647.11	ppb	7.236	1.12%
Pb 220.353†	3138.3	385.29	ug/L	1.211	385.29	ppb	1.211	0.31%
S 181.975 Axial†	447.5	635.90	ug/L	5.978	635.90	ppb	5.978	0.94%
Sb 206.836†	41.5	0.8480	ug/L	1.11629	0.8480	ppb	1.11629	131.63%
Se 196.026†	-425.8	-2.6590	ug/L	2.25708	-2.6590	ppb	2.25708	84.88%
Si 251.611†	969430.2	31370	ug/L	163.8	31370	ppb	163.8	0.52%
Sn 189.927†	-39.9	-9.9272	ug/L	1.47305	-9.9272	ppb	1.47305	14.84%
Sr 421.552†	18422.4	127.38	ug/L	2.090	127.38	ppb	2.090	1.64%
Ti 334.940†	2320299.4	3647.1	ug/L	18.87	3647.1	ppb	18.87	0.52%
Tl 190.801†	-117.5	1.9680	ug/L	0.60023	1.9680	ppb	0.60023	30.50%
U 409.014†	9805.8	260.48	ug/L	1.973	260.48	ppb	1.973	0.76%
V 292.402†	28693.9	183.95	ug/L	0.960	183.95	ppb	0.960	0.52%
Zn 213.857†	34918.2	337.38	ug/L	1.830	337.38	ppb	1.830	0.54%
SiO2†	981787.9	68230	ug/L	510.9	68230	ppb	510.9	0.75%

Sequence No.: 128
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 09:01:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3751.4	3751.4	95.7	%			09:03:20
1	Y RADIAL	4253.5	4253.5	96.43	%			09:03:00
1	Al 396.153Radial†	5271.3	5619.0	5246.3	ug/L	5246.3	ppb	09:03:00
1	Ca 317.933Radial†	2370.3	2456.4	5135.1	ug/L	5135.1	ppb	09:03:20
1	Fe 238.204 Radial†	328.8	332.1	4702.8	ug/L	4702.8	ppb	09:03:20
1	K 766.490 Radial†	28361.4	26987.7	5172.5	ug/L	5172.5	ppb	09:03:00
1	Mg 279.077 IEC†	102.9	103.4	5015.5	ug/L	5015.5	ppb	09:03:20
1	Na 589.592 Radial†	30750.7	32943.1	10157	ug/L	10157	ppb	09:03:00
1	Sr 421.552†	70448.3	73557.0	508.94	ug/L	508.94	ppb	09:03:00
1	Sc 361.383	893103.4	893103.4	101.81	%			09:04:18
1	Y 371.029	745863.8	745863.8	98.680	%			09:04:18
1	Ag 328.068†	108323.9	106158.3	494.80	ug/L	494.80	ppb	09:04:23
1	As 188.979†	1091.4	1090.2	490.99	ug/L	490.99	ppb	09:04:43
1	B 249.677†	19620.4	19670.0	474.73	ug/L	474.73	ppb	09:04:23
1	Ba 233.527†	63647.9	62518.2	491.83	ug/L	491.83	ppb	09:04:23
1	Be 313.107†	1328212.8	1308369.9	492.79	ug/L	492.79	ppb	09:04:18
1	Cd 226.502†	43261.6	42689.1	494.26	ug/L	494.26	ppb	09:04:23
1	Co 228.616†	23784.4	23428.2	490.85	ug/L	490.85	ppb	09:04:23
1	Cr 267.716†	44880.4	44005.1	494.94	ug/L	494.94	ppb	09:04:23
1	Cu 324.752†	169453.7	160451.4	488.25	ug/L	488.25	ppb	09:04:23
1	Mn 257.610†	436464.6	428249.0	487.58	ug/L	487.58	ppb	09:04:18
1	Mo 202.031†	6764.4	6634.0	487.47	ug/L	487.47	ppb	09:04:43
1	Ni 231.604†	19866.7	19451.2	494.41	ug/L	494.41	ppb	09:04:23
1	P 214.914†	4348.9	4061.1	2349.8	ug/L	2349.8	ppb	09:04:43
1	Pb 220.353†	4043.6	4029.9	497.22	ug/L	497.22	ppb	09:04:43
1	S 181.975 Axial†	744.1	690.1	992.04	ug/L	992.04	ppb	09:04:43
1	Sb 206.836†	1419.1	1357.2	491.88	ug/L	491.88	ppb	09:04:43
1	Se 196.026†	732.5	747.3	505.64	ug/L	505.64	ppb	09:04:43
1	Si 251.611†	77773.1	75832.6	2447.9	ug/L	2447.9	ppb	09:04:23
1	Sn 189.927†	2751.1	2691.7	483.60	ug/L	483.60	ppb	09:04:43
1	Ti 334.940†	314413.8	310200.1	487.34	ug/L	487.34	ppb	09:04:23
1	Tl 190.801†	1525.8	1531.2	492.87	ug/L	492.87	ppb	09:04:43
1	U 409.014†	14906.5	17528.2	482.38	ug/L	482.38	ppb	09:04:23
1	V 292.402†	70231.4	70488.9	498.04	ug/L	498.04	ppb	09:04:23
1	Zn 213.857†	50635.2	49129.3	490.04	ug/L	490.04	ppb	09:04:23
1	SiO2†	74952.8	73066.3	5064.5	ug/L	5064.5	ppb	09:05:50
2	Sc Radial	3750.3	3750.3	95.7	%			09:03:45
2	Y RADIAL	4232.7	4232.7	95.96	%			09:03:25
2	Al 396.153Radial†	5231.5	5579.0	5209.0	ug/L	5209.0	ppb	09:03:25
2	Ca 317.933Radial†	2370.7	2457.6	5137.5	ug/L	5137.5	ppb	09:03:45
2	Fe 238.204 Radial†	328.6	332.0	4700.9	ug/L	4700.9	ppb	09:03:45
2	K 766.490 Radial†	28256.4	26886.7	5153.1	ug/L	5153.1	ppb	09:03:25
2	Mg 279.077 IEC†	97.7	98.0	4751.5	ug/L	4751.5	ppb	09:03:45
2	Na 589.592 Radial†	30721.1	32921.6	10151	ug/L	10151	ppb	09:03:25
2	Sr 421.552†	70230.5	73351.1	507.52	ug/L	507.52	ppb	09:03:25
2	Sc 361.383	898919.9	898919.9	102.47	%			09:04:49
2	Y 371.029	751438.7	751438.7	99.417	%			09:04:49
2	Ag 328.068†	107208.0	104380.9	486.54	ug/L	486.54	ppb	09:04:54
2	As 188.979†	1092.0	1083.9	488.13	ug/L	488.13	ppb	09:05:14
2	B 249.677†	19487.8	19415.9	468.59	ug/L	468.59	ppb	09:04:54
2	Ba 233.527†	62986.0	61467.7	483.57	ug/L	483.57	ppb	09:04:54
2	Be 313.107†	1341149.1	1312552.7	494.34	ug/L	494.34	ppb	09:04:49
2	Cd 226.502†	42957.0	42116.8	487.63	ug/L	487.63	ppb	09:04:54
2	Co 228.616†	23646.5	23142.5	484.87	ug/L	484.87	ppb	09:04:54
2	Cr 267.716†	44521.1	43369.2	487.80	ug/L	487.80	ppb	09:04:54
2	Cu 324.752†	167497.3	157465.2	479.16	ug/L	479.16	ppb	09:04:54
2	Mn 257.610†	440507.4	429420.3	488.92	ug/L	488.92	ppb	09:04:49
2	Mo 202.031†	6745.0	6572.1	482.93	ug/L	482.93	ppb	09:05:14
2	Ni 231.604†	19736.9	19198.3	487.98	ug/L	487.98	ppb	09:04:54

2	P 214.914†	4330.2	4015.2	2324.0 ug/L	2324.0 ppb	09:05:14
2	Pb 220.353†	4039.5	4000.2	493.55 ug/L	493.55 ppb	09:05:14
2	S 181.975 Axial†	740.3	681.7	979.97 ug/L	979.97 ppb	09:05:14
2	Sb 206.836†	1436.4	1365.0	494.47 ug/L	494.47 ppb	09:05:14
2	Se 196.026†	733.7	743.7	503.28 ug/L	503.28 ppb	09:05:14
2	Si 251.611†	76982.3	74566.6	2406.9 ug/L	2406.9 ppb	09:04:54
2	Sn 189.927†	2749.1	2672.3	480.12 ug/L	480.12 ppb	09:05:14
2	Ti 334.940†	311460.6	305319.9	479.70 ug/L	479.70 ppb	09:04:54
2	Tl 190.801†	1514.3	1510.4	486.19 ug/L	486.19 ppb	09:05:14
2	U 409.014†	14736.4	17267.4	475.20 ug/L	475.20 ppb	09:04:54
2	V 292.402†	69526.2	69354.4	490.06 ug/L	490.06 ppb	09:04:54
2	Zn 213.857†	50115.2	48300.0	481.75 ug/L	481.75 ppb	09:04:54
2	SiO2†	77032.0	74619.0	5172.5 ug/L	5172.5 ppb	09:05:56
3	Sc Radial	3730.7	3730.7	95.2 %		09:04:11
3	Y RADIAL	4303.5	4303.5	97.57 %		09:03:50
3	Al 396.153Radial†	5319.1	5699.8	5322.4 ug/L	5322.4 ppb	09:03:50
3	Ca 317.933Radial†	2350.0	2448.9	5119.4 ug/L	5119.4 ppb	09:04:11
3	Fe 238.204 Radial†	326.0	331.1	4688.6 ug/L	4688.6 ppb	09:04:11
3	K 766.490 Radial†	28635.0	27439.6	5259.2 ug/L	5259.2 ppb	09:03:50
3	Mg 279.077 IEC†	102.7	103.8	5033.7 ug/L	5033.7 ppb	09:04:11
3	Na 589.592 Radial†	31113.5	33502.5	10330 ug/L	10330 ppb	09:03:50
3	Sr 421.552†	71194.0	74749.1	517.19 ug/L	517.19 ppb	09:03:50
3	Sc 361.383	895446.9	895446.9	102.08 %		09:05:20
3	Y 371.029	747193.8	747193.8	98.856 %		09:05:20
3	Ag 328.068†	107026.4	104608.8	487.59 ug/L	487.59 ppb	09:05:25
3	As 188.979†	1080.1	1076.4	484.77 ug/L	484.77 ppb	09:05:45
3	B 249.677†	19495.5	19497.1	470.56 ug/L	470.56 ppb	09:05:25
3	Ba 233.527†	62919.5	61640.9	484.93 ug/L	484.93 ppb	09:05:25
3	Be 313.107†	1330652.6	1307345.8	492.39 ug/L	492.39 ppb	09:05:20
3	Cd 226.502†	42952.8	42275.3	489.47 ug/L	489.47 ppb	09:05:25
3	Co 228.616†	23643.7	23229.3	486.68 ug/L	486.68 ppb	09:05:25
3	Cr 267.716†	44417.8	43436.6	488.55 ug/L	488.55 ppb	09:05:25
3	Cu 324.752†	167417.8	158021.3	480.86 ug/L	480.86 ppb	09:05:25
3	Mn 257.610†	438381.0	429004.4	488.44 ug/L	488.44 ppb	09:05:20
3	Mo 202.031†	6706.3	6559.8	482.02 ug/L	482.02 ppb	09:05:45
3	Ni 231.604†	19734.2	19270.3	489.81 ug/L	489.81 ppb	09:05:25
3	P 214.914†	4288.5	3990.8	2309.0 ug/L	2309.0 ppb	09:05:45
3	Pb 220.353†	4025.4	4001.6	493.75 ug/L	493.75 ppb	09:05:45
3	S 181.975 Axial†	738.0	682.2	980.65 ug/L	980.65 ppb	09:05:45
3	Sb 206.836†	1416.1	1350.6	489.37 ug/L	489.37 ppb	09:05:45
3	Se 196.026†	713.3	726.6	492.01 ug/L	492.01 ppb	09:05:45
3	Si 251.611†	76974.3	74850.1	2416.1 ug/L	2416.1 ppb	09:05:25
3	Sn 189.927†	2725.8	2659.9	477.89 ug/L	477.89 ppb	09:05:45
3	Ti 334.940†	311186.5	306230.2	481.10 ug/L	481.10 ppb	09:05:25
3	Tl 190.801†	1504.5	1506.5	484.95 ug/L	484.95 ppb	09:05:45
3	U 409.014†	14653.4	17241.9	474.49 ug/L	474.49 ppb	09:05:25
3	V 292.402†	69426.8	69520.2	491.20 ug/L	491.20 ppb	09:05:25
3	Zn 213.857†	50149.2	48523.0	483.98 ug/L	483.98 ppb	09:05:25
3	SiO2†	76480.9	74370.6	5155.3 ug/L	5155.3 ppb	09:06:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	895823.4	102.12	%	0.334				0.33%
Sc Radial	3744.1	95.5	%	0.30				0.31%
Y 371.029	748165.5	98.984	%	0.3852				0.39%
Y RADIAL	4263.2	96.65	%	0.825				0.85%
Ag 328.068†	105049.4	489.64	ug/L	4.496	489.64	ppb	4.496	0.92%
QC value within limits for Ag 328.068 Recovery = 97.93%								
Al 396.153Radial†	5632.6	5259.2	ug/L	57.77	5259.2	ppb	57.77	1.10%
QC value within limits for Al 396.153Radial Recovery = 105.18%								
As 188.979†	1083.5	487.97	ug/L	3.112	487.97	ppb	3.112	0.64%
QC value within limits for As 188.979 Recovery = 97.59%								
B 249.677†	19527.6	471.29	ug/L	3.137	471.29	ppb	3.137	0.67%
QC value within limits for B 249.677 Recovery = 94.26%								
Ba 233.527†	61875.6	486.77	ug/L	4.429	486.77	ppb	4.429	0.91%
QC value within limits for Ba 233.527 Recovery = 97.35%								
Be 313.107†	1309422.8	493.17	ug/L	1.032	493.17	ppb	1.032	0.21%
QC value within limits for Be 313.107 Recovery = 98.63%								
Ca 317.933Radial†	2454.3	5130.7	ug/L	9.86	5130.7	ppb	9.86	0.19%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.61%
Cd 226.502†            42360.4      490.45 ug/L         3.424      490.45 ppb          3.424   0.70%
   QC value within limits for Cd 226.502  Recovery = 98.09%
Co 228.616†            23266.6      487.46 ug/L         3.067      487.46 ppb          3.067   0.63%
   QC value within limits for Co 228.616  Recovery = 97.49%
Cr 267.716†            43603.6      490.43 ug/L         3.926      490.43 ppb          3.926   0.80%
   QC value within limits for Cr 267.716  Recovery = 98.09%
Cu 324.752†           158646.0      482.76 ug/L         4.831      482.76 ppb          4.831   1.00%
   QC value within limits for Cu 324.752  Recovery = 96.55%
Fe 238.204 Radial†       331.8      4697.5 ug/L          7.70      4697.5 ppb           7.70   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.95%
K 766.490 Radial†      27104.7      5194.9 ug/L         56.47      5194.9 ppb          56.47   1.09%
   QC value within limits for K 766.490 Radial  Recovery = 103.90%
Mg 279.077 IEC†          101.7      4933.6 ug/L        157.91      4933.6 ppb         157.91   3.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.67%
Mn 257.610†           428891.3      488.31 ug/L         0.680      488.31 ppb          0.680   0.14%
   QC value within limits for Mn 257.610  Recovery = 97.66%
Mo 202.031†             6588.6      484.14 ug/L         2.920      484.14 ppb          2.920   0.60%
   QC value within limits for Mo 202.031  Recovery = 96.83%
Na 589.592 Radial†     33122.4       10213 ug/L         101.6       10213 ppb          101.6   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = 102.13%
Ni 231.604†            19306.6      490.73 ug/L         3.312      490.73 ppb          3.312   0.67%
   QC value within limits for Ni 231.604  Recovery = 98.15%
P 214.914†              4022.3      2327.6 ug/L         20.68      2327.6 ppb         20.68   0.89%
   QC value within limits for P 214.914  Recovery = 93.10%
Pb 220.353†             4010.6      494.84 ug/L         2.061      494.84 ppb          2.061   0.42%
   QC value within limits for Pb 220.353  Recovery = 98.97%
S 181.975 Axial†         684.6      984.22 ug/L         6.784      984.22 ppb          6.784   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 98.42%
Sb 206.836†             1357.6      491.91 ug/L         2.548      491.91 ppb          2.548   0.52%
   QC value within limits for Sb 206.836  Recovery = 98.38%
Se 196.026†              739.2      500.31 ug/L         7.284      500.31 ppb          7.284   1.46%
   QC value within limits for Se 196.026  Recovery = 100.06%
Si 251.611†            75083.1      2423.6 ug/L         21.47      2423.6 ppb         21.47   0.89%
   QC value within limits for Si 251.611  Recovery = 96.95%
Sn 189.927†             2674.6      480.54 ug/L         2.878      480.54 ppb          2.878   0.60%
   QC value within limits for Sn 189.927  Recovery = 96.11%
Sr 421.552†            73885.7      511.22 ug/L         5.223      511.22 ppb          5.223   1.02%
   QC value within limits for Sr 421.552  Recovery = 102.24%
Ti 334.940†           307250.1      482.71 ug/L         4.067      482.71 ppb          4.067   0.84%
   QC value within limits for Ti 334.940  Recovery = 96.54%
Tl 190.801†             1516.0      488.00 ug/L         4.261      488.00 ppb          4.261   0.87%
   QC value within limits for Tl 190.801  Recovery = 97.60%
U 409.014†             17345.8      477.36 ug/L         4.365      477.36 ppb          4.365   0.91%
   QC value within limits for U 409.014  Recovery = 95.47%
V 292.402†             69787.8      493.10 ug/L         4.316      493.10 ppb          4.316   0.88%
   QC value within limits for V 292.402  Recovery = 98.62%
Zn 213.857†            48650.8      485.26 ug/L         4.292      485.26 ppb          4.292   0.88%
   QC value within limits for Zn 213.857  Recovery = 97.05%
SiO2†                  74018.7      5130.8 ug/L         58.04      5130.8 ppb         58.04   1.13%
   QC value within limits for SiO2  Recovery = 95.95%
All analyte(s) passed QC.
```

Sequence No.: 129
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 09:08:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3847.9	3847.9	98.2	%			09:10:23
1	Y RADIAL	4416.7	4416.7	100.1	%			09:10:03
1	Al 396.153Radial†	-113.0	-2.7	-2.4935	ug/L	-2.4935	ppb	09:10:03
1	Ca 317.933Radial†	32.7	13.7	28.552	ug/L	28.552	ppb	09:10:23
1	Fe 238.204 Radial†	8.2	-3.0	-41.753	ug/L	-41.753	ppb	09:10:23
1	K 766.490 Radial†	3078.4	495.5	95.101	ug/L	95.101	ppb	09:10:03
1	Mg 279.077 IEC†	4.2	0.2	11.263	ug/L	11.263	ppb	09:10:23
1	Na 589.592 Radial†	-945.6	-143.2	-44.164	ug/L	-44.164	ppb	09:10:03
1	Sr 421.552†	8.7	-26.8	-0.1858	ug/L	-0.1858	ppb	09:10:03
1	Sc 361.383	882181.8	882181.8	100.56	%			09:11:20
1	Y 371.029	748807.0	748807.0	99.069	%			09:11:20
1	Ag 328.068†	308.9	66.8	0.3043	ug/L	0.3043	ppb	09:11:20
1	As 188.979†	-20.6	-2.3	-1.0298	ug/L	-1.0298	ppb	09:11:40
1	B 249.677†	-443.7	-43.0	-1.0357	ug/L	-1.0357	ppb	09:11:40
1	Ba 233.527†	13.9	15.3	0.1199	ug/L	0.1199	ppb	09:11:40
1	Be 313.107†	-3598.0	184.4	0.0691	ug/L	0.0691	ppb	09:11:20
1	Cd 226.502†	-182.1	15.2	0.1792	ug/L	0.1792	ppb	09:11:40
1	Co 228.616†	-80.1	-13.2	-0.2749	ug/L	-0.2749	ppb	09:11:40
1	Cr 267.716†	93.7	15.5	0.1737	ug/L	0.1737	ppb	09:11:40
1	Cu 324.752†	6081.0	56.1	0.1723	ug/L	0.1723	ppb	09:11:20
1	Mn 257.610†	533.0	71.2	0.0765	ug/L	0.0765	ppb	09:11:40
1	Mo 202.031†	9.3	-0.8	-0.0651	ug/L	-0.0651	ppb	09:11:40
1	Ni 231.604†	103.2	40.1	1.0207	ug/L	1.0207	ppb	09:11:40
1	P 214.914†	208.0	-3.7	-2.2106	ug/L	-2.2106	ppb	09:11:40
1	Pb 220.353†	1.2	59.3	7.2962	ug/L	7.2962	ppb	09:11:40
1	S 181.975 Axial†	41.2	0.2	0.2284	ug/L	0.2284	ppb	09:11:40
1	Sb 206.836†	37.4	0.5	0.2154	ug/L	0.2154	ppb	09:11:40
1	Se 196.026†	-17.4	10.5	6.7276	ug/L	6.7276	ppb	09:11:40
1	Si 251.611†	586.2	24.6	0.7963	ug/L	0.7963	ppb	09:11:40
1	Sn 189.927†	23.5	12.9	2.3170	ug/L	2.3170	ppb	09:11:40
1	Ti 334.940†	-1438.0	-55.8	-0.0818	ug/L	-0.0818	ppb	09:11:20
1	Tl 190.801†	-38.4	-5.6	-1.7995	ug/L	-1.7995	ppb	09:11:40
1	U 409.014†	-3158.5	-254.1	-7.0136	ug/L	-7.0136	ppb	09:11:20
1	V 292.402†	-1431.6	82.2	0.5649	ug/L	0.5649	ppb	09:11:20
1	Zn 213.857†	761.2	150.9	1.5183	ug/L	1.5183	ppb	09:11:40
1	SiO2†	623.3	65.4	4.5457	ug/L	4.5457	ppb	09:12:36
2	Sc Radial	3801.3	3801.3	97.0	%			09:10:49
2	Y RADIAL	4424.9	4424.9	100.3	%			09:10:29
2	Al 396.153Radial†	-105.0	4.1	3.8783	ug/L	3.8783	ppb	09:10:29
2	Ca 317.933Radial†	26.2	7.3	15.329	ug/L	15.329	ppb	09:10:49
2	Fe 238.204 Radial†	10.6	-0.4	-5.8571	ug/L	-5.8571	ppb	09:10:49
2	K 766.490 Radial†	2755.2	200.8	38.559	ug/L	38.559	ppb	09:10:29
2	Mg 279.077 IEC†	2.7	-1.3	-61.951	ug/L	-61.951	ppb	09:10:49
2	Na 589.592 Radial†	-1028.3	-240.3	-74.103	ug/L	-74.103	ppb	09:10:29
2	Sr 421.552†	57.4	23.5	0.1624	ug/L	0.1624	ppb	09:10:29
2	Sc 361.383	893970.3	893970.3	101.91	%			09:11:46
2	Y 371.029	757670.1	757670.1	100.24	%			09:11:46
2	Ag 328.068†	330.2	83.6	0.3916	ug/L	0.3916	ppb	09:11:46
2	As 188.979†	-13.6	4.9	2.1714	ug/L	2.1714	ppb	09:12:06
2	B 249.677†	-449.4	-42.7	-1.0362	ug/L	-1.0362	ppb	09:12:06
2	Ba 233.527†	15.2	16.3	0.1294	ug/L	0.1294	ppb	09:12:06
2	Be 313.107†	-3760.2	72.4	0.0272	ug/L	0.0272	ppb	09:11:46
2	Cd 226.502†	-183.2	16.5	0.1912	ug/L	0.1912	ppb	09:12:06
2	Co 228.616†	-54.9	12.6	0.2641	ug/L	0.2641	ppb	09:12:06
2	Cr 267.716†	61.3	-17.6	-0.1951	ug/L	-0.1951	ppb	09:12:06
2	Cu 324.752†	6134.1	28.5	0.0883	ug/L	0.0883	ppb	09:11:46
2	Mn 257.610†	555.2	86.0	0.0999	ug/L	0.0999	ppb	09:12:06
2	Mo 202.031†	6.5	-3.8	-0.2787	ug/L	-0.2787	ppb	09:12:06
2	Ni 231.604†	89.6	25.5	0.6482	ug/L	0.6482	ppb	09:12:06

2	P 214.914†	208.1	-6.3	-3.7969	ug/L	-3.7969 ppb	09:12:06
2	Pb 220.353†	-9.8	48.5	5.9685	ug/L	5.9685 ppb	09:12:06
2	S 181.975 Axial†	47.1	5.4	7.7972	ug/L	7.7972 ppb	09:12:06
2	Sb 206.836†	35.3	-2.1	-0.7230	ug/L	-0.7230 ppb	09:12:06
2	Se 196.026†	-32.8	-4.5	-2.9374	ug/L	-2.9374 ppb	09:12:06
2	Si 251.611†	587.7	18.3	0.5965	ug/L	0.5965 ppb	09:12:06
2	Sn 189.927†	11.2	0.5	0.0851	ug/L	0.0851 ppb	09:12:06
2	Ti 334.940†	-1398.5	1.8	0.0116	ug/L	0.0116 ppb	09:11:46
2	Tl 190.801†	-32.9	0.3	0.0841	ug/L	0.0841 ppb	09:12:06
2	U 409.014†	-3072.5	-128.4	-3.5438	ug/L	-3.5438 ppb	09:11:46
2	V 292.402†	-1417.9	114.3	0.7861	ug/L	0.7861 ppb	09:11:46
2	Zn 213.857†	747.2	127.2	1.2772	ug/L	1.2772 ppb	09:12:06
2	SiO2†	589.8	24.4	1.7022	ug/L	1.7022 ppb	09:12:41
3	Sc Radial	3903.6	3903.6	99.6	%		09:11:14
3	Y RADIAL	4303.3	4303.3	97.56	%		09:10:54
3	Al 396.153Radial†	-131.4	-19.5	-18.351	ug/L	-18.351 ppb	09:10:54
3	Ca 317.933Radial†	28.9	9.4	19.615	ug/L	19.615 ppb	09:11:14
3	Fe 238.204 Radial†	10.7	-0.6	-8.9237	ug/L	-8.9237 ppb	09:11:14
3	K 766.490 Radial†	2860.1	231.6	44.464	ug/L	44.464 ppb	09:10:54
3	Mg 279.077 IEC†	2.0	-2.1	-102.24	ug/L	-102.24 ppb	09:11:14
3	Na 589.592 Radial†	-977.4	-161.5	-49.789	ug/L	-49.789 ppb	09:10:54
3	Sr 421.552†	38.4	2.9	0.0196	ug/L	0.0196 ppb	09:10:54
3	Sc 361.383	891491.8	891491.8	101.63	%		09:12:11
3	Y 371.029	755277.3	755277.3	99.925	%		09:12:11
3	Ag 328.068†	250.4	6.0	0.0315	ug/L	0.0315 ppb	09:12:11
3	As 188.979†	-22.6	-4.0	-1.7921	ug/L	-1.7921 ppb	09:12:31
3	B 249.677†	-483.6	-77.6	-1.8807	ug/L	-1.8807 ppb	09:12:31
3	Ba 233.527†	6.8	8.1	0.0634	ug/L	0.0634 ppb	09:12:31
3	Be 313.107†	-3673.6	147.3	0.0552	ug/L	0.0552 ppb	09:12:11
3	Cd 226.502†	-190.5	8.8	0.1018	ug/L	0.1018 ppb	09:12:31
3	Co 228.616†	-62.6	4.9	0.1049	ug/L	0.1049 ppb	09:12:31
3	Cr 267.716†	73.9	-5.0	-0.0538	ug/L	-0.0538 ppb	09:12:31
3	Cu 324.752†	6014.3	-72.7	-0.2170	ug/L	-0.2170 ppb	09:12:11
3	Mn 257.610†	517.6	50.6	0.0608	ug/L	0.0608 ppb	09:12:31
3	Mo 202.031†	16.4	6.0	0.4381	ug/L	0.4381 ppb	09:12:31
3	Ni 231.604†	74.0	10.4	0.2648	ug/L	0.2648 ppb	09:12:31
3	P 214.914†	200.1	-13.6	-8.1451	ug/L	-8.1451 ppb	09:12:31
3	Pb 220.353†	-19.4	39.0	4.8003	ug/L	4.8003 ppb	09:12:31
3	S 181.975 Axial†	31.2	-10.1	-14.595	ug/L	-14.595 ppb	09:12:31
3	Sb 206.836†	41.1	3.8	1.3204	ug/L	1.3204 ppb	09:12:31
3	Se 196.026†	-28.1	0.1	0.0138	ug/L	0.0138 ppb	09:12:31
3	Si 251.611†	614.4	46.2	1.4905	ug/L	1.4905 ppb	09:12:31
3	Sn 189.927†	7.9	-2.7	-0.4787	ug/L	-0.4787 ppb	09:12:31
3	Ti 334.940†	-1440.4	-43.3	-0.0533	ug/L	-0.0533 ppb	09:12:11
3	Tl 190.801†	-30.7	2.3	0.7423	ug/L	0.7423 ppb	09:12:31
3	U 409.014†	-3240.6	-302.2	-8.3431	ug/L	-8.3431 ppb	09:12:11
3	V 292.402†	-1527.5	2.6	0.0078	ug/L	0.0078 ppb	09:12:11
3	Zn 213.857†	730.7	112.9	1.1367	ug/L	1.1367 ppb	09:12:31
3	SiO2†	575.5	11.9	0.8148	ug/L	0.8148 ppb	09:12:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889214.7	101.37	%	0.709				0.70%
Sc Radial	3850.9	98.3	%	1.31				1.33%
Y 371.029	753918.1	99.745	%	0.6066				0.61%
Y RADIAL	4381.6	99.34	%	1.540				1.55%
Ag 328.068†	52.1	0.2425	ug/L	0.18785	0.2425	ppb	0.18785	77.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.0	-5.6553	ug/L	11.44682	-5.6553	ppb	11.44682	202.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.2168	ug/L	2.10310	-0.2168	ppb	2.10310	969.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-54.5	-1.3175	ug/L	0.48769	-1.3175	ppb	0.48769	37.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.2	0.1042	ug/L	0.03570	0.1042	ppb	0.03570	34.26%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	134.7	0.0505	ug/L	0.02134	0.0505	ppb	0.02134	42.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.1	21.166	ug/L	6.7466	21.166	ppb	6.7466	31.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.5      0.1574 ug/L       0.04852      0.1574 ppb        0.04852  30.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.5      0.0314 ug/L       0.27688      0.0314 ppb        0.27688 882.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.4     -0.0250 ug/L       0.18604     -0.0250 ppb        0.18604 742.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.0      0.0145 ug/L       0.20486      0.0145 ppb        0.20486 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.3     -18.845 ug/L       19.8987     -18.845 ppb        19.8987 105.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         309.3      59.374 ug/L       31.0803      59.374 ppb        31.0803  52.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -50.974 ug/L       57.5399     -50.974 ppb        57.5399 112.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                69.3      0.0791 ug/L       0.01964      0.0791 ppb        0.01964  24.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.4      0.0314 ug/L       0.36802      0.0314 ppb        0.36802 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -181.7     -56.019 ug/L       15.9118     -56.019 ppb        15.9118  28.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.3      0.6445 ug/L       0.37796      0.6445 ppb        0.37796  58.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.9     -4.7176 ug/L       3.07251     -4.7176 ppb        3.07251  65.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                49.0      6.0216 ug/L       1.24881      6.0216 ppb        1.24881  20.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -2.1898 ug/L      11.39022     -2.1898 ppb       11.39022 520.16%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.7      0.2709 ug/L       1.02285      0.2709 ppb        1.02285 377.56%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.0      1.2680 ug/L       4.95305      1.2680 ppb        4.95305 390.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.7      0.9611 ug/L       0.46920      0.9611 ppb        0.46920  48.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.6411 ug/L       1.47846      0.6411 ppb        1.47846 230.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.2     -0.0013 ug/L       0.17503     -0.0013 ppb        0.17503 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -32.4     -0.0412 ug/L       0.04785     -0.0412 ppb        0.04785 116.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.0     -0.3244 ug/L       1.31924     -0.3244 ppb        1.31924 406.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -228.2     -6.3002 ug/L       2.47793     -6.3002 ppb        2.47793  39.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 66.4      0.4529 ug/L       0.40106      0.4529 ppb        0.40106  88.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               130.3      1.3107 ug/L       0.19297      1.3107 ppb        0.19297  14.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      33.9      2.3542 ug/L       1.94903      2.3542 ppb        1.94903  82.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 130
Sample ID: 245969009|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 141
Date Collected: 2/25/2010 09:14:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969009|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4037.5	4037.5	103	%			09:17:11
1	Y RADIAL	4933.0	4933.0	111.8	%			09:17:11
1	Al 396.153Radial†	126472.1	122865.8	115230	ug/L	115230	ppb	09:16:51
1	Ca 317.933Radial†	13893.2	13465.0	28149	ug/L	28149	ppb	09:16:51
1	Fe 238.204 Radial†	9534.4	9242.7	130470	ug/L	130470	ppb	09:16:51
1	K 766.490 Radial†	84859.5	79724.7	15289	ug/L	15289	ppb	09:16:51
1	Mg 279.077 IEC†	423.8	407.3	19612	ug/L	19612	ppb	09:17:11
1	Na 589.592 Radial†	3149.1	3876.3	1195.2	ug/L	1195.2	ppb	09:16:51
1	Sr 421.552†	40141.3	38925.2	269.13	ug/L	269.13	ppb	09:16:51
1	Sc 361.383	924283.5	924283.5	105.36	%			09:18:09
1	Y 371.029	856232.8	856232.8	113.28	%			09:18:09
1	Ag 328.068†	-9386.2	-9148.8	-1.5733	ug/L	-1.5733	ppb	09:18:14
1	As 188.979†	2.2	20.3	52.043	ug/L	52.043	ppb	09:18:34
1	B 249.677†	998.6	1346.0	11.212	ug/L	11.212	ppb	09:18:14
1	Ba 233.527†	158748.7	150668.7	1186.8	ug/L	1186.8	ppb	09:18:14
1	Be 313.107†	15571.3	18540.8	10.216	ug/L	10.216	ppb	09:18:14
1	Cd 226.502†	1028.0	1171.9	0.1003	ug/L	0.1003	ppb	09:18:34
1	Co 228.616†	4080.9	3939.7	78.166	ug/L	78.166	ppb	09:18:34
1	Cr 267.716†	8196.1	7701.2	99.265	ug/L	99.265	ppb	09:18:14
1	Cu 324.752†	33316.8	25630.0	85.013	ug/L	85.013	ppb	09:18:14
1	Mn 257.610†	1848706.4	1754136.0	2008.2	ug/L	2008.2	ppb	09:18:09
1	Mo 202.031†	-74.6	-80.9	4.5213	ug/L	4.5213	ppb	09:18:34
1	Ni 231.604†	3029.2	2812.5	71.481	ug/L	71.481	ppb	09:18:34
1	P 214.914†	1251.8	977.5	496.42	ug/L	496.42	ppb	09:18:34
1	Pb 220.353†	917.5	928.9	124.48	ug/L	124.48	ppb	09:18:34
1	S 181.975 Axial†	549.7	480.9	670.47	ug/L	670.47	ppb	09:18:34
1	Sb 206.836†	65.9	25.9	-0.0190	ug/L	-0.0190	ppb	09:18:34
1	Se 196.026†	-683.3	-620.8	-0.9131	ug/L	-0.9131	ppb	09:18:34
1	Si 251.611†	1333138.0	1264713.9	40925	ug/L	40925	ppb	09:18:09
1	Sn 189.927†	-125.4	-129.5	-25.721	ug/L	-25.721	ppb	09:18:34
1	Ti 334.940†	957891.9	910502.8	1433.0	ug/L	1433.0	ppb	09:18:09
1	Tl 190.801†	-111.5	-73.2	-2.8002	ug/L	-2.8002	ppb	09:18:34
1	U 409.014†	-10840.5	-7402.0	-219.47	ug/L	-219.47	ppb	09:18:09
1	V 292.402†	33081.5	32903.1	208.79	ug/L	208.79	ppb	09:18:14
1	Zn 213.857†	33751.9	31427.6	296.28	ug/L	296.28	ppb	09:18:14
1	SiO2†	1314273.6	1246813.7	86648	ug/L	86648	ppb	09:19:42
2	Sc Radial	4024.7	4024.7	103	%			09:17:36
2	Y RADIAL	4925.7	4925.7	111.7	%			09:17:36
2	Al 396.153Radial†	127634.0	124389.8	116660	ug/L	116660	ppb	09:17:16
2	Ca 317.933Radial†	14051.3	13662.1	28561	ug/L	28561	ppb	09:17:16
2	Fe 238.204 Radial†	9627.5	9362.9	132160	ug/L	132160	ppb	09:17:16
2	K 766.490 Radial†	85637.4	80745.6	15484	ug/L	15484	ppb	09:17:16
2	Mg 279.077 IEC†	419.6	404.5	19472	ug/L	19472	ppb	09:17:36
2	Na 589.592 Radial†	3180.4	3916.6	1207.6	ug/L	1207.6	ppb	09:17:16
2	Sr 421.552†	40558.1	39455.7	272.80	ug/L	272.80	ppb	09:17:16
2	Sc 361.383	916002.3	916002.3	104.42	%			09:18:40
2	Y 371.029	846622.0	846622.0	112.01	%			09:18:40
2	Ag 328.068†	-9292.2	-9139.3	-0.9993	ug/L	-0.9993	ppb	09:18:45
2	As 188.979†	-2.9	15.4	50.257	ug/L	50.257	ppb	09:19:05
2	B 249.677†	1135.6	1485.8	14.322	ug/L	14.322	ppb	09:18:45
2	Ba 233.527†	159178.5	152442.5	1200.8	ug/L	1200.8	ppb	09:18:45
2	Be 313.107†	15576.3	18679.2	10.266	ug/L	10.266	ppb	09:18:45
2	Cd 226.502†	1049.1	1200.9	0.2596	ug/L	0.2596	ppb	09:19:05
2	Co 228.616†	4078.5	3972.4	78.832	ug/L	78.832	ppb	09:19:05
2	Cr 267.716†	8209.8	7784.6	100.37	ug/L	100.37	ppb	09:18:45
2	Cu 324.752†	33312.4	25911.6	85.963	ug/L	85.963	ppb	09:18:45
2	Mn 257.610†	1833170.3	1755120.0	2009.5	ug/L	2009.5	ppb	09:18:40
2	Mo 202.031†	-88.7	-95.1	3.6191	ug/L	3.6191	ppb	09:19:05
2	Ni 231.604†	2979.5	2790.9	70.931	ug/L	70.931	ppb	09:19:05

2	P 214.914†	1246.5	983.3	498.71 ug/L	498.71 ppb	09:19:05
2	Pb 220.353†	911.6	931.1	124.87 ug/L	124.87 ppb	09:19:05
2	S 181.975 Axial†	557.8	493.3	688.08 ug/L	688.08 ppb	09:19:05
2	Sb 206.836†	44.6	6.0	-6.9801 ug/L	-6.9801 ppb	09:19:05
2	Se 196.026†	-669.2	-613.2	9.3688 ug/L	9.3688 ppb	09:19:05
2	Si 251.611†	1321083.7	1264608.6	40921 ug/L	40921 ppb	09:18:40
2	Sn 189.927†	-102.1	-108.3	-21.942 ug/L	-21.942 ppb	09:19:05
2	Ti 334.940†	948712.9	909931.3	1432.2 ug/L	1432.2 ppb	09:18:40
2	Tl 190.801†	-125.9	-88.0	-7.5213 ug/L	-7.5213 ppb	09:19:05
2	U 409.014†	-10980.4	-7629.0	-225.93 ug/L	-225.93 ppb	09:18:40
2	V 292.402†	33125.0	33228.7	210.78 ug/L	210.78 ppb	09:18:45
2	Zn 213.857†	33877.3	31837.3	300.15 ug/L	300.15 ppb	09:18:45
2	SiO2†	1318537.1	1262173.7	87716 ug/L	87716 ppb	09:19:48
3	Sc Radial	4043.2	4043.2	103 %		09:18:01
3	Y RADIAL	4923.0	4923.0	111.6 %		09:18:01
3	Al 396.153Radial†	124795.1	121067.6	113550 ug/L	113550 ppb	09:17:41
3	Ca 317.933Radial†	13772.0	13328.6	27863 ug/L	27863 ppb	09:17:41
3	Fe 238.204 Radial†	9409.8	9109.0	128580 ug/L	128580 ppb	09:17:41
3	K 766.490 Radial†	83865.0	78644.9	15081 ug/L	15081 ppb	09:17:41
3	Mg 279.077 IEC†	422.6	405.5	19526 ug/L	19526 ppb	09:18:01
3	Na 589.592 Radial†	3045.2	3771.2	1162.8 ug/L	1162.8 ppb	09:17:41
3	Sr 421.552†	39706.0	38448.5	265.84 ug/L	265.84 ppb	09:17:41
3	Sc 361.383	913072.1	913072.1	104.09 %		09:19:11
3	Y 371.029	844344.3	844344.3	111.71 %		09:19:11
3	Ag 328.068†	-9438.7	-9308.6	-2.8685 ug/L	-2.8685 ppb	09:19:16
3	As 188.979†	3.1	21.2	52.017 ug/L	52.017 ppb	09:19:36
3	B 249.677†	1052.5	1409.4	13.053 ug/L	13.053 ppb	09:19:16
3	Ba 233.527†	160700.2	154393.6	1216.0 ug/L	1216.0 ppb	09:19:16
3	Be 313.107†	15787.5	18930.0	10.369 ug/L	10.369 ppb	09:19:16
3	Cd 226.502†	1025.6	1181.6	0.4077 ug/L	0.4077 ppb	09:19:36
3	Co 228.616†	4060.9	3968.0	78.792 ug/L	78.792 ppb	09:19:36
3	Cr 267.716†	8226.6	7826.0	100.49 ug/L	100.49 ppb	09:19:16
3	Cu 324.752†	33779.3	26462.6	87.447 ug/L	87.447 ppb	09:19:16
3	Mn 257.610†	1831463.8	1759114.4	2013.7 ug/L	2013.7 ppb	09:19:11
3	Mo 202.031†	-85.9	-92.7	3.5078 ug/L	3.5078 ppb	09:19:36
3	Ni 231.604†	2997.4	2817.3	71.601 ug/L	71.601 ppb	09:19:36
3	P 214.914†	1262.0	1002.0	511.75 ug/L	511.75 ppb	09:19:36
3	Pb 220.353†	884.3	907.7	121.72 ug/L	121.72 ppb	09:19:36
3	S 181.975 Axial†	558.5	495.8	692.13 ug/L	692.13 ppb	09:19:36
3	Sb 206.836†	51.3	12.6	-4.5780 ug/L	-4.5780 ppb	09:19:36
3	Se 196.026†	-691.9	-637.0	-17.384 ug/L	-17.384 ppb	09:19:36
3	Si 251.611†	1320499.9	1268107.8	41034 ug/L	41034 ppb	09:19:11
3	Sn 189.927†	-113.9	-120.0	-23.954 ug/L	-23.954 ppb	09:19:36
3	Ti 334.940†	948264.5	912416.2	1436.0 ug/L	1436.0 ppb	09:19:11
3	Tl 190.801†	-122.9	-85.5	-6.6756 ug/L	-6.6756 ppb	09:19:36
3	U 409.014†	-10741.3	-7433.1	-220.11 ug/L	-220.11 ppb	09:19:11
3	V 292.402†	33467.7	33659.6	214.32 ug/L	214.32 ppb	09:19:16
3	Zn 213.857†	34120.7	32175.3	304.08 ug/L	304.08 ppb	09:19:16
3	SiO2†	1312757.4	1260673.2	87611 ug/L	87611 ppb	09:19:54

Mean Data: 245969009|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917785.9	104.62	%	0.663				0.63%
Sc Radial	4035.1	103	%	0.2				0.24%
Y 371.029	849066.3	112.33	%	0.835				0.74%
Y RADIAL	4927.2	111.7	%	0.12				0.11%
Ag 328.068†	-9198.9	-1.8137	ug/L	0.95750	-1.8137	ppb	0.95750	52.79%
Al 396.153Radial†	122774.4	115150	ug/L	1559.7	115150	ppb	1559.7	1.35%
As 188.979†	19.0	51.439	ug/L	1.0236	51.439	ppb	1.0236	1.99%
B 249.677†	1413.7	12.863	ug/L	1.5641	12.863	ppb	1.5641	12.16%
Ba 233.527†	152501.6	1201.2	ug/L	14.60	1201.2	ppb	14.60	1.22%
Be 313.107†	18716.7	10.283	ug/L	0.0781	10.283	ppb	0.0781	0.76%
Ca 317.933Radial†	13485.2	28191	ug/L	350.6	28191	ppb	350.6	1.24%
Cd 226.502†	1184.8	0.2559	ug/L	0.15376	0.2559	ppb	0.15376	60.09%
Co 228.616†	3960.0	78.597	ug/L	0.3735	78.597	ppb	0.3735	0.48%
Cr 267.716†	7770.6	100.04	ug/L	0.676	100.04	ppb	0.676	0.68%
Cu 324.752†	26001.4	86.141	ug/L	1.2268	86.141	ppb	1.2268	1.42%
Fe 238.204 Radial†	9238.2	130400	ug/L	1793.3	130400	ppb	1793.3	1.38%
K 766.490 Radial†	79705.1	15285	ug/L	201.5	15285	ppb	201.5	1.32%

Mg 279.077 IEC†	405.7	19537	ug/L	70.3	19537	ppb	70.3	0.36%
Mn 257.610†	1756123.4	2010.4	ug/L	2.87	2010.4	ppb	2.87	0.14%
Mo 202.031†	-89.6	3.8827	ug/L	0.55585	3.8827	ppb	0.55585	14.32%
Na 589.592 Radial†	3854.7	1188.5	ug/L	23.13	1188.5	ppb	23.13	1.95%
Ni 231.604†	2806.9	71.338	ug/L	0.3572	71.338	ppb	0.3572	0.50%
P 214.914†	987.6	502.29	ug/L	8.271	502.29	ppb	8.271	1.65%
Pb 220.353†	922.6	123.69	ug/L	1.716	123.69	ppb	1.716	1.39%
S 181.975 Axial†	490.0	683.56	ug/L	11.511	683.56	ppb	11.511	1.68%
Sb 206.836†	14.8	-3.8591	ug/L	3.53581	-3.8591	ppb	3.53581	91.62%
Se 196.026†	-623.6	-2.9760	ug/L	13.49508	-2.9760	ppb	13.49508	453.46%
Si 251.611†	1265810.1	40960	ug/L	64.4	40960	ppb	64.4	0.16%
Sn 189.927†	-119.2	-23.872	ug/L	1.8904	-23.872	ppb	1.8904	7.92%
Sr 421.552†	38943.2	269.26	ug/L	3.484	269.26	ppb	3.484	1.29%
Ti 334.940†	910950.1	1433.7	ug/L	2.00	1433.7	ppb	2.00	0.14%
Tl 190.801†	-82.2	-5.6657	ug/L	2.51734	-5.6657	ppb	2.51734	44.43%
U 409.014†	-7488.0	-221.84	ug/L	3.561	-221.84	ppb	3.561	1.61%
V 292.402†	33263.8	211.30	ug/L	2.801	211.30	ppb	2.801	1.33%
Zn 213.857†	31813.4	300.17	ug/L	3.902	300.17	ppb	3.902	1.30%
SiO2†	1256553.5	87325	ug/L	588.5	87325	ppb	588.5	0.67%

Sequence No.: 131
Sample ID: 245969010|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 142
Date Collected: 2/25/2010 09:22:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969010|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3790.7	3790.7	96.7	%			09:24:21
1	Y RADIAL	5222.1	5222.1	118.4	%			09:24:01
1	Al 396.153Radial†	18688.9	19432.8	18226	ug/L	18226	ppb	09:24:01
1	Ca 317.933Radial†	8832.9	9111.7	19048	ug/L	19048	ppb	09:24:01
1	Fe 238.204 Radial†	3553.1	3661.8	51688	ug/L	51688	ppb	09:24:21
1	K 766.490 Radial†	25385.4	23603.4	4521.6	ug/L	4521.6	ppb	09:24:01
1	Mg 279.077 IEC†	94.8	93.9	4498.1	ug/L	4498.1	ppb	09:24:21
1	Na 589.592 Radial†	6590.0	7632.4	2353.3	ug/L	2353.3	ppb	09:24:01
1	Sr 421.552†	9298.1	9576.5	66.123	ug/L	66.123	ppb	09:24:01
1	Sc 361.383	925228.0	925228.0	105.47	%			09:25:18
1	Y 371.029	892533.0	892533.0	118.08	%			09:25:18
1	Ag 328.068†	-3336.9	-3404.2	0.2375	ug/L	0.2375	ppb	09:25:23
1	As 188.979†	-18.4	0.8	22.891	ug/L	22.891	ppb	09:25:43
1	B 249.677†	-99.8	303.6	-1.0997	ug/L	-1.0997	ppb	09:25:23
1	Ba 233.527†	64669.4	61316.1	482.91	ug/L	482.91	ppb	09:25:23
1	Be 313.107†	8207.7	11544.1	7.0701	ug/L	7.0701	ppb	09:25:23
1	Cd 226.502†	320.8	500.5	0.4639	ug/L	0.4639	ppb	09:25:43
1	Co 228.616†	1105.5	1114.7	20.289	ug/L	20.289	ppb	09:25:43
1	Cr 267.716†	4659.1	4339.7	53.774	ug/L	53.774	ppb	09:25:43
1	Cu 324.752†	77454.8	67446.0	208.02	ug/L	208.02	ppb	09:25:23
1	Mn 257.610†	1491036.9	1413229.6	1613.1	ug/L	1613.1	ppb	09:25:18
1	Mo 202.031†	-18.4	-27.6	2.2130	ug/L	2.2130	ppb	09:25:43
1	Ni 231.604†	1532.9	1390.9	35.362	ug/L	35.362	ppb	09:25:43
1	P 214.914†	2940.5	2577.4	1473.6	ug/L	1473.6	ppb	09:25:43
1	Pb 220.353†	2652.0	2572.5	314.74	ug/L	314.74	ppb	09:25:43
1	S 181.975 Axial†	172.5	122.7	173.22	ug/L	173.22	ppb	09:25:43
1	Sb 206.836†	54.3	14.8	0.0585	ug/L	0.0585	ppb	09:25:43
1	Se 196.026†	-279.6	-237.4	5.5330	ug/L	5.5330	ppb	09:25:43
1	Si 251.611†	790999.8	749407.8	24250	ug/L	24250	ppb	09:25:18
1	Sn 189.927†	-89.5	-95.4	-16.698	ug/L	-16.698	ppb	09:25:43
1	Ti 334.940†	806202.5	765754.2	1205.5	ug/L	1205.5	ppb	09:25:18
1	Tl 190.801†	-100.4	-62.6	-2.6017	ug/L	-2.6017	ppb	09:25:43
1	U 409.014†	-5995.2	-2797.6	-83.253	ug/L	-83.253	ppb	09:25:23
1	V 292.402†	10292.3	11264.1	69.634	ug/L	69.634	ppb	09:25:23
1	Zn 213.857†	57606.8	54012.3	535.47	ug/L	535.47	ppb	09:25:23
1	SiO2†	776586.1	735745.8	51131	ug/L	51131	ppb	09:26:52
2	Sc Radial	3725.5	3725.5	95.1	%			09:24:46
2	Y RADIAL	4908.9	4908.9	111.3	%			09:24:26
2	Al 396.153Radial†	18466.6	19537.3	18324	ug/L	18324	ppb	09:24:26
2	Ca 317.933Radial†	8764.7	9199.8	19232	ug/L	19232	ppb	09:24:26
2	Fe 238.204 Radial†	3600.8	3776.3	53305	ug/L	53305	ppb	09:24:46
2	K 766.490 Radial†	25046.6	23706.7	4541.4	ug/L	4541.4	ppb	09:24:26
2	Mg 279.077 IEC†	97.0	97.9	4692.0	ug/L	4692.0	ppb	09:24:46
2	Na 589.592 Radial†	6414.5	7567.1	2333.1	ug/L	2333.1	ppb	09:24:26
2	Sr 421.552†	9142.8	9581.5	66.156	ug/L	66.156	ppb	09:24:26
2	Sc 361.383	912266.8	912266.8	103.99	%			09:25:49
2	Y 371.029	878570.1	878570.1	116.24	%			09:25:49
2	Ag 328.068†	-3339.4	-3451.6	0.5217	ug/L	0.5217	ppb	09:25:55
2	As 188.979†	-20.8	-1.7	22.127	ug/L	22.127	ppb	09:26:15
2	B 249.677†	-62.1	338.5	-0.5184	ug/L	-0.5184	ppb	09:25:55
2	Ba 233.527†	65395.2	62885.1	495.28	ug/L	495.28	ppb	09:25:55
2	Be 313.107†	8315.8	11758.6	7.1480	ug/L	7.1480	ppb	09:25:55
2	Cd 226.502†	319.8	503.8	0.3350	ug/L	0.3350	ppb	09:26:15
2	Co 228.616†	1118.1	1141.7	20.842	ug/L	20.842	ppb	09:26:15
2	Cr 267.716†	4696.1	4438.1	55.036	ug/L	55.036	ppb	09:26:15
2	Cu 324.752†	78376.6	69375.8	213.98	ug/L	213.98	ppb	09:25:55
2	Mn 257.610†	1471624.6	1414648.1	1614.9	ug/L	1614.9	ppb	09:25:49
2	Mo 202.031†	-0.0	-10.2	3.6190	ug/L	3.6190	ppb	09:26:15
2	Ni 231.604†	1543.3	1421.6	36.141	ug/L	36.141	ppb	09:26:15

2	P 214.914†	2966.3	2641.9	1509.9	ug/L	1509.9 ppb	09:26:15
2	Pb 220.353†	2687.7	2642.6	323.20	ug/L	323.20 ppb	09:26:15
2	S 181.975 Axial†	177.8	130.2	183.91	ug/L	183.91 ppb	09:26:15
2	Sb 206.836†	47.9	9.4	-1.8487	ug/L	-1.8487 ppb	09:26:15
2	Se 196.026†	-272.1	-233.9	12.836	ug/L	12.836 ppb	09:26:15
2	Si 251.611†	779768.2	749262.9	24245	ug/L	24245 ppb	09:25:49
2	Sn 189.927†	-105.6	-112.1	-19.753	ug/L	-19.753 ppb	09:26:15
2	Ti 334.940†	794118.6	764994.5	1204.3	ug/L	1204.3 ppb	09:25:49
2	Tl 190.801†	-86.4	-50.5	1.2683	ug/L	1.2683 ppb	09:26:15
2	U 409.014†	-6005.3	-2888.0	-85.938	ug/L	-85.938 ppb	09:25:55
2	V 292.402†	10420.9	11526.3	71.246	ug/L	71.246 ppb	09:25:55
2	Zn 213.857†	58362.4	55514.9	550.34	ug/L	550.34 ppb	09:25:55
2	SiO2†	779655.7	749158.6	52063	ug/L	52063 ppb	09:26:58
3	Sc Radial	3756.9	3756.9	95.9	%		09:25:11
3	Y RADIAL	5081.2	5081.2	115.2	%		09:24:51
3	Al 396.153Radial†	18673.9	19591.3	18374	ug/L	18374 ppb	09:24:51
3	Ca 317.933Radial†	8805.4	9165.3	19160	ug/L	19160 ppb	09:24:51
3	Fe 238.204 Radial†	3575.4	3718.2	52484	ug/L	52484 ppb	09:25:11
3	K 766.490 Radial†	25387.1	23841.8	4567.3	ug/L	4567.3 ppb	09:24:51
3	Mg 279.077 IEC†	102.5	102.9	4934.2	ug/L	4934.2 ppb	09:25:11
3	Na 589.592 Radial†	6506.9	7607.2	2345.5	ug/L	2345.5 ppb	09:24:51
3	Sr 421.552†	9272.5	9636.5	66.537	ug/L	66.537 ppb	09:24:51
3	Sc 361.383	922744.1	922744.1	105.19	%		09:26:20
3	Y 371.029	890232.9	890232.9	117.78	%		09:26:20
3	Ag 328.068†	-3341.7	-3417.3	0.4233	ug/L	0.4233 ppb	09:26:26
3	As 188.979†	-19.5	-0.3	22.548	ug/L	22.548 ppb	09:26:46
3	B 249.677†	-100.2	302.9	-1.2458	ug/L	-1.2458 ppb	09:26:26
3	Ba 233.527†	65070.4	61862.3	487.23	ug/L	487.23 ppb	09:26:26
3	Be 313.107†	8201.3	11559.0	7.0682	ug/L	7.0682 ppb	09:26:26
3	Cd 226.502†	314.1	494.9	0.3163	ug/L	0.3163 ppb	09:26:46
3	Co 228.616†	1109.1	1120.9	20.420	ug/L	20.420 ppb	09:26:46
3	Cr 267.716†	4634.3	4328.1	53.721	ug/L	53.721 ppb	09:26:46
3	Cu 324.752†	77860.5	68029.4	209.84	ug/L	209.84 ppb	09:26:26
3	Mn 257.610†	1481802.1	1408255.7	1607.5	ug/L	1607.5 ppb	09:26:20
3	Mo 202.031†	2.3	-7.9	3.7186	ug/L	3.7186 ppb	09:26:46
3	Ni 231.604†	1532.9	1394.8	35.461	ug/L	35.461 ppb	09:26:46
3	P 214.914†	2933.9	2578.7	1473.4	ug/L	1473.4 ppb	09:26:46
3	Pb 220.353†	2650.3	2577.7	315.32	ug/L	315.32 ppb	09:26:46
3	S 181.975 Axial†	182.5	132.7	187.50	ug/L	187.50 ppb	09:26:46
3	Sb 206.836†	51.1	11.9	-0.9478	ug/L	-0.9478 ppb	09:26:46
3	Se 196.026†	-282.2	-240.5	5.9462	ug/L	5.9462 ppb	09:26:46
3	Si 251.611†	786882.8	747512.7	24189	ug/L	24189 ppb	09:26:20
3	Sn 189.927†	-98.3	-103.9	-18.253	ug/L	-18.253 ppb	09:26:46
3	Ti 334.940†	801851.4	763675.4	1202.2	ug/L	1202.2 ppb	09:26:20
3	Tl 190.801†	-100.4	-62.9	-2.7369	ug/L	-2.7369 ppb	09:26:46
3	U 409.014†	-6055.7	-2870.4	-85.356	ug/L	-85.356 ppb	09:26:26
3	V 292.402†	10335.9	11331.8	70.019	ug/L	70.019 ppb	09:26:26
3	Zn 213.857†	58017.8	54550.2	540.77	ug/L	540.77 ppb	09:26:26
3	SiO2†	785967.2	746646.1	51889	ug/L	51889 ppb	09:27:04

Mean Data: 245969010|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920079.6	104.88	%	0.784				0.75%
Sc Radial	3757.7	95.9	%	0.83				0.87%
Y 371.029	887112.0	117.37	%	0.990				0.84%
Y RADIAL	5070.7	115.0	%	3.56				3.09%
Ag 328.068†	-3424.3	0.3942	ug/L	0.14437	0.3942	ppb	0.14437	36.63%
Al 396.153Radial†	19520.5	18308	ug/L	75.6	18308	ppb	75.6	0.41%
As 188.979†	-0.4	22.522	ug/L	0.3826	22.522	ppb	0.3826	1.70%
B 249.677†	315.0	-0.9546	ug/L	0.38481	-0.9546	ppb	0.38481	40.31%
Ba 233.527†	62021.2	488.47	ug/L	6.277	488.47	ppb	6.277	1.28%
Be 313.107†	11620.6	7.0954	ug/L	0.04552	7.0954	ppb	0.04552	0.64%
Ca 317.933Radial†	9158.9	19147	ug/L	92.9	19147	ppb	92.9	0.49%
Cd 226.502†	499.7	0.3717	ug/L	0.08035	0.3717	ppb	0.08035	21.61%
Co 228.616†	1125.8	20.517	ug/L	0.2889	20.517	ppb	0.2889	1.41%
Cr 267.716†	4368.6	54.177	ug/L	0.7445	54.177	ppb	0.7445	1.37%
Cu 324.752†	68283.7	210.61	ug/L	3.054	210.61	ppb	3.054	1.45%
Fe 238.204 Radial†	3718.8	52492	ug/L	808.3	52492	ppb	808.3	1.54%
K 766.490 Radial†	23717.3	4543.4	ug/L	22.93	4543.4	ppb	22.93	0.50%

Mg 279.077 IEC†	98.2	4708.1	ug/L	218.49	4708.1	ppb	218.49	4.64%
Mn 257.610†	1412044.4	1611.8	ug/L	3.85	1611.8	ppb	3.85	0.24%
Mo 202.031†	-15.2	3.1836	ug/L	0.84199	3.1836	ppb	0.84199	26.45%
Na 589.592 Radial†	7602.2	2344.0	ug/L	10.15	2344.0	ppb	10.15	0.43%
Ni 231.604†	1402.5	35.654	ug/L	0.4239	35.654	ppb	0.4239	1.19%
P 214.914†	2599.3	1485.6	ug/L	21.05	1485.6	ppb	21.05	1.42%
Pb 220.353†	2597.6	317.76	ug/L	4.728	317.76	ppb	4.728	1.49%
S 181.975 Axial†	128.5	181.55	ug/L	7.431	181.55	ppb	7.431	4.09%
Sb 206.836†	12.0	-0.9126	ug/L	0.95411	-0.9126	ppb	0.95411	104.54%
Se 196.026†	-237.3	8.1052	ug/L	4.10246	8.1052	ppb	4.10246	50.62%
Si 251.611†	748727.8	24228	ug/L	34.1	24228	ppb	34.1	0.14%
Sn 189.927†	-103.8	-18.235	ug/L	1.5273	-18.235	ppb	1.5273	8.38%
Sr 421.552†	9598.2	66.272	ug/L	0.2300	66.272	ppb	0.2300	0.35%
Ti 334.940†	764808.1	1204.0	ug/L	1.66	1204.0	ppb	1.66	0.14%
Tl 190.801†	-58.7	-1.3568	ug/L	2.27440	-1.3568	ppb	2.27440	167.63%
U 409.014†	-2852.0	-84.849	ug/L	1.4125	-84.849	ppb	1.4125	1.66%
V 292.402†	11374.1	70.300	ug/L	0.8415	70.300	ppb	0.8415	1.20%
Zn 213.857†	54692.5	542.19	ug/L	7.538	542.19	ppb	7.538	1.39%
SiO2†	743850.2	51694	ug/L	495.5	51694	ppb	495.5	0.96%

Sequence No.: 132
Sample ID: 245969011|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 143
Date Collected: 2/25/2010 09:29:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969011|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3937.4	3937.4	100	%			09:31:30
1	Y RADIAL	4817.5	4817.5	109.2	%			09:31:30
1	Al 396.153Radial†	82352.6	82076.2	76977	ug/L	76977	ppb	09:31:10
1	Ca 317.933Radial†	8795.3	8734.1	18259	ug/L	18259	ppb	09:31:10
1	Fe 238.204 Radial†	6983.3	6939.0	97948	ug/L	97948	ppb	09:31:30
1	K 766.490 Radial†	50776.5	47897.2	9183.7	ug/L	9183.7	ppb	09:31:10
1	Mg 279.077 IEC†	322.0	316.5	15241	ug/L	15241	ppb	09:31:30
1	Na 589.592 Radial†	7717.8	8501.1	2621.1	ug/L	2621.1	ppb	09:31:10
1	Sr 421.552†	30486.4	30306.7	209.57	ug/L	209.57	ppb	09:31:10
1	Sc 361.383	917248.7	917248.7	104.56	%			09:32:28
1	Y 371.029	851620.2	851620.2	112.67	%			09:32:28
1	Ag 328.068†	-7220.1	-7145.5	-2.3399	ug/L	-2.3399	ppb	09:32:33
1	As 188.979†	-15.8	3.2	44.397	ug/L	44.397	ppb	09:32:53
1	B 249.677†	607.7	979.4	7.6752	ug/L	7.6752	ppb	09:32:33
1	Ba 233.527†	100454.1	96073.0	757.30	ug/L	757.30	ppb	09:32:33
1	Be 313.107†	3746.2	7345.0	8.0086	ug/L	8.0086	ppb	09:32:33
1	Cd 226.502†	743.4	907.2	0.4039	ug/L	0.4039	ppb	09:32:53
1	Co 228.616†	2798.8	2743.2	51.512	ug/L	51.512	ppb	09:32:53
1	Cr 267.716†	11275.6	10706.0	129.84	ug/L	129.84	ppb	09:32:33
1	Cu 324.752†	20769.7	13872.8	47.510	ug/L	47.510	ppb	09:32:33
1	Mn 257.610†	1672459.5	1599035.1	1828.7	ug/L	1828.7	ppb	09:32:28
1	Mo 202.031†	-22.9	-32.0	5.4704	ug/L	5.4704	ppb	09:32:53
1	Ni 231.604†	3580.9	3362.3	85.478	ug/L	85.478	ppb	09:32:53
1	P 214.914†	837.5	590.5	287.23	ug/L	287.23	ppb	09:32:53
1	Pb 220.353†	660.4	689.7	90.505	ug/L	90.505	ppb	09:32:53
1	S 181.975 Axial†	401.1	342.8	478.83	ug/L	478.83	ppb	09:32:53
1	Sb 206.836†	54.1	15.0	-5.2597	ug/L	-5.2597	ppb	09:32:53
1	Se 196.026†	-529.7	-478.8	-8.9550	ug/L	-8.9550	ppb	09:32:53
1	Si 251.611†	1337894.8	1278967.1	41386	ug/L	41386	ppb	09:32:28
1	Sn 189.927†	-84.8	-91.6	-18.812	ug/L	-18.812	ppb	09:32:53
1	Ti 334.940†	1536853.8	1471178.4	2313.0	ug/L	2313.0	ppb	09:32:28
1	Tl 190.801†	-129.0	-90.8	-1.7430	ug/L	-1.7430	ppb	09:32:53
1	U 409.014†	-10498.2	-7153.6	-208.97	ug/L	-208.97	ppb	09:32:28
1	V 292.402†	26098.0	26465.1	167.67	ug/L	167.67	ppb	09:32:33
1	Zn 213.857†	25894.7	24158.9	227.94	ug/L	227.94	ppb	09:32:33
1	SiO2†	1318259.3	1260192.2	87578	ug/L	87578	ppb	09:34:02
2	Sc Radial	3945.6	3945.6	101	%			09:31:55
2	Y RADIAL	4835.9	4835.9	109.6	%			09:31:55
2	Al 396.153Radial†	83560.2	83104.9	77942	ug/L	77942	ppb	09:31:35
2	Ca 317.933Radial†	8993.6	8912.9	18632	ug/L	18632	ppb	09:31:35
2	Fe 238.204 Radial†	6984.2	6925.4	97755	ug/L	97755	ppb	09:31:55
2	K 766.490 Radial†	51751.1	48759.9	9349.1	ug/L	9349.1	ppb	09:31:35
2	Mg 279.077 IEC†	322.1	315.8	15211	ug/L	15211	ppb	09:31:55
2	Na 589.592 Radial†	7849.2	8615.7	2656.4	ug/L	2656.4	ppb	09:31:35
2	Sr 421.552†	31037.5	30790.9	212.92	ug/L	212.92	ppb	09:31:35
2	Sc 361.383	915936.0	915936.0	104.41	%			09:32:59
2	Y 371.029	850114.6	850114.6	112.47	%			09:32:59
2	Ag 328.068†	-7250.3	-7184.3	-2.5764	ug/L	-2.5764	ppb	09:33:04
2	As 188.979†	-29.6	-10.1	38.293	ug/L	38.293	ppb	09:33:24
2	B 249.677†	621.5	993.5	8.0467	ug/L	8.0467	ppb	09:33:04
2	Ba 233.527†	100893.7	96631.6	761.69	ug/L	761.69	ppb	09:33:04
2	Be 313.107†	3728.9	7333.5	7.9684	ug/L	7.9684	ppb	09:33:04
2	Cd 226.502†	751.8	916.3	0.5296	ug/L	0.5296	ppb	09:33:24
2	Co 228.616†	2821.4	2768.7	52.085	ug/L	52.085	ppb	09:33:24
2	Cr 267.716†	11342.6	10785.6	130.72	ug/L	130.72	ppb	09:33:04
2	Cu 324.752†	20934.0	14058.6	48.066	ug/L	48.066	ppb	09:33:04
2	Mn 257.610†	1657763.9	1587252.7	1815.2	ug/L	1815.2	ppb	09:32:59
2	Mo 202.031†	-17.9	-27.2	5.8103	ug/L	5.8103	ppb	09:33:24
2	Ni 231.604†	3600.0	3385.4	86.067	ug/L	86.067	ppb	09:33:24

2	P 214.914†	849.0	602.6	294.80	ug/L	294.80 ppb	09:33:24
2	Pb 220.353†	660.3	690.5	90.821	ug/L	90.821 ppb	09:33:24
2	S 181.975 Axial†	398.6	340.9	476.02	ug/L	476.02 ppb	09:33:24
2	Sb 206.836†	64.4	25.0	-1.7435	ug/L	-1.7435 ppb	09:33:24
2	Se 196.026†	-543.8	-493.1	-18.912	ug/L	-18.912 ppb	09:33:24
2	Si 251.611†	1325937.9	1269349.1	41075	ug/L	41075 ppb	09:32:59
2	Sn 189.927†	-82.2	-89.3	-18.316	ug/L	-18.316 ppb	09:33:24
2	Ti 334.940†	1524133.5	1461102.0	2297.3	ug/L	2297.3 ppb	09:32:59
2	Tl 190.801†	-151.2	-112.2	-8.8035	ug/L	-8.8035 ppb	09:33:24
2	U 409.014†	-10555.2	-7222.6	-210.86	ug/L	-210.86 ppb	09:32:59
2	V 292.402†	26285.7	26680.6	169.21	ug/L	169.21 ppb	09:33:04
2	Zn 213.857†	25932.6	24230.8	228.68	ug/L	228.68 ppb	09:33:04
2	SiO2†	1336727.0	1279686.3	88932	ug/L	88932 ppb	09:34:08
3	Sc Radial	3932.5	3932.5	100	%		09:32:21
3	Y RADIAL	4805.4	4805.4	108.9	%		09:32:21
3	Al 396.153Radial†	84769.8	84586.5	79332	ug/L	79332 ppb	09:32:01
3	Ca 317.933Radial†	9074.4	9023.1	18863	ug/L	18863 ppb	09:32:01
3	Fe 238.204 Radial†	6952.9	6917.3	97642	ug/L	97642 ppb	09:32:21
3	K 766.490 Radial†	52402.4	49579.9	9506.3	ug/L	9506.3 ppb	09:32:01
3	Mg 279.077 IEC†	324.2	319.0	15365	ug/L	15365 ppb	09:32:21
3	Na 589.592 Radial†	7979.6	8771.5	2704.5	ug/L	2704.5 ppb	09:32:01
3	Sr 421.552†	31440.6	31295.2	216.41	ug/L	216.41 ppb	09:32:01
3	Sc 361.383	903705.1	903705.1	103.02	%		09:33:30
3	Y 371.029	840859.5	840859.5	111.25	%		09:33:30
3	Ag 328.068†	-7267.0	-7294.5	-3.1193	ug/L	-3.1193 ppb	09:33:35
3	As 188.979†	-33.6	-14.4	36.408	ug/L	36.408 ppb	09:33:55
3	B 249.677†	526.7	909.5	6.0286	ug/L	6.0286 ppb	09:33:35
3	Ba 233.527†	100201.7	97267.8	766.68	ug/L	766.68 ppb	09:33:35
3	Be 313.107†	3722.8	7375.9	8.0022	ug/L	8.0022 ppb	09:33:35
3	Cd 226.502†	755.0	929.1	0.6887	ug/L	0.6887 ppb	09:33:55
3	Co 228.616†	2783.5	2768.5	52.070	ug/L	52.070 ppb	09:33:55
3	Cr 267.716†	11258.3	10850.8	131.44	ug/L	131.44 ppb	09:33:35
3	Cu 324.752†	20620.8	14025.9	47.963	ug/L	47.963 ppb	09:33:35
3	Mn 257.610†	1640907.9	1592378.9	1821.0	ug/L	1821.0 ppb	09:33:30
3	Mo 202.031†	-7.9	-17.9	6.4933	ug/L	6.4933 ppb	09:33:55
3	Ni 231.604†	3559.3	3392.5	86.248	ug/L	86.248 ppb	09:33:55
3	P 214.914†	824.7	590.1	287.74	ug/L	287.74 ppb	09:33:55
3	Pb 220.353†	673.7	712.1	93.787	ug/L	93.787 ppb	09:33:55
3	S 181.975 Axial†	398.2	345.8	482.68	ug/L	482.68 ppb	09:33:55
3	Sb 206.836†	64.5	25.9	-1.4608	ug/L	-1.4608 ppb	09:33:55
3	Se 196.026†	-529.2	-485.9	-14.568	ug/L	-14.568 ppb	09:33:55
3	Si 251.611†	1311856.5	1272867.5	41188	ug/L	41188 ppb	09:33:30
3	Sn 189.927†	-76.6	-84.8	-17.469	ug/L	-17.469 ppb	09:33:55
3	Ti 334.940†	1508953.7	1466123.2	2305.2	ug/L	2305.2 ppb	09:33:30
3	Tl 190.801†	-140.3	-103.6	-5.9619	ug/L	-5.9619 ppb	09:33:55
3	U 409.014†	-10603.1	-7405.9	-215.91	ug/L	-215.91 ppb	09:33:30
3	V 292.402†	25993.3	26737.5	169.62	ug/L	169.62 ppb	09:33:35
3	Zn 213.857†	25848.5	24485.3	231.26	ug/L	231.26 ppb	09:33:35
3	SiO2†	1312980.0	1273962.0	88535	ug/L	88535 ppb	09:34:14

Mean Data: 245969011|948756|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912296.6	104.00	%	0.851				0.82%
Sc Radial	3938.5	101	%	0.2				0.17%
Y 371.029	847531.4	112.13	%	0.771				0.69%
Y RADIAL	4819.6	109.3	%	0.35				0.32%
Ag 328.068†	-7208.1	-2.6785	ug/L	0.39965	-2.6785	ppb	0.39965	14.92%
Al 396.153Radial†	83255.9	78084	ug/L	1183.5	78084	ppb	1183.5	1.52%
As 188.979†	-7.1	39.699	ug/L	4.1759	39.699	ppb	4.1759	10.52%
B 249.677†	960.8	7.2502	ug/L	1.07408	7.2502	ppb	1.07408	14.81%
Ba 233.527†	96657.5	761.89	ug/L	4.689	761.89	ppb	4.689	0.62%
Be 313.107†	7351.5	7.9931	ug/L	0.02164	7.9931	ppb	0.02164	0.27%
Ca 317.933Radial†	8890.0	18585	ug/L	304.9	18585	ppb	304.9	1.64%
Cd 226.502†	917.5	0.5408	ug/L	0.14271	0.5408	ppb	0.14271	26.39%
Co 228.616†	2760.2	51.889	ug/L	0.3267	51.889	ppb	0.3267	0.63%
Cr 267.716†	10780.8	130.66	ug/L	0.802	130.66	ppb	0.802	0.61%
Cu 324.752†	13985.8	47.846	ug/L	0.2960	47.846	ppb	0.2960	0.62%
Fe 238.204 Radial†	6927.2	97781	ug/L	154.6	97781	ppb	154.6	0.16%
K 766.490 Radial†	48745.6	9346.4	ug/L	161.36	9346.4	ppb	161.36	1.73%

Mg 279.077 IEC†	317.1	15272	ug/L	81.9	15272	ppb	81.9	0.54%
Mn 257.610†	1592888.9	1821.6	ug/L	6.73	1821.6	ppb	6.73	0.37%
Mo 202.031†	-25.7	5.9247	ug/L	0.52094	5.9247	ppb	0.52094	8.79%
Na 589.592 Radial†	8629.4	2660.7	ug/L	41.85	2660.7	ppb	41.85	1.57%
Ni 231.604†	3380.1	85.931	ug/L	0.4025	85.931	ppb	0.4025	0.47%
P 214.914†	594.4	289.92	ug/L	4.228	289.92	ppb	4.228	1.46%
Pb 220.353†	697.4	91.705	ug/L	1.8105	91.705	ppb	1.8105	1.97%
S 181.975 Axial†	343.2	479.18	ug/L	3.344	479.18	ppb	3.344	0.70%
Sb 206.836†	22.0	-2.8214	ug/L	2.11641	-2.8214	ppb	2.11641	75.01%
Se 196.026†	-486.0	-14.145	ug/L	4.9921	-14.145	ppb	4.9921	35.29%
Si 251.611†	1273727.9	41216	ug/L	157.5	41216	ppb	157.5	0.38%
Sn 189.927†	-88.5	-18.199	ug/L	0.6787	-18.199	ppb	0.6787	3.73%
Sr 421.552†	30797.6	212.97	ug/L	3.418	212.97	ppb	3.418	1.60%
Ti 334.940†	1466134.5	2305.2	ug/L	7.89	2305.2	ppb	7.89	0.34%
Tl 190.801†	-102.2	-5.5028	ug/L	3.55260	-5.5028	ppb	3.55260	64.56%
U 409.014†	-7260.7	-211.91	ug/L	3.587	-211.91	ppb	3.587	1.69%
V 292.402†	26627.7	168.83	ug/L	1.032	168.83	ppb	1.032	0.61%
Zn 213.857†	24291.7	229.29	ug/L	1.745	229.29	ppb	1.745	0.76%
SiO2†	1271280.2	88348	ug/L	696.3	88348	ppb	696.3	0.79%

Sequence No.: 133
Sample ID: 245969012|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 144
Date Collected: 2/25/2010 09:36:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969012|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3872.4	3872.4	98.8	%			09:38:39
1	Y RADIAL	4739.1	4739.1	107.4	%			09:38:19
1	Al 396.153Radial†	54496.9	55262.5	51829	ug/L	51829	ppb	09:38:19
1	Ca 317.933Radial†	6344.8	6401.2	13382	ug/L	13382	ppb	09:38:19
1	Fe 238.204 Radial†	6372.3	6437.3	90866	ug/L	90866	ppb	09:38:19
1	K 766.490 Radial†	49112.1	47061.2	9025.4	ug/L	9025.4	ppb	09:38:19
1	Mg 279.077 IEC†	211.2	209.6	10068	ug/L	10068	ppb	09:38:39
1	Na 589.592 Radial†	888.2	1718.6	529.88	ug/L	529.88	ppb	09:38:19
1	Sr 421.552†	20381.4	20590.0	142.37	ug/L	142.37	ppb	09:38:19
1	Sc 361.383	914677.7	914677.7	104.27	%			09:39:37
1	Y 371.029	819396.8	819396.8	108.41	%			09:39:37
1	Ag 328.068†	-6423.4	-6400.8	-1.0095	ug/L	-1.0095	ppb	09:39:42
1	As 188.979†	-48.2	-28.0	36.098	ug/L	36.098	ppb	09:40:02
1	B 249.677†	491.9	870.0	6.2058	ug/L	6.2058	ppb	09:39:42
1	Ba 233.527†	83941.3	80506.2	634.99	ug/L	634.99	ppb	09:39:42
1	Be 313.107†	-5089.6	-1119.1	6.7311	ug/L	6.7311	ppb	09:39:42
1	Cd 226.502†	736.7	902.8	1.1192	ug/L	1.1192	ppb	09:40:02
1	Co 228.616†	2215.4	2191.2	38.208	ug/L	38.208	ppb	09:40:02
1	Cr 267.716†	16467.2	15715.4	185.38	ug/L	185.38	ppb	09:39:42
1	Cu 324.752†	66498.5	57785.3	180.68	ug/L	180.68	ppb	09:39:42
1	Mn 257.610†	2284469.2	2190485.1	2501.2	ug/L	2501.2	ppb	09:39:37
1	Mo 202.031†	-39.4	-47.9	3.6929	ug/L	3.6929	ppb	09:40:02
1	Ni 231.604†	3965.8	3741.0	95.117	ug/L	95.117	ppb	09:40:02
1	P 214.914†	1100.3	844.7	413.35	ug/L	413.35	ppb	09:40:02
1	Pb 220.353†	11284.0	10880.2	1339.2	ug/L	1339.2	ppb	09:39:42
1	S 181.975 Axial†	288.6	236.0	329.93	ug/L	329.93	ppb	09:40:02
1	Sb 206.836†	89.9	49.5	5.1026	ug/L	5.1026	ppb	09:40:02
1	Se 196.026†	-472.1	-425.1	4.4287	ug/L	4.4287	ppb	09:40:02
1	Si 251.611†	1141562.6	1094269.1	35409	ug/L	35409	ppb	09:39:37
1	Sn 189.927†	12.9	1.9	-2.4990	ug/L	-2.4990	ppb	09:40:02
1	Ti 334.940†	2088800.1	2004659.4	3151.0	ug/L	3151.0	ppb	09:39:37
1	Tl 190.801†	-175.3	-135.5	-5.8732	ug/L	-5.8732	ppb	09:40:02
1	U 409.014†	-5038.1	-1945.2	-64.470	ug/L	-64.470	ppb	09:39:42
1	V 292.402†	30015.0	30291.9	194.63	ug/L	194.63	ppb	09:39:42
1	Zn 213.857†	22122.2	20610.5	193.03	ug/L	193.03	ppb	09:39:42
1	SiO2†	1148765.2	1101180.7	76527	ug/L	76527	ppb	09:41:11
2	Sc Radial	3855.4	3855.4	98.4	%			09:39:04
2	Y RADIAL	4770.8	4770.8	108.2	%			09:38:44
2	Al 396.153Radial†	54609.9	55620.9	52166	ug/L	52166	ppb	09:38:44
2	Ca 317.933Radial†	6371.6	6456.8	13498	ug/L	13498	ppb	09:38:44
2	Fe 238.204 Radial†	6392.3	6486.2	91556	ug/L	91556	ppb	09:38:44
2	K 766.490 Radial†	49337.6	47509.8	9111.5	ug/L	9111.5	ppb	09:38:44
2	Mg 279.077 IEC†	202.1	201.3	9666.3	ug/L	9666.3	ppb	09:39:04
2	Na 589.592 Radial†	882.8	1717.1	529.42	ug/L	529.42	ppb	09:38:44
2	Sr 421.552†	20391.9	20691.8	143.08	ug/L	143.08	ppb	09:38:44
2	Sc 361.383	918587.6	918587.6	104.71	%			09:40:08
2	Y 371.029	824043.6	824043.6	109.02	%			09:40:08
2	Ag 328.068†	-6219.4	-6179.8	0.2154	ug/L	0.2154	ppb	09:40:13
2	As 188.979†	-48.3	-27.9	36.240	ug/L	36.240	ppb	09:40:33
2	B 249.677†	424.3	803.4	4.4802	ug/L	4.4802	ppb	09:40:13
2	Ba 233.527†	82720.0	78997.2	623.16	ug/L	623.16	ppb	09:40:13
2	Be 313.107†	-5146.9	-1153.0	6.7030	ug/L	6.7030	ppb	09:40:13
2	Cd 226.502†	737.6	900.7	1.0215	ug/L	1.0215	ppb	09:40:33
2	Co 228.616†	2204.5	2171.7	37.801	ug/L	37.801	ppb	09:40:33
2	Cr 267.716†	16219.3	15411.4	182.03	ug/L	182.03	ppb	09:40:13
2	Cu 324.752†	65098.0	56176.4	175.83	ug/L	175.83	ppb	09:40:13
2	Mn 257.610†	2288535.8	2185043.2	2495.1	ug/L	2495.1	ppb	09:40:08
2	Mo 202.031†	-32.9	-41.6	4.2148	ug/L	4.2148	ppb	09:40:33
2	Ni 231.604†	3989.3	3747.3	95.277	ug/L	95.277	ppb	09:40:33

2	P 214.914†	1092.8	833.1	406.80	ug/L	406.80 ppb	09:40:33
2	Pb 220.353†	11121.3	10678.7	1314.4	ug/L	1314.4 ppb	09:40:13
2	S 181.975 Axial†	273.3	220.2	307.06	ug/L	307.06 ppb	09:40:33
2	Sb 206.836†	102.6	61.3	9.1686	ug/L	9.1686 ppb	09:40:33
2	Se 196.026†	-476.7	-427.5	4.9754	ug/L	4.9754 ppb	09:40:33
2	Si 251.611†	1145838.4	1093692.4	35391	ug/L	35391 ppb	09:40:08
2	Sn 189.927†	-1.7	-12.1	-5.0330	ug/L	-5.0330 ppb	09:40:33
2	Ti 334.940†	2093243.9	2000376.5	3144.4	ug/L	3144.4 ppb	09:40:08
2	Tl 190.801†	-158.8	-119.1	-0.6914	ug/L	-0.6914 ppb	09:40:33
2	U 409.014†	-5281.9	-2157.5	-70.400	ug/L	-70.400 ppb	09:40:13
2	V 292.402†	29613.1	29785.6	191.00	ug/L	191.00 ppb	09:40:13
2	Zn 213.857†	21702.9	20119.7	187.99	ug/L	187.99 ppb	09:40:13
2	SiO2†	1126385.6	1075119.4	74716	ug/L	74716 ppb	09:41:17
3	Sc Radial	3887.4	3887.4	99.2	%		09:39:30
3	Y RADIAL	4734.5	4734.5	107.3	%		09:39:10
3	Al 396.153Radial†	54421.8	54973.4	51558	ug/L	51558 ppb	09:39:10
3	Ca 317.933Radial†	6373.2	6404.9	13390	ug/L	13390 ppb	09:39:10
3	Fe 238.204 Radial†	6386.5	6426.7	90716	ug/L	90716 ppb	09:39:10
3	K 766.490 Radial†	49333.8	47092.3	9031.4	ug/L	9031.4 ppb	09:39:10
3	Mg 279.077 IEC†	203.4	201.0	9648.8	ug/L	9648.8 ppb	09:39:30
3	Na 589.592 Radial†	855.2	1681.9	518.58	ug/L	518.58 ppb	09:39:10
3	Sr 421.552†	20345.5	20474.0	141.57	ug/L	141.57 ppb	09:39:10
3	Sc 361.383	917684.1	917684.1	104.61	%		09:40:39
3	Y 371.029	822406.1	822406.1	108.81	%		09:40:39
3	Ag 328.068†	-6364.4	-6324.3	-0.7130	ug/L	-0.7130 ppb	09:40:44
3	As 188.979†	-52.0	-31.5	34.396	ug/L	34.396 ppb	09:41:04
3	B 249.677†	461.4	839.3	5.4865	ug/L	5.4865 ppb	09:40:44
3	Ba 233.527†	82762.9	79116.0	624.07	ug/L	624.07 ppb	09:40:44
3	Be 313.107†	-5183.0	-1192.4	6.6778	ug/L	6.6778 ppb	09:40:44
3	Cd 226.502†	706.8	871.9	0.7761	ug/L	0.7761 ppb	09:41:04
3	Co 228.616†	2221.4	2190.0	38.207	ug/L	38.207 ppb	09:41:04
3	Cr 267.716†	16177.8	15387.0	181.68	ug/L	181.68 ppb	09:40:44
3	Cu 324.752†	65099.9	56239.4	175.97	ug/L	175.97 ppb	09:40:44
3	Mn 257.610†	2283774.6	2182643.5	2492.3	ug/L	2492.3 ppb	09:40:39
3	Mo 202.031†	-28.8	-37.7	4.4350	ug/L	4.4350 ppb	09:41:04
3	Ni 231.604†	3984.5	3746.4	95.255	ug/L	95.255 ppb	09:41:04
3	P 214.914†	1098.2	839.3	411.05	ug/L	411.05 ppb	09:41:04
3	Pb 220.353†	11097.8	10666.7	1312.9	ug/L	1312.9 ppb	09:40:44
3	S 181.975 Axial†	279.4	226.3	316.03	ug/L	316.03 ppb	09:41:04
3	Sb 206.836†	90.8	50.1	5.3261	ug/L	5.3261 ppb	09:41:04
3	Se 196.026†	-475.6	-426.9	2.7953	ug/L	2.7953 ppb	09:41:04
3	Si 251.611†	1141465.8	1090589.9	35290	ug/L	35290 ppb	09:40:39
3	Sn 189.927†	-1.0	-11.4	-4.8831	ug/L	-4.8831 ppb	09:41:04
3	Ti 334.940†	2088126.7	1997453.0	3139.8	ug/L	3139.8 ppb	09:40:39
3	Tl 190.801†	-152.8	-113.5	1.0388	ug/L	1.0388 ppb	09:41:04
3	U 409.014†	-5181.5	-2066.4	-67.791	ug/L	-67.791 ppb	09:40:44
3	V 292.402†	29573.2	29775.2	191.06	ug/L	191.06 ppb	09:40:44
3	Zn 213.857†	21793.5	20226.8	189.20	ug/L	189.20 ppb	09:40:44
3	SiO2†	1135866.2	1085241.1	75419	ug/L	75419 ppb	09:41:23

Mean Data: 245969012|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	916983.1	104.53	%	0.233				0.22%
Sc Radial	3871.7	98.8	%	0.41				0.41%
Y 371.029	821948.8	108.75	%	0.312				0.29%
Y RADIAL	4748.1	107.6	%	0.45				0.42%
Ag 328.068†	-6301.6	-0.5023	ug/L	0.63905	-0.5023	ppb	0.63905	127.21%
Al 396.153Radial†	55285.6	51851	ug/L	304.2	51851	ppb	304.2	0.59%
As 188.979†	-29.1	35.578	ug/L	1.0264	35.578	ppb	1.0264	2.88%
B 249.677†	837.6	5.3908	ug/L	0.86678	5.3908	ppb	0.86678	16.08%
Ba 233.527†	79539.8	627.41	ug/L	6.583	627.41	ppb	6.583	1.05%
Be 313.107†	-1154.8	6.7040	ug/L	0.02664	6.7040	ppb	0.02664	0.40%
Ca 317.933Radial†	6421.0	13423	ug/L	64.9	13423	ppb	64.9	0.48%
Cd 226.502†	891.8	0.9723	ug/L	0.17675	0.9723	ppb	0.17675	18.18%
Co 228.616†	2184.3	38.072	ug/L	0.2346	38.072	ppb	0.2346	0.62%
Cr 267.716†	15504.6	183.03	ug/L	2.044	183.03	ppb	2.044	1.12%
Cu 324.752†	56733.7	177.50	ug/L	2.763	177.50	ppb	2.763	1.56%
Fe 238.204 Radial†	6450.1	91046	ug/L	448.0	91046	ppb	448.0	0.49%
K 766.490 Radial†	47221.1	9056.1	ug/L	48.05	9056.1	ppb	48.05	0.53%

Mg 279.077 IEC†	204.0	9794.5	ug/L	237.35	9794.5	ppb	237.35	2.42%
Mn 257.610†	2186057.3	2496.2	ug/L	4.56	2496.2	ppb	4.56	0.18%
Mo 202.031†	-42.4	4.1142	ug/L	0.38113	4.1142	ppb	0.38113	9.26%
Na 589.592 Radial†	1705.9	525.96	ug/L	6.398	525.96	ppb	6.398	1.22%
Ni 231.604†	3744.9	95.216	ug/L	0.0866	95.216	ppb	0.0866	0.09%
P 214.914†	839.0	410.40	ug/L	3.323	410.40	ppb	3.323	0.81%
Pb 220.353†	10741.9	1322.2	ug/L	14.76	1322.2	ppb	14.76	1.12%
S 181.975 Axial†	227.5	317.67	ug/L	11.520	317.67	ppb	11.520	3.63%
Sb 206.836†	53.6	6.5324	ug/L	2.28572	6.5324	ppb	2.28572	34.99%
Se 196.026†	-426.5	4.0664	ug/L	1.13430	4.0664	ppb	1.13430	27.89%
Si 251.611†	1092850.5	35363	ug/L	64.0	35363	ppb	64.0	0.18%
Sn 189.927†	-7.2	-4.1384	ug/L	1.42172	-4.1384	ppb	1.42172	34.35%
Sr 421.552†	20585.2	142.34	ug/L	0.754	142.34	ppb	0.754	0.53%
Ti 334.940†	2000829.6	3145.1	ug/L	5.67	3145.1	ppb	5.67	0.18%
Tl 190.801†	-122.7	-1.8419	ug/L	3.59677	-1.8419	ppb	3.59677	195.27%
U 409.014†	-2056.4	-67.554	ug/L	2.9726	-67.554	ppb	2.9726	4.40%
V 292.402†	29950.9	192.23	ug/L	2.081	192.23	ppb	2.081	1.08%
Zn 213.857†	20319.0	190.07	ug/L	2.631	190.07	ppb	2.631	1.38%
SiO2†	1087180.4	75554	ug/L	913.1	75554	ppb	913.1	1.21%

Sequence No.: 134
Sample ID: 245969013|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 145
Date Collected: 2/25/2010 09:43:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969013|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3937.5	3937.5	100	%			09:45:49
1	Y RADIAL	5168.7	5168.7	117.2	%			09:45:29
1	Al 396.153Radial†	51751.3	51617.9	48411	ug/L	48411	ppb	09:45:29
1	Ca 317.933Radial†	10772.8	10701.9	22372	ug/L	22372	ppb	09:45:29
1	Fe 238.204 Radial†	5677.2	5638.9	79597	ug/L	79597	ppb	09:45:29
1	K 766.490 Radial†	41882.9	39044.3	7483.6	ug/L	7483.6	ppb	09:45:29
1	Mg 279.077 IEC†	214.1	209.0	10051	ug/L	10051	ppb	09:45:49
1	Na 589.592 Radial†	4860.9	5657.6	1744.4	ug/L	1744.4	ppb	09:45:29
1	Sr 421.552†	24885.6	24731.7	170.97	ug/L	170.97	ppb	09:45:29
1	Sc 361.383	910165.1	910165.1	103.75	%			09:46:46
1	Y 371.029	887283.2	887283.2	117.39	%			09:46:46
1	Ag 328.068†	-5402.7	-5447.7	-0.5707	ug/L	-0.5707	ppb	09:46:52
1	As 188.979†	-2.8	15.5	34.640	ug/L	34.640	ppb	09:47:12
1	B 249.677†	657.5	1031.9	11.844	ug/L	11.844	ppb	09:46:52
1	Ba 233.527†	65958.1	63572.9	501.49	ug/L	501.49	ppb	09:46:52
1	Be 313.107†	14509.6	17746.7	9.0471	ug/L	9.0471	ppb	09:46:52
1	Cd 226.502†	562.6	738.5	0.3296	ug/L	0.3296	ppb	09:47:12
1	Co 228.616†	4233.7	4147.0	83.749	ug/L	83.749	ppb	09:47:12
1	Cr 267.716†	4863.3	4609.6	59.516	ug/L	59.516	ppb	09:47:12
1	Cu 324.752†	112010.3	101966.5	314.62	ug/L	314.62	ppb	09:46:52
1	Mn 257.610†	2016317.5	1942899.3	2218.4	ug/L	2218.4	ppb	09:46:46
1	Mo 202.031†	22.1	11.2	7.2662	ug/L	7.2662	ppb	09:47:12
1	Ni 231.604†	2501.8	2348.8	59.684	ug/L	59.684	ppb	09:47:12
1	P 214.914†	820.5	580.3	235.45	ug/L	235.45	ppb	09:47:12
1	Pb 220.353†	2839.7	2795.1	345.38	ug/L	345.38	ppb	09:47:12
1	S 181.975 Axial†	280.9	229.9	321.78	ug/L	321.78	ppb	09:47:12
1	Sb 206.836†	43.2	4.9	-3.9879	ug/L	-3.9879	ppb	09:47:12
1	Se 196.026†	-423.2	-380.1	-1.2322	ug/L	-1.2322	ppb	09:47:12
1	Si 251.611†	1190116.5	1146494.4	37099	ug/L	37099	ppb	09:46:46
1	Sn 189.927†	-121.6	-127.7	-23.513	ug/L	-23.513	ppb	09:47:12
1	Ti 334.940†	690166.0	666566.7	1049.7	ug/L	1049.7	ppb	09:46:46
1	Tl 190.801†	-120.6	-83.6	-8.0175	ug/L	-8.0175	ppb	09:47:12
1	U 409.014†	-10532.4	-7264.7	-209.80	ug/L	-209.80	ppb	09:46:46
1	V 292.402†	11077.2	12182.0	72.047	ug/L	72.047	ppb	09:46:52
1	Zn 213.857†	27471.3	25871.2	247.72	ug/L	247.72	ppb	09:46:52
1	SiO2†	1190591.1	1146955.7	79708	ug/L	79708	ppb	09:48:20
2	Sc Radial	3906.5	3906.5	99.7	%			09:46:14
2	Y RADIAL	5246.5	5246.5	118.9	%			09:45:54
2	Al 396.153Radial†	51791.8	52067.5	48833	ug/L	48833	ppb	09:45:54
2	Ca 317.933Radial†	10756.8	10771.1	22517	ug/L	22517	ppb	09:45:54
2	Fe 238.204 Radial†	5709.0	5715.7	80681	ug/L	80681	ppb	09:45:54
2	K 766.490 Radial†	42105.1	39598.3	7589.8	ug/L	7589.8	ppb	09:45:54
2	Mg 279.077 IEC†	214.4	211.0	10149	ug/L	10149	ppb	09:46:14
2	Na 589.592 Radial†	4980.8	5816.3	1793.3	ug/L	1793.3	ppb	09:45:54
2	Sr 421.552†	24888.1	24930.8	172.34	ug/L	172.34	ppb	09:45:54
2	Sc 361.383	894420.7	894420.7	101.96	%			09:47:18
2	Y 371.029	876607.6	876607.6	115.98	%			09:47:18
2	Ag 328.068†	-5325.0	-5463.1	-0.2997	ug/L	-0.2997	ppb	09:47:23
2	As 188.979†	-15.3	3.3	29.624	ug/L	29.624	ppb	09:47:43
2	B 249.677†	673.4	1058.7	12.312	ug/L	12.312	ppb	09:47:23
2	Ba 233.527†	65781.4	64518.6	508.94	ug/L	508.94	ppb	09:47:23
2	Be 313.107†	14450.5	17934.9	9.1701	ug/L	9.1701	ppb	09:47:23
2	Cd 226.502†	571.9	757.2	0.4329	ug/L	0.4329	ppb	09:47:43
2	Co 228.616†	4260.7	4245.3	85.750	ug/L	85.750	ppb	09:47:43
2	Cr 267.716†	4844.9	4674.1	60.348	ug/L	60.348	ppb	09:47:43
2	Cu 324.752†	111447.2	103314.5	318.78	ug/L	318.78	ppb	09:47:23
2	Mn 257.610†	2025469.1	1986083.5	2267.6	ug/L	2267.6	ppb	09:47:18
2	Mo 202.031†	31.4	20.7	8.0500	ug/L	8.0500	ppb	09:47:43
2	Ni 231.604†	2513.1	2402.4	61.046	ug/L	61.046	ppb	09:47:43

2	P 214.914†	806.5	580.5	234.02	ug/L	234.02 ppb	09:47:43
2	Pb 220.353†	2828.3	2832.0	349.90	ug/L	349.90 ppb	09:47:43
2	S 181.975 Axial†	288.2	241.8	338.87	ug/L	338.87 ppb	09:47:43
2	Sb 206.836†	41.6	4.1	-4.3152	ug/L	-4.3152 ppb	09:47:43
2	Se 196.026†	-413.9	-378.2	3.4018	ug/L	3.4018 ppb	09:47:43
2	Si 251.611†	1195937.3	1172394.7	37937	ug/L	37937 ppb	09:47:18
2	Sn 189.927†	-111.4	-119.8	-22.119	ug/L	-22.119 ppb	09:47:43
2	Ti 334.940†	693145.6	681198.3	1072.7	ug/L	1072.7 ppb	09:47:18
2	Tl 190.801†	-105.7	-71.1	-3.6100	ug/L	-3.6100 ppb	09:47:43
2	U 409.014†	-10634.1	-7543.1	-217.61	ug/L	-217.61 ppb	09:47:18
2	V 292.402†	11076.4	12369.2	73.166	ug/L	73.166 ppb	09:47:23
2	Zn 213.857†	27432.9	26299.7	251.86	ug/L	251.86 ppb	09:47:23
2	SiO2†	1189156.7	1165748.3	81014	ug/L	81014 ppb	09:48:26
3	Sc Radial	3809.1	3809.1	97.2	%		09:46:39
3	Y RADIAL	5113.0	5113.0	115.9	%		09:46:19
3	Al 396.153Radial†	51293.7	52883.3	49598	ug/L	49598 ppb	09:46:19
3	Ca 317.933Radial†	10669.7	10957.3	22906	ug/L	22906 ppb	09:46:19
3	Fe 238.204 Radial†	5614.0	5764.4	81368	ug/L	81368 ppb	09:46:19
3	K 766.490 Radial†	41554.7	40111.8	7688.3	ug/L	7688.3 ppb	09:46:19
3	Mg 279.077 IEC†	216.3	218.5	10508	ug/L	10508 ppb	09:46:39
3	Na 589.592 Radial†	4893.9	5854.6	1805.1	ug/L	1805.1 ppb	09:46:19
3	Sr 421.552†	24655.2	25329.5	175.10	ug/L	175.10 ppb	09:46:19
3	Sc 361.383	909129.3	909129.3	103.64	%		09:47:49
3	Y 371.029	884973.3	884973.3	117.08	%		09:47:49
3	Ag 328.068†	-5341.0	-5394.0	0.2121	ug/L	0.2121 ppb	09:47:54
3	As 188.979†	-10.5	8.2	31.726	ug/L	31.726 ppb	09:48:14
3	B 249.677†	725.2	1097.9	13.156	ug/L	13.156 ppb	09:47:54
3	Ba 233.527†	65711.7	63407.5	500.24	ug/L	500.24 ppb	09:47:54
3	Be 313.107†	14220.4	17483.6	8.9353	ug/L	8.9353 ppb	09:47:54
3	Cd 226.502†	556.8	733.6	0.0907	ug/L	0.0907 ppb	09:48:14
3	Co 228.616†	4255.4	4172.6	84.271	ug/L	84.271 ppb	09:48:14
3	Cr 267.716†	4882.5	4633.5	59.951	ug/L	59.951 ppb	09:48:14
3	Cu 324.752†	111681.7	101772.4	314.12	ug/L	314.12 ppb	09:47:54
3	Mn 257.610†	2006606.8	1935743.4	2210.4	ug/L	2210.4 ppb	09:47:49
3	Mo 202.031†	28.5	17.3	7.8605	ug/L	7.8605 ppb	09:48:14
3	Ni 231.604†	2547.2	2395.4	60.870	ug/L	60.870 ppb	09:48:14
3	P 214.914†	815.3	576.2	231.98	ug/L	231.98 ppb	09:48:14
3	Pb 220.353†	2820.2	2779.3	343.51	ug/L	343.51 ppb	09:48:14
3	S 181.975 Axial†	286.4	235.5	329.60	ug/L	329.60 ppb	09:48:14
3	Sb 206.836†	44.7	6.4	-3.4690	ug/L	-3.4690 ppb	09:48:14
3	Se 196.026†	-412.7	-370.5	10.589	ug/L	10.589 ppb	09:48:14
3	Si 251.611†	1183645.9	1141557.6	36939	ug/L	36939 ppb	09:47:49
3	Sn 189.927†	-115.6	-122.1	-22.503	ug/L	-22.503 ppb	09:48:14
3	Ti 334.940†	685607.6	662926.1	1044.0	ug/L	1044.0 ppb	09:47:49
3	Tl 190.801†	-108.1	-71.7	-4.3027	ug/L	-4.3027 ppb	09:48:14
3	U 409.014†	-10345.7	-7096.1	-205.34	ug/L	-205.34 ppb	09:47:49
3	V 292.402†	11096.2	12212.6	72.032	ug/L	72.032 ppb	09:47:54
3	Zn 213.857†	27374.2	25807.7	246.81	ug/L	246.81 ppb	09:47:54
3	SiO2†	1182147.4	1140115.6	79233	ug/L	79233 ppb	09:48:32

Mean Data: 245969013|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904571.7	103.12	%	1.004				0.97%
Sc Radial	3884.4	99.1	%	1.71				1.72%
Y 371.029	882954.7	116.82	%	0.743				0.64%
Y RADIAL	5176.1	117.3	%	1.52				1.30%
Ag 328.068†	-5434.9	-0.2194	ug/L	0.39753	-0.2194	ppb	0.39753	181.18%
Al 396.153Radial†	52189.6	48947	ug/L	601.6	48947	ppb	601.6	1.23%
As 188.979†	9.0	31.997	ug/L	2.5190	31.997	ppb	2.5190	7.87%
B 249.677†	1062.8	12.438	ug/L	0.6651	12.438	ppb	0.6651	5.35%
Ba 233.527†	63833.0	503.56	ug/L	4.706	503.56	ppb	4.706	0.93%
Be 313.107†	17721.8	9.0508	ug/L	0.11744	9.0508	ppb	0.11744	1.30%
Ca 317.933Radial†	10810.1	22599	ug/L	276.2	22599	ppb	276.2	1.22%
Cd 226.502†	743.1	0.2844	ug/L	0.17551	0.2844	ppb	0.17551	61.71%
Co 228.616†	4188.3	84.590	ug/L	1.0375	84.590	ppb	1.0375	1.23%
Cr 267.716†	4639.1	59.938	ug/L	0.4160	59.938	ppb	0.4160	0.69%
Cu 324.752†	102351.1	315.84	ug/L	2.560	315.84	ppb	2.560	0.81%
Fe 238.204 Radial†	5706.3	80549	ug/L	892.8	80549	ppb	892.8	1.11%
K 766.490 Radial†	39584.8	7587.2	ug/L	102.35	7587.2	ppb	102.35	1.35%

Mg 279.077 IEC†	212.8	10236	ug/L	240.5	10236	ppb	240.5	2.35%
Mn 257.610†	1954908.7	2232.1	ug/L	31.00	2232.1	ppb	31.00	1.39%
Mo 202.031†	16.4	7.7256	ug/L	0.40893	7.7256	ppb	0.40893	5.29%
Na 589.592 Radial†	5776.2	1780.9	ug/L	32.20	1780.9	ppb	32.20	1.81%
Ni 231.604†	2382.2	60.533	ug/L	0.7405	60.533	ppb	0.7405	1.22%
P 214.914†	579.0	233.81	ug/L	1.745	233.81	ppb	1.745	0.75%
Pb 220.353†	2802.1	346.26	ug/L	3.285	346.26	ppb	3.285	0.95%
S 181.975 Axial†	235.8	330.08	ug/L	8.556	330.08	ppb	8.556	2.59%
Sb 206.836†	5.1	-3.9240	ug/L	0.42670	-3.9240	ppb	0.42670	10.87%
Se 196.026†	-376.3	4.2528	ug/L	5.95629	4.2528	ppb	5.95629	140.06%
Si 251.611†	1153482.2	37325	ug/L	536.0	37325	ppb	536.0	1.44%
Sn 189.927†	-123.2	-22.712	ug/L	0.7196	-22.712	ppb	0.7196	3.17%
Sr 421.552†	24997.3	172.80	ug/L	2.104	172.80	ppb	2.104	1.22%
Ti 334.940†	670230.4	1055.5	ug/L	15.19	1055.5	ppb	15.19	1.44%
Tl 190.801†	-75.5	-5.3101	ug/L	2.37019	-5.3101	ppb	2.37019	44.64%
U 409.014†	-7301.3	-210.92	ug/L	6.209	-210.92	ppb	6.209	2.94%
V 292.402†	12254.6	72.415	ug/L	0.6507	72.415	ppb	0.6507	0.90%
Zn 213.857†	25992.9	248.79	ug/L	2.690	248.79	ppb	2.690	1.08%
SiO2†	1150939.9	79985	ug/L	922.4	79985	ppb	922.4	1.15%

Sequence No.: 135
Sample ID: 245969014|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 146
Date Collected: 2/25/2010 09:50:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969014|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4001.8	4001.8	102	%			09:52:59
1	Y RADIAL	4920.9	4920.9	111.6	%			09:52:39
1	Al 396.153Radial†	37737.7	37067.6	34765	ug/L	34765	ppb	09:52:39
1	Ca 317.933Radial†	4121.7	4016.6	8396.7	ug/L	8396.7	ppb	09:52:39
1	Fe 238.204 Radial†	5025.2	4909.7	69303	ug/L	69303	ppb	09:52:39
1	K 766.490 Radial†	34633.5	31275.8	5998.0	ug/L	5998.0	ppb	09:52:39
1	Mg 279.077 IEC†	150.6	143.4	6881.4	ug/L	6881.4	ppb	09:52:59
1	Na 589.592 Radial†	1278.1	2071.4	638.67	ug/L	638.67	ppb	09:52:39
1	Sr 421.552†	13830.0	13507.5	93.403	ug/L	93.403	ppb	09:52:39
1	Sc 361.383	906148.2	906148.2	103.30	%			09:53:56
1	Y 371.029	849622.2	849622.2	112.41	%			09:53:56
1	Ag 328.068†	-4656.0	-4747.9	-0.2733	ug/L	-0.2733	ppb	09:54:01
1	As 188.979†	-40.6	-21.1	27.248	ug/L	27.248	ppb	09:54:21
1	B 249.677†	357.6	744.4	6.6982	ug/L	6.6982	ppb	09:54:01
1	Ba 233.527†	60870.2	58929.1	464.85	ug/L	464.85	ppb	09:54:01
1	Be 313.107†	795.8	4532.6	7.0532	ug/L	7.0532	ppb	09:54:01
1	Cd 226.502†	540.5	719.5	1.2160	ug/L	1.2160	ppb	09:54:21
1	Co 228.616†	1569.0	1585.4	27.454	ug/L	27.454	ppb	09:54:21
1	Cr 267.716†	9170.1	8799.8	105.56	ug/L	105.56	ppb	09:54:01
1	Cu 324.752†	86570.4	77817.0	240.46	ug/L	240.46	ppb	09:54:01
1	Mn 257.610†	1789952.6	1732372.7	1977.9	ug/L	1977.9	ppb	09:53:56
1	Mo 202.031†	11.1	0.6	5.5246	ug/L	5.5246	ppb	09:54:21
1	Ni 231.604†	2479.3	2337.8	59.437	ug/L	59.437	ppb	09:54:21
1	P 214.914†	1063.0	818.6	398.61	ug/L	398.61	ppb	09:54:21
1	Pb 220.353†	1163.0	1184.0	145.35	ug/L	145.35	ppb	09:54:21
1	S 181.975 Axial†	201.2	154.0	215.06	ug/L	215.06	ppb	09:54:21
1	Sb 206.836†	74.3	35.3	3.3151	ug/L	3.3151	ppb	09:54:21
1	Se 196.026†	-381.4	-341.5	-7.8888	ug/L	-7.8888	ppb	09:54:21
1	Si 251.611†	989632.4	957492.9	30983	ug/L	30983	ppb	09:53:56
1	Sn 189.927†	28.6	17.2	0.5931	ug/L	0.5931	ppb	09:54:21
1	Ti 334.940†	1547619.4	1499605.8	2357.0	ug/L	2357.0	ppb	09:53:56
1	Tl 190.801†	-141.4	-104.3	-4.7864	ug/L	-4.7864	ppb	09:54:21
1	U 409.014†	-2140.7	814.2	14.362	ug/L	14.362	ppb	09:53:56
1	V 292.402†	18762.1	19669.0	124.70	ug/L	124.70	ppb	09:54:01
1	Zn 213.857†	25663.8	24238.8	232.93	ug/L	232.93	ppb	09:54:01
1	SiO2†	991643.2	959443.4	66677	ug/L	66677	ppb	09:55:30
2	Sc Radial	3895.3	3895.3	99.4	%			09:53:24
2	Y RADIAL	4948.1	4948.1	112.2	%			09:53:04
2	Al 396.153Radial†	37513.6	37852.3	35501	ug/L	35501	ppb	09:53:04
2	Ca 317.933Radial†	4103.7	4108.8	8589.4	ug/L	8589.4	ppb	09:53:04
2	Fe 238.204 Radial†	5008.1	5026.9	70958	ug/L	70958	ppb	09:53:04
2	K 766.490 Radial†	34732.9	32302.7	6195.0	ug/L	6195.0	ppb	09:53:04
2	Mg 279.077 IEC†	146.6	143.4	6880.4	ug/L	6880.4	ppb	09:53:24
2	Na 589.592 Radial†	1336.1	2163.9	667.20	ug/L	667.20	ppb	09:53:04
2	Sr 421.552†	13730.9	13778.0	95.274	ug/L	95.274	ppb	09:53:04
2	Sc 361.383	900831.9	900831.9	102.69	%			09:54:27
2	Y 371.029	843501.0	843501.0	111.60	%			09:54:27
2	Ag 328.068†	-4663.0	-4781.2	0.0866	ug/L	0.0866	ppb	09:54:33
2	As 188.979†	-42.1	-22.8	26.833	ug/L	26.833	ppb	09:54:53
2	B 249.677†	324.0	713.8	5.6865	ug/L	5.6865	ppb	09:54:33
2	Ba 233.527†	60912.4	59318.0	467.95	ug/L	467.95	ppb	09:54:33
2	Be 313.107†	925.0	4663.0	7.0932	ug/L	7.0932	ppb	09:54:33
2	Cd 226.502†	529.4	711.8	0.9547	ug/L	0.9547	ppb	09:54:53
2	Co 228.616†	1580.4	1605.5	27.859	ug/L	27.859	ppb	09:54:53
2	Cr 267.716†	9115.5	8799.0	105.71	ug/L	105.71	ppb	09:54:33
2	Cu 324.752†	86424.9	78169.9	241.62	ug/L	241.62	ppb	09:54:33
2	Mn 257.610†	1776577.6	1729574.7	1974.9	ug/L	1974.9	ppb	09:54:27
2	Mo 202.031†	1.0	-9.2	4.9365	ug/L	4.9365	ppb	09:54:53
2	Ni 231.604†	2460.7	2333.7	59.334	ug/L	59.334	ppb	09:54:53

2	P 214.914†	1059.7	821.5	398.97	ug/L	398.97 ppb	09:54:53
2	Pb 220.353†	1176.0	1203.3	147.70	ug/L	147.70 ppb	09:54:53
2	S 181.975 Axial†	195.8	149.9	209.04	ug/L	209.04 ppb	09:54:53
2	Sb 206.836†	61.4	23.1	-1.0217	ug/L	-1.0217 ppb	09:54:53
2	Se 196.026†	-367.8	-330.4	4.5033	ug/L	4.5033 ppb	09:54:53
2	Si 251.611†	980620.7	954371.3	30882	ug/L	30882 ppb	09:54:27
2	Sn 189.927†	9.4	-1.3	-2.7820	ug/L	-2.7820 ppb	09:54:53
2	Ti 334.940†	1535948.4	1497082.5	2353.1	ug/L	2353.1 ppb	09:54:27
2	Tl 190.801†	-128.4	-92.5	-1.0572	ug/L	-1.0572 ppb	09:54:53
2	U 409.014†	-2337.4	610.5	8.5469	ug/L	8.5469 ppb	09:54:27
2	V 292.402†	18793.0	19806.3	125.40	ug/L	125.40 ppb	09:54:33
2	Zn 213.857†	25583.6	24307.3	233.37	ug/L	233.37 ppb	09:54:33
2	SiO2†	1001087.5	974305.8	67710	ug/L	67710 ppb	09:55:36
3	Sc Radial	3878.6	3878.6	99.0	%		09:53:49
3	Y RADIAL	4982.6	4982.6	113.0	%		09:53:29
3	Al 396.153Radial†	38029.8	38536.2	36142	ug/L	36142 ppb	09:53:29
3	Ca 317.933Radial†	4164.3	4187.8	8754.6	ug/L	8754.6 ppb	09:53:29
3	Fe 238.204 Radial†	5040.2	5081.1	71722	ug/L	71722 ppb	09:53:29
3	K 766.490 Radial†	35040.7	32764.2	6283.5	ug/L	6283.5 ppb	09:53:29
3	Mg 279.077 IEC†	148.3	145.8	6992.7	ug/L	6992.7 ppb	09:53:49
3	Na 589.592 Radial†	1319.3	2152.7	663.75	ug/L	663.75 ppb	09:53:29
3	Sr 421.552†	13994.5	14103.8	97.526	ug/L	97.526 ppb	09:53:29
3	Sc 361.383	918027.2	918027.2	104.65	%		09:54:58
3	Y 371.029	858043.2	858043.2	113.52	%		09:54:58
3	Ag 328.068†	-4790.5	-4818.0	0.1430	ug/L	0.1430 ppb	09:55:04
3	As 188.979†	-35.2	-15.4	30.348	ug/L	30.348 ppb	09:55:24
3	B 249.677†	333.4	716.8	5.6384	ug/L	5.6384 ppb	09:55:04
3	Ba 233.527†	61823.0	59077.1	466.08	ug/L	466.08 ppb	09:55:04
3	Be 313.107†	904.2	4626.2	7.0875	ug/L	7.0875 ppb	09:55:04
3	Cd 226.502†	541.6	713.8	0.8986	ug/L	0.8986 ppb	09:55:24
3	Co 228.616†	1577.4	1573.9	27.177	ug/L	27.177 ppb	09:55:24
3	Cr 267.716†	9275.6	8785.7	105.63	ug/L	105.63 ppb	09:55:04
3	Cu 324.752†	87628.6	77743.7	240.37	ug/L	240.37 ppb	09:55:04
3	Mn 257.610†	1813473.6	1732426.3	1978.2	ug/L	1978.2 ppb	09:54:58
3	Mo 202.031†	5.4	-5.0	5.3037	ug/L	5.3037 ppb	09:55:24
3	Ni 231.604†	2474.5	2302.1	58.529	ug/L	58.529 ppb	09:55:24
3	P 214.914†	1056.3	798.8	385.17	ug/L	385.17 ppb	09:55:24
3	Pb 220.353†	1162.8	1169.2	143.56	ug/L	143.56 ppb	09:55:24
3	S 181.975 Axial†	206.6	156.6	218.61	ug/L	218.61 ppb	09:55:24
3	Sb 206.836†	69.3	29.5	1.2061	ug/L	1.2061 ppb	09:55:24
3	Se 196.026†	-375.4	-331.0	6.4938	ug/L	6.4938 ppb	09:55:24
3	Si 251.611†	1001777.5	956701.4	30958	ug/L	30958 ppb	09:54:58
3	Sn 189.927†	20.5	9.1	-0.9313	ug/L	-0.9313 ppb	09:55:24
3	Ti 334.940†	1567665.6	1499374.5	2356.7	ug/L	2356.7 ppb	09:54:58
3	Tl 190.801†	-143.7	-104.8	-4.9242	ug/L	-4.9242 ppb	09:55:24
3	U 409.014†	-2285.8	702.4	10.999	ug/L	10.999 ppb	09:54:58
3	V 292.402†	19010.7	19671.5	124.36	ug/L	124.36 ppb	09:55:04
3	Zn 213.857†	25958.3	24198.7	232.17	ug/L	232.17 ppb	09:55:04
3	SiO2†	988059.2	943596.7	65576	ug/L	65576 ppb	09:55:42

Mean Data: 245969014|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908335.7	103.55	%	1.004				0.97%
Sc Radial	3925.3	100	%	1.7				1.70%
Y 371.029	850388.8	112.51	%	0.966				0.86%
Y RADIAL	4950.5	112.2	%	0.70				0.62%
Ag 328.068†	-4782.4	-0.0146	ug/L	0.22583	-0.0146	ppb	0.22583	>999.9%
Al 396.153Radial†	37818.7	35469	ug/L	689.2	35469	ppb	689.2	1.94%
As 188.979†	-19.7	28.143	ug/L	1.9209	28.143	ppb	1.9209	6.83%
B 249.677†	725.0	6.0077	ug/L	0.59844	6.0077	ppb	0.59844	9.96%
Ba 233.527†	59108.1	466.29	ug/L	1.563	466.29	ppb	1.563	0.34%
Be 313.107†	4607.3	7.0780	ug/L	0.02165	7.0780	ppb	0.02165	0.31%
Ca 317.933Radial†	4104.4	8580.3	ug/L	179.13	8580.3	ppb	179.13	2.09%
Cd 226.502†	715.1	1.0231	ug/L	0.16940	1.0231	ppb	0.16940	16.56%
Co 228.616†	1588.3	27.496	ug/L	0.3432	27.496	ppb	0.3432	1.25%
Cr 267.716†	8794.8	105.64	ug/L	0.076	105.64	ppb	0.076	0.07%
Cu 324.752†	77910.2	240.82	ug/L	0.701	240.82	ppb	0.701	0.29%
Fe 238.204 Radial†	5005.9	70661	ug/L	1236.7	70661	ppb	1236.7	1.75%
K 766.490 Radial†	32114.2	6158.8	ug/L	146.15	6158.8	ppb	146.15	2.37%

Mg 279.077 IEC†	144.2	6918.2	ug/L	64.59	6918.2	ppb	64.59	0.93%
Mn 257.610†	1731457.9	1977.0	ug/L	1.84	1977.0	ppb	1.84	0.09%
Mo 202.031†	-4.5	5.2549	ug/L	0.29708	5.2549	ppb	0.29708	5.65%
Na 589.592 Radial†	2129.4	656.54	ug/L	15.569	656.54	ppb	15.569	2.37%
Ni 231.604†	2324.5	59.100	ug/L	0.4968	59.100	ppb	0.4968	0.84%
P 214.914†	813.0	394.25	ug/L	7.866	394.25	ppb	7.866	2.00%
Pb 220.353†	1185.5	145.54	ug/L	2.072	145.54	ppb	2.072	1.42%
S 181.975 Axial†	153.5	214.24	ug/L	4.838	214.24	ppb	4.838	2.26%
Sb 206.836†	29.3	1.1665	ug/L	2.16863	1.1665	ppb	2.16863	185.91%
Se 196.026†	-334.3	1.0361	ug/L	7.79304	1.0361	ppb	7.79304	752.14%
Si 251.611†	956188.5	30941	ug/L	52.5	30941	ppb	52.5	0.17%
Sn 189.927†	8.3	-1.0401	ug/L	1.69019	-1.0401	ppb	1.69019	162.51%
Sr 421.552†	13796.4	95.401	ug/L	2.0647	95.401	ppb	2.0647	2.16%
Ti 334.940†	1498687.6	2355.6	ug/L	2.19	2355.6	ppb	2.19	0.09%
Tl 190.801†	-100.5	-3.5893	ug/L	2.19396	-3.5893	ppb	2.19396	61.13%
U 409.014†	709.0	11.303	ug/L	2.9193	11.303	ppb	2.9193	25.83%
V 292.402†	19715.6	124.82	ug/L	0.532	124.82	ppb	0.532	0.43%
Zn 213.857†	24248.3	232.82	ug/L	0.607	232.82	ppb	0.607	0.26%
SiO2†	959115.3	66654	ug/L	1067.3	66654	ppb	1067.3	1.60%

Sequence No.: 136
Sample ID: 245969015|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 147
Date Collected: 2/25/2010 09:57:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969015|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3862.7	3862.7	98.6	%			10:00:08
1	Y RADIAL	4599.1	4599.1	104.3	%			09:59:48
1	Al 396.153Radial†	75651.5	76863.0	72088	ug/L	72088	ppb	09:59:48
1	Ca 317.933Radial†	7647.2	7738.6	16178	ug/L	16178	ppb	09:59:48
1	Fe 238.204 Radial†	5152.8	5216.4	73632	ug/L	73632	ppb	09:59:48
1	K 766.490 Radial†	65247.2	63555.5	12190	ug/L	12190	ppb	09:59:48
1	Mg 279.077 IEC†	273.6	273.5	13185	ug/L	13185	ppb	10:00:08
1	Na 589.592 Radial†	498.1	1325.1	408.57	ug/L	408.57	ppb	09:59:48
1	Sr 421.552†	27049.6	27406.9	189.52	ug/L	189.52	ppb	09:59:48
1	Sc 361.383	911536.9	911536.9	103.91	%			10:01:05
1	Y 371.029	818374.8	818374.8	108.27	%			10:01:05
1	Ag 328.068†	-5002.6	-5054.8	-0.2858	ug/L	-0.2858	ppb	10:01:10
1	As 188.979†	-46.2	-26.2	33.434	ug/L	33.434	ppb	10:01:31
1	B 249.677†	520.6	899.2	9.7227	ug/L	9.7227	ppb	10:01:10
1	Ba 233.527†	136525.1	131388.4	1033.7	ug/L	1033.7	ppb	10:01:10
1	Be 313.107†	11670.4	14993.3	12.937	ug/L	12.937	ppb	10:01:10
1	Cd 226.502†	613.4	786.6	1.5200	ug/L	1.5200	ppb	10:01:31
1	Co 228.616†	2049.1	2038.5	35.363	ug/L	35.363	ppb	10:01:31
1	Cr 267.716†	5674.4	5383.2	67.693	ug/L	67.693	ppb	10:01:31
1	Cu 324.752†	30624.1	23480.8	75.392	ug/L	75.392	ppb	10:01:10
1	Mn 257.610†	2537948.2	2441973.5	2785.6	ug/L	2785.6	ppb	10:01:05
1	Mo 202.031†	-41.1	-49.7	2.2617	ug/L	2.2617	ppb	10:01:31
1	Ni 231.604†	2080.8	1940.0	49.315	ug/L	49.315	ppb	10:01:31
1	P 214.914†	1441.0	1176.3	652.39	ug/L	652.39	ppb	10:01:31
1	Pb 220.353†	1699.0	1693.2	215.48	ug/L	215.48	ppb	10:01:31
1	S 181.975 Axial†	548.2	486.8	686.97	ug/L	686.97	ppb	10:01:31
1	Sb 206.836†	84.5	44.6	2.3221	ug/L	2.3221	ppb	10:01:31
1	Se 196.026†	-400.3	-357.5	-5.2458	ug/L	-5.2458	ppb	10:01:31
1	Si 251.611†	1246377.4	1198911.6	38795	ug/L	38795	ppb	10:01:05
1	Sn 189.927†	-104.8	-111.3	-21.332	ug/L	-21.332	ppb	10:01:31
1	Ti 334.940†	2125722.3	2047094.6	3217.9	ug/L	3217.9	ppb	10:01:05
1	Tl 190.801†	-166.0	-127.2	-1.1813	ug/L	-1.1813	ppb	10:01:31
1	U 409.014†	-5786.4	-2682.0	-82.590	ug/L	-82.590	ppb	10:01:10
1	V 292.402†	22774.7	23423.3	149.24	ug/L	149.24	ppb	10:01:10
1	Zn 213.857†	20981.6	19586.0	185.73	ug/L	185.73	ppb	10:01:10
1	SiO2†	1240565.0	1193321.8	82931	ug/L	82931	ppb	10:02:39
2	Sc Radial	3837.8	3837.8	97.9	%			10:00:33
2	Y RADIAL	4766.9	4766.9	108.1	%			10:00:13
2	Al 396.153Radial†	77862.6	79619.8	74674	ug/L	74674	ppb	10:00:13
2	Ca 317.933Radial†	7821.6	7967.1	16655	ug/L	16655	ppb	10:00:13
2	Fe 238.204 Radial†	5283.2	5383.5	75991	ug/L	75991	ppb	10:00:13
2	K 766.490 Radial†	66890.1	65663.4	12594	ug/L	12594	ppb	10:00:13
2	Mg 279.077 IEC†	272.8	274.5	13228	ug/L	13228	ppb	10:00:33
2	Na 589.592 Radial†	460.9	1290.4	397.85	ug/L	397.85	ppb	10:00:13
2	Sr 421.552†	27862.7	28415.5	196.50	ug/L	196.50	ppb	10:00:13
2	Sc 361.383	895863.3	895863.3	102.12	%			10:01:36
2	Y 371.029	803294.5	803294.5	106.28	%			10:01:36
2	Ag 328.068†	-5028.2	-5164.0	-0.0639	ug/L	-0.0639	ppb	10:01:42
2	As 188.979†	-47.9	-28.7	32.844	ug/L	32.844	ppb	10:02:02
2	B 249.677†	570.1	956.4	10.725	ug/L	10.725	ppb	10:01:42
2	Ba 233.527†	135468.5	132652.5	1043.6	ug/L	1043.6	ppb	10:01:42
2	Be 313.107†	11638.6	15158.7	12.991	ug/L	12.991	ppb	10:01:42
2	Cd 226.502†	613.9	797.4	1.4000	ug/L	1.4000	ppb	10:02:02
2	Co 228.616†	2033.4	2057.6	35.742	ug/L	35.742	ppb	10:02:02
2	Cr 267.716†	5616.5	5422.0	68.357	ug/L	68.357	ppb	10:02:02
2	Cu 324.752†	30327.3	23705.7	76.206	ug/L	76.206	ppb	10:01:42
2	Mn 257.610†	2493308.6	2440994.0	2784.7	ug/L	2784.7	ppb	10:01:36
2	Mo 202.031†	-31.9	-41.4	3.0558	ug/L	3.0558	ppb	10:02:02
2	Ni 231.604†	2058.5	1953.2	49.650	ug/L	49.650	ppb	10:02:02

2	P 214.914†	1425.5	1185.3	656.46 ug/L	656.46 ppb	10:02:02
2	Pb 220.353†	1695.2	1718.1	218.83 ug/L	218.83 ppb	10:02:02
2	S 181.975 Axial†	539.9	487.9	688.11 ug/L	688.11 ppb	10:02:02
2	Sb 206.836†	66.3	28.2	-3.4890 ug/L	-3.4890 ppb	10:02:02
2	Se 196.026†	-390.7	-354.8	3.8214 ug/L	3.8214 ppb	10:02:02
2	Si 251.611†	1224254.4	1198234.0	38773 ug/L	38773 ppb	10:01:36
2	Sn 189.927†	-100.5	-108.9	-20.942 ug/L	-20.942 ppb	10:02:02
2	Ti 334.940†	2086693.9	2044669.0	3214.2 ug/L	3214.2 ppb	10:01:36
2	Tl 190.801†	-162.5	-126.5	-1.0199 ug/L	-1.0199 ppb	10:02:02
2	U 409.014†	-5946.8	-2936.5	-89.887 ug/L	-89.887 ppb	10:01:42
2	V 292.402†	22510.0	23547.5	149.76 ug/L	149.76 ppb	10:01:42
2	Zn 213.857†	20852.2	19812.5	187.66 ug/L	187.66 ppb	10:01:42
2	SiO2†	1236700.2	1210424.9	84119 ug/L	84119 ppb	10:02:45
3	Sc Radial	3846.1	3846.1	98.1 %		10:00:58
3	Y RADIAL	4696.7	4696.7	106.5 %		10:00:38
3	Al 396.153Radial†	76729.3	78291.9	73428 ug/L	73428 ppb	10:00:38
3	Ca 317.933Radial†	7737.3	7863.9	16440 ug/L	16440 ppb	10:00:38
3	Fe 238.204 Radial†	5135.0	5220.7	73693 ug/L	73693 ppb	10:00:38
3	K 766.490 Radial†	65812.5	64416.8	12355 ug/L	12355 ppb	10:00:38
3	Mg 279.077 IEC†	272.5	273.6	13187 ug/L	13187 ppb	10:00:58
3	Na 589.592 Radial†	453.2	1281.6	395.15 ug/L	395.15 ppb	10:00:38
3	Sr 421.552†	27455.0	27938.2	193.20 ug/L	193.20 ppb	10:00:38
3	Sc 361.383	902788.1	902788.1	102.91 %		10:02:07
3	Y 371.029	810698.7	810698.7	107.26 %		10:02:07
3	Ag 328.068†	-5153.3	-5247.8	-1.1576 ug/L	-1.1576 ppb	10:02:13
3	As 188.979†	-51.6	-31.9	30.758 ug/L	30.758 ppb	10:02:33
3	B 249.677†	581.7	963.4	11.268 ug/L	11.268 ppb	10:02:13
3	Ba 233.527†	135168.8	132315.4	1040.9 ug/L	1040.9 ppb	10:02:13
3	Be 313.107†	11712.8	15143.4	12.962 ug/L	12.962 ppb	10:02:13
3	Cd 226.502†	619.0	797.8	1.6421 ug/L	1.6421 ppb	10:02:33
3	Co 228.616†	2037.3	2046.2	35.554 ug/L	35.554 ppb	10:02:33
3	Cr 267.716†	5664.9	5426.8	68.193 ug/L	68.193 ppb	10:02:33
3	Cu 324.752†	30347.2	23497.3	75.450 ug/L	75.450 ppb	10:02:13
3	Mn 257.610†	2504636.5	2433274.4	2775.7 ug/L	2775.7 ppb	10:02:07
3	Mo 202.031†	-37.4	-46.5	2.5057 ug/L	2.5057 ppb	10:02:33
3	Ni 231.604†	2076.3	1955.1	49.697 ug/L	49.697 ppb	10:02:33
3	P 214.914†	1436.6	1185.4	658.19 ug/L	658.19 ppb	10:02:33
3	Pb 220.353†	1688.4	1698.7	216.43 ug/L	216.43 ppb	10:02:33
3	S 181.975 Axial†	537.6	481.5	679.18 ug/L	679.18 ppb	10:02:33
3	Sb 206.836†	65.4	26.9	-3.8380 ug/L	-3.8380 ppb	10:02:33
3	Se 196.026†	-395.4	-356.4	-4.3707 ug/L	-4.3707 ppb	10:02:33
3	Si 251.611†	1228660.1	1193319.8	38614 ug/L	38614 ppb	10:02:07
3	Sn 189.927†	-90.7	-98.6	-19.000 ug/L	-19.000 ppb	10:02:33
3	Ti 334.940†	2096157.7	2038192.0	3204.0 ug/L	3204.0 ppb	10:02:07
3	Tl 190.801†	-153.3	-116.4	2.1073 ug/L	2.1073 ppb	10:02:33
3	U 409.014†	-6012.6	-2955.7	-90.157 ug/L	-90.157 ppb	10:02:13
3	V 292.402†	22598.9	23464.8	149.52 ug/L	149.52 ppb	10:02:13
3	Zn 213.857†	20826.9	19631.3	186.18 ug/L	186.18 ppb	10:02:13
3	SiO2†	1241551.7	1205850.4	83801 ug/L	83801 ppb	10:02:51

Mean Data: 245969015|948756|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	903396.1	102.98	%	0.895				0.87%
Sc Radial	3848.9	98.2	%	0.32				0.33%
Y 371.029	810789.3	107.27	%	0.998				0.93%
Y RADIAL	4687.6	106.3	%	1.91				1.80%
Ag 328.068†	-5155.5	-0.5024	ug/L	0.57811	-0.5024	ppb	0.57811	115.06%
Al 396.153Radial†	78258.2	73397	ug/L	1293.0	73397	ppb	1293.0	1.76%
As 188.979†	-28.9	32.345	ug/L	1.4060	32.345	ppb	1.4060	4.35%
B 249.677†	939.7	10.572	ug/L	0.7842	10.572	ppb	0.7842	7.42%
Ba 233.527†	132118.8	1039.4	ug/L	5.17	1039.4	ppb	5.17	0.50%
Be 313.107†	15098.5	12.963	ug/L	0.0268	12.963	ppb	0.0268	0.21%
Ca 317.933Radial†	7856.5	16424	ug/L	239.2	16424	ppb	239.2	1.46%
Cd 226.502†	793.9	1.5207	ug/L	0.12103	1.5207	ppb	0.12103	7.96%
Co 228.616†	2047.4	35.553	ug/L	0.1895	35.553	ppb	0.1895	0.53%
Cr 267.716†	5410.7	68.081	ug/L	0.3459	68.081	ppb	0.3459	0.51%
Cu 324.752†	23561.3	75.683	ug/L	0.4539	75.683	ppb	0.4539	0.60%
Fe 238.204 Radial†	5273.5	74439	ug/L	1344.7	74439	ppb	1344.7	1.81%
K 766.490 Radial†	64545.2	12380	ug/L	203.3	12380	ppb	203.3	1.64%

Mg 279.077 IEC†	273.8	13200	ug/L	24.4	13200	ppb	24.4	0.18%
Mn 257.610†	2438747.3	2782.0	ug/L	5.47	2782.0	ppb	5.47	0.20%
Mo 202.031†	-45.9	2.6077	ug/L	0.40677	2.6077	ppb	0.40677	15.60%
Na 589.592 Radial†	1299.0	400.52	ug/L	7.102	400.52	ppb	7.102	1.77%
Ni 231.604†	1949.4	49.554	ug/L	0.2085	49.554	ppb	0.2085	0.42%
P 214.914†	1182.3	655.68	ug/L	2.979	655.68	ppb	2.979	0.45%
Pb 220.353†	1703.3	216.91	ug/L	1.726	216.91	ppb	1.726	0.80%
S 181.975 Axial†	485.4	684.76	ug/L	4.860	684.76	ppb	4.860	0.71%
Sb 206.836†	33.2	-1.6683	ug/L	3.46016	-1.6683	ppb	3.46016	207.41%
Se 196.026†	-356.2	-1.9317	ug/L	5.00149	-1.9317	ppb	5.00149	258.92%
Si 251.611†	1196821.8	38728	ug/L	98.7	38728	ppb	98.7	0.25%
Sn 189.927†	-106.3	-20.425	ug/L	1.2490	-20.425	ppb	1.2490	6.11%
Sr 421.552†	27920.2	193.07	ug/L	3.489	193.07	ppb	3.489	1.81%
Ti 334.940†	2043318.5	3212.0	ug/L	7.22	3212.0	ppb	7.22	0.22%
Tl 190.801†	-123.4	-0.0313	ug/L	1.85386	-0.0313	ppb	1.85386	>999.9%
U 409.014†	-2858.1	-87.545	ug/L	4.2932	-87.545	ppb	4.2932	4.90%
V 292.402†	23478.5	149.51	ug/L	0.262	149.51	ppb	0.262	0.17%
Zn 213.857†	19676.6	186.52	ug/L	1.008	186.52	ppb	1.008	0.54%
SiO2†	1203199.0	83617	ug/L	615.3	83617	ppb	615.3	0.74%

Sequence No.: 137
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 10:05:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3785.9	3785.9	96.6	%			10:07:15
1	Y RADIAL	4343.6	4343.6	98.47	%			10:06:55
1	Al 396.153Radial†	5364.8	5665.6	5290.3	ug/L	5290.3	ppb	10:06:55
1	Ca 317.933Radial†	2395.2	2459.6	5141.8	ug/L	5141.8	ppb	10:07:15
1	Fe 238.204 Radial†	330.3	330.6	4680.8	ug/L	4680.8	ppb	10:07:15
1	K 766.490 Radial†	28931.3	27307.6	5233.8	ug/L	5233.8	ppb	10:06:55
1	Mg 279.077 IEC†	100.3	99.7	4836.6	ug/L	4836.6	ppb	10:07:15
1	Na 589.592 Radial†	31877.5	33816.6	10427	ug/L	10427	ppb	10:06:55
1	Sr 421.552†	72090.3	74585.9	516.06	ug/L	516.06	ppb	10:06:55
1	Sc 361.383	900335.0	900335.0	102.63	%			10:08:13
1	Y 371.029	751475.1	751475.1	99.422	%			10:08:13
1	Ag 328.068†	107420.3	104423.3	486.73	ug/L	486.73	ppb	10:08:18
1	As 188.979†	1091.6	1081.8	487.19	ug/L	487.19	ppb	10:08:38
1	B 249.677†	19437.0	19336.4	466.67	ug/L	466.67	ppb	10:08:18
1	Ba 233.527†	63129.0	61510.5	483.90	ug/L	483.90	ppb	10:08:18
1	Be 313.107†	1336112.5	1305588.2	491.73	ug/L	491.73	ppb	10:08:13
1	Cd 226.502†	43033.6	42125.6	487.73	ug/L	487.73	ppb	10:08:18
1	Co 228.616†	23670.0	23129.1	484.58	ug/L	484.58	ppb	10:08:18
1	Cr 267.716†	44529.0	43308.6	487.11	ug/L	487.11	ppb	10:08:18
1	Cu 324.752†	167839.2	157541.5	479.40	ug/L	479.40	ppb	10:08:18
1	Mn 257.610†	440391.5	428631.7	488.02	ug/L	488.02	ppb	10:08:13
1	Mo 202.031†	6728.1	6545.3	480.96	ug/L	480.96	ppb	10:08:38
1	Ni 231.604†	19743.5	19174.4	487.37	ug/L	487.37	ppb	10:08:18
1	P 214.914†	4319.7	3998.3	2313.8	ug/L	2313.8	ppb	10:08:38
1	Pb 220.353†	4033.8	3988.4	492.12	ug/L	492.12	ppb	10:08:38
1	S 181.975 Axial†	739.2	679.5	976.78	ug/L	976.78	ppb	10:08:38
1	Sb 206.836†	1425.0	1351.7	489.74	ug/L	489.74	ppb	10:08:38
1	Se 196.026†	721.5	730.8	494.73	ug/L	494.73	ppb	10:08:38
1	Si 251.611†	77317.6	74775.2	2413.7	ug/L	2413.7	ppb	10:08:18
1	Sn 189.927†	2742.2	2661.3	478.16	ug/L	478.16	ppb	10:08:38
1	Ti 334.940†	312067.6	305433.6	479.87	ug/L	479.87	ppb	10:08:18
1	Tl 190.801†	1512.3	1506.1	484.81	ug/L	484.81	ppb	10:08:38
1	U 409.014†	14664.2	17174.5	472.64	ug/L	472.64	ppb	10:08:18
1	V 292.402†	69565.2	69285.7	489.55	ug/L	489.55	ppb	10:08:18
1	Zn 213.857†	50238.0	48342.8	482.19	ug/L	482.19	ppb	10:08:18
1	SiO2†	76066.7	73560.4	5099.0	ug/L	5099.0	ppb	10:09:45
2	Sc Radial	3805.3	3805.3	97.1	%			10:07:41
2	Y RADIAL	4264.1	4264.1	96.67	%			10:07:21
2	Al 396.153Radial†	5233.8	5502.4	5137.3	ug/L	5137.3	ppb	10:07:21
2	Ca 317.933Radial†	2394.4	2446.2	5113.7	ug/L	5113.7	ppb	10:07:41
2	Fe 238.204 Radial†	331.8	330.4	4678.1	ug/L	4678.1	ppb	10:07:41
2	K 766.490 Radial†	28285.1	26489.6	5077.0	ug/L	5077.0	ppb	10:07:21
2	Mg 279.077 IEC†	100.5	99.4	4819.0	ug/L	4819.0	ppb	10:07:41
2	Na 589.592 Radial†	30960.3	32704.0	10084	ug/L	10084	ppb	10:07:21
2	Sr 421.552†	70283.7	72345.4	500.56	ug/L	500.56	ppb	10:07:21
2	Sc 361.383	898842.1	898842.1	102.46	%			10:08:44
2	Y 371.029	749480.3	749480.3	99.158	%			10:08:44
2	Ag 328.068†	106447.7	103647.9	483.12	ug/L	483.12	ppb	10:08:49
2	As 188.979†	1082.0	1074.3	483.78	ug/L	483.78	ppb	10:09:09
2	B 249.677†	19236.9	19172.6	462.71	ug/L	462.71	ppb	10:08:49
2	Ba 233.527†	62377.5	60879.2	478.94	ug/L	478.94	ppb	10:08:49
2	Be 313.107†	1332352.6	1304081.0	491.15	ug/L	491.15	ppb	10:08:44
2	Cd 226.502†	42406.5	41583.2	481.45	ug/L	481.45	ppb	10:08:49
2	Co 228.616†	23412.8	22916.4	480.13	ug/L	480.13	ppb	10:08:49
2	Cr 267.716†	44037.0	42900.5	482.53	ug/L	482.53	ppb	10:08:49
2	Cu 324.752†	166358.3	156367.7	475.83	ug/L	475.83	ppb	10:08:49
2	Mn 257.610†	439773.1	428740.9	488.15	ug/L	488.15	ppb	10:08:44
2	Mo 202.031†	6711.4	6539.9	480.56	ug/L	480.56	ppb	10:09:09
2	Ni 231.604†	19506.9	18975.4	482.31	ug/L	482.31	ppb	10:08:49

2	P 214.914†	4330.1	4015.5	2324.8 ug/L	2324.8 ppb	10:09:09
2	Pb 220.353†	4018.6	3980.1	491.07 ug/L	491.07 ppb	10:09:09
2	S 181.975 Axial†	739.8	681.2	979.37 ug/L	979.37 ppb	10:09:09
2	Sb 206.836†	1427.5	1356.5	491.41 ug/L	491.41 ppb	10:09:09
2	Se 196.026†	733.0	743.1	502.83 ug/L	502.83 ppb	10:09:09
2	Si 251.611†	76289.1	73896.6	2385.3 ug/L	2385.3 ppb	10:08:49
2	Sn 189.927†	2742.0	2665.6	478.91 ug/L	478.91 ppb	10:09:09
2	Ti 334.940†	308971.6	302917.1	475.92 ug/L	475.92 ppb	10:08:49
2	Tl 190.801†	1518.6	1514.7	487.55 ug/L	487.55 ppb	10:09:09
2	U 409.014†	14483.7	17022.1	468.44 ug/L	468.44 ppb	10:08:49
2	V 292.402†	68965.0	68812.6	486.24 ug/L	486.24 ppb	10:08:49
2	Zn 213.857†	49566.8	47769.0	476.45 ug/L	476.45 ppb	10:08:49
2	SiO2†	76274.5	73886.2	5121.7 ug/L	5121.7 ppb	10:09:51
3	Sc Radial	3807.0	3807.0	97.1 %		10:08:06
3	Y RADIAL	4270.2	4270.2	96.81 %		10:07:46
3	Al 396.153Radial†	5257.3	5524.2	5157.8 ug/L	5157.8 ppb	10:07:46
3	Ca 317.933Radial†	2407.0	2458.0	5138.6 ug/L	5138.6 ppb	10:08:06
3	Fe 238.204 Radial†	328.8	327.1	4631.4 ug/L	4631.4 ppb	10:08:06
3	K 766.490 Radial†	28568.6	26768.5	5130.5 ug/L	5130.5 ppb	10:07:46
3	Mg 279.077 IEC†	101.4	100.3	4862.6 ug/L	4862.6 ppb	10:08:06
3	Na 589.592 Radial†	31000.0	32730.7	10092 ug/L	10092 ppb	10:07:46
3	Sr 421.552†	70605.8	72644.9	502.63 ug/L	502.63 ppb	10:07:46
3	Sc 361.383	904112.5	904112.5	103.06 %		10:09:15
3	Y 371.029	755421.3	755421.3	99.944 %		10:09:15
3	Ag 328.068†	106166.0	102769.1	479.03 ug/L	479.03 ppb	10:09:20
3	As 188.979†	1104.9	1090.3	490.89 ug/L	490.89 ppb	10:09:40
3	B 249.677†	19130.9	18960.3	457.58 ug/L	457.58 ppb	10:09:20
3	Ba 233.527†	62474.7	60618.6	476.88 ug/L	476.88 ppb	10:09:20
3	Be 313.107†	1342036.7	1305897.1	491.82 ug/L	491.82 ppb	10:09:15
3	Cd 226.502†	42511.7	41444.0	479.84 ug/L	479.84 ppb	10:09:20
3	Co 228.616†	23371.7	22743.3	476.51 ug/L	476.51 ppb	10:09:20
3	Cr 267.716†	44062.2	42674.5	479.99 ug/L	479.99 ppb	10:09:20
3	Cu 324.752†	165320.6	154414.5	469.88 ug/L	469.88 ppb	10:09:20
3	Mn 257.610†	441170.1	427594.3	486.83 ug/L	486.83 ppb	10:09:15
3	Mo 202.031†	6727.4	6517.3	478.90 ug/L	478.90 ppb	10:09:40
3	Ni 231.604†	19558.1	18914.1	480.76 ug/L	480.76 ppb	10:09:20
3	P 214.914†	4321.8	3982.8	2306.3 ug/L	2306.3 ppb	10:09:40
3	Pb 220.353†	4028.0	3966.4	489.39 ug/L	489.39 ppb	10:09:40
3	S 181.975 Axial†	746.8	683.8	983.04 ug/L	983.04 ppb	10:09:40
3	Sb 206.836†	1429.6	1350.4	489.25 ug/L	489.25 ppb	10:09:40
3	Se 196.026†	729.1	735.2	497.46 ug/L	497.46 ppb	10:09:40
3	Si 251.611†	76148.6	73326.3	2366.9 ug/L	2366.9 ppb	10:09:20
3	Sn 189.927†	2750.0	2657.7	477.51 ug/L	477.51 ppb	10:09:40
3	Ti 334.940†	308223.8	300433.7	472.02 ug/L	472.02 ppb	10:09:20
3	Tl 190.801†	1519.4	1506.8	485.03 ug/L	485.03 ppb	10:09:40
3	U 409.014†	14317.8	16778.7	461.73 ug/L	461.73 ppb	10:09:20
3	V 292.402†	68795.8	68256.0	482.34 ug/L	482.34 ppb	10:09:20
3	Zn 213.857†	49553.0	47473.6	473.50 ug/L	473.50 ppb	10:09:20
3	SiO2†	75935.8	73123.7	5068.7 ug/L	5068.7 ppb	10:09:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901096.5	102.72	%	0.310				0.30%
Sc Radial	3799.4	97.0	%	0.30				0.31%
Y 371.029	752125.6	99.508	%	0.4000				0.40%
Y RADIAL	4292.6	97.32	%	1.003				1.03%
Ag 328.068†	103613.4	482.96	ug/L	3.852	482.96	ppb	3.852	0.80%
QC value within limits for Ag 328.068 Recovery = 96.59%								
Al 396.153Radial†	5564.1	5195.1	ug/L	83.06	5195.1	ppb	83.06	1.60%
QC value within limits for Al 396.153Radial Recovery = 103.90%								
As 188.979†	1082.1	487.29	ug/L	3.556	487.29	ppb	3.556	0.73%
QC value within limits for As 188.979 Recovery = 97.46%								
B 249.677†	19156.4	462.32	ug/L	4.556	462.32	ppb	4.556	0.99%
QC value within limits for B 249.677 Recovery = 92.46%								
Ba 233.527†	61002.7	479.91	ug/L	3.607	479.91	ppb	3.607	0.75%
QC value within limits for Ba 233.527 Recovery = 95.98%								
Be 313.107†	1305188.7	491.57	ug/L	0.364	491.57	ppb	0.364	0.07%
QC value within limits for Be 313.107 Recovery = 98.31%								
Ca 317.933Radial†	2454.6	5131.3	ug/L	15.36	5131.3	ppb	15.36	0.30%

QC value within limits for Ca 317.933Radial Recovery = 102.63%

Cd 226.502†	41717.6	483.00 ug/L	4.172	483.00 ppb	4.172	0.86%
QC value within limits for Cd 226.502 Recovery = 96.60%						
Co 228.616†	22929.6	480.41 ug/L	4.041	480.41 ppb	4.041	0.84%
QC value within limits for Co 228.616 Recovery = 96.08%						
Cr 267.716†	42961.2	483.21 ug/L	3.613	483.21 ppb	3.613	0.75%
QC value within limits for Cr 267.716 Recovery = 96.64%						
Cu 324.752†	156107.9	475.04 ug/L	4.805	475.04 ppb	4.805	1.01%
QC value within limits for Cu 324.752 Recovery = 95.01%						
Fe 238.204 Radial†	329.4	4663.4 ug/L	27.78	4663.4 ppb	27.78	0.60%
QC value within limits for Fe 238.204 Radial Recovery = 93.27%						
K 766.490 Radial†	26855.2	5147.1 ug/L	79.72	5147.1 ppb	79.72	1.55%
QC value within limits for K 766.490 Radial Recovery = 102.94%						
Mg 279.077 IEC†	99.8	4839.4 ug/L	21.91	4839.4 ppb	21.91	0.45%
QC value within limits for Mg 279.077 IEC Recovery = 96.79%						
Mn 257.610†	428322.3	487.67 ug/L	0.724	487.67 ppb	0.724	0.15%
QC value within limits for Mn 257.610 Recovery = 97.53%						
Mo 202.031†	6534.2	480.14 ug/L	1.094	480.14 ppb	1.094	0.23%
QC value within limits for Mo 202.031 Recovery = 96.03%						
Na 589.592 Radial†	33083.8	10201 ug/L	195.7	10201 ppb	195.7	1.92%
QC value within limits for Na 589.592 Radial Recovery = 102.01%						
Ni 231.604†	19021.3	483.48 ug/L	3.458	483.48 ppb	3.458	0.72%
QC value within limits for Ni 231.604 Recovery = 96.70%						
P 214.914†	3998.8	2315.0 ug/L	9.29	2315.0 ppb	9.29	0.40%
QC value within limits for P 214.914 Recovery = 92.60%						
Pb 220.353†	3978.3	490.86 ug/L	1.379	490.86 ppb	1.379	0.28%
QC value within limits for Pb 220.353 Recovery = 98.17%						
S 181.975 Axial†	681.5	979.73 ug/L	3.145	979.73 ppb	3.145	0.32%
QC value within limits for S 181.975 Axial Recovery = 97.97%						
Sb 206.836†	1352.9	490.13 ug/L	1.132	490.13 ppb	1.132	0.23%
QC value within limits for Sb 206.836 Recovery = 98.03%						
Se 196.026†	736.4	498.34 ug/L	4.120	498.34 ppb	4.120	0.83%
QC value within limits for Se 196.026 Recovery = 99.67%						
Si 251.611†	73999.4	2388.6 ug/L	23.61	2388.6 ppb	23.61	0.99%
QC value within limits for Si 251.611 Recovery = 95.54%						
Sn 189.927†	2661.5	478.19 ug/L	0.702	478.19 ppb	0.702	0.15%
QC value within limits for Sn 189.927 Recovery = 95.64%						
Sr 421.552†	73192.1	506.42 ug/L	8.417	506.42 ppb	8.417	1.66%
QC value within limits for Sr 421.552 Recovery = 101.28%						
Ti 334.940†	302928.1	475.93 ug/L	3.926	475.93 ppb	3.926	0.82%
QC value within limits for Ti 334.940 Recovery = 95.19%						
Tl 190.801†	1509.2	485.80 ug/L	1.520	485.80 ppb	1.520	0.31%
QC value within limits for Tl 190.801 Recovery = 97.16%						
U 409.014†	16991.8	467.60 ug/L	5.502	467.60 ppb	5.502	1.18%
QC value within limits for U 409.014 Recovery = 93.52%						
V 292.402†	68784.8	486.04 ug/L	3.610	486.04 ppb	3.610	0.74%
QC value within limits for V 292.402 Recovery = 97.21%						
Zn 213.857†	47861.8	477.38 ug/L	4.418	477.38 ppb	4.418	0.93%
QC value within limits for Zn 213.857 Recovery = 95.48%						
SiO2†	73523.4	5096.5 ug/L	26.57	5096.5 ppb	26.57	0.52%
QC value within limits for SiO2 Recovery = 95.31%						

All analyte(s) passed QC.

Sequence No.: 138
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 10:12:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3813.4	3813.4	97.3	%			10:14:19
1	Y RADIAL	4307.7	4307.7	97.66	%			10:13:59
1	Al 396.153Radial†	-85.8	24.3	22.741	ug/L	22.741	ppb	10:13:59
1	Ca 317.933Radial†	25.7	6.7	14.048	ug/L	14.048	ppb	10:14:19
1	Fe 238.204 Radial†	9.7	-1.4	-19.065	ug/L	-19.065	ppb	10:14:19
1	K 766.490 Radial†	2870.6	310.4	59.584	ug/L	59.584	ppb	10:13:59
1	Mg 279.077 IEC†	4.8	0.9	41.788	ug/L	41.788	ppb	10:14:19
1	Na 589.592 Radial†	-963.0	-169.8	-52.368	ug/L	-52.368	ppb	10:13:59
1	Sr 421.552†	46.1	11.6	0.0802	ug/L	0.0802	ppb	10:13:59
1	Sc 361.383	876207.9	876207.9	99.883	%			10:15:15
1	Y 371.029	756679.1	756679.1	100.11	%			10:15:15
1	Ag 328.068†	263.1	22.9	0.1048	ug/L	0.1048	ppb	10:15:15
1	As 188.979†	-15.5	2.8	1.2235	ug/L	1.2235	ppb	10:15:35
1	B 249.677†	-464.0	-66.3	-1.6047	ug/L	-1.6047	ppb	10:15:35
1	Ba 233.527†	23.3	24.7	0.1931	ug/L	0.1931	ppb	10:15:35
1	Be 313.107†	-3690.5	67.4	0.0249	ug/L	0.0249	ppb	10:15:15
1	Cd 226.502†	-191.1	5.0	0.0585	ug/L	0.0585	ppb	10:15:35
1	Co 228.616†	-51.0	15.5	0.3273	ug/L	0.3273	ppb	10:15:35
1	Cr 267.716†	62.0	-15.7	-0.1753	ug/L	-0.1753	ppb	10:15:35
1	Cu 324.752†	6054.1	70.4	0.2166	ug/L	0.2166	ppb	10:15:15
1	Mn 257.610†	546.1	88.0	0.0965	ug/L	0.0965	ppb	10:15:35
1	Mo 202.031†	20.2	10.1	0.7418	ug/L	0.7418	ppb	10:15:35
1	Ni 231.604†	74.9	12.6	0.3191	ug/L	0.3191	ppb	10:15:35
1	P 214.914†	205.3	-5.0	-2.9979	ug/L	-2.9979	ppb	10:15:35
1	Pb 220.353†	-8.0	50.1	6.1741	ug/L	6.1741	ppb	10:15:35
1	S 181.975 Axial†	41.8	1.1	1.5712	ug/L	1.5712	ppb	10:15:35
1	Sb 206.836†	44.4	7.8	2.7463	ug/L	2.7463	ppb	10:15:35
1	Se 196.026†	-34.3	-6.6	-4.3895	ug/L	-4.3895	ppb	10:15:35
1	Si 251.611†	582.4	24.8	0.7928	ug/L	0.7928	ppb	10:15:35
1	Sn 189.927†	14.7	4.2	0.7570	ug/L	0.7570	ppb	10:15:35
1	Ti 334.940†	-1498.7	-126.3	-0.1972	ug/L	-0.1972	ppb	10:15:15
1	Tl 190.801†	-34.1	-1.6	-0.5129	ug/L	-0.5129	ppb	10:15:35
1	U 409.014†	-3108.9	-225.9	-6.2364	ug/L	-6.2364	ppb	10:15:15
1	V 292.402†	-1523.2	-19.4	-0.1325	ug/L	-0.1325	ppb	10:15:15
1	Zn 213.857†	722.2	117.0	1.1782	ug/L	1.1782	ppb	10:15:35
1	SiO2†	588.2	34.5	2.3743	ug/L	2.3743	ppb	10:16:31
2	Sc Radial	3796.1	3796.1	96.9	%			10:14:44
2	Y RADIAL	4336.5	4336.5	98.31	%			10:14:24
2	Al 396.153Radial†	-123.7	-15.3	-14.353	ug/L	-14.353	ppb	10:14:24
2	Ca 317.933Radial†	26.1	7.3	15.285	ug/L	15.285	ppb	10:14:44
2	Fe 238.204 Radial†	11.6	0.6	8.5548	ug/L	8.5548	ppb	10:14:44
2	K 766.490 Radial†	2893.8	347.7	66.739	ug/L	66.739	ppb	10:14:24
2	Mg 279.077 IEC†	0.6	-3.4	-166.38	ug/L	-166.38	ppb	10:14:44
2	Na 589.592 Radial†	-944.2	-154.9	-47.765	ug/L	-47.765	ppb	10:14:24
2	Sr 421.552†	2.0	-33.7	-0.2332	ug/L	-0.2332	ppb	10:14:24
2	Sc 361.383	871214.1	871214.1	99.314	%			10:15:41
2	Y 371.029	751749.1	751749.1	99.458	%			10:15:41
2	Ag 328.068†	235.5	-3.3	-0.0066	ug/L	-0.0066	ppb	10:15:41
2	As 188.979†	-22.0	-3.9	-1.7297	ug/L	-1.7297	ppb	10:16:01
2	B 249.677†	-486.2	-91.3	-2.2153	ug/L	-2.2153	ppb	10:16:01
2	Ba 233.527†	16.5	18.1	0.1430	ug/L	0.1430	ppb	10:16:01
2	Be 313.107†	-3537.5	200.2	0.0753	ug/L	0.0753	ppb	10:15:41
2	Cd 226.502†	-161.6	33.6	0.3873	ug/L	0.3873	ppb	10:16:01
2	Co 228.616†	-61.2	4.9	0.1024	ug/L	0.1024	ppb	10:16:01
2	Cr 267.716†	67.3	-10.0	-0.1083	ug/L	-0.1083	ppb	10:16:01
2	Cu 324.752†	5919.2	-30.7	-0.0901	ug/L	-0.0901	ppb	10:15:41
2	Mn 257.610†	543.9	88.9	0.1088	ug/L	0.1088	ppb	10:16:01
2	Mo 202.031†	4.5	-5.7	-0.4150	ug/L	-0.4150	ppb	10:16:01
2	Ni 231.604†	73.7	11.8	0.2993	ug/L	0.2993	ppb	10:16:01

2	P 214.914†	191.9	-17.3	-10.394	ug/L	-10.394	ppb	10:16:01
2	Pb 220.353†	-6.6	51.4	6.3209	ug/L	6.3209	ppb	10:16:01
2	S 181.975 Axial†	44.0	3.5	5.0976	ug/L	5.0976	ppb	10:16:01
2	Sb 206.836†	42.4	6.0	2.0718	ug/L	2.0718	ppb	10:16:01
2	Se 196.026†	-33.7	-6.2	-4.0087	ug/L	-4.0087	ppb	10:16:01
2	Si 251.611†	625.5	71.5	2.3202	ug/L	2.3202	ppb	10:16:01
2	Sn 189.927†	4.6	-5.9	-1.0558	ug/L	-1.0558	ppb	10:16:01
2	Ti 334.940†	-1347.6	17.2	0.0450	ug/L	0.0450	ppb	10:15:41
2	Tl 190.801†	-26.3	6.1	1.9567	ug/L	1.9567	ppb	10:16:01
2	U 409.014†	-3056.8	-191.3	-5.2842	ug/L	-5.2842	ppb	10:15:41
2	V 292.402†	-1428.3	67.5	0.4501	ug/L	0.4501	ppb	10:15:41
2	Zn 213.857†	735.2	134.2	1.3482	ug/L	1.3482	ppb	10:16:01
2	SiO2†	598.1	47.9	3.3382	ug/L	3.3382	ppb	10:16:36
3	Sc Radial	3834.5	3834.5	97.8	%			10:15:09
3	Y RADIAL	4324.6	4324.6	98.04	%			10:14:49
3	Al 396.153Radial†	-112.1	-2.2	-2.0358	ug/L	-2.0358	ppb	10:14:49
3	Ca 317.933Radial†	28.4	9.3	19.521	ug/L	19.521	ppb	10:15:09
3	Fe 238.204 Radial†	11.5	0.4	5.3680	ug/L	5.3680	ppb	10:15:09
3	K 766.490 Radial†	2890.8	314.8	60.425	ug/L	60.425	ppb	10:14:49
3	Mg 279.077 IEC†	0.2	-3.8	-186.11	ug/L	-186.11	ppb	10:15:09
3	Na 589.592 Radial†	-988.7	-190.7	-58.796	ug/L	-58.796	ppb	10:14:49
3	Sr 421.552†	15.1	-20.3	-0.1407	ug/L	-0.1407	ppb	10:14:49
3	Sc 361.383	862907.9	862907.9	98.367	%			10:16:06
3	Y 371.029	742509.4	742509.4	98.236	%			10:16:06
3	Ag 328.068†	333.0	98.1	0.4564	ug/L	0.4564	ppb	10:16:06
3	As 188.979†	-14.5	3.5	1.5492	ug/L	1.5492	ppb	10:16:26
3	B 249.677†	-463.5	-72.9	-1.7694	ug/L	-1.7694	ppb	10:16:26
3	Ba 233.527†	18.0	19.7	0.1533	ug/L	0.1533	ppb	10:16:26
3	Be 313.107†	-3633.1	68.7	0.0253	ug/L	0.0253	ppb	10:16:06
3	Cd 226.502†	-184.9	8.3	0.0951	ug/L	0.0951	ppb	10:16:26
3	Co 228.616†	-56.0	9.6	0.2024	ug/L	0.2024	ppb	10:16:26
3	Cr 267.716†	71.3	-5.2	-0.0576	ug/L	-0.0576	ppb	10:16:26
3	Cu 324.752†	5915.4	22.8	0.0721	ug/L	0.0721	ppb	10:16:06
3	Mn 257.610†	518.3	68.2	0.0857	ug/L	0.0857	ppb	10:16:26
3	Mo 202.031†	13.2	3.3	0.2444	ug/L	0.2444	ppb	10:16:26
3	Ni 231.604†	77.7	16.6	0.4213	ug/L	0.4213	ppb	10:16:26
3	P 214.914†	202.5	-4.7	-2.8387	ug/L	-2.8387	ppb	10:16:26
3	Pb 220.353†	-20.9	36.9	4.5370	ug/L	4.5370	ppb	10:16:26
3	S 181.975 Axial†	36.5	-3.7	-5.3832	ug/L	-5.3832	ppb	10:16:26
3	Sb 206.836†	38.2	2.1	0.7399	ug/L	0.7399	ppb	10:16:26
3	Se 196.026†	-30.8	-3.6	-2.3197	ug/L	-2.3197	ppb	10:16:26
3	Si 251.611†	570.7	21.8	0.7033	ug/L	0.7033	ppb	10:16:26
3	Sn 189.927†	5.8	-4.6	-0.8244	ug/L	-0.8244	ppb	10:16:26
3	Ti 334.940†	-1493.0	-143.7	-0.2060	ug/L	-0.2060	ppb	10:16:06
3	Tl 190.801†	-38.4	-6.4	-2.0514	ug/L	-2.0514	ppb	10:16:26
3	U 409.014†	-3001.9	-165.1	-4.5597	ug/L	-4.5597	ppb	10:16:06
3	V 292.402†	-1594.2	-115.0	-0.8112	ug/L	-0.8112	ppb	10:16:06
3	Zn 213.857†	740.9	147.1	1.4774	ug/L	1.4774	ppb	10:16:26
3	SiO2†	611.8	67.5	4.6874	ug/L	4.6874	ppb	10:16:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870110.0	99.188	%	0.7659				0.77%
Sc Radial	3814.7	97.3	%	0.49				0.50%
Y 371.029	750312.5	99.268	%	0.9517				0.96%
Y RADIAL	4322.9	98.01	%	0.328				0.33%
Ag 328.068†	39.3	0.1849	ug/L	0.24167	0.1849	ppb	0.24167	130.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	2.1175	ug/L	18.89236	2.1175	ppb	18.89236	892.18%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.3477	ug/L	1.80643	0.3477	ppb	1.80643	519.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-76.8	-1.8632	ug/L	0.31591	-1.8632	ppb	0.31591	16.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.8	0.1631	ug/L	0.02648	0.1631	ppb	0.02648	16.23%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	112.1	0.0418	ug/L	0.02899	0.0418	ppb	0.02899	69.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.8	16.284	ug/L	2.8703	16.284	ppb	2.8703	17.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                15.6      0.1803 ug/L       0.18020      0.1803 ppb        0.18020  99.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                10.0      0.2107 ug/L       0.11268      0.2107 ppb        0.11268  53.47%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -10.3     -0.1137 ug/L       0.05904     -0.1137 ppb        0.05904  51.91%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                20.8      0.0662 ug/L       0.15344      0.0662 ppb        0.15344 231.83%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -1.7139 ug/L      15.11030     -1.7139 ppb       15.11030 881.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         324.3      62.249 ug/L        3.9106      62.249 ppb         3.9106   6.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.1     -103.57 ug/L       126.268     -103.57 ppb       126.268 121.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                81.7      0.0970 ug/L       0.01155      0.0970 ppb        0.01155  11.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.6      0.1904 ug/L       0.58028      0.1904 ppb        0.58028 304.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -171.8     -52.976 ug/L        5.5403     -52.976 ppb         5.5403  10.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.6      0.3465 ug/L       0.06546      0.3465 ppb        0.06546  18.89%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.0     -5.4102 ug/L       4.31687     -5.4102 ppb        4.31687  79.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                46.2      5.6773 ug/L       0.99027      5.6773 ppb        0.99027  17.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.3      0.4285 ug/L       5.33299      0.4285 ppb        5.33299 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.3      1.8527 ug/L       1.02097      1.8527 ppb        1.02097  55.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.4     -3.5726 ug/L       1.10161     -3.5726 ppb        1.10161  30.83%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.4      1.2721 ug/L       0.90879      1.2721 ppb        0.90879  71.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.1     -0.3744 ug/L       0.98661     -0.3744 ppb        0.98661 263.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.1     -0.0979 ug/L       0.16101     -0.0979 ppb        0.16101 164.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -84.3     -0.1194 ug/L       0.14247     -0.1194 ppb        0.14247 119.31%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.2025 ug/L       2.02203     -0.2025 ppb        2.02203 998.41%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -194.1     -5.3601 ug/L       0.84091     -5.3601 ppb        0.84091  15.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -22.3     -0.1645 ug/L       0.63128     -0.1645 ppb        0.63128 383.69%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               132.8      1.3346 ug/L       0.15002      1.3346 ppb        0.15002  11.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      50.0      3.4667 ug/L       1.16188      3.4667 ppb        1.16188  33.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Reprocessing Begun
Logged In Analyst: Optima3 Technique: ICP Continuous

Results Data Set (original): 030110
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 030110A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX Method Last Saved: 3/1/2010 13:26:24
IEC File: 011110.iec MSF File:
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 Autosampler Location: 8
Sample ID: S0 Date Collected: 3/1/2010 11:32:10
Analyst: Data Type: Reprocessed on 3/1/2010 13:29:20
Logged In Analyst (Original) : Optima3
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	771077.3	771077.3	100.41	%	11:35:20
1	Sc Radial	4720.0	4720.0	100	%	11:34:03
1	Y 371.029	691300.5	691300.5	100.33	%	11:35:20
1	Y RADIAL	5001.3	5001.3	100.3	%	11:34:03
1	Ag 328.068†	250.1	249.0	[0.00]	ug/L	11:35:20

1	Al 396.153Radial†	-83.3	-83.0	[0.00] ug/L	11:34:23
1	As 188.979†	-21.8	-21.8	[0.00] ug/L	11:35:40
1	B 249.677†	-446.4	-444.5	[0.00] ug/L	11:35:40
1	Ba 233.527†	3.2	3.2	[0.00] ug/L	11:35:40
1	Be 313.107†	-8975.1	-8938.6	[0.00] ug/L	11:35:20
1	Ca 317.933Radial†	22.4	22.3	[0.00] ug/L	11:34:23
1	Cd 226.502†	-194.3	-193.5	[0.00] ug/L	11:35:40
1	Co 228.616†	-48.1	-47.9	[0.00] ug/L	11:35:40
1	Cr 267.716†	76.3	76.0	[0.00] ug/L	11:35:40
1	Cu 324.752†	7463.3	7433.0	[0.00] ug/L	11:35:20
1	Fe 238.204 Radial†	5.7	5.6	[0.00] ug/L	11:34:23
1	K 766.490 Radial†	2178.5	2172.4	[0.00] ug/L	11:34:03
1	Mg 279.077 IEC†	2.6	2.6	[0.00] ug/L	11:34:23
1	Mn 257.610†	457.0	455.2	[0.00] ug/L	11:35:40
1	Mo 202.031†	15.5	15.4	[0.00] ug/L	11:35:40
1	Na 589.592 Radial†	-839.3	-836.9	[0.00] ug/L	11:34:03
1	Ni 231.604†	92.4	92.0	[0.00] ug/L	11:35:40
1	P 214.914†	189.2	188.5	[0.00] ug/L	11:35:40
1	Pb 220.353†	-69.6	-69.3	[0.00] ug/L	11:35:40
1	S 181.975 Axial†	44.5	44.3	[0.00] ug/L	11:35:40
1	Sb 206.836†	42.1	41.9	[0.00] ug/L	11:35:40
1	Se 196.026†	-20.4	-20.3	[0.00] ug/L	11:35:40
1	Si 251.611†	573.0	570.6	[0.00] ug/L	11:35:40
1	Sn 189.927†	7.1	7.0	[0.00] ug/L	11:35:40
1	Sr 421.552†	7.2	7.1	[0.00] ug/L	11:34:03
1	Ti 334.940†	-1385.7	-1380.1	[0.00] ug/L	11:35:20
1	Tl 190.801†	-30.6	-30.5	[0.00] ug/L	11:35:40
1	U 409.014†	-2567.7	-2557.2	[0.00] ug/L	11:35:20
1	V 292.402†	-1650.4	-1643.7	[0.00] ug/L	11:35:20
1	Zn 213.857†	709.8	706.9	[0.00] ug/L	11:35:40
1	SiO2†	599.2	596.8	[0.00] ug/L	11:36:36
2	Sc 361.383	771656.5	771656.5	100.48 %	11:35:45
2	Sc Radial	4764.1	4764.1	101 %	11:34:28
2	Y 371.029	692601.0	692601.0	100.52 %	11:35:45
2	Y RADIAL	5064.2	5064.2	101.6 %	11:34:28
2	Ag 328.068†	275.0	273.7	[0.00] ug/L	11:35:45
2	Al 396.153Radial†	-85.9	-84.8	[0.00] ug/L	11:34:48
2	As 188.979†	-26.2	-26.1	[0.00] ug/L	11:36:05
2	B 249.677†	-458.7	-456.5	[0.00] ug/L	11:36:05
2	Ba 233.527†	14.1	14.1	[0.00] ug/L	11:36:05
2	Be 313.107†	-9023.6	-8980.1	[0.00] ug/L	11:35:45
2	Ca 317.933Radial†	18.8	18.5	[0.00] ug/L	11:34:48
2	Cd 226.502†	-180.2	-179.4	[0.00] ug/L	11:36:05
2	Co 228.616†	-71.9	-71.5	[0.00] ug/L	11:36:05
2	Cr 267.716†	75.3	74.9	[0.00] ug/L	11:36:05
2	Cu 324.752†	7571.0	7534.5	[0.00] ug/L	11:35:45
2	Fe 238.204 Radial†	8.4	8.3	[0.00] ug/L	11:34:48
2	K 766.490 Radial†	2281.5	2254.0	[0.00] ug/L	11:34:28
2	Mg 279.077 IEC†	3.6	3.6	[0.00] ug/L	11:34:48
2	Mn 257.610†	459.1	456.9	[0.00] ug/L	11:36:05
2	Mo 202.031†	15.8	15.7	[0.00] ug/L	11:36:05
2	Na 589.592 Radial†	-873.6	-863.0	[0.00] ug/L	11:34:28
2	Ni 231.604†	106.1	105.6	[0.00] ug/L	11:36:05
2	P 214.914†	206.2	205.2	[0.00] ug/L	11:36:05
2	Pb 220.353†	-80.9	-80.5	[0.00] ug/L	11:36:05
2	S 181.975 Axial†	37.6	37.4	[0.00] ug/L	11:36:05
2	Sb 206.836†	19.0	18.9	[0.00] ug/L	11:36:05
2	Se 196.026†	-12.0	-12.0	[0.00] ug/L	11:36:05
2	Si 251.611†	602.2	599.3	[0.00] ug/L	11:36:05
2	Sn 189.927†	8.1	8.1	[0.00] ug/L	11:36:05
2	Sr 421.552†	-8.0	-7.9	[0.00] ug/L	11:34:28
2	Ti 334.940†	-1287.1	-1280.9	[0.00] ug/L	11:35:45
2	Tl 190.801†	-22.7	-22.6	[0.00] ug/L	11:36:05
2	U 409.014†	-2503.9	-2491.8	[0.00] ug/L	11:35:45
2	V 292.402†	-1592.0	-1584.3	[0.00] ug/L	11:35:45
2	Zn 213.857†	715.3	711.8	[0.00] ug/L	11:36:05
2	SiO2†	612.8	609.9	[0.00] ug/L	11:36:41
3	Sc 361.383	761083.0	761083.0	99.107 %	11:36:11
3	Sc Radial	4635.9	4635.9	98.5 %	11:34:53
3	Y 371.029	683202.5	683202.5	99.154 %	11:36:11
3	Y RADIAL	4890.8	4890.8	98.10 %	11:34:53

3	Ag 328.068†	242.1	244.3	[0.00]	ug/L	11:36:11
3	Al 396.153Radial†	-92.1	-93.5	[0.00]	ug/L	11:35:13
3	As 188.979†	-27.0	-27.2	[0.00]	ug/L	11:36:31
3	B 249.677†	-455.2	-459.3	[0.00]	ug/L	11:36:31
3	Ba 233.527†	-10.0	-10.1	[0.00]	ug/L	11:36:31
3	Be 313.107†	-8948.7	-9029.3	[0.00]	ug/L	11:36:11
3	Ca 317.933Radial†	25.2	25.6	[0.00]	ug/L	11:35:13
3	Cd 226.502†	-185.4	-187.1	[0.00]	ug/L	11:36:31
3	Co 228.616†	-52.5	-53.0	[0.00]	ug/L	11:36:31
3	Cr 267.716†	75.2	75.9	[0.00]	ug/L	11:36:31
3	Cu 324.752†	7572.7	7641.0	[0.00]	ug/L	11:36:11
3	Fe 238.204 Radial†	7.9	8.0	[0.00]	ug/L	11:35:13
3	K 766.490 Radial†	2323.1	2358.5	[0.00]	ug/L	11:34:53
3	Mg 279.077 IEC†	2.5	2.5	[0.00]	ug/L	11:35:13
3	Mn 257.610†	467.2	471.4	[0.00]	ug/L	11:36:31
3	Mo 202.031†	11.9	12.1	[0.00]	ug/L	11:36:31
3	Na 589.592 Radial†	-830.7	-843.4	[0.00]	ug/L	11:34:53
3	Ni 231.604†	105.5	106.4	[0.00]	ug/L	11:36:31
3	P 214.914†	190.7	192.4	[0.00]	ug/L	11:36:31
3	Pb 220.353†	-61.8	-62.3	[0.00]	ug/L	11:36:31
3	S 181.975 Axial†	45.4	45.8	[0.00]	ug/L	11:36:31
3	Sb 206.836†	29.0	29.2	[0.00]	ug/L	11:36:31
3	Se 196.026†	-26.9	-27.1	[0.00]	ug/L	11:36:31
3	Si 251.611†	592.3	597.7	[0.00]	ug/L	11:36:31
3	Sn 189.927†	9.0	9.1	[0.00]	ug/L	11:36:31
3	Sr 421.552†	-0.6	-0.7	[0.00]	ug/L	11:34:53
3	Ti 334.940†	-1231.1	-1242.1	[0.00]	ug/L	11:36:11
3	Tl 190.801†	-40.2	-40.5	[0.00]	ug/L	11:36:31
3	U 409.014†	-2538.6	-2561.4	[0.00]	ug/L	11:36:11
3	V 292.402†	-1641.2	-1655.9	[0.00]	ug/L	11:36:11
3	Zn 213.857†	705.7	712.1	[0.00]	ug/L	11:36:31
3	SiO2†	577.5	582.7	[0.00]	ug/L	11:36:46

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	767938.9	5944.49	0.77%	100.00	%
Sc Radial	4706.6	65.13	1.38%	100	%
Y 371.029	689034.7	5092.47	0.74%	100.000	%
Y RADIAL	4985.4	87.80	1.76%	100.0	%
Ag 328.068†	255.7	15.78	6.17%	[0.00]	ug/L
Al 396.153Radial†	-87.1	5.59	6.42%	[0.00]	ug/L
As 188.979†	-25.0	2.87	11.48%	[0.00]	ug/L
B 249.677†	-453.4	7.84	1.73%	[0.00]	ug/L
Ba 233.527†	2.4	12.08	503.84%	[0.00]	ug/L
Be 313.107†	-8982.7	45.41	0.51%	[0.00]	ug/L
Ca 317.933Radial†	22.2	3.54	15.98%	[0.00]	ug/L
Cd 226.502†	-186.6	7.06	3.78%	[0.00]	ug/L
Co 228.616†	-57.5	12.42	21.61%	[0.00]	ug/L
Cr 267.716†	75.6	0.58	0.77%	[0.00]	ug/L
Cu 324.752†	7536.1	104.01	1.38%	[0.00]	ug/L
Fe 238.204 Radial†	7.3	1.46	19.98%	[0.00]	ug/L
K 766.490 Radial†	2261.6	93.32	4.13%	[0.00]	ug/L
Mg 279.077 IEC†	2.9	0.58	19.93%	[0.00]	ug/L
Mn 257.610†	461.1	8.91	1.93%	[0.00]	ug/L
Mo 202.031†	14.4	2.02	14.03%	[0.00]	ug/L
Na 589.592 Radial†	-847.8	13.58	1.60%	[0.00]	ug/L
Ni 231.604†	101.3	8.11	8.00%	[0.00]	ug/L
P 214.914†	195.4	8.75	4.48%	[0.00]	ug/L
Pb 220.353†	-70.7	9.15	12.94%	[0.00]	ug/L
S 181.975 Axial†	42.5	4.49	10.57%	[0.00]	ug/L
Sb 206.836†	30.0	11.49	38.28%	[0.00]	ug/L
Se 196.026†	-19.8	7.60	38.38%	[0.00]	ug/L
Si 251.611†	589.2	16.10	2.73%	[0.00]	ug/L
Sn 189.927†	8.1	1.02	12.57%	[0.00]	ug/L
Sr 421.552†	-0.5	7.54	>999.9%	[0.00]	ug/L
Ti 334.940†	-1301.0	71.15	5.47%	[0.00]	ug/L
Tl 190.801†	-31.2	9.00	28.84%	[0.00]	ug/L
U 409.014†	-2536.8	39.04	1.54%	[0.00]	ug/L
V 292.402†	-1628.0	38.29	2.35%	[0.00]	ug/L

Zn 213.857†	710.3	2.91	0.41%	[0.00] ug/L
SiO2†	596.4	13.60	2.28%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/1/2010 11:38:57
Data Type: Reprocessed on 3/1/2010 13:29:22

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	778142.1	778142.1	101.33	%	11:41:22
1	Sc Radial	4713.9	4713.9	100	%	11:40:55
1	Y 371.029	696918.7	696918.7	101.14	%	11:41:22
1	Y RADIAL	4985.6	4985.6	100.0	%	11:40:55
1	Ag 328.068†	19692.1	19178.2	[100]	ug/L	11:41:22
1	As 188.979†	198.5	220.9	[100]	ug/L	11:41:42
1	B 249.677†	3443.4	3851.7	[100]	ug/L	11:41:22
1	Ba 233.527†	8531.0	8416.8	[100]	ug/L	11:41:22
1	Be 313.107†	242750.5	248550.2	[100]	ug/L	11:41:22
1	Cd 226.502†	6779.8	6877.6	[100]	ug/L	11:41:42
1	Co 228.616†	3281.4	3295.8	[100]	ug/L	11:41:42
1	Cr 267.716†	7523.2	7348.9	[100]	ug/L	11:41:22
1	Cu 324.752†	33895.6	25915.0	[100]	ug/L	11:41:22
1	K 766.490 Radial†	7290.4	5017.6	[1000]	ug/L	11:40:50
1	Mn 257.610†	64656.4	63347.5	[100]	ug/L	11:41:22
1	Mo 202.031†	1119.9	1090.8	[100]	ug/L	11:41:42
1	Ni 231.604†	3233.3	3089.5	[100]	ug/L	11:41:42
1	P 214.914†	1086.5	876.8	[500]	ug/L	11:41:42
1	Pb 220.353†	545.6	609.2	[100]	ug/L	11:41:42
1	S 181.975 Axial†	195.3	150.2	[200]	ug/L	11:41:42
1	Sb 206.836†	267.7	234.2	[100]	ug/L	11:41:42
1	Se 196.026†	141.5	159.5	[100]	ug/L	11:41:42
1	Si 251.611†	14319.0	13542.1	[500]	ug/L	11:41:22
1	Sn 189.927†	428.2	414.5	[100]	ug/L	11:41:42
1	Sr 421.552†	13640.7	13620.3	[100]	ug/L	11:40:55
1	Ti 334.940†	49216.9	49872.6	[100]	ug/L	11:41:22
1	Tl 190.801†	183.0	211.9	[100]	ug/L	11:41:42
1	U 409.014†	482.0	3012.5	[100]	ug/L	11:41:22
1	V 292.402†	10893.8	12378.9	[100]	ug/L	11:41:22
1	Zn 213.857†	9808.8	8969.9	[100]	ug/L	11:41:22
1	SiO2†	14406.9	13621.6	[1069.5]	ug/L	11:42:38
2	Sc 361.383	773296.3	773296.3	100.70	%	11:41:47
2	Sc Radial	4723.0	4723.0	100	%	11:41:05
2	Y 371.029	692513.1	692513.1	100.50	%	11:41:47
2	Y RADIAL	4999.7	4999.7	100.3	%	11:41:05
2	Ag 328.068†	19573.1	19181.8	[100]	ug/L	11:41:47
2	As 188.979†	199.3	223.0	[100]	ug/L	11:42:07
2	B 249.677†	3373.9	3804.0	[100]	ug/L	11:41:47
2	Ba 233.527†	8516.8	8455.4	[100]	ug/L	11:41:47
2	Be 313.107†	241861.3	249168.4	[100]	ug/L	11:41:47
2	Cd 226.502†	6779.2	6918.9	[100]	ug/L	11:42:07
2	Co 228.616†	3298.5	3333.1	[100]	ug/L	11:42:07
2	Cr 267.716†	7432.1	7305.0	[100]	ug/L	11:41:47
2	Cu 324.752†	33649.0	25879.8	[100]	ug/L	11:41:47
2	K 766.490 Radial†	7257.0	4970.2	[1000]	ug/L	11:41:00
2	Mn 257.610†	64411.1	63503.7	[100]	ug/L	11:41:47
2	Mo 202.031†	1106.3	1084.2	[100]	ug/L	11:42:07
2	Ni 231.604†	3232.0	3108.3	[100]	ug/L	11:42:07
2	P 214.914†	1089.5	886.6	[500]	ug/L	11:42:07
2	Pb 220.353†	553.9	620.8	[100]	ug/L	11:42:07
2	S 181.975 Axial†	199.4	155.5	[200]	ug/L	11:42:07
2	Sb 206.836†	273.7	241.8	[100]	ug/L	11:42:07
2	Se 196.026†	140.9	159.7	[100]	ug/L	11:42:07
2	Si 251.611†	14283.1	13594.9	[500]	ug/L	11:41:47
2	Sn 189.927†	424.2	413.2	[100]	ug/L	11:42:07
2	Sr 421.552†	13667.2	13620.3	[100]	ug/L	11:41:05
2	Ti 334.940†	48811.0	49773.9	[100]	ug/L	11:41:47
2	Tl 190.801†	184.2	214.1	[100]	ug/L	11:42:07

2	U 409.014†	517.4	3050.7	[100]	ug/L	11:41:47
2	V 292.402†	10815.8	12368.9	[100]	ug/L	11:41:47
2	Zn 213.857†	9815.8	9037.5	[100]	ug/L	11:41:47
2	SiO2†	14287.5	13592.1	[1069.5]	ug/L	11:42:43
3	Sc 361.383	771392.6	771392.6	100.45	%	11:42:13
3	Sc Radial	4684.6	4684.6	99.5	%	11:41:15
3	Y 371.029	689472.4	689472.4	100.06	%	11:42:13
3	Y RADIAL	4931.4	4931.4	98.92	%	11:41:15
3	Ag 328.068†	19554.4	19211.2	[100]	ug/L	11:42:13
3	As 188.979†	195.4	219.5	[100]	ug/L	11:42:33
3	B 249.677†	3421.3	3859.4	[100]	ug/L	11:42:13
3	Ba 233.527†	8545.6	8504.9	[100]	ug/L	11:42:13
3	Be 313.107†	240812.5	248717.0	[100]	ug/L	11:42:13
3	Cd 226.502†	6764.8	6921.1	[100]	ug/L	11:42:33
3	Co 228.616†	3279.8	3322.6	[100]	ug/L	11:42:33
3	Cr 267.716†	7461.9	7352.9	[100]	ug/L	11:42:13
3	Cu 324.752†	33538.9	25852.6	[100]	ug/L	11:42:13
3	K 766.490 Radial†	7330.3	5103.1	[1000]	ug/L	11:41:10
3	Mn 257.610†	64366.7	63617.4	[100]	ug/L	11:42:13
3	Mo 202.031†	1090.9	1071.7	[100]	ug/L	11:42:33
3	Ni 231.604†	3225.7	3110.0	[100]	ug/L	11:42:33
3	P 214.914†	1080.6	880.3	[500]	ug/L	11:42:33
3	Pb 220.353†	551.5	619.7	[100]	ug/L	11:42:33
3	S 181.975 Axial†	199.5	156.1	[200]	ug/L	11:42:33
3	Sb 206.836†	271.9	240.7	[100]	ug/L	11:42:33
3	Se 196.026†	144.0	163.2	[100]	ug/L	11:42:33
3	Si 251.611†	14287.1	13633.9	[500]	ug/L	11:42:13
3	Sn 189.927†	429.0	419.0	[100]	ug/L	11:42:33
3	Sr 421.552†	13646.5	13711.1	[100]	ug/L	11:41:15
3	Ti 334.940†	48626.0	49709.3	[100]	ug/L	11:42:13
3	Tl 190.801†	186.0	216.4	[100]	ug/L	11:42:33
3	U 409.014†	412.8	2947.7	[100]	ug/L	11:42:13
3	V 292.402†	10813.4	12393.0	[100]	ug/L	11:42:13
3	Zn 213.857†	9811.2	9057.0	[100]	ug/L	11:42:13
3	SiO2†	14311.4	13650.9	[1069.5]	ug/L	11:42:48

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	774277.0	3480.00	0.45%	100.83	%
Sc Radial	4707.2	20.05	0.43%	100	%
Y 371.029	692968.1	3743.96	0.54%	100.57	%
Y RADIAL	4972.2	36.05	0.73%	99.73	%
Ag 328.068†	19190.4	18.08	0.09%	[100]	ug/L
As 188.979†	221.1	1.73	0.78%	[100]	ug/L
B 249.677†	3838.4	30.02	0.78%	[100]	ug/L
Ba 233.527†	8459.0	44.17	0.52%	[100]	ug/L
Be 313.107†	248811.8	319.84	0.13%	[100]	ug/L
Cd 226.502†	6905.9	24.53	0.36%	[100]	ug/L
Co 228.616†	3317.2	19.19	0.58%	[100]	ug/L
Cr 267.716†	7335.6	26.60	0.36%	[100]	ug/L
Cu 324.752†	25882.5	31.29	0.12%	[100]	ug/L
K 766.490 Radial†	5030.3	67.36	1.34%	[1000]	ug/L
Mn 257.610†	63489.5	135.52	0.21%	[100]	ug/L
Mo 202.031†	1082.2	9.73	0.90%	[100]	ug/L
Ni 231.604†	3102.6	11.33	0.37%	[100]	ug/L
P 214.914†	881.3	4.93	0.56%	[500]	ug/L
Pb 220.353†	616.5	6.42	1.04%	[100]	ug/L
S 181.975 Axial†	153.9	3.27	2.12%	[200]	ug/L
Sb 206.836†	238.9	4.10	1.72%	[100]	ug/L
Se 196.026†	160.8	2.06	1.28%	[100]	ug/L
Si 251.611†	13590.3	46.10	0.34%	[500]	ug/L
Sn 189.927†	415.6	3.08	0.74%	[100]	ug/L
Sr 421.552†	13650.5	52.40	0.38%	[100]	ug/L
Ti 334.940†	49785.3	82.23	0.17%	[100]	ug/L
Tl 190.801†	214.1	2.28	1.07%	[100]	ug/L
U 409.014†	3003.6	52.03	1.73%	[100]	ug/L
V 292.402†	12380.3	12.11	0.10%	[100]	ug/L
Zn 213.857†	9021.5	45.70	0.51%	[100]	ug/L
SiO2†	13621.5	29.42	0.22%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/1/2010 11:44:59
Data Type: Reprocessed on 3/1/2010 13:29:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	790109.5	790109.5	102.89	%	11:48:08
1	Sc Radial	4632.9	4632.9	98.4	%	11:46:51
1	Y 371.029	699903.0	699903.0	101.58	%	11:48:08
1	Y RADIAL	4914.6	4914.6	98.58	%	11:46:51
1	Ag 328.068†	97511.0	94519.2	[500]	ug/L	11:48:14
1	Al 396.153Radial†	5188.1	5357.8	[5000]	ug/L	11:46:51
1	As 188.979†	1107.8	1101.7	[500]	ug/L	11:48:34
1	B 249.677†	19417.9	19326.4	[500]	ug/L	11:48:14
1	Ba 233.527†	42572.9	41375.9	[500]	ug/L	11:48:14
1	Be 313.107†	1263820.9	1237340.6	[500]	ug/L	11:48:08
1	Ca 317.933Radial†	2804.8	2827.2	[5000]	ug/L	11:47:11
1	Cd 226.502†	35370.6	34564.8	[500]	ug/L	11:48:14
1	Co 228.616†	16446.3	16042.3	[500]	ug/L	11:48:34
1	Cr 267.716†	36946.9	35834.6	[500]	ug/L	11:48:14
1	Cu 324.752†	140635.4	129153.0	[500]	ug/L	11:48:14
1	K 766.490 Radial†	27232.8	25404.3	[5000]	ug/L	11:46:51
1	Mg 279.077 IEC†	133.4	132.6	[5000]	ug/L	11:47:11
1	Mn 257.610†	314138.7	304862.8	[500]	ug/L	11:48:14
1	Mo 202.031†	5445.4	5278.2	[500]	ug/L	11:48:34
1	Ni 231.604†	16123.9	15570.2	[500]	ug/L	11:48:14
1	P 214.914†	4676.0	4349.4	[2500]	ug/L	11:48:34
1	Pb 220.353†	3034.6	3020.1	[500]	ug/L	11:48:34
1	S 181.975 Axial†	813.3	748.0	[1000]	ug/L	11:48:34
1	Sb 206.836†	1254.5	1189.3	[500]	ug/L	11:48:34
1	Se 196.026†	800.3	797.7	[500]	ug/L	11:48:34
1	Si 251.611†	68794.6	66275.0	[2500]	ug/L	11:48:14
1	Sn 189.927†	2106.7	2039.5	[500]	ug/L	11:48:34
1	Sr 421.552†	68297.0	69383.9	[500]	ug/L	11:46:51
1	Ti 334.940†	246507.0	240891.1	[500]	ug/L	11:48:14
1	Tl 190.801†	1050.3	1052.0	[500]	ug/L	11:48:34
1	U 409.014†	12315.1	14506.4	[500]	ug/L	11:48:14
1	V 292.402†	61427.8	61332.1	[500]	ug/L	11:48:14
1	Zn 213.857†	46350.5	44339.6	[500]	ug/L	11:48:14
1	SiO2†	68687.1	66163.3	[5347.5]	ug/L	11:49:41
2	Sc 361.383	790740.8	790740.8	102.97	%	11:48:39
2	Sc Radial	4662.2	4662.2	99.1	%	11:47:16
2	Y 371.029	699967.4	699967.4	101.59	%	11:48:39
2	Y RADIAL	4898.5	4898.5	98.26	%	11:47:16
2	Ag 328.068†	98433.1	95339.0	[500]	ug/L	11:48:44
2	Al 396.153Radial†	5177.9	5314.4	[5000]	ug/L	11:47:16
2	As 188.979†	1104.4	1097.5	[500]	ug/L	11:49:04
2	B 249.677†	19693.8	19579.4	[500]	ug/L	11:48:44
2	Ba 233.527†	43001.0	41758.6	[500]	ug/L	11:48:44
2	Be 313.107†	1263373.0	1235924.9	[500]	ug/L	11:48:39
2	Ca 317.933Radial†	2802.7	2807.2	[5000]	ug/L	11:47:36
2	Cd 226.502†	35805.4	34959.5	[500]	ug/L	11:48:44
2	Co 228.616†	16656.2	16233.3	[500]	ug/L	11:49:04
2	Cr 267.716†	37284.3	36133.5	[500]	ug/L	11:48:44
2	Cu 324.752†	142165.2	130529.6	[500]	ug/L	11:48:44
2	K 766.490 Radial†	27213.5	25211.5	[5000]	ug/L	11:47:16
2	Mg 279.077 IEC†	131.8	130.2	[5000]	ug/L	11:47:36
2	Mn 257.610†	317713.4	308090.7	[500]	ug/L	11:48:44
2	Mo 202.031†	5517.3	5343.8	[500]	ug/L	11:49:04
2	Ni 231.604†	16230.5	15661.1	[500]	ug/L	11:48:44
2	P 214.914†	4727.1	4395.4	[2500]	ug/L	11:49:04
2	Pb 220.353†	3079.3	3061.2	[500]	ug/L	11:49:04
2	S 181.975 Axial†	823.9	757.7	[1000]	ug/L	11:49:04
2	Sb 206.836†	1291.3	1224.0	[500]	ug/L	11:49:04

2	Se 196.026†	808.8	805.2	[500]	ug/L	11:49:04
2	Si 251.611†	69551.7	66956.9	[2500]	ug/L	11:48:44
2	Sn 189.927†	2136.7	2067.0	[500]	ug/L	11:49:04
2	Sr 421.552†	68378.5	69031.3	[500]	ug/L	11:47:16
2	Ti 334.940†	248868.0	242992.6	[500]	ug/L	11:48:44
2	Tl 190.801†	1071.9	1072.2	[500]	ug/L	11:49:04
2	U 409.014†	12438.0	14616.1	[500]	ug/L	11:48:44
2	V 292.402†	62019.9	61859.5	[500]	ug/L	11:48:44
2	Zn 213.857†	46860.7	44799.2	[500]	ug/L	11:48:44
2	SiO2†	68889.7	66306.7	[5347.5]	ug/L	11:49:46
3	Sc 361.383	782342.0	782342.0	101.88	%	11:49:10
3	Sc Radial	4768.5	4768.5	101	%	11:47:41
3	Y 371.029	693075.9	693075.9	100.59	%	11:49:10
3	Y RADIAL	5014.8	5014.8	100.6	%	11:47:41
3	Ag 328.068†	98042.5	95981.8	[500]	ug/L	11:49:15
3	Al 396.153Radial†	5274.4	5293.1	[5000]	ug/L	11:47:41
3	As 188.979†	1097.5	1102.3	[500]	ug/L	11:49:35
3	B 249.677†	19586.2	19679.1	[500]	ug/L	11:49:15
3	Ba 233.527†	42805.1	42014.7	[500]	ug/L	11:49:15
3	Be 313.107†	1250417.1	1236379.4	[500]	ug/L	11:49:10
3	Ca 317.933Radial†	2810.5	2751.9	[5000]	ug/L	11:48:01
3	Cd 226.502†	35501.0	35034.0	[500]	ug/L	11:49:15
3	Co 228.616†	16417.7	16172.9	[500]	ug/L	11:49:35
3	Cr 267.716†	37022.2	36265.0	[500]	ug/L	11:49:15
3	Cu 324.752†	141604.8	131461.7	[500]	ug/L	11:49:15
3	K 766.490 Radial†	27791.7	25169.7	[5000]	ug/L	11:47:41
3	Mg 279.077 IEC†	137.0	132.3	[5000]	ug/L	11:48:01
3	Mn 257.610†	315616.6	309344.9	[500]	ug/L	11:49:15
3	Mo 202.031†	5467.8	5352.7	[500]	ug/L	11:49:35
3	Ni 231.604†	16114.0	15716.0	[500]	ug/L	11:49:15
3	P 214.914†	4674.3	4392.9	[2500]	ug/L	11:49:35
3	Pb 220.353†	3023.0	3038.0	[500]	ug/L	11:49:35
3	S 181.975 Axial†	817.5	759.9	[1000]	ug/L	11:49:35
3	Sb 206.836†	1247.7	1194.7	[500]	ug/L	11:49:35
3	Se 196.026†	797.5	802.6	[500]	ug/L	11:49:35
3	Si 251.611†	69130.1	67268.1	[2500]	ug/L	11:49:15
3	Sn 189.927†	2096.6	2049.9	[500]	ug/L	11:49:35
3	Sr 421.552†	70108.2	69199.4	[500]	ug/L	11:47:41
3	Ti 334.940†	247878.1	244615.7	[500]	ug/L	11:49:15
3	Tl 190.801†	1067.6	1079.2	[500]	ug/L	11:49:35
3	U 409.014†	12484.0	14791.0	[500]	ug/L	11:49:15
3	V 292.402†	61750.0	62241.1	[500]	ug/L	11:49:15
3	Zn 213.857†	46561.7	44994.2	[500]	ug/L	11:49:15
3	SiO2†	68604.0	66744.6	[5347.5]	ug/L	11:49:51

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	787730.8	4677.50	0.59%	102.58	%
Sc Radial	4687.9	71.33	1.52%	99.6	%
Y 371.029	697648.8	3960.38	0.57%	101.25	%
Y RADIAL	4942.6	63.03	1.28%	99.14	%
Ag 328.068†	95280.0	733.09	0.77%	[500]	ug/L
Al 396.153Radial†	5321.7	32.96	0.62%	[5000]	ug/L
As 188.979†	1100.5	2.60	0.24%	[500]	ug/L
B 249.677†	19528.3	181.79	0.93%	[500]	ug/L
Ba 233.527†	41716.4	321.48	0.77%	[500]	ug/L
Be 313.107†	1236548.3	722.81	0.06%	[500]	ug/L
Ca 317.933Radial†	2795.5	39.05	1.40%	[5000]	ug/L
Cd 226.502†	34852.8	252.19	0.72%	[500]	ug/L
Co 228.616†	16149.5	97.65	0.60%	[500]	ug/L
Cr 267.716†	36077.7	220.58	0.61%	[500]	ug/L
Cu 324.752†	130381.4	1161.43	0.89%	[500]	ug/L
K 766.490 Radial†	25261.8	125.16	0.50%	[5000]	ug/L
Mg 279.077 IEC†	131.7	1.32	1.00%	[5000]	ug/L
Mn 257.610†	307432.8	2312.33	0.75%	[500]	ug/L
Mo 202.031†	5324.9	40.70	0.76%	[500]	ug/L
Ni 231.604†	15649.1	73.67	0.47%	[500]	ug/L
P 214.914†	4379.2	25.87	0.59%	[2500]	ug/L
Pb 220.353†	3039.8	20.61	0.68%	[500]	ug/L

S 181.975 Axial†	755.2	6.34	0.84%	[1000]	ug/L
Sb 206.836†	1202.7	18.67	1.55%	[500]	ug/L
Se 196.026†	801.8	3.85	0.48%	[500]	ug/L
Si 251.611†	66833.4	507.96	0.76%	[2500]	ug/L
Sn 189.927†	2052.1	13.87	0.68%	[500]	ug/L
Sr 421.552†	69204.9	176.36	0.25%	[500]	ug/L
Ti 334.940†	242833.1	1867.41	0.77%	[500]	ug/L
Tl 190.801†	1067.8	14.10	1.32%	[500]	ug/L
U 409.014†	14637.8	143.55	0.98%	[500]	ug/L
V 292.402†	61810.9	456.44	0.74%	[500]	ug/L
Zn 213.857†	44711.0	336.06	0.75%	[500]	ug/L
SiO2†	66404.9	302.81	0.46%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/1/2010 11:52:01
Data Type: Reprocessed on 3/1/2010 13:29:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	764373.9	764373.9	99.536	%	11:55:17
1	Sc Radial	4594.5	4594.5	97.6	%	11:53:54
1	Y 371.029	678498.0	678498.0	98.471	%	11:55:17
1	Y RADIAL	4835.7	4835.7	97.00	%	11:53:54
1	Ag 328.068†	194905.6	195558.9	[1000]	ug/L	11:55:17
1	Al 396.153Radial†	10324.1	10663.1	[10000]	ug/L	11:53:54
1	As 188.979†	2217.4	2252.8	[1000]	ug/L	11:55:37
1	B 249.677†	39539.4	40177.2	[1000]	ug/L	11:55:17
1	Ba 233.527†	84709.4	85102.0	[1000]	ug/L	11:55:17
1	Be 313.107†	2496774.2	2517401.8	[1000]	ug/L	11:55:11
1	Ca 317.933Radial†	5522.2	5634.7	[10000]	ug/L	11:53:54
1	Cd 226.502†	70329.3	70844.0	[1000]	ug/L	11:55:17
1	Co 228.616†	33153.7	33365.8	[1000]	ug/L	11:55:37
1	Cr 267.716†	73226.0	73491.9	[1000]	ug/L	11:55:17
1	Cu 324.752†	275147.3	268894.4	[1000]	ug/L	11:55:17
1	Fe 238.204 Radial†	977.3	993.9	[10000]	ug/L	11:54:14
1	K 766.490 Radial†	51251.7	50240.4	[10000]	ug/L	11:53:54
1	Mg 279.077 IEC†	255.7	259.1	[10000]	ug/L	11:54:14
1	Mn 257.610†	625097.1	627551.4	[1000]	ug/L	11:55:17
1	Mo 202.031†	10936.9	10973.5	[1000]	ug/L	11:55:37
1	Na 589.592 Radial†	27964.2	29494.3	[10000]	ug/L	11:53:54
1	Ni 231.604†	31284.4	31329.0	[1000]	ug/L	11:55:37
1	P 214.914†	9171.0	9018.4	[5000]	ug/L	11:55:37
1	Pb 220.353†	6157.2	6256.6	[1000]	ug/L	11:55:37
1	S 181.975 Axial†	1587.3	1552.2	[2000]	ug/L	11:55:37
1	Sb 206.836†	2501.1	2482.7	[1000]	ug/L	11:55:37
1	Se 196.026†	1617.2	1644.6	[1000]	ug/L	11:55:37
1	Si 251.611†	137914.9	137968.9	[5000]	ug/L	11:55:17
1	Sn 189.927†	4281.5	4293.4	[1000]	ug/L	11:55:37
1	Sr 421.552†	134424.0	137703.9	[1000]	ug/L	11:53:54
1	Ti 334.940†	495663.3	499276.1	[1000]	ug/L	11:55:17
1	Tl 190.801†	2150.4	2191.7	[1000]	ug/L	11:55:37
1	U 409.014†	27272.9	29936.9	[1000]	ug/L	11:55:17
1	V 292.402†	124028.5	126234.9	[1000]	ug/L	11:55:17
1	Zn 213.857†	91300.7	91016.3	[1000]	ug/L	11:55:17
1	SiO2†	137615.6	137661.0	[10695]	ug/L	11:56:45
2	Sc 361.383	760055.8	760055.8	98.973	%	11:55:48
2	Sc Radial	4648.4	4648.4	98.8	%	11:54:19
2	Y 371.029	673845.2	673845.2	97.796	%	11:55:48
2	Y RADIAL	4896.3	4896.3	98.21	%	11:54:19
2	Ag 328.068†	193600.0	195352.3	[1000]	ug/L	11:55:48
2	Al 396.153Radial†	10430.5	10648.3	[10000]	ug/L	11:54:19
2	As 188.979†	2224.8	2272.9	[1000]	ug/L	11:56:08
2	B 249.677†	39308.2	40169.3	[1000]	ug/L	11:55:48
2	Ba 233.527†	84410.6	85283.7	[1000]	ug/L	11:55:48
2	Be 313.107†	2500143.8	2535057.6	[1000]	ug/L	11:55:42
2	Ca 317.933Radial†	5612.1	5660.2	[10000]	ug/L	11:54:19
2	Cd 226.502†	70124.0	71037.9	[1000]	ug/L	11:55:48
2	Co 228.616†	33014.1	33414.0	[1000]	ug/L	11:56:08
2	Cr 267.716†	72996.6	73678.1	[1000]	ug/L	11:55:48
2	Cu 324.752†	272480.3	267770.3	[1000]	ug/L	11:55:48
2	Fe 238.204 Radial†	978.2	983.2	[10000]	ug/L	11:54:39
2	K 766.490 Radial†	51829.1	50216.5	[10000]	ug/L	11:54:19
2	Mg 279.077 IEC†	258.4	258.8	[10000]	ug/L	11:54:39
2	Mn 257.610†	622130.2	628121.7	[1000]	ug/L	11:55:48
2	Mo 202.031†	10909.8	11008.6	[1000]	ug/L	11:56:08
2	Na 589.592 Radial†	28443.5	29647.4	[10000]	ug/L	11:54:19
2	Ni 231.604†	31196.1	31418.4	[1000]	ug/L	11:56:08

2	P 214.914†	9144.6	9044.1	[5000]	ug/L	11:56:08
2	Pb 220.353†	6123.9	6258.1	[1000]	ug/L	11:56:08
2	S 181.975 Axial†	1578.8	1552.6	[2000]	ug/L	11:56:08
2	Sb 206.836†	2495.6	2491.5	[1000]	ug/L	11:56:08
2	Se 196.026†	1605.7	1642.1	[1000]	ug/L	11:56:08
2	Si 251.611†	137090.1	137922.7	[5000]	ug/L	11:55:48
2	Sn 189.927†	4258.4	4294.5	[1000]	ug/L	11:56:08
2	Sr 421.552†	135779.9	137480.6	[1000]	ug/L	11:54:19
2	Ti 334.940†	492315.4	498722.7	[1000]	ug/L	11:55:48
2	Tl 190.801†	2144.1	2197.5	[1000]	ug/L	11:56:08
2	U 409.014†	27067.1	29884.6	[1000]	ug/L	11:55:48
2	V 292.402†	123262.1	126168.5	[1000]	ug/L	11:55:48
2	Zn 213.857†	90887.3	91119.7	[1000]	ug/L	11:55:48
2	SiO2†	138658.0	139499.7	[10695]	ug/L	11:56:50
3	Sc 361.383	763813.6	763813.6	99.463	%	11:56:19
3	Sc Radial	4595.7	4595.7	97.6	%	11:54:44
3	Y 371.029	677242.1	677242.1	98.289	%	11:56:19
3	Y RADIAL	4859.4	4859.4	97.47	%	11:54:44
3	Ag 328.068†	194810.4	195606.9	[1000]	ug/L	11:56:19
3	Al 396.153Radial†	10282.6	10617.8	[10000]	ug/L	11:54:44
3	As 188.979†	2201.3	2238.2	[1000]	ug/L	11:56:39
3	B 249.677†	39491.5	40158.3	[1000]	ug/L	11:56:19
3	Ba 233.527†	84390.4	84843.8	[1000]	ug/L	11:56:19
3	Be 313.107†	2505418.6	2527933.1	[1000]	ug/L	11:56:14
3	Ca 317.933Radial†	5509.7	5620.5	[10000]	ug/L	11:54:44
3	Cd 226.502†	69846.3	70410.2	[1000]	ug/L	11:56:19
3	Co 228.616†	32838.2	33073.1	[1000]	ug/L	11:56:39
3	Cr 267.716†	72876.8	73194.8	[1000]	ug/L	11:56:19
3	Cu 324.752†	275543.0	269495.1	[1000]	ug/L	11:56:19
3	Fe 238.204 Radial†	962.4	978.3	[10000]	ug/L	11:55:04
3	K 766.490 Radial†	51059.4	50029.8	[10000]	ug/L	11:54:44
3	Mg 279.077 IEC†	260.6	264.0	[10000]	ug/L	11:55:04
3	Mn 257.610†	622791.6	625694.1	[1000]	ug/L	11:56:19
3	Mo 202.031†	10850.7	10894.9	[1000]	ug/L	11:56:39
3	Na 589.592 Radial†	27728.1	29245.0	[10000]	ug/L	11:54:44
3	Ni 231.604†	31028.9	31095.2	[1000]	ug/L	11:56:39
3	P 214.914†	9096.7	8950.5	[5000]	ug/L	11:56:39
3	Pb 220.353†	6078.9	6182.4	[1000]	ug/L	11:56:39
3	S 181.975 Axial†	1581.0	1547.1	[2000]	ug/L	11:56:39
3	Sb 206.836†	2484.0	2467.4	[1000]	ug/L	11:56:39
3	Se 196.026†	1605.8	1634.3	[1000]	ug/L	11:56:39
3	Si 251.611†	137568.5	137722.3	[5000]	ug/L	11:56:19
3	Sn 189.927†	4245.6	4260.5	[1000]	ug/L	11:56:39
3	Sr 421.552†	133510.6	136732.7	[1000]	ug/L	11:54:44
3	Ti 334.940†	494757.9	498731.2	[1000]	ug/L	11:56:19
3	Tl 190.801†	2133.6	2176.3	[1000]	ug/L	11:56:39
3	U 409.014†	27519.3	30204.8	[1000]	ug/L	11:56:19
3	V 292.402†	123543.8	125839.0	[1000]	ug/L	11:56:19
3	Zn 213.857†	91057.2	90838.7	[1000]	ug/L	11:56:19
3	SiO2†	137947.6	138096.2	[10695]	ug/L	11:56:55

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	762747.7	2348.09	0.31%	99.324	%
Sc Radial	4612.9	30.77	0.67%	98.0	%
Y 371.029	676528.4	2407.10	0.36%	98.185	%
Y RADIAL	4863.8	30.56	0.63%	97.56	%
Ag 328.068†	195506.1	135.29	0.07%	[1000]	ug/L
Al 396.153Radial†	10643.0	23.08	0.22%	[10000]	ug/L
As 188.979†	2254.6	17.46	0.77%	[1000]	ug/L
B 249.677†	40168.3	9.53	0.02%	[1000]	ug/L
Ba 233.527†	85076.5	221.08	0.26%	[1000]	ug/L
Be 313.107†	2526797.5	8882.47	0.35%	[1000]	ug/L
Ca 317.933Radial†	5638.5	20.11	0.36%	[10000]	ug/L
Cd 226.502†	70764.0	321.42	0.45%	[1000]	ug/L
Co 228.616†	33284.3	184.52	0.55%	[1000]	ug/L
Cr 267.716†	73455.0	243.79	0.33%	[1000]	ug/L
Cu 324.752†	268719.9	875.55	0.33%	[1000]	ug/L
Fe 238.204 Radial†	985.1	7.96	0.81%	[10000]	ug/L

K 766.490 Radial†	50162.2	115.29	0.23%	[10000]	ug/L
Mg 279.077 IEC†	260.6	2.93	1.12%	[10000]	ug/L
Mn 257.610†	627122.4	1269.35	0.20%	[1000]	ug/L
Mo 202.031†	10959.0	58.21	0.53%	[1000]	ug/L
Na 589.592 Radial†	29462.2	203.12	0.69%	[10000]	ug/L
Ni 231.604†	31280.8	166.87	0.53%	[1000]	ug/L
P 214.914†	9004.3	48.36	0.54%	[5000]	ug/L
Pb 220.353†	6232.4	43.27	0.69%	[1000]	ug/L
S 181.975 Axial†	1550.6	3.08	0.20%	[2000]	ug/L
Sb 206.836†	2480.5	12.19	0.49%	[1000]	ug/L
Se 196.026†	1640.3	5.41	0.33%	[1000]	ug/L
Si 251.611†	137871.3	131.08	0.10%	[5000]	ug/L
Sn 189.927†	4282.8	19.32	0.45%	[1000]	ug/L
Sr 421.552†	137305.7	508.66	0.37%	[1000]	ug/L
Ti 334.940†	498910.0	317.08	0.06%	[1000]	ug/L
Tl 190.801†	2188.5	10.94	0.50%	[1000]	ug/L
U 409.014†	30008.8	171.74	0.57%	[1000]	ug/L
V 292.402†	126080.8	212.01	0.17%	[1000]	ug/L
Zn 213.857†	90991.6	142.12	0.16%	[1000]	ug/L
SiO2†	138419.0	960.93	0.69%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/1/2010 11:59:07
Data Type: Reprocessed on 3/1/2010 13:29:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	770445.5	770445.5	100.33	%	12:02:17
1	Sc Radial	4543.4	4543.4	96.5	%	12:01:20
1	Y 371.029	678491.0	678491.0	98.470	%	12:02:17
1	Y RADIAL	4785.7	4785.7	95.99	%	12:01:20
1	Al 396.153Radial†	51636.6	53578.6	[50000]	ug/L	12:01:00
1	Ca 317.933Radial†	26617.7	27551.7	[50000]	ug/L	12:01:00
1	Fe 238.204 Radial†	1858.9	1918.3	[20000]	ug/L	12:01:20
1	Mg 279.077 IEC†	1216.6	1257.4	[50000]	ug/L	12:01:20
1	Na 589.592 Radial†	56343.4	59215.1	[20000]	ug/L	12:01:00
2	Sc 361.383	765160.6	765160.6	99.638	%	12:02:23
2	Sc Radial	4573.4	4573.4	97.2	%	12:01:45
2	Y 371.029	673725.2	673725.2	97.778	%	12:02:23
2	Y RADIAL	4797.4	4797.4	96.23	%	12:01:45
2	Al 396.153Radial†	51907.2	53506.7	[50000]	ug/L	12:01:25
2	Ca 317.933Radial†	26783.4	27541.7	[50000]	ug/L	12:01:25
2	Fe 238.204 Radial†	1867.4	1914.5	[20000]	ug/L	12:01:45
2	Mg 279.077 IEC†	1226.8	1259.6	[50000]	ug/L	12:01:45
2	Na 589.592 Radial†	56031.4	58511.8	[20000]	ug/L	12:01:25
3	Sc 361.383	768716.6	768716.6	100.10	%	12:02:28
3	Sc Radial	4539.8	4539.8	96.5	%	12:02:10
3	Y 371.029	676808.4	676808.4	98.226	%	12:02:28
3	Y RADIAL	4768.2	4768.2	95.64	%	12:02:10
3	Al 396.153Radial†	51332.8	53306.6	[50000]	ug/L	12:01:50
3	Ca 317.933Radial†	26420.1	27369.0	[50000]	ug/L	12:01:50
3	Fe 238.204 Radial†	1857.5	1918.5	[20000]	ug/L	12:02:10
3	Mg 279.077 IEC†	1212.2	1253.9	[50000]	ug/L	12:02:10
3	Na 589.592 Radial†	55271.5	58150.7	[20000]	ug/L	12:01:50

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	768107.6	2694.59	0.35%	100.02	%
Sc Radial	4552.2	18.44	0.41%	96.7	%
Y 371.029	676341.5	2416.96	0.36%	98.158	%
Y RADIAL	4783.8	14.71	0.31%	95.96	%
Al 396.153Radial†	53464.0	140.93	0.26%	[50000]	ug/L
Ca 317.933Radial†	27487.5	102.68	0.37%	[50000]	ug/L
Fe 238.204 Radial†	1917.1	2.27	0.12%	[20000]	ug/L
Mg 279.077 IEC†	1257.0	2.91	0.23%	[50000]	ug/L
Na 589.592 Radial†	58625.9	541.29	0.92%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	194.5	0.00000	0.999948	
Al 396.153Radial	3	Lin Thru 0	0.0	1.069	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.244	0.00000	0.999954	
B 249.677	3	Lin Thru 0	0.0	39.93	0.00000	0.999932	
Ba 233.527	3	Lin Thru 0	0.0	84.75	0.00000	0.999970	
Be 313.107	3	Lin Thru 0	0.0	2516	0.00000	0.999963	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5504	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	70.54	0.00000	0.999980	
Co 228.616	3	Lin Thru 0	0.0	33.09	0.00000	0.999930	
Cr 267.716	3	Lin Thru 0	0.0	73.20	0.00000	0.999975	
Cu 324.752	3	Lin Thru 0	0.0	267.1	0.00000	0.999926	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0964	0.00000	0.999939	

K 766.490 Radial	3	Lin Thru 0	0.0	5.024	0.00000	0.999996
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0252	0.00000	0.999965
Mn 257.610	3	Lin Thru 0	0.0	624.8	0.00000	0.999968
Mo 202.031	3	Lin Thru 0	0.0	10.90	0.00000	0.999936
Na 589.592 Radia	2	Lin Thru 0	0.0	2.934	0.00000	0.999998
Ni 231.604	3	Lin Thru 0	0.0	31.28	0.00000	1.000000
P 214.914	3	Lin Thru 0	0.0	1.791	0.00000	0.999939
Pb 220.353	3	Lin Thru 0	0.0	6.202	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.7713	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	2.465	0.00000	0.999922
Se 196.026	3	Lin Thru 0	0.0	1.633	0.00000	0.999959
Si 251.611	3	Lin Thru 0	0.0	27.40	0.00000	0.999925
Sn 189.927	3	Lin Thru 0	0.0	4.246	0.00000	0.999858
Sr 421.552	3	Lin Thru 0	0.0	137.5	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	496.3	0.00000	0.999943
Tl 190.801	3	Lin Thru 0	0.0	2.178	0.00000	0.999952
U 409.014	3	Lin Thru 0	0.0	29.86	0.00000	0.999952
V 292.402	3	Lin Thru 0	0.0	125.6	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	90.67	0.00000	0.999976
SiO2	3	Lin Thru 0	0.0	12.84	0.00000	0.999867

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/1/2010 12:04:40
Data Type: Reprocessed on 3/1/2010 13:29:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	784981.8	784981.8	102.22	%			12:07:50
1	Sc Radial	4649.6	4649.6	98.8	%			12:06:32
1	Y 371.029	695335.6	695335.6	100.91	%			12:07:50
1	Y RADIAL	4903.6	4903.6	98.36	%			12:06:32
1	Ag 328.068†	51531.9	50157.4	261.07	ug/L	261.07	ppb	12:07:50
1	Al 396.153Radial†	5284.2	5436.1	5059.3	ug/L	5059.3	ppb	12:06:32
1	As 188.979†	1048.7	1050.9	472.71	ug/L	472.71	ppb	12:08:10
1	B 249.677†	20755.0	20757.8	517.52	ug/L	517.52	ppb	12:07:50
1	Ba 233.527†	43949.7	42993.1	508.60	ug/L	508.60	ppb	12:07:50
1	Be 313.107†	657976.6	652673.8	260.57	ug/L	260.57	ppb	12:07:50
1	Ca 317.933Radial†	2793.0	2805.0	5096.6	ug/L	5096.6	ppb	12:06:53
1	Cd 226.502†	34855.5	34285.3	485.92	ug/L	485.92	ppb	12:08:10
1	Co 228.616†	17128.9	16814.4	508.31	ug/L	508.31	ppb	12:08:10
1	Cr 267.716†	36537.1	35668.2	487.92	ug/L	487.92	ppb	12:07:50
1	Cu 324.752†	145500.6	134805.5	504.77	ug/L	504.77	ppb	12:07:50
1	Fe 238.204 Radial†	499.2	498.0	5182.3	ug/L	5182.3	ppb	12:06:53
1	K 766.490 Radial†	14710.2	12628.9	2510.5	ug/L	2510.5	ppb	12:06:32
1	Mg 279.077 IEC†	136.4	135.2	5368.3	ug/L	5368.3	ppb	12:06:53
1	Mn 257.610†	334228.8	326511.2	522.92	ug/L	522.92	ppb	12:07:50
1	Mo 202.031†	5924.1	5781.1	531.01	ug/L	531.01	ppb	12:08:10
1	Na 589.592 Radial†	6277.5	7202.2	2454.5	ug/L	2454.5	ppb	12:06:32
1	Ni 231.604†	16276.4	15821.7	505.47	ug/L	505.47	ppb	12:08:10
1	P 214.914†	4739.1	4440.9	2381.7	ug/L	2381.7	ppb	12:08:10
1	Pb 220.353†	3062.8	3067.0	496.47	ug/L	496.47	ppb	12:08:10
1	S 181.975 Axial†	1984.6	1899.0	2461.2	ug/L	2461.2	ppb	12:08:10
1	Sb 206.836†	1283.6	1225.7	516.38	ug/L	516.38	ppb	12:08:10
1	Se 196.026†	4171.1	4100.4	2524.9	ug/L	2524.9	ppb	12:08:10
1	Si 251.611†	136009.9	132467.8	4827.3	ug/L	4827.3	ppb	12:07:50
1	Sn 189.927†	2314.6	2256.3	531.96	ug/L	531.96	ppb	12:08:10
1	Sr 421.552†	71138.6	72011.1	523.61	ug/L	523.61	ppb	12:06:32
1	Ti 334.940†	254476.2	250252.3	504.12	ug/L	504.12	ppb	12:07:50
1	Tl 190.801†	1131.0	1137.7	525.94	ug/L	525.94	ppb	12:08:10
1	U 409.014†	12389.3	14657.1	489.12	ug/L	489.12	ppb	12:07:50
1	V 292.402†	64046.6	64284.1	518.99	ug/L	518.99	ppb	12:07:50
1	Zn 213.857†	48398.4	46637.4	509.66	ug/L	509.66	ppb	12:07:50
1	SiO2†	137020.9	133449.6	10381	ug/L	10381	ppb	12:09:08
2	Sc 361.383	788850.1	788850.1	102.72	%			12:08:16
2	Sc Radial	4754.2	4754.2	101	%			12:06:58
2	Y 371.029	700164.8	700164.8	101.62	%			12:08:16
2	Y RADIAL	5055.9	5055.9	101.4	%			12:06:58
2	Ag 328.068†	51408.5	49790.1	259.14	ug/L	259.14	ppb	12:08:16
2	Al 396.153Radial†	5402.3	5435.4	5058.7	ug/L	5058.7	ppb	12:06:58
2	As 188.979†	1048.2	1045.4	470.18	ug/L	470.18	ppb	12:08:36
2	B 249.677†	20691.6	20596.5	513.50	ug/L	513.50	ppb	12:08:16
2	Ba 233.527†	43858.5	42693.5	505.05	ug/L	505.05	ppb	12:08:16
2	Be 313.107†	658498.4	650025.4	259.51	ug/L	259.51	ppb	12:08:16
2	Ca 317.933Radial†	2784.9	2734.9	4969.1	ug/L	4969.1	ppb	12:07:18
2	Cd 226.502†	34942.2	34202.6	484.76	ug/L	484.76	ppb	12:08:36
2	Co 228.616†	17162.6	16765.1	506.82	ug/L	506.82	ppb	12:08:36
2	Cr 267.716†	36417.9	35376.9	483.94	ug/L	483.94	ppb	12:08:16
2	Cu 324.752†	145750.1	134350.3	503.06	ug/L	503.06	ppb	12:08:16
2	Fe 238.204 Radial†	498.7	486.4	5061.0	ug/L	5061.0	ppb	12:07:18
2	K 766.490 Radial†	15123.7	12710.8	2526.8	ug/L	2526.8	ppb	12:06:58
2	Mg 279.077 IEC†	136.6	132.4	5255.8	ug/L	5255.8	ppb	12:07:18
2	Mn 257.610†	333515.9	324213.8	519.23	ug/L	519.23	ppb	12:08:16
2	Mo 202.031†	5951.1	5779.0	530.80	ug/L	530.80	ppb	12:08:36
2	Na 589.592 Radial†	6399.9	7183.7	2448.2	ug/L	2448.2	ppb	12:06:58
2	Ni 231.604†	16270.8	15738.2	502.80	ug/L	502.80	ppb	12:08:36

2	P 214.914†	4771.8	4450.0	2387.1	ug/L	2387.1 ppb	12:08:36
2	Pb 220.353†	3039.0	3029.2	490.39	ug/L	490.39 ppb	12:08:36
2	S 181.975 Axial†	1992.8	1897.5	2459.2	ug/L	2459.2 ppb	12:08:36
2	Sb 206.836†	1293.2	1228.9	517.63	ug/L	517.63 ppb	12:08:36
2	Se 196.026†	4189.2	4097.9	2523.2	ug/L	2523.2 ppb	12:08:36
2	Si 251.611†	135544.0	131361.7	4786.9	ug/L	4786.9 ppb	12:08:16
2	Sn 189.927†	2311.8	2242.5	528.68	ug/L	528.68 ppb	12:08:36
2	Sr 421.552†	72988.6	72259.2	525.41	ug/L	525.41 ppb	12:06:58
2	Ti 334.940†	254195.8	248758.5	501.10	ug/L	501.10 ppb	12:08:16
2	Tl 190.801†	1134.2	1135.4	524.83	ug/L	524.83 ppb	12:08:36
2	U 409.014†	12481.0	14687.0	490.15	ug/L	490.15 ppb	12:08:16
2	V 292.402†	64051.9	63982.0	516.60	ug/L	516.60 ppb	12:08:16
2	Zn 213.857†	48251.5	46262.1	505.56	ug/L	505.56 ppb	12:08:16
2	SiO2†	136513.5	132298.3	10292	ug/L	10292 ppb	12:09:13
3	Sc 361.383	792006.3	792006.3	103.13	%		12:08:42
3	Sc Radial	4646.4	4646.4	98.7	%		12:07:23
3	Y 371.029	703352.1	703352.1	102.08	%		12:08:42
3	Y RADIAL	4906.2	4906.2	98.41	%		12:07:23
3	Ag 328.068†	51696.9	49870.2	259.60	ug/L	259.60 ppb	12:08:42
3	Al 396.153Radial†	5301.8	5457.6	5079.4	ug/L	5079.4 ppb	12:07:23
3	As 188.979†	1054.9	1047.9	471.32	ug/L	471.32 ppb	12:09:02
3	B 249.677†	20800.1	20621.5	514.10	ug/L	514.10 ppb	12:08:42
3	Ba 233.527†	44036.7	42696.1	505.09	ug/L	505.09 ppb	12:08:42
3	Be 313.107†	662340.7	651196.3	259.98	ug/L	259.98 ppb	12:08:42
3	Ca 317.933Radial†	2791.5	2805.5	5097.5	ug/L	5097.5 ppb	12:07:43
3	Cd 226.502†	35234.9	34350.8	486.85	ug/L	486.85 ppb	12:09:02
3	Co 228.616†	17314.9	16846.2	509.27	ug/L	509.27 ppb	12:09:02
3	Cr 267.716†	36654.9	35465.4	485.15	ug/L	485.15 ppb	12:08:42
3	Cu 324.752†	146661.2	134668.4	504.26	ug/L	504.26 ppb	12:08:42
3	Fe 238.204 Radial†	501.3	500.4	5207.3	ug/L	5207.3 ppb	12:07:43
3	K 766.490 Radial†	14756.8	12686.5	2521.9	ug/L	2521.9 ppb	12:07:23
3	Mg 279.077 IEC†	135.6	134.5	5339.2	ug/L	5339.2 ppb	12:07:43
3	Mn 257.610†	335113.8	324469.2	519.65	ug/L	519.65 ppb	12:08:42
3	Mo 202.031†	5985.5	5789.3	531.76	ug/L	531.76 ppb	12:09:02
3	Na 589.592 Radial†	6221.9	7150.4	2436.8	ug/L	2436.8 ppb	12:07:23
3	Ni 231.604†	16398.4	15798.8	504.73	ug/L	504.73 ppb	12:09:02
3	P 214.914†	4793.8	4452.8	2388.4	ug/L	2388.4 ppb	12:09:02
3	Pb 220.353†	3094.4	3071.1	497.14	ug/L	497.14 ppb	12:09:02
3	S 181.975 Axial†	2018.2	1914.4	2481.1	ug/L	2481.1 ppb	12:09:02
3	Sb 206.836†	1307.4	1237.7	521.28	ug/L	521.28 ppb	12:09:02
3	Se 196.026†	4219.9	4111.5	2531.8	ug/L	2531.8 ppb	12:09:02
3	Si 251.611†	136519.5	131781.7	4802.3	ug/L	4802.3 ppb	12:08:42
3	Sn 189.927†	2341.9	2262.6	533.44	ug/L	533.44 ppb	12:09:02
3	Sr 421.552†	71578.4	72506.9	527.21	ug/L	527.21 ppb	12:07:23
3	Ti 334.940†	255503.9	249040.7	501.68	ug/L	501.68 ppb	12:08:42
3	Tl 190.801†	1134.3	1131.0	522.84	ug/L	522.84 ppb	12:09:02
3	U 409.014†	12405.1	14565.0	486.04	ug/L	486.04 ppb	12:08:42
3	V 292.402†	64392.4	64063.7	517.24	ug/L	517.24 ppb	12:08:42
3	Zn 213.857†	48556.1	46370.3	506.72	ug/L	506.72 ppb	12:08:42
3	SiO2†	135032.5	130332.7	10139	ug/L	10139 ppb	12:09:18

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	788612.7	102.69	%	0.458				0.45%
Sc Radial	4683.4	99.5	%	1.30				1.31%
Y 371.029	699617.5	101.54	%	0.586				0.58%
Y RADIAL	4955.2	99.39	%	1.749				1.76%
Ag 328.068†	49939.2	259.94	ug/L	1.010	259.94	ppb	1.010	0.39%
QC value within limits for Ag 328.068 Recovery = 103.97%								
Al 396.153Radial†	5443.0	5065.8	ug/L	11.79	5065.8	ppb	11.79	0.23%
QC value within limits for Al 396.153Radial Recovery = 101.32%								
As 188.979†	1048.1	471.40	ug/L	1.265	471.40	ppb	1.265	0.27%
QC value within limits for As 188.979 Recovery = 94.28%								
B 249.677†	20658.6	515.04	ug/L	2.168	515.04	ppb	2.168	0.42%
QC value within limits for B 249.677 Recovery = 103.01%								
Ba 233.527†	42794.2	506.25	ug/L	2.036	506.25	ppb	2.036	0.40%
QC value within limits for Ba 233.527 Recovery = 101.25%								
Be 313.107†	651298.5	260.02	ug/L	0.531	260.02	ppb	0.531	0.20%
QC value within limits for Be 313.107 Recovery = 104.01%								

Ca 317.933Radial†	2781.8	5054.4 ug/L	73.87	5054.4 ppb	73.87	1.46%
QC value within limits for Ca 317.933Radial Recovery = 101.09%						
Cd 226.502†	34279.6	485.84 ug/L	1.046	485.84 ppb	1.046	0.22%
QC value within limits for Cd 226.502 Recovery = 97.17%						
Co 228.616†	16808.6	508.13 ug/L	1.233	508.13 ppb	1.233	0.24%
QC value within limits for Co 228.616 Recovery = 101.63%						
Cr 267.716†	35503.5	485.67 ug/L	2.043	485.67 ppb	2.043	0.42%
QC value within limits for Cr 267.716 Recovery = 97.13%						
Cu 324.752†	134608.1	504.03 ug/L	0.879	504.03 ppb	0.879	0.17%
QC value within limits for Cu 324.752 Recovery = 100.81%						
Fe 238.204 Radial†	494.9	5150.2 ug/L	78.23	5150.2 ppb	78.23	1.52%
QC value within limits for Fe 238.204 Radial Recovery = 103.00%						
K 766.490 Radial†	12675.4	2519.7 ug/L	8.39	2519.7 ppb	8.39	0.33%
QC value within limits for K 766.490 Radial Recovery = 100.79%						
Mg 279.077 IEC†	134.0	5321.1 ug/L	58.40	5321.1 ppb	58.40	1.10%
QC value within limits for Mg 279.077 IEC Recovery = 106.42%						
Mn 257.610†	325064.7	520.60 ug/L	2.017	520.60 ppb	2.017	0.39%
QC value within limits for Mn 257.610 Recovery = 104.12%						
Mo 202.031†	5783.1	531.19 ug/L	0.503	531.19 ppb	0.503	0.09%
QC value within limits for Mo 202.031 Recovery = 106.24%						
Na 589.592 Radial†	7178.8	2446.5 ug/L	8.95	2446.5 ppb	8.95	0.37%
QC value within limits for Na 589.592 Radial Recovery = 97.86%						
Ni 231.604†	15786.2	504.33 ug/L	1.379	504.33 ppb	1.379	0.27%
QC value within limits for Ni 231.604 Recovery = 100.87%						
P 214.914†	4447.9	2385.7 ug/L	3.58	2385.7 ppb	3.58	0.15%
QC value within limits for P 214.914 Recovery = 95.43%						
Pb 220.353†	3055.7	494.67 ug/L	3.722	494.67 ppb	3.722	0.75%
QC value within limits for Pb 220.353 Recovery = 98.93%						
S 181.975 Axial†	1903.6	2467.2 ug/L	12.10	2467.2 ppb	12.10	0.49%
QC value within limits for S 181.975 Axial Recovery = 98.69%						
Sb 206.836†	1230.8	518.43 ug/L	2.547	518.43 ppb	2.547	0.49%
QC value within limits for Sb 206.836 Recovery = 103.69%						
Se 196.026†	4103.2	2526.6 ug/L	4.55	2526.6 ppb	4.55	0.18%
QC value within limits for Se 196.026 Recovery = 101.06%						
Si 251.611†	131870.4	4805.5 ug/L	20.37	4805.5 ppb	20.37	0.42%
QC value within limits for Si 251.611 Recovery = 96.11%						
Sn 189.927†	2253.8	531.36 ug/L	2.435	531.36 ppb	2.435	0.46%
QC value within limits for Sn 189.927 Recovery = 106.27%						
Sr 421.552†	72259.0	525.41 ug/L	1.803	525.41 ppb	1.803	0.34%
QC value within limits for Sr 421.552 Recovery = 105.08%						
Ti 334.940†	249350.5	502.30 ug/L	1.601	502.30 ppb	1.601	0.32%
QC value within limits for Ti 334.940 Recovery = 100.46%						
Tl 190.801†	1134.7	524.54 ug/L	1.569	524.54 ppb	1.569	0.30%
QC value within limits for Tl 190.801 Recovery = 104.91%						
U 409.014†	14636.4	488.44 ug/L	2.137	488.44 ppb	2.137	0.44%
QC value within limits for U 409.014 Recovery = 97.69%						
V 292.402†	64109.9	517.61 ug/L	1.236	517.61 ppb	1.236	0.24%
QC value within limits for V 292.402 Recovery = 103.52%						
Zn 213.857†	46423.3	507.31 ug/L	2.114	507.31 ppb	2.114	0.42%
QC value within limits for Zn 213.857 Recovery = 101.46%						
SiO2†	132026.9	10271 ug/L	122.8	10271 ppb	122.8	1.20%
QC value within limits for SiO2 Recovery = 96.03%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/1/2010 12:11:29
Data Type: Reprocessed on 3/1/2010 13:29:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	758808.1	758808.1	98.811	%			12:14:39
1	Sc Radial	4656.0	4656.0	98.9	%			12:13:22
1	Y 371.029	678679.2	678679.2	98.497	%			12:14:39
1	Y RADIAL	4939.4	4939.4	99.08	%			12:13:22
1	Ag 328.068†	241.0	-11.7	-0.0650	ug/L	-0.0650	ppb	12:14:39
1	Al 396.153Radial†	-83.2	3.0	2.8298	ug/L	2.8298	ppb	12:13:42
1	As 188.979†	-34.5	-9.9	-4.4161	ug/L	-4.4161	ppb	12:14:59
1	B 249.677†	-140.5	311.3	7.7971	ug/L	7.7971	ppb	12:14:59
1	Ba 233.527†	11.9	9.7	0.1142	ug/L	0.1142	ppb	12:14:59
1	Be 313.107†	-8966.4	-91.6	-0.0368	ug/L	-0.0368	ppb	12:14:39
1	Ca 317.933Radial†	18.4	-3.6	-6.5093	ug/L	-6.5093	ppb	12:13:42
1	Cd 226.502†	-186.6	-2.2	-0.0295	ug/L	-0.0295	ppb	12:14:59
1	Co 228.616†	-66.6	-9.9	-0.2994	ug/L	-0.2994	ppb	12:14:59
1	Cr 267.716†	70.4	-4.4	-0.0616	ug/L	-0.0616	ppb	12:14:59
1	Cu 324.752†	7353.6	-94.0	-0.3546	ug/L	-0.3546	ppb	12:14:39
1	Fe 238.204 Radial†	6.7	-0.5	-5.3824	ug/L	-5.3824	ppb	12:13:42
1	K 766.490 Radial†	2274.4	37.4	7.4499	ug/L	7.4499	ppb	12:13:22
1	Mg 279.077 IEC†	3.1	0.2	8.3929	ug/L	8.3929	ppb	12:13:42
1	Mn 257.610†	444.4	-11.4	-0.0191	ug/L	-0.0191	ppb	12:14:59
1	Mo 202.031†	17.3	3.2	0.2894	ug/L	0.2894	ppb	12:14:59
1	Na 589.592 Radial†	-787.4	51.8	17.655	ug/L	17.655	ppb	12:13:22
1	Ni 231.604†	96.7	-3.5	-0.1109	ug/L	-0.1109	ppb	12:14:59
1	P 214.914†	196.4	3.4	1.9905	ug/L	1.9905	ppb	12:14:59
1	Pb 220.353†	-68.2	1.7	0.2737	ug/L	0.2737	ppb	12:14:59
1	S 181.975 Axial†	46.3	4.3	5.5891	ug/L	5.5891	ppb	12:14:59
1	Sb 206.836†	43.0	13.5	5.4900	ug/L	5.4900	ppb	12:14:59
1	Se 196.026†	-26.0	-6.5	-3.9688	ug/L	-3.9688	ppb	12:14:59
1	Si 251.611†	582.5	0.3	0.0073	ug/L	0.0073	ppb	12:14:59
1	Sn 189.927†	11.4	3.5	0.8176	ug/L	0.8176	ppb	12:14:59
1	Sr 421.552†	19.4	20.1	0.1460	ug/L	0.1460	ppb	12:13:22
1	Ti 334.940†	-1376.3	-91.8	-0.1883	ug/L	-0.1883	ppb	12:14:39
1	Tl 190.801†	-34.8	-4.0	-1.8601	ug/L	-1.8601	ppb	12:14:59
1	U 409.014†	-2387.3	120.8	4.0454	ug/L	4.0454	ppb	12:14:39
1	V 292.402†	-1601.3	7.4	0.0720	ug/L	0.0720	ppb	12:14:39
1	Zn 213.857†	616.6	-86.2	-0.9491	ug/L	-0.9491	ppb	12:14:59
1	SiO2†	632.6	43.8	3.4057	ug/L	3.4057	ppb	12:15:55
2	Sc 361.383	775920.5	775920.5	101.04	%			12:15:04
2	Sc Radial	4685.8	4685.8	99.6	%			12:13:47
2	Y 371.029	694648.1	694648.1	100.81	%			12:15:04
2	Y RADIAL	5001.0	5001.0	100.3	%			12:13:47
2	Ag 328.068†	254.2	-4.1	-0.0242	ug/L	-0.0242	ppb	12:15:04
2	Al 396.153Radial†	-82.5	4.3	3.9611	ug/L	3.9611	ppb	12:14:07
2	As 188.979†	-18.3	6.9	3.0791	ug/L	3.0791	ppb	12:15:24
2	B 249.677†	-175.2	280.0	7.0126	ug/L	7.0126	ppb	12:15:24
2	Ba 233.527†	0.6	-1.8	-0.0209	ug/L	-0.0209	ppb	12:15:24
2	Be 313.107†	-9071.7	4.3	0.0024	ug/L	0.0024	ppb	12:15:04
2	Ca 317.933Radial†	22.7	0.7	1.2181	ug/L	1.2181	ppb	12:14:07
2	Cd 226.502†	-200.3	-11.6	-0.1629	ug/L	-0.1629	ppb	12:15:24
2	Co 228.616†	-51.9	6.1	0.1869	ug/L	0.1869	ppb	12:15:24
2	Cr 267.716†	60.8	-15.4	-0.2113	ug/L	-0.2113	ppb	12:15:24
2	Cu 324.752†	7519.2	-94.3	-0.3542	ug/L	-0.3542	ppb	12:15:04
2	Fe 238.204 Radial†	6.6	-0.7	-6.8362	ug/L	-6.8362	ppb	12:14:07
2	K 766.490 Radial†	2207.8	-44.0	-8.7572	ug/L	-8.7572	ppb	12:13:47
2	Mg 279.077 IEC†	3.0	0.1	4.5344	ug/L	4.5344	ppb	12:14:07
2	Mn 257.610†	452.3	-13.4	-0.0224	ug/L	-0.0224	ppb	12:15:24
2	Mo 202.031†	24.6	10.0	0.9186	ug/L	0.9186	ppb	12:15:24
2	Na 589.592 Radial†	-862.6	-18.6	-6.3517	ug/L	-6.3517	ppb	12:13:47
2	Ni 231.604†	103.5	1.1	0.0341	ug/L	0.0341	ppb	12:15:24

2	P 214.914†	198.4	1.0	0.6627	ug/L	0.6627	ppb	12:15:24
2	Pb 220.353†	-63.5	7.8	1.2656	ug/L	1.2656	ppb	12:15:24
2	S 181.975 Axial†	36.2	-6.7	-8.6998	ug/L	-8.6998	ppb	12:15:24
2	Sb 206.836†	41.5	11.0	4.5298	ug/L	4.5298	ppb	12:15:24
2	Se 196.026†	-27.2	-7.1	-4.3642	ug/L	-4.3642	ppb	12:15:24
2	Si 251.611†	586.5	-8.8	-0.3317	ug/L	-0.3317	ppb	12:15:24
2	Sn 189.927†	19.8	11.5	2.7088	ug/L	2.7088	ppb	12:15:24
2	Sr 421.552†	10.3	10.9	0.0790	ug/L	0.0790	ppb	12:13:47
2	Ti 334.940†	-1172.8	140.3	0.2819	ug/L	0.2819	ppb	12:15:04
2	Tl 190.801†	-42.2	-10.6	-4.8462	ug/L	-4.8462	ppb	12:15:24
2	U 409.014†	-2516.9	45.8	1.5350	ug/L	1.5350	ppb	12:15:04
2	V 292.402†	-1631.4	13.3	0.1229	ug/L	0.1229	ppb	12:15:04
2	Zn 213.857†	618.0	-98.6	-1.0866	ug/L	-1.0866	ppb	12:15:24
2	SiO2†	593.3	-9.3	-0.7477	ug/L	-0.7477	ppb	12:16:00
3	Sc 361.383	768099.9	768099.9	100.02	%			12:15:30
3	Sc Radial	4626.1	4626.1	98.3	%			12:14:12
3	Y 371.029	688037.7	688037.7	99.855	%			12:15:30
3	Y RADIAL	4875.4	4875.4	97.79	%			12:14:12
3	Ag 328.068†	290.8	35.0	0.1764	ug/L	0.1764	ppb	12:15:30
3	Al 396.153Radial†	-80.1	5.7	5.3322	ug/L	5.3322	ppb	12:14:32
3	As 188.979†	-19.7	5.3	2.3529	ug/L	2.3529	ppb	12:15:50
3	B 249.677†	-176.9	276.5	6.9230	ug/L	6.9230	ppb	12:15:50
3	Ba 233.527†	2.7	0.3	0.0032	ug/L	0.0032	ppb	12:15:50
3	Be 313.107†	-8947.7	36.8	0.0146	ug/L	0.0146	ppb	12:15:30
3	Ca 317.933Radial†	19.4	-2.4	-4.4249	ug/L	-4.4249	ppb	12:14:32
3	Cd 226.502†	-182.9	3.7	0.0531	ug/L	0.0531	ppb	12:15:50
3	Co 228.616†	-54.3	3.2	0.0948	ug/L	0.0948	ppb	12:15:50
3	Cr 267.716†	69.5	-6.1	-0.0864	ug/L	-0.0864	ppb	12:15:50
3	Cu 324.752†	7437.2	-100.5	-0.3798	ug/L	-0.3798	ppb	12:15:30
3	Fe 238.204 Radial†	8.2	1.0	10.690	ug/L	10.690	ppb	12:14:32
3	K 766.490 Radial†	2304.9	83.4	16.595	ug/L	16.595	ppb	12:14:12
3	Mg 279.077 IEC†	4.0	1.2	45.673	ug/L	45.673	ppb	12:14:32
3	Mn 257.610†	432.8	-28.4	-0.0463	ug/L	-0.0463	ppb	12:15:50
3	Mo 202.031†	7.2	-7.2	-0.6569	ug/L	-0.6569	ppb	12:15:50
3	Na 589.592 Radial†	-834.4	-1.1	-0.3818	ug/L	-0.3818	ppb	12:14:12
3	Ni 231.604†	83.8	-17.6	-0.5619	ug/L	-0.5619	ppb	12:15:50
3	P 214.914†	196.5	1.1	0.6780	ug/L	0.6780	ppb	12:15:50
3	Pb 220.353†	-71.8	-1.1	-0.1835	ug/L	-0.1835	ppb	12:15:50
3	S 181.975 Axial†	45.5	3.0	3.9028	ug/L	3.9028	ppb	12:15:50
3	Sb 206.836†	37.5	7.4	3.0112	ug/L	3.0112	ppb	12:15:50
3	Se 196.026†	-13.9	5.9	3.6451	ug/L	3.6451	ppb	12:15:50
3	Si 251.611†	602.4	13.1	0.4853	ug/L	0.4853	ppb	12:15:50
3	Sn 189.927†	12.9	4.8	1.1347	ug/L	1.1347	ppb	12:15:50
3	Sr 421.552†	3.6	4.2	0.0304	ug/L	0.0304	ppb	12:14:12
3	Ti 334.940†	-1312.3	-11.0	-0.0297	ug/L	-0.0297	ppb	12:15:30
3	Tl 190.801†	-33.9	-2.6	-1.2156	ug/L	-1.2156	ppb	12:15:50
3	U 409.014†	-2311.6	225.7	7.5562	ug/L	7.5562	ppb	12:15:30
3	V 292.402†	-1657.2	-28.9	-0.2252	ug/L	-0.2252	ppb	12:15:30
3	Zn 213.857†	616.0	-94.4	-1.0390	ug/L	-1.0390	ppb	12:15:50
3	SiO2†	588.8	-7.8	-0.5890	ug/L	-0.5890	ppb	12:16:05

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	767609.5	99.957	%	1.1155				1.12%
Sc Radial	4656.0	98.9	%	0.63				0.64%
Y 371.029	687121.7	99.722	%	1.1645				1.17%
Y RADIAL	4938.6	99.06	%	1.259				1.27%
Ag 328.068†	6.4	0.0291	ug/L	0.12921	0.0291	ppb	0.12921	444.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	4.0410	ug/L	1.25313	4.0410	ppb	1.25313	31.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.3386	ug/L	4.13372	0.3386	ppb	4.13372	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	289.3	7.2442	ug/L	0.48092	7.2442	ppb	0.48092	6.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0322	ug/L	0.07204	0.0322	ppb	0.07204	223.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-16.8	-0.0066	ug/L	0.02687	-0.0066	ppb	0.02687	404.73%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -1.8     -3.2387 ug/L       3.99792     -3.2387 ppb        3.99792 123.44%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.3     -0.0464 ug/L       0.10898     -0.0464 ppb        0.10898 234.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.2     -0.0059 ug/L       0.25833     -0.0059 ppb        0.25833 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -8.6     -0.1198 ug/L       0.08025     -0.1198 ppb        0.08025  67.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -96.3     -0.3629 ug/L       0.01469     -0.3629 ppb        0.01469   4.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.5095 ug/L       9.72638     -0.5095 ppb        9.72638 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          25.6      5.0957 ug/L      12.83879      5.0957 ppb       12.83879 251.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5     19.533 ug/L       22.7196      19.533 ppb        22.7196 116.31%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -17.7     -0.0293 ug/L       0.01487     -0.0293 ppb        0.01487  50.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.0      0.1837 ug/L       0.79307      0.1837 ppb        0.79307 431.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.7      3.6404 ug/L      12.49850      3.6404 ppb       12.49850 343.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.7     -0.2129 ug/L       0.31082     -0.2129 ppb        0.31082 146.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.8      1.1104 ug/L       0.76223      1.1104 ppb        0.76223  68.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.8      0.4519 ug/L       0.74082      0.4519 ppb        0.74082 163.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.2      0.2640 ug/L       7.80858      0.2640 ppb        7.80858 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.6      4.3437 ug/L       1.24985      4.3437 ppb        1.24985  28.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.6     -1.5626 ug/L       4.51434     -1.5626 ppb        4.51434 288.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 1.5      0.0536 ug/L       0.41047      0.0536 ppb        0.41047 765.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.6      1.5537 ug/L       1.01284      1.5537 ppb        1.01284  65.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.7      0.0851 ug/L       0.05805      0.0851 ppb        0.05805  68.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.5      0.0213 ug/L       0.23924      0.0213 ppb        0.23924 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.8     -2.6406 ug/L       1.93707     -2.6406 ppb        1.93707  73.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                130.8      4.3789 ug/L       3.02443      4.3789 ppb        3.02443  69.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -2.7     -0.0101 ug/L       0.18805     -0.0101 ppb        0.18805 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -93.1     -1.0249 ug/L       0.06982     -1.0249 ppb        0.06982   6.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       8.9      0.6896 ug/L       2.35349      0.6896 ppb        2.35349 341.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/1/2010 12:18:17
Data Type: Reprocessed on 3/1/2010 13:29:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	781108.3	781108.3	101.71	%			12:21:27
1	Sc Radial	4645.8	4645.8	98.7	%			12:20:10
1	Y 371.029	698977.5	698977.5	101.44	%			12:21:27
1	Y RADIAL	4932.5	4932.5	98.94	%			12:20:10
1	Ag 328.068†	1071.2	797.5	4.1043	ug/L	4.1043	ppb	12:21:27
1	Al 396.153Radial†	127.3	216.1	201.66	ug/L	201.66	ppb	12:20:30
1	As 188.979†	30.9	55.4	24.736	ug/L	24.736	ppb	12:21:47
1	B 249.677†	1608.3	2034.7	50.921	ug/L	50.921	ppb	12:21:27
1	Ba 233.527†	420.4	410.9	4.8632	ug/L	4.8632	ppb	12:21:47
1	Be 313.107†	3192.6	12121.5	4.8295	ug/L	4.8295	ppb	12:21:27
1	Ca 317.933Radial†	125.4	104.9	190.61	ug/L	190.61	ppb	12:20:30
1	Cd 226.502†	166.3	350.1	4.9664	ug/L	4.9664	ppb	12:21:47
1	Co 228.616†	99.6	155.4	4.7063	ug/L	4.7063	ppb	12:21:47
1	Cr 267.716†	425.7	342.9	4.6715	ug/L	4.6715	ppb	12:21:47
1	Cu 324.752†	10229.2	2520.5	9.4125	ug/L	9.4125	ppb	12:21:27
1	Fe 238.204 Radial†	17.0	9.9	102.61	ug/L	102.61	ppb	12:20:30
1	K 766.490 Radial†	3046.7	825.0	164.02	ug/L	164.02	ppb	12:20:10
1	Mg 279.077 IEC†	5.6	2.8	111.94	ug/L	111.94	ppb	12:20:30
1	Mn 257.610†	6914.8	6337.1	10.149	ug/L	10.149	ppb	12:21:27
1	Mo 202.031†	115.7	99.3	9.1255	ug/L	9.1255	ppb	12:21:47
1	Na 589.592 Radial†	68.9	917.6	312.71	ug/L	312.71	ppb	12:20:10
1	Ni 231.604†	246.7	141.2	4.5097	ug/L	4.5097	ppb	12:21:47
1	P 214.914†	471.9	268.6	148.17	ug/L	148.17	ppb	12:21:47
1	Pb 220.353†	-4.7	66.0	10.708	ug/L	10.708	ppb	12:21:47
1	S 181.975 Axial†	115.8	71.3	92.468	ug/L	92.468	ppb	12:21:47
1	Sb 206.836†	53.9	23.0	9.6362	ug/L	9.6362	ppb	12:21:47
1	Se 196.026†	25.8	45.1	27.917	ug/L	27.917	ppb	12:21:47
1	Si 251.611†	3178.0	2535.2	92.399	ug/L	92.399	ppb	12:21:47
1	Sn 189.927†	45.7	36.8	8.7009	ug/L	8.7009	ppb	12:21:47
1	Sr 421.552†	667.8	677.0	4.9214	ug/L	4.9214	ppb	12:20:10
1	Ti 334.940†	1215.3	2495.8	5.0193	ug/L	5.0193	ppb	12:21:27
1	Tl 190.801†	7.3	38.4	17.696	ug/L	17.696	ppb	12:21:47
1	U 409.014†	-881.1	1670.6	55.919	ug/L	55.919	ppb	12:21:27
1	V 292.402†	-994.3	650.5	5.3959	ug/L	5.3959	ppb	12:21:27
1	Zn 213.857†	1537.8	801.6	8.7837	ug/L	8.7837	ppb	12:21:47
1	SiO2†	3293.5	2641.5	205.53	ug/L	205.53	ppb	12:22:43
2	Sc 361.383	764797.2	764797.2	99.591	%			12:21:52
2	Sc Radial	4643.6	4643.6	98.7	%			12:20:35
2	Y 371.029	683958.2	683958.2	99.263	%			12:21:52
2	Y RADIAL	4937.3	4937.3	99.03	%			12:20:35
2	Ag 328.068†	1132.9	881.9	4.5372	ug/L	4.5372	ppb	12:21:52
2	Al 396.153Radial†	121.4	210.1	196.11	ug/L	196.11	ppb	12:20:55
2	As 188.979†	29.7	54.8	24.476	ug/L	24.476	ppb	12:22:12
2	B 249.677†	1589.8	2049.8	51.299	ug/L	51.299	ppb	12:21:52
2	Ba 233.527†	411.2	410.5	4.8581	ug/L	4.8581	ppb	12:22:12
2	Be 313.107†	3087.7	12083.0	4.8140	ug/L	4.8140	ppb	12:21:52
2	Ca 317.933Radial†	125.0	104.6	190.03	ug/L	190.03	ppb	12:20:55
2	Cd 226.502†	157.0	344.3	4.8847	ug/L	4.8847	ppb	12:22:12
2	Co 228.616†	106.6	164.5	4.9828	ug/L	4.9828	ppb	12:22:12
2	Cr 267.716†	444.7	370.9	5.0547	ug/L	5.0547	ppb	12:22:12
2	Cu 324.752†	9987.7	2492.6	9.3082	ug/L	9.3082	ppb	12:21:52
2	Fe 238.204 Radial†	16.6	9.5	99.114	ug/L	99.114	ppb	12:20:55
2	K 766.490 Radial†	3010.2	789.4	156.95	ug/L	156.95	ppb	12:20:35
2	Mg 279.077 IEC†	10.5	7.8	308.17	ug/L	308.17	ppb	12:20:55
2	Mn 257.610†	6721.0	6287.5	10.061	ug/L	10.061	ppb	12:21:52
2	Mo 202.031†	118.8	104.9	9.6350	ug/L	9.6350	ppb	12:22:12
2	Na 589.592 Radial†	29.4	877.6	299.07	ug/L	299.07	ppb	12:20:35
2	Ni 231.604†	257.5	157.2	5.0231	ug/L	5.0231	ppb	12:22:12

2	P 214.914†	467.5	274.1	151.25 ug/L	151.25 ppb	12:22:12
2	Pb 220.353†	-12.7	57.9	9.4032 ug/L	9.4032 ppb	12:22:12
2	S 181.975 Axial†	111.8	69.8	90.410 ug/L	90.410 ppb	12:22:12
2	Sb 206.836†	63.6	33.8	14.073 ug/L	14.073 ppb	12:22:12
2	Se 196.026†	36.0	55.9	34.528 ug/L	34.528 ppb	12:22:12
2	Si 251.611†	3157.6	2581.4	94.078 ug/L	94.078 ppb	12:22:12
2	Sn 189.927†	50.0	42.2	9.9563 ug/L	9.9563 ppb	12:22:12
2	Sr 421.552†	678.1	687.8	5.0000 ug/L	5.0000 ppb	12:20:35
2	Ti 334.940†	1149.4	2455.2	4.9215 ug/L	4.9215 ppb	12:21:52
2	Tl 190.801†	9.1	40.4	18.597 ug/L	18.597 ppb	12:22:12
2	U 409.014†	-891.1	1642.0	54.962 ug/L	54.962 ppb	12:21:52
2	V 292.402†	-1003.4	620.5	5.1665 ug/L	5.1665 ppb	12:21:52
2	Zn 213.857†	1526.9	822.8	9.0153 ug/L	9.0153 ppb	12:22:12
2	SiO2†	3255.5	2672.5	207.93 ug/L	207.93 ppb	12:22:48
3	Sc 361.383	769305.9	769305.9	100.18 %		12:22:17
3	Sc Radial	4649.0	4649.0	98.8 %		12:21:00
3	Y 371.029	689181.3	689181.3	100.02 %		12:22:17
3	Y RADIAL	4939.7	4939.7	99.08 %		12:21:00
3	Ag 328.068†	1152.2	894.5	4.6045 ug/L	4.6045 ppb	12:22:17
3	Al 396.153Radial†	132.6	221.4	206.59 ug/L	206.59 ppb	12:21:20
3	As 188.979†	26.1	51.1	22.805 ug/L	22.805 ppb	12:22:37
3	B 249.677†	1559.9	2010.5	50.316 ug/L	50.316 ppb	12:22:17
3	Ba 233.527†	452.4	449.2	5.3150 ug/L	5.3150 ppb	12:22:37
3	Be 313.107†	3138.9	12116.0	4.8274 ug/L	4.8274 ppb	12:22:17
3	Ca 317.933Radial†	128.2	107.6	195.48 ug/L	195.48 ppb	12:21:20
3	Cd 226.502†	163.1	349.5	4.9567 ug/L	4.9567 ppb	12:22:37
3	Co 228.616†	96.4	153.6	4.6546 ug/L	4.6546 ppb	12:22:37
3	Cr 267.716†	438.7	362.3	4.9364 ug/L	4.9364 ppb	12:22:37
3	Cu 324.752†	9981.6	2427.8	9.0656 ug/L	9.0656 ppb	12:22:17
3	Fe 238.204 Radial†	17.6	10.5	109.01 ug/L	109.01 ppb	12:21:20
3	K 766.490 Radial†	3044.2	820.3	163.09 ug/L	163.09 ppb	12:21:00
3	Mg 279.077 IEC†	7.0	4.2	167.98 ug/L	167.98 ppb	12:21:20
3	Mn 257.610†	6813.4	6340.1	10.152 ug/L	10.152 ppb	12:22:17
3	Mo 202.031†	120.8	106.2	9.7546 ug/L	9.7546 ppb	12:22:37
3	Na 589.592 Radial†	40.2	888.5	302.79 ug/L	302.79 ppb	12:21:00
3	Ni 231.604†	245.4	143.7	4.5895 ug/L	4.5895 ppb	12:22:37
3	P 214.914†	465.0	268.8	148.35 ug/L	148.35 ppb	12:22:37
3	Pb 220.353†	4.5	75.2	12.195 ug/L	12.195 ppb	12:22:37
3	S 181.975 Axial†	121.0	78.3	101.44 ug/L	101.44 ppb	12:22:37
3	Sb 206.836†	55.7	25.6	10.712 ug/L	10.712 ppb	12:22:37
3	Se 196.026†	30.5	50.2	31.056 ug/L	31.056 ppb	12:22:37
3	Si 251.611†	3207.2	2612.3	95.203 ug/L	95.203 ppb	12:22:37
3	Sn 189.927†	46.7	38.5	9.1059 ug/L	9.1059 ppb	12:22:37
3	Sr 421.552†	671.2	680.0	4.9431 ug/L	4.9431 ppb	12:21:00
3	Ti 334.940†	1206.0	2504.9	5.0337 ug/L	5.0337 ppb	12:22:17
3	Tl 190.801†	16.5	47.7	21.979 ug/L	21.979 ppb	12:22:37
3	U 409.014†	-882.4	1656.0	55.428 ug/L	55.428 ppb	12:22:17
3	V 292.402†	-1016.2	613.6	5.1105 ug/L	5.1105 ppb	12:22:17
3	Zn 213.857†	1533.5	820.5	8.9910 ug/L	8.9910 ppb	12:22:37
3	SiO2†	3271.5	2669.3	207.67 ug/L	207.67 ppb	12:22:53

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	771737.1	100.49	%	1.097				1.09%
Sc Radial	4646.1	98.7	%	0.06				0.06%
Y 371.029	690705.6	100.24	%	1.107				1.10%
Y RADIAL	4936.5	99.02	%	0.074				0.07%
Ag 328.068†	858.0	4.4153	ug/L	0.27144	4.4153	ppb	0.27144	6.15%
QC value within limits for Ag 328.068 Recovery = 88.31%								
Al 396.153Radial†	215.9	201.45	ug/L	5.244	201.45	ppb	5.244	2.60%
QC value within limits for Al 396.153Radial Recovery = 100.73%								
As 188.979†	53.8	24.005	ug/L	1.0479	24.005	ppb	1.0479	4.37%
QC value within limits for As 188.979 Recovery = 80.02%								
B 249.677†	2031.7	50.846	ug/L	0.4959	50.846	ppb	0.4959	0.98%
QC value within limits for B 249.677 Recovery = 101.69%								
Ba 233.527†	423.6	5.0121	ug/L	0.26238	5.0121	ppb	0.26238	5.23%
QC value within limits for Ba 233.527 Recovery = 100.24%								
Be 313.107†	12106.8	4.8236	ug/L	0.00839	4.8236	ppb	0.00839	0.17%
QC value within limits for Be 313.107 Recovery = 96.47%								

Ca 317.933Radial†	105.7	192.04 ug/L	2.992	192.04 ppb	2.992	1.56%
QC value within limits for Ca 317.933Radial Recovery = 96.02%						
Cd 226.502†	348.0	4.9360 ug/L	0.04465	4.9360 ppb	0.04465	0.90%
QC value within limits for Cd 226.502 Recovery = 98.72%						
Co 228.616†	157.9	4.7812 ug/L	0.17647	4.7812 ppb	0.17647	3.69%
QC value within limits for Co 228.616 Recovery = 95.62%						
Cr 267.716†	358.7	4.8875 ug/L	0.19625	4.8875 ppb	0.19625	4.02%
QC value within limits for Cr 267.716 Recovery = 97.75%						
Cu 324.752†	2480.3	9.2621 ug/L	0.17795	9.2621 ppb	0.17795	1.92%
QC value within limits for Cu 324.752 Recovery = 92.62%						
Fe 238.204 Radial†	10.0	103.58 ug/L	5.018	103.58 ppb	5.018	4.85%
QC value within limits for Fe 238.204 Radial Recovery = 103.58%						
K 766.490 Radial†	811.6	161.35 ug/L	3.839	161.35 ppb	3.839	2.38%
QC value within limits for K 766.490 Radial Recovery = 107.57%						
Mg 279.077 IEC†	4.9	196.03 ug/L	101.077	196.03 ppb	101.077	51.56%
QC value less than the lower limit for Mg 279.077 IEC Recovery = 65.34%						
Mn 257.610†	6321.6	10.121 ug/L	0.0516	10.121 ppb	0.0516	0.51%
QC value within limits for Mn 257.610 Recovery = 101.21%						
Mo 202.031†	103.5	9.5050 ug/L	0.33404	9.5050 ppb	0.33404	3.51%
QC value within limits for Mo 202.031 Recovery = 95.05%						
Na 589.592 Radial†	894.5	304.86 ug/L	7.050	304.86 ppb	7.050	2.31%
QC value within limits for Na 589.592 Radial Recovery = 101.62%						
Ni 231.604†	147.3	4.7074 ug/L	0.27627	4.7074 ppb	0.27627	5.87%
QC value within limits for Ni 231.604 Recovery = 94.15%						
P 214.914†	270.5	149.26 ug/L	1.726	149.26 ppb	1.726	1.16%
QC value within limits for P 214.914 Recovery = 99.50%						
Pb 220.353†	66.4	10.769 ug/L	1.3968	10.769 ppb	1.3968	12.97%
QC value within limits for Pb 220.353 Recovery = 107.69%						
S 181.975 Axial†	73.1	94.774 ug/L	5.8678	94.774 ppb	5.8678	6.19%
QC value within limits for S 181.975 Axial Recovery = 94.77%						
Sb 206.836†	27.5	11.474 ug/L	2.3145	11.474 ppb	2.3145	20.17%
QC value within limits for Sb 206.836 Recovery = 114.74%						
Se 196.026†	50.4	31.167 ug/L	3.3067	31.167 ppb	3.3067	10.61%
QC value within limits for Se 196.026 Recovery = 103.89%						
Si 251.611†	2576.3	93.893 ug/L	1.4115	93.893 ppb	1.4115	1.50%
QC value within limits for Si 251.611 Recovery = 93.89%						
Sn 189.927†	39.2	9.2544 ug/L	0.64074	9.2544 ppb	0.64074	6.92%
QC value within limits for Sn 189.927 Recovery = 92.54%						
Sr 421.552†	681.6	4.9548 ug/L	0.04062	4.9548 ppb	0.04062	0.82%
QC value within limits for Sr 421.552 Recovery = 99.10%						
Ti 334.940†	2485.3	4.9915 ug/L	0.06104	4.9915 ppb	0.06104	1.22%
QC value within limits for Ti 334.940 Recovery = 99.83%						
Tl 190.801†	42.2	19.424 ug/L	2.2580	19.424 ppb	2.2580	11.62%
QC value within limits for Tl 190.801 Recovery = 97.12%						
U 409.014†	1656.2	55.436 ug/L	0.4786	55.436 ppb	0.4786	0.86%
QC value within limits for U 409.014 Recovery = 110.87%						
V 292.402†	628.2	5.2243 ug/L	0.15122	5.2243 ppb	0.15122	2.89%
QC value within limits for V 292.402 Recovery = 104.49%						
Zn 213.857†	815.0	8.9300 ug/L	0.12725	8.9300 ppb	0.12725	1.42%
QC value within limits for Zn 213.857 Recovery = 89.30%						
SiO2†	2661.1	207.04 ug/L	1.318	207.04 ppb	1.318	0.64%
QC value within limits for SiO2 Recovery = 97.20%						

QC Failed. Continue with analysis.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/1/2010 12:25:05
Data Type: Reprocessed on 3/1/2010 13:29:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	692739.2	692739.2	90.208	%			12:27:30
1	Sc Radial	4213.4	4213.4	89.5	%			12:27:03
1	Y 371.029	606235.6	606235.6	87.983	%			12:27:30
1	Y RADIAL	4424.5	4424.5	88.75	%			12:27:03
1	Ag 328.068†	-9846.6	-11171.1	-7.2296	ug/L	-7.2296	ppb	12:27:30
1	Al 396.153Radial†	498573.5	557024.9	521050	ug/L	521050	ppb	12:26:58
1	As 188.979†	-77.3	-60.6	16.042	ug/L	16.042	ppb	12:27:51
1	B 249.677†	331.1	820.5	-9.4216	ug/L	-9.4216	ppb	12:27:30
1	Ba 233.527†	-502.3	-559.2	-0.9524	ug/L	-0.9524	ppb	12:27:51
1	Be 313.107†	-9213.7	-1231.3	-0.5420	ug/L	-0.5420	ppb	12:27:30
1	Ca 317.933Radial†	236617.8	264294.7	480210	ug/L	480210	ppb	12:26:58
1	Cd 226.502†	1103.5	1409.9	0.9377	ug/L	0.9377	ppb	12:27:51
1	Co 228.616†	-33.9	19.9	-2.0592	ug/L	-2.0592	ppb	12:27:51
1	Cr 267.716†	-4.7	-80.8	2.4331	ug/L	2.4331	ppb	12:27:51
1	Cu 324.752†	4937.9	-2062.2	2.0156	ug/L	2.0156	ppb	12:27:30
1	Fe 238.204 Radial†	15929.1	17786.5	184530	ug/L	184530	ppb	12:27:03
1	K 766.490 Radial†	2201.2	197.2	-121.37	ug/L	-121.37	ppb	12:27:03
1	Mg 279.077 IEC†	10950.5	12229.5	485380	ug/L	485380	ppb	12:27:03
1	Mn 257.610†	-668.0	-1201.6	-3.5511	ug/L	-3.5511	ppb	12:27:30
1	Mo 202.031†	-156.9	-188.3	2.7540	ug/L	2.7540	ppb	12:27:51
1	Na 589.592 Radial†	-650.8	120.8	41.167	ug/L	41.167	ppb	12:27:03
1	Ni 231.604†	157.3	73.0	2.3338	ug/L	2.3338	ppb	12:27:51
1	P 214.914†	181.1	5.4	-14.933	ug/L	-14.933	ppb	12:27:51
1	Pb 220.353†	-673.5	-675.9	9.7170	ug/L	9.7170	ppb	12:27:51
1	S 181.975 Axial†	57.3	21.0	-70.396	ug/L	-70.396	ppb	12:27:51
1	Sb 206.836†	58.4	34.8	-3.4957	ug/L	-3.4957	ppb	12:27:51
1	Se 196.026†	-734.2	-794.1	-23.568	ug/L	-23.568	ppb	12:27:51
1	Si 251.611†	535.4	4.3	0.3708	ug/L	0.3708	ppb	12:27:51
1	Sn 189.927†	-302.1	-343.0	-6.0541	ug/L	-6.0541	ppb	12:27:51
1	Sr 421.552†	454.9	508.6	0.1125	ug/L	0.1125	ppb	12:27:03
1	Ti 334.940†	-11551.5	-11504.4	1.5431	ug/L	1.5431	ppb	12:27:30
1	Tl 190.801†	-55.8	-30.6	-14.280	ug/L	-14.280	ppb	12:27:51
1	U 409.014†	-832.4	1614.1	33.014	ug/L	33.014	ppb	12:27:30
1	V 292.402†	169.3	1815.7	-3.1552	ug/L	-3.1552	ppb	12:27:51
1	Zn 213.857†	2801.3	2395.2	-1.2049	ug/L	-1.2049	ppb	12:27:51
1	SiO2†	533.5	-5.1	0.0768	ug/L	0.0768	ppb	12:28:47
2	Sc 361.383	694839.9	694839.9	90.481	%			12:27:56
2	Sc Radial	4240.1	4240.1	90.1	%			12:27:13
2	Y 371.029	608131.1	608131.1	88.258	%			12:27:56
2	Y RADIAL	4457.5	4457.5	89.41	%			12:27:13
2	Ag 328.068†	-9940.6	-11242.0	-7.4057	ug/L	-7.4057	ppb	12:27:56
2	Al 396.153Radial†	491658.2	545840.9	510590	ug/L	510590	ppb	12:27:08
2	As 188.979†	-94.3	-79.2	7.8009	ug/L	7.8009	ppb	12:28:16
2	B 249.677†	235.1	713.3	-12.137	ug/L	-12.137	ppb	12:27:56
2	Ba 233.527†	-492.9	-547.2	-0.8042	ug/L	-0.8042	ppb	12:28:16
2	Be 313.107†	-9312.3	-1309.4	-0.5736	ug/L	-0.5736	ppb	12:27:56
2	Ca 317.933Radial†	233334.1	258984.9	470560	ug/L	470560	ppb	12:27:08
2	Cd 226.502†	1124.9	1429.9	1.2033	ug/L	1.2033	ppb	12:28:16
2	Co 228.616†	-13.5	42.6	-1.3759	ug/L	-1.3759	ppb	12:28:16
2	Cr 267.716†	-93.3	-178.7	1.1009	ug/L	1.1009	ppb	12:28:16
2	Cu 324.752†	4943.6	-2072.5	1.9880	ug/L	1.9880	ppb	12:27:56
2	Fe 238.204 Radial†	16045.2	17803.3	184710	ug/L	184710	ppb	12:27:13
2	K 766.490 Radial†	2285.4	275.2	-102.62	ug/L	-102.62	ppb	12:27:13
2	Mg 279.077 IEC†	11078.4	12294.5	487950	ug/L	487950	ppb	12:27:13
2	Mn 257.610†	-776.9	-1319.8	-3.8285	ug/L	-3.8285	ppb	12:27:56
2	Mo 202.031†	-163.6	-195.2	2.0250	ug/L	2.0250	ppb	12:28:16
2	Na 589.592 Radial†	-617.5	162.4	55.338	ug/L	55.338	ppb	12:27:13
2	Ni 231.604†	180.5	98.1	3.1356	ug/L	3.1356	ppb	12:28:16

2	P 214.914†	183.8	7.7	-16.351 ug/L	-16.351 ppb	12:28:16
2	Pb 220.353†	-660.8	-659.6	9.6532 ug/L	9.6532 ppb	12:28:16
2	S 181.975 Axial†	58.5	22.2	-66.935 ug/L	-66.935 ppb	12:28:16
2	Sb 206.836†	53.6	29.2	-5.4814 ug/L	-5.4814 ppb	12:28:16
2	Se 196.026†	-750.4	-809.5	-33.622 ug/L	-33.622 ppb	12:28:16
2	Si 251.611†	542.8	10.7	0.6098 ug/L	0.6098 ppb	12:28:16
2	Sn 189.927†	-301.7	-341.6	-7.4405 ug/L	-7.4405 ppb	12:28:16
2	Sr 421.552†	458.3	509.3	0.1895 ug/L	0.1895 ppb	12:27:13
2	Ti 334.940†	-11693.2	-11622.3	-0.1974 ug/L	-0.1974 ppb	12:27:56
2	Tl 190.801†	-61.5	-36.8	-17.137 ug/L	-17.137 ppb	12:28:16
2	U 409.014†	-903.2	1538.5	30.467 ug/L	30.467 ppb	12:27:56
2	V 292.402†	221.7	1873.0	-2.6869 ug/L	-2.6869 ppb	12:28:16
2	Zn 213.857†	2766.3	2347.1	-1.7663 ug/L	-1.7663 ppb	12:28:16
2	SiO2†	512.5	-30.1	-1.8545 ug/L	-1.8545 ppb	12:28:52
3	Sc 361.383	698608.7	698608.7	90.972 %		12:28:21
3	Sc Radial	4199.1	4199.1	89.2 %		12:27:24
3	Y 371.029	610888.9	610888.9	88.659 %		12:28:21
3	Y RADIAL	4439.7	4439.7	89.05 %		12:27:24
3	Ag 328.068†	-9991.8	-11239.1	-7.2188 ug/L	-7.2188 ppb	12:28:21
3	Al 396.153Radial†	485919.6	544744.6	509560 ug/L	509560 ppb	12:27:19
3	As 188.979†	-79.2	-62.1	15.580 ug/L	15.580 ppb	12:28:41
3	B 249.677†	297.5	780.5	-10.550 ug/L	-10.550 ppb	12:28:21
3	Ba 233.527†	-511.7	-564.8	-0.9955 ug/L	-0.9955 ppb	12:28:41
3	Be 313.107†	-9408.4	-1359.4	-0.5935 ug/L	-0.5935 ppb	12:28:21
3	Ca 317.933Radial†	231332.5	259273.8	471090 ug/L	471090 ppb	12:27:19
3	Cd 226.502†	1108.3	1404.9	0.7890 ug/L	0.7890 ppb	12:28:41
3	Co 228.616†	-15.4	40.5	-1.4499 ug/L	-1.4499 ppb	12:28:41
3	Cr 267.716†	-30.0	-108.6	2.0689 ug/L	2.0689 ppb	12:28:41
3	Cu 324.752†	5085.6	-1945.8	2.4932 ug/L	2.4932 ppb	12:28:21
3	Fe 238.204 Radial†	15940.3	17859.8	185290 ug/L	185290 ppb	12:27:24
3	K 766.490 Radial†	2168.8	169.3	-123.86 ug/L	-123.86 ppb	12:27:24
3	Mg 279.077 IEC†	10977.9	12302.0	488250 ug/L	488250 ppb	12:27:24
3	Mn 257.610†	-750.9	-1286.6	-3.7297 ug/L	-3.7297 ppb	12:28:21
3	Mo 202.031†	-174.5	-206.2	1.0638 ug/L	1.0638 ppb	12:28:41
3	Na 589.592 Radial†	-660.2	107.8	36.735 ug/L	36.735 ppb	12:27:24
3	Ni 231.604†	202.2	121.0	3.8664 ug/L	3.8664 ppb	12:28:41
3	P 214.914†	168.3	-10.3	-27.273 ug/L	-27.273 ppb	12:28:41
3	Pb 220.353†	-667.4	-663.0	8.8179 ug/L	8.8179 ppb	12:28:41
3	S 181.975 Axial†	63.5	27.3	-60.061 ug/L	-60.061 ppb	12:28:41
3	Sb 206.836†	55.5	30.9	-4.7868 ug/L	-4.7868 ppb	12:28:41
3	Se 196.026†	-744.5	-798.5	-25.701 ug/L	-25.701 ppb	12:28:41
3	Si 251.611†	540.2	4.6	0.4000 ug/L	0.4000 ppb	12:28:41
3	Sn 189.927†	-306.9	-345.4	-8.2867 ug/L	-8.2867 ppb	12:28:41
3	Sr 421.552†	460.2	516.3	0.2370 ug/L	0.2370 ppb	12:27:24
3	Ti 334.940†	-11744.9	-11609.4	-0.1259 ug/L	-0.1259 ppb	12:28:21
3	Tl 190.801†	-57.7	-32.2	-15.024 ug/L	-15.024 ppb	12:28:41
3	U 409.014†	-908.7	1537.9	30.376 ug/L	30.376 ppb	12:28:21
3	V 292.402†	179.1	1824.8	-3.1653 ug/L	-3.1653 ppb	12:28:41
3	Zn 213.857†	2821.7	2391.4	-1.3707 ug/L	-1.3707 ppb	12:28:41
3	SiO2†	546.0	3.8	0.8110 ug/L	0.8110 ppb	12:28:57

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	695395.9	90.554	%	0.3873				0.43%
Sc Radial	4217.5	89.6	%	0.44				0.49%
Y 371.029	608418.5	88.300	%	0.3396				0.38%
Y RADIAL	4440.6	89.07	%	0.331				0.37%
Ag 328.068†	-11217.4	-7.2847	ug/L	0.10491	-7.2847	ppb	0.10491	1.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	549203.4	513730	ug/L	6356.8	513730	ppb	6356.8	1.24%
QC value within limits for Al 396.153Radial Recovery = 102.75%								
As 188.979†	-67.3	13.141	ug/L	4.6305	13.141	ppb	4.6305	35.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	771.4	-10.703	ug/L	1.3639	-10.703	ppb	1.3639	12.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-557.1	-0.9174	ug/L	0.10036	-0.9174	ppb	0.10036	10.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1300.0	-0.5697	ug/L	0.02593	-0.5697	ppb	0.02593	4.55%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     260851.1      473950 ug/L        5424.8      473950 ppb        5424.8   1.14%
   QC value within limits for Ca 317.933Radial  Recovery = 94.79%
Cd 226.502†             1414.9      0.9767 ug/L       0.20984      0.9767 ppb       0.20984  21.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               34.3     -1.6283 ug/L       0.37495     -1.6283 ppb       0.37495  23.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -122.7      1.8676 ug/L       0.68852      1.8676 ppb       0.68852  36.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2026.8      2.1656 ug/L       0.28403      2.1656 ppb       0.28403  13.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     17816.5      184850 ug/L         398.7      184850 ppb         398.7   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.42%
K 766.490 Radial†        213.9     -115.95 ug/L        11.610     -115.95 ppb        11.610  10.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        12275.3      487200 ug/L        1582.3      487200 ppb        1582.3   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.44%
Mn 257.610†            -1269.3     -3.7031 ug/L       0.14056     -3.7031 ppb       0.14056   3.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -196.6      1.9476 ug/L       0.84777      1.9476 ppb       0.84777  43.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       130.3      44.413 ug/L        9.7171      44.413 ppb        9.7171  21.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               97.4      3.1119 ug/L       0.76662      3.1119 ppb       0.76662  24.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.9     -19.519 ug/L        6.7523     -19.519 ppb        6.7523  34.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -666.2      9.3960 ug/L       0.50171      9.3960 ppb       0.50171   5.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          23.5     -65.798 ug/L        5.2607     -65.798 ppb        5.2607   8.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               31.6     -4.5880 ug/L       1.00768     -4.5880 ppb       1.00768  21.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -800.7     -27.630 ug/L        5.2975     -27.630 ppb        5.2975  19.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                6.5      0.4602 ug/L       0.13038      0.4602 ppb       0.13038  28.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -343.3     -7.2604 ug/L       1.12715     -7.2604 ppb       1.12715  15.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              511.4      0.1797 ug/L       0.06279      0.1797 ppb       0.06279  34.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -11578.7      0.4066 ug/L       0.98488      0.4066 ppb       0.98488 242.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -33.2     -15.480 ug/L        1.4822     -15.480 ppb        1.4822   9.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1563.5      31.286 ug/L        1.4971      31.286 ppb        1.4971   4.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1837.8     -3.0025 ug/L       0.27335     -3.0025 ppb       0.27335   9.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2377.9     -1.4473 ug/L       0.28840     -1.4473 ppb       0.28840  19.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -10.4     -0.3222 ug/L       1.37684     -0.3222 ppb       1.37684 427.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/1/2010 12:31:09
Data Type: Reprocessed on 3/1/2010 13:29:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	704340.1	704340.1	91.718	%			12:34:20
1	Sc Radial	4225.3	4225.3	89.8	%			12:33:21
1	Y 371.029	616031.0	616031.0	89.405	%			12:34:20
1	Y RADIAL	4471.3	4471.3	89.69	%			12:33:21
1	Ag 328.068†	38036.6	41215.5	263.83	ug/L	263.83	ppb	12:34:20
1	Al 396.153Radial†	493154.2	549415.5	513910	ug/L	513910	ppb	12:33:01
1	As 188.979†	946.3	1056.8	517.37	ug/L	517.37	ppb	12:34:40
1	B 249.677†	18925.1	21087.4	496.75	ug/L	496.75	ppb	12:34:20
1	Ba 233.527†	38107.9	41546.5	496.98	ug/L	496.98	ppb	12:34:20
1	Be 313.107†	535444.0	592774.9	236.72	ug/L	236.72	ppb	12:34:20
1	Ca 317.933Radial†	234604.4	261305.6	474780	ug/L	474780	ppb	12:33:01
1	Cd 226.502†	30187.9	33100.4	450.56	ug/L	450.56	ppb	12:34:40
1	Co 228.616†	14038.6	15363.7	461.74	ug/L	461.74	ppb	12:34:40
1	Cr 267.716†	31729.1	34518.4	475.63	ug/L	475.63	ppb	12:34:20
1	Cu 324.752†	145564.9	151172.7	575.53	ug/L	575.53	ppb	12:34:20
1	Fe 238.204 Radial†	15986.5	17800.2	184690	ug/L	184690	ppb	12:33:21
1	K 766.490 Radial†	26360.5	27101.5	5233.4	ug/L	5233.4	ppb	12:33:01
1	Mg 279.077 IEC†	11111.9	12374.8	491150	ug/L	491150	ppb	12:33:21
1	Mn 257.610†	283824.2	308991.1	492.73	ug/L	492.73	ppb	12:34:20
1	Mo 202.031†	4589.3	4989.3	477.86	ug/L	477.86	ppb	12:34:40
1	Na 589.592 Radial†	12952.5	15275.7	5205.9	ug/L	5205.9	ppb	12:33:01
1	Ni 231.604†	13064.0	14142.3	451.81	ug/L	451.81	ppb	12:34:40
1	P 214.914†	4284.3	4475.8	2370.1	ug/L	2370.1	ppb	12:34:40
1	Pb 220.353†	2037.4	2292.0	487.34	ug/L	487.34	ppb	12:34:40
1	S 181.975 Axial†	1853.4	1978.2	2468.5	ug/L	2468.5	ppb	12:34:40
1	Sb 206.836†	1276.2	1361.4	552.34	ug/L	552.34	ppb	12:34:40
1	Se 196.026†	3049.4	3344.5	2512.2	ug/L	2512.2	ppb	12:34:40
1	Si 251.611†	133993.5	145503.3	5303.9	ug/L	5303.9	ppb	12:34:20
1	Sn 189.927†	1602.0	1738.6	483.17	ug/L	483.17	ppb	12:34:40
1	Sr 421.552†	61221.6	68195.7	492.36	ug/L	492.36	ppb	12:33:01
1	Ti 334.940†	219311.1	240414.9	507.58	ug/L	507.58	ppb	12:34:20
1	Tl 190.801†	935.6	1051.3	486.15	ug/L	486.15	ppb	12:34:40
1	U 409.014†	12541.6	16210.8	520.72	ug/L	520.72	ppb	12:34:20
1	V 292.402†	56887.3	63651.9	496.30	ug/L	496.30	ppb	12:34:20
1	Zn 213.857†	43887.7	47140.3	488.61	ug/L	488.61	ppb	12:34:20
1	SiO2†	131981.8	143302.7	11151	ug/L	11151	ppb	12:35:37
2	Sc 361.383	696859.8	696859.8	90.744	%			12:34:46
2	Sc Radial	4208.5	4208.5	89.4	%			12:33:47
2	Y 371.029	609654.8	609654.8	88.480	%			12:34:46
2	Y RADIAL	4449.6	4449.6	89.25	%			12:33:47
2	Ag 328.068†	37638.7	41222.2	263.88	ug/L	263.88	ppb	12:34:46
2	Al 396.153Radial†	492018.9	550339.1	514770	ug/L	514770	ppb	12:33:27
2	As 188.979†	954.2	1076.6	526.18	ug/L	526.18	ppb	12:35:06
2	B 249.677†	18678.6	21037.3	495.45	ug/L	495.45	ppb	12:34:46
2	Ba 233.527†	37631.3	41467.2	496.04	ug/L	496.04	ppb	12:34:46
2	Be 313.107†	528866.4	591793.0	236.33	ug/L	236.33	ppb	12:34:46
2	Ca 317.933Radial†	233297.6	260887.5	474020	ug/L	474020	ppb	12:33:27
2	Cd 226.502†	30372.6	33657.3	458.45	ug/L	458.45	ppb	12:35:06
2	Co 228.616†	14147.0	15647.5	470.33	ug/L	470.33	ppb	12:35:06
2	Cr 267.716†	31537.7	34678.9	477.82	ug/L	477.82	ppb	12:34:46
2	Cu 324.752†	143499.5	150600.2	573.39	ug/L	573.39	ppb	12:34:46
2	Fe 238.204 Radial†	15930.7	17808.9	184780	ug/L	184780	ppb	12:33:47
2	K 766.490 Radial†	26323.0	27176.8	5248.6	ug/L	5248.6	ppb	12:33:27
2	Mg 279.077 IEC†	11061.7	12368.0	490880	ug/L	490880	ppb	12:33:47
2	Mn 257.610†	280620.7	308782.6	492.42	ug/L	492.42	ppb	12:34:46
2	Mo 202.031†	4608.4	5064.1	484.73	ug/L	484.73	ppb	12:35:06
2	Na 589.592 Radial†	12874.8	15246.4	5196.0	ug/L	5196.0	ppb	12:33:27
2	Ni 231.604†	13173.5	14415.8	460.55	ug/L	460.55	ppb	12:35:06

2	P 214.914†	4313.6	4558.2	2416.8	ug/L	2416.8 ppb	12:35:06
2	Pb 220.353†	2040.3	2319.1	491.91	ug/L	491.91 ppb	12:35:06
2	S 181.975 Axial†	1870.3	2018.6	2520.7	ug/L	2520.7 ppb	12:35:06
2	Sb 206.836†	1294.0	1395.9	566.58	ug/L	566.58 ppb	12:35:06
2	Se 196.026†	3067.2	3399.9	2546.4	ug/L	2546.4 ppb	12:35:06
2	Si 251.611†	132325.6	145233.5	5293.9	ug/L	5293.9 ppb	12:34:46
2	Sn 189.927†	1615.0	1771.7	490.82	ug/L	490.82 ppb	12:35:06
2	Sr 421.552†	61000.5	68220.7	492.54	ug/L	492.54 ppb	12:33:27
2	Ti 334.940†	217190.8	240645.1	507.96	ug/L	507.96 ppb	12:34:46
2	Tl 190.801†	928.9	1054.9	487.78	ug/L	487.78 ppb	12:35:06
2	U 409.014†	12713.3	16546.9	531.96	ug/L	531.96 ppb	12:34:46
2	V 292.402†	56175.0	63532.8	495.45	ug/L	495.45 ppb	12:34:46
2	Zn 213.857†	43390.4	47105.9	488.16	ug/L	488.16 ppb	12:34:46
2	SiO2†	132995.2	145964.2	11358	ug/L	11358 ppb	12:35:42
3	Sc 361.383	711334.7	711334.7	92.629	%		12:35:12
3	Sc Radial	4245.6	4245.6	90.2	%		12:34:12
3	Y 371.029	620828.2	620828.2	90.101	%		12:35:12
3	Y RADIAL	4479.2	4479.2	89.85	%		12:34:12
3	Ag 328.068†	38184.6	40967.4	262.55	ug/L	262.55 ppb	12:35:12
3	Al 396.153Radial†	490418.7	543766.7	508630	ug/L	508630 ppb	12:33:52
3	As 188.979†	942.0	1042.0	510.73	ug/L	510.73 ppb	12:35:32
3	B 249.677†	19191.0	21171.6	498.90	ug/L	498.90 ppb	12:35:12
3	Ba 233.527†	38418.5	41473.3	496.10	ug/L	496.10 ppb	12:35:12
3	Be 313.107†	537296.8	589034.7	235.23	ug/L	235.23 ppb	12:35:12
3	Ca 317.933Radial†	233252.0	258561.7	469790	ug/L	469790 ppb	12:33:52
3	Cd 226.502†	30167.6	32754.8	445.67	ug/L	445.67 ppb	12:35:32
3	Co 228.616†	13958.9	15127.2	454.59	ug/L	454.59 ppb	12:35:32
3	Cr 267.716†	32066.5	34542.6	475.95	ug/L	475.95 ppb	12:35:12
3	Cu 324.752†	146988.8	151149.2	575.43	ug/L	575.43 ppb	12:35:12
3	Fe 238.204 Radial†	16048.8	17784.4	184530	ug/L	184530 ppb	12:34:12
3	K 766.490 Radial†	26138.4	26715.5	5158.2	ug/L	5158.2 ppb	12:33:52
3	Mg 279.077 IEC†	11161.3	12370.6	490980	ug/L	490980 ppb	12:34:12
3	Mn 257.610†	285976.0	308271.4	491.57	ug/L	491.57 ppb	12:35:12
3	Mo 202.031†	4590.3	4941.1	473.37	ug/L	473.37 ppb	12:35:32
3	Na 589.592 Radial†	12800.0	15037.9	5124.9	ug/L	5124.9 ppb	12:33:52
3	Ni 231.604†	13042.8	13979.4	446.60	ug/L	446.60 ppb	12:35:32
3	P 214.914†	4266.0	4410.1	2332.2	ug/L	2332.2 ppb	12:35:32
3	Pb 220.353†	2003.0	2233.1	476.47	ug/L	476.47 ppb	12:35:32
3	S 181.975 Axial†	1846.6	1951.0	2434.3	ug/L	2434.3 ppb	12:35:32
3	Sb 206.836†	1279.2	1351.0	548.09	ug/L	548.09 ppb	12:35:32
3	Se 196.026†	3008.7	3267.9	2464.4	ug/L	2464.4 ppb	12:35:32
3	Si 251.611†	134990.8	145143.5	5290.8	ug/L	5290.8 ppb	12:35:12
3	Sn 189.927†	1598.8	1718.0	477.44	ug/L	477.44 ppb	12:35:32
3	Sr 421.552†	60729.3	67325.2	486.06	ug/L	486.06 ppb	12:33:52
3	Ti 334.940†	221304.6	240215.9	506.52	ug/L	506.52 ppb	12:35:12
3	Tl 190.801†	918.7	1023.0	473.22	ug/L	473.22 ppb	12:35:32
3	U 409.014†	12848.6	16407.9	527.34	ug/L	527.34 ppb	12:35:12
3	V 292.402†	57099.5	63271.1	493.24	ug/L	493.24 ppb	12:35:12
3	Zn 213.857†	44289.2	47103.3	488.25	ug/L	488.25 ppb	12:35:12
3	SiO2†	131154.4	140994.6	10971	ug/L	10971 ppb	12:35:47

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	704178.2	91.697	%	0.9426				1.03%
Sc Radial	4226.5	89.8	%	0.39				0.44%
Y 371.029	615504.7	89.329	%	0.8135				0.91%
Y RADIAL	4466.7	89.60	%	0.307				0.34%
Ag 328.068†	41135.0	263.42	ug/L	0.754	263.42	ppb	0.754	0.29%
QC value within limits for Ag 328.068 Recovery = 105.37%								
Al 396.153Radial†	547840.5	512440	ug/L	3328.0	512440	ppb	3328.0	0.65%
QC value within limits for Al 396.153Radial Recovery = 102.49%								
As 188.979†	1058.4	518.09	ug/L	7.754	518.09	ppb	7.754	1.50%
QC value within limits for As 188.979 Recovery = 103.62%								
B 249.677†	21098.7	497.03	ug/L	1.742	497.03	ppb	1.742	0.35%
QC value within limits for B 249.677 Recovery = 99.41%								
Ba 233.527†	41495.7	496.38	ug/L	0.524	496.38	ppb	0.524	0.11%
QC value within limits for Ba 233.527 Recovery = 99.28%								
Be 313.107†	591200.9	236.09	ug/L	0.771	236.09	ppb	0.771	0.33%
QC value within limits for Be 313.107 Recovery = 94.44%								

Ca 317.933Radial†	260251.6	472860 ug/L	2686.1	472860 ppb	2686.1	0.57%
QC value within limits for Ca 317.933Radial Recovery = 94.57%						
Cd 226.502†	33170.8	451.56 ug/L	6.447	451.56 ppb	6.447	1.43%
QC value within limits for Cd 226.502 Recovery = 90.31%						
Co 228.616†	15379.4	462.22 ug/L	7.883	462.22 ppb	7.883	1.71%
QC value within limits for Co 228.616 Recovery = 92.44%						
Cr 267.716†	34580.0	476.46 ug/L	1.182	476.46 ppb	1.182	0.25%
QC value within limits for Cr 267.716 Recovery = 95.29%						
Cu 324.752†	150974.0	574.78 ug/L	1.211	574.78 ppb	1.211	0.21%
QC value within limits for Cu 324.752 Recovery = 114.96%						
Fe 238.204 Radial†	17797.8	184670 ug/L	129.1	184670 ppb	129.1	0.07%
QC value within limits for Fe 238.204 Radial Recovery = 92.33%						
K 766.490 Radial†	26997.9	5213.4 ug/L	48.39	5213.4 ppb	48.39	0.93%
QC value within limits for K 766.490 Radial Recovery = 104.27%						
Mg 279.077 IEC†	12371.1	491000 ug/L	134.9	491000 ppb	134.9	0.03%
QC value within limits for Mg 279.077 IEC Recovery = 98.20%						
Mn 257.610†	308681.7	492.24 ug/L	0.601	492.24 ppb	0.601	0.12%
QC value within limits for Mn 257.610 Recovery = 98.45%						
Mo 202.031†	4998.2	478.65 ug/L	5.719	478.65 ppb	5.719	1.19%
QC value within limits for Mo 202.031 Recovery = 95.73%						
Na 589.592 Radial†	15186.7	5175.6 ug/L	44.19	5175.6 ppb	44.19	0.85%
QC value within limits for Na 589.592 Radial Recovery = 103.51%						
Ni 231.604†	14179.2	452.98 ug/L	7.046	452.98 ppb	7.046	1.56%
QC value within limits for Ni 231.604 Recovery = 90.60%						
P 214.914†	4481.4	2373.1 ug/L	42.35	2373.1 ppb	42.35	1.78%
QC value within limits for P 214.914 Recovery = 94.92%						
Pb 220.353†	2281.4	485.24 ug/L	7.932	485.24 ppb	7.932	1.63%
QC value within limits for Pb 220.353 Recovery = 97.05%						
S 181.975 Axial†	1982.6	2474.5 ug/L	43.52	2474.5 ppb	43.52	1.76%
QC value within limits for S 181.975 Axial Recovery = 98.98%						
Sb 206.836†	1369.4	555.67 ug/L	9.684	555.67 ppb	9.684	1.74%
QC value within limits for Sb 206.836 Recovery = 111.13%						
Se 196.026†	3337.4	2507.6 ug/L	41.19	2507.6 ppb	41.19	1.64%
QC value within limits for Se 196.026 Recovery = 100.31%						
Si 251.611†	145293.4	5296.2 ug/L	6.83	5296.2 ppb	6.83	0.13%
QC value within limits for Si 251.611 Recovery = 105.92%						
Sn 189.927†	1742.7	483.81 ug/L	6.713	483.81 ppb	6.713	1.39%
QC value within limits for Sn 189.927 Recovery = 96.76%						
Sr 421.552†	67913.9	490.32 ug/L	3.689	490.32 ppb	3.689	0.75%
QC value within limits for Sr 421.552 Recovery = 98.06%						
Ti 334.940†	240425.3	507.35 ug/L	0.745	507.35 ppb	0.745	0.15%
QC value within limits for Ti 334.940 Recovery = 101.47%						
Tl 190.801†	1043.1	482.38 ug/L	7.980	482.38 ppb	7.980	1.65%
QC value within limits for Tl 190.801 Recovery = 96.48%						
U 409.014†	16388.5	526.67 ug/L	5.648	526.67 ppb	5.648	1.07%
QC value within limits for U 409.014 Recovery = 105.33%						
V 292.402†	63485.3	494.99 ug/L	1.580	494.99 ppb	1.580	0.32%
QC value within limits for V 292.402 Recovery = 99.00%						
Zn 213.857†	47116.5	488.34 ug/L	0.234	488.34 ppb	0.234	0.05%
QC value within limits for Zn 213.857 Recovery = 97.67%						
SiO2†	143420.5	11160 ug/L	193.6	11160 ppb	193.6	1.73%
QC value within limits for SiO2 Recovery = 104.35%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/1/2010 12:37:57
Data Type: Reprocessed on 3/1/2010 13:29:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	686767.6	686767.6	89.430	%			12:41:08
1	Sc Radial	4122.0	4122.0	87.6	%			12:40:10
1	Y 371.029	601213.8	601213.8	87.255	%			12:41:08
1	Y RADIAL	4361.2	4361.2	87.48	%			12:40:10
1	Ag 328.068†	-20956.2	-23688.7	-10.393	ug/L	-10.393	ppb	12:41:08
1	Al 396.153Radial†	480771.6	549041.9	513580	ug/L	513580	ppb	12:39:50
1	As 188.979†	-141.7	-133.4	39.576	ug/L	39.576	ppb	12:41:29
1	B 249.677†	909.2	1470.1	-31.931	ug/L	-31.931	ppb	12:41:08
1	Ba 233.527†	-1256.2	-1407.1	-3.6801	ug/L	-3.6801	ppb	12:41:29
1	Be 313.107†	-14739.2	-7498.6	-3.0284	ug/L	-3.0284	ppb	12:41:08
1	Ca 317.933Radial†	229140.4	261615.0	475340	ug/L	475340	ppb	12:39:50
1	Cd 226.502†	3021.3	3565.1	9.7623	ug/L	9.7623	ppb	12:41:29
1	Co 228.616†	125.5	197.8	-0.1878	ug/L	-0.1878	ppb	12:41:29
1	Cr 267.716†	13.3	-60.7	1.3378	ug/L	1.3378	ppb	12:41:29
1	Cu 324.752†	2512.7	-4726.5	-3.6433	ug/L	-3.6433	ppb	12:41:08
1	Fe 238.204 Radial†	35732.5	40792.8	423220	ug/L	423220	ppb	12:40:10
1	K 766.490 Radial†	3769.7	2042.7	57.081	ug/L	57.081	ppb	12:39:50
1	Mg 279.077 IEC†	10832.4	12365.8	490540	ug/L	490540	ppb	12:40:10
1	Mn 257.610†	-19567.0	-22340.8	-14.034	ug/L	-14.034	ppb	12:41:08
1	Mo 202.031†	-368.1	-426.0	-0.5878	ug/L	-0.5878	ppb	12:41:29
1	Na 589.592 Radial†	1254868.7	1433682.2	488600	ug/L	488600	ppb	12:39:50
1	Ni 231.604†	227.3	152.9	4.8834	ug/L	4.8834	ppb	12:41:29
1	P 214.914†	491.6	354.4	-12.244	ug/L	-12.244	ppb	12:41:29
1	Pb 220.353†	-508.5	-497.9	17.358	ug/L	17.358	ppb	12:41:29
1	S 181.975 Axial†	75.3	41.7	-42.221	ug/L	-42.221	ppb	12:41:29
1	Sb 206.836†	55.2	31.7	-7.7022	ug/L	-7.7022	ppb	12:41:29
1	Se 196.026†	-1821.2	-2016.7	-238.73	ug/L	-238.73	ppb	12:41:29
1	Si 251.611†	-295.1	-919.2	-33.061	ug/L	-33.061	ppb	12:41:29
1	Sn 189.927†	-319.9	-365.8	-25.996	ug/L	-25.996	ppb	12:41:29
1	Sr 421.552†	1457.0	1664.2	8.5520	ug/L	8.5520	ppb	12:40:10
1	Ti 334.940†	-10515.5	-10457.4	-4.0393	ug/L	-4.0393	ppb	12:41:08
1	Tl 190.801†	-87.8	-66.9	-31.150	ug/L	-31.150	ppb	12:41:29
1	U 409.014†	400386.5	450246.4	15029	ug/L	15029	ppb	12:41:08
1	V 292.402†	928.2	2665.9	-2.6029	ug/L	-2.6029	ppb	12:41:29
1	Zn 213.857†	5023.9	4907.4	-9.2212	ug/L	-9.2212	ppb	12:41:29
1	SiO2†	-297.9	-929.5	-71.347	ug/L	-71.347	ppb	12:42:25
2	Sc 361.383	698587.1	698587.1	90.969	%			12:41:34
2	Sc Radial	4111.8	4111.8	87.4	%			12:40:36
2	Y 371.029	611197.6	611197.6	88.703	%			12:41:34
2	Y RADIAL	4353.6	4353.6	87.33	%			12:40:36
2	Ag 328.068†	-21331.8	-23705.1	-10.229	ug/L	-10.229	ppb	12:41:34
2	Al 396.153Radial†	481893.3	551691.8	516060	ug/L	516060	ppb	12:40:16
2	As 188.979†	-162.4	-153.5	30.815	ug/L	30.815	ppb	12:41:54
2	B 249.677†	1044.8	1602.0	-28.754	ug/L	-28.754	ppb	12:41:34
2	Ba 233.527†	-1298.2	-1429.5	-3.9206	ug/L	-3.9206	ppb	12:41:54
2	Be 313.107†	-15028.9	-7538.2	-3.0428	ug/L	-3.0428	ppb	12:41:34
2	Ca 317.933Radial†	229225.9	262363.8	476700	ug/L	476700	ppb	12:40:16
2	Cd 226.502†	2974.3	3456.2	8.1325	ug/L	8.1325	ppb	12:41:54
2	Co 228.616†	134.8	205.6	0.0344	ug/L	0.0344	ppb	12:41:54
2	Cr 267.716†	95.5	29.4	2.5996	ug/L	2.5996	ppb	12:41:54
2	Cu 324.752†	2468.3	-4822.8	-3.9426	ug/L	-3.9426	ppb	12:41:34
2	Fe 238.204 Radial†	35707.9	40866.1	423980	ug/L	423980	ppb	12:40:36
2	K 766.490 Radial†	3807.8	2097.0	67.154	ug/L	67.154	ppb	12:40:16
2	Mg 279.077 IEC†	10811.2	12372.3	490790	ug/L	490790	ppb	12:40:36
2	Mn 257.610†	-19964.4	-22407.5	-14.076	ug/L	-14.076	ppb	12:41:34
2	Mo 202.031†	-376.0	-427.7	-0.6620	ug/L	-0.6620	ppb	12:41:54
2	Na 589.592 Radial†	1253696.5	1435905.8	489360	ug/L	489360	ppb	12:40:16
2	Ni 231.604†	221.7	142.4	4.5481	ug/L	4.5481	ppb	12:41:54

2	P 214.914†	500.0	354.3	-12.162	ug/L	-12.162 ppb	12:41:54
2	Pb 220.353†	-509.8	-489.8	19.237	ug/L	19.237 ppb	12:41:54
2	S 181.975 Axial†	81.0	46.5	-36.378	ug/L	-36.378 ppb	12:41:54
2	Sb 206.836†	19.3	-8.8	-24.136	ug/L	-24.136 ppb	12:41:54
2	Se 196.026†	-1799.7	-1958.6	-201.24	ug/L	-201.24 ppb	12:41:54
2	Si 251.611†	-276.4	-893.0	-32.104	ug/L	-32.104 ppb	12:41:54
2	Sn 189.927†	-306.6	-345.1	-20.930	ug/L	-20.930 ppb	12:41:54
2	Sr 421.552†	1473.2	1686.8	8.7066	ug/L	8.7066 ppb	12:40:36
2	Ti 334.940†	-10433.7	-10168.5	-3.2793	ug/L	-3.2793 ppb	12:41:34
2	Tl 190.801†	-93.1	-71.1	-33.081	ug/L	-33.081 ppb	12:41:54
2	U 409.014†	406236.9	449102.7	14990	ug/L	14990 ppb	12:41:34
2	V 292.402†	983.3	2708.9	-2.4425	ug/L	-2.4425 ppb	12:41:54
2	Zn 213.857†	5022.5	4810.8	-10.398	ug/L	-10.398 ppb	12:41:54
2	SiO2†	-358.4	-990.4	-76.088	ug/L	-76.088 ppb	12:42:30
3	Sc 361.383	689597.3	689597.3	89.798	%		12:42:00
3	Sc Radial	4087.4	4087.4	86.8	%		12:41:01
3	Y 371.029	602594.6	602594.6	87.455	%		12:42:00
3	Y RADIAL	4345.6	4345.6	87.17	%		12:41:01
3	Ag 328.068†	-21229.9	-23897.4	-11.215	ug/L	-11.215 ppb	12:42:00
3	Al 396.153Radial†	478076.8	550594.4	515040	ug/L	515040 ppb	12:40:41
3	As 188.979†	-167.3	-161.3	27.351	ug/L	27.351 ppb	12:42:20
3	B 249.677†	880.0	1433.4	-32.969	ug/L	-32.969 ppb	12:42:00
3	Ba 233.527†	-1265.4	-1411.5	-3.7087	ug/L	-3.7087 ppb	12:42:20
3	Be 313.107†	-15003.2	-7725.0	-3.1166	ug/L	-3.1166 ppb	12:42:00
3	Ca 317.933Radial†	227420.5	261853.4	475770	ug/L	475770 ppb	12:40:41
3	Cd 226.502†	2972.8	3497.1	8.7172	ug/L	8.7172 ppb	12:42:20
3	Co 228.616†	119.8	190.9	-0.4170	ug/L	-0.4170 ppb	12:42:20
3	Cr 267.716†	75.5	8.5	2.3123	ug/L	2.3123 ppb	12:42:20
3	Cu 324.752†	2406.4	-4856.4	-4.0718	ug/L	-4.0718 ppb	12:42:00
3	Fe 238.204 Radial†	35493.6	40863.6	423960	ug/L	423960 ppb	12:41:01
3	K 766.490 Radial†	3660.3	1953.3	39.706	ug/L	39.706 ppb	12:40:41
3	Mg 279.077 IEC†	10734.3	12357.7	490220	ug/L	490220 ppb	12:41:01
3	Mn 257.610†	-19381.1	-22044.0	-13.473	ug/L	-13.473 ppb	12:42:00
3	Mo 202.031†	-393.4	-452.5	-2.9511	ug/L	-2.9511 ppb	12:42:20
3	Na 589.592 Radial†	1240645.9	1429456.2	487160	ug/L	487160 ppb	12:40:41
3	Ni 231.604†	240.6	166.6	5.3210	ug/L	5.3210 ppb	12:42:20
3	P 214.914†	499.7	361.1	-8.6219	ug/L	-8.6219 ppb	12:42:20
3	Pb 220.353†	-491.5	-476.6	21.087	ug/L	21.087 ppb	12:42:20
3	S 181.975 Axial†	67.9	33.1	-53.672	ug/L	-53.672 ppb	12:42:20
3	Sb 206.836†	60.3	37.1	-5.6258	ug/L	-5.6258 ppb	12:42:20
3	Se 196.026†	-1787.0	-1970.2	-208.53	ug/L	-208.53 ppb	12:42:20
3	Si 251.611†	-312.3	-937.0	-33.680	ug/L	-33.680 ppb	12:42:20
3	Sn 189.927†	-325.1	-370.1	-26.966	ug/L	-26.966 ppb	12:42:20
3	Sr 421.552†	1458.4	1679.8	8.6627	ug/L	8.6627 ppb	12:41:01
3	Ti 334.940†	-10216.9	-10076.6	-3.1731	ug/L	-3.1731 ppb	12:42:00
3	Tl 190.801†	-87.3	-66.0	-30.702	ug/L	-30.702 ppb	12:42:20
3	U 409.014†	401117.0	449222.7	14994	ug/L	14994 ppb	12:42:00
3	V 292.402†	999.5	2741.1	-2.2187	ug/L	-2.2187 ppb	12:42:20
3	Zn 213.857†	5001.3	4859.2	-9.8651	ug/L	-9.8651 ppb	12:42:20
3	SiO2†	-347.8	-983.8	-75.505	ug/L	-75.505 ppb	12:42:36

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	691650.7	90.066	%	0.8036				0.89%
Sc Radial	4107.1	87.3	%	0.38				0.43%
Y 371.029	605002.0	87.804	%	0.7851				0.89%
Y RADIAL	4353.5	87.32	%	0.156				0.18%
Ag 328.068†	-23763.7	-10.612	ug/L	0.5283	-10.612	ppb	0.5283	4.98%
Al 396.153Radial†	550442.7	514890	ug/L	1245.5	514890	ppb	1245.5	0.24%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	-149.4	32.581	ug/L	6.3010	32.581	ppb	6.3010	19.34%
B 249.677†	1501.9	-31.218	ug/L	2.1962	-31.218	ppb	2.1962	7.03%
Ba 233.527†	-1416.0	-3.7698	ug/L	0.13141	-3.7698	ppb	0.13141	3.49%
Be 313.107†	-7587.3	-3.0626	ug/L	0.04734	-3.0626	ppb	0.04734	1.55%
Ca 317.933Radial†	261944.1	475940	ug/L	695.1	475940	ppb	695.1	0.15%
QC value within limits for Ca 317.933Radial Recovery = 95.19%								
Cd 226.502†	3506.1	8.8707	ug/L	0.82563	8.8707	ppb	0.82563	9.31%
Co 228.616†	198.1	-0.1901	ug/L	0.22570	-0.1901	ppb	0.22570	118.70%
Cr 267.716†	-7.6	2.0832	ug/L	0.66134	2.0832	ppb	0.66134	31.75%

Cu 324.752†	-4801.9	-3.8859 ug/L	0.21982	-3.8859 ppb	0.21982	5.66%
Fe 238.204 Radial†	40840.8	423720 ug/L	432.1	423720 ppb	432.1	0.10%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 84.74%						
K 766.490 Radial†	2031.0	54.647 ug/L	13.8847	54.647 ppb	13.8847	25.41%
Mg 279.077 IEC†	12365.3	490520 ug/L	288.9	490520 ppb	288.9	0.06%
QC value within limits for Mg 279.077 IEC Recovery = 98.10%						
Mn 257.610†	-22264.1	-13.861 ug/L	0.3366	-13.861 ppb	0.3366	2.43%
Mo 202.031†	-435.4	-1.4003 ug/L	1.34357	-1.4003 ppb	1.34357	95.95%
Na 589.592 Radial†	1433014.8	488370 ug/L	1116.5	488370 ppb	1116.5	0.23%
QC value within limits for Na 589.592 Radial Recovery = 97.67%						
Ni 231.604†	153.9	4.9175 ug/L	0.38760	4.9175 ppb	0.38760	7.88%
P 214.914†	356.6	-11.009 ug/L	2.0680	-11.009 ppb	2.0680	18.78%
Pb 220.353†	-488.1	19.228 ug/L	1.8645	19.228 ppb	1.8645	9.70%
S 181.975 Axial†	40.4	-44.090 ug/L	8.7975	-44.090 ppb	8.7975	19.95%
Sb 206.836†	20.0	-12.488 ug/L	10.1408	-12.488 ppb	10.1408	81.20%
Se 196.026†	-1981.8	-216.17 ug/L	19.881	-216.17 ppb	19.881	9.20%
Si 251.611†	-916.4	-32.948 ug/L	0.7939	-32.948 ppb	0.7939	2.41%
Sn 189.927†	-360.3	-24.630 ug/L	3.2411	-24.630 ppb	3.2411	13.16%
Sr 421.552†	1676.9	8.6405 ug/L	0.07972	8.6405 ppb	0.07972	0.92%
Ti 334.940†	-10234.1	-3.4973 ug/L	0.47244	-3.4973 ppb	0.47244	13.51%
Tl 190.801†	-68.0	-31.644 ug/L	1.2645	-31.644 ppb	1.2645	4.00%
U 409.014†	449523.9	15004 ug/L	21.1	15004 ppb	21.1	0.14%
QC value within limits for U 409.014 Recovery = 100.03%						
V 292.402†	2705.3	-2.4214 ug/L	0.19300	-2.4214 ppb	0.19300	7.97%
Zn 213.857†	4859.1	-9.8281 ug/L	0.58917	-9.8281 ppb	0.58917	5.99%
SiO2†	-967.9	-74.313 ug/L	2.5855	-74.313 ppb	2.5855	3.48%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/1/2010 12:44:45
Data Type: Reprocessed on 3/1/2010 13:29:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	782532.9	782532.9	101.90	%			12:48:21
1	Sc Radial	4642.2	4642.2	98.6	%			12:46:43
1	Y 371.029	684711.6	684711.6	99.373	%			12:48:21
1	Y RADIAL	4828.2	4828.2	96.85	%			12:46:43
1	Ag 328.068†	-6161.1	-6301.9	7.2805	ug/L	7.2805	ppb	12:48:26
1	Al 396.153Radial†	409.5	502.3	5.5185	ug/L	5.5185	ppb	12:46:43
1	As 188.979†	21598.3	21220.5	9517.6	ug/L	9517.6	ppb	12:48:26
1	B 249.677†	200037.2	196760.0	4899.5	ug/L	4899.5	ppb	12:48:21
1	Ba 233.527†	1207446.3	1184925.5	14004	ug/L	14004	ppb	12:48:21
1	Be 313.107†	6921766.5	6801660.8	2725.2	ug/L	2725.2	ppb	12:48:14
1	Ca 317.933Radial†	33.0	11.3	20.516	ug/L	20.516	ppb	12:47:03
1	Cd 226.502†	692804.5	680070.6	9647.1	ug/L	9647.1	ppb	12:48:21
1	Co 228.616†	327054.1	321012.1	9700.2	ug/L	9700.2	ppb	12:48:26
1	Cr 267.716†	1776350.6	1743146.8	23829	ug/L	23829	ppb	12:48:21
1	Cu 324.752†	5513657.3	5403293.6	20232	ug/L	20232	ppb	12:48:14
1	Fe 238.204 Radial†	-17.1	-24.7	34.458	ug/L	34.458	ppb	12:47:03
1	K 766.490 Radial†	1449010.1	1466853.5	291980	ug/L	291980	ppb	12:46:38
1	Mg 279.077 IEC†	-2.9	-5.9	-133.00	ug/L	-133.00	ppb	12:47:03
1	Mn 257.610†	5985441.4	5873354.0	9401.1	ug/L	9401.1	ppb	12:48:14
1	Mo 202.031†	106340.9	104343.3	9575.8	ug/L	9575.8	ppb	12:48:26
1	Na 589.592 Radial†	-65.4	781.5	266.32	ug/L	266.32	ppb	12:46:43
1	Ni 231.604†	312178.7	306255.3	9784.2	ug/L	9784.2	ppb	12:48:26
1	P 214.914†	30822.0	30051.8	12858	ug/L	12858	ppb	12:48:26
1	Pb 220.353†	154527.6	151716.5	24477	ug/L	24477	ppb	12:48:26
1	S 181.975 Axial†	39401.6	38624.2	50078	ug/L	50078	ppb	12:48:26
1	Sb 206.836†	26528.1	26003.3	10908	ug/L	10908	ppb	12:48:26
1	Se 196.026†	16594.0	16304.3	10014	ug/L	10014	ppb	12:48:26
1	Si 251.611†	1299129.9	1274312.4	46383	ug/L	46383	ppb	12:48:21
1	Sn 189.927†	43970.3	43142.2	10160	ug/L	10160	ppb	12:48:26
1	Sr 421.552†	1306985.7	1325120.6	9635.9	ug/L	9635.9	ppb	12:46:38
1	Ti 334.940†	4832677.1	4743850.6	9550.3	ug/L	9550.3	ppb	12:48:14
1	Tl 190.801†	22457.7	22070.1	10198	ug/L	10198	ppb	12:48:26
1	U 409.014†	-1171.6	1387.1	-6.8173	ug/L	-6.8173	ppb	12:48:26
1	V 292.402†	1257655.0	1235828.2	9957.9	ug/L	9957.9	ppb	12:48:21
1	Zn 213.857†	1274909.2	1250422.3	13701	ug/L	13701	ppb	12:48:21
1	SiO2†	1276728.6	1252321.6	97297	ug/L	97297	ppb	12:49:12
2	Sc 361.383	777689.9	777689.9	101.27	%			12:48:40
2	Sc Radial	4601.6	4601.6	97.8	%			12:47:14
2	Y 371.029	680527.1	680527.1	98.765	%			12:48:40
2	Y RADIAL	4806.9	4806.9	96.42	%			12:47:14
2	Ag 328.068†	-6103.3	-6282.4	7.1415	ug/L	7.1415	ppb	12:48:46
2	Al 396.153Radial†	410.5	507.0	12.459	ug/L	12.459	ppb	12:47:14
2	As 188.979†	21355.1	21112.4	9471.9	ug/L	9471.9	ppb	12:48:46
2	B 249.677†	197412.6	195390.8	4865.4	ug/L	4865.4	ppb	12:48:40
2	Ba 233.527†	1193882.5	1178910.8	13933	ug/L	13933	ppb	12:48:40
2	Be 313.107†	7068217.4	6988576.2	2800.1	ug/L	2800.1	ppb	12:48:34
2	Ca 317.933Radial†	33.7	12.3	22.341	ug/L	22.341	ppb	12:47:34
2	Cd 226.502†	685092.6	676689.3	9599.2	ug/L	9599.2	ppb	12:48:40
2	Co 228.616†	323493.1	319494.5	9653.7	ug/L	9653.7	ppb	12:48:46
2	Cr 267.716†	1756735.6	1734633.4	23712	ug/L	23712	ppb	12:48:40
2	Cu 324.752†	5628722.1	5550611.1	20784	ug/L	20784	ppb	12:48:34
2	Fe 238.204 Radial†	-16.4	-24.1	39.221	ug/L	39.221	ppb	12:47:34
2	K 766.490 Radial†	1448208.3	1479004.1	294400	ug/L	294400	ppb	12:47:09
2	Mg 279.077 IEC†	-4.3	-7.3	-188.67	ug/L	-188.67	ppb	12:47:34
2	Mn 257.610†	6123112.2	6045877.2	9677.2	ug/L	9677.2	ppb	12:48:34
2	Mo 202.031†	105089.6	103757.6	9522.0	ug/L	9522.0	ppb	12:48:46
2	Na 589.592 Radial†	-125.0	720.0	245.36	ug/L	245.36	ppb	12:47:14
2	Ni 231.604†	308881.1	304906.9	9741.1	ug/L	9741.1	ppb	12:48:46

2	P 214.914†	30500.6	29922.8	12676	ug/L	12676 ppb	12:48:46
2	Pb 220.353†	152893.2	151046.8	24368	ug/L	24368 ppb	12:48:46
2	S 181.975 Axial†	38908.3	38378.0	49759	ug/L	49759 ppb	12:48:46
2	Sb 206.836†	26191.2	25832.8	10835	ug/L	10835 ppb	12:48:46
2	Se 196.026†	16333.3	16148.3	9918.7	ug/L	9918.7 ppb	12:48:46
2	Si 251.611†	1284144.0	1267453.8	46133	ug/L	46133 ppb	12:48:40
2	Sn 189.927†	43436.1	42883.4	10099	ug/L	10099 ppb	12:48:46
2	Sr 421.552†	1303990.6	1333756.6	9698.7	ug/L	9698.7 ppb	12:47:09
2	Ti 334.940†	4935183.4	4874605.3	9813.8	ug/L	9813.8 ppb	12:48:34
2	Tl 190.801†	22100.6	21854.7	10103	ug/L	10103 ppb	12:48:46
2	U 409.014†	-1159.3	1392.1	-6.3906	ug/L	-6.3906 ppb	12:48:46
2	V 292.402†	1242294.0	1228345.7	9897.3	ug/L	9897.3 ppb	12:48:40
2	Zn 213.857†	1262211.2	1245674.8	13648	ug/L	13648 ppb	12:48:40
2	SiO2†	1273958.1	1257388.3	97693	ug/L	97693 ppb	12:49:18
3	Sc 361.383	780596.0	780596.0	101.65	%		12:49:00
3	Sc Radial	4673.4	4673.4	99.3	%		12:47:44
3	Y 371.029	683014.5	683014.5	99.126	%		12:49:00
3	Y RADIAL	4901.1	4901.1	98.31	%		12:47:44
3	Ag 328.068†	-6012.2	-6170.4	7.7025	ug/L	7.7025 ppb	12:49:05
3	Al 396.153Radial†	389.4	479.3	-5.2635	ug/L	-5.2635 ppb	12:47:44
3	As 188.979†	20985.6	20670.4	9274.5	ug/L	9274.5 ppb	12:49:05
3	B 249.677†	198627.6	195860.4	4877.6	ug/L	4877.6 ppb	12:49:00
3	Ba 233.527†	1196921.8	1177511.8	13916	ug/L	13916 ppb	12:49:00
3	Be 313.107†	7026646.0	6921694.7	2773.3	ug/L	2773.3 ppb	12:48:54
3	Ca 317.933Radial†	37.0	15.1	27.403	ug/L	27.403 ppb	12:48:04
3	Cd 226.502†	685216.7	674292.9	9565.1	ug/L	9565.1 ppb	12:49:00
3	Co 228.616†	318810.6	313698.7	9478.4	ug/L	9478.4 ppb	12:49:05
3	Cr 267.716†	1759386.5	1730783.2	23660	ug/L	23660 ppb	12:49:00
3	Cu 324.752†	5591149.3	5492955.1	20568	ug/L	20568 ppb	12:48:54
3	Fe 238.204 Radial†	-19.7	-27.2	1.9320	ug/L	1.9320 ppb	12:48:04
3	K 766.490 Radial†	1473685.9	1481895.8	294980	ug/L	294980 ppb	12:47:39
3	Mg 279.077 IEC†	-11.1	-14.0	-458.65	ug/L	-458.65 ppb	12:48:04
3	Mn 257.610†	6091386.4	5992156.1	9591.2	ug/L	9591.2 ppb	12:48:54
3	Mo 202.031†	103625.2	101930.6	9354.3	ug/L	9354.3 ppb	12:49:05
3	Na 589.592 Radial†	-195.6	650.8	221.78	ug/L	221.78 ppb	12:47:44
3	Ni 231.604†	304752.8	299710.0	9575.1	ug/L	9575.1 ppb	12:49:05
3	P 214.914†	29959.8	29278.7	12358	ug/L	12358 ppb	12:49:05
3	Pb 220.353†	150873.8	148498.1	23957	ug/L	23957 ppb	12:49:05
3	S 181.975 Axial†	38400.4	37735.3	48926	ug/L	48926 ppb	12:49:05
3	Sb 206.836†	25783.6	25335.5	10628	ug/L	10628 ppb	12:49:05
3	Se 196.026†	15988.1	15748.6	9673.3	ug/L	9673.3 ppb	12:49:05
3	Si 251.611†	1291751.4	1270217.0	46236	ug/L	46236 ppb	12:49:00
3	Sn 189.927†	42953.4	42248.8	9949.4	ug/L	9949.4 ppb	12:49:05
3	Sr 421.552†	1323486.9	1332891.7	9692.5	ug/L	9692.5 ppb	12:47:39
3	Ti 334.940†	4907763.8	4829487.5	9723.0	ug/L	9723.0 ppb	12:48:54
3	Tl 190.801†	21724.9	21403.8	9895.5	ug/L	9895.5 ppb	12:49:05
3	U 409.014†	-1401.8	1157.7	-14.117	ug/L	-14.117 ppb	12:49:05
3	V 292.402†	1246575.0	1227990.3	9892.2	ug/L	9892.2 ppb	12:49:00
3	Zn 213.857†	1263738.1	1242536.8	13615	ug/L	13615 ppb	12:49:00
3	SiO2†	1298149.9	1276504.6	99187	ug/L	99187 ppb	12:49:24

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	780272.9	101.61	%	0.317				0.31%
Sc Radial	4639.1	98.6	%	0.77				0.78%
Y 371.029	682751.1	99.088	%	0.3055				0.31%
Y RADIAL	4845.4	97.19	%	0.991				1.02%
Ag 328.068†	-6251.6	7.3749	ug/L	0.29217	7.3749	ppb	0.29217	3.96%
Al 396.153Radial†	496.2	4.2380	ug/L	8.93035	4.2380	ppb	8.93035	210.72%
As 188.979†	21001.1	9421.3	ug/L	129.22	9421.3	ppb	129.22	1.37%
QC value within limits for As 188.979 Recovery = 94.21%								
B 249.677†	196003.8	4880.8	ug/L	17.30	4880.8	ppb	17.30	0.35%
QC value within limits for B 249.677 Recovery = 97.62%								
Ba 233.527†	1180449.4	13951	ug/L	46.6	13951	ppb	46.6	0.33%
QC value within limits for Ba 233.527 Recovery = 93.01%								
Be 313.107†	6903977.2	2766.2	ug/L	37.95	2766.2	ppb	37.95	1.37%
QC value within limits for Be 313.107 Recovery = 92.21%								
Ca 317.933Radial†	12.9	23.420	ug/L	3.5683	23.420	ppb	3.5683	15.24%
Cd 226.502†	677017.6	9603.8	ug/L	41.21	9603.8	ppb	41.21	0.43%

```
   QC value within limits for Cd 226.502  Recovery = 96.04%
Co 228.616†          318068.4      9610.8 ug/L        117.00      9610.8 ppb        117.00   1.22%
   QC value within limits for Co 228.616  Recovery = 96.11%
Cr 267.716†         1736187.8       23733 ug/L          86.5       23733 ppb          86.5   0.36%
   QC value within limits for Cr 267.716  Recovery = 94.93%
Cu 324.752†         5482286.6       20528 ug/L         278.0       20528 ppb         278.0   1.35%
   QC value within limits for Cu 324.752  Recovery = 102.64%
Fe 238.204 Radial†      -25.3      25.204 ug/L       20.2941      25.204 ppb       20.2941  80.52%
K 766.490 Radial†   1475917.8      293790 ug/L        1589.0      293790 ppb        1589.0   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 97.93%
Mg 279.077 IEC†          -9.1     -260.10 ug/L       174.182     -260.10 ppb       174.182  66.97%
Mn 257.610†         5970462.5      9556.5 ug/L        141.31      9556.5 ppb        141.31   1.48%
   QC value within limits for Mn 257.610  Recovery = 95.57%
Mo 202.031†          103343.8      9484.0 ug/L        115.49      9484.0 ppb        115.49   1.22%
   QC value within limits for Mo 202.031  Recovery = 94.84%
Na 589.592 Radial†       717.4      244.49 ug/L        22.281      244.49 ppb        22.281   9.11%
Ni 231.604†          303624.1      9700.1 ug/L        110.41      9700.1 ppb        110.41   1.14%
   QC value within limits for Ni 231.604  Recovery = 97.00%
P 214.914†            29751.1       12631 ug/L         253.2       12631 ppb         253.2   2.00%
   QC value less than the lower limit for P 214.914  Recovery = 84.20%
Pb 220.353†          150420.5       24267 ug/L         274.2       24267 ppb         274.2   1.13%
   QC value within limits for Pb 220.353  Recovery = 97.07%
S 181.975 Axial†      38245.8       49588 ug/L         595.1       49588 ppb         595.1   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 99.18%
Sb 206.836†           25723.9       10790 ug/L         145.1       10790 ppb         145.1   1.35%
   QC value within limits for Sb 206.836  Recovery = 107.90%
Se 196.026†           16067.1      9868.8 ug/L        175.92      9868.8 ppb        175.92   1.78%
   QC value within limits for Se 196.026  Recovery = 98.69%
Si 251.611†         1270661.1       46251 ug/L         125.4       46251 ppb         125.4   0.27%
   QC value within limits for Si 251.611  Recovery = 92.50%
Sn 189.927†           42758.1       10069 ug/L         108.2       10069 ppb         108.2   1.08%
   QC value within limits for Sn 189.927  Recovery = 100.69%
Sr 421.552†         1330589.6      9675.7 ug/L         34.58      9675.7 ppb         34.58   0.36%
   QC value within limits for Sr 421.552  Recovery = 96.76%
Ti 334.940†         4815981.1      9695.7 ug/L        133.86      9695.7 ppb        133.86   1.38%
   QC value within limits for Ti 334.940  Recovery = 96.96%
Tl 190.801†           21776.2       10066 ug/L         154.7       10066 ppb         154.7   1.54%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†             1312.3     -9.1083 ug/L       4.34296     -9.1083 ppb       4.34296  47.68%
V 292.402†          1230721.4      9915.8 ug/L         36.54      9915.8 ppb         36.54   0.37%
   QC value within limits for V 292.402  Recovery = 99.16%
Zn 213.857†         1246211.3       13654 ug/L          43.4       13654 ppb          43.4   0.32%
   QC value within limits for Zn 213.857  Recovery = 91.03%
SiO2†               1262071.5       98059 ug/L         996.7       98059 ppb         996.7   1.02%
   QC value within limits for SiO2  Recovery = 91.64%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 12:51:34
Data Type: Reprocessed on 3/1/2010 13:29:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	822882.6	822882.6	107.15	%			12:54:43
1	Sc Radial	4809.3	4809.3	102	%			12:53:26
1	Y 371.029	728740.1	728740.1	105.76	%			12:54:43
1	Y RADIAL	5065.3	5065.3	101.6	%			12:53:26
1	Ag 328.068†	102975.6	95844.3	495.91	ug/L	495.91	ppb	12:54:48
1	Al 396.153Radial†	5501.9	5471.6	5094.4	ug/L	5094.4	ppb	12:53:26
1	As 188.979†	1234.4	1177.0	528.91	ug/L	528.91	ppb	12:55:08
1	B 249.677†	22207.5	21178.2	528.05	ug/L	528.05	ppb	12:54:48
1	Ba 233.527†	45158.0	42140.4	498.50	ug/L	498.50	ppb	12:54:48
1	Be 313.107†	1327236.4	1247599.9	497.02	ug/L	497.02	ppb	12:54:43
1	Ca 317.933Radial†	2946.9	2861.9	5199.9	ug/L	5199.9	ppb	12:53:46
1	Cd 226.502†	37567.8	35246.0	499.54	ug/L	499.54	ppb	12:54:48
1	Co 228.616†	17860.7	16725.6	505.54	ug/L	505.54	ppb	12:54:48
1	Cr 267.716†	39093.8	36407.9	498.00	ug/L	498.00	ppb	12:54:48
1	Cu 324.752†	149252.5	131750.8	493.33	ug/L	493.33	ppb	12:54:48
1	Fe 238.204 Radial†	519.5	501.1	5214.2	ug/L	5214.2	ppb	12:53:46
1	K 766.490 Radial†	29938.5	27037.9	5376.0	ug/L	5376.0	ppb	12:53:26
1	Mg 279.077 IEC†	141.8	135.9	5393.9	ug/L	5393.9	ppb	12:53:46
1	Mn 257.610†	332636.2	309965.0	496.43	ug/L	496.43	ppb	12:54:48
1	Mo 202.031†	5749.3	5351.1	491.54	ug/L	491.54	ppb	12:55:08
1	Na 589.592 Radial†	28044.9	28294.2	9642.6	ug/L	9642.6	ppb	12:53:26
1	Ni 231.604†	17043.8	15804.4	504.92	ug/L	504.92	ppb	12:54:48
1	P 214.914†	4924.0	4399.8	2360.7	ug/L	2360.7	ppb	12:55:08
1	Pb 220.353†	3273.5	3125.7	505.86	ug/L	505.86	ppb	12:55:08
1	S 181.975 Axial†	861.9	761.9	986.84	ug/L	986.84	ppb	12:55:08
1	Sb 206.836†	1385.7	1263.2	530.23	ug/L	530.23	ppb	12:55:08
1	Se 196.026†	857.3	819.8	515.74	ug/L	515.74	ppb	12:55:08
1	Si 251.611†	73316.3	67831.8	2469.2	ug/L	2469.2	ppb	12:54:48
1	Sn 189.927†	2267.6	2108.2	497.09	ug/L	497.09	ppb	12:55:08
1	Sr 421.552†	69652.3	68166.3	495.65	ug/L	495.65	ppb	12:53:26
1	Ti 334.940†	261113.4	244980.0	493.49	ug/L	493.49	ppb	12:54:48
1	Tl 190.801†	1118.1	1074.7	496.83	ug/L	496.83	ppb	12:55:08
1	U 409.014†	13419.9	15060.6	502.61	ug/L	502.61	ppb	12:54:48
1	V 292.402†	65036.2	62321.7	502.84	ug/L	502.84	ppb	12:54:48
1	Zn 213.857†	49138.2	45147.0	493.24	ug/L	493.24	ppb	12:54:48
1	SiO2†	72354.7	66927.1	5200.4	ug/L	5200.4	ppb	12:56:15
2	Sc 361.383	817634.9	817634.9	106.47	%			12:55:14
2	Sc Radial	4813.6	4813.6	102	%			12:53:51
2	Y 371.029	723758.5	723758.5	105.04	%			12:55:14
2	Y RADIAL	5082.9	5082.9	102.0	%			12:53:51
2	Ag 328.068†	102723.2	96224.0	497.86	ug/L	497.86	ppb	12:55:19
2	Al 396.153Radial†	5489.1	5454.3	5078.1	ug/L	5078.1	ppb	12:53:51
2	As 188.979†	1225.4	1175.9	528.43	ug/L	528.43	ppb	12:55:39
2	B 249.677†	22096.5	21206.9	528.75	ug/L	528.75	ppb	12:55:19
2	Ba 233.527†	45029.9	42290.6	500.28	ug/L	500.28	ppb	12:55:19
2	Be 313.107†	1316819.1	1245765.3	496.29	ug/L	496.29	ppb	12:55:14
2	Ca 317.933Radial†	2930.4	2843.1	5165.8	ug/L	5165.8	ppb	12:54:11
2	Cd 226.502†	37458.6	35368.5	501.28	ug/L	501.28	ppb	12:55:19
2	Co 228.616†	17920.1	16888.4	510.47	ug/L	510.47	ppb	12:55:19
2	Cr 267.716†	38967.4	36523.3	499.58	ug/L	499.58	ppb	12:55:19
2	Cu 324.752†	148589.3	132021.8	494.34	ug/L	494.34	ppb	12:55:19
2	Fe 238.204 Radial†	519.6	500.7	5210.4	ug/L	5210.4	ppb	12:54:11
2	K 766.490 Radial†	29656.3	26735.8	5315.8	ug/L	5315.8	ppb	12:53:51
2	Mg 279.077 IEC†	141.8	135.7	5389.4	ug/L	5389.4	ppb	12:54:11
2	Mn 257.610†	331860.9	311229.2	498.46	ug/L	498.46	ppb	12:55:19
2	Mo 202.031†	5743.4	5379.9	494.19	ug/L	494.19	ppb	12:55:39
2	Na 589.592 Radial†	28298.1	28517.1	9718.6	ug/L	9718.6	ppb	12:53:51
2	Ni 231.604†	16958.9	15826.8	505.63	ug/L	505.63	ppb	12:55:19

2	P 214.914†	4909.8	4416.0	2369.5 ug/L	2369.5 ppb	12:55:39
2	Pb 220.353†	3253.2	3126.2	505.94 ug/L	505.94 ppb	12:55:39
2	S 181.975 Axial†	867.7	772.4	1000.6 ug/L	1000.6 ppb	12:55:39
2	Sb 206.836†	1376.8	1263.1	530.27 ug/L	530.27 ppb	12:55:39
2	Se 196.026†	851.8	819.8	515.71 ug/L	515.71 ppb	12:55:39
2	Si 251.611†	72997.4	67971.4	2474.2 ug/L	2474.2 ppb	12:55:19
2	Sn 189.927†	2258.0	2112.7	498.15 ug/L	498.15 ppb	12:55:39
2	Sr 421.552†	70069.5	68513.1	498.17 ug/L	498.17 ppb	12:53:51
2	Ti 334.940†	260009.9	245507.5	494.55 ug/L	494.55 ppb	12:55:19
2	Tl 190.801†	1117.5	1080.8	499.64 ug/L	499.64 ppb	12:55:39
2	U 409.014†	13322.1	15049.2	502.22 ug/L	502.22 ppb	12:55:19
2	V 292.402†	64734.1	62427.6	503.71 ug/L	503.71 ppb	12:55:19
2	Zn 213.857†	49045.6	45354.3	495.52 ug/L	495.52 ppb	12:55:19
2	SiO2†	73690.7	68615.4	5331.8 ug/L	5331.8 ppb	12:56:21
3	Sc 361.383	813886.2	813886.2	105.98 %		12:55:45
3	Sc Radial	4829.5	4829.5	103 %		12:54:16
3	Y 371.029	719850.0	719850.0	104.47 %		12:55:45
3	Y RADIAL	5079.5	5079.5	101.9 %		12:54:16
3	Ag 328.068†	102643.6	96593.3	499.75 ug/L	499.75 ppb	12:55:50
3	Al 396.153Radial†	5521.5	5468.2	5091.0 ug/L	5091.0 ppb	12:54:16
3	As 188.979†	1222.4	1178.4	529.51 ug/L	529.51 ppb	12:56:10
3	B 249.677†	22055.0	21263.3	530.18 ug/L	530.18 ppb	12:55:50
3	Ba 233.527†	44920.6	42382.3	501.36 ug/L	501.36 ppb	12:55:50
3	Be 313.107†	1310616.1	1245609.1	496.24 ug/L	496.24 ppb	12:55:45
3	Ca 317.933Radial†	2924.3	2827.7	5137.9 ug/L	5137.9 ppb	12:54:36
3	Cd 226.502†	37476.3	35547.2	503.82 ug/L	503.82 ppb	12:55:50
3	Co 228.616†	17812.9	16864.8	509.76 ug/L	509.76 ppb	12:55:50
3	Cr 267.716†	38851.6	36582.7	500.39 ug/L	500.39 ppb	12:55:50
3	Cu 324.752†	148529.8	132608.5	496.54 ug/L	496.54 ppb	12:55:50
3	Fe 238.204 Radial†	513.6	493.2	5132.3 ug/L	5132.3 ppb	12:54:36
3	K 766.490 Radial†	29760.8	26742.3	5317.2 ug/L	5317.2 ppb	12:54:16
3	Mg 279.077 IEC†	140.0	133.6	5302.4 ug/L	5302.4 ppb	12:54:36
3	Mn 257.610†	331356.1	312188.6	499.99 ug/L	499.99 ppb	12:55:50
3	Mo 202.031†	5746.6	5407.8	496.75 ug/L	496.75 ppb	12:56:10
3	Na 589.592 Radial†	28279.4	28408.0	9681.4 ug/L	9681.4 ppb	12:54:16
3	Ni 231.604†	16997.8	15936.9	509.15 ug/L	509.15 ppb	12:55:50
3	P 214.914†	4934.1	4460.2	2393.8 ug/L	2393.8 ppb	12:56:10
3	Pb 220.353†	3246.2	3133.6	507.15 ug/L	507.15 ppb	12:56:10
3	S 181.975 Axial†	873.3	781.5	1012.3 ug/L	1012.3 ppb	12:56:10
3	Sb 206.836†	1377.0	1269.2	532.84 ug/L	532.84 ppb	12:56:10
3	Se 196.026†	845.5	817.6	514.21 ug/L	514.21 ppb	12:56:10
3	Si 251.611†	72871.7	68168.6	2481.4 ug/L	2481.4 ppb	12:55:50
3	Sn 189.927†	2261.8	2126.1	501.30 ug/L	501.30 ppb	12:56:10
3	Sr 421.552†	70036.8	68256.1	496.30 ug/L	496.30 ppb	12:54:16
3	Ti 334.940†	259985.2	246609.1	496.78 ug/L	496.78 ppb	12:55:50
3	Tl 190.801†	1107.0	1075.7	497.34 ug/L	497.34 ppb	12:56:10
3	U 409.014†	13085.7	14883.7	496.69 ug/L	496.69 ppb	12:55:50
3	V 292.402†	64604.1	62584.9	505.00 ug/L	505.00 ppb	12:55:50
3	Zn 213.857†	48922.5	45450.3	496.57 ug/L	496.57 ppb	12:55:50
3	SiO2†	73204.9	68475.7	5320.9 ug/L	5320.9 ppb	12:56:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	818134.5	106.54	%	0.588				0.55%
Sc Radial	4817.4	102	%	0.2				0.22%
Y 371.029	724116.2	105.09	%	0.647				0.62%
Y RADIAL	5075.9	101.8	%	0.19				0.18%
Ag 328.068†	96220.5	497.84	ug/L	1.920	497.84	ppb	1.920	0.39%
QC value within limits for Ag 328.068 Recovery = 99.57%								
Al 396.153Radial†	5464.7	5087.8	ug/L	8.59	5087.8	ppb	8.59	0.17%
QC value within limits for Al 396.153Radial Recovery = 101.76%								
As 188.979†	1177.1	528.95	ug/L	0.539	528.95	ppb	0.539	0.10%
QC value within limits for As 188.979 Recovery = 105.79%								
B 249.677†	21216.1	528.99	ug/L	1.087	528.99	ppb	1.087	0.21%
QC value within limits for B 249.677 Recovery = 105.80%								
Ba 233.527†	42271.1	500.05	ug/L	1.442	500.05	ppb	1.442	0.29%
QC value within limits for Ba 233.527 Recovery = 100.01%								
Be 313.107†	1246324.8	496.52	ug/L	0.437	496.52	ppb	0.437	0.09%
QC value within limits for Be 313.107 Recovery = 99.30%								

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Ca 317.933Radial†        2844.3      5167.9 ug/L        31.06      5167.9 ppb        31.06   0.60%
   QC value within limits for Ca 317.933Radial  Recovery = 103.36%
Cd 226.502†             35387.3      501.54 ug/L        2.152      501.54 ppb        2.152   0.43%
   QC value within limits for Cd 226.502  Recovery = 100.31%
Co 228.616†             16826.3      508.59 ug/L        2.661      508.59 ppb        2.661   0.52%
   QC value within limits for Co 228.616  Recovery = 101.72%
Cr 267.716†             36504.6      499.32 ug/L        1.216      499.32 ppb        1.216   0.24%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†            132127.0      494.74 ug/L        1.641      494.74 ppb        1.641   0.33%
   QC value within limits for Cu 324.752  Recovery = 98.95%
Fe 238.204 Radial†        498.4      5185.6 ug/L        46.21      5185.6 ppb        46.21   0.89%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.71%
K 766.490 Radial†       26838.7      5336.3 ug/L        34.37      5336.3 ppb        34.37   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 106.73%
Mg 279.077 IEC†           135.1      5361.9 ug/L        51.55      5361.9 ppb        51.55   0.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.24%
Mn 257.610†            311127.6      498.29 ug/L        1.783      498.29 ppb        1.783   0.36%
   QC value within limits for Mn 257.610  Recovery = 99.66%
Mo 202.031†             5379.6      494.16 ug/L        2.601      494.16 ppb        2.601   0.53%
   QC value within limits for Mo 202.031  Recovery = 98.83%
Na 589.592 Radial†      28406.5      9680.9 ug/L        37.99      9680.9 ppb        37.99   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 96.81%
Ni 231.604†             15856.1      506.56 ug/L        2.266      506.56 ppb        2.266   0.45%
   QC value within limits for Ni 231.604  Recovery = 101.31%
P 214.914†               4425.3      2374.7 ug/L        17.17      2374.7 ppb        17.17   0.72%
   QC value within limits for P 214.914  Recovery = 94.99%
Pb 220.353†              3128.5      506.32 ug/L        0.725      506.32 ppb        0.725   0.14%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†          771.9      999.89 ug/L       12.726      999.89 ppb       12.726   1.27%
   QC value within limits for S 181.975 Axial  Recovery = 99.99%
Sb 206.836†              1265.2      531.12 ug/L        1.496      531.12 ppb        1.496   0.28%
   QC value within limits for Sb 206.836  Recovery = 106.22%
Se 196.026†               819.1      515.22 ug/L        0.875      515.22 ppb        0.875   0.17%
   QC value within limits for Se 196.026  Recovery = 103.04%
Si 251.611†             67990.6      2474.9 ug/L         6.14      2474.9 ppb         6.14   0.25%
   QC value within limits for Si 251.611  Recovery = 99.00%
Sn 189.927†              2115.6      498.84 ug/L        2.193      498.84 ppb        2.193   0.44%
   QC value within limits for Sn 189.927  Recovery = 99.77%
Sr 421.552†             68311.9      496.71 ug/L        1.309      496.71 ppb        1.309   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.34%
Ti 334.940†            245698.8      494.94 ug/L        1.676      494.94 ppb        1.676   0.34%
   QC value within limits for Ti 334.940  Recovery = 98.99%
Tl 190.801†              1077.1      497.94 ug/L        1.499      497.94 ppb        1.499   0.30%
   QC value within limits for Tl 190.801  Recovery = 99.59%
U 409.014†              14997.8      500.51 ug/L        3.311      500.51 ppb        3.311   0.66%
   QC value within limits for U 409.014  Recovery = 100.10%
V 292.402†              62444.7      503.85 ug/L        1.088      503.85 ppb        1.088   0.22%
   QC value within limits for V 292.402  Recovery = 100.77%
Zn 213.857†             45317.2      495.11 ug/L        1.701      495.11 ppb        1.701   0.34%
   QC value within limits for Zn 213.857  Recovery = 99.02%
SiO2†                   68006.1      5284.3 ug/L        72.93      5284.3 ppb        72.93   1.38%
   QC value within limits for SiO2  Recovery = 98.82%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 12:58:36
Data Type: Reprocessed on 3/1/2010 13:29:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	801042.3	801042.3	104.31	%			13:01:45
1	Sc Radial	4860.2	4860.2	103	%			13:00:29
1	Y 371.029	720663.8	720663.8	104.59	%			13:01:45
1	Y RADIAL	5132.1	5132.1	102.9	%			13:00:29
1	Ag 328.068†	218.3	-46.4	-0.2407	ug/L	-0.2407	ppb	13:01:45
1	Al 396.153Radial†	-79.4	10.2	9.5181	ug/L	9.5181	ppb	13:00:49
1	As 188.979†	-1.0	24.1	10.725	ug/L	10.725	ppb	13:02:05
1	B 249.677†	580.1	1009.5	25.279	ug/L	25.279	ppb	13:02:05
1	Ba 233.527†	25.8	22.4	0.2631	ug/L	0.2631	ppb	13:02:05
1	Be 313.107†	-9173.5	188.2	0.0754	ug/L	0.0754	ppb	13:01:45
1	Ca 317.933Radial†	28.1	5.1	9.2452	ug/L	9.2452	ppb	13:00:49
1	Cd 226.502†	-193.7	1.0	0.0138	ug/L	0.0138	ppb	13:02:05
1	Co 228.616†	-53.6	6.1	0.1849	ug/L	0.1849	ppb	13:02:05
1	Cr 267.716†	99.4	19.7	0.2678	ug/L	0.2678	ppb	13:02:05
1	Cu 324.752†	7791.8	-66.3	-0.2498	ug/L	-0.2498	ppb	13:01:45
1	Fe 238.204 Radial†	8.4	0.8	8.2681	ug/L	8.2681	ppb	13:00:49
1	K 766.490 Radial†	2775.3	425.9	84.760	ug/L	84.760	ppb	13:00:29
1	Mg 279.077 IEC†	3.2	0.2	7.4569	ug/L	7.4569	ppb	13:00:49
1	Mn 257.610†	481.9	0.8	0.0019	ug/L	0.0019	ppb	13:02:05
1	Mo 202.031†	17.3	2.2	0.2014	ug/L	0.2014	ppb	13:02:05
1	Na 589.592 Radial†	-681.4	188.0	64.060	ug/L	64.060	ppb	13:00:29
1	Ni 231.604†	109.4	3.6	0.1147	ug/L	0.1147	ppb	13:02:05
1	P 214.914†	196.8	-6.7	-3.6663	ug/L	-3.6663	ppb	13:02:05
1	Pb 220.353†	-32.6	39.4	6.3560	ug/L	6.3560	ppb	13:02:05
1	S 181.975 Axial†	43.7	-0.6	-0.8071	ug/L	-0.8071	ppb	13:02:05
1	Sb 206.836†	45.8	13.9	5.6621	ug/L	5.6621	ppb	13:02:05
1	Se 196.026†	-15.6	4.9	3.0021	ug/L	3.0021	ppb	13:02:05
1	Si 251.611†	692.9	75.0	2.7361	ug/L	2.7361	ppb	13:02:05
1	Sn 189.927†	12.7	4.1	0.9588	ug/L	0.9588	ppb	13:02:05
1	Sr 421.552†	47.3	46.2	0.3362	ug/L	0.3362	ppb	13:00:29
1	Ti 334.940†	-1216.3	135.0	0.2711	ug/L	0.2711	ppb	13:01:45
1	Tl 190.801†	-34.9	-2.3	-1.0317	ug/L	-1.0317	ppb	13:02:05
1	U 409.014†	-2546.6	95.5	3.1959	ug/L	3.1959	ppb	13:01:45
1	V 292.402†	-1758.8	-58.2	-0.4556	ug/L	-0.4556	ppb	13:01:45
1	Zn 213.857†	763.7	21.8	0.2389	ug/L	0.2389	ppb	13:02:05
1	SiO2†	688.1	63.2	4.9216	ug/L	4.9216	ppb	13:03:01
2	Sc 361.383	801808.8	801808.8	104.41	%			13:02:11
2	Sc Radial	4879.3	4879.3	104	%			13:00:54
2	Y 371.029	721183.9	721183.9	104.67	%			13:02:11
2	Y RADIAL	5127.6	5127.6	102.9	%			13:00:54
2	Ag 328.068†	194.9	-69.0	-0.3594	ug/L	-0.3594	ppb	13:02:11
2	Al 396.153Radial†	-81.0	9.0	8.4529	ug/L	8.4529	ppb	13:01:14
2	As 188.979†	-12.0	13.5	6.0097	ug/L	6.0097	ppb	13:02:31
2	B 249.677†	515.7	947.4	23.725	ug/L	23.725	ppb	13:02:31
2	Ba 233.527†	24.5	21.1	0.2489	ug/L	0.2489	ppb	13:02:31
2	Be 313.107†	-9270.9	103.4	0.0414	ug/L	0.0414	ppb	13:02:11
2	Ca 317.933Radial†	31.2	8.0	14.486	ug/L	14.486	ppb	13:01:14
2	Cd 226.502†	-175.5	18.6	0.2638	ug/L	0.2638	ppb	13:02:31
2	Co 228.616†	-63.2	-3.1	-0.0940	ug/L	-0.0940	ppb	13:02:31
2	Cr 267.716†	73.4	-5.4	-0.0753	ug/L	-0.0753	ppb	13:02:31
2	Cu 324.752†	7821.8	-44.7	-0.1705	ug/L	-0.1705	ppb	13:02:11
2	Fe 238.204 Radial†	7.5	-0.0	-0.4398	ug/L	-0.4398	ppb	13:01:14
2	K 766.490 Radial†	2782.1	422.0	83.980	ug/L	83.980	ppb	13:00:54
2	Mg 279.077 IEC†	0.7	-2.2	-87.558	ug/L	-87.558	ppb	13:01:14
2	Mn 257.610†	454.2	-26.1	-0.0383	ug/L	-0.0383	ppb	13:02:31
2	Mo 202.031†	13.3	-1.7	-0.1537	ug/L	-0.1537	ppb	13:02:31
2	Na 589.592 Radial†	-727.7	145.8	49.704	ug/L	49.704	ppb	13:00:54
2	Ni 231.604†	91.1	-14.1	-0.4511	ug/L	-0.4511	ppb	13:02:31

2	P 214.914†	204.9	0.9	0.5662 ug/L	0.5662 ppb	13:02:31
2	Pb 220.353†	-40.4	32.0	5.1682 ug/L	5.1682 ppb	13:02:31
2	S 181.975 Axial†	51.3	6.6	8.5889 ug/L	8.5889 ppb	13:02:31
2	Sb 206.836†	53.9	21.6	8.7842 ug/L	8.7842 ppb	13:02:31
2	Se 196.026†	-15.4	5.1	3.1128 ug/L	3.1128 ppb	13:02:31
2	Si 251.611†	729.1	109.1	3.9823 ug/L	3.9823 ppb	13:02:31
2	Sn 189.927†	20.1	11.2	2.6364 ug/L	2.6364 ppb	13:02:31
2	Sr 421.552†	50.2	48.9	0.3556 ug/L	0.3556 ppb	13:00:54
2	Ti 334.940†	-1292.3	63.4	0.1344 ug/L	0.1344 ppb	13:02:11
2	Tl 190.801†	-29.8	2.7	1.2231 ug/L	1.2231 ppb	13:02:31
2	U 409.014†	-2480.3	161.3	5.4021 ug/L	5.4021 ppb	13:02:11
2	V 292.402†	-1698.8	0.9	0.0139 ug/L	0.0139 ppb	13:02:11
2	Zn 213.857†	766.9	24.2	0.2698 ug/L	0.2698 ppb	13:02:31
2	SiO2†	702.2	76.1	5.9342 ug/L	5.9342 ppb	13:03:07
3	Sc 361.383	802421.1	802421.1	104.49 %		13:02:36
3	Sc Radial	4984.7	4984.7	106 %		13:01:19
3	Y 371.029	720635.8	720635.8	104.59 %		13:02:36
3	Y RADIAL	5262.4	5262.4	105.6 %		13:01:19
3	Ag 328.068†	218.6	-46.4	-0.2424 ug/L	-0.2424 ppb	13:02:36
3	Al 396.153Radial†	-75.3	16.0	14.904 ug/L	14.904 ppb	13:01:39
3	As 188.979†	-5.2	20.0	8.9136 ug/L	8.9136 ppb	13:02:56
3	B 249.677†	455.9	889.8	22.278 ug/L	22.278 ppb	13:02:56
3	Ba 233.527†	16.4	13.3	0.1587 ug/L	0.1587 ppb	13:02:56
3	Be 313.107†	-9310.5	72.3	0.0291 ug/L	0.0291 ppb	13:02:36
3	Ca 317.933Radial†	31.6	7.7	14.027 ug/L	14.027 ppb	13:01:39
3	Cd 226.502†	-178.9	15.5	0.2204 ug/L	0.2204 ppb	13:02:56
3	Co 228.616†	-45.3	14.1	0.4286 ug/L	0.4286 ppb	13:02:56
3	Cr 267.716†	85.1	5.8	0.0766 ug/L	0.0766 ppb	13:02:56
3	Cu 324.752†	7786.8	-84.0	-0.3203 ug/L	-0.3203 ppb	13:02:36
3	Fe 238.204 Radial†	8.7	0.9	9.5950 ug/L	9.5950 ppb	13:01:39
3	K 766.490 Radial†	2681.9	270.6	53.842 ug/L	53.842 ppb	13:01:19
3	Mg 279.077 IEC†	0.0	-2.9	-113.77 ug/L	-113.77 ppb	13:01:39
3	Mn 257.610†	480.8	-1.0	0.0039 ug/L	0.0039 ppb	13:02:56
3	Mo 202.031†	29.8	14.1	1.2981 ug/L	1.2981 ppb	13:02:56
3	Na 589.592 Radial†	-699.5	187.3	63.846 ug/L	63.846 ppb	13:01:19
3	Ni 231.604†	107.4	1.4	0.0453 ug/L	0.0453 ppb	13:02:56
3	P 214.914†	208.2	3.9	2.2321 ug/L	2.2321 ppb	13:02:56
3	Pb 220.353†	-30.4	41.6	6.7188 ug/L	6.7188 ppb	13:02:56
3	S 181.975 Axial†	51.5	6.8	8.8228 ug/L	8.8228 ppb	13:02:56
3	Sb 206.836†	48.5	16.3	6.6726 ug/L	6.6726 ppb	13:02:56
3	Se 196.026†	-14.5	5.9	3.6674 ug/L	3.6674 ppb	13:02:56
3	Si 251.611†	643.8	27.0	0.9678 ug/L	0.9678 ppb	13:02:56
3	Sn 189.927†	12.4	3.8	0.8994 ug/L	0.8994 ppb	13:02:56
3	Sr 421.552†	30.9	29.7	0.2158 ug/L	0.2158 ppb	13:01:19
3	Ti 334.940†	-1266.2	89.3	0.1860 ug/L	0.1860 ppb	13:02:36
3	Tl 190.801†	-23.8	8.4	3.8648 ug/L	3.8648 ppb	13:02:56
3	U 409.014†	-2295.2	340.2	11.392 ug/L	11.392 ppb	13:02:36
3	V 292.402†	-1605.2	91.7	0.7669 ug/L	0.7669 ppb	13:02:36
3	Zn 213.857†	762.4	19.4	0.2123 ug/L	0.2123 ppb	13:02:56
3	SiO2†	670.4	45.2	3.4842 ug/L	3.4842 ppb	13:03:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	801757.4	104.40	%	0.090				0.09%
Sc Radial	4908.1	104	%	1.4				1.37%
Y 371.029	720827.8	104.61	%	0.045				0.04%
Y RADIAL	5174.0	103.8	%	1.54				1.48%
Ag 328.068†	-53.9	-0.2808	ug/L	0.06804	-0.2808	ppb	0.06804	24.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.7	10.958	ug/L	3.4582	10.958	ppb	3.4582	31.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	19.2	8.5495	ug/L	2.37877	8.5495	ppb	2.37877	27.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	948.9	23.761	ug/L	1.5006	23.761	ppb	1.5006	6.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.9	0.2236	ug/L	0.05663	0.2236	ppb	0.05663	25.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	121.3	0.0486	ug/L	0.02400	0.0486	ppb	0.02400	49.33%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          6.9      12.586 ug/L        2.9022      12.586 ppb        2.9022  23.06%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               11.7       0.1660 ug/L       0.13359       0.1660 ppb       0.13359  80.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.7       0.1732 ug/L       0.26151       0.1732 ppb       0.26151 150.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.7       0.0897 ug/L       0.17192       0.0897 ppb       0.17192 191.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -65.0      -0.2468 ug/L       0.07496      -0.2468 ppb       0.07496  30.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.6       5.8078 ug/L       5.45111       5.8078 ppb       5.45111  93.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        372.9      74.194 ug/L       17.6298      74.194 ppb       17.6298  23.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.6     -64.623 ug/L       63.7835     -64.623 ppb       63.7835  98.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -8.8      -0.0108 ug/L       0.02379      -0.0108 ppb       0.02379 219.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.9       0.4486 ug/L       0.75680       0.4486 ppb       0.75680 168.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       173.7      59.203 ug/L        8.2277      59.203 ppb        8.2277  13.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.0      -0.0970 ug/L       0.30861      -0.0970 ppb       0.30861 318.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.6      -0.2893 ug/L       3.04083      -0.2893 ppb       3.04083 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               37.7       6.0810 ug/L       0.81105       6.0810 ppb       0.81105  13.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.3       5.5349 ug/L       5.49352       5.5349 ppb       5.49352  99.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               17.3       7.0396 ug/L       1.59305       7.0396 ppb       1.59305  22.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.3       3.2608 ug/L       0.35649       3.2608 ppb       0.35649  10.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               70.4       2.5621 ug/L       1.51474       2.5621 ppb       1.51474  59.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.4       1.4982 ug/L       0.98615       1.4982 ppb       0.98615  65.82%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               41.6       0.3025 ug/L       0.07575       0.3025 ppb       0.07575  25.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               95.9       0.1972 ug/L       0.06901       0.1972 ppb       0.06901  35.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9       1.3520 ug/L       2.45081       1.3520 ppb       2.45081 181.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               199.0       6.6632 ug/L       4.24084       6.6632 ppb       4.24084  63.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                11.5       0.1084 ug/L       0.61669       0.1084 ppb       0.61669 568.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               21.8       0.2403 ug/L       0.02876       0.2403 ppb       0.02876  11.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     61.5       4.7800 ug/L       1.23111       4.7800 ppb       1.23111  25.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 3/1/2010 13:05:17
Data Type: Reprocessed on 3/1/2010 13:29:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	812300.2	812300.2	105.78	%			13:08:28
1	Sc Radial	4755.7	4755.7	101	%			13:07:10
1	Y 371.029	723774.4	723774.4	105.04	%			13:08:28
1	Y RADIAL	5069.1	5069.1	101.7	%			13:07:10
1	Ag 328.068†	-22401.9	-21434.2	4.1408	ug/L	4.1408	ppb	13:08:28
1	Al 396.153Radial†	-117.7	-29.3	-26.040	ug/L	-26.040	ppb	13:07:30
1	As 188.979†	-163.5	-129.5	29.374	ug/L	29.374	ppb	13:08:48
1	B 249.677†	1509.6	1880.6	-13.289	ug/L	-13.289	ppb	13:08:28
1	Ba 233.527†	-1484.1	-1405.5	-5.1702	ug/L	-5.1702	ppb	13:08:28
1	Be 313.107†	-9274.1	215.0	0.0858	ug/L	0.0858	ppb	13:08:28
1	Ca 317.933Radial†	19.1	-3.2	-5.9044	ug/L	-5.9044	ppb	13:07:30
1	Cd 226.502†	2669.8	2710.6	0.0647	ug/L	0.0647	ppb	13:08:28
1	Co 228.616†	506.4	536.2	10.767	ug/L	10.767	ppb	13:08:48
1	Cr 267.716†	-425.4	-477.8	0.6391	ug/L	0.6391	ppb	13:08:48
1	Cu 324.752†	1326.9	-6281.7	-3.8952	ug/L	-3.8952	ppb	13:08:28
1	Fe 238.204 Radial†	36191.5	35810.8	371530	ug/L	371530	ppb	13:07:10
1	K 766.490 Radial†	2181.4	-102.7	-20.418	ug/L	-20.418	ppb	13:07:10
1	Mg 279.077 IEC†	11.4	8.4	-57.254	ug/L	-57.254	ppb	13:07:30
1	Mn 257.610†	-28426.4	-27335.2	-7.0721	ug/L	-7.0721	ppb	13:08:28
1	Mo 202.031†	-313.7	-310.9	0.3065	ug/L	0.3065	ppb	13:08:28
1	Na 589.592 Radial†	-665.5	189.2	64.484	ug/L	64.484	ppb	13:07:10
1	Ni 231.604†	155.8	46.0	1.4604	ug/L	1.4604	ppb	13:08:48
1	P 214.914†	603.9	375.6	-84.913	ug/L	-84.913	ppb	13:08:48
1	Pb 220.353†	161.1	223.0	6.1224	ug/L	6.1224	ppb	13:08:48
1	S 181.975 Axial†	60.1	14.3	18.519	ug/L	18.519	ppb	13:08:48
1	Sb 206.836†	38.8	6.6	-1.9799	ug/L	-1.9799	ppb	13:08:48
1	Se 196.026†	-1479.5	-1378.9	-12.765	ug/L	-12.765	ppb	13:08:48
1	Si 251.611†	-190.6	-769.4	-27.725	ug/L	-27.725	ppb	13:08:28
1	Sn 189.927†	-18.8	-25.8	-27.414	ug/L	-27.414	ppb	13:08:48
1	Sr 421.552†	69.6	69.4	0.5044	ug/L	0.5044	ppb	13:07:10
1	Ti 334.940†	-1295.8	76.0	0.0966	ug/L	0.0966	ppb	13:08:28
1	Tl 190.801†	-36.8	-3.6	-2.0113	ug/L	-2.0113	ppb	13:08:48
1	U 409.014†	-447.2	2114.1	28.450	ug/L	28.450	ppb	13:08:28
1	V 292.402†	4922.8	6281.9	-4.3450	ug/L	-4.3450	ppb	13:08:28
1	Zn 213.857†	3652.0	2742.3	-25.334	ug/L	-25.334	ppb	13:08:48
1	SiO2†	-213.0	-797.8	-61.371	ug/L	-61.371	ppb	13:09:45
2	Sc 361.383	796825.3	796825.3	103.76	%			13:08:54
2	Sc Radial	4763.9	4763.9	101	%			13:07:35
2	Y 371.029	709451.5	709451.5	102.96	%			13:08:54
2	Y RADIAL	5057.6	5057.6	101.4	%			13:07:35
2	Ag 328.068†	-22071.9	-21527.4	3.6128	ug/L	3.6128	ppb	13:08:54
2	Al 396.153Radial†	-120.5	-32.0	-28.690	ug/L	-28.690	ppb	13:07:55
2	As 188.979†	-156.2	-125.5	31.118	ug/L	31.118	ppb	13:09:14
2	B 249.677†	1545.9	1943.3	-11.695	ug/L	-11.695	ppb	13:08:54
2	Ba 233.527†	-1438.7	-1389.0	-4.9795	ug/L	-4.9795	ppb	13:08:54
2	Be 313.107†	-9114.4	198.7	0.0792	ug/L	0.0792	ppb	13:08:54
2	Ca 317.933Radial†	18.7	-3.7	-6.6481	ug/L	-6.6481	ppb	13:07:55
2	Cd 226.502†	2684.2	2773.5	0.9721	ug/L	0.9721	ppb	13:08:54
2	Co 228.616†	510.3	549.2	11.172	ug/L	11.172	ppb	13:09:14
2	Cr 267.716†	-445.0	-504.4	0.2703	ug/L	0.2703	ppb	13:09:14
2	Cu 324.752†	1205.1	-6374.7	-4.2540	ug/L	-4.2540	ppb	13:08:54
2	Fe 238.204 Radial†	36239.1	35796.5	371390	ug/L	371390	ppb	13:07:35
2	K 766.490 Radial†	2339.3	49.5	9.8927	ug/L	9.8927	ppb	13:07:35
2	Mg 279.077 IEC†	9.2	6.2	-144.14	ug/L	-144.14	ppb	13:07:55
2	Mn 257.610†	-27751.5	-27206.6	-6.8774	ug/L	-6.8774	ppb	13:08:54
2	Mo 202.031†	-268.3	-273.0	3.7794	ug/L	3.7794	ppb	13:08:54
2	Na 589.592 Radial†	-739.4	117.3	39.971	ug/L	39.971	ppb	13:07:35
2	Ni 231.604†	141.7	35.2	1.1157	ug/L	1.1157	ppb	13:09:14

2	P 214.914†	609.4	392.0	-75.560	ug/L	-75.560 ppb	13:09:14
2	Pb 220.353†	162.0	226.8	6.7588	ug/L	6.7588 ppb	13:09:14
2	S 181.975 Axial†	53.0	8.6	11.113	ug/L	11.113 ppb	13:09:14
2	Sb 206.836†	21.5	-9.3	-8.3688	ug/L	-8.3688 ppb	13:09:14
2	Se 196.026†	-1481.4	-1407.8	-30.833	ug/L	-30.833 ppb	13:09:14
2	Si 251.611†	-139.9	-724.1	-26.113	ug/L	-26.113 ppb	13:08:54
2	Sn 189.927†	-14.0	-21.6	-26.402	ug/L	-26.402 ppb	13:09:14
2	Sr 421.552†	96.5	95.8	0.6967	ug/L	0.6967 ppb	13:07:35
2	Ti 334.940†	-1295.4	52.6	0.0544	ug/L	0.0544 ppb	13:08:54
2	Tl 190.801†	-33.9	-1.4	-1.0302	ug/L	-1.0302 ppb	13:09:14
2	U 409.014†	-285.3	2261.8	33.416	ug/L	33.416 ppb	13:08:54
2	V 292.402†	4855.5	6307.4	-4.0630	ug/L	-4.0630 ppb	13:08:54
2	Zn 213.857†	3703.4	2858.9	-24.024	ug/L	-24.024 ppb	13:09:14
2	SiO2†	-297.0	-882.7	-68.078	ug/L	-68.078 ppb	13:09:50
3	Sc 361.383	797370.0	797370.0	103.83	%		13:09:20
3	Sc Radial	4772.0	4772.0	101	%		13:08:00
3	Y 371.029	709955.2	709955.2	103.04	%		13:09:20
3	Y RADIAL	5050.4	5050.4	101.3	%		13:08:00
3	Ag 328.068†	-22095.9	-21536.0	2.8813	ug/L	2.8813 ppb	13:09:20
3	Al 396.153Radial†	-115.8	-27.1	-24.221	ug/L	-24.221 ppb	13:08:20
3	As 188.979†	-144.6	-114.2	35.607	ug/L	35.607 ppb	13:09:40
3	B 249.677†	1380.0	1782.5	-15.362	ug/L	-15.362 ppb	13:09:20
3	Ba 233.527†	-1528.7	-1474.6	-6.0580	ug/L	-6.0580 ppb	13:09:20
3	Be 313.107†	-9262.9	61.6	0.0243	ug/L	0.0243 ppb	13:09:20
3	Ca 317.933Radial†	17.1	-5.3	-9.6166	ug/L	-9.6166 ppb	13:08:20
3	Cd 226.502†	2696.8	2783.9	1.3503	ug/L	1.3503 ppb	13:09:20
3	Co 228.616†	537.1	574.8	11.980	ug/L	11.980 ppb	13:09:40
3	Cr 267.716†	-410.6	-471.0	0.6830	ug/L	0.6830 ppb	13:09:40
3	Cu 324.752†	1301.5	-6282.7	-4.0297	ug/L	-4.0297 ppb	13:09:20
3	Fe 238.204 Radial†	36083.0	35581.7	369160	ug/L	369160 ppb	13:08:00
3	K 766.490 Radial†	2313.2	19.9	3.9864	ug/L	3.9864 ppb	13:08:00
3	Mg 279.077 IEC†	9.2	6.1	-142.68	ug/L	-142.68 ppb	13:08:20
3	Mn 257.610†	-27718.6	-27156.6	-7.0174	ug/L	-7.0174 ppb	13:09:20
3	Mo 202.031†	-245.2	-250.5	5.6684	ug/L	5.6684 ppb	13:09:20
3	Na 589.592 Radial†	-751.9	106.1	36.175	ug/L	36.175 ppb	13:08:00
3	Ni 231.604†	118.9	13.2	0.4100	ug/L	0.4100 ppb	13:09:40
3	P 214.914†	587.4	370.3	-85.919	ug/L	-85.919 ppb	13:09:40
3	Pb 220.353†	159.1	223.9	6.4788	ug/L	6.4788 ppb	13:09:40
3	S 181.975 Axial†	50.8	6.4	8.3546	ug/L	8.3546 ppb	13:09:40
3	Sb 206.836†	31.6	0.4	-4.3721	ug/L	-4.3721 ppb	13:09:40
3	Se 196.026†	-1466.2	-1392.3	-26.291	ug/L	-26.291 ppb	13:09:40
3	Si 251.611†	-195.3	-777.3	-28.081	ug/L	-28.081 ppb	13:09:20
3	Sn 189.927†	-20.1	-27.4	-27.653	ug/L	-27.653 ppb	13:09:40
3	Sr 421.552†	74.7	74.1	0.5392	ug/L	0.5392 ppb	13:08:00
3	Ti 334.940†	-1388.2	-36.0	-0.1263	ug/L	-0.1263 ppb	13:09:20
3	Tl 190.801†	-29.1	3.2	1.0833	ug/L	1.0833 ppb	13:09:40
3	U 409.014†	-164.7	2378.1	37.563	ug/L	37.563 ppb	13:09:20
3	V 292.402†	4878.9	6326.8	-3.5477	ug/L	-3.5477 ppb	13:09:20
3	Zn 213.857†	3671.2	2825.4	-24.055	ug/L	-24.055 ppb	13:09:40
3	SiO2†	-288.3	-874.1	-67.468	ug/L	-67.468 ppb	13:09:55

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	802165.1	104.46	%	1.144				1.09%
Sc Radial	4763.8	101	%	0.2				0.17%
Y 371.029	714393.7	103.68	%	1.180				1.14%
Y RADIAL	5059.0	101.5	%	0.19				0.19%
Ag 328.068†	-21499.2	3.5450	ug/L	0.63250	3.5450	ppb	0.63250	17.84%
Al 396.153Radial†	-29.5	-26.317	ug/L	2.2473	-26.317	ppb	2.2473	8.54%
As 188.979†	-123.1	32.033	ug/L	3.2155	32.033	ppb	3.2155	10.04%
B 249.677†	1868.8	-13.449	ug/L	1.8391	-13.449	ppb	1.8391	13.67%
Ba 233.527†	-1423.0	-5.4026	ug/L	0.57556	-5.4026	ppb	0.57556	10.65%
Be 313.107†	158.4	0.0631	ug/L	0.03375	0.0631	ppb	0.03375	53.47%
Ca 317.933Radial†	-4.1	-7.3897	ug/L	1.96406	-7.3897	ppb	1.96406	26.58%
Cd 226.502†	2756.0	0.7957	ug/L	0.66070	0.7957	ppb	0.66070	83.04%
Co 228.616†	553.4	11.306	ug/L	0.6175	11.306	ppb	0.6175	5.46%
Cr 267.716†	-484.4	0.5308	ug/L	0.22664	0.5308	ppb	0.22664	42.70%
Cu 324.752†	-6313.0	-4.0597	ug/L	0.18125	-4.0597	ppb	0.18125	4.46%
Fe 238.204 Radial†	35729.7	370690	ug/L	1331.1	370690	ppb	1331.1	0.36%

K 766.490 Radial†	-11.1	-2.1797	ug/L	16.06862	-2.1797	ppb	16.06862 737.20%
Mg 279.077 IEC†	6.9	-114.69	ug/L	49.747	-114.69	ppb	49.747 43.37%
Mn 257.610†	-27232.8	-6.9890	ug/L	0.10041	-6.9890	ppb	0.10041 1.44%
Mo 202.031†	-278.1	3.2514	ug/L	2.71969	3.2514	ppb	2.71969 83.65%
Na 589.592 Radial†	137.5	46.876	ug/L	15.3661	46.876	ppb	15.3661 32.78%
Ni 231.604†	31.5	0.9953	ug/L	0.53546	0.9953	ppb	0.53546 53.80%
P 214.914†	379.3	-82.131	ug/L	5.7127	-82.131	ppb	5.7127 6.96%
Pb 220.353†	224.6	6.4533	ug/L	0.31893	6.4533	ppb	0.31893 4.94%
S 181.975 Axial†	9.8	12.662	ug/L	5.2564	12.662	ppb	5.2564 41.51%
Sb 206.836†	-0.8	-4.9069	ug/L	3.22782	-4.9069	ppb	3.22782 65.78%
Se 196.026†	-1393.0	-23.296	ug/L	9.3990	-23.296	ppb	9.3990 40.35%
Si 251.611†	-756.9	-27.306	ug/L	1.0485	-27.306	ppb	1.0485 3.84%
Sn 189.927†	-24.9	-27.156	ug/L	0.6640	-27.156	ppb	0.6640 2.45%
Sr 421.552†	79.8	0.5801	ug/L	0.10244	0.5801	ppb	0.10244 17.66%
Ti 334.940†	30.9	0.0082	ug/L	0.11840	0.0082	ppb	0.11840 >999.9%
Tl 190.801†	-0.6	-0.6527	ug/L	1.58142	-0.6527	ppb	1.58142 242.28%
U 409.014†	2251.3	33.143	ug/L	4.5629	33.143	ppb	4.5629 13.77%
V 292.402†	6305.4	-3.9853	ug/L	0.40429	-3.9853	ppb	0.40429 10.14%
Zn 213.857†	2808.9	-24.471	ug/L	0.7475	-24.471	ppb	0.7475 3.05%
SiO2†	-851.5	-65.639	ug/L	3.7086	-65.639	ppb	3.7086 5.65%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 13:12:07
Data Type: Reprocessed on 3/1/2010 13:29:45

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	812020.3	812020.3	105.74	%			13:15:17
1	Sc Radial	4863.6	4863.6	103	%			13:13:59
1	Y 371.029	719915.3	719915.3	104.48	%			13:15:17
1	Y RADIAL	5099.8	5099.8	102.3	%			13:13:59
1	Ag 328.068†	102563.9	96740.4	500.54	ug/L	500.54	ppb	13:15:22
1	Al 396.153Radial†	5533.1	5441.6	5066.2	ug/L	5066.2	ppb	13:13:59
1	As 188.979†	1168.9	1130.5	508.20	ug/L	508.20	ppb	13:15:42
1	B 249.677†	20941.1	20257.8	504.98	ug/L	504.98	ppb	13:15:22
1	Ba 233.527†	44881.5	42442.6	502.08	ug/L	502.08	ppb	13:15:22
1	Be 313.107†	1307756.2	1245745.9	496.29	ug/L	496.29	ppb	13:15:17
1	Ca 317.933Radial†	2944.6	2827.4	5137.2	ug/L	5137.2	ppb	13:14:19
1	Cd 226.502†	37379.9	35537.3	503.67	ug/L	503.67	ppb	13:15:22
1	Co 228.616†	17841.0	16930.0	511.72	ug/L	511.72	ppb	13:15:22
1	Cr 267.716†	38994.1	36801.7	503.39	ug/L	503.39	ppb	13:15:22
1	Cu 324.752†	148770.2	133157.9	498.60	ug/L	498.60	ppb	13:15:22
1	Fe 238.204 Radial†	526.2	501.9	5222.5	ug/L	5222.5	ppb	13:14:19
1	K 766.490 Radial†	28898.2	25703.7	5110.3	ug/L	5110.3	ppb	13:13:59
1	Mg 279.077 IEC†	137.4	130.0	5163.1	ug/L	5163.1	ppb	13:14:19
1	Mn 257.610†	331243.1	312800.1	500.98	ug/L	500.98	ppb	13:15:22
1	Mo 202.031†	5719.9	5395.0	495.57	ug/L	495.57	ppb	13:15:42
1	Na 589.592 Radial†	29528.5	29423.1	10027	ug/L	10027	ppb	13:13:59
1	Ni 231.604†	16931.6	15911.1	508.32	ug/L	508.32	ppb	13:15:22
1	P 214.914†	4912.9	4450.8	2388.0	ug/L	2388.0	ppb	13:15:42
1	Pb 220.353†	3189.5	3087.0	499.62	ug/L	499.62	ppb	13:15:42
1	S 181.975 Axial†	860.8	771.6	999.46	ug/L	999.46	ppb	13:15:42
1	Sb 206.836†	1334.2	1231.7	517.47	ug/L	517.47	ppb	13:15:42
1	Se 196.026†	846.2	820.0	515.88	ug/L	515.88	ppb	13:15:42
1	Si 251.611†	72800.9	68259.6	2484.7	ug/L	2484.7	ppb	13:15:22
1	Sn 189.927†	2219.7	2091.2	493.07	ug/L	493.07	ppb	13:15:42
1	Sr 421.552†	71418.0	69113.0	502.53	ug/L	502.53	ppb	13:13:59
1	Ti 334.940†	260272.1	247444.0	498.47	ug/L	498.47	ppb	13:15:22
1	Tl 190.801†	1102.3	1073.7	496.38	ug/L	496.38	ppb	13:15:42
1	U 409.014†	13062.6	14890.3	496.89	ug/L	496.89	ppb	13:15:22
1	V 292.402†	64813.9	62923.4	507.66	ug/L	507.66	ppb	13:15:22
1	Zn 213.857†	48794.6	45435.4	496.39	ug/L	496.39	ppb	13:15:22
1	SiO2†	72942.2	68386.1	5313.9	ug/L	5313.9	ppb	13:16:49
2	Sc 361.383	813811.3	813811.3	105.97	%			13:15:47
2	Sc Radial	4865.8	4865.8	103	%			13:14:24
2	Y 371.029	720903.6	720903.6	104.63	%			13:15:47
2	Y RADIAL	5108.9	5108.9	102.5	%			13:14:24
2	Ag 328.068†	101911.1	95911.0	496.26	ug/L	496.26	ppb	13:15:53
2	Al 396.153Radial†	5473.4	5381.4	5009.9	ug/L	5009.9	ppb	13:14:24
2	As 188.979†	1160.9	1120.5	503.70	ug/L	503.70	ppb	13:16:13
2	B 249.677†	20791.7	20073.1	500.36	ug/L	500.36	ppb	13:15:53
2	Ba 233.527†	44701.5	42179.4	498.97	ug/L	498.97	ppb	13:15:53
2	Be 313.107†	1314042.1	1248955.8	497.56	ug/L	497.56	ppb	13:15:47
2	Ca 317.933Radial†	2945.2	2826.7	5135.9	ug/L	5135.9	ppb	13:14:44
2	Cd 226.502†	37205.6	35295.0	500.23	ug/L	500.23	ppb	13:15:53
2	Co 228.616†	17802.6	16856.6	509.51	ug/L	509.51	ppb	13:15:53
2	Cr 267.716†	38619.8	36367.3	497.45	ug/L	497.45	ppb	13:15:53
2	Cu 324.752†	147549.5	131696.4	493.13	ug/L	493.13	ppb	13:15:53
2	Fe 238.204 Radial†	527.6	503.0	5233.9	ug/L	5233.9	ppb	13:14:44
2	K 766.490 Radial†	28858.3	25652.7	5100.1	ug/L	5100.1	ppb	13:14:24
2	Mg 279.077 IEC†	139.3	131.9	5236.0	ug/L	5236.0	ppb	13:14:44
2	Mn 257.610†	329381.0	310353.6	497.06	ug/L	497.06	ppb	13:15:53
2	Mo 202.031†	5731.3	5393.8	495.47	ug/L	495.47	ppb	13:16:13
2	Na 589.592 Radial†	29341.6	29229.6	9961.4	ug/L	9961.4	ppb	13:14:24
2	Ni 231.604†	16871.9	15819.5	505.39	ug/L	505.39	ppb	13:15:53

2	P 214.914†	4927.2	4454.1	2390.9 ug/L	2390.9 ppb	13:16:13
2	Pb 220.353†	3211.0	3100.7	501.81 ug/L	501.81 ppb	13:16:13
2	S 181.975 Axial†	861.5	770.4	997.93 ug/L	997.93 ppb	13:16:13
2	Sb 206.836†	1348.4	1242.3	521.80 ug/L	521.80 ppb	13:16:13
2	Se 196.026†	857.7	829.2	521.51 ug/L	521.51 ppb	13:16:13
2	Si 251.611†	72316.4	67650.9	2462.5 ug/L	2462.5 ppb	13:15:53
2	Sn 189.927†	2226.1	2092.5	493.39 ug/L	493.39 ppb	13:16:13
2	Sr 421.552†	71143.7	68817.0	500.38 ug/L	500.38 ppb	13:14:24
2	Ti 334.940†	258466.2	245198.2	493.94 ug/L	493.94 ppb	13:15:53
2	Tl 190.801†	1114.1	1082.5	500.41 ug/L	500.41 ppb	13:16:13
2	U 409.014†	13006.7	14810.4	494.23 ug/L	494.23 ppb	13:15:53
2	V 292.402†	64402.0	62399.8	503.49 ug/L	503.49 ppb	13:15:53
2	Zn 213.857†	48693.6	45238.6	494.25 ug/L	494.25 ppb	13:15:53
2	SiO2†	72357.4	67682.4	5259.1 ug/L	5259.1 ppb	13:16:54
3	Sc 361.383	826056.0	826056.0	107.57 %		13:16:18
3	Sc Radial	4827.1	4827.1	103 %		13:14:50
3	Y 371.029	729803.6	729803.6	105.92 %		13:16:18
3	Y RADIAL	5073.6	5073.6	101.8 %		13:14:50
3	Ag 328.068†	102086.2	94648.2	489.74 ug/L	489.74 ppb	13:16:23
3	Al 396.153Radial†	5507.4	5457.0	5081.0 ug/L	5081.0 ppb	13:14:50
3	As 188.979†	1149.1	1093.2	491.53 ug/L	491.53 ppb	13:16:43
3	B 249.677†	20848.5	19835.2	494.43 ug/L	494.43 ppb	13:16:23
3	Ba 233.527†	44848.9	41691.2	493.19 ug/L	493.19 ppb	13:16:23
3	Be 313.107†	1328033.0	1243582.0	495.41 ug/L	495.41 ppb	13:16:18
3	Ca 317.933Radial†	2936.0	2840.5	5161.1 ug/L	5161.1 ppb	13:15:10
3	Cd 226.502†	37177.5	34748.5	492.48 ug/L	492.48 ppb	13:16:23
3	Co 228.616†	17794.4	16599.9	501.75 ug/L	501.75 ppb	13:16:23
3	Cr 267.716†	38712.8	35913.6	491.24 ug/L	491.24 ppb	13:16:23
3	Cu 324.752†	147458.5	129547.9	485.09 ug/L	485.09 ppb	13:16:23
3	Fe 238.204 Radial†	521.3	501.0	5213.0 ug/L	5213.0 ppb	13:15:10
3	K 766.490 Radial†	28625.2	25649.0	5099.4 ug/L	5099.4 ppb	13:14:50
3	Mg 279.077 IEC†	139.1	132.8	5270.6 ug/L	5270.6 ppb	13:15:10
3	Mn 257.610†	329726.2	306067.2	490.20 ug/L	490.20 ppb	13:16:23
3	Mo 202.031†	5713.1	5296.8	486.56 ug/L	486.56 ppb	13:16:43
3	Na 589.592 Radial†	29108.6	29229.8	9961.5 ug/L	9961.5 ppb	13:14:50
3	Ni 231.604†	16821.7	15536.9	496.36 ug/L	496.36 ppb	13:16:23
3	P 214.914†	4912.6	4371.6	2346.5 ug/L	2346.5 ppb	13:16:43
3	Pb 220.353†	3191.7	3037.8	491.68 ug/L	491.68 ppb	13:16:43
3	S 181.975 Axial†	857.3	754.5	977.26 ug/L	977.26 ppb	13:16:43
3	Sb 206.836†	1333.5	1209.6	508.24 ug/L	508.24 ppb	13:16:43
3	Se 196.026†	829.0	790.4	497.72 ug/L	497.72 ppb	13:16:43
3	Si 251.611†	72262.7	66589.4	2423.9 ug/L	2423.9 ppb	13:16:23
3	Sn 189.927†	2230.2	2065.2	486.97 ug/L	486.97 ppb	13:16:43
3	Sr 421.552†	70763.1	68997.1	501.69 ug/L	501.69 ppb	13:14:50
3	Ti 334.940†	258767.4	241862.9	487.23 ug/L	487.23 ppb	13:16:23
3	Tl 190.801†	1102.1	1055.8	488.10 ug/L	488.10 ppb	13:16:43
3	U 409.014†	13109.0	14723.5	491.34 ug/L	491.34 ppb	13:16:23
3	V 292.402†	64389.0	61486.9	496.10 ug/L	496.10 ppb	13:16:23
3	Zn 213.857†	48575.3	44447.5	485.59 ug/L	485.59 ppb	13:16:23
3	SiO2†	73293.1	67540.1	5248.2 ug/L	5248.2 ppb	13:16:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	817295.9	106.43	%	0.995				0.93%
Sc Radial	4852.2	103	%	0.5				0.45%
Y 371.029	723540.8	105.01	%	0.790				0.75%
Y RADIAL	5094.1	102.2	%	0.37				0.36%
Ag 328.068†	95766.5	495.51	ug/L	5.440	495.51	ppb	5.440	1.10%
QC value within limits for Ag 328.068 Recovery = 99.10%								
Al 396.153Radial†	5426.7	5052.3	ug/L	37.52	5052.3	ppb	37.52	0.74%
QC value within limits for Al 396.153Radial Recovery = 101.05%								
As 188.979†	1114.7	501.14	ug/L	8.624	501.14	ppb	8.624	1.72%
QC value within limits for As 188.979 Recovery = 100.23%								
B 249.677†	20055.4	499.92	ug/L	5.290	499.92	ppb	5.290	1.06%
QC value within limits for B 249.677 Recovery = 99.98%								
Ba 233.527†	42104.4	498.08	ug/L	4.512	498.08	ppb	4.512	0.91%
QC value within limits for Ba 233.527 Recovery = 99.62%								
Be 313.107†	1246094.6	496.42	ug/L	1.081	496.42	ppb	1.081	0.22%
QC value within limits for Be 313.107 Recovery = 99.28%								

Ca 317.933Radial†	2831.5	5144.7 ug/L	14.18	5144.7 ppb	14.18	0.28%
QC value within limits for Ca 317.933Radial Recovery = 102.89%						
Cd 226.502†	35193.6	498.79 ug/L	5.732	498.79 ppb	5.732	1.15%
QC value within limits for Cd 226.502 Recovery = 99.76%						
Co 228.616†	16795.5	507.66 ug/L	5.238	507.66 ppb	5.238	1.03%
QC value within limits for Co 228.616 Recovery = 101.53%						
Cr 267.716†	36360.8	497.36 ug/L	6.074	497.36 ppb	6.074	1.22%
QC value within limits for Cr 267.716 Recovery = 99.47%						
Cu 324.752†	131467.4	492.27 ug/L	6.798	492.27 ppb	6.798	1.38%
QC value within limits for Cu 324.752 Recovery = 98.45%						
Fe 238.204 Radial†	502.0	5223.1 ug/L	10.45	5223.1 ppb	10.45	0.20%
QC value within limits for Fe 238.204 Radial Recovery = 104.46%						
K 766.490 Radial†	25668.4	5103.3 ug/L	6.07	5103.3 ppb	6.07	0.12%
QC value within limits for K 766.490 Radial Recovery = 102.07%						
Mg 279.077 IEC†	131.6	5223.2 ug/L	54.89	5223.2 ppb	54.89	1.05%
QC value within limits for Mg 279.077 IEC Recovery = 104.46%						
Mn 257.610†	309740.3	496.08 ug/L	5.458	496.08 ppb	5.458	1.10%
QC value within limits for Mn 257.610 Recovery = 99.22%						
Mo 202.031†	5361.9	492.54 ug/L	5.172	492.54 ppb	5.172	1.05%
QC value within limits for Mo 202.031 Recovery = 98.51%						
Na 589.592 Radial†	29294.2	9983.4 ug/L	38.04	9983.4 ppb	38.04	0.38%
QC value within limits for Na 589.592 Radial Recovery = 99.83%						
Ni 231.604†	15755.8	503.36 ug/L	6.233	503.36 ppb	6.233	1.24%
QC value within limits for Ni 231.604 Recovery = 100.67%						
P 214.914†	4425.5	2375.1 ug/L	24.87	2375.1 ppb	24.87	1.05%
QC value within limits for P 214.914 Recovery = 95.01%						
Pb 220.353†	3075.2	497.71 ug/L	5.332	497.71 ppb	5.332	1.07%
QC value within limits for Pb 220.353 Recovery = 99.54%						
S 181.975 Axial†	765.5	991.55 ug/L	12.401	991.55 ppb	12.401	1.25%
QC value within limits for S 181.975 Axial Recovery = 99.15%						
Sb 206.836†	1227.9	515.84 ug/L	6.927	515.84 ppb	6.927	1.34%
QC value within limits for Sb 206.836 Recovery = 103.17%						
Se 196.026†	813.2	511.70 ug/L	12.435	511.70 ppb	12.435	2.43%
QC value within limits for Se 196.026 Recovery = 102.34%						
Si 251.611†	67500.0	2457.1 ug/L	30.78	2457.1 ppb	30.78	1.25%
QC value within limits for Si 251.611 Recovery = 98.28%						
Sn 189.927†	2083.0	491.14 ug/L	3.622	491.14 ppb	3.622	0.74%
QC value within limits for Sn 189.927 Recovery = 98.23%						
Sr 421.552†	68975.7	501.54 ug/L	1.085	501.54 ppb	1.085	0.22%
QC value within limits for Sr 421.552 Recovery = 100.31%						
Ti 334.940†	244835.0	493.21 ug/L	5.658	493.21 ppb	5.658	1.15%
QC value within limits for Ti 334.940 Recovery = 98.64%						
Tl 190.801†	1070.7	494.96 ug/L	6.277	494.96 ppb	6.277	1.27%
QC value within limits for Tl 190.801 Recovery = 98.99%						
U 409.014†	14808.0	494.15 ug/L	2.779	494.15 ppb	2.779	0.56%
QC value within limits for U 409.014 Recovery = 98.83%						
V 292.402†	62270.0	502.42 ug/L	5.853	502.42 ppb	5.853	1.16%
QC value within limits for V 292.402 Recovery = 100.48%						
Zn 213.857†	45040.5	492.08 ug/L	5.717	492.08 ppb	5.717	1.16%
QC value within limits for Zn 213.857 Recovery = 98.42%						
SiO2†	67869.5	5273.7 ug/L	35.20	5273.7 ppb	35.20	0.67%
QC value within limits for SiO2 Recovery = 98.62%						

All analyte(s) passed QC.

Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 13:19:10
Data Type: Reprocessed on 3/1/2010 13:29:46

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	810277.2	810277.2	105.51	%			13:22:19
1	Sc Radial	4862.4	4862.4	103	%			13:21:02
1	Y 371.029	730937.1	730937.1	106.08	%			13:22:19
1	Y RADIAL	5156.5	5156.5	103.4	%			13:21:02
1	Ag 328.068†	194.7	-71.2	-0.3643	ug/L	-0.3643	ppb	13:22:19
1	Al 396.153Radial†	-78.9	10.7	10.042	ug/L	10.042	ppb	13:21:22
1	As 188.979†	-31.1	-4.4	-1.9674	ug/L	-1.9674	ppb	13:22:39
1	B 249.677†	-33.5	421.7	10.556	ug/L	10.556	ppb	13:22:39
1	Ba 233.527†	19.4	16.0	0.1900	ug/L	0.1900	ppb	13:22:39
1	Be 313.107†	-9262.9	203.7	0.0817	ug/L	0.0817	ppb	13:22:19
1	Ca 317.933Radial†	30.9	7.7	14.063	ug/L	14.063	ppb	13:21:22
1	Cd 226.502†	-192.9	3.8	0.0532	ug/L	0.0532	ppb	13:22:39
1	Co 228.616†	-58.1	2.4	0.0721	ug/L	0.0721	ppb	13:22:39
1	Cr 267.716†	90.6	10.2	0.1388	ug/L	0.1388	ppb	13:22:39
1	Cu 324.752†	7847.5	-98.7	-0.3715	ug/L	-0.3715	ppb	13:22:19
1	Fe 238.204 Radial†	9.1	1.5	15.345	ug/L	15.345	ppb	13:21:22
1	K 766.490 Radial†	2382.5	44.6	8.8454	ug/L	8.8454	ppb	13:21:02
1	Mg 279.077 IEC†	1.1	-1.8	-71.376	ug/L	-71.376	ppb	13:21:22
1	Mn 257.610†	447.3	-37.2	-0.0552	ug/L	-0.0552	ppb	13:22:39
1	Mo 202.031†	14.0	-1.1	-0.1034	ug/L	-0.1034	ppb	13:22:39
1	Na 589.592 Radial†	-714.9	155.8	53.086	ug/L	53.086	ppb	13:21:02
1	Ni 231.604†	110.2	3.1	0.0990	ug/L	0.0990	ppb	13:22:39
1	P 214.914†	213.8	7.3	4.1503	ug/L	4.1503	ppb	13:22:39
1	Pb 220.353†	-61.1	12.8	2.0625	ug/L	2.0625	ppb	13:22:39
1	S 181.975 Axial†	46.4	1.5	1.9452	ug/L	1.9452	ppb	13:22:39
1	Sb 206.836†	43.0	10.8	4.3950	ug/L	4.3950	ppb	13:22:39
1	Se 196.026†	-8.9	11.4	7.0057	ug/L	7.0057	ppb	13:22:39
1	Si 251.611†	629.3	7.2	0.2636	ug/L	0.2636	ppb	13:22:39
1	Sn 189.927†	17.3	8.3	1.9670	ug/L	1.9670	ppb	13:22:39
1	Sr 421.552†	13.0	13.1	0.0952	ug/L	0.0952	ppb	13:21:02
1	Ti 334.940†	-1209.9	154.3	0.3165	ug/L	0.3165	ppb	13:22:19
1	Tl 190.801†	-30.7	2.1	0.9794	ug/L	0.9794	ppb	13:22:39
1	U 409.014†	-2521.8	146.8	4.9130	ug/L	4.9130	ppb	13:22:19
1	V 292.402†	-1680.2	35.6	0.2874	ug/L	0.2874	ppb	13:22:19
1	Zn 213.857†	772.4	21.7	0.2371	ug/L	0.2371	ppb	13:22:39
1	SiO2†	612.1	-16.4	-1.2714	ug/L	-1.2714	ppb	13:23:35
2	Sc 361.383	814797.3	814797.3	106.10	%			13:22:44
2	Sc Radial	4967.9	4967.9	106	%			13:21:27
2	Y 371.029	734106.6	734106.6	106.54	%			13:22:44
2	Y RADIAL	5264.3	5264.3	105.6	%			13:21:27
2	Ag 328.068†	194.8	-72.1	-0.3747	ug/L	-0.3747	ppb	13:22:44
2	Al 396.153Radial†	-71.0	19.8	18.547	ug/L	18.547	ppb	13:21:47
2	As 188.979†	-24.6	1.8	0.8228	ug/L	0.8228	ppb	13:23:04
2	B 249.677†	-28.9	426.2	10.672	ug/L	10.672	ppb	13:23:04
2	Ba 233.527†	11.2	8.2	0.0978	ug/L	0.0978	ppb	13:23:04
2	Be 313.107†	-9362.0	159.0	0.0638	ug/L	0.0638	ppb	13:22:44
2	Ca 317.933Radial†	31.1	7.3	13.318	ug/L	13.318	ppb	13:21:47
2	Cd 226.502†	-197.0	1.0	0.0144	ug/L	0.0144	ppb	13:23:04
2	Co 228.616†	-63.8	-2.6	-0.0812	ug/L	-0.0812	ppb	13:23:04
2	Cr 267.716†	77.9	-2.2	-0.0331	ug/L	-0.0331	ppb	13:23:04
2	Cu 324.752†	7860.4	-127.7	-0.4832	ug/L	-0.4832	ppb	13:22:44
2	Fe 238.204 Radial†	8.4	0.7	6.9292	ug/L	6.9292	ppb	13:21:47
2	K 766.490 Radial†	2417.9	29.1	5.7731	ug/L	5.7731	ppb	13:21:27
2	Mg 279.077 IEC†	-0.8	-3.6	-143.72	ug/L	-143.72	ppb	13:21:47
2	Mn 257.610†	433.3	-52.7	-0.0779	ug/L	-0.0779	ppb	13:23:04
2	Mo 202.031†	11.6	-3.5	-0.3167	ug/L	-0.3167	ppb	13:23:04
2	Na 589.592 Radial†	-699.1	185.5	63.207	ug/L	63.207	ppb	13:21:27
2	Ni 231.604†	93.7	-13.0	-0.4163	ug/L	-0.4163	ppb	13:23:04

2	P 214.914†	196.5	-10.1	-5.5656	ug/L	-5.5656 ppb	13:23:04
2	Pb 220.353†	-51.9	21.7	3.5099	ug/L	3.5099 ppb	13:23:04
2	S 181.975 Axial†	42.6	-2.4	-3.1100	ug/L	-3.1100 ppb	13:23:04
2	Sb 206.836†	39.3	7.0	2.8282	ug/L	2.8282 ppb	13:23:04
2	Se 196.026†	-24.6	-3.3	-2.0299	ug/L	-2.0299 ppb	13:23:04
2	Si 251.611†	618.5	-6.2	-0.2238	ug/L	-0.2238 ppb	13:23:04
2	Sn 189.927†	10.0	1.4	0.3266	ug/L	0.3266 ppb	13:23:04
2	Sr 421.552†	51.0	48.8	0.3546	ug/L	0.3546 ppb	13:21:27
2	Ti 334.940†	-1237.5	134.7	0.2809	ug/L	0.2809 ppb	13:22:44
2	Tl 190.801†	-38.4	-5.0	-2.3044	ug/L	-2.3044 ppb	13:23:04
2	U 409.014†	-2390.9	283.4	9.4882	ug/L	9.4882 ppb	13:22:44
2	V 292.402†	-1673.9	50.4	0.4107	ug/L	0.4107 ppb	13:22:44
2	Zn 213.857†	760.3	6.3	0.0721	ug/L	0.0721 ppb	13:23:04
2	SiO2†	610.5	-21.1	-1.6327	ug/L	-1.6327 ppb	13:23:40
3	Sc 361.383	804933.5	804933.5	104.82	%		13:23:09
3	Sc Radial	4961.0	4961.0	105	%		13:21:52
3	Y 371.029	724081.2	724081.2	105.09	%		13:23:09
3	Y RADIAL	5272.6	5272.6	105.8	%		13:21:52
3	Ag 328.068†	244.9	-22.0	-0.1231	ug/L	-0.1231 ppb	13:23:09
3	Al 396.153Radial†	-83.4	8.0	7.4930	ug/L	7.4930 ppb	13:22:12
3	As 188.979†	-29.4	-3.0	-1.3442	ug/L	-1.3442 ppb	13:23:30
3	B 249.677†	-52.9	402.9	10.093	ug/L	10.093 ppb	13:23:30
3	Ba 233.527†	12.4	9.5	0.1119	ug/L	0.1119 ppb	13:23:30
3	Be 313.107†	-9348.5	63.8	0.0257	ug/L	0.0257 ppb	13:23:09
3	Ca 317.933Radial†	31.8	8.0	14.549	ug/L	14.549 ppb	13:22:12
3	Cd 226.502†	-197.9	-2.2	-0.0285	ug/L	-0.0285 ppb	13:23:30
3	Co 228.616†	-68.1	-7.5	-0.2254	ug/L	-0.2254 ppb	13:23:30
3	Cr 267.716†	77.6	-1.5	-0.0245	ug/L	-0.0245 ppb	13:23:30
3	Cu 324.752†	7766.6	-126.5	-0.4791	ug/L	-0.4791 ppb	13:23:09
3	Fe 238.204 Radial†	6.5	-1.1	-11.602	ug/L	-11.602 ppb	13:22:12
3	K 766.490 Radial†	2405.0	20.1	3.9680	ug/L	3.9680 ppb	13:21:52
3	Mg 279.077 IEC†	2.7	-0.3	-12.789	ug/L	-12.789 ppb	13:22:12
3	Mn 257.610†	432.0	-49.0	-0.0790	ug/L	-0.0790 ppb	13:23:30
3	Mo 202.031†	15.7	0.6	0.0514	ug/L	0.0514 ppb	13:23:30
3	Na 589.592 Radial†	-721.3	163.5	55.725	ug/L	55.725 ppb	13:21:52
3	Ni 231.604†	95.3	-10.4	-0.3321	ug/L	-0.3321 ppb	13:23:30
3	P 214.914†	208.0	3.0	1.7986	ug/L	1.7986 ppb	13:23:30
3	Pb 220.353†	-60.9	12.6	2.0348	ug/L	2.0348 ppb	13:23:30
3	S 181.975 Axial†	41.6	-2.8	-3.6233	ug/L	-3.6233 ppb	13:23:30
3	Sb 206.836†	44.5	12.4	5.0231	ug/L	5.0231 ppb	13:23:30
3	Se 196.026†	-11.6	8.7	5.3236	ug/L	5.3236 ppb	13:23:30
3	Si 251.611†	598.2	-18.6	-0.6777	ug/L	-0.6777 ppb	13:23:30
3	Sn 189.927†	8.3	-0.2	-0.0374	ug/L	-0.0374 ppb	13:23:30
3	Sr 421.552†	20.2	19.7	0.1430	ug/L	0.1430 ppb	13:21:52
3	Ti 334.940†	-1280.3	79.6	0.1595	ug/L	0.1595 ppb	13:23:09
3	Tl 190.801†	-29.6	3.0	1.3776	ug/L	1.3776 ppb	13:23:30
3	U 409.014†	-2382.8	263.5	8.8255	ug/L	8.8255 ppb	13:23:09
3	V 292.402†	-1669.3	35.4	0.3009	ug/L	0.3009 ppb	13:23:09
3	Zn 213.857†	752.1	7.3	0.0847	ug/L	0.0847 ppb	13:23:30
3	SiO2†	638.4	12.6	0.9782	ug/L	0.9782 ppb	13:23:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	810002.7	105.48	%	0.643				0.61%
Sc Radial	4930.4	105	%	1.3				1.20%
Y 371.029	729708.3	105.90	%	0.744				0.70%
Y RADIAL	5231.1	104.9	%	1.30				1.24%
Ag 328.068†	-55.1	-0.2874	ug/L	0.14233	-0.2874	ppb	0.14233	49.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.9	12.027	ug/L	5.7882	12.027	ppb	5.7882	48.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.8296	ug/L	1.46457	-0.8296	ppb	1.46457	176.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	416.9	10.440	ug/L	0.3065	10.440	ppb	0.3065	2.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.2	0.1333	ug/L	0.04967	0.1333	ppb	0.04967	37.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	142.2	0.0571	ug/L	0.02859	0.0571	ppb	0.02859	50.09%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          7.7      13.977 ug/L        0.6201      13.977 ppb        0.6201   4.44%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.8       0.0131 ug/L       0.04087      0.0131 ppb       0.04087 313.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -2.6      -0.0782 ug/L       0.14876     -0.0782 ppb       0.14876 190.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.2       0.0270 ug/L       0.09684      0.0270 ppb       0.09684 357.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -117.6      -0.4446 ug/L       0.06337     -0.4446 ppb       0.06337  14.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.3       3.5571 ug/L      13.78636      3.5571 ppb      13.78636 387.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         31.3       6.1955 ug/L       2.46600      6.1955 ppb       2.46600  39.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.9     -75.961 ug/L       65.5845     -75.961 ppb       65.5845  86.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -46.3      -0.0707 ug/L       0.01345     -0.0707 ppb       0.01345  19.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.3      -0.1229 ug/L       0.18481     -0.1229 ppb       0.18481 150.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       168.3      57.340 ug/L        5.2500      57.340 ppb        5.2500   9.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -6.8      -0.2165 ug/L       0.27642     -0.2165 ppb       0.27642 127.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.1       0.1278 ug/L       5.06885      0.1278 ppb       5.06885 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               15.7       2.5357 ug/L       0.84374      2.5357 ppb       0.84374  33.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2      -1.5960 ug/L       3.07750     -1.5960 ppb       3.07750 192.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               10.0       4.0821 ug/L       1.13043      4.0821 ppb       1.13043  27.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.6       3.4331 ug/L       4.80533      3.4331 ppb       4.80533 139.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -5.9      -0.2126 ug/L       0.47075     -0.2126 ppb       0.47075 221.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.2       0.7521 ug/L       1.06777      0.7521 ppb       1.06777 141.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               27.2       0.1976 ug/L       0.13806      0.1976 ppb       0.13806  69.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              122.9       0.2523 ug/L       0.08231      0.2523 ppb       0.08231  32.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.0       0.0175 ug/L       2.02068      0.0175 ppb       2.02068 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               231.2       7.7422 ug/L       2.47252      7.7422 ppb       2.47252  31.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                40.5       0.3330 ug/L       0.06763      0.3330 ppb       0.06763  20.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               11.8       0.1313 ug/L       0.09183      0.1313 ppb       0.09183  69.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -8.3      -0.6420 ug/L       1.41470     -0.6420 ppb       1.41470 220.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 3/1/2010 13:31:00
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601
Plasma On Time: 3/1/2010 06:57:40
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030110.sif
Batch ID:
Results Data Set: 030110A
Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 1
Sample ID: 1202032590|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:
Autosampler Location: 38
Date Collected: 3/1/2010 13:31:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032590|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5017.9	5017.9	107	%			13:32:55
1	Y RADIAL	5296.7	5296.7	106.2	%			13:32:55
1	Al 396.153Radial†	-38.5	51.0	47.715	ug/L	47.715	ppb	13:33:15
1	Ca 317.933Radial†	42.7	17.9	32.496	ug/L	32.496	ppb	13:33:15
1	Fe 238.204 Radial†	11.7	3.7	38.332	ug/L	38.332	ppb	13:33:15
1	K 766.490 Radial†	2463.0	48.6	9.6286	ug/L	9.6286	ppb	13:32:55
1	Mg 279.077 IEC†	3.5	0.4	16.759	ug/L	16.759	ppb	13:33:15
1	Na 589.592 Radial†	-680.7	209.4	71.350	ug/L	71.350	ppb	13:32:55
1	Sr 421.552†	84.7	79.9	0.5809	ug/L	0.5809	ppb	13:32:55
1	Sc 361.383	833825.8	833825.8	108.58	%			13:34:12
1	Y 371.029	745030.2	745030.2	108.13	%			13:34:12
1	Ag 328.068†	268.4	-8.4	-0.0313	ug/L	-0.0313	ppb	13:34:17
1	As 188.979†	-22.2	4.5	2.0439	ug/L	2.0439	ppb	13:34:37
1	B 249.677†	-176.6	290.8	7.2752	ug/L	7.2752	ppb	13:34:37
1	Ba 233.527†	49.0	42.7	0.5083	ug/L	0.5083	ppb	13:34:37
1	Be 313.107†	-9090.0	610.9	0.2455	ug/L	0.2455	ppb	13:34:17
1	Cd 226.502†	-191.7	10.1	0.1401	ug/L	0.1401	ppb	13:34:37
1	Co 228.616†	-53.9	7.9	0.2333	ug/L	0.2333	ppb	13:34:37
1	Cr 267.716†	142.9	56.0	0.7652	ug/L	0.7652	ppb	13:34:37
1	Cu 324.752†	7874.0	-284.4	-1.0663	ug/L	-1.0663	ppb	13:34:17
1	Mn 257.610†	1052.2	508.0	0.8161	ug/L	0.8161	ppb	13:34:37
1	Mo 202.031†	9.6	-5.5	-0.5034	ug/L	-0.5034	ppb	13:34:37
1	Ni 231.604†	96.7	-12.2	-0.3916	ug/L	-0.3916	ppb	13:34:37
1	P 214.914†	214.2	1.9	1.2803	ug/L	1.2803	ppb	13:34:37
1	Pb 220.353†	-46.3	28.1	4.5352	ug/L	4.5352	ppb	13:34:37
1	S 181.975 Axial†	52.1	5.4	7.0525	ug/L	7.0525	ppb	13:34:37
1	Sb 206.836†	39.5	6.4	2.6079	ug/L	2.6079	ppb	13:34:37
1	Se 196.026†	-20.4	1.0	0.7090	ug/L	0.7090	ppb	13:34:37
1	Si 251.611†	1678.7	956.9	34.923	ug/L	34.923	ppb	13:34:37
1	Sn 189.927†	21.2	11.5	2.7028	ug/L	2.7028	ppb	13:34:37
1	Ti 334.940†	-791.2	572.3	1.1532	ug/L	1.1532	ppb	13:34:17
1	Tl 190.801†	-36.3	-2.2	-1.0235	ug/L	-1.0235	ppb	13:34:37
1	U 409.014†	-2547.2	190.9	6.3869	ug/L	6.3869	ppb	13:34:12
1	V 292.402†	-1565.7	186.0	1.4794	ug/L	1.4794	ppb	13:34:17
1	Zn 213.857†	945.7	160.7	1.7699	ug/L	1.7699	ppb	13:34:37
1	SiO2†	1701.6	970.7	75.636	ug/L	75.636	ppb	13:35:43
2	Sc Radial	5009.0	5009.0	106	%			13:33:20
2	Y RADIAL	5297.1	5297.1	106.3	%			13:33:20
2	Al 396.153Radial†	-48.1	42.0	39.244	ug/L	39.244	ppb	13:33:40
2	Ca 317.933Radial†	40.8	16.2	29.370	ug/L	29.370	ppb	13:33:40
2	Fe 238.204 Radial†	11.4	3.4	35.634	ug/L	35.634	ppb	13:33:40
2	K 766.490 Radial†	2612.2	192.8	38.348	ug/L	38.348	ppb	13:33:20
2	Mg 279.077 IEC†	-0.3	-3.1	-125.03	ug/L	-125.03	ppb	13:33:40
2	Na 589.592 Radial†	-658.0	229.5	78.218	ug/L	78.218	ppb	13:33:20
2	Sr 421.552†	69.9	66.2	0.4810	ug/L	0.4810	ppb	13:33:20
2	Sc 361.383	835954.5	835954.5	108.86	%			13:34:42
2	Y 371.029	746469.9	746469.9	108.34	%			13:34:42

2	Ag 328.068†	281.6	3.0	0.0220 ug/L	0.0220 ppb	13:34:48
2	As 188.979†	-2.1	23.1	10.299 ug/L	10.299 ppb	13:35:08
2	B 249.677†	-239.2	233.7	5.8468 ug/L	5.8468 ppb	13:35:08
2	Ba 233.527†	61.4	54.0	0.6413 ug/L	0.6413 ppb	13:35:08
2	Be 313.107†	-9174.3	554.8	0.2233 ug/L	0.2233 ppb	13:34:48
2	Cd 226.502†	-188.8	13.2	0.1859 ug/L	0.1859 ppb	13:35:08
2	Co 228.616†	-71.0	-7.8	-0.2376 ug/L	-0.2376 ppb	13:35:08
2	Cr 267.716†	125.6	39.8	0.5412 ug/L	0.5412 ppb	13:35:08
2	Cu 324.752†	7798.5	-372.2	-1.3976 ug/L	-1.3976 ppb	13:34:48
2	Mn 257.610†	1044.0	497.9	0.8056 ug/L	0.8056 ppb	13:35:08
2	Mo 202.031†	17.6	1.8	0.1644 ug/L	0.1644 ppb	13:35:08
2	Ni 231.604†	117.7	6.8	0.2180 ug/L	0.2180 ppb	13:35:08
2	P 214.914†	205.3	-6.8	-3.5068 ug/L	-3.5068 ppb	13:35:08
2	Pb 220.353†	-51.1	23.8	3.8437 ug/L	3.8437 ppb	13:35:08
2	S 181.975 Axial†	48.6	2.1	2.7644 ug/L	2.7644 ppb	13:35:08
2	Sb 206.836†	39.8	6.5	2.6855 ug/L	2.6855 ppb	13:35:08
2	Se 196.026†	-13.8	7.1	4.4454 ug/L	4.4454 ppb	13:35:08
2	Si 251.611†	1672.9	947.5	34.574 ug/L	34.574 ppb	13:35:08
2	Sn 189.927†	24.1	14.1	3.3244 ug/L	3.3244 ppb	13:35:08
2	Ti 334.940†	-744.0	617.6	1.2537 ug/L	1.2537 ppb	13:34:48
2	Tl 190.801†	-32.5	1.4	0.6457 ug/L	0.6457 ppb	13:35:08
2	U 409.014†	-2416.3	317.1	10.614 ug/L	10.614 ppb	13:34:42
2	V 292.402†	-1619.5	140.2	1.1302 ug/L	1.1302 ppb	13:34:48
2	Zn 213.857†	929.9	143.9	1.5824 ug/L	1.5824 ppb	13:35:08
2	SiO2†	1722.7	986.1	76.816 ug/L	76.816 ppb	13:35:48
3	Sc Radial	5025.3	5025.3	107 %		13:33:45
3	Y RADIAL	5290.6	5290.6	106.1 %		13:33:45
3	Al 396.153Radial†	-40.3	49.4	46.222 ug/L	46.222 ppb	13:34:05
3	Ca 317.933Radial†	43.3	18.4	33.434 ug/L	33.434 ppb	13:34:05
3	Fe 238.204 Radial†	10.1	2.2	22.548 ug/L	22.548 ppb	13:34:05
3	K 766.490 Radial†	2451.8	34.7	6.8694 ug/L	6.8694 ppb	13:33:45
3	Mg 279.077 IEC†	1.5	-1.5	-60.486 ug/L	-60.486 ppb	13:34:05
3	Na 589.592 Radial†	-712.9	180.1	61.382 ug/L	61.382 ppb	13:33:45
3	Sr 421.552†	58.0	54.8	0.3983 ug/L	0.3983 ppb	13:33:45
3	Sc 361.383	829731.2	829731.2	108.05 %		13:35:13
3	Y 371.029	740352.2	740352.2	107.45 %		13:35:13
3	Ag 328.068†	298.7	20.8	0.1067 ug/L	0.1067 ppb	13:35:18
3	As 188.979†	-20.2	6.3	2.8451 ug/L	2.8451 ppb	13:35:38
3	B 249.677†	-204.8	263.9	6.6060 ug/L	6.6060 ppb	13:35:38
3	Ba 233.527†	66.7	59.3	0.7026 ug/L	0.7026 ppb	13:35:38
3	Be 313.107†	-9222.2	447.2	0.1804 ug/L	0.1804 ppb	13:35:18
3	Cd 226.502†	-181.1	19.0	0.2701 ug/L	0.2701 ppb	13:35:38
3	Co 228.616†	-77.2	-14.0	-0.4260 ug/L	-0.4260 ppb	13:35:38
3	Cr 267.716†	127.1	42.0	0.5702 ug/L	0.5702 ppb	13:35:38
3	Cu 324.752†	7839.9	-280.1	-1.0544 ug/L	-1.0544 ppb	13:35:18
3	Mn 257.610†	1014.9	478.2	0.7701 ug/L	0.7701 ppb	13:35:38
3	Mo 202.031†	15.0	-0.5	-0.0443 ug/L	-0.0443 ppb	13:35:38
3	Ni 231.604†	125.1	14.5	0.4623 ug/L	0.4623 ppb	13:35:38
3	P 214.914†	211.2	0.1	0.2759 ug/L	0.2759 ppb	13:35:38
3	Pb 220.353†	-36.8	36.7	5.9209 ug/L	5.9209 ppb	13:35:38
3	S 181.975 Axial†	52.1	5.7	7.3506 ug/L	7.3506 ppb	13:35:38
3	Sb 206.836†	42.8	9.6	3.9427 ug/L	3.9427 ppb	13:35:38
3	Se 196.026†	-14.5	6.4	3.9849 ug/L	3.9849 ppb	13:35:38
3	Si 251.611†	1657.7	945.0	34.484 ug/L	34.484 ppb	13:35:38
3	Sn 189.927†	26.3	16.2	3.8294 ug/L	3.8294 ppb	13:35:38
3	Ti 334.940†	-789.8	570.0	1.1525 ug/L	1.1525 ppb	13:35:18
3	Tl 190.801†	-37.6	-3.5	-1.6115 ug/L	-1.6115 ppb	13:35:38
3	U 409.014†	-2346.7	364.9	12.214 ug/L	12.214 ppb	13:35:13
3	V 292.402†	-1651.7	99.3	0.8075 ug/L	0.8075 ppb	13:35:18
3	Zn 213.857†	924.2	145.0	1.5947 ug/L	1.5947 ppb	13:35:38
3	SiO2†	1723.5	998.7	77.801 ug/L	77.801 ppb	13:35:53

Mean Data: 1202032590|948756|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	833170.5	108.49	%	0.412				0.38%
Sc Radial	5017.4	107	%	0.2				0.16%
Y 371.029	743950.8	107.97	%	0.464				0.43%
Y RADIAL	5294.8	106.2	%	0.07				0.07%
Ag 328.068†	5.1	0.0325	ug/L	0.06962	0.0325	ppb	0.06962	214.45%

Al 396.153Radial†	47.5	44.394	ug/L	4.5218	44.394	ppb	4.5218	10.19%
As 188.979†	11.3	5.0625	ug/L	4.55223	5.0625	ppb	4.55223	89.92%
B 249.677†	262.8	6.5760	ug/L	0.71467	6.5760	ppb	0.71467	10.87%
Ba 233.527†	52.0	0.6174	ug/L	0.09934	0.6174	ppb	0.09934	16.09%
Be 313.107†	537.6	0.2164	ug/L	0.03309	0.2164	ppb	0.03309	15.29%
Ca 317.933Radial†	17.5	31.767	ug/L	2.1281	31.767	ppb	2.1281	6.70%
Cd 226.502†	14.1	0.1987	ug/L	0.06593	0.1987	ppb	0.06593	33.18%
Co 228.616†	-4.6	-0.1434	ug/L	0.33963	-0.1434	ppb	0.33963	236.78%
Cr 267.716†	45.9	0.6255	ug/L	0.12184	0.6255	ppb	0.12184	19.48%
Cu 324.752†	-312.2	-1.1728	ug/L	0.19482	-1.1728	ppb	0.19482	16.61%
Fe 238.204 Radial†	3.1	32.171	ug/L	8.4422	32.171	ppb	8.4422	26.24%
K 766.490 Radial†	92.0	18.282	ug/L	17.4326	18.282	ppb	17.4326	95.35%
Mg 279.077 IEC†	-1.4	-56.253	ug/L	70.9899	-56.253	ppb	70.9899	126.20%
Mn 257.610†	494.7	0.7973	ug/L	0.02410	0.7973	ppb	0.02410	3.02%
Mo 202.031†	-1.4	-0.1278	ug/L	0.34164	-0.1278	ppb	0.34164	267.39%
Na 589.592 Radial†	206.3	70.317	ug/L	8.4651	70.317	ppb	8.4651	12.04%
Ni 231.604†	3.0	0.0962	ug/L	0.43978	0.0962	ppb	0.43978	457.01%
P 214.914†	-1.6	-0.6502	ug/L	2.52435	-0.6502	ppb	2.52435	388.24%
Pb 220.353†	29.5	4.7666	ug/L	1.05775	4.7666	ppb	1.05775	22.19%
S 181.975 Axial†	4.4	5.7225	ug/L	2.56612	5.7225	ppb	2.56612	44.84%
Sb 206.836†	7.5	3.0787	ug/L	0.74924	3.0787	ppb	0.74924	24.34%
Se 196.026†	4.9	3.0464	ug/L	2.03734	3.0464	ppb	2.03734	66.88%
Si 251.611†	949.8	34.661	ug/L	0.2321	34.661	ppb	0.2321	0.67%
Sn 189.927†	13.9	3.2855	ug/L	0.56434	3.2855	ppb	0.56434	17.18%
Sr 421.552†	67.0	0.4868	ug/L	0.09144	0.4868	ppb	0.09144	18.78%
Ti 334.940†	586.6	1.1865	ug/L	0.05827	1.1865	ppb	0.05827	4.91%
Tl 190.801†	-1.5	-0.6631	ug/L	1.17096	-0.6631	ppb	1.17096	176.59%
U 409.014†	291.0	9.7385	ug/L	3.01083	9.7385	ppb	3.01083	30.92%
V 292.402†	141.8	1.1390	ug/L	0.33605	1.1390	ppb	0.33605	29.50%
Zn 213.857†	149.9	1.6490	ug/L	0.10489	1.6490	ppb	0.10489	6.36%
SiO2†	985.2	76.751	ug/L	1.0838	76.751	ppb	1.0838	1.41%

Sequence No.: 3
Sample ID: 245969003|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 3/1/2010 13:45:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969003|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5176.1	5176.1	110	%			13:46:58
1	Y RADIAL	6055.3	6055.3	121.5	%			13:46:58
1	Al 396.153Radial†	51262.1	46699.9	43684	ug/L	43684	ppb	13:46:58
1	Ca 317.933Radial†	17022.2	15456.1	28083	ug/L	28083	ppb	13:46:58
1	Fe 238.204 Radial†	8940.2	8122.0	84266	ug/L	84266	ppb	13:46:58
1	K 766.490 Radial†	35448.9	29972.1	5955.1	ug/L	5955.1	ppb	13:46:58
1	Mg 279.077 IEC†	272.9	245.3	9651.1	ug/L	9651.1	ppb	13:47:18
1	Na 589.592 Radial†	7250.8	7440.9	2535.9	ug/L	2535.9	ppb	13:46:58
1	Sr 421.552†	23681.6	21534.2	156.38	ug/L	156.38	ppb	13:46:58
1	Sc 361.383	845401.7	845401.7	110.09	%			13:48:16
1	Y 371.029	835229.3	835229.3	121.22	%			13:48:16
1	Ag 328.068†	-4899.6	-4706.3	1.8407	ug/L	1.8407	ppb	13:48:21
1	As 188.979†	-18.9	7.8	34.837	ug/L	34.837	ppb	13:48:41
1	B 249.677†	824.1	1202.0	16.301	ug/L	16.301	ppb	13:48:21
1	Ba 233.527†	41919.0	38075.6	452.05	ug/L	452.05	ppb	13:48:21
1	Be 313.107†	-4062.5	5292.4	5.1478	ug/L	5.1478	ppb	13:48:21
1	Cd 226.502†	510.8	650.7	0.5656	ug/L	0.5656	ppb	13:48:41
1	Co 228.616†	1412.3	1340.3	36.597	ug/L	36.597	ppb	13:48:41
1	Cr 267.716†	19178.1	17345.3	238.79	ug/L	238.79	ppb	13:48:21
1	Cu 324.752†	29626.3	19375.5	77.114	ug/L	77.114	ppb	13:48:21
1	Mn 257.610†	1519324.9	1379650.5	2216.2	ug/L	2216.2	ppb	13:48:16
1	Mo 202.031†	36.6	18.9	8.6092	ug/L	8.6092	ppb	13:48:41
1	Ni 231.604†	4559.7	4040.5	129.14	ug/L	129.14	ppb	13:48:41
1	P 214.914†	679.8	422.2	164.12	ug/L	164.12	ppb	13:48:41
1	Pb 220.353†	461.8	490.2	83.281	ug/L	83.281	ppb	13:48:41
1	S 181.975 Axial†	226.4	163.1	203.29	ug/L	203.29	ppb	13:48:41
1	Sb 206.836†	63.0	27.2	4.4995	ug/L	4.4995	ppb	13:48:41
1	Se 196.026†	-339.4	-288.5	16.152	ug/L	16.152	ppb	13:48:41
1	Si 251.611†	1278179.8	1160473.0	42346	ug/L	42346	ppb	13:48:16
1	Sn 189.927†	-107.7	-106.0	-24.799	ug/L	-24.799	ppb	13:48:41
1	Ti 334.940†	731127.2	665436.2	1343.8	ug/L	1343.8	ppb	13:48:16
1	Tl 190.801†	-105.1	-64.3	-8.1732	ug/L	-8.1732	ppb	13:48:41
1	U 409.014†	-8935.0	-5579.5	-196.97	ug/L	-196.97	ppb	13:48:16
1	V 292.402†	10733.8	11378.3	76.684	ug/L	76.684	ppb	13:48:21
1	Zn 213.857†	41265.9	36774.5	392.04	ug/L	392.04	ppb	13:48:21
1	SiO2†	1279230.4	1161420.2	90476	ug/L	90476	ppb	13:49:49
2	Sc Radial	5100.3	5100.3	108	%			13:47:23
2	Y RADIAL	5975.9	5975.9	119.9	%			13:47:23
2	Al 396.153Radial†	50406.6	46603.5	43594	ug/L	43594	ppb	13:47:23
2	Ca 317.933Radial†	16772.5	15455.9	28082	ug/L	28082	ppb	13:47:23
2	Fe 238.204 Radial†	8828.1	8139.5	84448	ug/L	84448	ppb	13:47:23
2	K 766.490 Radial†	34992.6	30030.3	5966.7	ug/L	5966.7	ppb	13:47:23
2	Mg 279.077 IEC†	275.3	251.1	9882.3	ug/L	9882.3	ppb	13:47:43
2	Na 589.592 Radial†	6934.9	7247.5	2469.9	ug/L	2469.9	ppb	13:47:23
2	Sr 421.552†	23231.7	21439.3	155.69	ug/L	155.69	ppb	13:47:23
2	Sc 361.383	849296.7	849296.7	110.59	%			13:48:47
2	Y 371.029	838461.5	838461.5	121.69	%			13:48:47
2	Ag 328.068†	-4774.5	-4572.8	2.5805	ug/L	2.5805	ppb	13:48:52
2	As 188.979†	1.6	26.5	43.160	ug/L	43.160	ppb	13:49:12
2	B 249.677†	851.2	1223.1	16.799	ug/L	16.799	ppb	13:48:52
2	Ba 233.527†	41389.6	37422.3	444.35	ug/L	444.35	ppb	13:48:52
2	Be 313.107†	-4032.9	5336.1	5.1550	ug/L	5.1550	ppb	13:48:52
2	Cd 226.502†	492.2	631.7	0.2785	ug/L	0.2785	ppb	13:49:12
2	Co 228.616†	1424.2	1345.2	36.749	ug/L	36.749	ppb	13:49:12
2	Cr 267.716†	18870.3	16987.0	233.90	ug/L	233.90	ppb	13:48:52
2	Cu 324.752†	29213.9	18879.2	75.267	ug/L	75.267	ppb	13:48:52
2	Mn 257.610†	1519294.9	1373294.0	2206.1	ug/L	2206.1	ppb	13:48:47
2	Mo 202.031†	27.0	10.1	7.8124	ug/L	7.8124	ppb	13:49:12
2	Ni 231.604†	4626.2	4081.7	130.45	ug/L	130.45	ppb	13:49:12

2	P 214.914†	682.8	422.0	164.24	ug/L	164.24 ppb	13:49:12
2	Pb 220.353†	472.4	497.9	84.478	ug/L	84.478 ppb	13:49:12
2	S 181.975 Axial†	232.9	168.1	209.73	ug/L	209.73 ppb	13:49:12
2	Sb 206.836†	51.9	16.9	0.3483	ug/L	0.3483 ppb	13:49:12
2	Se 196.026†	-344.0	-291.2	14.851	ug/L	14.851 ppb	13:49:12
2	Si 251.611†	1277333.7	1154383.3	42124	ug/L	42124 ppb	13:48:47
2	Sn 189.927†	-104.2	-102.3	-23.940	ug/L	-23.940 ppb	13:49:12
2	Ti 334.940†	732048.7	663223.6	1339.4	ug/L	1339.4 ppb	13:48:47
2	Tl 190.801†	-93.6	-53.4	-3.2857	ug/L	-3.2857 ppb	13:49:12
2	U 409.014†	-9065.4	-5660.1	-199.68	ug/L	-199.68 ppb	13:48:47
2	V 292.402†	10626.1	11236.1	75.520	ug/L	75.520 ppb	13:48:52
2	Zn 213.857†	40730.3	36118.3	384.77	ug/L	384.77 ppb	13:48:52
2	SiO2†	1272309.2	1149832.8	89574	ug/L	89574 ppb	13:49:55
3	Sc Radial	5061.4	5061.4	108	%		13:47:48
3	Y RADIAL	5974.0	5974.0	119.8	%		13:47:48
3	Al 396.153Radial†	51616.4	48086.0	44980	ug/L	44980 ppb	13:47:48
3	Ca 317.933Radial†	17129.4	15906.8	28902	ug/L	28902 ppb	13:47:48
3	Fe 238.204 Radial†	8976.7	8340.3	86531	ug/L	86531 ppb	13:47:48
3	K 766.490 Radial†	35672.9	30911.1	6141.8	ug/L	6141.8 ppb	13:47:48
3	Mg 279.077 IEC†	276.2	253.9	9992.0	ug/L	9992.0 ppb	13:48:08
3	Na 589.592 Radial†	7162.3	7508.2	2558.8	ug/L	2558.8 ppb	13:47:48
3	Sr 421.552†	23823.3	22154.1	160.88	ug/L	160.88 ppb	13:47:48
3	Sc 361.383	847783.5	847783.5	110.40	%		13:49:18
3	Y 371.029	837032.7	837032.7	121.48	%		13:49:18
3	Ag 328.068†	-4900.7	-4694.8	2.5822	ug/L	2.5822 ppb	13:49:23
3	As 188.979†	-15.0	11.4	36.929	ug/L	36.929 ppb	13:49:43
3	B 249.677†	859.7	1232.2	16.688	ug/L	16.688 ppb	13:49:23
3	Ba 233.527†	41768.3	37832.1	449.25	ug/L	449.25 ppb	13:49:23
3	Be 313.107†	-4037.8	5325.2	5.1465	ug/L	5.1465 ppb	13:49:23
3	Cd 226.502†	483.6	624.7	-0.0355	ug/L	-0.0355 ppb	13:49:43
3	Co 228.616†	1426.6	1349.8	36.861	ug/L	36.861 ppb	13:49:43
3	Cr 267.716†	19154.5	17274.9	237.87	ug/L	237.87 ppb	13:49:23
3	Cu 324.752†	29664.4	19334.4	77.079	ug/L	77.079 ppb	13:49:23
3	Mn 257.610†	1513675.7	1370656.0	2202.1	ug/L	2202.1 ppb	13:49:18
3	Mo 202.031†	38.3	20.3	8.9226	ug/L	8.9226 ppb	13:49:43
3	Ni 231.604†	4607.6	4072.4	130.16	ug/L	130.16 ppb	13:49:43
3	P 214.914†	677.0	417.9	160.24	ug/L	160.24 ppb	13:49:43
3	Pb 220.353†	462.1	489.3	83.280	ug/L	83.280 ppb	13:49:43
3	S 181.975 Axial†	235.5	170.8	212.98	ug/L	212.98 ppb	13:49:43
3	Sb 206.836†	47.7	13.1	-1.2504	ug/L	-1.2504 ppb	13:49:43
3	Se 196.026†	-351.4	-298.5	15.182	ug/L	15.182 ppb	13:49:43
3	Si 251.611†	1274624.1	1153990.4	42110	ug/L	42110 ppb	13:49:18
3	Sn 189.927†	-112.1	-109.6	-25.650	ug/L	-25.650 ppb	13:49:43
3	Ti 334.940†	729741.4	662315.2	1337.6	ug/L	1337.6 ppb	13:49:18
3	Tl 190.801†	-102.7	-61.8	-7.1564	ug/L	-7.1564 ppb	13:49:43
3	U 409.014†	-8923.3	-5546.1	-196.11	ug/L	-196.11 ppb	13:49:18
3	V 292.402†	10708.7	11328.1	75.972	ug/L	75.972 ppb	13:49:23
3	Zn 213.857†	41202.0	36611.3	389.89	ug/L	389.89 ppb	13:49:23
3	SiO2†	1270018.3	1149811.1	89572	ug/L	89572 ppb	13:50:01

Mean Data: 245969003|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	847494.0	110.36	%	0.256				0.23%
Sc Radial	5112.6	109	%	1.2				1.14%
Y 371.029	836907.8	121.46	%	0.235				0.19%
Y RADIAL	6001.8	120.4	%	0.93				0.77%
Ag 328.068†	-4658.0	2.3345	ug/L	0.42762	2.3345	ppb	0.42762	18.32%
Al 396.153Radial†	47129.8	44086	ug/L	775.9	44086	ppb	775.9	1.76%
As 188.979†	15.3	38.309	ug/L	4.3298	38.309	ppb	4.3298	11.30%
B 249.677†	1219.1	16.596	ug/L	0.2616	16.596	ppb	0.2616	1.58%
Ba 233.527†	37776.7	448.55	ug/L	3.900	448.55	ppb	3.900	0.87%
Be 313.107†	5317.9	5.1498	ug/L	0.00457	5.1498	ppb	0.00457	0.09%
Ca 317.933Radial†	15606.3	28356	ug/L	472.8	28356	ppb	472.8	1.67%
Cd 226.502†	635.7	0.2695	ug/L	0.30063	0.2695	ppb	0.30063	111.54%
Co 228.616†	1345.1	36.736	ug/L	0.1327	36.736	ppb	0.1327	0.36%
Cr 267.716†	17202.4	236.85	ug/L	2.600	236.85	ppb	2.600	1.10%
Cu 324.752†	19196.4	76.487	ug/L	1.0567	76.487	ppb	1.0567	1.38%
Fe 238.204 Radial†	8200.6	85082	ug/L	1258.5	85082	ppb	1258.5	1.48%
K 766.490 Radial†	30304.5	6021.2	ug/L	104.57	6021.2	ppb	104.57	1.74%

Mg 279.077 IEC†	250.1	9841.8	ug/L	174.00	9841.8	ppb	174.00	1.77%
Mn 257.610†	1374533.5	2208.1	ug/L	7.31	2208.1	ppb	7.31	0.33%
Mo 202.031†	16.4	8.4481	ug/L	0.57237	8.4481	ppb	0.57237	6.78%
Na 589.592 Radial†	7398.9	2521.5	ug/L	46.12	2521.5	ppb	46.12	1.83%
Ni 231.604†	4064.9	129.92	ug/L	0.689	129.92	ppb	0.689	0.53%
P 214.914†	420.7	162.86	ug/L	2.276	162.86	ppb	2.276	1.40%
Pb 220.353†	492.4	83.679	ug/L	0.6915	83.679	ppb	0.6915	0.83%
S 181.975 Axial†	167.3	208.67	ug/L	4.933	208.67	ppb	4.933	2.36%
Sb 206.836†	19.1	1.1992	ug/L	2.96785	1.1992	ppb	2.96785	247.49%
Se 196.026†	-292.7	15.395	ug/L	0.6764	15.395	ppb	0.6764	4.39%
Si 251.611†	1156282.2	42193	ug/L	132.6	42193	ppb	132.6	0.31%
Sn 189.927†	-105.9	-24.796	ug/L	0.8553	-24.796	ppb	0.8553	3.45%
Sr 421.552†	21709.2	157.65	ug/L	2.819	157.65	ppb	2.819	1.79%
Ti 334.940†	663658.3	1340.3	ug/L	3.20	1340.3	ppb	3.20	0.24%
Tl 190.801†	-59.8	-6.2051	ug/L	2.57890	-6.2051	ppb	2.57890	41.56%
U 409.014†	-5595.2	-197.59	ug/L	1.865	-197.59	ppb	1.865	0.94%
V 292.402†	11314.2	76.059	ug/L	0.5868	76.059	ppb	0.5868	0.77%
Zn 213.857†	36501.3	388.90	ug/L	3.735	388.90	ppb	3.735	0.96%
SiO2†	1153688.0	89874	ug/L	521.6	89874	ppb	521.6	0.58%

Sequence No.: 4
Sample ID: 245969005|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 3/1/2010 13:52:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969005|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5021.3	5021.3	107	%			13:54:04
1	Y RADIAL	6219.0	6219.0	124.7	%			13:54:04
1	Al 396.153Radial†	31531.4	29642.6	27728	ug/L	27728	ppb	13:54:04
1	Ca 317.933Radial†	3404.9	3169.4	5758.6	ug/L	5758.6	ppb	13:54:24
1	Fe 238.204 Radial†	10460.2	9797.4	101650	ug/L	101650	ppb	13:54:04
1	K 766.490 Radial†	38943.8	34241.8	6812.2	ug/L	6812.2	ppb	13:54:04
1	Mg 279.077 IEC†	126.3	115.5	4479.0	ug/L	4479.0	ppb	13:54:24
1	Na 589.592 Radial†	9180.3	9452.8	3221.5	ug/L	3221.5	ppb	13:54:04
1	Sr 421.552†	8934.0	8374.6	60.855	ug/L	60.855	ppb	13:54:04
1	Sc 361.383	835097.5	835097.5	108.75	%			13:55:22
1	Y 371.029	870835.5	870835.5	126.38	%			13:55:22
1	Ag 328.068†	-5751.1	-5544.3	3.1837	ug/L	3.1837	ppb	13:55:27
1	As 188.979†	-42.3	-13.9	39.628	ug/L	39.628	ppb	13:55:47
1	B 249.677†	820.4	1207.9	13.419	ug/L	13.419	ppb	13:55:27
1	Ba 233.527†	30859.2	28375.1	338.12	ug/L	338.12	ppb	13:55:27
1	Be 313.107†	-15264.5	-5054.2	3.7562	ug/L	3.7562	ppb	13:55:27
1	Cd 226.502†	715.6	844.7	1.4702	ug/L	1.4702	ppb	13:55:47
1	Co 228.616†	3981.6	3718.9	105.74	ug/L	105.74	ppb	13:55:47
1	Cr 267.716†	5169.0	4677.7	66.059	ug/L	66.059	ppb	13:55:47
1	Cu 324.752†	69433.2	56313.2	216.34	ug/L	216.34	ppb	13:55:27
1	Mn 257.610†	1546358.9	1421539.6	2285.2	ug/L	2285.2	ppb	13:55:22
1	Mo 202.031†	33.0	16.0	9.4270	ug/L	9.4270	ppb	13:55:47
1	Ni 231.604†	1783.8	1539.0	49.130	ug/L	49.130	ppb	13:55:47
1	P 214.914†	1063.4	782.5	320.19	ug/L	320.19	ppb	13:55:47
1	Pb 220.353†	1051.2	1037.3	165.84	ug/L	165.84	ppb	13:55:47
1	S 181.975 Axial†	161.5	106.0	132.27	ug/L	132.27	ppb	13:55:47
1	Sb 206.836†	47.7	13.8	-4.2127	ug/L	-4.2127	ppb	13:55:47
1	Se 196.026†	-418.7	-365.2	6.5446	ug/L	6.5446	ppb	13:55:47
1	Si 251.611†	1070320.0	983655.6	35894	ug/L	35894	ppb	13:55:22
1	Sn 189.927†	42.1	30.6	2.3999	ug/L	2.3999	ppb	13:55:47
1	Ti 334.940†	1369043.8	1260246.4	2539.9	ug/L	2539.9	ppb	13:55:22
1	Tl 190.801†	-119.8	-79.0	-4.9769	ug/L	-4.9769	ppb	13:55:47
1	U 409.014†	-8735.3	-5496.0	-195.77	ug/L	-195.77	ppb	13:55:22
1	V 292.402†	10860.0	11614.6	74.730	ug/L	74.730	ppb	13:55:27
1	Zn 213.857†	33879.3	30444.4	319.95	ug/L	319.95	ppb	13:55:27
1	SiO2†	1068162.3	981664.3	76473	ug/L	76473	ppb	13:56:56
2	Sc Radial	5236.6	5236.6	111	%			13:54:30
2	Y RADIAL	6503.8	6503.8	130.5	%			13:54:30
2	Al 396.153Radial†	33335.2	30048.6	28108	ug/L	28108	ppb	13:54:30
2	Ca 317.933Radial†	3406.1	3039.2	5522.1	ug/L	5522.1	ppb	13:54:50
2	Fe 238.204 Radial†	11028.1	9904.7	102760	ug/L	102760	ppb	13:54:30
2	K 766.490 Radial†	40945.0	34539.5	6871.6	ug/L	6871.6	ppb	13:54:30
2	Mg 279.077 IEC†	129.5	113.5	4398.0	ug/L	4398.0	ppb	13:54:50
2	Na 589.592 Radial†	9760.7	9620.7	3278.7	ug/L	3278.7	ppb	13:54:30
2	Sr 421.552†	9472.6	8514.4	61.873	ug/L	61.873	ppb	13:54:30
2	Sc 361.383	854952.1	854952.1	111.33	%			13:55:53
2	Y 371.029	889281.4	889281.4	129.06	%			13:55:53
2	Ag 328.068†	-5727.0	-5399.8	4.2569	ug/L	4.2569	ppb	13:55:58
2	As 188.979†	-39.8	-10.7	41.025	ug/L	41.025	ppb	13:56:18
2	B 249.677†	834.9	1203.4	13.135	ug/L	13.135	ppb	13:55:58
2	Ba 233.527†	30682.6	27557.4	328.50	ug/L	328.50	ppb	13:55:58
2	Be 313.107†	-15218.2	-4686.7	3.8301	ug/L	3.8301	ppb	13:55:58
2	Cd 226.502†	729.0	841.5	1.3099	ug/L	1.3099	ppb	13:56:18
2	Co 228.616†	3955.8	3610.7	102.52	ug/L	102.52	ppb	13:56:18
2	Cr 267.716†	5142.3	4543.3	64.238	ug/L	64.238	ppb	13:56:18
2	Cu 324.752†	68838.7	54296.5	208.85	ug/L	208.85	ppb	13:55:58
2	Mn 257.610†	1560342.3	1401076.6	2252.6	ug/L	2252.6	ppb	13:55:53
2	Mo 202.031†	28.0	10.8	9.0327	ug/L	9.0327	ppb	13:56:18
2	Ni 231.604†	1755.8	1475.8	47.111	ug/L	47.111	ppb	13:56:18

2	P 214.914†	1079.5	774.2	316.26	ug/L	316.26 ppb	13:56:18
2	Pb 220.353†	1048.4	1012.4	161.82	ug/L	161.82 ppb	13:56:18
2	S 181.975 Axial†	161.4	102.5	127.60	ug/L	127.60 ppb	13:56:18
2	Sb 206.836†	50.7	15.6	-3.4693	ug/L	-3.4693 ppb	13:56:18
2	Se 196.026†	-415.3	-353.3	16.400	ug/L	16.400 ppb	13:56:18
2	Si 251.611†	1081230.3	970598.4	35418	ug/L	35418 ppb	13:55:53
2	Sn 189.927†	37.8	25.9	1.1723	ug/L	1.1723 ppb	13:56:18
2	Ti 334.940†	1384035.0	1244475.3	2508.1	ug/L	2508.1 ppb	13:55:53
2	Tl 190.801†	-119.8	-76.4	-4.2077	ug/L	-4.2077 ppb	13:56:18
2	U 409.014†	-8719.7	-5295.4	-189.17	ug/L	-189.17 ppb	13:55:53
2	V 292.402†	10775.3	11306.7	72.155	ug/L	72.155 ppb	13:55:58
2	Zn 213.857†	33686.9	29548.1	309.92	ug/L	309.92 ppb	13:55:58
2	SiO2†	1077429.0	967176.7	75345	ug/L	75345 ppb	13:57:02
3	Sc Radial	5059.1	5059.1	107	%		13:54:55
3	Y RADIAL	6276.4	6276.4	125.9	%		13:54:55
3	Al 396.153Radial†	32763.3	30567.6	28593	ug/L	28593 ppb	13:54:55
3	Ca 317.933Radial†	3416.4	3156.2	5734.7	ug/L	5734.7 ppb	13:55:15
3	Fe 238.204 Radial†	10806.6	10046.3	104230	ug/L	104230 ppb	13:54:55
3	K 766.490 Radial†	40376.7	35301.8	7023.2	ug/L	7023.2 ppb	13:54:55
3	Mg 279.077 IEC†	131.3	119.3	4626.1	ug/L	4626.1 ppb	13:55:15
3	Na 589.592 Radial†	9409.9	9602.0	3272.4	ug/L	3272.4 ppb	13:54:55
3	Sr 421.552†	9226.0	8583.6	62.375	ug/L	62.375 ppb	13:54:55
3	Sc 361.383	847139.5	847139.5	110.31	%		13:56:24
3	Y 371.029	882394.3	882394.3	128.06	%		13:56:24
3	Ag 328.068†	-5798.7	-5512.2	4.1349	ug/L	4.1349 ppb	13:56:29
3	As 188.979†	-40.4	-11.6	40.960	ug/L	40.960 ppb	13:56:49
3	B 249.677†	756.6	1139.3	11.287	ug/L	11.287 ppb	13:56:29
3	Ba 233.527†	30746.9	27869.9	332.23	ug/L	332.23 ppb	13:56:29
3	Be 313.107†	-15260.8	-4851.3	3.7615	ug/L	3.7615 ppb	13:56:29
3	Cd 226.502†	723.1	842.2	1.1682	ug/L	1.1682 ppb	13:56:49
3	Co 228.616†	3970.2	3656.5	103.89	ug/L	103.89 ppb	13:56:49
3	Cr 267.716†	5155.3	4597.7	65.013	ug/L	65.013 ppb	13:56:49
3	Cu 324.752†	68912.7	54933.8	211.31	ug/L	211.31 ppb	13:56:29
3	Mn 257.610†	1547884.6	1402708.9	2255.3	ug/L	2255.3 ppb	13:56:24
3	Mo 202.031†	38.6	20.6	10.049	ug/L	10.049 ppb	13:56:49
3	Ni 231.604†	1787.3	1518.8	48.486	ug/L	48.486 ppb	13:56:49
3	P 214.914†	1069.6	774.2	314.75	ug/L	314.75 ppb	13:56:49
3	Pb 220.353†	1047.4	1020.2	163.08	ug/L	163.08 ppb	13:56:49
3	S 181.975 Axial†	168.7	110.5	137.86	ug/L	137.86 ppb	13:56:49
3	Sb 206.836†	48.1	13.6	-4.2246	ug/L	-4.2246 ppb	13:56:49
3	Se 196.026†	-407.8	-349.9	21.792	ug/L	21.792 ppb	13:56:49
3	Si 251.611†	1071546.4	970776.4	35424	ug/L	35424 ppb	13:56:24
3	Sn 189.927†	51.4	38.5	4.1098	ug/L	4.1098 ppb	13:56:49
3	Ti 334.940†	1370622.4	1243781.4	2506.7	ug/L	2506.7 ppb	13:56:24
3	Tl 190.801†	-127.0	-83.9	-7.6567	ug/L	-7.6567 ppb	13:56:49
3	U 409.014†	-8742.4	-5388.3	-192.45	ug/L	-192.45 ppb	13:56:24
3	V 292.402†	10846.4	11460.4	73.177	ug/L	73.177 ppb	13:56:29
3	Zn 213.857†	33688.4	29828.5	312.78	ug/L	312.78 ppb	13:56:29
3	SiO2†	1066080.2	965814.0	75238	ug/L	75238 ppb	13:57:08

Mean Data: 245969005|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845729.7	110.13	%	1.302				1.18%
Sc Radial	5105.7	108	%	2.4				2.25%
Y 371.029	880837.1	127.84	%	1.353				1.06%
Y RADIAL	6333.1	127.0	%	3.02				2.38%
Ag 328.068†	-5485.4	3.8585	ug/L	0.58753	3.8585	ppb	0.58753	15.23%
Al 396.153Radial†	30086.3	28143	ug/L	433.7	28143	ppb	433.7	1.54%
As 188.979†	-12.0	40.538	ug/L	0.7887	40.538	ppb	0.7887	1.95%
B 249.677†	1183.5	12.614	ug/L	1.1575	12.614	ppb	1.1575	9.18%
Ba 233.527†	27934.1	332.95	ug/L	4.850	332.95	ppb	4.850	1.46%
Be 313.107†	-4864.1	3.7826	ug/L	0.04123	3.7826	ppb	0.04123	1.09%
Ca 317.933Radial†	3121.6	5671.8	ug/L	130.18	5671.8	ppb	130.18	2.30%
Cd 226.502†	842.8	1.3161	ug/L	0.15106	1.3161	ppb	0.15106	11.48%
Co 228.616†	3662.0	104.05	ug/L	1.618	104.05	ppb	1.618	1.56%
Cr 267.716†	4606.3	65.103	ug/L	0.9138	65.103	ppb	0.9138	1.40%
Cu 324.752†	55181.2	212.17	ug/L	3.821	212.17	ppb	3.821	1.80%
Fe 238.204 Radial†	9916.1	102880	ug/L	1295.5	102880	ppb	1295.5	1.26%
K 766.490 Radial†	34694.4	6902.3	ug/L	108.82	6902.3	ppb	108.82	1.58%

Mg 279.077 IEC†	116.1	4501.1	ug/L	115.65	4501.1	ppb	115.65	2.57%
Mn 257.610†	1408441.7	2264.4	ug/L	18.10	2264.4	ppb	18.10	0.80%
Mo 202.031†	15.8	9.5030	ug/L	0.51246	9.5030	ppb	0.51246	5.39%
Na 589.592 Radial†	9558.5	3257.5	ug/L	31.35	3257.5	ppb	31.35	0.96%
Ni 231.604†	1511.2	48.242	ug/L	1.0313	48.242	ppb	1.0313	2.14%
P 214.914†	777.0	317.07	ug/L	2.808	317.07	ppb	2.808	0.89%
Pb 220.353†	1023.3	163.58	ug/L	2.055	163.58	ppb	2.055	1.26%
S 181.975 Axial†	106.3	132.58	ug/L	5.132	132.58	ppb	5.132	3.87%
Sb 206.836†	14.3	-3.9689	ug/L	0.43266	-3.9689	ppb	0.43266	10.90%
Se 196.026†	-356.1	14.912	ug/L	7.7319	14.912	ppb	7.7319	51.85%
Si 251.611†	975010.2	35579	ug/L	273.2	35579	ppb	273.2	0.77%
Sn 189.927†	31.7	2.5607	ug/L	1.47531	2.5607	ppb	1.47531	57.61%
Sr 421.552†	8490.9	61.701	ug/L	0.7746	61.701	ppb	0.7746	1.26%
Ti 334.940†	1249501.0	2518.2	ug/L	18.78	2518.2	ppb	18.78	0.75%
Tl 190.801†	-79.8	-5.6138	ug/L	1.81055	-5.6138	ppb	1.81055	32.25%
U 409.014†	-5393.2	-192.47	ug/L	3.297	-192.47	ppb	3.297	1.71%
V 292.402†	11460.5	73.354	ug/L	1.2969	73.354	ppb	1.2969	1.77%
Zn 213.857†	29940.3	314.21	ug/L	5.166	314.21	ppb	5.166	1.64%
SiO2†	971551.7	75685	ug/L	684.3	75685	ppb	684.3	0.90%

Sequence No.: 5
Sample ID: 245969009|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 3/1/2010 13:59:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969009|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5190.0	5190.0	110	%			14:01:31
1	Y RADIAL	6012.4	6012.4	120.6	%			14:01:31
1	Al 396.153Radial†	135431.9	122906.7	114970	ug/L	114970	ppb	14:01:11
1	Ca 317.933Radial†	16582.9	15016.4	27284	ug/L	27284	ppb	14:01:11
1	Fe 238.204 Radial†	14640.4	13269.6	137670	ug/L	137670	ppb	14:01:11
1	K 766.490 Radial†	86884.4	76531.5	15224	ug/L	15224	ppb	14:01:11
1	Mg 279.077 IEC†	564.2	508.8	20057	ug/L	20057	ppb	14:01:31
1	Na 589.592 Radial†	2885.2	3464.3	1180.6	ug/L	1180.6	ppb	14:01:11
1	Sr 421.552†	38511.0	34925.1	253.76	ug/L	253.76	ppb	14:01:11
1	Sc 361.383	859251.9	859251.9	111.89	%			14:02:29
1	Y 371.029	838650.8	838650.8	121.71	%			14:02:29
1	Ag 328.068†	-8601.4	-7943.0	2.1834	ug/L	2.1834	ppb	14:02:29
1	As 188.979†	8.0	32.1	59.316	ug/L	59.316	ppb	14:02:49
1	B 249.677†	1203.3	1528.8	15.685	ug/L	15.685	ppb	14:02:29
1	Ba 233.527†	115555.8	103273.2	1223.3	ug/L	1223.3	ppb	14:02:29
1	Be 313.107†	8653.8	16716.8	9.9831	ug/L	9.9831	ppb	14:02:29
1	Cd 226.502†	987.3	1069.0	0.9455	ug/L	0.9455	ppb	14:02:49
1	Co 228.616†	3078.6	2808.9	80.357	ug/L	80.357	ppb	14:02:49
1	Cr 267.716†	7410.5	6547.4	92.485	ug/L	92.485	ppb	14:02:29
1	Cu 324.752†	32613.9	21611.9	88.309	ug/L	88.309	ppb	14:02:29
1	Mn 257.610†	1407267.6	1257255.7	2025.2	ug/L	2025.2	ppb	14:02:29
1	Mo 202.031†	-54.0	-62.6	5.2676	ug/L	5.2676	ppb	14:02:49
1	Ni 231.604†	2626.9	2246.4	71.759	ug/L	71.759	ppb	14:02:49
1	P 214.914†	1367.8	1027.1	475.04	ug/L	475.04	ppb	14:02:49
1	Pb 220.353†	638.7	641.5	120.72	ug/L	120.72	ppb	14:02:49
1	S 181.975 Axial†	636.5	526.4	660.90	ug/L	660.90	ppb	14:02:49
1	Sb 206.836†	41.6	7.1	-6.3511	ug/L	-6.3511	ppb	14:02:49
1	Se 196.026†	-579.9	-498.4	13.901	ug/L	13.901	ppb	14:02:49
1	Si 251.611†	1452697.3	1297729.6	47355	ug/L	47355	ppb	14:02:29
1	Sn 189.927†	-94.4	-92.5	-24.833	ug/L	-24.833	ppb	14:02:49
1	Ti 334.940†	815105.2	729784.8	1472.6	ug/L	1472.6	ppb	14:02:29
1	Tl 190.801†	-108.3	-65.6	-9.1112	ug/L	-9.1112	ppb	14:02:49
1	U 409.014†	-8742.9	-5277.0	-192.60	ug/L	-192.60	ppb	14:02:29
1	V 292.402†	30563.8	28943.8	208.82	ug/L	208.82	ppb	14:02:29
1	Zn 213.857†	33634.4	29349.7	302.51	ug/L	302.51	ppb	14:02:29
1	SiO2†	1456076.7	1300742.6	101330	ug/L	101330	ppb	14:03:47
2	Sc Radial	5140.6	5140.6	109	%			14:01:56
2	Y RADIAL	5969.1	5969.1	119.7	%			14:01:56
2	Al 396.153Radial†	135079.6	123764.0	115770	ug/L	115770	ppb	14:01:36
2	Ca 317.933Radial†	16563.3	15142.9	27514	ug/L	27514	ppb	14:01:36
2	Fe 238.204 Radial†	14595.2	13355.8	138570	ug/L	138570	ppb	14:01:36
2	K 766.490 Radial†	86098.6	76569.0	15232	ug/L	15232	ppb	14:01:36
2	Mg 279.077 IEC†	563.0	512.6	20207	ug/L	20207	ppb	14:01:56
2	Na 589.592 Radial†	2845.0	3452.7	1176.7	ug/L	1176.7	ppb	14:01:36
2	Sr 421.552†	38097.5	34882.0	253.45	ug/L	253.45	ppb	14:01:36
2	Sc 361.383	865263.0	865263.0	112.67	%			14:02:55
2	Y 371.029	843698.4	843698.4	122.45	%			14:02:55
2	Ag 328.068†	-8688.3	-7966.7	2.3296	ug/L	2.3296	ppb	14:02:55
2	As 188.979†	9.9	33.8	60.241	ug/L	60.241	ppb	14:03:15
2	B 249.677†	1142.7	1467.6	14.007	ug/L	14.007	ppb	14:02:55
2	Ba 233.527†	116068.6	103010.9	1220.2	ug/L	1220.2	ppb	14:02:55
2	Be 313.107†	8648.8	16658.6	9.9504	ug/L	9.9504	ppb	14:02:55
2	Cd 226.502†	993.8	1068.7	0.8481	ug/L	0.8481	ppb	14:03:15
2	Co 228.616†	3091.3	2801.1	80.112	ug/L	80.112	ppb	14:03:15
2	Cr 267.716†	7434.7	6522.8	92.165	ug/L	92.165	ppb	14:02:55
2	Cu 324.752†	32741.8	21522.9	88.023	ug/L	88.023	ppb	14:02:55
2	Mn 257.610†	1412753.8	1253387.2	2019.1	ug/L	2019.1	ppb	14:02:55
2	Mo 202.031†	-65.7	-72.7	4.4109	ug/L	4.4109	ppb	14:03:15
2	Ni 231.604†	2612.6	2217.4	70.833	ug/L	70.833	ppb	14:03:15

2	P 214.914†	1377.3	1027.0	474.57	ug/L	474.57 ppb	14:03:15
2	Pb 220.353†	651.3	648.8	122.02	ug/L	122.02 ppb	14:03:15
2	S 181.975 Axial†	638.3	524.0	657.70	ug/L	657.70 ppb	14:03:15
2	Sb 206.836†	30.3	-3.1	-10.506	ug/L	-10.506 ppb	14:03:15
2	Se 196.026†	-600.9	-513.5	6.7300	ug/L	6.7300 ppb	14:03:15
2	Si 251.611†	1459600.4	1294836.5	47249	ug/L	47249 ppb	14:02:55
2	Sn 189.927†	-80.1	-79.1	-21.700	ug/L	-21.700 ppb	14:03:15
2	Ti 334.940†	818433.7	727678.0	1468.4	ug/L	1468.4 ppb	14:02:55
2	Tl 190.801†	-102.6	-59.8	-6.5136	ug/L	-6.5136 ppb	14:03:15
2	U 409.014†	-8779.1	-5254.8	-191.96	ug/L	-191.96 ppb	14:02:55
2	V 292.402†	30678.4	28855.7	207.98	ug/L	207.98 ppb	14:02:55
2	Zn 213.857†	33714.9	29212.4	300.87	ug/L	300.87 ppb	14:02:55
2	SiO2†	1455365.1	1291070.3	100580	ug/L	100580 ppb	14:03:53
3	Sc Radial	5046.0	5046.0	107	%		14:02:21
3	Y RADIAL	5850.1	5850.1	117.3	%		14:02:21
3	Al 396.153Radial†	134918.6	125931.6	117800	ug/L	117800 ppb	14:02:01
3	Ca 317.933Radial†	16500.4	15368.5	27924	ug/L	27924 ppb	14:02:01
3	Fe 238.204 Radial†	14594.5	13605.7	141160	ug/L	141160 ppb	14:02:01
3	K 766.490 Radial†	85943.0	77901.2	15497	ug/L	15497 ppb	14:02:01
3	Mg 279.077 IEC†	558.0	517.6	20402	ug/L	20402 ppb	14:02:21
3	Na 589.592 Radial†	2908.2	3560.4	1213.4	ug/L	1213.4 ppb	14:02:01
3	Sr 421.552†	38106.5	35544.1	258.26	ug/L	258.26 ppb	14:02:01
3	Sc 361.383	850207.3	850207.3	110.71	%		14:03:21
3	Y 371.029	831598.7	831598.7	120.69	%		14:03:21
3	Ag 328.068†	-8434.3	-7873.8	3.5999	ug/L	3.5999 ppb	14:03:21
3	As 188.979†	12.4	36.2	61.932	ug/L	61.932 ppb	14:03:41
3	B 249.677†	1058.2	1409.2	12.118	ug/L	12.118 ppb	14:03:21
3	Ba 233.527†	114038.7	103001.7	1220.2	ug/L	1220.2 ppb	14:03:21
3	Be 313.107†	8617.7	16766.5	9.9947	ug/L	9.9947 ppb	14:03:21
3	Cd 226.502†	1009.9	1098.8	1.0090	ug/L	1.0090 ppb	14:03:41
3	Co 228.616†	3118.9	2874.6	82.298	ug/L	82.298 ppb	14:03:41
3	Cr 267.716†	7324.6	6540.2	92.453	ug/L	92.453 ppb	14:03:21
3	Cu 324.752†	32151.2	21504.0	88.088	ug/L	88.088 ppb	14:03:21
3	Mn 257.610†	1389177.6	1254295.9	2020.8	ug/L	2020.8 ppb	14:03:21
3	Mo 202.031†	-55.1	-64.2	5.4008	ug/L	5.4008 ppb	14:03:41
3	Ni 231.604†	2622.3	2267.2	72.425	ug/L	72.425 ppb	14:03:41
3	P 214.914†	1385.8	1056.3	489.38	ug/L	489.38 ppb	14:03:41
3	Pb 220.353†	650.1	657.9	123.78	ug/L	123.78 ppb	14:03:41
3	S 181.975 Axial†	632.4	528.7	663.36	ug/L	663.36 ppb	14:03:41
3	Sb 206.836†	38.7	4.9	-7.2966	ug/L	-7.2966 ppb	14:03:41
3	Se 196.026†	-590.6	-513.7	12.636	ug/L	12.636 ppb	14:03:41
3	Si 251.611†	1433841.3	1294509.8	47238	ug/L	47238 ppb	14:03:21
3	Sn 189.927†	-75.2	-76.0	-21.049	ug/L	-21.049 ppb	14:03:41
3	Ti 334.940†	804560.0	728009.7	1469.1	ug/L	1469.1 ppb	14:03:21
3	Tl 190.801†	-99.1	-58.3	-5.8173	ug/L	-5.8173 ppb	14:03:41
3	U 409.014†	-8537.2	-5174.3	-189.56	ug/L	-189.56 ppb	14:03:21
3	V 292.402†	30274.4	28973.0	208.56	ug/L	208.56 ppb	14:03:21
3	Zn 213.857†	33203.3	29280.2	301.22	ug/L	301.22 ppb	14:03:21
3	SiO2†	1459495.5	1317674.4	102650	ug/L	102650 ppb	14:03:59

Mean Data: 245969009|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858240.7	111.76	%	0.987				0.88%
Sc Radial	5125.5	109	%	1.6				1.43%
Y 371.029	837982.6	121.62	%	0.882				0.73%
Y RADIAL	5943.9	119.2	%	1.69				1.41%
Ag 328.068†	-7927.8	2.7043	ug/L	0.77907	2.7043	ppb	0.77907	28.81%
Al 396.153Radial†	124200.8	116180	ug/L	1458.4	116180	ppb	1458.4	1.26%
As 188.979†	34.0	60.497	ug/L	1.3266	60.497	ppb	1.3266	2.19%
B 249.677†	1468.5	13.936	ug/L	1.7848	13.936	ppb	1.7848	12.81%
Ba 233.527†	103095.3	1221.3	ug/L	1.78	1221.3	ppb	1.78	0.15%
Be 313.107†	16714.0	9.9761	ug/L	0.02302	9.9761	ppb	0.02302	0.23%
Ca 317.933Radial†	15176.0	27574	ug/L	324.1	27574	ppb	324.1	1.18%
Cd 226.502†	1078.9	0.9342	ug/L	0.08107	0.9342	ppb	0.08107	8.68%
Co 228.616†	2828.2	80.922	ug/L	1.1974	80.922	ppb	1.1974	1.48%
Cr 267.716†	6536.8	92.368	ug/L	0.1763	92.368	ppb	0.1763	0.19%
Cu 324.752†	21546.3	88.140	ug/L	0.1502	88.140	ppb	0.1502	0.17%
Fe 238.204 Radial†	13410.4	139130	ug/L	1810.8	139130	ppb	1810.8	1.30%
K 766.490 Radial†	77000.6	15318	ug/L	155.2	15318	ppb	155.2	1.01%

Mg 279.077 IEC†	513.0	20222	ug/L	172.8	20222	ppb	172.8	0.85%
Mn 257.610†	1254979.6	2021.7	ug/L	3.15	2021.7	ppb	3.15	0.16%
Mo 202.031†	-66.5	5.0265	ug/L	0.53724	5.0265	ppb	0.53724	10.69%
Na 589.592 Radial†	3492.5	1190.2	ug/L	20.15	1190.2	ppb	20.15	1.69%
Ni 231.604†	2243.7	71.672	ug/L	0.7993	71.672	ppb	0.7993	1.12%
P 214.914†	1036.8	479.67	ug/L	8.421	479.67	ppb	8.421	1.76%
Pb 220.353†	649.4	122.17	ug/L	1.537	122.17	ppb	1.537	1.26%
S 181.975 Axial†	526.3	660.65	ug/L	2.836	660.65	ppb	2.836	0.43%
Sb 206.836†	3.0	-8.0514	ug/L	2.17809	-8.0514	ppb	2.17809	27.05%
Se 196.026†	-508.6	11.089	ug/L	3.8275	11.089	ppb	3.8275	34.52%
Si 251.611†	1295691.9	47281	ug/L	64.7	47281	ppb	64.7	0.14%
Sn 189.927†	-82.5	-22.528	ug/L	2.0231	-22.528	ppb	2.0231	8.98%
Sr 421.552†	35117.1	255.16	ug/L	2.692	255.16	ppb	2.692	1.05%
Ti 334.940†	728490.8	1470.0	ug/L	2.26	1470.0	ppb	2.26	0.15%
Tl 190.801†	-61.2	-7.1474	ug/L	1.73603	-7.1474	ppb	1.73603	24.29%
U 409.014†	-5235.4	-191.37	ug/L	1.602	-191.37	ppb	1.602	0.84%
V 292.402†	28924.1	208.45	ug/L	0.428	208.45	ppb	0.428	0.21%
Zn 213.857†	29280.8	301.54	ug/L	0.865	301.54	ppb	0.865	0.29%
SiO2†	1303162.4	101520	ug/L	1049.0	101520	ppb	1049.0	1.03%

Sequence No.: 6
Sample ID: 245969011|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 3/1/2010 14:06:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969011|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5098.8	5098.8	108	%			14:08:22
1	Y RADIAL	5943.4	5943.4	119.2	%			14:08:22
1	Al 396.153Radial†	91062.0	84144.5	78710	ug/L	78710	ppb	14:08:02
1	Ca 317.933Radial†	10973.9	10107.6	18365	ug/L	18365	ppb	14:08:02
1	Fe 238.204 Radial†	11457.6	10569.0	109650	ug/L	109650	ppb	14:08:02
1	K 766.490 Radial†	54001.0	47585.5	9464.6	ug/L	9464.6	ppb	14:08:02
1	Mg 279.077 IEC†	447.9	410.5	16185	ug/L	16185	ppb	14:08:22
1	Na 589.592 Radial†	7800.0	8047.8	2742.7	ug/L	2742.7	ppb	14:08:02
1	Sr 421.552†	31255.7	28852.0	209.67	ug/L	209.67	ppb	14:08:02
1	Sc 361.383	846872.9	846872.9	110.28	%			14:09:19
1	Y 371.029	831470.6	831470.6	120.67	%			14:09:19
1	Ag 328.068†	-6568.8	-6212.2	2.4162	ug/L	2.4162	ppb	14:09:25
1	As 188.979†	-20.5	6.4	48.910	ug/L	48.910	ppb	14:09:45
1	B 249.677†	708.1	1095.5	9.4555	ug/L	9.4555	ppb	14:09:25
1	Ba 233.527†	71860.2	65160.0	772.62	ug/L	772.62	ppb	14:09:25
1	Be 313.107†	-3231.3	6052.5	7.7463	ug/L	7.7463	ppb	14:09:25
1	Cd 226.502†	737.2	855.1	0.8150	ug/L	0.8150	ppb	14:09:45
1	Co 228.616†	2131.2	1990.0	53.944	ug/L	53.944	ppb	14:09:45
1	Cr 267.716†	9982.1	8976.1	125.07	ug/L	125.07	ppb	14:09:25
1	Cu 324.752†	20824.2	11347.1	48.397	ug/L	48.397	ppb	14:09:25
1	Mn 257.610†	1271800.4	1152799.3	1855.4	ug/L	1855.4	ppb	14:09:19
1	Mo 202.031†	6.5	-8.4	7.9561	ug/L	7.9561	ppb	14:09:45
1	Ni 231.604†	3148.8	2753.9	87.999	ug/L	87.999	ppb	14:09:45
1	P 214.914†	897.3	618.3	268.01	ug/L	268.01	ppb	14:09:45
1	Pb 220.353†	442.5	471.9	86.702	ug/L	86.702	ppb	14:09:45
1	S 181.975 Axial†	471.6	385.1	484.57	ug/L	484.57	ppb	14:09:45
1	Sb 206.836†	61.3	25.6	-0.3894	ug/L	-0.3894	ppb	14:09:45
1	Se 196.026†	-466.8	-403.5	5.8834	ug/L	5.8834	ppb	14:09:45
1	Si 251.611†	1463002.9	1326052.5	48389	ug/L	48389	ppb	14:09:19
1	Sn 189.927†	-57.3	-60.1	-17.180	ug/L	-17.180	ppb	14:09:45
1	Ti 334.940†	1285992.8	1167431.1	2353.6	ug/L	2353.6	ppb	14:09:19
1	Tl 190.801†	-123.5	-80.8	-9.3810	ug/L	-9.3810	ppb	14:09:45
1	U 409.014†	-9007.3	-5631.0	-201.33	ug/L	-201.33	ppb	14:09:19
1	V 292.402†	23799.2	23209.0	166.26	ug/L	166.26	ppb	14:09:25
1	Zn 213.857†	25495.1	22408.5	230.11	ug/L	230.11	ppb	14:09:25
1	SiO2†	1473679.3	1335726.5	104060	ug/L	104060	ppb	14:10:53
2	Sc Radial	5077.8	5077.8	108	%			14:08:47
2	Y RADIAL	5905.7	5905.7	118.5	%			14:08:47
2	Al 396.153Radial†	91315.4	84728.5	79256	ug/L	79256	ppb	14:08:27
2	Ca 317.933Radial†	10965.7	10142.1	18428	ug/L	18428	ppb	14:08:27
2	Fe 238.204 Radial†	11448.3	10604.3	110020	ug/L	110020	ppb	14:08:27
2	K 766.490 Radial†	54112.9	47896.3	9526.5	ug/L	9526.5	ppb	14:08:27
2	Mg 279.077 IEC†	452.5	416.5	16422	ug/L	16422	ppb	14:08:47
2	Na 589.592 Radial†	7746.2	8027.9	2735.9	ug/L	2735.9	ppb	14:08:27
2	Sr 421.552†	31368.8	29076.6	211.30	ug/L	211.30	ppb	14:08:27
2	Sc 361.383	852515.4	852515.4	111.01	%			14:09:51
2	Y 371.029	838047.5	838047.5	121.63	%			14:09:51
2	Ag 328.068†	-6584.5	-6186.9	2.6588	ug/L	2.6588	ppb	14:09:56
2	As 188.979†	-9.7	16.3	53.463	ug/L	53.463	ppb	14:10:16
2	B 249.677†	742.9	1122.6	10.076	ug/L	10.076	ppb	14:09:56
2	Ba 233.527†	71919.3	64781.9	768.18	ug/L	768.18	ppb	14:09:56
2	Be 313.107†	-3400.8	5919.2	7.7038	ug/L	7.7038	ppb	14:09:56
2	Cd 226.502†	716.2	831.8	0.4465	ug/L	0.4465	ppb	14:10:16
2	Co 228.616†	2121.6	1968.6	53.277	ug/L	53.277	ppb	14:10:16
2	Cr 267.716†	9932.3	8871.3	123.64	ug/L	123.64	ppb	14:09:56
2	Cu 324.752†	21168.6	11532.4	49.110	ug/L	49.110	ppb	14:09:56
2	Mn 257.610†	1279060.7	1151706.3	1853.7	ug/L	1853.7	ppb	14:09:51
2	Mo 202.031†	-10.8	-24.1	6.5452	ug/L	6.5452	ppb	14:10:16
2	Ni 231.604†	3153.1	2738.9	87.519	ug/L	87.519	ppb	14:10:16

2	P 214.914†	911.1	625.4	271.66	ug/L	271.66 ppb	14:10:16
2	Pb 220.353†	451.0	476.9	87.612	ug/L	87.612 ppb	14:10:16
2	S 181.975 Axial†	473.9	384.3	483.46	ug/L	483.46 ppb	14:10:16
2	Sb 206.836†	51.6	16.4	-4.1266	ug/L	-4.1266 ppb	14:10:16
2	Se 196.026†	-463.6	-397.8	10.231	ug/L	10.231 ppb	14:10:16
2	Si 251.611†	1474106.0	1327273.4	48433	ug/L	48433 ppb	14:09:51
2	Sn 189.927†	-50.3	-53.4	-15.610	ug/L	-15.610 ppb	14:10:16
2	Ti 334.940†	1297105.1	1169722.7	2358.2	ug/L	2358.2 ppb	14:09:51
2	Tl 190.801†	-115.0	-72.3	-5.4585	ug/L	-5.4585 ppb	14:10:16
2	U 409.014†	-9074.5	-5637.4	-201.59	ug/L	-201.59 ppb	14:09:51
2	V 292.402†	23996.6	23244.0	166.46	ug/L	166.46 ppb	14:09:56
2	Zn 213.857†	25611.0	22359.9	229.52	ug/L	229.52 ppb	14:09:56
2	SiO2†	1470801.3	1324289.4	103160	ug/L	103160 ppb	14:10:59
3	Sc Radial	5080.1	5080.1	108	%		14:09:12
3	Y RADIAL	5910.1	5910.1	118.5	%		14:09:12
3	Al 396.153Radial†	90813.9	84224.6	78785	ug/L	78785 ppb	14:08:52
3	Ca 317.933Radial†	10948.9	10121.8	18391	ug/L	18391 ppb	14:08:52
3	Fe 238.204 Radial†	11424.4	10577.1	109740	ug/L	109740 ppb	14:08:52
3	K 766.490 Radial†	53959.6	47731.0	9493.6	ug/L	9493.6 ppb	14:08:52
3	Mg 279.077 IEC†	453.4	417.2	16450	ug/L	16450 ppb	14:09:12
3	Na 589.592 Radial†	7758.6	8036.0	2738.7	ug/L	2738.7 ppb	14:08:52
3	Sr 421.552†	31108.5	28822.0	209.45	ug/L	209.45 ppb	14:08:52
3	Sc 361.383	852949.3	852949.3	111.07	%		14:10:22
3	Y 371.029	839140.3	839140.3	121.78	%		14:10:22
3	Ag 328.068†	-6587.8	-6186.9	2.5735	ug/L	2.5735 ppb	14:10:27
3	As 188.979†	-17.4	9.4	50.319	ug/L	50.319 ppb	14:10:47
3	B 249.677†	709.7	1092.4	9.3657	ug/L	9.3657 ppb	14:10:27
3	Ba 233.527†	72257.7	65053.6	771.37	ug/L	771.37 ppb	14:10:27
3	Be 313.107†	-3301.6	6010.1	7.7412	ug/L	7.7412 ppb	14:10:27
3	Cd 226.502†	727.7	841.8	0.6167	ug/L	0.6167 ppb	14:10:47
3	Co 228.616†	2124.0	1969.8	53.317	ug/L	53.317 ppb	14:10:47
3	Cr 267.716†	10063.2	8984.6	125.19	ug/L	125.19 ppb	14:10:27
3	Cu 324.752†	21162.8	11517.4	49.038	ug/L	49.038 ppb	14:10:27
3	Mn 257.610†	1280292.6	1152229.3	1854.5	ug/L	1854.5 ppb	14:10:22
3	Mo 202.031†	-16.7	-29.4	6.0366	ug/L	6.0366 ppb	14:10:47
3	Ni 231.604†	3121.9	2709.4	86.576	ug/L	86.576 ppb	14:10:47
3	P 214.914†	906.4	620.7	269.20	ug/L	269.20 ppb	14:10:47
3	Pb 220.353†	459.5	484.4	88.722	ug/L	88.722 ppb	14:10:47
3	S 181.975 Axial†	472.2	382.7	481.36	ug/L	481.36 ppb	14:10:47
3	Sb 206.836†	45.5	10.9	-6.3723	ug/L	-6.3723 ppb	14:10:47
3	Se 196.026†	-457.8	-392.4	12.883	ug/L	12.883 ppb	14:10:47
3	Si 251.611†	1475291.8	1327665.6	48447	ug/L	48447 ppb	14:10:22
3	Sn 189.927†	-52.7	-55.5	-16.111	ug/L	-16.111 ppb	14:10:47
3	Ti 334.940†	1298067.8	1169995.1	2358.7	ug/L	2358.7 ppb	14:10:22
3	Tl 190.801†	-115.7	-73.0	-5.7350	ug/L	-5.7350 ppb	14:10:47
3	U 409.014†	-9009.5	-5574.7	-199.46	ug/L	-199.46 ppb	14:10:22
3	V 292.402†	24087.8	23315.1	167.07	ug/L	167.07 ppb	14:10:27
3	Zn 213.857†	25703.0	22431.0	230.35	ug/L	230.35 ppb	14:10:27
3	SiO2†	1479935.2	1331838.9	103750	ug/L	103750 ppb	14:11:05

Mean Data: 245969011|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	850779.2	110.79	%	0.441				0.40%
Sc Radial	5085.6	108	%	0.2				0.23%
Y 371.029	836219.5	121.36	%	0.602				0.50%
Y RADIAL	5919.7	118.7	%	0.41				0.35%
Ag 328.068†	-6195.3	2.5495	ug/L	0.12309	2.5495	ppb	0.12309	4.83%
Al 396.153Radial†	84365.9	78917	ug/L	296.2	78917	ppb	296.2	0.38%
As 188.979†	10.7	50.897	ug/L	2.3307	50.897	ppb	2.3307	4.58%
B 249.677†	1103.5	9.6323	ug/L	0.38666	9.6323	ppb	0.38666	4.01%
Ba 233.527†	64998.5	770.72	ug/L	2.295	770.72	ppb	2.295	0.30%
Be 313.107†	5994.0	7.7305	ug/L	0.02320	7.7305	ppb	0.02320	0.30%
Ca 317.933Radial†	10123.8	18394	ug/L	31.4	18394	ppb	31.4	0.17%
Cd 226.502†	842.9	0.6261	ug/L	0.18444	0.6261	ppb	0.18444	29.46%
Co 228.616†	1976.1	53.513	ug/L	0.3743	53.513	ppb	0.3743	0.70%
Cr 267.716†	8944.0	124.63	ug/L	0.859	124.63	ppb	0.859	0.69%
Cu 324.752†	11465.6	48.848	ug/L	0.3925	48.848	ppb	0.3925	0.80%
Fe 238.204 Radial†	10583.5	109800	ug/L	191.5	109800	ppb	191.5	0.17%
K 766.490 Radial†	47737.6	9494.9	ug/L	30.94	9494.9	ppb	30.94	0.33%

Mg 279.077 IEC†	414.7	16353	ug/L	145.6	16353	ppb	145.6	0.89%
Mn 257.610†	1152245.0	1854.5	ug/L	0.86	1854.5	ppb	0.86	0.05%
Mo 202.031†	-20.7	6.8460	ug/L	0.99450	6.8460	ppb	0.99450	14.53%
Na 589.592 Radial†	8037.2	2739.1	ug/L	3.41	2739.1	ppb	3.41	0.12%
Ni 231.604†	2734.1	87.365	ug/L	0.7242	87.365	ppb	0.7242	0.83%
P 214.914†	621.5	269.62	ug/L	1.864	269.62	ppb	1.864	0.69%
Pb 220.353†	477.7	87.679	ug/L	1.0119	87.679	ppb	1.0119	1.15%
S 181.975 Axial†	384.0	483.13	ug/L	1.626	483.13	ppb	1.626	0.34%
Sb 206.836†	17.6	-3.6294	ug/L	3.02230	-3.6294	ppb	3.02230	83.27%
Se 196.026†	-397.9	9.6659	ug/L	3.53396	9.6659	ppb	3.53396	36.56%
Si 251.611†	1326997.2	48423	ug/L	30.7	48423	ppb	30.7	0.06%
Sn 189.927†	-56.3	-16.300	ug/L	0.8022	-16.300	ppb	0.8022	4.92%
Sr 421.552†	28916.9	210.14	ug/L	1.012	210.14	ppb	1.012	0.48%
Ti 334.940†	1169049.6	2356.8	ug/L	2.83	2356.8	ppb	2.83	0.12%
Tl 190.801†	-75.4	-6.8582	ug/L	2.18920	-6.8582	ppb	2.18920	31.92%
U 409.014†	-5614.4	-200.79	ug/L	1.162	-200.79	ppb	1.162	0.58%
V 292.402†	23256.0	166.60	ug/L	0.420	166.60	ppb	0.420	0.25%
Zn 213.857†	22399.8	229.99	ug/L	0.428	229.99	ppb	0.428	0.19%
SiO2†	1330618.3	103660	ug/L	453.0	103660	ppb	453.0	0.44%

Sequence No.: 7
Sample ID: 245969014|948756|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 3/1/2010 14:13:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245969014|948756|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5177.3	5177.3	110	%			14:15:09
1	Y RADIAL	6096.1	6096.1	122.3	%			14:15:09
1	Al 396.153Radial†	41380.4	37705.8	35271	ug/L	35271	ppb	14:15:09
1	Ca 317.933Radial†	5103.2	4617.1	8389.0	ug/L	8389.0	ppb	14:15:09
1	Fe 238.204 Radial†	8147.6	7399.6	76771	ug/L	76771	ppb	14:15:09
1	K 766.490 Radial†	36743.4	31141.5	6195.2	ug/L	6195.2	ppb	14:15:09
1	Mg 279.077 IEC†	204.6	183.1	7190.6	ug/L	7190.6	ppb	14:15:29
1	Na 589.592 Radial†	1997.8	2664.0	907.90	ug/L	907.90	ppb	14:15:09
1	Sr 421.552†	14201.9	12911.3	93.825	ug/L	93.825	ppb	14:15:09
1	Sc 361.383	839160.2	839160.2	109.27	%			14:16:26
1	Y 371.029	828884.4	828884.4	120.30	%			14:16:26
1	Ag 328.068†	-4165.2	-4067.4	3.0818	ug/L	3.0818	ppb	14:16:26
1	As 188.979†	-39.2	-10.9	33.574	ug/L	33.574	ppb	14:16:46
1	B 249.677†	452.3	867.4	9.1560	ug/L	9.1560	ppb	14:16:26
1	Ba 233.527†	43700.3	39989.0	474.50	ug/L	474.50	ppb	14:16:26
1	Be 313.107†	-5908.1	3576.0	6.7746	ug/L	6.7746	ppb	14:16:26
1	Cd 226.502†	492.0	636.9	1.1464	ug/L	1.1464	ppb	14:16:46
1	Co 228.616†	1175.3	1133.0	28.377	ug/L	28.377	ppb	14:16:46
1	Cr 267.716†	7982.0	7229.0	100.41	ug/L	100.41	ppb	14:16:26
1	Cu 324.752†	77871.8	63726.5	242.66	ug/L	242.66	ppb	14:16:26
1	Mn 257.610†	1348858.0	1233916.4	1982.3	ug/L	1982.3	ppb	14:16:26
1	Mo 202.031†	7.9	-7.1	5.4067	ug/L	5.4067	ppb	14:16:46
1	Ni 231.604†	2117.9	1836.8	58.697	ug/L	58.697	ppb	14:16:46
1	P 214.914†	1137.2	845.3	371.62	ug/L	371.62	ppb	14:16:46
1	Pb 220.353†	875.1	871.5	142.95	ug/L	142.95	ppb	14:16:46
1	S 181.975 Axial†	229.2	167.2	210.17	ug/L	210.17	ppb	14:16:46
1	Sb 206.836†	59.6	24.5	0.7997	ug/L	0.7997	ppb	14:16:46
1	Se 196.026†	-299.3	-254.1	19.640	ug/L	19.640	ppb	14:16:46
1	Si 251.611†	1081022.0	988684.2	36078	ug/L	36078	ppb	14:16:26
1	Sn 189.927†	21.6	11.7	-0.1659	ug/L	-0.1659	ppb	14:16:46
1	Ti 334.940†	1277308.2	1170201.4	2358.4	ug/L	2358.4	ppb	14:16:26
1	Tl 190.801†	-116.4	-75.3	-5.9876	ug/L	-5.9876	ppb	14:16:46
1	U 409.014†	-1130.5	1502.2	41.331	ug/L	41.331	ppb	14:16:26
1	V 292.402†	16952.7	17141.9	123.02	ug/L	123.02	ppb	14:16:26
1	Zn 213.857†	25148.9	22304.1	233.80	ug/L	233.80	ppb	14:16:26
1	SiO2†	1094317.4	1000844.0	77967	ug/L	77967	ppb	14:17:45
2	Sc Radial	5261.6	5261.6	112	%			14:15:34
2	Y RADIAL	6194.0	6194.0	124.2	%			14:15:34
2	Al 396.153Radial†	42080.6	37729.0	35292	ug/L	35292	ppb	14:15:34
2	Ca 317.933Radial†	5161.9	4595.2	8349.3	ug/L	8349.3	ppb	14:15:34
2	Fe 238.204 Radial†	8252.2	7374.4	76510	ug/L	76510	ppb	14:15:34
2	K 766.490 Radial†	37324.1	31125.4	6192.0	ug/L	6192.0	ppb	14:15:34
2	Mg 279.077 IEC†	202.0	177.8	6978.4	ug/L	6978.4	ppb	14:15:54
2	Na 589.592 Radial†	2042.4	2674.8	911.57	ug/L	911.57	ppb	14:15:34
2	Sr 421.552†	14437.3	12914.9	93.851	ug/L	93.851	ppb	14:15:34
2	Sc 361.383	833826.7	833826.7	108.58	%			14:16:52
2	Y 371.029	824481.1	824481.1	119.66	%			14:16:52
2	Ag 328.068†	-4235.7	-4156.7	2.5465	ug/L	2.5465	ppb	14:16:52
2	As 188.979†	-26.9	0.2	38.441	ug/L	38.441	ppb	14:17:12
2	B 249.677†	423.4	843.4	8.5973	ug/L	8.5973	ppb	14:16:52
2	Ba 233.527†	43323.6	39897.8	473.42	ug/L	473.42	ppb	14:16:52
2	Be 313.107†	-5988.4	3467.5	6.7307	ug/L	6.7307	ppb	14:16:52
2	Cd 226.502†	486.7	634.9	1.1436	ug/L	1.1436	ppb	14:17:12
2	Co 228.616†	1168.6	1133.7	28.402	ug/L	28.402	ppb	14:17:12
2	Cr 267.716†	7940.5	7237.4	100.52	ug/L	100.52	ppb	14:16:52
2	Cu 324.752†	77272.1	63630.0	242.28	ug/L	242.28	ppb	14:16:52
2	Mn 257.610†	1338474.7	1232249.2	1979.6	ug/L	1979.6	ppb	14:16:52
2	Mo 202.031†	18.0	2.2	6.2378	ug/L	6.2378	ppb	14:17:12
2	Ni 231.604†	2132.3	1862.5	59.518	ug/L	59.518	ppb	14:17:12

2	P 214.914†	1129.5	844.8	371.67 ug/L	371.67 ppb	14:17:12
2	Pb 220.353†	873.9	875.5	143.62 ug/L	143.62 ppb	14:17:12
2	S 181.975 Axial†	234.7	173.7	218.57 ug/L	218.57 ppb	14:17:12
2	Sb 206.836†	47.4	13.6	-3.5633 ug/L	-3.5633 ppb	14:17:12
2	Se 196.026†	-317.5	-272.6	7.7287 ug/L	7.7287 ppb	14:17:12
2	Si 251.611†	1073697.6	988266.4	36062 ug/L	36062 ppb	14:16:52
2	Sn 189.927†	33.0	22.3	2.3490 ug/L	2.3490 ppb	14:17:12
2	Ti 334.940†	1268998.4	1170025.0	2358.1 ug/L	2358.1 ppb	14:16:52
2	Tl 190.801†	-118.1	-77.6	-7.0332 ug/L	-7.0332 ppb	14:17:12
2	U 409.014†	-1348.5	1294.8	34.414 ug/L	34.414 ppb	14:16:52
2	V 292.402†	16778.8	17080.9	122.57 ug/L	122.57 ppb	14:16:52
2	Zn 213.857†	24945.5	22264.1	233.39 ug/L	233.39 ppb	14:16:52
2	SiO2†	1096759.5	1009498.8	78642 ug/L	78642 ppb	14:17:51
3	Sc Radial	5060.4	5060.4	108 %		14:15:59
3	Y RADIAL	5949.4	5949.4	119.3 %		14:15:59
3	Al 396.153Radial†	40845.0	38076.6	35617 ug/L	35617 ppb	14:15:59
3	Ca 317.933Radial†	5038.6	4664.2	8474.5 ug/L	8474.5 ppb	14:15:59
3	Fe 238.204 Radial†	8066.9	7495.6	77767 ug/L	77767 ppb	14:15:59
3	K 766.490 Radial†	36483.0	31670.8	6300.6 ug/L	6300.6 ppb	14:15:59
3	Mg 279.077 IEC†	205.7	188.5	7401.7 ug/L	7401.7 ppb	14:16:19
3	Na 589.592 Radial†	1936.1	2648.5	902.61 ug/L	902.61 ppb	14:15:59
3	Sr 421.552†	13921.5	12948.7	94.096 ug/L	94.096 ppb	14:15:59
3	Sc 361.383	841389.5	841389.5	109.56 %		14:17:18
3	Y 371.029	831342.0	831342.0	120.65 %		14:17:18
3	Ag 328.068†	-4327.1	-4205.1	2.6770 ug/L	2.6770 ppb	14:17:18
3	As 188.979†	-26.2	1.1	39.115 ug/L	39.115 ppb	14:17:38
3	B 249.677†	421.5	838.2	8.2644 ug/L	8.2644 ppb	14:17:18
3	Ba 233.527†	43814.0	39986.8	474.51 ug/L	474.51 ppb	14:17:18
3	Be 313.107†	-6084.8	3429.0	6.7144 ug/L	6.7144 ppb	14:17:18
3	Cd 226.502†	483.4	627.9	0.9152 ug/L	0.9152 ppb	14:17:38
3	Co 228.616†	1157.6	1114.0	27.791 ug/L	27.791 ppb	14:17:38
3	Cr 267.716†	8056.2	7277.3	101.09 ug/L	101.09 ppb	14:17:18
3	Cu 324.752†	78295.7	63924.5	243.45 ug/L	243.45 ppb	14:17:18
3	Mn 257.610†	1351622.8	1233169.3	1981.2 ug/L	1981.2 ppb	14:17:18
3	Mo 202.031†	15.4	-0.3	6.1067 ug/L	6.1067 ppb	14:17:38
3	Ni 231.604†	2119.1	1832.8	58.569 ug/L	58.569 ppb	14:17:38
3	P 214.914†	1133.5	839.2	367.37 ug/L	367.37 ppb	14:17:38
3	Pb 220.353†	854.7	850.8	139.61 ug/L	139.61 ppb	14:17:38
3	S 181.975 Axial†	227.9	165.5	207.86 ug/L	207.86 ppb	14:17:38
3	Sb 206.836†	57.5	22.4	-0.0038 ug/L	-0.0038 ppb	14:17:38
3	Se 196.026†	-316.1	-268.7	12.951 ug/L	12.951 ppb	14:17:38
3	Si 251.611†	1084685.6	989406.9	36104 ug/L	36104 ppb	14:17:18
3	Sn 189.927†	33.8	22.7	2.3939 ug/L	2.3939 ppb	14:17:38
3	Ti 334.940†	1280272.1	1169809.5	2357.7 ug/L	2357.7 ppb	14:17:18
3	Tl 190.801†	-120.2	-78.5	-7.4702 ug/L	-7.4702 ppb	14:17:38
3	U 409.014†	-1091.9	1540.2	42.487 ug/L	42.487 ppb	14:17:18
3	V 292.402†	16977.5	17123.4	122.74 ug/L	122.74 ppb	14:17:18
3	Zn 213.857†	25170.1	22262.5	233.19 ug/L	233.19 ppb	14:17:18
3	SiO2†	1099614.3	1003025.1	78137 ug/L	78137 ppb	14:17:56

Mean Data: 245969014|948756|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	838125.5	109.14	%	0.506				0.46%
Sc Radial	5166.5	110	%	2.1				1.96%
Y 371.029	828235.9	120.20	%	0.504				0.42%
Y RADIAL	6079.8	122.0	%	2.47				2.03%
Ag 328.068†	-4143.0	2.7684	ug/L	0.27911	2.7684	ppb	0.27911	10.08%
Al 396.153Radial†	37837.1	35393	ug/L	194.3	35393	ppb	194.3	0.55%
As 188.979†	-3.2	37.043	ug/L	3.0234	37.043	ppb	3.0234	8.16%
B 249.677†	849.7	8.6726	ug/L	0.45057	8.6726	ppb	0.45057	5.20%
Ba 233.527†	39957.9	474.14	ug/L	0.628	474.14	ppb	0.628	0.13%
Be 313.107†	3490.8	6.7399	ug/L	0.03116	6.7399	ppb	0.03116	0.46%
Ca 317.933Radial†	4625.5	8404.3	ug/L	64.02	8404.3	ppb	64.02	0.76%
Cd 226.502†	633.2	1.0684	ug/L	0.13267	1.0684	ppb	0.13267	12.42%
Co 228.616†	1126.9	28.190	ug/L	0.3460	28.190	ppb	0.3460	1.23%
Cr 267.716†	7247.9	100.67	ug/L	0.364	100.67	ppb	0.364	0.36%
Cu 324.752†	63760.4	242.80	ug/L	0.595	242.80	ppb	0.595	0.25%
Fe 238.204 Radial†	7423.2	77016	ug/L	663.4	77016	ppb	663.4	0.86%
K 766.490 Radial†	31312.6	6229.3	ug/L	61.76	6229.3	ppb	61.76	0.99%

Mg 279.077 IEC†	183.1	7190.2	ug/L	211.63	7190.2	ppb	211.63	2.94%
Mn 257.610†	1233111.7	1981.1	ug/L	1.35	1981.1	ppb	1.35	0.07%
Mo 202.031†	-1.8	5.9171	ug/L	0.44682	5.9171	ppb	0.44682	7.55%
Na 589.592 Radial†	2662.4	907.36	ug/L	4.500	907.36	ppb	4.500	0.50%
Ni 231.604†	1844.0	58.928	ug/L	0.5153	58.928	ppb	0.5153	0.87%
P 214.914†	843.1	370.22	ug/L	2.469	370.22	ppb	2.469	0.67%
Pb 220.353†	866.0	142.06	ug/L	2.149	142.06	ppb	2.149	1.51%
S 181.975 Axial†	168.8	212.20	ug/L	5.635	212.20	ppb	5.635	2.66%
Sb 206.836†	20.2	-0.9225	ug/L	2.32206	-0.9225	ppb	2.32206	251.72%
Se 196.026†	-265.1	13.440	ug/L	5.9708	13.440	ppb	5.9708	44.43%
Si 251.611†	988785.8	36081	ug/L	21.1	36081	ppb	21.1	0.06%
Sn 189.927†	18.9	1.5257	ug/L	1.46512	1.5257	ppb	1.46512	96.03%
Sr 421.552†	12925.0	93.924	ug/L	0.1495	93.924	ppb	0.1495	0.16%
Ti 334.940†	1170012.0	2358.1	ug/L	0.40	2358.1	ppb	0.40	0.02%
Tl 190.801†	-77.1	-6.8303	ug/L	0.76187	-6.8303	ppb	0.76187	11.15%
U 409.014†	1445.8	39.411	ug/L	4.3653	39.411	ppb	4.3653	11.08%
V 292.402†	17115.4	122.78	ug/L	0.228	122.78	ppb	0.228	0.19%
Zn 213.857†	22276.9	233.46	ug/L	0.310	233.46	ppb	0.310	0.13%
SiO2†	1004455.9	78249	ug/L	350.6	78249	ppb	350.6	0.45%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 14:20:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5106.5	5106.5	108	%			14:21:59
1	Y RADIAL	5370.5	5370.5	107.7	%			14:21:59
1	Al 396.153Radial†	5786.0	5420.0	5045.8	ug/L	5045.8	ppb	14:21:59
1	Ca 317.933Radial†	3030.2	2770.8	5034.4	ug/L	5034.4	ppb	14:22:19
1	Fe 238.204 Radial†	542.1	492.3	5122.9	ug/L	5122.9	ppb	14:22:19
1	K 766.490 Radial†	29833.1	25235.4	5017.1	ug/L	5017.1	ppb	14:21:59
1	Mg 279.077 IEC†	145.0	130.8	5191.4	ug/L	5191.4	ppb	14:22:19
1	Na 589.592 Radial†	30899.7	29327.9	9994.9	ug/L	9994.9	ppb	14:21:59
1	Sr 421.552†	74979.2	69108.5	502.50	ug/L	502.50	ppb	14:21:59
1	Sc 361.383	826727.5	826727.5	107.66	%			14:23:17
1	Y 371.029	729362.4	729362.4	105.85	%			14:23:17
1	Ag 328.068†	104560.7	96869.8	501.16	ug/L	501.16	ppb	14:23:22
1	As 188.979†	1187.5	1128.0	507.10	ug/L	507.10	ppb	14:23:42
1	B 249.677†	20897.5	19864.9	495.15	ug/L	495.15	ppb	14:23:22
1	Ba 233.527†	45864.8	42601.0	503.95	ug/L	503.95	ppb	14:23:22
1	Be 313.107†	1348946.3	1262005.5	502.76	ug/L	502.76	ppb	14:23:17
1	Cd 226.502†	38090.1	35568.2	504.12	ug/L	504.12	ppb	14:23:22
1	Co 228.616†	18229.1	16990.3	513.55	ug/L	513.55	ppb	14:23:22
1	Cr 267.716†	39521.4	36635.4	501.11	ug/L	501.11	ppb	14:23:22
1	Cu 324.752†	152344.6	133975.3	501.65	ug/L	501.65	ppb	14:23:22
1	Mn 257.610†	338312.0	313793.5	502.56	ug/L	502.56	ppb	14:23:22
1	Mo 202.031†	5874.9	5442.8	499.95	ug/L	499.95	ppb	14:23:42
1	Ni 231.604†	17162.4	15840.6	506.07	ug/L	506.07	ppb	14:23:22
1	P 214.914†	5041.7	4487.8	2408.2	ug/L	2408.2	ppb	14:23:42
1	Pb 220.353†	3262.9	3101.6	501.98	ug/L	501.98	ppb	14:23:42
1	S 181.975 Axial†	887.9	782.2	1013.3	ug/L	1013.3	ppb	14:23:42
1	Sb 206.836†	1366.6	1239.4	520.76	ug/L	520.76	ppb	14:23:42
1	Se 196.026†	866.9	825.0	518.74	ug/L	518.74	ppb	14:23:42
1	Si 251.611†	74504.2	68617.0	2497.7	ug/L	2497.7	ppb	14:23:22
1	Sn 189.927†	2281.9	2111.6	497.87	ug/L	497.87	ppb	14:23:42
1	Ti 334.940†	266197.5	248569.3	500.72	ug/L	500.72	ppb	14:23:22
1	Tl 190.801†	1134.6	1085.1	501.65	ug/L	501.65	ppb	14:23:42
1	U 409.014†	13786.7	15343.1	512.07	ug/L	512.07	ppb	14:23:22
1	V 292.402†	65975.8	62912.3	507.68	ug/L	507.68	ppb	14:23:22
1	Zn 213.857†	49751.0	45502.9	497.16	ug/L	497.16	ppb	14:23:22
1	SiO2†	74476.3	68583.9	5329.2	ug/L	5329.2	ppb	14:24:49
2	Sc Radial	4922.9	4922.9	105	%			14:22:25
2	Y RADIAL	5179.3	5179.3	103.9	%			14:22:25
2	Al 396.153Radial†	5689.1	5526.3	5145.4	ug/L	5145.4	ppb	14:22:25
2	Ca 317.933Radial†	3022.8	2867.8	5210.7	ug/L	5210.7	ppb	14:22:45
2	Fe 238.204 Radial†	546.5	515.2	5360.3	ug/L	5360.3	ppb	14:22:45
2	K 766.490 Radial†	29347.0	25796.2	5128.6	ug/L	5128.6	ppb	14:22:25
2	Mg 279.077 IEC†	144.3	135.1	5362.4	ug/L	5362.4	ppb	14:22:45
2	Na 589.592 Radial†	30283.4	29800.9	10156	ug/L	10156	ppb	14:22:25
2	Sr 421.552†	73566.0	70334.9	511.42	ug/L	511.42	ppb	14:22:25
2	Sc 361.383	827747.3	827747.3	107.79	%			14:23:47
2	Y 371.029	732457.2	732457.2	106.30	%			14:23:47
2	Ag 328.068†	104699.6	96878.9	501.28	ug/L	501.28	ppb	14:23:53
2	As 188.979†	1183.3	1122.8	504.82	ug/L	504.82	ppb	14:24:13
2	B 249.677†	20929.2	19870.4	495.26	ug/L	495.26	ppb	14:23:53
2	Ba 233.527†	46007.2	42680.6	504.89	ug/L	504.89	ppb	14:23:53
2	Be 313.107†	1345459.0	1257226.4	500.86	ug/L	500.86	ppb	14:23:47
2	Cd 226.502†	38045.1	35482.8	502.88	ug/L	502.88	ppb	14:23:53
2	Co 228.616†	18208.5	16950.3	512.33	ug/L	512.33	ppb	14:23:53
2	Cr 267.716†	39574.4	36639.3	501.17	ug/L	501.17	ppb	14:23:53
2	Cu 324.752†	152379.4	133833.1	501.13	ug/L	501.13	ppb	14:23:53
2	Mn 257.610†	338226.6	313327.2	501.83	ug/L	501.83	ppb	14:23:53
2	Mo 202.031†	5846.1	5409.3	496.90	ug/L	496.90	ppb	14:24:13
2	Ni 231.604†	17221.9	15876.2	507.20	ug/L	507.20	ppb	14:23:53

2	P 214.914†	5035.5	4476.3	2401.7 ug/L	2401.7 ppb	14:24:13
2	Pb 220.353†	3257.7	3093.0	500.59 ug/L	500.59 ppb	14:24:13
2	S 181.975 Axial†	876.8	770.9	998.55 ug/L	998.55 ppb	14:24:13
2	Sb 206.836†	1362.0	1233.5	518.27 ug/L	518.27 ppb	14:24:13
2	Se 196.026†	875.3	831.8	523.44 ug/L	523.44 ppb	14:24:13
2	Si 251.611†	74525.3	68551.3	2495.4 ug/L	2495.4 ppb	14:23:53
2	Sn 189.927†	2274.1	2101.7	495.57 ug/L	495.57 ppb	14:24:13
2	Ti 334.940†	266227.9	248292.9	500.17 ug/L	500.17 ppb	14:23:53
2	Tl 190.801†	1146.7	1095.0	506.21 ug/L	506.21 ppb	14:24:13
2	U 409.014†	13694.6	15242.0	508.66 ug/L	508.66 ppb	14:23:53
2	V 292.402†	66061.4	62916.1	507.63 ug/L	507.63 ppb	14:23:53
2	Zn 213.857†	49748.1	45443.3	496.46 ug/L	496.46 ppb	14:23:53
2	SiO2†	74098.9	68148.4	5295.4 ug/L	5295.4 ppb	14:24:54
3	Sc Radial	4997.1	4997.1	106 %		14:22:50
3	Y RADIAL	5257.7	5257.7	105.5 %		14:22:50
3	Al 396.153Radial†	5759.9	5512.2	5132.0 ug/L	5132.0 ppb	14:22:50
3	Ca 317.933Radial†	3025.9	2827.8	5138.0 ug/L	5138.0 ppb	14:23:10
3	Fe 238.204 Radial†	542.6	503.7	5241.7 ug/L	5241.7 ppb	14:23:10
3	K 766.490 Radial†	29692.0	25704.5	5110.4 ug/L	5110.4 ppb	14:22:50
3	Mg 279.077 IEC†	144.4	133.2	5286.6 ug/L	5286.6 ppb	14:23:10
3	Na 589.592 Radial†	30661.5	29727.0	10131 ug/L	10131 ppb	14:22:50
3	Sr 421.552†	74595.9	70260.3	510.88 ug/L	510.88 ppb	14:22:50
3	Sc 361.383	828096.0	828096.0	107.83 %		14:24:18
3	Y 371.029	732734.7	732734.7	106.34 %		14:24:18
3	Ag 328.068†	105136.8	97243.5	503.13 ug/L	503.13 ppb	14:24:24
3	As 188.979†	1195.9	1134.1	509.81 ug/L	509.81 ppb	14:24:44
3	B 249.677†	21085.8	20007.5	498.70 ug/L	498.70 ppb	14:24:24
3	Ba 233.527†	45960.5	42619.3	504.17 ug/L	504.17 ppb	14:24:24
3	Be 313.107†	1346591.1	1257750.6	501.07 ug/L	501.07 ppb	14:24:18
3	Cd 226.502†	38249.0	35657.0	505.37 ug/L	505.37 ppb	14:24:24
3	Co 228.616†	18343.5	17068.4	515.91 ug/L	515.91 ppb	14:24:24
3	Cr 267.716†	39643.9	36688.3	501.84 ug/L	501.84 ppb	14:24:24
3	Cu 324.752†	152708.4	134078.7	502.04 ug/L	502.04 ppb	14:24:24
3	Mn 257.610†	339250.8	314144.7	503.13 ug/L	503.13 ppb	14:24:24
3	Mo 202.031†	5877.3	5436.0	499.34 ug/L	499.34 ppb	14:24:44
3	Ni 231.604†	17346.3	15984.8	510.67 ug/L	510.67 ppb	14:24:24
3	P 214.914†	5050.0	4487.8	2408.0 ug/L	2408.0 ppb	14:24:44
3	Pb 220.353†	3269.9	3103.0	502.22 ug/L	502.22 ppb	14:24:44
3	S 181.975 Axial†	891.0	783.8	1015.3 ug/L	1015.3 ppb	14:24:44
3	Sb 206.836†	1381.4	1251.0	525.41 ug/L	525.41 ppb	14:24:44
3	Se 196.026†	870.5	827.0	520.24 ug/L	520.24 ppb	14:24:44
3	Si 251.611†	74682.0	68667.5	2499.6 ug/L	2499.6 ppb	14:24:24
3	Sn 189.927†	2274.4	2101.1	495.42 ug/L	495.42 ppb	14:24:44
3	Ti 334.940†	266619.9	248552.3	500.69 ug/L	500.69 ppb	14:24:24
3	Tl 190.801†	1154.8	1102.2	509.48 ug/L	509.48 ppb	14:24:44
3	U 409.014†	13704.4	15245.7	508.79 ug/L	508.79 ppb	14:24:24
3	V 292.402†	66211.2	63029.3	508.58 ug/L	508.58 ppb	14:24:24
3	Zn 213.857†	49976.7	45635.8	498.58 ug/L	498.58 ppb	14:24:24
3	SiO2†	74184.0	68198.4	5299.2 ug/L	5299.2 ppb	14:24:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	827523.6	107.76	%	0.093				0.09%
Sc Radial	5008.8	106	%	2.0				1.84%
Y 371.029	731518.1	106.17	%	0.272				0.26%
Y RADIAL	5269.1	105.7	%	1.93				1.82%
Ag 328.068†	96997.4	501.86	ug/L	1.100	501.86	ppb	1.100	0.22%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	5486.2	5107.7	ug/L	54.07	5107.7	ppb	54.07	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.15%								
As 188.979†	1128.3	507.24	ug/L	2.499	507.24	ppb	2.499	0.49%
QC value within limits for As 188.979 Recovery = 101.45%								
B 249.677†	19914.3	496.37	ug/L	2.017	496.37	ppb	2.017	0.41%
QC value within limits for B 249.677 Recovery = 99.27%								
Ba 233.527†	42633.6	504.34	ug/L	0.495	504.34	ppb	0.495	0.10%
QC value within limits for Ba 233.527 Recovery = 100.87%								
Be 313.107†	1258994.2	501.56	ug/L	1.042	501.56	ppb	1.042	0.21%
QC value within limits for Be 313.107 Recovery = 100.31%								
Ca 317.933Radial†	2822.2	5127.7	ug/L	88.62	5127.7	ppb	88.62	1.73%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.55%
Cd 226.502†            35569.3      504.12 ug/L        1.242      504.12 ppb        1.242   0.25%
   QC value within limits for Cd 226.502  Recovery = 100.82%
Co 228.616†            17003.0      513.93 ug/L        1.818      513.93 ppb        1.818   0.35%
   QC value within limits for Co 228.616  Recovery = 102.79%
Cr 267.716†            36654.4      501.37 ug/L        0.404      501.37 ppb        0.404   0.08%
   QC value within limits for Cr 267.716  Recovery = 100.27%
Cu 324.752†           133962.4      501.61 ug/L        0.458      501.61 ppb        0.458   0.09%
   QC value within limits for Cu 324.752  Recovery = 100.32%
Fe 238.204 Radial†       503.7      5241.6 ug/L       118.67      5241.6 ppb       118.67   2.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.83%
K 766.490 Radial†      25578.7      5085.4 ug/L        59.82      5085.4 ppb        59.82   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 101.71%
Mg 279.077 IEC†          133.0      5280.1 ug/L        85.70      5280.1 ppb        85.70   1.62%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.60%
Mn 257.610†           313755.1      502.51 ug/L        0.652      502.51 ppb        0.652   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†             5429.4      498.73 ug/L        1.613      498.73 ppb        1.613   0.32%
   QC value within limits for Mo 202.031  Recovery = 99.75%
Na 589.592 Radial†     29618.6       10094 ug/L         86.7       10094 ppb         86.7   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 100.94%
Ni 231.604†            15900.5      507.98 ug/L        2.400      507.98 ppb        2.400   0.47%
   QC value within limits for Ni 231.604  Recovery = 101.60%
P 214.914†              4484.0      2406.0 ug/L         3.72      2406.0 ppb         3.72   0.15%
   QC value within limits for P 214.914  Recovery = 96.24%
Pb 220.353†             3099.2      501.60 ug/L        0.878      501.60 ppb        0.878   0.18%
   QC value within limits for Pb 220.353  Recovery = 100.32%
S 181.975 Axial†         779.0      1009.0 ug/L         9.13      1009.0 ppb         9.13   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 100.90%
Sb 206.836†             1241.3      521.48 ug/L        3.622      521.48 ppb        3.622   0.69%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              828.0      520.80 ug/L        2.400      520.80 ppb        2.400   0.46%
   QC value within limits for Se 196.026  Recovery = 104.16%
Si 251.611†            68612.0      2497.6 ug/L         2.11      2497.6 ppb         2.11   0.08%
   QC value within limits for Si 251.611  Recovery = 99.90%
Sn 189.927†             2104.8      496.29 ug/L        1.375      496.29 ppb        1.375   0.28%
   QC value within limits for Sn 189.927  Recovery = 99.26%
Sr 421.552†            69901.2      508.27 ug/L        4.999      508.27 ppb        4.999   0.98%
   QC value within limits for Sr 421.552  Recovery = 101.65%
Ti 334.940†           248471.5      500.52 ug/L        0.308      500.52 ppb        0.308   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.10%
Tl 190.801†             1094.1      505.78 ug/L        3.930      505.78 ppb        3.930   0.78%
   QC value within limits for Tl 190.801  Recovery = 101.16%
U 409.014†             15276.9      509.84 ug/L        1.934      509.84 ppb        1.934   0.38%
   QC value within limits for U 409.014  Recovery = 101.97%
V 292.402†             62952.6      507.96 ug/L        0.535      507.96 ppb        0.535   0.11%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            45527.3      497.40 ug/L        1.079      497.40 ppb        1.079   0.22%
   QC value within limits for Zn 213.857  Recovery = 99.48%
SiO2†                  68310.3      5307.9 ug/L        18.53      5307.9 ppb        18.53   0.35%
   QC value within limits for SiO2  Recovery = 99.26%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 14:27:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5218.0	5218.0	111	%			14:29:02
1	Y RADIAL	5544.9	5544.9	111.2	%			14:29:02
1	Al 396.153Radial†	-77.7	17.1	15.981	ug/L	15.981	ppb	14:29:22
1	Ca 317.933Radial†	26.4	1.6	2.9394	ug/L	2.9394	ppb	14:29:22
1	Fe 238.204 Radial†	6.9	-1.1	-11.400	ug/L	-11.400	ppb	14:29:22
1	K 766.490 Radial†	2305.6	-182.0	-36.259	ug/L	-36.259	ppb	14:29:02
1	Mg 279.077 IEC†	0.6	-2.4	-94.447	ug/L	-94.447	ppb	14:29:22
1	Na 589.592 Radial†	-704.6	212.2	72.333	ug/L	72.333	ppb	14:29:02
1	Sr 421.552†	28.1	25.8	0.1875	ug/L	0.1875	ppb	14:29:02
1	Sc 361.383	818015.8	818015.8	106.52	%			14:30:19
1	Y 371.029	730161.0	730161.0	105.97	%			14:30:19
1	Ag 328.068†	171.6	-94.6	-0.4967	ug/L	-0.4967	ppb	14:30:19
1	As 188.979†	-32.1	-5.1	-2.2835	ug/L	-2.2835	ppb	14:30:39
1	B 249.677†	-275.0	195.3	4.8931	ug/L	4.8931	ppb	14:30:39
1	Ba 233.527†	33.1	28.6	0.3385	ug/L	0.3385	ppb	14:30:39
1	Be 313.107†	-9561.3	6.7	0.0033	ug/L	0.0033	ppb	14:30:19
1	Cd 226.502†	-194.1	4.4	0.0659	ug/L	0.0659	ppb	14:30:39
1	Co 228.616†	-60.4	0.8	0.0227	ug/L	0.0227	ppb	14:30:39
1	Cr 267.716†	76.3	-4.0	-0.0578	ug/L	-0.0578	ppb	14:30:39
1	Cu 324.752†	7961.1	-62.4	-0.2399	ug/L	-0.2399	ppb	14:30:19
1	Mn 257.610†	462.2	-27.3	-0.0409	ug/L	-0.0409	ppb	14:30:39
1	Mo 202.031†	10.4	-4.6	-0.4211	ug/L	-0.4211	ppb	14:30:39
1	Ni 231.604†	92.0	-15.0	-0.4788	ug/L	-0.4788	ppb	14:30:39
1	P 214.914†	203.0	-4.8	-2.6490	ug/L	-2.6490	ppb	14:30:39
1	Pb 220.353†	-70.8	4.2	0.6871	ug/L	0.6871	ppb	14:30:39
1	S 181.975 Axial†	48.0	2.5	3.3025	ug/L	3.3025	ppb	14:30:39
1	Sb 206.836†	34.9	2.7	1.0817	ug/L	1.0817	ppb	14:30:39
1	Se 196.026†	-20.6	0.5	0.2706	ug/L	0.2706	ppb	14:30:39
1	Si 251.611†	641.9	13.4	0.4936	ug/L	0.4936	ppb	14:30:39
1	Sn 189.927†	1.4	-6.7	-1.5826	ug/L	-1.5826	ppb	14:30:39
1	Ti 334.940†	-1226.9	149.3	0.3043	ug/L	0.3043	ppb	14:30:19
1	Tl 190.801†	-32.6	0.6	0.2786	ug/L	0.2786	ppb	14:30:39
1	U 409.014†	-2367.3	314.4	10.530	ug/L	10.530	ppb	14:30:19
1	V 292.402†	-1671.2	59.0	0.4840	ug/L	0.4840	ppb	14:30:19
1	Zn 213.857†	768.6	11.3	0.1294	ug/L	0.1294	ppb	14:30:39
1	SiO2†	941.4	287.3	22.396	ug/L	22.396	ppb	14:31:35
2	Sc Radial	4894.3	4894.3	104	%			14:29:27
2	Y RADIAL	5151.7	5151.7	103.3	%			14:29:27
2	Al 396.153Radial†	-72.5	17.4	16.310	ug/L	16.310	ppb	14:29:47
2	Ca 317.933Radial†	30.3	7.0	12.674	ug/L	12.674	ppb	14:29:47
2	Fe 238.204 Radial†	7.3	-0.3	-2.8340	ug/L	-2.8340	ppb	14:29:47
2	K 766.490 Radial†	2376.3	23.5	4.6600	ug/L	4.6600	ppb	14:29:27
2	Mg 279.077 IEC†	-1.5	-4.3	-171.82	ug/L	-171.82	ppb	14:29:47
2	Na 589.592 Radial†	-730.3	145.5	49.591	ug/L	49.591	ppb	14:29:27
2	Sr 421.552†	47.6	46.2	0.3361	ug/L	0.3361	ppb	14:29:27
2	Sc 361.383	826087.4	826087.4	107.57	%			14:30:44
2	Y 371.029	736765.2	736765.2	106.93	%			14:30:44
2	Ag 328.068†	286.3	10.5	0.0460	ug/L	0.0460	ppb	14:30:44
2	As 188.979†	-26.6	0.3	0.1195	ug/L	0.1195	ppb	14:31:04
2	B 249.677†	-282.8	190.5	4.7711	ug/L	4.7711	ppb	14:31:04
2	Ba 233.527†	24.2	20.1	0.2383	ug/L	0.2383	ppb	14:31:04
2	Be 313.107†	-9617.7	41.9	0.0173	ug/L	0.0173	ppb	14:30:44
2	Cd 226.502†	-184.9	14.8	0.2112	ug/L	0.2112	ppb	14:31:04
2	Co 228.616†	-57.8	3.8	0.1138	ug/L	0.1138	ppb	14:31:04
2	Cr 267.716†	68.8	-11.6	-0.1624	ug/L	-0.1624	ppb	14:31:04
2	Cu 324.752†	8077.0	-27.6	-0.1094	ug/L	-0.1094	ppb	14:30:44
2	Mn 257.610†	457.6	-35.7	-0.0505	ug/L	-0.0505	ppb	14:31:04
2	Mo 202.031†	15.1	-0.4	-0.0350	ug/L	-0.0350	ppb	14:31:04
2	Ni 231.604†	82.9	-24.2	-0.7749	ug/L	-0.7749	ppb	14:31:04

2	P 214.914†	209.6	-0.5	-0.2668	ug/L	-0.2668	ppb	14:31:04
2	Pb 220.353†	-65.5	9.8	1.5802	ug/L	1.5802	ppb	14:31:04
2	S 181.975 Axial†	47.6	1.7	2.2181	ug/L	2.2181	ppb	14:31:04
2	Sb 206.836†	40.9	8.0	3.2413	ug/L	3.2413	ppb	14:31:04
2	Se 196.026†	-18.5	2.6	1.5708	ug/L	1.5708	ppb	14:31:04
2	Si 251.611†	616.6	-16.0	-0.5841	ug/L	-0.5841	ppb	14:31:04
2	Sn 189.927†	8.8	0.1	0.0315	ug/L	0.0315	ppb	14:31:04
2	Ti 334.940†	-1256.3	133.1	0.2795	ug/L	0.2795	ppb	14:30:44
2	Tl 190.801†	-31.6	1.8	0.8279	ug/L	0.8279	ppb	14:31:04
2	U 409.014†	-2397.0	308.5	10.332	ug/L	10.332	ppb	14:30:44
2	V 292.402†	-1694.5	52.7	0.4359	ug/L	0.4359	ppb	14:30:44
2	Zn 213.857†	775.3	10.4	0.1202	ug/L	0.1202	ppb	14:31:04
2	SiO2†	920.1	258.9	20.171	ug/L	20.171	ppb	14:31:40
3	Sc Radial	5105.8	5105.8	108	%			14:29:52
3	Y RADIAL	5352.2	5352.2	107.4	%			14:29:52
3	Al 396.153Radial†	-71.6	21.1	19.753	ug/L	19.753	ppb	14:30:12
3	Ca 317.933Radial†	28.4	4.0	7.3248	ug/L	7.3248	ppb	14:30:12
3	Fe 238.204 Radial†	7.6	-0.3	-3.2048	ug/L	-3.2048	ppb	14:30:12
3	K 766.490 Radial†	2357.6	-88.3	-17.604	ug/L	-17.604	ppb	14:29:52
3	Mg 279.077 IEC†	2.6	-0.5	-21.163	ug/L	-21.163	ppb	14:30:12
3	Na 589.592 Radial†	-717.6	186.3	63.493	ug/L	63.493	ppb	14:29:52
3	Sr 421.552†	26.4	24.8	0.1805	ug/L	0.1805	ppb	14:29:52
3	Sc 361.383	828191.4	828191.4	107.85	%			14:31:10
3	Y 371.029	738495.9	738495.9	107.18	%			14:31:10
3	Ag 328.068†	235.0	-37.7	-0.2027	ug/L	-0.2027	ppb	14:31:10
3	As 188.979†	-27.5	-0.4	-0.1939	ug/L	-0.1939	ppb	14:31:30
3	B 249.677†	-243.9	227.3	5.6914	ug/L	5.6914	ppb	14:31:30
3	Ba 233.527†	31.0	26.3	0.3114	ug/L	0.3114	ppb	14:31:30
3	Be 313.107†	-9667.4	18.6	0.0084	ug/L	0.0084	ppb	14:31:10
3	Cd 226.502†	-185.7	14.5	0.2072	ug/L	0.2072	ppb	14:31:30
3	Co 228.616†	-56.4	5.1	0.1535	ug/L	0.1535	ppb	14:31:30
3	Cr 267.716†	55.6	-24.0	-0.3321	ug/L	-0.3321	ppb	14:31:30
3	Cu 324.752†	8025.1	-94.9	-0.3621	ug/L	-0.3621	ppb	14:31:10
3	Mn 257.610†	526.6	27.2	0.0440	ug/L	0.0440	ppb	14:31:30
3	Mo 202.031†	10.0	-5.1	-0.4724	ug/L	-0.4724	ppb	14:31:30
3	Ni 231.604†	94.5	-13.7	-0.4386	ug/L	-0.4386	ppb	14:31:30
3	P 214.914†	202.3	-7.8	-4.2895	ug/L	-4.2895	ppb	14:31:30
3	Pb 220.353†	-68.3	7.4	1.1910	ug/L	1.1910	ppb	14:31:30
3	S 181.975 Axial†	41.9	-3.6	-4.6868	ug/L	-4.6868	ppb	14:31:30
3	Sb 206.836†	36.9	4.2	1.6841	ug/L	1.6841	ppb	14:31:30
3	Se 196.026†	-12.9	7.8	4.7720	ug/L	4.7720	ppb	14:31:30
3	Si 251.611†	677.7	39.2	1.4351	ug/L	1.4351	ppb	14:31:30
3	Sn 189.927†	6.8	-1.8	-0.4216	ug/L	-0.4216	ppb	14:31:30
3	Ti 334.940†	-1153.1	231.9	0.4648	ug/L	0.4648	ppb	14:31:10
3	Tl 190.801†	-37.2	-3.3	-1.5222	ug/L	-1.5222	ppb	14:31:30
3	U 409.014†	-2354.5	353.6	11.843	ug/L	11.843	ppb	14:31:10
3	V 292.402†	-1686.9	63.8	0.5238	ug/L	0.5238	ppb	14:31:10
3	Zn 213.857†	767.6	1.5	0.0198	ug/L	0.0198	ppb	14:31:30
3	SiO2†	850.9	192.6	15.014	ug/L	15.014	ppb	14:31:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	824098.2	107.31	%	0.699				0.65%
Sc Radial	5072.7	108	%	3.5				3.24%
Y 371.029	735140.7	106.69	%	0.638				0.60%
Y RADIAL	5349.6	107.3	%	3.94				3.67%
Ag 328.068†	-40.6	-0.2178	ug/L	0.27163	-0.2178	ppb	0.27163	124.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.5	17.348	ug/L	2.0891	17.348	ppb	2.0891	12.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-0.7860	ug/L	1.30634	-0.7860	ppb	1.30634	166.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	204.4	5.1185	ug/L	0.49985	5.1185	ppb	0.49985	9.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.0	0.2961	ug/L	0.05185	0.2961	ppb	0.05185	17.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	22.4	0.0097	ug/L	0.00705	0.0097	ppb	0.00705	72.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.2	7.6459	ug/L	4.87507	7.6459	ppb	4.87507	63.76%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              11.2      0.1614 ug/L       0.08279      0.1614 ppb        0.08279  51.28%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.2      0.0967 ug/L       0.06705      0.0967 ppb        0.06705  69.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.2     -0.1841 ug/L       0.13844     -0.1841 ppb        0.13844  75.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -61.6     -0.2371 ug/L       0.12639     -0.2371 ppb        0.12639  53.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.6     -5.8130 ug/L       4.84221     -5.8130 ppb        4.84221  83.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -82.3     -16.401 ug/L       20.4862     -16.401 ppb        20.4862 124.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.4     -95.811 ug/L       75.3398     -95.811 ppb        75.3398  78.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -12.0     -0.0158 ug/L       0.05201     -0.0158 ppb        0.05201 329.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.4     -0.3095 ug/L       0.23909     -0.3095 ppb        0.23909  77.24%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      181.4      61.806 ug/L       11.4646      61.806 ppb        11.4646  18.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -17.6     -0.5641 ug/L       0.18364     -0.5641 ppb        0.18364  32.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.4     -2.4018 ug/L       2.02272     -2.4018 ppb        2.02272  84.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.1      1.1528 ug/L       0.44776      1.1528 ppb        0.44776  38.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.2      0.2779 ug/L       4.33364      0.2779 ppb        4.33364 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.0      2.0024 ug/L       1.11439      2.0024 ppb        1.11439  55.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.6      2.2045 ug/L       2.31661      2.2045 ppb        2.31661 105.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              12.2      0.4482 ug/L       1.01036      0.4482 ppb        1.01036 225.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.8     -0.6576 ug/L       0.83250     -0.6576 ppb        0.83250 126.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              32.3      0.2347 ug/L       0.08787      0.2347 ppb        0.08787  37.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             171.4      0.3496 ug/L       0.10060      0.3496 ppb        0.10060  28.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.3     -0.1386 ug/L       1.22934     -0.1386 ppb        1.22934 887.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              325.5      10.902 ug/L        0.8213      10.902 ppb         0.8213   7.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               58.5      0.4812 ug/L       0.04400      0.4812 ppb        0.04400   9.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               7.7      0.0898 ug/L       0.06078      0.0898 ppb        0.06078  67.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   246.3      19.193 ug/L        3.7872      19.193 ppb         3.7872  19.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 24, 2010 20:05:11
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1670
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	5289.2	5289.179	79.968	1.5
	Mg	24.0	40829.9	40829.877	661.407	1.6
	Co	58.9	72281.4	72281.406	484.155	0.7
	Rh	102.9	145598.6	145598.606	422.996	0.3
	In	114.9	158237.8	158237.766	875.794	0.6
	Pb	208.0	106955.3	106955.296	557.337	0.5
⌈>	Ba	137.9	153396.6	153396.628	955.116	0.6
⌊	Ba++	69.0	3562.5	0.023	0.000	0.3
⌈>	Ce	139.9	200701.0	200701.014	795.254	0.4
⌊	CeO	155.9	4381.4	0.022	0.000	1.9
	Bkgd	220.0	8.8	8.800	3.528	40.1

Current Optimization File Data

Current Value	Description
0.83	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.8	6056.0
Co	59	11	6.3	73371.3
In	115	11	7.0	161562.4

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	576	2080	0.655
Be	9.0	9.1	2049	2080	0.679
Mg	24.0	24.0	5686	2124	0.603
Mg	25.0	24.9	5914	2080	0.717
Mg	26.0	25.9	6132	2120	0.668
Co	58.9	58.9	14183	2170	0.627
Rh	102.9	102.9	24865	2230	0.704
In	114.9	114.9	27791	2260	0.689
Ce	139.9	139.9	33855	2280	0.759
Pb	206.0	206.0	49960	2420	0.795
Pb	207.0	207.0	50123	2385	0.698
Pb	208.0	208.0	50475	2430	0.748
U	238.1	238.0	57723	2470	0.749

Report Date/Time: Wednesday, February 24, 2010 20:03:24

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 10:02:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\Blank.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		137	
	Be	9		ug/L		15	
	B	11		ug/L		672	
	Na	23		ug/L		39389	
	Mg	24		ug/L		17345	
	Al	27		ug/L		28028	
	P	31		ug/L		7326	
	K	39		ug/L		457903	
	Ca	43		ug/L		319	
>	Sc	45		ug/L		1620343	
	V	51		ug/L		16790	
	Cr	52		ug/L		6536	
	Cr	53		ug/L		114204	
	Mn	55		ug/L		2227	
	Fe	57		ug/L		4938	
	Co	59		ug/L		176	
	Ni	60		ug/L		137	
	Cu	63		ug/L		284	
	Cu	65		ug/L		152	
	Zn	66		ug/L		385	
	Zn	67		ug/L		18139	
	Zn	68		ug/L		1407	
>	Ge	74		ug/L		365364	
	As	75		ug/L		1114	
	Se	77		ug/L		5530	
	Se	82		ug/L		6	
	Kr	83		ug/L		79	
	Sr	88		ug/L		504	
	Y	89		ug/L		75	
	Ag	107		ug/L		100	
	Cd	111		ug/L		30	
	Cd	114		ug/L		85	
>	In	115		ug/L		216719	
	Sn	120		ug/L		439	
	Sb	121		ug/L		622	
	Sb	123		ug/L		492	
	Ba	135		ug/L		63	
	Ba	137		ug/L		97	
	Ho	165		ug/L		12	
>	Lu	175		ug/L		307942	
	Tl	205		ug/L		385	
	Pb	208		ug/L		6301	
	Bi	209		ug/L		59	
	U	238		ug/L		770	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Linear Thru Zero	1.0000
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Linear Thru Zero	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Linear Thru Zero	1.0000
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Simple Linear	
Bi	209	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Thursday, February 25, 2010 10:04:54

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 10:08:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\Standard 1.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	0.832	22027	0.013
	Be	9	10.000	ug/L	0.798	5554	0.003
	B	11	20.000	ug/L	1.875	12592	0.007
	Na	23	1000.000	ug/L	1.642	4912707	2.943
	Mg	24	1000.000	ug/L	5.278	3329112	2.000
	Al	27	1000.000	ug/L	2.840	4965172	2.982
	P	31	1000.000	ug/L	0.482	282365	0.166
	K	39	1000.000	ug/L	6.149	5915142	3.291
	Ca	43	1000.000	ug/L	0.901	13021	0.008
>	Sc	45		ug/L		1655297	1655296.554
	V	51	10.000	ug/L	0.798	81984	0.039
	Cr	52	10.000	ug/L	0.449	61297	0.033
	Cr	53		ug/L		119663	0.002
	Mn	55	10.000	ug/L	1.215	82484	0.048
	Fe	57	1000.000	ug/L	0.967	161122	0.094
	Co	59	10.000	ug/L	0.693	57864	0.035
	Ni	60	10.000	ug/L	1.420	12258	0.007
	Cu	63		ug/L		29372	0.018
	Cu	65	10.000	ug/L	1.044	14738	0.009
	Zn	66	10.000	ug/L	1.803	9795	0.025
	Zn	67		ug/L		19136	0.001
	Zn	68		ug/L		8455	0.019
>	Ge	74		ug/L		376106	376106.412
	As	75	10.000	ug/L	5.806	10651	0.025
	Se	77		ug/L		6503	0.002
	Se	82	10.000	ug/L	3.437	954	0.003
	Kr	83		ug/L		77	-0.000
	Sr	88	10.000	ug/L	1.397	120241	0.542
	Y	89		ug/L		88	0.000
	Ag	107	10.000	ug/L	2.466	49072	0.222
	Cd	111	10.000	ug/L	2.800	11950	0.054
	Cd	114		ug/L		27259	0.123
>	In	115		ug/L		221108	221108.457
	Sn	120	10.000	ug/L	1.886	48450	0.217
	Sb	121	10.000	ug/L	0.985	40400	0.180
	Sb	123		ug/L		31565	0.140
	Ba	135		ug/L		11712	0.036
	Ba	137	10.000	ug/L	0.683	20511	0.063
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		323557	323557.328
	Tl	205	10.000	ug/L	1.127	98308	0.303
	Pb	208	10.000	ug/L	0.452	175473	0.522
	Bi	209		ug/L		69	0.000
	U	238	10.000	ug/L	0.670	185307	0.570

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Standard 1

Report Date/Time: Thursday, February 25, 2010 10:10:46

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 10:14:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\Standard 2.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	99.988	ug/L	0.399	216618	0.131
	Be	9	100.004	ug/L	1.148	55721	0.034
	B	11	200.033	ug/L	3.519	121868	0.073
	Na	23	9997.812	ug/L	3.949	47758975	28.795
	Mg	24	10001.923	ug/L	6.204	33822275	20.396
	Al	27	10001.453	ug/L	6.281	50192404	30.261
	P	31	9998.845	ug/L	1.460	2728117	1.642
	K	39	10001.403	ug/L	3.065	55802182	33.386
	Ca	43	10001.099	ug/L	0.457	128863	0.078
>	Sc	45		ug/L		1657337	1657337.011
	V	51	99.996	ug/L	1.348	663533	0.390
	Cr	52	99.987	ug/L	0.927	546400	0.326
	Cr	53		ug/L		174509	0.035
	Mn	55	99.979	ug/L	0.717	788949	0.475
	Fe	57	9994.487	ug/L	0.809	1485361	0.893
	Co	59	99.973	ug/L	0.734	562421	0.339
	Ni	60	99.974	ug/L	0.837	118395	0.071
	Cu	63		ug/L		279469	0.168
	Cu	65	99.957	ug/L	0.622	140126	0.084
	Zn	66	99.994	ug/L	0.597	92572	0.248
	Zn	67		ug/L		33242	0.040
	Zn	68		ug/L		70709	0.187
>	Ge	74		ug/L		371273	371272.659
	As	75	100.073	ug/L	1.322	102388	0.273
	Se	77		ug/L		13658	0.022
	Se	82	100.012	ug/L	1.511	9479	0.026
	Kr	83		ug/L		100	0.000
	Sr	88	99.989	ug/L	0.387	1145060	5.356
	Y	89		ug/L		182	0.001
	Ag	107	99.988	ug/L	0.633	467885	2.189
	Cd	111	100.006	ug/L	0.558	116013	0.543
	Cd	114		ug/L		263679	1.233
>	In	115		ug/L		213712	213711.837
	Sn	120	100.017	ug/L	1.027	472565	2.209
	Sb	121	100.054	ug/L	1.491	407108	1.902
	Sb	123		ug/L		314709	1.471
	Ba	135		ug/L		116615	0.375
	Ba	137	100.040	ug/L	0.367	204487	0.657
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		310935	310935.362
	Tl	205	99.982	ug/L	1.044	924555	2.972
	Pb	208	100.006	ug/L	0.835	1638259	5.249
	Bi	209		ug/L		177	0.000
	U	238	99.924	ug/L	0.834	1647428	5.296

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 10:20:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtlmozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 1.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.261**	**ug/L**	0.966	113750	0.067
	Be	9	**51.260**	**ug/L**	1.082	29245	0.017
	B	11	**107.398**	**ug/L**	2.518	67298	0.039
	Na	23	**4709.164**	**ug/L**	4.698	23050339	13.563
	Mg	24	**4770.601**	**ug/L**	5.246	16519477	9.728
	Al	27	**5134.102**	**ug/L**	2.851	26380991	15.534
	P	31	**4844.335**	**ug/L**	0.915	1356931	0.795
	K	39	**4731.357**	**ug/L**	5.721	27281067	15.794
	Ca	43	**4824.366**	**ug/L**	0.627	63807	0.037
>	Sc	45		**ug/L**		1696576	1696575.996
	V	51	**50.563**	**ug/L**	0.642	352146	0.197
	Cr	52	**51.408**	**ug/L**	1.332	290895	0.167
	Cr	53		**ug/L**		149638	0.018
	Mn	55	**52.076**	**ug/L**	0.279	421789	0.247
	Fe	57	**5041.939**	**ug/L**	0.677	769625	0.451
	Co	59	**50.093**	**ug/L**	0.841	288577	0.170
	Ni	60	**51.509**	**ug/L**	1.024	62512	0.037
	Cu	63		**ug/L**		147457	0.087
	Cu	65	**51.488**	**ug/L**	1.459	73964	0.044
	Zn	66	**52.547**	**ug/L**	0.456	49877	0.130
	Zn	67		**ug/L**		26082	0.019
	Zn	68		**ug/L**		38026	0.096
>	Ge	74		**ug/L**		379226	379226.496
	As	75	**47.600**	**ug/L**	1.094	50346	0.130
	Se	77		**ug/L**		10259	0.012
	Se	82	**50.347**	**ug/L**	0.633	4877	0.013
	Kr	83		**ug/L**		82	0.000
	Sr	88	**51.159**	**ug/L**	1.062	612373	2.740
	Y	89		**ug/L**		145	0.000
	Ag	107	**51.223**	**ug/L**	0.643	250488	1.121
	Cd	111	**49.877**	**ug/L**	1.141	60471	0.271
	Cd	114		**ug/L**		137019	0.613
>	In	115		**ug/L**		223295	223295.226
	Sn	120	**49.330**	**ug/L**	1.604	243763	1.090
	Sb	121	**48.522**	**ug/L**	1.715	206627	0.923
	Sb	123		**ug/L**		160999	0.719
	Ba	135		**ug/L**		60753	0.191
	Ba	137	**51.852**	**ug/L**	0.190	108081	0.341
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		316938	316938.264
	Tl	205	**49.939**	**ug/L**	1.891	470880	1.485
	Pb	208	**52.181**	**ug/L**	1.090	874396	2.739
	Bi	209		**ug/L**		212	0.000
	U	238	**55.556**	**ug/L**	0.591	933987	2.945

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.522				
	Be	9	102.520				
	B	11	107.398				
	Na	23	94.183				
	Mg	24	95.412				
	Al	27	101.665				
	P	31	96.887				
	K	39	94.627				
	Ca	43	96.487				
>	Sc	45		104.7			
	V	51	101.126				
	Cr	52	102.816				
	Cr	53					
	Mn	55	104.151				
	Fe	57	100.839				
	Co	59	100.187				
	Ni	60	103.018				
	Cu	63					
	Cu	65	102.977				
	Zn	66	105.094				
	Zn	67					
	Zn	68					
>	Ge	74		103.8			
	As	75	95.200				
	Se	77					
	Se	82	100.694				
	Kr	83					
	Sr	88	102.318				
	Y	89					
	Ag	107	102.446				
	Cd	111	99.755				
	Cd	114					
>	In	115		103.0			
	Sn	120	98.659				
	Sb	121	97.045				
	Sb	123					
	Ba	135					
	Ba	137	103.703				
	Ho	165					
>	Lu	175		102.9			
	Tl	205	99.879				
	Pb	208	104.362				
	Bi	209					
	U	238	111.112				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 1

Report Date/Time: Thursday, February 25, 2010 10:22:30

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 10:25:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 2.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.015	ug/L	37.717	179	0.000
	Be	9	0.005	ug/L	171.018	19	0.000
	B	11	3.150	ug/L	18.639	2687	0.001
	Na	23	-0.618	ug/L	230.143	38720	-0.002
	Mg	24	-0.388	ug/L	137.132	17010	-0.001
	Al	27	-0.133	ug/L	633.930	29030	-0.000
	P	31	-1.269	ug/L	55.927	7405	-0.000
	K	39	-4.569	ug/L	50.077	458924	-0.015
	Ca	43	-0.266	ug/L	986.427	334	-0.000
>	Sc	45		ug/L		1716811	1716811.196
	V	51	0.841	ug/L	63.131	23412	0.003
	Cr	52	0.331	ug/L	16.184	8775	0.001
	Cr	53		ug/L		125069	0.002
	Mn	55	-0.019	ug/L	40.133	2203	-0.000
	Fe	57	2.286	ug/L	84.635	5581	0.000
	Co	59	0.006	ug/L	83.591	219	0.000
	Ni	60	-0.010	ug/L	27.786	133	-0.000
	Cu	63		ug/L		289	-0.000
	Cu	65	0.010	ug/L	144.547	176	0.000
	Zn	66	-0.018	ug/L	118.490	388	-0.000
	Zn	67		ug/L		18201	-0.002
	Zn	68		ug/L		1429	-0.000
>	Ge	74		ug/L		383941	383940.749
	As	75	-0.289	ug/L	54.350	868	-0.001
	Se	77		ug/L		6753	0.002
	Se	82	-0.007	ug/L	1831.627	6	-0.000
	Kr	83		ug/L		80	-0.000
	Sr	88	0.003	ug/L	54.273	567	0.000
	Y	89		ug/L		54	-0.000
	Ag	107	0.008	ug/L	36.419	146	0.000
	Cd	111	0.010	ug/L	26.559	44	0.000
	Cd	114		ug/L		88	-0.000
>	In	115		ug/L		226588	226587.586
	Sn	120	0.066	ug/L	22.272	787	0.001
	Sb	121	0.497	ug/L	20.445	2793	0.009
	Sb	123		ug/L		2215	0.008
	Ba	135		ug/L		60	-0.000
	Ba	137	0.003	ug/L	32.388	109	0.000
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		323734	323734.011
	Tl	205	0.054	ug/L	28.533	925	0.002
	Pb	208	-0.125	ug/L	4.263	4506	-0.007
	Bi	209		ug/L		50	-0.000
	U	238	0.012	ug/L	32.616	1010	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			106.0		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			105.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			104.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			105.1		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 2

Report Date/Time: Thursday, February 25, 2010 10:28:26

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 10:31:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 3.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.853**	**ug/L**	1.370	26356	0.015
	Be	9	**0.511**	**ug/L**	1.925	307	0.000
	B	11	**17.845**	**ug/L**	1.434	11744	0.007
	Na	23	**278.599**	**ug/L**	8.283	1399631	0.802
	Mg	24	**14.017**	**ug/L**	10.137	66488	0.029
	Al	27	**29.319**	**ug/L**	3.164	179454	0.089
	P	31	**53.201**	**ug/L**	0.618	22439	0.009
	K	39	**287.081**	**ug/L**	4.533	2100886	0.958
	Ca	43	**223.999**	**ug/L**	1.822	3274	0.002
>	Sc	45		**ug/L**		1692833	1692833.138
	V	51	**11.972**	**ug/L**	2.320	96591	0.047
	Cr	52	**11.781**	**ug/L**	1.273	71785	0.038
	Cr	53		**ug/L**		132583	0.008
	Mn	55	**5.962**	**ug/L**	0.470	50240	0.028
	Fe	57	**115.222**	**ug/L**	2.583	22589	0.010
	Co	59	**1.154**	**ug/L**	0.566	6815	0.004
	Ni	60	**2.346**	**ug/L**	1.294	2977	0.002
	Cu	63		**ug/L**		3914	0.002
	Cu	65	**1.288**	**ug/L**	3.752	2001	0.001
	Zn	66	**11.869**	**ug/L**	1.480	11728	0.029
	Zn	67		**ug/L**		20187	0.003
	Zn	68		**ug/L**		9555	0.021
>	Ge	74		**ug/L**		384225	384224.671
	As	75	**5.436**	**ug/L**	11.082	6861	0.015
	Se	77		**ug/L**		7057	0.003
	Se	82	**5.666**	**ug/L**	2.878	562	0.001
	Kr	83		**ug/L**		75	-0.000
	Sr	88	**11.549**	**ug/L**	1.512	141469	0.619
	Y	89		**ug/L**		60	-0.000
	Ag	107	**1.006**	**ug/L**	1.655	5125	0.022
	Cd	111	**1.138**	**ug/L**	1.747	1438	0.006
	Cd	114		**ug/L**		3192	0.014
>	In	115		**ug/L**		227860	227859.854
	Sn	120	**5.270**	**ug/L**	1.192	26985	0.116
	Sb	121	**3.035**	**ug/L**	1.035	13800	0.058
	Sb	123		**ug/L**		10750	0.045
	Ba	135		**ug/L**		2663	0.008
	Ba	137	**2.120**	**ug/L**	4.236	4599	0.014
	Ho	165		**ug/L**		11	-0.000
>	Lu	175		**ug/L**		322948	322947.620
	Tl	205	**1.102**	**ug/L**	6.342	10981	0.033
	Pb	208	**2.050**	**ug/L**	3.019	41339	0.108
	Bi	209		**ug/L**		59	-0.000
	U	238	**0.228**	**ug/L**	2.257	4702	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 3

Report Date/Time: Thursday, February 25, 2010 10:34:19

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	118.527				
	Be	9	102.287				
	B	11	118.964				
	Na	23	111.439				
	Mg	24	93.445				
	Al	27	97.730				
	P	31	106.402				
	K	39	95.694				
	Ca	43	112.000				
>	Sc	45		104.5			
	V	51	119.722				
	Cr	52	117.806				
	Cr	53					
	Mn	55	119.232				
	Fe	57	115.222				
	Co	59	115.429				
	Ni	60	117.307				
	Cu	63					
	Cu	65	128.823				
	Zn	66	118.686				
	Zn	67					
	Zn	68					
>	Ge	74		105.2			
	As	75	108.722				
	Se	77					
	Se	82	113.319				
	Kr	83					
	Sr	88	115.487				
	Y	89					
	Ag	107	100.649				
	Cd	111	113.758				
	Cd	114					
>	In	115		105.1			
	Sn	120	105.390				
	Sb	121	101.152				
	Sb	123					
	Ba	135					
	Ba	137	106.017				
	Ho	165					
>	Lu	175		104.9			
	Tl	205	110.182				
	Pb	208	102.484				
	Bi	209					
	U	238	113.804				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Thursday, February 25, 2010 10:34:19

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 10:37:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 4.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.089**	ug/L	26.450	290	0.000
	Be	9	**0.094**	ug/L	7.958	59	0.000
	B	11	**1.526**	ug/L	9.273	1403	0.001
	Na	23	**94185.556**	ug/L	1.041	391358270	271.268
	Mg	24	**92733.800**	ug/L	0.517	272810123	189.101
	Al	27	**93944.370**	ug/L	4.508	410104490	284.244
	P	31	**91552.286**	ug/L	0.372	21689040	15.030
	K	39	**89159.650**	ug/L	1.777	429765378	297.624
	Ca	43	**88770.896**	ug/L	0.631	993369	0.688
>	Sc	45		ug/L		1442593	1442593.451
	V	51	**0.917**	ug/L	28.782	20111	0.004
	Cr	52	**2.578**	ug/L	1.970	17933	0.008
	Cr	53		ug/L		97586	-0.003
	Mn	55	**5.604**	ug/L	0.430	40363	0.027
	Fe	57	**89190.394**	ug/L	0.984	11503260	7.971
	Co	59	**0.426**	ug/L	4.098	2245	0.001
	Ni	60	**4.182**	ug/L	1.294	4428	0.003
	Cu	63		ug/L		6942	0.005
	Cu	65	**4.438**	ug/L	0.555	5545	0.004
	Zn	66	**5.434**	ug/L	0.331	4669	0.013
	Zn	67		ug/L		15854	-0.000
	Zn	68		ug/L		1807	0.002
>	Ge	74		ug/L		321008	321008.438
	As	75	**-0.183**	ug/L	321.416	819	-0.000
	Se	77		ug/L		7747	0.009
	Se	82	**-2.273**	ug/L	10.306	-181	-0.001
	Kr	83		ug/L		301	0.001
	Sr	88	**2.865**	ug/L	0.789	29652	0.153
	Y	89		ug/L		415	0.002
	Ag	107	**0.132**	ug/L	4.893	637	0.003
	Cd	111	**0.468**	ug/L	23.089	509	0.003
	Cd	114		ug/L		9769	0.051
>	In	115		ug/L		190349	190348.867
	Sn	120	**0.263**	ug/L	9.217	1493	0.006
	Sb	121	**0.185**	ug/L	21.513	1216	0.004
	Sb	123		ug/L		910	0.003
	Ba	135		ug/L		789	0.003
	Ba	137	**0.692**	ug/L	1.481	1359	0.005
	Ho	165		ug/L		5309	0.019
>	Lu	175		ug/L		279495	279494.598
	Tl	205	**0.003**	ug/L	23.030	375	0.000
	Pb	208	**-0.023**	ug/L	18.707	5384	-0.001
	Bi	209		ug/L		2265	0.008
	U	238	**-0.041**	ug/L	2.105	89	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 4
Report Date/Time: Thursday, February 25, 2010 10:40:13

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	94.186				
	Mg	24	92.734				
	Al	27	93.944				
	P	31	91.552				
	K	39	89.160				
	Ca	43	88.771				
>	Sc	45		89.0			
	V	51					
	Cr	52	78.125				
	Cr	53					
	Mn	55	96.618				
	Fe	57	89.190				
	Co	59	181.461				
	Ni	60	126.357				
	Cu	63					
	Cu	65	132.883				
	Zn	66	144.509				
	Zn	67					
	Zn	68					
>	Ge	74		87.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	96.794				
	Y	89					
	Ag	107					
	Cd	111	105.415				
	Cd	114					
>	In	115		87.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	86.696				
	Ho	165					
>	Lu	175		90.8			
	Tl	205					
	Pb	208	-12.060				
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 4

Report Date/Time: Thursday, February 25, 2010 10:40:13

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 10:43:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 5.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.531**	**ug/L**	0.288	36360	0.026
	Be	9	**19.009**	**ug/L**	0.457	9088	0.006
	B	11	**19.512**	**ug/L**	1.782	10719	0.007
	Na	23	**94605.705**	**ug/L**	2.442	387046696	272.478
	Mg	24	**92351.292**	**ug/L**	2.382	267487836	188.321
	Al	27	**94978.525**	**ug/L**	2.758	408220133	287.373
	P	31	**90987.776**	**ug/L**	1.084	21223226	14.938
	K	39	**89132.634**	**ug/L**	2.368	423033686	297.533
	Ca	43	**88059.509**	**ug/L**	0.545	970221	0.683
>	Sc	45		**ug/L**		1420373	1420373.138
	V	51	**21.308**	**ug/L**	1.019	132760	0.083
	Cr	52	**22.391**	**ug/L**	1.130	109310	0.073
	Cr	53		**ug/L**		103058	0.002
	Mn	55	**25.785**	**ug/L**	0.477	175832	0.122
	Fe	57	**89590.855**	**ug/L**	0.746	11376732	8.007
	Co	59	**19.796**	**ug/L**	0.091	95568	0.067
	Ni	60	**22.833**	**ug/L**	0.343	23267	0.016
	Cu	63		**ug/L**		50444	0.035
	Cu	65	**22.690**	**ug/L**	1.010	27364	0.019
	Zn	66	**23.736**	**ug/L**	0.338	19127	0.059
	Zn	67		**ug/L**		18127	0.007
	Zn	68		**ug/L**		12827	0.036
>	Ge	74		**ug/L**		318822	318821.910
	As	75	**21.003**	**ug/L**	1.472	19222	0.057
	Se	77		**ug/L**		8491	0.011
	Se	82	**18.777**	**ug/L**	5.405	1533	0.005
	Kr	83		**ug/L**		301	0.001
	Sr	88	**23.584**	**ug/L**	0.904	236805	1.263
	Y	89		**ug/L**		398	0.002
	Ag	107	**19.493**	**ug/L**	0.431	79936	0.427
	Cd	111	**19.784**	**ug/L**	1.219	20116	0.107
	Cd	114		**ug/L**		53437	0.285
>	In	115		**ug/L**		187126	187126.378
	Sn	120	**20.181**	**ug/L**	1.121	83796	0.446
	Sb	121	**20.753**	**ug/L**	0.380	74370	0.395
	Sb	123		**ug/L**		58180	0.309
	Ba	135		**ug/L**		21488	0.076
	Ba	137	**20.505**	**ug/L**	0.840	38036	0.135
	Ho	165		**ug/L**		5256	0.019
>	Lu	175		**ug/L**		281656	281655.671
	Tl	205	**19.226**	**ug/L**	1.844	161326	0.572
	Pb	208	**19.733**	**ug/L**	0.991	297449	1.036
	Bi	209		**ug/L**		2466	0.009
	U	238	**22.463**	**ug/L**	1.194	336012	1.191

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 5

Report Date/Time: Thursday, February 25, 2010 10:46:08

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	97.655				
	Be	9	95.043				
	B	11	97.558				
	Na	23	94.606				
	Mg	24	92.351				
	Al	27	94.979				
	P	31	90.988				
	K	39	89.133				
	Ca	43	88.060				
>	Sc	45		87.7			
	V	51	106.541				
	Cr	52	96.097				
	Cr	53					
	Mn	55	99.942				
	Fe	57	89.591				
	Co	59	97.757				
	Ni	60	97.956				
	Cu	63					
	Cu	65	99.085				
	Zn	66	99.899				
	Zn	67					
	Zn	68					
>	Ge	74		87.3			
	As	75	105.013				
	Se	77					
	Se	82	93.883				
	Kr	83					
	Sr	88	102.720				
	Y	89					
	Ag	107	97.465				
	Cd	111	96.773				
	Cd	114					
>	In	115		86.3			
	Sn	120	100.906				
	Sb	121	103.766				
	Sb	123					
	Ba	135					
	Ba	137	99.201				
	Ho	165					
>	Lu	175		91.5			
	Tl	205	96.130				
	Pb	208	97.689				
	Bi	209					
	U	238	112.313				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 5

Report Date/Time: Thursday, February 25, 2010 10:46:08

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 10:49:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.575**	**ug/L**	1.259	109454	0.069
	Be	9	**51.864**	**ug/L**	0.811	27761	0.017
	B	11	**103.511**	**ug/L**	2.970	60882	0.038
	Na	23	**5091.516**	**ug/L**	6.137	23381998	14.664
	Mg	24	**4765.869**	**ug/L**	3.705	15486674	9.718
	Al	27	**4902.298**	**ug/L**	9.742	23640108	14.833
	P	31	**4839.633**	**ug/L**	0.419	1271837	0.795
	K	39	**4683.215**	**ug/L**	4.471	25332419	15.633
	Ca	43	**4889.997**	**ug/L**	1.082	60673	0.038
>	Sc	45		**ug/L**		1591683	1591683.285
	V	51	**51.338**	**ug/L**	0.878	335192	0.200
	Cr	52	**51.620**	**ug/L**	1.477	274019	0.168
	Cr	53		**ug/L**		141182	0.018
	Mn	55	**52.622**	**ug/L**	0.590	399837	0.250
	Fe	57	**5104.689**	**ug/L**	0.846	730986	0.456
	Co	59	**50.750**	**ug/L**	0.371	274286	0.172
	Ni	60	**52.092**	**ug/L**	0.488	59312	0.037
	Cu	63		**ug/L**		139196	0.087
	Cu	65	**51.734**	**ug/L**	0.740	69726	0.044
	Zn	66	**51.222**	**ug/L**	0.556	47116	0.127
	Zn	67		**ug/L**		24807	0.018
	Zn	68		**ug/L**		36239	0.095
>	Ge	74		**ug/L**		367418	367417.666
	As	75	**46.792**	**ug/L**	1.315	47974	0.128
	Se	77		**ug/L**		9718	0.011
	Se	82	**50.960**	**ug/L**	0.690	4783	0.013
	Kr	83		**ug/L**		73	-0.000
	Sr	88	**51.223**	**ug/L**	1.268	593815	2.744
	Y	89		**ug/L**		126	0.000
	Ag	107	**51.067**	**ug/L**	0.592	241859	1.118
	Cd	111	**50.343**	**ug/L**	1.359	59111	0.273
	Cd	114		**ug/L**		133910	0.619
>	In	115		**ug/L**		216265	216265.207
	Sn	120	**49.514**	**ug/L**	0.157	236976	1.094
	Sb	121	**48.339**	**ug/L**	2.144	199360	0.919
	Sb	123		**ug/L**		156619	0.722
	Ba	135		**ug/L**		59342	0.190
	Ba	137	**51.038**	**ug/L**	1.676	104998	0.335
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		312796	312796.469
	Tl	205	**50.140**	**ug/L**	0.350	466656	1.491
	Pb	208	**52.054**	**ug/L**	0.559	860956	2.732
	Bi	209		**ug/L**		210	0.000
	U	238	**55.886**	**ug/L**	0.309	927284	2.962

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 6

Report Date/Time: Thursday, February 25, 2010 10:52:00

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.150				
	Be	9	103.727				
	B	11	103.511				
	Na	23	101.830				
	Mg	24	95.317				
	Al	27	97.075				
	P	31	96.793				
	K	39	93.664				
	Ca	43	97.800				
>	Sc	45		98.2			
	V	51	102.676				
	Cr	52	103.239				
	Cr	53					
	Mn	55	105.244				
	Fe	57	102.094				
	Co	59	101.499				
	Ni	60	104.184				
	Cu	63					
	Cu	65	103.468				
	Zn	66	102.443				
	Zn	67					
	Zn	68					
>	Ge	74		100.6			
	As	75	93.584				
	Se	77					
	Se	82	101.919				
	Kr	83					
	Sr	88	102.446				
	Y	89					
	Ag	107	102.134				
	Cd	111	100.687				
	Cd	114					
>	In	115		99.8			
	Sn	120	99.027				
	Sb	121	96.679				
	Sb	123					
	Ba	135					
	Ba	137	102.075				
	Ho	165					
>	Lu	175		101.6			
	Tl	205	100.280				
	Pb	208	104.108				
	Bi	209					
	U	238	111.772				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 10:55:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.054**	**ug/L**	0.620	255	0.000
	Be	9	**0.011**	**ug/L**	79.657	22	0.000
	B	11	**2.167**	**ug/L**	20.184	1983	0.001
	Na	23	**4.272**	**ug/L**	26.128	60127	0.012
	Mg	24	**0.024**	**ug/L**	4534.680	17678	0.000
	Al	27	**0.936**	**ug/L**	63.487	33038	0.003
	P	31	**0.795**	**ug/L**	131.477	7641	0.000
	K	39	**-1.613**	**ug/L**	585.054	455552	-0.005
	Ca	43	**1.137**	**ug/L**	193.763	337	0.000
>	Sc	45		**ug/L**		1642236	1642235.866
	V	51	**0.663**	**ug/L**	62.643	21257	0.003
	Cr	52	**-0.020**	**ug/L**	242.538	6519	-0.000
	Cr	53		**ug/L**		118029	0.001
	Mn	55	**-0.027**	**ug/L**	13.638	2042	-0.000
	Fe	57	**2.147**	**ug/L**	26.323	5320	0.000
	Co	59	**0.004**	**ug/L**	96.094	199	0.000
	Ni	60	**0.006**	**ug/L**	153.420	146	0.000
	Cu	63		**ug/L**		299	0.000
	Cu	65	**0.019**	**ug/L**	29.498	181	0.000
	Zn	66	**-0.015**	**ug/L**	144.335	383	-0.000
	Zn	67		**ug/L**		17314	-0.004
	Zn	68		**ug/L**		1357	-0.000
>	Ge	74		**ug/L**		375963	375963.207
	As	75	**-0.191**	**ug/L**	215.461	953	-0.001
	Se	77		**ug/L**		6542	0.002
	Se	82	**0.020**	**ug/L**	346.898	8	0.000
	Kr	83		**ug/L**		69	-0.000
	Sr	88	**0.002**	**ug/L**	119.591	547	0.000
	Y	89		**ug/L**		60	-0.000
	Ag	107	**0.003**	**ug/L**	31.621	119	0.000
	Cd	111	**0.013**	**ug/L**	67.076	46	0.000
	Cd	114		**ug/L**		87	-0.000
>	In	115		**ug/L**		223901	223901.134
	Sn	120	**0.041**	**ug/L**	36.626	654	0.001
	Sb	121	**0.286**	**ug/L**	27.495	1859	0.005
	Sb	123		**ug/L**		1501	0.004
	Ba	135		**ug/L**		56	-0.000
	Ba	137	**-0.005**	**ug/L**	128.904	92	-0.000
	Ho	165		**ug/L**		11	-0.000
>	Lu	175		**ug/L**		325080	325080.457
	Tl	205	**0.053**	**ug/L**	31.477	920	0.002
	Pb	208	**-0.151**	**ug/L**	1.192	4074	-0.008
	Bi	209		**ug/L**		50	-0.000
	U	238	**0.010**	**ug/L**	34.892	987	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 25, 2010 10:57:56

ICPMS#6 - Summary Report

Sample ID: 1202032600
Sample Date/Time: Thursday, February 25, 2010 11:01:18
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\1202032600.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.013	ug/L	52.977	167	0.000
	Be	9	0.092	ug/L	10.679	66	0.000
	B	11	0.799	ug/L	4.745	1155	0.000
	Na	23	5.610	ug/L	23.009	66154	0.016
	Mg	24	3.362	ug/L	44.475	28696	0.007
	Al	27	24.373	ug/L	13.540	148776	0.074
	P	31	21.288	ug/L	8.321	13103	0.003
	K	39	-0.929	ug/L	442.723	456870	-0.003
	Ca	43	17.138	ug/L	4.977	539	0.000
>	Sc	45		ug/L		1634470	1634470.048
	V	51	0.269	ug/L	81.410	18652	0.001
	Cr	52	0.385	ug/L	9.188	8644	0.001
	Cr	53		ug/L		85364	-0.018
	Mn	55	1.033	ug/L	3.239	10265	0.005
	Fe	57	51.763	ug/L	1.353	12542	0.005
	Co	59	0.139	ug/L	4.793	947	0.000
	Ni	60	0.305	ug/L	1.399	493	0.000
	Cu	63		ug/L		1420	0.001
	Cu	65	0.459	ug/L	2.509	737	0.000
	Zn	66	2.022	ug/L	2.420	2249	0.005
	Zn	67		ug/L		12108	-0.017
	Zn	68		ug/L		2494	0.003
>	Ge	74		ug/L		370167	370166.749
	As	75	-0.599	ug/L	23.915	526	-0.002
	Se	77		ug/L		4419	-0.003
	Se	82	0.333	ug/L	23.427	38	0.000
	Kr	83		ug/L		60	-0.000
	Sr	88	0.418	ug/L	0.738	5623	0.022
	Y	89		ug/L		245	0.001
	Ag	107	0.032	ug/L	1.884	265	0.001
	Cd	111	0.066	ug/L	6.298	113	0.000
	Cd	114		ug/L		258	0.001
>	In	115		ug/L		227454	227454.187
	Sn	120	1.854	ug/L	7.986	9772	0.041
	Sb	121	0.221	ug/L	12.867	1608	0.004
	Sb	123		ug/L		1226	0.003
	Ba	135		ug/L		920	0.003
	Ba	137	0.680	ug/L	1.678	1620	0.004
	Ho	165		ug/L		20	0.000
>	Lu	175		ug/L		338882	338881.588
	Tl	205	0.186	ug/L	2.632	2294	0.006
	Pb	208	-0.024	ug/L	38.603	6514	-0.001
	Bi	209		ug/L		117	0.000
	U	238	-0.034	ug/L	6.516	228	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.0			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032605
Sample Date/Time: Thursday, February 25, 2010 11:07:11
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948759|40|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\1202032605.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.626**	**ug/L**	0.809	5793	0.003
	Be	9	**19.749**	**ug/L**	2.019	10951	0.007
	B	11	**36.801**	**ug/L**	3.095	22842	0.013
	Na	23	**275.328**	**ug/L**	2.561	1346648	0.793
	Mg	24	**965.750**	**ug/L**	1.680	3262047	1.969
	Al	27	**2979.023**	**ug/L**	2.269	14879457	9.014
	P	31	**188.594**	**ug/L**	1.586	58461	0.031
	K	39	**1047.866**	**ug/L**	3.790	6227922	3.498
	Ca	43	**2412.284**	**ug/L**	0.417	31144	0.019
>	Sc	45		**ug/L**		1647543	1647543.488
	V	51	**27.463**	**ug/L**	2.815	193523	0.107
	Cr	52	**58.106**	**ug/L**	1.181	318437	0.189
	Cr	53		**ug/L**		146893	0.019
	Mn	55	**134.322**	**ug/L**	0.326	1052938	0.638
	Fe	57	**4306.298**	**ug/L**	0.200	639084	0.385
	Co	59	**23.965**	**ug/L**	0.945	134158	0.081
	Ni	60	**34.937**	**ug/L**	1.400	41220	0.025
	Cu	63		**ug/L**		121922	0.074
	Cu	65	**43.399**	**ug/L**	0.319	60569	0.037
	Zn	66	**148.665**	**ug/L**	1.182	137999	0.369
	Zn	67		**ug/L**		38564	0.054
	Zn	68		**ug/L**		102425	0.271
>	Ge	74		**ug/L**		372805	372805.367
	As	75	**25.806**	**ug/L**	0.893	27355	0.070
	Se	77		**ug/L**		10991	0.014
	Se	82	**72.570**	**ug/L**	2.173	6908	0.019
	Kr	83		**ug/L**		74	-0.000
	Sr	88	**55.850**	**ug/L**	0.879	669663	2.991
	Y	89		**ug/L**		38178	0.170
	Ag	107	**5.092**	**ug/L**	0.336	25040	0.111
	Cd	111	**14.545**	**ug/L**	0.797	17687	0.079
	Cd	114		**ug/L**		41035	0.183
>	In	115		**ug/L**		223701	223701.271
	Sn	120	**7.983**	**ug/L**	0.426	39901	0.176
	Sb	121	**11.637**	**ug/L**	0.401	50135	0.221
	Sb	123		**ug/L**		39051	0.172
	Ba	135		**ug/L**		57360	0.176
	Ba	137	**47.126**	**ug/L**	1.812	101063	0.310
	Ho	165		**ug/L**		2053	0.006
>	Lu	175		**ug/L**		326046	326046.300
	Tl	205	**30.245**	**ug/L**	0.416	293578	0.899
	Pb	208	**20.992**	**ug/L**	1.065	365887	1.102
	Bi	209		**ug/L**		2884	0.009
	U	238	**0.464**	**ug/L**	2.179	8833	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 11:13:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.222**	**ug/L**	0.680	112697	0.070
	Be	9	**51.651**	**ug/L**	1.252	28120	0.017
	B	11	**102.383**	**ug/L**	2.714	61257	0.037
	Na	23	**5005.690**	**ug/L**	3.855	23381998	14.417
	Mg	24	**4987.768**	**ug/L**	5.842	16484603	10.171
	Al	27	**4755.572**	**ug/L**	4.892	23318911	14.389
	P	31	**4696.742**	**ug/L**	0.294	1255627	0.771
	K	39	**4636.010**	**ug/L**	9.835	25509569	15.475
	Ca	43	**4782.084**	**ug/L**	0.395	60355	0.037
>	Sc	45		**ug/L**		1618932	1618932.402
	V	51	**50.123**	**ug/L**	1.099	333250	0.195
	Cr	52	**50.861**	**ug/L**	0.413	274713	0.166
	Cr	53		**ug/L**		137755	0.015
	Mn	55	**51.796**	**ug/L**	0.268	400338	0.246
	Fe	57	**5034.001**	**ug/L**	1.032	733253	0.450
	Co	59	**50.628**	**ug/L**	1.074	278303	0.172
	Ni	60	**51.936**	**ug/L**	0.808	60147	0.037
	Cu	63		**ug/L**		141034	0.087
	Cu	65	**51.703**	**ug/L**	0.916	70873	0.044
	Zn	66	**52.885**	**ug/L**	1.268	48152	0.131
	Zn	67		**ug/L**		24391	0.017
	Zn	68		**ug/L**		36574	0.097
>	Ge	74		**ug/L**		363805	363805.018
	As	75	**48.021**	**ug/L**	0.681	48720	0.131
	Se	77		**ug/L**		9269	0.010
	Se	82	**52.033**	**ug/L**	2.563	4835	0.013
	Kr	83		**ug/L**		72	-0.000
	Sr	88	**51.325**	**ug/L**	1.255	603104	2.749
	Y	89		**ug/L**		145	0.000
	Ag	107	**50.249**	**ug/L**	0.366	241233	1.100
	Cd	111	**50.774**	**ug/L**	1.608	60425	0.276
	Cd	114		**ug/L**		138152	0.630
>	In	115		**ug/L**		219209	219208.658
	Sn	120	**49.335**	**ug/L**	1.317	239310	1.090
	Sb	121	**49.502**	**ug/L**	2.866	206885	0.941
	Sb	123		**ug/L**		161351	0.734
	Ba	135		**ug/L**		58598	0.181
	Ba	137	**49.008**	**ug/L**	2.321	104479	0.322
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		324228	324228.156
	Tl	205	**48.951**	**ug/L**	1.764	472144	1.455
	Pb	208	**51.292**	**ug/L**	1.791	879240	2.692
	Bi	209		**ug/L**		198	0.000
	U	238	**54.393**	**ug/L**	1.255	935362	2.883

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 6

Report Date/Time: Thursday, February 25, 2010 11:15:33

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.445				
	Be	9	103.303				
	B	11	102.383				
	Na	23	100.114				
	Mg	24	99.755				
	Al	27	94.170				
	P	31	93.935				
	K	39	92.720				
	Ca	43	95.642				
>	Sc	45		99.9			
	V	51	100.247				
	Cr	52	101.722				
	Cr	53					
	Mn	55	103.592				
	Fe	57	100.680				
	Co	59	101.255				
	Ni	60	103.872				
	Cu	63					
	Cu	65	103.405				
	Zn	66	105.771				
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75	96.042				
	Se	77					
	Se	82	104.067				
	Kr	83					
	Sr	88	102.651				
	Y	89					
	Ag	107	100.497				
	Cd	111	101.549				
	Cd	114					
>	In	115		101.1			
	Sn	120	98.670				
	Sb	121	99.004				
	Sb	123					
	Ba	135					
	Ba	137	98.016				
	Ho	165					
>	Lu	175		105.3			
	Tl	205	97.902				
	Pb	208	102.583				
	Bi	209					
	U	238	108.785				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 25, 2010 11:15:33

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 11:18:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.024**	ug/L	20.655	190	0.000
	Be	9	**0.016**	ug/L	52.620	24	0.000
	B	11	**2.244**	ug/L	26.811	2018	0.001
	Na	23	**1.622**	ug/L	66.859	47413	0.005
	Mg	24	**-1.347**	ug/L	45.337	13006	-0.003
	Al	27	**0.354**	ug/L	355.677	30032	0.001
	P	31	**-0.600**	ug/L	57.134	7231	-0.000
	K	39	**-8.307**	ug/L	76.463	416683	-0.028
	Ca	43	**-1.603**	ug/L	95.153	301	-0.000
>	Sc	45		ug/L		1634990	1634989.570
	V	51	**0.303**	ug/L	27.737	18871	0.001
	Cr	52	**-0.019**	ug/L	111.776	6494	-0.000
	Cr	53		ug/L		113863	-0.001
	Mn	55	**-0.038**	ug/L	3.043	1950	-0.000
	Fe	57	**-1.225**	ug/L	33.606	4803	-0.000
	Co	59	**0.004**	ug/L	19.148	200	0.000
	Ni	60	**0.004**	ug/L	193.319	143	0.000
	Cu	63		ug/L		279	-0.000
	Cu	65	**0.013**	ug/L	114.570	172	0.000
	Zn	66	**-0.030**	ug/L	81.044	360	-0.000
	Zn	67		ug/L		16802	-0.004
	Zn	68		ug/L		1322	-0.000
>	Ge	74		ug/L		367587	367587.221
	As	75	**-0.222**	ug/L	76.750	898	-0.001
	Se	77		ug/L		6176	0.002
	Se	82	**0.136**	ug/L	52.578	19	0.000
	Kr	83		ug/L		64	-0.000
	Sr	88	**0.003**	ug/L	17.238	565	0.000
	Y	89		ug/L		56	-0.000
	Ag	107	**0.003**	ug/L	63.357	119	0.000
	Cd	111	**0.007**	ug/L	40.796	39	0.000
	Cd	114		ug/L		94	0.000
>	In	115		ug/L		225602	225601.922
	Sn	120	**0.041**	ug/L	10.202	660	0.001
	Sb	121	**0.200**	ug/L	34.644	1507	0.004
	Sb	123		ug/L		1122	0.003
	Ba	135		ug/L		59	-0.000
	Ba	137	**-0.000**	ug/L	20391.731	103	-0.000
	Ho	165		ug/L		9	-0.000
>	Lu	175		ug/L		327107	327106.557
	Tl	205	**0.083**	ug/L	19.166	1217	0.002
	Pb	208	**-0.138**	ug/L	5.817	4326	-0.007
	Bi	209		ug/L		49	-0.000
	U	238	**0.007**	ug/L	62.530	936	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969001
Sample Date/Time: Thursday, February 25, 2010 11:24:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969001.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**14.943**	ug/L	0.927	32121	0.020
	Be	9	**1.135**	ug/L	2.776	640	0.000
	B	11	**1.600**	ug/L	5.175	1638	0.001
	Na	23	**1163.895**	ug/L	5.559	5531978	3.352
	Mg	24	**842.134**	ug/L	8.134	2830147	1.717
	Al	27	**5799.954**	ug/L	1.996	28779262	17.549
	P	31	**164.843**	ug/L	0.428	51748	0.027
	K	39	**1621.941**	ug/L	1.230	9333579	5.414
	Ca	43	**1550.598**	ug/L	1.804	20025	0.012
>	Sc	45		ug/L		1638417	1638417.001
	V	51	**6.361**	ug/L	2.325	57627	0.025
	Cr	52	**8.428**	ug/L	0.990	51586	0.027
	Cr	53		ug/L		80713	-0.021
	Mn	55	**697.843**	ug/L	0.584	5430557	3.313
	Fe	57	**17586.342**	ug/L	0.669	2580005	1.572
	Co	59	**18.462**	ug/L	0.915	102818	0.063
	Ni	60	**14.662**	ug/L	0.664	17284	0.010
	Cu	63		ug/L		38228	0.023
	Cu	65	**14.120**	ug/L	0.489	19702	0.012
	Zn	66	**70.722**	ug/L	1.934	63962	0.176
	Zn	67		ug/L		21275	0.009
	Zn	68		ug/L		48314	0.130
>	Ge	74		ug/L		362113	362112.981
	As	75	**4.418**	ug/L	2.819	5464	0.012
	Se	77		ug/L		4015	-0.004
	Se	82	**0.714**	ug/L	46.118	72	0.000
	Kr	83		ug/L		173	0.000
	Sr	88	**6.922**	ug/L	0.641	85583	0.371
	Y	89		ug/L		1206829	5.260
	Ag	107	**0.300**	ug/L	2.872	1610	0.007
	Cd	111	**1.331**	ug/L	7.123	1689	0.007
	Cd	114		ug/L		108	0.000
>	In	115		ug/L		229405	229404.715
	Sn	120	**6.391**	ug/L	0.561	32849	0.141
	Sb	121	**0.633**	ug/L	4.041	3418	0.012
	Sb	123		ug/L		2621	0.009
	Ba	135		ug/L		87709	0.250
	Ba	137	**67.563**	ug/L	1.062	155571	0.444
	Ho	165		ug/L		68710	0.196
>	Lu	175		ug/L		350171	350170.979
	Tl	205	**0.142**	ug/L	1.839	1921	0.004
	Pb	208	**56.523**	ug/L	1.242	1045909	2.967
	Bi	209		ug/L		7511	0.021
	U	238	**3.093**	ug/L	1.278	58271	0.164

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		113.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032601
Sample Date/Time: Thursday, February 25, 2010 11:30:47
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\1202032601.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**16.975**	ug/L	1.222	36869	0.022
	Be	9	**1.060**	ug/L	2.242	606	0.000
	B	11	**1.142**	ug/L	4.909	1378	0.000
	Na	23	**1228.936**	ug/L	5.768	5902504	3.540
	Mg	24	**855.023**	ug/L	1.833	2905260	1.744
	Al	27	**5839.017**	ug/L	4.107	29293178	17.667
	P	31	**153.245**	ug/L	0.033	49156	0.025
	K	39	**1720.939**	ug/L	5.190	9984051	5.745
	Ca	43	**1451.527**	ug/L	0.961	18968	0.011
>	Sc	45		ug/L		1656210	1656209.901
	V	51	**6.827**	ug/L	3.532	61263	0.027
	Cr	52	**8.673**	ug/L	1.373	53468	0.028
	Cr	53		ug/L		76177	-0.024
	Mn	55	**690.907**	ug/L	0.549	5435118	3.280
	Fe	57	**15956.185**	ug/L	1.086	2366902	1.426
	Co	59	**20.654**	ug/L	0.146	116260	0.070
	Ni	60	**15.022**	ug/L	1.119	17897	0.011
	Cu	63		ug/L		59449	0.036
	Cu	65	**21.484**	ug/L	0.970	30219	0.018
	Zn	66	**78.276**	ug/L	0.743	71039	0.194
	Zn	67		ug/L		21557	0.010
	Zn	68		ug/L		53081	0.142
>	Ge	74		ug/L		363536	363536.088
	As	75	**4.692**	ug/L	4.856	5757	0.013
	Se	77		ug/L		3835	-0.005
	Se	82	**0.836**	ug/L	33.840	84	0.000
	Kr	83		ug/L		182	0.000
	Sr	88	**7.062**	ug/L	1.359	87017	0.378
	Y	89		ug/L		1236574	5.408
	Ag	107	**0.300**	ug/L	1.927	1606	0.007
	Cd	111	**1.322**	ug/L	3.004	1672	0.007
	Cd	114		ug/L		82	-0.000
>	In	115		ug/L		228655	228655.315
	Sn	120	**19.740**	ug/L	0.851	100162	0.436
	Sb	121	**0.930**	ug/L	3.113	4699	0.018
	Sb	123		ug/L		3721	0.014
	Ba	135		ug/L		92515	0.259
	Ba	137	**69.311**	ug/L	1.203	162445	0.455
	Ho	165		ug/L		70186	0.197
>	Lu	175		ug/L		356473	356473.272
	Tl	205	**0.129**	ug/L	4.293	1813	0.004
	Pb	208	**127.747**	ug/L	0.798	2397167	6.705
	Bi	209		ug/L		7416	0.021
	U	238	**3.896**	ug/L	2.578	74490	0.207

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		105.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		115.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032603
Sample Date/Time: Thursday, February 25, 2010 11:36:40
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\1202032603.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.989**	**ug/L**	0.574	110975	0.071
	Be	9	**25.387**	**ug/L**	1.005	13425	0.009
	B	11	**51.009**	**ug/L**	1.113	29955	0.019
	Na	23	**2461.647**	**ug/L**	4.499	11180554	7.090
	Mg	24	**2294.724**	**ug/L**	4.792	7371797	4.679
	Al	27	**9361.245**	**ug/L**	5.823	44539335	28.324
	P	31	**988.278**	**ug/L**	0.761	262082	0.162
	K	39	**2995.963**	**ug/L**	4.209	16159382	10.001
	Ca	43	**3012.247**	**ug/L**	1.246	37019	0.023
>	Sc	45		**ug/L**		1571581	1571580.514
	V	51	**33.280**	**ug/L**	0.471	220271	0.130
	Cr	52	**35.875**	**ug/L**	0.556	189968	0.117
	Cr	53		**ug/L**		81123	-0.019
	Mn	55	**792.299**	**ug/L**	0.415	5913893	3.762
	Fe	57	**21422.183**	**ug/L**	0.697	3013628	1.914
	Co	59	**49.381**	**ug/L**	0.453	263518	0.168
	Ni	60	**41.508**	**ug/L**	0.723	46691	0.030
	Cu	63		**ug/L**		117284	0.074
	Cu	65	**44.567**	**ug/L**	0.591	59326	0.038
	Zn	66	**123.556**	**ug/L**	0.309	105398	0.307
	Zn	67		**ug/L**		26422	0.028
	Zn	68		**ug/L**		78480	0.225
>	Ge	74		**ug/L**		342373	342372.826
	As	75	**42.112**	**ug/L**	0.159	40337	0.115
	Se	77		**ug/L**		3783	-0.004
	Se	82	**10.263**	**ug/L**	1.138	902	0.003
	Kr	83		**ug/L**		161	0.000
	Sr	88	**34.810**	**ug/L**	0.588	402940	1.864
	Y	89		**ug/L**		1322524	6.127
	Ag	107	**24.988**	**ug/L**	0.735	118170	0.547
	Cd	111	**6.828**	**ug/L**	2.131	8028	0.037
	Cd	114		**ug/L**		13161	0.061
>	In	115		**ug/L**		215849	215848.701
	Sn	120	**32.135**	**ug/L**	0.762	153652	0.710
	Sb	121	**79.827**	**ug/L**	0.847	328200	1.518
	Sb	123		**ug/L**		257139	1.189
	Ba	135		**ug/L**		124712	0.366
	Ba	137	**97.889**	**ug/L**	1.115	219070	0.643
	Ho	165		**ug/L**		76114	0.224
>	Lu	175		**ug/L**		340467	340467.018
	Tl	205	**44.841**	**ug/L**	2.007	454215	1.333
	Pb	208	**204.878**	**ug/L**	1.516	3667328	10.753
	Bi	209		**ug/L**		7852	0.023
	U	238	**6915.094**	**ug/L**	2.116	124756743	366.506

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.0		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			99.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			110.6		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	U	238	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032604
Sample Date/Time: Thursday, February 25, 2010 11:42:33
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\1202032604.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.969**	**ug/L**	0.326	103637	0.063
	Be	9	**24.272**	**ug/L**	0.358	13489	0.008
	B	11	**49.951**	**ug/L**	2.205	30841	0.018
	Na	23	**2278.161**	**ug/L**	1.396	10877397	6.561
	Mg	24	**2157.201**	**ug/L**	7.813	7283271	4.399
	Al	27	**8118.811**	**ug/L**	2.398	40599317	24.565
	P	31	**1004.849**	**ug/L**	0.851	279928	0.165
	K	39	**2805.406**	**ug/L**	1.223	15932409	9.365
	Ca	43	**2892.838**	**ug/L**	1.897	37378	0.022
>	Sc	45		**ug/L**		1651577	1651576.639
	V	51	**32.446**	**ug/L**	0.447	226115	0.127
	Cr	52	**35.796**	**ug/L**	0.098	199218	0.117
	Cr	53		**ug/L**		86350	-0.018
	Mn	55	**823.972**	**ug/L**	0.850	6463247	3.912
	Fe	57	**26544.242**	**ug/L**	1.280	3922914	2.372
	Co	59	**42.183**	**ug/L**	0.545	236589	0.143
	Ni	60	**40.592**	**ug/L**	1.599	47985	0.029
	Cu	63		**ug/L**		119749	0.072
	Cu	65	**43.147**	**ug/L**	1.037	60365	0.036
	Zn	66	**101.411**	**ug/L**	0.450	92028	0.252
	Zn	67		**ug/L**		24936	0.019
	Zn	68		**ug/L**		69126	0.186
>	Ge	74		**ug/L**		363955	363954.613
	As	75	**41.401**	**ug/L**	1.407	42172	0.113
	Se	77		**ug/L**		3955	-0.004
	Se	82	**9.849**	**ug/L**	1.753	921	0.003
	Kr	83		**ug/L**		192	0.000
	Sr	88	**33.303**	**ug/L**	0.542	403799	1.784
	Y	89		**ug/L**		1344045	5.945
	Ag	107	**24.179**	**ug/L**	1.390	119765	0.529
	Cd	111	**6.561**	**ug/L**	1.845	8081	0.036
	Cd	114		**ug/L**		13421	0.059
>	In	115		**ug/L**		226090	226089.809
	Sn	120	**31.392**	**ug/L**	1.629	157224	0.693
	Sb	121	**80.759**	**ug/L**	1.844	347761	1.535
	Sb	123		**ug/L**		271949	1.201
	Ba	135		**ug/L**		126134	0.352
	Ba	137	**95.464**	**ug/L**	0.411	224624	0.627
	Ho	165		**ug/L**		79197	0.221
>	Lu	175		**ug/L**		357915	357914.748
	Tl	205	**43.264**	**ug/L**	1.811	460834	1.286
	Pb	208	**178.774**	**ug/L**	0.326	3365539	9.383
	Bi	209		**ug/L**		8094	0.022
	U	238	**32.059**	**ug/L**	0.933	609033	1.699

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		116.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032602
Sample Date/Time: Thursday, February 25, 2010 11:48:27
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948759|10|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\1202032602.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**3.013**	ug/L	1.143	6511	0.004
	Be	9	**0.243**	ug/L	12.224	147	0.000
	B	11	**1.313**	ug/L	22.001	1448	0.000
	Na	23	**245.637**	ug/L	3.375	1184883	0.707
	Mg	24	**156.146**	ug/L	6.780	532777	0.318
	Al	27	**1126.947**	ug/L	3.137	5548680	3.410
	P	31	**32.444**	ug/L	3.329	15945	0.005
	K	39	**297.376**	ug/L	3.980	2064902	0.993
	Ca	43	**303.145**	ug/L	1.985	4125	0.002
>	Sc	45		ug/L		1619119	1619118.713
	V	51	**1.007**	ug/L	27.259	23134	0.004
	Cr	52	**1.491**	ug/L	2.551	14396	0.005
	Cr	53		ug/L		90980	-0.014
	Mn	55	**142.634**	ug/L	0.394	1098656	0.677
	Fe	57	**3747.590**	ug/L	0.372	547207	0.335
	Co	59	**3.672**	ug/L	0.447	20354	0.012
	Ni	60	**2.945**	ug/L	1.552	3540	0.002
	Cu	63		ug/L		7739	0.005
	Cu	65	**2.758**	ug/L	0.362	3925	0.002
	Zn	66	**15.112**	ug/L	1.710	13914	0.038
	Zn	67		ug/L		16296	-0.004
	Zn	68		ug/L		11086	0.027
>	Ge	74		ug/L		360678	360678.284
	As	75	**0.238**	ug/L	87.528	1334	0.001
	Se	77		ug/L		4580	-0.002
	Se	82	**0.120**	ug/L	96.417	17	0.000
	Kr	83		ug/L		81	0.000
	Sr	88	**1.355**	ug/L	1.704	16846	0.073
	Y	89		ug/L		244304	1.086
	Ag	107	**0.049**	ug/L	4.121	343	0.001
	Cd	111	**0.258**	ug/L	19.540	346	0.001
	Cd	114		ug/L		43	-0.000
>	In	115		ug/L		224955	224955.024
	Sn	120	**1.235**	ug/L	0.203	6594	0.027
	Sb	121	**0.106**	ug/L	18.762	1100	0.002
	Sb	123		ug/L		837	0.001
	Ba	135		ug/L		17030	0.051
	Ba	137	**13.701**	ug/L	1.052	30330	0.090
	Ho	165		ug/L		13321	0.040
>	Lu	175		ug/L		335756	335755.622
	Tl	205	**0.179**	ug/L	24.884	2203	0.005
	Pb	208	**11.487**	ug/L	1.240	209276	0.603
	Bi	209		ug/L		1498	0.004
	U	238	**0.904**	ug/L	5.522	16920	0.048

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.0			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969002
Sample Date/Time: Thursday, February 25, 2010 11:54:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969002.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.258**	**ug/L**	0.745	108182	0.067
	Be	9	**11.314**	**ug/L**	1.067	6151	0.004
	B	11	**15.245**	**ug/L**	0.927	9660	0.006
	Na	23	**563.659**	**ug/L**	4.213	2658459	1.623
	Mg	24	**6204.000**	**ug/L**	0.590	20430714	12.651
	Al	27	**41750.911**	**ug/L**	0.258	203853109	126.324
	P	31	**334.365**	**ug/L**	0.188	95866	0.055
	K	39	**5045.107**	**ug/L**	5.194	27635366	16.841
	Ca	43	**6161.030**	**ug/L**	1.881	77406	0.048
>	Sc	45		**ug/L**		1613518	1613517.599
	V	51	**58.716**	**ug/L**	0.792	386239	0.229
	Cr	52	**33.581**	**ug/L**	0.546	182992	0.109
	Cr	53		**ug/L**		84167	-0.018
	Mn	55	**614.126**	**ug/L**	0.721	4706815	2.916
	Fe	57	**33671.226**	**ug/L**	0.574	4860176	3.009
	Co	59	**32.499**	**ug/L**	0.783	178111	0.110
	Ni	60	**28.544**	**ug/L**	0.237	33008	0.020
	Cu	63		**ug/L**		13207839	8.185
	Cu	65	**4931.868**	**ug/L**	0.423	6723758	4.167
	Zn	66	**165.334**	**ug/L**	1.115	142502	0.411
	Zn	67		**ug/L**		34399	0.050
	Zn	68		**ug/L**		108998	0.311
>	Ge	74		**ug/L**		346251	346251.270
	As	75	**8.529**	**ug/L**	1.397	9103	0.023
	Se	77		**ug/L**		3195	-0.006
	Se	82	**-0.237**	**ug/L**	82.890	-15	-0.000
	Kr	83		**ug/L**		198	0.000
	Sr	88	**62.673**	**ug/L**	0.234	719857	3.357
	Y	89		**ug/L**		499889	2.332
	Ag	107	**1.662**	**ug/L**	0.846	7895	0.036
	Cd	111	**1.709**	**ug/L**	1.982	2017	0.009
	Cd	114		**ug/L**		1868	0.008
>	In	115		**ug/L**		214299	214298.962
	Sn	120	**4.163**	**ug/L**	1.269	20140	0.092
	Sb	121	**2.934**	**ug/L**	1.168	12570	0.056
	Sb	123		**ug/L**		9778	0.043
	Ba	135		**ug/L**		375880	1.136
	Ba	137	**299.825**	**ug/L**	1.179	651741	1.970
	Ho	165		**ug/L**		28381	0.086
>	Lu	175		**ug/L**		330788	330788.312
	Tl	205	**0.487**	**ug/L**	1.261	5206	0.014
	Pb	208	**454.771**	**ug/L**	0.993	7901604	23.868
	Bi	209		**ug/L**		9048	0.027
	U	238	**784.922**	**ug/L**	1.208	13761504	41.602

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Cu	65	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245969003
Sample Date/Time: Thursday, February 25, 2010 12:00:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969003.229

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**29.140**	**ug/L**	1.206	64139	0.038
	Be	9	**2.839**	**ug/L**	0.877	1620	0.001
	B	11	**7.443**	**ug/L**	1.602	5270	0.003
	Na	23	**1079.080**	**ug/L**	8.589	5262504	3.108
	Mg	24	**5855.124**	**ug/L**	2.829	20087341	11.940
	Al	27	**34477.495**	**ug/L**	3.944	175416457	104.317
	P	31	**125.338**	**ug/L**	1.513	42191	0.021
	K	39	**3739.391**	**ug/L**	3.912	21457268	12.482
	Ca	43	**14782.538**	**ug/L**	0.142	193039	0.115
>	Sc	45		**ug/L**		1681031	1681031.168
	V	51	**36.782**	**ug/L**	0.661	258576	0.143
	Cr	52	**31.056**	**ug/L**	0.258	176819	0.101
	Cr	53		**ug/L**		81755	-0.022
	Mn	55	**897.362**	**ug/L**	0.530	7164270	4.260
	Fe	57	**26251.081**	**ug/L**	0.170	3948885	2.346
	Co	59	**20.591**	**ug/L**	0.433	117640	0.070
	Ni	60	**30.065**	**ug/L**	0.438	36213	0.021
	Cu	63		**ug/L**		155713	0.092
	Cu	65	**55.190**	**ug/L**	0.679	78544	0.047
	Zn	66	**129.763**	**ug/L**	0.577	114681	0.322
	Zn	67		**ug/L**		28860	0.032
	Zn	68		**ug/L**		87773	0.244
>	Ge	74		**ug/L**		354785	354785.479
	As	75	**5.713**	**ug/L**	1.499	6606	0.016
	Se	77		**ug/L**		3486	-0.005
	Se	82	**0.415**	**ug/L**	47.332	44[illegible]	0.000
	Kr	83		**ug/L**		193	0.000
	Sr	88	**81.673**	**ug/L**	0.920	978608	4.374
	Y	89		**ug/L**		883805	3.953
	Ag	107	**0.520**	**ug/L**	0.543	2649	0.011
	Cd	111	**1.876**	**ug/L**	8.329	2307	0.010
	Cd	114		**ug/L**		306	0.001
>	In	115		**ug/L**		223600	223599.926
	Sn	120	**1.483**	**ug/L**	0.863	7775	0.033
	Sb	121	**0.238**	**ug/L**	2.211	1653	0.005
	Sb	123		**ug/L**		1314	0.004
	Ba	135		**ug/L**		294833	0.853
	Ba	137	**226.588**	**ug/L**	2.147	514359	1.489
	Ho	165		**ug/L**		50992	0.148
>	Lu	175		**ug/L**		345441	345441.324
	Tl	205	**0.384**	**ug/L**	0.483	4372	0.011
	Pb	208	**48.064**	**ug/L**	0.844	878423	2.523
	Bi	209		**ug/L**		3836	0.011
	U	238	**36.778**	**ug/L**	0.657	674232	1.949

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		112.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969004
Sample Date/Time: Thursday, February 25, 2010 12:06:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969004.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**40.461**	ug/L	0.723	84617	0.053
	Be	9	**49.284**	ug/L	0.993	26489	0.017
	B	11	**8.507**	ug/L	2.901	5633	0.003
	Na	23	**354.979**	ug/L	8.893	1673383	1.022
	Mg	24	**4687.047**	ug/L	1.009	15293527	9.558
	Al	27	**29286.103**	ug/L	3.880	141669346	88.610
	P	31	**553.333**	ug/L	1.141	152412	0.091
	K	39	**3069.099**	ug/L	8.208	16818158	10.245
	Ca	43	**7663.668**	ug/L	1.292	95300	0.059
>	Sc	45		ug/L		1598326	1598326.448
	V	51	**38.054**	ug/L	0.908	253773	0.148
	Cr	52	**63.518**	ug/L	1.158	337089	0.207
	Cr	53		ug/L		101087	-0.007
	Mn	55	**483.560**	ug/L	0.909	3671421	2.296
	Fe	57	**23570.617**	ug/L	0.791	3371879	2.107
	Co	59	**21.005**	ug/L	0.685	114097	0.071
	Ni	60	**41.309**	ug/L	0.870	47257	0.029
	Cu	63		ug/L		24558213	15.366
	Cu	65	**9325.689**	ug/L	0.867	12593775	7.880
	Zn	66	**671.056**	ug/L	0.508	581829	1.666
	Zn	67		ug/L		103697	0.248
	Zn	68		ug/L		433338	1.238
>	Ge	74		ug/L		348973	348973.464
	As	75	**7.367**	ug/L	1.295	8071	0.020
	Se	77		ug/L		3186	-0.006
	Se	82	**-0.068**	ug/L	229.560	-0	-0.000
	Kr	83		ug/L		160	0.000
	Sr	88	**42.309**	ug/L	0.680	483342	2.266
	Y	89		ug/L		392702	1.843
	Ag	107	**3.660**	ug/L	0.255	17172	0.080
	Cd	111	**2.164**	ug/L	2.343	2532	0.012
	Cd	114		ug/L		3987	0.018
>	In	115		ug/L		213078	213077.662
	Sn	120	**17.449**	ug/L	0.885	82555	0.385
	Sb	121	**11.103**	ug/L	1.568	45585	0.211
	Sb	123		ug/L		35544	0.165
	Ba	135		ug/L		418153	1.266
	Ba	137	**339.662**	ug/L	0.579	737093	2.232
	Ho	165		ug/L		22095	0.067
>	Lu	175		ug/L		330222	330221.637
	Tl	205	**0.255**	ug/L	1.950	2920	0.008
	Pb	208	**1407.055**	ug/L	0.822	24392761	73.847
	Bi	209		ug/L		9779	0.029
	U	238	**1109.749**	ug/L	1.273	19423604	58.818

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		107.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Cu	65	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 12:11:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.287**	**ug/L**	0.541	114855	0.070
	Be	9	**51.322**	**ug/L**	1.359	28443	0.017
	B	11	**104.143**	**ug/L**	2.892	63419	0.038
	Na	23	**5056.457**	**ug/L**	11.826	24045317	14.563
	Mg	24	**5145.541**	**ug/L**	5.023	17310845	10.493
	Al	27	**4941.746**	**ug/L**	2.340	24667939	14.952
	P	31	**4728.763**	**ug/L**	2.036	1286883	0.776
	K	39	**4520.757**	**ug/L**	5.602	25332419	15.091
	Ca	43	**4861.973**	**ug/L**	0.614	62460	0.038
>	Sc	45		**ug/L**		1647963	1647963.353
	V	51	**49.856**	**ug/L**	0.452	337514	0.194
	Cr	52	**50.845**	**ug/L**	0.510	279558	0.166
	Cr	53		**ug/L**		129548	0.008
	Mn	55	**51.957**	**ug/L**	0.560	408785	0.247
	Fe	57	**5013.024**	**ug/L**	0.755	743343	0.448
	Co	59	**50.080**	**ug/L**	0.350	280236	0.170
	Ni	60	**51.673**	**ug/L**	0.467	60918	0.037
	Cu	63		**ug/L**		149748	0.091
	Cu	65	**53.458**	**ug/L**	0.381	74590	0.045
	Zn	66	**52.207**	**ug/L**	2.666	48171	0.130
	Zn	67		**ug/L**		22811	0.012
	Zn	68		**ug/L**		36371	0.095
>	Ge	74		**ug/L**		368771	368771.376
	As	75	**47.451**	**ug/L**	3.322	48786	0.129
	Se	77		**ug/L**		9269	0.010
	Se	82	**50.332**	**ug/L**	3.530	4738	0.013
	Kr	83		**ug/L**		81	0.000
	Sr	88	**52.096**	**ug/L**	1.583	610189	2.790
	Y	89		**ug/L**		189	0.001
	Ag	107	**50.557**	**ug/L**	0.447	241942	1.107
	Cd	111	**49.791**	**ug/L**	1.187	59072	0.270
	Cd	114		**ug/L**		135038	0.618
>	In	115		**ug/L**		218517	218516.984
	Sn	120	**49.704**	**ug/L**	1.066	240356	1.098
	Sb	121	**48.661**	**ug/L**	2.273	202770	0.925
	Sb	123		**ug/L**		157487	0.718
	Ba	135		**ug/L**		60154	0.185
	Ba	137	**49.933**	**ug/L**	2.264	106535	0.328
	Ho	165		**ug/L**		35	0.000
>	Lu	175		**ug/L**		324437	324436.927
	Tl	205	**48.273**	**ug/L**	1.429	465964	1.435
	Pb	208	**51.710**	**ug/L**	1.636	887018	2.714
	Bi	209		**ug/L**		198	0.000
	U	238	**54.006**	**ug/L**	1.345	929369	2.862

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.573				
	Be	9	102.645				
	B	11	104.143				
	Na	23	101.129				
	Mg	24	102.911				
	Al	27	97.856				
	P	31	94.575				
	K	39	90.415				
	Ca	43	97.239				
>	Sc	45		101.7			
	V	51	99.711				
	Cr	52	101.690				
	Cr	53					
	Mn	55	103.915				
	Fe	57	100.260				
	Co	59	100.159				
	Ni	60	103.346				
	Cu	63					
	Cu	65	106.916				
	Zn	66	104.413				
	Zn	67					
	Zn	68					
>	Ge	74		100.9			
	As	75	94.901				
	Se	77					
	Se	82	100.664				
	Kr	83					
	Sr	88	104.192				
	Y	89					
	Ag	107	101.115				
	Cd	111	99.582				
	Cd	114					
>	In	115		100.8			
	Sn	120	99.408				
	Sb	121	97.321				
	Sb	123					
	Ba	135					
	Ba	137	99.866				
	Ho	165					
>	Lu	175		105.4			
	Tl	205	96.546				
	Pb	208	103.419				
	Bi	209					
	U	238	108.012				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 12:17:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.009	ug/L	29.015	166	0.000
	Be	9	0.009	ug/L	71.177	21	0.000
	B	11	1.961	ug/L	27.798	1941	0.001
	Na	23	0.800	ug/L	212.197	45742	0.002
	Mg	24	-1.239	ug/L	125.805	14008	-0.003
	Al	27	0.261	ug/L	241.988	31034	0.001
	P	31	-3.971	ug/L	10.110	6644	-0.001
	K	39	-13.184	ug/L	35.645	409464	-0.044
	Ca	43	-3.591	ug/L	53.889	290	-0.000
>	Sc	45		ug/L		1716906	1716906.213
	V	51	0.421	ug/L	96.195	20622	0.002
	Cr	52	0.244	ug/L	1.744	8293	0.001
	Cr	53		ug/L		110220	-0.006
	Mn	55	-0.011	ug/L	51.134	2266	-0.000
	Fe	57	-1.693	ug/L	30.015	4972	-0.000
	Co	59	0.001	ug/L	319.168	192	0.000
	Ni	60	-0.005	ug/L	69.179	139	-0.000
	Cu	63		ug/L		1516	0.001
	Cu	65	0.414	ug/L	19.674	761	0.000
	Zn	66	-0.033	ug/L	77.124	369	-0.000
	Zn	67		ug/L		15665	-0.008
	Zn	68		ug/L		1175	-0.001
>	Ge	74		ug/L		380061	380061.075
	As	75	-0.494	ug/L	65.844	646	-0.001
	Se	77		ug/L		6229	0.001
	Se	82	0.003	ug/L	1841.871	7	0.000
	Kr	83		ug/L		88	0.000
	Sr	88	0.005	ug/L	17.366	588	0.000
	Y	89		ug/L		70	-0.000
	Ag	107	0.005	ug/L	40.259	132	0.000
	Cd	111	0.012	ug/L	83.646	46	0.000
	Cd	114		ug/L		85	-0.000
>	In	115		ug/L		227193	227192.903
	Sn	120	0.032	ug/L	55.907	620	0.001
	Sb	121	0.251	ug/L	39.267	1733	0.005
	Sb	123		ug/L		1329	0.004
	Ba	135		ug/L		65	-0.000
	Ba	137	-0.005	ug/L	142.241	93	-0.000
	Ho	165		ug/L		11	-0.000
>	Lu	175		ug/L		331118	331118.023
	Tl	205	0.046	ug/L	31.318	864	0.001
	Pb	208	-0.101	ug/L	11.448	5027	-0.005
	Bi	209		ug/L		47	-0.000
	U	238	0.042	ug/L	20.189	1569	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			106.0		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			104.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			104.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			107.5		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 25, 2010 12:20:23

ICPMS#6 - Summary Report

Sample ID: 245969005
Sample Date/Time: Thursday, February 25, 2010 12:23:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969005.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.835**	**ug/L**	1.252	46322	0.029
	Be	9	**1.937**	**ug/L**	3.709	1069	0.001
	B	11	**4.760**	**ug/L**	1.116	3489	0.002
	Na	23	**987.104**	**ug/L**	6.424	4643234	2.843
	Mg	24	**2487.354**	**ug/L**	0.506	8230230	5.072
	Al	27	**17302.463**	**ug/L**	1.105	84796041	52.351
	P	31	**198.907**	**ug/L**	3.090	60192	0.033
	K	39	**2753.046**	**ug/L**	2.331	15337296	9.190
	Ca	43	**2800.836**	**ug/L**	0.707	35487	0.022
>	Sc	45		**ug/L**		1619229	1619228.710
	V	51	**25.014**	**ug/L**	0.716	174748	0.098
	Cr	52	**19.632**	**ug/L**	1.290	110064	0.064
	Cr	53		**ug/L**		77839	-0.022
	Mn	55	**814.567**	**ug/L**	1.377	6264027	3.867
	Fe	57	**42522.951**	**ug/L**	1.908	6158055	3.800
	Co	59	**44.899**	**ug/L**	1.152	246876	0.152
	Ni	60	**17.965**	**ug/L**	1.252	20898	0.013
	Cu	63		**ug/L**		281281	0.174
	Cu	65	**103.715**	**ug/L**	0.462	142048	0.088
	Zn	66	**117.331**	**ug/L**	0.394	102948	0.291
	Zn	67		**ug/L**		26957	0.027
	Zn	68		**ug/L**		78377	0.219
>	Ge	74		**ug/L**		352097	352096.706
	As	75	**4.702**	**ug/L**	7.950	5584	0.013
	Se	77		**ug/L**		3320	-0.006
	Se	82	**0.336**	**ug/L**	59.937	36	0.000
	Kr	83		**ug/L**		163	0.000
	Sr	88	**29.250**	**ug/L**	0.800	348224	1.567
	Y	89		**ug/L**		822669	3.706
	Ag	107	**0.428**	**ug/L**	2.415	2185	0.009
	Cd	111	**1.778**	**ug/L**	5.591	2172	0.010
	Cd	114		**ug/L**		1430	0.006
>	In	115		**ug/L**		221950	221949.720
	Sn	120	**4.839**	**ug/L**	0.402	24174	0.107
	Sb	121	**0.621**	**ug/L**	5.608	3256	0.012
	Sb	123		**ug/L**		2602	0.009
	Ba	135		**ug/L**		172064	0.506
	Ba	137	**135.407**	**ug/L**	0.980	302398	0.890
	Ho	165		**ug/L**		44935	0.132
>	Lu	175		**ug/L**		339775	339775.061
	Tl	205	**0.218**	**ug/L**	0.648	2628	0.006
	Pb	208	**96.609**	**ug/L**	0.669	1729665	5.070
	Bi	209		**ug/L**		22977	0.067
	U	238	**27.706**	**ug/L**	0.893	499773	1.468

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		110.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969006
Sample Date/Time: Thursday, February 25, 2010 12:29:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtlmozr.mth
Dataset File: C:\elandata\Dataset\100224\245969006.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**35.600**	**ug/L**	0.354	76097	0.047
	Be	9	**6.016**	**ug/L**	1.016	3318	0.002
	B	11	**7.100**	**ug/L**	0.730	4917	0.003
	Na	23	**732.835**	**ug/L**	8.538	3487607	2.111
	Mg	24	**3780.512**	**ug/L**	3.259	12608240	7.709
	Al	27	**21140.069**	**ug/L**	0.956	104496132	63.963
	P	31	**269.536**	**ug/L**	1.408	79658	0.044
	K	39	**2850.850**	**ug/L**	2.943	16004376	9.516
	Ca	43	**4924.067**	**ug/L**	1.424	62687	0.038
>	Sc	45		**ug/L**		1633284	1633284.224
	V	51	**21.436**	**ug/L**	1.550	153471	0.084
	Cr	52	**38.916**	**ug/L**	2.325	213608	0.127
	Cr	53		**ug/L**		88219	-0.016
	Mn	55	**675.465**	**ug/L**	0.899	5240063	3.207
	Fe	57	**19686.745**	**ug/L**	0.470	2878570	1.759
	Co	59	**15.145**	**ug/L**	0.962	84116	0.051
	Ni	60	**27.222**	**ug/L**	1.556	31871	0.019
	Cu	63		**ug/L**		1871345	1.146
	Cu	65	**713.168**	**ug/L**	0.878	984322	0.603
	Zn	66	**114.281**	**ug/L**	0.698	101862	0.284
	Zn	67		**ug/L**		26725	0.025
	Zn	68		**ug/L**		77599	0.213
>	Ge	74		**ug/L**		357655	357655.212
	As	75	**5.950**	**ug/L**	7.487	6888	0.016
	Se	77		**ug/L**		3213	-0.006
	Se	82	**0.361**	**ug/L**	38.958	39	0.000
	Kr	83		**ug/L**		215	0.000
	Sr	88	**40.023**	**ug/L**	0.651	473671	2.144
	Y	89		**ug/L**		1044996	4.734
	Ag	107	**1.031**	**ug/L**	2.801	5082	0.023
	Cd	111	**1.479**	**ug/L**	2.956	1802	0.008
	Cd	114		**ug/L**		775	0.003
>	In	115		**ug/L**		220724	220724.489
	Sn	120	**5.477**	**ug/L**	0.996	27154	0.121
	Sb	121	**2.043**	**ug/L**	0.714	9205	0.039
	Sb	123		**ug/L**		7237	0.031
	Ba	135		**ug/L**		240372	0.702
	Ba	137	**188.269**	**ug/L**	1.264	423697	1.237
	Ho	165		**ug/L**		61980	0.181
>	Lu	175		**ug/L**		342439	342439.241
	Tl	205	**0.284**	**ug/L**	3.041	3322	0.008
	Pb	208	**111.643**	**ug/L**	0.733	2013415	5.859
	Bi	209		**ug/L**		3368	0.010
	U	238	**173.444**	**ug/L**	1.756	3148513	9.193

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		111.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969007
Sample Date/Time: Thursday, February 25, 2010 12:35:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969007.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.043**	**ug/L**	1.183	76841	0.048
	Be	9	**6.335**	**ug/L**	0.727	3390	0.002
	B	11	**9.595**	**ug/L**	0.759	6217	0.004
	Na	23	**347.255**	**ug/L**	5.186	1624186	1.000
	Mg	24	**5499.842**	**ug/L**	7.118	17796397	11.215
	Al	27	**41816.993**	**ug/L**	1.311	200598311	126.524
	P	31	**238.534**	**ug/L**	0.325	69245	0.039
	K	39	**4669.317**	**ug/L**	5.019	25155269	15.587
	Ca	43	**7465.100**	**ug/L**	1.246	92077	0.058
>	Sc	45		**ug/L**		1585196	1585195.692
	V	51	**50.024**	**ug/L**	0.928	325699	0.195
	Cr	52	**31.403**	**ug/L**	0.462	168527	0.102
	Cr	53		**ug/L**		82522	-0.018
	Mn	55	**599.248**	**ug/L**	0.702	4512064	2.845
	Fe	57	**28918.017**	**ug/L**	0.802	4101522	2.584
	Co	59	**13.064**	**ug/L**	0.358	70445	0.044
	Ni	60	**23.810**	**ug/L**	0.830	27072	0.017
	Cu	63		**ug/L**		1057957	0.667
	Cu	65	**405.157**	**ug/L**	0.132	542809	0.342
	Zn	66	**140.077**	**ug/L**	0.751	118903	0.348
	Zn	67		**ug/L**		30907	0.041
	Zn	68		**ug/L**		93228	0.270
>	Ge	74		**ug/L**		340837	340837.481
	As	75	**6.903**	**ug/L**	1.642	7451	0.019
	Se	77		**ug/L**		3103	-0.006
	Se	82	**-0.261**	**ug/L**	180.680	-17	-0.000
	Kr	83		**ug/L**		196	0.000
	Sr	88	**53.398**	**ug/L**	1.314	605527	2.860
	Y	89		**ug/L**		594182	2.808
	Ag	107	**0.799**	**ug/L**	2.542	3799	0.017
	Cd	111	**1.816**	**ug/L**	2.882	2114	0.010
	Cd	114		**ug/L**		1723	0.008
>	In	115		**ug/L**		211563	211563.333
	Sn	120	**1.419**	**ug/L**	2.300	7057	0.031
	Sb	121	**2.181**	**ug/L**	2.316	9377	0.041
	Sb	123		**ug/L**		7411	0.033
	Ba	135		**ug/L**		407436	1.264
	Ba	137	**333.309**	**ug/L**	1.210	705773	2.190
	Ho	165		**ug/L**		33068	0.103
>	Lu	175		**ug/L**		322237	322237.174
	Tl	205	**0.417**	**ug/L**	0.702	4396	0.012
	Pb	208	**324.796**	**ug/L**	0.922	5499247	17.046
	Bi	209		**ug/L**		6842	0.021
	U	238	**288.224**	**ug/L**	1.255	4922962	15.276

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			97.8		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			97.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			104.6		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969008
Sample Date/Time: Thursday, February 25, 2010 12:41:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969008.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**31.684**	**ug/L**	0.214	65464	0.041
	Be	9	**7.009**	**ug/L**	2.586	3733	0.002
	B	11	**11.357**	**ug/L**	0.967	7207	0.004
	Na	23	**333.754**	**ug/L**	9.032	1556130	0.961
	Mg	24	**5385.210**	**ug/L**	7.216	17343037	10.981
	Al	27	**37222.914**	**ug/L**	5.497	177814729	112.624
	P	31	**440.713**	**ug/L**	1.050	121345	0.072
	K	39	**5699.163**	**ug/L**	4.184	30469763	19.024
	Ca	43	**7563.242**	**ug/L**	1.269	92883	0.059
>	Sc	45		**ug/L**		1578425	1578424.946
	V	51	**55.152**	**ug/L**	1.133	355898	0.215
	Cr	52	**29.309**	**ug/L**	0.744	157046	0.095
	Cr	53		**ug/L**		81176	-0.019
	Mn	55	**1054.832**	**ug/L**	0.779	7906718	5.008
	Fe	57	**29919.446**	**ug/L**	0.516	4225232	2.674
	Co	59	**20.589**	**ug/L**	0.836	110447	0.070
	Ni	60	**24.430**	**ug/L**	1.375	27653	0.017
	Cu	63		**ug/L**		773122	0.490
	Cu	65	**294.839**	**ug/L**	1.135	393343	0.249
	Zn	66	**164.169**	**ug/L**	0.156	139261	0.408
	Zn	67		**ug/L**		34117	0.050
	Zn	68		**ug/L**		107254	0.311
>	Ge	74		**ug/L**		340756	340755.515
	As	75	**8.411**	**ug/L**	0.644	8850	0.023
	Se	77		**ug/L**		3103	-0.006
	Se	82	**-0.231**	**ug/L**	107.356	-14	-0.000
	Kr	83		**ug/L**		202	0.000
	Sr	88	**82.734**	**ug/L**	0.894	930736	4.431
	Y	89		**ug/L**		502465	2.393
	Ag	107	**0.688**	**ug/L**	1.129	3258	0.015
	Cd	111	**8.724**	**ug/L**	0.781	9969	0.047
	Cd	114		**ug/L**		20288	0.096
>	In	115		**ug/L**		209941	209940.693
	Sn	120	**1.534**	**ug/L**	1.227	7540	0.034
	Sb	121	**0.801**	**ug/L**	1.248	3800	0.015
	Sb	123		**ug/L**		3003	0.012
	Ba	135		**ug/L**		438168	1.341
	Ba	137	**354.046**	**ug/L**	1.008	760142	2.326
	Ho	165		**ug/L**		28505	0.087
>	Lu	175		**ug/L**		326728	326728.127
	Tl	205	**0.502**	**ug/L**	1.264	5283	0.015
	Pb	208	**298.780**	**ug/L**	1.550	5129664	15.681
	Bi	209		**ug/L**		16616	0.051
	U	238	**164.607**	**ug/L**	1.195	2851123	8.724

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		106.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245969009
Sample Date/Time: Thursday, February 25, 2010 12:47:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969009.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	79.524	ug/L	1.773	161850	0.104
	Be	9	6.192	ug/L	2.098	3254	0.002
	B	11	19.425	ug/L	0.963	11698	0.007
	Na	23	786.973	ug/L	6.814	3565340	2.267
	Mg	24	14980.700	ug/L	6.027	47557208	30.548
	Al	27	109226.079	ug/L	1.777	514429316	330.482
	P	31	369.782	ug/L	0.524	101534	0.061
	K	39	11540.948	ug/L	2.745	60408077	38.525
	Ca	43	14050.765	ug/L	0.821	169915	0.109
>	Sc	45		ug/L		1556600	1556600.328
	V	51	117.330	ug/L	0.355	728435	0.458
	Cr	52	62.378	ug/L	0.698	322521	0.203
	Cr	53		ug/L		98440	-0.007
	Mn	55	919.244	ug/L	0.447	6795479	4.364
	Fe	57	77362.445	ug/L	0.182	10766890	6.914
	Co	59	49.846	ug/L	0.348	263469	0.169
	Ni	60	49.422	ug/L	1.087	55041	0.035
	Cu	63		ug/L		117495	0.075
	Cu	65	45.302	ug/L	0.688	59729	0.038
	Zn	66	197.189	ug/L	0.983	156517	0.490
	Zn	67		ug/L		39336	0.074
	Zn	68		ug/L		128028	0.398
>	Ge	74		ug/L		318985	318984.559
	As	75	16.023	ug/L	0.973	14902	0.044
	Se	77		ug/L		3253	-0.005
	Se	82	-3.013	ug/L	15.218	-240	-0.001
	Kr	83		ug/L		471	0.001
	Sr	88	149.747	ug/L	0.698	1570141	8.021
	Y	89		ug/L		705188	3.603
	Ag	107	0.808	ug/L	4.260	3552	0.018
	Cd	111	2.685	ug/L	1.754	2879	0.015
	Cd	114		ug/L		810	0.004
>	In	115		ug/L		195713	195712.614
	Sn	120	0.653	ug/L	3.275	3220	0.014
	Sb	121	0.183	ug/L	7.090	1242	0.003
	Sb	123		ug/L		1007	0.003
	Ba	135		ug/L		808191	2.734
	Ba	137	707.645	ug/L	0.995	1374788	4.650
	Ho	165		ug/L		38176	0.129
>	Lu	175		ug/L		295685	295685.306
	Tl	205	0.905	ug/L	2.435	8328	0.027
	Pb	208	74.221	ug/L	0.758	1157745	3.895
	Bi	209		ug/L		12026	0.040
	U	238	13.585	ug/L	1.140	213605	0.720

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			96.1		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			87.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			90.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.0		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
	V	51	Sample is out of limits (over linear range)
	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245969010
Sample Date/Time: Thursday, February 25, 2010 12:53:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969010.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**15.581**	**ug/L**	1.493	32117	0.020
	Be	9	**2.506**	**ug/L**	4.040	1338	0.001
	B	11	**3.180**	**ug/L**	1.158	2478	0.001
	Na	23	**489.519**	**ug/L**	6.633	2254249	1.410
	Mg	24	**2554.914**	**ug/L**	3.630	8200721	5.210
	Al	27	**9726.388**	**ug/L**	4.260	46252386	29.429
	P	31	**548.410**	**ug/L**	0.999	148571	0.090
	K	39	**1713.545**	**ug/L**	1.652	9430458	5.720
	Ca	43	**9256.310**	**ug/L**	1.979	113106	0.072
>	Sc	45		**ug/L**		1571173	1571172.939
	V	51	**28.311**	**ug/L**	1.668	189770	0.110
	Cr	52	**12.320**	**ug/L**	0.535	69379	0.040
	Cr	53		**ug/L**		75854	-0.022
	Mn	55	**528.413**	**ug/L**	1.099	3944155	2.509
	Fe	57	**16878.996**	**ug/L**	0.570	2374943	1.508
	Co	59	**9.271**	**ug/L**	0.488	49602	0.031
	Ni	60	**11.957**	**ug/L**	1.206	13540	0.009
	Cu	63		**ug/L**		236713	0.150
	Cu	65	**90.248**	**ug/L**	0.507	119950	0.076
	Zn	66	**302.650**	**ug/L**	1.368	256804	0.751
	Zn	67		**ug/L**		52132	0.103
	Zn	68		**ug/L**		192058	0.559
>	Ge	74		**ug/L**		341278	341278.320
	As	75	**5.327**	**ug/L**	2.887	5996	0.015
	Se	77		**ug/L**		3565	-0.005
	Se	82	**0.469**	**ug/L**	20.025	47	0.000
	Kr	83		**ug/L**		152	0.000
	Sr	88	**29.207**	**ug/L**	0.558	322770	1.564
	Y	89		**ug/L**		730407	3.545
	Ag	107	**25.603**	**ug/L**	0.202	115568	0.560
	Cd	111	**0.897**	**ug/L**	4.664	1031	0.005
	Cd	114		**ug/L**		533	0.002
>	In	115		**ug/L**		206022	206021.610
	Sn	120	**2.982**	**ug/L**	1.123	13986	0.066
	Sb	121	**0.731**	**ug/L**	2.315	3454	0.014
	Sb	123		**ug/L**		2678	0.011
	Ba	135		**ug/L**		269800	0.837
	Ba	137	**223.177**	**ug/L**	0.843	472696	1.466
	Ho	165		**ug/L**		40808	0.127
>	Lu	175		**ug/L**		322283	322283.203
	Tl	205	**0.147**	**ug/L**	2.155	1808	0.004
	Pb	208	**120.220**	**ug/L**	0.693	2039986	6.310
	Bi	209		**ug/L**		2879	0.009
	U	238	**20.993**	**ug/L**	1.629	359358	1.113

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969011
Sample Date/Time: Thursday, February 25, 2010 12:59:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969011.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**42.848**	**ug/L**	0.325	86683	0.056
	Be	9	**3.257**	**ug/L**	3.159	1707	0.001
	B	11	**11.441**	**ug/L**	2.371	7108	0.004
	Na	23	**1314.096**	**ug/L**	3.941	5889548	3.785
	Mg	24	**8270.856**	**ug/L**	2.870	26096374	16.866
	Al	27	**54591.088**	**ug/L**	5.203	255415954	165.174
	P	31	**198.864**	**ug/L**	0.802	57474	0.033
	K	39	**5750.036**	**ug/L**	2.272	30115463	19.194
	Ca	43	**8399.358**	**ug/L**	0.618	101022	0.065
>	Sc	45		**ug/L**		1546271	1546270.893
	V	51	**73.557**	**ug/L**	0.901	459628	0.287
	Cr	52	**39.368**	**ug/L**	0.685	204504	0.128
	Cr	53		**ug/L**		84526	-0.016
	Mn	55	**828.837**	**ug/L**	0.917	6086728	3.935
	Fe	57	**42272.089**	**ug/L**	0.647	5846237	3.778
	Co	59	**36.039**	**ug/L**	0.518	189272	0.122
	Ni	60	**33.496**	**ug/L**	0.754	37097	0.024
	Cu	63		**ug/L**		57750	0.037
	Cu	65	**22.625**	**ug/L**	0.370	29704	0.019
	Zn	66	**112.908**	**ug/L**	0.463	92148	0.280
	Zn	67		**ug/L**		27684	0.035
	Zn	68		**ug/L**		76022	0.228
>	Ge	74		**ug/L**		327463	327462.554
	As	75	**8.783**	**ug/L**	1.521	8837	0.024
	Se	77		**ug/L**		3010	-0.006
	Se	82	**-0.855**	**ug/L**	34.256	-66	-0.000
	Kr	83		**ug/L**		272	0.001
	Sr	88	**105.732**	**ug/L**	0.563	1134257	5.663
	Y	89		**ug/L**		722323	3.608
	Ag	107	**0.544**	**ug/L**	0.675	2475	0.012
	Cd	111	**1.874**	**ug/L**	3.800	2064	0.010
	Cd	114		**ug/L**		295	0.001
>	In	115		**ug/L**		200206	200206.247
	Sn	120	**1.687**	**ug/L**	2.118	7865	0.037
	Sb	121	**0.192**	**ug/L**	10.019	1306	0.004
	Sb	123		**ug/L**		1020	0.003
	Ba	135		**ug/L**		544969	1.738
	Ba	137	**457.495**	**ug/L**	1.046	942786	3.006
	Ho	165		**ug/L**		40436	0.129
>	Lu	175		**ug/L**		313599	313599.495
	Tl	205	**0.655**	**ug/L**	2.716	6495	0.019
	Pb	208	**43.079**	**ug/L**	0.682	715435	2.261
	Bi	209		**ug/L**		8321	0.026
	U	238	**9.070**	**ug/L**	0.952	151539	0.481

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			89.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			101.8		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245969012
Sample Date/Time: Thursday, February 25, 2010 13:04:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969012.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**40.461**	**ug/L**	0.343	82527	0.053
	Be	9	**4.371**	**ug/L**	3.189	2305	0.001
	B	11	**12.192**	**ug/L**	1.424	7594	0.004
	Na	23	**944.920**	**ug/L**	5.362	4280481	2.722
	Mg	24	**7013.234**	**ug/L**	6.059	22319267	14.301
	Al	27	**42084.255**	**ug/L**	1.777	198542650	127.333
	P	31	**152.292**	**ug/L**	0.207	46022	0.025
	K	39	**5020.813**	**ug/L**	4.571	26572468	16.760
	Ca	43	**9084.790**	**ug/L**	0.751	110126	0.070
>	Sc	45		**ug/L**		1558840	1558839.752
	V	51	**42.412**	**ug/L**	1.999	273981	0.165
	Cr	52	**29.314**	**ug/L**	1.123	155112	0.095
	Cr	53		**ug/L**		78762	-0.020
	Mn	55	**849.614**	**ug/L**	0.388	6289996	4.034
	Fe	57	**38361.835**	**ug/L**	0.452	5349019	3.428
	Co	59	**47.245**	**ug/L**	0.709	250074	0.160
	Ni	60	**33.480**	**ug/L**	0.201	37381	0.024
	Cu	63		**ug/L**		373421	0.239
	Cu	65	**143.345**	**ug/L**	1.124	188935	0.121
	Zn	66	**133.259**	**ug/L**	0.389	109648	0.331
	Zn	67		**ug/L**		28893	0.038
	Zn	68		**ug/L**		86302	0.257
>	Ge	74		**ug/L**		330330	330329.769
	As	75	**8.799**	**ug/L**	1.325	8928	0.024
	Se	77		**ug/L**		2986	-0.006
	Se	82	**-0.263**	**ug/L**	61.450	-17	-0.000
	Kr	83		**ug/L**		250	0.001
	Sr	88	**82.058**	**ug/L**	0.694	885818	4.395
	Y	89		**ug/L**		924011	4.587
	Ag	107	**0.838**	**ug/L**	0.231	3787	0.018
	Cd	111	**2.234**	**ug/L**	5.679	2470	0.012
	Cd	114		**ug/L**		499	0.002
>	In	115		**ug/L**		201441	201440.851
	Sn	120	**1.060**	**ug/L**	0.670	5125	0.023
	Sb	121	**0.555**	**ug/L**	1.151	2703	0.011
	Sb	123		**ug/L**		2097	0.008
	Ba	135		**ug/L**		365459	1.129
	Ba	137	**299.285**	**ug/L**	0.914	636588	1.967
	Ho	165		**ug/L**		54036	0.167
>	Lu	175		**ug/L**		323675	323674.732
	Tl	205	**0.317**	**ug/L**	1.796	3459	0.009
	Pb	208	**137.100**	**ug/L**	0.747	2335550	7.195
	Bi	209		**ug/L**		5403	0.017
	U	238	**40.663**	**ug/L**	0.780	698361	2.155

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969013
Sample Date/Time: Thursday, February 25, 2010 13:10:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969013.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**27.892**	ug/L	0.926	57023	0.036
	Be	9	**3.542**	ug/L	1.590	1873	0.001
	B	11	**8.912**	ug/L	1.613	5734	0.003
	Na	23	**381.444**	ug/L	3.143	1753043	1.099
	Mg	24	**4420.195**	ug/L	1.733	14089038	9.014
	Al	27	**28750.127**	ug/L	1.396	135844971	86.988
	P	31	**238.656**	ug/L	0.413	68234	0.039
	K	39	**4266.655**	ug/L	4.274	22675172	14.243
	Ca	43	**4271.766**	ug/L	0.642	52031	0.033
>	Sc	45		ug/L		1561384	1561383.791
	V	51	**48.114**	ug/L	1.708	309164	0.188
	Cr	52	**27.872**	ug/L	0.563	148034	0.091
	Cr	53		ug/L		76095	-0.022
	Mn	55	**756.005**	ug/L	0.683	5606425	3.589
	Fe	57	**27393.031**	ug/L	0.840	3827229	2.448
	Co	59	**13.258**	ug/L	1.292	70411	0.045
	Ni	60	**21.750**	ug/L	1.010	24369	0.016
	Cu	63		ug/L		189347	0.121
	Cu	65	**72.037**	ug/L	0.452	95181	0.061
	Zn	66	**96.226**	ug/L	1.551	81488	0.239
	Zn	67		ug/L		23872	0.021
	Zn	68		ug/L		63781	0.184
>	Ge	74		ug/L		339616	339616.249
	As	75	**6.094**	ug/L	5.643	6672	0.017
	Se	77		ug/L		2782	-0.007
	Se	82	**0.007**	ug/L	3413.207	7	0.000
	Kr	83		ug/L		199	0.000
	Sr	88	**54.073**	ug/L	0.016	600423	2.896
	Y	89		ug/L		660497	3.188
	Ag	107	**0.463**	ug/L	3.086	2194	0.010
	Cd	111	**1.536**	ug/L	4.128	1756	0.008
	Cd	114		ug/L		859	0.004
>	In	115		ug/L		207149	207148.660
	Sn	120	**1.567**	ug/L	1.830	7591	0.035
	Sb	121	**0.471**	ug/L	3.246	2450	0.009
	Sb	123		ug/L		1911	0.007
	Ba	135		ug/L		288301	0.891
	Ba	137	**238.152**	ug/L	0.989	506068	1.565
	Ho	165		ug/L		38103	0.118
>	Lu	175		ug/L		323344	323343.573
	Tl	205	**0.455**	ug/L	0.331	4781	0.014
	Pb	208	**57.106**	ug/L	0.984	975686	2.997
	Bi	209		ug/L		5931	0.018
	U	238	**85.255**	ug/L	1.068	1461861	4.519

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			96.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			93.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			95.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			105.0		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969014
Sample Date/Time: Thursday, February 25, 2010 13:16:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969014.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**30.985**	**ug/L**	0.807	63870	0.040
	Be	9	**2.980**	**ug/L**	1.431	1592	0.001
	B	11	**9.370**	**ug/L**	2.385	6046	0.003
	Na	23	**314.468**	**ug/L**	4.541	1464495	0.906
	Mg	24	**5088.463**	**ug/L**	2.174	16355838	10.376
	Al	27	**36597.734**	**ug/L**	1.467	174388626	110.733
	P	31	**188.660**	**ug/L**	0.386	55890	0.031
	K	39	**4835.980**	**ug/L**	3.264	25863869	16.143
	Ca	43	**5637.635**	**ug/L**	1.113	69150	0.044
>	Sc	45		**ug/L**		1574634	1574633.970
	V	51	**53.215**	**ug/L**	0.860	343131	0.208
	Cr	52	**30.662**	**ug/L**	0.837	163604	0.100
	Cr	53		**ug/L**		75546	-0.023
	Mn	55	**801.659**	**ug/L**	1.138	5995333	3.806
	Fe	57	**26798.887**	**ug/L**	0.582	3776085	2.395
	Co	59	**14.681**	**ug/L**	0.665	78616	0.050
	Ni	60	**21.771**	**ug/L**	0.371	24600	0.016
	Cu	63		**ug/L**		119135	0.075
	Cu	65	**45.148**	**ug/L**	0.402	60216	0.038
	Zn	66	**72.839**	**ug/L**	0.891	62161	0.181
	Zn	67		**ug/L**		20591	0.011
	Zn	68		**ug/L**		50462	0.144
>	Ge	74		**ug/L**		341704	341704.420
	As	75	**5.757**	**ug/L**	3.797	6403	0.016
	Se	77		**ug/L**		2753	-0.007
	Se	82	**-0.561**	**ug/L**	33.809	-43	-0.000
	Kr	83		**ug/L**		193	0.000
	Sr	88	**67.103**	**ug/L**	1.134	752730	3.594
	Y	89		**ug/L**		434707	2.077
	Ag	107	**0.299**	**ug/L**	5.630	1468	0.007
	Cd	111	**1.121**	**ug/L**	5.367	1303	0.006
	Cd	114		**ug/L**		649	0.003
>	In	115		**ug/L**		209315	209315.393
	Sn	120	**1.044**	**ug/L**	2.771	5249	0.023
	Sb	121	**0.630**	**ug/L**	2.207	3109	0.012
	Sb	123		**ug/L**		2464	0.010
	Ba	135		**ug/L**		338466	1.057
	Ba	137	**279.362**	**ug/L**	0.811	587848	1.836
	Ho	165		**ug/L**		25147	0.079
>	Lu	175		**ug/L**		320203	320203.404
	Tl	205	**0.439**	**ug/L**	0.786	4580	0.013
	Pb	208	**356.995**	**ug/L**	0.372	6006073	18.736
	Bi	209		**ug/L**		7388	0.023
	U	238	**32.741**	**ug/L**	1.328	556410	1.735

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.0			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969015
Sample Date/Time: Thursday, February 25, 2010 13:22:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\245969015.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.448**	**ug/L**	0.991	104972	0.067
	Be	9	**18.480**	**ug/L**	0.784	9704	0.006
	B	11	**16.890**	**ug/L**	2.764	10278	0.006
	Na	23	**335.424**	**ug/L**	4.237	1545018	0.966
	Mg	24	**8577.103**	**ug/L**	8.794	27298181	17.490
	Al	27	**62496.723**	**ug/L**	3.169	294987440	189.094
	P	31	**447.435**	**ug/L**	0.848	121641	0.073
	K	39	**8420.463**	**ug/L**	1.986	44287446	28.108
	Ca	43	**9016.709**	**ug/L**	0.519	109384	0.070
>	Sc	45		**ug/L**		1559945	1559945.458
	V	51	**79.333**	**ug/L**	0.561	498837	0.309
	Cr	52	**39.401**	**ug/L**	0.569	206482	0.128
	Cr	53		**ug/L**		76508	-0.021
	Mn	55	**1446.796**	**ug/L**	0.247	10717370	6.869
	Fe	57	**41176.276**	**ug/L**	0.279	5745251	3.680
	Co	59	**22.154**	**ug/L**	0.124	117444	0.075
	Ni	60	**32.127**	**ug/L**	0.212	35901	0.023
	Cu	63		**ug/L**		128835	0.082
	Cu	65	**50.138**	**ug/L**	1.057	66231	0.042
	Zn	66	**117.547**	**ug/L**	0.918	96768	0.292
	Zn	67		**ug/L**		27021	0.032
	Zn	68		**ug/L**		80343	0.239
>	Ge	74		**ug/L**		330357	330356.730
	As	75	**7.927**	**ug/L**	3.726	8144	0.022
	Se	77		**ug/L**		2754	-0.007
	Se	82	**-1.774**	**ug/L**	19.609	-144	-0.000
	Kr	83		**ug/L**		322	0.001
	Sr	88	**106.186**	**ug/L**	0.927	1173371	5.687
	Y	89		**ug/L**		518273	2.513
	Ag	107	**0.487**	**ug/L**	2.341	2293	0.011
	Cd	111	**1.835**	**ug/L**	7.684	2082	0.010
	Cd	114		**ug/L**		1891	0.009
>	In	115		**ug/L**		206232	206231.936
	Sn	120	**2.485**	**ug/L**	1.226	11737	0.055
	Sb	121	**0.268**	**ug/L**	3.016	1644	0.005
	Sb	123		**ug/L**		1299	0.004
	Ba	135		**ug/L**		670063	2.148
	Ba	137	**558.632**	**ug/L**	0.630	1144921	3.671
	Ho	165		**ug/L**		29527	0.095
>	Lu	175		**ug/L**		311895	311895.149
	Tl	205	**0.719**	**ug/L**	2.920	7053	0.021
	Pb	208	**122.171**	**ug/L**	0.948	2006188	6.412
	Bi	209		**ug/L**		12418	0.040
	U	238	**60.099**	**ug/L**	0.857	994226	3.185

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 13:28:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.244

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.146**	**ug/L**	0.242	104083	0.066
	Be	9	**48.336**	**ug/L**	0.719	25794	0.016
	B	11	**99.250**	**ug/L**	4.541	58242	0.036
	Na	23	**4527.792**	**ug/L**	6.217	20728722	13.041
	Mg	24	**4665.520**	**ug/L**	4.782	15119158	9.514
	Al	27	**4882.278**	**ug/L**	4.227	23468803	14.772
	P	31	**4682.082**	**ug/L**	1.105	1226999	0.769
	K	39	**4501.901**	**ug/L**	13.515	24269521	15.028
	Ca	43	**4695.968**	**ug/L**	1.277	58105	0.036
>	Sc	45		**ug/L**		1586829	1586829.320
	V	51	**48.598**	**ug/L**	1.478	317200	0.190
	Cr	52	**48.896**	**ug/L**	1.087	259097	0.159
	Cr	53		**ug/L**		117340	0.003
	Mn	55	**50.503**	**ug/L**	0.760	382648	0.240
	Fe	57	**4876.394**	**ug/L**	0.834	696347	0.436
	Co	59	**47.956**	**ug/L**	0.455	258401	0.163
	Ni	60	**49.162**	**ug/L**	0.215	55813	0.035
	Cu	63		**ug/L**		132219	0.083
	Cu	65	**49.232**	**ug/L**	0.928	66151	0.042
	Zn	66	**50.594**	**ug/L**	0.872	44567	0.126
	Zn	67		**ug/L**		20912	0.010
	Zn	68		**ug/L**		34001	0.093
>	Ge	74		**ug/L**		351803	351802.830
	As	75	**45.518**	**ug/L**	1.071	44717	0.124
	Se	77		**ug/L**		8170	0.008
	Se	82	**48.343**	**ug/L**	0.517	4345	0.012
	Kr	83		**ug/L**		94	0.000
	Sr	88	**50.968**	**ug/L**	1.109	562136	2.730
	Y	89		**ug/L**		169	0.000
	Ag	107	**50.720**	**ug/L**	0.428	228546	1.110
	Cd	111	**48.711**	**ug/L**	1.061	54420	0.264
	Cd	114		**ug/L**		124091	0.603
>	In	115		**ug/L**		205760	205760.052
	Sn	120	**49.225**	**ug/L**	1.810	224132	1.087
	Sb	121	**48.227**	**ug/L**	1.565	189265	0.917
	Sb	123		**ug/L**		147029	0.712
	Ba	135		**ug/L**		57277	0.187
	Ba	137	**50.072**	**ug/L**	0.767	100659	0.329
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		305676	305675.977
	Tl	205	**48.494**	**ug/L**	1.117	441023	1.442
	Pb	208	**50.888**	**ug/L**	1.854	822475	2.671
	Bi	209		**ug/L**		179	0.000
	U	238	**54.252**	**ug/L**	1.331	879587	2.875

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 6

Record Date/Time: Thursday, February 25, 2010 13:31:00

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	100.291				
	Be	9	96.672				
	B	11	99.250				
	Na	23	90.556				
	Mg	24	93.310				
	Al	27	96.679				
	P	31	93.642				
	K	39	90.038				
	Ca	43	93.919				
>	Sc	45			97.9		
	V	51	97.196				
	Cr	52	97.793				
	Cr	53					
	Mn	55	101.005				
	Fe	57	97.528				
	Co	59	95.913				
	Ni	60	98.325				
	Cu	63					
	Cu	65	98.464				
	Zn	66	101.188				
	Zn	67					
	Zn	68					
>	Ge	74			96.3		
	As	75	91.035				
	Se	77					
	Se	82	96.686				
	Kr	83					
	Sr	88	101.935				
	Y	89					
	Ag	107	101.440				
	Cd	111	97.421				
	Cd	114					
>	In	115			94.9		
	Sn	120	98.449				
	Sb	121	96.455				
	Sb	123					
	Ba	135					
	Ba	137	100.144				
	Ho	165					
>	Lu	175			99.3		
	Tl	205	96.988				
	Pb	208	101.775				
	Bi	209					
	U	238	108.505				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Thursday, February 25, 2010 13:31:00

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 13:34:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.012**	ug/L	35.430	165	0.000
	Be	9	**0.007**	ug/L	180.970	19	0.000
	B	11	**2.014**	ug/L	22.384	1903	0.001
	Na	23	**-0.311**	ug/L	507.140	38720	-0.001
	Mg	24	**-1.690**	ug/L	34.600	12005	-0.003
	Al	27	**1.821**	ug/L	38.392	37717	0.006
	P	31	**-2.871**	ug/L	6.131	6697	-0.000
	K	39	**-15.193**	ug/L	21.739	383417	-0.051
	Ca	43	**-3.838**	ug/L	10.996	276	-0.000
>	Sc	45		ug/L		1653636	1653635.974
	V	51	**0.117**	ug/L	254.314	17887	0.000
	Cr	52	**0.005**	ug/L	817.428	6696	0.000
	Cr	53		ug/L		97269	-0.012
	Mn	55	**0.075**	ug/L	20.505	2863	0.000
	Fe	57	**-0.476**	ug/L	160.529	4970	-0.000
	Co	59	**0.003**	ug/L	89.931	196	0.000
	Ni	60	**-0.004**	ug/L	359.444	135	-0.000
	Cu	63		ug/L		322	0.000
	Cu	65	**0.015**	ug/L	16.405	176	0.000
	Zn	66	**-0.074**	ug/L	42.666	319	-0.000
	Zn	67		ug/L		14475	-0.010
	Zn	68		ug/L		1004	-0.001
>	Ge	74		ug/L		366078	366078.266
	As	75	**-0.274**	ug/L	91.474	843	-0.001
	Se	77		ug/L		5393	-0.000
	Se	82	**0.076**	ug/L	129.686	13	0.000
	Kr	83		ug/L		72	-0.000
	Sr	88	**0.003**	ug/L	85.241	544	0.000
	Y	89		ug/L		84	0.000
	Ag	107	**0.002**	ug/L	179.928	108	0.000
	Cd	111	**0.010**	ug/L	31.225	42	0.000
	Cd	114		ug/L		84	-0.000
>	In	115		ug/L		216742	216741.905
	Sn	120	**0.025**	ug/L	52.446	559	0.001
	Sb	121	**0.237**	ug/L	31.570	1599	0.005
	Sb	123		ug/L		1196	0.003
	Ba	135		ug/L		66	0.000
	Ba	137	**0.003**	ug/L	179.838	105	0.000
	Ho	165		ug/L		12	0.000
>	Lu	175		ug/L		314369	314368.829
	Tl	205	**0.038**	ug/L	37.737	751	0.001
	Pb	208	**-0.109**	ug/L	2.149	4639	-0.006
	Bi	209		ug/L		39	-0.000
	U	238	**0.006**	ug/L	33.613	881	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 7

Report Date/Time: Thursday, February 25, 2010 13:36:56

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 21:10:56
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1673
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4426.7	4426.686	125.624	2.8
	Mg	24.0	33968.1	33968.140	360.627	1.1
	Co	58.9	55712.4	55712.441	767.844	1.4
	Rh	102.9	102017.2	102017.216	1333.173	1.3
	In	114.9	112334.6	112334.589	1361.480	1.2
	Pb	208.0	82895.7	82895.659	1277.395	1.5
⌈>	Ba	137.9	106971.7	106971.669	1685.235	1.6
⌊	Ba++	69.0	2397.2	0.022	0.001	3.1
⌈>	Ce	139.9	138161.7	138161.712	925.788	0.7
⌊	CeO	155.9	2844.6	0.021	0.000	1.6
	Bkgd	220.0	6.4	6.400	1.817	28.4

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.3	4785.5
Co	59	11	6.0	51167.5
In	115	11	6.8	111813.5

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.638
Be	9.0	9.0	2035	2080	0.652
Mg	24.0	24.0	5692	2124	0.597
Mg	25.0	25.1	5932	2080	0.693
Mg	26.0	26.1	6174	2120	0.666
Co	58.9	59.0	14165	2170	0.619
Rh	102.9	102.9	24868	2230	0.691
In	114.9	114.9	27795	2260	0.675
Ce	139.9	139.9	33858	2280	0.745
Pb	206.0	206.0	49960	2428	0.744
Pb	207.0	207.0	50135	2385	0.687
Pb	208.0	208.0	50463	2430	0.733
U	238.1	238.0	57717	2470	0.741

Report Date/Time: Thursday, February 25, 2010 21:07:47

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 26, 2010 03:43:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\Blank.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		203014	
	U	238		ug/L		91	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 26, 2010 03:46:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\Standard 1.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		206614	206613.805
	U	238	10.000	ug/L	1.156	144817	0.700

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 26, 2010 03:49:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\Standard 2.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		198554	198554.285
	U	238	99.956	ug/L	1.349	1331121	6.704

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 26, 2010 03:52:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 1.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		202303	202303.277
	U	238	54.254	ug/L	0.921	736230	3.639

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.6			
	U	238	108.508				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 26, 2010 03:55:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 2.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		204161	204160.708
	U	238	0.010	ug/L	3.323	234	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 26, 2010 03:58:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 3.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		206053	206053.211
⌊	U	238	0.253	ug/L	2.965	3581	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		101.5			
⌊	U	238	126.269				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 26, 2010 04:01:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 4.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		172562	172561.691
	U	238	-0.003	ug/L	12.246	45	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		85.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 26, 2010 04:05:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 5.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		175342	175341.632
	U	238	23.202	ug/L	1.574	272891	1.556

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		86.4			
	U	238	116.009				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 04:08:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		196837	196837.434
⌊	U	238	54.797	ug/L	0.457	723448	3.675

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.0			
⌊	U	238	109.594				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 04:11:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		202352	202351.789
⌊	U	238	0.012	ug/L	7.007	253	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032600
Sample Date/Time: Friday, February 26, 2010 04:14:14
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\1202032600.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		220280	220280.120
	U	238	0.006	ug/L	13.798	182	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		108.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032605
Sample Date/Time: Friday, February 26, 2010 04:17:17
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948759|40|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\1202032605.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		207445	207445.136
	U	238	0.494	ug/L	1.124	6960	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		102.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969001
Sample Date/Time: Friday, February 26, 2010 04:20:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969001.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		232721	232721.039
⌊	U	238	2.924	ug/L	1.451	45735	0.196

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		114.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032601
Sample Date/Time: Friday, February 26, 2010 04:23:24
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\1202032601.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		235164	235163.683
	U	238	3.746	ug/L	1.367	59186	0.251

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		115.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032603
Sample Date/Time: Friday, February 26, 2010 04:26:28
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\1202032603.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		223728	223728.435
	U	238	6612.175	ug/L	2.084	99192039	443.445

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		110.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
U	238 Upper, S, EEEU	238	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032604
Sample Date/Time: Friday, February 26, 2010 04:29:33
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\1202032604.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		229222	229221.680
	U	238	31.598	ug/L	0.477	485846	2.119

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		112.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032602
Sample Date/Time: Friday, February 26, 2010 04:32:37
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948759|10|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\1202032602.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		206970	206969.940
	U	238	1.106	ug/L	0.776	15449	0.074

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969002
Sample Date/Time: Friday, February 26, 2010 04:35:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|20|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969002.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		207636	207636.102
[	U	238	81.735	ug/L	1.288	1138018	5.482

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		102.3			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 04:38:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		220182	220181.924
	U	238	52.278	ug/L	0.785	772003	3.506

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		108.5			
	U	238	104.557				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 04:41:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		225335	225335.333
	U	238	0.034	ug/L	5.198	615	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		111.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969004
Sample Date/Time: Friday, February 26, 2010 04:47:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|40|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969004.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		232532	232531.946
	U	238	60.859	ug/L	0.628	949222	4.082

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		114.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969005
Sample Date/Time: Friday, February 26, 2010 04:50:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969005.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		243940	243939.884
[	U	238	26.228	ug/L	0.566	429192	1.759

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		120.2			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Lu 175 Int Std for sa	Lu	175	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245969006
Sample Date/Time: Friday, February 26, 2010 04:54:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|10|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969006.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		227021	227021.277
	U	238	36.729	ug/L	0.629	559315	2.463

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		111.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969007
Sample Date/Time: Friday, February 26, 2010 04:57:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|10|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969007.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		224919	224919.195
	U	238	59.801	ug/L	0.949	902098	4.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		110.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969008
Sample Date/Time: Friday, February 26, 2010 05:00:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|10|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969008.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		224538	224538.350
	U	238	34.756	ug/L	1.036	523420	2.331

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		110.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969009
Sample Date/Time: Friday, February 26, 2010 05:03:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969009.112

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		219039	219039.052
U	238	12.721	ug/L	1.184	186985	0.853

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Lu	175		107.9			
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969010
Sample Date/Time: Friday, February 26, 2010 05:06:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969010.113

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		236676	236675.648
⌊	U	238	20.024	ug/L	0.669	317937	1.343

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		116.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 05:09:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		213450	213450.455
	U	238	53.688	ug/L	0.670	768597	3.601

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		105.1			
	U	238	107.376				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 05:12:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.115

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		216146	216146.010
⌊	U	238	0.012	ug/L	9.489	270	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		106.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969011
Sample Date/Time: Friday, February 26, 2010 05:15:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969011.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		235516	235516.033
[	U	238	8.489	ug/L	0.855	134188	0.569

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		116.0			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969012
Sample Date/Time: Friday, February 26, 2010 05:18:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969012.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		231066	231066.040
[	U	238	39.724	ug/L	1.192	615751	2.664

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		113.8			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969013
Sample Date/Time: Friday, February 26, 2010 05:21:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969013.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		233807	233806.576
	U	238	83.335	ug/L	0.830	1306901	5.589

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		115.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969014
Sample Date/Time: Friday, February 26, 2010 05:24:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969014.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		224418	224417.554
⌊	U	238	32.270	ug/L	0.567	485790	2.164

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		110.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969015
Sample Date/Time: Friday, February 26, 2010 05:27:48
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\245969015.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		218215	218215.185
	U	238	58.488	ug/L	0.909	856058	3.922

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		107.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 05:30:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		205857	205856.726
[	U	238	53.669	ug/L	1.496	741023	3.599

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		101.4			
[	U	238	107.338				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 05:33:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		208067	208066.653
	U	238	0.015	ug/L	17.134	306	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		102.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, February 27, 2010 23:13:02
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1681
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1646.5	1646.495	46.355	2.8
	Mg	24.0	10161.0	10161.015	305.365	3.0
	Co	58.9	21345.1	21345.142	496.401	2.3
	Rh	102.9	55538.4	55538.377	1004.290	1.8
	In	114.9	64911.2	64911.206	1580.503	2.4
	Pb	208.0	43468.4	43468.440	528.057	1.2
⌈>	Ba	137.9	53237.5	53237.540	1033.858	1.9
⌊	Ba++	69.0	741.4	0.014	0.000	1.8
⌈>	Ce	139.9	72230.6	72230.594	1349.694	1.9
⌊	CeO	155.9	1056.0	0.015	0.001	4.3
	Bkgd	220.0	2.8	2.800	1.204	43.0

Current Optimization File Data

Current Value	Description
0.78	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	1504.1
Co	59	17	6.8	19845.8
In	115	17	8.0	65863.1

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	581	2080	0.633
Be	9.0	8.9	2028	2080	0.661
Mg	24.0	24.0	5682	2124	0.568
Mg	25.0	24.9	5898	2080	0.596
Mg	26.0	25.9	6177	2120	0.675
Co	58.9	59.0	14168	2170	0.629
Rh	102.9	102.9	24857	2230	0.691
In	114.9	114.9	27785	2260	0.707
Ce	139.9	140.0	33871	2280	0.770
Pb	206.0	206.0	49948	2430	0.715
Pb	207.0	207.0	50147	2385	0.737
Pb	208.0	207.9	50427	2430	0.749
U	238.1	238.1	57734	2470	0.760

Report Date/Time: Saturday, February 27, 2010 23:07:50

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 02:58:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\Blank.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		150726	
	U	238		ug/L		39	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 03:02:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\Standard 1.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		153347	153346.856
⌊	U	238	10.000	ug/L	0.253	72507	0.473

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 03:05:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\Standard 2.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		148064	148063.906
⌊	U	238	100.023	ug/L	0.356	716370	4.838

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 03:08:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 1.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		150361	150361.398
⌊	U	238	53.169	ug/L	0.614	386755	2.572

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.8			
⌊	U	238	106.337				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 03:11:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 2.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		150822	150822.267
⌊	U	238	0.012	ug/L	4.814	129	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		100.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 03:14:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 3.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		151362	151361.864
⌊	U	238	0.267	ug/L	0.528	1994	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		100.4			
⌊	U	238	133.489				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 03:17:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 4.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		139097	139096.764
	U	238	-0.002	ug/L	32.516	23	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 03:20:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 5.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		135030	135030.002
	U	238	22.362	ug/L	0.196	146089	1.082

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		89.6			
	U	238	111.809				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 03:23:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		145575	145574.970
	U	238	53.678	ug/L	1.426	377902	2.596

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.6			
	U	238	107.356				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 03:26:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		148145	148144.681
	U	238	0.007	ug/L	15.285	89	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245969003
Sample Date/Time: Sunday, February 28, 2010 03:29:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948759|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\245969003.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		152928	152927.772
	U	238	34.517	ug/L	0.271	255361	1.670

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 03:32:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		148756	148755.790
[	U	238	53.229	ug/L	2.267	382888	2.575

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		98.7			
[	U	238	106.458				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 03:35:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		151253	151253.237
	U	238	0.008	ug/L	8.601	94	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/18/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021810S1.SIF Results Data Set Name: 021810S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/18/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0046	0.0046	09:45:19	No
2			0.0045	0.0045	09:45:54	No
Mean:			0.0046			
SD :			0.0001			
%RSD:			2.6075			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/18/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0019	0.0065	09:47:17	No
2			0.0017	0.0063	09:47:51	No
Mean:			0.0018			
SD :			0.0001			
%RSD:			7.2627			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00908
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/18/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0052	0.0098	09:49:14	No
2			0.0054	0.0099	09:49:48	No
Mean:			0.0053			
SD :			0.0001			
%RSD:			2.3316			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99797 Slope: 0.01065
Intercept : -0.00012

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/18/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0209	0.0255	09:51:13	No
2			0.0210	0.0255	09:51:49	No
Mean:			0.0210			
SD :			0.0000			
%RSD:			0.1449			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99989 Slope: 0.01053
Intercept : -0.00009

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/18/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0521	0.0567	09:53:13	No
2			0.0519	0.0564	09:53:49	No
Mean:			0.0520			
SD :			0.0002			
%RSD:			0.3044			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01042
Intercept : -0.00003

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/18/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1014	0.1060	09:55:15	No
2			0.1009	0.1054	09:55:50	No
Mean:			0.1011			
SD :			0.0004			
%RSD:			0.3679			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99989 Slope: 0.01014
Intercept : 0.00028

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0046	---	----	----	----
S0.2	0.0018	0.200	0.152	0.0001	7.3
S0.5	0.0053	0.500	0.494	0.0001	2.3
S2.0	0.0210	2.000	2.039	0.0000	0.1
S5.0	0.0520	5.000	5.098	0.0002	0.3
S10	0.1011	10.000	9.944	0.0004	0.4

Correlation Coefficient: 0.99989 Slope: 0.01014 Intercept: 0.0003

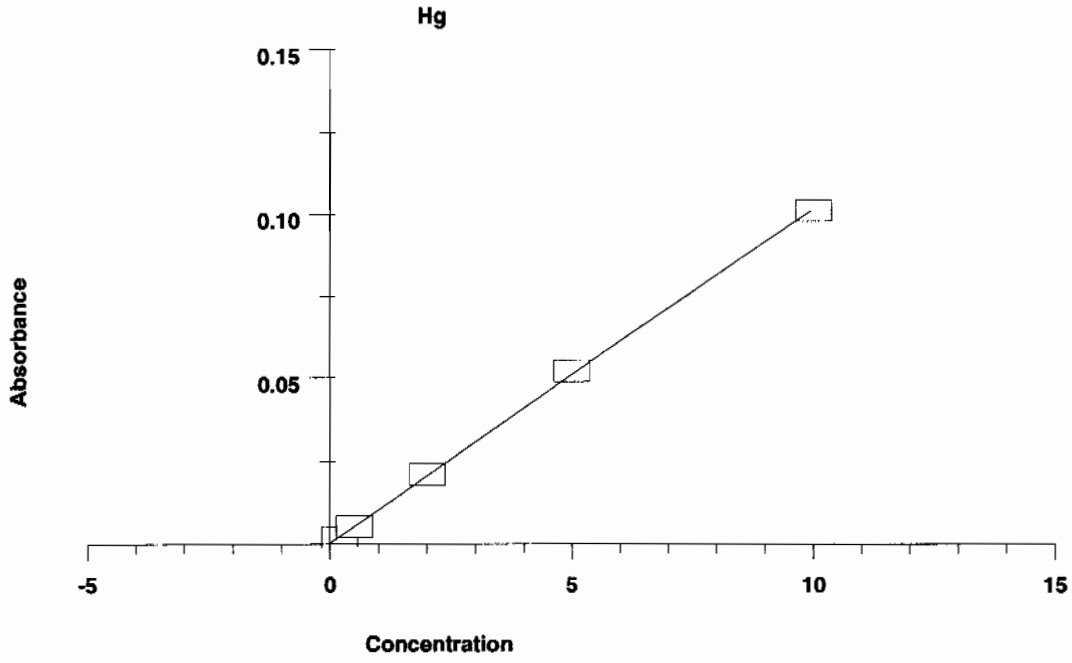

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/18/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.154	5.154	0.0525	0.0571	09:57:18	No
2	5.108	5.108	0.0521	0.0566	09:57:53	No
Mean:	5.131	5.131	0.0523			
SD :	0.0323	0.0323	0.0003			
%RSD:	0.6	0.6	0.6260			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/18/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.120	-0.120	-0.0009	0.0036	09:59:15	No
2	-0.138	-0.138	-0.0011	0.0034	09:59:50	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0127	0.0127	0.0001			
%RSD:	9.9	9.9	12.5442			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/18/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0026	0.0071	10:01:12	No
2	0.211	0.211	0.0024	0.0070	10:01:47	No
Mean:	0.218	0.218	0.0025			
SD :	0.0095	0.0095	0.0001			
%RSD:	4.3	4.3	3.8605			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.040	5.040	0.0514	0.0559	10:03:12	No
2	5.078	5.078	0.0518	0.0563	10:03:46	No
Mean:	5.059	5.059	0.0516			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5390			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0001	0.0044	10:05:14	No
2	-0.052	-0.052	-0.0003	0.0043	10:05:49	No
Mean:	-0.046	-0.046	-0.0002			
SD :	0.0083	0.0083	0.0001			
%RSD:	18.0	18.0	43.9084			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/18/2010
Sample ID: 1202037115|i||950565|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0005	0.0041	10:07:15	No
2	-0.088	-0.088	-0.0006	0.0039	10:07:50	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0102	0.0102	0.0001			
%RSD:	12.7	12.7	19.1745			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/18/2010
Sample ID: 1202037116|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.092	4.092	0.0418	0.0463	10:09:15	No
2	3.952	3.952	0.0404	0.0449	10:09:50	No
Mean:	4.022	4.022	0.0411			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.5	2.5	2.4475			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/18/2010
Sample ID: 245969001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.246	0.246	0.0028	0.0073	10:11:18	No
2	0.244	0.244	0.0027	0.0073	10:11:53	No
Mean:	0.245	0.245	0.0028			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.8	0.8	0.7089			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/18/2010
Sample ID: 1202037117|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.163	0.163	0.0019	0.0065	10:13:19	No
2	0.172	0.172	0.0020	0.0066	10:13:54	No
Mean:	0.167	0.167	0.0020			
SD :	0.0063	0.0063	0.0001			
%RSD:	3.8	3.8	3.2652			

Element: Hg Seq. No.: 16 AS Loc.: 16 Date: 02/18/2010
Sample ID: 1202037118|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.222	2.222	0.0228	0.0274	10:15:21	No
2	2.224	2.224	0.0228	0.0274	10:15:56	No
Mean:	2.223	2.223	0.0228			
SD :	0.0014	0.0014	0.0000			
%RSD:						

Element: Hg Seq. No.: 17 AS Loc.: 17 Date: 02/18/2010
Sample ID: 1202037120|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.341	2.341	0.0240	0.0286	10:17:21	No
2	2.293	2.293	0.0235	0.0281	10:17:56	No
Mean:	2.317	2.317	0.0238			
SD :	0.0336	0.0336	0.0003			
%RSD:	1.5	1.5	1.4334			

Element: Hg Seq. No.: 18 AS Loc.: 18 Date: 02/18/2010
Sample ID: 1202037119|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.122	-0.122	-0.0010	0.0036	10:19:17	No
2	-0.126	-0.126	-0.0010	0.0036	10:19:52	No
Mean:	-0.124	-0.124	-0.0010			
SD :	0.0031	0.0031	0.0000			
%RSD:	2.5	2.5	3.2339			

Element: Hg Seq. No.: 19 AS Loc.: 19 Date: 02/18/2010
Sample ID: 245969002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.149	0.149	0.0018	0.0063	10:21:13	No
2	0.125	0.125	0.0015	0.0061	10:21:47	No
Mean:	0.137	0.137	0.0017			
SD :	0.0170	0.0170	0.0002			
%RSD:	12.4	12.4	10.3517			

Element: Hg Seq. No.: 20 AS Loc.: 20 Date: 02/18/2010
Sample ID: 245969003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.463	0.463	0.0050	0.0095	10:23:09	No
2	0.470	0.470	0.0050	0.0096	10:23:44	No
Mean:	0.466	0.466	0.0050			
SD :	0.0055	0.0055	0.0001			

%RSD: 1.2 1.2 1.1178

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/18/2010
Sample ID: 245969004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.121	0.121	0.0015	0.0061	10:25:06	No
2	0.086	0.086	0.0011	0.0057	10:25:41	No
Mean:	0.103	0.103	0.0013			
SD :	0.0247	0.0247	0.0003			
%RSD:	23.9	23.9	18.9148			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.046	5.046	0.0515	0.0560	10:27:06	No
2	5.089	5.089	0.0519	0.0565	10:27:40	No
Mean:	5.068	5.068	0.0517			
SD :	0.0301	0.0301	0.0003			
%RSD:	0.6	0.6	0.5903			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0004	0.0042	10:29:09	No
2	-0.067	-0.067	-0.0004	0.0042	10:29:44	No
Mean:	-0.065	-0.065	-0.0004			
SD :	0.0021	0.0021	0.0000			
%RSD:	3.3	3.3	5.6045			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/18/2010
Sample ID: 245969005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0017	0.0063	10:31:09	No
2	0.120	0.120	0.0015	0.0061	10:31:44	No
Mean:	0.130	0.130	0.0016			
SD :	0.0141	0.0141	0.0001			
%RSD:	10.8	10.8	8.9311			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/18/2010
Sample ID: 245969006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.096	0.096	0.0012	0.0058	10:33:07	No
2	0.085	0.085	0.0011	0.0057	10:33:42	No
Mean:	0.090	0.090	0.0012			
SD :	0.0078	0.0078	0.0001			
%RSD:	8.6	8.6	6.6265			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/18/2010
Sample ID: 245969007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.233	0.233	0.0026	0.0072	10:35:06	No
2	0.224	0.224	0.0026	0.0071	10:35:41	No
Mean:	0.229	0.229	0.0026			
SD :	0.0063	0.0063	0.0001			
%RSD:	2.8	2.8	2.4796			

Element: Hg Seq. No.: 27 AS Loc.: 25 Date: 02/18/2010
Sample ID: 245969008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0006	0.0051	10:37:05	No
2	0.022	0.022	0.0005	0.0051	10:37:40	No
Mean:	0.025	0.025	0.0005			
SD :	0.0048	0.0048	0.0000			
%RSD:	19.0	19.0	9.1686			

Element: Hg Seq. No.: 28 AS Loc.: 26 Date: 02/18/2010
Sample ID: 245969009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.688	0.688	0.0073	0.0118	10:39:06	No
2	0.700	0.700	0.0074	0.0119	10:39:41	No
Mean:	0.694	0.694	0.0073			
SD :	0.0085	0.0085	0.0001			
%RSD:	1.2	1.2	1.1773			

Element: Hg Seq. No.: 29 AS Loc.: 27 Date: 02/18/2010
Sample ID: 245969010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.062	-0.062	-0.0003	0.0042	10:41:07	No
2	-0.051	-0.051	-0.0002	0.0043	10:41:42	No
Mean:	-0.056	-0.056	-0.0003			
SD :	0.0077	0.0077	0.0001			
%RSD:	13.7	13.7	26.6159			

Element: Hg Seq. No.: 30 AS Loc.: 28 Date: 02/18/2010
Sample ID: 245969011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.250	0.250	0.0028	0.0074	10:43:08	No
2	0.249	0.249	0.0028	0.0074	10:43:43	No
Mean:	0.249	0.249	0.0028			
SD :	0.0002	0.0002	0.0000			
%RSD:						

Element: Hg Seq. No.: 31 AS Loc.: 29 Date: 02/18/2010
Sample ID: 245969012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.113	0.113	0.0014	0.0060	10:45:09	No
2	0.118	0.118	0.0015	0.0060	10:45:43	No
Mean:	0.115	0.115	0.0014			
SD :	0.0036	0.0036	0.0000			

%RSD: 3.1 3.1 2.4888

==========

Element: Hg Seq. No.: 32 AS Loc.: 30 Date: 02/18/2010
Sample ID: 245969013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0028	0.0073	10:47:09	No
2	0.224	0.224	0.0025	0.0071	10:47:44	No
Mean:	0.234	0.234	0.0027			
SD :	0.0147	0.0147	0.0001			
%RSD:	6.3	6.3	5.6188			

==========

Element: Hg Seq. No.: 33 AS Loc.: 31 Date: 02/18/2010
Sample ID: 245969014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.144	0.144	0.0017	0.0063	10:49:12	No
2	0.132	0.132	0.0016	0.0062	10:49:47	No
Mean:	0.138	0.138	0.0017			
SD :	0.0087	0.0087	0.0001			
%RSD:	6.3	6.3	5.2634			

==========

Element: Hg Seq. No.: 34 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.163	5.163	0.0526	0.0572	10:51:15	No
2	5.285	5.285	0.0539	0.0584	10:51:50	No
Mean:	5.224	5.224	0.0533			
SD :	0.0865	0.0865	0.0009			
%RSD:	1.7	1.7	1.6467			

QC value within specified limits.

==========

Element: Hg Seq. No.: 35 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.077	-0.077	-0.0005	0.0041	10:53:18	No
2	-0.083	-0.083	-0.0006	0.0040	10:53:53	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0044	0.0044	0.0000			
%RSD:	5.4	5.4	8.2472			

QC value within specified limits.

==========

Element: Hg Seq. No.: 36 AS Loc.: 32 Date: 02/18/2010
Sample ID: 245969015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.223	0.223	0.0025	0.0071	10:55:17	No
2	0.204	0.204	0.0023	0.0069	10:55:51	No
Mean:	0.213	0.213	0.0024			
SD :	0.0132	0.0132	0.0001			
%RSD:	6.2	6.2	5.4733			

==========

Element: Hg Seq. No.: 37 AS Loc.: 33 Date: 02/18/2010
Sample ID: 1202039079|i||951467|MB

%RSD: 1.1 1.1 1.0627

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/18/2010
Sample ID: 1202039087|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.127	-0.127	-0.0010	0.0035	11:08:50	No
2	-0.131	-0.131	-0.0011	0.0035	11:09:24	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0029	0.0029	0.0000			
%RSD:	2.2	2.2	2.8265			

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/18/2010
Sample ID: 246285002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.103	0.103	0.0013	0.0059	11:10:48	No
2	0.090	0.090	0.0012	0.0058	11:11:23	No
Mean:	0.097	0.097	0.0013			
SD :	0.0086	0.0086	0.0001			
%RSD:	8.9	8.9	6.9719			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/18/2010
Sample ID: 246285003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.328	0.328	0.0036	0.0082	11:12:47	No
2	0.310	0.310	0.0034	0.0080	11:13:23	No
Mean:	0.319	0.319	0.0035			
SD :	0.0125	0.0125	0.0001			
%RSD:	3.9	3.9	3.6171			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.195	5.195	0.0530	0.0575	11:14:47	No
2	5.107	5.107	0.0521	0.0566	11:15:22	No
Mean:	5.151	5.151	0.0525			
SD :	0.0627	0.0627	0.0006			
%RSD:	1.2	1.2	1.2114			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.105	-0.105	-0.0008	0.0038	11:16:50	No
2	-0.107	-0.107	-0.0008	0.0037	11:17:25	No
Mean:	-0.106	-0.106	-0.0008			
SD :	0.0020	0.0020	0.0000			
%RSD:	1.9	1.9	2.5083			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/18/2010
Sample ID: 246285004|i|||

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948754

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032595	UI062540-I	.505	g
MS	1202032593	UI100120-01	.25	mL
MS	1202032593	UI100120-06	.25	mL
MSD	1202032594	UI100120-01	.25	mL
MSD	1202032594	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032590		SW846 3050B	10-FEB-2010 13:30	0.565 g	50 mL	88.49558	SOIL
LCS	1202032595		SW846 3050B	10-FEB-2010 13:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	245969001		SW846 3050B	10-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL
DUP	1202032591	245969001	SW846 3050B	10-FEB-2010 13:30	0.504 g	50 mL	99.20635	SOIL
SDILT	1202032592	245969001	SW846 3050B	10-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL
MS	1202032593	245969001	SW846 3050B	10-FEB-2010 13:30	0.533 g	50 mL	93.80863	SOIL
MSD	1202032594	245969001	SW846 3050B	10-FEB-2010 13:30	0.527 g	50 mL	94.87666	SOIL
SAMPLE	245969002		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
SAMPLE	245969003		SW846 3050B	10-FEB-2010 13:30	0.552 g	50 mL	90.57971	SOIL
SAMPLE	245969004		SW846 3050B	10-FEB-2010 13:30	0.508 g	50 mL	98.4252	SOIL
SAMPLE	245969005		SW846 3050B	10-FEB-2010 13:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245969006		SW846 3050B	10-FEB-2010 13:30	0.515 g	50 mL	97.08738	SOIL
SAMPLE	245969007		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245969008		SW846 3050B	10-FEB-2010 13:30	0.557 g	50 mL	89.76661	SOIL
SAMPLE	245969009		SW846 3050B	10-FEB-2010 13:30	0.523 g	50 mL	95.60229	SOIL
SAMPLE	245969010		SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245969011		SW846 3050B	10-FEB-2010 13:30	0.541 g	50 mL	92.42144	SOIL
SAMPLE	245969012		SW846 3050B	10-FEB-2010 13:30	0.559 g	50 mL	89.44544	SOIL
SAMPLE	245969013		SW846 3050B	10-FEB-2010 13:30	0.556 g	50 mL	89.92806	SOIL
SAMPLE	245969014		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	245969015		SW846 3050B	10-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1264396	1.25 mL	Nitric Acid CONC.

Comments: Gray,moist,sand.

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948758

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032605	UI062540-MS	.522	g
MS	1202032603	UI091015-A	.5	mL
MS	1202032603	UI091015-B	.5	mL
MSD	1202032604	UI091015-A	.5	mL
MSD	1202032604	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032600		SW846 3050B	10-FEB-2010 13:30	0.536 g	50 mL	93.28358	SOIL
LCS	1202032605		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245969001		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
DUP	1202032601	245969001	SW846 3050B	10-FEB-2010 13:30	0.512 g	50 mL	97.65625	SOIL
SDILT	1202032602	245969001	SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
MS	1202032603	245969001	SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
MSD	1202032604	245969001	SW846 3050B	10-FEB-2010 13:30	0.529 g	50 mL	94.51796	SOIL
SAMPLE	245969002		SW846 3050B	10-FEB-2010 13:30	0.518 g	50 mL	96.5251	SOIL
SAMPLE	245969003		SW846 3050B	10-FEB-2010 13:30	0.546 g	50 mL	91.57509	SOIL
SAMPLE	245969004		SW846 3050B	10-FEB-2010 13:30	0.544 g	50 mL	91.91176	SOIL
SAMPLE	245969005		SW846 3050B	10-FEB-2010 13:30	0.511 g	50 mL	97.84736	SOIL
SAMPLE	245969006		SW846 3050B	10-FEB-2010 13:30	0.546 g	50 mL	91.57509	SOIL
SAMPLE	245969007		SW846 3050B	10-FEB-2010 13:30	0.54 g	50 mL	92.59259	SOIL
SAMPLE	245969008		SW846 3050B	10-FEB-2010 13:30	0.511 g	50 mL	97.84736	SOIL
SAMPLE	245969009		SW846 3050B	10-FEB-2010 13:30	0.571 g	50 mL	87.56567	SOIL
SAMPLE	245969010		SW846 3050B	10-FEB-2010 13:30	0.516 g	50 mL	96.89922	SOIL
SAMPLE	245969011		SW846 3050B	10-FEB-2010 13:30	0.532 g	50 mL	93.98496	SOIL
SAMPLE	245969012		SW846 3050B	10-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL
SAMPLE	245969013		SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245969014		SW846 3050B	10-FEB-2010 13:30	0.55 g	50 mL	90.90909	SOIL
SAMPLE	245969015		SW846 3050B	10-FEB-2010 13:30	0.551 g	50 mL	90.7441	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%
1264396	5 mL	Nitric Acid CONC.

Comments Gray,moist, sand.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 950563

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202037116	UI031809A	.204	g
MS	1202037118	WHG100217-14	.3	mL
MSD	1202037120	WHG100217-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202037115		SW846 7471A Prep	17-FEB-2010 17:55	0.549 g	30 mL	54.64481	SOIL
LCS	1202037116		SW846 7471A Prep	17-FEB-2010 17:55	0.204 g	30 mL	147.05882	SOIL
SAMPLE	245969001		SW846 7471A Prep	17-FEB-2010 17:55	0.551 g	30 mL	54.44646	SOIL
DUP	1202037117	245969001	SW846 7471A Prep	17-FEB-2010 17:55	0.5 g	30 mL	60	SOIL
MS	1202037118	245969001	SW846 7471A Prep	17-FEB-2010 17:55	0.53 g	30 mL	56.60377	SOIL
MSD	1202037120	245969001	SW846 7471A Prep	17-FEB-2010 17:55	0.578 g	30 mL	51.90311	SOIL
SDILT	1202037119	245969001	SW846 7471A Prep	17-FEB-2010 17:55	0.551 g	30 mL	54.44646	SOIL
SAMPLE	245969002		SW846 7471A Prep	17-FEB-2010 17:55	0.553 g	30 mL	54.24955	SOIL
SAMPLE	245969003		SW846 7471A Prep	17-FEB-2010 17:55	0.543 g	30 mL	55.24862	SOIL
SAMPLE	245969004		SW846 7471A Prep	17-FEB-2010 17:55	0.51 g	30 mL	58.82353	SOIL
SAMPLE	245969005		SW846 7471A Prep	17-FEB-2010 17:55	0.506 g	30 mL	59.28854	SOIL
SAMPLE	245969006		SW846 7471A Prep	17-FEB-2010 17:55	0.589 g	30 mL	50.93379	SOIL
SAMPLE	245969007		SW846 7471A Prep	17-FEB-2010 17:55	0.517 g	30 mL	58.02708	SOIL
SAMPLE	245969008		SW846 7471A Prep	17-FEB-2010 17:55	0.543 g	30 mL	55.24862	SOIL
SAMPLE	245969009		SW846 7471A Prep	17-FEB-2010 17:55	0.548 g	30 mL	54.74453	SOIL
SAMPLE	245969010		SW846 7471A Prep	17-FEB-2010 17:55	0.574 g	30 mL	52.26481	SOIL
SAMPLE	245969011		SW846 7471A Prep	17-FEB-2010 17:55	0.517 g	30 mL	58.02708	SOIL
SAMPLE	245969012		SW846 7471A Prep	17-FEB-2010 17:55	0.591 g	30 mL	50.76142	SOIL
SAMPLE	245969013		SW846 7471A Prep	17-FEB-2010 17:55	0.546 g	30 mL	54.94505	SOIL
SAMPLE	245969014		SW846 7471A Prep	17-FEB-2010 17:55	0.546 g	30 mL	54.94505	SOIL
SAMPLE	245969015		SW846 7471A Prep	17-FEB-2010 17:55	0.545 g	30 mL	55.04587	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent
WHG100217-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100217-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100217-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100217-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100217-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100217-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments: Sample 245969001 is rocky dry brown soil.
Digestion Start Date: 17-FEB-10 17:55
Digestion End Date: 17-FEB-10 18:25

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
26-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
948759	See Below		

Potentially affected work order(s)(SDG): 245969(10-1512)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202032603MS 2. Failed RPD for DUP: QC 1202032601DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202032604MSD	The matrix spike failed outside the control limits for U due to matrix interference and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. The sample and sample duplicate % RPD failed outside the control limits for U due to possible sample homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for U due possible matrix interferences and /or sample non-homogeneity. Per GEL's accredited methods and SOPs, a credited action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 26-FEB-10

Data Validator/Group Leader:

Samantha Jacobs 28-FEB-10

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 797331
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
948756	See Below		

Potentially affected work order(s)(SDG): 245969(10-1512)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202032593MS 2. Failed RPD for DUP: QC 1202032591DUP 3. Failed Recovery for LCS/LCSD: QC 1202032595LCS 4. Failed Recovery for MSD/PSD: QC 1202032594MSD	1./4. The matrix spike and matrix spike duplicate recovery failed outside of the control limits for aluminum,lead,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for chromium and cobalt due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. Silver and/or antimony did not meet the recovery acceptance criteria for the LCS. Per the DOE-AL statement of work, page forty, silver and antimony are exempt from the re-digestion requirement for LCS failures.

Originator's Name:
Helen Camello 01-MAR-10

Data Validator/Group Leader:
Eric Lawson 01-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 01-MAR-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100226-40 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI100226-41 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Carnello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100217-01 **Opened:** 17-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 17-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 18-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 18-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100217-07 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100217-08 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100217-09 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100217-10 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-11 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG100217-12 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-14 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100224-42 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100224-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100224-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100224-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100224-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100224-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100224-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100224-43 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100224-44 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1272839
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100224-45 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100224-46 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1272839
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100224-47 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL &1%HNO3-1272839
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100301-42 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 01-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100301-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100301-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100301-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100301-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100301-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100301-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100301-43 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100301-44 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1276974
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100301-45 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100301-46 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1276974
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100301-47 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL &1%HNO3-1276974
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100224-04AB **Opened:** 24-FEB-10 **Balance Id :** 40245216

Name: ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598

Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO_3/1%HCl - 1272768

Employee: Rose Jenkins

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100224-04B **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100224-05B **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100224-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 24-FEB-10
Received: 24-FEB-10
Expires: 25-FEB-10
Verified: 23-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100224-07B **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 24-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-08B **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 24-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-04AB **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100225-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100225-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-04B **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100225-05B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100225-06B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins **Verified:** 23-FEB-10
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100225-07B
Name: ICPMS ICSA
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Opened: 25-FEB-10
Received: 25-FEB-10
Expires: 26-FEB-10

Balance Id : 40245216
Lot Number : 1010773
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100227-04AB **Opened:** 27-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 27-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100227-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100227-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100227-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID:	WMS100227-04B	**Opened:**	27-FEB-10	**Amount :**	50 mL
Name:	ICPMS Cal Standard 100	**Received:**	27-FEB-10	**Balance Id :**	40245216
Type:	Working	**Expires:**	28-FEB-10	**Pipet Id :**	1758088
Employee:	Rose Jenkins			**Solvent :**	2%HNO3/1%HCl- 1272768
Supplier:	GEL				

Description: ICPMS Calibration Standard (100 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100227-05B
Name: ICPMS ICV
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Opened: 27-FEB-10
Received: 27-FEB-10
Expires: 28-FEB-10

Balance Id : 40245216
Pipet Id : 1758088
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100227-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 27-FEB-10
Received: 27-FEB-10
Expires: 28-FEB-10
Verified: 23-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100227-07B
Name: ICPMS ICSA
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Opened: 27-FEB-10
Received: 27-FEB-10
Expires: 28-FEB-10

Balance Id : 40245216
Lot Number : 1010773
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100227-08B
Name: ICPMS ICSAB
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 27-FEB-10
Received: 27-FEB-10
Expires: 28-FEB-10

Balance Id : 40245216
Pipet Id : 3541598/1758088
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1272839 **Opened:** 22-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL

Standard Logbook

Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID:	1276974	**Opened:**	01-MAR-10	**Amount :**	20 L
Name:	B-ICP-RINSE SOLN	**Received:**	25-FEB-10	**Lot Number :**	H04040+G34050
Type:	Reagent/Solvent	**Expires:**	07-MAR-10	**Solvent :**	3%HCL+1%HNO3
Employee:	Helen Camello				
Supplier:	GEL				

Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1512-1

Sample Analysis

Sample ID	Client ID
245975001	RE15-10-8084
1202032557	Method Blank (MB) **ICP**
1202032558	Laboratory Control Sample (LCS)
1202032561	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032559	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032560	246000001(RE15-10-8124S) Matrix Spike (MS)
1202032562	Method Blank (MB) **ICP-MS**
1202032563	Laboratory Control Sample (LCS)
1202032566	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032564	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032565	246000001(RE15-10-8124S) Matrix Spike (MS)
1202033203	Method Blank (MB) **CVAA**
1202033204	Laboratory Control Sample (LCS)
1202033207	246056001(RE15-10-8233L) Serial Dilution (SD)
1202033205	246056001(RE15-10-8233D) Sample Duplicate (DUP)
1202033206	246056001(RE15-10-8233S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch: 948737, 948740 and 949020

Prep Batch :	948730, 948739 and 949018
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 246000001 (RE15-10-8124) and 246056001 (RE15-10-8233).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of thallium, as indicated by the "N" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 797043. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1512-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245975001 **BASIS:** As Received **DATE COLLECTED** 27-JAN-10

CLIENT ID: RE15-10-8084 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 04:45	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:31	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 04:45	100224-2	948740
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 19:59	021110B-1	948737
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 19:59	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:31	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 19:59	021110B-1	948737
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/25/10 15:31	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:03	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-09-7	Potassium	195	ug/L		50	150	150	1	P	HSC	02/11/10 19:59	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-23-5	Sodium	117	ug/L	J	100	300	300	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	BAJ	02/28/10 14:33	100228-5	948740
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:22	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:59	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 19:59	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	4.96	ug/L	5	ug/L	99.1	90.0 – 110.0	AV	05–FEB–10 09:17	020510W1–6
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Arsenic	450	ug/L	500	ug/L	89.9	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Calcium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Cobalt	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Copper	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Nickel	485	ug/L	500	ug/L	97	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Potassium	2410	ug/L	2500	ug/L	96.3	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Selenium	2440	ug/L	2500	ug/L	97.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Silver	253	ug/L	250	ug/L	101.2	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Sodium	2390	ug/L	2500	ug/L	95.6	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11–FEB–10 14:26	021110B–1
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	25–FEB–10 01:03	100224–2
	Cadmium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	25–FEB–10 01:03	100224–2
	Beryllium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	25–FEB–10 14:19	100225–3
	Lead	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	25–FEB–10 14:19	100225–3
	Manganese	54.5	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	25–FEB–10 14:19	100225–3
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 16:01	100225–4
	Thallium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	28–FEB–10 11:42	100228–5
CCV01										
	Mercury	4.99	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	05–FEB–10 09:22	020510W1–6
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Arsenic	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Calcium	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Magnesium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Nickel	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Selenium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Vanadium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Antimony	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	25–FEB–10 01:33	100224–2
	Cadmium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	25–FEB–10 01:33	100224–2
	Beryllium	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	25–FEB–10 14:32	100225–3
	Lead	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	25–FEB–10 14:32	100225–3
	Manganese	54.4	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	25–FEB–10 14:32	100225–3
	Uranium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25–FEB–10 16:10	100225–4
	Thallium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	28–FEB–10 11:57	100228–5
CCV02										
	Mercury	4.93	ug/L	5	ug/L	98.5	80.0 – 120.0	AV	05–FEB–10 09:45	020510W1–6
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Arsenic	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Barium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Calcium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Chromium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Cobalt	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Copper	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Magnesium	5300	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Selenium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Silver	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Vanadium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Zinc	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Antimony	54	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	25-FEB-10 01:52	100224-2
	Cadmium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	25-FEB-10 01:52	100224-2
	Beryllium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	25-FEB-10 14:56	100225-3
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	25-FEB-10 14:56	100225-3
	Manganese	55.1	ug/L	50	ug/L	110.2	90.0 – 110.0	MS	25-FEB-10 14:56	100225-3
	Uranium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	25-FEB-10 16:24	100225-4
	Thallium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	28-FEB-10 12:20	100228-5
CCV03										
	Mercury	5.05	ug/L	5	ug/L	101	80.0 – 120.0	AV	05-FEB-10 10:08	020510W1-6
	Aluminum	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Arsenic	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Barium	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Chromium	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Copper	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Nickel	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Selenium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Sodium	9790	ug/L	10000	ug/L	98	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Zinc	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Antimony	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	25–FEB–10 03:06	100224–2
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	25–FEB–10 03:06	100224–2
	Beryllium	54.2	ug/L	50	ug/L	108.4	90.0 – 110.0	MS	25–FEB–10 15:23	100225–3
	Lead	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	25–FEB–10 15:23	100225–3
	Manganese	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	25–FEB–10 15:23	100225–3
	Uranium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	25–FEB–10 16:36	100225–4
	Thallium	53.7	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	28–FEB–10 12:42	100228–5
CCV04										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	05–FEB–10 10:32	020510W1–6
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Arsenic	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Barium	460	ug/L	500	ug/L	92.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Chromium	459	ug/L	500	ug/L	91.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Cobalt	462	ug/L	500	ug/L	92.3	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Copper	455	ug/L	500	ug/L	91.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Iron	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Nickel	461	ug/L	500	ug/L	92.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Selenium	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Vanadium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 04:01	100224–2
	Cadmium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	25–FEB–10 04:01	100224–2
	Beryllium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Manganese	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Thallium	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	28–FEB–10 13:06	100228–5
CCV05										
	Aluminum	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Calcium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Copper	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Magnesium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Nickel	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Potassium	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Selenium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Zinc	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Cadmium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Thallium	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	28–FEB–10 13:29	100228–5
CCV06										
	Aluminum	4740	ug/L	5000	ug/L	94.8	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Arsenic	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Barium	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Chromium	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Cobalt	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	467	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Nickel	471	ug/L	500	ug/L	94.2	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Potassium	4740	ug/L	5000	ug/L	94.7	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Selenium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Sodium	9440	ug/L	10000	ug/L	94.4	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Vanadium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Zinc	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11-FEB-10 17:27	021110B-1
	Antimony	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	25-FEB-10 05:34	100224-2
	Cadmium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	25-FEB-10 05:34	100224-2
	Thallium	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	28-FEB-10 13:51	100228-5
CCV07										
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Arsenic	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Barium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Calcium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Chromium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Nickel	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Potassium	4790	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Selenium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Sodium	9540	ug/L	10000	ug/L	95.4	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 18:03	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	28-FEB-10 14:10	100228-5
CCV08										
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Arsenic	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Nickel	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Potassium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Selenium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Silver	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-FEB-10 18:32	021110B-1
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	28-FEB-10 14:39	100228-5
CCV09										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Arsenic	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Calcium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Nickel	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Selenium	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Silver	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Zinc	490	ug/L	500	ug/L	98	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Thallium	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	28-FEB-10 14:58	100228-5
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Arsenic	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Calcium	4850	ug/L	5000	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Cobalt	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Nickel	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Selenium	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Silver	490	ug/L	500	ug/L	98	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
CCV11										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Arsenic	470	ug/L	500	ug/L	94	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Barium	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Chromium	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Copper	472	ug/L	500	ug/L	94.3	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Magnesium	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Nickel	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Potassium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Selenium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Silver	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Vanadium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1
	Zinc	470	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11-FEB-10 20:06	021110B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.191	ug/L	.2	ug/L	95.5	70.0 – 130.0	AV	05-FEB-10 09:20	020510W1-6
	Antimony	3.37	ug/L	3	ug/L	112.3	70.0 – 130.0	MS	25-FEB-10 01:15	100224-2
	Cadmium	1.11	ug/L	1	ug/L	111.1	70.0 – 130.0	MS	25-FEB-10 01:15	100224-2
	Lead	2.55	ug/L	2	ug/L	127.6	70.0 – 130.0	MS	25-FEB-10 14:24	100225-3
	Beryllium	.557	ug/L	.5	ug/L	111.4	70.0 – 130.0	MS	25-FEB-10 14:24	100225-3
	Manganese	6.28	ug/L	5	ug/L	125.5	70.0 – 130.0	MS	25-FEB-10 14:24	100225-3
	Uranium	.244	ug/L	.2	ug/L	122	70.0 – 130.0	MS	25-FEB-10 16:05	100225-4
	Thallium	1.27	ug/L	1	ug/L	126.6	70.0 – 130.0	MS	28-FEB-10 11:48	100228-5
PQL01										
	Aluminum	201	ug/L	200	ug/L	100.5	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Iron	119	ug/L	100	ug/L	118.9	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Magnesium	304	ug/L	300	ug/L	101.5	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Nickel	4.56	ug/L	5	ug/L	91.2	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Potassium	185	ug/L	150	ug/L	123.1	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Silver	5.04	ug/L	5	ug/L	100.7	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Sodium	294	ug/L	300	ug/L	98	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Arsenic	28.6	ug/L	30	ug/L	95.5	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Barium	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Chromium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Cobalt	4.65	ug/L	5	ug/L	93.1	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Copper	9.86	ug/L	10	ug/L	98.6	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Vanadium	5.04	ug/L	5	ug/L	100.9	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Zinc	9.38	ug/L	10	ug/L	93.8	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Calcium	200	ug/L	200	ug/L	100	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1
	Selenium	28.7	ug/L	30	ug/L	95.7	70.0 – 130.0	P	11-FEB-10 14:33	021110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:18	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 14:30	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 14:30	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:09	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:09	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:22	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:22	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:22	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:03	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 11:45	100228–5
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:24	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Chromium	1.23	+/–5	J	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Iron	39.3	+/–100	J	30.0	100	LIQ	P	11–FEB–10 14:53	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 14:53	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Potassium	77.71	+/–150	J	50.0	150	LIQ	P	11–FEB–10 14:53	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 14:53	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:40	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:40	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:34	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:34	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:34	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:12	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 12:01	100228–5
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:47	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 15:19	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 15:19	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 15:19	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 15:19	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Potassium	56.33	+/–150	J	50.0	150	LIQ	P	11–FEB–10 15:19	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512–1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 15:19	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 15:19	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:58	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:58	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:59	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:59	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:59	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:25	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 12:23	100228–5
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 10:10	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 16:01	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 16:01	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 16:01	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 16:01	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 16:01	021110B–1
	Selenium	–5.29	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Sodium	186.28	+/–300	J	100	300	LIQ	P	11–FEB–10 16:01	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 16:01	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 03:12	100224–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1512-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 03:12	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 15:26	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 15:26	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 15:26	100225-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	25-FEB-10 16:37	100225-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 12:45	100228-5
CCB04	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 10:34	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 16:41	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 16:41	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 16:41	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 16:41	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 16:41	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Sodium	121.62	+/-300	J	100	300	LIQ	P	11-FEB-10 16:41	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 04:07	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 04:07	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 15:52	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 15:52	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 15:52	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 13:09	100228-5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 17:02	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 17:02	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 17:02	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 17:02	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 17:02	021110B–1
	Selenium	–6.0	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 17:02	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 05:03	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 05:03	100224–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 13:32	100228–5
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 17:31	021110B–1
	Arsenic	–8.04	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 17:31	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 17:31	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 17:31	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 17:31	021110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1512-1

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 17:31	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 05:40	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 05:40	100224-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 13:54	100228-5
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 18:07	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 18:07	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 18:07	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 18:07	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 18:07	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 18:07	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Thallium	0.304	+/-1	J	0.3	1.0	LIQ	MS	28-FEB-10 14:13	100228-5
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 18:36	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 18:36	021110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 18:36	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 18:36	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 14:42	100228–5
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Arsenic	–6.17	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 19:16	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 19:16	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 19:16	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 19:16	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Thallium	0.778	+/–1	J	0.3	1.0	LIQ	MS	28–FEB–10 15:01	100228–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 19:45	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 19:45	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 19:45	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 19:45	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 19:45	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 19:45	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:45	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 19:45	021110B–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 20:10	021110B–1
	Arsenic	–6.48	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 20:10	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 20:10	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 20:10	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 20:10	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 20:10	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1512–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 20:10	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 20:10	021110B–1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1512-1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032557								
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Potassium	50	ug/L	+/-150	U	P	50	150
	Selenium	5	ug/L	+/-30	U	P	5	30
	Silver	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
1202032562								
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2
1202033203								
	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Arsenic	-47.9	ug/L					11-FEB-10 14:37	021110B-1
	Barium	7.7	ug/L					11-FEB-10 14:37	021110B-1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Chromium	-0.331	ug/L					11-FEB-10 14:37	021110B-1
	Cobalt	1.88	ug/L					11-FEB-10 14:37	021110B-1
	Copper	-2.75	ug/L					11-FEB-10 14:37	021110B-1
	Iron	180000	ug/L	200000	ug/L	90.2	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Magnesium	469000	ug/L	500000	ug/L	93.8	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Nickel	-5.64	ug/L					11-FEB-10 14:37	021110B-1
	Potassium	-12.0	ug/L					11-FEB-10 14:37	021110B-1
	Selenium	-29.8	ug/L					11-FEB-10 14:37	021110B-1
	Silver	-8.02	ug/L					11-FEB-10 14:37	021110B-1
	Sodium	25.0	ug/L					11-FEB-10 14:37	021110B-1
	Vanadium	0.707	ug/L					11-FEB-10 14:37	021110B-1
	Zinc	-9.27	ug/L					11-FEB-10 14:37	021110B-1
ICSAB01									
	Aluminum	493000	ug/L	500000	ug/L	98.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Arsenic	460	ug/L	500	ug/L	92	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Barium	479	ug/L	500	ug/L	95.8	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Calcium	467000	ug/L	500000	ug/L	93.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Chromium	467	ug/L	500	ug/L	93.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Cobalt	417	ug/L	500	ug/L	83.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Copper	516	ug/L	500	ug/L	103	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Iron	181000	ug/L	200000	ug/L	90.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Magnesium	472000	ug/L	500000	ug/L	94.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Nickel	412	ug/L	500	ug/L	82.4	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Potassium	4870	ug/L	5000	ug/L	97.4	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Selenium	2240	ug/L	2500	ug/L	89.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1

METALS
–4–
Interference Check Sample

SDG No: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	244	ug/L	250	ug/L	97.7	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Sodium	4900	ug/L	5000	ug/L	98.1	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Vanadium	496	ug/L	500	ug/L	99.1	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Zinc	442	ug/L	500	ug/L	88.4	80.0 – 120.0	11–FEB–10 14:40	021110B–1

METALS
-4-
Interference Check Sample

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.383	ug/L					25-FEB-10 01:21	100224-2
	Cadmium	0.506	ug/L					25-FEB-10 01:21	100224-2
ICSAB01									
	Antimony	21.2	ug/L	20	ug/L	106	80.0 - 120.0	25-FEB-10 01:27	100224-2
	Cadmium	19.9	ug/L	20.44	ug/L	97.4	80.0 - 120.0	25-FEB-10 01:27	100224-2

METALS
-4-
Interference Check Sample

SDG No: 10-1512-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.089	ug/L					25-FEB-10 14:27	100225-3
	Lead	0.239	ug/L					25-FEB-10 14:27	100225-3
	Manganese	6.37	ug/L					25-FEB-10 14:27	100225-3
ICSAB01									
	Beryllium	19.8	ug/L	20	ug/L	98.9	80.0 - 120.0	25-FEB-10 14:29	100225-3
	Lead	22.0	ug/L	20.19	ug/L	109	80.0 - 120.0	25-FEB-10 14:29	100225-3
	Manganese	28.5	ug/L	25.8	ug/L	110	80.0 - 120.0	25-FEB-10 14:29	100225-3

METALS
–4–
Interference Check Sample

SDG No: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.001	ug/L					25–FEB–10 16:07	100225–4
ICSAB01									
	Uranium	23.4	ug/L	20	ug/L	117	80.0 – 120.0	25–FEB–10 16:08	100225–4

METALS
–4–
Interference Check Sample

SDG No: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.013	ug/L					28–FEB–10 11:51	100228–5
ICSAB01									
	Thallium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	28–FEB–10 11:54	100228–5

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1512–1 **Client ID** RE15–10–8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032560

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Copper	ug/L	75–125	490		3	U	500	97.9		P
Iron	ug/L	75–125	4890		34.7	J	5000	97.1		P
Magnesium	ug/L	75–125	4910		85	U	5000	97.7		P
Nickel	ug/L	75–125	489		1.5	U	500	97.9		P
Potassium	ug/L	75–125	5000		181		5000	96.3		P
Selenium	ug/L	75–125	470		5	U	500	94.1		P
Silver	ug/L	75–125	483		1	U	500	96.5		P
Sodium	ug/L	75–125	5010		200	J	5000	96.3		P
Vanadium	ug/L	75–125	493		1	U	500	98.5		P
Zinc	ug/L	75–125	475		3.3	U	500	94.6		P
Aluminum	ug/L	75–125	4880		68	U	5000	97.2		P
Arsenic	ug/L	75–125	488		5	U	500	97.5		P
Barium	ug/L	75–125	489		1	U	500	97.7		P
Calcium	ug/L	75–125	4830		59.5	J	5000	95.3		P
Chromium	ug/L	75–125	487		1.31	J	500	97.2		P
Cobalt	ug/L	75–125	479		1	U	500	95.8		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1512–1 **Client ID** RE15–10–8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032565

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	196		1	U	200	98		MS
Beryllium	ug/L	75–125	47.7		0.1	U	50	95.3		MS
Cadmium	ug/L	75–125	10.3		0.11	U	10	102		MS
Lead	ug/L	75–125	42.2		0.5	U	40	105		MS
Manganese	ug/L	75–125	48.9		1	U	50	96.6		MS
Thallium	ug/L	75–125	75		0.3	U	100	74.9	N	MS
Uranium	ug/L	75–125	49.5		0.05	U	50	98.9		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1512-1 **Client ID** RE15-10-8233S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246056001 **Spike ID:** 1202033206

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	1.5		0.066	U	2	75		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8124D

Sample ID: 246000001 **Duplicate ID:** 1202032559 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L	+/–200	59.5	J	52.6	J	12.4		P
Chromium	ug/L		1.31	J	1	U	200		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		34.7	J	30	U	200		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L	+/–150	181		193		6.09		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	200	J	180	J	10.5		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8124D

Sample ID: 246000001 **Duplicate ID:** 1202032564 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1512–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8233D

Sample ID: 246056001 **Duplicate ID:** 1202033205 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1512-1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032558								
	Aluminum	ug/L	5000	4910		98.1	80-120	P
	Arsenic	ug/L	500	487		97.4	80-120	P
	Barium	ug/L	500	486		97.2	80-120	P
	Calcium	ug/L	5000	4880		97.6	80-120	P
	Chromium	ug/L	500	484		96.7	80-120	P
	Cobalt	ug/L	500	475		95.1	80-120	P
	Copper	ug/L	500	486		97.1	80-120	P
	Iron	ug/L	5000	4930		98.6	80-120	P
	Magnesium	ug/L	5000	4960		99.3	80-120	P
	Nickel	ug/L	500	487		97.4	80-120	P
	Potassium	ug/L	5000	4890		97.9	80-120	P
	Selenium	ug/L	500	481		96.3	80-120	P
	Silver	ug/L	500	481		96.2	80-120	P
	Sodium	ug/L	5000	4940		98.8	80-120	P
	Vanadium	ug/L	500	489		97.8	80-120	P
	Zinc	ug/L	500	474		94.8	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1512-1

Contract: LANL01004

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032563								
	Cadmium	ug/L	50	48.6		97.1	80--120	MS
	Lead	ug/L	50	52.8		106	80-120	MS
	Manganese	ug/L	50	50.1		100	80-120	MS
	Thallium	ug/L	50	52.3		105	80-120	MS
	Uranium	ug/L	50	50.6		101	80-120	MS
	Antimony	ug/L	50	52.3		105	80-120	MS
	Beryllium	ug/L	50	49.6		99.3	80-120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1512–1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033204								
	Mercury	ug/L	2	2.01		100	80–120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1512-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032561

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	59.5	J	250	U	100			P
Chromium	1.31	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	34.7	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	181		267	J	47.5			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	200	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1512-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032566

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1	U	5	U				MS
Thallium	.3	U	8.35					MS
Uranium	.05	U	.25	U				MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1512–1 **Client ID** RE15–10–8233L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246056001 **Serial Dilution ID:** 1202033207

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1512–1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948730						
1202032557	MB for batch 948730	MB	W	10–FEB–10	50mL	50mL	
1202032558	LCS for batch 948730	LCS	W	10–FEB–10	50mL	50mL	
1202032560	RE15–10–8124S	MS	W	10–FEB–10	50mL	50mL	
1202032559	RE15–10–8124D	DUP	W	10–FEB–10	50mL	50mL	
245975001	RE15–10–8084	SAMPLE	W	10–FEB–10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1512–1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948739						
1202032562	MB for batch 948739	MB	W	10–FEB–10	50mL	50mL	
1202032563	LCS for batch 948739	LCS	W	10–FEB–10	50mL	50mL	
1202032565	RE15–10–8124S	MS	W	10–FEB–10	50mL	50mL	
1202032564	RE15–10–8124D	DUP	W	10–FEB–10	50mL	50mL	
245975001	RE15–10–8084	SAMPLE	W	10–FEB–10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1512–1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949018						
1202033203	MB for batch 949018	MB	W	04–FEB–10	20mL	20mL	
1202033204	LCS for batch 949018	LCS	W	04–FEB–10	20mL	20mL	
1202033206	RE15–10–8233S	MS	W	04–FEB–10	20mL	20mL	
1202033205	RE15–10–8233D	DUP	W	04–FEB–10	20mL	20mL	
245975001	RE15–10–8084	SAMPLE	W	04–FEB–10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1512–1
Method MS
Data File: 100224–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:45		X				X																		
S10	1	00:51		X				X																		
S100	1	00:57		X				X																		
ICV01	1	01:03		X				X																		
ICB01	1	01:09		X				X																		
CRDL01	1	01:15		X				X																		
ICSA01	1	01:21		X				X																		
ICSAB01	1	01:27		X				X																		
CCV01	1	01:33		X				X																		
CCB01	1	01:40		X				X																		
LR01	1	01:46		X				X																		
CCV02	1	01:52		X				X																		
CCB02	1	01:58		X				X																		
ZZZZZZ	1	02:04																								
ZZZZZZ	1	02:10																								
ZZZZZZ	1	02:16																								
ZZZZZZ	1	02:23																								
ZZZZZZ	1	02:29																								
ZZZZZZ	1	02:35																								
ZZZZZZ	1	02:41																								
ZZZZZZ	1	02:47																								
ZZZZZZ	1	02:54																								
ZZZZZZ	1	03:00																								
CCV03	1	03:06		X				X																		
CCB03	1	03:12		X				X																		
ZZZZZZ	1	03:18																								
ZZZZZZ	1	03:24																								
ZZZZZZ	1	03:31																								
ZZZZZZ	1	03:37																								
ZZZZZZ	1	03:43																								
ZZZZZZ	1	03:49																								
ZZZZZZ	5	03:55																								
CCV04	1	04:01		X				X																		
CCB04	1	04:07		X				X																		
1202032562	1	04:14		X				X																		
1202032563	1	04:20		X				X																		
ZZZZZZ	1	04:26																								
ZZZZZZ	1	04:32																								
ZZZZZZ	1	04:38																								
245975001	1	04:45		X				X																		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	04:51																							
CCV05	1	04:57		X				X																	
CCB05	1	05:03		X				X																	
ZZZZZZ	1	05:09																							
1202032564	1	05:15		X				X																	
1202032565	1	05:22		X				X																	
1202032566	5	05:28		X				X																	
CCV06	1	05:34		X				X																	
CCB06	1	05:40		X				X																	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1512–1
Method MS
Data File: 100225–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:12					X							X		X										
S10	1	14:14					X							X		X										
S100	1	14:17					X							X		X										
ICV01	1	14:19					X							X		X										
ICB01	1	14:22					X							X		X										
CRDL01	1	14:24					X							X		X										
ICSA01	1	14:27					X							X		X										
ICSAB01	1	14:29					X							X		X										
CCV01	1	14:32					X							X		X										
CCB01	1	14:34					X							X		X										
ZZZZZZ	1	14:37																								
ZZZZZZ	1	14:40																								
ZZZZZZ	1	14:42																								
ZZZZZZ	1	14:46																								
ZZZZZZ	1	14:49																								
ZZZZZZ	1	14:51																								
ZZZZZZ	5	14:54																								
CCV02	1	14:56					X							X		X										
CCB02	1	14:59					X							X		X										
ZZZZZZ	1	15:02																								
ZZZZZZ	1	15:04																								
ZZZZZZ	1	15:07																								
ZZZZZZ	1	15:10																								
1202032562	1	15:13					X							X		X										
1202032563	1	15:15					X							X		X										
ZZZZZZ	1	15:18																								
ZZZZZZ	1	15:21																								
CCV03	1	15:23					X							X		X										
CCB03	1	15:26					X							X		X										
ZZZZZZ	1	15:28																								
245975001	1	15:31					X							X		X										
ZZZZZZ	1	15:34																								
ZZZZZZ	1	15:37																								
1202032564	1	15:39					X							X		X										
1202032565	1	15:42					X							X		X										
1202032566	5	15:44					X							X		X										
ZZZZZZ	5	15:47																								
CCV04	1	15:50					X							X		X										
CCB04	1	15:52					X							X		X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10 **End Date:** 25–FEB–10

Client Sdg: 10–1512–1
Method MS
Data File: 100225–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:57																						X		
S10	1	15:58																						X		
S100	1	16:00																						X		
ICV01	1	16:01																						X		
ICB01	1	16:03																						X		
CRDL01	1	16:05																						X		
ICSA01	1	16:07																						X		
ICSAB01	1	16:08																						X		
CCV01	1	16:10																						X		
CCB01	1	16:12																						X		
1202032562	1	16:13																						X		
1202032563	1	16:15																						X		
ZZZZZZ	1	16:17																								
ZZZZZZ	1	16:18																								
ZZZZZZ	1	16:20																								
245975001	1	16:22																						X		
CCV02	1	16:24																						X		
CCB02	1	16:25																						X		
ZZZZZZ	1	16:27																								
ZZZZZZ	1	16:29																								
1202032564	1	16:30																						X		
1202032565	1	16:32																						X		
1202032566	5	16:34																						X		
CCV03	1	16:36																						X		
CCB03	1	16:37																						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 28–FEB–10 **End Date:** 28–FEB–10

Client Sdg: 10–1512–1
Method MS
Data File: 100228–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:32																					X			
S10	1	11:35																					X			
S100	1	11:38																					X			
ICV01	1	11:42																					X			
ICB01	1	11:45																					X			
CRDL01	1	11:48																					X			
ICSA01	1	11:51																					X			
ICSAB01	1	11:54																					X			
CCV01	1	11:57																					X			
CCB01	1	12:01																					X			
ZZZZZZ	1	12:04																								
ZZZZZZ	1	12:07																								
ZZZZZZ	1	12:10																								
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:16																								
CCV02	1	12:20																					X			
CCB02	1	12:23																					X			
ZZZZZZ	1	12:26																								
ZZZZZZ	1	12:29																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:36																								
ZZZZZZ	5	12:39																								
CCV03	1	12:42																					X			
CCB03	1	12:45																					X			
ZZZZZZ	1	12:50																								
ZZZZZZ	1	12:53																								
ZZZZZZ	1	12:57																								
ZZZZZZ	1	13:00																								
ZZZZZZ	1	13:03																								
CCV04	1	13:06																					X			
CCB04	1	13:09																					X			
ZZZZZZ	1	13:13																								
ZZZZZZ	1	13:16																								
ZZZZZZ	1	13:19																								
ZZZZZZ	5	13:22																								
ZZZZZZ	1	13:25																								
CCV05	1	13:29																					X			
CCB05	1	13:32																					X			
ZZZZZZ	1	13:35																								
ZZZZZZ	1	13:38																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	13:41																							
ZZZZZZ	1	13:45																							
ZZZZZZ	1	13:48																							
CCV06	1	13:51																			X				
CCB06	1	13:54																			X				
ZZZZZZ	1	13:57																							
ZZZZZZ	1	14:01																							
ZZZZZZ	1	14:04																							
ZZZZZZ	5	14:07																							
CCV07	1	14:10																			X				
CCB07	1	14:13																			X				
1202032562	1	14:17																			X				
1202032563	1	14:20																			X				
ZZZZZZ	1	14:23																							
ZZZZZZ	1	14:26																							
ZZZZZZ	1	14:30																							
245975001	1	14:33																			X				
ZZZZZZ	1	14:36																							
CCV08	1	14:39																			X				
CCB08	1	14:42																			X				
ZZZZZZ	1	14:46																							
1202032564	1	14:49																			X				
1202032565	1	14:52																			X				
1202032566	5	14:55																			X				
CCV09	1	14:58																			X				
CCB09	1	15:01																			X				

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 05–FEB–10 **End Date:** 05–FEB–10

Client Sdg: 10–1512–1
Method AV
Data File: 020510W1–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:05															X									
S0.2	1	09:07															X									
S0.5	1	09:09															X									
S2.0	1	09:11															X									
S5.0	1	09:13															X									
S10.0	1	09:15															X									
ICV01	1	09:17															X									
ICB01	1	09:18															X									
CRDL01	1	09:20															X									
CCV01	1	09:22															X									
CCB01	1	09:24															X									
ZZZZZZ	1	09:26																								
ZZZZZZ	1	09:28																								
ZZZZZZ	1	09:30																								
ZZZZZZ	1	09:32																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:40																								
ZZZZZZ	5	09:42																								
1202033203	1	09:43															X									
CCV02	1	09:45															X									
CCB02	1	09:47															X									
1202033204	1	09:49															X									
ZZZZZZ	1	09:51																								
ZZZZZZ	1	09:53																								
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:57																								
ZZZZZZ	1	09:59																								
ZZZZZZ	1	10:01																								
245975001	1	10:03															X									
ZZZZZZ	1	10:05																								
ZZZZZZ	1	10:07																								
CCV03	1	10:08															X									
CCB03	1	10:10															X									
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
1202033205	1	10:16															X									
1202033206	1	10:18															X									
1202033207	5	10:20															X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	10:22																								
ZZZZZZ	1	10:24																								
ZZZZZZ	1	10:26																								
ZZZZZZ	1	10:28																								
ZZZZZZ	1	10:30																								
CCV04	1	10:32														X										
CCB04	1	10:34														X										

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 11-FEB-10 **End Date:** 11-FEB-10

Client Sdg: 10-1512-1
Method P
Data File: 021110B-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	14:14			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	14:17	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	14:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	14:24	X						X				X		X							X				
ICV01	1	14:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	14:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	14:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	14:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	14:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	14:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	14:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	14:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	14:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	15:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR04	1	15:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	15:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	15:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:23																								
ZZZZZZ	1	15:26																								
ZZZZZZ	1	15:30																								
ZZZZZZ	1	15:34																								
ZZZZZZ	1	15:38																								
ZZZZZZ	5	15:42																								
ZZZZZZ	1	15:45																								
ZZZZZZ	1	15:49																								
ZZZZZZ	1	15:53																								
CCV03	1	15:57	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	16:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	16:04																								
ZZZZZZ	1	16:08																								
ZZZZZZ	1	16:12																								
ZZZZZZ	1	16:16																								
ZZZZZZ	1	16:20																								
ZZZZZZ	1	16:24																								
ZZZZZZ	1	16:28																								
ZZZZZZ	1	16:31																								
ZZZZZZ	1	16:34																								
CCV04	1	16:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	16:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
CCV05	1	16:58	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB05	1	17:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:06																								
ZZZZZZ	1	17:09																								
ZZZZZZ	1	17:13																								
ZZZZZZ	1	17:16																								
ZZZZZZ	1	17:20																								
ZZZZZZ	5	17:24																								
CCV06	1	17:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB06	1	17:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:35																								
ZZZZZZ	1	17:38																								
ZZZZZZ	1	17:42																								
ZZZZZZ	1	17:45																								
ZZZZZZ	1	17:49																								
ZZZZZZ	1	17:53																								
ZZZZZZ	1	17:56																								
ZZZZZZ	1	18:00																								
CCV07	1	18:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB07	1	18:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:11																								
ZZZZZZ	1	18:14																								
ZZZZZZ	1	18:18																								
ZZZZZZ	1	18:21																								
ZZZZZZ	1	18:25																								
ZZZZZZ	5	18:29																								
CCV08	1	18:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB08	1	18:36	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:40																								
ZZZZZZ	1	18:43																								
ZZZZZZ	1	18:47																								
ZZZZZZ	1	18:50																								
ZZZZZZ	1	18:54																								
ZZZZZZ	1	18:58																								
ZZZZZZ	1	19:01																								
ZZZZZZ	1	19:05																								
ZZZZZZ	1	19:08																								
CCV09	1	19:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB09	1	19:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032557	1	19:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
1202032558	1	19:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:27																								
1202032559	1	19:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032560	1	19:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032561	5	19:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV10	1	19:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB10	1	19:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	19:48																								
ZZZZZZ	1	19:52																								
ZZZZZZ	1	19:55																								
245975001	1	19:59	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	20:03																								
CCV11	1	20:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB11	1	20:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1512-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1512-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1512–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1512-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1512–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1512–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

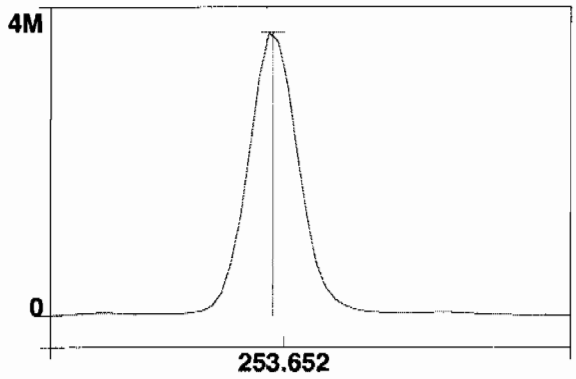

Intensity: 3672376.8 cps
Conc:

1

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Analysis Begun

Start Time: 2/11/2010 14:10:46
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502
Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1
Sample ID: S0
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 8
Date Collected: 2/11/2010 14:10:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54739.4	54739.4	100	%	14:11:23
1	Al 396.153Radial†	-13.9	-13.8	[0.00]	µg/L	14:11:23
1	Ca 317.933Radial†	181.9	181.3	[0.00]	µg/L	14:11:43
1	Fe 238.204 Radial†	15.3	15.3	[0.00]	µg/L	14:11:43
1	K 766.490 Radial†	133.4	133.0	[0.00]	µg/L	14:11:23
1	Mg 279.077 IEC†	7.8	7.8	[0.00]	µg/L	14:11:43
1	Na 589.592 Radial†	544.1	542.5	[0.00]	µg/L	14:11:23
1	Sr 421.552†	47.1	46.9	[0.00]	µg/L	14:11:23
1	Sc 361.383	1911885.3	1911885.3	100.11	%	14:12:45
1	Y 371.029	1310700.1	1310700.1	100.06	%	14:12:45
1	Ag 328.068†	-547.3	-546.7	[0.00]	µg/L	14:12:50
1	As 188.979†	3.5	3.5	[0.00]	µg/L	14:13:11
1	B 249.677†	353.5	353.1	[0.00]	µg/L	14:13:11
1	Ba 233.527†	-32.2	-32.2	[0.00]	µg/L	14:13:11
1	Be 313.107†	-3446.9	-3443.2	[0.00]	µg/L	14:12:50
1	Cd 226.502†	-153.7	-153.5	[0.00]	µg/L	14:13:11
1	Co 228.616†	-1.3	-1.3	[0.00]	µg/L	14:13:11
1	Cr 267.716†	-55.4	-55.3	[0.00]	µg/L	14:12:50
1	Cu 324.752†	2504.0	2501.3	[0.00]	µg/L	14:12:50
1	Mn 257.610†	-239.6	-239.4	[0.00]	µg/L	14:13:11
1	Mo 202.031†	-2.8	-2.8	[0.00]	µg/L	14:13:11
1	Ni 231.604†	307.9	307.6	[0.00]	µg/L	14:13:11
1	P 214.914†	26.2	26.2	[0.00]	µg/L	14:13:11
1	Pb 220.353†	91.7	91.6	[0.00]	µg/L	14:13:11
1	S 181.975 Axial†	15.4	15.3	[0.00]	µg/L	14:13:11
1	Sb 206.836†	28.4	28.4	[0.00]	µg/L	14:13:11
1	Se 196.026†	16.7	16.7	[0.00]	µg/L	14:13:11
1	SiO2†	1235.3	1234.0	[0.00]	µg/L	14:12:50
1	Si 251.611†	309.0	308.7	[0.00]	µg/L	14:13:11
1	Sn 189.927†	-0.7	-0.7	[0.00]	µg/L	14:13:11
1	Ti 334.940†	89.4	89.3	[0.00]	µg/L	14:12:50
1	Tl 190.801†	-23.5	-23.5	[0.00]	µg/L	14:13:11
1	U 409.014†	-77.0	-76.9	[0.00]	µg/L	14:12:50
1	V 292.402†	-41.9	-41.9	[0.00]	µg/L	14:12:50
1	Zn 213.857†	474.5	474.0	[0.00]	µg/L	14:13:11
2	Sc RADIAL	54665.4	54665.4	100	%	14:11:49
2	Al 396.153Radial†	-1.2	-1.2	[0.00]	µg/L	14:11:49
2	Ca 317.933Radial†	175.4	175.1	[0.00]	µg/L	14:12:09
2	Fe 238.204 Radial†	14.9	14.8	[0.00]	µg/L	14:12:09
2	K 766.490 Radial†	144.1	143.8	[0.00]	µg/L	14:11:49
2	Mg 279.077 IEC†	11.1	11.1	[0.00]	µg/L	14:12:09
2	Na 589.592 Radial†	552.5	551.5	[0.00]	µg/L	14:11:49
2	Sr 421.552†	33.2	33.1	[0.00]	µg/L	14:11:49
2	Sc 361.383	1909838.0	1909838.0	100.000	%	14:13:17
2	Y 371.029	1310179.5	1310179.5	100.02	%	14:13:17
2	Ag 328.068†	-580.2	-580.2	[0.00]	µg/L	14:13:23
2	As 188.979†	-0.5	-0.5	[0.00]	µg/L	14:13:43

2	B 249.677†	311.8	311.8	[0.00]	µg/L	14:13:43
2	Ba 233.527†	-19.4	-19.4	[0.00]	µg/L	14:13:43
2	Be 313.107†	-3440.2	-3440.2	[0.00]	µg/L	14:13:23
2	Cd 226.502†	-136.8	-136.8	[0.00]	µg/L	14:13:43
2	Co 228.616†	-8.2	-8.2	[0.00]	µg/L	14:13:43
2	Cr 267.716†	-44.6	-44.6	[0.00]	µg/L	14:13:23
2	Cu 324.752†	2529.2	2529.2	[0.00]	µg/L	14:13:23
2	Mn 257.610†	-247.4	-247.4	[0.00]	µg/L	14:13:43
2	Mo 202.031†	-8.7	-8.7	[0.00]	µg/L	14:13:43
2	Ni 231.604†	295.5	295.5	[0.00]	µg/L	14:13:43
2	P 214.914†	27.9	27.9	[0.00]	µg/L	14:13:43
2	Pb 220.353†	98.3	98.3	[0.00]	µg/L	14:13:43
2	S 181.975 Axial†	16.8	16.8	[0.00]	µg/L	14:13:43
2	Sb 206.836†	27.6	27.6	[0.00]	µg/L	14:13:43
2	Se 196.026†	12.1	12.1	[0.00]	µg/L	14:13:43
2	SiO2†	1235.5	1235.5	[0.00]	µg/L	14:13:23
2	Si 251.611†	316.0	316.0	[0.00]	µg/L	14:13:43
2	Sn 189.927†	-2.2	-2.2	[0.00]	µg/L	14:13:43
2	Ti 334.940†	132.2	132.2	[0.00]	µg/L	14:13:23
2	Tl 190.801†	-27.5	-27.5	[0.00]	µg/L	14:13:43
2	U 409.014†	-52.6	-52.6	[0.00]	µg/L	14:13:23
2	V 292.402†	-46.9	-46.9	[0.00]	µg/L	14:13:23
2	Zn 213.857†	476.6	476.6	[0.00]	µg/L	14:13:43
3	Sc RADIAL	54318.4	54318.4	99.5	%	14:12:15
3	Al 396.153Radial†	-15.3	-15.3	[0.00]	µg/L	14:12:15
3	Ca 317.933Radial†	180.2	181.0	[0.00]	µg/L	14:12:35
3	Fe 238.204 Radial†	13.3	13.4	[0.00]	µg/L	14:12:35
3	K 766.490 Radial†	107.9	108.4	[0.00]	µg/L	14:12:15
3	Mg 279.077 IEC†	14.9	15.0	[0.00]	µg/L	14:12:35
3	Na 589.592 Radial†	529.1	531.6	[0.00]	µg/L	14:12:15
3	Sr 421.552†	38.4	38.6	[0.00]	µg/L	14:12:15
3	Sc 361.383	1907796.9	1907796.9	99.893	%	14:13:49
3	Y 371.029	1308876.2	1308876.2	99.920	%	14:13:49
3	Ag 328.068†	-566.0	-566.6	[0.00]	µg/L	14:13:55
3	As 188.979†	0.4	0.4	[0.00]	µg/L	14:14:15
3	B 249.677†	329.2	329.5	[0.00]	µg/L	14:14:15
3	Ba 233.527†	-26.4	-26.4	[0.00]	µg/L	14:14:15
3	Be 313.107†	-3434.3	-3437.9	[0.00]	µg/L	14:13:55
3	Cd 226.502†	-135.9	-136.0	[0.00]	µg/L	14:14:15
3	Co 228.616†	-17.0	-17.0	[0.00]	µg/L	14:14:15
3	Cr 267.716†	-57.1	-57.2	[0.00]	µg/L	14:13:55
3	Cu 324.752†	2425.2	2427.8	[0.00]	µg/L	14:13:55
3	Mn 257.610†	-245.3	-245.6	[0.00]	µg/L	14:14:15
3	Mo 202.031†	-11.1	-11.1	[0.00]	µg/L	14:14:15
3	Ni 231.604†	303.1	303.5	[0.00]	µg/L	14:14:15
3	P 214.914†	28.8	28.8	[0.00]	µg/L	14:14:15
3	Pb 220.353†	101.6	101.7	[0.00]	µg/L	14:14:15
3	S 181.975 Axial†	12.3	12.3	[0.00]	µg/L	14:14:15
3	Sb 206.836†	24.9	25.0	[0.00]	µg/L	14:14:15
3	Se 196.026†	18.7	18.7	[0.00]	µg/L	14:14:15
3	SiO2†	1279.2	1280.6	[0.00]	µg/L	14:13:55
3	Si 251.611†	313.6	313.9	[0.00]	µg/L	14:14:15
3	Sn 189.927†	0.3	0.3	[0.00]	µg/L	14:14:15
3	Ti 334.940†	126.8	126.9	[0.00]	µg/L	14:13:55
3	Tl 190.801†	-21.9	-21.9	[0.00]	µg/L	14:14:15
3	U 409.014†	-31.2	-31.3	[0.00]	µg/L	14:13:55
3	V 292.402†	-43.8	-43.9	[0.00]	µg/L	14:13:55
3	Zn 213.857†	475.5	476.0	[0.00]	µg/L	14:14:15

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1909840.1	2044.21	0.11%	100.00	%
Sc RADIAL	54574.4	224.80	0.41%	100	%
Y 371.029	1309918.6	939.52	0.07%	100.00	%
Ag 328.068†	-564.5	16.85	2.98%	[0.00]	µg/L
Al 396.153Radial†	-10.1	7.73	76.30%	[0.00]	µg/L
As 188.979†	1.1	2.09	182.38%	[0.00]	µg/L
B 249.677†	331.5	20.73	6.25%	[0.00]	µg/L
Ba 233.527†	-26.0	6.39	24.57%	[0.00]	µg/L

Be 313.107†	-3440.4	2.66	0.08%	[0.00]	µg/L
Ca 317.933Radial†	179.2	3.51	1.96%	[0.00]	µg/L
Cd 226.502†	-142.1	9.89	6.96%	[0.00]	µg/L
Co 228.616†	-8.8	7.85	88.83%	[0.00]	µg/L
Cr 267.716†	-52.4	6.82	13.02%	[0.00]	µg/L
Cu 324.752†	2486.1	52.42	2.11%	[0.00]	µg/L
Fe 238.204 Radial†	14.5	1.00	6.90%	[0.00]	µg/L
K 766.490 Radial†	128.4	18.15	14.13%	[0.00]	µg/L
Mg 279.077 IEC†	11.3	3.62	32.14%	[0.00]	µg/L
Mn 257.610†	-244.1	4.19	1.72%	[0.00]	µg/L
Mo 202.031†	-7.5	4.31	57.15%	[0.00]	µg/L
Na 589.592 Radial†	541.9	9.97	1.84%	[0.00]	µg/L
Ni 231.604†	302.2	6.13	2.03%	[0.00]	µg/L
P 214.914†	27.6	1.32	4.77%	[0.00]	µg/L
Pb 220.353†	97.2	5.13	5.27%	[0.00]	µg/L
S 181.975 Axial†	14.8	2.33	15.71%	[0.00]	µg/L
Sb 206.836†	27.0	1.78	6.62%	[0.00]	µg/L
Se 196.026†	15.8	3.37	21.27%	[0.00]	µg/L
SiO2†	1250.0	26.45	2.12%	[0.00]	µg/L
Si 251.611†	312.9	3.77	1.21%	[0.00]	µg/L
Sn 189.927†	-0.9	1.29	148.06%	[0.00]	µg/L
Sr 421.552†	39.6	6.94	17.54%	[0.00]	µg/L
Ti 334.940†	116.1	23.40	20.15%	[0.00]	µg/L
Tl 190.801†	-24.3	2.88	11.85%	[0.00]	µg/L
U 409.014†	-53.6	22.84	42.60%	[0.00]	µg/L
V 292.402†	-44.2	2.52	5.69%	[0.00]	µg/L
Zn 213.857†	475.5	1.38	0.29%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/11/2010 14:14:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55015.9	55015.9	101	%	14:15:00
1	K 766.490 Radial†	1529.6	1388.9	[1000]	µg/L	14:15:00
1	Sr 421.552†	9551.7	9435.5	[100]	µg/L	14:15:00
1	Sc 361.383	1906987.6	1906987.6	99.851	%	14:15:21
1	Y 371.029	1308080.3	1308080.3	99.860	%	14:15:21
1	Ag 328.068†	12337.2	12920.2	[100]	µg/L	14:15:27
1	As 188.979†	60.2	59.1	[100]	µg/L	14:15:48
1	B 249.677†	2597.7	2270.1	[100]	µg/L	14:15:27
1	Ba 233.527†	3962.5	3994.4	[100]	µg/L	14:15:27
1	Be 313.107†	151975.4	155643.2	[100]	µg/L	14:15:21
1	Cd 226.502†	3678.8	3826.5	[100]	µg/L	14:15:27
1	Co 228.616†	2095.6	2107.6	[100]	µg/L	14:15:48
1	Cr 267.716†	4700.6	4760.0	[100]	µg/L	14:15:27
1	Cu 324.752†	17516.6	15056.7	[100]	µg/L	14:15:27
1	Mn 257.610†	30035.0	30324.0	[100]	µg/L	14:15:27
1	Mo 202.031†	993.1	1002.1	[100]	µg/L	14:15:48
1	Ni 231.604†	2238.0	1939.1	[100]	µg/L	14:15:27
1	P 214.914†	275.5	248.3	[500]	µg/L	14:15:48
1	Pb 220.353†	495.9	399.5	[100]	µg/L	14:15:48
1	S 181.975 Axial†	61.0	46.2	[200]	µg/L	14:15:48
1	Sb 206.836†	127.3	100.5	[100]	µg/L	14:15:48
1	Se 196.026†	83.6	67.8	[100]	µg/L	14:15:48
1	SiO2†	6362.3	5121.8	[1069.5]	µg/L	14:15:27
1	Si 251.611†	6526.8	6223.6	[500]	µg/L	14:15:27
1	Sn 189.927†	236.7	237.9	[100]	µg/L	14:15:48
1	Ti 334.940†	41818.8	41765.2	[100]	µg/L	14:15:27
1	Tl 190.801†	52.7	77.0	[100]	µg/L	14:15:48
1	U 409.014†	1125.7	1181.0	[100]	µg/L	14:15:27
1	V 292.402†	9619.3	9677.9	[100]	µg/L	14:15:27
1	Zn 213.857†	4700.1	4231.6	[100]	µg/L	14:15:27
2	Sc RADIAL	55171.2	55171.2	101	%	14:15:05
2	K 766.490 Radial†	1577.1	1431.6	[1000]	µg/L	14:15:05
2	Sr 421.552†	9725.8	9581.1	[100]	µg/L	14:15:05
2	Sc 361.383	1919566.1	1919566.1	100.51	%	14:15:54
2	Y 371.029	1316225.3	1316225.3	100.48	%	14:15:54
2	Ag 328.068†	12296.8	12799.1	[100]	µg/L	14:16:00
2	As 188.979†	55.3	53.9	[100]	µg/L	14:16:20
2	B 249.677†	2620.3	2275.6	[100]	µg/L	14:16:00
2	Ba 233.527†	3925.8	3931.9	[100]	µg/L	14:16:00
2	Be 313.107†	153476.8	156139.6	[100]	µg/L	14:15:54
2	Cd 226.502†	3613.9	3737.7	[100]	µg/L	14:16:00
2	Co 228.616†	2078.6	2076.9	[100]	µg/L	14:16:20
2	Cr 267.716†	4668.3	4697.0	[100]	µg/L	14:16:00
2	Cu 324.752†	17487.1	14912.4	[100]	µg/L	14:16:00
2	Mn 257.610†	29867.9	29960.6	[100]	µg/L	14:16:00
2	Mo 202.031†	997.0	999.5	[100]	µg/L	14:16:20
2	Ni 231.604†	2232.7	1919.2	[100]	µg/L	14:16:00
2	P 214.914†	277.4	248.4	[500]	µg/L	14:16:20
2	Pb 220.353†	494.0	394.3	[100]	µg/L	14:16:20
2	S 181.975 Axial†	66.3	51.1	[200]	µg/L	14:16:20
2	Sb 206.836†	134.2	106.6	[100]	µg/L	14:16:20
2	Se 196.026†	81.0	64.7	[100]	µg/L	14:16:20
2	SiO2†	6316.5	5034.4	[1069.5]	µg/L	14:16:00
2	Si 251.611†	6524.6	6178.6	[500]	µg/L	14:16:00
2	Sn 189.927†	229.9	229.6	[100]	µg/L	14:16:20
2	Ti 334.940†	41713.2	41385.8	[100]	µg/L	14:16:00
2	Tl 190.801†	46.9	70.9	[100]	µg/L	14:16:20
2	U 409.014†	1094.4	1142.5	[100]	µg/L	14:16:00
2	V 292.402†	9634.9	9630.3	[100]	µg/L	14:16:00

2	Zn 213.857†	4683.2	4183.9	[100]	µg/L	14:16:00
3	Sc RADIAL	54696.3	54696.3	100	%	14:15:11
3	K 766.490 Radial†	1613.5	1481.5	[1000]	µg/L	14:15:11
3	Sr 421.552†	9663.0	9601.9	[100]	µg/L	14:15:11
3	Sc 361.383	1914175.0	1914175.0	100.23	%	14:16:26
3	Y 371.029	1314459.8	1314459.8	100.35	%	14:16:26
3	Ag 328.068†	12311.6	12848.2	[100]	µg/L	14:16:32
3	As 188.979†	52.2	51.0	[100]	µg/L	14:16:53
3	B 249.677†	2607.8	2270.5	[100]	µg/L	14:16:32
3	Ba 233.527†	3927.0	3944.1	[100]	µg/L	14:16:32
3	Be 313.107†	152121.7	155217.6	[100]	µg/L	14:16:26
3	Cd 226.502†	3649.8	3783.7	[100]	µg/L	14:16:32
3	Co 228.616†	2092.3	2096.4	[100]	µg/L	14:16:53
3	Cr 267.716†	4695.0	4736.7	[100]	µg/L	14:16:32
3	Cu 324.752†	17403.9	14878.4	[100]	µg/L	14:16:32
3	Mn 257.610†	29812.0	29988.6	[100]	µg/L	14:16:32
3	Mo 202.031†	994.2	999.5	[100]	µg/L	14:16:53
3	Ni 231.604†	2238.0	1930.8	[100]	µg/L	14:16:32
3	P 214.914†	276.9	248.7	[500]	µg/L	14:16:53
3	Pb 220.353†	496.4	398.1	[100]	µg/L	14:16:53
3	S 181.975 Axial†	63.6	48.7	[200]	µg/L	14:16:53
3	Sb 206.836†	131.7	104.5	[100]	µg/L	14:16:53
3	Se 196.026†	85.1	69.1	[100]	µg/L	14:16:53
3	SiO2†	6274.4	5010.2	[1069.5]	µg/L	14:16:32
3	Si 251.611†	6506.8	6179.2	[500]	µg/L	14:16:32
3	Sn 189.927†	233.2	233.5	[100]	µg/L	14:16:53
3	Ti 334.940†	41628.8	41418.4	[100]	µg/L	14:16:32
3	Tl 190.801†	52.0	76.1	[100]	µg/L	14:16:53
3	U 409.014†	1167.9	1218.9	[100]	µg/L	14:16:32
3	V 292.402†	9645.5	9667.9	[100]	µg/L	14:16:32
3	Zn 213.857†	4697.5	4211.3	[100]	µg/L	14:16:32

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1913576.2	6310.61	0.33%	100.20	%
Sc RADIAL	54961.1	242.12	0.44%	101	%
Y 371.029	1312921.8	4284.80	0.33%	100.23	%
Ag 328.068†	12855.8	60.90	0.47%	[100]	µg/L
As 188.979†	54.7	4.13	7.55%	[100]	µg/L
B 249.677†	2272.1	3.07	0.13%	[100]	µg/L
Ba 233.527†	3956.8	33.13	0.84%	[100]	µg/L
Be 313.107†	155666.8	461.42	0.30%	[100]	µg/L
Cd 226.502†	3782.6	44.38	1.17%	[100]	µg/L
Co 228.616†	2093.6	15.54	0.74%	[100]	µg/L
Cr 267.716†	4731.2	31.87	0.67%	[100]	µg/L
Cu 324.752†	14949.2	94.66	0.63%	[100]	µg/L
K 766.490 Radial†	1434.0	46.37	3.23%	[1000]	µg/L
Mn 257.610†	30091.1	202.22	0.67%	[100]	µg/L
Mo 202.031†	1000.4	1.54	0.15%	[100]	µg/L
Ni 231.604†	1929.7	10.00	0.52%	[100]	µg/L
P 214.914†	248.5	0.19	0.08%	[500]	µg/L
Pb 220.353†	397.3	2.68	0.67%	[100]	µg/L
S 181.975 Axial†	48.7	2.45	5.03%	[200]	µg/L
Sb 206.836†	103.8	3.08	2.97%	[100]	µg/L
Se 196.026†	67.2	2.24	3.33%	[100]	µg/L
SiO2†	5055.5	58.67	1.16%	[1069.5]	µg/L
Si 251.611†	6193.8	25.84	0.42%	[500]	µg/L
Sn 189.927†	233.7	4.16	1.78%	[100]	µg/L
Sr 421.552†	9539.5	90.63	0.95%	[100]	µg/L
Ti 334.940†	41523.1	210.28	0.51%	[100]	µg/L
Tl 190.801†	74.7	3.29	4.41%	[100]	µg/L
U 409.014†	1180.8	38.20	3.23%	[100]	µg/L
V 292.402†	9658.7	25.07	0.26%	[100]	µg/L
Zn 213.857†	4209.0	23.92	0.57%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/11/2010 14:17:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56431.2	56431.2	103	%	14:17:36
1	Al 396.153Radial†	6754.1	6542.0	[5000]	µg/L	14:17:36
1	Ca 317.933Radial†	5471.1	5111.9	[5000]	µg/L	14:17:56
1	K 766.490 Radial†	7121.7	6759.0	[5000]	µg/L	14:17:36
1	Mg 279.077 IEC†	566.8	536.8	[5000]	µg/L	14:17:56
1	Sr 421.552†	48100.9	46478.6	[500]	µg/L	14:17:36
1	Sc 361.383	1949267.7	1949267.7	102.06	%	14:18:59
1	Y 371.029	1332062.2	1332062.2	101.69	%	14:18:59
1	Ag 328.068†	62715.3	62011.3	[500]	µg/L	14:19:05
1	As 188.979†	268.2	261.6	[500]	µg/L	14:19:26
1	B 249.677†	11715.5	11147.1	[500]	µg/L	14:19:05
1	Ba 233.527†	19296.1	18931.8	[500]	µg/L	14:19:05
1	Be 313.107†	765143.4	753107.4	[500]	µg/L	14:18:59
1	Cd 226.502†	18181.3	17955.7	[500]	µg/L	14:19:05
1	Co 228.616†	10302.5	10103.0	[500]	µg/L	14:19:05
1	Cr 267.716†	23080.8	22666.4	[500]	µg/L	14:19:05
1	Cu 324.752†	74689.8	70693.0	[500]	µg/L	14:19:05
1	Mn 257.610†	147455.4	144716.9	[500]	µg/L	14:18:59
1	Mo 202.031†	4948.3	4855.8	[500]	µg/L	14:19:26
1	Ni 231.604†	9587.6	9091.5	[500]	µg/L	14:19:05
1	P 214.914†	1227.3	1174.8	[2500]	µg/L	14:19:26
1	Pb 220.353†	2024.6	1886.4	[500]	µg/L	14:19:26
1	S 181.975 Axial†	257.2	237.2	[1000]	µg/L	14:19:26
1	Sb 206.836†	565.6	527.2	[500]	µg/L	14:19:26
1	Se 196.026†	349.8	326.9	[500]	µg/L	14:19:26
1	SiO2†	26268.6	24487.3	[5347.5]	µg/L	14:19:05
1	Si 251.611†	30925.0	29986.6	[2500]	µg/L	14:19:05
1	Sn 189.927†	1150.8	1128.4	[500]	µg/L	14:19:26
1	Ti 334.940†	210237.3	205868.8	[500]	µg/L	14:18:59
1	Tl 190.801†	342.7	360.1	[500]	µg/L	14:19:26
1	U 409.014†	5574.8	5515.7	[500]	µg/L	14:19:05
1	V 292.402†	47320.5	46407.6	[500]	µg/L	14:19:05
1	Zn 213.857†	20885.0	19987.0	[500]	µg/L	14:19:05
2	Sc RADIAL	56400.3	56400.3	103	%	14:18:02
2	Al 396.153Radial†	6776.8	6567.5	[5000]	µg/L	14:18:02
2	Ca 317.933Radial†	5446.0	5090.5	[5000]	µg/L	14:18:22
2	K 766.490 Radial†	7209.5	6847.7	[5000]	µg/L	14:18:02
2	Mg 279.077 IEC†	558.9	529.5	[5000]	µg/L	14:18:22
2	Sr 421.552†	48009.1	46415.3	[500]	µg/L	14:18:02
2	Sc 361.383	1969776.8	1969776.8	103.14	%	14:19:33
2	Y 371.029	1347212.9	1347212.9	102.85	%	14:19:33
2	Ag 328.068†	63263.2	61902.7	[500]	µg/L	14:19:38
2	As 188.979†	264.1	254.9	[500]	µg/L	14:19:59
2	B 249.677†	11833.7	11142.2	[500]	µg/L	14:19:38
2	Ba 233.527†	19517.7	18949.8	[500]	µg/L	14:19:38
2	Be 313.107†	769998.9	750009.7	[500]	µg/L	14:19:33
2	Cd 226.502†	18459.9	18040.3	[500]	µg/L	14:19:38
2	Co 228.616†	10435.6	10126.9	[500]	µg/L	14:19:38
2	Cr 267.716†	23319.3	22662.1	[500]	µg/L	14:19:38
2	Cu 324.752†	75284.2	70507.3	[500]	µg/L	14:19:38
2	Mn 257.610†	148076.6	143815.0	[500]	µg/L	14:19:33
2	Mo 202.031†	4926.4	4784.1	[500]	µg/L	14:19:59
2	Ni 231.604†	9732.8	9134.4	[500]	µg/L	14:19:38
2	P 214.914†	1225.6	1160.7	[2500]	µg/L	14:19:59
2	Pb 220.353†	2028.4	1869.5	[500]	µg/L	14:19:59
2	S 181.975 Axial†	257.8	235.1	[1000]	µg/L	14:19:59
2	Sb 206.836†	552.2	508.4	[500]	µg/L	14:19:59
2	Se 196.026†	361.1	334.3	[500]	µg/L	14:19:59
2	SiO2†	26477.9	24422.2	[5347.5]	µg/L	14:19:38

2	Si 251.611†	31253.2	29989.4	[2500]	µg/L	14:19:38
2	Sn 189.927†	1150.3	1116.1	[500]	µg/L	14:19:59
2	Ti 334.940†	211105.1	204565.4	[500]	µg/L	14:19:33
2	Tl 190.801†	338.9	352.9	[500]	µg/L	14:19:59
2	U 409.014†	5592.5	5475.9	[500]	µg/L	14:19:38
2	V 292.402†	47778.9	46369.3	[500]	µg/L	14:19:38
2	Zn 213.857†	21066.0	19949.5	[500]	µg/L	14:19:38
3	Sc RADIAL	56116.0	56116.0	103	%	14:18:27
3	Al 396.153Radial†	6776.6	6600.6	[5000]	µg/L	14:18:27
3	Ca 317.933Radial†	5474.8	5145.3	[5000]	µg/L	14:18:48
3	K 766.490 Radial†	7167.4	6842.1	[5000]	µg/L	14:18:27
3	Mg 279.077 IEC†	570.0	543.0	[5000]	µg/L	14:18:48
3	Sr 421.552†	47985.8	46628.0	[500]	µg/L	14:18:27
3	Sc 361.383	1956384.8	1956384.8	102.44	%	14:20:06
3	Y 371.029	1336938.7	1336938.7	102.06	%	14:20:06
3	Ag 328.068†	58992.1	58153.2	[500]	µg/L	14:20:12
3	As 188.979†	227.0	220.5	[500]	µg/L	14:20:32
3	B 249.677†	10983.9	10391.2	[500]	µg/L	14:20:12
3	Ba 233.527†	17692.5	17297.6	[500]	µg/L	14:20:12
3	Be 313.107†	719301.4	705628.8	[500]	µg/L	14:20:06
3	Cd 226.502†	16595.4	16342.7	[500]	µg/L	14:20:12
3	Co 228.616†	9342.2	9128.8	[500]	µg/L	14:20:12
3	Cr 267.716†	20357.4	19925.5	[500]	µg/L	14:20:12
3	Cu 324.752†	68152.8	64045.2	[500]	µg/L	14:20:12
3	Mn 257.610†	138782.6	135724.9	[500]	µg/L	14:20:06
3	Mo 202.031†	4112.2	4021.9	[500]	µg/L	14:20:32
3	Ni 231.604†	8700.9	8191.7	[500]	µg/L	14:20:12
3	P 214.914†	1052.8	1000.2	[2500]	µg/L	14:20:32
3	Pb 220.353†	1780.7	1641.2	[500]	µg/L	14:20:32
3	S 181.975 Axial†	220.4	200.3	[1000]	µg/L	14:20:32
3	Sb 206.836†	483.7	445.3	[500]	µg/L	14:20:32
3	Se 196.026†	314.2	290.9	[500]	µg/L	14:20:32
3	SiO2†	24349.5	22520.2	[5347.5]	µg/L	14:20:12
3	Si 251.611†	28634.1	27640.0	[2500]	µg/L	14:20:12
3	Sn 189.927†	946.2	924.5	[500]	µg/L	14:20:32
3	Ti 334.940†	196408.6	191619.7	[500]	µg/L	14:20:06
3	Tl 190.801†	311.8	328.7	[500]	µg/L	14:20:32
3	U 409.014†	4970.2	4905.6	[500]	µg/L	14:20:12
3	V 292.402†	42533.9	41566.2	[500]	µg/L	14:20:12
3	Zn 213.857†	18957.2	18030.7	[500]	µg/L	14:20:12

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1958476.4	10413.33	0.53%	102.55	%
Sc RADIAL	56315.8	173.75	0.31%	103	%
Y 371.029	1338737.9	7733.97	0.58%	102.20	%
Ag 328.068†	60689.0	2196.81	3.62%	[500]	µg/L
Al 396.153Radial†	6570.0	29.39	0.45%	[5000]	µg/L
As 188.979†	245.7	22.07	8.99%	[500]	µg/L
B 249.677†	10893.5	435.04	3.99%	[500]	µg/L
Ba 233.527†	18393.1	948.76	5.16%	[500]	µg/L
Be 313.107†	736248.6	26562.75	3.61%	[500]	µg/L
Ca 317.933Radial†	5115.9	27.60	0.54%	[5000]	µg/L
Cd 226.502†	17446.2	956.62	5.48%	[500]	µg/L
Co 228.616†	9786.2	569.47	5.82%	[500]	µg/L
Cr 267.716†	21751.3	1581.21	7.27%	[500]	µg/L
Cu 324.752†	68415.2	3785.63	5.53%	[500]	µg/L
K 766.490 Radial†	6816.2	49.68	0.73%	[5000]	µg/L
Mg 279.077 IEC†	536.5	6.79	1.26%	[5000]	µg/L
Mn 257.610†	141419.0	4951.74	3.50%	[500]	µg/L
Mo 202.031†	4553.9	462.10	10.15%	[500]	µg/L
Ni 231.604†	8805.9	532.32	6.04%	[500]	µg/L
P 214.914†	1111.9	97.02	8.73%	[2500]	µg/L
Pb 220.353†	1799.0	136.97	7.61%	[500]	µg/L
S 181.975 Axial†	224.2	20.73	9.24%	[1000]	µg/L
Sb 206.836†	493.6	42.92	8.69%	[500]	µg/L
Se 196.026†	317.4	23.20	7.31%	[500]	µg/L
SiO2†	23809.9	1117.40	4.69%	[5347.5]	µg/L
Si 251.611†	29205.3	1355.64	4.64%	[2500]	µg/L

Sn 189.927†	1056.3	114.33	10.82%	[500] µg/L
Sr 421.552†	46507.3	109.22	0.23%	[500] µg/L
Ti 334.940†	200684.6	7877.46	3.93%	[500] µg/L
Tl 190.801†	347.2	16.45	4.74%	[500] µg/L
U 409.014†	5299.1	341.35	6.44%	[500] µg/L
V 292.402†	44781.0	2784.22	6.22%	[500] µg/L
Zn 213.857†	19322.4	1118.82	5.79%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 14:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54624.1	54624.1	100	%	14:21:14
1	Al 396.153Radial†	13945.5	13943.0	[10000]	µg/L	14:21:14
1	Ca 317.933Radial†	11091.0	10901.8	[10000]	µg/L	14:21:34
1	Fe 238.204 Radial†	1237.7	1222.1	[10000]	µg/L	14:21:34
1	K 766.490 Radial†	14553.2	14411.5	[10000]	µg/L	14:21:14
1	Mg 279.077 IEC†	1145.5	1133.2	[10000]	µg/L	14:21:34
1	Na 589.592 Radial†	32001.3	31430.3	[10000]	µg/L	14:21:14
1	Sr 421.552†	98763.5	98634.1	[1000]	µg/L	14:21:14
1	Sc 361.383	1918837.7	1918837.7	100.47	%	14:22:38
1	Y 371.029	1309873.4	1309873.4	99.997	%	14:22:38
1	Ag 328.068†	129789.4	129745.3	[1000]	µg/L	14:22:44
1	As 188.979†	545.1	541.4	[1000]	µg/L	14:23:05
1	B 249.677†	24100.3	23655.8	[1000]	µg/L	14:22:44
1	Ba 233.527†	40021.0	39859.3	[1000]	µg/L	14:22:44
1	Be 313.107†	1583359.7	1579375.6	[1000]	µg/L	14:22:38
1	Cd 226.502†	37676.7	37642.1	[1000]	µg/L	14:22:44
1	Co 228.616†	21224.5	21133.9	[1000]	µg/L	14:22:44
1	Cr 267.716†	47864.2	47692.2	[1000]	µg/L	14:22:44
1	Cu 324.752†	152208.7	149008.9	[1000]	µg/L	14:22:44
1	Mn 257.610†	300264.6	299100.8	[1000]	µg/L	14:22:44
1	Mo 202.031†	10059.0	10019.4	[1000]	µg/L	14:23:05
1	Ni 231.604†	19417.1	19023.9	[1000]	µg/L	14:22:44
1	P 214.914†	2522.7	2483.2	[5000]	µg/L	14:23:05
1	Pb 220.353†	4095.0	3978.6	[1000]	µg/L	14:23:05
1	S 181.975 Axial†	497.7	480.5	[2000]	µg/L	14:23:05
1	Sb 206.836†	1108.7	1076.5	[1000]	µg/L	14:23:05
1	Se 196.026†	705.0	685.9	[1000]	µg/L	14:23:05
1	SiO2†	52879.3	51381.3	[10695]	µg/L	14:22:44
1	Si 251.611†	63553.1	62942.2	[5000]	µg/L	14:22:44
1	Sn 189.927†	2343.4	2333.3	[1000]	µg/L	14:23:05
1	Ti 334.940†	431168.6	429030.7	[1000]	µg/L	14:22:38
1	Tl 190.801†	726.4	747.3	[1000]	µg/L	14:23:05
1	U 409.014†	11460.5	11460.4	[1000]	µg/L	14:22:44
1	V 292.402†	98389.1	97972.0	[1000]	µg/L	14:22:44
1	Zn 213.857†	42248.3	41574.6	[1000]	µg/L	14:22:44
2	Sc RADIAL	55757.6	55757.6	102	%	14:21:40
2	Al 396.153Radial†	13857.6	13573.7	[10000]	µg/L	14:21:40
2	Ca 317.933Radial†	11113.5	10698.5	[10000]	µg/L	14:22:00
2	Fe 238.204 Radial†	1242.3	1201.4	[10000]	µg/L	14:22:00
2	K 766.490 Radial†	14434.4	13999.7	[10000]	µg/L	14:21:40
2	Mg 279.077 IEC†	1155.1	1119.3	[10000]	µg/L	14:22:00
2	Na 589.592 Radial†	31736.9	30521.6	[10000]	µg/L	14:21:40
2	Sr 421.552†	98177.9	96055.0	[1000]	µg/L	14:21:40
2	Sc 361.383	1912891.8	1912891.8	100.16	%	14:23:11
2	Y 371.029	1304958.7	1304958.7	99.621	%	14:23:11
2	Ag 328.068†	130617.7	130973.8	[1000]	µg/L	14:23:17
2	As 188.979†	550.1	548.1	[1000]	µg/L	14:23:38
2	B 249.677†	24305.4	23935.1	[1000]	µg/L	14:23:17
2	Ba 233.527†	40326.4	40288.1	[1000]	µg/L	14:23:17
2	Be 313.107†	1586929.2	1587837.9	[1000]	µg/L	14:23:11
2	Cd 226.502†	37959.2	38040.8	[1000]	µg/L	14:23:17
2	Co 228.616†	21379.4	21354.1	[1000]	µg/L	14:23:17
2	Cr 267.716†	48340.5	48315.7	[1000]	µg/L	14:23:17
2	Cu 324.752†	153521.9	150790.9	[1000]	µg/L	14:23:17
2	Mn 257.610†	303225.9	302986.3	[1000]	µg/L	14:23:17
2	Mo 202.031†	10012.5	10004.1	[1000]	µg/L	14:23:38
2	Ni 231.604†	19568.5	19235.1	[1000]	µg/L	14:23:17
2	P 214.914†	2513.0	2481.4	[5000]	µg/L	14:23:38
2	Pb 220.353†	4075.3	3971.6	[1000]	µg/L	14:23:38

2	S 181.975 Axial†	494.3	478.7	[2000]	µg/L	14:23:38
2	Sb 206.836†	1106.5	1077.8	[1000]	µg/L	14:23:38
2	Se 196.026†	715.1	698.1	[1000]	µg/L	14:23:38
2	SiO2†	53340.3	52005.2	[10695]	µg/L	14:23:17
2	Si 251.611†	64000.9	63585.9	[5000]	µg/L	14:23:17
2	Sn 189.927†	2345.0	2342.2	[1000]	µg/L	14:23:38
2	Ti 334.940†	432325.2	431519.3	[1000]	µg/L	14:23:11
2	Tl 190.801†	726.1	749.2	[1000]	µg/L	14:23:38
2	U 409.014†	11741.1	11776.0	[1000]	µg/L	14:23:17
2	V 292.402†	99181.6	99067.5	[1000]	µg/L	14:23:17
2	Zn 213.857†	42614.4	42070.9	[1000]	µg/L	14:23:17
3	Sc RADIAL	54875.2	54875.2	101	%	14:22:06
3	Al 396.153Radial†	13886.4	13820.4	[10000]	µg/L	14:22:06
3	Ca 317.933Radial†	11079.2	10839.4	[10000]	µg/L	14:22:26
3	Fe 238.204 Radial†	1232.3	1211.0	[10000]	µg/L	14:22:26
3	K 766.490 Radial†	14321.1	14114.2	[10000]	µg/L	14:22:06
3	Mg 279.077 IEC†	1147.7	1130.1	[10000]	µg/L	14:22:26
3	Na 589.592 Radial†	31806.0	31089.8	[10000]	µg/L	14:22:06
3	Sr 421.552†	97911.9	97335.8	[1000]	µg/L	14:22:06
3	Sc 361.383	1943388.7	1943388.7	101.76	%	14:23:44
3	Y 371.029	1326037.1	1326037.1	101.23	%	14:23:44
3	Ag 328.068†	122308.3	120761.4	[1000]	µg/L	14:23:50
3	As 188.979†	468.8	459.6	[1000]	µg/L	14:24:11
3	B 249.677†	22603.8	21882.1	[1000]	µg/L	14:23:50
3	Ba 233.527†	36855.9	36245.6	[1000]	µg/L	14:23:50
3	Be 313.107†	1492194.6	1469875.4	[1000]	µg/L	14:23:44
3	Cd 226.502†	34480.3	34027.2	[1000]	µg/L	14:23:50
3	Co 228.616†	19338.4	19013.4	[1000]	µg/L	14:23:50
3	Cr 267.716†	42475.6	41794.7	[1000]	µg/L	14:23:50
3	Cu 324.752†	139121.1	134233.4	[1000]	µg/L	14:23:50
3	Mn 257.610†	272803.2	268337.9	[1000]	µg/L	14:23:50
3	Mo 202.031†	8402.4	8264.9	[1000]	µg/L	14:24:11
3	Ni 231.604†	17696.7	17089.1	[1000]	µg/L	14:23:50
3	P 214.914†	2160.3	2095.4	[5000]	µg/L	14:24:11
3	Pb 220.353†	3557.4	3398.8	[1000]	µg/L	14:24:11
3	S 181.975 Axial†	437.7	415.3	[2000]	µg/L	14:24:11
3	Sb 206.836†	957.8	914.3	[1000]	µg/L	14:24:11
3	Se 196.026†	625.8	599.2	[1000]	µg/L	14:24:11
3	SiO2†	49204.0	47104.6	[10695]	µg/L	14:23:50
3	Si 251.611†	59050.8	57718.6	[5000]	µg/L	14:23:50
3	Sn 189.927†	1920.9	1888.6	[1000]	µg/L	14:24:11
3	Ti 334.940†	404515.4	397416.1	[1000]	µg/L	14:23:44
3	Tl 190.801†	655.3	668.3	[1000]	µg/L	14:24:11
3	U 409.014†	10336.6	10211.8	[1000]	µg/L	14:23:50
3	V 292.402†	89071.2	87577.8	[1000]	µg/L	14:23:50
3	Zn 213.857†	38626.6	37484.3	[1000]	µg/L	14:23:50

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1925039.4	16166.66	0.84%	100.80	%
Sc RADIAL	55085.6	595.31	1.08%	101	%
Y 371.029	1313623.1	11028.13	0.84%	100.28	%
Ag 328.068†	127160.2	5575.45	4.38%	[1000]	µg/L
Al 396.153Radial†	13779.0	188.09	1.37%	[10000]	µg/L
As 188.979†	516.3	49.27	9.54%	[1000]	µg/L
B 249.677†	23157.7	1113.46	4.81%	[1000]	µg/L
Ba 233.527†	38797.7	2220.52	5.72%	[1000]	µg/L
Be 313.107†	1545696.3	65799.01	4.26%	[1000]	µg/L
Ca 317.933Radial†	10813.2	104.13	0.96%	[10000]	µg/L
Cd 226.502†	36570.0	2211.18	6.05%	[1000]	µg/L
Co 228.616†	20500.4	1292.54	6.30%	[1000]	µg/L
Cr 267.716†	45934.2	3598.42	7.83%	[1000]	µg/L
Cu 324.752†	144677.7	9088.85	6.28%	[1000]	µg/L
Fe 238.204 Radial†	1211.5	10.32	0.85%	[10000]	µg/L
K 766.490 Radial†	14175.1	212.58	1.50%	[10000]	µg/L
Mg 279.077 IEC†	1127.5	7.31	0.65%	[10000]	µg/L
Mn 257.610†	290141.7	18982.26	6.54%	[1000]	µg/L
Mo 202.031†	9429.5	1008.55	10.70%	[1000]	µg/L
Na 589.592 Radial†	31013.9	459.06	1.48%	[10000]	µg/L

Ni 231.604†	18449.4	1182.78	6.41%	[1000]	µg/L
P 214.914†	2353.3	223.38	9.49%	[5000]	µg/L
Pb 220.353†	3783.0	332.79	8.80%	[1000]	µg/L
S 181.975 Axial†	458.2	37.14	8.10%	[2000]	µg/L
Sb 206.836†	1022.9	94.00	9.19%	[1000]	µg/L
Se 196.026†	661.1	53.94	8.16%	[1000]	µg/L
SiO2†	50163.7	2667.59	5.32%	[10695]	µg/L
Si 251.611†	61415.6	3217.81	5.24%	[5000]	µg/L
Sn 189.927†	2188.0	259.31	11.85%	[1000]	µg/L
Sr 421.552†	97341.6	1289.53	1.32%	[1000]	µg/L
Ti 334.940†	419322.0	19011.87	4.53%	[1000]	µg/L
Tl 190.801†	721.6	46.19	6.40%	[1000]	µg/L
U 409.014†	11149.4	827.15	7.42%	[1000]	µg/L
V 292.402†	94872.5	6341.05	6.68%	[1000]	µg/L
Zn 213.857†	40376.6	2517.08	6.23%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 14:24:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55734.1	55734.1	102	%	14:24:53
1	Al 396.153Radial†	68477.1	67062.5	[50000]	µg/L	14:24:53
1	Ca 317.933Radial†	54301.8	52992.8	[50000]	µg/L	14:24:53
1	Fe 238.204 Radial†	2420.6	2355.7	[20000]	µg/L	14:25:13
1	Mg 279.077 IEC†	5505.9	5380.1	[50000]	µg/L	14:25:13
1	Na 589.592 Radial†	62235.4	60398.5	[20000]	µg/L	14:24:53
1	Sc 361.383	1922257.7	1922257.7	100.65	%	14:26:17
1	Y 371.029	1306511.6	1306511.6	99.740	%	14:26:17
2	Sc RADIAL	55997.4	55997.4	103	%	14:25:19
2	Al 396.153Radial†	68696.2	66960.7	[50000]	µg/L	14:25:19
2	Ca 317.933Radial†	54670.5	53102.1	[50000]	µg/L	14:25:19
2	Fe 238.204 Radial†	2419.7	2343.7	[20000]	µg/L	14:25:39
2	Mg 279.077 IEC†	5512.9	5361.5	[50000]	µg/L	14:25:39
2	Na 589.592 Radial†	62504.6	60374.4	[20000]	µg/L	14:25:19
2	Sc 361.383	1943938.9	1943938.9	101.79	%	14:26:25
2	Y 371.029	1321297.0	1321297.0	100.87	%	14:26:25
3	Sc RADIAL	56208.4	56208.4	103	%	14:25:45
3	Al 396.153Radial†	69051.1	67053.9	[50000]	µg/L	14:25:45
3	Ca 317.933Radial†	54933.8	53157.7	[50000]	µg/L	14:25:45
3	Fe 238.204 Radial†	2417.0	2332.2	[20000]	µg/L	14:26:05
3	Mg 279.077 IEC†	5516.6	5344.9	[50000]	µg/L	14:26:05
3	Na 589.592 Radial†	62899.5	60529.1	[20000]	µg/L	14:25:45
3	Sc 361.383	1959647.9	1959647.9	102.61	%	14:26:33
3	Y 371.029	1332766.9	1332766.9	101.74	%	14:26:33

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1941948.2	18774.43	0.97%	101.68	%
Sc RADIAL	55979.9	237.64	0.42%	103	%
Y 371.029	1320191.8	13162.49	1.00%	100.78	%
Al 396.153Radial†	67025.7	56.44	0.08%	[50000]	µg/L
Ca 317.933Radial†	53084.2	83.91	0.16%	[50000]	µg/L
Fe 238.204 Radial†	2343.9	11.76	0.50%	[20000]	µg/L
Mg 279.077 IEC†	5362.2	17.57	0.33%	[50000]	µg/L
Na 589.592 Radial†	60434.0	83.23	0.14%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	126.0	0.00000	0.999831	
Al 396.153Radial	3	Lin Thru 0	0.0	1.342	0.00000	0.999984	
As 188.979	3	Lin Thru 0	0.0	0.5116	0.00000	0.999791	
B 249.677	3	Lin Thru 0	0.0	22.88	0.00000	0.999715	
Ba 233.527	3	Lin Thru 0	0.0	38.40	0.00000	0.999779	
Be 313.107	3	Lin Thru 0	0.0	1531	0.00000	0.999818	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.062	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	36.25	0.00000	0.999822	
Co 228.616	3	Lin Thru 0	0.0	20.32	0.00000	0.999831	
Cr 267.716	3	Lin Thru 0	0.0	45.46	0.00000	0.999766	
Cu 324.752	3	Lin Thru 0	0.0	143.2	0.00000	0.999754	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1180	0.00000	0.999910	
K 766.490 Radial	3	Lin Thru 0	0.0	1.407	0.00000	0.999880	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1075	0.00000	0.999952	
Mn 257.610	3	Lin Thru 0	0.0	288.8	0.00000	0.999942	
Mo 202.031	3	Lin Thru 0	0.0	9.370	0.00000	0.999888	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.038	0.00000	0.999945	

Ni 231.604	3	Lin Thru 0	0.0	18.29	0.00000	0.999821
P 214.914	3	Lin Thru 0	0.0	0.4657	0.00000	0.999737
Pb 220.353	3	Lin Thru 0	0.0	3.748	0.00000	0.999792
S 181.975 Axial	3	Lin Thru 0	0.0	0.2282	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	1.016	0.00000	0.999901
Se 196.026	3	Lin Thru 0	0.0	0.6559	0.00000	0.999870
SiO2	3	Lin Thru 0	0.0	4.643	0.00000	0.999791
Si 251.611	3	Lin Thru 0	0.0	12.16	0.00000	0.999805
Sn 189.927	3	Lin Thru 0	0.0	2.174	0.00000	0.999882
Sr 421.552	3	Lin Thru 0	0.0	96.47	0.00000	0.999840
Ti 334.940	3	Lin Thru 0	0.0	415.7	0.00000	0.999852
Tl 190.801	3	Lin Thru 0	0.0	0.7164	0.00000	0.999879
U 409.014	3	Lin Thru 0	0.0	11.05	0.00000	0.999783
V 292.402	3	Lin Thru 0	0.0	93.83	0.00000	0.999742
Zn 213.857	3	Lin Thru 0	0.0	40.05	0.00000	0.999841

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 14:26:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56175.2	56175.2	103	%			14:27:15
1	Al 396.153Radial†	6827.4	6643.0	4939.9	µg/L	4939.9	ppb	14:27:35
1	Ca 317.933Radial†	5504.7	5168.7	4866.7	µg/L	4866.7	ppb	14:27:35
1	Fe 238.204 Radial†	619.4	587.3	4988.2	µg/L	4988.2	ppb	14:27:35
1	K 766.490 Radial†	3573.7	3343.4	2376.5	µg/L	2376.5	ppb	14:27:15
1	Mg 279.077 IEC†	579.7	551.9	5140.1	µg/L	5140.1	ppb	14:27:35
1	Na 589.592 Radial†	7985.2	7215.8	2375.5	µg/L	2375.5	ppb	14:27:15
1	Sr 421.552†	49736.5	48279.6	500.47	µg/L	500.47	ppb	14:27:15
1	Sc 361.383	1963746.6	1963746.6	102.82	%			14:28:38
1	Y 371.029	1343456.9	1343456.9	102.56	%			14:28:38
1	Ag 328.068†	32402.4	32077.4	258.20	µg/L	258.20	ppb	14:28:44
1	As 188.979†	252.0	244.0	475.79	µg/L	475.79	ppb	14:29:05
1	B 249.677†	12299.6	11630.5	506.47	µg/L	506.47	ppb	14:28:44
1	Ba 233.527†	19805.3	19287.7	503.14	µg/L	503.14	ppb	14:28:44
1	Be 313.107†	400944.5	393378.7	256.71	µg/L	256.71	ppb	14:28:38
1	Cd 226.502†	18448.5	18084.2	498.85	µg/L	498.85	ppb	14:28:44
1	Co 228.616†	10564.7	10283.6	505.57	µg/L	505.57	ppb	14:28:44
1	Cr 267.716†	22885.3	22309.5	491.04	µg/L	491.04	ppb	14:28:44
1	Cu 324.752†	76882.1	72285.6	505.62	µg/L	505.62	ppb	14:28:44
1	Mn 257.610†	151694.6	147774.6	512.18	µg/L	512.18	ppb	14:28:38
1	Mo 202.031†	5332.7	5193.9	554.49	µg/L	554.49	ppb	14:29:05
1	Ni 231.604†	9713.9	9145.0	499.47	µg/L	499.47	ppb	14:28:44
1	P 214.914†	1269.4	1206.9	2543.7	µg/L	2543.7	ppb	14:29:05
1	Pb 220.353†	2051.9	1898.4	506.85	µg/L	506.85	ppb	14:29:05
1	S 181.975 Axial†	610.0	578.4	2534.1	µg/L	2534.1	ppb	14:29:05
1	Sb 206.836†	565.9	523.4	518.27	µg/L	518.27	ppb	14:29:05
1	Se 196.026†	1740.7	1677.1	2564.5	µg/L	2564.5	ppb	14:29:05
1	SiO2†	50702.0	48060.2	10350	µg/L	10350	ppb	14:28:44
1	Si 251.611†	60656.9	58679.0	4823.7	µg/L	4823.7	ppb	14:28:44
1	Sn 189.927†	1247.6	1214.2	558.50	µg/L	558.50	ppb	14:29:05
1	Ti 334.940†	209346.8	203483.9	489.14	µg/L	489.14	ppb	14:28:38
1	Tl 190.801†	364.1	378.4	534.06	µg/L	534.06	ppb	14:29:05
1	U 409.014†	5596.2	5496.2	496.62	µg/L	496.62	ppb	14:28:44
1	V 292.402†	48924.8	47626.0	514.07	µg/L	514.07	ppb	14:28:44
1	Zn 213.857†	21567.2	20499.6	508.35	µg/L	508.35	ppb	14:28:44
2	Sc RADIAL	56033.1	56033.1	103	%			14:27:40
2	Al 396.153Radial†	6802.0	6635.1	4934.1	µg/L	4934.1	ppb	14:28:01
2	Ca 317.933Radial†	5475.3	5153.6	4852.4	µg/L	4852.4	ppb	14:28:01
2	Fe 238.204 Radial†	614.3	583.8	4958.8	µg/L	4958.8	ppb	14:28:01
2	K 766.490 Radial†	3641.5	3418.3	2429.7	µg/L	2429.7	ppb	14:27:40
2	Mg 279.077 IEC†	579.8	553.4	5154.4	µg/L	5154.4	ppb	14:28:01
2	Na 589.592 Radial†	8029.7	7278.8	2396.2	µg/L	2396.2	ppb	14:27:40
2	Sr 421.552†	50111.3	48767.2	505.53	µg/L	505.53	ppb	14:27:40
2	Sc 361.383	1959108.8	1959108.8	102.58	%			14:29:12
2	Y 371.029	1337906.1	1337906.1	102.14	%			14:29:12
2	Ag 328.068†	32371.7	32122.1	258.56	µg/L	258.56	ppb	14:29:17
2	As 188.979†	250.3	242.8	473.56	µg/L	473.56	ppb	14:29:38
2	B 249.677†	12349.9	11707.8	509.86	µg/L	509.86	ppb	14:29:17
2	Ba 233.527†	19859.1	19385.7	505.69	µg/L	505.69	ppb	14:29:17
2	Be 313.107†	397767.3	391204.5	255.29	µg/L	255.29	ppb	14:29:12
2	Cd 226.502†	18445.9	18124.1	499.96	µg/L	499.96	ppb	14:29:17
2	Co 228.616†	10616.9	10358.7	509.26	µg/L	509.26	ppb	14:29:17
2	Cr 267.716†	22880.0	22357.0	492.09	µg/L	492.09	ppb	14:29:17
2	Cu 324.752†	76966.8	72545.1	507.43	µg/L	507.43	ppb	14:29:17
2	Mn 257.610†	150503.7	146962.9	509.37	µg/L	509.37	ppb	14:29:12
2	Mo 202.031†	5249.3	5124.9	547.12	µg/L	547.12	ppb	14:29:38
2	Ni 231.604†	9710.9	9164.5	500.53	µg/L	500.53	ppb	14:29:17
2	P 214.914†	1234.6	1175.9	2476.8	µg/L	2476.8	ppb	14:29:38
2	Pb 220.353†	2014.2	1866.4	498.27	µg/L	498.27	ppb	14:29:38

2	S 181.975 Axial†	603.9	573.9	2514.5 µg/L	2514.5 ppb	14:29:38
2	Sb 206.836†	552.1	511.3	506.22 µg/L	506.22 ppb	14:29:38
2	Se 196.026†	1718.6	1659.6	2537.7 µg/L	2537.7 ppb	14:29:38
2	SiO2†	50804.5	48276.9	10397 µg/L	10397 ppb	14:29:17
2	Si 251.611†	60707.2	58867.6	4839.2 µg/L	4839.2 ppb	14:29:17
2	Sn 189.927†	1227.9	1197.9	551.01 µg/L	551.01 ppb	14:29:38
2	Ti 334.940†	208068.6	202719.9	487.30 µg/L	487.30 ppb	14:29:12
2	Tl 190.801†	356.4	371.7	524.72 µg/L	524.72 ppb	14:29:38
2	U 409.014†	5657.2	5568.6	503.18 µg/L	503.18 ppb	14:29:17
2	V 292.402†	48911.7	47725.9	515.09 µg/L	515.09 ppb	14:29:17
2	Zn 213.857†	21491.7	20475.7	507.74 µg/L	507.74 ppb	14:29:17
3	Sc RADIAL	55710.7	55710.7	102 %		14:28:06
3	Al 396.153Radial†	6837.6	6708.3	4990.5 µg/L	4990.5 ppb	14:28:27
3	Ca 317.933Radial†	5503.3	5211.9	4907.4 µg/L	4907.4 ppb	14:28:27
3	Fe 238.204 Radial†	619.1	592.0	5027.4 µg/L	5027.4 ppb	14:28:27
3	K 766.490 Radial†	3604.3	3402.4	2418.4 µg/L	2418.4 ppb	14:28:06
3	Mg 279.077 IEC†	577.0	553.9	5157.4 µg/L	5157.4 ppb	14:28:27
3	Na 589.592 Radial†	7999.1	7294.1	2401.2 µg/L	2401.2 ppb	14:28:06
3	Sr 421.552†	49756.2	48701.8	504.85 µg/L	504.85 ppb	14:28:06
3	Sc 361.383	1966591.1	1966591.1	102.97 %		14:29:45
3	Y 371.029	1344829.1	1344829.1	102.67 %		14:29:45
3	Ag 328.068†	30447.1	30133.0	242.44 µg/L	242.44 ppb	14:29:51
3	As 188.979†	212.1	204.8	399.46 µg/L	399.46 ppb	14:30:11
3	B 249.677†	11543.9	10879.3	473.52 µg/L	473.52 ppb	14:29:51
3	Ba 233.527†	18235.3	17735.1	462.62 µg/L	462.62 ppb	14:29:51
3	Be 313.107†	376544.4	369118.7	240.88 µg/L	240.88 ppb	14:29:45
3	Cd 226.502†	16808.4	16465.5	454.14 µg/L	454.14 ppb	14:29:51
3	Co 228.616†	9616.6	9347.9	459.50 µg/L	459.50 ppb	14:29:51
3	Cr 267.716†	20282.2	19749.2	434.69 µg/L	434.69 ppb	14:29:51
3	Cu 324.752†	70054.3	65546.6	458.56 µg/L	458.56 ppb	14:29:51
3	Mn 257.610†	142833.7	138956.0	481.65 µg/L	481.65 ppb	14:29:45
3	Mo 202.031†	4404.7	4285.1	457.51 µg/L	457.51 ppb	14:30:11
3	Ni 231.604†	8886.0	8327.4	454.82 µg/L	454.82 ppb	14:29:51
3	P 214.914†	1057.7	999.5	2101.9 µg/L	2101.9 ppb	14:30:11
3	Pb 220.353†	1779.9	1631.4	435.46 µg/L	435.46 ppb	14:30:11
3	S 181.975 Axial†	527.5	497.5	2179.7 µg/L	2179.7 ppb	14:30:11
3	Sb 206.836†	492.5	451.4	446.41 µg/L	446.41 ppb	14:30:11
3	Se 196.026†	1501.7	1442.5	2207.0 µg/L	2207.0 ppb	14:30:11
3	SiO2†	47105.5	44496.1	9582.5 µg/L	9582.5 ppb	14:29:51
3	Si 251.611†	56262.5	54326.1	4465.9 µg/L	4465.9 ppb	14:29:51
3	Sn 189.927†	1018.6	990.0	455.40 µg/L	455.40 ppb	14:30:11
3	Ti 334.940†	196112.8	190337.3	457.51 µg/L	457.51 ppb	14:29:45
3	Tl 190.801†	328.3	343.2	484.58 µg/L	484.58 ppb	14:30:11
3	U 409.014†	4922.5	4834.1	436.66 µg/L	436.66 ppb	14:29:51
3	V 292.402†	44109.1	42880.5	462.56 µg/L	462.56 ppb	14:29:51
3	Zn 213.857†	19646.9	18604.4	461.29 µg/L	461.29 ppb	14:29:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1963148.8	102.79	%	0.198				0.19%
Sc RADIAL	55973.0	103	%	0.4				0.43%
Y 371.029	1342064.0	102.45	%	0.280				0.27%
Ag 328.068†	31444.2	253.06	µg/L	9.205	253.06	ppb	9.205	3.64%
QC value within limits for Ag 328.068 Recovery = 101.23%								
Al 396.153Radial†	6662.1	4954.8	µg/L	31.04	4954.8	ppb	31.04	0.63%
QC value within limits for Al 396.153Radial Recovery = 99.10%								
As 188.979†	230.5	449.61	µg/L	43.438	449.61	ppb	43.438	9.66%
QC value less than the lower limit for As 188.979 Recovery = 89.92%								
B 249.677†	11405.9	496.62	µg/L	20.071	496.62	ppb	20.071	4.04%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	18802.8	490.48	µg/L	24.164	490.48	ppb	24.164	4.93%
QC value within limits for Ba 233.527 Recovery = 98.10%								
Be 313.107†	384567.3	250.96	µg/L	8.759	250.96	ppb	8.759	3.49%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	5178.1	4875.5	µg/L	28.51	4875.5	ppb	28.51	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.51%								
Cd 226.502†	17558.0	484.32	µg/L	26.137	484.32	ppb	26.137	5.40%
QC value within limits for Cd 226.502 Recovery = 96.86%								
Co 228.616†	9996.7	491.44	µg/L	27.727	491.44	ppb	27.727	5.64%

```
   QC value within limits for Co 228.616  Recovery = 98.29%
Cr 267.716†            21471.9      472.61 µg/L        32.838      472.61 ppb        32.838   6.95%
   QC value within limits for Cr 267.716  Recovery = 94.52%
Cu 324.752†            70125.8      490.54 µg/L        27.712      490.54 ppb        27.712   5.65%
   QC value within limits for Cu 324.752  Recovery = 98.11%
Fe 238.204 Radial†       587.7     4991.5 µg/L         34.44     4991.5 ppb         34.44   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.83%
K 766.490 Radial†       3388.1     2408.2 µg/L         28.04     2408.2 ppb         28.04   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.33%
Mg 279.077 IEC†          553.1     5150.6 µg/L          9.21     5150.6 ppb          9.21   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.01%
Mn 257.610†           144564.5      501.06 µg/L        16.874      501.06 ppb        16.874   3.37%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†             4868.0      519.70 µg/L        53.991      519.70 ppb        53.991  10.39%
   QC value within limits for Mo 202.031  Recovery = 103.94%
Na 589.592 Radial†      7262.9     2391.0 µg/L         13.66     2391.0 ppb         13.66   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†             8879.0      484.94 µg/L        26.089      484.94 ppb        26.089   5.38%
   QC value within limits for Ni 231.604  Recovery = 96.99%
P 214.914†              1127.4     2374.2 µg/L        238.13     2374.2 ppb        238.13  10.03%
   QC value within limits for P 214.914  Recovery = 94.97%
Pb 220.353†             1798.7      480.19 µg/L        38.976      480.19 ppb        38.976   8.12%
   QC value within limits for Pb 220.353  Recovery = 96.04%
S 181.975 Axial†         549.9     2409.5 µg/L        199.20     2409.5 ppb        199.20   8.27%
   QC value within limits for S 181.975 Axial  Recovery = 96.38%
Sb 206.836†              495.4      490.30 µg/L        38.486      490.30 ppb        38.486   7.85%
   QC value within limits for Sb 206.836  Recovery = 98.06%
Se 196.026†             1593.1     2436.4 µg/L        199.13     2436.4 ppb        199.13   8.17%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†                  46944.4       10110 µg/L         457.2       10110 ppb         457.2   4.52%
   QC value within limits for SiO2  Recovery = 94.53%
Si 251.611†            57290.9     4709.6 µg/L        211.21     4709.6 ppb        211.21   4.48%
   QC value within limits for Si 251.611  Recovery = 94.19%
Sn 189.927†             1134.1      521.64 µg/L        57.487      521.64 ppb        57.487  11.02%
   QC value within limits for Sn 189.927  Recovery = 104.33%
Sr 421.552†            48582.8      503.62 µg/L         2.743      503.62 ppb         2.743   0.54%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           198847.0      477.98 µg/L        17.751      477.98 ppb        17.751   3.71%
   QC value within limits for Ti 334.940  Recovery = 95.60%
Tl 190.801†              364.4      514.45 µg/L        26.290      514.45 ppb        26.290   5.11%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†              5299.6      478.82 µg/L        36.655      478.82 ppb        36.655   7.66%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†             46077.4      497.24 µg/L        30.036      497.24 ppb        30.036   6.04%
   QC value within limits for V 292.402  Recovery = 99.45%
Zn 213.857†            19859.9      492.46 µg/L        26.995      492.46 ppb        26.995   5.48%
   QC value within limits for Zn 213.857  Recovery = 98.49%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 14:30:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55908.8	55908.8	102	%			14:30:53
1	Al 396.153Radial†	-5.0	5.2	3.8899	µg/L	3.8899	ppb	14:30:53
1	Ca 317.933Radial†	192.7	9.0	8.4299	µg/L	8.4299	ppb	14:31:14
1	Fe 238.204 Radial†	14.3	-0.6	-4.9645	µg/L	-4.9645	ppb	14:31:14
1	K 766.490 Radial†	107.9	-23.1	-16.426	µg/L	-16.426	ppb	14:30:53
1	Mg 279.077 IEC†	15.7	4.0	37.295	µg/L	37.295	ppb	14:31:14
1	Na 589.592 Radial†	574.2	18.7	6.1420	µg/L	6.1420	ppb	14:30:53
1	Sr 421.552†	57.3	16.3	0.1694	µg/L	0.1694	ppb	14:30:53
1	Sc 361.383	1944300.1	1944300.1	101.80	%			14:32:16
1	Y 371.029	1332393.9	1332393.9	101.72	%			14:32:16
1	Ag 328.068†	-508.2	65.3	0.5177	µg/L	0.5177	ppb	14:32:21
1	As 188.979†	2.4	1.2	2.3247	µg/L	2.3247	ppb	14:32:42
1	B 249.677†	341.3	3.8	0.1701	µg/L	0.1701	ppb	14:32:42
1	Ba 233.527†	-14.2	12.0	0.3135	µg/L	0.3135	ppb	14:32:42
1	Be 313.107†	-3420.4	80.6	0.0526	µg/L	0.0526	ppb	14:32:21
1	Cd 226.502†	-141.7	2.9	0.0816	µg/L	0.0816	ppb	14:32:42
1	Co 228.616†	-8.8	0.2	0.0094	µg/L	0.0094	ppb	14:32:42
1	Cr 267.716†	-52.4	0.9	0.0196	µg/L	0.0196	ppb	14:32:21
1	Cu 324.752†	2516.4	-14.3	-0.1006	µg/L	-0.1006	ppb	14:32:21
1	Mn 257.610†	-222.7	25.3	0.0856	µg/L	0.0856	ppb	14:32:42
1	Mo 202.031†	-0.2	7.3	0.7799	µg/L	0.7799	ppb	14:32:42
1	Ni 231.604†	301.0	-6.6	-0.3591	µg/L	-0.3591	ppb	14:32:42
1	P 214.914†	32.4	4.2	8.9740	µg/L	8.9740	ppb	14:32:42
1	Pb 220.353†	88.6	-10.1	-2.7035	µg/L	-2.7035	ppb	14:32:42
1	S 181.975 Axial†	16.5	1.4	6.0966	µg/L	6.0966	ppb	14:32:42
1	Sb 206.836†	22.8	-4.6	-4.5144	µg/L	-4.5144	ppb	14:32:42
1	Se 196.026†	21.7	5.5	8.3158	µg/L	8.3158	ppb	14:32:42
1	SiO2†	1261.7	-10.7	-2.2937	µg/L	-2.2937	ppb	14:32:21
1	Si 251.611†	339.4	20.5	1.6875	µg/L	1.6875	ppb	14:32:42
1	Sn 189.927†	1.1	2.0	0.9031	µg/L	0.9031	ppb	14:32:42
1	Ti 334.940†	148.3	29.6	0.0683	µg/L	0.0683	ppb	14:32:21
1	Tl 190.801†	-21.8	2.8	3.9713	µg/L	3.9713	ppb	14:32:42
1	U 409.014†	-33.0	21.2	1.9223	µg/L	1.9223	ppb	14:32:21
1	V 292.402†	-53.1	-7.9	-0.0767	µg/L	-0.0767	ppb	14:32:21
1	Zn 213.857†	482.8	-1.3	-0.0325	µg/L	-0.0325	ppb	14:32:42
2	Sc RADIAL	55881.3	55881.3	102	%			14:31:19
2	Al 396.153Radial†	-15.6	-5.1	-3.7901	µg/L	-3.7901	ppb	14:31:19
2	Ca 317.933Radial†	181.6	-1.8	-1.6610	µg/L	-1.6610	ppb	14:31:40
2	Fe 238.204 Radial†	14.4	-0.5	-4.0234	µg/L	-4.0234	ppb	14:31:40
2	K 766.490 Radial†	165.7	33.4	23.714	µg/L	23.714	ppb	14:31:19
2	Mg 279.077 IEC†	9.4	-2.1	-19.910	µg/L	-19.910	ppb	14:31:40
2	Na 589.592 Radial†	521.5	-32.6	-10.727	µg/L	-10.727	ppb	14:31:19
2	Sr 421.552†	60.7	19.7	0.2040	µg/L	0.2040	ppb	14:31:19
2	Sc 361.383	1964760.3	1964760.3	102.88	%			14:32:48
2	Y 371.029	1347613.8	1347613.8	102.88	%			14:32:48
2	Ag 328.068†	-518.5	60.5	0.4799	µg/L	0.4799	ppb	14:32:53
2	As 188.979†	-1.3	-2.4	-4.7694	µg/L	-4.7694	ppb	14:33:14
2	B 249.677†	344.7	3.6	0.1600	µg/L	0.1600	ppb	14:33:14
2	Ba 233.527†	-16.3	10.1	0.2637	µg/L	0.2637	ppb	14:33:14
2	Be 313.107†	-3298.7	234.0	0.1527	µg/L	0.1527	ppb	14:32:53
2	Cd 226.502†	-133.3	12.6	0.3477	µg/L	0.3477	ppb	14:33:14
2	Co 228.616†	-4.9	4.1	0.2028	µg/L	0.2028	ppb	14:33:14
2	Cr 267.716†	-12.9	39.8	0.8752	µg/L	0.8752	ppb	14:32:53
2	Cu 324.752†	2529.4	-27.4	-0.1918	µg/L	-0.1918	ppb	14:32:53
2	Mn 257.610†	-202.1	47.7	0.1654	µg/L	0.1654	ppb	14:33:14
2	Mo 202.031†	1.2	8.7	0.9303	µg/L	0.9303	ppb	14:33:14
2	Ni 231.604†	305.7	-5.0	-0.2753	µg/L	-0.2753	ppb	14:33:14
2	P 214.914†	24.2	-4.1	-8.8167	µg/L	-8.8167	ppb	14:33:14
2	Pb 220.353†	97.8	-2.1	-0.5597	µg/L	-0.5597	ppb	14:33:14

2	S 181.975 Axial†	15.1	-0.1	-0.5770 µg/L	-0.5770 ppb	14:33:14
2	Sb 206.836†	27.2	-0.5	-0.4890 µg/L	-0.4890 ppb	14:33:14
2	Se 196.026†	14.7	-1.6	-2.3575 µg/L	-2.3575 ppb	14:33:14
2	SiO2†	1242.8	-41.9	-9.0338 µg/L	-9.0338 ppb	14:32:53
2	Si 251.611†	360.2	37.3	3.0664 µg/L	3.0664 ppb	14:33:14
2	Sn 189.927†	0.7	1.6	0.7280 µg/L	0.7280 ppb	14:33:14
2	Ti 334.940†	261.8	138.4	0.3344 µg/L	0.3344 ppb	14:32:53
2	Tl 190.801†	-26.1	-1.1	-1.5598 µg/L	-1.5598 ppb	14:33:14
2	U 409.014†	-15.1	39.0	3.5273 µg/L	3.5273 ppb	14:32:53
2	V 292.402†	-42.6	2.8	0.0426 µg/L	0.0426 ppb	14:32:53
2	Zn 213.857†	491.7	2.4	0.0627 µg/L	0.0627 ppb	14:33:14
3	Sc RADIAL	56329.8	56329.8	103 %		14:31:45
3	Al 396.153Radial†	2.8	12.8	9.5317 µg/L	9.5317 ppb	14:31:45
3	Ca 317.933Radial†	174.0	-10.6	-9.9765 µg/L	-9.9765 ppb	14:32:05
3	Fe 238.204 Radial†	15.1	0.1	1.1942 µg/L	1.1942 ppb	14:32:05
3	K 766.490 Radial†	116.0	-16.0	-11.375 µg/L	-11.375 ppb	14:31:45
3	Mg 279.077 IEC†	9.4	-2.1	-19.858 µg/L	-19.858 ppb	14:32:05
3	Na 589.592 Radial†	536.5	-22.1	-7.2800 µg/L	-7.2800 ppb	14:31:45
3	Sr 421.552†	17.2	-22.9	-0.2369 µg/L	-0.2369 ppb	14:31:45
3	Sc 361.383	1963041.8	1963041.8	102.79 %		14:33:20
3	Y 371.029	1346546.9	1346546.9	102.80 %		14:33:20
3	Ag 328.068†	-542.7	36.6	0.2929 µg/L	0.2929 ppb	14:33:26
3	As 188.979†	1.8	0.6	1.1689 µg/L	1.1689 ppb	14:33:46
3	B 249.677†	343.0	2.2	0.0978 µg/L	0.0978 ppb	14:33:46
3	Ba 233.527†	-18.5	8.0	0.2082 µg/L	0.2082 ppb	14:33:46
3	Be 313.107†	-3230.6	297.4	0.1942 µg/L	0.1942 ppb	14:33:26
3	Cd 226.502†	-130.1	15.5	0.4281 µg/L	0.4281 ppb	14:33:46
3	Co 228.616†	-21.8	-12.4	-0.6104 µg/L	-0.6104 ppb	14:33:46
3	Cr 267.716†	-41.2	12.3	0.2708 µg/L	0.2708 ppb	14:33:26
3	Cu 324.752†	2546.0	-9.1	-0.0637 µg/L	-0.0637 ppb	14:33:26
3	Mn 257.610†	-170.0	78.8	0.2737 µg/L	0.2737 ppb	14:33:46
3	Mo 202.031†	0.3	7.9	0.8413 µg/L	0.8413 ppb	14:33:46
3	Ni 231.604†	307.9	-2.6	-0.1428 µg/L	-0.1428 ppb	14:33:46
3	P 214.914†	31.7	3.2	7.0023 µg/L	7.0023 ppb	14:33:46
3	Pb 220.353†	97.7	-2.1	-0.5651 µg/L	-0.5651 ppb	14:33:46
3	S 181.975 Axial†	14.0	-1.2	-5.1565 µg/L	-5.1565 ppb	14:33:46
3	Sb 206.836†	18.5	-9.0	-8.8540 µg/L	-8.8540 ppb	14:33:46
3	Se 196.026†	7.7	-8.4	-12.762 µg/L	-12.762 ppb	14:33:46
3	SiO2†	1231.2	-52.2	-11.239 µg/L	-11.239 ppb	14:33:26
3	Si 251.611†	338.7	16.6	1.3655 µg/L	1.3655 ppb	14:33:46
3	Sn 189.927†	2.7	3.5	1.5931 µg/L	1.5931 ppb	14:33:46
3	Ti 334.940†	206.7	84.9	0.2057 µg/L	0.2057 ppb	14:33:26
3	Tl 190.801†	-23.5	1.4	1.9821 µg/L	1.9821 ppb	14:33:46
3	U 409.014†	-82.4	-26.6	-2.4037 µg/L	-2.4037 ppb	14:33:26
3	V 292.402†	-5.0	39.3	0.4238 µg/L	0.4238 ppb	14:33:26
3	Zn 213.857†	490.6	1.7	0.0448 µg/L	0.0448 ppb	14:33:46

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1957367.4	102.49	%	0.594				0.58%
Sc RADIAL	56040.0	103	%	0.5				0.45%
Y 371.029	1342184.9	102.46	%	0.649				0.63%
Ag 328.068†	54.1	0.4302	µg/L	0.12036	0.4302	ppb	0.12036	27.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	3.2105	µg/L	6.68686	3.2105	ppb	6.68686	208.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.4253	µg/L	3.80624	-0.4253	ppb	3.80624	895.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.2	0.1426	µg/L	0.03915	0.1426	ppb	0.03915	27.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.0	0.2618	µg/L	0.05266	0.2618	ppb	0.05266	20.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.1331	µg/L	0.07275	0.1331	ppb	0.07275	54.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.1	-1.0692	µg/L	9.21745	-1.0692	ppb	9.21745	862.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.2858	µg/L	0.18136	0.2858	ppb	0.18136	63.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.7	-0.1327	µg/L	0.42483	-0.1327	ppb	0.42483	320.06%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.7      0.3886 µg/L       0.43975      0.3886 ppb        0.43975 113.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -16.9     -0.1187 µg/L       0.06593     -0.1187 ppb        0.06593  55.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -2.5979 µg/L       3.31761     -2.5979 ppb        3.31761 127.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -1.9     -1.3625 µg/L      21.86298     -1.3625 ppb       21.86298 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.1     -0.8244 µg/L      33.01203     -0.8244 ppb       33.01203 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.6      0.1749 µg/L       0.09441      0.1749 ppb        0.09441  53.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.0      0.8505 µg/L       0.07561      0.8505 ppb        0.07561   8.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -12.0     -3.9548 µg/L       8.91231     -3.9548 ppb        8.91231 225.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.7     -0.2590 µg/L       0.10906     -0.2590 ppb        0.10906  42.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.1      2.3865 µg/L       9.75229      2.3865 ppb        9.75229 408.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.8     -1.2761 µg/L       1.23617     -1.2761 ppb        1.23617  96.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.1210 µg/L       5.65896      0.1210 ppb        5.65896 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.7     -4.6191 µg/L       4.18349     -4.6191 ppb        4.18349  90.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.5     -2.2678 µg/L      10.53912     -2.2678 ppb       10.53912 464.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -34.9     -7.5220 µg/L       4.66014     -7.5220 ppb        4.66014  61.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                24.8      2.0398 µg/L       0.90350      2.0398 ppb        0.90350  44.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.3      1.0747 µg/L       0.45737      1.0747 ppb        0.45737  42.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 4.4      0.0455 µg/L       0.24518      0.0455 ppb        0.24518 539.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.3      0.2028 µg/L       0.13307      0.2028 ppb        0.13307  65.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.4645 µg/L       2.80164      1.4645 ppb        2.80164 191.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 11.2      1.0153 µg/L       3.06778      1.0153 ppb        3.06778 302.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 11.4      0.1299 µg/L       0.26143      0.1299 ppb        0.26143 201.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 0.9      0.0250 µg/L       0.05061      0.0250 ppb        0.05061 202.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/11/2010 14:33:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54747.4	54747.4	100	%			14:34:28
1	Al 396.153Radial†	273.1	282.4	210.27	µg/L	210.27	ppb	14:34:28
1	Ca 317.933Radial†	397.1	216.7	204.01	µg/L	204.01	ppb	14:34:49
1	Fe 238.204 Radial†	30.8	16.2	137.25	µg/L	137.25	ppb	14:34:49
1	K 766.490 Radial†	363.7	234.1	166.40	µg/L	166.40	ppb	14:34:28
1	Mg 279.077 IEC†	45.5	34.1	317.43	µg/L	317.43	ppb	14:34:49
1	Na 589.592 Radial†	1424.0	877.6	288.92	µg/L	288.92	ppb	14:34:28
1	Sr 421.552†	486.3	445.2	4.6152	µg/L	4.6152	ppb	14:34:28
1	Sc 361.383	1940350.4	1940350.4	101.60	%			14:35:51
1	Y 371.029	1331501.6	1331501.6	101.65	%			14:35:51
1	Ag 328.068†	65.6	629.1	5.0332	µg/L	5.0332	ppb	14:35:56
1	As 188.979†	15.0	13.6	26.557	µg/L	26.557	ppb	14:36:17
1	B 249.677†	1481.9	1127.1	49.194	µg/L	49.194	ppb	14:35:56
1	Ba 233.527†	167.0	190.4	4.9664	µg/L	4.9664	ppb	14:36:17
1	Be 313.107†	4123.9	7499.6	4.8957	µg/L	4.8957	ppb	14:35:56
1	Cd 226.502†	43.2	184.7	5.0837	µg/L	5.0837	ppb	14:36:17
1	Co 228.616†	90.6	98.0	4.8213	µg/L	4.8213	ppb	14:36:17
1	Cr 267.716†	181.4	230.9	5.0824	µg/L	5.0824	ppb	14:36:17
1	Cu 324.752†	4005.0	1456.0	10.189	µg/L	10.189	ppb	14:35:56
1	Mn 257.610†	2747.7	2948.6	10.216	µg/L	10.216	ppb	14:35:56
1	Mo 202.031†	89.7	95.8	10.232	µg/L	10.232	ppb	14:36:17
1	Ni 231.604†	390.7	82.4	4.5019	µg/L	4.5019	ppb	14:36:17
1	P 214.914†	110.5	81.1	173.12	µg/L	173.12	ppb	14:36:17
1	Pb 220.353†	141.4	42.0	11.169	µg/L	11.169	ppb	14:36:17
1	S 181.975 Axial†	37.1	21.7	95.029	µg/L	95.029	ppb	14:36:17
1	Sb 206.836†	32.7	5.2	5.2344	µg/L	5.2344	ppb	14:36:17
1	Se 196.026†	25.6	9.4	14.367	µg/L	14.367	ppb	14:36:17
1	SiO2†	2267.0	981.4	211.34	µg/L	211.34	ppb	14:35:56
1	Si 251.611†	1501.7	1165.2	95.786	µg/L	95.786	ppb	14:36:17
1	Sn 189.927†	16.7	17.3	7.9752	µg/L	7.9752	ppb	14:36:17
1	Ti 334.940†	2212.8	2061.9	4.9379	µg/L	4.9379	ppb	14:35:56
1	Tl 190.801†	-5.1	19.2	27.011	µg/L	27.011	ppb	14:36:17
1	U 409.014†	558.4	603.3	54.587	µg/L	54.587	ppb	14:35:56
1	V 292.402†	425.6	463.2	5.0996	µg/L	5.0996	ppb	14:35:56
1	Zn 213.857†	892.7	403.1	10.006	µg/L	10.006	ppb	14:36:17
2	Sc RADIAL	54832.7	54832.7	100	%			14:34:54
2	Al 396.153Radial†	256.5	265.4	197.60	µg/L	197.60	ppb	14:34:54
2	Ca 317.933Radial†	389.1	208.2	196.00	µg/L	196.00	ppb	14:35:15
2	Fe 238.204 Radial†	27.3	12.7	107.86	µg/L	107.86	ppb	14:35:15
2	K 766.490 Radial†	367.8	237.7	168.93	µg/L	168.93	ppb	14:34:54
2	Mg 279.077 IEC†	46.2	34.7	322.64	µg/L	322.64	ppb	14:35:15
2	Na 589.592 Radial†	1434.3	885.7	291.57	µg/L	291.57	ppb	14:34:54
2	Sr 421.552†	510.9	468.9	4.8611	µg/L	4.8611	ppb	14:34:54
2	Sc 361.383	1945380.3	1945380.3	101.86	%			14:36:23
2	Y 371.029	1334631.9	1334631.9	101.89	%			14:36:23
2	Ag 328.068†	83.1	646.1	5.1667	µg/L	5.1667	ppb	14:36:29
2	As 188.979†	13.7	12.3	23.962	µg/L	23.962	ppb	14:36:49
2	B 249.677†	1439.6	1081.8	47.230	µg/L	47.230	ppb	14:36:29
2	Ba 233.527†	163.8	186.8	4.8734	µg/L	4.8734	ppb	14:36:49
2	Be 313.107†	4161.3	7525.8	4.9129	µg/L	4.9129	ppb	14:36:29
2	Cd 226.502†	40.3	181.7	5.0056	µg/L	5.0056	ppb	14:36:49
2	Co 228.616†	95.9	103.0	5.0691	µg/L	5.0691	ppb	14:36:49
2	Cr 267.716†	184.6	233.6	5.1411	µg/L	5.1411	ppb	14:36:49
2	Cu 324.752†	3976.5	1417.8	9.9186	µg/L	9.9186	ppb	14:36:29
2	Mn 257.610†	2754.8	2948.6	10.212	µg/L	10.212	ppb	14:36:29
2	Mo 202.031†	93.7	99.6	10.631	µg/L	10.631	ppb	14:36:49
2	Ni 231.604†	392.3	82.9	4.5279	µg/L	4.5279	ppb	14:36:49
2	P 214.914†	107.2	77.6	165.67	µg/L	165.67	ppb	14:36:49
2	Pb 220.353†	143.7	43.9	11.669	µg/L	11.669	ppb	14:36:49

2	S 181.975 Axial†	37.9	22.4	98.282 µg/L	98.282 ppb	14:36:49
2	Sb 206.836†	37.0	9.4	9.3125 µg/L	9.3125 ppb	14:36:49
2	Se 196.026†	40.5	23.9	36.431 µg/L	36.431 ppb	14:36:49
2	SiO2†	2237.3	946.4	203.81 µg/L	203.81 ppb	14:36:29
2	Si 251.611†	1509.6	1169.2	96.111 µg/L	96.111 ppb	14:36:49
2	Sn 189.927†	28.9	29.3	13.482 µg/L	13.482 ppb	14:36:49
2	Ti 334.940†	2191.1	2034.9	4.8725 µg/L	4.8725 ppb	14:36:29
2	Tl 190.801†	-12.7	11.8	16.671 µg/L	16.671 ppb	14:36:49
2	U 409.014†	565.8	609.0	55.113 µg/L	55.113 ppb	14:36:29
2	V 292.402†	429.8	466.2	5.1319 µg/L	5.1319 ppb	14:36:29
2	Zn 213.857†	888.5	396.7	9.8472 µg/L	9.8472 ppb	14:36:49
3	Sc RADIAL	54719.3	54719.3	100 %		14:35:20
3	Al 396.153Radial†	252.3	261.8	194.95 µg/L	194.95 ppb	14:35:20
3	Ca 317.933Radial†	392.4	212.2	199.82 µg/L	199.82 ppb	14:35:41
3	Fe 238.204 Radial†	27.7	13.1	111.51 µg/L	111.51 ppb	14:35:41
3	K 766.490 Radial†	437.0	307.5	218.53 µg/L	218.53 ppb	14:35:20
3	Mg 279.077 IEC†	40.7	29.3	272.95 µg/L	272.95 ppb	14:35:41
3	Na 589.592 Radial†	1460.8	915.0	301.22 µg/L	301.22 ppb	14:35:20
3	Sr 421.552†	523.6	482.7	5.0036 µg/L	5.0036 ppb	14:35:20
3	Sc 361.383	1939953.9	1939953.9	101.58 %		14:36:55
3	Y 371.029	1330294.0	1330294.0	101.56 %		14:36:55
3	Ag 328.068†	50.3	614.0	4.9107 µg/L	4.9107 ppb	14:37:01
3	As 188.979†	19.6	18.1	35.385 µg/L	35.385 ppb	14:37:21
3	B 249.677†	1372.3	1019.5	44.505 µg/L	44.505 ppb	14:37:01
3	Ba 233.527†	145.4	169.2	4.4133 µg/L	4.4133 ppb	14:37:21
3	Be 313.107†	3478.0	6864.4	4.4811 µg/L	4.4811 ppb	14:37:01
3	Cd 226.502†	11.9	153.8	4.2359 µg/L	4.2359 ppb	14:37:21
3	Co 228.616†	75.0	82.7	4.0666 µg/L	4.0666 ppb	14:37:21
3	Cr 267.716†	166.3	216.1	4.7559 µg/L	4.7559 ppb	14:37:21
3	Cu 324.752†	3902.1	1355.5	9.4837 µg/L	9.4837 ppb	14:37:01
3	Mn 257.610†	2548.1	2752.7	9.5360 µg/L	9.5360 ppb	14:37:01
3	Mo 202.031†	79.0	85.3	9.1080 µg/L	9.1080 ppb	14:37:21
3	Ni 231.604†	393.4	85.1	4.6522 µg/L	4.6522 ppb	14:37:21
3	P 214.914†	100.3	71.1	151.77 µg/L	151.77 ppb	14:37:21
3	Pb 220.353†	126.2	27.0	7.1738 µg/L	7.1738 ppb	14:37:21
3	S 181.975 Axial†	34.7	19.3	84.720 µg/L	84.720 ppb	14:37:21
3	Sb 206.836†	29.4	2.0	2.0741 µg/L	2.0741 ppb	14:37:21
3	Se 196.026†	39.6	23.1	35.285 µg/L	35.285 ppb	14:37:21
3	SiO2†	2171.3	887.6	191.15 µg/L	191.15 ppb	14:37:01
3	Si 251.611†	1361.3	1027.3	84.447 µg/L	84.447 ppb	14:37:21
3	Sn 189.927†	21.9	22.4	10.338 µg/L	10.338 ppb	14:37:21
3	Ti 334.940†	2058.9	1910.8	4.5779 µg/L	4.5779 ppb	14:37:01
3	Tl 190.801†	-4.2	20.2	28.271 µg/L	28.271 ppb	14:37:21
3	U 409.014†	515.1	560.7	50.740 µg/L	50.740 ppb	14:37:01
3	V 292.402†	407.9	445.8	4.8980 µg/L	4.8980 ppb	14:37:01
3	Zn 213.857†	822.6	334.3	8.2901 µg/L	8.2901 ppb	14:37:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941894.9	101.68	%	0.158				0.16%
Sc RADIAL	54766.5	100	%	0.1				0.11%
Y 371.029	1332142.5	101.70	%	0.171				0.17%
Ag 328.068†	629.8	5.0369	µg/L	0.12806	5.0369	ppb	0.12806	2.54%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	269.9	200.94	µg/L	8.187	200.94	ppb	8.187	4.07%
QC value within limits for Al 396.153Radial Recovery = 100.47%								
As 188.979†	14.7	28.634	µg/L	5.9881	28.634	ppb	5.9881	20.91%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	1076.2	46.976	µg/L	2.3545	46.976	ppb	2.3545	5.01%
QC value within limits for B 249.677 Recovery = 93.95%								
Ba 233.527†	182.1	4.7510	µg/L	0.29615	4.7510	ppb	0.29615	6.23%
QC value within limits for Ba 233.527 Recovery = 95.02%								
Be 313.107†	7296.6	4.7633	µg/L	0.24448	4.7633	ppb	0.24448	5.13%
QC value within limits for Be 313.107 Recovery = 95.27%								
Ca 317.933Radial†	212.4	199.94	µg/L	4.009	199.94	ppb	4.009	2.00%
QC value within limits for Ca 317.933Radial Recovery = 99.97%								
Cd 226.502†	173.4	4.7751	µg/L	0.46856	4.7751	ppb	0.46856	9.81%
QC value within limits for Cd 226.502 Recovery = 95.50%								
Co 228.616†	94.6	4.6523	µg/L	0.52218	4.6523	ppb	0.52218	11.22%

```
   QC value within limits for Co 228.616  Recovery = 93.05%
Cr 267.716†              226.9      4.9931 µg/L       0.20751      4.9931 ppb        0.20751   4.16%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†             1409.7      9.8638 µg/L       0.35593      9.8638 ppb        0.35593   3.61%
   QC value within limits for Cu 324.752  Recovery = 98.64%
Fe 238.204 Radial†        14.0      118.87 µg/L        16.021      118.87 ppb         16.021  13.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 118.87%
K 766.490 Radial†        259.7      184.62 µg/L        29.396      184.62 ppb         29.396  15.92%
   QC value within limits for K 766.490 Radial  Recovery = 123.08%
Mg 279.077 IEC†           32.7      304.34 µg/L        27.307      304.34 ppb         27.307   8.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†             2883.3      9.9880 µg/L       0.39151      9.9880 ppb        0.39151   3.92%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†               93.6      9.9904 µg/L       0.78979      9.9904 ppb        0.78979   7.91%
   QC value within limits for Mo 202.031  Recovery = 99.90%
Na 589.592 Radial†       892.8      293.90 µg/L         6.477      293.90 ppb          6.477   2.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.97%
Ni 231.604†               83.5      4.5606 µg/L       0.08032      4.5606 ppb        0.08032   1.76%
   QC value within limits for Ni 231.604  Recovery = 91.21%
P 214.914†                76.6      163.52 µg/L        10.837      163.52 ppb         10.837   6.63%
   QC value within limits for P 214.914  Recovery = 109.01%
Pb 220.353†               37.6      10.004 µg/L        2.4639      10.004 ppb         2.4639  24.63%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†          21.2      92.677 µg/L        7.0801      92.677 ppb         7.0801   7.64%
   QC value within limits for S 181.975 Axial  Recovery = 92.68%
Sb 206.836†                5.5      5.5403 µg/L       3.62890      5.5403 ppb        3.62890  65.50%
   QC value less than the lower limit for Sb 206.836  Recovery = 55.40%
Se 196.026†               18.8      28.694 µg/L       12.4212      28.694 ppb        12.4212  43.29%
   QC value within limits for Se 196.026  Recovery = 95.65%
SiO2†                    938.5      202.10 µg/L        10.205      202.10 ppb         10.205   5.05%
   QC value within limits for SiO2  Recovery = 94.88%
Si 251.611†             1120.6      92.115 µg/L        6.6423      92.115 ppb         6.6423   7.21%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†               23.0      10.598 µg/L        2.7624      10.598 ppb         2.7624  26.06%
   QC value within limits for Sn 189.927  Recovery = 105.98%
Sr 421.552†              465.6      4.8266 µg/L       0.19650      4.8266 ppb        0.19650   4.07%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†             2002.5      4.7961 µg/L       0.19174      4.7961 ppb        0.19174   4.00%
   QC value within limits for Ti 334.940  Recovery = 95.92%
Tl 190.801†               17.1      23.984 µg/L        6.3650      23.984 ppb         6.3650  26.54%
   QC value within limits for Tl 190.801  Recovery = 119.92%
U 409.014†               591.0      53.480 µg/L        2.3877      53.480 ppb         2.3877   4.46%
   QC value within limits for U 409.014  Recovery = 106.96%
V 292.402†               458.4      5.0431 µg/L       0.12672      5.0431 ppb        0.12672   2.51%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†              378.0      9.3810 µg/L       0.94809      9.3810 ppb        0.94809  10.11%
   QC value within limits for Zn 213.857  Recovery = 93.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/11/2010 14:37:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54929.8	54929.8	101	%			14:38:12
1	Al 396.153Radial†	662864.4	658585.8	490860	µg/L	490860	ppb	14:38:07
1	Ca 317.933Radial†	501017.0	497596.3	468520	µg/L	468520	ppb	14:38:07
1	Fe 238.204 Radial†	21302.2	21149.9	179260	µg/L	179260	ppb	14:38:12
1	K 766.490 Radial†	133.6	4.3	3.0615	µg/L	3.0615	ppb	14:38:12
1	Mg 279.077 IEC†	50419.1	50081.6	465880	µg/L	465880	ppb	14:38:12
1	Na 589.592 Radial†	588.4	42.7	14.053	µg/L	14.053	ppb	14:38:12
1	Sr 421.552†	369.2	327.3	3.3927	µg/L	3.3927	ppb	14:38:12
1	Sc 361.383	1857257.4	1857257.4	97.247	%			14:38:45
1	Y 371.029	1267408.3	1267408.3	96.755	%			14:38:45
1	Ag 328.068†	-2882.1	-2399.2	-7.8752	µg/L	-7.8752	ppb	14:38:51
1	As 188.979†	-10.9	-12.4	-38.129	µg/L	-38.129	ppb	14:39:11
1	B 249.677†	826.3	518.2	-70.891	µg/L	-70.891	ppb	14:38:51
1	Ba 233.527†	265.1	298.7	7.7406	µg/L	7.7406	ppb	14:39:11
1	Be 313.107†	-4111.4	-787.4	-0.5240	µg/L	-0.5240	ppb	14:38:51
1	Cd 226.502†	352.3	504.4	-6.3482	µg/L	-6.3482	ppb	14:39:11
1	Co 228.616†	33.3	43.1	2.0584	µg/L	2.0584	ppb	14:39:11
1	Cr 267.716†	-59.0	-8.3	-0.1945	µg/L	-0.1945	ppb	14:39:11
1	Cu 324.752†	-1400.3	-3926.0	-2.5072	µg/L	-2.5072	ppb	14:38:51
1	Mn 257.610†	37.6	282.8	6.1777	µg/L	6.1777	ppb	14:38:51
1	Mo 202.031†	-107.0	-102.5	-4.1257	µg/L	-4.1257	ppb	14:39:11
1	Ni 231.604†	157.1	-140.7	-5.3633	µg/L	-5.3633	ppb	14:39:11
1	P 214.914†	101.4	76.6	162.80	µg/L	162.80	ppb	14:39:11
1	Pb 220.353†	54.2	-41.5	9.1341	µg/L	9.1341	ppb	14:39:11
1	S 181.975 Axial†	32.3	18.4	80.756	µg/L	80.756	ppb	14:39:11
1	Sb 206.836†	58.1	32.8	-8.6501	µg/L	-8.6501	ppb	14:39:11
1	Se 196.026†	34.1	19.3	-25.969	µg/L	-25.969	ppb	14:39:11
1	SiO2†	1033.7	-187.0	-40.276	µg/L	-40.276	ppb	14:39:11
1	Si 251.611†	428.1	127.4	10.470	µg/L	10.470	ppb	14:39:11
1	Sn 189.927†	-61.0	-61.9	5.0665	µg/L	5.0665	ppb	14:39:11
1	Ti 334.940†	10534.2	10716.3	-3.5463	µg/L	-3.5463	ppb	14:38:51
1	Tl 190.801†	-30.9	-7.5	8.6675	µg/L	8.6675	ppb	14:39:11
1	U 409.014†	-29.2	23.6	-51.357	µg/L	-51.357	ppb	14:38:51
1	V 292.402†	-1857.1	-1865.5	1.1351	µg/L	1.1351	ppb	14:38:51
1	Zn 213.857†	1452.2	1017.8	-9.4487	µg/L	-9.4487	ppb	14:39:11
2	Sc RADIAL	55009.9	55009.9	101	%			14:38:23
2	Al 396.153Radial†	661057.1	655833.6	488810	µg/L	488810	ppb	14:38:18
2	Ca 317.933Radial†	498837.3	494708.8	465800	µg/L	465800	ppb	14:38:18
2	Fe 238.204 Radial†	21470.3	21285.8	180410	µg/L	180410	ppb	14:38:23
2	K 766.490 Radial†	106.0	-23.2	-16.506	µg/L	-16.506	ppb	14:38:23
2	Mg 279.077 IEC†	50738.3	50325.3	468150	µg/L	468150	ppb	14:38:23
2	Na 589.592 Radial†	648.0	101.0	33.250	µg/L	33.250	ppb	14:38:23
2	Sr 421.552†	361.1	318.7	3.3032	µg/L	3.3032	ppb	14:38:23
2	Sc 361.383	1846098.6	1846098.6	96.662	%			14:39:17
2	Y 371.029	1260367.6	1260367.6	96.217	%			14:39:17
2	Ag 328.068†	-2932.2	-2468.9	-8.3594	µg/L	-8.3594	ppb	14:39:23
2	As 188.979†	-14.6	-16.3	-45.537	µg/L	-45.537	ppb	14:39:43
2	B 249.677†	858.5	556.6	-69.813	µg/L	-69.813	ppb	14:39:23
2	Ba 233.527†	262.3	297.4	7.7059	µg/L	7.7059	ppb	14:39:43
2	Be 313.107†	-4105.1	-806.4	-0.5367	µg/L	-0.5367	ppb	14:39:23
2	Cd 226.502†	337.6	491.4	-6.8376	µg/L	-6.8376	ppb	14:39:43
2	Co 228.616†	17.7	27.1	1.2707	µg/L	1.2707	ppb	14:39:43
2	Cr 267.716†	-53.0	-2.4	-0.0661	µg/L	-0.0661	ppb	14:39:43
2	Cu 324.752†	-1461.5	-3998.0	-2.8500	µg/L	-2.8500	ppb	14:39:23
2	Mn 257.610†	43.7	289.4	6.2629	µg/L	6.2629	ppb	14:39:23
2	Mo 202.031†	-104.0	-100.0	-3.8203	µg/L	-3.8203	ppb	14:39:43
2	Ni 231.604†	142.4	-154.9	-6.1246	µg/L	-6.1246	ppb	14:39:43
2	P 214.914†	112.7	89.0	187.84	µg/L	187.84	ppb	14:39:43
2	Pb 220.353†	58.0	-37.2	10.116	µg/L	10.116	ppb	14:39:43

2	S 181.975 Axial†	36.2	22.6	98.941	µg/L	98.941 ppb	14:39:43
2	Sb 206.836†	53.9	28.8	-12.353	µg/L	-12.353 ppb	14:39:43
2	Se 196.026†	26.7	11.8	-35.549	µg/L	-35.549 ppb	14:39:43
2	SiO2†	1052.3	-161.4	-34.761	µg/L	-34.761 ppb	14:39:43
2	Si 251.611†	458.0	160.9	13.230	µg/L	13.230 ppb	14:39:43
2	Sn 189.927†	-63.6	-65.0	3.8069	µg/L	3.8069 ppb	14:39:43
2	Ti 334.940†	10748.6	11003.6	-3.0781	µg/L	-3.0781 ppb	14:39:23
2	Tl 190.801†	-35.3	-12.3	2.2973	µg/L	2.2973 ppb	14:39:43
2	U 409.014†	-80.2	-29.4	-56.150	µg/L	-56.150 ppb	14:39:23
2	V 292.402†	-1894.8	-1916.0	0.7299	µg/L	0.7299 ppb	14:39:23
2	Zn 213.857†	1462.8	1037.8	-9.1272	µg/L	-9.1272 ppb	14:39:43
3	Sc RADIAL	54631.5	54631.5	100	%		14:38:35
3	Al 396.153Radial†	667869.4	667182.1	497270	µg/L	497270 ppb	14:38:29
3	Ca 317.933Radial†	503599.4	502894.4	473510	µg/L	473510 ppb	14:38:29
3	Fe 238.204 Radial†	21467.0	21430.1	181630	µg/L	181630 ppb	14:38:35
3	K 766.490 Radial†	96.7	-31.8	-22.617	µg/L	-22.617 ppb	14:38:35
3	Mg 279.077 IEC†	50895.3	50830.8	472850	µg/L	472850 ppb	14:38:35
3	Na 589.592 Radial†	627.0	84.4	27.800	µg/L	27.800 ppb	14:38:35
3	Sr 421.552†	372.9	333.0	3.4514	µg/L	3.4514 ppb	14:38:35
3	Sc 361.383	1825493.4	1825493.4	95.584	%		14:39:49
3	Y 371.029	1244094.0	1244094.0	94.975	%		14:39:49
3	Ag 328.068†	-2843.3	-2410.2	-7.8207	µg/L	-7.8207 ppb	14:39:55
3	As 188.979†	-21.3	-23.4	-59.893	µg/L	-59.893 ppb	14:40:16
3	B 249.677†	774.3	478.6	-73.863	µg/L	-73.863 ppb	14:39:55
3	Ba 233.527†	257.2	295.1	7.6465	µg/L	7.6465 ppb	14:40:16
3	Be 313.107†	-4046.5	-793.0	-0.5281	µg/L	-0.5281 ppb	14:39:55
3	Cd 226.502†	377.7	537.3	-5.7094	µg/L	-5.7094 ppb	14:40:16
3	Co 228.616†	37.6	48.2	2.3043	µg/L	2.3043 ppb	14:40:16
3	Cr 267.716†	-81.4	-32.7	-0.7334	µg/L	-0.7334 ppb	14:40:16
3	Cu 324.752†	-1475.8	-4030.1	-2.9042	µg/L	-2.9042 ppb	14:39:55
3	Mn 257.610†	50.9	297.4	6.2652	µg/L	6.2652 ppb	14:39:55
3	Mo 202.031†	-108.7	-106.2	-4.4310	µg/L	-4.4310 ppb	14:40:16
3	Ni 231.604†	152.6	-142.5	-5.4329	µg/L	-5.4329 ppb	14:40:16
3	P 214.914†	105.4	82.6	175.78	µg/L	175.78 ppb	14:40:16
3	Pb 220.353†	72.0	-21.8	14.642	µg/L	14.642 ppb	14:40:16
3	S 181.975 Axial†	29.0	15.5	67.783	µg/L	67.783 ppb	14:40:16
3	Sb 206.836†	45.6	20.7	-20.949	µg/L	-20.949 ppb	14:40:16
3	Se 196.026†	33.1	18.8	-27.759	µg/L	-27.759 ppb	14:40:16
3	SiO2†	1033.4	-168.9	-36.378	µg/L	-36.378 ppb	14:40:16
3	Si 251.611†	441.5	149.0	12.252	µg/L	12.252 ppb	14:40:16
3	Sn 189.927†	-53.7	-55.3	8.6518	µg/L	8.6518 ppb	14:40:16
3	Ti 334.940†	10848.2	11233.3	-2.7738	µg/L	-2.7738 ppb	14:39:55
3	Tl 190.801†	-26.7	-3.6	14.470	µg/L	14.470 ppb	14:40:16
3	U 409.014†	-83.2	-33.5	-57.162	µg/L	-57.162 ppb	14:39:55
3	V 292.402†	-1928.3	-1973.2	0.2572	µg/L	0.2572 ppb	14:39:55
3	Zn 213.857†	1454.4	1046.1	-9.2482	µg/L	-9.2482 ppb	14:40:16

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1842949.8	96.498	%	0.8438				0.87%
Sc RADIAL	54857.1	101	%	0.4				0.36%
Y 371.029	1257290.0	95.982	%	0.9129				0.95%
Ag 328.068†	-2426.1	-8.0184	µg/L	0.29656	-8.0184	ppb	0.29656	3.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660533.8	492320	µg/L	4412.2	492320	ppb	4412.2	0.90%
QC value within limits for Al 396.153Radial Recovery = 98.46%								
As 188.979†	-17.4	-47.853	µg/L	11.0657	-47.853	ppb	11.0657	23.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	517.8	-71.522	µg/L	2.0977	-71.522	ppb	2.0977	2.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	297.0	7.6977	µg/L	0.04758	7.6977	ppb	0.04758	0.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-795.6	-0.5296	µg/L	0.00649	-0.5296	ppb	0.00649	1.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	498399.8	469270	µg/L	3908.9	469270	ppb	3908.9	0.83%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	511.0	-6.2984	µg/L	0.56575	-6.2984	ppb	0.56575	8.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	39.5	1.8778	µg/L	0.53996	1.8778	ppb	0.53996	28.75%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -14.5     -0.3313 µg/L      0.35406     -0.3313 ppb      0.35406 106.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†          -3984.7     -2.7538 µg/L      0.21524     -2.7538 ppb      0.21524   7.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   21288.6      180430 µg/L       1187.5      180430 ppb       1187.5   0.66%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.22%
K 766.490 Radial†       -16.9     -12.020 µg/L      13.4139     -12.020 ppb     13.4139 111.59%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      50412.6      468960 µg/L       3555.4      468960 ppb       3555.4   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.79%
Mn 257.610†            289.9      6.2353 µg/L      0.04986      6.2353 ppb      0.04986   0.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†           -102.9     -4.1257 µg/L      0.30534     -4.1257 ppb      0.30534   7.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     76.0      25.034 µg/L       9.8929      25.034 ppb       9.8929  39.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†           -146.0     -5.6403 µg/L      0.42090     -5.6403 ppb      0.42090   7.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†             82.7      175.47 µg/L       12.518      175.47 ppb       12.518   7.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -33.5      11.297 µg/L       2.9376      11.297 ppb       2.9376  26.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†       18.8      82.493 µg/L      15.6511      82.493 ppb      15.6511  18.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†            27.4     -13.984 µg/L       6.3094     -13.984 ppb       6.3094  45.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            16.6     -29.759 µg/L       5.0935     -29.759 ppb       5.0935  17.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                 -172.5     -37.139 µg/L       2.8350     -37.139 ppb       2.8350   7.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†            145.8      11.984 µg/L       1.3994      11.984 ppb       1.3994  11.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -60.7      5.8417 µg/L      2.51374      5.8417 ppb      2.51374  43.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†            326.3      3.3825 µg/L      0.07464      3.3825 ppb      0.07464   2.21%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          10984.4     -3.1328 µg/L      0.38914     -3.1328 ppb      0.38914  12.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -7.8      8.4783 µg/L      6.08871      8.4783 ppb      6.08871  71.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -13.1     -54.890 µg/L       3.1009     -54.890 ppb       3.1009   5.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†            -1918.2      0.7074 µg/L      0.43934      0.7074 ppb      0.43934  62.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            1033.9     -9.2747 µg/L      0.16235     -9.2747 ppb      0.16235   1.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/11/2010 14:40:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54743.7	54743.7	100	%			14:41:04
1	Al 396.153Radial†	662601.8	660562.7	492330	µg/L	492330	ppb	14:40:59
1	Ca 317.933Radial†	498259.5	496539.4	467520	µg/L	467520	ppb	14:40:59
1	Fe 238.204 Radial†	21341.6	21261.1	180210	µg/L	180210	ppb	14:41:04
1	K 766.490 Radial†	6958.5	6808.5	4839.5	µg/L	4839.5	ppb	14:41:04
1	Mg 279.077 IEC†	50755.9	50587.7	470600	µg/L	470600	ppb	14:41:04
1	Na 589.592 Radial†	15455.3	14865.6	4893.8	µg/L	4893.8	ppb	14:41:04
1	Sr 421.552†	46875.8	46691.2	484.01	µg/L	484.01	ppb	14:41:04
1	Sc 361.383	1846856.3	1846856.3	96.702	%			14:41:38
1	Y 371.029	1258300.6	1258300.6	96.059	%			14:41:38
1	Ag 328.068†	27332.2	28828.8	243.20	µg/L	243.20	ppb	14:41:44
1	As 188.979†	237.2	244.2	462.48	µg/L	462.48	ppb	14:42:04
1	B 249.677†	11716.6	11784.7	421.73	µg/L	421.73	ppb	14:41:44
1	Ba 233.527†	17712.8	18342.8	478.47	µg/L	478.47	ppb	14:41:44
1	Be 313.107†	339671.1	354695.4	231.45	µg/L	231.45	ppb	14:41:38
1	Cd 226.502†	15868.9	16552.3	436.70	µg/L	436.70	ppb	14:41:44
1	Co 228.616†	8171.6	8459.1	415.69	µg/L	415.69	ppb	14:42:04
1	Cr 267.716†	20395.5	21143.4	465.37	µg/L	465.37	ppb	14:41:44
1	Cu 324.752†	70107.6	70012.4	514.10	µg/L	514.10	ppb	14:41:44
1	Mn 257.610†	126842.6	131412.5	460.20	µg/L	460.20	ppb	14:41:44
1	Mo 202.031†	4309.3	4463.8	483.23	µg/L	483.23	ppb	14:42:04
1	Ni 231.604†	7535.7	7490.5	411.39	µg/L	411.39	ppb	14:42:04
1	P 214.914†	1206.8	1220.3	2570.8	µg/L	2570.8	ppb	14:42:04
1	Pb 220.353†	1703.5	1664.4	464.39	µg/L	464.39	ppb	14:42:04
1	S 181.975 Axial†	587.6	592.8	2597.2	µg/L	2597.2	ppb	14:42:04
1	Sb 206.836†	550.1	541.9	495.21	µg/L	495.21	ppb	14:42:04
1	Se 196.026†	1471.2	1505.6	2238.6	µg/L	2238.6	ppb	14:42:04
1	SiO2†	47866.2	48248.6	10391	µg/L	10391	ppb	14:41:44
1	Si 251.611†	57854.9	59515.0	4892.4	µg/L	4892.4	ppb	14:41:44
1	Sn 189.927†	962.7	996.5	492.28	µg/L	492.28	ppb	14:42:04
1	Ti 334.940†	201101.7	207843.8	470.24	µg/L	470.24	ppb	14:41:44
1	Tl 190.801†	278.9	312.7	461.24	µg/L	461.24	ppb	14:42:04
1	U 409.014†	5055.9	5282.0	424.65	µg/L	424.65	ppb	14:41:44
1	V 292.402†	42477.1	43969.9	495.05	µg/L	495.05	ppb	14:41:44
1	Zn 213.857†	19021.9	19195.0	441.47	µg/L	441.47	ppb	14:41:44
2	Sc RADIAL	55060.7	55060.7	101	%			14:41:16
2	Al 396.153Radial†	664887.8	659025.8	491180	µg/L	491180	ppb	14:41:10
2	Ca 317.933Radial†	499367.7	494778.3	465860	µg/L	465860	ppb	14:41:10
2	Fe 238.204 Radial†	21754.5	21547.8	182640	µg/L	182640	ppb	14:41:16
2	K 766.490 Radial†	7103.8	6912.7	4913.5	µg/L	4913.5	ppb	14:41:16
2	Mg 279.077 IEC†	51410.3	50945.0	473920	µg/L	473920	ppb	14:41:16
2	Na 589.592 Radial†	15635.7	14955.7	4923.5	µg/L	4923.5	ppb	14:41:16
2	Sr 421.552†	47418.4	46960.1	486.80	µg/L	486.80	ppb	14:41:16
2	Sc 361.383	1837075.1	1837075.1	96.190	%			14:42:10
2	Y 371.029	1253427.6	1253427.6	95.687	%			14:42:10
2	Ag 328.068†	27052.1	28688.2	242.21	µg/L	242.21	ppb	14:42:16
2	As 188.979†	226.7	234.5	443.77	µg/L	443.77	ppb	14:42:37
2	B 249.677†	11617.2	11745.8	418.76	µg/L	418.76	ppb	14:42:16
2	Ba 233.527†	17456.8	18174.2	474.07	µg/L	474.07	ppb	14:42:16
2	Be 313.107†	337736.8	354554.8	231.36	µg/L	231.36	ppb	14:42:10
2	Cd 226.502†	15582.5	16341.8	430.62	µg/L	430.62	ppb	14:42:16
2	Co 228.616†	8172.6	8505.1	417.96	µg/L	417.96	ppb	14:42:37
2	Cr 267.716†	20089.6	20937.7	460.84	µg/L	460.84	ppb	14:42:16
2	Cu 324.752†	69141.0	69393.5	510.12	µg/L	510.12	ppb	14:42:16
2	Mn 257.610†	124994.1	130189.1	456.15	µg/L	456.15	ppb	14:42:16
2	Mo 202.031†	4295.8	4473.5	484.36	µg/L	484.36	ppb	14:42:37
2	Ni 231.604†	7541.0	7537.5	413.99	µg/L	413.99	ppb	14:42:37
2	P 214.914†	1237.1	1258.5	2651.1	µg/L	2651.1	ppb	14:42:37
2	Pb 220.353†	1701.2	1671.4	466.10	µg/L	466.10	ppb	14:42:37

2	S 181.975 Axial†	598.3	607.2	2660.4 µg/L	2660.4 ppb	14:42:37
2	Sb 206.836†	550.2	545.1	498.59 µg/L	498.59 ppb	14:42:37
2	Se 196.026†	1466.3	1508.6	2247.3 µg/L	2247.3 ppb	14:42:37
2	SiO2†	47231.2	47852.0	10305 µg/L	10305 ppb	14:42:16
2	Si 251.611†	57079.6	59027.6	4852.4 µg/L	4852.4 ppb	14:42:16
2	Sn 189.927†	972.7	1012.1	499.64 µg/L	499.64 ppb	14:42:37
2	Ti 334.940†	198343.7	206083.8	465.72 µg/L	465.72 ppb	14:42:16
2	Tl 190.801†	259.5	294.1	435.56 µg/L	435.56 ppb	14:42:37
2	U 409.014†	4974.7	5225.3	419.28 µg/L	419.28 ppb	14:42:16
2	V 292.402†	41844.6	43546.2	490.82 µg/L	490.82 ppb	14:42:16
2	Zn 213.857†	18719.4	18985.3	435.92 µg/L	435.92 ppb	14:42:16
3	Sc RADIAL	54836.5	54836.5	100 %		14:41:27
3	Al 396.153Radial†	666707.4	663530.3	494540 µg/L	494540 ppb	14:41:21
3	Ca 317.933Radial†	500342.9	497771.9	468680 µg/L	468680 ppb	14:41:21
3	Fe 238.204 Radial†	21386.7	21269.9	180290 µg/L	180290 ppb	14:41:27
3	K 766.490 Radial†	6994.6	6832.8	4856.7 µg/L	4856.7 ppb	14:41:27
3	Mg 279.077 IEC†	50805.9	50551.7	470260 µg/L	470260 ppb	14:41:27
3	Na 589.592 Radial†	15470.0	14854.1	4890.0 µg/L	4890.0 ppb	14:41:27
3	Sr 421.552†	46844.7	46581.2	482.87 µg/L	482.87 ppb	14:41:27
3	Sc 361.383	1833431.9	1833431.9	95.999 %		14:42:43
3	Y 371.029	1252123.0	1252123.0	95.588 %		14:42:43
3	Ag 328.068†	27588.4	29302.7	247.00 µg/L	247.00 ppb	14:42:49
3	As 188.979†	241.1	250.0	473.71 µg/L	473.71 ppb	14:43:09
3	B 249.677†	11855.2	12017.8	431.89 µg/L	431.89 ppb	14:42:49
3	Ba 233.527†	17813.9	18582.3	484.71 µg/L	484.71 ppb	14:42:49
3	Be 313.107†	338767.0	356325.5	232.51 µg/L	232.51 ppb	14:42:43
3	Cd 226.502†	15965.4	16772.9	442.77 µg/L	442.77 ppb	14:42:49
3	Co 228.616†	8119.3	8466.6	416.04 µg/L	416.04 ppb	14:43:09
3	Cr 267.716†	20600.1	21511.0	473.46 µg/L	473.46 ppb	14:42:49
3	Cu 324.752†	70720.9	71182.1	522.28 µg/L	522.28 ppb	14:42:49
3	Mn 257.610†	127685.2	133250.6	466.59 µg/L	466.59 ppb	14:42:49
3	Mo 202.031†	4277.4	4463.2	483.17 µg/L	483.17 ppb	14:43:09
3	Ni 231.604†	7478.0	7487.4	411.22 µg/L	411.22 ppb	14:43:09
3	P 214.914†	1197.0	1219.3	2568.4 µg/L	2568.4 ppb	14:43:09
3	Pb 220.353†	1703.7	1677.5	467.96 µg/L	467.96 ppb	14:43:09
3	S 181.975 Axial†	585.7	595.2	2608.0 µg/L	2608.0 ppb	14:43:09
3	Sb 206.836†	542.2	537.9	491.06 µg/L	491.06 ppb	14:43:09
3	Se 196.026†	1453.1	1497.9	2227.0 µg/L	2227.0 ppb	14:43:09
3	SiO2†	48266.6	49028.1	10558 µg/L	10558 ppb	14:42:49
3	Si 251.611†	58341.2	60459.7	4970.1 µg/L	4970.1 ppb	14:42:49
3	Sn 189.927†	964.4	1005.4	496.36 µg/L	496.36 ppb	14:43:09
3	Ti 334.940†	202865.6	211203.9	478.37 µg/L	478.37 ppb	14:42:49
3	Tl 190.801†	278.4	314.2	463.55 µg/L	463.55 ppb	14:43:09
3	U 409.014†	5159.4	5428.1	437.79 µg/L	437.79 ppb	14:42:49
3	V 292.402†	42697.4	44521.1	500.97 µg/L	500.97 ppb	14:42:49
3	Zn 213.857†	19157.2	19480.1	448.59 µg/L	448.59 ppb	14:42:49

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1839121.1	96.297	%	0.3635				0.38%
Sc RADIAL	54880.3	101	%	0.3				0.30%
Y 371.029	1254617.1	95.778	%	0.2486				0.26%
Ag 328.068†	28939.9	244.14	µg/L	2.532	244.14	ppb	2.532	1.04%
QC value within limits for Ag 328.068 Recovery = 97.66%								
Al 396.153Radial†	661039.6	492680	µg/L	1706.7	492680	ppb	1706.7	0.35%
QC value within limits for Al 396.153Radial Recovery = 98.54%								
As 188.979†	242.9	459.99	µg/L	15.123	459.99	ppb	15.123	3.29%
QC value within limits for As 188.979 Recovery = 92.00%								
B 249.677†	11849.4	424.12	µg/L	6.887	424.12	ppb	6.887	1.62%
QC value within limits for B 249.677 Recovery = 84.82%								
Ba 233.527†	18366.5	479.08	µg/L	5.348	479.08	ppb	5.348	1.12%
QC value within limits for Ba 233.527 Recovery = 95.82%								
Be 313.107†	355191.9	231.77	µg/L	0.640	231.77	ppb	0.640	0.28%
QC value within limits for Be 313.107 Recovery = 92.71%								
Ca 317.933Radial†	496363.2	467360	µg/L	1416.6	467360	ppb	1416.6	0.30%
QC value within limits for Ca 317.933Radial Recovery = 93.47%								
Cd 226.502†	16555.7	436.70	µg/L	6.077	436.70	ppb	6.077	1.39%
QC value within limits for Cd 226.502 Recovery = 87.34%								
Co 228.616†	8476.9	416.56	µg/L	1.225	416.56	ppb	1.225	0.29%

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   QC value within limits for Co 228.616  Recovery = 83.31%
Cr 267.716†            21197.4      466.55 µg/L        6.392      466.55 ppb        6.392   1.37%
   QC value within limits for Cr 267.716  Recovery = 93.31%
Cu 324.752†            70196.0      515.50 µg/L        6.202      515.50 ppb        6.202   1.20%
   QC value within limits for Cu 324.752  Recovery = 103.10%
Fe 238.204 Radial†     21359.6      181050 µg/L       1382.0      181050 ppb       1382.0   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.52%
K 766.490 Radial†       6851.3      4869.9 µg/L        38.72      4869.9 ppb        38.72   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 97.40%
Mg 279.077 IEC†        50694.8      471600 µg/L       2021.9      471600 ppb       2021.9   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.32%
Mn 257.610†           131617.4      460.98 µg/L        5.261      460.98 ppb        5.261   1.14%
   QC value within limits for Mn 257.610  Recovery = 92.20%
Mo 202.031†             4466.8      483.58 µg/L        0.671      483.58 ppb        0.671   0.14%
   QC value within limits for Mo 202.031  Recovery = 96.72%
Na 589.592 Radial†     14891.8      4902.4 µg/L        18.32      4902.4 ppb        18.32   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.05%
Ni 231.604†             7505.2      412.20 µg/L        1.552      412.20 ppb        1.552   0.38%
   QC value within limits for Ni 231.604  Recovery = 82.44%
P 214.914†              1232.7      2596.7 µg/L        47.05      2596.7 ppb        47.05   1.81%
   QC value within limits for P 214.914  Recovery = 103.87%
Pb 220.353†             1671.1      466.15 µg/L        1.785      466.15 ppb        1.785   0.38%
   QC value within limits for Pb 220.353  Recovery = 93.23%
S 181.975 Axial†         598.4      2621.9 µg/L        33.79      2621.9 ppb        33.79   1.29%
   QC value within limits for S 181.975 Axial  Recovery = 104.87%
Sb 206.836†              541.6      494.95 µg/L        3.768      494.95 ppb        3.768   0.76%
   QC value within limits for Sb 206.836  Recovery = 98.99%
Se 196.026†             1504.0      2237.7 µg/L        10.19      2237.7 ppb        10.19   0.46%
   QC value within limits for Se 196.026  Recovery = 89.51%
SiO2†                  48376.2       10418 µg/L        128.9       10418 ppb        128.9   1.24%
   QC value within limits for SiO2  Recovery = 97.41%
Si 251.611†            59667.4      4905.0 µg/L        59.86      4905.0 ppb        59.86   1.22%
   QC value within limits for Si 251.611  Recovery = 98.10%
Sn 189.927†             1004.7      496.10 µg/L        3.686      496.10 ppb        3.686   0.74%
   QC value within limits for Sn 189.927  Recovery = 99.22%
Sr 421.552†            46744.2      484.56 µg/L        2.020      484.56 ppb        2.020   0.42%
   QC value within limits for Sr 421.552  Recovery = 96.91%
Ti 334.940†           208377.1      471.44 µg/L        6.410      471.44 ppb        6.410   1.36%
   QC value within limits for Ti 334.940  Recovery = 94.29%
Tl 190.801†              307.0      453.45 µg/L       15.538      453.45 ppb       15.538   3.43%
   QC value within limits for Tl 190.801  Recovery = 90.69%
U 409.014†              5311.8      427.24 µg/L        9.525      427.24 ppb        9.525   2.23%
   QC value within limits for U 409.014  Recovery = 85.45%
V 292.402†             44012.4      495.61 µg/L        5.099      495.61 ppb        5.099   1.03%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            19220.1      441.99 µg/L        6.349      441.99 ppb        6.349   1.44%
   QC value within limits for Zn 213.857  Recovery = 88.40%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/11/2010 14:43:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54698.7	54698.7	100	%			14:43:59
1	Al 396.153Radial†	649050.7	647585.6	482670	µg/L	482670	ppb	14:43:54
1	Ca 317.933Radial†	489494.3	488202.6	459670	µg/L	459670	ppb	14:43:54
1	Fe 238.204 Radial†	51606.4	51474.6	436280	µg/L	436280	ppb	14:43:59
1	K 766.490 Radial†	59.9	-68.6	-48.776	µg/L	-48.776	ppb	14:43:59
1	Mg 279.077 IEC†	49787.3	49662.9	461710	µg/L	461710	ppb	14:43:59
1	Na 589.592 Radial†	1412387.5	1408635.5	463730	µg/L	463730	ppb	14:43:54
1	Sr 421.552†	535.1	494.4	5.1247	µg/L	5.1247	ppb	14:43:59
1	Sc 361.383	1832827.1	1832827.1	95.968	%			14:44:34
1	Y 371.029	1243371.2	1243371.2	94.920	%			14:44:34
1	Ag 328.068†	-5331.8	-4991.3	-12.516	µg/L	-12.516	ppb	14:44:40
1	As 188.979†	-25.3	-27.5	-52.401	µg/L	-52.401	ppb	14:45:01
1	B 249.677†	1493.7	1225.0	-174.11	µg/L	-174.11	ppb	14:44:40
1	Ba 233.527†	574.9	625.1	16.169	µg/L	16.169	ppb	14:45:01
1	Be 313.107†	-11067.4	-8092.0	-5.2972	µg/L	-5.2972	ppb	14:44:40
1	Cd 226.502†	1038.3	1224.0	-15.542	µg/L	-15.542	ppb	14:44:40
1	Co 228.616†	189.5	206.3	10.066	µg/L	10.066	ppb	14:45:01
1	Cr 267.716†	137.7	195.9	4.2704	µg/L	4.2704	ppb	14:45:01
1	Cu 324.752†	-8795.2	-11650.9	-20.741	µg/L	-20.741	ppb	14:44:40
1	Mn 257.610†	-7006.5	-7056.8	15.101	µg/L	15.101	ppb	14:44:34
1	Mo 202.031†	-203.3	-204.2	-5.2185	µg/L	-5.2185	ppb	14:45:01
1	Ni 231.604†	92.3	-206.0	-5.6060	µg/L	-5.6060	ppb	14:45:01
1	P 214.914†	278.7	262.7	357.28	µg/L	357.28	ppb	14:45:01
1	Pb 220.353†	191.0	101.8	23.594	µg/L	23.594	ppb	14:45:01
1	S 181.975 Axial†	34.6	21.2	93.001	µg/L	93.001	ppb	14:45:01
1	Sb 206.836†	60.3	35.8	-5.1147	µg/L	-5.1147	ppb	14:45:01
1	Se 196.026†	-124.6	-145.7	431.09	µg/L	431.09	ppb	14:45:01
1	SiO2†	971.9	-237.3	-51.105	µg/L	-51.105	ppb	14:45:01
1	Si 251.611†	-251.2	-574.6	-47.235	µg/L	-47.235	ppb	14:45:01
1	Sn 189.927†	-32.5	-33.0	-9.5042	µg/L	-9.5042	ppb	14:45:01
1	Ti 334.940†	13370.7	13816.4	4.0770	µg/L	4.0770	ppb	14:44:40
1	Tl 190.801†	-49.5	-27.3	33.449	µg/L	33.449	ppb	14:45:01
1	U 409.014†	138681.8	144562.6	13000	µg/L	13000	ppb	14:44:40
1	V 292.402†	-5434.6	-5618.7	4.9101	µg/L	4.9101	ppb	14:44:40
1	Zn 213.857†	2732.6	2371.8	12.479	µg/L	12.479	ppb	14:45:01
2	Sc RADIAL	54113.0	54113.0	99.2	%			14:44:11
2	Al 396.153Radial†	645987.5	651505.9	485590	µg/L	485590	ppb	14:44:06
2	Ca 317.933Radial†	485663.6	489625.6	461010	µg/L	461010	ppb	14:44:06
2	Fe 238.204 Radial†	51235.5	51657.9	437830	µg/L	437830	ppb	14:44:11
2	K 766.490 Radial†	83.9	-43.8	-31.167	µg/L	-31.167	ppb	14:44:11
2	Mg 279.077 IEC†	49624.6	50036.5	465180	µg/L	465180	ppb	14:44:11
2	Na 589.592 Radial†	1405673.5	1417117.7	466520	µg/L	466520	ppb	14:44:06
2	Sr 421.552†	505.9	470.7	4.8794	µg/L	4.8794	ppb	14:44:11
2	Sc 361.383	1837825.9	1837825.9	96.229	%			14:45:07
2	Y 371.029	1247268.6	1247268.6	95.217	%			14:45:07
2	Ag 328.068†	-5248.4	-4889.5	-11.624	µg/L	-11.624	ppb	14:45:13
2	As 188.979†	-21.7	-23.6	-44.761	µg/L	-44.761	ppb	14:45:33
2	B 249.677†	1467.3	1193.4	-176.30	µg/L	-176.30	ppb	14:45:13
2	Ba 233.527†	558.0	605.8	15.663	µg/L	15.663	ppb	14:45:33
2	Be 313.107†	-10966.6	-7955.9	-5.2083	µg/L	-5.2083	ppb	14:45:13
2	Cd 226.502†	1019.9	1202.0	-16.327	µg/L	-16.327	ppb	14:45:13
2	Co 228.616†	178.5	194.3	9.4767	µg/L	9.4767	ppb	14:45:33
2	Cr 267.716†	83.6	139.3	3.0246	µg/L	3.0246	ppb	14:45:33
2	Cu 324.752†	-8717.3	-11545.0	-19.786	µg/L	-19.786	ppb	14:45:13
2	Mn 257.610†	-6988.4	-7018.1	15.303	µg/L	15.303	ppb	14:45:07
2	Mo 202.031†	-191.4	-191.4	-3.7840	µg/L	-3.7840	ppb	14:45:33
2	Ni 231.604†	81.9	-217.1	-6.1913	µg/L	-6.1913	ppb	14:45:33
2	P 214.914†	298.0	282.1	398.14	µg/L	398.14	ppb	14:45:33
2	Pb 220.353†	188.3	98.5	22.919	µg/L	22.919	ppb	14:45:33

2	S 181.975 Axial†	34.5	21.1	92.318 µg/L	92.318 ppb	14:45:33
2	Sb 206.836†	49.5	24.4	-16.430 µg/L	-16.430 ppb	14:45:33
2	Se 196.026†	-135.7	-156.8	414.89 µg/L	414.89 ppb	14:45:33
2	SiO2†	995.7	-215.3	-46.357 µg/L	-46.357 ppb	14:45:33
2	Si 251.611†	-242.1	-564.4	-46.400 µg/L	-46.400 ppb	14:45:33
2	Sn 189.927†	-48.8	-49.9	-17.017 µg/L	-17.017 ppb	14:45:33
2	Ti 334.940†	13350.9	13757.9	3.6830 µg/L	3.6830 ppb	14:45:13
2	Tl 190.801†	-50.6	-28.2	32.395 µg/L	32.395 ppb	14:45:33
2	U 409.014†	138028.8	143491.0	12902 µg/L	12902 ppb	14:45:13
2	V 292.402†	-5635.2	-5811.8	2.9425 µg/L	2.9425 ppb	14:45:13
2	Zn 213.857†	2709.5	2340.1	11.417 µg/L	11.417 ppb	14:45:33
3	Sc RADIAL	54398.5	54398.5	99.7 %		14:44:23
3	Al 396.153Radial†	647423.4	649527.5	484110 µg/L	484110 ppb	14:44:18
3	Ca 317.933Radial†	488211.3	489611.2	461000 µg/L	461000 ppb	14:44:18
3	Fe 238.204 Radial†	51015.9	51166.4	433670 µg/L	433670 ppb	14:44:23
3	K 766.490 Radial†	138.6	10.6	7.5591 µg/L	7.5591 ppb	14:44:23
3	Mg 279.077 IEC†	49363.7	49512.1	460310 µg/L	460310 ppb	14:44:23
3	Na 589.592 Radial†	1412371.3	1416397.4	466280 µg/L	466280 ppb	14:44:18
3	Sr 421.552†	507.2	469.3	4.8646 µg/L	4.8646 ppb	14:44:23
3	Sc 361.383	1837461.1	1837461.1	96.210 %		14:45:40
3	Y 371.029	1245635.1	1245635.1	95.093 %		14:45:40
3	Ag 328.068†	-5107.3	-4744.0	-10.729 µg/L	-10.729 ppb	14:45:45
3	As 188.979†	-16.7	-18.5	-34.960 µg/L	-34.960 ppb	14:46:06
3	B 249.677†	1484.3	1211.3	-173.35 µg/L	-173.35 ppb	14:45:45
3	Ba 233.527†	553.8	601.6	15.554 µg/L	15.554 ppb	14:46:06
3	Be 313.107†	-10842.7	-7829.4	-5.1258 µg/L	-5.1258 ppb	14:45:45
3	Cd 226.502†	1000.6	1182.1	-16.404 µg/L	-16.404 ppb	14:45:45
3	Co 228.616†	166.8	182.2	8.8812 µg/L	8.8812 ppb	14:46:06
3	Cr 267.716†	114.6	171.5	3.7340 µg/L	3.7340 ppb	14:46:06
3	Cu 324.752†	-8778.8	-11610.6	-20.823 µg/L	-20.823 ppb	14:45:45
3	Mn 257.610†	-6849.7	-6875.4	15.438 µg/L	15.438 ppb	14:45:40
3	Mo 202.031†	-180.2	-179.7	-2.7014 µg/L	-2.7014 ppb	14:46:06
3	Ni 231.604†	78.6	-220.5	-6.4261 µg/L	-6.4261 ppb	14:46:06
3	P 214.914†	292.5	276.4	389.07 µg/L	389.07 ppb	14:46:06
3	Pb 220.353†	166.9	76.3	17.067 µg/L	17.067 ppb	14:46:06
3	S 181.975 Axial†	27.8	14.1	61.607 µg/L	61.607 ppb	14:46:06
3	Sb 206.836†	44.0	18.8	-21.940 µg/L	-21.940 ppb	14:46:06
3	Se 196.026†	-130.2	-151.2	416.38 µg/L	416.38 ppb	14:46:06
3	SiO2†	1012.2	-197.9	-42.626 µg/L	-42.626 ppb	14:46:06
3	Si 251.611†	-265.6	-588.9	-48.410 µg/L	-48.410 ppb	14:46:06
3	Sn 189.927†	-42.0	-42.7	-13.864 µg/L	-13.864 ppb	14:46:06
3	Ti 334.940†	13514.7	13930.9	4.4846 µg/L	4.4846 ppb	14:45:45
3	Tl 190.801†	-39.7	-17.0	47.407 µg/L	47.407 ppb	14:46:06
3	U 409.014†	138148.6	143644.0	12917 µg/L	12917 ppb	14:45:45
3	V 292.402†	-5603.1	-5779.6	2.8210 µg/L	2.8210 ppb	14:45:45
3	Zn 213.857†	2726.7	2358.5	12.353 µg/L	12.353 ppb	14:46:06

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1836038.0	96.136	%	0.1459				0.15%
Sc RADIAL	54403.4	99.7	%	0.54				0.54%
Y 371.029	1245425.0	95.077	%	0.1494				0.16%
Ag 328.068†	-4875.0	-11.623	µg/L	0.8935	-11.623	ppb	0.8935	7.69%
Al 396.153Radial†	649539.7	484120	µg/L	1461.0	484120	ppb	1461.0	0.30%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	-23.2	-44.041	µg/L	8.7426	-44.041	ppb	8.7426	19.85%
B 249.677†	1209.9	-174.59	µg/L	1.536	-174.59	ppb	1.536	0.88%
Ba 233.527†	610.9	15.795	µg/L	0.3282	15.795	ppb	0.3282	2.08%
Be 313.107†	-7959.1	-5.2104	µg/L	0.08573	-5.2104	ppb	0.08573	1.65%
Ca 317.933Radial†	489146.5	460560	µg/L	769.6	460560	ppb	769.6	0.17%
QC value within limits for Ca 317.933Radial Recovery = 92.11%								
Cd 226.502†	1202.7	-16.091	µg/L	0.4769	-16.091	ppb	0.4769	2.96%
Co 228.616†	194.3	9.4746	µg/L	0.59237	9.4746	ppb	0.59237	6.25%
Cr 267.716†	168.9	3.6764	µg/L	0.62486	3.6764	ppb	0.62486	17.00%
Cu 324.752†	-11602.2	-20.450	µg/L	0.5769	-20.450	ppb	0.5769	2.82%
Fe 238.204 Radial†	51433.0	435930	µg/L	2105.0	435930	ppb	2105.0	0.48%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.19%								
K 766.490 Radial†	-33.9	-24.128	µg/L	28.8197	-24.128	ppb	28.8197	119.44%
Mg 279.077 IEC†	49737.1	462400	µg/L	2510.3	462400	ppb	2510.3	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 92.48%

Mn 257.610†	-6983.5	15.281 µg/L	0.1695	15.281 ppb	0.1695	1.11%
Mo 202.031†	-191.8	-3.9013 µg/L	1.26264	-3.9013 ppb	1.26264	32.36%
Na 589.592 Radial†	1414050.2	465510 µg/L	1548.3	465510 ppb	1548.3	0.33%

QC value within limits for Na 589.592 Radial Recovery = 93.10%

Ni 231.604†	-214.5	-6.0745 µg/L	0.42234	-6.0745 ppb	0.42234	6.95%
P 214.914†	273.7	381.50 µg/L	21.461	381.50 ppb	21.461	5.63%
Pb 220.353†	92.2	21.194 µg/L	3.5893	21.194 ppb	3.5893	16.94%
S 181.975 Axial†	18.8	82.309 µg/L	17.9317	82.309 ppb	17.9317	21.79%
Sb 206.836†	26.4	-14.495 µg/L	8.5779	-14.495 ppb	8.5779	59.18%
Se 196.026†	-151.2	420.79 µg/L	8.956	420.79 ppb	8.956	2.13%
SiO2†	-216.8	-46.696 µg/L	4.2500	-46.696 ppb	4.2500	9.10%
Si 251.611†	-576.0	-47.348 µg/L	1.0098	-47.348 ppb	1.0098	2.13%
Sn 189.927†	-41.9	-13.462 µg/L	3.7726	-13.462 ppb	3.7726	28.02%
Sr 421.552†	478.1	4.9562 µg/L	0.14608	4.9562 ppb	0.14608	2.95%
Ti 334.940†	13835.1	4.0815 µg/L	0.40078	4.0815 ppb	0.40078	9.82%
Tl 190.801†	-24.2	37.750 µg/L	8.3798	37.750 ppb	8.3798	22.20%
U 409.014†	143899.2	12939 µg/L	52.5	12939 ppb	52.5	0.41%

QC value less than the lower limit for U 409.014 Recovery = 86.26%

V 292.402†	-5736.7	3.5579 µg/L	1.17264	3.5579 ppb	1.17264	32.96%
Zn 213.857†	2356.8	12.083 µg/L	0.5800	12.083 ppb	0.5800	4.80%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/11/2010 14:46:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55399.0	55399.0	102	%			14:46:58
1	Al 396.153Radial†	399.7	403.8	92.521	µg/L	92.521	ppb	14:46:58
1	Ca 317.933Radial†	334.1	149.9	141.18	µg/L	141.18	ppb	14:47:18
1	Fe 238.204 Radial†	7.1	-7.5	138.28	µg/L	138.28	ppb	14:47:18
1	K 766.490 Radial†	420398.0	414012.0	294280	µg/L	294280	ppb	14:46:52
1	Mg 279.077 IEC†	6.8	-4.5	128.44	µg/L	128.44	ppb	14:47:18
1	Na 589.592 Radial†	1342.1	780.2	256.86	µg/L	256.86	ppb	14:46:58
1	Sr 421.552†	951196.0	936997.9	9713.1	µg/L	9713.1	ppb	14:46:52
1	Sc 361.383	1973675.2	1973675.2	103.34	%			14:48:49
1	Y 371.029	1341693.6	1341693.6	102.43	%			14:48:49
1	Ag 328.068†	-7295.5	-6495.0	14.834	µg/L	14.834	ppb	14:48:55
1	As 188.979†	5210.7	5041.0	9833.2	µg/L	9833.2	ppb	14:48:55
1	B 249.677†	116645.4	112541.3	4957.2	µg/L	4957.2	ppb	14:48:49
1	Ba 233.527†	564583.2	546348.7	14244	µg/L	14244	ppb	14:48:49
1	Be 313.107†	4590165.2	4445144.6	2899.1	µg/L	2899.1	ppb	14:48:39
1	Cd 226.502†	360765.0	349238.8	9644.6	µg/L	9644.6	ppb	14:48:49
1	Co 228.616†	199452.7	193010.6	9487.0	µg/L	9487.0	ppb	14:48:49
1	Cr 267.716†	1141741.3	1104866.0	24309	µg/L	24309	ppb	14:48:49
1	Cu 324.752†	2993464.1	2894159.5	20216	µg/L	20216	ppb	14:48:49
1	Mn 257.610†	2858381.7	2766176.3	9578.9	µg/L	9578.9	ppb	14:48:49
1	Mo 202.031†	98264.3	95093.6	10148	µg/L	10148	ppb	14:48:49
1	Ni 231.604†	183070.7	176847.4	9657.8	µg/L	9657.8	ppb	14:48:49
1	P 214.914†	7469.6	7200.4	13482	µg/L	13482	ppb	14:48:55
1	Pb 220.353†	97644.4	94389.0	25180	µg/L	25180	ppb	14:48:49
1	S 181.975 Axial†	12516.5	12096.9	53001	µg/L	53001	ppb	14:48:55
1	Sb 206.836†	11239.2	10848.7	10569	µg/L	10569	ppb	14:48:55
1	Se 196.026†	6584.9	6356.1	9690.0	µg/L	9690.0	ppb	14:48:55
1	SiO2†	476520.0	459857.7	99033	µg/L	99033	ppb	14:48:49
1	Si 251.611†	580361.7	561278.0	46140	µg/L	46140	ppb	14:48:49
1	Sn 189.927†	23760.5	22992.8	10575	µg/L	10575	ppb	14:48:55
1	Ti 334.940†	4290484.1	4151599.7	9986.4	µg/L	9986.4	ppb	14:48:39
1	Tl 190.801†	7036.0	6832.7	9632.0	µg/L	9632.0	ppb	14:48:55
1	U 409.014†	835.4	862.0	78.046	µg/L	78.046	ppb	14:48:49
1	V 292.402†	975452.7	943947.6	10194	µg/L	10194	ppb	14:48:49
1	Zn 213.857†	598917.9	579071.4	14385	µg/L	14385	ppb	14:48:49
2	Sc RADIAL	55030.3	55030.3	101	%			14:47:30
2	Al 396.153Radial†	384.6	391.5	90.444	µg/L	90.444	ppb	14:47:30
2	Ca 317.933Radial†	398.0	215.6	202.97	µg/L	202.97	ppb	14:47:50
2	Fe 238.204 Radial†	10.5	-4.0	160.36	µg/L	160.36	ppb	14:47:50
2	K 766.490 Radial†	423060.2	419427.1	298130	µg/L	298130	ppb	14:47:24
2	Mg 279.077 IEC†	11.3	-0.0	164.54	µg/L	164.54	ppb	14:47:50
2	Na 589.592 Radial†	1212.5	660.6	217.48	µg/L	217.48	ppb	14:47:30
2	Sr 421.552†	957912.4	949937.4	9847.2	µg/L	9847.2	ppb	14:47:24
2	Sc 361.383	1973904.3	1973904.3	103.35	%			14:49:14
2	Y 371.029	1342735.7	1342735.7	102.51	%			14:49:14
2	Ag 328.068†	-6836.3	-6049.9	16.075	µg/L	16.075	ppb	14:49:19
2	As 188.979†	5005.3	4841.7	9444.3	µg/L	9444.3	ppb	14:49:19
2	B 249.677†	114403.0	110358.5	4860.1	µg/L	4860.1	ppb	14:49:14
2	Ba 233.527†	548071.4	530309.5	13826	µg/L	13826	ppb	14:49:14
2	Be 313.107†	4469193.3	4327583.5	2822.5	µg/L	2822.5	ppb	14:49:04
2	Cd 226.502†	349367.5	338170.7	9338.9	µg/L	9338.9	ppb	14:49:14
2	Co 228.616†	192536.9	186296.8	9156.8	µg/L	9156.8	ppb	14:49:14
2	Cr 267.716†	1093055.4	1057632.1	23270	µg/L	23270	ppb	14:49:14
2	Cu 324.752†	2898656.7	2802093.0	19573	µg/L	19573	ppb	14:49:14
2	Mn 257.610†	2761508.2	2672125.9	9253.2	µg/L	9253.2	ppb	14:49:14
2	Mo 202.031†	94921.3	91848.1	9802.1	µg/L	9802.1	ppb	14:49:14
2	Ni 231.604†	176871.2	170828.6	9329.1	µg/L	9329.1	ppb	14:49:14
2	P 214.914†	7023.8	6768.2	12612	µg/L	12612	ppb	14:49:19
2	Pb 220.353†	95131.3	91946.6	24529	µg/L	24529	ppb	14:49:14

2	S 181.975 Axial†	12036.4	11630.9	50959 µg/L	50959 ppb		14:49:19
2	Sb 206.836†	10693.6	10319.6	10054 µg/L	10054 ppb		14:49:19
2	Se 196.026†	6359.9	6137.7	9357.1 µg/L	9357.1 ppb		14:49:19
2	SiO2†	465181.8	448834.1	96659 µg/L	96659 ppb		14:49:14
2	Si 251.611†	566752.0	548044.9	45052 µg/L	45052 ppb		14:49:14
2	Sn 189.927†	22166.4	21447.8	9864.4 µg/L	9864.4 ppb		14:49:19
2	Ti 334.940†	4180020.8	4044239.7	9728.1 µg/L	9728.1 ppb		14:49:04
2	Tl 190.801†	6890.0	6690.7	9431.4 µg/L	9431.4 ppb		14:49:19
2	U 409.014†	947.2	970.1	87.818 µg/L	87.818 ppb		14:49:14
2	V 292.402†	941864.4	911339.9	9841.7 µg/L	9841.7 ppb		14:49:14
2	Zn 213.857†	579745.6	560454.1	13922 µg/L	13922 ppb		14:49:14
3	Sc RADIAL	56038.9	56038.9	103 %			14:48:02
3	Al 396.153Radial†	479.5	477.1	179.56 µg/L	179.56 ppb		14:48:02
3	Ca 317.933Radial†	383.6	194.4	183.07 µg/L	183.07 ppb		14:48:22
3	Fe 238.204 Radial†	9.4	-5.4	124.22 µg/L	124.22 ppb		14:48:22
3	K 766.490 Radial†	428756.3	417423.2	296700 µg/L	296700 ppb		14:47:56
3	Mg 279.077 IEC†	6.3	-5.2	95.926 µg/L	95.926 ppb		14:48:22
3	Na 589.592 Radial†	1260.6	685.8	225.77 µg/L	225.77 ppb		14:48:02
3	Sr 421.552†	974533.2	949026.3	9837.8 µg/L	9837.8 ppb		14:47:56
3	Sc 361.383	1967182.2	1967182.2	103.00 %			14:49:39
3	Y 371.029	1337106.2	1337106.2	102.08 %			14:49:39
3	Ag 328.068†	-5873.5	-5137.8	14.957 µg/L	14.957 ppb		14:49:44
3	As 188.979†	4335.2	4207.7	8207.5 µg/L	8207.5 ppb		14:49:44
3	B 249.677†	103256.6	99915.3	4398.2 µg/L	4398.2 ppb		14:49:39
3	Ba 233.527†	483121.0	469064.3	12229 µg/L	12229 ppb		14:49:39
3	Be 313.107†	4064814.3	3949767.9	2576.0 µg/L	2576.0 ppb		14:49:28
3	Cd 226.502†	306350.7	297562.9	8217.4 µg/L	8217.4 ppb		14:49:39
3	Co 228.616†	167417.3	162546.1	7988.6 µg/L	7988.6 ppb		14:49:39
3	Cr 267.716†	928569.1	901554.3	19836 µg/L	19836 ppb		14:49:39
3	Cu 324.752†	2527919.1	2451745.7	17126 µg/L	17126 ppb		14:49:39
3	Mn 257.610†	2402081.4	2332306.4	8076.5 µg/L	8076.5 ppb		14:49:39
3	Mo 202.031†	82713.5	80310.0	8570.8 µg/L	8570.8 ppb		14:49:39
3	Ni 231.604†	153785.8	149000.9	8137.1 µg/L	8137.1 ppb		14:49:39
3	P 214.914†	6020.9	5817.7	10807 µg/L	10807 ppb		14:49:44
3	Pb 220.353†	84806.2	82236.9	21938 µg/L	21938 ppb		14:49:39
3	S 181.975 Axial†	10412.0	10093.6	44224 µg/L	44224 ppb		14:49:44
3	Sb 206.836†	9221.8	8926.1	8701.4 µg/L	8701.4 ppb		14:49:44
3	Se 196.026†	5513.0	5336.4	8135.5 µg/L	8135.5 ppb		14:49:44
3	SiO2†	415353.7	401996.4	86572 µg/L	86572 ppb		14:49:39
3	Si 251.611†	505959.6	490898.3	40354 µg/L	40354 ppb		14:49:39
3	Sn 189.927†	18682.4	18138.7	8342.5 µg/L	8342.5 ppb		14:49:44
3	Ti 334.940†	3801346.2	3690423.2	8877.0 µg/L	8877.0 ppb		14:49:28
3	Tl 190.801†	6155.2	6000.1	8459.0 µg/L	8459.0 ppb		14:49:44
3	U 409.014†	834.8	864.1	78.225 µg/L	78.225 ppb		14:49:39
3	V 292.402†	816284.9	792534.9	8558.2 µg/L	8558.2 ppb		14:49:39
3	Zn 213.857†	507712.5	492437.5	12233 µg/L	12233 ppb		14:49:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1971587.2	103.23	%	0.200				0.19%
Sc RADIAL	55489.4	102	%	0.9				0.92%
Y 371.029	1340511.8	102.34	%	0.229				0.22%
Ag 328.068†	-5894.2	15.288	µg/L	0.6836	15.288	ppb	0.6836	4.47%
Al 396.153Radial†	424.2	120.84	µg/L	50.861	120.84	ppb	50.861	42.09%
As 188.979†	4696.8	9161.7	µg/L	848.90	9161.7	ppb	848.90	9.27%
QC value within limits for As 188.979 Recovery = 91.62%								
B 249.677†	107605.0	4738.5	µg/L	298.66	4738.5	ppb	298.66	6.30%
QC value within limits for B 249.677 Recovery = 94.77%								
Ba 233.527†	515240.8	13433	µg/L	1063.5	13433	ppb	1063.5	7.92%
QC value less than the lower limit for Ba 233.527 Recovery = 89.55%								
Be 313.107†	4240832.0	2765.9	µg/L	168.81	2765.9	ppb	168.81	6.10%
QC value within limits for Be 313.107 Recovery = 92.20%								
Ca 317.933Radial†	186.6	175.74	µg/L	31.540	175.74	ppb	31.540	17.95%
Cd 226.502†	328324.1	9067.0	µg/L	751.45	9067.0	ppb	751.45	8.29%
QC value within limits for Cd 226.502 Recovery = 90.67%								
Co 228.616†	180617.8	8877.5	µg/L	787.27	8877.5	ppb	787.27	8.87%
QC value less than the lower limit for Co 228.616 Recovery = 88.77%								
Cr 267.716†	1021350.8	22472	µg/L	2340.9	22472	ppb	2340.9	10.42%
QC value less than the lower limit for Cr 267.716 Recovery = 89.89%								

Cu 324.752†	2715999.4	18972 µg/L	1630.6	18972 ppb	1630.6	8.59%
QC value within limits for Cu 324.752 Recovery = 94.86%						
Fe 238.204 Radial†	-5.6	140.95 µg/L	18.221	140.95 ppb	18.221	12.93%
K 766.490 Radial†	416954.1	296370 µg/L	1946.1	296370 ppb	1946.1	0.66%
QC value within limits for K 766.490 Radial Recovery = 98.79%						
Mg 279.077 IEC†	-3.2	129.64 µg/L	34.323	129.64 ppb	34.323	26.48%
Mn 257.610†	2590202.9	8969.5 µg/L	790.37	8969.5 ppb	790.37	8.81%
QC value less than the lower limit for Mn 257.610 Recovery = 89.70%						
Mo 202.031†	89083.9	9507.1 µg/L	829.20	9507.1 ppb	829.20	8.72%
QC value within limits for Mo 202.031 Recovery = 95.07%						
Na 589.592 Radial†	708.9	233.37 µg/L	20.762	233.37 ppb	20.762	8.90%
Ni 231.604†	165559.0	9041.3 µg/L	800.17	9041.3 ppb	800.17	8.85%
QC value within limits for Ni 231.604 Recovery = 90.41%						
P 214.914†	6595.5	12300 µg/L	1364.7	12300 ppb	1364.7	11.09%
QC value less than the lower limit for P 214.914 Recovery = 82.00%						
Pb 220.353†	89524.2	23882 µg/L	1714.8	23882 ppb	1714.8	7.18%
QC value within limits for Pb 220.353 Recovery = 95.53%						
S 181.975 Axial†	11273.8	49394 µg/L	4592.8	49394 ppb	4592.8	9.30%
QC value within limits for S 181.975 Axial Recovery = 98.79%						
Sb 206.836†	10031.5	9774.9 µg/L	964.64	9774.9 ppb	964.64	9.87%
QC value within limits for Sb 206.836 Recovery = 97.75%						
Se 196.026†	5943.4	9060.9 µg/L	818.48	9060.9 ppb	818.48	9.03%
QC value within limits for Se 196.026 Recovery = 90.61%						
SiO2†	436896.1	94088 µg/L	6616.3	94088 ppb	6616.3	7.03%
QC value less than the lower limit for SiO2 Recovery = 87.93%						
Si 251.611†	533407.1	43849 µg/L	3074.8	43849 ppb	3074.8	7.01%
QC value less than the lower limit for Si 251.611 Recovery = 87.70%						
Sn 189.927†	20859.8	9594.0 µg/L	1140.59	9594.0 ppb	1140.59	11.89%
QC value within limits for Sn 189.927 Recovery = 95.94%						
Sr 421.552†	945320.6	9799.4 µg/L	74.86	9799.4 ppb	74.86	0.76%
QC value within limits for Sr 421.552 Recovery = 97.99%						
Ti 334.940†	3962087.5	9530.5 µg/L	580.46	9530.5 ppb	580.46	6.09%
QC value within limits for Ti 334.940 Recovery = 95.30%						
Tl 190.801†	6507.8	9174.1 µg/L	627.37	9174.1 ppb	627.37	6.84%
QC value within limits for Tl 190.801 Recovery = 91.74%						
U 409.014†	898.7	81.363 µg/L	5.5909	81.363 ppb	5.5909	6.87%
V 292.402†	882607.5	9531.4 µg/L	861.08	9531.4 ppb	861.08	9.03%
QC value within limits for V 292.402 Recovery = 95.31%						
Zn 213.857†	543987.7	13513 µg/L	1132.6	13513 ppb	1132.6	8.38%
QC value within limits for Zn 213.857 Recovery = 90.09%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 14:49:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56804.1	56804.1	104	%			14:50:31
1	Al 396.153Radial†	6842.1	6583.7	4896.3	µg/L	4896.3	ppb	14:50:31
1	Ca 317.933Radial†	5575.3	5177.3	4874.7	µg/L	4874.7	ppb	14:50:52
1	Fe 238.204 Radial†	620.0	581.2	4936.5	µg/L	4936.5	ppb	14:50:52
1	K 766.490 Radial†	7520.1	7096.5	5044.1	µg/L	5044.1	ppb	14:50:31
1	Mg 279.077 IEC†	574.4	540.6	5034.2	µg/L	5034.2	ppb	14:50:52
1	Na 589.592 Radial†	31573.0	29791.8	9807.5	µg/L	9807.5	ppb	14:50:31
1	Sr 421.552†	48614.5	46666.6	483.75	µg/L	483.75	ppb	14:50:31
1	Sc 361.383	1985086.2	1985086.2	103.94	%			14:51:55
1	Y 371.029	1355705.3	1355705.3	103.50	%			14:51:55
1	Ag 328.068†	63419.1	61579.6	492.20	µg/L	492.20	ppb	14:52:00
1	As 188.979†	283.1	271.2	529.04	µg/L	529.04	ppb	14:52:21
1	B 249.677†	12082.8	11293.3	491.77	µg/L	491.77	ppb	14:52:00
1	Ba 233.527†	19621.7	18904.0	493.12	µg/L	493.12	ppb	14:52:00
1	Be 313.107†	773609.6	747725.8	488.12	µg/L	488.12	ppb	14:51:55
1	Cd 226.502†	18494.8	17935.8	494.76	µg/L	494.76	ppb	14:52:00
1	Co 228.616†	10503.4	10114.1	497.19	µg/L	497.19	ppb	14:52:00
1	Cr 267.716†	23548.0	22707.7	499.79	µg/L	499.79	ppb	14:52:00
1	Cu 324.752†	76174.0	70800.5	495.24	µg/L	495.24	ppb	14:52:00
1	Mn 257.610†	149145.1	143735.7	498.19	µg/L	498.19	ppb	14:51:55
1	Mo 202.031†	5080.3	4895.3	522.62	µg/L	522.62	ppb	14:52:21
1	Ni 231.604†	9759.2	9087.1	496.31	µg/L	496.31	ppb	14:52:00
1	P 214.914†	1255.3	1180.1	2486.8	µg/L	2486.8	ppb	14:52:21
1	Pb 220.353†	2124.3	1946.6	519.63	µg/L	519.63	ppb	14:52:21
1	S 181.975 Axial†	258.7	234.1	1025.7	µg/L	1025.7	ppb	14:52:21
1	Sb 206.836†	589.1	539.9	533.84	µg/L	533.84	ppb	14:52:21
1	Se 196.026†	360.1	330.7	511.73	µg/L	511.73	ppb	14:52:21
1	SiO2†	26768.3	24503.7	5277.0	µg/L	5277.0	ppb	14:52:00
1	Si 251.611†	31600.0	30089.3	2473.5	µg/L	2473.5	ppb	14:52:00
1	Sn 189.927†	1182.0	1138.1	523.47	µg/L	523.47	ppb	14:52:21
1	Ti 334.940†	213092.8	204899.2	492.55	µg/L	492.55	ppb	14:51:55
1	Tl 190.801†	347.4	358.5	506.37	µg/L	506.37	ppb	14:52:21
1	U 409.014†	5696.3	5534.0	500.04	µg/L	500.04	ppb	14:52:00
1	V 292.402†	48064.4	46286.7	499.57	µg/L	499.57	ppb	14:52:00
1	Zn 213.857†	21219.3	19939.4	494.39	µg/L	494.39	ppb	14:52:00
2	Sc RADIAL	56818.7	56818.7	104	%			14:50:57
2	Al 396.153Radial†	6864.1	6603.1	4910.8	µg/L	4910.8	ppb	14:50:57
2	Ca 317.933Radial†	5535.1	5137.3	4837.1	µg/L	4837.1	ppb	14:51:17
2	Fe 238.204 Radial†	615.6	576.8	4899.1	µg/L	4899.1	ppb	14:51:17
2	K 766.490 Radial†	7426.8	7005.0	4979.1	µg/L	4979.1	ppb	14:50:57
2	Mg 279.077 IEC†	575.7	541.7	5044.4	µg/L	5044.4	ppb	14:51:17
2	Na 589.592 Radial†	31604.5	29814.2	9814.9	µg/L	9814.9	ppb	14:50:57
2	Sr 421.552†	48545.6	46588.5	482.94	µg/L	482.94	ppb	14:50:57
2	Sc 361.383	1982851.3	1982851.3	103.82	%			14:52:28
2	Y 371.029	1354649.3	1354649.3	103.41	%			14:52:28
2	Ag 328.068†	64081.0	62286.0	497.83	µg/L	497.83	ppb	14:52:34
2	As 188.979†	276.6	265.3	517.47	µg/L	517.47	ppb	14:52:54
2	B 249.677†	12111.5	11334.1	493.59	µg/L	493.59	ppb	14:52:34
2	Ba 233.527†	19855.9	19150.8	499.56	µg/L	499.56	ppb	14:52:34
2	Be 313.107†	767601.6	742777.9	484.89	µg/L	484.89	ppb	14:52:28
2	Cd 226.502†	18724.1	18176.8	501.42	µg/L	501.42	ppb	14:52:34
2	Co 228.616†	10623.9	10241.5	503.47	µg/L	503.47	ppb	14:52:34
2	Cr 267.716†	23965.4	23135.3	509.20	µg/L	509.20	ppb	14:52:34
2	Cu 324.752†	76944.2	71624.9	501.00	µg/L	501.00	ppb	14:52:34
2	Mn 257.610†	147951.6	142747.9	494.77	µg/L	494.77	ppb	14:52:28
2	Mo 202.031†	5059.8	4881.0	521.09	µg/L	521.09	ppb	14:52:54
2	Ni 231.604†	9897.9	9231.3	504.18	µg/L	504.18	ppb	14:52:34
2	P 214.914†	1254.5	1180.6	2487.4	µg/L	2487.4	ppb	14:52:54
2	Pb 220.353†	2113.7	1938.7	517.51	µg/L	517.51	ppb	14:52:54

2	S 181.975 Axial†	253.9	229.7	1006.6	µg/L	1006.6 ppb	14:52:54
2	Sb 206.836†	570.0	522.0	516.18	µg/L	516.18 ppb	14:52:54
2	Se 196.026†	357.5	328.5	508.28	µg/L	508.28 ppb	14:52:54
2	SiO2†	27016.3	24771.5	5334.7	µg/L	5334.7 ppb	14:52:34
2	Si 251.611†	31927.7	30439.2	2502.3	µg/L	2502.3 ppb	14:52:34
2	Sn 189.927†	1183.2	1140.5	524.61	µg/L	524.61 ppb	14:52:54
2	Ti 334.940†	211586.4	203679.4	489.61	µg/L	489.61 ppb	14:52:28
2	Tl 190.801†	345.3	356.8	503.93	µg/L	503.93 ppb	14:52:54
2	U 409.014†	5694.5	5538.4	500.46	µg/L	500.46 ppb	14:52:34
2	V 292.402†	48494.6	46753.2	504.55	µg/L	504.55 ppb	14:52:34
2	Zn 213.857†	21488.9	20222.1	501.41	µg/L	501.41 ppb	14:52:34
3	Sc RADIAL	57349.9	57349.9	105	%		14:51:23
3	Al 396.153Radial†	6954.4	6628.0	4931.1	µg/L	4931.1 ppb	14:51:23
3	Ca 317.933Radial†	5532.3	5085.5	4788.3	µg/L	4788.3 ppb	14:51:43
3	Fe 238.204 Radial†	617.1	572.8	4864.4	µg/L	4864.4 ppb	14:51:43
3	K 766.490 Radial†	7512.2	7020.2	4989.9	µg/L	4989.9 ppb	14:51:23
3	Mg 279.077 IEC†	569.2	530.4	4937.8	µg/L	4937.8 ppb	14:51:43
3	Na 589.592 Radial†	31885.8	29800.8	9810.5	µg/L	9810.5 ppb	14:51:23
3	Sr 421.552†	49101.8	46686.0	483.95	µg/L	483.95 ppb	14:51:23
3	Sc 361.383	1990626.4	1990626.4	104.23	%		14:53:01
3	Y 371.029	1359542.7	1359542.7	103.79	%		14:53:01
3	Ag 328.068†	60113.1	58238.1	465.39	µg/L	465.39 ppb	14:53:07
3	As 188.979†	235.3	224.6	438.16	µg/L	438.16 ppb	14:53:28
3	B 249.677†	11347.7	10555.7	459.50	µg/L	459.50 ppb	14:53:07
3	Ba 233.527†	18299.9	17583.2	458.65	µg/L	458.65 ppb	14:53:07
3	Be 313.107†	726470.7	700428.5	457.24	µg/L	457.24 ppb	14:53:01
3	Cd 226.502†	17137.6	16584.2	457.44	µg/L	457.44 ppb	14:53:07
3	Co 228.616†	9675.2	9291.3	456.68	µg/L	456.68 ppb	14:53:07
3	Cr 267.716†	21632.8	20807.2	457.96	µg/L	457.96 ppb	14:53:07
3	Cu 324.752†	71181.3	65806.4	460.35	µg/L	460.35 ppb	14:53:07
3	Mn 257.610†	140886.2	135412.6	469.36	µg/L	469.36 ppb	14:53:01
3	Mo 202.031†	4241.7	4077.1	435.30	µg/L	435.30 ppb	14:53:28
3	Ni 231.604†	9011.2	8343.3	455.69	µg/L	455.69 ppb	14:53:07
3	P 214.914†	1075.3	1004.1	2111.2	µg/L	2111.2 ppb	14:53:28
3	Pb 220.353†	1866.0	1693.1	451.84	µg/L	451.84 ppb	14:53:28
3	S 181.975 Axial†	232.5	208.2	912.40	µg/L	912.40 ppb	14:53:28
3	Sb 206.836†	504.7	457.3	451.62	µg/L	451.62 ppb	14:53:28
3	Se 196.026†	310.0	281.6	436.86	µg/L	436.86 ppb	14:53:28
3	SiO2†	25184.9	22912.8	4934.4	µg/L	4934.4 ppb	14:53:07
3	Si 251.611†	29623.3	28108.2	2310.6	µg/L	2310.6 ppb	14:53:07
3	Sn 189.927†	974.4	935.7	430.40	µg/L	430.40 ppb	14:53:28
3	Ti 334.940†	200395.3	192146.5	461.88	µg/L	461.88 ppb	14:53:01
3	Tl 190.801†	314.8	326.3	461.00	µg/L	461.00 ppb	14:53:28
3	U 409.014†	5084.0	4931.3	445.50	µg/L	445.50 ppb	14:53:07
3	V 292.402†	43900.0	42162.6	454.79	µg/L	454.79 ppb	14:53:07
3	Zn 213.857†	19753.8	18476.6	458.11	µg/L	458.11 ppb	14:53:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1986188.0	104.00	%	0.210				0.20%
Sc RADIAL	56990.9	104	%	0.6				0.55%
Y 371.029	1356632.4	103.57	%	0.197				0.19%
Ag 328.068†	60701.2	485.14	µg/L	17.336	485.14	ppb	17.336	3.57%
QC value within limits for Ag 328.068 Recovery = 97.03%								
Al 396.153Radial†	6604.9	4912.7	µg/L	17.49	4912.7	ppb	17.49	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.25%								
As 188.979†	253.7	494.89	µg/L	49.467	494.89	ppb	49.467	10.00%
QC value within limits for As 188.979 Recovery = 98.98%								
B 249.677†	11061.0	481.62	µg/L	19.175	481.62	ppb	19.175	3.98%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	18546.0	483.78	µg/L	21.996	483.78	ppb	21.996	4.55%
QC value within limits for Ba 233.527 Recovery = 96.76%								
Be 313.107†	730310.7	476.75	µg/L	16.971	476.75	ppb	16.971	3.56%
QC value within limits for Be 313.107 Recovery = 95.35%								
Ca 317.933Radial†	5133.4	4833.4	µg/L	43.35	4833.4	ppb	43.35	0.90%
QC value within limits for Ca 317.933Radial Recovery = 96.67%								
Cd 226.502†	17565.6	484.54	µg/L	23.706	484.54	ppb	23.706	4.89%
QC value within limits for Cd 226.502 Recovery = 96.91%								
Co 228.616†	9882.3	485.78	µg/L	25.392	485.78	ppb	25.392	5.23%

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   QC value within limits for Co 228.616  Recovery = 97.16%
Cr 267.716†            22216.8      488.98 µg/L        27.276      488.98 ppb         27.276   5.58%
   QC value within limits for Cr 267.716  Recovery = 97.80%
Cu 324.752†            69410.6      485.53 µg/L        21.996      485.53 ppb         21.996   4.53%
   QC value within limits for Cu 324.752  Recovery = 97.11%
Fe 238.204 Radial†       576.9      4900.0 µg/L         36.10      4900.0 ppb          36.10   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.00%
K 766.490 Radial†       7040.6      5004.4 µg/L         34.84      5004.4 ppb          34.84   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 100.09%
Mg 279.077 IEC†          537.5      5005.5 µg/L         58.81      5005.5 ppb          58.81   1.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.11%
Mn 257.610†           140632.1      487.44 µg/L        15.748      487.44 ppb         15.748   3.23%
   QC value within limits for Mn 257.610  Recovery = 97.49%
Mo 202.031†             4617.8      493.00 µg/L        49.981      493.00 ppb         49.981  10.14%
   QC value within limits for Mo 202.031  Recovery = 98.60%
Na 589.592 Radial†     29802.3      9811.0 µg/L          3.72      9811.0 ppb           3.72   0.04%
   QC value within limits for Na 589.592 Radial  Recovery = 98.11%
Ni 231.604†             8887.2      485.39 µg/L        26.026      485.39 ppb         26.026   5.36%
   QC value within limits for Ni 231.604  Recovery = 97.08%
P 214.914†              1121.6      2361.8 µg/L       217.03      2361.8 ppb         217.03   9.19%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1859.5      496.33 µg/L        38.539      496.33 ppb         38.539   7.76%
   QC value within limits for Pb 220.353  Recovery = 99.27%
S 181.975 Axial†         224.0      981.57 µg/L        60.664      981.57 ppb         60.664   6.18%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†              506.4      500.55 µg/L        43.281      500.55 ppb         43.281   8.65%
   QC value within limits for Sb 206.836  Recovery = 100.11%
Se 196.026†              313.6      485.62 µg/L        42.263      485.62 ppb         42.263   8.70%
   QC value within limits for Se 196.026  Recovery = 97.12%
SiO2†                  24062.6      5182.0 µg/L       216.38      5182.0 ppb         216.38   4.18%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†            29545.6      2428.8 µg/L       103.33      2428.8 ppb         103.33   4.25%
   QC value within limits for Si 251.611  Recovery = 97.15%
Sn 189.927†             1071.4      492.83 µg/L        54.065      492.83 ppb         54.065  10.97%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†            46647.0      483.55 µg/L         0.535      483.55 ppb          0.535   0.11%
   QC value within limits for Sr 421.552  Recovery = 96.71%
Ti 334.940†           200241.7      481.35 µg/L        16.923      481.35 ppb         16.923   3.52%
   QC value within limits for Ti 334.940  Recovery = 96.27%
Tl 190.801†              347.2      490.43 µg/L        25.519      490.43 ppb         25.519   5.20%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†              5334.6      482.00 µg/L        31.611      482.00 ppb         31.611   6.56%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             45067.5      486.30 µg/L        27.408      486.30 ppb         27.408   5.64%
   QC value within limits for V 292.402  Recovery = 97.26%
Zn 213.857†            19546.0      484.64 µg/L        23.239      484.64 ppb         23.239   4.80%
   QC value within limits for Zn 213.857  Recovery = 96.93%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 14:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56199.9	56199.9	103	%			14:54:10
1	Al 396.153Radial†	38.0	47.1	35.072	µg/L	35.072	ppb	14:54:10
1	Ca 317.933Radial†	231.4	45.6	42.930	µg/L	42.930	ppb	14:54:31
1	Fe 238.204 Radial†	23.4	8.2	69.822	µg/L	69.822	ppb	14:54:31
1	K 766.490 Radial†	243.5	108.1	76.828	µg/L	76.828	ppb	14:54:10
1	Mg 279.077 IEC†	18.5	6.7	62.643	µg/L	62.643	ppb	14:54:31
1	Na 589.592 Radial†	743.1	179.7	59.159	µg/L	59.159	ppb	14:54:10
1	Sr 421.552†	105.8	63.2	0.6552	µg/L	0.6552	ppb	14:54:10
1	Sc 361.383	1982476.6	1982476.6	103.80	%			14:55:33
1	Y 371.029	1357413.1	1357413.1	103.63	%			14:55:33
1	Ag 328.068†	-522.2	61.5	0.4946	µg/L	0.4946	ppb	14:55:38
1	As 188.979†	1.8	0.6	1.0901	µg/L	1.0901	ppb	14:55:59
1	B 249.677†	408.1	61.7	2.6625	µg/L	2.6625	ppb	14:55:59
1	Ba 233.527†	2.5	28.5	0.7415	µg/L	0.7415	ppb	14:55:59
1	Be 313.107†	-3213.4	344.8	0.2250	µg/L	0.2250	ppb	14:55:38
1	Cd 226.502†	-134.6	12.5	0.3368	µg/L	0.3368	ppb	14:55:59
1	Co 228.616†	-7.7	1.4	0.0712	µg/L	0.0712	ppb	14:55:59
1	Cr 267.716†	4.1	56.4	1.2401	µg/L	1.2401	ppb	14:55:59
1	Cu 324.752†	2752.9	165.9	1.1688	µg/L	1.1688	ppb	14:55:38
1	Mn 257.610†	-137.5	111.6	0.3934	µg/L	0.3934	ppb	14:55:59
1	Mo 202.031†	2.7	10.2	1.0859	µg/L	1.0859	ppb	14:55:59
1	Ni 231.604†	309.2	-4.3	-0.2339	µg/L	-0.2339	ppb	14:55:59
1	P 214.914†	25.1	-3.5	-7.5860	µg/L	-7.5860	ppb	14:55:59
1	Pb 220.353†	124.3	22.6	6.0147	µg/L	6.0147	ppb	14:55:59
1	S 181.975 Axial†	16.6	1.2	5.2644	µg/L	5.2644	ppb	14:55:59
1	Sb 206.836†	32.4	4.3	4.2069	µg/L	4.2069	ppb	14:55:59
1	Se 196.026†	17.5	1.0	1.6734	µg/L	1.6734	ppb	14:55:59
1	SiO2†	1299.2	1.6	0.3503	µg/L	0.3503	ppb	14:55:38
1	Si 251.611†	379.1	52.3	4.3027	µg/L	4.3027	ppb	14:55:59
1	Sn 189.927†	7.8	8.4	3.8780	µg/L	3.8780	ppb	14:55:59
1	Ti 334.940†	271.8	145.7	0.3462	µg/L	0.3462	ppb	14:55:38
1	Tl 190.801†	-19.8	5.2	7.2432	µg/L	7.2432	ppb	14:55:59
1	U 409.014†	-9.7	44.3	3.9980	µg/L	3.9980	ppb	14:55:38
1	V 292.402†	-10.8	33.8	0.3839	µg/L	0.3839	ppb	14:55:38
1	Zn 213.857†	539.3	44.0	1.0899	µg/L	1.0899	ppb	14:55:59
2	Sc RADIAL	56663.5	56663.5	104	%			14:54:36
2	Al 396.153Radial†	53.4	61.6	45.892	µg/L	45.892	ppb	14:54:36
2	Ca 317.933Radial†	224.0	36.6	34.458	µg/L	34.458	ppb	14:54:57
2	Fe 238.204 Radial†	18.3	3.1	26.399	µg/L	26.399	ppb	14:54:57
2	K 766.490 Radial†	257.1	119.2	84.727	µg/L	84.727	ppb	14:54:36
2	Mg 279.077 IEC†	17.6	5.7	53.162	µg/L	53.162	ppb	14:54:57
2	Na 589.592 Radial†	788.5	217.6	71.620	µg/L	71.620	ppb	14:54:36
2	Sr 421.552†	88.8	46.0	0.4764	µg/L	0.4764	ppb	14:54:36
2	Sc 361.383	1976808.7	1976808.7	103.51	%			14:56:05
2	Y 371.029	1355511.3	1355511.3	103.48	%			14:56:05
2	Ag 328.068†	-510.0	71.8	0.5752	µg/L	0.5752	ppb	14:56:10
2	As 188.979†	1.2	0.0	0.0279	µg/L	0.0279	ppb	14:56:31
2	B 249.677†	396.3	51.4	2.2364	µg/L	2.2364	ppb	14:56:31
2	Ba 233.527†	2.6	28.5	0.7438	µg/L	0.7438	ppb	14:56:31
2	Be 313.107†	-3268.6	282.6	0.1844	µg/L	0.1844	ppb	14:56:10
2	Cd 226.502†	-122.2	24.1	0.6618	µg/L	0.6618	ppb	14:56:31
2	Co 228.616†	-10.0	-0.8	-0.0395	µg/L	-0.0395	ppb	14:56:31
2	Cr 267.716†	5.1	57.3	1.2611	µg/L	1.2611	ppb	14:56:31
2	Cu 324.752†	2702.2	124.6	0.8738	µg/L	0.8738	ppb	14:56:10
2	Mn 257.610†	-107.9	139.8	0.4856	µg/L	0.4856	ppb	14:56:31
2	Mo 202.031†	-1.1	6.4	0.6888	µg/L	0.6888	ppb	14:56:31
2	Ni 231.604†	302.7	-9.7	-0.5298	µg/L	-0.5298	ppb	14:56:31
2	P 214.914†	20.2	-8.1	-17.441	µg/L	-17.441	ppb	14:56:31
2	Pb 220.353†	118.9	17.7	4.7183	µg/L	4.7183	ppb	14:56:31

2	S 181.975 Axial†	14.4	-0.9	-4.1582 µg/L	-4.1582 ppb		14:56:31
2	Sb 206.836†	28.3	0.4	0.3915 µg/L	0.3915 ppb		14:56:31
2	Se 196.026†	9.3	-6.9	-10.429 µg/L	-10.429 ppb		14:56:31
2	SiO2†	1222.9	-68.6	-14.765 µg/L	-14.765 ppb		14:56:10
2	Si 251.611†	359.0	34.0	2.7936 µg/L	2.7936 ppb		14:56:31
2	Sn 189.927†	7.1	7.7	3.5568 µg/L	3.5568 ppb		14:56:31
2	Ti 334.940†	232.6	108.6	0.2576 µg/L	0.2576 ppb		14:56:10
2	Tl 190.801†	-24.5	0.6	0.8244 µg/L	0.8244 ppb		14:56:31
2	U 409.014†	-107.5	-50.2	-4.5523 µg/L	-4.5523 ppb		14:56:10
2	V 292.402†	15.1	58.8	0.6333 µg/L	0.6333 ppb		14:56:10
2	Zn 213.857†	534.3	40.7	1.0126 µg/L	1.0126 ppb		14:56:31
3	Sc RADIAL	56320.6	56320.6	103 %			14:55:02
3	Al 396.153Radial†	8.5	18.4	13.663 µg/L	13.663 ppb		14:55:02
3	Ca 317.933Radial†	216.9	31.1	29.241 µg/L	29.241 ppb		14:55:23
3	Fe 238.204 Radial†	17.6	2.6	21.668 µg/L	21.668 ppb		14:55:23
3	K 766.490 Radial†	236.5	100.7	71.584 µg/L	71.584 ppb		14:55:02
3	Mg 279.077 IEC†	12.2	0.5	5.0859 µg/L	5.0859 ppb		14:55:23
3	Na 589.592 Radial†	760.7	195.3	64.287 µg/L	64.287 ppb		14:55:02
3	Sr 421.552†	71.7	29.9	0.3097 µg/L	0.3097 ppb		14:55:02
3	Sc 361.383	1993913.4	1993913.4	104.40 %			14:56:37
3	Y 371.029	1367504.2	1367504.2	104.40 %			14:56:37
3	Ag 328.068†	-498.3	87.2	0.6944 µg/L	0.6944 ppb		14:56:43
3	As 188.979†	0.4	-0.8	-1.5138 µg/L	-1.5138 ppb		14:57:03
3	B 249.677†	385.9	38.1	1.6564 µg/L	1.6564 ppb		14:57:03
3	Ba 233.527†	1.2	27.2	0.7082 µg/L	0.7082 ppb		14:57:03
3	Be 313.107†	-3126.9	445.4	0.2907 µg/L	0.2907 ppb		14:56:43
3	Cd 226.502†	-117.4	29.7	0.8162 µg/L	0.8162 ppb		14:57:03
3	Co 228.616†	-8.6	0.6	0.0304 µg/L	0.0304 ppb		14:57:03
3	Cr 267.716†	2.0	54.3	1.1938 µg/L	1.1938 ppb		14:57:03
3	Cu 324.752†	2701.6	101.6	0.7126 µg/L	0.7126 ppb		14:56:43
3	Mn 257.610†	-86.5	161.3	0.5611 µg/L	0.5611 ppb		14:57:03
3	Mo 202.031†	5.2	12.5	1.3355 µg/L	1.3355 ppb		14:57:03
3	Ni 231.604†	315.6	0.1	0.0043 µg/L	0.0043 ppb		14:57:03
3	P 214.914†	33.2	4.1	8.8077 µg/L	8.8077 ppb		14:57:03
3	Pb 220.353†	109.3	7.5	2.0114 µg/L	2.0114 ppb		14:57:03
3	S 181.975 Axial†	10.6	-4.7	-20.521 µg/L	-20.521 ppb		14:57:03
3	Sb 206.836†	25.8	-2.2	-2.1813 µg/L	-2.1813 ppb		14:57:03
3	Se 196.026†	17.8	1.2	1.8776 µg/L	1.8776 ppb		14:57:03
3	SiO2†	1292.2	-12.3	-2.6550 µg/L	-2.6550 ppb		14:56:43
3	Si 251.611†	371.3	42.8	3.5163 µg/L	3.5163 ppb		14:57:03
3	Sn 189.927†	-2.0	-1.0	-0.4777 µg/L	-0.4777 ppb		14:57:03
3	Ti 334.940†	313.8	184.5	0.4438 µg/L	0.4438 ppb		14:56:43
3	Tl 190.801†	-24.1	1.2	1.6892 µg/L	1.6892 ppb		14:57:03
3	U 409.014†	-22.6	31.9	2.8863 µg/L	2.8863 ppb		14:56:43
3	V 292.402†	-34.6	11.0	0.1363 µg/L	0.1363 ppb		14:56:43
3	Zn 213.857†	532.5	34.5	0.8590 µg/L	0.8590 ppb		14:57:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984399.6	103.90	%	0.456				0.44%
Sc RADIAL	56394.7	103	%	0.4				0.43%
Y 371.029	1360142.9	103.83	%	0.492				0.47%
Ag 328.068†	73.5	0.5881	µg/L	0.10050	0.5881	ppb	0.10050	17.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.3	31.542	µg/L	16.4016	31.542	ppb	16.4016	52.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1319	µg/L	1.30928	-0.1319	ppb	1.30928	992.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.4	2.1851	µg/L	0.50501	2.1851	ppb	0.50501	23.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	28.1	0.7312	µg/L	0.01993	0.7312	ppb	0.01993	2.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	357.6	0.2334	µg/L	0.05362	0.2334	ppb	0.05362	22.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.7	35.543	µg/L	6.9088	35.543	ppb	6.9088	19.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.1	0.6049	µg/L	0.24471	0.6049	ppb	0.24471	40.45%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0207	µg/L	0.05597	0.0207	ppb	0.05597	270.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              56.0      1.2317 µg/L       0.03444      1.2317 ppb        0.03444   2.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             130.7      0.9184 µg/L       0.23134      0.9184 ppb        0.23134  25.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.6      39.296 µg/L       26.5417      39.296 ppb        26.5417  67.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       109.3      77.713 µg/L        6.6157      77.713 ppb         6.6157   8.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.3      40.297 µg/L       30.8602      40.297 ppb        30.8602  76.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             137.6      0.4800 µg/L       0.08402      0.4800 ppb        0.08402  17.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.7      1.0367 µg/L       0.32615      1.0367 ppb        0.32615  31.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      197.5      65.022 µg/L        6.2628      65.022 ppb         6.2628   9.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.6     -0.2531 µg/L       0.26755     -0.2531 ppb        0.26755 105.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.5     -5.4063 µg/L      13.25932     -5.4063 ppb       13.25932 245.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.9      4.2482 µg/L       2.04263      4.2482 ppb        2.04263  48.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -6.4715 µg/L      13.04721     -6.4715 ppb       13.04721 201.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.8      0.8057 µg/L       3.21418      0.8057 ppb        3.21418 398.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.5     -2.2926 µg/L       7.04698     -2.2926 ppb        7.04698 307.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -26.4     -5.6898 µg/L       8.00142     -5.6898 ppb        8.00142 140.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              43.0      3.5375 µg/L       0.75475      3.5375 ppb        0.75475  21.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.0      2.3190 µg/L       2.42737      2.3190 ppb        2.42737 104.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              46.3      0.4804 µg/L       0.17278      0.4804 ppb        0.17278  35.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             146.3      0.3492 µg/L       0.09310      0.3492 ppb        0.09310  26.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      3.2523 µg/L       3.48319      3.2523 ppb        3.48319 107.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                8.7      0.7773 µg/L       4.64898      0.7773 ppb        4.64898 598.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.6      0.3845 µg/L       0.24848      0.3845 ppb        0.24848  64.62%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              39.7      0.9871 µg/L       0.11756      0.9871 ppb        0.11756  11.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/11/2010 15:08:34
Plasma On Time: 2/8/2010 03:37:33
Logged In Analyst: optima
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502**Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si
Method Last Saved: 2/11/2010 13:51:13
IEC File: 011510.iec
MSF File:
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1
Autosampler Location: 113
Sample ID: LR1
Date Collected: 2/11/2010 15:08:34
Analyst: HSC
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55775.1	55775.1	102	%			15:09:19
1	Al 396.153Radial†	-12.5	-2.1	-1.5477	µg/L	-1.5477	ppb	15:09:19
1	Ca 317.933Radial†	109.7	-71.8	-67.596	µg/L	-67.596	ppb	15:09:39
1	Fe 238.204 Radial†	12.5	-2.2	-18.859	µg/L	-18.859	ppb	15:09:39

1	K 766.490 Radial†	153.1	21.4	15.223 µg/L	15.223 ppb	15:09:19
1	Mg 279.077 IEC†	21.3	9.6	89.132 µg/L	89.132 ppb	15:09:39
1	Na 589.592 Radial†	561.6	7.7	2.5239 µg/L	2.5239 ppb	15:09:19
1	Sr 421.552†	60.6	19.8	0.2050 µg/L	0.2050 ppb	15:09:19
1	Sc 361.383	1979575.8	1979575.8	103.65 %		15:10:41
1	Y 371.029	1359463.7	1359463.7	103.78 %		15:10:41
1	Ag 328.068†	-475.7	105.6	0.7790 µg/L	0.7790 ppb	15:10:47
1	As 188.979†	3.5	2.2	4.2811 µg/L	4.2811 ppb	15:11:08
1	B 249.677†	236.6	-103.2	-4.4890 µg/L	-4.4890 ppb	15:10:47
1	Ba 233.527†	-43.0	-15.5	-0.4185 µg/L	-0.4185 ppb	15:11:08
1	Be 313.107†	-9167.3	-5403.9	-3.5311 µg/L	-3.5311 ppb	15:10:47
1	Cd 226.502†	-304.4	-151.6	-4.1785 µg/L	-4.1785 ppb	15:11:08
1	Co 228.616†	19.8	27.9	1.3617 µg/L	1.3617 ppb	15:11:08
1	Cr 267.716†	233.0	277.1	6.0903 µg/L	6.0903 ppb	15:10:47
1	Cu 324.752†	1310.7	-1221.6	-8.5355 µg/L	-8.5355 ppb	15:10:47
1	Mn 257.610†	14.0	257.6	0.8861 µg/L	0.8861 ppb	15:10:47
1	Mo 202.031†	-13.4	-5.4	-0.5763 µg/L	-0.5763 ppb	15:11:08
1	Ni 231.604†	324.2	10.6	0.5789 µg/L	0.5789 ppb	15:11:08
1	P 214.914†	39.4	10.4	23.307 µg/L	23.307 ppb	15:11:08
1	Pb 220.353†	132.9	31.0	-2.3589 µg/L	-2.3589 ppb	15:11:08
1	S 181.975 Axial†	17.0	1.6	6.9914 µg/L	6.9914 ppb	15:11:08
1	Sb 206.836†	24.0	-3.8	-3.8211 µg/L	-3.8211 ppb	15:11:08
1	Se 196.026†	11.2	-5.0	-7.7508 µg/L	-7.7508 ppb	15:11:08
1	SiO2†	1260.6	-33.8	-7.2860 µg/L	-7.2860 ppb	15:10:47
1	Si 251.611†	175.4	-143.6	-11.809 µg/L	-11.809 ppb	15:11:08
1	Sn 189.927†	6.2	6.9	3.1737 µg/L	3.1737 ppb	15:11:08
1	Ti 334.940†	2413.3	2212.1	5.3130 µg/L	5.3130 ppb	15:10:47
1	Tl 190.801†	-31.2	-5.9	4.3972 µg/L	4.3972 ppb	15:11:08
1	U 409.014†	117155.1	113081.6	10238 µg/L	10238 ppb	15:10:41
1	V 292.402†	-897.2	-821.4	1.8907 µg/L	1.8907 ppb	15:10:47
1	Zn 213.857†	499.8	6.6	0.1728 µg/L	0.1728 ppb	15:11:08
2	Sc RADIAL	55251.0	55251.0	101 %		15:09:44
2	Al 396.153Radial†	-27.7	-17.2	-12.820 µg/L	-12.820 ppb	15:09:44
2	Ca 317.933Radial†	107.7	-72.8	-68.561 µg/L	-68.561 ppb	15:10:05
2	Fe 238.204 Radial†	14.6	-0.1	-0.7560 µg/L	-0.7560 ppb	15:10:05
2	K 766.490 Radial†	163.9	33.5	23.798 µg/L	23.798 ppb	15:09:44
2	Mg 279.077 IEC†	21.5	10.0	92.921 µg/L	92.921 ppb	15:10:05
2	Na 589.592 Radial†	549.7	1.1	0.3683 µg/L	0.3683 ppb	15:09:44
2	Sr 421.552†	65.4	25.1	0.2600 µg/L	0.2600 ppb	15:09:44
2	Sc 361.383	1991488.7	1991488.7	104.28 %		15:11:14
2	Y 371.029	1367480.0	1367480.0	104.39 %		15:11:14
2	Ag 328.068†	-460.8	122.6	0.9153 µg/L	0.9153 ppb	15:11:20
2	As 188.979†	3.4	2.1	4.1976 µg/L	4.1976 ppb	15:11:40
2	B 249.677†	245.3	-96.3	-4.1987 µg/L	-4.1987 ppb	15:11:20
2	Ba 233.527†	-30.4	-3.2	-0.0984 µg/L	-0.0984 ppb	15:11:40
2	Be 313.107†	-9053.1	-5241.5	-3.4251 µg/L	-3.4251 ppb	15:11:20
2	Cd 226.502†	-307.5	-152.7	-4.2119 µg/L	-4.2119 ppb	15:11:40
2	Co 228.616†	2.2	10.9	0.5250 µg/L	0.5250 ppb	15:11:40
2	Cr 267.716†	184.1	229.0	5.0309 µg/L	5.0309 ppb	15:11:20
2	Cu 324.752†	1378.2	-1164.4	-8.1337 µg/L	-8.1337 ppb	15:11:20
2	Mn 257.610†	56.5	298.3	1.0291 µg/L	1.0291 ppb	15:11:20
2	Mo 202.031†	-9.4	-1.5	-0.1584 µg/L	-0.1584 ppb	15:11:40
2	Ni 231.604†	337.2	21.2	1.1562 µg/L	1.1562 ppb	15:11:40
2	P 214.914†	47.1	17.5	38.462 µg/L	38.462 ppb	15:11:40
2	Pb 220.353†	140.3	37.4	-0.6060 µg/L	-0.6060 ppb	15:11:40
2	S 181.975 Axial†	16.6	1.1	4.9128 µg/L	4.9128 ppb	15:11:40
2	Sb 206.836†	18.1	-9.6	-9.5490 µg/L	-9.5490 ppb	15:11:40
2	Se 196.026†	12.7	-3.7	-5.6705 µg/L	-5.6705 ppb	15:11:40
2	SiO2†	1277.1	-25.3	-5.4423 µg/L	-5.4423 ppb	15:11:20
2	Si 251.611†	186.7	-133.8	-10.999 µg/L	-10.999 ppb	15:11:40
2	Sn 189.927†	5.7	6.3	2.9120 µg/L	2.9120 ppb	15:11:40
2	Ti 334.940†	2507.4	2288.5	5.4964 µg/L	5.4964 ppb	15:11:20
2	Tl 190.801†	-28.7	-3.2	8.0207 µg/L	8.0207 ppb	15:11:40
2	U 409.014†	117240.7	112487.6	10184 µg/L	10184 ppb	15:11:14
2	V 292.402†	-895.5	-814.6	1.9102 µg/L	1.9102 ppb	15:11:20
2	Zn 213.857†	510.6	14.1	0.3551 µg/L	0.3551 ppb	15:11:40
3	Sc RADIAL	56112.5	56112.5	103 %		15:10:10
3	Al 396.153Radial†	-19.4	-8.8	-6.5548 µg/L	-6.5548 ppb	15:10:10
3	Ca 317.933Radial†	114.8	-67.5	-63.545 µg/L	-63.545 ppb	15:10:31
3	Fe 238.204 Radial†	16.7	1.7	14.838 µg/L	14.838 ppb	15:10:31
3	K 766.490 Radial†	156.5	23.8	16.907 µg/L	16.907 ppb	15:10:10

3	Mg 279.077 IEC†	18.3	6.5	60.273	µg/L	60.273 ppb	15:10:31
3	Na 589.592 Radial†	544.2	-12.6	-4.1463	µg/L	-4.1463 ppb	15:10:10
3	Sr 421.552†	60.1	18.9	0.1962	µg/L	0.1962 ppb	15:10:10
3	Sc 361.383	1998454.5	1998454.5	104.64	%		15:11:47
3	Y 371.029	1371253.2	1371253.2	104.68	%		15:11:47
3	Ag 328.068†	-504.4	82.5	0.6071	µg/L	0.6071 ppb	15:11:53
3	As 188.979†	2.1	0.9	1.6782	µg/L	1.6782 ppb	15:12:13
3	B 249.677†	284.2	-59.9	-2.6163	µg/L	-2.6163 ppb	15:11:53
3	Ba 233.527†	-15.1	11.6	0.2883	µg/L	0.2883 ppb	15:12:13
3	Be 313.107†	-8272.3	-4465.0	-2.9180	µg/L	-2.9180 ppb	15:11:53
3	Cd 226.502†	-264.9	-111.0	-3.0636	µg/L	-3.0636 ppb	15:12:13
3	Co 228.616†	14.5	22.7	1.1081	µg/L	1.1081 ppb	15:12:13
3	Cr 267.716†	231.8	273.9	6.0206	µg/L	6.0206 ppb	15:11:53
3	Cu 324.752†	1499.3	-1053.3	-7.3552	µg/L	-7.3552 ppb	15:11:53
3	Mn 257.610†	138.5	376.5	1.3032	µg/L	1.3032 ppb	15:11:53
3	Mo 202.031†	-2.6	5.1	0.5398	µg/L	0.5398 ppb	15:12:13
3	Ni 231.604†	337.9	20.7	1.1315	µg/L	1.1315 ppb	15:12:13
3	P 214.914†	49.3	19.5	42.611	µg/L	42.611 ppb	15:12:13
3	Pb 220.353†	138.7	35.4	-0.5823	µg/L	-0.5823 ppb	15:12:13
3	S 181.975 Axial†	15.8	0.3	1.1838	µg/L	1.1838 ppb	15:12:13
3	Sb 206.836†	21.8	-6.1	-6.0924	µg/L	-6.0924 ppb	15:12:13
3	Se 196.026†	12.8	-3.6	-5.5591	µg/L	-5.5591 ppb	15:12:13
3	SiO2†	1308.9	0.8	0.1805	µg/L	0.1805 ppb	15:11:53
3	Si 251.611†	268.0	-56.8	-4.6690	µg/L	-4.6690 ppb	15:12:13
3	Sn 189.927†	4.1	4.8	2.1976	µg/L	2.1976 ppb	15:12:13
3	Ti 334.940†	2521.6	2293.7	5.5115	µg/L	5.5115 ppb	15:11:53
3	Tl 190.801†	-25.5	-0.1	11.785	µg/L	11.785 ppb	15:12:13
3	U 409.014†	111497.5	106607.2	9651.9	µg/L	9651.9 ppb	15:11:47
3	V 292.402†	-762.7	-684.7	2.7514	µg/L	2.7514 ppb	15:11:53
3	Zn 213.857†	523.6	24.8	0.6223	µg/L	0.6223 ppb	15:12:13

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1989839.7	104.19	%	0.500				0.48%
Sc RADIAL	55712.9	102	%	0.8				0.78%
Y 371.029	1366065.6	104.29	%	0.460				0.44%
Ag 328.068†	103.5	0.7671	µg/L	0.15443	0.7671	ppb	0.15443	20.13%
Al 396.153Radial†	-9.4	-6.9743	µg/L	5.64801	-6.9743	ppb	5.64801	80.98%
As 188.979†	1.7	3.3856	µg/L	1.47930	3.3856	ppb	1.47930	43.69%
B 249.677†	-86.4	-3.7680	µg/L	1.00792	-3.7680	ppb	1.00792	26.75%
Ba 233.527†	-2.4	-0.0762	µg/L	0.35392	-0.0762	ppb	0.35392	464.36%
Be 313.107†	-5036.8	-3.2914	µg/L	0.32768	-3.2914	ppb	0.32768	9.96%
Ca 317.933Radial†	-70.7	-66.567	µg/L	2.6618	-66.567	ppb	2.6618	4.00%
Cd 226.502†	-138.4	-3.8180	µg/L	0.65352	-3.8180	ppb	0.65352	17.12%
Co 228.616†	20.5	0.9983	µg/L	0.42901	0.9983	ppb	0.42901	42.97%
Cr 267.716†	260.0	5.7139	µg/L	0.59254	5.7139	ppb	0.59254	10.37%
Cu 324.752†	-1146.4	-8.0081	µg/L	0.60007	-8.0081	ppb	0.60007	7.49%
Fe 238.204 Radial†	-0.2	-1.5922	µg/L	16.86410	-1.5922	ppb	16.86410	>999.9%
K 766.490 Radial†	26.2	18.643	µg/L	4.5435	18.643	ppb	4.5435	24.37%
Mg 279.077 IEC†	8.7	80.775	µg/L	17.8566	80.775	ppb	17.8566	22.11%
Mn 257.610†	310.8	1.0728	µg/L	0.21196	1.0728	ppb	0.21196	19.76%
Mo 202.031†	-0.6	-0.0649	µg/L	0.56388	-0.0649	ppb	0.56388	868.32%
Na 589.592 Radial†	-1.3	-0.4181	µg/L	3.40391	-0.4181	ppb	3.40391	814.20%
Ni 231.604†	17.5	0.9555	µg/L	0.32641	0.9555	ppb	0.32641	34.16%
P 214.914†	15.8	34.793	µg/L	10.1611	34.793	ppb	10.1611	29.20%
Pb 220.353†	34.6	-1.1824	µg/L	1.01895	-1.1824	ppb	1.01895	86.18%
S 181.975 Axial†	1.0	4.3627	µg/L	2.94264	4.3627	ppb	2.94264	67.45%
Sb 206.836†	-6.5	-6.4875	µg/L	2.88435	-6.4875	ppb	2.88435	44.46%
Se 196.026†	-4.1	-6.3268	µg/L	1.23447	-6.3268	ppb	1.23447	19.51%
SiO2†	-19.4	-4.1826	µg/L	3.88938	-4.1826	ppb	3.88938	92.99%
Si 251.611†	-111.4	-9.1588	µg/L	3.90936	-9.1588	ppb	3.90936	42.68%
Sn 189.927†	6.0	2.7611	µg/L	0.50522	2.7611	ppb	0.50522	18.30%
Sr 421.552†	21.3	0.2204	µg/L	0.03458	0.2204	ppb	0.03458	15.69%
Ti 334.940†	2264.8	5.4403	µg/L	0.11049	5.4403	ppb	0.11049	2.03%
Tl 190.801†	-3.0	8.0675	µg/L	3.69388	8.0675	ppb	3.69388	45.79%
U 409.014†	110725.5	10025	µg/L	324.0	10025	ppb	324.0	3.23%
V 292.402†	-773.6	2.1841	µg/L	0.49139	2.1841	ppb	0.49139	22.50%
Zn 213.857†	15.2	0.3834	µg/L	0.22607	0.3834	ppb	0.22607	58.97%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 2/11/2010 15:12:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53713.3	53713.3	98.4	%			15:12:55
1	Al 396.153Radial†	-16.2	-6.3	-4.7161	µg/L	-4.7161	ppb	15:12:55
1	Ca 317.933Radial†	188.0	11.9	11.198	µg/L	11.198	ppb	15:13:15
1	Fe 238.204 Radial†	4.2	-10.3	23.498	µg/L	23.498	ppb	15:13:15
1	K 766.490 Radial†	165.7	39.9	28.393	µg/L	28.393	ppb	15:12:55
1	Mg 279.077 IEC†	10.1	-1.1	-9.7514	µg/L	-9.7514	ppb	15:13:15
1	Na 589.592 Radial†	614.8	82.8	27.252	µg/L	27.252	ppb	15:12:55
1	Sr 421.552†	64.3	25.8	0.2675	µg/L	0.2675	ppb	15:12:55
1	Sc 361.383	1941418.8	1941418.8	101.65	%			15:14:18
1	Y 371.029	1323859.1	1323859.1	101.06	%			15:14:18
1	Ag 328.068†	-525.2	47.9	0.3781	µg/L	0.3781	ppb	15:14:24
1	As 188.979†	-3.1	-4.2	-8.1869	µg/L	-8.1869	ppb	15:14:45
1	B 249.677†	750.9	407.3	17.845	µg/L	17.845	ppb	15:14:24
1	Ba 233.527†	-16.3	10.0	0.2610	µg/L	0.2610	ppb	15:14:45
1	Be 313.107†	-3458.2	38.5	0.0250	µg/L	0.0250	ppb	15:14:24
1	Cd 226.502†	-114.7	29.2	0.8189	µg/L	0.8189	ppb	15:14:45
1	Co 228.616†	107569.3	105828.5	5208.2	µg/L	5208.2	ppb	15:14:24
1	Cr 267.716†	-25.9	26.9	0.5925	µg/L	0.5925	ppb	15:14:45
1	Cu 324.752†	1814.1	-701.5	-4.9124	µg/L	-4.9124	ppb	15:14:24
1	Mn 257.610†	-161.2	85.5	0.2849	µg/L	0.2849	ppb	15:14:45
1	Mo 202.031†	-1.5	6.0	0.6418	µg/L	0.6418	ppb	15:14:45
1	Ni 231.604†	346.8	39.0	-4.0742	µg/L	-4.0742	ppb	15:14:45
1	P 214.914†	5345.7	5231.1	11233	µg/L	11233	ppb	15:14:24
1	Pb 220.353†	111.4	12.4	3.3090	µg/L	3.3090	ppb	15:14:45
1	S 181.975 Axial†	16.5	1.4	5.9830	µg/L	5.9830	ppb	15:14:45
1	Sb 206.836†	21.7	-5.6	-5.5036	µg/L	-5.5036	ppb	15:14:45
1	Se 196.026†	12.6	-3.4	-5.4894	µg/L	-5.4894	ppb	15:14:45
1	SiO2†	400045.4	392288.3	84482	µg/L	84482	ppb	15:14:18
1	Si 251.611†	483396.1	475220.4	39066	µg/L	39066	ppb	15:14:18
1	Sn 189.927†	3.3	4.1	1.8920	µg/L	1.8920	ppb	15:14:45
1	Ti 334.940†	305.9	184.8	0.4456	µg/L	0.4456	ppb	15:14:24
1	Tl 190.801†	-3.7	20.7	11.360	µg/L	11.360	ppb	15:14:45
1	U 409.014†	25.3	78.5	7.1194	µg/L	7.1194	ppb	15:14:24
1	V 292.402†	5.9	50.0	0.5361	µg/L	0.5361	ppb	15:14:24
1	Zn 213.857†	522.6	38.6	0.9665	µg/L	0.9665	ppb	15:14:45
2	Sc RADIAL	54832.8	54832.8	100	%			15:13:21
2	Al 396.153Radial†	1.7	11.8	8.7929	µg/L	8.7929	ppb	15:13:21
2	Ca 317.933Radial†	190.7	10.6	10.005	µg/L	10.005	ppb	15:13:42
2	Fe 238.204 Radial†	3.0	-11.5	14.135	µg/L	14.135	ppb	15:13:42
2	K 766.490 Radial†	204.4	75.0	53.328	µg/L	53.328	ppb	15:13:21
2	Mg 279.077 IEC†	11.2	-0.1	-0.6600	µg/L	-0.6600	ppb	15:13:42
2	Na 589.592 Radial†	630.7	85.9	28.272	µg/L	28.272	ppb	15:13:21
2	Sr 421.552†	34.5	-5.2	-0.0538	µg/L	-0.0538	ppb	15:13:21
2	Sc 361.383	1946646.9	1946646.9	101.93	%			15:14:51
2	Y 371.029	1327034.0	1327034.0	101.31	%			15:14:51
2	Ag 328.068†	-584.6	-9.0	-0.0733	µg/L	-0.0733	ppb	15:14:57
2	As 188.979†	-0.2	-1.3	-2.6409	µg/L	-2.6409	ppb	15:15:17
2	B 249.677†	783.8	437.5	19.174	µg/L	19.174	ppb	15:14:57
2	Ba 233.527†	-20.0	6.4	0.1666	µg/L	0.1666	ppb	15:15:17
2	Be 313.107†	-3481.4	24.9	0.0161	µg/L	0.0161	ppb	15:14:57
2	Cd 226.502†	-101.1	42.9	1.1972	µg/L	1.1972	ppb	15:15:17
2	Co 228.616†	108800.7	106752.3	5253.6	µg/L	5253.6	ppb	15:14:57
2	Cr 267.716†	-17.5	35.2	0.7745	µg/L	0.7745	ppb	15:15:17
2	Cu 324.752†	1718.5	-800.1	-5.6024	µg/L	-5.6024	ppb	15:14:57
2	Mn 257.610†	-163.9	83.3	0.2757	µg/L	0.2757	ppb	15:15:17
2	Mo 202.031†	-3.8	3.8	0.4036	µg/L	0.4036	ppb	15:15:17
2	Ni 231.604†	346.9	38.2	-4.1724	µg/L	-4.1724	ppb	15:15:17
2	P 214.914†	5358.7	5229.8	11230	µg/L	11230	ppb	15:14:57
2	Pb 220.353†	113.9	14.6	3.8918	µg/L	3.8918	ppb	15:15:17

2	S 181.975 Axial†	13.2	-1.8	-7.9889	µg/L	-7.9889 ppb	15:15:17
2	Sb 206.836†	30.6	3.1	3.0533	µg/L	3.0533 ppb	15:15:17
2	Se 196.026†	12.9	-3.2	-5.1244	µg/L	-5.1244 ppb	15:15:17
2	SiO2†	401576.7	392733.7	84577	µg/L	84577 ppb	15:14:51
2	Si 251.611†	485309.6	475820.6	39115	µg/L	39115 ppb	15:14:51
2	Sn 189.927†	3.1	3.9	1.7899	µg/L	1.7899 ppb	15:15:17
2	Ti 334.940†	323.3	201.1	0.4839	µg/L	0.4839 ppb	15:14:57
2	Tl 190.801†	-4.0	20.4	10.781	µg/L	10.781 ppb	15:15:17
2	U 409.014†	85.0	137.0	12.417	µg/L	12.417 ppb	15:14:57
2	V 292.402†	14.9	58.8	0.6334	µg/L	0.6334 ppb	15:14:57
2	Zn 213.857†	510.4	25.2	0.6333	µg/L	0.6333 ppb	15:15:17
3	Sc RADIAL	54620.7	54620.7	100	%		15:13:47
3	Al 396.153Radial†	15.7	25.8	19.227	µg/L	19.227 ppb	15:13:47
3	Ca 317.933Radial†	200.8	21.5	20.218	µg/L	20.218 ppb	15:14:07
3	Fe 238.204 Radial†	4.8	-9.7	21.721	µg/L	21.721 ppb	15:14:07
3	K 766.490 Radial†	161.9	33.3	23.669	µg/L	23.669 ppb	15:13:47
3	Mg 279.077 IEC†	10.5	-0.8	-6.9228	µg/L	-6.9228 ppb	15:14:07
3	Na 589.592 Radial†	616.0	73.6	24.220	µg/L	24.220 ppb	15:13:47
3	Sr 421.552†	73.7	34.1	0.3532	µg/L	0.3532 ppb	15:13:47
3	Sc 361.383	1935972.8	1935972.8	101.37	%		15:15:24
3	Y 371.029	1321116.1	1321116.1	100.85	%		15:15:24
3	Ag 328.068†	-522.4	49.2	0.3871	µg/L	0.3871 ppb	15:15:29
3	As 188.979†	-0.6	-1.7	-3.3886	µg/L	-3.3886 ppb	15:15:50
3	B 249.677†	727.0	385.8	16.903	µg/L	16.903 ppb	15:15:29
3	Ba 233.527†	-11.4	14.8	0.3862	µg/L	0.3862 ppb	15:15:50
3	Be 313.107†	-3553.1	-64.7	-0.0425	µg/L	-0.0425 ppb	15:15:29
3	Cd 226.502†	-114.3	29.4	0.8217	µg/L	0.8217 ppb	15:15:50
3	Co 228.616†	100765.6	99414.3	4892.5	µg/L	4892.5 ppb	15:15:29
3	Cr 267.716†	-15.7	36.9	0.8110	µg/L	0.8110 ppb	15:15:50
3	Cu 324.752†	1744.4	-765.3	-5.3569	µg/L	-5.3569 ppb	15:15:29
3	Mn 257.610†	-168.6	77.8	0.2588	µg/L	0.2588 ppb	15:15:50
3	Mo 202.031†	0.8	8.3	0.8836	µg/L	0.8836 ppb	15:15:50
3	Ni 231.604†	347.2	40.4	-3.6217	µg/L	-3.6217 ppb	15:15:50
3	P 214.914†	4995.9	4900.9	10524	µg/L	10524 ppb	15:15:29
3	Pb 220.353†	111.9	13.2	3.5300	µg/L	3.5300 ppb	15:15:50
3	S 181.975 Axial†	14.6	-0.4	-1.9121	µg/L	-1.9121 ppb	15:15:50
3	Sb 206.836†	26.4	-0.9	-0.9265	µg/L	-0.9265 ppb	15:15:50
3	Se 196.026†	6.2	-9.7	-15.059	µg/L	-15.059 ppb	15:15:50
3	SiO2†	389837.5	383325.3	82551	µg/L	82551 ppb	15:15:24
3	Si 251.611†	470845.5	464176.9	38158	µg/L	38158 ppb	15:15:24
3	Sn 189.927†	2.7	3.6	1.6476	µg/L	1.6476 ppb	15:15:50
3	Ti 334.940†	325.3	204.8	0.4935	µg/L	0.4935 ppb	15:15:29
3	Tl 190.801†	-3.6	20.7	12.467	µg/L	12.467 ppb	15:15:50
3	U 409.014†	27.1	80.3	7.2810	µg/L	7.2810 ppb	15:15:29
3	V 292.402†	-16.9	27.5	0.3000	µg/L	0.3000 ppb	15:15:29
3	Zn 213.857†	508.1	25.7	0.6443	µg/L	0.6443 ppb	15:15:50

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941346.1	101.65	%	0.279				0.27%
Sc RADIAL	54388.9	99.7	%	1.09				1.09%
Y 371.029	1324003.1	101.08	%	0.226				0.22%
Ag 328.068†	29.4	0.2306	µg/L	0.26325	0.2306	ppb	0.26325	114.16%
Al 396.153Radial†	10.4	7.7681	µg/L	12.00458	7.7681	ppb	12.00458	154.54%
As 188.979†	-2.4	-4.7388	µg/L	3.00947	-4.7388	ppb	3.00947	63.51%
B 249.677†	410.2	17.974	µg/L	1.1410	17.974	ppb	1.1410	6.35%
Ba 233.527†	10.4	0.2713	µg/L	0.11018	0.2713	ppb	0.11018	40.61%
Be 313.107†	-0.4	-0.0005	µg/L	0.03663	-0.0005	ppb	0.03663	>999.9%
Ca 317.933Radial†	14.7	13.807	µg/L	5.5841	13.807	ppb	5.5841	40.44%
Cd 226.502†	33.8	0.9459	µg/L	0.21761	0.9459	ppb	0.21761	23.01%
Co 228.616†	103998.4	5118.1	µg/L	196.69	5118.1	ppb	196.69	3.84%
Cr 267.716†	33.0	0.7260	µg/L	0.11700	0.7260	ppb	0.11700	16.12%
Cu 324.752†	-755.6	-5.2906	µg/L	0.34975	-5.2906	ppb	0.34975	6.61%
Fe 238.204 Radial†	-10.5	19.785	µg/L	4.9725	19.785	ppb	4.9725	25.13%
K 766.490 Radial†	49.4	35.130	µg/L	15.9357	35.130	ppb	15.9357	45.36%
Mg 279.077 IEC†	-0.6	-5.7780	µg/L	4.65251	-5.7780	ppb	4.65251	80.52%
Mn 257.610†	82.2	0.2731	µg/L	0.01325	0.2731	ppb	0.01325	4.85%
Mo 202.031†	6.1	0.6430	µg/L	0.24004	0.6430	ppb	0.24004	37.33%
Na 589.592 Radial†	80.7	26.581	µg/L	2.1079	26.581	ppb	2.1079	7.93%

Ni 231.604†	39.2	-3.9561	µg/L	0.29375	-3.9561	ppb	0.29375	7.43%
P 214.914†	5120.6	10995	µg/L	408.6	10995	ppb	408.6	3.72%
Pb 220.353†	13.4	3.5769	µg/L	0.29424	3.5769	ppb	0.29424	8.23%
S 181.975 Axial†	-0.3	-1.3060	µg/L	7.00565	-1.3060	ppb	7.00565	536.41%
Sb 206.836†	-1.1	-1.1256	µg/L	4.28189	-1.1256	ppb	4.28189	380.41%
Se 196.026†	-5.5	-8.5576	µg/L	5.63334	-8.5576	ppb	5.63334	65.83%
SiO2†	389449.1	83870	µg/L	1143.1	83870	ppb	1143.1	1.36%
Si 251.611†	471739.3	38779	µg/L	538.9	38779	ppb	538.9	1.39%
Sn 189.927†	3.8	1.7765	µg/L	0.12277	1.7765	ppb	0.12277	6.91%
Sr 421.552†	18.2	0.1890	µg/L	0.21456	0.1890	ppb	0.21456	113.55%
Ti 334.940†	196.9	0.4743	µg/L	0.02534	0.4743	ppb	0.02534	5.34%
Tl 190.801†	20.6	11.536	µg/L	0.8566	11.536	ppb	0.8566	7.43%
U 409.014†	98.6	8.9390	µg/L	3.01276	8.9390	ppb	3.01276	33.70%
V 292.402†	45.5	0.4899	µg/L	0.17143	0.4899	ppb	0.17143	35.00%
Zn 213.857†	29.8	0.7480	µg/L	0.18929	0.7480	ppb	0.18929	25.31%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54231.5	54231.5	99.4	%			15:16:36
1	Al 396.153Radial†	7106.2	7161.2	5326.1	µg/L	5326.1	ppb	15:16:36
1	Ca 317.933Radial†	5688.9	5545.7	5221.6	µg/L	5221.6	ppb	15:16:56
1	Fe 238.204 Radial†	634.7	624.2	5302.1	µg/L	5302.1	ppb	15:16:56
1	K 766.490 Radial†	7456.0	7374.7	5241.9	µg/L	5241.9	ppb	15:16:36
1	Mg 279.077 IEC†	577.6	570.0	5308.0	µg/L	5308.0	ppb	15:16:56
1	Na 589.592 Radial†	32401.3	32064.3	10556	µg/L	10556	ppb	15:16:36
1	Sr 421.552†	50354.2	50633.0	524.87	µg/L	524.87	ppb	15:16:36
1	Sc 361.383	1899310.9	1899310.9	99.449	%			15:17:59
1	Y 371.029	1297484.4	1297484.4	99.051	%			15:17:59
1	Ag 328.068†	65095.3	66020.7	527.69	µg/L	527.69	ppb	15:18:05
1	As 188.979†	283.8	284.2	554.43	µg/L	554.43	ppb	15:18:26
1	B 249.677†	12153.8	11889.7	517.70	µg/L	517.70	ppb	15:18:05
1	Ba 233.527†	20078.6	20215.9	527.34	µg/L	527.34	ppb	15:18:05
1	Be 313.107†	797857.7	805721.3	525.98	µg/L	525.98	ppb	15:17:59
1	Cd 226.502†	18953.5	19200.7	529.65	µg/L	529.65	ppb	15:18:05
1	Co 228.616†	10779.9	10848.5	533.28	µg/L	533.28	ppb	15:18:05
1	Cr 267.716†	24091.2	24277.1	534.33	µg/L	534.33	ppb	15:18:05
1	Cu 324.752†	77848.6	75794.1	530.18	µg/L	530.18	ppb	15:18:05
1	Mn 257.610†	153606.0	154701.7	536.20	µg/L	536.20	ppb	15:17:59
1	Mo 202.031†	5175.2	5211.4	556.37	µg/L	556.37	ppb	15:18:26
1	Ni 231.604†	10008.1	9761.4	533.14	µg/L	533.14	ppb	15:18:05
1	P 214.914†	1295.2	1274.7	2686.7	µg/L	2686.7	ppb	15:18:26
1	Pb 220.353†	2124.5	2039.1	544.31	µg/L	544.31	ppb	15:18:26
1	S 181.975 Axial†	260.7	247.3	1083.6	µg/L	1083.6	ppb	15:18:26
1	Sb 206.836†	587.4	563.7	557.41	µg/L	557.41	ppb	15:18:26
1	Se 196.026†	370.9	357.1	552.71	µg/L	552.71	ppb	15:18:26
1	SiO2†	27461.3	26363.5	5677.5	µg/L	5677.5	ppb	15:18:05
1	Si 251.611†	32393.9	32260.7	2652.0	µg/L	2652.0	ppb	15:18:05
1	Sn 189.927†	1213.6	1221.2	561.69	µg/L	561.69	ppb	15:18:26
1	Ti 334.940†	219433.8	220534.1	530.14	µg/L	530.14	ppb	15:17:59
1	Tl 190.801†	358.1	384.4	542.92	µg/L	542.92	ppb	15:18:26
1	U 409.014†	5858.6	5944.7	537.16	µg/L	537.16	ppb	15:18:05
1	V 292.402†	49239.4	49556.6	534.84	µg/L	534.84	ppb	15:18:05
1	Zn 213.857†	21646.0	21290.4	527.88	µg/L	527.88	ppb	15:18:05
2	Sc RADIAL	54850.6	54850.6	101	%			15:17:02
2	Al 396.153Radial†	7137.6	7111.8	5289.4	µg/L	5289.4	ppb	15:17:02
2	Ca 317.933Radial†	5661.7	5454.1	5135.3	µg/L	5135.3	ppb	15:17:22
2	Fe 238.204 Radial†	627.5	609.8	5179.7	µg/L	5179.7	ppb	15:17:22
2	K 766.490 Radial†	7509.6	7343.3	5219.6	µg/L	5219.6	ppb	15:17:02
2	Mg 279.077 IEC†	583.7	569.5	5303.7	µg/L	5303.7	ppb	15:17:22
2	Na 589.592 Radial†	32499.9	31794.4	10467	µg/L	10467	ppb	15:17:02
2	Sr 421.552†	50507.4	50213.6	520.52	µg/L	520.52	ppb	15:17:02
2	Sc 361.383	1912998.8	1912998.8	100.17	%			15:18:33
2	Y 371.029	1306161.3	1306161.3	99.713	%			15:18:33
2	Ag 328.068†	65237.5	65694.3	525.07	µg/L	525.07	ppb	15:18:38
2	As 188.979†	280.6	279.0	544.24	µg/L	544.24	ppb	15:18:59
2	B 249.677†	12200.8	11849.2	515.98	µg/L	515.98	ppb	15:18:38
2	Ba 233.527†	20133.5	20126.3	525.01	µg/L	525.01	ppb	15:18:38
2	Be 313.107†	793302.5	795433.1	519.26	µg/L	519.26	ppb	15:18:33
2	Cd 226.502†	18921.4	19032.3	525.02	µg/L	525.02	ppb	15:18:38
2	Co 228.616†	10784.1	10775.1	529.68	µg/L	529.68	ppb	15:18:38
2	Cr 267.716†	24047.5	24060.2	529.56	µg/L	529.56	ppb	15:18:38
2	Cu 324.752†	77783.7	75169.2	525.79	µg/L	525.79	ppb	15:18:38
2	Mn 257.610†	152510.0	152502.3	528.57	µg/L	528.57	ppb	15:18:33
2	Mo 202.031†	5149.2	5148.2	549.62	µg/L	549.62	ppb	15:18:59
2	Ni 231.604†	10009.6	9690.9	529.28	µg/L	529.28	ppb	15:18:38
2	P 214.914†	1298.8	1269.0	2674.9	µg/L	2674.9	ppb	15:18:59
2	Pb 220.353†	2130.1	2029.4	541.73	µg/L	541.73	ppb	15:18:59

2	S 181.975 Axial†	263.5	248.2	1087.5	µg/L	1087.5 ppb	15:18:59
2	Sb 206.836†	579.7	551.8	545.70	µg/L	545.70 ppb	15:18:59
2	Se 196.026†	360.4	343.9	532.32	µg/L	532.32 ppb	15:18:59
2	SiO2†	27531.6	26236.1	5650.1	µg/L	5650.1 ppb	15:18:38
2	Si 251.611†	32505.0	32138.5	2641.9	µg/L	2641.9 ppb	15:18:38
2	Sn 189.927†	1205.3	1204.2	553.89	µg/L	553.89 ppb	15:18:59
2	Ti 334.940†	218053.7	217577.6	523.03	µg/L	523.03 ppb	15:18:33
2	Tl 190.801†	351.0	374.7	529.24	µg/L	529.24 ppb	15:18:59
2	U 409.014†	5767.6	5811.7	525.14	µg/L	525.14 ppb	15:18:38
2	V 292.402†	49305.2	49268.0	531.68	µg/L	531.68 ppb	15:18:38
2	Zn 213.857†	21685.0	21173.7	524.99	µg/L	524.99 ppb	15:18:38
3	Sc RADIAL	55041.7	55041.7	101	%		15:17:27
3	Al 396.153Radial†	7150.5	7100.0	5282.4	µg/L	5282.4 ppb	15:17:27
3	Ca 317.933Radial†	5679.0	5451.7	5133.1	µg/L	5133.1 ppb	15:17:48
3	Fe 238.204 Radial†	630.1	610.3	5182.9	µg/L	5182.9 ppb	15:17:48
3	K 766.490 Radial†	7530.7	7338.3	5216.0	µg/L	5216.0 ppb	15:17:27
3	Mg 279.077 IEC†	585.8	569.6	5302.7	µg/L	5302.7 ppb	15:17:48
3	Na 589.592 Radial†	32646.4	31827.3	10478	µg/L	10478 ppb	15:17:27
3	Sr 421.552†	50673.8	50204.0	520.42	µg/L	520.42 ppb	15:17:27
3	Sc 361.383	1908268.1	1908268.1	99.918	%		15:19:06
3	Y 371.029	1302480.0	1302480.0	99.432	%		15:19:06
3	Ag 328.068†	61722.8	62338.2	498.13	µg/L	498.13 ppb	15:19:11
3	As 188.979†	239.2	238.3	464.88	µg/L	464.88 ppb	15:19:32
3	B 249.677†	11534.0	11212.0	488.05	µg/L	488.05 ppb	15:19:11
3	Ba 233.527†	18616.9	18658.3	486.70	µg/L	486.70 ppb	15:19:11
3	Be 313.107†	758183.0	762248.0	497.60	µg/L	497.60 ppb	15:19:06
3	Cd 226.502†	17482.4	17638.9	486.53	µg/L	486.53 ppb	15:19:11
3	Co 228.616†	9936.5	9953.5	489.22	µg/L	489.22 ppb	15:19:11
3	Cr 267.716†	21502.9	21573.0	474.82	µg/L	474.82 ppb	15:19:11
3	Cu 324.752†	71603.1	69176.0	483.93	µg/L	483.93 ppb	15:19:11
3	Mn 257.610†	146044.9	146409.3	507.47	µg/L	507.47 ppb	15:19:06
3	Mo 202.031†	4268.9	4280.0	456.96	µg/L	456.96 ppb	15:19:32
3	Ni 231.604†	9195.7	8901.1	486.15	µg/L	486.15 ppb	15:19:11
3	P 214.914†	1105.2	1078.5	2268.7	µg/L	2268.7 ppb	15:19:32
3	Pb 220.353†	1828.3	1732.6	462.41	µg/L	462.41 ppb	15:19:32
3	S 181.975 Axial†	232.1	217.5	952.80	µg/L	952.80 ppb	15:19:32
3	Sb 206.836†	493.7	467.1	461.46	µg/L	461.46 ppb	15:19:32
3	Se 196.026†	316.9	301.3	467.33	µg/L	467.33 ppb	15:19:32
3	SiO2†	25842.8	24614.0	5300.8	µg/L	5300.8 ppb	15:19:11
3	Si 251.611†	30435.2	30147.4	2478.3	µg/L	2478.3 ppb	15:19:11
3	Sn 189.927†	977.2	978.9	450.28	µg/L	450.28 ppb	15:19:32
3	Ti 334.940†	207237.8	207292.4	498.29	µg/L	498.29 ppb	15:19:06
3	Tl 190.801†	318.0	342.6	484.22	µg/L	484.22 ppb	15:19:32
3	U 409.014†	5210.6	5268.5	475.96	µg/L	475.96 ppb	15:19:11
3	V 292.402†	44791.7	44872.9	483.94	µg/L	483.94 ppb	15:19:11
3	Zn 213.857†	19890.6	19431.5	481.75	µg/L	481.75 ppb	15:19:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1906859.3	99.844	%	0.3640				0.36%
Sc RADIAL	54707.9	100	%	0.8				0.77%
Y 371.029	1302041.9	99.399	%	0.3325				0.33%
Ag 328.068†	64684.4	516.97	µg/L	16.362	516.97	ppb	16.362	3.16%
QC value within limits for Ag 328.068 Recovery = 103.39%								
Al 396.153Radial†	7124.3	5299.3	µg/L	23.43	5299.3	ppb	23.43	0.44%
QC value within limits for Al 396.153Radial Recovery = 105.99%								
As 188.979†	267.2	521.18	µg/L	49.028	521.18	ppb	49.028	9.41%
QC value within limits for As 188.979 Recovery = 104.24%								
B 249.677†	11650.3	507.24	µg/L	16.645	507.24	ppb	16.645	3.28%
QC value within limits for B 249.677 Recovery = 101.45%								
Ba 233.527†	19666.8	513.02	µg/L	22.823	513.02	ppb	22.823	4.45%
QC value within limits for Ba 233.527 Recovery = 102.60%								
Be 313.107†	787800.8	514.28	µg/L	14.831	514.28	ppb	14.831	2.88%
QC value within limits for Be 313.107 Recovery = 102.86%								
Ca 317.933Radial†	5483.8	5163.4	µg/L	50.50	5163.4	ppb	50.50	0.98%
QC value within limits for Ca 317.933Radial Recovery = 103.27%								
Cd 226.502†	18623.9	513.73	µg/L	23.671	513.73	ppb	23.671	4.61%
QC value within limits for Cd 226.502 Recovery = 102.75%								
Co 228.616†	10525.7	517.39	µg/L	24.470	517.39	ppb	24.470	4.73%

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   QC value within limits for Co 228.616  Recovery = 103.48%
Cr 267.716†            23303.5      512.91 µg/L        33.067      512.91 ppb        33.067   6.45%
   QC value within limits for Cr 267.716  Recovery = 102.58%
Cu 324.752†            73379.7      513.30 µg/L        25.529      513.30 ppb        25.529   4.97%
   QC value within limits for Cu 324.752  Recovery = 102.66%
Fe 238.204 Radial†       614.8      5221.6 µg/L         69.73      5221.6 ppb         69.73   1.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.43%
K 766.490 Radial†       7352.1      5225.8 µg/L         14.03      5225.8 ppb         14.03   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 104.52%
Mg 279.077 IEC†          569.7      5304.8 µg/L          2.78      5304.8 ppb          2.78   0.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.10%
Mn 257.610†           151204.4      524.08 µg/L        14.882      524.08 ppb        14.882   2.84%
   QC value within limits for Mn 257.610  Recovery = 104.82%
Mo 202.031†             4879.9      520.98 µg/L        55.549      520.98 ppb        55.549  10.66%
   QC value within limits for Mo 202.031  Recovery = 104.20%
Na 589.592 Radial†     31895.3       10500 µg/L          48.5       10500 ppb          48.5   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 105.00%
Ni 231.604†             9451.1      516.19 µg/L        26.085      516.19 ppb        26.085   5.05%
   QC value within limits for Ni 231.604  Recovery = 103.24%
P 214.914†              1207.4      2543.4 µg/L        237.97      2543.4 ppb        237.97   9.36%
   QC value within limits for P 214.914  Recovery = 101.74%
Pb 220.353†             1933.7      516.15 µg/L        46.558      516.15 ppb        46.558   9.02%
   QC value within limits for Pb 220.353  Recovery = 103.23%
S 181.975 Axial†         237.7      1041.3 µg/L         76.67      1041.3 ppb         76.67   7.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.13%
Sb 206.836†              527.5      521.52 µg/L        52.346      521.52 ppb        52.346  10.04%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              334.1      517.45 µg/L        44.586      517.45 ppb        44.586   8.62%
   QC value within limits for Se 196.026  Recovery = 103.49%
SiO2†                  25737.9      5542.8 µg/L        210.05      5542.8 ppb        210.05   3.79%
   QC value within limits for SiO2  Recovery = 103.65%
Si 251.611†            31515.5      2590.7 µg/L         97.53      2590.7 ppb         97.53   3.76%
   QC value within limits for Si 251.611  Recovery = 103.63%
Sn 189.927†             1134.8      521.95 µg/L        62.194      521.95 ppb        62.194  11.92%
   QC value within limits for Sn 189.927  Recovery = 104.39%
Sr 421.552†            50350.2      521.94 µg/L         2.539      521.94 ppb         2.539   0.49%
   QC value within limits for Sr 421.552  Recovery = 104.39%
Ti 334.940†           215134.7      517.15 µg/L        16.720      517.15 ppb        16.720   3.23%
   QC value within limits for Ti 334.940  Recovery = 103.43%
Tl 190.801†              367.2      518.79 µg/L        30.715      518.79 ppb        30.715   5.92%
   QC value within limits for Tl 190.801  Recovery = 103.76%
U 409.014†              5675.0      512.76 µg/L        32.426      512.76 ppb        32.426   6.32%
   QC value within limits for U 409.014  Recovery = 102.55%
V 292.402†             47899.1      516.82 µg/L        28.516      516.82 ppb        28.516   5.52%
   QC value within limits for V 292.402  Recovery = 103.36%
Zn 213.857†            20631.8      511.54 µg/L        25.841      511.54 ppb        25.841   5.05%
   QC value within limits for Zn 213.857  Recovery = 102.31%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:19:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53966.4	53966.4	98.9	%			15:20:14
1	Al 396.153Radial†	-26.0	-16.1	-12.005	µg/L	-12.005	ppb	15:20:14
1	Ca 317.933Radial†	184.6	7.5	7.0536	µg/L	7.0536	ppb	15:20:34
1	Fe 238.204 Radial†	14.2	-0.1	-0.8468	µg/L	-0.8468	ppb	15:20:34
1	K 766.490 Radial†	181.9	55.5	39.479	µg/L	39.479	ppb	15:20:14
1	Mg 279.077 IEC†	12.1	1.0	9.1967	µg/L	9.1967	ppb	15:20:34
1	Na 589.592 Radial†	657.2	122.7	40.408	µg/L	40.408	ppb	15:20:14
1	Sr 421.552†	65.1	26.3	0.2722	µg/L	0.2722	ppb	15:20:14
1	Sc 361.383	1911106.6	1911106.6	100.07	%			15:21:36
1	Y 371.029	1309549.6	1309549.6	99.972	%			15:21:36
1	Ag 328.068†	-559.4	5.5	0.0442	µg/L	0.0442	ppb	15:21:42
1	As 188.979†	-3.0	-4.1	-8.0395	µg/L	-8.0395	ppb	15:22:02
1	B 249.677†	346.9	15.2	0.6669	µg/L	0.6669	ppb	15:22:02
1	Ba 233.527†	-26.7	-0.7	-0.0185	µg/L	-0.0185	ppb	15:22:02
1	Be 313.107†	-3454.2	-11.4	-0.0075	µg/L	-0.0075	ppb	15:21:42
1	Cd 226.502†	-139.0	3.2	0.0893	µg/L	0.0893	ppb	15:22:02
1	Co 228.616†	-9.2	-0.3	-0.0170	µg/L	-0.0170	ppb	15:22:02
1	Cr 267.716†	-37.5	14.9	0.3282	µg/L	0.3282	ppb	15:21:42
1	Cu 324.752†	2557.0	69.2	0.4835	µg/L	0.4835	ppb	15:21:42
1	Mn 257.610†	-212.1	32.2	0.1110	µg/L	0.1110	ppb	15:22:02
1	Mo 202.031†	-8.5	-0.9	-0.1000	µg/L	-0.1000	ppb	15:22:02
1	Ni 231.604†	310.7	8.3	0.4558	µg/L	0.4558	ppb	15:22:02
1	P 214.914†	28.4	0.8	1.6386	µg/L	1.6386	ppb	15:22:02
1	Pb 220.353†	104.0	6.7	1.8057	µg/L	1.8057	ppb	15:22:02
1	S 181.975 Axial†	16.5	1.7	7.4394	µg/L	7.4394	ppb	15:22:02
1	Sb 206.836†	29.0	2.0	1.9993	µg/L	1.9993	ppb	15:22:02
1	Se 196.026†	21.9	6.0	9.1749	µg/L	9.1749	ppb	15:22:02
1	SiO2†	1293.6	42.7	9.2028	µg/L	9.2028	ppb	15:21:42
1	Si 251.611†	353.1	40.0	3.2887	µg/L	3.2887	ppb	15:22:02
1	Sn 189.927†	4.9	5.8	2.6719	µg/L	2.6719	ppb	15:22:02
1	Ti 334.940†	159.7	43.4	0.1039	µg/L	0.1039	ppb	15:21:42
1	Tl 190.801†	-23.8	0.5	0.6768	µg/L	0.6768	ppb	15:22:02
1	U 409.014†	-184.4	-130.7	-11.830	µg/L	-11.830	ppb	15:21:42
1	V 292.402†	-35.9	8.3	0.0760	µg/L	0.0760	ppb	15:21:42
1	Zn 213.857†	494.3	18.4	0.4572	µg/L	0.4572	ppb	15:22:02
2	Sc RADIAL	54869.8	54869.8	101	%			15:20:40
2	Al 396.153Radial†	13.7	23.8	17.738	µg/L	17.738	ppb	15:20:40
2	Ca 317.933Radial†	187.7	7.5	7.0950	µg/L	7.0950	ppb	15:21:00
2	Fe 238.204 Radial†	15.7	1.1	9.3064	µg/L	9.3064	ppb	15:21:00
2	K 766.490 Radial†	257.4	127.6	90.719	µg/L	90.719	ppb	15:20:40
2	Mg 279.077 IEC†	16.3	4.9	45.809	µg/L	45.809	ppb	15:21:00
2	Na 589.592 Radial†	606.0	60.8	20.024	µg/L	20.024	ppb	15:20:40
2	Sr 421.552†	22.5	-17.2	-0.1781	µg/L	-0.1781	ppb	15:20:40
2	Sc 361.383	1897412.4	1897412.4	99.349	%			15:22:08
2	Y 371.029	1298760.9	1298760.9	99.148	%			15:22:08
2	Ag 328.068†	-542.2	18.8	0.1523	µg/L	0.1523	ppb	15:22:14
2	As 188.979†	-3.1	-4.3	-8.3435	µg/L	-8.3435	ppb	15:22:34
2	B 249.677†	336.8	7.5	0.3241	µg/L	0.3241	ppb	15:22:34
2	Ba 233.527†	-16.5	9.4	0.2467	µg/L	0.2467	ppb	15:22:34
2	Be 313.107†	-3415.0	3.0	0.0019	µg/L	0.0019	ppb	15:22:14
2	Cd 226.502†	-128.8	12.5	0.3432	µg/L	0.3432	ppb	15:22:34
2	Co 228.616†	-5.7	3.1	0.1511	µg/L	0.1511	ppb	15:22:34
2	Cr 267.716†	-15.6	36.7	0.8074	µg/L	0.8074	ppb	15:22:14
2	Cu 324.752†	2549.9	80.5	0.5637	µg/L	0.5637	ppb	15:22:14
2	Mn 257.610†	-177.5	65.4	0.2260	µg/L	0.2260	ppb	15:22:34
2	Mo 202.031†	-7.3	0.2	0.0178	µg/L	0.0178	ppb	15:22:34
2	Ni 231.604†	306.5	6.3	0.3468	µg/L	0.3468	ppb	15:22:34
2	P 214.914†	31.7	4.3	9.0650	µg/L	9.0650	ppb	15:22:34
2	Pb 220.353†	106.2	9.7	2.5827	µg/L	2.5827	ppb	15:22:34

2	S 181.975 Axial†	17.2	2.5	10.929 µg/L	10.929 ppb	15:22:34
2	Sb 206.836†	25.7	-1.1	-1.0721 µg/L	-1.0721 ppb	15:22:34
2	Se 196.026†	18.6	2.9	4.4089 µg/L	4.4089 ppb	15:22:34
2	SiO2†	1247.0	5.2	1.1103 µg/L	1.1103 ppb	15:22:14
2	Si 251.611†	359.1	48.5	3.9904 µg/L	3.9904 ppb	15:22:34
2	Sn 189.927†	-1.6	-0.8	-0.3440 µg/L	-0.3440 ppb	15:22:34
2	Ti 334.940†	171.3	56.3	0.1319 µg/L	0.1319 ppb	15:22:14
2	Tl 190.801†	-21.8	2.3	3.2311 µg/L	3.2311 ppb	15:22:34
2	U 409.014†	-98.3	-45.3	-4.1055 µg/L	-4.1055 ppb	15:22:14
2	V 292.402†	-5.8	38.4	0.4080 µg/L	0.4080 ppb	15:22:14
2	Zn 213.857†	499.6	27.3	0.6761 µg/L	0.6761 ppb	15:22:34
3	Sc RADIAL	54385.0	54385.0	99.7 %		15:21:06
3	Al 396.153Radial†	-13.7	-3.6	-2.7248 µg/L	-2.7248 ppb	15:21:06
3	Ca 317.933Radial†	185.2	6.7	6.3429 µg/L	6.3429 ppb	15:21:26
3	Fe 238.204 Radial†	16.3	1.8	15.415 µg/L	15.415 ppb	15:21:26
3	K 766.490 Radial†	182.4	54.6	38.797 µg/L	38.797 ppb	15:21:06
3	Mg 279.077 IEC†	9.2	-2.0	-18.753 µg/L	-18.753 ppb	15:21:26
3	Na 589.592 Radial†	592.4	52.6	17.324 µg/L	17.324 ppb	15:21:06
3	Sr 421.552†	-3.5	-43.1	-0.4464 µg/L	-0.4464 ppb	15:21:06
3	Sc 361.383	1884488.6	1884488.6	98.673 %		15:22:40
3	Y 371.029	1291927.9	1291927.9	98.627 %		15:22:40
3	Ag 328.068†	-522.7	34.8	0.2806 µg/L	0.2806 ppb	15:22:46
3	As 188.979†	2.4	1.3	2.4649 µg/L	2.4649 ppb	15:23:06
3	B 249.677†	335.7	8.8	0.3768 µg/L	0.3768 ppb	15:23:06
3	Ba 233.527†	-11.8	14.1	0.3676 µg/L	0.3676 ppb	15:23:06
3	Be 313.107†	-3127.8	270.6	0.1766 µg/L	0.1766 ppb	15:22:46
3	Cd 226.502†	-124.4	16.0	0.4414 µg/L	0.4414 ppb	15:23:06
3	Co 228.616†	7.6	16.5	0.8149 µg/L	0.8149 ppb	15:23:06
3	Cr 267.716†	-23.5	28.6	0.6295 µg/L	0.6295 ppb	15:22:46
3	Cu 324.752†	2622.5	171.7	1.2017 µg/L	1.2017 ppb	15:22:46
3	Mn 257.610†	-142.0	100.2	0.3497 µg/L	0.3497 ppb	15:23:06
3	Mo 202.031†	3.2	10.8	1.1512 µg/L	1.1512 ppb	15:23:06
3	Ni 231.604†	306.2	8.2	0.4462 µg/L	0.4462 ppb	15:23:06
3	P 214.914†	29.6	2.4	5.0144 µg/L	5.0144 ppb	15:23:06
3	Pb 220.353†	103.4	7.6	2.0339 µg/L	2.0339 ppb	15:23:06
3	S 181.975 Axial†	18.5	3.9	17.268 µg/L	17.268 ppb	15:23:06
3	Sb 206.836†	29.4	2.8	2.8126 µg/L	2.8126 ppb	15:23:06
3	Se 196.026†	10.8	-4.9	-7.3717 µg/L	-7.3717 ppb	15:23:06
3	SiO2†	1294.7	62.1	13.372 µg/L	13.372 ppb	15:22:46
3	Si 251.611†	373.7	65.9	5.4177 µg/L	5.4177 ppb	15:23:06
3	Sn 189.927†	0.7	1.6	0.7177 µg/L	0.7177 ppb	15:23:06
3	Ti 334.940†	234.9	122.0	0.2950 µg/L	0.2950 ppb	15:22:46
3	Tl 190.801†	-24.9	-0.9	-1.2684 µg/L	-1.2684 ppb	15:23:06
3	U 409.014†	-88.3	-35.9	-3.2543 µg/L	-3.2543 ppb	15:22:46
3	V 292.402†	2.7	46.9	0.5091 µg/L	0.5091 ppb	15:22:46
3	Zn 213.857†	512.3	43.6	1.0859 µg/L	1.0859 ppb	15:23:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1897669.2	99.363	%	0.6970				0.70%
Sc RADIAL	54407.1	99.7	%	0.83				0.83%
Y 371.029	1300079.5	99.249	%	0.6782				0.68%
Ag 328.068†	19.7	0.1590	µg/L	0.11838	0.1590	ppb	0.11838	74.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	1.0028	µg/L	15.21758	1.0028	ppb	15.21758	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.6394	µg/L	6.15437	-4.6394	ppb	6.15437	132.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	10.5	0.4560	µg/L	0.18460	0.4560	ppb	0.18460	40.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1986	µg/L	0.19747	0.1986	ppb	0.19747	99.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	87.4	0.0570	µg/L	0.10368	0.0570	ppb	0.10368	181.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.3	6.8305	µg/L	0.42277	6.8305	ppb	0.42277	6.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.2913	µg/L	0.18170	0.2913	ppb	0.18170	62.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.4	0.3163	µg/L	0.43987	0.3163	ppb	0.43987	139.05%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              26.7      0.5884 µg/L       0.24227      0.5884 ppb        0.24227  41.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             107.2      0.7496 µg/L       0.39354      0.7496 ppb        0.39354  52.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.9      7.9581 µg/L       8.21418      7.9581 ppb        8.21418 103.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        79.3      56.332 µg/L       29.7823      56.332 ppb        29.7823  52.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.3      12.084 µg/L       32.3776      12.084 ppb        32.3776 267.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              65.9      0.2289 µg/L       0.11938      0.2289 ppb        0.11938  52.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.3      0.3563 µg/L       0.69086      0.3563 ppb        0.69086 193.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       78.7      25.918 µg/L       12.6205      25.918 ppb        12.6205  48.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.6      0.4162 µg/L       0.06037      0.4162 ppb        0.06037  14.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      5.2393 µg/L       3.71831      5.2393 ppb        3.71831  70.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               8.0      2.1408 µg/L       0.39934      2.1408 ppb        0.39934  18.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.7      11.879 µg/L        4.9829      11.879 ppb         4.9829  41.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.3      1.2466 µg/L       2.04884      1.2466 ppb        2.04884 164.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.4      2.0707 µg/L       8.51747      2.0707 ppb        8.51747 411.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    36.7      7.8950 µg/L       6.23447      7.8950 ppb        6.23447  78.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              51.5      4.2323 µg/L       1.08494      4.2323 ppb        1.08494  25.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.2      1.0152 µg/L       1.52977      1.0152 ppb        1.52977 150.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -11.3     -0.1174 µg/L       0.36313     -0.1174 ppb        0.36313 309.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              73.9      0.1769 µg/L       0.10323      0.1769 ppb        0.10323  58.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.8799 µg/L       2.25661      0.8799 ppb        2.25661 256.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -70.6     -6.3965 µg/L       4.72449     -6.3965 ppb        4.72449  73.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               31.2      0.3310 µg/L       0.22659      0.3310 ppb        0.22659  68.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              29.8      0.7397 µg/L       0.31916      0.7397 ppb        0.31916  43.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:57:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57410.8	57410.8	105	%			15:58:05
1	Al 396.153Radial†	6675.8	6356.1	4727.0	µg/L	4727.0	ppb	15:58:25
1	Ca 317.933Radial†	5505.2	5054.0	4758.7	µg/L	4758.7	ppb	15:58:25
1	Fe 238.204 Radial†	598.7	554.6	4711.3	µg/L	4711.3	ppb	15:58:25
1	K 766.490 Radial†	7251.0	6764.3	4808.0	µg/L	4808.0	ppb	15:58:05
1	Mg 279.077 IEC†	563.5	524.3	4883.2	µg/L	4883.2	ppb	15:58:25
1	Na 589.592 Radial†	31835.2	29720.5	9784.1	µg/L	9784.1	ppb	15:58:05
1	Sr 421.552†	47847.7	45444.2	471.08	µg/L	471.08	ppb	15:58:05
1	Sc 361.383	1983693.6	1983693.6	103.87	%			15:59:29
1	Y 371.029	1353410.2	1353410.2	103.32	%			15:59:29
1	Ag 328.068†	62797.6	61024.1	487.72	µg/L	487.72	ppb	15:59:34
1	As 188.979†	269.1	257.9	503.15	µg/L	503.15	ppb	15:59:55
1	B 249.677†	11717.3	10949.6	476.85	µg/L	476.85	ppb	15:59:34
1	Ba 233.527†	19343.1	18649.0	486.47	µg/L	486.47	ppb	15:59:34
1	Be 313.107†	754921.5	730256.0	476.72	µg/L	476.72	ppb	15:59:29
1	Cd 226.502†	18224.6	17688.2	487.95	µg/L	487.95	ppb	15:59:34
1	Co 228.616†	10367.0	9989.9	491.09	µg/L	491.09	ppb	15:59:34
1	Cr 267.716†	23052.3	22246.4	489.64	µg/L	489.64	ppb	15:59:34
1	Cu 324.752†	74680.1	69413.7	485.52	µg/L	485.52	ppb	15:59:34
1	Mn 257.610†	145483.3	140311.0	486.31	µg/L	486.31	ppb	15:59:29
1	Mo 202.031†	4926.8	4750.9	507.20	µg/L	507.20	ppb	15:59:55
1	Ni 231.604†	9598.3	8938.8	488.20	µg/L	488.20	ppb	15:59:34
1	P 214.914†	1237.2	1163.5	2452.0	µg/L	2452.0	ppb	15:59:55
1	Pb 220.353†	2038.1	1865.0	497.83	µg/L	497.83	ppb	15:59:55
1	S 181.975 Axial†	250.1	226.0	990.17	µg/L	990.17	ppb	15:59:55
1	Sb 206.836†	555.0	507.4	501.78	µg/L	501.78	ppb	15:59:55
1	Se 196.026†	350.7	321.8	497.82	µg/L	497.82	ppb	15:59:55
1	SiO2†	26261.5	24033.7	5175.8	µg/L	5175.8	ppb	15:59:34
1	Si 251.611†	31015.9	29548.3	2429.0	µg/L	2429.0	ppb	15:59:34
1	Sn 189.927†	1145.1	1103.3	507.48	µg/L	507.48	ppb	15:59:55
1	Ti 334.940†	207638.9	199792.4	480.28	µg/L	480.28	ppb	15:59:29
1	Tl 190.801†	339.0	350.7	495.21	µg/L	495.21	ppb	15:59:55
1	U 409.014†	5639.1	5482.7	495.44	µg/L	495.44	ppb	15:59:34
1	V 292.402†	47231.1	45516.9	491.19	µg/L	491.19	ppb	15:59:34
1	Zn 213.857†	20861.0	19608.8	486.21	µg/L	486.21	ppb	15:59:34
2	Sc RADIAL	56826.1	56826.1	104	%			15:58:31
2	Al 396.153Radial†	6645.2	6392.0	4754.0	µg/L	4754.0	ppb	15:58:51
2	Ca 317.933Radial†	5486.3	5089.8	4792.3	µg/L	4792.3	ppb	15:58:51
2	Fe 238.204 Radial†	599.8	561.5	4769.4	µg/L	4769.4	ppb	15:58:51
2	K 766.490 Radial†	7153.6	6741.7	4791.9	µg/L	4791.9	ppb	15:58:31
2	Mg 279.077 IEC†	560.2	526.7	4905.2	µg/L	4905.2	ppb	15:58:51
2	Na 589.592 Radial†	31532.3	29741.0	9790.8	µg/L	9790.8	ppb	15:58:31
2	Sr 421.552†	47455.8	45535.8	472.03	µg/L	472.03	ppb	15:58:31
2	Sc 361.383	1995410.5	1995410.5	104.48	%			16:00:02
2	Y 371.029	1361782.3	1361782.3	103.96	%			16:00:02
2	Ag 328.068†	62246.7	60141.9	480.68	µg/L	480.68	ppb	16:00:08
2	As 188.979†	257.7	245.5	478.82	µg/L	478.82	ppb	16:00:28
2	B 249.677†	11628.5	10798.3	470.20	µg/L	470.20	ppb	16:00:08
2	Ba 233.527†	19125.6	18331.5	478.19	µg/L	478.19	ppb	16:00:08
2	Be 313.107†	755807.0	726835.7	474.48	µg/L	474.48	ppb	16:00:02
2	Cd 226.502†	17996.1	17366.5	479.06	µg/L	479.06	ppb	16:00:08
2	Co 228.616†	10237.6	9807.4	482.11	µg/L	482.11	ppb	16:00:08
2	Cr 267.716†	22930.0	21999.0	484.19	µg/L	484.19	ppb	16:00:08
2	Cu 324.752†	74042.3	68381.0	478.32	µg/L	478.32	ppb	16:00:08
2	Mn 257.610†	145292.8	139306.3	482.84	µg/L	482.84	ppb	16:00:02
2	Mo 202.031†	4851.2	4650.7	496.51	µg/L	496.51	ppb	16:00:28
2	Ni 231.604†	9492.2	8782.9	479.69	µg/L	479.69	ppb	16:00:08
2	P 214.914†	1221.3	1141.3	2405.0	µg/L	2405.0	ppb	16:00:28
2	Pb 220.353†	1997.7	1814.9	484.45	µg/L	484.45	ppb	16:00:28

2	S 181.975 Axial†	253.2	227.5	996.93 µg/L	996.93 ppb	16:00:28
2	Sb 206.836†	551.9	501.3	495.60 µg/L	495.60 ppb	16:00:28
2	Se 196.026†	351.2	320.3	495.61 µg/L	495.61 ppb	16:00:28
2	SiO2†	26072.1	23704.0	5104.8 µg/L	5104.8 ppb	16:00:08
2	Si 251.611†	30669.0	29040.9	2387.3 µg/L	2387.3 ppb	16:00:08
2	Sn 189.927†	1132.5	1084.8	498.96 µg/L	498.96 ppb	16:00:28
2	Ti 334.940†	207816.1	198788.1	477.86 µg/L	477.86 ppb	16:00:02
2	Tl 190.801†	338.3	348.1	491.58 µg/L	491.58 ppb	16:00:28
2	U 409.014†	5511.6	5328.9	481.50 µg/L	481.50 ppb	16:00:08
2	V 292.402†	46887.0	44920.6	484.74 µg/L	484.74 ppb	16:00:08
2	Zn 213.857†	20639.1	19278.4	478.01 µg/L	478.01 ppb	16:00:08
3	Sc RADIAL	56910.2	56910.2	104 %		15:58:57
3	Al 396.153Radial†	6656.6	6393.5	4756.8 µg/L	4756.8 ppb	15:59:17
3	Ca 317.933Radial†	5495.6	5090.9	4793.4 µg/L	4793.4 ppb	15:59:17
3	Fe 238.204 Radial†	602.2	563.0	4781.1 µg/L	4781.1 ppb	15:59:17
3	K 766.490 Radial†	7220.2	6795.5	4830.2 µg/L	4830.2 ppb	15:58:57
3	Mg 279.077 IEC†	560.3	526.1	4897.6 µg/L	4897.6 ppb	15:59:17
3	Na 589.592 Radial†	31637.3	29796.9	9809.2 µg/L	9809.2 ppb	15:58:57
3	Sr 421.552†	47653.8	45658.4	473.30 µg/L	473.30 ppb	15:58:57
3	Sc 361.383	1998435.1	1998435.1	104.64 %		16:00:35
3	Y 371.029	1364968.8	1364968.8	104.20 %		16:00:35
3	Ag 328.068†	58612.3	56578.4	452.09 µg/L	452.09 ppb	16:00:41
3	As 188.979†	224.3	213.2	415.95 µg/L	415.95 ppb	16:01:01
3	B 249.677†	10895.6	10081.1	438.76 µg/L	438.76 ppb	16:00:41
3	Ba 233.527†	17588.9	16835.1	439.14 µg/L	439.14 ppb	16:00:41
3	Be 313.107†	714187.6	685966.5	447.80 µg/L	447.80 ppb	16:00:35
3	Cd 226.502†	16474.5	15886.3	438.17 µg/L	438.17 ppb	16:00:41
3	Co 228.616†	9303.8	8900.2	437.44 µg/L	437.44 ppb	16:00:41
3	Cr 267.716†	20256.0	19410.4	427.22 µg/L	427.22 ppb	16:00:41
3	Cu 324.752†	67621.8	62137.9	434.71 µg/L	434.71 ppb	16:00:41
3	Mn 257.610†	137721.9	131860.5	457.05 µg/L	457.05 ppb	16:00:35
3	Mo 202.031†	4037.0	3865.6	412.72 µg/L	412.72 ppb	16:01:01
3	Ni 231.604†	8629.5	7944.8	433.92 µg/L	433.92 ppb	16:00:41
3	P 214.914†	1036.7	963.1	2025.7 µg/L	2025.7 ppb	16:01:01
3	Pb 220.353†	1739.6	1565.3	417.74 µg/L	417.74 ppb	16:01:01
3	S 181.975 Axial†	221.7	197.0	863.32 µg/L	863.32 ppb	16:01:01
3	Sb 206.836†	474.2	426.2	421.04 µg/L	421.04 ppb	16:01:01
3	Se 196.026†	306.7	277.3	430.08 µg/L	430.08 ppb	16:01:01
3	SiO2†	24196.5	21873.8	4710.6 µg/L	4710.6 ppb	16:00:41
3	Si 251.611†	28513.0	26936.1	2214.3 µg/L	2214.3 ppb	16:00:41
3	Sn 189.927†	924.9	884.8	406.97 µg/L	406.97 ppb	16:01:01
3	Ti 334.940†	195303.4	186529.0	448.37 µg/L	448.37 ppb	16:00:35
3	Tl 190.801†	301.0	311.9	440.85 µg/L	440.85 ppb	16:01:01
3	U 409.014†	4905.4	4741.6	428.33 µg/L	428.33 ppb	16:00:41
3	V 292.402†	42233.7	40405.6	435.79 µg/L	435.79 ppb	16:00:41
3	Zn 213.857†	18819.8	17509.9	434.12 µg/L	434.12 ppb	16:00:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992513.1	104.33	%	0.408				0.39%
Sc RADIAL	57049.0	105	%	0.6				0.55%
Y 371.029	1360053.7	103.83	%	0.456				0.44%
Ag 328.068†	59248.1	473.50	µg/L	18.871	473.50	ppb	18.871	3.99%
QC value within limits for Ag 328.068 Recovery = 94.70%								
Al 396.153Radial†	6380.5	4745.9	µg/L	16.44	4745.9	ppb	16.44	0.35%
QC value within limits for Al 396.153Radial Recovery = 94.92%								
As 188.979†	238.9	465.97	µg/L	44.997	465.97	ppb	44.997	9.66%
QC value within limits for As 188.979 Recovery = 93.19%								
B 249.677†	10609.7	461.94	µg/L	20.345	461.94	ppb	20.345	4.40%
QC value within limits for B 249.677 Recovery = 92.39%								
Ba 233.527†	17938.5	467.93	µg/L	25.276	467.93	ppb	25.276	5.40%
QC value within limits for Ba 233.527 Recovery = 93.59%								
Be 313.107†	714352.7	466.33	µg/L	16.086	466.33	ppb	16.086	3.45%
QC value within limits for Be 313.107 Recovery = 93.27%								
Ca 317.933Radial†	5078.2	4781.5	µg/L	19.75	4781.5	ppb	19.75	0.41%
QC value within limits for Ca 317.933Radial Recovery = 95.63%								
Cd 226.502†	16980.3	468.39	µg/L	26.545	468.39	ppb	26.545	5.67%
QC value within limits for Cd 226.502 Recovery = 93.68%								
Co 228.616†	9565.8	470.21	µg/L	28.733	470.21	ppb	28.733	6.11%

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   QC value within limits for Co 228.616  Recovery = 94.04%
Cr 267.716†            21218.6      467.02 µg/L        34.571      467.02 ppb        34.571   7.40%
   QC value within limits for Cr 267.716  Recovery = 93.40%
Cu 324.752†            66644.2      466.19 µg/L        27.494      466.19 ppb        27.494   5.90%
   QC value within limits for Cu 324.752  Recovery = 93.24%
Fe 238.204 Radial†       559.7      4753.9 µg/L         37.39      4753.9 ppb         37.39   0.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.08%
K 766.490 Radial†       6767.2      4810.1 µg/L         19.19      4810.1 ppb         19.19   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 96.20%
Mg 279.077 IEC†          525.7      4895.3 µg/L         11.18      4895.3 ppb         11.18   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           137159.3      475.40 µg/L        15.982      475.40 ppb        15.982   3.36%
   QC value within limits for Mn 257.610  Recovery = 95.08%
Mo 202.031†             4422.4      472.14 µg/L        51.737      472.14 ppb        51.737  10.96%
   QC value within limits for Mo 202.031  Recovery = 94.43%
Na 589.592 Radial†     29752.8      9794.7 µg/L         13.02      9794.7 ppb         13.02   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 97.95%
Ni 231.604†             8555.5      467.27 µg/L        29.194      467.27 ppb        29.194   6.25%
   QC value within limits for Ni 231.604  Recovery = 93.45%
P 214.914†              1089.3      2294.2 µg/L        233.77      2294.2 ppb        233.77  10.19%
   QC value within limits for P 214.914  Recovery = 91.77%
Pb 220.353†             1748.4      466.67 µg/L        42.900      466.67 ppb        42.900   9.19%
   QC value within limits for Pb 220.353  Recovery = 93.33%
S 181.975 Axial†         216.9      950.14 µg/L        75.264      950.14 ppb        75.264   7.92%
   QC value within limits for S 181.975 Axial  Recovery = 95.01%
Sb 206.836†              478.3      472.81 µg/L        44.937      472.81 ppb        44.937   9.50%
   QC value within limits for Sb 206.836  Recovery = 94.56%
Se 196.026†              306.5      474.50 µg/L        38.486      474.50 ppb        38.486   8.11%
   QC value within limits for Se 196.026  Recovery = 94.90%
SiO2†                   23203.8      4997.1 µg/L        250.58      4997.1 ppb        250.58   5.01%
   QC value within limits for SiO2  Recovery = 93.45%
Si 251.611†             28508.4      2343.5 µg/L        113.86      2343.5 ppb        113.86   4.86%
   QC value within limits for Si 251.611  Recovery = 93.74%
Sn 189.927†             1024.3      471.14 µg/L        55.734      471.14 ppb        55.734  11.83%
   QC value within limits for Sn 189.927  Recovery = 94.23%
Sr 421.552†            45546.1      472.14 µg/L         1.114      472.14 ppb         1.114   0.24%
   QC value within limits for Sr 421.552  Recovery = 94.43%
Ti 334.940†           195036.5      468.84 µg/L        17.764      468.84 ppb        17.764   3.79%
   QC value within limits for Ti 334.940  Recovery = 93.77%
Tl 190.801†              336.9      475.88 µg/L        30.390      475.88 ppb        30.390   6.39%
   QC value within limits for Tl 190.801  Recovery = 95.18%
U 409.014†              5184.4      468.43 µg/L        35.417      468.43 ppb        35.417   7.56%
   QC value within limits for U 409.014  Recovery = 93.69%
V 292.402†             43614.3      470.57 µg/L        30.297      470.57 ppb        30.297   6.44%
   QC value within limits for V 292.402  Recovery = 94.11%
Zn 213.857†            18799.0      466.11 µg/L        28.010      466.11 ppb        28.010   6.01%
   QC value within limits for Zn 213.857  Recovery = 93.22%
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:01:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55658.0	55658.0	102	%			16:01:44
1	Al 396.153Radial†	-23.0	-12.4	-9.2620	µg/L	-9.2620	ppb	16:01:44
1	Ca 317.933Radial†	208.0	24.8	23.363	µg/L	23.363	ppb	16:02:05
1	Fe 238.204 Radial†	15.4	0.6	5.4204	µg/L	5.4204	ppb	16:02:05
1	K 766.490 Radial†	204.3	71.9	51.110	µg/L	51.110	ppb	16:01:44
1	Mg 279.077 IEC†	10.5	-1.0	-9.0434	µg/L	-9.0434	ppb	16:02:05
1	Na 589.592 Radial†	1039.6	477.5	157.20	µg/L	157.20	ppb	16:01:44
1	Sr 421.552†	56.9	16.2	0.1684	µg/L	0.1684	ppb	16:01:44
1	Sc 361.383	1982189.6	1982189.6	103.79	%			16:03:07
1	Y 371.029	1359337.0	1359337.0	103.77	%			16:03:07
1	Ag 328.068†	-578.1	7.5	0.0622	µg/L	0.0622	ppb	16:03:12
1	As 188.979†	-1.3	-2.4	-4.6084	µg/L	-4.6084	ppb	16:03:33
1	B 249.677†	325.8	-17.5	-0.7693	µg/L	-0.7693	ppb	16:03:33
1	Ba 233.527†	-23.3	3.6	0.0946	µg/L	0.0946	ppb	16:03:33
1	Be 313.107†	-3422.1	143.2	0.0935	µg/L	0.0935	ppb	16:03:12
1	Cd 226.502†	-146.3	1.2	0.0321	µg/L	0.0321	ppb	16:03:33
1	Co 228.616†	-12.7	-3.4	-0.1679	µg/L	-0.1679	ppb	16:03:33
1	Cr 267.716†	-41.9	12.0	0.2649	µg/L	0.2649	ppb	16:03:33
1	Cu 324.752†	2411.8	-162.3	-1.1332	µg/L	-1.1332	ppb	16:03:12
1	Mn 257.610†	-218.3	33.8	0.1180	µg/L	0.1180	ppb	16:03:33
1	Mo 202.031†	-10.7	-2.7	-0.2926	µg/L	-0.2926	ppb	16:03:33
1	Ni 231.604†	299.4	-13.7	-0.7472	µg/L	-0.7472	ppb	16:03:33
1	P 214.914†	42.9	13.7	29.528	µg/L	29.528	ppb	16:03:33
1	Pb 220.353†	92.5	-8.1	-2.1696	µg/L	-2.1696	ppb	16:03:33
1	S 181.975 Axial†	17.6	2.1	9.2574	µg/L	9.2574	ppb	16:03:33
1	Sb 206.836†	23.2	-4.6	-4.4961	µg/L	-4.4961	ppb	16:03:33
1	Se 196.026†	12.0	-4.3	-6.4748	µg/L	-6.4748	ppb	16:03:33
1	SiO2†	1238.2	-57.1	-12.288	µg/L	-12.288	ppb	16:03:12
1	Si 251.611†	320.8	-3.8	-0.3112	µg/L	-0.3112	ppb	16:03:33
1	Sn 189.927†	0.5	1.4	0.6395	µg/L	0.6395	ppb	16:03:33
1	Ti 334.940†	134.1	13.1	0.0325	µg/L	0.0325	ppb	16:03:12
1	Tl 190.801†	-24.9	0.3	0.4630	µg/L	0.4630	ppb	16:03:33
1	U 409.014†	-12.1	41.9	3.7948	µg/L	3.7948	ppb	16:03:12
1	V 292.402†	-10.2	34.4	0.3695	µg/L	0.3695	ppb	16:03:12
1	Zn 213.857†	479.7	-13.4	-0.3280	µg/L	-0.3280	ppb	16:03:33
2	Sc RADIAL	55313.8	55313.8	101	%			16:02:10
2	Al 396.153Radial†	-3.9	6.3	4.7164	µg/L	4.7164	ppb	16:02:10
2	Ca 317.933Radial†	201.6	19.8	18.599	µg/L	18.599	ppb	16:02:30
2	Fe 238.204 Radial†	15.1	0.4	3.5581	µg/L	3.5581	ppb	16:02:30
2	K 766.490 Radial†	165.7	35.0	24.913	µg/L	24.913	ppb	16:02:10
2	Mg 279.077 IEC†	9.2	-2.2	-20.801	µg/L	-20.801	ppb	16:02:30
2	Na 589.592 Radial†	1009.9	454.5	149.64	µg/L	149.64	ppb	16:02:10
2	Sr 421.552†	43.0	2.9	0.0298	µg/L	0.0298	ppb	16:02:10
2	Sc 361.383	2000056.5	2000056.5	104.72	%			16:03:39
2	Y 371.029	1371413.4	1371413.4	104.69	%			16:03:39
2	Ag 328.068†	-539.4	49.5	0.3929	µg/L	0.3929	ppb	16:03:44
2	As 188.979†	2.0	0.8	1.5259	µg/L	1.5259	ppb	16:04:05
2	B 249.677†	333.1	-13.4	-0.5861	µg/L	-0.5861	ppb	16:04:05
2	Ba 233.527†	-19.7	7.2	0.1863	µg/L	0.1863	ppb	16:04:05
2	Be 313.107†	-3284.4	304.2	0.1986	µg/L	0.1986	ppb	16:03:44
2	Cd 226.502†	-141.7	6.9	0.1883	µg/L	0.1883	ppb	16:04:05
2	Co 228.616†	-14.8	-5.3	-0.2603	µg/L	-0.2603	ppb	16:04:05
2	Cr 267.716†	-34.1	19.8	0.4350	µg/L	0.4350	ppb	16:04:05
2	Cu 324.752†	2452.1	-144.6	-1.0097	µg/L	-1.0097	ppb	16:03:44
2	Mn 257.610†	-201.5	51.7	0.1804	µg/L	0.1804	ppb	16:04:05
2	Mo 202.031†	-5.9	1.9	0.2060	µg/L	0.2060	ppb	16:04:05
2	Ni 231.604†	302.4	-13.4	-0.7317	µg/L	-0.7317	ppb	16:04:05
2	P 214.914†	22.4	-6.2	-13.288	µg/L	-13.288	ppb	16:04:05
2	Pb 220.353†	100.3	-1.4	-0.3652	µg/L	-0.3652	ppb	16:04:05

2	S 181.975 Axial†	18.4	2.7	12.047 µg/L	12.047 ppb		16:04:05
2	Sb 206.836†	25.7	-2.4	-2.3521 µg/L	-2.3521 ppb		16:04:05
2	Se 196.026†	11.2	-5.1	-7.8216 µg/L	-7.8216 ppb		16:04:05
2	SiO2†	1221.5	-83.6	-18.000 µg/L	-18.000 ppb		16:03:44
2	Si 251.611†	319.3	-8.0	-0.6538 µg/L	-0.6538 ppb		16:04:05
2	Sn 189.927†	1.8	2.6	1.1983 µg/L	1.1983 ppb		16:04:05
2	Ti 334.940†	170.3	46.5	0.1138 µg/L	0.1138 ppb		16:03:44
2	Tl 190.801†	-24.1	1.2	1.7367 µg/L	1.7367 ppb		16:04:05
2	U 409.014†	-68.4	-11.7	-1.0610 µg/L	-1.0610 ppb		16:03:44
2	V 292.402†	-47.0	-0.7	-0.0056 µg/L	-0.0056 ppb		16:03:44
2	Zn 213.857†	481.8	-15.5	-0.3808 µg/L	-0.3808 ppb		16:04:05
3	Sc RADIAL	56238.4	56238.4	103 %			16:02:36
3	Al 396.153Radial†	-4.5	5.7	4.2549 µg/L	4.2549 ppb		16:02:36
3	Ca 317.933Radial†	217.1	31.6	29.725 µg/L	29.725 ppb		16:02:56
3	Fe 238.204 Radial†	15.6	0.7	5.5166 µg/L	5.5166 ppb		16:02:56
3	K 766.490 Radial†	152.3	19.4	13.755 µg/L	13.755 ppb		16:02:36
3	Mg 279.077 IEC†	9.8	-1.7	-16.008 µg/L	-16.008 ppb		16:02:56
3	Na 589.592 Radial†	1347.3	765.5	252.01 µg/L	252.01 ppb		16:02:36
3	Sr 421.552†	41.3	0.5	0.0055 µg/L	0.0055 ppb		16:02:36
3	Sc 361.383	1997138.2	1997138.2	104.57 %			16:04:11
3	Y 371.029	1369234.6	1369234.6	104.53 %			16:04:11
3	Ag 328.068†	-498.6	87.7	0.6980 µg/L	0.6980 ppb		16:04:16
3	As 188.979†	2.9	1.6	3.1103 µg/L	3.1103 ppb		16:04:37
3	B 249.677†	327.9	-17.9	-0.7818 µg/L	-0.7818 ppb		16:04:37
3	Ba 233.527†	-15.6	11.1	0.2887 µg/L	0.2887 ppb		16:04:37
3	Be 313.107†	-3097.4	478.5	0.3124 µg/L	0.3124 ppb		16:04:16
3	Cd 226.502†	-131.7	16.2	0.4453 µg/L	0.4453 ppb		16:04:37
3	Co 228.616†	-2.6	6.4	0.3136 µg/L	0.3136 ppb		16:04:37
3	Cr 267.716†	-14.7	38.4	0.8440 µg/L	0.8440 ppb		16:04:37
3	Cu 324.752†	2433.5	-159.0	-1.1099 µg/L	-1.1099 ppb		16:04:16
3	Mn 257.610†	-172.9	78.8	0.2743 µg/L	0.2743 ppb		16:04:37
3	Mo 202.031†	-1.7	5.9	0.6314 µg/L	0.6314 ppb		16:04:37
3	Ni 231.604†	302.9	-12.6	-0.6873 µg/L	-0.6873 ppb		16:04:37
3	P 214.914†	28.9	0.0	0.1351 µg/L	0.1351 ppb		16:04:37
3	Pb 220.353†	98.8	-2.7	-0.7118 µg/L	-0.7118 ppb		16:04:37
3	S 181.975 Axial†	19.3	3.6	15.780 µg/L	15.780 ppb		16:04:37
3	Sb 206.836†	32.5	4.1	4.0170 µg/L	4.0170 ppb		16:04:37
3	Se 196.026†	15.5	-1.0	-1.5777 µg/L	-1.5777 ppb		16:04:37
3	SiO2†	1280.0	-25.9	-5.5874 µg/L	-5.5874 ppb		16:04:16
3	Si 251.611†	323.6	-3.4	-0.2805 µg/L	-0.2805 ppb		16:04:37
3	Sn 189.927†	1.4	2.2	1.0236 µg/L	1.0236 ppb		16:04:37
3	Ti 334.940†	204.8	79.7	0.1935 µg/L	0.1935 ppb		16:04:16
3	Tl 190.801†	-25.7	-0.3	-0.3909 µg/L	-0.3909 ppb		16:04:37
3	U 409.014†	-62.9	-6.5	-0.5917 µg/L	-0.5917 ppb		16:04:16
3	V 292.402†	-21.9	23.3	0.2547 µg/L	0.2547 ppb		16:04:16
3	Zn 213.857†	484.0	-12.7	-0.3127 µg/L	-0.3127 ppb		16:04:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1993128.1	104.36	%	0.502				0.48%
Sc RADIAL	55736.7	102	%	0.9				0.84%
Y 371.029	1366661.7	104.33	%	0.491				0.47%
Ag 328.068†	48.2	0.3844	µg/L	0.31802	0.3844	ppb	0.31802	82.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.1	-0.0969	µg/L	7.94054	-0.0969	ppb	7.94054	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.0	0.0093	µg/L	4.07671	0.0093	ppb	4.07671	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.7124	µg/L	0.10959	-0.7124	ppb	0.10959	15.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.1899	µg/L	0.09711	0.1899	ppb	0.09711	51.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.6	0.2015	µg/L	0.10946	0.2015	ppb	0.10946	54.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	25.4	23.896	µg/L	5.5823	23.896	ppb	5.5823	23.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.1	0.2219	µg/L	0.20862	0.2219	ppb	0.20862	94.02%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.8	-0.0382	µg/L	0.30817	-0.0382	ppb	0.30817	806.94%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              23.4      0.5146 µg/L       0.29767      0.5146 ppb        0.29767  57.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -155.3     -1.0843 µg/L       0.06563     -1.0843 ppb        0.06563   6.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.6      4.8317 µg/L       1.10403      4.8317 ppb        1.10403  22.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.1      29.926 µg/L       19.1758      29.926 ppb        19.1758  64.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -15.284 µg/L        5.9121     -15.284 ppb         5.9121  38.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.8      0.1909 µg/L       0.07866      0.1909 ppb        0.07866  41.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.7      0.1816 µg/L       0.46249      0.1816 ppb        0.46249 254.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       565.9      186.28 µg/L        57.047      186.28 ppb         57.047  30.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -13.2     -0.7220 µg/L       0.03109     -0.7220 ppb        0.03109   4.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      5.4583 µg/L      21.89861      5.4583 ppb       21.89861 401.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.1     -1.0822 µg/L       0.95750     -1.0822 ppb        0.95750  88.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.8      12.362 µg/L        3.2727      12.362 ppb         3.2727  26.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.0     -0.9437 µg/L       4.42784     -0.9437 ppb        4.42784 469.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5     -5.2914 µg/L       3.28586     -5.2914 ppb        3.28586  62.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -55.5     -11.958 µg/L        6.2126     -11.958 ppb         6.2126  51.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -5.1     -0.4151 µg/L       0.20723     -0.4151 ppb        0.20723  49.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.1      0.9538 µg/L       0.28585      0.9538 ppb        0.28585  29.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.6      0.0679 µg/L       0.08784      0.0679 ppb        0.08784 129.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              46.4      0.1133 µg/L       0.08046      0.1133 ppb        0.08046  71.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.6030 µg/L       1.07067      0.6030 ppb        1.07067 177.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                7.9      0.7140 µg/L       2.67833      0.7140 ppb        2.67833 375.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               19.0      0.2062 µg/L       0.19224      0.2062 ppb        0.19224  93.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -13.9     -0.3405 µg/L       0.03570     -0.3405 ppb        0.03570  10.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 16:37:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57270.5	57270.5	105	%			16:38:25
1	Al 396.153Radial†	6958.1	6640.6	4939.3	µg/L	4939.3	ppb	16:38:25
1	Ca 317.933Radial†	5712.0	5263.9	4956.3	µg/L	4956.3	ppb	16:38:46
1	Fe 238.204 Radial†	619.2	575.5	4888.0	µg/L	4888.0	ppb	16:38:46
1	K 766.490 Radial†	7274.3	6803.4	4835.8	µg/L	4835.8	ppb	16:38:25
1	Mg 279.077 IEC†	580.4	541.8	5044.9	µg/L	5044.9	ppb	16:38:46
1	Na 589.592 Radial†	31721.9	29686.7	9772.9	µg/L	9772.9	ppb	16:38:25
1	Sr 421.552†	48411.5	46092.9	477.81	µg/L	477.81	ppb	16:38:25
1	Sc 361.383	2050041.7	2050041.7	107.34	%			16:39:49
1	Y 371.029	1400914.7	1400914.7	106.95	%			16:39:49
1	Ag 328.068†	63102.9	59351.9	474.38	µg/L	474.38	ppb	16:39:55
1	As 188.979†	273.7	253.8	495.14	µg/L	495.14	ppb	16:40:15
1	B 249.677†	11802.0	10663.4	464.23	µg/L	464.23	ppb	16:39:55
1	Ba 233.527†	19451.3	18147.1	473.37	µg/L	473.37	ppb	16:39:55
1	Be 313.107†	769937.6	720722.3	470.49	µg/L	470.49	ppb	16:39:49
1	Cd 226.502†	18413.9	17296.7	477.11	µg/L	477.11	ppb	16:39:55
1	Co 228.616†	10377.6	9676.7	475.69	µg/L	475.69	ppb	16:39:55
1	Cr 267.716†	23222.4	21686.6	477.32	µg/L	477.32	ppb	16:39:55
1	Cu 324.752†	74708.1	67112.7	469.48	µg/L	469.48	ppb	16:39:55
1	Mn 257.610†	148224.3	138331.4	479.47	µg/L	479.47	ppb	16:39:49
1	Mo 202.031†	4976.6	4643.8	495.78	µg/L	495.78	ppb	16:40:15
1	Ni 231.604†	9664.7	8701.5	475.25	µg/L	475.25	ppb	16:39:55
1	P 214.914†	1251.0	1137.8	2398.4	µg/L	2398.4	ppb	16:40:15
1	Pb 220.353†	2064.6	1826.2	487.49	µg/L	487.49	ppb	16:40:15
1	S 181.975 Axial†	253.0	220.8	967.55	µg/L	967.55	ppb	16:40:15
1	Sb 206.836†	561.9	496.5	490.97	µg/L	490.97	ppb	16:40:15
1	Se 196.026†	348.6	308.9	478.47	µg/L	478.47	ppb	16:40:15
1	SiO2†	26407.2	23351.2	5028.8	µg/L	5028.8	ppb	16:39:55
1	Si 251.611†	31109.3	28668.8	2356.7	µg/L	2356.7	ppb	16:39:55
1	Sn 189.927†	1168.8	1089.7	501.23	µg/L	501.23	ppb	16:40:15
1	Ti 334.940†	210704.4	196178.3	471.57	µg/L	471.57	ppb	16:39:49
1	Tl 190.801†	345.6	346.3	489.05	µg/L	489.05	ppb	16:40:15
1	U 409.014†	5635.8	5304.0	479.22	µg/L	479.22	ppb	16:39:55
1	V 292.402†	47452.9	44251.8	477.60	µg/L	477.60	ppb	16:39:55
1	Zn 213.857†	20929.0	19022.1	471.63	µg/L	471.63	ppb	16:39:55
2	Sc RADIAL	57824.5	57824.5	106	%			16:38:51
2	Al 396.153Radial†	6951.6	6571.0	4887.5	µg/L	4887.5	ppb	16:38:51
2	Ca 317.933Radial†	5692.9	5193.8	4890.3	µg/L	4890.3	ppb	16:39:12
2	Fe 238.204 Radial†	614.8	565.7	4804.8	µg/L	4804.8	ppb	16:39:12
2	K 766.490 Radial†	7297.3	6758.7	4804.0	µg/L	4804.0	ppb	16:38:51
2	Mg 279.077 IEC†	578.6	534.8	4980.5	µg/L	4980.5	ppb	16:39:12
2	Na 589.592 Radial†	31791.5	29462.7	9699.2	µg/L	9699.2	ppb	16:38:51
2	Sr 421.552†	48548.0	45779.7	474.56	µg/L	474.56	ppb	16:38:51
2	Sc 361.383	2050967.6	2050967.6	107.39	%			16:40:22
2	Y 371.029	1401478.7	1401478.7	106.99	%			16:40:22
2	Ag 328.068†	63066.7	59291.5	473.89	µg/L	473.89	ppb	16:40:28
2	As 188.979†	260.8	241.7	471.43	µg/L	471.43	ppb	16:40:49
2	B 249.677†	11773.8	10632.2	462.91	µg/L	462.91	ppb	16:40:28
2	Ba 233.527†	19468.8	18155.2	473.58	µg/L	473.58	ppb	16:40:28
2	Be 313.107†	769423.9	719920.1	469.97	µg/L	469.97	ppb	16:40:22
2	Cd 226.502†	18369.5	17247.6	475.77	µg/L	475.77	ppb	16:40:28
2	Co 228.616†	10387.8	9681.8	475.93	µg/L	475.93	ppb	16:40:28
2	Cr 267.716†	23230.7	21684.6	477.27	µg/L	477.27	ppb	16:40:28
2	Cu 324.752†	74607.6	66987.7	468.59	µg/L	468.59	ppb	16:40:28
2	Mn 257.610†	147653.6	137737.6	477.41	µg/L	477.41	ppb	16:40:22
2	Mo 202.031†	4936.1	4604.0	491.53	µg/L	491.53	ppb	16:40:49
2	Ni 231.604†	9650.2	8684.0	474.29	µg/L	474.29	ppb	16:40:28
2	P 214.914†	1239.1	1126.2	2373.7	µg/L	2373.7	ppb	16:40:49
2	Pb 220.353†	2036.6	1799.3	480.30	µg/L	480.30	ppb	16:40:49

2	S 181.975 Axial†	251.7	219.6	962.01 µg/L	962.01 ppb	16:40:49
2	Sb 206.836†	560.6	495.1	489.53 µg/L	489.53 ppb	16:40:49
2	Se 196.026†	352.8	312.7	484.04 µg/L	484.04 ppb	16:40:49
2	SiO2†	26423.9	23355.6	5029.8 µg/L	5029.8 ppb	16:40:28
2	Si 251.611†	31116.7	28662.7	2356.2 µg/L	2356.2 ppb	16:40:28
2	Sn 189.927†	1158.0	1079.2	496.40 µg/L	496.40 ppb	16:40:49
2	Ti 334.940†	210552.3	195948.0	471.02 µg/L	471.02 ppb	16:40:22
2	Tl 190.801†	346.0	346.5	489.25 µg/L	489.25 ppb	16:40:49
2	U 409.014†	5584.5	5253.8	474.70 µg/L	474.70 ppb	16:40:28
2	V 292.402†	47503.1	44278.6	477.84 µg/L	477.84 ppb	16:40:28
2	Zn 213.857†	20951.2	19034.0	471.94 µg/L	471.94 ppb	16:40:28
3	Sc RADIAL	57919.3	57919.3	106 %		16:39:17
3	Al 396.153Radial†	6873.3	6486.5	4826.1 µg/L	4826.1 ppb	16:39:17
3	Ca 317.933Radial†	5675.3	5168.4	4866.3 µg/L	4866.3 ppb	16:39:38
3	Fe 238.204 Radial†	612.6	562.7	4778.5 µg/L	4778.5 ppb	16:39:38
3	K 766.490 Radial†	7223.5	6677.9	4746.6 µg/L	4746.6 ppb	16:39:17
3	Mg 279.077 IEC†	577.0	532.4	4956.6 µg/L	4956.6 ppb	16:39:38
3	Na 589.592 Radial†	31537.3	29174.1	9604.2 µg/L	9604.2 ppb	16:39:17
3	Sr 421.552†	47945.0	45136.6	467.89 µg/L	467.89 ppb	16:39:17
3	Sc 361.383	2047169.0	2047169.0	107.19 %		16:40:56
3	Y 371.029	1398213.9	1398213.9	106.74 %		16:40:56
3	Ag 328.068†	59282.1	55869.9	446.44 µg/L	446.44 ppb	16:41:01
3	As 188.979†	231.4	214.7	418.91 µg/L	418.91 ppb	16:41:22
3	B 249.677†	11101.6	10025.4	436.32 µg/L	436.32 ppb	16:41:01
3	Ba 233.527†	17825.1	16655.3	434.45 µg/L	434.45 ppb	16:41:01
3	Be 313.107†	720453.0	675563.8	441.01 µg/L	441.01 ppb	16:40:56
3	Cd 226.502†	16836.0	15848.7	437.13 µg/L	437.13 ppb	16:41:01
3	Co 228.616†	9439.7	8815.3	433.29 µg/L	433.29 ppb	16:41:01
3	Cr 267.716†	20551.5	19225.2	423.15 µg/L	423.15 ppb	16:41:01
3	Cu 324.752†	68186.1	61125.9	427.64 µg/L	427.64 ppb	16:41:01
3	Mn 257.610†	138984.9	129905.6	450.28 µg/L	450.28 ppb	16:40:56
3	Mo 202.031†	4143.4	3873.0	413.51 µg/L	413.51 ppb	16:41:22
3	Ni 231.604†	8808.1	7915.1	432.30 µg/L	432.30 ppb	16:41:01
3	P 214.914†	1067.2	968.0	2036.9 µg/L	2036.9 ppb	16:41:22
3	Pb 220.353†	1797.4	1579.7	421.60 µg/L	421.60 ppb	16:41:22
3	S 181.975 Axial†	226.2	196.2	859.46 µg/L	859.46 ppb	16:41:22
3	Sb 206.836†	485.7	426.1	420.98 µg/L	420.98 ppb	16:41:22
3	Se 196.026†	307.9	271.4	421.09 µg/L	421.09 ppb	16:41:22
3	SiO2†	24533.6	21637.8	4659.8 µg/L	4659.8 ppb	16:41:01
3	Si 251.611†	28891.7	26640.7	2190.0 µg/L	2190.0 ppb	16:41:01
3	Sn 189.927†	954.7	891.5	410.08 µg/L	410.08 ppb	16:41:22
3	Ti 334.940†	196335.7	183048.9	440.00 µg/L	440.00 ppb	16:40:56
3	Tl 190.801†	308.7	312.2	441.18 µg/L	441.18 ppb	16:41:22
3	U 409.014†	5011.7	4729.1	427.20 µg/L	427.20 ppb	16:41:01
3	V 292.402†	42781.7	39956.1	430.99 µg/L	430.99 ppb	16:41:01
3	Zn 213.857†	19123.4	17365.0	430.51 µg/L	430.51 ppb	16:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2049392.8	107.31	%	0.104				0.10%
Sc RADIAL	57671.4	106	%	0.6				0.61%
Y 371.029	1400202.5	106.89	%	0.133				0.12%
Ag 328.068†	58171.1	464.90	µg/L	15.993	464.90	ppb	15.993	3.44%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	6566.1	4884.3	µg/L	56.67	4884.3	ppb	56.67	1.16%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	236.7	461.83	µg/L	39.012	461.83	ppb	39.012	8.45%
QC value within limits for As 188.979 Recovery = 92.37%								
B 249.677†	10440.3	454.49	µg/L	15.747	454.49	ppb	15.747	3.46%
QC value within limits for B 249.677 Recovery = 90.90%								
Ba 233.527†	17652.5	460.47	µg/L	22.535	460.47	ppb	22.535	4.89%
QC value within limits for Ba 233.527 Recovery = 92.09%								
Be 313.107†	705402.1	460.49	µg/L	16.871	460.49	ppb	16.871	3.66%
QC value within limits for Be 313.107 Recovery = 92.10%								
Ca 317.933Radial†	5208.7	4904.3	µg/L	46.59	4904.3	ppb	46.59	0.95%
QC value within limits for Ca 317.933Radial Recovery = 98.09%								
Cd 226.502†	16797.7	463.34	µg/L	22.703	463.34	ppb	22.703	4.90%
QC value within limits for Cd 226.502 Recovery = 92.67%								
Co 228.616†	9391.3	461.63	µg/L	24.552	461.63	ppb	24.552	5.32%

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   QC value within limits for Co 228.616  Recovery = 92.33%
Cr 267.716†            20865.4      459.24 µg/L        31.262      459.24 ppb        31.262   6.81%
   QC value within limits for Cr 267.716  Recovery = 91.85%
Cu 324.752†            65075.5      455.24 µg/L        23.902      455.24 ppb        23.902   5.25%
   QC value within limits for Cu 324.752  Recovery = 91.05%
Fe 238.204 Radial†       568.0      4823.8 µg/L        57.17       4823.8 ppb         57.17   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.48%
K 766.490 Radial†       6746.7      4795.5 µg/L        45.22       4795.5 ppb         45.22   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 95.91%
Mg 279.077 IEC†          536.3      4994.0 µg/L        45.66       4994.0 ppb         45.66   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           135324.9      469.05 µg/L        16.289      469.05 ppb        16.289   3.47%
   QC value within limits for Mn 257.610  Recovery = 93.81%
Mo 202.031†             4373.6      466.94 µg/L        46.322      466.94 ppb        46.322   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.39%
Na 589.592 Radial†     29441.2      9692.1 µg/L        84.60       9692.1 ppb         84.60   0.87%
   QC value within limits for Na 589.592 Radial  Recovery = 96.92%
Ni 231.604†             8433.5      460.62 µg/L        24.525      460.62 ppb        24.525   5.32%
   QC value within limits for Ni 231.604  Recovery = 92.12%
P 214.914†              1077.3      2269.6 µg/L       201.96       2269.6 ppb       201.96   8.90%
   QC value within limits for P 214.914  Recovery = 90.79%
Pb 220.353†             1735.0      463.13 µg/L        36.146      463.13 ppb        36.146   7.80%
   QC value within limits for Pb 220.353  Recovery = 92.63%
S 181.975 Axial†         212.2      929.67 µg/L        60.871      929.67 ppb        60.871   6.55%
   QC value within limits for S 181.975 Axial  Recovery = 92.97%
Sb 206.836†              472.6      467.16 µg/L        39.999      467.16 ppb        39.999   8.56%
   QC value within limits for Sb 206.836  Recovery = 93.43%
Se 196.026†              297.7      461.20 µg/L        34.847      461.20 ppb        34.847   7.56%
   QC value within limits for Se 196.026  Recovery = 92.24%
SiO2†                  22781.6      4906.1 µg/L       213.31       4906.1 ppb       213.31   4.35%
   QC value within limits for SiO2  Recovery = 91.75%
Si 251.611†            27990.8      2301.0 µg/L        96.11       2301.0 ppb        96.11   4.18%
   QC value within limits for Si 251.611  Recovery = 92.04%
Sn 189.927†             1020.1      469.24 µg/L        51.288      469.24 ppb        51.288  10.93%
   QC value within limits for Sn 189.927  Recovery = 93.85%
Sr 421.552†            45669.7      473.42 µg/L         5.054      473.42 ppb         5.054   1.07%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           191725.1      460.86 µg/L        18.074      460.86 ppb        18.074   3.92%
   QC value within limits for Ti 334.940  Recovery = 92.17%
Tl 190.801†              335.0      473.16 µg/L        27.695      473.16 ppb        27.695   5.85%
   QC value within limits for Tl 190.801  Recovery = 94.63%
U 409.014†              5095.6      460.37 µg/L        28.818      460.37 ppb        28.818   6.26%
   QC value within limits for U 409.014  Recovery = 92.07%
V 292.402†             42828.8      462.14 µg/L        26.978      462.14 ppb        26.978   5.84%
   QC value within limits for V 292.402  Recovery = 92.43%
Zn 213.857†            18473.7      458.03 µg/L        23.826      458.03 ppb        23.826   5.20%
   QC value within limits for Zn 213.857  Recovery = 91.61%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58584.5	58584.5	107	%			16:42:04
1	Al 396.153Radial†	51.2	57.8	43.068	µg/L	43.068	ppb	16:42:04
1	Ca 317.933Radial†	241.7	46.0	43.344	µg/L	43.344	ppb	16:42:24
1	Fe 238.204 Radial†	14.5	-1.0	-8.1938	µg/L	-8.1938	ppb	16:42:24
1	K 766.490 Radial†	158.2	19.0	13.495	µg/L	13.495	ppb	16:42:04
1	Mg 279.077 IEC†	19.4	6.8	63.641	µg/L	63.641	ppb	16:42:24
1	Na 589.592 Radial†	1003.5	392.9	129.35	µg/L	129.35	ppb	16:42:04
1	Sr 421.552†	45.5	2.9	0.0298	µg/L	0.0298	ppb	16:42:04
1	Sc 361.383	2059865.1	2059865.1	107.86	%			16:43:26
1	Y 371.029	1412010.5	1412010.5	107.79	%			16:43:26
1	Ag 328.068†	-580.2	26.6	0.2127	µg/L	0.2127	ppb	16:43:32
1	As 188.979†	-2.2	-3.1	-6.1457	µg/L	-6.1457	ppb	16:43:52
1	B 249.677†	314.7	-39.7	-1.7298	µg/L	-1.7298	ppb	16:43:52
1	Ba 233.527†	-34.6	-6.1	-0.1574	µg/L	-0.1574	ppb	16:43:52
1	Be 313.107†	-3476.5	217.1	0.1418	µg/L	0.1418	ppb	16:43:32
1	Cd 226.502†	-142.5	10.0	0.2771	µg/L	0.2771	ppb	16:43:52
1	Co 228.616†	-11.6	-1.9	-0.0950	µg/L	-0.0950	ppb	16:43:52
1	Cr 267.716†	-40.1	15.2	0.3343	µg/L	0.3343	ppb	16:43:32
1	Cu 324.752†	2513.6	-155.6	-1.0878	µg/L	-1.0878	ppb	16:43:32
1	Mn 257.610†	-238.3	23.1	0.0765	µg/L	0.0765	ppb	16:43:52
1	Mo 202.031†	-4.7	3.2	0.3434	µg/L	0.3434	ppb	16:43:52
1	Ni 231.604†	310.9	-14.0	-0.7640	µg/L	-0.7640	ppb	16:43:52
1	P 214.914†	32.2	2.3	4.9663	µg/L	4.9663	ppb	16:43:52
1	Pb 220.353†	102.0	-2.6	-0.7002	µg/L	-0.7002	ppb	16:43:52
1	S 181.975 Axial†	19.3	3.1	13.368	µg/L	13.368	ppb	16:43:52
1	Sb 206.836†	23.2	-5.4	-5.3618	µg/L	-5.3618	ppb	16:43:52
1	Se 196.026†	20.8	3.4	5.1089	µg/L	5.1089	ppb	16:43:52
1	SiO2†	1256.8	-84.7	-18.250	µg/L	-18.250	ppb	16:43:32
1	Si 251.611†	299.6	-35.1	-2.8840	µg/L	-2.8840	ppb	16:43:52
1	Sn 189.927†	-1.9	-0.9	-0.4213	µg/L	-0.4213	ppb	16:43:52
1	Ti 334.940†	103.7	-20.0	-0.0524	µg/L	-0.0524	ppb	16:43:32
1	Tl 190.801†	-18.7	7.0	9.7650	µg/L	9.7650	ppb	16:43:52
1	U 409.014†	8.9	61.9	5.6031	µg/L	5.6031	ppb	16:43:32
1	V 292.402†	-13.8	31.5	0.3435	µg/L	0.3435	ppb	16:43:32
1	Zn 213.857†	488.8	-22.3	-0.5552	µg/L	-0.5552	ppb	16:43:52
2	Sc RADIAL	57826.0	57826.0	106	%			16:42:30
2	Al 396.153Radial†	36.0	44.1	32.860	µg/L	32.860	ppb	16:42:30
2	Ca 317.933Radial†	243.6	50.8	47.787	µg/L	47.787	ppb	16:42:50
2	Fe 238.204 Radial†	18.8	3.3	27.831	µg/L	27.831	ppb	16:42:50
2	K 766.490 Radial†	189.0	49.9	35.479	µg/L	35.479	ppb	16:42:30
2	Mg 279.077 IEC†	19.0	6.7	61.954	µg/L	61.954	ppb	16:42:50
2	Na 589.592 Radial†	991.6	394.0	129.71	µg/L	129.71	ppb	16:42:30
2	Sr 421.552†	62.3	19.3	0.1997	µg/L	0.1997	ppb	16:42:30
2	Sc 361.383	2019733.9	2019733.9	105.75	%			16:43:58
2	Y 371.029	1384706.2	1384706.2	105.71	%			16:43:58
2	Ag 328.068†	-558.4	36.5	0.2916	µg/L	0.2916	ppb	16:44:04
2	As 188.979†	-1.6	-2.7	-5.2610	µg/L	-5.2610	ppb	16:44:24
2	B 249.677†	316.8	-31.9	-1.4069	µg/L	-1.4069	ppb	16:44:24
2	Ba 233.527†	-28.3	-0.8	-0.0199	µg/L	-0.0199	ppb	16:44:24
2	Be 313.107†	-3437.1	190.3	0.1243	µg/L	0.1243	ppb	16:44:04
2	Cd 226.502†	-144.6	5.4	0.1447	µg/L	0.1447	ppb	16:44:24
2	Co 228.616†	-10.6	-1.2	-0.0595	µg/L	-0.0595	ppb	16:44:24
2	Cr 267.716†	-44.1	10.7	0.2350	µg/L	0.2350	ppb	16:44:04
2	Cu 324.752†	2441.7	-177.3	-1.2343	µg/L	-1.2343	ppb	16:44:04
2	Mn 257.610†	-221.2	34.9	0.1222	µg/L	0.1222	ppb	16:44:24
2	Mo 202.031†	-2.8	4.9	0.5203	µg/L	0.5203	ppb	16:44:24
2	Ni 231.604†	305.8	-13.1	-0.7134	µg/L	-0.7134	ppb	16:44:24
2	P 214.914†	32.5	3.1	6.8494	µg/L	6.8494	ppb	16:44:24
2	Pb 220.353†	110.5	7.3	1.9444	µg/L	1.9444	ppb	16:44:24

2	S 181.975 Axial†	18.0	2.2	9.5789	µg/L	9.5789 ppb	16:44:24
2	Sb 206.836†	26.9	-1.5	-1.5033	µg/L	-1.5033 ppb	16:44:24
2	Se 196.026†	9.1	-7.3	-11.082	µg/L	-11.082 ppb	16:44:24
2	SiO2†	1234.9	-82.3	-17.728	µg/L	-17.728 ppb	16:44:04
2	Si 251.611†	315.8	-14.3	-1.1723	µg/L	-1.1723 ppb	16:44:24
2	Sn 189.927†	-0.9	0.0	0.0122	µg/L	0.0122 ppb	16:44:24
2	Ti 334.940†	107.0	-14.9	-0.0400	µg/L	-0.0400 ppb	16:44:04
2	Tl 190.801†	-22.2	3.3	4.6398	µg/L	4.6398 ppb	16:44:24
2	U 409.014†	11.6	64.6	5.8396	µg/L	5.8396 ppb	16:44:04
2	V 292.402†	-47.1	-0.3	0.0106	µg/L	0.0106 ppb	16:44:04
2	Zn 213.857†	485.9	-16.1	-0.4022	µg/L	-0.4022 ppb	16:44:24
3	Sc RADIAL	58203.8	58203.8	107	%		16:42:56
3	Al 396.153Radial†	16.5	25.6	19.057	µg/L	19.057 ppb	16:42:56
3	Ca 317.933Radial†	234.3	40.6	38.198	µg/L	38.198 ppb	16:43:16
3	Fe 238.204 Radial†	16.0	0.5	4.0830	µg/L	4.0830 ppb	16:43:16
3	K 766.490 Radial†	180.9	41.2	29.300	µg/L	29.300 ppb	16:42:56
3	Mg 279.077 IEC†	18.0	5.6	52.283	µg/L	52.283 ppb	16:43:16
3	Na 589.592 Radial†	920.7	321.4	105.80	µg/L	105.80 ppb	16:42:56
3	Sr 421.552†	52.3	9.5	0.0985	µg/L	0.0985 ppb	16:42:56
3	Sc 361.383	1997484.6	1997484.6	104.59	%		16:44:31
3	Y 371.029	1369124.4	1369124.4	104.52	%		16:44:31
3	Ag 328.068†	-544.9	43.6	0.3481	µg/L	0.3481 ppb	16:44:36
3	As 188.979†	3.1	1.8	3.4746	µg/L	3.4746 ppb	16:44:57
3	B 249.677†	317.2	-28.2	-1.2336	µg/L	-1.2336 ppb	16:44:57
3	Ba 233.527†	-26.0	1.1	0.0301	µg/L	0.0301 ppb	16:44:57
3	Be 313.107†	-3380.0	208.8	0.1363	µg/L	0.1363 ppb	16:44:36
3	Cd 226.502†	-138.7	9.5	0.2617	µg/L	0.2617 ppb	16:44:57
3	Co 228.616†	-17.3	-7.7	-0.3772	µg/L	-0.3772 ppb	16:44:57
3	Cr 267.716†	-57.1	-2.2	-0.0487	µg/L	-0.0487 ppb	16:44:36
3	Cu 324.752†	2481.2	-113.8	-0.7943	µg/L	-0.7943 ppb	16:44:36
3	Mn 257.610†	-222.0	31.9	0.1088	µg/L	0.1088 ppb	16:44:57
3	Mo 202.031†	-5.2	2.6	0.2766	µg/L	0.2766 ppb	16:44:57
3	Ni 231.604†	300.3	-15.1	-0.8254	µg/L	-0.8254 ppb	16:44:57
3	P 214.914†	30.5	1.5	3.4004	µg/L	3.4004 ppb	16:44:57
3	Pb 220.353†	108.4	6.5	1.7342	µg/L	1.7342 ppb	16:44:57
3	S 181.975 Axial†	15.4	-0.1	-0.3301	µg/L	-0.3301 ppb	16:44:57
3	Sb 206.836†	27.4	-0.8	-0.7588	µg/L	-0.7588 ppb	16:44:57
3	Se 196.026†	19.0	2.4	3.5402	µg/L	3.5402 ppb	16:44:57
3	SiO2†	1246.0	-58.7	-12.639	µg/L	-12.639 ppb	16:44:36
3	Si 251.611†	309.0	-17.4	-1.4306	µg/L	-1.4306 ppb	16:44:57
3	Sn 189.927†	-0.1	0.8	0.3816	µg/L	0.3816 ppb	16:44:57
3	Ti 334.940†	122.3	0.8	-0.0015	µg/L	-0.0015 ppb	16:44:36
3	Tl 190.801†	-19.4	5.7	7.9510	µg/L	7.9510 ppb	16:44:57
3	U 409.014†	-119.0	-60.2	-5.4508	µg/L	-5.4508 ppb	16:44:36
3	V 292.402†	-13.3	31.5	0.3324	µg/L	0.3324 ppb	16:44:36
3	Zn 213.857†	491.8	-5.3	-0.1315	µg/L	-0.1315 ppb	16:44:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2025694.5	106.07	%	1.655				1.56%
Sc RADIAL	58204.8	107	%	0.7				0.65%
Y 371.029	1388613.7	106.01	%	1.657				1.56%
Ag 328.068†	35.6	0.2841	µg/L	0.06799	0.2841	ppb	0.06799	23.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.5	31.661	µg/L	12.0501	31.661	ppb	12.0501	38.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-2.6440	µg/L	5.31733	-2.6440	ppb	5.31733	201.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-33.2	-1.4568	µg/L	0.25185	-1.4568	ppb	0.25185	17.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.9	-0.0491	µg/L	0.09709	-0.0491	ppb	0.09709	197.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	205.4	0.1341	µg/L	0.00896	0.1341	ppb	0.00896	6.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	45.8	43.110	µg/L	4.7990	43.110	ppb	4.7990	11.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.3	0.2278	µg/L	0.07242	0.2278	ppb	0.07242	31.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.6	-0.1772	µg/L	0.17409	-0.1772	ppb	0.17409	98.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.9      0.1735 µg/L       0.19876      0.1735 ppb        0.19876 114.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -148.9     -1.0388 µg/L       0.22407     -1.0388 ppb        0.22407  21.57%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.9      7.9067 µg/L      18.31420      7.9067 ppb       18.31420 231.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         36.7      26.091 µg/L       11.3376      26.091 ppb        11.3376  43.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.4      59.293 µg/L        6.1293      59.293 ppb         6.1293  10.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.0      0.1025 µg/L       0.02350      0.1025 ppb        0.02350  22.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.6      0.3801 µg/L       0.12595      0.3801 ppb        0.12595  33.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       369.4      121.62 µg/L        13.704      121.62 ppb         13.704  11.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.0     -0.7676 µg/L       0.05609     -0.7676 ppb        0.05609   7.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.3      5.0720 µg/L       1.72695      5.0720 ppb        1.72695  34.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.7      0.9928 µg/L       1.46997      0.9928 ppb        1.46997 148.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.7      7.5391 µg/L       7.07334      7.5391 ppb        7.07334  93.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.6     -2.5413 µg/L       2.47086     -2.5413 ppb        2.47086  97.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.5     -0.8111 µg/L       8.92964     -0.8111 ppb        8.92964 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -75.3     -16.206 µg/L        3.0998     -16.206 ppb         3.0998  19.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -22.2     -1.8290 µg/L       0.92279     -1.8290 ppb        0.92279  50.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.0     -0.0092 µg/L       0.40185     -0.0092 ppb        0.40185 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.5      0.1093 µg/L       0.08548      0.1093 ppb        0.08548  78.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -11.4     -0.0313 µg/L       0.02652     -0.0313 ppb        0.02652  84.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.3      7.4520 µg/L       2.59879      7.4520 ppb        2.59879  34.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                22.1      1.9973 µg/L       6.45136      1.9973 ppb        6.45136 323.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.9      0.2288 µg/L       0.18906      0.2288 ppb        0.18906  82.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.6     -0.3630 µg/L       0.21454     -0.3630 ppb        0.21454  59.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/11/2010 16:58:42
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502
Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 2/11/2010 16:58:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58304.7	58304.7	107	%			16:59:20
1	Al 396.153Radial†	6786.5	6362.5	4732.0	µg/L	4732.0	ppb	16:59:20
1	Ca 317.933Radial†	5536.9	5003.5	4711.1	µg/L	4711.1	ppb	16:59:40
1	Fe 238.204 Radial†	610.2	556.6	4728.2	µg/L	4728.2	ppb	16:59:40
1	K 766.490 Radial†	7283.7	6689.2	4754.7	µg/L	4754.7	ppb	16:59:20
1	Mg 279.077 IEC†	569.3	521.6	4857.3	µg/L	4857.3	ppb	16:59:40
1	Na 589.592 Radial†	31197.2	28659.4	9434.8	µg/L	9434.8	ppb	16:59:20
1	Sr 421.552†	48428.4	45290.4	469.49	µg/L	469.49	ppb	16:59:20
1	Sc 361.383	2048192.0	2048192.0	107.24	%			17:00:43
1	Y 371.029	1396873.4	1396873.4	106.64	%			17:00:43
1	Ag 328.068†	62792.0	59115.0	472.54	µg/L	472.54	ppb	17:00:49
1	As 188.979†	276.2	256.4	500.17	µg/L	500.17	ppb	17:01:09
1	B 249.677†	11976.6	10836.1	471.87	µg/L	471.87	ppb	17:00:49
1	Ba 233.527†	19779.6	18469.6	481.79	µg/L	481.79	ppb	17:00:49
1	Be 313.107†	782023.1	732639.2	478.28	µg/L	478.28	ppb	17:00:43
1	Cd 226.502†	18757.9	17632.9	486.42	µg/L	486.42	ppb	17:00:49
1	Co 228.616†	10618.7	9910.3	487.18	µg/L	487.18	ppb	17:00:49
1	Cr 267.716†	23605.9	22063.7	485.62	µg/L	485.62	ppb	17:00:49
1	Cu 324.752†	75656.1	68059.5	476.07	µg/L	476.07	ppb	17:00:49
1	Mn 257.610†	150274.2	140367.5	486.51	µg/L	486.51	ppb	17:00:43
1	Mo 202.031†	4970.8	4642.6	495.64	µg/L	495.64	ppb	17:01:09
1	Ni 231.604†	9869.6	8900.8	486.13	µg/L	486.13	ppb	17:00:49
1	P 214.914†	1275.8	1162.0	2449.8	µg/L	2449.8	ppb	17:01:09
1	Pb 220.353†	2092.9	1854.3	494.97	µg/L	494.97	ppb	17:01:09
1	S 181.975 Axial†	258.0	225.7	989.09	µg/L	989.09	ppb	17:01:09
1	Sb 206.836†	558.6	493.9	488.34	µg/L	488.34	ppb	17:01:09
1	Se 196.026†	360.2	320.1	495.20	µg/L	495.20	ppb	17:01:09
1	SiO2†	26598.5	23551.8	5072.0	µg/L	5072.0	ppb	17:00:49
1	Si 251.611†	31394.2	28960.7	2380.7	µg/L	2380.7	ppb	17:00:49
1	Sn 189.927†	1171.7	1093.4	502.93	µg/L	502.93	ppb	17:01:09
1	Ti 334.940†	209687.5	195407.3	469.73	µg/L	469.73	ppb	17:00:43
1	Tl 190.801†	351.0	351.5	496.34	µg/L	496.34	ppb	17:01:09
1	U 409.014†	5705.8	5374.0	485.60	µg/L	485.60	ppb	17:00:49
1	V 292.402†	48262.6	45046.7	486.08	µg/L	486.08	ppb	17:00:49
1	Zn 213.857†	21405.2	19483.8	483.11	µg/L	483.11	ppb	17:00:49
2	Sc RADIAL	57809.4	57809.4	106	%			16:59:45
2	Al 396.153Radial†	6713.1	6347.6	4720.4	µg/L	4720.4	ppb	16:59:45
2	Ca 317.933Radial†	5573.2	5082.2	4785.2	µg/L	4785.2	ppb	17:00:06
2	Fe 238.204 Radial†	613.9	565.0	4800.0	µg/L	4800.0	ppb	17:00:06
2	K 766.490 Radial†	7246.0	6712.1	4770.9	µg/L	4770.9	ppb	16:59:45
2	Mg 279.077 IEC†	566.2	523.3	4873.4	µg/L	4873.4	ppb	17:00:06
2	Na 589.592 Radial†	31072.8	28792.1	9478.5	µg/L	9478.5	ppb	16:59:45
2	Sr 421.552†	48008.7	45282.6	469.41	µg/L	469.41	ppb	16:59:45
2	Sc 361.383	1951160.7	1951160.7	102.16	%			17:01:16
2	Y 371.029	1331856.8	1331856.8	101.67	%			17:01:16
2	Ag 328.068†	64120.5	63327.2	506.22	µg/L	506.22	ppb	17:01:22
2	As 188.979†	277.7	270.7	528.08	µg/L	528.08	ppb	17:01:43

2	B 249.677†	12297.9	11706.0	509.91 µg/L	509.91 ppb	17:01:22
2	Ba 233.527†	20306.8	19902.8	519.17 µg/L	519.17 ppb	17:01:22
2	Be 313.107†	802212.2	788663.9	514.85 µg/L	514.85 ppb	17:01:16
2	Cd 226.502†	19256.8	18991.1	523.92 µg/L	523.92 ppb	17:01:22
2	Co 228.616†	10882.2	10660.6	524.05 µg/L	524.05 ppb	17:01:22
2	Cr 267.716†	24198.0	23738.0	522.47 µg/L	522.47 ppb	17:01:22
2	Cu 324.752†	77364.3	73239.8	512.26 µg/L	512.26 ppb	17:01:22
2	Mn 257.610†	154462.4	151435.4	524.84 µg/L	524.84 ppb	17:01:16
2	Mo 202.031†	4974.0	4876.2	520.57 µg/L	520.57 ppb	17:01:43
2	Ni 231.604†	10143.4	9626.4	525.76 µg/L	525.76 ppb	17:01:22
2	P 214.914†	1278.9	1224.2	2579.9 µg/L	2579.9 ppb	17:01:43
2	Pb 220.353†	2103.7	1962.0	523.68 µg/L	523.68 ppb	17:01:43
2	S 181.975 Axial†	261.1	240.7	1054.7 µg/L	1054.7 ppb	17:01:43
2	Sb 206.836†	565.0	526.1	520.02 µg/L	520.02 ppb	17:01:43
2	Se 196.026†	363.5	340.0	525.72 µg/L	525.72 ppb	17:01:43
2	SiO2†	27321.6	25493.0	5490.1 µg/L	5490.1 ppb	17:01:22
2	Si 251.611†	32162.6	31168.6	2562.2 µg/L	2562.2 ppb	17:01:22
2	Sn 189.927†	1172.7	1148.8	528.40 µg/L	528.40 ppb	17:01:43
2	Ti 334.940†	216025.0	211334.0	508.04 µg/L	508.04 ppb	17:01:16
2	Tl 190.801†	350.8	367.7	519.30 µg/L	519.30 ppb	17:01:43
2	U 409.014†	5846.6	5776.4	522.02 µg/L	522.02 ppb	17:01:22
2	V 292.402†	49557.7	48552.4	523.76 µg/L	523.76 ppb	17:01:22
2	Zn 213.857†	21845.1	20906.9	518.41 µg/L	518.41 ppb	17:01:22
3	Sc RADIAL	58043.7	58043.7	106 %		17:00:11
3	Al 396.153Radial†	6748.6	6355.4	4728.2 µg/L	4728.2 ppb	17:00:11
3	Ca 317.933Radial†	5566.3	5054.5	4759.1 µg/L	4759.1 ppb	17:00:32
3	Fe 238.204 Radial†	616.6	565.2	4800.6 µg/L	4800.6 ppb	17:00:32
3	K 766.490 Radial†	7187.1	6629.1	4711.9 µg/L	4711.9 ppb	17:00:11
3	Mg 279.077 IEC†	562.5	517.6	4819.1 µg/L	4819.1 ppb	17:00:32
3	Na 589.592 Radial†	31179.2	28773.8	9472.4 µg/L	9472.4 ppb	17:00:11
3	Sr 421.552†	48277.8	45352.7	470.13 µg/L	470.13 ppb	17:00:11
3	Sc 361.383	2003631.8	2003631.8	104.91 %		17:01:50
3	Y 371.029	1367447.8	1367447.8	104.39 %		17:01:50
3	Ag 328.068†	59826.0	57590.0	460.26 µg/L	460.26 ppb	17:01:56
3	As 188.979†	236.7	224.5	438.03 µg/L	438.03 ppb	17:02:16
3	B 249.677†	11388.2	10523.6	458.12 µg/L	458.12 ppb	17:01:56
3	Ba 233.527†	18491.5	17651.9	460.45 µg/L	460.45 ppb	17:01:56
3	Be 313.107†	746381.1	714882.8	466.69 µg/L	466.69 ppb	17:01:50
3	Cd 226.502†	17452.2	16777.4	462.78 µg/L	462.78 ppb	17:01:56
3	Co 228.616†	9792.8	9343.2	459.24 µg/L	459.24 ppb	17:01:56
3	Cr 267.716†	21341.5	20394.9	448.89 µg/L	448.89 ppb	17:01:56
3	Cu 324.752†	70171.6	64400.7	450.52 µg/L	450.52 ppb	17:01:56
3	Mn 257.610†	143677.7	137196.1	475.54 µg/L	475.54 ppb	17:01:50
3	Mo 202.031†	4142.0	3955.7	422.34 µg/L	422.34 ppb	17:02:16
3	Ni 231.604†	9135.9	8406.0	459.11 µg/L	459.11 ppb	17:01:56
3	P 214.914†	1088.5	1009.9	2124.6 µg/L	2124.6 ppb	17:02:16
3	Pb 220.353†	1832.8	1649.8	440.26 µg/L	440.26 ppb	17:02:16
3	S 181.975 Axial†	227.5	202.0	885.22 µg/L	885.22 ppb	17:02:16
3	Sb 206.836†	480.8	431.3	425.93 µg/L	425.93 ppb	17:02:16
3	Se 196.026†	317.8	287.1	445.21 µg/L	445.21 ppb	17:02:16
3	SiO2†	25159.1	22731.4	4895.3 µg/L	4895.3 ppb	17:01:56
3	Si 251.611†	29597.8	27899.4	2293.5 µg/L	2293.5 ppb	17:01:56
3	Sn 189.927†	953.9	910.2	418.64 µg/L	418.64 ppb	17:02:16
3	Ti 334.940†	199390.2	189940.4	456.58 µg/L	456.58 ppb	17:01:50
3	Tl 190.801†	316.4	325.9	460.38 µg/L	460.38 ppb	17:02:16
3	U 409.014†	5187.8	4998.6	451.60 µg/L	451.60 ppb	17:01:56
3	V 292.402†	44415.7	42380.8	456.99 µg/L	456.99 ppb	17:01:56
3	Zn 213.857†	19887.4	18480.9	458.23 µg/L	458.23 ppb	17:01:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2000994.9	104.77	%	2.543				2.43%
Sc RADIAL	58052.6	106	%	0.5				0.43%
Y 371.029	1365392.6	104.23	%	2.485				2.38%
Ag 328.068†	60010.7	479.67	µg/L	23.794	479.67	ppb	23.794	4.96%
QC value within limits for Ag 328.068 Recovery = 95.93%								
Al 396.153Radial†	6355.1	4726.8	µg/L	5.90	4726.8	ppb	5.90	0.12%
QC value within limits for Al 396.153Radial Recovery = 94.54%								
As 188.979†	250.5	488.76	µg/L	46.092	488.76	ppb	46.092	9.43%

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   QC value within limits for As 188.979  Recovery = 97.75%
B 249.677†            11021.9      479.97 µg/L        26.827      479.97 ppb        26.827   5.59%
   QC value within limits for B 249.677  Recovery = 95.99%
Ba 233.527†           18674.8      487.13 µg/L        29.727      487.13 ppb        29.727   6.10%
   QC value within limits for Ba 233.527  Recovery = 97.43%
Be 313.107†          745395.3      486.60 µg/L        25.138      486.60 ppb        25.138   5.17%
   QC value within limits for Be 313.107  Recovery = 97.32%
Ca 317.933Radial†      5046.7      4751.8 µg/L         37.61      4751.8 ppb         37.61   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 95.04%
Cd 226.502†           17800.5      491.04 µg/L        30.831      491.04 ppb        30.831   6.28%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            9971.4      490.16 µg/L        32.508      490.16 ppb        32.508   6.63%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†           22065.5      485.66 µg/L        36.788      485.66 ppb        36.788   7.57%
   QC value within limits for Cr 267.716  Recovery = 97.13%
Cu 324.752†           68566.7      479.62 µg/L        31.024      479.62 ppb        31.024   6.47%
   QC value within limits for Cu 324.752  Recovery = 95.92%
Fe 238.204 Radial†      562.3      4776.3 µg/L         41.61      4776.3 ppb         41.61   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.53%
K 766.490 Radial†      6676.8      4745.8 µg/L         30.47      4745.8 ppb         30.47   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 94.92%
Mg 279.077 IEC†         520.8      4849.9 µg/L         27.89      4849.9 ppb         27.89   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.00%
Mn 257.610†          142999.7      495.63 µg/L        25.888      495.63 ppb        25.888   5.22%
   QC value within limits for Mn 257.610  Recovery = 99.13%
Mo 202.031†            4491.5      479.52 µg/L        51.064      479.52 ppb        51.064  10.65%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†    28741.7      9461.9 µg/L         23.68      9461.9 ppb         23.68   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 94.62%
Ni 231.604†            8977.7      490.33 µg/L        33.521      490.33 ppb        33.521   6.84%
   QC value within limits for Ni 231.604  Recovery = 98.07%
P 214.914†             1132.0      2384.7 µg/L        234.53      2384.7 ppb        234.53   9.83%
   QC value within limits for P 214.914  Recovery = 95.39%
Pb 220.353†            1822.0      486.30 µg/L        42.376      486.30 ppb        42.376   8.71%
   QC value within limits for Pb 220.353  Recovery = 97.26%
S 181.975 Axial†        222.8      976.34 µg/L        85.462      976.34 ppb        85.462   8.75%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†             483.8      478.10 µg/L        47.873      478.10 ppb        47.873  10.01%
   QC value within limits for Sb 206.836  Recovery = 95.62%
Se 196.026†             315.7      488.71 µg/L        40.646      488.71 ppb        40.646   8.32%
   QC value within limits for Se 196.026  Recovery = 97.74%
SiO2†                 23925.4      5152.5 µg/L        305.42      5152.5 ppb        305.42   5.93%
   QC value within limits for SiO2  Recovery = 96.35%
Si 251.611†           29342.9      2412.1 µg/L        137.10      2412.1 ppb        137.10   5.68%
   QC value within limits for Si 251.611  Recovery = 96.49%
Sn 189.927†            1050.8      483.32 µg/L        57.445      483.32 ppb        57.445  11.89%
   QC value within limits for Sn 189.927  Recovery = 96.66%
Sr 421.552†           45308.6      469.68 µg/L         0.398      469.68 ppb         0.398   0.08%
   QC value within limits for Sr 421.552  Recovery = 93.94%
Ti 334.940†          198893.9      478.12 µg/L        26.734      478.12 ppb        26.734   5.59%
   QC value within limits for Ti 334.940  Recovery = 95.62%
Tl 190.801†             348.4      492.01 µg/L        29.696      492.01 ppb        29.696   6.04%
   QC value within limits for Tl 190.801  Recovery = 98.40%
U 409.014†             5383.0      486.40 µg/L        35.218      486.40 ppb        35.218   7.24%
   QC value within limits for U 409.014  Recovery = 97.28%
V 292.402†            45326.6      488.94 µg/L        33.478      488.94 ppb        33.478   6.85%
   QC value within limits for V 292.402  Recovery = 97.79%
Zn 213.857†           19623.9      486.59 µg/L        30.241      486.59 ppb        30.241   6.21%
   QC value within limits for Zn 213.857  Recovery = 97.32%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:02:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56368.9	56368.9	103	%			17:03:01
1	Al 396.153Radial†	-30.7	-19.6	-14.585	µg/L	-14.585	ppb	17:03:01
1	Ca 317.933Radial†	198.1	12.6	11.864	µg/L	11.864	ppb	17:03:21
1	Fe 238.204 Radial†	17.2	2.2	18.515	µg/L	18.515	ppb	17:03:21
1	K 766.490 Radial†	209.8	74.8	53.133	µg/L	53.133	ppb	17:03:01
1	Mg 279.077 IEC†	16.1	4.3	39.936	µg/L	39.936	ppb	17:03:21
1	Na 589.592 Radial†	774.1	207.6	68.329	µg/L	68.329	ppb	17:03:01
1	Sr 421.552†	33.0	-7.6	-0.0789	µg/L	-0.0789	ppb	17:03:01
1	Sc 361.383	2029236.5	2029236.5	106.25	%			17:04:24
1	Y 371.029	1388942.8	1388942.8	106.03	%			17:04:24
1	Ag 328.068†	-592.1	7.2	0.0607	µg/L	0.0607	ppb	17:04:29
1	As 188.979†	-0.6	-1.7	-3.3695	µg/L	-3.3695	ppb	17:04:50
1	B 249.677†	324.7	-25.9	-1.1417	µg/L	-1.1417	ppb	17:04:50
1	Ba 233.527†	-22.4	4.9	0.1278	µg/L	0.1278	ppb	17:04:50
1	Be 313.107†	-3566.1	84.2	0.0549	µg/L	0.0549	ppb	17:04:29
1	Cd 226.502†	-151.8	-0.8	-0.0243	µg/L	-0.0243	ppb	17:04:50
1	Co 228.616†	-13.1	-3.5	-0.1727	µg/L	-0.1727	ppb	17:04:50
1	Cr 267.716†	-46.3	8.8	0.1931	µg/L	0.1931	ppb	17:04:50
1	Cu 324.752†	2496.7	-136.3	-0.9495	µg/L	-0.9495	ppb	17:04:29
1	Mn 257.610†	-248.9	9.9	0.0351	µg/L	0.0351	ppb	17:04:50
1	Mo 202.031†	-5.8	2.1	0.2273	µg/L	0.2273	ppb	17:04:50
1	Ni 231.604†	303.7	-16.3	-0.8932	µg/L	-0.8932	ppb	17:04:50
1	P 214.914†	32.7	3.2	6.8843	µg/L	6.8843	ppb	17:04:50
1	Pb 220.353†	96.4	-6.5	-1.7203	µg/L	-1.7203	ppb	17:04:50
1	S 181.975 Axial†	20.6	4.6	20.049	µg/L	20.049	ppb	17:04:50
1	Sb 206.836†	26.8	-1.7	-1.7124	µg/L	-1.7124	ppb	17:04:50
1	Se 196.026†	16.1	-0.6	-0.9715	µg/L	-0.9715	ppb	17:04:50
1	SiO2†	1235.6	-87.2	-18.769	µg/L	-18.769	ppb	17:04:29
1	Si 251.611†	286.6	-43.1	-3.5447	µg/L	-3.5447	ppb	17:04:50
1	Sn 189.927†	-4.0	-2.9	-1.3291	µg/L	-1.3291	ppb	17:04:50
1	Ti 334.940†	152.5	27.4	0.0631	µg/L	0.0631	ppb	17:04:29
1	Tl 190.801†	-22.1	3.5	4.9105	µg/L	4.9105	ppb	17:04:50
1	U 409.014†	-71.0	-13.2	-1.1992	µg/L	-1.1992	ppb	17:04:29
1	V 292.402†	-14.4	30.7	0.3301	µg/L	0.3301	ppb	17:04:29
1	Zn 213.857†	481.1	-22.7	-0.5654	µg/L	-0.5654	ppb	17:04:50
2	Sc RADIAL	56481.9	56481.9	103	%			17:03:27
2	Al 396.153Radial†	9.3	19.1	14.233	µg/L	14.233	ppb	17:03:27
2	Ca 317.933Radial†	192.6	6.9	6.5217	µg/L	6.5217	ppb	17:03:47
2	Fe 238.204 Radial†	14.6	-0.3	-2.9604	µg/L	-2.9604	ppb	17:03:47
2	K 766.490 Radial†	162.5	28.6	20.329	µg/L	20.329	ppb	17:03:27
2	Mg 279.077 IEC†	13.0	1.3	11.979	µg/L	11.979	ppb	17:03:47
2	Na 589.592 Radial†	797.1	228.3	75.169	µg/L	75.169	ppb	17:03:27
2	Sr 421.552†	46.5	5.4	0.0561	µg/L	0.0561	ppb	17:03:27
2	Sc 361.383	2012770.6	2012770.6	105.39	%			17:04:56
2	Y 371.029	1377597.1	1377597.1	105.17	%			17:04:56
2	Ag 328.068†	-578.5	15.6	0.1231	µg/L	0.1231	ppb	17:05:01
2	As 188.979†	2.2	1.0	1.9088	µg/L	1.9088	ppb	17:05:22
2	B 249.677†	310.5	-36.9	-1.6105	µg/L	-1.6105	ppb	17:05:22
2	Ba 233.527†	-26.6	0.8	0.0202	µg/L	0.0202	ppb	17:05:22
2	Be 313.107†	-3607.4	17.5	0.0114	µg/L	0.0114	ppb	17:05:01
2	Cd 226.502†	-140.3	9.0	0.2482	µg/L	0.2482	ppb	17:05:22
2	Co 228.616†	-20.8	-10.9	-0.5380	µg/L	-0.5380	ppb	17:05:22
2	Cr 267.716†	-50.1	4.9	0.1067	µg/L	0.1067	ppb	17:05:22
2	Cu 324.752†	2459.5	-152.4	-1.0650	µg/L	-1.0650	ppb	17:05:01
2	Mn 257.610†	-250.9	6.1	0.0201	µg/L	0.0201	ppb	17:05:22
2	Mo 202.031†	-3.2	4.5	0.4823	µg/L	0.4823	ppb	17:05:22
2	Ni 231.604†	300.2	-17.4	-0.9488	µg/L	-0.9488	ppb	17:05:22
2	P 214.914†	25.9	-3.0	-6.3600	µg/L	-6.3600	ppb	17:05:22
2	Pb 220.353†	99.5	-2.8	-0.7298	µg/L	-0.7298	ppb	17:05:22

2	S 181.975 Axial†	20.2	4.3	19.053 µg/L	19.053 ppb		17:05:22
2	Sb 206.836†	24.6	-3.6	-3.5810 µg/L	-3.5810 ppb		17:05:22
2	Se 196.026†	10.7	-5.7	-8.7427 µg/L	-8.7427 ppb		17:05:22
2	SiO2†	1253.5	-60.7	-13.065 µg/L	-13.065 ppb		17:05:01
2	Si 251.611†	291.0	-36.8	-3.0237 µg/L	-3.0237 ppb		17:05:22
2	Sn 189.927†	-0.9	-0.0	-0.0009 µg/L	-0.0009 ppb		17:05:22
2	Ti 334.940†	142.1	18.7	0.0441 µg/L	0.0441 ppb		17:05:01
2	Tl 190.801†	-21.2	4.2	5.8568 µg/L	5.8568 ppb		17:05:22
2	U 409.014†	-66.1	-9.1	-0.8270 µg/L	-0.8270 ppb		17:05:01
2	V 292.402†	-52.0	-5.1	-0.0519 µg/L	-0.0519 ppb		17:05:01
2	Zn 213.857†	477.8	-22.2	-0.5493 µg/L	-0.5493 ppb		17:05:22
3	Sc RADIAL	56062.3	56062.3	103 %			17:03:53
3	Al 396.153Radial†	-13.3	-2.8	-2.1100 µg/L	-2.1100 ppb		17:03:53
3	Ca 317.933Radial†	193.5	9.2	8.6834 µg/L	8.6834 ppb		17:04:13
3	Fe 238.204 Radial†	13.9	-1.0	-8.5236 µg/L	-8.5236 ppb		17:04:13
3	K 766.490 Radial†	145.6	13.3	9.4734 µg/L	9.4734 ppb		17:03:53
3	Mg 279.077 IEC†	12.4	0.8	7.7063 µg/L	7.7063 ppb		17:04:13
3	Na 589.592 Radial†	762.5	200.4	65.960 µg/L	65.960 ppb		17:03:53
3	Sr 421.552†	41.6	1.0	0.0099 µg/L	0.0099 ppb		17:03:53
3	Sc 361.383	1996457.8	1996457.8	104.54 %			17:05:28
3	Y 371.029	1367454.7	1367454.7	104.39 %			17:05:28
3	Ag 328.068†	-552.2	36.3	0.2878 µg/L	0.2878 ppb		17:05:33
3	As 188.979†	-1.4	-2.4	-4.7806 µg/L	-4.7806 ppb		17:05:54
3	B 249.677†	316.6	-28.6	-1.2466 µg/L	-1.2466 ppb		17:05:54
3	Ba 233.527†	-26.5	0.6	0.0163 µg/L	0.0163 ppb		17:05:54
3	Be 313.107†	-3498.2	94.1	0.0615 µg/L	0.0615 ppb		17:05:33
3	Cd 226.502†	-139.5	8.7	0.2407 µg/L	0.2407 ppb		17:05:54
3	Co 228.616†	-2.0	6.9	0.3417 µg/L	0.3417 ppb		17:05:54
3	Cr 267.716†	-37.2	16.7	0.3684 µg/L	0.3684 ppb		17:05:54
3	Cu 324.752†	2465.1	-128.0	-0.8950 µg/L	-0.8950 ppb		17:05:33
3	Mn 257.610†	-235.5	18.8	0.0637 µg/L	0.0637 ppb		17:05:54
3	Mo 202.031†	0.7	8.2	0.8795 µg/L	0.8795 ppb		17:05:54
3	Ni 231.604†	298.8	-16.4	-0.8963 µg/L	-0.8963 ppb		17:05:54
3	P 214.914†	31.0	2.0	4.4888 µg/L	4.4888 ppb		17:05:54
3	Pb 220.353†	112.9	10.8	2.8917 µg/L	2.8917 ppb		17:05:54
3	S 181.975 Axial†	16.6	1.1	4.7192 µg/L	4.7192 ppb		17:05:54
3	Sb 206.836†	24.2	-3.9	-3.7807 µg/L	-3.7807 ppb		17:05:54
3	Se 196.026†	10.9	-5.4	-8.2970 µg/L	-8.2970 ppb		17:05:54
3	SiO2†	1240.9	-63.0	-13.561 µg/L	-13.561 ppb		17:05:33
3	Si 251.611†	299.0	-26.9	-2.2074 µg/L	-2.2074 ppb		17:05:54
3	Sn 189.927†	0.3	1.1	0.5288 µg/L	0.5288 ppb		17:05:54
3	Ti 334.940†	59.1	-59.6	-0.1438 µg/L	-0.1438 ppb		17:05:33
3	Tl 190.801†	-24.5	0.9	1.2389 µg/L	1.2389 ppb		17:05:54
3	U 409.014†	-14.3	40.0	3.6190 µg/L	3.6190 ppb		17:05:33
3	V 292.402†	-38.2	7.6	0.0916 µg/L	0.0916 ppb		17:05:33
3	Zn 213.857†	475.0	-21.1	-0.5227 µg/L	-0.5227 ppb		17:05:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012821.6	105.39	%	0.858				0.81%
Sc RADIAL	56304.4	103	%	0.4				0.39%
Y 371.029	1377998.2	105.20	%	0.821				0.78%
Ag 328.068†	19.7	0.1572	µg/L	0.11730	0.1572	ppb	0.11730	74.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.1	-0.8207	µg/L	14.45235	-0.8207	ppb	14.45235	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-2.0804	µg/L	3.52609	-2.0804	ppb	3.52609	169.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.5	-1.3329	µg/L	0.24603	-1.3329	ppb	0.24603	18.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0547	µg/L	0.06331	0.0547	ppb	0.06331	115.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.3	0.0426	µg/L	0.02720	0.0426	ppb	0.02720	63.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	9.0232	µg/L	2.68752	9.0232	ppb	2.68752	29.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.7	0.1549	µg/L	0.15521	0.1549	ppb	0.15521	100.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.5	-0.1230	µg/L	0.44196	-0.1230	ppb	0.44196	359.31%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.1      0.2228 µg/L       0.13336      0.2228 ppb        0.13336  59.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -138.9     -0.9698 µg/L       0.08678     -0.9698 ppb        0.08678   8.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      2.3437 µg/L      14.27846      2.3437 ppb       14.27846 609.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        38.9      27.645 µg/L       22.7308      27.645 ppb        22.7308  82.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1      19.874 µg/L       17.5054      19.874 ppb        17.5054  88.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.6      0.0396 µg/L       0.02217      0.0396 ppb        0.02217  55.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.0      0.5297 µg/L       0.32865      0.5297 ppb        0.32865  62.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      212.1      69.819 µg/L        4.7822      69.819 ppb         4.7822   6.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -16.7     -0.9128 µg/L       0.03120     -0.9128 ppb        0.03120   3.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.7      1.6710 µg/L       7.05748      1.6710 ppb        7.05748 422.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.1472 µg/L       2.42781      0.1472 ppb        2.42781 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.3      14.607 µg/L        8.5775      14.607 ppb         8.5775  58.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.1     -3.0247 µg/L       1.14085     -3.0247 ppb        1.14085  37.72%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9     -6.0037 µg/L       4.36372     -6.0037 ppb        4.36372  72.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -70.3     -15.131 µg/L        3.1599     -15.131 ppb         3.1599  20.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -35.6     -2.9252 µg/L       0.67407     -2.9252 ppb        0.67407  23.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.2671 µg/L       0.95712     -0.2671 ppb        0.95712 358.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -0.4     -0.0043 µg/L       0.06861     -0.0043 ppb        0.06861 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -4.5     -0.0122 µg/L       0.11438     -0.0122 ppb        0.11438 935.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      4.0021 µg/L       2.43930      4.0021 ppb        2.43930  60.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                5.9      0.5309 µg/L       2.68081      0.5309 ppb        2.68081 504.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               11.1      0.1233 µg/L       0.19295      0.1233 ppb        0.19295 156.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.0     -0.5458 µg/L       0.02154     -0.5458 ppb        0.02154   3.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 17:27:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59035.7	59035.7	108	%			17:28:20
1	Al 396.153Radial†	6783.5	6281.0	4671.2	µg/L	4671.2	ppb	17:28:41
1	Ca 317.933Radial†	5601.2	4998.8	4706.7	µg/L	4706.7	ppb	17:28:41
1	Fe 238.204 Radial†	616.0	555.0	4714.2	µg/L	4714.2	ppb	17:28:41
1	K 766.490 Radial†	7145.2	6476.8	4603.7	µg/L	4603.7	ppb	17:28:20
1	Mg 279.077 IEC†	569.6	515.2	4798.3	µg/L	4798.3	ppb	17:28:41
1	Na 589.592 Radial†	30872.0	27997.1	9216.7	µg/L	9216.7	ppb	17:28:20
1	Sr 421.552†	47604.8	43967.8	455.78	µg/L	455.78	ppb	17:28:20
1	Sc 361.383	2041194.6	2041194.6	106.88	%			17:29:44
1	Y 371.029	1394791.7	1394791.7	106.48	%			17:29:44
1	Ag 328.068†	63072.7	59578.4	476.23	µg/L	476.23	ppb	17:29:50
1	As 188.979†	267.6	249.3	486.27	µg/L	486.27	ppb	17:30:10
1	B 249.677†	11989.2	10886.2	474.07	µg/L	474.07	ppb	17:29:50
1	Ba 233.527†	19747.0	18502.3	482.64	µg/L	482.64	ppb	17:29:50
1	Be 313.107†	767703.3	721740.7	471.16	µg/L	471.16	ppb	17:29:44
1	Cd 226.502†	18704.8	17643.2	486.70	µg/L	486.70	ppb	17:29:50
1	Co 228.616†	10605.3	9931.7	488.25	µg/L	488.25	ppb	17:29:50
1	Cr 267.716†	23632.0	22163.6	487.82	µg/L	487.82	ppb	17:29:50
1	Cu 324.752†	76228.6	68837.1	481.50	µg/L	481.50	ppb	17:29:50
1	Mn 257.610†	148178.1	138886.7	481.38	µg/L	481.38	ppb	17:29:44
1	Mo 202.031†	4955.0	4643.6	495.75	µg/L	495.75	ppb	17:30:10
1	Ni 231.604†	9868.1	8930.9	487.78	µg/L	487.78	ppb	17:29:50
1	P 214.914†	1270.5	1161.1	2447.3	µg/L	2447.3	ppb	17:30:10
1	Pb 220.353†	2082.6	1851.4	494.18	µg/L	494.18	ppb	17:30:10
1	S 181.975 Axial†	249.9	219.0	959.68	µg/L	959.68	ppb	17:30:10
1	Sb 206.836†	563.4	500.2	494.49	µg/L	494.49	ppb	17:30:10
1	Se 196.026†	362.5	323.3	500.24	µg/L	500.24	ppb	17:30:10
1	SiO2†	26645.9	23681.2	5099.9	µg/L	5099.9	ppb	17:29:50
1	Si 251.611†	31439.9	29103.8	2392.5	µg/L	2392.5	ppb	17:29:50
1	Sn 189.927†	1158.8	1085.1	499.11	µg/L	499.11	ppb	17:30:10
1	Ti 334.940†	206788.8	193365.5	464.82	µg/L	464.82	ppb	17:29:44
1	Tl 190.801†	353.5	355.1	501.20	µg/L	501.20	ppb	17:30:10
1	U 409.014†	5796.1	5476.7	494.90	µg/L	494.90	ppb	17:29:50
1	V 292.402†	48354.5	45287.0	488.65	µg/L	488.65	ppb	17:29:50
1	Zn 213.857†	21383.2	19531.6	484.30	µg/L	484.30	ppb	17:29:50
2	Sc RADIAL	57479.6	57479.6	105	%			17:28:46
2	Al 396.153Radial†	6775.5	6443.2	4792.2	µg/L	4792.2	ppb	17:29:07
2	Ca 317.933Radial†	5568.2	5107.6	4809.2	µg/L	4809.2	ppb	17:29:07
2	Fe 238.204 Radial†	613.4	567.9	4823.2	µg/L	4823.2	ppb	17:29:07
2	K 766.490 Radial†	7368.3	6867.5	4881.4	µg/L	4881.4	ppb	17:28:46
2	Mg 279.077 IEC†	569.1	529.1	4927.1	µg/L	4927.1	ppb	17:29:07
2	Na 589.592 Radial†	31686.3	29543.0	9725.6	µg/L	9725.6	ppb	17:28:46
2	Sr 421.552†	49060.1	46540.9	482.45	µg/L	482.45	ppb	17:28:46
2	Sc 361.383	2046028.0	2046028.0	107.13	%			17:30:18
2	Y 371.029	1397859.6	1397859.6	106.71	%			17:30:18
2	Ag 328.068†	62181.8	58607.4	468.48	µg/L	468.48	ppb	17:30:23
2	As 188.979†	270.5	251.3	490.33	µg/L	490.33	ppb	17:30:44
2	B 249.677†	11883.0	10760.6	468.51	µg/L	468.51	ppb	17:30:23
2	Ba 233.527†	19447.6	18179.1	474.21	µg/L	474.21	ppb	17:30:23
2	Be 313.107†	766991.4	719379.3	469.62	µg/L	469.62	ppb	17:30:18
2	Cd 226.502†	18417.3	17333.6	478.14	µg/L	478.14	ppb	17:30:23
2	Co 228.616†	10411.2	9727.0	478.18	µg/L	478.18	ppb	17:30:23
2	Cr 267.716†	23232.1	21738.1	478.45	µg/L	478.45	ppb	17:30:23
2	Cu 324.752†	75095.1	67610.5	472.94	µg/L	472.94	ppb	17:30:23
2	Mn 257.610†	147694.9	138108.1	478.69	µg/L	478.69	ppb	17:30:18
2	Mo 202.031†	4924.2	4604.0	491.52	µg/L	491.52	ppb	17:30:44
2	Ni 231.604†	9689.5	8742.4	477.48	µg/L	477.48	ppb	17:30:23
2	P 214.914†	1255.9	1144.7	2412.6	µg/L	2412.6	ppb	17:30:44
2	Pb 220.353†	2059.1	1824.8	487.10	µg/L	487.10	ppb	17:30:44

2	S 181.975 Axial†	252.0	220.4	965.86 µg/L	965.86 ppb	17:30:44
2	Sb 206.836†	552.5	488.7	483.25 µg/L	483.25 ppb	17:30:44
2	Se 196.026†	360.1	320.3	495.71 µg/L	495.71 ppb	17:30:44
2	SiO2†	26270.0	23271.4	5011.6 µg/L	5011.6 ppb	17:30:23
2	Si 251.611†	31001.1	28624.7	2353.1 µg/L	2353.1 ppb	17:30:23
2	Sn 189.927†	1147.6	1072.1	493.14 µg/L	493.14 ppb	17:30:44
2	Ti 334.940†	206329.6	192479.8	462.68 µg/L	462.68 ppb	17:30:18
2	Tl 190.801†	343.3	344.8	486.80 µg/L	486.80 ppb	17:30:44
2	U 409.014†	5690.4	5365.3	484.79 µg/L	484.79 ppb	17:30:23
2	V 292.402†	47623.9	44498.2	480.19 µg/L	480.19 ppb	17:30:23
2	Zn 213.857†	21043.3	19167.1	475.24 µg/L	475.24 ppb	17:30:23
3	Sc RADIAL	58545.2	58545.2	107 %		17:29:12
3	Al 396.153Radial†	6838.5	6384.8	4750.3 µg/L	4750.3 ppb	17:29:33
3	Ca 317.933Radial†	5643.2	5081.3	4784.4 µg/L	4784.4 ppb	17:29:33
3	Fe 238.204 Radial†	621.5	564.8	4796.6 µg/L	4796.6 ppb	17:29:33
3	K 766.490 Radial†	7265.1	6643.9	4722.5 µg/L	4722.5 ppb	17:29:12
3	Mg 279.077 IEC†	574.9	524.6	4884.3 µg/L	4884.3 ppb	17:29:33
3	Na 589.592 Radial†	31113.3	28461.2	9369.5 µg/L	9369.5 ppb	17:29:12
3	Sr 421.552†	48089.7	44788.5	464.29 µg/L	464.29 ppb	17:29:12
3	Sc 361.383	2017377.3	2017377.3	105.63 %		17:30:51
3	Y 371.029	1378304.1	1378304.1	105.22 %		17:30:51
3	Ag 328.068†	59471.1	56865.5	454.46 µg/L	454.46 ppb	17:30:57
3	As 188.979†	229.9	216.5	422.47 µg/L	422.47 ppb	17:31:17
3	B 249.677†	11339.4	10403.4	452.85 µg/L	452.85 ppb	17:30:57
3	Ba 233.527†	18247.7	17301.0	451.29 µg/L	451.29 ppb	17:30:57
3	Be 313.107†	738207.7	702297.7	458.47 µg/L	458.47 ppb	17:30:51
3	Cd 226.502†	17185.8	16411.8	452.68 µg/L	452.68 ppb	17:30:57
3	Co 228.616†	9649.4	9143.9	449.43 µg/L	449.43 ppb	17:30:57
3	Cr 267.716†	20989.9	19923.4	438.52 µg/L	438.52 ppb	17:30:57
3	Cu 324.752†	69862.4	63652.3	445.29 µg/L	445.29 ppb	17:30:57
3	Mn 257.610†	142669.2	135308.3	469.00 µg/L	469.00 ppb	17:30:51
3	Mo 202.031†	4082.7	3872.6	413.47 µg/L	413.47 ppb	17:31:17
3	Ni 231.604†	8980.8	8199.9	447.86 µg/L	447.86 ppb	17:30:57
3	P 214.914†	1067.7	983.2	2067.7 µg/L	2067.7 ppb	17:31:17
3	Pb 220.353†	1798.7	1605.6	428.46 µg/L	428.46 ppb	17:31:17
3	S 181.975 Axial†	223.6	196.9	862.47 µg/L	862.47 ppb	17:31:17
3	Sb 206.836†	480.2	427.6	422.29 µg/L	422.29 ppb	17:31:17
3	Se 196.026†	311.3	278.8	432.49 µg/L	432.49 ppb	17:31:17
3	SiO2†	24862.0	22286.7	4799.6 µg/L	4799.6 ppb	17:30:57
3	Si 251.611†	29262.2	27389.5	2251.6 µg/L	2251.6 ppb	17:30:57
3	Sn 189.927†	942.0	892.7	410.61 µg/L	410.61 ppb	17:31:17
3	Ti 334.940†	197920.3	187254.0	450.12 µg/L	450.12 ppb	17:30:51
3	Tl 190.801†	315.4	322.9	456.18 µg/L	456.18 ppb	17:31:17
3	U 409.014†	5127.6	4907.9	443.39 µg/L	443.39 ppb	17:30:57
3	V 292.402†	43917.4	41620.5	448.79 µg/L	448.79 ppb	17:30:57
3	Zn 213.857†	19595.2	18075.2	448.15 µg/L	448.15 ppb	17:30:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2034866.6	106.55	%	0.803				0.75%
Sc RADIAL	58353.5	107	%	1.5				1.36%
Y 371.029	1390318.5	106.14	%	0.803				0.76%
Ag 328.068†	58350.4	466.39	µg/L	11.039	466.39	ppb	11.039	2.37%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	6369.7	4737.9	µg/L	61.46	4737.9	ppb	61.46	1.30%
QC value within limits for Al 396.153Radial Recovery = 94.76%								
As 188.979†	239.1	466.36	µg/L	38.059	466.36	ppb	38.059	8.16%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	10683.4	465.15	µg/L	11.003	465.15	ppb	11.003	2.37%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	17994.1	469.38	µg/L	16.223	469.38	ppb	16.223	3.46%
QC value within limits for Ba 233.527 Recovery = 93.88%								
Be 313.107†	714472.6	466.42	µg/L	6.926	466.42	ppb	6.926	1.48%
QC value within limits for Be 313.107 Recovery = 93.28%								
Ca 317.933Radial†	5062.6	4766.7	µg/L	53.48	4766.7	ppb	53.48	1.12%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17129.5	472.51	µg/L	17.696	472.51	ppb	17.696	3.75%
QC value within limits for Cd 226.502 Recovery = 94.50%								
Co 228.616†	9600.9	471.95	µg/L	20.142	471.95	ppb	20.142	4.27%

```
   QC value within limits for Co 228.616  Recovery = 94.39%
Cr 267.716†            21275.0      468.26 µg/L        26.182      468.26 ppb        26.182   5.59%
   QC value within limits for Cr 267.716  Recovery = 93.65%
Cu 324.752†            66699.9      466.58 µg/L        18.924      466.58 ppb        18.924   4.06%
   QC value within limits for Cu 324.752  Recovery = 93.32%
Fe 238.204 Radial†       562.6      4778.0 µg/L         56.85      4778.0 ppb         56.85   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.56%
K 766.490 Radial†       6662.7      4735.8 µg/L        139.33      4735.8 ppb        139.33   2.94%
   QC value within limits for K 766.490 Radial  Recovery = 94.72%
Mg 279.077 IEC†          523.0      4869.9 µg/L         65.60      4869.9 ppb         65.60   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†           137434.4      476.36 µg/L         6.514      476.36 ppb         6.514   1.37%
   QC value within limits for Mn 257.610  Recovery = 95.27%
Mo 202.031†             4373.4      466.91 µg/L        46.335      466.91 ppb        46.335   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.38%
Na 589.592 Radial†     28667.1      9437.3 µg/L        261.13      9437.3 ppb        261.13   2.77%
   QC value within limits for Na 589.592 Radial  Recovery = 94.37%
Ni 231.604†             8624.4      471.04 µg/L        20.725      471.04 ppb        20.725   4.40%
   QC value within limits for Ni 231.604  Recovery = 94.21%
P 214.914†              1096.3      2309.2 µg/L        209.89      2309.2 ppb        209.89   9.09%
   QC value within limits for P 214.914  Recovery = 92.37%
Pb 220.353†             1760.6      469.91 µg/L        36.070      469.91 ppb        36.070   7.68%
   QC value within limits for Pb 220.353  Recovery = 93.98%
S 181.975 Axial†         212.1      929.34 µg/L        57.991      929.34 ppb        57.991   6.24%
   QC value within limits for S 181.975 Axial  Recovery = 92.93%
Sb 206.836†              472.2      466.68 µg/L        38.846      466.68 ppb        38.846   8.32%
   QC value within limits for Sb 206.836  Recovery = 93.34%
Se 196.026†              307.5      476.15 µg/L        37.872      476.15 ppb        37.872   7.95%
   QC value within limits for Se 196.026  Recovery = 95.23%
SiO2†                  23079.8      4970.4 µg/L        154.36      4970.4 ppb        154.36   3.11%
   QC value within limits for SiO2  Recovery = 92.95%
Si 251.611†            28372.7      2332.4 µg/L         72.71      2332.4 ppb         72.71   3.12%
   QC value within limits for Si 251.611  Recovery = 93.30%
Sn 189.927†             1016.6      467.62 µg/L        49.463      467.62 ppb        49.463  10.58%
   QC value within limits for Sn 189.927  Recovery = 93.52%
Sr 421.552†            45099.0      467.50 µg/L        13.625      467.50 ppb        13.625   2.91%
   QC value within limits for Sr 421.552  Recovery = 93.50%
Ti 334.940†           191033.1      459.21 µg/L         7.946      459.21 ppb         7.946   1.73%
   QC value within limits for Ti 334.940  Recovery = 91.84%
Tl 190.801†              340.9      481.40 µg/L        22.992      481.40 ppb        22.992   4.78%
   QC value within limits for Tl 190.801  Recovery = 96.28%
U 409.014†              5250.0      474.36 µg/L        27.295      474.36 ppb        27.295   5.75%
   QC value within limits for U 409.014  Recovery = 94.87%
V 292.402†             43801.9      472.54 µg/L        21.006      472.54 ppb        21.006   4.45%
   QC value within limits for V 292.402  Recovery = 94.51%
Zn 213.857†            18924.6      469.23 µg/L        18.806      469.23 ppb        18.806   4.01%
   QC value within limits for Zn 213.857  Recovery = 93.85%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:31:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57249.4	57249.4	105	%			17:32:01
1	Al 396.153Radial†	-19.1	-8.1	-6.0314	µg/L	-6.0314	ppb	17:32:01
1	Ca 317.933Radial†	186.6	-1.3	-1.1941	µg/L	-1.1941	ppb	17:32:21
1	Fe 238.204 Radial†	16.2	0.9	8.0275	µg/L	8.0275	ppb	17:32:21
1	K 766.490 Radial†	205.8	67.8	48.166	µg/L	48.166	ppb	17:32:01
1	Mg 279.077 IEC†	11.8	-0.0	-0.3578	µg/L	-0.3578	ppb	17:32:21
1	Na 589.592 Radial†	713.1	137.9	45.390	µg/L	45.390	ppb	17:32:01
1	Sr 421.552†	47.1	5.3	0.0553	µg/L	0.0553	ppb	17:32:01
1	Sc 361.383	2021263.0	2021263.0	105.83	%			17:33:23
1	Y 371.029	1385458.4	1385458.4	105.77	%			17:33:23
1	Ag 328.068†	-548.3	46.5	0.3696	µg/L	0.3696	ppb	17:33:29
1	As 188.979†	-3.1	-4.1	-8.0437	µg/L	-8.0437	ppb	17:33:50
1	B 249.677†	328.8	-20.8	-0.9109	µg/L	-0.9109	ppb	17:33:50
1	Ba 233.527†	-23.9	3.4	0.0895	µg/L	0.0895	ppb	17:33:50
1	Be 313.107†	-3534.2	101.1	0.0660	µg/L	0.0660	ppb	17:33:29
1	Cd 226.502†	-135.6	14.0	0.3833	µg/L	0.3833	ppb	17:33:50
1	Co 228.616†	-7.8	1.5	0.0715	µg/L	0.0715	ppb	17:33:50
1	Cr 267.716†	-39.7	14.9	0.3275	µg/L	0.3275	ppb	17:33:29
1	Cu 324.752†	2441.6	-179.0	-1.2495	µg/L	-1.2495	ppb	17:33:29
1	Mn 257.610†	-227.7	28.9	0.1013	µg/L	0.1013	ppb	17:33:50
1	Mo 202.031†	-11.3	-3.1	-0.3352	µg/L	-0.3352	ppb	17:33:50
1	Ni 231.604†	297.1	-21.4	-1.1721	µg/L	-1.1721	ppb	17:33:50
1	P 214.914†	29.1	-0.1	-0.1206	µg/L	-0.1206	ppb	17:33:50
1	Pb 220.353†	93.1	-9.2	-2.4716	µg/L	-2.4716	ppb	17:33:50
1	S 181.975 Axial†	17.0	1.2	5.2600	µg/L	5.2600	ppb	17:33:50
1	Sb 206.836†	21.2	-7.0	-6.8579	µg/L	-6.8579	ppb	17:33:50
1	Se 196.026†	17.1	0.4	0.5587	µg/L	0.5587	ppb	17:33:50
1	SiO2†	1257.7	-61.7	-13.286	µg/L	-13.286	ppb	17:33:29
1	Si 251.611†	315.2	-15.0	-1.2350	µg/L	-1.2350	ppb	17:33:50
1	Sn 189.927†	-0.7	0.2	0.0875	µg/L	0.0875	ppb	17:33:50
1	Ti 334.940†	99.4	-22.2	-0.0533	µg/L	-0.0533	ppb	17:33:29
1	Tl 190.801†	-25.0	0.6	0.8769	µg/L	0.8769	ppb	17:33:50
1	U 409.014†	-2.8	50.9	4.6107	µg/L	4.6107	ppb	17:33:29
1	V 292.402†	-42.3	4.3	0.0496	µg/L	0.0496	ppb	17:33:29
1	Zn 213.857†	478.9	-23.0	-0.5682	µg/L	-0.5682	ppb	17:33:50
2	Sc RADIAL	57058.0	57058.0	105	%			17:32:27
2	Al 396.153Radial†	-2.2	8.1	5.9887	µg/L	5.9887	ppb	17:32:27
2	Ca 317.933Radial†	185.4	-1.8	-1.6973	µg/L	-1.6973	ppb	17:32:47
2	Fe 238.204 Radial†	16.9	1.6	13.808	µg/L	13.808	ppb	17:32:47
2	K 766.490 Radial†	159.2	23.8	16.947	µg/L	16.947	ppb	17:32:27
2	Mg 279.077 IEC†	16.4	4.4	41.355	µg/L	41.355	ppb	17:32:47
2	Na 589.592 Radial†	724.2	150.8	49.634	µg/L	49.634	ppb	17:32:27
2	Sr 421.552†	-4.4	-43.8	-0.4540	µg/L	-0.4540	ppb	17:32:27
2	Sc 361.383	2001081.9	2001081.9	104.78	%			17:33:56
2	Y 371.029	1372125.9	1372125.9	104.75	%			17:33:56
2	Ag 328.068†	-553.2	36.5	0.2946	µg/L	0.2946	ppb	17:34:01
2	As 188.979†	-0.6	-1.7	-3.3761	µg/L	-3.3761	ppb	17:34:22
2	B 249.677†	320.5	-25.5	-1.1231	µg/L	-1.1231	ppb	17:34:22
2	Ba 233.527†	-11.0	15.5	0.4048	µg/L	0.4048	ppb	17:34:22
2	Be 313.107†	-3526.3	74.9	0.0489	µg/L	0.0489	ppb	17:34:01
2	Cd 226.502†	-133.8	14.4	0.3950	µg/L	0.3950	ppb	17:34:22
2	Co 228.616†	-11.0	-1.6	-0.0801	µg/L	-0.0801	ppb	17:34:22
2	Cr 267.716†	-44.3	10.1	0.2231	µg/L	0.2231	ppb	17:34:01
2	Cu 324.752†	2455.1	-143.0	-0.9967	µg/L	-0.9967	ppb	17:34:01
2	Mn 257.610†	-230.3	24.3	0.0842	µg/L	0.0842	ppb	17:34:22
2	Mo 202.031†	-2.3	5.3	0.5710	µg/L	0.5710	ppb	17:34:22
2	Ni 231.604†	304.4	-11.7	-0.6402	µg/L	-0.6402	ppb	17:34:22
2	P 214.914†	29.3	0.4	0.8548	µg/L	0.8548	ppb	17:34:22
2	Pb 220.353†	101.4	-0.5	-0.1165	µg/L	-0.1165	ppb	17:34:22

2	S 181.975 Axial†	19.4	3.7	16.024 µg/L	16.024 ppb	17:34:22
2	Sb 206.836†	27.6	-0.6	-0.5726 µg/L	-0.5726 ppb	17:34:22
2	Se 196.026†	16.9	0.3	0.5139 µg/L	0.5139 ppb	17:34:22
2	SiO2†	1231.1	-75.1	-16.163 µg/L	-16.163 ppb	17:34:01
2	Si 251.611†	308.3	-18.6	-1.5330 µg/L	-1.5330 ppb	17:34:22
2	Sn 189.927†	-2.5	-1.5	-0.6783 µg/L	-0.6783 ppb	17:34:22
2	Ti 334.940†	155.7	32.5	0.0749 µg/L	0.0749 ppb	17:34:01
2	Tl 190.801†	-24.6	0.8	1.0677 µg/L	1.0677 ppb	17:34:22
2	U 409.014†	-70.7	-13.8	-1.2553 µg/L	-1.2553 ppb	17:34:01
2	V 292.402†	13.1	56.7	0.6099 µg/L	0.6099 ppb	17:34:01
2	Zn 213.857†	482.3	-15.3	-0.3800 µg/L	-0.3800 ppb	17:34:22
3	Sc RADIAL	57391.7	57391.7	105 %		17:32:53
3	Al 396.153Radial†	-24.1	-12.7	-9.5161 µg/L	-9.5161 ppb	17:32:53
3	Ca 317.933Radial†	189.2	0.7	0.6854 µg/L	0.6854 ppb	17:33:13
3	Fe 238.204 Radial†	14.2	-1.0	-8.3318 µg/L	-8.3318 ppb	17:33:13
3	K 766.490 Radial†	170.0	33.2	23.601 µg/L	23.601 ppb	17:32:53
3	Mg 279.077 IEC†	13.6	1.6	15.113 µg/L	15.113 ppb	17:33:13
3	Na 589.592 Radial†	706.7	130.1	42.833 µg/L	42.833 ppb	17:32:53
3	Sr 421.552†	21.4	-19.2	-0.1993 µg/L	-0.1993 ppb	17:32:53
3	Sc 361.383	2035877.5	2035877.5	106.60 %		17:34:28
3	Y 371.029	1396783.1	1396783.1	106.63 %		17:34:28
3	Ag 328.068†	-558.0	41.1	0.3273 µg/L	0.3273 ppb	17:34:33
3	As 188.979†	-5.7	-6.5	-12.714 µg/L	-12.714 ppb	17:34:54
3	B 249.677†	310.2	-40.5	-1.7628 µg/L	-1.7628 ppb	17:34:54
3	Ba 233.527†	-23.8	3.7	0.0975 µg/L	0.0975 ppb	17:34:54
3	Be 313.107†	-3295.5	348.9	0.2278 µg/L	0.2278 ppb	17:34:33
3	Cd 226.502†	-134.4	16.1	0.4439 µg/L	0.4439 ppb	17:34:54
3	Co 228.616†	-16.8	-6.9	-0.3385 µg/L	-0.3385 ppb	17:34:54
3	Cr 267.716†	-31.9	22.4	0.4933 µg/L	0.4933 ppb	17:34:33
3	Cu 324.752†	2431.1	-205.5	-1.4364 µg/L	-1.4364 ppb	17:34:33
3	Mn 257.610†	-224.1	33.9	0.1156 µg/L	0.1156 ppb	17:34:54
3	Mo 202.031†	2.2	9.6	1.0266 µg/L	1.0266 ppb	17:34:54
3	Ni 231.604†	311.7	-9.8	-0.5337 µg/L	-0.5337 ppb	17:34:54
3	P 214.914†	26.4	-2.8	-5.9346 µg/L	-5.9346 ppb	17:34:54
3	Pb 220.353†	98.3	-5.0	-1.3370 µg/L	-1.3370 ppb	17:34:54
3	S 181.975 Axial†	14.7	-1.0	-4.4979 µg/L	-4.4979 ppb	17:34:54
3	Sb 206.836†	25.7	-2.9	-2.8125 µg/L	-2.8125 ppb	17:34:54
3	Se 196.026†	12.1	-4.5	-6.8217 µg/L	-6.8217 ppb	17:34:54
3	SiO2†	1207.8	-117.0	-25.202 µg/L	-25.202 ppb	17:34:33
3	Si 251.611†	320.7	-12.0	-0.9854 µg/L	-0.9854 ppb	17:34:54
3	Sn 189.927†	3.6	4.2	1.9540 µg/L	1.9540 ppb	17:34:54
3	Ti 334.940†	152.2	26.6	0.0629 µg/L	0.0629 ppb	17:34:33
3	Tl 190.801†	-31.1	-4.8	-6.7573 µg/L	-6.7573 ppb	17:34:54
3	U 409.014†	18.4	70.9	6.4223 µg/L	6.4223 ppb	17:34:33
3	V 292.402†	-21.9	23.7	0.2672 µg/L	0.2672 ppb	17:34:33
3	Zn 213.857†	481.8	-23.6	-0.5847 µg/L	-0.5847 ppb	17:34:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019407.5	105.74	%	0.915				0.87%
Sc RADIAL	57233.0	105	%	0.3				0.29%
Y 371.029	1384789.1	105.72	%	0.942				0.89%
Ag 328.068†	41.4	0.3305	µg/L	0.03757	0.3305	ppb	0.03757	11.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-3.1863	µg/L	8.13450	-3.1863	ppb	8.13450	255.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-8.0447	µg/L	4.66908	-8.0447	ppb	4.66908	58.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-28.9	-1.2656	µg/L	0.44348	-1.2656	ppb	0.44348	35.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1973	µg/L	0.17977	0.1973	ppb	0.17977	91.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	175.0	0.1143	µg/L	0.09874	0.1143	ppb	0.09874	86.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.8	-0.7353	µg/L	1.25585	-0.7353	ppb	1.25585	170.79%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.8	0.4074	µg/L	0.03216	0.4074	ppb	0.03216	7.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.4	-0.1157	µg/L	0.20732	-0.1157	ppb	0.20732	179.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.8      0.3480 µg/L       0.13629      0.3480 ppb        0.13629  39.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -175.8     -1.2276 µg/L       0.22068     -1.2276 ppb        0.22068  17.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      4.5012 µg/L      11.48343      4.5012 ppb       11.48343 255.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          41.6      29.571 µg/L       16.4438      29.571 ppb        16.4438  55.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.0      18.703 µg/L       21.0870      18.703 ppb        21.0870 112.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                29.0      0.1004 µg/L       0.01570      0.1004 ppb        0.01570  15.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.9      0.4208 µg/L       0.69318      0.4208 ppb        0.69318 164.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        139.6      45.952 µg/L        3.4354      45.952 ppb         3.4354   7.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.3     -0.7820 µg/L       0.34199     -0.7820 ppb        0.34199  43.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.9     -1.7335 µg/L       3.67082     -1.7335 ppb        3.67082 211.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.9     -1.3084 µg/L       1.17784     -1.3084 ppb        1.17784  90.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      5.5955 µg/L      10.26528      5.5955 ppb       10.26528 183.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.5     -3.4143 µg/L       3.18555     -3.4143 ppb        3.18555  93.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -1.9164 µg/L       4.24816     -1.9164 ppb        4.24816 221.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -84.6     -18.217 µg/L        6.2180     -18.217 ppb         6.2180  34.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -15.2     -1.2511 µg/L       0.27411     -1.2511 ppb        0.27411  21.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.0      0.4544 µg/L       1.35398      0.4544 ppb        1.35398 297.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -19.2     -0.1993 µg/L       0.25463     -0.1993 ppb        0.25463 127.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.3      0.0282 µg/L       0.07081      0.0282 ppb        0.07081 251.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.6042 µg/L       4.46370     -1.6042 ppb        4.46370 278.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 36.0      3.2592 µg/L       4.01326      3.2592 ppb        4.01326 123.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.2      0.3089 µg/L       0.28245      0.3089 ppb        0.28245  91.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.6     -0.5110 µg/L       0.11370     -0.5110 ppb        0.11370  22.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:03:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57726.1	57726.1	106	%			18:04:22
1	Al 396.153Radial†	6766.7	6407.4	4765.2	µg/L	4765.2	ppb	18:04:22
1	Ca 317.933Radial†	5597.5	5112.8	4814.0	µg/L	4814.0	ppb	18:04:43
1	Fe 238.204 Radial†	618.0	569.7	4839.6	µg/L	4839.6	ppb	18:04:43
1	K 766.490 Radial†	7228.2	6705.1	4766.0	µg/L	4766.0	ppb	18:04:22
1	Mg 279.077 IEC†	567.3	525.0	4889.6	µg/L	4889.6	ppb	18:04:43
1	Na 589.592 Radial†	31079.1	28840.4	9494.4	µg/L	9494.4	ppb	18:04:22
1	Sr 421.552†	47930.5	45274.1	469.32	µg/L	469.32	ppb	18:04:22
1	Sc 361.383	1995865.2	1995865.2	104.50	%			18:05:46
1	Y 371.029	1362757.5	1362757.5	104.03	%			18:05:46
1	Ag 328.068†	63483.9	61312.1	490.10	µg/L	490.10	ppb	18:05:52
1	As 188.979†	273.1	260.2	507.53	µg/L	507.53	ppb	18:06:12
1	B 249.677†	12082.3	11230.0	489.06	µg/L	489.06	ppb	18:05:52
1	Ba 233.527†	19988.9	19153.3	499.62	µg/L	499.62	ppb	18:05:52
1	Be 313.107†	781981.3	751717.1	490.73	µg/L	490.73	ppb	18:05:46
1	Cd 226.502†	18909.7	18236.8	503.08	µg/L	503.08	ppb	18:05:52
1	Co 228.616†	10693.9	10241.8	503.48	µg/L	503.48	ppb	18:05:52
1	Cr 267.716†	23838.7	22863.6	503.22	µg/L	503.22	ppb	18:05:52
1	Cu 324.752†	76544.4	70759.2	494.94	µg/L	494.94	ppb	18:05:52
1	Mn 257.610†	150825.0	144568.3	501.07	µg/L	501.07	ppb	18:05:46
1	Mo 202.031†	4977.2	4770.3	509.27	µg/L	509.27	ppb	18:06:12
1	Ni 231.604†	9935.5	9205.0	502.75	µg/L	502.75	ppb	18:05:52
1	P 214.914†	1265.8	1183.6	2494.1	µg/L	2494.1	ppb	18:06:12
1	Pb 220.353†	2092.9	1905.5	508.60	µg/L	508.60	ppb	18:06:12
1	S 181.975 Axial†	254.0	228.2	999.80	µg/L	999.80	ppb	18:06:12
1	Sb 206.836†	555.5	504.6	498.91	µg/L	498.91	ppb	18:06:12
1	Se 196.026†	366.1	334.5	517.42	µg/L	517.42	ppb	18:06:12
1	SiO2†	26867.3	24459.3	5267.4	µg/L	5267.4	ppb	18:05:52
1	Si 251.611†	31625.0	29949.0	2462.0	µg/L	2462.0	ppb	18:05:52
1	Sn 189.927†	1151.3	1102.5	507.11	µg/L	507.11	ppb	18:06:12
1	Ti 334.940†	210462.3	201274.9	483.84	µg/L	483.84	ppb	18:05:46
1	Tl 190.801†	351.8	360.9	509.62	µg/L	509.62	ppb	18:06:12
1	U 409.014†	5780.2	5584.7	504.65	µg/L	504.65	ppb	18:05:52
1	V 292.402†	48773.6	46715.6	504.04	µg/L	504.04	ppb	18:05:52
1	Zn 213.857†	21610.6	20203.6	500.98	µg/L	500.98	ppb	18:05:52
2	Sc RADIAL	58137.3	58137.3	107	%			18:04:48
2	Al 396.153Radial†	6794.0	6387.8	4750.7	µg/L	4750.7	ppb	18:04:48
2	Ca 317.933Radial†	5592.3	5070.5	4774.2	µg/L	4774.2	ppb	18:05:09
2	Fe 238.204 Radial†	618.1	565.7	4805.7	µg/L	4805.7	ppb	18:05:09
2	K 766.490 Radial†	7287.3	6712.3	4771.1	µg/L	4771.1	ppb	18:04:48
2	Mg 279.077 IEC†	568.2	522.1	4862.2	µg/L	4862.2	ppb	18:05:09
2	Na 589.592 Radial†	31238.6	28782.3	9475.2	µg/L	9475.2	ppb	18:04:48
2	Sr 421.552†	48291.3	45292.3	469.51	µg/L	469.51	ppb	18:04:48
2	Sc 361.383	2007163.9	2007163.9	105.10	%			18:06:19
2	Y 371.029	1370434.0	1370434.0	104.62	%			18:06:19
2	Ag 328.068†	63627.6	61107.0	488.46	µg/L	488.46	ppb	18:06:25
2	As 188.979†	273.7	259.2	505.75	µg/L	505.75	ppb	18:06:46
2	B 249.677†	12114.9	11196.0	487.59	µg/L	487.59	ppb	18:06:25
2	Ba 233.527†	19979.9	19037.1	496.59	µg/L	496.59	ppb	18:06:25
2	Be 313.107†	784264.0	749676.9	489.40	µg/L	489.40	ppb	18:06:19
2	Cd 226.502†	18871.7	18098.7	499.27	µg/L	499.27	ppb	18:06:25
2	Co 228.616†	10694.5	10184.8	500.67	µg/L	500.67	ppb	18:06:25
2	Cr 267.716†	23892.4	22786.3	501.52	µg/L	501.52	ppb	18:06:25
2	Cu 324.752†	76884.7	70670.6	494.32	µg/L	494.32	ppb	18:06:25
2	Mn 257.610†	151108.1	144025.3	499.18	µg/L	499.18	ppb	18:06:19
2	Mo 202.031†	4921.9	4690.8	500.79	µg/L	500.79	ppb	18:06:46
2	Ni 231.604†	9959.3	9174.2	501.07	µg/L	501.07	ppb	18:06:25
2	P 214.914†	1267.5	1178.4	2483.0	µg/L	2483.0	ppb	18:06:46
2	Pb 220.353†	2074.4	1876.6	500.89	µg/L	500.89	ppb	18:06:46

2	S 181.975 Axial†	247.1	220.3	965.20 µg/L	965.20 ppb	18:06:46
2	Sb 206.836†	553.1	499.3	493.56 µg/L	493.56 ppb	18:06:46
2	Se 196.026†	362.2	328.8	508.76 µg/L	508.76 ppb	18:06:46
2	SiO2†	26954.0	24397.1	5254.0 µg/L	5254.0 ppb	18:06:25
2	Si 251.611†	31693.0	29843.4	2453.3 µg/L	2453.3 ppb	18:06:25
2	Sn 189.927†	1148.2	1093.4	502.92 µg/L	502.92 ppb	18:06:46
2	Ti 334.940†	211069.7	200719.2	482.51 µg/L	482.51 ppb	18:06:19
2	Tl 190.801†	350.2	357.5	504.86 µg/L	504.86 ppb	18:06:46
2	U 409.014†	5713.5	5490.1	496.10 µg/L	496.10 ppb	18:06:25
2	V 292.402†	48839.6	46515.7	501.83 µg/L	501.83 ppb	18:06:25
2	Zn 213.857†	21586.8	20064.5	497.52 µg/L	497.52 ppb	18:06:25
3	Sc RADIAL	57420.7	57420.7	105 %		18:05:14
3	Al 396.153Radial†	6887.1	6555.8	4877.6 µg/L	4877.6 ppb	18:05:14
3	Ca 317.933Radial†	5594.0	5137.6	4837.4 µg/L	4837.4 ppb	18:05:34
3	Fe 238.204 Radial†	619.5	574.3	4877.2 µg/L	4877.2 ppb	18:05:34
3	K 766.490 Radial†	7272.3	6783.4	4821.6 µg/L	4821.6 ppb	18:05:14
3	Mg 279.077 IEC†	569.6	530.1	4935.2 µg/L	4935.2 ppb	18:05:34
3	Na 589.592 Radial†	31447.7	29346.9	9661.1 µg/L	9661.1 ppb	18:05:14
3	Sr 421.552†	48895.8	46432.5	481.33 µg/L	481.33 ppb	18:05:14
3	Sc 361.383	2010251.9	2010251.9	105.26 %		18:06:53
3	Y 371.029	1371909.0	1371909.0	104.73 %		18:06:53
3	Ag 328.068†	59865.9	57440.1	459.05 µg/L	459.05 ppb	18:06:58
3	As 188.979†	229.2	216.7	422.67 µg/L	422.67 ppb	18:07:19
3	B 249.677†	11370.0	10470.6	455.76 µg/L	455.76 ppb	18:06:58
3	Ba 233.527†	18395.6	17502.7	456.55 µg/L	456.55 ppb	18:06:58
3	Be 313.107†	741644.3	708039.7	462.22 µg/L	462.22 ppb	18:06:53
3	Cd 226.502†	17275.3	16554.5	456.62 µg/L	456.62 ppb	18:06:58
3	Co 228.616†	9741.1	9263.3	455.31 µg/L	455.31 ppb	18:06:58
3	Cr 267.716†	21256.7	20247.3	445.64 µg/L	445.64 ppb	18:06:58
3	Cu 324.752†	70381.9	64380.2	450.39 µg/L	450.39 ppb	18:06:58
3	Mn 257.610†	143060.5	136158.7	471.95 µg/L	471.95 ppb	18:06:53
3	Mo 202.031†	4127.0	3928.4	419.43 µg/L	419.43 ppb	18:07:19
3	Ni 231.604†	9089.8	8333.5	455.16 µg/L	455.16 ppb	18:06:58
3	P 214.914†	1084.0	1002.2	2108.1 µg/L	2108.1 ppb	18:07:19
3	Pb 220.353†	1818.2	1630.2	435.03 µg/L	435.03 ppb	18:07:19
3	S 181.975 Axial†	224.4	198.4	869.26 µg/L	869.26 ppb	18:07:19
3	Sb 206.836†	480.4	429.5	424.14 µg/L	424.14 ppb	18:07:19
3	Se 196.026†	313.7	282.2	437.85 µg/L	437.85 ppb	18:07:19
3	SiO2†	25019.5	22519.8	4849.8 µg/L	4849.8 ppb	18:06:58
3	Si 251.611†	29405.8	27624.1	2270.8 µg/L	2270.8 ppb	18:06:58
3	Sn 189.927†	955.0	908.2	417.73 µg/L	417.73 ppb	18:07:19
3	Ti 334.940†	198942.9	188889.6	454.05 µg/L	454.05 ppb	18:06:53
3	Tl 190.801†	316.9	325.4	459.73 µg/L	459.73 ppb	18:07:19
3	U 409.014†	5179.0	4973.9	449.35 µg/L	449.35 ppb	18:06:58
3	V 292.402†	44254.0	42087.7	453.84 µg/L	453.84 ppb	18:06:58
3	Zn 213.857†	19673.0	18214.8	451.59 µg/L	451.59 ppb	18:06:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004427.0	104.95	%	0.397				0.38%
Sc RADIAL	57761.4	106	%	0.7				0.62%
Y 371.029	1368366.8	104.46	%	0.375				0.36%
Ag 328.068†	59953.1	479.20	µg/L	17.470	479.20	ppb	17.470	3.65%
QC value within limits for Ag 328.068 Recovery = 95.84%								
Al 396.153Radial†	6450.3	4797.9	µg/L	69.48	4797.9	ppb	69.48	1.45%
QC value within limits for Al 396.153Radial Recovery = 95.96%								
As 188.979†	245.3	478.65	µg/L	48.486	478.65	ppb	48.486	10.13%
QC value within limits for As 188.979 Recovery = 95.73%								
B 249.677†	10965.6	477.47	µg/L	18.814	477.47	ppb	18.814	3.94%
QC value within limits for B 249.677 Recovery = 95.49%								
Ba 233.527†	18564.4	484.26	µg/L	24.039	484.26	ppb	24.039	4.96%
QC value within limits for Ba 233.527 Recovery = 96.85%								
Be 313.107†	736477.9	480.78	µg/L	16.091	480.78	ppb	16.091	3.35%
QC value within limits for Be 313.107 Recovery = 96.16%								
Ca 317.933Radial†	5106.9	4808.5	µg/L	31.95	4808.5	ppb	31.95	0.66%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	17630.0	486.32	µg/L	25.796	486.32	ppb	25.796	5.30%
QC value within limits for Cd 226.502 Recovery = 97.26%								
Co 228.616†	9896.7	486.49	µg/L	27.038	486.49	ppb	27.038	5.56%

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   QC value within limits for Co 228.616  Recovery = 97.30%
Cr 267.716†            21965.7      483.46 µg/L        32.763      483.46 ppb        32.763   6.78%
   QC value within limits for Cr 267.716  Recovery = 96.69%
Cu 324.752†            68603.3      479.88 µg/L        25.545      479.88 ppb        25.545   5.32%
   QC value within limits for Cu 324.752  Recovery = 95.98%
Fe 238.204 Radial†       569.9      4840.8 µg/L         35.77      4840.8 ppb         35.77   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.82%
K 766.490 Radial†       6733.6      4786.2 µg/L         30.77      4786.2 ppb         30.77   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 95.72%
Mg 279.077 IEC†          525.8      4895.7 µg/L         36.85      4895.7 ppb         36.85   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           141584.1      490.73 µg/L        16.295      490.73 ppb        16.295   3.32%
   QC value within limits for Mn 257.610  Recovery = 98.15%
Mo 202.031†             4463.2      476.50 µg/L        49.601      476.50 ppb        49.601  10.41%
   QC value within limits for Mo 202.031  Recovery = 95.30%
Na 589.592 Radial†     28989.9      9543.6 µg/L        102.24      9543.6 ppb        102.24   1.07%
   QC value within limits for Na 589.592 Radial  Recovery = 95.44%
Ni 231.604†             8904.3      486.32 µg/L        27.004      486.32 ppb        27.004   5.55%
   QC value within limits for Ni 231.604  Recovery = 97.26%
P 214.914†              1121.4      2361.7 µg/L        219.74      2361.7 ppb        219.74   9.30%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1804.1      481.51 µg/L        40.435      481.51 ppb        40.435   8.40%
   QC value within limits for Pb 220.353  Recovery = 96.30%
S 181.975 Axial†         215.6      944.76 µg/L        67.630      944.76 ppb        67.630   7.16%
   QC value within limits for S 181.975 Axial  Recovery = 94.48%
Sb 206.836†              477.8      472.20 µg/L        41.713      472.20 ppb        41.713   8.83%
   QC value within limits for Sb 206.836  Recovery = 94.44%
Se 196.026†              315.2      488.01 µg/L        43.651      488.01 ppb        43.651   8.94%
   QC value within limits for Se 196.026  Recovery = 97.60%
SiO2†                  23792.0      5123.7 µg/L        237.37      5123.7 ppb        237.37   4.63%
   QC value within limits for SiO2  Recovery = 95.82%
Si 251.611†            29138.9      2395.4 µg/L        107.92      2395.4 ppb        107.92   4.51%
   QC value within limits for Si 251.611  Recovery = 95.81%
Sn 189.927†             1034.7      475.92 µg/L        50.437      475.92 ppb        50.437  10.60%
   QC value within limits for Sn 189.927  Recovery = 95.18%
Sr 421.552†            45666.3      473.38 µg/L         6.879      473.38 ppb         6.879   1.45%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           196961.2      473.47 µg/L        16.830      473.47 ppb        16.830   3.55%
   QC value within limits for Ti 334.940  Recovery = 94.69%
Tl 190.801†              348.0      491.40 µg/L        27.532      491.40 ppb        27.532   5.60%
   QC value within limits for Tl 190.801  Recovery = 98.28%
U 409.014†              5349.6      483.37 µg/L        29.770      483.37 ppb        29.770   6.16%
   QC value within limits for U 409.014  Recovery = 96.67%
V 292.402†             45106.3      486.57 µg/L        28.365      486.57 ppb        28.365   5.83%
   QC value within limits for V 292.402  Recovery = 97.31%
Zn 213.857†            19494.3      483.36 µg/L        27.567      483.36 ppb        27.567   5.70%
   QC value within limits for Zn 213.857  Recovery = 96.67%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:07:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56532.0	56532.0	104	%			18:08:03
1	Al 396.153Radial†	-15.4	-4.8	-3.5570	µg/L	-3.5570	ppb	18:08:03
1	Ca 317.933Radial†	184.3	-1.2	-1.1516	µg/L	-1.1516	ppb	18:08:24
1	Fe 238.204 Radial†	15.7	0.7	5.7821	µg/L	5.7821	ppb	18:08:24
1	K 766.490 Radial†	164.9	30.8	21.873	µg/L	21.873	ppb	18:08:03
1	Mg 279.077 IEC†	16.1	4.2	39.497	µg/L	39.497	ppb	18:08:24
1	Na 589.592 Radial†	629.4	65.8	21.647	µg/L	21.647	ppb	18:08:03
1	Sr 421.552†	25.1	-15.3	-0.1589	µg/L	-0.1589	ppb	18:08:03
1	Sc 361.383	1970116.9	1970116.9	103.16	%			18:09:26
1	Y 371.029	1351478.3	1351478.3	103.17	%			18:09:26
1	Ag 328.068†	-586.1	-3.7	-0.0267	µg/L	-0.0267	ppb	18:09:32
1	As 188.979†	0.4	-0.7	-1.4081	µg/L	-1.4081	ppb	18:09:52
1	B 249.677†	319.9	-21.4	-0.9375	µg/L	-0.9375	ppb	18:09:52
1	Ba 233.527†	-23.6	3.1	0.0818	µg/L	0.0818	ppb	18:09:52
1	Be 313.107†	-3504.0	43.7	0.0286	µg/L	0.0286	ppb	18:09:32
1	Cd 226.502†	-151.5	-4.7	-0.1322	µg/L	-0.1322	ppb	18:09:52
1	Co 228.616†	-11.0	-1.8	-0.0886	µg/L	-0.0886	ppb	18:09:52
1	Cr 267.716†	-63.6	-9.3	-0.2036	µg/L	-0.2036	ppb	18:09:32
1	Cu 324.752†	2393.3	-166.0	-1.1590	µg/L	-1.1590	ppb	18:09:32
1	Mn 257.610†	-254.5	-2.6	-0.0100	µg/L	-0.0100	ppb	18:09:52
1	Mo 202.031†	-8.7	-0.9	-0.0948	µg/L	-0.0948	ppb	18:09:52
1	Ni 231.604†	290.0	-21.0	-1.1506	µg/L	-1.1506	ppb	18:09:52
1	P 214.914†	32.8	4.2	9.1562	µg/L	9.1562	ppb	18:09:52
1	Pb 220.353†	95.7	-4.4	-1.1812	µg/L	-1.1812	ppb	18:09:52
1	S 181.975 Axial†	14.0	-1.2	-5.3162	µg/L	-5.3162	ppb	18:09:52
1	Sb 206.836†	31.3	3.4	3.3775	µg/L	3.3775	ppb	18:09:52
1	Se 196.026†	11.2	-4.9	-7.5535	µg/L	-7.5535	ppb	18:09:52
1	SiO2†	1234.7	-53.1	-11.434	µg/L	-11.434	ppb	18:09:32
1	Si 251.611†	295.0	-26.9	-2.2136	µg/L	-2.2136	ppb	18:09:52
1	Sn 189.927†	1.4	2.3	1.0452	µg/L	1.0452	ppb	18:09:52
1	Ti 334.940†	70.3	-48.0	-0.1186	µg/L	-0.1186	ppb	18:09:32
1	Tl 190.801†	-29.3	-4.1	-5.6836	µg/L	-5.6836	ppb	18:09:52
1	U 409.014†	-64.3	-8.7	-0.7862	µg/L	-0.7862	ppb	18:09:32
1	V 292.402†	-16.1	28.6	0.3039	µg/L	0.3039	ppb	18:09:32
1	Zn 213.857†	475.3	-14.8	-0.3645	µg/L	-0.3645	ppb	18:09:52
2	Sc RADIAL	55658.7	55658.7	102	%			18:08:29
2	Al 396.153Radial†	8.4	18.4	13.722	µg/L	13.722	ppb	18:08:29
2	Ca 317.933Radial†	182.4	-0.3	-0.2942	µg/L	-0.2942	ppb	18:08:50
2	Fe 238.204 Radial†	17.1	2.3	19.276	µg/L	19.276	ppb	18:08:50
2	K 766.490 Radial†	186.5	54.5	38.722	µg/L	38.722	ppb	18:08:29
2	Mg 279.077 IEC†	15.0	3.4	31.500	µg/L	31.500	ppb	18:08:50
2	Na 589.592 Radial†	680.0	124.9	41.106	µg/L	41.106	ppb	18:08:29
2	Sr 421.552†	30.6	-9.6	-0.0993	µg/L	-0.0993	ppb	18:08:29
2	Sc 361.383	2007038.7	2007038.7	105.09	%			18:09:58
2	Y 371.029	1377314.4	1377314.4	105.15	%			18:09:58
2	Ag 328.068†	-493.3	95.1	0.7576	µg/L	0.7576	ppb	18:10:04
2	As 188.979†	-1.7	-2.7	-5.3378	µg/L	-5.3378	ppb	18:10:25
2	B 249.677†	329.1	-18.3	-0.8077	µg/L	-0.8077	ppb	18:10:25
2	Ba 233.527†	-25.2	2.0	0.0533	µg/L	0.0533	ppb	18:10:25
2	Be 313.107†	-3351.2	251.6	0.1643	µg/L	0.1643	ppb	18:10:04
2	Cd 226.502†	-144.2	4.9	0.1335	µg/L	0.1335	ppb	18:10:25
2	Co 228.616†	-14.3	-4.7	-0.2334	µg/L	-0.2334	ppb	18:10:25
2	Cr 267.716†	-47.8	6.9	0.1524	µg/L	0.1524	ppb	18:10:04
2	Cu 324.752†	2466.3	-139.3	-0.9702	µg/L	-0.9702	ppb	18:10:04
2	Mn 257.610†	-245.5	10.5	0.0378	µg/L	0.0378	ppb	18:10:25
2	Mo 202.031†	-7.5	0.4	0.0445	µg/L	0.0445	ppb	18:10:25
2	Ni 231.604†	299.7	-17.0	-0.9313	µg/L	-0.9313	ppb	18:10:25
2	P 214.914†	31.3	2.2	4.7306	µg/L	4.7306	ppb	18:10:25
2	Pb 220.353†	108.5	6.1	1.6290	µg/L	1.6290	ppb	18:10:25

2	S 181.975 Axial†	16.7	1.1	4.8755 µg/L	4.8755 ppb	18:10:25
2	Sb 206.836†	20.8	-7.2	-7.0445 µg/L	-7.0445 ppb	18:10:25
2	Se 196.026†	16.5	-0.1	-0.1477 µg/L	-0.1477 ppb	18:10:25
2	SiO2†	1217.3	-91.6	-19.736 µg/L	-19.736 ppb	18:10:04
2	Si 251.611†	298.1	-29.3	-2.4046 µg/L	-2.4046 ppb	18:10:25
2	Sn 189.927†	0.2	1.0	0.4758 µg/L	0.4758 ppb	18:10:25
2	Ti 334.940†	145.5	22.4	0.0513 µg/L	0.0513 ppb	18:10:04
2	Tl 190.801†	-26.0	-0.5	-0.6548 µg/L	-0.6548 ppb	18:10:25
2	U 409.014†	-106.1	-47.3	-4.2862 µg/L	-4.2862 ppb	18:10:04
2	V 292.402†	-24.2	21.2	0.2243 µg/L	0.2243 ppb	18:10:04
2	Zn 213.857†	472.5	-25.9	-0.6440 µg/L	-0.6440 ppb	18:10:25
3	Sc RADIAL	55952.9	55952.9	103 %		18:08:56
3	Al 396.153Radial†	-23.9	-13.2	-9.8258 µg/L	-9.8258 ppb	18:08:56
3	Ca 317.933Radial†	192.5	8.6	8.1332 µg/L	8.1332 ppb	18:09:16
3	Fe 238.204 Radial†	17.2	2.3	19.451 µg/L	19.451 ppb	18:09:16
3	K 766.490 Radial†	199.1	65.8	46.778 µg/L	46.778 ppb	18:08:56
3	Mg 279.077 IEC†	13.0	1.4	13.321 µg/L	13.321 ppb	18:09:16
3	Na 589.592 Radial†	622.9	65.7	21.628 µg/L	21.628 ppb	18:08:56
3	Sr 421.552†	22.5	-17.6	-0.1825 µg/L	-0.1825 ppb	18:08:56
3	Sc 361.383	1969215.9	1969215.9	103.11 %		18:10:31
3	Y 371.029	1350905.5	1350905.5	103.13 %		18:10:31
3	Ag 328.068†	-575.5	6.4	0.0513 µg/L	0.0513 ppb	18:10:36
3	As 188.979†	-0.8	-1.9	-3.6705 µg/L	-3.6705 ppb	18:10:57
3	B 249.677†	315.0	-25.9	-1.1434 µg/L	-1.1434 ppb	18:10:57
3	Ba 233.527†	-24.5	2.2	0.0583 µg/L	0.0583 ppb	18:10:57
3	Be 313.107†	-3286.5	253.0	0.1652 µg/L	0.1652 ppb	18:10:36
3	Cd 226.502†	-133.6	12.5	0.3430 µg/L	0.3430 ppb	18:10:57
3	Co 228.616†	-14.1	-4.9	-0.2403 µg/L	-0.2403 ppb	18:10:57
3	Cr 267.716†	-66.1	-11.7	-0.2584 µg/L	-0.2584 ppb	18:10:36
3	Cu 324.752†	2477.5	-83.3	-0.5792 µg/L	-0.5792 ppb	18:10:36
3	Mn 257.610†	-225.9	25.1	0.0888 µg/L	0.0888 ppb	18:10:57
3	Mo 202.031†	-9.8	-2.0	-0.2112 µg/L	-0.2112 ppb	18:10:57
3	Ni 231.604†	298.6	-12.6	-0.6902 µg/L	-0.6902 ppb	18:10:57
3	P 214.914†	27.1	-1.4	-2.9216 µg/L	-2.9216 ppb	18:10:57
3	Pb 220.353†	95.5	-4.6	-1.2298 µg/L	-1.2298 ppb	18:10:57
3	S 181.975 Axial†	18.9	3.5	15.355 µg/L	15.355 ppb	18:10:57
3	Sb 206.836†	19.3	-8.3	-8.1417 µg/L	-8.1417 ppb	18:10:57
3	Se 196.026†	11.7	-4.5	-6.8172 µg/L	-6.8172 ppb	18:10:57
3	SiO2†	1221.9	-65.0	-13.993 µg/L	-13.993 ppb	18:10:36
3	Si 251.611†	305.8	-16.3	-1.3398 µg/L	-1.3398 ppb	18:10:57
3	Sn 189.927†	-1.0	-0.1	-0.0571 µg/L	-0.0571 ppb	18:10:57
3	Ti 334.940†	185.2	63.5	0.1517 µg/L	0.1517 ppb	18:10:36
3	Tl 190.801†	-28.1	-3.0	-4.1975 µg/L	-4.1975 ppb	18:10:57
3	U 409.014†	-9.8	44.1	3.9892 µg/L	3.9892 ppb	18:10:36
3	V 292.402†	-52.5	-6.8	-0.0677 µg/L	-0.0677 ppb	18:10:36
3	Zn 213.857†	470.6	-19.2	-0.4765 µg/L	-0.4765 ppb	18:10:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1982123.8	103.78	%	1.130				1.09%
Sc RADIAL	56047.9	103	%	0.8				0.79%
Y 371.029	1359899.4	103.82	%	1.152				1.11%
Ag 328.068†	32.6	0.2608	µg/L	0.43206	0.2608	ppb	0.43206	165.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.1130	µg/L	12.19532	0.1130	ppb	12.19532	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-3.4721	µg/L	1.97235	-3.4721	ppb	1.97235	56.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21.9	-0.9628	µg/L	0.16927	-0.9628	ppb	0.16927	17.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.5	0.0645	µg/L	0.01519	0.0645	ppb	0.01519	23.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.7	0.1193	µg/L	0.07861	0.1193	ppb	0.07861	65.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.2291	µg/L	5.13097	2.2291	ppb	5.13097	230.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.3	0.1147	µg/L	0.23817	0.1147	ppb	0.23817	207.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.8	-0.1875	µg/L	0.08565	-0.1875	ppb	0.08565	45.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -4.7     -0.1032 µg/L       0.22302     -0.1032 ppb        0.22302 216.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -129.5     -0.9028 µg/L       0.29572     -0.9028 ppb        0.29572  32.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      14.837 µg/L        7.8419      14.837 ppb         7.8419  52.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        50.4      35.791 µg/L       12.7089      35.791 ppb        12.7089  35.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.0      28.106 µg/L       13.4141      28.106 ppb        13.4141  47.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.0       0.0389 µg/L       0.04940       0.0389 ppb        0.04940 127.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.8      -0.0872 µg/L       0.12800      -0.0872 ppb        0.12800 146.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       85.4      28.127 µg/L       11.2402      28.127 ppb        11.2402  39.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -16.9      -0.9240 µg/L       0.23026      -0.9240 ppb        0.23026  24.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7       3.6551 µg/L       6.11031       3.6551 ppb        6.11031 167.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.0      -0.2607 µg/L       1.63670      -0.2607 ppb        1.63670 627.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.1       4.9715 µg/L      10.33607       4.9715 ppb       10.33607 207.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.0      -3.9362 µg/L       6.35757      -3.9362 ppb        6.35757 161.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.2      -4.8394 µg/L       4.07986      -4.8394 ppb        4.07986  84.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -69.9     -15.054 µg/L        4.2514     -15.054 ppb         4.2514  28.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -24.2      -1.9860 µg/L       0.56769      -1.9860 ppb        0.56769  28.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.1       0.4880 µg/L       0.55125       0.4880 ppb        0.55125 112.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.2      -0.1469 µg/L       0.04288      -0.1469 ppb        0.04288  29.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              12.6       0.0281 µg/L       0.13664       0.0281 ppb        0.13664 485.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.5      -3.5120 µg/L       2.58356      -3.5120 ppb        2.58356  73.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -4.0      -0.3611 µg/L       4.15405      -0.3611 ppb        4.15405 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               14.4       0.1535 µg/L       0.19568       0.1535 ppb        0.19568 127.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -20.0      -0.4950 µg/L       0.14064      -0.4950 ppb        0.14064  28.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:32:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55441.9	55441.9	102	%			18:33:25
1	Al 396.153Radial†	6917.9	6819.8	5072.2	µg/L	5072.2	ppb	18:33:25
1	Ca 317.933Radial†	5691.9	5423.7	5106.8	µg/L	5106.8	ppb	18:33:45
1	Fe 238.204 Radial†	625.4	601.1	5105.5	µg/L	5105.5	ppb	18:33:45
1	K 766.490 Radial†	7360.4	7116.9	5058.6	µg/L	5058.6	ppb	18:33:25
1	Mg 279.077 IEC†	579.1	558.7	5203.2	µg/L	5203.2	ppb	18:33:45
1	Na 589.592 Radial†	31674.9	30637.4	10086	µg/L	10086	ppb	18:33:25
1	Sr 421.552†	48916.5	48111.6	498.73	µg/L	498.73	ppb	18:33:25
1	Sc 361.383	1949198.7	1949198.7	102.06	%			18:34:49
1	Y 371.029	1332613.7	1332613.7	101.73	%			18:34:49
1	Ag 328.068†	63737.9	63015.4	503.72	µg/L	503.72	ppb	18:34:54
1	As 188.979†	273.4	266.7	520.31	µg/L	520.31	ppb	18:35:15
1	B 249.677†	12085.6	11510.1	501.18	µg/L	501.18	ppb	18:34:54
1	Ba 233.527†	19929.9	19553.5	510.07	µg/L	510.07	ppb	18:34:54
1	Be 313.107†	791453.2	778912.4	508.48	µg/L	508.48	ppb	18:34:49
1	Cd 226.502†	18764.5	18527.7	511.09	µg/L	511.09	ppb	18:34:54
1	Co 228.616†	10683.8	10476.9	515.03	µg/L	515.03	ppb	18:34:54
1	Cr 267.716†	23886.3	23456.4	516.27	µg/L	516.27	ppb	18:34:54
1	Cu 324.752†	77115.4	73072.1	511.13	µg/L	511.13	ppb	18:34:54
1	Mn 257.610†	152507.4	149672.0	518.76	µg/L	518.76	ppb	18:34:49
1	Mo 202.031†	5014.5	4920.8	525.34	µg/L	525.34	ppb	18:35:15
1	Ni 231.604†	9902.4	9400.2	513.41	µg/L	513.41	ppb	18:34:54
1	P 214.914†	1289.3	1235.7	2604.5	µg/L	2604.5	ppb	18:35:15
1	Pb 220.353†	2098.8	1959.2	522.95	µg/L	522.95	ppb	18:35:15
1	S 181.975 Axial†	252.9	233.0	1020.8	µg/L	1020.8	ppb	18:35:15
1	Sb 206.836†	562.5	524.2	518.28	µg/L	518.28	ppb	18:35:15
1	Se 196.026†	361.5	338.4	523.78	µg/L	523.78	ppb	18:35:15
1	SiO2†	26807.5	25016.2	5387.4	µg/L	5387.4	ppb	18:34:54
1	Si 251.611†	31683.4	30730.8	2526.2	µg/L	2526.2	ppb	18:34:54
1	Sn 189.927†	1171.2	1148.4	528.25	µg/L	528.25	ppb	18:35:15
1	Ti 334.940†	213415.9	208990.5	502.38	µg/L	502.38	ppb	18:34:49
1	Tl 190.801†	344.1	361.4	510.53	µg/L	510.53	ppb	18:35:15
1	U 409.014†	5808.1	5744.4	519.06	µg/L	519.06	ppb	18:34:54
1	V 292.402†	48900.4	47957.2	517.47	µg/L	517.47	ppb	18:34:54
1	Zn 213.857†	21532.1	20621.7	511.32	µg/L	511.32	ppb	18:34:54
2	Sc RADIAL	56230.3	56230.3	103	%			18:33:51
2	Al 396.153Radial†	6941.0	6746.8	5018.0	µg/L	5018.0	ppb	18:33:51
2	Ca 317.933Radial†	5664.7	5318.7	5007.9	µg/L	5007.9	ppb	18:34:11
2	Fe 238.204 Radial†	623.7	590.8	5018.6	µg/L	5018.6	ppb	18:34:11
2	K 766.490 Radial†	7345.4	7000.7	4976.0	µg/L	4976.0	ppb	18:33:51
2	Mg 279.077 IEC†	581.5	553.1	5150.5	µg/L	5150.5	ppb	18:34:11
2	Na 589.592 Radial†	31761.7	30284.4	9969.7	µg/L	9969.7	ppb	18:33:51
2	Sr 421.552†	49439.7	47944.2	497.00	µg/L	497.00	ppb	18:33:51
2	Sc 361.383	1968654.4	1968654.4	103.08	%			18:35:22
2	Y 371.029	1345275.7	1345275.7	102.70	%			18:35:22
2	Ag 328.068†	64265.9	62910.5	502.88	µg/L	502.88	ppb	18:35:28
2	As 188.979†	279.7	270.2	527.15	µg/L	527.15	ppb	18:35:48
2	B 249.677†	12199.0	11503.1	500.92	µg/L	500.92	ppb	18:35:28
2	Ba 233.527†	20118.0	19543.0	509.79	µg/L	509.79	ppb	18:35:28
2	Be 313.107†	797156.7	776781.8	507.09	µg/L	507.09	ppb	18:35:22
2	Cd 226.502†	19012.6	18586.7	512.73	µg/L	512.73	ppb	18:35:28
2	Co 228.616†	10795.4	10481.7	515.26	µg/L	515.26	ppb	18:35:28
2	Cr 267.716†	24075.5	23408.6	515.22	µg/L	515.22	ppb	18:35:28
2	Cu 324.752†	77661.1	72854.9	509.61	µg/L	509.61	ppb	18:35:28
2	Mn 257.610†	153284.1	148948.8	516.25	µg/L	516.25	ppb	18:35:22
2	Mo 202.031†	4982.7	4841.3	516.86	µg/L	516.86	ppb	18:35:48
2	Ni 231.604†	10038.8	9436.7	515.40	µg/L	515.40	ppb	18:35:28
2	P 214.914†	1275.2	1209.5	2548.3	µg/L	2548.3	ppb	18:35:48
2	Pb 220.353†	2089.9	1930.2	515.20	µg/L	515.20	ppb	18:35:48

2	S 181.975 Axial†	253.9	231.5	1014.3 µg/L	1014.3 ppb	18:35:48
2	Sb 206.836†	566.6	522.7	516.68 µg/L	516.68 ppb	18:35:48
2	Se 196.026†	362.7	336.1	520.05 µg/L	520.05 ppb	18:35:48
2	SiO2†	27183.9	25121.8	5410.1 µg/L	5410.1 ppb	18:35:28
2	Si 251.611†	31985.4	30716.9	2525.1 µg/L	2525.1 ppb	18:35:28
2	Sn 189.927†	1162.1	1128.3	518.97 µg/L	518.97 ppb	18:35:48
2	Ti 334.940†	214911.2	208374.5	500.90 µg/L	500.90 ppb	18:35:22
2	Tl 190.801†	347.2	361.1	510.11 µg/L	510.11 ppb	18:35:48
2	U 409.014†	5833.8	5713.1	516.25 µg/L	516.25 ppb	18:35:28
2	V 292.402†	49382.2	47951.1	517.33 µg/L	517.33 ppb	18:35:28
2	Zn 213.857†	21765.8	20640.0	511.77 µg/L	511.77 ppb	18:35:28
3	Sc RADIAL	56202.6	56202.6	103 %		18:34:17
3	Al 396.153Radial†	7002.2	6809.5	5066.3 µg/L	5066.3 ppb	18:34:17
3	Ca 317.933Radial†	5645.9	5303.2	4993.3 µg/L	4993.3 ppb	18:34:37
3	Fe 238.204 Radial†	622.2	589.7	5007.8 µg/L	5007.8 ppb	18:34:37
3	K 766.490 Radial†	7390.9	7048.4	5010.0 µg/L	5010.0 ppb	18:34:17
3	Mg 279.077 IEC†	576.6	548.6	5107.8 µg/L	5107.8 ppb	18:34:37
3	Na 589.592 Radial†	31993.1	30524.4	10049 µg/L	10049 ppb	18:34:17
3	Sr 421.552†	49671.5	48193.0	499.58 µg/L	499.58 ppb	18:34:17
3	Sc 361.383	1949854.5	1949854.5	102.10 %		18:35:55
3	Y 371.029	1332440.6	1332440.6	101.72 %		18:35:55
3	Ag 328.068†	60532.1	59854.4	478.35 µg/L	478.35 ppb	18:36:01
3	As 188.979†	230.7	224.8	438.55 µg/L	438.55 ppb	18:36:21
3	B 249.677†	11478.3	10911.2	474.98 µg/L	474.98 ppb	18:36:01
3	Ba 233.527†	18573.8	18218.6	475.23 µg/L	475.23 ppb	18:36:01
3	Be 313.107†	747182.5	735289.5	480.01 µg/L	480.01 ppb	18:35:55
3	Cd 226.502†	17437.8	17222.1	475.04 µg/L	475.04 ppb	18:36:01
3	Co 228.616†	9818.6	9625.9	473.13 µg/L	473.13 ppb	18:36:01
3	Cr 267.716†	21497.4	21108.6	464.60 µg/L	464.60 ppb	18:36:01
3	Cu 324.752†	71198.9	67251.7	470.46 µg/L	470.46 ppb	18:36:01
3	Mn 257.610†	144456.6	141736.2	491.27 µg/L	491.27 ppb	18:35:55
3	Mo 202.031†	4165.5	4087.6	436.42 µg/L	436.42 ppb	18:36:21
3	Ni 231.604†	9187.6	8696.9	475.00 µg/L	475.00 ppb	18:36:01
3	P 214.914†	1084.2	1034.3	2175.1 µg/L	2175.1 ppb	18:36:21
3	Pb 220.353†	1818.3	1683.8	449.34 µg/L	449.34 ppb	18:36:21
3	S 181.975 Axial†	223.4	204.0	893.71 µg/L	893.71 ppb	18:36:21
3	Sb 206.836†	482.5	445.7	440.11 µg/L	440.11 ppb	18:36:21
3	Se 196.026†	316.7	294.4	456.49 µg/L	456.49 ppb	18:36:21
3	SiO2†	25304.0	23534.7	5068.3 µg/L	5068.3 ppb	18:36:01
3	Si 251.611†	29685.2	28763.1	2364.5 µg/L	2364.5 ppb	18:36:01
3	Sn 189.927†	961.6	942.7	433.62 µg/L	433.62 ppb	18:36:21
3	Ti 334.940†	200490.3	196259.8	471.76 µg/L	471.76 ppb	18:35:55
3	Tl 190.801†	316.1	333.9	471.83 µg/L	471.83 ppb	18:36:21
3	U 409.014†	5179.3	5126.6	463.15 µg/L	463.15 ppb	18:36:01
3	V 292.402†	44764.1	43889.7	473.25 µg/L	473.25 ppb	18:36:01
3	Zn 213.857†	19900.8	19016.9	471.49 µg/L	471.49 ppb	18:36:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1955902.5	102.41	%	0.578				0.56%
Sc RADIAL	55958.3	103	%	0.8				0.80%
Y 371.029	1336776.6	102.05	%	0.562				0.55%
Ag 328.068†	61926.8	494.98	µg/L	14.414	494.98	ppb	14.414	2.91%
QC value within limits for Ag 328.068 Recovery = 99.00%								
Al 396.153Radial†	6792.0	5052.2	µg/L	29.77	5052.2	ppb	29.77	0.59%
QC value within limits for Al 396.153Radial Recovery = 101.04%								
As 188.979†	253.9	495.34	µg/L	49.299	495.34	ppb	49.299	9.95%
QC value within limits for As 188.979 Recovery = 99.07%								
B 249.677†	11308.1	492.36	µg/L	15.053	492.36	ppb	15.053	3.06%
QC value within limits for B 249.677 Recovery = 98.47%								
Ba 233.527†	19105.0	498.36	µg/L	20.034	498.36	ppb	20.034	4.02%
QC value within limits for Ba 233.527 Recovery = 99.67%								
Be 313.107†	763661.2	498.53	µg/L	16.055	498.53	ppb	16.055	3.22%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	5348.5	5036.0	µg/L	61.72	5036.0	ppb	61.72	1.23%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	18112.2	499.62	µg/L	21.301	499.62	ppb	21.301	4.26%
QC value within limits for Cd 226.502 Recovery = 99.92%								
Co 228.616†	10194.8	501.14	µg/L	24.256	501.14	ppb	24.256	4.84%

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   QC value within limits for Co 228.616  Recovery = 100.23%
Cr 267.716†          22657.9      498.70 µg/L       29.533      498.70 ppb        29.533   5.92%
   QC value within limits for Cr 267.716  Recovery = 99.74%
Cu 324.752†          71059.6      497.07 µg/L       23.052      497.07 ppb        23.052   4.64%
   QC value within limits for Cu 324.752  Recovery = 99.41%
Fe 238.204 Radial†     593.9      5044.0 µg/L        53.59      5044.0 ppb         53.59   1.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.88%
K 766.490 Radial†     7055.3      5014.9 µg/L        41.51      5014.9 ppb         41.51   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 100.30%
Mg 279.077 IEC†        553.5      5153.8 µg/L        47.82      5153.8 ppb         47.82   0.93%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.08%
Mn 257.610†         146785.7      508.76 µg/L       15.198      508.76 ppb        15.198   2.99%
   QC value within limits for Mn 257.610  Recovery = 101.75%
Mo 202.031†          4616.6      492.88 µg/L       49.074      492.88 ppb        49.074   9.96%
   QC value within limits for Mo 202.031  Recovery = 98.58%
Na 589.592 Radial†    30482.1       10035 µg/L        59.3       10035 ppb          59.3   0.59%
   QC value within limits for Na 589.592 Radial  Recovery = 100.35%
Ni 231.604†           9177.9      501.27 µg/L       22.771      501.27 ppb        22.771   4.54%
   QC value within limits for Ni 231.604  Recovery = 100.25%
P 214.914†            1159.8      2442.6 µg/L       233.37      2442.6 ppb        233.37   9.55%
   QC value within limits for P 214.914  Recovery = 97.71%
Pb 220.353†           1857.7      495.83 µg/L       40.446      495.83 ppb        40.446   8.16%
   QC value within limits for Pb 220.353  Recovery = 99.17%
S 181.975 Axial†       222.8      976.27 µg/L       71.572      976.27 ppb        71.572   7.33%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†            497.5      491.69 µg/L       44.681      491.69 ppb        44.681   9.09%
   QC value within limits for Sb 206.836  Recovery = 98.34%
Se 196.026†            322.9      500.11 µg/L       37.818      500.11 ppb        37.818   7.56%
   QC value within limits for Se 196.026  Recovery = 100.02%
SiO2†                24557.5      5288.6 µg/L       191.11      5288.6 ppb        191.11   3.61%
   QC value within limits for SiO2  Recovery = 98.90%
Si 251.611†          30070.3      2471.9 µg/L        93.06      2471.9 ppb         93.06   3.76%
   QC value within limits for Si 251.611  Recovery = 98.88%
Sn 189.927†           1073.1      493.61 µg/L       52.162      493.61 ppb        52.162  10.57%
   QC value within limits for Sn 189.927  Recovery = 98.72%
Sr 421.552†          48082.9      498.44 µg/L        1.315      498.44 ppb         1.315   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.69%
Ti 334.940†         204541.6      491.68 µg/L       17.266      491.68 ppb        17.266   3.51%
   QC value within limits for Ti 334.940  Recovery = 98.34%
Tl 190.801†            352.2      497.49 µg/L       22.222      497.49 ppb        22.222   4.47%
   QC value within limits for Tl 190.801  Recovery = 99.50%
U 409.014†            5528.1      499.49 µg/L       31.500      499.49 ppb        31.500   6.31%
   QC value within limits for U 409.014  Recovery = 99.90%
V 292.402†           46599.3      502.68 µg/L       25.490      502.68 ppb        25.490   5.07%
   QC value within limits for V 292.402  Recovery = 100.54%
Zn 213.857†          20092.9      498.19 µg/L       23.129      498.19 ppb        23.129   4.64%
   QC value within limits for Zn 213.857  Recovery = 99.64%
All analyte(s) passed QC.
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Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:36:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56577.3	56577.3	104	%			18:37:06
1	Al 396.153Radial†	-31.7	-20.5	-15.254	µg/L	-15.254	ppb	18:37:06
1	Ca 317.933Radial†	178.1	-7.3	-6.9019	µg/L	-6.9019	ppb	18:37:27
1	Fe 238.204 Radial†	15.3	0.2	1.9399	µg/L	1.9399	ppb	18:37:27
1	K 766.490 Radial†	151.5	17.7	12.611	µg/L	12.611	ppb	18:37:06
1	Mg 279.077 IEC†	8.3	-3.3	-30.287	µg/L	-30.287	ppb	18:37:27
1	Na 589.592 Radial†	633.9	69.6	22.897	µg/L	22.897	ppb	18:37:06
1	Sr 421.552†	44.5	3.3	0.0346	µg/L	0.0346	ppb	18:37:06
1	Sc 361.383	1997175.6	1997175.6	104.57	%			18:38:28
1	Y 371.029	1371834.1	1371834.1	104.73	%			18:38:28
1	Ag 328.068†	-518.3	68.9	0.5460	µg/L	0.5460	ppb	18:38:34
1	As 188.979†	-0.7	-1.8	-3.4701	µg/L	-3.4701	ppb	18:38:54
1	B 249.677†	333.0	-13.0	-0.5696	µg/L	-0.5696	ppb	18:38:54
1	Ba 233.527†	-20.3	6.6	0.1716	µg/L	0.1716	ppb	18:38:54
1	Be 313.107†	-3492.3	100.9	0.0658	µg/L	0.0658	ppb	18:38:34
1	Cd 226.502†	-135.3	12.8	0.3518	µg/L	0.3518	ppb	18:38:54
1	Co 228.616†	-16.0	-6.4	-0.3169	µg/L	-0.3169	ppb	18:38:54
1	Cr 267.716†	-59.9	-4.9	-0.1071	µg/L	-0.1071	ppb	18:38:34
1	Cu 324.752†	2440.0	-152.8	-1.0669	µg/L	-1.0669	ppb	18:38:34
1	Mn 257.610†	-253.9	1.3	0.0061	µg/L	0.0061	ppb	18:38:54
1	Mo 202.031†	-12.2	-4.2	-0.4445	µg/L	-0.4445	ppb	18:38:54
1	Ni 231.604†	302.8	-12.6	-0.6910	µg/L	-0.6910	ppb	18:38:54
1	P 214.914†	25.9	-2.9	-6.0063	µg/L	-6.0063	ppb	18:38:54
1	Pb 220.353†	96.6	-4.8	-1.2749	µg/L	-1.2749	ppb	18:38:54
1	S 181.975 Axial†	16.8	1.3	5.5555	µg/L	5.5555	ppb	18:38:54
1	Sb 206.836†	26.1	-2.0	-1.9561	µg/L	-1.9561	ppb	18:38:54
1	Se 196.026†	17.3	0.7	1.1140	µg/L	1.1140	ppb	18:38:54
1	SiO2†	1249.6	-55.1	-11.856	µg/L	-11.856	ppb	18:38:34
1	Si 251.611†	302.7	-23.4	-1.9253	µg/L	-1.9253	ppb	18:38:54
1	Sn 189.927†	1.0	1.9	0.8554	µg/L	0.8554	ppb	18:38:54
1	Ti 334.940†	152.6	29.8	0.0741	µg/L	0.0741	ppb	18:38:34
1	Tl 190.801†	-22.3	3.0	4.1717	µg/L	4.1717	ppb	18:38:54
1	U 409.014†	-116.8	-58.1	-5.2596	µg/L	-5.2596	ppb	18:38:34
1	V 292.402†	-54.7	-8.1	-0.0953	µg/L	-0.0953	ppb	18:38:34
1	Zn 213.857†	472.6	-23.6	-0.5840	µg/L	-0.5840	ppb	18:38:54
2	Sc RADIAL	55383.9	55383.9	101	%			18:37:32
2	Al 396.153Radial†	-17.3	-7.0	-5.1964	µg/L	-5.1964	ppb	18:37:32
2	Ca 317.933Radial†	188.8	6.9	6.4546	µg/L	6.4546	ppb	18:37:52
2	Fe 238.204 Radial†	14.1	-0.6	-4.8767	µg/L	-4.8767	ppb	18:37:52
2	K 766.490 Radial†	126.5	-3.8	-2.6779	µg/L	-2.6779	ppb	18:37:32
2	Mg 279.077 IEC†	12.6	1.1	10.292	µg/L	10.292	ppb	18:37:52
2	Na 589.592 Radial†	623.8	72.8	23.955	µg/L	23.955	ppb	18:37:32
2	Sr 421.552†	31.5	-8.5	-0.0883	µg/L	-0.0883	ppb	18:37:32
2	Sc 361.383	2013350.1	2013350.1	105.42	%			18:39:00
2	Y 371.029	1381993.5	1381993.5	105.50	%			18:39:00
2	Ag 328.068†	-537.9	54.3	0.4351	µg/L	0.4351	ppb	18:39:06
2	As 188.979†	2.2	1.0	1.8812	µg/L	1.8812	ppb	18:39:26
2	B 249.677†	318.3	-29.5	-1.2874	µg/L	-1.2874	ppb	18:39:26
2	Ba 233.527†	-25.9	1.4	0.0380	µg/L	0.0380	ppb	18:39:26
2	Be 313.107†	-3437.1	180.0	0.1176	µg/L	0.1176	ppb	18:39:06
2	Cd 226.502†	-146.1	3.5	0.0976	µg/L	0.0976	ppb	18:39:26
2	Co 228.616†	-6.0	3.1	0.1553	µg/L	0.1553	ppb	18:39:26
2	Cr 267.716†	-56.6	-1.3	-0.0276	µg/L	-0.0276	ppb	18:39:06
2	Cu 324.752†	2488.4	-125.7	-0.8785	µg/L	-0.8785	ppb	18:39:06
2	Mn 257.610†	-244.3	12.4	0.0419	µg/L	0.0419	ppb	18:39:26
2	Mo 202.031†	-1.5	6.1	0.6511	µg/L	0.6511	ppb	18:39:26
2	Ni 231.604†	301.7	-16.0	-0.8752	µg/L	-0.8752	ppb	18:39:26
2	P 214.914†	26.3	-2.6	-5.5596	µg/L	-5.5596	ppb	18:39:26
2	Pb 220.353†	100.7	-1.7	-0.4405	µg/L	-0.4405	ppb	18:39:26

2	S 181.975 Axial†	19.5	3.7	16.100	µg/L	16.100 ppb	18:39:26
2	Sb 206.836†	25.7	-2.6	-2.5687	µg/L	-2.5687 ppb	18:39:26
2	Se 196.026†	18.4	1.6	2.4087	µg/L	2.4087 ppb	18:39:26
2	SiO2†	1290.6	-25.8	-5.5589	µg/L	-5.5589 ppb	18:39:06
2	Si 251.611†	298.6	-29.7	-2.4388	µg/L	-2.4388 ppb	18:39:26
2	Sn 189.927†	1.6	2.4	1.0965	µg/L	1.0965 ppb	18:39:26
2	Ti 334.940†	143.9	20.4	0.0483	µg/L	0.0483 ppb	18:39:06
2	Tl 190.801†	-19.4	5.9	8.2322	µg/L	8.2322 ppb	18:39:26
2	U 409.014†	-143.2	-82.3	-7.4471	µg/L	-7.4471 ppb	18:39:06
2	V 292.402†	19.9	63.0	0.6686	µg/L	0.6686 ppb	18:39:06
2	Zn 213.857†	478.6	-21.5	-0.5326	µg/L	-0.5326 ppb	18:39:26
3	Sc RADIAL	56905.3	56905.3	104	%		18:37:58
3	Al 396.153Radial†	-1.7	8.5	6.3212	µg/L	6.3212 ppb	18:37:58
3	Ca 317.933Radial†	181.4	-5.2	-4.9145	µg/L	-4.9145 ppb	18:38:18
3	Fe 238.204 Radial†	13.2	-1.8	-15.607	µg/L	-15.607 ppb	18:38:18
3	K 766.490 Radial†	186.8	50.7	36.048	µg/L	36.048 ppb	18:37:58
3	Mg 279.077 IEC†	11.5	-0.3	-2.5813	µg/L	-2.5813 ppb	18:38:18
3	Na 589.592 Radial†	645.3	77.0	25.346	µg/L	25.346 ppb	18:37:58
3	Sr 421.552†	17.2	-23.1	-0.2393	µg/L	-0.2393 ppb	18:37:58
3	Sc 361.383	1996384.7	1996384.7	104.53	%		18:39:32
3	Y 371.029	1369220.3	1369220.3	104.53	%		18:39:32
3	Ag 328.068†	-541.0	47.0	0.3741	µg/L	0.3741 ppb	18:39:38
3	As 188.979†	-1.0	-2.1	-4.0939	µg/L	-4.0939 ppb	18:39:59
3	B 249.677†	333.0	-12.9	-0.5555	µg/L	-0.5555 ppb	18:39:59
3	Ba 233.527†	-17.3	9.5	0.2478	µg/L	0.2478 ppb	18:39:59
3	Be 313.107†	-3308.4	275.5	0.1799	µg/L	0.1799 ppb	18:39:38
3	Cd 226.502†	-144.0	4.4	0.1228	µg/L	0.1228 ppb	18:39:59
3	Co 228.616†	-11.0	-1.7	-0.0836	µg/L	-0.0836 ppb	18:39:59
3	Cr 267.716†	-55.8	-1.0	-0.0220	µg/L	-0.0220 ppb	18:39:38
3	Cu 324.752†	2440.9	-151.0	-1.0572	µg/L	-1.0572 ppb	18:39:38
3	Mn 257.610†	-222.1	31.7	0.1077	µg/L	0.1077 ppb	18:39:59
3	Mo 202.031†	-3.2	4.5	0.4771	µg/L	0.4771 ppb	18:39:59
3	Ni 231.604†	303.2	-12.1	-0.6637	µg/L	-0.6637 ppb	18:39:59
3	P 214.914†	30.5	1.6	3.5034	µg/L	3.5034 ppb	18:39:59
3	Pb 220.353†	89.5	-11.6	-3.0790	µg/L	-3.0790 ppb	18:39:59
3	S 181.975 Axial†	17.8	2.2	9.6185	µg/L	9.6185 ppb	18:39:59
3	Sb 206.836†	27.7	-0.5	-0.4700	µg/L	-0.4700 ppb	18:39:59
3	Se 196.026†	15.0	-1.5	-2.2806	µg/L	-2.2806 ppb	18:39:59
3	SiO2†	1247.6	-56.5	-12.175	µg/L	-12.175 ppb	18:39:38
3	Si 251.611†	300.0	-25.8	-2.1244	µg/L	-2.1244 ppb	18:39:59
3	Sn 189.927†	3.2	3.9	1.8070	µg/L	1.8070 ppb	18:39:59
3	Ti 334.940†	156.9	34.0	0.0818	µg/L	0.0818 ppb	18:39:38
3	Tl 190.801†	-23.6	1.7	2.3286	µg/L	2.3286 ppb	18:39:59
3	U 409.014†	-48.9	6.8	0.6203	µg/L	0.6203 ppb	18:39:38
3	V 292.402†	-14.3	30.6	0.3283	µg/L	0.3283 ppb	18:39:38
3	Zn 213.857†	478.7	-17.6	-0.4352	µg/L	-0.4352 ppb	18:39:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2002303.4	104.84	%	0.501				0.48%
Sc RADIAL	56288.9	103	%	1.5				1.42%
Y 371.029	1374349.3	104.92	%	0.515				0.49%
Ag 328.068†	56.7	0.4517	µg/L	0.08717	0.4517	ppb	0.08717	19.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-4.7097	µg/L	10.79578	-4.7097	ppb	10.79578	229.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.8943	µg/L	3.28450	-1.8943	ppb	3.28450	173.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-18.5	-0.8042	µg/L	0.41854	-0.8042	ppb	0.41854	52.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.8	0.1525	µg/L	0.10621	0.1525	ppb	0.10621	69.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.5	0.1211	µg/L	0.05710	0.1211	ppb	0.05710	47.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-1.7872	µg/L	7.20651	-1.7872	ppb	7.20651	403.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1907	µg/L	0.14008	0.1907	ppb	0.14008	73.44%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0817	µg/L	0.23614	-0.0817	ppb	0.23614	288.95%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.4     -0.0522 µg/L      0.04756     -0.0522 ppb       0.04756  91.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -143.2     -1.0009 µg/L      0.10608     -1.0009 ppb       0.10608  10.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -6.1811 µg/L      8.84567     -6.1811 ppb       8.84567 143.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        21.6      15.327 µg/L     19.5055      15.327 ppb      19.5055 127.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.8     -7.5253 µg/L    20.73608     -7.5253 ppb     20.73608 275.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.1      0.0519 µg/L     0.05154      0.0519 ppb      0.05154  99.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.1      0.2279 µg/L     0.58875      0.2279 ppb      0.58875 258.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       73.1      24.066 µg/L      1.2283      24.066 ppb       1.2283   5.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -13.6     -0.7433 µg/L     0.11501     -0.7433 ppb      0.11501  15.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.3     -2.6875 µg/L     5.36613     -2.6875 ppb      5.36613 199.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.0     -1.5981 µg/L     1.34866     -1.5981 ppb      1.34866  84.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.4      10.425 µg/L      5.3180      10.425 ppb       5.3180  51.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.7     -1.6649 µg/L     1.07918     -1.6649 ppb      1.07918  64.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3      0.4141 µg/L     2.42173      0.4141 ppb      2.42173 584.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -45.8     -9.8634 µg/L     3.73124     -9.8634 ppb      3.73124  37.83%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -26.3     -2.1628 µg/L     0.25893     -2.1628 ppb      0.25893  11.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.7      1.2530 µg/L     0.49474      1.2530 ppb      0.49474  39.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -9.4     -0.0977 µg/L     0.13720     -0.0977 ppb      0.13720 140.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              28.1      0.0681 µg/L     0.01753      0.0681 ppb      0.01753  25.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.5      4.9108 µg/L     3.02042      4.9108 ppb      3.02042  61.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -44.5     -4.0288 µg/L     4.17218     -4.0288 ppb      4.17218 103.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               28.5      0.3005 µg/L     0.38270      0.3005 ppb      0.38270 127.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -20.9     -0.5173 µg/L     0.07558     -0.5173 ppb      0.07558  14.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55671.1	55671.1	102	%			19:13:03
1	Al 396.153Radial†	7032.4	6904.0	5134.7	µg/L	5134.7	ppb	19:13:03
1	Ca 317.933Radial†	5628.4	5338.4	5026.4	µg/L	5026.4	ppb	19:13:23
1	Fe 238.204 Radial†	628.5	601.6	5110.3	µg/L	5110.3	ppb	19:13:23
1	K 766.490 Radial†	7390.7	7116.7	5058.5	µg/L	5058.5	ppb	19:13:03
1	Mg 279.077 IEC†	581.4	558.7	5202.9	µg/L	5202.9	ppb	19:13:23
1	Na 589.592 Radial†	32145.4	30970.2	10196	µg/L	10196	ppb	19:13:03
1	Sr 421.552†	49522.9	48507.7	502.84	µg/L	502.84	ppb	19:13:03
1	Sc 361.383	1951144.3	1951144.3	102.16	%			19:14:27
1	Y 371.029	1335064.4	1335064.4	101.92	%			19:14:27
1	Ag 328.068†	64845.5	64037.3	511.83	µg/L	511.83	ppb	19:14:32
1	As 188.979†	275.5	268.5	523.78	µg/L	523.78	ppb	19:14:53
1	B 249.677†	12049.2	11462.7	499.11	µg/L	499.11	ppb	19:14:32
1	Ba 233.527†	20008.0	19610.4	511.55	µg/L	511.55	ppb	19:14:32
1	Be 313.107†	795598.6	782196.8	510.62	µg/L	510.62	ppb	19:14:27
1	Cd 226.502†	18839.6	18582.9	512.61	µg/L	512.61	ppb	19:14:32
1	Co 228.616†	10676.1	10458.9	514.13	µg/L	514.13	ppb	19:14:32
1	Cr 267.716†	23927.2	23473.1	516.64	µg/L	516.64	ppb	19:14:32
1	Cu 324.752†	77230.7	73109.7	511.40	µg/L	511.40	ppb	19:14:32
1	Mn 257.610†	153022.2	150027.0	519.99	µg/L	519.99	ppb	19:14:27
1	Mo 202.031†	5147.6	5046.1	538.72	µg/L	538.72	ppb	19:14:53
1	Ni 231.604†	9909.1	9397.1	513.24	µg/L	513.24	ppb	19:14:32
1	P 214.914†	1284.0	1229.2	2590.7	µg/L	2590.7	ppb	19:14:53
1	Pb 220.353†	2100.1	1958.5	522.80	µg/L	522.80	ppb	19:14:53
1	S 181.975 Axial†	260.7	240.4	1053.2	µg/L	1053.2	ppb	19:14:53
1	Sb 206.836†	579.1	539.9	533.92	µg/L	533.92	ppb	19:14:53
1	Se 196.026†	368.4	344.8	533.59	µg/L	533.59	ppb	19:14:53
1	SiO2†	27092.9	25269.3	5441.9	µg/L	5441.9	ppb	19:14:32
1	Si 251.611†	31889.8	30901.8	2540.3	µg/L	2540.3	ppb	19:14:32
1	Sn 189.927†	1200.9	1176.4	541.09	µg/L	541.09	ppb	19:14:53
1	Ti 334.940†	218380.7	213641.7	513.57	µg/L	513.57	ppb	19:14:27
1	Tl 190.801†	350.6	367.5	519.14	µg/L	519.14	ppb	19:14:53
1	U 409.014†	5814.6	5745.1	519.13	µg/L	519.13	ppb	19:14:32
1	V 292.402†	48982.0	47989.3	517.92	µg/L	517.92	ppb	19:14:32
1	Zn 213.857†	21483.0	20552.7	509.59	µg/L	509.59	ppb	19:14:32
2	Sc RADIAL	56100.7	56100.7	103	%			19:13:29
2	Al 396.153Radial†	6945.6	6766.8	5032.6	µg/L	5032.6	ppb	19:13:29
2	Ca 317.933Radial†	5631.2	5298.9	4989.2	µg/L	4989.2	ppb	19:13:49
2	Fe 238.204 Radial†	627.7	596.1	5063.7	µg/L	5063.7	ppb	19:13:49
2	K 766.490 Radial†	7341.2	7013.0	4984.8	µg/L	4984.8	ppb	19:13:29
2	Mg 279.077 IEC†	586.0	558.8	5203.5	µg/L	5203.5	ppb	19:13:49
2	Na 589.592 Radial†	31976.7	30564.8	10062	µg/L	10062	ppb	19:13:29
2	Sr 421.552†	49170.9	47793.6	495.44	µg/L	495.44	ppb	19:13:29
2	Sc 361.383	1954250.3	1954250.3	102.33	%			19:15:00
2	Y 371.029	1335611.5	1335611.5	101.96	%			19:15:00
2	Ag 328.068†	65212.5	64295.1	513.88	µg/L	513.88	ppb	19:15:06
2	As 188.979†	274.4	267.0	520.94	µg/L	520.94	ppb	19:15:26
2	B 249.677†	12164.5	11556.6	503.24	µg/L	503.24	ppb	19:15:06
2	Ba 233.527†	20057.8	19628.0	512.01	µg/L	512.01	ppb	19:15:06
2	Be 313.107†	786582.3	772147.7	504.06	µg/L	504.06	ppb	19:15:00
2	Cd 226.502†	18912.0	18624.4	513.76	µg/L	513.76	ppb	19:15:06
2	Co 228.616†	10732.8	10497.7	516.05	µg/L	516.05	ppb	19:15:06
2	Cr 267.716†	24011.5	23518.2	517.63	µg/L	517.63	ppb	19:15:06
2	Cu 324.752†	77632.9	73382.6	513.30	µg/L	513.30	ppb	19:15:06
2	Mn 257.610†	151747.3	148542.9	514.85	µg/L	514.85	ppb	19:15:00
2	Mo 202.031†	5096.3	4988.0	532.52	µg/L	532.52	ppb	19:15:26
2	Ni 231.604†	9986.9	9457.7	516.55	µg/L	516.55	ppb	19:15:06
2	P 214.914†	1269.9	1213.4	2556.6	µg/L	2556.6	ppb	19:15:26
2	Pb 220.353†	2103.2	1958.2	522.70	µg/L	522.70	ppb	19:15:26

2	S 181.975 Axial†	261.6	240.8	1055.1 µg/L	1055.1 ppb	19:15:26
2	Sb 206.836†	583.1	542.9	536.77 µg/L	536.77 ppb	19:15:26
2	Se 196.026†	358.4	334.4	517.63 µg/L	517.63 ppb	19:15:26
2	SiO2†	27219.9	25351.3	5459.5 µg/L	5459.5 ppb	19:15:06
2	Si 251.611†	32020.8	30980.3	2546.7 µg/L	2546.7 ppb	19:15:06
2	Sn 189.927†	1194.0	1167.7	537.13 µg/L	537.13 ppb	19:15:26
2	Ti 334.940†	216182.4	211153.6	507.58 µg/L	507.58 ppb	19:15:00
2	Tl 190.801†	351.8	368.1	519.85 µg/L	519.85 ppb	19:15:26
2	U 409.014†	5813.7	5735.2	518.24 µg/L	518.24 ppb	19:15:06
2	V 292.402†	49127.5	48055.3	518.57 µg/L	518.57 ppb	19:15:06
2	Zn 213.857†	21549.0	20583.8	510.35 µg/L	510.35 ppb	19:15:06
3	Sc RADIAL	56646.4	56646.4	104 %		19:13:55
3	Al 396.153Radial†	6990.5	6744.9	5018.4 µg/L	5018.4 ppb	19:13:55
3	Ca 317.933Radial†	5597.5	5213.6	4908.9 µg/L	4908.9 ppb	19:14:15
3	Fe 238.204 Radial†	629.8	592.2	5029.2 µg/L	5029.2 ppb	19:14:15
3	K 766.490 Radial†	7441.3	7040.7	5004.5 µg/L	5004.5 ppb	19:13:55
3	Mg 279.077 IEC†	585.3	552.6	5144.3 µg/L	5144.3 ppb	19:14:15
3	Na 589.592 Radial†	32200.7	30481.0	10034 µg/L	10034 ppb	19:13:55
3	Sr 421.552†	49653.3	47797.6	495.48 µg/L	495.48 ppb	19:13:55
3	Sc 361.383	1989206.7	1989206.7	104.16 %		19:15:33
3	Y 371.029	1360871.5	1360871.5	103.89 %		19:15:33
3	Ag 328.068†	60452.0	58604.6	468.29 µg/L	468.29 ppb	19:15:39
3	As 188.979†	231.4	221.0	431.16 µg/L	431.16 ppb	19:15:59
3	B 249.677†	11200.8	10422.4	453.57 µg/L	453.57 ppb	19:15:39
3	Ba 233.527†	18155.6	17457.3	455.37 µg/L	455.37 ppb	19:15:39
3	Be 313.107†	746723.2	720370.4	470.26 µg/L	470.26 ppb	19:15:33
3	Cd 226.502†	17034.9	16497.4	455.02 µg/L	455.02 ppb	19:15:39
3	Co 228.616†	9575.0	9201.8	452.26 µg/L	452.26 ppb	19:15:39
3	Cr 267.716†	20898.9	20117.4	442.78 µg/L	442.78 ppb	19:15:39
3	Cu 324.752†	69759.8	64490.4	451.18 µg/L	451.18 ppb	19:15:39
3	Mn 257.610†	144303.8	138790.3	481.07 µg/L	481.07 ppb	19:15:33
3	Mo 202.031†	4187.5	4027.9	430.06 µg/L	430.06 ppb	19:15:59
3	Ni 231.604†	8969.1	8309.0	453.82 µg/L	453.82 ppb	19:15:39
3	P 214.914†	1074.2	1003.7	2111.2 µg/L	2111.2 ppb	19:15:59
3	Pb 220.353†	1799.2	1630.2	435.08 µg/L	435.08 ppb	19:15:59
3	S 181.975 Axial†	224.9	201.1	880.92 µg/L	880.92 ppb	19:15:59
3	Sb 206.836†	494.9	448.2	442.71 µg/L	442.71 ppb	19:15:59
3	Se 196.026†	304.8	276.8	429.75 µg/L	429.75 ppb	19:15:59
3	SiO2†	24880.7	22637.9	4875.2 µg/L	4875.2 ppb	19:15:39
3	Si 251.611†	29305.2	27823.1	2287.2 µg/L	2287.2 ppb	19:15:39
3	Sn 189.927†	959.0	921.6	423.93 µg/L	423.93 ppb	19:15:59
3	Ti 334.940†	203896.7	195645.3	470.28 µg/L	470.28 ppb	19:15:33
3	Tl 190.801†	305.5	317.6	449.03 µg/L	449.03 ppb	19:15:59
3	U 409.014†	5068.3	4919.7	444.42 µg/L	444.42 ppb	19:15:39
3	V 292.402†	43582.6	41887.9	451.80 µg/L	451.80 ppb	19:15:39
3	Zn 213.857†	19376.0	18127.3	449.39 µg/L	449.39 ppb	19:15:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1964867.1	102.88	%	1.107				1.08%
Sc RADIAL	56139.4	103	%	0.9				0.87%
Y 371.029	1343849.1	102.59	%	1.126				1.10%
Ag 328.068†	62312.3	498.00	µg/L	25.750	498.00	ppb	25.750	5.17%
QC value within limits for Ag 328.068 Recovery = 99.60%								
Al 396.153Radial†	6805.2	5061.9	µg/L	63.45	5061.9	ppb	63.45	1.25%
QC value within limits for Al 396.153Radial Recovery = 101.24%								
As 188.979†	252.2	491.96	µg/L	52.673	491.96	ppb	52.673	10.71%
QC value within limits for As 188.979 Recovery = 98.39%								
B 249.677†	11147.2	485.30	µg/L	27.561	485.30	ppb	27.561	5.68%
QC value within limits for B 249.677 Recovery = 97.06%								
Ba 233.527†	18898.6	492.97	µg/L	32.570	492.97	ppb	32.570	6.61%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	758238.3	494.98	µg/L	21.658	494.98	ppb	21.658	4.38%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	5283.6	4974.8	µg/L	60.06	4974.8	ppb	60.06	1.21%
QC value within limits for Ca 317.933Radial Recovery = 99.50%								
Cd 226.502†	17901.6	493.80	µg/L	33.585	493.80	ppb	33.585	6.80%
QC value within limits for Cd 226.502 Recovery = 98.76%								
Co 228.616†	10052.8	494.14	µg/L	36.289	494.14	ppb	36.289	7.34%

QC value within limits for Co 228.616 Recovery = 98.83%

Cr 267.716†	22369.6	492.35 µg/L	42.929	492.35 ppb	42.929	8.72%

QC value within limits for Cr 267.716 Recovery = 98.47%

Cu 324.752†	70327.6	491.96 µg/L	35.329	491.96 ppb	35.329	7.18%

QC value within limits for Cu 324.752 Recovery = 98.39%

Fe 238.204 Radial†	596.7	5067.7 µg/L	40.70	5067.7 ppb	40.70	0.80%

QC value within limits for Fe 238.204 Radial Recovery = 101.35%

K 766.490 Radial†	7056.8	5015.9 µg/L	38.15	5015.9 ppb	38.15	0.76%

QC value within limits for K 766.490 Radial Recovery = 100.32%

Mg 279.077 IEC†	556.7	5183.6 µg/L	33.98	5183.6 ppb	33.98	0.66%

QC value within limits for Mg 279.077 IEC Recovery = 103.67%

Mn 257.610†	145786.8	505.31 µg/L	21.142	505.31 ppb	21.142	4.18%

QC value within limits for Mn 257.610 Recovery = 101.06%

Mo 202.031†	4687.4	500.43 µg/L	61.026	500.43 ppb	61.026	12.19%

QC value within limits for Mo 202.031 Recovery = 100.09%

Na 589.592 Radial†	30672.0	10097 µg/L	86.1	10097 ppb	86.1	0.85%

QC value within limits for Na 589.592 Radial Recovery = 100.97%

Ni 231.604†	9054.6	494.54 µg/L	35.300	494.54 ppb	35.300	7.14%

QC value within limits for Ni 231.604 Recovery = 98.91%

P 214.914†	1148.8	2419.5 µg/L	267.56	2419.5 ppb	267.56	11.06%

QC value within limits for P 214.914 Recovery = 96.78%

Pb 220.353†	1849.0	493.53 µg/L	50.614	493.53 ppb	50.614	10.26%

QC value within limits for Pb 220.353 Recovery = 98.71%

S 181.975 Axial†	227.4	996.40 µg/L	100.008	996.40 ppb	100.008	10.04%

QC value within limits for S 181.975 Axial Recovery = 99.64%

Sb 206.836†	510.3	504.47 µg/L	53.501	504.47 ppb	53.501	10.61%

QC value within limits for Sb 206.836 Recovery = 100.89%

Se 196.026†	318.7	493.66 µg/L	55.921	493.66 ppb	55.921	11.33%

QC value within limits for Se 196.026 Recovery = 98.73%

SiO2†	24419.5	5258.9 µg/L	332.39	5258.9 ppb	332.39	6.32%

QC value within limits for SiO2 Recovery = 98.34%

Si 251.611†	29901.8	2458.1 µg/L	148.02	2458.1 ppb	148.02	6.02%

QC value within limits for Si 251.611 Recovery = 98.32%

Sn 189.927†	1088.6	500.71 µg/L	66.525	500.71 ppb	66.525	13.29%

QC value within limits for Sn 189.927 Recovery = 100.14%

Sr 421.552†	48033.0	497.92 µg/L	4.262	497.92 ppb	4.262	0.86%

QC value within limits for Sr 421.552 Recovery = 99.58%

Ti 334.940†	206813.5	497.14 µg/L	23.455	497.14 ppb	23.455	4.72%

QC value within limits for Ti 334.940 Recovery = 99.43%

Tl 190.801†	351.1	496.01 µg/L	40.687	496.01 ppb	40.687	8.20%

QC value within limits for Tl 190.801 Recovery = 99.20%

U 409.014†	5466.7	493.93 µg/L	42.881	493.93 ppb	42.881	8.68%

QC value within limits for U 409.014 Recovery = 98.79%

V 292.402†	45977.5	496.10 µg/L	38.364	496.10 ppb	38.364	7.73%

QC value within limits for V 292.402 Recovery = 99.22%

Zn 213.857†	19754.6	489.78 µg/L	34.976	489.78 ppb	34.976	7.14%

QC value within limits for Zn 213.857 Recovery = 97.96%

All analyte(s) passed QC.

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55600.7	55600.7	102	%			19:16:41
1	Al 396.153Radial†	-4.5	5.7	4.2256	µg/L	4.2256	ppb	19:16:41
1	Ca 317.933Radial†	176.7	-5.7	-5.4036	µg/L	-5.4036	ppb	19:17:01
1	Fe 238.204 Radial†	16.9	2.1	17.440	µg/L	17.440	ppb	19:17:01
1	K 766.490 Radial†	120.8	-9.9	-7.0161	µg/L	-7.0161	ppb	19:16:41
1	Mg 279.077 IEC†	10.9	-0.6	-5.3345	µg/L	-5.3345	ppb	19:17:01
1	Na 589.592 Radial†	652.7	98.7	32.500	µg/L	32.500	ppb	19:16:41
1	Sr 421.552†	22.7	-17.3	-0.1790	µg/L	-0.1790	ppb	19:16:41
1	Sc 361.383	1934829.6	1934829.6	101.31	%			19:18:03
1	Y 371.029	1327190.7	1327190.7	101.32	%			19:18:03
1	Ag 328.068†	-516.6	54.6	0.4388	µg/L	0.4388	ppb	19:18:09
1	As 188.979†	1.2	0.0	0.0845	µg/L	0.0845	ppb	19:18:29
1	B 249.677†	321.4	-14.2	-0.6284	µg/L	-0.6284	ppb	19:18:29
1	Ba 233.527†	-23.7	2.6	0.0683	µg/L	0.0683	ppb	19:18:29
1	Be 313.107†	-3408.1	76.3	0.0498	µg/L	0.0498	ppb	19:18:09
1	Cd 226.502†	-144.3	-0.3	-0.0100	µg/L	-0.0100	ppb	19:18:29
1	Co 228.616†	-6.0	2.9	0.1456	µg/L	0.1456	ppb	19:18:29
1	Cr 267.716†	-15.9	36.7	0.8069	µg/L	0.8069	ppb	19:18:09
1	Cu 324.752†	2442.5	-75.1	-0.5222	µg/L	-0.5222	ppb	19:18:09
1	Mn 257.610†	-225.9	21.1	0.0756	µg/L	0.0756	ppb	19:18:29
1	Mo 202.031†	-2.6	4.9	0.5275	µg/L	0.5275	ppb	19:18:29
1	Ni 231.604†	310.8	4.6	0.2529	µg/L	0.2529	ppb	19:18:29
1	P 214.914†	22.3	-5.6	-12.052	µg/L	-12.052	ppb	19:18:29
1	Pb 220.353†	97.2	-1.3	-0.3391	µg/L	-0.3391	ppb	19:18:29
1	S 181.975 Axial†	15.8	0.7	3.2436	µg/L	3.2436	ppb	19:18:29
1	Sb 206.836†	30.1	2.8	2.7305	µg/L	2.7305	ppb	19:18:29
1	Se 196.026†	14.9	-1.1	-1.6720	µg/L	-1.6720	ppb	19:18:29
1	SiO2†	1241.8	-24.3	-5.2260	µg/L	-5.2260	ppb	19:18:09
1	Si 251.611†	314.2	-2.7	-0.2249	µg/L	-0.2249	ppb	19:18:29
1	Sn 189.927†	3.0	3.9	1.7687	µg/L	1.7687	ppb	19:18:29
1	Ti 334.940†	129.2	11.4	0.0278	µg/L	0.0278	ppb	19:18:09
1	Tl 190.801†	-22.4	2.2	3.0821	µg/L	3.0821	ppb	19:18:29
1	U 409.014†	-44.2	10.0	0.9045	µg/L	0.9045	ppb	19:18:09
1	V 292.402†	22.3	66.2	0.7146	µg/L	0.7146	ppb	19:18:09
1	Zn 213.857†	480.2	-1.5	-0.0391	µg/L	-0.0391	ppb	19:18:29
2	Sc RADIAL	55841.1	55841.1	102	%			19:17:07
2	Al 396.153Radial†	-0.2	10.0	7.4245	µg/L	7.4245	ppb	19:17:07
2	Ca 317.933Radial†	185.5	2.1	1.9861	µg/L	1.9861	ppb	19:17:27
2	Fe 238.204 Radial†	13.8	-1.1	-8.9579	µg/L	-8.9579	ppb	19:17:27
2	K 766.490 Radial†	118.8	-12.3	-8.7251	µg/L	-8.7251	ppb	19:17:07
2	Mg 279.077 IEC†	12.4	0.9	8.1129	µg/L	8.1129	ppb	19:17:27
2	Na 589.592 Radial†	684.6	127.2	41.869	µg/L	41.869	ppb	19:17:07
2	Sr 421.552†	48.5	7.8	0.0810	µg/L	0.0810	ppb	19:17:07
2	Sc 361.383	1955516.9	1955516.9	102.39	%			19:18:35
2	Y 371.029	1342161.2	1342161.2	102.46	%			19:18:35
2	Ag 328.068†	-513.3	63.2	0.5022	µg/L	0.5022	ppb	19:18:41
2	As 188.979†	-5.0	-6.0	-11.703	µg/L	-11.703	ppb	19:19:01
2	B 249.677†	317.0	-21.8	-0.9495	µg/L	-0.9495	ppb	19:19:01
2	Ba 233.527†	-19.8	6.7	0.1743	µg/L	0.1743	ppb	19:19:01
2	Be 313.107†	-3409.1	110.9	0.0724	µg/L	0.0724	ppb	19:18:41
2	Cd 226.502†	-125.7	19.4	0.5362	µg/L	0.5362	ppb	19:19:01
2	Co 228.616†	-4.9	4.1	0.1998	µg/L	0.1998	ppb	19:19:01
2	Cr 267.716†	-35.7	17.5	0.3848	µg/L	0.3848	ppb	19:18:41
2	Cu 324.752†	2432.5	-110.5	-0.7728	µg/L	-0.7728	ppb	19:18:41
2	Mn 257.610†	-217.1	32.1	0.1097	µg/L	0.1097	ppb	19:19:01
2	Mo 202.031†	-0.2	7.4	0.7857	µg/L	0.7857	ppb	19:19:01
2	Ni 231.604†	307.3	-2.1	-0.1144	µg/L	-0.1144	ppb	19:19:01
2	P 214.914†	26.8	-1.4	-2.9443	µg/L	-2.9443	ppb	19:19:01
2	Pb 220.353†	98.0	-1.5	-0.3841	µg/L	-0.3841	ppb	19:19:01

2	S 181.975 Axial†	16.0	0.8	3.5945 µg/L	3.5945 ppb	19:19:01
2	Sb 206.836†	19.9	-7.6	-7.4359 µg/L	-7.4359 ppb	19:19:01
2	Se 196.026†	24.3	7.9	11.982 µg/L	11.982 ppb	19:19:01
2	SiO2†	1252.6	-26.7	-5.7496 µg/L	-5.7496 ppb	19:18:41
2	Si 251.611†	335.5	14.8	1.2146 µg/L	1.2146 ppb	19:19:01
2	Sn 189.927†	0.8	1.7	0.7658 µg/L	0.7658 ppb	19:19:01
2	Ti 334.940†	159.2	39.3	0.0940 µg/L	0.0940 ppb	19:18:41
2	Tl 190.801†	-19.6	5.1	7.1712 µg/L	7.1712 ppb	19:19:01
2	U 409.014†	-39.3	15.2	1.3764 µg/L	1.3764 ppb	19:18:41
2	V 292.402†	-32.1	12.8	0.1441 µg/L	0.1441 ppb	19:18:41
2	Zn 213.857†	480.1	-6.6	-0.1635 µg/L	-0.1635 ppb	19:19:01
3	Sc RADIAL	54991.0	54991.0	101 %		19:17:32
3	Al 396.153Radial†	-25.8	-15.4	-11.501 µg/L	-11.501 ppb	19:17:32
3	Ca 317.933Radial†	179.1	-1.4	-1.2826 µg/L	-1.2826 ppb	19:17:53
3	Fe 238.204 Radial†	16.1	1.5	12.918 µg/L	12.918 ppb	19:17:53
3	K 766.490 Radial†	157.4	27.8	19.781 µg/L	19.781 ppb	19:17:32
3	Mg 279.077 IEC†	9.1	-2.2	-20.551 µg/L	-20.551 ppb	19:17:53
3	Na 589.592 Radial†	624.4	77.8	25.618 µg/L	25.618 ppb	19:17:32
3	Sr 421.552†	39.8	-0.1	-0.0009 µg/L	-0.0009 ppb	19:17:32
3	Sc 361.383	1967438.1	1967438.1	103.02 %		19:19:07
3	Y 371.029	1348776.4	1348776.4	102.97 %		19:19:07
3	Ag 328.068†	-543.2	37.2	0.2976 µg/L	0.2976 ppb	19:19:13
3	As 188.979†	-2.4	-3.5	-6.8853 µg/L	-6.8853 ppb	19:19:33
3	B 249.677†	305.4	-35.0	-1.5334 µg/L	-1.5334 ppb	19:19:33
3	Ba 233.527†	-26.9	-0.1	-0.0009 µg/L	-0.0009 ppb	19:19:33
3	Be 313.107†	-3287.9	248.8	0.1624 µg/L	0.1624 ppb	19:19:13
3	Cd 226.502†	-133.1	12.9	0.3539 µg/L	0.3539 ppb	19:19:33
3	Co 228.616†	-14.2	-5.0	-0.2450 µg/L	-0.2450 ppb	19:19:33
3	Cr 267.716†	-20.7	32.3	0.7108 µg/L	0.7108 ppb	19:19:13
3	Cu 324.752†	2481.8	-76.9	-0.5355 µg/L	-0.5355 ppb	19:19:13
3	Mn 257.610†	-209.8	40.5	0.1427 µg/L	0.1427 ppb	19:19:33
3	Mo 202.031†	-10.0	-2.2	-0.2320 µg/L	-0.2320 ppb	19:19:33
3	Ni 231.604†	301.2	-9.8	-0.5340 µg/L	-0.5340 ppb	19:19:33
3	P 214.914†	26.0	-2.4	-5.0576 µg/L	-5.0576 ppb	19:19:33
3	Pb 220.353†	96.7	-3.3	-0.8887 µg/L	-0.8887 ppb	19:19:33
3	S 181.975 Axial†	14.9	-0.4	-1.5487 µg/L	-1.5487 ppb	19:19:33
3	Sb 206.836†	32.3	4.4	4.3137 µg/L	4.3137 ppb	19:19:33
3	Se 196.026†	14.2	-2.1	-3.1442 µg/L	-3.1442 ppb	19:19:33
3	SiO2†	1256.2	-30.6	-6.5854 µg/L	-6.5854 ppb	19:19:13
3	Si 251.611†	309.4	-12.5	-1.0288 µg/L	-1.0288 ppb	19:19:33
3	Sn 189.927†	-1.0	-0.1	-0.0403 µg/L	-0.0403 ppb	19:19:33
3	Ti 334.940†	153.9	33.3	0.0816 µg/L	0.0816 ppb	19:19:13
3	Tl 190.801†	-21.2	3.7	5.1463 µg/L	5.1463 ppb	19:19:33
3	U 409.014†	-6.3	47.5	4.3005 µg/L	4.3005 ppb	19:19:13
3	V 292.402†	-20.0	24.8	0.2699 µg/L	0.2699 ppb	19:19:13
3	Zn 213.857†	479.8	-9.8	-0.2409 µg/L	-0.2409 ppb	19:19:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952594.9	102.24	%	0.864				0.84%
Sc RADIAL	55477.6	102	%	0.8				0.79%
Y 371.029	1339376.1	102.25	%	0.844				0.83%
Ag 328.068†	51.7	0.4129	µg/L	0.10471	0.4129	ppb	0.10471	25.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.0498	µg/L	10.13010	0.0498	ppb	10.13010	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-6.1678	µg/L	5.92624	-6.1678	ppb	5.92624	96.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.7	-1.0371	µg/L	0.45878	-1.0371	ppb	0.45878	44.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0805	µg/L	0.08826	0.0805	ppb	0.08826	109.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.3	0.0949	µg/L	0.05957	0.0949	ppb	0.05957	62.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-1.5667	µg/L	3.70306	-1.5667	ppb	3.70306	236.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.7	0.2934	µg/L	0.27809	0.2934	ppb	0.27809	94.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0335	µg/L	0.24267	0.0335	ppb	0.24267	724.80%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.8      0.6341 µg/L       0.22120      0.6341 ppb        0.22120  34.88%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -87.5     -0.6102 µg/L       0.14102     -0.6102 ppb        0.14102  23.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      7.1335 µg/L      14.11778      7.1335 ppb       14.11778 197.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           1.9      1.3465 µg/L      15.98731      1.3465 ppb       15.98731 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -5.9243 µg/L      14.34120     -5.9243 ppb       14.34120 242.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                31.2      0.1094 µg/L       0.03354      0.1094 ppb        0.03354  30.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.3604 µg/L       0.52901      0.3604 ppb        0.52901 146.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.2      33.329 µg/L        8.1571      33.329 ppb         8.1571  24.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.4     -0.1318 µg/L       0.39372     -0.1318 ppb        0.39372 298.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.1     -6.6846 µg/L       4.76680     -6.6846 ppb        4.76680  71.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.0     -0.5373 µg/L       0.30511     -0.5373 ppb        0.30511  56.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      1.7632 µg/L       2.87351      1.7632 ppb        2.87351 162.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.1306 µg/L       6.37594     -0.1306 ppb        6.37594 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.6      2.3884 µg/L       8.34041      2.3884 ppb        8.34041 349.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -27.2     -5.8537 µg/L       0.68563     -5.8537 ppb        0.68563  11.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                -0.2     -0.0130 µg/L       1.13664     -0.0130 ppb        1.13664 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.8314 µg/L       0.90630      0.8314 ppb        0.90630 109.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -3.2     -0.0330 µg/L       0.13293     -0.0330 ppb        0.13293 403.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.0      0.0678 µg/L       0.03518      0.0678 ppb        0.03518  51.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.7      5.1332 µg/L       2.04457      5.1332 ppb        2.04457  39.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.2      2.1938 µg/L       1.83966      2.1938 ppb        1.83966  83.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 34.6      0.3762 µg/L       0.29972      0.3762 ppb        0.29972  79.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -6.0     -0.1478 µg/L       0.10182     -0.1478 ppb        0.10182  68.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 40
Sample ID: 1202032557|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 2/11/2010 19:19:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032557|948737|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56162.6	56162.6	103	%			19:20:21
1	Al 396.153Radial†	-0.9	9.2	6.8694	µg/L	6.8694	ppb	19:20:21
1	Ca 317.933Radial†	193.4	8.8	8.2949	µg/L	8.2949	ppb	19:20:41
1	Fe 238.204 Radial†	17.5	2.5	21.049	µg/L	21.049	ppb	19:20:41
1	K 766.490 Radial†	140.5	8.2	5.7964	µg/L	5.7964	ppb	19:20:21
1	Mg 279.077 IEC†	14.7	3.0	27.583	µg/L	27.583	ppb	19:20:41
1	Na 589.592 Radial†	619.9	60.5	19.922	µg/L	19.922	ppb	19:20:21
1	Sr 421.552†	24.9	-15.4	-0.1597	µg/L	-0.1597	ppb	19:20:21
1	Sc 361.383	1969009.3	1969009.3	103.10	%			19:21:43
1	Y 371.029	1347307.8	1347307.8	102.85	%			19:21:43
1	Ag 328.068†	-572.7	9.0	0.0759	µg/L	0.0759	ppb	19:21:49
1	As 188.979†	4.3	3.1	5.9676	µg/L	5.9676	ppb	19:22:09
1	B 249.677†	319.3	-21.8	-0.9629	µg/L	-0.9629	ppb	19:22:09
1	Ba 233.527†	-16.2	10.3	0.2702	µg/L	0.2702	ppb	19:22:09
1	Be 313.107†	-3531.0	15.6	0.0101	µg/L	0.0101	ppb	19:21:49
1	Cd 226.502†	-147.1	-0.5	-0.0161	µg/L	-0.0161	ppb	19:22:09
1	Co 228.616†	-17.1	-7.8	-0.3825	µg/L	-0.3825	ppb	19:22:09
1	Cr 267.716†	-24.9	28.2	0.6201	µg/L	0.6201	ppb	19:22:09
1	Cu 324.752†	2344.0	-212.5	-1.4815	µg/L	-1.4815	ppb	19:21:49
1	Mn 257.610†	-173.7	75.6	0.2635	µg/L	0.2635	ppb	19:22:09
1	Mo 202.031†	-7.4	0.3	0.0356	µg/L	0.0356	ppb	19:22:09
1	Ni 231.604†	312.9	1.3	0.0735	µg/L	0.0735	ppb	19:22:09
1	P 214.914†	30.5	2.0	4.4454	µg/L	4.4454	ppb	19:22:09
1	Pb 220.353†	103.9	3.6	0.9614	µg/L	0.9614	ppb	19:22:09
1	S 181.975 Axial†	17.6	2.3	9.8847	µg/L	9.8847	ppb	19:22:09
1	Sb 206.836†	28.0	0.2	0.2152	µg/L	0.2152	ppb	19:22:09
1	Se 196.026†	17.5	1.2	1.8091	µg/L	1.8091	ppb	19:22:09
1	SiO2†	1345.3	54.8	11.812	µg/L	11.812	ppb	19:21:49
1	Si 251.611†	418.6	93.2	7.6584	µg/L	7.6584	ppb	19:22:09
1	Sn 189.927†	-0.5	0.4	0.1929	µg/L	0.1929	ppb	19:22:09
1	Ti 334.940†	191.4	69.5	0.1652	µg/L	0.1652	ppb	19:21:49
1	Tl 190.801†	-19.7	5.2	7.2052	µg/L	7.2052	ppb	19:22:09
1	U 409.014†	-22.0	32.3	2.9184	µg/L	2.9184	ppb	19:21:49
1	V 292.402†	-1.5	42.8	0.4631	µg/L	0.4631	ppb	19:21:49
1	Zn 213.857†	523.7	32.4	0.8081	µg/L	0.8081	ppb	19:22:09
2	Sc RADIAL	57033.0	57033.0	105	%			19:20:47
2	Al 396.153Radial†	-29.2	-17.8	-13.303	µg/L	-13.303	ppb	19:20:47
2	Ca 317.933Radial†	198.1	10.4	9.7767	µg/L	9.7767	ppb	19:21:07
2	Fe 238.204 Radial†	15.7	0.5	4.2922	µg/L	4.2922	ppb	19:21:07
2	K 766.490 Radial†	163.1	27.6	19.636	µg/L	19.636	ppb	19:20:47
2	Mg 279.077 IEC†	8.2	-3.5	-32.175	µg/L	-32.175	ppb	19:21:07
2	Na 589.592 Radial†	627.1	58.2	19.145	µg/L	19.145	ppb	19:20:47
2	Sr 421.552†	15.7	-24.5	-0.2542	µg/L	-0.2542	ppb	19:20:47
2	Sc 361.383	1951926.6	1951926.6	102.20	%			19:22:15
2	Y 371.029	1336400.0	1336400.0	102.02	%			19:22:15
2	Ag 328.068†	-524.4	51.4	0.4117	µg/L	0.4117	ppb	19:22:21
2	As 188.979†	-1.8	-2.9	-5.6797	µg/L	-5.6797	ppb	19:22:41
2	B 249.677†	313.0	-25.2	-1.1037	µg/L	-1.1037	ppb	19:22:41
2	Ba 233.527†	-15.7	10.7	0.2791	µg/L	0.2791	ppb	19:22:41
2	Be 313.107†	-3486.1	29.5	0.0193	µg/L	0.0193	ppb	19:22:21
2	Cd 226.502†	-132.0	13.0	0.3577	µg/L	0.3577	ppb	19:22:41
2	Co 228.616†	-14.0	-4.8	-0.2372	µg/L	-0.2372	ppb	19:22:41
2	Cr 267.716†	-26.4	26.5	0.5835	µg/L	0.5835	ppb	19:22:41
2	Cu 324.752†	2384.5	-153.0	-1.0685	µg/L	-1.0685	ppb	19:22:21
2	Mn 257.610†	-179.0	69.0	0.2407	µg/L	0.2407	ppb	19:22:41
2	Mo 202.031†	-5.7	1.9	0.2054	µg/L	0.2054	ppb	19:22:41
2	Ni 231.604†	320.7	11.6	0.6340	µg/L	0.6340	ppb	19:22:41
2	P 214.914†	24.8	-3.3	-7.0323	µg/L	-7.0323	ppb	19:22:41
2	Pb 220.353†	91.9	-7.2	-1.9278	µg/L	-1.9278	ppb	19:22:41

2	S 181.975 Axial†	19.7	4.5	19.528 µg/L	19.528 ppb	19:22:41
2	Sb 206.836†	24.0	-3.5	-3.4566 µg/L	-3.4566 ppb	19:22:41
2	Se 196.026†	13.6	-2.5	-3.7596 µg/L	-3.7596 ppb	19:22:41
2	SiO2†	1333.2	54.4	11.718 µg/L	11.718 ppb	19:22:21
2	Si 251.611†	413.0	91.2	7.4996 µg/L	7.4996 ppb	19:22:41
2	Sn 189.927†	0.9	1.7	0.7999 µg/L	0.7999 ppb	19:22:41
2	Ti 334.940†	113.7	-4.8	-0.0089 µg/L	-0.0089 ppb	19:22:21
2	Tl 190.801†	-24.7	0.1	0.1231 µg/L	0.1231 ppb	19:22:41
2	U 409.014†	-59.8	-4.9	-0.4425 µg/L	-0.4425 ppb	19:22:21
2	V 292.402†	4.4	48.6	0.5204 µg/L	0.5204 ppb	19:22:21
2	Zn 213.857†	510.3	23.7	0.5934 µg/L	0.5934 ppb	19:22:41
3	Sc RADIAL	55968.5	55968.5	103 %		19:21:13
3	Al 396.153Radial†	-7.1	3.2	2.3751 µg/L	2.3751 ppb	19:21:13
3	Ca 317.933Radial†	199.5	15.4	14.455 µg/L	14.455 ppb	19:21:33
3	Fe 238.204 Radial†	15.7	0.8	6.8156 µg/L	6.8156 ppb	19:21:33
3	K 766.490 Radial†	147.8	15.7	11.190 µg/L	11.190 ppb	19:21:13
3	Mg 279.077 IEC†	15.9	4.2	39.435 µg/L	39.435 ppb	19:21:33
3	Na 589.592 Radial†	631.7	74.1	24.401 µg/L	24.401 ppb	19:21:13
3	Sr 421.552†	49.4	8.6	0.0895 µg/L	0.0895 ppb	19:21:13
3	Sc 361.383	1933204.1	1933204.1	101.22 %		19:22:47
3	Y 371.029	1323935.5	1323935.5	101.07 %		19:22:47
3	Ag 328.068†	-593.9	-22.2	-0.1725 µg/L	-0.1725 ppb	19:22:53
3	As 188.979†	2.3	1.1	2.1309 µg/L	2.1309 ppb	19:23:13
3	B 249.677†	321.0	-14.3	-0.6295 µg/L	-0.6295 ppb	19:23:13
3	Ba 233.527†	-21.8	4.5	0.1184 µg/L	0.1184 ppb	19:23:13
3	Be 313.107†	-3438.4	43.6	0.0285 µg/L	0.0285 ppb	19:22:53
3	Cd 226.502†	-140.8	3.0	0.0822 µg/L	0.0822 ppb	19:23:13
3	Co 228.616†	-13.8	-4.8	-0.2340 µg/L	-0.2340 ppb	19:23:13
3	Cr 267.716†	-34.4	18.4	0.4049 µg/L	0.4049 ppb	19:23:13
3	Cu 324.752†	2432.8	-82.7	-0.5764 µg/L	-0.5764 ppb	19:22:53
3	Mn 257.610†	-182.3	64.0	0.2209 µg/L	0.2209 ppb	19:23:13
3	Mo 202.031†	-4.6	3.0	0.3226 µg/L	0.3226 ppb	19:23:13
3	Ni 231.604†	307.3	1.4	0.0745 µg/L	0.0745 ppb	19:23:13
3	P 214.914†	29.5	1.5	3.2678 µg/L	3.2678 ppb	19:23:13
3	Pb 220.353†	88.5	-9.8	-2.6006 µg/L	-2.6006 ppb	19:23:13
3	S 181.975 Axial†	15.9	0.9	3.7746 µg/L	3.7746 ppb	19:23:13
3	Sb 206.836†	23.1	-4.2	-4.0869 µg/L	-4.0869 ppb	19:23:13
3	Se 196.026†	8.2	-7.7	-11.834 µg/L	-11.834 ppb	19:23:13
3	SiO2†	1331.0	64.9	13.967 µg/L	13.967 ppb	19:22:53
3	Si 251.611†	405.4	87.6	7.2021 µg/L	7.2021 ppb	19:23:13
3	Sn 189.927†	-4.0	-3.1	-1.4085 µg/L	-1.4085 ppb	19:23:13
3	Ti 334.940†	115.8	-1.7	-0.0070 µg/L	-0.0070 ppb	19:22:53
3	Tl 190.801†	-23.4	1.2	1.6907 µg/L	1.6907 ppb	19:23:13
3	U 409.014†	-46.8	7.4	0.6668 µg/L	0.6668 ppb	19:22:53
3	V 292.402†	-2.1	42.2	0.4542 µg/L	0.4542 ppb	19:22:53
3	Zn 213.857†	517.2	35.4	0.8820 µg/L	0.8820 ppb	19:23:13

Mean Data: 1202032557|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1951380.0	102.18	%	0.938				0.92%
Sc RADIAL	56388.0	103	%	1.0				1.01%
Y 371.029	1335881.1	101.98	%	0.893				0.88%
Ag 328.068†	12.8	0.1050	µg/L	0.29320	0.1050	ppb	0.29320	279.21%
Al 396.153Radial†	-1.8	-1.3527	µg/L	10.59010	-1.3527	ppb	10.59010	782.87%
As 188.979†	0.4	0.8062	µg/L	5.93558	0.8062	ppb	5.93558	736.20%
B 249.677†	-20.5	-0.8987	µg/L	0.24350	-0.8987	ppb	0.24350	27.09%
Ba 233.527†	8.5	0.2226	µg/L	0.09033	0.2226	ppb	0.09033	40.59%
Be 313.107†	29.6	0.0193	µg/L	0.00919	0.0193	ppb	0.00919	47.63%
Ca 317.933Radial†	11.5	10.842	µg/L	3.2155	10.842	ppb	3.2155	29.66%
Cd 226.502†	5.2	0.1413	µg/L	0.19380	0.1413	ppb	0.19380	137.20%
Co 228.616†	-5.8	-0.2846	µg/L	0.08480	-0.2846	ppb	0.08480	29.80%
Cr 267.716†	24.4	0.5362	µg/L	0.11516	0.5362	ppb	0.11516	21.48%
Cu 324.752†	-149.4	-1.0421	µg/L	0.45311	-1.0421	ppb	0.45311	43.48%
Fe 238.204 Radial†	1.3	10.719	µg/L	9.0344	10.719	ppb	9.0344	84.29%
K 766.490 Radial†	17.2	12.207	µg/L	6.9755	12.207	ppb	6.9755	57.14%
Mg 279.077 IEC†	1.2	11.614	µg/L	38.3828	11.614	ppb	38.3828	330.48%
Mn 257.610†	69.5	0.2417	µg/L	0.02130	0.2417	ppb	0.02130	8.81%
Mo 202.031†	1.8	0.1879	µg/L	0.14430	0.1879	ppb	0.14430	76.81%
Na 589.592 Radial†	64.3	21.156	µg/L	2.8374	21.156	ppb	2.8374	13.41%

Ni 231.604†	4.8	0.2607 µg/L	0.32337	0.2607 ppb	0.32337	124.06%
P 214.914†	0.1	0.2270 µg/L	6.31420	0.2270 ppb	6.31420	>999.9%
Pb 220.353†	-4.5	-1.1890 µg/L	1.89244	-1.1890 ppb	1.89244	159.16%
S 181.975 Axial†	2.5	11.063 µg/L	7.9427	11.063 ppb	7.9427	71.80%
Sb 206.836†	-2.5	-2.4428 µg/L	2.32335	-2.4428 ppb	2.32335	95.11%
Se 196.026†	-3.0	-4.5949 µg/L	6.85979	-4.5949 ppb	6.85979	149.29%
SiO2†	58.0	12.499 µg/L	1.2722	12.499 ppb	1.2722	10.18%
Si 251.611†	90.7	7.4534 µg/L	0.23165	7.4534 ppb	0.23165	3.11%
Sn 189.927†	-0.3	-0.1385 µg/L	1.14090	-0.1385 ppb	1.14090	823.53%
Sr 421.552†	-10.4	-0.1081 µg/L	0.17752	-0.1081 ppb	0.17752	164.18%
Ti 334.940†	21.0	0.0497 µg/L	0.09997	0.0497 ppb	0.09997	200.99%
Tl 190.801†	2.2	3.0063 µg/L	3.71983	3.0063 ppb	3.71983	123.73%
U 409.014†	11.6	1.0476 µg/L	1.71251	1.0476 ppb	1.71251	163.48%
V 292.402†	44.5	0.4792 µg/L	0.03595	0.4792 ppb	0.03595	7.50%
Zn 213.857†	30.5	0.7612 µg/L	0.14993	0.7612 ppb	0.14993	19.70%

Sequence No.: 41
Sample ID: 1202032558|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 2/11/2010 19:23:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032558|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55855.2	55855.2	102	%			19:23:56
1	Al 396.153Radial†	6859.1	6711.9	4992.3	µg/L	4992.3	ppb	19:24:17
1	Ca 317.933Radial†	5588.0	5280.7	4972.1	µg/L	4972.1	ppb	19:24:17
1	Fe 238.204 Radial†	622.5	593.7	5042.2	µg/L	5042.2	ppb	19:24:17
1	K 766.490 Radial†	7222.5	6928.5	4924.7	µg/L	4924.7	ppb	19:23:56
1	Mg 279.077 IEC†	568.8	544.5	5070.0	µg/L	5070.0	ppb	19:24:17
1	Na 589.592 Radial†	16067.2	15156.9	4989.7	µg/L	4989.7	ppb	19:23:56
1	Sr 421.552†	48385.5	47236.4	489.66	µg/L	489.66	ppb	19:23:56
1	Sc 361.383	1989589.0	1989589.0	104.18	%			19:25:20
1	Y 371.029	1358828.2	1358828.2	103.73	%			19:25:20
1	Ag 328.068†	62403.6	60466.8	483.35	µg/L	483.35	ppb	19:25:26
1	As 188.979†	266.7	254.9	497.19	µg/L	497.19	ppb	19:25:46
1	B 249.677†	11770.1	10966.8	477.43	µg/L	477.43	ppb	19:25:26
1	Ba 233.527†	19609.2	18849.2	491.69	µg/L	491.69	ppb	19:25:26
1	Be 313.107†	765769.4	738515.5	482.11	µg/L	482.11	ppb	19:25:20
1	Cd 226.502†	18133.6	17548.9	484.07	µg/L	484.07	ppb	19:25:26
1	Co 228.616†	10204.7	9804.5	481.95	µg/L	481.95	ppb	19:25:26
1	Cr 267.716†	23258.1	22378.3	492.54	µg/L	492.54	ppb	19:25:26
1	Cu 324.752†	75730.0	70208.4	491.12	µg/L	491.12	ppb	19:25:26
1	Mn 257.610†	147968.6	142281.7	493.17	µg/L	493.17	ppb	19:25:20
1	Mo 202.031†	4884.5	4696.3	501.38	µg/L	501.38	ppb	19:25:46
1	Ni 231.604†	9732.2	9040.0	493.75	µg/L	493.75	ppb	19:25:26
1	P 214.914†	274.6	235.9	460.07	µg/L	460.07	ppb	19:25:46
1	Pb 220.353†	2040.6	1861.6	496.90	µg/L	496.90	ppb	19:25:46
1	S 181.975 Axial†	1213.5	1150.0	5038.6	µg/L	5038.6	ppb	19:25:46
1	Sb 206.836†	565.3	515.7	509.80	µg/L	509.80	ppb	19:25:46
1	Se 196.026†	348.9	319.1	494.37	µg/L	494.37	ppb	19:25:46
1	SiO2†	50535.9	47260.3	10178	µg/L	10178	ppb	19:25:26
1	Si 251.611†	60336.9	57605.6	4735.5	µg/L	4735.5	ppb	19:25:26
1	Sn 189.927†	1211.5	1163.8	535.30	µg/L	535.30	ppb	19:25:46
1	Ti 334.940†	209639.9	201120.8	483.46	µg/L	483.46	ppb	19:25:20
1	Tl 190.801†	344.0	354.5	500.64	µg/L	500.64	ppb	19:25:46
1	U 409.014†	5812.7	5633.3	509.02	µg/L	509.02	ppb	19:25:26
1	V 292.402†	47804.6	45932.7	495.64	µg/L	495.64	ppb	19:25:26
1	Zn 213.857†	20684.3	19379.7	480.43	µg/L	480.43	ppb	19:25:26
2	Sc RADIAL	56621.3	56621.3	104	%			19:24:22
2	Al 396.153Radial†	6761.1	6526.9	4854.4	µg/L	4854.4	ppb	19:24:42
2	Ca 317.933Radial†	5510.9	5132.5	4832.6	µg/L	4832.6	ppb	19:24:42
2	Fe 238.204 Radial†	611.2	574.6	4880.2	µg/L	4880.2	ppb	19:24:42
2	K 766.490 Radial†	7318.8	6925.8	4922.8	µg/L	4922.8	ppb	19:24:22
2	Mg 279.077 IEC†	555.6	524.2	4881.7	µg/L	4881.7	ppb	19:24:42
2	Na 589.592 Radial†	16134.1	15009.0	4941.0	µg/L	4941.0	ppb	19:24:22
2	Sr 421.552†	48688.4	46888.7	486.06	µg/L	486.06	ppb	19:24:22
2	Sc 361.383	1981021.9	1981021.9	103.73	%			19:25:53
2	Y 371.029	1354467.5	1354467.5	103.40	%			19:25:53
2	Ag 328.068†	62083.9	60417.6	482.95	µg/L	482.95	ppb	19:25:59
2	As 188.979†	268.8	258.0	503.27	µg/L	503.27	ppb	19:26:19
2	B 249.677†	11697.0	10945.2	476.57	µg/L	476.57	ppb	19:25:59
2	Ba 233.527†	19543.5	18867.3	492.16	µg/L	492.16	ppb	19:25:59
2	Be 313.107†	766542.7	742439.8	484.67	µg/L	484.67	ppb	19:25:53
2	Cd 226.502†	18043.5	17537.3	483.77	µg/L	483.77	ppb	19:25:59
2	Co 228.616†	10157.9	9801.8	481.81	µg/L	481.81	ppb	19:25:59
2	Cr 267.716†	23124.1	22345.6	491.82	µg/L	491.82	ppb	19:25:59
2	Cu 324.752†	75467.1	70269.3	491.53	µg/L	491.53	ppb	19:25:59
2	Mn 257.610†	148155.6	143076.2	495.91	µg/L	495.91	ppb	19:25:53
2	Mo 202.031†	4832.3	4666.2	498.17	µg/L	498.17	ppb	19:26:19
2	Ni 231.604†	9667.7	9018.1	492.55	µg/L	492.55	ppb	19:25:59
2	P 214.914†	272.2	234.8	457.67	µg/L	457.67	ppb	19:26:19
2	Pb 220.353†	2044.7	1874.1	500.20	µg/L	500.20	ppb	19:26:19

2	S 181.975 Axial†	1199.8	1141.9	5003.1 µg/L	5003.1 ppb	19:26:19
2	Sb 206.836†	565.3	518.0	512.02 µg/L	512.02 ppb	19:26:19
2	Se 196.026†	343.0	314.9	487.68 µg/L	487.68 ppb	19:26:19
2	SiO2†	50279.9	47223.2	10170 µg/L	10170 ppb	19:25:59
2	Si 251.611†	60047.4	57576.9	4733.1 µg/L	4733.1 ppb	19:25:59
2	Sn 189.927†	1201.8	1159.5	533.31 µg/L	533.31 ppb	19:26:19
2	Ti 334.940†	209553.6	201907.8	485.37 µg/L	485.37 ppb	19:25:53
2	Tl 190.801†	347.4	359.2	507.29 µg/L	507.29 ppb	19:26:19
2	U 409.014†	5749.9	5596.9	505.75 µg/L	505.75 ppb	19:25:59
2	V 292.402†	47601.0	45934.8	495.61 µg/L	495.61 ppb	19:25:59
2	Zn 213.857†	20543.3	19329.6	479.20 µg/L	479.20 ppb	19:25:59
3	Sc RADIAL	56667.3	56667.3	104 %		19:24:48
3	Al 396.153Radial†	6785.5	6545.0	4869.0 µg/L	4869.0 ppb	19:25:08
3	Ca 317.933Radial†	5519.1	5136.1	4836.0 µg/L	4836.0 ppb	19:25:08
3	Fe 238.204 Radial†	610.2	573.1	4867.6 µg/L	4867.6 ppb	19:25:08
3	K 766.490 Radial†	7189.7	6795.7	4830.4 µg/L	4830.4 ppb	19:24:48
3	Mg 279.077 IEC†	562.6	530.6	4940.1 µg/L	4940.1 ppb	19:25:08
3	Na 589.592 Radial†	15967.1	14835.5	4883.9 µg/L	4883.9 ppb	19:24:48
3	Sr 421.552†	48078.7	46263.5	479.58 µg/L	479.58 ppb	19:24:48
3	Sc 361.383	1962516.7	1962516.7	102.76 %		19:26:26
3	Y 371.029	1343125.0	1343125.0	102.53 %		19:26:26
3	Ag 328.068†	60804.7	59737.2	477.42 µg/L	477.42 ppb	19:26:32
3	As 188.979†	243.9	236.2	460.84 µg/L	460.84 ppb	19:26:53
3	B 249.677†	11399.3	10761.9	468.53 µg/L	468.53 ppb	19:26:32
3	Ba 233.527†	18655.7	18181.0	474.25 µg/L	474.25 ppb	19:26:32
3	Be 313.107†	740791.3	724347.9	472.86 µg/L	472.86 ppb	19:26:26
3	Cd 226.502†	17306.9	16984.5	468.50 µg/L	468.50 ppb	19:26:32
3	Co 228.616†	9664.7	9414.2	462.72 µg/L	462.72 ppb	19:26:32
3	Cr 267.716†	21731.9	21201.0	466.63 µg/L	466.63 ppb	19:26:32
3	Cu 324.752†	72256.6	67831.0	474.49 µg/L	474.49 ppb	19:26:32
3	Mn 257.610†	143350.8	139747.2	484.37 µg/L	484.37 ppb	19:26:26
3	Mo 202.031†	4322.8	4214.3	449.94 µg/L	449.94 ppb	19:26:53
3	Ni 231.604†	9237.2	8687.0	474.47 µg/L	474.47 ppb	19:26:32
3	P 214.914†	257.0	222.5	432.24 µg/L	432.24 ppb	19:26:53
3	Pb 220.353†	1875.5	1728.0	461.14 µg/L	461.14 ppb	19:26:53
3	S 181.975 Axial†	1113.0	1068.4	4680.8 µg/L	4680.8 ppb	19:26:53
3	Sb 206.836†	514.5	473.7	467.94 µg/L	467.94 ppb	19:26:53
3	Se 196.026†	322.8	298.3	462.30 µg/L	462.30 ppb	19:26:53
3	SiO2†	48695.4	46138.3	9936.1 µg/L	9936.1 ppb	19:26:32
3	Si 251.611†	58040.6	56169.8	4617.4 µg/L	4617.4 ppb	19:26:32
3	Sn 189.927†	1062.2	1034.6	475.87 µg/L	475.87 ppb	19:26:53
3	Ti 334.940†	202050.2	196510.8	472.38 µg/L	472.38 ppb	19:26:26
3	Tl 190.801†	308.7	324.7	458.96 µg/L	458.96 ppb	19:26:53
3	U 409.014†	5501.6	5407.5	488.61 µg/L	488.61 ppb	19:26:32
3	V 292.402†	45248.4	44078.0	475.38 µg/L	475.38 ppb	19:26:32
3	Zn 213.857†	19651.1	18648.0	462.29 µg/L	462.29 ppb	19:26:32

Mean Data: 1202032558|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1977709.2	103.55	%	0.725				0.70%
Sc RADIAL	56381.3	103	%	0.8				0.81%
Y 371.029	1352140.2	103.22	%	0.619				0.60%
Ag 328.068†	60207.2	481.24	µg/L	3.315	481.24	ppb	3.315	0.69%
Al 396.153Radial†	6594.6	4905.2	µg/L	75.76	4905.2	ppb	75.76	1.54%
As 188.979†	249.7	487.10	µg/L	22.947	487.10	ppb	22.947	4.71%
B 249.677†	10891.3	474.18	µg/L	4.912	474.18	ppb	4.912	1.04%
Ba 233.527†	18632.5	486.03	µg/L	10.205	486.03	ppb	10.205	2.10%
Be 313.107†	735101.0	479.88	µg/L	6.212	479.88	ppb	6.212	1.29%
Ca 317.933Radial†	5183.1	4880.2	µg/L	79.59	4880.2	ppb	79.59	1.63%
Cd 226.502†	17356.9	478.78	µg/L	8.903	478.78	ppb	8.903	1.86%
Co 228.616†	9673.5	475.49	µg/L	11.063	475.49	ppb	11.063	2.33%
Cr 267.716†	21975.0	483.67	µg/L	14.755	483.67	ppb	14.755	3.05%
Cu 324.752†	69436.2	485.71	µg/L	9.720	485.71	ppb	9.720	2.00%
Fe 238.204 Radial†	580.5	4930.0	µg/L	97.39	4930.0	ppb	97.39	1.98%
K 766.490 Radial†	6883.3	4892.6	µg/L	53.94	4892.6	ppb	53.94	1.10%
Mg 279.077 IEC†	533.1	4963.9	µg/L	96.41	4963.9	ppb	96.41	1.94%
Mn 257.610†	141701.7	491.15	µg/L	6.025	491.15	ppb	6.025	1.23%
Mo 202.031†	4525.6	483.16	µg/L	28.817	483.16	ppb	28.817	5.96%
Na 589.592 Radial†	15000.5	4938.2	µg/L	52.96	4938.2	ppb	52.96	1.07%

Ni 231.604†	8915.0	486.93	µg/L	10.800	486.93	ppb	10.800	2.22%
P 214.914†	231.1	450.00	µg/L	15.419	450.00	ppb	15.419	3.43%
Pb 220.353†	1821.2	486.08	µg/L	21.661	486.08	ppb	21.661	4.46%
S 181.975 Axial†	1120.1	4907.5	µg/L	197.13	4907.5	ppb	197.13	4.02%
Sb 206.836†	502.5	496.59	µg/L	24.834	496.59	ppb	24.834	5.00%
Se 196.026†	310.8	481.45	µg/L	16.915	481.45	ppb	16.915	3.51%
SiO2†	46873.9	10095	µg/L	137.3	10095	ppb	137.3	1.36%
Si 251.611†	57117.4	4695.3	µg/L	67.47	4695.3	ppb	67.47	1.44%
Sn 189.927†	1119.3	514.83	µg/L	33.750	514.83	ppb	33.750	6.56%
Sr 421.552†	46796.2	485.10	µg/L	5.111	485.10	ppb	5.111	1.05%
Ti 334.940†	199846.5	480.40	µg/L	7.013	480.40	ppb	7.013	1.46%
Tl 190.801†	346.1	488.96	µg/L	26.193	488.96	ppb	26.193	5.36%
U 409.014†	5545.9	501.13	µg/L	10.961	501.13	ppb	10.961	2.19%
V 292.402†	45315.2	488.88	µg/L	11.691	488.88	ppb	11.691	2.39%
Zn 213.857†	19119.1	473.97	µg/L	10.138	473.97	ppb	10.138	2.14%

Sequence No.: 43
Sample ID: 1202032559|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 333
Date Collected: 2/11/2010 19:30:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032559|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55369.8	55369.8	101	%			19:31:10
1	Al 396.153Radial†	27.3	37.1	27.641	µg/L	27.641	ppb	19:31:10
1	Ca 317.933Radial†	243.4	60.7	57.167	µg/L	57.167	ppb	19:31:30
1	Fe 238.204 Radial†	16.5	1.8	15.034	µg/L	15.034	ppb	19:31:30
1	K 766.490 Radial†	376.1	242.3	172.24	µg/L	172.24	ppb	19:31:10
1	Mg 279.077 IEC†	13.4	1.9	17.989	µg/L	17.989	ppb	19:31:30
1	Na 589.592 Radial†	1118.3	560.4	184.47	µg/L	184.47	ppb	19:31:10
1	Sr 421.552†	80.8	40.1	0.4152	µg/L	0.4152	ppb	19:31:10
1	Sc 361.383	1957288.3	1957288.3	102.48	%			19:32:32
1	Y 371.029	1341003.8	1341003.8	102.37	%			19:32:32
1	Ag 328.068†	-492.7	83.8	0.6666	µg/L	0.6666	ppb	19:32:37
1	As 188.979†	-0.9	-2.0	-4.0031	µg/L	-4.0031	ppb	19:32:58
1	B 249.677†	719.9	371.0	16.207	µg/L	16.207	ppb	19:32:37
1	Ba 233.527†	-10.5	15.7	0.4102	µg/L	0.4102	ppb	19:32:58
1	Be 313.107†	-3539.8	-13.5	-0.0090	µg/L	-0.0090	ppb	19:32:37
1	Cd 226.502†	-150.2	-4.4	-0.1235	µg/L	-0.1235	ppb	19:32:58
1	Co 228.616†	-12.4	-3.3	-0.1634	µg/L	-0.1634	ppb	19:32:58
1	Cr 267.716†	-22.0	30.9	0.6806	µg/L	0.6806	ppb	19:32:58
1	Cu 324.752†	2532.9	-14.6	-0.0998	µg/L	-0.0998	ppb	19:32:37
1	Mn 257.610†	-105.5	141.2	0.4903	µg/L	0.4903	ppb	19:32:58
1	Mo 202.031†	-9.0	-1.2	-0.1312	µg/L	-0.1312	ppb	19:32:58
1	Ni 231.604†	309.3	-0.4	-0.0191	µg/L	-0.0191	ppb	19:32:58
1	P 214.914†	35.6	7.1	15.341	µg/L	15.341	ppb	19:32:58
1	Pb 220.353†	89.9	-9.5	-2.5338	µg/L	-2.5338	ppb	19:32:58
1	S 181.975 Axial†	30.4	14.9	65.128	µg/L	65.128	ppb	19:32:58
1	Sb 206.836†	22.5	-5.0	-4.9601	µg/L	-4.9601	ppb	19:32:58
1	Se 196.026†	14.9	-1.3	-1.9004	µg/L	-1.9004	ppb	19:32:58
1	SiO2†	14720.0	13113.1	2824.0	µg/L	2824.0	ppb	19:32:37
1	Si 251.611†	16745.8	16026.9	1317.5	µg/L	1317.5	ppb	19:32:37
1	Sn 189.927†	4.4	5.2	2.3867	µg/L	2.3867	ppb	19:32:58
1	Ti 334.940†	342.8	218.3	0.5247	µg/L	0.5247	ppb	19:32:37
1	Tl 190.801†	-18.4	6.4	8.8912	µg/L	8.8912	ppb	19:32:58
1	U 409.014†	-31.7	22.7	2.0510	µg/L	2.0510	ppb	19:32:37
1	V 292.402†	-35.4	9.7	0.1073	µg/L	0.1073	ppb	19:32:37
1	Zn 213.857†	550.1	61.2	1.5266	µg/L	1.5266	ppb	19:32:58
2	Sc RADIAL	56232.0	56232.0	103	%			19:31:36
2	Al 396.153Radial†	20.5	30.0	22.366	µg/L	22.366	ppb	19:31:36
2	Ca 317.933Radial†	234.1	48.1	45.285	µg/L	45.285	ppb	19:31:56
2	Fe 238.204 Radial†	18.9	3.9	32.938	µg/L	32.938	ppb	19:31:56
2	K 766.490 Radial†	401.7	261.4	185.83	µg/L	185.83	ppb	19:31:36
2	Mg 279.077 IEC†	11.2	-0.4	-3.5186	µg/L	-3.5186	ppb	19:31:56
2	Na 589.592 Radial†	1117.4	542.6	178.63	µg/L	178.63	ppb	19:31:36
2	Sr 421.552†	60.4	19.0	0.1974	µg/L	0.1974	ppb	19:31:36
2	Sc 361.383	1985418.5	1985418.5	103.96	%			19:33:04
2	Y 371.029	1359374.4	1359374.4	103.78	%			19:33:04
2	Ag 328.068†	-475.1	107.5	0.8590	µg/L	0.8590	ppb	19:33:09
2	As 188.979†	-4.1	-5.1	-9.9165	µg/L	-9.9165	ppb	19:33:30
2	B 249.677†	718.8	360.0	15.716	µg/L	15.716	ppb	19:33:09
2	Ba 233.527†	-18.1	8.6	0.2255	µg/L	0.2255	ppb	19:33:30
2	Be 313.107†	-3406.7	163.4	0.1065	µg/L	0.1065	ppb	19:33:09
2	Cd 226.502†	-148.4	-0.7	-0.0227	µg/L	-0.0227	ppb	19:33:30
2	Co 228.616†	-10.8	-1.5	-0.0755	µg/L	-0.0755	ppb	19:33:30
2	Cr 267.716†	-16.3	36.7	0.8072	µg/L	0.8072	ppb	19:33:30
2	Cu 324.752†	2453.0	-126.5	-0.8788	µg/L	-0.8788	ppb	19:33:09
2	Mn 257.610†	-109.7	138.6	0.4845	µg/L	0.4845	ppb	19:33:30
2	Mo 202.031†	-6.5	1.3	0.1397	µg/L	0.1397	ppb	19:33:30
2	Ni 231.604†	303.1	-10.6	-0.5795	µg/L	-0.5795	ppb	19:33:30
2	P 214.914†	27.9	-0.8	-1.7271	µg/L	-1.7271	ppb	19:33:30
2	Pb 220.353†	100.2	-0.8	-0.2107	µg/L	-0.2107	ppb	19:33:30

2	S 181.975 Axial†	24.6	8.8	38.629	µg/L	38.629 ppb	19:33:30
2	Sb 206.836†	25.5	-2.4	-2.3573	µg/L	-2.3573 ppb	19:33:30
2	Se 196.026†	13.5	-2.9	-4.3357	µg/L	-4.3357 ppb	19:33:30
2	SiO2†	14565.5	12761.0	2748.2	µg/L	2748.2 ppb	19:33:09
2	Si 251.611†	16534.1	15591.9	1281.7	µg/L	1281.7 ppb	19:33:09
2	Sn 189.927†	-3.4	-2.4	-1.0908	µg/L	-1.0908 ppb	19:33:30
2	Ti 334.940†	415.8	283.9	0.6838	µg/L	0.6838 ppb	19:33:09
2	Tl 190.801†	-24.3	0.9	1.3234	µg/L	1.3234 ppb	19:33:30
2	U 409.014†	-74.6	-18.1	-1.6482	µg/L	-1.6482 ppb	19:33:09
2	V 292.402†	9.6	53.5	0.5749	µg/L	0.5749 ppb	19:33:09
2	Zn 213.857†	541.1	45.0	1.1253	µg/L	1.1253 ppb	19:33:30
3	Sc RADIAL	56023.2	56023.2	103	%		19:32:01
3	Al 396.153Radial†	23.5	33.0	24.583	µg/L	24.583 ppb	19:32:01
3	Ca 317.933Radial†	244.2	58.7	55.281	µg/L	55.281 ppb	19:32:22
3	Fe 238.204 Radial†	14.9	-0.0	-0.0783	µg/L	-0.0783 ppb	19:32:22
3	K 766.490 Radial†	448.8	308.8	219.46	µg/L	219.46 ppb	19:32:01
3	Mg 279.077 IEC†	9.0	-2.5	-23.358	µg/L	-23.358 ppb	19:32:22
3	Na 589.592 Radial†	1105.2	534.7	176.03	µg/L	176.03 ppb	19:32:01
3	Sr 421.552†	62.1	20.9	0.2170	µg/L	0.2170 ppb	19:32:01
3	Sc 361.383	1953368.2	1953368.2	102.28	%		19:33:36
3	Y 371.029	1335404.5	1335404.5	101.95	%		19:33:36
3	Ag 328.068†	-556.7	20.3	0.1596	µg/L	0.1596 ppb	19:33:41
3	As 188.979†	0.2	-0.9	-1.8467	µg/L	-1.8467 ppb	19:34:02
3	B 249.677†	701.7	354.6	15.499	µg/L	15.499 ppb	19:33:41
3	Ba 233.527†	-16.3	10.1	0.2614	µg/L	0.2614 ppb	19:34:02
3	Be 313.107†	-3559.8	-40.0	-0.0263	µg/L	-0.0263 ppb	19:33:41
3	Cd 226.502†	-146.9	-1.5	-0.0404	µg/L	-0.0404 ppb	19:34:02
3	Co 228.616†	-11.4	-2.3	-0.1134	µg/L	-0.1134 ppb	19:34:02
3	Cr 267.716†	-18.4	34.4	0.7558	µg/L	0.7558 ppb	19:34:02
3	Cu 324.752†	2463.5	-77.5	-0.5416	µg/L	-0.5416 ppb	19:33:41
3	Mn 257.610†	-124.1	122.8	0.4261	µg/L	0.4261 ppb	19:34:02
3	Mo 202.031†	-6.9	0.8	0.0892	µg/L	0.0892 ppb	19:34:02
3	Ni 231.604†	309.7	0.6	0.0333	µg/L	0.0333 ppb	19:34:02
3	P 214.914†	32.7	4.3	9.3269	µg/L	9.3269 ppb	19:34:02
3	Pb 220.353†	89.9	-9.3	-2.4747	µg/L	-2.4747 ppb	19:34:02
3	S 181.975 Axial†	20.7	5.5	23.923	µg/L	23.923 ppb	19:34:02
3	Sb 206.836†	18.4	-9.0	-8.8834	µg/L	-8.8834 ppb	19:34:02
3	Se 196.026†	8.1	-8.0	-12.127	µg/L	-12.127 ppb	19:34:02
3	SiO2†	14525.8	12952.1	2789.3	µg/L	2789.3 ppb	19:33:41
3	Si 251.611†	16428.3	15749.4	1294.7	µg/L	1294.7 ppb	19:33:41
3	Sn 189.927†	-0.7	0.2	0.1014	µg/L	0.1014 ppb	19:34:02
3	Ti 334.940†	337.4	213.7	0.5169	µg/L	0.5169 ppb	19:33:41
3	Tl 190.801†	-27.2	-2.3	-3.2110	µg/L	-3.2110 ppb	19:34:02
3	U 409.014†	-73.9	-18.6	-1.6874	µg/L	-1.6874 ppb	19:33:41
3	V 292.402†	-61.9	-16.4	-0.1736	µg/L	-0.1736 ppb	19:33:41
3	Zn 213.857†	546.4	58.6	1.4662	µg/L	1.4662 ppb	19:34:02

Mean Data: 1202032559|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1965358.3	102.91	%	0.915				0.89%
Sc RADIAL	55875.0	102	%	0.8				0.81%
Y 371.029	1345260.9	102.70	%	0.957				0.93%
Ag 328.068†	70.5	0.5618	µg/L	0.36128	0.5618	ppb	0.36128	64.31%
Al 396.153Radial†	33.4	24.863	µg/L	2.6486	24.863	ppb	2.6486	10.65%
As 188.979†	-2.7	-5.2554	µg/L	4.17812	-5.2554	ppb	4.17812	79.50%
B 249.677†	361.9	15.807	µg/L	0.3629	15.807	ppb	0.3629	2.30%
Ba 233.527†	11.5	0.2990	µg/L	0.09794	0.2990	ppb	0.09794	32.75%
Be 313.107†	36.6	0.0237	µg/L	0.07220	0.0237	ppb	0.07220	304.72%
Ca 317.933Radial†	55.8	52.578	µg/L	6.3860	52.578	ppb	6.3860	12.15%
Cd 226.502†	-2.2	-0.0622	µg/L	0.05384	-0.0622	ppb	0.05384	86.58%
Co 228.616†	-2.4	-0.1174	µg/L	0.04408	-0.1174	ppb	0.04408	37.55%
Cr 267.716†	34.0	0.7479	µg/L	0.06369	0.7479	ppb	0.06369	8.52%
Cu 324.752†	-72.9	-0.5067	µg/L	0.39067	-0.5067	ppb	0.39067	77.10%
Fe 238.204 Radial†	1.9	15.964	µg/L	16.5276	15.964	ppb	16.5276	103.53%
K 766.490 Radial†	270.8	192.51	µg/L	24.311	192.51	ppb	24.311	12.63%
Mg 279.077 IEC†	-0.3	-2.9625	µg/L	20.67888	-2.9625	ppb	20.67888	698.02%
Mn 257.610†	134.2	0.4670	µg/L	0.03550	0.4670	ppb	0.03550	7.60%
Mo 202.031†	0.3	0.0326	µg/L	0.14408	0.0326	ppb	0.14408	442.34%
Na 589.592 Radial†	545.9	179.71	µg/L	4.323	179.71	ppb	4.323	2.41%

Ni 231.604†	-3.5	-0.1884 µg/L	0.33968	-0.1884 ppb	0.33968	180.30%
P 214.914†	3.5	7.6469 µg/L	8.65706	7.6469 ppb	8.65706	113.21%
Pb 220.353†	-6.5	-1.7397 µg/L	1.32454	-1.7397 ppb	1.32454	76.13%
S 181.975 Axial†	9.7	42.560 µg/L	20.8819	42.560 ppb	20.8819	49.07%
Sb 206.836†	-5.5	-5.4003 µg/L	3.28526	-5.4003 ppb	3.28526	60.84%
Se 196.026†	-4.0	-6.1210 µg/L	5.34190	-6.1210 ppb	5.34190	87.27%
SiO2†	12942.1	2787.1 µg/L	37.96	2787.1 ppb	37.96	1.36%
Si 251.611†	15789.4	1298.0 µg/L	18.11	1298.0 ppb	18.11	1.40%
Sn 189.927†	1.0	0.4657 µg/L	1.76718	0.4657 ppb	1.76718	379.43%
Sr 421.552†	26.7	0.2766 µg/L	0.12050	0.2766 ppb	0.12050	43.57%
Ti 334.940†	238.7	0.5751 µg/L	0.09422	0.5751 ppb	0.09422	16.38%
Tl 190.801†	1.7	2.3345 µg/L	6.11411	2.3345 ppb	6.11411	261.90%
U 409.014†	-4.7	-0.4282 µg/L	2.14716	-0.4282 ppb	2.14716	501.43%
V 292.402†	15.6	0.1695 µg/L	0.37811	0.1695 ppb	0.37811	223.01%
Zn 213.857†	54.9	1.3727 µg/L	0.21636	1.3727 ppb	0.21636	15.76%

Sequence No.: 44
Sample ID: 1202032560|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 2/11/2010 19:34:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032560|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56464.8	56464.8	103	%			19:34:44
1	Al 396.153Radial†	6806.1	6588.3	4900.2	µg/L	4900.2	ppb	19:35:04
1	Ca 317.933Radial†	5506.4	5142.9	4842.4	µg/L	4842.4	ppb	19:35:04
1	Fe 238.204 Radial†	611.9	576.9	4899.7	µg/L	4899.7	ppb	19:35:04
1	K 766.490 Radial†	7333.3	6959.3	4946.6	µg/L	4946.6	ppb	19:34:44
1	Mg 279.077 IEC†	557.7	527.7	4914.4	µg/L	4914.4	ppb	19:35:04
1	Na 589.592 Radial†	16217.5	15132.6	4981.7	µg/L	4981.7	ppb	19:34:44
1	Sr 421.552†	47317.0	45693.3	473.66	µg/L	473.66	ppb	19:34:44
1	Sc 361.383	1969504.1	1969504.1	103.12	%			19:36:08
1	Y 371.029	1344490.8	1344490.8	102.64	%			19:36:08
1	Ag 328.068†	61777.8	60470.9	483.38	µg/L	483.38	ppb	19:36:14
1	As 188.979†	267.3	258.0	503.42	µg/L	503.42	ppb	19:36:34
1	B 249.677†	12031.5	11335.6	493.62	µg/L	493.62	ppb	19:36:14
1	Ba 233.527†	19428.6	18866.0	492.13	µg/L	492.13	ppb	19:36:14
1	Be 313.107†	757639.6	738128.1	481.85	µg/L	481.85	ppb	19:36:08
1	Cd 226.502†	17872.8	17473.5	482.01	µg/L	482.01	ppb	19:36:14
1	Co 228.616†	10159.6	9860.7	484.72	µg/L	484.72	ppb	19:36:14
1	Cr 267.716†	23006.4	22361.8	492.18	µg/L	492.18	ppb	19:36:14
1	Cu 324.752†	75411.0	70640.4	494.12	µg/L	494.12	ppb	19:36:14
1	Mn 257.610†	147190.3	142975.5	495.56	µg/L	495.56	ppb	19:36:08
1	Mo 202.031†	4839.3	4700.2	501.80	µg/L	501.80	ppb	19:36:34
1	Ni 231.604†	9637.5	9043.3	493.93	µg/L	493.93	ppb	19:36:14
1	P 214.914†	274.0	238.0	464.37	µg/L	464.37	ppb	19:36:34
1	Pb 220.353†	2045.5	1886.3	503.48	µg/L	503.48	ppb	19:36:34
1	S 181.975 Axial†	1203.8	1152.6	5049.8	µg/L	5049.8	ppb	19:36:34
1	Sb 206.836†	563.5	519.5	513.56	µg/L	513.56	ppb	19:36:34
1	Se 196.026†	338.7	312.6	484.26	µg/L	484.26	ppb	19:36:34
1	SiO2†	63253.8	60087.6	12940	µg/L	12940	ppb	19:36:14
1	Si 251.611†	75809.8	73200.4	6017.4	µg/L	6017.4	ppb	19:36:14
1	Sn 189.927†	1195.5	1160.1	533.61	µg/L	533.61	ppb	19:36:34
1	Ti 334.940†	208361.9	201933.7	485.43	µg/L	485.43	ppb	19:36:08
1	Tl 190.801†	343.5	357.4	504.78	µg/L	504.78	ppb	19:36:34
1	U 409.014†	5786.5	5664.8	511.90	µg/L	511.90	ppb	19:36:14
1	V 292.402†	47433.2	46040.5	496.78	µg/L	496.78	ppb	19:36:14
1	Zn 213.857†	20405.0	19311.3	478.73	µg/L	478.73	ppb	19:36:14
2	Sc RADIAL	56738.3	56738.3	104	%			19:35:10
2	Al 396.153Radial†	6857.8	6606.4	4913.7	µg/L	4913.7	ppb	19:35:30
2	Ca 317.933Radial†	5550.5	5159.7	4858.2	µg/L	4858.2	ppb	19:35:30
2	Fe 238.204 Radial†	618.4	580.3	4928.8	µg/L	4928.8	ppb	19:35:30
2	K 766.490 Radial†	7512.7	7097.8	5045.0	µg/L	5045.0	ppb	19:35:10
2	Mg 279.077 IEC†	561.6	528.9	4925.0	µg/L	4925.0	ppb	19:35:30
2	Na 589.592 Radial†	16499.1	15328.0	5046.0	µg/L	5046.0	ppb	19:35:10
2	Sr 421.552†	48452.7	46565.3	482.70	µg/L	482.70	ppb	19:35:10
2	Sc 361.383	1963144.1	1963144.1	102.79	%			19:36:41
2	Y 371.029	1340072.9	1340072.9	102.30	%			19:36:41
2	Ag 328.068†	61611.8	60503.4	483.66	µg/L	483.66	ppb	19:36:47
2	As 188.979†	260.2	252.0	491.59	µg/L	491.59	ppb	19:37:07
2	B 249.677†	12050.1	11391.4	496.05	µg/L	496.05	ppb	19:36:47
2	Ba 233.527†	19468.1	18965.5	494.72	µg/L	494.72	ppb	19:36:47
2	Be 313.107†	756552.9	739451.1	482.72	µg/L	482.72	ppb	19:36:41
2	Cd 226.502†	17837.5	17495.3	482.61	µg/L	482.61	ppb	19:36:47
2	Co 228.616†	10063.1	9798.7	481.66	µg/L	481.66	ppb	19:36:47
2	Cr 267.716†	23000.6	22428.5	493.65	µg/L	493.65	ppb	19:36:47
2	Cu 324.752†	75255.1	70725.6	494.72	µg/L	494.72	ppb	19:36:47
2	Mn 257.610†	146664.2	142926.0	495.39	µg/L	495.39	ppb	19:36:41
2	Mo 202.031†	4791.0	4668.4	498.41	µg/L	498.41	ppb	19:37:07
2	Ni 231.604†	9624.9	9061.3	494.92	µg/L	494.92	ppb	19:36:47
2	P 214.914†	259.0	224.3	434.79	µg/L	434.79	ppb	19:37:07
2	Pb 220.353†	2029.3	1877.0	500.98	µg/L	500.98	ppb	19:37:07

2	S 181.975 Axial†	1194.9	1147.6	5028.2 µg/L	5028.2 ppb	19:37:07
2	Sb 206.836†	555.9	513.8	507.88 µg/L	507.88 ppb	19:37:07
2	Se 196.026†	334.4	309.5	479.52 µg/L	479.52 ppb	19:37:07
2	SiO2†	63264.3	60296.5	12985 µg/L	12985 ppb	19:36:47
2	Si 251.611†	75806.3	73435.1	6036.7 µg/L	6036.7 ppb	19:36:47
2	Sn 189.927†	1179.8	1148.7	528.34 µg/L	528.34 ppb	19:37:07
2	Ti 334.940†	208026.1	202261.6	486.21 µg/L	486.21 ppb	19:36:41
2	Tl 190.801†	339.5	354.5	500.78 µg/L	500.78 ppb	19:37:07
2	U 409.014†	5762.6	5659.8	511.44 µg/L	511.44 ppb	19:36:47
2	V 292.402†	47518.7	46272.7	499.23 µg/L	499.23 ppb	19:36:47
2	Zn 213.857†	20383.6	19354.6	479.81 µg/L	479.81 ppb	19:36:47
3	Sc RADIAL	56983.3	56983.3	104 %		19:35:36
3	Al 396.153Radial†	6778.1	6501.7	4836.4 µg/L	4836.4 ppb	19:35:56
3	Ca 317.933Radial†	5483.7	5072.7	4776.3 µg/L	4776.3 ppb	19:35:56
3	Fe 238.204 Radial†	610.2	569.9	4840.0 µg/L	4840.0 ppb	19:35:56
3	K 766.490 Radial†	7476.8	7032.3	4998.5 µg/L	4998.5 ppb	19:35:36
3	Mg 279.077 IEC†	558.6	523.7	4875.9 µg/L	4875.9 ppb	19:35:56
3	Na 589.592 Radial†	16463.0	15225.1	5012.2 µg/L	5012.2 ppb	19:35:36
3	Sr 421.552†	48028.2	45958.3	476.41 µg/L	476.41 ppb	19:35:36
3	Sc 361.383	1953228.5	1953228.5	102.27 %		19:37:14
3	Y 371.029	1334981.2	1334981.2	101.91 %		19:37:14
3	Ag 328.068†	60906.6	60118.1	480.49 µg/L	480.49 ppb	19:37:20
3	As 188.979†	246.6	240.0	468.20 µg/L	468.20 ppb	19:37:41
3	B 249.677†	11806.2	11212.5	488.25 µg/L	488.25 ppb	19:37:20
3	Ba 233.527†	18817.3	18425.3	480.63 µg/L	480.63 ppb	19:37:20
3	Be 313.107†	740878.0	727860.9	475.15 µg/L	475.15 ppb	19:37:14
3	Cd 226.502†	17362.9	17119.4	472.23 µg/L	472.23 ppb	19:37:20
3	Co 228.616†	9771.9	9563.6	470.08 µg/L	470.08 ppb	19:37:20
3	Cr 267.716†	22087.4	21649.1	476.50 µg/L	476.50 ppb	19:37:20
3	Cu 324.752†	72706.1	68604.9	479.89 µg/L	479.89 ppb	19:37:20
3	Mn 257.610†	143804.2	140853.9	488.21 µg/L	488.21 ppb	19:37:14
3	Mo 202.031†	4405.4	4315.1	460.70 µg/L	460.70 ppb	19:37:41
3	Ni 231.604†	9285.9	8777.4	479.41 µg/L	479.41 ppb	19:37:20
3	P 214.914†	254.1	220.8	428.19 µg/L	428.19 ppb	19:37:41
3	Pb 220.353†	1906.4	1766.9	471.52 µg/L	471.52 ppb	19:37:41
3	S 181.975 Axial†	1137.3	1097.2	4807.1 µg/L	4807.1 ppb	19:37:41
3	Sb 206.836†	512.2	473.8	468.13 µg/L	468.13 ppb	19:37:41
3	Se 196.026†	311.2	288.4	447.26 µg/L	447.26 ppb	19:37:41
3	SiO2†	61664.2	59044.4	12716 µg/L	12716 ppb	19:37:20
3	Si 251.611†	73998.6	72042.0	5922.2 µg/L	5922.2 ppb	19:37:20
3	Sn 189.927†	1081.7	1058.6	486.89 µg/L	486.89 ppb	19:37:41
3	Ti 334.940†	203268.0	198636.6	477.50 µg/L	477.50 ppb	19:37:14
3	Tl 190.801†	317.8	335.0	473.39 µg/L	473.39 ppb	19:37:41
3	U 409.014†	5643.9	5572.1	503.52 µg/L	503.52 ppb	19:37:20
3	V 292.402†	45704.3	44733.2	482.48 µg/L	482.48 ppb	19:37:20
3	Zn 213.857†	19736.3	18822.4	466.62 µg/L	466.62 ppb	19:37:20

Mean Data: 1202032560|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1961958.9	102.73	%	0.429				0.42%
Sc RADIAL	56728.8	104	%	0.5				0.46%
Y 371.029	1339848.3	102.28	%	0.363				0.36%
Ag 328.068†	60364.1	482.51	µg/L	1.756	482.51	ppb	1.756	0.36%
Al 396.153Radial†	6565.5	4883.4	µg/L	41.27	4883.4	ppb	41.27	0.85%
As 188.979†	250.0	487.74	µg/L	17.922	487.74	ppb	17.922	3.67%
B 249.677†	11313.1	492.64	µg/L	3.992	492.64	ppb	3.992	0.81%
Ba 233.527†	18752.3	489.16	µg/L	7.501	489.16	ppb	7.501	1.53%
Be 313.107†	735146.7	479.91	µg/L	4.141	479.91	ppb	4.141	0.86%
Ca 317.933Radial†	5125.1	4825.6	µg/L	43.45	4825.6	ppb	43.45	0.90%
Cd 226.502†	17362.7	478.95	µg/L	5.826	478.95	ppb	5.826	1.22%
Co 228.616†	9741.0	478.82	µg/L	7.722	478.82	ppb	7.722	1.61%
Cr 267.716†	22146.5	487.44	µg/L	9.508	487.44	ppb	9.508	1.95%
Cu 324.752†	69990.3	489.58	µg/L	8.392	489.58	ppb	8.392	1.71%
Fe 238.204 Radial†	575.7	4889.5	µg/L	45.26	4889.5	ppb	45.26	0.93%
K 766.490 Radial†	7029.8	4996.7	µg/L	49.22	4996.7	ppb	49.22	0.98%
Mg 279.077 IEC†	526.8	4905.1	µg/L	25.83	4905.1	ppb	25.83	0.53%
Mn 257.610†	142251.8	493.05	µg/L	4.198	493.05	ppb	4.198	0.85%
Mo 202.031†	4561.2	486.97	µg/L	22.812	486.97	ppb	22.812	4.68%
Na 589.592 Radial†	15228.6	5013.3	µg/L	32.17	5013.3	ppb	32.17	0.64%

Ni 231.604†	8960.7	489.42 µg/L	8.683	489.42 ppb	8.683	1.77%
P 214.914†	227.7	442.45 µg/L	19.267	442.45 ppb	19.267	4.35%
Pb 220.353†	1843.4	491.99 µg/L	17.777	491.99 ppb	17.777	3.61%
S 181.975 Axial†	1132.5	4961.7 µg/L	134.32	4961.7 ppb	134.32	2.71%
Sb 206.836†	502.4	496.52 µg/L	24.756	496.52 ppb	24.756	4.99%
Se 196.026†	303.5	470.34 µg/L	20.133	470.34 ppb	20.133	4.28%
SiO2†	59809.5	12880 µg/L	144.5	12880 ppb	144.5	1.12%
Si 251.611†	72892.5	5992.1 µg/L	61.31	5992.1 ppb	61.31	1.02%
Sn 189.927†	1122.5	516.28 µg/L	25.587	516.28 ppb	25.587	4.96%
Sr 421.552†	46072.3	477.59 µg/L	4.634	477.59 ppb	4.634	0.97%
Ti 334.940†	200944.0	483.04 µg/L	4.822	483.04 ppb	4.822	1.00%
Tl 190.801†	349.0	492.98 µg/L	17.083	492.98 ppb	17.083	3.47%
U 409.014†	5632.2	508.95 µg/L	4.711	508.95 ppb	4.711	0.93%
V 292.402†	45682.1	492.83 µg/L	9.049	492.83 ppb	9.049	1.84%
Zn 213.857†	19162.7	475.05 µg/L	7.325	475.05 ppb	7.325	1.54%

Sequence No.: 45
Sample ID: 1202032561|948737|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 2/11/2010 19:37:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032561|948737|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55556.9	55556.9	102	%			19:38:23
1	Al 396.153Radial†	-14.4	-4.0	-3.0016	µg/L	-3.0016	ppb	19:38:23
1	Ca 317.933Radial†	193.6	11.0	10.352	µg/L	10.352	ppb	19:38:43
1	Fe 238.204 Radial†	16.0	1.2	10.568	µg/L	10.568	ppb	19:38:43
1	K 766.490 Radial†	200.3	68.3	48.549	µg/L	48.549	ppb	19:38:23
1	Mg 279.077 IEC†	17.4	5.8	54.431	µg/L	54.431	ppb	19:38:43
1	Na 589.592 Radial†	748.0	192.9	63.499	µg/L	63.499	ppb	19:38:23
1	Sr 421.552†	52.3	11.8	0.1221	µg/L	0.1221	ppb	19:38:23
1	Sc 361.383	1967786.0	1967786.0	103.03	%			19:39:45
1	Y 371.029	1347427.9	1347427.9	102.86	%			19:39:45
1	Ag 328.068†	-513.7	65.9	0.5269	µg/L	0.5269	ppb	19:39:51
1	As 188.979†	0.2	-0.9	-1.7879	µg/L	-1.7879	ppb	19:40:11
1	B 249.677†	392.7	49.7	2.1660	µg/L	2.1660	ppb	19:40:11
1	Ba 233.527†	-17.5	9.0	0.2357	µg/L	0.2357	ppb	19:40:11
1	Be 313.107†	-3261.5	274.9	0.1795	µg/L	0.1795	ppb	19:39:51
1	Cd 226.502†	-143.1	3.3	0.0883	µg/L	0.0883	ppb	19:40:11
1	Co 228.616†	-14.2	-4.9	-0.2416	µg/L	-0.2416	ppb	19:40:11
1	Cr 267.716†	-7.4	45.2	0.9940	µg/L	0.9940	ppb	19:40:11
1	Cu 324.752†	2443.8	-114.2	-0.7963	µg/L	-0.7963	ppb	19:39:51
1	Mn 257.610†	-169.1	79.9	0.2761	µg/L	0.2761	ppb	19:40:11
1	Mo 202.031†	-6.4	1.4	0.1476	µg/L	0.1476	ppb	19:40:11
1	Ni 231.604†	306.2	-5.0	-0.2754	µg/L	-0.2754	ppb	19:40:11
1	P 214.914†	36.4	7.7	16.712	µg/L	16.712	ppb	19:40:11
1	Pb 220.353†	91.5	-8.3	-2.2188	µg/L	-2.2188	ppb	19:40:11
1	S 181.975 Axial†	15.5	0.3	1.1200	µg/L	1.1200	ppb	19:40:11
1	Sb 206.836†	23.6	-4.0	-3.9935	µg/L	-3.9935	ppb	19:40:11
1	Se 196.026†	10.4	-5.8	-8.8371	µg/L	-8.8371	ppb	19:40:11
1	SiO2†	4053.3	2683.9	578.00	µg/L	578.00	ppb	19:39:51
1	Si 251.611†	3735.4	3312.5	272.31	µg/L	272.31	ppb	19:39:51
1	Sn 189.927†	1.4	2.2	1.0392	µg/L	1.0392	ppb	19:40:11
1	Ti 334.940†	209.0	86.7	0.2045	µg/L	0.2045	ppb	19:39:51
1	Tl 190.801†	-28.8	-3.6	-5.0793	µg/L	-5.0793	ppb	19:40:11
1	U 409.014†	-114.0	-57.1	-5.1684	µg/L	-5.1684	ppb	19:39:51
1	V 292.402†	0.4	44.6	0.4745	µg/L	0.4745	ppb	19:39:51
1	Zn 213.857†	490.8	0.8	0.0180	µg/L	0.0180	ppb	19:40:11
2	Sc RADIAL	55453.1	55453.1	102	%			19:38:49
2	Al 396.153Radial†	-1.2	8.9	6.6613	µg/L	6.6613	ppb	19:38:49
2	Ca 317.933Radial†	195.9	13.6	12.817	µg/L	12.817	ppb	19:39:09
2	Fe 238.204 Radial†	14.7	0.0	0.0944	µg/L	0.0944	ppb	19:39:09
2	K 766.490 Radial†	238.4	106.2	75.456	µg/L	75.456	ppb	19:38:49
2	Mg 279.077 IEC†	15.6	4.1	37.981	µg/L	37.981	ppb	19:39:09
2	Na 589.592 Radial†	708.0	154.9	51.000	µg/L	51.000	ppb	19:38:49
2	Sr 421.552†	57.2	16.8	0.1737	µg/L	0.1737	ppb	19:38:49
2	Sc 361.383	1975775.5	1975775.5	103.45	%			19:40:18
2	Y 371.029	1355586.5	1355586.5	103.49	%			19:40:18
2	Ag 328.068†	-512.8	68.9	0.5480	µg/L	0.5480	ppb	19:40:23
2	As 188.979†	-0.8	-1.9	-3.7879	µg/L	-3.7879	ppb	19:40:44
2	B 249.677†	398.7	53.9	2.3572	µg/L	2.3572	ppb	19:40:44
2	Ba 233.527†	-16.5	10.0	0.2613	µg/L	0.2613	ppb	19:40:44
2	Be 313.107†	-3291.3	258.9	0.1690	µg/L	0.1690	ppb	19:40:23
2	Cd 226.502†	-132.6	13.9	0.3835	µg/L	0.3835	ppb	19:40:44
2	Co 228.616†	-7.1	2.0	0.0984	µg/L	0.0984	ppb	19:40:44
2	Cr 267.716†	-22.7	30.4	0.6696	µg/L	0.6696	ppb	19:40:44
2	Cu 324.752†	2469.7	-98.8	-0.6905	µg/L	-0.6905	ppb	19:40:23
2	Mn 257.610†	-143.9	105.0	0.3620	µg/L	0.3620	ppb	19:40:44
2	Mo 202.031†	-4.2	3.5	0.3717	µg/L	0.3717	ppb	19:40:44
2	Ni 231.604†	302.9	-9.4	-0.5143	µg/L	-0.5143	ppb	19:40:44
2	P 214.914†	29.9	1.3	2.7919	µg/L	2.7919	ppb	19:40:44
2	Pb 220.353†	97.3	-3.1	-0.8261	µg/L	-0.8261	ppb	19:40:44

2	S 181.975 Axial†	20.0	4.5	19.710 µg/L	19.710 ppb	19:40:44
2	Sb 206.836†	23.7	-4.1	-4.0300 µg/L	-4.0300 ppb	19:40:44
2	Se 196.026†	9.3	-6.9	-10.492 µg/L	-10.492 ppb	19:40:44
2	SiO2†	4038.7	2653.9	571.53 µg/L	571.53 ppb	19:40:23
2	Si 251.611†	3707.4	3270.8	268.87 µg/L	268.87 ppb	19:40:23
2	Sn 189.927†	2.0	2.8	1.2773 µg/L	1.2773 ppb	19:40:44
2	Ti 334.940†	221.6	98.1	0.2331 µg/L	0.2331 ppb	19:40:23
2	Tl 190.801†	-21.6	3.4	4.7965 µg/L	4.7965 ppb	19:40:44
2	U 409.014†	-59.9	-4.3	-0.3880 µg/L	-0.3880 ppb	19:40:23
2	V 292.402†	-21.0	23.9	0.2589 µg/L	0.2589 ppb	19:40:23
2	Zn 213.857†	511.8	19.2	0.4807 µg/L	0.4807 ppb	19:40:44
3	Sc RADIAL	54997.2	54997.2	101 %		19:39:15
3	Al 396.153Radial†	-9.6	0.6	0.4496 µg/L	0.4496 ppb	19:39:15
3	Ca 317.933Radial†	197.1	16.5	15.498 µg/L	15.498 ppb	19:39:35
3	Fe 238.204 Radial†	17.3	2.6	22.415 µg/L	22.415 ppb	19:39:35
3	K 766.490 Radial†	180.6	50.8	36.115 µg/L	36.115 ppb	19:39:15
3	Mg 279.077 IEC†	14.5	3.2	29.331 µg/L	29.331 ppb	19:39:35
3	Na 589.592 Radial†	763.4	215.7	70.994 µg/L	70.994 ppb	19:39:15
3	Sr 421.552†	65.9	25.9	0.2681 µg/L	0.2681 ppb	19:39:15
3	Sc 361.383	1964922.8	1964922.8	102.88 %		19:40:50
3	Y 371.029	1347749.0	1347749.0	102.89 %		19:40:50
3	Ag 328.068†	-485.9	92.3	0.7322 µg/L	0.7322 ppb	19:40:55
3	As 188.979†	0.6	-0.6	-1.1015 µg/L	-1.1015 ppb	19:41:16
3	B 249.677†	385.4	43.2	1.8762 µg/L	1.8762 ppb	19:41:16
3	Ba 233.527†	-20.3	6.2	0.1623 µg/L	0.1623 ppb	19:41:16
3	Be 313.107†	-3155.8	373.1	0.2435 µg/L	0.2435 ppb	19:40:55
3	Cd 226.502†	-137.1	8.9	0.2432 µg/L	0.2432 ppb	19:41:16
3	Co 228.616†	-0.5	8.4	0.4121 µg/L	0.4121 ppb	19:41:16
3	Cr 267.716†	-8.2	44.4	0.9768 µg/L	0.9768 ppb	19:41:16
3	Cu 324.752†	2483.7	-72.0	-0.4999 µg/L	-0.4999 ppb	19:40:55
3	Mn 257.610†	-138.7	109.3	0.3805 µg/L	0.3805 ppb	19:41:16
3	Mo 202.031†	-5.4	2.3	0.2508 µg/L	0.2508 ppb	19:41:16
3	Ni 231.604†	316.9	5.9	0.3198 µg/L	0.3198 ppb	19:41:16
3	P 214.914†	26.0	-2.4	-5.0548 µg/L	-5.0548 ppb	19:41:16
3	Pb 220.353†	90.0	-9.7	-2.5999 µg/L	-2.5999 ppb	19:41:16
3	S 181.975 Axial†	20.6	5.2	22.743 µg/L	22.743 ppb	19:41:16
3	Sb 206.836†	23.9	-3.7	-3.6360 µg/L	-3.6360 ppb	19:41:16
3	Se 196.026†	14.1	-2.1	-3.2432 µg/L	-3.2432 ppb	19:41:16
3	SiO2†	3923.3	2563.3	552.03 µg/L	552.03 ppb	19:40:55
3	Si 251.611†	3574.4	3161.3	259.88 µg/L	259.88 ppb	19:40:55
3	Sn 189.927†	1.0	1.8	0.8318 µg/L	0.8318 ppb	19:41:16
3	Ti 334.940†	247.5	124.4	0.2972 µg/L	0.2972 ppb	19:40:55
3	Tl 190.801†	-20.5	4.4	6.0916 µg/L	6.0916 ppb	19:41:16
3	U 409.014†	-23.0	31.3	2.8278 µg/L	2.8278 ppb	19:40:55
3	V 292.402†	-67.0	-20.9	-0.2134 µg/L	-0.2134 ppb	19:40:55
3	Zn 213.857†	498.6	9.1	0.2239 µg/L	0.2239 ppb	19:41:16

Mean Data: 1202032561|948737|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1969494.8	103.12	%	0.295				0.29%
Sc RADIAL	55335.7	101	%	0.5				0.54%
Y 371.029	1350254.5	103.08	%	0.353				0.34%
Ag 328.068†	75.7	0.6024	µg/L	0.11293	0.6024	ppb	0.11293	18.75%
Al 396.153Radial†	1.8	1.3697	µg/L	4.89673	1.3697	ppb	4.89673	357.50%
As 188.979†	-1.1	-2.2258	µg/L	1.39574	-2.2258	ppb	1.39574	62.71%
B 249.677†	48.9	2.1331	µg/L	0.24218	2.1331	ppb	0.24218	11.35%
Ba 233.527†	8.4	0.2198	µg/L	0.05138	0.2198	ppb	0.05138	23.38%
Be 313.107†	302.3	0.1973	µg/L	0.04034	0.1973	ppb	0.04034	20.44%
Ca 317.933Radial†	13.7	12.889	µg/L	2.5739	12.889	ppb	2.5739	19.97%
Cd 226.502†	8.7	0.2383	µg/L	0.14769	0.2383	ppb	0.14769	61.96%
Co 228.616†	1.8	0.0896	µg/L	0.32695	0.0896	ppb	0.32695	364.74%
Cr 267.716†	40.0	0.8801	µg/L	0.18253	0.8801	ppb	0.18253	20.74%
Cu 324.752†	-95.0	-0.6622	µg/L	0.15020	-0.6622	ppb	0.15020	22.68%
Fe 238.204 Radial†	1.3	11.026	µg/L	11.1673	11.026	ppb	11.1673	101.28%
K 766.490 Radial†	75.1	53.373	µg/L	20.1092	53.373	ppb	20.1092	37.68%
Mg 279.077 IEC†	4.4	40.581	µg/L	12.7501	40.581	ppb	12.7501	31.42%
Mn 257.610†	98.1	0.3395	µg/L	0.05572	0.3395	ppb	0.05572	16.41%
Mo 202.031†	2.4	0.2567	µg/L	0.11216	0.2567	ppb	0.11216	43.69%
Na 589.592 Radial†	187.8	61.831	µg/L	10.1008	61.831	ppb	10.1008	16.34%

Ni 231.604†	-2.9	-0.1566 µg/L	0.42953	-0.1566 ppb	0.42953	274.22%
P 214.914†	2.2	4.8165 µg/L	11.02392	4.8165 ppb	11.02392	228.88%
Pb 220.353†	-7.1	-1.8816 µg/L	0.93377	-1.8816 ppb	0.93377	49.63%
S 181.975 Axial†	3.3	14.524 µg/L	11.7071	14.524 ppb	11.7071	80.60%
Sb 206.836†	-3.9	-3.8865 µg/L	0.21773	-3.8865 ppb	0.21773	5.60%
Se 196.026†	-4.9	-7.5242 µg/L	3.79864	-7.5242 ppb	3.79864	50.49%
SiO2†	2633.7	567.19 µg/L	13.522	567.19 ppb	13.522	2.38%
Si 251.611†	3248.2	267.02 µg/L	6.418	267.02 ppb	6.418	2.40%
Sn 189.927†	2.3	1.0494 µg/L	0.22288	1.0494 ppb	0.22288	21.24%
Sr 421.552†	18.1	0.1880 µg/L	0.07405	0.1880 ppb	0.07405	39.39%
Ti 334.940†	103.1	0.2449 µg/L	0.04745	0.2449 ppb	0.04745	19.37%
Tl 190.801†	1.4	1.9362 µg/L	6.11008	1.9362 ppb	6.11008	315.56%
U 409.014†	-10.0	-0.9095 µg/L	4.02356	-0.9095 ppb	4.02356	442.37%
V 292.402†	15.9	0.1733 µg/L	0.35183	0.1733 ppb	0.35183	203.00%
Zn 213.857†	9.7	0.2409 µg/L	0.23181	0.2409 ppb	0.23181	96.23%

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:41:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56419.4	56419.4	103	%			19:42:04
1	Al 396.153Radial†	6864.6	6650.3	4946.1	µg/L	4946.1	ppb	19:42:25
1	Ca 317.933Radial†	5559.4	5198.4	4894.6	µg/L	4894.6	ppb	19:42:25
1	Fe 238.204 Radial†	616.6	581.9	4942.5	µg/L	4942.5	ppb	19:42:25
1	K 766.490 Radial†	7352.0	6983.2	4963.6	µg/L	4963.6	ppb	19:42:04
1	Mg 279.077 IEC†	570.1	540.2	5030.2	µg/L	5030.2	ppb	19:42:25
1	Na 589.592 Radial†	31600.6	30025.3	9884.4	µg/L	9884.4	ppb	19:42:04
1	Sr 421.552†	48468.4	46843.8	485.59	µg/L	485.59	ppb	19:42:04
1	Sc 361.383	2003108.1	2003108.1	104.88	%			19:43:28
1	Y 371.029	1370730.2	1370730.2	104.64	%			19:43:28
1	Ag 328.068†	64726.1	62276.9	497.74	µg/L	497.74	ppb	19:43:34
1	As 188.979†	267.5	253.9	495.37	µg/L	495.37	ppb	19:43:54
1	B 249.677†	12041.2	11149.1	485.46	µg/L	485.46	ppb	19:43:34
1	Ba 233.527†	19842.7	18944.8	494.19	µg/L	494.19	ppb	19:43:34
1	Be 313.107†	766666.1	734409.3	479.43	µg/L	479.43	ppb	19:43:28
1	Cd 226.502†	18686.6	17958.6	495.39	µg/L	495.39	ppb	19:43:34
1	Co 228.616†	10595.4	10110.9	497.04	µg/L	497.04	ppb	19:43:34
1	Cr 267.716†	23720.3	22668.2	498.92	µg/L	498.92	ppb	19:43:34
1	Cu 324.752†	76984.9	70914.3	496.04	µg/L	496.04	ppb	19:43:34
1	Mn 257.610†	147751.2	141115.8	489.12	µg/L	489.12	ppb	19:43:28
1	Mo 202.031†	5026.0	4799.5	512.40	µg/L	512.40	ppb	19:43:54
1	Ni 231.604†	9826.5	9056.7	495.20	µg/L	495.20	ppb	19:43:34
1	P 214.914†	1254.6	1168.6	2461.8	µg/L	2461.8	ppb	19:43:54
1	Pb 220.353†	2050.1	1857.4	495.79	µg/L	495.79	ppb	19:43:54
1	S 181.975 Axial†	255.6	228.9	1003.0	µg/L	1003.0	ppb	19:43:54
1	Sb 206.836†	570.4	516.9	511.09	µg/L	511.09	ppb	19:43:54
1	Se 196.026†	360.0	327.4	506.74	µg/L	506.74	ppb	19:43:54
1	SiO2†	26928.3	24424.4	5259.9	µg/L	5259.9	ppb	19:43:34
1	Si 251.611†	31785.6	29992.7	2465.6	µg/L	2465.6	ppb	19:43:34
1	Sn 189.927†	1167.3	1113.9	512.34	µg/L	512.34	ppb	19:43:54
1	Ti 334.940†	210971.9	201032.6	483.25	µg/L	483.25	ppb	19:43:28
1	Tl 190.801†	351.0	358.9	506.83	µg/L	506.83	ppb	19:43:54
1	U 409.014†	5847.6	5628.9	508.64	µg/L	508.64	ppb	19:43:34
1	V 292.402†	48650.0	46429.0	501.02	µg/L	501.02	ppb	19:43:34
1	Zn 213.857†	21378.5	19907.5	493.60	µg/L	493.60	ppb	19:43:34
2	Sc RADIAL	57083.7	57083.7	105	%			19:42:30
2	Al 396.153Radial†	6804.1	6515.2	4845.3	µg/L	4845.3	ppb	19:42:51
2	Ca 317.933Radial†	5545.5	5122.6	4823.3	µg/L	4823.3	ppb	19:42:51
2	Fe 238.204 Radial†	613.4	571.9	4857.7	µg/L	4857.7	ppb	19:42:51
2	K 766.490 Radial†	7292.4	6843.5	4864.3	µg/L	4864.3	ppb	19:42:30
2	Mg 279.077 IEC†	572.7	536.3	4994.3	µg/L	4994.3	ppb	19:42:51
2	Na 589.592 Radial†	31703.2	29767.7	9799.6	µg/L	9799.6	ppb	19:42:30
2	Sr 421.552†	48760.9	46577.9	482.83	µg/L	482.83	ppb	19:42:30
2	Sc 361.383	1956478.6	1956478.6	102.44	%			19:44:02
2	Y 371.029	1338013.6	1338013.6	102.14	%			19:44:02
2	Ag 328.068†	63625.9	62673.7	500.90	µg/L	500.90	ppb	19:44:07
2	As 188.979†	268.7	261.1	509.35	µg/L	509.35	ppb	19:44:28
2	B 249.677†	11834.0	11220.4	488.63	µg/L	488.63	ppb	19:44:07
2	Ba 233.527†	19447.5	19009.9	495.89	µg/L	495.89	ppb	19:44:07
2	Be 313.107†	783080.7	767854.0	501.26	µg/L	501.26	ppb	19:44:02
2	Cd 226.502†	18262.0	17968.8	495.68	µg/L	495.68	ppb	19:44:07
2	Co 228.616†	10399.7	10160.6	499.45	µg/L	499.45	ppb	19:44:07
2	Cr 267.716†	23262.6	22760.4	500.95	µg/L	500.95	ppb	19:44:07
2	Cu 324.752†	75552.4	71265.3	498.48	µg/L	498.48	ppb	19:44:07
2	Mn 257.610†	151080.8	147723.5	511.99	µg/L	511.99	ppb	19:44:02
2	Mo 202.031†	4987.4	4876.0	520.56	µg/L	520.56	ppb	19:44:28
2	Ni 231.604†	9658.6	9126.2	498.44	µg/L	498.44	ppb	19:44:07
2	P 214.914†	1238.9	1181.7	2490.0	µg/L	2490.0	ppb	19:44:28
2	Pb 220.353†	2049.2	1903.2	508.02	µg/L	508.02	ppb	19:44:28

2	S 181.975 Axial†	249.6	228.9	1002.7 µg/L	1002.7 ppb	19:44:28
2	Sb 206.836†	564.1	523.7	517.93 µg/L	517.93 ppb	19:44:28
2	Se 196.026†	358.2	333.9	516.45 µg/L	516.45 ppb	19:44:28
2	SiO2†	26483.3	24601.9	5298.2 µg/L	5298.2 ppb	19:44:07
2	Si 251.611†	31145.7	30090.4	2473.6 µg/L	2473.6 ppb	19:44:07
2	Sn 189.927†	1159.9	1133.1	521.19 µg/L	521.19 ppb	19:44:28
2	Ti 334.940†	215458.6	210206.4	505.32 µg/L	505.32 ppb	19:44:02
2	Tl 190.801†	341.6	357.7	505.37 µg/L	505.37 ppb	19:44:28
2	U 409.014†	5729.0	5646.0	510.20 µg/L	510.20 ppb	19:44:07
2	V 292.402†	47728.9	46635.3	503.28 µg/L	503.28 ppb	19:44:07
2	Zn 213.857†	20977.4	20001.8	495.95 µg/L	495.95 ppb	19:44:07
3	Sc RADIAL	57202.6	57202.6	105 %		19:42:56
3	Al 396.153Radial†	6841.2	6537.0	4863.4 µg/L	4863.4 ppb	19:43:17
3	Ca 317.933Radial†	5579.2	5143.7	4843.1 µg/L	4843.1 ppb	19:43:17
3	Fe 238.204 Radial†	619.6	576.6	4896.7 µg/L	4896.7 ppb	19:43:17
3	K 766.490 Radial†	7296.8	6833.1	4856.9 µg/L	4856.9 ppb	19:42:56
3	Mg 279.077 IEC†	570.0	532.5	4957.7 µg/L	4957.7 ppb	19:43:17
3	Na 589.592 Radial†	31651.4	29655.3	9762.6 µg/L	9762.6 ppb	19:42:56
3	Sr 421.552†	48633.6	46359.5	480.57 µg/L	480.57 ppb	19:42:56
3	Sc 361.383	1968483.8	1968483.8	103.07 %		19:44:35
3	Y 371.029	1347474.9	1347474.9	102.87 %		19:44:35
3	Ag 328.068†	60287.4	59055.9	471.87 µg/L	471.87 ppb	19:44:40
3	As 188.979†	225.2	217.3	423.99 µg/L	423.99 ppb	19:45:01
3	B 249.677†	11150.7	10487.1	456.47 µg/L	456.47 ppb	19:44:40
3	Ba 233.527†	17981.9	17472.2	455.76 µg/L	455.76 ppb	19:44:40
3	Be 313.107†	731612.9	713257.7	465.62 µg/L	465.62 ppb	19:44:35
3	Cd 226.502†	16841.2	16481.6	454.60 µg/L	454.60 ppb	19:44:40
3	Co 228.616†	9509.8	9235.4	453.92 µg/L	453.92 ppb	19:44:40
3	Cr 267.716†	20728.9	20163.7	443.80 µg/L	443.80 ppb	19:44:40
3	Cu 324.752†	69473.8	64918.0	454.15 µg/L	454.15 ppb	19:44:40
3	Mn 257.610†	141487.4	137516.4	476.65 µg/L	476.65 ppb	19:44:35
3	Mo 202.031†	4166.6	4050.0	432.41 µg/L	432.41 ppb	19:45:01
3	Ni 231.604†	8868.9	8302.5	453.46 µg/L	453.46 ppb	19:44:40
3	P 214.914†	1068.6	1009.2	2122.7 µg/L	2122.7 ppb	19:45:01
3	Pb 220.353†	1791.6	1641.0	437.94 µg/L	437.94 ppb	19:45:01
3	S 181.975 Axial†	225.5	204.0	893.82 µg/L	893.82 ppb	19:45:01
3	Sb 206.836†	488.9	447.4	442.01 µg/L	442.01 ppb	19:45:01
3	Se 196.026†	320.0	294.7	456.84 µg/L	456.84 ppb	19:45:01
3	SiO2†	24830.7	22841.0	4918.9 µg/L	4918.9 ppb	19:44:40
3	Si 251.611†	29062.2	27883.6	2292.2 µg/L	2292.2 ppb	19:44:40
3	Sn 189.927†	952.2	924.7	425.35 µg/L	425.35 ppb	19:45:01
3	Ti 334.940†	200541.4	194450.9	467.42 µg/L	467.42 ppb	19:44:35
3	Tl 190.801†	313.2	328.1	463.67 µg/L	463.67 ppb	19:45:01
3	U 409.014†	5147.7	5048.0	456.05 µg/L	456.05 ppb	19:44:40
3	V 292.402†	43287.8	42042.5	453.47 µg/L	453.47 ppb	19:44:40
3	Zn 213.857†	19269.8	18220.2	451.73 µg/L	451.73 ppb	19:44:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1976023.5	103.47	%	1.268				1.23%
Sc RADIAL	56901.9	104	%	0.8				0.74%
Y 371.029	1352072.9	103.22	%	1.285				1.25%
Ag 328.068†	61335.5	490.17	µg/L	15.926	490.17	ppb	15.926	3.25%
QC value within limits for Ag 328.068 Recovery = 98.03%								
Al 396.153Radial†	6567.5	4884.9	µg/L	53.78	4884.9	ppb	53.78	1.10%
QC value within limits for Al 396.153Radial Recovery = 97.70%								
As 188.979†	244.1	476.24	µg/L	45.784	476.24	ppb	45.784	9.61%
QC value within limits for As 188.979 Recovery = 95.25%								
B 249.677†	10952.2	476.85	µg/L	17.725	476.85	ppb	17.725	3.72%
QC value within limits for B 249.677 Recovery = 95.37%								
Ba 233.527†	18475.6	481.94	µg/L	22.693	481.94	ppb	22.693	4.71%
QC value within limits for Ba 233.527 Recovery = 96.39%								
Be 313.107†	738507.0	482.10	µg/L	17.970	482.10	ppb	17.970	3.73%
QC value within limits for Be 313.107 Recovery = 96.42%								
Ca 317.933Radial†	5154.9	4853.7	µg/L	36.83	4853.7	ppb	36.83	0.76%
QC value within limits for Ca 317.933Radial Recovery = 97.07%								
Cd 226.502†	17469.7	481.89	µg/L	23.632	481.89	ppb	23.632	4.90%
QC value within limits for Cd 226.502 Recovery = 96.38%								
Co 228.616†	9835.6	483.47	µg/L	25.623	483.47	ppb	25.623	5.30%

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   QC value within limits for Co 228.616  Recovery = 96.69%
Cr 267.716†            21864.1      481.23 µg/L        32.425      481.23 ppb        32.425   6.74%
   QC value within limits for Cr 267.716  Recovery = 96.25%
Cu 324.752†            69032.5      482.89 µg/L        24.920      482.89 ppb        24.920   5.16%
   QC value within limits for Cu 324.752  Recovery = 96.58%
Fe 238.204 Radial†       576.8      4899.0 µg/L         42.44      4899.0 ppb         42.44   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.98%
K 766.490 Radial†       6886.6      4894.9 µg/L         59.56      4894.9 ppb         59.56   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 97.90%
Mg 279.077 IEC†          536.3      4994.1 µg/L         36.28      4994.1 ppb         36.28   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           142118.5      492.59 µg/L        17.923      492.59 ppb        17.923   3.64%
   QC value within limits for Mn 257.610  Recovery = 98.52%
Mo 202.031†             4575.2      488.46 µg/L        48.709      488.46 ppb        48.709   9.97%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†     29816.1      9815.6 µg/L         62.45      9815.6 ppb         62.45   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 98.16%
Ni 231.604†             8831.8      482.37 µg/L        25.085      482.37 ppb        25.085   5.20%
   QC value within limits for Ni 231.604  Recovery = 96.47%
P 214.914†              1119.8      2358.2 µg/L        204.40      2358.2 ppb        204.40   8.67%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†             1800.5      480.58 µg/L        37.434      480.58 ppb        37.434   7.79%
   QC value within limits for Pb 220.353  Recovery = 96.12%
S 181.975 Axial†         220.6      966.52 µg/L        62.959      966.52 ppb        62.959   6.51%
   QC value within limits for S 181.975 Axial  Recovery = 96.65%
Sb 206.836†              496.0      490.35 µg/L        41.996      490.35 ppb        41.996   8.56%
   QC value within limits for Sb 206.836  Recovery = 98.07%
Se 196.026†              318.6      493.35 µg/L        31.983      493.35 ppb        31.983   6.48%
   QC value within limits for Se 196.026  Recovery = 98.67%
SiO2†                  23955.8      5159.0 µg/L        208.79      5159.0 ppb        208.79   4.05%
   QC value within limits for SiO2  Recovery = 96.48%
Si 251.611†            29322.2      2410.4 µg/L        102.50      2410.4 ppb        102.50   4.25%
   QC value within limits for Si 251.611  Recovery = 96.42%
Sn 189.927†             1057.2      486.29 µg/L        52.962      486.29 ppb        52.962  10.89%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†            46593.7      483.00 µg/L         2.514      483.00 ppb         2.514   0.52%
   QC value within limits for Sr 421.552  Recovery = 96.60%
Ti 334.940†           201896.6      485.33 µg/L        19.033      485.33 ppb        19.033   3.92%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†              348.3      491.96 µg/L        24.505      491.96 ppb        24.505   4.98%
   QC value within limits for Tl 190.801  Recovery = 98.39%
U 409.014†              5441.0      491.63 µg/L        30.821      491.63 ppb        30.821   6.27%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†             45035.6      485.92 µg/L        28.129      485.92 ppb        28.129   5.79%
   QC value within limits for V 292.402  Recovery = 97.18%
Zn 213.857†            19376.5      480.43 µg/L        24.881      480.43 ppb        24.881   5.18%
   QC value within limits for Zn 213.857  Recovery = 96.09%
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:45:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56376.8	56376.8	103	%			19:45:43
1	Al 396.153Radial†	-19.0	-8.3	-6.1741	µg/L	-6.1741	ppb	19:45:43
1	Ca 317.933Radial†	190.5	5.3	4.9933	µg/L	4.9933	ppb	19:46:03
1	Fe 238.204 Radial†	14.9	-0.1	-0.5495	µg/L	-0.5495	ppb	19:46:03
1	K 766.490 Radial†	145.1	12.1	8.5950	µg/L	8.5950	ppb	19:45:43
1	Mg 279.077 IEC†	10.6	-1.0	-9.5449	µg/L	-9.5449	ppb	19:46:03
1	Na 589.592 Radial†	582.4	21.9	7.2091	µg/L	7.2091	ppb	19:45:43
1	Sr 421.552†	18.5	-21.6	-0.2243	µg/L	-0.2243	ppb	19:45:43
1	Sc 361.383	1992362.0	1992362.0	104.32	%			19:47:05
1	Y 371.029	1368353.4	1368353.4	104.46	%			19:47:05
1	Ag 328.068†	-598.5	-9.1	-0.0730	µg/L	-0.0730	ppb	19:47:10
1	As 188.979†	-0.0	-1.2	-2.2711	µg/L	-2.2711	ppb	19:47:31
1	B 249.677†	346.6	0.7	0.0326	µg/L	0.0326	ppb	19:47:31
1	Ba 233.527†	-24.2	2.9	0.0744	µg/L	0.0744	ppb	19:47:31
1	Be 313.107†	-3339.3	239.4	0.1563	µg/L	0.1563	ppb	19:47:10
1	Cd 226.502†	-124.4	22.9	0.6311	µg/L	0.6311	ppb	19:47:31
1	Co 228.616†	-16.5	-7.0	-0.3445	µg/L	-0.3445	ppb	19:47:31
1	Cr 267.716†	-47.2	7.2	0.1575	µg/L	0.1575	ppb	19:47:31
1	Cu 324.752†	2430.9	-155.9	-1.0892	µg/L	-1.0892	ppb	19:47:10
1	Mn 257.610†	-240.7	13.4	0.0467	µg/L	0.0467	ppb	19:47:31
1	Mo 202.031†	-8.3	-0.4	-0.0415	µg/L	-0.0415	ppb	19:47:31
1	Ni 231.604†	297.2	-17.3	-0.9473	µg/L	-0.9473	ppb	19:47:31
1	P 214.914†	35.0	6.0	12.897	µg/L	12.897	ppb	19:47:31
1	Pb 220.353†	95.0	-6.2	-1.6460	µg/L	-1.6460	ppb	19:47:31
1	S 181.975 Axial†	14.6	-0.8	-3.7140	µg/L	-3.7140	ppb	19:47:31
1	Sb 206.836†	19.5	-8.3	-8.1804	µg/L	-8.1804	ppb	19:47:31
1	Se 196.026†	15.6	-0.9	-1.2950	µg/L	-1.2950	ppb	19:47:31
1	SiO2†	1248.6	-53.2	-11.446	µg/L	-11.446	ppb	19:47:10
1	Si 251.611†	306.0	-19.6	-1.6096	µg/L	-1.6096	ppb	19:47:31
1	Sn 189.927†	-6.1	-5.0	-2.2944	µg/L	-2.2944	ppb	19:47:31
1	Ti 334.940†	214.1	89.1	0.2152	µg/L	0.2152	ppb	19:47:10
1	Tl 190.801†	-21.4	3.7	5.2299	µg/L	5.2299	ppb	19:47:31
1	U 409.014†	10.3	63.5	5.7486	µg/L	5.7486	ppb	19:47:10
1	V 292.402†	-52.5	-6.1	-0.0596	µg/L	-0.0596	ppb	19:47:10
1	Zn 213.857†	478.7	-16.6	-0.4092	µg/L	-0.4092	ppb	19:47:31
2	Sc RADIAL	56044.6	56044.6	103	%			19:46:09
2	Al 396.153Radial†	-6.3	4.0	2.9768	µg/L	2.9768	ppb	19:46:09
2	Ca 317.933Radial†	183.8	-0.2	-0.1847	µg/L	-0.1847	ppb	19:46:29
2	Fe 238.204 Radial†	14.3	-0.6	-4.7213	µg/L	-4.7213	ppb	19:46:29
2	K 766.490 Radial†	167.1	34.3	24.398	µg/L	24.398	ppb	19:46:09
2	Mg 279.077 IEC†	11.1	-0.4	-4.0659	µg/L	-4.0659	ppb	19:46:29
2	Na 589.592 Radial†	618.2	60.1	19.792	µg/L	19.792	ppb	19:46:09
2	Sr 421.552†	69.0	27.6	0.2866	µg/L	0.2866	ppb	19:46:09
2	Sc 361.383	1989518.4	1989518.4	104.17	%			19:47:37
2	Y 371.029	1365606.7	1365606.7	104.25	%			19:47:37
2	Ag 328.068†	-547.2	39.3	0.3111	µg/L	0.3111	ppb	19:47:43
2	As 188.979†	-3.9	-4.9	-9.5988	µg/L	-9.5988	ppb	19:48:03
2	B 249.677†	322.6	-21.8	-0.9478	µg/L	-0.9478	ppb	19:48:03
2	Ba 233.527†	-14.9	11.7	0.3048	µg/L	0.3048	ppb	19:48:03
2	Be 313.107†	-3365.6	209.6	0.1369	µg/L	0.1369	ppb	19:47:43
2	Cd 226.502†	-135.4	12.1	0.3352	µg/L	0.3352	ppb	19:48:03
2	Co 228.616†	-12.8	-3.4	-0.1669	µg/L	-0.1669	ppb	19:48:03
2	Cr 267.716†	-34.1	19.6	0.4310	µg/L	0.4310	ppb	19:48:03
2	Cu 324.752†	2392.5	-189.4	-1.3239	µg/L	-1.3239	ppb	19:47:43
2	Mn 257.610†	-233.6	19.8	0.0682	µg/L	0.0682	ppb	19:48:03
2	Mo 202.031†	1.3	8.8	0.9388	µg/L	0.9388	ppb	19:48:03
2	Ni 231.604†	308.4	-6.2	-0.3371	µg/L	-0.3371	ppb	19:48:03
2	P 214.914†	38.1	8.9	19.315	µg/L	19.315	ppb	19:48:03
2	Pb 220.353†	86.4	-14.2	-3.7968	µg/L	-3.7968	ppb	19:48:03

2	S 181.975 Axial†	18.4	2.9	12.528	µg/L	12.528 ppb	19:48:03
2	Sb 206.836†	29.9	1.8	1.7421	µg/L	1.7421 ppb	19:48:03
2	Se 196.026†	17.4	0.9	1.3573	µg/L	1.3573 ppb	19:48:03
2	SiO2†	1243.9	-56.0	-12.052	µg/L	-12.052 ppb	19:47:43
2	Si 251.611†	297.9	-26.9	-2.2125	µg/L	-2.2125 ppb	19:48:03
2	Sn 189.927†	-3.7	-2.7	-1.2451	µg/L	-1.2451 ppb	19:48:03
2	Ti 334.940†	113.7	-7.0	-0.0165	µg/L	-0.0165 ppb	19:47:43
2	Tl 190.801†	-21.7	3.4	4.7734	µg/L	4.7734 ppb	19:48:03
2	U 409.014†	-37.3	17.8	1.6161	µg/L	1.6161 ppb	19:47:43
2	V 292.402†	-50.7	-4.5	-0.0381	µg/L	-0.0381 ppb	19:47:43
2	Zn 213.857†	476.3	-18.3	-0.4528	µg/L	-0.4528 ppb	19:48:03
3	Sc RADIAL	56131.1	56131.1	103	%		19:46:34
3	Al 396.153Radial†	10.7	20.5	15.284	µg/L	15.284 ppb	19:46:34
3	Ca 317.933Radial†	181.6	-2.5	-2.4004	µg/L	-2.4004 ppb	19:46:55
3	Fe 238.204 Radial†	13.6	-1.3	-10.669	µg/L	-10.669 ppb	19:46:55
3	K 766.490 Radial†	173.8	40.6	28.846	µg/L	28.846 ppb	19:46:34
3	Mg 279.077 IEC†	10.5	-1.0	-9.5132	µg/L	-9.5132 ppb	19:46:55
3	Na 589.592 Radial†	587.6	29.4	9.6947	µg/L	9.6947 ppb	19:46:34
3	Sr 421.552†	41.1	0.4	0.0044	µg/L	0.0044 ppb	19:46:34
3	Sc 361.383	1993278.2	1993278.2	104.37	%		19:48:09
3	Y 371.029	1367625.5	1367625.5	104.41	%		19:48:09
3	Ag 328.068†	-556.8	31.0	0.2472	µg/L	0.2472 ppb	19:48:15
3	As 188.979†	0.5	-0.7	-1.3924	µg/L	-1.3924 ppb	19:48:35
3	B 249.677†	311.8	-32.7	-1.4217	µg/L	-1.4217 ppb	19:48:35
3	Ba 233.527†	-24.9	2.1	0.0565	µg/L	0.0565 ppb	19:48:35
3	Be 313.107†	-3343.9	236.6	0.1544	µg/L	0.1544 ppb	19:48:15
3	Cd 226.502†	-139.6	8.3	0.2308	µg/L	0.2308 ppb	19:48:35
3	Co 228.616†	-13.5	-4.1	-0.2026	µg/L	-0.2026 ppb	19:48:35
3	Cr 267.716†	-29.8	23.8	0.5241	µg/L	0.5241 ppb	19:48:35
3	Cu 324.752†	2398.4	-188.1	-1.3155	µg/L	-1.3155 ppb	19:48:15
3	Mn 257.610†	-235.9	18.1	0.0616	µg/L	0.0616 ppb	19:48:35
3	Mo 202.031†	-7.4	0.5	0.0513	µg/L	0.0513 ppb	19:48:35
3	Ni 231.604†	308.0	-7.0	-0.3852	µg/L	-0.3852 ppb	19:48:35
3	P 214.914†	25.9	-2.8	-5.9057	µg/L	-5.9057 ppb	19:48:35
3	Pb 220.353†	95.4	-5.8	-1.5343	µg/L	-1.5343 ppb	19:48:35
3	S 181.975 Axial†	16.1	0.6	2.8080	µg/L	2.8080 ppb	19:48:35
3	Sb 206.836†	23.7	-4.2	-4.1849	µg/L	-4.1849 ppb	19:48:35
3	Se 196.026†	19.8	3.2	4.8107	µg/L	4.8107 ppb	19:48:35
3	SiO2†	1250.9	-51.4	-11.079	µg/L	-11.079 ppb	19:48:15
3	Si 251.611†	298.1	-27.3	-2.2426	µg/L	-2.2426 ppb	19:48:35
3	Sn 189.927†	2.3	3.1	1.4084	µg/L	1.4084 ppb	19:48:35
3	Ti 334.940†	175.4	51.9	0.1256	µg/L	0.1256 ppb	19:48:15
3	Tl 190.801†	-26.8	-1.4	-1.9510	µg/L	-1.9510 ppb	19:48:35
3	U 409.014†	-48.8	6.9	0.6237	µg/L	0.6237 ppb	19:48:15
3	V 292.402†	-16.2	28.7	0.3071	µg/L	0.3071 ppb	19:48:15
3	Zn 213.857†	476.7	-18.8	-0.4644	µg/L	-0.4644 ppb	19:48:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1991719.6	104.29	%	0.103				0.10%
Sc RADIAL	56184.2	103	%	0.3				0.31%
Y 371.029	1367195.2	104.37	%	0.109				0.10%
Ag 328.068†	20.4	0.1617	µg/L	0.20583	0.1617	ppb	0.20583	127.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	4.0289	µg/L	10.76761	4.0289	ppb	10.76761	267.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4208	µg/L	4.50578	-4.4208	ppb	4.50578	101.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.9	-0.7790	µg/L	0.74170	-0.7790	ppb	0.74170	95.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.1452	µg/L	0.13851	0.1452	ppb	0.13851	95.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	228.6	0.1492	µg/L	0.01069	0.1492	ppb	0.01069	7.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	0.8027	µg/L	3.79444	0.8027	ppb	3.79444	472.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.5	0.3990	µg/L	0.20768	0.3990	ppb	0.20768	52.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.8	-0.2380	µg/L	0.09392	-0.2380	ppb	0.09392	39.46%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 16.9      0.3709 µg/L       0.19057      0.3709 ppb        0.19057  51.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -177.8     -1.2429 µg/L       0.13310     -1.2429 ppb        0.13310  10.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          -0.6     -5.3132 µg/L       5.08561     -5.3132 ppb        5.08561  95.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           29.0      20.613 µg/L       10.6427      20.613 ppb        10.6427  51.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             -0.8     -7.7080 µg/L       3.15418     -7.7080 ppb        3.15418  40.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 17.1      0.0589 µg/L       0.01100      0.0589 ppb        0.01100  18.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                  3.0      0.3162 µg/L       0.54117      0.3162 ppb        0.54117 171.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          37.2      12.232 µg/L        6.6641      12.232 ppb         6.6641  54.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -10.2     -0.5566 µg/L       0.33928     -0.5566 ppb        0.33928  60.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                   4.0      8.7689 µg/L      13.10740      8.7689 ppb       13.10740 149.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 -8.7     -2.3257 µg/L       1.27525     -2.3257 ppb        1.27525  54.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†             0.9      3.8739 µg/L       8.17318      3.8739 ppb        8.17318 210.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 -3.6     -3.5411 µg/L       4.99248     -3.5411 ppb        4.99248 140.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                  1.1      1.6243 µg/L       3.06159      1.6243 ppb        3.06159 188.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      -53.5     -11.526 µg/L        0.4912     -11.526 ppb         0.4912   4.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                -24.6     -2.0216 µg/L       0.35706     -2.0216 ppb        0.35706  17.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 -1.5     -0.7104 µg/L       1.90848     -0.7104 ppb        1.90848 268.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                  2.1      0.0222 µg/L       0.25591      0.0222 ppb        0.25591 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 44.7      0.1081 µg/L       0.11683      0.1081 ppb        0.11683 108.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  1.9      2.6841 µg/L       4.02062      2.6841 ppb        4.02062 149.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  29.4      2.6628 µg/L       2.71803      2.6628 ppb        2.71803 102.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                   6.0      0.0698 µg/L       0.20578      0.0698 ppb        0.20578 294.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -17.9     -0.4421 µg/L       0.02911     -0.4421 ppb        0.02911   6.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: 245975001|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 339
Date Collected: 2/11/2010 19:59:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245975001|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56260.6	56260.6	103	%			20:00:06
1	Al 396.153Radial†	10.5	20.4	15.160	µg/L	15.160	ppb	20:00:06
1	Ca 317.933Radial†	223.9	38.1	35.859	µg/L	35.859	ppb	20:00:27
1	Fe 238.204 Radial†	19.2	4.1	35.020	µg/L	35.020	ppb	20:00:27
1	K 766.490 Radial†	372.8	233.2	165.76	µg/L	165.76	ppb	20:00:06
1	Mg 279.077 IEC†	15.7	3.9	36.371	µg/L	36.371	ppb	20:00:27
1	Na 589.592 Radial†	954.4	383.9	126.39	µg/L	126.39	ppb	20:00:06
1	Sr 421.552†	22.4	-17.8	-0.1847	µg/L	-0.1847	ppb	20:00:06
1	Sc 361.383	1981257.3	1981257.3	103.74	%			20:01:29
1	Y 371.029	1356589.3	1356589.3	103.56	%			20:01:29
1	Ag 328.068†	-509.3	73.6	0.5837	µg/L	0.5837	ppb	20:01:34
1	As 188.979†	-1.5	-2.6	-5.0381	µg/L	-5.0381	ppb	20:01:55
1	B 249.677†	678.3	322.3	14.070	µg/L	14.070	ppb	20:01:34
1	Ba 233.527†	-14.4	12.1	0.3153	µg/L	0.3153	ppb	20:01:55
1	Be 313.107†	-3436.7	127.7	0.0831	µg/L	0.0831	ppb	20:01:34
1	Cd 226.502†	-142.9	4.4	0.1158	µg/L	0.1158	ppb	20:01:55
1	Co 228.616†	-18.3	-8.8	-0.4334	µg/L	-0.4334	ppb	20:01:55
1	Cr 267.716†	-9.7	43.0	0.9464	µg/L	0.9464	ppb	20:01:55
1	Cu 324.752†	2564.4	-14.1	-0.0937	µg/L	-0.0937	ppb	20:01:34
1	Mn 257.610†	-83.6	163.5	0.5693	µg/L	0.5693	ppb	20:01:55
1	Mo 202.031†	-0.6	7.0	0.7479	µg/L	0.7479	ppb	20:01:55
1	Ni 231.604†	307.4	-5.8	-0.3188	µg/L	-0.3188	ppb	20:01:55
1	P 214.914†	32.4	3.6	7.7026	µg/L	7.7026	ppb	20:01:55
1	Pb 220.353†	96.4	-4.3	-1.1253	µg/L	-1.1253	ppb	20:01:55
1	S 181.975 Axial†	30.3	14.3	62.840	µg/L	62.840	ppb	20:01:55
1	Sb 206.836†	24.3	-3.5	-3.4954	µg/L	-3.4954	ppb	20:01:55
1	Se 196.026†	18.1	1.6	2.4454	µg/L	2.4454	ppb	20:01:55
1	SiO2†	14383.9	12615.4	2716.8	µg/L	2716.8	ppb	20:01:34
1	Si 251.611†	16245.6	15347.1	1261.6	µg/L	1261.6	ppb	20:01:34
1	Sn 189.927†	-2.3	-1.3	-0.6197	µg/L	-0.6197	ppb	20:01:55
1	Ti 334.940†	425.2	293.7	0.7042	µg/L	0.7042	ppb	20:01:34
1	Tl 190.801†	-21.6	3.4	4.7943	µg/L	4.7943	ppb	20:01:55
1	U 409.014†	-148.5	-89.5	-8.1090	µg/L	-8.1090	ppb	20:01:34
1	V 292.402†	-85.9	-38.6	-0.4073	µg/L	-0.4073	ppb	20:01:34
1	Zn 213.857†	539.4	44.4	1.1070	µg/L	1.1070	ppb	20:01:55
2	Sc RADIAL	56702.3	56702.3	104	%			20:00:32
2	Al 396.153Radial†	-7.2	3.2	2.3814	µg/L	2.3814	ppb	20:00:32
2	Ca 317.933Radial†	229.0	41.2	38.822	µg/L	38.822	ppb	20:00:53
2	Fe 238.204 Radial†	20.1	4.8	40.675	µg/L	40.675	ppb	20:00:53
2	K 766.490 Radial†	505.4	358.0	254.47	µg/L	254.47	ppb	20:00:32
2	Mg 279.077 IEC†	13.5	1.7	15.995	µg/L	15.995	ppb	20:00:53
2	Na 589.592 Radial†	942.0	364.7	120.07	µg/L	120.07	ppb	20:00:32
2	Sr 421.552†	39.1	-1.9	-0.0201	µg/L	-0.0201	ppb	20:00:32
2	Sc 361.383	1959645.0	1959645.0	102.61	%			20:02:01
2	Y 371.029	1341389.3	1341389.3	102.40	%			20:02:01
2	Ag 328.068†	-586.9	-7.4	-0.0566	µg/L	-0.0566	ppb	20:02:06
2	As 188.979†	-1.5	-2.6	-5.1172	µg/L	-5.1172	ppb	20:02:27
2	B 249.677†	695.5	346.4	15.118	µg/L	15.118	ppb	20:02:06
2	Ba 233.527†	-21.6	5.0	0.1290	µg/L	0.1290	ppb	20:02:27
2	Be 313.107†	-3385.8	140.7	0.0916	µg/L	0.0916	ppb	20:02:06
2	Cd 226.502†	-145.6	0.2	0.0021	µg/L	0.0021	ppb	20:02:27
2	Co 228.616†	-11.2	-2.0	-0.1018	µg/L	-0.1018	ppb	20:02:27
2	Cr 267.716†	-14.8	38.0	0.8355	µg/L	0.8355	ppb	20:02:27
2	Cu 324.752†	2549.4	-1.4	-0.0044	µg/L	-0.0044	ppb	20:02:06
2	Mn 257.610†	-84.2	162.1	0.5660	µg/L	0.5660	ppb	20:02:27
2	Mo 202.031†	-7.8	-0.1	-0.0063	µg/L	-0.0063	ppb	20:02:27
2	Ni 231.604†	307.8	-2.2	-0.1207	µg/L	-0.1207	ppb	20:02:27
2	P 214.914†	37.3	8.8	18.811	µg/L	18.811	ppb	20:02:27
2	Pb 220.353†	91.0	-8.5	-2.2733	µg/L	-2.2733	ppb	20:02:27

2	S 181.975 Axial†	30.1	14.5	63.429 µg/L	63.429 ppb	20:02:27
2	Sb 206.836†	22.1	-5.4	-5.3081 µg/L	-5.3081 ppb	20:02:27
2	Se 196.026†	15.3	-0.9	-1.2598 µg/L	-1.2598 ppb	20:02:27
2	SiO2†	14262.1	12649.6	2724.2 µg/L	2724.2 ppb	20:02:06
2	Si 251.611†	16141.1	15418.0	1267.4 µg/L	1267.4 ppb	20:02:06
2	Sn 189.927†	1.3	2.1	0.9777 µg/L	0.9777 ppb	20:02:27
2	Ti 334.940†	351.8	226.8	0.5448 µg/L	0.5448 ppb	20:02:06
2	Tl 190.801†	-21.4	3.4	4.7409 µg/L	4.7409 ppb	20:02:27
2	U 409.014†	-114.3	-57.8	-5.2394 µg/L	-5.2394 ppb	20:02:06
2	V 292.402†	-47.4	-2.0	-0.0196 µg/L	-0.0196 ppb	20:02:06
2	Zn 213.857†	532.0	42.9	1.0693 µg/L	1.0693 ppb	20:02:27
3	Sc RADIAL	56831.3	56831.3	104 %		20:00:58
3	Al 396.153Radial†	11.5	21.2	15.804 µg/L	15.804 ppb	20:00:58
3	Ca 317.933Radial†	222.1	34.2	32.162 µg/L	32.162 ppb	20:01:18
3	Fe 238.204 Radial†	16.7	1.6	13.147 µg/L	13.147 ppb	20:01:18
3	K 766.490 Radial†	376.9	233.6	166.01 µg/L	166.01 ppb	20:00:58
3	Mg 279.077 IEC†	9.2	-2.4	-22.579 µg/L	-22.579 ppb	20:01:18
3	Na 589.592 Radial†	897.3	319.7	105.26 µg/L	105.26 ppb	20:00:58
3	Sr 421.552†	57.7	15.8	0.1641 µg/L	0.1641 ppb	20:00:58
3	Sc 361.383	2001624.8	2001624.8	104.81 %		20:02:33
3	Y 371.029	1372538.5	1372538.5	104.78 %		20:02:33
3	Ag 328.068†	-558.9	31.2	0.2479 µg/L	0.2479 ppb	20:02:39
3	As 188.979†	-1.2	-2.3	-4.4280 µg/L	-4.4280 ppb	20:02:59
3	B 249.677†	691.2	328.1	14.331 µg/L	14.331 ppb	20:02:39
3	Ba 233.527†	-13.3	13.3	0.3462 µg/L	0.3462 ppb	20:02:59
3	Be 313.107†	-3385.4	210.3	0.1371 µg/L	0.1371 ppb	20:02:39
3	Cd 226.502†	-141.9	6.7	0.1828 µg/L	0.1828 ppb	20:02:59
3	Co 228.616†	-11.3	-2.0	-0.0983 µg/L	-0.0983 ppb	20:02:59
3	Cr 267.716†	-9.4	43.4	0.9540 µg/L	0.9540 ppb	20:02:59
3	Cu 324.752†	2509.5	-91.7	-0.6386 µg/L	-0.6386 ppb	20:02:39
3	Mn 257.610†	-106.4	142.5	0.4963 µg/L	0.4963 ppb	20:02:59
3	Mo 202.031†	-13.8	-5.6	-0.6002 µg/L	-0.6002 ppb	20:02:59
3	Ni 231.604†	308.3	-8.1	-0.4401 µg/L	-0.4401 ppb	20:02:59
3	P 214.914†	30.3	1.3	2.9137 µg/L	2.9137 ppb	20:02:59
3	Pb 220.353†	88.5	-12.7	-3.3960 µg/L	-3.3960 ppb	20:02:59
3	S 181.975 Axial†	28.4	12.2	53.607 µg/L	53.607 ppb	20:02:59
3	Sb 206.836†	29.6	1.3	1.2383 µg/L	1.2383 ppb	20:02:59
3	Se 196.026†	11.2	-5.2	-7.8332 µg/L	-7.8332 ppb	20:02:59
3	SiO2†	13831.3	11947.0	2572.9 µg/L	2572.9 ppb	20:02:39
3	Si 251.611†	15660.8	14629.8	1202.6 µg/L	1202.6 ppb	20:02:39
3	Sn 189.927†	-0.9	-0.0	-0.0168 µg/L	-0.0168 ppb	20:02:59
3	Ti 334.940†	373.6	240.4	0.5805 µg/L	0.5805 ppb	20:02:39
3	Tl 190.801†	-24.9	0.5	0.6804 µg/L	0.6804 ppb	20:02:59
3	U 409.014†	-58.2	-1.9	-0.1761 µg/L	-0.1761 ppb	20:02:39
3	V 292.402†	-56.9	-10.1	-0.1084 µg/L	-0.1084 ppb	20:02:39
3	Zn 213.857†	528.4	28.6	0.7183 µg/L	0.7183 ppb	20:02:59

Mean Data: 245975001|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1980842.4	103.72	%	1.099				1.06%
Sc RADIAL	56598.0	104	%	0.5				0.53%
Y 371.029	1356839.0	103.58	%	1.189				1.15%
Ag 328.068†	32.5	0.2584	µg/L	0.32028	0.2584	ppb	0.32028	123.97%
Al 396.153Radial†	14.9	11.115	µg/L	7.5705	11.115	ppb	7.5705	68.11%
As 188.979†	-2.5	-4.8611	µg/L	0.37720	-4.8611	ppb	0.37720	7.76%
B 249.677†	332.3	14.507	µg/L	0.5456	14.507	ppb	0.5456	3.76%
Ba 233.527†	10.1	0.2635	µg/L	0.11748	0.2635	ppb	0.11748	44.59%
Be 313.107†	159.5	0.1039	µg/L	0.02903	0.1039	ppb	0.02903	27.92%
Ca 317.933Radial†	37.8	35.614	µg/L	3.3368	35.614	ppb	3.3368	9.37%
Cd 226.502†	3.8	0.1002	µg/L	0.09135	0.1002	ppb	0.09135	91.14%
Co 228.616†	-4.3	-0.2112	µg/L	0.19247	-0.2112	ppb	0.19247	91.15%
Cr 267.716†	41.5	0.9120	µg/L	0.06630	0.9120	ppb	0.06630	7.27%
Cu 324.752†	-35.7	-0.2456	µg/L	0.34328	-0.2456	ppb	0.34328	139.78%
Fe 238.204 Radial†	3.5	29.614	µg/L	14.5383	29.614	ppb	14.5383	49.09%
K 766.490 Radial†	274.9	195.41	µg/L	51.146	195.41	ppb	51.146	26.17%
Mg 279.077 IEC†	1.1	9.9292	µg/L	29.93961	9.9292	ppb	29.93961	301.53%
Mn 257.610†	156.0	0.5438	µg/L	0.04125	0.5438	ppb	0.04125	7.58%
Mo 202.031†	0.4	0.0472	µg/L	0.67566	0.0472	ppb	0.67566	>999.9%
Na 589.592 Radial†	356.1	117.24	µg/L	10.844	117.24	ppb	10.844	9.25%

Ni 231.604†	-5.4	-0.2932	µg/L	0.16122	-0.2932	ppb	0.16122 54.98%
P 214.914†	4.6	9.8090	µg/L	8.15510	9.8090	ppb	8.15510 83.14%
Pb 220.353†	-8.5	-2.2649	µg/L	1.13537	-2.2649	ppb	1.13537 50.13%
S 181.975 Axial†	13.7	59.959	µg/L	5.5088	59.959	ppb	5.5088 9.19%
Sb 206.836†	-2.5	-2.5217	µg/L	3.38010	-2.5217	ppb	3.38010 134.04%
Se 196.026†	-1.5	-2.2159	µg/L	5.20555	-2.2159	ppb	5.20555 234.92%
SiO2†	12404.0	2671.3	µg/L	85.31	2671.3	ppb	85.31 3.19%
Si 251.611†	15131.6	1243.9	µg/L	35.85	1243.9	ppb	35.85 2.88%
Sn 189.927†	0.3	0.1138	µg/L	0.80667	0.1138	ppb	0.80667 709.07%
Sr 421.552†	-1.3	-0.0135	µg/L	0.17450	-0.0135	ppb	0.17450 >999.9%
Ti 334.940†	253.6	0.6099	µg/L	0.08365	0.6099	ppb	0.08365 13.72%
Tl 190.801†	2.4	3.4052	µg/L	2.35993	3.4052	ppb	2.35993 69.30%
U 409.014†	-49.7	-4.5082	µg/L	4.01669	-4.5082	ppb	4.01669 89.10%
V 292.402†	-16.9	-0.1784	µg/L	0.20314	-0.1784	ppb	0.20314 113.86%
Zn 213.857†	38.7	0.9649	µg/L	0.21435	0.9649	ppb	0.21435 22.22%

Sequence No.: 53
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 20:06:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56942.5	56942.5	104	%			20:07:20
1	Al 396.153Radial†	6750.2	6479.6	4819.0	µg/L	4819.0	ppb	20:07:41
1	Ca 317.933Radial†	5453.5	5047.5	4752.6	µg/L	4752.6	ppb	20:07:41
1	Fe 238.204 Radial†	600.4	561.0	4764.9	µg/L	4764.9	ppb	20:07:41
1	K 766.490 Radial†	7140.8	6715.4	4773.3	µg/L	4773.3	ppb	20:07:20
1	Mg 279.077 IEC†	558.8	524.3	4882.8	µg/L	4882.8	ppb	20:07:41
1	Na 589.592 Radial†	31379.2	29532.3	9722.1	µg/L	9722.1	ppb	20:07:20
1	Sr 421.552†	47923.4	45890.8	475.71	µg/L	475.71	ppb	20:07:20
1	Sc 361.383	1997110.3	1997110.3	104.57	%			20:08:44
1	Y 371.029	1366245.8	1366245.8	104.30	%			20:08:44
1	Ag 328.068†	63028.6	60838.9	486.24	µg/L	486.24	ppb	20:08:50
1	As 188.979†	264.1	251.4	490.37	µg/L	490.37	ppb	20:09:10
1	B 249.677†	11700.4	10857.6	472.80	µg/L	472.80	ppb	20:08:50
1	Ba 233.527†	19297.5	18480.3	482.07	µg/L	482.07	ppb	20:08:50
1	Be 313.107†	767522.7	737423.7	481.39	µg/L	481.39	ppb	20:08:44
1	Cd 226.502†	18128.7	17478.6	482.15	µg/L	482.15	ppb	20:08:50
1	Co 228.616†	10328.3	9885.8	485.96	µg/L	485.96	ppb	20:08:50
1	Cr 267.716†	23066.4	22110.8	486.65	µg/L	486.65	ppb	20:08:50
1	Cu 324.752†	74922.7	69162.6	483.78	µg/L	483.78	ppb	20:08:50
1	Mn 257.610†	148210.1	141977.7	492.09	µg/L	492.09	ppb	20:08:44
1	Mo 202.031†	4970.4	4760.7	508.25	µg/L	508.25	ppb	20:09:10
1	Ni 231.604†	9599.0	8877.3	484.85	µg/L	484.85	ppb	20:08:50
1	P 214.914†	1239.8	1158.0	2440.4	µg/L	2440.4	ppb	20:09:10
1	Pb 220.353†	2032.4	1846.4	492.88	µg/L	492.88	ppb	20:09:10
1	S 181.975 Axial†	252.7	226.8	993.68	µg/L	993.68	ppb	20:09:10
1	Sb 206.836†	559.2	507.8	502.18	µg/L	502.18	ppb	20:09:10
1	Se 196.026†	353.9	322.6	499.11	µg/L	499.11	ppb	20:09:10
1	SiO2†	26266.3	23868.5	5140.2	µg/L	5140.2	ppb	20:08:50
1	Si 251.611†	30881.9	29219.5	2402.0	µg/L	2402.0	ppb	20:08:50
1	Sn 189.927†	1160.9	1111.0	511.04	µg/L	511.04	ppb	20:09:10
1	Ti 334.940†	211075.5	201735.7	484.95	µg/L	484.95	ppb	20:08:44
1	Tl 190.801†	335.9	345.5	488.04	µg/L	488.04	ppb	20:09:10
1	U 409.014†	5659.0	5465.3	493.86	µg/L	493.86	ppb	20:08:50
1	V 292.402†	47264.8	45243.6	488.29	µg/L	488.29	ppb	20:08:50
1	Zn 213.857†	20837.6	19451.4	482.30	µg/L	482.30	ppb	20:08:50
2	Sc RADIAL	56409.7	56409.7	103	%			20:07:46
2	Al 396.153Radial†	6758.8	6549.0	4870.9	µg/L	4870.9	ppb	20:08:07
2	Ca 317.933Radial†	5494.9	5136.9	4836.7	µg/L	4836.7	ppb	20:08:07
2	Fe 238.204 Radial†	605.0	570.8	4848.5	µg/L	4848.5	ppb	20:08:07
2	K 766.490 Radial†	7175.4	6813.5	4843.0	µg/L	4843.0	ppb	20:07:46
2	Mg 279.077 IEC†	565.5	535.8	4989.7	µg/L	4989.7	ppb	20:08:07
2	Na 589.592 Radial†	31167.2	29611.2	9748.1	µg/L	9748.1	ppb	20:07:46
2	Sr 421.552†	47693.8	46102.5	477.91	µg/L	477.91	ppb	20:07:46
2	Sc 361.383	1996473.0	1996473.0	104.54	%			20:09:17
2	Y 371.029	1365976.8	1365976.8	104.28	%			20:09:17
2	Ag 328.068†	63356.2	61171.5	488.90	µg/L	488.90	ppb	20:09:23
2	As 188.979†	265.4	252.7	492.96	µg/L	492.96	ppb	20:09:43
2	B 249.677†	11790.3	10947.2	476.67	µg/L	476.67	ppb	20:09:23
2	Ba 233.527†	19374.2	18559.5	484.14	µg/L	484.14	ppb	20:09:23
2	Be 313.107†	761432.1	731831.7	477.74	µg/L	477.74	ppb	20:09:17
2	Cd 226.502†	18272.2	17621.4	486.09	µg/L	486.09	ppb	20:09:23
2	Co 228.616†	10339.5	9899.7	486.64	µg/L	486.64	ppb	20:09:23
2	Cr 267.716†	23187.0	22233.3	489.35	µg/L	489.35	ppb	20:09:23
2	Cu 324.752†	75285.0	69532.0	486.37	µg/L	486.37	ppb	20:09:23
2	Mn 257.610†	147018.2	140882.8	488.30	µg/L	488.30	ppb	20:09:17
2	Mo 202.031†	4907.1	4701.7	501.95	µg/L	501.95	ppb	20:09:43
2	Ni 231.604†	9622.8	8903.0	486.25	µg/L	486.25	ppb	20:09:23
2	P 214.914†	1220.2	1139.7	2400.7	µg/L	2400.7	ppb	20:09:43
2	Pb 220.353†	2020.4	1835.5	489.96	µg/L	489.96	ppb	20:09:43

2	S 181.975 Axial†	249.1	223.5	979.20 µg/L	979.20 ppb	20:09:43
2	Sb 206.836†	560.4	509.1	503.33 µg/L	503.33 ppb	20:09:43
2	Se 196.026†	351.0	319.9	495.14 µg/L	495.14 ppb	20:09:43
2	SiO2†	26327.8	23935.4	5154.6 µg/L	5154.6 ppb	20:09:23
2	Si 251.611†	31017.5	29358.7	2413.4 µg/L	2413.4 ppb	20:09:23
2	Sn 189.927†	1146.8	1097.9	505.00 µg/L	505.00 ppb	20:09:43
2	Ti 334.940†	209321.5	200122.3	481.06 µg/L	481.06 ppb	20:09:17
2	Tl 190.801†	343.4	352.8	498.21 µg/L	498.21 ppb	20:09:43
2	U 409.014†	5590.8	5401.8	488.10 µg/L	488.10 ppb	20:09:23
2	V 292.402†	47490.4	45473.8	490.70 µg/L	490.70 ppb	20:09:23
2	Zn 213.857†	20893.3	19511.1	483.77 µg/L	483.77 ppb	20:09:23
3	Sc RADIAL	57472.2	57472.2	105 %		20:08:12
3	Al 396.153Radial†	6740.6	6410.8	4769.5 µg/L	4769.5 ppb	20:08:33
3	Ca 317.933Radial†	5456.3	5002.0	4709.7 µg/L	4709.7 ppb	20:08:33
3	Fe 238.204 Radial†	608.4	563.2	4782.9 µg/L	4782.9 ppb	20:08:33
3	K 766.490 Radial†	7228.0	6735.1	4787.3 µg/L	4787.3 ppb	20:08:12
3	Mg 279.077 IEC†	560.3	520.7	4848.2 µg/L	4848.2 ppb	20:08:33
3	Na 589.592 Radial†	31427.6	29301.1	9646.0 µg/L	9646.0 ppb	20:08:12
3	Sr 421.552†	48320.2	45844.2	475.23 µg/L	475.23 ppb	20:08:12
3	Sc 361.383	1990939.7	1990939.7	104.25 %		20:09:51
3	Y 371.029	1362789.8	1362789.8	104.04 %		20:09:51
3	Ag 328.068†	59813.6	57941.7	462.97 µg/L	462.97 ppb	20:09:56
3	As 188.979†	228.8	218.3	425.89 µg/L	425.89 ppb	20:10:17
3	B 249.677†	11049.5	10268.0	446.94 µg/L	446.94 ppb	20:09:56
3	Ba 233.527†	17851.9	17150.7	447.37 µg/L	447.37 ppb	20:09:56
3	Be 313.107†	719449.8	693583.9	452.78 µg/L	452.78 ppb	20:09:51
3	Cd 226.502†	16778.6	16237.3	447.87 µg/L	447.87 ppb	20:09:56
3	Co 228.616†	9445.5	9069.5	445.78 µg/L	445.78 ppb	20:09:56
3	Cr 267.716†	20616.8	19829.4	436.45 µg/L	436.45 ppb	20:09:56
3	Cu 324.752†	68837.1	63547.0	444.55 µg/L	444.55 ppb	20:09:56
3	Mn 257.610†	138989.4	133571.8	462.98 µg/L	462.98 ppb	20:09:51
3	Mo 202.031†	4137.7	3976.7	424.58 µg/L	424.58 ppb	20:10:17
3	Ni 231.604†	8822.5	8161.0	445.73 µg/L	445.73 ppb	20:09:56
3	P 214.914†	1060.6	989.8	2082.0 µg/L	2082.0 ppb	20:10:17
3	Pb 220.353†	1778.7	1609.0	429.41 µg/L	429.41 ppb	20:10:17
3	S 181.975 Axial†	221.0	197.1	863.74 µg/L	863.74 ppb	20:10:17
3	Sb 206.836†	483.5	436.9	431.61 µg/L	431.61 ppb	20:10:17
3	Se 196.026†	316.1	287.4	445.59 µg/L	445.59 ppb	20:10:17
3	SiO2†	24611.0	22358.5	4815.0 µg/L	4815.0 ppb	20:09:56
3	Si 251.611†	28930.7	27439.4	2255.7 µg/L	2255.7 ppb	20:09:56
3	Sn 189.927†	943.6	906.1	416.76 µg/L	416.76 ppb	20:10:17
3	Ti 334.940†	196865.3	188730.0	453.67 µg/L	453.67 ppb	20:09:51
3	Tl 190.801†	309.3	321.0	453.52 µg/L	453.52 ppb	20:10:17
3	U 409.014†	5049.6	4897.5	442.45 µg/L	442.45 ppb	20:09:56
3	V 292.402†	42971.8	41265.5	445.08 µg/L	445.08 ppb	20:09:56
3	Zn 213.857†	19124.6	17870.0	443.04 µg/L	443.04 ppb	20:09:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1994841.0	104.45	%	0.178				0.17%
Sc RADIAL	56941.5	104	%	1.0				0.93%
Y 371.029	1365004.1	104.21	%	0.147				0.14%
Ag 328.068†	59984.0	479.37	µg/L	14.264	479.37	ppb	14.264	2.98%
QC value within limits for Ag 328.068 Recovery = 95.87%								
Al 396.153Radial†	6479.8	4819.8	µg/L	50.70	4819.8	ppb	50.70	1.05%
QC value within limits for Al 396.153Radial Recovery = 96.40%								
As 188.979†	240.8	469.74	µg/L	37.997	469.74	ppb	37.997	8.09%
QC value within limits for As 188.979 Recovery = 93.95%								
B 249.677†	10690.9	465.47	µg/L	16.165	465.47	ppb	16.165	3.47%
QC value within limits for B 249.677 Recovery = 93.09%								
Ba 233.527†	18063.5	471.19	µg/L	20.654	471.19	ppb	20.654	4.38%
QC value within limits for Ba 233.527 Recovery = 94.24%								
Be 313.107†	720946.5	470.64	µg/L	15.576	470.64	ppb	15.576	3.31%
QC value within limits for Be 313.107 Recovery = 94.13%								
Ca 317.933Radial†	5062.2	4766.3	µg/L	64.62	4766.3	ppb	64.62	1.36%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17112.5	472.04	µg/L	21.023	472.04	ppb	21.023	4.45%
QC value within limits for Cd 226.502 Recovery = 94.41%								
Co 228.616†	9618.4	472.79	µg/L	23.399	472.79	ppb	23.399	4.95%

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   QC value within limits for Co 228.616  Recovery = 94.56%
Cr 267.716†            21391.1      470.82 µg/L        29.796      470.82 ppb        29.796   6.33%
   QC value within limits for Cr 267.716  Recovery = 94.16%
Cu 324.752†            67413.9      471.57 µg/L        23.430      471.57 ppb        23.430   4.97%
   QC value within limits for Cu 324.752  Recovery = 94.31%
Fe 238.204 Radial†       565.0      4798.8 µg/L         43.99      4798.8 ppb         43.99   0.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.98%
K 766.490 Radial†       6754.7      4801.2 µg/L         36.89      4801.2 ppb         36.89   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.02%
Mg 279.077 IEC†          527.0      4906.9 µg/L         73.74      4906.9 ppb         73.74   1.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.14%
Mn 257.610†           138810.8      481.12 µg/L        15.825      481.12 ppb        15.825   3.29%
   QC value within limits for Mn 257.610  Recovery = 96.22%
Mo 202.031†            4479.7      478.26 µg/L        46.598      478.26 ppb        46.598   9.74%
   QC value within limits for Mo 202.031  Recovery = 95.65%
Na 589.592 Radial†     29481.5      9705.4 µg/L         53.07      9705.4 ppb         53.07   0.55%
   QC value within limits for Na 589.592 Radial  Recovery = 97.05%
Ni 231.604†            8647.1      472.28 µg/L        23.002      472.28 ppb        23.002   4.87%
   QC value within limits for Ni 231.604  Recovery = 94.46%
P 214.914†             1095.8      2307.7 µg/L        196.48      2307.7 ppb        196.48   8.51%
   QC value within limits for P 214.914  Recovery = 92.31%
Pb 220.353†            1763.7      470.75 µg/L        35.831      470.75 ppb        35.831   7.61%
   QC value within limits for Pb 220.353  Recovery = 94.15%
S 181.975 Axial†        215.8      945.54 µg/L        71.212      945.54 ppb        71.212   7.53%
   QC value within limits for S 181.975 Axial  Recovery = 94.55%
Sb 206.836†             484.6      479.04 µg/L        41.080      479.04 ppb        41.080   8.58%
   QC value within limits for Sb 206.836  Recovery = 95.81%
Se 196.026†             310.0      479.95 µg/L        29.823      479.95 ppb        29.823   6.21%
   QC value within limits for Se 196.026  Recovery = 95.99%
SiO2†                  23387.4      5036.6 µg/L        192.04      5036.6 ppb        192.04   3.81%
   QC value within limits for SiO2  Recovery = 94.19%
Si 251.611†            28672.5      2357.0 µg/L         87.98      2357.0 ppb         87.98   3.73%
   QC value within limits for Si 251.611  Recovery = 94.28%
Sn 189.927†             1038.3      477.60 µg/L        52.775      477.60 ppb        52.775  11.05%
   QC value within limits for Sn 189.927  Recovery = 95.52%
Sr 421.552†            45945.8      476.28 µg/L         1.427      476.28 ppb         1.427   0.30%
   QC value within limits for Sr 421.552  Recovery = 95.26%
Ti 334.940†           196862.7      473.23 µg/L        17.050      473.23 ppb        17.050   3.60%
   QC value within limits for Ti 334.940  Recovery = 94.65%
Tl 190.801†             339.7      479.92 µg/L        23.425      479.92 ppb        23.425   4.88%
   QC value within limits for Tl 190.801  Recovery = 95.98%
U 409.014†             5254.9      474.80 µg/L        28.164      474.80 ppb        28.164   5.93%
   QC value within limits for U 409.014  Recovery = 94.96%
V 292.402†            43994.3      474.69 µg/L        25.672      474.69 ppb        25.672   5.41%
   QC value within limits for V 292.402  Recovery = 94.94%
Zn 213.857†           18944.2      469.70 µg/L        23.098      469.70 ppb        23.098   4.92%
   QC value within limits for Zn 213.857  Recovery = 93.94%
All analyte(s) passed QC.
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Sequence No.: 54
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 20:10:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56659.4	56659.4	104	%			20:10:59
1	Al 396.153Radial†	-34.5	-23.1	-17.229	µg/L	-17.229	ppb	20:10:59
1	Ca 317.933Radial†	185.2	-0.8	-0.7364	µg/L	-0.7364	ppb	20:11:19
1	Fe 238.204 Radial†	15.5	0.4	3.7111	µg/L	3.7111	ppb	20:11:19
1	K 766.490 Radial†	206.6	70.6	50.163	µg/L	50.163	ppb	20:10:59
1	Mg 279.077 IEC†	8.1	-3.5	-32.649	µg/L	-32.649	ppb	20:11:19
1	Na 589.592 Radial†	618.2	53.6	17.641	µg/L	17.641	ppb	20:10:59
1	Sr 421.552†	7.1	-32.7	-0.3390	µg/L	-0.3390	ppb	20:10:59
1	Sc 361.383	1969865.1	1969865.1	103.14	%			20:12:22
1	Y 371.029	1352232.0	1352232.0	103.23	%			20:12:22
1	Ag 328.068†	-590.3	-7.8	-0.0586	µg/L	-0.0586	ppb	20:12:27
1	As 188.979†	-2.7	-3.7	-7.3059	µg/L	-7.3059	ppb	20:12:48
1	B 249.677†	327.3	-14.1	-0.6180	µg/L	-0.6180	ppb	20:12:48
1	Ba 233.527†	-20.7	5.9	0.1552	µg/L	0.1552	ppb	20:12:48
1	Be 313.107†	-3325.3	216.5	0.1414	µg/L	0.1414	ppb	20:12:27
1	Cd 226.502†	-131.0	15.1	0.4157	µg/L	0.4157	ppb	20:12:48
1	Co 228.616†	-10.2	-1.0	-0.0509	µg/L	-0.0509	ppb	20:12:48
1	Cr 267.716†	-35.9	17.6	0.3870	µg/L	0.3870	ppb	20:12:48
1	Cu 324.752†	2456.0	-104.9	-0.7325	µg/L	-0.7325	ppb	20:12:27
1	Mn 257.610†	-254.6	-2.7	-0.0075	µg/L	-0.0075	ppb	20:12:48
1	Mo 202.031†	-3.1	4.5	0.4855	µg/L	0.4855	ppb	20:12:48
1	Ni 231.604†	302.7	-8.8	-0.4785	µg/L	-0.4785	ppb	20:12:48
1	P 214.914†	28.8	0.3	0.6377	µg/L	0.6377	ppb	20:12:48
1	Pb 220.353†	100.4	0.1	0.0373	µg/L	0.0373	ppb	20:12:48
1	S 181.975 Axial†	15.9	0.6	2.7080	µg/L	2.7080	ppb	20:12:48
1	Sb 206.836†	20.6	-7.0	-6.8374	µg/L	-6.8374	ppb	20:12:48
1	Se 196.026†	19.3	2.8	4.3630	µg/L	4.3630	ppb	20:12:48
1	SiO2†	1240.9	-46.9	-10.106	µg/L	-10.106	ppb	20:12:27
1	Si 251.611†	312.6	-9.8	-0.8084	µg/L	-0.8084	ppb	20:12:48
1	Sn 189.927†	-1.6	-0.7	-0.3378	µg/L	-0.3378	ppb	20:12:48
1	Ti 334.940†	146.3	25.8	0.0645	µg/L	0.0645	ppb	20:12:27
1	Tl 190.801†	-19.3	5.6	7.7671	µg/L	7.7671	ppb	20:12:48
1	U 409.014†	-42.1	12.8	1.1542	µg/L	1.1542	ppb	20:12:27
1	V 292.402†	-0.1	44.1	0.4765	µg/L	0.4765	ppb	20:12:27
1	Zn 213.857†	476.2	-13.8	-0.3400	µg/L	-0.3400	ppb	20:12:48
2	Sc RADIAL	56311.6	56311.6	103	%			20:11:25
2	Al 396.153Radial†	-11.1	-0.7	-0.4964	µg/L	-0.4964	ppb	20:11:25
2	Ca 317.933Radial†	182.9	-1.9	-1.7833	µg/L	-1.7833	ppb	20:11:45
2	Fe 238.204 Radial†	16.1	1.1	8.9693	µg/L	8.9693	ppb	20:11:45
2	K 766.490 Radial†	135.0	2.4	1.7375	µg/L	1.7375	ppb	20:11:25
2	Mg 279.077 IEC†	9.0	-2.6	-24.083	µg/L	-24.083	ppb	20:11:45
2	Na 589.592 Radial†	609.7	49.0	16.131	µg/L	16.131	ppb	20:11:25
2	Sr 421.552†	43.9	3.0	0.0309	µg/L	0.0309	ppb	20:11:25
2	Sc 361.383	1993246.1	1993246.1	104.37	%			20:12:54
2	Y 371.029	1369824.9	1369824.9	104.57	%			20:12:54
2	Ag 328.068†	-496.4	88.9	0.7074	µg/L	0.7074	ppb	20:12:59
2	As 188.979†	-2.4	-3.4	-6.6828	µg/L	-6.6828	ppb	20:13:20
2	B 249.677†	317.7	-27.1	-1.1866	µg/L	-1.1866	ppb	20:13:20
2	Ba 233.527†	-24.2	2.8	0.0739	µg/L	0.0739	ppb	20:13:20
2	Be 313.107†	-3271.8	305.5	0.1995	µg/L	0.1995	ppb	20:12:59
2	Cd 226.502†	-139.8	8.1	0.2223	µg/L	0.2223	ppb	20:13:20
2	Co 228.616†	-3.3	5.7	0.2808	µg/L	0.2808	ppb	20:13:20
2	Cr 267.716†	-45.4	8.9	0.1956	µg/L	0.1956	ppb	20:13:20
2	Cu 324.752†	2435.6	-152.4	-1.0631	µg/L	-1.0631	ppb	20:12:59
2	Mn 257.610†	-234.4	19.5	0.0698	µg/L	0.0698	ppb	20:13:20
2	Mo 202.031†	-9.1	-1.2	-0.1266	µg/L	-0.1266	ppb	20:13:20
2	Ni 231.604†	294.8	-19.7	-1.0788	µg/L	-1.0788	ppb	20:13:20
2	P 214.914†	30.0	1.1	2.4718	µg/L	2.4718	ppb	20:13:20
2	Pb 220.353†	93.1	-8.0	-2.1208	µg/L	-2.1208	ppb	20:13:20

2	S 181.975 Axial†	16.5	1.0	4.2685 µg/L	4.2685 ppb	20:13:20
2	Sb 206.836†	17.7	-10.0	-9.8534 µg/L	-9.8534 ppb	20:13:20
2	Se 196.026†	12.6	-3.8	-5.7175 µg/L	-5.7175 ppb	20:13:20
2	SiO2†	1249.7	-52.6	-11.333 µg/L	-11.333 ppb	20:12:59
2	Si 251.611†	320.2	-6.0	-0.4973 µg/L	-0.4973 ppb	20:13:20
2	Sn 189.927†	2.8	3.5	1.6248 µg/L	1.6248 ppb	20:13:20
2	Ti 334.940†	188.9	64.9	0.1579 µg/L	0.1579 ppb	20:12:59
2	Tl 190.801†	-28.5	-3.0	-4.1956 µg/L	-4.1956 ppb	20:13:20
2	U 409.014†	-69.7	-13.1	-1.1905 µg/L	-1.1905 ppb	20:12:59
2	V 292.402†	-23.7	21.5	0.2285 µg/L	0.2285 ppb	20:12:59
2	Zn 213.857†	474.3	-21.1	-0.5199 µg/L	-0.5199 ppb	20:13:20
3	Sc RADIAL	56279.9	56279.9	103 %		20:11:51
3	Al 396.153Radial†	-12.9	-2.4	-1.8112 µg/L	-1.8112 ppb	20:11:51
3	Ca 317.933Radial†	188.4	3.5	3.3406 µg/L	3.3406 ppb	20:12:11
3	Fe 238.204 Radial†	17.4	2.4	20.436 µg/L	20.436 ppb	20:12:11
3	K 766.490 Radial†	198.2	63.7	45.307 µg/L	45.307 ppb	20:11:51
3	Mg 279.077 IEC†	8.4	-3.1	-29.101 µg/L	-29.101 ppb	20:12:11
3	Na 589.592 Radial†	580.8	21.4	7.0316 µg/L	7.0316 ppb	20:11:51
3	Sr 421.552†	36.6	-4.1	-0.0421 µg/L	-0.0421 ppb	20:11:51
3	Sc 361.383	2002874.1	2002874.1	104.87 %		20:13:26
3	Y 371.029	1375774.7	1375774.7	105.03 %		20:13:26
3	Ag 328.068†	-572.9	18.2	0.1450 µg/L	0.1450 ppb	20:13:32
3	As 188.979†	-1.7	-2.8	-5.4427 µg/L	-5.4427 ppb	20:13:52
3	B 249.677†	315.7	-30.5	-1.3417 µg/L	-1.3417 ppb	20:13:52
3	Ba 233.527†	-28.2	-0.8	-0.0221 µg/L	-0.0221 ppb	20:13:52
3	Be 313.107†	-3166.3	421.2	0.2751 µg/L	0.2751 ppb	20:13:32
3	Cd 226.502†	-127.4	20.6	0.5649 µg/L	0.5649 ppb	20:13:52
3	Co 228.616†	-19.4	-9.7	-0.4770 µg/L	-0.4770 ppb	20:13:52
3	Cr 267.716†	-37.3	16.8	0.3689 µg/L	0.3689 ppb	20:13:52
3	Cu 324.752†	2426.7	-172.1	-1.1996 µg/L	-1.1996 ppb	20:13:32
3	Mn 257.610†	-224.6	30.0	0.1076 µg/L	0.1076 ppb	20:13:52
3	Mo 202.031†	-4.1	3.6	0.3852 µg/L	0.3852 ppb	20:13:52
3	Ni 231.604†	290.3	-25.4	-1.3870 µg/L	-1.3870 ppb	20:13:52
3	P 214.914†	33.5	4.4	9.4816 µg/L	9.4816 ppb	20:13:52
3	Pb 220.353†	90.7	-10.7	-2.8672 µg/L	-2.8672 ppb	20:13:52
3	S 181.975 Axial†	18.5	2.8	12.161 µg/L	12.161 ppb	20:13:52
3	Sb 206.836†	24.3	-3.8	-3.7594 µg/L	-3.7594 ppb	20:13:52
3	Se 196.026†	15.9	-0.7	-0.9888 µg/L	-0.9888 ppb	20:13:52
3	SiO2†	1207.7	-98.4	-21.190 µg/L	-21.190 ppb	20:13:32
3	Si 251.611†	302.6	-24.3	-2.0003 µg/L	-2.0003 ppb	20:13:52
3	Sn 189.927†	0.7	1.5	0.6894 µg/L	0.6894 ppb	20:13:52
3	Ti 334.940†	101.8	-19.1	-0.0435 µg/L	-0.0435 ppb	20:13:32
3	Tl 190.801†	-25.1	0.4	0.5052 µg/L	0.5052 ppb	20:13:52
3	U 409.014†	-6.5	47.4	4.2901 µg/L	4.2901 ppb	20:13:32
3	V 292.402†	-56.7	-9.8	-0.0938 µg/L	-0.0938 ppb	20:13:32
3	Zn 213.857†	464.1	-33.0	-0.8147 µg/L	-0.8147 ppb	20:13:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1988661.8	104.13	%	0.889				0.85%
Sc RADIAL	56417.0	103	%	0.4				0.37%
Y 371.029	1365943.9	104.28	%	0.935				0.90%
Ag 328.068†	33.1	0.2646	µg/L	0.39674	0.2646	ppb	0.39674	149.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.7	-6.5121	µg/L	9.30422	-6.5121	ppb	9.30422	142.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-6.4771	µg/L	0.94849	-6.4771	ppb	0.94849	14.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.9	-1.0488	µg/L	0.38103	-1.0488	ppb	0.38103	36.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.6	0.0690	µg/L	0.08875	0.0690	ppb	0.08875	128.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	314.4	0.2053	µg/L	0.06705	0.2053	ppb	0.06705	32.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.3	0.2736	µg/L	2.70720	0.2736	ppb	2.70720	989.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.6	0.4010	µg/L	0.17178	0.4010	ppb	0.17178	42.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0824	µg/L	0.37989	-0.0824	ppb	0.37989	461.28%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.4      0.3172 µg/L       0.10569      0.3172 ppb        0.10569  33.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -143.1     -0.9984 µg/L       0.24020     -0.9984 ppb        0.24020  24.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.3      11.039 µg/L        8.5525      11.039 ppb         8.5525  77.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          45.6      32.402 µg/L       26.6673      32.402 ppb        26.6673  82.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.1     -28.611 µg/L        4.3042     -28.611 ppb         4.3042  15.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.6      0.0566 µg/L       0.05870      0.0566 ppb        0.05870 103.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.3      0.2480 µg/L       0.32829      0.2480 ppb        0.32829 132.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         41.3      13.602 µg/L        5.7396      13.602 ppb         5.7396  42.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -18.0     -0.9814 µg/L       0.46200     -0.9814 ppb        0.46200  47.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.9      4.1970 µg/L       4.66758      4.1970 ppb        4.66758 111.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.2     -1.6502 µg/L       1.50832     -1.6502 ppb        1.50832  91.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      6.3791 µg/L       5.06750      6.3791 ppb        5.06750  79.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.9     -6.8167 µg/L       3.04704     -6.8167 ppb        3.04704  44.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.5     -0.7811 µg/L       5.04348     -0.7811 ppb        5.04348 645.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -66.0     -14.210 µg/L        6.0766     -14.210 ppb         6.0766  42.76%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -13.4     -1.1020 µg/L       0.79337     -1.1020 ppb        0.79337  71.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.4      0.6588 µg/L       0.98163      0.6588 ppb        0.98163 149.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.3     -0.1167 µg/L       0.19593     -0.1167 ppb        0.19593 167.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                23.9      0.0596 µg/L       0.10080      0.0596 ppb        0.10080 168.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.3589 µg/L       6.02688      1.3589 ppb        6.02688 443.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 15.7      1.4179 µg/L       2.74983      1.4179 ppb        2.74983 193.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.6      0.2037 µg/L       0.28596      0.2037 ppb        0.28596 140.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -22.6     -0.5582 µg/L       0.23967     -0.5582 ppb        0.23967  42.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 24, 2010 13:58:21
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.583
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	8010.6	8010.646	132.493	1.7
	Mg	24.0	80464.0	80463.987	802.940	1.0
	Co	58.9	170262.1	170262.103	1828.524	1.1
	Rh	102.9	306904.0	306903.996	3738.938	1.2
	In	114.9	394981.4	394981.376	4192.916	1.1
	Pb	208.0	384651.8	384651.804	1928.620	0.5
>	Ba	137.9	372209.0	372209.012	2646.026	0.7
	Ba++	69.0	6742.3	0.018	0.000	0.8
>	Ce	139.9	454620.9	454620.904	3860.277	0.8
	CeO	155.9	12716.3	0.028	0.000	1.2
	Bkgd	220.0	18.7	18.700	3.546	19.0

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	8280.1
Co	59	13	6.3	167068.6
In	115	13	7.0	394570.1

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2072	0.636
Be	9.0	9.0	2050	2088	0.616
Mg	24.0	24.0	5687	2100	0.608
Mg	25.0	25.0	5927	2100	0.597
Mg	26.0	26.0	6169	2100	0.611
Co	58.9	58.9	14169	2125	0.599
Rh	102.9	102.9	24868	2180	0.588
In	114.9	114.9	27782	2200	0.587
Ce	139.9	139.9	33866	2220	0.600
Pb	206.0	206.0	49948	2305	0.610
Pb	207.0	207.0	50159	2240	0.654
Pb	208.0	208.0	50451	2265	0.722
U	238.1	238.0	57720	2275	0.768

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 00:45:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Blank.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		116	
	Be	9		ug/L		27	
	B	11		ug/L		596	
	Na	23		ug/L		18679	
	Mg	24		ug/L		4334	
	Al	27		ug/L		7669	
	P	31		ug/L		5857	
	K	39		ug/L		561175	
	Ca	43		ug/L		363	
>	Sc	45		ug/L		466836	
	Ti	47		ug/L		402	
	V	51		ug/L		9348	
	Cr	52		ug/L		4541	
	Cr	53		ug/L		129660	
	Mn	55		ug/L		1656	
	Fe	57		ug/L		6902	
	Co	59		ug/L		147	
	Ni	60		ug/L		140	
	Cu	63		ug/L		473	
	Cu	65		ug/L		257	
	Zn	66		ug/L		698	
	Zn	67		ug/L		15316	
	Zn	68		ug/L		1656	
>	Ge	74		ug/L		572003	
	As	75		ug/L		-744	
	Se	77		ug/L		8264	
	Se	82		ug/L		0	
	Kr	83		ug/L		173	
	Sr	88		ug/L		291	
	Y	89		ug/L		76	
	Mo	98		ug/L		141	
	Ag	107		ug/L		88	
	Cd	111		ug/L		33	
	Cd	114		ug/L		69	
>	In	115		ug/L		379864	
	Sn	120		ug/L		422	
	Sb	121		ug/L		582	
	Sb	123		ug/L		457	
	Ba	135		ug/L		54	
	Ba	137		ug/L		91	
	Ho	165		ug/L		21	
>	Lu	175		ug/L		708476	
	Tl	205		ug/L		2105	
	Pb	208		ug/L		998	
	Bi	209		ug/L		589	
	Th	232		ug/L		830	
	U	238		ug/L		643	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	0.9999
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 00:51:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 1.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.105	26890	0.057
	Be	9	10.000	ug/L	4.739	5729	0.012
	B	11	20.000	ug/L	0.321	12031	0.024
	Na	23	1000.000	ug/L	2.963	4393258	9.347
	Mg	24	1000.000	ug/L	10.705	3479543	7.430
	Al	27	1000.000	ug/L	4.107	5204106	11.105
	P	31	1000.000	ug/L	1.944	293596	0.615
	K	39	1000.000	ug/L	4.538	6809758	13.354
	Ca	43	1000.000	ug/L	3.254	17644	0.037
>	Sc	45		ug/L		468066	468065.824
	Ti	47	10.000	ug/L	0.987	9225	0.019
	V	51	10.000	ug/L	7.478	106749	0.208
	Cr	52	10.000	ug/L	3.903	84753	0.171
	Cr	53		ug/L		176266	0.099
	Mn	55	10.000	ug/L	2.802	130192	0.275
	Fe	57	1000.000	ug/L	3.218	274624	0.572
	Co	59	10.000	ug/L	0.895	105959	0.226
	Ni	60	10.000	ug/L	0.801	23096	0.049
	Cu	63		ug/L		56074	0.119
	Cu	65	10.000	ug/L	1.060	27358	0.058
	Zn	66	10.000	ug/L	2.012	16798	0.028
	Zn	67		ug/L		24399	0.016
	Zn	68		ug/L		13648	0.021
>	Ge	74		ug/L		567866	567865.985
	As	75	10.000	ug/L	1.836	16324	0.030
	Se	77		ug/L		12599	0.008
	Se	82	10.000	ug/L	1.240	1805	0.003
	Kr	83		ug/L		149	-0.000
	Sr	88	10.000	ug/L	1.351	227001	0.612
	Y	89		ug/L		106	0.000
	Mo	98	10.000	ug/L	1.107	53630	0.144
	Ag	107	10.000	ug/L	2.532	96282	0.259
	Cd	111	10.000	ug/L	1.876	22621	0.061
	Cd	114		ug/L		53302	0.144
>	In	115		ug/L		370762	370762.000
	Sn	120	10.000	ug/L	1.295	97007	0.261
	Sb	121	10.000	ug/L	1.532	76721	0.205
	Sb	123		ug/L		59935	0.160
	Ba	135		ug/L		24863	0.035
	Ba	137	10.000	ug/L	1.030	44448	0.063
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		703071	703070.874
	Tl	205	10.000	ug/L	1.004	339248	0.480
	Pb	208	10.000	ug/L	1.089	600186	0.852
	Bi	209		ug/L		399	-0.000
	Th	232	10.000	ug/L	1.736	730929	1.038
	U	238	10.000	ug/L	0.633	764002	1.086

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 00:57:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 2.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.000**	**ug/L**	2.449	264489	0.572
	Be	9	**100.013**	**ug/L**	2.463	57085	0.123
	B	11	**200.038**	**ug/L**	4.593	115722	0.249
	Na	23	**10012.267**	**ug/L**	1.503	49330670	106.666
	Mg	24	**9994.280**	**ug/L**	2.912	32487077	70.242
	Al	27	**9977.507**	**ug/L**	5.822	41846838	90.451
	P	31	**9996.741**	**ug/L**	2.033	2758099	5.952
	K	39	**10004.212**	**ug/L**	7.305	65060133	139.467
	Ca	43	**9997.043**	**ug/L**	1.635	166192	0.359
>	Sc	45		**ug/L**		462373	462373.423
	Ti	47	**99.998**	**ug/L**	0.744	87343	0.188
	V	51	**99.954**	**ug/L**	3.260	929215	1.990
	Cr	52	**99.922**	**ug/L**	0.634	739071	1.589
	Cr	53		**ug/L**		234272	0.229
	Mn	55	**99.921**	**ug/L**	1.467	1177738	2.544
	Fe	57	**9998.285**	**ug/L**	1.799	2606334	5.623
	Co	59	**99.889**	**ug/L**	1.148	940185	2.033
	Ni	60	**99.956**	**ug/L**	1.897	217299	0.470
	Cu	63		**ug/L**		516746	1.117
	Cu	65	**99.972**	**ug/L**	2.114	260459	0.563
	Zn	66	**100.028**	**ug/L**	2.779	162696	0.292
	Zn	67		**ug/L**		45738	0.056
	Zn	68		**ug/L**		118988	0.211
>	Ge	74		**ug/L**		555091	555090.637
	As	75	**100.021**	**ug/L**	0.615	169753	0.307
	Se	77		**ug/L**		22553	0.026
	Se	82	**100.000**	**ug/L**	2.418	17642	0.032
	Kr	83		**ug/L**		176	0.000
	Sr	88	**99.847**	**ug/L**	2.397	1924500	5.295
	Y	89		**ug/L**		300	0.001
	Mo	98	**99.989**	**ug/L**	2.112	518934	1.427
	Ag	107	**99.918**	**ug/L**	1.456	871308	2.397
	Cd	111	**99.998**	**ug/L**	1.800	221055	0.608
	Cd	114		**ug/L**		511858	1.408
>	In	115		**ug/L**		363514	363514.297
	Sn	120	**99.927**	**ug/L**	2.597	881818	2.426
	Sb	121	**99.981**	**ug/L**	1.760	733263	2.016
	Sb	123		**ug/L**		577455	1.588
	Ba	135		**ug/L**		238428	0.344
	Ba	137	**99.967**	**ug/L**	2.692	423069	0.610
	Ho	165		**ug/L**		44	0.000
>	Lu	175		**ug/L**		693126	693125.998
	Tl	205	**99.819**	**ug/L**	1.206	2810893	4.052
	Pb	208	**99.830**	**ug/L**	3.632	5037257	7.270
	Bi	209		**ug/L**		848	0.000
	Th	232	**99.839**	**ug/L**	1.412	6188011	8.928
	U	238	**99.841**	**ug/L**	2.806	6479656	9.351

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 01:03:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.254**	ug/L	1.528	138357	0.293
	Be	9	**51.212**	ug/L	3.907	29827	0.063
	B	11	**103.919**	ug/L	2.684	61625	0.129
	Na	23	**4509.685**	ug/L	8.125	22670943	48.044
	Mg	24	**5347.344**	ug/L	7.877	17720997	37.582
	Al	27	**5620.619**	ug/L	10.095	24041127	50.954
	P	31	**4774.087**	ug/L	1.484	1346497	2.843
	K	39	**5130.417**	ug/L	9.736	34293745	71.522
	Ca	43	**4924.759**	ug/L	1.318	83672	0.177
>	Sc	45		ug/L		471629	471628.507
	Ti	47	**50.265**	ug/L	0.852	44987	0.095
	V	51	**51.480**	ug/L	3.069	492659	1.025
	Cr	52	**52.523**	ug/L	2.178	398384	0.835
	Cr	53		ug/L		196456	0.139
	Mn	55	**53.204**	ug/L	1.701	640426	1.355
	Fe	57	**4590.215**	ug/L	0.475	1224465	2.582
	Co	59	**51.968**	ug/L	2.609	498978	1.058
	Ni	60	**51.394**	ug/L	1.632	114032	0.241
	Cu	63		ug/L		269542	0.571
	Cu	65	**51.228**	ug/L	2.806	136262	0.288
	Zn	66	**53.041**	ug/L	2.954	87537	0.155
	Zn	67		ug/L		33730	0.033
	Zn	68		ug/L		63866	0.111
>	Ge	74		ug/L		561190	561190.119
	As	75	**48.840**	ug/L	3.695	83406	0.150
	Se	77		ug/L		16616	0.015
	Se	82	**51.104**	ug/L	2.320	9114	0.016
	Kr	83		ug/L		151	-0.000
	Sr	88	**54.911**	ug/L	2.149	1076141	2.912
	Y	89		ug/L		145	0.000
	Mo	98	**49.596**	ug/L	0.309	261705	0.708
	Ag	107	**51.305**	ug/L	0.925	454836	1.231
	Cd	111	**50.703**	ug/L	1.377	113953	0.308
	Cd	114		ug/L		265227	0.718
>	In	115		ug/L		369463	369462.806
	Sn	120	**51.875**	ug/L	1.341	465621	1.259
	Sb	121	**51.410**	ug/L	1.168	383561	1.037
	Sb	123		ug/L		300315	0.812
	Ba	135		ug/L		122938	0.178
	Ba	137	**51.554**	ug/L	2.548	217508	0.315
	Ho	165		ug/L		64	0.000
>	Lu	175		ug/L		690737	690736.635
	Tl	205	**50.995**	ug/L	2.545	1431651	2.070
	Pb	208	**54.050**	ug/L	1.463	2719376	3.936
	Bi	209		ug/L		944	0.001
	Th	232	**52.084**	ug/L	1.833	3217656	4.658
	U	238	**53.616**	ug/L	0.733	3469103	5.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.508				
	Be	9	102.424				
	B	11	103.919				
	Na	23	90.194				
	Mg	24	106.947				
	Al	27	111.299				
	P	31	95.482				
	K	39	102.608				
	Ca	43	98.495				
>	Sc	45		101.0			
	Ti	47	100.531				
	V	51	102.959				
	Cr	52	105.046				
	Cr	53					
	Mn	55	106.409				
	Fe	57	91.804				
	Co	59	103.937				
	Ni	60	102.788				
	Cu	63					
	Cu	65	102.456				
	Zn	66	106.082				
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75	97.681				
	Se	77					
	Se	82	102.207				
	Kr	83					
	Sr	88	109.822				
	Y	89					
	Mo	98	99.192				
	Ag	107	102.610				
	Cd	111	101.405				
	Cd	114					
>	In	115		97.3			
	Sn	120	103.750				
	Sb	121	102.819				
	Sb	123					
	Ba	135					
	Ba	137	103.108				
	Ho	165					
>	Lu	175		97.5			
	Tl	205	101.990				
	Pb	208	108.100				
	Bi	209					
	Th	232	104.169				
	U	238	107.231				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Al	27	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 01:09:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 2.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.021	ug/L	19.019	172	0.000
	Be	9	0.008	ug/L	121.338	32	0.000
	B	11	4.097	ug/L	16.405	2984	0.005
	Na	23	0.870	ug/L	129.311	23019	0.009
	Mg	24	-0.105	ug/L	1050.249	4001	-0.001
	Al	27	-0.861	ug/L	96.914	4001	-0.008
	P	31	0.980	ug/L	180.971	6126	0.001
	K	39	1.158	ug/L	397.345	569148	0.016
	Ca	43	-0.503	ug/L	329.039	354	-0.000
>	Sc	45		ug/L		467005	467005.242
	Ti	47	-0.009	ug/L	325.615	395	-0.000
	V	51	-0.308	ug/L	153.633	6437	-0.006
	Cr	52	-0.165	ug/L	44.444	3309	-0.003
	Cr	53		ug/L		125809	-0.008
	Mn	55	-0.010	ug/L	32.542	1539	-0.000
	Fe	57	0.291	ug/L	190.434	6980	0.000
	Co	59	0.004	ug/L	70.690	182	0.000
	Ni	60	0.004	ug/L	50.335	150	0.000
	Cu	63		ug/L		487	0.000
	Cu	65	-0.004	ug/L	95.984	246	-0.000
	Zn	66	0.001	ug/L	1593.283	698	0.000
	Zn	67		ug/L		14449	-0.001
	Zn	68		ug/L		1604	-0.000
>	Ge	74		ug/L		569988	569987.791
	As	75	-0.179	ug/L	145.005	-1056	-0.001
	Se	77		ug/L		8396	0.000
	Se	82	0.091	ug/L	153.517	17	0.000
	Kr	83		ug/L		156	-0.000
	Sr	88	0.006	ug/L	12.878	419	0.000
	Y	89		ug/L		79	0.000
	Mo	98	0.027	ug/L	3.432	289	0.000
	Ag	107	0.006	ug/L	31.976	141	0.000
	Cd	111	0.002	ug/L	466.095	37	0.000
	Cd	114		ug/L		108	0.000
>	In	115		ug/L		378529	378529.037
	Sn	120	0.012	ug/L	32.804	534	0.000
	Sb	121	0.437	ug/L	10.437	3917	0.009
	Sb	123		ug/L		3199	0.007
	Ba	135		ug/L		72	0.000
	Ba	137	0.004	ug/L	36.133	109	0.000
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		707983	707982.913
	Tl	205	0.158	ug/L	22.647	6640	0.006
	Pb	208	0.007	ug/L	21.254	1362	0.001
	Bi	209		ug/L		584	-0.000
	Th	232	0.024	ug/L	5.204	2323	0.002
	U	238	0.008	ug/L	26.689	1170	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 01:15:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 3.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.006**	**ug/L**	2.281	29478	0.063
	Be	9	**0.537**	**ug/L**	5.699	336	0.001
	B	11	**17.326**	**ug/L**	3.791	10659	0.022
	Na	23	**239.283**	**ug/L**	8.349	1207054	2.549
	Mg	24	**15.408**	**ug/L**	14.004	54772	0.108
	Al	27	**41.259**	**ug/L**	6.550	182157	0.374
	P	31	**65.019**	**ug/L**	7.889	23901	0.039
	K	39	**308.141**	**ug/L**	13.361	2562845	4.296
	Ca	43	**218.114**	**ug/L**	5.808	4012	0.008
>	Sc	45		**ug/L**		466658	466658.134
	Ti	47	**8.651**	**ug/L**	2.543	7993	0.016
	V	51	**10.208**	**ug/L**	9.674	104042	0.203
	Cr	52	**11.238**	**ug/L**	4.848	87857	0.179
	Cr	53		**ug/L**		157299	0.060
	Mn	55	**5.897**	**ug/L**	2.990	71691	0.150
	Fe	57	**105.485**	**ug/L**	2.669	34574	0.059
	Co	59	**1.130**	**ug/L**	3.872	10879	0.023
	Ni	60	**2.182**	**ug/L**	2.802	4924	0.010
	Cu	63		**ug/L**		6465	0.013
	Cu	65	**1.120**	**ug/L**	3.630	3199	0.006
	Zn	66	**11.321**	**ug/L**	1.546	18871	0.033
	Zn	67		**ug/L**		20464	0.010
	Zn	68		**ug/L**		14797	0.024
>	Ge	74		**ug/L**		550773	550772.701
	As	75	**5.563**	**ug/L**	3.738	8690	0.017
	Se	77		**ug/L**		10811	0.005
	Se	82	**5.873**	**ug/L**	3.974	1028	0.002
	Kr	83		**ug/L**		145	-0.000
	Sr	88	**12.294**	**ug/L**	0.262	241551	0.652
	Y	89		**ug/L**		69	-0.000
	Mo	98	**0.527**	**ug/L**	4.885	2922	0.008
	Ag	107	**1.067**	**ug/L**	2.030	9561	0.026
	Cd	111	**1.111**	**ug/L**	1.215	2532	0.007
	Cd	114		**ug/L**		5724	0.015
>	In	115		**ug/L**		370061	370060.601
	Sn	120	**5.583**	**ug/L**	1.724	50556	0.136
	Sb	121	**3.368**	**ug/L**	1.093	25697	0.068
	Sb	123		**ug/L**		20218	0.053
	Ba	135		**ug/L**		5288	0.007
	Ba	137	**2.158**	**ug/L**	2.765	9314	0.013
	Ho	165		**ug/L**		27	0.000
>	Lu	175		**ug/L**		700109	700108.585
	Tl	205	**1.260**	**ug/L**	1.742	37884	0.051
	Pb	208	**2.501**	**ug/L**	1.391	128493	0.182
	Bi	209		**ug/L**		429	-0.000
	Th	232	**1.296**	**ug/L**	2.070	81953	0.116
	U	238	**0.284**	**ug/L**	0.865	19262	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	110.055				
	Be	9	107.409				
	B	11	115.509				
	Na	23	95.713				
	Mg	24	102.717				
	Al	27	137.530				
	P	31	130.038				
	K	39	102.714				
	Ca	43	109.057				
>	Sc	45		100.0			
	Ti	47	86.512				
	V	51	102.076				
	Cr	52	112.379				
	Cr	53					
	Mn	55	117.941				
	Fe	57	105.485				
	Co	59	113.043				
	Ni	60	109.121				
	Cu	63					
	Cu	65	112.029				
	Zn	66	113.212				
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75	111.254				
	Se	77					
	Se	82	117.453				
	Kr	83					
	Sr	88	122.942				
	Y	89					
	Mo	98	105.486				
	Ag	107	106.734				
	Cd	111	111.062				
	Cd	114					
>	In	115		97.4			
	Sn	120	111.664				
	Sb	121	112.266				
	Sb	123					
	Ba	135					
	Ba	137	107.890				
	Ho	165					
>	Lu	175		98.8			
	Tl	205	125.991				
	Pb	208	125.060				
	Bi	209					
	Th	232	129.605				
	U	238	142.033				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	P	31	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 01:21:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 4.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	ug/L	10.445	293	0.000
	Be	9	**0.069**	ug/L	19.825	59	0.000
	B	11	**1.597**	ug/L	19.431	1342	0.002
	Na	23	**76847.089**	ug/L	3.522	336523083	818.695
	Mg	24	**85091.727**	ug/L	8.994	245740237	598.043
	Al	27	**103851.194**	ug/L	11.407	387083249	941.464
	P	31	**82063.023**	ug/L	0.909	20088465	48.862
	K	39	**91466.419**	ug/L	0.853	524596315	1275.113
	Ca	43	**86955.724**	ug/L	1.654	1282259	3.119
>	Sc	45		ug/L		411013	411012.564
	Ti	47	**1517.851**	ug/L	0.321	1173570	2.854
	V	51	**-0.573**	ug/L	51.787	3536	-0.011
	Cr	52	**1.914**	ug/L	0.983	16506	0.030
	Cr	53		ug/L		118979	0.012
	Mn	55	**6.009**	ug/L	1.140	64334	0.153
	Fe	57	**94815.587**	ug/L	1.958	21921908	53.325
	Co	59	**0.371**	ug/L	5.093	3231	0.008
	Ni	60	**3.499**	ug/L	2.633	6881	0.016
	Cu	63		ug/L		11210	0.026
	Cu	65	**3.194**	ug/L	0.963	7617	0.018
	Zn	66	**4.370**	ug/L	5.913	6859	0.013
	Zn	67		ug/L		18056	0.010
	Zn	68		ug/L		2656	0.003
>	Ge	74		ug/L		490891	490890.577
	As	75	**0.176**	ug/L	570.093	-374	0.001
	Se	77		ug/L		11647	0.009
	Se	82	**-1.193**	ug/L	6.261	-186	-0.000
	Kr	83		ug/L		452	0.001
	Sr	88	**3.263**	ug/L	1.596	57326	0.173
	Y	89		ug/L		801	0.002
	Mo	98	**1814.342**	ug/L	1.582	8542173	25.899
	Ag	107	**0.140**	ug/L	4.308	1188	0.003
	Cd	111	**0.506**	ug/L	47.944	1046	0.003
	Cd	114		ug/L		14916	0.045
>	In	115		ug/L		329854	329854.132
	Sn	120	**0.262**	ug/L	2.872	2462	0.006
	Sb	121	**0.383**	ug/L	21.682	3049	0.008
	Sb	123		ug/L		2369	0.006
	Ba	135		ug/L		1601	0.002
	Ba	137	**0.714**	ug/L	1.305	2815	0.004
	Ho	165		ug/L		13545	0.022
>	Lu	175		ug/L		626869	626869.274
	Tl	205	**0.005**	ug/L	69.273	1989	0.000
	Pb	208	**0.229**	ug/L	0.450	11334	0.017
	Bi	209		ug/L		8402	0.013
	Th	232	**0.049**	ug/L	38.303	3510	0.004
	U	238	**-0.006**	ug/L	5.247	219	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	76.847				
	Mg	24	85.092				
	Al	27	103.851				
	P	31	82.063				
	K	39	91.466				
	Ca	43	86.956				
>	Sc	45		88.0			
	Ti	47	75.893				
	V	51					
	Cr	52	58.005				
	Cr	53					
	Mn	55	103.602				
	Fe	57	94.816				
	Co	59	157.727				
	Ni	60	105.723				
	Cu	63					
	Cu	65	95.623				
	Zn	66	116.221				
	Zn	67					
	Zn	68					
>	Ge	74		85.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	110.235				
	Y	89					
	Mo	98	90.717				
	Ag	107					
	Cd	111	114.002				
	Cd	114					
>	In	115		86.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	89.518				
	Ho	165					
>	Lu	175		88.5			
	Tl	205					
	Pb	208	121.132				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Na	23	ICSA is out of limits
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 01:27:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 5.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.541**	ug/L	1.142	41347	0.106
	Be	9	**17.910**	ug/L	2.065	8621	0.022
	B	11	**17.544**	ug/L	2.456	8996	0.022
	Na	23	**79986.935**	ug/L	2.610	331638859	852.145
	Mg	24	**87477.193**	ug/L	2.329	239206523	614.808
	Al	27	**104014.873**	ug/L	4.416	366730469	942.948
	P	31	**86226.228**	ug/L	1.257	19977908	51.341
	K	39	**89267.225**	ug/L	4.445	484619607	1244.455
	Ca	43	**89016.291**	ug/L	1.517	1242724	3.193
>	Sc	45		ug/L		389069	389069.436
	Ti	47	**1547.426**	ug/L	0.509	1132579	2.910
	V	51	**21.352**	ug/L	2.752	173144	0.425
	Cr	52	**23.295**	ug/L	2.523	147846	0.370
	Cr	53		ug/L		113519	0.014
	Mn	55	**28.422**	ug/L	0.512	282925	0.724
	Fe	57	**99769.769**	ug/L	2.675	21831986	56.111
	Co	59	**21.406**	ug/L	2.926	169597	0.436
	Ni	60	**22.852**	ug/L	1.826	41883	0.107
	Cu	63		ug/L		96563	0.247
	Cu	65	**22.637**	ug/L	2.014	49801	0.127
	Zn	66	**22.923**	ug/L	2.431	33260	0.067
	Zn	67		ug/L		18838	0.012
	Zn	68		ug/L		21732	0.042
>	Ge	74		ug/L		488347	488346.958
	As	75	**20.501**	ug/L	3.271	30109	0.063
	Se	77		ug/L		11207	0.009
	Se	82	**19.340**	ug/L	2.416	3002	0.006
	Kr	83		ug/L		429	0.001
	Sr	88	**25.956**	ug/L	2.112	455843	1.376
	Y	89		ug/L		717	0.002
	Mo	98	**1795.815**	ug/L	0.228	8485446	25.635
	Ag	107	**19.454**	ug/L	2.322	154561	0.467
	Cd	111	**19.913**	ug/L	1.616	40113	0.121
	Cd	114		ug/L		104916	0.317
>	In	115		ug/L		331007	331007.181
	Sn	120	**21.124**	ug/L	1.565	170090	0.513
	Sb	121	**21.156**	ug/L	0.969	141717	0.427
	Sb	123		ug/L		110137	0.332
	Ba	135		ug/L		44251	0.071
	Ba	137	**20.377**	ug/L	1.178	77727	0.124
	Ho	165		ug/L		13358	0.021
>	Lu	175		ug/L		624039	624039.312
	Tl	205	**20.864**	ug/L	1.138	530352	0.847
	Pb	208	**21.830**	ug/L	0.626	992892	1.590
	Bi	209		ug/L		9139	0.014
	Th	232	**22.315**	ug/L	1.168	1245990	1.996
	U	238	**22.980**	ug/L	0.724	1343671	2.152

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	92.705				
	Be	9	89.548				
	B	11	87.719				
	Na	23	79.987				
	Mg	24	87.477				
	Al	27	104.015				
	P	31	86.226				
	K	39	89.267				
	Ca	43	89.016				
>	Sc	45		83.3			
	Ti	47	77.371				
	V	51	106.760				
	Cr	52	99.977				
	Cr	53					
	Mn	55	110.163				
	Fe	57	99.770				
	Co	59	105.787				
	Ni	60	98.036				
	Cu	63					
	Cu	65	96.989				
	Zn	66	96.476				
	Zn	67					
	Zn	68					
>	Ge	74		85.4			
	As	75	102.506				
	Se	77					
	Se	82	96.699				
	Kr	83					
	Sr	88	113.049				
	Y	89					
	Mo	98	89.791				
	Ag	107	97.271				
	Cd	111	97.402				
	Cd	114					
>	In	115		87.1			
	Sn	120	105.621				
	Sb	121	105.778				
	Sb	123					
	Ba	135					
	Ba	137	97.974				
	Ho	165					
>	Lu	175		88.1			
	Tl	205	104.321				
	Pb	208	108.130				
	Bi	209					
	Th	232	111.574				
	U	238	114.899				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Na	23	ICSAB is out of limits
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 01:33:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	50.856	ug/L	2.578	121226	0.291
	Be	9	51.752	ug/L	3.240	26620	0.064
	B	11	98.342	ug/L	3.613	51527	0.122
	Na	23	4552.550	ug/L	15.725	20195760	48.501
	Mg	24	5042.300	ug/L	2.663	14768916	35.438
	Al	27	5207.421	ug/L	7.037	19690007	47.208
	P	31	4703.749	ug/L	3.584	1171450	2.801
	K	39	4332.637	ug/L	4.484	25671318	60.400
	Ca	43	4771.309	ug/L	3.390	71592	0.171
>	Sc	45		ug/L		416580	416580.161
	Ti	47	49.205	ug/L	3.521	38889	0.093
	V	51	52.394	ug/L	4.403	442610	1.043
	Cr	52	52.723	ug/L	2.378	353165	0.838
	Cr	53		ug/L		173110	0.138
	Mn	55	53.516	ug/L	2.938	568853	1.362
	Fe	57	4645.346	ug/L	3.429	1094022	2.613
	Co	59	52.672	ug/L	3.053	446599	1.072
	Ni	60	52.519	ug/L	1.808	102895	0.247
	Cu	63		ug/L		246344	0.590
	Cu	65	50.727	ug/L	1.756	119188	0.286
	Zn	66	51.222	ug/L	2.930	77548	0.150
	Zn	67		ug/L		29593	0.031
	Zn	68		ug/L		56556	0.107
>	Ge	74		ug/L		514672	514672.218
	As	75	48.752	ug/L	2.768	76358	0.150
	Se	77		ug/L		14469	0.014
	Se	82	50.062	ug/L	2.082	8188	0.016
	Kr	83		ug/L		141	-0.000
	Sr	88	53.781	ug/L	1.710	984550	2.852
	Y	89		ug/L		168	0.000
	Mo	98	49.077	ug/L	0.791	241922	0.701
	Ag	107	51.743	ug/L	1.540	428488	1.241
	Cd	111	50.768	ug/L	0.996	106604	0.309
	Cd	114		ug/L		248527	0.720
>	In	115		ug/L		345156	345156.356
	Sn	120	51.493	ug/L	1.373	431744	1.250
	Sb	121	51.330	ug/L	1.027	357761	1.035
	Sb	123		ug/L		282382	0.817
	Ba	135		ug/L		115385	0.169
	Ba	137	49.242	ug/L	1.246	205400	0.301
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		682807	682807.409
	Tl	205	49.827	ug/L	1.117	1383033	2.023
	Pb	208	53.468	ug/L	1.497	2659287	3.894
	Bi	209		ug/L		957	0.001
	Th	232	51.536	ug/L	1.197	3147381	4.609
	U	238	51.542	ug/L	1.737	3296507	4.828

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7	101.711				
	Be	9	103.504				
	B	11	98.342				
	Na	23	91.051				
	Mg	24	100.846				
	Al	27	103.117				
	P	31	94.075				
	K	39	86.653				
	Ca	43	95.426				
>	Sc	45		89.2			
	Ti	47	98.410				
	V	51	104.788				
	Cr	52	105.446				
	Cr	53					
	Mn	55	107.032				
	Fe	57	92.907				
	Co	59	105.344				
	Ni	60	105.038				
	Cu	63					
	Cu	65	101.454				
	Zn	66	102.443				
	Zn	67					
	Zn	68					
>	Ge	74		90.0			
	As	75	97.504				
	Se	77					
	Se	82	100.123				
	Kr	83					
	Sr	88	107.563				
	Y	89					
	Mo	98	98.154				
	Ag	107	103.486				
	Cd	111	101.536				
	Cd	114					
>	In	115		90.9			
	Sn	120	102.986				
	Sb	121	102.661				
	Sb	123					
	Ba	135					
	Ba	137	98.484				
	Ho	165					
>	Lu	175		96.4			
	Tl	205	99.655				
	Pb	208	106.936				
	Bi	209					
	Th	232	103.073				
	U	238	103.085				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 01:40:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.019	ug/L	19.141	149	0.000
	Be	9	0.002	ug/L	728.636	25	0.000
	B	11	2.533	ug/L	22.205	1848	0.003
	Na	23	2.396	ug/L	51.756	27360	0.026
	Mg	24	0.956	ug/L	114.511	6668	0.007
	Al	27	2.695	ug/L	31.242	17010	0.024
	P	31	1.126	ug/L	68.843	5507	0.001
	K	39	5.504	ug/L	74.073	532758	0.077
	Ca	43	1.125	ug/L	68.383	341	0.000
>	Sc	45		ug/L		416774	416774.349
	Ti	47	0.051	ug/L	49.426	400	0.000
	V	51	-0.473	ug/L	18.561	4423	-0.009
	Cr	52	-0.473	ug/L	9.957	914	-0.008
	Cr	53		ug/L		108799	-0.017
	Mn	55	-0.012	ug/L	34.432	1356	-0.000
	Fe	57	-0.949	ug/L	26.247	5940	-0.001
	Co	59	0.004	ug/L	38.201	167	0.000
	Ni	60	0.010	ug/L	18.742	146	0.000
	Cu	63		ug/L		387	-0.000
	Cu	65	0.001	ug/L	229.755	233	0.000
	Zn	66	-0.024	ug/L	53.198	599	-0.000
	Zn	67		ug/L		12866	-0.002
	Zn	68		ug/L		1437	-0.000
>	Ge	74		ug/L		521240	521240.111
	As	75	0.221	ug/L	53.128	-323	0.001
	Se	77		ug/L		6939	-0.001
	Se	82	0.016	ug/L	370.605	3	0.000
	Kr	83		ug/L		144	-0.000
	Sr	88	0.005	ug/L	47.801	374	0.000
	Y	89		ug/L		70	-0.000
	Mo	98	0.063	ug/L	5.593	450	0.001
	Ag	107	0.006	ug/L	14.955	132	0.000
	Cd	111	0.005	ug/L	128.110	43	0.000
	Cd	114		ug/L		91	0.000
>	In	115		ug/L		355440	355440.489
	Sn	120	0.011	ug/L	35.866	490	0.000
	Sb	121	0.155	ug/L	8.034	1659	0.003
	Sb	123		ug/L		1327	0.003
	Ba	135		ug/L		62	0.000
	Ba	137	0.004	ug/L	49.014	105	0.000
	Ho	165		ug/L		27	0.000
>	Lu	175		ug/L		691627	691626.720
	Tl	205	0.224	ug/L	18.598	8345	0.009
	Pb	208	0.006	ug/L	37.321	1281	0.000
	Bi	209		ug/L		617	0.000
	Th	232	0.021	ug/L	5.469	2137	0.002
	U	238	0.007	ug/L	32.882	1054	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, February 25, 2010 01:46:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 10.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Li	7	**908.148**	**ug/L**	2.424	1874486	5.194
|	Be	9	**951.375**	**ug/L**	1.719	423800	1.174
|	B	11	**1.566**	**ug/L**	15.177	1165	0.002
|	Na	23	**48963.331**	**ug/L**	5.462	188368267	521.633
|	Mg	24	**52502.636**	**ug/L**	11.268	133033673	369.000
|	Al	27	**54937.246**	**ug/L**	2.656	179751189	498.034
|	P	31	**21975.073**	**ug/L**	2.357	4726633	13.085
|	K	39	**47751.459**	**ug/L**	3.116	240644107	665.693
|	Ca	43	**47390.870**	**ug/L**	1.958	613793	1.700
|>	Sc	45		**ug/L**		361004	361003.669
|	Ti	47	**43.749**	**ug/L**	1.635	30006	0.082
|	V	51	**904.479**	**ug/L**	2.586	6505041	18.006
|	Cr	52	**894.043**	**ug/L**	3.388	5132659	14.214
|	Cr	53		**ug/L**		774563	1.869
|	Mn	55	**965.413**	**ug/L**	1.448	8874170	24.579
|	Fe	57	**49460.687**	**ug/L**	0.018	10047325	27.817
|	Co	59	**879.775**	**ug/L**	2.549	6462298	17.907
|	Ni	60	**855.509**	**ug/L**	3.761	1450545	4.019
|	Cu	63		**ug/L**		3370054	9.337
⌊	Cu	65	**809.449**	**ug/L**	1.865	1645282	4.558
⌈	Zn	66	**2256.169**	**ug/L**	0.467	2956197	6.585
|	Zn	67		**ug/L**		473424	1.028
|	Zn	68		**ug/L**		1846360	4.111
|>	Ge	74		**ug/L**		448846	448845.629
|	As	75	**816.633**	**ug/L**	0.627	1125003	2.508
|	Se	77		**ug/L**		55858	0.110
|	Se	82	**459.331**	**ug/L**	2.018	65518	0.146
⌊	Kr	83		**ug/L**		270	0.000
⌈	Sr	88	**991.112**	**ug/L**	0.957	16759897	52.560
|	Y	89		**ug/L**		613	0.002
|	Mo	98	**915.334**	**ug/L**	1.384	4166215	13.066
|	Ag	107	**211.925**	**ug/L**	0.351	1621230	5.084
|	Cd	111	**830.235**	**ug/L**	0.459	1609938	5.049
|	Cd	114		**ug/L**		3840458	12.044
|>	In	115		**ug/L**		318855	318855.037
|	Sn	120	**888.428**	**ug/L**	0.778	6876169	21.565
|	Sb	121	**222.617**	**ug/L**	1.988	1431814	4.489
⌊	Sb	123		**ug/L**		1131261	3.547
⌈	Ba	135		**ug/L**		1734671	2.749
|	Ba	137	**844.735**	**ug/L**	0.281	3255477	5.159
|	Ho	165		**ug/L**		194	0.000
|>	Lu	175		**ug/L**		631074	631073.614
|	Tl	205	**466.428**	**ug/L**	3.113	11948443	18.934
|	Pb	208	**4781.042**	**ug/L**	1.641	219700515	348.163
|	Bi	209		**ug/L**		6701	0.010
|	Th	232	**2537.017**	**ug/L**	2.540	143156342	226.877
⌊	U	238	**5256.734**	**ug/L**	0.889	310701302	492.353

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	90.815				
	Be	9	95.138				
	B	11					
	Na	23	97.927				
	Mg	24	105.005				
	Al	27	109.874				
	P	31	87.900				
	K	39	95.503				
	Ca	43	94.782				
>	Sc	45		77.3			
	Ti	47					
	V	51	90.448				
	Cr	52	89.404				
	Cr	53					
	Mn	55	96.541				
	Fe	57	98.921				
	Co	59	87.977				
	Ni	60	85.551				
	Cu	63					
	Cu	65	80.945				
	Zn	66	90.247				
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75	81.663				
	Se	77					
	Se	82	91.866				
	Kr	83					
	Sr	88	99.111				
	Y	89					
	Mo	98	91.533				
	Ag	107	84.770				
	Cd	111	83.024				
	Cd	114					
>	In	115		83.9			
	Sn	120	88.843				
	Sb	121	89.047				
	Sb	123					
	Ba	135					
	Ba	137	84.474				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	93.286				
	Pb	208	95.621				
	Bi	209					
	Th	232	101.481				
	U	238	105.135				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	P	31	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	

QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Sb	121LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, February 25, 2010 01:52:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 11.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.196**	**ug/L**	0.675	124156	0.310
	Be	9	**54.193**	**ug/L**	1.593	26794	0.067
	B	11	**102.665**	**ug/L**	4.172	51685	0.128
	Na	23	**4788.488**	**ug/L**	4.856	20434884	51.014
	Mg	24	**5400.192**	**ug/L**	4.677	15194288	37.954
	Al	27	**5449.235**	**ug/L**	5.070	19779169	49.400
	P	31	**4764.081**	**ug/L**	0.169	1140414	2.837
	K	39	**5151.257**	**ug/L**	13.117	29223170	71.813
	Ca	43	**4933.715**	**ug/L**	1.733	71145	0.177
>	Sc	45		**ug/L**		400258	400258.051
	Ti	47	**50.075**	**ug/L**	2.048	38038	0.094
	V	51	**52.375**	**ug/L**	2.015	425346	1.043
	Cr	52	**52.430**	**ug/L**	1.642	337549	0.834
	Cr	53		**ug/L**		165024	0.135
	Mn	55	**54.510**	**ug/L**	0.980	556900	1.388
	Fe	57	**4766.520**	**ug/L**	1.578	1078880	2.681
	Co	59	**53.611**	**ug/L**	1.011	436890	1.091
	Ni	60	**53.600**	**ug/L**	1.754	100915	0.252
	Cu	63		**ug/L**		236140	0.589
	Cu	65	**52.077**	**ug/L**	1.536	117580	0.293
	Zn	66	**52.112**	**ug/L**	1.547	76044	0.152
	Zn	67		**ug/L**		29932	0.034
	Zn	68		**ug/L**		55232	0.108
>	Ge	74		**ug/L**		496057	496057.360
	As	75	**48.906**	**ug/L**	0.967	73856	0.150
	Se	77		**ug/L**		12992	0.012
	Se	82	**49.965**	**ug/L**	2.870	7876	0.016
	Kr	83		**ug/L**		137	-0.000
	Sr	88	**54.271**	**ug/L**	2.485	961158	2.878
	Y	89		**ug/L**		119	0.000
	Mo	98	**49.006**	**ug/L**	3.544	233635	0.700
	Ag	107	**52.610**	**ug/L**	2.993	421432	1.262
	Cd	111	**51.427**	**ug/L**	2.143	104455	0.313
	Cd	114		**ug/L**		244311	0.732
>	In	115		**ug/L**		334023	334023.113
	Sn	120	**52.691**	**ug/L**	3.573	427313	1.279
	Sb	121	**54.043**	**ug/L**	3.070	364319	1.090
	Sb	123		**ug/L**		286486	0.857
	Ba	135		**ug/L**		115314	0.174
	Ba	137	**49.566**	**ug/L**	2.291	200991	0.303
	Ho	165		**ug/L**		59	0.000
>	Lu	175		**ug/L**		663851	663850.793
	Tl	205	**52.389**	**ug/L**	2.109	1413544	2.127
	Pb	208	**55.266**	**ug/L**	1.770	2672392	4.025
	Bi	209		**ug/L**		902	0.001
	Th	232	**53.892**	**ug/L**	1.577	3199837	4.819
	U	238	**55.370**	**ug/L**	0.825	3443184	5.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	108.391				
	Be	9	108.386				
	B	11	102.665				
	Na	23	95.770				
	Mg	24	108.004				
	Al	27	107.906				
	P	31	95.282				
	K	39	103.025				
	Ca	43	98.674				
>	Sc	45		85.7			
	Ti	47	100.150				
	V	51	104.750				
	Cr	52	104.861				
	Cr	53					
	Mn	55	109.021				
	Fe	57	95.330				
	Co	59	107.223				
	Ni	60	107.200				
	Cu	63					
	Cu	65	104.154				
	Zn	66	104.223				
	Zn	67					
	Zn	68					
>	Ge	74		86.7			
	As	75	97.812				
	Se	77					
	Se	82	99.930				
	Kr	83					
	Sr	88	108.542				
	Y	89					
	Mo	98	98.011				
	Ag	107	105.220				
	Cd	111	102.854				
	Cd	114					
>	In	115		87.9			
	Sn	120	105.383				
	Sb	121	108.087				
	Sb	123					
	Ba	135					
	Ba	137	99.132				
	Ho	165					
>	Lu	175		93.7			
	Tl	205	104.778				
	Pb	208	110.532				
	Bi	209					
	Th	232	107.784				
	U	238	110.740				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, February 25, 2010 01:58:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 12.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	ug/L	10.197	299	0.000
	Be	9	**0.018**	ug/L	51.844	33	0.000
	B	11	**2.579**	ug/L	15.125	1884	0.003
	Na	23	**1.316**	ug/L	84.987	22685	0.014
	Mg	24	**0.489**	ug/L	108.302	5334	0.003
	Al	27	**1.173**	ug/L	112.531	11338	0.011
	P	31	**1.722**	ug/L	86.879	5697	0.001
	K	39	**3.328**	ug/L	55.503	524112	0.046
	Ca	43	**0.968**	ug/L	59.645	341	0.000
>	Sc	45		ug/L		419767	419767.140
	Ti	47	**0.004**	ug/L	877.318	365	0.000
	V	51	**-1.017**	ug/L	82.790	-111	-0.020
	Cr	52	**-0.487**	ug/L	21.332	828	-0.008
	Cr	53		ug/L		109105	-0.018
	Mn	55	**-0.010**	ug/L	62.129	1378	-0.000
	Fe	57	**-2.374**	ug/L	42.893	5645	-0.001
	Co	59	**0.017**	ug/L	11.866	281	0.000
	Ni	60	**0.018**	ug/L	17.750	162	0.000
	Cu	63		ug/L		554	0.000
	Cu	65	**0.028**	ug/L	53.165	297	0.000
	Zn	66	**0.008**	ug/L	100.614	644	0.000
	Zn	67		ug/L		13924	0.000
	Zn	68		ug/L		1632	0.000
>	Ge	74		ug/L		518179	518178.770
	As	75	**0.331**	ug/L	97.478	-143	0.001
	Se	77		ug/L		6369	-0.002
	Se	82	**0.194**	ug/L	18.296	32	0.000
	Kr	83		ug/L		147	-0.000
	Sr	88	**0.016**	ug/L	25.521	573	0.001
	Y	89		ug/L		59	-0.000
	Mo	98	**0.086**	ug/L	12.447	565	0.001
	Ag	107	**0.009**	ug/L	7.425	155	0.000
	Cd	111	**0.019**	ug/L	49.545	72	0.000
	Cd	114		ug/L		158	0.000
>	In	115		ug/L		354160	354159.678
	Sn	120	**0.048**	ug/L	27.503	801	0.001
	Sb	121	**0.877**	ug/L	10.887	6799	0.018
	Sb	123		ug/L		5313	0.014
	Ba	135		ug/L		88	0.000
	Ba	137	**0.015**	ug/L	32.187	150	0.000
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		692811	692811.033
	Tl	205	**0.297**	ug/L	15.828	10425	0.012
	Pb	208	**0.072**	ug/L	19.153	4624	0.005
	Bi	209		ug/L		573	-0.000
	Th	232	**0.062**	ug/L	6.357	4669	0.006
	U	238	**0.087**	ug/L	17.296	6259	0.008

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 03:06:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.465**	**ug/L**	1.954	118632	0.306
	Be	9	**53.925**	**ug/L**	1.997	25821	0.067
	B	11	**99.750**	**ug/L**	1.592	48652	0.124
	Na	23	**4455.631**	**ug/L**	3.102	18422685	47.468
	Mg	24	**4776.217**	**ug/L**	5.396	13019219	33.568
	Al	27	**5033.646**	**ug/L**	3.899	17701688	45.633
	P	31	**4544.170**	**ug/L**	0.649	1053826	2.706
	K	39	**4592.157**	**ug/L**	5.447	25279389	64.018
	Ca	43	**4816.015**	**ug/L**	1.923	67269	0.173
>	Sc	45		**ug/L**		387700	387700.329
	Ti	47	**49.528**	**ug/L**	3.202	36438	0.093
	V	51	**49.899**	**ug/L**	3.841	392794	0.993
	Cr	52	**51.839**	**ug/L**	1.935	323304	0.824
	Cr	53		**ug/L**		170480	0.162
	Mn	55	**54.104**	**ug/L**	2.127	535329	1.377
	Fe	57	**4692.131**	**ug/L**	2.583	1028649	2.639
	Co	59	**52.684**	**ug/L**	1.709	415824	1.072
	Ni	60	**52.046**	**ug/L**	2.538	94908	0.245
	Cu	63		**ug/L**		227636	0.586
	Cu	65	**51.237**	**ug/L**	1.995	112052	0.288
	Zn	66	**50.843**	**ug/L**	0.318	71998	0.148
	Zn	67		**ug/L**		29748	0.035
	Zn	68		**ug/L**		51891	0.105
>	Ge	74		**ug/L**		481221	481220.561
	As	75	**47.765**	**ug/L**	1.495	69952	0.147
	Se	77		**ug/L**		13474	0.014
	Se	82	**49.353**	**ug/L**	3.993	7546	0.016
	Kr	83		**ug/L**		134	-0.000
	Sr	88	**52.285**	**ug/L**	2.686	918989	2.773
	Y	89		**ug/L**		155	0.000
	Mo	98	**47.993**	**ug/L**	2.726	227104	0.685
	Ag	107	**51.141**	**ug/L**	2.709	406585	1.227
	Cd	111	**49.932**	**ug/L**	3.069	100630	0.304
	Cd	114		**ug/L**		235139	0.709
>	In	115		**ug/L**		331469	331469.489
	Sn	120	**52.088**	**ug/L**	3.245	419230	1.264
	Sb	121	**51.190**	**ug/L**	3.297	342473	1.032
	Sb	123		**ug/L**		271371	0.818
	Ba	135		**ug/L**		110871	0.165
	Ba	137	**48.101**	**ug/L**	0.597	197420	0.294
	Ho	165		**ug/L**		62	0.000
>	Lu	175		**ug/L**		671772	671772.270
	Tl	205	**50.110**	**ug/L**	2.090	1368390	2.034
	Pb	208	**53.590**	**ug/L**	2.298	2621957	3.902
	Bi	209		**ug/L**		848	0.000
	Th	232	**50.971**	**ug/L**	1.947	3062468	4.558
	U	238	**51.964**	**ug/L**	0.543	3270061	4.867

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.929				
	Be	9	107.850				
	B	11	99.750				
	Na	23	89.113				
	Mg	24	95.524				
	Al	27	99.676				
	P	31	90.883				
	K	39	91.843				
	Ca	43	96.320				
>	Sc	45		83.0			
	Ti	47	99.055				
	V	51	99.799				
	Cr	52	103.679				
	Cr	53					
	Mn	55	108.207				
	Fe	57	93.843				
	Co	59	105.369				
	Ni	60	104.092				
	Cu	63					
	Cu	65	102.474				
	Zn	66	101.686				
	Zn	67					
	Zn	68					
>	Ge	74		84.1			
	As	75	95.529				
	Se	77					
	Se	82	98.706				
	Kr	83					
	Sr	88	104.570				
	Y	89					
	Mo	98	95.986				
	Ag	107	102.281				
	Cd	111	99.864				
	Cd	114					
>	In	115		87.3			
	Sn	120	104.176				
	Sb	121	102.380				
	Sb	123					
	Ba	135					
	Ba	137	96.202				
	Ho	165					
>	Lu	175		94.8			
	Tl	205	100.221				
	Pb	208	107.179				
	Bi	209					
	Th	232	101.942				
	U	238	103.927				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 03:12:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.002	ug/L	181.797	93	-0.000
	Be	9	0.013	ug/L	92.819	29	0.000
	B	11	2.538	ug/L	12.464	1751	0.003
	Na	23	0.699	ug/L	252.559	18680	0.007
	Mg	24	-0.119	ug/L	174.163	3334	-0.001
	Al	27	0.522	ug/L	164.908	8336	0.005
	P	31	1.329	ug/L	32.453	5261	0.001
	K	39	7.771	ug/L	109.355	516903	0.108
	Ca	43	2.269	ug/L	113.069	339	0.000
>	Sc	45		ug/L		394424	394423.568
	Ti	47	0.008	ug/L	876.599	346	0.000
	V	51	-1.188	ug/L	23.281	-1433	-0.024
	Cr	52	-0.577	ug/L	10.875	218	-0.009
	Cr	53		ug/L		112822	0.008
	Mn	55	-0.016	ug/L	16.502	1237	-0.000
	Fe	57	-2.116	ug/L	7.287	5362	-0.001
	Co	59	0.004	ug/L	23.457	153	0.000
	Ni	60	0.003	ug/L	344.680	124	0.000
	Cu	63		ug/L		385	-0.000
	Cu	65	-0.003	ug/L	129.972	211	-0.000
	Zn	66	-0.014	ug/L	215.355	588	-0.000
	Zn	67		ug/L		13821	0.001
	Zn	68		ug/L		1600	0.000
>	Ge	74		ug/L		497771	497770.977
	As	75	0.140	ug/L	10.133	-434	0.000
	Se	77		ug/L		6583	-0.001
	Se	82	-0.002	ug/L	3289.256	-0	-0.000
	Kr	83		ug/L		151	0.000
	Sr	88	0.003	ug/L	27.952	314	0.000
	Y	89		ug/L		62	-0.000
	Mo	98	0.020	ug/L	18.977	229	0.000
	Ag	107	0.003	ug/L	65.382	102	0.000
	Cd	111	0.007	ug/L	30.382	44	0.000
	Cd	114		ug/L		74	0.000
>	In	115		ug/L		347292	347291.835
	Sn	120	0.009	ug/L	15.923	465	0.000
	Sb	121	0.142	ug/L	15.937	1529	0.003
	Sb	123		ug/L		1169	0.002
	Ba	135		ug/L		65	0.000
	Ba	137	-0.000	ug/L	430.105	87	-0.000
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		688217	688216.705
	Tl	205	0.228	ug/L	22.575	8414	0.009
	Pb	208	0.005	ug/L	6.134	1229	0.000
	Bi	209		ug/L		507	-0.000
	Th	232	0.025	ug/L	11.434	2360	0.002
	U	238	0.006	ug/L	7.177	1001	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		84.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:01:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.297**	**ug/L**	0.876	110710	0.305
	Be	9	**54.146**	**ug/L**	3.019	24265	0.067
	B	11	**100.480**	**ug/L**	3.587	45859	0.125
	Na	23	**4171.471**	**ug/L**	2.958	16138293	44.441
	Mg	24	**4586.782**	**ug/L**	5.716	11694894	32.237
	Al	27	**5055.741**	**ug/L**	4.486	16631740	45.833
	P	31	**4577.718**	**ug/L**	2.256	993543	2.726
	K	39	**4802.389**	**ug/L**	2.715	24743549	66.949
	Ca	43	**4846.935**	**ug/L**	0.926	63379	0.174
>	Sc	45		**ug/L**		362947	362947.495
	Ti	47	**49.047**	**ug/L**	3.723	33775	0.092
	V	51	**50.336**	**ug/L**	6.076	370668	1.002
	Cr	52	**51.846**	**ug/L**	1.989	302704	0.824
	Cr	53		**ug/L**		167069	0.183
	Mn	55	**53.537**	**ug/L**	2.899	495800	1.363
	Fe	57	**4713.288**	**ug/L**	3.470	967035	2.651
	Co	59	**53.158**	**ug/L**	2.348	392706	1.082
	Ni	60	**52.434**	**ug/L**	1.328	89505	0.246
	Cu	63		**ug/L**		213057	0.586
	Cu	65	**51.062**	**ug/L**	1.162	104532	0.287
	Zn	66	**50.557**	**ug/L**	2.303	67110	0.148
	Zn	67		**ug/L**		27645	0.035
	Zn	68		**ug/L**		49177	0.106
>	Ge	74		**ug/L**		451139	451139.409
	As	75	**48.399**	**ug/L**	2.181	66454	0.149
	Se	77		**ug/L**		13618	0.016
	Se	82	**50.015**	**ug/L**	0.660	7172	0.016
	Kr	83		**ug/L**		136	-0.000
	Sr	88	**53.795**	**ug/L**	2.400	874162	2.853
	Y	89		**ug/L**		146	0.000
	Mo	98	**48.885**	**ug/L**	0.506	213906	0.698
	Ag	107	**51.628**	**ug/L**	1.230	379525	1.239
	Cd	111	**50.511**	**ug/L**	0.583	94137	0.307
	Cd	114		**ug/L**		218241	0.712
>	In	115		**ug/L**		306374	306373.728
	Sn	120	**52.632**	**ug/L**	1.336	391718	1.278
	Sb	121	**52.095**	**ug/L**	0.572	322301	1.050
	Sb	123		**ug/L**		255324	0.832
	Ba	135		**ug/L**		104261	0.162
	Ba	137	**47.032**	**ug/L**	1.624	184518	0.287
	Ho	165		**ug/L**		64	0.000
>	Lu	175		**ug/L**		642286	642285.524
	Tl	205	**47.409**	**ug/L**	2.192	1238198	1.924
	Pb	208	**53.506**	**ug/L**	1.974	2502884	3.896
	Bi	209		**ug/L**		767	0.000
	Th	232	**50.854**	**ug/L**	1.982	2920992	4.548
	U	238	**52.228**	**ug/L**	2.841	3141856	4.892

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.593				
	Be	9	108.292				
	B	11	100.480				
	Na	23	83.429				
	Mg	24	91.736				
	Al	27	100.114				
	P	31	91.554				
	K	39	96.048				
	Ca	43	96.939				
>	Sc	45		77.7			
	Ti	47	98.095				
	V	51	100.671				
	Cr	52	103.692				
	Cr	53					
	Mn	55	107.074				
	Fe	57	94.266				
	Co	59	106.317				
	Ni	60	104.868				
	Cu	63					
	Cu	65	102.124				
	Zn	66	101.114				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.798				
	Se	77					
	Se	82	100.031				
	Kr	83					
	Sr	88	107.591				
	Y	89					
	Mo	98	97.769				
	Ag	107	103.257				
	Cd	111	101.022				
	Cd	114					
>	In	115		80.7			
	Sn	120	105.263				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	94.064				
	Ho	165					
>	Lu	175		90.7			
	Tl	205	94.818				
	Pb	208	107.012				
	Bi	209					
	Th	232	101.709				
	U	238	104.456				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 04:07:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.007	ug/L	70.600	75	-0.000
	Be	9	0.001	ug/L	427.705	21	0.000
	B	11	2.858	ug/L	13.649	1735	0.004
	Na	23	2.439	ug/L	61.149	23687	0.026
	Mg	24	-0.394	ug/L	209.953	2334	-0.003
	Al	27	0.134	ug/L	261.103	6335	0.001
	P	31	1.182	ug/L	136.933	4755	0.001
	K	39	5.490	ug/L	106.207	458943	0.077
	Ca	43	3.046	ug/L	45.207	318	0.000
>	Sc	45		ug/L		358890	358890.056
	Ti	47	0.028	ug/L	71.080	328	0.000
	V	51	-1.351	ug/L	6.580	-2470	-0.027
	Cr	52	-0.516	ug/L	15.492	547	-0.008
	Cr	53		ug/L		104474	0.013
	Mn	55	-0.015	ug/L	1.320	1138	-0.000
	Fe	57	-3.066	ug/L	9.844	4687	-0.002
	Co	59	0.004	ug/L	29.358	141	0.000
	Ni	60	0.018	ug/L	28.015	139	0.000
	Cu	63		ug/L		370	0.000
	Cu	65	-0.003	ug/L	222.559	192	-0.000
	Zn	66	-0.088	ug/L	17.806	449	-0.000
	Zn	67		ug/L		12172	-0.001
	Zn	68		ug/L		1411	0.000
>	Ge	74		ug/L		466737	466736.805
	As	75	0.324	ug/L	144.041	-140	0.001
	Se	77		ug/L		6273	-0.001
	Se	82	0.082	ug/L	142.286	12	0.000
	Kr	83		ug/L		123	-0.000
	Sr	88	0.003	ug/L	29.478	298	0.000
	Y	89		ug/L		55	-0.000
	Mo	98	0.024	ug/L	22.589	233	0.000
	Ag	107	0.003	ug/L	88.056	98	0.000
	Cd	111	0.002	ug/L	268.427	32	0.000
	Cd	114		ug/L		77	0.000
>	In	115		ug/L		324681	324681.252
	Sn	120	0.012	ug/L	31.440	456	0.000
	Sb	121	0.144	ug/L	16.700	1443	0.003
	Sb	123		ug/L		1182	0.002
	Ba	135		ug/L		58	0.000
	Ba	137	-0.000	ug/L	774.420	84	-0.000
	Ho	165		ug/L		23	0.000
>	Lu	175		ug/L		664658	664658.160
	Tl	205	1.290	ug/L	8.742	36744	0.052
	Pb	208	0.004	ug/L	43.036	1148	0.000
	Bi	209		ug/L		514	-0.000
	Th	232	0.027	ug/L	8.660	2372	0.002
	U	238	0.006	ug/L	26.064	963	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		81.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 04:14:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032562.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.016	ug/L	22.151	128	0.000
	Be	9	-0.009	ug/L	29.117	17	-0.000
	B	11	1.401	ug/L	17.463	1134	0.002
	Na	23	4.350	ug/L	35.523	32371	0.046
	Mg	24	-0.560	ug/L	68.232	2000	-0.004
	Al	27	7.783	ug/L	4.956	32704	0.071
	P	31	6.164	ug/L	43.133	6087	0.004
	K	39	21.005	ug/L	11.696	561489	0.293
	Ca	43	30.231	ug/L	3.138	699	0.001
>	Sc	45		ug/L		375746	375745.796
	Ti	47	0.449	ug/L	5.663	641	0.001
	V	51	-7.066	ug/L	16.943	-45278	-0.141
	Cr	52	-0.014	ug/L	288.062	3574	-0.000
	Cr	53		ug/L		299123	0.519
	Mn	55	0.270	ug/L	5.227	3919	0.007
	Fe	57	19.815	ug/L	3.550	9741	0.011
	Co	59	-0.002	ug/L	64.075	105	-0.000
	Ni	60	0.059	ug/L	20.296	218	0.000
	Cu	63		ug/L		660	0.001
	Cu	65	0.067	ug/L	16.819	348	0.000
	Zn	66	1.501	ug/L	2.297	2515	0.004
	Zn	67		ug/L		55765	0.097
	Zn	68		ug/L		4784	0.008
>	Ge	74		ug/L		449040	449040.038
	As	75	-1.259	ug/L	75.403	-2320	-0.004
	Se	77		ug/L		21464	0.033
	Se	82	0.095	ug/L	50.908	14	0.000
	Kr	83		ug/L		116	-0.000
	Sr	88	0.103	ug/L	3.988	1818	0.005
	Y	89		ug/L		82	0.000
	Mo	98	0.030	ug/L	15.255	234	0.000
	Ag	107	-0.001	ug/L	75.904	61	-0.000
	Cd	111	-0.003	ug/L	179.448	20	-0.000
	Cd	114		ug/L		35	-0.000
>	In	115		ug/L		291215	291215.233
	Sn	120	0.147	ug/L	3.602	1361	0.004
	Sb	121	0.093	ug/L	28.490	990	0.002
	Sb	123		ug/L		800	0.002
	Ba	135		ug/L		131	0.000
	Ba	137	0.040	ug/L	11.205	230	0.000
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		620339	620338.726
	Tl	205	0.831	ug/L	3.621	22760	0.034
	Pb	208	0.012	ug/L	8.330	1401	0.001
	Bi	209		ug/L		329	-0.000
	Th	232	0.032	ug/L	27.318	2528	0.003
	U	238	-0.006	ug/L	5.233	219	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		80.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 04:20:19
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032563.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.569**	**ug/L**	1.851	104603	0.283
	Be	9	**53.487**	**ug/L**	0.551	24361	0.066
	B	11	**98.988**	**ug/L**	1.738	45918	0.123
	Na	23	**1723.869**	**ug/L**	3.011	6784493	18.365
	Mg	24	**1958.303**	**ug/L**	5.903	5078942	13.763
	Al	27	**2003.800**	**ug/L**	6.081	6705005	18.165
	P	31	**1877.731**	**ug/L**	2.492	416782	1.118
	K	39	**1949.349**	**ug/L**	7.980	10459592	27.175
	Ca	43	**1885.290**	**ug/L**	1.577	25220	0.068
>	Sc	45		**ug/L**		368745	368744.994
	Ti	47	**42.497**	**ug/L**	2.978	29779	0.080
	V	51	**38.420**	**ug/L**	4.356	289276	0.765
	Cr	52	**47.878**	**ug/L**	3.131	284186	0.761
	Cr	53		**ug/L**		324168	0.602
	Mn	55	**50.570**	**ug/L**	2.495	475927	1.287
	Fe	57	**1870.062**	**ug/L**	1.803	393191	1.052
	Co	59	**49.544**	**ug/L**	3.461	371830	1.008
	Ni	60	**48.465**	**ug/L**	2.757	84051	0.228
	Cu	63		**ug/L**		202473	0.548
	Cu	65	**47.455**	**ug/L**	2.259	98703	0.267
	Zn	66	**49.371**	**ug/L**	2.096	64352	0.144
	Zn	67		**ug/L**		66996	0.125
	Zn	68		**ug/L**		49465	0.109
>	Ge	74		**ug/L**		442864	442864.089
	As	75	**45.802**	**ug/L**	0.542	61708	0.141
	Se	77		**ug/L**		25591	0.043
	Se	82	**49.700**	**ug/L**	0.975	6997	0.016
	Kr	83		**ug/L**		127	-0.000
	Sr	88	**52.381**	**ug/L**	1.355	801820	2.778
	Y	89		**ug/L**		124	0.000
	Mo	98	**48.629**	**ug/L**	2.407	200393	0.694
	Ag	107	**51.470**	**ug/L**	2.157	356353	1.235
	Cd	111	**48.569**	**ug/L**	2.043	85251	0.295
	Cd	114		**ug/L**		197890	0.685
>	In	115		**ug/L**		288597	288597.458
	Sn	120	**50.304**	**ug/L**	2.798	352607	1.221
	Sb	121	**52.327**	**ug/L**	2.756	304870	1.055
	Sb	123		**ug/L**		240133	0.831
	Ba	135		**ug/L**		92888	0.152
	Ba	137	**44.194**	**ug/L**	2.352	165053	0.270
	Ho	165		**ug/L**		52	0.000
>	Lu	175		**ug/L**		611402	611401.608
	Tl	205	**43.929**	**ug/L**	5.775	1091482	1.783
	Pb	208	**52.668**	**ug/L**	1.824	2345327	3.835
	Bi	209		**ug/L**		1852324	3.029
	Th	232	**47.940**	**ug/L**	2.144	2621285	4.287
	U	238	**49.516**	**ug/L**	2.470	2835286	4.638

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		79.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		77.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245975001
Sample Date/Time: Thursday, February 25, 2010 04:45:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\245975001.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.118**	**ug/L**	5.650	337	0.001
	Be	9	**-0.001**	**ug/L**	433.766	21	-0.000
	B	11	**18.289**	**ug/L**	1.798	8758	0.023
	Na	23	**108.784**	**ug/L**	13.611	436293	1.159
	Mg	24	**3.498**	**ug/L**	72.197	12340	0.025
	Al	27	**16.391**	**ug/L**	13.211	60128	0.149
	P	31	**5.853**	**ug/L**	8.492	5838	0.003
	K	39	**195.080**	**ug/L**	11.539	1428286	2.720
	Ca	43	**53.357**	**ug/L**	6.945	980	0.002
>	Sc	45		**ug/L**		364155	364155.041
	Ti	47	**0.731**	**ug/L**	5.305	814	0.001
	V	51	**-7.265**	**ug/L**	25.518	-45383	-0.145
	Cr	52	**0.583**	**ug/L**	38.562	6917	0.009
	Cr	53		**ug/L**		314866	0.587
	Mn	55	**0.672**	**ug/L**	2.550	7520	0.017
	Fe	57	**10.244**	**ug/L**	8.624	7481	0.006
	Co	59	**0.005**	**ug/L**	5.991	151	0.000
	Ni	60	**0.166**	**ug/L**	4.827	393	0.001
	Cu	63		**ug/L**		2581	0.006
	Cu	65	**0.494**	**ug/L**	4.492	1213	0.003
	Zn	66	**1.418**	**ug/L**	2.190	2317	0.004
	Zn	67		**ug/L**		56939	0.105
	Zn	68		**ug/L**		4700	0.008
>	Ge	74		**ug/L**		432368	432367.936
	As	75	**-1.019**	**ug/L**	59.215	-1916	-0.003
	Se	77		**ug/L**		23816	0.041
	Se	82	**0.145**	**ug/L**	132.308	20	0.000
	Kr	83		**ug/L**		113	-0.000
	Sr	88	**0.206**	**ug/L**	0.736	3230	0.011
	Y	89		**ug/L**		319	0.001
	Mo	98	**0.016**	**ug/L**	12.992	165	0.000
	Ag	107	**-0.000**	**ug/L**	574.455	64	-0.000
	Cd	111	**0.000**	**ug/L**	7657.790	24	0.000
	Cd	114		**ug/L**		54	0.000
>	In	115		**ug/L**		276856	276856.133
	Sn	120	**0.282**	**ug/L**	3.303	2200	0.007
	Sb	121	**-0.026**	**ug/L**	11.830	278	-0.001
	Sb	123		**ug/L**		225	-0.000
	Ba	135		**ug/L**		595	0.001
	Ba	137	**0.254**	**ug/L**	4.685	1007	0.002
	Ho	165		**ug/L**		47	0.000
>	Lu	175		**ug/L**		599434	599433.759
	Tl	205	**0.305**	**ug/L**	1.960	9213	0.012
	Pb	208	**0.182**	**ug/L**	1.244	8810	0.013
	Bi	209		**ug/L**		292	-0.000
	Th	232	**0.003**	**ug/L**	4.942	884	0.000
	U	238	**0.029**	**ug/L**	2.288	2191	0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		78.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		75.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		72.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:57:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.506**	**ug/L**	0.339	109582	0.306
	Be	9	**54.515**	**ug/L**	0.898	24094	0.067
	B	11	**99.038**	**ug/L**	1.385	44587	0.123
	Na	23	**4616.235**	**ug/L**	9.139	17595928	49.179
	Mg	24	**5036.190**	**ug/L**	4.456	12664742	35.395
	Al	27	**5078.636**	**ug/L**	3.934	16474220	46.040
	P	31	**4592.433**	**ug/L**	3.138	982657	2.734
	K	39	**4762.234**	**ug/L**	3.561	24180152	66.389
	Ca	43	**4847.075**	**ug/L**	1.802	62484	0.174
>	Sc	45		**ug/L**		357833	357833.029
	Ti	47	**49.687**	**ug/L**	0.710	33742	0.093
	V	51	**50.563**	**ug/L**	4.728	367223	1.007
	Cr	52	**51.936**	**ug/L**	2.975	298873	0.826
	Cr	53		**ug/L**		170179	0.198
	Mn	55	**54.215**	**ug/L**	1.908	495131	1.380
	Fe	57	**4774.446**	**ug/L**	3.694	965925	2.685
	Co	59	**53.053**	**ug/L**	2.866	386422	1.080
	Ni	60	**53.199**	**ug/L**	1.625	89530	0.250
	Cu	63		**ug/L**		210242	0.587
	Cu	65	**51.309**	**ug/L**	2.290	103546	0.289
	Zn	66	**49.773**	**ug/L**	1.522	66136	0.145
	Zn	67		**ug/L**		28288	0.036
	Zn	68		**ug/L**		48867	0.105
>	Ge	74		**ug/L**		451461	451460.838
	As	75	**48.008**	**ug/L**	0.832	65967	0.147
	Se	77		**ug/L**		13698	0.016
	Se	82	**49.592**	**ug/L**	2.864	7117	0.016
	Kr	83		**ug/L**		128	-0.000
	Sr	88	**52.768**	**ug/L**	1.425	855952	2.798
	Y	89		**ug/L**		149	0.000
	Mo	98	**48.988**	**ug/L**	3.210	213900	0.699
	Ag	107	**51.362**	**ug/L**	2.086	376828	1.232
	Cd	111	**50.212**	**ug/L**	2.678	93390	0.305
	Cd	114		**ug/L**		216323	0.707
>	In	115		**ug/L**		305832	305831.645
	Sn	120	**51.900**	**ug/L**	2.512	385500	1.260
	Sb	121	**52.095**	**ug/L**	1.504	321698	1.050
	Sb	123		**ug/L**		251575	0.821
	Ba	135		**ug/L**		102932	0.163
	Ba	137	**47.701**	**ug/L**	2.112	184012	0.291
	Ho	165		**ug/L**		65	0.000
>	Lu	175		**ug/L**		631515	631515.344
	Tl	205	**46.443**	**ug/L**	1.654	1192587	1.885
	Pb	208	**54.462**	**ug/L**	2.067	2505112	3.966
	Bi	209		**ug/L**		753	0.000
	Th	232	**51.448**	**ug/L**	0.273	2906226	4.601
	U	238	**52.522**	**ug/L**	1.676	3106822	4.919

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.011				
	Be	9	109.029				
	B	11	99.038				
	Na	23	92.325				
	Mg	24	100.724				
	Al	27	100.567				
	P	31	91.849				
	K	39	95.245				
	Ca	43	96.942				
>	Sc	45		76.7			
	Ti	47	99.375				
	V	51	101.126				
	Cr	52	103.872				
	Cr	53					
	Mn	55	108.431				
	Fe	57	95.489				
	Co	59	106.105				
	Ni	60	106.397				
	Cu	63					
	Cu	65	102.617				
	Zn	66	99.546				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.016				
	Se	77					
	Se	82	99.183				
	Kr	83					
	Sr	88	105.535				
	Y	89					
	Mo	98	97.976				
	Ag	107	102.723				
	Cd	111	100.424				
	Cd	114					
>	In	115		80.5			
	Sn	120	103.799				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	95.401				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	92.886				
	Pb	208	108.923				
	Bi	209					
	Th	232	102.896				
	U	238	105.044				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 05:03:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.012**	**ug/L**	7.011	65	-0.000
	Be	9	**0.018**	**ug/L**	81.045	29	0.000
	B	11	**2.520**	**ug/L**	20.602	1581	0.003
	Na	23	**1.317**	**ug/L**	109.316	19347	0.014
	Mg	24	**-0.261**	**ug/L**	317.906	2667	-0.002
	Al	27	**-0.580**	**ug/L**	91.800	4001	-0.005
	P	31	**0.653**	**ug/L**	186.201	4630	0.000
	K	39	**4.170**	**ug/L**	428.340	451196	0.058
	Ca	43	**1.918**	**ug/L**	39.840	303	0.000
>	Sc	45		**ug/L**		357906	357906.486
	Ti	47	**-0.014**	**ug/L**	177.898	299	-0.000
	V	51	**-1.313**	**ug/L**	9.952	-2185	-0.026
	Cr	52	**-0.637**	**ug/L**	9.607	-145	-0.010
	Cr	53		**ug/L**		103662	0.012
	Mn	55	**-0.012**	**ug/L**	60.588	1158	-0.000
	Fe	57	**-2.516**	**ug/L**	16.303	4785	-0.001
	Co	59	**0.005**	**ug/L**	11.714	149	0.000
	Ni	60	**0.003**	**ug/L**	57.184	112	0.000
	Cu	63		**ug/L**		346	-0.000
	Cu	65	**0.006**	**ug/L**	92.591	210	0.000
	Zn	66	**-0.091**	**ug/L**	4.032	435	-0.000
	Zn	67		**ug/L**		12332	0.000
	Zn	68		**ug/L**		1377	0.000
>	Ge	74		**ug/L**		455989	455989.224
	As	75	**0.415**	**ug/L**	33.315	-11	0.001
	Se	77		**ug/L**		6238	-0.001
	Se	82	**0.102**	**ug/L**	102.734	15	0.000
	Kr	83		**ug/L**		125	-0.000
	Sr	88	**0.004**	**ug/L**	21.231	308	0.000
	Y	89		**ug/L**		59	-0.000
	Mo	98	**0.022**	**ug/L**	28.215	216	0.000
	Ag	107	**0.004**	**ug/L**	88.816	106	0.000
	Cd	111	**0.006**	**ug/L**	78.285	39	0.000
	Cd	114		**ug/L**		85	0.000
>	In	115		**ug/L**		318667	318667.410
	Sn	120	**0.016**	**ug/L**	16.376	477	0.000
	Sb	121	**0.142**	**ug/L**	18.622	1397	0.003
	Sb	123		**ug/L**		1102	0.002
	Ba	135		**ug/L**		65	0.000
	Ba	137	**-0.000**	**ug/L**	3212.883	83	-0.000
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		652645	652644.906
	Tl	205	**1.016**	**ug/L**	10.806	28833	0.041
	Pb	208	**0.005**	**ug/L**	2.478	1156	0.000
	Bi	209		**ug/L**		551	0.000
	Th	232	**0.027**	**ug/L**	8.748	2327	0.002
	U	238	**0.006**	**ug/L**	19.481	960	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 05:15:52
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032564.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.124**	**ug/L**	3.159	347	0.001
	Be	9	**-0.001**	**ug/L**	1434.911	21	-0.000
	B	11	**18.592**	**ug/L**	1.446	8852	0.023
	Na	23	**251.160**	**ug/L**	6.598	984201	2.676
	Mg	24	**9.424**	**ug/L**	27.192	27360	0.066
	Al	27	**41.416**	**ug/L**	11.427	142042	0.375
	P	31	**8.631**	**ug/L**	15.302	6409	0.005
	K	39	**182.608**	**ug/L**	5.241	1357995	2.546
	Ca	43	**57.893**	**ug/L**	8.766	1034	0.002
>	Sc	45		**ug/L**		362357	362357.332
	Ti	47	**1.030**	**ug/L**	0.840	1014	0.002
	V	51	**-6.936**	**ug/L**	16.071	-42796	-0.138
	Cr	52	**0.861**	**ug/L**	29.754	8488	0.014
	Cr	53		**ug/L**		307959	0.572
	Mn	55	**0.615**	**ug/L**	0.837	6960	0.016
	Fe	57	**18.038**	**ug/L**	7.781	9033	0.010
	Co	59	**0.004**	**ug/L**	3.140	146	0.000
	Ni	60	**0.110**	**ug/L**	11.094	296	0.001
	Cu	63		**ug/L**		2657	0.006
	Cu	65	**0.543**	**ug/L**	1.168	1308	0.003
	Zn	66	**1.349**	**ug/L**	0.752	2194	0.004
	Zn	67		**ug/L**		53014	0.098
	Zn	68		**ug/L**		4405	0.007
>	Ge	74		**ug/L**		425364	425364.422
	As	75	**-1.587**	**ug/L**	30.338	-2626	-0.005
	Se	77		**ug/L**		24785	0.044
	Se	82	**0.113**	**ug/L**	126.016	15	0.000
	Kr	83		**ug/L**		114	-0.000
	Sr	88	**0.222**	**ug/L**	1.047	3507	0.012
	Y	89		**ug/L**		359	0.001
	Mo	98	**0.012**	**ug/L**	14.229	151	0.000
	Ag	107	**0.011**	**ug/L**	24.348	139	0.000
	Cd	111	**0.001**	**ug/L**	1063.766	26	0.000
	Cd	114		**ug/L**		47	-0.000
>	In	115		**ug/L**		280041	280040.501
	Sn	120	**0.276**	**ug/L**	0.637	2189	0.007
	Sb	121	**0.011**	**ug/L**	90.073	488	0.000
	Sb	123		**ug/L**		386	0.000
	Ba	135		**ug/L**		796	0.001
	Ba	137	**0.345**	**ug/L**	4.685	1343	0.002
	Ho	165		**ug/L**		45	0.000
>	Lu	175		**ug/L**		600179	600178.698
	Tl	205	**0.274**	**ug/L**	4.149	8469	0.011
	Pb	208	**0.137**	**ug/L**	3.445	6828	0.010
	Bi	209		**ug/L**		768	0.000
	Th	232	**0.014**	**ug/L**	11.562	1439	0.001
	U	238	**0.007**	**ug/L**	10.552	920	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		77.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 05:22:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032565.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	46.348	ug/L	0.616	100386	0.265
	Be	9	51.058	ug/L	1.288	23862	0.063
	B	11	112.113	ug/L	3.218	53293	0.140
	Na	23	2102.246	ug/L	1.918	8491428	22.396
	Mg	24	2025.051	ug/L	9.582	5393717	14.232
	Al	27	2096.404	ug/L	8.492	7192425	19.005
	P	31	1776.591	ug/L	2.501	404903	1.058
	K	39	1918.428	ug/L	2.266	10575946	26.744
	Ca	43	1903.254	ug/L	3.144	26117	0.068
>	Sc	45		ug/L		378395	378394.950
	Ti	47	41.965	ug/L	2.097	30182	0.079
	V	51	35.766	ug/L	2.849	276914	0.712
	Cr	52	48.741	ug/L	1.558	296849	0.775
	Cr	53		ug/L		334865	0.607
	Mn	55	47.573	ug/L	2.893	459466	1.211
	Fe	57	1784.687	ug/L	3.326	385228	1.004
	Co	59	46.837	ug/L	3.092	360716	0.953
	Ni	60	45.989	ug/L	2.969	81841	0.216
	Cu	63		ug/L		194638	0.514
	Cu	65	44.187	ug/L	1.800	94328	0.249
	Zn	66	48.302	ug/L	2.556	61956	0.141
	Zn	67		ug/L		65350	0.123
	Zn	68		ug/L		47075	0.105
>	Ge	74		ug/L		435812	435811.885
	As	75	69.840	ug/L	2.673	92868	0.214
	Se	77		ug/L		25509	0.044
	Se	82	19.025	ug/L	4.187	2635	0.006
	Kr	83		ug/L		139	0.000
	Sr	88	51.998	ug/L	1.358	767904	2.758
	Y	89		ug/L		361	0.001
	Mo	98	49.210	ug/L	2.112	195647	0.702
	Ag	107	52.208	ug/L	1.463	348760	1.253
	Cd	111	10.250	ug/L	2.148	17377	0.062
	Cd	114		ug/L		38530	0.138
>	In	115		ug/L		278448	278447.753
	Sn	120	50.999	ug/L	1.680	344926	1.238
	Sb	121	196.030	ug/L	2.833	1100667	3.953
	Sb	123		ug/L		889988	3.196
	Ba	135		ug/L		90502	0.147
	Ba	137	42.890	ug/L	1.118	161441	0.262
	Ho	165		ug/L		363	0.001
>	Lu	175		ug/L		616160	616160.306
	Tl	205	58.182	ug/L	9.183	1455510	2.362
	Pb	208	41.180	ug/L	0.863	1848411	2.999
	Bi	209		ug/L		1068	0.001
	Th	232	46.865	ug/L	2.967	2582182	4.191
	U	238	47.673	ug/L	3.116	2750697	4.465

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		81.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		76.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 05:28:16
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032566.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.006	ug/L	54.667	104	0.000
	Be	9	0.006	ug/L	35.881	24	0.000
	B	11	5.792	ug/L	13.589	3137	0.007
	Na	23	24.488	ug/L	2.682	111434	0.261
	Mg	24	0.719	ug/L	72.606	5334	0.005
	Al	27	6.155	ug/L	11.270	26692	0.056
	P	31	0.485	ug/L	351.904	4746	0.000
	K	39	38.380	ug/L	33.080	641813	0.535
	Ca	43	15.310	ug/L	11.022	491	0.001
>	Sc	45		ug/L		370232	370232.331
	Ti	47	0.207	ug/L	11.588	463	0.000
	V	51	-2.110	ug/L	32.082	-8236	-0.042
	Cr	52	0.149	ug/L	116.356	4463	0.002
	Cr	53		ug/L		162376	0.161
	Mn	55	0.103	ug/L	10.337	2279	0.003
	Fe	57	-0.969	ug/L	127.725	5267	-0.001
	Co	59	0.000	ug/L	2365.380	117	0.000
	Ni	60	0.023	ug/L	10.007	152	0.000
	Cu	63		ug/L		665	0.001
	Cu	65	0.071	ug/L	8.532	351	0.000
	Zn	66	0.311	ug/L	4.184	961	0.001
	Zn	67		ug/L		17816	0.013
	Zn	68		ug/L		2050	0.002
>	Ge	74		ug/L		451489	451488.745
	As	75	-0.393	ug/L	65.339	-1130	-0.001
	Se	77		ug/L		12404	0.013
	Se	82	0.092	ug/L	176.230	13	0.000
	Kr	83		ug/L		114	-0.000
	Sr	88	0.043	ug/L	7.643	920	0.002
	Y	89		ug/L		105	0.000
	Mo	98	0.011	ug/L	20.574	161	0.000
	Ag	107	0.000	ug/L	504.683	73	0.000
	Cd	111	-0.002	ug/L	40.906	22	-0.000
	Cd	114		ug/L		40	-0.000
>	In	115		ug/L		303525	303525.381
	Sn	120	0.059	ug/L	8.927	775	0.001
	Sb	121	0.003	ug/L	180.420	486	0.000
	Sb	123		ug/L		379	0.000
	Ba	135		ug/L		167	0.000
	Ba	137	0.056	ug/L	7.739	299	0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		636269	636269.192
	Tl	205	3.215	ug/L	9.914	84931	0.130
	Pb	208	0.015	ug/L	2.741	1592	0.001
	Bi	209		ug/L		410	-0.000
	Th	232	0.013	ug/L	9.472	1473	0.001
	U	238	-0.000	ug/L	1010.928	572	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		79.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		79.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 05:34:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	52.917	ug/L	1.868	108597	0.303
	Be	9	54.344	ug/L	3.265	24062	0.067
	B	11	98.597	ug/L	4.825	44462	0.123
	Na	23	4364.899	ug/L	10.122	16677592	46.502
	Mg	24	5166.651	ug/L	5.836	13022055	36.312
	Al	27	5309.819	ug/L	5.270	17255876	48.136
	P	31	4490.103	ug/L	3.876	962807	2.674
	K	39	4761.044	ug/L	2.718	24229143	66.373
	Ca	43	4781.332	ug/L	1.206	61786	0.172
>	Sc	45		ug/L		358648	358648.450
	Ti	47	49.162	ug/L	3.254	33457	0.092
	V	51	48.521	ug/L	5.223	353326	0.966
	Cr	52	51.502	ug/L	4.424	296952	0.819
	Cr	53		ug/L		159249	0.166
	Mn	55	53.828	ug/L	3.683	492501	1.370
	Fe	57	4662.444	ug/L	3.954	945190	2.622
	Co	59	52.524	ug/L	2.604	383384	1.069
	Ni	60	51.967	ug/L	2.640	87643	0.244
	Cu	63		ug/L		208193	0.580
	Cu	65	51.065	ug/L	2.197	103281	0.288
	Zn	66	50.165	ug/L	2.388	65743	0.146
	Zn	67		ug/L		26546	0.033
	Zn	68		ug/L		48197	0.105
>	Ge	74		ug/L		445320	445319.542
	As	75	47.833	ug/L	2.613	64826	0.147
	Se	77		ug/L		13497	0.016
	Se	82	50.120	ug/L	1.860	7094	0.016
	Kr	83		ug/L		138	0.000
	Sr	88	52.759	ug/L	3.617	862826	2.798
	Y	89		ug/L		136	0.000
	Mo	98	47.856	ug/L	2.730	210771	0.683
	Ag	107	50.495	ug/L	4.061	373528	1.211
	Cd	111	49.369	ug/L	3.327	92594	0.300
	Cd	114		ug/L		215515	0.699
>	In	115		ug/L		308474	308473.645
	Sn	120	50.731	ug/L	1.832	380087	1.231
	Sb	121	50.710	ug/L	3.139	315747	1.023
	Sb	123		ug/L		248882	0.806
	Ba	135		ug/L		103265	0.162
	Ba	137	46.919	ug/L	2.371	183074	0.287
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		638898	638898.483
	Tl	205	46.584	ug/L	5.676	1208963	1.891
	Pb	208	54.008	ug/L	2.258	2512712	3.933
	Bi	209		ug/L		723	0.000
	Th	232	50.785	ug/L	5.054	2899879	4.542
	U	238	52.456	ug/L	4.393	3137205	4.913

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.835				
	Be	9	108.687				
	B	11	98.597				
	Na	23	87.298				
	Mg	24	103.333				
	Al	27	105.145				
	P	31	89.802				
	K	39	95.221				
	Ca	43	95.627				
>	Sc	45		76.8			
	Ti	47	98.324				
	V	51	97.043				
	Cr	52	103.003				
	Cr	53					
	Mn	55	107.655				
	Fe	57	93.249				
	Co	59	105.048				
	Ni	60	103.935				
	Cu	63					
	Cu	65	102.130				
	Zn	66	100.329				
	Zn	67					
	Zn	68					
>	Ge	74		77.9			
	As	75	95.665				
	Se	77					
	Se	82	100.239				
	Kr	83					
	Sr	88	105.518				
	Y	89					
	Mo	98	95.711				
	Ag	107	100.990				
	Cd	111	98.739				
	Cd	114					
>	In	115		81.2			
	Sn	120	101.463				
	Sb	121	101.420				
	Sb	123					
	Ba	135					
	Ba	137	93.838				
	Ho	165					
>	Lu	175		90.2			
	Tl	205	93.168				
	Pb	208	108.016				
	Bi	209					
	Th	232	101.570				
	U	238	104.911				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 05:40:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.008	ug/L	35.434	71	-0.000
	Be	9	0.012	ug/L	44.342	26	0.000
	B	11	2.894	ug/L	15.369	1738	0.004
	Na	23	1.175	ug/L	54.758	18679	0.013
	Mg	24	-0.791	ug/L	27.434	1333	-0.006
	Al	27	1.002	ug/L	131.615	9003	0.009
	P	31	-0.273	ug/L	450.430	4404	-0.000
	K	39	5.024	ug/L	159.839	452058	0.070
	Ca	43	1.755	ug/L	118.621	299	0.000
>	Sc	45		ug/L		355897	355897.204
	Ti	47	0.024	ug/L	59.762	323	0.000
	V	51	-1.430	ug/L	43.242	-3078	-0.028
	Cr	52	-0.546	ug/L	13.221	364	-0.009
	Cr	53		ug/L		100757	0.005
	Mn	55	-0.012	ug/L	22.218	1151	-0.000
	Fe	57	-2.595	ug/L	49.371	4738	-0.001
	Co	59	0.003	ug/L	75.329	136	0.000
	Ni	60	0.006	ug/L	57.367	117	0.000
	Cu	63		ug/L		374	0.000
	Cu	65	0.001	ug/L	1267.111	198	0.000
	Zn	66	-0.105	ug/L	6.230	414	-0.000
	Zn	67		ug/L		11868	-0.001
	Zn	68		ug/L		1291	-0.000
>	Ge	74		ug/L		453770	453770.256
	As	75	0.178	ug/L	92.795	-343	0.001
	Se	77		ug/L		6176	-0.001
	Se	82	-0.039	ug/L	402.610	-5	-0.000
	Kr	83		ug/L		130	-0.000
	Sr	88	0.002	ug/L	136.865	273	0.000
	Y	89		ug/L		58	-0.000
	Mo	98	0.027	ug/L	29.378	238	0.000
	Ag	107	0.004	ug/L	72.977	103	0.000
	Cd	111	0.006	ug/L	24.325	40	0.000
	Cd	114		ug/L		74	0.000
>	In	115		ug/L		316780	316780.065
	Sn	120	0.009	ug/L	42.527	422	0.000
	Sb	121	0.141	ug/L	22.448	1380	0.003
	Sb	123		ug/L		1128	0.002
	Ba	135		ug/L		52	0.000
	Ba	137	-0.002	ug/L	173.345	75	-0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		652981	652980.698
	Tl	205	2.263	ug/L	3.135	61943	0.092
	Pb	208	0.005	ug/L	17.380	1143	0.000
	Bi	209		ug/L		536	-0.000
	Th	232	0.025	ug/L	6.004	2231	0.002
	U	238	0.005	ug/L	19.730	901	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

Sample ID: QC Std 7
Report Date/Time: Thursday, February 25, 2010 05:43:19
Page 3

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 10:21:12
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.587
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	7667.7	7667.657	92.696	1.2
	Mg	24.0	65438.4	65438.352	810.719	1.2
	Co	58.9	148768.2	148768.250	1242.721	0.8
	Rh	102.9	281248.6	281248.630	3259.965	1.2
	In	114.9	364299.1	364299.123	3937.746	1.1
	Pb	208.0	327198.7	327198.660	900.422	0.3
⌈>	Ba	137.9	337284.3	337284.262	1053.536	0.3
⌊	Ba++	69.0	6381.2	0.019	0.000	1.2
⌈>	Ce	139.9	411857.7	411857.650	5034.814	1.2
⌊	CeO	155.9	10883.8	0.026	0.000	1.5
	Bkgd	220.0	24.6	24.600	6.358	25.8

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	7423.9
Co	59	13	6.3	140852.6
In	115	13	6.8	347281.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2072	0.604
Be	9.0	9.0	2056	2088	0.598
Mg	24.0	24.0	5695	2100	0.591
Mg	25.0	25.0	5935	2100	0.577
Mg	26.0	26.0	6177	2100	0.596
Co	58.9	59.0	14189	2125	0.594
Rh	102.9	102.9	24878	2180	0.579
In	114.9	114.9	27792	2200	0.585
Ce	139.9	139.9	33864	2220	0.581
Pb	206.0	206.0	49948	2305	0.587
Pb	207.0	207.0	50159	2240	0.631
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57732	2275	0.744

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 14:12:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Blank.347

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		25	
>	Sc	45		ug/L		668888	
	Mn	55		ug/L		2291	
>	Lu	175		ug/L		595837	
	Tl	205		ug/L		883	
	Pb	208		ug/L		475	
	U	238		ug/L		204	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Mn	55	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 14:14:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.348

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	0.828	6540	0.010
>	Sc	45		ug/L		676851	676850.534
	Mn	55	10.000	ug/L	1.904	177072	0.258
>	Lu	175		ug/L		589758	589757.524
	Tl	205	10.000	ug/L	0.453	263884	0.446
	Pb	208	10.000	ug/L	2.877	474859	0.805
	U	238	10.000	ug/L	0.241	601643	1.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 14:17:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.349

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.022**	**ug/L**	1.049	63615	0.098
>	Sc	45		**ug/L**		645973	645972.524
	Mn	55	**99.878**	**ug/L**	2.401	1486823	2.298
>	Lu	175		**ug/L**		584303	584303.328
	Tl	205	**99.812**	**ug/L**	2.029	2189635	3.747
	Pb	208	**99.844**	**ug/L**	1.355	4061519	6.951
	U	238	**99.831**	**ug/L**	0.936	5089463	8.710

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 14:19:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.350

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.337**	**ug/L**	0.831	31823	0.051
>	Sc	45		**ug/L**		629483	629482.623
	Mn	55	**54.535**	**ug/L**	2.129	791888	1.255
>	Lu	175		**ug/L**		589274	589274.225
	Tl	205	**52.420**	**ug/L**	0.813	1160354	1.968
	Pb	208	**53.310**	**ug/L**	1.745	2187052	3.711
	U	238	**52.301**	**ug/L**	0.705	2689274	4.563

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	102.674				
>	Sc	45		94.1			
	Mn	55	109.069				
>	Lu	175		98.9			
	Tl	205	104.839				
	Pb	208	106.620				
	U	238	104.602				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 14:22:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.002	ug/L	214.675	24	-0.000
>	Sc	45		ug/L		654529	654529.493
	Mn	55	-0.004	ug/L	100.755	2183	-0.000
>	Lu	175		ug/L		595331	595330.522
	Tl	205	0.102	ug/L	6.118	3167	0.004
	Pb	208	0.003	ug/L	26.105	579	0.000
	U	238	0.008	ug/L	1.572	602	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.9			
	Mn	55					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 14:24:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.352

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.557**	**ug/L**	9.676	385	0.001
>	Sc	45		**ug/L**		658791	658790.794
	Mn	55	**6.275**	**ug/L**	4.301	97305	0.144
>	Lu	175		**ug/L**		592978	592978.327
	Tl	205	**1.277**	**ug/L**	1.263	29298	0.048
	Pb	208	**2.551**	**ug/L**	2.809	105733	0.178
	U	238	**0.290**	**ug/L**	0.556	15199	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	111.411				
>	Sc	45		98.5			
	Mn	55	125.508				
>	Lu	175		99.5			
	Tl	205	127.675				
	Pb	208	127.538				
	U	238	144.913				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 14:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.089**	**ug/L**	12.417	70	0.000
>	Sc	45		**ug/L**		556722	556721.917
	Mn	55	**6.374**	**ug/L**	2.843	83520	0.147
>	Lu	175		**ug/L**		546173	546173.398
	Tl	205	**0.027**	**ug/L**	7.143	1352	0.001
	Pb	208	**0.239**	**ug/L**	1.772	9511	0.017
	U	238	**-0.001**	**ug/L**	7.538	150	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.2			
	Mn	55	109.892				
>	Lu	175		91.7			
	Tl	205					
	Pb	208	126.313				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 14:29:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.354

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.782**	**ug/L**	1.989	10470	0.019
>	Sc	45		**ug/L**		536856	536856.079
	Mn	55	**28.447**	**ug/L**	1.663	353252	0.655
>	Lu	175		**ug/L**		544762	544762.461
	Tl	205	**21.404**	**ug/L**	1.003	438467	0.803
	Pb	208	**21.975**	**ug/L**	2.109	833709	1.530
	U	238	**23.745**	**ug/L**	0.446	1128817	2.072

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.910				
>	Sc	45		80.3			
	Mn	55	110.258				
>	Lu	175		91.4			
	Tl	205	107.019				
	Pb	208	108.847				
	U	238	118.723				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 14:32:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\Nanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.355

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.548**	**ug/L**	3.801	31989	0.053
>	Sc	45		**ug/L**		606838	606838.403
	Mn	55	**54.439**	**ug/L**	2.137	762096	1.253
>	Lu	175		**ug/L**		601484	601484.197
	Tl	205	**51.997**	**ug/L**	0.762	1174882	1.952
	Pb	208	**54.077**	**ug/L**	2.248	2264396	3.765
	U	238	**53.307**	**ug/L**	0.482	2797685	4.651

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	107.095				
>	Sc	45		90.7			
	Mn	55	108.878				
>	Lu	175		100.9			
	Tl	205	103.993				
	Pb	208	108.154				
	U	238	106.613				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 14:34:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.356

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	739.982	24	-0.000
>	Sc	45		ug/L		649200	649199.690
	Mn	55	-0.021	ug/L	1.269	1911	-0.000
>	Lu	175		ug/L		625070	625069.607
	Tl	205	0.087	ug/L	3.030	2978	0.003
	Pb	208	0.000	ug/L	61.802	513	0.000
	U	238	0.005	ug/L	17.144	503	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.1			
	Mn	55					
>	Lu	175		104.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 14:56:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 8.364

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.970**	**ug/L**	1.302	31179	0.052
>	Sc	45		**ug/L**		597786	597786.220
	Mn	55	**55.100**	**ug/L**	1.866	759807	1.268
>	Lu	175		**ug/L**		595134	595133.877
	Tl	205	**52.325**	**ug/L**	0.329	1169829	1.964
	Pb	208	**53.592**	**ug/L**	1.336	2220837	3.731
	U	238	**52.623**	**ug/L**	2.770	2733100	4.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	105.941				
>	Sc	45		89.4			
	Mn	55	110.199				
>	Lu	175		99.9			
	Tl	205	104.651				
	Pb	208	107.184				
	U	238	105.247				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 14:59:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 9.365

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.001	ug/L	1466.131	23	0.000
>	Sc	45		ug/L		607338	607337.892
	Mn	55	0.001	ug/L	693.699	2089	0.000
>	Lu	175		ug/L		599774	599774.272
	Tl	205	0.874	ug/L	1.983	20554	0.033
	Pb	208	0.003	ug/L	4.189	607	0.000
	U	238	0.008	ug/L	2.310	641	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Mn	55					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 15:13:21
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.370

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	99.825	21	-0.000
>	Sc	45		ug/L		643470	643470.488
	Mn	55	0.283	ug/L	5.774	6389	0.007
>	Lu	175		ug/L		585134	585134.328
	Tl	205	0.483	ug/L	1.138	11475	0.018
	Pb	208	0.021	ug/L	5.320	1327	0.001
	U	238	-0.000	ug/L	198.800	193	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 15:15:56
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.371

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.625**	**ug/L**	4.308	32048	0.049
>	Sc	45		**ug/L**		656083	656083.082
	Mn	55	**50.137**	**ug/L**	2.054	758987	1.154
>	Lu	175		**ug/L**		589037	589037.009
	Tl	205	**42.034**	**ug/L**	2.037	930318	1.578
	Pb	208	**52.764**	**ug/L**	2.619	2163992	3.673
	U	238	**51.774**	**ug/L**	0.516	2660967	4.517

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.1			
	Mn	55					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:23:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.374

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.183**	**ug/L**	1.937	31055	0.053
>	Sc	45		**ug/L**		582090	582090.176
	Mn	55	**54.374**	**ug/L**	3.736	730010	1.251
>	Lu	175		**ug/L**		593497	593496.547
	Tl	205	**52.300**	**ug/L**	3.630	1165289	1.963
	Pb	208	**54.421**	**ug/L**	2.513	2248095	3.789
	U	238	**53.119**	**ug/L**	0.451	2750767	4.635

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	108.365				
>	Sc	45		87.0			
	Mn	55	108.748				
>	Lu	175		99.6			
	Tl	205	104.601				
	Pb	208	108.842				
	U	238	106.238				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:26:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.375

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.005	ug/L	23.854	26	0.000
>	Sc	45		ug/L		602746	602745.952
	Mn	55	0.003	ug/L	113.169	2105	0.000
>	Lu	175		ug/L		615579	615578.706
	Tl	205	0.490	ug/L	4.079	12233	0.018
	Pb	208	0.001	ug/L	113.914	533	0.000
	U	238	0.006	ug/L	6.248	549	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Mn	55					
>	Lu	175		103.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245975001
Sample Date/Time: Thursday, February 25, 2010 15:31:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\245975001.377

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.006	ug/L	101.110	21	-0.000
>	Sc	45		ug/L		638596	638595.628
	Mn	55	0.690	ug/L	1.639	12322	0.016
>	Lu	175		ug/L		589778	589777.970
	Tl	205	0.227	ug/L	4.966	5904	0.009
	Pb	208	0.199	ug/L	1.441	8623	0.014
	U	238	0.039	ug/L	2.965	2222	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.5			
	Mn	55					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 15:39:45
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.380

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	216.799	22	-0.000
>	Sc	45		ug/L		643322	643321.984
	Mn	55	0.626	ug/L	2.225	11465	0.014
>	Lu	175		ug/L		594600	594599.800
	Tl	205	0.097	ug/L	3.017	3045	0.004
	Pb	208	0.145	ug/L	1.845	6466	0.010
	U	238	0.013	ug/L	4.690	878	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 15:42:21
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.381

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	47.665	ug/L	3.328	29818	0.047
>	Sc	45		ug/L		635371	635371.076
	Mn	55	48.892	ug/L	0.732	717113	1.125
>	Lu	175		ug/L		588240	588240.219
	Tl	205	57.057	ug/L	5.253	1260682	2.142
	Pb	208	42.232	ug/L	0.828	1729953	2.940
	U	238	51.407	ug/L	1.109	2638697	4.485

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.0			
	Mn	55					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 15:44:58
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|ba|
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.382

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	11232.568	23	0.000
>	Sc	45		**ug/L**		614367	614367.315
	Mn	55	**0.101**	**ug/L**	4.725	3533	0.002
>	Lu	175		**ug/L**		627621	627620.913
	Tl	205	**2.853**	**ug/L**	3.675	68114	0.107
	Pb	208	**0.023**	**ug/L**	6.465	1516	0.002
	U	238	**0.004**	**ug/L**	2.553	424	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.8			
	Mn	55					
>	Lu	175		105.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:50:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.384

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.732**	**ug/L**	4.848	29509	0.051
>	Sc	45		**ug/L**		579534	579534.140
	Mn	55	**53.551**	**ug/L**	1.178	716125	1.232
>	Lu	175		**ug/L**		613922	613922.104
	Tl	205	**50.004**	**ug/L**	1.850	1153173	1.877
	Pb	208	**52.325**	**ug/L**	1.116	2236872	3.643
	U	238	**51.422**	**ug/L**	0.906	2754482	4.487

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.463				
>	Sc	45		86.6			
	Mn	55	107.101				
>	Lu	175		103.0			
	Tl	205	100.009				
	Pb	208	104.651				
	U	238	102.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:52:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.385

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	176.091	23	0.000
>	Sc	45		**ug/L**		580751	580751.122
	Mn	55	**0.006**	**ug/L**	93.107	2066	0.000
>	Lu	175		**ug/L**		608046	608045.886
	Tl	205	**1.444**	**ug/L**	1.703	33844	0.054
	Pb	208	**0.002**	**ug/L**	22.146	571	0.000
	U	238	**0.007**	**ug/L**	7.541	605	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.8			
	Mn	55					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 15:57:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Blank.386

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		599602	
	U	238		ug/L		354	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 15:58:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.387

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		598286	598285.760
⌊	U	238	10.000	ug/L	1.095	639626	1.069

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 16:00:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.388

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		591647	591647.028
	U	238	99.816	ug/L	0.480	5330455	9.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 16:01:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.389

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		594744	594744.465
	U	238	**52.109**	**ug/L**	1.185	2797259	4.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.2			
	U	238	104.217				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 16:03:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.390

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		616563	616563.277
⌊	U	238	**0.017**	**ug/L**	6.946	1307	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		102.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 16:05:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.391

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		600065	600064.857
	U	238	0.244	ug/L	1.225	13546	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.1			
	U	238	121.797				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 16:07:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.392

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		544306	544305.822
	U	238	-0.001	ug/L	6.362	248	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		90.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 16:08:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.393

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		539792	539791.708
	U	238	23.423	ug/L	0.126	1141451	2.114

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		90.0			
	U	238	117.115				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:10:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.394

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		596598	596598.137
⌊	U	238	51.765	ug/L	0.946	2787532	4.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.5			
⌊	U	238	103.530				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:12:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.395

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		594162	594161.567
[	U	238	0.010	ug/L	6.225	887	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		99.1			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 16:13:44
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.396

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		561602	561602.446
⌊	U	238	-0.000	ug/L	231.891	321	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 16:15:27
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.397

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		570802	570802.292
	U	238	50.564	ug/L	1.023	2605073	4.564

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245975001
Sample Date/Time: Thursday, February 25, 2010 16:22:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\245975001.401

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		584285	584285.371
	U	238	0.034	ug/L	3.126	2124	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		97.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:24:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.402

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		619346	619345.966
	U	238	49.089	ug/L	0.403	2744254	4.430

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		103.3			
	U	238	98.177				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:25:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.403

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		622016	622015.783
	U	238	0.010	ug/L	6.333	921	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		103.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 16:30:55
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.406

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		587644	587643.561
⌊	U	238	0.010	ug/L	6.425	883	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		98.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 16:32:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.407

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		587968	587967.926
⌊	U	238	49.454	ug/L	1.450	2624658	4.463

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		98.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 16:34:25
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.408

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		624063	624063.010
	U	238	0.006	ug/L	8.896	693	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		104.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:36:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.409

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		604405	604404.935
	U	238	50.306	ug/L	0.810	2744319	4.540

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.8			
	U	238	100.612				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:37:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.410

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		601216	601215.925
	U	238	0.010	ug/L	9.203	908	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		100.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, February 28, 2010 11:19:11
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.612
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6196.3	6196.344	143.347	2.3
	Mg	24.0	67234.2	67234.247	309.860	0.5
	Co	58.9	132558.2	132558.202	1103.361	0.8
	Rh	102.9	258781.3	258781.341	1982.494	0.8
	In	114.9	336320.1	336320.050	2837.596	0.8
	Pb	208.0	320426.5	320426.537	1072.771	0.3
⌈>	Ba	137.9	331832.6	331832.612	2204.656	0.7
⌊	Ba++	69.0	5415.4	0.016	0.000	1.6
⌈>	Ce	139.9	412164.8	412164.835	3829.750	0.9
⌊	CeO	155.9	10667.4	0.026	0.001	3.8
	Bkgd	220.0	21.3	21.300	4.604	21.6

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	6.0	6925.3
Co	59	13	6.5	130705.5
In	115	13	7.3	340695.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2050	0.661
Be	9.0	9.0	2061	2075	0.622
Mg	24.0	24.0	5689	2080	0.610
Mg	25.0	25.0	5941	2080	0.625
Mg	26.0	26.0	6167	2080	0.630
Co	58.9	58.9	14183	2110	0.614
Rh	102.9	102.9	24875	2160	0.629
In	114.9	114.9	27789	2180	0.626
Ce	139.9	139.9	33873	2200	0.627
Pb	206.0	206.0	49948	2295	0.581
Pb	207.0	207.0	50171	2240	0.628
Pb	208.0	208.0	50451	2265	0.688
U	238.1	238.1	57734	2275	0.722

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 11:32:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		677057	
⌊	Tl	205		ug/L		808	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 11:35:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 1.002

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		667556	667556.025
⌊	Tl	205	**10.000**	**ug/L**	0.862	294295	0.440

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 11:38:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		659367	659366.978
	Tl	205	99.812	ug/L	1.331	2437008	3.695

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 11:42:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		673365	673364.882
	Tl	205	53.184	ug/L	1.645	1326362	1.969

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.5			
	Tl	205	106.368				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 11:45:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		681777	681776.982
	Tl	205	0.030	ug/L	1.811	1560	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 11:48:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		672467	672467.132
	Tl	205	1.266	ug/L	0.670	32318	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.3			
	Tl	205	126.599				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 11:51:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		588832	588831.842
	Tl	205	0.013	ug/L	10.715	984	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		87.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 11:54:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		590656	590656.176
⌊	Tl	205	22.733	ug/L	1.043	497747	0.842

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		87.2			
⌊	Tl	205	113.667				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 11:57:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		670145	670145.439
⌊	Tl	205	53.996	ug/L	0.427	1340274	1.999

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.0			
⌊	Tl	205	107.992				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 12:01:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686615	686614.820
	Tl	205	0.021	ug/L	4.777	1342	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:20:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686305	686304.568
	Tl	205	52.972	ug/L	1.323	1346565	1.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205	105.943				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:23:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		688824	688824.054
	Tl	205	0.058	ug/L	1.241	2291	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		101.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:42:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		668337	668336.676
	Tl	205	53.656	ug/L	1.715	1328080	1.986

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.7			
	Tl	205	107.312				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:45:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		670679	670678.529
	Tl	205	0.170	ug/L	2.585	5015	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:06:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		668176	668175.537
⌊	Tl	205	52.327	ug/L	0.462	1295066	1.937

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.7			
⌊	Tl	205	104.655				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:09:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		649044	649044.468
	Tl	205	0.080	ug/L	1.399	2707	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175		95.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:29:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		635047	635047.332
	Tl	205	53.266	ug/L	1.058	1252817	1.972

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.8			
	Tl	205	106.531				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:32:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		653533	653533.489
⌊	Tl	205	0.138	ug/L	1.085	4121	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		96.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:51:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		630598	630597.877
	Tl	205	53.890	ug/L	0.285	1258712	1.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		93.1			
	Tl	205	107.780				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:54:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		655368	655368.483
⌊	Tl	205	0.124	ug/L	1.141	3781	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		96.8			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:10:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		656527	656526.813
⌊	Tl	205	52.015	ug/L	0.912	1264760	1.925

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.0			
⌊	Tl	205	104.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:13:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		633750	633749.781
⌊	Tl	205	0.304	ug/L	2.392	7889	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		93.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Sunday, February 28, 2010 14:17:07
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032562.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		637279	637278.987
	Tl	205	0.165	ug/L	0.459	4652	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Sunday, February 28, 2010 14:20:21
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032563.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		618802	618801.549
⌊	Tl	205	52.260	ug/L	0.827	1197858	1.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		91.4			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 245975001
Sample Date/Time: Sunday, February 28, 2010 14:33:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\245975001.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		597343	597343.474
	Tl	205	0.119	ug/L	3.304	3348	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		88.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:39:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		636661	636661.313
⌊	Tl	205	51.753	ug/L	1.268	1220367	1.916

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.0			
⌊	Tl	205	103.507				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:42:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		646420	646420.439
	Tl	205	0.124	ug/L	3.474	3745	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Sunday, February 28, 2010 14:49:15
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032564.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		606403	606402.736
⌊	Tl	205	0.035	ug/L	8.276	1508	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		89.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Sunday, February 28, 2010 14:52:24
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032565.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		604264	604263.531
	Tl	205	74.988	ug/L	1.789	1678038	2.776

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		89.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Sunday, February 28, 2010 14:55:34
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032566.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		622697	622697.219
⌊	Tl	205	1.665	ug/L	1.459	39115	0.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		92.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 14:58:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		639572	639571.983
⌊	Tl	205	52.103	ug/L	0.346	1234316	1.929

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.5			
⌊	Tl	205	104.206				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 15:01:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		627865	627864.641
⌊	Tl	205	0.778	ug/L	1.776	18837	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		92.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\020510W1.SIF
Batch ID:
Results Data Set: 020510W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/5/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0006	0.0003	09:04:56	Yes
2		[0.00]	0.0002	-0.0003	0.0002	09:05:30	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	20.18				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/5/2010 09:05:49**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0019	0.0085	0.0021	09:06:50	Yes
2		[0.2]	0.0019	0.0079	0.0021	09:07:24	Yes
Mean:		[0.2]	0.0019				
SD:		0.0	0.0000				
%RSD:		0.0	0.42				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00933 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/5/2010 09:07:43**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0047	0.0201	0.0049	09:08:45	Yes
2		[0.5]	0.0048	0.0214	0.0050	09:09:19	Yes
Mean:		[0.5]	0.0047				
SD:		0.0	0.0001				
%RSD:		0.0	1.87				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999967 Slope: 0.00950 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/5/2010 09:09:39**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0191	0.0825	0.0194	09:10:40	Yes
2		[2.0]	0.0190	0.0814	0.0192	09:11:15	Yes
Mean:		[2.0]	0.0190				
SD:		0.0	0.0001				
%RSD:		0.0	0.73				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.00953 Intercept: -0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/5/2010 09:11:35**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0473	0.2057	0.0476	09:12:37	Yes
2		[5.0]	0.0469	0.2028	0.0471	09:13:12	Yes
Mean:		[5.0]	0.0471				
SD:		0.0	0.0003				
%RSD:		0.0	0.72				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00942 Intercept: 0.00004

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/5/2010 09:13:32**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0944	0.4143	0.0947	09:14:32	Yes
2		[10.0]	0.0937	0.4076	0.0940	09:15:07	Yes
Mean:		[10.0]	0.0941				
SD:		0.0	0.0005				
%RSD:		0.0	0.53				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

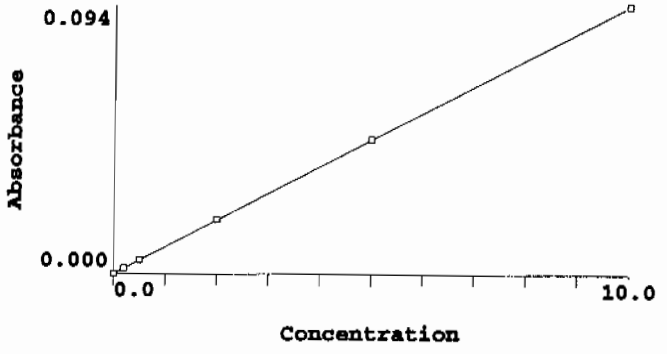

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.006	0.00	20.2
S0.2	0.0019	0.2	0.192	0.00	0.4
S0.5	0.0047	0.5	0.498	0.00	1.9
S2.0	0.0190	2.0	2.019	0.00	0.7

S5.0	0.0471	5.0	5.001	0.00	0.7
S10.0	0.0941	10.0	9.996	0.00	0.5

Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

Sequence No.: 7
Sample ID: ICV
Analyst:

Autosampler Location: 9
Date Collected: 2/5/2010 09:15:26
Data Type: Original

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.965	4.965	0.0468	0.2021	0.0470	09:16:27	Yes
2	4.945	4.945	0.0466	0.2010	0.0468	09:17:02	Yes
Mean:	4.955	4.955	0.0467				
SD:	0.014	0.014	0.0001				
%RSD:	0.281	0.281	0.28				

QC value within limits for Hg 253.7 Recovery = 99.10%
All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICB
Analyst:

Autosampler Location: 10
Date Collected: 2/5/2010 09:17:22
Data Type: Original

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	-0.0008	0.0002	09:18:23	Yes
2	-0.012	-0.012	-0.0000	-0.0006	0.0002	09:18:58	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.89	11.89	23.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CRDL
Analyst:

Autosampler Location: 11
Date Collected: 2/5/2010 09:19:18
Data Type: Original

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.191	0.191	0.0019	0.0082	0.0021	09:20:19	Yes
2	0.191	0.191	0.0019	0.0082	0.0021	09:20:54	Yes
Mean:	0.191	0.191	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.034	0.034	0.03				

QC value within limits for Hg 253.7 Recovery = 95.30%
All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCV
Analyst:

Autosampler Location: 7
Date Collected: 2/5/2010 09:21:14
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.014	5.014	0.0472	0.2051	0.0475	09:22:14	Yes
2	4.974	4.974	0.0468	0.2038	0.0471	09:22:50	Yes
Mean:	4.994	4.994	0.0470				
SD:	0.029	0.029	0.0003				
%RSD:	0.577	0.577	0.58				

QC value within limits for Hg 253.7 Recovery = 99.88%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/5/2010 09:23:09
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0000	-0.0002	0.0002	09:24:10	Yes
2	-0.006	-0.006	0.0000	0.0002	0.0002	09:24:45	Yes
Mean:	-0.009	-0.009	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	42.32	42.32	156.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202029931|947628|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 2/5/2010 09:25:04
Data Type: Original

Replicate Data: 1202029931|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	-0.0005	0.0002	09:26:06	Yes
2	-0.005	-0.005	0.0000	-0.0001	0.0002	09:26:40	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	44.19	44.19	224.20				

Sequence No.: 13
Sample ID: 1202029932|947628|1
Analyst: JXL
Autosampler Location: 13
Date Collected: 2/5/2010 09:27:01
Data Type: Original

Replicate Data: 1202029932|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0191	0.0835	0.0193	09:28:02	Yes
2	2.026	2.026	0.0191	0.0827	0.0193	09:28:37	Yes
Mean:	2.024	2.024	0.0191				
SD:	0.003	0.003	0.0000				
%RSD:	0.144	0.144	0.14				

Sequence No.: 14
Sample ID: 245601001|947628|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 2/5/2010 09:28:58
Data Type: Original

Replicate Data: 245601001|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0002	0.0002	09:29:58	Yes
2	0.002	0.002	0.0001	0.0008	0.0003	09:30:33	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	299.4	299.4	87.21				

Sequence No.: 15
Sample ID: 245614001|947628|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 2/5/2010 09:30:52
Data Type: Original

Replicate Data: 245614001|947628|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202029937|947628|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	09:41:26	Yes
2	-0.008	-0.008	-0.0000	-0.0004	0.0002	09:42:01	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.270	1.270	5.82				

Sequence No.: 21
Sample ID: 1202033203|949020|1
Analyst: JXL
Autosampler Location: 21
Date Collected: 2/5/2010 09:42:20
Data Type: Original

Replicate Data: 1202033203|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0006	0.0003	09:43:21	Yes
2	0.003	0.003	0.0001	0.0014	0.0003	09:43:56	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	53.61	53.61	15.02				

Sequence No.: 22
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 2/5/2010 09:44:15
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.947	4.947	0.0466	0.2056	0.0468	09:45:17	Yes
2	4.906	4.906	0.0462	0.2030	0.0464	09:45:52	Yes
Mean:	4.927	4.927	0.0464				
SD:	0.029	0.029	0.0003				
%RSD:	0.589	0.589	0.59				

QC value within limits for Hg 253.7 Recovery = 98.53%
All analyte(s) passed QC.

Sequence No.: 23
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/5/2010 09:46:11
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0003	0.0002	09:47:12	Yes
2	0.006	0.006	0.0001	0.0006	0.0003	09:47:46	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.009	0.009	0.0001				
%RSD:	>999.9%	>999.9%	153.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24
Sample ID: 1202033204|949020|1
Analyst: JXL
Autosampler Location: 22
Date Collected: 2/5/2010 09:48:06
Data Type: Original

Replicate Data: 1202033204|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.013	2.013	0.0190	0.0852	0.0192	09:49:07	Yes
2	2.004	2.004	0.0189	0.0839	0.0191	09:49:42	Yes

Mean:	2.009	2.009	0.0190
SD:	0.006	0.006	0.0001
%RSD:	0.312	0.312	0.31

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 245911001|949020|1 **Date Collected: 2/5/2010 09:50:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 245911001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0002	0.0022	0.0004	09:51:03	Yes
2	0.017	0.017	0.0002	0.0028	0.0005	09:51:38	Yes
Mean:	0.016	0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	7.972	7.972	5.75				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 245922001|949020|1 **Date Collected: 2/5/2010 09:51:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 245922001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0012	0.0003	09:53:00	Yes
2	0.007	0.007	0.0001	0.0009	0.0004	09:53:35	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	44.12	44.12	20.60				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 245939001|949020|1 **Date Collected: 2/5/2010 09:53:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0030	0.0005	09:54:57	Yes
2	0.022	0.022	0.0003	0.0034	0.0005	09:55:32	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	14.54	14.54	11.04				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 245939002|949020|1 **Date Collected: 2/5/2010 09:55:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0010	0.0003	09:56:53	Yes
2	0.006	0.006	0.0001	0.0011	0.0003	09:57:28	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	80.46	80.46	31.18				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 245953001|949020|1 **Date Collected: 2/5/2010 09:57:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 245953001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	-0.0001	0.0003	09:58:48	Yes
2	0.005	0.005	0.0001	0.0008	0.0003	09:59:23	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	292.1	292.1	59.58				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 245965001|949020|1 **Date Collected: 2/5/2010 09:59:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 245965001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0007	0.0003	10:00:43	Yes
2	0.004	0.004	0.0001	0.0002	0.0003	10:01:18	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	33.02	33.02	15.09				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 245975001|949020|1 **Date Collected: 2/5/2010 10:01:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 245975001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0010	0.0003	10:02:38	Yes
2	0.004	0.004	0.0001	0.0015	0.0003	10:03:12	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	165.2	165.2	34.46				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 245981001|949020|1 **Date Collected: 2/5/2010 10:03:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 245981001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0021	0.0004	10:04:32	Yes
2	0.019	0.019	0.0002	0.0034	0.0005	10:05:07	Yes
Mean:	0.015	0.015	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	43.49	43.49	30.52				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246000001|949020|1 **Date Collected: 2/5/2010 10:05:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 246000001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0018	0.0003	10:06:27	Yes
2	0.012	0.012	0.0002	0.0024	0.0004	10:07:02	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	42.51	42.51	25.13				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 10:07:22**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.069	5.069	0.0477	0.2135	0.0480	10:08:22	Yes
2	5.033	5.033	0.0474	0.2110	0.0476	10:08:58	Yes
Mean:	5.051	5.051	0.0476				
SD:	0.025	0.025	0.0002				
%RSD:	0.502	0.502	0.50				

QC value within limits for Hg 253.7 Recovery = 101.01%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 10:09:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0004	0.0003	10:10:17	Yes
2	0.005	0.005	0.0001	0.0009	0.0003	10:10:52	Yes
Mean:	0.001	0.001	0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	>999.9%	>999.9%	94.99				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246010001|949020|1 Date Collected: 2/5/2010 10:11:11
Analyst: JXL Data Type: Original

Replicate Data: 246010001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0003	0.0002	10:12:12	Yes
2	-0.004	-0.004	0.0000	0.0007	0.0002	10:12:47	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.81	17.81	51.51				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246056001|949020|1 Date Collected: 2/5/2010 10:13:07
Analyst: JXL Data Type: Original

Replicate Data: 246056001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0004	0.0003	10:14:08	Yes
2	0.002	0.002	0.0001	0.0012	0.0003	10:14:43	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	>999.9%	>999.9%	65.75				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202033205|949020|1 Date Collected: 2/5/2010 10:15:03
Analyst: JXL Data Type: Original

Replicate Data: 1202033205|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0008	0.0002	10:16:04	Yes

2	0.005	0.005	0.0001	0.0017	0.0003	10:16:39	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	>999.9%	>999.9%	95.21				

Sequence No.: 39
Sample ID: 1202033206|949020|1
Analyst: JXL
Autosampler Location: 35
Date Collected: 2/5/2010 10:16:59
Data Type: Original

Replicate Data: 1202033206|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.503	1.503	0.0142	0.0680	0.0144	10:18:00	Yes
2	1.495	1.495	0.0141	0.0670	0.0143	10:18:35	Yes
Mean:	1.499	1.499	0.0142				
SD:	0.006	0.006	0.0001				
%RSD:	0.393	0.393	0.39				

Sequence No.: 40
Sample ID: 1202033207|949020|5
Analyst: JXL
Autosampler Location: 36
Date Collected: 2/5/2010 10:18:55
Data Type: Original

Replicate Data: 1202033207|949020|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	10:19:57	Yes
2	-0.002	-0.002	0.0000	0.0011	0.0003	10:20:32	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	84.26	84.26	326.78				

Sequence No.: 41
Sample ID: 246056002|949020|1
Analyst: JXL
Autosampler Location: 37
Date Collected: 2/5/2010 10:20:52
Data Type: Original

Replicate Data: 246056002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	0.0010	0.0003	10:21:54	Yes
2	-0.003	-0.003	0.0000	0.0008	0.0003	10:22:29	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	8.003	8.003	5.22				

Sequence No.: 42
Sample ID: 246056003|949020|1
Analyst: JXL
Autosampler Location: 38
Date Collected: 2/5/2010 10:22:49
Data Type: Original

Replicate Data: 246056003|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0024	0.0005	10:23:50	Yes
2	0.023	0.023	0.0003	0.0022	0.0005	10:24:25	Yes
Mean:	0.021	0.021	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	10.47	10.47	8.06				

Sequence No.: 43
Sample ID: 246056004|949020|1
Analyst: JXL
Autosampler Location: 39
Date Collected: 2/5/2010 10:24:44
Data Type: Original

Replicate Data: 246056004|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0004	0.0044	0.0006	10:25:45	Yes
2	0.016	0.016	0.0002	0.0017	0.0004	10:26:21	Yes
Mean:	0.026	0.026	0.0003				
SD:	0.015	0.015	0.0001				
%RSD:	56.65	56.65	45.73				

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202033224|949028|1 **Date Collected: 2/5/2010 10:26:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033224|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0003	0.0022	0.0005	10:27:41	Yes
2	0.017	0.017	0.0002	0.0020	0.0005	10:28:17	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	11.82	11.82	8.89				

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202033226|949028|1 **Date Collected: 2/5/2010 10:28:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033226|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.106	2.106	0.0199	0.0883	0.0201	10:29:37	Yes
2	2.076	2.076	0.0196	0.0876	0.0198	10:30:12	Yes
Mean:	2.091	2.091	0.0197				
SD:	0.022	0.022	0.0002				
%RSD:	1.033	1.033	1.03				

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 10:30:32**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.111	5.111	0.0481	0.2129	0.0484	10:31:32	Yes
2	5.088	5.088	0.0479	0.2132	0.0481	10:32:08	Yes
Mean:	5.099	5.099	0.0480				
SD:	0.016	0.016	0.0001				
%RSD:	0.309	0.309	0.31				

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/5/2010 10:32:26**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0010	0.0002	10:33:27	Yes
2	-0.005	-0.005	0.0000	0.0011	0.0002	10:34:02	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.051	7.051	16.61				

QC value within limits for Hg 253.7 Recovery = Not calculated

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948730

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032558	UI100120-01	.25	mL
LCS	1202032558	UI100120-06	.25	mL
MS	1202032560	UI100120-01	.25	mL
MS	1202032560	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032557		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032558		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032559	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032560	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032561	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948739

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032563	UI100120-A	.5	mL
LCS	1202032563	UI100120-B	.5	mL
MS	1202032565	UI090930-A	.5	mL
MS	1202032565	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032562		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032563		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032564	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032565	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032566	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 949018

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033204	WHG100204-13	.2	mL
MS	1202033206	WHG100204-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033203		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
LCS	1202033204		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245911001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245922001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245953001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245965001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245975001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245981001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246000001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246010001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
DUP	1202033205	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
MS	1202033206	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SDILT	1202033207	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056003		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056004		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1257474-1	.5 mL	NITRIC ACID
1261483-C	1.5 mL	5% Potassium Persulfate
1264984-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100204-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100204-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100204-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100204-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100204-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100204-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 04-FEB-10 12:15
Digestion End Date: 04-FEB-10 14:15

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 797043
Revision No.: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	LANL
Batch ID:	**Sample Numbers:**		
948740	See Below		

Potentially affected work order(s)(SDG): 245939(10-1506-1),245965(10-1511-1),245975(10-1512-1),245981(10-1514-1),246000(10-1517-1)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202032565MS	The matrix spike recovery failed outside of the control limits for Tl due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 01-MAR-10

Data Validator/Group Leader:

Samantha Jacobs 01-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL Sta	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID:	UI091217-13	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICSAB Master C	**Received:**	17-DEC-09	**Catalog Number :**	160033-03
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1016926
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 2% HNO3
Supplier:	02SI				
Description:	ICPMS ICSAB Master C				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID:	UI100114-48	**Opened:**	22-JAN-10	**Amount :**	1000 mL
Name:	Trace ICP ICSA	**Received:**	18-JAN-10	**Catalog Number :**	160005-02
Type:	Source Material	**Expires:**	22-JAN-11	**Lot Number :**	1018466
Employee:	Helen Camello			**Solvent :**	3% HCl + 1% HNO3
Supplier:	o2si				
Description:	Trace ICP Interferent Check Standard A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID:	UI100114-49.16	**Opened:**	11-FEB-10	**Amount :**	100 ml
Name:	Trace ICP ICSAB	**Received:**	18-JAN-10	**Catalog Number :**	160066-04
Type:	Source Material	**Expires:**	12-FEB-10	**Lot Number :**	1018458
Employee:	Helen Camello			**Solvent :**	3% HCl + 1% HNO3
Supplier:	o2si				
Description:	Trace ICP Inteferent Check Standard AB				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100120-A **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1018097
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100120-B **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1017644
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100128-40 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100128-41 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Standard Logbook

Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100204-01 **Opened:** 04-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 05-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100204-01a **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100204-03 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100204-04 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-05 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100204-06 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-13 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100211-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100211-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100224-04 **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100224-04A **Opened:** 24-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100224-04B
Name: ICPMS Cal Standard 100
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Opened: 24-FEB-10
Received: 24-FEB-10
Expires: 25-FEB-10

Amount : 50 mL
Balance Id : 40245216
Pipet Id : 1758088
Solvent : 2%HNO3/1%HCl- 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100224-05
Name: ICPMS ICV
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Opened: 24-FEB-10
Received: 24-FEB-10
Expires: 25-FEB-10

Balance Id : 40245216
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100224-06
Name: ICPMS CRDL
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 24-FEB-10
Received: 24-FEB-10
Expires: 25-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100224-07
Name: ICPMS ICSA
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Opened: 24-FEB-10
Received: 24-FEB-10
Expires: 25-FEB-10

Balance Id : 40245216
Lot Number : 1010773
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-08
Name: ICPMS ICSAB
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 24-FEB-10
Received: 24-FEB-10
Expires: 25-FEB-10

Balance Id : 40245216
Pipet Id : 1758088
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-70 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100225-04 **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100225-04A **Opened:** 25-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-05 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100225-06 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100225-07 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100228-04 **Opened:** 28-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 28-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100228-04A **Opened:** 28-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100228-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100228-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100228-05 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100228-06 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 28-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100228-07
Name: ICPMS ICSA
Type: Working
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Opened: 28-FEB-10
Received: 28-FEB-10
Expires: 01-MAR-10

Balance Id : 40245216
Lot Number : 1010773
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100228-08
Name: ICPMS ICSAB
Type: Working
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 28-FEB-10
Received: 28-FEB-10
Expires: 01-MAR-10

Balance Id : 40245216
Pipet Id : 1758088
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.

Standard Logbook

Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1512

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948607	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948605	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245969001	RE15-10-7880
245969002	RE15-10-7891
245969003	RE15-10-7892
245969004	RE15-10-7967
245969005	RE15-10-7976
245969006	RE15-10-7968
245969007	RE15-10-7965
245969008	RE15-10-7975
245969009	RE15-10-7978
245969010	RE15-10-7970
245969011	RE15-10-7964
245969012	RE15-10-7973
245969013	RE15-10-7962
245969014	RE15-10-7963
245969015	RE15-10-7977
1202032205	Method Blank (MB)
1202032206	246006005(RE16-10-2891) Sample Duplicate (DUP)
1202032207	246006006(RE16-10-2897) Sample Duplicate (DUP)
1202032208	246006005(RE16-10-2891) Matrix Spike (MS)
1202032209	246006006(RE16-10-2897) Matrix Spike (MS)
1202032210	246006005(RE16-10-2891) Matrix Spike Duplicate (MSD)
1202032211	246006006(RE16-10-2897) Matrix Spike Duplicate (MSD)
1202032212	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 246006005 (RE16-10-2891) and 246006006 (RE16-10-2897).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202032206 (RE16-10-2891) and 1202032207 (RE16-10-2897).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202032212 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 27Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1512 GEL Work Order: 245969

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7880	Project:	LANL01004
Sample ID:	245969001	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	7.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.5	270	ug/kg	1	AXC2 02/10/10	1457	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7891	Project:	LANL01004
Sample ID:	245969002	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	26%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	90.1	331	ug/kg	1	AXC2 02/10/10	1458	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID: RE15-10-7892
Sample ID: 245969003
Matrix: R
Collect Date: 27-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client
Moisture: 6.96%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.3	258	ug/kg	1	AXC2 02/10/10	1459	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7967	Project:	LANL01004
Sample ID:	245969004	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	24.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.1	294	ug/kg	1	AXC2 02/10/10	1500	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7976	Project:	LANL01004
Sample ID:	245969005	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	3.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.6	245	ug/kg	1	AXC2 02/10/10	1501	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7968	Project:	LANL01004
Sample ID:	245969006	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.3	269	ug/kg	1	AXC2 02/10/10	1502	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7965	Project:	LANL01004
Sample ID:	245969007	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	22.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	112	78.0	287	ug/kg	1	AXC2	02/10/10	1503	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7975	Project:	LANL01004
Sample ID:	245969008	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	25.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	89.5	329	ug/kg	1	AXC2 02/10/10	1504	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7978	Project:	LANL01004
Sample ID:	245969009	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	16.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	88.6	77.2	284	ug/kg	1	AXC2 02/10/10	1504	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7970	Project:	LANL01004
Sample ID:	245969010	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	8.19%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.9	257	ug/kg	1	AXC2 02/10/10	1505	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7964	Proiect:	LANL01004
Sample ID:	245969011	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.2	269	ug/kg	1	AXC2 02/10/10	1510	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7973	Project:	LANL01004
Sample ID:	245969012	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	18.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.2	284	ug/kg	1	AXC2 02/10/10	1511	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7962	Project:	LANL01004
Sample ID:	245969013	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	5.31%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.5	244	ug/kg	1	AXC2 02/10/10	1512	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7963	Project:	LANL01004
Sample ID:	245969014	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	20.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	81.0	298	ug/kg	1	AXC2 02/10/10	1512	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 18, 2010

Client SDG: 10-1512

Client Sample ID:	RE15-10-7977	Project:	LANL01004
Sample ID:	245969015	Client ID:	LANL010
Matrix:	R		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	36.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	133	96.9	356	ug/kg	1	AXC2 02/10/10	1513	948607	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/09/10	1426	948605

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 18, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245969

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 948607											
QC1202032206 246006005 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	02/10/10 15:15
QC1202032207 246006006 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				02/10/10 15:22
QC1202032212 LCS											
Cyanide, Total	67900				72500	ug/kg		107	(32%-157%)		02/10/10 14:53
QC1202032205 MB											
Cyanide, Total				U	250	ug/kg					02/10/10 14:52
QC1202032208 246006005 MS											
Cyanide, Total	5100	U	ND		4840	ug/kg		94.9	(26%-158%)		02/10/10 15:16
QC1202032209 246006006 MS											
Cyanide, Total	5480	U	ND		5260	ug/kg		95.6	(26%-158%)		02/10/10 15:23
QC1202032210 246006005 MSD											
Cyanide, Total	5010	U	ND		4990	ug/kg	3.06	99.6	(0%-30%)		02/10/10 15:17
QC1202032211 246006006 MSD											
Cyanide, Total	5700	U	ND		5290	ug/kg	0.640	92.5	(0%-30%)		02/10/10 15:24

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 245969

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-FEB-2010 16:31

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1512**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-FEB-2010 14:15:06**	**OM_2-10-2010_14-04-36**	**156**	**150**	**104**	**(90%-110%)**	**Yes**
CCV	10-FEB-2010 14:41:49	OM_2-10-2010_14-04-36	101	100	101	(90%-110%)	Yes
CCV	10-FEB-2010 14:54:11	OM_2-10-2010_14-04-36	101	100	101	(90%-110%)	Yes
CCV	10-FEB-2010 15:06:42	OM_2-10-2010_14-04-36	101	100	101	(90%-110%)	Yes
CCV	10-FEB-2010 15:19:11	OM_2-10-2010_14-04-36	108	100	108	(90%-110%)	Yes
CCV	10-FEB-2010 15:31:37	OM_2-10-2010_14-04-36	108	100	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-FEB-2010 14:16:57**	**OM_2-10-2010_14-04-36**	**-0.169**	**10**	**Yes**
CCB	10-FEB-2010 14:43:39	OM_2-10-2010_14-04-36	-0.371	10	Yes
CCB	10-FEB-2010 14:56:01	OM_2-10-2010_14-04-36	-1.09	10	Yes
CCB	10-FEB-2010 15:08:32	OM_2-10-2010_14-04-36	-2.06	10	Yes
CCB	10-FEB-2010 15:21:01	OM_2-10-2010_14-04-36	-0.159	10	Yes
CCB	10-FEB-2010 15:33:27	OM_2-10-2010_14-04-36	-0.351	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948605

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032212	URF1200957-01	.25	g
MS	1202032208	URF1184831-02	.025	mL
MS	1202032209	URF1184831-02	.025	mL
MSD	1202032210	URF1184831-02	.025	mL
MSD	1202032211	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032205		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.5 g	25 mL	50	SOIL
LCS	1202032212		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245969001		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245969002		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245969003		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245969004		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245969005		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245969006		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245969007		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245969008		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	245969009		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245969010		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245969011		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245969012		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245969013		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245969014		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245969015		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246006005		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.5 g	25 mL	50	SOIL
DUP	1202032206	246006005	SW846 9010B Prep	09-FEB-2010 14:26	>12	0.57 g	25 mL	43.85965	SOIL
MS	1202032208	246006005	SW846 9010B Prep	09-FEB-2010 14:26	>12	0.56 g	25 mL	44.64286	SOIL
MSD	1202032210	246006005	SW846 9010B Prep	09-FEB-2010 14:26	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246006006		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202032207	246006006	SW846 9010B Prep	09-FEB-2010 14:26	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202032209	246006006	SW846 9010B Prep	09-FEB-2010 14:26	>12	0.52 g	25 mL	48.07692	SOIL
MSD	1202032211	246006006	SW846 9010B Prep	09-FEB-2010 14:26	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246006007		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246006008		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246006009		SW846 9010B Prep	09-FEB-2010 14:26	>12	0.55 g	25 mL	45.45455	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100209-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/10/2010 14:07:58	OM_2-10-2010_14-04-36
150 ppb		1	axc2	2/10/2010 14:08:49	OM_2-10-2010_14-04-36
100 ppb		1	axc2	2/10/2010 14:09:42	OM_2-10-2010_14-04-36
50 ppb		1	axc2	2/10/2010 14:10:35	OM_2-10-2010_14-04-36
10 ppb		1	axc2	2/10/2010 14:11:28	OM_2-10-2010_14-04-36
CRDL 5.0 ppb		1	axc2	2/10/2010 14:12:22	OM_2-10-2010_14-04-36
ICAL-00		1	axc2	2/10/2010 14:13:16	OM_2-10-2010_14-04-36
ICV		1	axc2	2/10/2010 14:15:06	OM_2-10-2010_14-04-36
ICB		1	axc2	2/10/2010 14:16:57	OM_2-10-2010_14-04-36
		1	axc2	2/10/2010 14:18:46	OM_2-10-2010_14-04-36
1202032189	948603	1	axc2	2/10/2010 14:20:36	OM_2-10-2010_14-04-36
1202032196	948603	25	axc2	2/10/2010 14:21:30	OM_2-10-2010_14-04-36
246002001	948603	1	axc2	2/10/2010 14:22:23	OM_2-10-2010_14-04-36
1202032190	948603	1	axc2	2/10/2010 14:23:16	OM_2-10-2010_14-04-36
1202032192	948603	1	axc2	2/10/2010 14:24:09	OM_2-10-2010_14-04-36
1202032194	948603	1	axc2	2/10/2010 14:25:02	OM_2-10-2010_14-04-36
246002002	948603	1	axc2	2/10/2010 14:25:54	OM_2-10-2010_14-04-36
1202032191	948603	1	axc2	2/10/2010 14:26:47	OM_2-10-2010_14-04-36
1202032193	948603	1	axc2	2/10/2010 14:27:39	OM_2-10-2010_14-04-36
1202032195	948603	1	axc2	2/10/2010 14:28:31	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010 14:29:24	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010 14:31:14	OM_2-10-2010_14-04-36
246003001	948603	1	axc2	2/10/2010 14:33:02	OM_2-10-2010_14-04-36
246003002	948603	1	axc2	2/10/2010 14:33:55	OM_2-10-2010_14-04-36
246003003	948603	1	axc2	2/10/2010 14:34:46	OM_2-10-2010_14-04-36
246003004	948603	1	axc2	2/10/2010 14:35:38	OM_2-10-2010_14-04-36
246003005	948603	1	axc2	2/10/2010 14:36:29	OM_2-10-2010_14-04-36
246003006	948603	1	axc2	2/10/2010 14:37:23	OM_2-10-2010_14-04-36
246003007	948603	1	axc2	2/10/2010 14:38:17	OM_2-10-2010_14-04-36
246003008	948603	1	axc2	2/10/2010 14:39:10	OM_2-10-2010_14-04-36
246003009	948603	1	axc2	2/10/2010 14:40:03	OM_2-10-2010_14-04-36
246003010	948603	1	axc2	2/10/2010 14:40:57	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010 14:41:49	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010 14:43:39	OM_2-10-2010_14-04-36
246003011	948603	1	axc2	2/10/2010 14:45:28	OM_2-10-2010_14-04-36
246003012	948603	1	axc2	2/10/2010 14:46:21	OM_2-10-2010_14-04-36
246003013	948603	1	axc2	2/10/2010 14:47:14	OM_2-10-2010_14-04-36
246003014	948603	1	axc2	2/10/2010 14:48:06	OM_2-10-2010_14-04-36
246006001	948603	1	axc2	2/10/2010 14:48:58	OM_2-10-2010_14-04-36
246006002	948603	1	axc2	2/10/2010 14:49:51	OM_2-10-2010_14-04-36
246006003	948603	1	axc2	2/10/2010 14:50:43	OM_2-10-2010_14-04-36
246006004	948603	1	axc2	2/10/2010 14:51:35	OM_2-10-2010_14-04-36
1202032205	948607	1	axc2	2/10/2010 14:52:27	OM_2-10-2010_14-04-36
1202032212	948607	25	axc2	2/10/2010 14:53:20	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010 14:54:11	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010 14:56:01	OM_2-10-2010_14-04-36
245969001	948607	1	axc2	2/10/2010 14:57:51	OM_2-10-2010_14-04-36
245969002	948607	1	axc2	2/10/2010 14:58:45	OM_2-10-2010_14-04-36
245969003	948607	1	axc2	2/10/2010 14:59:39	OM_2-10-2010_14-04-36
245969004	948607	1	axc2	2/10/2010 15:00:32	OM_2-10-2010_14-04-36
245969005	948607	1	axc2	2/10/2010 15:01:25	OM_2-10-2010_14-04-36
245969006	948607	1	axc2	2/10/2010 15:02:18	OM_2-10-2010_14-04-36
245969007	948607	1	axc2	2/10/2010 15:03:11	OM_2-10-2010_14-04-36
245969008	948607	1	axc2	2/10/2010 15:04:05	OM_2-10-2010_14-04-36
245969009	948607	1	axc2	2/10/2010 15:04:57	OM_2-10-2010_14-04-36
245969010	948607	1	axc2	2/10/2010 15:05:49	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010 15:06:42	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010 15:08:32	OM_2-10-2010_14-04-36

245969011	948607	1	axc2	2/10/2010	15:10:21	OM_2-10-2010_14-04-36
245969012	948607	1	axc2	2/10/2010	15:11:13	OM_2-10-2010_14-04-36
245969013	948607	1	axc2	2/10/2010	15:12:05	OM_2-10-2010_14-04-36
245969014	948607	1	axc2	2/10/2010	15:12:57	OM_2-10-2010_14-04-36
245969015	948607	1	axc2	2/10/2010	15:13:49	OM_2-10-2010_14-04-36
246006005	948607	1	axc2	2/10/2010	15:14:43	OM_2-10-2010_14-04-36
1202032206	948607	1	axc2	2/10/2010	15:15:37	OM_2-10-2010_14-04-36
1202032208	948607	1	axc2	2/10/2010	15:16:32	OM_2-10-2010_14-04-36
1202032210	948607	1	axc2	2/10/2010	15:17:25	OM_2-10-2010_14-04-36
246006006	948607	1	axc2	2/10/2010	15:18:19	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	15:19:11	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	15:21:01	OM_2-10-2010_14-04-36
1202032207	948607	1	axc2	2/10/2010	15:22:50	OM_2-10-2010_14-04-36
1202032209	948607	1	axc2	2/10/2010	15:23:43	OM_2-10-2010_14-04-36
1202032211	948607	1	axc2	2/10/2010	15:24:36	OM_2-10-2010_14-04-36
246006007	948607	1	axc2	2/10/2010	15:25:29	OM_2-10-2010_14-04-36
246006008	948607	1	axc2	2/10/2010	15:26:22	OM_2-10-2010_14-04-36
246006009	948607	1	axc2	2/10/2010	15:27:14	OM_2-10-2010_14-04-36
1202032221	948610	1	axc2	2/10/2010	15:28:07	OM_2-10-2010_14-04-36
1202032228	948610	25	axc2	2/10/2010	15:28:59	OM_2-10-2010_14-04-36
245950001	948610	1	axc2	2/10/2010	15:29:52	OM_2-10-2010_14-04-36
245950002	948610	1	axc2	2/10/2010	15:30:43	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	15:31:37	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	15:33:27	OM_2-10-2010_14-04-36
245950003	948610	1	axc2	2/10/2010	15:35:17	OM_2-10-2010_14-04-36
245950004	948610	1	axc2	2/10/2010	15:36:11	OM_2-10-2010_14-04-36
245950005	948610	1	axc2	2/10/2010	15:37:05	OM_2-10-2010_14-04-36
245979001	948610	1	axc2	2/10/2010	15:37:59	OM_2-10-2010_14-04-36
1202032222	948610	1	axc2	2/10/2010	15:38:53	OM_2-10-2010_14-04-36
1202032224	948610	1	axc2	2/10/2010	15:39:46	OM_2-10-2010_14-04-36
1202032226	948610	1	axc2	2/10/2010	15:40:39	OM_2-10-2010_14-04-36
245979002*	948610	1	axc2	2/10/2010	15:41:33	OM_2-10-2010_14-04-36
1202032223*	948610	1	axc2	2/10/2010	15:42:26	OM_2-10-2010_14-04-36
1202032225*	948610	1	axc2	2/10/2010	15:43:18	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	15:44:11	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	15:46:02	OM_2-10-2010_14-04-36
1202032227*	948610	1	axc2	2/10/2010	15:47:52	OM_2-10-2010_14-04-36
245979003	948610	1	axc2	2/10/2010	15:48:44	OM_2-10-2010_14-04-36
245979004	948610	1	axc2	2/10/2010	15:49:36	OM_2-10-2010_14-04-36
245979005	948610	1	axc2	2/10/2010	15:50:28	OM_2-10-2010_14-04-36
245979006	948610	1	axc2	2/10/2010	15:51:21	OM_2-10-2010_14-04-36
245979007	948610	1	axc2	2/10/2010	15:52:16	OM_2-10-2010_14-04-36
245979008	948610	1	axc2	2/10/2010	15:53:10	OM_2-10-2010_14-04-36
245979009	948610	1	axc2	2/10/2010	15:54:03	OM_2-10-2010_14-04-36
245979010	948610	1	axc2	2/10/2010	15:54:58	OM_2-10-2010_14-04-36
245979011	948610	1	axc2	2/10/2010	15:55:52	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	15:56:44	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	15:58:34	OM_2-10-2010_14-04-36
245979012	948610	1	axc2	2/10/2010	16:00:24	OM_2-10-2010_14-04-36
245979013	948610	1	axc2	2/10/2010	16:01:17	OM_2-10-2010_14-04-36
245979014	948610	1	axc2	2/10/2010	16:02:11	OM_2-10-2010_14-04-36
245979015	948610	1	axc2	2/10/2010	16:03:04	OM_2-10-2010_14-04-36
CCV		1	axc2	2/10/2010	16:03:56	OM_2-10-2010_14-04-36
CCB		1	axc2	2/10/2010	16:05:47	OM_2-10-2010_14-04-36

Author: axc2 Date : 2/16/2010

Original Run Filename: OM_2-10-2010_14-04-36.OMN created 2/10/2010 14:04:36
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-10-2010_14-04-36.OMN last modified 2/10/2010 16:06:51
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100210-01	1	S1	200	8.11	2/10/2010@14:07:58			200 ppb
WCN100210-02	1	S2	150	6.18	2/10/2010@14:08:49			150 ppb
WCN100210-03	1	S3	100	3.79	2/10/2010@14:09:42			100 ppb
WCN100210-04	1	S4	50.0	2.07	2/10/2010@14:10:35			50 ppb
WCN100210-05	1	S5	10.0	0.503	2/10/2010@14:11:28			10 ppb
WCN100210-06	1	S6	5.00	0.320	2/10/2010@14:12:22			CRDL 5.0 ppb
WCN100210-08	1	S7	0.00	0.0294	2/10/2010@14:13:16			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99924 > 0.99500					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-07	1	S8	156	6.34	2/10/2010@14:15:06			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	4.2 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference								
		Result:	4.2 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
		Calibration:	Table/Fig. 1					
WCN102010-08	1	S7	-0.194	0.0361	2/10/2010@14:16:57			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.194 < 5.01					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	-0.194 > -5.01					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN102010-06	1	S6	7.28	0.337	2/10/2010@14:18:46			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	7.28 < 7.50					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	7.28 > 2.50					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
1202032189|948603|MB	1	1	-1.09	0.00	2/10/2010@14:20:36			
1202032196||LCS	1	2	33.0	1.37	2/10/2010@14:21:30		25.00	
246002001	1	3	1.62	0.109	2/10/2010@14:22:23			
1202032190||DUP	1	4	1.99	0.124	2/10/2010@14:23:16			
1202032192||MS	1	5	97.5	3.97	2/10/2010@14:24:09			
1202032194||MSD	1	6	99.7	4.06	2/10/2010@14:25:02			
246002002	1	7	1.70	0.112	2/10/2010@14:25:54			
1202032191||DUP	1	8	2.22	0.133	2/10/2010@14:26:47			
1202032193||MS	1	9	102	4.13	2/10/2010@14:27:39			
1202032195||MSD	1	10	102	4.13	2/10/2010@14:28:31			
WCN100210-03	1	S3	100	4.08	2/10/2010@14:29:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	0.2 < 10.0					

		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Percent Relative Difference					
		Result:	0.2 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-0.269	0.0331	2/10/2010@14:31:14			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.269 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Concentration Limit					
		Result:	-0.269 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
246003001	1	11	-0.111	0.0395	2/10/2010@14:33:02			
246003002	1	12	-1.09	-1.28e-4	2/10/2010@14:33:55			
246003003	1	13	1.32	0.0970	2/10/2010@14:34:46			
246003004	1	14	0.318	0.0567	2/10/2010@14:35:38			
246003005	1	15	-0.445	0.0260	2/10/2010@14:36:29			
246003006	1	16	-0.165	0.0373	2/10/2010@14:37:23			
246003007	1	17	0.339	0.0576	2/10/2010@14:38:17			
246003008	1	18	0.353	0.0581	2/10/2010@14:39:10			
246003009	1	19	3.94	0.203	2/10/2010@14:40:03			
246003010	1	20	1.48	0.104	2/10/2010@14:40:57			
WCN100210-03	1	S3	101	4.11	2/10/2010@14:41:49			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	1.1 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Percent Relative Difference					
		Result:	1.1 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-0.371	0.0290	2/10/2010@14:43:39			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.371 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Concentration Limit					
		Result:	-0.371 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
246003011	1	21	0.586	0.0675	2/10/2010@14:45:28			
246003012	1	22	1.60	0.108	2/10/2010@14:46:21			
246003013	1	23	0.847	0.0781	2/10/2010@14:47:14			
246003014	1	24	0.720	0.0729	2/10/2010@14:48:06			
246006001	1	25	0.215	0.0526	2/10/2010@14:48:58			
246006002	1	26	-0.0642	0.0414	2/10/2010@14:49:51			
246006003	1	27	-0.371	0.0290	2/10/2010@14:50:43			
246006004	1	28	0.506	0.0643	2/10/2010@14:51:35			
1202032205|948607|MB	1	29	-0.179	0.0367	2/10/2010@14:52:27			
1202032212||LCS	1	30	29.1	1.22	2/10/2010@14:53:20		25.00	
WCN100210-03	1	S3	101	4.13	2/10/2010@14:54:11			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	1.5 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
			DQM Test: < - Percent Relative Difference					
		Result:	1.5 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN10210-08	1	S7	-1.09	0.00	2/10/2010@14:56:01			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.09 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	-1.09 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
245969001	1	31	-0.344	0.0301	2/10/2010@14:57:51			
245969002	1	32	0.181	0.0512	2/10/2010@14:58:45			
245969003	1	33	0.0454	0.0458	2/10/2010@14:59:39			
245969004	1	34	0.326	0.0571	2/10/2010@15:00:32			
245969005	1	35	1.10	0.0883	2/10/2010@15:01:25			
245969006	1	36	-0.466	0.0252	2/10/2010@15:02:18			
245969007	1	37	1.86	0.119	2/10/2010@15:03:11			
245969008	1	38	0.328	0.0572	2/10/2010@15:04:05			
245969009	1	39	1.57	0.107	2/10/2010@15:04:57			
245969010	1	40	-0.378	0.0287	2/10/2010@15:05:49			
WCN100210-03	1	S3	101	4.12	2/10/2010@15:06:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.4 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference								
		Result:	1.4 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-1.80	-0.0286	2/10/2010@15:08:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.80 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	-1.80 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
245969011	1	41	-0.00516	0.0437	2/10/2010@15:10:21			
245969012	1	42	0.323	0.0569	2/10/2010@15:11:13			
245969013	1	43	0.257	0.0543	2/10/2010@15:12:05			
245969014	1	44	0.0155	0.0446	2/10/2010@15:12:57			
245969015	1	45	1.87	0.119	2/10/2010@15:13:49			
246006005	1	46	-0.221	0.0350	2/10/2010@15:14:43			
1202032206||DUP	1	47	-0.0437	0.0422	2/10/2010@15:15:37			
1202032208||MS	1	48	94.9	3.86	2/10/2010@15:16:32			
1202032210||MSD	1	49	99.5	4.05	2/10/2010@15:17:25			
246006006	1	50	0.451	0.0621	2/10/2010@15:18:19			
WCN100210-03	1	S3	108	4.40	2/10/2010@15:19:11			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.3 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference								
		Result:	8.3 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	-0.159	0.0375	2/10/2010@15:21:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.159 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	-0.159 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					

1202032207||DUP	1	51	0.263	0.0545	2/10/2010@15:22:50			
1202032209||MS	1	52	96.0	3.91	2/10/2010@15:23:43			
1202032211||MSD	1	53	93.5	3.81	2/10/2010@15:24:36			
246006007	1	54	-0.123	0.0390	2/10/2010@15:25:29			
246006008	1	55	0.00499	0.0441	2/10/2010@15:26:22			
246006009	1	56	0.464	0.0626	2/10/2010@15:27:14			
1202032221|948610|MB	1	57	-1.09	-1.37e-4	2/10/2010@15:28:07			
1202032228||LCS	1	58	26.5	1.11	2/10/2010@15:28:59		25.00	
245950001	1	59	0.981	0.0834	2/10/2010@15:29:52			
245950002	1	60	17.8	0.761	2/10/2010@15:30:43			
WCN100210-03	1	S3	108	4.40	2/10/2010@15:31:37			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		8.3 < 10.0					
	Message		Passed due to...					
	Action		...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference								
	Result:		8.3 < 10.0					
	Message		Passed due to...					
	Action		...Rerun Peak Detection					
WCN100210-08	1	S7	-0.351	0.0298	2/10/2010@15:33:27			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.351 < 5.00					
	Message		Passed due to...					
	Action		...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
	Result:		-0.351 > -5.00					
	Message		Passed due to...					
	Action		...Rerun Peak Detection					
245950003	1	61	4.26	0.216	2/10/2010@15:35:17			
245950004	1	62	73.8	3.01	2/10/2010@15:36:11			
245950005	1	63	7.40	0.342	2/10/2010@15:37:05			
245979001	1	64	0.0300	0.0452	2/10/2010@15:37:59			
1202032222||DUP	1	65	-0.391	0.0282	2/10/2010@15:38:53			
1202032224||MS	1	66	100	4.07	2/10/2010@15:39:46			
1202032226||MSD	1	67	86.1	3.51	2/10/2010@15:40:39			
245979002	1	68	4.38	0.220	2/10/2010@15:41:33			
1202032223||DUP	1	69	1.14	0.0899	2/10/2010@15:42:26			
1202032225||MS	1	70	2.19	0.132	2/10/2010@15:43:18			
WCN100210-03	1	S3	109	4.44	2/10/2010@15:44:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		9.2 < 10.0					
	Message		Passed due to...					
	Action		...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference								
	Result:		9.2 < 10.0					
	Message		Passed due to...					
	Action		...Rerun Peak Detection					
WCN100210-08	1	S7	2.37	0.139	2/10/2010@15:46:02			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		2.37 < 5.00					
	Message		Passed due to...					
	Action		...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
	Result:		2.37 > -5.00					
	Message		Passed due to...					
	Action		...Rerun Peak Detection					
1202032227||MSD	1	71	3.43	0.182	2/10/2010@15:47:52			
245979003	1	72	1.19	0.0920	2/10/2010@15:48:44			
245979004	1	73	0.791	0.0758	2/10/2010@15:49:36			
245979005	1	74	0.465	0.0627	2/10/2010@15:50:28			
245979006	1	75	2.23	0.134	2/10/2010@15:51:21			
245979007	1	76	0.0544	0.0461	2/10/2010@15:52:16			
245979008	1	77	0.979	0.0834	2/10/2010@15:53:10			
245979009	1	78	-0.116	0.0393	2/10/2010@15:54:03			

245979010	1	79	0.190	0.0516	2/10/2010@15:54:58			
245979011	1	80	0.279	0.0552	2/10/2010@15:55:52			
WCN100210-03	1	S3	108	4.41	2/10/2010@15:56:44			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.4 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference								
		Result:	8.4 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	2.42	0.141	2/10/2010@15:58:34			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.42 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	2.42 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
245979012	1	81	0.0293	0.0451	2/10/2010@16:00:24			
245979013	1	82	1.77	0.115	2/10/2010@16:01:17			
245979014	1	83	0.378	0.0592	2/10/2010@16:02:11			
245979015	1	84	0.159	0.0503	2/10/2010@16:03:04			
WCN100210-03	1	S3	109	4.43	2/10/2010@16:03:56			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	8.9 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Percent Relative Difference								
		Result:	8.9 < 10.0					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
WCN100210-08	1	S7	2.52	0.145	2/10/2010@16:05:47			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	2.52 < 5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					
DQM Test: < - Concentration Limit								
		Result:	2.52 > -5.00					
		Message	Passed due to...					
		Action	...Rerun Peak Detection					

Analyte Properties Table for OM_2-10-2010_14-04-36.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2

Date : 2/16/2010

Channel 1: Current View

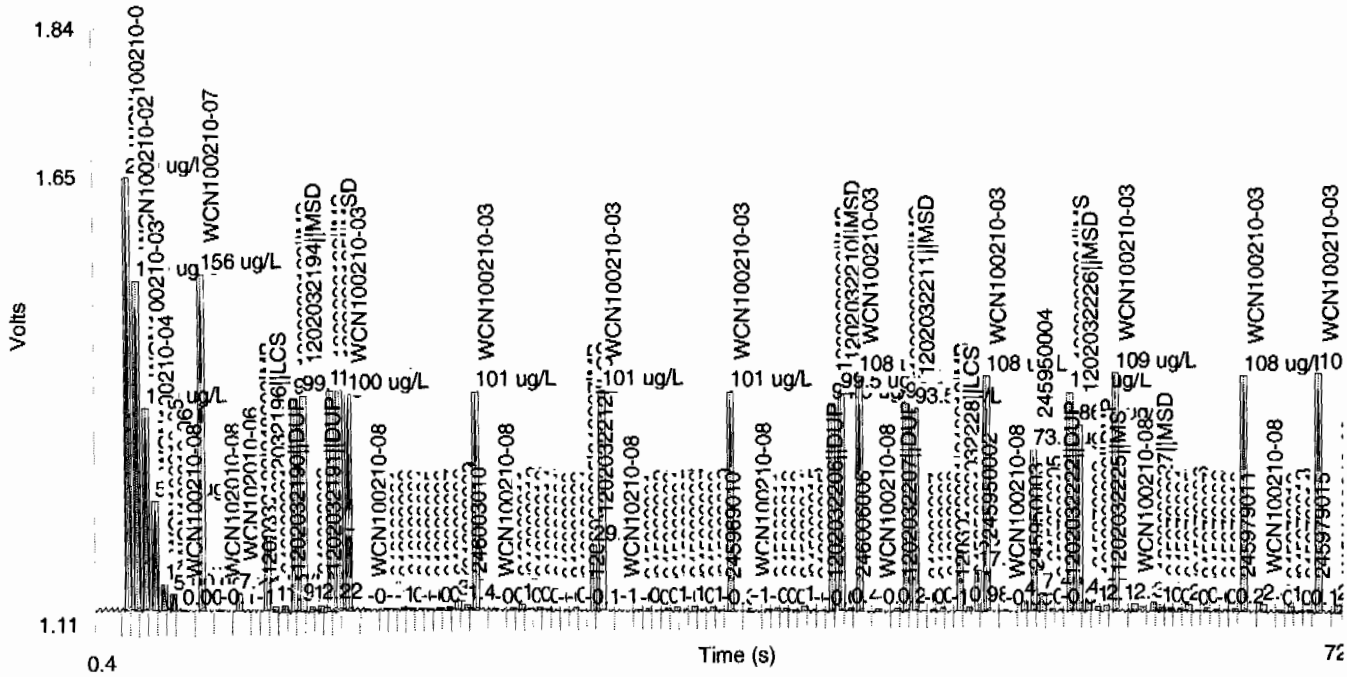

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.14	0.526	-0.6	2/10/2010	14:09:00
2	150	1	6.18	0.400	-1.7	2/10/2010	14:09:52
3	100	1	3.80	0.247	6.5	2/10/2010	14:10:45
4	50.0	1	2.06	0.133	-0.1	2/10/2010	14:11:38
5	10.0	1	0.506	0.0315	-12.4	2/10/2010	14:12:31
6	5.00	1	0.322	0.0192	-29.2	2/10/2010	14:13:25
7	0.00	1	0.0294	0.00117		2/10/2010	14:14:19

Figure 1: TCYANIDE

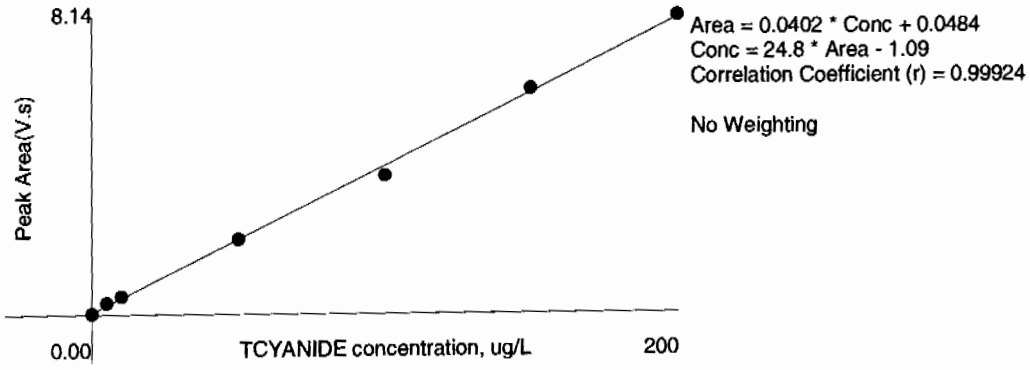

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1512-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948940	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948939	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245975001	RE15-10-8084
1202033006	Method Blank (MB)
1202033007	246004001(RE16-10-11766) Sample Duplicate (DUP)
1202033008	245926003(CAMO-10-9289) Sample Duplicate (DUP)
1202033009	246004001(RE16-10-11766) Matrix Spike (MS)
1202033010	245926003(CAMO-10-9289) Matrix Spike (MS)
1202033011	246004001(RE16-10-11766) Matrix Spike Duplicate (MSD)
1202033012	245926003(CAMO-10-9289) Matrix Spike Duplicate (MSD)
1202033013	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245926003 (CAMO-10-9289) and 246004001 (RE16-10-11766).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033008 (CAMO-10-9289).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 26Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1512-1 GEL Work Order: 245975

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1512-1

Client Sample ID:	RE15-10-8084	Project:	LANL01004
Sample ID:	245975001	Client ID:	LANL010
Matrix:	W		
Collect Date:	27-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1458	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 12, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245975

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948940										
QC1202033007 246004001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	02/08/10 15:01
QC1202033008 245926003 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				02/08/10 14:44
QC1202033013 LCS										
Cyanide, Total	50.0			51.4	ug/L		103	(90%-110%)		02/08/10 14:37
QC1202033006 MB										
Cyanide, Total			U	5.00	ug/L					02/08/10 14:36
QC1202033009 246004001 MS										
Cyanide, Total	100 U	ND		96.2	ug/L		96.2	(60%-144%)		02/08/10 15:02
QC1202033010 245926003 MS										
Cyanide, Total	100 U	ND		93.6	ug/L		92.2	(60%-144%)		02/08/10 14:45
QC1202033011 246004001 MSD										
Cyanide, Total	100 U	ND		94.3	ug/L	1.99	94.3	(0%-20%)		02/08/10 15:03
QC1202033012 245926003 MSD										
Cyanide, Total	100 U	ND		94.0	ug/L	0.426	92.6	(0%-20%)		02/08/10 14:46

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

QC Summary

Workorder: 245975

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-FEB-2010 13:09

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1512-1**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 14:26:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:39:11	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:51:47	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:04:19	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 14:28:32	OM_2-8-2010_13-14-40	-1.47	10	Yes
CCB	08-FEB-2010 14:41:01	OM_2-8-2010_13-14-40	-1.57	10	Yes
CCB	08-FEB-2010 14:53:37	OM_2-8-2010_13-14-40	-1.83	10	Yes
CCB	08-FEB-2010 15:06:09	OM_2-8-2010_13-14-40	-1.82	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948939

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033013	URF1184831-02	.0125	mL
MS	1202033009	URF1184831-02	.025	mL
MS	1202033010	URF1184831-02	.025	mL
MSD	1202033011	URF1184831-02	.025	mL
MSD	1202033012	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033006		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
LCS	1202033013		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245926001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926002		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926003		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202033008	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MS	1202033010	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202033012	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926004		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926005		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926006		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926007		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245939001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245939002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245953001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245965001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245975001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245981001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246000001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246004001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
DUP	1202033007	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MS	1202033009	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MSD	1202033011	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056003		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056004		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246080001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100205-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010	15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010	15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010	15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010	15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010	15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010	15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010	15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010	15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010	15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010	15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010	15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010	15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010	15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010	15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010	15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010	15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010	15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010	15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010	15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010	15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010	15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010	15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010	15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010	15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010	15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010	15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010	15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010	15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010	15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010	15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010	15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010	15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010	15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	16:02:41	OM_2-8-2010_13-14-40

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029237||LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231||DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233||MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235||MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232||DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234||MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236||MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.47 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.47 > -5.00					
		Message	CCB Passed					
		Action	Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			5.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.57 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.57 > -5.00					
Message			CCB Passed					
Action			Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			5.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.83 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.83 > -5.00					
Message			CCB Passed					
Action			Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

Author: axc2

Date : 2/8/2010

		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/8/2010

Channel 1: Current View

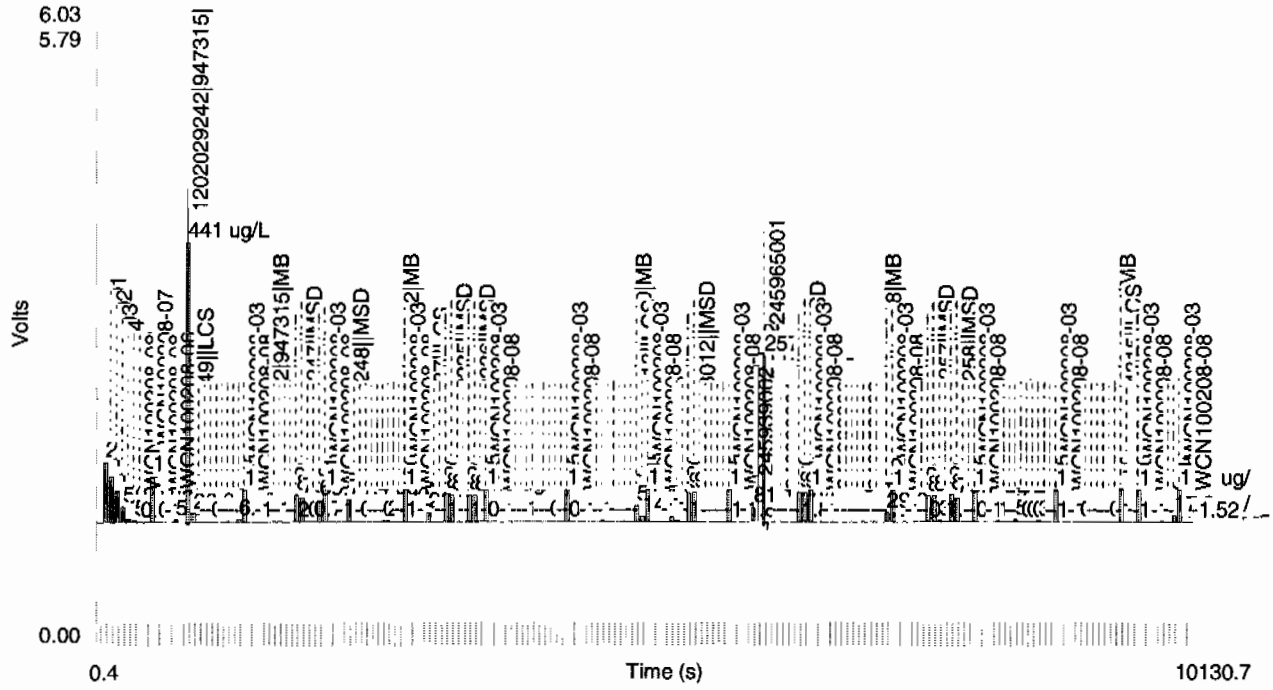

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE

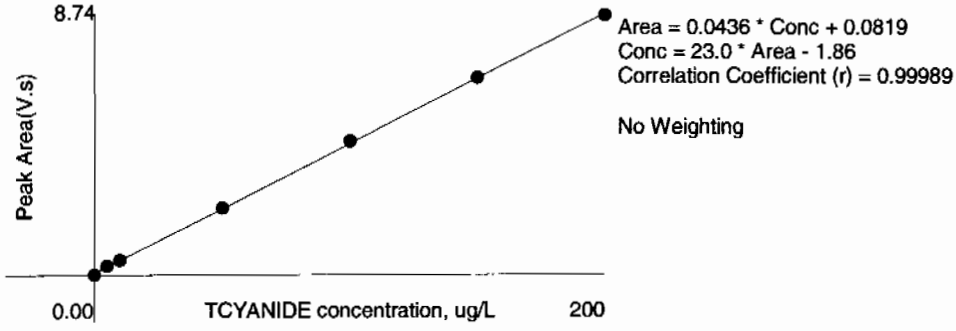

Monday, February 01, 2010

REQUEST NUMBER: 10-1517

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-1517
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1517

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-8124	W	1/28/2010	
	SW-846:6850	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
		1	RE15-10-8124	W	1/28/2010	
	SW-846:7470A	1	RE15-10-8124	W	1/28/2010	
	SW-846:7471A	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	SW-846:9012A	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1517

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
		1	RE15-10-8124	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1517

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1517C

REQUEST NUMBER: 10-1517

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8122	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8112	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8113	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8124	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8124	1	POLY	SW-846:6850	Ice	W
RE15-10-8124	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8116	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8119	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8114	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8115	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8117	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8118	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
	2/1/10	3:00			

Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8119 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01-28-2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1220	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610791	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 RE	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt' some white tuff fragments

SAMPLE COMMENTS:
NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS:
α ≤ 33 dpm
Bγ ≤ 2140 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R. Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8124 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1201	SUB-MEDIA:	OTHER	
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610790	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-8117

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8114 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1045	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610789	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+C N	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Frozen brown sandy silt, some clay, roots, leaves

SAMPLE COMMENTS: NA

LOCATION DESC: RS 01-28-10 ~~4b~~ 4d-4 in bushes

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 33 dpm

βγ ≤ 1624 dpm

PID ambient reading 0.0 / 0.0 ppm

HE NEG

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10 1350	(Printed Name)	1/28/10 1350
(Signature) R Saunders		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8115 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1113	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610789	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: light brown silty sand some rock

FD: RE15-10-8122

SAMPLE COMMENTS:
NA

LOCATION DESC: 4d-4 in brushes

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 14 dpm PID ambient reading 0.6 0.7 ppm ~~HE~~ 7 7m 1/28/10

βγ ≤ 1658 dpm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8113 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluh
TIME COLLECTED (HH:MM)		1120	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610788	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, white tuff fragments

SAMPLE COMMENTS:

NA

LOCATION DESC:

4d-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 60 dpm
βγ ≤ 1962 dpm

PID ambient 0.0 / reading 0.0 ppm

COLLECTED BY (PRINT) TL McFarland **REVIEWED BY (PRINT)** Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8116 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		1137	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610790	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter 1/11/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand some roots + rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 4d-1

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 33 dpm

βγ ≤ 1872 dpm

PID ambient reading 0.0 / 0.0 ppm

HE NEG

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8112 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Alh
TIME COLLECTED (HH:MM)		1115	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610788	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1Liter 1/11/10 LC	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown frozen sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC: 4d-2

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 44 dpm
Bγ ≤ 1990 dpm

PID ambient reading 0.0 / 0.0 ppm

HE neg

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8117 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	ALLH
TIME COLLECTED (HH:MM)		1147	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610790	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1/11/10 RC 1 liter ~~1 liter~~ RC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, roots and rocks

FR:RE15-10-8124

SAMPLE COMMENTS:
NA

LOCATION DESC: 4d-1

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 71 dpm

BY ≤ 1976 dpm

PID ambient reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8118 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1212	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610791	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter 1/11/10 LC	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown frozen silty sand, some rocks + roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 4d-3

FIELD SCREENING/MEASUREMENT RESULTS:

α ≤ 38 dpm
Bβ ≤ 2140 dpm

PID ambient 0.0 / reading 0.0 ppm

HE negative

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R. Saunders	1/28/10 1350	(Printed Name) (Signature)	1/28/10 1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2501 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-004(d) - Threemile Canyon

SAMPLE ID: RE15-10-8122 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/28/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1113	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-004(d)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610789	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISO PU+ISOU	1 LITER POLY	None	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter LC 12/15/09	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-8115
Light brown silty sand some rock

SAMPLE COMMENTS:
N/A

LOCATION DESC: 4d-4 in bushes

FIELD SCREENING/MEASUREMENT RESULTS:
α ≤ 16 dpm
βγ ≤ 1658 dpm
PID ambient reading 0.6 / 0.7 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TL McFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	1/28/10	(Printed Name)	1/28/10
(Signature) R Saunders	1350	(Signature)	1350
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1517 VALIDATION DATE: 03/10/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Jeanne Peterson ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the parent samples for the matrix QCs were LANL samples from other RNs. In addition, the parent sample raw data were not included in the data package. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Jeanne Peterson DATE: 03/10/2010

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY est. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8122

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.588	2.35	0.588	ug/kg	U	1	23-FEB-10 17:56	per0223041a
	Perchlorate Isotope Ratio						1	23-FEB-10 17:56	per0223041a
14797-73-0	Perchlorate-101	.588	2.35	0.588	ug/kg	U	1	23-FEB-10 17:56	per0223041a
	Perchlorate-O(18)			5.22	ug/kg		1	23-FEB-10 17:56	per0223041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JMP 03/10/2010

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8112

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.746	2.98	0.746	ug/kg	U	1	23-FEB-10 18:04	per0223042a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:04	per0223042a
14797-73-0	Perchlorate-101	.746	2.98	0.746	ug/kg	U	1	23-FEB-10 18:04	per0223042a
	Perchlorate-O(18)			6.51	ug/kg		1	23-FEB-10 18:04	per0223042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8113

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.24	0.597	ug/kg	J	1	23-FEB-10 18:12	per0223043a
	Perchlorate Isotope Ratio			3.24			1	23-FEB-10 18:12	per0223043a
14797-73-0	Perchlorate-101	.561	2.24	0.590	ug/kg	J	1	23-FEB-10 18:12	per0223043a
	Perchlorate-O(18)			5.11	ug/kg		1	23-FEB-10 18:12	per0223043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8116

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.7	2.8	0.700	ug/kg	U	1	23-FEB-10 18:20	per0223044a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:20	per0223044a
14797-73-0	Perchlorate-101	.7	2.8	0.700	ug/kg	U	1	23-FEB-10 18:20	per0223044a
	Perchlorate-O(18)			6.11	ug/kg		1	23-FEB-10 18:20	per0223044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8119

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.25	0.564	ug/kg	U	1	23-FEB-10 18:28	per0223045a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:28	per0223045a
14797-73-0	Perchlorate-101	.564	2.25	0.564	ug/kg	U	1	23-FEB-10 18:28	per0223045a
	Perchlorate-O(18)			5.15	ug/kg		1	23-FEB-10 18:28	per0223045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8114

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 56

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.891	3.57	0.891	ug/kg	U	1	23-FEB-10 18:36	per0223046a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:36	per0223046a
14797-73-0	Perchlorate-101	.891	3.57	0.891	ug/kg	U	1	23-FEB-10 18:36	per0223046a
	Perchlorate-O(18)			8.26	ug/kg		1	23-FEB-10 18:36	per0223046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8115

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 18:44	per0223047a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:44	per0223047a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 18:44	per0223047a
	Perchlorate-O(18)			5.32	ug/kg		1	23-FEB-10 18:44	per0223047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8117

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 92.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.695	ug/kg	J	1	23-FEB-10 19:17	per0223051a
	Perchlorate Isotope Ratio			3.1			1	23-FEB-10 19:17	per0223051a
14797-73-0	Perchlorate-101	.539	2.16	0.718	ug/kg	J	1	23-FEB-10 19:17	per0223051a
	Perchlorate-O(18)			5.00	ug/kg		1	23-FEB-10 19:17	per0223051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8118

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 72

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.69	2.76	0.690	ug/kg	U	1	23-FEB-10 19:25	per0223052a
	Perchlorate Isotope Ratio						1	23-FEB-10 19:25	per0223052a
14797-73-0	Perchlorate-101	.69	2.76	0.690	ug/kg	U	1	23-FEB-10 19:25	per0223052a
	Perchlorate-O(18)			6.46	ug/kg		1	23-FEB-10 19:25	per0223052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8124

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517-1

GEL Sample ID: 246000001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:13	per0208068a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:13	per0208068a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:13	per0208068a
	Perchlorate-O(18)			0.478	ug/L		1	08-FEB-10 21:13	per0208068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

JMP 03/10/2010

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1517 VALIDATION DATE: 03/10/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Jeanne Peterson ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The soil MS %R for Se was <10%. Thus, the associated sample results were qualified R,l6. The soil MS %Rs for Al, Ba, Ca, Fe, Mg, Mn, K, and Ni were > the laboratory UAL. The parent sample results for Al, Ba, Ca, Fe, Mg, and Mn were >4X the spike amount and, thus, no sample data were qualified, based on professional judgment. The associated sample results for K and Ni were detects and, thus, were qualified J+,l6b. The soil MS %R for Sb was < the laboratory LAL but ≥10%. The Sb result for sample RE15-10-8114 was an ND and, thus, was qualified UJ,l6a. The remaining associated sample results were detects and, thus, were qualified J-,l6a.
2. Fe was detected in the MB associated with all soil samples. The associated sample results were detects >50X the MB concentration and, thus, were not qualified based on professional judgment.
3. Tl was detected in one or more of the CCBs associated with aqueous sample -8124. The associated sample result was an ND and, thus, was not qualified.
4. Ca, Cr, Fe, K, and Na were detected in the FR blank, sample -8124, which was associated with all soil samples. The Na results for all samples *except* samples -8113 and -8119 were detects ≤5X the FR blank concentration and, thus, were qualified U,l4d. The remaining associated sample results were detects >5X the FR blank concentration and, thus, were not qualified.
5. The duplicate RPDs for Co and Mn were >35%, and the parent sample and duplicate results were ≥5X the RL. The associated sample results were detects and, thus, were qualified J,l10a.
6. It should be noted that the parent samples for the mercury matrix QC were LANL samples from other RNs. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: _____ DATE: 03/10/2010

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☒	☐	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998001 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8122 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13600000	ug/Kg	*	7780	22900	22900	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-36-0	Antimony J-,I6a	1360	ug/Kg	N	377	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-38-2	Arsenic	3.05	mg/kg		0.229	1.14	1.14	2	MS	RMJ	02/27/10 10:21	100226-4	948782
7440-39-3	Barium	252000	ug/Kg		114	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-41-7	Beryllium	1.42	mg/kg		0.0229	0.114	0.114	2	MS	RMJ	02/27/10 10:21	100226-4	948782
7440-43-9	Cadmium	572	ug/Kg	U	114	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-70-2	Calcium	5870000	ug/Kg		9150	28600	28600	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-47-3	Chromium	20500	ug/Kg		172	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-48-4	Cobalt J,I10a	4480	ug/Kg	*	172	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-50-8	Copper	7570	ug/Kg		343	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-89-6	Iron	13700000	ug/Kg	*	9150	28600	28600	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-92-1	Lead	12200	ug/Kg	*	286	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-95-4	Magnesium	2660000	ug/Kg		9720	34300	34300	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-96-5	Manganese J,I10a	246000	ug/Kg	*	229	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-97-6	Mercury	20.7	ug/kg		4.47	13.2	13.2	1	AV	JXL1	02/18/10 14:56	021810S1-7	951523
7440-02-0	Nickel J+,I6b	11.8	mg/kg	N	0.114	0.457	0.457	2	MS	RMJ	02/27/10 10:21	100226-4	948782
7440-09-7	Potassium J+,I6b	1360000	ug/Kg	N	7320	28600	28600	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7782-49-2	Selenium R,I6	1.14	mg/kg	UN	0.572	1.14	1.14	2	MS	RMJ	02/27/10 10:21	100226-4	948782
7440-22-4	Silver	572	ug/Kg	U	114	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-23-5	Sodium U,I4d	112000	ug/Kg		8000	28600	28600	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-28-0	Thallium	0.303	mg/kg		0.0686	0.229	0.229	2	MS	RMJ	02/26/10 12:08	100225-2	948782
7440-61-1	Uranium	1.11	mg/kg		0.0151	0.0457	0.0457	2	MS	RMJ	02/27/10 07:55	100226-3	948782
7440-62-2	Vanadium	24700	ug/Kg	*	114	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-66-6	Zinc	25300	ug/Kg	*	377	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.536	g	30	mL	02/17/10	TXB3

JMP 03/10/2010

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998002 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8112 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9620000	ug/Kg	*	10100	29800	29800	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-36-0	Antimony J-,I6a	678	ug/Kg	JN	492	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-38-2	Arsenic	2.28	mg/kg		0.298	1.49	1.49	2	MS	RMJ	02/27/10 10:41	100226-4	948782
7440-39-3	Barium	175000	ug/Kg		149	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-41-7	Beryllium	1.26	mg/kg		0.0298	0.149	0.149	2	MS	RMJ	02/27/10 10:41	100226-4	948782
7440-43-9	Cadmium	746	ug/Kg	U	149	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-70-2	Calcium	2370000	ug/Kg		11900	37300	37300	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-47-3	Chromium	9600	ug/Kg		224	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-48-4	Cobalt J,I10a	5070	ug/Kg	*	224	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-50-8	Copper	8460	ug/Kg		447	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-89-6	Iron	11900000	ug/Kg	*	11900	37300	37300	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-92-1	Lead	13600	ug/Kg	*	373	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-95-4	Magnesium	1840000	ug/Kg		12700	44700	44700	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-96-5	Manganese J,I10a	337000	ug/Kg	*	298	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-97-6	Mercury	16	ug/kg	U	5.44	16	16	1	AV	JXL1	02/18/10 14:58	021810S1-7	951523
7440-02-0	Nickel J+,I6b	10.7	mg/kg	N	0.149	0.597	0.597	2	MS	RMJ	02/27/10 10:41	100226-4	948782
7440-09-7	Potassium J+,I6b	1800000	ug/Kg	N	9550	37300	37300	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7782-49-2	Selenium R,I6	1.49	mg/kg	UN	0.746	1.49	1.49	2	MS	RMJ	02/27/10 10:41	100226-4	948782
7440-22-4	Silver	746	ug/Kg	U	149	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-23-5	Sodium U,I4d	44700	ug/Kg		10400	37300	37300	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-28-0	Thallium	0.259	mg/kg	J	0.0895	0.298	0.298	2	MS	RMJ	02/26/10 12:38	100225-2	948782
7440-61-1	Uranium	10.4	mg/kg		0.0197	0.0597	0.0597	2	MS	RMJ	02/27/10 08:10	100226-3	948782
7440-62-2	Vanadium	24500	ug/Kg	*	149	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-66-6	Zinc	25300	ug/Kg	*	492	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.559	g	30	mL	02/17/10	TXB3

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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998003 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8113 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	17200000	ug/Kg	*	7470	22000	22000	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-36-0	Antimony J-,I6a	560	ug/Kg	JN	363	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-38-2	Arsenic	1.84	mg/kg		0.223	1.12	1.12	2	MS	RMJ	02/27/10 10:52	100226-4	948782
7440-39-3	Barium	237000	ug/Kg		110	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-41-7	Beryllium	1.23	mg/kg		0.0223	0.112	0.112	2	MS	RMJ	02/27/10 10:52	100226-4	948782
7440-43-9	Cadmium	550	ug/Kg	U	110	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-70-2	Calcium	3910000	ug/Kg		8790	27500	27500	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-47-3	Chromium	12800	ug/Kg		165	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-48-4	Cobalt J,I10a	5090	ug/Kg	*	165	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-50-8	Copper	6630	ug/Kg		330	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-89-6	Iron	14900000	ug/Kg	*	8790	27500	27500	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-92-1	Lead	13000	ug/Kg	*	275	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-95-4	Magnesium	2330000	ug/Kg		9340	33000	33000	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-96-5	Manganese J,I10a	324000	ug/Kg	*	220	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-97-6	Mercury	13.4	ug/kg		4.43	13	13	1	AV	JXL1	02/18/10 15:00	021810S1-7	951523
7440-02-0	Nickel J+,I6b	8.87	mg/kg	N	0.112	0.447	0.447	2	MS	RMJ	02/27/10 10:52	100226-4	948782
7440-09-7	Potassium J+,I6b	1760000	ug/Kg	N	7030	27500	27500	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7782-49-2	Selenium R,I6	1.12	mg/kg	UN	0.558	1.12	1.12	2	MS	RMJ	02/28/10 02:33	100227-6	948782
7440-22-4	Silver	550	ug/Kg	U	110	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-23-5	Sodium	121000	ug/Kg		7690	27500	27500	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-28-0	Thallium	0.217	mg/kg	J	0.067	0.223	0.223	2	MS	RMJ	02/26/10 12:44	100225-2	948782
7440-61-1	Uranium	1.03	mg/kg		0.0147	0.0447	0.0447	2	MS	RMJ	02/27/10 08:13	100226-3	948782
7440-62-2	Vanadium	29100	ug/Kg	*	110	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-66-6	Zinc	27300	ug/Kg	*	363	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.51	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.516	g	30	mL	02/17/10	TXB3

JMP 03/10/2010

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998004 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8116 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 71

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8570000	ug/Kg	*	8880	26100	26100	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-36-0	Antimony J-,I6a	674	ug/Kg	JN	431	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-38-2	Arsenic	1.66	mg/kg		0.264	1.32	1.32	2	MS	RMJ	02/27/10 10:56	100226-4	948782
7440-39-3	Barium	142000	ug/Kg		131	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-41-7	Beryllium	1.04	mg/kg		0.0264	0.132	0.132	2	MS	RMJ	02/27/10 10:56	100226-4	948782
7440-43-9	Cadmium	653	ug/Kg	U	131	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-70-2	Calcium	1660000	ug/Kg		10400	32600	32600	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-47-3	Chromium	9650	ug/Kg		196	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-48-4	Cobalt J,I10a	4160	ug/Kg	*	196	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-50-8	Copper	7660	ug/Kg		392	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-89-6	Iron	11600000	ug/Kg	*	10400	32600	32600	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-92-1	Lead	12900	ug/Kg	*	326	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-95-4	Magnesium	1580000	ug/Kg		11100	39200	39200	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-96-5	Manganese J,I10a	325000	ug/Kg	*	261	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-97-6	Mercury	11	ug/kg	J	5.64	16.6	16.6	1	AV	JXL1	02/18/10 15:02	021810S1-7	951523
7440-02-0	Nickel J+,I6b	8.14	mg/kg	N	0.132	0.528	0.528	2	MS	RMJ	02/27/10 10:56	100226-4	948782
7440-09-7	Potassium J+,I6b	1490000	ug/Kg	N	8360	32600	32600	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7782-49-2	Selenium R,I6	1.32	mg/kg	UN	0.66	1.32	1.32	2	MS	RMJ	02/27/10 10:56	100226-4	948782
7440-22-4	Silver	653	ug/Kg	U	131	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-23-5	Sodium U,I4d	55400	ug/Kg		9140	32600	32600	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-28-0	Thallium	0.230	mg/kg	J	0.0792	0.264	0.264	2	MS	RMJ	02/26/10 12:49	100225-2	948782
7440-61-1	Uranium	11.8	mg/kg		0.0174	0.0528	0.0528	2	MS	RMJ	02/27/10 08:23	100226-3	948782
7440-62-2	Vanadium	22000	ug/Kg	*	131	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-66-6	Zinc	28500	ug/Kg	*	431	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.536	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.53	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.506	g	30	mL	02/17/10	TXB3

JMP 03/10/2010

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998005 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8119 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16900000	ug/Kg	*	7630	22500	22500	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-36-0	Antimony J-,I6a	1020	ug/Kg	JN	371	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-38-2	Arsenic	2.48	mg/kg		0.224	1.12	1.12	2	MS	RMJ	02/27/10 11:00	100226-4	948782
7440-39-3	Barium	405000	ug/Kg		112	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-41-7	Beryllium	1.53	mg/kg		0.0224	0.112	0.112	2	MS	RMJ	02/27/10 11:00	100226-4	948782
7440-43-9	Cadmium	561	ug/Kg	U	112	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-70-2	Calcium	12100000	ug/Kg		8980	28100	28100	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-47-3	Chromium	16200	ug/Kg		168	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-48-4	Cobalt J,I10a	4620	ug/Kg	*	168	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-50-8	Copper	7380	ug/Kg		337	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-89-6	Iron	15100000	ug/Kg	*	8980	28100	28100	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-92-1	Lead	13800	ug/Kg	*	281	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-95-4	Magnesium	2910000	ug/Kg		9540	33700	33700	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-96-5	Manganese J,I10a	269000	ug/Kg	*	225	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-97-6	Mercury	10.3	ug/kg	J	4.33	12.7	12.7	1	AV	JXL1	02/18/10 15:03	021810S1-7	951523
7440-02-0	Nickel J+,I6b	11.2	mg/kg	N	0.112	0.448	0.448	2	MS	RMJ	02/27/10 11:00	100226-4	948782
7440-09-7	Potassium J+,I6b	1890000	ug/Kg	N	7190	28100	28100	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7782-49-2	Selenium R,I6	1.12	mg/kg	UN	0.56	1.12	1.12	2	MS	RMJ	02/27/10 11:00	100226-4	948782
7440-22-4	Silver	561	ug/Kg	U	112	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-23-5	Sodium	307000	ug/Kg		7860	28100	28100	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-28-0	Thallium	0.246	mg/kg		0.0672	0.224	0.224	2	MS	RMJ	02/26/10 13:07	100225-2	948782
7440-61-1	Uranium	0.898	mg/kg		0.0148	0.0448	0.0448	2	MS	RMJ	02/27/10 08:26	100226-3	948782
7440-62-2	Vanadium	31200	ug/Kg	*	112	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-66-6	Zinc	27200	ug/Kg	*	371	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.503	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.531	g	30	mL	02/17/10	TXB3

JMP 03/10/2010

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998006 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8114 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 56

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8940000	ug/Kg	*	12000	35300	35300	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-36-0	Antimony UJ,I6a	1770	ug/Kg	UN	582	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-38-2	Arsenic	3.36	mg/kg		0.356	1.78	1.78	2	MS	RMJ	02/27/10 11:04	100226-4	948782
7440-39-3	Barium	229000	ug/Kg		177	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-41-7	Beryllium	1.26	mg/kg		0.0356	0.178	0.178	2	MS	RMJ	02/27/10 11:04	100226-4	948782
7440-43-9	Cadmium	883	ug/Kg	U	177	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-70-2	Calcium	5520000	ug/Kg		14100	44100	44100	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-47-3	Chromium	10900	ug/Kg		265	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-48-4	Cobalt J,I10a	5570	ug/Kg	*	265	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-50-8	Copper	29900	ug/Kg		530	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-89-6	Iron	11800000	ug/Kg	*	14100	44100	44100	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-92-1	Lead	35800	ug/Kg	*	441	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-95-4	Magnesium	2050000	ug/Kg		15000	53000	53000	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-96-5	Manganese J,I10a	797000	ug/Kg	*	353	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-97-6	Mercury	42.8	ug/kg		7.12	20.9	20.9	1	AV	JXL1	02/18/10 15:05	021810S1-7	951523
7440-02-0	Nickel J+,I6b	10.6	mg/kg	N	0.178	0.712	0.712	2	MS	RMJ	02/27/10 11:04	100226-4	948782
7440-09-7	Potassium J+,I6b	2040000	ug/Kg	N	11300	44100	44100	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7782-49-2	Selenium R,I6	1.78	mg/kg	UN	0.89	1.78	1.78	2	MS	RMJ	02/27/10 11:04	100226-4	948782
7440-22-4	Silver	883	ug/Kg	U	177	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-23-5	Sodium U,I4d	50300	ug/Kg		12400	44100	44100	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-28-0	Thallium	0.226	mg/kg	J	0.107	0.356	0.356	2	MS	RMJ	02/26/10 13:13	100225-2	948782
7440-61-1	Uranium	23.8	mg/kg		0.0235	0.0712	0.0712	2	MS	RMJ	02/27/10 08:29	100226-3	948782
7440-62-2	Vanadium	23800	ug/Kg	*	177	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-66-6	Zinc	43400	ug/Kg	*	582	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.505	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.501	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.511	g	30	mL	02/17/10	TXB3

JMP 03/10/2010

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998007 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8115 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13700000	ug/Kg	*	7950	23400	23400	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-36-0	Antimony J-,I6a	1510	ug/Kg	N	386	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-38-2	Arsenic	2.05	mg/kg		0.227	1.14	1.14	2	MS	RMJ	02/27/10 11:08	100226-4	948782
7440-39-3	Barium	236000	ug/Kg		117	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-41-7	Beryllium	1.25	mg/kg		0.0227	0.114	0.114	2	MS	RMJ	02/27/10 11:08	100226-4	948782
7440-43-9	Cadmium	584	ug/Kg	U	117	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-70-2	Calcium	5250000	ug/Kg		9350	29200	29200	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-47-3	Chromium	21300	ug/Kg		175	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-48-4	Cobalt J,I10a	5830	ug/Kg	*	175	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-50-8	Copper	8040	ug/Kg		351	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-89-6	Iron	14700000	ug/Kg	*	9350	29200	29200	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-92-1	Lead	14600	ug/Kg	*	292	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-95-4	Magnesium	2790000	ug/Kg		9940	35100	35100	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-96-5	Manganese J,I10a	359000	ug/Kg	*	234	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-97-6	Mercury	22.3	ug/kg		4.12	12.1	12.1	1	AV	JXL1	02/18/10 15:07	021810S1-7	951523
7440-02-0	Nickel J+,I6b	10.9	mg/kg	N	0.114	0.454	0.454	2	MS	RMJ	02/27/10 11:08	100226-4	948782
7440-09-7	Potassium J+,I6b	1410000	ug/Kg	N	7480	29200	29200	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7782-49-2	Selenium R,I6	1.14	mg/kg	UN	0.568	1.14	1.14	2	MS	RMJ	02/27/10 11:08	100226-4	948782
7440-22-4	Silver	584	ug/Kg	U	117	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-23-5	Sodium U,I4d	114000	ug/Kg		8180	29200	29200	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-28-0	Thallium	0.249	mg/kg		0.0681	0.227	0.227	2	MS	RMJ	02/26/10 13:19	100225-2	948782
7440-61-1	Uranium	1.17	mg/kg		0.015	0.0454	0.0454	2	MS	RMJ	02/27/10 08:32	100226-3	948782
7440-62-2	Vanadium	28100	ug/Kg	*	117	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-66-6	Zinc	26000	ug/Kg	*	386	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.581	g	30	mL	02/17/10	TXB3

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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998008 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8117 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 92.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12500000	ug/Kg	*	7230	21300	21300	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-36-0	Antimony J-,I6a	437	ug/Kg	JN	351	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-38-2	Arsenic	2.16	mg/kg		0.206	1.03	1.03	2	MS	RMJ	02/27/10 11:12	100226-4	948782
7440-39-3	Barium	208000	ug/Kg		106	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-41-7	Beryllium	1.23	mg/kg		0.0206	0.103	0.103	2	MS	RMJ	02/27/10 11:12	100226-4	948782
7440-43-9	Cadmium	531	ug/Kg	U	106	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-70-2	Calcium	2490000	ug/Kg		8500	26600	26600	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-47-3	Chromium	12900	ug/Kg		159	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-48-4	Cobalt J,I10a	6310	ug/Kg	*	159	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-50-8	Copper	9500	ug/Kg		319	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-89-6	Iron	14800000	ug/Kg	*	8500	26600	26600	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-92-1	Lead	18000	ug/Kg	*	266	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-95-4	Magnesium	2110000	ug/Kg		9030	31900	31900	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-96-5	Manganese J,I10a	441000	ug/Kg	*	213	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-97-6	Mercury	14	ug/kg		4.05	11.9	11.9	1	AV	JXL1	02/18/10 15:09	021810S1-7	951523
7440-02-0	Nickel J+,I6b	9.87	mg/kg	N	0.103	0.413	0.413	2	MS	RMJ	02/27/10 11:12	100226-4	948782
7440-09-7	Potassium J+,I6b	1940000	ug/Kg	N	6800	26600	26600	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7782-49-2	Selenium R,I6	1.03	mg/kg	UN	0.516	1.03	1.03	2	MS	RMJ	02/28/10 02:47	100227-6	948782
7440-22-4	Silver	531	ug/Kg	U	106	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-23-5	Sodium U,I4d	67600	ug/Kg		7440	26600	26600	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-28-0	Thallium	0.242	mg/kg		0.0619	0.206	0.206	2	MS	RMJ	02/26/10 13:25	100225-2	948782
7440-61-1	Uranium	29.5	mg/kg		0.0273	0.0826	0.0826	4	MS	RMJ	02/28/10 01:53	100227-5	948782
7440-62-2	Vanadium	30800	ug/Kg	*	106	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-66-6	Zinc	34500	ug/Kg	*	351	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

JMP 03/10/2010

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998009 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8118 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 72

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11200000	ug/Kg	*	9160	26900	26900	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-36-0	Antimony J-,I6a	556	ug/Kg	JN	445	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-38-2	Arsenic	1.62	mg/kg		0.263	1.31	1.31	2	MS	RMJ	02/27/10 11:16	100226-4	948782
7440-39-3	Barium	189000	ug/Kg		135	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-41-7	Beryllium	0.927	mg/kg		0.0263	0.131	0.131	2	MS	RMJ	02/27/10 11:16	100226-4	948782
7440-43-9	Cadmium	674	ug/Kg	U	135	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-70-2	Calcium	2380000	ug/Kg		10800	33700	33700	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-47-3	Chromium	17600	ug/Kg		202	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-48-4	Cobalt J,I10a	6850	ug/Kg	*	202	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-50-8	Copper	14200	ug/Kg		404	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-89-6	Iron	14700000	ug/Kg	*	10800	33700	33700	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-92-1	Lead	16800	ug/Kg	*	337	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-95-4	Magnesium	2010000	ug/Kg		11500	40400	40400	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-96-5	Manganese J,I10a	458000	ug/Kg	*	269	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-97-6	Mercury	11.4	ug/kg	J	5.32	15.6	15.6	1	AV	JXL1	02/18/10 15:15	021810S1-7	951523
7440-02-0	Nickel J+,I6b	8.21	mg/kg	N	0.131	0.526	0.526	2	MS	RMJ	02/27/10 11:16	100226-4	948782
7440-09-7	Potassium J+,I6b	1990000	ug/Kg	N	8620	33700	33700	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7782-49-2	Selenium R,I6	1.31	mg/kg	UN	0.657	1.31	1.31	2	MS	RMJ	02/27/10 11:16	100226-4	948782
7440-22-4	Silver	674	ug/Kg	U	135	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-23-5	Sodium U,I4d	68200	ug/Kg		9430	33700	33700	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-28-0	Thallium	0.183	mg/kg	J	0.0788	0.263	0.263	2	MS	RMJ	02/26/10 13:31	100225-2	948782
7440-61-1	Uranium	18.9	mg/kg		0.0173	0.0526	0.0526	2	MS	RMJ	02/27/10 08:38	100226-3	948782
7440-62-2	Vanadium	30500	ug/Kg	*	135	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-66-6	Zinc	30200	ug/Kg	*	445	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.512	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.529	g	30	mL	02/17/10	TXB3

JMP 03/10/2010

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246000001 **BASIS:** As Received **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8124 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 05:09	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:37	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 05:09	100224-2	948740
7440-70-2	Calcium	59.5	ug/L	J	50	200	200	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-47-3	Chromium	1.31	ug/L	J	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 19:27	021110B-1	948737
7439-89-6	Iron	34.7	ug/L	J	30	100	100	1	P	HSC	02/11/10 19:27	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:37	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 19:27	021110B-1	948737
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/25/10 15:37	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:07	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-09-7	Potassium	181	ug/L		50	150	150	1	P	HSC	02/11/10 19:27	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-23-5	Sodium	200	ug/L	J	100	300	300	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-28-0	Thallium	1	ug/L	UN	0.3	1	1	1	MS	BAJ	02/28/10 14:46	100228-5	948740
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:29	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 19:27	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

JMP 03/10/2010

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1517 VALIDATION DATE: 03/10/2010 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Jeanne Peterson ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): total cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Total cyanide was detected in one or more of the CCBs associated with all soil samples. The total cyanide result for sample RE15-10-8114 was a detect ≤5X the greatest CCB concentration and, thus, was qualified U,I4b. The remaining associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the parent samples for the matrix QC were LANL samples from other RNs. No sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 03/11/10

VALIDATOR'S SIGNATURE: Jeanne Peterson DATE: 03/10/2010

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8122	Project:	LANL01004
Sample ID:	245998001	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.9	294	ug/kg	1	AXC2 02/11/10	1406	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JMP 03/10/2010

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8112	Project:	LANL01004
Sample ID:	245998002	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	33%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	86.0	316	ug/kg	1	AXC2 02/11/10	1407	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8113	Project:	LANL01004
Sample ID:	245998003	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2 02/11/10	1408	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8116	Project:	LANL01004
Sample ID:	245998004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	28.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	89.8	330	ug/kg	1	AXC2 02/11/10	1409	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8119	Project:	LANL01004
Sample ID:	245998005	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	11.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.7	271	ug/kg	1	AXC2 02/11/10	1410	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JMP 03/10/2010

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8114	Project:	LANL01004
Sample ID:	245998006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	43.9%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total		407	U,I4b	108	398	ug/kg	1	AXC2 02/11/10	1411	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JMP 03/10/2010

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8115	Project:	LANL01004
Sample ID:	245998007	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.8	253	ug/kg	1	AXC2 02/11/10	1412	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JMP 03/10/2010

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8117	Project:	LANL01004
Sample ID:	245998008	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	7.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	67.9	249	ug/kg	1	AXC2 02/11/10	1412	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JMP 03/10/2010

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8118	Project:	LANL01004
Sample ID:	245998009	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	27.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	90.2	332	ug/kg	1	AXC2 02/11/10	1413	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JMP 03/10/2010

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1517-1

Client Sample ID:	RE15-10-8124	Project:	LANL01004
Sample ID:	246000001	Client ID:	LANL010
Matrix:	W		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1459	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

JMP 03/10/2010

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1517C

REQUEST NUMBER: 10-1517

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245998, 246000

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8122	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8112	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8113	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8124	1	POLY	METALS+U-GEL	Nitric Acid	W
RE15-10-8124	1	POLY	SW-846:6850	Ice	W
RE15-10-8124	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8116	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8119	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8114	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8115	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8117	1	POLY	Met+U+CLO4+CN	Ice	R
RE15-10-8118	1	POLY	Met+U+CLO4+CN	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/1/10	3:00	Dionne Francis		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 01, 2010

REQUEST NUMBER: 10-1517

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1517
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/1/2010
TURNAROUND/REPORT DUE: 3/3/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1517

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6020	1	RE15-10-8124	W	1/28/2010	
	SW-846:6850	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
		1	RE15-10-8124	W	1/28/2010	
	SW-846:7470A	1	RE15-10-8124	W	1/28/2010	
	SW-846:7471A	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	
		1	RE15-10-8119	R	1/28/2010	
		1	RE15-10-8122	R	1/28/2010	
	SW-846:9012A	1	RE15-10-8112	R	1/28/2010	
		1	RE15-10-8113	R	1/28/2010	
		1	RE15-10-8114	R	1/28/2010	
		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1517

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
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		1	RE15-10-8122	R	1/28/2010	
		1	RE15-10-8124	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1517

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 09, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 245998 246000
SDG: 10-1517

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 02, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1517
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 245998 and 246000
SDG: 10-1517

Table of Contents

Case Narrative **1**

Chain of Custody and Supporting Documentation **4**

Data Review Qualifier Flag Definition Sheet **17**

LC/MS/MS Perchlorate Analysis **19**
Sample Data Summary 24
Quality Control Summary 34
Sample Data 59
Standards Data 78
Quality Control 97
Miscellaneous Data 102

LC/MS/MS Perchlorate Analysis **111**
Sample Data Summary 116
Quaoity Control Summary 118
Sample Data 145
Standards Data 148
Quality Control 170
Miscellaneous Data 175

Metals Analysis **183**
Case Narrative 184
Sample Data Summary 190
Quality Control Summary 200
Standards 271
Raw Data 283
Miscellaneous 696

Metals Analysis **746**
Case Narrative 747
Sample Data Summary 752
Quality Control Summary 754
Standards 805
Raw Data 817
Miscellaneous 1128

General Chemistry Analysis **1175**
Case Narrative 1176
Sample Data Summary 1181

Quality Control Summary 1192
Instrument QC Data Summary 1195
Cyanide, Total 1197
Miscellaneous 1213

General Chemistry Analysis 1215
Case Narrative 1216
Sample Data Summary 1221
Quality Control Summary 1224
Instrument QC Data Summary 1227
Cyanide, Total 1229

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 245998 and 246000
SDG # : 10-1517

February 09, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 02, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
245998001	RE15-10-8122
245998002	RE15-10-8112
245998003	RE15-10-8113
245998004	RE15-10-8116
245998005	RE15-10-8119
245998006	RE15-10-8114
245998007	RE15-10-8115
245998008	RE15-10-8117
245998009	RE15-10-8118
246000001	RE15-10-8124

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis
Project Manager

List of current GEL Certifications as of 09 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 01, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1517C

REQUEST NUMBER: 10-1517

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/3/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 245998, 246000

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		2/1/10	3:00	Dionne Francis		2/2/10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name	Signature		

Monday, February 01, 2010

REQUEST NUMBER: 10-1517

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1517

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

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TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

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Monday, February 01, 2010

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		1	RE15-10-8115	R	1/28/2010	
		1	RE15-10-8116	R	1/28/2010	
		1	RE15-10-8117	R	1/28/2010	
		1	RE15-10-8118	R	1/28/2010	

Monday, February 01, 2010

REQUEST NUMBER: 10-1517

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8119	R	1/28/2010	
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		1	RE15-10-8124	W	1/28/2010	

Final Page of REQUEST NUMBER 10-1517

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1517**
Received By: Dionne Francis	**Date Received: February 2, 2010**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-5C 13-15,19C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 7978 0C 7209 7849 7886 2C 7209 7849 7967 3C 7209 7849 7739 19C
7209 7849 7772 1C 7209 7849 7901 2C 7209 7849 7945 4C
7209 7849 7934 1C 7209 7849 7853 2C 7209 7849 7810 5C
7209 7849 7831 1C 7209 7849 7875 2C 7209 7849 7897 5C
7209 7849 7783 1C 7209 7849 7956 2C 7209 7849 7728 13C
7209 7849 7864 1C 7209 7849 7794 2C 7209 7849 7706 13C
7209 7849 7923 1C 7209 7849 7820 2C 7209 7849 7717 14C
7209 7849 7761 1C 7209 7849 7809 2C 7209 7849 7750 15C
7209 7849 7842 1C 7209 7849 7912 3C 7209 7849 7740 15C

PM (or PMA) review: Initials GRT Date 2-3-10

TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

0c

FedEx Express

TRK# 0201 7209 7849 7978

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 03-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449
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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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2 of 2
MPS# 0263 7209 7849 7772
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TUE - 02FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

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1 of 2
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TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
TRK# 0201 7209 7849 7831
MASTER

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

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1 of 2
TRK# 0201 7209 7849 7783
TUE - 02FEB A1
PRIORITY OVERNIGHT
MASTER
29407
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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

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2 of 2
MPS# 0203 7209 784[illegible] 7884
Matr# 7209 7[illegible] 7853 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

1C

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2 of 2
MPS# 0263 7209 7849 7923
Matr# 7209 7849 7912 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT
29407
SC-US
CHS
XX CHSA

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JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

1C

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1 of 2
TRK# 0201 7209 7849 7761
TUE - 02FEB A1
PRIORITY OVERNIGHT
MASTER
29407
SC-US
CHS
XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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FedEx Express

2 of 2
MPS# 0263 7209 7849 7842
Matr# 7209 7849 7831 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7901
Matr# 7209 7849 7897 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7886
Matr# 7209 7849 7875 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

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1 of 2
TRK# 0201 7209 7849 7853
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

2C

FedEx Express

1 of 2
TRK# 0201 7209 7849 7875
TUE - 02FEB A1
PRIORITY OVERNIGHT
MM MASTER MM
29407
SC-US
XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7794
Mstr# 7209 7849 7783 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT
29407
SC-US
XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

2C

FedEx Express

1 of 2
TRK# 0201 7209 7849 7956
TUE - 02FEB A1
PRIORITY OVERNIGHT
MM MASTER MM
29407
SC-US
XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

3 of 3
MPS# 0263 7209 7849 7820
Mstr# 7209 7849 7809 0201
TUE - 02FEB A1
PRIORITY OVERNIGHT
29407
SC-US
XX CHSA

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

2C

FedEx Express

1 of 3
TRK# [illegible]

TUE - 02FEB A1

FedEx
TRK# 0201 7209 7849 7809

TUE - 02 FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Exp# 133998 01FEB10 SAFA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

FedEx Express

1 of 2
TRK# 0201 7209 7849 7912
NN MASTER NN

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

3C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7961
Mstr# 7209 7849 7956 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWL0

4C

FedEx Express

2 of 2
MPS# 0263 7209 7849 7945
Mstr# 7209 7849 7934 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A052VA00

5c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7810
Mstr# 7209 7849 7800 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156143-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGMK0

5°

FedEx Express

1 of 2
TRK# 0201 7209 7849 7897
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156143-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7728
MM MASTER MM

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

13c

FedEx Express

2 of 3
MPS# 0263 7209 7849 7706
Mstr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR2A0515BYDO

14c

FedEx Express

3 of 3
MPS# 0263 7209 7849 7717
Matr# 7209 7849 7691 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156143-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR2A0515BYDO

15c

FedEx Express

2 of 2
MPS# 0263 7209 7849 7750
Matr# 7209 7849 7740 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR2A0515BYDO

15c

FedEx Express

1 of 2
TRK# 0201 7209 7849 7740
HM MASTER HM

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 01FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 68010AMR2A0515BYDO

19°

FedEx Express

2 of 2
MPS# 0263 7209 7849 7739
Matr# 7209 7849 7728 0201

TUE - 02FEB A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1517

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950071
Prep Batch Number:	950068

Sample Analysis

Sample ID	Client ID
245998001	RE15-10-8122
245998002	RE15-10-8112
245998003	RE15-10-8113
245998004	RE15-10-8116
245998005	RE15-10-8119
245998006	RE15-10-8114
245998007	RE15-10-8115
245998008	RE15-10-8117
245998009	RE15-10-8118
1202035664	Interference Check Sample (ICS)
1202035660	Method Blank (MB)
1202035661	Laboratory Control Sample (LCS)
1202035662	246055001(RE15-10-8170) Matrix Spike (MS)
1202035663	246055001(RE15-10-8170) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 246055001 (RE15-10-8170) from SDG 10-1545 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Maier **Date:** 02/27/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8122

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.588	2.35	0.588	ug/kg	U	1	23-FEB-10 17:56	per0223041a
	Perchlorate Isotope Ratio						1	23-FEB-10 17:56	per0223041a
14797-73-0	Perchlorate-101	.588	2.35	0.588	ug/kg	U	1	23-FEB-10 17:56	per0223041a
	Perchlorate-O(18)			5.22	ug/kg		1	23-FEB-10 17:56	per0223041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8112

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.746	2.98	0.746	ug/kg	U	1	23-FEB-10 18:04	per0223042a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:04	per0223042a
14797-73-0	Perchlorate-101	.746	2.98	0.746	ug/kg	U	1	23-FEB-10 18:04	per0223042a
	Perchlorate-O(18)			6.51	ug/kg		1	23-FEB-10 18:04	per0223042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8113

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.24	0.597	ug/kg	J	1	23-FEB-10 18:12	per0223043a
	Perchlorate Isotope Ratio			3.24			1	23-FEB-10 18:12	per0223043a
14797-73-0	Perchlorate-101	.561	2.24	0.590	ug/kg	J	1	23-FEB-10 18:12	per0223043a
	Perchlorate-O(18)			5.11	ug/kg		1	23-FEB-10 18:12	per0223043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8116

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.7	2.8	0.700	ug/kg	U	1	23-FEB-10 18:20	per0223044a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:20	per0223044a
14797-73-0	Perchlorate-101	.7	2.8	0.700	ug/kg	U	1	23-FEB-10 18:20	per0223044a
	Perchlorate-O(18)			6.11	ug/kg		1	23-FEB-10 18:20	per0223044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8119

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.25	0.564	ug/kg	U	1	23-FEB-10 18:28	per0223045a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:28	per0223045a
14797-73-0	Perchlorate-101	.564	2.25	0.564	ug/kg	U	1	23-FEB-10 18:28	per0223045a
	Perchlorate-O(18)			5.15	ug/kg		1	23-FEB-10 18:28	per0223045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8114

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 56

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.891	3.57	0.891	ug/kg	U	1	23-FEB-10 18:36	per0223046a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:36	per0223046a
14797-73-0	Perchlorate-101	.891	3.57	0.891	ug/kg	U	1	23-FEB-10 18:36	per0223046a
	Perchlorate-O(18)			8.26	ug/kg		1	23-FEB-10 18:36	per0223046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8115

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 18:44	per0223047a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:44	per0223047a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 18:44	per0223047a
	Perchlorate-O(18)			5.32	ug/kg		1	23-FEB-10 18:44	per0223047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8117

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 92.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.695	ug/kg	J	1	23-FEB-10 19:17	per0223051a
	Perchlorate Isotope Ratio			3.1			1	23-FEB-10 19:17	per0223051a
14797-73-0	Perchlorate-101	.539	2.16	0.718	ug/kg	J	1	23-FEB-10 19:17	per0223051a
	Perchlorate-O(18)			5.00	ug/kg		1	23-FEB-10 19:17	per0223051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8118

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 72

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.69	2.76	0.690	ug/kg	U	1	23-FEB-10 19:25	per0223052a
	Perchlorate Isotope Ratio						1	23-FEB-10 19:25	per0223052a
14797-73-0	Perchlorate-101	.69	2.76	0.690	ug/kg	U	1	23-FEB-10 19:25	per0223052a
	Perchlorate-O(18)			6.46	ug/kg		1	23-FEB-10 19:25	per0223052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1517

Extract Batch Code: 950068

Date Filtered: 18-FEB-10

Matrix: SOIL

Sample ID: 1202035661

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.98	ug/kg	98.8		70 - 130
Perchlorate Isotope Ratio		3.1				-
Perchlorate-101	2.00	2.04	ug/kg	102		70 - 130
Perchlorate-O(18)		4.69	ug/kg			-

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1517

Extract Batch Code: 950068

Date Filtered: 18-FEB-10

Matrix: SOIL

Sample ID: 1202035664

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.15	ug/kg	108		70 - 130
Perchlorate Isotope Ratio		3.35				
Perchlorate-101	2.00	2.06	ug/kg	103		70 - 130
Perchlorate-O(18)		4.72	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223040a
Date: 23-Feb-2010
Time: 17:48:41
ID: 1202035664
Vial: 2:1,C

|LANL|950071|50020|IC5|1|

AWJ 02-24-10

Perchlorate

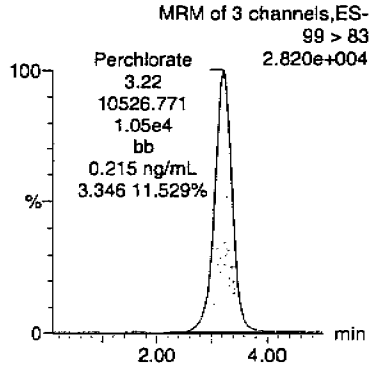

Perchlorate

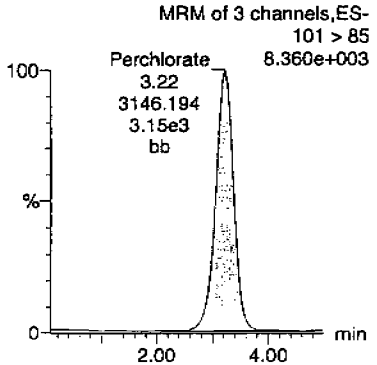

Perchlorate-101

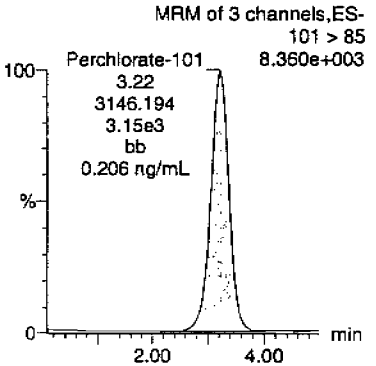

Perchlorate-O(18)

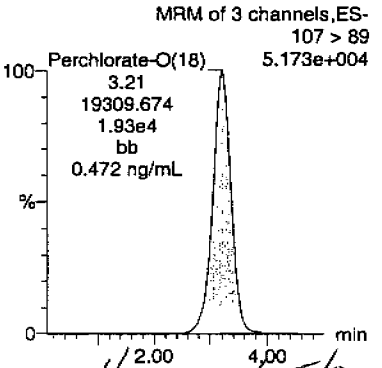

HMK 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035664	Perchlorate	99 > 83	3.22	10526.771	10526.771	bb			0.2153	107.63	7.63	1420.2...	3.35
1202035664	Perchlorate-101	101 > 85	3.22	3146.194	3146.194	bb			0.2063	103.14	3.14	910.460	
1202035664	Perchlorate-O(18)	107 > 89	3.21	19309.674	19309.674	bb			0.4719	94.38	-5.62	1264.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1517

Extract Batch Code: 950068

Date Extracted: 18-FEB-10

GEL MS/PS ID: 1202035662

Client ID: RE15-10-8170

GEL MSD/PSD ID: 1202035663

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.43	0.831	ug/kg	3.10	93.4	3.22	98.5	3.96	30	75 - 125
Perchlorate Isotope Ratio	0	0.00		3.29		3.15		0		-
Perchlorate-101	2.43	0.836	ug/kg	3.02	89.9	3.28	101	8.42	30	75 - 125
Perchlorate-O(18)	0	5.52	ug/kg	5.61		5.61		.0629		-

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	23-FEB-10	per0223001a	IPB001
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223001a	IPB001
Perchlorate	0.00	0	NA	23-FEB-10	per0223002a	IPB001
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022310a.mdb 24 Feb 2010 09:36:48
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022310a.cdb 24 Feb 2010 09:37:11

Name: per0223001a
Date: 23-Feb-2010
Time: 12:33:48
ID: IPB001
Vial: 1:1,A

0224-10

Perchlorate

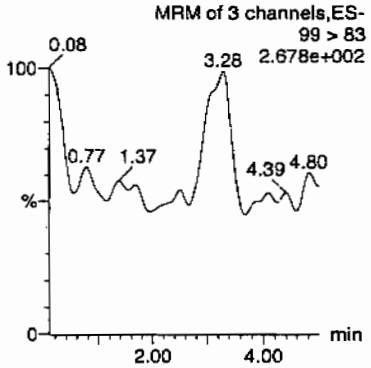

Perchlorate

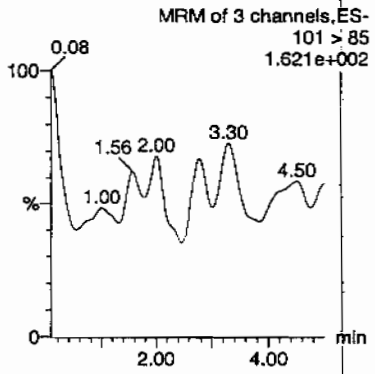

Perchlorate-101

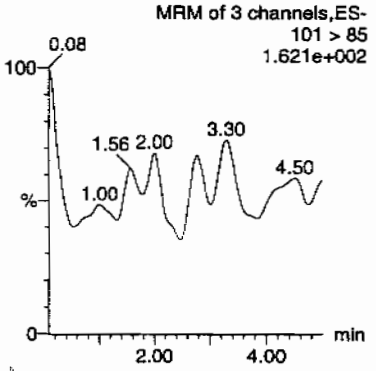

Perchlorate-O(18)

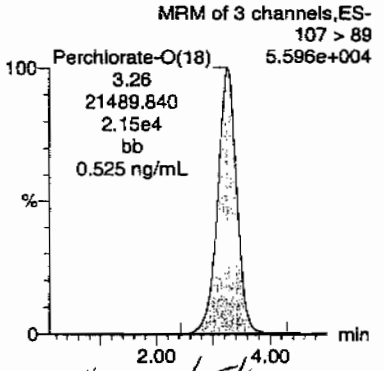

Hmc 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.26	21489.840	21489.840	bb			0.5252	105.04	5.04	7285.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223002a
Date: 23-Feb-2010
Time: 12:42:00
ID: IPB001
Vial: 1:1,A

0224-10

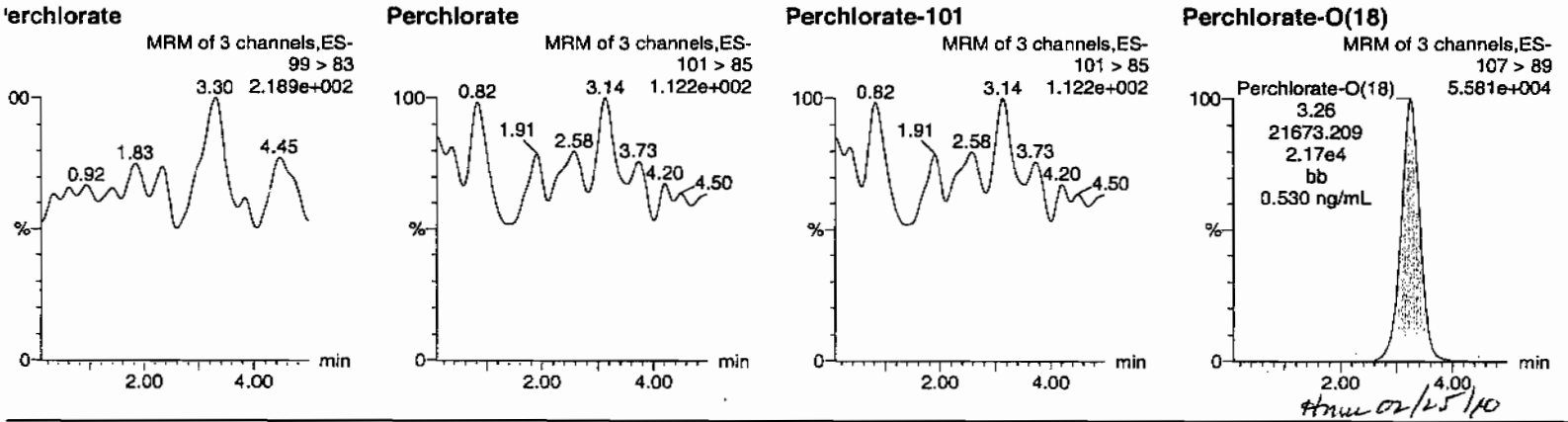

Hmm 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	3.26	21673.209	21673.209	bb			0.5297	105.93	5.93	1580.2...	

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	23-FEB-10	per0223008a	IPB002
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223008a	IPB002
Perchlorate	0.00	0	NA	23-FEB-10	per0223010a	IPB003
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223010a	IPB003
Perchlorate	0.00	0	NA	23-FEB-10	per0223023a	IPB004
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223023a	IPB004
Perchlorate	0.00	0	NA	23-FEB-10	per0223036a	IPB005
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223036a	IPB005
Perchlorate	0.00	0	NA	23-FEB-10	per0223049a	IPB006
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223049a	IPB006
Perchlorate	0.00	0	NA	23-FEB-10	per0223062a	IPB007
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223062a	IPB007

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223008a
Date: 23-Feb-2010
Time: 13:30:32
ID: IPB002
Vial: 1:1,A

cwd 02-24-10

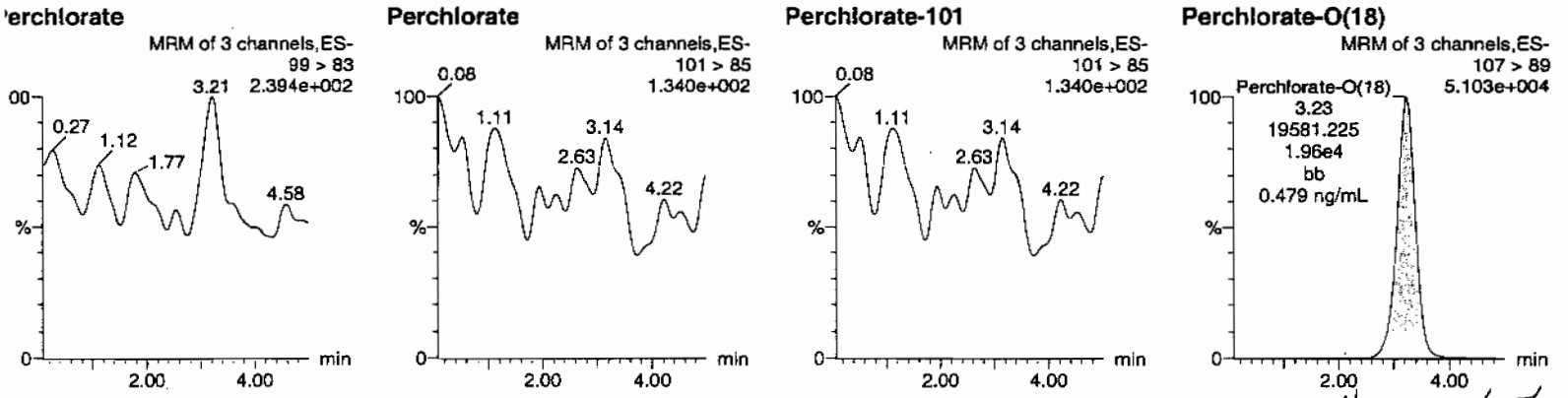

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.23	19581.225	19581.225	bb			0.4785	95.71	-4.29	7325.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223010a
Date: 23-Feb-2010
Time: 13:46:52
ID: IPB003
Vial: 1:1,A

02-24-10

Perchlorate

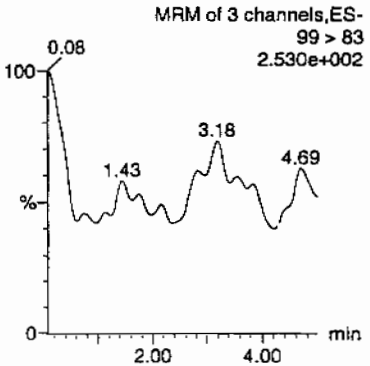

Perchlorate

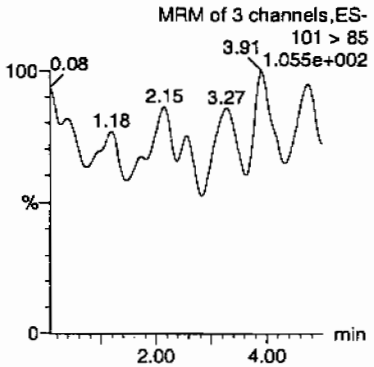

Perchlorate-101

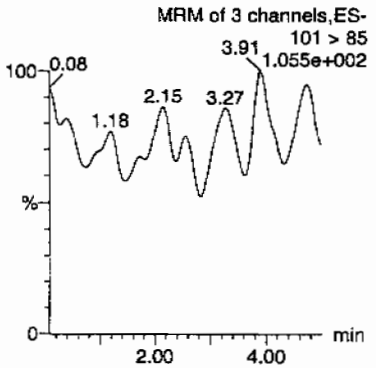

Perchlorate-O(18)

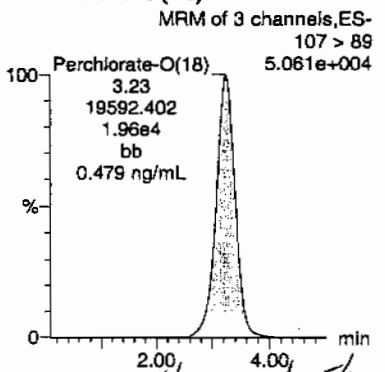

HW 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	3.23	19592.402	19592.402	bb			0.4788	95.76	-4.24	4079.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223023a
Date: 23-Feb-2010
Time: 15:31:45
ID: IPB004
Vial: 1:1,A

CWD 02-24-10

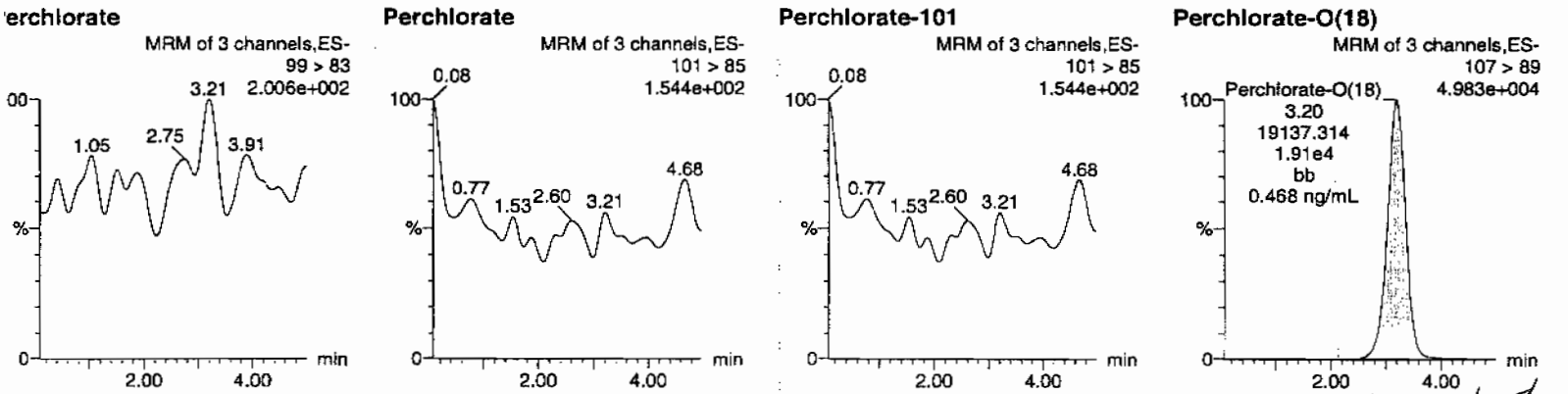

HMW 02/24/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB004	Perchlorate	99 > 83											0.00
PB004	Perchlorate-101	101 > 85											
PB004	Perchlorate-O(18)	107 > 89	3.20	19137.314	19137.314	bb			0.4677	93.54	-6.46	8424.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223036a
Date: 23-Feb-2010
Time: 17:16:21
ID: IPB005
Vial: 1:1,A

02-24-10

Perchlorate

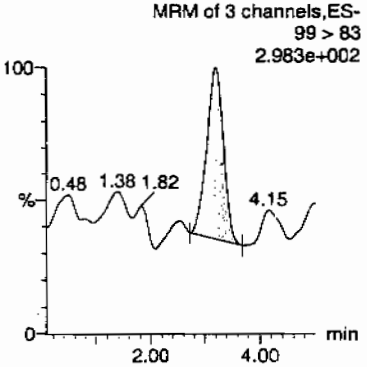

Perchlorate

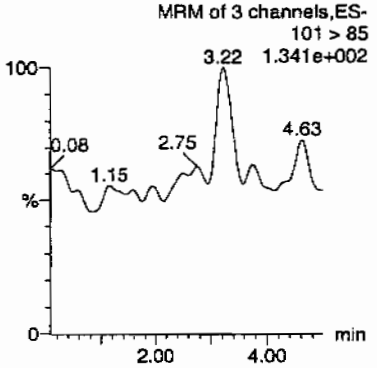

Perchlorate-101

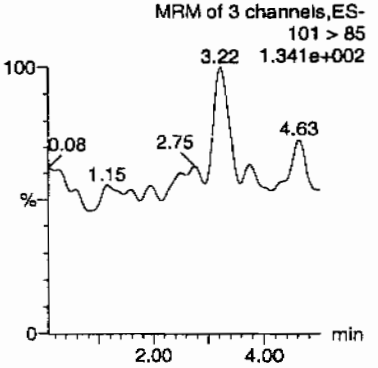

Perchlorate-O(18)

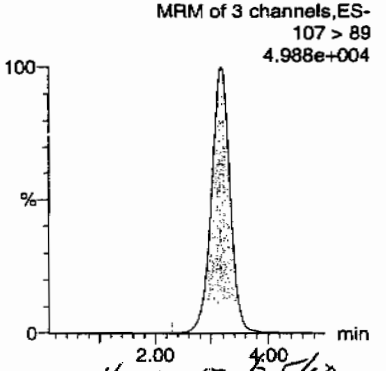

HM 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83	3.20	71.064	71.064	bb			0.0015			8.434	0.00
PB005	Perchlorate-101	101 > 85											
PB005	Perchlorate-O(18)	107 > 89	3.17	18894.705	18894.705	bb			0.4618	92.35	-7.65	2125.4...	

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

ast Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

ame: per0223049a
ate: 23-Feb-2010
ime: 19:01:09
): IPB006
ial: 1:1,A

02-24-10

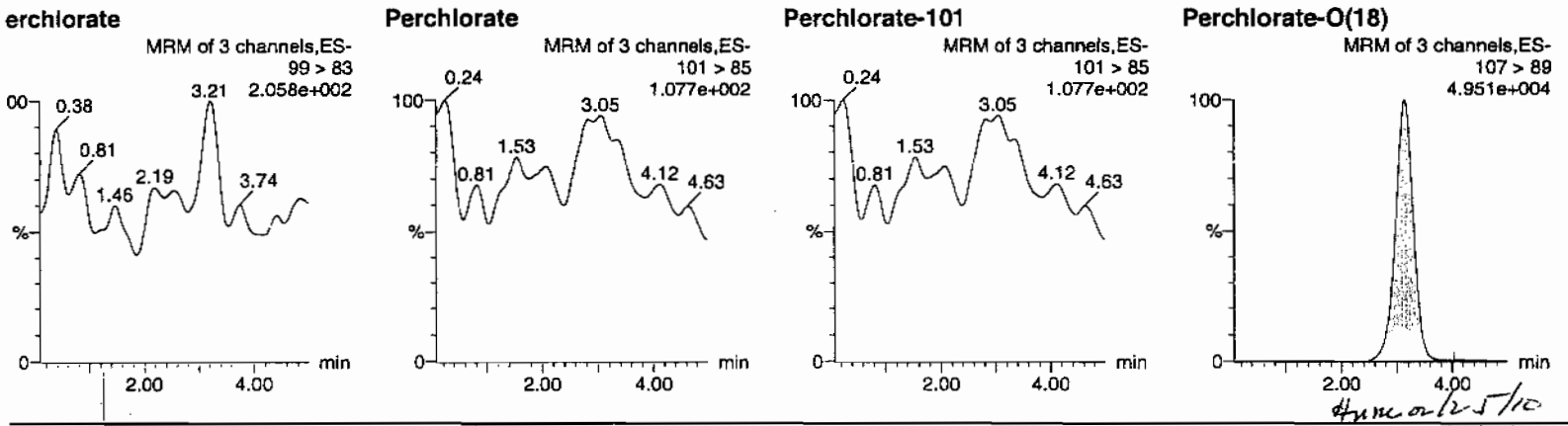

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'B006	Perchlorate	99 > 83											0.00
'B006	Perchlorate-101	101 > 85											
'B006	Perchlorate-O(18)	107 > 89	3.15	18604.625	18604.625	bb			0.4547	90.93	-9.07	6408.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223062a
Date: 23-Feb-2010
Time: 20:46:00
ID: IPB007
Vial: 1:1,A

CWD 02-24-10

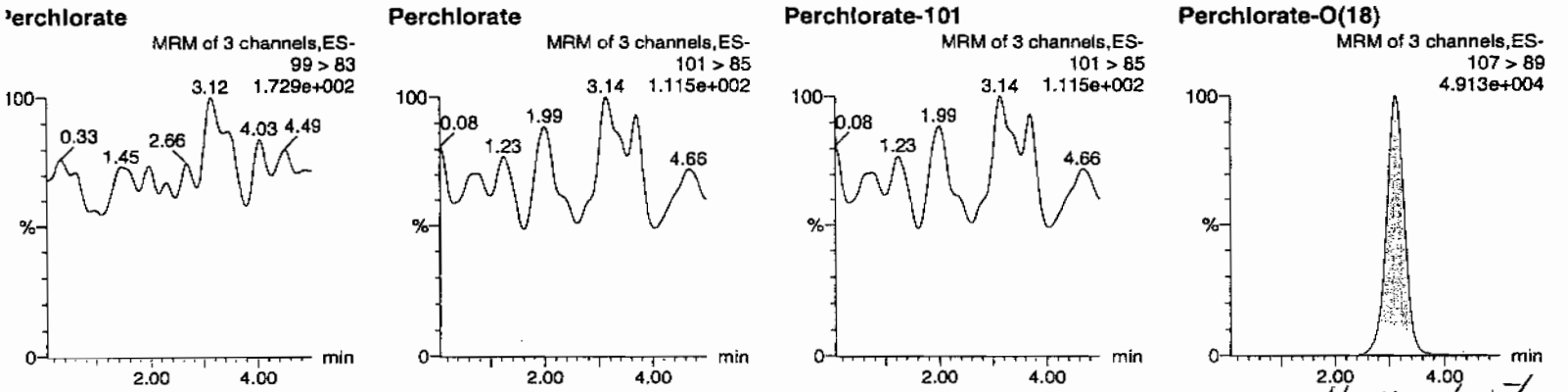

HMW 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83											0.00
PB007	Perchlorate-101	101 > 85											
PB007	Perchlorate-O(18)	107 > 89	3.12	18448.516	18448.516	bb			0.4509	90.17	-9.83	8943.9...	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

POINTS HIGHLIGHTED BY CURSOR 01-07-03

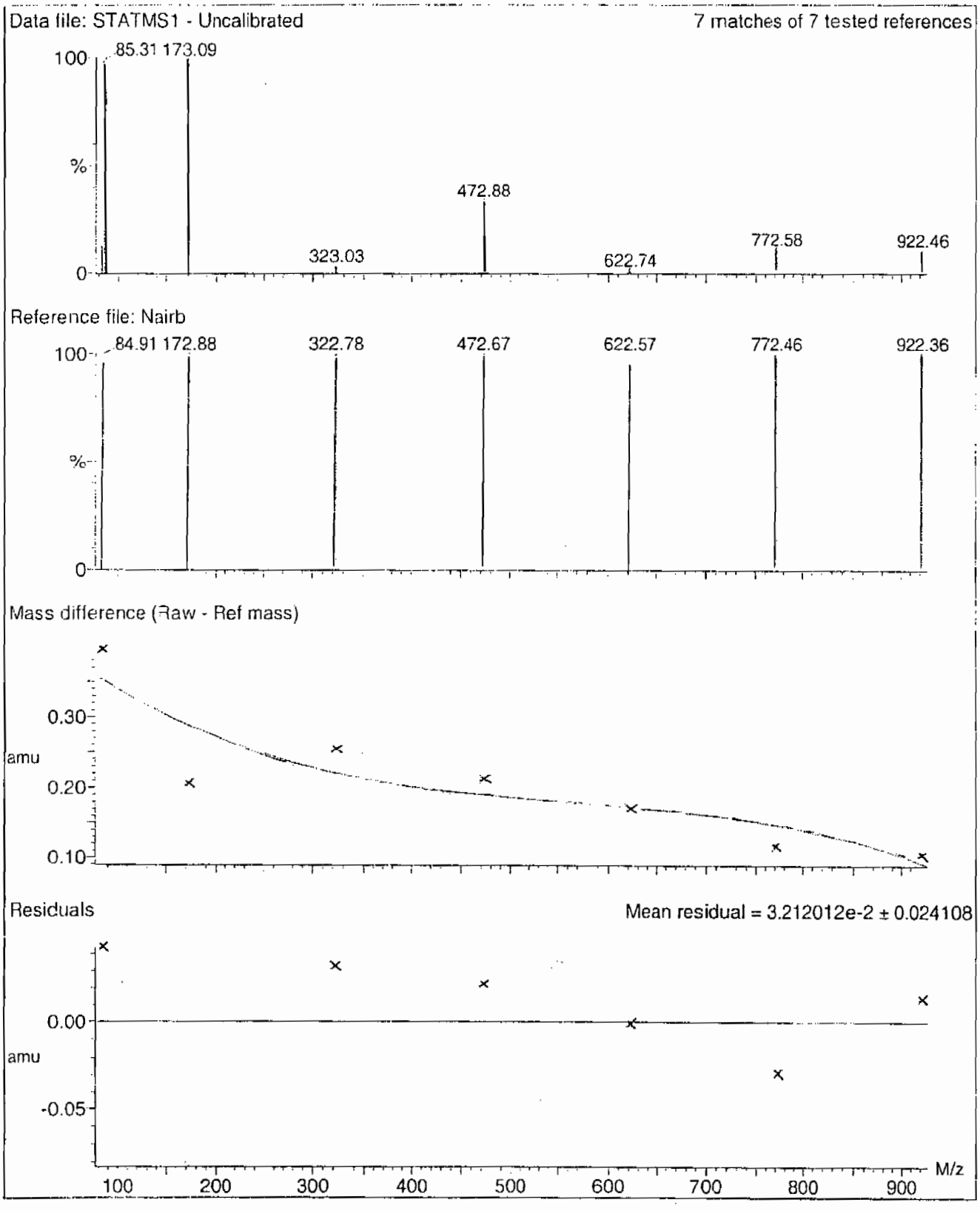

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

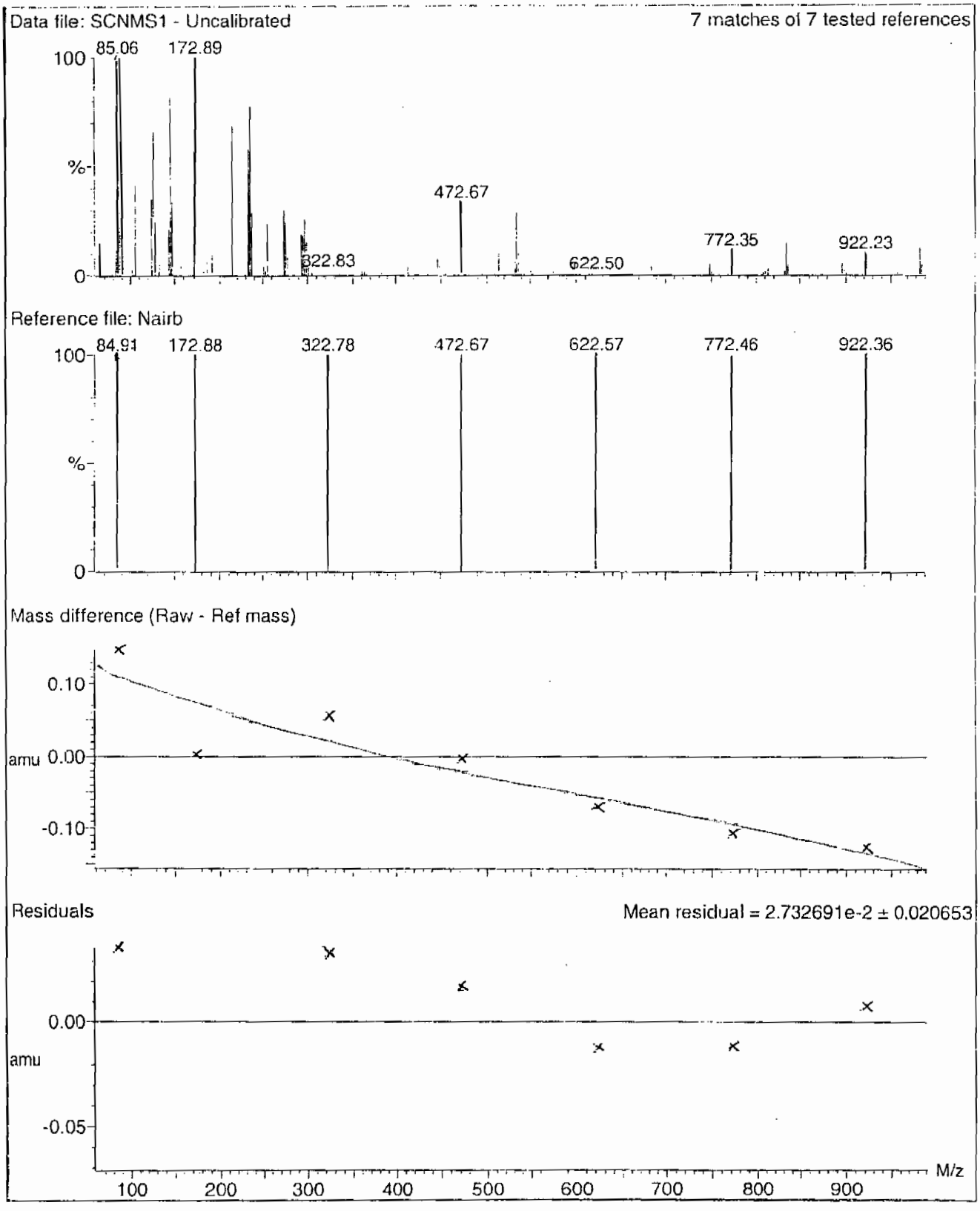

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

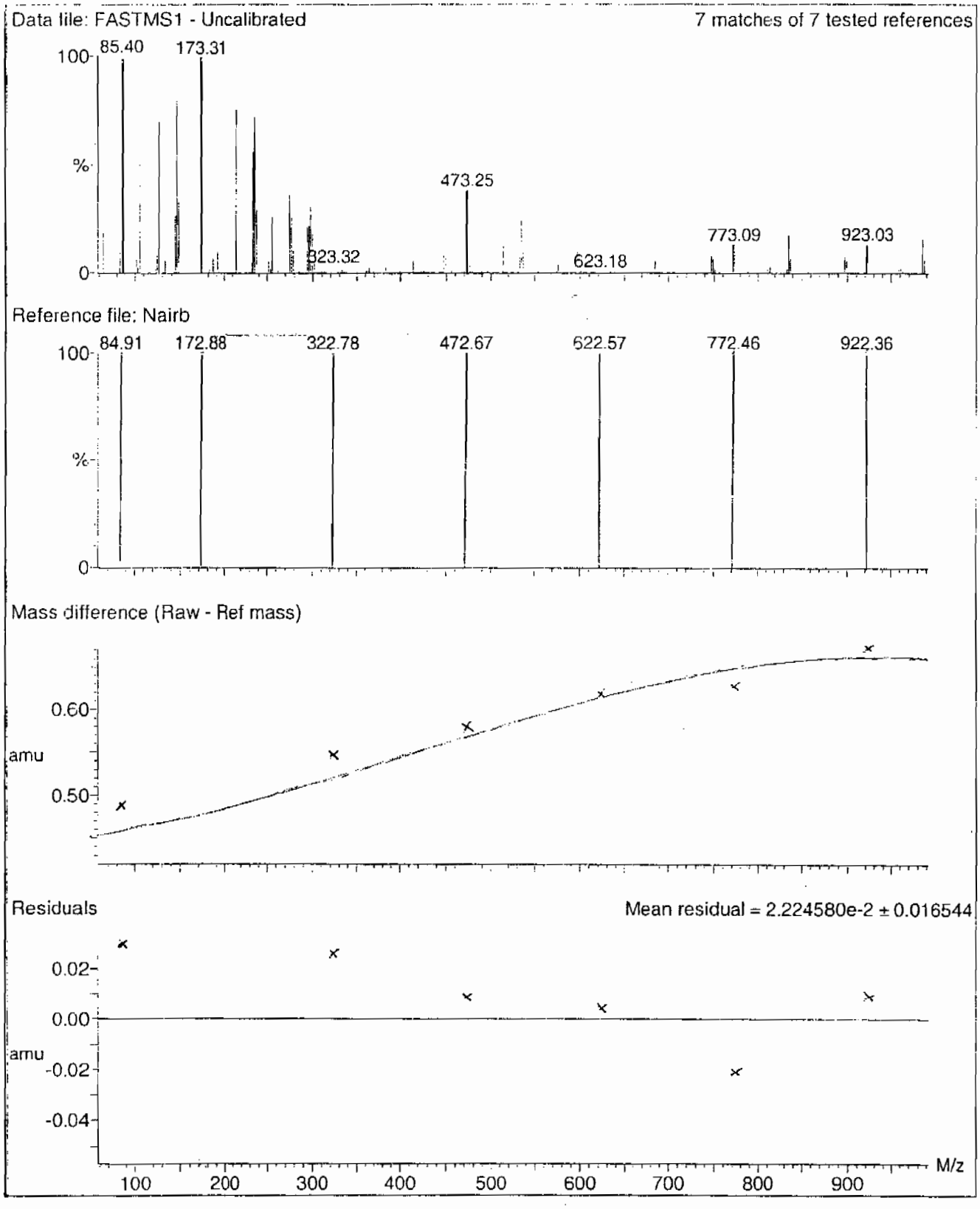

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

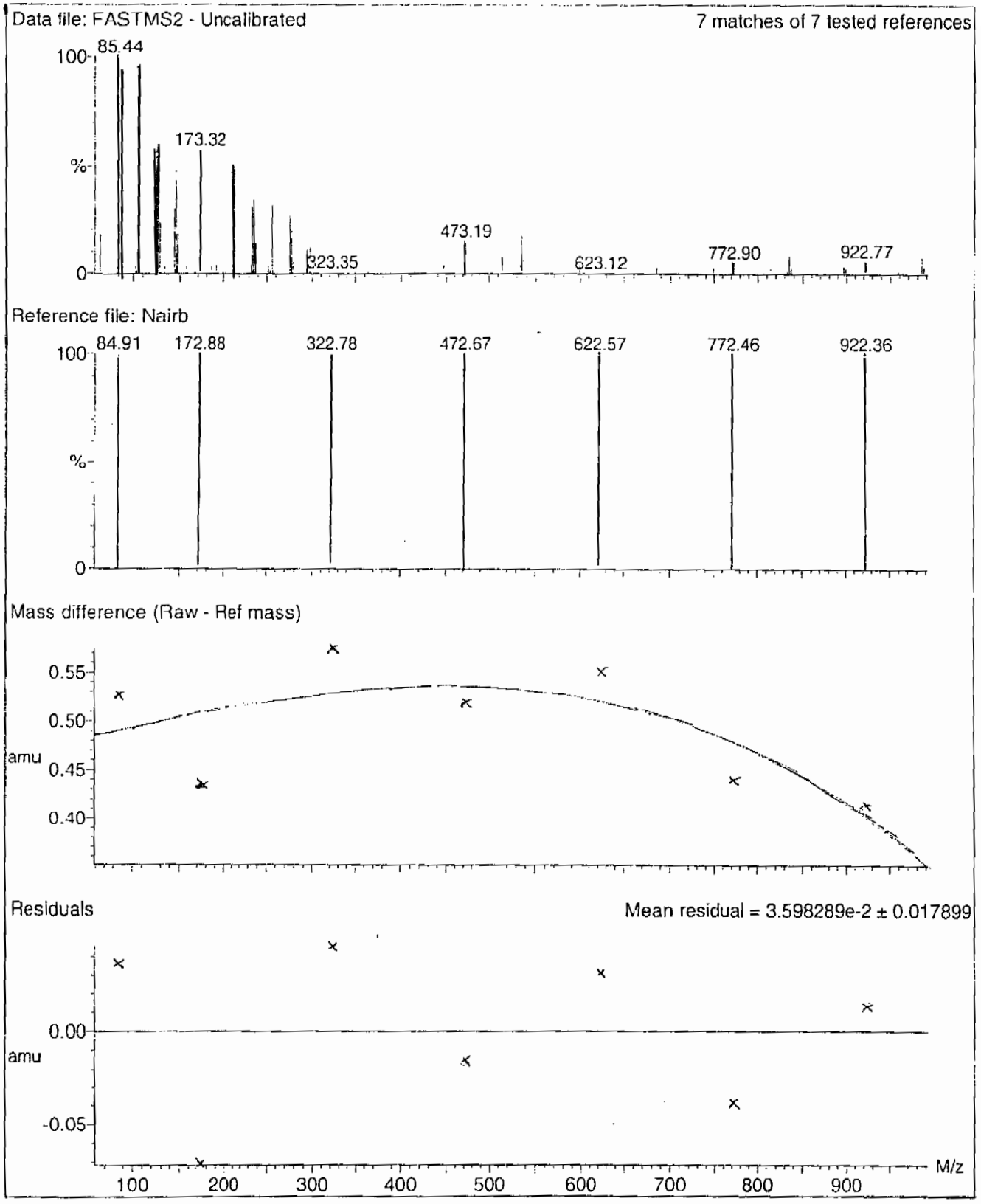

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

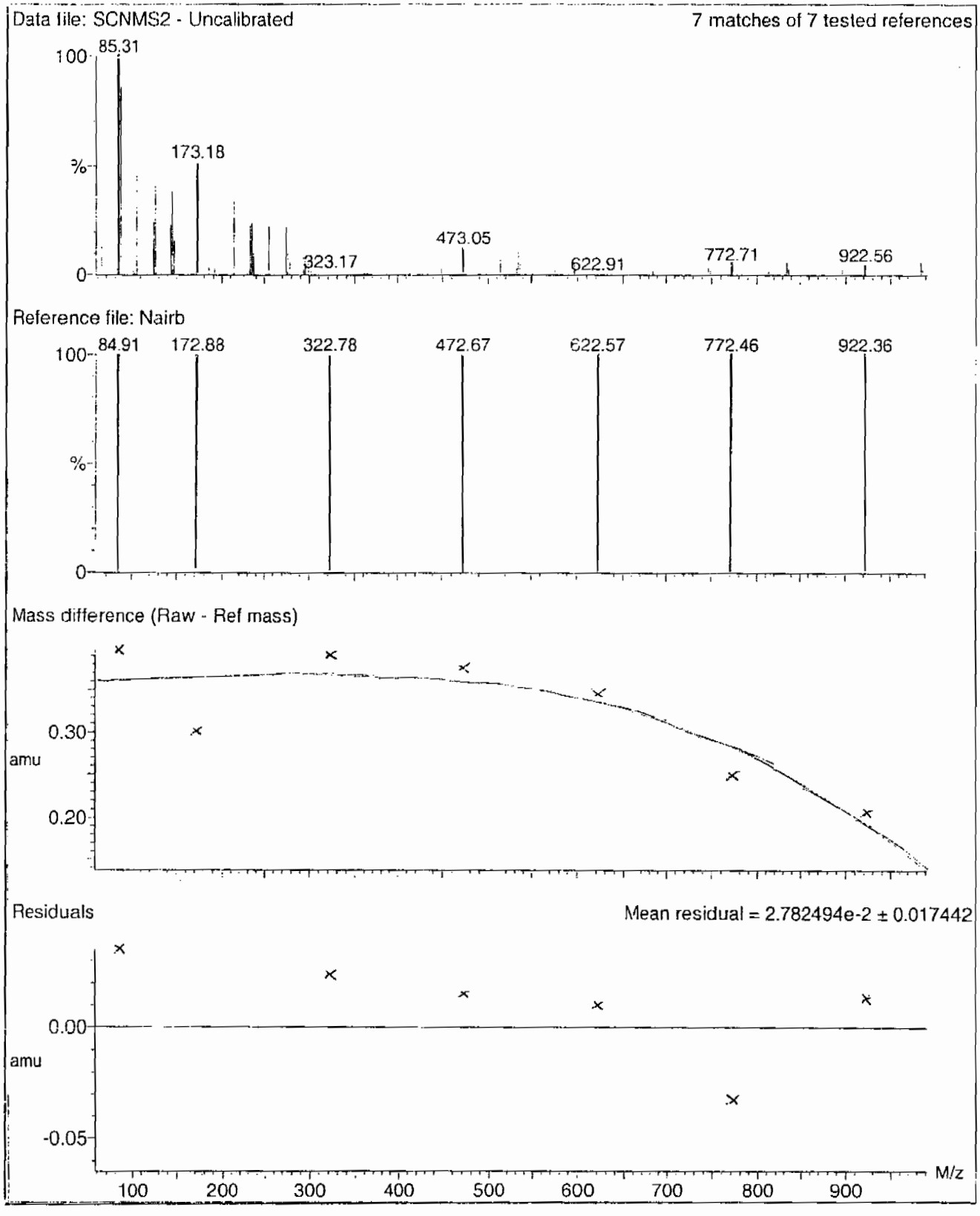

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Calibration Report - MS2 Static

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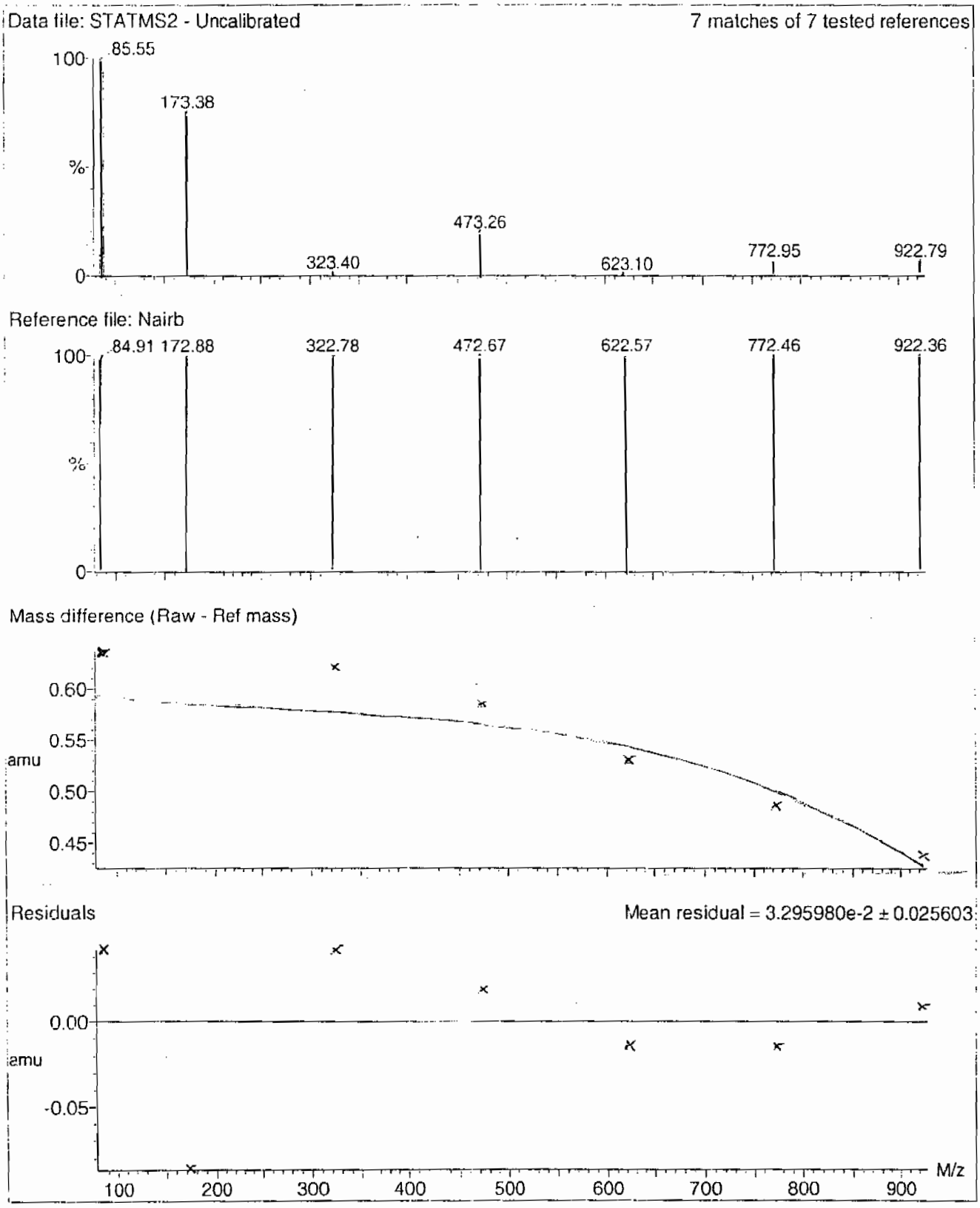

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, February 23, 2010 10:32:55 Eastern Standard Time

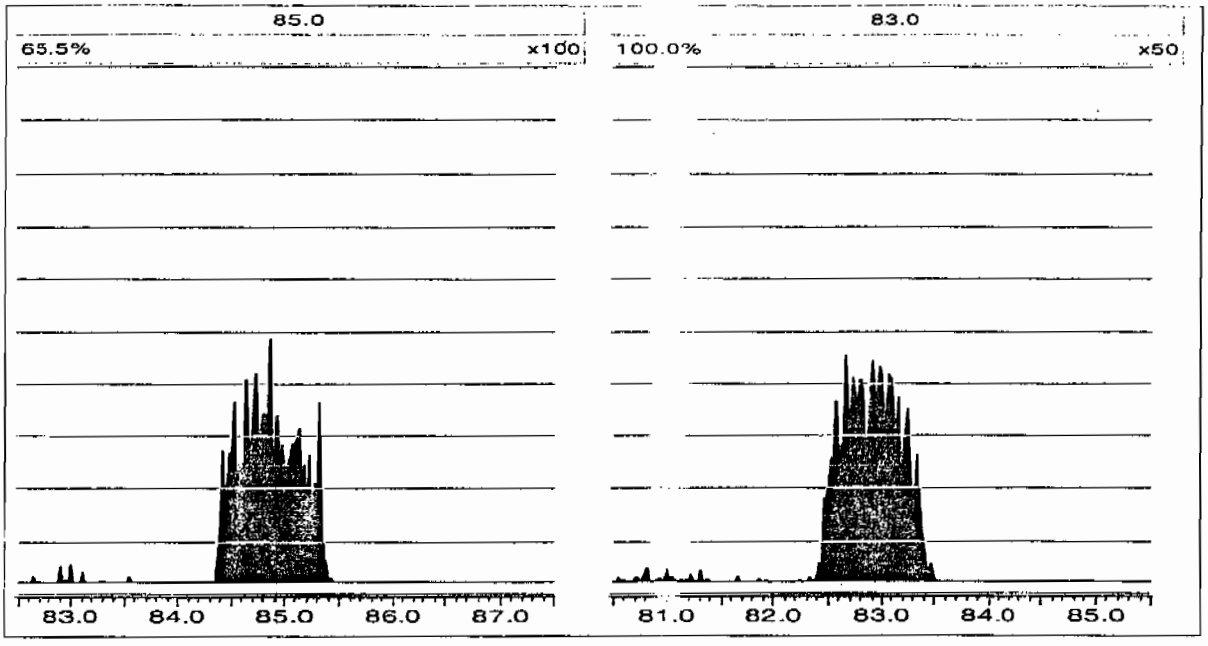

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1517

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0223006a**	**23-FEB-10**	**18832.2**				
Lower Area Limit			**9416.1**				
Upper Area Limit			**37664.4**				
1202035660	per0223038a	23-FEB-10 17:32	20052.6	3.16	3.15988	1	
1202035661	per0223039a	23-FEB-10 17:40	19174.5	3.17	3.18465	1.005	
1202035664	per0223040a	23-FEB-10 17:48	19309.7	3.21	3.2219	1.004	
245998001	per0223041a	23-FEB-10 17:56	18173.1	3.16	3.18468	1.008	
245998002	per0223042a	23-FEB-10 18:04	17865.3	3.18	3.19708	1.005	
245998003	per0223043a	23-FEB-10 18:12	18656.6	3.17	3.18463	1.005	
245998004	per0223044a	23-FEB-10 18:20	17849.1	3.16	3.18467	1.008	
245998005	per0223045a	23-FEB-10 18:28	18707.3	3.16	3.15987	1	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1517

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0223006a**	**23-FEB-10**	**18832.2**				
Lower Area Limit			**9416.1**				
Upper Area Limit			**37664.4**				
245998006	per0223046a	23-FEB-10 18:36	18963.7	3.15	3.17232	1.007	
245998007	per0223047a	23-FEB-10 18:44	18558	3.15	3.17237	1.007	
245998008	per0223051a	23-FEB-10 19:17	18998.8	3.15	3.15988	1.003	
245998009	per0223052a	23-FEB-10 19:25	19163.3	3.15	3.17233	1.007	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8122

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.588	2.35	0.588	ug/kg	U	1	23-FEB-10 17:56	per0223041a
	Perchlorate Isotope Ratio						1	23-FEB-10 17:56	per0223041a
14797-73-0	Perchlorate-101	.588	2.35	0.588	ug/kg	U	1	23-FEB-10 17:56	per0223041a
	Perchlorate-O(18)			5.22	ug/kg		1	23-FEB-10 17:56	per0223041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223041a
Date: 23-Feb-2010
Time: 17:56:42
ID: 245998001
Vial: 2:1,D

|LANL|950071|SOL20|1|

aw 02-24-10

Perchlorate

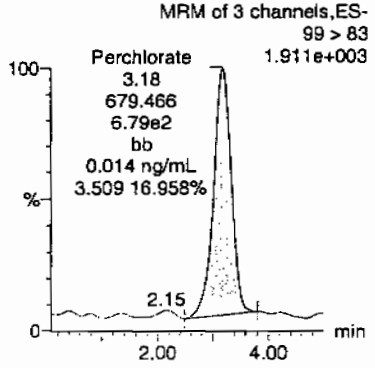

Perchlorate

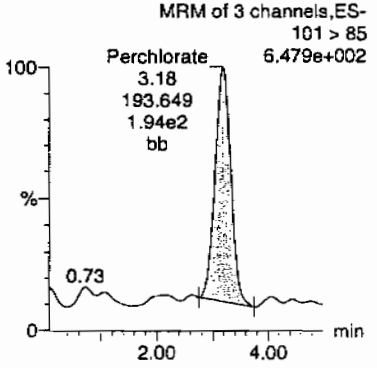

Perchlorate-101

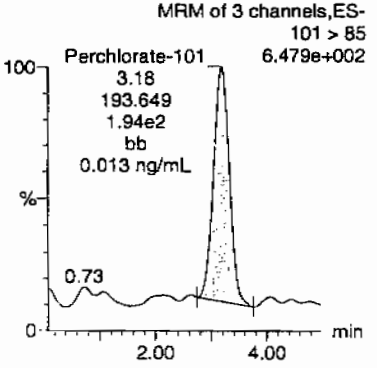

Perchlorate-O(18)

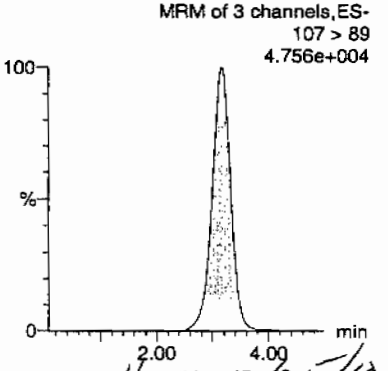

Hmm 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998001	Perchlorate	99 > 83	3.18	679.466	679.466	bb			0.0139			101.767	3.51
245998001	Perchlorate-101	101 > 85	3.18	193.649	193.649	bb			0.0127			146.797	
245998001	Perchlorate-O(18)	107 > 89	3.16	18173.072	18173.072	bb			0.4441	88.83	-11.17	869.912	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8112

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.746	2.98	0.746	ug/kg	U	1	23-FEB-10 18:04	per0223042a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:04	per0223042a
14797-73-0	Perchlorate-101	.746	2.98	0.746	ug/kg	U	1	23-FEB-10 18:04	per0223042a
	Perchlorate-O(18)			6.51	ug/kg		1	23-FEB-10 18:04	per0223042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223042a
Date: 23-Feb-2010
Time: 18:04:43
ID: 245998002
Vial: 2:1,E

|LANL|950071|50120|1|

aw 02-24-10

Perchlorate

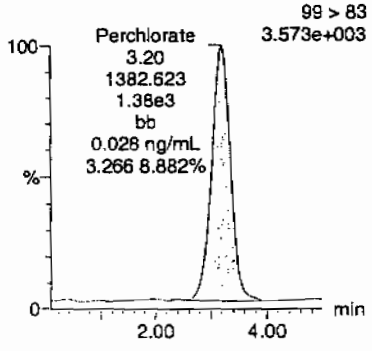

Perchlorate

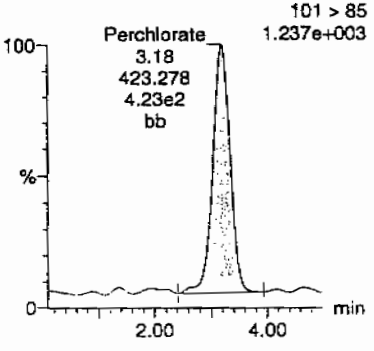

Perchlorate-101

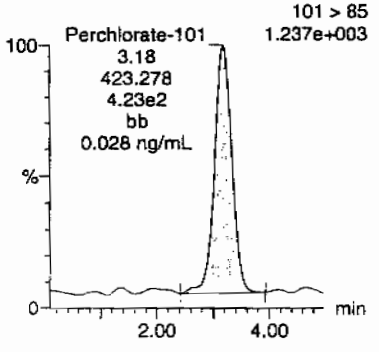

Perchlorate-O(18)

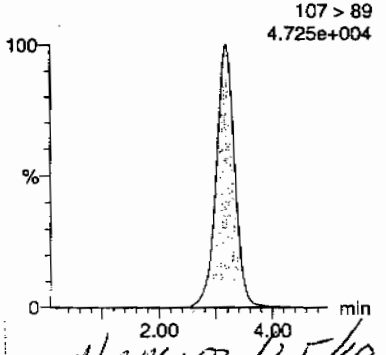

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998002	Perchlorate	99 > 83	3.20	1382.623	1382.623	bb			0.0283			628.432	3.27
245998002	Perchlorate-101	101 > 85	3.18	423.278	423.278	bb			0.0278			191.976	
245998002	Perchlorate-O(18)	107 > 89	3.18	17865.313	17865.313	bb			0.4366	87.32	-12.68	6095.9...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8113

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.24	0.597	ug/kg	J	1	23-FEB-10 18:12	per0223043a
	Perchlorate Isotope Ratio			3.24			1	23-FEB-10 18:12	per0223043a
14797-73-0	Perchlorate-101	.561	2.24	0.590	ug/kg	J	1	23-FEB-10 18:12	per0223043a
	Perchlorate-O(18)			5.11	ug/kg		1	23-FEB-10 18:12	per0223043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223043a
Date: 23-Feb-2010
Time: 18:12:43
ID: 245998003
Vial: 2:1,F

LZNL | 950071 | 50120 | 1 |

WJ 02-24-10

Perchlorate

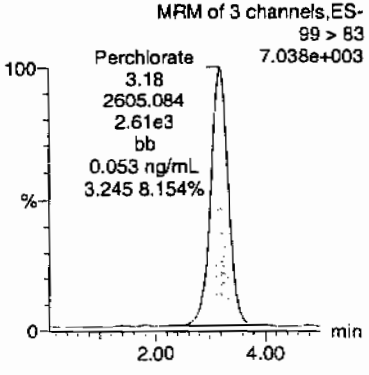

Perchlorate

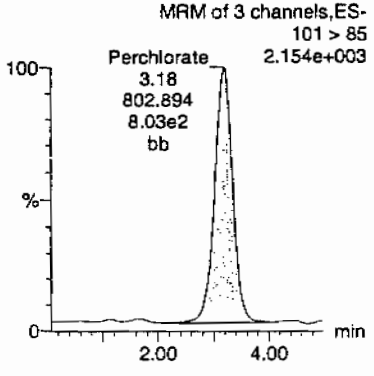

Perchlorate-101

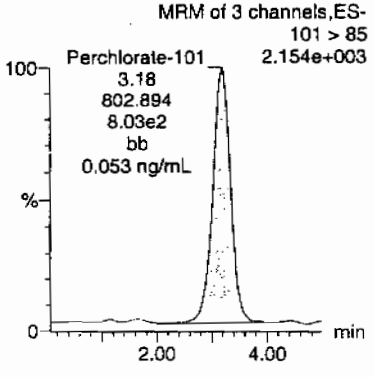

Perchlorate-O(18)

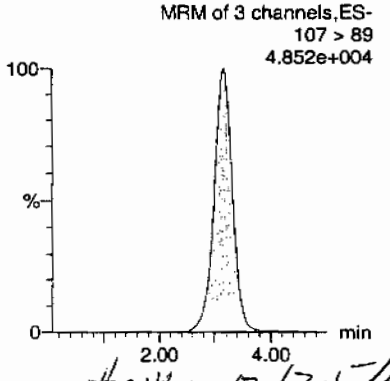

Initial 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998003	Perchlorate	99 > 83	3.18	2605.084	2605.084	bb			0.0533			352.979	3.24
245998003	Perchlorate-101	101 > 85	3.18	802.894	802.894	bb			0.0526			815.945	
245998003	Perchlorate-O(18)	107 > 89	3.17	18656.637	18656.637	bb			0.4559	91.19	-8.81	1519.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8116

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 71

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.7	2.8	0.700	ug/kg	U	1	23-FEB-10 18:20	per0223044a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:20	per0223044a
14797-73-0	Perchlorate-101	.7	2.8	0.700	ug/kg	U	1	23-FEB-10 18:20	per0223044a
	Perchlorate-O(18)			6.11	ug/kg		1	23-FEB-10 18:20	per0223044a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223044a
Date: 23-Feb-2010
Time: 18:20:44
ID: 245998004
Vial: 2:2,A

LANL | 950071 | 5020 | 11

GWS 02-24-10

Perchlorate

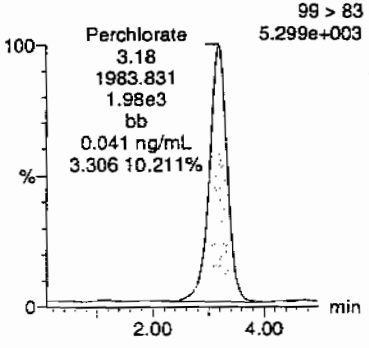

Perchlorate

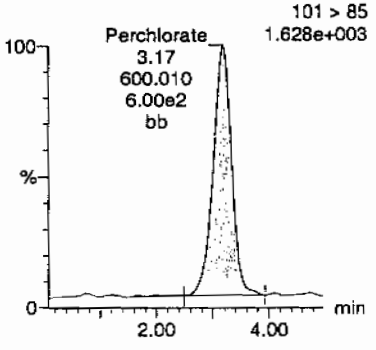

Perchlorate-101

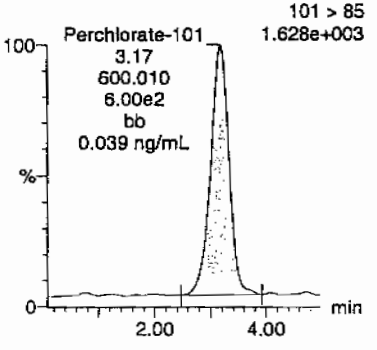

Perchlorate-O(18)

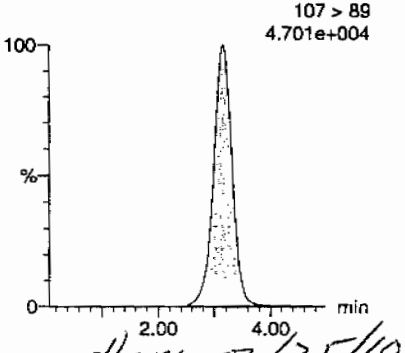

HMK 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998004	Perchlorate	99 > 83	3.18	1983.831	1983.831	bb			0.0406			1364.3...	3.31
245998004	Perchlorate-101	101 > 85	3.17	600.010	600.010	bb			0.0393			240.420	
245998004	Perchlorate-O(18)	107 > 89	3.16	17849.096	17849.096	bb			0.4362	87.24	-12.76	959.827	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8119

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.25	0.564	ug/kg	U	1	23-FEB-10 18:28	per0223045a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:28	per0223045a
14797-73-0	Perchlorate-101	.564	2.25	0.564	ug/kg	U	1	23-FEB-10 18:28	per0223045a
	Perchlorate-O(18)			5.15	ug/kg		1	23-FEB-10 18:28	per0223045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223045a
Date: 23-Feb-2010
Time: 18:28:47
ID: 245998005
Vial: 2:2,B

|LANL|950071|30120|11|

WWS 02-24-10

Perchlorate

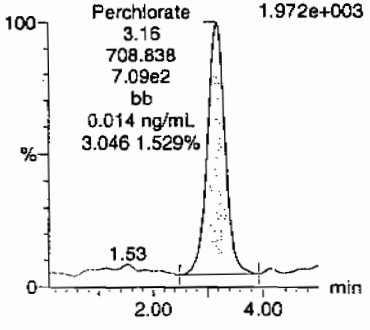

Perchlorate

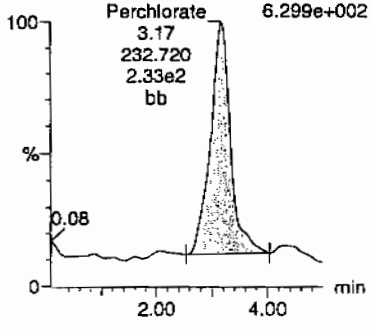

Perchlorate-101

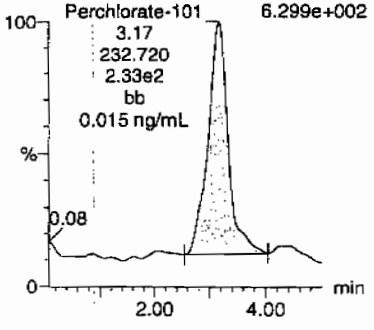

Perchlorate-O(18)

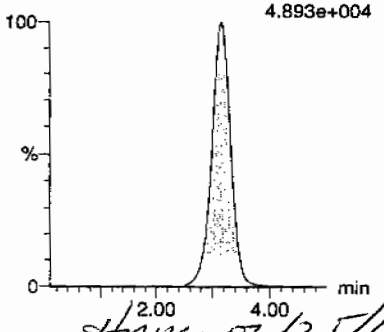

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998005	Perchlorate	99 > 83	3.16	708.838	708.838	bb			0.0145			209.811	3.05
245998005	Perchlorate-101	101 > 85	3.17	232.720	232.720	bb			0.0153			140.691	
245998005	Perchlorate-O(18)	107 > 89	3.16	18707.256	18707.256	bb			0.4572	91.44	-8.56	2319.9...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8114

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 56

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.891	3.57	0.891	ug/kg	U	1	23-FEB-10 18:36	per0223046a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:36	per0223046a
14797-73-0	Perchlorate-101	.891	3.57	0.891	ug/kg	U	1	23-FEB-10 18:36	per0223046a
	Perchlorate-O(18)			8.26	ug/kg		1	23-FEB-10 18:36	per0223046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223046a
Date: 23-Feb-2010
Time: 18:36:50
ID: 245998006
Vial: 2:2,C

|LANL|950071|SD120|1|

CWO 02-24-10

Perchlorate

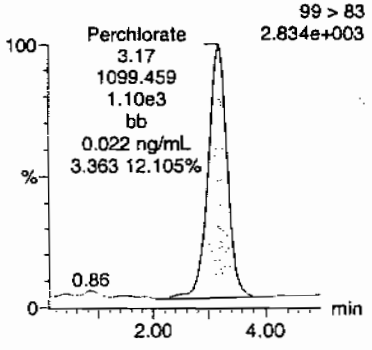

Perchlorate

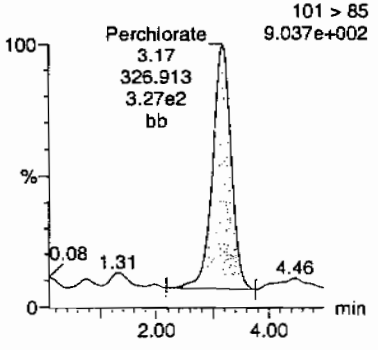

Perchlorate-101

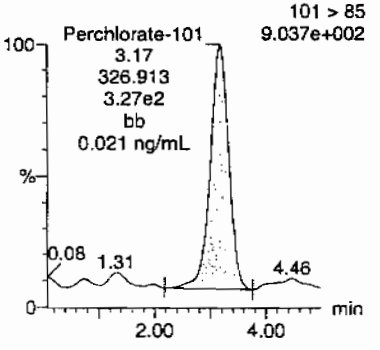

Perchlorate-O(18)

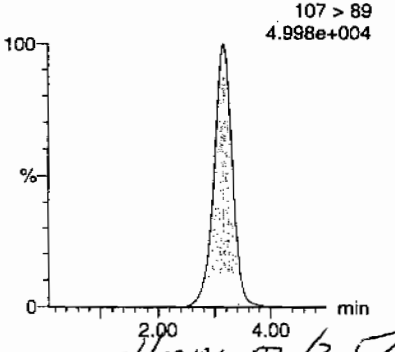

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998006	Perchlorate	99 > 83	3.17	1099.459	1099.459	bb			0.0225			233.077	3.36
245998006	Perchlorate-101	101 > 85	3.17	326.913	326.913	bb			0.0214			60.461	
245998006	Perchlorate-O(18)	107 > 89	3.15	18963.672	18963.672	bb			0.4634	92.69	-7.31	1288.2...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8115

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 18:44	per0223047a
	Perchlorate Isotope Ratio						1	23-FEB-10 18:44	per0223047a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 18:44	per0223047a
	Perchlorate-O(18)			5.32	ug/kg		1	23-FEB-10 18:44	per0223047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223047a
Date: 23-Feb-2010
Time: 18:44:51
ID: 245998007
Vial: 2:2,D

LANL | 950071 | 50120 | 1 |

AWJ 02-24-10

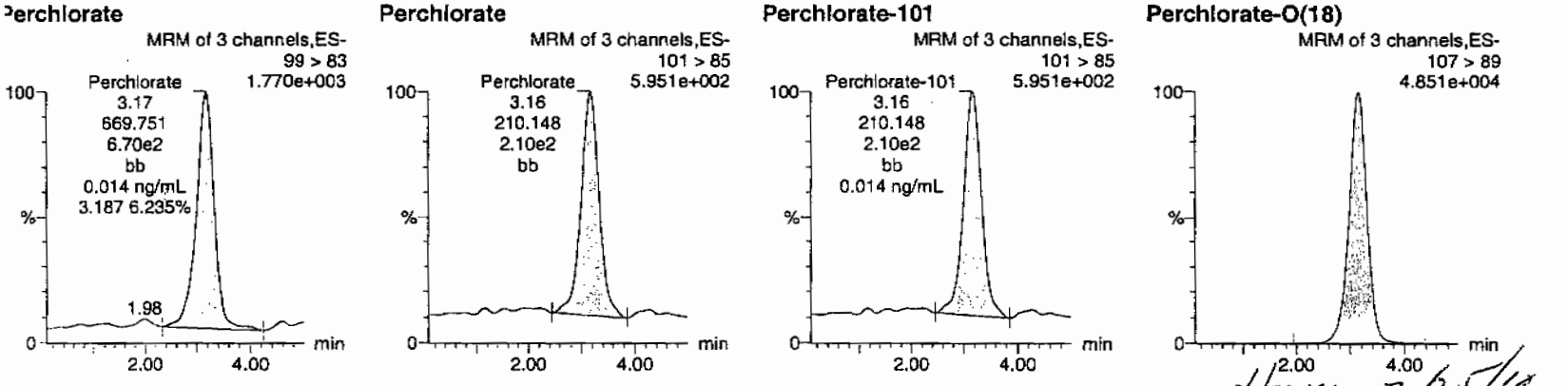

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998007	Perchlorate	99 > 83	3.17	669.751	669.751	bb			0.0137			136.312	3.19
245998007	Perchlorate-101	101 > 85	3.16	210.148	210.148	bb			0.0138			103.196	
245998007	Perchlorate-O(18)	107 > 89	3.15	18558.039	18558.039	bb			0.4535	90.71	-9.29	1139.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8117

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 92.8

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.539	2.16	0.695	ug/kg	J	1	23-FEB-10 19:17	per0223051a
	Perchlorate Isotope Ratio			3.1			1	23-FEB-10 19:17	per0223051a
14797-73-0	Perchlorate-101	.539	2.16	0.718	ug/kg	J	1	23-FEB-10 19:17	per0223051a
	Perchlorate-O(18)			5.00	ug/kg		1	23-FEB-10 19:17	per0223051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223051a
Date: 23-Feb-2010
Time: 19:17:13
ID: 245998008
Vial: 2:2,E

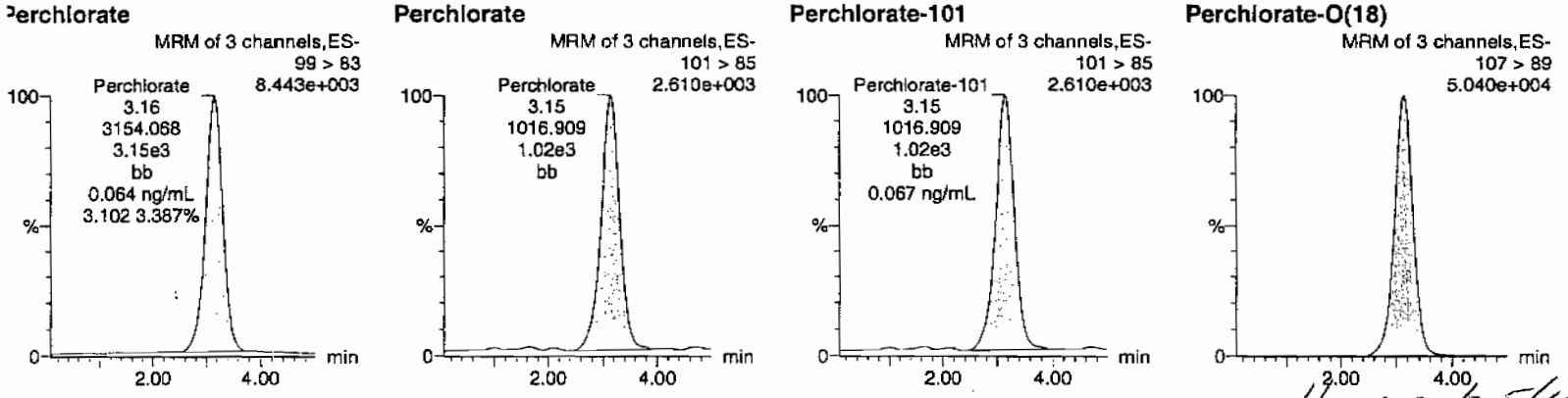

Hmc 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998008	Perchlorate	99 > 83	3.16	3154.068	3154.068	bb			0.0645			543.557	3.10
245998008	Perchlorate-101	101 > 85	3.15	1016.909	1016.909	bb			0.0667			66.856	
245998008	Perchlorate-O(18)	107 > 89	3.15	18998.781	18998.781	bb			0.4643	92.86	-7.14	2494.5...	

$\frac{3154.068}{48901.4} \times \frac{10}{1} \times \frac{100}{92.8} = \cancel{0.0645}$ 0.695

CWO 02-24-10

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Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8118

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 245998009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 72

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.69	2.76	0.690	ug/kg	U	1	23-FEB-10 19:25	per0223052a
	Perchlorate Isotope Ratio						1	23-FEB-10 19:25	per0223052a
14797-73-0	Perchlorate-101	.69	2.76	0.690	ug/kg	U	1	23-FEB-10 19:25	per0223052a
	Perchlorate-O(18)			6.46	ug/kg		1	23-FEB-10 19:25	per0223052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223052a
Date: 23-Feb-2010
Time: 19:25:25
ID: 245998009
Vial: 2:2,F

| LANL | 950071 | 50120 | 1 |

02-24-10

Perchlorate

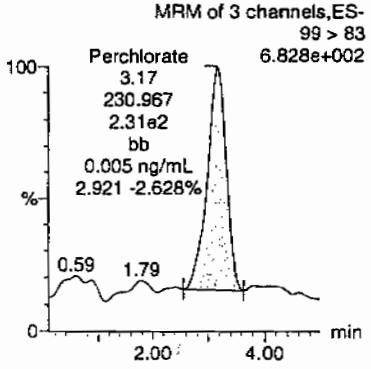

Perchlorate

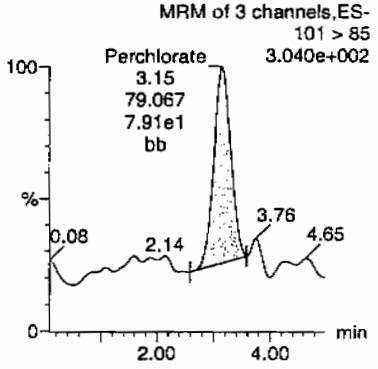

Perchlorate-101

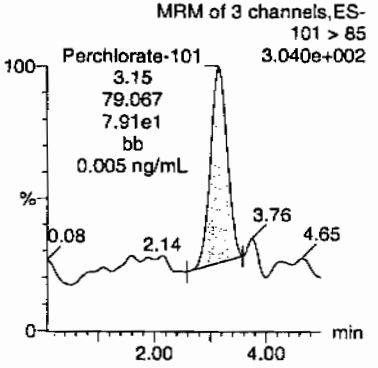

Perchlorate-O(18)

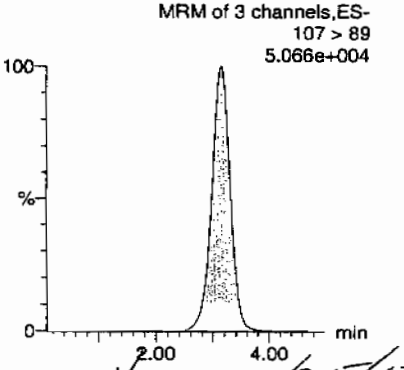

HMW 02/24/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
245998009	Perchlorate	99 > 83	3.17	230.967	230.967	bb			0.0047			17.664	2.92
245998009	Perchlorate-101	101 > 85	3.15	79.067	79.067	bb			0.0052			52.486	
245998009	Perchlorate-O(18)	107 > 89	3.15	19163.289	19163.289	bb			0.4683	93.67	-6.33	10265....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1517

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 23-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 48901.36

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1517

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 23-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 15252.16

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022310a.mdb 24 Feb 2010 09:36:48
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022310a.cdb 24 Feb 2010 09:37:11

Compound name: Perchlorate
Response Factor: 48901.4
RRF SD: 2330.99, % Relative SD: 4.76673
Response type: External Std, Area
Curve type: RF

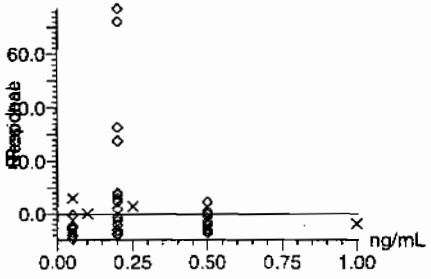

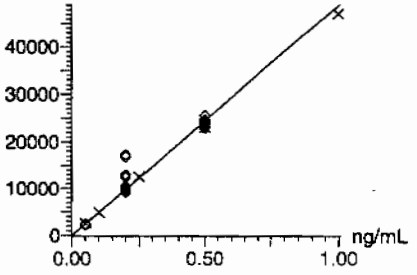

cwl
02-24-10

Compound name: Perchlorate-101
Response Factor: 15252.2
RRF SD: 748.661, % Relative SD: 4.90856
Response type: External Std, Area
Curve type: RF

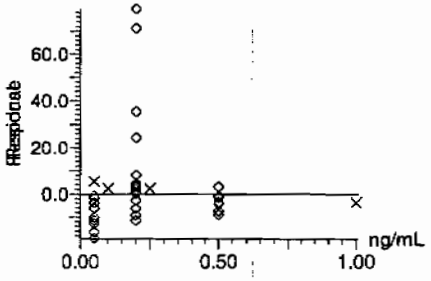

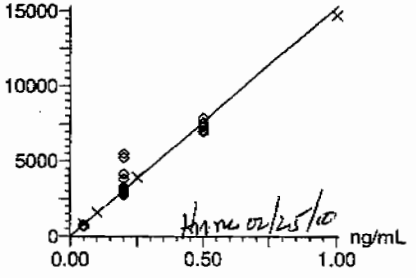

HM 02/25/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 40918.6
RRF SD: 2026.62, % Relative SD: 4.9528
Response type: External Std, Area
Curve type: RF

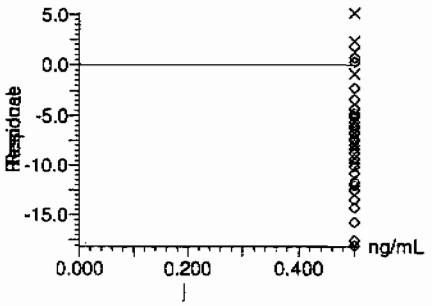

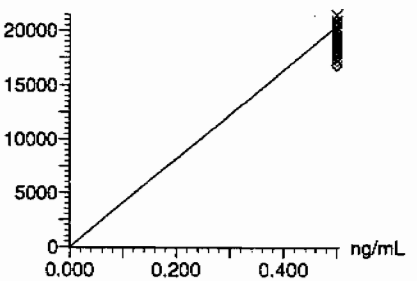

CW
02-24-10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.93	23-FEB-10 13:38	per0223009a
Perchlorate Isotope Ratio		3.22		23-FEB-10 13:38	per0223009a
Perchlorate-101	.5	.5	99.45	23-FEB-10 13:38	per0223009a

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uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

ast Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

ame: per0223009a
ate: 23-Feb-2010
ime: 13:38:42
): WCL100219-06ICV
ial: 1:2,A

Pass
AW
02-24-10

erchlorate

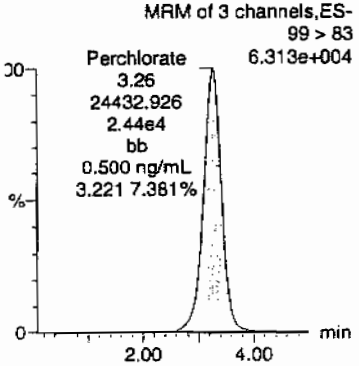

Perchlorate

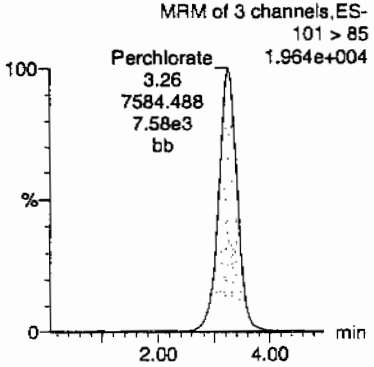

Perchlorate-101

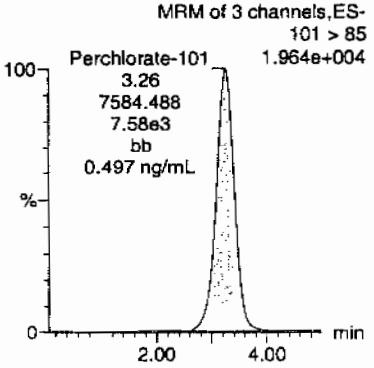

Perchlorate-O(18)

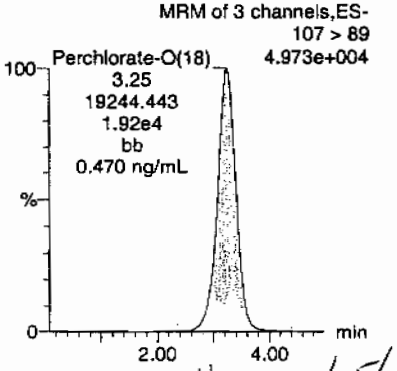

Hue 02/25/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06ICV	Perchlorate	99 > 83	3.26	24432.926	24432.926	bb			0.4996	99.93	-0.07	4797.0...	3.22
CL100219-06ICV	Perchlorate-101	101 > 85	3.26	7584.488	7584.488	bb			0.4973	99.45	-0.55	1371.9...	
CL100219-06ICV	Perchlorate-O(18)	107 > 89	3.25	19244.443	19244.443	bb			0.4703	94.06	-5.94	7972.2...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.18	23-FEB-10 15:23	per0223022a
Perchlorate Isotope Ratio		3.26		23-FEB-10 15:23	per0223022a
Perchlorate-101	.5	.5	99.37	23-FEB-10 15:23	per0223022a
Perchlorate	.5	.52	104.6	23-FEB-10 17:08	per0223035a
Perchlorate Isotope Ratio		3.25		23-FEB-10 17:08	per0223035a
Perchlorate-101	.5	.52	103.03	23-FEB-10 17:08	per0223035a
Perchlorate	.5	.48	96.6	23-FEB-10 18:52	per0223048a
Perchlorate Isotope Ratio		3.23		23-FEB-10 18:52	per0223048a
Perchlorate-101	.5	.48	95.87	23-FEB-10 18:52	per0223048a
Perchlorate	.5	.5	100.19	23-FEB-10 20:37	per0223061a
Perchlorate Isotope Ratio		3.26		23-FEB-10 20:37	per0223061a
Perchlorate-101	.5	.49	98.63	23-FEB-10 20:37	per0223061a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223022a
Date: 23-Feb-2010
Time: 15:23:34
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
aw
02-24-10

Perchlorate

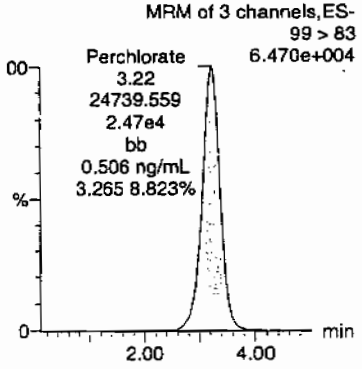

Perchlorate

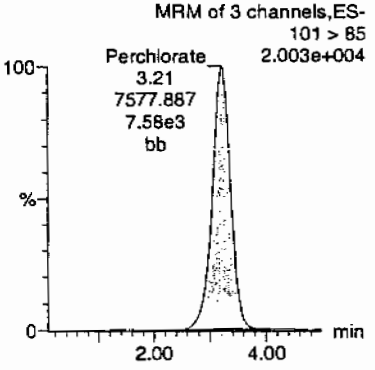

Perchlorate-101

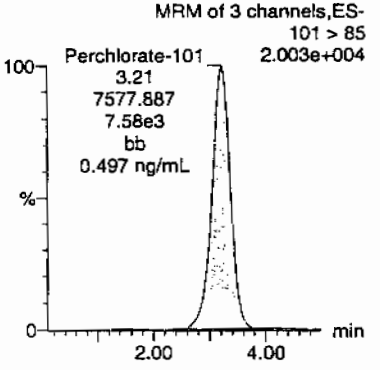

Perchlorate-O(18)

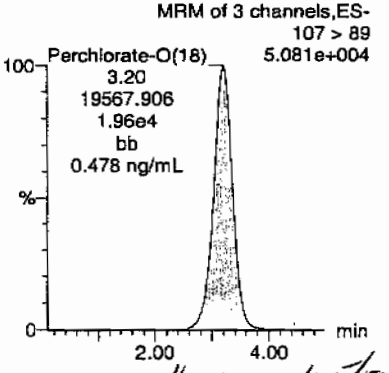

Hm 02/25/10

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL100219-06CCV	Perchlorate	99 > 83	3.22	24739.559	24739.559	bb			0.5059	101.18	1.18	3907.3...	3.26
/CL100219-06CCV	Perchlorate-101	101 > 85	3.21	7577.887	7577.887	bb			0.4968	99.37	-0.63	3206.1...	
/CL100219-06CCV	Perchlorate-O(18)	107 > 89	3.20	19567.906	19567.906	bb			0.4782	95.64	-4.36	3999.2...	

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

ast Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

ame: per0223035a
ate: 23-Feb-2010
ime: 17:08:18
): WCL100219-06CCV
ial: 1:2,A

Pass
aw
02-24-10

erchlorate

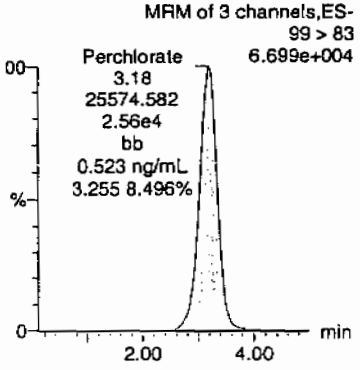

Perchlorate

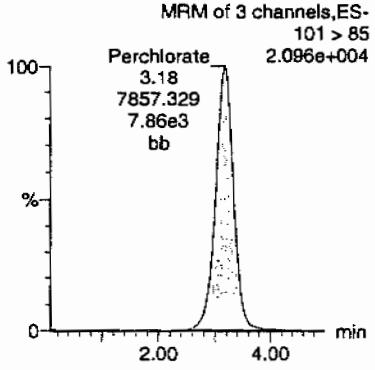

Perchlorate-101

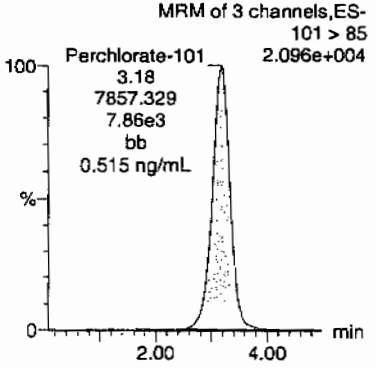

Perchlorate-O(18)

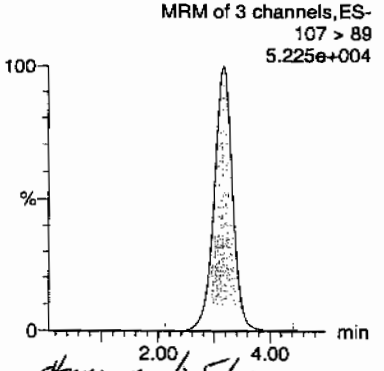

dmm 02/25/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	3.18	25574.582	25574.582	bb			0.5230	104.60	4.60	5650.3...	3.25
CL100219-06CCV	Perchlorate-101	101 > 85	3.18	7857.329	7857.329	bb			0.5152	103.03	3.03	775.250	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	3.17	20000.623	20000.623	bb			0.4888	97.76	-2.24	9648.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223048a
Date: 23-Feb-2010
Time: 18:52:53
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
CW
02-24-10

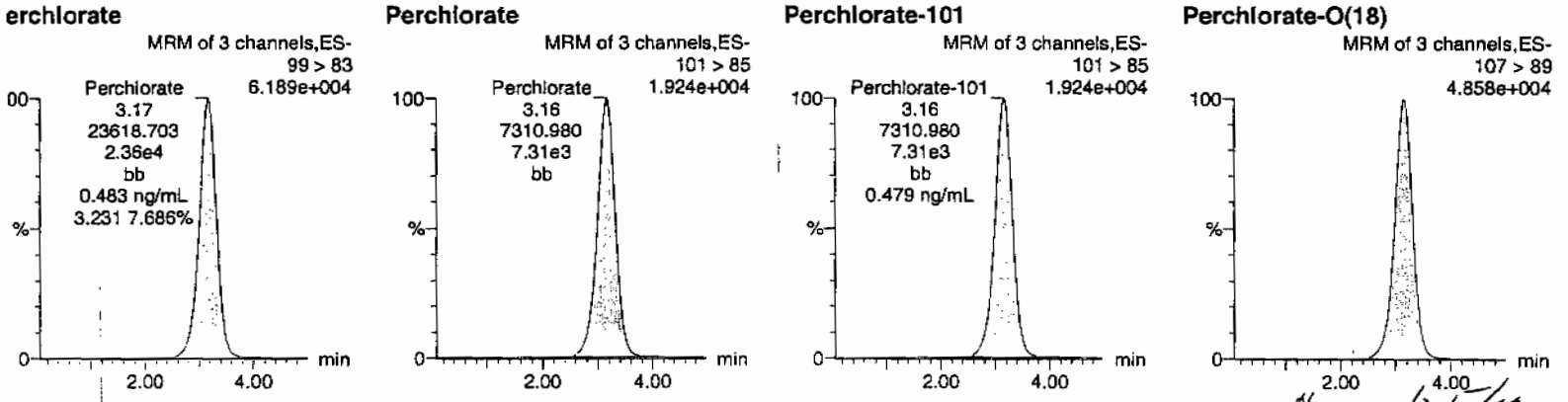

Hmm on 2/24/10

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CL100219-06CCV	Perchlorate	99 > 83	3.17	23618.703	23618.703	bb			0.4830	96.60	-3.40	5446.2...	3.23
CL100219-06CCV	Perchlorate-101	101 > 85	3.16	7310.980	7310.980	bb			0.4793	95.87	-4.13	41.802	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	3.15	18393.375	18393.375	bb			0.4495	89.90	-10.10	1991.7...	

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

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rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

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ate: 23-Feb-2010
ime: 20:37:43
): WCL100219-06CCV
ial: 1:2,A

Pass
and
02-24-10

erchlorate

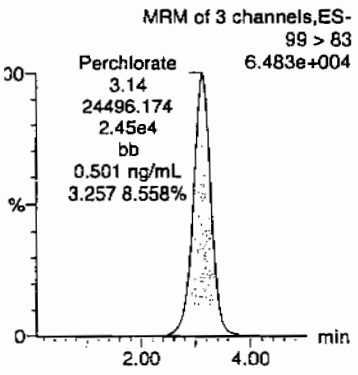

Perchlorate

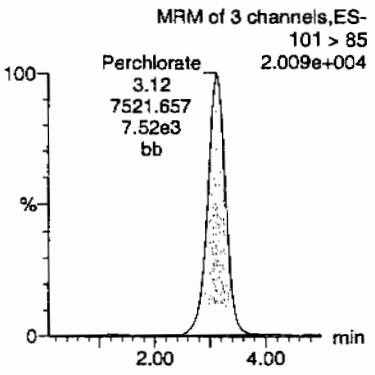

Perchlorate-101

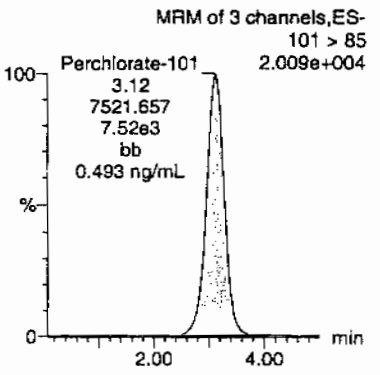

Perchlorate-O(18)

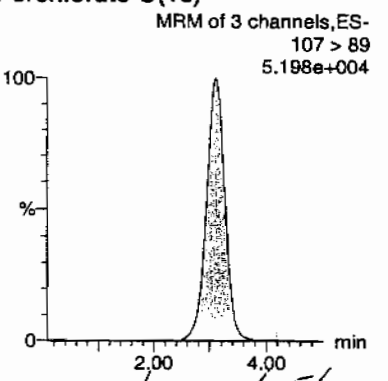

thm on 12/5/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-06CCV	Perchlorate	99 > 83	3.14	24496.174	24496.174	bb			0.5009	100.19	0.19	5714.9...	3.26
CL100219-06CCV	Perchlorate-101	101 > 85	3.12	7521.657	7521.657	bb			0.4932	98.63	-1.37	1497.4...	
CL100219-06CCV	Perchlorate-O(18)	107 > 89	3.11	19571.971	19571.971	bb			0.4783	95.66	-4.34	2684.6...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.65	23-FEB-10 13:55	per0223011a
Perchlorate Isotope Ratio		3.41		23-FEB-10 13:55	per0223011a
Perchlorate-101	.05	.05	93.69	23-FEB-10 13:55	per0223011a
Perchlorate	.05	.05	94.13	23-FEB-10 15:39	per0223024a
Perchlorate Isotope Ratio		3.07		23-FEB-10 15:39	per0223024a
Perchlorate-101	.05	.05	98.19	23-FEB-10 15:39	per0223024a
Perchlorate	.05	.05	95.66	23-FEB-10 17:24	per0223037a
Perchlorate Isotope Ratio		3.19		23-FEB-10 17:24	per0223037a
Perchlorate-101	.05	.05	96.29	23-FEB-10 17:24	per0223037a
Perchlorate	.05	.05	94.19	23-FEB-10 19:09	per0223050a
Perchlorate Isotope Ratio		3.04		23-FEB-10 19:09	per0223050a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	99.39	23-FEB-10 19:09	per0223050a
Perchlorate	.05	.05	94.93	23-FEB-10 20:54	per0223063a
Perchlorate Isotope Ratio		3.23		23-FEB-10 20:54	per0223063a
Perchlorate-101	.05	.05	94.12	23-FEB-10 20:54	per0223063a

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ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

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rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

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ime: 13:55:02
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ial: 1:2,B

Pwm
02-24-10

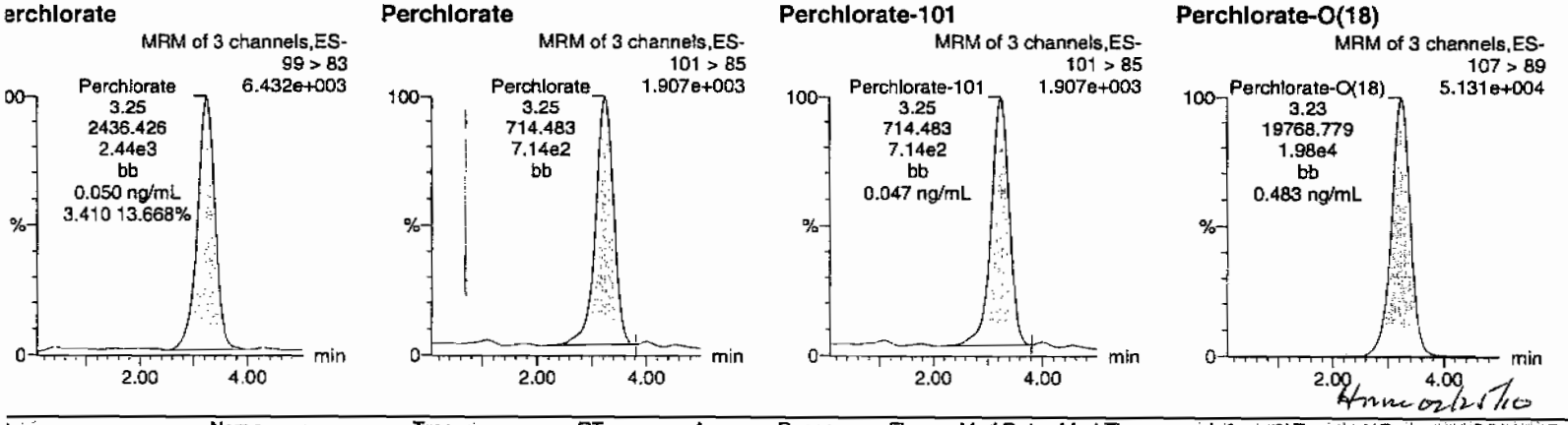

Hmm 02/25/10

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'CL100219-07CRI	Perchlorate	99 > 83	3.25	2436.426	2436.426	bb			0.0498	99.65	-0.35	752.514	3.41
'CL100219-07CRI	Perchlorate-101	101 > 85	3.25	714.483	714.483	bb			0.0468	93.69	-6.31	197.166	
'CL100219-07CRI	Perchlorate-O(18)	107 > 89	3.23	19768.779	19768.779	bb			0.4831	96.63	-3.37	3562.3...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

ast Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

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Pass
aw
02-24-10

erchlorate

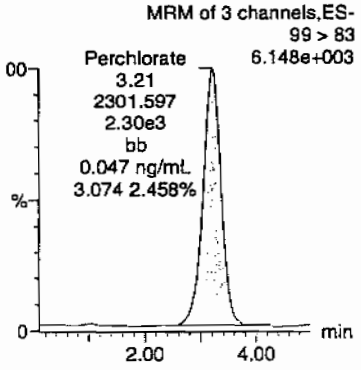

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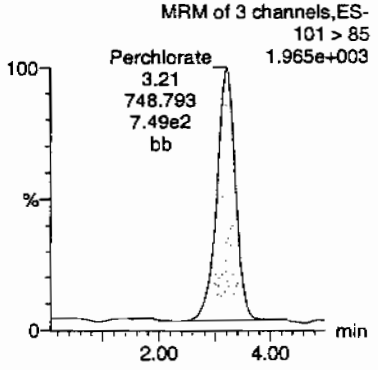

Perchlorate-101

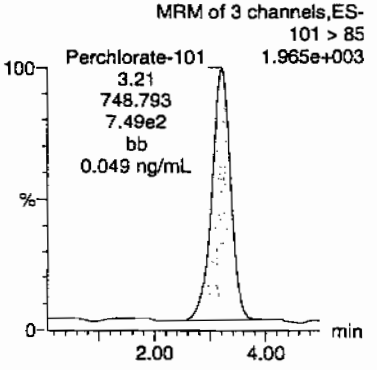

Perchlorate-O(18)

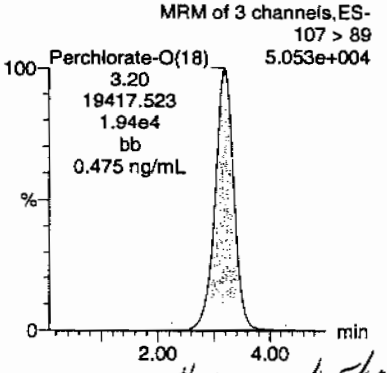

Hmw 02/25/10

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL100219-07CRI	Perchlorate	99 > 83	3.21	2301.597	2301.597	bb			0.0471	94.13	-5.87	345.822	3.07
'CL100219-07CRI	Perchlorate-101	101 > 85	3.21	748.793	748.793	bb			0.0491	98.19	-1.81	179.800	
'CL100219-07CRI	Perchlorate-O(18)	107 > 89	3.20	19417.523	19417.523	bb			0.4745	94.91	-5.09	8390.9...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

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Date: 23-Feb-2010
Time: 17:24:23
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
and
02 24-10

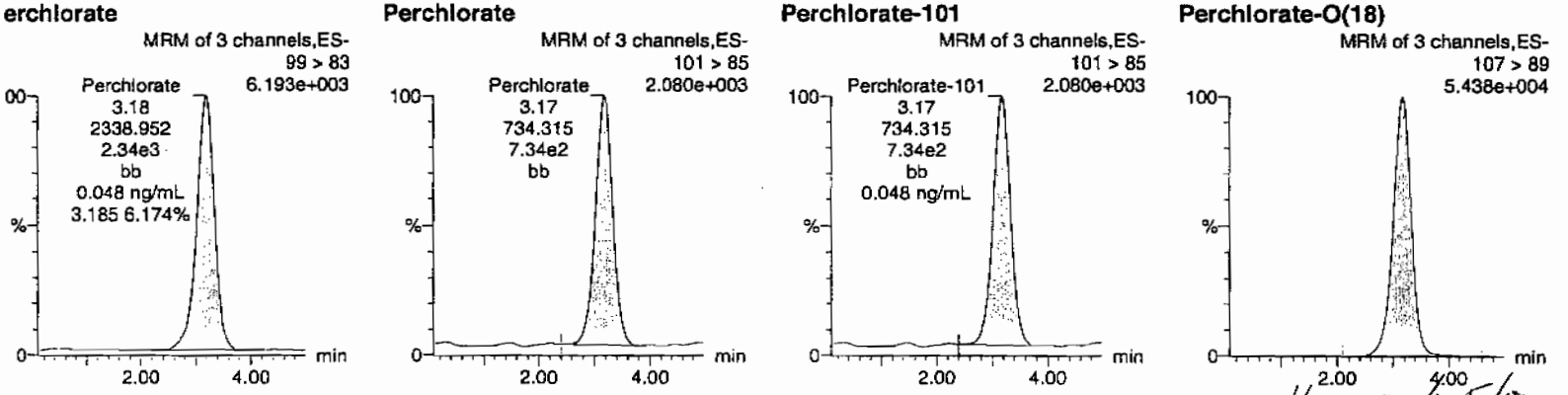

Hum 02/25/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-07CRI	Perchlorate	99 > 83	3.18	2338.952	2338.952	bb			0.0478	95.66	-4.34	575.341	3.19
CL100219-07CRI	Perchlorate-101	101 > 85	3.17	734.315	734.315	bb			0.0481	96.29	-3.71	259.348	
CL100219-07CRI	Perchlorate-O(18)	107 > 89	3.17	20606.650	20606.650	bb			0.5036	100.72	0.72	10983....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

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Date: 23-Feb-2010
Time: 19:09:11
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-24-10

Perchlorate

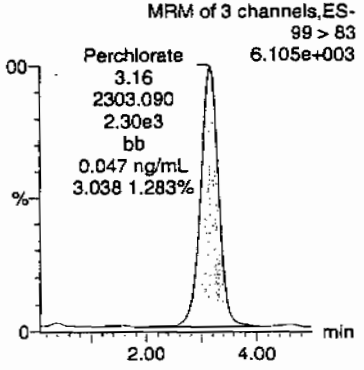

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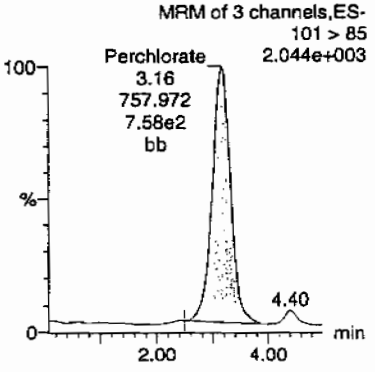

Perchlorate-101

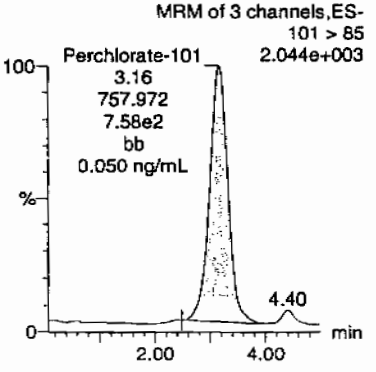

Perchlorate-O(18)

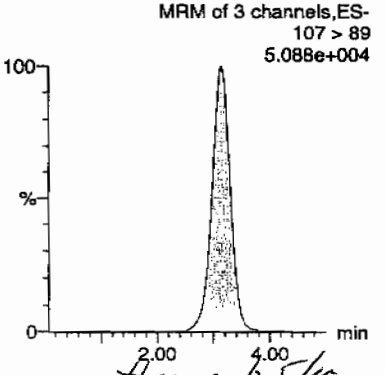

Arrow 02/25/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-07CRI	Perchlorate	99 > 83	3.16	2303.090	2303.090	bb			0.0471	94.19	-5.81	621.859	3.04
CL100219-07CRI	Perchlorate-101	101 > 85	3.16	757.972	757.972	bb			0.0497	99.39	-0.61	379.074	
CL100219-07CRI	Perchlorate-O(18)	107 > 89	3.15	19230.377	19230.377	bb			0.4700	93.99	-6.01	5771.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

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rinted: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

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ial: 1:2,B

Pass
aw
02-24-10

erchlorate

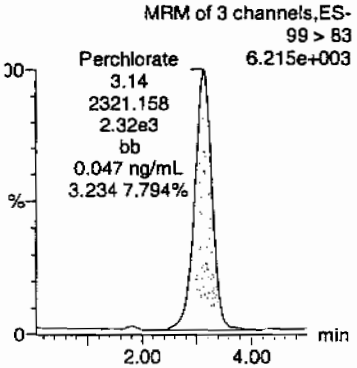

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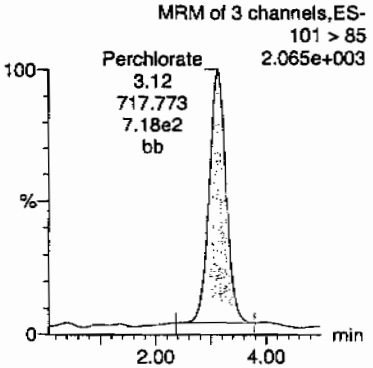

Perchlorate-101

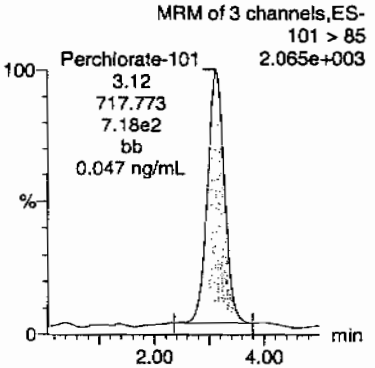

Perchlorate-O(18)

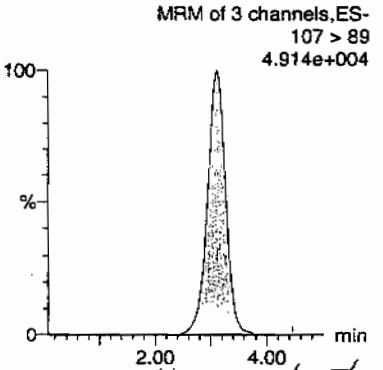

Hrm 02/24/10

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100219-07CRI	Perchlorate	99 > 83	3.14	2321.158	2321.158	bb			0.0475	94.93	-5.07	88.026	3.23
CL100219-07CRI	Perchlorate-101	101 > 85	3.12	717.773	717.773	bb			0.0471	94.12	-5.88	899.037	
CL100219-07CRI	Perchlorate-O(18)	107 > 89	3.11	18669.115	18669.115	bb			0.4563	91.25	-8.75	2265.6...	

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QUALITY CONTROL

Form I

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 1202035660

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	23-FEB-10 17:32	per0223038a
	Perchlorate Isotope Ratio						1	23-FEB-10 17:32	per0223038a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	23-FEB-10 17:32	per0223038a
	Perchlorate-O(18)			4.90	ug/kg		1	23-FEB-10 17:32	per0223038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223038a
Date: 23-Feb-2010
Time: 17:32:27
ID: 1202035660
Vial: 2:1,A

|LANL|950071|SOLID|MB|1|

GWD 02-24-10

Perchlorate

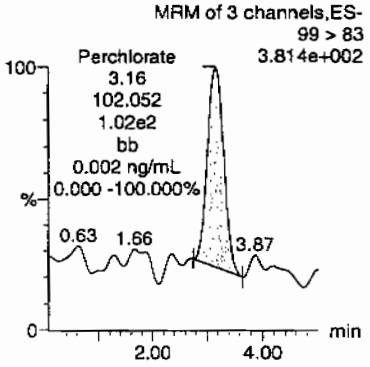

Perchlorate

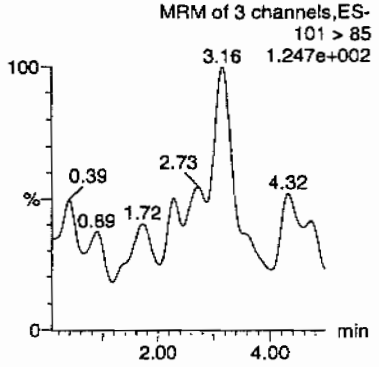

Perchlorate-101

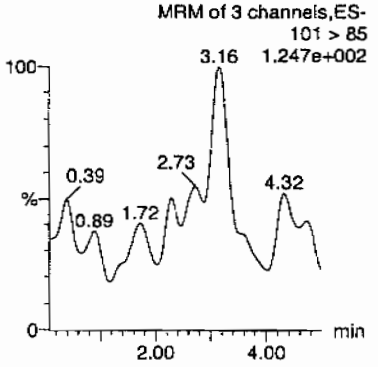

Perchlorate-O(18)

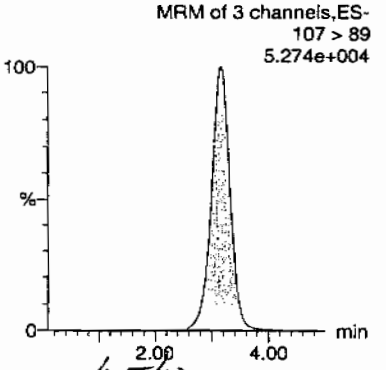

HMK 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035660	Perchlorate	99 > 83	3.16	102.052	102.052	bb			0.0021			66.515	0.00
1202035660	Perchlorate-101	101 > 85											
1202035660	Perchlorate-O(18)	107 > 89	3.16	20052.578	20052.578	bb			0.4901	98.01	-1.99	3381.9...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1517

GEL Sample ID: 1202035661

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.98	ug/kg	J	1	23-FEB-10 17:40	per0223039a
	Perchlorate Isotope Ratio			3.1			1	23-FEB-10 17:40	per0223039a
14797-73-0	Perchlorate-101	.5	2	2.04	ug/kg		1	23-FEB-10 17:40	per0223039a
	Perchlorate-O(18)			4.69	ug/kg		1	23-FEB-10 17:40	per0223039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qid

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223039a
Date: 23-Feb-2010
Time: 17:40:39
ID: 1202035661
Vial: 2:1,B

|LANL|950071|5070|LCS|1|

CWJ 02.24.10

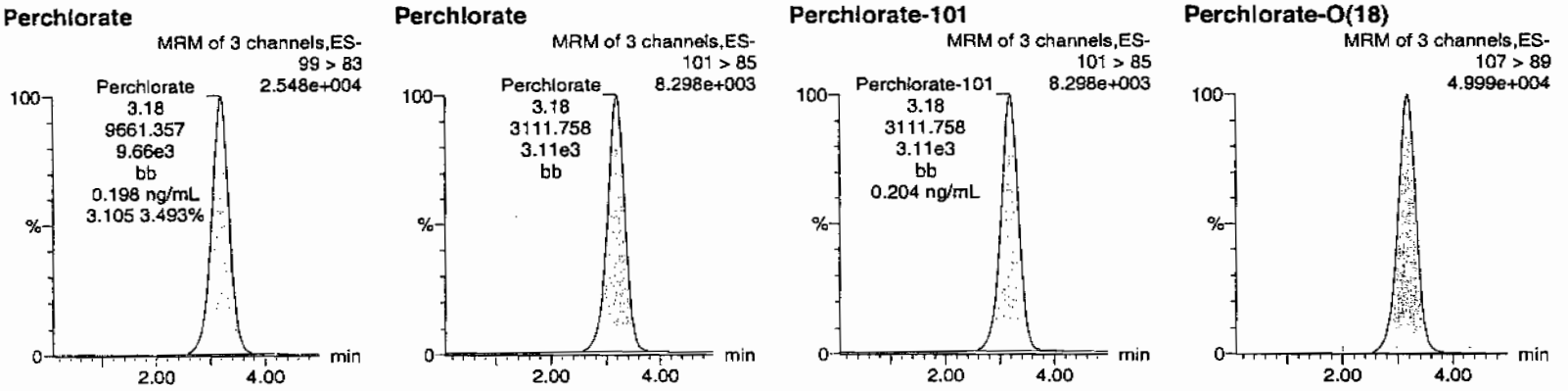

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035661	Perchlorate	99 > 83	3.18	9661.357	9661.357	bb			0.1976	98.78	-1.22	3441.0...	3.10
1202035661	Perchlorate-101	101 > 85	3.18	3111.758	3111.758	bb			0.2040	102.01	2.01	214.221	
1202035661	Perchlorate-O(18)	107 > 89	3.17	19174.484	19174.484	bb			0.4686	93.72	-6.28	5052.6...	

$\frac{9661.357}{48901.4} = 0.1976$ HMW 02/25/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950068 Verified by:
Analyst: Lynne Russell
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035660 MB	18-FEB-2010 13:17:00	2	20	10
1202035661 LCS	18-FEB-2010 13:17:00	2	20	10
245998001	18-FEB-2010 13:17:00	2	20	10
245998002	18-FEB-2010 13:17:00	2	20	10
245998003	18-FEB-2010 13:17:00	2	20	10
245998004	18-FEB-2010 13:17:00	2	20	10
245998005	18-FEB-2010 13:17:00	2	20	10
245998006	18-FEB-2010 13:17:00	2	20	10
245998007	18-FEB-2010 13:17:00	2	20	10
245998008	18-FEB-2010 13:17:00	2	20	10
245998009	18-FEB-2010 13:17:00	2	20	10
246055001	18-FEB-2010 13:17:00	2	20	10
1202035662 MS (246055001)	18-FEB-2010 13:17:00	2	20	10
1202035663 MSD (246055001)	18-FEB-2010 13:17:00	2	20	10
246055002	18-FEB-2010 13:17:00	2	20	10
246055003	18-FEB-2010 13:17:00	2	20	10
246055004	18-FEB-2010 13:17:00	2	20	10
246055005	18-FEB-2010 13:17:00	2	20	10
246055006	18-FEB-2010 13:17:00	2	20	10
246055007	18-FEB-2010 13:17:00	2	20	10
246055008	18-FEB-2010 13:17:00	2	20	10
246055009	18-FEB-2010 13:17:00	2	20	10
1202035664 ICS	18-FEB-2010 13:17:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035664	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
LCS	1202035661	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MS	1202035662	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MSD	1202035663	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL

Comments:

De-salting cartridges used: 091120-1-Ba and 100112-1-H.

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/23/10
Extr. Injection Volume: 20uL
Sequence Number: per022310a
Initial Calibration Date: 02/23/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: [illegible]
Date: 02/25/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0223001a	IPB001	CWW	2/23/2010 12:33			1		USE	B
per0223002a	IPB001	CWW	2/23/2010 12:42			1		USE	B
per0223003a	WCLICAL-01	CWW	2/23/2010 12:50			1		USE	I
per0223004a	WCLICAL-02	CWW	2/23/2010 12:58			1		USE	I
per0223005a	WCLICAL-03	CWW	2/23/2010 13:06			1		USE	I
per0223006a	WCLICAL-04	CWW	2/23/2010 13:14			1		USE	I
per0223007a	WCLICAL-05	CWW	2/23/2010 13:22			1		USE	I
per0223008a	IPB002	CWW	2/23/2010 13:30			1		USE	B
per0223009a	WCLICV	CWW	2/23/2010 13:38			1		USE	C
per0223010a	IPB003	CWW	2/23/2010 13:46			1		USE	B
per0223011a	WCLCRI	CWW	2/23/2010 13:55			1		USE	C
per0223012a	1202035646	CWW	2/23/2010 14:03	950063	10-1514	1	LANL	USE	S
per0223013a	1202035647	CWW	2/23/2010 14:11	950063	10-1514	1	LANL	USE	S
per0223014a	1202035650	CWW	2/23/2010 14:19	950063	10-1514	1	LANL	USE	S
per0223015a	245979001	CWW	2/23/2010 14:27	950063	10-1514	1	LANL	USE	S
per0223016a	1202035648	CWW	2/23/2010 14:35	950063	10-1514	1	LANL	USE	S
per0223017a	1202035649	CWW	2/23/2010 14:43	950063	10-1514	1	LANL	USE	S
per0223018a	245979002	CWW	2/23/2010 14:51	950063	10-1514	1	LANL	USE	S
per0223019a	245979003	CWW	2/23/2010 14:59	950063	10-1514	1	LANL	USE	S
per0223020a	245979004	CWW	2/23/2010 15:07	950063	10-1514	1	LANL	USE	S
per0223021a	245979005	CWW	2/23/2010 15:15	950063	10-1514	1	LANL	USE	S
per0223022a	WCLCCV	CWW	2/23/2010 15:23			1		USE	C
per0223023a	IPB004	CWW	2/23/2010 15:31			1		USE	B
per0223024a	WCLCRI	CWW	2/23/2010 15:39			1		USE	C
per0223025a	245979006	CWW	2/23/2010 15:47	950063	10-1514	1	LANL	USE	S
per0223026a	245979007	CWW	2/23/2010 15:55	950063	10-1514	1	LANL	USE	S
per0223027a	245979008	CWW	2/23/2010 16:03	950063	10-1514	1	LANL	USE	S
per0223028a	245979009	CWW	2/23/2010 16:11	950063	10-1514	1	LANL	USE	S
per0223029a	245979010	CWW	2/23/2010 16:20	950063	10-1514	1	LANL	USE	S

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per0223030a	245979011	CWW	2/23/2010 16:28	950063	10-1514	1	LANL	USE	S
per0223031a	245979012	CWW	2/23/2010 16:36	950063	10-1514	1	LANL	USE	S
per0223032a	245979013	CWW	2/23/2010 16:44	950063	10-1514	1	LANL	USE	S
per0223033a	245979014	CWW	2/23/2010 16:52	950063	10-1514	1	LANL	USE	S
per0223034a	245979015	CWW	2/23/2010 17:00	950063	10-1514	1	LANL	USE	S
per0223035a	WCLCCV	CWW	2/23/2010 17:08			1		USE	C
per0223036a	IPB005	CWW	2/23/2010 17:16			1		USE	B
per0223037a	WCLCRI	CWW	2/23/2010 17:24			1		USE	C
per0223038a	1202035660	CWW	2/23/2010 17:32	950071	VARIOUS	1	LANL	USE	S
per0223039a	1202035661	CWW	2/23/2010 17:40	950071	VARIOUS	1	LANL	USE	S
per0223040a	1202035664	CWW	2/23/2010 17:48	950071	VARIOUS	1	LANL	USE	S
per0223041a	245998001	CWW	2/23/2010 17:56	950071	10-1517	1	LANL	USE	S
per0223042a	245998002	CWW	2/23/2010 18:04	950071	10-1517	1	LANL	USE	S
per0223043a	245998003	CWW	2/23/2010 18:12	950071	10-1517	1	LANL	USE	S
per0223044a	245998004	CWW	2/23/2010 18:20	950071	10-1517	1	LANL	USE	S
per0223045a	245998005	CWW	2/23/2010 18:28	950071	10-1517	1	LANL	USE	S
per0223046a	245998006	CWW	2/23/2010 18:36	950071	10-1517	1	LANL	USE	S
per0223047a	245998007	CWW	2/23/2010 18:44	950071	10-1517	1	LANL	USE	S
per0223048a	WCLCCV	CWW	2/23/2010 18:52			1		USE	C
per0223049a	IPB006	CWW	2/23/2010 19:01			1		USE	B
per0223050a	WCLCRI	CWW	2/23/2010 19:09			1		USE	C
per0223051a	245998008	CWW	2/23/2010 19:17	950071	10-1517	1	LANL	USE	S
per0223052a	245998009	CWW	2/23/2010 19:25	950071	10-1517	1	LANL	USE	S
per0223053a	246055001	CWW	2/23/2010 19:33	950071	10-1545	1	LANL	USE	S
per0223054a	1202035662	CWW	2/23/2010 19:41	950071	10-1545	1	LANL	USE	S
per0223055a	1202035663	CWW	2/23/2010 19:49	950071	10-1545	1	LANL	USE	S
per0223056a	246055002	CWW	2/23/2010 19:57	950071	10-1545	1	LANL	USE	S
per0223057a	246055003	CWW	2/23/2010 20:05	950071	10-1545	1	LANL	USE	S
per0223058a	246055004	CWW	2/23/2010 20:13	950071	10-1545	1	LANL	USE	S
per0223059a	246055005	CWW	2/23/2010 20:21	950071	10-1545	1	LANL	USE	S
per0223060a	246055006	CWW	2/23/2010 20:29	950071	10-1545	1	LANL	USE	S
per0223061a	WCLCCV	CWW	2/23/2010 20:37			1		USE	C
per0223062a	IPB007	CWW	2/23/2010 20:46			1		USE	B
per0223063a	WCLCRI	CWW	2/23/2010 20:54			1		USE	C
per0223064a	246055007	CWW	2/23/2010 21:02	950071	10-1545	1	LANL	USE	S
per0223065a	246055008	CWW	2/23/2010 21:10	950071	10-1545	1	LANL	USE	S
per0223066a	246055009	CWW	2/23/2010 21:18	950071	10-1545	1	LANL	USE	S

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per0223067a	IPB008	CWW	2/23/2010 21:26			1		USE	B
per0223068a	1202042433	CWW	2/23/2010 21:34	952906	VARIOUS	1	LANL	USE	S
per0223069a	1202042434	CWW	2/23/2010 21:42	952906	VARIOUS	1	LANL	USE	S
per0223070a	1202042437	CWW	2/23/2010 21:50	952906	VARIOUS	1	LANL	USE	S
per0223071a	246607001	CWW	2/23/2010 21:58	952906	10-1699-1	1	LANL	USE	S
per0223072a	246607002	CWW	2/23/2010 22:06	952906	10-1699-1	1	LANL	USE	S
per0223073a	246607003	CWW	2/23/2010 22:14	952906	10-1699-1	1	LANL	USE	S
per0223074a	WCLCCV	CWW	2/23/2010 22:22			1		USE	C
per0223075a	IPB009	CWW	2/23/2010 22:31			1		USE	B
per0223076a	WCLCRI	CWW	2/23/2010 22:39			1		USE	C
per0223077a	246607004	CWW	2/23/2010 22:47	952906	10-1699-1	1	LANL	USE	S
per0223078a	246607005	CWW	2/23/2010 22:55	952906	10-1699-1	1	LANL	USE	S
per0223079a	246607006	CWW	2/23/2010 23:03	952906	10-1699-1	1	LANL	USE	S
per0223080a	246610001	CWW	2/23/2010 23:11	952906	10-1701	1	LANL	USE	S
per0223081a	246610002	CWW	2/23/2010 23:19	952906	10-1701	1	LANL	USE	S
per0223082a	246610003	CWW	2/23/2010 23:27	952906	10-1701	1	LANL	USE	S
per0223083a	246611001	CWW	2/23/2010 23:35	952906	10-1702	1	LANL	USE	S
per0223084a	246611002	CWW	2/23/2010 23:43	952906	10-1702	1	LANL	USE	S
per0223085a	246611003	CWW	2/23/2010 23:51	952906	10-1702	1	LANL	USE	S
per0223086a	WCLCCV	CWW	2/23/2010 23:59			1		USE	C
per0223087a	IPB010	CWW	2/24/2010 0:08			1		USE	B
per0223088a	WCLCRI	CWW	2/24/2010 0:16			1		USE	C
per0223089a	246679001	CWW	2/24/2010 0:24	952906	10-1704	1	LANL	USE	S
per0223090a	1202042435	CWW	2/24/2010 0:32	952906	10-1704	1	LANL	USE	S
per0223091a	1202042436	CWW	2/24/2010 0:40	952906	10-1704	1	LANL	USE	S
per0223092a	246679002	CWW	2/24/2010 0:48	952906	10-1704	1	LANL	USE	S
per0223093a	246679003	CWW	2/24/2010 0:56	952906	10-1704	1	LANL	USE	S
per0223094a	246679004	CWW	2/24/2010 1:04	952906	10-1704	1	LANL	USE	S
per0223095a	246679005	CWW	2/24/2010 1:12	952906	10-1704	1	LANL	USE	S
per0223096a	246679006	CWW	2/24/2010 1:20	952906	10-1704	1	LANL	USE	S
per0223097a	246679007	CWW	2/24/2010 1:28	952906	10-1704	1	LANL	USE	S
per0223098a	246679008	CWW	2/24/2010 1:36	952906	10-1704	1	LANL	USE	S
per0223099a	WCLCCV	CWW	2/24/2010 1:44			1		USE	C
per0223100a	IPB011	CWW	2/24/2010 1:52			1		USE	B
per0223101a	WCLCRI	CWW	2/24/2010 2:00			1		USE	C
per0223102a	1202042671	CWW	2/24/2010 2:08	952990	VARIOUS	1	LANL	USE	S
per0223103a	1202042672	CWW	2/24/2010 2:17	952990	VARIOUS	1	LANL	USE	S

per0223104a	1202042675	CWW	2/24/2010 2:25	952990	VARIOUS	1	LANL	USE	S
per0223105a	246719001	CWW	2/24/2010 2:33	952990	10-1729	1	LANL	USE	S
per0223106a	1202042673	CWW	2/24/2010 2:41	952990	10-1729	1	LANL	USE	S
per0223107a	1202042674	CWW	2/24/2010 2:49	952990	10-1729	1	LANL	USE	S
per0223108a	246719002	CWW	2/24/2010 2:57	952990	10-1729	1	LANL	USE	S
per0223109a	246719003	CWW	2/24/2010 3:05	952990	10-1729	1	LANL	USE	S
per0223110a	WCLCCV	CWW	2/24/2010 3:13			1		USE	C
per0223111a	IPB012	CWW	2/24/2010 3:21			1		USE	B
per0223112a	WCLCRI	CWW	2/24/2010 3:29			1		USE	C
per0223113a	246719004	CWW	2/24/2010 3:37	952990	10-1729	1	LANL	USE	S
per0223114a	246719005	CWW	2/24/2010 3:46	952990	10-1729	1	LANL	USE	S
per0223115a	246719006	CWW	2/24/2010 3:54	952990	10-1729	1	LANL	USE	S
per0223116a	246719007	CWW	2/24/2010 4:02	952990	10-1729	1	LANL	USE	S
per0223117a	246719008	CWW	2/24/2010 4:10	952990	10-1729	1	LANL	USE	S
per0223118a	246741001	CWW	2/24/2010 4:18	952990	10-1711	1	LANL	USE	S
per0223119a	246741002	CWW	2/24/2010 4:26	952990	10-1711	1	LANL	USE	S
per0223120a	246741003	CWW	2/24/2010 4:34	952990	10-1711	1	LANL	USE	S
per0223121a	WCLCCV	CWW	2/24/2010 4:42			1		USE	C
per0223122a	IPB013	CWW	2/24/2010 4:50			1		USE	B
per0223123a	WCLCRI	CWW	2/24/2010 4:58			1		USE	C
per0223124a	246741004	CWW	2/24/2010 5:06	952990	10-1711	1	LANL	USE	S
per0223125a	246741005	CWW	2/24/2010 5:14	952990	10-1711	1	LANL	USE	S
per0223126a	246741006	CWW	2/24/2010 5:22	952990	10-1711	1	LANL	USE	S
per0223127a	246741007	CWW	2/24/2010 5:30	952990	10-1711	1	LANL	USE	S
per0223128a	246741008	CWW	2/24/2010 5:38	952990	10-1711	1	LANL	USE	S
per0223129a	246741009	CWW	2/24/2010 5:46	952990	10-1711	1	LANL	USE	S
per0223130a	246741010	CWW	2/24/2010 5:54	952990	10-1711	1	LANL	USE	S
per0223131a	246741011	CWW	2/24/2010 6:02	952990	10-1711	1	LANL	USE	S
per0223132a	WCLCCV	CWW	2/24/2010 6:11			1		USE	C
per0223133a	IPB014	CWW	2/24/2010 6:19			1		USE	B
per0223134a	WCLCRI	CWW	2/24/2010 6:27			1		USE	C

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Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223054a
Date: 23-Feb-2010
Time: 19:41:29
ID: 1202035662
Vial: 2:3,B

|LANL|950071|SO120|MS|1|

CWJ 02-24-10

Perchlorate

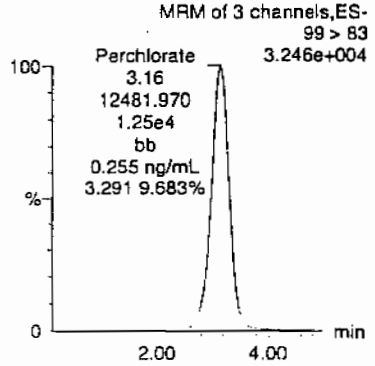

Perchlorate

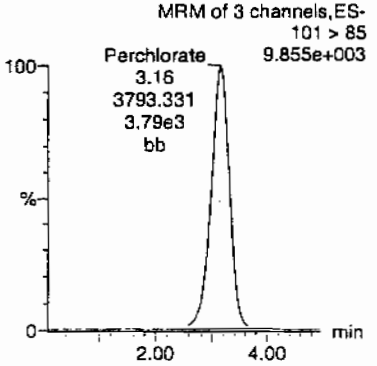

Perchlorate-101

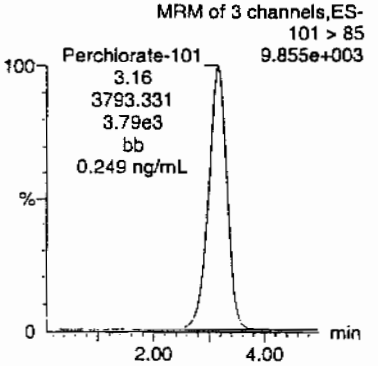

Perchlorate-O(18)

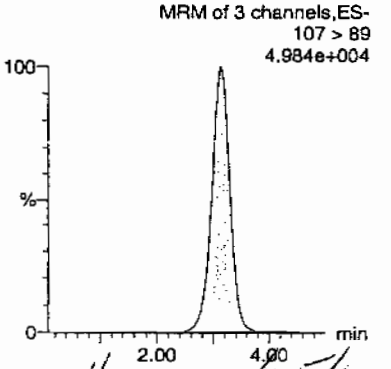

HMK 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035662	Perchlorate	99 > 83	3.16	12481.970	12481.970	bb			0.2552	127.62	27.62	7557.7...	3.29
1202035662	Perchlorate-101	101 > 85	3.16	3793.331	3793.331	bb			0.2487	124.35	24.35	857.059	
1202035662	Perchlorate-O(18)	107 > 89	3.14	18922.586	18922.586	bb			0.4624	92.49	-7.51	4697.1...	

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Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223055a
Date: 23-Feb-2010
Time: 19:49:31
ID: 1202035663
Vial: 2:3,C

| VANL | 950071 | SOLZO | MSD | 1 |

GWO 02-24-10

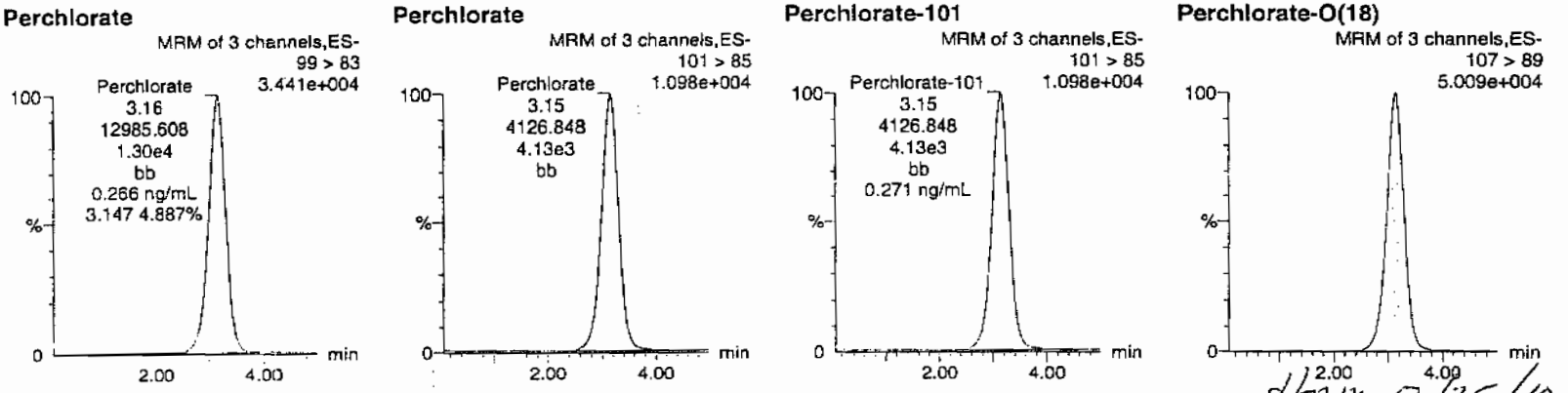

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035663	Perchlorate	99 > 83	3.16	12985.608	12985.608	bb			0.2655	132.77	32.77	1922.3...	3.15
1202035663	Perchlorate-101	101 > 85	3.15	4126.848	4126.848	bb			0.2706	135.29	35.29	1121.0...	
1202035663	Perchlorate-O(18)	107 > 89	3.14	18934.469	18934.469	bb			0.4627	92.55	-7.45	2164.4...	

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1517-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950028
Prep Batch Number:	950027

Sample Analysis

Sample ID	Client ID
246000001	RE15-10-8124
1202035573	Interference Check Sample (ICS)
1202035565	Method Blank (MB)
1202035566	Laboratory Control Sample (LCS)
1202035571	245911001(RE16-10-1400) Matrix Spike (MS)
1202035572	245911001(RE16-10-1400) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

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CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245911001 (RE16-10-1400) from SDG 10-1487-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

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Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert N Moniz **Date:** 02/11/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8124

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517-1

GEL Sample ID: 246000001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:13	per0208068a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:13	per0208068a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:13	per0208068a
	Perchlorate-O(18)			0.478	ug/L		1	08-FEB-10 21:13	per0208068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Form 5

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1517-1

Extract Batch Code: 950027

Date Filtered: 07-FEB-10

Matrix: WASTE WATER

Sample ID: 1202035566

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.196	ug/L	98.0		85 – 115
Perchlorate Isotope Ratio		3.01				–
Perchlorate-101	0.200	.207	ug/L	103		85 – 115
Perchlorate-O(18)		.483	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1517-1

Extract Batch Code: 950027

Date Filtered: 07-FEB-10

Matrix: WATER

Sample ID: 1202035573

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.211	ug/L	105		70 – 130
Perchlorate Isotope Ratio		3.12				
Perchlorate-101	0.200	.214	ug/L	107		70 – 130
Perchlorate-O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208052a
Date: 08-Feb-2010
Time: 19:28:20
ID: 1202035573
Vial: 2:1,C

|LANL|950028|LCQ|IC5|1|

CWW 02-09-10

Perchlorate

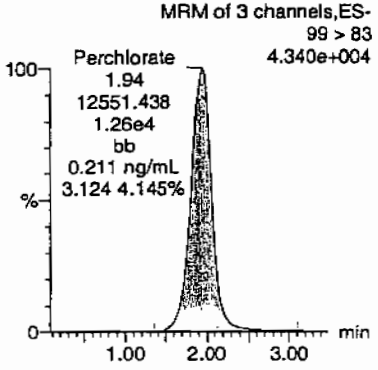

Perchlorate

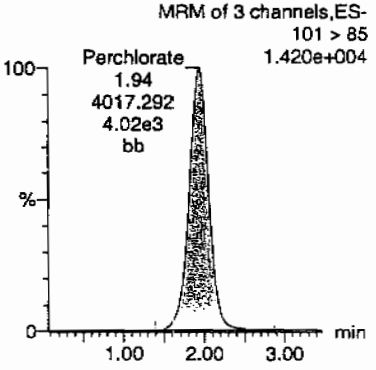

Perchlorate-101

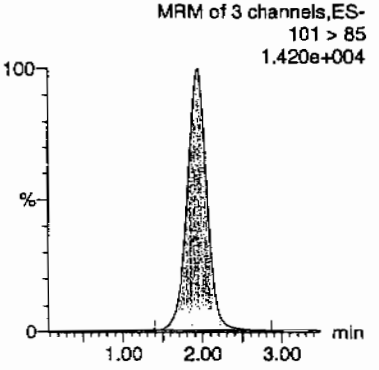

Perchlorate-O(18)

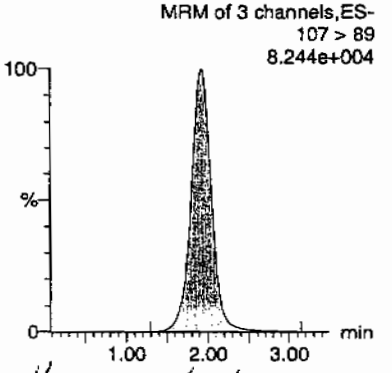

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035573	Perchlorate	99 > 83	1.94	12551.438	12551.438	bb			0.2108	105.42	5.42	1217.2...	3.12
1202035573	Perchlorate-101	101 > 85	1.94	4017.292	4017.292	bb			0.2140	107.01	7.01	2883.8...	
1202035573	Perchlorate-O(18)	107 > 89	1.93	23733.555	23733.555	bb			0.4879	97.59	-2.41	5289.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1517-1

Extract Batch Code: 950027

Date Extracted: 07-FEB-10

GEL MS/PS ID: 1202035571

Client ID: RE16-10-1400

GEL MSD/PSD ID: 1202035572

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00204	ug/L	0.192	94.8	.198	98.1	3.39	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3		3.01		0		–
Perchlorate–101	0.200	0.00319	ug/L	0.203	99.9	.209	103	2.76	30	75 – 125
Perchlorate–O(18)	0	0.461	ug/L	0.468		.462		1.31		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-FEB-10	per0208001a	IPB001
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208001a	IPB001
Perchlorate	0.00	0	NA	08-FEB-10	per0208002a	IPB001
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Name: per0208001a
Date: 08-Feb-2010
Time: 13:54:09
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

Perchlorate

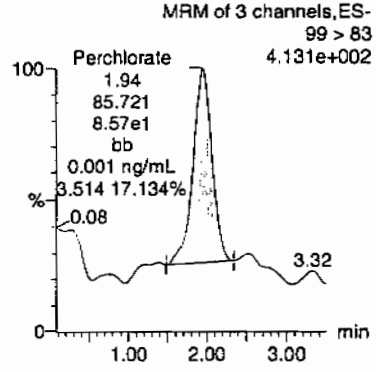

Perchlorate

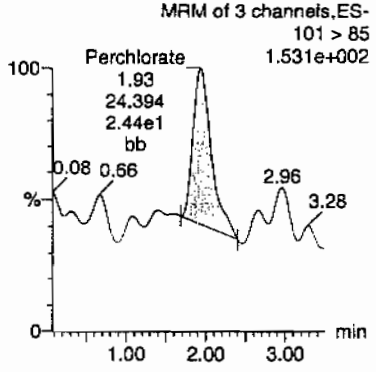

Perchlorate-101

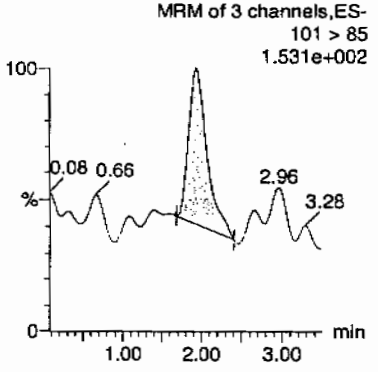

Perchlorate-O(18)

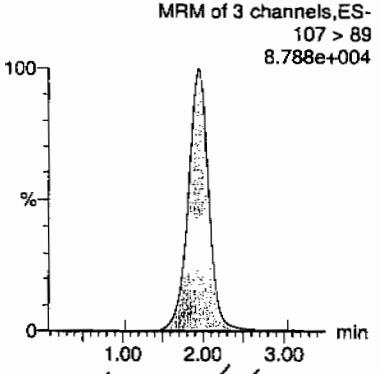

Hme 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	1.94	85.721	85.721	bb			0.0014			29.463	3.51
IPB001	Perchlorate-101	101 > 85	1.93	24.394	24.394	bb			0.0013			21.780	
IPB001	Perchlorate-O(18)	107 > 89	1.94	25816.436	25816.436	bb			0.5308	106.15	6.15	6489.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208002a
Date: 08-Feb-2010
Time: 14:00:52
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

Perchlorate

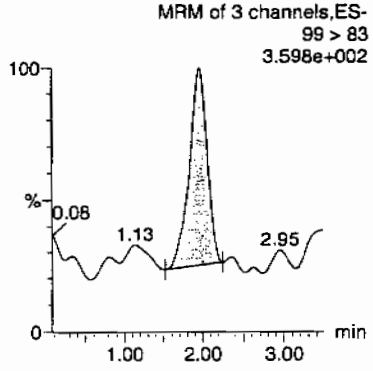

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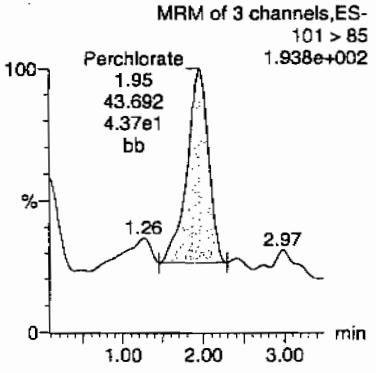

Perchlorate-101

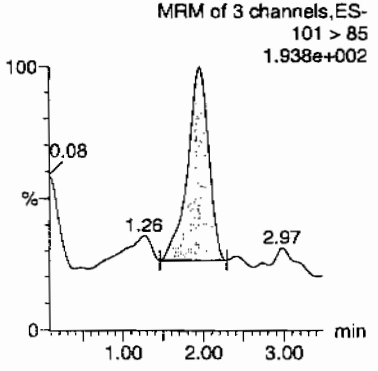

Perchlorate-O(18)

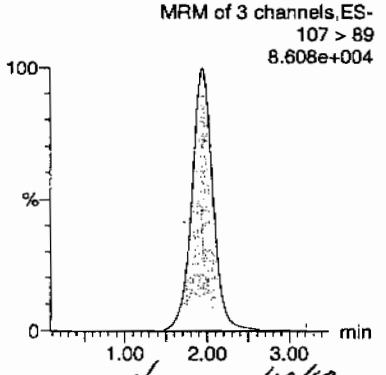

Hrm on lielie

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	1.97	72.177	72.177	bb			0.0012			25.847	1.65
IPB001	Perchlorate-101	101 > 85	1.95	43.692	43.692	bb			0.0023			6.442	
IPB001	Perchlorate-O(18)	107 > 89	1.94	25472.947	25472.947	bb			0.5237	104.74	4.74	6120.9...	

OK44
(9050)

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-FEB-10	per0208008a	IPB002
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208008a	IPB002
Perchlorate	0.00	0	NA	08-FEB-10	per0208010a	IPB003
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208010a	IPB003
Perchlorate	0.00	0	NA	08-FEB-10	per0208022a	IPB004
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208022a	IPB004
Perchlorate	0.00	0	NA	08-FEB-10	per0208026a	IPB005
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208026a	IPB005
Perchlorate	0.00	0	NA	08-FEB-10	per0208035a	IPB006
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208035a	IPB006
Perchlorate	0.00	0	NA	08-FEB-10	per0208048a	IPB007
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208048a	IPB007
Perchlorate	0.00	0	NA	08-FEB-10	per0208061a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208061a	IPB008
Perchlorate	0.00	0	NA	08-FEB-10	per0208074a	IPB009
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208074a	IPB009

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208008a
Date: 08-Feb-2010
Time: 14:40:00
ID: IPB002
Vial: 1:1,A

02-04-10

Perchlorate

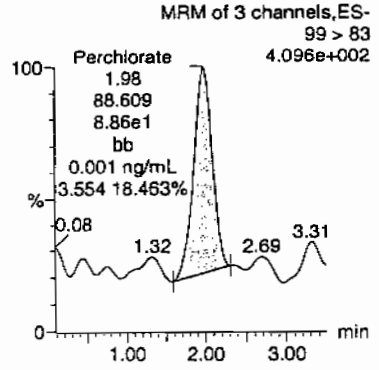

Perchlorate

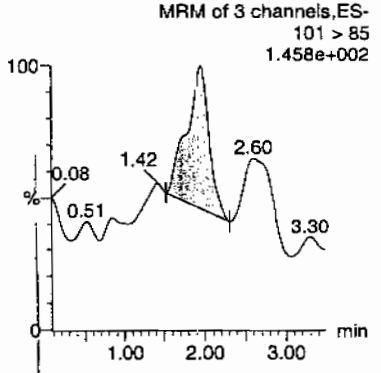

Perchlorate-101

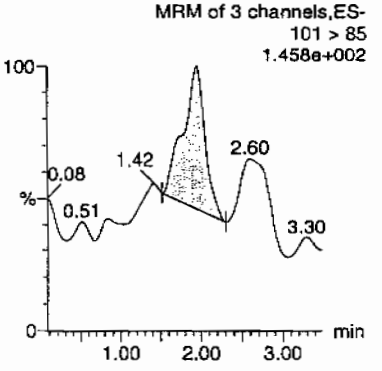

Perchlorate-O(18)

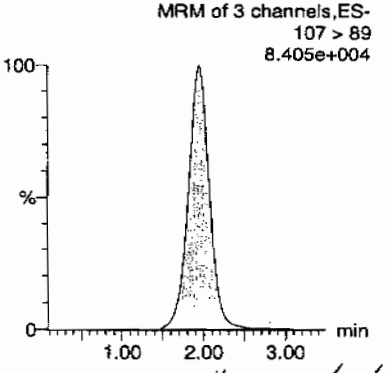

Hmc 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	1.98	88.609	88.609	bb			0.0015			17.608	3.55
IPB002	Perchlorate-101	101 > 85	1.95	24.933	24.933	bb			0.0013			9.796	
IPB002	Perchlorate-O(18)	107 > 89	1.94	24800.170	24800.170	bb			0.5099	101.97	1.97	8413.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208010a
Date: 08-Feb-2010
Time: 14:53:04
ID: IPB003
Vial: 1:1,A

CWW
02-09-10

Perchlorate

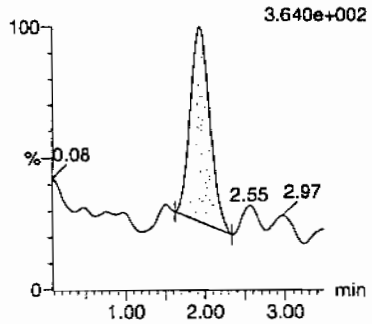

Perchlorate

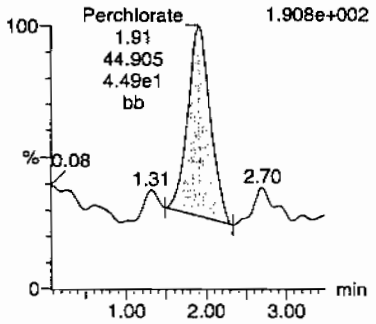

Perchlorate-101

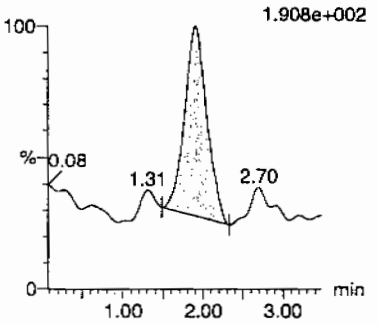

Perchlorate-O(18)

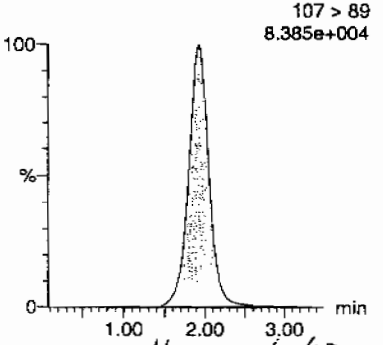

Hmcalicko

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	1.93	78.058	78.058	bb			0.0013			17.447	1.74
IPB003	Perchlorate-101	101 > 85	1.91	44.905	44.905	bb			0.0024			6.119	
IPB003	Perchlorate-O(18)	107 > 89	1.93	24645.639	24645.639	bb			0.5067	101.34	1.34	10100....	

OKAY
2/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208022a
Date: 08-Feb-2010
Time: 16:11:45
ID: IPB004
Vial: 1:1,A

CWW
02-09-10

Perchlorate

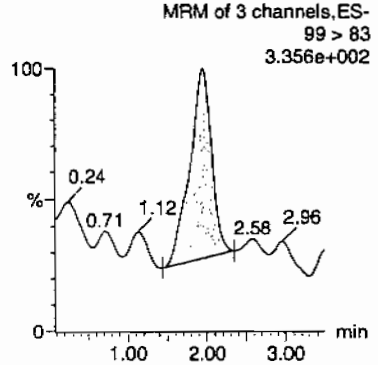

Perchlorate

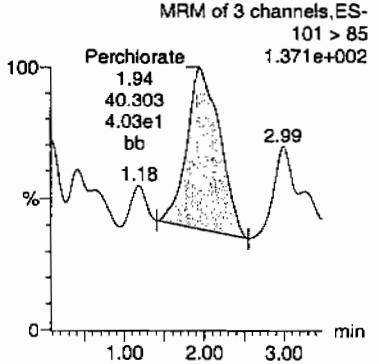

Perchlorate-101

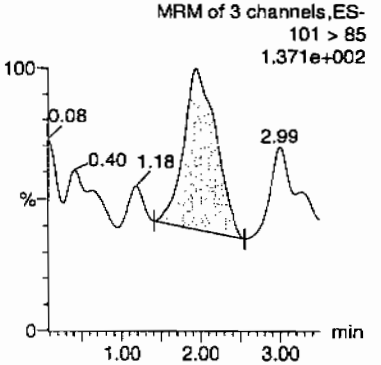

Perchlorate-O(18)

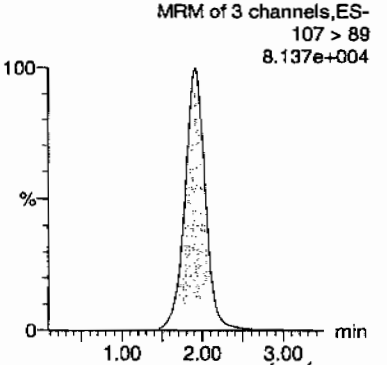

Hrm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83	1.94	78.709	78.709	bb			0.0013			20.514	1.95
IPB004	Perchlorate-101	101 > 85	1.94	40.303	40.303	bb			0.0021			13.319	
IPB004	Perchlorate-O(18)	107 > 89	1.92	23985.541	23985.541	bb			0.4931	98.62	-1.38	5434.3...	

okay
<0.020

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208026a
Date: 08-Feb-2010
Time: 16:37:55
ID: IPB005
Vial: 1:1,A

CWD
02 09-10

Perchlorate

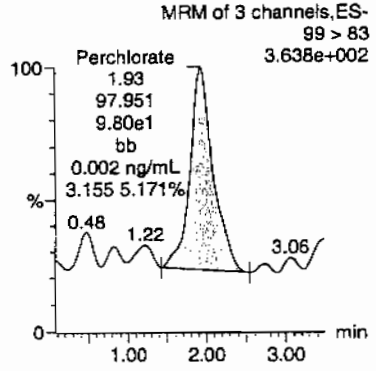

Perchlorate

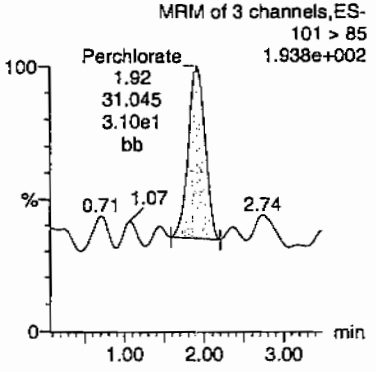

Perchlorate-101

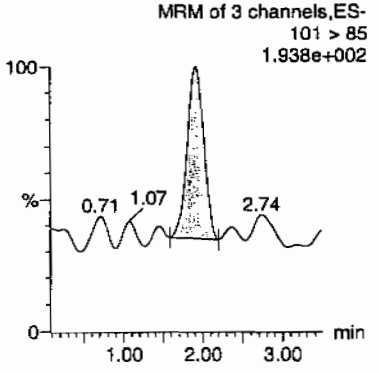

Perchlorate-O(18)

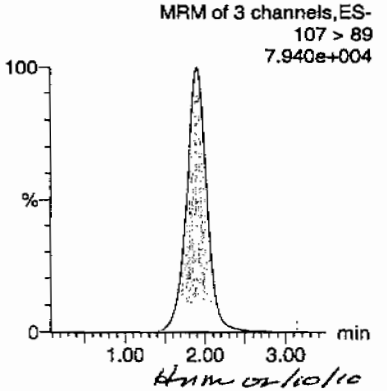

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	1.93	97.951	97.951	bb			0.0016			26.012	3.16
IPB005	Perchlorate-101	101 > 85	1.92	31.045	31.045	bb			0.0017			24.338	
IPB005	Perchlorate-O(18)	107 > 89	1.91	23263.740	23263.740	bb			0.4783	95.66	-4.34	17328....	

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Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208035a
Date: 08-Feb-2010
Time: 17:36:50
ID: IPB006
Vial: 1:1,A

CWW
02-09-10

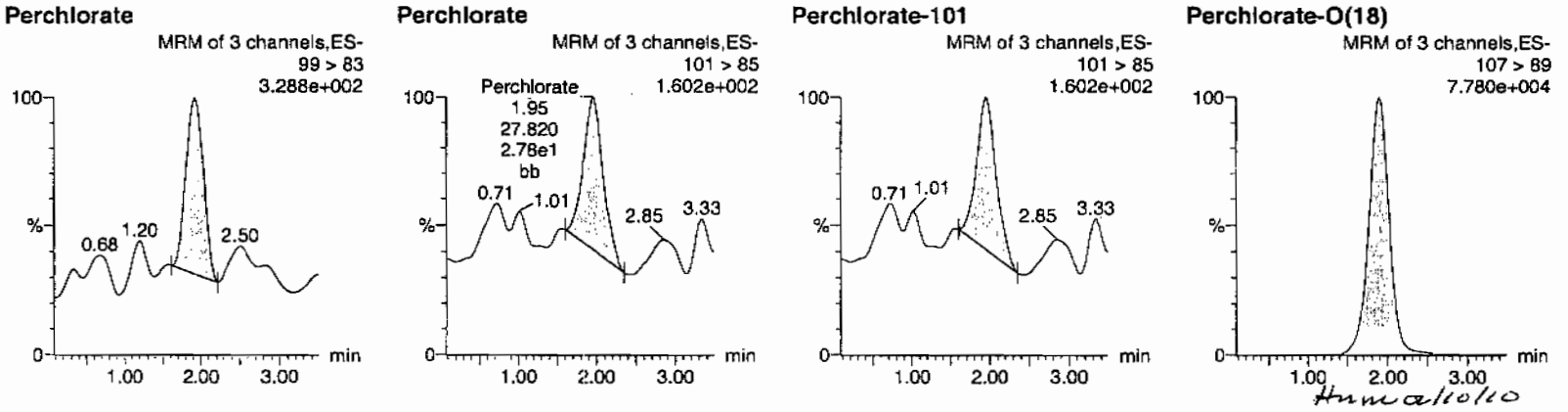

Hmwallolo

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	1.92	61.682	61.682	bb			0.0010			7.589	2.22
IPB006	Perchlorate-101	101 > 85	1.95	27.820	27.820	bb			0.0015			8.535	
IPB006	Perchlorate-O(18)	107 > 89	1.89	22700.701	22700.701	bb			0.4667	93.34	-6.66	9296.2...	

Okay
2.0540

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208048a
Date: 08-Feb-2010
Time: 19:01:59
ID: IPB007
Vial: 1:1,A

CWW
02-09-10

Perchlorate

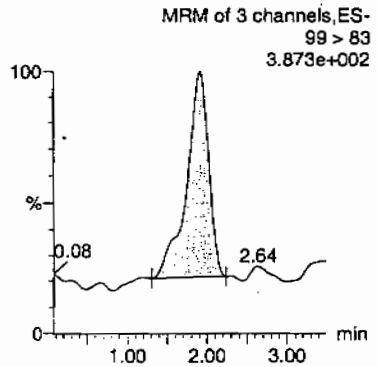

Perchlorate

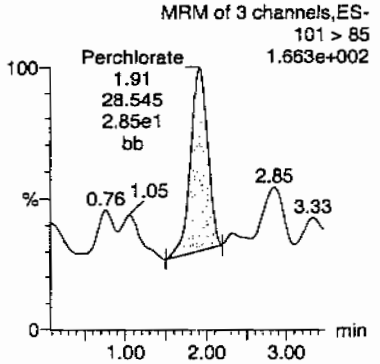

Perchlorate-101

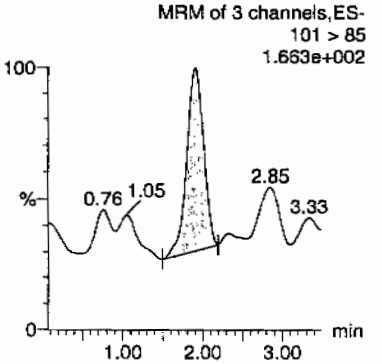

Perchlorate-O(18)

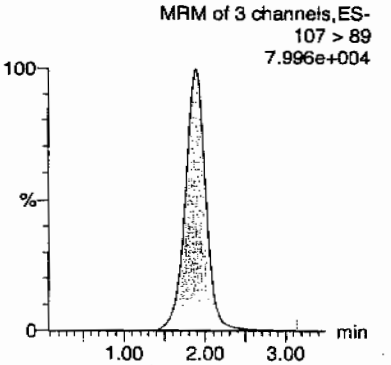

HM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	1.92	98.695	98.695	bb			0.0017			45.617	3.46
IPB007	Perchlorate-101	101 > 85	1.91	28.545	28.545	bb			0.0015			16.585	
IPB007	Perchlorate-O(18)	107 > 89	1.88	23201.119	23201.119	bb			0.4770	95.40	-4.60	2781.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208061a
Date: 08-Feb-2010
Time: 20:27:18
ID: IPB008
Vial: 1:1,A

Cwo
02-09-10

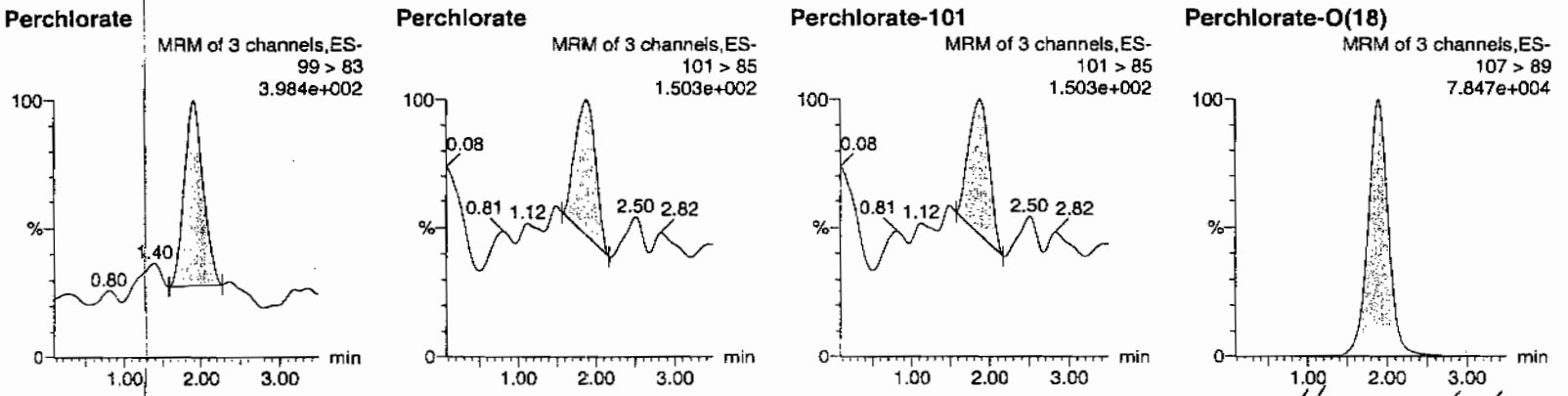

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	1.91	82.327	82.327	bb			0.0014			25.247	3.44
IPB008	Perchlorate-101	101 > 85	1.88	23.921	23.921	bb			0.0013			7.965	
IPB008	Perchlorate-O(18)	107 > 89	1.89	22850.625	22850.625	bb			0.4698	93.96	-6.04	9586.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208074a
Date: 08-Feb-2010
Time: 21:52:41
ID: IPB009
Vial: 1:1,A

02-04-10

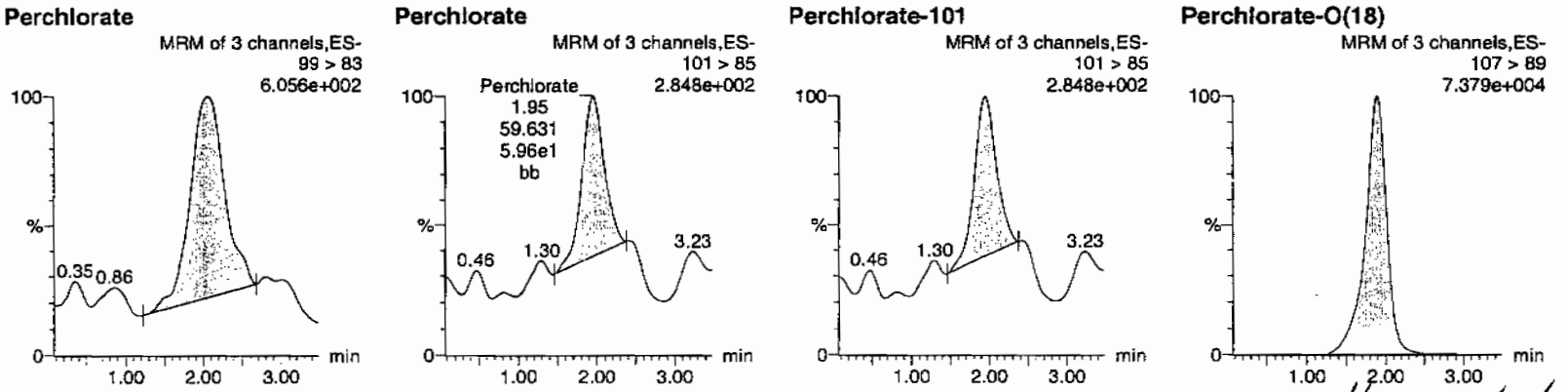

Hume 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83	2.05	246.817	246.817	bb			0.0041			12.504	4.14
IPB009	Perchlorate-101	101 > 85	1.95	59.631	59.631	bb			0.0032			10.438	
IPB009	Perchlorate-O(18)	107 > 89	1.89	23201.656	23201.656	bb			0.4770	95.40	-4.60	2554.5...	

0424
2.0300

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CURSOR 01-07-03

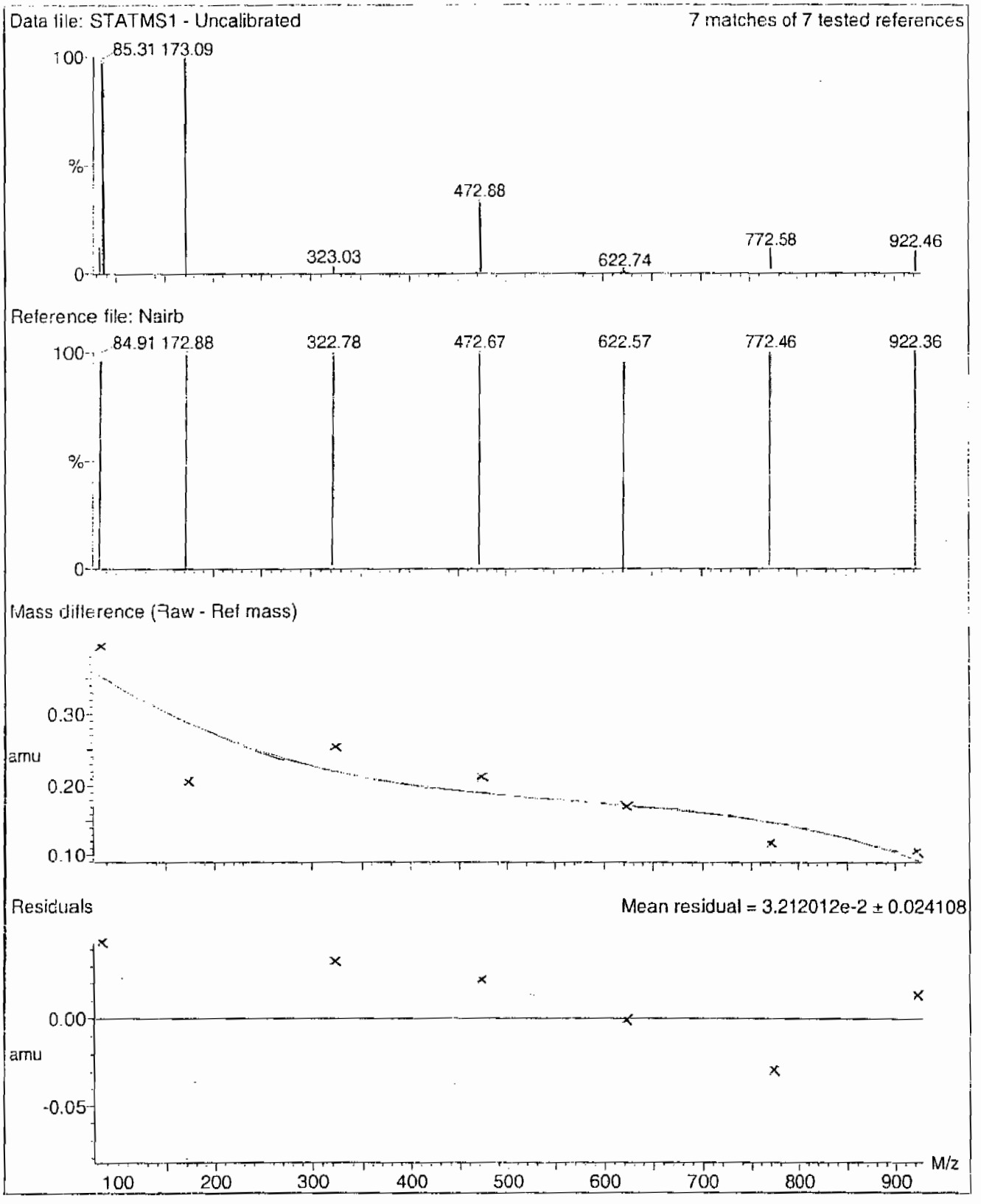

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

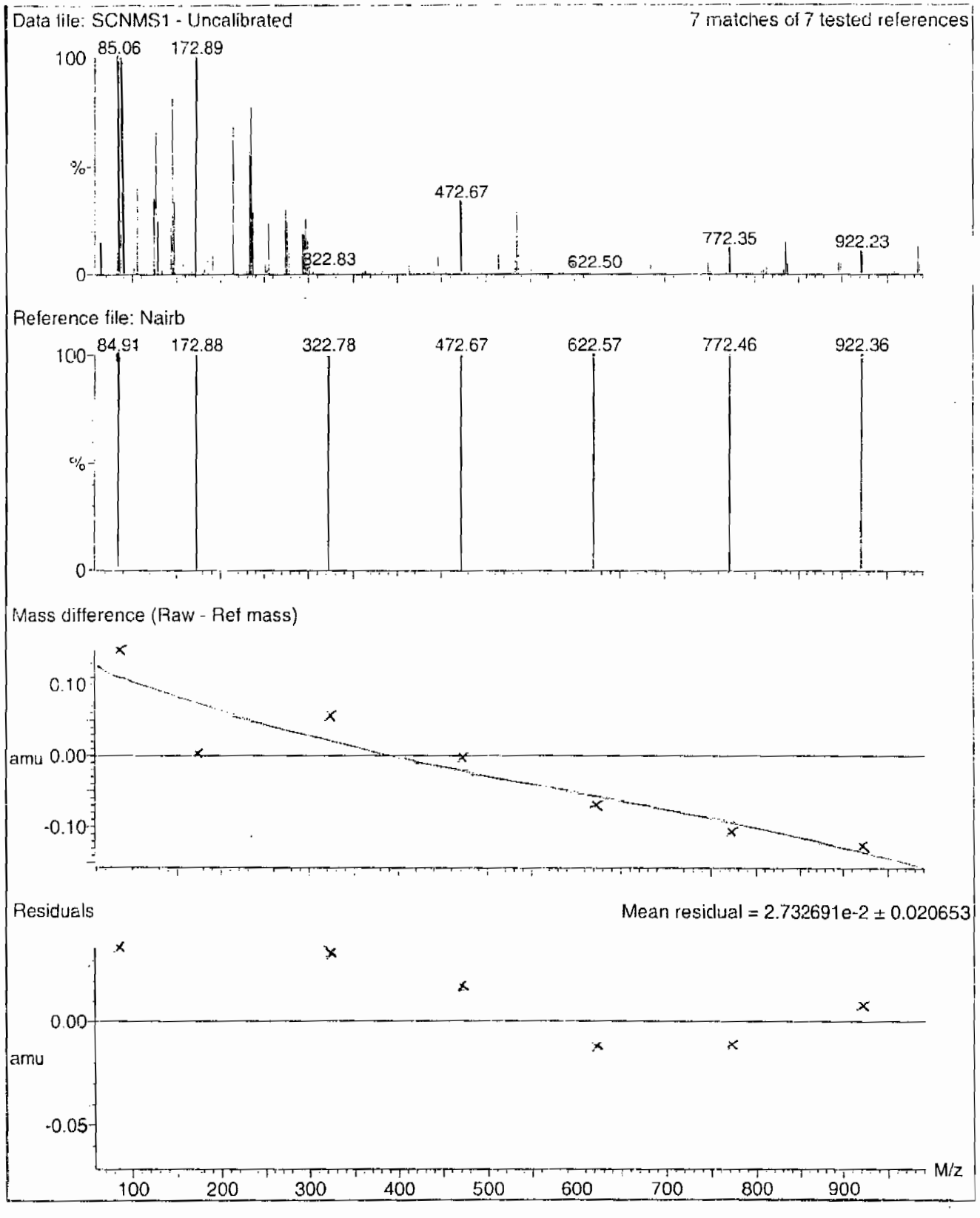

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

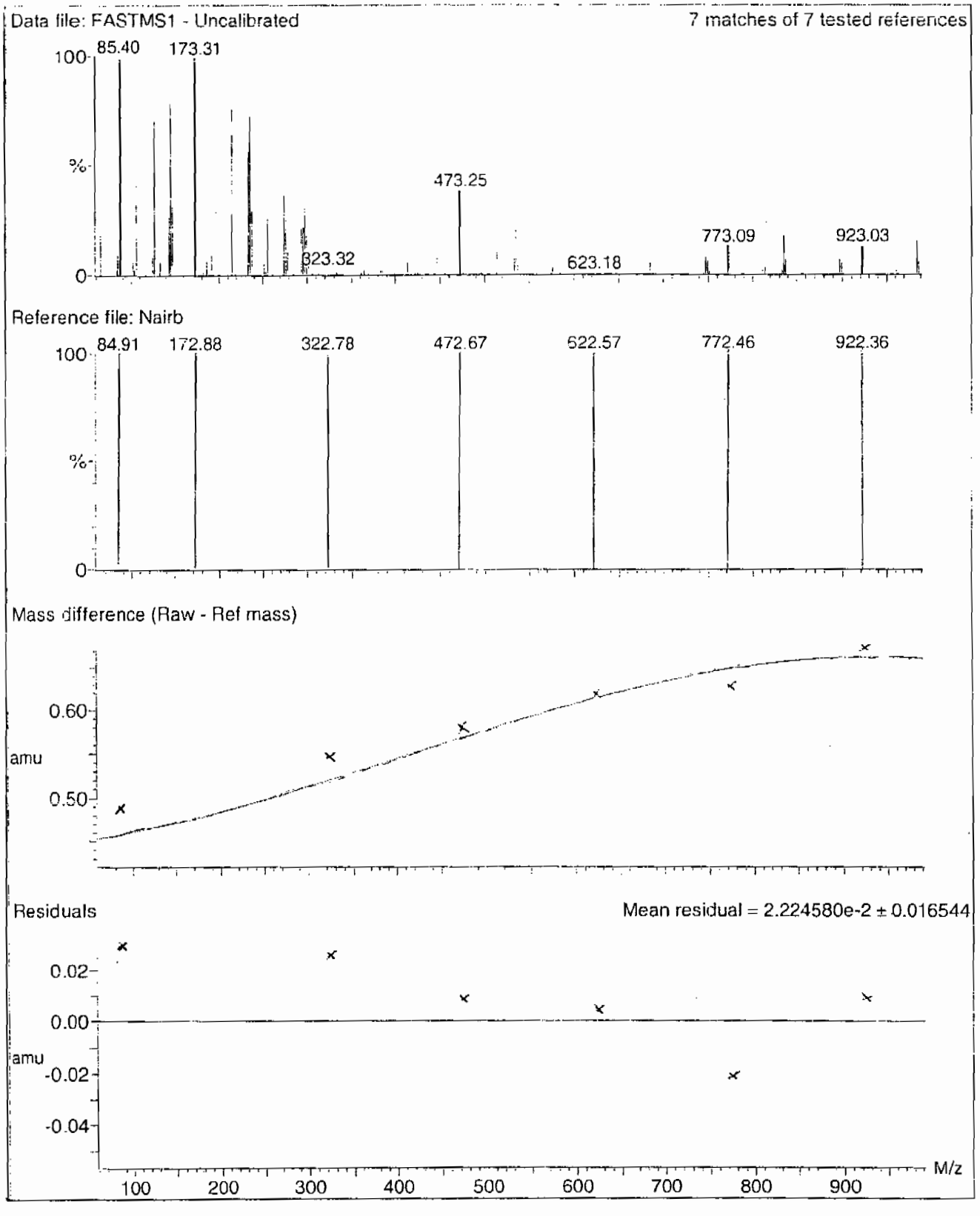

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

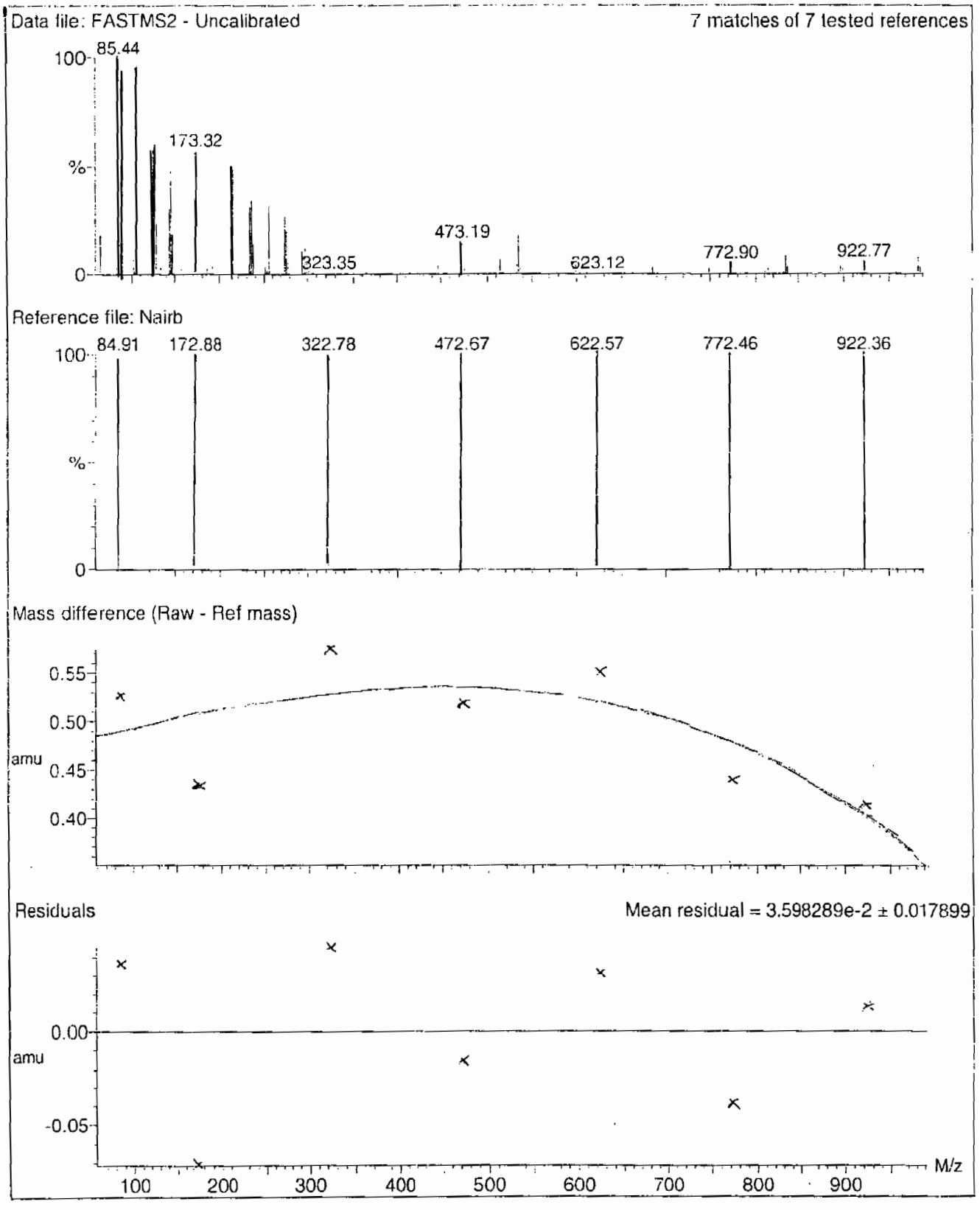

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

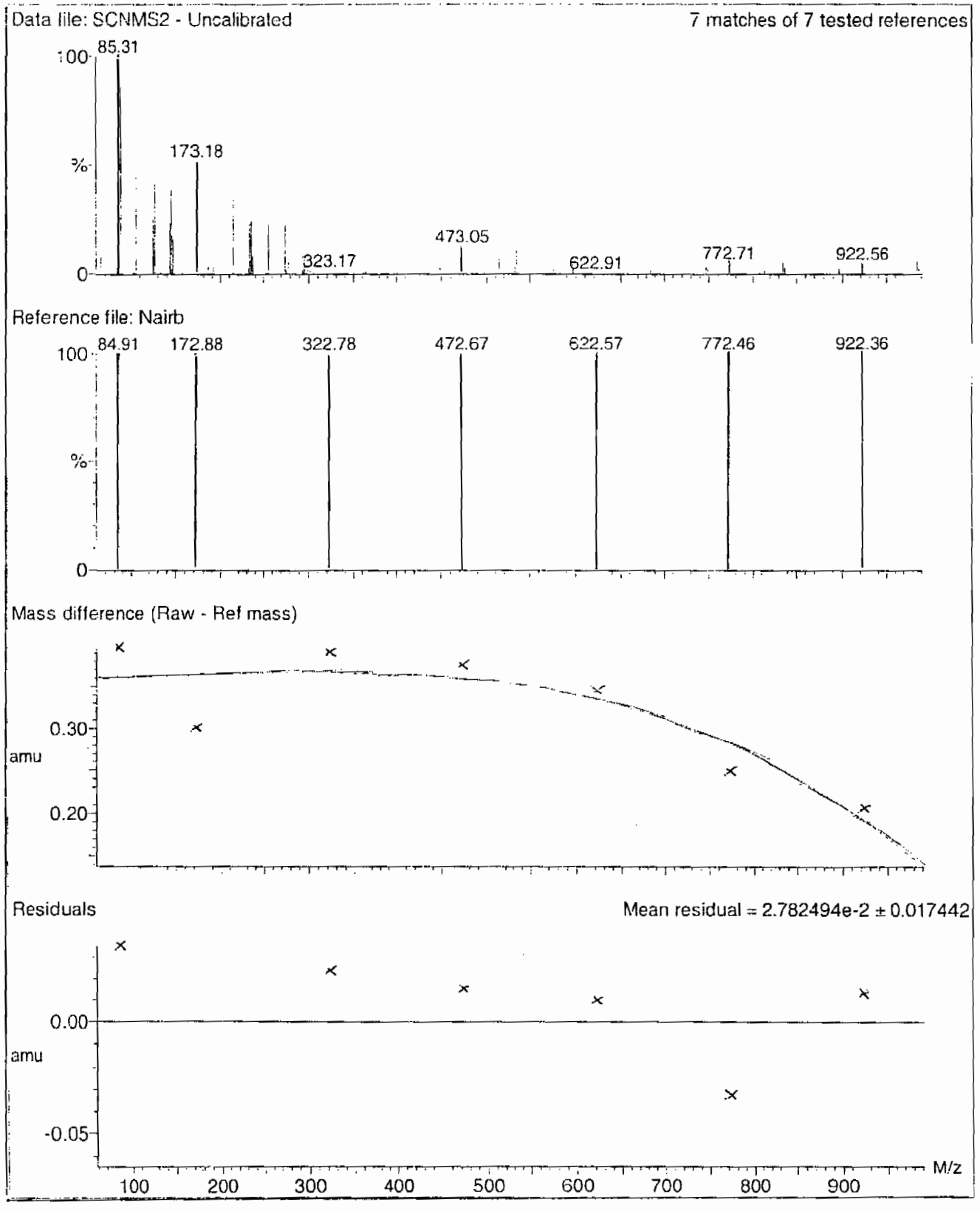

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

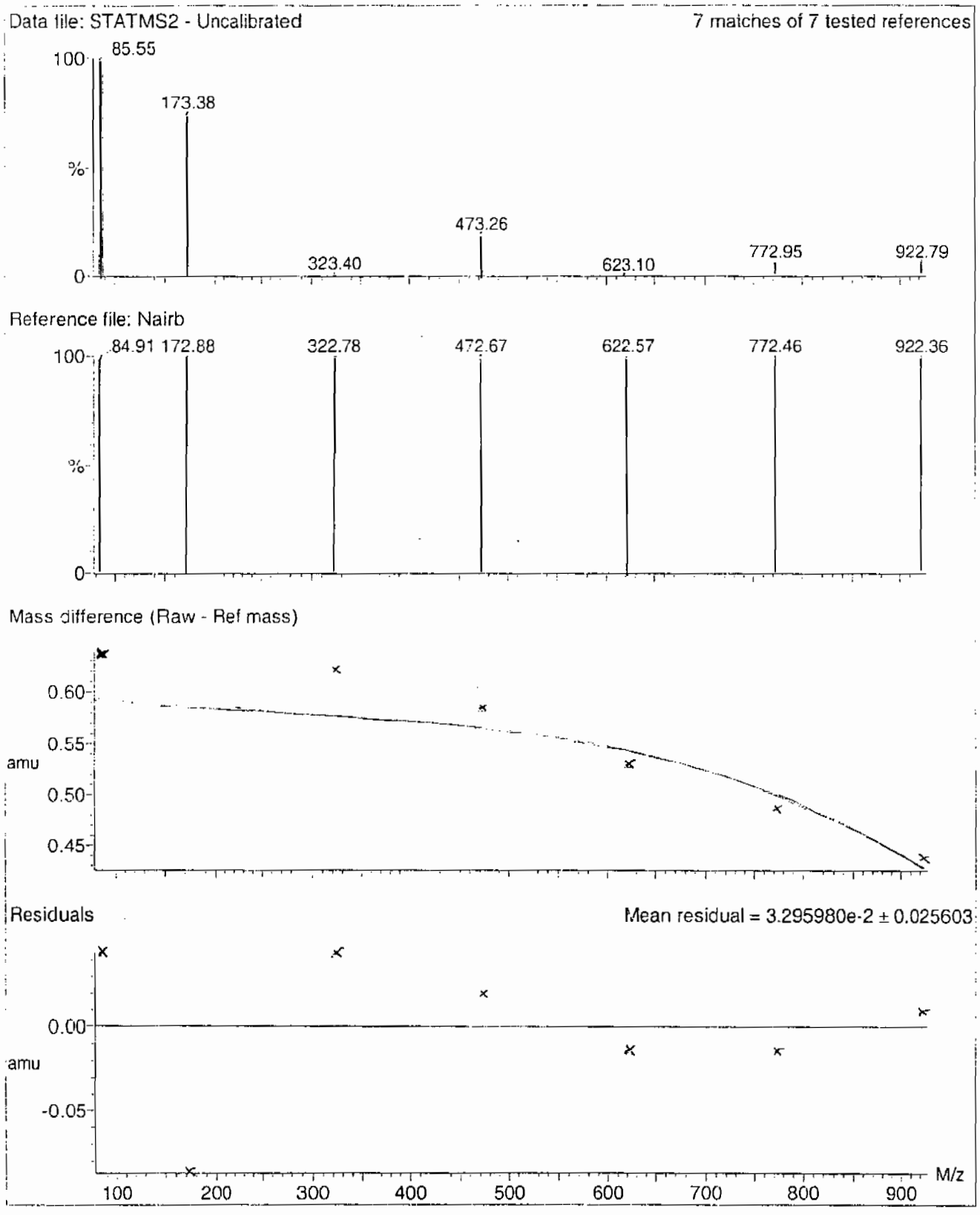

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, February 08, 2010 12:29:43 Eastern Standard Time

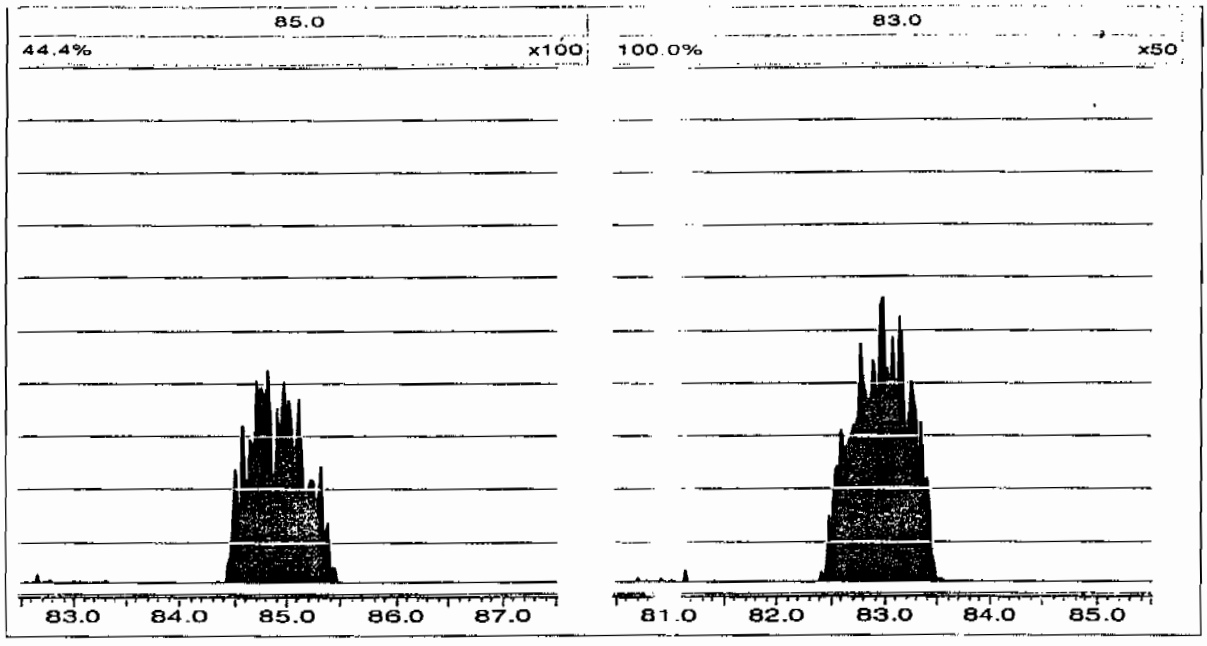

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1517–1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0208006a**	**08–FEB–10**	**24441.6**				
Lower Area Limit			**12220.8**				
Upper Area Limit			**48883.2**				
1202035565	per0208050a	08–FEB–10 19:15	22209.3	1.88	1.89273	1.007	
1202035566	per0208051a	08–FEB–10 19:21	23514.8	1.88	1.89277	1.007	
1202035573	per0208052a	08–FEB–10 19:28	23733.6	1.93	1.94248	1.006	
246000001	per0208068a	08–FEB–10 21:13	23270.1	1.88	1.89275	1.007	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8124

Date Received: 02-FEB-10

GEL Job No (SDG): 10-1517-1

GEL Sample ID: 246000001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:13	per0208068a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:13	per0208068a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:13	per0208068a
	Perchlorate-O(18)			0.478	ug/L		1	08-FEB-10 21:13	per0208068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208068a
Date: 08-Feb-2010
Time: 21:13:14
ID: 246000001
Vial: 2:3,D

LANL | 950023 | LZQ | 1 |

CWW
02-01-10

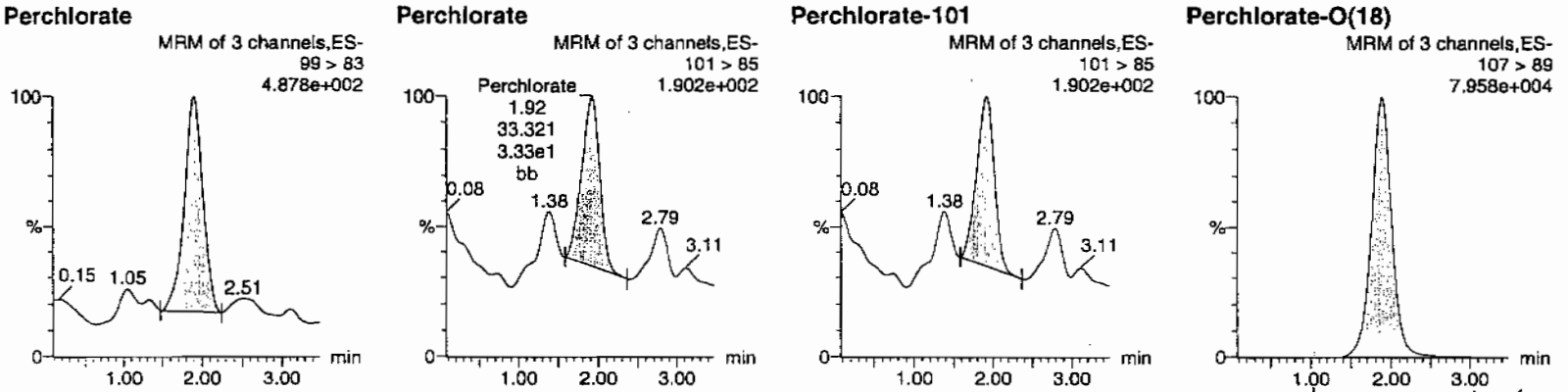

Amm 02/16/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246000001	Perchlorate	99 > 83	1.89	112.704	112.704	bb			0.0019			48.943	3.38
246000001	Perchlorate-101	101 > 85	1.92	33.321	33.321	bb			0.0018			20.615	
246000001	Perchlorate-O(18)	107 > 89	1.88	23270.068	23270.068	bb			0.4784	95.68	-4.32	2864.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1517-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 59530.66

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1517-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 18771.12

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Compound name: Perchlorate
Response Factor: 59530.6
RRF SD: 1393.77, % Relative SD: 2.34126
Response type: External Std, Area
Curve type: RF

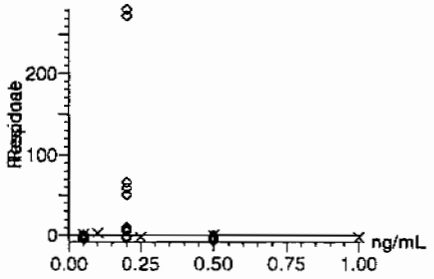

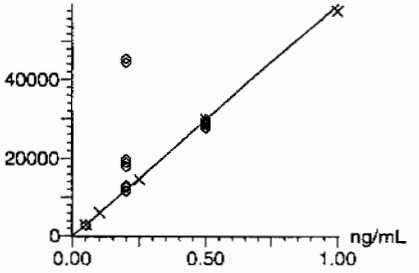

CWW
02-09-10

Compound name: Perchlorate-101
Response Factor: 18771.1
RRF SD: 687.466, % Relative SD: 3.66236
Response type: External Std, Area
Curve type: RF

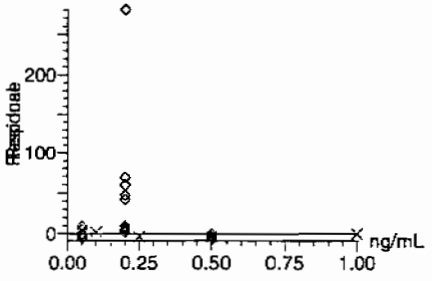

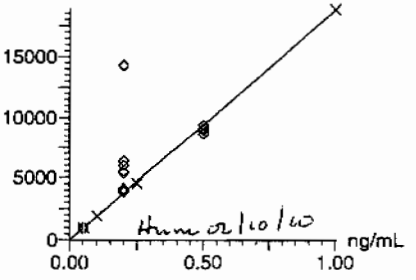

Hum 02/10/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 48640
RRF SD: 647.782, % Relative SD: 1.33179
Response type: External Std, Area
Curve type: RF

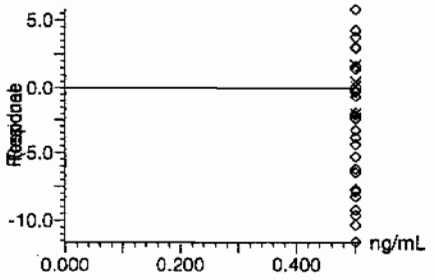

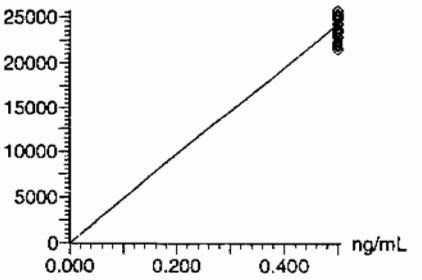

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	100.59	08-FEB-10 14:46	per0208009a
Perchlorate Isotope Ratio		3.19		08-FEB-10 14:46	per0208009a
Perchlorate-101	.5	.5	99.88	08-FEB-10 14:46	per0208009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208009a
Date: 08-Feb-2010
Time: 14:46:32
ID: WCL100128-06ICV
Vial: 1:2,A

Pass
CMO
02-09-10

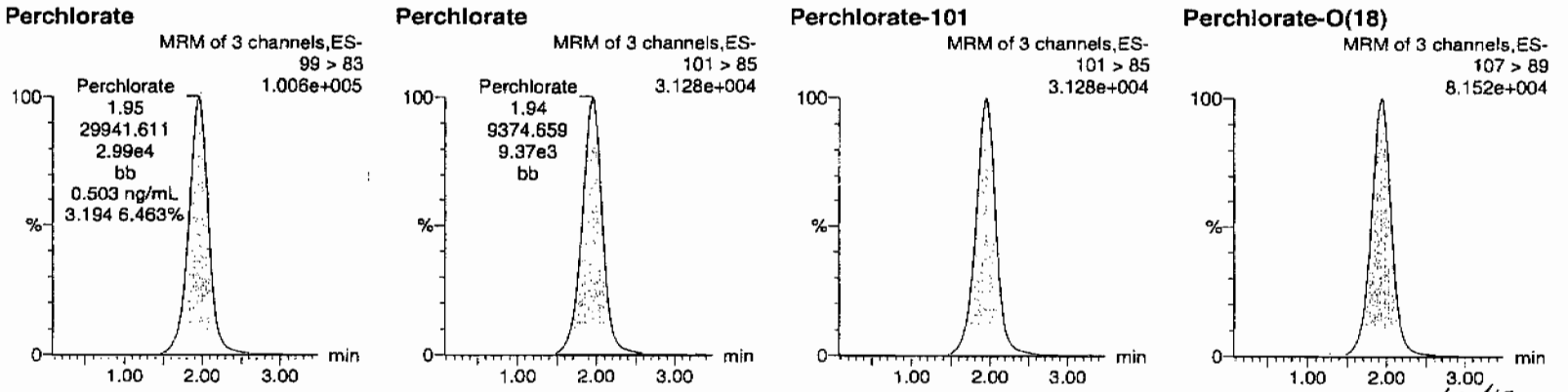

Have w/ratio

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	1.95	29941.611	29941.611	bb			0.5030	100.59	0.59	5446.9...	3.19
WCL100128-06ICV	Perchlorate-101	101 > 85	1.94	9374.659	9374.659	bb			0.4994	99.88	-0.12	264.354	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	1.93	24277.504	24277.504	bb			0.4991	99.83	-0.17	3258.6...	

Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1517–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.49	08–FEB–10 16:05	per0208021a
Perchlorate Isotope Ratio		3.13		08–FEB–10 16:05	per0208021a
Perchlorate–101	.5	.5	99.83	08–FEB–10 16:05	per0208021a
Perchlorate	.5	.49	97.32	08–FEB–10 17:30	per0208034a
Perchlorate Isotope Ratio		3.24		08–FEB–10 17:30	per0208034a
Perchlorate–101	.5	.48	95.26	08–FEB–10 17:30	per0208034a
Perchlorate	.5	.48	95.6	08–FEB–10 18:55	per0208047a
Perchlorate Isotope Ratio		3.13		08–FEB–10 18:55	per0208047a
Perchlorate–101	.5	.49	97	08–FEB–10 18:55	per0208047a
Perchlorate	.5	.47	93.45	08–FEB–10 20:20	per0208060a
Perchlorate Isotope Ratio		3.05		08–FEB–10 20:20	per0208060a
Perchlorate–101	.5	.49	97.09	08–FEB–10 20:20	per0208060a
Perchlorate	.5	.48	96.67	08–FEB–10 21:45	per0208073a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.22		08-FEB-10 21:45	per0208073a
Perchlorate-101	.5	.48	95.12	08-FEB-10 21:45	per0208073a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208021a
Date: 08-Feb-2010
Time: 16:05:12
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-09-10

Perchlorate

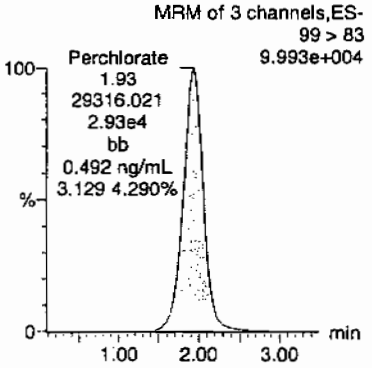

Perchlorate

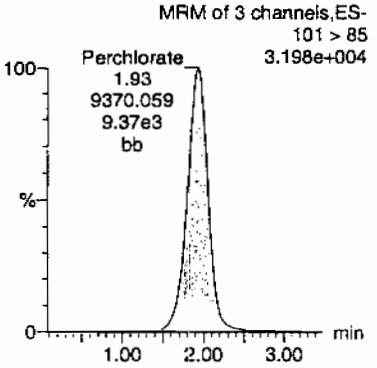

Perchlorate-101

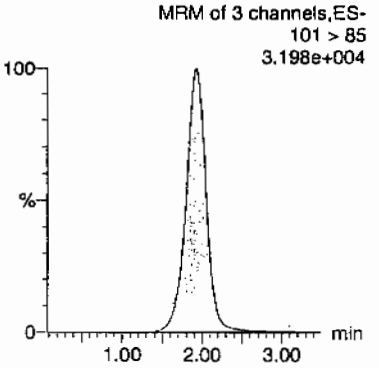

Perchlorate-O(18)

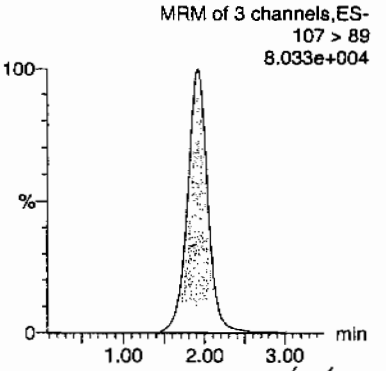

Hume on 10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.93	29316.021	29316.021	bb			0.4925	98.49	-1.51	1324.3...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.93	9370.059	9370.059	bb			0.4992	99.83	-0.17	4157.5...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.92	23385.551	23385.551	bb			0.4808	96.16	-3.84	3253.6...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208034a
Date: 08-Feb-2010
Time: 17:30:17
ID: WCL100128-06CCV
Vial: 1:2,A

Pwo
aw
02-09-10

Perchlorate

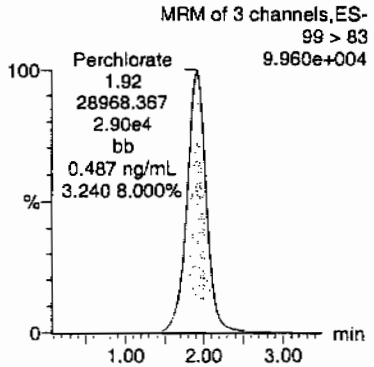

Perchlorate

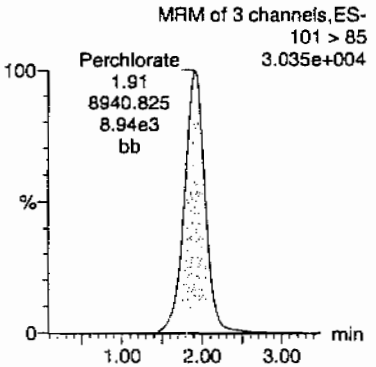

Perchlorate-101

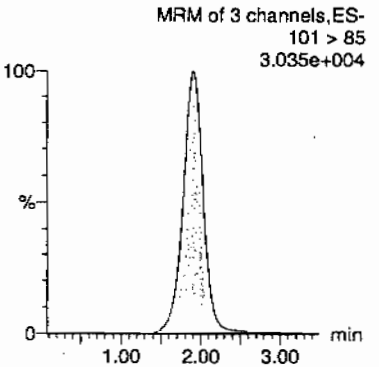

Perchlorate-O(18)

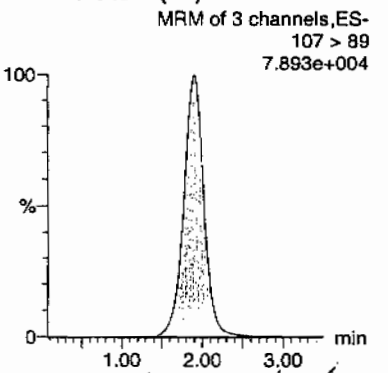

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.92	28968.367	28968.367	bb			0.4866	97.32	-2.68	7606.4...	3.24
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8940.825	8940.825	bb			0.4763	95.26	-4.74	3381.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.91	23019.350	23019.350	bb			0.4733	94.65	-5.35	4411.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208047a
Date: 08-Feb-2010
Time: 18:55:25
ID: WCL100128-06CCV
Vial: 1:2,A

Perc
CW
02-09-10

Perchlorate

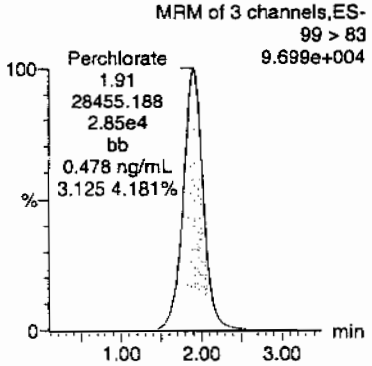

Perchlorate

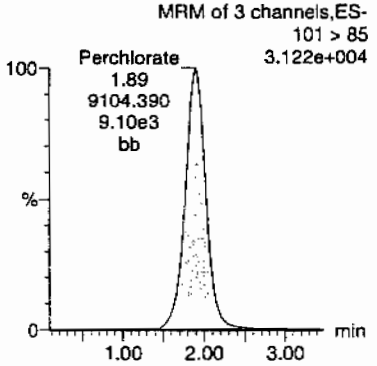

Perchlorate-101

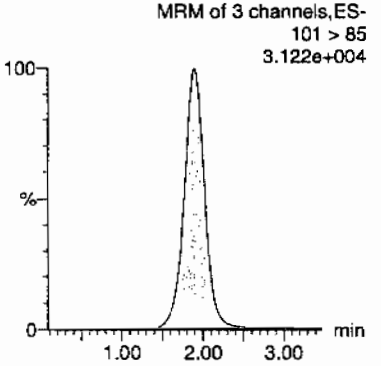

Perchlorate-O(18)

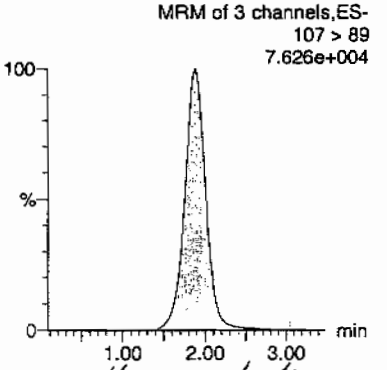

Hmm ratio

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28455.188	28455.188	bb			0.4780	95.60	-4.40	6190.9...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9104.390	9104.390	bb			0.4850	97.00	-3.00	681.071	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22404.150	22404.150	bb			0.4606	92.12	-7.88	2959.4...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208060a
Date: 08-Feb-2010
Time: 20:20:32
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
02-25-10

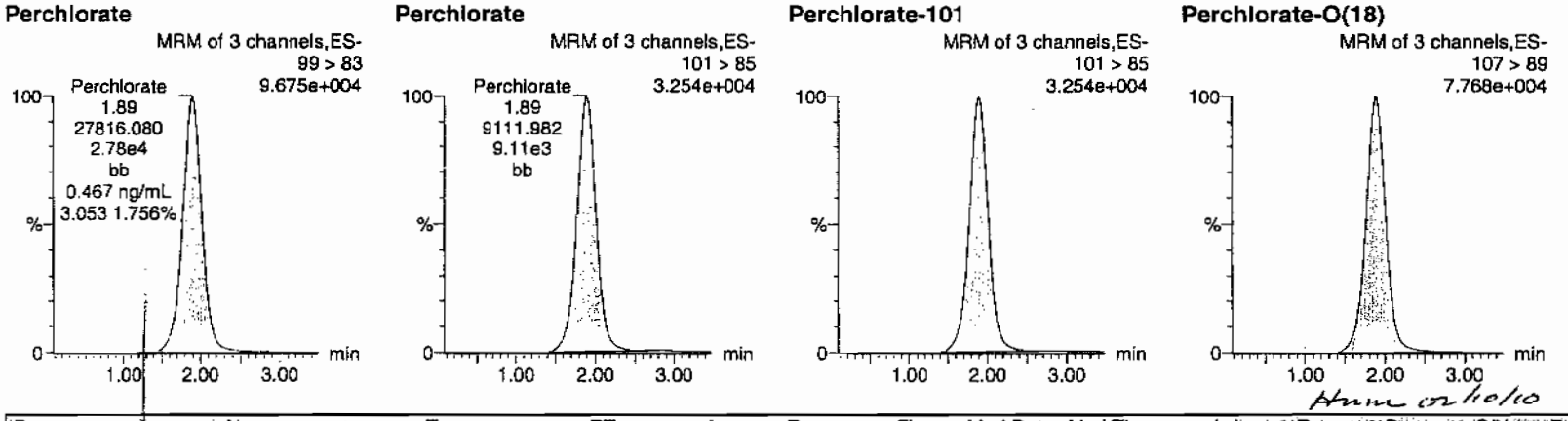

Hmm on hold

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	27816.080	27816.080	bb			0.4673	93.45	-6.55	1799.5...	3.05
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9111.982	9111.982	bb			0.4854	97.09	-2.91	1434.4...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22435.383	22435.383	bb			0.4613	92.25	-7.75	1805.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208073a
Date: 08-Feb-2010
Time: 21:45:55
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CW
02-09-10

Perchlorate

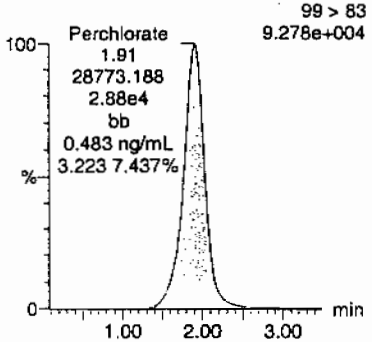

Perchlorate

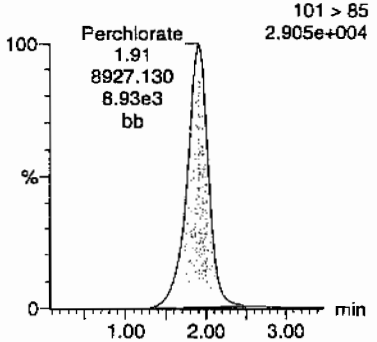

Perchlorate-101

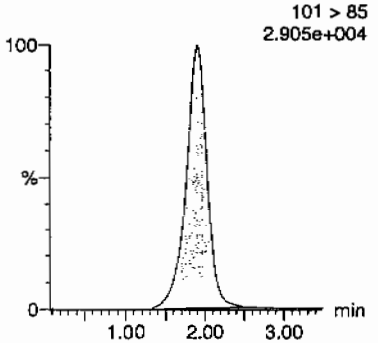

Perchlorate-O(18)

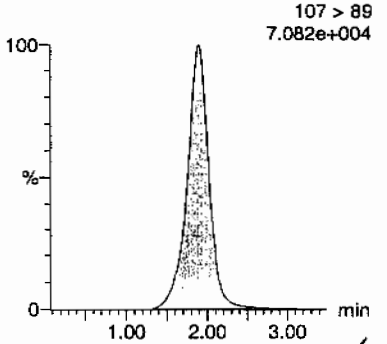

Hum on/ok

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28773.188	28773.188	bb			0.4833	96.67	-3.33	3174.1...	3.22
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8927.130	8927.130	bb			0.4756	95.12	-4.88	5417.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22077.664	22077.664	bb			0.4539	90.78	-9.22	7805.6...	

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1517-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.73	08-FEB-10 14:59	per0208011a
Perchlorate Isotope Ratio		2.96		08-FEB-10 14:59	per0208011a
Perchlorate-101	.05	.05	109.1	08-FEB-10 14:59	per0208011a
Perchlorate	.05	.05	100.29	08-FEB-10 16:18	per0208023a
Perchlorate Isotope Ratio		3.21		08-FEB-10 16:18	per0208023a
Perchlorate-101	.05	.05	98.94	08-FEB-10 16:18	per0208023a
Perchlorate	.05	.05	101.53	08-FEB-10 17:43	per0208036a
Perchlorate Isotope Ratio		3.05		08-FEB-10 17:43	per0208036a
Perchlorate-101	.05	.05	105.49	08-FEB-10 17:43	per0208036a
Perchlorate	.05	.05	101.45	08-FEB-10 19:08	per0208049a
Perchlorate Isotope Ratio		3.36		08-FEB-10 19:08	per0208049a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1517–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	95.78	08–FEB–10 19:08	per0208049a
Perchlorate	.05	.05	97.2	08–FEB–10 20:33	per0208062a
Perchlorate Isotope Ratio		3.14		08–FEB–10 20:33	per0208062a
Perchlorate–101	.05	.05	98.24	08–FEB–10 20:33	per0208062a
Perchlorate	.05	.05	99.1	08–FEB–10 21:59	per0208075a
Perchlorate Isotope Ratio		3.16		08–FEB–10 21:59	per0208075a
Perchlorate–101	.05	.05	99.59	08–FEB–10 21:59	per0208075a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208011a
Date: 08-Feb-2010
Time: 14:59:36
ID: WCL100128-07CRI
Vial: 1:2,B

Pwo
CWO
02-09-10

Perchlorate

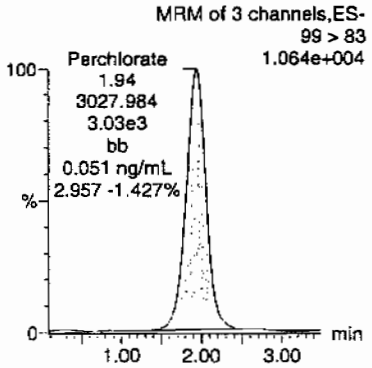

Perchlorate

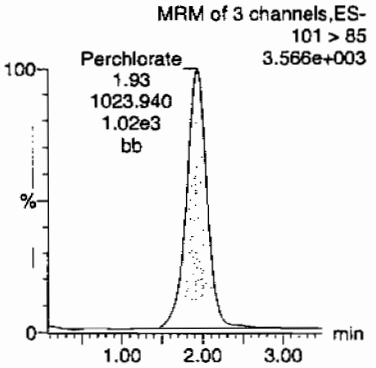

Perchlorate-101

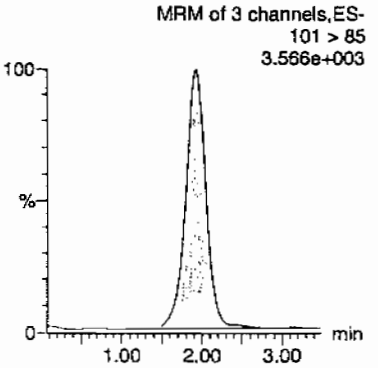

Perchlorate-O(18)

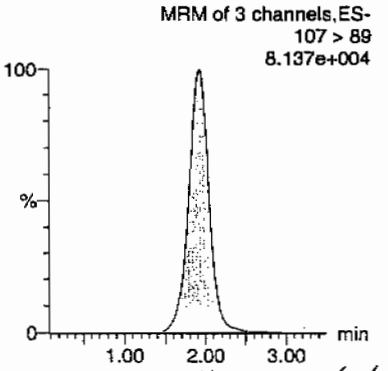

Hnm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.94	3027.984	3027.984	bb			0.0509	101.73	1.73	849.198	2.96
WCL100128-07CRI	Perchlorate-101	101 > 85	1.93	1023.940	1023.940	bb			0.0545	109.10	9.10	829.276	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.92	23852.451	23852.451	bb			0.4904	98.08	-1.92	6658.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208023a
Date: 08-Feb-2010
Time: 16:18:17
ID: WCL100128-07CRI
Vial: 1:2,B

Pwm
02-09-10

Perchlorate

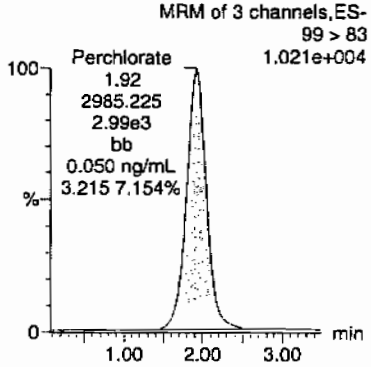

Perchlorate

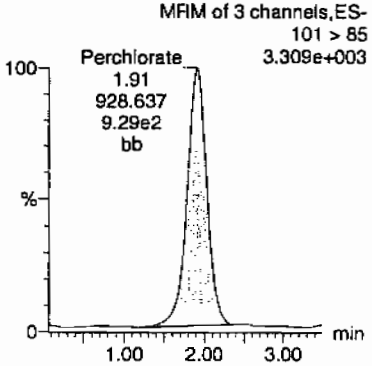

Perchlorate-101

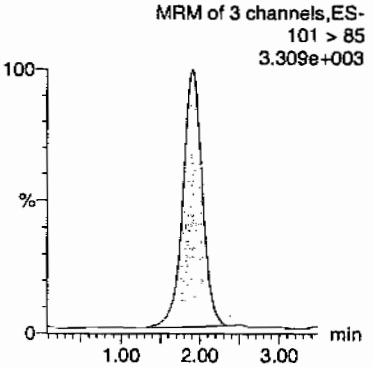

Perchlorate-O(18)

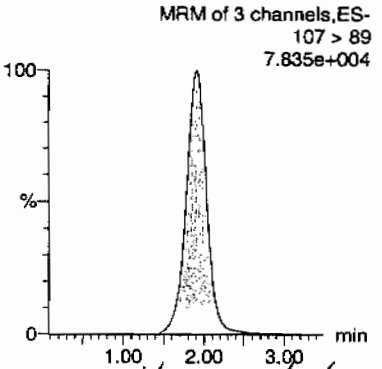

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.92	2985.225	2985.225	bb			0.0501	100.29	0.29	2277.7...	3.21
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	928.637	928.637	bb			0.0495	98.94	-1.06	1285.2...	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.91	22805.957	22805.957	bb			0.4689	93.77	-6.23	2391.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208036a
Date: 08-Feb-2010
Time: 17:43:22
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
and
02-09-10

Perchlorate

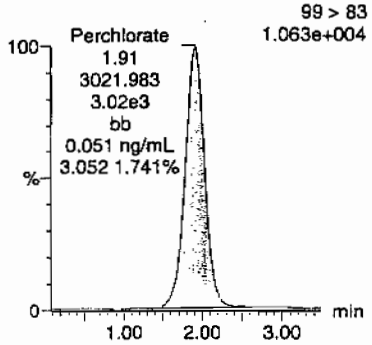

Perchlorate

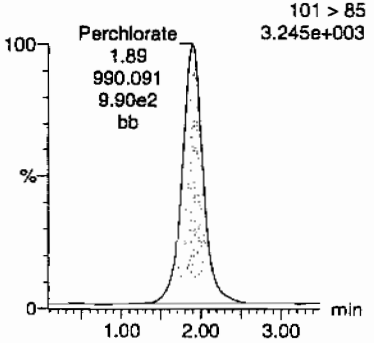

Perchlorate-101

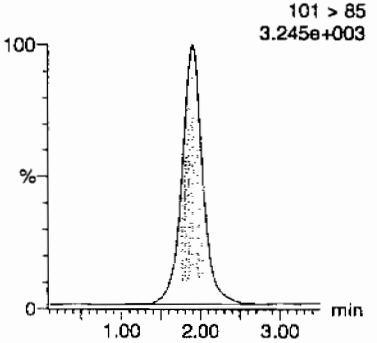

Perchlorate-O(18)

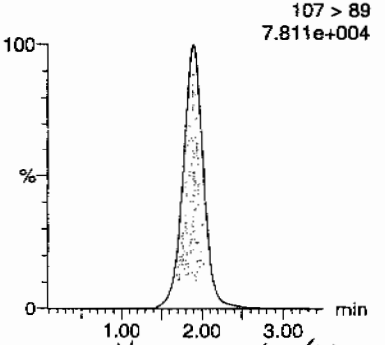

Hum or lioko

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3021.983	3021.983	bb			0.0508	101.53	1.53	1282.6...	3.05
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	990.091	990.091	bb			0.0527	105.49	5.49	30.390	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22734.426	22734.426	bb			0.4674	93.48	-6.52	4696.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208049a
Date: 08-Feb-2010
Time: 19:08:31
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
OWJ
02-09-10

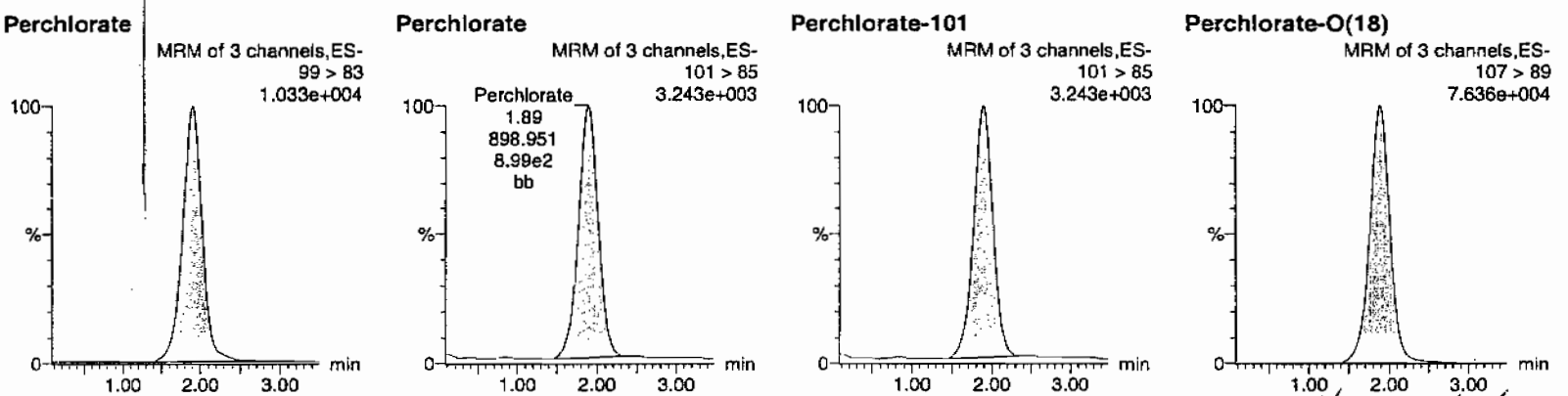

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3019.704	3019.704	bb			0.0507	101.45	1.45	1111.1...	3.36
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	898.951	898.951	bb			0.0479	95.78	-4.22	607.346	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22316.896	22316.896	bb			0.4588	91.76	-8.24	6290.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208062a
Date: 08-Feb-2010
Time: 20:33:51
ID: WCL100128-07CRI
Vial: 1:2,B

Pers
02-09-10

Perchlorate

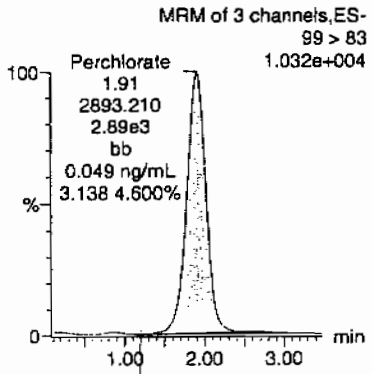

Perchlorate

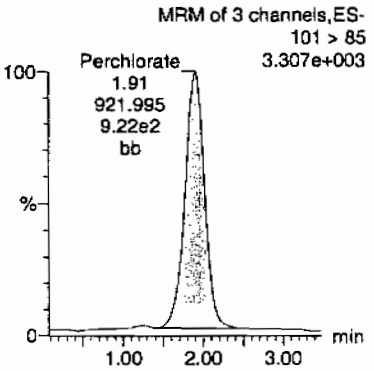

Perchlorate-101

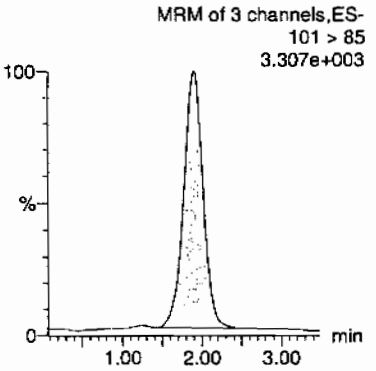

Perchlorate-O(18)

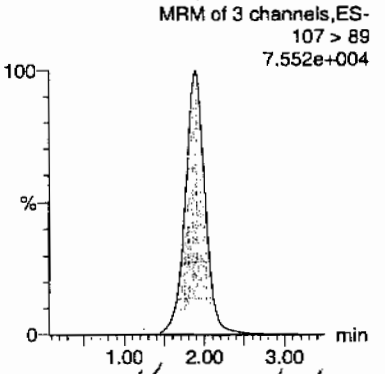

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	2893.210	2893.210	bb			0.0486	97.20	-2.80	767.866	3.14
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	921.995	921.995	bb			0.0491	98.24	-1.76	510.313	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	21979.691	21979.691	bb			0.4519	90.38	-9.62	1938.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208075a
Date: 08-Feb-2010
Time: 21:59:15
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
and
02-24-10

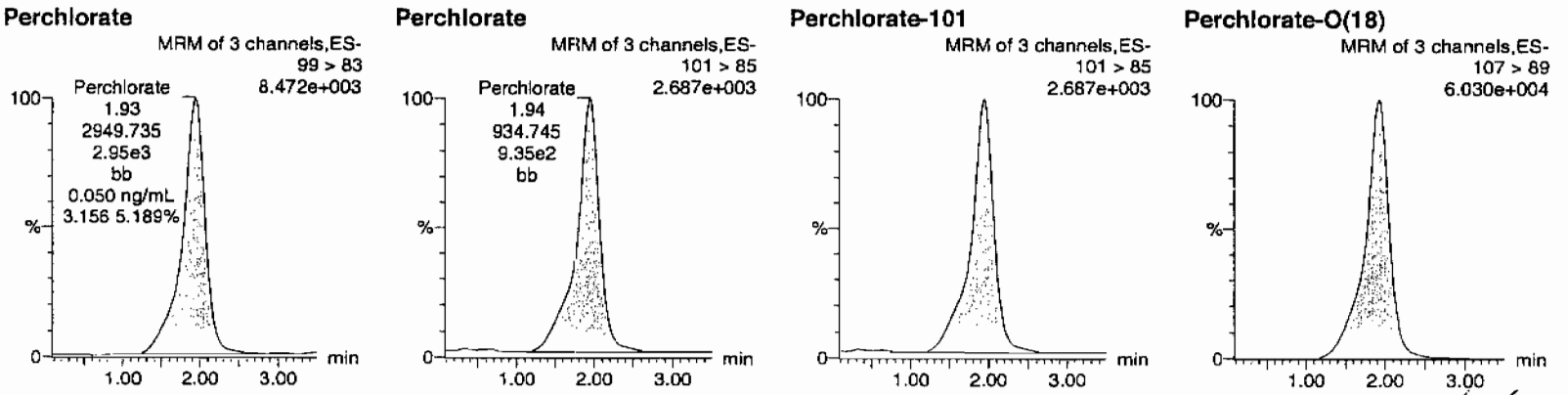

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.93	2949.735	2949.735	bb			0.0495	99.10	-0.90	555.102	3.16
WCL100128-07CRI	Perchlorate-101	101 > 85	1.94	934.745	934.745	bb			0.0498	99.59	-0.41	523.923	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.93	21809.545	21809.545	bb			0.4484	89.68	-10.32	1949.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1517-1

GEL Sample ID: 1202035565

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate Isotope Ratio						1	08-FEB-10 19:15	per0208050a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate-O(18)			0.457	ug/L		1	08-FEB-10 19:15	per0208050a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208050a
Date: 08-Feb-2010
Time: 19:15:05
ID: 1202035565
Vial: 2:1,A

LANL | 950028 | LCQ | MB | 1 |

WW 02-09-10

Perchlorate

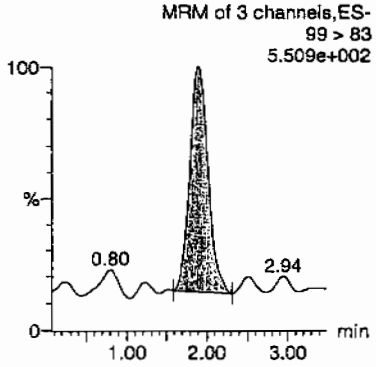

Perchlorate

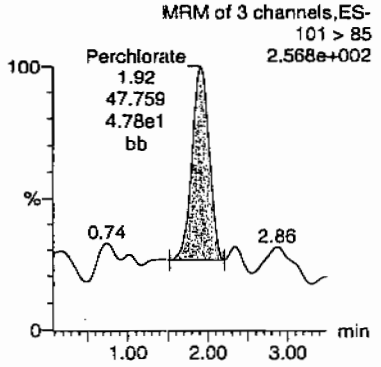

Perchlorate-101

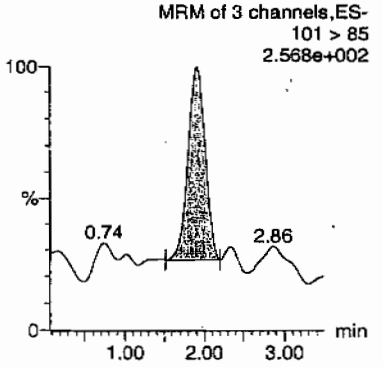

Perchlorate-O(18)

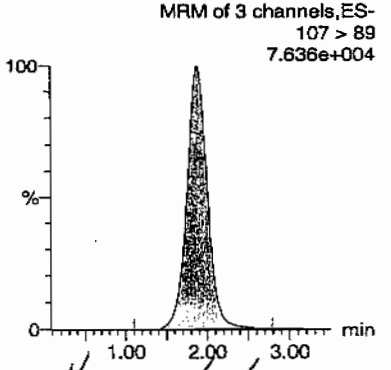

hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035565	Perchlorate	99 > 83	1.89	121.925	121.925	bb			0.0020			39.295	2.55
1202035565	Perchlorate-101	101 > 85	1.92	47.759	47.759	bb			0.0025			14.790	
1202035565	Perchlorate-O(18)	107 > 89	1.88	22209.346	22209.346	bb			0.4566	91.32	-8.68	5376.4...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1517-1

GEL Sample ID: 1202035566

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	08-FEB-10 19:21	per0208051a
	Perchlorate Isotope Ratio			3.01			1	08-FEB-10 19:21	per0208051a
14797-73-0	Perchlorate-101	.05	.2	0.207	ug/L		1	08-FEB-10 19:21	per0208051a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 19:21	per0208051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208051a
Date: 08-Feb-2010
Time: 19:21:48
ID: 1202035566
Vial: 2:1,B

|LANL|950028|L22|LC3|1|

GW 02-09-10

Perchlorate

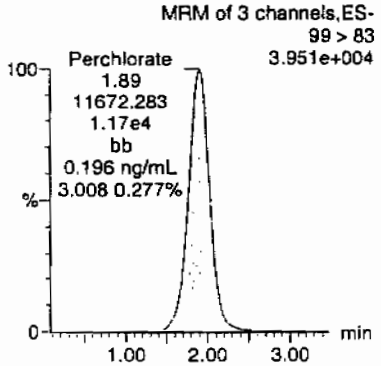

Perchlorate

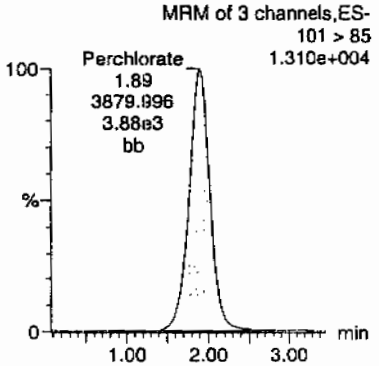

Perchlorate-101

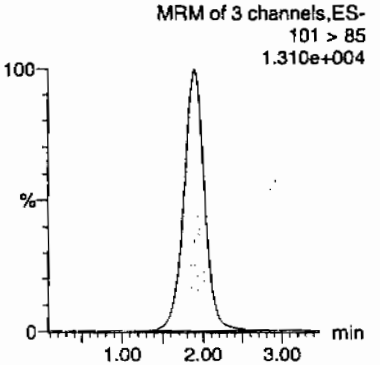

Perchlorate-O(18)

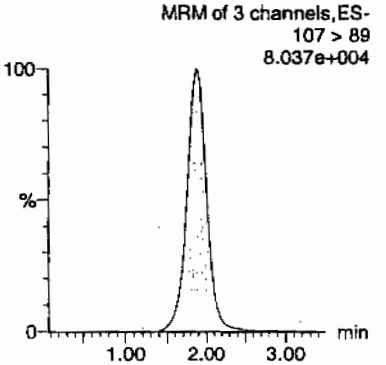

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035566	Perchlorate	99 > 83	1.89	11672.283	11672.283	bb			0.1961	98.04	-1.96	1706.5...	3.01
1202035566	Perchlorate-101	101 > 85	1.89	3879.996	3879.996	bb			0.2067	103.35	3.35	835.288	
1202035566	Perchlorate-O(18)	107 > 89	1.88	23514.770	23514.770	bb			0.4834	96.69	-3.31	6317.6...	

$$\frac{11672.283}{59530.6} = 0.1961$$

HMW 02/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950027 **Verified by:** _____

Analyst: Charles Wilson

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202035565 MB	07-FEB-2010 14:31:00	10	10	1
1202035566 LCS	07-FEB-2010 14:31:00	10	10	1
245911001	07-FEB-2010 14:31:00	10	10	1
1202035571 MS (245911001)	07-FEB-2010 14:31:00	10	10	1
1202035572 MSD (245911001)	07-FEB-2010 14:31:00	10	10	1
245922001	07-FEB-2010 14:31:00	10	10	1
245934001	07-FEB-2010 14:31:00	10	10	1
245934004	07-FEB-2010 14:31:00	10	10	1
245939001	07-FEB-2010 14:31:00	10	10	1
245939002	07-FEB-2010 14:31:00	10	10	1
245953001	07-FEB-2010 14:31:00	10	10	1
245965001	07-FEB-2010 14:31:00	10	10	1
245975001	07-FEB-2010 14:31:00	10	10	1
245981001	07-FEB-2010 14:31:00	10	10	1
246000001	07-FEB-2010 14:31:00	10	10	1
246007001	07-FEB-2010 14:31:00	10	10	1
246056001	07-FEB-2010 14:31:00	10	10	1
246056002	07-FEB-2010 14:31:00	10	10	1
246056003	07-FEB-2010 14:31:00	10	10	1
246056004	07-FEB-2010 14:31:00	10	10	1
246375001	07-FEB-2010 14:31:00	10	10	1
1202035567 MS (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035568 MSD (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035573 ICS	07-FEB-2010 14:31:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035573	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
LCS	1202035566	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035567	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035571	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035568	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035572	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL

Comments:

Desalting cartridges used: 100105-1-H & 091118-1-Ba

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/08/10
Extr. Injection Volume: 20uL
Sequence Number: per020810a
Initial Calibration Date: 02/08/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 02/10/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0208001a	IPB001	CWW	2/8/2010 13:54			1		USE	B
per0208002a	IPB001	CWW	2/8/2010 14:00			1		USE	B
per0208003a	WCLICAL-01	CWW	2/8/2010 14:07			1		USE	I
per0208004a	WCLICAL-02	CWW	2/8/2010 14:13			1		USE	I
per0208005a	WCLICAL-03	CWW	2/8/2010 14:20			1		USE	I
per0208006a	WCLICAL-04	CWW	2/8/2010 14:26			1		USE	I
per0208007a	WCLICAL-05	CWW	2/8/2010 14:33			1		USE	I
per0208008a	IPB002	CWW	2/8/2010 14:40			1		USE	B
per0208009a	WCLICV	CWW	2/8/2010 14:46			1		USE	C
per0208010a	IPB003	CWW	2/8/2010 14:53			1		USE	B
per0208011a	WCLCRI	CWW	2/8/2010 14:59			1		USE	C
per0208012a	1202035621	CWW	2/8/2010 15:06	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208013a	1202035622	CWW	2/8/2010 15:12	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208014a	1202035625	CWW	2/8/2010 15:19	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208015a	246431001	CWW	2/8/2010 15:25	950048	10-1650	1	LANL	DUSE-RE	S
per0208016a	1202035623	CWW	2/8/2010 15:32	950048	10-1650	1	LANL	DUSE-RE	S
per0208017a	1202035624	CWW	2/8/2010 15:39	950048	10-1650	1	LANL	DUSE-RE	S
per0208018a	246431002	CWW	2/8/2010 15:45	950048	10-1650	1	LANL	DUSE-RE	S
per0208019a	246431003	CWW	2/8/2010 15:52	950048	10-1650	1	LANL	DUSE-RE	S
per0208020a	246431004	CWW	2/8/2010 15:58	950048	10-1650	1	LANL	DUSE-RE	S
per0208021a	WCLCCV	CWW	2/8/2010 16:05			1		USE	C
per0208022a	IPB004	CWW	2/8/2010 16:11			1		USE	B
per0208023a	WCLCRI	CWW	2/8/2010 16:18			1		USE	C
per0208024a	246472001	CWW	2/8/2010 16:24	950048	10-1640	1	LANL	DUSE-RE	S
per0208025a	246472002	CWW	2/8/2010 16:31	950048	10-1640	1	LANL	DUSE-RE	S
per0208026a	IPB005	CWW	2/8/2010 16:37			1		USE	B
per0208027a	1202029082	CWW	2/8/2010 16:44	947249	VARIOUS	1	LANL	USE	S
per0208028a	1202029083	CWW	2/8/2010 16:51	947249	VARIOUS	1	LANL	USE	S
per0208029a	1202029088	CWW	2/8/2010 16:57	947249	VARIOUS	1	LANL	USE	S

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per0208030a	245605003	CWW	2/8/2010 17:04	947249	10-1413	200	LANL	USE	S
per0208031a	245608002	CWW	2/8/2010 17:10	947249	10-1415	1	LANL	USE	S
per0208032a	245673001	CWW	2/8/2010 17:17	947249	10-1442	100	LANL	USE	S
per0208033a	245673003	CWW	2/8/2010 17:23	947249	10-1442	200	LANL	USE	S
per0208034a	WCLCCV	CWW	2/8/2010 17:30			1		USE	C
per0208035a	IPB006	CWW	2/8/2010 17:36			1		USE	B
per0208036a	WCLCRI	CWW	2/8/2010 17:43			1		USE	C
per0208037a	245673006	CWW	2/8/2010 17:49	947249	10-1442	200	LANL	USE	S
per0208038a	245676001	CWW	2/8/2010 17:56	947249	10-1446	1	LANL	USE	S
per0208039a	1202029086	CWW	2/8/2010 18:03	947249	10-1446	1	LANL	USE	S
per0208040a	1202029087	CWW	2/8/2010 18:09	947249	10-1446	1	LANL	USE	S
per0208041a	245791001	CWW	2/8/2010 18:16	947249	10-1467	1	LANL	USE	S
per0208042a	1202029084	CWW	2/8/2010 18:22	947249	10-1467	1	LANL	USE	S
per0208043a	1202029085	CWW	2/8/2010 18:29	947249	10-1467	1	LANL	USE	S
per0208044a	245791003	CWW	2/8/2010 18:35	947249	10-1467	1	LANL	USE	S
per0208045a	245791006	CWW	2/8/2010 18:42	947249	10-1467	1	LANL	USE	S
per0208046a	245791007	CWW	2/8/2010 18:48	947249	10-1467	1	LANL	USE	S
per0208047a	WCLCCV	CWW	2/8/2010 18:55			1		USE	C
per0208048a	IPB007	CWW	2/8/2010 19:01			1		USE	B
per0208049a	WCLCRI	CWW	2/8/2010 19:08			1		USE	C
per0208050a	1202035565	CWW	2/8/2010 19:15	950028	VARIOUS	1	LANL	USE	S
per0208051a	1202035566	CWW	2/8/2010 19:21	950028	VARIOUS	1	LANL	USE	S
per0208052a	1202035573	CWW	2/8/2010 19:28	950028	VARIOUS	1	LANL	USE	S
per0208053a	245911001	CWW	2/8/2010 19:34	950028	10-1487-1	1	LANL	USE	S
per0208054a	1202035571	CWW	2/8/2010 19:41	950028	10-1487-1	1	LANL	USE	S
per0208055a	1202035572	CWW	2/8/2010 19:47	950028	10-1487-1	1	LANL	USE	S
per0208056a	245922001	CWW	2/8/2010 19:54	950028	10-1493-1	1	LANL	USE	S
per0208057a	245934001	CWW	2/8/2010 20:00	950028	10-1502	1	LANL	DUSE-DL	S
per0208058a	245934004	CWW	2/8/2010 20:07	950028	10-1502	1	LANL	DUSE-RA	S
per0208059a	245939001	CWW	2/8/2010 20:14	950028	10-1506-1	1	LANL	USE	S
per0208060a	WCLCCV	CWW	2/8/2010 20:20			1		USE	C
per0208061a	IPB008	CWW	2/8/2010 20:27			1		USE	B
per0208062a	WCLCRI	CWW	2/8/2010 20:33			1		USE	C
per0208063a	245939002	CWW	2/8/2010 20:40	950028	10-1506-1	1	LANL	USE	S
per0208064a	245953001	CWW	2/8/2010 20:47	950028	10-1508-1	1	LANL	USE	S
per0208065a	245965001	CWW	2/8/2010 20:53	950028	10-1511-1	1	LANL	USE	S
per0208066a	245975001	CWW	2/8/2010 21:00	950028	10-1512-1	1	LANL	USE	S

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per0208067a	245981001	CWW	2/8/2010 21:06	950028	10-1514-1	1	LANL	USE	S
per0208068a	246000001	CWW	2/8/2010 21:13	950028	10-1517-1	1	LANL	USE	S
per0208069a	246007001	CWW	2/8/2010 21:19	950028	10-1520-1	1	LANL	USE	S
per0208070a	246056001	CWW	2/8/2010 21:26	950028	10-1545-1	1	LANL	USE	S
per0208071a	246056002	CWW	2/8/2010 21:32	950028	10-1545-1	1	LANL	USE	S
per0208072a	246056003	CWW	2/8/2010 21:39	950028	10-1545-1	1	LANL	USE	S
per0208073a	WCLCCV	CWW	2/8/2010 21:45			1		USE	C
per0208074a	IPB009	CWW	2/8/2010 21:52			1		USE	B
per0208075a	WCLCRI	CWW	2/8/2010 21:59			1		USE	C
per0208076a	246056004	CWW	2/8/2010 22:05	950028	10-1545-1	1	LANL	USE	S
per0208077a	246375001	CWW	2/8/2010 22:12	950028	10-1609	1	LANL	USE	S
per0208078a	1202035567	CWW	2/8/2010 22:19	950028	10-1609	1	LANL	USE	S
per0208079a	1202035568	CWW	2/8/2010 22:25	950028	10-1609	1	LANL	USE	S
per0208080a	IPB010	CWW	2/8/2010 22:32			1		USE	B
per0208081a	1262643 Supp	CWW	2/8/2010 22:38	Screen	Inhouse	1	GEL	DUSE	S
per0208082a	1202035625	CWW	2/8/2010 22:45	950048	VARIOUS	1	LANL	DUSE	S
per0208083a	WCLCCV	CWW	2/8/2010 22:52			1		USE	C
per0208084a	IPB011	CWW	2/8/2010 22:58			1		USE	B
per0208085a	WCLCRI	CWW	2/8/2010 23:05			1		USE	C

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208054a
Date: 08-Feb-2010
Time: 19:41:23
ID: 1202035571 |LANL|950028|LCQ|MS|1|
Vial: 2:1,E

WW 02-09-10

Perchlorate

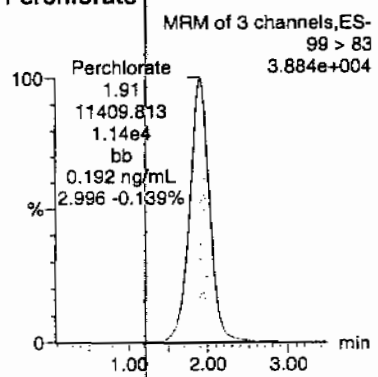

Perchlorate

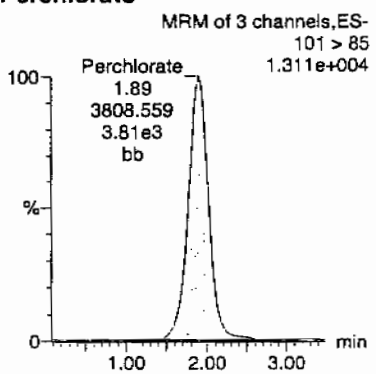

Perchlorate-101

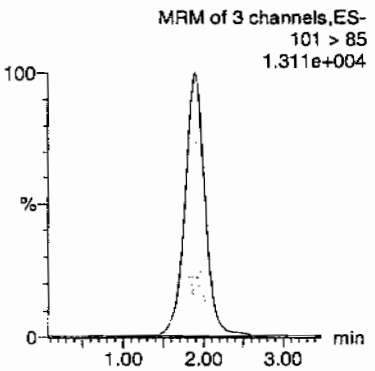

Perchlorate-O(18)

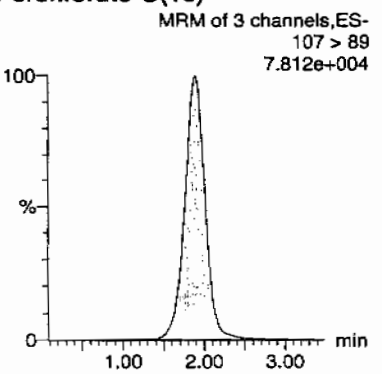

Hmc 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035571	Perchlorate	99 > 83	1.91	11409.813	11409.813	bb			0.1917	95.83	-4.17	2471.6...	3.00
1202035571	Perchlorate-101	101 > 85	1.89	3808.559	3808.559	bb			0.2029	101.45	1.45	676.220	
1202035571	Perchlorate-O(18)	107 > 89	1.89	22745.916	22745.916	bb			0.4676	93.53	-6.47	4602.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208055a
Date: 08-Feb-2010
Time: 19:47:53
ID: 1202035572
Vial: 2:1,F

|LANL|950028|LCQ|MSD|1|

CWW 02-09-10

Perchlorate

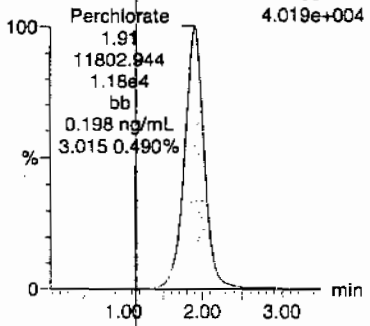

Perchlorate

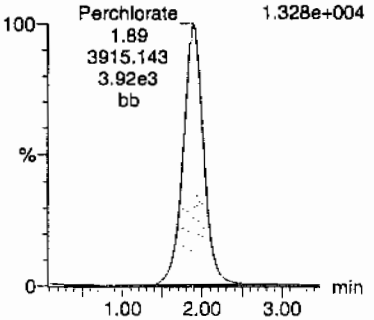

Perchlorate-101

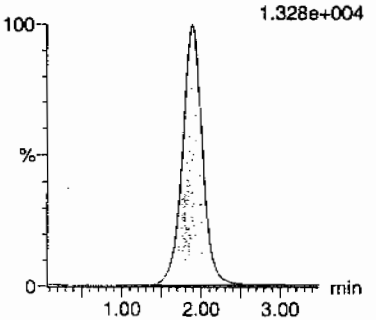

Perchlorate-O(18)

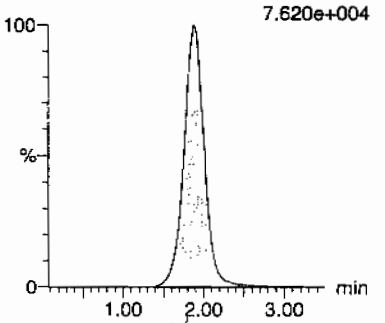

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035572	Perchlorate	99 > 83	1.91	11802.944	11802.944	bb			0.1983	99.13	-0.87	5921.1...	3.01
1202035572	Perchlorate-101	101 > 85	1.89	3915.143	3915.143	bb			0.2086	104.29	4.29	847.965	
1202035572	Perchlorate-O(18)	107 > 89	1.89	22449.852	22449.852	bb			0.4616	92.31	-7.69	7045.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1517

Sample Analysis

Sample ID	Client ID
245998001	RE15-10-8122
245998002	RE15-10-8112
245998003	RE15-10-8113
245998004	RE15-10-8116
245998005	RE15-10-8119
245998006	RE15-10-8114
245998007	RE15-10-8115
245998008	RE15-10-8117
245998009	RE15-10-8118
1202032633	Method Blank (MB) **ICP**
1202032638	Laboratory Control Sample (LCS)
1202032635	245998001(RE15-10-8122L) Serial Dilution (SD)
1202032634	245998001(RE15-10-8122D) Sample Duplicate (DUP)
1202032636	245998001(RE15-10-8122S) Matrix Spike (MS)
1202032637	245998001(RE15-10-8122SD) Matrix Spike Duplicate (MSD)
1202032646	Method Blank (MB) **ICP-MS**
1202032651	Laboratory Control Sample (LCS)
1202032648	245998001(RE15-10-8122L) Serial Dilution (SD)
1202032647	245998001(RE15-10-8122D) Sample Duplicate (DUP)
1202032649	245998001(RE15-10-8122S) Matrix Spike (MS)

1202032650	245998001(RE15-10-8122SD) Matrix Spike Duplicate (MSD)
1202039216	Method Blank (MB) **CVAA**
1202039217	Laboratory Control Sample (LCS)
1202039220	246012001(RE46-10-12033L) Serial Dilution (SD)
1202039218	246012001(RE46-10-12033D) Sample Duplicate (DUP)
1202039219	246012001(RE46-10-12033S) Matrix Spike (MS)
1202039221	246012001(RE46-10-12033SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	948776, 948782 and 951523
Prep Batch :	948773, 948780 and 951522
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-

7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standards met the advisory control limits with the exception of uranium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 245998001 (RE15-10-8122) and 246012001 (RE46-10-12033).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of antimony, potassium, nickel and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of antimony, potassium, nickel and selenium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of manganese, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of aluminum, cobalt, iron, lead, manganese, vanadium and zinc, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The sample 245998008 (RE15-10-8117) required a dilution for uranium in order to bring over range concentrations within the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 793598 and 796836. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998001 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8122 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13600000	ug/Kg	*	7780	22900	22900	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-36-0	Antimony	1360	ug/Kg	N	377	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-38-2	Arsenic	3.05	mg/kg		0.229	1.14	1.14	2	MS	RMJ	02/27/10 10:21	100226-4	948782
7440-39-3	Barium	252000	ug/Kg		114	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-41-7	Beryllium	1.42	mg/kg		0.0229	0.114	0.114	2	MS	RMJ	02/27/10 10:21	100226-4	948782
7440-43-9	Cadmium	572	ug/Kg	U	114	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-70-2	Calcium	5870000	ug/Kg		9150	28600	28600	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-47-3	Chromium	20500	ug/Kg		172	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-48-4	Cobalt	4480	ug/Kg	*	172	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-50-8	Copper	7570	ug/Kg		343	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-89-6	Iron	13700000	ug/Kg	*	9150	28600	28600	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-92-1	Lead	12200	ug/Kg	*	286	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-95-4	Magnesium	2660000	ug/Kg		9720	34300	34300	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-96-5	Manganese	246000	ug/Kg	*	229	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7439-97-6	Mercury	20.7	ug/kg		4.47	13.2	13.2	1	AV	JXL1	02/18/10 14:56	021810S1-7	951523
7440-02-0	Nickel	11.8	mg/kg	N	0.114	0.457	0.457	2	MS	RMJ	02/27/10 10:21	100226-4	948782
7440-09-7	Potassium	1360000	ug/Kg	N	7320	28600	28600	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7782-49-2	Selenium	1.14	mg/kg	UN	0.572	1.14	1.14	2	MS	RMJ	02/27/10 10:21	100226-4	948782
7440-22-4	Silver	572	ug/Kg	U	114	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-23-5	Sodium	112000	ug/Kg		8000	28600	28600	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-28-0	Thallium	0.303	mg/kg		0.0686	0.229	0.229	2	MS	RMJ	02/26/10 12:08	100225-2	948782
7440-61-1	Uranium	1.11	mg/kg		0.0151	0.0457	0.0457	2	MS	RMJ	02/27/10 07:55	100226-3	948782
7440-62-2	Vanadium	24700	ug/Kg	*	114	572	572	1	P	JWJ	02/20/10 01:10	021910A-1	948776
7440-66-6	Zinc	25300	ug/Kg	*	377	1140	1140	1	P	JWJ	02/20/10 01:10	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.514	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.536	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998002 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8112 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9620000	ug/Kg	*	10100	29800	29800	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-36-0	Antimony	678	ug/Kg	JN	492	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-38-2	Arsenic	2.28	mg/kg		0.298	1.49	1.49	2	MS	RMJ	02/27/10 10:41	100226-4	948782
7440-39-3	Barium	175000	ug/Kg		149	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-41-7	Beryllium	1.26	mg/kg		0.0298	0.149	0.149	2	MS	RMJ	02/27/10 10:41	100226-4	948782
7440-43-9	Cadmium	746	ug/Kg	U	149	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-70-2	Calcium	2370000	ug/Kg		11900	37300	37300	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-47-3	Chromium	9600	ug/Kg		224	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-48-4	Cobalt	5070	ug/Kg	*	224	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-50-8	Copper	8460	ug/Kg		447	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-89-6	Iron	11900000	ug/Kg	*	11900	37300	37300	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-92-1	Lead	13600	ug/Kg	*	373	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-95-4	Magnesium	1840000	ug/Kg		12700	44700	44700	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-96-5	Manganese	337000	ug/Kg	*	298	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7439-97-6	Mercury	16	ug/kg	U	5.44	16	16	1	AV	JXL1	02/18/10 14:58	021810S1-7	951523
7440-02-0	Nickel	10.7	mg/kg	N	0.149	0.597	0.597	2	MS	RMJ	02/27/10 10:41	100226-4	948782
7440-09-7	Potassium	1800000	ug/Kg	N	9550	37300	37300	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7782-49-2	Selenium	1.49	mg/kg	UN	0.746	1.49	1.49	2	MS	RMJ	02/27/10 10:41	100226-4	948782
7440-22-4	Silver	746	ug/Kg	U	149	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-23-5	Sodium	44700	ug/Kg		10400	37300	37300	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-28-0	Thallium	0.259	mg/kg	J	0.0895	0.298	0.298	2	MS	RMJ	02/26/10 12:38	100225-2	948782
7440-61-1	Uranium	10.4	mg/kg		0.0197	0.0597	0.0597	2	MS	RMJ	02/27/10 08:10	100226-3	948782
7440-62-2	Vanadium	24500	ug/Kg	*	149	746	746	1	P	JWJ	02/20/10 01:27	021910A-1	948776
7440-66-6	Zinc	25300	ug/Kg	*	492	1490	1490	1	P	JWJ	02/20/10 01:27	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.5	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.559	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998003 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8113 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	17200000	ug/Kg	*	7470	22000	22000	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-36-0	Antimony	560	ug/Kg	JN	363	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-38-2	Arsenic	1.84	mg/kg		0.223	1.12	1.12	2	MS	RMJ	02/27/10 10:52	100226-4	948782
7440-39-3	Barium	237000	ug/Kg		110	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-41-7	Beryllium	1.23	mg/kg		0.0223	0.112	0.112	2	MS	RMJ	02/27/10 10:52	100226-4	948782
7440-43-9	Cadmium	550	ug/Kg	U	110	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-70-2	Calcium	3910000	ug/Kg		8790	27500	27500	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-47-3	Chromium	12800	ug/Kg		165	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-48-4	Cobalt	5090	ug/Kg	*	165	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-50-8	Copper	6630	ug/Kg		330	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-89-6	Iron	14900000	ug/Kg	*	8790	27500	27500	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-92-1	Lead	13000	ug/Kg	*	275	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-95-4	Magnesium	2330000	ug/Kg		9340	33000	33000	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-96-5	Manganese	324000	ug/Kg	*	220	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7439-97-6	Mercury	13.4	ug/kg		4.43	13	13	1	AV	JXL1	02/18/10 15:00	021810S1-7	951523
7440-02-0	Nickel	8.87	mg/kg	N	0.112	0.447	0.447	2	MS	RMJ	02/27/10 10:52	100226-4	948782
7440-09-7	Potassium	1760000	ug/Kg	N	7030	27500	27500	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7782-49-2	Selenium	1.12	mg/kg	UN	0.558	1.12	1.12	2	MS	RMJ	02/28/10 02:33	100227-6	948782
7440-22-4	Silver	550	ug/Kg	U	110	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-23-5	Sodium	121000	ug/Kg		7690	27500	27500	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-28-0	Thallium	0.217	mg/kg	J	0.067	0.223	0.223	2	MS	RMJ	02/26/10 12:44	100225-2	948782
7440-61-1	Uranium	1.03	mg/kg		0.0147	0.0447	0.0447	2	MS	RMJ	02/27/10 08:13	100226-3	948782
7440-62-2	Vanadium	29100	ug/Kg	*	110	550	550	1	P	JWJ	02/20/10 01:31	021910A-1	948776
7440-66-6	Zinc	27300	ug/Kg	*	363	1100	1100	1	P	JWJ	02/20/10 01:31	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.51	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.516	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998004 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8116 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 71

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8570000	ug/Kg	*	8880	26100	26100	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-36-0	Antimony	674	ug/Kg	JN	431	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-38-2	Arsenic	1.66	mg/kg		0.264	1.32	1.32	2	MS	RMJ	02/27/10 10:56	100226-4	948782
7440-39-3	Barium	142000	ug/Kg		131	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-41-7	Beryllium	1.04	mg/kg		0.0264	0.132	0.132	2	MS	RMJ	02/27/10 10:56	100226-4	948782
7440-43-9	Cadmium	653	ug/Kg	U	131	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-70-2	Calcium	1660000	ug/Kg		10400	32600	32600	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-47-3	Chromium	9650	ug/Kg		196	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-48-4	Cobalt	4160	ug/Kg	*	196	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-50-8	Copper	7660	ug/Kg		392	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-89-6	Iron	11600000	ug/Kg	*	10400	32600	32600	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-92-1	Lead	12900	ug/Kg	*	326	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-95-4	Magnesium	1580000	ug/Kg		11100	39200	39200	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-96-5	Manganese	325000	ug/Kg	*	261	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7439-97-6	Mercury	11	ug/kg	J	5.64	16.6	16.6	1	AV	JXL1	02/18/10 15:02	021810S1-7	951523
7440-02-0	Nickel	8.14	mg/kg	N	0.132	0.528	0.528	2	MS	RMJ	02/27/10 10:56	100226-4	948782
7440-09-7	Potassium	1490000	ug/Kg	N	8360	32600	32600	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7782-49-2	Selenium	1.32	mg/kg	UN	0.66	1.32	1.32	2	MS	RMJ	02/27/10 10:56	100226-4	948782
7440-22-4	Silver	653	ug/Kg	U	131	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-23-5	Sodium	55400	ug/Kg		9140	32600	32600	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-28-0	Thallium	0.230	mg/kg	J	0.0792	0.264	0.264	2	MS	RMJ	02/26/10 12:49	100225-2	948782
7440-61-1	Uranium	11.8	mg/kg		0.0174	0.0528	0.0528	2	MS	RMJ	02/27/10 08:23	100226-3	948782
7440-62-2	Vanadium	22000	ug/Kg	*	131	653	653	1	P	JWJ	02/20/10 01:42	021910A-1	948776
7440-66-6	Zinc	28500	ug/Kg	*	431	1310	1310	1	P	JWJ	02/20/10 01:42	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.536	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.53	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.506	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998005 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8119 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16900000	ug/Kg	*	7630	22500	22500	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-36-0	Antimony	1020	ug/Kg	JN	371	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-38-2	Arsenic	2.48	mg/kg		0.224	1.12	1.12	2	MS	RMJ	02/27/10 11:00	100226-4	948782
7440-39-3	Barium	405000	ug/Kg		112	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-41-7	Beryllium	1.53	mg/kg		0.0224	0.112	0.112	2	MS	RMJ	02/27/10 11:00	100226-4	948782
7440-43-9	Cadmium	561	ug/Kg	U	112	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-70-2	Calcium	12100000	ug/Kg		8980	28100	28100	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-47-3	Chromium	16200	ug/Kg		168	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-48-4	Cobalt	4620	ug/Kg	*	168	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-50-8	Copper	7380	ug/Kg		337	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-89-6	Iron	15100000	ug/Kg	*	8980	28100	28100	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-92-1	Lead	13800	ug/Kg	*	281	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-95-4	Magnesium	2910000	ug/Kg		9540	33700	33700	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-96-5	Manganese	269000	ug/Kg	*	225	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7439-97-6	Mercury	10.3	ug/kg	J	4.33	12.7	12.7	1	AV	JXL1	02/18/10 15:03	021810S1-7	951523
7440-02-0	Nickel	11.2	mg/kg	N	0.112	0.448	0.448	2	MS	RMJ	02/27/10 11:00	100226-4	948782
7440-09-7	Potassium	1890000	ug/Kg	N	7190	28100	28100	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7782-49-2	Selenium	1.12	mg/kg	UN	0.56	1.12	1.12	2	MS	RMJ	02/27/10 11:00	100226-4	948782
7440-22-4	Silver	561	ug/Kg	U	112	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-23-5	Sodium	307000	ug/Kg		7860	28100	28100	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-28-0	Thallium	0.246	mg/kg		0.0672	0.224	0.224	2	MS	RMJ	02/26/10 13:07	100225-2	948782
7440-61-1	Uranium	0.898	mg/kg		0.0148	0.0448	0.0448	2	MS	RMJ	02/27/10 08:26	100226-3	948782
7440-62-2	Vanadium	31200	ug/Kg	*	112	561	561	1	P	JWJ	02/20/10 01:46	021910A-1	948776
7440-66-6	Zinc	27200	ug/Kg	*	371	1120	1120	1	P	JWJ	02/20/10 01:46	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.503	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.531	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998006 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8114 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 56

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8940000	ug/Kg	*	12000	35300	35300	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-36-0	Antimony	1770	ug/Kg	UN	582	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-38-2	Arsenic	3.36	mg/kg		0.356	1.78	1.78	2	MS	RMJ	02/27/10 11:04	100226-4	948782
7440-39-3	Barium	229000	ug/Kg		177	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-41-7	Beryllium	1.26	mg/kg		0.0356	0.178	0.178	2	MS	RMJ	02/27/10 11:04	100226-4	948782
7440-43-9	Cadmium	883	ug/Kg	U	177	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-70-2	Calcium	5520000	ug/Kg		14100	44100	44100	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-47-3	Chromium	10900	ug/Kg		265	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-48-4	Cobalt	5570	ug/Kg	*	265	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-50-8	Copper	29900	ug/Kg		530	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-89-6	Iron	11800000	ug/Kg	*	14100	44100	44100	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-92-1	Lead	35800	ug/Kg	*	441	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-95-4	Magnesium	2050000	ug/Kg		15000	53000	53000	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-96-5	Manganese	797000	ug/Kg	*	353	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7439-97-6	Mercury	42.8	ug/kg		7.12	20.9	20.9	1	AV	JXL1	02/18/10 15:05	021810S1-7	951523
7440-02-0	Nickel	10.6	mg/kg	N	0.178	0.712	0.712	2	MS	RMJ	02/27/10 11:04	100226-4	948782
7440-09-7	Potassium	2040000	ug/Kg	N	11300	44100	44100	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7782-49-2	Selenium	1.78	mg/kg	UN	0.89	1.78	1.78	2	MS	RMJ	02/27/10 11:04	100226-4	948782
7440-22-4	Silver	883	ug/Kg	U	177	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-23-5	Sodium	50300	ug/Kg		12400	44100	44100	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-28-0	Thallium	0.226	mg/kg	J	0.107	0.356	0.356	2	MS	RMJ	02/26/10 13:13	100225-2	948782
7440-61-1	Uranium	23.8	mg/kg		0.0235	0.0712	0.0712	2	MS	RMJ	02/27/10 08:29	100226-3	948782
7440-62-2	Vanadium	23800	ug/Kg	*	177	883	883	1	P	JWJ	02/20/10 01:49	021910A-1	948776
7440-66-6	Zinc	43400	ug/Kg	*	582	1770	1770	1	P	JWJ	02/20/10 01:49	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.505	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.501	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.511	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998007 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8115 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13700000	ug/Kg	*	7950	23400	23400	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-36-0	Antimony	1510	ug/Kg	N	386	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-38-2	Arsenic	2.05	mg/kg		0.227	1.14	1.14	2	MS	RMJ	02/27/10 11:08	100226-4	948782
7440-39-3	Barium	236000	ug/Kg		117	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-41-7	Beryllium	1.25	mg/kg		0.0227	0.114	0.114	2	MS	RMJ	02/27/10 11:08	100226-4	948782
7440-43-9	Cadmium	584	ug/Kg	U	117	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-70-2	Calcium	5250000	ug/Kg		9350	29200	29200	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-47-3	Chromium	21300	ug/Kg		175	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-48-4	Cobalt	5830	ug/Kg	*	175	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-50-8	Copper	8040	ug/Kg		351	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-89-6	Iron	14700000	ug/Kg	*	9350	29200	29200	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-92-1	Lead	14600	ug/Kg	*	292	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-95-4	Magnesium	2790000	ug/Kg		9940	35100	35100	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-96-5	Manganese	359000	ug/Kg	*	234	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7439-97-6	Mercury	22.3	ug/kg		4.12	12.1	12.1	1	AV	JXL1	02/18/10 15:07	021810S1-7	951523
7440-02-0	Nickel	10.9	mg/kg	N	0.114	0.454	0.454	2	MS	RMJ	02/27/10 11:08	100226-4	948782
7440-09-7	Potassium	1410000	ug/Kg	N	7480	29200	29200	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7782-49-2	Selenium	1.14	mg/kg	UN	0.568	1.14	1.14	2	MS	RMJ	02/27/10 11:08	100226-4	948782
7440-22-4	Silver	584	ug/Kg	U	117	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-23-5	Sodium	114000	ug/Kg		8180	29200	29200	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-28-0	Thallium	0.249	mg/kg		0.0681	0.227	0.227	2	MS	RMJ	02/26/10 13:19	100225-2	948782
7440-61-1	Uranium	1.17	mg/kg		0.015	0.0454	0.0454	2	MS	RMJ	02/27/10 08:32	100226-3	948782
7440-62-2	Vanadium	28100	ug/Kg	*	117	584	584	1	P	JWJ	02/20/10 01:53	021910A-1	948776
7440-66-6	Zinc	26000	ug/Kg	*	386	1170	1170	1	P	JWJ	02/20/10 01:53	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.502	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.517	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.581	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998008 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8117 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 92.8

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12500000	ug/Kg	*	7230	21300	21300	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-36-0	Antimony	437	ug/Kg	JN	351	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-38-2	Arsenic	2.16	mg/kg		0.206	1.03	1.03	2	MS	RMJ	02/27/10 11:12	100226-4	948782
7440-39-3	Barium	208000	ug/Kg		106	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-41-7	Beryllium	1.23	mg/kg		0.0206	0.103	0.103	2	MS	RMJ	02/27/10 11:12	100226-4	948782
7440-43-9	Cadmium	531	ug/Kg	U	106	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-70-2	Calcium	2490000	ug/Kg		8500	26600	26600	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-47-3	Chromium	12900	ug/Kg		159	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-48-4	Cobalt	6310	ug/Kg	*	159	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-50-8	Copper	9500	ug/Kg		319	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-89-6	Iron	14800000	ug/Kg	*	8500	26600	26600	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-92-1	Lead	18000	ug/Kg	*	266	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-95-4	Magnesium	2110000	ug/Kg		9030	31900	31900	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-96-5	Manganese	441000	ug/Kg	*	213	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7439-97-6	Mercury	14	ug/kg		4.05	11.9	11.9	1	AV	JXL1	02/18/10 15:09	021810S1-7	951523
7440-02-0	Nickel	9.87	mg/kg	N	0.103	0.413	0.413	2	MS	RMJ	02/27/10 11:12	100226-4	948782
7440-09-7	Potassium	1940000	ug/Kg	N	6800	26600	26600	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7782-49-2	Selenium	1.03	mg/kg	UN	0.516	1.03	1.03	2	MS	RMJ	02/28/10 02:47	100227-6	948782
7440-22-4	Silver	531	ug/Kg	U	106	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-23-5	Sodium	67600	ug/Kg		7440	26600	26600	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-28-0	Thallium	0.242	mg/kg		0.0619	0.206	0.206	2	MS	RMJ	02/26/10 13:25	100225-2	948782
7440-61-1	Uranium	29.5	mg/kg		0.0273	0.0826	0.0826	4	MS	RMJ	02/28/10 01:53	100227-5	948782
7440-62-2	Vanadium	30800	ug/Kg	*	106	531	531	1	P	JWJ	02/20/10 01:57	021910A-1	948776
7440-66-6	Zinc	34500	ug/Kg	*	351	1060	1060	1	P	JWJ	02/20/10 01:57	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.507	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.522	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.543	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 245998009 **BASIS:** Dry Weight **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8118 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: SOIL **%SOLIDS:** 72

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11200000	ug/Kg	*	9160	26900	26900	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-36-0	Antimony	556	ug/Kg	JN	445	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-38-2	Arsenic	1.62	mg/kg		0.263	1.31	1.31	2	MS	RMJ	02/27/10 11:16	100226-4	948782
7440-39-3	Barium	189000	ug/Kg		135	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-41-7	Beryllium	0.927	mg/kg		0.0263	0.131	0.131	2	MS	RMJ	02/27/10 11:16	100226-4	948782
7440-43-9	Cadmium	674	ug/Kg	U	135	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-70-2	Calcium	2380000	ug/Kg		10800	33700	33700	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-47-3	Chromium	17600	ug/Kg		202	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-48-4	Cobalt	6850	ug/Kg	*	202	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-50-8	Copper	14200	ug/Kg		404	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-89-6	Iron	14700000	ug/Kg	*	10800	33700	33700	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-92-1	Lead	16800	ug/Kg	*	337	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-95-4	Magnesium	2010000	ug/Kg		11500	40400	40400	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-96-5	Manganese	458000	ug/Kg	*	269	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7439-97-6	Mercury	11.4	ug/kg	J	5.32	15.6	15.6	1	AV	JXL1	02/18/10 15:15	021810S1-7	951523
7440-02-0	Nickel	8.21	mg/kg	N	0.131	0.526	0.526	2	MS	RMJ	02/27/10 11:16	100226-4	948782
7440-09-7	Potassium	1990000	ug/Kg	N	8620	33700	33700	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7782-49-2	Selenium	1.31	mg/kg	UN	0.657	1.31	1.31	2	MS	RMJ	02/27/10 11:16	100226-4	948782
7440-22-4	Silver	674	ug/Kg	U	135	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-23-5	Sodium	68200	ug/Kg		9430	33700	33700	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-28-0	Thallium	0.183	mg/kg	J	0.0788	0.263	0.263	2	MS	RMJ	02/26/10 13:31	100225-2	948782
7440-61-1	Uranium	18.9	mg/kg		0.0173	0.0526	0.0526	2	MS	RMJ	02/27/10 08:38	100226-3	948782
7440-62-2	Vanadium	30500	ug/Kg	*	135	674	674	1	P	JWJ	02/20/10 02:00	021910A-1	948776
7440-66-6	Zinc	30200	ug/Kg	*	445	1350	1350	1	P	JWJ	02/20/10 02:00	021910A-1	948776

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948776	948773	SW846 3050B	0.512	g	50	mL	02/10/10	FGA
948782	948780	SW846 3050B	0.525	g	50	mL	02/10/10	FGA
951523	951522	SW846 7471A Prep	0.529	g	30	mL	02/17/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	90.0 - 110.0	AV	18-FEB-10 09:57	021810S1-7
	Aluminum	5190	ug/L	5000	ug/L	103.9	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Antimony	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Barium	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Cadmium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Chromium	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Copper	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Lead	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Potassium	2560	ug/L	2500	ug/L	102.4	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Silver	262	ug/L	250	ug/L	104.9	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Sodium	2570	ug/L	2500	ug/L	102.8	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Zinc	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	19-FEB-10 16:40	021910A-1
	Thallium	49.1	ug/L	50	ug/L	98.2	90.0 - 110.0	MS	26-FEB-10 10:45	100225-2
	Uranium	53.2	ug/L	50	ug/L	106.5	90.0 - 110.0	MS	27-FEB-10 07:21	100226-3
	Arsenic	47	ug/L	50	ug/L	94	90.0 - 110.0	MS	27-FEB-10 09:49	100226-4
	Beryllium	50	ug/L	50	ug/L	100	90.0 - 110.0	MS	27-FEB-10 09:49	100226-4
	Nickel	52	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	27-FEB-10 09:49	100226-4
	Selenium	51.9	ug/L	50	ug/L	103.7	90.0 - 110.0	MS	27-FEB-10 09:49	100226-4
	Uranium	51	ug/L	50	ug/L	102	90.0 - 110.0	MS	28-FEB-10 00:42	100227-5
	Selenium	49.3	ug/L	50	ug/L	98.6	90.0 - 110.0	MS	28-FEB-10 02:13	100227-6
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 - 120.0	AV	18-FEB-10 10:03	021810S1-7
	Aluminum	5300	ug/L	5000	ug/L	105.9	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1
	Antimony	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	19-FEB-10 17:03	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Cadmium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Calcium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Copper	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Iron	5350	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Lead	510	ug/L	500	ug/L	102	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Magnesium	5420	ug/L	5000	ug/L	108.5	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Manganese	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Potassium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Silver	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Zinc	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	19-FEB-10 17:03	021910A-1
	Thallium	47.8	ug/L	50	ug/L	95.6	90.0 – 110.0	MS	26-FEB-10 11:15	100225-2
	Uranium	53.1	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	27-FEB-10 07:36	100226-3
	Arsenic	47.4	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	27-FEB-10 10:07	100226-4
	Beryllium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	27-FEB-10 10:07	100226-4
	Nickel	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	27-FEB-10 10:07	100226-4
	Selenium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	27-FEB-10 10:07	100226-4
	Uranium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	28-FEB-10 00:58	100227-5
	Selenium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	28-FEB-10 02:27	100227-6
CCV02										
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 – 120.0	AV	18-FEB-10 10:27	021810S1-7
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Antimony	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1
	Calcium	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	19-FEB-10 17:21	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Cobalt	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Copper	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Iron	5390	ug/L	5000	ug/L	107.7	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Lead	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Magnesium	5440	ug/L	5000	ug/L	108.8	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Manganese	515	ug/L	500	ug/L	103	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Potassium	5260	ug/L	5000	ug/L	105.2	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Silver	510	ug/L	500	ug/L	101.9	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Sodium	10700	ug/L	10000	ug/L	106.9	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Vanadium	509	ug/L	500	ug/L	101.7	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Zinc	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	19-FEB-10 17:21	021910A-1
	Thallium	49	ug/L	50	ug/L	97.9	90.0 - 110.0	MS	26-FEB-10 11:32	100225-2
	Uranium	52.8	ug/L	50	ug/L	105.6	90.0 - 110.0	MS	27-FEB-10 07:48	100226-3
	Arsenic	47.2	ug/L	50	ug/L	94.4	90.0 - 110.0	MS	27-FEB-10 10:45	100226-4
	Beryllium	49.1	ug/L	50	ug/L	98.1	90.0 - 110.0	MS	27-FEB-10 10:45	100226-4
	Nickel	51.4	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	27-FEB-10 10:45	100226-4
	Selenium	50.3	ug/L	50	ug/L	100.7	90.0 - 110.0	MS	27-FEB-10 10:45	100226-4
	Uranium	48.4	ug/L	50	ug/L	96.7	90.0 - 110.0	MS	28-FEB-10 01:10	100227-5
	Selenium	50.8	ug/L	50	ug/L	101.6	90.0 - 110.0	MS	28-FEB-10 02:39	100227-6
CCV03										
	Mercury	5.22	ug/L	5	ug/L	104.5	80.0 - 120.0	AV	18-FEB-10 10:51	021810S1-7
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 - 110.0	P	19-FEB-10 17:52	021910A-1
	Antimony	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	19-FEB-10 17:52	021910A-1
	Barium	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	19-FEB-10 17:52	021910A-1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	19-FEB-10 17:52	021910A-1
	Calcium	5140	ug/L	5000	ug/L	102.7	90.0 - 110.0	P	19-FEB-10 17:52	021910A-1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	19-FEB-10 17:52	021910A-1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 - 110.0	P	19-FEB-10 17:52	021910A-1
	Copper	501	ug/L	500	ug/L	100.1	90.0 - 110.0	P	19-FEB-10 17:52	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Lead	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Magnesium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Manganese	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Sodium	10500	ug/L	10000	ug/L	105.5	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	19–FEB–10 17:52	021910A–1
	Thallium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	26–FEB–10 11:56	100225–2
	Uranium	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	27–FEB–10 08:16	100226–3
	Arsenic	48.4	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	27–FEB–10 11:20	100226–4
	Beryllium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	27–FEB–10 11:20	100226–4
	Nickel	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	27–FEB–10 11:20	100226–4
	Selenium	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	27–FEB–10 11:20	100226–4
	Uranium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	28–FEB–10 01:44	100227–5
	Selenium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	28–FEB–10 02:50	100227–6
CCV04										
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	18–FEB–10 11:15	021810S1–7
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Antimony	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Barium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Lead	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1
	Magnesium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	19–FEB–10 18:24	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Potassium	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 18:24	021910A-1
	Thallium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	26-FEB-10 12:55	100225-2
	Uranium	54.8	ug/L	50	ug/L	109.6	90.0 – 110.0	MS	27-FEB-10 08:41	100226-3
	Uranium	48.2	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	28-FEB-10 01:56	100227-5
CCV05										
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	18-FEB-10 11:39	021810S1-7
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Antimony	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Cadmium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Calcium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Chromium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Cobalt	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Copper	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Lead	475	ug/L	500	ug/L	95	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Magnesium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Manganese	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Silver	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Vanadium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 18:57	021910A-1
	Thallium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	26-FEB-10 13:49	100225-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV06										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 - 120.0	AV	18-FEB-10 12:03	021810S1-7
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Antimony	482	ug/L	500	ug/L	96.5	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Barium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Cadmium	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Calcium	4940	ug/L	5000	ug/L	98.7	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Copper	480	ug/L	500	ug/L	96	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Lead	480	ug/L	500	ug/L	96	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Manganese	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Silver	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Sodium	9920	ug/L	10000	ug/L	99.2	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
	Zinc	484	ug/L	500	ug/L	96.9	90.0 - 110.0	P	19-FEB-10 19:26	021910A-1
CCV07										
	Mercury	5.07	ug/L	5	ug/L	101.3	80.0 - 120.0	AV	18-FEB-10 12:26	021810S1-7
	Aluminum	4840	ug/L	5000	ug/L	96.8	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Antimony	468	ug/L	500	ug/L	93.7	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Barium	478	ug/L	500	ug/L	95.7	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Cadmium	481	ug/L	500	ug/L	96.3	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Chromium	476	ug/L	500	ug/L	95.1	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Cobalt	480	ug/L	500	ug/L	96	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Copper	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1
	Lead	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	19-FEB-10 19:59	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Potassium	4790	ug/L	5000	ug/L	95.8	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Silver	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Vanadium	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
	Zinc	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	19–FEB–10 19:59	021910A–1
CCV08										
	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 – 120.0	AV	18–FEB–10 12:50	021810S1–7
	Aluminum	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Antimony	480	ug/L	500	ug/L	96	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Barium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Cadmium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Calcium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Chromium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Cobalt	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Copper	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Iron	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Lead	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Magnesium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Manganese	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Silver	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Sodium	9960	ug/L	10000	ug/L	99.6	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Vanadium	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19–FEB–10 20:35	021910A–1
CCV09										
	Mercury	4.93	ug/L	5	ug/L	98.6	80.0 – 120.0	AV	18–FEB–10 13:07	021810S1–7
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	19–FEB–10 21:08	021910A–1
	Antimony	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	19–FEB–10 21:08	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Cadmium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Chromium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Cobalt	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Copper	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Lead	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Magnesium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Manganese	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Sodium	9700	ug/L	10000	ug/L	97	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Vanadium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
	Zinc	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 21:08	021910A-1
CCV10										
	Mercury	4.88	ug/L	5	ug/L	97.6	80.0 – 120.0	AV	18-FEB-10 13:31	021810S1-7
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Barium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Cadmium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Calcium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Copper	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Iron	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Lead	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Magnesium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Potassium	4800	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	19-FEB-10 21:52	021910A-1
CCV11										
	Mercury	2.33	ug/L	5	ug/L	46.5	80.0 – 120.0	AV	18-FEB-10 13:54	021810S1-7
	Aluminum	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Antimony	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Cadmium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Calcium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Chromium	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Cobalt	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Copper	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Lead	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Magnesium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Manganese	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Potassium	4820	ug/L	5000	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19-FEB-10 22:28	021910A-1
CCV12										
	Mercury	5.32	ug/L	5	ug/L	106.5	80.0 – 120.0	AV	18-FEB-10 14:05	021810S1-7
	Aluminum	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Antimony	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Cadmium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	477	ug/L	500	ug/L	95.3	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Cobalt	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Copper	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Lead	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Magnesium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Potassium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	19-FEB-10 23:05	021910A-1
CCV13										
	Mercury	5.09	ug/L	5	ug/L	101.9	80.0 – 120.0	AV	18-FEB-10 14:29	021810S1-7
	Aluminum	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Antimony	466	ug/L	500	ug/L	93.1	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Barium	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Cadmium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Calcium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Chromium	470	ug/L	500	ug/L	94	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Cobalt	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Copper	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Iron	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Lead	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Magnesium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Manganese	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Potassium	4760	ug/L	5000	ug/L	95.2	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Silver	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
	Vanadium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	472	ug/L	500	ug/L	94.5	90.0 – 110.0	P	19-FEB-10 23:38	021910A-1
CCV14										
	Mercury	4.97	ug/L	5	ug/L	99.4	80.0 – 120.0	AV	18-FEB-10 14:47	021810S1-7
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Antimony	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Barium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Cadmium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Calcium	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Chromium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Copper	475	ug/L	500	ug/L	95	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Lead	475	ug/L	500	ug/L	95	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Magnesium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Manganese	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Potassium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Silver	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Vanadium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
	Zinc	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 00:11	021910A-1
CCV15										
	Mercury	5.08	ug/L	5	ug/L	101.5	80.0 – 120.0	AV	18-FEB-10 15:11	021810S1-7
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Antimony	470	ug/L	500	ug/L	94	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Barium	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Cadmium	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Calcium	4790	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Chromium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Cobalt	473	ug/L	500	ug/L	94.6	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1
	Copper	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	20-FEB-10 00:47	021910A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
	Lead	470	ug/L	500	ug/L	94	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
	Magnesium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
	Manganese	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
	Potassium	4800	ug/L	5000	ug/L	96	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
	Silver	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
	Vanadium	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
	Zinc	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	20–FEB–10 00:47	021910A–1
CCV16										
	Mercury	5.12	ug/L	5	ug/L	102.4	80.0 – 120.0	AV	18–FEB–10 15:35	021810S1–7
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Antimony	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Cadmium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Chromium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Cobalt	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Lead	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Magnesium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Potassium	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Vanadium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	20–FEB–10 01:35	021910A–1
CCV17										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	20–FEB–10 02:15	021910A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Antimony	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Barium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Cadmium	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Chromium	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Cobalt	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Copper	473	ug/L	500	ug/L	94.7	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Lead	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Magnesium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Potassium	4840	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Silver	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Vanadium	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1
	Zinc	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	20-FEB-10 02:15	021910A-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS6,MER536,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.218	ug/L	.2	ug/L	109	70.0 - 130.0	AV	18-FEB-10 10:01	021810S1-7
	Thallium	1.1	ug/L	1	ug/L	109.8	70.0 - 130.0	MS	26-FEB-10 10:57	100225-2
	Uranium	.265	ug/L	.2	ug/L	132.5	70.0 - 130.0	MS	27-FEB-10 07:27	100226-3
	Nickel	2.21	ug/L	2	ug/L	110.7	70.0 - 130.0	MS	27-FEB-10 09:56	100226-4
	Arsenic	5.4	ug/L	5	ug/L	108	70.0 - 130.0	MS	27-FEB-10 09:56	100226-4
	Beryllium	.589	ug/L	.5	ug/L	117.8	70.0 - 130.0	MS	27-FEB-10 09:56	100226-4
	Selenium	5.31	ug/L	5	ug/L	106.3	70.0 - 130.0	MS	27-FEB-10 09:56	100226-4
	Uranium	.254	ug/L	.2	ug/L	127	70.0 - 130.0	MS	28-FEB-10 00:49	100227-5
	Selenium	5.98	ug/L	5	ug/L	119.7	70.0 - 130.0	MS	28-FEB-10 02:19	100227-6
PQL01										
	Aluminum	198	ug/L	200	ug/L	98.8	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Iron	101	ug/L	100	ug/L	100.9	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Lead	10.5	ug/L	10	ug/L	105.2	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Magnesium	305	ug/L	300	ug/L	101.7	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Manganese	10.3	ug/L	10	ug/L	102.7	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Potassium	157	ug/L	150	ug/L	104.4	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Silver	4.8	ug/L	5	ug/L	96.1	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Sodium	312	ug/L	300	ug/L	104	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Antimony	10.8	ug/L	10	ug/L	108.3	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Barium	4.87	ug/L	5	ug/L	97.4	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Cadmium	5	ug/L	5	ug/L	99.9	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Chromium	5.48	ug/L	5	ug/L	109.5	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Cobalt	4.54	ug/L	5	ug/L	90.9	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Copper	10.1	ug/L	10	ug/L	100.7	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Vanadium	5.03	ug/L	5	ug/L	100.5	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Zinc	9.76	ug/L	10	ug/L	97.6	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1
	Calcium	188	ug/L	200	ug/L	94.2	70.0 - 130.0	P	19-FEB-10 16:47	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	-0.129	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 09:59	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 16:44	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 16:44	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 16:44	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 16:44	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 16:44	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 16:44	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 16:44	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 16:44	021910A-1
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 10:51	100225-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	27-FEB-10 07:24	100226-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	27-FEB-10 09:53	100226-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	27-FEB-10 09:53	100226-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	27-FEB-10 09:53	100226-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	27-FEB-10 09:53	100226-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	28-FEB-10 00:45	100227-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	28-FEB-10 02:16	100227-6
CCB01										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 10:05	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 17:07	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 17:07	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:07	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Lead	5.21	+/–10	J	2.5	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 17:07	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Potassium	80.96	+/–250	J	64.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Sodium	72.13	+/–250	J	70.0	250	SOL	P	19–FEB–10 17:07	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:07	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:07	021910A–1
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 11:21	100225–2
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	27–FEB–10 07:39	100226–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	27–FEB–10 10:10	100226–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	27–FEB–10 10:10	100226–4
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	27–FEB–10 10:10	100226–4
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	27–FEB–10 10:10	100226–4
	Uranium	0.066	+/–.2	U	0.066	0.2	SOL	MS	28–FEB–10 01:01	100227–5
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	28–FEB–10 02:30	100227–6
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:29	021810S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 17:25	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 17:25	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 17:25	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:25	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 17:25	021910A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 17:25	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 17:25	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 17:25	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 17:25	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 17:25	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 17:25	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:25	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 17:25	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:25	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 17:25	021910A-1
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 11:38	100225-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	27-FEB-10 07:51	100226-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	27-FEB-10 10:49	100226-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	27-FEB-10 10:49	100226-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	27-FEB-10 10:49	100226-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	27-FEB-10 10:49	100226-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	28-FEB-10 01:13	100227-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	28-FEB-10 02:41	100227-6
CCB03										
	Mercury	-0.08	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 10:53	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 17:55	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 17:55	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:55	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:55	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 17:55	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 17:55	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 17:55	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 17:55	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 17:55	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 17:55	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 17:55	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 17:55	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 17:55	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:55	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 17:55	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 17:55	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 17:55	021910A-1
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 12:02	100225-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	27-FEB-10 08:19	100226-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	27-FEB-10 11:23	100226-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	27-FEB-10 11:23	100226-4
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	27-FEB-10 11:23	100226-4
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	27-FEB-10 11:23	100226-4
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	28-FEB-10 01:47	100227-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	28-FEB-10 02:53	100227-6
CCB04										
	Mercury	-0.106	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 11:17	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 18:28	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 18:28	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 18:28	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 18:28	021910A-1
	Manganese	2.04	+/-10	J	2.0	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 18:28	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 18:28	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 18:28	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 18:28	021910A-1
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 13:01	100225-2
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	27-FEB-10 08:44	100226-3
	Uranium	0.066	+/-.2	U	0.066	0.2	SOL	MS	28-FEB-10 01:59	100227-5
CCB05										
	Mercury	-0.154	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 11:41	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 19:01	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 19:01	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 19:01	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 19:01	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 19:01	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 19:01	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:01	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 19:01	021910A-1
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 13:55	100225-2
CCB06										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 12:05	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 19:30	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 19:30	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:30	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 19:30	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 19:30	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 19:30	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 19:30	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 19:30	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 19:30	021910A–1
CCB07										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:28	021810S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 20:02	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 20:02	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 20:02	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 20:02	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 20:02	021910A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 20:02	021910A-1
CCB08										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 12:52	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 20:39	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 20:39	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 20:39	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 20:39	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 20:39	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 20:39	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 20:39	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 20:39	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 20:39	021910A-1
CCB09										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 13:09	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 21:12	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 21:12	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 21:12	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 21:12	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 21:12	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 21:12	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 21:12	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 21:12	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 21:12	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 21:12	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:12	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:12	021910A–1
CCB10										
	Mercury	–0.083	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 13:33	021810S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 21:55	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	19–FEB–10 21:55	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	19–FEB–10 21:55	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	19–FEB–10 21:55	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	19–FEB–10 21:55	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 21:55	021910A–1
CCB11										
	Mercury	–0.241	+/–.2		0.068	0.2	SOL	AV	18–FEB–10 13:56	021810S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	19–FEB–10 22:32	021910A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	19–FEB–10 22:32	021910A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 22:32	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 22:32	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 22:32	021910A-1
	Lead	-3.7	+/-10	J	2.5	10.0	SOL	P	19-FEB-10 22:32	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 22:32	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 22:32	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 22:32	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 22:32	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 22:32	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 22:32	021910A-1
CCB12										
	Mercury	-0.094	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 14:08	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 23:09	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 23:09	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 23:09	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 23:09	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 23:09	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 23:09	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:09	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 23:09	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:09	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 23:09	021910A-1
CCB13										
	Mercury	-0.091	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 14:31	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	19-FEB-10 23:41	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 23:41	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	19-FEB-10 23:41	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	19-FEB-10 23:41	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	19-FEB-10 23:41	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	19-FEB-10 23:41	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	19-FEB-10 23:41	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	19-FEB-10 23:41	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	19-FEB-10 23:41	021910A-1
CCB14										
	Mercury	-0.111	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 14:49	021810S1-7
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 00:15	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 00:15	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 00:15	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 00:15	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 00:15	021910A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–FEB–10 00:15	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–FEB–10 00:15	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–FEB–10 00:15	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–FEB–10 00:15	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–FEB–10 00:15	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–FEB–10 00:15	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 00:15	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–FEB–10 00:15	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 00:15	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–FEB–10 00:15	021910A–1
CCB15										
	Mercury	–0.115	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 15:13	021810S1–7
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–FEB–10 00:51	021910A–1
	Antimony	–4.24	+/–10	J	3.3	10.0	SOL	P	20–FEB–10 00:51	021910A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–FEB–10 00:51	021910A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–FEB–10 00:51	021910A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	20–FEB–10 00:51	021910A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	20–FEB–10 00:51	021910A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	20–FEB–10 00:51	021910A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	20–FEB–10 00:51	021910A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	20–FEB–10 00:51	021910A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	20–FEB–10 00:51	021910A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 00:51	021910A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	20–FEB–10 00:51	021910A–1
CCB16										
	Mercury	–0.122	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 15:37	021810S1–7

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 01:38	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 01:38	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 01:38	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 01:38	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 01:38	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 01:38	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 01:38	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 01:38	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 01:38	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 01:38	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 01:38	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 01:38	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 01:38	021910A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 01:38	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 01:38	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 01:38	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 01:38	021910A-1
CCB17										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 02:19	021910A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 02:19	021910A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 02:19	021910A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 02:19	021910A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 02:19	021910A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 02:19	021910A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 02:19	021910A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 02:19	021910A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 02:19	021910A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 02:19	021910A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 02:19	021910A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 02:19	021910A-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1517

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032633								
	Aluminum	6760	ug/Kg	+/–19900	U	P	6760	19900
	Antimony	328	ug/Kg	+/–994	U	P	328	994
	Barium	99.4	ug/Kg	+/–497	U	P	99.4	497
	Cadmium	99.4	ug/Kg	+/–497	U	P	99.4	497
	Calcium	7950	ug/Kg	+/–24900	U	P	7950	24900
	Chromium	149	ug/Kg	+/–497	U	P	149	497
	Cobalt	149	ug/Kg	+/–497	U	P	149	497
	Copper	298	ug/Kg	+/–994	U	P	298	994
	Iron	8320	ug/Kg	+/–24900	J	P	7950	24900
	Lead	–276	ug/Kg	+/–994	J	P	249	994
	Magnesium	8450	ug/Kg	+/–29800	U	P	8450	29800
	Manganese	199	ug/Kg	+/–994	U	P	199	994
	Potassium	6360	ug/Kg	+/–24900	U	P	6360	24900
	Silver	99.4	ug/Kg	+/–497	U	P	99.4	497
	Sodium	6960	ug/Kg	+/–24900	U	P	6960	24900
	Vanadium	99.4	ug/Kg	+/–497	U	P	99.4	497
	Zinc	328	ug/Kg	+/–994	U	P	328	994
1202032646								
	Arsenic	0.197	mg/kg	+/–0.984	U	MS	0.197	0.984
	Beryllium	0.0197	mg/kg	+/–0.0984	U	MS	0.0197	0.0984
	Nickel	0.0984	mg/kg	+/–0.394	U	MS	0.0984	0.394
	Selenium	0.492	mg/kg	+/–0.984	U	MS	0.492	0.984
	Thallium	0.0591	mg/kg	+/–0.197	U	MS	0.0591	0.197
	Uranium	0.013	mg/kg	+/–0.0394	U	MS	0.013	0.0394
1202039216								
	Mercury	3.65	ug/kg	+/–10.7	U	AV	3.65	10.7

METALS
-4-
Interference Check Sample

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	515000	ug/L	500000	ug/L	103	80.0 - 120.0	19-FEB-10 16:51	021910A-1
	Antimony	-14.6	ug/L					19-FEB-10 16:51	021910A-1
	Barium	7.73	ug/L					19-FEB-10 16:51	021910A-1
	Cadmium	-6.35	ug/L					19-FEB-10 16:51	021910A-1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 - 120.0	19-FEB-10 16:51	021910A-1
	Chromium	-0.312	ug/L					19-FEB-10 16:51	021910A-1
	Cobalt	2.17	ug/L					19-FEB-10 16:51	021910A-1
	Copper	-2.01	ug/L					19-FEB-10 16:51	021910A-1
	Iron	191000	ug/L	200000	ug/L	95.7	80.0 - 120.0	19-FEB-10 16:51	021910A-1
	Lead	7.77	ug/L					19-FEB-10 16:51	021910A-1
	Magnesium	494000	ug/L	500000	ug/L	98.8	80.0 - 120.0	19-FEB-10 16:51	021910A-1
	Manganese	8.98	ug/L					19-FEB-10 16:51	021910A-1
	Potassium	-20.1	ug/L					19-FEB-10 16:51	021910A-1
	Silver	-6.6	ug/L					19-FEB-10 16:51	021910A-1
	Sodium	30.3	ug/L					19-FEB-10 16:51	021910A-1
	Vanadium	-3.3	ug/L					19-FEB-10 16:51	021910A-1
	Zinc	-9.41	ug/L					19-FEB-10 16:51	021910A-1
ICSAB01									
	Aluminum	510000	ug/L	500000	ug/L	102	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Antimony	505	ug/L	500	ug/L	101	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Barium	503	ug/L	500	ug/L	101	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Cadmium	459	ug/L	500	ug/L	91.9	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Calcium	485000	ug/L	500000	ug/L	97	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Chromium	489	ug/L	500	ug/L	97.8	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Cobalt	435	ug/L	500	ug/L	87.1	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Copper	543	ug/L	500	ug/L	109	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Iron	189000	ug/L	200000	ug/L	94.4	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Lead	484	ug/L	500	ug/L	96.8	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Magnesium	489000	ug/L	500000	ug/L	97.8	80.0 - 120.0	19-FEB-10 16:54	021910A-1

METALS
-4-
Interference Check Sample

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	489	ug/L	500	ug/L	97.8	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Potassium	5060	ug/L	5000	ug/L	101	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Silver	257	ug/L	250	ug/L	103	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Sodium	5160	ug/L	5000	ug/L	103	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Vanadium	520	ug/L	500	ug/L	104	80.0 - 120.0	19-FEB-10 16:54	021910A-1
	Zinc	466	ug/L	500	ug/L	93.3	80.0 - 120.0	19-FEB-10 16:54	021910A-1

METALS
-4-
Interference Check Sample

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.009	ug/L					26-FEB-10 11:03	100225-2
ICSAB01									
	Thallium	18.9	ug/L	20	ug/L	94.4	80.0 - 120.0	26-FEB-10 11:09	100225-2

METALS
-4-
Interference Check Sample

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	-0.003	ug/L					27-FEB-10 07:30	100226--3
ICSAB01									
	Uranium	21.8	ug/L	20	ug/L	109	80.0 - 120.0	27-FEB-10 07:33	100226--3

METALS
-4-
Interference Check Sample

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.174	ug/L					27-FEB-10 10:00	100226-4
	Beryllium	0.115	ug/L					27-FEB-10 10:00	100226-4
	Nickel	4.51	ug/L					27-FEB-10 10:00	100226-4
	Selenium	-2.67	ug/L					27-FEB-10 10:00	100226-4
ICSAB01									
	Arsenic	20.0	ug/L	20	ug/L	100	80.0 - 120.0	27-FEB-10 10:03	100226-4
	Beryllium	19.9	ug/L	20	ug/L	99.2	80.0 - 120.0	27-FEB-10 10:03	100226-4
	Nickel	23.9	ug/L	23.31	ug/L	102	80.0 - 120.0	27-FEB-10 10:03	100226-4
	Selenium	18.0	ug/L	20	ug/L	90	80.0 - 120.0	27-FEB-10 10:03	100226-4

METALS
–4–
Interference Check Sample

SDG No: 10–1517

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	0.002	ug/L					28–FEB–10 00:52	100227–5
ICSAB01									
	Uranium	21.3	ug/L	20	ug/L	106	80.0 – 120.0	28–FEB–10 00:55	100227–5

METALS
-4-
Interference Check Sample

SDG No: 10-1517

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Selenium	-2.07	ug/L					28-FEB-10 02:22	100227-6
ICSAB01									
	Selenium	20.2	ug/L	20	ug/L	101	80.0 - 120.0	28-FEB-10 02:25	100227-6

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1517 **Client ID** RE15-10-8122S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 245998001 **Spike ID:** 1202032636

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		23600000		13600000		574000	1730	N/A	P
Antimony	ug/Kg	75-125	35600		1360		57400	59.7	N	P
Barium	ug/Kg		344000		252000		57400	161	N/A	P
Cadmium	ug/Kg	75-125	52800		114	U	57400	92		P
Calcium	ug/Kg		6890000		5870000		574000	178	N/A	P
Chromium	ug/Kg	75-125	76800		20500		57400	98.1		P
Cobalt	ug/Kg	75-125	56900		4480		57400	91.3		P
Copper	ug/Kg	75-125	65600		7570		57400	101		P
Iron	ug/Kg		18300000		13700000		574000	807	N/A	P
Lead	ug/Kg	75-125	67500		12200		57400	96.3		P
Magnesium	ug/Kg		4000000		2660000		574000	233	N/A	P
Manganese	ug/Kg		370000		246000		57400	215	N/A	P
Potassium	ug/Kg	75-125	2400000		1360000		574000	180	N	P
Silver	ug/Kg	75-125	54700		114	U	57400	95.3		P
Sodium	ug/Kg	75-125	684000		112000		574000	99.6		P
Vanadium	ug/Kg	75-125	84900		24700		57400	105		P
Zinc	ug/Kg	75-125	86600		25300		57400	107		P

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1517 **Client ID** RE15-10-8122SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 245998001 **Spike ID:** 1202032637

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/Kg		24600000		13600000		566000	1940	N/A	P
Antimony	ug/Kg	75-125	38300		1360		56600	65.3	N	P
Barium	ug/Kg		321000		252000		56600	123	N/A	P
Cadmium	ug/Kg	75-125	52500		114	U	56600	92.7		P
Calcium	ug/Kg		6020000		5870000		566000	26.5	N/A	P
Chromium	ug/Kg	75-125	77800		20500		56600	101		P
Cobalt	ug/Kg	75-125	58800		4480		56600	95.9		P
Copper	ug/Kg	75-125	66500		7570		56600	104		P
Iron	ug/Kg		20700000		13700000		566000	1230	N/A	P
Lead	ug/Kg	75-125	72200		12200		56600	106		P
Magnesium	ug/Kg		4260000		2660000		566000	282	N/A	P
Manganese	ug/Kg		495000		246000		56600	439	N/A	P
Potassium	ug/Kg	75-125	2460000		1360000		566000	194	N	P
Silver	ug/Kg	75-125	54200		114	U	56600	95.7		P
Sodium	ug/Kg	75-125	689000		112000		566000	102		P
Vanadium	ug/Kg	75-125	92500		24700		56600	120		P
Zinc	ug/Kg	75-125	88600		25300		56600	112		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1517 **Client ID** RE15–10–8122S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 245998001 **Spike ID:** 1202032649

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75–125	12.4		3.05		9.22	101		MS
Beryllium	mg/kg	75–125	7.56		1.42		5.76	107		MS
Nickel	mg/kg	75–125	22.2		11.8		5.76	181	N	MS
Selenium	mg/kg	75–125	.576	U	0.572	U	2.3	0	N	MS
Thallium	mg/kg	75–125	11.3		0.303		11.5	95.8		MS
Uranium	mg/kg	75–125	8.29		1.11		5.76	125		MS

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1517 **Client ID** RE15-10-8122SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 85

Sample ID: 245998001 **Spike ID:** 1202032650

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/kg	75-125	11.2		3.05		9.17	88.4		MS
Beryllium	mg/kg	75-125	7.03		1.42		5.73	97.8		MS
Nickel	mg/kg	75-125	21.4		11.8		5.73	168	N	MS
Selenium	mg/kg	75-125	.573	U	0.572	U	2.29	0	N	MS
Thallium	mg/kg	75-125	10.8		0.303		11.5	91.6		MS
Uranium	mg/kg	75-125	8.21		1.11		5.73	124		MS

METALS
-5a-

Matrix Spike Summary

SDG NO.	10-1517	**Client ID**	RE46-10-12033S
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	81
Sample ID:	246012001	**Spike ID:**	1202039219

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	171		15.4		141	110		AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1517 **Client ID** RE46-10-12033SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 81

Sample ID: 246012001 **Spike ID:** 1202039221

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	176		15.4		142	113		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1517

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8122D

Sample ID: 245998001 **Duplicate ID:** 1202032634 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/–20%	13600000		16700000		20.5	*	P
Antimony	ug/Kg	+/–1140	1360		892	J	41.7		P
Barium	ug/Kg	+/–20%	252000		270000		7.04		P
Cadmium	ug/Kg		114	U	114	U			P
Calcium	ug/Kg	+/–20%	5870000		5790000		1.24		P
Chromium	ug/Kg	+/–20%	20500		22900		11.1		P
Cobalt	ug/Kg	+/–20%	4480		7060		44.7	*	P
Copper	ug/Kg	+/–20%	7570		9040		17.8		P
Iron	ug/Kg	+/–20%	13700000		17500000		24.5	*	P
Lead	ug/Kg	+/–20%	12200		17300		34.3	*	P
Magnesium	ug/Kg	+/–20%	2660000		3240000		19.6		P
Manganese	ug/Kg	+/–20%	246000		467000		61.8	*	P
Potassium	ug/Kg	+/–20%	1360000		1660000		19.9		P
Silver	ug/Kg		114	U	114	U			P
Sodium	ug/Kg	+/–28600	112000		134000		18		P
Vanadium	ug/Kg	+/–20%	24700		32200		26.4	*	P
Zinc	ug/Kg	+/–20%	25300		31600		22.2	*	P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-8122SD

Sample ID: 1202032636 **Duplicate ID:** 1202032637 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/Kg	+/-20	23600000		24600000		4.32		P
Antimony	ug/Kg	+/-20	35600		38300		7.29		P
Barium	ug/Kg	+/-20	344000		321000		6.82		P
Cadmium	ug/Kg	+/-20	52800		52500		.645		P
Calcium	ug/Kg	+/-20	6890000		6020000		13.5		P
Chromium	ug/Kg	+/-20	76800		77800		1.25		P
Cobalt	ug/Kg	+/-20	56900		58800		3.31		P
Copper	ug/Kg	+/-20	65600		66500		1.4		P
Iron	ug/Kg	+/-20	18300000		20700000		12		P
Lead	ug/Kg	+/-20	67500		72200		6.62		P
Magnesium	ug/Kg	+/-20	4000000		4260000		6.33		P
Manganese	ug/Kg	+/-20	370000		495000		29	*	P
Potassium	ug/Kg	+/-20	2400000		2460000		2.71		P
Silver	ug/Kg	+/-20	54700		54200		.88		P
Sodium	ug/Kg	+/-20	684000		689000		.787		P
Vanadium	ug/Kg	+/-20	84900		92500		8.6		P
Zinc	ug/Kg	+/-20	86600		88600		2.33		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1517

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8122D

Sample ID: 245998001 **Duplicate ID:** 1202032647 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/--1.13	3.05		1.97		43.1		MS
Beryllium	mg/kg	+/–20%	1.42		1.17		19.6		MS
Nickel	mg/kg	+/–20%	11.8		10.3		13.9		MS
Selenium	mg/kg		0.572	U	0.565	U			MS
Thallium	mg/kg	+/–.226	0.303		0.256		16.6		MS
Uranium	mg/kg	+/–20%	1.11		1.02		8.91		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1517

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8122SD

Sample ID: 1202032649 **Duplicate ID:** 1202032650 **Percent Solids for Dup:** 85

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/kg	+/–20	12.4		11.2		10.4		MS
Beryllium	mg/kg	+/–20	7.56		7.03		7.36		MS
Nickel	mg/kg	+/–20	22.2		21.4		3.68		MS
Selenium	mg/kg		0.576	U	0.573	U			MS
Thallium	mg/kg	+/–20	11.3		10.8		4.98		MS
Uranium	mg/kg	+/–20	8.29		8.21		.91		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1517

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46-10-12033D

Sample ID: 246012001 **Duplicate ID:** 1202039218 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/-14.9	15.4		10.8	J	35		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1517

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE46–10–12033SD

Sample ID: 1202039219 **Duplicate ID:** 1202039221 **Percent Solids for Dup:** 81

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	171		176		2.95		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1517

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032638								
	Aluminum	ug/Kg	10500000	9030000		86	56-144	P
	Antimony	ug/Kg	173000	136000		78.8	71-130	P
	Barium	ug/Kg	198000	195000		98.3	80-120	P
	Cadmium	ug/Kg	60700	61200		101	81-120	P
	Calcium	ug/Kg	9870000	10400000		106	83-117	P
	Chromium	ug/Kg	236000	247000		104	80-120	P
	Cobalt	ug/Kg	91200	95600		105	81-120	P
	Copper	ug/Kg	174000	189000		109	81-118	P
	Iron	ug/Kg	18000000	19500000		108	51-149	P
	Lead	ug/Kg	86000	85500		99.5	79-121	P
	Magnesium	ug/Kg	4000000	3880000		97.1	79-122	P
	Manganese	ug/Kg	558000	563000		101	81-119	P
	Potassium	ug/Kg	4300000	4050000		94.3	74-127	P
	Silver	ug/Kg	30100	31600		105	66-134	P
	Sodium	ug/Kg	1020000	1020000		100	74-127	P
	Vanadium	ug/Kg	115000	126000		110	79-121	P
	Zinc	ug/Kg	594000	599000		101	80-121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1517

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032651								
	Arsenic	mg/kg	104	107		103	78–123	MS
	Beryllium	mg/kg	77.6	77.9		100	84–116	MS
	Nickel	mg/kg	134	142		106	78–123	MS
	Selenium	mg/kg	286	299		104	77–123	MS
	Thallium	mg/kg	121	121		100	78–122	MS
	Uranium	mg/kg	2.13	2.05		96.4	73–127	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1517

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202039217								
	Mercury	ug/kg	5150	5980		116	71.6-128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1517 **Client ID** RE15-10-8122L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245998001 **Serial Dilution ID:** 1202032635

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	119000		121000		1.68		10	P
Antimony	11.9		16.5	U	100			P
Barium	2200		2220		.682		10	P
Cadmium	1	U	5	U				P
Calcium	51300		51000		.585		10	P
Chromium	179		180		.559		10	P
Cobalt	39.2		39.9		1.66			P
Copper	66.2		62		6.34			P
Iron	120000		124000		2.92		10	P
Lead	107		98.5		7.94			P
Magnesium	23300		23700		1.5		10	P
Manganese	2160		2180		.694		10	P
Potassium	11900		12200		2.1		10	P
Silver	1	U	5	U				P
Sodium	979		935	J	4.49			P
Vanadium	216		213		1.39		10	P
Zinc	221		212		4.3		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1517 **Client ID** RE15-10-8122L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 245998001 **Serial Dilution ID:** 1202032648

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	13.3		13.5	J	1.5			MS
Beryllium	6.23		6.3		1.12			MS
Nickel	51.6		53		2.71		10	MS
Selenium	2.5	U	12.5	U				MS
Thallium	1.32		1.94	J	46.6			MS
Uranium	4.86		4.75		2.26			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1517 **Client ID** RE46–10–12033L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246012001 **Serial Dilution ID:** 1202039220

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.207		.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1517 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948773						
1202032633	MB for batch 948773	MB	S	10-FEB-10	.503g	50mL	
1202032638	LCS for batch 948773	LCS	S	10-FEB-10	.51g	50mL	
1202032636	RE15-10-8122S	MS	S	10-FEB-10	.512g	50mL	
1202032637	RE15-10-8122SD	MSD	S	10-FEB-10	.519g	50mL	
1202032634	RE15-10-8122D	DUP	S	10-FEB-10	.514g	50mL	
245998001	RE15-10-8122	SAMPLE	S	10-FEB-10	.514g	50mL	
245998002	RE15-10-8112	SAMPLE	S	10-FEB-10	.5g	50mL	
245998003	RE15-10-8113	SAMPLE	S	10-FEB-10	.51g	50mL	
245998004	RE15-10-8116	SAMPLE	S	10-FEB-10	.536g	50mL	
245998005	RE15-10-8119	SAMPLE	S	10-FEB-10	.502g	50mL	
245998006	RE15-10-8114	SAMPLE	S	10-FEB-10	.505g	50mL	
245998007	RE15-10-8115	SAMPLE	S	10-FEB-10	.502g	50mL	
245998008	RE15-10-8117	SAMPLE	S	10-FEB-10	.507g	50mL	
245998009	RE15-10-8118	SAMPLE	S	10-FEB-10	.512g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1517 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 948780							
1202032646	MB for batch 948780	MB	S	10-FEB-10	.508g	50mL	
1202032651	LCS for batch 948780	LCS	S	10-FEB-10	.52g	50mL	
1202032649	RE15-10-8122S	MS	S	10-FEB-10	.51g	50mL	
1202032650	RE15-10-8122SD	MSD	S	10-FEB-10	.513g	50mL	
1202032647	RE15-10-8122D	DUP	S	10-FEB-10	.52g	50mL	
245998001	RE15-10-8122	SAMPLE	S	10-FEB-10	.514g	50mL	
245998002	RE15-10-8112	SAMPLE	S	10-FEB-10	.5g	50mL	
245998003	RE15-10-8113	SAMPLE	S	10-FEB-10	.502g	50mL	
245998004	RE15-10-8116	SAMPLE	S	10-FEB-10	.53g	50mL	
245998005	RE15-10-8119	SAMPLE	S	10-FEB-10	.503g	50mL	
245998006	RE15-10-8114	SAMPLE	S	10-FEB-10	.501g	50mL	
245998007	RE15-10-8115	SAMPLE	S	10-FEB-10	.517g	50mL	
245998008	RE15-10-8117	SAMPLE	S	10-FEB-10	.522g	50mL	
245998009	RE15-10-8118	SAMPLE	S	10-FEB-10	.525g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1517 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	951522						
1202039216	MB for batch 951522	MB	S	17-FEB-10	.559g	30mL	
1202039217	LCS for batch 951522	LCS	S	17-FEB-10	.205g	30mL	
1202039219	RE46-10-12033S	MS	S	17-FEB-10	.528g	30mL	
1202039221	RE46-10-12033SD	MSD	S	17-FEB-10	.523g	30mL	
1202039218	RE46-10-12033D	DUP	S	17-FEB-10	.5g	30mL	
245998001	RE15-10-8122	SAMPLE	S	17-FEB-10	.536g	30mL	
245998002	RE15-10-8112	SAMPLE	S	17-FEB-10	.559g	30mL	
245998003	RE15-10-8113	SAMPLE	S	17-FEB-10	.516g	30mL	
245998004	RE15-10-8116	SAMPLE	S	17-FEB-10	.506g	30mL	
245998005	RE15-10-8119	SAMPLE	S	17-FEB-10	.531g	30mL	
245998006	RE15-10-8114	SAMPLE	S	17-FEB-10	.511g	30mL	
245998007	RE15-10-8115	SAMPLE	S	17-FEB-10	.581g	30mL	
245998008	RE15-10-8117	SAMPLE	S	17-FEB-10	.543g	30mL	
245998009	RE15-10-8118	SAMPLE	S	17-FEB-10	.529g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26–FEB–10 **End Date:** 26–FEB–10

Client Sdg: 10–1517
Method MS
Data File: 100225–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	10:27																					X			
S10	1	10:33																					X			
S100	1	10:39																					X			
ICV01	1	10:45																					X			
ICB01	1	10:51																					X			
CRDL01	1	10:57																					X			
ICSA01	1	11:03																					X			
ICSAB01	1	11:09																					X			
CCV01	1	11:15																					X			
CCB01	1	11:21																					X			
LR01	1	11:26																					X			
CCV02	1	11:32																					X			
CCB02	1	11:38																					X			
1202032646	2	11:44																					X			
1202032651	40	11:50																					X			
CCV03	1	11:56																					X			
CCB03	1	12:02																					X			
245998001	2	12:08																					X			
1202032647	2	12:14																					X			
1202032649	2	12:20																					X			
1202032650	2	12:26																					X			
1202032648	10	12:32																					X			
245998002	2	12:38																					X			
245998003	2	12:44																					X			
245998004	2	12:49																					X			
CCV04	1	12:55																					X			
CCB04	1	13:01																					X			
245998005	2	13:07																					X			
245998006	2	13:13																					X			
245998007	2	13:19																					X			
245998008	2	13:25																					X			
245998009	2	13:31																					X			
ZZZZZZ	2	13:37																								
ZZZZZZ	2	13:43																								
CCV05	1	13:49																					X			
CCB05	1	13:55																					X			

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 27-FEB-10 **End Date:** 27-FEB-10

Client Sdg: 10-1517
Method MS
Data File: 100226-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	07:11																						X		
S10	1	07:15																						X		
S100	1	07:18																						X		
ICV01	1	07:21																						X		
ICB01	1	07:24																						X		
CRDL01	1	07:27																						X		
ICSA01	1	07:30																						X		
ICSAB01	1	07:33																						X		
CCV01	1	07:36																						X		
CCB01	1	07:39																						X		
1202032646	2	07:42																						X		
1202032651	40	07:45																						X		
CCV02	1	07:48																						X		
CCB02	1	07:51																						X		
245998001	2	07:55																						X		
1202032647	2	07:58																						X		
1202032649	2	08:01																						X		
1202032650	2	08:04																						X		
1202032648	10	08:07																						X		
245998002	2	08:10																						X		
245998003	2	08:13																						X		
CCV03	1	08:16																						X		
CCB03	1	08:19																						X		
245998004	2	08:23																						X		
245998005	2	08:26																						X		
245998006	2	08:29																						X		
245998007	2	08:32																						X		
ZZZZZZ	2	08:35																								
245998009	2	08:38																						X		
CCV04	1	08:41																						X		
CCB04	1	08:44																						X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 27-FEB-10 **End Date:** 27-FEB-10

Client Sdg: 10-1517
Method MS
Data File: 100226-4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:39			X		X											X		X						
S10	1	09:43			X		X											X		X						
S100	1	09:46			X		X											X		X						
ICV01	1	09:49			X		X											X		X						
ICB01	1	09:53			X		X											X		X						
CRDL01	1	09:56			X		X											X		X						
ICSA01	1	10:00			X		X											X		X						
ICSAB01	1	10:03			X		X											X		X						
CCV01	1	10:07			X		X											X		X						
CCB01	1	10:10			X		X											X		X						
1202032646	2	10:14			X		X											X		X						
1202032651	40	10:18			X		X											X		X						
245998001	2	10:21			X		X											X		X						
1202032647	2	10:25			X		X											X		X						
1202032649	2	10:29			X		X											X		X						
1202032650	2	10:33			X		X											X		X						
1202032648	10	10:37			X		X											X		X						
245998002	2	10:41			X		X											X		X						
CCV02	1	10:45			X		X											X		X						
CCB02	1	10:49			X		X											X		X						
245998003	2	10:52			X		X											X								
245998004	2	10:56			X		X											X		X						
245998005	2	11:00			X		X											X		X						
245998006	2	11:04			X		X											X		X						
245998007	2	11:08			X		X											X		X						
245998008	2	11:12			X		X											X								
245998009	2	11:16			X		X											X		X						
CCV03	1	11:20			X		X											X		X						
CCB03	1	11:23			X		X											X		X						

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 28–FEB–10 **End Date:** 28–FEB–10

Client Sdg: 10–1517
Method MS
Data File: 100227–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:33																						X		
S10	1	00:36																						X		
S100	1	00:39																						X		
ICV01	1	00:42																						X		
ICB01	1	00:45																						X		
CRDL01	1	00:49																						X		
ICSA01	1	00:52																						X		
ICSAB01	1	00:55																						X		
CCV01	1	00:58																						X		
CCB01	1	01:01																						X		
ZZZZZZ	1	01:04																								
ZZZZZZ	1	01:07																								
CCV02	1	01:10																						X		
CCB02	1	01:13																						X		
ZZZZZZ	5	01:16																								
ZZZZZZ	5	01:19																								
ZZZZZZ	1	01:22																								
ZZZZZZ	10	01:25																								
ZZZZZZ	10	01:28																								
ZZZZZZ	10	01:31																								
ZZZZZZ	50	01:35																								
ZZZZZZ	2	01:38																								
ZZZZZZ	10	01:41																								
CCV03	1	01:44																						X		
CCB03	1	01:47																						X		
245998008	4	01:53																						X		
CCV04	1	01:56																						X		
CCB04	1	01:59																						X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 28-FEB-10 **End Date:** 28-FEB-10

Client Sdg: 10-1517
Method MS
Data File: 100227-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	02:05																		X						
S10	1	02:08																		X						
S100	1	02:11																		X						
ICV01	1	02:13																		X						
ICB01	1	02:16																		X						
CRDL01	1	02:19																		X						
ICSA01	1	02:22																		X						
ICSAB01	1	02:25																		X						
CCV01	1	02:27																		X						
CCB01	1	02:30																		X						
245998003	2	02:33																		X						
ZZZZZZ	4	02:36																								
CCV02	1	02:39																		X						
CCB02	1	02:41																		X						
245998008	2	02:47																		X						
CCV03	1	02:50																		X						
CCB03	1	02:53																		X						

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 18-FEB-10 **End Date:** 18-FEB-10

Client Sdg: 10-1517
Method AV
Data File: 021810S1-7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:45															X									
S0.2	1	09:47															X									
S0.5	1	09:49															X									
S2.0	1	09:51															X									
S5.0	1	09:53															X									
S10	1	09:55															X									
ICV01	1	09:57															X									
ICB01	1	09:59															X									
CRDL01	1	10:01															X									
CCV01	1	10:03															X									
CCB01	1	10:05															X									
ZZZZZZ	1	10:07																								
ZZZZZZ	10	10:09																								
ZZZZZZ	1	10:11																								
ZZZZZZ	1	10:13																								
ZZZZZZ	1	10:15																								
ZZZZZZ	1	10:17																								
ZZZZZZ	5	10:19																								
ZZZZZZ	1	10:21																								
ZZZZZZ	1	10:23																								
ZZZZZZ	1	10:25																								
CCV02	1	10:27															X									
CCB02	1	10:29															X									
ZZZZZZ	1	10:31																								
ZZZZZZ	1	10:33																								
ZZZZZZ	1	10:35																								
ZZZZZZ	1	10:37																								
ZZZZZZ	1	10:39																								
ZZZZZZ	1	10:41																								
ZZZZZZ	1	10:43																								
ZZZZZZ	1	10:45																								
ZZZZZZ	1	10:47																								
ZZZZZZ	1	10:49																								
CCV03	1	10:51															X									
CCB03	1	10:53															X									
ZZZZZZ	1	10:55																								
ZZZZZZ	1	10:57																								
ZZZZZZ	10	10:59																								
ZZZZZZ	1	11:01																								
ZZZZZZ	1	11:03																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:05																							
ZZZZZZ	1	11:07																							
ZZZZZZ	5	11:09																							
ZZZZZZ	1	11:11																							
ZZZZZZ	1	11:13																							
CCV04	1	11:15													X										
CCB04	1	11:17													X										
ZZZZZZ	1	11:19																							
ZZZZZZ	1	11:21																							
ZZZZZZ	1	11:23																							
ZZZZZZ	1	11:25																							
ZZZZZZ	1	11:27																							
ZZZZZZ	1	11:29																							
ZZZZZZ	1	11:31																							
ZZZZZZ	1	11:33																							
ZZZZZZ	1	11:35																							
ZZZZZZ	1	11:37																							
CCV05	1	11:39													X										
CCB05	1	11:41													X										
ZZZZZZ	1	11:43																							
ZZZZZZ	1	11:45																							
ZZZZZZ	1	11:47																							
ZZZZZZ	1	11:49																							
ZZZZZZ	1	11:51																							
ZZZZZZ	1	11:53																							
ZZZZZZ	1	11:55																							
ZZZZZZ	1	11:57																							
ZZZZZZ	10	11:59																							
ZZZZZZ	1	12:01																							
CCV06	1	12:03													X										
CCB06	1	12:05													X										
ZZZZZZ	1	12:07																							
ZZZZZZ	1	12:09																							
ZZZZZZ	1	12:11																							
ZZZZZZ	1	12:12																							
ZZZZZZ	1	12:14																							
ZZZZZZ	1	12:16																							
ZZZZZZ	1	12:18																							
ZZZZZZ	1	12:20																							
ZZZZZZ	1	12:22																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	12:24																								
CCV07	1	12:26															X									
CCB07	1	12:28															X									
ZZZZZZ	1	12:30																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:34																								
ZZZZZZ	1	12:36																								
ZZZZZZ	5	12:38																								
ZZZZZZ	1	12:40																								
ZZZZZZ	1	12:42																								
ZZZZZZ	1	12:44																								
ZZZZZZ	1	12:46																								
ZZZZZZ	1	12:48																								
CCV08	1	12:50															X									
CCB08	1	12:52															X									
ZZZZZZ	1	12:54																								
ZZZZZZ	1	12:56																								
ZZZZZZ	1	12:58																								
CCV09	1	13:07															X									
CCB09	1	13:09															X									
ZZZZZZ	50	13:11																								
ZZZZZZ	10	13:13																								
ZZZZZZ	200	13:15																								
ZZZZZZ	1	13:17																								
ZZZZZZ	200	13:19																								
ZZZZZZ	1	13:21																								
ZZZZZZ	10	13:23																								
ZZZZZZ	1	13:25																								
ZZZZZZ	1	13:27																								
ZZZZZZ	1	13:29																								
CCV10	1	13:31															X									
CCB10	1	13:33															X									
ZZZZZZ	1	13:35																								
ZZZZZZ	5	13:37																								
ZZZZZZ	1	13:39																								
ZZZZZZ	1	13:41																								
ZZZZZZ	1	13:43																								
ZZZZZZ	1	13:45																								
ZZZZZZ	1	13:47																								
ZZZZZZ	1	13:49																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	13:50																						
ZZZZZZ	1	13:52																						
CCV11	1	13:54													X									
CCB11	1	13:56													X									
CCV12	1	14:05													X									
CCB12	1	14:08													X									
ZZZZZZ	400	14:09																						
ZZZZZZ	1	14:11																						
ZZZZZZ	5	14:13																						
ZZZZZZ	1	14:15																						
ZZZZZZ	1	14:17																						
ZZZZZZ	1	14:19																						
ZZZZZZ	1	14:21																						
ZZZZZZ	1	14:23																						
ZZZZZZ	1	14:25																						
ZZZZZZ	1	14:27																						
CCV13	1	14:29													X									
CCB13	1	14:31													X									
ZZZZZZ	1	14:33																						
ZZZZZZ	1	14:35																						
ZZZZZZ	1	14:37																						
ZZZZZZ	1	14:39																						
ZZZZZZ	1	14:41																						
ZZZZZZ	1	14:43																						
ZZZZZZ	1	14:45																						
CCV14	1	14:47													X									
CCB14	1	14:49													X									
1202039216	1	14:52													X									
1202039217	10	14:54													X									
245998001	1	14:56													X									
245998002	1	14:58													X									
245998003	1	15:00													X									
245998004	1	15:02													X									
245998005	1	15:03													X									
245998006	1	15:05													X									
245998007	1	15:07													X									
245998008	1	15:09													X									
CCV15	1	15:11													X									
CCB15	1	15:13													X									
245998009	1	15:15													X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	15:17																								
1202039218	1	15:19															X									
1202039219	1	15:21															X									
1202039221	1	15:23															X									
1202039220	5	15:25															X									
ZZZZZZ	1	15:27																								
ZZZZZZ	1	15:29																								
ZZZZZZ	1	15:31																								
ZZZZZZ	1	15:33																								
CCV16	1	15:35															X									
CCB16	1	15:37															X									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 19-FEB-10 **End Date:** 20-FEB-10

Client Sdg: 10-1517
Method P
Data File: 021910A-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	16:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S0.1	1	16:28		X		X		X		X	X	X		X		X			X		X				X	X
S0.5	1	16:30	X	X		X		X	X	X	X	X		X	X	X			X		X				X	X
SCAL	1	16:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
S10	1	16:38	X						X				X		X							X				
ICV01	1	16:40	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICB01	1	16:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
PQL01	1	16:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSA01	1	16:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ICSAB01	1	16:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR01	1	16:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR02	1	16:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV01	1	17:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB01	1	17:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
LR03	1	17:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV02	1	17:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB02	1	17:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:30																								
ZZZZZZ	1	17:34																								
ZZZZZZ	1	17:37																								
ZZZZZZ	1	17:41																								
ZZZZZZ	1	17:44																								
ZZZZZZ	1	17:48																								
CCV03	1	17:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB03	1	17:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	17:59																								
ZZZZZZ	1	18:03																								
ZZZZZZ	1	18:06																								
ZZZZZZ	1	18:09																								
ZZZZZZ	1	18:13																								
ZZZZZZ	1	18:17																								
ZZZZZZ	5	18:20																								
CCV04	1	18:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB04	1	18:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	18:31																								
ZZZZZZ	1	18:35																								
ZZZZZZ	1	18:39																								
ZZZZZZ	1	18:42																								
ZZZZZZ	1	18:46																								
ZZZZZZ	1	18:50																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	18:53																								
CCV05	1	18:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB05	1	19:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:04																								
ZZZZZZ	1	19:08																								
ZZZZZZ	1	19:12																								
ZZZZZZ	1	19:15																								
ZZZZZZ	1	19:19																								
ZZZZZZ	1	19:23																								
CCV06	1	19:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB06	1	19:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	19:34																								
ZZZZZZ	1	19:37																								
ZZZZZZ	1	19:40																								
ZZZZZZ	1	19:44																								
ZZZZZZ	1	19:48																								
ZZZZZZ	1	19:51																								
ZZZZZZ	5	19:55																								
CCV07	1	19:59	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB07	1	20:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:06																								
ZZZZZZ	1	20:10																								
ZZZZZZ	1	20:13																								
ZZZZZZ	1	20:17																								
ZZZZZZ	1	20:21																								
ZZZZZZ	1	20:24																								
ZZZZZZ	1	20:28																								
ZZZZZZ	1	20:32																								
CCV08	1	20:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB08	1	20:39	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	20:43																								
ZZZZZZ	1	20:46																								
ZZZZZZ	1	20:50																								
ZZZZZZ	1	20:53																								
ZZZZZZ	1	20:57																								
ZZZZZZ	5	21:01																								
ZZZZZZ	1	21:04																								
CCV09	1	21:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB09	1	21:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:19																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
ZZZZZZ	1	21:23																								
ZZZZZZ	1	21:26																								
ZZZZZZ	1	21:30																								
ZZZZZZ	1	21:33																								
ZZZZZZ	1	21:37																								
ZZZZZZ	5	21:41																								
ZZZZZZ	1	21:44																								
ZZZZZZ	1	21:48																								
CCV10	1	21:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB10	1	21:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	21:59																								
ZZZZZZ	1	22:03																								
ZZZZZZ	1	22:06																								
ZZZZZZ	1	22:10																								
ZZZZZZ	1	22:14																								
ZZZZZZ	1	22:17																								
ZZZZZZ	1	22:21																								
ZZZZZZ	1	22:25																								
CCV11	1	22:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB11	1	22:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	22:36																								
ZZZZZZ	1	22:39																								
ZZZZZZ	1	22:43																								
ZZZZZZ	1	22:47																								
ZZZZZZ	1	22:50																								
ZZZZZZ	1	22:54																								
ZZZZZZ	1	22:58																								
ZZZZZZ	1	23:01																								
CCV12	1	23:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB12	1	23:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:12																								
ZZZZZZ	1	23:16																								
ZZZZZZ	1	23:19																								
ZZZZZZ	1	23:23																								
ZZZZZZ	1	23:26																								
ZZZZZZ	1	23:30																								
ZZZZZZ	5	23:34																								
CCV13	1	23:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB13	1	23:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	23:45																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	23:49																							
ZZZZZZ	1	23:52																							
ZZZZZZ	1	23:56																							
ZZZZZZ	1	00:00																							
ZZZZZZ	1	00:03																							
ZZZZZZ	1	00:07																							
CCV14	1	00:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB14	1	00:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	00:18																							
ZZZZZZ	1	00:22																							
ZZZZZZ	1	00:26																							
ZZZZZZ	1	00:29																							
ZZZZZZ	1	00:33																							
ZZZZZZ	1	00:37																							
ZZZZZZ	1	00:40																							
ZZZZZZ	1	00:44																							
CCV15	1	00:47	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB15	1	00:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032633	1	01:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032638	1	01:07	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998001	1	01:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032634	1	01:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032636	1	01:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032637	1	01:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
1202032635	5	01:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998002	1	01:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998003	1	01:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCV16	1	01:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB16	1	01:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998004	1	01:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998005	1	01:46	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998006	1	01:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998007	1	01:53	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998008	1	01:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
245998009	1	02:00	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
ZZZZZZ	1	02:04																							
ZZZZZZ	1	02:08																							
ZZZZZZ	1	02:11																							
CCV17	1	02:15	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X
CCB17	1	02:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1517

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.066	.2
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1517

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1517

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10–1517
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01–FEB–10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	–0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	–0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	–0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1517

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
–12–
Linear Ranges

SDG NO. 10–1517

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

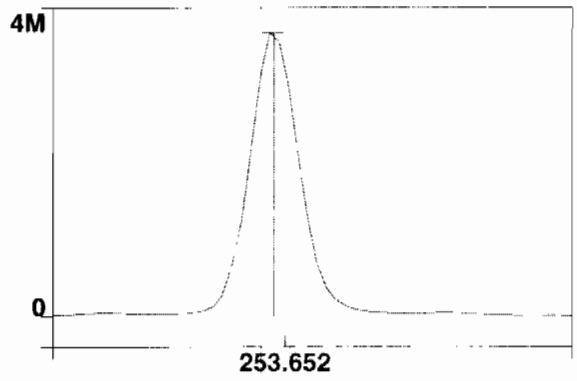

Intensity: 3672376.8 cps
Conc:

1

==========

Analysis Begun

Start Time: 2/19/2010 16:24:40 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/19/2010 15:19:26**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/19/2010 16:24:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56379.0	56379.0	99.8	%	16:25:17
1	Al 396.153Radial†	16.2	16.2	[0.00]	µg/L	16:25:17
1	Ca 317.933Radial†	214.7	215.2	[0.00]	µg/L	16:25:38
1	Fe 238.204 Radial†	18.4	18.4	[0.00]	µg/L	16:25:38

1	K 766.490 Radial†	170.1	170.5	[0.00]	µg/L	16:25:17
1	Mg 279.077 IEC†	12.4	12.5	[0.00]	µg/L	16:25:38
1	Na 589.592 Radial†	471.3	472.3	[0.00]	µg/L	16:25:17
1	Sr 421.552†	12.0	12.0	[0.00]	µg/L	16:25:17
1	Sc 361.383	1972868.2	1972868.2	100.50	%	16:26:40
1	Y 371.029	1358545.8	1358545.8	100.43	%	16:26:40
1	Ag 328.068†	-377.9	-376.0	[0.00]	µg/L	16:26:45
1	As 188.979†	2.0	2.0	[0.00]	µg/L	16:27:06
1	B 249.677†	379.3	377.5	[0.00]	µg/L	16:27:06
1	Ba 233.527†	-13.3	-13.3	[0.00]	µg/L	16:27:06
1	Be 313.107†	-2914.6	-2900.2	[0.00]	µg/L	16:26:45
1	Cd 226.502†	-140.3	-139.6	[0.00]	µg/L	16:27:06
1	Co 228.616†	-4.5	-4.5	[0.00]	µg/L	16:27:06
1	Cr 267.716†	-50.8	-50.6	[0.00]	µg/L	16:26:45
1	Cu 324.752†	2545.0	2532.4	[0.00]	µg/L	16:26:45
1	Mn 257.610†	-255.0	-253.7	[0.00]	µg/L	16:27:06
1	Mo 202.031†	-2.4	-2.3	[0.00]	µg/L	16:27:06
1	Ni 231.604†	320.7	319.1	[0.00]	µg/L	16:27:06
1	P 214.914†	15.8	15.8	[0.00]	µg/L	16:27:06
1	Pb 220.353†	88.6	88.2	[0.00]	µg/L	16:27:06
1	S 181.975 Axial†	19.1	19.1	[0.00]	µg/L	16:27:06
1	Sb 206.836†	17.4	17.3	[0.00]	µg/L	16:27:06
1	Se 196.026†	20.3	20.2	[0.00]	µg/L	16:27:06
1	SiO2†	1396.5	1389.6	[0.00]	µg/L	16:26:45
1	Si 251.611†	308.1	306.6	[0.00]	µg/L	16:27:06
1	Sn 189.927†	0.6	0.6	[0.00]	µg/L	16:27:06
1	Ti 334.940†	185.3	184.3	[0.00]	µg/L	16:26:45
1	Tl 190.801†	-23.5	-23.3	[0.00]	µg/L	16:27:06
1	U 409.014†	-92.6	-92.1	[0.00]	µg/L	16:26:45
1	V 292.402†	-67.1	-66.8	[0.00]	µg/L	16:26:45
1	Zn 213.857†	537.3	534.6	[0.00]	µg/L	16:27:06
2	Sc RADIAL	56755.6	56755.6	100	%	16:25:43
2	Al 396.153Radial†	-1.8	-1.8	[0.00]	µg/L	16:25:43
2	Ca 317.933Radial†	215.5	214.5	[0.00]	µg/L	16:26:04
2	Fe 238.204 Radial†	16.5	16.4	[0.00]	µg/L	16:26:04
2	K 766.490 Radial†	182.5	181.6	[0.00]	µg/L	16:25:43
2	Mg 279.077 IEC†	11.4	11.3	[0.00]	µg/L	16:26:04
2	Na 589.592 Radial†	457.5	455.4	[0.00]	µg/L	16:25:43
2	Sr 421.552†	48.2	48.0	[0.00]	µg/L	16:25:43
2	Sc 361.383	1966863.7	1966863.7	100.19	%	16:27:12
2	Y 371.029	1355430.0	1355430.0	100.20	%	16:27:12
2	Ag 328.068†	-456.1	-455.2	[0.00]	µg/L	16:27:17
2	As 188.979†	1.0	0.9	[0.00]	µg/L	16:27:38
2	B 249.677†	393.1	392.3	[0.00]	µg/L	16:27:38
2	Ba 233.527†	-22.9	-22.8	[0.00]	µg/L	16:27:38
2	Be 313.107†	-2829.8	-2824.4	[0.00]	µg/L	16:27:17
2	Cd 226.502†	-143.7	-143.4	[0.00]	µg/L	16:27:38
2	Co 228.616†	5.2	5.2	[0.00]	µg/L	16:27:38
2	Cr 267.716†	-56.7	-56.6	[0.00]	µg/L	16:27:17
2	Cu 324.752†	2525.9	2521.0	[0.00]	µg/L	16:27:17
2	Mn 257.610†	-246.3	-245.8	[0.00]	µg/L	16:27:38
2	Mo 202.031†	-7.2	-7.2	[0.00]	µg/L	16:27:38
2	Ni 231.604†	311.9	311.3	[0.00]	µg/L	16:27:38
2	P 214.914†	14.8	14.8	[0.00]	µg/L	16:27:38
2	Pb 220.353†	93.7	93.5	[0.00]	µg/L	16:27:38
2	S 181.975 Axial†	14.7	14.7	[0.00]	µg/L	16:27:38
2	Sb 206.836†	27.4	27.4	[0.00]	µg/L	16:27:38
2	Se 196.026†	17.0	16.9	[0.00]	µg/L	16:27:38
2	SiO2†	1365.2	1362.6	[0.00]	µg/L	16:27:17
2	Si 251.611†	311.7	311.1	[0.00]	µg/L	16:27:38
2	Sn 189.927†	0.1	0.1	[0.00]	µg/L	16:27:38
2	Ti 334.940†	147.4	147.1	[0.00]	µg/L	16:27:17
2	Tl 190.801†	-23.8	-23.8	[0.00]	µg/L	16:27:38
2	U 409.014†	-39.1	-39.0	[0.00]	µg/L	16:27:17
2	V 292.402†	-66.7	-66.6	[0.00]	µg/L	16:27:17
2	Zn 213.857†	535.6	534.6	[0.00]	µg/L	16:27:38
3	Sc RADIAL	56352.2	56352.2	99.7	%	16:26:09
3	Al 396.153Radial†	7.7	7.7	[0.00]	µg/L	16:26:09
3	Ca 317.933Radial†	203.6	204.1	[0.00]	µg/L	16:26:29
3	Fe 238.204 Radial†	14.9	14.9	[0.00]	µg/L	16:26:29
3	K 766.490 Radial†	142.5	142.8	[0.00]	µg/L	16:26:09

3	Mg 279.077 IEC†	14.6	14.7	[0.00]	µg/L	16:26:29
3	Na 589.592 Radial†	487.6	488.9	[0.00]	µg/L	16:26:09
3	Sr 421.552†	26.3	26.4	[0.00]	µg/L	16:26:09
3	Sc 361.383	1949627.5	1949627.5	99.313	%	16:27:44
3	Y 371.029	1344291.5	1344291.5	99.374	%	16:27:44
3	Ag 328.068†	-371.1	-373.6	[0.00]	µg/L	16:27:50
3	As 188.979†	-4.3	-4.4	[0.00]	µg/L	16:28:10
3	B 249.677†	380.0	382.6	[0.00]	µg/L	16:28:10
3	Ba 233.527†	-15.0	-15.1	[0.00]	µg/L	16:28:10
3	Be 313.107†	-2823.0	-2842.5	[0.00]	µg/L	16:27:50
3	Cd 226.502†	-141.0	-142.0	[0.00]	µg/L	16:28:10
3	Co 228.616†	5.0	5.1	[0.00]	µg/L	16:28:10
3	Cr 267.716†	-43.6	-43.9	[0.00]	µg/L	16:27:50
3	Cu 324.752†	2560.1	2577.8	[0.00]	µg/L	16:27:50
3	Mn 257.610†	-266.7	-268.5	[0.00]	µg/L	16:28:10
3	Mo 202.031†	-6.5	-6.5	[0.00]	µg/L	16:28:10
3	Ni 231.604†	304.5	306.6	[0.00]	µg/L	16:28:10
3	P 214.914†	15.4	15.5	[0.00]	µg/L	16:28:10
3	Pb 220.353†	90.5	91.1	[0.00]	µg/L	16:28:10
3	S 181.975 Axial†	22.9	23.0	[0.00]	µg/L	16:28:10
3	Sb 206.836†	22.7	22.8	[0.00]	µg/L	16:28:10
3	Se 196.026†	20.7	20.8	[0.00]	µg/L	16:28:10
3	SiO2†	1412.7	1422.5	[0.00]	µg/L	16:27:50
3	Si 251.611†	312.1	314.3	[0.00]	µg/L	16:28:10
3	Sn 189.927†	0.4	0.4	[0.00]	µg/L	16:28:10
3	Ti 334.940†	192.3	193.6	[0.00]	µg/L	16:27:50
3	Tl 190.801†	-19.9	-20.0	[0.00]	µg/L	16:28:10
3	U 409.014†	-99.5	-100.1	[0.00]	µg/L	16:27:50
3	V 292.402†	-0.9	-0.9	[0.00]	µg/L	16:27:50
3	Zn 213.857†	530.3	534.0	[0.00]	µg/L	16:28:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1963119.8	12064.22	0.61%	100.00	%
Sc RADIAL	56495.6	225.58	0.40%	100	%
Y 371.029	1352755.8	7494.01	0.55%	100.00	%
Ag 328.068†	-401.6	46.42	11.56%	[0.00]	µg/L
Al 396.153Radial†	7.4	9.00	122.22%	[0.00]	µg/L
As 188.979†	-0.5	3.42	746.44%	[0.00]	µg/L
B 249.677†	384.1	7.56	1.97%	[0.00]	µg/L
Ba 233.527†	-17.1	5.08	29.78%	[0.00]	µg/L
Be 313.107†	-2855.7	39.56	1.39%	[0.00]	µg/L
Ca 317.933Radial†	211.3	6.18	2.93%	[0.00]	µg/L
Cd 226.502†	-141.7	1.91	1.35%	[0.00]	µg/L
Co 228.616†	1.9	5.56	287.58%	[0.00]	µg/L
Cr 267.716†	-50.4	6.37	12.65%	[0.00]	µg/L
Cu 324.752†	2543.7	30.02	1.18%	[0.00]	µg/L
Fe 238.204 Radial†	16.6	1.77	10.70%	[0.00]	µg/L
K 766.490 Radial†	165.0	19.97	12.10%	[0.00]	µg/L
Mg 279.077 IEC†	12.8	1.69	13.22%	[0.00]	µg/L
Mn 257.610†	-256.0	11.55	4.51%	[0.00]	µg/L
Mo 202.031†	-5.3	2.62	48.99%	[0.00]	µg/L
Na 589.592 Radial†	472.2	16.73	3.54%	[0.00]	µg/L
Ni 231.604†	312.3	6.29	2.01%	[0.00]	µg/L
P 214.914†	15.3	0.52	3.38%	[0.00]	µg/L
Pb 220.353†	90.9	2.66	2.92%	[0.00]	µg/L
S 181.975 Axial†	18.9	4.16	21.98%	[0.00]	µg/L
Sb 206.836†	22.5	5.03	22.34%	[0.00]	µg/L
Se 196.026†	19.3	2.09	10.80%	[0.00]	µg/L
SiO2†	1391.6	29.99	2.16%	[0.00]	µg/L
Si 251.611†	310.6	3.86	1.24%	[0.00]	µg/L
Sn 189.927†	0.4	0.26	71.28%	[0.00]	µg/L
Sr 421.552†	28.8	18.10	62.83%	[0.00]	µg/L
Ti 334.940†	175.0	24.62	14.06%	[0.00]	µg/L
Tl 190.801†	-22.4	2.06	9.20%	[0.00]	µg/L
U 409.014†	-77.1	33.23	43.11%	[0.00]	µg/L
V 292.402†	-44.8	37.98	84.87%	[0.00]	µg/L
Zn 213.857†	534.4	0.37	0.07%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/19/2010 16:28:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56547.7	56547.7	100	%	16:28:54
1	K 766.490 Radial†	1729.4	1562.9	[1000]	µg/L	16:28:54
1	Sr 421.552†	10915.2	10876.4	[100]	µg/L	16:28:54
1	Sc 361.383	1958657.5	1958657.5	99.773	%	16:29:16
1	Y 371.029	1350548.9	1350548.9	99.837	%	16:29:16
1	Ag 328.068†	13553.9	13986.4	[100]	µg/L	16:29:22
1	As 188.979†	59.6	60.2	[100]	µg/L	16:29:42
1	B 249.677†	2836.9	2459.2	[100]	µg/L	16:29:22
1	Ba 233.527†	4355.0	4382.0	[100]	µg/L	16:29:22
1	Be 313.107†	171130.8	174376.3	[100]	µg/L	16:29:16
1	Cd 226.502†	4124.2	4275.2	[100]	µg/L	16:29:22
1	Co 228.616†	2298.0	2301.3	[100]	µg/L	16:29:42
1	Cr 267.716†	5258.9	5321.2	[100]	µg/L	16:29:22
1	Cu 324.752†	18781.5	16280.6	[100]	µg/L	16:29:22
1	Mn 257.610†	33738.0	34070.9	[100]	µg/L	16:29:22
1	Mo 202.031†	1103.1	1111.0	[100]	µg/L	16:29:42
1	Ni 231.604†	2464.7	2158.0	[100]	µg/L	16:29:22
1	P 214.914†	279.5	264.8	[500]	µg/L	16:29:42
1	Pb 220.353†	532.5	442.7	[100]	µg/L	16:29:42
1	S 181.975 Axial†	65.4	46.6	[200]	µg/L	16:29:42
1	Sb 206.836†	134.3	112.1	[100]	µg/L	16:29:42
1	Se 196.026†	91.1	72.0	[100]	µg/L	16:29:42
1	SiO2†	6958.0	5582.3	[1069.5]	µg/L	16:29:22
1	Si 251.611†	7026.5	6731.9	[500]	µg/L	16:29:22
1	Sn 189.927†	255.8	256.0	[100]	µg/L	16:29:42
1	Ti 334.940†	46558.0	46489.0	[100]	µg/L	16:29:22
1	Tl 190.801†	54.5	77.1	[100]	µg/L	16:29:42
1	U 409.014†	1252.7	1332.6	[100]	µg/L	16:29:22
1	V 292.402†	10759.4	10828.7	[100]	µg/L	16:29:22
1	Zn 213.857†	5084.1	4561.2	[100]	µg/L	16:29:22
2	Sc RADIAL	56202.9	56202.9	99.5	%	16:29:00
2	K 766.490 Radial†	1727.4	1571.4	[1000]	µg/L	16:29:00
2	Sr 421.552†	10846.6	10874.3	[100]	µg/L	16:29:00
2	Sc 361.383	1969774.0	1969774.0	100.34	%	16:29:48
2	Y 371.029	1358589.1	1358589.1	100.43	%	16:29:48
2	Ag 328.068†	13626.3	13981.9	[100]	µg/L	16:29:54
2	As 188.979†	59.0	59.2	[100]	µg/L	16:30:15
2	B 249.677†	2870.2	2476.3	[100]	µg/L	16:29:54
2	Ba 233.527†	4352.8	4355.2	[100]	µg/L	16:29:54
2	Be 313.107†	172207.8	174481.8	[100]	µg/L	16:29:48
2	Cd 226.502†	4144.1	4271.8	[100]	µg/L	16:29:54
2	Co 228.616†	2299.6	2289.9	[100]	µg/L	16:30:15
2	Cr 267.716†	5267.7	5300.2	[100]	µg/L	16:29:54
2	Cu 324.752†	18798.4	16191.1	[100]	µg/L	16:29:54
2	Mn 257.610†	33750.8	33892.8	[100]	µg/L	16:29:54
2	Mo 202.031†	1093.5	1095.1	[100]	µg/L	16:30:15
2	Ni 231.604†	2441.8	2121.3	[100]	µg/L	16:29:54
2	P 214.914†	278.5	262.2	[500]	µg/L	16:30:15
2	Pb 220.353†	534.1	441.4	[100]	µg/L	16:30:15
2	S 181.975 Axial†	68.1	49.0	[200]	µg/L	16:30:15
2	Sb 206.836†	141.3	118.3	[100]	µg/L	16:30:15
2	Se 196.026†	84.6	65.0	[100]	µg/L	16:30:15
2	SiO2†	6950.3	5535.3	[1069.5]	µg/L	16:29:54
2	Si 251.611†	7046.5	6712.0	[500]	µg/L	16:29:54
2	Sn 189.927†	257.8	256.5	[100]	µg/L	16:30:15
2	Ti 334.940†	46408.5	46076.6	[100]	µg/L	16:29:54
2	Tl 190.801†	53.9	76.1	[100]	µg/L	16:30:15
2	U 409.014†	1326.1	1398.7	[100]	µg/L	16:29:54
2	V 292.402†	10708.8	10717.4	[100]	µg/L	16:29:54

2	Zn 213.857†	5067.8	4516.3	[100]	µg/L	16:29:54
3	Sc RADIAL	55976.7	55976.7	99.1	%	16:29:05
3	K 766.490 Radial†	1714.6	1565.5	[1000]	µg/L	16:29:05
3	Sr 421.552†	10778.8	10849.9	[100]	µg/L	16:29:05
3	Sc 361.383	1959694.8	1959694.8	99.826	%	16:30:21
3	Y 371.029	1350466.2	1350466.2	99.831	%	16:30:21
3	Ag 328.068†	13514.1	13939.3	[100]	µg/L	16:30:27
3	As 188.979†	60.6	61.1	[100]	µg/L	16:30:47
3	B 249.677†	2823.5	2444.3	[100]	µg/L	16:30:27
3	Ba 233.527†	4346.0	4370.6	[100]	µg/L	16:30:27
3	Be 313.107†	170786.2	173940.4	[100]	µg/L	16:30:21
3	Cd 226.502†	4105.4	4254.3	[100]	µg/L	16:30:27
3	Co 228.616†	2321.1	2323.2	[100]	µg/L	16:30:47
3	Cr 267.716†	5182.0	5241.4	[100]	µg/L	16:30:27
3	Cu 324.752†	18775.8	16264.9	[100]	µg/L	16:30:27
3	Mn 257.610†	33438.9	33753.4	[100]	µg/L	16:30:27
3	Mo 202.031†	1103.0	1110.3	[100]	µg/L	16:30:47
3	Ni 231.604†	2473.4	2165.4	[100]	µg/L	16:30:27
3	P 214.914†	282.4	267.5	[500]	µg/L	16:30:47
3	Pb 220.353†	529.2	439.2	[100]	µg/L	16:30:47
3	S 181.975 Axial†	72.1	53.3	[200]	µg/L	16:30:47
3	Sb 206.836†	136.5	114.2	[100]	µg/L	16:30:47
3	Se 196.026†	86.4	67.3	[100]	µg/L	16:30:47
3	SiO2†	6918.8	5539.3	[1069.5]	µg/L	16:30:27
3	Si 251.611†	6976.1	6677.7	[500]	µg/L	16:30:27
3	Sn 189.927†	259.9	260.0	[100]	µg/L	16:30:47
3	Ti 334.940†	46135.2	46040.8	[100]	µg/L	16:30:27
3	Tl 190.801†	63.1	85.5	[100]	µg/L	16:30:47
3	U 409.014†	1279.4	1358.7	[100]	µg/L	16:30:27
3	V 292.402†	10662.6	10726.0	[100]	µg/L	16:30:27
3	Zn 213.857†	5060.1	4534.5	[100]	µg/L	16:30:27

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1962708.8	6140.62	0.31%	99.979	%
Sc RADIAL	56242.4	287.56	0.51%	99.6	%
Y 371.029	1353201.4	4666.07	0.34%	100.03	%
Ag 328.068†	13969.2	25.98	0.19%	[100]	µg/L
As 188.979†	60.2	0.95	1.58%	[100]	µg/L
B 249.677†	2459.9	16.02	0.65%	[100]	µg/L
Ba 233.527†	4369.3	13.48	0.31%	[100]	µg/L
Be 313.107†	174266.2	287.04	0.16%	[100]	µg/L
Cd 226.502†	4267.1	11.24	0.26%	[100]	µg/L
Co 228.616†	2304.8	16.95	0.74%	[100]	µg/L
Cr 267.716†	5287.6	41.38	0.78%	[100]	µg/L
Cu 324.752†	16245.5	47.76	0.29%	[100]	µg/L
K 766.490 Radial†	1566.6	4.37	0.28%	[1000]	µg/L
Mn 257.610†	33905.7	159.14	0.47%	[100]	µg/L
Mo 202.031†	1105.5	8.97	0.81%	[100]	µg/L
Ni 231.604†	2148.2	23.63	1.10%	[100]	µg/L
P 214.914†	264.9	2.64	1.00%	[500]	µg/L
Pb 220.353†	441.1	1.78	0.40%	[100]	µg/L
S 181.975 Axial†	49.6	3.39	6.83%	[200]	µg/L
Sb 206.836†	114.9	3.15	2.74%	[100]	µg/L
Se 196.026†	68.1	3.58	5.25%	[100]	µg/L
SiO2†	5552.3	26.07	0.47%	[1069.5]	µg/L
Si 251.611†	6707.2	27.43	0.41%	[500]	µg/L
Sn 189.927†	257.5	2.17	0.84%	[100]	µg/L
Sr 421.552†	10866.8	14.72	0.14%	[100]	µg/L
Ti 334.940†	46202.1	249.08	0.54%	[100]	µg/L
Tl 190.801†	79.6	5.19	6.52%	[100]	µg/L
U 409.014†	1363.3	33.25	2.44%	[100]	µg/L
V 292.402†	10757.4	61.94	0.58%	[100]	µg/L
Zn 213.857†	4537.3	22.62	0.50%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/19/2010 16:30:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56525.4	56525.4	100	%	16:31:29
1	Al 396.153Radial†	7453.5	7442.2	[5000]	µg/L	16:31:29
1	Ca 317.933Radial†	6221.9	6007.4	[5000]	µg/L	16:31:49
1	K 766.490 Radial†	7933.1	7763.9	[5000]	µg/L	16:31:29
1	Mg 279.077 IEC†	599.2	586.0	[5000]	µg/L	16:31:49
1	Sr 421.552†	54754.2	54696.6	[500]	µg/L	16:31:29
1	Sc 361.383	1991566.8	1991566.8	101.45	%	16:32:53
1	Y 371.029	1367918.2	1367918.2	101.12	%	16:32:53
1	Ag 328.068†	68503.2	67926.3	[500]	µg/L	16:32:58
1	As 188.979†	299.0	295.2	[500]	µg/L	16:33:19
1	B 249.677†	12863.6	12295.7	[500]	µg/L	16:32:58
1	Ba 233.527†	21495.8	21205.8	[500]	µg/L	16:32:58
1	Be 313.107†	866518.5	856997.1	[500]	µg/L	16:32:53
1	Cd 226.502†	20677.7	20524.0	[500]	µg/L	16:32:58
1	Co 228.616†	11538.9	11372.2	[500]	µg/L	16:32:58
1	Cr 267.716†	25928.5	25608.5	[500]	µg/L	16:32:58
1	Cu 324.752†	81773.4	78061.6	[500]	µg/L	16:32:58
1	Mn 257.610†	167098.7	164967.9	[500]	µg/L	16:32:53
1	Mo 202.031†	5532.6	5459.0	[500]	µg/L	16:33:19
1	Ni 231.604†	10768.1	10301.9	[500]	µg/L	16:32:58
1	P 214.914†	1359.0	1324.3	[2500]	µg/L	16:33:19
1	Pb 220.353†	2302.4	2178.6	[500]	µg/L	16:33:19
1	S 181.975 Axial†	272.4	249.5	[1000]	µg/L	16:33:19
1	Sb 206.836†	599.4	568.4	[500]	µg/L	16:33:19
1	Se 196.026†	396.8	371.8	[500]	µg/L	16:33:19
1	SiO2†	29409.8	27598.2	[5347.5]	µg/L	16:32:58
1	Si 251.611†	34329.7	33528.7	[2500]	µg/L	16:32:58
1	Sn 189.927†	1299.8	1280.9	[500]	µg/L	16:33:19
1	Ti 334.940†	233565.9	230054.7	[500]	µg/L	16:32:53
1	Tl 190.801†	385.4	402.3	[500]	µg/L	16:33:19
1	U 409.014†	6215.4	6203.7	[500]	µg/L	16:32:58
1	V 292.402†	53048.0	52335.0	[500]	µg/L	16:32:58
1	Zn 213.857†	22866.4	22005.3	[500]	µg/L	16:32:58
2	Sc RADIAL	57277.6	57277.6	101	%	16:31:55
2	Al 396.153Radial†	7395.5	7287.2	[5000]	µg/L	16:31:55
2	Ca 317.933Radial†	6211.2	5915.2	[5000]	µg/L	16:32:15
2	K 766.490 Radial†	7980.6	7706.7	[5000]	µg/L	16:31:55
2	Mg 279.077 IEC†	604.0	583.0	[5000]	µg/L	16:32:15
2	Sr 421.552†	54765.5	53989.0	[500]	µg/L	16:31:55
2	Sc 361.383	1976796.7	1976796.7	100.70	%	16:33:26
2	Y 371.029	1357513.2	1357513.2	100.35	%	16:33:26
2	Ag 328.068†	68789.6	68715.3	[500]	µg/L	16:33:31
2	As 188.979†	285.8	284.2	[500]	µg/L	16:33:52
2	B 249.677†	12976.0	12502.1	[500]	µg/L	16:33:31
2	Ba 233.527†	21626.4	21493.9	[500]	µg/L	16:33:31
2	Be 313.107†	874707.4	871511.2	[500]	µg/L	16:33:26
2	Cd 226.502†	20785.1	20783.0	[500]	µg/L	16:33:31
2	Co 228.616†	11579.6	11497.5	[500]	µg/L	16:33:31
2	Cr 267.716†	26128.8	25998.4	[500]	µg/L	16:33:31
2	Cu 324.752†	82210.9	79098.3	[500]	µg/L	16:33:31
2	Mn 257.610†	168624.9	167714.3	[500]	µg/L	16:33:26
2	Mo 202.031†	5307.9	5276.5	[500]	µg/L	16:33:52
2	Ni 231.604†	10841.5	10454.2	[500]	µg/L	16:33:31
2	P 214.914†	1330.2	1305.6	[2500]	µg/L	16:33:52
2	Pb 220.353†	2234.1	2127.7	[500]	µg/L	16:33:52
2	S 181.975 Axial†	262.6	241.9	[1000]	µg/L	16:33:52
2	Sb 206.836†	590.7	564.1	[500]	µg/L	16:33:52
2	Se 196.026†	389.5	367.5	[500]	µg/L	16:33:52
2	SiO2†	29539.9	27943.9	[5347.5]	µg/L	16:33:31

2	Si 251.611†	34501.4	33952.0	[2500]	µg/L	16:33:31
2	Sn 189.927†	1233.2	1224.3	[500]	µg/L	16:33:52
2	Ti 334.940†	235746.0	233939.9	[500]	µg/L	16:33:26
2	Tl 190.801†	379.0	398.8	[500]	µg/L	16:33:52
2	U 409.014†	6274.1	6307.8	[500]	µg/L	16:33:31
2	V 292.402†	53430.8	53105.9	[500]	µg/L	16:33:31
2	Zn 213.857†	22993.9	22300.4	[500]	µg/L	16:33:31
3	Sc RADIAL	57058.8	57058.8	101	%	16:32:20
3	Al 396.153Radial†	7492.8	7411.5	[5000]	µg/L	16:32:20
3	Ca 317.933Radial†	6205.9	5933.4	[5000]	µg/L	16:32:41
3	K 766.490 Radial†	8033.0	7788.8	[5000]	µg/L	16:32:20
3	Mg 279.077 IEC†	601.3	582.5	[5000]	µg/L	16:32:41
3	Sr 421.552†	55478.9	54902.6	[500]	µg/L	16:32:20
3	Sc 361.383	1973452.3	1973452.3	100.53	%	16:33:59
3	Y 371.029	1355765.1	1355765.1	100.22	%	16:33:59
3	Ag 328.068†	62917.4	62989.6	[500]	µg/L	16:34:05
3	As 188.979†	237.6	236.8	[500]	µg/L	16:34:25
3	B 249.677†	11812.4	11366.4	[500]	µg/L	16:34:05
3	Ba 233.527†	19002.6	18920.2	[500]	µg/L	16:34:05
3	Be 313.107†	778040.5	776822.6	[500]	µg/L	16:33:59
3	Cd 226.502†	18161.8	18208.4	[500]	µg/L	16:34:05
3	Co 228.616†	9999.7	9945.4	[500]	µg/L	16:34:05
3	Cr 267.716†	21799.1	21735.4	[500]	µg/L	16:34:05
3	Cu 324.752†	71681.4	68762.3	[500]	µg/L	16:34:05
3	Mn 257.610†	150744.1	150210.9	[500]	µg/L	16:33:59
3	Mo 202.031†	4242.5	4225.7	[500]	µg/L	16:34:25
3	Ni 231.604†	9432.3	9070.6	[500]	µg/L	16:34:05
3	P 214.914†	1083.7	1062.7	[2500]	µg/L	16:34:25
3	Pb 220.353†	1851.4	1750.7	[500]	µg/L	16:34:25
3	S 181.975 Axial†	228.1	208.0	[1000]	µg/L	16:34:25
3	Sb 206.836†	487.0	461.9	[500]	µg/L	16:34:25
3	Se 196.026†	331.3	310.2	[500]	µg/L	16:34:25
3	SiO2†	26534.1	25003.6	[5347.5]	µg/L	16:34:05
3	Si 251.611†	30910.4	30437.9	[2500]	µg/L	16:34:05
3	Sn 189.927†	970.3	964.9	[500]	µg/L	16:34:25
3	Ti 334.940†	207765.1	206502.3	[500]	µg/L	16:33:59
3	Tl 190.801†	318.1	338.8	[500]	µg/L	16:34:25
3	U 409.014†	5271.8	5321.3	[500]	µg/L	16:34:05
3	V 292.402†	45729.0	45534.4	[500]	µg/L	16:34:05
3	Zn 213.857†	20028.6	19389.3	[500]	µg/L	16:34:05

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1980605.3	9639.15	0.49%	100.89	%
Sc RADIAL	56953.9	386.91	0.68%	101	%
Y 371.029	1360398.8	6570.38	0.48%	100.57	%
Ag 328.068†	66543.7	3103.16	4.66%	[500]	µg/L
Al 396.153Radial†	7380.3	82.09	1.11%	[5000]	µg/L
As 188.979†	272.1	31.03	11.41%	[500]	µg/L
B 249.677†	12054.7	604.97	5.02%	[500]	µg/L
Ba 233.527†	20540.0	1410.14	6.87%	[500]	µg/L
Be 313.107†	835110.3	50997.60	6.11%	[500]	µg/L
Ca 317.933Radial†	5952.0	48.84	0.82%	[5000]	µg/L
Cd 226.502†	19838.5	1417.61	7.15%	[500]	µg/L
Co 228.616†	10938.4	862.20	7.88%	[500]	µg/L
Cr 267.716†	24447.5	2356.79	9.64%	[500]	µg/L
Cu 324.752†	75307.4	5691.88	7.56%	[500]	µg/L
K 766.490 Radial†	7753.1	42.12	0.54%	[5000]	µg/L
Mg 279.077 IEC†	583.8	1.92	0.33%	[5000]	µg/L
Mn 257.610†	160964.4	9413.47	5.85%	[500]	µg/L
Mo 202.031†	4987.0	665.66	13.35%	[500]	µg/L
Ni 231.604†	9942.2	758.69	7.63%	[500]	µg/L
P 214.914†	1230.9	145.94	11.86%	[2500]	µg/L
Pb 220.353†	2019.0	233.71	11.58%	[500]	µg/L
S 181.975 Axial†	233.1	22.09	9.48%	[1000]	µg/L
Sb 206.836†	531.5	60.25	11.34%	[500]	µg/L
Se 196.026†	349.9	34.37	9.82%	[500]	µg/L
SiO2†	26848.6	1607.13	5.99%	[5347.5]	µg/L
Si 251.611†	32639.5	1918.39	5.88%	[2500]	µg/L

Sn 189.927†	1156.7	168.51	14.57%	[500] µg/L
Sr 421.552†	54529.4	479.17	0.88%	[500] µg/L
Ti 334.940†	223499.0	14847.21	6.64%	[500] µg/L
Tl 190.801†	380.0	35.70	9.40%	[500] µg/L
U 409.014†	5944.2	542.02	9.12%	[500] µg/L
V 292.402†	50325.1	4166.77	8.28%	[500] µg/L
Zn 213.857†	21231.7	1602.33	7.55%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/19/2010 16:34:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57422.3	57422.3	102	%	16:35:07
1	Al 396.153Radial†	14869.0	14621.7	[10000]	µg/L	16:35:07
1	Ca 317.933Radial†	12244.2	11835.4	[10000]	µg/L	16:35:27
1	Fe 238.204 Radial†	1337.9	1299.7	[10000]	µg/L	16:35:27
1	K 766.490 Radial†	15761.0	15341.7	[10000]	µg/L	16:35:07
1	Mg 279.077 IEC†	1192.0	1159.9	[10000]	µg/L	16:35:27
1	Na 589.592 Radial†	34164.4	33140.9	[10000]	µg/L	16:35:07
1	Sr 421.552†	110392.2	108581.9	[1000]	µg/L	16:35:07
1	Sc 361.383	1976099.1	1976099.1	100.66	%	16:36:31
1	Y 371.029	1355904.7	1355904.7	100.23	%	16:36:31
1	Ag 328.068†	139743.4	139227.2	[1000]	µg/L	16:36:37
1	As 188.979†	605.1	601.6	[1000]	µg/L	16:36:57
1	B 249.677†	26002.4	25447.4	[1000]	µg/L	16:36:37
1	Ba 233.527†	43710.4	43440.4	[1000]	µg/L	16:36:37
1	Be 313.107†	1745428.1	1736819.7	[1000]	µg/L	16:36:31
1	Cd 226.502†	41933.9	41800.2	[1000]	µg/L	16:36:37
1	Co 228.616†	23253.7	23099.0	[1000]	µg/L	16:36:37
1	Cr 267.716†	53002.6	52704.8	[1000]	µg/L	16:36:37
1	Cu 324.752†	163999.7	160378.8	[1000]	µg/L	16:36:37
1	Mn 257.610†	334533.8	332592.5	[1000]	µg/L	16:36:37
1	Mo 202.031†	11127.7	11059.9	[1000]	µg/L	16:36:57
1	Ni 231.604†	21437.9	20984.7	[1000]	µg/L	16:36:37
1	P 214.914†	2747.0	2713.6	[5000]	µg/L	16:36:57
1	Pb 220.353†	4519.4	4398.7	[1000]	µg/L	16:36:57
1	S 181.975 Axial†	537.0	514.5	[2000]	µg/L	16:36:57
1	Sb 206.836†	1201.1	1170.7	[1000]	µg/L	16:36:57
1	Se 196.026†	778.4	754.0	[1000]	µg/L	16:36:57
1	SiO2†	57839.1	56067.6	[10695]	µg/L	16:36:37
1	Si 251.611†	68811.8	68049.2	[5000]	µg/L	16:36:37
1	Sn 189.927†	2603.2	2585.7	[1000]	µg/L	16:36:57
1	Ti 334.940†	470528.6	467263.1	[1000]	µg/L	16:36:31
1	Tl 190.801†	793.2	810.4	[1000]	µg/L	16:36:57
1	U 409.014†	12617.6	12611.8	[1000]	µg/L	16:36:37
1	V 292.402†	108523.0	107854.9	[1000]	µg/L	16:36:37
1	Zn 213.857†	45321.2	44489.2	[1000]	µg/L	16:36:37
2	Sc RADIAL	58102.6	58102.6	103	%	16:35:33
2	Al 396.153Radial†	14960.9	14539.8	[10000]	µg/L	16:35:33
2	Ca 317.933Radial†	12189.3	11640.9	[10000]	µg/L	16:35:53
2	Fe 238.204 Radial†	1332.7	1279.3	[10000]	µg/L	16:35:53
2	K 766.490 Radial†	15805.1	15203.0	[10000]	µg/L	16:35:33
2	Mg 279.077 IEC†	1183.6	1138.1	[10000]	µg/L	16:35:53
2	Na 589.592 Radial†	34301.4	32880.5	[10000]	µg/L	16:35:33
2	Sr 421.552†	111111.1	108009.2	[1000]	µg/L	16:35:33
2	Sc 361.383	1983646.2	1983646.2	101.05	%	16:37:04
2	Y 371.029	1360206.5	1360206.5	100.55	%	16:37:04
2	Ag 328.068†	139094.6	138056.9	[1000]	µg/L	16:37:10
2	As 188.979†	587.5	581.9	[1000]	µg/L	16:37:30
2	B 249.677†	25898.4	25246.3	[1000]	µg/L	16:37:10
2	Ba 233.527†	43616.3	43182.0	[1000]	µg/L	16:37:10
2	Be 313.107†	1746219.5	1731005.6	[1000]	µg/L	16:37:04
2	Cd 226.502†	41774.2	41483.6	[1000]	µg/L	16:37:10
2	Co 228.616†	23185.1	22943.2	[1000]	µg/L	16:37:10
2	Cr 267.716†	52660.4	52165.9	[1000]	µg/L	16:37:10
2	Cu 324.752†	163246.9	159013.9	[1000]	µg/L	16:37:10
2	Mn 257.610†	333323.0	330129.8	[1000]	µg/L	16:37:10
2	Mo 202.031†	10856.0	10749.0	[1000]	µg/L	16:37:30
2	Ni 231.604†	21396.9	20863.1	[1000]	µg/L	16:37:10
2	P 214.914†	2695.8	2652.5	[5000]	µg/L	16:37:30
2	Pb 220.353†	4439.8	4303.0	[1000]	µg/L	16:37:30

2	S 181.975 Axial†	528.4	504.0	[2000]	µg/L	16:37:30
2	Sb 206.836†	1179.2	1144.5	[1000]	µg/L	16:37:30
2	Se 196.026†	773.9	746.5	[1000]	µg/L	16:37:30
2	SiO2†	57827.3	55837.4	[10695]	µg/L	16:37:10
2	Si 251.611†	68760.8	67738.7	[5000]	µg/L	16:37:10
2	Sn 189.927†	2530.7	2504.2	[1000]	µg/L	16:37:30
2	Ti 334.940†	470622.3	465577.3	[1000]	µg/L	16:37:04
2	Tl 190.801†	781.8	796.1	[1000]	µg/L	16:37:30
2	U 409.014†	12629.7	12576.1	[1000]	µg/L	16:37:10
2	V 292.402†	108044.3	106971.0	[1000]	µg/L	16:37:10
2	Zn 213.857†	45147.6	44146.0	[1000]	µg/L	16:37:10
3	Sc RADIAL	57759.7	57759.7	102	%	16:35:59
3	Al 396.153Radial†	14873.5	14540.6	[10000]	µg/L	16:35:59
3	Ca 317.933Radial†	12176.6	11698.9	[10000]	µg/L	16:36:19
3	Fe 238.204 Radial†	1332.4	1286.7	[10000]	µg/L	16:36:19
3	K 766.490 Radial†	15741.4	15231.9	[10000]	µg/L	16:35:59
3	Mg 279.077 IEC†	1190.1	1151.2	[10000]	µg/L	16:36:19
3	Na 589.592 Radial†	34189.4	32969.0	[10000]	µg/L	16:35:59
3	Sr 421.552†	110552.5	108104.4	[1000]	µg/L	16:35:59
3	Sc 361.383	1985078.6	1985078.6	101.12	%	16:37:37
3	Y 371.029	1363323.6	1363323.6	100.78	%	16:37:37
3	Ag 328.068†	130033.0	128996.2	[1000]	µg/L	16:37:43
3	As 188.979†	504.5	499.3	[1000]	µg/L	16:38:03
3	B 249.677†	23878.6	23230.3	[1000]	µg/L	16:37:43
3	Ba 233.527†	39125.7	38709.9	[1000]	µg/L	16:37:43
3	Be 313.107†	1611138.8	1596172.2	[1000]	µg/L	16:37:37
3	Cd 226.502†	37509.7	37236.5	[1000]	µg/L	16:37:43
3	Co 228.616†	20554.3	20325.0	[1000]	µg/L	16:37:43
3	Cr 267.716†	45522.8	45069.6	[1000]	µg/L	16:37:43
3	Cu 324.752†	146020.7	141861.7	[1000]	µg/L	16:37:43
3	Mn 257.610†	295756.2	292740.6	[1000]	µg/L	16:37:43
3	Mo 202.031†	9074.4	8979.3	[1000]	µg/L	16:38:03
3	Ni 231.604†	18944.4	18422.5	[1000]	µg/L	16:37:43
3	P 214.914†	2295.1	2254.3	[5000]	µg/L	16:38:03
3	Pb 220.353†	3820.6	3687.4	[1000]	µg/L	16:38:03
3	S 181.975 Axial†	464.0	439.9	[2000]	µg/L	16:38:03
3	Sb 206.836†	1004.3	970.7	[1000]	µg/L	16:38:03
3	Se 196.026†	672.5	645.8	[1000]	µg/L	16:38:03
3	SiO2†	52945.1	50967.8	[10695]	µg/L	16:37:43
3	Si 251.611†	62859.1	61853.1	[5000]	µg/L	16:37:43
3	Sn 189.927†	2084.7	2061.2	[1000]	µg/L	16:38:03
3	Ti 334.940†	431690.8	426740.5	[1000]	µg/L	16:37:37
3	Tl 190.801†	695.2	709.9	[1000]	µg/L	16:38:03
3	U 409.014†	11027.6	10982.7	[1000]	µg/L	16:37:43
3	V 292.402†	95350.9	94340.9	[1000]	µg/L	16:37:43
3	Zn 213.857†	40251.0	39271.3	[1000]	µg/L	16:37:43

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1981608.0	4824.30	0.24%	100.94	%
Sc RADIAL	57761.5	340.17	0.59%	102	%
Y 371.029	1359811.6	3725.20	0.27%	100.52	%
Ag 328.068†	135426.8	5599.70	4.13%	[1000]	µg/L
Al 396.153Radial†	14567.3	47.07	0.32%	[10000]	µg/L
As 188.979†	560.9	54.25	9.67%	[1000]	µg/L
B 249.677†	24641.4	1226.12	4.98%	[1000]	µg/L
Ba 233.527†	41777.5	2659.67	6.37%	[1000]	µg/L
Be 313.107†	1687999.2	79577.59	4.71%	[1000]	µg/L
Ca 317.933Radial†	11725.1	99.83	0.85%	[10000]	µg/L
Cd 226.502†	40173.4	2548.40	6.34%	[1000]	µg/L
Co 228.616†	22122.4	1558.58	7.05%	[1000]	µg/L
Cr 267.716†	49980.1	4261.16	8.53%	[1000]	µg/L
Cu 324.752†	153751.5	10319.43	6.71%	[1000]	µg/L
Fe 238.204 Radial†	1288.5	10.35	0.80%	[10000]	µg/L
K 766.490 Radial†	15258.9	73.17	0.48%	[10000]	µg/L
Mg 279.077 IEC†	1149.7	11.01	0.96%	[10000]	µg/L
Mn 257.610†	318487.6	22331.56	7.01%	[1000]	µg/L
Mo 202.031†	10262.8	1122.29	10.94%	[1000]	µg/L
Na 589.592 Radial†	32996.8	132.37	0.40%	[10000]	µg/L

Ni 231.604†	20090.1	1445.49	7.20%	[1000]	µg/L
P 214.914†	2540.1	249.38	9.82%	[5000]	µg/L
Pb 220.353†	4129.7	386.03	9.35%	[1000]	µg/L
S 181.975 Axial†	486.1	40.36	8.30%	[2000]	µg/L
Sb 206.836†	1095.3	108.69	9.92%	[1000]	µg/L
Se 196.026†	715.4	60.44	8.45%	[1000]	µg/L
SiO2†	54290.9	2880.22	5.31%	{10695]	µg/L
Si 251.611†	65880.3	3491.15	5.30%	[5000]	µg/L
Sn 189.927†	2383.7	282.23	11.84%	[1000]	µg/L
Sr 421.552†	108231.8	306.90	0.28%	[1000]	µg/L
Ti 334.940†	453193.6	22924.60	5.06%	[1000]	µg/L
Tl 190.801†	772.1	54.39	7.04%	[1000]	µg/L
U 409.014†	12056.9	930.42	7.72%	[1000]	µg/L
V 292.402†	103055.6	7560.10	7.34%	[1000]	µg/L
Zn 213.857†	42635.5	2918.50	6.85%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/19/2010 16:38:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	57539.5	57539.5	102	%	16:38:46
1	Al 396.153Radial†	72990.6	71659.1	[50000]	µg/L	16:38:46
1	Ca 317.933Radial†	59650.4	58357.0	[50000]	µg/L	16:38:46
1	Fe 238.204 Radial†	2601.5	2537.7	[20000]	µg/L	16:39:06
1	Mg 279.077 IEC†	5707.4	5591.1	[50000]	µg/L	16:39:06
1	Na 589.592 Radial†	66487.5	64809.1	[20000]	µg/L	16:38:46
1	Sc 361.383	1991346.9	1991346.9	101.44	%	16:40:10
1	Y 371.029	1361642.8	1361642.8	100.66	%	16:40:10
2	Sc RADIAL	57692.4	57692.4	102	%	16:39:12
2	Al 396.153Radial†	73669.2	72133.7	[50000]	µg/L	16:39:12
2	Ca 317.933Radial†	60236.2	58775.4	[50000]	µg/L	16:39:12
2	Fe 238.204 Radial†	2575.9	2505.9	[20000]	µg/L	16:39:32
2	Mg 279.077 IEC†	5682.3	5551.6	[50000]	µg/L	16:39:32
2	Na 589.592 Radial†	66913.0	65052.7	[20000]	µg/L	16:39:12
2	Sc 361.383	1994513.8	1994513.8	101.60	%	16:40:18
2	Y 371.029	1362831.0	1362831.0	100.74	%	16:40:18
3	Sc RADIAL	57518.8	57518.8	102	%	16:39:38
3	Al 396.153Radial†	72963.9	71658.6	[50000]	µg/L	16:39:38
3	Ca 317.933Radial†	59707.9	58434.6	[50000]	µg/L	16:39:38
3	Fe 238.204 Radial†	2595.7	2533.0	[20000]	µg/L	16:39:58
3	Mg 279.077 IEC†	5726.3	5611.7	[50000]	µg/L	16:39:58
3	Na 589.592 Radial†	66483.6	64828.8	[20000]	µg/L	16:39:38
3	Sc 361.383	1986414.7	1986414.7	101.19	%	16:40:26
3	Y 371.029	1358035.0	1358035.0	100.39	%	16:40:26

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1990758.5	4081.49	0.21%	101.41	%
Sc RADIAL	57583.6	94.84	0.16%	102	%
Y 371.029	1360836.3	2497.65	0.18%	100.60	%
Al 396.153Radial†	71817.1	274.12	0.38%	[50000]	µg/L
Ca 317.933Radial†	58522.3	222.58	0.38%	[50000]	µg/L
Fe 238.204 Radial†	2525.5	17.19	0.68%	[20000]	µg/L
Mg 279.077 IEC†	5584.8	30.54	0.55%	[50000]	µg/L
Na 589.592 Radial†	64896.9	135.34	0.21%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	135.0	0.00000	0.999971	
Al 396.153Radial	3	Lin Thru 0	0.0	1.437	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	0.5579	0.00000	0.999904	
B 249.677	3	Lin Thru 0	0.0	24.54	0.00000	0.999963	
Ba 233.527	3	Lin Thru 0	0.0	41.65	0.00000	0.999968	
Be 313.107	3	Lin Thru 0	0.0	1685	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.171	0.00000	0.999999	
Cd 226.502	3	Lin Thru 0	0.0	40.09	0.00000	0.999971	
Co 228.616	3	Lin Thru 0	0.0	22.08	0.00000	0.999983	
Cr 267.716	3	Lin Thru 0	0.0	49.79	0.00000	0.999947	
Cu 324.752	3	Lin Thru 0	0.0	153.2	0.00000	0.999952	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1268	0.00000	0.999967	
K 766.490 Radial	3	Lin Thru 0	0.0	1.531	0.00000	0.999977	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1119	0.00000	0.999975	
Mn 257.610	3	Lin Thru 0	0.0	319.3	0.00000	0.999976	
Mo 202.031	3	Lin Thru 0	0.0	10.21	0.00000	0.999909	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.256	0.00000	0.999977	

Ni 231.604	3	Lin Thru 0	0.0	20.06	0.00000	0.999972
P 214.914	3	Lin Thru 0	0.0	0.5051	0.00000	0.999914
Pb 220.353	3	Lin Thru 0	0.0	4.114	0.00000	0.999940
S 181.975 Axial	3	Lin Thru 0	0.0	0.2411	0.00000	0.999862
Sb 206.836	3	Lin Thru 0	0.0	1.089	0.00000	0.999918
Se 196.026	3	Lin Thru 0	0.0	0.7120	0.00000	0.999954
SiO2	3	Lin Thru 0	0.0	5.066	0.00000	0.999988
Si 251.611	3	Lin Thru 0	0.0	13.15	0.00000	0.999992
Sn 189.927	3	Lin Thru 0	0.0	2.371	0.00000	0.999901
Sr 421.552	3	Lin Thru 0	0.0	108.4	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	452.0	0.00000	0.999983
Tl 190.801	3	Lin Thru 0	0.0	0.7699	0.00000	0.999976
U 409.014	3	Lin Thru 0	0.0	12.04	0.00000	0.999914
V 292.402	3	Lin Thru 0	0.0	102.6	0.00000	0.999947
Zn 213.857	3	Lin Thru 0	0.0	42.62	0.00000	0.999982

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/19/2010 16:40:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57359.3	57359.3	102	%			16:41:09
1	Al 396.153Radial†	7610.3	7488.4	5197.5	µg/L	5197.5	ppb	16:41:09
1	Ca 317.933Radial†	6222.8	5917.8	5054.9	µg/L	5054.9	ppb	16:41:29
1	Fe 238.204 Radial†	692.6	665.6	5260.8	µg/L	5260.8	ppb	16:41:29
1	K 766.490 Radial†	4130.5	3903.3	2549.3	µg/L	2549.3	ppb	16:41:09
1	Mg 279.077 IEC†	619.9	597.8	5347.7	µg/L	5347.7	ppb	16:41:29
1	Na 589.592 Radial†	9010.6	8402.7	2580.8	µg/L	2580.8	ppb	16:41:09
1	Sr 421.552†	58315.4	57408.5	529.60	µg/L	529.60	ppb	16:41:09
1	Sc 361.383	2000166.2	2000166.2	101.89	%			16:42:33
1	Y 371.029	1374985.6	1374985.6	101.64	%			16:42:33
1	Ag 328.068†	36064.6	35798.3	269.00	µg/L	269.00	ppb	16:42:38
1	As 188.979†	291.8	286.8	513.02	µg/L	513.02	ppb	16:42:59
1	B 249.677†	13712.5	13074.4	530.96	µg/L	530.96	ppb	16:42:38
1	Ba 233.527†	22228.0	21833.3	525.11	µg/L	525.11	ppb	16:42:38
1	Be 313.107†	460753.1	455074.9	269.89	µg/L	269.89	ppb	16:42:33
1	Cd 226.502†	21063.9	20815.4	519.08	µg/L	519.08	ppb	16:42:38
1	Co 228.616†	11897.3	11675.0	528.19	µg/L	528.19	ppb	16:42:38
1	Cr 267.716†	25972.0	25541.3	513.34	µg/L	513.34	ppb	16:42:38
1	Cu 324.752†	84959.1	80841.8	528.42	µg/L	528.42	ppb	16:42:38
1	Mn 257.610†	174009.6	171042.6	536.11	µg/L	536.11	ppb	16:42:33
1	Mo 202.031†	5977.0	5871.6	575.18	µg/L	575.18	ppb	16:42:59
1	Ni 231.604†	11001.5	10485.4	522.13	µg/L	522.13	ppb	16:42:38
1	P 214.914†	1396.3	1355.1	2632.9	µg/L	2632.9	ppb	16:42:59
1	Pb 220.353†	2319.9	2186.0	531.70	µg/L	531.70	ppb	16:42:59
1	S 181.975 Axial†	667.0	635.7	2636.3	µg/L	2636.3	ppb	16:42:59
1	Sb 206.836†	616.3	582.4	537.83	µg/L	537.83	ppb	16:42:59
1	Se 196.026†	1971.6	1915.8	2698.7	µg/L	2698.7	ppb	16:42:59
1	SiO2†	55895.4	53468.6	10554	µg/L	10554	ppb	16:42:38
1	Si 251.611†	66312.0	64773.2	4924.2	µg/L	4924.2	ppb	16:42:38
1	Sn 189.927†	1397.6	1371.4	578.38	µg/L	578.38	ppb	16:42:59
1	Ti 334.940†	236505.6	231950.1	512.78	µg/L	512.78	ppb	16:42:33
1	Tl 190.801†	406.2	421.1	553.15	µg/L	553.15	ppb	16:42:59
1	U 409.014†	6233.6	6195.2	513.68	µg/L	513.68	ppb	16:42:38
1	V 292.402†	55272.1	54293.1	535.87	µg/L	535.87	ppb	16:42:38
1	Zn 213.857†	23721.8	22748.1	529.99	µg/L	529.99	ppb	16:42:38
2	Sc RADIAL	57362.6	57362.6	102	%			16:41:35
2	Al 396.153Radial†	7570.2	7448.5	5170.1	µg/L	5170.1	ppb	16:41:35
2	Ca 317.933Radial†	6248.3	5942.6	5076.0	µg/L	5076.0	ppb	16:41:55
2	Fe 238.204 Radial†	687.3	660.3	5219.2	µg/L	5219.2	ppb	16:41:55
2	K 766.490 Radial†	4135.1	3907.6	2552.1	µg/L	2552.1	ppb	16:41:35
2	Mg 279.077 IEC†	628.6	606.2	5423.0	µg/L	5423.0	ppb	16:41:55
2	Na 589.592 Radial†	8905.8	8299.0	2549.0	µg/L	2549.0	ppb	16:41:35
2	Sr 421.552†	58283.1	57373.4	529.28	µg/L	529.28	ppb	16:41:35
2	Sc 361.383	1991588.3	1991588.3	101.45	%			16:43:06
2	Y 371.029	1369085.3	1369085.3	101.21	%			16:43:06
2	Ag 328.068†	36279.5	36162.5	271.74	µg/L	271.74	ppb	16:43:12
2	As 188.979†	284.2	280.6	501.89	µg/L	501.89	ppb	16:43:32
2	B 249.677†	13841.7	13259.7	538.55	µg/L	538.55	ppb	16:43:12
2	Ba 233.527†	22542.4	22237.3	534.82	µg/L	534.82	ppb	16:43:12
2	Be 313.107†	458487.5	454789.4	269.72	µg/L	269.72	ppb	16:43:06
2	Cd 226.502†	21330.8	21167.6	527.88	µg/L	527.88	ppb	16:43:12
2	Co 228.616†	12048.7	11874.5	537.21	µg/L	537.21	ppb	16:43:12
2	Cr 267.716†	26258.5	25933.5	521.22	µg/L	521.22	ppb	16:43:12
2	Cu 324.752†	85756.0	81986.4	535.89	µg/L	535.89	ppb	16:43:12
2	Mn 257.610†	173215.7	170995.8	535.95	µg/L	535.95	ppb	16:43:06
2	Mo 202.031†	5783.7	5706.4	559.00	µg/L	559.00	ppb	16:43:32
2	Ni 231.604†	11147.8	10676.1	531.63	µg/L	531.63	ppb	16:43:12
2	P 214.914†	1350.6	1315.9	2554.3	µg/L	2554.3	ppb	16:43:32
2	Pb 220.353†	2269.2	2145.8	521.87	µg/L	521.87	ppb	16:43:32

2	S 181.975 Axial†	662.1	633.7	2628.1 µg/L	2628.1 ppb	16:43:32
2	Sb 206.836†	597.3	566.3	522.67 µg/L	522.67 ppb	16:43:32
2	Se 196.026†	1939.9	1892.9	2666.3 µg/L	2666.3 ppb	16:43:32
2	SiO2†	56544.0	54344.2	10727 µg/L	10727 ppb	16:43:12
2	Si 251.611†	67028.2	65759.4	4999.2 µg/L	4999.2 ppb	16:43:12
2	Sn 189.927†	1346.2	1326.5	559.48 µg/L	559.48 ppb	16:43:32
2	Ti 334.940†	235243.5	231705.8	512.24 µg/L	512.24 ppb	16:43:06
2	Tl 190.801†	411.2	427.8	561.75 µg/L	561.75 ppb	16:43:32
2	U 409.014†	6266.1	6253.6	518.55 µg/L	518.55 ppb	16:43:12
2	V 292.402†	55774.5	55022.0	542.87 µg/L	542.87 ppb	16:43:12
2	Zn 213.857†	24005.0	23127.4	538.84 µg/L	538.84 ppb	16:43:12
3	Sc RADIAL	57314.4	57314.4	101 %		16:42:01
3	Al 396.153Radial†	7617.9	7501.8	5209.5 µg/L	5209.5 ppb	16:42:01
3	Ca 317.933Radial†	6192.6	5892.9	5033.6 µg/L	5033.6 ppb	16:42:21
3	Fe 238.204 Radial†	680.9	654.6	5172.6 µg/L	5172.6 ppb	16:42:21
3	K 766.490 Radial†	4172.6	3948.0	2578.5 µg/L	2578.5 ppb	16:42:01
3	Mg 279.077 IEC†	617.9	596.2	5331.5 µg/L	5331.5 ppb	16:42:21
3	Na 589.592 Radial†	9012.1	8411.2	2583.4 µg/L	2583.4 ppb	16:42:01
3	Sr 421.552†	58397.5	57534.4	530.76 µg/L	530.76 ppb	16:42:01
3	Sc 361.383	1985318.4	1985318.4	101.13 %		16:43:39
3	Y 371.029	1365549.9	1365549.9	100.95 %		16:43:39
3	Ag 328.068†	32686.9	32723.0	245.69 µg/L	245.69 ppb	16:43:45
3	As 188.979†	231.6	229.5	410.45 µg/L	410.45 ppb	16:44:05
3	B 249.677†	12281.0	11759.6	477.28 µg/L	477.28 ppb	16:43:45
3	Ba 233.527†	19297.0	19098.3	459.31 µg/L	459.31 ppb	16:43:45
3	Be 313.107†	404356.4	402690.8	238.83 µg/L	238.83 ppb	16:43:39
3	Cd 226.502†	18203.2	18141.4	452.33 µg/L	452.33 ppb	16:43:45
3	Co 228.616†	10166.3	10050.7	454.63 µg/L	454.63 ppb	16:43:45
3	Cr 267.716†	21411.9	21222.9	426.55 µg/L	426.55 ppb	16:43:45
3	Cu 324.752†	73007.3	69647.2	455.34 µg/L	455.34 ppb	16:43:45
3	Mn 257.610†	153334.3	151875.9	476.08 µg/L	476.08 ppb	16:43:39
3	Mo 202.031†	4566.2	4520.5	442.87 µg/L	442.87 ppb	16:44:05
3	Ni 231.604†	9424.8	9007.0	448.52 µg/L	448.52 ppb	16:43:45
3	P 214.914†	1102.1	1074.4	2083.0 µg/L	2083.0 ppb	16:44:05
3	Pb 220.353†	1863.1	1751.3	425.87 µg/L	425.87 ppb	16:44:05
3	S 181.975 Axial†	551.5	526.4	2182.8 µg/L	2182.8 ppb	16:44:05
3	Sb 206.836†	493.8	465.8	429.60 µg/L	429.60 ppb	16:44:05
3	Se 196.026†	1594.6	1557.5	2195.3 µg/L	2195.3 ppb	16:44:05
3	SiO2†	49563.2	47617.5	9399.1 µg/L	9399.1 ppb	16:43:45
3	Si 251.611†	58584.7	57619.0	4380.3 µg/L	4380.3 ppb	16:43:45
3	Sn 189.927†	1053.3	1041.2	439.13 µg/L	439.13 ppb	16:44:05
3	Ti 334.940†	205922.2	203444.7	449.72 µg/L	449.72 ppb	16:43:39
3	Tl 190.801†	337.8	356.4	468.42 µg/L	468.42 ppb	16:44:05
3	U 409.014†	5226.1	5244.7	434.73 µg/L	434.73 ppb	16:43:45
3	V 292.402†	46549.8	46074.1	454.46 µg/L	454.46 ppb	16:43:45
3	Zn 213.857†	20360.6	19598.5	456.55 µg/L	456.55 ppb	16:43:45

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1992357.6	101.49	%	0.380				0.37%
Sc RADIAL	57345.5	102	%	0.0				0.05%
Y 371.029	1369873.6	101.27	%	0.352				0.35%
Ag 328.068†	34894.6	262.14	µg/L	14.318	262.14	ppb	14.318	5.46%
QC value within limits for Ag 328.068 Recovery = 104.86%								
Al 396.153Radial†	7479.5	5192.4	µg/L	20.22	5192.4	ppb	20.22	0.39%
QC value within limits for Al 396.153Radial Recovery = 103.85%								
As 188.979†	265.6	475.12	µg/L	56.284	475.12	ppb	56.284	11.85%
QC value within limits for As 188.979 Recovery = 95.02%								
B 249.677†	12697.9	515.59	µg/L	33.400	515.59	ppb	33.400	6.48%
QC value within limits for B 249.677 Recovery = 103.12%								
Ba 233.527†	21056.3	506.41	µg/L	41.083	506.41	ppb	41.083	8.11%
QC value within limits for Ba 233.527 Recovery = 101.28%								
Be 313.107†	437518.4	259.48	µg/L	17.887	259.48	ppb	17.887	6.89%
QC value within limits for Be 313.107 Recovery = 103.79%								
Ca 317.933Radial†	5917.8	5054.8	µg/L	21.22	5054.8	ppb	21.22	0.42%
QC value within limits for Ca 317.933Radial Recovery = 101.10%								
Cd 226.502†	20041.5	499.76	µg/L	41.316	499.76	ppb	41.316	8.27%
QC value within limits for Cd 226.502 Recovery = 99.95%								
Co 228.616†	11200.1	506.67	µg/L	45.295	506.67	ppb	45.295	8.94%

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   QC value within limits for Co 228.616  Recovery = 101.33%
Cr 267.716†            24232.6      487.04 µg/L        52.530      487.04 ppb         52.530  10.79%
   QC value within limits for Cr 267.716  Recovery = 97.41%
Cu 324.752†            77491.8      506.55 µg/L        44.507      506.55 ppb         44.507   8.79%
   QC value within limits for Cu 324.752  Recovery = 101.31%
Fe 238.204 Radial†       660.2      5217.6 µg/L         44.12      5217.6 ppb          44.12   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.35%
K 766.490 Radial†       3919.6      2560.0 µg/L         16.09      2560.0 ppb          16.09   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          600.1      5367.4 µg/L         48.83      5367.4 ppb          48.83   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.35%
Mn 257.610†           164638.1      516.05 µg/L        34.615      516.05 ppb         34.615   6.71%
   QC value within limits for Mn 257.610  Recovery = 103.21%
Mo 202.031†            5366.2      525.68 µg/L        72.174      525.68 ppb         72.174  13.73%
   QC value within limits for Mo 202.031  Recovery = 105.14%
Na 589.592 Radial†     8371.0      2571.1 µg/L         19.18      2571.1 ppb          19.18   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 102.84%
Ni 231.604†           10056.2      500.76 µg/L        45.489      500.76 ppb         45.489   9.08%
   QC value within limits for Ni 231.604  Recovery = 100.15%
P 214.914†             1248.5      2423.4 µg/L        297.40      2423.4 ppb         297.40  12.27%
   QC value within limits for P 214.914  Recovery = 96.94%
Pb 220.353†            2027.7      493.15 µg/L        58.472      493.15 ppb         58.472  11.86%
   QC value within limits for Pb 220.353  Recovery = 98.63%
S 181.975 Axial†        598.6      2482.4 µg/L        259.45      2482.4 ppb         259.45  10.45%
   QC value within limits for S 181.975 Axial  Recovery = 99.30%
Sb 206.836†             538.2      496.70 µg/L        58.600      496.70 ppb         58.600  11.80%
   QC value within limits for Sb 206.836  Recovery = 99.34%
Se 196.026†            1788.7      2520.1 µg/L        281.74      2520.1 ppb         281.74  11.18%
   QC value within limits for Se 196.026  Recovery = 100.81%
SiO2†                 51810.1       10227 µg/L         721.9       10227 ppb          721.9   7.06%
   QC value within limits for SiO2  Recovery = 95.62%
Si 251.611†           62717.2      4767.9 µg/L        337.74      4767.9 ppb         337.74   7.08%
   QC value within limits for Si 251.611  Recovery = 95.36%
Sn 189.927†            1246.4      525.66 µg/L        75.534      525.66 ppb         75.534  14.37%
   QC value within limits for Sn 189.927  Recovery = 105.13%
Sr 421.552†           57438.8      529.88 µg/L         0.781      529.88 ppb          0.781   0.15%
   QC value within limits for Sr 421.552  Recovery = 105.98%
Ti 334.940†          222366.9      491.58 µg/L        36.251      491.58 ppb         36.251   7.37%
   QC value within limits for Ti 334.940  Recovery = 98.32%
Tl 190.801†             401.7      527.77 µg/L        51.582      527.77 ppb         51.582   9.77%
   QC value within limits for Tl 190.801  Recovery = 105.55%
U 409.014†             5897.8      488.99 µg/L        47.052      488.99 ppb         47.052   9.62%
   QC value within limits for U 409.014  Recovery = 97.80%
V 292.402†            51796.4      511.07 µg/L        49.146      511.07 ppb         49.146   9.62%
   QC value within limits for V 292.402  Recovery = 102.21%
Zn 213.857†           21824.7      508.46 µg/L        45.173      508.46 ppb         45.173   8.88%
   QC value within limits for Zn 213.857  Recovery = 101.69%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/19/2010 16:44:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56443.8	56443.8	99.9	%			16:44:48
1	Al 396.153Radial†	-10.1	-17.4	-12.137	µg/L	-12.137	ppb	16:44:48
1	Ca 317.933Radial†	199.6	-11.5	-9.8207	µg/L	-9.8207	ppb	16:45:08
1	Fe 238.204 Radial†	15.6	-0.9	-7.1871	µg/L	-7.1871	ppb	16:45:08
1	K 766.490 Radial†	171.4	6.6	4.2945	µg/L	4.2945	ppb	16:44:48
1	Mg 279.077 IEC†	7.6	-5.2	-46.321	µg/L	-46.321	ppb	16:45:08
1	Na 589.592 Radial†	489.1	17.3	5.3226	µg/L	5.3226	ppb	16:44:48
1	Sr 421.552†	79.0	50.3	0.4638	µg/L	0.4638	ppb	16:44:48
1	Sc 361.383	1989449.1	1989449.1	101.34	%			16:46:10
1	Y 371.029	1372109.7	1372109.7	101.43	%			16:46:10
1	Ag 328.068†	-456.4	-48.7	-0.3594	µg/L	-0.3594	ppb	16:46:15
1	As 188.979†	-5.3	-4.7	-8.4993	µg/L	-8.4993	ppb	16:46:36
1	B 249.677†	407.4	17.9	0.7343	µg/L	0.7343	ppb	16:46:36
1	Ba 233.527†	-5.2	11.9	0.2870	µg/L	0.2870	ppb	16:46:36
1	Be 313.107†	-2754.2	138.0	0.0819	µg/L	0.0819	ppb	16:46:15
1	Cd 226.502†	-144.4	-0.8	-0.0195	µg/L	-0.0195	ppb	16:46:36
1	Co 228.616†	1.0	-1.0	-0.0431	µg/L	-0.0431	ppb	16:46:36
1	Cr 267.716†	-33.7	17.2	0.3447	µg/L	0.3447	ppb	16:46:36
1	Cu 324.752†	2574.7	-3.1	-0.0214	µg/L	-0.0214	ppb	16:46:15
1	Mn 257.610†	-226.6	32.4	0.1025	µg/L	0.1025	ppb	16:46:36
1	Mo 202.031†	0.9	6.2	0.6075	µg/L	0.6075	ppb	16:46:36
1	Ni 231.604†	309.9	-6.6	-0.3281	µg/L	-0.3281	ppb	16:46:36
1	P 214.914†	11.4	-4.0	-7.9899	µg/L	-7.9899	ppb	16:46:36
1	Pb 220.353†	88.4	-3.8	-0.9074	µg/L	-0.9074	ppb	16:46:36
1	S 181.975 Axial†	15.3	-3.9	-15.967	µg/L	-15.967	ppb	16:46:36
1	Sb 206.836†	19.9	-2.9	-2.6187	µg/L	-2.6187	ppb	16:46:36
1	Se 196.026†	12.9	-6.6	-9.2715	µg/L	-9.2715	ppb	16:46:36
1	SiO2†	1429.0	18.5	3.6472	µg/L	3.6472	ppb	16:46:15
1	Si 251.611†	332.7	17.7	1.3429	µg/L	1.3429	ppb	16:46:36
1	Sn 189.927†	3.4	3.0	1.2548	µg/L	1.2548	ppb	16:46:36
1	Ti 334.940†	214.5	36.6	0.0844	µg/L	0.0844	ppb	16:46:15
1	Tl 190.801†	-23.3	-0.6	-0.8230	µg/L	-0.8230	ppb	16:46:36
1	U 409.014†	-112.1	-33.5	-2.7841	µg/L	-2.7841	ppb	16:46:15
1	V 292.402†	-13.0	31.9	0.3124	µg/L	0.3124	ppb	16:46:15
1	Zn 213.857†	555.4	13.6	0.3246	µg/L	0.3246	ppb	16:46:36
2	Sc RADIAL	56635.2	56635.2	100	%			16:45:14
2	Al 396.153Radial†	-10.1	-17.4	-12.141	µg/L	-12.141	ppb	16:45:14
2	Ca 317.933Radial†	187.9	-23.8	-20.367	µg/L	-20.367	ppb	16:45:34
2	Fe 238.204 Radial†	16.3	-0.3	-2.5827	µg/L	-2.5827	ppb	16:45:34
2	K 766.490 Radial†	218.4	52.9	34.520	µg/L	34.520	ppb	16:45:14
2	Mg 279.077 IEC†	12.4	-0.5	-4.1392	µg/L	-4.1392	ppb	16:45:34
2	Na 589.592 Radial†	513.9	40.5	12.430	µg/L	12.430	ppb	16:45:14
2	Sr 421.552†	58.4	29.4	0.2715	µg/L	0.2715	ppb	16:45:14
2	Sc 361.383	1983608.7	1983608.7	101.04	%			16:46:42
2	Y 371.029	1367482.8	1367482.8	101.09	%			16:46:42
2	Ag 328.068†	-443.4	-37.3	-0.2763	µg/L	-0.2763	ppb	16:46:47
2	As 188.979†	-2.8	-2.3	-4.1149	µg/L	-4.1149	ppb	16:47:08
2	B 249.677†	412.0	23.6	0.9621	µg/L	0.9621	ppb	16:47:08
2	Ba 233.527†	-18.2	-0.9	-0.0219	µg/L	-0.0219	ppb	16:47:08
2	Be 313.107†	-2703.5	180.2	0.1068	µg/L	0.1068	ppb	16:46:47
2	Cd 226.502†	-127.6	15.4	0.3840	µg/L	0.3840	ppb	16:47:08
2	Co 228.616†	7.3	5.3	0.2405	µg/L	0.2405	ppb	16:47:08
2	Cr 267.716†	-58.8	-7.8	-0.1569	µg/L	-0.1569	ppb	16:47:08
2	Cu 324.752†	2608.4	37.7	0.2459	µg/L	0.2459	ppb	16:46:47
2	Mn 257.610†	-227.1	31.2	0.0977	µg/L	0.0977	ppb	16:47:08
2	Mo 202.031†	0.0	5.4	0.5248	µg/L	0.5248	ppb	16:47:08
2	Ni 231.604†	305.0	-10.5	-0.5251	µg/L	-0.5251	ppb	16:47:08
2	P 214.914†	15.6	0.1	0.1534	µg/L	0.1534	ppb	16:47:08
2	Pb 220.353†	82.8	-8.9	-2.1787	µg/L	-2.1787	ppb	16:47:08

2	S 181.975 Axial†	18.3	-0.8	-3.3922 µg/L	-3.3922 ppb	16:47:08
2	Sb 206.836†	21.7	-1.0	-0.9259 µg/L	-0.9259 ppb	16:47:08
2	Se 196.026†	16.5	-3.0	-4.1629 µg/L	-4.1629 ppb	16:47:08
2	SiO2†	1450.1	43.5	8.5888 µg/L	8.5888 ppb	16:46:47
2	Si 251.611†	323.7	9.8	0.7431 µg/L	0.7431 ppb	16:47:08
2	Sn 189.927†	7.2	6.8	2.8541 µg/L	2.8541 ppb	16:47:08
2	Ti 334.940†	275.2	97.3	0.2152 µg/L	0.2152 ppb	16:46:47
2	Tl 190.801†	-21.7	1.0	1.2441 µg/L	1.2441 ppb	16:47:08
2	U 409.014†	-34.6	42.8	3.5596 µg/L	3.5596 ppb	16:46:47
2	V 292.402†	-47.6	-2.4	-0.0159 µg/L	-0.0159 ppb	16:46:47
2	Zn 213.857†	557.8	17.6	0.4155 µg/L	0.4155 ppb	16:47:08
3	Sc RADIAL	56103.5	56103.5	99.3 %		16:45:39
3	Al 396.153Radial†	-12.8	-20.2	-14.109 µg/L	-14.109 ppb	16:45:39
3	Ca 317.933Radial†	191.0	-18.9	-16.130 µg/L	-16.130 ppb	16:46:00
3	Fe 238.204 Radial†	17.4	1.0	7.6890 µg/L	7.6890 ppb	16:46:00
3	K 766.490 Radial†	173.9	10.1	6.6116 µg/L	6.6116 ppb	16:45:39
3	Mg 279.077 IEC†	10.0	-2.8	-24.916 µg/L	-24.916 ppb	16:46:00
3	Na 589.592 Radial†	509.0	40.4	12.402 µg/L	12.402 ppb	16:45:39
3	Sr 421.552†	51.1	22.6	0.2086 µg/L	0.2086 ppb	16:45:39
3	Sc 361.383	1979825.1	1979825.1	100.85 %		16:47:14
3	Y 371.029	1367032.8	1367032.8	101.06 %		16:47:14
3	Ag 328.068†	-365.2	39.5	0.2926 µg/L	0.2926 ppb	16:47:20
3	As 188.979†	6.4	6.8	12.172 µg/L	12.172 ppb	16:47:40
3	B 249.677†	398.6	11.1	0.4486 µg/L	0.4486 ppb	16:47:40
3	Ba 233.527†	-12.4	4.8	0.1152 µg/L	0.1152 ppb	16:47:40
3	Be 313.107†	-2652.0	226.1	0.1341 µg/L	0.1341 ppb	16:47:20
3	Cd 226.502†	-131.0	11.8	0.2924 µg/L	0.2924 ppb	16:47:40
3	Co 228.616†	3.8	1.9	0.0848 µg/L	0.0848 ppb	16:47:40
3	Cr 267.716†	-32.1	18.5	0.3716 µg/L	0.3716 ppb	16:47:40
3	Cu 324.752†	2543.2	-22.0	-0.1426 µg/L	-0.1426 ppb	16:47:20
3	Mn 257.610†	-230.0	28.0	0.0896 µg/L	0.0896 ppb	16:47:40
3	Mo 202.031†	7.5	12.8	1.2495 µg/L	1.2495 ppb	16:47:40
3	Ni 231.604†	307.7	-7.2	-0.3603 µg/L	-0.3603 ppb	16:47:40
3	P 214.914†	16.4	0.9	1.7842 µg/L	1.7842 ppb	16:47:40
3	Pb 220.353†	91.4	-0.3	-0.0769 µg/L	-0.0769 ppb	16:47:40
3	S 181.975 Axial†	16.1	-2.9	-12.216 µg/L	-12.216 ppb	16:47:40
3	Sb 206.836†	18.4	-4.3	-3.9156 µg/L	-3.9156 ppb	16:47:40
3	Se 196.026†	19.5	-0.0	0.0313 µg/L	0.0313 ppb	16:47:40
3	SiO2†	1408.7	5.2	1.0280 µg/L	1.0280 ppb	16:47:20
3	Si 251.611†	328.7	15.3	1.1614 µg/L	1.1614 ppb	16:47:40
3	Sn 189.927†	7.2	6.8	2.8616 µg/L	2.8616 ppb	16:47:40
3	Ti 334.940†	264.4	87.1	0.1944 µg/L	0.1944 ppb	16:47:20
3	Tl 190.801†	-17.8	4.8	6.2130 µg/L	6.2130 ppb	16:47:40
3	U 409.014†	44.4	121.1	10.062 µg/L	10.062 ppb	16:47:20
3	V 292.402†	-48.6	-3.5	-0.0118 µg/L	-0.0118 ppb	16:47:20
3	Zn 213.857†	546.8	7.8	0.1863 µg/L	0.1863 ppb	16:47:40

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1984294.3	101.08	%	0.247				0.24%
Sc RADIAL	56394.2	99.8	%	0.48				0.48%
Y 371.029	1368875.1	101.19	%	0.208				0.21%
Ag 328.068†	-15.5	-0.1144	µg/L	0.35487	-0.1144	ppb	0.35487	310.31%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-18.4	-12.796	µg/L	1.1373	-12.796	ppb	1.1373	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1476	µg/L	10.89157	-0.1476	ppb	10.89157	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	17.5	0.7150	µg/L	0.25726	0.7150	ppb	0.25726	35.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1268	µg/L	0.15478	0.1268	ppb	0.15478	122.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.4	0.1076	µg/L	0.02612	0.1076	ppb	0.02612	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.1	-15.439	µg/L	5.3071	-15.439	ppb	5.3071	34.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.8	0.2189	µg/L	0.21153	0.2189	ppb	0.21153	96.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0941	µg/L	0.14201	0.0941	ppb	0.14201	150.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.3      0.1865 µg/L       0.29770      0.1865 ppb        0.29770 159.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.2      0.0273 µg/L       0.19878      0.0273 ppb        0.19878 728.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -0.6936 µg/L       7.61586     -0.6936 ppb        7.61586 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          23.2      15.142 µg/L       16.8219      15.142 ppb        16.8219 111.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8     -25.125 µg/L       21.0915     -25.125 ppb        21.0915  83.94%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                30.6      0.0966 µg/L       0.00647      0.0966 ppb        0.00647   6.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.1      0.7939 µg/L       0.39671      0.7939 ppb        0.39671  49.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         32.7      10.051 µg/L        4.0953      10.051 ppb         4.0953  40.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.1     -0.4045 µg/L       0.10569     -0.4045 ppb        0.10569  26.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.0     -2.0175 µg/L       5.23620     -2.0175 ppb        5.23620 259.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.3     -1.0543 µg/L       1.05859     -1.0543 ppb        1.05859 100.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.5     -10.525 µg/L        6.4558     -10.525 ppb         6.4558  61.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.7     -2.4867 µg/L       1.49921     -2.4867 ppb        1.49921  60.29%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.2     -4.4677 µg/L       4.65886     -4.4677 ppb        4.65886 104.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      22.4      4.4213 µg/L       3.83941      4.4213 ppb        3.83941  86.84%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                14.2      1.0825 µg/L       0.30758      1.0825 ppb        0.30758  28.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.5      2.3235 µg/L       0.92554      2.3235 ppb        0.92554  39.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                34.1      0.3146 µg/L       0.13296      0.3146 ppb        0.13296  42.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.7      0.1647 µg/L       0.07028      0.1647 ppb        0.07028  42.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.7      2.2114 µg/L       3.61632      2.2114 ppb        3.61632 163.53%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.5      3.6126 µg/L       6.42347      3.6126 ppb        6.42347 177.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  8.7      0.0949 µg/L       0.18839      0.0949 ppb        0.18839 198.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                13.0      0.3088 µg/L       0.11540      0.3088 ppb        0.11540  37.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/19/2010 16:47:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56282.3	56282.3	99.6	%			16:48:22
1	Al 396.153Radial†	298.2	292.0	202.91	µg/L	202.91	ppb	16:48:22
1	Ca 317.933Radial†	429.4	219.7	187.68	µg/L	187.68	ppb	16:48:43
1	Fe 238.204 Radial†	29.6	13.1	103.39	µg/L	103.39	ppb	16:48:43
1	K 766.490 Radial†	342.0	178.3	116.45	µg/L	116.45	ppb	16:48:22
1	Mg 279.077 IEC†	44.3	31.6	282.85	µg/L	282.85	ppb	16:48:43
1	Na 589.592 Radial†	1474.0	1007.4	309.41	µg/L	309.41	ppb	16:48:22
1	Sr 421.552†	600.8	574.3	5.2980	µg/L	5.2980	ppb	16:48:22
1	Sc 361.383	1977761.8	1977761.8	100.75	%			16:49:45
1	Y 371.029	1365399.5	1365399.5	100.93	%			16:49:45
1	Ag 328.068†	258.4	658.1	4.9148	µg/L	4.9148	ppb	16:49:50
1	As 188.979†	15.7	16.1	28.782	µg/L	28.782	ppb	16:50:11
1	B 249.677†	1617.1	1221.0	49.720	µg/L	49.720	ppb	16:49:50
1	Ba 233.527†	202.7	218.3	5.2492	µg/L	5.2492	ppb	16:50:11
1	Be 313.107†	5999.9	8811.2	5.2276	µg/L	5.2276	ppb	16:49:50
1	Cd 226.502†	69.7	210.9	5.2540	µg/L	5.2540	ppb	16:50:11
1	Co 228.616†	98.7	96.0	4.3479	µg/L	4.3479	ppb	16:50:11
1	Cr 267.716†	241.4	290.0	5.8279	µg/L	5.8279	ppb	16:49:50
1	Cu 324.752†	4202.8	1627.9	10.640	µg/L	10.640	ppb	16:49:50
1	Mn 257.610†	3188.0	3420.5	10.714	µg/L	10.714	ppb	16:49:50
1	Mo 202.031†	99.0	103.6	10.146	µg/L	10.146	ppb	16:50:11
1	Ni 231.604†	418.0	102.5	5.1075	µg/L	5.1075	ppb	16:50:11
1	P 214.914†	98.6	82.5	162.32	µg/L	162.32	ppb	16:50:11
1	Pb 220.353†	137.2	45.3	10.965	µg/L	10.965	ppb	16:50:11
1	S 181.975 Axial†	42.3	23.0	95.542	µg/L	95.542	ppb	16:50:11
1	Sb 206.836†	37.6	14.8	13.659	µg/L	13.659	ppb	16:50:11
1	Se 196.026†	37.4	17.8	24.952	µg/L	24.952	ppb	16:50:11
1	SiO2†	2505.0	1094.9	216.12	µg/L	216.12	ppb	16:49:50
1	Si 251.611†	1649.6	1326.8	100.86	µg/L	100.86	ppb	16:50:11
1	Sn 189.927†	23.4	22.9	9.6771	µg/L	9.6771	ppb	16:50:11
1	Ti 334.940†	2480.4	2287.0	5.0399	µg/L	5.0399	ppb	16:49:50
1	Tl 190.801†	-7.5	15.0	19.606	µg/L	19.606	ppb	16:50:11
1	U 409.014†	617.0	689.5	57.259	µg/L	57.259	ppb	16:49:50
1	V 292.402†	481.6	522.7	5.2575	µg/L	5.2575	ppb	16:49:50
1	Zn 213.857†	992.7	450.9	10.519	µg/L	10.519	ppb	16:50:11
2	Sc RADIAL	56210.7	56210.7	99.5	%			16:48:48
2	Al 396.153Radial†	273.4	267.4	185.81	µg/L	185.81	ppb	16:48:48
2	Ca 317.933Radial†	426.2	217.1	185.45	µg/L	185.45	ppb	16:49:08
2	Fe 238.204 Radial†	28.4	12.0	94.492	µg/L	94.492	ppb	16:49:08
2	K 766.490 Radial†	411.4	248.5	162.28	µg/L	162.28	ppb	16:48:48
2	Mg 279.077 IEC†	50.3	37.8	337.62	µg/L	337.62	ppb	16:49:08
2	Na 589.592 Radial†	1464.1	999.4	306.94	µg/L	306.94	ppb	16:48:48
2	Sr 421.552†	574.2	548.3	5.0581	µg/L	5.0581	ppb	16:48:48
2	Sc 361.383	1972692.6	1972692.6	100.49	%			16:50:17
2	Y 371.029	1361966.2	1361966.2	100.68	%			16:50:17
2	Ag 328.068†	270.6	670.9	5.0087	µg/L	5.0087	ppb	16:50:23
2	As 188.979†	17.9	18.3	32.707	µg/L	32.707	ppb	16:50:43
2	B 249.677†	1623.8	1231.8	50.165	µg/L	50.165	ppb	16:50:23
2	Ba 233.527†	197.6	213.7	5.1395	µg/L	5.1395	ppb	16:50:43
2	Be 313.107†	5881.6	8708.7	5.1667	µg/L	5.1667	ppb	16:50:23
2	Cd 226.502†	72.2	213.5	5.3190	µg/L	5.3190	ppb	16:50:43
2	Co 228.616†	112.6	110.1	4.9856	µg/L	4.9856	ppb	16:50:43
2	Cr 267.716†	212.6	261.9	5.2641	µg/L	5.2641	ppb	16:50:23
2	Cu 324.752†	4135.5	1571.7	10.273	µg/L	10.273	ppb	16:50:23
2	Mn 257.610†	3139.9	3380.7	10.586	µg/L	10.586	ppb	16:50:23
2	Mo 202.031†	100.4	105.3	10.314	µg/L	10.314	ppb	16:50:43
2	Ni 231.604†	409.7	95.3	4.7480	µg/L	4.7480	ppb	16:50:43
2	P 214.914†	98.3	82.5	162.33	µg/L	162.33	ppb	16:50:43
2	Pb 220.353†	137.5	45.9	11.123	µg/L	11.123	ppb	16:50:43

2	S 181.975 Axial†	44.4	25.2	104.52 µg/L	104.52 ppb	16:50:43
2	Sb 206.836†	32.9	10.2	9.4639 µg/L	9.4639 ppb	16:50:43
2	Se 196.026†	35.2	15.7	21.973 µg/L	21.973 ppb	16:50:43
2	SiO2†	2523.6	1119.7	221.02 µg/L	221.02 ppb	16:50:23
2	Si 251.611†	1635.2	1316.7	100.10 µg/L	100.10 ppb	16:50:43
2	Sn 189.927†	26.0	25.5	10.767 µg/L	10.767 ppb	16:50:43
2	Ti 334.940†	2526.0	2338.7	5.1499 µg/L	5.1499 ppb	16:50:23
2	Tl 190.801†	-4.6	17.8	23.319 µg/L	23.319 ppb	16:50:43
2	U 409.014†	591.4	665.6	55.280 µg/L	55.280 ppb	16:50:23
2	V 292.402†	473.1	515.6	5.1847 µg/L	5.1847 ppb	16:50:23
2	Zn 213.857†	977.2	438.1	10.216 µg/L	10.216 ppb	16:50:43
3	Sc RADIAL	56270.8	56270.8	99.6 %		16:49:14
3	Al 396.153Radial†	299.9	293.7	204.14 µg/L	204.14 ppb	16:49:14
3	Ca 317.933Radial†	434.4	224.8	192.04 µg/L	192.04 ppb	16:49:35
3	Fe 238.204 Radial†	29.7	13.3	104.87 µg/L	104.87 ppb	16:49:35
3	K 766.490 Radial†	455.9	292.7	191.16 µg/L	191.16 ppb	16:49:14
3	Mg 279.077 IEC†	45.6	33.0	295.03 µg/L	295.03 ppb	16:49:35
3	Na 589.592 Radial†	1506.5	1040.3	319.53 µg/L	319.53 ppb	16:49:14
3	Sr 421.552†	597.6	571.2	5.2696 µg/L	5.2696 ppb	16:49:14
3	Sc 361.383	1984220.0	1984220.0	101.07 %		16:50:49
3	Y 371.029	1369121.2	1369121.2	101.21 %		16:50:49
3	Ag 328.068†	201.6	601.1	4.4889 µg/L	4.4889 ppb	16:50:55
3	As 188.979†	12.2	12.5	22.435 µg/L	22.435 ppb	16:51:15
3	B 249.677†	1528.3	1127.9	45.924 µg/L	45.924 ppb	16:50:55
3	Ba 233.527†	159.9	175.2	4.2153 µg/L	4.2153 ppb	16:51:15
3	Be 313.107†	4886.5	7690.3	4.5625 µg/L	4.5625 ppb	16:50:55
3	Cd 226.502†	36.1	177.4	4.4177 µg/L	4.4177 ppb	16:51:15
3	Co 228.616†	97.9	94.9	4.2983 µg/L	4.2983 ppb	16:51:15
3	Cr 267.716†	217.3	265.4	5.3332 µg/L	5.3332 ppb	16:50:55
3	Cu 324.752†	4009.3	1423.0	9.3030 µg/L	9.3030 ppb	16:50:55
3	Mn 257.610†	2806.1	3032.2	9.4977 µg/L	9.4977 ppb	16:50:55
3	Mo 202.031†	85.5	90.0	8.8152 µg/L	8.8152 ppb	16:51:15
3	Ni 231.604†	395.2	78.7	3.9181 µg/L	3.9181 ppb	16:51:15
3	P 214.914†	81.4	65.2	128.29 µg/L	128.29 ppb	16:51:15
3	Pb 220.353†	131.5	39.1	9.4710 µg/L	9.4710 ppb	16:51:15
3	S 181.975 Axial†	39.1	19.8	81.981 µg/L	81.981 ppb	16:51:15
3	Sb 206.836†	33.0	10.1	9.3652 µg/L	9.3652 ppb	16:51:15
3	Se 196.026†	36.9	17.2	24.099 µg/L	24.099 ppb	16:51:15
3	SiO2†	2440.0	1022.5	201.82 µg/L	201.82 ppb	16:50:55
3	Si 251.611†	1427.0	1101.2	83.718 µg/L	83.718 ppb	16:51:15
3	Sn 189.927†	23.7	23.1	9.7555 µg/L	9.7555 ppb	16:51:15
3	Ti 334.940†	2205.8	2007.3	4.4203 µg/L	4.4203 ppb	16:50:55
3	Tl 190.801†	-9.0	13.5	17.705 µg/L	17.705 ppb	16:51:15
3	U 409.014†	550.5	621.7	51.630 µg/L	51.630 ppb	16:50:55
3	V 292.402†	420.4	460.6	4.6353 µg/L	4.6353 ppb	16:50:55
3	Zn 213.857†	910.8	366.7	8.5490 µg/L	8.5490 ppb	16:51:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1978224.8	100.77	%	0.294				0.29%
Sc RADIAL	56254.6	99.6	%	0.07				0.07%
Y 371.029	1365495.6	100.94	%	0.265				0.26%
Ag 328.068†	643.3	4.8041	µg/L	0.27699	4.8041	ppb	0.27699	5.77%
QC value within limits for Ag 328.068 Recovery = 96.08%								
Al 396.153Radial†	284.4	197.62	µg/L	10.244	197.62	ppb	10.244	5.18%
QC value within limits for Al 396.153Radial Recovery = 98.81%								
As 188.979†	15.6	27.975	µg/L	5.1834	27.975	ppb	5.1834	18.53%
QC value within limits for As 188.979 Recovery = 93.25%								
B 249.677†	1193.6	48.603	µg/L	2.3307	48.603	ppb	2.3307	4.80%
QC value within limits for B 249.677 Recovery = 97.21%								
Ba 233.527†	202.4	4.8680	µg/L	0.56789	4.8680	ppb	0.56789	11.67%
QC value within limits for Ba 233.527 Recovery = 97.36%								
Be 313.107†	8403.4	4.9856	µg/L	0.36766	4.9856	ppb	0.36766	7.37%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	220.5	188.39	µg/L	3.356	188.39	ppb	3.356	1.78%
QC value within limits for Ca 317.933Radial Recovery = 94.19%								
Cd 226.502†	200.6	4.9969	µg/L	0.50267	4.9969	ppb	0.50267	10.06%
QC value within limits for Cd 226.502 Recovery = 99.94%								
Co 228.616†	100.4	4.5440	µg/L	0.38331	4.5440	ppb	0.38331	8.44%

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   QC value within limits for Co 228.616  Recovery = 90.88%
Cr 267.716†              272.4      5.4751 µg/L       0.30749      5.4751 ppb        0.30749   5.62%
   QC value within limits for Cr 267.716  Recovery = 109.50%
Cu 324.752†             1540.9      10.072 µg/L        0.6909      10.072 ppb         0.6909   6.86%
   QC value within limits for Cu 324.752  Recovery = 100.72%
Fe 238.204 Radial†        12.8      100.92 µg/L         5.613      100.92 ppb          5.613   5.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.92%
K 766.490 Radial†        239.8      156.63 µg/L        37.674      156.63 ppb         37.674  24.05%
   QC value within limits for K 766.490 Radial  Recovery = 104.42%
Mg 279.077 IEC†           34.1      305.17 µg/L        28.759      305.17 ppb         28.759   9.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.72%
Mn 257.610†             3277.8      10.266 µg/L        0.6682      10.266 ppb         0.6682   6.51%
   QC value within limits for Mn 257.610  Recovery = 102.66%
Mo 202.031†               99.6      9.7581 µg/L       0.82093      9.7581 ppb        0.82093   8.41%
   QC value within limits for Mo 202.031  Recovery = 97.58%
Na 589.592 Radial†      1015.7      311.96 µg/L         6.671      311.96 ppb          6.671   2.14%
   QC value within limits for Na 589.592 Radial  Recovery = 103.99%
Ni 231.604†               92.2      4.5912 µg/L       0.61004      4.5912 ppb        0.61004  13.29%
   QC value within limits for Ni 231.604  Recovery = 91.82%
P 214.914†                76.7      150.98 µg/L        19.653      150.98 ppb         19.653  13.02%
   QC value within limits for P 214.914  Recovery = 100.65%
Pb 220.353†               43.4      10.520 µg/L        0.9115      10.520 ppb         0.9115   8.67%
   QC value within limits for Pb 220.353  Recovery = 105.20%
S 181.975 Axial†          22.7      94.016 µg/L       11.3485      94.016 ppb        11.3485  12.07%
   QC value within limits for S 181.975 Axial  Recovery = 94.02%
Sb 206.836†               11.7      10.829 µg/L        2.4509      10.829 ppb         2.4509  22.63%
   QC value within limits for Sb 206.836  Recovery = 108.29%
Se 196.026†               16.9      23.675 µg/L        1.5343      23.675 ppb         1.5343   6.48%
   QC value within limits for Se 196.026  Recovery = 78.92%
SiO2†                   1079.0      212.99 µg/L         9.975      212.99 ppb          9.975   4.68%
   QC value within limits for SiO2  Recovery = 99.99%
Si 251.611†             1248.2      94.893 µg/L        9.6851      94.893 ppb         9.6851  10.21%
   QC value within limits for Si 251.611  Recovery = 94.89%
Sn 189.927†               23.8      10.067 µg/L        0.6079      10.067 ppb         0.6079   6.04%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†              564.6      5.2086 µg/L       0.13109      5.2086 ppb        0.13109   2.52%
   QC value within limits for Sr 421.552  Recovery = 104.17%
Ti 334.940†             2211.0      4.8701 µg/L       0.39334      4.8701 ppb        0.39334   8.08%
   QC value within limits for Ti 334.940  Recovery = 97.40%
Tl 190.801†               15.4      20.210 µg/L        2.8552      20.210 ppb         2.8552  14.13%
   QC value within limits for Tl 190.801  Recovery = 101.05%
U 409.014†               659.0      54.723 µg/L        2.8553      54.723 ppb         2.8553   5.22%
   QC value within limits for U 409.014  Recovery = 109.45%
V 292.402†               499.7      5.0258 µg/L       0.34018      5.0258 ppb        0.34018   6.77%
   QC value within limits for V 292.402  Recovery = 100.52%
Zn 213.857†              418.6      9.7614 µg/L       1.06081      9.7614 ppb        1.06081  10.87%
   QC value within limits for Zn 213.857  Recovery = 97.61%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/19/2010 16:51:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55393.6	55393.6	98.0	%			16:52:06
1	Al 396.153Radial†	724194.0	738594.2	513810	µg/L	513810	ppb	16:52:00
1	Ca 317.933Radial†	560588.9	571530.4	488190	µg/L	488190	ppb	16:52:00
1	Fe 238.204 Radial†	23830.6	24288.1	191560	µg/L	191560	ppb	16:52:06
1	K 766.490 Radial†	115.1	-47.6	-31.114	µg/L	-31.114	ppb	16:52:06
1	Mg 279.077 IEC†	54305.7	55373.3	494780	µg/L	494780	ppb	16:52:06
1	Na 589.592 Radial†	579.7	119.1	36.566	µg/L	36.566	ppb	16:52:06
1	Sr 421.552†	417.7	397.2	3.6640	µg/L	3.6640	ppb	16:52:06
1	Sc 361.383	1850788.2	1850788.2	94.278	%			16:52:38
1	Y 371.029	1267800.9	1267800.9	93.720	%			16:52:38
1	Ag 328.068†	-2693.6	-2455.5	-6.2926	µg/L	-6.2926	ppb	16:52:44
1	As 188.979†	-3.5	-3.2	-20.025	µg/L	-20.025	ppb	16:53:05
1	B 249.677†	871.2	539.9	-77.949	µg/L	-77.949	ppb	16:52:44
1	Ba 233.527†	294.9	329.9	7.8736	µg/L	7.8736	ppb	16:53:05
1	Be 313.107†	-3450.2	-803.9	-0.4876	µg/L	-0.4876	ppb	16:52:44
1	Cd 226.502†	449.3	618.2	-6.2337	µg/L	-6.2337	ppb	16:53:05
1	Co 228.616†	61.1	62.9	2.7806	µg/L	2.7806	ppb	16:53:05
1	Cr 267.716†	-66.1	-19.8	-0.4132	µg/L	-0.4132	ppb	16:53:05
1	Cu 324.752†	-1734.2	-4383.2	-1.9848	µg/L	-1.9848	ppb	16:52:44
1	Mn 257.610†	821.6	1127.5	9.2085	µg/L	9.2085	ppb	16:52:44
1	Mo 202.031†	-118.4	-120.2	-4.4913	µg/L	-4.4913	ppb	16:53:05
1	Ni 231.604†	163.0	-139.5	-4.4672	µg/L	-4.4672	ppb	16:53:05
1	P 214.914†	72.2	61.2	116.25	µg/L	116.25	ppb	16:53:05
1	Pb 220.353†	39.4	-49.1	9.0511	µg/L	9.0511	ppb	16:53:05
1	S 181.975 Axial†	32.2	15.3	63.310	µg/L	63.310	ppb	16:53:05
1	Sb 206.836†	57.5	38.5	-7.3305	µg/L	-7.3305	ppb	16:53:05
1	Se 196.026†	11.6	-7.0	-62.783	µg/L	-62.783	ppb	16:53:05
1	SiO2†	1235.7	-80.9	-15.963	µg/L	-15.963	ppb	16:53:05
1	Si 251.611†	441.8	157.9	12.007	µg/L	12.007	ppb	16:53:05
1	Sn 189.927†	-66.4	-70.8	5.6696	µg/L	5.6696	ppb	16:53:05
1	Ti 334.940†	11832.7	12375.9	-3.9147	µg/L	-3.9147	ppb	16:52:44
1	Tl 190.801†	-42.3	-22.5	-8.4040	µg/L	-8.4040	ppb	16:53:05
1	U 409.014†	-59.0	14.5	-55.197	µg/L	-55.197	ppb	16:52:44
1	V 292.402†	-2553.4	-2663.6	-3.5017	µg/L	-3.5017	ppb	16:52:44
1	Zn 213.857†	1634.5	1199.3	-8.9501	µg/L	-8.9501	ppb	16:53:05
2	Sc RADIAL	55011.0	55011.0	97.4	%			16:52:17
2	Al 396.153Radial†	723719.7	743244.2	517040	µg/L	517040	ppb	16:52:11
2	Ca 317.933Radial†	561511.7	576454.6	492400	µg/L	492400	ppb	16:52:11
2	Fe 238.204 Radial†	23613.9	24234.6	191140	µg/L	191140	ppb	16:52:17
2	K 766.490 Radial†	128.3	-33.2	-21.699	µg/L	-21.699	ppb	16:52:17
2	Mg 279.077 IEC†	53736.1	55173.5	492990	µg/L	492990	ppb	16:52:17
2	Na 589.592 Radial†	541.6	84.0	25.796	µg/L	25.796	ppb	16:52:17
2	Sr 421.552†	414.5	396.8	3.6609	µg/L	3.6609	ppb	16:52:17
2	Sc 361.383	1848725.6	1848725.6	94.173	%			16:53:11
2	Y 371.029	1266302.7	1266302.7	93.609	%			16:53:11
2	Ag 328.068†	-2764.2	-2533.7	-6.8956	µg/L	-6.8956	ppb	16:53:16
2	As 188.979†	-19.7	-20.5	-51.199	µg/L	-51.199	ppb	16:53:37
2	B 249.677†	821.6	488.3	-79.833	µg/L	-79.833	ppb	16:53:16
2	Ba 233.527†	289.2	324.1	7.7351	µg/L	7.7351	ppb	16:53:37
2	Be 313.107†	-3507.9	-869.3	-0.5266	µg/L	-0.5266	ppb	16:53:16
2	Cd 226.502†	439.6	608.5	-6.4301	µg/L	-6.4301	ppb	16:53:37
2	Co 228.616†	46.3	47.3	2.0733	µg/L	2.0733	ppb	16:53:37
2	Cr 267.716†	-55.1	-8.1	-0.1798	µg/L	-0.1798	ppb	16:53:37
2	Cu 324.752†	-1747.2	-4399.1	-2.1470	µg/L	-2.1470	ppb	16:53:16
2	Mn 257.610†	693.8	992.7	8.8018	µg/L	8.8018	ppb	16:53:16
2	Mo 202.031†	-103.9	-105.0	-3.0206	µg/L	-3.0206	ppb	16:53:37
2	Ni 231.604†	140.3	-163.4	-5.6612	µg/L	-5.6612	ppb	16:53:37
2	P 214.914†	95.8	86.4	167.33	µg/L	167.33	ppb	16:53:37
2	Pb 220.353†	25.6	-63.7	5.6987	µg/L	5.6987	ppb	16:53:37

2	S 181.975 Axial†	46.7	30.7	127.27 µg/L	127.27 ppb		16:53:37
2	Sb 206.836†	44.2	24.4	-20.582 µg/L	-20.582 ppb		16:53:37
2	Se 196.026†	15.1	-3.2	-58.240 µg/L	-58.240 ppb		16:53:37
2	SiO2†	1212.8	-103.8	-20.481 µg/L	-20.481 ppb		16:53:37
2	Si 251.611†	449.3	166.5	12.657 µg/L	12.657 ppb		16:53:37
2	Sn 189.927†	-68.4	-73.0	4.5450 µg/L	4.5450 ppb		16:53:37
2	Ti 334.940†	12102.5	12676.3	-3.0417 µg/L	-3.0417 ppb		16:53:16
2	Tl 190.801†	-37.0	-17.0	-1.3751 µg/L	-1.3751 ppb		16:53:37
2	U 409.014†	-33.8	41.2	-53.185 µg/L	-53.185 ppb		16:53:16
2	V 292.402†	-2512.7	-2623.4	-3.1453 µg/L	-3.1453 ppb		16:53:16
2	Zn 213.857†	1609.3	1174.4	-9.4073 µg/L	-9.4073 ppb		16:53:37
3	Sc RADIAL	55087.9	55087.9	97.5 %			16:52:28
3	Al 396.153Radial†	720131.5	738527.0	513760 µg/L	513760 ppb		16:52:23
3	Ca 317.933Radial†	556178.1	570179.9	487040 µg/L	487040 ppb		16:52:23
3	Fe 238.204 Radial†	23691.3	24280.2	191500 µg/L	191500 ppb		16:52:28
3	K 766.490 Radial†	149.7	-11.5	-7.5099 µg/L	-7.5099 ppb		16:52:28
3	Mg 279.077 IEC†	53963.6	55329.8	494390 µg/L	494390 ppb		16:52:28
3	Na 589.592 Radial†	551.3	93.2	28.624 µg/L	28.624 ppb		16:52:28
3	Sr 421.552†	418.9	400.8	3.6974 µg/L	3.6974 ppb		16:52:28
3	Sc 361.383	1849927.7	1849927.7	94.234 %			16:53:43
3	Y 371.029	1267002.1	1267002.1	93.661 %			16:53:43
3	Ag 328.068†	-2734.1	-2499.7	-6.6223 µg/L	-6.6223 ppb		16:53:49
3	As 188.979†	-9.3	-9.4	-31.056 µg/L	-31.056 ppb		16:54:09
3	B 249.677†	848.6	516.3	-78.878 µg/L	-78.878 ppb		16:53:49
3	Ba 233.527†	283.0	317.4	7.5725 µg/L	7.5725 ppb		16:54:09
3	Be 313.107†	-3473.1	-829.9	-0.5033 µg/L	-0.5033 ppb		16:53:49
3	Cd 226.502†	443.2	612.0	-6.3822 µg/L	-6.3822 ppb		16:54:09
3	Co 228.616†	37.7	38.1	1.6569 µg/L	1.6569 ppb		16:54:09
3	Cr 267.716†	-62.9	-16.3	-0.3442 µg/L	-0.3442 ppb		16:54:09
3	Cu 324.752†	-1721.6	-4370.7	-1.9119 µg/L	-1.9119 ppb		16:53:49
3	Mn 257.610†	731.2	1032.0	8.9167 µg/L	8.9167 ppb		16:53:49
3	Mo 202.031†	-107.8	-109.1	-3.4029 µg/L	-3.4029 ppb		16:54:09
3	Ni 231.604†	145.6	-157.8	-5.3810 µg/L	-5.3810 ppb		16:54:09
3	P 214.914†	108.6	100.0	193.00 µg/L	193.00 ppb		16:54:09
3	Pb 220.353†	37.4	-51.2	8.5535 µg/L	8.5535 ppb		16:54:09
3	S 181.975 Axial†	37.1	20.4	84.584 µg/L	84.584 ppb		16:54:09
3	Sb 206.836†	48.6	29.0	-15.889 µg/L	-15.889 ppb		16:54:09
3	Se 196.026†	35.7	18.5	-26.410 µg/L	-26.410 ppb		16:54:09
3	SiO2†	1232.2	-83.9	-16.565 µg/L	-16.565 ppb		16:54:09
3	Si 251.611†	426.5	142.0	10.792 µg/L	10.792 ppb		16:54:09
3	Sn 189.927†	-55.5	-59.3	10.507 µg/L	10.507 ppb		16:54:09
3	Ti 334.940†	12184.3	12754.8	-3.0642 µg/L	-3.0642 ppb		16:53:49
3	Tl 190.801†	-36.8	-16.7	-0.7208 µg/L	-0.7208 ppb		16:54:09
3	U 409.014†	-97.2	-26.0	-58.491 µg/L	-58.491 ppb		16:53:49
3	V 292.402†	-2526.9	-2636.8	-3.2422 µg/L	-3.2422 ppb		16:53:49
3	Zn 213.857†	1595.9	1159.1	-9.8646 µg/L	-9.8646 ppb		16:54:09

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1849813.8	94.228	%	0.0528				0.06%
Sc RADIAL	55164.1	97.6	%	0.36				0.37%
Y 371.029	1267035.2	93.663	%	0.0554				0.06%
Ag 328.068†	-2496.3	-6.6035	µg/L	0.30193	-6.6035	ppb	0.30193	4.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	740121.8	514870	µg/L	1881.2	514870	ppb	1881.2	0.37%
QC value within limits for Al 396.153Radial Recovery = 102.97%								
As 188.979†	-11.0	-34.093	µg/L	15.8073	-34.093	ppb	15.8073	46.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	514.9	-78.887	µg/L	0.9419	-78.887	ppb	0.9419	1.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	323.8	7.7271	µg/L	0.15071	7.7271	ppb	0.15071	1.95%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-834.4	-0.5058	µg/L	0.01964	-0.5058	ppb	0.01964	3.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	572721.6	489210	µg/L	2821.0	489210	ppb	2821.0	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	612.9	-6.3487	µg/L	0.10242	-6.3487	ppb	0.10242	1.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	49.4	2.1702	µg/L	0.56812	2.1702	ppb	0.56812	26.18%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.7     -0.3124 µg/L       0.11992     -0.3124 ppb        0.11992  38.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -4384.3     -2.0146 µg/L       0.12034     -2.0146 ppb        0.12034   5.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     24267.6      191400 µg/L         227.6      191400 ppb          227.6   0.12%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.70%
K 766.490 Radial†        -30.8     -20.107 µg/L       11.8821     -20.107 ppb        11.8821  59.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        55292.2      494060 µg/L         938.7      494060 ppb          938.7   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.81%
Mn 257.610†             1050.7      8.9756 µg/L       0.20969      8.9756 ppb        0.20969   2.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -111.4     -3.6383 µg/L       0.76308     -3.6383 ppb        0.76308  20.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        98.7      30.329 µg/L        5.5836      30.329 ppb         5.5836  18.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -153.6     -5.1698 µg/L       0.62439     -5.1698 ppb        0.62439  12.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                82.5      158.86 µg/L        39.068      158.86 ppb         39.068  24.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -54.7      7.7677 µg/L       1.80905      7.7677 ppb        1.80905  23.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          22.1      91.723 µg/L       32.5738      91.723 ppb        32.5738  35.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               30.6     -14.600 µg/L        6.7191     -14.600 ppb         6.7191  46.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.8     -49.144 µg/L       19.8190     -49.144 ppb        19.8190  40.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -89.5     -17.670 µg/L        2.4533     -17.670 ppb         2.4533  13.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             155.5      11.818 µg/L        0.9466      11.818 ppb         0.9466   8.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -67.7      6.9072 µg/L       3.16787      6.9072 ppb        3.16787  45.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              398.3      3.6741 µg/L       0.02024      3.6741 ppb        0.02024   0.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            12602.3     -3.3402 µg/L       0.49765     -3.3402 ppb        0.49765  14.90%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -18.7     -3.4999 µg/L       4.25960     -3.4999 ppb        4.25960 121.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 9.9     -55.624 µg/L        2.6789     -55.624 ppb         2.6789   4.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2641.3     -3.2964 µg/L       0.18427     -3.2964 ppb        0.18427   5.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1177.6     -9.4073 µg/L       0.45728     -9.4073 ppb        0.45728   4.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/19/2010 16:54:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55797.0	55797.0	98.8	%			16:54:58
1	Al 396.153Radial†	721688.4	730717.2	508320	µg/L	508320	ppb	16:54:53
1	Ca 317.933Radial†	559165.5	565955.4	483430	µg/L	483430	ppb	16:54:53
1	Fe 238.204 Radial†	23697.0	23977.1	189110	µg/L	189110	ppb	16:54:58
1	K 766.490 Radial†	7825.4	7758.4	5067.1	µg/L	5067.1	ppb	16:54:58
1	Mg 279.077 IEC†	54011.0	54674.5	488540	µg/L	488540	ppb	16:54:58
1	Na 589.592 Radial†	17079.2	16820.9	5166.4	µg/L	5166.4	ppb	16:54:58
1	Sr 421.552†	53653.0	54296.0	500.89	µg/L	500.89	ppb	16:54:58
1	Sc 361.383	1843700.1	1843700.1	93.917	%			16:55:33
1	Y 371.029	1261744.6	1261744.6	93.272	%			16:55:33
1	Ag 328.068†	30366.5	32735.0	257.65	µg/L	257.65	ppb	16:55:33
1	As 188.979†	267.3	285.0	495.71	µg/L	495.71	ppb	16:55:53
1	B 249.677†	12776.1	13219.5	440.90	µg/L	440.90	ppb	16:55:33
1	Ba 233.527†	19707.5	21001.1	505.07	µg/L	505.07	ppb	16:55:33
1	Be 313.107†	381967.5	409563.9	242.87	µg/L	242.87	ppb	16:55:33
1	Cd 226.502†	18000.5	19308.2	460.62	µg/L	460.62	ppb	16:55:33
1	Co 228.616†	9028.5	9611.4	434.60	µg/L	434.60	ppb	16:55:53
1	Cr 267.716†	22814.5	24342.6	489.24	µg/L	489.24	ppb	16:55:33
1	Cu 324.752†	76830.3	79263.0	543.67	µg/L	543.67	ppb	16:55:33
1	Mn 257.610†	145121.7	154777.5	490.29	µg/L	490.29	ppb	16:55:33
1	Mo 202.031†	4771.3	5085.6	505.20	µg/L	505.20	ppb	16:55:53
1	Ni 231.604†	8362.6	8591.9	430.24	µg/L	430.24	ppb	16:55:53
1	P 214.914†	1320.9	1391.1	2699.5	µg/L	2699.5	ppb	16:55:53
1	Pb 220.353†	1871.2	1901.4	483.01	µg/L	483.01	ppb	16:55:53
1	S 181.975 Axial†	648.6	671.7	2785.4	µg/L	2785.4	ppb	16:55:53
1	Sb 206.836†	575.1	589.8	502.04	µg/L	502.04	ppb	16:55:53
1	Se 196.026†	1623.8	1709.6	2348.3	µg/L	2348.3	ppb	16:55:53
1	SiO2†	53672.2	55757.1	11006	µg/L	11006	ppb	16:55:33
1	Si 251.611†	64106.8	67948.4	5165.6	µg/L	5165.6	ppb	16:55:33
1	Sn 189.927†	1083.9	1153.7	521.63	µg/L	521.63	ppb	16:55:53
1	Ti 334.940†	229038.7	243698.9	508.24	µg/L	508.24	ppb	16:55:33
1	Tl 190.801†	288.9	330.0	454.77	µg/L	454.77	ppb	16:55:53
1	U 409.014†	5773.2	6224.2	461.36	µg/L	461.36	ppb	16:55:33
1	V 292.402†	47456.1	50574.7	520.63	µg/L	520.63	ppb	16:55:33
1	Zn 213.857†	20837.2	21652.5	468.58	µg/L	468.58	ppb	16:55:33
2	Sc RADIAL	55348.5	55348.5	98.0	%			16:55:10
2	Al 396.153Radial†	722041.1	736998.6	512690	µg/L	512690	ppb	16:55:04
2	Ca 317.933Radial†	559699.2	571088.2	487810	µg/L	487810	ppb	16:55:04
2	Fe 238.204 Radial†	23398.1	23866.4	188240	µg/L	188240	ppb	16:55:10
2	K 766.490 Radial†	7752.4	7748.1	5060.4	µg/L	5060.4	ppb	16:55:10
2	Mg 279.077 IEC†	53665.0	54764.4	489350	µg/L	489350	ppb	16:55:10
2	Na 589.592 Radial†	16898.5	16776.6	5152.8	µg/L	5152.8	ppb	16:55:10
2	Sr 421.552†	53220.9	54295.2	500.88	µg/L	500.88	ppb	16:55:10
2	Sc 361.383	1828346.4	1828346.4	93.135	%			16:56:01
2	Y 371.029	1251250.1	1251250.1	92.496	%			16:56:01
2	Ag 328.068†	30001.6	32614.7	256.69	µg/L	256.69	ppb	16:56:01
2	As 188.979†	258.0	277.4	481.82	µg/L	481.82	ppb	16:56:21
2	B 249.677†	12695.1	13246.8	442.46	µg/L	442.46	ppb	16:56:01
2	Ba 233.527†	19356.4	20800.3	500.24	µg/L	500.24	ppb	16:56:01
2	Be 313.107†	377037.1	407685.5	241.76	µg/L	241.76	ppb	16:56:01
2	Cd 226.502†	17698.0	19144.3	456.64	µg/L	456.64	ppb	16:56:01
2	Co 228.616†	8995.7	9656.8	436.67	µg/L	436.67	ppb	16:56:21
2	Cr 267.716†	22554.0	24266.9	487.72	µg/L	487.72	ppb	16:56:01
2	Cu 324.752†	76157.1	79227.2	543.32	µg/L	543.32	ppb	16:56:01
2	Mn 257.610†	143300.8	154120.0	488.08	µg/L	488.08	ppb	16:56:01
2	Mo 202.031†	4737.2	5091.8	505.77	µg/L	505.77	ppb	16:56:21
2	Ni 231.604†	8356.6	8660.3	433.64	µg/L	433.64	ppb	16:56:21
2	P 214.914†	1314.8	1396.4	2712.1	µg/L	2712.1	ppb	16:56:21
2	Pb 220.353†	1869.4	1916.2	486.89	µg/L	486.89	ppb	16:56:21

2	S 181.975 Axial†	642.4	670.8	2782.0 µg/L	2782.0 ppb	16:56:21
2	Sb 206.836†	578.7	598.8	509.94 µg/L	509.94 ppb	16:56:21
2	Se 196.026†	1633.2	1734.3	2378.6 µg/L	2378.6 ppb	16:56:21
2	SiO2†	52972.0	55485.1	10952 µg/L	10952 ppb	16:56:01
2	Si 251.611†	63354.2	67713.7	5147.7 µg/L	5147.7 ppb	16:56:01
2	Sn 189.927†	1076.4	1155.4	522.48 µg/L	522.48 ppb	16:56:21
2	Ti 334.940†	226229.7	242730.8	506.11 µg/L	506.11 ppb	16:56:01
2	Tl 190.801†	294.9	339.0	466.26 µg/L	466.26 ppb	16:56:21
2	U 409.014†	5629.0	6121.0	452.64 µg/L	452.64 ppb	16:56:01
2	V 292.402†	46870.5	50370.2	518.52 µg/L	518.52 ppb	16:56:01
2	Zn 213.857†	20535.2	21514.5	465.32 µg/L	465.32 ppb	16:56:01
3	Sc RADIAL	55847.7	55847.7	98.9 %		16:55:21
3	Al 396.153Radial†	722897.9	731277.0	508700 µg/L	508700 ppb	16:55:15
3	Ca 317.933Radial†	559752.9	566035.4	483500 µg/L	483500 ppb	16:55:15
3	Fe 238.204 Radial†	23698.6	23957.0	188960 µg/L	188960 ppb	16:55:21
3	K 766.490 Radial†	7809.0	7734.7	5051.6 µg/L	5051.6 ppb	16:55:21
3	Mg 279.077 IEC†	54100.9	54715.7	488910 µg/L	488910 ppb	16:55:21
3	Na 589.592 Radial†	17037.2	16762.7	5148.5 µg/L	5148.5 ppb	16:55:21
3	Sr 421.552†	53557.3	54149.8	499.54 µg/L	499.54 ppb	16:55:21
3	Sc 361.383	1849513.8	1849513.8	94.213 %		16:56:29
3	Y 371.029	1265200.0	1265200.0	93.528 %		16:56:29
3	Ag 328.068†	30278.1	32539.5	256.19 µg/L	256.19 ppb	16:56:29
3	As 188.979†	249.4	265.2	460.15 µg/L	460.15 ppb	16:56:49
3	B 249.677†	12838.9	13243.4	441.96 µg/L	441.96 ppb	16:56:29
3	Ba 233.527†	19684.2	20910.3	502.89 µg/L	502.89 ppb	16:56:29
3	Be 313.107†	381877.8	408190.3	242.06 µg/L	242.06 ppb	16:56:29
3	Cd 226.502†	18049.5	19299.9	460.44 µg/L	460.44 ppb	16:56:29
3	Co 228.616†	9068.2	9623.2	435.15 µg/L	435.15 ppb	16:56:49
3	Cr 267.716†	22913.2	24371.1	489.81 µg/L	489.81 ppb	16:56:29
3	Cu 324.752†	76676.5	78842.6	540.91 µg/L	540.91 ppb	16:56:29
3	Mn 257.610†	145122.9	154293.0	488.74 µg/L	488.74 ppb	16:56:29
3	Mo 202.031†	4785.3	5084.6	505.09 µg/L	505.09 ppb	16:56:49
3	Ni 231.604†	8413.0	8617.4	431.51 µg/L	431.51 ppb	16:56:49
3	P 214.914†	1336.0	1402.7	2723.0 µg/L	2723.0 ppb	16:56:49
3	Pb 220.353†	1874.0	1898.2	482.26 µg/L	482.26 ppb	16:56:49
3	S 181.975 Axial†	650.5	671.5	2784.8 µg/L	2784.8 ppb	16:56:49
3	Sb 206.836†	579.0	592.1	504.11 µg/L	504.11 ppb	16:56:49
3	Se 196.026†	1645.5	1727.2	2372.2 µg/L	2372.2 ppb	16:56:49
3	SiO2†	53612.6	55514.2	10958 µg/L	10958 ppb	16:56:29
3	Si 251.611†	64125.9	67754.2	5150.8 µg/L	5150.8 ppb	16:56:29
3	Sn 189.927†	1079.8	1145.8	518.33 µg/L	518.33 ppb	16:56:49
3	Ti 334.940†	228839.3	242720.7	506.05 µg/L	506.05 ppb	16:56:29
3	Tl 190.801†	301.0	341.8	470.11 µg/L	470.11 ppb	16:56:49
3	U 409.014†	5634.4	6057.5	447.53 µg/L	447.53 ppb	16:56:29
3	V 292.402†	47572.3	50539.2	520.25 µg/L	520.25 ppb	16:56:29
3	Zn 213.857†	20782.8	21525.0	465.57 µg/L	465.57 ppb	16:56:29

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1840520.1	93.755	%	0.5571				0.59%
Sc RADIAL	55664.4	98.5	%	0.49				0.49%
Y 371.029	1259398.2	93.099	%	0.5370				0.58%
Ag 328.068†	32629.7	256.85	µg/L	0.742	256.85	ppb	0.742	0.29%
QC value within limits for Ag 328.068 Recovery = 102.74%								
Al 396.153Radial†	732997.6	509900	µg/L	2418.3	509900	ppb	2418.3	0.47%
QC value within limits for Al 396.153Radial Recovery = 101.98%								
As 188.979†	275.9	479.23	µg/L	17.921	479.23	ppb	17.921	3.74%
QC value within limits for As 188.979 Recovery = 95.85%								
B 249.677†	13236.6	441.77	µg/L	0.799	441.77	ppb	0.799	0.18%
QC value within limits for B 249.677 Recovery = 88.35%								
Ba 233.527†	20903.9	502.73	µg/L	2.416	502.73	ppb	2.416	0.48%
QC value within limits for Ba 233.527 Recovery = 100.55%								
Be 313.107†	408479.9	242.23	µg/L	0.577	242.23	ppb	0.577	0.24%
QC value within limits for Be 313.107 Recovery = 96.89%								
Ca 317.933Radial†	567693.0	484910	µg/L	2511.8	484910	ppb	2511.8	0.52%
QC value within limits for Ca 317.933Radial Recovery = 96.98%								
Cd 226.502†	19250.8	459.23	µg/L	2.249	459.23	ppb	2.249	0.49%
QC value within limits for Cd 226.502 Recovery = 91.85%								
Co 228.616†	9630.5	435.47	µg/L	1.070	435.47	ppb	1.070	0.25%

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   QC value within limits for Co 228.616  Recovery = 87.09%
Cr 267.716†            24326.8      488.92 µg/L         1.082      488.92 ppb          1.082   0.22%
   QC value within limits for Cr 267.716  Recovery = 97.78%
Cu 324.752†            79110.9      542.63 µg/L         1.505      542.63 ppb          1.505   0.28%
   QC value within limits for Cu 324.752  Recovery = 108.53%
Fe 238.204 Radial†     23933.5      188770 µg/L         465.0      188770 ppb          465.0   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.39%
K 766.490 Radial†       7747.0      5059.7 µg/L          7.77      5059.7 ppb           7.77   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 101.19%
Mg 279.077 IEC†        54718.2      488940 µg/L         403.0      488940 ppb          403.0   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.79%
Mn 257.610†           154396.8      489.04 µg/L         1.134      489.04 ppb          1.134   0.23%
   QC value within limits for Mn 257.610  Recovery = 97.81%
Mo 202.031†             5087.3      505.36 µg/L         0.362      505.36 ppb          0.362   0.07%
   QC value within limits for Mo 202.031  Recovery = 101.07%
Na 589.592 Radial†     16786.7      5155.9 µg/L          9.34      5155.9 ppb           9.34   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 103.12%
Ni 231.604†             8623.2      431.80 µg/L         1.714      431.80 ppb          1.714   0.40%
   QC value within limits for Ni 231.604  Recovery = 86.36%
P 214.914†              1396.7      2711.6 µg/L         11.77      2711.6 ppb          11.77   0.43%
   QC value within limits for P 214.914  Recovery = 108.46%
Pb 220.353†             1905.3      484.05 µg/L         2.482      484.05 ppb          2.482   0.51%
   QC value within limits for Pb 220.353  Recovery = 96.81%
S 181.975 Axial†         671.3      2784.0 µg/L          1.83      2784.0 ppb           1.83   0.07%
   QC value within limits for S 181.975 Axial  Recovery = 111.36%
Sb 206.836†              593.6      505.36 µg/L         4.096      505.36 ppb          4.096   0.81%
   QC value within limits for Sb 206.836  Recovery = 101.07%
Se 196.026†             1723.7      2366.3 µg/L         15.98      2366.3 ppb          15.98   0.68%
   QC value within limits for Se 196.026  Recovery = 94.65%
SiO2†                  55585.5       10972 µg/L          29.5       10972 ppb           29.5   0.27%
   QC value within limits for SiO2  Recovery = 102.59%
Si 251.611†            67805.4      5154.7 µg/L          9.54      5154.7 ppb           9.54   0.19%
   QC value within limits for Si 251.611  Recovery = 103.09%
Sn 189.927†             1151.6      520.81 µg/L         2.193      520.81 ppb          2.193   0.42%
   QC value within limits for Sn 189.927  Recovery = 104.16%
Sr 421.552†            54247.0      500.44 µg/L         0.776      500.44 ppb          0.776   0.16%
   QC value within limits for Sr 421.552  Recovery = 100.09%
Ti 334.940†           243050.1      506.80 µg/L         1.249      506.80 ppb          1.249   0.25%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              337.0      463.71 µg/L         7.981      463.71 ppb          7.981   1.72%
   QC value within limits for Tl 190.801  Recovery = 92.74%
U 409.014†              6134.3      453.84 µg/L         6.995      453.84 ppb          6.995   1.54%
   QC value within limits for U 409.014  Recovery = 90.77%
V 292.402†             50494.7      519.80 µg/L         1.121      519.80 ppb          1.121   0.22%
   QC value within limits for V 292.402  Recovery = 103.96%
Zn 213.857†            21564.0      466.49 µg/L         1.813      466.49 ppb          1.813   0.39%
   QC value within limits for Zn 213.857  Recovery = 93.30%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/19/2010 16:56:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54748.6	54748.6	96.9	%			16:57:39
1	Al 396.153Radial†	706292.1	728823.1	507010	µg/L	507010	ppb	16:57:34
1	Ca 317.933Radial†	550897.7	568266.0	485400	µg/L	485400	ppb	16:57:34
1	Fe 238.204 Radial†	56162.0	57937.6	456950	µg/L	456950	ppb	16:57:39
1	K 766.490 Radial†	115.4	-45.9	-29.969	µg/L	-29.969	ppb	16:57:39
1	Mg 279.077 IEC†	52280.8	53936.3	481650	µg/L	481650	ppb	16:57:39
1	Na 589.592 Radial†	1551701.3	1600745.1	491660	µg/L	491660	ppb	16:57:34
1	Sr 421.552†	596.5	586.7	5.4124	µg/L	5.4124	ppb	16:57:39
1	Sc 361.383	1808982.1	1808982.1	92.148	%			16:58:15
1	Y 371.029	1229275.2	1229275.2	90.872	%			16:58:15
1	Ag 328.068†	-4982.3	-5005.2	-8.7931	µg/L	-8.7931	ppb	16:58:15
1	As 188.979†	-19.3	-20.5	-35.405	µg/L	-35.405	ppb	16:58:35
1	B 249.677†	1469.8	1210.9	-189.08	µg/L	-189.08	ppb	16:58:15
1	Ba 233.527†	599.8	668.0	15.898	µg/L	15.898	ppb	16:58:35
1	Be 313.107†	-11244.2	-9346.6	-5.5617	µg/L	-5.5617	ppb	16:58:15
1	Cd 226.502†	1210.5	1455.3	-15.352	µg/L	-15.352	ppb	16:58:15
1	Co 228.616†	210.6	226.6	10.160	µg/L	10.160	ppb	16:58:35
1	Cr 267.716†	45.2	99.4	1.9489	µg/L	1.9489	ppb	16:58:35
1	Cu 324.752†	-9617.8	-12981.1	-21.218	µg/L	-21.218	ppb	16:58:15
1	Mn 257.610†	-6155.9	-6424.4	21.370	µg/L	21.370	ppb	16:58:15
1	Mo 202.031†	-225.9	-239.8	-6.1197	µg/L	-6.1197	ppb	16:58:35
1	Ni 231.604†	48.3	-259.9	-7.0295	µg/L	-7.0295	ppb	16:58:35
1	P 214.914†	306.6	317.4	411.96	µg/L	411.96	ppb	16:58:35
1	Pb 220.353†	156.6	79.1	15.477	µg/L	15.477	ppb	16:58:35
1	S 181.975 Axial†	35.4	19.5	80.955	µg/L	80.955	ppb	16:58:35
1	Sb 206.836†	57.1	39.4	-6.4292	µg/L	-6.4292	ppb	16:58:35
1	Se 196.026†	-157.5	-190.2	417.62	µg/L	417.62	ppb	16:58:35
1	SiO2†	1118.3	-178.0	-35.141	µg/L	-35.141	ppb	16:58:35
1	Si 251.611†	-300.1	-636.3	-48.374	µg/L	-48.374	ppb	16:58:35
1	Sn 189.927†	-47.4	-51.8	-16.141	µg/L	-16.141	ppb	16:58:35
1	Ti 334.940†	15981.4	17168.1	7.6569	µg/L	7.6569	ppb	16:58:15
1	Tl 190.801†	-58.7	-41.3	21.254	µg/L	21.254	ppb	16:58:35
1	U 409.014†	152808.3	165905.7	13691	µg/L	13691	ppb	16:58:15
1	V 292.402†	-7264.4	-7838.6	-8.4612	µg/L	-8.4612	ppb	16:58:15
1	Zn 213.857†	2986.9	2707.0	14.661	µg/L	14.661	ppb	16:58:35
2	Sc RADIAL	54627.5	54627.5	96.7	%			16:57:51
2	Al 396.153Radial†	705003.9	729106.1	507210	µg/L	507210	ppb	16:57:46
2	Ca 317.933Radial†	548288.5	566827.4	484170	µg/L	484170	ppb	16:57:46
2	Fe 238.204 Radial†	56104.2	58006.2	457490	µg/L	457490	ppb	16:57:51
2	K 766.490 Radial†	75.8	-86.6	-56.548	µg/L	-56.548	ppb	16:57:51
2	Mg 279.077 IEC†	52084.5	53852.8	480900	µg/L	480900	ppb	16:57:51
2	Na 589.592 Radial†	1549659.8	1602182.6	492100	µg/L	492100	ppb	16:57:46
2	Sr 421.552†	580.4	571.4	5.2714	µg/L	5.2714	ppb	16:57:51
2	Sc 361.383	1809663.3	1809663.3	92.183	%			16:58:42
2	Y 371.029	1230302.7	1230302.7	90.948	%			16:58:42
2	Ag 328.068†	-5024.4	-5048.9	-9.0852	µg/L	-9.0852	ppb	16:58:42
2	As 188.979†	-32.4	-34.7	-60.833	µg/L	-60.833	ppb	16:59:03
2	B 249.677†	1435.1	1172.6	-190.92	µg/L	-190.92	ppb	16:58:42
2	Ba 233.527†	598.4	666.2	15.855	µg/L	15.855	ppb	16:59:03
2	Be 313.107†	-11290.0	-9391.7	-5.5890	µg/L	-5.5890	ppb	16:58:42
2	Cd 226.502†	1204.3	1448.1	-15.591	µg/L	-15.591	ppb	16:58:42
2	Co 228.616†	198.7	213.6	9.5711	µg/L	9.5711	ppb	16:59:03
2	Cr 267.716†	78.1	135.1	2.6649	µg/L	2.6649	ppb	16:59:03
2	Cu 324.752†	-9599.6	-12957.4	-20.988	µg/L	-20.988	ppb	16:58:42
2	Mn 257.610†	-6316.5	-6596.2	20.934	µg/L	20.934	ppb	16:58:42
2	Mo 202.031†	-200.5	-212.1	-3.3875	µg/L	-3.3875	ppb	16:59:03
2	Ni 231.604†	53.6	-254.2	-6.7348	µg/L	-6.7348	ppb	16:59:03
2	P 214.914†	301.0	311.1	399.21	µg/L	399.21	ppb	16:59:03
2	Pb 220.353†	148.3	69.9	13.245	µg/L	13.245	ppb	16:59:03

2	S 181.975 Axial†	35.1	19.1	79.229	µg/L	79.229 ppb	16:59:03
2	Sb 206.836†	43.8	25.1	-19.483	µg/L	-19.483 ppb	16:59:03
2	Se 196.026†	-176.5	-210.8	391.20	µg/L	391.20 ppb	16:59:03
2	SiO2†	1119.0	-177.7	-35.076	µg/L	-35.076 ppb	16:59:03
2	Si 251.611†	-359.8	-700.9	-53.283	µg/L	-53.283 ppb	16:59:03
2	Sn 189.927†	-47.7	-52.1	-16.412	µg/L	-16.412 ppb	16:59:03
2	Ti 334.940†	16565.0	17794.7	9.0824	µg/L	9.0824 ppb	16:58:42
2	Tl 190.801†	-50.4	-32.3	33.191	µg/L	33.191 ppb	16:59:03
2	U 409.014†	152895.7	165938.1	13694	µg/L	13694 ppb	16:58:42
2	V 292.402†	-7309.1	-7884.1	-8.8154	µg/L	-8.8154 ppb	16:58:42
2	Zn 213.857†	2986.8	2705.7	14.646	µg/L	14.646 ppb	16:59:03
3	Sc RADIAL	54733.6	54733.6	96.9	%		16:58:03
3	Al 396.153Radial†	704918.4	727604.3	506160	µg/L	506160 ppb	16:57:58
3	Ca 317.933Radial†	547195.5	564600.0	482270	µg/L	482270 ppb	16:57:58
3	Fe 238.204 Radial†	56342.5	58139.8	458540	µg/L	458540 ppb	16:58:03
3	K 766.490 Radial†	150.9	-9.2	-6.0382	µg/L	-6.0382 ppb	16:58:03
3	Mg 279.077 IEC†	52432.2	54107.4	483180	µg/L	483180 ppb	16:58:03
3	Na 589.592 Radial†	1551864.9	1601351.6	491840	µg/L	491840 ppb	16:57:58
3	Sr 421.552†	544.2	532.9	4.9161	µg/L	4.9161 ppb	16:58:03
3	Sc 361.383	1803530.5	1803530.5	91.871	%		16:59:10
3	Y 371.029	1226225.3	1226225.3	90.646	%		16:59:10
3	Ag 328.068†	-4992.7	-5032.9	-8.8937	µg/L	-8.8937 ppb	16:59:10
3	As 188.979†	-17.9	-19.1	-32.607	µg/L	-32.607 ppb	16:59:30
3	B 249.677†	1429.0	1171.3	-191.53	µg/L	-191.53 ppb	16:59:10
3	Ba 233.527†	596.4	666.2	15.857	µg/L	15.857 ppb	16:59:30
3	Be 313.107†	-11247.7	-9387.3	-5.5855	µg/L	-5.5855 ppb	16:59:10
3	Cd 226.502†	1240.2	1491.6	-14.625	µg/L	-14.625 ppb	16:59:10
3	Co 228.616†	217.8	235.1	10.551	µg/L	10.551 ppb	16:59:30
3	Cr 267.716†	61.4	117.2	2.3057	µg/L	2.3057 ppb	16:59:30
3	Cu 324.752†	-9496.4	-12880.5	-20.340	µg/L	-20.340 ppb	16:59:10
3	Mn 257.610†	-6307.3	-6609.4	20.942	µg/L	20.942 ppb	16:59:10
3	Mo 202.031†	-204.7	-217.5	-3.8705	µg/L	-3.8705 ppb	16:59:30
3	Ni 231.604†	57.2	-250.1	-6.5186	µg/L	-6.5186 ppb	16:59:30
3	P 214.914†	280.7	290.2	356.64	µg/L	356.64 ppb	16:59:30
3	Pb 220.353†	147.7	69.8	13.118	µg/L	13.118 ppb	16:59:30
3	S 181.975 Axial†	25.1	8.4	34.818	µg/L	34.818 ppb	16:59:30
3	Sb 206.836†	38.6	19.5	-24.434	µg/L	-24.434 ppb	16:59:30
3	Se 196.026†	-161.9	-195.6	413.95	µg/L	413.95 ppb	16:59:30
3	SiO2†	1115.5	-177.4	-35.018	µg/L	-35.018 ppb	16:59:30
3	Si 251.611†	-321.2	-660.2	-50.191	µg/L	-50.191 ppb	16:59:30
3	Sn 189.927†	-41.2	-45.3	-13.350	µg/L	-13.350 ppb	16:59:30
3	Ti 334.940†	15494.0	16690.0	6.4283	µg/L	6.4283 ppb	16:59:10
3	Tl 190.801†	-51.2	-33.3	32.056	µg/L	32.056 ppb	16:59:30
3	U 409.014†	152493.7	166064.5	13704	µg/L	13704 ppb	16:59:10
3	V 292.402†	-7191.9	-7783.6	-7.7057	µg/L	-7.7057 ppb	16:59:10
3	Zn 213.857†	2972.0	2700.6	14.345	µg/L	14.345 ppb	16:59:30

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1807392.0	92.067	%	0.1712				0.19%
Sc RADIAL	54703.2	96.8	%	0.12				0.12%
Y 371.029	1228601.0	90.822	%	0.1568				0.17%
Ag 328.068†	-5029.0	-8.9240	µg/L	0.14840	-8.9240	ppb	0.14840	1.66%
Al 396.153Radial†	728511.2	506790	µg/L	555.2	506790	ppb	555.2	0.11%
QC value within limits for Al 396.153Radial Recovery = 101.36%								
As 188.979†	-24.8	-42.948	µg/L	15.5521	-42.948	ppb	15.5521	36.21%
B 249.677†	1184.9	-190.51	µg/L	1.274	-190.51	ppb	1.274	0.67%
Ba 233.527†	666.8	15.870	µg/L	0.0245	15.870	ppb	0.0245	0.15%
Be 313.107†	-9375.2	-5.5787	µg/L	0.01486	-5.5787	ppb	0.01486	0.27%
Ca 317.933Radial†	566564.5	483950	µg/L	1577.8	483950	ppb	1577.8	0.33%
QC value within limits for Ca 317.933Radial Recovery = 96.79%								
Cd 226.502†	1465.0	-15.189	µg/L	0.5033	-15.189	ppb	0.5033	3.31%
Co 228.616†	225.1	10.094	µg/L	0.4933	10.094	ppb	0.4933	4.89%
Cr 267.716†	117.2	2.3065	µg/L	0.35801	2.3065	ppb	0.35801	15.52%
Cu 324.752†	-12939.7	-20.849	µg/L	0.4554	-20.849	ppb	0.4554	2.18%
Fe 238.204 Radial†	58027.9	457660	µg/L	810.7	457660	ppb	810.7	0.18%
QC value within limits for Fe 238.204 Radial Recovery = 91.53%								
K 766.490 Radial†	-47.2	-30.852	µg/L	25.2666	-30.852	ppb	25.2666	81.90%
Mg 279.077 IEC†	53965.5	481910	µg/L	1159.2	481910	ppb	1159.2	0.24%

QC value within limits for Mg 279.077 IEC Recovery = 96.38%

Mn 257.610†	-6543.3	21.082 µg/L	0.2497	21.082 ppb	0.2497	1.18%
Mo 202.031†	-223.1	-4.4592 µg/L	1.45813	-4.4592 ppb	1.45813	32.70%
Na 589.592 Radial†	1601426.4	491870 µg/L	221.6	491870 ppb	221.6	0.05%

QC value within limits for Na 589.592 Radial Recovery = 98.37%

Ni 231.604†	-254.7	-6.7610 µg/L	0.25647	-6.7610 ppb	0.25647	3.79%
P 214.914†	306.2	389.27 µg/L	28.970	389.27 ppb	28.970	7.44%
Pb 220.353†	72.9	13.947 µg/L	1.3271	13.947 ppb	1.3271	9.52%
S 181.975 Axial†	15.7	65.000 µg/L	26.1534	65.000 ppb	26.1534	40.24%
Sb 206.836†	28.0	-16.782 µg/L	9.3013	-16.782 ppb	9.3013	55.42%
Se 196.026†	-198.8	407.59 µg/L	14.310	407.59 ppb	14.310	3.51%
SiO2†	-177.7	-35.078 µg/L	0.0614	-35.078 ppb	0.0614	0.18%
Si 251.611†	-665.8	-50.616 µg/L	2.4820	-50.616 ppb	2.4820	4.90%
Sn 189.927†	-49.7	-15.301 µg/L	1.6952	-15.301 ppb	1.6952	11.08%
Sr 421.552†	563.7	5.2000 µg/L	0.25572	5.2000 ppb	0.25572	4.92%
Ti 334.940†	17217.6	7.7225 µg/L	1.32825	7.7225 ppb	1.32825	17.20%
Tl 190.801†	-35.6	28.834 µg/L	6.5890	28.834 ppb	6.5890	22.85%
U 409.014†	165969.4	13696 µg/L	7.0	13696 ppb	7.0	0.05%

QC value within limits for U 409.014 Recovery = 91.31%

V 292.402†	-7835.4	-8.3274 µg/L	0.56678	-8.3274 ppb	0.56678	6.81%
Zn 213.857†	2704.4	14.551 µg/L	0.1785	14.551 ppb	0.1785	1.23%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/19/2010 16:59:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56692.7	56692.7	100	%			17:00:22
1	Al 396.153Radial†	410.3	401.6	67.150	µg/L	67.150	ppb	17:00:22
1	Ca 317.933Radial†	313.1	100.7	86.030	µg/L	86.030	ppb	17:00:42
1	Fe 238.204 Radial†	6.3	-10.3	125.34	µg/L	125.34	ppb	17:00:42
1	K 766.490 Radial†	452848.2	451108.7	294630	µg/L	294630	ppb	17:00:16
1	Mg 279.077 IEC†	-3.5	-16.3	27.924	µg/L	27.924	ppb	17:00:42
1	Na 589.592 Radial†	1202.8	726.5	223.13	µg/L	223.13	ppb	17:00:22
1	Sr 421.552†	1055792.8	1052093.2	9705.7	µg/L	9705.7	ppb	17:00:16
1	Sc 361.383	1927950.9	1927950.9	98.209	%			17:02:14
1	Y 371.029	1317313.5	1317313.5	97.380	%			17:02:14
1	Ag 328.068†	-7740.8	-7480.4	13.019	µg/L	13.019	ppb	17:02:19
1	As 188.979†	5373.1	5471.6	9786.3	µg/L	9786.3	ppb	17:02:19
1	B 249.677†	122177.3	124021.9	5094.8	µg/L	5094.8	ppb	17:02:14
1	Ba 233.527†	611336.6	622505.5	14963	µg/L	14963	ppb	17:02:14
1	Be 313.107†	4884950.3	4976915.5	2949.9	µg/L	2949.9	ppb	17:02:03
1	Cd 226.502†	386911.9	394111.5	9839.4	µg/L	9839.4	ppb	17:02:14
1	Co 228.616†	210861.9	214706.5	9711.7	µg/L	9711.7	ppb	17:02:14
1	Cr 267.716†	1221432.5	1243763.8	24988	µg/L	24988	ppb	17:02:14
1	Cu 324.752†	3142243.6	3197019.5	20869	µg/L	20869	ppb	17:02:14
1	Mn 257.610†	3084343.0	3140862.5	9835.7	µg/L	9835.7	ppb	17:02:14
1	Mo 202.031†	103586.6	105481.5	10329	µg/L	10329	ppb	17:02:14
1	Ni 231.604†	195607.8	198863.7	9901.7	µg/L	9901.7	ppb	17:02:14
1	P 214.914†	7737.6	7863.4	13522	µg/L	13522	ppb	17:02:19
1	Pb 220.353†	104065.3	105872.7	25731	µg/L	25731	ppb	17:02:14
1	S 181.975 Axial†	12812.3	13027.1	54023	µg/L	54023	ppb	17:02:19
1	Sb 206.836†	11529.6	11717.4	10643	µg/L	10643	ppb	17:02:19
1	Se 196.026†	6981.3	7089.4	9956.3	µg/L	9956.3	ppb	17:02:19
1	SiO2†	509789.5	517697.3	102190	µg/L	102190	ppb	17:02:14
1	Si 251.611†	616246.3	627177.0	47679	µg/L	47679	ppb	17:02:14
1	Sn 189.927†	24747.6	25198.7	10627	µg/L	10627	ppb	17:02:19
1	Ti 334.940†	4520614.2	4602902.5	10183	µg/L	10183	ppb	17:02:03
1	Tl 190.801†	7250.0	7404.6	9714.3	µg/L	9714.3	ppb	17:02:19
1	U 409.014†	894.0	987.4	82.040	µg/L	82.040	ppb	17:02:14
1	V 292.402†	1045223.3	1064334.6	10510	µg/L	10510	ppb	17:02:14
1	Zn 213.857†	624777.0	635639.6	14836	µg/L	14836	ppb	17:02:14
2	Sc RADIAL	56901.4	56901.4	101	%			17:00:54
2	Al 396.153Radial†	358.9	349.0	41.120	µg/L	41.120	ppb	17:00:54
2	Ca 317.933Radial†	305.5	92.1	78.637	µg/L	78.637	ppb	17:01:14
2	Fe 238.204 Radial†	4.4	-12.2	99.290	µg/L	99.290	ppb	17:01:14
2	K 766.490 Radial†	456232.0	452813.9	295740	µg/L	295740	ppb	17:00:48
2	Mg 279.077 IEC†	1.4	-11.4	63.333	µg/L	63.333	ppb	17:01:14
2	Na 589.592 Radial†	1121.5	641.3	196.97	µg/L	196.97	ppb	17:00:54
2	Sr 421.552†	1064137.7	1056521.3	9746.6	µg/L	9746.6	ppb	17:00:48
2	Sc 361.383	1930719.4	1930719.4	98.350	%			17:02:38
2	Y 371.029	1320362.0	1320362.0	97.605	%			17:02:38
2	Ag 328.068†	-7077.0	-6794.2	14.570	µg/L	14.570	ppb	17:02:44
2	As 188.979†	5081.0	5166.8	9240.9	µg/L	9240.9	ppb	17:02:44
2	B 249.677†	118618.7	120225.2	4937.5	µg/L	4937.5	ppb	17:02:38
2	Ba 233.527†	584914.6	594747.4	14296	µg/L	14296	ppb	17:02:38
2	Be 313.107†	4840646.5	4924735.5	2919.0	µg/L	2919.0	ppb	17:02:28
2	Cd 226.502†	369934.9	376284.7	9394.3	µg/L	9394.3	ppb	17:02:38
2	Co 228.616†	200219.4	203577.5	9207.4	µg/L	9207.4	ppb	17:02:38
2	Cr 267.716†	1146054.0	1165336.9	23412	µg/L	23412	ppb	17:02:38
2	Cu 324.752†	2987260.6	3034847.6	19810	µg/L	19810	ppb	17:02:38
2	Mn 257.610†	2933156.9	2982635.7	9340.2	µg/L	9340.2	ppb	17:02:38
2	Mo 202.031†	98580.4	100240.0	9816.1	µg/L	9816.1	ppb	17:02:38
2	Ni 231.604†	185684.1	188487.9	9385.1	µg/L	9385.1	ppb	17:02:38
2	P 214.914†	7168.5	7273.5	12452	µg/L	12452	ppb	17:02:44
2	Pb 220.353†	100296.4	101888.6	24763	µg/L	24763	ppb	17:02:38

2	S 181.975 Axial†	12172.5	12357.8	51247	µg/L	51247 ppb	17:02:44
2	Sb 206.836†	10777.5	10935.8	9934.7	µg/L	9934.7 ppb	17:02:44
2	Se 196.026†	6594.7	6686.0	9389.7	µg/L	9389.7 ppb	17:02:44
2	SiO2†	493318.0	500205.0	98734	µg/L	98734 ppb	17:02:38
2	Si 251.611†	596653.2	606355.3	46096	µg/L	46096 ppb	17:02:38
2	Sn 189.927†	22590.4	22969.2	9686.4	µg/L	9686.4 ppb	17:02:44
2	Ti 334.940†	4476920.0	4551874.4	10070	µg/L	10070 ppb	17:02:28
2	Tl 190.801†	7064.0	7204.9	9453.5	µg/L	9453.5 ppb	17:02:44
2	U 409.014†	804.4	895.0	74.370	µg/L	74.370 ppb	17:02:38
2	V 292.402†	992711.5	1009415.4	9966.7	µg/L	9966.7 ppb	17:02:38
2	Zn 213.857†	595571.0	605031.1	14122	µg/L	14122 ppb	17:02:38
3	Sc RADIAL	56734.5	56734.5	100	%		17:01:26
3	Al 396.153Radial†	382.8	373.8	92.098	µg/L	92.098 ppb	17:01:26
3	Ca 317.933Radial†	337.7	125.0	106.77	µg/L	106.77 ppb	17:01:46
3	Fe 238.204 Radial†	8.1	-8.5	96.137	µg/L	96.137 ppb	17:01:46
3	K 766.490 Radial†	455344.2	453262.2	296030	µg/L	296030 ppb	17:01:20
3	Mg 279.077 IEC†	6.4	-6.4	80.021	µg/L	80.021 ppb	17:01:46
3	Na 589.592 Radial†	1058.9	582.2	178.83	µg/L	178.83 ppb	17:01:26
3	Sr 421.552†	1062613.5	1058110.9	9761.2	µg/L	9761.2 ppb	17:01:20
3	Sc 361.383	1951531.6	1951531.6	99.410	%		17:03:03
3	Y 371.029	1334759.8	1334759.8	98.670	%		17:03:03
3	Ag 328.068†	-5952.6	-5586.4	12.490	µg/L	12.490 ppb	17:03:09
3	As 188.979†	4352.3	4378.6	7831.5	µg/L	7831.5 ppb	17:03:09
3	B 249.677†	103961.3	104194.4	4277.3	µg/L	4277.3 ppb	17:03:03
3	Ba 233.527†	498513.8	501491.0	12054	µg/L	12054 ppb	17:03:03
3	Be 313.107†	4199873.9	4227668.5	2505.9	µg/L	2505.9 ppb	17:02:53
3	Cd 226.502†	314684.6	316694.9	7906.5	µg/L	7906.5 ppb	17:03:03
3	Co 228.616†	168522.5	169521.2	7666.6	µg/L	7666.6 ppb	17:03:03
3	Cr 267.716†	945201.2	950864.3	19103	µg/L	19103 ppb	17:03:03
3	Cu 324.752†	2517755.9	2530162.7	16516	µg/L	16516 ppb	17:03:03
3	Mn 257.610†	2467371.4	2482278.7	7773.3	µg/L	7773.3 ppb	17:03:03
3	Mo 202.031†	82974.3	83472.3	8174.1	µg/L	8174.1 ppb	17:03:03
3	Ni 231.604†	156258.3	156873.9	7811.0	µg/L	7811.0 ppb	17:03:03
3	P 214.914†	6005.8	6026.1	10305	µg/L	10305 ppb	17:03:09
3	Pb 220.353†	86464.2	86886.7	21117	µg/L	21117 ppb	17:03:03
3	S 181.975 Axial†	10331.9	10374.4	43022	µg/L	43022 ppb	17:03:09
3	Sb 206.836†	9128.5	9160.2	8326.6	µg/L	8326.6 ppb	17:03:09
3	Se 196.026†	5645.3	5659.5	7948.1	µg/L	7948.1 ppb	17:03:09
3	SiO2†	429530.2	430689.2	85012	µg/L	85012 ppb	17:03:03
3	Si 251.611†	519223.8	521996.3	39683	µg/L	39683 ppb	17:03:03
3	Sn 189.927†	18770.5	18881.6	7962.6	µg/L	7962.6 ppb	17:03:09
3	Ti 334.940†	3882788.8	3905669.8	8640.2	µg/L	8640.2 ppb	17:02:53
3	Tl 190.801†	6222.6	6282.0	8241.0	µg/L	8241.0 ppb	17:03:09
3	U 409.014†	704.1	785.3	65.252	µg/L	65.252 ppb	17:03:03
3	V 292.402†	832909.4	837900.0	8272.7	µg/L	8272.7 ppb	17:03:03
3	Zn 213.857†	505033.0	507497.5	11846	µg/L	11846 ppb	17:03:03

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1936734.0	98.656	%	0.6566				0.67%
Sc RADIAL	56776.2	100	%	0.2				0.19%
Y 371.029	1324145.1	97.885	%	0.6888				0.70%
Ag 328.068†	-6620.3	13.360	µg/L	1.0808	13.360	ppb	1.0808	8.09%
Al 396.153Radial†	374.8	66.790	µg/L	25.4910	66.790	ppb	25.4910	38.17%
As 188.979†	5005.6	8952.9	µg/L	1008.74	8952.9	ppb	1008.74	11.27%
QC value less than the lower limit for As 188.979 Recovery = 89.53%								
B 249.677†	116147.2	4769.9	µg/L	433.79	4769.9	ppb	433.79	9.09%
QC value within limits for B 249.677 Recovery = 95.40%								
Ba 233.527†	572914.6	13771	µg/L	1524.0	13771	ppb	1524.0	11.07%
QC value within limits for Ba 233.527 Recovery = 91.81%								
Be 313.107†	4709773.2	2791.6	µg/L	247.95	2791.6	ppb	247.95	8.88%
QC value within limits for Be 313.107 Recovery = 93.05%								
Ca 317.933Radial†	105.9	90.480	µg/L	14.5864	90.480	ppb	14.5864	16.12%
Cd 226.502†	362363.7	9046.7	µg/L	1012.25	9046.7	ppb	1012.25	11.19%
QC value within limits for Cd 226.502 Recovery = 90.47%								
Co 228.616†	195935.1	8861.9	µg/L	1065.42	8861.9	ppb	1065.42	12.02%
QC value less than the lower limit for Co 228.616 Recovery = 88.62%								
Cr 267.716†	1119988.3	22501	µg/L	3046.1	22501	ppb	3046.1	13.54%
QC value within limits for Cr 267.716 Recovery = 90.00%								

Cu 324.752†	2920676.6	19065 µg/L	2270.1	19065 ppb	2270.1	11.91%
QC value within limits for Cu 324.752 Recovery = 95.32%						
Fe 238.204 Radial†	-10.3	106.92 µg/L	16.029	106.92 ppb	16.029	14.99%
K 766.490 Radial†	452395.0	295470 µg/L	742.1	295470 ppb	742.1	0.25%
QC value within limits for K 766.490 Radial Recovery = 98.49%						
Mg 279.077 IEC†	-11.4	57.093 µg/L	26.6031	57.093 ppb	26.6031	46.60%
Mn 257.610†	2868592.3	8983.1 µg/L	1076.57	8983.1 ppb	1076.57	11.98%
QC value less than the lower limit for Mn 257.610 Recovery = 89.83%						
Mo 202.031†	96398.0	9439.9 µg/L	1125.82	9439.9 ppb	1125.82	11.93%
QC value within limits for Mo 202.031 Recovery = 94.40%						
Na 589.592 Radial†	650.0	199.64 µg/L	22.270	199.64 ppb	22.270	11.15%
Ni 231.604†	181408.5	9032.6 µg/L	1089.03	9032.6 ppb	1089.03	12.06%
QC value within limits for Ni 231.604 Recovery = 90.33%						
P 214.914†	7054.3	12093 µg/L	1638.4	12093 ppb	1638.4	13.55%
QC value less than the lower limit for P 214.914 Recovery = 80.62%						
Pb 220.353†	98216.0	23870 µg/L	2433.1	23870 ppb	2433.1	10.19%
QC value within limits for Pb 220.353 Recovery = 95.48%						
S 181.975 Axial†	11919.8	49431 µg/L	5721.0	49431 ppb	5721.0	11.57%
QC value within limits for S 181.975 Axial Recovery = 98.86%						
Sb 206.836†	10604.5	9634.7 µg/L	1186.86	9634.7 ppb	1186.86	12.32%
QC value within limits for Sb 206.836 Recovery = 96.35%						
Se 196.026†	6478.3	9098.0 µg/L	1035.37	9098.0 ppb	1035.37	11.38%
QC value within limits for Se 196.026 Recovery = 90.98%						
SiO2†	482863.9	95311 µg/L	9084.4	95311 ppb	9084.4	9.53%
QC value less than the lower limit for SiO2 Recovery = 89.08%						
Si 251.611†	585176.2	44486 µg/L	4234.2	44486 ppb	4234.2	9.52%
QC value less than the lower limit for Si 251.611 Recovery = 88.97%						
Sn 189.927†	22349.8	9425.3 µg/L	1351.08	9425.3 ppb	1351.08	14.33%
QC value within limits for Sn 189.927 Recovery = 94.25%						
Sr 421.552†	1055575.2	9737.8 µg/L	28.77	9737.8 ppb	28.77	0.30%
QC value within limits for Sr 421.552 Recovery = 97.38%						
Ti 334.940†	4353482.3	9630.9 µg/L	859.79	9630.9 ppb	859.79	8.93%
QC value within limits for Ti 334.940 Recovery = 96.31%						
Tl 190.801†	6963.8	9136.3 µg/L	786.19	9136.3 ppb	786.19	8.61%
QC value within limits for Tl 190.801 Recovery = 91.36%						
U 409.014†	889.2	73.887 µg/L	8.4048	73.887 ppb	8.4048	11.38%
V 292.402†	970550.0	9583.0 µg/L	1166.76	9583.0 ppb	1166.76	12.18%
QC value within limits for V 292.402 Recovery = 95.83%						
Zn 213.857†	582722.8	13601 µg/L	1561.6	13601 ppb	1561.6	11.48%
QC value within limits for Zn 213.857 Recovery = 90.67%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:03:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55888.6	55888.6	98.9	%			17:03:56
1	Al 396.153Radial†	7603.9	7679.1	5330.8	µg/L	5330.8	ppb	17:03:56
1	Ca 317.933Radial†	6396.5	6254.7	5342.6	µg/L	5342.6	ppb	17:04:16
1	Fe 238.204 Radial†	693.3	684.2	5407.8	µg/L	5407.8	ppb	17:04:16
1	K 766.490 Radial†	8387.1	8313.2	5429.5	µg/L	5429.5	ppb	17:03:56
1	Mg 279.077 IEC†	619.4	613.3	5485.4	µg/L	5485.4	ppb	17:04:16
1	Na 589.592 Radial†	35135.8	35045.3	10764	µg/L	10764	ppb	17:03:56
1	Sr 421.552†	55695.8	56272.0	519.12	µg/L	519.12	ppb	17:03:56
1	Sc 361.383	1985726.3	1985726.3	101.15	%			17:05:20
1	Y 371.029	1365771.7	1365771.7	100.96	%			17:05:20
1	Ag 328.068†	70288.8	69890.2	521.53	µg/L	521.53	ppb	17:05:25
1	As 188.979†	301.3	298.4	533.72	µg/L	533.72	ppb	17:05:46
1	B 249.677†	13549.7	13011.4	528.34	µg/L	528.34	ppb	17:05:25
1	Ba 233.527†	22064.2	21830.1	525.03	µg/L	525.03	ppb	17:05:25
1	Be 313.107†	895757.0	888415.0	527.08	µg/L	527.08	ppb	17:05:20
1	Cd 226.502†	21255.4	21155.1	527.55	µg/L	527.55	ppb	17:05:25
1	Co 228.616†	11817.8	11681.3	528.41	µg/L	528.41	ppb	17:05:25
1	Cr 267.716†	26786.8	26532.2	533.24	µg/L	533.24	ppb	17:05:25
1	Cu 324.752†	84423.2	80918.4	528.94	µg/L	528.94	ppb	17:05:25
1	Mn 257.610†	172694.5	170984.5	535.94	µg/L	535.94	ppb	17:05:20
1	Mo 202.031†	5634.1	5575.3	546.17	µg/L	546.17	ppb	17:05:46
1	Ni 231.604†	11061.6	10623.3	529.01	µg/L	529.01	ppb	17:05:25
1	P 214.914†	1393.6	1362.4	2646.9	µg/L	2646.9	ppb	17:05:46
1	Pb 220.353†	2366.1	2248.2	546.74	µg/L	546.74	ppb	17:05:46
1	S 181.975 Axial†	286.4	264.2	1095.6	µg/L	1095.6	ppb	17:05:46
1	Sb 206.836†	624.5	594.8	548.51	µg/L	548.51	ppb	17:05:46
1	Se 196.026†	403.3	379.4	541.16	µg/L	541.16	ppb	17:05:46
1	SiO2†	30463.6	28725.2	5670.0	µg/L	5670.0	ppb	17:05:25
1	Si 251.611†	35537.3	34822.1	2647.2	µg/L	2647.2	ppb	17:05:25
1	Sn 189.927†	1316.6	1301.2	548.79	µg/L	548.79	ppb	17:05:46
1	Ti 334.940†	242343.4	239409.4	529.28	µg/L	529.28	ppb	17:05:20
1	Tl 190.801†	396.9	414.8	545.11	µg/L	545.11	ppb	17:05:46
1	U 409.014†	6392.8	6397.1	530.42	µg/L	530.42	ppb	17:05:25
1	V 292.402†	54586.5	54009.9	532.97	µg/L	532.97	ppb	17:05:25
1	Zn 213.857†	23680.6	22876.6	532.96	µg/L	532.96	ppb	17:05:25
2	Sc RADIAL	56411.2	56411.2	99.9	%			17:04:22
2	Al 396.153Radial†	7635.5	7639.5	5303.6	µg/L	5303.6	ppb	17:04:22
2	Ca 317.933Radial†	6387.4	6185.7	5283.7	µg/L	5283.7	ppb	17:04:42
2	Fe 238.204 Radial†	694.2	678.6	5363.5	µg/L	5363.5	ppb	17:04:42
2	K 766.490 Radial†	8367.7	8215.3	5365.5	µg/L	5365.5	ppb	17:04:22
2	Mg 279.077 IEC†	620.5	608.6	5443.2	µg/L	5443.2	ppb	17:04:42
2	Na 589.592 Radial†	35309.3	34889.9	10716	µg/L	10716	ppb	17:04:22
2	Sr 421.552†	56012.6	56067.6	517.23	µg/L	517.23	ppb	17:04:22
2	Sc 361.383	1973301.2	1973301.2	100.52	%			17:05:53
2	Y 371.029	1356327.8	1356327.8	100.26	%			17:05:53
2	Ag 328.068†	69539.4	69582.3	519.23	µg/L	519.23	ppb	17:05:58
2	As 188.979†	297.6	296.5	530.36	µg/L	530.36	ppb	17:06:19
2	B 249.677†	13399.5	12946.2	525.71	µg/L	525.71	ppb	17:05:58
2	Ba 233.527†	21880.7	21784.8	523.94	µg/L	523.94	ppb	17:05:58
2	Be 313.107†	883505.0	881802.2	523.15	µg/L	523.15	ppb	17:05:53
2	Cd 226.502†	20975.5	21009.0	523.90	µg/L	523.90	ppb	17:05:58
2	Co 228.616†	11661.3	11599.2	524.68	µg/L	524.68	ppb	17:05:58
2	Cr 267.716†	26502.8	26416.4	530.91	µg/L	530.91	ppb	17:05:58
2	Cu 324.752†	83587.4	80612.4	526.94	µg/L	526.94	ppb	17:05:58
2	Mn 257.610†	170657.8	170033.3	532.96	µg/L	532.96	ppb	17:05:53
2	Mo 202.031†	5420.5	5397.9	528.80	µg/L	528.80	ppb	17:06:19
2	Ni 231.604†	10882.8	10514.3	523.58	µg/L	523.58	ppb	17:05:58
2	P 214.914†	1342.7	1320.4	2563.7	µg/L	2563.7	ppb	17:06:19
2	Pb 220.353†	2290.9	2188.1	532.08	µg/L	532.08	ppb	17:06:19

2	S 181.975 Axial†	275.7	255.3	1058.7 µg/L	1058.7 ppb	17:06:19
2	Sb 206.836†	598.1	572.5	527.76 µg/L	527.76 ppb	17:06:19
2	Se 196.026†	397.1	375.7	535.95 µg/L	535.95 ppb	17:06:19
2	SiO2†	30055.7	28509.0	5627.3 µg/L	5627.3 ppb	17:05:58
2	Si 251.611†	35203.5	34711.2	2638.8 µg/L	2638.8 ppb	17:05:58
2	Sn 189.927†	1262.7	1255.8	529.63 µg/L	529.63 ppb	17:06:19
2	Ti 334.940†	239137.9	237729.0	525.56 µg/L	525.56 ppb	17:05:53
2	Tl 190.801†	378.8	399.3	524.92 µg/L	524.92 ppb	17:06:19
2	U 409.014†	6362.6	6406.8	531.24 µg/L	531.24 ppb	17:05:58
2	V 292.402†	53891.1	53657.8	529.39 µg/L	529.39 ppb	17:05:58
2	Zn 213.857†	23377.3	22722.3	529.37 µg/L	529.37 ppb	17:05:58
3	Sc RADIAL	56975.5	56975.5	101 %		17:04:48
3	Al 396.153Radial†	7635.5	7563.8	5253.0 µg/L	5253.0 ppb	17:04:48
3	Ca 317.933Radial†	6375.4	6110.4	5219.4 µg/L	5219.4 ppb	17:05:08
3	Fe 238.204 Radial†	692.0	669.6	5290.9 µg/L	5290.9 ppb	17:05:08
3	K 766.490 Radial†	8336.4	8101.2	5291.0 µg/L	5291.0 ppb	17:04:48
3	Mg 279.077 IEC†	615.1	597.1	5339.2 µg/L	5339.2 ppb	17:05:08
3	Na 589.592 Radial†	35286.2	34516.8	10602 µg/L	10602 ppb	17:04:48
3	Sr 421.552†	56155.5	55653.7	513.41 µg/L	513.41 ppb	17:04:48
3	Sc 361.383	1965301.5	1965301.5	100.11 %		17:06:26
3	Y 371.029	1350670.0	1350670.0	99.846 %		17:06:26
3	Ag 328.068†	64381.3	64711.5	482.70 µg/L	482.70 ppb	17:06:32
3	As 188.979†	245.8	246.0	440.05 µg/L	440.05 ppb	17:06:52
3	B 249.677†	12272.2	11874.4	481.93 µg/L	481.93 ppb	17:06:32
3	Ba 233.527†	19548.8	19544.2	470.02 µg/L	470.02 ppb	17:06:32
3	Be 313.107†	784667.9	786652.6	466.70 µg/L	466.70 ppb	17:06:26
3	Cd 226.502†	18615.7	18736.7	467.18 µg/L	467.18 ppb	17:06:32
3	Co 228.616†	10218.5	10205.2	461.59 µg/L	461.59 ppb	17:06:32
3	Cr 267.716†	22418.3	22443.7	451.08 µg/L	451.08 ppb	17:06:32
3	Cu 324.752†	73939.9	71314.0	466.24 µg/L	466.24 ppb	17:06:32
3	Mn 257.610†	152452.7	152539.5	478.17 µg/L	478.17 ppb	17:06:26
3	Mo 202.031†	4381.2	4381.7	429.29 µg/L	429.29 ppb	17:06:52
3	Ni 231.604†	9646.8	9323.7	464.30 µg/L	464.30 ppb	17:06:32
3	P 214.914†	1099.4	1082.8	2098.1 µg/L	2098.1 ppb	17:06:52
3	Pb 220.353†	1951.4	1858.2	451.78 µg/L	451.78 ppb	17:06:52
3	S 181.975 Axial†	236.4	217.2	900.67 µg/L	900.67 ppb	17:06:52
3	Sb 206.836†	506.2	483.2	445.02 µg/L	445.02 ppb	17:06:52
3	Se 196.026†	341.1	321.4	459.63 µg/L	459.63 ppb	17:06:52
3	SiO2†	27392.4	25970.5	5126.2 µg/L	5126.2 ppb	17:06:32
3	Si 251.611†	31876.5	31530.5	2397.0 µg/L	2397.0 ppb	17:06:32
3	Sn 189.927†	1001.9	1000.4	421.93 µg/L	421.93 ppb	17:06:52
3	Ti 334.940†	211018.2	210609.0	465.58 µg/L	465.58 ppb	17:06:26
3	Tl 190.801†	333.8	355.8	467.83 µg/L	467.83 ppb	17:06:52
3	U 409.014†	5451.1	5522.1	457.75 µg/L	457.75 ppb	17:06:32
3	V 292.402†	46793.0	46785.8	461.39 µg/L	461.39 ppb	17:06:32
3	Zn 213.857†	20591.5	20034.3	466.68 µg/L	466.68 ppb	17:06:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1974776.3	100.59	%	0.524				0.52%
Sc RADIAL	56425.1	99.9	%	0.96				0.96%
Y 371.029	1357589.8	100.36	%	0.564				0.56%
Ag 328.068†	68061.3	507.82	µg/L	21.786	507.82	ppb	21.786	4.29%
QC value within limits for Ag 328.068 Recovery = 101.56%								
Al 396.153Radial†	7627.5	5295.8	µg/L	39.51	5295.8	ppb	39.51	0.75%
QC value within limits for Al 396.153Radial Recovery = 105.92%								
As 188.979†	280.3	501.38	µg/L	53.136	501.38	ppb	53.136	10.60%
QC value within limits for As 188.979 Recovery = 100.28%								
B 249.677†	12610.7	512.00	µg/L	26.067	512.00	ppb	26.067	5.09%
QC value within limits for B 249.677 Recovery = 102.40%								
Ba 233.527†	21053.0	506.33	µg/L	31.447	506.33	ppb	31.447	6.21%
QC value within limits for Ba 233.527 Recovery = 101.27%								
Be 313.107†	852289.9	505.65	µg/L	33.780	505.65	ppb	33.780	6.68%
QC value within limits for Be 313.107 Recovery = 101.13%								
Ca 317.933Radial†	6183.6	5281.9	µg/L	61.64	5281.9	ppb	61.64	1.17%
QC value within limits for Ca 317.933Radial Recovery = 105.64%								
Cd 226.502†	20300.3	506.21	µg/L	33.851	506.21	ppb	33.851	6.69%
QC value within limits for Cd 226.502 Recovery = 101.24%								
Co 228.616†	11161.9	504.89	µg/L	37.550	504.89	ppb	37.550	7.44%

```
   QC value within limits for Co 228.616  Recovery = 100.98%
Cr 267.716†            25130.8      505.07 µg/L        46.779      505.07 ppb        46.779   9.26%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†            77614.9      507.37 µg/L        35.640      507.37 ppb        35.640   7.02%
   QC value within limits for Cu 324.752  Recovery = 101.47%
Fe 238.204 Radial†       677.5      5354.0 µg/L         59.03      5354.0 ppb         59.03   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.08%
K 766.490 Radial†       8209.9      5362.0 µg/L         69.32      5362.0 ppb         69.32   1.29%
   QC value within limits for K 766.490 Radial  Recovery = 107.24%
Mg 279.077 IEC†          606.3      5422.6 µg/L         75.22      5422.6 ppb         75.22   1.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.45%
Mn 257.610†           164519.1      515.69 µg/L        32.527      515.69 ppb        32.527   6.31%
   QC value within limits for Mn 257.610  Recovery = 103.14%
Mo 202.031†            5118.3      501.42 µg/L        63.069      501.42 ppb        63.069  12.58%
   QC value within limits for Mo 202.031  Recovery = 100.28%
Na 589.592 Radial†     34817.3       10694 µg/L          83.4       10694 ppb          83.4   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 106.94%
Ni 231.604†            10153.8      505.63 µg/L        35.893      505.63 ppb        35.893   7.10%
   QC value within limits for Ni 231.604  Recovery = 101.13%
P 214.914†              1255.2      2436.2 µg/L        295.76      2436.2 ppb        295.76  12.14%
   QC value within limits for P 214.914  Recovery = 97.45%
Pb 220.353†             2098.2      510.20 µg/L        51.120      510.20 ppb        51.120  10.02%
   QC value within limits for Pb 220.353  Recovery = 102.04%
S 181.975 Axial†         245.6      1018.3 µg/L        103.55      1018.3 ppb        103.55  10.17%
   QC value within limits for S 181.975 Axial  Recovery = 101.83%
Sb 206.836†              550.2      507.10 µg/L        54.752      507.10 ppb        54.752  10.80%
   QC value within limits for Sb 206.836  Recovery = 101.42%
Se 196.026†              358.8      512.25 µg/L        45.639      512.25 ppb        45.639   8.91%
   QC value within limits for Se 196.026  Recovery = 102.45%
SiO2†                  27734.9      5474.5 µg/L        302.37      5474.5 ppb        302.37   5.52%
   QC value within limits for SiO2  Recovery = 102.38%
Si 251.611†            33688.0      2561.0 µg/L        142.10      2561.0 ppb        142.10   5.55%
   QC value within limits for Si 251.611  Recovery = 102.44%
Sn 189.927†             1185.8      500.11 µg/L        68.387      500.11 ppb        68.387  13.67%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†            55997.8      516.59 µg/L         2.906      516.59 ppb         2.906   0.56%
   QC value within limits for Sr 421.552  Recovery = 103.32%
Ti 334.940†           229249.1      506.81 µg/L        35.755      506.81 ppb        35.755   7.05%
   QC value within limits for Ti 334.940  Recovery = 101.36%
Tl 190.801†              390.0      512.62 µg/L        40.080      512.62 ppb        40.080   7.82%
   QC value within limits for Tl 190.801  Recovery = 102.52%
U 409.014†              6108.7      506.47 µg/L        42.195      506.47 ppb        42.195   8.33%
   QC value within limits for U 409.014  Recovery = 101.29%
V 292.402†             51484.5      507.91 µg/L        40.335      507.91 ppb        40.335   7.94%
   QC value within limits for V 292.402  Recovery = 101.58%
Zn 213.857†            21877.7      509.67 µg/L        37.277      509.67 ppb        37.277   7.31%
   QC value within limits for Zn 213.857  Recovery = 101.93%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:07:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55412.9	55412.9	98.1	%			17:07:34
1	Al 396.153Radial†	37.8	31.1	21.627	µg/L	21.627	ppb	17:07:34
1	Ca 317.933Radial†	224.1	17.2	14.719	µg/L	14.719	ppb	17:07:55
1	Fe 238.204 Radial†	17.2	1.0	7.9128	µg/L	7.9128	ppb	17:07:55
1	K 766.490 Radial†	263.9	104.0	67.945	µg/L	67.945	ppb	17:07:34
1	Mg 279.077 IEC†	16.1	3.6	31.922	µg/L	31.922	ppb	17:07:55
1	Na 589.592 Radial†	689.0	230.2	70.711	µg/L	70.711	ppb	17:07:34
1	Sr 421.552†	101.9	75.1	0.6926	µg/L	0.6926	ppb	17:07:34
1	Sc 361.383	1951828.9	1951828.9	99.425	%			17:08:57
1	Y 371.029	1347100.7	1347100.7	99.582	%			17:08:57
1	Ag 328.068†	-411.9	-12.6	-0.0884	µg/L	-0.0884	ppb	17:09:02
1	As 188.979†	1.0	1.5	2.6447	µg/L	2.6447	ppb	17:09:23
1	B 249.677†	547.2	166.2	6.7725	µg/L	6.7725	ppb	17:09:02
1	Ba 233.527†	13.0	30.1	0.7248	µg/L	0.7248	ppb	17:09:23
1	Be 313.107†	-2489.6	351.6	0.2085	µg/L	0.2085	ppb	17:09:02
1	Cd 226.502†	-106.1	35.0	0.8724	µg/L	0.8724	ppb	17:09:23
1	Co 228.616†	8.3	6.4	0.2907	µg/L	0.2907	ppb	17:09:23
1	Cr 267.716†	3.3	53.7	1.0792	µg/L	1.0792	ppb	17:09:02
1	Cu 324.752†	2832.8	305.4	1.9949	µg/L	1.9949	ppb	17:09:02
1	Mn 257.610†	-94.7	160.8	0.5033	µg/L	0.5033	ppb	17:09:23
1	Mo 202.031†	11.2	16.6	1.6267	µg/L	1.6267	ppb	17:09:23
1	Ni 231.604†	329.4	19.0	0.9450	µg/L	0.9450	ppb	17:09:23
1	P 214.914†	17.5	2.3	4.3252	µg/L	4.3252	ppb	17:09:23
1	Pb 220.353†	117.3	27.1	6.5756	µg/L	6.5756	ppb	17:09:23
1	S 181.975 Axial†	13.9	-5.0	-20.708	µg/L	-20.708	ppb	17:09:23
1	Sb 206.836†	24.4	2.0	1.8677	µg/L	1.8677	ppb	17:09:23
1	Se 196.026†	8.1	-11.2	-15.713	µg/L	-15.713	ppb	17:09:23
1	SiO2†	1498.4	115.5	22.804	µg/L	22.804	ppb	17:09:02
1	Si 251.611†	397.1	88.7	6.7465	µg/L	6.7465	ppb	17:09:23
1	Sn 189.927†	7.9	7.6	3.2082	µg/L	3.2082	ppb	17:09:23
1	Ti 334.940†	420.5	247.9	0.5462	µg/L	0.5462	ppb	17:09:02
1	Tl 190.801†	-26.0	-3.7	-4.8506	µg/L	-4.8506	ppb	17:09:23
1	U 409.014†	-2.4	74.7	6.2026	µg/L	6.2026	ppb	17:09:02
1	V 292.402†	29.6	74.5	0.7487	µg/L	0.7487	ppb	17:09:02
1	Zn 213.857†	624.2	93.4	2.1827	µg/L	2.1827	ppb	17:09:23
2	Sc RADIAL	55845.1	55845.1	98.8	%			17:08:00
2	Al 396.153Radial†	15.5	8.3	5.7389	µg/L	5.7389	ppb	17:08:00
2	Ca 317.933Radial†	229.7	21.1	18.050	µg/L	18.050	ppb	17:08:21
2	Fe 238.204 Radial†	18.3	1.9	15.065	µg/L	15.065	ppb	17:08:21
2	K 766.490 Radial†	268.0	106.2	69.336	µg/L	69.336	ppb	17:08:00
2	Mg 279.077 IEC†	18.8	6.2	55.616	µg/L	55.616	ppb	17:08:21
2	Na 589.592 Radial†	718.0	254.2	78.078	µg/L	78.078	ppb	17:08:00
2	Sr 421.552†	118.8	91.4	0.8433	µg/L	0.8433	ppb	17:08:00
2	Sc 361.383	1967750.3	1967750.3	100.24	%			17:09:29
2	Y 371.029	1358640.9	1358640.9	100.44	%			17:09:29
2	Ag 328.068†	-328.6	73.7	0.5515	µg/L	0.5515	ppb	17:09:34
2	As 188.979†	0.4	0.9	1.5587	µg/L	1.5587	ppb	17:09:55
2	B 249.677†	564.6	179.1	7.2933	µg/L	7.2933	ppb	17:09:34
2	Ba 233.527†	22.7	39.7	0.9547	µg/L	0.9547	ppb	17:09:55
2	Be 313.107†	-2501.6	360.0	0.2134	µg/L	0.2134	ppb	17:09:34
2	Cd 226.502†	-111.0	30.9	0.7694	µg/L	0.7694	ppb	17:09:55
2	Co 228.616†	5.7	3.7	0.1688	µg/L	0.1688	ppb	17:09:55
2	Cr 267.716†	-17.2	33.2	0.6680	µg/L	0.6680	ppb	17:09:34
2	Cu 324.752†	2799.6	249.3	1.6293	µg/L	1.6293	ppb	17:09:34
2	Mn 257.610†	-100.4	155.9	0.4879	µg/L	0.4879	ppb	17:09:55
2	Mo 202.031†	11.5	16.9	1.6521	µg/L	1.6521	ppb	17:09:55
2	Ni 231.604†	309.9	-3.2	-0.1576	µg/L	-0.1576	ppb	17:09:55
2	P 214.914†	22.6	7.2	14.217	µg/L	14.217	ppb	17:09:55
2	Pb 220.353†	112.5	21.3	5.1809	µg/L	5.1809	ppb	17:09:55

2	S 181.975 Axial†	17.8	-1.2	-5.0873 µg/L	-5.0873 ppb	17:09:55
2	Sb 206.836†	28.6	6.1	5.5939 µg/L	5.5939 ppb	17:09:55
2	Se 196.026†	12.5	-6.8	-9.5638 µg/L	-9.5638 ppb	17:09:55
2	SiO2†	1499.4	104.3	20.597 µg/L	20.597 ppb	17:09:34
2	Si 251.611†	402.2	90.6	6.8889 µg/L	6.8889 ppb	17:09:55
2	Sn 189.927†	9.5	9.2	3.8641 µg/L	3.8641 ppb	17:09:55
2	Ti 334.940†	469.3	293.2	0.6444 µg/L	0.6444 ppb	17:09:34
2	Tl 190.801†	-20.6	1.9	2.4344 µg/L	2.4344 ppb	17:09:55
2	U 409.014†	-26.6	50.5	4.1927 µg/L	4.1927 ppb	17:09:34
2	V 292.402†	21.3	66.0	0.6641 µg/L	0.6641 ppb	17:09:34
2	Zn 213.857†	610.2	74.4	1.7390 µg/L	1.7390 ppb	17:09:55
3	Sc RADIAL	55020.8	55020.8	97.4 %		17:08:26
3	Al 396.153Radial†	25.2	18.5	12.855 µg/L	12.855 ppb	17:08:26
3	Ca 317.933Radial†	219.3	13.9	11.843 µg/L	11.843 ppb	17:08:46
3	Fe 238.204 Radial†	16.8	0.7	5.5902 µg/L	5.5902 ppb	17:08:46
3	K 766.490 Radial†	318.2	161.7	105.61 µg/L	105.61 ppb	17:08:26
3	Mg 279.077 IEC†	14.2	1.7	15.617 µg/L	15.617 ppb	17:08:46
3	Na 589.592 Radial†	674.2	220.1	67.603 µg/L	67.603 ppb	17:08:26
3	Sr 421.552†	108.4	82.5	0.7609 µg/L	0.7609 ppb	17:08:26
3	Sc 361.383	1948909.4	1948909.4	99.276 %		17:10:01
3	Y 371.029	1346308.2	1346308.2	99.523 %		17:10:01
3	Ag 328.068†	-352.8	46.2	0.3442 µg/L	0.3442 ppb	17:10:07
3	As 188.979†	-1.2	-0.7	-1.3112 µg/L	-1.3112 ppb	17:10:27
3	B 249.677†	510.9	130.5	5.3165 µg/L	5.3165 ppb	17:10:07
3	Ba 233.527†	13.0	30.2	0.7245 µg/L	0.7245 ppb	17:10:27
3	Be 313.107†	-2546.8	290.3	0.1721 µg/L	0.1721 ppb	17:10:07
3	Cd 226.502†	-112.3	28.5	0.7115 µg/L	0.7115 ppb	17:10:27
3	Co 228.616†	15.8	14.0	0.6325 µg/L	0.6325 ppb	17:10:27
3	Cr 267.716†	5.2	55.6	1.1178 µg/L	1.1178 ppb	17:10:07
3	Cu 324.752†	2793.0	269.6	1.7608 µg/L	1.7608 ppb	17:10:07
3	Mn 257.610†	-128.7	126.3	0.3957 µg/L	0.3957 ppb	17:10:27
3	Mo 202.031†	14.1	19.5	1.9140 µg/L	1.9140 ppb	17:10:27
3	Ni 231.604†	312.1	2.0	0.1004 µg/L	0.1004 ppb	17:10:27
3	P 214.914†	16.0	0.8	1.3809 µg/L	1.3809 ppb	17:10:27
3	Pb 220.353†	106.0	15.9	3.8630 µg/L	3.8630 ppb	17:10:27
3	S 181.975 Axial†	14.2	-4.6	-19.132 µg/L	-19.132 ppb	17:10:27
3	Sb 206.836†	16.0	-6.4	-5.8776 µg/L	-5.8776 ppb	17:10:27
3	Se 196.026†	18.1	-1.1	-1.5391 µg/L	-1.5391 ppb	17:10:27
3	SiO2†	1473.7	92.8	18.326 µg/L	18.326 ppb	17:10:07
3	Si 251.611†	414.5	106.9	8.1279 µg/L	8.1279 ppb	17:10:27
3	Sn 189.927†	10.6	10.3	4.3488 µg/L	4.3488 ppb	17:10:27
3	Ti 334.940†	439.9	268.1	0.5920 µg/L	0.5920 ppb	17:10:07
3	Tl 190.801†	-23.3	-1.1	-1.4129 µg/L	-1.4129 ppb	17:10:27
3	U 409.014†	-71.7	4.9	0.4060 µg/L	0.4060 ppb	17:10:07
3	V 292.402†	-20.7	23.9	0.2511 µg/L	0.2511 ppb	17:10:07
3	Zn 213.857†	601.7	71.7	1.6777 µg/L	1.6777 ppb	17:10:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1956162.9	99.646	%	0.5166				0.52%
Sc RADIAL	55426.3	98.1	%	0.73				0.74%
Y 371.029	1350683.2	99.847	%	0.5103				0.51%
Ag 328.068†	35.8	0.2691	µg/L	0.32647	0.2691	ppb	0.32647	121.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.3	13.407	µg/L	7.9584	13.407	ppb	7.9584	59.36%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.9641	µg/L	2.04391	0.9641	ppb	2.04391	212.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	158.6	6.4608	µg/L	1.02461	6.4608	ppb	1.02461	15.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	33.3	0.8013	µg/L	0.13279	0.8013	ppb	0.13279	16.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	334.0	0.1980	µg/L	0.02257	0.1980	ppb	0.02257	11.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	17.4	14.871	µg/L	3.1063	14.871	ppb	3.1063	20.89%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.5	0.7844	µg/L	0.08148	0.7844	ppb	0.08148	10.39%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.3640	µg/L	0.24037	0.3640	ppb	0.24037	66.04%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              47.5      0.9550 µg/L       0.24930      0.9550 ppb        0.24930  26.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             274.8      1.7950 µg/L       0.18518      1.7950 ppb        0.18518  10.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.2      9.5227 µg/L       4.93823      9.5227 ppb        4.93823  51.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       124.0      80.963 µg/L       21.3541      80.963 ppb        21.3541  26.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.8      34.385 µg/L       20.1131      34.385 ppb        20.1131  58.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             147.7      0.4623 µg/L       0.05817      0.4623 ppb        0.05817  12.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              17.7      1.7309 µg/L       0.15903      1.7309 ppb        0.15903   9.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      234.8      72.131 µg/L        5.3801      72.131 ppb         5.3801   7.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.9      0.2959 µg/L       0.57673      0.2959 ppb        0.57673 194.90%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                3.4      6.6410 µg/L       6.72404      6.6410 ppb        6.72404 101.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              21.4      5.2065 µg/L       1.35647      5.2065 ppb        1.35647  26.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -3.6     -14.976 µg/L        8.5998     -14.976 ppb         8.5998  57.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.6      0.5280 µg/L       5.85192      0.5280 ppb        5.85192 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.4     -8.9385 µg/L       7.10744     -8.9385 ppb        7.10744  79.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    104.2      20.576 µg/L        2.2394      20.576 ppb         2.2394  10.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              95.4      7.2544 µg/L       0.75977      7.2544 ppb        0.75977  10.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               9.0      3.8070 µg/L       0.57241      3.8070 ppb        0.57241  15.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              83.0      0.7656 µg/L       0.07544      0.7656 ppb        0.07544   9.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             269.7      0.5942 µg/L       0.04915      0.5942 ppb        0.04915   8.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.0     -1.2763 µg/L       3.64442     -1.2763 ppb        3.64442 285.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               43.4      3.6004 µg/L       2.94331      3.6004 ppb        2.94331  81.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               54.8      0.5546 µg/L       0.26626      0.5546 ppb        0.26626  48.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              79.8      1.8665 µg/L       0.27558      1.8665 ppb        0.27558  14.76%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/19/2010 17:18:12
Plasma On Time: 2/8/2010 03:37:33
Logged In Analyst: optima
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502**Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021910E.sif
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si
Method Last Saved: 2/19/2010 16:28:12
IEC File: 011510.iec
MSF File:
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1
Autosampler Location: 113
Sample ID: LR2
Date Collected: 2/19/2010 17:18:14
Analyst: HSC
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57089.6	57089.6	101	%			17:18:49
1	Al 396.153Radial†	-10.5	-17.7	-12.364	µg/L	-12.364	ppb	17:18:49
1	Ca 317.933Radial†	228.9	15.3	13.039	µg/L	13.039	ppb	17:19:09
1	Fe 238.204 Radial†	8.4	-8.2	43.697	µg/L	43.697	ppb	17:19:09

1	K 766.490 Radial†	220.7	53.4	34.889 µg/L	34.889 ppb	17:18:49
1	Mg 279.077 IEC†	10.1	-2.8	-24.911 µg/L	-24.911 ppb	17:19:09
1	Na 589.592 Radial†	602.0	123.6	37.957 µg/L	37.957 ppb	17:18:49
1	Sr 421.552†	60.8	31.4	0.2896 µg/L	0.2896 ppb	17:18:49
1	Sc 361.383	1992980.4	1992980.4	101.52 %		17:20:12
1	Y 371.029	1370801.5	1370801.5	101.33 %		17:20:12
1	Ag 328.068†	-413.2	-5.4	-0.0402 µg/L	-0.0402 ppb	17:20:18
1	As 188.979†	2879.0	2836.3	5083.5 µg/L	5083.5 ppb	17:20:38
1	B 249.677†	863.8	466.7	19.057 µg/L	19.057 ppb	17:20:18
1	Ba 233.527†	-3.1	14.0	0.3366 µg/L	0.3366 ppb	17:20:38
1	Be 313.107†	-2634.3	260.8	0.1545 µg/L	0.1545 ppb	17:20:18
1	Cd 226.502†	-101.6	41.6	1.0480 µg/L	1.0480 ppb	17:20:38
1	Co 228.616†	114754.7	113033.4	5119.0 µg/L	5119.0 ppb	17:20:18
1	Cr 267.716†	-18.5	32.2	0.6465 µg/L	0.6465 ppb	17:20:18
1	Cu 324.752†	1806.3	-764.5	-4.9994 µg/L	-4.9994 ppb	17:20:18
1	Mn 257.610†	-157.7	100.7	0.3076 µg/L	0.3076 ppb	17:20:38
1	Mo 202.031†	8.0	13.2	1.2927 µg/L	1.2927 ppb	17:20:38
1	Ni 231.604†	383.1	65.0	-2.8550 µg/L	-2.8550 ppb	17:20:38
1	P 214.914†	5661.5	5561.4	11011 µg/L	11011 ppb	17:20:18
1	Pb 220.353†	103.9	11.4	2.7844 µg/L	2.7844 ppb	17:20:38
1	S 181.975 Axial†	11.6	-7.5	-31.222 µg/L	-31.222 ppb	17:20:38
1	Sb 206.836†	26.1	3.2	2.9217 µg/L	2.9217 ppb	17:20:38
1	Se 196.026†	15.5	-4.1	-5.9032 µg/L	-5.9032 ppb	17:20:38
1	SiO2†	426908.6	419120.7	82729 µg/L	82729 ppb	17:20:12
1	Si 251.611†	511420.1	503446.9	38273 µg/L	38273 ppb	17:20:12
1	Sn 189.927†	7.7	7.2	3.0305 µg/L	3.0305 ppb	17:20:38
1	Ti 334.940†	600.4	416.4	0.9232 µg/L	0.9232 ppb	17:20:18
1	Tl 190.801†	0.4	22.7	12.314 µg/L	12.314 ppb	17:20:38
1	U 409.014†	-95.3	-16.8	-1.3899 µg/L	-1.3899 ppb	17:20:18
1	V 292.402†	13.1	57.7	0.5647 µg/L	0.5647 ppb	17:20:18
1	Zn 213.857†	632.3	88.4	2.0732 µg/L	2.0732 ppb	17:20:38
2	Sc RADIAL	56165.6	56165.6	99.4 %		17:19:15
2	Al 396.153Radial†	-6.9	-14.3	-9.9617 µg/L	-9.9617 ppb	17:19:15
2	Ca 317.933Radial†	216.0	6.0	5.1201 µg/L	5.1201 ppb	17:19:35
2	Fe 238.204 Radial†	7.6	-8.9	36.342 µg/L	36.342 ppb	17:19:35
2	K 766.490 Radial†	221.8	58.1	37.930 µg/L	37.930 ppb	17:19:15
2	Mg 279.077 IEC†	7.5	-5.3	-47.450 µg/L	-47.450 ppb	17:19:35
2	Na 589.592 Radial†	593.1	124.4	38.204 µg/L	38.204 ppb	17:19:15
2	Sr 421.552†	33.6	5.0	0.0462 µg/L	0.0462 ppb	17:19:15
2	Sc 361.383	2021073.3	2021073.3	102.95 %		17:20:45
2	Y 371.029	1388832.8	1388832.8	102.67 %		17:20:45
2	Ag 328.068†	-393.4	19.5	0.1414 µg/L	0.1414 ppb	17:20:50
2	As 188.979†	2798.9	2719.1	4873.4 µg/L	4873.4 ppb	17:21:11
2	B 249.677†	844.8	436.4	17.824 µg/L	17.824 ppb	17:20:50
2	Ba 233.527†	-4.8	12.4	0.2992 µg/L	0.2992 ppb	17:21:11
2	Be 313.107†	-2671.8	260.5	0.1543 µg/L	0.1543 ppb	17:20:50
2	Cd 226.502†	-106.1	38.6	0.9740 µg/L	0.9740 ppb	17:21:11
2	Co 228.616†	114007.7	110736.6	5015.0 µg/L	5015.0 ppb	17:20:50
2	Cr 267.716†	-23.2	27.9	0.5600 µg/L	0.5600 ppb	17:20:50
2	Cu 324.752†	1789.0	-806.1	-5.2714 µg/L	-5.2714 ppb	17:20:50
2	Mn 257.610†	-160.2	100.4	0.3070 µg/L	0.3070 ppb	17:21:11
2	Mo 202.031†	1.7	7.0	0.6793 µg/L	0.6793 ppb	17:21:11
2	Ni 231.604†	365.6	42.8	-3.8392 µg/L	-3.8392 ppb	17:21:11
2	P 214.914†	5616.7	5440.3	10772 µg/L	10772 ppb	17:20:50
2	Pb 220.353†	110.3	16.2	3.9509 µg/L	3.9509 ppb	17:21:11
2	S 181.975 Axial†	18.6	-0.9	-3.7186 µg/L	-3.7186 ppb	17:21:11
2	Sb 206.836†	25.8	2.5	2.3409 µg/L	2.3409 ppb	17:21:11
2	Se 196.026†	13.5	-6.2	-8.8057 µg/L	-8.8057 ppb	17:21:11
2	SiO2†	425202.9	411618.8	81248 µg/L	81248 ppb	17:20:45
2	Si 251.611†	509536.8	494615.4	37602 µg/L	37602 ppb	17:20:45
2	Sn 189.927†	2.6	2.2	0.9156 µg/L	0.9156 ppb	17:21:11
2	Ti 334.940†	589.0	397.1	0.8822 µg/L	0.8822 ppb	17:20:50
2	Tl 190.801†	0.9	23.3	13.383 µg/L	13.383 ppb	17:21:11
2	U 409.014†	-89.3	-9.7	-0.7935 µg/L	-0.7935 ppb	17:20:50
2	V 292.402†	-20.8	24.5	0.2365 µg/L	0.2365 ppb	17:20:50
2	Zn 213.857†	620.1	67.9	1.5977 µg/L	1.5977 ppb	17:21:11
3	Sc RADIAL	56192.1	56192.1	99.5 %		17:19:41
3	Al 396.153Radial†	-3.6	-11.0	-7.6627 µg/L	-7.6627 ppb	17:19:41
3	Ca 317.933Radial†	218.7	8.6	7.3845 µg/L	7.3845 ppb	17:20:01
3	Fe 238.204 Radial†	9.7	-6.8	38.692 µg/L	38.692 ppb	17:20:01
3	K 766.490 Radial†	214.2	50.4	32.899 µg/L	32.899 ppb	17:19:41

3	Mg 279.077 IEC†	13.9	1.2	10.769 µg/L	10.769 ppb	17:20:01
3	Na 589.592 Radial†	600.0	131.0	40.239 µg/L	40.239 ppb	17:19:41
3	Sr 421.552†	67.6	39.2	0.3616 µg/L	0.3616 ppb	17:19:41
3	Sc 361.383	1998637.7	1998637.7	101.81 %		17:21:17
3	Y 371.029	1373104.8	1373104.8	101.50 %		17:21:17
3	Ag 328.068†	-417.7	-8.6	-0.0666 µg/L	-0.0666 ppb	17:21:23
3	As 188.979†	2369.6	2327.9	4172.3 µg/L	4172.3 ppb	17:21:43
3	B 249.677†	832.0	433.0	17.679 µg/L	17.679 ppb	17:21:23
3	Ba 233.527†	-4.2	12.9	0.3111 µg/L	0.3111 ppb	17:21:43
3	Be 313.107†	-2497.8	402.3	0.2384 µg/L	0.2384 ppb	17:21:23
3	Cd 226.502†	-118.0	25.8	0.6517 µg/L	0.6517 ppb	17:21:43
3	Co 228.616†	98118.9	96373.3	4364.5 µg/L	4364.5 ppb	17:21:23
3	Cr 267.716†	-6.1	44.4	0.8924 µg/L	0.8924 ppb	17:21:23
3	Cu 324.752†	1945.6	-632.7	-4.1375 µg/L	-4.1375 ppb	17:21:23
3	Mn 257.610†	-181.8	77.4	0.2349 µg/L	0.2349 ppb	17:21:43
3	Mo 202.031†	-0.1	5.3	0.5134 µg/L	0.5134 ppb	17:21:43
3	Ni 231.604†	349.6	31.0	-3.6536 µg/L	-3.6536 ppb	17:21:43
3	P 214.914†	4913.6	4810.9	9525.5 µg/L	9525.5 ppb	17:21:23
3	Pb 220.353†	106.2	13.4	3.2602 µg/L	3.2602 ppb	17:21:43
3	S 181.975 Axial†	19.1	-0.2	-0.8917 µg/L	-0.8917 ppb	17:21:43
3	Sb 206.836†	17.0	-5.8	-5.3639 µg/L	-5.3639 ppb	17:21:43
3	Se 196.026†	14.4	-5.1	-7.3641 µg/L	-7.3641 ppb	17:21:43
3	SiO2†	388378.1	380084.6	75024 µg/L	75024 ppb	17:21:17
3	Si 251.611†	465723.5	457136.5	34752 µg/L	34752 ppb	17:21:17
3	Sn 189.927†	7.2	6.7	2.8419 µg/L	2.8419 ppb	17:21:43
3	Ti 334.940†	599.4	413.7	0.9146 µg/L	0.9146 ppb	17:21:23
3	Tl 190.801†	-3.1	19.4	10.494 µg/L	10.494 ppb	17:21:43
3	U 409.014†	-33.0	44.6	3.7148 µg/L	3.7148 ppb	17:21:23
3	V 292.402†	-34.4	11.0	0.1103 µg/L	0.1103 ppb	17:21:23
3	Zn 213.857†	609.9	64.6	1.5181 µg/L	1.5181 ppb	17:21:43

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004230.5	102.09	%	0.757				0.74%
Sc RADIAL	56482.4	100.0	%	0.93				0.93%
Y 371.029	1377579.7	101.84	%	0.725				0.71%
Ag 328.068†	1.8	0.0115	µg/L	0.11324	0.0115	ppb	0.11324	983.61%
Al 396.153Radial†	-14.3	-9.9961	µg/L	2.35074	-9.9961	ppb	2.35074	23.52%
As 188.979†	2627.8	4709.7	µg/L	477.13	4709.7	ppb	477.13	10.13%
B 249.677†	445.4	18.187	µg/L	0.7573	18.187	ppb	0.7573	4.16%
Ba 233.527†	13.1	0.3156	µg/L	0.01910	0.3156	ppb	0.01910	6.05%
Be 313.107†	307.9	0.1824	µg/L	0.04852	0.1824	ppb	0.04852	26.60%
Ca 317.933Radial†	10.0	8.5144	µg/L	4.07847	8.5144	ppb	4.07847	47.90%
Cd 226.502†	35.4	0.8912	µg/L	0.21072	0.8912	ppb	0.21072	23.64%
Co 228.616†	106714.5	4832.9	µg/L	408.90	4832.9	ppb	408.90	8.46%
Cr 267.716†	34.8	0.6996	µg/L	0.17243	0.6996	ppb	0.17243	24.65%
Cu 324.752†	-734.4	-4.8027	µg/L	0.59198	-4.8027	ppb	0.59198	12.33%
Fe 238.204 Radial†	-8.0	39.577	µg/L	3.7566	39.577	ppb	3.7566	9.49%
K 766.490 Radial†	54.0	35.239	µg/L	2.5339	35.239	ppb	2.5339	7.19%
Mg 279.077 IEC†	-2.3	-20.531	µg/L	29.3558	-20.531	ppb	29.3558	142.98%
Mn 257.610†	92.8	0.2832	µg/L	0.04179	0.2832	ppb	0.04179	14.76%
Mo 202.031†	8.5	0.8285	µg/L	0.41049	0.8285	ppb	0.41049	49.55%
Na 589.592 Radial†	126.3	38.800	µg/L	1.2520	38.800	ppb	1.2520	3.23%
Ni 231.604†	46.3	-3.4493	µg/L	0.52296	-3.4493	ppb	0.52296	15.16%
P 214.914†	5270.9	10436	µg/L	797.7	10436	ppb	797.7	7.64%
Pb 220.353†	13.7	3.3319	µg/L	0.58655	3.3319	ppb	0.58655	17.60%
S 181.975 Axial†	-2.9	-11.944	µg/L	16.7551	-11.944	ppb	16.7551	140.28%
Sb 206.836†	-0.0	-0.0338	µg/L	4.62516	-0.0338	ppb	4.62516	>999.9%
Se 196.026†	-5.1	-7.3577	µg/L	1.45126	-7.3577	ppb	1.45126	19.72%
SiO2†	403608.1	79667	µg/L	4088.7	79667	ppb	4088.7	5.13%
Si 251.611†	485066.3	36876	µg/L	1869.2	36876	ppb	1869.2	5.07%
Sn 189.927†	5.4	2.2626	µg/L	1.17039	2.2626	ppb	1.17039	51.73%
Sr 421.552†	25.2	0.2325	µg/L	0.16530	0.2325	ppb	0.16530	71.11%
Ti 334.940†	409.0	0.9067	µg/L	0.02163	0.9067	ppb	0.02163	2.39%
Tl 190.801†	21.8	12.064	µg/L	1.4608	12.064	ppb	1.4608	12.11%
U 409.014†	6.0	0.5104	µg/L	2.79101	0.5104	ppb	2.79101	546.79%
V 292.402†	31.1	0.3038	µg/L	0.23456	0.3038	ppb	0.23456	77.20%
Zn 213.857†	73.7	1.7297	µg/L	0.30016	1.7297	ppb	0.30016	17.35%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:21:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55997.1	55997.1	99.1	%			17:22:28
1	Al 396.153Radial†	7484.4	7543.7	5236.5	µg/L	5236.5	ppb	17:22:28
1	Ca 317.933Radial†	6284.2	6128.9	5235.2	µg/L	5235.2	ppb	17:22:48
1	Fe 238.204 Radial†	689.0	678.6	5363.5	µg/L	5363.5	ppb	17:22:48
1	K 766.490 Radial†	8069.9	7976.8	5209.8	µg/L	5209.8	ppb	17:22:28
1	Mg 279.077 IEC†	607.2	599.8	5365.3	µg/L	5365.3	ppb	17:22:48
1	Na 589.592 Radial†	34612.1	34448.1	10580	µg/L	10580	ppb	17:22:28
1	Sr 421.552†	55249.7	55712.7	513.96	µg/L	513.96	ppb	17:22:28
1	Sc 361.383	1941292.6	1941292.6	98.888	%			17:23:51
1	Y 371.029	1335522.5	1335522.5	98.726	%			17:23:51
1	Ag 328.068†	70158.7	71349.1	532.40	µg/L	532.40	ppb	17:23:57
1	As 188.979†	304.1	308.0	550.96	µg/L	550.96	ppb	17:24:18
1	B 249.677†	13216.5	12981.0	527.15	µg/L	527.15	ppb	17:23:57
1	Ba 233.527†	22082.2	22347.5	537.47	µg/L	537.47	ppb	17:23:57
1	Be 313.107†	881057.8	893819.8	530.28	µg/L	530.28	ppb	17:23:51
1	Cd 226.502†	21234.9	21615.4	539.04	µg/L	539.04	ppb	17:23:57
1	Co 228.616†	11841.2	11972.4	541.59	µg/L	541.59	ppb	17:23:57
1	Cr 267.716†	26708.5	27059.1	543.83	µg/L	543.83	ppb	17:23:57
1	Cu 324.752†	83577.2	81973.2	535.82	µg/L	535.82	ppb	17:23:57
1	Mn 257.610†	169839.0	172004.6	539.13	µg/L	539.13	ppb	17:23:51
1	Mo 202.031†	5552.9	5620.6	550.61	µg/L	550.61	ppb	17:24:18
1	Ni 231.604†	11057.1	10869.0	541.24	µg/L	541.24	ppb	17:23:57
1	P 214.914†	1373.5	1373.6	2668.4	µg/L	2668.4	ppb	17:24:18
1	Pb 220.353†	2326.6	2261.9	550.03	µg/L	550.03	ppb	17:24:18
1	S 181.975 Axial†	279.6	263.8	1093.9	µg/L	1093.9	ppb	17:24:18
1	Sb 206.836†	611.1	595.5	549.07	µg/L	549.07	ppb	17:24:18
1	Se 196.026†	411.0	396.3	565.02	µg/L	565.02	ppb	17:24:18
1	SiO2†	30336.5	29286.0	5780.7	µg/L	5780.7	ppb	17:23:57
1	Si 251.611†	35486.6	35575.0	2704.5	µg/L	2704.5	ppb	17:23:57
1	Sn 189.927†	1307.2	1321.6	557.36	µg/L	557.36	ppb	17:24:18
1	Ti 334.940†	237204.0	239696.0	529.92	µg/L	529.92	ppb	17:23:51
1	Tl 190.801†	383.1	409.8	538.64	µg/L	538.64	ppb	17:24:18
1	U 409.014†	6443.7	6593.3	546.74	µg/L	546.74	ppb	17:23:57
1	V 292.402†	54369.9	55025.9	542.94	µg/L	542.94	ppb	17:23:57
1	Zn 213.857†	23470.8	23200.3	540.50	µg/L	540.50	ppb	17:23:57
2	Sc RADIAL	55374.2	55374.2	98.0	%			17:22:54
2	Al 396.153Radial†	7516.3	7661.2	5318.8	µg/L	5318.8	ppb	17:22:54
2	Ca 317.933Radial†	6316.8	6233.4	5324.5	µg/L	5324.5	ppb	17:23:14
2	Fe 238.204 Radial†	689.1	686.5	5425.5	µg/L	5425.5	ppb	17:23:14
2	K 766.490 Radial†	8078.4	8077.0	5275.2	µg/L	5275.2	ppb	17:22:54
2	Mg 279.077 IEC†	616.4	616.1	5510.0	µg/L	5510.0	ppb	17:23:14
2	Na 589.592 Radial†	34699.9	34930.4	10729	µg/L	10729	ppb	17:22:54
2	Sr 421.552†	55215.6	56305.0	519.42	µg/L	519.42	ppb	17:22:54
2	Sc 361.383	1972008.9	1972008.9	100.45	%			17:24:25
2	Y 371.029	1357440.8	1357440.8	100.35	%			17:24:25
2	Ag 328.068†	69394.0	69482.8	518.48	µg/L	518.48	ppb	17:24:30
2	As 188.979†	292.5	291.6	521.69	µg/L	521.69	ppb	17:24:51
2	B 249.677†	13098.0	12654.8	513.80	µg/L	513.80	ppb	17:24:30
2	Ba 233.527†	21766.9	21685.9	521.56	µg/L	521.56	ppb	17:24:30
2	Be 313.107†	875557.6	874466.7	518.80	µg/L	518.80	ppb	17:24:25
2	Cd 226.502†	20934.5	20981.8	523.22	µg/L	523.22	ppb	17:24:30
2	Co 228.616†	11674.3	11619.7	525.62	µg/L	525.62	ppb	17:24:30
2	Cr 267.716†	26349.4	26281.0	528.19	µg/L	528.19	ppb	17:24:30
2	Cu 324.752†	82762.2	79845.4	521.94	µg/L	521.94	ppb	17:24:30
2	Mn 257.610†	168819.9	168315.0	527.58	µg/L	527.58	ppb	17:24:25
2	Mo 202.031†	5374.4	5355.5	524.65	µg/L	524.65	ppb	17:24:51
2	Ni 231.604†	10896.7	10535.3	524.62	µg/L	524.62	ppb	17:24:30
2	P 214.914†	1349.1	1327.7	2578.5	µg/L	2578.5	ppb	17:24:51
2	Pb 220.353†	2255.8	2154.7	523.94	µg/L	523.94	ppb	17:24:51

2	S 181.975 Axial†	273.6	253.5	1051.2 µg/L	1051.2 ppb	17:24:51
2	Sb 206.836†	597.1	571.9	527.15 µg/L	527.15 ppb	17:24:51
2	Se 196.026†	399.0	377.9	539.15 µg/L	539.15 ppb	17:24:51
2	SiO2†	30015.2	28488.3	5623.2 µg/L	5623.2 ppb	17:24:30
2	Si 251.611†	35058.2	34589.5	2629.6 µg/L	2629.6 ppb	17:24:30
2	Sn 189.927†	1256.6	1250.5	527.41 µg/L	527.41 ppb	17:24:51
2	Ti 334.940†	235686.9	234449.5	518.30 µg/L	518.30 ppb	17:24:25
2	Tl 190.801†	379.7	400.4	526.29 µg/L	526.29 ppb	17:24:51
2	U 409.014†	6398.7	6446.9	534.56 µg/L	534.56 ppb	17:24:30
2	V 292.402†	53704.7	53507.4	527.90 µg/L	527.90 ppb	17:24:30
2	Zn 213.857†	23141.6	22502.9	524.22 µg/L	524.22 ppb	17:24:30
3	Sc RADIAL	55679.0	55679.0	98.6 %		17:23:19
3	Al 396.153Radial†	7596.6	7700.7	5348.4 µg/L	5348.4 ppb	17:23:19
3	Ca 317.933Radial†	6283.1	6164.0	5265.1 µg/L	5265.1 ppb	17:23:40
3	Fe 238.204 Radial†	686.1	679.6	5369.7 µg/L	5369.7 ppb	17:23:40
3	K 766.490 Radial†	8154.7	8109.3	5296.3 µg/L	5296.3 ppb	17:23:19
3	Mg 279.077 IEC†	612.2	608.4	5439.6 µg/L	5439.6 ppb	17:23:40
3	Na 589.592 Radial†	34975.0	35015.8	10755 µg/L	10755 ppb	17:23:19
3	Sr 421.552†	55908.1	56699.3	523.06 µg/L	523.06 ppb	17:23:19
3	Sc 361.383	1952535.0	1952535.0	99.461 %		17:24:58
3	Y 371.029	1343624.0	1343624.0	99.325 %		17:24:58
3	Ag 328.068†	63360.5	64105.6	478.17 µg/L	478.17 ppb	17:25:04
3	As 188.979†	241.7	243.4	435.49 µg/L	435.49 ppb	17:25:24
3	B 249.677†	11843.3	11523.4	467.57 µg/L	467.57 ppb	17:25:04
3	Ba 233.527†	19104.2	19224.8	462.34 µg/L	462.34 ppb	17:25:04
3	Be 313.107†	780835.5	787924.2	467.46 µg/L	467.46 ppb	17:24:58
3	Cd 226.502†	18231.2	18471.7	460.55 µg/L	460.55 ppb	17:25:04
3	Co 228.616†	10034.6	10087.0	456.23 µg/L	456.23 ppb	17:25:04
3	Cr 267.716†	21902.6	22071.8	443.60 µg/L	443.60 ppb	17:25:04
3	Cu 324.752†	72242.1	70090.0	458.26 µg/L	458.26 ppb	17:25:04
3	Mn 257.610†	151408.5	152485.3	478.01 µg/L	478.01 ppb	17:24:58
3	Mo 202.031†	4271.9	4300.4	421.32 µg/L	421.32 ppb	17:25:24
3	Ni 231.604†	9447.8	9186.7	457.48 µg/L	457.48 ppb	17:25:04
3	P 214.914†	1083.3	1073.8	2080.9 µg/L	2080.9 ppb	17:25:24
3	Pb 220.353†	1873.7	1793.0	435.92 µg/L	435.92 ppb	17:25:24
3	S 181.975 Axial†	233.8	216.1	896.36 µg/L	896.36 ppb	17:25:24
3	Sb 206.836†	489.4	469.6	432.51 µg/L	432.51 ppb	17:25:24
3	Se 196.026†	332.8	315.3	451.15 µg/L	451.15 ppb	17:25:24
3	SiO2†	26947.7	25702.2	5073.3 µg/L	5073.3 ppb	17:25:04
3	Si 251.611†	31277.9	31136.9	2367.1 µg/L	2367.1 ppb	17:25:04
3	Sn 189.927†	976.9	981.8	414.09 µg/L	414.09 ppb	17:25:24
3	Ti 334.940†	208555.8	209511.3	463.14 µg/L	463.14 ppb	17:24:58
3	Tl 190.801†	319.8	343.9	452.38 µg/L	452.38 ppb	17:25:24
3	U 409.014†	5254.4	5360.0	444.27 µg/L	444.27 ppb	17:25:04
3	V 292.402†	45815.6	46108.8	454.70 µg/L	454.70 ppb	17:25:04
3	Zn 213.857†	20168.8	19743.8	459.90 µg/L	459.90 ppb	17:25:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1955278.8	99.601	%	0.7916				0.79%
Sc RADIAL	55683.5	98.6	%	0.55				0.56%
Y 371.029	1345529.1	99.466	%	0.8193				0.82%
Ag 328.068†	68312.5	509.69	µg/L	28.165	509.69	ppb	28.165	5.53%
QC value within limits for Ag 328.068 Recovery = 101.94%								
Al 396.153Radial†	7635.2	5301.2	µg/L	57.98	5301.2	ppb	57.98	1.09%
QC value within limits for Al 396.153Radial Recovery = 106.02%								
As 188.979†	281.0	502.71	µg/L	60.027	502.71	ppb	60.027	11.94%
QC value within limits for As 188.979 Recovery = 100.54%								
B 249.677†	12386.4	502.84	µg/L	31.261	502.84	ppb	31.261	6.22%
QC value within limits for B 249.677 Recovery = 100.57%								
Ba 233.527†	21086.1	507.12	µg/L	39.588	507.12	ppb	39.588	7.81%
QC value within limits for Ba 233.527 Recovery = 101.42%								
Be 313.107†	852070.2	505.52	µg/L	33.453	505.52	ppb	33.453	6.62%
QC value within limits for Be 313.107 Recovery = 101.10%								
Ca 317.933Radial†	6175.4	5274.9	µg/L	45.45	5274.9	ppb	45.45	0.86%
QC value within limits for Ca 317.933Radial Recovery = 105.50%								
Cd 226.502†	20356.3	507.61	µg/L	41.509	507.61	ppb	41.509	8.18%
QC value within limits for Cd 226.502 Recovery = 101.52%								
Co 228.616†	11226.4	507.82	µg/L	45.380	507.82	ppb	45.380	8.94%

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   QC value within limits for Co 228.616  Recovery = 101.56%
Cr 267.716†            25137.3      505.21 µg/L        53.922      505.21 ppb         53.922  10.67%
   QC value within limits for Cr 267.716  Recovery = 101.04%
Cu 324.752†            77302.9      505.34 µg/L        41.362      505.34 ppb         41.362   8.19%
   QC value within limits for Cu 324.752  Recovery = 101.07%
Fe 238.204 Radial†       681.6      5386.2 µg/L         34.14      5386.2 ppb          34.14   0.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.72%
K 766.490 Radial†       8054.3      5260.4 µg/L         45.13      5260.4 ppb          45.13   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 105.21%
Mg 279.077 IEC†          608.1      5438.3 µg/L         72.33      5438.3 ppb          72.33   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.77%
Mn 257.610†           164268.3      514.91 µg/L        32.475      514.91 ppb         32.475   6.31%
   QC value within limits for Mn 257.610  Recovery = 102.98%
Mo 202.031†            5092.2      498.86 µg/L        68.394      498.86 ppb         68.394  13.71%
   QC value within limits for Mo 202.031  Recovery = 99.77%
Na 589.592 Radial†    34798.1       10688 µg/L          94.0       10688 ppb           94.0   0.88%
   QC value within limits for Na 589.592 Radial  Recovery = 106.88%
Ni 231.604†           10197.0      507.78 µg/L        44.349      507.78 ppb         44.349   8.73%
   QC value within limits for Ni 231.604  Recovery = 101.56%
P 214.914†             1258.3      2442.6 µg/L        316.42      2442.6 ppb         316.42  12.95%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†            2069.8      503.29 µg/L        59.790      503.29 ppb         59.790  11.88%
   QC value within limits for Pb 220.353  Recovery = 100.66%
S 181.975 Axial†        244.5      1013.8 µg/L        103.94      1013.8 ppb         103.94  10.25%
   QC value within limits for S 181.975 Axial  Recovery = 101.38%
Sb 206.836†             545.7      502.91 µg/L        61.945      502.91 ppb         61.945  12.32%
   QC value within limits for Sb 206.836  Recovery = 100.58%
Se 196.026†             363.2      518.44 µg/L        59.692      518.44 ppb         59.692  11.51%
   QC value within limits for Se 196.026  Recovery = 103.69%
SiO2†                  27825.5      5492.4 µg/L        371.40      5492.4 ppb         371.40   6.76%
   QC value within limits for SiO2  Recovery = 102.71%
Si 251.611†            33767.1      2567.0 µg/L        177.17      2567.0 ppb         177.17   6.90%
   QC value within limits for Si 251.611  Recovery = 102.68%
Sn 189.927†            1184.6      499.62 µg/L        75.568      499.62 ppb         75.568  15.13%
   QC value within limits for Sn 189.927  Recovery = 99.92%
Sr 421.552†            56239.0      518.81 µg/L         4.581      518.81 ppb          4.581   0.88%
   QC value within limits for Sr 421.552  Recovery = 103.76%
Ti 334.940†           227885.6      503.79 µg/L        35.678      503.79 ppb         35.678   7.08%
   QC value within limits for Ti 334.940  Recovery = 100.76%
Tl 190.801†             384.7      505.77 µg/L        46.646      505.77 ppb         46.646   9.22%
   QC value within limits for Tl 190.801  Recovery = 101.15%
U 409.014†             6133.4      508.52 µg/L        55.977      508.52 ppb         55.977  11.01%
   QC value within limits for U 409.014  Recovery = 101.70%
V 292.402†             51547.4      508.51 µg/L        47.203      508.51 ppb         47.203   9.28%
   QC value within limits for V 292.402  Recovery = 101.70%
Zn 213.857†            21815.7      508.21 µg/L        42.623      508.21 ppb         42.623   8.39%
   QC value within limits for Zn 213.857  Recovery = 101.64%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:25:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55715.1	55715.1	98.6	%			17:26:06
1	Al 396.153Radial†	9.9	2.7	1.8794	µg/L	1.8794	ppb	17:26:06
1	Ca 317.933Radial†	200.0	-8.4	-7.2065	µg/L	-7.2065	ppb	17:26:26
1	Fe 238.204 Radial†	18.1	1.8	14.281	µg/L	14.281	ppb	17:26:26
1	K 766.490 Radial†	190.3	28.0	18.262	µg/L	18.262	ppb	17:26:06
1	Mg 279.077 IEC†	10.8	-1.8	-16.403	µg/L	-16.403	ppb	17:26:26
1	Na 589.592 Radial†	566.5	102.3	31.414	µg/L	31.414	ppb	17:26:06
1	Sr 421.552†	8.2	-20.5	-0.1895	µg/L	-0.1895	ppb	17:26:06
1	Sc 361.383	1953458.7	1953458.7	99.508	%			17:27:28
1	Y 371.029	1347989.6	1347989.6	99.648	%			17:27:28
1	Ag 328.068†	-445.9	-46.5	-0.3428	µg/L	-0.3428	ppb	17:27:34
1	As 188.979†	1.8	2.2	4.0261	µg/L	4.0261	ppb	17:27:54
1	B 249.677†	402.6	20.4	0.8246	µg/L	0.8246	ppb	17:27:54
1	Ba 233.527†	-7.2	9.9	0.2372	µg/L	0.2372	ppb	17:27:54
1	Be 313.107†	-2535.3	307.9	0.1827	µg/L	0.1827	ppb	17:27:34
1	Cd 226.502†	-139.8	1.2	0.0290	µg/L	0.0290	ppb	17:27:54
1	Co 228.616†	8.7	6.8	0.3065	µg/L	0.3065	ppb	17:27:54
1	Cr 267.716†	-42.4	7.8	0.1560	µg/L	0.1560	ppb	17:27:34
1	Cu 324.752†	2642.5	111.8	0.7321	µg/L	0.7321	ppb	17:27:34
1	Mn 257.610†	-204.1	50.9	0.1618	µg/L	0.1618	ppb	17:27:54
1	Mo 202.031†	-2.0	3.3	0.3242	µg/L	0.3242	ppb	17:27:54
1	Ni 231.604†	314.6	3.8	0.1900	µg/L	0.1900	ppb	17:27:54
1	P 214.914†	18.8	3.5	6.8616	µg/L	6.8616	ppb	17:27:54
1	Pb 220.353†	98.3	7.8	1.8853	µg/L	1.8853	ppb	17:27:54
1	S 181.975 Axial†	15.5	-3.4	-14.112	µg/L	-14.112	ppb	17:27:54
1	Sb 206.836†	26.9	4.5	4.1739	µg/L	4.1739	ppb	17:27:54
1	Se 196.026†	12.3	-7.0	-9.7684	µg/L	-9.7684	ppb	17:27:54
1	SiO2†	1515.6	131.5	25.955	µg/L	25.955	ppb	17:27:34
1	Si 251.611†	416.0	107.4	8.1665	µg/L	8.1665	ppb	17:27:54
1	Sn 189.927†	2.2	1.9	0.7860	µg/L	0.7860	ppb	17:27:54
1	Ti 334.940†	256.5	82.7	0.1842	µg/L	0.1842	ppb	17:27:34
1	Tl 190.801†	-25.3	-3.1	-3.9679	µg/L	-3.9679	ppb	17:27:54
1	U 409.014†	32.9	110.1	9.1492	µg/L	9.1492	ppb	17:27:34
1	V 292.402†	-29.6	15.0	0.1604	µg/L	0.1604	ppb	17:27:34
1	Zn 213.857†	546.5	14.8	0.3443	µg/L	0.3443	ppb	17:27:54
2	Sc RADIAL	55504.2	55504.2	98.2	%			17:26:32
2	Al 396.153Radial†	11.6	4.4	3.0699	µg/L	3.0699	ppb	17:26:32
2	Ca 317.933Radial†	200.3	-7.4	-6.2839	µg/L	-6.2839	ppb	17:26:52
2	Fe 238.204 Radial†	17.9	1.6	12.645	µg/L	12.645	ppb	17:26:52
2	K 766.490 Radial†	201.9	40.6	26.491	µg/L	26.491	ppb	17:26:32
2	Mg 279.077 IEC†	10.5	-2.1	-19.078	µg/L	-19.078	ppb	17:26:52
2	Na 589.592 Radial†	562.4	100.3	30.804	µg/L	30.804	ppb	17:26:32
2	Sr 421.552†	36.5	8.4	0.0774	µg/L	0.0774	ppb	17:26:32
2	Sc 361.383	1950778.5	1950778.5	99.371	%			17:28:00
2	Y 371.029	1346193.0	1346193.0	99.515	%			17:28:00
2	Ag 328.068†	-396.0	3.1	0.0257	µg/L	0.0257	ppb	17:28:06
2	As 188.979†	1.1	1.6	2.8532	µg/L	2.8532	ppb	17:28:26
2	B 249.677†	390.0	8.3	0.3322	µg/L	0.3322	ppb	17:28:26
2	Ba 233.527†	-6.8	10.2	0.2452	µg/L	0.2452	ppb	17:28:26
2	Be 313.107†	-2616.4	222.8	0.1321	µg/L	0.1321	ppb	17:28:06
2	Cd 226.502†	-139.8	1.0	0.0242	µg/L	0.0242	ppb	17:28:26
2	Co 228.616†	3.7	1.8	0.0803	µg/L	0.0803	ppb	17:28:26
2	Cr 267.716†	-54.5	-4.5	-0.0900	µg/L	-0.0900	ppb	17:28:06
2	Cu 324.752†	2637.6	110.5	0.7233	µg/L	0.7233	ppb	17:28:06
2	Mn 257.610†	-213.1	41.5	0.1325	µg/L	0.1325	ppb	17:28:26
2	Mo 202.031†	-0.0	5.3	0.5204	µg/L	0.5204	ppb	17:28:26
2	Ni 231.604†	311.7	1.3	0.0651	µg/L	0.0651	ppb	17:28:26
2	P 214.914†	7.2	-8.1	-16.019	µg/L	-16.019	ppb	17:28:26
2	Pb 220.353†	96.7	6.4	1.5474	µg/L	1.5474	ppb	17:28:26

2	S 181.975 Axial†	17.4	-1.4	-5.8210 µg/L	-5.8210 ppb	17:28:26
2	Sb 206.836†	19.7	-2.6	-2.3998 µg/L	-2.3998 ppb	17:28:26
2	Se 196.026†	15.0	-4.2	-5.8108 µg/L	-5.8108 ppb	17:28:26
2	SiO2†	1459.9	77.6	15.313 µg/L	15.313 ppb	17:28:06
2	Si 251.611†	412.0	104.0	7.9062 µg/L	7.9062 ppb	17:28:26
2	Sn 189.927†	7.8	7.4	3.1294 µg/L	3.1294 ppb	17:28:26
2	Ti 334.940†	270.4	97.1	0.2161 µg/L	0.2161 ppb	17:28:06
2	Tl 190.801†	-21.2	1.0	1.3155 µg/L	1.3155 ppb	17:28:26
2	U 409.014†	-29.9	47.0	3.9019 µg/L	3.9019 ppb	17:28:06
2	V 292.402†	-11.1	33.5	0.3361 µg/L	0.3361 ppb	17:28:06
2	Zn 213.857†	544.6	13.6	0.3180 µg/L	0.3180 ppb	17:28:26
3	Sc RADIAL	55576.2	55576.2	98.4 %		17:26:57
3	Al 396.153Radial†	-4.2	-11.6	-8.0814 µg/L	-8.0814 ppb	17:26:57
3	Ca 317.933Radial†	198.4	-9.6	-8.1878 µg/L	-8.1878 ppb	17:27:18
3	Fe 238.204 Radial†	17.1	0.8	6.2197 µg/L	6.2197 ppb	17:27:18
3	K 766.490 Radial†	182.5	20.5	13.397 µg/L	13.397 ppb	17:26:57
3	Mg 279.077 IEC†	14.4	1.8	16.514 µg/L	16.514 ppb	17:27:18
3	Na 589.592 Radial†	564.0	101.1	31.056 µg/L	31.056 ppb	17:26:57
3	Sr 421.552†	84.4	57.0	0.5260 µg/L	0.5260 ppb	17:26:57
3	Sc 361.383	1984583.7	1984583.7	101.09 %		17:28:32
3	Y 371.029	1368650.9	1368650.9	101.18 %		17:28:32
3	Ag 328.068†	-463.7	-57.1	-0.4221 µg/L	-0.4221 ppb	17:28:38
3	As 188.979†	1.5	1.9	3.4901 µg/L	3.4901 ppb	17:28:58
3	B 249.677†	385.7	-2.6	-0.1102 µg/L	-0.1102 ppb	17:28:58
3	Ba 233.527†	-8.4	8.8	0.2107 µg/L	0.2107 ppb	17:28:58
3	Be 313.107†	-2606.1	277.8	0.1648 µg/L	0.1648 ppb	17:28:38
3	Cd 226.502†	-137.9	5.3	0.1312 µg/L	0.1312 ppb	17:28:58
3	Co 228.616†	11.7	9.7	0.4385 µg/L	0.4385 ppb	17:28:58
3	Cr 267.716†	-56.0	-5.0	-0.1002 µg/L	-0.1002 ppb	17:28:38
3	Cu 324.752†	2581.0	9.4	0.0621 µg/L	0.0621 ppb	17:28:38
3	Mn 257.610†	-221.0	37.4	0.1174 µg/L	0.1174 ppb	17:28:58
3	Mo 202.031†	2.7	8.0	0.7835 µg/L	0.7835 ppb	17:28:58
3	Ni 231.604†	311.4	-4.3	-0.2151 µg/L	-0.2151 ppb	17:28:58
3	P 214.914†	14.9	-0.6	-1.1261 µg/L	-1.1261 ppb	17:28:58
3	Pb 220.353†	89.4	-2.5	-0.6244 µg/L	-0.6244 ppb	17:28:58
3	S 181.975 Axial†	14.9	-4.2	-17.388 µg/L	-17.388 ppb	17:28:58
3	Sb 206.836†	22.0	-0.7	-0.6331 µg/L	-0.6331 ppb	17:28:58
3	Se 196.026†	16.1	-3.3	-4.6875 µg/L	-4.6875 ppb	17:28:58
3	SiO2†	1488.2	80.6	15.904 µg/L	15.904 ppb	17:28:38
3	Si 251.611†	405.3	90.2	6.8609 µg/L	6.8609 ppb	17:28:58
3	Sn 189.927†	5.4	5.0	2.0931 µg/L	2.0931 ppb	17:28:58
3	Ti 334.940†	242.9	65.3	0.1429 µg/L	0.1429 ppb	17:28:38
3	Tl 190.801†	-20.1	2.5	3.3063 µg/L	3.3063 ppb	17:28:58
3	U 409.014†	41.4	118.0	9.8042 µg/L	9.8042 ppb	17:28:38
3	V 292.402†	-37.8	7.4	0.0885 µg/L	0.0885 ppb	17:28:38
3	Zn 213.857†	537.5	-2.8	-0.0653 µg/L	-0.0653 ppb	17:28:58

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962940.3	99.991	%	0.9572				0.96%
Sc RADIAL	55598.5	98.4	%	0.19				0.19%
Y 371.029	1354277.8	100.11	%	0.923				0.92%
Ag 328.068†	-33.5	-0.2464	µg/L	0.23900	-0.2464	ppb	0.23900	96.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.5	-1.0440	µg/L	6.12354	-1.0440	ppb	6.12354	586.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.4565	µg/L	0.58720	3.4565	ppb	0.58720	16.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.7	0.3489	µg/L	0.46764	0.3489	ppb	0.46764	134.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.2310	µg/L	0.01805	0.2310	ppb	0.01805	7.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.5	0.1599	µg/L	0.02562	0.1599	ppb	0.02562	16.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.5	-7.2261	µg/L	0.95208	-7.2261	ppb	0.95208	13.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	2.5	0.0615	µg/L	0.06046	0.0615	ppb	0.06046	98.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.1	0.2751	µg/L	0.18114	0.2751	ppb	0.18114	65.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.6     -0.0114 µg/L       0.14502     -0.0114 ppb        0.14502 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                77.3      0.5058 µg/L       0.38426      0.5058 ppb        0.38426  75.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4      11.049 µg/L        4.2612      11.049 ppb         4.2612  38.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.7      19.384 µg/L        6.6186      19.384 ppb         6.6186  34.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.7     -6.3222 µg/L      19.82205     -6.3222 ppb       19.82205 313.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                43.3      0.1372 µg/L       0.02261      0.1372 ppb        0.02261  16.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.5      0.5427 µg/L       0.23045      0.5427 ppb        0.23045  42.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.2      31.091 µg/L        0.3066      31.091 ppb         0.3066   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.3      0.0133 µg/L       0.20747      0.0133 ppb        0.20747 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.7     -3.4277 µg/L      11.61243     -3.4277 ppb       11.61243 338.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.9      0.9361 µg/L       1.36196      0.9361 ppb        1.36196 145.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.0     -12.440 µg/L        5.9620     -12.440 ppb         5.9620  47.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.3803 µg/L       3.40201      0.3803 ppb        3.40201 894.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.8     -6.7556 µg/L       2.66893     -6.7556 ppb        2.66893  39.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      96.5      19.057 µg/L        5.9811      19.057 ppb         5.9811  31.38%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               100.6      7.6446 µg/L       0.69104      7.6446 ppb        0.69104   9.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.8      2.0028 µg/L       1.17429      2.0028 ppb        1.17429  58.63%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                15.0      0.1380 µg/L       0.36157      0.1380 ppb        0.36157 262.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                81.7      0.1811 µg/L       0.03671      0.1811 ppb        0.03671  20.27%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.2      0.2179 µg/L       3.75923      0.2179 ppb        3.75923 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 91.7      7.6184 µg/L       3.23526      7.6184 ppb        3.23526  42.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 18.6      0.1950 µg/L       0.12739      0.1950 ppb        0.12739  65.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 8.5      0.1990 µg/L       0.22924      0.1990 ppb        0.22924 115.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 17:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56387.7	56387.7	99.8	%			17:52:51
1	Al 396.153Radial†	7516.2	7523.2	5222.3	µg/L	5222.3	ppb	17:52:51
1	Ca 317.933Radial†	6203.6	6004.2	5128.7	µg/L	5128.7	ppb	17:53:12
1	Fe 238.204 Radial†	678.6	663.3	5242.5	µg/L	5242.5	ppb	17:53:12
1	K 766.490 Radial†	8065.5	7916.0	5170.1	µg/L	5170.1	ppb	17:52:51
1	Mg 279.077 IEC†	612.7	601.1	5376.4	µg/L	5376.4	ppb	17:53:12
1	Na 589.592 Radial†	34827.6	34422.1	10573	µg/L	10573	ppb	17:52:51
1	Sr 421.552†	55284.5	55361.6	510.72	µg/L	510.72	ppb	17:52:51
1	Sc 361.383	1961302.2	1961302.2	99.907	%			17:54:15
1	Y 371.029	1346537.9	1346537.9	99.540	%			17:54:15
1	Ag 328.068†	69774.1	70240.4	524.12	µg/L	524.12	ppb	17:54:21
1	As 188.979†	301.3	302.0	540.22	µg/L	540.22	ppb	17:54:41
1	B 249.677†	13080.8	12708.8	516.10	µg/L	516.10	ppb	17:54:21
1	Ba 233.527†	21956.6	21994.0	528.97	µg/L	528.97	ppb	17:54:21
1	Be 313.107†	883536.0	887210.5	526.36	µg/L	526.36	ppb	17:54:15
1	Cd 226.502†	21042.7	21203.9	528.78	µg/L	528.78	ppb	17:54:21
1	Co 228.616†	11741.3	11750.3	531.54	µg/L	531.54	ppb	17:54:21
1	Cr 267.716†	26482.6	26557.5	533.75	µg/L	533.75	ppb	17:54:21
1	Cu 324.752†	83088.9	80622.2	526.99	µg/L	526.99	ppb	17:54:21
1	Mn 257.610†	170434.3	170848.3	535.50	µg/L	535.50	ppb	17:54:15
1	Mo 202.031†	5552.2	5562.7	544.93	µg/L	544.93	ppb	17:54:41
1	Ni 231.604†	10987.8	10685.6	532.11	µg/L	532.11	ppb	17:54:21
1	P 214.914†	1368.8	1354.8	2632.0	µg/L	2632.0	ppb	17:54:41
1	Pb 220.353†	2310.1	2221.3	540.17	µg/L	540.17	ppb	17:54:41
1	S 181.975 Axial†	278.0	259.3	1075.2	µg/L	1075.2	ppb	17:54:41
1	Sb 206.836†	616.4	594.4	548.12	µg/L	548.12	ppb	17:54:41
1	Se 196.026†	407.1	388.1	553.19	µg/L	553.19	ppb	17:54:41
1	SiO2†	29956.0	28592.2	5643.7	µg/L	5643.7	ppb	17:54:21
1	Si 251.611†	34932.9	34654.6	2634.5	µg/L	2634.5	ppb	17:54:21
1	Sn 189.927†	1295.2	1296.1	546.62	µg/L	546.62	ppb	17:54:41
1	Ti 334.940†	237959.8	238005.3	526.18	µg/L	526.18	ppb	17:54:15
1	Tl 190.801†	387.6	410.3	539.25	µg/L	539.25	ppb	17:54:41
1	U 409.014†	6411.5	6494.5	538.55	µg/L	538.55	ppb	17:54:21
1	V 292.402†	54050.9	54145.8	534.27	µg/L	534.27	ppb	17:54:21
1	Zn 213.857†	23288.3	22775.5	530.59	µg/L	530.59	ppb	17:54:21
2	Sc RADIAL	56513.7	56513.7	100	%			17:53:17
2	Al 396.153Radial†	7511.3	7501.5	5207.6	µg/L	5207.6	ppb	17:53:17
2	Ca 317.933Radial†	6229.5	6016.2	5139.0	µg/L	5139.0	ppb	17:53:38
2	Fe 238.204 Radial†	684.9	668.1	5280.5	µg/L	5280.5	ppb	17:53:38
2	K 766.490 Radial†	8100.3	7932.7	5181.0	µg/L	5181.0	ppb	17:53:17
2	Mg 279.077 IEC†	601.5	588.5	5263.5	µg/L	5263.5	ppb	17:53:38
2	Na 589.592 Radial†	34828.0	34344.7	10549	µg/L	10549	ppb	17:53:17
2	Sr 421.552†	55539.3	55492.7	511.93	µg/L	511.93	ppb	17:53:17
2	Sc 361.383	1968482.8	1968482.8	100.27	%			17:54:48
2	Y 371.029	1351706.6	1351706.6	99.922	%			17:54:48
2	Ag 328.068†	69757.2	69968.7	522.10	µg/L	522.10	ppb	17:54:54
2	As 188.979†	290.5	290.2	519.13	µg/L	519.13	ppb	17:55:15
2	B 249.677†	13075.3	12655.5	513.91	µg/L	513.91	ppb	17:54:54
2	Ba 233.527†	21957.1	21914.4	527.05	µg/L	527.05	ppb	17:54:54
2	Be 313.107†	886040.3	886482.1	525.93	µg/L	525.93	ppb	17:54:48
2	Cd 226.502†	21056.7	21141.0	527.21	µg/L	527.21	ppb	17:54:54
2	Co 228.616†	11735.1	11701.2	529.30	µg/L	529.30	ppb	17:54:54
2	Cr 267.716†	26499.8	26477.9	532.15	µg/L	532.15	ppb	17:54:54
2	Cu 324.752†	83008.4	80238.5	524.49	µg/L	524.49	ppb	17:54:54
2	Mn 257.610†	171057.7	170847.6	535.50	µg/L	535.50	ppb	17:54:48
2	Mo 202.031†	5398.9	5389.5	527.98	µg/L	527.98	ppb	17:55:15
2	Ni 231.604†	11020.6	10678.2	531.74	µg/L	531.74	ppb	17:54:54
2	P 214.914†	1347.0	1328.0	2579.1	µg/L	2579.1	ppb	17:55:15
2	Pb 220.353†	2257.9	2160.8	525.43	µg/L	525.43	ppb	17:55:15

2	S 181.975 Axial†	275.1	255.4	1059.1 µg/L	1059.1 ppb	17:55:15
2	Sb 206.836†	599.1	574.9	529.97 µg/L	529.97 ppb	17:55:15
2	Se 196.026†	397.7	377.3	538.13 µg/L	538.13 ppb	17:55:15
2	SiO2†	29922.8	28449.7	5615.6 µg/L	5615.6 ppb	17:54:54
2	Si 251.611†	35029.2	34623.1	2632.1 µg/L	2632.1 ppb	17:54:54
2	Sn 189.927†	1263.5	1259.7	531.25 µg/L	531.25 ppb	17:55:15
2	Ti 334.940†	238598.7	237773.6	525.67 µg/L	525.67 ppb	17:54:48
2	Tl 190.801†	380.1	401.4	527.72 µg/L	527.72 ppb	17:55:15
2	U 409.014†	6311.3	6371.2	528.30 µg/L	528.30 ppb	17:54:54
2	V 292.402†	54031.0	53928.5	532.01 µg/L	532.01 ppb	17:54:54
2	Zn 213.857†	23199.9	22602.3	526.54 µg/L	526.54 ppb	17:54:54
3	Sc RADIAL	56302.2	56302.2	99.7 %		17:53:43
3	Al 396.153Radial†	7458.4	7476.7	5192.5 µg/L	5192.5 ppb	17:53:43
3	Ca 317.933Radial†	6210.0	6020.1	5142.2 µg/L	5142.2 ppb	17:54:03
3	Fe 238.204 Radial†	676.1	661.8	5229.6 µg/L	5229.6 ppb	17:54:03
3	K 766.490 Radial†	8076.1	7938.9	5185.0 µg/L	5185.0 ppb	17:53:43
3	Mg 279.077 IEC†	611.6	600.9	5372.7 µg/L	5372.7 ppb	17:54:03
3	Na 589.592 Radial†	34581.8	34228.4	10513 µg/L	10513 ppb	17:53:43
3	Sr 421.552†	55197.9	55358.8	510.69 µg/L	510.69 ppb	17:53:43
3	Sc 361.383	1973873.7	1973873.7	100.55 %		17:55:22
3	Y 371.029	1355653.4	1355653.4	100.21 %		17:55:22
3	Ag 328.068†	63217.1	63274.3	471.97 µg/L	471.97 ppb	17:55:27
3	As 188.979†	239.4	238.6	426.79 µg/L	426.79 ppb	17:55:48
3	B 249.677†	11772.4	11324.2	459.52 µg/L	459.52 ppb	17:55:27
3	Ba 233.527†	19082.8	18995.9	456.84 µg/L	456.84 ppb	17:55:27
3	Be 313.107†	789189.1	787745.2	467.35 µg/L	467.35 ppb	17:55:22
3	Cd 226.502†	18227.9	18270.3	455.54 µg/L	455.54 ppb	17:55:27
3	Co 228.616†	10065.9	10009.1	452.70 µg/L	452.70 ppb	17:55:27
3	Cr 267.716†	21831.4	21762.8	437.39 µg/L	437.39 ppb	17:55:27
3	Cu 324.752†	71769.6	68834.9	450.04 µg/L	450.04 ppb	17:55:27
3	Mn 257.610†	152925.4	152348.2	477.56 µg/L	477.56 ppb	17:55:22
3	Mo 202.031†	4301.6	4283.5	419.66 µg/L	419.66 ppb	17:55:48
3	Ni 231.604†	9432.0	9068.3	451.58 µg/L	451.58 ppb	17:55:27
3	P 214.914†	1090.2	1068.9	2072.2 µg/L	2072.2 ppb	17:55:48
3	Pb 220.353†	1884.4	1783.2	433.56 µg/L	433.56 ppb	17:55:48
3	S 181.975 Axial†	236.4	216.2	896.48 µg/L	896.48 ppb	17:55:48
3	Sb 206.836†	488.0	462.9	426.39 µg/L	426.39 ppb	17:55:48
3	Se 196.026†	334.6	313.5	448.33 µg/L	448.33 ppb	17:55:48
3	SiO2†	26642.0	25105.3	4955.5 µg/L	4955.5 ppb	17:55:27
3	Si 251.611†	30980.1	30500.6	2318.7 µg/L	2318.7 ppb	17:55:27
3	Sn 189.927†	986.2	980.5	413.54 µg/L	413.54 ppb	17:55:48
3	Ti 334.940†	210724.4	209401.3	462.90 µg/L	462.90 ppb	17:55:22
3	Tl 190.801†	331.8	352.3	463.31 µg/L	463.31 ppb	17:55:48
3	U 409.014†	5301.6	5349.8	443.44 µg/L	443.44 ppb	17:55:27
3	V 292.402†	45830.4	45625.5	449.95 µg/L	449.95 ppb	17:55:27
3	Zn 213.857†	20052.4	19408.7	452.08 µg/L	452.08 ppb	17:55:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1967886.2	100.24	%	0.321				0.32%
Sc RADIAL	56401.2	99.8	%	0.19				0.19%
Y 371.029	1351299.3	99.892	%	0.3379				0.34%
Ag 328.068†	67827.8	506.07	µg/L	29.542	506.07	ppb	29.542	5.84%
QC value within limits for Ag 328.068 Recovery = 101.21%								
Al 396.153Radial†	7500.4	5207.5	µg/L	14.90	5207.5	ppb	14.90	0.29%
QC value within limits for Al 396.153Radial Recovery = 104.15%								
As 188.979†	276.9	495.38	µg/L	60.328	495.38	ppb	60.328	12.18%
QC value within limits for As 188.979 Recovery = 99.08%								
B 249.677†	12229.5	496.51	µg/L	32.053	496.51	ppb	32.053	6.46%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	20968.1	504.29	µg/L	41.100	504.29	ppb	41.100	8.15%
QC value within limits for Ba 233.527 Recovery = 100.86%								
Be 313.107†	853812.6	506.55	µg/L	33.945	506.55	ppb	33.945	6.70%
QC value within limits for Be 313.107 Recovery = 101.31%								
Ca 317.933Radial†	6013.5	5136.6	µg/L	7.07	5136.6	ppb	7.07	0.14%
QC value within limits for Ca 317.933Radial Recovery = 102.73%								
Cd 226.502†	20205.1	503.85	µg/L	41.841	503.85	ppb	41.841	8.30%
QC value within limits for Cd 226.502 Recovery = 100.77%								
Co 228.616†	11153.5	504.51	µg/L	44.882	504.51	ppb	44.882	8.90%

```
   QC value within limits for Co 228.616  Recovery = 100.90%
Cr 267.716†          24932.7      501.10 µg/L       55.174      501.10 ppb        55.174  11.01%
   QC value within limits for Cr 267.716  Recovery = 100.22%
Cu 324.752†          76565.2      500.51 µg/L       43.720      500.51 ppb        43.720   8.74%
   QC value within limits for Cu 324.752  Recovery = 100.10%
Fe 238.204 Radial†     664.4      5250.8 µg/L        26.46      5250.8 ppb         26.46   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.02%
K 766.490 Radial†     7929.2      5178.7 µg/L         7.74      5178.7 ppb          7.74   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 103.57%
Mg 279.077 IEC†        596.8      5337.6 µg/L        64.15      5337.6 ppb         64.15   1.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.75%
Mn 257.610†         164681.4      516.19 µg/L       33.451      516.19 ppb        33.451   6.48%
   QC value within limits for Mn 257.610  Recovery = 103.24%
Mo 202.031†          5078.6      497.52 µg/L       67.959      497.52 ppb        67.959  13.66%
   QC value within limits for Mo 202.031  Recovery = 99.50%
Na 589.592 Radial†   34331.7       10545 µg/L        29.9       10545 ppb          29.9   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 105.45%
Ni 231.604†          10144.1      505.14 µg/L       46.388      505.14 ppb        46.388   9.18%
   QC value within limits for Ni 231.604  Recovery = 101.03%
P 214.914†            1250.6      2427.8 µg/L       309.09      2427.8 ppb        309.09  12.73%
   QC value within limits for P 214.914  Recovery = 97.11%
Pb 220.353†           2055.1      499.72 µg/L       57.768      499.72 ppb        57.768  11.56%
   QC value within limits for Pb 220.353  Recovery = 99.94%
S 181.975 Axial†       243.6      1010.2 µg/L        98.85      1010.2 ppb         98.85   9.79%
   QC value within limits for S 181.975 Axial  Recovery = 101.02%
Sb 206.836†            544.1      501.49 µg/L       65.671      501.49 ppb        65.671  13.10%
   QC value within limits for Sb 206.836  Recovery = 100.30%
Se 196.026†            359.6      513.22 µg/L       56.697      513.22 ppb        56.697  11.05%
   QC value within limits for Se 196.026  Recovery = 102.64%
SiO2†                27382.4      5404.9 µg/L       389.50      5404.9 ppb        389.50   7.21%
   QC value within limits for SiO2  Recovery = 101.07%
Si 251.611†          33259.5      2528.4 µg/L       181.64      2528.4 ppb        181.64   7.18%
   QC value within limits for Si 251.611  Recovery = 101.14%
Sn 189.927†           1178.7      497.14 µg/L       72.805      497.14 ppb        72.805  14.64%
   QC value within limits for Sn 189.927  Recovery = 99.43%
Sr 421.552†          55404.3      511.11 µg/L        0.706      511.11 ppb         0.706   0.14%
   QC value within limits for Sr 421.552  Recovery = 102.22%
Ti 334.940†         228393.4      504.92 µg/L       36.389      504.92 ppb        36.389   7.21%
   QC value within limits for Ti 334.940  Recovery = 100.98%
Tl 190.801†            388.0      510.09 µg/L       40.923      510.09 ppb        40.923   8.02%
   QC value within limits for Tl 190.801  Recovery = 102.02%
U 409.014†            6071.8      503.43 µg/L       52.204      503.43 ppb        52.204  10.37%
   QC value within limits for U 409.014  Recovery = 100.69%
V 292.402†           51233.3      505.41 µg/L       48.044      505.41 ppb        48.044   9.51%
   QC value within limits for V 292.402  Recovery = 101.08%
Zn 213.857†          21595.5      503.07 µg/L       44.204      503.07 ppb        44.204   8.79%
   QC value within limits for Zn 213.857  Recovery = 100.61%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 17:55:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55016.4	55016.4	97.4	%			17:56:30
1	Al 396.153Radial†	-25.6	-33.6	-23.423	µg/L	-23.423	ppb	17:56:30
1	Ca 317.933Radial†	188.9	-17.3	-14.738	µg/L	-14.738	ppb	17:56:51
1	Fe 238.204 Radial†	16.8	0.7	5.5284	µg/L	5.5284	ppb	17:56:51
1	K 766.490 Radial†	203.2	43.7	28.526	µg/L	28.526	ppb	17:56:30
1	Mg 279.077 IEC†	6.2	-6.4	-57.504	µg/L	-57.504	ppb	17:56:51
1	Na 589.592 Radial†	507.1	48.5	14.906	µg/L	14.906	ppb	17:56:30
1	Sr 421.552†	39.0	11.2	0.1037	µg/L	0.1037	ppb	17:56:30
1	Sc 361.383	1965901.2	1965901.2	100.14	%			17:57:53
1	Y 371.029	1354342.9	1354342.9	100.12	%			17:57:53
1	Ag 328.068†	-375.0	27.2	0.2015	µg/L	0.2015	ppb	17:57:58
1	As 188.979†	2.9	3.3	5.9435	µg/L	5.9435	ppb	17:58:19
1	B 249.677†	389.1	4.4	0.1765	µg/L	0.1765	ppb	17:58:19
1	Ba 233.527†	-21.5	-4.4	-0.1059	µg/L	-0.1059	ppb	17:58:19
1	Be 313.107†	-2713.7	145.8	0.0865	µg/L	0.0865	ppb	17:57:58
1	Cd 226.502†	-132.8	9.1	0.2255	µg/L	0.2255	ppb	17:58:19
1	Co 228.616†	-6.2	-8.1	-0.3659	µg/L	-0.3659	ppb	17:58:19
1	Cr 267.716†	-50.1	0.4	0.0078	µg/L	0.0078	ppb	17:57:58
1	Cu 324.752†	2544.7	-2.7	-0.0168	µg/L	-0.0168	ppb	17:57:58
1	Mn 257.610†	-245.9	10.5	0.0359	µg/L	0.0359	ppb	17:58:19
1	Mo 202.031†	3.8	9.1	0.8915	µg/L	0.8915	ppb	17:58:19
1	Ni 231.604†	300.7	-12.0	-0.5990	µg/L	-0.5990	ppb	17:58:19
1	P 214.914†	17.4	2.0	4.0305	µg/L	4.0305	ppb	17:58:19
1	Pb 220.353†	97.4	6.3	1.5269	µg/L	1.5269	ppb	17:58:19
1	S 181.975 Axial†	17.7	-1.2	-5.1360	µg/L	-5.1360	ppb	17:58:19
1	Sb 206.836†	24.8	2.2	2.0583	µg/L	2.0583	ppb	17:58:19
1	Se 196.026†	12.5	-6.8	-9.5059	µg/L	-9.5059	ppb	17:58:19
1	SiO2†	1426.2	32.7	6.4463	µg/L	6.4463	ppb	17:57:58
1	Si 251.611†	326.4	15.3	1.1636	µg/L	1.1636	ppb	17:58:19
1	Sn 189.927†	4.0	3.6	1.5081	µg/L	1.5081	ppb	17:58:19
1	Ti 334.940†	201.4	26.1	0.0620	µg/L	0.0620	ppb	17:57:58
1	Tl 190.801†	-21.5	0.9	1.1647	µg/L	1.1647	ppb	17:58:19
1	U 409.014†	-51.8	25.4	2.1068	µg/L	2.1068	ppb	17:57:58
1	V 292.402†	-46.0	-1.1	-0.0014	µg/L	-0.0014	ppb	17:57:58
1	Zn 213.857†	533.4	-1.7	-0.0344	µg/L	-0.0344	ppb	17:58:19
2	Sc RADIAL	55682.3	55682.3	98.6	%			17:56:56
2	Al 396.153Radial†	-28.9	-36.6	-25.497	µg/L	-25.497	ppb	17:56:56
2	Ca 317.933Radial†	190.4	-18.1	-15.487	µg/L	-15.487	ppb	17:57:17
2	Fe 238.204 Radial†	16.8	0.5	4.1171	µg/L	4.1171	ppb	17:57:17
2	K 766.490 Radial†	223.9	62.2	40.619	µg/L	40.619	ppb	17:56:56
2	Mg 279.077 IEC†	9.9	-2.8	-25.072	µg/L	-25.072	ppb	17:57:17
2	Na 589.592 Radial†	519.3	54.7	16.798	µg/L	16.798	ppb	17:56:56
2	Sr 421.552†	32.7	4.3	0.0401	µg/L	0.0401	ppb	17:56:56
2	Sc 361.383	1957019.5	1957019.5	99.689	%			17:58:25
2	Y 371.029	1350334.7	1350334.7	99.821	%			17:58:25
2	Ag 328.068†	-377.0	23.5	0.1757	µg/L	0.1757	ppb	17:58:30
2	As 188.979†	-0.8	-0.3	-0.5788	µg/L	-0.5788	ppb	17:58:51
2	B 249.677†	388.0	5.1	0.2060	µg/L	0.2060	ppb	17:58:51
2	Ba 233.527†	-16.1	0.9	0.0215	µg/L	0.0215	ppb	17:58:51
2	Be 313.107†	-2677.7	169.6	0.1006	µg/L	0.1006	ppb	17:58:30
2	Cd 226.502†	-142.7	-1.4	-0.0367	µg/L	-0.0367	ppb	17:58:51
2	Co 228.616†	7.4	5.5	0.2501	µg/L	0.2501	ppb	17:58:51
2	Cr 267.716†	-33.3	17.0	0.3420	µg/L	0.3420	ppb	17:58:30
2	Cu 324.752†	2564.5	28.8	0.1884	µg/L	0.1884	ppb	17:58:30
2	Mn 257.610†	-244.8	10.4	0.0341	µg/L	0.0341	ppb	17:58:51
2	Mo 202.031†	-1.9	3.5	0.3412	µg/L	0.3412	ppb	17:58:51
2	Ni 231.604†	305.0	-6.4	-0.3187	µg/L	-0.3187	ppb	17:58:51
2	P 214.914†	15.9	0.6	1.2381	µg/L	1.2381	ppb	17:58:51
2	Pb 220.353†	85.8	-4.9	-1.1822	µg/L	-1.1822	ppb	17:58:51

2	S 181.975 Axial†	16.3	-2.6	-10.626 µg/L	-10.626 ppb	17:58:51
2	Sb 206.836†	25.7	3.2	2.9825 µg/L	2.9825 ppb	17:58:51
2	Se 196.026†	18.4	-0.8	-1.1281 µg/L	-1.1281 ppb	17:58:51
2	SiO2†	1461.8	74.8	14.763 µg/L	14.763 ppb	17:58:30
2	Si 251.611†	344.9	35.3	2.6849 µg/L	2.6849 ppb	17:58:51
2	Sn 189.927†	-1.0	-1.4	-0.5943 µg/L	-0.5943 ppb	17:58:51
2	Ti 334.940†	216.4	42.0	0.0947 µg/L	0.0947 ppb	17:58:30
2	Tl 190.801†	-19.8	2.5	3.2612 µg/L	3.2612 ppb	17:58:51
2	U 409.014†	-50.4	26.6	2.2066 µg/L	2.2066 ppb	17:58:30
2	V 292.402†	-18.0	26.7	0.2662 µg/L	0.2662 ppb	17:58:30
2	Zn 213.857†	535.3	2.5	0.0614 µg/L	0.0614 ppb	17:58:51
3	Sc RADIAL	55053.2	55053.2	97.4 %		17:57:22
3	Al 396.153Radial†	-40.3	-48.7	-33.898 µg/L	-33.898 ppb	17:57:22
3	Ca 317.933Radial†	188.9	-17.4	-14.892 µg/L	-14.892 ppb	17:57:42
3	Fe 238.204 Radial†	16.1	-0.0	-0.3068 µg/L	-0.3068 ppb	17:57:42
3	K 766.490 Radial†	212.7	53.3	34.793 µg/L	34.793 ppb	17:57:22
3	Mg 279.077 IEC†	19.0	6.7	59.990 µg/L	59.990 ppb	17:57:42
3	Na 589.592 Radial†	541.5	83.5	25.652 µg/L	25.652 ppb	17:57:22
3	Sr 421.552†	50.1	22.6	0.2082 µg/L	0.2082 ppb	17:57:22
3	Sc 361.383	1965248.8	1965248.8	100.11 %		17:58:57
3	Y 371.029	1354189.1	1354189.1	100.11 %		17:58:57
3	Ag 328.068†	-450.0	-47.9	-0.3524 µg/L	-0.3524 ppb	17:59:03
3	As 188.979†	0.1	0.6	1.0726 µg/L	1.0726 ppb	17:59:23
3	B 249.677†	379.0	-5.5	-0.2247 µg/L	-0.2247 ppb	17:59:23
3	Ba 233.527†	-9.6	7.5	0.1800 µg/L	0.1800 ppb	17:59:23
3	Be 313.107†	-2642.2	216.4	0.1284 µg/L	0.1284 ppb	17:59:03
3	Cd 226.502†	-137.1	4.7	0.1164 µg/L	0.1164 ppb	17:59:23
3	Co 228.616†	5.7	3.7	0.1693 µg/L	0.1693 ppb	17:59:23
3	Cr 267.716†	-63.8	-13.4	-0.2679 µg/L	-0.2679 ppb	17:59:03
3	Cu 324.752†	2541.3	-5.2	-0.0342 µg/L	-0.0342 ppb	17:59:03
3	Mn 257.610†	-242.2	14.1	0.0418 µg/L	0.0418 ppb	17:59:23
3	Mo 202.031†	-0.6	4.8	0.4652 µg/L	0.4652 ppb	17:59:23
3	Ni 231.604†	301.2	-11.4	-0.5704 µg/L	-0.5704 ppb	17:59:23
3	P 214.914†	21.9	6.6	13.019 µg/L	13.019 ppb	17:59:23
3	Pb 220.353†	81.2	-9.9	-2.4060 µg/L	-2.4060 ppb	17:59:23
3	S 181.975 Axial†	14.0	-4.9	-20.443 µg/L	-20.443 ppb	17:59:23
3	Sb 206.836†	27.7	5.2	4.7514 µg/L	4.7514 ppb	17:59:23
3	Se 196.026†	17.1	-2.2	-3.1763 µg/L	-3.1763 ppb	17:59:23
3	SiO2†	1412.3	19.2	3.7961 µg/L	3.7961 ppb	17:59:03
3	Si 251.611†	335.9	24.9	1.8933 µg/L	1.8933 ppb	17:59:23
3	Sn 189.927†	3.9	3.5	1.4733 µg/L	1.4733 ppb	17:59:23
3	Ti 334.940†	206.9	31.6	0.0650 µg/L	0.0650 ppb	17:59:03
3	Tl 190.801†	-23.3	-0.9	-1.1798 µg/L	-1.1798 ppb	17:59:23
3	U 409.014†	2.6	79.6	6.6183 µg/L	6.6183 ppb	17:59:03
3	V 292.402†	-4.6	40.2	0.4016 µg/L	0.4016 ppb	17:59:03
3	Zn 213.857†	533.9	-1.1	-0.0271 µg/L	-0.0271 ppb	17:59:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962723.2	99.980	%	0.2522				0.25%
Sc RADIAL	55250.6	97.8	%	0.66				0.68%
Y 371.029	1352955.6	100.01	%	0.168				0.17%
Ag 328.068†	0.9	0.0083	µg/L	0.31265	0.0083	ppb	0.31265	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-39.7	-27.606	µg/L	5.5466	-27.606	ppb	5.5466	20.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	2.1458	µg/L	3.39103	2.1458	ppb	3.39103	158.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.3	0.0526	µg/L	0.24059	0.0526	ppb	0.24059	457.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.3	0.0318	µg/L	0.14326	0.0318	ppb	0.14326	449.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	177.3	0.1052	µg/L	0.02132	0.1052	ppb	0.02132	20.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.6	-15.039	µg/L	0.3955	-15.039	ppb	0.3955	2.63%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.1	0.1017	µg/L	0.13173	0.1017	ppb	0.13173	129.53%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0179	µg/L	0.33479	0.0179	ppb	0.33479	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.4      0.0273 µg/L       0.30543      0.0273 ppb        0.30543 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 7.0      0.0458 µg/L       0.12379      0.0458 ppb        0.12379 270.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.1129 µg/L       3.04443      3.1129 ppb        3.04443  97.80%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          53.0     34.646 µg/L        6.0478     34.646 ppb         6.0478  17.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.5284 µg/L      60.67961     -7.5284 ppb       60.67961 806.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.7      0.0373 µg/L       0.00401      0.0373 ppb        0.00401  10.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.8      0.5659 µg/L       0.28866      0.5659 ppb        0.28866  51.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         62.2     19.119 µg/L        5.7369     19.119 ppb         5.7369  30.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.0     -0.4960 µg/L       0.15424     -0.4960 ppb        0.15424  31.09%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.1      6.0957 µg/L       6.15582      6.0957 ppb        6.15582 100.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.8     -0.6871 µg/L       2.01265     -0.6871 ppb        2.01265 292.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.9    -12.068 µg/L        7.7546    -12.068 ppb         7.7546  64.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      3.2641 µg/L       1.36846      3.2641 ppb        1.36846  41.92%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.3     -4.6035 µg/L       4.36743     -4.6035 ppb        4.36743  94.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      42.2      8.3350 µg/L       5.72201      8.3350 ppb        5.72201  68.65%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                25.2      1.9139 µg/L       0.76087      1.9139 ppb        0.76087  39.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.7957 µg/L       1.20387      0.7957 ppb        1.20387 151.30%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.7      0.1173 µg/L       0.08487      0.1173 ppb        0.08487  72.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                33.2      0.0739 µg/L       0.01807      0.0739 ppb        0.01807  24.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.8      1.0820 µg/L       2.22165      1.0820 ppb        2.22165 205.32%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 43.9      3.6439 µg/L       2.57643      3.6439 ppb        2.57643  70.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 21.9      0.2221 µg/L       0.20505      0.2221 ppb        0.20505  92.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -0.1      0.0000 µg/L       0.05335      0.0000 ppb        0.05335 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:24:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58110.7	58110.7	103	%			18:24:59
1	Al 396.153Radial†	7350.7	7139.0	4955.6	µg/L	4955.6	ppb	18:24:59
1	Ca 317.933Radial†	6185.2	5802.1	4956.0	µg/L	4956.0	ppb	18:25:20
1	Fe 238.204 Radial†	675.1	639.8	5056.7	µg/L	5056.7	ppb	18:25:20
1	K 766.490 Radial†	7936.4	7550.9	4931.6	µg/L	4931.6	ppb	18:24:59
1	Mg 279.077 IEC†	594.2	564.9	5052.6	µg/L	5052.6	ppb	18:25:20
1	Na 589.592 Radial†	33978.9	32562.3	10001	µg/L	10001	ppb	18:24:59
1	Sr 421.552†	54344.8	52805.6	487.14	µg/L	487.14	ppb	18:24:59
1	Sc 361.383	2010503.2	2010503.2	102.41	%			18:26:23
1	Y 371.029	1378737.8	1378737.8	101.92	%			18:26:23
1	Ag 328.068†	69160.3	67932.0	506.90	µg/L	506.90	ppb	18:26:28
1	As 188.979†	303.0	296.3	530.04	µg/L	530.04	ppb	18:26:49
1	B 249.677†	13059.0	12367.1	502.24	µg/L	502.24	ppb	18:26:28
1	Ba 233.527†	21831.0	21333.5	513.08	µg/L	513.08	ppb	18:26:28
1	Be 313.107†	864886.0	847358.1	502.72	µg/L	502.72	ppb	18:26:23
1	Cd 226.502†	21036.3	20682.2	515.78	µg/L	515.78	ppb	18:26:28
1	Co 228.616†	11703.6	11425.8	516.87	µg/L	516.87	ppb	18:26:28
1	Cr 267.716†	26284.2	25715.1	516.82	µg/L	516.82	ppb	18:26:28
1	Cu 324.752†	82127.8	77648.4	507.55	µg/L	507.55	ppb	18:26:28
1	Mn 257.610†	166823.1	163147.4	511.37	µg/L	511.37	ppb	18:26:23
1	Mo 202.031†	5448.5	5325.4	521.69	µg/L	521.69	ppb	18:26:49
1	Ni 231.604†	10977.7	10406.6	518.22	µg/L	518.22	ppb	18:26:28
1	P 214.914†	1361.9	1314.4	2554.1	µg/L	2554.1	ppb	18:26:49
1	Pb 220.353†	2277.9	2133.2	518.76	µg/L	518.76	ppb	18:26:49
1	S 181.975 Axial†	276.1	250.7	1039.6	µg/L	1039.6	ppb	18:26:49
1	Sb 206.836†	598.0	561.4	517.60	µg/L	517.60	ppb	18:26:49
1	Se 196.026†	404.7	375.8	535.75	µg/L	535.75	ppb	18:26:49
1	SiO2†	29945.4	27848.1	5496.8	µg/L	5496.8	ppb	18:26:28
1	Si 251.611†	34979.9	33844.9	2573.0	µg/L	2573.0	ppb	18:26:28
1	Sn 189.927†	1294.8	1263.9	533.06	µg/L	533.06	ppb	18:26:49
1	Ti 334.940†	232405.2	226752.9	501.31	µg/L	501.31	ppb	18:26:23
1	Tl 190.801†	387.3	400.5	526.22	µg/L	526.22	ppb	18:26:49
1	U 409.014†	6254.1	6183.8	512.77	µg/L	512.77	ppb	18:26:28
1	V 292.402†	53539.0	52322.0	516.23	µg/L	516.23	ppb	18:26:28
1	Zn 213.857†	23135.9	22056.3	513.84	µg/L	513.84	ppb	18:26:28
2	Sc RADIAL	57983.0	57983.0	103	%			18:25:25
2	Al 396.153Radial†	7301.1	7106.5	4933.3	µg/L	4933.3	ppb	18:25:25
2	Ca 317.933Radial†	6156.7	5787.5	4943.6	µg/L	4943.6	ppb	18:25:45
2	Fe 238.204 Radial†	670.2	636.5	5030.5	µg/L	5030.5	ppb	18:25:45
2	K 766.490 Radial†	7863.7	7497.0	4896.4	µg/L	4896.4	ppb	18:25:25
2	Mg 279.077 IEC†	585.6	557.7	4988.7	µg/L	4988.7	ppb	18:25:45
2	Na 589.592 Radial†	33805.3	32465.9	9971.7	µg/L	9971.7	ppb	18:25:25
2	Sr 421.552†	54068.8	52653.0	485.73	µg/L	485.73	ppb	18:25:25
2	Sc 361.383	2038047.8	2038047.8	103.82	%			18:26:56
2	Y 371.029	1399253.6	1399253.6	103.44	%			18:26:56
2	Ag 328.068†	68906.4	66774.7	498.26	µg/L	498.26	ppb	18:27:02
2	As 188.979†	291.3	281.1	502.79	µg/L	502.79	ppb	18:27:22
2	B 249.677†	13031.9	12168.7	494.15	µg/L	494.15	ppb	18:27:02
2	Ba 233.527†	21788.4	21004.4	505.16	µg/L	505.16	ppb	18:27:02
2	Be 313.107†	871938.9	842738.2	499.98	µg/L	499.98	ppb	18:26:56
2	Cd 226.502†	20959.6	20330.7	507.01	µg/L	507.01	ppb	18:27:02
2	Co 228.616†	11663.7	11232.9	508.13	µg/L	508.13	ppb	18:27:02
2	Cr 267.716†	26195.8	25283.1	508.13	µg/L	508.13	ppb	18:27:02
2	Cu 324.752†	81865.7	76312.2	498.82	µg/L	498.82	ppb	18:27:02
2	Mn 257.610†	168150.2	162224.2	508.48	µg/L	508.48	ppb	18:26:56
2	Mo 202.031†	5330.8	5140.1	503.54	µg/L	503.54	ppb	18:27:22
2	Ni 231.604†	10880.8	10168.4	506.35	µg/L	506.35	ppb	18:27:02
2	P 214.914†	1337.9	1273.4	2473.4	µg/L	2473.4	ppb	18:27:22
2	Pb 220.353†	2238.1	2064.9	502.11	µg/L	502.11	ppb	18:27:22

2	S 181.975 Axial†	271.4	242.5	1005.7 µg/L	1005.7 ppb	18:27:22
2	Sb 206.836†	590.8	546.6	503.85 µg/L	503.85 ppb	18:27:22
2	Se 196.026†	401.0	366.9	523.19 µg/L	523.19 ppb	18:27:22
2	SiO2†	29842.8	27354.0	5399.3 µg/L	5399.3 ppb	18:27:02
2	Si 251.611†	34939.6	33344.4	2534.9 µg/L	2534.9 ppb	18:27:02
2	Sn 189.927†	1259.4	1212.7	511.46 µg/L	511.46 ppb	18:27:22
2	Ti 334.940†	233999.5	225221.6	497.93 µg/L	497.93 ppb	18:26:56
2	Tl 190.801†	377.0	385.6	506.75 µg/L	506.75 ppb	18:27:22
2	U 409.014†	6252.8	6100.0	505.82 µg/L	505.82 ppb	18:27:02
2	V 292.402†	53301.3	51386.4	506.94 µg/L	506.94 ppb	18:27:02
2	Zn 213.857†	23074.0	21691.3	505.35 µg/L	505.35 ppb	18:27:02
3	Sc RADIAL	58101.7	58101.7	103 %		18:25:51
3	Al 396.153Radial†	7325.2	7115.3	4941.3 µg/L	4941.3 ppb	18:25:51
3	Ca 317.933Radial†	6167.8	5786.1	4942.3 µg/L	4942.3 ppb	18:26:11
3	Fe 238.204 Radial†	673.8	638.6	5046.3 µg/L	5046.3 ppb	18:26:11
3	K 766.490 Radial†	7958.4	7573.4	4946.3 µg/L	4946.3 ppb	18:25:51
3	Mg 279.077 IEC†	598.9	569.5	5092.5 µg/L	5092.5 ppb	18:26:11
3	Na 589.592 Radial†	33931.7	32521.6	9988.8 µg/L	9988.8 ppb	18:25:51
3	Sr 421.552†	54158.1	52632.2	485.54 µg/L	485.54 ppb	18:25:51
3	Sc 361.383	2006960.6	2006960.6	102.23 %		18:27:29
3	Y 371.029	1377064.8	1377064.8	101.80 %		18:27:29
3	Ag 328.068†	63249.3	62269.2	464.47 µg/L	464.47 ppb	18:27:35
3	As 188.979†	239.9	235.1	420.56 µg/L	420.56 ppb	18:27:55
3	B 249.677†	11912.9	11268.6	457.34 µg/L	457.34 ppb	18:27:35
3	Ba 233.527†	19263.5	18859.7	453.56 µg/L	453.56 ppb	18:27:35
3	Be 313.107†	784759.4	770472.5	457.11 µg/L	457.11 ppb	18:27:29
3	Cd 226.502†	18434.4	18173.4	453.14 µg/L	453.14 ppb	18:27:35
3	Co 228.616†	10122.4	9899.4	447.75 µg/L	447.75 ppb	18:27:35
3	Cr 267.716†	21992.5	21562.5	433.36 µg/L	433.36 ppb	18:27:35
3	Cu 324.752†	71871.2	67757.5	442.99 µg/L	442.99 ppb	18:27:35
3	Mn 257.610†	152131.1	149063.9	467.26 µg/L	467.26 ppb	18:27:29
3	Mo 202.031†	4313.3	4224.4	413.87 µg/L	413.87 ppb	18:27:55
3	Ni 231.604†	9585.0	9063.2	451.33 µg/L	451.33 ppb	18:27:35
3	P 214.914†	1100.5	1061.1	2057.6 µg/L	2057.6 ppb	18:27:55
3	Pb 220.353†	1891.6	1759.4	427.76 µg/L	427.76 ppb	18:27:55
3	S 181.975 Axial†	229.0	205.1	850.35 µg/L	850.35 ppb	18:27:55
3	Sb 206.836†	491.8	458.5	422.37 µg/L	422.37 ppb	18:27:55
3	Se 196.026†	337.5	310.8	444.41 µg/L	444.41 ppb	18:27:55
3	SiO2†	27007.5	25025.9	4939.8 µg/L	4939.8 ppb	18:27:35
3	Si 251.611†	31393.7	30397.3	2310.9 µg/L	2310.9 ppb	18:27:35
3	Sn 189.927†	994.9	972.8	410.27 µg/L	410.27 ppb	18:27:55
3	Ti 334.940†	209196.0	204451.2	451.97 µg/L	451.97 ppb	18:27:29
3	Tl 190.801†	327.6	342.9	450.86 µg/L	450.86 ppb	18:27:55
3	U 409.014†	5293.3	5254.7	435.59 µg/L	435.59 ppb	18:27:35
3	V 292.402†	45934.6	44975.9	443.54 µg/L	443.54 ppb	18:27:35
3	Zn 213.857†	20247.3	19270.6	448.88 µg/L	448.88 ppb	18:27:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2018503.9	102.82	%	0.867				0.84%
Sc RADIAL	58065.1	103	%	0.1				0.12%
Y 371.029	1385018.8	102.38	%	0.913				0.89%
Ag 328.068†	65658.6	489.88	µg/L	22.418	489.88	ppb	22.418	4.58%
QC value within limits for Ag 328.068 Recovery = 97.98%								
Al 396.153Radial†	7120.3	4943.4	µg/L	11.28	4943.4	ppb	11.28	0.23%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	270.8	484.46	µg/L	56.991	484.46	ppb	56.991	11.76%
QC value within limits for As 188.979 Recovery = 96.89%								
B 249.677†	11934.8	484.58	µg/L	23.933	484.58	ppb	23.933	4.94%
QC value within limits for B 249.677 Recovery = 96.92%								
Ba 233.527†	20399.2	490.60	µg/L	32.321	490.60	ppb	32.321	6.59%
QC value within limits for Ba 233.527 Recovery = 98.12%								
Be 313.107†	820189.6	486.60	µg/L	25.580	486.60	ppb	25.580	5.26%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 317.933Radial†	5791.9	4947.3	µg/L	7.57	4947.3	ppb	7.57	0.15%
QC value within limits for Ca 317.933Radial Recovery = 98.95%								
Cd 226.502†	19728.8	491.98	µg/L	33.915	491.98	ppb	33.915	6.89%
QC value within limits for Cd 226.502 Recovery = 98.40%								
Co 228.616†	10852.7	490.92	µg/L	37.639	490.92	ppb	37.639	7.67%

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   QC value within limits for Co 228.616  Recovery = 98.18%
Cr 267.716†            24186.9      486.10 µg/L        45.880      486.10 ppb         45.880   9.44%
   QC value within limits for Cr 267.716  Recovery = 97.22%
Cu 324.752†            73906.0      483.12 µg/L        35.030      483.12 ppb         35.030   7.25%
   QC value within limits for Cu 324.752  Recovery = 96.62%
Fe 238.204 Radial†       638.3      5044.5 µg/L         13.19      5044.5 ppb          13.19   0.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.89%
K 766.490 Radial†       7540.4      4924.8 µg/L         25.64      4924.8 ppb          25.64   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 98.50%
Mg 279.077 IEC†          564.0      5044.6 µg/L         52.37      5044.6 ppb          52.37   1.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.89%
Mn 257.610†           158145.2      495.70 µg/L        24.672      495.70 ppb         24.672   4.98%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†             4896.7      479.70 µg/L        57.728      479.70 ppb         57.728  12.03%
   QC value within limits for Mo 202.031  Recovery = 95.94%
Na 589.592 Radial†     32516.6      9987.3 µg/L         14.87      9987.3 ppb          14.87   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 99.87%
Ni 231.604†             9879.4      491.97 µg/L        35.688      491.97 ppb         35.688   7.25%
   QC value within limits for Ni 231.604  Recovery = 98.39%
P 214.914†              1216.3      2361.7 µg/L        266.42      2361.7 ppb         266.42  11.28%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1985.8      482.88 µg/L        48.455      482.88 ppb         48.455  10.03%
   QC value within limits for Pb 220.353  Recovery = 96.58%
S 181.975 Axial†         232.7      965.19 µg/L       100.884      965.19 ppb        100.884  10.45%
   QC value within limits for S 181.975 Axial  Recovery = 96.52%
Sb 206.836†              522.2      481.27 µg/L        51.474      481.27 ppb         51.474  10.70%
   QC value within limits for Sb 206.836  Recovery = 96.25%
Se 196.026†              351.2      501.12 µg/L        49.509      501.12 ppb         49.509   9.88%
   QC value within limits for Se 196.026  Recovery = 100.22%
SiO2†                  26742.7      5278.7 µg/L        297.49      5278.7 ppb         297.49   5.64%
   QC value within limits for SiO2  Recovery = 98.71%
Si 251.611†            32528.9      2472.9 µg/L        141.62      2472.9 ppb         141.62   5.73%
   QC value within limits for Si 251.611  Recovery = 98.92%
Sn 189.927†             1149.8      484.93 µg/L        65.553      484.93 ppb         65.553  13.52%
   QC value within limits for Sn 189.927  Recovery = 96.99%
Sr 421.552†            52696.9      486.14 µg/L         0.873      486.14 ppb          0.873   0.18%
   QC value within limits for Sr 421.552  Recovery = 97.23%
Ti 334.940†           218808.6      483.73 µg/L        27.562      483.73 ppb         27.562   5.70%
   QC value within limits for Ti 334.940  Recovery = 96.75%
Tl 190.801†              376.3      494.61 µg/L        39.121      494.61 ppb         39.121   7.91%
   QC value within limits for Tl 190.801  Recovery = 98.92%
U 409.014†              5846.2      484.73 µg/L        42.700      484.73 ppb         42.700   8.81%
   QC value within limits for U 409.014  Recovery = 96.95%
V 292.402†             49561.4      488.90 µg/L        39.562      488.90 ppb         39.562   8.09%
   QC value within limits for V 292.402  Recovery = 97.78%
Zn 213.857†            21006.1      489.36 µg/L        35.308      489.36 ppb         35.308   7.22%
   QC value within limits for Zn 213.857  Recovery = 97.87%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 18:28:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56920.6	56920.6	101	%			18:28:38
1	Al 396.153Radial†	-0.3	-7.6	-5.3346	µg/L	-5.3346	ppb	18:28:38
1	Ca 317.933Radial†	189.5	-23.2	-19.841	µg/L	-19.841	ppb	18:28:58
1	Fe 238.204 Radial†	19.4	2.7	21.377	µg/L	21.377	ppb	18:28:58
1	K 766.490 Radial†	221.6	55.0	35.912	µg/L	35.912	ppb	18:28:38
1	Mg 279.077 IEC†	10.8	-2.1	-18.380	µg/L	-18.380	ppb	18:28:58
1	Na 589.592 Radial†	498.2	22.3	6.8542	µg/L	6.8542	ppb	18:28:38
1	Sr 421.552†	54.9	25.7	0.2367	µg/L	0.2367	ppb	18:28:38
1	Sc 361.383	2032515.3	2032515.3	103.53	%			18:30:00
1	Y 371.029	1398820.8	1398820.8	103.41	%			18:30:00
1	Ag 328.068†	-457.1	-39.8	-0.2911	µg/L	-0.2911	ppb	18:30:06
1	As 188.979†	5.6	5.9	10.594	µg/L	10.594	ppb	18:30:26
1	B 249.677†	410.3	12.1	0.4845	µg/L	0.4845	ppb	18:30:26
1	Ba 233.527†	49.3	64.6	1.5526	µg/L	1.5526	ppb	18:30:26
1	Be 313.107†	-2857.0	96.2	0.0570	µg/L	0.0570	ppb	18:30:06
1	Cd 226.502†	-101.1	44.0	1.0963	µg/L	1.0963	ppb	18:30:26
1	Co 228.616†	28.1	25.2	1.1408	µg/L	1.1408	ppb	18:30:26
1	Cr 267.716†	-32.9	18.6	0.3731	µg/L	0.3731	ppb	18:30:06
1	Cu 324.752†	2585.0	-47.0	-0.3039	µg/L	-0.3039	ppb	18:30:06
1	Mn 257.610†	1142.9	1359.9	4.2620	µg/L	4.2620	ppb	18:30:26
1	Mo 202.031†	8.1	13.2	1.2945	µg/L	1.2945	ppb	18:30:26
1	Ni 231.604†	338.7	14.7	0.7339	µg/L	0.7339	ppb	18:30:26
1	P 214.914†	15.9	0.0	0.2437	µg/L	0.2437	ppb	18:30:26
1	Pb 220.353†	99.8	5.5	1.3339	µg/L	1.3339	ppb	18:30:26
1	S 181.975 Axial†	18.1	-1.5	-6.0253	µg/L	-6.0253	ppb	18:30:26
1	Sb 206.836†	22.7	-0.5	-0.4788	µg/L	-0.4788	ppb	18:30:26
1	Se 196.026†	18.0	-1.9	-2.6538	µg/L	-2.6538	ppb	18:30:26
1	SiO2†	1447.9	6.9	1.3541	µg/L	1.3541	ppb	18:30:06
1	Si 251.611†	659.6	326.5	24.820	µg/L	24.820	ppb	18:30:26
1	Sn 189.927†	38.3	36.6	15.441	µg/L	15.441	ppb	18:30:26
1	Ti 334.940†	321.1	135.1	0.3001	µg/L	0.3001	ppb	18:30:06
1	Tl 190.801†	-21.1	2.0	2.6395	µg/L	2.6395	ppb	18:30:26
1	U 409.014†	-28.7	49.4	4.1035	µg/L	4.1035	ppb	18:30:06
1	V 292.402†	-3.2	41.6	0.4232	µg/L	0.4232	ppb	18:30:06
1	Zn 213.857†	618.9	63.4	1.4848	µg/L	1.4848	ppb	18:30:26
2	Sc RADIAL	56709.3	56709.3	100	%			18:29:04
2	Al 396.153Radial†	-16.5	-23.8	-16.528	µg/L	-16.528	ppb	18:29:04
2	Ca 317.933Radial†	196.4	-15.6	-13.311	µg/L	-13.311	ppb	18:29:24
2	Fe 238.204 Radial†	19.1	2.4	18.992	µg/L	18.992	ppb	18:29:24
2	K 766.490 Radial†	204.3	38.5	25.150	µg/L	25.150	ppb	18:29:04
2	Mg 279.077 IEC†	11.8	-1.1	-9.6092	µg/L	-9.6092	ppb	18:29:24
2	Na 589.592 Radial†	485.8	11.8	3.6148	µg/L	3.6148	ppb	18:29:04
2	Sr 421.552†	30.8	1.9	0.0174	µg/L	0.0174	ppb	18:29:04
2	Sc 361.383	2017506.8	2017506.8	102.77	%			18:30:32
2	Y 371.029	1389281.0	1389281.0	102.70	%			18:30:32
2	Ag 328.068†	-439.2	-25.7	-0.1831	µg/L	-0.1831	ppb	18:30:38
2	As 188.979†	-2.8	-2.2	-4.0102	µg/L	-4.0102	ppb	18:30:58
2	B 249.677†	382.6	-11.8	-0.4899	µg/L	-0.4899	ppb	18:30:58
2	Ba 233.527†	4.3	21.2	0.5118	µg/L	0.5118	ppb	18:30:58
2	Be 313.107†	-2101.4	811.0	0.4800	µg/L	0.4800	ppb	18:30:38
2	Cd 226.502†	-138.5	6.9	0.1705	µg/L	0.1705	ppb	18:30:58
2	Co 228.616†	11.1	8.8	0.3922	µg/L	0.3922	ppb	18:30:58
2	Cr 267.716†	4.0	54.3	1.0911	µg/L	1.0911	ppb	18:30:38
2	Cu 324.752†	2748.4	130.6	0.8552	µg/L	0.8552	ppb	18:30:38
2	Mn 257.610†	83.5	337.3	1.0592	µg/L	1.0592	ppb	18:30:58
2	Mo 202.031†	-7.8	-2.2	-0.2192	µg/L	-0.2192	ppb	18:30:58
2	Ni 231.604†	324.9	3.8	0.1884	µg/L	0.1884	ppb	18:30:58
2	P 214.914†	13.0	-2.7	-5.2676	µg/L	-5.2676	ppb	18:30:58
2	Pb 220.353†	93.0	-0.4	-0.1127	µg/L	-0.1127	ppb	18:30:58

2	S 181.975 Axial†	20.2	0.7	2.8524 µg/L	2.8524 ppb	18:30:58
2	Sb 206.836†	24.9	1.7	1.5373 µg/L	1.5373 ppb	18:30:58
2	Se 196.026†	20.3	0.5	0.7192 µg/L	0.7192 ppb	18:30:58
2	SiO2†	1642.6	206.7	40.802 µg/L	40.802 ppb	18:30:38
2	Si 251.611†	453.6	130.8	9.9406 µg/L	9.9406 ppb	18:30:58
2	Sn 189.927†	19.1	18.2	7.6779 µg/L	7.6779 ppb	18:30:58
2	Ti 334.940†	1831.1	1606.7	3.5550 µg/L	3.5550 ppb	18:30:38
2	Tl 190.801†	-20.6	2.3	3.0926 µg/L	3.0926 ppb	18:30:58
2	U 409.014†	-17.3	60.3	5.0059 µg/L	5.0059 ppb	18:30:38
2	V 292.402†	54.7	98.0	0.9631 µg/L	0.9631 ppb	18:30:38
2	Zn 213.857†	549.1	-0.1	-0.0060 µg/L	-0.0060 ppb	18:30:58
3	Sc RADIAL	57463.0	57463.0	102 %		18:29:29
3	Al 396.153Radial†	-41.0	-47.6	-33.158 µg/L	-33.158 ppb	18:29:29
3	Ca 317.933Radial†	194.3	-20.2	-17.244 µg/L	-17.244 ppb	18:29:50
3	Fe 238.204 Radial†	18.7	1.8	14.201 µg/L	14.201 ppb	18:29:50
3	K 766.490 Radial†	178.1	10.2	6.6395 µg/L	6.6395 ppb	18:29:29
3	Mg 279.077 IEC†	8.7	-4.2	-37.957 µg/L	-37.957 ppb	18:29:50
3	Na 589.592 Radial†	506.8	26.1	8.0102 µg/L	8.0102 ppb	18:29:29
3	Sr 421.552†	42.9	13.3	0.1232 µg/L	0.1232 ppb	18:29:29
3	Sc 361.383	2013891.9	2013891.9	102.59 %		18:31:04
3	Y 371.029	1385497.7	1385497.7	102.42 %		18:31:04
3	Ag 328.068†	-434.1	-21.6	-0.1566 µg/L	-0.1566 ppb	18:31:10
3	As 188.979†	1.4	1.8	3.2592 µg/L	3.2592 ppb	18:31:31
3	B 249.677†	380.8	-12.9	-0.5336 µg/L	-0.5336 ppb	18:31:31
3	Ba 233.527†	-7.5	9.7	0.2343 µg/L	0.2343 ppb	18:31:31
3	Be 313.107†	-2627.4	294.5	0.1745 µg/L	0.1745 ppb	18:31:10
3	Cd 226.502†	-139.2	6.0	0.1475 µg/L	0.1475 ppb	18:31:31
3	Co 228.616†	-2.4	-4.2	-0.1927 µg/L	-0.1927 ppb	18:31:31
3	Cr 267.716†	-21.1	29.8	0.5980 µg/L	0.5980 ppb	18:31:10
3	Cu 324.752†	2619.6	9.8	0.0659 µg/L	0.0659 ppb	18:31:10
3	Mn 257.610†	-3.1	253.0	0.7956 µg/L	0.7956 ppb	18:31:31
3	Mo 202.031†	1.5	6.8	0.6637 µg/L	0.6637 ppb	18:31:31
3	Ni 231.604†	309.6	-10.5	-0.5253 µg/L	-0.5253 ppb	18:31:31
3	P 214.914†	10.7	-4.9	-9.6506 µg/L	-9.6506 ppb	18:31:31
3	Pb 220.353†	92.1	-1.1	-0.2804 µg/L	-0.2804 ppb	18:31:31
3	S 181.975 Axial†	20.6	1.2	4.9214 µg/L	4.9214 ppb	18:31:31
3	Sb 206.836†	22.0	-1.0	-0.9299 µg/L	-0.9299 ppb	18:31:31
3	Se 196.026†	22.4	2.6	3.6800 µg/L	3.6800 ppb	18:31:31
3	SiO2†	1531.3	101.1	19.951 µg/L	19.951 ppb	18:31:10
3	Si 251.611†	470.6	148.1	11.258 µg/L	11.258 ppb	18:31:31
3	Sn 189.927†	15.7	14.9	6.2845 µg/L	6.2845 ppb	18:31:31
3	Ti 334.940†	545.2	356.5	0.7913 µg/L	0.7913 ppb	18:31:10
3	Tl 190.801†	-18.8	4.0	5.2381 µg/L	5.2381 ppb	18:31:31
3	U 409.014†	-62.1	16.5	1.3714 µg/L	1.3714 ppb	18:31:10
3	V 292.402†	-10.9	34.2	0.3425 µg/L	0.3425 ppb	18:31:10
3	Zn 213.857†	537.6	-10.4	-0.2395 µg/L	-0.2395 ppb	18:31:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2021304.7	102.96	%	0.503				0.49%
Sc RADIAL	57030.9	101	%	0.7				0.68%
Y 371.029	1391199.8	102.84	%	0.508				0.49%
Ag 328.068†	-29.0	-0.2103	µg/L	0.07128	-0.2103	ppb	0.07128	33.90%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-26.3	-18.340	µg/L	14.0000	-18.340	ppb	14.0000	76.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	3.2809	µg/L	7.30195	3.2809	ppb	7.30195	222.56%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-4.2	-0.1797	µg/L	0.57561	-0.1797	ppb	0.57561	320.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	31.9	0.7662	µg/L	0.69500	0.7662	ppb	0.69500	90.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	400.6	0.2372	µg/L	0.21833	0.2372	ppb	0.21833	92.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.7	-16.799	µg/L	3.2876	-16.799	ppb	3.2876	19.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	19.0	0.4714	µg/L	0.54127	0.4714	ppb	0.54127	114.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.9	0.4468	µg/L	0.66842	0.4468	ppb	0.66842	149.61%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                34.2      0.6874 µg/L       0.36726      0.6874 ppb        0.36726  53.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                31.1      0.2057 µg/L       0.59207      0.2057 ppb        0.59207 287.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3      18.190 µg/L        3.6545      18.190 ppb         3.6545  20.09%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          34.6      22.567 µg/L       14.8062      22.567 ppb        14.8062  65.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.5     -21.982 µg/L       14.5132     -21.982 ppb        14.5132  66.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               650.0      2.0389 µg/L       1.92974      2.0389 ppb        1.92974  94.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.9      0.5797 µg/L       0.76032      0.5797 ppb        0.76032 131.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         20.1      6.1597 µg/L       2.27853      6.1597 ppb        2.27853  36.99%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.7      0.1323 µg/L       0.63148      0.1323 ppb        0.63148 477.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -4.8915 µg/L       4.95786     -4.8915 ppb        4.95786 101.36%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.3      0.3136 µg/L       0.88754      0.3136 ppb        0.88754 283.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.1      0.5829 µg/L       5.81558      0.5829 ppb        5.81558 997.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.0      0.0429 µg/L       1.31372      0.0429 ppb        1.31372 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.4      0.5818 µg/L       3.16914      0.5818 ppb        3.16914 544.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     104.9     20.702 µg/L       19.7346     20.702 ppb        19.7346  95.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               201.8     15.340 µg/L        8.2366     15.340 ppb         8.2366  53.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                23.3      9.8010 µg/L       4.93347      9.8010 ppb        4.93347  50.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.6      0.1258 µg/L       0.10971      0.1258 ppb        0.10971  87.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               699.4      1.5488 µg/L       1.75468      1.5488 ppb        1.75468 113.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.8      3.6567 µg/L       1.38813      3.6567 ppb        1.38813  37.96%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 42.1      3.4936 µg/L       1.89246      3.4936 ppb        1.89246  54.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 57.9      0.5763 µg/L       0.33743      0.5763 ppb        0.33743  58.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                17.6      0.4131 µg/L       0.93546      0.4131 ppb        0.93546 226.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 18:57:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58333.6	58333.6	103	%			18:58:00
1	Al 396.153Radial†	7365.1	7125.7	4946.5	µg/L	4946.5	ppb	18:58:00
1	Ca 317.933Radial†	6192.0	5785.6	4942.0	µg/L	4942.0	ppb	18:58:20
1	Fe 238.204 Radial†	674.6	636.7	5032.7	µg/L	5032.7	ppb	18:58:20
1	K 766.490 Radial†	7915.6	7501.2	4899.2	µg/L	4899.2	ppb	18:58:00
1	Mg 279.077 IEC†	598.6	566.9	5070.8	µg/L	5070.8	ppb	18:58:20
1	Na 589.592 Radial†	33942.4	32400.8	9951.7	µg/L	9951.7	ppb	18:58:00
1	Sr 421.552†	54192.3	52456.0	483.91	µg/L	483.91	ppb	18:58:00
1	Sc 361.383	2038441.2	2038441.2	103.84	%			18:59:24
1	Y 371.029	1399434.4	1399434.4	103.45	%			18:59:24
1	Ag 328.068†	68624.6	66490.5	496.15	µg/L	496.15	ppb	18:59:29
1	As 188.979†	294.5	284.1	508.19	µg/L	508.19	ppb	18:59:50
1	B 249.677†	12921.2	12059.6	489.70	µg/L	489.70	ppb	18:59:29
1	Ba 233.527†	21646.3	20863.5	501.78	µg/L	501.78	ppb	18:59:29
1	Be 313.107†	864552.3	835462.4	495.66	µg/L	495.66	ppb	18:59:24
1	Cd 226.502†	20886.7	20256.6	505.16	µg/L	505.16	ppb	18:59:29
1	Co 228.616†	11617.5	11186.3	506.03	µg/L	506.03	ppb	18:59:29
1	Cr 267.716†	26041.8	25130.0	505.06	µg/L	505.06	ppb	18:59:29
1	Cu 324.752†	81610.2	76051.0	497.12	µg/L	497.12	ppb	18:59:29
1	Mn 257.610†	166517.1	160620.2	503.45	µg/L	503.45	ppb	18:59:24
1	Mo 202.031†	5420.2	5225.2	511.88	µg/L	511.88	ppb	18:59:50
1	Ni 231.604†	10851.5	10138.2	504.85	µg/L	504.85	ppb	18:59:29
1	P 214.914†	1356.9	1291.4	2509.3	µg/L	2509.3	ppb	18:59:50
1	Pb 220.353†	2274.9	2099.9	510.66	µg/L	510.66	ppb	18:59:50
1	S 181.975 Axial†	272.1	243.1	1008.0	µg/L	1008.0	ppb	18:59:50
1	Sb 206.836†	600.9	556.2	512.79	µg/L	512.79	ppb	18:59:50
1	Se 196.026†	401.3	367.2	523.52	µg/L	523.52	ppb	18:59:50
1	SiO2†	29690.3	27201.7	5369.3	µg/L	5369.3	ppb	18:59:29
1	Si 251.611†	34620.8	33030.9	2511.1	µg/L	2511.1	ppb	18:59:29
1	Sn 189.927†	1274.6	1227.1	517.53	µg/L	517.53	ppb	18:59:50
1	Ti 334.940†	232175.5	223421.5	493.94	µg/L	493.94	ppb	18:59:24
1	Tl 190.801†	380.4	388.7	510.84	µg/L	510.84	ppb	18:59:50
1	U 409.014†	6240.2	6086.8	504.71	µg/L	504.71	ppb	18:59:29
1	V 292.402†	53236.3	51313.9	506.29	µg/L	506.29	ppb	18:59:29
1	Zn 213.857†	23013.8	21629.0	503.89	µg/L	503.89	ppb	18:59:29
2	Sc RADIAL	58344.7	58344.7	103	%			18:58:26
2	Al 396.153Radial†	7317.7	7078.4	4913.9	µg/L	4913.9	ppb	18:58:26
2	Ca 317.933Radial†	6132.7	5727.0	4891.9	µg/L	4891.9	ppb	18:58:46
2	Fe 238.204 Radial†	665.9	628.2	4965.5	µg/L	4965.5	ppb	18:58:46
2	K 766.490 Radial†	7920.4	7504.4	4901.2	µg/L	4901.2	ppb	18:58:26
2	Mg 279.077 IEC†	590.4	558.9	4999.2	µg/L	4999.2	ppb	18:58:46
2	Na 589.592 Radial†	33811.9	32268.1	9910.9	µg/L	9910.9	ppb	18:58:26
2	Sr 421.552†	54099.6	52356.2	482.99	µg/L	482.99	ppb	18:58:26
2	Sc 361.383	2035256.6	2035256.6	103.67	%			18:59:57
2	Y 371.029	1396273.2	1396273.2	103.22	%			18:59:57
2	Ag 328.068†	68425.9	66402.2	495.48	µg/L	495.48	ppb	19:00:03
2	As 188.979†	292.9	282.9	506.17	µg/L	506.17	ppb	19:00:23
2	B 249.677†	12903.7	12062.2	489.84	µg/L	489.84	ppb	19:00:03
2	Ba 233.527†	21596.0	20847.7	501.39	µg/L	501.39	ppb	19:00:03
2	Be 313.107†	862338.3	834629.7	495.17	µg/L	495.17	ppb	18:59:57
2	Cd 226.502†	20772.6	20178.1	503.20	µg/L	503.20	ppb	19:00:03
2	Co 228.616†	11542.6	11131.5	503.54	µg/L	503.54	ppb	19:00:03
2	Cr 267.716†	25954.2	25084.7	504.15	µg/L	504.15	ppb	19:00:03
2	Cu 324.752†	81509.2	76076.5	497.28	µg/L	497.28	ppb	19:00:03
2	Mn 257.610†	166351.9	160711.8	503.73	µg/L	503.73	ppb	18:59:57
2	Mo 202.031†	5270.1	5088.7	498.51	µg/L	498.51	ppb	19:00:23
2	Ni 231.604†	10791.0	10096.2	502.76	µg/L	502.76	ppb	19:00:03
2	P 214.914†	1323.9	1261.6	2450.2	µg/L	2450.2	ppb	19:00:23
2	Pb 220.353†	2210.1	2040.8	496.26	µg/L	496.26	ppb	19:00:23

2	S 181.975 Axial†	270.0	241.5	1001.5 µg/L	1001.5 ppb	19:00:23
2	Sb 206.836†	587.9	544.6	501.96 µg/L	501.96 ppb	19:00:23
2	Se 196.026†	392.6	359.4	512.48 µg/L	512.48 ppb	19:00:23
2	SiO2†	29616.5	27175.2	5364.0 µg/L	5364.0 ppb	19:00:03
2	Si 251.611†	34657.6	33118.5	2517.7 µg/L	2517.7 ppb	19:00:03
2	Sn 189.927†	1231.7	1187.7	500.91 µg/L	500.91 ppb	19:00:23
2	Ti 334.940†	231864.1	223470.9	494.05 µg/L	494.05 ppb	18:59:57
2	Tl 190.801†	372.5	381.7	501.72 µg/L	501.72 ppb	19:00:23
2	U 409.014†	6180.9	6038.9	500.75 µg/L	500.75 ppb	19:00:03
2	V 292.402†	53024.3	51189.7	504.96 µg/L	504.96 ppb	19:00:03
2	Zn 213.857†	22918.2	21571.5	502.56 µg/L	502.56 ppb	19:00:03
3	Sc RADIAL	58456.7	58456.7	103 %		18:58:52
3	Al 396.153Radial†	7314.1	7061.4	4904.0 µg/L	4904.0 ppb	18:58:52
3	Ca 317.933Radial†	6160.3	5742.4	4905.0 µg/L	4905.0 ppb	18:59:12
3	Fe 238.204 Radial†	669.3	630.3	4980.2 µg/L	4980.2 ppb	18:59:12
3	K 766.490 Radial†	7905.3	7475.1	4882.1 µg/L	4882.1 ppb	18:58:52
3	Mg 279.077 IEC†	592.0	559.3	5000.9 µg/L	5000.9 ppb	18:59:12
3	Na 589.592 Radial†	33692.4	32089.9	9856.2 µg/L	9856.2 ppb	18:58:52
3	Sr 421.552†	53981.8	52142.0	481.02 µg/L	481.02 ppb	18:58:52
3	Sc 361.383	2047612.7	2047612.7	104.30 %		19:00:30
3	Y 371.029	1406490.5	1406490.5	103.97 %		19:00:30
3	Ag 328.068†	63103.6	60901.3	454.27 µg/L	454.27 ppb	19:00:36
3	As 188.979†	237.6	228.3	408.38 µg/L	408.38 ppb	19:00:57
3	B 249.677†	11765.8	10896.1	442.18 µg/L	442.18 ppb	19:00:36
3	Ba 233.527†	19176.1	18401.9	442.55 µg/L	442.55 ppb	19:00:36
3	Be 313.107†	782724.7	753282.0	446.91 µg/L	446.91 ppb	19:00:30
3	Cd 226.502†	18400.9	17783.3	443.41 µg/L	443.41 ppb	19:00:36
3	Co 228.616†	10109.3	9690.2	438.29 µg/L	438.29 ppb	19:00:36
3	Cr 267.716†	21969.5	21113.3	424.34 µg/L	424.34 ppb	19:00:36
3	Cu 324.752†	71747.0	66242.7	433.09 µg/L	433.09 ppb	19:00:36
3	Mn 257.610†	151555.7	145557.9	456.28 µg/L	456.28 ppb	19:00:30
3	Mo 202.031†	4263.1	4092.5	400.95 µg/L	400.95 ppb	19:00:57
3	Ni 231.604†	9465.5	8762.6	436.35 µg/L	436.35 ppb	19:00:36
3	P 214.914†	1103.2	1042.4	2021.3 µg/L	2021.3 ppb	19:00:57
3	Pb 220.353†	1887.4	1718.6	417.83 µg/L	417.83 ppb	19:00:57
3	S 181.975 Axial†	232.4	203.9	845.45 µg/L	845.45 ppb	19:00:57
3	Sb 206.836†	490.6	447.9	412.47 µg/L	412.47 ppb	19:00:57
3	Se 196.026†	335.5	302.3	432.38 µg/L	432.38 ppb	19:00:57
3	SiO2†	26801.6	24304.1	4797.3 µg/L	4797.3 ppb	19:00:36
3	Si 251.611†	31212.7	29614.1	2251.3 µg/L	2251.3 ppb	19:00:36
3	Sn 189.927†	987.7	946.6	399.24 µg/L	399.24 ppb	19:00:57
3	Ti 334.940†	208406.1	199631.3	441.31 µg/L	441.31 ppb	19:00:30
3	Tl 190.801†	322.4	331.5	435.96 µg/L	435.96 ppb	19:00:57
3	U 409.014†	5296.2	5154.8	427.29 µg/L	427.29 ppb	19:00:36
3	V 292.402†	45829.3	43982.9	433.72 µg/L	433.72 ppb	19:00:36
3	Zn 213.857†	20142.3	18776.7	437.38 µg/L	437.38 ppb	19:00:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2040436.8	103.94	%	0.327				0.31%
Sc RADIAL	58378.3	103	%	0.1				0.12%
Y 371.029	1400732.7	103.55	%	0.387				0.37%
Ag 328.068†	64598.0	481.97	µg/L	23.988	481.97	ppb	23.988	4.98%
QC value within limits for Ag 328.068 Recovery = 96.39%								
Al 396.153Radial†	7088.5	4921.5	µg/L	22.23	4921.5	ppb	22.23	0.45%
QC value within limits for Al 396.153Radial Recovery = 98.43%								
As 188.979†	265.1	474.24	µg/L	57.051	474.24	ppb	57.051	12.03%
QC value within limits for As 188.979 Recovery = 94.85%								
B 249.677†	11672.6	473.91	µg/L	27.477	473.91	ppb	27.477	5.80%
QC value within limits for B 249.677 Recovery = 94.78%								
Ba 233.527†	20037.7	481.91	µg/L	34.084	481.91	ppb	34.084	7.07%
QC value within limits for Ba 233.527 Recovery = 96.38%								
Be 313.107†	807791.4	479.25	µg/L	28.007	479.25	ppb	28.007	5.84%
QC value within limits for Be 313.107 Recovery = 95.85%								
Ca 317.933Radial†	5751.7	4913.0	µg/L	25.95	4913.0	ppb	25.95	0.53%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	19406.0	483.92	µg/L	35.100	483.92	ppb	35.100	7.25%
QC value within limits for Cd 226.502 Recovery = 96.78%								
Co 228.616†	10669.3	482.62	µg/L	38.414	482.62	ppb	38.414	7.96%

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   QC value within limits for Co 228.616  Recovery = 96.52%
Cr 267.716†            23776.0      477.85 µg/L        46.344      477.85 ppb         46.344   9.70%
   QC value within limits for Cr 267.716  Recovery = 95.57%
Cu 324.752†            72790.1      475.83 µg/L        37.014      475.83 ppb         37.014   7.78%
   QC value within limits for Cu 324.752  Recovery = 95.17%
Fe 238.204 Radial†       631.7      4992.8 µg/L         35.34      4992.8 ppb          35.34   0.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.86%
K 766.490 Radial†       7493.6      4894.2 µg/L         10.48      4894.2 ppb          10.48   0.21%
   QC value within limits for K 766.490 Radial  Recovery = 97.88%
Mg 279.077 IEC†          561.7      5023.6 µg/L         40.85      5023.6 ppb          40.85   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.47%
Mn 257.610†           155630.0      487.82 µg/L        27.316      487.82 ppb         27.316   5.60%
   QC value within limits for Mn 257.610  Recovery = 97.56%
Mo 202.031†             4802.1      470.44 µg/L        60.553      470.44 ppb         60.553  12.87%
   QC value within limits for Mo 202.031  Recovery = 94.09%
Na 589.592 Radial†     32252.9      9906.3 µg/L         47.92      9906.3 ppb          47.92   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 99.06%
Ni 231.604†             9665.7      481.32 µg/L        38.955      481.32 ppb         38.955   8.09%
   QC value within limits for Ni 231.604  Recovery = 96.26%
P 214.914†              1198.4      2326.9 µg/L        266.31      2326.9 ppb         266.31  11.44%
   QC value within limits for P 214.914  Recovery = 93.08%
Pb 220.353†             1953.1      474.92 µg/L        49.957      474.92 ppb         49.957  10.52%
   QC value within limits for Pb 220.353  Recovery = 94.98%
S 181.975 Axial†         229.5      951.68 µg/L        92.053      951.68 ppb         92.053   9.67%
   QC value within limits for S 181.975 Axial  Recovery = 95.17%
Sb 206.836†              516.2      475.74 µg/L        55.061      475.74 ppb         55.061  11.57%
   QC value within limits for Sb 206.836  Recovery = 95.15%
Se 196.026†              343.0      489.46 µg/L        49.737      489.46 ppb         49.737  10.16%
   QC value within limits for Se 196.026  Recovery = 97.89%
SiO2†                  26227.0      5176.9 µg/L        328.72      5176.9 ppb         328.72   6.35%
   QC value within limits for SiO2  Recovery = 96.81%
Si 251.611†            31921.2      2426.7 µg/L        151.93      2426.7 ppb         151.93   6.26%
   QC value within limits for Si 251.611  Recovery = 97.07%
Sn 189.927†             1120.5      472.56 µg/L        64.040      472.56 ppb         64.040  13.55%
   QC value within limits for Sn 189.927  Recovery = 94.51%
Sr 421.552†            52318.1      482.64 µg/L         1.480      482.64 ppb          1.480   0.31%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†           215507.9      476.43 µg/L        30.416      476.43 ppb         30.416   6.38%
   QC value within limits for Ti 334.940  Recovery = 95.29%
Tl 190.801†              367.3      482.84 µg/L        40.853      482.84 ppb         40.853   8.46%
   QC value within limits for Tl 190.801  Recovery = 96.57%
U 409.014†              5760.1      477.59 µg/L        43.602      477.59 ppb         43.602   9.13%
   QC value within limits for U 409.014  Recovery = 95.52%
V 292.402†             48828.8      481.66 µg/L        41.521      481.66 ppb         41.521   8.62%
   QC value within limits for V 292.402  Recovery = 96.33%
Zn 213.857†            20659.1      481.28 µg/L        38.019      481.28 ppb         38.019   7.90%
   QC value within limits for Zn 213.857  Recovery = 96.26%
All analyte(s) passed QC.
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Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:01:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57423.2	57423.2	102	%			19:01:39
1	Al 396.153Radial†	-18.9	-25.9	-18.036	µg/L	-18.036	ppb	19:01:39
1	Ca 317.933Radial†	194.6	-19.8	-16.907	µg/L	-16.907	ppb	19:02:00
1	Fe 238.204 Radial†	20.3	3.4	26.844	µg/L	26.844	ppb	19:02:00
1	K 766.490 Radial†	169.3	1.6	1.0514	µg/L	1.0514	ppb	19:01:39
1	Mg 279.077 IEC†	10.7	-2.3	-20.795	µg/L	-20.795	ppb	19:02:00
1	Na 589.592 Radial†	537.1	56.3	17.279	µg/L	17.279	ppb	19:01:39
1	Sr 421.552†	21.5	-7.7	-0.0709	µg/L	-0.0709	ppb	19:01:39
1	Sc 361.383	2013251.1	2013251.1	102.55	%			19:03:02
1	Y 371.029	1385844.0	1385844.0	102.45	%			19:03:02
1	Ag 328.068†	-425.6	-13.4	-0.0944	µg/L	-0.0944	ppb	19:03:07
1	As 188.979†	1.0	1.5	2.6013	µg/L	2.6013	ppb	19:03:28
1	B 249.677†	361.7	-31.5	-1.2963	µg/L	-1.2963	ppb	19:03:28
1	Ba 233.527†	-6.9	10.3	0.2492	µg/L	0.2492	ppb	19:03:28
1	Be 313.107†	-2769.2	155.5	0.0922	µg/L	0.0922	ppb	19:03:07
1	Cd 226.502†	-136.0	9.0	0.2223	µg/L	0.2223	ppb	19:03:28
1	Co 228.616†	7.0	4.9	0.2213	µg/L	0.2213	ppb	19:03:28
1	Cr 267.716†	-45.7	5.9	0.1181	µg/L	0.1181	ppb	19:03:07
1	Cu 324.752†	2554.2	-53.2	-0.3432	µg/L	-0.3432	ppb	19:03:07
1	Mn 257.610†	-168.0	92.2	0.2930	µg/L	0.2930	ppb	19:03:28
1	Mo 202.031†	-4.8	0.6	0.0615	µg/L	0.0615	ppb	19:03:28
1	Ni 231.604†	318.0	-2.3	-0.1132	µg/L	-0.1132	ppb	19:03:28
1	P 214.914†	14.8	-0.9	-1.7488	µg/L	-1.7488	ppb	19:03:28
1	Pb 220.353†	84.3	-8.7	-2.1358	µg/L	-2.1358	ppb	19:03:28
1	S 181.975 Axial†	16.4	-2.9	-12.184	µg/L	-12.184	ppb	19:03:28
1	Sb 206.836†	29.7	6.4	5.9047	µg/L	5.9047	ppb	19:03:28
1	Se 196.026†	21.6	1.7	2.5321	µg/L	2.5321	ppb	19:03:28
1	SiO2†	1445.6	18.1	3.5679	µg/L	3.5679	ppb	19:03:07
1	Si 251.611†	358.6	39.1	2.9715	µg/L	2.9715	ppb	19:03:28
1	Sn 189.927†	6.5	5.9	2.5018	µg/L	2.5018	ppb	19:03:28
1	Ti 334.940†	319.2	136.2	0.3026	µg/L	0.3026	ppb	19:03:07
1	Tl 190.801†	-23.1	-0.1	-0.1533	µg/L	-0.1533	ppb	19:03:28
1	U 409.014†	95.4	170.1	14.129	µg/L	14.129	ppb	19:03:07
1	V 292.402†	4.5	49.1	0.4975	µg/L	0.4975	ppb	19:03:07
1	Zn 213.857†	525.8	-21.7	-0.5072	µg/L	-0.5072	ppb	19:03:28
2	Sc RADIAL	57351.0	57351.0	102	%			19:02:05
2	Al 396.153Radial†	0.6	-6.8	-4.7217	µg/L	-4.7217	ppb	19:02:05
2	Ca 317.933Radial†	191.9	-22.2	-18.945	µg/L	-18.945	ppb	19:02:26
2	Fe 238.204 Radial†	16.4	-0.4	-2.9277	µg/L	-2.9277	ppb	19:02:26
2	K 766.490 Radial†	226.8	58.4	38.151	µg/L	38.151	ppb	19:02:05
2	Mg 279.077 IEC†	4.7	-8.2	-72.904	µg/L	-72.904	ppb	19:02:26
2	Na 589.592 Radial†	474.9	-4.4	-1.3380	µg/L	-1.3380	ppb	19:02:05
2	Sr 421.552†	49.2	19.7	0.1813	µg/L	0.1813	ppb	19:02:05
2	Sc 361.383	2012182.2	2012182.2	102.50	%			19:03:34
2	Y 371.029	1385686.0	1385686.0	102.43	%			19:03:34
2	Ag 328.068†	-448.4	-35.9	-0.2659	µg/L	-0.2659	ppb	19:03:39
2	As 188.979†	-1.5	-1.0	-1.7378	µg/L	-1.7378	ppb	19:04:00
2	B 249.677†	352.5	-40.3	-1.6393	µg/L	-1.6393	ppb	19:04:00
2	Ba 233.527†	-10.2	7.1	0.1714	µg/L	0.1714	ppb	19:04:00
2	Be 313.107†	-2906.5	20.0	0.0117	µg/L	0.0117	ppb	19:03:39
2	Cd 226.502†	-139.6	5.4	0.1354	µg/L	0.1354	ppb	19:04:00
2	Co 228.616†	8.8	6.6	0.3005	µg/L	0.3005	ppb	19:04:00
2	Cr 267.716†	-48.8	2.8	0.0565	µg/L	0.0565	ppb	19:03:39
2	Cu 324.752†	2585.7	-21.1	-0.1382	µg/L	-0.1382	ppb	19:03:39
2	Mn 257.610†	-165.3	94.7	0.2992	µg/L	0.2992	ppb	19:04:00
2	Mo 202.031†	-0.6	4.7	0.4624	µg/L	0.4624	ppb	19:04:00
2	Ni 231.604†	304.3	-15.4	-0.7700	µg/L	-0.7700	ppb	19:04:00
2	P 214.914†	20.3	4.4	8.7926	µg/L	8.7926	ppb	19:04:00
2	Pb 220.353†	93.2	-0.0	-0.0043	µg/L	-0.0043	ppb	19:04:00

2	S 181.975 Axial†	10.8	-8.4	-34.884 µg/L	-34.884 ppb	19:04:00
2	Sb 206.836†	19.1	-3.9	-3.5666 µg/L	-3.5666 ppb	19:04:00
2	Se 196.026†	15.1	-4.6	-6.4360 µg/L	-6.4360 ppb	19:04:00
2	SiO2†	1460.9	33.7	6.6594 µg/L	6.6594 ppb	19:03:39
2	Si 251.611†	358.4	39.0	2.9639 µg/L	2.9639 ppb	19:04:00
2	Sn 189.927†	4.7	4.2	1.7676 µg/L	1.7676 ppb	19:04:00
2	Ti 334.940†	408.1	223.1	0.4990 µg/L	0.4990 ppb	19:03:39
2	Tl 190.801†	-23.8	-0.9	-1.1422 µg/L	-1.1422 ppb	19:04:00
2	U 409.014†	-63.7	15.0	1.2443 µg/L	1.2443 ppb	19:03:39
2	V 292.402†	-44.3	1.5	0.0193 µg/L	0.0193 ppb	19:03:39
2	Zn 213.857†	528.3	-19.0	-0.4374 µg/L	-0.4374 ppb	19:04:00
3	Sc RADIAL	57190.0	57190.0	101 %		19:02:31
3	Al 396.153Radial†	-22.6	-29.7	-20.673 µg/L	-20.673 ppb	19:02:31
3	Ca 317.933Radial†	189.8	-23.8	-20.291 µg/L	-20.291 ppb	19:02:51
3	Fe 238.204 Radial†	18.6	1.8	13.987 µg/L	13.987 ppb	19:02:51
3	K 766.490 Radial†	197.7	30.3	19.782 µg/L	19.782 ppb	19:02:31
3	Mg 279.077 IEC†	10.1	-2.9	-25.784 µg/L	-25.784 ppb	19:02:51
3	Na 589.592 Radial†	485.7	7.6	2.3466 µg/L	2.3466 ppb	19:02:31
3	Sr 421.552†	55.0	25.5	0.2351 µg/L	0.2351 ppb	19:02:31
3	Sc 361.383	2000057.1	2000057.1	101.88 %		19:04:06
3	Y 371.029	1377155.5	1377155.5	101.80 %		19:04:06
3	Ag 328.068†	-451.3	-41.4	-0.3043 µg/L	-0.3043 ppb	19:04:11
3	As 188.979†	5.3	5.6	10.113 µg/L	10.113 ppb	19:04:32
3	B 249.677†	349.5	-41.1	-1.6816 µg/L	-1.6816 ppb	19:04:32
3	Ba 233.527†	-13.8	3.6	0.0860 µg/L	0.0860 ppb	19:04:32
3	Be 313.107†	-2997.1	-86.1	-0.0512 µg/L	-0.0512 ppb	19:04:11
3	Cd 226.502†	-137.9	6.3	0.1551 µg/L	0.1551 ppb	19:04:32
3	Co 228.616†	6.6	4.6	0.2062 µg/L	0.2062 ppb	19:04:32
3	Cr 267.716†	-22.6	28.2	0.5656 µg/L	0.5656 ppb	19:04:11
3	Cu 324.752†	2587.8	-3.8	-0.0226 µg/L	-0.0226 ppb	19:04:11
3	Mn 257.610†	-159.2	99.8	0.3153 µg/L	0.3153 ppb	19:04:32
3	Mo 202.031†	2.5	7.8	0.7608 µg/L	0.7608 ppb	19:04:32
3	Ni 231.604†	316.7	-1.4	-0.0722 µg/L	-0.0722 ppb	19:04:32
3	P 214.914†	14.3	-1.3	-2.5898 µg/L	-2.5898 ppb	19:04:32
3	Pb 220.353†	83.5	-8.9	-2.1741 µg/L	-2.1741 ppb	19:04:32
3	S 181.975 Axial†	16.2	-3.0	-12.393 µg/L	-12.393 ppb	19:04:32
3	Sb 206.836†	23.0	0.1	0.0887 µg/L	0.0887 ppb	19:04:32
3	Se 196.026†	9.9	-9.6	-13.418 µg/L	-13.418 ppb	19:04:32
3	SiO2†	1462.5	43.9	8.6651 µg/L	8.6651 ppb	19:04:11
3	Si 251.611†	360.6	43.4	3.2962 µg/L	3.2962 ppb	19:04:32
3	Sn 189.927†	6.4	5.9	2.4731 µg/L	2.4731 ppb	19:04:32
3	Ti 334.940†	309.8	129.0	0.2871 µg/L	0.2871 ppb	19:04:11
3	Tl 190.801†	-25.4	-2.6	-3.3285 µg/L	-3.3285 ppb	19:04:32
3	U 409.014†	-45.5	32.4	2.6931 µg/L	2.6931 ppb	19:04:11
3	V 292.402†	-23.1	22.0	0.2263 µg/L	0.2263 ppb	19:04:11
3	Zn 213.857†	527.6	-16.5	-0.3862 µg/L	-0.3862 ppb	19:04:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008496.8	102.31	%	0.373				0.36%
Sc RADIAL	57321.4	101	%	0.2				0.21%
Y 371.029	1382895.2	102.23	%	0.367				0.36%
Ag 328.068†	-30.2	-0.2215	µg/L	0.11176	-0.2215	ppb	0.11176	50.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-20.8	-14.477	µg/L	8.5505	-14.477	ppb	8.5505	59.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	3.6588	µg/L	5.99568	3.6588	ppb	5.99568	163.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.6	-1.5391	µg/L	0.21127	-1.5391	ppb	0.21127	13.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.1689	µg/L	0.08165	0.1689	ppb	0.08165	48.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	29.8	0.0176	µg/L	0.07185	0.0176	ppb	0.07185	409.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-21.9	-18.714	µg/L	1.7037	-18.714	ppb	1.7037	9.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1709	µg/L	0.04557	0.1709	ppb	0.04557	26.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.2427	µg/L	0.05064	0.2427	ppb	0.05064	20.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.3      0.2467 µg/L       0.27783      0.2467 ppb        0.27783 112.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -26.0     -0.1680 µg/L       0.16236     -0.1680 ppb        0.16236  96.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.6      12.634 µg/L       14.9319      12.634 ppb        14.9319 118.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          30.1      19.662 µg/L       18.5502      19.662 ppb        18.5502  94.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.5     -39.828 µg/L       28.7536     -39.828 ppb        28.7536  72.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                95.6      0.3025 µg/L       0.01153      0.3025 ppb        0.01153   3.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.4      0.4283 µg/L       0.35090      0.4283 ppb        0.35090  81.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         19.8      6.0958 µg/L       9.85836      6.0958 ppb        9.85836 161.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.4     -0.3185 µg/L       0.39156     -0.3185 ppb        0.39156 122.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.7      1.4847 µg/L       6.34276      1.4847 ppb        6.34276 427.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9     -1.4381 µg/L       1.24182     -1.4381 ppb        1.24182  86.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.8     -19.820 µg/L       13.0459     -19.820 ppb        13.0459  65.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.9      0.8090 µg/L       4.77653      0.8090 ppb        4.77653 590.45%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.2     -5.7739 µg/L       7.99551     -5.7739 ppb        7.99551 138.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      31.9      6.2974 µg/L       2.56780      6.2974 ppb        2.56780  40.78%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                40.5      3.0772 µg/L       0.18971      3.0772 ppb        0.18971   6.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.3      2.2475 µg/L       0.41585      2.2475 ppb        0.41585  18.50%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.5      0.1152 µg/L       0.16339      0.1152 ppb        0.16339 141.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               162.8      0.3629 µg/L       0.11813      0.3629 ppb        0.11813  32.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.2     -1.5413 µg/L       1.62481     -1.5413 ppb        1.62481 105.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 72.5      6.0222 µg/L       7.05819      6.0222 ppb        7.05819 117.20%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 24.2      0.2477 µg/L       0.23982      0.2477 ppb        0.23982  96.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -19.1     -0.4436 µg/L       0.06072     -0.4436 ppb        0.06072  13.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 19:26:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58011.2	58011.2	103	%			19:27:24
1	Al 396.153Radial†	7306.1	7107.9	4934.0	µg/L	4934.0	ppb	19:27:24
1	Ca 317.933Radial†	6126.5	5755.1	4915.9	µg/L	4915.9	ppb	19:27:44
1	Fe 238.204 Radial†	670.2	636.1	5027.8	µg/L	5027.8	ppb	19:27:44
1	K 766.490 Radial†	7850.1	7480.0	4885.3	µg/L	4885.3	ppb	19:27:24
1	Mg 279.077 IEC†	589.4	561.2	5020.1	µg/L	5020.1	ppb	19:27:44
1	Na 589.592 Radial†	33642.4	32291.3	9918.0	µg/L	9918.0	ppb	19:27:24
1	Sr 421.552†	53727.7	52295.2	482.43	µg/L	482.43	ppb	19:27:24
1	Sc 361.383	2023941.6	2023941.6	103.10	%			19:28:48
1	Y 371.029	1390155.2	1390155.2	102.76	%			19:28:48
1	Ag 328.068†	68263.9	66614.1	497.07	µg/L	497.07	ppb	19:28:53
1	As 188.979†	297.5	289.1	517.08	µg/L	517.08	ppb	19:29:14
1	B 249.677†	12754.8	11987.3	486.76	µg/L	486.76	ppb	19:28:53
1	Ba 233.527†	21527.5	20897.6	502.60	µg/L	502.60	ppb	19:28:53
1	Be 313.107†	859738.4	836757.9	496.43	µg/L	496.43	ppb	19:28:48
1	Cd 226.502†	20670.0	20190.5	503.51	µg/L	503.51	ppb	19:28:53
1	Co 228.616†	11554.6	11205.5	506.90	µg/L	506.90	ppb	19:28:53
1	Cr 267.716†	25881.7	25154.3	505.55	µg/L	505.55	ppb	19:28:53
1	Cu 324.752†	81255.0	76269.5	498.55	µg/L	498.55	ppb	19:28:53
1	Mn 257.610†	166147.8	161410.9	505.93	µg/L	505.93	ppb	19:28:48
1	Mo 202.031†	5454.8	5296.3	518.83	µg/L	518.83	ppb	19:29:14
1	Ni 231.604†	10745.9	10110.7	503.47	µg/L	503.47	ppb	19:28:53
1	P 214.914†	1361.8	1305.6	2537.4	µg/L	2537.4	ppb	19:29:14
1	Pb 220.353†	2266.4	2107.4	512.48	µg/L	512.48	ppb	19:29:14
1	S 181.975 Axial†	273.5	246.4	1021.7	µg/L	1021.7	ppb	19:29:14
1	Sb 206.836†	610.7	569.8	525.42	µg/L	525.42	ppb	19:29:14
1	Se 196.026†	395.7	364.5	519.83	µg/L	519.83	ppb	19:29:14
1	SiO2†	29524.0	27245.2	5377.9	µg/L	5377.9	ppb	19:28:53
1	Si 251.611†	34545.7	33196.9	2523.7	µg/L	2523.7	ppb	19:28:53
1	Sn 189.927†	1282.8	1243.9	524.60	µg/L	524.60	ppb	19:29:14
1	Ti 334.940†	231474.2	224343.1	495.98	µg/L	495.98	ppb	19:28:48
1	Tl 190.801†	382.2	393.1	516.55	µg/L	516.55	ppb	19:29:14
1	U 409.014†	6240.4	6130.0	508.31	µg/L	508.31	ppb	19:28:53
1	V 292.402†	52860.7	51317.0	506.38	µg/L	506.38	ppb	19:28:53
1	Zn 213.857†	22851.7	21630.6	503.94	µg/L	503.94	ppb	19:28:53
2	Sc RADIAL	58208.4	58208.4	103	%			19:27:50
2	Al 396.153Radial†	7271.3	7050.0	4894.0	µg/L	4894.0	ppb	19:27:50
2	Ca 317.933Radial†	6163.6	5771.0	4929.4	µg/L	4929.4	ppb	19:28:10
2	Fe 238.204 Radial†	675.5	639.1	5051.0	µg/L	5051.0	ppb	19:28:10
2	K 766.490 Radial†	7866.0	7469.5	4878.5	µg/L	4878.5	ppb	19:27:50
2	Mg 279.077 IEC†	590.4	560.2	5010.8	µg/L	5010.8	ppb	19:28:10
2	Na 589.592 Radial†	33660.4	32197.8	9889.3	µg/L	9889.3	ppb	19:27:50
2	Sr 421.552†	53698.2	52089.4	480.53	µg/L	480.53	ppb	19:27:50
2	Sc 361.383	2026589.1	2026589.1	103.23	%			19:29:21
2	Y 371.029	1392880.6	1392880.6	102.97	%			19:29:21
2	Ag 328.068†	68809.4	67056.0	500.36	µg/L	500.36	ppb	19:29:27
2	As 188.979†	296.8	288.0	515.16	µg/L	515.16	ppb	19:29:47
2	B 249.677†	12885.4	12097.7	491.25	µg/L	491.25	ppb	19:29:27
2	Ba 233.527†	21677.5	21015.6	505.43	µg/L	505.43	ppb	19:29:27
2	Be 313.107†	865418.2	841170.5	499.05	µg/L	499.05	ppb	19:29:21
2	Cd 226.502†	20826.2	20315.7	506.63	µg/L	506.63	ppb	19:29:27
2	Co 228.616†	11598.5	11233.3	508.15	µg/L	508.15	ppb	19:29:27
2	Cr 267.716†	26109.2	25341.9	509.31	µg/L	509.31	ppb	19:29:27
2	Cu 324.752†	81892.1	76783.6	501.90	µg/L	501.90	ppb	19:29:27
2	Mn 257.610†	167199.4	162219.0	508.46	µg/L	508.46	ppb	19:29:21
2	Mo 202.031†	5288.0	5127.7	502.33	µg/L	502.33	ppb	19:29:47
2	Ni 231.604†	10828.5	10177.0	506.78	µg/L	506.78	ppb	19:29:27
2	P 214.914†	1324.9	1268.1	2462.5	µg/L	2462.5	ppb	19:29:47
2	Pb 220.353†	2219.6	2059.1	500.70	µg/L	500.70	ppb	19:29:47

2	S 181.975 Axial†	269.0	241.6	1001.9 µg/L	1001.9 ppb	19:29:47
2	Sb 206.836†	585.9	545.1	502.40 µg/L	502.40 ppb	19:29:47
2	Se 196.026†	401.2	369.3	526.64 µg/L	526.64 ppb	19:29:47
2	SiO2†	29674.8	27353.9	5399.3 µg/L	5399.3 ppb	19:29:27
2	Si 251.611†	34681.9	33285.1	2530.4 µg/L	2530.4 ppb	19:29:27
2	Sn 189.927†	1240.2	1201.0	506.52 µg/L	506.52 ppb	19:29:47
2	Ti 334.940†	232768.0	225303.0	498.10 µg/L	498.10 ppb	19:29:21
2	Tl 190.801†	370.9	381.6	501.66 µg/L	501.66 ppb	19:29:47
2	U 409.014†	6213.7	6096.2	505.50 µg/L	505.50 ppb	19:29:27
2	V 292.402†	53162.8	51542.6	508.46 µg/L	508.46 ppb	19:29:27
2	Zn 213.857†	22978.8	21724.8	506.12 µg/L	506.12 ppb	19:29:27
3	Sc RADIAL	57939.2	57939.2	103 %		19:28:16
3	Al 396.153Radial†	7262.7	7074.4	4912.9 µg/L	4912.9 ppb	19:28:16
3	Ca 317.933Radial†	6172.6	5807.6	4960.7 µg/L	4960.7 ppb	19:28:36
3	Fe 238.204 Radial†	672.1	638.8	5047.6 µg/L	5047.6 ppb	19:28:36
3	K 766.490 Radial†	7867.0	7506.0	4902.3 µg/L	4902.3 ppb	19:28:16
3	Mg 279.077 IEC†	596.5	568.8	5086.0 µg/L	5086.0 ppb	19:28:36
3	Na 589.592 Radial†	33675.5	32364.3	9940.5 µg/L	9940.5 ppb	19:28:16
3	Sr 421.552†	53684.5	52318.1	482.64 µg/L	482.64 ppb	19:28:16
3	Sc 361.383	2019244.9	2019244.9	102.86 %		19:29:54
3	Y 371.029	1386733.2	1386733.2	102.51 %		19:29:54
3	Ag 328.068†	63032.4	61682.0	460.10 µg/L	460.10 ppb	19:30:00
3	As 188.979†	244.2	237.9	425.60 µg/L	425.60 ppb	19:30:20
3	B 249.677†	11714.9	11005.2	446.60 µg/L	446.60 ppb	19:30:00
3	Ba 233.527†	19107.8	18593.8	447.17 µg/L	447.17 ppb	19:30:00
3	Be 313.107†	780455.8	761618.7	451.85 µg/L	451.85 ppb	19:29:54
3	Cd 226.502†	18286.2	17919.6	446.80 µg/L	446.80 ppb	19:30:00
3	Co 228.616†	10093.7	9811.2	443.77 µg/L	443.77 ppb	19:30:00
3	Cr 267.716†	21917.3	21358.4	429.26 µg/L	429.26 ppb	19:30:00
3	Cu 324.752†	71787.5	67248.4	439.66 µg/L	439.66 ppb	19:30:00
3	Mn 257.610†	151706.1	147745.4	463.13 µg/L	463.13 ppb	19:29:54
3	Mo 202.031†	4317.7	4203.0	411.78 µg/L	411.78 ppb	19:30:20
3	Ni 231.604†	9445.6	8870.7	441.74 µg/L	441.74 ppb	19:30:00
3	P 214.914†	1095.4	1049.6	2035.1 µg/L	2035.1 ppb	19:30:20
3	Pb 220.353†	1899.2	1755.5	426.81 µg/L	426.81 ppb	19:30:20
3	S 181.975 Axial†	229.2	203.9	845.45 µg/L	845.45 ppb	19:30:20
3	Sb 206.836†	491.4	455.2	419.32 µg/L	419.32 ppb	19:30:20
3	Se 196.026†	335.0	306.4	438.20 µg/L	438.20 ppb	19:30:20
3	SiO2†	26768.8	24633.2	4862.3 µg/L	4862.3 ppb	19:30:00
3	Si 251.611†	31095.2	29920.3	2274.6 µg/L	2274.6 ppb	19:30:00
3	Sn 189.927†	986.7	958.9	404.42 µg/L	404.42 ppb	19:30:20
3	Ti 334.940†	208387.6	202420.4	447.48 µg/L	447.48 ppb	19:29:54
3	Tl 190.801†	323.7	337.1	443.33 µg/L	443.33 ppb	19:30:20
3	U 409.014†	5278.3	5208.6	431.75 µg/L	431.75 ppb	19:30:00
3	V 292.402†	45791.0	44563.0	439.48 µg/L	439.48 ppb	19:30:00
3	Zn 213.857†	20107.0	19013.7	442.90 µg/L	442.90 ppb	19:30:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2023258.5	103.06	%	0.189				0.18%
Sc RADIAL	58052.9	103	%	0.2				0.24%
Y 371.029	1389923.0	102.75	%	0.228				0.22%
Ag 328.068†	65117.4	485.84	µg/L	22.354	485.84	ppb	22.354	4.60%
QC value within limits for Ag 328.068 Recovery = 97.17%								
Al 396.153Radial†	7077.4	4913.6	µg/L	19.97	4913.6	ppb	19.97	0.41%
QC value within limits for Al 396.153Radial Recovery = 98.27%								
As 188.979†	271.6	485.95	µg/L	52.268	485.95	ppb	52.268	10.76%
QC value within limits for As 188.979 Recovery = 97.19%								
B 249.677†	11696.7	474.87	µg/L	24.588	474.87	ppb	24.588	5.18%
QC value within limits for B 249.677 Recovery = 94.97%								
Ba 233.527†	20169.0	485.07	µg/L	32.850	485.07	ppb	32.850	6.77%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	813182.4	482.44	µg/L	26.525	482.44	ppb	26.525	5.50%
QC value within limits for Be 313.107 Recovery = 96.49%								
Ca 317.933Radial†	5777.9	4935.4	µg/L	22.97	4935.4	ppb	22.97	0.47%
QC value within limits for Ca 317.933Radial Recovery = 98.71%								
Cd 226.502†	19475.3	485.65	µg/L	33.674	485.65	ppb	33.674	6.93%
QC value within limits for Cd 226.502 Recovery = 97.13%								
Co 228.616†	10750.0	486.27	µg/L	36.817	486.27	ppb	36.817	7.57%

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   QC value within limits for Co 228.616  Recovery = 97.25%
Cr 267.716†            23951.5      481.37 µg/L        45.169      481.37 ppb         45.169   9.38%
   QC value within limits for Cr 267.716  Recovery = 96.27%
Cu 324.752†            73433.8      480.04 µg/L        35.005      480.04 ppb         35.005   7.29%
   QC value within limits for Cu 324.752  Recovery = 96.01%
Fe 238.204 Radial†       638.0      5042.1 µg/L         12.53      5042.1 ppb          12.53   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.84%
K 766.490 Radial†       7485.2      4888.7 µg/L         12.26      4888.7 ppb          12.26   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 97.77%
Mg 279.077 IEC†          563.4      5039.0 µg/L         41.01      5039.0 ppb          41.01   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.78%
Mn 257.610†           157125.1      492.51 µg/L        25.470      492.51 ppb         25.470   5.17%
   QC value within limits for Mn 257.610  Recovery = 98.50%
Mo 202.031†             4875.7      477.65 µg/L        57.638      477.65 ppb         57.638  12.07%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     32284.4      9915.9 µg/L         25.63      9915.9 ppb          25.63   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.16%
Ni 231.604†             9719.5      484.00 µg/L        36.636      484.00 ppb         36.636   7.57%
   QC value within limits for Ni 231.604  Recovery = 96.80%
P 214.914†              1207.8      2345.0 µg/L        270.98      2345.0 ppb         270.98  11.56%
   QC value within limits for P 214.914  Recovery = 93.80%
Pb 220.353†             1974.0      480.00 µg/L        46.437      480.00 ppb         46.437   9.67%
   QC value within limits for Pb 220.353  Recovery = 96.00%
S 181.975 Axial†         230.6      956.35 µg/L        96.547      956.35 ppb         96.547  10.10%
   QC value within limits for S 181.975 Axial  Recovery = 95.63%
Sb 206.836†              523.4      482.38 µg/L        55.814      482.38 ppb         55.814  11.57%
   QC value within limits for Sb 206.836  Recovery = 96.48%
Se 196.026†              346.8      494.89 µg/L        49.212      494.89 ppb         49.212   9.94%
   QC value within limits for Se 196.026  Recovery = 98.98%
SiO2†                  26410.8      5213.1 µg/L        304.05      5213.1 ppb         304.05   5.83%
   QC value within limits for SiO2  Recovery = 97.49%
Si 251.611†            32134.1      2442.9 µg/L        145.79      2442.9 ppb         145.79   5.97%
   QC value within limits for Si 251.611  Recovery = 97.72%
Sn 189.927†             1134.6      478.51 µg/L        64.799      478.51 ppb         64.799  13.54%
   QC value within limits for Sn 189.927  Recovery = 95.70%
Sr 421.552†            52234.2      481.87 µg/L         1.162      481.87 ppb          1.162   0.24%
   QC value within limits for Sr 421.552  Recovery = 96.37%
Ti 334.940†           217355.5      480.52 µg/L        28.636      480.52 ppb         28.636   5.96%
   QC value within limits for Ti 334.940  Recovery = 96.10%
Tl 190.801†              370.6      487.18 µg/L        38.702      487.18 ppb         38.702   7.94%
   QC value within limits for Tl 190.801  Recovery = 97.44%
U 409.014†              5811.6      481.85 µg/L        43.409      481.85 ppb         43.409   9.01%
   QC value within limits for U 409.014  Recovery = 96.37%
V 292.402†             49140.8      484.77 µg/L        39.238      484.77 ppb         39.238   8.09%
   QC value within limits for V 292.402  Recovery = 96.95%
Zn 213.857†            20789.7      484.32 µg/L        35.886      484.32 ppb         35.886   7.41%
   QC value within limits for Zn 213.857  Recovery = 96.86%
All analyte(s) passed QC.
```

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 19:30:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57803.7	57803.7	102	%			19:31:04
1	Al 396.153Radial†	-10.0	-17.1	-11.924	µg/L	-11.924	ppb	19:31:04
1	Ca 317.933Radial†	196.7	-19.1	-16.278	µg/L	-16.278	ppb	19:31:24
1	Fe 238.204 Radial†	20.4	3.4	26.456	µg/L	26.456	ppb	19:31:24
1	K 766.490 Radial†	206.4	36.8	24.007	µg/L	24.007	ppb	19:31:04
1	Mg 279.077 IEC†	12.2	-0.9	-8.3904	µg/L	-8.3904	ppb	19:31:24
1	Na 589.592 Radial†	467.0	-15.7	-4.8300	µg/L	-4.8300	ppb	19:31:04
1	Sr 421.552†	46.6	16.7	0.1542	µg/L	0.1542	ppb	19:31:04
1	Sc 361.383	2025799.3	2025799.3	103.19	%			19:32:26
1	Y 371.029	1395690.7	1395690.7	103.17	%			19:32:26
1	Ag 328.068†	-418.9	-4.3	-0.0299	µg/L	-0.0299	ppb	19:32:32
1	As 188.979†	5.7	6.0	10.690	µg/L	10.690	ppb	19:32:52
1	B 249.677†	346.4	-48.5	-1.9903	µg/L	-1.9903	ppb	19:32:52
1	Ba 233.527†	-10.1	7.3	0.1761	µg/L	0.1761	ppb	19:32:52
1	Be 313.107†	-2840.4	103.2	0.0611	µg/L	0.0611	ppb	19:32:32
1	Cd 226.502†	-141.4	4.7	0.1130	µg/L	0.1130	ppb	19:32:52
1	Co 228.616†	3.9	1.9	0.0851	µg/L	0.0851	ppb	19:32:52
1	Cr 267.716†	-52.3	-0.3	-0.0059	µg/L	-0.0059	ppb	19:32:32
1	Cu 324.752†	2589.2	-34.6	-0.2223	µg/L	-0.2223	ppb	19:32:32
1	Mn 257.610†	-125.9	134.0	0.4234	µg/L	0.4234	ppb	19:32:52
1	Mo 202.031†	-3.8	1.7	0.1637	µg/L	0.1637	ppb	19:32:52
1	Ni 231.604†	312.5	-9.5	-0.4735	µg/L	-0.4735	ppb	19:32:52
1	P 214.914†	19.0	3.1	6.0665	µg/L	6.0665	ppb	19:32:52
1	Pb 220.353†	87.4	-6.2	-1.5170	µg/L	-1.5170	ppb	19:32:52
1	S 181.975 Axial†	16.2	-3.2	-13.428	µg/L	-13.428	ppb	19:32:52
1	Sb 206.836†	17.3	-5.7	-5.2171	µg/L	-5.2171	ppb	19:32:52
1	Se 196.026†	14.6	-5.2	-7.2159	µg/L	-7.2159	ppb	19:32:52
1	SiO2†	1457.3	20.6	4.0713	µg/L	4.0713	ppb	19:32:32
1	Si 251.611†	367.4	45.4	3.4484	µg/L	3.4484	ppb	19:32:52
1	Sn 189.927†	2.9	2.5	1.0388	µg/L	1.0388	ppb	19:32:52
1	Ti 334.940†	320.1	135.2	0.2995	µg/L	0.2995	ppb	19:32:32
1	Tl 190.801†	-20.2	2.8	3.6951	µg/L	3.6951	ppb	19:32:52
1	U 409.014†	5.9	82.8	6.8777	µg/L	6.8777	ppb	19:32:32
1	V 292.402†	-40.7	5.3	0.0634	µg/L	0.0634	ppb	19:32:32
1	Zn 213.857†	538.4	-12.7	-0.2952	µg/L	-0.2952	ppb	19:32:52
2	Sc RADIAL	57446.2	57446.2	102	%			19:31:29
2	Al 396.153Radial†	-13.6	-20.7	-14.413	µg/L	-14.413	ppb	19:31:29
2	Ca 317.933Radial†	196.2	-18.3	-15.615	µg/L	-15.615	ppb	19:31:50
2	Fe 238.204 Radial†	16.6	-0.3	-2.1967	µg/L	-2.1967	ppb	19:31:50
2	K 766.490 Radial†	247.6	78.5	51.300	µg/L	51.300	ppb	19:31:29
2	Mg 279.077 IEC†	10.6	-2.4	-21.567	µg/L	-21.567	ppb	19:31:50
2	Na 589.592 Radial†	483.2	3.0	0.9277	µg/L	0.9277	ppb	19:31:29
2	Sr 421.552†	2.4	-26.4	-0.2440	µg/L	-0.2440	ppb	19:31:29
2	Sc 361.383	2031745.9	2031745.9	103.50	%			19:32:58
2	Y 371.029	1401392.4	1401392.4	103.60	%			19:32:58
2	Ag 328.068†	-396.7	18.3	0.1368	µg/L	0.1368	ppb	19:33:04
2	As 188.979†	0.2	0.6	1.1375	µg/L	1.1375	ppb	19:33:24
2	B 249.677†	348.5	-47.4	-1.9319	µg/L	-1.9319	ppb	19:33:24
2	Ba 233.527†	-17.3	0.3	0.0083	µg/L	0.0083	ppb	19:33:24
2	Be 313.107†	-2882.3	70.8	0.0419	µg/L	0.0419	ppb	19:33:04
2	Cd 226.502†	-137.7	8.6	0.2144	µg/L	0.2144	ppb	19:33:24
2	Co 228.616†	-1.5	-3.4	-0.1547	µg/L	-0.1547	ppb	19:33:24
2	Cr 267.716†	-68.0	-15.3	-0.3078	µg/L	-0.3078	ppb	19:33:04
2	Cu 324.752†	2609.0	-22.8	-0.1493	µg/L	-0.1493	ppb	19:33:04
2	Mn 257.610†	-117.6	142.3	0.4463	µg/L	0.4463	ppb	19:33:24
2	Mo 202.031†	-2.4	3.0	0.2951	µg/L	0.2951	ppb	19:33:24
2	Ni 231.604†	312.9	-10.0	-0.4983	µg/L	-0.4983	ppb	19:33:24
2	P 214.914†	11.5	-4.2	-8.3725	µg/L	-8.3725	ppb	19:33:24
2	Pb 220.353†	83.2	-10.5	-2.5612	µg/L	-2.5612	ppb	19:33:24

2	S 181.975 Axial†	19.8	0.2	0.8387 µg/L	0.8387 ppb	19:33:24
2	Sb 206.836†	25.4	2.1	1.9038 µg/L	1.9038 ppb	19:33:24
2	Se 196.026†	16.0	-3.9	-5.4218 µg/L	-5.4218 ppb	19:33:24
2	SiO2†	1425.4	-14.3	-2.8218 µg/L	-2.8218 ppb	19:33:04
2	Si 251.611†	386.0	62.4	4.7401 µg/L	4.7401 ppb	19:33:24
2	Sn 189.927†	-0.4	-0.8	-0.3347 µg/L	-0.3347 ppb	19:33:24
2	Ti 334.940†	346.5	159.8	0.3550 µg/L	0.3550 ppb	19:33:04
2	Tl 190.801†	-19.1	3.9	5.0976 µg/L	5.0976 ppb	19:33:24
2	U 409.014†	-2.7	74.5	6.1922 µg/L	6.1922 ppb	19:33:04
2	V 292.402†	-29.1	16.7	0.1702 µg/L	0.1702 ppb	19:33:04
2	Zn 213.857†	529.8	-22.5	-0.5234 µg/L	-0.5234 ppb	19:33:24
3	Sc RADIAL	56634.0	56634.0	100 %		19:31:55
3	Al 396.153Radial†	3.4	-4.0	-2.7853 µg/L	-2.7853 ppb	19:31:55
3	Ca 317.933Radial†	194.5	-17.2	-14.719 µg/L	-14.719 ppb	19:32:16
3	Fe 238.204 Radial†	18.7	2.1	16.416 µg/L	16.416 ppb	19:32:16
3	K 766.490 Radial†	165.0	-0.4	-0.2546 µg/L	-0.2546 ppb	19:31:55
3	Mg 279.077 IEC†	11.4	-1.4	-12.921 µg/L	-12.921 ppb	19:32:16
3	Na 589.592 Radial†	499.6	26.2	8.0527 µg/L	8.0527 ppb	19:31:55
3	Sr 421.552†	20.0	-8.9	-0.0818 µg/L	-0.0818 ppb	19:31:55
3	Sc 361.383	2031784.6	2031784.6	103.50 %		19:33:30
3	Y 371.029	1401143.1	1401143.1	103.58 %		19:33:30
3	Ag 328.068†	-447.4	-30.7	-0.2248 µg/L	-0.2248 ppb	19:33:36
3	As 188.979†	-3.2	-2.6	-4.7006 µg/L	-4.7006 ppb	19:33:57
3	B 249.677†	355.0	-41.1	-1.6835 µg/L	-1.6835 ppb	19:33:57
3	Ba 233.527†	-12.0	5.5	0.1329 µg/L	0.1329 ppb	19:33:57
3	Be 313.107†	-2752.0	196.7	0.1167 µg/L	0.1167 ppb	19:33:36
3	Cd 226.502†	-133.4	12.8	0.3163 µg/L	0.3163 ppb	19:33:57
3	Co 228.616†	5.6	3.5	0.1593 µg/L	0.1593 ppb	19:33:57
3	Cr 267.716†	-3.9	46.6	0.9367 µg/L	0.9367 ppb	19:33:36
3	Cu 324.752†	2597.8	-33.7	-0.2180 µg/L	-0.2180 ppb	19:33:36
3	Mn 257.610†	-109.9	149.9	0.4720 µg/L	0.4720 ppb	19:33:57
3	Mo 202.031†	-0.0	5.3	0.5227 µg/L	0.5227 ppb	19:33:57
3	Ni 231.604†	321.2	-2.0	-0.0983 µg/L	-0.0983 ppb	19:33:57
3	P 214.914†	15.7	-0.2	-0.3967 µg/L	-0.3967 ppb	19:33:57
3	Pb 220.353†	93.0	-1.1	-0.2629 µg/L	-0.2629 ppb	19:33:57
3	S 181.975 Axial†	17.9	-1.7	-6.9059 µg/L	-6.9059 ppb	19:33:57
3	Sb 206.836†	24.5	1.2	1.0976 µg/L	1.0976 ppb	19:33:57
3	Se 196.026†	13.0	-6.8	-9.4419 µg/L	-9.4419 ppb	19:33:57
3	SiO2†	1471.5	30.2	5.9619 µg/L	5.9619 ppb	19:33:36
3	Si 251.611†	378.8	55.4	4.2091 µg/L	4.2091 ppb	19:33:57
3	Sn 189.927†	1.2	0.8	0.3212 µg/L	0.3212 ppb	19:33:57
3	Ti 334.940†	295.3	110.3	0.2447 µg/L	0.2447 ppb	19:33:36
3	Tl 190.801†	-22.9	0.3	0.3574 µg/L	0.3574 ppb	19:33:57
3	U 409.014†	-14.1	63.5	5.2725 µg/L	5.2725 ppb	19:33:36
3	V 292.402†	-25.9	19.7	0.2057 µg/L	0.2057 ppb	19:33:36
3	Zn 213.857†	530.6	-21.8	-0.5098 µg/L	-0.5098 ppb	19:33:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2029776.6	103.40	%	0.175				0.17%
Sc RADIAL	57294.7	101	%	1.1				1.05%
Y 371.029	1399408.7	103.45	%	0.238				0.23%
Ag 328.068†	-5.5	-0.0393	µg/L	0.18096	-0.0393	ppb	0.18096	460.14%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.9	-9.7076	µg/L	6.12268	-9.7076	ppb	6.12268	63.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	2.3757	µg/L	7.76979	2.3757	ppb	7.76979	327.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.7	-1.8686	µg/L	0.16289	-1.8686	ppb	0.16289	8.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.4	0.1057	µg/L	0.08714	0.1057	ppb	0.08714	82.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	123.6	0.0732	µg/L	0.03884	0.0732	ppb	0.03884	53.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.2	-15.537	µg/L	0.7823	-15.537	ppb	0.7823	5.04%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.7	0.2146	µg/L	0.10166	0.2146	ppb	0.10166	47.38%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0299	µg/L	0.16412	0.0299	ppb	0.16412	548.91%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.3      0.2077 µg/L       0.64914      0.2077 ppb        0.64914 312.58%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -30.4     -0.1965 µg/L       0.04097     -0.1965 ppb        0.04097  20.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.7      13.558 µg/L       14.5386      13.558 ppb        14.5386 107.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        38.3      25.017 µg/L       25.7921      25.017 ppb        25.7921 103.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -14.293 µg/L        6.6944     -14.293 ppb         6.6944  46.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             142.1      0.4473 µg/L       0.02431      0.4473 ppb        0.02431   5.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.3      0.3272 µg/L       0.18162      0.3272 ppb        0.18162  55.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        4.5      1.3835 µg/L       6.45342      1.3835 ppb        6.45342 466.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -7.2     -0.3567 µg/L       0.22417     -0.3567 ppb        0.22417  62.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.5     -0.9009 µg/L       7.23268     -0.9009 ppb        7.23268 802.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.9     -1.4470 µg/L       1.15074     -1.4470 ppb        1.15074  79.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.6     -6.4984 µg/L       7.14204     -6.4984 ppb        7.14204 109.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.8     -0.7386 µg/L       3.89940     -0.7386 ppb        3.89940 527.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.3     -7.3599 µg/L       2.01391     -7.3599 ppb        2.01391  27.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    12.2      2.4038 µg/L       4.62317      2.4038 ppb        4.62317 192.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              54.4      4.1325 µg/L       0.64925      4.1325 ppb        0.64925  15.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.8      0.3418 µg/L       0.68701      0.3418 ppb        0.68701 201.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.2     -0.0572 µg/L       0.20025     -0.0572 ppb        0.20025 350.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             135.1      0.2997 µg/L       0.05511      0.2997 ppb        0.05511  18.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      3.0500 µg/L       2.43504      3.0500 ppb        2.43504  79.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               73.6      6.1141 µg/L       0.80544      6.1141 ppb        0.80544  13.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               13.9      0.1464 µg/L       0.07408      0.1464 ppb        0.07408  50.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -19.0     -0.4428 µg/L       0.12799     -0.4428 ppb        0.12799  28.90%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 42
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 19:59:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58617.0	58617.0	104	%			19:59:42
1	Al 396.153Radial†	7256.0	6986.0	4849.5	µg/L	4849.5	ppb	19:59:42
1	Ca 317.933Radial†	6123.5	5690.6	4860.8	µg/L	4860.8	ppb	20:00:02
1	Fe 238.204 Radial†	667.2	626.5	4951.5	µg/L	4951.5	ppb	20:00:02
1	K 766.490 Radial†	7829.5	7381.2	4820.8	µg/L	4820.8	ppb	19:59:42
1	Mg 279.077 IEC†	588.8	554.6	4961.1	µg/L	4961.1	ppb	20:00:02
1	Na 589.592 Radial†	33301.2	31623.9	9713.1	µg/L	9713.1	ppb	19:59:42
1	Sr 421.552†	53397.7	51436.4	474.51	µg/L	474.51	ppb	19:59:42
1	Sc 361.383	2068511.8	2068511.8	105.37	%			20:01:05
1	Y 371.029	1423469.8	1423469.8	105.23	%			20:01:05
1	Ag 328.068†	67922.0	64862.9	484.01	µg/L	484.01	ppb	20:01:11
1	As 188.979†	296.0	281.4	503.36	µg/L	503.36	ppb	20:01:31
1	B 249.677†	12790.0	11754.2	477.28	µg/L	477.28	ppb	20:01:11
1	Ba 233.527†	21499.5	20421.1	491.13	µg/L	491.13	ppb	20:01:11
1	Be 313.107†	867694.3	826340.4	490.25	µg/L	490.25	ppb	20:01:05
1	Cd 226.502†	20783.9	19866.6	495.43	µg/L	495.43	ppb	20:01:11
1	Co 228.616†	11539.6	10949.8	495.33	µg/L	495.33	ppb	20:01:11
1	Cr 267.716†	25939.4	24668.1	495.77	µg/L	495.77	ppb	20:01:11
1	Cu 324.752†	80834.9	74172.6	484.85	µg/L	484.85	ppb	20:01:11
1	Mn 257.610†	167548.2	159267.5	499.21	µg/L	499.21	ppb	20:01:05
1	Mo 202.031†	5432.8	5161.4	505.62	µg/L	505.62	ppb	20:01:31
1	Ni 231.604†	10817.5	9954.0	495.67	µg/L	495.67	ppb	20:01:11
1	P 214.914†	1353.6	1269.3	2466.8	µg/L	2466.8	ppb	20:01:31
1	Pb 220.353†	2262.0	2055.8	499.95	µg/L	499.95	ppb	20:01:31
1	S 181.975 Axial†	272.7	239.9	994.69	µg/L	994.69	ppb	20:01:31
1	Sb 206.836†	591.4	538.8	496.84	µg/L	496.84	ppb	20:01:31
1	Se 196.026†	402.1	362.3	516.51	µg/L	516.51	ppb	20:01:31
1	SiO2†	29474.8	26581.5	5246.8	µg/L	5246.8	ppb	20:01:11
1	Si 251.611†	34348.3	32287.6	2454.6	µg/L	2454.6	ppb	20:01:11
1	Sn 189.927†	1273.6	1208.3	509.59	µg/L	509.59	ppb	20:01:31
1	Ti 334.940†	232532.4	220509.7	487.50	µg/L	487.50	ppb	20:01:05
1	Tl 190.801†	380.7	383.7	504.27	µg/L	504.27	ppb	20:01:31
1	U 409.014†	6183.0	5945.1	492.96	µg/L	492.96	ppb	20:01:11
1	V 292.402†	52726.6	50084.9	494.22	µg/L	494.22	ppb	20:01:11
1	Zn 213.857†	22867.3	21167.8	493.14	µg/L	493.14	ppb	20:01:11
2	Sc RADIAL	58636.6	58636.6	104	%			20:00:07
2	Al 396.153Radial†	7235.2	6963.6	4834.1	µg/L	4834.1	ppb	20:00:07
2	Ca 317.933Radial†	6136.1	5700.8	4869.5	µg/L	4869.5	ppb	20:00:28
2	Fe 238.204 Radial†	670.0	629.0	4971.2	µg/L	4971.2	ppb	20:00:28
2	K 766.490 Radial†	7740.8	7293.1	4763.3	µg/L	4763.3	ppb	20:00:07
2	Mg 279.077 IEC†	589.3	554.9	4963.5	µg/L	4963.5	ppb	20:00:28
2	Na 589.592 Radial†	33169.7	31486.4	9670.8	µg/L	9670.8	ppb	20:00:07
2	Sr 421.552†	53167.6	51197.6	472.31	µg/L	472.31	ppb	20:00:07
2	Sc 361.383	2055969.6	2055969.6	104.73	%			20:01:39
2	Y 371.029	1414871.3	1414871.3	104.59	%			20:01:39
2	Ag 328.068†	68170.5	65493.4	488.71	µg/L	488.71	ppb	20:01:44
2	As 188.979†	286.1	273.7	489.56	µg/L	489.56	ppb	20:02:05
2	B 249.677†	12871.2	11905.8	483.46	µg/L	483.46	ppb	20:01:44
2	Ba 233.527†	21540.4	20584.7	495.07	µg/L	495.07	ppb	20:01:44
2	Be 313.107†	866432.8	830159.5	492.52	µg/L	492.52	ppb	20:01:39
2	Cd 226.502†	20792.6	19995.3	498.64	µg/L	498.64	ppb	20:01:44
2	Co 228.616†	11548.2	11024.7	498.71	µg/L	498.71	ppb	20:01:44
2	Cr 267.716†	25975.2	24852.5	499.48	µg/L	499.48	ppb	20:01:44
2	Cu 324.752†	80962.2	74762.1	488.70	µg/L	488.70	ppb	20:01:44
2	Mn 257.610†	167284.8	159986.0	501.46	µg/L	501.46	ppb	20:01:39
2	Mo 202.031†	5294.1	5060.4	495.73	µg/L	495.73	ppb	20:02:05
2	Ni 231.604†	10791.2	9991.5	497.54	µg/L	497.54	ppb	20:01:44
2	P 214.914†	1329.3	1253.9	2435.7	µg/L	2435.7	ppb	20:02:05
2	Pb 220.353†	2213.3	2022.4	491.80	µg/L	491.80	ppb	20:02:05

2	S 181.975 Axial†	269.1	238.0	986.93 µg/L	986.93 ppb	20:02:05
2	Sb 206.836†	582.9	534.0	492.29 µg/L	492.29 ppb	20:02:05
2	Se 196.026†	393.7	356.6	508.59 µg/L	508.59 ppb	20:02:05
2	SiO2†	29657.1	26926.2	5314.9 µg/L	5314.9 ppb	20:01:44
2	Si 251.611†	34634.6	32759.9	2490.5 µg/L	2490.5 ppb	20:01:44
2	Sn 189.927†	1234.0	1177.9	496.78 µg/L	496.78 ppb	20:02:05
2	Ti 334.940†	231981.3	221329.7	489.32 µg/L	489.32 ppb	20:01:39
2	Tl 190.801†	381.4	386.5	507.93 µg/L	507.93 ppb	20:02:05
2	U 409.014†	6098.6	5900.3	489.23 µg/L	489.23 ppb	20:01:44
2	V 292.402†	52826.1	50485.1	498.06 µg/L	498.06 ppb	20:01:44
2	Zn 213.857†	22870.8	21303.6	496.31 µg/L	496.31 ppb	20:01:44
3	Sc RADIAL	59033.7	59033.7	104 %		20:00:33
3	Al 396.153Radial†	7290.5	6969.7	4840.1 µg/L	4840.1 ppb	20:00:33
3	Ca 317.933Radial†	6120.4	5646.0	4822.7 µg/L	4822.7 ppb	20:00:54
3	Fe 238.204 Radial†	666.4	621.2	4908.6 µg/L	4908.6 ppb	20:00:54
3	K 766.490 Radial†	7821.9	7320.6	4781.2 µg/L	4781.2 ppb	20:00:33
3	Mg 279.077 IEC†	587.2	549.1	4910.3 µg/L	4910.3 ppb	20:00:54
3	Na 589.592 Radial†	33485.2	31573.4	9697.6 µg/L	9697.6 ppb	20:00:33
3	Sr 421.552†	53913.2	51566.5	475.71 µg/L	475.71 ppb	20:00:33
3	Sc 361.383	2033065.7	2033065.7	103.56 %		20:02:12
3	Y 371.029	1398835.6	1398835.6	103.41 %		20:02:12
3	Ag 328.068†	63294.2	61518.2	458.88 µg/L	458.88 ppb	20:02:18
3	As 188.979†	245.5	237.5	424.87 µg/L	424.87 ppb	20:02:38
3	B 249.677†	11858.0	11065.9	449.15 µg/L	449.15 ppb	20:02:18
3	Ba 233.527†	19323.7	18676.0	449.14 µg/L	449.14 ppb	20:02:18
3	Be 313.107†	782866.8	758788.6	450.18 µg/L	450.18 ppb	20:02:12
3	Cd 226.502†	18556.4	18059.6	450.32 µg/L	450.32 ppb	20:02:18
3	Co 228.616†	10216.8	9863.3	446.13 µg/L	446.13 ppb	20:02:18
3	Cr 267.716†	22173.2	21460.7	431.32 µg/L	431.32 ppb	20:02:18
3	Cu 324.752†	72319.8	67287.9	439.90 µg/L	439.90 ppb	20:02:18
3	Mn 257.610†	151992.9	147019.7	460.85 µg/L	460.85 ppb	20:02:12
3	Mo 202.031†	4312.9	4169.9	408.53 µg/L	408.53 ppb	20:02:38
3	Ni 231.604†	9615.9	8972.7	446.82 µg/L	446.82 ppb	20:02:18
3	P 214.914†	1099.8	1046.6	2029.2 µg/L	2029.2 ppb	20:02:38
3	Pb 220.353†	1898.6	1742.3	423.60 µg/L	423.60 ppb	20:02:38
3	S 181.975 Axial†	229.2	202.4	839.15 µg/L	839.15 ppb	20:02:38
3	Sb 206.836†	490.6	451.2	415.60 µg/L	415.60 ppb	20:02:38
3	Se 196.026†	342.7	311.6	445.29 µg/L	445.29 ppb	20:02:38
3	SiO2†	27143.6	24818.1	4898.8 µg/L	4898.8 ppb	20:02:18
3	Si 251.611†	31477.2	30083.6	2287.0 µg/L	2287.0 ppb	20:02:18
3	Sn 189.927†	996.2	961.5	405.52 µg/L	405.52 ppb	20:02:38
3	Ti 334.940†	208374.6	201030.6	444.41 µg/L	444.41 ppb	20:02:12
3	Tl 190.801†	320.5	331.9	436.49 µg/L	436.49 ppb	20:02:38
3	U 409.014†	5350.1	5243.1	434.64 µg/L	434.64 ppb	20:02:18
3	V 292.402†	46198.8	44654.1	440.34 µg/L	440.34 ppb	20:02:18
3	Zn 213.857†	20325.7	19092.0	444.73 µg/L	444.73 ppb	20:02:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2052515.7	104.55	%	0.916				0.88%
Sc RADIAL	58762.4	104	%	0.4				0.40%
Y 371.029	1412392.2	104.41	%	0.924				0.89%
Ag 328.068†	63958.2	477.20	µg/L	16.037	477.20	ppb	16.037	3.36%
QC value within limits for Ag 328.068 Recovery = 95.44%								
Al 396.153Radial†	6973.1	4841.2	µg/L	7.74	4841.2	ppb	7.74	0.16%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	264.2	472.59	µg/L	41.905	472.59	ppb	41.905	8.87%
QC value within limits for As 188.979 Recovery = 94.52%								
B 249.677†	11575.3	469.96	µg/L	18.288	469.96	ppb	18.288	3.89%
QC value within limits for B 249.677 Recovery = 93.99%								
Ba 233.527†	19893.9	478.45	µg/L	25.456	478.45	ppb	25.456	5.32%
QC value within limits for Ba 233.527 Recovery = 95.69%								
Be 313.107†	805096.2	477.65	µg/L	23.819	477.65	ppb	23.819	4.99%
QC value within limits for Be 313.107 Recovery = 95.53%								
Ca 317.933Radial†	5679.2	4851.0	µg/L	24.88	4851.0	ppb	24.88	0.51%
QC value within limits for Ca 317.933Radial Recovery = 97.02%								
Cd 226.502†	19307.2	481.46	µg/L	27.019	481.46	ppb	27.019	5.61%
QC value within limits for Cd 226.502 Recovery = 96.29%								
Co 228.616†	10612.6	480.06	µg/L	29.431	480.06	ppb	29.431	6.13%

QC value within limits for Co 228.616 Recovery = 96.01%

Cr 267.716†	23660.4	475.52 µg/L	38.328	475.52 ppb	38.328	8.06%
QC value within limits for Cr 267.716 Recovery = 95.10%						
Cu 324.752†	72074.2	471.15 µg/L	27.129	471.15 ppb	27.129	5.76%
QC value within limits for Cu 324.752 Recovery = 94.23%						
Fe 238.204 Radial†	625.5	4943.8 µg/L	32.02	4943.8 ppb	32.02	0.65%
QC value within limits for Fe 238.204 Radial Recovery = 98.88%						
K 766.490 Radial†	7331.7	4788.4 µg/L	29.43	4788.4 ppb	29.43	0.61%
QC value within limits for K 766.490 Radial Recovery = 95.77%						
Mg 279.077 IEC†	552.9	4944.9 µg/L	30.07	4944.9 ppb	30.07	0.61%
QC value within limits for Mg 279.077 IEC Recovery = 98.90%						
Mn 257.610†	155424.4	487.17 µg/L	22.824	487.17 ppb	22.824	4.68%
QC value within limits for Mn 257.610 Recovery = 97.43%						
Mo 202.031†	4797.2	469.96 µg/L	53.431	469.96 ppb	53.431	11.37%
QC value within limits for Mo 202.031 Recovery = 93.99%						
Na 589.592 Radial†	31561.2	9693.8 µg/L	21.36	9693.8 ppb	21.36	0.22%
QC value within limits for Na 589.592 Radial Recovery = 96.94%						
Ni 231.604†	9639.4	480.01 µg/L	28.762	480.01 ppb	28.762	5.99%
QC value within limits for Ni 231.604 Recovery = 96.00%						
P 214.914†	1189.9	2310.6 µg/L	244.20	2310.6 ppb	244.20	10.57%
QC value within limits for P 214.914 Recovery = 92.42%						
Pb 220.353†	1940.2	471.78 µg/L	41.928	471.78 ppb	41.928	8.89%
QC value within limits for Pb 220.353 Recovery = 94.36%						
S 181.975 Axial†	226.7	940.25 µg/L	87.646	940.25 ppb	87.646	9.32%
QC value within limits for S 181.975 Axial Recovery = 94.03%						
Sb 206.836†	508.0	468.24 µg/L	45.646	468.24 ppb	45.646	9.75%
QC value within limits for Sb 206.836 Recovery = 93.65%						
Se 196.026†	343.5	490.13 µg/L	39.036	490.13 ppb	39.036	7.96%
QC value within limits for Se 196.026 Recovery = 98.03%						
SiO2†	26108.6	5153.5 µg/L	223.20	5153.5 ppb	223.20	4.33%
QC value within limits for SiO2 Recovery = 96.37%						
Si 251.611†	31710.4	2410.7 µg/L	108.59	2410.7 ppb	108.59	4.50%
QC value within limits for Si 251.611 Recovery = 96.43%						
Sn 189.927†	1115.9	470.63 µg/L	56.748	470.63 ppb	56.748	12.06%
QC value within limits for Sn 189.927 Recovery = 94.13%						
Sr 421.552†	51400.1	474.17 µg/L	1.726	474.17 ppb	1.726	0.36%
QC value within limits for Sr 421.552 Recovery = 94.83%						
Ti 334.940†	214290.0	473.74 µg/L	25.417	473.74 ppb	25.417	5.37%
QC value within limits for Ti 334.940 Recovery = 94.75%						
Tl 190.801†	367.4	482.89 µg/L	40.230	482.89 ppb	40.230	8.33%
QC value within limits for Tl 190.801 Recovery = 96.58%						
U 409.014†	5696.1	472.28 µg/L	32.647	472.28 ppb	32.647	6.91%
QC value within limits for U 409.014 Recovery = 94.46%						
V 292.402†	48408.1	477.54 µg/L	32.275	477.54 ppb	32.275	6.76%
QC value within limits for V 292.402 Recovery = 95.51%						
Zn 213.857†	20521.1	478.06 µg/L	28.907	478.06 ppb	28.907	6.05%
QC value within limits for Zn 213.857 Recovery = 95.61%						

All analyte(s) passed QC.

Sequence No.: 43
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 20:02:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57569.4	57569.4	102	%			20:03:20
1	Al 396.153Radial†	-22.6	-29.5	-20.579	µg/L	-20.579	ppb	20:03:20
1	Ca 317.933Radial†	198.2	-16.8	-14.330	µg/L	-14.330	ppb	20:03:40
1	Fe 238.204 Radial†	19.4	2.5	19.506	µg/L	19.506	ppb	20:03:40
1	K 766.490 Radial†	193.2	24.6	16.060	µg/L	16.060	ppb	20:03:20
1	Mg 279.077 IEC†	17.4	4.2	37.678	µg/L	37.678	ppb	20:03:40
1	Na 589.592 Radial†	507.7	26.1	8.0056	µg/L	8.0056	ppb	20:03:20
1	Sr 421.552†	69.4	39.3	0.3627	µg/L	0.3627	ppb	20:03:20
1	Sc 361.383	2028233.3	2028233.3	103.32	%			20:04:43
1	Y 371.029	1400221.9	1400221.9	103.51	%			20:04:43
1	Ag 328.068†	-425.8	-10.5	-0.0759	µg/L	-0.0759	ppb	20:04:48
1	As 188.979†	-0.0	0.4	0.7754	µg/L	0.7754	ppb	20:05:09
1	B 249.677†	384.2	-12.2	-0.5097	µg/L	-0.5097	ppb	20:05:09
1	Ba 233.527†	-8.4	9.0	0.2158	µg/L	0.2158	ppb	20:05:09
1	Be 313.107†	-2721.5	221.5	0.1313	µg/L	0.1313	ppb	20:04:48
1	Cd 226.502†	-138.1	8.0	0.1973	µg/L	0.1973	ppb	20:05:09
1	Co 228.616†	11.2	8.9	0.4024	µg/L	0.4024	ppb	20:05:09
1	Cr 267.716†	-77.7	-24.8	-0.4982	µg/L	-0.4982	ppb	20:04:48
1	Cu 324.752†	2603.6	-23.7	-0.1519	µg/L	-0.1519	ppb	20:04:48
1	Mn 257.610†	-163.1	98.1	0.3084	µg/L	0.3084	ppb	20:05:09
1	Mo 202.031†	7.5	12.6	1.2358	µg/L	1.2358	ppb	20:05:09
1	Ni 231.604†	299.1	-22.9	-1.1403	µg/L	-1.1403	ppb	20:05:09
1	P 214.914†	14.2	-1.6	-3.2353	µg/L	-3.2353	ppb	20:05:09
1	Pb 220.353†	90.8	-3.0	-0.7394	µg/L	-0.7394	ppb	20:05:09
1	S 181.975 Axial†	13.4	-5.9	-24.623	µg/L	-24.623	ppb	20:05:09
1	Sb 206.836†	25.4	2.1	1.9281	µg/L	1.9281	ppb	20:05:09
1	Se 196.026†	24.1	4.0	5.6292	µg/L	5.6292	ppb	20:05:09
1	SiO2†	1495.3	55.8	11.008	µg/L	11.008	ppb	20:04:48
1	Si 251.611†	422.4	98.2	7.4686	µg/L	7.4686	ppb	20:05:09
1	Sn 189.927†	3.5	3.0	1.2550	µg/L	1.2550	ppb	20:05:09
1	Ti 334.940†	384.2	196.9	0.4323	µg/L	0.4323	ppb	20:04:48
1	Tl 190.801†	-27.9	-4.6	-5.9805	µg/L	-5.9805	ppb	20:05:09
1	U 409.014†	2.8	79.8	6.6302	µg/L	6.6302	ppb	20:04:48
1	V 292.402†	-37.2	8.7	0.1027	µg/L	0.1027	ppb	20:04:48
1	Zn 213.857†	546.8	-5.1	-0.1177	µg/L	-0.1177	ppb	20:05:09
2	Sc RADIAL	57517.3	57517.3	102	%			20:03:46
2	Al 396.153Radial†	-0.6	-7.9	-5.5362	µg/L	-5.5362	ppb	20:03:46
2	Ca 317.933Radial†	193.6	-21.1	-17.995	µg/L	-17.995	ppb	20:04:06
2	Fe 238.204 Radial†	17.2	0.3	2.2760	µg/L	2.2760	ppb	20:04:06
2	K 766.490 Radial†	220.4	51.5	33.663	µg/L	33.663	ppb	20:03:46
2	Mg 279.077 IEC†	7.2	-5.8	-51.579	µg/L	-51.579	ppb	20:04:06
2	Na 589.592 Radial†	510.7	29.4	9.0386	µg/L	9.0386	ppb	20:03:46
2	Sr 421.552†	54.5	24.8	0.2285	µg/L	0.2285	ppb	20:03:46
2	Sc 361.383	2037744.1	2037744.1	103.80	%			20:05:15
2	Y 371.029	1408689.0	1408689.0	104.13	%			20:05:15
2	Ag 328.068†	-451.1	-32.9	-0.2433	µg/L	-0.2433	ppb	20:05:20
2	As 188.979†	-1.3	-0.8	-1.5061	µg/L	-1.5061	ppb	20:05:41
2	B 249.677†	373.4	-24.4	-0.9937	µg/L	-0.9937	ppb	20:05:41
2	Ba 233.527†	-11.7	5.8	0.1389	µg/L	0.1389	ppb	20:05:41
2	Be 313.107†	-2676.0	277.7	0.1647	µg/L	0.1647	ppb	20:05:20
2	Cd 226.502†	-133.2	13.4	0.3334	µg/L	0.3334	ppb	20:05:41
2	Co 228.616†	1.8	-0.2	-0.0098	µg/L	-0.0098	ppb	20:05:41
2	Cr 267.716†	-26.9	24.5	0.4922	µg/L	0.4922	ppb	20:05:20
2	Cu 324.752†	2624.5	-15.4	-0.0999	µg/L	-0.0999	ppb	20:05:20
2	Mn 257.610†	-174.3	88.1	0.2782	µg/L	0.2782	ppb	20:05:41
2	Mo 202.031†	-0.9	4.5	0.4383	µg/L	0.4383	ppb	20:05:41
2	Ni 231.604†	325.1	0.9	0.0446	µg/L	0.0446	ppb	20:05:41
2	P 214.914†	14.3	-1.6	-3.1937	µg/L	-3.1937	ppb	20:05:41
2	Pb 220.353†	89.5	-4.7	-1.1490	µg/L	-1.1490	ppb	20:05:41

2	S 181.975 Axial†	14.0	-5.5	-22.637 µg/L	-22.637 ppb	20:05:41
2	Sb 206.836†	15.2	-7.8	-7.1701 µg/L	-7.1701 ppb	20:05:41
2	Se 196.026†	20.1	0.0	0.0726 µg/L	0.0726 ppb	20:05:41
2	SiO2†	1557.2	108.6	21.433 µg/L	21.433 ppb	20:05:20
2	Si 251.611†	433.2	106.7	8.1144 µg/L	8.1144 ppb	20:05:41
2	Sn 189.927†	-0.5	-0.9	-0.3787 µg/L	-0.3787 ppb	20:05:41
2	Ti 334.940†	337.5	150.1	0.3359 µg/L	0.3359 ppb	20:05:20
2	Tl 190.801†	-19.6	3.5	4.5946 µg/L	4.5946 ppb	20:05:41
2	U 409.014†	-41.0	37.6	3.1255 µg/L	3.1255 ppb	20:05:20
2	V 292.402†	-37.8	8.4	0.0896 µg/L	0.0896 ppb	20:05:20
2	Zn 213.857†	536.8	-17.3	-0.4029 µg/L	-0.4029 ppb	20:05:41
3	Sc RADIAL	57101.8	57101.8	101 %		20:04:12
3	Al 396.153Radial†	-30.6	-37.6	-26.198 µg/L	-26.198 ppb	20:04:12
3	Ca 317.933Radial†	202.0	-11.4	-9.7154 µg/L	-9.7154 ppb	20:04:32
3	Fe 238.204 Radial†	16.6	-0.1	-0.8955 µg/L	-0.8955 ppb	20:04:32
3	K 766.490 Radial†	248.0	80.4	52.520 µg/L	52.520 ppb	20:04:12
3	Mg 279.077 IEC†	11.1	-1.9	-16.608 µg/L	-16.608 ppb	20:04:32
3	Na 589.592 Radial†	462.4	-14.7	-4.5060 µg/L	-4.5060 ppb	20:04:12
3	Sr 421.552†	86.8	57.1	0.5266 µg/L	0.5266 ppb	20:04:12
3	Sc 361.383	2024969.7	2024969.7	103.15 %		20:05:47
3	Y 371.029	1398302.4	1398302.4	103.37 %		20:05:47
3	Ag 328.068†	-423.6	-9.1	-0.0674 µg/L	-0.0674 ppb	20:05:53
3	As 188.979†	-1.6	-1.1	-1.9285 µg/L	-1.9285 ppb	20:06:13
3	B 249.677†	379.2	-16.5	-0.6717 µg/L	-0.6717 ppb	20:06:13
3	Ba 233.527†	0.7	17.8	0.4269 µg/L	0.4269 ppb	20:06:13
3	Be 313.107†	-2714.8	223.8	0.1327 µg/L	0.1327 ppb	20:05:53
3	Cd 226.502†	-132.0	13.7	0.3404 µg/L	0.3404 ppb	20:06:13
3	Co 228.616†	-1.2	-3.1	-0.1385 µg/L	-0.1385 ppb	20:06:13
3	Cr 267.716†	-33.0	18.3	0.3686 µg/L	0.3686 ppb	20:05:53
3	Cu 324.752†	2577.7	-44.8	-0.2926 µg/L	-0.2926 ppb	20:05:53
3	Mn 257.610†	-197.2	64.8	0.2036 µg/L	0.2036 ppb	20:06:13
3	Mo 202.031†	6.7	11.8	1.1572 µg/L	1.1572 ppb	20:06:13
3	Ni 231.604†	298.5	-22.9	-1.1431 µg/L	-1.1431 ppb	20:06:13
3	P 214.914†	13.3	-2.5	-4.8521 µg/L	-4.8521 ppb	20:06:13
3	Pb 220.353†	83.9	-9.6	-2.3299 µg/L	-2.3299 ppb	20:06:13
3	S 181.975 Axial†	20.3	0.8	3.2471 µg/L	3.2471 ppb	20:06:13
3	Sb 206.836†	24.6	1.3	1.2371 µg/L	1.2371 ppb	20:06:13
3	Se 196.026†	22.2	2.2	3.1385 µg/L	3.1385 ppb	20:06:13
3	SiO2†	1561.1	121.8	24.043 µg/L	24.043 ppb	20:05:53
3	Si 251.611†	451.8	127.4	9.6851 µg/L	9.6851 ppb	20:06:13
3	Sn 189.927†	2.9	2.4	1.0100 µg/L	1.0100 ppb	20:06:13
3	Ti 334.940†	371.5	185.1	0.4107 µg/L	0.4107 ppb	20:05:53
3	Tl 190.801†	-21.0	2.0	2.6499 µg/L	2.6499 ppb	20:06:13
3	U 409.014†	-27.8	50.1	4.1641 µg/L	4.1641 ppb	20:05:53
3	V 292.402†	-46.3	-0.1	0.0127 µg/L	0.0127 ppb	20:05:53
3	Zn 213.857†	547.9	-3.2	-0.0687 µg/L	-0.0687 ppb	20:06:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2030315.7	103.42	%	0.338				0.33%
Sc RADIAL	57396.2	102	%	0.5				0.45%
Y 371.029	1402404.4	103.67	%	0.409				0.39%
Ag 328.068†	-17.5	-0.1289	µg/L	0.09924	-0.1289	ppb	0.09924	77.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-25.0	-17.437	µg/L	10.6828	-17.437	ppb	10.6828	61.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.8864	µg/L	1.45458	-0.8864	ppb	1.45458	164.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.7	-0.7250	µg/L	0.24636	-0.7250	ppb	0.24636	33.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.8	0.2605	µg/L	0.14916	0.2605	ppb	0.14916	57.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	241.0	0.1429	µg/L	0.01888	0.1429	ppb	0.01888	13.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.4	-14.013	µg/L	4.1488	-14.013	ppb	4.1488	29.61%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.7	0.2904	µg/L	0.08067	0.2904	ppb	0.08067	27.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.9	0.0847	µg/L	0.28258	0.0847	ppb	0.28258	333.70%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.0      0.1209 µg/L       0.53966      0.1209 ppb        0.53966 446.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -27.9     -0.1815 µg/L       0.09969     -0.1815 ppb        0.09969  54.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      6.9622 µg/L      10.97852      6.9622 ppb       10.97852 157.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          52.2      34.081 µg/L       18.2334      34.081 ppb        18.2334  53.50%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.1     -10.170 µg/L       44.9756     -10.170 ppb        44.9756 442.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                83.7      0.2634 µg/L       0.05392      0.2634 ppb        0.05392  20.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.6      0.9437 µg/L       0.43952      0.9437 ppb        0.43952  46.57%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         13.6      4.1794 µg/L       7.53951      4.1794 ppb        7.53951 180.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -15.0     -0.7463 µg/L       0.68489     -0.7463 ppb        0.68489  91.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.9     -3.7603 µg/L       0.94573     -3.7603 ppb        0.94573  25.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.8     -1.4061 µg/L       0.82584     -1.4061 ppb        0.82584  58.73%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -14.671 µg/L       15.5492     -14.671 ppb        15.5492 105.99%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.5     -1.3350 µg/L       5.06517     -1.3350 ppb        5.06517 379.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      2.9468 µg/L       2.78328      2.9468 ppb        2.78328  94.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      95.4      18.828 µg/L        6.8971      18.828 ppb         6.8971  36.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               110.8      8.4227 µg/L       1.13993      8.4227 ppb        1.13993  13.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.5      0.6288 µg/L       0.88102      0.6288 ppb        0.88102 140.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                40.4      0.3726 µg/L       0.14931      0.3726 ppb        0.14931  40.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               177.4      0.3930 µg/L       0.05061      0.3930 ppb        0.05061  12.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.3      0.4213 µg/L       5.62878      0.4213 ppb        5.62878 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 55.8      4.6399 µg/L       1.80015      4.6399 ppb        1.80015  38.80%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  5.7      0.0683 µg/L       0.04863      0.0683 ppb        0.04863  71.18%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -8.5     -0.1964 µg/L       0.18047     -0.1964 ppb        0.18047  91.89%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 52
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 20:35:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57811.0	57811.0	102	%			20:36:24
1	Al 396.153Radial†	7388.1	7212.6	5006.8	µg/L	5006.8	ppb	20:36:24
1	Ca 317.933Radial†	6190.3	5838.2	4986.9	µg/L	4986.9	ppb	20:36:45
1	Fe 238.204 Radial†	686.3	654.2	5170.0	µg/L	5170.0	ppb	20:36:45
1	K 766.490 Radial†	7863.0	7519.2	4910.9	µg/L	4910.9	ppb	20:36:24
1	Mg 279.077 IEC†	595.3	569.0	5089.2	µg/L	5089.2	ppb	20:36:45
1	Na 589.592 Radial†	33730.1	32490.4	9979.2	µg/L	9979.2	ppb	20:36:24
1	Sr 421.552†	54087.0	52827.6	487.34	µg/L	487.34	ppb	20:36:24
1	Sc 361.383	2027762.0	2027762.0	103.29	%			20:37:48
1	Y 371.029	1396189.5	1396189.5	103.21	%			20:37:48
1	Ag 328.068†	68163.2	66391.9	495.42	µg/L	495.42	ppb	20:37:54
1	As 188.979†	292.5	283.7	507.44	µg/L	507.44	ppb	20:38:14
1	B 249.677†	12787.8	11996.0	487.04	µg/L	487.04	ppb	20:37:54
1	Ba 233.527†	21558.1	20888.0	502.36	µg/L	502.36	ppb	20:37:54
1	Be 313.107†	866205.3	841447.6	499.21	µg/L	499.21	ppb	20:37:48
1	Cd 226.502†	20872.3	20348.6	507.44	µg/L	507.44	ppb	20:37:54
1	Co 228.616†	11546.5	11176.4	505.59	µg/L	505.59	ppb	20:37:54
1	Cr 267.716†	26035.2	25255.6	507.58	µg/L	507.58	ppb	20:37:54
1	Cu 324.752†	80912.1	75789.0	495.43	µg/L	495.43	ppb	20:37:54
1	Mn 257.610†	167567.2	162481.4	509.30	µg/L	509.30	ppb	20:37:48
1	Mo 202.031†	5499.7	5329.7	522.12	µg/L	522.12	ppb	20:38:14
1	Ni 231.604†	10852.6	10194.3	507.64	µg/L	507.64	ppb	20:37:54
1	P 214.914†	1371.9	1312.8	2552.0	µg/L	2552.0	ppb	20:38:14
1	Pb 220.353†	2293.7	2129.7	517.93	µg/L	517.93	ppb	20:38:14
1	S 181.975 Axial†	271.3	243.7	1010.7	µg/L	1010.7	ppb	20:38:14
1	Sb 206.836†	610.9	568.9	524.60	µg/L	524.60	ppb	20:38:14
1	Se 196.026†	405.3	373.1	532.19	µg/L	532.19	ppb	20:38:14
1	SiO2†	29562.8	27228.8	5374.6	µg/L	5374.6	ppb	20:37:54
1	Si 251.611†	34535.5	33124.0	2518.1	µg/L	2518.1	ppb	20:37:54
1	Sn 189.927†	1288.7	1247.3	526.02	µg/L	526.02	ppb	20:38:14
1	Ti 334.940†	232020.0	224448.5	496.21	µg/L	496.21	ppb	20:37:48
1	Tl 190.801†	381.3	391.6	514.57	µg/L	514.57	ppb	20:38:14
1	U 409.014†	6126.5	6008.3	498.17	µg/L	498.17	ppb	20:37:54
1	V 292.402†	52790.3	51152.2	504.81	µg/L	504.81	ppb	20:37:54
1	Zn 213.857†	22965.6	21699.1	505.52	µg/L	505.52	ppb	20:37:54
2	Sc RADIAL	57688.1	57688.1	102	%			20:36:50
2	Al 396.153Radial†	7347.5	7188.2	4990.2	µg/L	4990.2	ppb	20:36:50
2	Ca 317.933Radial†	6170.4	5831.6	4981.2	µg/L	4981.2	ppb	20:37:11
2	Fe 238.204 Radial†	679.7	649.0	5129.7	µg/L	5129.7	ppb	20:37:11
2	K 766.490 Radial†	7862.4	7534.9	4921.2	µg/L	4921.2	ppb	20:36:50
2	Mg 279.077 IEC†	586.2	561.2	5019.8	µg/L	5019.8	ppb	20:37:11
2	Na 589.592 Radial†	33629.0	32461.7	9970.4	µg/L	9970.4	ppb	20:36:50
2	Sr 421.552†	53906.2	52763.0	486.75	µg/L	486.75	ppb	20:36:50
2	Sc 361.383	2033079.9	2033079.9	103.56	%			20:38:21
2	Y 371.029	1400966.0	1400966.0	103.56	%			20:38:21
2	Ag 328.068†	68767.8	66803.0	498.49	µg/L	498.49	ppb	20:38:27
2	As 188.979†	289.6	280.1	501.07	µg/L	501.07	ppb	20:38:48
2	B 249.677†	12962.6	12132.4	492.63	µg/L	492.63	ppb	20:38:27
2	Ba 233.527†	21784.9	21052.3	506.31	µg/L	506.31	ppb	20:38:27
2	Be 313.107†	868836.4	841794.7	499.42	µg/L	499.42	ppb	20:38:21
2	Cd 226.502†	21029.8	20447.8	509.92	µg/L	509.92	ppb	20:38:27
2	Co 228.616†	11697.0	11292.5	510.83	µg/L	510.83	ppb	20:38:27
2	Cr 267.716†	26246.5	25393.7	510.36	µg/L	510.36	ppb	20:38:27
2	Cu 324.752†	81619.6	76267.2	498.55	µg/L	498.55	ppb	20:38:27
2	Mn 257.610†	168162.1	162631.5	509.76	µg/L	509.76	ppb	20:38:21
2	Mo 202.031†	5295.6	5118.8	501.46	µg/L	501.46	ppb	20:38:48
2	Ni 231.604†	10929.3	10240.9	509.96	µg/L	509.96	ppb	20:38:27
2	P 214.914†	1331.9	1270.7	2468.1	µg/L	2468.1	ppb	20:38:48
2	Pb 220.353†	2225.5	2057.9	500.41	µg/L	500.41	ppb	20:38:48

2	S 181.975 Axial†	269.1	240.9	999.11 µg/L	999.11 ppb	20:38:48
2	Sb 206.836†	587.1	544.4	501.78 µg/L	501.78 ppb	20:38:48
2	Se 196.026†	397.3	364.3	519.74 µg/L	519.74 ppb	20:38:48
2	SiO2†	29990.1	27566.6	5441.3 µg/L	5441.3 ppb	20:38:27
2	Si 251.611†	34935.7	33422.9	2540.9 µg/L	2540.9 ppb	20:38:27
2	Sn 189.927†	1242.7	1199.6	505.90 µg/L	505.90 ppb	20:38:48
2	Ti 334.940†	232729.3	224545.8	496.43 µg/L	496.43 ppb	20:38:21
2	Tl 190.801†	371.6	381.2	501.12 µg/L	501.12 ppb	20:38:48
2	U 409.014†	6316.5	6176.2	512.13 µg/L	512.13 ppb	20:38:27
2	V 292.402†	53367.3	51575.7	508.79 µg/L	508.79 ppb	20:38:27
2	Zn 213.857†	23160.5	21829.2	508.56 µg/L	508.56 ppb	20:38:27
3	Sc RADIAL	57760.3	57760.3	102 %		20:37:16
3	Al 396.153Radial†	7302.7	7135.4	4955.4 µg/L	4955.4 ppb	20:37:16
3	Ca 317.933Radial†	6153.2	5807.2	4960.4 µg/L	4960.4 ppb	20:37:37
3	Fe 238.204 Radial†	676.8	645.4	5100.0 µg/L	5100.0 ppb	20:37:37
3	K 766.490 Radial†	7938.5	7599.7	4963.5 µg/L	4963.5 ppb	20:37:16
3	Mg 279.077 IEC†	588.7	563.0	5033.9 µg/L	5033.9 ppb	20:37:37
3	Na 589.592 Radial†	33538.1	32331.6	9930.4 µg/L	9930.4 ppb	20:37:16
3	Sr 421.552†	53805.7	52598.9	485.23 µg/L	485.23 ppb	20:37:16
3	Sc 361.383	2033958.3	2033958.3	103.61 %		20:38:55
3	Y 371.029	1400977.3	1400977.3	103.56 %		20:38:55
3	Ag 328.068†	62963.6	61172.3	456.31 µg/L	456.31 ppb	20:39:00
3	As 188.979†	248.4	240.2	429.67 µg/L	429.67 ppb	20:39:21
3	B 249.677†	11744.3	10951.1	444.37 µg/L	444.37 ppb	20:39:00
3	Ba 233.527†	19280.0	18625.6	447.93 µg/L	447.93 ppb	20:39:00
3	Be 313.107†	786101.6	761579.0	451.83 µg/L	451.83 ppb	20:38:55
3	Cd 226.502†	18540.5	18036.5	449.72 µg/L	449.72 ppb	20:39:00
3	Co 228.616†	10152.5	9797.0	443.12 µg/L	443.12 ppb	20:39:00
3	Cr 267.716†	22048.4	21330.9	428.71 µg/L	428.71 ppb	20:39:00
3	Cu 324.752†	71642.8	66603.9	435.46 µg/L	435.46 ppb	20:39:00
3	Mn 257.610†	152739.1	147675.5	462.92 µg/L	462.92 ppb	20:38:55
3	Mo 202.031†	4325.4	4180.1	409.54 µg/L	409.54 ppb	20:39:21
3	Ni 231.604†	9564.0	8918.6	444.13 µg/L	444.13 ppb	20:39:00
3	P 214.914†	1113.3	1059.1	2054.4 µg/L	2054.4 ppb	20:39:21
3	Pb 220.353†	1908.3	1750.9	425.71 µg/L	425.71 ppb	20:39:21
3	S 181.975 Axial†	235.9	208.8	865.74 µg/L	865.74 ppb	20:39:21
3	Sb 206.836†	489.0	449.5	414.04 µg/L	414.04 ppb	20:39:21
3	Se 196.026†	343.4	312.2	446.46 µg/L	446.46 ppb	20:39:21
3	SiO2†	26970.8	24639.8	4863.6 µg/L	4863.6 ppb	20:39:00
3	Si 251.611†	31321.6	29920.1	2274.6 µg/L	2274.6 ppb	20:39:00
3	Sn 189.927†	1005.3	969.9	409.06 µg/L	409.06 ppb	20:39:21
3	Ti 334.940†	209022.0	201567.2	445.59 µg/L	445.59 ppb	20:38:55
3	Tl 190.801†	324.2	335.3	441.01 µg/L	441.01 ppb	20:39:21
3	U 409.014†	5266.4	5160.0	427.71 µg/L	427.71 ppb	20:39:00
3	V 292.402†	45851.9	44299.7	436.90 µg/L	436.90 ppb	20:39:00
3	Zn 213.857†	20248.2	19008.5	442.78 µg/L	442.78 ppb	20:39:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2031600.1	103.49	%	0.171				0.17%
Sc RADIAL	57753.1	102	%	0.1				0.11%
Y 371.029	1399377.6	103.45	%	0.204				0.20%
Ag 328.068†	64789.1	483.41	µg/L	23.516	483.41	ppb	23.516	4.86%
QC value within limits for Ag 328.068 Recovery = 96.68%								
Al 396.153Radial†	7178.8	4984.1	µg/L	26.23	4984.1	ppb	26.23	0.53%
QC value within limits for Al 396.153Radial Recovery = 99.68%								
As 188.979†	268.0	479.39	µg/L	43.175	479.39	ppb	43.175	9.01%
QC value within limits for As 188.979 Recovery = 95.88%								
B 249.677†	11693.1	474.68	µg/L	26.400	474.68	ppb	26.400	5.56%
QC value within limits for B 249.677 Recovery = 94.94%								
Ba 233.527†	20188.6	485.53	µg/L	32.628	485.53	ppb	32.628	6.72%
QC value within limits for Ba 233.527 Recovery = 97.11%								
Be 313.107†	814940.4	483.49	µg/L	27.416	483.49	ppb	27.416	5.67%
QC value within limits for Be 313.107 Recovery = 96.70%								
Ca 317.933Radial†	5825.7	4976.2	µg/L	13.94	4976.2	ppb	13.94	0.28%
QC value within limits for Ca 317.933Radial Recovery = 99.52%								
Cd 226.502†	19610.9	489.02	µg/L	34.065	489.02	ppb	34.065	6.97%
QC value within limits for Cd 226.502 Recovery = 97.80%								
Co 228.616†	10755.3	486.52	µg/L	37.669	486.52	ppb	37.669	7.74%

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   QC value within limits for Co 228.616  Recovery = 97.30%
Cr 267.716†            23993.4      482.21 µg/L        46.358      482.21 ppb        46.358   9.61%
   QC value within limits for Cr 267.716  Recovery = 96.44%
Cu 324.752†            72886.7      476.48 µg/L        35.555      476.48 ppb        35.555   7.46%
   QC value within limits for Cu 324.752  Recovery = 95.30%
Fe 238.204 Radial†       649.5      5133.2 µg/L         35.15      5133.2 ppb         35.15   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.66%
K 766.490 Radial†       7551.3      4931.9 µg/L         27.89      4931.9 ppb         27.89   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 98.64%
Mg 279.077 IEC†          564.4      5047.6 µg/L         36.69      5047.6 ppb         36.69   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.95%
Mn 257.610†           157596.1      494.00 µg/L        26.909      494.00 ppb        26.909   5.45%
   QC value within limits for Mn 257.610  Recovery = 98.80%
Mo 202.031†             4876.2      477.70 µg/L        59.931      477.70 ppb        59.931  12.55%
   QC value within limits for Mo 202.031  Recovery = 95.54%
Na 589.592 Radial†     32427.9      9960.0 µg/L         26.00      9960.0 ppb         26.00   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.60%
Ni 231.604†             9784.6      487.24 µg/L        37.359      487.24 ppb        37.359   7.67%
   QC value within limits for Ni 231.604  Recovery = 97.45%
P 214.914†              1214.2      2358.2 µg/L        266.40      2358.2 ppb        266.40  11.30%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†             1979.5      481.35 µg/L        48.976      481.35 ppb        48.976  10.17%
   QC value within limits for Pb 220.353  Recovery = 96.27%
S 181.975 Axial†         231.1      958.52 µg/L        80.559      958.52 ppb        80.559   8.40%
   QC value within limits for S 181.975 Axial  Recovery = 95.85%
Sb 206.836†              520.9      480.14 µg/L        58.372      480.14 ppb        58.372  12.16%
   QC value within limits for Sb 206.836  Recovery = 96.03%
Se 196.026†              349.9      499.46 µg/L        46.321      499.46 ppb        46.321   9.27%
   QC value within limits for Se 196.026  Recovery = 99.89%
SiO2†                  26478.4      5226.5 µg/L        316.05      5226.5 ppb        316.05   6.05%
   QC value within limits for SiO2  Recovery = 97.74%
Si 251.611†            32155.7      2444.5 µg/L        147.62      2444.5 ppb        147.62   6.04%
   QC value within limits for Si 251.611  Recovery = 97.78%
Sn 189.927†             1138.9      480.33 µg/L        62.530      480.33 ppb        62.530  13.02%
   QC value within limits for Sn 189.927  Recovery = 96.07%
Sr 421.552†            52729.8      486.44 µg/L         1.088      486.44 ppb         1.088   0.22%
   QC value within limits for Sr 421.552  Recovery = 97.29%
Ti 334.940†           216853.8      479.41 µg/L        29.286      479.41 ppb        29.286   6.11%
   QC value within limits for Ti 334.940  Recovery = 95.88%
Tl 190.801†              369.4      485.57 µg/L        39.170      485.57 ppb        39.170   8.07%
   QC value within limits for Tl 190.801  Recovery = 97.11%
U 409.014†              5781.5      479.34 µg/L        45.254      479.34 ppb        45.254   9.44%
   QC value within limits for U 409.014  Recovery = 95.87%
V 292.402†             49009.2      483.50 µg/L        40.407      483.50 ppb        40.407   8.36%
   QC value within limits for V 292.402  Recovery = 96.70%
Zn 213.857†            20845.6      485.62 µg/L        37.132      485.62 ppb        37.132   7.65%
   QC value within limits for Zn 213.857  Recovery = 97.12%
All analyte(s) passed QC.
```

Sequence No.: 53
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 20:39:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57162.5	57162.5	101	%			20:40:03
1	Al 396.153Radial†	-20.6	-27.7	-19.312	µg/L	-19.312	ppb	20:40:03
1	Ca 317.933Radial†	195.3	-18.2	-15.572	µg/L	-15.572	ppb	20:40:24
1	Fe 238.204 Radial†	18.3	1.6	12.247	µg/L	12.247	ppb	20:40:24
1	K 766.490 Radial†	190.9	23.7	15.502	µg/L	15.502	ppb	20:40:03
1	Mg 279.077 IEC†	9.0	-3.9	-34.969	µg/L	-34.969	ppb	20:40:24
1	Na 589.592 Radial†	476.5	-1.2	-0.3760	µg/L	-0.3760	ppb	20:40:03
1	Sr 421.552†	42.5	13.2	0.1218	µg/L	0.1218	ppb	20:40:03
1	Sc 361.383	2005809.0	2005809.0	102.17	%			20:41:26
1	Y 371.029	1386566.9	1386566.9	102.50	%			20:41:26
1	Ag 328.068†	-356.9	52.3	0.3879	µg/L	0.3879	ppb	20:41:31
1	As 188.979†	-5.8	-5.3	-9.4245	µg/L	-9.4245	ppb	20:41:52
1	B 249.677†	364.0	-27.9	-1.1423	µg/L	-1.1423	ppb	20:41:52
1	Ba 233.527†	-8.2	9.1	0.2179	µg/L	0.2179	ppb	20:41:52
1	Be 313.107†	-2726.8	187.0	0.1108	µg/L	0.1108	ppb	20:41:31
1	Cd 226.502†	-147.9	-3.1	-0.0778	µg/L	-0.0778	ppb	20:41:52
1	Co 228.616†	7.1	5.0	0.2268	µg/L	0.2268	ppb	20:41:52
1	Cr 267.716†	-43.6	7.7	0.1543	µg/L	0.1543	ppb	20:41:31
1	Cu 324.752†	2639.9	39.9	0.2624	µg/L	0.2624	ppb	20:41:31
1	Mn 257.610†	-151.5	107.7	0.3403	µg/L	0.3403	ppb	20:41:52
1	Mo 202.031†	6.4	11.6	1.1391	µg/L	1.1391	ppb	20:41:52
1	Ni 231.604†	316.5	-2.6	-0.1301	µg/L	-0.1301	ppb	20:41:52
1	P 214.914†	12.1	-3.5	-7.0029	µg/L	-7.0029	ppb	20:41:52
1	Pb 220.353†	81.5	-11.1	-2.7059	µg/L	-2.7059	ppb	20:41:52
1	S 181.975 Axial†	13.5	-5.7	-23.814	µg/L	-23.814	ppb	20:41:52
1	Sb 206.836†	24.3	1.2	1.1646	µg/L	1.1646	ppb	20:41:52
1	Se 196.026†	7.0	-12.5	-17.428	µg/L	-17.428	ppb	20:41:52
1	SiO2†	1501.0	77.5	15.292	µg/L	15.292	ppb	20:41:31
1	Si 251.611†	421.6	102.0	7.7577	µg/L	7.7577	ppb	20:41:52
1	Sn 189.927†	1.5	1.1	0.4747	µg/L	0.4747	ppb	20:41:52
1	Ti 334.940†	398.8	215.3	0.4788	µg/L	0.4788	ppb	20:41:31
1	Tl 190.801†	-25.8	-2.8	-3.6663	µg/L	-3.6663	ppb	20:41:52
1	U 409.014†	-80.7	-1.9	-0.1586	µg/L	-0.1586	ppb	20:41:31
1	V 292.402†	-54.6	-8.7	-0.0740	µg/L	-0.0740	ppb	20:41:31
1	Zn 213.857†	530.1	-15.6	-0.3645	µg/L	-0.3645	ppb	20:41:52
2	Sc RADIAL	57110.3	57110.3	101	%			20:40:29
2	Al 396.153Radial†	-14.1	-21.4	-14.870	µg/L	-14.870	ppb	20:40:29
2	Ca 317.933Radial†	198.8	-14.6	-12.455	µg/L	-12.455	ppb	20:40:49
2	Fe 238.204 Radial†	16.0	-0.7	-5.6974	µg/L	-5.6974	ppb	20:40:49
2	K 766.490 Radial†	221.1	53.7	35.087	µg/L	35.087	ppb	20:40:29
2	Mg 279.077 IEC†	11.7	-1.2	-10.895	µg/L	-10.895	ppb	20:40:49
2	Na 589.592 Radial†	429.7	-47.1	-14.471	µg/L	-14.471	ppb	20:40:29
2	Sr 421.552†	18.0	-11.0	-0.1015	µg/L	-0.1015	ppb	20:40:29
2	Sc 361.383	2018163.8	2018163.8	102.80	%			20:41:58
2	Y 371.029	1394669.2	1394669.2	103.10	%			20:41:58
2	Ag 328.068†	-380.5	31.5	0.2331	µg/L	0.2331	ppb	20:42:03
2	As 188.979†	-3.5	-2.9	-5.2309	µg/L	-5.2309	ppb	20:42:24
2	B 249.677†	356.6	-37.3	-1.5164	µg/L	-1.5164	ppb	20:42:24
2	Ba 233.527†	0.7	17.8	0.4272	µg/L	0.4272	ppb	20:42:24
2	Be 313.107†	-2645.1	282.8	0.1677	µg/L	0.1677	ppb	20:42:03
2	Cd 226.502†	-142.5	3.0	0.0759	µg/L	0.0759	ppb	20:42:24
2	Co 228.616†	8.4	6.3	0.2840	µg/L	0.2840	ppb	20:42:24
2	Cr 267.716†	-35.6	15.8	0.3172	µg/L	0.3172	ppb	20:42:03
2	Cu 324.752†	2611.1	-3.9	-0.0261	µg/L	-0.0261	ppb	20:42:03
2	Mn 257.610†	-153.4	106.8	0.3340	µg/L	0.3340	ppb	20:42:24
2	Mo 202.031†	1.6	6.9	0.6745	µg/L	0.6745	ppb	20:42:24
2	Ni 231.604†	310.9	-9.9	-0.4961	µg/L	-0.4961	ppb	20:42:24
2	P 214.914†	14.4	-1.3	-2.5139	µg/L	-2.5139	ppb	20:42:24
2	Pb 220.353†	85.6	-7.7	-1.8763	µg/L	-1.8763	ppb	20:42:24

2	S 181.975 Axial†	16.1	-3.2	-13.393 µg/L	-13.393 ppb	20:42:24
2	Sb 206.836†	24.8	1.7	1.5353 µg/L	1.5353 ppb	20:42:24
2	Se 196.026†	18.4	-1.4	-1.9764 µg/L	-1.9764 ppb	20:42:24
2	SiO2†	1495.4	63.0	12.440 µg/L	12.440 ppb	20:42:03
2	Si 251.611†	417.9	95.9	7.2895 µg/L	7.2895 ppb	20:42:24
2	Sn 189.927†	7.5	6.9	2.9027 µg/L	2.9027 ppb	20:42:24
2	Ti 334.940†	363.4	178.5	0.3955 µg/L	0.3955 ppb	20:42:03
2	Tl 190.801†	-20.3	2.6	3.4259 µg/L	3.4259 ppb	20:42:24
2	U 409.014†	-48.9	29.5	2.4528 µg/L	2.4528 ppb	20:42:03
2	V 292.402†	-44.8	1.2	0.0192 µg/L	0.0192 ppb	20:42:03
2	Zn 213.857†	537.2	-11.8	-0.2740 µg/L	-0.2740 ppb	20:42:24
3	Sc RADIAL	56287.1	56287.1	99.6 %		20:40:55
3	Al 396.153Radial†	-17.5	-24.9	-17.369 µg/L	-17.369 ppb	20:40:55
3	Ca 317.933Radial†	205.6	-4.9	-4.1718 µg/L	-4.1718 ppb	20:41:15
3	Fe 238.204 Radial†	18.7	2.2	17.059 µg/L	17.059 ppb	20:41:15
3	K 766.490 Radial†	216.2	52.0	33.972 µg/L	33.972 ppb	20:40:55
3	Mg 279.077 IEC†	14.3	1.5	13.643 µg/L	13.643 ppb	20:41:15
3	Na 589.592 Radial†	474.9	4.5	1.3843 µg/L	1.3843 ppb	20:40:55
3	Sr 421.552†	69.4	40.8	0.3766 µg/L	0.3766 ppb	20:40:55
3	Sc 361.383	2011137.2	2011137.2	102.45 %		20:42:30
3	Y 371.029	1391137.6	1391137.6	102.84 %		20:42:30
3	Ag 328.068†	-401.5	9.7	0.0756 µg/L	0.0756 ppb	20:42:35
3	As 188.979†	-0.8	-0.3	-0.5665 µg/L	-0.5665 ppb	20:42:56
3	B 249.677†	346.6	-45.8	-1.8768 µg/L	-1.8768 ppb	20:42:56
3	Ba 233.527†	-8.1	9.2	0.2209 µg/L	0.2209 ppb	20:42:56
3	Be 313.107†	-2811.5	111.4	0.0659 µg/L	0.0659 ppb	20:42:35
3	Cd 226.502†	-144.9	0.2	0.0027 µg/L	0.0027 ppb	20:42:56
3	Co 228.616†	2.5	0.5	0.0230 µg/L	0.0230 ppb	20:42:56
3	Cr 267.716†	-35.3	16.0	0.3209 µg/L	0.3209 ppb	20:42:35
3	Cu 324.752†	2596.5	-9.2	-0.0576 µg/L	-0.0576 ppb	20:42:35
3	Mn 257.610†	-144.2	115.3	0.3628 µg/L	0.3628 ppb	20:42:56
3	Mo 202.031†	5.0	10.2	1.0037 µg/L	1.0037 ppb	20:42:56
3	Ni 231.604†	304.8	-14.8	-0.7372 µg/L	-0.7372 ppb	20:42:56
3	P 214.914†	12.9	-2.8	-5.4792 µg/L	-5.4792 ppb	20:42:56
3	Pb 220.353†	85.3	-7.7	-1.8682 µg/L	-1.8682 ppb	20:42:56
3	S 181.975 Axial†	20.2	0.8	3.1941 µg/L	3.1941 ppb	20:42:56
3	Sb 206.836†	18.9	-4.0	-3.6766 µg/L	-3.6766 ppb	20:42:56
3	Se 196.026†	18.1	-1.7	-2.3416 µg/L	-2.3416 ppb	20:42:56
3	SiO2†	1495.2	67.9	13.403 µg/L	13.403 ppb	20:42:35
3	Si 251.611†	434.6	113.6	8.6363 µg/L	8.6363 ppb	20:42:56
3	Sn 189.927†	2.2	1.8	0.7385 µg/L	0.7385 ppb	20:42:56
3	Ti 334.940†	476.2	289.8	0.6400 µg/L	0.6400 ppb	20:42:35
3	Tl 190.801†	-22.5	0.4	0.5912 µg/L	0.5912 ppb	20:42:56
3	U 409.014†	-60.8	17.7	1.4714 µg/L	1.4714 ppb	20:42:35
3	V 292.402†	-1.0	43.8	0.4391 µg/L	0.4391 ppb	20:42:35
3	Zn 213.857†	528.9	-18.1	-0.4235 µg/L	-0.4235 ppb	20:42:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2011703.4	102.47	%	0.316				0.31%
Sc RADIAL	56853.3	101	%	0.9				0.86%
Y 371.029	1390791.2	102.81	%	0.300				0.29%
Ag 328.068†	31.2	0.2322	µg/L	0.15616	0.2322	ppb	0.15616	67.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-24.7	-17.184	µg/L	2.2266	-17.184	ppb	2.2266	12.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-5.0740	µg/L	4.43112	-5.0740	ppb	4.43112	87.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-37.0	-1.5118	µg/L	0.36725	-1.5118	ppb	0.36725	24.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.0	0.2887	µg/L	0.11995	0.2887	ppb	0.11995	41.55%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.7	0.1148	µg/L	0.05103	0.1148	ppb	0.05103	44.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-12.6	-10.733	µg/L	5.8919	-10.733	ppb	5.8919	54.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	0.1	0.0002	µg/L	0.07690	0.0002	ppb	0.07690	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.9	0.1779	µg/L	0.13721	0.1779	ppb	0.13721	77.12%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                13.1      0.2641 µg/L       0.09516      0.2641 ppb        0.09516  36.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 9.0      0.0596 µg/L       0.17639      0.0596 ppb        0.17639 296.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.0      7.8695 µg/L      11.99309      7.8695 ppb       11.99309 152.40%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          43.2      28.187 µg/L       10.9995      28.187 ppb        10.9995  39.02%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2     -10.740 µg/L       24.3062     -10.740 ppb        24.3062 226.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               109.9      0.3457 µg/L       0.01513      0.3457 ppb        0.01513   4.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.6      0.9391 µg/L       0.23895      0.9391 ppb        0.23895  25.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -14.6     -4.4874 µg/L       8.69036     -4.4874 ppb        8.69036 193.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.1     -0.4545 µg/L       0.30571     -0.4545 ppb        0.30571  67.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -4.9987 µg/L       2.28274     -4.9987 ppb        2.28274  45.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.8     -2.1501 µg/L       0.48133     -2.1501 ppb        0.48133  22.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.7     -11.337 µg/L       13.6207     -11.337 ppb        13.6207 120.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.4     -0.3256 µg/L       2.90798     -0.3256 ppb        2.90798 893.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.2     -7.2486 µg/L       8.81736     -7.2486 ppb        8.81736 121.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      69.5      13.712 µg/L        1.4510      13.712 ppb         1.4510  10.58%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               103.8      7.8945 µg/L       0.68372      7.8945 ppb        0.68372   8.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.3      1.3720 µg/L       1.33219      1.3720 ppb        1.33219  97.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                14.3      0.1323 µg/L       0.23923      0.1323 ppb        0.23923 180.85%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               227.9      0.5048 µg/L       0.12431      0.5048 ppb        0.12431  24.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.1      0.1169 µg/L       3.56976      0.1169 ppb        3.56976 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 15.1      1.2552 µg/L       1.31907      1.2552 ppb        1.31907 105.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.1      0.1281 µg/L       0.27331      0.1281 ppb        0.27331 213.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -15.2     -0.3540 µg/L       0.07531     -0.3540 ppb        0.07531  21.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 21:08:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58780.4	58780.4	104	%			21:08:58
1	Al 396.153Radial†	7195.1	6908.1	4795.0	µg/L	4795.0	ppb	21:08:58
1	Ca 317.933Radial†	6074.4	5627.0	4806.5	µg/L	4806.5	ppb	21:09:18
1	Fe 238.204 Radial†	666.1	623.6	4928.9	µg/L	4928.9	ppb	21:09:18
1	K 766.490 Radial†	7823.5	7354.4	4803.3	µg/L	4803.3	ppb	21:08:58
1	Mg 279.077 IEC†	587.1	551.5	4933.1	µg/L	4933.1	ppb	21:09:18
1	Na 589.592 Radial†	33229.4	31465.6	9664.4	µg/L	9664.4	ppb	21:08:58
1	Sr 421.552†	53405.2	51300.6	473.26	µg/L	473.26	ppb	21:08:58
1	Sc 361.383	2031693.4	2031693.4	103.49	%			21:10:22
1	Y 371.029	1400531.0	1400531.0	103.53	%			21:10:22
1	Ag 328.068†	67476.4	65600.6	489.51	µg/L	489.51	ppb	21:10:27
1	As 188.979†	292.3	282.9	506.06	µg/L	506.06	ppb	21:10:48
1	B 249.677†	12687.3	11875.0	482.23	µg/L	482.23	ppb	21:10:27
1	Ba 233.527†	21301.5	20599.6	495.43	µg/L	495.43	ppb	21:10:27
1	Be 313.107†	857576.3	831487.1	493.30	µg/L	493.30	ppb	21:10:22
1	Cd 226.502†	20668.3	20112.4	501.57	µg/L	501.57	ppb	21:10:27
1	Co 228.616†	11438.4	11050.4	499.89	µg/L	499.89	ppb	21:10:27
1	Cr 267.716†	25764.0	24944.8	501.33	µg/L	501.33	ppb	21:10:27
1	Cu 324.752†	80279.0	75025.7	490.41	µg/L	490.41	ppb	21:10:27
1	Mn 257.610†	165571.7	160239.4	502.25	µg/L	502.25	ppb	21:10:22
1	Mo 202.031†	5439.6	5261.4	515.41	µg/L	515.41	ppb	21:10:48
1	Ni 231.604†	10750.1	10074.9	501.70	µg/L	501.70	ppb	21:10:27
1	P 214.914†	1349.1	1288.2	2503.9	µg/L	2503.9	ppb	21:10:48
1	Pb 220.353†	2254.8	2087.7	507.72	µg/L	507.72	ppb	21:10:48
1	S 181.975 Axial†	277.5	249.2	1033.4	µg/L	1033.4	ppb	21:10:48
1	Sb 206.836†	587.9	545.6	503.19	µg/L	503.19	ppb	21:10:48
1	Se 196.026†	400.3	367.5	523.81	µg/L	523.81	ppb	21:10:48
1	SiO2†	29116.0	26741.7	5278.5	µg/L	5278.5	ppb	21:10:27
1	Si 251.611†	33907.1	32452.1	2467.1	µg/L	2467.1	ppb	21:10:27
1	Sn 189.927†	1278.1	1234.6	520.67	µg/L	520.67	ppb	21:10:48
1	Ti 334.940†	229666.3	221739.6	490.22	µg/L	490.22	ppb	21:10:22
1	Tl 190.801†	374.5	384.2	504.96	µg/L	504.96	ppb	21:10:48
1	U 409.014†	6113.1	5983.9	496.19	µg/L	496.19	ppb	21:10:27
1	V 292.402†	52349.3	50627.2	499.60	µg/L	499.60	ppb	21:10:27
1	Zn 213.857†	22683.3	21383.2	498.16	µg/L	498.16	ppb	21:10:27
2	Sc RADIAL	57808.7	57808.7	102	%			21:09:24
2	Al 396.153Radial†	7047.8	6880.4	4776.2	µg/L	4776.2	ppb	21:09:24
2	Ca 317.933Radial†	6096.5	5746.7	4908.7	µg/L	4908.7	ppb	21:09:44
2	Fe 238.204 Radial†	663.6	632.0	4994.7	µg/L	4994.7	ppb	21:09:44
2	K 766.490 Radial†	7642.6	7304.0	4770.4	µg/L	4770.4	ppb	21:09:24
2	Mg 279.077 IEC†	579.2	553.3	4948.6	µg/L	4948.6	ppb	21:09:44
2	Na 589.592 Radial†	32775.0	31558.4	9692.9	µg/L	9692.9	ppb	21:09:24
2	Sr 421.552†	52410.5	51191.2	472.25	µg/L	472.25	ppb	21:09:24
2	Sc 361.383	2049495.0	2049495.0	104.40	%			21:10:55
2	Y 371.029	1411660.7	1411660.7	104.35	%			21:10:55
2	Ag 328.068†	67550.5	65105.2	485.82	µg/L	485.82	ppb	21:11:01
2	As 188.979†	289.6	277.9	497.13	µg/L	497.13	ppb	21:11:21
2	B 249.677†	12725.6	11805.1	479.34	µg/L	479.34	ppb	21:11:01
2	Ba 233.527†	21349.4	20466.7	492.23	µg/L	492.23	ppb	21:11:01
2	Be 313.107†	866033.8	832390.8	493.84	µg/L	493.84	ppb	21:10:55
2	Cd 226.502†	20727.2	19995.3	498.64	µg/L	498.64	ppb	21:11:01
2	Co 228.616†	11460.7	10975.7	496.49	µg/L	496.49	ppb	21:11:01
2	Cr 267.716†	25871.8	24831.8	499.06	µg/L	499.06	ppb	21:11:01
2	Cu 324.752†	80404.8	74472.4	486.81	µg/L	486.81	ppb	21:11:01
2	Mn 257.610†	167118.2	160331.1	502.55	µg/L	502.55	ppb	21:10:55
2	Mo 202.031†	5254.1	5038.0	493.54	µg/L	493.54	ppb	21:11:21
2	Ni 231.604†	10763.2	9997.2	497.83	µg/L	497.83	ppb	21:11:01
2	P 214.914†	1302.2	1232.0	2392.5	µg/L	2392.5	ppb	21:11:21
2	Pb 220.353†	2211.3	2027.1	492.93	µg/L	492.93	ppb	21:11:21

2	S 181.975 Axial†	268.4	238.1	987.50 µg/L	987.50 ppb	21:11:21
2	Sb 206.836†	582.5	535.4	493.50 µg/L	493.50 ppb	21:11:21
2	Se 196.026†	387.4	351.8	501.93 µg/L	501.93 ppb	21:11:21
2	SiO2†	29211.0	26588.3	5248.2 µg/L	5248.2 ppb	21:11:01
2	Si 251.611†	34096.5	32348.9	2459.2 µg/L	2459.2 ppb	21:11:01
2	Sn 189.927†	1232.7	1180.4	497.82 µg/L	497.82 ppb	21:11:21
2	Ti 334.940†	231940.6	221990.5	490.78 µg/L	490.78 ppb	21:10:55
2	Tl 190.801†	370.0	376.8	495.24 µg/L	495.24 ppb	21:11:21
2	U 409.014†	6104.7	5924.5	491.24 µg/L	491.24 ppb	21:11:01
2	V 292.402†	52450.2	50284.5	496.09 µg/L	496.09 ppb	21:11:01
2	Zn 213.857†	22753.7	21260.4	495.30 µg/L	495.30 ppb	21:11:01
3	Sc RADIAL	57645.3	57645.3	102 %		21:09:50
3	Al 396.153Radial†	7101.7	6952.7	4828.5 µg/L	4828.5 ppb	21:09:50
3	Ca 317.933Radial†	6127.9	5794.4	4949.5 µg/L	4949.5 ppb	21:10:10
3	Fe 238.204 Radial†	665.9	636.0	5025.6 µg/L	5025.6 ppb	21:10:10
3	K 766.490 Radial†	7687.0	7368.7	4812.6 µg/L	4812.6 ppb	21:09:50
3	Mg 279.077 IEC†	588.9	564.4	5046.2 µg/L	5046.2 ppb	21:10:10
3	Na 589.592 Radial†	32797.2	31670.9	9727.5 µg/L	9727.5 ppb	21:09:50
3	Sr 421.552†	52594.3	51516.6	475.25 µg/L	475.25 ppb	21:09:50
3	Sc 361.383	2043330.2	2043330.2	104.09 %		21:11:28
3	Y 371.029	1408836.0	1408836.0	104.15 %		21:11:28
3	Ag 328.068†	61712.7	59691.8	445.28 µg/L	445.28 ppb	21:11:34
3	As 188.979†	240.0	231.0	413.29 µg/L	413.29 ppb	21:11:54
3	B 249.677†	11528.4	10691.7	433.82 µg/L	433.82 ppb	21:11:34
3	Ba 233.527†	18793.6	18072.9	434.64 µg/L	434.64 ppb	21:11:34
3	Be 313.107†	773952.6	746427.0	442.84 µg/L	442.84 ppb	21:11:28
3	Cd 226.502†	18104.4	17535.4	437.21 µg/L	437.21 ppb	21:11:34
3	Co 228.616†	9919.4	9528.1	430.96 µg/L	430.96 ppb	21:11:34
3	Cr 267.716†	21628.5	20829.9	418.64 µg/L	418.64 ppb	21:11:34
3	Cu 324.752†	70293.2	64990.1	424.92 µg/L	424.92 ppb	21:11:34
3	Mn 257.610†	150318.2	144673.6	453.51 µg/L	453.51 ppb	21:11:28
3	Mo 202.031†	4250.4	4088.9	400.60 µg/L	400.60 ppb	21:11:54
3	Ni 231.604†	9317.9	8639.7	430.24 µg/L	430.24 ppb	21:11:34
3	P 214.914†	1076.0	1018.4	1974.8 µg/L	1974.8 ppb	21:11:54
3	Pb 220.353†	1875.8	1711.2	416.06 µg/L	416.06 ppb	21:11:54
3	S 181.975 Axial†	231.3	203.3	842.98 µg/L	842.98 ppb	21:11:54
3	Sb 206.836†	484.5	443.0	408.08 µg/L	408.08 ppb	21:11:54
3	Se 196.026†	334.8	302.4	432.47 µg/L	432.47 ppb	21:11:54
3	SiO2†	26265.0	23842.4	4706.2 µg/L	4706.2 ppb	21:11:34
3	Si 251.611†	30430.4	28925.2	2199.0 µg/L	2199.0 ppb	21:11:34
3	Sn 189.927†	990.4	951.2	401.15 µg/L	401.15 ppb	21:11:54
3	Ti 334.940†	205711.5	197461.3	436.51 µg/L	436.51 ppb	21:11:28
3	Tl 190.801†	323.8	333.4	438.43 µg/L	438.43 ppb	21:11:54
3	U 409.014†	5199.4	5072.4	420.44 µg/L	420.44 ppb	21:11:34
3	V 292.402†	45058.2	43334.2	427.38 µg/L	427.38 ppb	21:11:34
3	Zn 213.857†	19790.2	18479.0	430.43 µg/L	430.43 ppb	21:11:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2041506.2	103.99	%	0.460				0.44%
Sc RADIAL	58078.1	103	%	1.1				1.06%
Y 371.029	1407009.2	104.01	%	0.428				0.41%
Ag 328.068†	63465.9	473.53	µg/L	24.543	473.53	ppb	24.543	5.18%
QC value within limits for Ag 328.068 Recovery = 94.71%								
Al 396.153Radial†	6913.7	4799.9	µg/L	26.45	4799.9	ppb	26.45	0.55%
QC value within limits for Al 396.153Radial Recovery = 96.00%								
As 188.979†	263.9	472.16	µg/L	51.179	472.16	ppb	51.179	10.84%
QC value within limits for As 188.979 Recovery = 94.43%								
B 249.677†	11457.3	465.13	µg/L	27.155	465.13	ppb	27.155	5.84%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	19713.1	474.10	µg/L	34.210	474.10	ppb	34.210	7.22%
QC value within limits for Ba 233.527 Recovery = 94.82%								
Be 313.107†	803435.0	476.66	µg/L	29.291	476.66	ppb	29.291	6.15%
QC value within limits for Be 313.107 Recovery = 95.33%								
Ca 317.933Radial†	5722.7	4888.2	µg/L	73.67	4888.2	ppb	73.67	1.51%
QC value within limits for Ca 317.933Radial Recovery = 97.76%								
Cd 226.502†	19214.4	479.14	µg/L	36.339	479.14	ppb	36.339	7.58%
QC value within limits for Cd 226.502 Recovery = 95.83%								
Co 228.616†	10518.1	475.78	µg/L	38.855	475.78	ppb	38.855	8.17%

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   QC value within limits for Co 228.616  Recovery = 95.16%
Cr 267.716†            23535.5      473.01 µg/L        47.102      473.01 ppb         47.102   9.96%
   QC value within limits for Cr 267.716  Recovery = 94.60%
Cu 324.752†            71496.1      467.38 µg/L        36.817      467.38 ppb         36.817   7.88%
   QC value within limits for Cu 324.752  Recovery = 93.48%
Fe 238.204 Radial†       630.5      4983.1 µg/L         49.36      4983.1 ppb          49.36   0.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.66%
K 766.490 Radial†       7342.4      4795.4 µg/L         22.20      4795.4 ppb          22.20   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 95.91%
Mg 279.077 IEC†          556.4      4976.0 µg/L         61.30      4976.0 ppb          61.30   1.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.52%
Mn 257.610†           155081.3      486.10 µg/L        28.223      486.10 ppb         28.223   5.81%
   QC value within limits for Mn 257.610  Recovery = 97.22%
Mo 202.031†             4796.1      469.85 µg/L        60.963      469.85 ppb         60.963  12.97%
   QC value within limits for Mo 202.031  Recovery = 93.97%
Na 589.592 Radial†     31564.9      9695.0 µg/L         31.58      9695.0 ppb          31.58   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 96.95%
Ni 231.604†             9570.6      476.59 µg/L        40.187      476.59 ppb         40.187   8.43%
   QC value within limits for Ni 231.604  Recovery = 95.32%
P 214.914†              1179.5      2290.4 µg/L        278.94      2290.4 ppb         278.94  12.18%
   QC value within limits for P 214.914  Recovery = 91.62%
Pb 220.353†             1942.0      472.24 µg/L        49.211      472.24 ppb         49.211  10.42%
   QC value within limits for Pb 220.353  Recovery = 94.45%
S 181.975 Axial†         230.2      954.62 µg/L        99.373      954.62 ppb         99.373  10.41%
   QC value within limits for S 181.975 Axial  Recovery = 95.46%
Sb 206.836†              508.0      468.26 µg/L        52.337      468.26 ppb         52.337  11.18%
   QC value within limits for Sb 206.836  Recovery = 93.65%
Se 196.026†              340.5      486.07 µg/L        47.691      486.07 ppb         47.691   9.81%
   QC value within limits for Se 196.026  Recovery = 97.21%
SiO2†                  25724.1      5077.6 µg/L        322.02      5077.6 ppb         322.02   6.34%
   QC value within limits for SiO2  Recovery = 94.95%
Si 251.611†            31242.1      2375.1 µg/L        152.58      2375.1 ppb         152.58   6.42%
   QC value within limits for Si 251.611  Recovery = 95.00%
Sn 189.927†             1122.0      473.21 µg/L        63.445      473.21 ppb         63.445  13.41%
   QC value within limits for Sn 189.927  Recovery = 94.64%
Sr 421.552†            51336.1      473.58 µg/L         1.527      473.58 ppb          1.527   0.32%
   QC value within limits for Sr 421.552  Recovery = 94.72%
Ti 334.940†           213730.5      472.50 µg/L        31.174      472.50 ppb         31.174   6.60%
   QC value within limits for Ti 334.940  Recovery = 94.50%
Tl 190.801†              364.8      479.54 µg/L        35.938      479.54 ppb         35.938   7.49%
   QC value within limits for Tl 190.801  Recovery = 95.91%
U 409.014†              5660.3      469.29 µg/L        42.377      469.29 ppb         42.377   9.03%
   QC value within limits for U 409.014  Recovery = 93.86%
V 292.402†             48082.0      474.36 µg/L        40.718      474.36 ppb         40.718   8.58%
   QC value within limits for V 292.402  Recovery = 94.87%
Zn 213.857†            20374.2      474.63 µg/L        38.303      474.63 ppb         38.303   8.07%
   QC value within limits for Zn 213.857  Recovery = 94.93%
All analyte(s) passed QC.
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Sequence No.: 62 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/19/2010 21:12:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57648.5	57648.5	102	%			21:12:37
1	Al 396.153Radial†	-14.7	-21.7	-15.138	µg/L	-15.138	ppb	21:12:37
1	Ca 317.933Radial†	203.7	-11.6	-9.9121	µg/L	-9.9121	ppb	21:12:58
1	Fe 238.204 Radial†	16.4	-0.5	-4.2458	µg/L	-4.2458	ppb	21:12:58
1	K 766.490 Radial†	239.5	69.8	45.559	µg/L	45.559	ppb	21:12:37
1	Mg 279.077 IEC†	8.9	-4.1	-36.403	µg/L	-36.403	ppb	21:12:58
1	Na 589.592 Radial†	512.1	29.6	9.0983	µg/L	9.0983	ppb	21:12:37
1	Sr 421.552†	48.1	18.3	0.1688	µg/L	0.1688	ppb	21:12:37
1	Sc 361.383	2024672.5	2024672.5	103.14	%			21:14:00
1	Y 371.029	1400432.3	1400432.3	103.52	%			21:14:00
1	Ag 328.068†	-413.0	1.2	0.0111	µg/L	0.0111	ppb	21:14:05
1	As 188.979†	-0.7	-0.3	-0.4624	µg/L	-0.4624	ppb	21:14:26
1	B 249.677†	378.7	-16.9	-0.6888	µg/L	-0.6888	ppb	21:14:26
1	Ba 233.527†	-12.8	4.6	0.1123	µg/L	0.1123	ppb	21:14:26
1	Be 313.107†	-2775.1	164.9	0.0978	µg/L	0.0978	ppb	21:14:05
1	Cd 226.502†	-135.5	10.3	0.2573	µg/L	0.2573	ppb	21:14:26
1	Co 228.616†	7.3	5.2	0.2337	µg/L	0.2337	ppb	21:14:26
1	Cr 267.716†	-69.0	-16.5	-0.3312	µg/L	-0.3312	ppb	21:14:05
1	Cu 324.752†	2629.4	5.8	0.0370	µg/L	0.0370	ppb	21:14:05
1	Mn 257.610†	-259.5	4.4	0.0146	µg/L	0.0146	ppb	21:14:26
1	Mo 202.031†	0.2	5.6	0.5442	µg/L	0.5442	ppb	21:14:26
1	Ni 231.604†	315.8	-6.1	-0.3065	µg/L	-0.3065	ppb	21:14:26
1	P 214.914†	22.8	6.8	13.475	µg/L	13.475	ppb	21:14:26
1	Pb 220.353†	88.5	-5.2	-1.2633	µg/L	-1.2633	ppb	21:14:26
1	S 181.975 Axial†	14.4	-5.0	-20.717	µg/L	-20.717	ppb	21:14:26
1	Sb 206.836†	29.4	6.0	5.5139	µg/L	5.5139	ppb	21:14:26
1	Se 196.026†	18.0	-1.8	-2.5508	µg/L	-2.5508	ppb	21:14:26
1	SiO2†	1453.6	17.9	3.5281	µg/L	3.5281	ppb	21:14:05
1	Si 251.611†	344.2	23.1	1.7570	µg/L	1.7570	ppb	21:14:26
1	Sn 189.927†	6.9	6.3	2.6452	µg/L	2.6452	ppb	21:14:26
1	Ti 334.940†	260.8	77.8	0.1748	µg/L	0.1748	ppb	21:14:05
1	Tl 190.801†	-22.9	0.2	0.2097	µg/L	0.2097	ppb	21:14:26
1	U 409.014†	13.7	90.4	7.5095	µg/L	7.5095	ppb	21:14:05
1	V 292.402†	-3.7	41.2	0.4118	µg/L	0.4118	ppb	21:14:05
1	Zn 213.857†	548.2	-2.9	-0.0641	µg/L	-0.0641	ppb	21:14:26
2	Sc RADIAL	57532.9	57532.9	102	%			21:13:03
2	Al 396.153Radial†	12.0	4.4	3.0811	µg/L	3.0811	ppb	21:13:03
2	Ca 317.933Radial†	199.1	-15.8	-13.477	µg/L	-13.477	ppb	21:13:24
2	Fe 238.204 Radial†	16.8	-0.1	-0.4573	µg/L	-0.4573	ppb	21:13:24
2	K 766.490 Radial†	217.9	49.0	32.018	µg/L	32.018	ppb	21:13:03
2	Mg 279.077 IEC†	13.2	0.1	1.1462	µg/L	1.1462	ppb	21:13:24
2	Na 589.592 Radial†	531.4	49.6	15.230	µg/L	15.230	ppb	21:13:03
2	Sr 421.552†	44.8	15.2	0.1403	µg/L	0.1403	ppb	21:13:03
2	Sc 361.383	2034376.0	2034376.0	103.63	%			21:14:32
2	Y 371.029	1406950.8	1406950.8	104.01	%			21:14:32
2	Ag 328.068†	-398.7	16.9	0.1249	µg/L	0.1249	ppb	21:14:37
2	As 188.979†	3.7	4.1	7.2905	µg/L	7.2905	ppb	21:14:58
2	B 249.677†	367.6	-29.4	-1.1995	µg/L	-1.1995	ppb	21:14:58
2	Ba 233.527†	-11.7	5.8	0.1382	µg/L	0.1382	ppb	21:14:58
2	Be 313.107†	-2725.4	225.8	0.1339	µg/L	0.1339	ppb	21:14:37
2	Cd 226.502†	-127.6	18.5	0.4618	µg/L	0.4618	ppb	21:14:58
2	Co 228.616†	1.0	-1.0	-0.0440	µg/L	-0.0440	ppb	21:14:58
2	Cr 267.716†	-41.5	10.4	0.2082	µg/L	0.2082	ppb	21:14:37
2	Cu 324.752†	2590.3	-44.1	-0.2880	µg/L	-0.2880	ppb	21:14:37
2	Mn 257.610†	-252.5	12.4	0.0387	µg/L	0.0387	ppb	21:14:58
2	Mo 202.031†	-1.6	3.8	0.3741	µg/L	0.3741	ppb	21:14:58
2	Ni 231.604†	312.0	-11.3	-0.5640	µg/L	-0.5640	ppb	21:14:58
2	P 214.914†	12.2	-3.6	-7.0402	µg/L	-7.0402	ppb	21:14:58
2	Pb 220.353†	83.5	-10.4	-2.5295	µg/L	-2.5295	ppb	21:14:58

2	S 181.975 Axial†	19.3	-0.3	-1.1792 µg/L	-1.1792 ppb	21:14:58
2	Sb 206.836†	27.7	4.2	3.8619 µg/L	3.8619 ppb	21:14:58
2	Se 196.026†	19.1	-0.8	-1.1798 µg/L	-1.1798 ppb	21:14:58
2	SiO2†	1460.9	18.1	3.5783 µg/L	3.5783 ppb	21:14:37
2	Si 251.611†	357.2	34.1	2.5907 µg/L	2.5907 ppb	21:14:58
2	Sn 189.927†	1.7	1.3	0.5463 µg/L	0.5463 ppb	21:14:58
2	Ti 334.940†	290.1	104.9	0.2318 µg/L	0.2318 ppb	21:14:37
2	Tl 190.801†	-21.1	2.0	2.6077 µg/L	2.6077 ppb	21:14:58
2	U 409.014†	-69.8	9.7	0.8107 µg/L	0.8107 ppb	21:14:37
2	V 292.402†	-49.8	-3.3	-0.0276 µg/L	-0.0276 ppb	21:14:37
2	Zn 213.857†	547.2	-6.4	-0.1467 µg/L	-0.1467 ppb	21:14:58
3	Sc RADIAL	57754.3	57754.3	102 %		21:13:29
3	Al 396.153Radial†	-7.4	-14.6	-10.181 µg/L	-10.181 ppb	21:13:29
3	Ca 317.933Radial†	198.7	-16.9	-14.434 µg/L	-14.434 ppb	21:13:50
3	Fe 238.204 Radial†	15.1	-1.8	-14.173 µg/L	-14.173 ppb	21:13:50
3	K 766.490 Radial†	210.2	40.6	26.521 µg/L	26.521 ppb	21:13:29
3	Mg 279.077 IEC†	12.2	-0.9	-7.7282 µg/L	-7.7282 ppb	21:13:50
3	Na 589.592 Radial†	514.7	31.3	9.6113 µg/L	9.6113 ppb	21:13:29
3	Sr 421.552†	36.6	7.0	0.0646 µg/L	0.0646 ppb	21:13:29
3	Sc 361.383	2036784.5	2036784.5	103.75 %		21:15:04
3	Y 371.029	1408626.3	1408626.3	104.13 %		21:15:04
3	Ag 328.068†	-389.3	26.4	0.1980 µg/L	0.1980 ppb	21:15:10
3	As 188.979†	1.3	1.8	3.1417 µg/L	3.1417 ppb	21:15:30
3	B 249.677†	362.6	-34.7	-1.4060 µg/L	-1.4060 ppb	21:15:30
3	Ba 233.527†	-7.2	10.1	0.2434 µg/L	0.2434 ppb	21:15:30
3	Be 313.107†	-2768.8	187.1	0.1110 µg/L	0.1110 ppb	21:15:10
3	Cd 226.502†	-144.7	2.2	0.0556 µg/L	0.0556 ppb	21:15:30
3	Co 228.616†	-8.3	-9.9	-0.4480 µg/L	-0.4480 ppb	21:15:30
3	Cr 267.716†	-54.9	-2.5	-0.0503 µg/L	-0.0503 ppb	21:15:10
3	Cu 324.752†	2622.8	-15.8	-0.1051 µg/L	-0.1051 ppb	21:15:10
3	Mn 257.610†	-264.4	1.2	0.0020 µg/L	0.0020 ppb	21:15:30
3	Mo 202.031†	-0.5	4.9	0.4803 µg/L	0.4803 ppb	21:15:30
3	Ni 231.604†	316.5	-7.3	-0.3620 µg/L	-0.3620 ppb	21:15:30
3	P 214.914†	15.2	-0.7	-1.2959 µg/L	-1.2959 ppb	21:15:30
3	Pb 220.353†	89.8	-4.4	-1.0668 µg/L	-1.0668 ppb	21:15:30
3	S 181.975 Axial†	20.3	0.6	2.6598 µg/L	2.6598 ppb	21:15:30
3	Sb 206.836†	20.9	-2.4	-2.1959 µg/L	-2.1959 ppb	21:15:30
3	Se 196.026†	19.2	-0.8	-1.1695 µg/L	-1.1695 ppb	21:15:30
3	SiO2†	1478.1	33.0	6.5234 µg/L	6.5234 ppb	21:15:10
3	Si 251.611†	346.7	23.5	1.7856 µg/L	1.7856 ppb	21:15:30
3	Sn 189.927†	2.2	1.7	0.7297 µg/L	0.7297 ppb	21:15:30
3	Ti 334.940†	181.9	0.3	0.0010 µg/L	0.0010 ppb	21:15:10
3	Tl 190.801†	-25.3	-2.0	-2.6178 µg/L	-2.6178 ppb	21:15:30
3	U 409.014†	-25.5	52.5	4.3661 µg/L	4.3661 ppb	21:15:10
3	V 292.402†	9.1	53.5	0.5276 µg/L	0.5276 ppb	21:15:10
3	Zn 213.857†	536.2	-17.6	-0.4107 µg/L	-0.4107 ppb	21:15:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031944.3	103.51	%	0.327				0.32%
Sc RADIAL	57645.2	102	%	0.2				0.19%
Y 371.029	1405336.4	103.89	%	0.320				0.31%
Ag 328.068†	14.8	0.1113	µg/L	0.09420	0.1113	ppb	0.09420	84.60%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.6	-7.4128	µg/L	9.41994	-7.4128	ppb	9.41994	127.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.9	3.3232	µg/L	3.87965	3.3232	ppb	3.87965	116.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-27.0	-1.0981	µg/L	0.36915	-1.0981	ppb	0.36915	33.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.8	0.1646	µg/L	0.06947	0.1646	ppb	0.06947	42.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	192.6	0.1142	µg/L	0.01827	0.1142	ppb	0.01827	15.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-14.8	-12.608	µg/L	2.3832	-12.608	ppb	2.3832	18.90%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.3	0.2582	µg/L	0.20309	0.2582	ppb	0.20309	78.66%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.9	-0.0861	µg/L	0.34278	-0.0861	ppb	0.34278	398.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.9     -0.0578 µg/L       0.26977     -0.0578 ppb        0.26977 467.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -18.1     -0.1187 µg/L       0.16294     -0.1187 ppb        0.16294 137.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.2921 µg/L       7.08315     -6.2921 ppb        7.08315 112.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          53.1      34.699 µg/L        9.7985      34.699 ppb         9.7985  28.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.6     -14.328 µg/L       19.6256     -14.328 ppb        19.6256 136.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 6.0      0.0185 µg/L       0.01862      0.0185 ppb        0.01862 100.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.8      0.4662 µg/L       0.08595      0.4662 ppb        0.08595  18.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         36.8      11.313 µg/L        3.4017      11.313 ppb         3.4017  30.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.2     -0.4108 µg/L       0.13551     -0.4108 ppb        0.13551  32.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.8      1.7128 µg/L      10.58316      1.7128 ppb       10.58316 617.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.7     -1.6199 µg/L       0.79389     -1.6199 ppb        0.79389  49.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -6.4120 µg/L      12.53600     -6.4120 ppb       12.53600 195.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.6      2.3933 µg/L       4.05930      2.3933 ppb        4.05930 169.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.2     -1.6333 µg/L       0.79453     -1.6333 ppb        0.79453  48.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      23.0      4.5433 µg/L       1.71504      4.5433 ppb        1.71504  37.75%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                26.9      2.0444 µg/L       0.47330      2.0444 ppb        0.47330  23.15%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.1      1.3071 µg/L       1.16248      1.3071 ppb        1.16248  88.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.5      0.1246 µg/L       0.05381      0.1246 ppb        0.05381  43.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                61.0      0.1359 µg/L       0.12021      0.1359 ppb        0.12021  88.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.0      0.0665 µg/L       2.61569      0.0665 ppb        2.61569 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 50.9      4.2288 µg/L       3.35151      4.2288 ppb        3.35151  79.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 30.5      0.3039 µg/L       0.29290      0.3039 ppb        0.29290  96.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -9.0     -0.2072 µg/L       0.18103     -0.2072 ppb        0.18103  87.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 21:52:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58294.3	58294.3	103	%			21:52:41
1	Al 396.153Radial†	7182.0	6953.0	4826.2	µg/L	4826.2	ppb	21:52:41
1	Ca 317.933Radial†	6144.9	5744.1	4906.5	µg/L	4906.5	ppb	21:53:01
1	Fe 238.204 Radial†	674.3	636.9	5034.3	µg/L	5034.3	ppb	21:53:01
1	K 766.490 Radial†	7708.3	7305.5	4771.3	µg/L	4771.3	ppb	21:52:41
1	Mg 279.077 IEC†	585.5	554.7	4961.5	µg/L	4961.5	ppb	21:53:01
1	Na 589.592 Radial†	33172.0	31676.2	9729.1	µg/L	9729.1	ppb	21:52:41
1	Sr 421.552†	53074.5	51408.1	474.25	µg/L	474.25	ppb	21:52:41
1	Sc 361.383	2038801.4	2038801.4	103.86	%			21:54:04
1	Y 371.029	1405502.7	1405502.7	103.90	%			21:54:04
1	Ag 328.068†	68855.2	66700.9	497.72	µg/L	497.72	ppb	21:54:10
1	As 188.979†	301.6	290.9	520.35	µg/L	520.35	ppb	21:54:30
1	B 249.677†	12936.2	12071.9	490.21	µg/L	490.21	ppb	21:54:10
1	Ba 233.527†	21777.9	20986.5	504.73	µg/L	504.73	ppb	21:54:10
1	Be 313.107†	877883.1	848151.2	503.19	µg/L	503.19	ppb	21:54:04
1	Cd 226.502†	21105.9	20464.1	510.33	µg/L	510.33	ppb	21:54:10
1	Co 228.616†	11658.9	11224.2	507.74	µg/L	507.74	ppb	21:54:10
1	Cr 267.716†	26274.1	25349.1	509.46	µg/L	509.46	ppb	21:54:10
1	Cu 324.752†	81876.3	76293.3	498.70	µg/L	498.70	ppb	21:54:10
1	Mn 257.610†	169788.5	163741.9	513.23	µg/L	513.23	ppb	21:54:04
1	Mo 202.031†	5498.7	5299.9	519.19	µg/L	519.19	ppb	21:54:30
1	Ni 231.604†	10915.6	10198.1	507.83	µg/L	507.83	ppb	21:54:10
1	P 214.914†	1366.5	1300.5	2527.2	µg/L	2527.2	ppb	21:54:30
1	Pb 220.353†	2295.3	2119.1	515.34	µg/L	515.34	ppb	21:54:30
1	S 181.975 Axial†	270.9	241.9	1003.1	µg/L	1003.1	ppb	21:54:30
1	Sb 206.836†	593.9	549.4	506.62	µg/L	506.62	ppb	21:54:30
1	Se 196.026†	409.1	374.6	534.08	µg/L	534.08	ppb	21:54:30
1	SiO2†	29747.3	27251.5	5379.1	µg/L	5379.1	ppb	21:54:10
1	Si 251.611†	34761.7	33160.6	2520.9	µg/L	2520.9	ppb	21:54:10
1	Sn 189.927†	1289.3	1241.1	523.40	µg/L	523.40	ppb	21:54:30
1	Ti 334.940†	235226.3	226319.5	500.36	µg/L	500.36	ppb	21:54:04
1	Tl 190.801†	380.7	389.0	511.20	µg/L	511.20	ppb	21:54:30
1	U 409.014†	6210.9	6057.5	502.28	µg/L	502.28	ppb	21:54:10
1	V 292.402†	53474.0	51533.7	508.50	µg/L	508.50	ppb	21:54:10
1	Zn 213.857†	23135.3	21742.1	506.54	µg/L	506.54	ppb	21:54:10
2	Sc RADIAL	58681.1	58681.1	104	%			21:53:06
2	Al 396.153Radial†	7270.0	6991.8	4853.5	µg/L	4853.5	ppb	21:53:06
2	Ca 317.933Radial†	6085.0	5647.1	4823.6	µg/L	4823.6	ppb	21:53:27
2	Fe 238.204 Radial†	670.2	628.7	4969.3	µg/L	4969.3	ppb	21:53:27
2	K 766.490 Radial†	7805.0	7349.3	4800.0	µg/L	4800.0	ppb	21:53:06
2	Mg 279.077 IEC†	586.2	551.6	4933.9	µg/L	4933.9	ppb	21:53:27
2	Na 589.592 Radial†	33396.3	31680.3	9730.4	µg/L	9730.4	ppb	21:53:06
2	Sr 421.552†	53644.8	51618.1	476.18	µg/L	476.18	ppb	21:53:06
2	Sc 361.383	2035611.6	2035611.6	103.69	%			21:54:38
2	Y 371.029	1402256.7	1402256.7	103.66	%			21:54:38
2	Ag 328.068†	68542.9	66503.5	496.25	µg/L	496.25	ppb	21:54:43
2	As 188.979†	295.1	285.0	509.86	µg/L	509.86	ppb	21:55:04
2	B 249.677†	12897.2	12053.8	489.51	µg/L	489.51	ppb	21:54:43
2	Ba 233.527†	21658.8	20904.6	502.76	µg/L	502.76	ppb	21:54:43
2	Be 313.107†	876936.1	848562.5	503.44	µg/L	503.44	ppb	21:54:38
2	Cd 226.502†	20999.3	20393.1	508.57	µg/L	508.57	ppb	21:54:43
2	Co 228.616†	11591.9	11177.2	505.60	µg/L	505.60	ppb	21:54:43
2	Cr 267.716†	26197.4	25314.8	508.77	µg/L	508.77	ppb	21:54:43
2	Cu 324.752†	81474.1	76028.9	496.97	µg/L	496.97	ppb	21:54:43
2	Mn 257.610†	169436.5	163658.6	512.96	µg/L	512.96	ppb	21:54:38
2	Mo 202.031†	5362.1	5176.5	507.10	µg/L	507.10	ppb	21:55:04
2	Ni 231.604†	10886.7	10186.7	507.26	µg/L	507.26	ppb	21:54:43
2	P 214.914†	1342.5	1279.3	2485.4	µg/L	2485.4	ppb	21:55:04
2	Pb 220.353†	2248.7	2077.6	505.24	µg/L	505.24	ppb	21:55:04

2	S 181.975 Axial†	273.9	245.2	1016.8 µg/L	1016.8 ppb	21:55:04
2	Sb 206.836†	581.9	538.7	496.67 µg/L	496.67 ppb	21:55:04
2	Se 196.026†	397.7	364.2	519.29 µg/L	519.29 ppb	21:55:04
2	SiO2†	29634.0	27187.2	5366.4 µg/L	5366.4 ppb	21:54:43
2	Si 251.611†	34631.9	33087.9	2515.4 µg/L	2515.4 ppb	21:54:43
2	Sn 189.927†	1251.2	1206.2	508.72 µg/L	508.72 ppb	21:55:04
2	Ti 334.940†	234968.5	226425.8	500.59 µg/L	500.59 ppb	21:54:38
2	Tl 190.801†	379.2	388.0	510.01 µg/L	510.01 ppb	21:55:04
2	U 409.014†	6096.3	5956.3	493.89 µg/L	493.89 ppb	21:54:43
2	V 292.402†	53226.6	51375.9	506.85 µg/L	506.85 ppb	21:54:43
2	Zn 213.857†	23007.5	21653.8	504.47 µg/L	504.47 ppb	21:54:43
3	Sc RADIAL	57886.6	57886.6	102 %		21:53:32
3	Al 396.153Radial†	7257.6	7075.9	4913.9 µg/L	4913.9 ppb	21:53:32
3	Ca 317.933Radial†	6157.6	5798.4	4952.8 µg/L	4952.8 ppb	21:53:53
3	Fe 238.204 Radial†	675.4	642.6	5077.7 µg/L	5077.7 ppb	21:53:53
3	K 766.490 Radial†	7760.4	7409.0	4838.9 µg/L	4838.9 ppb	21:53:32
3	Mg 279.077 IEC†	588.1	561.1	5017.3 µg/L	5017.3 ppb	21:53:53
3	Na 589.592 Radial†	33284.0	32012.0	9832.3 µg/L	9832.3 ppb	21:53:32
3	Sr 421.552†	53489.2	52175.1	481.32 µg/L	481.32 ppb	21:53:32
3	Sc 361.383	2029490.9	2029490.9	103.38 %		21:55:11
3	Y 371.029	1398933.7	1398933.7	103.41 %		21:55:11
3	Ag 328.068†	63112.5	61450.2	458.38 µg/L	458.38 ppb	21:55:16
3	As 188.979†	245.3	237.8	425.38 µg/L	425.38 ppb	21:55:37
3	B 249.677†	11837.4	11066.1	449.07 µg/L	449.07 ppb	21:55:16
3	Ba 233.527†	19154.5	18545.2	446.00 µg/L	446.00 ppb	21:55:16
3	Be 313.107†	788293.6	765369.5	454.08 µg/L	454.08 ppb	21:55:11
3	Cd 226.502†	18488.3	18025.4	449.44 µg/L	449.44 ppb	21:55:16
3	Co 228.616†	10118.0	9785.2	442.59 µg/L	442.59 ppb	21:55:16
3	Cr 267.716†	22060.3	21389.3	429.88 µg/L	429.88 ppb	21:55:16
3	Cu 324.752†	71764.5	66873.8	437.22 µg/L	437.22 ppb	21:55:16
3	Mn 257.610†	153169.4	148416.2	465.24 µg/L	465.24 ppb	21:55:11
3	Mo 202.031†	4341.5	4204.8	411.96 µg/L	411.96 ppb	21:55:37
3	Ni 231.604†	9550.0	8925.4	444.46 µg/L	444.46 ppb	21:55:16
3	P 214.914†	1104.5	1053.0	2042.0 µg/L	2042.0 ppb	21:55:37
3	Pb 220.353†	1894.1	1741.3	423.37 µg/L	423.37 ppb	21:55:37
3	S 181.975 Axial†	230.7	204.2	846.98 µg/L	846.98 ppb	21:55:37
3	Sb 206.836†	492.3	453.7	417.96 µg/L	417.96 ppb	21:55:37
3	Se 196.026†	339.0	308.6	441.39 µg/L	441.39 ppb	21:55:37
3	SiO2†	26881.8	24611.1	4857.9 µg/L	4857.9 ppb	21:55:16
3	Si 251.611†	31176.8	29846.6	2269.0 µg/L	2269.0 ppb	21:55:16
3	Sn 189.927†	996.0	963.1	406.17 µg/L	406.17 ppb	21:55:37
3	Ti 334.940†	209447.8	202423.1	447.49 µg/L	447.49 ppb	21:55:11
3	Tl 190.801†	327.8	339.5	446.42 µg/L	446.42 ppb	21:55:37
3	U 409.014†	5220.1	5126.5	424.93 µg/L	424.93 ppb	21:55:16
3	V 292.402†	46012.1	44552.1	439.38 µg/L	439.38 ppb	21:55:16
3	Zn 213.857†	20191.8	18997.1	442.51 µg/L	442.51 ppb	21:55:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2034634.6	103.64	%	0.241				0.23%
Sc RADIAL	58287.3	103	%	0.7				0.68%
Y 371.029	1402231.0	103.66	%	0.243				0.23%
Ag 328.068†	64884.9	484.12	µg/L	22.300	484.12	ppb	22.300	4.61%
QC value within limits for Ag 328.068 Recovery = 96.82%								
Al 396.153Radial†	7006.9	4864.5	µg/L	44.88	4864.5	ppb	44.88	0.92%
QC value within limits for Al 396.153Radial Recovery = 97.29%								
As 188.979†	271.2	485.20	µg/L	52.069	485.20	ppb	52.069	10.73%
QC value within limits for As 188.979 Recovery = 97.04%								
B 249.677†	11730.6	476.26	µg/L	23.552	476.26	ppb	23.552	4.95%
QC value within limits for B 249.677 Recovery = 95.25%								
Ba 233.527†	20145.4	484.50	µg/L	33.355	484.50	ppb	33.355	6.88%
QC value within limits for Ba 233.527 Recovery = 96.90%								
Be 313.107†	820694.4	486.90	µg/L	28.425	486.90	ppb	28.425	5.84%
QC value within limits for Be 313.107 Recovery = 97.38%								
Ca 317.933Radial†	5729.8	4894.3	µg/L	65.45	4894.3	ppb	65.45	1.34%
QC value within limits for Ca 317.933Radial Recovery = 97.89%								
Cd 226.502†	19627.6	489.45	µg/L	34.658	489.45	ppb	34.658	7.08%
QC value within limits for Cd 226.502 Recovery = 97.89%								
Co 228.616†	10728.9	485.31	µg/L	37.015	485.31	ppb	37.015	7.63%

```
   QC value within limits for Co 228.616  Recovery = 97.06%
Cr 267.716†            24017.7      482.70 µg/L        45.746      482.70 ppb         45.746   9.48%
   QC value within limits for Cr 267.716  Recovery = 96.54%
Cu 324.752†            73065.3      477.63 µg/L        35.005      477.63 ppb         35.005   7.33%
   QC value within limits for Cu 324.752  Recovery = 95.53%
Fe 238.204 Radial†       636.1      5027.1 µg/L         54.54      5027.1 ppb          54.54   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.54%
K 766.490 Radial†       7354.6      4803.4 µg/L         33.93      4803.4 ppb          33.93   0.71%
   QC value within limits for K 766.490 Radial  Recovery = 96.07%
Mg 279.077 IEC†          555.8      4970.9 µg/L         42.48      4970.9 ppb          42.48   0.85%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.42%
Mn 257.610†           158605.5      497.15 µg/L        27.629      497.15 ppb         27.629   5.56%
   QC value within limits for Mn 257.610  Recovery = 99.43%
Mo 202.031†             4893.7      479.42 µg/L        58.734      479.42 ppb         58.734  12.25%
   QC value within limits for Mo 202.031  Recovery = 95.88%
Na 589.592 Radial†     31789.5      9763.9 µg/L         59.18      9763.9 ppb          59.18   0.61%
   QC value within limits for Na 589.592 Radial  Recovery = 97.64%
Ni 231.604†             9770.1      486.52 µg/L        36.423      486.52 ppb         36.423   7.49%
   QC value within limits for Ni 231.604  Recovery = 97.30%
P 214.914†              1210.9      2351.5 µg/L        268.87      2351.5 ppb         268.87  11.43%
   QC value within limits for P 214.914  Recovery = 94.06%
Pb 220.353†             1979.3      481.31 µg/L        50.440      481.31 ppb         50.440  10.48%
   QC value within limits for Pb 220.353  Recovery = 96.26%
S 181.975 Axial†         230.4      955.62 µg/L        94.337      955.62 ppb         94.337   9.87%
   QC value within limits for S 181.975 Axial  Recovery = 95.56%
Sb 206.836†              513.9      473.75 µg/L        48.569      473.75 ppb         48.569  10.25%
   QC value within limits for Sb 206.836  Recovery = 94.75%
Se 196.026†              349.1      498.25 µg/L        49.795      498.25 ppb         49.795   9.99%
   QC value within limits for Se 196.026  Recovery = 99.65%
SiO2†                  26349.9      5201.1 µg/L        297.31      5201.1 ppb         297.31   5.72%
   QC value within limits for SiO2  Recovery = 97.26%
Si 251.611†            32031.7      2435.1 µg/L        143.89      2435.1 ppb         143.89   5.91%
   QC value within limits for Si 251.611  Recovery = 97.40%
Sn 189.927†             1136.8      479.43 µg/L        63.868      479.43 ppb         63.868  13.32%
   QC value within limits for Sn 189.927  Recovery = 95.89%
Sr 421.552†            51733.8      477.25 µg/L         3.657      477.25 ppb          3.657   0.77%
   QC value within limits for Sr 421.552  Recovery = 95.45%
Ti 334.940†           218389.5      482.81 µg/L        30.592      482.81 ppb         30.592   6.34%
   QC value within limits for Ti 334.940  Recovery = 96.56%
Tl 190.801†              372.2      489.21 µg/L        37.063      489.21 ppb         37.063   7.58%
   QC value within limits for Tl 190.801  Recovery = 97.84%
U 409.014†              5713.4      473.70 µg/L        42.447      473.70 ppb         42.447   8.96%
   QC value within limits for U 409.014  Recovery = 94.74%
V 292.402†             49153.9      484.91 µg/L        39.441      484.91 ppb         39.441   8.13%
   QC value within limits for V 292.402  Recovery = 96.98%
Zn 213.857†            20797.7      484.50 µg/L        36.387      484.50 ppb         36.387   7.51%
   QC value within limits for Zn 213.857  Recovery = 96.90%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 21:55:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	56008.4	56008.4	99.1	%			21:56:19
1	Al 396.153Radial†	-22.0	-29.6	-20.580	µg/L	-20.580	ppb	21:56:19
1	Ca 317.933Radial†	199.9	-9.6	-8.2382	µg/L	-8.2382	ppb	21:56:40
1	Fe 238.204 Radial†	17.9	1.5	11.526	µg/L	11.526	ppb	21:56:40
1	K 766.490 Radial†	220.6	57.6	37.606	µg/L	37.606	ppb	21:56:19
1	Mg 279.077 IEC†	11.6	-1.1	-9.8037	µg/L	-9.8037	ppb	21:56:40
1	Na 589.592 Radial†	493.3	25.4	7.7861	µg/L	7.7861	ppb	21:56:19
1	Sr 421.552†	76.4	48.2	0.4449	µg/L	0.4449	ppb	21:56:19
1	Sc 361.383	2005725.5	2005725.5	102.17	%			21:57:41
1	Y 371.029	1388119.7	1388119.7	102.61	%			21:57:41
1	Ag 328.068†	-414.5	-4.1	-0.0292	µg/L	-0.0292	ppb	21:57:47
1	As 188.979†	-0.2	0.2	0.3889	µg/L	0.3889	ppb	21:58:07
1	B 249.677†	373.9	-18.2	-0.7465	µg/L	-0.7465	ppb	21:58:07
1	Ba 233.527†	-14.8	2.6	0.0623	µg/L	0.0623	ppb	21:58:07
1	Be 313.107†	-2754.8	159.4	0.0946	µg/L	0.0946	ppb	21:57:47
1	Cd 226.502†	-146.2	-1.4	-0.0360	µg/L	-0.0360	ppb	21:58:07
1	Co 228.616†	0.9	-1.0	-0.0474	µg/L	-0.0474	ppb	21:58:07
1	Cr 267.716†	-37.0	14.2	0.2854	µg/L	0.2854	ppb	21:57:47
1	Cu 324.752†	2573.5	-24.9	-0.1610	µg/L	-0.1610	ppb	21:57:47
1	Mn 257.610†	-199.9	60.3	0.1908	µg/L	0.1908	ppb	21:58:07
1	Mo 202.031†	0.2	5.5	0.5418	µg/L	0.5418	ppb	21:58:07
1	Ni 231.604†	310.8	-8.1	-0.4047	µg/L	-0.4047	ppb	21:58:07
1	P 214.914†	12.5	-3.1	-6.0711	µg/L	-6.0711	ppb	21:58:07
1	Pb 220.353†	85.5	-7.3	-1.7723	µg/L	-1.7723	ppb	21:58:07
1	S 181.975 Axial†	18.2	-1.2	-4.7784	µg/L	-4.7784	ppb	21:58:07
1	Sb 206.836†	26.7	3.7	3.3830	µg/L	3.3830	ppb	21:58:07
1	Se 196.026†	14.0	-5.6	-7.7903	µg/L	-7.7903	ppb	21:58:07
1	SiO2†	1480.0	57.0	11.258	µg/L	11.258	ppb	21:57:47
1	Si 251.611†	360.8	42.5	3.2304	µg/L	3.2304	ppb	21:58:07
1	Sn 189.927†	5.1	4.6	1.9521	µg/L	1.9521	ppb	21:58:07
1	Ti 334.940†	260.5	80.0	0.1775	µg/L	0.1775	ppb	21:57:47
1	Tl 190.801†	-26.0	-3.1	-4.0069	µg/L	-4.0069	ppb	21:58:07
1	U 409.014†	-86.5	-7.5	-0.6279	µg/L	-0.6279	ppb	21:57:47
1	V 292.402†	-37.7	7.9	0.0821	µg/L	0.0821	ppb	21:57:47
1	Zn 213.857†	552.4	6.2	0.1486	µg/L	0.1486	ppb	21:58:07
2	Sc RADIAL	57173.7	57173.7	101	%			21:56:45
2	Al 396.153Radial†	-31.7	-38.7	-26.934	µg/L	-26.934	ppb	21:56:45
2	Ca 317.933Radial†	191.8	-21.7	-18.545	µg/L	-18.545	ppb	21:57:05
2	Fe 238.204 Radial†	17.2	0.4	3.3000	µg/L	3.3000	ppb	21:57:05
2	K 766.490 Radial†	225.8	58.1	37.968	µg/L	37.968	ppb	21:56:45
2	Mg 279.077 IEC†	9.7	-3.2	-28.801	µg/L	-28.801	ppb	21:57:05
2	Na 589.592 Radial†	447.5	-30.0	-9.2124	µg/L	-9.2124	ppb	21:56:45
2	Sr 421.552†	50.5	21.1	0.1949	µg/L	0.1949	ppb	21:56:45
2	Sc 361.383	2026912.1	2026912.1	103.25	%			21:58:13
2	Y 371.029	1401779.3	1401779.3	103.62	%			21:58:13
2	Ag 328.068†	-380.0	33.5	0.2477	µg/L	0.2477	ppb	21:58:19
2	As 188.979†	-0.5	-0.1	-0.1267	µg/L	-0.1267	ppb	21:58:39
2	B 249.677†	375.7	-20.3	-0.8273	µg/L	-0.8273	ppb	21:58:39
2	Ba 233.527†	-18.4	-0.7	-0.0176	µg/L	-0.0176	ppb	21:58:39
2	Be 313.107†	-2695.7	244.9	0.1452	µg/L	0.1452	ppb	21:58:19
2	Cd 226.502†	-138.0	8.1	0.2002	µg/L	0.2002	ppb	21:58:39
2	Co 228.616†	2.7	0.7	0.0322	µg/L	0.0322	ppb	21:58:39
2	Cr 267.716†	-33.8	17.6	0.3538	µg/L	0.3538	ppb	21:58:19
2	Cu 324.752†	2615.0	-11.1	-0.0717	µg/L	-0.0717	ppb	21:58:19
2	Mn 257.610†	-217.0	45.8	0.1451	µg/L	0.1451	ppb	21:58:39
2	Mo 202.031†	-0.5	4.9	0.4797	µg/L	0.4797	ppb	21:58:39
2	Ni 231.604†	315.6	-6.7	-0.3341	µg/L	-0.3341	ppb	21:58:39
2	P 214.914†	6.6	-9.0	-17.706	µg/L	-17.706	ppb	21:58:39
2	Pb 220.353†	96.0	2.0	0.4801	µg/L	0.4801	ppb	21:58:39

2	S 181.975 Axial†	17.3	-2.2	-9.1795 µg/L	-9.1795 ppb	21:58:39
2	Sb 206.836†	20.9	-2.3	-2.0746 µg/L	-2.0746 ppb	21:58:39
2	Se 196.026†	11.9	-7.8	-10.865 µg/L	-10.865 ppb	21:58:39
2	SiO2†	1472.8	34.8	6.8766 µg/L	6.8766 ppb	21:58:19
2	Si 251.611†	396.0	72.9	5.5446 µg/L	5.5446 ppb	21:58:39
2	Sn 189.927†	5.5	5.0	2.0997 µg/L	2.0997 ppb	21:58:39
2	Ti 334.940†	289.3	105.2	0.2346 µg/L	0.2346 ppb	21:58:19
2	Tl 190.801†	-22.0	1.1	1.4215 µg/L	1.4215 ppb	21:58:39
2	U 409.014†	-13.9	63.6	5.2886 µg/L	5.2886 ppb	21:58:19
2	V 292.402†	-61.5	-14.8	-0.1337 µg/L	-0.1337 ppb	21:58:19
2	Zn 213.857†	550.0	-1.7	-0.0370 µg/L	-0.0370 ppb	21:58:39
3	Sc RADIAL	56372.6	56372.6	99.8 %		21:57:11
3	Al 396.153Radial†	-29.3	-36.7	-25.549 µg/L	-25.549 ppb	21:57:11
3	Ca 317.933Radial†	191.2	-19.7	-16.825 µg/L	-16.825 ppb	21:57:31
3	Fe 238.204 Radial†	16.1	-0.4	-3.3964 µg/L	-3.3964 ppb	21:57:31
3	K 766.490 Radial†	211.8	47.3	30.861 µg/L	30.861 ppb	21:57:11
3	Mg 279.077 IEC†	13.6	0.8	7.2890 µg/L	7.2890 ppb	21:57:31
3	Na 589.592 Radial†	501.0	29.9	9.1712 µg/L	9.1712 ppb	21:57:11
3	Sr 421.552†	52.9	24.2	0.2232 µg/L	0.2232 ppb	21:57:11
3	Sc 361.383	2000712.7	2000712.7	101.91 %		21:58:46
3	Y 371.029	1384703.1	1384703.1	102.36 %		21:58:46
3	Ag 328.068†	-421.1	-11.6	-0.0829 µg/L	-0.0829 ppb	21:58:51
3	As 188.979†	1.5	1.9	3.3848 µg/L	3.3848 ppb	21:59:12
3	B 249.677†	368.1	-22.9	-0.9332 µg/L	-0.9332 ppb	21:59:12
3	Ba 233.527†	-8.4	8.8	0.2121 µg/L	0.2121 ppb	21:59:12
3	Be 313.107†	-2743.0	164.2	0.0974 µg/L	0.0974 ppb	21:58:51
3	Cd 226.502†	-139.1	5.2	0.1301 µg/L	0.1301 ppb	21:59:12
3	Co 228.616†	11.1	9.0	0.4061 µg/L	0.4061 ppb	21:59:12
3	Cr 267.716†	-57.8	-6.4	-0.1274 µg/L	-0.1274 ppb	21:58:51
3	Cu 324.752†	2614.2	21.4	0.1392 µg/L	0.1392 ppb	21:58:51
3	Mn 257.610†	-214.3	45.7	0.1425 µg/L	0.1425 ppb	21:59:12
3	Mo 202.031†	-1.4	4.0	0.3871 µg/L	0.3871 ppb	21:59:12
3	Ni 231.604†	307.7	-10.4	-0.5197 µg/L	-0.5197 ppb	21:59:12
3	P 214.914†	8.3	-7.2	-14.189 µg/L	-14.189 ppb	21:59:12
3	Pb 220.353†	80.5	-12.0	-2.9118 µg/L	-2.9118 ppb	21:59:12
3	S 181.975 Axial†	16.3	-2.9	-12.028 µg/L	-12.028 ppb	21:59:12
3	Sb 206.836†	20.6	-2.3	-2.1004 µg/L	-2.1004 ppb	21:59:12
3	Se 196.026†	16.0	-3.6	-5.0557 µg/L	-5.0557 ppb	21:59:12
3	SiO2†	1465.4	46.3	9.1427 µg/L	9.1427 ppb	21:58:51
3	Si 251.611†	387.9	70.0	5.3210 µg/L	5.3210 ppb	21:59:12
3	Sn 189.927†	6.0	5.5	2.3403 µg/L	2.3403 ppb	21:59:12
3	Ti 334.940†	247.3	67.7	0.1488 µg/L	0.1488 ppb	21:58:51
3	Tl 190.801†	-19.0	3.7	4.8315 µg/L	4.8315 ppb	21:59:12
3	U 409.014†	-77.0	1.6	0.1327 µg/L	0.1327 ppb	21:58:51
3	V 292.402†	6.4	51.0	0.4995 µg/L	0.4995 ppb	21:58:51
3	Zn 213.857†	535.6	-8.9	-0.2068 µg/L	-0.2068 ppb	21:59:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2011116.8	102.44	%	0.708				0.69%
Sc RADIAL	56518.2	100	%	1.1				1.05%
Y 371.029	1391534.0	102.87	%	0.668				0.65%
Ag 328.068†	5.9	0.0452	µg/L	0.17741	0.0452	ppb	0.17741	392.45%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-35.0	-24.355	µg/L	3.3414	-24.355	ppb	3.3414	13.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	1.2156	µg/L	1.89611	1.2156	ppb	1.89611	155.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-20.5	-0.8357	µg/L	0.09366	-0.8357	ppb	0.09366	11.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.6	0.0856	µg/L	0.11658	0.0856	ppb	0.11658	136.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.5	0.1124	µg/L	0.02848	0.1124	ppb	0.02848	25.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.0	-14.536	µg/L	5.5217	-14.536	ppb	5.5217	37.99%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.0	0.0981	µg/L	0.12132	0.0981	ppb	0.12132	123.63%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.9	0.1303	µg/L	0.24215	0.1303	ppb	0.24215	185.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.5      0.1706 µg/L       0.26030      0.1706 ppb        0.26030 152.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -4.9     -0.0312 µg/L       0.15414     -0.0312 ppb        0.15414 494.08%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      3.8100 µg/L       7.47451      3.8100 ppb        7.47451 196.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          54.3     35.478 µg/L        4.0031     35.478 ppb         4.0031  11.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2    -10.439 µg/L       18.0534    -10.439 ppb        18.0534 172.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.6      0.1594 µg/L       0.02719      0.1594 ppb        0.02719  17.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.8      0.4696 µg/L       0.07785      0.4696 ppb        0.07785  16.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          8.4      2.5817 µg/L      10.23739      2.5817 ppb       10.23739 396.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -8.4     -0.4195 µg/L       0.09366     -0.4195 ppb        0.09366  22.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.4    -12.655 µg/L        5.9671    -12.655 ppb         5.9671  47.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.8     -1.4013 µg/L       1.72611     -1.4013 ppb        1.72611 123.18%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -8.6621 µg/L       3.65257     -8.6621 ppb        3.65257  42.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.3     -0.2640 µg/L       3.15844     -0.2640 ppb        3.15844 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.6     -7.9035 µg/L       2.90606     -7.9035 ppb        2.90606  36.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      46.1      9.0923 µg/L       2.19093      9.0923 ppb        2.19093  24.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                61.8      4.6987 µg/L       1.27646      4.6987 ppb        1.27646  27.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.1      2.1307 µg/L       0.19595      2.1307 ppb        0.19595   9.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.2      0.2877 µg/L       0.13693      0.2877 ppb        0.13693  47.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.3      0.1870 µg/L       0.04366      0.1870 ppb        0.04366  23.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.6      0.7487 µg/L       4.45745      0.7487 ppb        4.45745 595.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 19.2      1.5978 µg/L       3.21889      1.5978 ppb        3.21889 201.46%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 14.7      0.1493 µg/L       0.32188      0.1493 ppb        0.32188 215.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -1.5     -0.0317 µg/L       0.17777     -0.0317 ppb        0.17777 560.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 22:28:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58682.4	58682.4	104	%			22:29:23
1	Al 396.153Radial†	7235.9	6958.9	4830.4	µg/L	4830.4	ppb	22:29:23
1	Ca 317.933Radial†	6077.6	5639.8	4817.4	µg/L	4817.4	ppb	22:29:43
1	Fe 238.204 Radial†	662.2	621.0	4908.0	µg/L	4908.0	ppb	22:29:43
1	K 766.490 Radial†	7780.1	7325.2	4784.2	µg/L	4784.2	ppb	22:29:23
1	Mg 279.077 IEC†	583.1	548.5	4906.8	µg/L	4906.8	ppb	22:29:43
1	Na 589.592 Radial†	33228.8	31518.4	9680.7	µg/L	9680.7	ppb	22:29:23
1	Sr 421.552†	53197.3	51186.2	472.20	µg/L	472.20	ppb	22:29:23
1	Sc 361.383	2035190.2	2035190.2	103.67	%			22:30:47
1	Y 371.029	1401651.0	1401651.0	103.61	%			22:30:47
1	Ag 328.068†	68081.1	66071.8	493.02	µg/L	493.02	ppb	22:30:52
1	As 188.979†	298.1	288.0	515.28	µg/L	515.28	ppb	22:31:13
1	B 249.677†	12768.6	11932.3	484.58	µg/L	484.58	ppb	22:30:52
1	Ba 233.527†	21458.8	20716.0	498.23	µg/L	498.23	ppb	22:30:52
1	Be 313.107†	860925.6	833294.1	494.38	µg/L	494.38	ppb	22:30:47
1	Cd 226.502†	20758.8	20165.3	502.89	µg/L	502.89	ppb	22:30:52
1	Co 228.616†	11490.7	11081.9	501.31	µg/L	501.31	ppb	22:30:52
1	Cr 267.716†	25945.3	25076.9	503.99	µg/L	503.99	ppb	22:30:52
1	Cu 324.752†	81109.4	75693.4	494.77	µg/L	494.77	ppb	22:30:52
1	Mn 257.610†	166674.7	161028.4	504.72	µg/L	504.72	ppb	22:30:47
1	Mo 202.031†	5452.5	5264.8	515.74	µg/L	515.74	ppb	22:31:13
1	Ni 231.604†	10771.6	10077.8	501.84	µg/L	501.84	ppb	22:30:52
1	P 214.914†	1361.8	1298.2	2523.1	µg/L	2523.1	ppb	22:31:13
1	Pb 220.353†	2268.4	2097.1	509.99	µg/L	509.99	ppb	22:31:13
1	S 181.975 Axial†	268.9	240.4	997.00	µg/L	997.00	ppb	22:31:13
1	Sb 206.836†	597.4	553.7	510.63	µg/L	510.63	ppb	22:31:13
1	Se 196.026†	391.9	358.7	511.47	µg/L	511.47	ppb	22:31:13
1	SiO2†	29507.1	27070.6	5343.4	µg/L	5343.4	ppb	22:30:52
1	Si 251.611†	34360.3	32832.9	2496.0	µg/L	2496.0	ppb	22:30:52
1	Sn 189.927†	1270.7	1225.3	516.77	µg/L	516.77	ppb	22:31:13
1	Ti 334.940†	231793.7	223410.4	493.92	µg/L	493.92	ppb	22:30:47
1	Tl 190.801†	377.5	386.5	507.97	µg/L	507.97	ppb	22:31:13
1	U 409.014†	6219.6	6076.5	503.89	µg/L	503.89	ppb	22:30:52
1	V 292.402†	52782.3	50957.9	502.84	µg/L	502.84	ppb	22:30:52
1	Zn 213.857†	22807.5	21465.4	500.08	µg/L	500.08	ppb	22:30:52
2	Sc RADIAL	58445.8	58445.8	103	%			22:29:48
2	Al 396.153Radial†	7285.7	7035.2	4883.8	µg/L	4883.8	ppb	22:29:48
2	Ca 317.933Radial†	6104.1	5689.2	4859.6	µg/L	4859.6	ppb	22:30:09
2	Fe 238.204 Radial†	671.9	632.9	5002.2	µg/L	5002.2	ppb	22:30:09
2	K 766.490 Radial†	7782.7	7358.0	4805.7	µg/L	4805.7	ppb	22:29:48
2	Mg 279.077 IEC†	586.2	553.8	4953.4	µg/L	4953.4	ppb	22:30:09
2	Na 589.592 Radial†	33236.1	31654.9	9722.6	µg/L	9722.6	ppb	22:29:48
2	Sr 421.552†	53434.9	51623.1	476.23	µg/L	476.23	ppb	22:29:48
2	Sc 361.383	2040505.4	2040505.4	103.94	%			22:31:20
2	Y 371.029	1405592.5	1405592.5	103.91	%			22:31:20
2	Ag 328.068†	67790.7	65621.3	489.67	µg/L	489.67	ppb	22:31:25
2	As 188.979†	293.5	282.9	506.01	µg/L	506.01	ppb	22:31:46
2	B 249.677†	12709.5	11843.4	480.90	µg/L	480.90	ppb	22:31:25
2	Ba 233.527†	21391.2	20597.0	495.37	µg/L	495.37	ppb	22:31:25
2	Be 313.107†	866523.4	836516.5	496.29	µg/L	496.29	ppb	22:31:20
2	Cd 226.502†	20685.6	20042.8	499.82	µg/L	499.82	ppb	22:31:25
2	Co 228.616†	11439.3	11003.5	497.74	µg/L	497.74	ppb	22:31:25
2	Cr 267.716†	25899.7	24967.8	501.80	µg/L	501.80	ppb	22:31:25
2	Cu 324.752†	80721.9	75116.8	491.02	µg/L	491.02	ppb	22:31:25
2	Mn 257.610†	167447.7	161353.3	505.75	µg/L	505.75	ppb	22:31:20
2	Mo 202.031†	5299.9	5104.2	500.03	µg/L	500.03	ppb	22:31:46
2	Ni 231.604†	10731.8	10012.5	498.59	µg/L	498.59	ppb	22:31:25
2	P 214.914†	1332.5	1266.7	2460.8	µg/L	2460.8	ppb	22:31:46
2	Pb 220.353†	2217.0	2041.9	496.54	µg/L	496.54	ppb	22:31:46

2	S 181.975 Axial†	267.7	238.6	989.64 µg/L	989.64 ppb	22:31:46
2	Sb 206.836†	589.1	544.2	501.70 µg/L	501.70 ppb	22:31:46
2	Se 196.026†	397.6	363.2	517.93 µg/L	517.93 ppb	22:31:46
2	SiO2†	29480.5	26970.9	5323.7 µg/L	5323.7 ppb	22:31:25
2	Si 251.611†	34410.2	32794.6	2493.1 µg/L	2493.1 ppb	22:31:25
2	Sn 189.927†	1238.8	1191.5	502.49 µg/L	502.49 ppb	22:31:46
2	Ti 334.940†	233343.5	224319.0	495.93 µg/L	495.93 ppb	22:31:20
2	Tl 190.801†	367.3	375.8	494.02 µg/L	494.02 ppb	22:31:46
2	U 409.014†	6220.8	6061.9	502.66 µg/L	502.66 ppb	22:31:25
2	V 292.402†	52607.1	50656.7	499.78 µg/L	499.78 ppb	22:31:25
2	Zn 213.857†	22751.7	21354.5	497.50 µg/L	497.50 ppb	22:31:25
3	Sc RADIAL	58365.6	58365.6	103 %		22:30:14
3	Al 396.153Radial†	7315.7	7074.0	4912.7 µg/L	4912.7 ppb	22:30:14
3	Ca 317.933Radial†	6114.6	5707.4	4875.1 µg/L	4875.1 ppb	22:30:35
3	Fe 238.204 Radial†	676.6	638.4	5044.0 µg/L	5044.0 ppb	22:30:35
3	K 766.490 Radial†	7852.7	7436.1	4856.6 µg/L	4856.6 ppb	22:30:14
3	Mg 279.077 IEC†	588.1	556.4	4975.0 µg/L	4975.0 ppb	22:30:35
3	Na 589.592 Radial†	33380.9	31839.2	9779.2 µg/L	9779.2 ppb	22:30:14
3	Sr 421.552†	53545.1	51800.8	477.87 µg/L	477.87 ppb	22:30:14
3	Sc 361.383	2043729.2	2043729.2	104.11 %		22:31:53
3	Y 371.029	1408593.8	1408593.8	104.13 %		22:31:53
3	Ag 328.068†	63043.1	60958.1	454.71 µg/L	454.71 ppb	22:31:59
3	As 188.979†	236.2	227.4	406.78 µg/L	406.78 ppb	22:32:19
3	B 249.677†	11737.4	10890.3	441.92 µg/L	441.92 ppb	22:31:59
3	Ba 233.527†	19144.9	18406.8	442.67 µg/L	442.67 ppb	22:31:59
3	Be 313.107†	787482.0	759277.6	450.47 µg/L	450.47 ppb	22:31:53
3	Cd 226.502†	18429.0	17843.8	444.91 µg/L	444.91 ppb	22:31:59
3	Co 228.616†	10101.0	9700.6	438.75 µg/L	438.75 ppb	22:31:59
3	Cr 267.716†	22032.4	21213.7	426.35 µg/L	426.35 ppb	22:31:59
3	Cu 324.752†	71814.1	66437.9	434.37 µg/L	434.37 ppb	22:31:59
3	Mn 257.610†	153006.9	147227.9	461.52 µg/L	461.52 ppb	22:31:53
3	Mo 202.031†	4291.5	4127.6	404.39 µg/L	404.39 ppb	22:32:19
3	Ni 231.604†	9506.0	8818.7	439.15 µg/L	439.15 ppb	22:31:59
3	P 214.914†	1088.9	1030.6	1997.8 µg/L	1997.8 ppb	22:32:19
3	Pb 220.353†	1879.9	1714.8	416.92 µg/L	416.92 ppb	22:32:19
3	S 181.975 Axial†	233.9	205.7	853.14 µg/L	853.14 ppb	22:32:19
3	Sb 206.836†	487.4	445.7	410.48 µg/L	410.48 ppb	22:32:19
3	Se 196.026†	334.7	302.2	432.42 µg/L	432.42 ppb	22:32:19
3	SiO2†	26915.4	24462.2	4828.5 µg/L	4828.5 ppb	22:31:59
3	Si 251.611†	31276.8	29732.5	2260.3 µg/L	2260.3 ppb	22:31:59
3	Sn 189.927†	992.2	952.7	401.80 µg/L	401.80 ppb	22:32:19
3	Ti 334.940†	210120.3	201657.6	445.80 µg/L	445.80 ppb	22:31:53
3	Tl 190.801†	321.4	331.1	435.55 µg/L	435.55 ppb	22:32:19
3	U 409.014†	5208.6	5080.2	421.09 µg/L	421.09 ppb	22:31:59
3	V 292.402†	46007.3	44237.5	436.24 µg/L	436.24 ppb	22:31:59
3	Zn 213.857†	20128.9	18800.6	437.93 µg/L	437.93 ppb	22:31:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2039808.3	103.91	%	0.220				0.21%
Sc RADIAL	58497.9	104	%	0.3				0.28%
Y 371.029	1405279.1	103.88	%	0.257				0.25%
Ag 328.068†	64217.1	479.13	µg/L	21.214	479.13	ppb	21.214	4.43%
QC value within limits for Ag 328.068 Recovery = 95.83%								
Al 396.153Radial†	7022.7	4875.6	µg/L	41.78	4875.6	ppb	41.78	0.86%
QC value within limits for Al 396.153Radial Recovery = 97.51%								
As 188.979†	266.1	476.03	µg/L	60.144	476.03	ppb	60.144	12.63%
QC value within limits for As 188.979 Recovery = 95.21%								
B 249.677†	11555.3	469.13	µg/L	23.641	469.13	ppb	23.641	5.04%
QC value within limits for B 249.677 Recovery = 93.83%								
Ba 233.527†	19906.6	478.76	µg/L	31.281	478.76	ppb	31.281	6.53%
QC value within limits for Ba 233.527 Recovery = 95.75%								
Be 313.107†	809696.0	480.38	µg/L	25.921	480.38	ppb	25.921	5.40%
QC value within limits for Be 313.107 Recovery = 96.08%								
Ca 317.933Radial†	5678.8	4850.7	µg/L	29.85	4850.7	ppb	29.85	0.62%
QC value within limits for Ca 317.933Radial Recovery = 97.01%								
Cd 226.502†	19350.6	482.54	µg/L	32.625	482.54	ppb	32.625	6.76%
QC value within limits for Cd 226.502 Recovery = 96.51%								
Co 228.616†	10595.3	479.27	µg/L	35.131	479.27	ppb	35.131	7.33%

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   QC value within limits for Co 228.616  Recovery = 95.85%
Cr 267.716†            23752.8      477.38 µg/L        44.202      477.38 ppb         44.202   9.26%
   QC value within limits for Cr 267.716  Recovery = 95.48%
Cu 324.752†            72416.0      473.39 µg/L        33.839      473.39 ppb         33.839   7.15%
   QC value within limits for Cu 324.752  Recovery = 94.68%
Fe 238.204 Radial†       630.7      4984.7 µg/L         69.64      4984.7 ppb          69.64   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.69%
K 766.490 Radial†       7373.1      4815.5 µg/L         37.19      4815.5 ppb          37.19   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.31%
Mg 279.077 IEC†          552.9      4945.1 µg/L         34.85      4945.1 ppb          34.85   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.90%
Mn 257.610†           156536.5      490.66 µg/L        25.244      490.66 ppb         25.244   5.14%
   QC value within limits for Mn 257.610  Recovery = 98.13%
Mo 202.031†             4832.2      473.39 µg/L        60.270      473.39 ppb         60.270  12.73%
   QC value within limits for Mo 202.031  Recovery = 94.68%
Na 589.592 Radial†     31670.8      9727.5 µg/L         49.45      9727.5 ppb          49.45   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 97.27%
Ni 231.604†             9636.3      479.86 µg/L        35.292      479.86 ppb         35.292   7.35%
   QC value within limits for Ni 231.604  Recovery = 95.97%
P 214.914†              1198.5      2327.3 µg/L        286.98      2327.3 ppb         286.98  12.33%
   QC value within limits for P 214.914  Recovery = 93.09%
Pb 220.353†             1951.3      474.48 µg/L        50.304      474.48 ppb         50.304  10.60%
   QC value within limits for Pb 220.353  Recovery = 94.90%
S 181.975 Axial†         228.3      946.59 µg/L        81.017      946.59 ppb         81.017   8.56%
   QC value within limits for S 181.975 Axial  Recovery = 94.66%
Sb 206.836†              514.5      474.27 µg/L        55.421      474.27 ppb         55.421  11.69%
   QC value within limits for Sb 206.836  Recovery = 94.85%
Se 196.026†              341.4      487.28 µg/L        47.618      487.28 ppb         47.618   9.77%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†                  26167.9      5165.2 µg/L        291.74      5165.2 ppb         291.74   5.65%
   QC value within limits for SiO2  Recovery = 96.59%
Si 251.611†            31786.7      2416.5 µg/L        135.25      2416.5 ppb         135.25   5.60%
   QC value within limits for Si 251.611  Recovery = 96.66%
Sn 189.927†             1123.2      473.68 µg/L        62.666      473.68 ppb         62.666  13.23%
   QC value within limits for Sn 189.927  Recovery = 94.74%
Sr 421.552†            51536.7      475.43 µg/L         2.918      475.43 ppb          2.918   0.61%
   QC value within limits for Sr 421.552  Recovery = 95.09%
Ti 334.940†           216462.3      478.55 µg/L        28.383      478.55 ppb         28.383   5.93%
   QC value within limits for Ti 334.940  Recovery = 95.71%
Tl 190.801†              364.5      479.18 µg/L        38.424      479.18 ppb         38.424   8.02%
   QC value within limits for Tl 190.801  Recovery = 95.84%
U 409.014†              5739.5      475.88 µg/L        47.453      475.88 ppb         47.453   9.97%
   QC value within limits for U 409.014  Recovery = 95.18%
V 292.402†             48617.4      479.62 µg/L        37.602      479.62 ppb         37.602   7.84%
   QC value within limits for V 292.402  Recovery = 95.92%
Zn 213.857†            20540.2      478.50 µg/L        35.162      478.50 ppb         35.162   7.35%
   QC value within limits for Zn 213.857  Recovery = 95.70%
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 22:32:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57585.6	57585.6	102	%			22:33:01
1	Al 396.153Radial†	5.3	-2.2	-1.5487	µg/L	-1.5487	ppb	22:33:01
1	Ca 317.933Radial†	199.5	-15.5	-13.282	µg/L	-13.282	ppb	22:33:21
1	Fe 238.204 Radial†	20.4	3.4	26.948	µg/L	26.948	ppb	22:33:21
1	K 766.490 Radial†	158.3	-9.7	-6.3145	µg/L	-6.3145	ppb	22:33:01
1	Mg 279.077 IEC†	8.9	-4.1	-36.991	µg/L	-36.991	ppb	22:33:21
1	Na 589.592 Radial†	494.2	12.6	3.8754	µg/L	3.8754	ppb	22:33:01
1	Sr 421.552†	59.2	29.3	0.2704	µg/L	0.2704	ppb	22:33:01
1	Sc 361.383	2051484.5	2051484.5	104.50	%			22:34:23
1	Y 371.029	1418561.0	1418561.0	104.86	%			22:34:23
1	Ag 328.068†	-445.9	-25.1	-0.1823	µg/L	-0.1823	ppb	22:34:29
1	As 188.979†	-1.0	-0.5	-0.8315	µg/L	-0.8315	ppb	22:34:50
1	B 249.677†	342.4	-56.5	-2.3170	µg/L	-2.3170	ppb	22:34:50
1	Ba 233.527†	-1.6	15.5	0.3732	µg/L	0.3732	ppb	22:34:50
1	Be 313.107†	-2684.5	286.8	0.1700	µg/L	0.1700	ppb	22:34:29
1	Cd 226.502†	-134.7	12.8	0.3141	µg/L	0.3141	ppb	22:34:50
1	Co 228.616†	5.1	3.0	0.1333	µg/L	0.1333	ppb	22:34:50
1	Cr 267.716†	-65.0	-11.8	-0.2372	µg/L	-0.2372	ppb	22:34:29
1	Cu 324.752†	2592.8	-62.6	-0.4051	µg/L	-0.4051	ppb	22:34:29
1	Mn 257.610†	-124.4	137.0	0.4341	µg/L	0.4341	ppb	22:34:50
1	Mo 202.031†	5.4	10.5	1.0332	µg/L	1.0332	ppb	22:34:50
1	Ni 231.604†	295.9	-29.2	-1.4535	µg/L	-1.4535	ppb	22:34:50
1	P 214.914†	14.2	-1.7	-3.4035	µg/L	-3.4035	ppb	22:34:50
1	Pb 220.353†	72.1	-21.9	-5.3315	µg/L	-5.3315	ppb	22:34:50
1	S 181.975 Axial†	15.1	-4.5	-18.600	µg/L	-18.600	ppb	22:34:50
1	Sb 206.836†	20.6	-2.8	-2.5618	µg/L	-2.5618	ppb	22:34:50
1	Se 196.026†	11.2	-8.6	-11.983	µg/L	-11.983	ppb	22:34:50
1	SiO2†	1533.6	76.0	14.992	µg/L	14.992	ppb	22:34:29
1	Si 251.611†	415.1	86.5	6.5795	µg/L	6.5795	ppb	22:34:50
1	Sn 189.927†	6.3	5.6	2.3743	µg/L	2.3743	ppb	22:34:50
1	Ti 334.940†	459.3	264.5	0.5877	µg/L	0.5877	ppb	22:34:29
1	Tl 190.801†	-16.4	6.7	8.6669	µg/L	8.6669	ppb	22:34:50
1	U 409.014†	-23.7	54.4	4.5141	µg/L	4.5141	ppb	22:34:29
1	V 292.402†	-14.3	31.1	0.3185	µg/L	0.3185	ppb	22:34:29
1	Zn 213.857†	548.1	-9.9	-0.2254	µg/L	-0.2254	ppb	22:34:50
2	Sc RADIAL	57789.7	57789.7	102	%			22:33:27
2	Al 396.153Radial†	21.4	13.5	9.3709	µg/L	9.3709	ppb	22:33:27
2	Ca 317.933Radial†	195.9	-19.7	-16.863	µg/L	-16.863	ppb	22:33:47
2	Fe 238.204 Radial†	20.7	3.6	28.742	µg/L	28.742	ppb	22:33:47
2	K 766.490 Radial†	226.2	56.1	36.646	µg/L	36.646	ppb	22:33:27
2	Mg 279.077 IEC†	16.1	2.9	26.324	µg/L	26.324	ppb	22:33:47
2	Na 589.592 Radial†	490.2	7.0	2.1478	µg/L	2.1478	ppb	22:33:27
2	Sr 421.552†	22.7	-6.6	-0.0609	µg/L	-0.0609	ppb	22:33:27
2	Sc 361.383	2059030.4	2059030.4	104.89	%			22:34:56
2	Y 371.029	1423097.5	1423097.5	105.20	%			22:34:56
2	Ag 328.068†	-410.0	10.7	0.0820	µg/L	0.0820	ppb	22:35:01
2	As 188.979†	0.0	0.5	0.8834	µg/L	0.8834	ppb	22:35:22
2	B 249.677†	341.5	-58.6	-2.4029	µg/L	-2.4029	ppb	22:35:22
2	Ba 233.527†	-2.3	14.9	0.3573	µg/L	0.3573	ppb	22:35:22
2	Be 313.107†	-2672.8	307.4	0.1821	µg/L	0.1821	ppb	22:35:01
2	Cd 226.502†	-134.9	13.0	0.3213	µg/L	0.3213	ppb	22:35:22
2	Co 228.616†	2.8	0.8	0.0344	µg/L	0.0344	ppb	22:35:22
2	Cr 267.716†	-81.2	-27.0	-0.5422	µg/L	-0.5422	ppb	22:35:01
2	Cu 324.752†	2590.0	-74.3	-0.4813	µg/L	-0.4813	ppb	22:35:01
2	Mn 257.610†	-125.4	136.4	0.4300	µg/L	0.4300	ppb	22:35:22
2	Mo 202.031†	10.9	15.7	1.5422	µg/L	1.5422	ppb	22:35:22
2	Ni 231.604†	311.0	-15.8	-0.7893	µg/L	-0.7893	ppb	22:35:22
2	P 214.914†	11.5	-4.4	-8.6739	µg/L	-8.6739	ppb	22:35:22
2	Pb 220.353†	84.7	-10.2	-2.4785	µg/L	-2.4785	ppb	22:35:22

2	S 181.975 Axial†	13.6	-5.9	-24.609 µg/L	-24.609 ppb	22:35:22
2	Sb 206.836†	20.6	-2.9	-2.6273 µg/L	-2.6273 ppb	22:35:22
2	Se 196.026†	13.7	-6.2	-8.6858 µg/L	-8.6858 ppb	22:35:22
2	SiO2†	1497.0	35.7	7.0424 µg/L	7.0424 ppb	22:35:01
2	Si 251.611†	415.0	85.0	6.4614 µg/L	6.4614 ppb	22:35:22
2	Sn 189.927†	-0.4	-0.8	-0.3270 µg/L	-0.3270 ppb	22:35:22
2	Ti 334.940†	561.8	360.6	0.7953 µg/L	0.7953 ppb	22:35:01
2	Tl 190.801†	-23.2	0.3	0.4055 µg/L	0.4055 ppb	22:35:22
2	U 409.014†	-36.1	42.7	3.5443 µg/L	3.5443 ppb	22:35:01
2	V 292.402†	-37.1	9.3	0.1087 µg/L	0.1087 ppb	22:35:01
2	Zn 213.857†	547.0	-12.9	-0.3007 µg/L	-0.3007 ppb	22:35:22
3	Sc RADIAL	58397.7	58397.7	103 %		22:33:53
3	Al 396.153Radial†	22.9	14.8	10.265 µg/L	10.265 ppb	22:33:53
3	Ca 317.933Radial†	200.0	-17.8	-15.186 µg/L	-15.186 ppb	22:34:13
3	Fe 238.204 Radial†	19.3	2.1	16.862 µg/L	16.862 ppb	22:34:13
3	K 766.490 Radial†	136.3	-33.1	-21.647 µg/L	-21.647 ppb	22:33:53
3	Mg 279.077 IEC†	14.6	1.3	11.823 µg/L	11.823 ppb	22:34:13
3	Na 589.592 Radial†	421.2	-64.8	-19.889 µg/L	-19.889 ppb	22:33:53
3	Sr 421.552†	64.0	33.2	0.3059 µg/L	0.3059 ppb	22:33:53
3	Sc 361.383	2079286.4	2079286.4	105.92 %		22:35:28
3	Y 371.029	1436370.2	1436370.2	106.18 %		22:35:28
3	Ag 328.068†	-401.1	23.0	0.1715 µg/L	0.1715 ppb	22:35:33
3	As 188.979†	-1.6	-1.1	-1.9606 µg/L	-1.9606 ppb	22:35:54
3	B 249.677†	336.5	-66.4	-2.7154 µg/L	-2.7154 ppb	22:35:54
3	Ba 233.527†	1.7	18.7	0.4487 µg/L	0.4487 ppb	22:35:54
3	Be 313.107†	-2775.1	235.6	0.1396 µg/L	0.1396 ppb	22:35:33
3	Cd 226.502†	-139.5	10.0	0.2455 µg/L	0.2455 ppb	22:35:54
3	Co 228.616†	10.9	8.4	0.3796 µg/L	0.3796 ppb	22:35:54
3	Cr 267.716†	-70.2	-15.9	-0.3195 µg/L	-0.3195 ppb	22:35:33
3	Cu 324.752†	2569.1	-118.2	-0.7690 µg/L	-0.7690 ppb	22:35:33
3	Mn 257.610†	-151.1	113.3	0.3567 µg/L	0.3567 ppb	22:35:54
3	Mo 202.031†	3.0	8.2	0.8026 µg/L	0.8026 ppb	22:35:54
3	Ni 231.604†	308.0	-21.5	-1.0742 µg/L	-1.0742 ppb	22:35:54
3	P 214.914†	13.2	-2.9	-5.5667 µg/L	-5.5667 ppb	22:35:54
3	Pb 220.353†	82.0	-13.5	-3.2847 µg/L	-3.2847 ppb	22:35:54
3	S 181.975 Axial†	14.9	-4.9	-20.286 µg/L	-20.286 ppb	22:35:54
3	Sb 206.836†	22.1	-1.6	-1.4644 µg/L	-1.4644 ppb	22:35:54
3	Se 196.026†	20.9	0.5	0.6738 µg/L	0.6738 ppb	22:35:54
3	SiO2†	1489.3	14.6	2.8738 µg/L	2.8738 ppb	22:35:33
3	Si 251.611†	397.3	64.5	4.9030 µg/L	4.9030 ppb	22:35:54
3	Sn 189.927†	6.3	5.5	2.3325 µg/L	2.3325 ppb	22:35:54
3	Ti 334.940†	437.9	238.4	0.5262 µg/L	0.5262 ppb	22:35:33
3	Tl 190.801†	-21.4	2.1	2.7949 µg/L	2.7949 ppb	22:35:54
3	U 409.014†	-23.5	54.9	4.5578 µg/L	4.5578 ppb	22:35:33
3	V 292.402†	-40.4	6.6	0.0767 µg/L	0.0767 ppb	22:35:33
3	Zn 213.857†	544.4	-20.4	-0.4742 µg/L	-0.4742 ppb	22:35:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2063267.1	105.10	%	0.732				0.70%
Sc RADIAL	57924.4	103	%	0.7				0.73%
Y 371.029	1426009.6	105.42	%	0.684				0.65%
Ag 328.068†	2.9	0.0237	µg/L	0.18398	0.0237	ppb	0.18398	775.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.7	6.0290	µg/L	6.57768	6.0290	ppb	6.57768	109.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.6362	µg/L	1.43200	-0.6362	ppb	1.43200	225.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-60.5	-2.4784	µg/L	0.20968	-2.4784	ppb	0.20968	8.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.4	0.3931	µg/L	0.04879	0.3931	ppb	0.04879	12.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	276.6	0.1639	µg/L	0.02189	0.1639	ppb	0.02189	13.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-17.7	-15.110	µg/L	1.7919	-15.110	ppb	1.7919	11.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	11.9	0.2936	µg/L	0.04185	0.2936	ppb	0.04185	14.25%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.0	0.1824	µg/L	0.17774	0.1824	ppb	0.17774	97.43%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -18.2     -0.3663 µg/L       0.15776     -0.3663 ppb        0.15776  43.07%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -85.1     -0.5518 µg/L       0.19193     -0.5518 ppb        0.19193  34.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.1      24.184 µg/L        6.4042      24.184 ppb         6.4042  26.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          4.4      2.8948 µg/L      30.21809      2.8948 ppb       30.21809 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.0      0.3851 µg/L      33.17092      0.3851 ppb       33.17092 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              128.9      0.4069 µg/L       0.04360      0.4069 ppb        0.04360  10.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               11.5      1.1260 µg/L       0.37846      1.1260 ppb        0.37846  33.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -15.0     -4.6218 µg/L      13.24967     -4.6218 ppb       13.24967 286.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -22.2     -1.1057 µg/L       0.33322     -1.1057 ppb        0.33322  30.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -3.0     -5.8814 µg/L       2.64922     -5.8814 ppb        2.64922  45.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -15.2     -3.6982 µg/L       1.47080     -3.6982 ppb        1.47080  39.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.1     -21.165 µg/L        3.0996     -21.165 ppb         3.0996  14.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.4     -2.2178 µg/L       0.65333     -2.2178 ppb        0.65333  29.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -4.8     -6.6652 µg/L       6.56608     -6.6652 ppb        6.56608  98.51%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     42.1      8.3028 µg/L       6.15672      8.3028 ppb        6.15672  74.15%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               78.7      5.9813 µg/L       0.93570      5.9813 ppb        0.93570  15.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.5      1.4599 µg/L       1.54769      1.4599 ppb        1.54769 106.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               18.6      0.1718 µg/L       0.20227      0.1718 ppb        0.20227 117.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              287.8      0.6364 µg/L       0.14099      0.6364 ppb        0.14099  22.15%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.0      3.9558 µg/L       4.25132      3.9558 ppb        4.25132 107.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                50.6      4.2054 µg/L       0.57295      4.2054 ppb        0.57295  13.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                15.7      0.1680 µg/L       0.13134      0.1680 ppb        0.13134  78.20%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.4     -0.3334 µg/L       0.12760     -0.3334 ppb        0.12760  38.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 23:05:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57547.7	57547.7	102	%			23:06:14
1	Al 396.153Radial†	7371.7	7229.5	5018.7	µg/L	5018.7	ppb	23:06:14
1	Ca 317.933Radial†	6105.6	5782.7	4939.5	µg/L	4939.5	ppb	23:06:34
1	Fe 238.204 Radial†	677.8	648.8	5128.1	µg/L	5128.1	ppb	23:06:34
1	K 766.490 Radial†	7884.7	7575.6	4947.8	µg/L	4947.8	ppb	23:06:14
1	Mg 279.077 IEC†	592.4	568.8	5087.4	µg/L	5087.4	ppb	23:06:34
1	Na 589.592 Radial†	33515.4	32430.5	9960.8	µg/L	9960.8	ppb	23:06:14
1	Sr 421.552†	53729.8	52718.8	486.34	µg/L	486.34	ppb	23:06:14
1	Sc 361.383	2017392.3	2017392.3	102.76	%			23:07:38
1	Y 371.029	1390584.4	1390584.4	102.80	%			23:07:38
1	Ag 328.068†	68163.9	66731.8	497.94	µg/L	497.94	ppb	23:07:43
1	As 188.979†	293.3	285.9	511.44	µg/L	511.44	ppb	23:08:04
1	B 249.677†	12721.2	11994.8	487.02	µg/L	487.02	ppb	23:07:43
1	Ba 233.527†	21407.2	20848.3	501.41	µg/L	501.41	ppb	23:07:43
1	Be 313.107†	853098.2	833003.6	494.20	µg/L	494.20	ppb	23:07:38
1	Cd 226.502†	20695.3	20280.2	505.74	µg/L	505.74	ppb	23:07:43
1	Co 228.616†	11453.9	11143.8	504.11	µg/L	504.11	ppb	23:07:43
1	Cr 267.716†	25823.0	25178.7	506.03	µg/L	506.03	ppb	23:07:43
1	Cu 324.752†	81137.5	76410.9	499.48	µg/L	499.48	ppb	23:07:43
1	Mn 257.610†	165189.1	161001.2	504.66	µg/L	504.66	ppb	23:07:38
1	Mo 202.031†	5400.3	5260.4	515.32	µg/L	515.32	ppb	23:08:04
1	Ni 231.604†	10765.7	10163.7	506.12	µg/L	506.12	ppb	23:07:43
1	P 214.914†	1337.7	1286.4	2499.1	µg/L	2499.1	ppb	23:08:04
1	Pb 220.353†	2230.8	2079.9	505.79	µg/L	505.79	ppb	23:08:04
1	S 181.975 Axial†	266.5	240.4	997.09	µg/L	997.09	ppb	23:08:04
1	Sb 206.836†	602.9	564.2	520.17	µg/L	520.17	ppb	23:08:04
1	Se 196.026†	387.5	357.8	510.54	µg/L	510.54	ppb	23:08:04
1	SiO2†	29659.8	27470.3	5422.3	µg/L	5422.3	ppb	23:07:43
1	Si 251.611†	34569.1	33328.5	2533.7	µg/L	2533.7	ppb	23:07:43
1	Sn 189.927†	1265.3	1230.9	519.12	µg/L	519.12	ppb	23:08:04
1	Ti 334.940†	230288.9	223918.6	495.03	µg/L	495.03	ppb	23:07:38
1	Tl 190.801†	382.1	394.2	517.92	µg/L	517.92	ppb	23:08:04
1	U 409.014†	6115.9	6028.5	499.86	µg/L	499.86	ppb	23:07:43
1	V 292.402†	52555.8	51186.7	505.09	µg/L	505.09	ppb	23:07:43
1	Zn 213.857†	22705.6	21560.3	502.26	µg/L	502.26	ppb	23:07:43
2	Sc RADIAL	58133.5	58133.5	103	%			23:06:40
2	Al 396.153Radial†	7400.2	7184.4	4987.5	µg/L	4987.5	ppb	23:06:40
2	Ca 317.933Radial†	6079.1	5696.6	4865.9	µg/L	4865.9	ppb	23:07:00
2	Fe 238.204 Radial†	666.8	631.5	4990.8	µg/L	4990.8	ppb	23:07:00
2	K 766.490 Radial†	7854.7	7468.4	4877.7	µg/L	4877.7	ppb	23:06:40
2	Mg 279.077 IEC†	586.6	557.3	4984.4	µg/L	4984.4	ppb	23:07:00
2	Na 589.592 Radial†	33547.1	32129.7	9868.4	µg/L	9868.4	ppb	23:06:40
2	Sr 421.552†	53696.2	52154.6	481.13	µg/L	481.13	ppb	23:06:40
2	Sc 361.383	2020250.9	2020250.9	102.91	%			23:08:11
2	Y 371.029	1392254.8	1392254.8	102.92	%			23:08:11
2	Ag 328.068†	67963.7	66443.4	495.79	µg/L	495.79	ppb	23:08:17
2	As 188.979†	286.3	278.7	498.54	µg/L	498.54	ppb	23:08:37
2	B 249.677†	12735.8	11991.5	486.95	µg/L	486.95	ppb	23:08:17
2	Ba 233.527†	21372.1	20784.7	499.88	µg/L	499.88	ppb	23:08:17
2	Be 313.107†	852994.2	831727.9	493.45	µg/L	493.45	ppb	23:08:11
2	Cd 226.502†	20623.3	20181.8	503.29	µg/L	503.29	ppb	23:08:17
2	Co 228.616†	11402.9	11078.5	501.14	µg/L	501.14	ppb	23:08:17
2	Cr 267.716†	25758.8	25080.8	504.07	µg/L	504.07	ppb	23:08:17
2	Cu 324.752†	80891.5	76060.2	497.17	µg/L	497.17	ppb	23:08:17
2	Mn 257.610†	165915.6	161479.7	506.14	µg/L	506.14	ppb	23:08:11
2	Mo 202.031†	5271.3	5127.6	502.32	µg/L	502.32	ppb	23:08:37
2	Ni 231.604†	10727.4	10111.7	503.53	µg/L	503.53	ppb	23:08:17
2	P 214.914†	1325.0	1272.2	2471.2	µg/L	2471.2	ppb	23:08:37
2	Pb 220.353†	2215.0	2061.4	501.27	µg/L	501.27	ppb	23:08:37

2	S 181.975 Axial†	262.8	236.5	980.60 µg/L	980.60 ppb	23:08:37
2	Sb 206.836†	582.8	543.8	501.33 µg/L	501.33 ppb	23:08:37
2	Se 196.026†	386.4	356.2	508.06 µg/L	508.06 ppb	23:08:37
2	SiO2†	29491.0	27265.4	5381.8 µg/L	5381.8 ppb	23:08:17
2	Si 251.611†	34394.7	33111.4	2517.2 µg/L	2517.2 ppb	23:08:17
2	Sn 189.927†	1226.1	1191.1	502.33 µg/L	502.33 ppb	23:08:37
2	Ti 334.940†	230974.1	224267.3	495.81 µg/L	495.81 ppb	23:08:11
2	Tl 190.801†	376.6	388.4	510.38 µg/L	510.38 ppb	23:08:37
2	U 409.014†	6158.6	6061.5	502.63 µg/L	502.63 ppb	23:08:17
2	V 292.402†	52563.5	51121.8	504.34 µg/L	504.34 ppb	23:08:17
2	Zn 213.857†	22699.7	21523.3	501.42 µg/L	501.42 ppb	23:08:17
3	Sc RADIAL	58082.9	58082.9	103 %		23:07:06
3	Al 396.153Radial†	7360.7	7152.2	4967.1 µg/L	4967.1 ppb	23:07:06
3	Ca 317.933Radial†	6119.1	5740.6	4903.5 µg/L	4903.5 ppb	23:07:26
3	Fe 238.204 Radial†	671.6	636.7	5030.6 µg/L	5030.6 ppb	23:07:26
3	K 766.490 Radial†	7857.6	7477.9	4883.9 µg/L	4883.9 ppb	23:07:06
3	Mg 279.077 IEC†	592.2	563.2	5035.7 µg/L	5035.7 ppb	23:07:26
3	Na 589.592 Radial†	33558.5	32169.2	9880.5 µg/L	9880.5 ppb	23:07:06
3	Sr 421.552†	53798.8	52299.8	482.47 µg/L	482.47 ppb	23:07:06
3	Sc 361.383	2030492.5	2030492.5	103.43 %		23:08:44
3	Y 371.029	1399481.5	1399481.5	103.45 %		23:08:44
3	Ag 328.068†	61967.1	60312.6	449.89 µg/L	449.89 ppb	23:08:50
3	As 188.979†	236.7	229.3	410.26 µg/L	410.26 ppb	23:09:10
3	B 249.677†	11514.3	10748.1	436.11 µg/L	436.11 ppb	23:08:50
3	Ba 233.527†	18722.2	18118.1	435.73 µg/L	435.73 ppb	23:08:50
3	Be 313.107†	776418.3	753512.1	447.04 µg/L	447.04 ppb	23:08:44
3	Cd 226.502†	17928.8	17475.6	435.72 µg/L	435.72 ppb	23:08:50
3	Co 228.616†	9860.5	9531.4	431.09 µg/L	431.09 ppb	23:08:50
3	Cr 267.716†	21552.8	20888.1	419.81 µg/L	419.81 ppb	23:08:50
3	Cu 324.752†	70553.7	65668.9	429.35 µg/L	429.35 ppb	23:08:50
3	Mn 257.610†	151097.3	146339.8	458.73 µg/L	458.73 ppb	23:08:44
3	Mo 202.031†	4274.6	4138.1	405.42 µg/L	405.42 ppb	23:09:10
3	Ni 231.604†	9262.5	8642.8	430.39 µg/L	430.39 ppb	23:08:50
3	P 214.914†	1088.9	1037.4	2012.0 µg/L	2012.0 ppb	23:09:10
3	Pb 220.353†	1862.8	1710.1	415.78 µg/L	415.78 ppb	23:09:10
3	S 181.975 Axial†	230.4	203.8	845.05 µg/L	845.05 ppb	23:09:10
3	Sb 206.836†	487.9	449.2	413.81 µg/L	413.81 ppb	23:09:10
3	Se 196.026†	331.1	300.8	430.27 µg/L	430.27 ppb	23:09:10
3	SiO2†	26594.8	24320.8	4800.6 µg/L	4800.6 ppb	23:08:50
3	Si 251.611†	30776.4	29444.6	2238.4 µg/L	2238.4 ppb	23:08:50
3	Sn 189.927†	980.5	947.6	399.66 µg/L	399.66 ppb	23:09:10
3	Ti 334.940†	208127.5	201046.7	444.44 µg/L	444.44 ppb	23:08:44
3	Tl 190.801†	323.3	335.0	440.57 µg/L	440.57 ppb	23:09:10
3	U 409.014†	5266.7	5169.0	428.47 µg/L	428.47 ppb	23:08:50
3	V 292.402†	44963.5	43516.4	429.21 µg/L	429.21 ppb	23:08:50
3	Zn 213.857†	19740.8	18551.4	432.13 µg/L	432.13 ppb	23:08:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2022711.9	103.04	%	0.351				0.34%
Sc RADIAL	57921.3	103	%	0.6				0.56%
Y 371.029	1394106.9	103.06	%	0.350				0.34%
Ag 328.068†	64495.9	481.20	µg/L	27.143	481.20	ppb	27.143	5.64%
QC value within limits for Ag 328.068 Recovery = 96.24%								
Al 396.153Radial†	7188.7	4991.1	µg/L	25.95	4991.1	ppb	25.95	0.52%
QC value within limits for Al 396.153Radial Recovery = 99.82%								
As 188.979†	264.6	473.41	µg/L	55.075	473.41	ppb	55.075	11.63%
QC value within limits for As 188.979 Recovery = 94.68%								
B 249.677†	11578.1	470.03	µg/L	29.369	470.03	ppb	29.369	6.25%
QC value within limits for B 249.677 Recovery = 94.01%								
Ba 233.527†	19917.0	479.01	µg/L	37.487	479.01	ppb	37.487	7.83%
QC value within limits for Ba 233.527 Recovery = 95.80%								
Be 313.107†	806081.2	478.23	µg/L	27.011	478.23	ppb	27.011	5.65%
QC value within limits for Be 313.107 Recovery = 95.65%								
Ca 317.933Radial†	5740.0	4903.0	µg/L	36.79	4903.0	ppb	36.79	0.75%
QC value within limits for Ca 317.933Radial Recovery = 98.06%								
Cd 226.502†	19312.5	481.58	µg/L	39.737	481.58	ppb	39.737	8.25%
QC value within limits for Cd 226.502 Recovery = 96.32%								
Co 228.616†	10584.5	478.78	µg/L	41.325	478.78	ppb	41.325	8.63%

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   QC value within limits for Co 228.616  Recovery = 95.76%
Cr 267.716†            23715.8      476.64 µg/L        49.224      476.64 ppb        49.224  10.33%
   QC value within limits for Cr 267.716  Recovery = 95.33%
Cu 324.752†            72713.4      475.34 µg/L        39.841      475.34 ppb        39.841   8.38%
   QC value within limits for Cu 324.752  Recovery = 95.07%
Fe 238.204 Radial†       639.0      5049.9 µg/L        70.60      5049.9 ppb         70.60   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.00%
K 766.490 Radial†       7507.3      4903.1 µg/L        38.76      4903.1 ppb         38.76   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 98.06%
Mg 279.077 IEC†          563.1      5035.8 µg/L        51.50      5035.8 ppb         51.50   1.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.72%
Mn 257.610†           156273.5      489.84 µg/L        26.952      489.84 ppb        26.952   5.50%
   QC value within limits for Mn 257.610  Recovery = 97.97%
Mo 202.031†             4842.0      474.35 µg/L        60.048      474.35 ppb        60.048  12.66%
   QC value within limits for Mo 202.031  Recovery = 94.87%
Na 589.592 Radial†     32243.1      9903.3 µg/L        50.20      9903.3 ppb         50.20   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 99.03%
Ni 231.604†             9639.4      480.01 µg/L        42.993      480.01 ppb        42.993   8.96%
   QC value within limits for Ni 231.604  Recovery = 96.00%
P 214.914†              1198.7      2327.4 µg/L       273.57      2327.4 ppb       273.57  11.75%
   QC value within limits for P 214.914  Recovery = 93.10%
Pb 220.353†             1950.4      474.28 µg/L        50.715      474.28 ppb        50.715  10.69%
   QC value within limits for Pb 220.353  Recovery = 94.86%
S 181.975 Axial†         226.9      940.92 µg/L        83.427      940.92 ppb        83.427   8.87%
   QC value within limits for S 181.975 Axial  Recovery = 94.09%
Sb 206.836†              519.1      478.43 µg/L        56.755      478.43 ppb        56.755  11.86%
   QC value within limits for Sb 206.836  Recovery = 95.69%
Se 196.026†              338.2      482.96 µg/L        45.644      482.96 ppb        45.644   9.45%
   QC value within limits for Se 196.026  Recovery = 96.59%
SiO2†                  26352.2      5201.6 µg/L       347.84      5201.6 ppb       347.84   6.69%
   QC value within limits for SiO2  Recovery = 97.27%
Si 251.611†            31961.5      2429.8 µg/L       165.91      2429.8 ppb       165.91   6.83%
   QC value within limits for Si 251.611  Recovery = 97.19%
Sn 189.927†             1123.2      473.71 µg/L        64.673      473.71 ppb        64.673  13.65%
   QC value within limits for Sn 189.927  Recovery = 94.74%
Sr 421.552†            52391.1      483.32 µg/L         2.703      483.32 ppb         2.703   0.56%
   QC value within limits for Sr 421.552  Recovery = 96.66%
Ti 334.940†           216410.9      478.43 µg/L        29.438      478.43 ppb        29.438   6.15%
   QC value within limits for Ti 334.940  Recovery = 95.69%
Tl 190.801†              372.5      489.62 µg/L        42.649      489.62 ppb        42.649   8.71%
   QC value within limits for Tl 190.801  Recovery = 97.92%
U 409.014†              5753.0      476.99 µg/L        42.039      476.99 ppb        42.039   8.81%
   QC value within limits for U 409.014  Recovery = 95.40%
V 292.402†             48608.3      479.54 µg/L        43.595      479.54 ppb        43.595   9.09%
   QC value within limits for V 292.402  Recovery = 95.91%
Zn 213.857†            20545.0      478.60 µg/L        40.255      478.60 ppb        40.255   8.41%
   QC value within limits for Zn 213.857  Recovery = 95.72%
All analyte(s) passed QC.
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Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 23:09:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57057.7	57057.7	101	%			23:09:52
1	Al 396.153Radial†	16.4	8.9	6.1575	µg/L	6.1575	ppb	23:09:52
1	Ca 317.933Radial†	206.6	-6.7	-5.7540	µg/L	-5.7540	ppb	23:10:13
1	Fe 238.204 Radial†	21.4	4.6	36.351	µg/L	36.351	ppb	23:10:13
1	K 766.490 Radial†	188.9	22.0	14.383	µg/L	14.383	ppb	23:09:52
1	Mg 279.077 IEC†	12.9	-0.0	-0.3283	µg/L	-0.3283	ppb	23:10:13
1	Na 589.592 Radial†	447.3	-29.3	-8.9850	µg/L	-8.9850	ppb	23:09:52
1	Sr 421.552†	72.3	42.8	0.3950	µg/L	0.3950	ppb	23:09:52
1	Sc 361.383	2009889.0	2009889.0	102.38	%			23:11:15
1	Y 371.029	1389446.2	1389446.2	102.71	%			23:11:15
1	Ag 328.068†	-351.8	58.0	0.4309	µg/L	0.4309	ppb	23:11:20
1	As 188.979†	-0.6	-0.1	-0.1425	µg/L	-0.1425	ppb	23:11:41
1	B 249.677†	354.2	-38.1	-1.5742	µg/L	-1.5742	ppb	23:11:41
1	Ba 233.527†	3.5	20.5	0.4911	µg/L	0.4911	ppb	23:11:41
1	Be 313.107†	-2657.6	259.9	0.1538	µg/L	0.1538	ppb	23:11:20
1	Cd 226.502†	-137.1	7.8	0.1907	µg/L	0.1907	ppb	23:11:41
1	Co 228.616†	3.7	1.7	0.0748	µg/L	0.0748	ppb	23:11:41
1	Cr 267.716†	-72.7	-20.6	-0.4139	µg/L	-0.4139	ppb	23:11:20
1	Cu 324.752†	2570.7	-32.8	-0.2093	µg/L	-0.2093	ppb	23:11:20
1	Mn 257.610†	-93.2	165.0	0.5214	µg/L	0.5214	ppb	23:11:41
1	Mo 202.031†	3.5	8.8	0.8615	µg/L	0.8615	ppb	23:11:41
1	Ni 231.604†	315.5	-4.1	-0.2065	µg/L	-0.2065	ppb	23:11:41
1	P 214.914†	6.9	-8.6	-17.030	µg/L	-17.030	ppb	23:11:41
1	Pb 220.353†	80.2	-12.6	-3.0691	µg/L	-3.0691	ppb	23:11:41
1	S 181.975 Axial†	13.9	-5.3	-22.180	µg/L	-22.180	ppb	23:11:41
1	Sb 206.836†	21.7	-1.3	-1.1333	µg/L	-1.1333	ppb	23:11:41
1	Se 196.026†	18.3	-1.4	-1.9095	µg/L	-1.9095	ppb	23:11:41
1	SiO2†	1515.1	88.3	17.432	µg/L	17.432	ppb	23:11:20
1	Si 251.611†	427.0	106.4	8.0899	µg/L	8.0899	ppb	23:11:41
1	Sn 189.927†	4.7	4.2	1.7607	µg/L	1.7607	ppb	23:11:41
1	Ti 334.940†	771.1	578.1	1.2789	µg/L	1.2789	ppb	23:11:20
1	Tl 190.801†	-21.8	1.1	1.4577	µg/L	1.4577	ppb	23:11:41
1	U 409.014†	-16.0	61.5	5.1011	µg/L	5.1011	ppb	23:11:20
1	V 292.402†	-58.9	-12.8	-0.1096	µg/L	-0.1096	ppb	23:11:20
1	Zn 213.857†	542.3	-4.8	-0.1123	µg/L	-0.1123	ppb	23:11:41
2	Sc RADIAL	57071.4	57071.4	101	%			23:10:18
2	Al 396.153Radial†	8.3	0.9	0.5821	µg/L	0.5821	ppb	23:10:18
2	Ca 317.933Radial†	214.5	1.1	0.8983	µg/L	0.8983	ppb	23:10:39
2	Fe 238.204 Radial†	18.1	1.4	10.777	µg/L	10.777	ppb	23:10:39
2	K 766.490 Radial†	267.4	99.8	65.151	µg/L	65.151	ppb	23:10:18
2	Mg 279.077 IEC†	10.1	-2.8	-24.932	µg/L	-24.932	ppb	23:10:39
2	Na 589.592 Radial†	432.3	-44.2	-13.583	µg/L	-13.583	ppb	23:10:18
2	Sr 421.552†	50.5	21.2	0.1956	µg/L	0.1956	ppb	23:10:18
2	Sc 361.383	2020781.7	2020781.7	102.94	%			23:11:47
2	Y 371.029	1396749.0	1396749.0	103.25	%			23:11:47
2	Ag 328.068†	-396.9	16.1	0.1175	µg/L	0.1175	ppb	23:11:52
2	As 188.979†	0.7	1.2	2.0940	µg/L	2.0940	ppb	23:12:13
2	B 249.677†	344.3	-49.7	-2.0296	µg/L	-2.0296	ppb	23:12:13
2	Ba 233.527†	10.9	27.7	0.6639	µg/L	0.6639	ppb	23:12:13
2	Be 313.107†	-2676.0	256.0	0.1515	µg/L	0.1515	ppb	23:11:52
2	Cd 226.502†	-146.1	-0.3	-0.0086	µg/L	-0.0086	ppb	23:12:13
2	Co 228.616†	4.5	2.5	0.1093	µg/L	0.1093	ppb	23:12:13
2	Cr 267.716†	-64.9	-12.7	-0.2549	µg/L	-0.2549	ppb	23:11:52
2	Cu 324.752†	2583.3	-34.1	-0.2211	µg/L	-0.2211	ppb	23:11:52
2	Mn 257.610†	33.5	288.6	0.9061	µg/L	0.9061	ppb	23:12:13
2	Mo 202.031†	-0.1	5.2	0.5097	µg/L	0.5097	ppb	23:12:13
2	Ni 231.604†	310.4	-10.8	-0.5376	µg/L	-0.5376	ppb	23:12:13
2	P 214.914†	14.3	-1.5	-2.8930	µg/L	-2.8930	ppb	23:12:13
2	Pb 220.353†	90.6	-3.0	-0.7206	µg/L	-0.7206	ppb	23:12:13

2	S 181.975 Axial†	16.0	-3.4	-13.920 µg/L	-13.920 ppb	23:12:13
2	Sb 206.836†	23.1	-0.0	-0.0297 µg/L	-0.0297 ppb	23:12:13
2	Se 196.026†	15.7	-4.0	-5.6316 µg/L	-5.6316 ppb	23:12:13
2	SiO2†	1556.9	120.9	23.873 µg/L	23.873 ppb	23:11:52
2	Si 251.611†	460.7	136.9	10.406 µg/L	10.406 ppb	23:12:13
2	Sn 189.927†	-0.9	-1.2	-0.5120 µg/L	-0.5120 ppb	23:12:13
2	Ti 334.940†	740.4	544.2	1.2058 µg/L	1.2058 ppb	23:11:52
2	Tl 190.801†	-24.4	-1.3	-1.6505 µg/L	-1.6505 ppb	23:12:13
2	U 409.014†	-55.3	23.4	1.9414 µg/L	1.9414 ppb	23:11:52
2	V 292.402†	-83.3	-36.2	-0.3461 µg/L	-0.3461 ppb	23:11:52
2	Zn 213.857†	542.3	-7.6	-0.1746 µg/L	-0.1746 ppb	23:12:13
3	Sc RADIAL	57024.4	57024.4	101 %		23:10:44
3	Al 396.153Radial†	28.2	20.6	14.312 µg/L	14.312 ppb	23:10:44
3	Ca 317.933Radial†	203.6	-9.6	-8.1744 µg/L	-8.1744 ppb	23:11:04
3	Fe 238.204 Radial†	19.9	3.1	24.715 µg/L	24.715 ppb	23:11:04
3	K 766.490 Radial†	255.2	87.8	57.354 µg/L	57.354 ppb	23:10:44
3	Mg 279.077 IEC†	13.0	0.1	0.7509 µg/L	0.7509 ppb	23:11:04
3	Na 589.592 Radial†	480.3	3.7	1.1222 µg/L	1.1222 ppb	23:10:44
3	Sr 421.552†	41.1	11.9	0.1098 µg/L	0.1098 ppb	23:10:44
3	Sc 361.383	2015035.0	2015035.0	102.64 %		23:12:19
3	Y 371.029	1393345.2	1393345.2	103.00 %		23:12:19
3	Ag 328.068†	-399.3	12.6	0.0933 µg/L	0.0933 ppb	23:12:25
3	As 188.979†	1.9	2.3	4.1656 µg/L	4.1656 ppb	23:12:45
3	B 249.677†	334.7	-58.0	-2.3782 µg/L	-2.3782 ppb	23:12:45
3	Ba 233.527†	-4.7	12.5	0.2988 µg/L	0.2988 ppb	23:12:45
3	Be 313.107†	-2569.3	352.6	0.2090 µg/L	0.2090 ppb	23:12:25
3	Cd 226.502†	-138.5	6.8	0.1657 µg/L	0.1657 ppb	23:12:45
3	Co 228.616†	7.6	5.5	0.2480 µg/L	0.2480 ppb	23:12:45
3	Cr 267.716†	-72.8	-20.5	-0.4127 µg/L	-0.4127 ppb	23:12:25
3	Cu 324.752†	2608.3	-2.6	-0.0135 µg/L	-0.0135 ppb	23:12:25
3	Mn 257.610†	-109.2	149.6	0.4717 µg/L	0.4717 ppb	23:12:45
3	Mo 202.031†	8.3	13.4	1.3150 µg/L	1.3150 ppb	23:12:45
3	Ni 231.604†	307.9	-12.4	-0.6185 µg/L	-0.6185 ppb	23:12:45
3	P 214.914†	9.6	-6.0	-11.945 µg/L	-11.945 ppb	23:12:45
3	Pb 220.353†	89.3	-3.9	-0.9624 µg/L	-0.9624 ppb	23:12:45
3	S 181.975 Axial†	17.3	-2.1	-8.6936 µg/L	-8.6936 ppb	23:12:45
3	Sb 206.836†	27.2	4.0	3.6685 µg/L	3.6685 ppb	23:12:45
3	Se 196.026†	14.5	-5.2	-7.2537 µg/L	-7.2537 ppb	23:12:45
3	SiO2†	1511.8	81.3	16.045 µg/L	16.045 ppb	23:12:25
3	Si 251.611†	407.9	86.8	6.5981 µg/L	6.5981 ppb	23:12:45
3	Sn 189.927†	1.5	1.1	0.4522 µg/L	0.4522 ppb	23:12:45
3	Ti 334.940†	528.4	339.7	0.7514 µg/L	0.7514 ppb	23:12:25
3	Tl 190.801†	-23.3	-0.4	-0.4507 µg/L	-0.4507 ppb	23:12:45
3	U 409.014†	10.8	87.6	7.2739 µg/L	7.2739 ppb	23:12:25
3	V 292.402†	-68.0	-21.5	-0.1901 µg/L	-0.1901 ppb	23:12:25
3	Zn 213.857†	544.0	-4.4	-0.1013 µg/L	-0.1013 ppb	23:12:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2015235.2	102.65	%	0.278				0.27%
Sc RADIAL	57051.2	101	%	0.0				0.04%
Y 371.029	1393180.1	102.99	%	0.270				0.26%
Ag 328.068†	28.9	0.2139	µg/L	0.18832	0.2139	ppb	0.18832	88.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.1	7.0174	µg/L	6.90546	7.0174	ppb	6.90546	98.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	2.0390	µg/L	2.15458	2.0390	ppb	2.15458	105.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-48.6	-1.9940	µg/L	0.40322	-1.9940	ppb	0.40322	20.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.2	0.4846	µg/L	0.18261	0.4846	ppb	0.18261	37.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	289.5	0.1714	µg/L	0.03254	0.1714	ppb	0.03254	18.99%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.1	-4.3434	µg/L	4.69799	-4.3434	ppb	4.69799	108.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.8	0.1159	µg/L	0.10856	0.1159	ppb	0.10856	93.64%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.2	0.1440	µg/L	0.09170	0.1440	ppb	0.09170	63.66%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.9     -0.3605 µg/L       0.09147     -0.3605 ppb        0.09147  25.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -23.2     -0.1480 µg/L       0.11660     -0.1480 ppb        0.11660  78.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         3.0      23.948 µg/L       12.8041      23.948 ppb        12.8041  53.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         69.9      45.629 µg/L       27.3393      45.629 ppb        27.3393  59.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.9     -8.1699 µg/L      14.52675     -8.1699 ppb       14.52675 177.81%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              201.0      0.6331 µg/L       0.23777      0.6331 ppb        0.23777  37.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.1      0.8954 µg/L       0.40369      0.8954 ppb        0.40369  45.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -23.3     -7.1485 µg/L       7.52241     -7.1485 ppb        7.52241 105.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -9.1     -0.4542 µg/L       0.21833     -0.4542 ppb        0.21833  48.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.4     -10.623 µg/L        7.1608     -10.623 ppb         7.1608  67.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -6.5     -1.5841 µg/L       1.29178     -1.5841 ppb        1.29178  81.55%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.6     -14.931 µg/L        6.7999     -14.931 ppb         6.7999  45.54%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.9      0.8352 µg/L       2.51500      0.8352 ppb        2.51500 301.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.6     -4.9316 µg/L       2.73998     -4.9316 ppb        2.73998  55.56%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     96.8      19.116 µg/L        4.1770      19.116 ppb         4.1770  21.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              110.0      8.3647 µg/L       1.91884      8.3647 ppb        1.91884  22.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.4      0.5669 µg/L       1.14067      0.5669 ppb        1.14067 201.20%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               25.3      0.2335 µg/L       0.14633      0.2335 ppb        0.14633  62.68%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              487.4      1.0787 µg/L       0.28581      1.0787 ppb        0.28581  26.50%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.2     -0.2145 µg/L       1.56752     -0.2145 ppb        1.56752 730.70%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                57.5      4.7722 µg/L       2.68141      4.7722 ppb        2.68141  56.19%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -23.5     -0.2153 µg/L       0.12024     -0.2153 ppb        0.12024  55.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -5.6     -0.1294 µg/L       0.03957     -0.1294 ppb        0.03957  30.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/19/2010 23:38:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58933.2	58933.2	104	%			23:38:44
1	Al 396.153Radial†	7172.7	6868.7	4768.0	µg/L	4768.0	ppb	23:38:44
1	Ca 317.933Radial†	6050.3	5588.8	4773.8	µg/L	4773.8	ppb	23:39:05
1	Fe 238.204 Radial†	660.6	616.7	4874.3	µg/L	4874.3	ppb	23:39:05
1	K 766.490 Radial†	7705.1	7221.5	4716.5	µg/L	4716.5	ppb	23:38:44
1	Mg 279.077 IEC†	575.7	539.0	4821.5	µg/L	4821.5	ppb	23:39:05
1	Na 589.592 Radial†	32864.9	31033.3	9531.7	µg/L	9531.7	ppb	23:38:44
1	Sr 421.552†	52837.3	50623.1	467.01	µg/L	467.01	ppb	23:38:44
1	Sc 361.383	2065679.1	2065679.1	105.22	%			23:40:08
1	Y 371.029	1422719.1	1422719.1	105.17	%			23:40:08
1	Ag 328.068†	67697.4	64737.9	483.06	µg/L	483.06	ppb	23:40:14
1	As 188.979†	294.5	280.3	501.52	µg/L	501.52	ppb	23:40:34
1	B 249.677†	12750.6	11733.4	476.47	µg/L	476.47	ppb	23:40:14
1	Ba 233.527†	21308.0	20267.1	487.43	µg/L	487.43	ppb	23:40:14
1	Be 313.107†	854737.7	815156.4	483.62	µg/L	483.62	ppb	23:40:08
1	Cd 226.502†	20617.6	19735.6	492.16	µg/L	492.16	ppb	23:40:14
1	Co 228.616†	11380.5	10813.6	489.17	µg/L	489.17	ppb	23:40:14
1	Cr 267.716†	25607.5	24386.5	490.11	µg/L	490.11	ppb	23:40:14
1	Cu 324.752†	80271.0	73741.8	482.03	µg/L	482.03	ppb	23:40:14
1	Mn 257.610†	165524.3	157562.1	493.86	µg/L	493.86	ppb	23:40:08
1	Mo 202.031†	5363.7	5102.7	499.88	µg/L	499.88	ppb	23:40:34
1	Ni 231.604†	10686.1	9843.2	490.16	µg/L	490.16	ppb	23:40:14
1	P 214.914†	1327.8	1246.5	2422.0	µg/L	2422.0	ppb	23:40:34
1	Pb 220.353†	2236.8	2034.8	494.83	µg/L	494.83	ppb	23:40:34
1	S 181.975 Axial†	262.8	230.9	957.37	µg/L	957.37	ppb	23:40:34
1	Sb 206.836†	589.0	537.3	495.44	µg/L	495.44	ppb	23:40:34
1	Se 196.026†	400.2	361.0	514.73	µg/L	514.73	ppb	23:40:34
1	SiO2†	29290.4	26444.6	5219.8	µg/L	5219.8	ppb	23:40:14
1	Si 251.611†	34183.1	32175.3	2446.0	µg/L	2446.0	ppb	23:40:14
1	Sn 189.927†	1265.3	1202.1	506.97	µg/L	506.97	ppb	23:40:34
1	Ti 334.940†	230200.3	218596.0	483.28	µg/L	483.28	ppb	23:40:08
1	Tl 190.801†	374.1	377.9	496.67	µg/L	496.67	ppb	23:40:34
1	U 409.014†	6143.3	5915.4	490.51	µg/L	490.51	ppb	23:40:14
1	V 292.402†	52287.8	49736.5	490.76	µg/L	490.76	ppb	23:40:14
1	Zn 213.857†	22608.6	20951.7	488.11	µg/L	488.11	ppb	23:40:14
2	Sc RADIAL	58655.2	58655.2	104	%			23:39:10
2	Al 396.153Radial†	7191.3	6919.2	4803.2	µg/L	4803.2	ppb	23:39:10
2	Ca 317.933Radial†	6069.1	5634.4	4812.8	µg/L	4812.8	ppb	23:39:31
2	Fe 238.204 Radial†	666.1	625.0	4940.0	µg/L	4940.0	ppb	23:39:31
2	K 766.490 Radial†	7748.2	7298.0	4766.4	µg/L	4766.4	ppb	23:39:10
2	Mg 279.077 IEC†	586.1	551.7	4934.9	µg/L	4934.9	ppb	23:39:31
2	Na 589.592 Radial†	32986.9	31300.2	9613.6	µg/L	9613.6	ppb	23:39:10
2	Sr 421.552†	52917.2	50940.1	469.93	µg/L	469.93	ppb	23:39:10
2	Sc 361.383	2055118.2	2055118.2	104.69	%			23:40:41
2	Y 371.029	1414341.2	1414341.2	104.55	%			23:40:41
2	Ag 328.068†	67915.5	65276.8	487.08	µg/L	487.08	ppb	23:40:47
2	As 188.979†	287.6	275.2	492.28	µg/L	492.28	ppb	23:41:07
2	B 249.677†	12834.8	11876.1	482.26	µg/L	482.26	ppb	23:40:47
2	Ba 233.527†	21308.2	20371.4	489.94	µg/L	489.94	ppb	23:40:47
2	Be 313.107†	849714.5	814532.3	483.24	µg/L	483.24	ppb	23:40:41
2	Cd 226.502†	20625.5	19843.8	494.86	µg/L	494.86	ppb	23:40:47
2	Co 228.616†	11438.4	10924.5	494.18	µg/L	494.18	ppb	23:40:47
2	Cr 267.716†	25732.1	24630.5	495.02	µg/L	495.02	ppb	23:40:47
2	Cu 324.752†	80507.6	74359.9	486.07	µg/L	486.07	ppb	23:40:47
2	Mn 257.610†	164393.1	157290.0	493.02	µg/L	493.02	ppb	23:40:41
2	Mo 202.031†	5257.3	5027.3	492.49	µg/L	492.49	ppb	23:41:07
2	Ni 231.604†	10714.5	9922.5	494.11	µg/L	494.11	ppb	23:40:47
2	P 214.914†	1313.8	1239.6	2407.7	µg/L	2407.7	ppb	23:41:07
2	Pb 220.353†	2207.0	2017.3	490.55	µg/L	490.55	ppb	23:41:07

2	S 181.975 Axial†	267.9	237.0	982.86 µg/L	982.86 ppb	23:41:07
2	Sb 206.836†	582.2	533.6	491.91 µg/L	491.91 ppb	23:41:07
2	Se 196.026†	397.8	360.7	514.34 µg/L	514.34 ppb	23:41:07
2	SiO2†	29503.7	26791.4	5288.3 µg/L	5288.3 ppb	23:40:47
2	Si 251.611†	34392.7	32542.5	2473.9 µg/L	2473.9 ppb	23:40:47
2	Sn 189.927†	1234.4	1178.7	497.12 µg/L	497.12 ppb	23:41:07
2	Ti 334.940†	228997.4	218571.2	483.22 µg/L	483.22 ppb	23:40:41
2	Tl 190.801†	370.8	376.5	494.87 µg/L	494.87 ppb	23:41:07
2	U 409.014†	6076.5	5881.5	487.69 µg/L	487.69 ppb	23:40:47
2	V 292.402†	52388.9	50088.4	494.15 µg/L	494.15 ppb	23:40:47
2	Zn 213.857†	22671.2	21121.9	492.07 µg/L	492.07 ppb	23:40:47
3	Sc RADIAL	58551.8	58551.8	104 %		23:39:36
3	Al 396.153Radial†	7184.9	6925.2	4809.2 µg/L	4809.2 ppb	23:39:36
3	Ca 317.933Radial†	6057.4	5633.4	4811.9 µg/L	4811.9 ppb	23:39:56
3	Fe 238.204 Radial†	667.5	627.4	4957.8 µg/L	4957.8 ppb	23:39:56
3	K 766.490 Radial†	7791.0	7352.4	4802.0 µg/L	4802.0 ppb	23:39:36
3	Mg 279.077 IEC†	578.1	545.0	4873.1 µg/L	4873.1 ppb	23:39:56
3	Na 589.592 Radial†	32965.6	31335.8	9624.6 µg/L	9624.6 ppb	23:39:36
3	Sr 421.552†	53009.1	51118.7	471.58 µg/L	471.58 ppb	23:39:36
3	Sc 361.383	2030006.9	2030006.9	103.41 %		23:41:15
3	Y 371.029	1398396.5	1398396.5	103.37 %		23:41:15
3	Ag 328.068†	62848.2	61179.0	456.33 µg/L	456.33 ppb	23:41:20
3	As 188.979†	242.8	235.2	420.85 µg/L	420.85 ppb	23:41:41
3	B 249.677†	11717.7	10947.4	444.28 µg/L	444.28 ppb	23:41:20
3	Ba 233.527†	19024.3	18414.6	442.86 µg/L	442.86 ppb	23:41:20
3	Be 313.107†	777937.3	755160.5	448.02 µg/L	448.02 ppb	23:41:15
3	Cd 226.502†	18249.9	17790.3	443.59 µg/L	443.59 ppb	23:41:20
3	Co 228.616†	9984.8	9653.8	436.64 µg/L	436.64 ppb	23:41:20
3	Cr 267.716†	21785.9	21118.4	424.44 µg/L	424.44 ppb	23:41:20
3	Cu 324.752†	71113.2	66226.3	432.98 µg/L	432.98 ppb	23:41:20
3	Mn 257.610†	151288.3	146559.5	459.42 µg/L	459.42 ppb	23:41:15
3	Mo 202.031†	4272.3	4136.8	405.29 µg/L	405.29 ppb	23:41:41
3	Ni 231.604†	9405.6	8783.4	437.39 µg/L	437.39 ppb	23:41:20
3	P 214.914†	1080.9	1030.0	1996.9 µg/L	1996.9 ppb	23:41:41
3	Pb 220.353†	1868.0	1715.5	417.08 µg/L	417.08 ppb	23:41:41
3	S 181.975 Axial†	230.6	204.1	846.44 µg/L	846.44 ppb	23:41:41
3	Sb 206.836†	482.8	444.4	409.38 µg/L	409.38 ppb	23:41:41
3	Se 196.026†	339.5	309.0	441.86 µg/L	441.86 ppb	23:41:41
3	SiO2†	26761.7	24488.4	4833.7 µg/L	4833.7 ppb	23:41:20
3	Si 251.611†	31061.3	29727.3	2259.9 µg/L	2259.9 ppb	23:41:20
3	Sn 189.927†	989.8	956.8	403.51 µg/L	403.51 ppb	23:41:41
3	Ti 334.940†	208298.2	201259.9	444.92 µg/L	444.92 ppb	23:41:15
3	Tl 190.801†	325.8	337.5	443.78 µg/L	443.78 ppb	23:41:41
3	U 409.014†	5294.0	5196.7	430.78 µg/L	430.78 ppb	23:41:20
3	V 292.402†	45485.4	44031.4	434.23 µg/L	434.23 ppb	23:41:20
3	Zn 213.857†	19944.3	18752.8	436.83 µg/L	436.83 ppb	23:41:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2050268.1	104.44	%	0.933				0.89%
Sc RADIAL	58713.4	104	%	0.3				0.34%
Y 371.029	1411818.9	104.37	%	0.913				0.88%
Ag 328.068†	63731.2	475.49	µg/L	16.711	475.49	ppb	16.711	3.51%
QC value within limits for Ag 328.068 Recovery = 95.10%								
Al 396.153Radial†	6904.4	4793.5	µg/L	22.30	4793.5	ppb	22.30	0.47%
QC value within limits for Al 396.153Radial Recovery = 95.87%								
As 188.979†	263.6	471.55	µg/L	44.146	471.55	ppb	44.146	9.36%
QC value within limits for As 188.979 Recovery = 94.31%								
B 249.677†	11519.0	467.67	µg/L	20.459	467.67	ppb	20.459	4.37%
QC value within limits for B 249.677 Recovery = 93.53%								
Ba 233.527†	19684.4	473.41	µg/L	26.489	473.41	ppb	26.489	5.60%
QC value within limits for Ba 233.527 Recovery = 94.68%								
Be 313.107†	794949.7	471.63	µg/L	20.444	471.63	ppb	20.444	4.33%
QC value within limits for Be 313.107 Recovery = 94.33%								
Ca 317.933Radial†	5618.9	4799.5	µg/L	22.25	4799.5	ppb	22.25	0.46%
QC value within limits for Ca 317.933Radial Recovery = 95.99%								
Cd 226.502†	19123.2	476.87	µg/L	28.857	476.87	ppb	28.857	6.05%
QC value within limits for Cd 226.502 Recovery = 95.37%								
Co 228.616†	10464.0	473.33	µg/L	31.873	473.33	ppb	31.873	6.73%

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   QC value within limits for Co 228.616  Recovery = 94.67%
Cr 267.716†            23378.5      469.86 µg/L        39.409      469.86 ppb         39.409   8.39%
   QC value within limits for Cr 267.716  Recovery = 93.97%
Cu 324.752†            71442.7      467.02 µg/L        29.553      467.02 ppb         29.553   6.33%
   QC value within limits for Cu 324.752  Recovery = 93.40%
Fe 238.204 Radial†       623.1      4924.0 µg/L         44.00      4924.0 ppb          44.00   0.89%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.48%
K 766.490 Radial†       7290.6      4761.6 µg/L         42.97      4761.6 ppb          42.97   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 95.23%
Mg 279.077 IEC†          545.2      4876.5 µg/L         56.74      4876.5 ppb          56.74   1.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.53%
Mn 257.610†           153803.9      482.10 µg/L        19.647      482.10 ppb         19.647   4.08%
   QC value within limits for Mn 257.610  Recovery = 96.42%
Mo 202.031†             4755.6      465.89 µg/L        52.605      465.89 ppb         52.605  11.29%
   QC value within limits for Mo 202.031  Recovery = 93.18%
Na 589.592 Radial†     31223.1      9590.0 µg/L         50.77      9590.0 ppb          50.77   0.53%
   QC value within limits for Na 589.592 Radial  Recovery = 95.90%
Ni 231.604†             9516.4      473.89 µg/L        31.667      473.89 ppb         31.667   6.68%
   QC value within limits for Ni 231.604  Recovery = 94.78%
P 214.914†              1172.0      2275.5 µg/L        241.44      2275.5 ppb         241.44  10.61%
   QC value within limits for P 214.914  Recovery = 91.02%
Pb 220.353†             1922.5      467.49 µg/L        43.705      467.49 ppb         43.705   9.35%
   QC value within limits for Pb 220.353  Recovery = 93.50%
S 181.975 Axial†         224.0      928.89 µg/L        72.531      928.89 ppb         72.531   7.81%
   QC value within limits for S 181.975 Axial  Recovery = 92.89%
Sb 206.836†              505.1      465.58 µg/L        48.696      465.58 ppb         48.696  10.46%
   QC value within limits for Sb 206.836  Recovery = 93.12%
Se 196.026†              343.6      490.31 µg/L        41.963      490.31 ppb         41.963   8.56%
   QC value within limits for Se 196.026  Recovery = 98.06%
SiO2†                  25908.1      5113.9 µg/L        245.09      5113.9 ppb         245.09   4.79%
   QC value within limits for SiO2  Recovery = 95.63%
Si 251.611†            31481.7      2393.3 µg/L        116.35      2393.3 ppb         116.35   4.86%
   QC value within limits for Si 251.611  Recovery = 95.73%
Sn 189.927†             1112.5      469.20 µg/L        57.103      469.20 ppb         57.103  12.17%
   QC value within limits for Sn 189.927  Recovery = 93.84%
Sr 421.552†            50894.0      469.50 µg/L         2.316      469.50 ppb          2.316   0.49%
   QC value within limits for Sr 421.552  Recovery = 93.90%
Ti 334.940†           212809.0      470.47 µg/L        22.126      470.47 ppb         22.126   4.70%
   QC value within limits for Ti 334.940  Recovery = 94.09%
Tl 190.801†              364.0      478.44 µg/L        30.031      478.44 ppb         30.031   6.28%
   QC value within limits for Tl 190.801  Recovery = 95.69%
U 409.014†              5664.5      469.66 µg/L        33.698      469.66 ppb         33.698   7.17%
   QC value within limits for U 409.014  Recovery = 93.93%
V 292.402†             47952.1      473.05 µg/L        33.659      473.05 ppb         33.659   7.12%
   QC value within limits for V 292.402  Recovery = 94.61%
Zn 213.857†            20275.5      472.34 µg/L        30.816      472.34 ppb         30.816   6.52%
   QC value within limits for Zn 213.857  Recovery = 94.47%
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/19/2010 23:41:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57547.6	57547.6	102	%			23:42:23
1	Al 396.153Radial†	-1.4	-8.7	-6.0778	µg/L	-6.0778	ppb	23:42:23
1	Ca 317.933Radial†	191.7	-23.1	-19.737	µg/L	-19.737	ppb	23:42:44
1	Fe 238.204 Radial†	21.1	4.1	32.654	µg/L	32.654	ppb	23:42:44
1	K 766.490 Radial†	165.3	-2.7	-1.7690	µg/L	-1.7690	ppb	23:42:23
1	Mg 279.077 IEC†	11.7	-1.3	-11.537	µg/L	-11.537	ppb	23:42:44
1	Na 589.592 Radial†	440.0	-40.2	-12.347	µg/L	-12.347	ppb	23:42:23
1	Sr 421.552†	45.4	15.8	0.1455	µg/L	0.1455	ppb	23:42:23
1	Sc 361.383	2025376.1	2025376.1	103.17	%			23:43:46
1	Y 371.029	1400619.9	1400619.9	103.54	%			23:43:46
1	Ag 328.068†	-387.9	25.6	0.1905	µg/L	0.1905	ppb	23:43:52
1	As 188.979†	3.0	3.4	6.1195	µg/L	6.1195	ppb	23:44:12
1	B 249.677†	384.0	-11.9	-0.5018	µg/L	-0.5018	ppb	23:44:12
1	Ba 233.527†	-6.8	10.5	0.2521	µg/L	0.2521	ppb	23:44:12
1	Be 313.107†	-2612.9	323.1	0.1915	µg/L	0.1915	ppb	23:43:52
1	Cd 226.502†	-141.9	4.1	0.0989	µg/L	0.0989	ppb	23:44:12
1	Co 228.616†	3.8	1.7	0.0784	µg/L	0.0784	ppb	23:44:12
1	Cr 267.716†	-41.3	10.3	0.2069	µg/L	0.2069	ppb	23:43:52
1	Cu 324.752†	2636.8	12.0	0.0831	µg/L	0.0831	ppb	23:43:52
1	Mn 257.610†	-183.1	78.6	0.2509	µg/L	0.2509	ppb	23:44:12
1	Mo 202.031†	1.9	7.2	0.7037	µg/L	0.7037	ppb	23:44:12
1	Ni 231.604†	312.1	-9.8	-0.4894	µg/L	-0.4894	ppb	23:44:12
1	P 214.914†	15.4	-0.4	-0.8055	µg/L	-0.8055	ppb	23:44:12
1	Pb 220.353†	81.0	-12.4	-3.0222	µg/L	-3.0222	ppb	23:44:12
1	S 181.975 Axial†	19.0	-0.6	-2.3481	µg/L	-2.3481	ppb	23:44:12
1	Sb 206.836†	24.9	1.6	1.5059	µg/L	1.5059	ppb	23:44:12
1	Se 196.026†	12.4	-7.3	-10.123	µg/L	-10.123	ppb	23:44:12
1	SiO2†	1526.4	87.9	17.344	µg/L	17.344	ppb	23:43:52
1	Si 251.611†	435.0	111.0	8.4402	µg/L	8.4402	ppb	23:44:12
1	Sn 189.927†	-0.2	-0.5	-0.2289	µg/L	-0.2289	ppb	23:44:12
1	Ti 334.940†	503.8	313.2	0.6936	µg/L	0.6936	ppb	23:43:52
1	Tl 190.801†	-22.9	0.2	0.2896	µg/L	0.2896	ppb	23:44:12
1	U 409.014†	-102.1	-21.9	-1.8209	µg/L	-1.8209	ppb	23:43:52
1	V 292.402†	-63.4	-16.7	-0.1546	µg/L	-0.1546	ppb	23:43:52
1	Zn 213.857†	538.6	-12.3	-0.2886	µg/L	-0.2886	ppb	23:44:12
2	Sc RADIAL	57798.1	57798.1	102	%			23:42:49
2	Al 396.153Radial†	5.4	-2.1	-1.4497	µg/L	-1.4497	ppb	23:42:49
2	Ca 317.933Radial†	194.8	-20.8	-17.777	µg/L	-17.777	ppb	23:43:10
2	Fe 238.204 Radial†	20.3	3.3	25.779	µg/L	25.779	ppb	23:43:10
2	K 766.490 Radial†	162.9	-5.7	-3.7508	µg/L	-3.7508	ppb	23:42:49
2	Mg 279.077 IEC†	8.4	-4.6	-41.335	µg/L	-41.335	ppb	23:43:10
2	Na 589.592 Radial†	457.2	-25.3	-7.7599	µg/L	-7.7599	ppb	23:42:49
2	Sr 421.552†	36.3	6.7	0.0620	µg/L	0.0620	ppb	23:42:49
2	Sc 361.383	2035896.6	2035896.6	103.71	%			23:44:18
2	Y 371.029	1407783.4	1407783.4	104.07	%			23:44:18
2	Ag 328.068†	-402.1	13.9	0.1050	µg/L	0.1050	ppb	23:44:24
2	As 188.979†	-1.1	-0.6	-1.0482	µg/L	-1.0482	ppb	23:44:44
2	B 249.677†	374.8	-22.8	-0.9407	µg/L	-0.9407	ppb	23:44:44
2	Ba 233.527†	-9.4	8.0	0.1913	µg/L	0.1913	ppb	23:44:44
2	Be 313.107†	-2792.0	163.5	0.0968	µg/L	0.0968	ppb	23:44:24
2	Cd 226.502†	-137.1	9.5	0.2331	µg/L	0.2331	ppb	23:44:44
2	Co 228.616†	1.5	-0.5	-0.0215	µg/L	-0.0215	ppb	23:44:44
2	Cr 267.716†	-40.1	11.7	0.2356	µg/L	0.2356	ppb	23:44:24
2	Cu 324.752†	2541.9	-92.7	-0.6013	µg/L	-0.6013	ppb	23:44:24
2	Mn 257.610†	-190.3	72.5	0.2320	µg/L	0.2320	ppb	23:44:44
2	Mo 202.031†	5.7	10.8	1.0589	µg/L	1.0589	ppb	23:44:44
2	Ni 231.604†	305.7	-17.6	-0.8764	µg/L	-0.8764	ppb	23:44:44
2	P 214.914†	12.5	-3.3	-6.5291	µg/L	-6.5291	ppb	23:44:44
2	Pb 220.353†	85.8	-8.2	-1.9875	µg/L	-1.9875	ppb	23:44:44

2	S 181.975 Axial†	16.3	-3.2	-13.230 µg/L	-13.230 ppb	23:44:44
2	Sb 206.836†	26.4	3.0	2.7276 µg/L	2.7276 ppb	23:44:44
2	Se 196.026†	20.4	0.4	0.6560 µg/L	0.6560 ppb	23:44:44
2	SiO2†	1530.3	84.0	16.587 µg/L	16.587 ppb	23:44:24
2	Si 251.611†	449.2	122.5	9.3160 µg/L	9.3160 ppb	23:44:44
2	Sn 189.927†	-1.2	-1.5	-0.6475 µg/L	-0.6475 ppb	23:44:44
2	Ti 334.940†	469.3	277.5	0.6169 µg/L	0.6169 ppb	23:44:24
2	Tl 190.801†	-24.4	-1.2	-1.5053 µg/L	-1.5053 ppb	23:44:44
2	U 409.014†	-67.9	11.6	0.9594 µg/L	0.9594 ppb	23:44:24
2	V 292.402†	-41.5	4.7	0.0586 µg/L	0.0586 ppb	23:44:24
2	Zn 213.857†	546.7	-7.3	-0.1650 µg/L	-0.1650 ppb	23:44:44
3	Sc RADIAL	57486.1	57486.1	102 %		23:43:15
3	Al 396.153Radial†	2.0	-5.4	-3.7529 µg/L	-3.7529 ppb	23:43:15
3	Ca 317.933Radial†	200.6	-14.1	-12.036 µg/L	-12.036 ppb	23:43:35
3	Fe 238.204 Radial†	17.7	0.8	6.3556 µg/L	6.3556 ppb	23:43:35
3	K 766.490 Radial†	216.4	47.7	31.167 µg/L	31.167 ppb	23:43:15
3	Mg 279.077 IEC†	6.5	-6.4	-57.568 µg/L	-57.568 ppb	23:43:35
3	Na 589.592 Radial†	420.3	-59.2	-18.174 µg/L	-18.174 ppb	23:43:15
3	Sr 421.552†	30.1	0.8	0.0074 µg/L	0.0074 ppb	23:43:15
3	Sc 361.383	1964292.0	1964292.0	100.06 %		23:44:51
3	Y 371.029	1357553.0	1357553.0	100.35 %		23:44:51
3	Ag 328.068†	-383.4	18.4	0.1374 µg/L	0.1374 ppb	23:44:56
3	As 188.979†	-5.4	-5.0	-8.9160 µg/L	-8.9160 ppb	23:45:17
3	B 249.677†	373.9	-10.5	-0.4295 µg/L	-0.4295 ppb	23:45:17
3	Ba 233.527†	-7.1	10.0	0.2394 µg/L	0.2394 ppb	23:45:17
3	Be 313.107†	-2709.5	147.8	0.0874 µg/L	0.0874 ppb	23:44:56
3	Cd 226.502†	-142.4	-0.7	-0.0174 µg/L	-0.0174 ppb	23:45:17
3	Co 228.616†	-3.1	-5.1	-0.2307 µg/L	-0.2307 ppb	23:45:17
3	Cr 267.716†	-49.1	1.3	0.0253 µg/L	0.0253 ppb	23:44:56
3	Cu 324.752†	2593.7	48.4	0.3169 µg/L	0.3169 ppb	23:44:56
3	Mn 257.610†	-207.6	48.5	0.1551 µg/L	0.1551 ppb	23:45:17
3	Mo 202.031†	1.3	6.7	0.6547 µg/L	0.6547 ppb	23:45:17
3	Ni 231.604†	309.4	-3.1	-0.1565 µg/L	-0.1565 ppb	23:45:17
3	P 214.914†	5.6	-9.8	-19.330 µg/L	-19.330 ppb	23:45:17
3	Pb 220.353†	81.6	-9.4	-2.2754 µg/L	-2.2754 ppb	23:45:17
3	S 181.975 Axial†	12.5	-6.4	-26.518 µg/L	-26.518 ppb	23:45:17
3	Sb 206.836†	22.0	-0.5	-0.4249 µg/L	-0.4249 ppb	23:45:17
3	Se 196.026†	18.6	-0.7	-0.9267 µg/L	-0.9267 ppb	23:45:17
3	SiO2†	1531.7	139.2	27.479 µg/L	27.479 ppb	23:44:56
3	Si 251.611†	452.1	141.2	10.737 µg/L	10.737 ppb	23:45:17
3	Sn 189.927†	7.1	6.7	2.8200 µg/L	2.8200 ppb	23:45:17
3	Ti 334.940†	532.4	357.1	0.7943 µg/L	0.7943 ppb	23:44:56
3	Tl 190.801†	-22.2	0.2	0.2118 µg/L	0.2118 ppb	23:45:17
3	U 409.014†	-79.2	-2.0	-0.1697 µg/L	-0.1697 ppb	23:44:56
3	V 292.402†	-34.8	10.0	0.1029 µg/L	0.1029 ppb	23:44:56
3	Zn 213.857†	540.4	5.7	0.1371 µg/L	0.1371 ppb	23:45:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008521.6	102.31	%	1.969				1.92%
Sc RADIAL	57610.6	102	%	0.3				0.29%
Y 371.029	1388652.1	102.65	%	2.008				1.96%
Ag 328.068†	19.3	0.1443	µg/L	0.04319	0.1443	ppb	0.04319	29.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.4	-3.7601	µg/L	2.31405	-3.7601	ppb	2.31405	61.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.7	-1.2816	µg/L	7.52046	-1.2816	ppb	7.52046	586.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-15.0	-0.6240	µg/L	0.27664	-0.6240	ppb	0.27664	44.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.2276	µg/L	0.03206	0.2276	ppb	0.03206	14.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	211.5	0.1252	µg/L	0.05757	0.1252	ppb	0.05757	45.96%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-19.3	-16.516	µg/L	4.0022	-16.516	ppb	4.0022	24.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.3	0.1049	µg/L	0.12539	0.1049	ppb	0.12539	119.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.3	-0.0580	µg/L	0.15776	-0.0580	ppb	0.15776	272.20%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.8      0.1559 µg/L       0.11402      0.1559 ppb        0.11402  73.11%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -10.7     -0.0671 µg/L       0.47717     -0.0671 ppb        0.47717 711.16%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.7      21.596 µg/L       13.6390      21.596 ppb        13.6390  63.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         13.1      8.5489 µg/L      19.61253      8.5489 ppb       19.61253 229.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.1     -36.813 µg/L       23.3462     -36.813 ppb        23.3462  63.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               66.5      0.2127 µg/L       0.05073      0.2127 ppb        0.05073  23.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.2      0.8058 µg/L       0.22057      0.8058 ppb        0.22057  27.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -41.5     -12.761 µg/L        5.2196     -12.761 ppb         5.2196  40.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -10.2     -0.5074 µg/L       0.36031     -0.5074 ppb        0.36031  71.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.5     -8.8883 µg/L       9.48496     -8.8883 ppb        9.48496 106.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.0     -2.4284 µg/L       0.53406     -2.4284 ppb        0.53406  21.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.4     -14.032 µg/L       12.1051     -14.032 ppb        12.1051  86.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.4      1.2695 µg/L       1.58945      1.2695 ppb        1.58945 125.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.5     -3.4645 µg/L       5.82027     -3.4645 ppb        5.82027 168.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    103.7      20.470 µg/L        6.0817      20.470 ppb         6.0817  29.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              124.9      9.4978 µg/L       1.15926      9.4978 ppb        1.15926  12.21%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.6      0.6479 µg/L       1.89274      0.6479 ppb        1.89274 292.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                7.8      0.0716 µg/L       0.06954      0.0716 ppb        0.06954  97.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              315.9      0.7016 µg/L       0.08900      0.7016 ppb        0.08900  12.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.3     -0.3347 µg/L       1.01457     -0.3347 ppb        1.01457 303.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -4.1     -0.3437 µg/L       1.39832     -0.3437 ppb        1.39832 406.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -0.7      0.0023 µg/L       0.13766      0.0023 ppb        0.13766 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -4.6     -0.1055 µg/L       0.21899     -0.1055 ppb        0.21899 207.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 00:11:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	58495.3	58495.3	104	%			00:11:57
1	Al 396.153Radial†	7275.8	7019.8	4872.8	µg/L	4872.8	ppb	00:11:57
1	Ca 317.933Radial†	6094.1	5674.5	4847.1	µg/L	4847.1	ppb	00:12:17
1	Fe 238.204 Radial†	674.0	634.4	5014.2	µg/L	5014.2	ppb	00:12:17
1	K 766.490 Radial†	7834.8	7402.0	4834.4	µg/L	4834.4	ppb	00:11:57
1	Mg 279.077 IEC†	587.5	554.6	4960.6	µg/L	4960.6	ppb	00:12:17
1	Na 589.592 Radial†	33367.7	31754.9	9753.3	µg/L	9753.3	ppb	00:11:57
1	Sr 421.552†	53573.5	51713.3	477.06	µg/L	477.06	ppb	00:11:57
1	Sc 361.383	2020504.2	2020504.2	102.92	%			00:13:20
1	Y 371.029	1392503.8	1392503.8	102.94	%			00:13:20
1	Ag 328.068†	67829.9	66305.1	494.76	µg/L	494.76	ppb	00:13:26
1	As 188.979†	291.8	283.9	507.92	µg/L	507.92	ppb	00:13:46
1	B 249.677†	12705.1	11960.1	485.66	µg/L	485.66	ppb	00:13:26
1	Ba 233.527†	21334.1	20745.3	498.93	µg/L	498.93	ppb	00:13:26
1	Be 313.107†	855250.3	833816.1	494.69	µg/L	494.69	ppb	00:13:20
1	Cd 226.502†	20577.0	20134.3	502.11	µg/L	502.11	ppb	00:13:26
1	Co 228.616†	11416.8	11090.6	501.70	µg/L	501.70	ppb	00:13:26
1	Cr 267.716†	25735.9	25055.4	503.56	µg/L	503.56	ppb	00:13:26
1	Cu 324.752†	80726.9	75890.5	496.07	µg/L	496.07	ppb	00:13:26
1	Mn 257.610†	165547.7	161102.0	504.96	µg/L	504.96	ppb	00:13:20
1	Mo 202.031†	5395.3	5247.4	514.05	µg/L	514.05	ppb	00:13:46
1	Ni 231.604†	10712.3	10095.7	502.74	µg/L	502.74	ppb	00:13:26
1	P 214.914†	1349.5	1295.8	2518.2	µg/L	2518.2	ppb	00:13:46
1	Pb 220.353†	2240.4	2085.9	507.24	µg/L	507.24	ppb	00:13:46
1	S 181.975 Axial†	268.4	241.8	1002.8	µg/L	1002.8	ppb	00:13:46
1	Sb 206.836†	592.4	553.1	510.01	µg/L	510.01	ppb	00:13:46
1	Se 196.026†	394.8	364.3	519.55	µg/L	519.55	ppb	00:13:46
1	SiO2†	29413.1	27186.2	5366.2	µg/L	5366.2	ppb	00:13:26
1	Si 251.611†	34213.2	32930.9	2503.5	µg/L	2503.5	ppb	00:13:26
1	Sn 189.927†	1263.6	1227.4	517.63	µg/L	517.63	ppb	00:13:46
1	Ti 334.940†	230295.2	223579.5	494.29	µg/L	494.29	ppb	00:13:20
1	Tl 190.801†	373.5	385.3	506.39	µg/L	506.39	ppb	00:13:46
1	U 409.014†	6182.0	6083.5	504.45	µg/L	504.45	ppb	00:13:26
1	V 292.402†	52430.3	50986.0	503.11	µg/L	503.11	ppb	00:13:26
1	Zn 213.857†	22695.0	21516.0	501.26	µg/L	501.26	ppb	00:13:26
2	Sc RADIAL	58164.1	58164.1	103	%			00:12:22
2	Al 396.153Radial†	7244.5	7029.4	4879.7	µg/L	4879.7	ppb	00:12:22
2	Ca 317.933Radial†	6067.7	5682.4	4853.7	µg/L	4853.7	ppb	00:12:43
2	Fe 238.204 Radial†	667.4	631.7	4992.7	µg/L	4992.7	ppb	00:12:43
2	K 766.490 Radial†	7786.9	7398.6	4832.1	µg/L	4832.1	ppb	00:12:22
2	Mg 279.077 IEC†	580.9	551.4	4931.8	µg/L	4931.8	ppb	00:12:43
2	Na 589.592 Radial†	33199.0	31774.5	9759.3	µg/L	9759.3	ppb	00:12:22
2	Sr 421.552†	53351.0	51791.8	477.79	µg/L	477.79	ppb	00:12:22
2	Sc 361.383	2017307.7	2017307.7	102.76	%			00:13:54
2	Y 371.029	1389972.7	1389972.7	102.75	%			00:13:54
2	Ag 328.068†	67617.4	66202.7	493.99	µg/L	493.99	ppb	00:13:59
2	As 188.979†	286.9	279.6	500.24	µg/L	500.24	ppb	00:14:20
2	B 249.677†	12631.0	11907.6	483.52	µg/L	483.52	ppb	00:13:59
2	Ba 233.527†	21192.2	20640.0	496.40	µg/L	496.40	ppb	00:13:59
2	Be 313.107†	854328.0	834235.2	494.93	µg/L	494.93	ppb	00:13:54
2	Cd 226.502†	20477.0	20068.6	500.47	µg/L	500.47	ppb	00:13:59
2	Co 228.616†	11357.5	11050.5	499.87	µg/L	499.87	ppb	00:13:59
2	Cr 267.716†	25604.8	24967.4	501.79	µg/L	501.79	ppb	00:13:59
2	Cu 324.752†	80320.9	75619.6	494.30	µg/L	494.30	ppb	00:13:59
2	Mn 257.610†	165128.0	160948.4	504.48	µg/L	504.48	ppb	00:13:54
2	Mo 202.031†	5230.2	5095.1	499.13	µg/L	499.13	ppb	00:14:20
2	Ni 231.604†	10662.1	10063.4	501.12	µg/L	501.12	ppb	00:13:59
2	P 214.914†	1301.8	1251.5	2430.4	µg/L	2430.4	ppb	00:14:20
2	Pb 220.353†	2192.9	2043.0	496.80	µg/L	496.80	ppb	00:14:20

2	S 181.975 Axial†	268.0	241.9	1003.0 µg/L	1003.0 ppb	00:14:20
2	Sb 206.836†	578.4	540.3	498.09 µg/L	498.09 ppb	00:14:20
2	Se 196.026†	399.2	369.2	526.33 µg/L	526.33 ppb	00:14:20
2	SiO2†	29319.7	27140.6	5357.2 µg/L	5357.2 ppb	00:13:59
2	Si 251.611†	34159.9	32931.7	2503.5 µg/L	2503.5 ppb	00:13:59
2	Sn 189.927†	1221.8	1188.6	501.28 µg/L	501.28 ppb	00:14:20
2	Ti 334.940†	230062.0	223707.1	494.58 µg/L	494.58 ppb	00:13:54
2	Tl 190.801†	373.6	386.0	507.26 µg/L	507.26 ppb	00:14:20
2	U 409.014†	6125.2	6037.8	500.65 µg/L	500.65 ppb	00:13:59
2	V 292.402†	52229.4	50871.2	501.86 µg/L	501.86 ppb	00:13:59
2	Zn 213.857†	22546.9	21406.9	498.71 µg/L	498.71 ppb	00:13:59
3	Sc RADIAL	58068.4	58068.4	103 %		00:12:48
3	Al 396.153Radial†	7248.7	7045.1	4892.5 µg/L	4892.5 ppb	00:12:48
3	Ca 317.933Radial†	6088.4	5712.2	4879.3 µg/L	4879.3 ppb	00:13:09
3	Fe 238.204 Radial†	668.4	633.7	5007.6 µg/L	5007.6 ppb	00:13:09
3	K 766.490 Radial†	7806.9	7430.5	4853.0 µg/L	4853.0 ppb	00:12:48
3	Mg 279.077 IEC†	584.4	555.8	4969.8 µg/L	4969.8 ppb	00:13:09
3	Na 589.592 Radial†	33245.1	31872.5	9789.4 µg/L	9789.4 ppb	00:12:48
3	Sr 421.552†	53412.1	51936.7	479.12 µg/L	479.12 ppb	00:12:48
3	Sc 361.383	2011218.9	2011218.9	102.45 %		00:14:27
3	Y 371.029	1385879.0	1385879.0	102.45 %		00:14:27
3	Ag 328.068†	62228.2	61141.6	456.06 µg/L	456.06 ppb	00:14:32
3	As 188.979†	237.7	232.5	415.86 µg/L	415.86 ppb	00:14:53
3	B 249.677†	11569.4	10908.5	442.67 µg/L	442.67 ppb	00:14:32
3	Ba 233.527†	18816.1	18383.2	442.10 µg/L	442.10 ppb	00:14:32
3	Be 313.107†	768494.1	752971.0	446.72 µg/L	446.72 ppb	00:14:27
3	Cd 226.502†	18036.8	17747.1	442.50 µg/L	442.50 ppb	00:14:32
3	Co 228.616†	9906.3	9667.5	437.26 µg/L	437.26 ppb	00:14:32
3	Cr 267.716†	21624.7	21157.9	425.23 µg/L	425.23 ppb	00:14:32
3	Cu 324.752†	70588.2	66356.3	433.84 µg/L	433.84 ppb	00:14:32
3	Mn 257.610†	149342.5	146027.0	457.75 µg/L	457.75 ppb	00:14:27
3	Mo 202.031†	4263.9	4167.3	408.28 µg/L	408.28 ppb	00:14:53
3	Ni 231.604†	9345.6	8809.8	438.71 µg/L	438.71 ppb	00:14:32
3	P 214.914†	1086.2	1044.9	2026.3 µg/L	2026.3 ppb	00:14:53
3	Pb 220.353†	1863.8	1728.2	420.19 µg/L	420.19 ppb	00:14:53
3	S 181.975 Axial†	229.4	205.0	850.21 µg/L	850.21 ppb	00:14:53
3	Sb 206.836†	484.1	450.0	414.58 µg/L	414.58 ppb	00:14:53
3	Se 196.026†	338.7	311.3	445.02 µg/L	445.02 ppb	00:14:53
3	SiO2†	26542.8	24516.4	4839.2 µg/L	4839.2 ppb	00:14:32
3	Si 251.611†	30699.8	29655.0	2254.4 µg/L	2254.4 ppb	00:14:32
3	Sn 189.927†	978.7	954.9	402.73 µg/L	402.73 ppb	00:14:53
3	Ti 334.940†	205585.5	200493.8	443.22 µg/L	443.22 ppb	00:14:27
3	Tl 190.801†	326.8	341.4	448.83 µg/L	448.83 ppb	00:14:53
3	U 409.014†	5206.1	5158.7	427.62 µg/L	427.62 ppb	00:14:32
3	V 292.402†	45148.9	44113.9	435.06 µg/L	435.06 ppb	00:14:32
3	Zn 213.857†	19811.4	18803.2	438.00 µg/L	438.00 ppb	00:14:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2016343.6	102.71	%	0.240				0.23%
Sc RADIAL	58242.6	103	%	0.4				0.38%
Y 371.029	1389451.8	102.71	%	0.247				0.24%
Ag 328.068†	64549.8	481.60	µg/L	22.120	481.60	ppb	22.120	4.59%
QC value within limits for Ag 328.068 Recovery = 96.32%								
Al 396.153Radial†	7031.4	4881.7	µg/L	10.03	4881.7	ppb	10.03	0.21%
QC value within limits for Al 396.153Radial Recovery = 97.63%								
As 188.979†	265.3	474.68	µg/L	51.082	474.68	ppb	51.082	10.76%
QC value within limits for As 188.979 Recovery = 94.94%								
B 249.677†	11592.1	470.62	µg/L	24.223	470.62	ppb	24.223	5.15%
QC value within limits for B 249.677 Recovery = 94.12%								
Ba 233.527†	19922.8	479.15	µg/L	32.105	479.15	ppb	32.105	6.70%
QC value within limits for Ba 233.527 Recovery = 95.83%								
Be 313.107†	807007.4	478.78	µg/L	27.763	478.78	ppb	27.763	5.80%
QC value within limits for Be 313.107 Recovery = 95.76%								
Ca 317.933Radial†	5689.7	4860.0	µg/L	17.00	4860.0	ppb	17.00	0.35%
QC value within limits for Ca 317.933Radial Recovery = 97.20%								
Cd 226.502†	19316.7	481.69	µg/L	33.948	481.69	ppb	33.948	7.05%
QC value within limits for Cd 226.502 Recovery = 96.34%								
Co 228.616†	10602.9	479.61	µg/L	36.687	479.61	ppb	36.687	7.65%

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   QC value within limits for Co 228.616  Recovery = 95.92%
Cr 267.716†            23726.9      476.86 µg/L        44.718      476.86 ppb        44.718   9.38%
   QC value within limits for Cr 267.716  Recovery = 95.37%
Cu 324.752†            72622.1      474.73 µg/L        35.431      474.73 ppb        35.431   7.46%
   QC value within limits for Cu 324.752  Recovery = 94.95%
Fe 238.204 Radial†       633.3      5004.8 µg/L        11.00      5004.8 ppb         11.00   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.10%
K 766.490 Radial†       7410.4      4839.8 µg/L        11.44      4839.8 ppb         11.44   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 96.80%
Mg 279.077 IEC†          553.9      4954.1 µg/L        19.83      4954.1 ppb         19.83   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.08%
Mn 257.610†           156025.8      489.06 µg/L        27.118      489.06 ppb        27.118   5.54%
   QC value within limits for Mn 257.610  Recovery = 97.81%
Mo 202.031†             4836.6      473.82 µg/L        57.249      473.82 ppb        57.249  12.08%
   QC value within limits for Mo 202.031  Recovery = 94.76%
Na 589.592 Radial†     31800.6      9767.3 µg/L        19.36      9767.3 ppb         19.36   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.67%
Ni 231.604†             9656.3      480.86 µg/L        36.510      480.86 ppb        36.510   7.59%
   QC value within limits for Ni 231.604  Recovery = 96.17%
P 214.914†              1197.4      2325.0 µg/L       262.35      2325.0 ppb       262.35  11.28%
   QC value within limits for P 214.914  Recovery = 93.00%
Pb 220.353†             1952.4      474.75 µg/L        47.533      474.75 ppb        47.533  10.01%
   QC value within limits for Pb 220.353  Recovery = 94.95%
S 181.975 Axial†         229.6      952.01 µg/L        88.159      952.01 ppb        88.159   9.26%
   QC value within limits for S 181.975 Axial  Recovery = 95.20%
Sb 206.836†              514.5      474.22 µg/L        51.996      474.22 ppb        51.996  10.96%
   QC value within limits for Sb 206.836  Recovery = 94.84%
Se 196.026†              348.2      496.97 µg/L        45.117      496.97 ppb        45.117   9.08%
   QC value within limits for Se 196.026  Recovery = 99.39%
SiO2†                  26281.1      5187.5 µg/L       301.68      5187.5 ppb       301.68   5.82%
   QC value within limits for SiO2  Recovery = 97.01%
Si 251.611†            31839.2      2420.5 µg/L       143.80      2420.5 ppb       143.80   5.94%
   QC value within limits for Si 251.611  Recovery = 96.82%
Sn 189.927†             1123.6      473.88 µg/L        62.160      473.88 ppb        62.160  13.12%
   QC value within limits for Sn 189.927  Recovery = 94.78%
Sr 421.552†            51813.9      477.99 µg/L         1.046      477.99 ppb         1.046   0.22%
   QC value within limits for Sr 421.552  Recovery = 95.60%
Ti 334.940†           215926.8      477.36 µg/L        29.568      477.36 ppb        29.568   6.19%
   QC value within limits for Ti 334.940  Recovery = 95.47%
Tl 190.801†              370.9      487.50 µg/L        33.487      487.50 ppb        33.487   6.87%
   QC value within limits for Tl 190.801  Recovery = 97.50%
U 409.014†              5760.0      477.57 µg/L        43.307      477.57 ppb        43.307   9.07%
   QC value within limits for U 409.014  Recovery = 95.51%
V 292.402†             48657.0      480.01 µg/L        38.933      480.01 ppb        38.933   8.11%
   QC value within limits for V 292.402  Recovery = 96.00%
Zn 213.857†            20575.4      479.32 µg/L        35.812      479.32 ppb        35.812   7.47%
   QC value within limits for Zn 213.857  Recovery = 95.86%
All analyte(s) passed QC.
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Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 00:15:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57056.3	57056.3	101	%			00:15:35
1	Al 396.153Radial†	-5.7	-13.0	-9.0953	µg/L	-9.0953	ppb	00:15:35
1	Ca 317.933Radial†	199.5	-13.7	-11.700	µg/L	-11.700	ppb	00:15:56
1	Fe 238.204 Radial†	14.5	-2.2	-17.610	µg/L	-17.610	ppb	00:15:56
1	K 766.490 Radial†	191.3	24.5	15.994	µg/L	15.994	ppb	00:15:35
1	Mg 279.077 IEC†	9.0	-4.0	-35.339	µg/L	-35.339	ppb	00:15:56
1	Na 589.592 Radial†	412.2	-64.1	-19.680	µg/L	-19.680	ppb	00:15:35
1	Sr 421.552†	75.5	46.0	0.4243	µg/L	0.4243	ppb	00:15:35
1	Sc 361.383	2008840.8	2008840.8	102.33	%			00:16:58
1	Y 371.029	1388623.1	1388623.1	102.65	%			00:16:58
1	Ag 328.068†	-495.1	-82.3	-0.6122	µg/L	-0.6122	ppb	00:17:03
1	As 188.979†	1.4	1.8	3.2409	µg/L	3.2409	ppb	00:17:24
1	B 249.677†	357.5	-34.8	-1.4084	µg/L	-1.4084	ppb	00:17:24
1	Ba 233.527†	-3.8	13.4	0.3201	µg/L	0.3201	ppb	00:17:24
1	Be 313.107†	-2686.9	229.9	0.1363	µg/L	0.1363	ppb	00:17:03
1	Cd 226.502†	-151.5	-6.3	-0.1567	µg/L	-0.1567	ppb	00:17:24
1	Co 228.616†	6.7	4.7	0.2106	µg/L	0.2106	ppb	00:17:24
1	Cr 267.716†	-69.9	-17.9	-0.3598	µg/L	-0.3598	ppb	00:17:03
1	Cu 324.752†	2549.4	-52.3	-0.3440	µg/L	-0.3440	ppb	00:17:03
1	Mn 257.610†	-144.8	114.5	0.3577	µg/L	0.3577	ppb	00:17:24
1	Mo 202.031†	5.0	10.2	0.9987	µg/L	0.9987	ppb	00:17:24
1	Ni 231.604†	311.5	-7.9	-0.3967	µg/L	-0.3967	ppb	00:17:24
1	P 214.914†	18.1	2.3	4.6226	µg/L	4.6226	ppb	00:17:24
1	Pb 220.353†	83.5	-9.3	-2.2681	µg/L	-2.2681	ppb	00:17:24
1	S 181.975 Axial†	18.6	-0.8	-3.3405	µg/L	-3.3405	ppb	00:17:24
1	Sb 206.836†	18.3	-4.6	-4.2360	µg/L	-4.2360	ppb	00:17:24
1	Se 196.026†	16.5	-3.2	-4.5054	µg/L	-4.5054	ppb	00:17:24
1	SiO2†	1509.7	83.8	16.538	µg/L	16.538	ppb	00:17:03
1	Si 251.611†	412.2	92.2	7.0101	µg/L	7.0101	ppb	00:17:24
1	Sn 189.927†	-2.7	-3.0	-1.2771	µg/L	-1.2771	ppb	00:17:24
1	Ti 334.940†	427.2	242.5	0.5390	µg/L	0.5390	ppb	00:17:03
1	Tl 190.801†	-23.5	-0.6	-0.7502	µg/L	-0.7502	ppb	00:17:24
1	U 409.014†	-41.7	36.3	3.0222	µg/L	3.0222	ppb	00:17:03
1	V 292.402†	-73.7	-27.3	-0.2578	µg/L	-0.2578	ppb	00:17:03
1	Zn 213.857†	537.9	-8.8	-0.2008	µg/L	-0.2008	ppb	00:17:24
2	Sc RADIAL	56628.6	56628.6	100	%			00:16:01
2	Al 396.153Radial†	-23.8	-31.1	-21.684	µg/L	-21.684	ppb	00:16:01
2	Ca 317.933Radial†	190.0	-21.7	-18.526	µg/L	-18.526	ppb	00:16:22
2	Fe 238.204 Radial†	16.6	0.0	0.0975	µg/L	0.0975	ppb	00:16:22
2	K 766.490 Radial†	188.5	23.1	15.080	µg/L	15.080	ppb	00:16:01
2	Mg 279.077 IEC†	14.7	1.8	16.142	µg/L	16.142	ppb	00:16:22
2	Na 589.592 Radial†	445.7	-27.5	-8.4523	µg/L	-8.4523	ppb	00:16:01
2	Sr 421.552†	15.4	-13.4	-0.1235	µg/L	-0.1235	ppb	00:16:01
2	Sc 361.383	1991140.0	1991140.0	101.43	%			00:17:30
2	Y 371.029	1378067.0	1378067.0	101.87	%			00:17:30
2	Ag 328.068†	-374.9	32.0	0.2384	µg/L	0.2384	ppb	00:17:36
2	As 188.979†	-3.9	-3.4	-6.0385	µg/L	-6.0385	ppb	00:17:56
2	B 249.677†	366.4	-22.9	-0.9328	µg/L	-0.9328	ppb	00:17:56
2	Ba 233.527†	-6.8	10.4	0.2489	µg/L	0.2489	ppb	00:17:56
2	Be 313.107†	-2761.1	133.5	0.0790	µg/L	0.0790	ppb	00:17:36
2	Cd 226.502†	-138.2	5.4	0.1343	µg/L	0.1343	ppb	00:17:56
2	Co 228.616†	14.9	12.8	0.5784	µg/L	0.5784	ppb	00:17:56
2	Cr 267.716†	-45.7	5.3	0.1061	µg/L	0.1061	ppb	00:17:36
2	Cu 324.752†	2564.5	-15.4	-0.1003	µg/L	-0.1003	ppb	00:17:36
2	Mn 257.610†	-172.2	86.3	0.2696	µg/L	0.2696	ppb	00:17:56
2	Mo 202.031†	4.0	9.3	0.9125	µg/L	0.9125	ppb	00:17:56
2	Ni 231.604†	306.1	-10.5	-0.5258	µg/L	-0.5258	ppb	00:17:56
2	P 214.914†	17.2	1.7	3.2781	µg/L	3.2781	ppb	00:17:56
2	Pb 220.353†	79.4	-12.7	-3.0846	µg/L	-3.0846	ppb	00:17:56

2	S 181.975 Axial†	22.9	3.7	15.206 µg/L	15.206 ppb	00:17:56
2	Sb 206.836†	25.4	2.6	2.3565 µg/L	2.3565 ppb	00:17:56
2	Se 196.026†	16.1	-3.4	-4.8007 µg/L	-4.8007 ppb	00:17:56
2	SiO2†	1536.5	123.4	24.348 µg/L	24.348 ppb	00:17:36
2	Si 251.611†	406.5	90.2	6.8569 µg/L	6.8569 ppb	00:17:56
2	Sn 189.927†	-2.0	-2.3	-0.9755 µg/L	-0.9755 ppb	00:17:56
2	Ti 334.940†	398.9	218.2	0.4812 µg/L	0.4812 ppb	00:17:36
2	Tl 190.801†	-17.7	5.0	6.4456 µg/L	6.4456 ppb	00:17:56
2	U 409.014†	-11.0	66.2	5.5016 µg/L	5.5016 ppb	00:17:36
2	V 292.402†	-26.4	18.7	0.1952 µg/L	0.1952 ppb	00:17:36
2	Zn 213.857†	540.6	-1.4	-0.0317 µg/L	-0.0317 ppb	00:17:56
3	Sc RADIAL	56386.6	56386.6	99.8 %		00:16:27
3	Al 396.153Radial†	-18.3	-25.7	-17.898 µg/L	-17.898 ppb	00:16:27
3	Ca 317.933Radial†	197.1	-13.7	-11.741 µg/L	-11.741 ppb	00:16:48
3	Fe 238.204 Radial†	19.4	2.9	22.756 µg/L	22.756 ppb	00:16:48
3	K 766.490 Radial†	199.6	35.1	22.894 µg/L	22.894 ppb	00:16:27
3	Mg 279.077 IEC†	15.6	2.8	24.950 µg/L	24.950 ppb	00:16:48
3	Na 589.592 Radial†	462.1	-9.2	-2.8236 µg/L	-2.8236 ppb	00:16:27
3	Sr 421.552†	51.7	23.0	0.2125 µg/L	0.2125 ppb	00:16:27
3	Sc 361.383	1995333.6	1995333.6	101.64 %		00:18:02
3	Y 371.029	1380514.8	1380514.8	102.05 %		00:18:02
3	Ag 328.068†	-373.2	34.4	0.2561 µg/L	0.2561 ppb	00:18:08
3	As 188.979†	-0.3	0.2	0.3744 µg/L	0.3744 ppb	00:18:28
3	B 249.677†	338.5	-51.1	-2.0934 µg/L	-2.0934 ppb	00:18:28
3	Ba 233.527†	-17.0	0.3	0.0083 µg/L	0.0083 ppb	00:18:28
3	Be 313.107†	-2731.8	168.0	0.0995 µg/L	0.0995 ppb	00:18:08
3	Cd 226.502†	-130.2	13.6	0.3366 µg/L	0.3366 ppb	00:18:28
3	Co 228.616†	7.4	5.3	0.2410 µg/L	0.2410 ppb	00:18:28
3	Cr 267.716†	-49.5	1.6	0.0327 µg/L	0.0327 ppb	00:18:08
3	Cu 324.752†	2599.8	14.1	0.0952 µg/L	0.0952 ppb	00:18:08
3	Mn 257.610†	-188.3	70.8	0.2236 µg/L	0.2236 ppb	00:18:28
3	Mo 202.031†	4.4	9.6	0.9457 µg/L	0.9457 ppb	00:18:28
3	Ni 231.604†	301.9	-15.3	-0.7614 µg/L	-0.7614 ppb	00:18:28
3	P 214.914†	17.4	1.7	3.4379 µg/L	3.4379 ppb	00:18:28
3	Pb 220.353†	92.5	0.1	0.0084 µg/L	0.0084 ppb	00:18:28
3	S 181.975 Axial†	14.4	-4.7	-19.657 µg/L	-19.657 ppb	00:18:28
3	Sb 206.836†	16.6	-6.2	-5.6848 µg/L	-5.6848 ppb	00:18:28
3	Se 196.026†	17.0	-2.6	-3.6602 µg/L	-3.6602 ppb	00:18:28
3	SiO2†	1524.8	108.6	21.436 µg/L	21.436 ppb	00:18:08
3	Si 251.611†	420.8	103.3	7.8556 µg/L	7.8556 ppb	00:18:28
3	Sn 189.927†	3.5	3.0	1.2790 µg/L	1.2790 ppb	00:18:28
3	Ti 334.940†	371.5	190.5	0.4192 µg/L	0.4192 ppb	00:18:08
3	Tl 190.801†	-23.3	-0.5	-0.6374 µg/L	-0.6374 ppb	00:18:28
3	U 409.014†	4.2	81.2	6.7421 µg/L	6.7421 ppb	00:18:08
3	V 292.402†	-47.4	-1.9	-0.0016 µg/L	-0.0016 ppb	00:18:08
3	Zn 213.857†	527.4	-15.5	-0.3632 µg/L	-0.3632 ppb	00:18:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1998438.2	101.80	%	0.471				0.46%
Sc RADIAL	56690.5	100	%	0.6				0.60%
Y 371.029	1382401.7	102.19	%	0.408				0.40%
Ag 328.068†	-5.3	-0.0392	µg/L	0.49630	-0.0392	ppb	0.49630	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-23.3	-16.226	µg/L	6.4588	-16.226	ppb	6.4588	39.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.8077	µg/L	4.75129	-0.8077	ppb	4.75129	588.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-36.2	-1.4782	µg/L	0.58347	-1.4782	ppb	0.58347	39.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.0	0.1924	µg/L	0.16342	0.1924	ppb	0.16342	84.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	177.1	0.1049	µg/L	0.02898	0.1049	ppb	0.02898	27.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.4	-13.989	µg/L	3.9293	-13.989	ppb	3.9293	28.09%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.2	0.1047	µg/L	0.24795	0.1047	ppb	0.24795	236.74%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.6	0.3433	µg/L	0.20414	0.3433	ppb	0.20414	59.46%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.7     -0.0736 µg/L       0.25050     -0.0736 ppb        0.25050 340.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -17.9     -0.1164 µg/L       0.22003     -0.1164 ppb        0.22003 189.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.2      1.7476 µg/L      20.23351      1.7476 ppb       20.23351 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          27.5      17.989 µg/L        4.2723      17.989 ppb        4.2723  23.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.2      1.9176 µg/L      32.56432      1.9176 ppb       32.56432 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                90.5      0.2836 µg/L       0.06812      0.2836 ppb        0.06812  24.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.7      0.9523 µg/L       0.04345      0.9523 ppb        0.04345   4.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -33.6     -10.319 µg/L        8.5817     -10.319 ppb        8.5817  83.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -11.3     -0.5613 µg/L       0.18493     -0.5613 ppb        0.18493  32.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.9      3.7795 µg/L       0.73449      3.7795 ppb        0.73449  19.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.3     -1.7814 µg/L       1.60289     -1.7814 ppb        1.60289  89.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.6     -2.5970 µg/L      17.44338     -2.5970 ppb       17.44338 671.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.8     -2.5214 µg/L       4.28609     -2.5214 ppb        4.28609 169.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.1     -4.3221 µg/L       0.59194     -4.3221 ppb        0.59194  13.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     105.2      20.774 µg/L        3.9468      20.774 ppb        3.9468  19.00%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                95.2      7.2409 µg/L       0.53785      7.2409 ppb        0.53785   7.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.8     -0.3245 µg/L       1.39688     -0.3245 ppb        1.39688 430.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                18.5      0.1711 µg/L       0.27628      0.1711 ppb        0.27628 161.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               217.1      0.4798 µg/L       0.05992      0.4798 ppb        0.05992  12.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.3      1.6860 µg/L       4.12231      1.6860 ppb        4.12231 244.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 61.2      5.0886 µg/L       1.89405      5.0886 ppb        1.89405  37.22%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -3.5     -0.0214 µg/L       0.22712     -0.0214 ppb        0.22712 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -8.6     -0.1986 µg/L       0.16575     -0.1986 ppb        0.16575  83.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 58
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 00:47:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57680.8	57680.8	102	%			00:48:39
1	Al 396.153Radial†	7133.8	6979.9	4845.1	µg/L	4845.1	ppb	00:48:39
1	Ca 317.933Radial†	5914.0	5581.2	4767.4	µg/L	4767.4	ppb	00:48:59
1	Fe 238.204 Radial†	654.8	624.7	4937.8	µg/L	4937.8	ppb	00:48:59
1	K 766.490 Radial†	7645.5	7323.4	4783.0	µg/L	4783.0	ppb	00:48:39
1	Mg 279.077 IEC†	575.8	551.2	4930.2	µg/L	4930.2	ppb	00:48:59
1	Na 589.592 Radial†	32886.8	31738.9	9748.4	µg/L	9748.4	ppb	00:48:39
1	Sr 421.552†	52443.7	51337.3	473.59	µg/L	473.59	ppb	00:48:39
1	Sc 361.383	1998798.8	1998798.8	101.82	%			00:50:03
1	Y 371.029	1378207.5	1378207.5	101.88	%			00:50:03
1	Ag 328.068†	66637.6	65849.7	491.34	µg/L	491.34	ppb	00:50:09
1	As 188.979†	282.6	278.0	497.33	µg/L	497.33	ppb	00:50:29
1	B 249.677†	12419.9	11814.0	479.73	µg/L	479.73	ppb	00:50:09
1	Ba 233.527†	20853.3	20498.1	492.99	µg/L	492.99	ppb	00:50:09
1	Be 313.107†	838271.9	826164.3	490.15	µg/L	490.15	ppb	00:50:03
1	Cd 226.502†	20064.0	19847.5	494.95	µg/L	494.95	ppb	00:50:09
1	Co 228.616†	11129.1	10928.5	494.36	µg/L	494.36	ppb	00:50:09
1	Cr 267.716†	25151.7	24753.2	497.48	µg/L	497.48	ppb	00:50:09
1	Cu 324.752†	79271.1	75312.4	492.29	µg/L	492.29	ppb	00:50:09
1	Mn 257.610†	162448.2	159804.4	500.89	µg/L	500.89	ppb	00:50:03
1	Mo 202.031†	5294.5	5205.3	509.92	µg/L	509.92	ppb	00:50:29
1	Ni 231.604†	10454.5	9955.6	495.75	µg/L	495.75	ppb	00:50:09
1	P 214.914†	1305.3	1266.6	2460.9	µg/L	2460.9	ppb	00:50:29
1	Pb 220.353†	2196.1	2066.0	502.42	µg/L	502.42	ppb	00:50:29
1	S 181.975 Axial†	267.3	243.6	1010.3	µg/L	1010.3	ppb	00:50:29
1	Sb 206.836†	581.4	548.5	505.86	µg/L	505.86	ppb	00:50:29
1	Se 196.026†	385.1	358.9	511.83	µg/L	511.83	ppb	00:50:29
1	SiO2†	28708.0	26803.9	5290.7	µg/L	5290.7	ppb	00:50:09
1	Si 251.611†	33429.9	32522.5	2472.4	µg/L	2472.4	ppb	00:50:09
1	Sn 189.927†	1243.8	1221.2	515.04	µg/L	515.04	ppb	00:50:29
1	Ti 334.940†	226045.2	221835.2	490.44	µg/L	490.44	ppb	00:50:03
1	Tl 190.801†	368.0	383.9	504.49	µg/L	504.49	ppb	00:50:29
1	U 409.014†	6013.1	5982.8	496.10	µg/L	496.10	ppb	00:50:09
1	V 292.402†	51239.9	50370.0	497.04	µg/L	497.04	ppb	00:50:09
1	Zn 213.857†	22107.9	21178.9	493.39	µg/L	493.39	ppb	00:50:09
2	Sc RADIAL	57446.6	57446.6	102	%			00:49:05
2	Al 396.153Radial†	7123.3	6998.0	4858.0	µg/L	4858.0	ppb	00:49:05
2	Ca 317.933Radial†	5925.8	5616.4	4797.4	µg/L	4797.4	ppb	00:49:25
2	Fe 238.204 Radial†	661.1	633.6	5007.9	µg/L	5007.9	ppb	00:49:25
2	K 766.490 Radial†	7669.9	7377.9	4818.6	µg/L	4818.6	ppb	00:49:05
2	Mg 279.077 IEC†	576.8	554.4	4959.0	µg/L	4959.0	ppb	00:49:25
2	Na 589.592 Radial†	32906.4	31889.5	9794.6	µg/L	9794.6	ppb	00:49:05
2	Sr 421.552†	52430.7	51534.0	475.41	µg/L	475.41	ppb	00:49:05
2	Sc 361.383	2011817.0	2011817.0	102.48	%			00:50:36
2	Y 371.029	1386935.5	1386935.5	102.53	%			00:50:36
2	Ag 328.068†	66849.6	65633.1	489.73	µg/L	489.73	ppb	00:50:42
2	As 188.979†	282.7	276.3	494.28	µg/L	494.28	ppb	00:51:02
2	B 249.677†	12474.1	11788.0	478.63	µg/L	478.63	ppb	00:50:42
2	Ba 233.527†	20922.4	20433.0	491.42	µg/L	491.42	ppb	00:50:42
2	Be 313.107†	842885.5	825338.6	489.66	µg/L	489.66	ppb	00:50:36
2	Cd 226.502†	20129.6	19784.0	493.36	µg/L	493.36	ppb	00:50:42
2	Co 228.616†	11190.9	10918.1	493.88	µg/L	493.88	ppb	00:50:42
2	Cr 267.716†	25222.6	24662.5	495.66	µg/L	495.66	ppb	00:50:42
2	Cu 324.752†	79511.5	75043.1	490.54	µg/L	490.54	ppb	00:50:42
2	Mn 257.610†	163207.5	159513.0	499.98	µg/L	499.98	ppb	00:50:36
2	Mo 202.031†	5169.2	5049.4	494.66	µg/L	494.66	ppb	00:51:02
2	Ni 231.604†	10507.6	9940.9	495.03	µg/L	495.03	ppb	00:50:42
2	P 214.914†	1281.4	1235.1	2398.2	µg/L	2398.2	ppb	00:51:02
2	Pb 220.353†	2169.3	2025.8	492.61	µg/L	492.61	ppb	00:51:02

2	S 181.975 Axial†	262.8	237.5	984.82 µg/L	984.82 ppb	00:51:02
2	Sb 206.836†	574.2	537.8	495.81 µg/L	495.81 ppb	00:51:02
2	Se 196.026†	380.5	352.0	502.22 µg/L	502.22 ppb	00:51:02
2	SiO2†	28844.1	26754.4	5281.0 µg/L	5281.0 ppb	00:50:42
2	Si 251.611†	33597.6	32473.7	2468.7 µg/L	2468.7 ppb	00:50:42
2	Sn 189.927†	1203.8	1174.3	495.24 µg/L	495.24 ppb	00:51:02
2	Ti 334.940†	227246.5	221570.9	489.85 µg/L	489.85 ppb	00:50:36
2	Tl 190.801†	367.9	381.4	501.31 µg/L	501.31 ppb	00:51:02
2	U 409.014†	6070.9	6001.1	497.61 µg/L	497.61 ppb	00:50:42
2	V 292.402†	51518.3	50316.0	496.40 µg/L	496.40 ppb	00:50:42
2	Zn 213.857†	22203.3	21131.5	492.28 µg/L	492.28 ppb	00:50:42
3	Sc RADIAL	57389.7	57389.7	102 %		00:49:31
3	Al 396.153Radial†	7091.9	6974.1	4843.3 µg/L	4843.3 ppb	00:49:31
3	Ca 317.933Radial†	5913.0	5609.6	4791.6 µg/L	4791.6 ppb	00:49:51
3	Fe 238.204 Radial†	660.4	633.5	5005.4 µg/L	5005.4 ppb	00:49:51
3	K 766.490 Radial†	7625.7	7341.9	4795.1 µg/L	4795.1 ppb	00:49:31
3	Mg 279.077 IEC†	577.2	555.4	4965.8 µg/L	4965.8 ppb	00:49:51
3	Na 589.592 Radial†	32787.2	31804.2	9768.4 µg/L	9768.4 ppb	00:49:31
3	Sr 421.552†	52453.5	51607.5	476.09 µg/L	476.09 ppb	00:49:31
3	Sc 361.383	2005009.8	2005009.8	102.13 %		00:51:09
3	Y 371.029	1382509.8	1382509.8	102.20 %		00:51:09
3	Ag 328.068†	61434.7	60552.8	451.66 µg/L	451.66 ppb	00:51:15
3	As 188.979†	236.3	231.8	414.69 µg/L	414.69 ppb	00:51:35
3	B 249.677†	11353.7	10732.4	435.49 µg/L	435.49 ppb	00:51:15
3	Ba 233.527†	18464.6	18095.9	435.19 µg/L	435.19 ppb	00:51:15
3	Be 313.107†	758877.8	745878.5	442.52 µg/L	442.52 ppb	00:51:09
3	Cd 226.502†	17660.6	17433.4	434.67 µg/L	434.67 ppb	00:51:15
3	Co 228.616†	9736.6	9531.2	431.09 µg/L	431.09 ppb	00:51:15
3	Cr 267.716†	21236.0	20842.7	418.90 µg/L	418.90 ppb	00:51:15
3	Cu 324.752†	69572.6	65575.3	428.74 µg/L	428.74 ppb	00:51:15
3	Mn 257.610†	147391.1	144567.7	453.18 µg/L	453.18 ppb	00:51:09
3	Mo 202.031†	4191.8	4109.6	402.63 µg/L	402.63 ppb	00:51:35
3	Ni 231.604†	9146.6	8643.2	430.41 µg/L	430.41 ppb	00:51:15
3	P 214.914†	1064.5	1026.9	1991.2 µg/L	1991.2 ppb	00:51:35
3	Pb 220.353†	1834.2	1705.0	414.53 µg/L	414.53 ppb	00:51:35
3	S 181.975 Axial†	225.9	202.2	838.51 µg/L	838.51 ppb	00:51:35
3	Sb 206.836†	475.8	443.4	408.45 µg/L	408.45 ppb	00:51:35
3	Se 196.026†	322.7	296.7	424.53 µg/L	424.53 ppb	00:51:35
3	SiO2†	26010.4	24075.4	4752.2 µg/L	4752.2 ppb	00:51:15
3	Si 251.611†	30176.9	29235.7	2222.6 µg/L	2222.6 ppb	00:51:15
3	Sn 189.927†	963.9	943.4	397.88 µg/L	397.88 ppb	00:51:35
3	Ti 334.940†	203236.7	198815.5	439.51 µg/L	439.51 ppb	00:51:09
3	Tl 190.801†	315.2	331.0	435.27 µg/L	435.27 ppb	00:51:35
3	U 409.014†	5104.0	5074.4	420.62 µg/L	420.62 ppb	00:51:15
3	V 292.402†	44361.2	43479.1	428.81 µg/L	428.81 ppb	00:51:15
3	Zn 213.857†	19393.6	18454.0	429.85 µg/L	429.85 ppb	00:51:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2005208.6	102.14	%	0.332				0.32%
Sc RADIAL	57505.7	102	%	0.3				0.27%
Y 371.029	1382550.9	102.20	%	0.323				0.32%
Ag 328.068†	64011.9	477.58	µg/L	22.458	477.58	ppb	22.458	4.70%
QC value within limits for Ag 328.068 Recovery = 95.52%								
Al 396.153Radial†	6984.0	4848.8	µg/L	8.02	4848.8	ppb	8.02	0.17%
QC value within limits for Al 396.153Radial Recovery = 96.98%								
As 188.979†	262.0	468.77	µg/L	46.859	468.77	ppb	46.859	10.00%
QC value within limits for As 188.979 Recovery = 93.75%								
B 249.677†	11444.8	464.62	µg/L	25.234	464.62	ppb	25.234	5.43%
QC value within limits for B 249.677 Recovery = 92.92%								
Ba 233.527†	19675.7	473.20	µg/L	32.924	473.20	ppb	32.924	6.96%
QC value within limits for Ba 233.527 Recovery = 94.64%								
Be 313.107†	799127.1	474.11	µg/L	27.359	474.11	ppb	27.359	5.77%
QC value within limits for Be 313.107 Recovery = 94.82%								
Ca 317.933Radial†	5602.4	4785.5	µg/L	15.94	4785.5	ppb	15.94	0.33%
QC value within limits for Ca 317.933Radial Recovery = 95.71%								
Cd 226.502†	19021.6	474.33	µg/L	34.355	474.33	ppb	34.355	7.24%
QC value within limits for Cd 226.502 Recovery = 94.87%								
Co 228.616†	10459.3	473.11	µg/L	36.391	473.11	ppb	36.391	7.69%

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   QC value within limits for Co 228.616  Recovery = 94.62%
Cr 267.716†            23419.4      470.68 µg/L        44.854      470.68 ppb         44.854   9.53%
   QC value within limits for Cr 267.716  Recovery = 94.14%
Cu 324.752†            71976.9      470.52 µg/L        36.196      470.52 ppb         36.196   7.69%
   QC value within limits for Cu 324.752  Recovery = 94.10%
Fe 238.204 Radial†       630.6      4983.7 µg/L         39.75      4983.7 ppb          39.75   0.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.67%
K 766.490 Radial†       7347.8      4798.9 µg/L         18.10      4798.9 ppb          18.10   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 95.98%
Mg 279.077 IEC†          553.6      4951.7 µg/L         18.91      4951.7 ppb          18.91   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.03%
Mn 257.610†           154628.4      484.69 µg/L        27.286      484.69 ppb         27.286   5.63%
   QC value within limits for Mn 257.610  Recovery = 96.94%
Mo 202.031†             4788.1      469.07 µg/L        58.045      469.07 ppb         58.045  12.37%
   QC value within limits for Mo 202.031  Recovery = 93.81%
Na 589.592 Radial†     31810.9      9770.5 µg/L         23.19      9770.5 ppb          23.19   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 97.70%
Ni 231.604†             9513.2      473.73 µg/L        37.519      473.73 ppb         37.519   7.92%
   QC value within limits for Ni 231.604  Recovery = 94.75%
P 214.914†              1176.2      2283.4 µg/L        255.03      2283.4 ppb         255.03  11.17%
   QC value within limits for P 214.914  Recovery = 91.34%
Pb 220.353†             1932.3      469.85 µg/L        48.159      469.85 ppb         48.159  10.25%
   QC value within limits for Pb 220.353  Recovery = 93.97%
S 181.975 Axial†         227.8      944.55 µg/L        92.712      944.55 ppb         92.712   9.82%
   QC value within limits for S 181.975 Axial  Recovery = 94.45%
Sb 206.836†              509.9      470.04 µg/L        53.574      470.04 ppb         53.574  11.40%
   QC value within limits for Sb 206.836  Recovery = 94.01%
Se 196.026†              335.8      479.53 µg/L        47.869      479.53 ppb         47.869   9.98%
   QC value within limits for Se 196.026  Recovery = 95.91%
SiO2†                  25877.9      5108.0 µg/L        308.17      5108.0 ppb         308.17   6.03%
   QC value within limits for SiO2  Recovery = 95.52%
Si 251.611†            31410.7      2387.9 µg/L        143.20      2387.9 ppb         143.20   6.00%
   QC value within limits for Si 251.611  Recovery = 95.52%
Sn 189.927†             1113.0      469.39 µg/L        62.710      469.39 ppb         62.710  13.36%
   QC value within limits for Sn 189.927  Recovery = 93.88%
Sr 421.552†            51492.9      475.03 µg/L         1.289      475.03 ppb          1.289   0.27%
   QC value within limits for Sr 421.552  Recovery = 95.01%
Ti 334.940†           214073.8      473.26 µg/L        29.235      473.26 ppb         29.235   6.18%
   QC value within limits for Ti 334.940  Recovery = 94.65%
Tl 190.801†              365.4      480.35 µg/L        39.078      480.35 ppb         39.078   8.14%
   QC value within limits for Tl 190.801  Recovery = 96.07%
U 409.014†              5686.1      471.44 µg/L        44.023      471.44 ppb         44.023   9.34%
   QC value within limits for U 409.014  Recovery = 94.29%
V 292.402†             48055.1      474.09 µg/L        39.211      474.09 ppb         39.211   8.27%
   QC value within limits for V 292.402  Recovery = 94.82%
Zn 213.857†            20254.8      471.84 µg/L        36.370      471.84 ppb         36.370   7.71%
   QC value within limits for Zn 213.857  Recovery = 94.37%
All analyte(s) passed QC.
```

Sequence No.: 59
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 00:51:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56488.2	56488.2	100.0	%			00:52:18
1	Al 396.153Radial†	-18.6	-26.0	-18.107	µg/L	-18.107	ppb	00:52:18
1	Ca 317.933Radial†	192.4	-18.9	-16.133	µg/L	-16.133	ppb	00:52:38
1	Fe 238.204 Radial†	16.4	-0.2	-1.6233	µg/L	-1.6233	ppb	00:52:38
1	K 766.490 Radial†	221.8	56.9	37.153	µg/L	37.153	ppb	00:52:18
1	Mg 279.077 IEC†	8.8	-4.0	-35.707	µg/L	-35.707	ppb	00:52:38
1	Na 589.592 Radial†	433.2	-39.0	-11.968	µg/L	-11.968	ppb	00:52:18
1	Sr 421.552†	40.3	11.5	0.1064	µg/L	0.1064	ppb	00:52:18
1	Sc 361.383	2011763.6	2011763.6	102.48	%			00:53:40
1	Y 371.029	1389612.5	1389612.5	102.72	%			00:53:40
1	Ag 328.068†	-405.0	6.4	0.0485	µg/L	0.0485	ppb	00:53:46
1	As 188.979†	-2.6	-2.1	-3.6986	µg/L	-3.6986	ppb	00:54:07
1	B 249.677†	338.6	-53.8	-2.1896	µg/L	-2.1896	ppb	00:54:07
1	Ba 233.527†	-17.8	-0.3	-0.0074	µg/L	-0.0074	ppb	00:54:07
1	Be 313.107†	-2736.0	185.9	0.1102	µg/L	0.1102	ppb	00:53:46
1	Cd 226.502†	-129.0	15.8	0.3934	µg/L	0.3934	ppb	00:54:07
1	Co 228.616†	3.6	1.6	0.0719	µg/L	0.0719	ppb	00:54:07
1	Cr 267.716†	-27.0	24.0	0.4825	µg/L	0.4825	ppb	00:53:46
1	Cu 324.752†	2575.9	-30.1	-0.1968	µg/L	-0.1968	ppb	00:53:46
1	Mn 257.610†	-211.1	50.0	0.1578	µg/L	0.1578	ppb	00:54:07
1	Mo 202.031†	3.9	9.1	0.8918	µg/L	0.8918	ppb	00:54:07
1	Ni 231.604†	299.2	-20.4	-1.0177	µg/L	-1.0177	ppb	00:54:07
1	P 214.914†	16.5	0.8	1.5471	µg/L	1.5471	ppb	00:54:07
1	Pb 220.353†	89.4	-3.7	-0.9118	µg/L	-0.9118	ppb	00:54:07
1	S 181.975 Axial†	16.3	-3.0	-12.644	µg/L	-12.644	ppb	00:54:07
1	Sb 206.836†	16.5	-6.4	-5.8254	µg/L	-5.8254	ppb	00:54:07
1	Se 196.026†	19.5	-0.3	-0.4212	µg/L	-0.4212	ppb	00:54:07
1	SiO2†	1433.8	7.5	1.4845	µg/L	1.4845	ppb	00:53:46
1	Si 251.611†	372.9	53.3	4.0520	µg/L	4.0520	ppb	00:54:07
1	Sn 189.927†	5.9	5.4	2.2728	µg/L	2.2728	ppb	00:54:07
1	Ti 334.940†	341.2	157.9	0.3518	µg/L	0.3518	ppb	00:53:46
1	Tl 190.801†	-19.9	3.0	3.8843	µg/L	3.8843	ppb	00:54:07
1	U 409.014†	-22.2	55.4	4.6027	µg/L	4.6027	ppb	00:53:46
1	V 292.402†	-31.2	14.3	0.1517	µg/L	0.1517	ppb	00:53:46
1	Zn 213.857†	529.8	-17.4	-0.4012	µg/L	-0.4012	ppb	00:54:07
2	Sc RADIAL	56775.7	56775.7	100	%			00:52:44
2	Al 396.153Radial†	-27.8	-35.0	-24.366	µg/L	-24.366	ppb	00:52:44
2	Ca 317.933Radial†	192.4	-19.9	-16.957	µg/L	-16.957	ppb	00:53:04
2	Fe 238.204 Radial†	16.1	-0.6	-4.4224	µg/L	-4.4224	ppb	00:53:04
2	K 766.490 Radial†	175.7	9.8	6.4327	µg/L	6.4327	ppb	00:52:44
2	Mg 279.077 IEC†	7.4	-5.5	-48.709	µg/L	-48.709	ppb	00:53:04
2	Na 589.592 Radial†	453.4	-21.0	-6.4575	µg/L	-6.4575	ppb	00:52:44
2	Sr 421.552†	44.2	15.2	0.1399	µg/L	0.1399	ppb	00:52:44
2	Sc 361.383	2015962.5	2015962.5	102.69	%			00:54:13
2	Y 371.029	1393418.5	1393418.5	103.01	%			00:54:13
2	Ag 328.068†	-401.2	10.9	0.0831	µg/L	0.0831	ppb	00:54:18
2	As 188.979†	0.0	0.5	0.8602	µg/L	0.8602	ppb	00:54:39
2	B 249.677†	354.8	-38.6	-1.5728	µg/L	-1.5728	ppb	00:54:39
2	Ba 233.527†	-18.1	-0.5	-0.0119	µg/L	-0.0119	ppb	00:54:39
2	Be 313.107†	-2690.3	235.9	0.1399	µg/L	0.1399	ppb	00:54:18
2	Cd 226.502†	-130.3	14.8	0.3705	µg/L	0.3705	ppb	00:54:39
2	Co 228.616†	-6.6	-8.4	-0.3796	µg/L	-0.3796	ppb	00:54:39
2	Cr 267.716†	-46.8	4.9	0.0977	µg/L	0.0977	ppb	00:54:18
2	Cu 324.752†	2528.8	-81.2	-0.5308	µg/L	-0.5308	ppb	00:54:18
2	Mn 257.610†	-226.2	35.7	0.1133	µg/L	0.1133	ppb	00:54:39
2	Mo 202.031†	4.6	9.8	0.9608	µg/L	0.9608	ppb	00:54:39
2	Ni 231.604†	319.0	-1.7	-0.0830	µg/L	-0.0830	ppb	00:54:39
2	P 214.914†	9.1	-6.5	-12.859	µg/L	-12.859	ppb	00:54:39
2	Pb 220.353†	88.2	-5.0	-1.2233	µg/L	-1.2233	ppb	00:54:39

2	S 181.975 Axial†	16.9	-2.4	-10.103 µg/L	-10.103 ppb	00:54:39
2	Sb 206.836†	17.9	-5.1	-4.6769 µg/L	-4.6769 ppb	00:54:39
2	Se 196.026†	19.1	-0.7	-1.0024 µg/L	-1.0024 ppb	00:54:39
2	SiO2†	1449.7	20.2	3.9814 µg/L	3.9814 ppb	00:54:18
2	Si 251.611†	376.1	55.6	4.2260 µg/L	4.2260 ppb	00:54:39
2	Sn 189.927†	1.7	1.3	0.5477 µg/L	0.5477 ppb	00:54:39
2	Ti 334.940†	343.0	159.0	0.3552 µg/L	0.3552 ppb	00:54:18
2	Tl 190.801†	-24.1	-1.1	-1.4493 µg/L	-1.4493 ppb	00:54:39
2	U 409.014†	10.4	87.2	7.2508 µg/L	7.2508 ppb	00:54:18
2	V 292.402†	-4.1	40.8	0.4119 µg/L	0.4119 ppb	00:54:18
2	Zn 213.857†	527.1	-21.2	-0.4921 µg/L	-0.4921 ppb	00:54:39
3	Sc RADIAL	56920.7	56920.7	101 %		00:53:10
3	Al 396.153Radial†	-15.3	-22.6	-15.701 µg/L	-15.701 ppb	00:53:10
3	Ca 317.933Radial†	197.5	-15.2	-12.988 µg/L	-12.988 ppb	00:53:30
3	Fe 238.204 Radial†	18.8	2.1	16.556 µg/L	16.556 ppb	00:53:30
3	K 766.490 Radial†	185.2	18.8	12.279 µg/L	12.279 ppb	00:53:10
3	Mg 279.077 IEC†	8.5	-4.4	-39.105 µg/L	-39.105 ppb	00:53:30
3	Na 589.592 Radial†	423.4	-52.0	-15.967 µg/L	-15.967 ppb	00:53:10
3	Sr 421.552†	41.9	12.7	0.1176 µg/L	0.1176 ppb	00:53:10
3	Sc 361.383	2014852.2	2014852.2	102.64 %		00:54:45
3	Y 371.029	1393456.2	1393456.2	103.01 %		00:54:45
3	Ag 328.068†	-422.8	-10.3	-0.0785 µg/L	-0.0785 ppb	00:54:50
3	As 188.979†	-1.5	-1.0	-1.7460 µg/L	-1.7460 ppb	00:55:11
3	B 249.677†	333.7	-59.0	-2.4128 µg/L	-2.4128 ppb	00:55:11
3	Ba 233.527†	-13.4	4.0	0.0947 µg/L	0.0947 ppb	00:55:11
3	Be 313.107†	-2699.8	225.2	0.1336 µg/L	0.1336 ppb	00:54:50
3	Cd 226.502†	-145.5	-0.0	-0.0031 µg/L	-0.0031 ppb	00:55:11
3	Co 228.616†	6.4	4.3	0.1940 µg/L	0.1940 ppb	00:55:11
3	Cr 267.716†	-55.0	-3.2	-0.0651 µg/L	-0.0651 ppb	00:54:50
3	Cu 324.752†	2622.6	11.6	0.0778 µg/L	0.0778 ppb	00:54:50
3	Mn 257.610†	-221.2	40.5	0.1307 µg/L	0.1307 ppb	00:55:11
3	Mo 202.031†	-7.2	-1.7	-0.1630 µg/L	-0.1630 ppb	00:55:11
3	Ni 231.604†	311.0	-9.4	-0.4674 µg/L	-0.4674 ppb	00:55:11
3	P 214.914†	6.6	-8.9	-17.650 µg/L	-17.650 ppb	00:55:11
3	Pb 220.353†	81.8	-11.3	-2.7554 µg/L	-2.7554 ppb	00:55:11
3	S 181.975 Axial†	13.5	-5.8	-23.870 µg/L	-23.870 ppb	00:55:11
3	Sb 206.836†	20.6	-2.4	-2.2216 µg/L	-2.2216 ppb	00:55:11
3	Se 196.026†	20.8	1.0	1.4345 µg/L	1.4345 ppb	00:55:11
3	SiO2†	1432.2	3.9	0.7640 µg/L	0.7640 ppb	00:54:50
3	Si 251.611†	389.1	68.5	5.2078 µg/L	5.2078 ppb	00:55:11
3	Sn 189.927†	1.8	1.4	0.5816 µg/L	0.5816 ppb	00:55:11
3	Ti 334.940†	265.2	83.4	0.1873 µg/L	0.1873 ppb	00:54:50
3	Tl 190.801†	-21.9	1.1	1.4257 µg/L	1.4257 ppb	00:55:11
3	U 409.014†	48.0	123.8	10.285 µg/L	10.285 ppb	00:54:50
3	V 292.402†	-96.7	-49.4	-0.4704 µg/L	-0.4704 ppb	00:54:50
3	Zn 213.857†	520.4	-27.3	-0.6376 µg/L	-0.6376 ppb	00:55:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2014192.7	102.60	%	0.111				0.11%
Sc RADIAL	56728.2	100	%	0.4				0.39%
Y 371.029	1392162.4	102.91	%	0.163				0.16%
Ag 328.068†	2.3	0.0177	µg/L	0.08511	0.0177	ppb	0.08511	481.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-27.9	-19.391	µg/L	4.4734	-19.391	ppb	4.4734	23.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-1.5281	µg/L	2.28722	-1.5281	ppb	2.28722	149.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-50.5	-2.0584	µg/L	0.43510	-2.0584	ppb	0.43510	21.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.0	0.0252	µg/L	0.06031	0.0252	ppb	0.06031	239.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	215.7	0.1279	µg/L	0.01565	0.1279	ppb	0.01565	12.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-18.0	-15.359	µg/L	2.0946	-15.359	ppb	2.0946	13.64%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.2	0.2536	µg/L	0.22259	0.2536	ppb	0.22259	87.77%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.8	-0.0379	µg/L	0.30216	-0.0379	ppb	0.30216	797.93%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.5      0.1717 µg/L       0.28121      0.1717 ppb        0.28121 163.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -33.3     -0.2166 µg/L       0.30479     -0.2166 ppb        0.30479 140.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.5035 µg/L      11.39025      3.5035 ppb       11.39025 325.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          28.5      18.621 µg/L       16.3129      18.621 ppb        16.3129  87.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.6     -41.174 µg/L        6.7433     -41.174 ppb         6.7433  16.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                42.1      0.1339 µg/L       0.02244      0.1339 ppb        0.02244  16.76%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.7      0.5632 µg/L       0.62984      0.5632 ppb        0.62984 111.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -37.3     -11.464 µg/L        4.7748     -11.464 ppb         4.7748  41.65%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.5     -0.5227 µg/L       0.46980     -0.5227 ppb        0.46980  89.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.9     -9.6539 µg/L       9.99179     -9.6539 ppb        9.99179 103.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.7     -1.6302 µg/L       0.98682     -1.6302 ppb        0.98682  60.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.7     -15.539 µg/L        7.3261     -15.539 ppb         7.3261  47.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.6     -4.2413 µg/L       1.84093     -4.2413 ppb        1.84093  43.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.0      0.0037 µg/L       1.27280      0.0037 ppb        1.27280 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      10.5      2.0766 µg/L       1.68846      2.0766 ppb        1.68846  81.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                59.1      4.4953 µg/L       0.62314      4.4953 ppb        0.62314  13.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      1.1340 µg/L       0.98634      1.1340 ppb        0.98634  86.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.1      0.1213 µg/L       0.01704      0.1213 ppb        0.01704  14.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               133.4      0.2981 µg/L       0.09597      0.2981 ppb        0.09597  32.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.2869 µg/L       2.66947      1.2869 ppb        2.66947 207.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 88.8      7.3795 µg/L       2.84332      7.3795 ppb        2.84332  38.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  1.9      0.0311 µg/L       0.45339      0.0311 ppb        0.45339 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -22.0     -0.5103 µg/L       0.11927     -0.5103 ppb        0.11927  23.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/20/2010 01:03:24 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022010.SIF
Batch ID:
Results Data Set: 021910A
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 201**
Sample ID: 1202032633|948776|1 **Date Collected: 2/20/2010 01:03:26**
Analyst: JWJ **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202032633|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56227.4	56227.4	99.5	%			01:04:04
1	Al 396.153Radial†	-13.0	-20.4	-14.234	µg/L	-14.234	ppb	01:04:04
1	Ca 317.933Radial†	216.9	6.7	5.6955	µg/L	5.6955	ppb	01:04:25
1	Fe 238.204 Radial†	26.2	9.8	77.083	µg/L	77.083	ppb	01:04:25
1	K 766.490 Radial†	228.2	64.3	41.995	µg/L	41.995	ppb	01:04:04
1	Mg 279.077 IEC†	10.3	-2.5	-22.146	µg/L	-22.146	ppb	01:04:25
1	Na 589.592 Radial†	485.9	16.1	4.9365	µg/L	4.9365	ppb	01:04:04
1	Sr 421.552†	47.2	18.6	0.1716	µg/L	0.1716	ppb	01:04:04
1	Sc 361.383	2001236.5	2001236.5	101.94	%			01:05:27
1	Y 371.029	1380611.8	1380611.8	102.06	%			01:05:27
1	Ag 328.068†	-417.9	-8.4	-0.0576	µg/L	-0.0576	ppb	01:05:32
1	As 188.979†	4.7	5.1	9.0604	µg/L	9.0604	ppb	01:05:53
1	B 249.677†	335.4	-55.2	-2.2879	µg/L	-2.2879	ppb	01:05:53
1	Ba 233.527†	-3.1	14.0	0.3362	µg/L	0.3362	ppb	01:05:53
1	Be 313.107†	-2689.2	217.7	0.1289	µg/L	0.1289	ppb	01:05:32
1	Cd 226.502†	-137.3	7.0	0.1647	µg/L	0.1647	ppb	01:05:53
1	Co 228.616†	2.5	0.5	0.0202	µg/L	0.0202	ppb	01:05:53
1	Cr 267.716†	-44.9	6.3	0.1264	µg/L	0.1264	ppb	01:05:32
1	Cu 324.752†	2679.3	84.5	0.5625	µg/L	0.5625	ppb	01:05:32
1	Mn 257.610†	125.0	378.6	1.1967	µg/L	1.1967	ppb	01:05:53
1	Mo 202.031†	-1.1	4.3	0.4210	µg/L	0.4210	ppb	01:05:53
1	Ni 231.604†	311.2	-7.0	-0.3500	µg/L	-0.3500	ppb	01:05:53
1	P 214.914†	19.9	4.2	8.2147	µg/L	8.2147	ppb	01:05:53
1	Pb 220.353†	76.2	-16.2	-3.9420	µg/L	-3.9420	ppb	01:05:53
1	S 181.975 Axial†	15.0	-4.2	-17.399	µg/L	-17.399	ppb	01:05:53
1	Sb 206.836†	20.2	-2.7	-2.4703	µg/L	-2.4703	ppb	01:05:53
1	Se 196.026†	12.8	-6.7	-9.1981	µg/L	-9.1981	ppb	01:05:53
1	SiO2†	1764.8	339.6	67.036	µg/L	67.036	ppb	01:05:32
1	Si 251.611†	692.1	368.3	28.001	µg/L	28.001	ppb	01:05:53
1	Sn 189.927†	7.6	7.1	2.9733	µg/L	2.9733	ppb	01:05:53
1	Ti 334.940†	522.5	337.5	0.7485	µg/L	0.7485	ppb	01:05:32
1	Tl 190.801†	-21.6	1.2	1.5807	µg/L	1.5807	ppb	01:05:53
1	U 409.014†	-76.9	1.7	0.1269	µg/L	0.1269	ppb	01:05:32
1	V 292.402†	-53.6	-7.8	-0.0635	µg/L	-0.0635	ppb	01:05:32
1	Zn 213.857†	674.2	127.0	2.9769	µg/L	2.9769	ppb	01:05:53
2	Sc RADIAL	56465.5	56465.5	99.9	%			01:04:30
2	Al 396.153Radial†	-14.5	-21.8	-15.194	µg/L	-15.194	ppb	01:04:30
2	Ca 317.933Radial†	209.3	-1.9	-1.6116	µg/L	-1.6116	ppb	01:04:51
2	Fe 238.204 Radial†	26.7	10.1	79.946	µg/L	79.946	ppb	01:04:51
2	K 766.490 Radial†	226.1	61.3	40.014	µg/L	40.014	ppb	01:04:30
2	Mg 279.077 IEC†	13.3	0.5	4.5661	µg/L	4.5661	ppb	01:04:51
2	Na 589.592 Radial†	482.3	10.4	3.1815	µg/L	3.1815	ppb	01:04:30
2	Sr 421.552†	21.5	-7.3	-0.0670	µg/L	-0.0670	ppb	01:04:30
2	Sc 361.383	1991708.4	1991708.4	101.46	%			01:05:59
2	Y 371.029	1374633.9	1374633.9	101.62	%			01:05:59
2	Ag 328.068†	-369.0	38.0	0.2860	µg/L	0.2860	ppb	01:06:04
2	As 188.979†	1.0	1.4	2.5240	µg/L	2.5240	ppb	01:06:25

2	B 249.677†	334.9	-54.1	-2.2447 µg/L	-2.2447 ppb		01:06:25
2	Ba 233.527†	-4.6	12.5	0.3010 µg/L	0.3010 ppb		01:06:25
2	Be 313.107†	-2753.2	142.0	0.0840 µg/L	0.0840 ppb		01:06:04
2	Cd 226.502†	-134.5	9.1	0.2188 µg/L	0.2188 ppb		01:06:25
2	Co 228.616†	10.7	8.6	0.3863 µg/L	0.3863 ppb		01:06:25
2	Cr 267.716†	-21.1	29.6	0.5951 µg/L	0.5951 ppb		01:06:04
2	Cu 324.752†	2603.9	22.8	0.1600 µg/L	0.1600 ppb		01:06:04
2	Mn 257.610†	128.4	382.6	1.2086 µg/L	1.2086 ppb		01:06:25
2	Mo 202.031†	-4.7	0.7	0.0687 µg/L	0.0687 ppb		01:06:25
2	Ni 231.604†	313.0	-3.9	-0.1925 µg/L	-0.1925 ppb		01:06:25
2	P 214.914†	19.2	3.6	6.9557 µg/L	6.9557 ppb		01:06:25
2	Pb 220.353†	90.7	-1.5	-0.3693 µg/L	-0.3693 ppb		01:06:25
2	S 181.975 Axial†	19.7	0.5	1.8928 µg/L	1.8928 ppb		01:06:25
2	Sb 206.836†	21.4	-1.4	-1.3073 µg/L	-1.3073 ppb		01:06:25
2	Se 196.026†	10.7	-8.8	-12.154 µg/L	-12.154 ppb		01:06:25
2	SiO2†	1800.7	383.3	75.661 µg/L	75.661 ppb		01:06:04
2	Si 251.611†	709.0	388.2	29.509 µg/L	29.509 ppb		01:06:25
2	Sn 189.927†	2.1	1.7	0.7008 µg/L	0.7008 ppb		01:06:25
2	Ti 334.940†	565.9	382.8	0.8464 µg/L	0.8464 ppb		01:06:04
2	Tl 190.801†	-24.8	-2.1	-2.6678 µg/L	-2.6678 ppb		01:06:25
2	U 409.014†	-80.0	-1.8	-0.1610 µg/L	-0.1610 ppb		01:06:04
2	V 292.402†	-48.3	-2.8	-0.0162 µg/L	-0.0162 ppb		01:06:04
2	Zn 213.857†	678.4	134.2	3.1459 µg/L	3.1459 ppb		01:06:25
3	Sc RADIAL	56736.8	56736.8	100 %			01:04:56
3	Al 396.153Radial†	-18.0	-25.3	-17.581 µg/L	-17.581 ppb		01:04:56
3	Ca 317.933Radial†	216.6	4.4	3.7797 µg/L	3.7797 ppb		01:05:16
3	Fe 238.204 Radial†	28.6	11.9	94.204 µg/L	94.204 ppb		01:05:16
3	K 766.490 Radial†	241.7	75.7	49.452 µg/L	49.452 ppb		01:04:56
3	Mg 279.077 IEC†	8.7	-4.2	-37.617 µg/L	-37.617 ppb		01:05:16
3	Na 589.592 Radial†	446.3	-27.8	-8.5420 µg/L	-8.5420 ppb		01:04:56
3	Sr 421.552†	42.9	13.9	0.1285 µg/L	0.1285 ppb		01:04:56
3	Sc 361.383	1990237.2	1990237.2	101.38 %			01:06:31
3	Y 371.029	1374439.4	1374439.4	101.60 %			01:06:31
3	Ag 328.068†	-386.9	20.0	0.1531 µg/L	0.1531 ppb		01:06:36
3	As 188.979†	0.5	1.0	1.7525 µg/L	1.7525 ppb		01:06:57
3	B 249.677†	344.4	-44.4	-1.8604 µg/L	-1.8604 ppb		01:06:57
3	Ba 233.527†	-5.2	11.9	0.2860 µg/L	0.2860 ppb		01:06:57
3	Be 313.107†	-2675.3	216.8	0.1284 µg/L	0.1284 ppb		01:06:36
3	Cd 226.502†	-131.7	11.8	0.2830 µg/L	0.2830 ppb		01:06:57
3	Co 228.616†	3.0	1.0	0.0427 µg/L	0.0427 ppb		01:06:57
3	Cr 267.716†	-60.9	-9.7	-0.1939 µg/L	-0.1939 ppb		01:06:36
3	Cu 324.752†	2665.0	85.0	0.5678 µg/L	0.5678 ppb		01:06:36
3	Mn 257.610†	106.9	361.5	1.1461 µg/L	1.1461 ppb		01:06:57
3	Mo 202.031†	-5.7	-0.3	-0.0214 µg/L	-0.0214 ppb		01:06:57
3	Ni 231.604†	314.0	-2.6	-0.1280 µg/L	-0.1280 ppb		01:06:57
3	P 214.914†	16.2	0.7	1.1707 µg/L	1.1707 ppb		01:06:57
3	Pb 220.353†	75.5	-16.5	-4.0181 µg/L	-4.0181 ppb		01:06:57
3	S 181.975 Axial†	18.6	-0.6	-2.3578 µg/L	-2.3578 ppb		01:06:57
3	Sb 206.836†	19.9	-2.8	-2.6113 µg/L	-2.6113 ppb		01:06:57
3	Se 196.026†	7.5	-12.0	-16.506 µg/L	-16.506 ppb		01:06:57
3	SiO2†	1784.4	368.5	72.738 µg/L	72.738 ppb		01:06:36
3	Si 251.611†	707.2	386.9	29.412 µg/L	29.412 ppb		01:06:57
3	Sn 189.927†	1.5	1.1	0.4667 µg/L	0.4667 ppb		01:06:57
3	Ti 334.940†	525.7	343.5	0.7630 µg/L	0.7630 ppb		01:06:36
3	Tl 190.801†	-24.3	-1.6	-2.0107 µg/L	-2.0107 ppb		01:06:57
3	U 409.014†	-99.0	-20.6	-1.7260 µg/L	-1.7260 ppb		01:06:36
3	V 292.402†	-61.7	-16.1	-0.1482 µg/L	-0.1482 ppb		01:06:36
3	Zn 213.857†	659.8	116.4	2.7281 µg/L	2.7281 ppb		01:06:57

Mean Data: 1202032633|948776|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1994394.0	101.59	%	0.304				0.30%
Sc RADIAL	56476.6	100.0	%	0.45				0.45%
Y 371.029	1376561.7	101.76	%	0.259				0.25%
Ag 328.068†	16.5	0.1272	µg/L	0.17325	0.1272	ppb	0.17325	136.24%
Al 396.153Radial†	-22.5	-15.670	µg/L	1.7237	-15.670	ppb	1.7237	11.00%
As 188.979†	2.5	4.4456	µg/L	4.01510	4.4456	ppb	4.01510	90.32%
B 249.677†	-51.2	-2.1310	µg/L	0.23536	-2.1310	ppb	0.23536	11.04%
Ba 233.527†	12.8	0.3077	µg/L	0.02577	0.3077	ppb	0.02577	8.38%

Be 313.107†	192.2	0.1138	µg/L	0.02581	0.1138	ppb	0.02581 22.69%
Ca 317.933Radial†	3.1	2.6212	µg/L	3.78880	2.6212	ppb	3.78880 144.54%
Cd 226.502†	9.3	0.2222	µg/L	0.05924	0.2222	ppb	0.05924 26.66%
Co 228.616†	3.3	0.1497	µg/L	0.20519	0.1497	ppb	0.20519 137.02%
Cr 267.716†	8.8	0.1758	µg/L	0.39682	0.1758	ppb	0.39682 225.70%
Cu 324.752†	64.1	0.4301	µg/L	0.23392	0.4301	ppb	0.23392 54.38%
Fe 238.204 Radial†	10.6	83.744	µg/L	9.1709	83.744	ppb	9.1709 10.95%
K 766.490 Radial†	67.1	43.820	µg/L	4.9764	43.820	ppb	4.9764 11.36%
Mg 279.077 IEC†	-2.0	-18.399	µg/L	21.3398	-18.399	ppb	21.3398 115.98%
Mn 257.610†	374.2	1.1838	µg/L	0.03319	1.1838	ppb	0.03319 2.80%
Mo 202.031†	1.6	0.1561	µg/L	0.23379	0.1561	ppb	0.23379 149.77%
Na 589.592 Radial†	-0.5	-0.1413	µg/L	7.32790	-0.1413	ppb	7.32790 >999.9%
Ni 231.604†	-4.5	-0.2235	µg/L	0.11421	-0.2235	ppb	0.11421 51.09%
P 214.914†	2.8	5.4470	µg/L	3.75651	5.4470	ppb	3.75651 68.96%
Pb 220.353†	-11.4	-2.7765	µg/L	2.08503	-2.7765	ppb	2.08503 75.10%
S 181.975 Axial†	-1.4	-5.9547	µg/L	10.13640	-5.9547	ppb	10.13640 170.23%
Sb 206.836†	-2.3	-2.1296	µg/L	0.71561	-2.1296	ppb	0.71561 33.60%
Se 196.026†	-9.2	-12.619	µg/L	3.6761	-12.619	ppb	3.6761 29.13%
SiO2†	363.8	71.812	µg/L	4.3862	71.812	ppb	4.3862 6.11%
Si 251.611†	381.1	28.974	µg/L	0.8439	28.974	ppb	0.8439 2.91%
Sn 189.927†	3.3	1.3802	µg/L	1.38455	1.3802	ppb	1.38455 100.31%
Sr 421.552†	8.4	0.0777	µg/L	0.12715	0.0777	ppb	0.12715 163.68%
Ti 334.940†	354.6	0.7860	µg/L	0.05282	0.7860	ppb	0.05282 6.72%
Tl 190.801†	-0.8	-1.0326	µg/L	2.28690	-1.0326	ppb	2.28690 221.47%
U 409.014†	-6.9	-0.5867	µg/L	0.99706	-0.5867	ppb	0.99706 169.94%
V 292.402†	-8.9	-0.0760	µg/L	0.06687	-0.0760	ppb	0.06687 87.98%
Zn 213.857†	125.9	2.9503	µg/L	0.21019	2.9503	ppb	0.21019 7.12%

Sequence No.: 2
Sample ID: 1202032638|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 202
Date Collected: 2/20/2010 01:07:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032638|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57418.0	57418.0	102	%			01:07:45
1	Al 396.153Radial†	134722.7	132551.1	92198	µg/L	92198	ppb	01:07:40
1	Ca 317.933Radial†	126977.5	124726.4	106540	µg/L	106540	ppb	01:07:40
1	Fe 238.204 Radial†	25604.7	25176.8	198590	µg/L	198590	ppb	01:07:45
1	K 766.490 Radial†	64638.3	63434.9	41430	µg/L	41430	ppb	01:07:40
1	Mg 279.077 IEC†	4529.5	4444.0	39521	µg/L	39521	ppb	01:07:45
1	Na 589.592 Radial†	34974.8	33940.8	10425	µg/L	10425	ppb	01:07:40
1	Sr 421.552†	258778.6	254592.7	2348.7	µg/L	2348.7	ppb	01:07:40
1	Sc 361.383	1990435.4	1990435.4	101.39	%			01:08:20
1	Y 371.029	1404365.9	1404365.9	103.82	%			01:08:20
1	Ag 328.068†	40927.8	40767.7	322.80	µg/L	322.80	ppb	01:08:26
1	As 188.979†	628.8	620.7	1117.3	µg/L	1117.3	ppb	01:08:47
1	B 249.677†	39515.7	38589.2	1473.2	µg/L	1473.2	ppb	01:08:26
1	Ba 233.527†	83914.9	82780.4	1989.6	µg/L	1989.6	ppb	01:08:26
1	Be 313.107†	1415195.5	1398629.9	827.92	µg/L	827.92	ppb	01:08:20
1	Cd 226.502†	26140.0	25923.0	625.54	µg/L	625.54	ppb	01:08:26
1	Co 228.616†	22156.3	21850.3	978.14	µg/L	978.14	ppb	01:08:26
1	Cr 267.716†	127039.6	125346.6	2518.4	µg/L	2518.4	ppb	01:08:26
1	Cu 324.752†	297996.1	291362.8	1929.5	µg/L	1929.5	ppb	01:08:26
1	Mn 257.610†	1844076.0	1819025.0	5721.1	µg/L	5721.1	ppb	01:08:20
1	Mo 202.031†	5605.4	5533.8	549.45	µg/L	549.45	ppb	01:08:47
1	Ni 231.604†	29549.1	28831.3	1438.6	µg/L	1438.6	ppb	01:08:26
1	P 214.914†	4525.1	4447.6	8487.4	µg/L	8487.4	ppb	01:08:47
1	Pb 220.353†	3761.0	3618.5	875.62	µg/L	875.62	ppb	01:08:47
1	S 181.975 Axial†	1011.4	978.5	4058.0	µg/L	4058.0	ppb	01:08:47
1	Sb 206.836†	1600.9	1556.5	1400.0	µg/L	1400.0	ppb	01:08:47
1	Se 196.026†	2179.2	2130.0	3469.1	µg/L	3469.1	ppb	01:08:47
1	SiO2†	336183.8	330178.6	65173	µg/L	65173	ppb	01:08:26
1	Si 251.611†	407852.3	401944.6	30557	µg/L	30557	ppb	01:08:20
1	Sn 189.927†	2799.3	2760.6	1147.1	µg/L	1147.1	ppb	01:08:47
1	Ti 334.940†	2613284.1	2577245.9	5700.0	µg/L	5700.0	ppb	01:08:20
1	Tl 190.801†	928.1	937.7	1312.5	µg/L	1312.5	ppb	01:08:47
1	U 409.014†	-1572.8	-1474.2	-156.58	µg/L	-156.58	ppb	01:08:26
1	V 292.402†	130887.7	129136.2	1291.7	µg/L	1291.7	ppb	01:08:26
1	Zn 213.857†	265708.7	261527.9	6114.7	µg/L	6114.7	ppb	01:08:26
2	Sc RADIAL	57152.2	57152.2	101	%			01:07:56
2	Al 396.153Radial†	133917.4	132371.6	92074	µg/L	92074	ppb	01:07:51
2	Ca 317.933Radial†	125798.4	124142.0	106040	µg/L	106040	ppb	01:07:51
2	Fe 238.204 Radial†	25563.7	25253.5	199190	µg/L	199190	ppb	01:07:56
2	K 766.490 Radial†	64116.6	63215.1	41287	µg/L	41287	ppb	01:07:51
2	Mg 279.077 IEC†	4516.2	4451.5	39587	µg/L	39587	ppb	01:07:56
2	Na 589.592 Radial†	34774.3	33902.6	10413	µg/L	10413	ppb	01:07:51
2	Sr 421.552†	256705.7	253727.9	2340.7	µg/L	2340.7	ppb	01:07:51
2	Sc 361.383	2006259.0	2006259.0	102.20	%			01:08:54
2	Y 371.029	1414586.0	1414586.0	104.57	%			01:08:54
2	Ag 328.068†	41081.6	40599.8	321.55	µg/L	321.55	ppb	01:09:00
2	As 188.979†	631.3	618.2	1112.9	µg/L	1112.9	ppb	01:09:20
2	B 249.677†	39696.8	38459.1	1467.6	µg/L	1467.6	ppb	01:09:00
2	Ba 233.527†	84008.6	82219.3	1976.1	µg/L	1976.1	ppb	01:09:00
2	Be 313.107†	1432781.3	1404829.0	831.59	µg/L	831.59	ppb	01:08:54
2	Cd 226.502†	26181.9	25760.7	621.41	µg/L	621.41	ppb	01:09:00
2	Co 228.616†	22171.7	21693.0	970.97	µg/L	970.97	ppb	01:09:00
2	Cr 267.716†	127365.4	124677.1	2505.0	µg/L	2505.0	ppb	01:09:00
2	Cu 324.752†	298852.3	289882.5	1919.9	µg/L	1919.9	ppb	01:09:00
2	Mn 257.610†	1869757.5	1829809.5	5755.0	µg/L	5755.0	ppb	01:08:54
2	Mo 202.031†	5618.9	5503.4	546.49	µg/L	546.49	ppb	01:09:20
2	Ni 231.604†	29563.3	28615.3	1427.9	µg/L	1427.9	ppb	01:09:00
2	P 214.914†	4526.8	4414.1	8421.5	µg/L	8421.5	ppb	01:09:20
2	Pb 220.353†	3761.5	3589.6	868.57	µg/L	868.57	ppb	01:09:20

2	S 181.975 Axial†	1012.1	971.4	4028.2	µg/L	4028.2 ppb	01:09:20
2	Sb 206.836†	1591.8	1535.1	1380.5	µg/L	1380.5 ppb	01:09:20
2	Se 196.026†	2175.3	2109.2	3441.7	µg/L	3441.7 ppb	01:09:20
2	SiO2†	336666.2	328035.5	64750	µg/L	64750 ppb	01:09:00
2	Si 251.611†	412637.1	403453.9	30671	µg/L	30671 ppb	01:08:54
2	Sn 189.927†	2810.8	2750.0	1142.6	µg/L	1142.6 ppb	01:09:20
2	Ti 334.940†	2644807.2	2587762.8	5723.3	µg/L	5723.3 ppb	01:08:54
2	Tl 190.801†	930.3	932.7	1306.5	µg/L	1306.5 ppb	01:09:20
2	U 409.014†	-1396.8	-1289.6	-141.30	µg/L	-141.30 ppb	01:09:00
2	V 292.402†	131123.1	128348.4	1284.0	µg/L	1284.0 ppb	01:09:00
2	Zn 213.857†	266279.1	260019.1	6079.4	µg/L	6079.4 ppb	01:09:00
3	Sc RADIAL	57281.2	57281.2	101	%		01:08:07
3	Al 396.153Radial†	134374.1	132523.8	92180	µg/L	92180 ppb	01:08:02
3	Ca 317.933Radial†	126172.4	124230.7	106120	µg/L	106120 ppb	01:08:02
3	Fe 238.204 Radial†	25512.1	25145.6	198340	µg/L	198340 ppb	01:08:07
3	K 766.490 Radial†	64337.3	63290.0	41336	µg/L	41336 ppb	01:08:02
3	Mg 279.077 IEC†	4544.0	4468.9	39744	µg/L	39744 ppb	01:08:07
3	Na 589.592 Radial†	34912.7	33961.6	10431	µg/L	10431 ppb	01:08:02
3	Sr 421.552†	257452.9	253893.1	2342.2	µg/L	2342.2 ppb	01:08:02
3	Sc 361.383	1988874.3	1988874.3	101.31	%		01:09:28
3	Y 371.029	1403302.3	1403302.3	103.74	%		01:09:28
3	Ag 328.068†	40939.3	40810.8	323.11	µg/L	323.11 ppb	01:09:34
3	As 188.979†	626.2	618.5	1113.5	µg/L	1113.5 ppb	01:09:54
3	B 249.677†	39650.1	38752.5	1480.0	µg/L	1480.0 ppb	01:09:34
3	Ba 233.527†	83841.9	82773.3	1989.4	µg/L	1989.4 ppb	01:09:34
3	Be 313.107†	1426086.4	1410475.3	834.93	µg/L	834.93 ppb	01:09:28
3	Cd 226.502†	26075.7	25879.7	624.49	µg/L	624.49 ppb	01:09:34
3	Co 228.616†	22066.5	21778.8	974.80	µg/L	974.80 ppb	01:09:34
3	Cr 267.716†	127019.5	125425.1	2520.0	µg/L	2520.0 ppb	01:09:34
3	Cu 324.752†	298166.4	291761.6	1932.0	µg/L	1932.0 ppb	01:09:34
3	Mn 257.610†	1857406.6	1833610.6	5766.8	µg/L	5766.8 ppb	01:09:28
3	Mo 202.031†	5559.5	5492.9	545.43	µg/L	545.43 ppb	01:09:54
3	Ni 231.604†	29479.5	28785.5	1436.3	µg/L	1436.3 ppb	01:09:34
3	P 214.914†	4495.1	4421.5	8435.5	µg/L	8435.5 ppb	01:09:54
3	Pb 220.353†	3749.0	3609.5	873.41	µg/L	873.41 ppb	01:09:54
3	S 181.975 Axial†	1004.3	972.4	4032.4	µg/L	4032.4 ppb	01:09:54
3	Sb 206.836†	1587.7	1544.7	1389.1	µg/L	1389.1 ppb	01:09:54
3	Se 196.026†	2163.9	2116.6	3449.5	µg/L	3449.5 ppb	01:09:54
3	SiO2†	336155.5	330411.0	65219	µg/L	65219 ppb	01:09:34
3	Si 251.611†	410898.5	405267.1	30809	µg/L	30809 ppb	01:09:28
3	Sn 189.927†	2778.6	2742.3	1139.5	µg/L	1139.5 ppb	01:09:54
3	Ti 334.940†	2634056.5	2599772.4	5749.8	µg/L	5749.8 ppb	01:09:28
3	Tl 190.801†	923.1	933.6	1307.7	µg/L	1307.7 ppb	01:09:54
3	U 409.014†	-1466.0	-1369.9	-147.86	µg/L	-147.86 ppb	01:09:34
3	V 292.402†	130757.4	129108.9	1291.4	µg/L	1291.4 ppb	01:09:34
3	Zn 213.857†	265798.3	261822.0	6121.6	µg/L	6121.6 ppb	01:09:34

Mean Data: 1202032638|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1995189.5	101.63	%	0.490				0.48%
Sc RADIAL	57283.8	101	%	0.2				0.23%
Y 371.029	1407418.1	104.04	%	0.461				0.44%
Ag 328.068†	40726.1	322.49	µg/L	0.826	322.49	ppb	0.826	0.26%
Al 396.153Radial†	132482.2	92151	µg/L	67.3	92151	ppb	67.3	0.07%
As 188.979†	619.1	1114.6	µg/L	2.38	1114.6	ppb	2.38	0.21%
B 249.677†	38600.3	1473.6	µg/L	6.22	1473.6	ppb	6.22	0.42%
Ba 233.527†	82591.0	1985.0	µg/L	7.74	1985.0	ppb	7.74	0.39%
Be 313.107†	1404644.7	831.48	µg/L	3.507	831.48	ppb	3.507	0.42%
Ca 317.933Radial†	124366.4	106230	µg/L	269.0	106230	ppb	269.0	0.25%
Cd 226.502†	25854.4	623.81	µg/L	2.144	623.81	ppb	2.144	0.34%
Co 228.616†	21774.1	974.64	µg/L	3.589	974.64	ppb	3.589	0.37%
Cr 267.716†	125149.6	2514.5	µg/L	8.26	2514.5	ppb	8.26	0.33%
Cu 324.752†	291002.3	1927.1	µg/L	6.40	1927.1	ppb	6.40	0.33%
Fe 238.204 Radial†	25192.0	198710	µg/L	437.7	198710	ppb	437.7	0.22%
K 766.490 Radial†	63313.3	41351	µg/L	73.0	41351	ppb	73.0	0.18%
Mg 279.077 IEC†	4454.8	39617	µg/L	114.6	39617	ppb	114.6	0.29%
Mn 257.610†	1827481.7	5747.6	µg/L	23.69	5747.6	ppb	23.69	0.41%
Mo 202.031†	5510.0	547.13	µg/L	2.082	547.13	ppb	2.082	0.38%
Na 589.592 Radial†	33935.0	10423	µg/L	9.2	10423	ppb	9.2	0.09%

Ni 231.604†	28744.0	1434.3	µg/L	5.66	1434.3	ppb	5.66	0.39%
P 214.914†	4427.8	8448.1	µg/L	34.72	8448.1	ppb	34.72	0.41%
Pb 220.353†	3605.9	872.53	µg/L	3.606	872.53	ppb	3.606	0.41%
S 181.975 Axial†	974.1	4039.6	µg/L	16.12	4039.6	ppb	16.12	0.40%
Sb 206.836†	1545.4	1389.8	µg/L	9.78	1389.8	ppb	9.78	0.70%
Se 196.026†	2118.6	3453.4	µg/L	14.11	3453.4	ppb	14.11	0.41%
SiO2†	329541.7	65047	µg/L	258.5	65047	ppb	258.5	0.40%
Si 251.611†	403555.2	30679	µg/L	126.5	30679	ppb	126.5	0.41%
Sn 189.927†	2750.9	1143.1	µg/L	3.85	1143.1	ppb	3.85	0.34%
Sr 421.552†	254071.2	2343.8	µg/L	4.23	2343.8	ppb	4.23	0.18%
Ti 334.940†	2588260.4	5724.4	µg/L	24.92	5724.4	ppb	24.92	0.44%
Tl 190.801†	934.7	1308.9	µg/L	3.16	1308.9	ppb	3.16	0.24%
U 409.014†	-1377.9	-148.58	µg/L	7.665	-148.58	ppb	7.665	5.16%
V 292.402†	128864.5	1289.0	µg/L	4.33	1289.0	ppb	4.33	0.34%
Zn 213.857†	261123.0	6105.2	µg/L	22.68	6105.2	ppb	22.68	0.37%

Sequence No.: 3
Sample ID: 245998001|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 203
Date Collected: 2/20/2010 01:10:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998001|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59061.8	59061.8	105	%			01:10:37
1	Al 396.153Radial†	178360.3	170603.4	118680	µg/L	118680	ppb	01:10:37
1	Ca 317.933Radial†	62963.1	60016.2	51265	µg/L	51265	ppb	01:10:37
1	Fe 238.204 Radial†	15755.9	15054.7	118740	µg/L	118740	ppb	01:10:57
1	K 766.490 Radial†	19209.9	18210.3	11893	µg/L	11893	ppb	01:10:37
1	Mg 279.077 IEC†	2728.6	2597.2	23089	µg/L	23089	ppb	01:10:57
1	Na 589.592 Radial†	3818.0	3179.9	976.70	µg/L	976.70	ppb	01:10:57
1	Sr 421.552†	41609.4	39772.7	366.91	µg/L	366.91	ppb	01:10:37
1	Sc 361.383	1999474.3	1999474.3	101.85	%			01:12:02
1	Y 371.029	1417335.2	1417335.2	104.77	%			01:12:02
1	Ag 328.068†	-1928.6	-1491.9	-2.2098	µg/L	-2.2098	ppb	01:12:08
1	As 188.979†	8.7	9.0	20.302	µg/L	20.302	ppb	01:12:29
1	B 249.677†	1269.8	862.6	-26.506	µg/L	-26.506	ppb	01:12:08
1	Ba 233.527†	95106.9	93394.7	2242.5	µg/L	2242.5	ppb	01:12:08
1	Be 313.107†	17945.3	20474.7	10.754	µg/L	10.754	ppb	01:12:08
1	Cd 226.502†	296.2	432.5	-2.5299	µg/L	-2.5299	ppb	01:12:29
1	Co 228.616†	1092.1	1070.3	40.816	µg/L	40.816	ppb	01:12:29
1	Cr 267.716†	9228.7	9111.3	183.13	µg/L	183.13	ppb	01:12:08
1	Cu 324.752†	10505.3	7770.6	67.227	µg/L	67.227	ppb	01:12:08
1	Mn 257.610†	705301.8	692734.0	2184.2	µg/L	2184.2	ppb	01:12:02
1	Mo 202.031†	-11.4	-5.8	3.9439	µg/L	3.9439	ppb	01:12:29
1	Ni 231.604†	2375.8	2020.3	102.20	µg/L	102.20	ppb	01:12:29
1	P 214.914†	620.0	593.3	1106.9	µg/L	1106.9	ppb	01:12:29
1	Pb 220.353†	542.5	441.7	109.39	µg/L	109.39	ppb	01:12:29
1	S 181.975 Axial†	167.5	145.5	603.31	µg/L	603.31	ppb	01:12:29
1	Sb 206.836†	43.8	20.5	12.252	µg/L	12.252	ppb	01:12:29
1	Se 196.026†	-29.9	-48.7	221.22	µg/L	221.22	ppb	01:12:29
1	SiO2†	330290.9	322893.9	63735	µg/L	63735	ppb	01:12:02
1	Si 251.611†	396080.6	388568.4	29540	µg/L	29540	ppb	01:12:02
1	Sn 189.927†	-32.3	-32.1	-23.722	µg/L	-23.722	ppb	01:12:29
1	Ti 334.940†	1689172.2	1658284.6	3667.5	µg/L	3667.5	ppb	01:12:02
1	Tl 190.801†	-68.6	-44.9	3.6687	µg/L	3.6687	ppb	01:12:29
1	U 409.014†	-1201.8	-1102.8	-111.26	µg/L	-111.26	ppb	01:12:02
1	V 292.402†	21514.5	21168.1	220.59	µg/L	220.59	ppb	01:12:08
1	Zn 213.857†	10659.5	9931.3	225.52	µg/L	225.52	ppb	01:12:08
2	Sc RADIAL	58569.9	58569.9	104	%			01:11:03
2	Al 396.153Radial†	177788.7	171485.0	119290	µg/L	119290	ppb	01:11:03
2	Ca 317.933Radial†	62541.4	60115.2	51349	µg/L	51349	ppb	01:11:03
2	Fe 238.204 Radial†	15796.6	15220.6	120040	µg/L	120040	ppb	01:11:23
2	K 766.490 Radial†	19085.3	18244.4	11916	µg/L	11916	ppb	01:11:03
2	Mg 279.077 IEC†	2745.2	2635.2	23427	µg/L	23427	ppb	01:11:23
2	Na 589.592 Radial†	3798.6	3191.9	980.37	µg/L	980.37	ppb	01:11:23
2	Sr 421.552†	41453.2	39956.3	368.60	µg/L	368.60	ppb	01:11:03
2	Sc 361.383	2005942.6	2005942.6	102.18	%			01:12:36
2	Y 371.029	1421859.8	1421859.8	105.11	%			01:12:36
2	Ag 328.068†	-1869.7	-1428.1	-1.6583	µg/L	-1.6583	ppb	01:12:42
2	As 188.979†	9.8	10.0	22.293	µg/L	22.293	ppb	01:13:02
2	B 249.677†	1217.8	807.6	-29.429	µg/L	-29.429	ppb	01:12:42
2	Ba 233.527†	95237.6	93221.5	2238.4	µg/L	2238.4	ppb	01:12:42
2	Be 313.107†	18003.1	20474.4	10.756	µg/L	10.756	ppb	01:12:42
2	Cd 226.502†	281.1	416.8	-3.0712	µg/L	-3.0712	ppb	01:13:02
2	Co 228.616†	1088.8	1063.6	40.519	µg/L	40.519	ppb	01:13:02
2	Cr 267.716†	9254.4	9107.2	183.05	µg/L	183.05	ppb	01:12:42
2	Cu 324.752†	10469.5	7702.2	66.962	µg/L	66.962	ppb	01:12:42
2	Mn 257.610†	705751.5	690941.2	2178.7	µg/L	2178.7	ppb	01:12:36
2	Mo 202.031†	-12.6	-7.0	3.8729	µg/L	3.8729	ppb	01:13:02
2	Ni 231.604†	2360.3	1997.6	101.08	µg/L	101.08	ppb	01:13:02
2	P 214.914†	602.6	574.4	1068.6	µg/L	1068.6	ppb	01:13:02
2	Pb 220.353†	549.7	447.0	110.67	µg/L	110.67	ppb	01:13:02

2	S 181.975 Axial†	166.6	144.1	597.68 µg/L	597.68 ppb	01:13:02
2	Sb 206.836†	45.6	22.1	13.767 µg/L	13.767 ppb	01:13:02
2	Se 196.026†	-46.8	-65.2	201.37 µg/L	201.37 ppb	01:13:02
2	SiO2†	331377.3	322911.5	63739 µg/L	63739 ppb	01:12:36
2	Si 251.611†	397439.5	388644.3	29545 µg/L	29545 ppb	01:12:36
2	Sn 189.927†	-35.0	-34.6	-24.902 µg/L	-24.902 ppb	01:13:02
2	Ti 334.940†	1692722.8	1656411.6	3663.3 µg/L	3663.3 ppb	01:12:36
2	Tl 190.801†	-74.1	-50.2	-2.9420 µg/L	-2.9420 ppb	01:13:02
2	U 409.014†	-1255.3	-1151.5	-115.49 µg/L	-115.49 ppb	01:12:36
2	V 292.402†	21536.3	21121.3	220.28 µg/L	220.28 ppb	01:12:42
2	Zn 213.857†	10653.6	9891.8	224.52 µg/L	224.52 ppb	01:12:42
3	Sc RADIAL	58787.7	58787.7	104 %		01:11:29
3	Al 396.153Radial†	178039.1	171090.2	119020 µg/L	119020 ppb	01:11:29
3	Ca 317.933Radial†	62719.4	60062.8	51304 µg/L	51304 ppb	01:11:29
3	Fe 238.204 Radial†	15882.4	15246.5	120250 µg/L	120250 ppb	01:11:49
3	K 766.490 Radial†	19128.1	18217.4	11898 µg/L	11898 ppb	01:11:29
3	Mg 279.077 IEC†	2747.3	2627.4	23358 µg/L	23358 ppb	01:11:49
3	Na 589.592 Radial†	3814.2	3193.3	980.81 µg/L	980.81 ppb	01:11:49
3	Sr 421.552†	41539.9	39891.5	368.01 µg/L	368.01 ppb	01:11:29
3	Sc 361.383	2009100.8	2009100.8	102.34 %		01:13:10
3	Y 371.029	1423121.0	1423121.0	105.20 %		01:13:10
3	Ag 328.068†	-1818.7	-1375.5	-1.3380 µg/L	-1.3380 ppb	01:13:16
3	As 188.979†	12.1	12.3	26.303 µg/L	26.303 ppb	01:13:36
3	B 249.677†	1229.2	816.9	-29.177 µg/L	-29.177 ppb	01:13:16
3	Ba 233.527†	90634.5	88577.3	2126.8 µg/L	2126.8 ppb	01:13:16
3	Be 313.107†	16646.8	19121.5	10.009 µg/L	10.009 ppb	01:13:16
3	Cd 226.502†	246.8	382.8	-3.9509 µg/L	-3.9509 ppb	01:13:36
3	Co 228.616†	987.9	963.4	36.289 µg/L	36.289 ppb	01:13:36
3	Cr 267.716†	8667.3	8519.4	171.24 µg/L	171.24 ppb	01:13:16
3	Cu 324.752†	10065.6	7291.5	64.310 µg/L	64.310 ppb	01:13:16
3	Mn 257.610†	682133.0	666777.5	2103.1 µg/L	2103.1 ppb	01:13:10
3	Mo 202.031†	3.1	8.4	5.3940 µg/L	5.3940 ppb	01:13:36
3	Ni 231.604†	2147.6	1786.1	90.547 µg/L	90.547 ppb	01:13:36
3	P 214.914†	557.0	528.9	978.57 µg/L	978.57 ppb	01:13:36
3	Pb 220.353†	510.7	408.0	101.19 µg/L	101.19 ppb	01:13:36
3	S 181.975 Axial†	157.2	134.6	558.34 µg/L	558.34 ppb	01:13:36
3	Sb 206.836†	40.9	17.5	9.6811 µg/L	9.6811 ppb	01:13:36
3	Se 196.026†	-33.0	-51.5	221.14 µg/L	221.14 ppb	01:13:36
3	SiO2†	322843.3	314063.0	61992 µg/L	61992 ppb	01:13:10
3	Si 251.611†	387191.8	378019.8	28738 µg/L	28738 ppb	01:13:10
3	Sn 189.927†	-31.6	-31.2	-23.496 µg/L	-23.496 ppb	01:13:36
3	Ti 334.940†	1627190.3	1589774.8	3515.9 µg/L	3515.9 ppb	01:13:10
3	Tl 190.801†	-60.4	-36.6	13.106 µg/L	13.106 ppb	01:13:36
3	U 409.014†	-1210.0	-1105.3	-111.67 µg/L	-111.67 ppb	01:13:10
3	V 292.402†	20254.9	19836.1	207.77 µg/L	207.77 ppb	01:13:16
3	Zn 213.857†	10188.0	9420.5	213.50 µg/L	213.50 ppb	01:13:16

Mean Data: 245998001|948776|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004839.2	102.13	%	0.250				0.24%
Sc RADIAL	58806.4	104	%	0.4				0.42%
Y 371.029	1420772.0	105.03	%	0.225				0.21%
Ag 328.068†	-1431.8	-1.7354	µg/L	0.44098	-1.7354	ppb	0.44098	25.41%
Al 396.153Radial†	171059.5	119000	µg/L	307.2	119000	ppb	307.2	0.26%
As 188.979†	10.4	22.966	µg/L	3.0564	22.966	ppb	3.0564	13.31%
B 249.677†	829.0	-28.371	µg/L	1.6198	-28.371	ppb	1.6198	5.71%
Ba 233.527†	91731.2	2202.6	µg/L	65.62	2202.6	ppb	65.62	2.98%
Be 313.107†	20023.6	10.506	µg/L	0.4308	10.506	ppb	0.4308	4.10%
Ca 317.933Radial†	60064.7	51306	µg/L	42.3	51306	ppb	42.3	0.08%
Cd 226.502†	410.7	-3.1840	µg/L	0.71717	-3.1840	ppb	0.71717	22.52%
Co 228.616†	1032.4	39.208	µg/L	2.5323	39.208	ppb	2.5323	6.46%
Cr 267.716†	8912.6	179.14	µg/L	6.845	179.14	ppb	6.845	3.82%
Cu 324.752†	7588.1	66.166	µg/L	1.6132	66.166	ppb	1.6132	2.44%
Fe 238.204 Radial†	15173.9	119680	µg/L	820.7	119680	ppb	820.7	0.69%
K 766.490 Radial†	18224.0	11902	µg/L	11.8	11902	ppb	11.8	0.10%
Mg 279.077 IEC†	2619.9	23291	µg/L	178.6	23291	ppb	178.6	0.77%
Mn 257.610†	683484.2	2155.3	µg/L	45.33	2155.3	ppb	45.33	2.10%
Mo 202.031†	-1.5	4.4036	µg/L	0.85844	4.4036	ppb	0.85844	19.49%
Na 589.592 Radial†	3188.4	979.29	µg/L	2.258	979.29	ppb	2.258	0.23%

Ni 231.604†	1934.6	97.941 µg/L	6.4274	97.941 ppb	6.4274	6.56%
P 214.914†	565.6	1051.4 µg/L	65.90	1051.4 ppb	65.90	6.27%
Pb 220.353†	432.2	107.08 µg/L	5.148	107.08 ppb	5.148	4.81%
S 181.975 Axial†	141.4	586.44 µg/L	24.498	586.44 ppb	24.498	4.18%
Sb 206.836†	20.0	11.900 µg/L	2.0658	11.900 ppb	2.0658	17.36%
Se 196.026†	-55.1	214.58 µg/L	11.437	214.58 ppb	11.437	5.33%
SiO2†	319956.1	63155 µg/L	1007.4	63155 ppb	1007.4	1.60%
Si 251.611†	385077.5	29274 µg/L	464.7	29274 ppb	464.7	1.59%
Sn 189.927†	-32.6	-24.040 µg/L	0.7551	-24.040 ppb	0.7551	3.14%
Sr 421.552†	39873.5	367.84 µg/L	0.859	367.84 ppb	0.859	0.23%
Ti 334.940†	1634823.7	3615.6 µg/L	86.34	3615.6 ppb	86.34	2.39%
Tl 190.801†	-43.9	4.6109 µg/L	8.06538	4.6109 ppb	8.06538	174.92%
U 409.014†	-1119.8	-112.81 µg/L	2.330	-112.81 ppb	2.330	2.07%
V 292.402†	20708.5	216.21 µg/L	7.314	216.21 ppb	7.314	3.38%
Zn 213.857†	9747.8	221.18 µg/L	6.667	221.18 ppb	6.667	3.01%

Sequence No.: 4
Sample ID: 1202032634|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 204
Date Collected: 2/20/2010 01:13:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032634|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57866.9	57866.9	102	%			01:14:18
1	Al 396.153Radial†	215034.5	209931.5	146040	µg/L	146040	ppb	01:14:18
1	Ca 317.933Radial†	61008.1	59351.1	50696	µg/L	50696	ppb	01:14:18
1	Fe 238.204 Radial†	19926.2	19437.4	153300	µg/L	153300	ppb	01:14:38
1	K 766.490 Radial†	22941.9	22233.2	14521	µg/L	14521	ppb	01:14:18
1	Mg 279.077 IEC†	3288.7	3197.9	28422	µg/L	28422	ppb	01:14:38
1	Na 589.592 Radial†	4406.0	3829.4	1176.2	µg/L	1176.2	ppb	01:14:38
1	Sr 421.552†	47531.7	46376.5	427.83	µg/L	427.83	ppb	01:14:18
1	Sc 361.383	1997642.9	1997642.9	101.76	%			01:15:43
1	Y 371.029	1425984.6	1425984.6	105.41	%			01:15:43
1	Ag 328.068†	-2224.7	-1784.6	-1.7893	µg/L	-1.7893	ppb	01:15:48
1	As 188.979†	17.1	17.2	37.131	µg/L	37.131	ppb	01:16:09
1	B 249.677†	1445.9	1036.8	-37.409	µg/L	-37.409	ppb	01:15:48
1	Ba 233.527†	101787.6	100045.6	2402.3	µg/L	2402.3	ppb	01:15:48
1	Be 313.107†	23432.0	25882.7	13.484	µg/L	13.484	ppb	01:15:48
1	Cd 226.502†	414.3	548.8	-3.5168	µg/L	-3.5168	ppb	01:16:09
1	Co 228.616†	1686.5	1655.4	64.684	µg/L	64.684	ppb	01:16:09
1	Cr 267.716†	10297.7	10170.2	204.44	µg/L	204.44	ppb	01:15:48
1	Cu 324.752†	11788.4	9040.9	80.323	µg/L	80.323	ppb	01:15:48
1	Mn 257.610†	1337942.4	1315076.2	4137.4	µg/L	4137.4	ppb	01:15:43
1	Mo 202.031†	-34.6	-28.6	3.0226	µg/L	3.0226	ppb	01:16:09
1	Ni 231.604†	2717.1	2357.8	119.44	µg/L	119.44	ppb	01:16:09
1	P 214.914†	729.2	701.2	1299.4	µg/L	1299.4	ppb	01:16:09
1	Pb 220.353†	733.6	630.0	155.38	µg/L	155.38	ppb	01:16:09
1	S 181.975 Axial†	156.3	134.6	558.34	µg/L	558.34	ppb	01:16:09
1	Sb 206.836†	47.9	24.6	15.831	µg/L	15.831	ppb	01:16:09
1	Se 196.026†	-58.3	-76.6	271.94	µg/L	271.94	ppb	01:16:09
1	SiO2†	335244.8	328059.5	64755	µg/L	64755	ppb	01:15:48
1	Si 251.611†	408039.8	400677.5	30460	µg/L	30460	ppb	01:15:43
1	Sn 189.927†	-40.0	-39.7	-29.997	µg/L	-29.997	ppb	01:16:09
1	Ti 334.940†	2266493.8	2227149.4	4925.5	µg/L	4925.5	ppb	01:15:43
1	Tl 190.801†	-74.9	-51.2	21.582	µg/L	21.582	ppb	01:16:09
1	U 409.014†	-1676.6	-1570.5	-154.89	µg/L	-154.89	ppb	01:15:48
1	V 292.402†	28007.8	27568.5	287.02	µg/L	287.02	ppb	01:15:48
1	Zn 213.857†	13157.4	12395.6	281.30	µg/L	281.30	ppb	01:15:48
2	Sc RADIAL	58124.1	58124.1	103	%			01:14:44
2	Al 396.153Radial†	216392.4	210322.2	146310	µg/L	146310	ppb	01:14:44
2	Ca 317.933Radial†	61298.5	59369.8	50712	µg/L	50712	ppb	01:14:44
2	Fe 238.204 Radial†	19942.1	19366.8	152750	µg/L	152750	ppb	01:15:04
2	K 766.490 Radial†	23124.2	22311.3	14572	µg/L	14572	ppb	01:14:44
2	Mg 279.077 IEC†	3283.2	3178.4	28248	µg/L	28248	ppb	01:15:04
2	Na 589.592 Radial†	4402.0	3806.4	1169.1	µg/L	1169.1	ppb	01:15:04
2	Sr 421.552†	47790.6	46422.8	428.26	µg/L	428.26	ppb	01:14:44
2	Sc 361.383	2008979.7	2008979.7	102.34	%			01:16:16
2	Y 371.029	1435114.3	1435114.3	106.09	%			01:16:16
2	Ag 328.068†	-2232.0	-1779.4	-1.7917	µg/L	-1.7917	ppb	01:16:22
2	As 188.979†	14.9	15.0	33.174	µg/L	33.174	ppb	01:16:42
2	B 249.677†	1398.6	982.6	-39.330	µg/L	-39.330	ppb	01:16:22
2	Ba 233.527†	101703.8	99399.2	2386.8	µg/L	2386.8	ppb	01:16:22
2	Be 313.107†	23550.0	25868.1	13.472	µg/L	13.472	ppb	01:16:22
2	Cd 226.502†	418.3	550.5	-3.4171	µg/L	-3.4171	ppb	01:16:42
2	Co 228.616†	1669.0	1629.0	63.467	µg/L	63.467	ppb	01:16:42
2	Cr 267.716†	10299.2	10114.5	203.32	µg/L	203.32	ppb	01:16:22
2	Cu 324.752†	11704.6	8893.7	79.285	µg/L	79.285	ppb	01:16:22
2	Mn 257.610†	1346258.1	1315782.4	4139.6	µg/L	4139.6	ppb	01:16:16
2	Mo 202.031†	-18.8	-13.1	4.5258	µg/L	4.5258	ppb	01:16:42
2	Ni 231.604†	2664.3	2291.2	116.11	µg/L	116.11	ppb	01:16:42
2	P 214.914†	728.1	696.1	1290.0	µg/L	1290.0	ppb	01:16:42
2	Pb 220.353†	730.8	623.1	153.75	µg/L	153.75	ppb	01:16:42

2	S 181.975 Axial†	156.0	133.5	553.71 µg/L	553.71 ppb	01:16:42
2	Sb 206.836†	32.4	9.2	1.7125 µg/L	1.7125 ppb	01:16:42
2	Se 196.026†	-54.3	-72.4	276.50 µg/L	276.50 ppb	01:16:42
2	SiO2†	334889.2	325853.0	64319 µg/L	64319 ppb	01:16:22
2	Si 251.611†	411326.3	401626.1	30532 µg/L	30532 ppb	01:16:16
2	Sn 189.927†	-37.1	-36.6	-28.655 µg/L	-28.655 ppb	01:16:42
2	Ti 334.940†	2284110.5	2231795.0	4935.8 µg/L	4935.8 ppb	01:16:16
2	Tl 190.801†	-71.9	-47.8	26.020 µg/L	26.020 ppb	01:16:42
2	U 409.014†	-1704.6	-1588.6	-156.31 µg/L	-156.31 ppb	01:16:22
2	V 292.402†	28074.3	27478.2	286.08 µg/L	286.08 ppb	01:16:22
2	Zn 213.857†	13153.1	12318.5	279.54 µg/L	279.54 ppb	01:16:22
3	Sc RADIAL	58184.7	58184.7	103 %		01:15:10
3	Al 396.153Radial†	216402.8	210113.5	146170 µg/L	146170 ppb	01:15:10
3	Ca 317.933Radial†	61242.0	59252.9	50613 µg/L	50613 ppb	01:15:10
3	Fe 238.204 Radial†	20034.1	19435.9	153290 µg/L	153290 ppb	01:15:30
3	K 766.490 Radial†	23062.7	22228.2	14518 µg/L	14518 ppb	01:15:10
3	Mg 279.077 IEC†	3305.5	3196.8	28412 µg/L	28412 ppb	01:15:30
3	Na 589.592 Radial†	4422.2	3821.7	1173.8 µg/L	1173.8 ppb	01:15:30
3	Sr 421.552†	47789.3	46373.2	427.80 µg/L	427.80 ppb	01:15:10
3	Sc 361.383	2006691.2	2006691.2	102.22 %		01:16:49
3	Y 371.029	1430444.1	1430444.1	105.74 %		01:16:49
3	Ag 328.068†	-2084.5	-1637.6	-0.7939 µg/L	-0.7939 ppb	01:16:55
3	As 188.979†	17.3	17.4	37.470 µg/L	37.470 ppb	01:17:16
3	B 249.677†	1358.9	945.2	-41.153 µg/L	-41.153 ppb	01:16:55
3	Ba 233.527†	97935.2	95825.8	2301.0 µg/L	2301.0 ppb	01:16:55
3	Be 313.107†	22135.2	24510.3	12.757 µg/L	12.757 ppb	01:16:55
3	Cd 226.502†	361.0	494.8	-4.8763 µg/L	-4.8763 ppb	01:17:16
3	Co 228.616†	1513.5	1478.7	57.157 µg/L	57.157 ppb	01:17:16
3	Cr 267.716†	9763.7	9602.1	193.02 µg/L	193.02 ppb	01:16:55
3	Cu 324.752†	11427.7	8635.8	77.677 µg/L	77.677 ppb	01:16:55
3	Mn 257.610†	1290821.6	1263049.9	3974.5 µg/L	3974.5 ppb	01:16:49
3	Mo 202.031†	-30.4	-24.4	3.4356 µg/L	3.4356 ppb	01:17:16
3	Ni 231.604†	2467.2	2101.3	106.66 µg/L	106.66 ppb	01:17:16
3	P 214.914†	672.4	642.4	1183.4 µg/L	1183.4 ppb	01:17:16
3	Pb 220.353†	693.5	587.5	145.05 µg/L	145.05 ppb	01:17:16
3	S 181.975 Axial†	154.1	131.8	546.56 µg/L	546.56 ppb	01:17:16
3	Sb 206.836†	36.9	13.6	5.8503 µg/L	5.8503 ppb	01:17:16
3	Se 196.026†	-61.9	-79.9	267.29 µg/L	267.29 ppb	01:17:16
3	SiO2†	324390.6	315955.5	62365 µg/L	62365 ppb	01:16:55
3	Si 251.611†	396762.5	387836.9	29484 µg/L	29484 ppb	01:16:49
3	Sn 189.927†	-41.0	-40.5	-30.333 µg/L	-30.333 ppb	01:17:16
3	Ti 334.940†	2171377.8	2124055.6	4697.4 µg/L	4697.4 ppb	01:16:49
3	Tl 190.801†	-75.3	-51.2	18.941 µg/L	18.941 ppb	01:17:16
3	U 409.014†	-1608.7	-1496.7	-148.74 µg/L	-148.74 ppb	01:16:55
3	V 292.402†	26653.4	26119.4	272.88 µg/L	272.88 ppb	01:16:55
3	Zn 213.857†	12654.5	11845.3	268.45 µg/L	268.45 ppb	01:16:55

Mean Data: 1202032634|948776|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004437.9	102.10	%	0.305				0.30%
Sc RADIAL	58058.6	103	%	0.3				0.29%
Y 371.029	1430514.3	105.75	%	0.337				0.32%
Ag 328.068†	-1733.9	-1.4583	µg/L	0.57542	-1.4583	ppb	0.57542	39.46%
Al 396.153Radial†	210122.4	146170	µg/L	136.0	146170	ppb	136.0	0.09%
As 188.979†	16.6	35.925	µg/L	2.3882	35.925	ppb	2.3882	6.65%
B 249.677†	988.2	-39.297	µg/L	1.8726	-39.297	ppb	1.8726	4.77%
Ba 233.527†	98423.5	2363.3	µg/L	54.58	2363.3	ppb	54.58	2.31%
Be 313.107†	25420.4	13.238	µg/L	0.4165	13.238	ppb	0.4165	3.15%
Ca 317.933Radial†	59324.6	50674	µg/L	53.6	50674	ppb	53.6	0.11%
Cd 226.502†	531.4	-3.9367	µg/L	0.81521	-3.9367	ppb	0.81521	20.71%
Co 228.616†	1587.7	61.769	µg/L	4.0404	61.769	ppb	4.0404	6.54%
Cr 267.716†	9962.3	200.26	µg/L	6.294	200.26	ppb	6.294	3.14%
Cu 324.752†	8856.8	79.095	µg/L	1.3332	79.095	ppb	1.3332	1.69%
Fe 238.204 Radial†	19413.4	153110	µg/L	318.3	153110	ppb	318.3	0.21%
K 766.490 Radial†	22257.6	14537	µg/L	30.4	14537	ppb	30.4	0.21%
Mg 279.077 IEC†	3191.0	28361	µg/L	97.7	28361	ppb	97.7	0.34%
Mn 257.610†	1297969.5	4083.8	µg/L	94.69	4083.8	ppb	94.69	2.32%
Mo 202.031†	-22.0	3.6613	µg/L	0.77658	3.6613	ppb	0.77658	21.21%
Na 589.592 Radial†	3819.2	1173.0	µg/L	3.59	1173.0	ppb	3.59	0.31%

Ni 231.604†	2250.1	114.07 µg/L	6.629	114.07 ppb	6.629	5.81%
P 214.914†	679.9	1257.6 µg/L	64.47	1257.6 ppb	64.47	5.13%
Pb 220.353†	613.5	151.40 µg/L	5.554	151.40 ppb	5.554	3.67%
S 181.975 Axial†	133.3	552.87 µg/L	5.939	552.87 ppb	5.939	1.07%
Sb 206.836†	15.8	7.7978 µg/L	7.25774	7.7978 ppb	7.25774	93.07%
Se 196.026†	-76.3	271.91 µg/L	4.607	271.91 ppb	4.607	1.69%
SiO2†	323289.3	63813 µg/L	1272.4	63813 ppb	1272.4	1.99%
Si 251.611†	396713.5	30159 µg/L	585.5	30159 ppb	585.5	1.94%
Sn 189.927†	-39.0	-29.661 µg/L	0.8876	-29.661 ppb	0.8876	2.99%
Sr 421.552†	46390.9	427.96 µg/L	0.256	427.96 ppb	0.256	0.06%
Ti 334.940†	2194333.3	4852.9 µg/L	134.74	4852.9 ppb	134.74	2.78%
Tl 190.801†	-50.1	22.181 µg/L	3.5772	22.181 ppb	3.5772	16.13%
U 409.014†	-1551.9	-153.31 µg/L	4.022	-153.31 ppb	4.022	2.62%
V 292.402†	27055.4	281.99 µg/L	7.907	281.99 ppb	7.907	2.80%
Zn 213.857†	12186.5	276.43 µg/L	6.967	276.43 ppb	6.967	2.52%

Sequence No.: 5
Sample ID: 1202032636|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 205
Date Collected: 2/20/2010 01:17:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032636|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59080.0	59080.0	105	%			01:17:59
1	Al 396.153Radial†	306182.9	292781.9	203670	µg/L	203670	ppb	01:17:59
1	Ca 317.933Radial†	73179.0	69766.6	59593	µg/L	59593	ppb	01:17:59
1	Fe 238.204 Radial†	21133.4	20192.4	159270	µg/L	159270	ppb	01:18:19
1	K 766.490 Radial†	33378.9	31753.8	20739	µg/L	20739	ppb	01:17:59
1	Mg 279.077 IEC†	4092.2	3900.4	34702	µg/L	34702	ppb	01:18:19
1	Na 589.592 Radial†	20533.3	19162.9	5885.8	µg/L	5885.8	ppb	01:17:59
1	Sr 421.552†	99351.8	94977.0	876.18	µg/L	876.18	ppb	01:17:59
1	Sc 361.383	2012446.1	2012446.1	102.51	%			01:19:24
1	Y 371.029	1427183.8	1427183.8	105.50	%			01:19:24
1	Ag 328.068†	64297.7	63123.3	482.45	µg/L	482.45	ppb	01:19:30
1	As 188.979†	291.0	284.3	514.87	µg/L	514.87	ppb	01:19:51
1	B 249.677†	12743.6	12047.1	409.00	µg/L	409.00	ppb	01:19:30
1	Ba 233.527†	130346.8	127169.0	3054.3	µg/L	3054.3	ppb	01:19:30
1	Be 313.107†	864387.3	846056.3	500.01	µg/L	500.01	ppb	01:19:24
1	Cd 226.502†	19806.9	19463.2	468.02	µg/L	468.02	ppb	01:19:30
1	Co 228.616†	11912.5	11618.6	514.91	µg/L	514.91	ppb	01:19:51
1	Cr 267.716†	34836.9	34033.4	684.03	µg/L	684.03	ppb	01:19:30
1	Cu 324.752†	90492.1	85730.3	581.74	µg/L	581.74	ppb	01:19:30
1	Mn 257.610†	1063735.1	1037918.3	3270.0	µg/L	3270.0	ppb	01:19:24
1	Mo 202.031†	4586.7	4479.6	444.72	µg/L	444.72	ppb	01:19:51
1	Ni 231.604†	12411.1	11794.6	589.40	µg/L	589.40	ppb	01:19:30
1	P 214.914†	1000.3	960.5	1779.1	µg/L	1779.1	ppb	01:19:51
1	Pb 220.353†	2632.4	2476.9	607.19	µg/L	607.19	ppb	01:19:51
1	S 181.975 Axial†	1424.6	1370.8	5684.5	µg/L	5684.5	ppb	01:19:51
1	Sb 206.836†	380.9	349.1	314.73	µg/L	314.73	ppb	01:19:51
1	Se 196.026†	285.9	259.5	752.21	µg/L	752.21	ppb	01:19:51
1	SiO2†	357291.9	347142.9	68521	µg/L	68521	ppb	01:19:30
1	Si 251.611†	436483.1	425474.0	32345	µg/L	32345	ppb	01:19:24
1	Sn 189.927†	1195.3	1165.6	478.38	µg/L	478.38	ppb	01:19:51
1	Ti 334.940†	2590490.5	2526821.0	5588.1	µg/L	5588.1	ppb	01:19:24
1	Tl 190.801†	291.4	306.6	492.45	µg/L	492.45	ppb	01:19:51
1	U 409.014†	4472.9	4440.3	343.15	µg/L	343.15	ppb	01:19:30
1	V 292.402†	76838.7	75000.1	754.98	µg/L	754.98	ppb	01:19:30
1	Zn 213.857†	34744.2	33358.2	769.59	µg/L	769.59	ppb	01:19:30
2	Sc RADIAL	59097.5	59097.5	105	%			01:18:25
2	Al 396.153Radial†	309125.6	295508.4	205560	µg/L	205560	ppb	01:18:25
2	Ca 317.933Radial†	73785.8	70326.0	60071	µg/L	60071	ppb	01:18:25
2	Fe 238.204 Radial†	21155.3	20207.3	159380	µg/L	159380	ppb	01:18:45
2	K 766.490 Radial†	33644.9	31998.6	20899	µg/L	20899	ppb	01:18:25
2	Mg 279.077 IEC†	4104.4	3910.9	34796	µg/L	34796	ppb	01:18:45
2	Na 589.592 Radial†	20860.8	19470.2	5980.1	µg/L	5980.1	ppb	01:18:25
2	Sr 421.552†	100319.1	95873.6	884.45	µg/L	884.45	ppb	01:18:25
2	Sc 361.383	2037963.1	2037963.1	103.81	%			01:19:58
2	Y 371.029	1445356.0	1445356.0	106.85	%			01:19:58
2	Ag 328.068†	64481.2	62514.8	477.90	µg/L	477.90	ppb	01:20:04
2	As 188.979†	289.1	278.9	505.16	µg/L	505.16	ppb	01:20:24
2	B 249.677†	12776.9	11923.6	403.89	µg/L	403.89	ppb	01:20:04
2	Ba 233.527†	130720.5	125936.9	3024.7	µg/L	3024.7	ppb	01:20:04
2	Be 313.107†	866294.0	837335.4	494.86	µg/L	494.86	ppb	01:19:58
2	Cd 226.502†	19863.0	19275.2	463.31	µg/L	463.31	ppb	01:20:04
2	Co 228.616†	11792.7	11357.7	503.21	µg/L	503.21	ppb	01:20:24
2	Cr 267.716†	34984.8	33750.4	678.34	µg/L	678.34	ppb	01:20:04
2	Cu 324.752†	90904.6	85022.4	577.14	µg/L	577.14	ppb	01:20:04
2	Mn 257.610†	1065716.0	1026834.1	3235.4	µg/L	3235.4	ppb	01:19:58
2	Mo 202.031†	4530.8	4369.7	433.97	µg/L	433.97	ppb	01:20:24
2	Ni 231.604†	12408.9	11640.9	581.75	µg/L	581.75	ppb	01:20:04
2	P 214.914†	989.5	937.8	1735.0	µg/L	1735.0	ppb	01:20:24
2	Pb 220.353†	2601.0	2414.5	592.12	µg/L	592.12	ppb	01:20:24

2	S 181.975 Axial†	1418.8	1347.7	5589.0 µg/L	5589.0 ppb	01:20:24
2	Sb 206.836†	399.0	361.8	326.26 µg/L	326.26 ppb	01:20:24
2	Se 196.026†	284.6	254.9	745.75 µg/L	745.75 ppb	01:20:24
2	SiO2†	358089.1	343546.9	67812 µg/L	67812 ppb	01:20:04
2	Si 251.611†	437672.3	421288.3	32027 µg/L	32027 ppb	01:19:58
2	Sn 189.927†	1178.7	1135.0	465.47 µg/L	465.47 ppb	01:20:24
2	Ti 334.940†	2594839.5	2499370.2	5527.4 µg/L	5527.4 ppb	01:19:58
2	Tl 190.801†	299.5	310.9	497.43 µg/L	497.43 ppb	01:20:24
2	U 409.014†	4439.1	4353.1	335.86 µg/L	335.86 ppb	01:20:04
2	V 292.402†	77097.8	74311.2	748.18 µg/L	748.18 ppb	01:20:04
2	Zn 213.857†	34796.4	32984.1	760.85 µg/L	760.85 ppb	01:20:04
3	Sc RADIAL	58878.3	58878.3	104 %		01:18:51
3	Al 396.153Radial†	309298.4	296774.3	206440 µg/L	206440 ppb	01:18:51
3	Ca 317.933Radial†	73845.0	70645.3	60344 µg/L	60344 ppb	01:18:51
3	Fe 238.204 Radial†	21168.5	20295.3	160080 µg/L	160080 ppb	01:19:11
3	K 766.490 Radial†	33620.0	32094.5	20961 µg/L	20961 ppb	01:18:51
3	Mg 279.077 IEC†	4117.0	3937.5	35033 µg/L	35033 ppb	01:19:11
3	Na 589.592 Radial†	20840.9	19525.3	5997.1 µg/L	5997.1 ppb	01:18:51
3	Sr 421.552†	100495.1	96399.4	889.30 µg/L	889.30 ppb	01:18:51
3	Sc 361.383	2028592.1	2028592.1	103.34 %		01:20:32
3	Y 371.029	1437366.5	1437366.5	106.25 %		01:20:32
3	Ag 328.068†	62902.3	61273.8	468.54 µg/L	468.54 ppb	01:20:37
3	As 188.979†	264.0	255.9	464.01 µg/L	464.01 ppb	01:20:58
3	B 249.677†	12385.6	11601.7	390.36 µg/L	390.36 ppb	01:20:37
3	Ba 233.527†	125355.3	121326.5	2914.0 µg/L	2914.0 ppb	01:20:37
3	Be 313.107†	839524.1	815284.3	481.83 µg/L	481.83 ppb	01:20:32
3	Cd 226.502†	19188.1	18710.5	449.13 µg/L	449.13 ppb	01:20:37
3	Co 228.616†	10925.0	10570.5	467.86 µg/L	467.86 ppb	01:20:58
3	Cr 267.716†	33120.6	32102.0	645.21 µg/L	645.21 ppb	01:20:37
3	Cu 324.752†	86968.3	81617.7	555.01 µg/L	555.01 ppb	01:20:37
3	Mn 257.610†	1034953.0	1001806.2	3157.1 µg/L	3157.1 ppb	01:20:32
3	Mo 202.031†	4212.7	4082.1	405.83 µg/L	405.83 ppb	01:20:58
3	Ni 231.604†	11875.1	11179.5	558.80 µg/L	558.80 ppb	01:20:37
3	P 214.914†	935.0	889.5	1640.9 µg/L	1640.9 ppb	01:20:58
3	Pb 220.353†	2477.3	2306.4	565.83 µg/L	565.83 ppb	01:20:58
3	S 181.975 Axial†	1350.3	1287.8	5340.6 µg/L	5340.6 ppb	01:20:58
3	Sb 206.836†	356.6	322.6	290.09 µg/L	290.09 ppb	01:20:58
3	Se 196.026†	274.7	246.5	735.61 µg/L	735.61 ppb	01:20:58
3	SiO2†	345258.8	332724.1	65675 µg/L	65675 ppb	01:20:37
3	Si 251.611†	427652.9	413539.9	31438 µg/L	31438 ppb	01:20:32
3	Sn 189.927†	1092.1	1056.5	432.29 µg/L	432.29 ppb	01:20:58
3	Ti 334.940†	2509303.3	2428141.1	5369.8 µg/L	5369.8 ppb	01:20:32
3	Tl 190.801†	277.4	290.8	469.95 µg/L	469.95 ppb	01:20:58
3	U 409.014†	4198.6	4140.2	318.06 µg/L	318.06 ppb	01:20:37
3	V 292.402†	73321.4	70999.7	715.68 µg/L	715.68 ppb	01:20:37
3	Zn 213.857†	33382.4	31770.6	732.47 µg/L	732.47 ppb	01:20:37

Mean Data: 1202032636|948776|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2026333.8	103.22	%	0.658				0.64%
Sc RADIAL	59018.6	104	%	0.2				0.21%
Y 371.029	1436635.4	106.20	%	0.673				0.63%
Ag 328.068†	62304.0	476.30	µg/L	7.091	476.30	ppb	7.091	1.49%
Al 396.153Radial†	295021.5	205220	µg/L	1419.6	205220	ppb	1419.6	0.69%
As 188.979†	273.0	494.68	µg/L	26.999	494.68	ppb	26.999	5.46%
B 249.677†	11857.5	401.09	µg/L	9.632	401.09	ppb	9.632	2.40%
Ba 233.527†	124810.8	2997.6	µg/L	73.97	2997.6	ppb	73.97	2.47%
Be 313.107†	832892.0	492.23	µg/L	9.370	492.23	ppb	9.370	1.90%
Ca 317.933Radial†	70246.0	60003	µg/L	379.9	60003	ppb	379.9	0.63%
Cd 226.502†	19149.6	460.15	µg/L	9.835	460.15	ppb	9.835	2.14%
Co 228.616†	11182.2	495.33	µg/L	24.494	495.33	ppb	24.494	4.94%
Cr 267.716†	33295.3	669.19	µg/L	20.963	669.19	ppb	20.963	3.13%
Cu 324.752†	84123.5	571.29	µg/L	14.291	571.29	ppb	14.291	2.50%
Fe 238.204 Radial†	20231.7	159580	µg/L	438.0	159580	ppb	438.0	0.27%
K 766.490 Radial†	31949.0	20866	µg/L	114.7	20866	ppb	114.7	0.55%
Mg 279.077 IEC†	3916.2	34843	µg/L	170.5	34843	ppb	170.5	0.49%
Mn 257.610†	1022186.2	3220.8	µg/L	57.88	3220.8	ppb	57.88	1.80%
Mo 202.031†	4310.5	428.17	µg/L	20.085	428.17	ppb	20.085	4.69%
Na 589.592 Radial†	19386.2	5954.3	µg/L	59.98	5954.3	ppb	59.98	1.01%

Ni 231.604†	11538.3	576.65	µg/L	15.922	576.65	ppb	15.922	2.76%
P 214.914†	929.3	1718.3	µg/L	70.60	1718.3	ppb	70.60	4.11%
Pb 220.353†	2399.3	588.38	µg/L	20.935	588.38	ppb	20.935	3.56%
S 181.975 Axial†	1335.4	5538.0	µg/L	177.54	5538.0	ppb	177.54	3.21%
Sb 206.836†	344.5	310.36	µg/L	18.477	310.36	ppb	18.477	5.95%
Se 196.026†	253.6	744.52	µg/L	8.366	744.52	ppb	8.366	1.12%
SiO2†	341138.0	67336	µg/L	1481.4	67336	ppb	1481.4	2.20%
Si 251.611†	420100.7	31937	µg/L	460.3	31937	ppb	460.3	1.44%
Sn 189.927†	1119.0	458.71	µg/L	23.779	458.71	ppb	23.779	5.18%
Sr 421.552†	95750.0	883.31	µg/L	6.635	883.31	ppb	6.635	0.75%
Ti 334.940†	2484777.4	5495.1	µg/L	112.68	5495.1	ppb	112.68	2.05%
Tl 190.801†	302.8	486.61	µg/L	14.641	486.61	ppb	14.641	3.01%
U 409.014†	4311.2	332.36	µg/L	12.909	332.36	ppb	12.909	3.88%
V 292.402†	73437.0	739.61	µg/L	21.006	739.61	ppb	21.006	2.84%
Zn 213.857†	32704.3	754.30	µg/L	19.409	754.30	ppb	19.409	2.57%

Sequence No.: 6
Sample ID: 1202032637|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 206
Date Collected: 2/20/2010 01:21:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032637|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57948.5	57948.5	103	%			01:21:46
1	Al 396.153Radial†	318324.6	310336.0	215880	µg/L	215880	ppb	01:21:40
1	Ca 317.933Radial†	63847.7	62035.6	52989	µg/L	52989	ppb	01:21:46
1	Fe 238.204 Radial†	23710.4	23099.4	182190	µg/L	182190	ppb	01:21:46
1	K 766.490 Radial†	34135.0	33114.1	21627	µg/L	21627	ppb	01:21:40
1	Mg 279.077 IEC†	4345.4	4223.7	37567	µg/L	37567	ppb	01:21:46
1	Na 589.592 Radial†	20699.8	19708.6	6053.4	µg/L	6053.4	ppb	01:21:46
1	Sr 421.552†	100360.9	97815.8	902.36	µg/L	902.36	ppb	01:21:40
1	Sc 361.383	2032042.0	2032042.0	103.51	%			01:22:21
1	Y 371.029	1445817.7	1445817.7	106.88	%			01:22:21
1	Ag 328.068†	63919.0	62152.6	477.07	µg/L	477.07	ppb	01:22:27
1	As 188.979†	293.8	284.3	516.57	µg/L	516.57	ppb	01:22:47
1	B 249.677†	12914.3	12092.1	398.87	µg/L	398.87	ppb	01:22:27
1	Ba 233.527†	121885.2	117768.2	2828.7	µg/L	2828.7	ppb	01:22:27
1	Be 313.107†	860841.2	834499.2	492.85	µg/L	492.85	ppb	01:22:21
1	Cd 226.502†	19891.6	19358.6	462.82	µg/L	462.82	ppb	01:22:27
1	Co 228.616†	12076.6	11665.1	515.35	µg/L	515.35	ppb	01:22:47
1	Cr 267.716†	35177.6	34034.9	684.09	µg/L	684.09	ppb	01:22:27
1	Cu 324.752†	91258.1	85619.1	584.20	µg/L	584.20	ppb	01:22:27
1	Mn 257.610†	1429183.6	1380965.0	4347.2	µg/L	4347.2	ppb	01:22:21
1	Mo 202.031†	4608.7	4457.8	443.45	µg/L	443.45	ppb	01:22:47
1	Ni 231.604†	12462.5	11727.4	586.35	µg/L	586.35	ppb	01:22:27
1	P 214.914†	1008.5	958.9	1760.8	µg/L	1760.8	ppb	01:22:47
1	Pb 220.353†	2765.3	2580.6	632.23	µg/L	632.23	ppb	01:22:47
1	S 181.975 Axial†	1387.6	1321.6	5480.7	µg/L	5480.7	ppb	01:22:47
1	Sb 206.836†	403.7	367.5	332.19	µg/L	332.19	ppb	01:22:47
1	Se 196.026†	279.9	251.1	802.27	µg/L	802.27	ppb	01:22:47
1	SiO2†	359039.2	345469.8	68191	µg/L	68191	ppb	01:22:27
1	Si 251.611†	433319.7	418311.8	31801	µg/L	31801	ppb	01:22:21
1	Sn 189.927†	1168.7	1128.7	460.72	µg/L	460.72	ppb	01:22:47
1	Ti 334.940†	2989239.2	2887676.0	6386.0	µg/L	6386.0	ppb	01:22:21
1	Tl 190.801†	290.2	302.7	503.61	µg/L	503.61	ppb	01:22:47
1	U 409.014†	4055.7	3995.2	303.38	µg/L	303.38	ppb	01:22:27
1	V 292.402†	83582.5	80792.3	814.07	µg/L	814.07	ppb	01:22:27
1	Zn 213.857†	35569.6	33828.8	779.40	µg/L	779.40	ppb	01:22:27
2	Sc RADIAL	57913.1	57913.1	103	%			01:21:57
2	Al 396.153Radial†	318752.3	310943.1	216300	µg/L	216300	ppb	01:21:51
2	Ca 317.933Radial†	64320.2	62534.6	53416	µg/L	53416	ppb	01:21:57
2	Fe 238.204 Radial†	23880.4	23279.3	183610	µg/L	183610	ppb	01:21:57
2	K 766.490 Radial†	34173.4	33172.0	21665	µg/L	21665	ppb	01:21:51
2	Mg 279.077 IEC†	4365.2	4245.5	37762	µg/L	37762	ppb	01:21:57
2	Na 589.592 Radial†	20867.0	19884.1	6107.3	µg/L	6107.3	ppb	01:21:57
2	Sr 421.552†	100449.5	97962.0	903.71	µg/L	903.71	ppb	01:21:51
2	Sc 361.383	2009501.9	2009501.9	102.36	%			01:22:55
2	Y 371.029	1429945.8	1429945.8	105.71	%			01:22:55
2	Ag 328.068†	63197.0	62139.9	477.06	µg/L	477.06	ppb	01:23:00
2	As 188.979†	289.1	282.9	514.02	µg/L	514.02	ppb	01:23:21
2	B 249.677†	12752.3	12073.8	397.39	µg/L	397.39	ppb	01:23:00
2	Ba 233.527†	120459.9	117696.6	2827.0	µg/L	2827.0	ppb	01:23:00
2	Be 313.107†	854439.4	837573.4	494.66	µg/L	494.66	ppb	01:22:55
2	Cd 226.502†	19587.4	19277.0	460.62	µg/L	460.62	ppb	01:23:00
2	Co 228.616†	12108.6	11827.2	522.63	µg/L	522.63	ppb	01:23:21
2	Cr 267.716†	34802.3	34049.4	684.39	µg/L	684.39	ppb	01:23:00
2	Cu 324.752†	90399.5	85769.2	585.38	µg/L	585.38	ppb	01:23:00
2	Mn 257.610†	1417250.7	1384794.7	4359.4	µg/L	4359.4	ppb	01:22:55
2	Mo 202.031†	4647.7	4545.8	452.13	µg/L	452.13	ppb	01:23:21
2	Ni 231.604†	12288.2	11692.3	584.60	µg/L	584.60	ppb	01:23:00
2	P 214.914†	1013.0	974.3	1790.3	µg/L	1790.3	ppb	01:23:21
2	Pb 220.353†	2771.1	2616.2	640.88	µg/L	640.88	ppb	01:23:21

2	S 181.975 Axial†	1374.4	1323.8	5489.7 µg/L	5489.7 ppb	01:23:21
2	Sb 206.836†	406.8	374.9	339.03 µg/L	339.03 ppb	01:23:21
2	Se 196.026†	278.6	252.8	808.28 µg/L	808.28 ppb	01:23:21
2	SiO2†	354258.5	344690.1	68037 µg/L	68037 ppb	01:23:00
2	Si 251.611†	430828.7	420573.9	31973 µg/L	31973 ppb	01:22:55
2	Sn 189.927†	1179.5	1151.9	470.40 µg/L	470.40 ppb	01:23:21
2	Ti 334.940†	2970300.7	2901567.1	6416.8 µg/L	6416.8 ppb	01:22:55
2	Tl 190.801†	285.2	301.0	501.89 µg/L	501.89 ppb	01:23:21
2	U 409.014†	4040.5	4024.3	305.58 µg/L	305.58 ppb	01:23:00
2	V 292.402†	82581.0	80719.7	813.60 µg/L	813.60 ppb	01:23:00
2	Zn 213.857†	35187.6	33841.0	779.61 µg/L	779.61 ppb	01:23:00
3	Sc RADIAL	57873.6	57873.6	102 %		01:22:08
3	Al 396.153Radial†	323117.9	315417.0	219410 µg/L	219410 ppb	01:22:02
3	Ca 317.933Radial†	63764.4	62034.9	52989 µg/L	52989 ppb	01:22:08
3	Fe 238.204 Radial†	23597.8	23019.3	181560 µg/L	181560 ppb	01:22:08
3	K 766.490 Radial†	34530.2	33543.0	21907 µg/L	21907 ppb	01:22:02
3	Mg 279.077 IEC†	4338.5	4222.4	37557 µg/L	37557 ppb	01:22:08
3	Na 589.592 Radial†	20794.2	19826.9	6089.7 µg/L	6089.7 ppb	01:22:08
3	Sr 421.552†	101719.7	99268.9	915.77 µg/L	915.77 ppb	01:22:02
3	Sc 361.383	2008456.3	2008456.3	102.31 %		01:23:28
3	Y 371.029	1430285.8	1430285.8	105.73 %		01:23:28
3	Ag 328.068†	63797.5	62759.0	481.59 µg/L	481.59 ppb	01:23:34
3	As 188.979†	292.3	286.2	519.85 µg/L	519.85 ppb	01:23:55
3	B 249.677†	12922.5	12246.6	405.51 µg/L	405.51 ppb	01:23:34
3	Ba 233.527†	121739.3	119008.4	2858.5 µg/L	2858.5 ppb	01:23:34
3	Be 313.107†	863641.7	847002.6	500.23 µg/L	500.23 ppb	01:23:28
3	Cd 226.502†	19823.7	19517.9	466.87 µg/L	466.87 ppb	01:23:34
3	Co 228.616†	12025.3	11751.9	519.08 µg/L	519.08 ppb	01:23:55
3	Cr 267.716†	35182.3	34438.5	692.21 µg/L	692.21 ppb	01:23:34
3	Cu 324.752†	91478.6	86869.9	592.28 µg/L	592.28 ppb	01:23:34
3	Mn 257.610†	1432991.8	1400901.2	4409.6 µg/L	4409.6 ppb	01:23:28
3	Mo 202.031†	4580.2	4482.1	445.82 µg/L	445.82 ppb	01:23:55
3	Ni 231.604†	12453.9	11860.5	592.97 µg/L	592.97 ppb	01:23:34
3	P 214.914†	1017.6	979.3	1801.8 µg/L	1801.8 ppb	01:23:55
3	Pb 220.353†	2759.6	2606.4	638.70 µg/L	638.70 ppb	01:23:55
3	S 181.975 Axial†	1377.5	1327.4	5504.8 µg/L	5504.8 ppb	01:23:55
3	Sb 206.836†	412.2	380.4	343.96 µg/L	343.96 ppb	01:23:55
3	Se 196.026†	273.8	248.3	796.67 µg/L	796.67 ppb	01:23:55
3	SiO2†	357946.2	348474.8	68784 µg/L	68784 ppb	01:23:34
3	Si 251.611†	434038.4	423930.3	32228 µg/L	32228 ppb	01:23:28
3	Sn 189.927†	1162.2	1135.6	463.70 µg/L	463.70 ppb	01:23:55
3	Ti 334.940†	3000321.7	2932421.0	6485.0 µg/L	6485.0 ppb	01:23:28
3	Tl 190.801†	283.8	299.8	501.11 µg/L	501.11 ppb	01:23:55
3	U 409.014†	4157.8	4141.0	315.59 µg/L	315.59 ppb	01:23:34
3	V 292.402†	83609.5	81767.0	823.54 µg/L	823.54 ppb	01:23:34
3	Zn 213.857†	35566.9	34229.7	788.79 µg/L	788.79 ppb	01:23:34

Mean Data: 1202032637|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2016666.7	102.73	%	0.679				0.66%
Sc RADIAL	57911.8	103	%	0.1				0.06%
Y 371.029	1435349.8	106.11	%	0.670				0.63%
Ag 328.068†	62350.5	478.58	µg/L	2.609	478.58	ppb	2.609	0.55%
Al 396.153Radial†	312232.0	217200	µg/L	1930.4	217200	ppb	1930.4	0.89%
As 188.979†	284.5	516.81	µg/L	2.922	516.81	ppb	2.922	0.57%
B 249.677†	12137.5	400.59	µg/L	4.327	400.59	ppb	4.327	1.08%
Ba 233.527†	118157.7	2838.1	µg/L	17.72	2838.1	ppb	17.72	0.62%
Be 313.107†	839691.7	495.91	µg/L	3.848	495.91	ppb	3.848	0.78%
Ca 317.933Radial†	62201.7	53131	µg/L	246.3	53131	ppb	246.3	0.46%
Cd 226.502†	19384.5	463.44	µg/L	3.170	463.44	ppb	3.170	0.68%
Co 228.616†	11748.1	519.02	µg/L	3.644	519.02	ppb	3.644	0.70%
Cr 267.716†	34174.3	686.90	µg/L	4.602	686.90	ppb	4.602	0.67%
Cu 324.752†	86086.1	587.29	µg/L	4.363	587.29	ppb	4.363	0.74%
Fe 238.204 Radial†	23132.7	182460	µg/L	1050.2	182460	ppb	1050.2	0.58%
K 766.490 Radial†	33276.4	21733	µg/L	152.0	21733	ppb	152.0	0.70%
Mg 279.077 IEC†	4230.5	37629	µg/L	115.3	37629	ppb	115.3	0.31%
Mn 257.610†	1388886.9	4372.1	µg/L	33.05	4372.1	ppb	33.05	0.76%
Mo 202.031†	4495.2	447.13	µg/L	4.485	447.13	ppb	4.485	1.00%
Na 589.592 Radial†	19806.5	6083.4	µg/L	27.49	6083.4	ppb	27.49	0.45%

Ni 231.604†	11760.1	587.97 µg/L	4.411	587.97 ppb	4.411	0.75%
P 214.914†	970.8	1784.3 µg/L	21.14	1784.3 ppb	21.14	1.18%
Pb 220.353†	2601.1	637.27 µg/L	4.497	637.27 ppb	4.497	0.71%
S 181.975 Axial†	1324.3	5491.7 µg/L	12.20	5491.7 ppb	12.20	0.22%
Sb 206.836†	374.3	338.39 µg/L	5.915	338.39 ppb	5.915	1.75%
Se 196.026†	250.7	802.41 µg/L	5.809	802.41 ppb	5.809	0.72%
SiO2†	346211.6	68338 µg/L	394.5	68338 ppb	394.5	0.58%
Si 251.611†	420938.7	32001 µg/L	214.9	32001 ppb	214.9	0.67%
Sn 189.927†	1138.7	464.94 µg/L	4.957	464.94 ppb	4.957	1.07%
Sr 421.552†	98348.9	907.28 µg/L	7.381	907.28 ppb	7.381	0.81%
Ti 334.940†	2907221.3	6429.3 µg/L	50.67	6429.3 ppb	50.67	0.79%
Tl 190.801†	301.2	502.20 µg/L	1.275	502.20 ppb	1.275	0.25%
U 409.014†	4053.5	308.18 µg/L	6.505	308.18 ppb	6.505	2.11%
V 292.402†	81093.0	817.07 µg/L	5.611	817.07 ppb	5.611	0.69%
Zn 213.857†	33966.5	782.60 µg/L	5.363	782.60 ppb	5.363	0.69%

Sequence No.: 7
Sample ID: 1202032635|948776|5
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 207
Date Collected: 2/20/2010 01:24:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032635|948776|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58006.5	58006.5	103	%			01:24:37
1	Al 396.153Radial†	35704.5	34767.1	24186	µg/L	24186	ppb	01:24:37
1	Ca 317.933Radial†	12460.3	11924.5	10186	µg/L	10186	ppb	01:24:57
1	Fe 238.204 Radial†	3228.2	3127.5	24667	µg/L	24667	ppb	01:24:57
1	K 766.490 Radial†	3974.2	3705.7	2420.3	µg/L	2420.3	ppb	01:24:37
1	Mg 279.077 IEC†	557.1	529.8	4709.2	µg/L	4709.2	ppb	01:24:57
1	Na 589.592 Radial†	1105.8	604.9	185.78	µg/L	185.78	ppb	01:24:37
1	Sr 421.552†	8317.6	8072.1	74.466	µg/L	74.466	ppb	01:24:37
1	Sc 361.383	2027276.6	2027276.6	103.27	%			01:26:00
1	Y 371.029	1402606.3	1402606.3	103.69	%			01:26:00
1	Ag 328.068†	-619.6	-198.3	0.3544	µg/L	0.3544	ppb	01:26:06
1	As 188.979†	0.7	1.1	2.9364	µg/L	2.9364	ppb	01:26:26
1	B 249.677†	545.1	143.7	-6.9541	µg/L	-6.9541	ppb	01:26:06
1	Ba 233.527†	19497.2	18897.3	453.74	µg/L	453.74	ppb	01:26:06
1	Be 313.107†	1552.2	4358.8	2.3056	µg/L	2.3056	ppb	01:26:06
1	Cd 226.502†	-57.0	86.5	-0.6108	µg/L	-0.6108	ppb	01:26:26
1	Co 228.616†	227.6	218.5	8.3544	µg/L	8.3544	ppb	01:26:26
1	Cr 267.716†	1863.1	1854.5	37.275	µg/L	37.275	ppb	01:26:06
1	Cu 324.752†	4092.6	1419.3	12.693	µg/L	12.693	ppb	01:26:06
1	Mn 257.610†	145127.9	140791.1	443.98	µg/L	443.98	ppb	01:26:00
1	Mo 202.031†	2.3	7.6	1.6787	µg/L	1.6787	ppb	01:26:26
1	Ni 231.604†	742.1	406.2	20.559	µg/L	20.559	ppb	01:26:26
1	P 214.914†	133.5	113.9	211.46	µg/L	211.46	ppb	01:26:26
1	Pb 220.353†	187.1	90.2	22.329	µg/L	22.329	ppb	01:26:26
1	S 181.975 Axial†	46.6	26.2	108.54	µg/L	108.54	ppb	01:26:26
1	Sb 206.836†	26.5	3.2	1.6472	µg/L	1.6472	ppb	01:26:26
1	Se 196.026†	6.3	-13.2	41.856	µg/L	41.856	ppb	01:26:26
1	SiO2†	67268.9	63748.4	12583	µg/L	12583	ppb	01:26:06
1	Si 251.611†	79729.1	76895.3	5845.7	µg/L	5845.7	ppb	01:26:06
1	Sn 189.927†	-2.5	-2.8	-3.3200	µg/L	-3.3200	ppb	01:26:26
1	Ti 334.940†	344954.8	333863.1	738.37	µg/L	738.37	ppb	01:26:00
1	Tl 190.801†	-29.0	-5.7	5.2725	µg/L	5.2725	ppb	01:26:26
1	U 409.014†	-302.9	-216.2	-22.014	µg/L	-22.014	ppb	01:26:06
1	V 292.402†	4283.5	4192.7	43.835	µg/L	43.835	ppb	01:26:06
1	Zn 213.857†	2608.4	1991.4	45.177	µg/L	45.177	ppb	01:26:26
2	Sc RADIAL	57765.1	57765.1	102	%			01:25:03
2	Al 396.153Radial†	35493.1	34705.7	24143	µg/L	24143	ppb	01:25:03
2	Ca 317.933Radial†	12438.7	11954.1	10211	µg/L	10211	ppb	01:25:23
2	Fe 238.204 Radial†	3226.4	3138.9	24757	µg/L	24757	ppb	01:25:23
2	K 766.490 Radial†	3987.2	3734.6	2439.1	µg/L	2439.1	ppb	01:25:03
2	Mg 279.077 IEC†	558.3	533.3	4740.2	µg/L	4740.2	ppb	01:25:23
2	Na 589.592 Radial†	1103.7	607.3	186.52	µg/L	186.52	ppb	01:25:03
2	Sr 421.552†	8266.2	8055.7	74.315	µg/L	74.315	ppb	01:25:03
2	Sc 361.383	2031446.6	2031446.6	103.48	%			01:26:33
2	Y 371.029	1406661.3	1406661.3	103.98	%			01:26:33
2	Ag 328.068†	-714.9	-289.3	-0.3127	µg/L	-0.3127	ppb	01:26:39
2	As 188.979†	4.7	5.0	9.8896	µg/L	9.8896	ppb	01:26:59
2	B 249.677†	542.6	140.2	-7.1423	µg/L	-7.1423	ppb	01:26:39
2	Ba 233.527†	19624.0	18981.0	455.75	µg/L	455.75	ppb	01:26:39
2	Be 313.107†	1423.0	4230.8	2.2287	µg/L	2.2287	ppb	01:26:39
2	Cd 226.502†	-55.6	87.9	-0.5847	µg/L	-0.5847	ppb	01:26:59
2	Co 228.616†	229.0	219.4	8.3881	µg/L	8.3881	ppb	01:26:59
2	Cr 267.716†	1876.7	1864.0	37.464	µg/L	37.464	ppb	01:26:39
2	Cu 324.752†	4101.3	1419.6	12.707	µg/L	12.707	ppb	01:26:39
2	Mn 257.610†	145938.4	141285.9	445.54	µg/L	445.54	ppb	01:26:33
2	Mo 202.031†	-1.2	4.2	1.3517	µg/L	1.3517	ppb	01:26:59
2	Ni 231.604†	727.0	390.2	19.763	µg/L	19.763	ppb	01:26:59
2	P 214.914†	129.6	109.9	203.45	µg/L	203.45	ppb	01:26:59
2	Pb 220.353†	176.2	79.3	19.676	µg/L	19.676	ppb	01:26:59

2	S 181.975 Axial†	44.3	23.9	99.186 µg/L	99.186 ppb	01:26:59
2	Sb 206.836†	25.4	2.1	0.6064 µg/L	0.6064 ppb	01:26:59
2	Se 196.026†	7.0	-12.5	43.001 µg/L	43.001 ppb	01:26:59
2	SiO2†	67788.2	64116.6	12656 µg/L	12656 ppb	01:26:39
2	Si 251.611†	80389.3	77374.8	5882.2 µg/L	5882.2 ppb	01:26:39
2	Sn 189.927†	-12.2	-12.2	-7.2795 µg/L	-7.2795 ppb	01:26:59
2	Ti 334.940†	346742.0	334904.4	740.67 µg/L	740.67 ppb	01:26:33
2	Tl 190.801†	-32.4	-8.9	1.1448 µg/L	1.1448 ppb	01:26:59
2	U 409.014†	-335.9	-247.5	-24.629 µg/L	-24.629 ppb	01:26:39
2	V 292.402†	4303.8	4203.8	43.949 µg/L	43.949 ppb	01:26:39
2	Zn 213.857†	2587.6	1966.2	44.582 µg/L	44.582 ppb	01:26:59
3	Sc RADIAL	57799.8	57799.8	102 %		01:25:29
3	Al 396.153Radial†	35669.9	34857.7	24249 µg/L	24249 ppb	01:25:29
3	Ca 317.933Radial†	12433.2	11941.4	10200 µg/L	10200 ppb	01:25:49
3	Fe 238.204 Radial†	3218.0	3128.8	24677 µg/L	24677 ppb	01:25:49
3	K 766.490 Radial†	3991.6	3736.6	2440.4 µg/L	2440.4 ppb	01:25:29
3	Mg 279.077 IEC†	559.3	533.9	4745.8 µg/L	4745.8 ppb	01:25:49
3	Na 589.592 Radial†	1112.1	614.8	188.84 µg/L	188.84 ppb	01:25:29
3	Sr 421.552†	8323.2	8106.6	74.784 µg/L	74.784 ppb	01:25:29
3	Sc 361.383	2009572.8	2009572.8	102.37 %		01:27:06
3	Y 371.029	1391314.8	1391314.8	102.85 %		01:27:06
3	Ag 328.068†	-603.4	-187.9	0.4075 µg/L	0.4075 ppb	01:27:12
3	As 188.979†	1.4	1.8	4.1883 µg/L	4.1883 ppb	01:27:32
3	B 249.677†	535.4	138.8	-7.1644 µg/L	-7.1644 ppb	01:27:12
3	Ba 233.527†	17897.8	17501.1	420.22 µg/L	420.22 ppb	01:27:12
3	Be 313.107†	1137.6	3967.0	2.0931 µg/L	2.0931 ppb	01:27:12
3	Cd 226.502†	-63.3	79.8	-0.7818 µg/L	-0.7818 ppb	01:27:32
3	Co 228.616†	196.0	189.6	7.1543 µg/L	7.1543 ppb	01:27:32
3	Cr 267.716†	1642.7	1655.1	33.266 µg/L	33.266 ppb	01:27:12
3	Cu 324.752†	3932.6	1298.0	11.903 µg/L	11.903 ppb	01:27:12
3	Mn 257.610†	134906.8	132044.3	416.59 µg/L	416.59 ppb	01:27:06
3	Mo 202.031†	0.8	6.1	1.5349 µg/L	1.5349 ppb	01:27:32
3	Ni 231.604†	650.9	323.5	16.438 µg/L	16.438 ppb	01:27:32
3	P 214.914†	115.5	97.5	179.00 µg/L	179.00 ppb	01:27:32
3	Pb 220.353†	162.9	68.2	16.971 µg/L	16.971 ppb	01:27:32
3	S 181.975 Axial†	43.7	23.8	98.640 µg/L	98.640 ppb	01:27:32
3	Sb 206.836†	23.8	0.7	-0.6009 µg/L	-0.6009 ppb	01:27:32
3	Se 196.026†	8.5	-11.0	44.928 µg/L	44.928 ppb	01:27:32
3	SiO2†	62457.1	59621.8	11769 µg/L	11769 ppb	01:27:12
3	Si 251.611†	73834.8	71817.4	5459.7 µg/L	5459.7 ppb	01:27:12
3	Sn 189.927†	-5.5	-5.8	-4.5632 µg/L	-4.5632 ppb	01:27:32
3	Ti 334.940†	317558.8	310043.1	685.67 µg/L	685.67 ppb	01:27:06
3	Tl 190.801†	-27.0	-4.0	6.9091 µg/L	6.9091 ppb	01:27:32
3	U 409.014†	-234.8	-152.3	-16.709 µg/L	-16.709 ppb	01:27:12
3	V 292.402†	3844.7	3800.6	40.010 µg/L	40.010 ppb	01:27:12
3	Zn 213.857†	2234.1	1648.1	37.139 µg/L	37.139 ppb	01:27:32

Mean Data: 1202032635|948776|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2022765.3	103.04	%	0.592				0.57%
Sc RADIAL	57857.1	102	%	0.2				0.23%
Y 371.029	1400194.1	103.51	%	0.588				0.57%
Ag 328.068†	-225.1	0.1497	µg/L	0.40137	0.1497	ppb	0.40137	268.07%
Al 396.153Radial†	34776.8	24193	µg/L	53.2	24193	ppb	53.2	0.22%
As 188.979†	2.7	5.6714	µg/L	3.70627	5.6714	ppb	3.70627	65.35%
B 249.677†	140.9	-7.0869	µg/L	0.11554	-7.0869	ppb	0.11554	1.63%
Ba 233.527†	18459.8	443.24	µg/L	19.961	443.24	ppb	19.961	4.50%
Be 313.107†	4185.5	2.2091	µg/L	0.10759	2.2091	ppb	0.10759	4.87%
Ca 317.933Radial†	11940.0	10199	µg/L	12.7	10199	ppb	12.7	0.12%
Cd 226.502†	84.7	-0.6591	µg/L	0.10707	-0.6591	ppb	0.10707	16.24%
Co 228.616†	209.1	7.9656	µg/L	0.70282	7.9656	ppb	0.70282	8.82%
Cr 267.716†	1791.2	36.001	µg/L	2.3711	36.001	ppb	2.3711	6.59%
Cu 324.752†	1379.0	12.434	µg/L	0.4607	12.434	ppb	0.4607	3.70%
Fe 238.204 Radial†	3131.8	24700	µg/L	49.1	24700	ppb	49.1	0.20%
K 766.490 Radial†	3725.7	2433.3	µg/L	11.28	2433.3	ppb	11.28	0.46%
Mg 279.077 IEC†	532.3	4731.7	µg/L	19.75	4731.7	ppb	19.75	0.42%
Mn 257.610†	138040.4	435.37	µg/L	16.283	435.37	ppb	16.283	3.74%
Mo 202.031†	6.0	1.5218	µg/L	0.16389	1.5218	ppb	0.16389	10.77%
Na 589.592 Radial†	609.0	187.04	µg/L	1.595	187.04	ppb	1.595	0.85%

Ni 231.604†	373.3	18.920	µg/L	2.1861	18.920	ppb	2.1861	11.55%
P 214.914†	107.1	197.97	µg/L	16.908	197.97	ppb	16.908	8.54%
Pb 220.353†	79.2	19.659	µg/L	2.6789	19.659	ppb	2.6789	13.63%
S 181.975 Axial†	24.6	102.12	µg/L	5.566	102.12	ppb	5.566	5.45%
Sb 206.836†	2.0	0.5509	µg/L	1.12506	0.5509	ppb	1.12506	204.22%
Se 196.026†	-12.2	43.262	µg/L	1.5527	43.262	ppb	1.5527	3.59%
SiO2†	62495.6	12336	µg/L	492.6	12336	ppb	492.6	3.99%
Si 251.611†	75362.5	5729.2	µg/L	234.11	5729.2	ppb	234.11	4.09%
Sn 189.927†	-6.9	-5.0542	µg/L	2.02489	-5.0542	ppb	2.02489	40.06%
Sr 421.552†	8078.1	74.522	µg/L	0.2395	74.522	ppb	0.2395	0.32%
Ti 334.940†	326270.2	721.57	µg/L	31.111	721.57	ppb	31.111	4.31%
Tl 190.801†	-6.2	4.4421	µg/L	2.97051	4.4421	ppb	2.97051	66.87%
U 409.014†	-205.4	-21.117	µg/L	4.0358	-21.117	ppb	4.0358	19.11%
V 292.402†	4065.7	42.598	µg/L	2.2417	42.598	ppb	2.2417	5.26%
Zn 213.857†	1868.6	42.299	µg/L	4.4789	42.299	ppb	4.4789	10.59%

Sequence No.: 8
Sample ID: 245998002|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 208
Date Collected: 2/20/2010 01:27:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998002|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57706.7	57706.7	102	%			01:28:14
1	Al 396.153Radial†	94881.0	92882.4	64614	µg/L	64614	ppb	01:28:14
1	Ca 317.933Radial†	19317.6	18700.9	15974	µg/L	15974	ppb	01:28:34
1	Fe 238.204 Radial†	10475.5	10239.1	80755	µg/L	80755	ppb	01:28:34
1	K 766.490 Radial†	19009.5	18445.6	12047	µg/L	12047	ppb	01:28:14
1	Mg 279.077 IEC†	1444.2	1401.1	12438	µg/L	12438	ppb	01:28:34
1	Na 589.592 Radial†	1467.3	964.3	296.17	µg/L	296.17	ppb	01:28:34
1	Sr 421.552†	18841.1	18416.9	169.90	µg/L	169.90	ppb	01:28:14
1	Sc 361.383	1999844.2	1999844.2	101.87	%			01:29:39
1	Y 371.029	1403149.6	1403149.6	103.73	%			01:29:39
1	Ag 328.068†	-1296.0	-870.6	-0.3126	µg/L	-0.3126	ppb	01:29:45
1	As 188.979†	7.2	7.6	17.418	µg/L	17.418	ppb	01:30:05
1	B 249.677†	1123.1	718.3	-12.754	µg/L	-12.754	ppb	01:29:45
1	Ba 233.527†	51101.1	50179.8	1205.0	µg/L	1205.0	ppb	01:29:45
1	Be 313.107†	12397.4	15025.4	7.5310	µg/L	7.5310	ppb	01:29:45
1	Cd 226.502†	177.5	315.9	-1.2005	µg/L	-1.2005	ppb	01:30:05
1	Co 228.616†	958.1	938.6	34.910	µg/L	34.910	ppb	01:30:05
1	Cr 267.716†	3340.9	3329.9	66.982	µg/L	66.982	ppb	01:29:45
1	Cu 324.752†	9966.1	7239.3	58.480	µg/L	58.480	ppb	01:29:45
1	Mn 257.610†	745982.7	732539.8	2304.2	µg/L	2304.2	ppb	01:29:39
1	Mo 202.031†	-9.2	-3.7	2.7037	µg/L	2.7037	ppb	01:30:05
1	Ni 231.604†	1265.6	930.0	47.359	µg/L	47.359	ppb	01:30:05
1	P 214.914†	650.0	622.8	1180.8	µg/L	1180.8	ppb	01:30:05
1	Pb 220.353†	494.4	394.4	96.307	µg/L	96.307	ppb	01:30:05
1	S 181.975 Axial†	261.7	238.0	986.84	µg/L	986.84	ppb	01:30:05
1	Sb 206.836†	30.1	7.0	4.3173	µg/L	4.3173	ppb	01:30:05
1	Se 196.026†	-21.4	-40.3	148.58	µg/L	148.58	ppb	01:30:05
1	SiO2†	331114.9	323642.8	63883	µg/L	63883	ppb	01:29:39
1	Si 251.611†	396719.3	389123.4	29582	µg/L	29582	ppb	01:29:39
1	Sn 189.927†	-31.7	-31.5	-20.497	µg/L	-20.497	ppb	01:30:05
1	Ti 334.940†	1676211.3	1645254.9	3638.9	µg/L	3638.9	ppb	01:29:39
1	Tl 190.801†	-59.1	-35.6	9.8596	µg/L	9.8596	ppb	01:30:05
1	U 409.014†	-350.6	-267.1	-34.389	µg/L	-34.389	ppb	01:29:45
1	V 292.402†	16572.5	16312.9	168.61	µg/L	168.61	ppb	01:29:45
1	Zn 213.857†	8312.7	7625.6	174.08	µg/L	174.08	ppb	01:29:45
2	Sc RADIAL	57591.2	57591.2	102	%			01:28:40
2	Al 396.153Radial†	95242.2	93422.9	64990	µg/L	64990	ppb	01:28:40
2	Ca 317.933Radial†	19264.6	18686.8	15962	µg/L	15962	ppb	01:29:01
2	Fe 238.204 Radial†	10431.6	10216.5	80578	µg/L	80578	ppb	01:29:01
2	K 766.490 Radial†	19089.6	18561.5	12123	µg/L	12123	ppb	01:28:40
2	Mg 279.077 IEC†	1441.7	1401.4	12441	µg/L	12441	ppb	01:29:01
2	Na 589.592 Radial†	1501.1	1000.4	307.26	µg/L	307.26	ppb	01:29:01
2	Sr 421.552†	18830.8	18443.8	170.15	µg/L	170.15	ppb	01:28:40
2	Sc 361.383	2018203.5	2018203.5	102.81	%			01:30:12
2	Y 371.029	1415276.2	1415276.2	104.62	%			01:30:12
2	Ag 328.068†	-1362.0	-923.3	-0.7295	µg/L	-0.7295	ppb	01:30:18
2	As 188.979†	7.7	7.9	18.027	µg/L	18.027	ppb	01:30:38
2	B 249.677†	1076.3	662.8	-14.928	µg/L	-14.928	ppb	01:30:18
2	Ba 233.527†	50674.1	49308.1	1184.0	µg/L	1184.0	ppb	01:30:18
2	Be 313.107†	12131.3	14655.8	7.3232	µg/L	7.3232	ppb	01:30:18
2	Cd 226.502†	168.8	305.9	-1.4309	µg/L	-1.4309	ppb	01:30:38
2	Co 228.616†	961.1	932.9	34.718	µg/L	34.718	ppb	01:30:38
2	Cr 267.716†	3254.8	3216.4	64.700	µg/L	64.700	ppb	01:30:18
2	Cu 324.752†	9808.6	6997.1	56.874	µg/L	56.874	ppb	01:30:18
2	Mn 257.610†	746146.4	726037.6	2283.8	µg/L	2283.8	ppb	01:30:12
2	Mo 202.031†	-3.2	2.3	3.2840	µg/L	3.2840	ppb	01:30:38
2	Ni 231.604†	1249.9	903.4	46.031	µg/L	46.031	ppb	01:30:38
2	P 214.914†	671.1	637.4	1210.3	µg/L	1210.3	ppb	01:30:38
2	Pb 220.353†	475.5	371.6	90.789	µg/L	90.789	ppb	01:30:38

2	S 181.975 Axial†	261.2	235.1	974.90	µg/L	974.90 ppb	01:30:38
2	Sb 206.836†	35.7	12.2	9.0824	µg/L	9.0824 ppb	01:30:38
2	Se 196.026†	-20.7	-39.5	149.23	µg/L	149.23 ppb	01:30:38
2	SiO2†	331384.3	320948.2	63351	µg/L	63351 ppb	01:30:12
2	Si 251.611†	397015.0	385868.5	29334	µg/L	29334 ppb	01:30:12
2	Sn 189.927†	-37.3	-36.6	-22.638	µg/L	-22.638 ppb	01:30:38
2	Ti 334.940†	1677484.0	1631524.7	3608.6	µg/L	3608.6 ppb	01:30:12
2	Tl 190.801†	-57.4	-33.4	12.322	µg/L	12.322 ppb	01:30:38
2	U 409.014†	-333.2	-247.0	-32.693	µg/L	-32.693 ppb	01:30:18
2	V 292.402†	16476.1	16071.1	166.23	µg/L	166.23 ppb	01:30:18
2	Zn 213.857†	8270.8	7510.7	171.40	µg/L	171.40 ppb	01:30:18
3	Sc RADIAL	57961.4	57961.4	103	%		01:29:06
3	Al 396.153Radial†	94301.4	91909.3	63937	µg/L	63937 ppb	01:29:06
3	Ca 317.933Radial†	19039.6	18346.9	15672	µg/L	15672 ppb	01:29:27
3	Fe 238.204 Radial†	10286.8	10010.0	78949	µg/L	78949 ppb	01:29:27
3	K 766.490 Radial†	18985.7	18340.6	11979	µg/L	11979 ppb	01:29:06
3	Mg 279.077 IEC†	1423.9	1375.0	12207	µg/L	12207 ppb	01:29:27
3	Na 589.592 Radial†	1473.9	964.4	296.22	µg/L	296.22 ppb	01:29:27
3	Sr 421.552†	18715.8	18213.7	168.02	µg/L	168.02 ppb	01:29:06
3	Sc 361.383	2009888.7	2009888.7	102.38	%		01:30:46
3	Y 371.029	1408277.1	1408277.1	104.10	%		01:30:46
3	Ag 328.068†	-1260.3	-829.4	-0.1962	µg/L	-0.1962 ppb	01:30:51
3	As 188.979†	6.5	6.8	15.928	µg/L	15.928 ppb	01:31:12
3	B 249.677†	1041.3	632.9	-15.302	µg/L	-15.302 ppb	01:30:51
3	Ba 233.527†	48015.1	46914.9	1126.6	µg/L	1126.6 ppb	01:30:51
3	Be 313.107†	11237.1	13831.3	6.8960	µg/L	6.8960 ppb	01:30:51
3	Cd 226.502†	127.6	266.3	-2.2383	µg/L	-2.2383 ppb	01:31:12
3	Co 228.616†	895.1	872.4	32.315	µg/L	32.315 ppb	01:31:12
3	Cr 267.716†	3076.0	3054.8	61.450	µg/L	61.450 ppb	01:30:51
3	Cu 324.752†	9489.4	6724.9	54.870	µg/L	54.870 ppb	01:30:51
3	Mn 257.610†	713952.3	697595.0	2194.5	µg/L	2194.5 ppb	01:30:46
3	Mo 202.031†	-4.1	1.4	3.1326	µg/L	3.1326 ppb	01:31:12
3	Ni 231.604†	1169.0	829.4	42.326	µg/L	42.326 ppb	01:31:12
3	P 214.914†	588.1	559.1	1056.3	µg/L	1056.3 ppb	01:31:12
3	Pb 220.353†	455.7	354.1	86.544	µg/L	86.544 ppb	01:31:12
3	S 181.975 Axial†	243.4	218.8	907.50	µg/L	907.50 ppb	01:31:12
3	Sb 206.836†	25.6	2.5	0.2473	µg/L	0.2473 ppb	01:31:12
3	Se 196.026†	-10.5	-29.6	158.96	µg/L	158.96 ppb	01:31:12
3	SiO2†	319719.3	310888.0	61365	µg/L	61365 ppb	01:30:46
3	Si 251.611†	383148.2	373922.0	28426	µg/L	28426 ppb	01:30:46
3	Sn 189.927†	-32.7	-32.3	-20.680	µg/L	-20.680 ppb	01:31:12
3	Ti 334.940†	1595099.0	1557807.1	3445.5	µg/L	3445.5 ppb	01:30:46
3	Tl 190.801†	-56.3	-32.6	11.369	µg/L	11.369 ppb	01:31:12
3	U 409.014†	-277.0	-193.5	-28.007	µg/L	-28.007 ppb	01:30:51
3	V 292.402†	15458.3	15143.3	156.99	µg/L	156.99 ppb	01:30:51
3	Zn 213.857†	7894.9	7176.8	163.68	µg/L	163.68 ppb	01:30:51

Mean Data: 245998002|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2009312.1	102.35	%	0.468				0.46%
Sc RADIAL	57753.1	102	%	0.3				0.33%
Y 371.029	1408901.0	104.15	%	0.450				0.43%
Ag 328.068†	-874.4	-0.4127	µg/L	0.28039	-0.4127	ppb	0.28039	67.93%
Al 396.153Radial†	92738.2	64514	µg/L	533.6	64514	ppb	533.6	0.83%
As 188.979†	7.4	17.124	µg/L	1.0800	17.124	ppb	1.0800	6.31%
B 249.677†	671.3	-14.328	µg/L	1.3761	-14.328	ppb	1.3761	9.60%
Ba 233.527†	48800.9	1171.8	µg/L	40.60	1171.8	ppb	40.60	3.46%
Be 313.107†	14504.2	7.2500	µg/L	0.32376	7.2500	ppb	0.32376	4.47%
Ca 317.933Radial†	18578.2	15869	µg/L	171.2	15869	ppb	171.2	1.08%
Cd 226.502†	296.0	-1.6232	µg/L	0.54500	-1.6232	ppb	0.54500	33.57%
Co 228.616†	914.6	33.981	µg/L	1.4458	33.981	ppb	1.4458	4.25%
Cr 267.716†	3200.4	64.377	µg/L	2.7803	64.377	ppb	2.7803	4.32%
Cu 324.752†	6987.1	56.741	µg/L	1.8082	56.741	ppb	1.8082	3.19%
Fe 238.204 Radial†	10155.2	80094	µg/L	995.6	80094	ppb	995.6	1.24%
K 766.490 Radial†	18449.2	12049	µg/L	72.2	12049	ppb	72.2	0.60%
Mg 279.077 IEC†	1392.5	12362	µg/L	134.4	12362	ppb	134.4	1.09%
Mn 257.610†	718724.1	2260.9	µg/L	58.33	2260.9	ppb	58.33	2.58%
Mo 202.031†	-0.0	3.0401	µg/L	0.30101	3.0401	ppb	0.30101	9.90%
Na 589.592 Radial†	976.4	299.88	µg/L	6.387	299.88	ppb	6.387	2.13%

Ni 231.604†	887.6	45.239	µg/L	2.6089	45.239	ppb	2.6089	5.77%
P 214.914†	606.4	1149.2	µg/L	81.72	1149.2	ppb	81.72	7.11%
Pb 220.353†	373.4	91.213	µg/L	4.8954	91.213	ppb	4.8954	5.37%
S 181.975 Axial†	230.6	956.41	µg/L	42.781	956.41	ppb	42.781	4.47%
Sb 206.836†	7.3	4.5490	µg/L	4.42212	4.5490	ppb	4.42212	97.21%
Se 196.026†	-36.4	152.26	µg/L	5.819	152.26	ppb	5.819	3.82%
SiO2†	318493.0	62866	µg/L	1326.9	62866	ppb	1326.9	2.11%
Si 251.611†	382971.3	29114	µg/L	608.5	29114	ppb	608.5	2.09%
Sn 189.927†	-33.5	-21.271	µg/L	1.1867	-21.271	ppb	1.1867	5.58%
Sr 421.552†	18358.1	169.36	µg/L	1.160	169.36	ppb	1.160	0.69%
Ti 334.940†	1611528.9	3564.3	µg/L	104.03	3564.3	ppb	104.03	2.92%
Tl 190.801†	-33.9	11.183	µg/L	1.2417	11.183	ppb	1.2417	11.10%
U 409.014†	-235.9	-31.697	µg/L	3.3055	-31.697	ppb	3.3055	10.43%
V 292.402†	15842.5	163.94	µg/L	6.135	163.94	ppb	6.135	3.74%
Zn 213.857†	7437.7	169.72	µg/L	5.401	169.72	ppb	5.401	3.18%

Sequence No.: 9
Sample ID: 245998003|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 209
Date Collected: 2/20/2010 01:31:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998003|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58351.7	58351.7	103	%			01:31:54
1	Al 396.153Radial†	230829.4	223479.6	155460	µg/L	155460	ppb	01:31:54
1	Ca 317.933Radial†	43139.8	41556.3	35497	µg/L	35497	ppb	01:31:54
1	Fe 238.204 Radial†	17702.1	17122.5	135040	µg/L	135040	ppb	01:32:14
1	K 766.490 Radial†	25501.5	24525.4	16018	µg/L	16018	ppb	01:31:54
1	Mg 279.077 IEC†	2467.8	2376.5	21099	µg/L	21099	ppb	01:32:14
1	Na 589.592 Radial†	4183.8	3578.5	1099.1	µg/L	1099.1	ppb	01:32:14
1	Sr 421.552†	34841.3	33704.2	310.93	µg/L	310.93	ppb	01:31:54
1	Sc 361.383	2015047.8	2015047.8	102.65	%			01:33:20
1	Y 371.029	1432225.8	1432225.8	105.87	%			01:33:20
1	Ag 328.068†	-2009.7	-1556.3	-1.3340	µg/L	-1.3340	ppb	01:33:25
1	As 188.979†	17.1	17.1	36.592	µg/L	36.592	ppb	01:33:46
1	B 249.677†	1363.0	943.7	-31.811	µg/L	-31.811	ppb	01:33:25
1	Ba 233.527†	94447.8	92031.0	2209.9	µg/L	2209.9	ppb	01:33:25
1	Be 313.107†	23765.6	26008.8	13.234	µg/L	13.234	ppb	01:33:25
1	Cd 226.502†	391.8	523.4	-2.1279	µg/L	-2.1279	ppb	01:33:25
1	Co 228.616†	1372.7	1335.4	48.414	µg/L	48.414	ppb	01:33:46
1	Cr 267.716†	6084.8	5978.4	120.24	µg/L	120.24	ppb	01:33:25
1	Cu 324.752†	9269.9	6487.2	61.116	µg/L	61.116	ppb	01:33:25
1	Mn 257.610†	968169.6	943475.8	2971.6	µg/L	2971.6	ppb	01:33:20
1	Mo 202.031†	-24.3	-18.3	3.3371	µg/L	3.3371	ppb	01:33:46
1	Ni 231.604†	1937.4	1575.1	80.202	µg/L	80.202	ppb	01:33:46
1	P 214.914†	800.7	764.7	1444.3	µg/L	1444.3	ppb	01:33:46
1	Pb 220.353†	589.0	482.9	120.84	µg/L	120.84	ppb	01:33:46
1	S 181.975 Axial†	161.9	138.8	575.73	µg/L	575.73	ppb	01:33:46
1	Sb 206.836†	33.6	10.3	4.9387	µg/L	4.9387	ppb	01:33:46
1	Se 196.026†	-60.9	-78.6	229.93	µg/L	229.93	ppb	01:33:46
1	SiO2†	317303.1	307734.6	60743	µg/L	60743	ppb	01:33:20
1	Si 251.611†	380414.6	370300.6	28151	µg/L	28151	ppb	01:33:20
1	Sn 189.927†	-52.4	-51.4	-33.781	µg/L	-33.781	ppb	01:33:46
1	Ti 334.940†	2681991.7	2612701.5	5778.8	µg/L	5778.8	ppb	01:33:20
1	Tl 190.801†	-79.2	-54.7	19.459	µg/L	19.459	ppb	01:33:46
1	U 409.014†	-1373.5	-1261.0	-125.71	µg/L	-125.71	ppb	01:33:20
1	V 292.402†	26881.1	26233.1	271.70	µg/L	271.70	ppb	01:33:25
1	Zn 213.857†	12009.6	11165.7	253.93	µg/L	253.93	ppb	01:33:25
2	Sc RADIAL	58566.6	58566.6	104	%			01:32:20
2	Al 396.153Radial†	232533.2	224303.1	156040	µg/L	156040	ppb	01:32:20
2	Ca 317.933Radial†	43350.8	41606.6	35539	µg/L	35539	ppb	01:32:20
2	Fe 238.204 Radial†	17802.4	17156.3	135310	µg/L	135310	ppb	01:32:41
2	K 766.490 Radial†	25643.1	24571.4	16048	µg/L	16048	ppb	01:32:20
2	Mg 279.077 IEC†	2484.6	2384.0	21165	µg/L	21165	ppb	01:32:41
2	Na 589.592 Radial†	4185.3	3565.1	1095.0	µg/L	1095.0	ppb	01:32:41
2	Sr 421.552†	35056.3	33787.8	311.70	µg/L	311.70	ppb	01:32:20
2	Sc 361.383	2005625.3	2005625.3	102.17	%			01:33:54
2	Y 371.029	1425788.7	1425788.7	105.40	%			01:33:54
2	Ag 328.068†	-2054.9	-1609.7	-1.7407	µg/L	-1.7407	ppb	01:33:59
2	As 188.979†	9.8	10.0	23.984	µg/L	23.984	ppb	01:34:20
2	B 249.677†	1342.6	930.0	-32.511	µg/L	-32.511	ppb	01:33:59
2	Ba 233.527†	92677.0	90729.9	2178.6	µg/L	2178.6	ppb	01:33:59
2	Be 313.107†	23347.9	25708.8	13.053	µg/L	13.053	ppb	01:33:59
2	Cd 226.502†	369.0	502.8	-2.6697	µg/L	-2.6697	ppb	01:33:59
2	Co 228.616†	1351.1	1320.5	47.724	µg/L	47.724	ppb	01:34:20
2	Cr 267.716†	5953.3	5877.5	118.21	µg/L	118.21	ppb	01:33:59
2	Cu 324.752†	9194.0	6455.4	60.945	µg/L	60.945	ppb	01:33:59
2	Mn 257.610†	964626.5	944439.1	2974.7	µg/L	2974.7	ppb	01:33:54
2	Mo 202.031†	-18.8	-13.0	3.8659	µg/L	3.8659	ppb	01:34:20
2	Ni 231.604†	1952.6	1598.9	81.391	µg/L	81.391	ppb	01:34:20
2	P 214.914†	793.0	760.9	1436.8	µg/L	1436.8	ppb	01:34:20
2	Pb 220.353†	581.8	478.5	119.79	µg/L	119.79	ppb	01:34:20

2	S 181.975 Axial†	164.1	141.7	587.64 µg/L	587.64 ppb	01:34:20
2	Sb 206.836†	38.8	15.5	9.7574 µg/L	9.7574 ppb	01:34:20
2	Se 196.026†	-66.3	-84.2	222.76 µg/L	222.76 ppb	01:34:20
2	SiO2†	316057.6	307967.7	60789 µg/L	60789 ppb	01:33:54
2	Si 251.611†	379054.9	370711.0	28182 µg/L	28182 ppb	01:33:54
2	Sn 189.927†	-44.6	-44.0	-30.663 µg/L	-30.663 ppb	01:34:20
2	Ti 334.940†	2673066.9	2616241.2	5786.6 µg/L	5786.6 ppb	01:33:54
2	Tl 190.801†	-76.8	-52.8	22.141 µg/L	22.141 ppb	01:34:20
2	U 409.014†	-1340.6	-1235.1	-123.59 µg/L	-123.59 ppb	01:33:54
2	V 292.402†	26310.5	25797.7	267.49 µg/L	267.49 ppb	01:33:59
2	Zn 213.857†	11802.9	11018.4	250.45 µg/L	250.45 ppb	01:33:59
3	Sc RADIAL	57961.8	57961.8	103 %		01:32:46
3	Al 396.153Radial†	231322.5	225463.8	156840 µg/L	156840 ppb	01:32:46
3	Ca 317.933Radial†	42982.8	41684.3	35606 µg/L	35606 ppb	01:32:46
3	Fe 238.204 Radial†	17729.7	17264.7	136170 µg/L	136170 ppb	01:33:06
3	K 766.490 Radial†	25394.3	24587.0	16058 µg/L	16058 ppb	01:32:46
3	Mg 279.077 IEC†	2468.7	2393.4	21249 µg/L	21249 ppb	01:33:06
3	Na 589.592 Radial†	4179.8	3601.9	1106.3 µg/L	1106.3 ppb	01:33:06
3	Sr 421.552†	34749.0	33841.2	312.19 µg/L	312.19 ppb	01:32:46
3	Sc 361.383	2008683.8	2008683.8	102.32 %		01:34:28
3	Y 371.029	1426230.1	1426230.1	105.43 %		01:34:28
3	Ag 328.068†	-1941.8	-1496.1	-0.9259 µg/L	-0.9259 ppb	01:34:33
3	As 188.979†	11.8	11.9	27.462 µg/L	27.462 ppb	01:34:54
3	B 249.677†	1311.0	897.1	-34.309 µg/L	-34.309 ppb	01:34:33
3	Ba 233.527†	89044.5	87041.7	2090.1 µg/L	2090.1 ppb	01:34:33
3	Be 313.107†	22100.6	24454.9	12.382 µg/L	12.382 ppb	01:34:33
3	Cd 226.502†	337.0	471.1	-3.5659 µg/L	-3.5659 ppb	01:34:33
3	Co 228.616†	1232.0	1202.1	42.762 µg/L	42.762 ppb	01:34:54
3	Cr 267.716†	5612.9	5536.0	111.34 µg/L	111.34 ppb	01:34:33
3	Cu 324.752†	8885.2	6139.9	59.005 µg/L	59.005 ppb	01:34:33
3	Mn 257.610†	940587.0	919507.2	2896.7 µg/L	2896.7 ppb	01:34:28
3	Mo 202.031†	-17.0	-11.3	4.0716 µg/L	4.0716 ppb	01:34:54
3	Ni 231.604†	1803.1	1449.8	73.978 µg/L	73.978 ppb	01:34:54
3	P 214.914†	722.1	690.4	1297.0 µg/L	1297.0 ppb	01:34:54
3	Pb 220.353†	558.7	455.1	114.11 µg/L	114.11 ppb	01:34:54
3	S 181.975 Axial†	149.2	126.9	526.18 µg/L	526.18 ppb	01:34:54
3	Sb 206.836†	28.6	5.4	0.5954 µg/L	0.5954 ppb	01:34:54
3	Se 196.026†	-50.8	-69.0	246.36 µg/L	246.36 ppb	01:34:54
3	SiO2†	309899.3	301478.1	59508 µg/L	59508 ppb	01:34:28
3	Si 251.611†	371611.7	362871.6	27586 µg/L	27586 ppb	01:34:28
3	Sn 189.927†	-46.0	-45.3	-31.297 µg/L	-31.297 ppb	01:34:54
3	Ti 334.940†	2588374.5	2529486.0	5594.7 µg/L	5594.7 ppb	01:34:28
3	Tl 190.801†	-79.9	-55.7	16.566 µg/L	16.566 ppb	01:34:54
3	U 409.014†	-1378.1	-1269.7	-126.59 µg/L	-126.59 ppb	01:34:28
3	V 292.402†	25068.8	24544.9	255.36 µg/L	255.36 ppb	01:34:33
3	Zn 213.857†	11339.0	10547.4	239.39 µg/L	239.39 ppb	01:34:33

Mean Data: 245998003|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2009785.6	102.38	%	0.245				0.24%
Sc RADIAL	58293.4	103	%	0.5				0.53%
Y 371.029	1428081.5	105.57	%	0.266				0.25%
Ag 328.068†	-1554.0	-1.3335	µg/L	0.40742	-1.3335	ppb	0.40742	30.55%
Al 396.153Radial†	224415.5	156120	µg/L	693.5	156120	ppb	693.5	0.44%
As 188.979†	13.0	29.346	µg/L	6.5116	29.346	ppb	6.5116	22.19%
B 249.677†	923.6	-32.877	µg/L	1.2883	-32.877	ppb	1.2883	3.92%
Ba 233.527†	89934.2	2159.5	µg/L	62.15	2159.5	ppb	62.15	2.88%
Be 313.107†	25390.9	12.890	µg/L	0.4489	12.890	ppb	0.4489	3.48%
Ca 317.933Radial†	41615.7	35547	µg/L	55.1	35547	ppb	55.1	0.15%
Cd 226.502†	499.1	-2.7878	µg/L	0.72627	-2.7878	ppb	0.72627	26.05%
Co 228.616†	1286.0	46.300	µg/L	3.0837	46.300	ppb	3.0837	6.66%
Cr 267.716†	5797.3	116.60	µg/L	4.663	116.60	ppb	4.663	4.00%
Cu 324.752†	6360.8	60.356	µg/L	1.1728	60.356	ppb	1.1728	1.94%
Fe 238.204 Radial†	17181.1	135510	µg/L	586.0	135510	ppb	586.0	0.43%
K 766.490 Radial†	24561.2	16041	µg/L	20.9	16041	ppb	20.9	0.13%
Mg 279.077 IEC†	2384.6	21171	µg/L	75.1	21171	ppb	75.1	0.35%
Mn 257.610†	935807.4	2947.7	µg/L	44.16	2947.7	ppb	44.16	1.50%
Mo 202.031†	-14.2	3.7582	µg/L	0.37891	3.7582	ppb	0.37891	10.08%
Na 589.592 Radial†	3581.9	1100.1	µg/L	5.72	1100.1	ppb	5.72	0.52%

Ni 231.604†	1541.3	78.524 µg/L	3.9809	78.524 ppb	3.9809	5.07%
P 214.914†	738.7	1392.7 µg/L	82.96	1392.7 ppb	82.96	5.96%
Pb 220.353†	472.2	118.25 µg/L	3.617	118.25 ppb	3.617	3.06%
S 181.975 Axial†	135.8	563.18 µg/L	32.598	563.18 ppb	32.598	5.79%
Sb 206.836†	10.4	5.0972 µg/L	4.58304	5.0972 ppb	4.58304	89.91%
Se 196.026†	-77.3	233.01 µg/L	12.100	233.01 ppb	12.100	5.19%
SiO2†	305726.8	60346 µg/L	726.6	60346 ppb	726.6	1.20%
Si 251.611†	367961.1	27973 µg/L	335.4	27973 ppb	335.4	1.20%
Sn 189.927†	-46.9	-31.913 µg/L	1.6481	-31.913 ppb	1.6481	5.16%
Sr 421.552†	33777.7	311.60 µg/L	0.637	311.60 ppb	0.637	0.20%
Ti 334.940†	2586142.9	5720.0 µg/L	108.62	5720.0 ppb	108.62	1.90%
Tl 190.801†	-54.4	19.389 µg/L	2.7882	19.389 ppb	2.7882	14.38%
U 409.014†	-1255.3	-125.30 µg/L	1.542	-125.30 ppb	1.542	1.23%
V 292.402†	25525.2	264.85 µg/L	8.481	264.85 ppb	8.481	3.20%
Zn 213.857†	10910.5	247.92 µg/L	7.591	247.92 ppb	7.591	3.06%

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 01:35:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57419.3	57419.3	102	%			01:35:43
1	Al 396.153Radial†	7273.3	7148.9	4962.6	µg/L	4962.6	ppb	01:35:43
1	Ca 317.933Radial†	6076.2	5767.2	4926.2	µg/L	4926.2	ppb	01:36:04
1	Fe 238.204 Radial†	668.4	641.0	5066.5	µg/L	5066.5	ppb	01:36:04
1	K 766.490 Radial†	7761.6	7471.8	4879.9	µg/L	4879.9	ppb	01:35:43
1	Mg 279.077 IEC†	582.0	559.9	5007.8	µg/L	5007.8	ppb	01:36:04
1	Na 589.592 Radial†	33078.6	32074.2	9851.4	µg/L	9851.4	ppb	01:35:43
1	Sr 421.552†	53197.6	52313.0	482.60	µg/L	482.60	ppb	01:35:43
1	Sc 361.383	2034231.0	2034231.0	103.62	%			01:37:07
1	Y 371.029	1401078.9	1401078.9	103.57	%			01:37:07
1	Ag 328.068†	68051.1	66073.8	493.05	µg/L	493.05	ppb	01:37:13
1	As 188.979†	299.7	289.7	518.21	µg/L	518.21	ppb	01:37:33
1	B 249.677†	12790.8	11959.5	485.61	µg/L	485.61	ppb	01:37:13
1	Ba 233.527†	21540.3	20804.3	500.35	µg/L	500.35	ppb	01:37:13
1	Be 313.107†	870171.9	842608.7	499.90	µg/L	499.90	ppb	01:37:07
1	Cd 226.502†	20795.1	20209.8	503.98	µg/L	503.98	ppb	01:37:13
1	Co 228.616†	11522.6	11117.9	502.92	µg/L	502.92	ppb	01:37:13
1	Cr 267.716†	26000.3	25141.8	505.29	µg/L	505.29	ppb	01:37:13
1	Cu 324.752†	80889.6	75518.2	493.65	µg/L	493.65	ppb	01:37:13
1	Mn 257.610†	168584.1	162946.9	510.74	µg/L	510.74	ppb	01:37:07
1	Mo 202.031†	5412.4	5228.5	512.20	µg/L	512.20	ppb	01:37:33
1	Ni 231.604†	10820.3	10129.7	504.43	µg/L	504.43	ppb	01:37:13
1	P 214.914†	1337.7	1275.6	2478.4	µg/L	2478.4	ppb	01:37:33
1	Pb 220.353†	2251.8	2082.1	506.35	µg/L	506.35	ppb	01:37:33
1	S 181.975 Axial†	270.9	242.5	1005.8	µg/L	1005.8	ppb	01:37:33
1	Sb 206.836†	601.8	558.3	514.73	µg/L	514.73	ppb	01:37:33
1	Se 196.026†	390.4	357.4	509.98	µg/L	509.98	ppb	01:37:33
1	SiO2†	29586.8	27161.0	5361.2	µg/L	5361.2	ppb	01:37:13
1	Si 251.611†	34523.3	33005.8	2509.2	µg/L	2509.2	ppb	01:37:13
1	Sn 189.927†	1266.8	1222.1	515.41	µg/L	515.41	ppb	01:37:33
1	Ti 334.940†	234198.4	225836.4	499.28	µg/L	499.28	ppb	01:37:07
1	Tl 190.801†	376.7	385.9	507.24	µg/L	507.24	ppb	01:37:33
1	U 409.014†	6139.1	6001.6	497.64	µg/L	497.64	ppb	01:37:13
1	V 292.402†	52802.2	51001.1	503.24	µg/L	503.24	ppb	01:37:13
1	Zn 213.857†	22812.8	21480.9	500.43	µg/L	500.43	ppb	01:37:13
2	Sc RADIAL	57564.5	57564.5	102	%			01:36:09
2	Al 396.153Radial†	7306.8	7163.8	4973.1	µg/L	4973.1	ppb	01:36:09
2	Ca 317.933Radial†	6109.1	5784.4	4940.9	µg/L	4940.9	ppb	01:36:30
2	Fe 238.204 Radial†	668.9	639.9	5057.7	µg/L	5057.7	ppb	01:36:30
2	K 766.490 Radial†	7818.3	7508.2	4903.7	µg/L	4903.7	ppb	01:36:09
2	Mg 279.077 IEC†	583.3	559.6	5005.7	µg/L	5005.7	ppb	01:36:30
2	Na 589.592 Radial†	33360.3	32268.7	9911.1	µg/L	9911.1	ppb	01:36:09
2	Sr 421.552†	53650.5	52625.5	485.48	µg/L	485.48	ppb	01:36:09
2	Sc 361.383	2011414.2	2011414.2	102.46	%			01:37:40
2	Y 371.029	1384320.1	1384320.1	102.33	%			01:37:40
2	Ag 328.068†	68129.8	66895.6	499.17	µg/L	499.17	ppb	01:37:46
2	As 188.979†	297.3	290.6	519.94	µg/L	519.94	ppb	01:38:07
2	B 249.677†	12762.8	12072.3	490.22	µg/L	490.22	ppb	01:37:46
2	Ba 233.527†	21511.3	21011.9	505.34	µg/L	505.34	ppb	01:37:46
2	Be 313.107†	857165.5	839440.6	498.02	µg/L	498.02	ppb	01:37:40
2	Cd 226.502†	20769.1	20412.1	509.04	µg/L	509.04	ppb	01:37:46
2	Co 228.616†	11488.3	11210.5	507.12	µg/L	507.12	ppb	01:37:46
2	Cr 267.716†	25975.8	25402.5	510.53	µg/L	510.53	ppb	01:37:46
2	Cu 324.752†	81008.6	76519.8	500.18	µg/L	500.18	ppb	01:37:46
2	Mn 257.610†	166212.0	162477.3	509.27	µg/L	509.27	ppb	01:37:40
2	Mo 202.031†	5296.2	5174.4	506.90	µg/L	506.90	ppb	01:38:07
2	Ni 231.604†	10788.5	10217.2	508.78	µg/L	508.78	ppb	01:37:46
2	P 214.914†	1313.4	1266.5	2459.7	µg/L	2459.7	ppb	01:38:07
2	Pb 220.353†	2218.7	2074.5	504.46	µg/L	504.46	ppb	01:38:07

2	S 181.975 Axial†	267.5	242.1	1004.0 µg/L	1004.0 ppb	01:38:07
2	Sb 206.836†	586.7	550.1	507.05 µg/L	507.05 ppb	01:38:07
2	Se 196.026†	392.7	363.9	519.07 µg/L	519.07 ppb	01:38:07
2	SiO2†	29613.1	27510.6	5430.2 µg/L	5430.2 ppb	01:37:46
2	Si 251.611†	34507.3	33368.1	2536.7 µg/L	2536.7 ppb	01:37:46
2	Sn 189.927†	1242.9	1212.7	511.45 µg/L	511.45 ppb	01:38:07
2	Ti 334.940†	231607.9	225872.0	499.36 µg/L	499.36 ppb	01:37:40
2	Tl 190.801†	376.6	389.9	512.47 µg/L	512.47 ppb	01:38:07
2	U 409.014†	6139.7	6069.4	503.27 µg/L	503.27 ppb	01:37:46
2	V 292.402†	52801.4	51578.4	508.85 µg/L	508.85 ppb	01:37:46
2	Zn 213.857†	22800.3	21718.5	505.97 µg/L	505.97 ppb	01:37:46
3	Sc RADIAL	57244.6	57244.6	101 %		01:36:35
3	Al 396.153Radial†	7255.4	7153.1	4967.6 µg/L	4967.6 ppb	01:36:35
3	Ca 317.933Radial†	6126.1	5834.7	4983.8 µg/L	4983.8 ppb	01:36:56
3	Fe 238.204 Radial†	671.1	645.7	5102.4 µg/L	5102.4 ppb	01:36:56
3	K 766.490 Radial†	7862.8	7594.9	4960.4 µg/L	4960.4 ppb	01:36:35
3	Mg 279.077 IEC†	592.0	571.5	5109.9 µg/L	5109.9 ppb	01:36:56
3	Na 589.592 Radial†	33278.2	32370.6	9942.4 µg/L	9942.4 ppb	01:36:35
3	Sr 421.552†	53507.0	52778.1	486.89 µg/L	486.89 ppb	01:36:35
3	Sc 361.383	2007877.4	2007877.4	102.28 %		01:38:14
3	Y 371.029	1383889.0	1383889.0	102.30 %		01:38:14
3	Ag 328.068†	63051.4	62047.6	462.82 µg/L	462.82 ppb	01:38:20
3	As 188.979†	242.2	237.3	424.54 µg/L	424.54 ppb	01:38:40
3	B 249.677†	11794.6	11147.5	452.38 µg/L	452.38 ppb	01:38:20
3	Ba 233.527†	19114.6	18705.6	449.86 µg/L	449.86 ppb	01:38:20
3	Be 313.107†	777323.4	762851.8	452.59 µg/L	452.59 ppb	01:38:14
3	Cd 226.502†	18378.3	18110.4	451.56 µg/L	451.56 ppb	01:38:20
3	Co 228.616†	10053.9	9827.9	444.52 µg/L	444.52 ppb	01:38:20
3	Cr 267.716†	21927.7	21489.3	431.89 µg/L	431.89 ppb	01:38:20
3	Cu 324.752†	71363.4	67228.9	439.54 µg/L	439.54 ppb	01:38:20
3	Mn 257.610†	151239.3	148124.0	464.33 µg/L	464.33 ppb	01:38:14
3	Mo 202.031†	4315.7	4224.8	413.91 µg/L	413.91 ppb	01:38:40
3	Ni 231.604†	9486.5	8962.7	446.32 µg/L	446.32 ppb	01:38:20
3	P 214.914†	1092.4	1052.7	2041.2 µg/L	2041.2 ppb	01:38:40
3	Pb 220.353†	1885.6	1752.6	426.13 µg/L	426.13 ppb	01:38:40
3	S 181.975 Axial†	228.9	204.8	849.49 µg/L	849.49 ppb	01:38:40
3	Sb 206.836†	488.5	455.1	419.26 µg/L	419.26 ppb	01:38:40
3	Se 196.026†	335.3	308.5	441.24 µg/L	441.24 ppb	01:38:40
3	SiO2†	26932.2	24940.3	4922.9 µg/L	4922.9 ppb	01:38:20
3	Si 251.611†	31223.7	30217.1	2297.2 µg/L	2297.2 ppb	01:38:20
3	Sn 189.927†	1002.7	980.0	413.30 µg/L	413.30 ppb	01:38:40
3	Ti 334.940†	208100.4	203286.6	449.39 µg/L	449.39 ppb	01:38:14
3	Tl 190.801†	327.4	342.5	450.33 µg/L	450.33 ppb	01:38:40
3	U 409.014†	5238.9	5199.2	430.96 µg/L	430.96 ppb	01:38:20
3	V 292.402†	45692.1	44718.3	441.02 µg/L	441.02 ppb	01:38:20
3	Zn 213.857†	20094.2	19111.9	445.18 µg/L	445.18 ppb	01:38:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2017840.8	102.79	%	0.729				0.71%
Sc RADIAL	57409.5	102	%	0.3				0.28%
Y 371.029	1389762.7	102.74	%	0.725				0.71%
Ag 328.068†	65005.7	485.01	µg/L	19.462	485.01	ppb	19.462	4.01%
QC value within limits for Ag 328.068 Recovery = 97.00%								
Al 396.153Radial†	7155.3	4967.8	µg/L	5.22	4967.8	ppb	5.22	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.36%								
As 188.979†	272.5	487.56	µg/L	54.586	487.56	ppb	54.586	11.20%
QC value within limits for As 188.979 Recovery = 97.51%								
B 249.677†	11726.4	476.07	µg/L	20.645	476.07	ppb	20.645	4.34%
QC value within limits for B 249.677 Recovery = 95.21%								
Ba 233.527†	20174.0	485.18	µg/L	30.696	485.18	ppb	30.696	6.33%
QC value within limits for Ba 233.527 Recovery = 97.04%								
Be 313.107†	814967.0	483.50	µg/L	26.792	483.50	ppb	26.792	5.54%
QC value within limits for Be 313.107 Recovery = 96.70%								
Ca 317.933Radial†	5795.4	4950.3	µg/L	29.95	4950.3	ppb	29.95	0.60%
QC value within limits for Ca 317.933Radial Recovery = 99.01%								
Cd 226.502†	19577.4	488.19	µg/L	31.826	488.19	ppb	31.826	6.52%
QC value within limits for Cd 226.502 Recovery = 97.64%								
Co 228.616†	10718.8	484.85	µg/L	34.993	484.85	ppb	34.993	7.22%

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   QC value within limits for Co 228.616  Recovery = 96.97%
Cr 267.716†            24011.2      482.57 µg/L        43.969      482.57 ppb         43.969   9.11%
   QC value within limits for Cr 267.716  Recovery = 96.51%
Cu 324.752†            73089.0      477.79 µg/L        33.284      477.79 ppb         33.284   6.97%
   QC value within limits for Cu 324.752  Recovery = 95.56%
Fe 238.204 Radial†       642.2      5075.5 µg/L         23.69      5075.5 ppb          23.69   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.51%
K 766.490 Radial†       7525.0      4914.7 µg/L         41.31      4914.7 ppb          41.31   0.84%
   QC value within limits for K 766.490 Radial  Recovery = 98.29%
Mg 279.077 IEC†          563.7      5041.1 µg/L         59.58      5041.1 ppb          59.58   1.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.82%
Mn 257.610†           157849.4      494.78 µg/L        26.384      494.78 ppb         26.384   5.33%
   QC value within limits for Mn 257.610  Recovery = 98.96%
Mo 202.031†             4875.9      477.67 µg/L        55.281      477.67 ppb         55.281  11.57%
   QC value within limits for Mo 202.031  Recovery = 95.53%
Na 589.592 Radial†     32237.8      9901.6 µg/L         46.24      9901.6 ppb          46.24   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 99.02%
Ni 231.604†             9769.8      486.51 µg/L        34.873      486.51 ppb         34.873   7.17%
   QC value within limits for Ni 231.604  Recovery = 97.30%
P 214.914†              1198.3      2326.4 µg/L        247.17      2326.4 ppb         247.17  10.62%
   QC value within limits for P 214.914  Recovery = 93.06%
Pb 220.353†             1969.8      478.98 µg/L        45.779      478.98 ppb         45.779   9.56%
   QC value within limits for Pb 220.353  Recovery = 95.80%
S 181.975 Axial†         229.8      953.10 µg/L        89.732      953.10 ppb         89.732   9.41%
   QC value within limits for S 181.975 Axial  Recovery = 95.31%
Sb 206.836†              521.2      480.34 µg/L        53.042      480.34 ppb         53.042  11.04%
   QC value within limits for Sb 206.836  Recovery = 96.07%
Se 196.026†              343.3      490.10 µg/L        42.553      490.10 ppb         42.553   8.68%
   QC value within limits for Se 196.026  Recovery = 98.02%
SiO2†                  26537.3      5238.1 µg/L        275.17      5238.1 ppb         275.17   5.25%
   QC value within limits for SiO2  Recovery = 97.95%
Si 251.611†            32197.0      2447.7 µg/L        131.08      2447.7 ppb         131.08   5.36%
   QC value within limits for Si 251.611  Recovery = 97.91%
Sn 189.927†             1138.3      480.05 µg/L        57.847      480.05 ppb         57.847  12.05%
   QC value within limits for Sn 189.927  Recovery = 96.01%
Sr 421.552†            52572.2      484.99 µg/L         2.187      484.99 ppb          2.187   0.45%
   QC value within limits for Sr 421.552  Recovery = 97.00%
Ti 334.940†           218331.7      482.68 µg/L        28.828      482.68 ppb         28.828   5.97%
   QC value within limits for Ti 334.940  Recovery = 96.54%
Tl 190.801†              372.8      490.01 µg/L        34.467      490.01 ppb         34.467   7.03%
   QC value within limits for Tl 190.801  Recovery = 98.00%
U 409.014†              5756.7      477.29 µg/L        40.220      477.29 ppb         40.220   8.43%
   QC value within limits for U 409.014  Recovery = 95.46%
V 292.402†             49099.3      484.37 µg/L        37.644      484.37 ppb         37.644   7.77%
   QC value within limits for V 292.402  Recovery = 96.87%
Zn 213.857†            20770.4      483.86 µg/L        33.610      483.86 ppb         33.610   6.95%
   QC value within limits for Zn 213.857  Recovery = 96.77%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 01:38:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57135.1	57135.1	101	%			01:39:22
1	Al 396.153Radial†	34.8	27.0	18.768	µg/L	18.768	ppb	01:39:22
1	Ca 317.933Radial†	207.1	-6.4	-5.4954	µg/L	-5.4954	ppb	01:39:43
1	Fe 238.204 Radial†	23.1	6.3	49.660	µg/L	49.660	ppb	01:39:43
1	K 766.490 Radial†	205.9	38.7	25.245	µg/L	25.245	ppb	01:39:22
1	Mg 279.077 IEC†	7.2	-5.7	-51.077	µg/L	-51.077	ppb	01:39:43
1	Na 589.592 Radial†	453.8	-23.5	-7.2226	µg/L	-7.2226	ppb	01:39:22
1	Sr 421.552†	70.3	40.7	0.3759	µg/L	0.3759	ppb	01:39:22
1	Sc 361.383	2042257.0	2042257.0	104.03	%			01:40:45
1	Y 371.029	1411266.5	1411266.5	104.33	%			01:40:45
1	Ag 328.068†	-373.7	42.4	0.3160	µg/L	0.3160	ppb	01:40:50
1	As 188.979†	2.2	2.5	4.5612	µg/L	4.5612	ppb	01:41:11
1	B 249.677†	379.7	-19.2	-0.8084	µg/L	-0.8084	ppb	01:41:11
1	Ba 233.527†	13.4	30.0	0.7187	µg/L	0.7187	ppb	01:41:11
1	Be 313.107†	-2631.9	325.8	0.1929	µg/L	0.1929	ppb	01:40:50
1	Cd 226.502†	-140.5	6.6	0.1583	µg/L	0.1583	ppb	01:41:11
1	Co 228.616†	13.2	10.8	0.4861	µg/L	0.4861	ppb	01:41:11
1	Cr 267.716†	-53.6	-1.2	-0.0241	µg/L	-0.0241	ppb	01:40:50
1	Cu 324.752†	2611.5	-33.4	-0.2113	µg/L	-0.2113	ppb	01:40:50
1	Mn 257.610†	14.5	269.9	0.8539	µg/L	0.8539	ppb	01:41:11
1	Mo 202.031†	2.8	8.0	0.7888	µg/L	0.7888	ppb	01:41:11
1	Ni 231.604†	315.0	-9.6	-0.4765	µg/L	-0.4765	ppb	01:41:11
1	P 214.914†	6.3	-9.3	-18.376	µg/L	-18.376	ppb	01:41:11
1	Pb 220.353†	88.8	-5.6	-1.3648	µg/L	-1.3648	ppb	01:41:11
1	S 181.975 Axial†	16.7	-2.9	-11.978	µg/L	-11.978	ppb	01:41:11
1	Sb 206.836†	22.2	-1.1	-1.0285	µg/L	-1.0285	ppb	01:41:11
1	Se 196.026†	21.8	1.7	2.5009	µg/L	2.5009	ppb	01:41:11
1	SiO2†	1521.5	71.0	14.008	µg/L	14.008	ppb	01:40:50
1	Si 251.611†	464.1	135.5	10.301	µg/L	10.301	ppb	01:41:11
1	Sn 189.927†	2.6	2.1	0.8882	µg/L	0.8882	ppb	01:41:11
1	Ti 334.940†	768.8	564.0	1.2516	µg/L	1.2516	ppb	01:40:50
1	Tl 190.801†	-21.5	1.7	2.2435	µg/L	2.2435	ppb	01:41:11
1	U 409.014†	-79.9	0.2	0.0140	µg/L	0.0140	ppb	01:40:50
1	V 292.402†	-69.0	-21.6	-0.1984	µg/L	-0.1984	ppb	01:40:50
1	Zn 213.857†	544.5	-11.0	-0.2547	µg/L	-0.2547	ppb	01:41:11
2	Sc RADIAL	57590.6	57590.6	102	%			01:39:48
2	Al 396.153Radial†	40.9	32.7	22.776	µg/L	22.776	ppb	01:39:48
2	Ca 317.933Radial†	207.8	-7.4	-6.3495	µg/L	-6.3495	ppb	01:40:09
2	Fe 238.204 Radial†	20.9	3.9	30.891	µg/L	30.891	ppb	01:40:09
2	K 766.490 Radial†	147.6	-20.2	-13.199	µg/L	-13.199	ppb	01:39:48
2	Mg 279.077 IEC†	10.5	-2.5	-22.537	µg/L	-22.537	ppb	01:40:09
2	Na 589.592 Radial†	425.0	-55.2	-16.966	µg/L	-16.966	ppb	01:39:48
2	Sr 421.552†	29.7	0.4	0.0032	µg/L	0.0032	ppb	01:39:48
2	Sc 361.383	2039883.2	2039883.2	103.91	%			01:41:17
2	Y 371.029	1409921.3	1409921.3	104.23	%			01:41:17
2	Ag 328.068†	-373.1	42.5	0.3150	µg/L	0.3150	ppb	01:41:22
2	As 188.979†	-3.5	-2.9	-5.1760	µg/L	-5.1760	ppb	01:41:43
2	B 249.677†	359.3	-38.4	-1.5807	µg/L	-1.5807	ppb	01:41:43
2	Ba 233.527†	-1.7	15.4	0.3695	µg/L	0.3695	ppb	01:41:43
2	Be 313.107†	-2593.5	359.8	0.2130	µg/L	0.2130	ppb	01:41:22
2	Cd 226.502†	-142.2	4.9	0.1169	µg/L	0.1169	ppb	01:41:43
2	Co 228.616†	13.6	11.1	0.5020	µg/L	0.5020	ppb	01:41:43
2	Cr 267.716†	-56.9	-4.4	-0.0888	µg/L	-0.0888	ppb	01:41:22
2	Cu 324.752†	2578.4	-62.4	-0.4030	µg/L	-0.4030	ppb	01:41:22
2	Mn 257.610†	-100.9	158.9	0.5026	µg/L	0.5026	ppb	01:41:43
2	Mo 202.031†	-3.5	2.0	0.1992	µg/L	0.1992	ppb	01:41:43
2	Ni 231.604†	312.1	-12.0	-0.5974	µg/L	-0.5974	ppb	01:41:43
2	P 214.914†	8.1	-7.5	-14.853	µg/L	-14.853	ppb	01:41:43
2	Pb 220.353†	89.5	-4.8	-1.1656	µg/L	-1.1656	ppb	01:41:43

2	S 181.975 Axial†	19.3	-0.4	-1.5228 µg/L	-1.5228 ppb	01:41:43
2	Sb 206.836†	15.6	-7.5	-6.8664 µg/L	-6.8664 ppb	01:41:43
2	Se 196.026†	20.8	0.7	1.1221 µg/L	1.1221 ppb	01:41:43
2	SiO2†	1543.7	94.1	18.568 µg/L	18.568 ppb	01:41:22
2	Si 251.611†	427.6	100.9	7.6718 µg/L	7.6718 ppb	01:41:43
2	Sn 189.927†	4.2	3.6	1.5286 µg/L	1.5286 ppb	01:41:43
2	Ti 334.940†	818.7	612.8	1.3574 µg/L	1.3574 ppb	01:41:22
2	Tl 190.801†	-26.6	-3.2	-4.1746 µg/L	-4.1746 ppb	01:41:43
2	U 409.014†	-39.9	38.7	3.2106 µg/L	3.2106 ppb	01:41:22
2	V 292.402†	-78.3	-30.6	-0.2901 µg/L	-0.2901 ppb	01:41:22
2	Zn 213.857†	543.6	-11.2	-0.2603 µg/L	-0.2603 ppb	01:41:43
3	Sc RADIAL	57858.1	57858.1	102 %		01:40:14
3	Al 396.153Radial†	22.7	14.8	10.295 µg/L	10.295 ppb	01:40:14
3	Ca 317.933Radial†	203.2	-12.8	-10.971 µg/L	-10.971 ppb	01:40:34
3	Fe 238.204 Radial†	18.8	1.8	13.850 µg/L	13.850 ppb	01:40:34
3	K 766.490 Radial†	204.6	34.8	22.747 µg/L	22.747 ppb	01:40:14
3	Mg 279.077 IEC†	12.5	-0.6	-5.2130 µg/L	-5.2130 ppb	01:40:34
3	Na 589.592 Radial†	471.2	-12.1	-3.7085 µg/L	-3.7085 ppb	01:40:14
3	Sr 421.552†	56.0	25.9	0.2389 µg/L	0.2389 ppb	01:40:14
3	Sc 361.383	2024319.1	2024319.1	103.12 %		01:41:49
3	Y 371.029	1399185.8	1399185.8	103.43 %		01:41:49
3	Ag 328.068†	-371.4	41.4	0.3087 µg/L	0.3087 ppb	01:41:54
3	As 188.979†	-3.1	-2.5	-4.5057 µg/L	-4.5057 ppb	01:42:15
3	B 249.677†	362.3	-32.8	-1.3442 µg/L	-1.3442 ppb	01:42:15
3	Ba 233.527†	3.3	20.3	0.4872 µg/L	0.4872 ppb	01:42:15
3	Be 313.107†	-2633.5	301.8	0.1788 µg/L	0.1788 ppb	01:41:54
3	Cd 226.502†	-140.5	5.4	0.1335 µg/L	0.1335 ppb	01:42:15
3	Co 228.616†	9.3	7.1	0.3187 µg/L	0.3187 ppb	01:42:15
3	Cr 267.716†	-65.5	-13.1	-0.2632 µg/L	-0.2632 ppb	01:41:54
3	Cu 324.752†	2611.5	-11.2	-0.0709 µg/L	-0.0709 ppb	01:41:54
3	Mn 257.610†	-129.8	130.1	0.4095 µg/L	0.4095 ppb	01:42:15
3	Mo 202.031†	1.2	6.5	0.6372 µg/L	0.6372 ppb	01:42:15
3	Ni 231.604†	315.4	-6.5	-0.3221 µg/L	-0.3221 ppb	01:42:15
3	P 214.914†	8.2	-7.4	-14.525 µg/L	-14.525 ppb	01:42:15
3	Pb 220.353†	92.1	-1.6	-0.3905 µg/L	-0.3905 ppb	01:42:15
3	S 181.975 Axial†	16.0	-3.4	-14.142 µg/L	-14.142 ppb	01:42:15
3	Sb 206.836†	29.1	5.7	5.2807 µg/L	5.2807 ppb	01:42:15
3	Se 196.026†	15.7	-4.1	-5.7582 µg/L	-5.7582 ppb	01:42:15
3	SiO2†	1504.9	67.8	13.386 µg/L	13.386 ppb	01:41:54
3	Si 251.611†	417.2	93.9	7.1408 µg/L	7.1408 ppb	01:42:15
3	Sn 189.927†	6.9	6.3	2.6486 µg/L	2.6486 ppb	01:42:15
3	Ti 334.940†	558.7	366.7	0.8115 µg/L	0.8115 ppb	01:41:54
3	Tl 190.801†	-25.8	-2.7	-3.4593 µg/L	-3.4593 ppb	01:42:15
3	U 409.014†	-73.9	5.4	0.4508 µg/L	0.4508 ppb	01:41:54
3	V 292.402†	-26.6	19.0	0.1913 µg/L	0.1913 ppb	01:41:54
3	Zn 213.857†	538.1	-12.6	-0.2940 µg/L	-0.2940 ppb	01:42:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2035486.5	103.69	%	0.496				0.48%
Sc RADIAL	57527.9	102	%	0.6				0.64%
Y 371.029	1406791.2	103.99	%	0.489				0.47%
Ag 328.068†	42.1	0.3132	µg/L	0.00393	0.3132	ppb	0.00393	1.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.9	17.280	µg/L	6.3721	17.280	ppb	6.3721	36.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.7068	µg/L	5.43858	-1.7068	ppb	5.43858	318.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.1	-1.2444	µg/L	0.39571	-1.2444	ppb	0.39571	31.80%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.9	0.5252	µg/L	0.17766	0.5252	ppb	0.17766	33.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	329.1	0.1949	µg/L	0.01720	0.1949	ppb	0.01720	8.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.9	-7.6052	µg/L	2.94566	-7.6052	ppb	2.94566	38.73%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.6	0.1362	µg/L	0.02082	0.1362	ppb	0.02082	15.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.7	0.4356	µg/L	0.10158	0.4356	ppb	0.10158	23.32%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.2     -0.1253 µg/L       0.12371     -0.1253 ppb        0.12371  98.69%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -35.7     -0.2284 µg/L       0.16671     -0.2284 ppb        0.16671  73.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          4.0      31.467 µg/L       17.9117      31.467 ppb        17.9117  56.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          17.8      11.597 µg/L       21.5107      11.597 ppb        21.5107 185.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.9     -26.276 µg/L       23.1597     -26.276 ppb        23.1597  88.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               186.3      0.5887 µg/L       0.23433      0.5887 ppb        0.23433  39.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.5      0.5417 µg/L       0.30616      0.5417 ppb        0.30616  56.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -30.3     -9.2991 µg/L       6.86854     -9.2991 ppb        6.86854  73.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.3     -0.4653 µg/L       0.13799     -0.4653 ppb        0.13799  29.66%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.1     -15.918 µg/L        2.1350     -15.918 ppb         2.1350  13.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.0     -0.9736 µg/L       0.51474     -0.9736 ppb        0.51474  52.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.2     -9.2142 µg/L       6.74825     -9.2142 ppb        6.74825  73.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.0     -0.8714 µg/L       6.07511     -0.8714 ppb        6.07511 697.16%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.6     -0.7117 µg/L       4.42438     -0.7117 ppb        4.42438 621.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      77.6      15.321 µg/L        2.8290      15.321 ppb         2.8290  18.47%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               110.1      8.3713 µg/L       1.69231      8.3713 ppb        1.69231  20.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.0      1.6885 µg/L       0.89104      1.6885 ppb        0.89104  52.77%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.3      0.2060 µg/L       0.18848      0.2060 ppb        0.18848  91.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               514.5      1.1402 µg/L       0.28950      1.1402 ppb        0.28950  25.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.4     -1.7968 µg/L       3.51725     -1.7968 ppb        3.51725 195.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 14.8      1.2252 µg/L       1.73329      1.2252 ppb        1.73329 141.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -11.1     -0.0991 µg/L       0.25565     -0.0991 ppb        0.25565 258.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -11.6     -0.2697 µg/L       0.02125     -0.2697 ppb        0.02125   7.88%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: 245998004|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 210
Date Collected: 2/20/2010 01:42:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998004|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58623.5	58623.5	104	%			01:43:05
1	Al 396.153Radial†	97037.5	93507.9	65049	µg/L	65049	ppb	01:43:05
1	Ca 317.933Radial†	15630.8	14852.2	12686	µg/L	12686	ppb	01:43:25
1	Fe 238.204 Radial†	11692.5	11251.5	88740	µg/L	88740	ppb	01:43:25
1	K 766.490 Radial†	18204.5	17378.7	11350	µg/L	11350	ppb	01:43:05
1	Mg 279.077 IEC†	1418.2	1353.9	12007	µg/L	12007	ppb	01:43:25
1	Na 589.592 Radial†	1904.6	1363.3	418.71	µg/L	418.71	ppb	01:43:25
1	Sr 421.552†	16262.7	15643.6	144.31	µg/L	144.31	ppb	01:43:25
1	Sc 361.383	2024514.5	2024514.5	103.13	%			01:44:29
1	Y 371.029	1421678.3	1421678.3	105.09	%			01:44:29
1	Ag 328.068†	-1410.6	-966.2	-0.5143	µg/L	-0.5143	ppb	01:44:35
1	As 188.979†	12.0	12.1	26.235	µg/L	26.235	ppb	01:44:56
1	B 249.677†	1003.9	589.3	-22.167	µg/L	-22.167	ppb	01:44:35
1	Ba 233.527†	47176.3	45762.8	1098.9	µg/L	1098.9	ppb	01:44:35
1	Be 313.107†	12778.6	15246.8	7.6864	µg/L	7.6864	ppb	01:44:35
1	Cd 226.502†	215.8	351.0	-1.2239	µg/L	-1.2239	ppb	01:44:56
1	Co 228.616†	919.8	890.0	32.841	µg/L	32.841	ppb	01:44:56
1	Cr 267.716†	3776.9	3712.7	74.671	µg/L	74.671	ppb	01:44:35
1	Cu 324.752†	9992.1	7145.4	58.976	µg/L	58.976	ppb	01:44:35
1	Mn 257.610†	823024.0	798321.3	2511.3	µg/L	2511.3	ppb	01:44:29
1	Mo 202.031†	1.0	6.3	3.9931	µg/L	3.9931	ppb	01:44:56
1	Ni 231.604†	1367.0	1013.2	51.615	µg/L	51.615	ppb	01:44:56
1	P 214.914†	743.9	706.0	1339.4	µg/L	1339.4	ppb	01:44:56
1	Pb 220.353†	521.5	414.7	100.91	µg/L	100.91	ppb	01:44:56
1	S 181.975 Axial†	165.4	141.4	586.48	µg/L	586.48	ppb	01:44:56
1	Sb 206.836†	31.0	7.6	5.0416	µg/L	5.0416	ppb	01:44:56
1	Se 196.026†	-26.5	-45.0	165.09	µg/L	165.09	ppb	01:44:56
1	SiO2†	304147.6	293532.5	57939	µg/L	57939	ppb	01:44:29
1	Si 251.611†	364415.3	353053.6	26840	µg/L	26840	ppb	01:44:29
1	Sn 189.927†	-28.5	-28.0	-19.895	µg/L	-19.895	ppb	01:44:56
1	Ti 334.940†	1667441.8	1616700.5	3575.7	µg/L	3575.7	ppb	01:44:29
1	Tl 190.801†	-64.7	-40.4	5.5253	µg/L	5.5253	ppb	01:44:56
1	U 409.014†	296.3	364.4	17.170	µg/L	17.170	ppb	01:44:35
1	V 292.402†	16834.7	16368.9	170.17	µg/L	170.17	ppb	01:44:35
1	Zn 213.857†	10466.3	9614.5	220.37	µg/L	220.37	ppb	01:44:35
2	Sc RADIAL	58805.2	58805.2	104	%			01:43:31
2	Al 396.153Radial†	98274.1	94407.1	65675	µg/L	65675	ppb	01:43:31
2	Ca 317.933Radial†	15697.7	14870.0	12702	µg/L	12702	ppb	01:43:51
2	Fe 238.204 Radial†	11743.4	11265.6	88852	µg/L	88852	ppb	01:43:51
2	K 766.490 Radial†	18336.9	17451.7	11398	µg/L	11398	ppb	01:43:31
2	Mg 279.077 IEC†	1437.8	1368.5	12137	µg/L	12137	ppb	01:43:51
2	Na 589.592 Radial†	1930.7	1382.6	424.67	µg/L	424.67	ppb	01:43:51
2	Sr 421.552†	16340.6	15670.1	144.56	µg/L	144.56	ppb	01:43:51
2	Sc 361.383	2018527.3	2018527.3	102.82	%			01:45:03
2	Y 371.029	1416437.2	1416437.2	104.71	%			01:45:03
2	Ag 328.068†	-1443.1	-1001.8	-0.7540	µg/L	-0.7540	ppb	01:45:08
2	As 188.979†	9.6	9.8	22.008	µg/L	22.008	ppb	01:45:29
2	B 249.677†	986.7	575.5	-22.786	µg/L	-22.786	ppb	01:45:08
2	Ba 233.527†	47616.8	46326.9	1112.5	µg/L	1112.5	ppb	01:45:08
2	Be 313.107†	12876.2	15378.5	7.7665	µg/L	7.7665	ppb	01:45:08
2	Cd 226.502†	207.9	343.9	-1.4135	µg/L	-1.4135	ppb	01:45:29
2	Co 228.616†	925.2	897.9	33.210	µg/L	33.210	ppb	01:45:29
2	Cr 267.716†	3854.3	3798.9	76.404	µg/L	76.404	ppb	01:45:08
2	Cu 324.752†	10091.5	7270.7	59.810	µg/L	59.810	ppb	01:45:08
2	Mn 257.610†	819632.3	797389.8	2508.4	µg/L	2508.4	ppb	01:45:03
2	Mo 202.031†	-2.4	3.0	3.6740	µg/L	3.6740	ppb	01:45:29
2	Ni 231.604†	1357.5	1007.9	51.348	µg/L	51.348	ppb	01:45:29
2	P 214.914†	747.0	711.2	1349.6	µg/L	1349.6	ppb	01:45:29
2	Pb 220.353†	520.6	415.4	101.11	µg/L	101.11	ppb	01:45:29

2	S 181.975 Axial†	165.1	141.6	587.27 µg/L	587.27 ppb	01:45:29
2	Sb 206.836†	35.3	11.9	8.9328 µg/L	8.9328 ppb	01:45:29
2	Se 196.026†	-40.8	-59.0	145.64 µg/L	145.64 ppb	01:45:29
2	SiO2†	302466.3	292772.2	57789 µg/L	57789 ppb	01:45:03
2	Si 251.611†	362779.3	352510.6	26799 µg/L	26799 ppb	01:45:03
2	Sn 189.927†	-29.7	-29.2	-20.431 µg/L	-20.431 ppb	01:45:29
2	Ti 334.940†	1660130.7	1614386.0	3570.6 µg/L	3570.6 ppb	01:45:03
2	Tl 190.801†	-58.9	-34.9	12.584 µg/L	12.584 ppb	01:45:29
2	U 409.014†	240.7	311.1	12.725 µg/L	12.725 ppb	01:45:08
2	V 292.402†	17058.7	16635.2	172.78 µg/L	172.78 ppb	01:45:08
2	Zn 213.857†	10578.8	9754.0	223.63 µg/L	223.63 ppb	01:45:08
3	Sc RADIAL	58509.4	58509.4	104 %		01:43:57
3	Al 396.153Radial†	98477.5	95080.7	66143 µg/L	66143 ppb	01:43:57
3	Ca 317.933Radial†	15740.1	14987.1	12802 µg/L	12802 ppb	01:44:17
3	Fe 238.204 Radial†	11781.1	11359.0	89589 µg/L	89589 ppb	01:44:17
3	K 766.490 Radial†	18264.5	17470.9	11411 µg/L	11411 ppb	01:43:57
3	Mg 279.077 IEC†	1440.4	1378.0	12222 µg/L	12222 ppb	01:44:17
3	Na 589.592 Radial†	1938.5	1399.6	429.87 µg/L	429.87 ppb	01:44:17
3	Sr 421.552†	16382.6	15789.9	145.66 µg/L	145.66 ppb	01:44:17
3	Sc 361.383	2030375.6	2030375.6	103.43 %		01:45:36
3	Y 371.029	1423632.7	1423632.7	105.24 %		01:45:36
3	Ag 328.068†	-1369.0	-922.1	-0.1839 µg/L	-0.1839 ppb	01:45:42
3	As 188.979†	4.7	5.0	13.569 µg/L	13.569 ppb	01:46:02
3	B 249.677†	984.8	568.1	-23.481 µg/L	-23.481 ppb	01:45:42
3	Ba 233.527†	45306.8	43823.1	1052.3 µg/L	1052.3 ppb	01:45:42
3	Be 313.107†	12223.6	14674.4	7.3915 µg/L	7.3915 ppb	01:45:42
3	Cd 226.502†	165.9	302.1	-2.5434 µg/L	-2.5434 ppb	01:46:02
3	Co 228.616†	838.4	808.6	29.404 µg/L	29.404 ppb	01:46:02
3	Cr 267.716†	3579.9	3511.7	70.630 µg/L	70.630 ppb	01:45:42
3	Cu 324.752†	9734.0	6867.8	57.282 µg/L	57.282 ppb	01:45:42
3	Mn 257.610†	801287.4	775000.9	2438.4 µg/L	2438.4 ppb	01:45:36
3	Mo 202.031†	8.9	14.0	4.7712 µg/L	4.7712 ppb	01:46:02
3	Ni 231.604†	1260.9	906.8	46.325 µg/L	46.325 ppb	01:46:02
3	P 214.914†	676.7	638.9	1206.3 µg/L	1206.3 ppb	01:46:02
3	Pb 220.353†	496.3	388.9	94.676 µg/L	94.676 ppb	01:46:02
3	S 181.975 Axial†	151.0	127.0	526.83 µg/L	526.83 ppb	01:46:02
3	Sb 206.836†	27.1	3.7	1.5057 µg/L	1.5057 ppb	01:46:02
3	Se 196.026†	-31.7	-50.0	160.13 µg/L	160.13 ppb	01:46:02
3	SiO2†	298889.7	287597.5	56768 µg/L	56768 ppb	01:45:36
3	Si 251.611†	358336.3	346155.8	26315 µg/L	26315 ppb	01:45:36
3	Sn 189.927†	-29.1	-28.5	-20.178 µg/L	-20.178 ppb	01:46:02
3	Ti 334.940†	1617235.0	1563489.4	3458.0 µg/L	3458.0 ppb	01:45:36
3	Tl 190.801†	-48.4	-24.5	25.073 µg/L	25.073 ppb	01:46:02
3	U 409.014†	178.5	249.6	7.5083 µg/L	7.5083 ppb	01:45:42
3	V 292.402†	16075.7	15587.9	162.65 µg/L	162.65 ppb	01:45:42
3	Zn 213.857†	10097.6	9228.8	211.29 µg/L	211.29 ppb	01:45:42

Mean Data: 245998004|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2024472.5	103.13	%	0.302				0.29%
Sc RADIAL	58646.0	104	%	0.3				0.25%
Y 371.029	1420582.7	105.01	%	0.275				0.26%
Ag 328.068†	-963.4	-0.4841	µg/L	0.28624	-0.4841	ppb	0.28624	59.13%
Al 396.153Radial†	94331.9	65622	µg/L	548.9	65622	ppb	548.9	0.84%
As 188.979†	9.0	20.604	µg/L	6.4485	20.604	ppb	6.4485	31.30%
B 249.677†	577.6	-22.811	µg/L	0.6575	-22.811	ppb	0.6575	2.88%
Ba 233.527†	45304.3	1087.9	µg/L	31.54	1087.9	ppb	31.54	2.90%
Be 313.107†	15099.9	7.6148	µg/L	0.19747	7.6148	ppb	0.19747	2.59%
Ca 317.933Radial†	14903.1	12730	µg/L	62.6	12730	ppb	62.6	0.49%
Cd 226.502†	332.3	-1.7269	µg/L	0.71339	-1.7269	ppb	0.71339	41.31%
Co 228.616†	865.5	31.818	µg/L	2.0986	31.818	ppb	2.0986	6.60%
Cr 267.716†	3674.4	73.902	µg/L	2.9630	73.902	ppb	2.9630	4.01%
Cu 324.752†	7094.6	58.690	µg/L	1.2879	58.690	ppb	1.2879	2.19%
Fe 238.204 Radial†	11292.1	89060	µg/L	460.8	89060	ppb	460.8	0.52%
K 766.490 Radial†	17433.8	11386	µg/L	31.8	11386	ppb	31.8	0.28%
Mg 279.077 IEC†	1366.8	12122	µg/L	108.3	12122	ppb	108.3	0.89%
Mn 257.610†	790237.3	2486.0	µg/L	41.29	2486.0	ppb	41.29	1.66%
Mo 202.031†	7.8	4.1461	µg/L	0.56436	4.1461	ppb	0.56436	13.61%
Na 589.592 Radial†	1381.8	424.42	µg/L	5.581	424.42	ppb	5.581	1.32%

Ni 231.604†	976.0	49.763	µg/L	2.9805	49.763	ppb	2.9805	5.99%
P 214.914†	685.4	1298.4	µg/L	79.94	1298.4	ppb	79.94	6.16%
Pb 220.353†	406.3	98.897	µg/L	3.6565	98.897	ppb	3.6565	3.70%
S 181.975 Axial†	136.7	566.86	µg/L	34.668	566.86	ppb	34.668	6.12%
Sb 206.836†	7.7	5.1600	µg/L	3.71497	5.1600	ppb	3.71497	72.00%
Se 196.026†	-51.3	156.96	µg/L	10.108	156.96	ppb	10.108	6.44%
SiO2†	291300.7	57499	µg/L	637.5	57499	ppb	637.5	1.11%
Si 251.611†	350573.3	26651	µg/L	291.6	26651	ppb	291.6	1.09%
Sn 189.927†	-28.6	-20.168	µg/L	0.2682	-20.168	ppb	0.2682	1.33%
Sr 421.552†	15701.2	144.85	µg/L	0.719	144.85	ppb	0.719	0.50%
Ti 334.940†	1598192.0	3534.8	µg/L	66.54	3534.8	ppb	66.54	1.88%
Tl 190.801†	-33.3	14.394	µg/L	9.8989	14.394	ppb	9.8989	68.77%
U 409.014†	308.4	12.468	µg/L	4.8358	12.468	ppb	4.8358	38.79%
V 292.402†	16197.3	168.53	µg/L	5.260	168.53	ppb	5.260	3.12%
Zn 213.857†	9532.5	218.43	µg/L	6.393	218.43	ppb	6.393	2.93%

Sequence No.: 13
Sample ID: 245998005|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 211
Date Collected: 2/20/2010 01:46:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998005|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58504.9	58504.9	104	%			01:46:44
1	Al 396.153Radial†	223217.8	215544.2	149940	µg/L	149940	ppb	01:46:44
1	Ca 317.933Radial†	129793.4	125124.5	106880	µg/L	106880	ppb	01:46:44
1	Fe 238.204 Radial†	17571.9	16951.8	133700	µg/L	133700	ppb	01:47:05
1	K 766.490 Radial†	26762.8	25678.7	16771	µg/L	16771	ppb	01:46:44
1	Mg 279.077 IEC†	3021.7	2905.1	25825	µg/L	25825	ppb	01:47:05
1	Na 589.592 Radial†	9707.5	8901.9	2734.2	µg/L	2734.2	ppb	01:47:05
1	Sr 421.552†	58407.4	56372.7	520.05	µg/L	520.05	ppb	01:46:44
1	Sc 361.383	1998053.1	1998053.1	101.78	%			01:48:09
1	Y 371.029	1439974.2	1439974.2	106.45	%			01:48:09
1	Ag 328.068†	-2192.0	-1752.1	-2.8047	µg/L	-2.8047	ppb	01:48:15
1	As 188.979†	12.2	12.4	24.466	µg/L	24.466	ppb	01:48:35
1	B 249.677†	1449.2	1039.7	-27.150	µg/L	-27.150	ppb	01:48:15
1	Ba 233.527†	154559.4	151874.2	3646.5	µg/L	3646.5	ppb	01:48:15
1	Be 313.107†	26167.8	28566.0	14.910	µg/L	14.910	ppb	01:48:15
1	Cd 226.502†	321.2	457.3	-3.6082	µg/L	-3.6082	ppb	01:48:35
1	Co 228.616†	1219.0	1195.8	42.955	µg/L	42.955	ppb	01:48:35
1	Cr 267.716†	7527.0	7445.8	149.72	µg/L	149.72	ppb	01:48:35
1	Cu 324.752†	10053.3	7333.8	66.455	µg/L	66.455	ppb	01:48:15
1	Mn 257.610†	778801.2	765441.0	2413.7	µg/L	2413.7	ppb	01:48:09
1	Mo 202.031†	-11.5	-5.9	4.5010	µg/L	4.5010	ppb	01:48:35
1	Ni 231.604†	2250.7	1899.0	96.339	µg/L	96.339	ppb	01:48:35
1	P 214.914†	1878.1	1830.0	3552.2	µg/L	3552.2	ppb	01:48:35
1	Pb 220.353†	599.5	498.1	124.32	µg/L	124.32	ppb	01:48:35
1	S 181.975 Axial†	401.2	375.3	1556.2	µg/L	1556.2	ppb	01:48:35
1	Sb 206.836†	42.3	19.1	6.4910	µg/L	6.4910	ppb	01:48:35
1	Se 196.026†	-53.0	-71.4	212.33	µg/L	212.33	ppb	01:48:35
1	SiO2†	415768.4	407107.7	80358	µg/L	80358	ppb	01:48:15
1	Si 251.611†	502772.1	493671.2	37530	µg/L	37530	ppb	01:48:09
1	Sn 189.927†	-67.1	-66.3	-39.731	µg/L	-39.731	ppb	01:48:35
1	Ti 334.940†	2468848.4	2425508.9	5365.4	µg/L	5365.4	ppb	01:48:09
1	Tl 190.801†	-80.0	-56.3	3.6622	µg/L	3.6622	ppb	01:48:35
1	U 409.014†	-1857.3	-1747.7	-170.31	µg/L	-170.31	ppb	01:48:15
1	V 292.402†	27672.6	27233.5	281.32	µg/L	281.32	ppb	01:48:15
1	Zn 213.857†	11744.7	11004.9	249.87	µg/L	249.87	ppb	01:48:35
2	Sc RADIAL	58398.1	58398.1	103	%			01:47:10
2	Al 396.153Radial†	224874.5	217541.2	151330	µg/L	151330	ppb	01:47:10
2	Ca 317.933Radial†	130543.3	126079.2	107690	µg/L	107690	ppb	01:47:10
2	Fe 238.204 Radial†	17671.8	17079.5	134710	µg/L	134710	ppb	01:47:31
2	K 766.490 Radial†	26921.9	25879.8	16903	µg/L	16903	ppb	01:47:10
2	Mg 279.077 IEC†	3032.8	2921.2	25968	µg/L	25968	ppb	01:47:31
2	Na 589.592 Radial†	9721.0	8932.1	2743.4	µg/L	2743.4	ppb	01:47:31
2	Sr 421.552†	58902.8	56955.1	525.42	µg/L	525.42	ppb	01:47:10
2	Sc 361.383	1998606.1	1998606.1	101.81	%			01:48:42
2	Y 371.029	1440808.7	1440808.7	106.51	%			01:48:42
2	Ag 328.068†	-2214.6	-1773.6	-2.8969	µg/L	-2.8969	ppb	01:48:48
2	As 188.979†	12.6	12.8	25.204	µg/L	25.204	ppb	01:49:09
2	B 249.677†	1486.9	1076.4	-26.181	µg/L	-26.181	ppb	01:48:48
2	Ba 233.527†	154781.4	152050.2	3650.8	µg/L	3650.8	ppb	01:48:48
2	Be 313.107†	26194.1	28584.7	14.915	µg/L	14.915	ppb	01:48:48
2	Cd 226.502†	322.7	458.6	-3.6883	µg/L	-3.6883	ppb	01:49:09
2	Co 228.616†	1210.0	1186.6	42.508	µg/L	42.508	ppb	01:49:09
2	Cr 267.716†	7471.2	7388.9	148.58	µg/L	148.58	ppb	01:49:09
2	Cu 324.752†	9993.0	7271.8	66.191	µg/L	66.191	ppb	01:48:48
2	Mn 257.610†	780371.9	766772.0	2418.0	µg/L	2418.0	ppb	01:48:42
2	Mo 202.031†	-25.9	-20.1	3.1498	µg/L	3.1498	ppb	01:49:09
2	Ni 231.604†	2251.9	1899.6	96.383	µg/L	96.383	ppb	01:49:09
2	P 214.914†	1870.2	1821.6	3535.5	µg/L	3535.5	ppb	01:49:09
2	Pb 220.353†	604.7	503.0	125.56	µg/L	125.56	ppb	01:49:09

2	S 181.975 Axial†	398.3	372.3	1544.1 µg/L	1544.1 ppb	01:49:09
2	Sb 206.836†	45.2	21.9	9.0623 µg/L	9.0623 ppb	01:49:09
2	Se 196.026†	-59.9	-78.2	205.22 µg/L	205.22 ppb	01:49:09
2	SiO2†	415707.1	406934.4	80324 µg/L	80324 ppb	01:48:48
2	Si 251.611†	504003.7	494744.2	37611 µg/L	37611 ppb	01:48:42
2	Sn 189.927†	-50.8	-50.3	-33.066 µg/L	-33.066 ppb	01:49:09
2	Ti 334.940†	2476307.3	2432164.1	5380.1 µg/L	5380.1 ppb	01:48:42
2	Tl 190.801†	-82.9	-59.1	0.3150 µg/L	0.3150 ppb	01:49:09
2	U 409.014†	-1916.1	-1805.0	-175.26 µg/L	-175.26 ppb	01:48:48
2	V 292.402†	27742.3	27294.5	282.02 µg/L	282.02 ppb	01:48:48
2	Zn 213.857†	11703.5	10961.3	248.79 µg/L	248.79 ppb	01:49:09
3	Sc RADIAL	58524.1	58524.1	104 %		01:47:36
3	Al 396.153Radial†	225649.1	217820.6	151530 µg/L	151530 ppb	01:47:36
3	Ca 317.933Radial†	131100.1	126344.8	107920 µg/L	107920 ppb	01:47:36
3	Fe 238.204 Radial†	17590.0	16963.7	133790 µg/L	133790 ppb	01:47:57
3	K 766.490 Radial†	27003.0	25902.1	16917 µg/L	16917 ppb	01:47:36
3	Mg 279.077 IEC†	3038.2	2920.1	25959 µg/L	25959 ppb	01:47:57
3	Na 589.592 Radial†	9723.6	8914.4	2738.0 µg/L	2738.0 ppb	01:47:57
3	Sr 421.552†	58958.8	56886.5	524.79 µg/L	524.79 ppb	01:47:36
3	Sc 361.383	1996216.5	1996216.5	101.69 %		01:49:16
3	Y 371.029	1438733.6	1438733.6	106.36 %		01:49:16
3	Ag 328.068†	-2150.6	-1713.3	-2.5851 µg/L	-2.5851 ppb	01:49:22
3	As 188.979†	13.1	13.4	26.099 µg/L	26.099 ppb	01:49:42
3	B 249.677†	1409.6	1002.1	-28.752 µg/L	-28.752 ppb	01:49:22
3	Ba 233.527†	148719.9	146271.2	3512.0 µg/L	3512.0 ppb	01:49:22
3	Be 313.107†	24906.2	27349.0	14.244 µg/L	14.244 ppb	01:49:22
3	Cd 226.502†	282.9	419.9	-4.5585 µg/L	-4.5585 ppb	01:49:42
3	Co 228.616†	1096.7	1076.6	37.866 µg/L	37.866 ppb	01:49:42
3	Cr 267.716†	6797.2	6734.8	135.43 µg/L	135.43 ppb	01:49:42
3	Cu 324.752†	9734.6	7029.4	64.482 µg/L	64.482 ppb	01:49:22
3	Mn 257.610†	760137.5	747790.6	2358.5 µg/L	2358.5 ppb	01:49:16
3	Mo 202.031†	-18.3	-12.6	3.8495 µg/L	3.8495 ppb	01:49:42
3	Ni 231.604†	2077.6	1730.9	87.964 µg/L	87.964 ppb	01:49:42
3	P 214.914†	1729.5	1685.5	3266.8 µg/L	3266.8 ppb	01:49:42
3	Pb 220.353†	574.2	473.7	118.47 µg/L	118.47 ppb	01:49:42
3	S 181.975 Axial†	380.2	354.9	1471.9 µg/L	1471.9 ppb	01:49:42
3	Sb 206.836†	47.9	24.6	11.679 µg/L	11.679 ppb	01:49:42
3	Se 196.026†	-56.9	-75.2	206.77 µg/L	206.77 ppb	01:49:42
3	SiO2†	401937.5	393881.9	77747 µg/L	77747 ppb	01:49:22
3	Si 251.611†	493816.5	485318.6	36895 µg/L	36895 ppb	01:49:16
3	Sn 189.927†	-55.8	-55.2	-35.058 µg/L	-35.058 ppb	01:49:42
3	Ti 334.940†	2398727.4	2358782.1	5217.8 µg/L	5217.8 ppb	01:49:16
3	Tl 190.801†	-76.3	-52.7	6.9032 µg/L	6.9032 ppb	01:49:42
3	U 409.014†	-1745.7	-1639.6	-161.41 µg/L	-161.41 ppb	01:49:22
3	V 292.402†	26484.6	26090.3	270.16 µg/L	270.16 ppb	01:49:22
3	Zn 213.857†	10798.1	10084.6	228.31 µg/L	228.31 ppb	01:49:42

Mean Data: 245998005|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1997625.2	101.76	%	0.064				0.06%
Sc RADIAL	58475.7	104	%	0.1				0.12%
Y 371.029	1439838.8	106.44	%	0.077				0.07%
Ag 328.068†	-1746.3	-2.7622	µg/L	0.16023	-2.7622	ppb	0.16023	5.80%
Al 396.153Radial†	216968.7	150930	µg/L	863.7	150930	ppb	863.7	0.57%
As 188.979†	12.9	25.256	µg/L	0.8176	25.256	ppb	0.8176	3.24%
B 249.677†	1039.4	-27.361	µg/L	1.2985	-27.361	ppb	1.2985	4.75%
Ba 233.527†	150065.2	3603.1	µg/L	78.92	3603.1	ppb	78.92	2.19%
Be 313.107†	28166.6	14.690	µg/L	0.3862	14.690	ppb	0.3862	2.63%
Ca 317.933Radial†	125849.5	107500	µg/L	548.2	107500	ppb	548.2	0.51%
Cd 226.502†	445.3	-3.9517	µg/L	0.52706	-3.9517	ppb	0.52706	13.34%
Co 228.616†	1153.0	41.110	µg/L	2.8177	41.110	ppb	2.8177	6.85%
Cr 267.716†	7189.8	144.57	µg/L	7.939	144.57	ppb	7.939	5.49%
Cu 324.752†	7211.7	65.709	µg/L	1.0714	65.709	ppb	1.0714	1.63%
Fe 238.204 Radial†	16998.3	134070	µg/L	556.3	134070	ppb	556.3	0.41%
K 766.490 Radial†	25820.2	16864	µg/L	80.4	16864	ppb	80.4	0.48%
Mg 279.077 IEC†	2915.5	25918	µg/L	79.9	25918	ppb	79.9	0.31%
Mn 257.610†	760001.2	2396.7	µg/L	33.22	2396.7	ppb	33.22	1.39%
Mo 202.031†	-12.9	3.8334	µg/L	0.67578	3.8334	ppb	0.67578	17.63%
Na 589.592 Radial†	8916.1	2738.5	µg/L	4.66	2738.5	ppb	4.66	0.17%

Ni 231.604†	1843.2	93.562	µg/L	4.8481	93.562	ppb	4.8481	5.18%
P 214.914†	1779.0	3451.5	µg/L	160.16	3451.5	ppb	160.16	4.64%
Pb 220.353†	491.6	122.78	µg/L	3.785	122.78	ppb	3.785	3.08%
S 181.975 Axial†	367.5	1524.1	µg/L	45.55	1524.1	ppb	45.55	2.99%
Sb 206.836†	21.9	9.0774	µg/L	2.59398	9.0774	ppb	2.59398	28.58%
Se 196.026†	-74.9	208.11	µg/L	3.735	208.11	ppb	3.735	1.79%
SiO2†	402641.4	79476	µg/L	1497.5	79476	ppb	1497.5	1.88%
Si 251.611†	491244.7	37345	µg/L	392.3	37345	ppb	392.3	1.05%
Sn 189.927†	-57.3	-35.952	µg/L	3.4210	-35.952	ppb	3.4210	9.52%
Sr 421.552†	56738.1	523.42	µg/L	2.936	523.42	ppb	2.936	0.56%
Ti 334.940†	2405485.0	5321.1	µg/L	89.77	5321.1	ppb	89.77	1.69%
Tl 190.801†	-56.0	3.6268	µg/L	3.29420	3.6268	ppb	3.29420	90.83%
U 409.014†	-1730.8	-169.00	µg/L	7.020	-169.00	ppb	7.020	4.15%
V 292.402†	26872.8	277.83	µg/L	6.652	277.83	ppb	6.652	2.39%
Zn 213.857†	10683.6	242.33	µg/L	12.150	242.33	ppb	12.150	5.01%

Sequence No.: 14
Sample ID: 245998006|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 212
Date Collected: 2/20/2010 01:49:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998006|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57981.3	57981.3	103	%			01:50:24
1	Al 396.153Radial†	74955.5	73027.5	50802	µg/L	50802	ppb	01:50:24
1	Ca 317.933Radial†	37992.9	36808.1	31441	µg/L	31441	ppb	01:50:24
1	Fe 238.204 Radial†	8707.1	8467.4	66782	µg/L	66782	ppb	01:50:45
1	K 766.490 Radial†	18323.3	17688.8	11553	µg/L	11553	ppb	01:50:24
1	Mg 279.077 IEC†	1354.0	1306.5	11607	µg/L	11607	ppb	01:50:45
1	Na 589.592 Radial†	1437.4	928.4	285.14	µg/L	285.14	ppb	01:50:24
1	Sr 421.552†	25850.9	25159.7	232.10	µg/L	232.10	ppb	01:50:24
1	Sc 361.383	1989054.6	1989054.6	101.32	%			01:51:49
1	Y 371.029	1392202.8	1392202.8	102.92	%			01:51:49
1	Ag 328.068†	-1120.8	-704.6	-0.1580	µg/L	-0.1580	ppb	01:51:54
1	As 188.979†	11.0	11.3	22.495	µg/L	22.495	ppb	01:52:15
1	B 249.677†	1416.9	1014.3	6.5930	µg/L	6.5930	ppb	01:51:54
1	Ba 233.527†	55822.2	55111.4	1323.3	µg/L	1323.3	ppb	01:51:54
1	Be 313.107†	8943.0	11682.1	5.9473	µg/L	5.9473	ppb	01:51:54
1	Cd 226.502†	194.7	333.9	0.8253	µg/L	0.8253	ppb	01:52:15
1	Co 228.616†	858.5	845.4	32.887	µg/L	32.887	ppb	01:52:15
1	Cr 267.716†	3150.4	3159.7	63.546	µg/L	63.546	ppb	01:51:54
1	Cu 324.752†	27983.8	25075.2	172.96	µg/L	172.96	ppb	01:51:54
1	Mn 257.610†	1472328.1	1453386.8	4559.7	µg/L	4559.7	ppb	01:51:49
1	Mo 202.031†	10.2	15.4	4.0491	µg/L	4.0491	ppb	01:52:15
1	Ni 231.604†	1219.2	890.9	45.236	µg/L	45.236	ppb	01:52:15
1	P 214.914†	1455.2	1420.8	2756.0	µg/L	2756.0	ppb	01:52:15
1	Pb 220.353†	962.9	859.4	208.83	µg/L	208.83	ppb	01:52:15
1	S 181.975 Axial†	604.4	577.5	2395.0	µg/L	2395.0	ppb	01:52:15
1	Sb 206.836†	27.7	4.9	1.0390	µg/L	1.0390	ppb	01:52:15
1	Se 196.026†	-10.5	-29.7	121.73	µg/L	121.73	ppb	01:52:15
1	SiO2†	343447.2	337577.5	66633	µg/L	66633	ppb	01:51:49
1	Si 251.611†	411710.2	406031.4	30867	µg/L	30867	ppb	01:51:49
1	Sn 189.927†	-25.1	-25.1	-16.496	µg/L	-16.496	ppb	01:52:15
1	Ti 334.940†	1185633.8	1169999.6	2587.9	µg/L	2587.9	ppb	01:51:49
1	Tl 190.801†	-51.8	-28.8	14.312	µg/L	14.312	ppb	01:52:15
1	U 409.014†	613.8	682.9	45.540	µg/L	45.540	ppb	01:51:54
1	V 292.402†	13413.6	13283.4	137.53	µg/L	137.53	ppb	01:51:54
1	Zn 213.857†	11541.6	10856.8	250.42	µg/L	250.42	ppb	01:51:54
2	Sc RADIAL	58519.9	58519.9	104	%			01:50:50
2	Al 396.153Radial†	75079.0	72474.6	50417	µg/L	50417	ppb	01:50:50
2	Ca 317.933Radial†	37974.9	36450.0	31135	µg/L	31135	ppb	01:50:50
2	Fe 238.204 Radial†	8722.2	8403.9	66282	µg/L	66282	ppb	01:51:10
2	K 766.490 Radial†	18392.0	17590.8	11489	µg/L	11489	ppb	01:50:50
2	Mg 279.077 IEC†	1362.1	1302.1	11569	µg/L	11569	ppb	01:51:10
2	Na 589.592 Radial†	1441.3	919.2	282.34	µg/L	282.34	ppb	01:50:50
2	Sr 421.552†	25840.4	24917.7	229.87	µg/L	229.87	ppb	01:50:50
2	Sc 361.383	2003772.3	2003772.3	102.07	%			01:52:22
2	Y 371.029	1402377.7	1402377.7	103.67	%			01:52:22
2	Ag 328.068†	-1138.1	-713.4	-0.2576	µg/L	-0.2576	ppb	01:52:28
2	As 188.979†	1.1	1.5	4.9194	µg/L	4.9194	ppb	01:52:48
2	B 249.677†	1380.0	967.9	4.9640	µg/L	4.9640	ppb	01:52:28
2	Ba 233.527†	55991.9	54873.1	1317.6	µg/L	1317.6	ppb	01:52:28
2	Be 313.107†	8856.6	11532.6	5.8606	µg/L	5.8606	ppb	01:52:28
2	Cd 226.502†	181.1	319.2	0.5135	µg/L	0.5135	ppb	01:52:48
2	Co 228.616†	853.8	834.6	32.406	µg/L	32.406	ppb	01:52:48
2	Cr 267.716†	3134.0	3120.8	62.763	µg/L	62.763	ppb	01:52:28
2	Cu 324.752†	28031.4	24918.9	171.87	µg/L	171.87	ppb	01:52:28
2	Mn 257.610†	1477720.8	1447996.8	4542.8	µg/L	4542.8	ppb	01:52:22
2	Mo 202.031†	5.9	11.1	3.6076	µg/L	3.6076	ppb	01:52:48
2	Ni 231.604†	1204.5	867.7	44.073	µg/L	44.073	ppb	01:52:48
2	P 214.914†	1445.7	1401.0	2717.1	µg/L	2717.1	ppb	01:52:48
2	Pb 220.353†	953.8	843.5	204.96	µg/L	204.96	ppb	01:52:48

2	S 181.975 Axial†	600.8	569.7	2362.5 µg/L	2362.5 ppb	01:52:48
2	Sb 206.836†	26.4	3.3	-0.3349 µg/L	-0.3349 ppb	01:52:48
2	Se 196.026†	-7.0	-26.2	125.42 µg/L	125.42 ppb	01:52:48
2	SiO2†	345115.5	336722.3	66465 µg/L	66465 ppb	01:52:22
2	Si 251.611†	414001.2	405291.3	30811 µg/L	30811 ppb	01:52:22
2	Sn 189.927†	-31.2	-30.9	-18.905 µg/L	-18.905 ppb	01:52:48
2	Ti 334.940†	1191892.4	1167536.2	2582.4 µg/L	2582.4 ppb	01:52:22
2	Tl 190.801†	-56.3	-32.8	8.8689 µg/L	8.8689 ppb	01:52:48
2	U 409.014†	678.8	742.2	50.549 µg/L	50.549 ppb	01:52:28
2	V 292.402†	13472.2	13243.6	137.08 µg/L	137.08 ppb	01:52:28
2	Zn 213.857†	11555.2	10786.4	248.80 µg/L	248.80 ppb	01:52:28
3	Sc RADIAL	57839.8	57839.8	102 %		01:51:16
3	Al 396.153Radial†	74739.1	72994.8	50779 µg/L	50779 ppb	01:51:16
3	Ca 317.933Radial†	37764.7	36675.8	31328 µg/L	31328 ppb	01:51:16
3	Fe 238.204 Radial†	8723.1	8503.8	67070 µg/L	67070 ppb	01:51:36
3	K 766.490 Radial†	18411.0	17818.2	11637 µg/L	11637 ppb	01:51:16
3	Mg 279.077 IEC†	1363.2	1318.7	11716 µg/L	11716 ppb	01:51:36
3	Na 589.592 Radial†	1444.4	938.7	288.30 µg/L	288.30 ppb	01:51:16
3	Sr 421.552†	25714.9	25088.5	231.45 µg/L	231.45 ppb	01:51:16
3	Sc 361.383	1996902.3	1996902.3	101.72 %		01:52:55
3	Y 371.029	1396999.8	1396999.8	103.27 %		01:52:55
3	Ag 328.068†	-1115.8	-695.3	-0.1210 µg/L	-0.1210 ppb	01:53:01
3	As 188.979†	8.2	8.6	17.605 µg/L	17.605 ppb	01:53:22
3	B 249.677†	1365.9	958.7	4.1715 µg/L	4.1715 ppb	01:53:01
3	Ba 233.527†	53354.9	52469.4	1259.9 µg/L	1259.9 ppb	01:53:01
3	Be 313.107†	8291.4	11006.8	5.5783 µg/L	5.5783 ppb	01:53:01
3	Cd 226.502†	167.4	306.3	0.0997 µg/L	0.0997 ppb	01:53:22
3	Co 228.616†	779.1	764.0	29.374 µg/L	29.374 ppb	01:53:22
3	Cr 267.716†	2934.5	2935.2	59.031 µg/L	59.031 ppb	01:53:01
3	Cu 324.752†	26704.0	23708.5	164.08 µg/L	164.08 ppb	01:53:01
3	Mn 257.610†	1438570.6	1414489.7	4438.0 µg/L	4438.0 ppb	01:52:55
3	Mo 202.031†	15.4	20.5	4.5522 µg/L	4.5522 ppb	01:53:22
3	Ni 231.604†	1140.7	809.0	41.160 µg/L	41.160 ppb	01:53:22
3	P 214.914†	1337.9	1299.9	2517.3 µg/L	2517.3 ppb	01:53:22
3	Pb 220.353†	904.4	798.2	193.96 µg/L	193.96 ppb	01:53:22
3	S 181.975 Axial†	565.8	537.3	2228.1 µg/L	2228.1 ppb	01:53:22
3	Sb 206.836†	32.0	8.9	4.8422 µg/L	4.8422 ppb	01:53:22
3	Se 196.026†	-7.2	-26.4	127.01 µg/L	127.01 ppb	01:53:22
3	SiO2†	337606.4	330503.4	65237 µg/L	65237 ppb	01:52:55
3	Si 251.611†	404668.5	397511.9	30220 µg/L	30220 ppb	01:52:55
3	Sn 189.927†	-32.4	-32.2	-19.498 µg/L	-19.498 ppb	01:53:22
3	Ti 334.940†	1151904.3	1132242.0	2504.3 µg/L	2504.3 ppb	01:52:55
3	Tl 190.801†	-51.8	-28.5	13.492 µg/L	13.492 ppb	01:53:22
3	U 409.014†	609.8	676.5	44.975 µg/L	44.975 ppb	01:53:01
3	V 292.402†	12672.8	12503.1	129.95 µg/L	129.95 ppb	01:53:01
3	Zn 213.857†	11048.1	10326.8	238.00 µg/L	238.00 ppb	01:53:01

Mean Data: 245998006|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1996576.4	101.70	%	0.375				0.37%
Sc RADIAL	58113.7	103	%	0.6				0.62%
Y 371.029	1397193.5	103.28	%	0.376				0.36%
Ag 328.068†	-704.4	-0.1789	µg/L	0.07067	-0.1789	ppb	0.07067	39.51%
Al 396.153Radial†	72832.3	50666	µg/L	215.8	50666	ppb	215.8	0.43%
As 188.979†	7.1	15.006	µg/L	9.0714	15.006	ppb	9.0714	60.45%
B 249.677†	980.3	5.2428	µg/L	1.23457	5.2428	ppb	1.23457	23.55%
Ba 233.527†	54151.3	1300.2	µg/L	35.09	1300.2	ppb	35.09	2.70%
Be 313.107†	11407.2	5.7954	µg/L	0.19295	5.7954	ppb	0.19295	3.33%
Ca 317.933Radial†	36644.7	31301	µg/L	154.7	31301	ppb	154.7	0.49%
Cd 226.502†	319.8	0.4795	µg/L	0.36402	0.4795	ppb	0.36402	75.92%
Co 228.616†	814.7	31.556	µg/L	1.9046	31.556	ppb	1.9046	6.04%
Cr 267.716†	3071.9	61.780	µg/L	2.4125	61.780	ppb	2.4125	3.91%
Cu 324.752†	24567.5	169.64	µg/L	4.844	169.64	ppb	4.844	2.86%
Fe 238.204 Radial†	8458.4	66711	µg/L	398.7	66711	ppb	398.7	0.60%
K 766.490 Radial†	17699.3	11560	µg/L	74.5	11560	ppb	74.5	0.64%
Mg 279.077 IEC†	1309.1	11631	µg/L	76.5	11631	ppb	76.5	0.66%
Mn 257.610†	1438624.5	4513.5	µg/L	65.96	4513.5	ppb	65.96	1.46%
Mo 202.031†	15.7	4.0696	µg/L	0.47266	4.0696	ppb	0.47266	11.61%
Na 589.592 Radial†	928.8	285.26	µg/L	2.984	285.26	ppb	2.984	1.05%

Ni 231.604†	855.9	43.489	µg/L	2.0999	43.489	ppb	2.0999	4.83%
P 214.914†	1373.9	2663.5	µg/L	128.08	2663.5	ppb	128.08	4.81%
Pb 220.353†	833.7	202.58	µg/L	7.717	202.58	ppb	7.717	3.81%
S 181.975 Axial†	561.5	2328.5	µg/L	88.46	2328.5	ppb	88.46	3.80%
Sb 206.836†	5.7	1.8487	µg/L	2.68186	1.8487	ppb	2.68186	145.06%
Se 196.026†	-27.4	124.72	µg/L	2.708	124.72	ppb	2.708	2.17%
SiO2†	334934.4	66112	µg/L	762.1	66112	ppb	762.1	1.15%
Si 251.611†	402944.9	30633	µg/L	358.8	30633	ppb	358.8	1.17%
Sn 189.927†	-29.4	-18.300	µg/L	1.5899	-18.300	ppb	1.5899	8.69%
Sr 421.552†	25055.3	231.14	µg/L	1.147	231.14	ppb	1.147	0.50%
Ti 334.940†	1156592.6	2558.2	µg/L	46.74	2558.2	ppb	46.74	1.83%
Tl 190.801†	-30.0	12.224	µg/L	2.9345	12.224	ppb	2.9345	24.01%
U 409.014†	700.5	47.021	µg/L	3.0680	47.021	ppb	3.0680	6.52%
V 292.402†	13010.1	134.85	µg/L	4.252	134.85	ppb	4.252	3.15%
Zn 213.857†	10656.6	245.74	µg/L	6.753	245.74	ppb	6.753	2.75%

Sequence No.: 15
Sample ID: 245998007|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 213
Date Collected: 2/20/2010 01:53:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998007|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58636.7	58636.7	104	%			01:54:04
1	Al 396.153Radial†	173908.1	167550.6	116560	µg/L	116560	ppb	01:54:04
1	Ca 317.933Radial†	54509.0	52307.4	44680	µg/L	44680	ppb	01:54:04
1	Fe 238.204 Radial†	16499.8	15880.8	125250	µg/L	125250	ppb	01:54:24
1	K 766.490 Radial†	19291.5	18422.1	12032	µg/L	12032	ppb	01:54:04
1	Mg 279.077 IEC†	2786.5	2671.9	23750	µg/L	23750	ppb	01:54:24
1	Na 589.592 Radial†	3756.5	3147.1	966.61	µg/L	966.61	ppb	01:54:24
1	Sr 421.552†	40311.9	38811.1	358.04	µg/L	358.04	ppb	01:54:04
1	Sc 361.383	2003041.5	2003041.5	102.03	%			01:55:30
1	Y 371.029	1421563.5	1421563.5	105.09	%			01:55:30
1	Ag 328.068†	-1984.7	-1543.6	-2.0284	µg/L	-2.0284	ppb	01:55:35
1	As 188.979†	12.6	12.8	27.816	µg/L	27.816	ppb	01:55:56
1	B 249.677†	1195.5	787.6	-32.959	µg/L	-32.959	ppb	01:55:35
1	Ba 233.527†	87105.9	85386.9	2050.3	µg/L	2050.3	ppb	01:55:35
1	Be 313.107†	18765.3	21247.0	11.130	µg/L	11.130	ppb	01:55:35
1	Cd 226.502†	295.1	430.9	-3.3040	µg/L	-3.3040	ppb	01:55:56
1	Co 228.616†	1350.3	1321.4	51.736	µg/L	51.736	ppb	01:55:56
1	Cr 267.716†	9421.4	9284.0	186.62	µg/L	186.62	ppb	01:55:35
1	Cu 324.752†	10793.8	8034.9	69.858	µg/L	69.858	ppb	01:55:35
1	Mn 257.610†	1007493.5	987669.6	3108.6	µg/L	3108.6	ppb	01:55:30
1	Mo 202.031†	-16.2	-10.5	3.7282	µg/L	3.7282	ppb	01:55:56
1	Ni 231.604†	2410.0	2049.7	103.73	µg/L	103.73	ppb	01:55:56
1	P 214.914†	629.7	601.8	1117.7	µg/L	1117.7	ppb	01:55:56
1	Pb 220.353†	631.7	528.2	130.07	µg/L	130.07	ppb	01:55:56
1	S 181.975 Axial†	182.7	160.1	664.11	µg/L	664.11	ppb	01:55:56
1	Sb 206.836†	44.4	21.0	13.261	µg/L	13.261	ppb	01:55:56
1	Se 196.026†	-46.6	-65.0	217.41	µg/L	217.41	ppb	01:55:56
1	SiO2†	323640.1	315798.2	62334	µg/L	62334	ppb	01:55:30
1	Si 251.611†	388395.6	380344.0	28914	µg/L	28914	ppb	01:55:30
1	Sn 189.927†	-31.0	-30.7	-23.727	µg/L	-23.727	ppb	01:55:56
1	Ti 334.940†	1792079.9	1756187.7	3883.9	µg/L	3883.9	ppb	01:55:30
1	Tl 190.801†	-66.4	-42.7	13.580	µg/L	13.580	ppb	01:55:56
1	U 409.014†	-1502.5	-1395.5	-136.08	µg/L	-136.08	ppb	01:55:30
1	V 292.402†	23994.0	23560.5	244.65	µg/L	244.65	ppb	01:55:35
1	Zn 213.857†	10725.8	9977.6	226.25	µg/L	226.25	ppb	01:55:35
2	Sc RADIAL	58913.3	58913.3	104	%			01:54:30
2	Al 396.153Radial†	175686.2	168469.1	117200	µg/L	117200	ppb	01:54:30
2	Ca 317.933Radial†	55026.4	52557.0	44893	µg/L	44893	ppb	01:54:30
2	Fe 238.204 Radial†	16477.0	15784.2	124490	µg/L	124490	ppb	01:54:51
2	K 766.490 Radial†	19479.2	18514.8	12092	µg/L	12092	ppb	01:54:30
2	Mg 279.077 IEC†	2788.1	2660.9	23652	µg/L	23652	ppb	01:54:51
2	Na 589.592 Radial†	3791.3	3163.5	971.64	µg/L	971.64	ppb	01:54:51
2	Sr 421.552†	40738.2	39037.6	360.13	µg/L	360.13	ppb	01:54:30
2	Sc 361.383	2013408.2	2013408.2	102.56	%			01:56:04
2	Y 371.029	1429160.1	1429160.1	105.65	%			01:56:04
2	Ag 328.068†	-1926.4	-1476.7	-1.5927	µg/L	-1.5927	ppb	01:56:09
2	As 188.979†	13.3	13.4	28.910	µg/L	28.910	ppb	01:56:30
2	B 249.677†	1186.0	772.2	-33.190	µg/L	-33.190	ppb	01:56:09
2	Ba 233.527†	86670.3	84522.7	2029.6	µg/L	2029.6	ppb	01:56:09
2	Be 313.107†	18648.2	21038.2	11.018	µg/L	11.018	ppb	01:56:09
2	Cd 226.502†	323.3	456.9	-2.5704	µg/L	-2.5704	ppb	01:56:30
2	Co 228.616†	1347.5	1311.9	51.368	µg/L	51.368	ppb	01:56:30
2	Cr 267.716†	9370.7	9187.0	184.67	µg/L	184.67	ppb	01:56:09
2	Cu 324.752†	10729.6	7917.9	68.988	µg/L	68.988	ppb	01:56:09
2	Mn 257.610†	1007208.1	982307.3	3091.7	µg/L	3091.7	ppb	01:56:04
2	Mo 202.031†	-17.2	-11.4	3.6106	µg/L	3.6106	ppb	01:56:30
2	Ni 231.604†	2423.5	2050.7	103.77	µg/L	103.77	ppb	01:56:30
2	P 214.914†	632.7	601.5	1117.9	µg/L	1117.9	ppb	01:56:30
2	Pb 220.353†	627.7	521.1	128.41	µg/L	128.41	ppb	01:56:30

2	S 181.975 Axial†	184.7	161.2	668.42 µg/L	668.42 ppb	01:56:30
2	Sb 206.836†	39.3	15.8	8.4762 µg/L	8.4762 ppb	01:56:30
2	Se 196.026†	-48.0	-66.1	213.79 µg/L	213.79 ppb	01:56:30
2	SiO2†	322957.3	313499.3	61881 µg/L	61881 ppb	01:56:04
2	Si 251.611†	387531.9	377542.0	28701 µg/L	28701 ppb	01:56:04
2	Sn 189.927†	-35.2	-34.7	-25.340 µg/L	-25.340 ppb	01:56:30
2	Ti 334.940†	1787327.0	1742510.3	3853.7 µg/L	3853.7 ppb	01:56:04
2	Tl 190.801†	-65.7	-41.7	14.516 µg/L	14.516 ppb	01:56:30
2	U 409.014†	-1530.7	-1415.4	-137.64 µg/L	-137.64 ppb	01:56:04
2	V 292.402†	23929.1	23376.2	242.75 µg/L	242.75 ppb	01:56:09
2	Zn 213.857†	10669.4	9868.5	223.73 µg/L	223.73 ppb	01:56:09
3	Sc RADIAL	58077.9	58077.9	103 %		01:54:56
3	Al 396.153Radial†	174558.1	169795.0	118120 µg/L	118120 ppb	01:54:56
3	Ca 317.933Radial†	54428.0	52733.9	45044 µg/L	45044 ppb	01:54:56
3	Fe 238.204 Radial†	16534.1	16067.0	126720 µg/L	126720 ppb	01:55:17
3	K 766.490 Radial†	19269.0	18579.0	12134 µg/L	12134 ppb	01:54:56
3	Mg 279.077 IEC†	2802.9	2713.7	24122 µg/L	24122 ppb	01:55:17
3	Na 589.592 Radial†	3796.0	3220.4	989.12 µg/L	989.12 ppb	01:55:17
3	Sr 421.552†	40370.1	39241.4	362.01 µg/L	362.01 ppb	01:54:56
3	Sc 361.383	2007541.1	2007541.1	102.26 %		01:56:38
3	Y 371.029	1422275.9	1422275.9	105.14 %		01:56:38
3	Ag 328.068†	-1852.3	-1409.7	-1.0154 µg/L	-1.0154 ppb	01:56:43
3	As 188.979†	15.6	15.7	33.142 µg/L	33.142 ppb	01:57:04
3	B 249.677†	1171.5	761.4	-34.808 µg/L	-34.808 ppb	01:56:43
3	Ba 233.527†	83814.0	81976.5	1968.4 µg/L	1968.4 ppb	01:56:43
3	Be 313.107†	17821.9	20283.3	10.619 µg/L	10.619 ppb	01:56:43
3	Cd 226.502†	261.3	397.2	-4.3190 µg/L	-4.3190 ppb	01:57:04
3	Co 228.616†	1226.1	1197.0	46.437 µg/L	46.437 ppb	01:57:04
3	Cr 267.716†	8902.4	8755.8	176.00 µg/L	176.00 ppb	01:56:43
3	Cu 324.752†	10403.7	7629.7	67.417 µg/L	67.417 ppb	01:56:43
3	Mn 257.610†	975941.8	954603.0	3005.2 µg/L	3005.2 ppb	01:56:38
3	Mo 202.031†	-9.3	-3.7	4.4502 µg/L	4.4502 ppb	01:57:04
3	Ni 231.604†	2230.8	1869.1	94.756 µg/L	94.756 ppb	01:57:04
3	P 214.914†	599.5	570.9	1055.9 µg/L	1055.9 ppb	01:57:04
3	Pb 220.353†	576.3	472.7	116.61 µg/L	116.61 ppb	01:57:04
3	S 181.975 Axial†	169.4	146.7	608.40 µg/L	608.40 ppb	01:57:04
3	Sb 206.836†	48.5	24.9	16.928 µg/L	16.928 ppb	01:57:04
3	Se 196.026†	-45.0	-63.3	223.32 µg/L	223.32 ppb	01:57:04
3	SiO2†	315038.6	306676.1	60534 µg/L	60534 ppb	01:56:38
3	Si 251.611†	378171.2	369492.7	28090 µg/L	28090 ppb	01:56:38
3	Sn 189.927†	-36.6	-36.2	-26.160 µg/L	-26.160 ppb	01:57:04
3	Ti 334.940†	1721514.8	1683247.5	3722.5 µg/L	3722.5 ppb	01:56:38
3	Tl 190.801†	-59.5	-35.8	21.128 µg/L	21.128 ppb	01:57:04
3	U 409.014†	-1451.3	-1342.1	-131.87 µg/L	-131.87 ppb	01:56:38
3	V 292.402†	22919.2	22456.8	234.05 µg/L	234.05 ppb	01:56:43
3	Zn 213.857†	10347.8	9584.4	216.98 µg/L	216.98 ppb	01:56:43

Mean Data: 245998007|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2007996.9	102.29	%	0.265				0.26%
Sc RADIAL	58542.7	104	%	0.8				0.73%
Y 371.029	1424333.2	105.29	%	0.310				0.29%
Ag 328.068†	-1476.7	-1.5455	µg/L	0.50816	-1.5455	ppb	0.50816	32.88%
Al 396.153Radial†	168604.9	117290	µg/L	784.9	117290	ppb	784.9	0.67%
As 188.979†	14.0	29.956	µg/L	2.8132	29.956	ppb	2.8132	9.39%
B 249.677†	773.7	-33.653	µg/L	1.0077	-33.653	ppb	1.0077	2.99%
Ba 233.527†	83962.0	2016.1	µg/L	42.57	2016.1	ppb	42.57	2.11%
Be 313.107†	20856.1	10.922	µg/L	0.2682	10.922	ppb	0.2682	2.46%
Ca 317.933Radial†	52532.8	44872	µg/L	183.0	44872	ppb	183.0	0.41%
Cd 226.502†	428.3	-3.3978	µg/L	0.87807	-3.3978	ppb	0.87807	25.84%
Co 228.616†	1276.8	49.847	µg/L	2.9585	49.847	ppb	2.9585	5.94%
Cr 267.716†	9075.6	182.43	µg/L	5.651	182.43	ppb	5.651	3.10%
Cu 324.752†	7860.8	68.754	µg/L	1.2369	68.754	ppb	1.2369	1.80%
Fe 238.204 Radial†	15910.7	125490	µg/L	1133.8	125490	ppb	1133.8	0.90%
K 766.490 Radial†	18505.3	12086	µg/L	51.5	12086	ppb	51.5	0.43%
Mg 279.077 IEC†	2682.2	23841	µg/L	247.9	23841	ppb	247.9	1.04%
Mn 257.610†	974860.0	3068.5	µg/L	55.45	3068.5	ppb	55.45	1.81%
Mo 202.031†	-8.6	3.9297	µg/L	0.45458	3.9297	ppb	0.45458	11.57%
Na 589.592 Radial†	3177.0	975.79	µg/L	11.815	975.79	ppb	11.815	1.21%

Ni 231.604†	1989.8	100.75 µg/L	5.194	100.75 ppb	5.194	5.16%
P 214.914†	591.4	1097.1 µg/L	35.76	1097.1 ppb	35.76	3.26%
Pb 220.353†	507.3	125.03 µg/L	7.340	125.03 ppb	7.340	5.87%
S 181.975 Axial†	156.0	646.98 µg/L	33.477	646.98 ppb	33.477	5.17%
Sb 206.836†	20.6	12.888 µg/L	4.2381	12.888 ppb	4.2381	32.88%
Se 196.026†	-64.8	218.17 µg/L	4.815	218.17 ppb	4.815	2.21%
SiO2†	311991.2	61583 µg/L	936.5	61583 ppb	936.5	1.52%
Si 251.611†	375792.9	28569 µg/L	428.2	28569 ppb	428.2	1.50%
Sn 189.927†	-33.9	-25.076 µg/L	1.2378	-25.076 ppb	1.2378	4.94%
Sr 421.552†	39030.0	360.06 µg/L	1.986	360.06 ppb	1.986	0.55%
Ti 334.940†	1727315.2	3820.0 µg/L	85.79	3820.0 ppb	85.79	2.25%
Tl 190.801†	-40.1	16.408 µg/L	4.1144	16.408 ppb	4.1144	25.08%
U 409.014†	-1384.3	-135.19 µg/L	2.985	-135.19 ppb	2.985	2.21%
V 292.402†	23131.2	240.48 µg/L	5.652	240.48 ppb	5.652	2.35%
Zn 213.857†	9810.2	222.32 µg/L	4.794	222.32 ppb	4.794	2.16%

Sequence No.: 16
Sample ID: 245998008|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 214
Date Collected: 2/20/2010 01:57:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998008|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58001.6	58001.6	103	%			01:57:46
1	Al 396.153Radial†	172748.7	168256.0	117050	µg/L	117050	ppb	01:57:46
1	Ca 317.933Radial†	28500.6	27549.3	23532	µg/L	23532	ppb	01:58:06
1	Fe 238.204 Radial†	18250.3	17759.9	140070	µg/L	140070	ppb	01:58:06
1	K 766.490 Radial†	28859.7	27945.4	18252	µg/L	18252	ppb	01:57:46
1	Mg 279.077 IEC†	2317.5	2244.5	19913	µg/L	19913	ppb	01:58:06
1	Na 589.592 Radial†	2624.5	2084.2	640.14	µg/L	640.14	ppb	01:58:06
1	Sr 421.552†	30293.5	29478.1	271.94	µg/L	271.94	ppb	01:57:46
1	Sc 361.383	2006762.4	2006762.4	102.22	%			01:59:11
1	Y 371.029	1425437.1	1425437.1	105.37	%			01:59:11
1	Ag 328.068†	-2085.5	-1638.6	-1.4837	µg/L	-1.4837	ppb	01:59:17
1	As 188.979†	15.6	15.7	35.116	µg/L	35.116	ppb	01:59:37
1	B 249.677†	1389.4	975.0	-33.152	µg/L	-33.152	ppb	01:59:17
1	Ba 233.527†	84179.1	82365.5	1977.9	µg/L	1977.9	ppb	01:59:17
1	Be 313.107†	22655.0	25018.0	12.544	µg/L	12.544	ppb	01:59:17
1	Cd 226.502†	436.6	568.8	-1.5559	µg/L	-1.5559	ppb	01:59:17
1	Co 228.616†	1690.2	1651.5	62.172	µg/L	62.172	ppb	01:59:37
1	Cr 267.716†	6235.9	6150.6	123.71	µg/L	123.71	ppb	01:59:17
1	Cu 324.752†	13727.0	10884.7	90.520	µg/L	90.520	ppb	01:59:17
1	Mn 257.610†	1359515.9	1330205.5	4183.4	µg/L	4183.4	ppb	01:59:11
1	Mo 202.031†	-20.9	-15.1	3.8441	µg/L	3.8441	ppb	01:59:37
1	Ni 231.604†	2070.8	1713.4	87.143	µg/L	87.143	ppb	01:59:37
1	P 214.914†	895.6	860.7	1616.3	µg/L	1616.3	ppb	01:59:37
1	Pb 220.353†	816.2	707.5	172.99	µg/L	172.99	ppb	01:59:37
1	S 181.975 Axial†	289.7	264.4	1096.5	µg/L	1096.5	ppb	01:59:37
1	Sb 206.836†	35.5	12.2	7.7621	µg/L	7.7621	ppb	01:59:37
1	Se 196.026†	-48.7	-66.9	264.51	µg/L	264.51	ppb	01:59:37
1	SiO2†	319117.8	310786.1	61345	µg/L	61345	ppb	01:59:11
1	Si 251.611†	382687.3	374054.1	28436	µg/L	28436	ppb	01:59:11
1	Sn 189.927†	-47.3	-46.6	-32.370	µg/L	-32.370	ppb	01:59:37
1	Ti 334.940†	2794483.7	2733535.0	6046.0	µg/L	6046.0	ppb	01:59:11
1	Tl 190.801†	-84.7	-60.4	18.135	µg/L	18.135	ppb	01:59:37
1	U 409.014†	-260.9	-178.2	-35.707	µg/L	-35.707	ppb	01:59:11
1	V 292.402†	29041.8	28454.9	294.04	µg/L	294.04	ppb	01:59:17
1	Zn 213.857†	15212.9	14347.7	328.33	µg/L	328.33	ppb	01:59:17
2	Sc RADIAL	58732.4	58732.4	104	%			01:58:12
2	Al 396.153Radial†	174734.7	168072.7	116920	µg/L	116920	ppb	01:58:12
2	Ca 317.933Radial†	28413.9	27120.5	23166	µg/L	23166	ppb	01:58:32
2	Fe 238.204 Radial†	18243.5	17532.1	138280	µg/L	138280	ppb	01:58:32
2	K 766.490 Radial†	29279.2	27999.2	18287	µg/L	18287	ppb	01:58:12
2	Mg 279.077 IEC†	2318.3	2217.2	19671	µg/L	19671	ppb	01:58:32
2	Na 589.592 Radial†	2632.1	2059.7	632.61	µg/L	632.61	ppb	01:58:32
2	Sr 421.552†	30639.9	29444.2	271.63	µg/L	271.63	ppb	01:58:12
2	Sc 361.383	2006345.4	2006345.4	102.20	%			01:59:45
2	Y 371.029	1424071.7	1424071.7	105.27	%			01:59:45
2	Ag 328.068†	-2136.6	-1688.9	-1.9639	µg/L	-1.9639	ppb	01:59:51
2	As 188.979†	16.8	16.9	37.168	µg/L	37.168	ppb	02:00:11
2	B 249.677†	1382.9	968.9	-32.463	µg/L	-32.463	ppb	01:59:51
2	Ba 233.527†	84534.4	82730.2	1986.6	µg/L	1986.6	ppb	01:59:51
2	Be 313.107†	22643.0	25010.9	12.528	µg/L	12.528	ppb	01:59:51
2	Cd 226.502†	426.8	559.3	-1.5930	µg/L	-1.5930	ppb	01:59:51
2	Co 228.616†	1659.8	1622.1	60.772	µg/L	60.772	ppb	02:00:11
2	Cr 267.716†	6232.2	6148.3	123.67	µg/L	123.67	ppb	01:59:51
2	Cu 324.752†	13765.5	10925.2	90.534	µg/L	90.534	ppb	01:59:51
2	Mn 257.610†	1368474.7	1339247.7	4211.5	µg/L	4211.5	ppb	01:59:45
2	Mo 202.031†	-17.0	-11.3	4.1460	µg/L	4.1460	ppb	02:00:11
2	Ni 231.604†	2022.2	1666.3	84.774	µg/L	84.774	ppb	02:00:11
2	P 214.914†	889.8	855.3	1606.9	µg/L	1606.9	ppb	02:00:11
2	Pb 220.353†	817.3	708.8	173.37	µg/L	173.37	ppb	02:00:11

2	S 181.975 Axial†	283.8	258.8	1073.1 µg/L	1073.1 ppb	02:00:11
2	Sb 206.836†	27.8	4.7	0.9080 µg/L	0.9080 ppb	02:00:11
2	Se 196.026†	-57.8	-75.9	247.29 µg/L	247.29 ppb	02:00:11
2	SiO2†	320710.7	312409.6	61666 µg/L	61666 ppb	01:59:45
2	Si 251.611†	384382.7	375790.8	28568 µg/L	28568 ppb	01:59:45
2	Sn 189.927†	-47.4	-46.8	-32.259 µg/L	-32.259 ppb	02:00:11
2	Ti 334.940†	2808887.9	2748197.0	6078.4 µg/L	6078.4 ppb	01:59:45
2	Tl 190.801†	-82.0	-57.9	21.614 µg/L	21.614 ppb	02:00:11
2	U 409.014†	-275.2	-192.1	-36.597 µg/L	-36.597 ppb	01:59:45
2	V 292.402†	29133.5	28550.5	294.77 µg/L	294.77 ppb	01:59:51
2	Zn 213.857†	15252.5	14389.5	329.43 µg/L	329.43 ppb	01:59:51
3	Sc RADIAL	58432.7	58432.7	103 %		01:58:38
3	Al 396.153Radial†	174990.3	169181.9	117690 µg/L	117690 ppb	01:58:38
3	Ca 317.933Radial†	28735.0	27571.2	23551 µg/L	23551 ppb	01:58:58
3	Fe 238.204 Radial†	18382.3	17756.3	140040 µg/L	140040 ppb	01:58:58
3	K 766.490 Radial†	29111.9	27981.8	18275 µg/L	18275 ppb	01:58:38
3	Mg 279.077 IEC†	2328.9	2238.9	19863 µg/L	19863 ppb	01:58:58
3	Na 589.592 Radial†	2630.9	2071.5	636.25 µg/L	636.25 ppb	01:58:58
3	Sr 421.552†	30641.4	29596.8	273.03 µg/L	273.03 ppb	01:58:38
3	Sc 361.383	1996930.2	1996930.2	101.72 %		02:00:19
3	Y 371.029	1415951.7	1415951.7	104.67 %		02:00:19
3	Ag 328.068†	-2007.9	-1572.3	-1.0889 µg/L	-1.0889 ppb	02:00:25
3	As 188.979†	13.2	13.4	30.974 µg/L	30.974 ppb	02:00:45
3	B 249.677†	1348.1	941.2	-34.528 µg/L	-34.528 ppb	02:00:25
3	Ba 233.527†	80425.9	79081.3	1899.0 µg/L	1899.0 ppb	02:00:25
3	Be 313.107†	21257.3	23753.1	11.880 µg/L	11.880 ppb	02:00:25
3	Cd 226.502†	373.2	508.6	-3.0635 µg/L	-3.0635 ppb	02:00:25
3	Co 228.616†	1512.7	1485.2	55.114 µg/L	55.114 ppb	02:00:45
3	Cr 267.716†	5841.3	5792.8	116.52 µg/L	116.52 ppb	02:00:25
3	Cu 324.752†	13147.5	10381.2	87.229 µg/L	87.229 ppb	02:00:25
3	Mn 257.610†	1311741.5	1289788.1	4056.8 µg/L	4056.8 ppb	02:00:19
3	Mo 202.031†	-9.1	-3.6	4.9650 µg/L	4.9650 ppb	02:00:45
3	Ni 231.604†	1883.2	1539.0	78.458 µg/L	78.458 ppb	02:00:45
3	P 214.914†	808.6	779.6	1456.3 µg/L	1456.3 ppb	02:00:45
3	Pb 220.353†	763.9	660.0	161.48 µg/L	161.48 ppb	02:00:45
3	S 181.975 Axial†	272.8	249.2	1033.4 µg/L	1033.4 ppb	02:00:45
3	Sb 206.836†	30.7	7.7	3.6591 µg/L	3.6591 ppb	02:00:45
3	Se 196.026†	-56.8	-75.2	252.85 µg/L	252.85 ppb	02:00:45
3	SiO2†	310311.0	303665.5	59940 µg/L	59940 ppb	02:00:19
3	Si 251.611†	372284.0	365670.2	27799 µg/L	27799 ppb	02:00:19
3	Sn 189.927†	-43.6	-43.2	-30.919 µg/L	-30.919 ppb	02:00:45
3	Ti 334.940†	2676082.6	2630598.3	5818.3 µg/L	5818.3 ppb	02:00:19
3	Tl 190.801†	-76.2	-52.6	25.938 µg/L	25.938 ppb	02:00:45
3	U 409.014†	-169.3	-89.3	-28.325 µg/L	-28.325 ppb	02:00:19
3	V 292.402†	27408.8	26989.5	279.76 µg/L	279.76 ppb	02:00:25
3	Zn 213.857†	14555.9	13775.0	314.95 µg/L	314.95 ppb	02:00:25

Mean Data: 245998008|948776|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2003346.0	102.05	%	0.283				0.28%
Sc RADIAL	58388.9	103	%	0.7				0.63%
Y 371.029	1421820.2	105.11	%	0.379				0.36%
Ag 328.068†	-1633.3	-1.5122	µg/L	0.43819	-1.5122	ppb	0.43819	28.98%
Al 396.153Radial†	168503.5	117220	µg/L	413.6	117220	ppb	413.6	0.35%
As 188.979†	15.4	34.420	µg/L	3.1552	34.420	ppb	3.1552	9.17%
B 249.677†	961.7	-33.381	µg/L	1.0517	-33.381	ppb	1.0517	3.15%
Ba 233.527†	81392.3	1954.5	µg/L	48.26	1954.5	ppb	48.26	2.47%
Be 313.107†	24594.0	12.317	µg/L	0.3787	12.317	ppb	0.3787	3.07%
Ca 317.933Radial†	27413.7	23416	µg/L	217.1	23416	ppb	217.1	0.93%
Cd 226.502†	545.6	-2.0708	µg/L	0.85990	-2.0708	ppb	0.85990	41.53%
Co 228.616†	1586.3	59.353	µg/L	3.7372	59.353	ppb	3.7372	6.30%
Cr 267.716†	6030.6	121.30	µg/L	4.141	121.30	ppb	4.141	3.41%
Cu 324.752†	10730.4	89.428	µg/L	1.9043	89.428	ppb	1.9043	2.13%
Fe 238.204 Radial†	17682.8	139460	µg/L	1029.1	139460	ppb	1029.1	0.74%
K 766.490 Radial†	27975.5	18271	µg/L	17.9	18271	ppb	17.9	0.10%
Mg 279.077 IEC†	2233.5	19816	µg/L	128.0	19816	ppb	128.0	0.65%
Mn 257.610†	1319747.1	4150.6	µg/L	82.39	4150.6	ppb	82.39	1.98%
Mo 202.031†	-10.0	4.3183	µg/L	0.57998	4.3183	ppb	0.57998	13.43%
Na 589.592 Radial†	2071.8	636.33	µg/L	3.766	636.33	ppb	3.766	0.59%

Ni 231.604†	1639.5	83.458	µg/L	4.4893	83.458	ppb	4.4893	5.38%
P 214.914†	831.9	1559.8	µg/L	89.79	1559.8	ppb	89.79	5.76%
Pb 220.353†	692.1	169.28	µg/L	6.756	169.28	ppb	6.756	3.99%
S 181.975 Axial†	257.5	1067.7	µg/L	31.89	1067.7	ppb	31.89	2.99%
Sb 206.836†	8.2	4.1097	µg/L	3.44921	4.1097	ppb	3.44921	83.93%
Se 196.026†	-72.7	254.89	µg/L	8.787	254.89	ppb	8.787	3.45%
SiO2†	308953.7	60983	µg/L	918.1	60983	ppb	918.1	1.51%
Si 251.611†	371838.4	28268	µg/L	411.4	28268	ppb	411.4	1.46%
Sn 189.927†	-45.5	-31.849	µg/L	0.8077	-31.849	ppb	0.8077	2.54%
Sr 421.552†	29506.4	272.20	µg/L	0.739	272.20	ppb	0.739	0.27%
Ti 334.940†	2704110.1	5980.9	µg/L	141.77	5980.9	ppb	141.77	2.37%
Tl 190.801†	-57.0	21.896	µg/L	3.9093	21.896	ppb	3.9093	17.85%
U 409.014†	-153.2	-33.543	µg/L	4.5409	-33.543	ppb	4.5409	13.54%
V 292.402†	27998.3	289.52	µg/L	8.463	289.52	ppb	8.463	2.92%
Zn 213.857†	14170.7	324.24	µg/L	8.062	324.24	ppb	8.062	2.49%

Sequence No.: 17
Sample ID: 245998009|948776|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 215
Date Collected: 2/20/2010 02:00:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 245998009|948776|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58644.6	58644.6	104	%			02:01:27
1	Al 396.153Radial†	123712.6	119171.8	82902	µg/L	82902	ppb	02:01:27
1	Ca 317.933Radial†	21399.6	20404.2	17429	µg/L	17429	ppb	02:01:47
1	Fe 238.204 Radial†	14197.6	13660.7	107740	µg/L	107740	ppb	02:01:47
1	K 766.490 Radial†	23435.8	22412.0	14638	µg/L	14638	ppb	02:01:27
1	Mg 279.077 IEC†	1739.7	1663.2	14752	µg/L	14752	ppb	02:01:47
1	Na 589.592 Radial†	2187.6	1635.2	502.24	µg/L	502.24	ppb	02:01:47
1	Sr 421.552†	23025.0	22152.4	204.36	µg/L	204.36	ppb	02:01:27
1	Sc 361.383	1997001.7	1997001.7	101.73	%			02:02:52
1	Y 371.029	1405251.9	1405251.9	103.88	%			02:02:52
1	Ag 328.068†	-1726.8	-1295.9	-1.3737	µg/L	-1.3737	ppb	02:02:57
1	As 188.979†	20.8	20.9	42.874	µg/L	42.874	ppb	02:03:18
1	B 249.677†	1147.1	743.5	-25.704	µg/L	-25.704	ppb	02:02:57
1	Ba 233.527†	60588.6	59577.7	1430.7	µg/L	1430.7	ppb	02:02:57
1	Be 313.107†	16054.5	18637.8	9.3412	µg/L	9.3412	ppb	02:02:57
1	Cd 226.502†	319.7	456.0	-0.7222	µg/L	-0.7222	ppb	02:03:18
1	Co 228.616†	1394.7	1369.1	52.581	µg/L	52.581	ppb	02:03:18
1	Cr 267.716†	6697.8	6634.5	133.39	µg/L	133.39	ppb	02:02:57
1	Cu 324.752†	16977.7	14145.9	107.31	µg/L	107.31	ppb	02:02:57
1	Mn 257.610†	1113162.8	1094532.5	3441.3	µg/L	3441.3	ppb	02:02:52
1	Mo 202.031†	-10.9	-5.4	3.5680	µg/L	3.5680	ppb	02:03:18
1	Ni 231.604†	1961.2	1615.6	81.863	µg/L	81.863	ppb	02:03:18
1	P 214.914†	742.9	715.0	1342.0	µg/L	1342.0	ppb	02:03:18
1	Pb 220.353†	614.6	513.3	125.08	µg/L	125.08	ppb	02:03:18
1	S 181.975 Axial†	225.8	203.0	841.96	µg/L	841.96	ppb	02:03:18
1	Sb 206.836†	30.1	7.1	3.5173	µg/L	3.5173	ppb	02:03:18
1	Se 196.026†	-37.5	-56.2	197.55	µg/L	197.55	ppb	02:03:18
1	SiO2†	299265.8	292796.8	57794	µg/L	57794	ppb	02:02:52
1	Si 251.611†	358743.5	352346.3	26786	µg/L	26786	ppb	02:02:52
1	Sn 189.927†	-35.4	-35.2	-24.670	µg/L	-24.670	ppb	02:03:18
1	Ti 334.940†	2076524.1	2041118.0	4514.5	µg/L	4514.5	ppb	02:02:52
1	Tl 190.801†	-65.2	-41.7	19.323	µg/L	19.323	ppb	02:03:18
1	U 409.014†	-89.2	-10.6	-16.916	µg/L	-16.916	ppb	02:02:57
1	V 292.402†	22707.6	22367.1	230.96	µg/L	230.96	ppb	02:02:57
1	Zn 213.857†	10702.6	9986.6	227.84	µg/L	227.84	ppb	02:02:57
2	Sc RADIAL	57971.3	57971.3	103	%			02:01:53
2	Al 396.153Radial†	123249.5	120104.8	83551	µg/L	83551	ppb	02:01:53
2	Ca 317.933Radial†	21373.5	20618.2	17612	µg/L	17612	ppb	02:02:13
2	Fe 238.204 Radial†	14173.8	13796.5	108810	µg/L	108810	ppb	02:02:13
2	K 766.490 Radial†	23344.7	22585.4	14751	µg/L	14751	ppb	02:01:53
2	Mg 279.077 IEC†	1739.3	1682.2	14921	µg/L	14921	ppb	02:02:13
2	Na 589.592 Radial†	2180.2	1652.5	507.56	µg/L	507.56	ppb	02:02:13
2	Sr 421.552†	22837.3	22227.2	205.05	µg/L	205.05	ppb	02:01:53
2	Sc 361.383	2006427.8	2006427.8	102.21	%			02:03:25
2	Y 371.029	1410540.8	1410540.8	104.27	%			02:03:25
2	Ag 328.068†	-1746.8	-1307.4	-1.4097	µg/L	-1.4097	ppb	02:03:30
2	As 188.979†	9.6	9.8	23.045	µg/L	23.045	ppb	02:03:51
2	B 249.677†	1194.2	784.3	-24.600	µg/L	-24.600	ppb	02:03:30
2	Ba 233.527†	60025.7	58747.2	1410.7	µg/L	1410.7	ppb	02:03:30
2	Be 313.107†	15936.3	18448.0	9.2337	µg/L	9.2337	ppb	02:03:30
2	Cd 226.502†	308.5	443.5	-1.1545	µg/L	-1.1545	ppb	02:03:51
2	Co 228.616†	1393.0	1361.0	52.239	µg/L	52.239	ppb	02:03:51
2	Cr 267.716†	6698.9	6604.7	132.79	µg/L	132.79	ppb	02:03:30
2	Cu 324.752†	16832.9	13925.9	106.03	µg/L	106.03	ppb	02:03:30
2	Mn 257.610†	1112357.3	1088603.5	3422.9	µg/L	3422.9	ppb	02:03:25
2	Mo 202.031†	-12.5	-6.9	3.4631	µg/L	3.4631	ppb	02:03:51
2	Ni 231.604†	1957.1	1602.5	81.227	µg/L	81.227	ppb	02:03:51
2	P 214.914†	732.4	701.2	1314.2	µg/L	1314.2	ppb	02:03:51
2	Pb 220.353†	636.3	531.6	129.54	µg/L	129.54	ppb	02:03:51

2	S 181.975 Axial†	231.2	207.3	859.51 µg/L	859.51 ppb	02:03:51
2	Sb 206.836†	30.6	7.4	3.7695 µg/L	3.7695 ppb	02:03:51
2	Se 196.026†	-39.3	-57.7	198.06 µg/L	198.06 ppb	02:03:51
2	SiO2†	299971.0	292104.6	57658 µg/L	57658 ppb	02:03:25
2	Si 251.611†	359693.6	351619.1	26731 µg/L	26731 ppb	02:03:25
2	Sn 189.927†	-37.4	-37.0	-25.526 µg/L	-25.526 ppb	02:03:51
2	Ti 334.940†	2080214.9	2035139.2	4501.3 µg/L	4501.3 ppb	02:03:25
2	Tl 190.801†	-72.8	-48.9	10.044 µg/L	10.044 ppb	02:03:51
2	U 409.014†	-73.9	4.8	-15.803 µg/L	-15.803 ppb	02:03:30
2	V 292.402†	22529.3	22087.8	228.36 µg/L	228.36 ppb	02:03:30
2	Zn 213.857†	10651.5	9887.1	225.45 µg/L	225.45 ppb	02:03:30
3	Sc RADIAL	57589.7	57589.7	102 %		02:02:19
3	Al 396.153Radial†	123165.7	120818.5	84048 µg/L	84048 ppb	02:02:19
3	Ca 317.933Radial†	21602.6	20981.0	17921 µg/L	17921 ppb	02:02:39
3	Fe 238.204 Radial†	14343.5	14054.4	110850 µg/L	110850 ppb	02:02:39
3	K 766.490 Radial†	23309.8	22702.0	14827 µg/L	14827 ppb	02:02:19
3	Mg 279.077 IEC†	1755.1	1708.9	15157 µg/L	15157 ppb	02:02:39
3	Na 589.592 Radial†	2169.0	1655.6	508.52 µg/L	508.52 ppb	02:02:39
3	Sr 421.552†	22840.4	22377.7	206.44 µg/L	206.44 ppb	02:02:19
3	Sc 361.383	2005082.8	2005082.8	102.14 %		02:03:58
3	Y 371.029	1409201.7	1409201.7	104.17 %		02:03:58
3	Ag 328.068†	-1651.9	-1215.7	-0.6613 µg/L	-0.6613 ppb	02:04:04
3	As 188.979†	3.8	4.2	12.960 µg/L	12.960 ppb	02:04:24
3	B 249.677†	1149.2	741.0	-27.436 µg/L	-27.436 ppb	02:04:04
3	Ba 233.527†	57969.4	56773.3	1363.3 µg/L	1363.3 ppb	02:04:04
3	Be 313.107†	15144.7	17683.4	8.8324 µg/L	8.8324 ppb	02:04:04
3	Cd 226.502†	259.3	395.5	-2.5874 µg/L	-2.5874 ppb	02:04:24
3	Co 228.616†	1283.4	1254.6	47.710 µg/L	47.710 ppb	02:04:24
3	Cr 267.716†	6376.9	6293.9	126.54 µg/L	126.54 ppb	02:04:04
3	Cu 324.752†	16249.4	13365.5	102.65 µg/L	102.65 ppb	02:04:04
3	Mn 257.610†	1084601.0	1062158.2	3340.3 µg/L	3340.3 ppb	02:03:58
3	Mo 202.031†	-10.8	-5.2	3.6999 µg/L	3.6999 ppb	02:04:24
3	Ni 231.604†	1822.1	1471.6	74.733 µg/L	74.733 ppb	02:04:24
3	P 214.914†	680.9	651.3	1214.3 µg/L	1214.3 ppb	02:04:24
3	Pb 220.353†	589.7	486.4	118.51 µg/L	118.51 ppb	02:04:24
3	S 181.975 Axial†	213.0	189.6	786.46 µg/L	786.46 ppb	02:04:24
3	Sb 206.836†	32.0	8.8	5.1048 µg/L	5.1048 ppb	02:04:24
3	Se 196.026†	-43.4	-61.8	197.64 µg/L	197.64 ppb	02:04:24
3	SiO2†	294146.5	286598.9	56571 µg/L	56571 ppb	02:03:58
3	Si 251.611†	352668.6	344977.2	26226 µg/L	26226 ppb	02:03:58
3	Sn 189.927†	-28.2	-27.9	-21.898 µg/L	-21.898 ppb	02:04:24
3	Ti 334.940†	2015208.1	1972858.1	4363.5 µg/L	4363.5 ppb	02:03:58
3	Tl 190.801†	-63.5	-39.8	20.632 µg/L	20.632 ppb	02:04:24
3	U 409.014†	-50.3	27.9	-14.186 µg/L	-14.186 ppb	02:04:04
3	V 292.402†	21575.3	21168.5	219.63 µg/L	219.63 ppb	02:04:04
3	Zn 213.857†	10336.8	9586.1	218.31 µg/L	218.31 ppb	02:04:04

Mean Data: 245998009|948776|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2002837.4	102.02	%	0.260				0.25%
Sc RADIAL	58068.6	103	%	0.9				0.92%
Y 371.029	1408331.4	104.11	%	0.203				0.20%
Ag 328.068†	-1273.0	-1.1482	µg/L	0.42211	-1.1482	ppb	0.42211	36.76%
Al 396.153Radial†	120031.7	83500	µg/L	574.4	83500	ppb	574.4	0.69%
As 188.979†	11.6	26.293	µg/L	15.2194	26.293	ppb	15.2194	57.88%
B 249.677†	756.3	-25.913	µg/L	1.4299	-25.913	ppb	1.4299	5.52%
Ba 233.527†	58366.0	1401.6	µg/L	34.59	1401.6	ppb	34.59	2.47%
Be 313.107†	18256.4	9.1358	µg/L	0.26820	9.1358	ppb	0.26820	2.94%
Ca 317.933Radial†	20667.8	17654	µg/L	249.0	17654	ppb	249.0	1.41%
Cd 226.502†	431.7	-1.4881	µg/L	0.97629	-1.4881	ppb	0.97629	65.61%
Co 228.616†	1328.2	50.843	µg/L	2.7189	50.843	ppb	2.7189	5.35%
Cr 267.716†	6511.0	130.91	µg/L	3.793	130.91	ppb	3.793	2.90%
Cu 324.752†	13812.4	105.33	µg/L	2.408	105.33	ppb	2.408	2.29%
Fe 238.204 Radial†	13837.2	109130	µg/L	1577.1	109130	ppb	1577.1	1.45%
K 766.490 Radial†	22566.5	14739	µg/L	95.3	14739	ppb	95.3	0.65%
Mg 279.077 IEC†	1684.8	14943	µg/L	203.8	14943	ppb	203.8	1.36%
Mn 257.610†	1081764.7	3401.5	µg/L	53.78	3401.5	ppb	53.78	1.58%
Mo 202.031†	-5.8	3.5770	µg/L	0.11868	3.5770	ppb	0.11868	3.32%
Na 589.592 Radial†	1647.8	506.11	µg/L	3.382	506.11	ppb	3.382	0.67%

Ni 231.604†	1563.3	79.275 µg/L	3.9461	79.275 ppb	3.9461	4.98%
P 214.914†	689.2	1290.2 µg/L	67.12	1290.2 ppb	67.12	5.20%
Pb 220.353†	510.4	124.38 µg/L	5.549	124.38 ppb	5.549	4.46%
S 181.975 Axial†	200.0	829.31 µg/L	38.131	829.31 ppb	38.131	4.60%
Sb 206.836†	7.8	4.1305 µg/L	0.85311	4.1305 ppb	0.85311	20.65%
Se 196.026†	-58.6	197.75 µg/L	0.270	197.75 ppb	0.270	0.14%
SiO2†	290500.1	57341 µg/L	670.4	57341 ppb	670.4	1.17%
Si 251.611†	349647.5	26581 µg/L	308.7	26581 ppb	308.7	1.16%
Sn 189.927†	-33.4	-24.031 µg/L	1.8967	-24.031 ppb	1.8967	7.89%
Sr 421.552†	22252.4	205.28 µg/L	1.059	205.28 ppb	1.059	0.52%
Ti 334.940†	2016371.8	4459.8 µg/L	83.64	4459.8 ppb	83.64	1.88%
Tl 190.801†	-43.5	16.666 µg/L	5.7724	16.666 ppb	5.7724	34.63%
U 409.014†	7.4	-15.635 µg/L	1.3731	-15.635 ppb	1.3731	8.78%
V 292.402†	21874.5	226.31 µg/L	5.934	226.31 ppb	5.934	2.62%
Zn 213.857†	9820.0	223.86 µg/L	4.958	223.86 ppb	4.958	2.21%

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 02:15:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58191.5	58191.5	103	%			02:16:09
1	Al 396.153Radial†	7258.5	7039.6	4886.5	µg/L	4886.5	ppb	02:16:09
1	Ca 317.933Radial†	6140.0	5749.8	4911.3	µg/L	4911.3	ppb	02:16:30
1	Fe 238.204 Radial†	671.6	635.5	5022.8	µg/L	5022.8	ppb	02:16:30
1	K 766.490 Radial†	7817.3	7424.5	4849.1	µg/L	4849.1	ppb	02:16:09
1	Mg 279.077 IEC†	585.2	555.3	4967.5	µg/L	4967.5	ppb	02:16:30
1	Na 589.592 Radial†	33349.1	31905.1	9799.4	µg/L	9799.4	ppb	02:16:09
1	Sr 421.552†	53529.5	51940.7	479.16	µg/L	479.16	ppb	02:16:09
1	Sc 361.383	2025495.0	2025495.0	103.18	%			02:17:34
1	Y 371.029	1393522.4	1393522.4	103.01	%			02:17:34
1	Ag 328.068†	68051.7	66357.7	495.15	µg/L	495.15	ppb	02:17:39
1	As 188.979†	294.2	285.6	510.95	µg/L	510.95	ppb	02:18:00
1	B 249.677†	12740.6	11964.1	485.82	µg/L	485.82	ppb	02:17:39
1	Ba 233.527†	21431.5	20788.6	499.97	µg/L	499.97	ppb	02:17:39
1	Be 313.107†	860224.1	836589.2	496.33	µg/L	496.33	ppb	02:17:34
1	Cd 226.502†	20683.9	20188.6	503.46	µg/L	503.46	ppb	02:17:39
1	Co 228.616†	11485.2	11129.6	503.47	µg/L	503.47	ppb	02:17:39
1	Cr 267.716†	25878.1	25131.6	505.09	µg/L	505.09	ppb	02:17:39
1	Cu 324.752†	80890.3	75855.5	495.84	µg/L	495.84	ppb	02:17:39
1	Mn 257.610†	166534.0	161661.6	506.71	µg/L	506.71	ppb	02:17:34
1	Mo 202.031†	5429.0	5267.2	515.99	µg/L	515.99	ppb	02:18:00
1	Ni 231.604†	10805.9	10160.8	505.98	µg/L	505.98	ppb	02:17:39
1	P 214.914†	1357.1	1300.0	2526.6	µg/L	2526.6	ppb	02:18:00
1	Pb 220.353†	2263.0	2102.4	511.26	µg/L	511.26	ppb	02:18:00
1	S 181.975 Axial†	272.8	245.5	1018.0	µg/L	1018.0	ppb	02:18:00
1	Sb 206.836†	595.8	554.9	511.72	µg/L	511.72	ppb	02:18:00
1	Se 196.026†	396.0	364.5	519.78	µg/L	519.78	ppb	02:18:00
1	SiO2†	29444.9	27146.6	5358.4	µg/L	5358.4	ppb	02:17:39
1	Si 251.611†	34240.6	32875.6	2499.3	µg/L	2499.3	ppb	02:17:39
1	Sn 189.927†	1272.4	1232.8	519.94	µg/L	519.94	ppb	02:18:00
1	Ti 334.940†	231319.8	224021.3	495.27	µg/L	495.27	ppb	02:17:34
1	Tl 190.801†	376.6	387.4	509.16	µg/L	509.16	ppb	02:18:00
1	U 409.014†	6214.7	6100.4	505.85	µg/L	505.85	ppb	02:17:39
1	V 292.402†	52685.7	51108.0	504.32	µg/L	504.32	ppb	02:17:39
1	Zn 213.857†	22801.0	21564.4	502.38	µg/L	502.38	ppb	02:17:39
2	Sc RADIAL	57525.9	57525.9	102	%			02:16:35
2	Al 396.153Radial†	7277.8	7140.1	4956.8	µg/L	4956.8	ppb	02:16:35
2	Ca 317.933Radial†	6126.2	5805.2	4958.7	µg/L	4958.7	ppb	02:16:56
2	Fe 238.204 Radial†	672.0	643.4	5085.2	µg/L	5085.2	ppb	02:16:56
2	K 766.490 Radial†	7755.8	7451.9	4867.0	µg/L	4867.0	ppb	02:16:35
2	Mg 279.077 IEC†	585.5	562.2	5028.2	µg/L	5028.2	ppb	02:16:56
2	Na 589.592 Radial†	33351.3	32281.8	9915.1	µg/L	9915.1	ppb	02:16:35
2	Sr 421.552†	53616.1	52627.1	485.49	µg/L	485.49	ppb	02:16:35
2	Sc 361.383	2033969.0	2033969.0	103.61	%			02:18:07
2	Y 371.029	1400420.2	1400420.2	103.52	%			02:18:07
2	Ag 328.068†	67959.2	65993.6	492.44	µg/L	492.44	ppb	02:18:12
2	As 188.979†	284.5	275.1	492.09	µg/L	492.09	ppb	02:18:33
2	B 249.677†	12757.5	11929.0	484.35	µg/L	484.35	ppb	02:18:12
2	Ba 233.527†	21433.3	20703.8	497.93	µg/L	497.93	ppb	02:18:12
2	Be 313.107†	861320.1	834173.5	494.90	µg/L	494.90	ppb	02:18:07
2	Cd 226.502†	20662.3	20084.3	500.85	µg/L	500.85	ppb	02:18:12
2	Co 228.616†	11498.8	11096.3	501.95	µg/L	501.95	ppb	02:18:12
2	Cr 267.716†	25809.5	24960.9	501.66	µg/L	501.66	ppb	02:18:12
2	Cu 324.752†	80678.2	75324.2	492.38	µg/L	492.38	ppb	02:18:12
2	Mn 257.610†	166428.8	160887.6	504.30	µg/L	504.30	ppb	02:18:07
2	Mo 202.031†	5249.7	5072.2	496.89	µg/L	496.89	ppb	02:18:33
2	Ni 231.604†	10769.8	10082.3	502.07	µg/L	502.07	ppb	02:18:12
2	P 214.914†	1313.2	1252.1	2431.7	µg/L	2431.7	ppb	02:18:33
2	Pb 220.353†	2202.4	2034.8	494.79	µg/L	494.79	ppb	02:18:33

2	S 181.975 Axial†	266.6	238.4	988.63 µg/L	988.63 ppb	02:18:33
2	Sb 206.836†	585.1	542.2	499.79 µg/L	499.79 ppb	02:18:33
2	Se 196.026†	381.2	348.6	497.62 µg/L	497.62 ppb	02:18:33
2	SiO2†	29426.7	27010.1	5331.4 µg/L	5331.4 ppb	02:18:12
2	Si 251.611†	34259.9	32755.9	2490.2 µg/L	2490.2 ppb	02:18:12
2	Sn 189.927†	1228.0	1184.9	499.71 µg/L	499.71 ppb	02:18:33
2	Ti 334.940†	231705.0	223459.0	494.02 µg/L	494.02 ppb	02:18:07
2	Tl 190.801†	373.9	383.2	503.72 µg/L	503.72 ppb	02:18:33
2	U 409.014†	6182.0	6043.8	501.14 µg/L	501.14 ppb	02:18:12
2	V 292.402†	52588.6	50801.6	501.18 µg/L	501.18 ppb	02:18:12
2	Zn 213.857†	22745.5	21418.8	498.98 µg/L	498.98 ppb	02:18:12
3	Sc RADIAL	58138.8	58138.8	103 %		02:17:01
3	Al 396.153Radial†	7248.0	7035.8	4886.2 µg/L	4886.2 ppb	02:17:01
3	Ca 317.933Radial†	6114.0	5729.9	4894.4 µg/L	4894.4 ppb	02:17:22
3	Fe 238.204 Radial†	673.1	637.5	5037.6 µg/L	5037.6 ppb	02:17:22
3	K 766.490 Radial†	7762.5	7378.1	4818.8 µg/L	4818.8 ppb	02:17:01
3	Mg 279.077 IEC†	580.3	551.1	4927.8 µg/L	4927.8 ppb	02:17:22
3	Na 589.592 Radial†	33225.8	31814.5	9771.6 µg/L	9771.6 ppb	02:17:01
3	Sr 421.552†	53434.2	51895.1	478.74 µg/L	478.74 ppb	02:17:01
3	Sc 361.383	2035150.5	2035150.5	103.67 %		02:18:40
3	Y 371.029	1400317.4	1400317.4	103.52 %		02:18:40
3	Ag 328.068†	62831.2	61009.0	455.07 µg/L	455.07 ppb	02:18:46
3	As 188.979†	237.9	229.9	411.33 µg/L	411.33 ppb	02:19:06
3	B 249.677†	11656.1	10859.4	440.65 µg/L	440.65 ppb	02:18:46
3	Ba 233.527†	18986.2	18331.2	440.85 µg/L	440.85 ppb	02:18:46
3	Be 313.107†	781601.2	756793.4	448.99 µg/L	448.99 ppb	02:18:40
3	Cd 226.502†	18258.6	17754.0	442.67 µg/L	442.67 ppb	02:18:46
3	Co 228.616†	10012.1	9655.8	436.73 µg/L	436.73 ppb	02:18:46
3	Cr 267.716†	21830.8	21108.5	424.24 µg/L	424.24 ppb	02:18:46
3	Cu 324.752†	71151.5	66089.5	432.10 µg/L	432.10 ppb	02:18:46
3	Mn 257.610†	151802.1	146685.3	459.82 µg/L	459.82 ppb	02:18:40
3	Mo 202.031†	4279.7	4133.6	404.98 µg/L	404.98 ppb	02:19:06
3	Ni 231.604†	9441.2	8794.7	437.96 µg/L	437.96 ppb	02:18:46
3	P 214.914†	1100.1	1045.9	2028.4 µg/L	2028.4 ppb	02:19:06
3	Pb 220.353†	1872.9	1715.6	417.12 µg/L	417.12 ppb	02:19:06
3	S 181.975 Axial†	229.9	202.8	841.16 µg/L	841.16 ppb	02:19:06
3	Sb 206.836†	490.6	450.8	415.21 µg/L	415.21 ppb	02:19:06
3	Se 196.026†	333.9	302.7	433.15 µg/L	433.15 ppb	02:19:06
3	SiO2†	26613.4	24279.9	4792.5 µg/L	4792.5 ppb	02:18:46
3	Si 251.611†	30927.8	29522.5	2244.4 µg/L	2244.4 ppb	02:18:46
3	Sn 189.927†	990.4	955.0	402.76 µg/L	402.76 ppb	02:19:06
3	Ti 334.940†	208593.4	201035.6	444.42 µg/L	444.42 ppb	02:18:40
3	Tl 190.801†	322.5	333.4	438.55 µg/L	438.55 ppb	02:19:06
3	U 409.014†	5231.2	5123.1	424.65 µg/L	424.65 ppb	02:18:46
3	V 292.402†	45492.3	43926.9	433.21 µg/L	433.21 ppb	02:18:46
3	Zn 213.857†	19973.8	18732.5	436.34 µg/L	436.34 ppb	02:18:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031538.2	103.49	%	0.268				0.26%
Sc RADIAL	57952.1	103	%	0.7				0.64%
Y 371.029	1398086.7	103.35	%	0.292				0.28%
Ag 328.068†	64453.4	480.89	µg/L	22.399	480.89	ppb	22.399	4.66%
QC value within limits for Ag 328.068 Recovery = 96.18%								
Al 396.153Radial†	7071.8	4909.8	µg/L	40.70	4909.8	ppb	40.70	0.83%
QC value within limits for Al 396.153Radial Recovery = 98.20%								
As 188.979†	263.5	471.46	µg/L	52.918	471.46	ppb	52.918	11.22%
QC value within limits for As 188.979 Recovery = 94.29%								
B 249.677†	11584.2	470.27	µg/L	25.661	470.27	ppb	25.661	5.46%
QC value within limits for B 249.677 Recovery = 94.05%								
Ba 233.527†	19941.2	479.59	µg/L	33.559	479.59	ppb	33.559	7.00%
QC value within limits for Ba 233.527 Recovery = 95.92%								
Be 313.107†	809185.4	480.07	µg/L	26.927	480.07	ppb	26.927	5.61%
QC value within limits for Be 313.107 Recovery = 96.01%								
Ca 317.933Radial†	5761.6	4921.5	µg/L	33.35	4921.5	ppb	33.35	0.68%
QC value within limits for Ca 317.933Radial Recovery = 98.43%								
Cd 226.502†	19342.3	482.33	µg/L	34.369	482.33	ppb	34.369	7.13%
QC value within limits for Cd 226.502 Recovery = 96.47%								
Co 228.616†	10627.2	480.71	µg/L	38.101	480.71	ppb	38.101	7.93%

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   QC value within limits for Co 228.616  Recovery = 96.14%
Cr 267.716†            23733.6      476.99 µg/L        45.720      476.99 ppb        45.720   9.58%
   QC value within limits for Cr 267.716  Recovery = 95.40%
Cu 324.752†            72423.1      473.44 µg/L        35.846      473.44 ppb        35.846   7.57%
   QC value within limits for Cu 324.752  Recovery = 94.69%
Fe 238.204 Radial†       638.8      5048.5 µg/L         32.63      5048.5 ppb         32.63   0.65%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.97%
K 766.490 Radial†       7418.2      4844.9 µg/L         24.37      4844.9 ppb         24.37   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 96.90%
Mg 279.077 IEC†          556.2      4974.5 µg/L         50.53      4974.5 ppb         50.53   1.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.49%
Mn 257.610†           156411.5      490.28 µg/L        26.404      490.28 ppb        26.404   5.39%
   QC value within limits for Mn 257.610  Recovery = 98.06%
Mo 202.031†             4824.3      472.62 µg/L        59.353      472.62 ppb        59.353  12.56%
   QC value within limits for Mo 202.031  Recovery = 94.52%
Na 589.592 Radial†     32000.5      9828.7 µg/L         76.12      9828.7 ppb         76.12   0.77%
   QC value within limits for Na 589.592 Radial  Recovery = 98.29%
Ni 231.604†             9679.3      482.00 µg/L        38.193      482.00 ppb        38.193   7.92%
   QC value within limits for Ni 231.604  Recovery = 96.40%
P 214.914†              1199.3      2328.9 µg/L        264.54      2328.9 ppb        264.54  11.36%
   QC value within limits for P 214.914  Recovery = 93.16%
Pb 220.353†             1950.9      474.39 µg/L        50.276      474.39 ppb        50.276  10.60%
   QC value within limits for Pb 220.353  Recovery = 94.88%
S 181.975 Axial†         228.9      949.25 µg/L        94.750      949.25 ppb        94.750   9.98%
   QC value within limits for S 181.975 Axial  Recovery = 94.93%
Sb 206.836†              516.0      475.58 µg/L        52.614      475.58 ppb        52.614  11.06%
   QC value within limits for Sb 206.836  Recovery = 95.12%
Se 196.026†              338.6      483.52 µg/L        45.006      483.52 ppb        45.006   9.31%
   QC value within limits for Se 196.026  Recovery = 96.70%
SiO2†                  26145.5      5160.8 µg/L        319.20      5160.8 ppb        319.20   6.19%
   QC value within limits for SiO2  Recovery = 96.51%
Si 251.611†            31718.0      2411.3 µg/L        144.62      2411.3 ppb        144.62   6.00%
   QC value within limits for Si 251.611  Recovery = 96.45%
Sn 189.927†             1124.2      474.14 µg/L        62.634      474.14 ppb        62.634  13.21%
   QC value within limits for Sn 189.927  Recovery = 94.83%
Sr 421.552†            52154.3      481.13 µg/L         3.783      481.13 ppb         3.783   0.79%
   QC value within limits for Sr 421.552  Recovery = 96.23%
Ti 334.940†           216172.0      477.91 µg/L        29.003      477.91 ppb        29.003   6.07%
   QC value within limits for Ti 334.940  Recovery = 95.58%
Tl 190.801†              368.0      483.81 µg/L        39.291      483.81 ppb        39.291   8.12%
   QC value within limits for Tl 190.801  Recovery = 96.76%
U 409.014†              5755.8      477.21 µg/L        45.578      477.21 ppb        45.578   9.55%
   QC value within limits for U 409.014  Recovery = 95.44%
V 292.402†             48612.2      479.57 µg/L        40.178      479.57 ppb        40.178   8.38%
   QC value within limits for V 292.402  Recovery = 95.91%
Zn 213.857†            20571.9      479.23 µg/L        37.184      479.23 ppb        37.184   7.76%
   QC value within limits for Zn 213.857  Recovery = 95.85%
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 02:19:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57729.5	57729.5	102	%			02:19:48
1	Al 396.153Radial†	-17.4	-24.4	-17.001	µg/L	-17.001	ppb	02:19:48
1	Ca 317.933Radial†	191.9	-23.5	-20.043	µg/L	-20.043	ppb	02:20:08
1	Fe 238.204 Radial†	17.5	0.5	4.2213	µg/L	4.2213	ppb	02:20:08
1	K 766.490 Radial†	216.3	46.7	30.488	µg/L	30.488	ppb	02:19:48
1	Mg 279.077 IEC†	10.2	-2.8	-25.466	µg/L	-25.466	ppb	02:20:08
1	Na 589.592 Radial†	458.8	-23.2	-7.1181	µg/L	-7.1181	ppb	02:19:48
1	Sr 421.552†	41.6	11.9	0.1101	µg/L	0.1101	ppb	02:19:48
1	Sc 361.383	2012982.2	2012982.2	102.54	%			02:21:10
1	Y 371.029	1391221.6	1391221.6	102.84	%			02:21:10
1	Ag 328.068†	-376.4	34.5	0.2577	µg/L	0.2577	ppb	02:21:16
1	As 188.979†	0.9	1.3	2.4043	µg/L	2.4043	ppb	02:21:36
1	B 249.677†	358.4	-34.6	-1.4130	µg/L	-1.4130	ppb	02:21:36
1	Ba 233.527†	-13.7	3.8	0.0906	µg/L	0.0906	ppb	02:21:36
1	Be 313.107†	-2822.7	102.9	0.0610	µg/L	0.0610	ppb	02:21:16
1	Cd 226.502†	-143.6	1.7	0.0414	µg/L	0.0414	ppb	02:21:36
1	Co 228.616†	13.0	10.8	0.4870	µg/L	0.4870	ppb	02:21:36
1	Cr 267.716†	-60.0	-8.1	-0.1624	µg/L	-0.1624	ppb	02:21:16
1	Cu 324.752†	2581.5	-26.2	-0.1706	µg/L	-0.1706	ppb	02:21:16
1	Mn 257.610†	-191.2	69.6	0.2195	µg/L	0.2195	ppb	02:21:36
1	Mo 202.031†	-1.0	4.3	0.4238	µg/L	0.4238	ppb	02:21:36
1	Ni 231.604†	317.8	-2.4	-0.1193	µg/L	-0.1193	ppb	02:21:36
1	P 214.914†	18.9	3.1	6.0757	µg/L	6.0757	ppb	02:21:36
1	Pb 220.353†	86.2	-6.9	-1.6658	µg/L	-1.6658	ppb	02:21:36
1	S 181.975 Axial†	19.7	0.2	0.9452	µg/L	0.9452	ppb	02:21:36
1	Sb 206.836†	20.5	-2.5	-2.3172	µg/L	-2.3172	ppb	02:21:36
1	Se 196.026†	16.0	-3.7	-5.2215	µg/L	-5.2215	ppb	02:21:36
1	SiO2†	1492.0	63.5	12.534	µg/L	12.534	ppb	02:21:16
1	Si 251.611†	376.6	56.7	4.3078	µg/L	4.3078	ppb	02:21:36
1	Sn 189.927†	2.4	2.0	0.8365	µg/L	0.8365	ppb	02:21:36
1	Ti 334.940†	324.8	141.7	0.3151	µg/L	0.3151	ppb	02:21:16
1	Tl 190.801†	-19.9	3.0	3.8867	µg/L	3.8867	ppb	02:21:36
1	U 409.014†	-83.1	-4.0	-0.3304	µg/L	-0.3304	ppb	02:21:16
1	V 292.402†	-22.0	23.3	0.2303	µg/L	0.2303	ppb	02:21:16
1	Zn 213.857†	530.6	-16.9	-0.3954	µg/L	-0.3954	ppb	02:21:36
2	Sc RADIAL	57608.9	57608.9	102	%			02:20:14
2	Al 396.153Radial†	0.7	-6.7	-4.6630	µg/L	-4.6630	ppb	02:20:14
2	Ca 317.933Radial†	197.8	-17.3	-14.771	µg/L	-14.771	ppb	02:20:34
2	Fe 238.204 Radial†	16.4	-0.5	-4.1892	µg/L	-4.1892	ppb	02:20:34
2	K 766.490 Radial†	195.3	26.6	17.353	µg/L	17.353	ppb	02:20:14
2	Mg 279.077 IEC†	10.5	-2.5	-22.571	µg/L	-22.571	ppb	02:20:34
2	Na 589.592 Radial†	494.6	12.8	3.9451	µg/L	3.9451	ppb	02:20:14
2	Sr 421.552†	24.5	-4.7	-0.0437	µg/L	-0.0437	ppb	02:20:14
2	Sc 361.383	2039746.3	2039746.3	103.90	%			02:21:42
2	Y 371.029	1408964.2	1408964.2	104.16	%			02:21:42
2	Ag 328.068†	-401.8	14.9	0.1084	µg/L	0.1084	ppb	02:21:48
2	As 188.979†	-0.4	0.1	0.2035	µg/L	0.2035	ppb	02:22:08
2	B 249.677†	347.9	-49.3	-2.0073	µg/L	-2.0073	ppb	02:22:08
2	Ba 233.527†	-12.4	5.1	0.1221	µg/L	0.1221	ppb	02:22:08
2	Be 313.107†	-2753.3	205.8	0.1220	µg/L	0.1220	ppb	02:21:48
2	Cd 226.502†	-138.7	8.2	0.2052	µg/L	0.2052	ppb	02:22:08
2	Co 228.616†	10.5	8.2	0.3693	µg/L	0.3693	ppb	02:22:08
2	Cr 267.716†	-54.4	-2.0	-0.0396	µg/L	-0.0396	ppb	02:21:48
2	Cu 324.752†	2596.8	-44.5	-0.2909	µg/L	-0.2909	ppb	02:21:48
2	Mn 257.610†	-173.0	89.5	0.2807	µg/L	0.2807	ppb	02:22:08
2	Mo 202.031†	-1.2	4.2	0.4087	µg/L	0.4087	ppb	02:22:08
2	Ni 231.604†	312.3	-11.8	-0.5894	µg/L	-0.5894	ppb	02:22:08
2	P 214.914†	10.7	-5.1	-9.9877	µg/L	-9.9877	ppb	02:22:08
2	Pb 220.353†	88.9	-5.4	-1.3052	µg/L	-1.3052	ppb	02:22:08

2	S 181.975 Axial†	16.4	-3.2	-13.188	µg/L	-13.188 ppb	02:22:08
2	Sb 206.836†	18.9	-4.3	-3.9396	µg/L	-3.9396 ppb	02:22:08
2	Se 196.026†	15.1	-4.7	-6.6360	µg/L	-6.6360 ppb	02:22:08
2	SiO2†	1508.6	60.3	11.907	µg/L	11.907 ppb	02:21:48
2	Si 251.611†	367.0	42.6	3.2357	µg/L	3.2357 ppb	02:22:08
2	Sn 189.927†	0.9	0.5	0.1899	µg/L	0.1899 ppb	02:22:08
2	Ti 334.940†	306.0	119.5	0.2658	µg/L	0.2658 ppb	02:21:48
2	Tl 190.801†	-25.9	-2.5	-3.3006	µg/L	-3.3006 ppb	02:22:08
2	U 409.014†	-67.0	12.6	1.0522	µg/L	1.0522 ppb	02:21:48
2	V 292.402†	-80.4	-32.6	-0.3143	µg/L	-0.3143 ppb	02:21:48
2	Zn 213.857†	571.4	15.5	0.3686	µg/L	0.3686 ppb	02:22:08
3	Sc RADIAL	57056.8	57056.8	101	%		02:20:39
3	Al 396.153Radial†	10.1	2.7	1.8492	µg/L	1.8492 ppb	02:20:39
3	Ca 317.933Radial†	194.0	-19.2	-16.395	µg/L	-16.395 ppb	02:21:00
3	Fe 238.204 Radial†	18.0	1.2	9.8270	µg/L	9.8270 ppb	02:21:00
3	K 766.490 Radial†	183.0	16.2	10.602	µg/L	10.602 ppb	02:20:39
3	Mg 279.077 IEC†	7.4	-5.5	-49.112	µg/L	-49.112 ppb	02:21:00
3	Na 589.592 Radial†	427.2	-49.2	-15.115	µg/L	-15.115 ppb	02:20:39
3	Sr 421.552†	45.7	16.5	0.1520	µg/L	0.1520 ppb	02:20:39
3	Sc 361.383	2026055.5	2026055.5	103.21	%		02:22:14
3	Y 371.029	1399581.3	1399581.3	103.46	%		02:22:14
3	Ag 328.068†	-331.7	80.2	0.5939	µg/L	0.5939 ppb	02:22:20
3	As 188.979†	3.2	3.6	6.4530	µg/L	6.4530 ppb	02:22:41
3	B 249.677†	343.3	-51.5	-2.1037	µg/L	-2.1037 ppb	02:22:41
3	Ba 233.527†	-10.3	7.1	0.1709	µg/L	0.1709 ppb	02:22:41
3	Be 313.107†	-2694.2	245.2	0.1455	µg/L	0.1455 ppb	02:22:20
3	Cd 226.502†	-134.3	11.6	0.2871	µg/L	0.2871 ppb	02:22:41
3	Co 228.616†	-3.8	-5.6	-0.2528	µg/L	-0.2528 ppb	02:22:41
3	Cr 267.716†	-51.6	0.4	0.0084	µg/L	0.0084 ppb	02:22:20
3	Cu 324.752†	2562.7	-60.6	-0.3944	µg/L	-0.3944 ppb	02:22:20
3	Mn 257.610†	-154.6	106.3	0.3360	µg/L	0.3360 ppb	02:22:41
3	Mo 202.031†	-7.3	-1.7	-0.1657	µg/L	-0.1657 ppb	02:22:41
3	Ni 231.604†	302.2	-19.6	-0.9746	µg/L	-0.9746 ppb	02:22:41
3	P 214.914†	5.7	-9.8	-19.450	µg/L	-19.450 ppb	02:22:41
3	Pb 220.353†	86.4	-7.2	-1.7506	µg/L	-1.7506 ppb	02:22:41
3	S 181.975 Axial†	17.5	-2.0	-8.2198	µg/L	-8.2198 ppb	02:22:41
3	Sb 206.836†	25.0	1.7	1.5508	µg/L	1.5508 ppb	02:22:41
3	Se 196.026†	15.6	-4.2	-5.8230	µg/L	-5.8230 ppb	02:22:41
3	SiO2†	1484.7	47.0	9.2857	µg/L	9.2857 ppb	02:22:20
3	Si 251.611†	397.1	74.1	5.6334	µg/L	5.6334 ppb	02:22:41
3	Sn 189.927†	-1.7	-2.0	-0.8540	µg/L	-0.8540 ppb	02:22:41
3	Ti 334.940†	284.1	100.3	0.2254	µg/L	0.2254 ppb	02:22:20
3	Tl 190.801†	-25.2	-2.0	-2.5688	µg/L	-2.5688 ppb	02:22:41
3	U 409.014†	-12.8	64.7	5.3749	µg/L	5.3749 ppb	02:22:20
3	V 292.402†	-61.2	-14.6	-0.1365	µg/L	-0.1365 ppb	02:22:20
3	Zn 213.857†	539.8	-11.4	-0.2593	µg/L	-0.2593 ppb	02:22:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2026261.4	103.22	%	0.682				0.66%
Sc RADIAL	57465.1	102	%	0.6				0.62%
Y 371.029	1399922.4	103.49	%	0.656				0.63%
Ag 328.068†	43.2	0.3200	µg/L	0.24871	0.3200	ppb	0.24871	77.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.5	-6.6051	µg/L	9.57422	-6.6051	ppb	9.57422	144.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.7	3.0203	µg/L	3.16995	3.0203	ppb	3.16995	104.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-45.1	-1.8413	µg/L	0.37408	-1.8413	ppb	0.37408	20.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.1278	µg/L	0.04049	0.1278	ppb	0.04049	31.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	184.7	0.1095	µg/L	0.04361	0.1095	ppb	0.04361	39.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-20.0	-17.070	µg/L	2.7003	-17.070	ppb	2.7003	15.82%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.2	0.1779	µg/L	0.12511	0.1779	ppb	0.12511	70.33%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.4	0.2012	µg/L	0.39754	0.2012	ppb	0.39754	197.62%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.2     -0.0645 µg/L       0.08809     -0.0645 ppb        0.08809 136.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -43.8     -0.2853 µg/L       0.11199     -0.2853 ppb        0.11199  39.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.2864 µg/L       7.05469      3.2864 ppb        7.05469 214.66%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.8      19.481 µg/L       10.1120      19.481 ppb        10.1120  51.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.6     -32.383 µg/L       14.5597     -32.383 ppb        14.5597  44.96%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                88.5      0.2787 µg/L       0.05831      0.2787 ppb        0.05831  20.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.3      0.2223 µg/L       0.33607      0.2223 ppb        0.33607 151.21%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -19.8     -6.0959 µg/L       9.57098     -6.0959 ppb        9.57098 157.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -11.3     -0.5611 µg/L       0.42835     -0.5611 ppb        0.42835  76.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.9     -7.7874 µg/L      12.90433     -7.7874 ppb       12.90433 165.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.5     -1.5739 µg/L       0.23649     -1.5739 ppb        0.23649  15.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.6     -6.8209 µg/L       7.16966     -6.8209 ppb        7.16966 105.11%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.7     -1.5686 µg/L       2.82072     -1.5686 ppb        2.82072 179.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.2     -5.8935 µg/L       0.70989     -5.8935 ppb        0.70989  12.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      57.0      11.242 µg/L        1.7233      11.242 ppb         1.7233  15.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                57.8      4.3923 µg/L       1.20111      4.3923 ppb        1.20111  27.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.1      0.0575 µg/L       0.85300      0.0575 ppb        0.85300 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.9      0.0728 µg/L       0.10305      0.0728 ppb        0.10305 141.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               120.5      0.2688 µg/L       0.04493      0.2688 ppb        0.04493  16.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.5     -0.6609 µg/L       3.95533     -0.6609 ppb        3.95533 598.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.5      2.0322 µg/L       2.97621      2.0322 ppb        2.97621 146.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -8.0     -0.0735 µg/L       0.27772     -0.0735 ppb        0.27772 377.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -4.3     -0.0954 µg/L       0.40752     -0.0954 ppb        0.40752 427.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 21:10:56
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1673
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4426.7	4426.686	125.624	2.8
	Mg	24.0	33968.1	33968.140	360.627	1.1
	Co	58.9	55712.4	55712.441	767.844	1.4
	Rh	102.9	102017.2	102017.216	1333.173	1.3
	In	114.9	112334.6	112334.589	1361.480	1.2
	Pb	208.0	82895.7	82895.659	1277.395	1.5
⌈>	Ba	137.9	106971.7	106971.669	1685.235	1.6
⌊	Ba++	69.0	2397.2	0.022	0.001	3.1
⌈>	Ce	139.9	138161.7	138161.712	925.788	0.7
⌊	CeO	155.9	2844.6	0.021	0.000	1.6
	Bkgd	220.0	6.4	6.400	1.817	28.4

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.3	4785.5
Co	59	11	6.0	51167.5
In	115	11	6.8	111813.5

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.638
Be	9.0	9.0	2035	2080	0.652
Mg	24.0	24.0	5692	2124	0.597
Mg	25.0	25.1	5932	2080	0.693
Mg	26.0	26.1	6174	2120	0.666
Co	58.9	59.0	14165	2170	0.619
Rh	102.9	102.9	24868	2230	0.691
In	114.9	114.9	27795	2260	0.675
Ce	139.9	139.9	33858	2280	0.745
Pb	206.0	206.0	49960	2428	0.744
Pb	207.0	207.0	50135	2385	0.687
Pb	208.0	208.0	50463	2430	0.733
U	238.1	238.0	57717	2470	0.741

Report Date/Time: Thursday, February 25, 2010 21:07:47

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 26, 2010 10:27:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Blank.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		130	
	Be	9		ug/L		9	
	B	11		ug/L		452	
	Na	23		ug/L		22018	
	Mg	24		ug/L		5334	
	Al	27		ug/L		10671	
	P	31		ug/L		7716	
	K	39		ug/L		425928	
	Ca	43		ug/L		246	
>	Sc	45		ug/L		1149928	
	V	51		ug/L		10857	
	Cr	52		ug/L		6558	
	Cr	53		ug/L		117514	
	Mn	55		ug/L		2287	
	Fe	57		ug/L		5199	
	Co	59		ug/L		124	
	Ni	60		ug/L		76	
	Cu	63		ug/L		150	
	Cu	65		ug/L		93	
	Zn	66		ug/L		224	
	Zn	67		ug/L		16879	
	Zn	68		ug/L		1074	
>	Ge	74		ug/L		252899	
	As	75		ug/L		131	
	Se	77		ug/L		6736	
	Se	82		ug/L		8	
	Kr	83		ug/L		65	
	Sr	88		ug/L		247	
	Y	89		ug/L		65	
	Ag	107		ug/L		49	
	Cd	111		ug/L		10	
	Cd	114		ug/L		32	
>	In	115		ug/L		141594	
	Sn	120		ug/L		417	
	Sb	121		ug/L		304	
	Sb	123		ug/L		240	
	Ba	135		ug/L		33	
	Ba	137		ug/L		64	
	Ho	165		ug/L		5	
>	Lu	175		ug/L		213942	
	Tl	205		ug/L		240	
	Pb	208		ug/L		1960	
	Bi	209		ug/L		40	
	U	238		ug/L		231	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	0.9999
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: Blank

Report Date/Time: Friday, February 26, 2010 10:30:27

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: Blank

Report Date/Time: Friday, February 26, 2010 10:30:27

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 26, 2010 10:33:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Standard 1.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	0.156	14814	0.013
	Be	9	10.000	ug/L	2.376	4221	0.004
	B	11	20.000	ug/L	2.339	9031	0.008
	Na	23	1000.000	ug/L	5.589	3502699	3.045
	Mg	24	1000.000	ug/L	7.751	2831285	2.472
	Al	27	1000.000	ug/L	2.568	4116671	3.592
	P	31	1000.000	ug/L	0.679	224032	0.189
	K	39	1000.000	ug/L	4.331	4607846	3.661
	Ca	43	1000.000	ug/L	3.347	10597	0.009
>	Sc	45		ug/L		1142990	1142989.871
	V	51	10.000	ug/L	5.248	60087	0.043
	Cr	52	10.000	ug/L	0.426	46927	0.035
	Cr	53		ug/L		104482	-0.011
	Mn	55	10.000	ug/L	0.730	62314	0.053
	Fe	57	1000.000	ug/L	0.786	125849	0.106
	Co	59	10.000	ug/L	0.287	46086	0.040
	Ni	60	10.000	ug/L	1.286	9791	0.008
	Cu	63		ug/L		23024	0.020
	Cu	65	10.000	ug/L	0.630	11515	0.010
	Zn	66	10.000	ug/L	1.132	7712	0.030
	Zn	67		ug/L		14660	-0.009
	Zn	68		ug/L		6423	0.021
>	Ge	74		ug/L		252600	252599.645
	As	75	10.000	ug/L	2.626	8194	0.032
	Se	77		ug/L		6519	-0.001
	Se	82	10.000	ug/L	3.286	735	0.003
	Kr	83		ug/L		66	0.000
	Sr	88	10.000	ug/L	1.667	94215	0.659
	Y	89		ug/L		87	0.000
	Ag	107	10.000	ug/L	0.995	35981	0.252
	Cd	111	10.000	ug/L	0.280	8608	0.060
	Cd	114		ug/L		19967	0.140
>	In	115		ug/L		142587	142586.557
	Sn	120	10.000	ug/L	1.276	36788	0.255
	Sb	121	10.000	ug/L	0.867	31766	0.221
	Sb	123		ug/L		25091	0.174
	Ba	135		ug/L		9165	0.042
	Ba	137	10.000	ug/L	0.823	16162	0.075
	Ho	165		ug/L		8	0.000
>	Lu	175		ug/L		215170	215170.444
	Tl	205	10.000	ug/L	0.898	74269	0.344
	Pb	208	10.000	ug/L	1.893	139984	0.642
	Bi	209		ug/L		48	0.000
	U	238	10.000	ug/L	2.523	147080	0.683

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 26, 2010 10:39:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\Standard 2.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.005**	**ug/L**	2.658	132567	0.129
	Be	9	**100.004**	**ug/L**	1.040	37937	0.037
	B	11	**200.075**	**ug/L**	1.063	80389	0.078
	Na	23	**10001.512**	**ug/L**	1.689	31713056	30.926
	Mg	24	**9998.277**	**ug/L**	5.140	24898017	24.299
	Al	27	**9997.190**	**ug/L**	8.022	35839900	34.932
	P	31	**9998.732**	**ug/L**	0.700	1922513	1.869
	K	39	**10011.039**	**ug/L**	16.812	42585151	41.196
	Ca	43	**9998.491**	**ug/L**	1.540	91673	0.089
>	Sc	45		**ug/L**		1025026	1025026.368
	V	51	**100.006**	**ug/L**	0.834	454386	0.434
	Cr	52	**100.032**	**ug/L**	0.530	380466	0.365
	Cr	53		**ug/L**		138926	0.033
	Mn	55	**99.993**	**ug/L**	0.644	536483	0.521
	Fe	57	**9996.000**	**ug/L**	0.679	1044861	1.015
	Co	59	**99.983**	**ug/L**	0.444	405255	0.395
	Ni	60	**99.990**	**ug/L**	0.385	86361	0.084
	Cu	63		**ug/L**		205029	0.200
	Cu	65	**100.000**	**ug/L**	0.665	102564	0.100
	Zn	66	**99.948**	**ug/L**	0.553	64369	0.282
	Zn	67		**ug/L**		23719	0.037
	Zn	68		**ug/L**		48046	0.207
>	Ge	74		**ug/L**		227904	227904.129
	As	75	**100.014**	**ug/L**	0.920	73901	0.324
	Se	77		**ug/L**		11276	0.023
	Se	82	**99.995**	**ug/L**	0.712	6531	0.029
	Kr	83		**ug/L**		81	0.000
	Sr	88	**99.983**	**ug/L**	0.570	832591	6.480
	Y	89		**ug/L**		144	0.001
	Ag	107	**99.989**	**ug/L**	0.535	320130	2.492
	Cd	111	**100.005**	**ug/L**	0.937	77830	0.606
	Cd	114		**ug/L**		180972	1.409
>	In	115		**ug/L**		128441	128440.647
	Sn	120	**100.036**	**ug/L**	0.313	340457	2.648
	Sb	121	**100.047**	**ug/L**	1.106	297860	2.317
	Sb	123		**ug/L**		232878	1.812
	Ba	135		**ug/L**		86438	0.434
	Ba	137	**100.014**	**ug/L**	0.606	151207	0.759
	Ho	165		**ug/L**		9	0.000
>	Lu	175		**ug/L**		199132	199131.729
	Tl	205	**99.986**	**ug/L**	0.945	675376	3.391
	Pb	208	**99.993**	**ug/L**	0.532	1270146	6.369
	Bi	209		**ug/L**		138	0.001
	U	238	**99.964**	**ug/L**	1.177	1311717	6.586

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 26, 2010 10:45:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 1.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.903**	**ug/L**	1.508	71592	0.066
	Be	9	**50.285**	**ug/L**	2.061	20229	0.019
	B	11	**101.160**	**ug/L**	2.319	43314	0.039
	Na	23	**4750.927**	**ug/L**	2.335	15987617	14.690
	Mg	24	**4872.676**	**ug/L**	5.902	12875863	11.842
	Al	27	**4602.202**	**ug/L**	4.384	17488342	16.081
	P	31	**4924.321**	**ug/L**	0.188	1007746	0.920
	K	39	**4288.880**	**ug/L**	4.180	19584733	17.649
	Ca	43	**4816.692**	**ug/L**	0.144	46942	0.043
>	Sc	45		**ug/L**		1086892	1086891.934
	V	51	**50.099**	**ug/L**	1.527	246481	0.217
	Cr	52	**50.831**	**ug/L**	1.512	208048	0.186
	Cr	53		**ug/L**		123962	0.012
	Mn	55	**51.103**	**ug/L**	1.629	291802	0.266
	Fe	57	**4893.822**	**ug/L**	1.056	544915	0.497
	Co	59	**49.993**	**ug/L**	0.867	214930	0.198
	Ni	60	**51.745**	**ug/L**	0.586	47426	0.044
	Cu	63		**ug/L**		109948	0.101
	Cu	65	**50.205**	**ug/L**	1.298	54645	0.050
	Zn	66	**51.522**	**ug/L**	0.645	35019	0.145
	Zn	67		**ug/L**		18740	0.011
	Zn	68		**ug/L**		26641	0.107
>	Ge	74		**ug/L**		239822	239821.652
	As	75	**47.560**	**ug/L**	0.340	37050	0.154
	Se	77		**ug/L**		9413	0.013
	Se	82	**49.741**	**ug/L**	0.958	3422	0.014
	Kr	83		**ug/L**		92	0.000
	Sr	88	**52.094**	**ug/L**	0.907	454554	3.376
	Y	89		**ug/L**		118	0.000
	Ag	107	**51.300**	**ug/L**	1.028	172099	1.279
	Cd	111	**50.036**	**ug/L**	0.744	40803	0.303
	Cd	114		**ug/L**		94770	0.704
>	In	115		**ug/L**		134574	134574.271
	Sn	120	**53.045**	**ug/L**	1.872	189326	1.404
	Sb	121	**53.077**	**ug/L**	2.205	165689	1.229
	Sb	123		**ug/L**		130110	0.965
	Ba	135		**ug/L**		44968	0.218
	Ba	137	**50.935**	**ug/L**	1.156	79704	0.387
	Ho	165		**ug/L**		20	0.000
>	Lu	175		**ug/L**		206020	206019.736
	Tl	205	**49.100**	**ug/L**	2.087	343247	1.665
	Pb	208	**50.491**	**ug/L**	0.952	664475	3.216
	Bi	209		**ug/L**		160	0.001
	U	238	**53.646**	**ug/L**	0.710	728335	3.534

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	101.807				
	Be	9	100.569				
	B	11	101.160				
	Na	23	95.019				
	Mg	24	97.454				
	Al	27	91.133				
	P	31	98.486				
	K	39	85.778				
	Ca	43	96.334				
>	Sc	45		94.5			
	V	51	100.197				
	Cr	52	101.662				
	Cr	53					
	Mn	55	102.207				
	Fe	57	97.876				
	Co	59	99.985				
	Ni	60	103.490				
	Cu	63					
	Cu	65	100.410				
	Zn	66	103.043				
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75	95.119				
	Se	77					
	Se	82	99.482				
	Kr	83					
	Sr	88	104.187				
	Y	89					
	Ag	107	102.599				
	Cd	111	100.071				
	Cd	114					
>	In	115		95.0			
	Sn	120	106.091				
	Sb	121	106.154				
	Sb	123					
	Ba	135					
	Ba	137	101.870				
	Ho	165					
>	Lu	175		96.3			
	Tl	205	98.199				
	Pb	208	100.983				
	Bi	209					
	U	238	107.292				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	K	39	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 1

Report Date/Time: Friday, February 26, 2010 10:48:04

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 26, 2010 10:51:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 2.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.015**	**ug/L**	85.181	165	0.000
	Be	9	**0.009**	**ug/L**	20.736	14	0.000
	B	11	**3.172**	**ug/L**	19.937	2014	0.001
	Na	23	**0.096**	**ug/L**	1316.941	24021	0.000
	Mg	24	**1.534**	**ug/L**	83.247	10337	0.004
	Al	27	**1.363**	**ug/L**	62.937	17344	0.005
	P	31	**-1.750**	**ug/L**	126.768	7892	-0.000
	K	39	**-4.123**	**ug/L**	41.014	437262	-0.017
	Ca	43	**0.955**	**ug/L**	331.188	275	0.000
>	Sc	45		**ug/L**		1237026	1237025.967
	V	51	**0.183**	**ug/L**	277.796	12656	0.001
	Cr	52	**0.427**	**ug/L**	8.764	8985	0.002
	Cr	53		**ug/L**		130670	0.003
	Mn	55	**-0.031**	**ug/L**	20.041	2260	-0.000
	Fe	57	**-0.036**	**ug/L**	2092.536	5588	-0.000
	Co	59	**0.006**	**ug/L**	45.865	165	0.000
	Ni	60	**-0.002**	**ug/L**	309.893	80	-0.000
	Cu	63		**ug/L**		157	-0.000
	Cu	65	**0.004**	**ug/L**	102.272	105	0.000
	Zn	66	**0.015**	**ug/L**	80.514	248	0.000
	Zn	67		**ug/L**		17012	-0.003
	Zn	68		**ug/L**		1056	-0.000
>	Ge	74		**ug/L**		267310	267309.764
	As	75	**0.750**	**ug/L**	83.917	789	0.002
	Se	77		**ug/L**		8720	0.006
	Se	82	**0.090**	**ug/L**	59.946	15	0.000
	Kr	83		**ug/L**		66	-0.000
	Sr	88	**0.003**	**ug/L**	47.659	291	0.000
	Y	89		**ug/L**		61	-0.000
	Ag	107	**0.010**	**ug/L**	47.183	89	0.000
	Cd	111	**0.012**	**ug/L**	9.225	22	0.000
	Cd	114		**ug/L**		41	0.000
>	In	115		**ug/L**		148573	148573.320
	Sn	120	**0.062**	**ug/L**	26.017	680	0.002
	Sb	121	**0.514**	**ug/L**	23.701	2086	0.012
	Sb	123		**ug/L**		1585	0.009
	Ba	135		**ug/L**		37	0.000
	Ba	137	**0.001**	**ug/L**	865.040	68	0.000
	Ho	165		**ug/L**		6	0.000
>	Lu	175		**ug/L**		221868	221868.173
	Tl	205	**0.055**	**ug/L**	28.167	663	0.002
	Pb	208	**-0.005**	**ug/L**	54.839	1962	-0.000
	Bi	209		**ug/L**		33	-0.000
	U	238	**0.008**	**ug/L**	25.376	354	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 2
Report Date/Time: Friday, February 26, 2010 10:54:01

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 26, 2010 10:57:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 3.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.819**	**ug/L**	1.053	19066	0.015
	Be	9	**0.564**	**ug/L**	2.393	268	0.000
	B	11	**17.114**	**ug/L**	2.365	8761	0.007
	Na	23	**281.733**	**ug/L**	12.574	1103794	0.871
	Mg	24	**16.493**	**ug/L**	4.632	55441	0.040
	Al	27	**33.333**	**ug/L**	13.062	155854	0.116
	P	31	**46.652**	**ug/L**	3.549	19127	0.009
	K	39	**296.806**	**ug/L**	8.435	1973189	1.221
	Ca	43	**226.798**	**ug/L**	1.805	2774	0.002
>	Sc	45		**ug/L**		1239547	1239547.307
	V	51	**11.162**	**ug/L**	4.289	71734	0.048
	Cr	52	**10.998**	**ug/L**	1.169	56876	0.040
	Cr	53		**ug/L**		116562	-0.008
	Mn	55	**5.732**	**ug/L**	1.477	39512	0.030
	Fe	57	**112.751**	**ug/L**	0.854	19792	0.011
	Co	59	**1.130**	**ug/L**	1.865	5670	0.004
	Ni	60	**2.230**	**ug/L**	1.298	2409	0.002
	Cu	63		**ug/L**		2989	0.002
	Cu	65	**1.145**	**ug/L**	1.529	1519	0.001
	Zn	66	**12.123**	**ug/L**	1.329	9417	0.034
	Zn	67		**ug/L**		15333	-0.010
	Zn	68		**ug/L**		7411	0.023
>	Ge	74		**ug/L**		268794	268794.237
	As	75	**6.003**	**ug/L**	5.412	5362	0.019
	Se	77		**ug/L**		7465	0.001
	Se	82	**5.573**	**ug/L**	1.283	437	0.002
	Kr	83		**ug/L**		65	-0.000
	Sr	88	**11.876**	**ug/L**	0.600	116493	0.770
	Y	89		**ug/L**		51	-0.000
	Ag	107	**0.991**	**ug/L**	0.420	3783	0.025
	Cd	111	**1.125**	**ug/L**	3.629	1040	0.007
	Cd	114		**ug/L**		2429	0.016
>	In	115		**ug/L**		151000	151000.373
	Sn	120	**4.947**	**ug/L**	1.143	20215	0.131
	Sb	121	**2.979**	**ug/L**	2.996	10743	0.069
	Sb	123		**ug/L**		8365	0.054
	Ba	135		**ug/L**		2122	0.009
	Ba	137	**2.155**	**ug/L**	3.477	3707	0.016
	Ho	165		**ug/L**		6	0.000
>	Lu	175		**ug/L**		222569	222569.435
	Tl	205	**1.098**	**ug/L**	2.093	8536	0.037
	Pb	208	**2.220**	**ug/L**	0.699	33509	0.141
	Bi	209		**ug/L**		43	0.000
	U	238	**0.246**	**ug/L**	3.370	3849	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	118.194				
	Be	9	112.784				
	B	11	114.094				
	Na	23	112.693				
	Mg	24	109.954				
	Al	27	111.109				
	P	31	93.305				
	K	39	98.935				
	Ca	43	113.399				
>	Sc	45		107.8			
	V	51	111.618				
	Cr	52	109.983				
	Cr	53					
	Mn	55	114.635				
	Fe	57	112.751				
	Co	59	112.964				
	Ni	60	111.484				
	Cu	63					
	Cu	65	114.481				
	Zn	66	121.230				
	Zn	67					
	Zn	68					
>	Ge	74		106.3			
	As	75	120.053				
	Se	77					
	Se	82	111.468				
	Kr	83					
	Sr	88	118.764				
	Y	89					
	Ag	107	99.121				
	Cd	111	112.464				
	Cd	114					
>	In	115		106.6			
	Sn	120	98.943				
	Sb	121	99.287				
	Sb	123					
	Ba	135					
	Ba	137	107.763				
	Ho	165					
>	Lu	175		104.0			
	Tl	205	109.801				
	Pb	208	110.992				
	Bi	209					
	U	238	123.020				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 3

Report Date/Time: Friday, February 26, 2010 10:59:54

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 26, 2010 11:03:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no tht\mozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 4.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.135**	**ug/L**	18.463	237	0.000
	Be	9	**0.105**	**ug/L**	17.070	38	0.000
	B	11	**1.806**	**ug/L**	8.785	903	0.001
	Na	23	**107225.659**	**ug/L**	5.180	273000756	331.551
	Mg	24	**98519.606**	**ug/L**	2.717	197109304	239.433
	Al	27	**103871.702**	**ug/L**	0.394	298782389	362.942
	P	31	**100571.041**	**ug/L**	0.624	15481154	18.799
	K	39	**90687.903**	**ug/L**	0.947	307500275	373.183
	Ca	43	**95303.469**	**ug/L**	0.604	700168	0.850
>	Sc	45		**ug/L**		823185	823185.268
	V	51	**0.913**	**ug/L**	13.937	11035	0.004
	Cr	52	**4.082**	**ug/L**	0.590	16972	0.015
	Cr	53		**ug/L**		77547	-0.008
	Mn	55	**5.808**	**ug/L**	0.607	26570	0.030
	Fe	57	**95751.033**	**ug/L**	1.203	8006277	9.721
	Co	59	**0.506**	**ug/L**	3.561	1735	0.002
	Ni	60	**4.842**	**ug/L**	0.727	3411	0.004
	Cu	63		**ug/L**		4895	0.006
	Cu	65	**4.925**	**ug/L**	2.567	4119	0.005
	Zn	66	**6.591**	**ug/L**	3.680	3480	0.019
	Zn	67		**ug/L**		11358	-0.003
	Zn	68		**ug/L**		1354	0.003
>	Ge	74		**ug/L**		178949	178949.349
	As	75	**0.801**	**ug/L**	39.577	556	0.003
	Se	77		**ug/L**		7422	0.015
	Se	82	**-3.021**	**ug/L**	27.706	-149	-0.001
	Kr	83		**ug/L**		240	0.001
	Sr	88	**2.971**	**ug/L**	0.379	20700	0.193
	Y	89		**ug/L**		325	0.003
	Ag	107	**0.162**	**ug/L**	2.564	466	0.004
	Cd	111	**0.662**	**ug/L**	17.558	435	0.004
	Cd	114		**ug/L**		7328	0.069
>	In	115		**ug/L**		106535	106535.408
	Sn	120	**0.234**	**ug/L**	6.315	972	0.006
	Sb	121	**0.110**	**ug/L**	16.732	500	0.003
	Sb	123		**ug/L**		453	0.003
	Ba	135		**ug/L**		596	0.003
	Ba	137	**0.733**	**ug/L**	8.263	1026	0.006
	Ho	165		**ug/L**		4042	0.023
>	Lu	175		**ug/L**		174808	174808.474
	Tl	205	**0.009**	**ug/L**	31.243	248	0.000
	Pb	208	**0.215**	**ug/L**	2.394	3996	0.014
	Bi	209		**ug/L**		1811	0.010
	U	238	**-0.014**	**ug/L**	5.151	32	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	107.226				
	Mg	24	98.520				
	Al	27	103.872				
	P	31	100.571				
	K	39	90.688				
	Ca	43	95.303				
>	Sc	45		71.6			
	V	51					
	Cr	52	123.697				
	Cr	53					
	Mn	55	100.141				
	Fe	57	95.751				
	Co	59	215.239				
	Ni	60	146.292				
	Cu	63					
	Cu	65	147.442				
	Zn	66	175.280				
	Zn	67					
	Zn	68					
>	Ge	74		70.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	100.374				
	Y	89					
	Ag	107					
	Cd	111	149.203				
	Cd	114					
>	In	115		75.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	91.912				
	Ho	165					
>	Lu	175		81.7			
	Tl	205					
	Pb	208	113.770				
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
In 115 Int Std for QC	In	115	

QC Action

QC Action Line: Continue

Sample ID: QC Std 4

Report Date/Time: Friday, February 26, 2010 11:05:48

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 26, 2010 11:09:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 5.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.418**	**ug/L**	0.283	23303	0.028
	Be	9	**20.657**	**ug/L**	1.848	6417	0.008
	B	11	**20.453**	**ug/L**	3.643	7021	0.008
	Na	23	**97300.327**	**ug/L**	2.335	252362100	300.861
	Mg	24	**93896.306**	**ug/L**	1.857	191403509	228.197
	Al	27	**93587.936**	**ug/L**	0.253	274306359	327.009
	P	31	**89906.849**	**ug/L**	1.166	14101523	16.806
	K	39	**83828.151**	**ug/L**	5.452	289579024	344.955
	Ca	43	**89088.480**	**ug/L**	1.571	666865	0.795
>	Sc	45		**ug/L**		838803	838803.027
	V	51	**20.415**	**ug/L**	1.600	82208	0.089
	Cr	52	**21.895**	**ug/L**	1.055	71879	0.080
	Cr	53		**ug/L**		80655	-0.006
	Mn	55	**25.281**	**ug/L**	1.106	112244	0.132
	Fe	57	**89493.312**	**ug/L**	0.781	7624479	9.086
	Co	59	**19.800**	**ug/L**	0.221	65750	0.078
	Ni	60	**23.365**	**ug/L**	1.332	16557	0.020
	Cu	63		**ug/L**		35644	0.042
	Cu	65	**23.036**	**ug/L**	0.331	19387	0.023
	Zn	66	**24.696**	**ug/L**	0.562	12975	0.070
	Zn	67		**ug/L**		12811	0.003
	Zn	68		**ug/L**		8460	0.042
>	Ge	74		**ug/L**		184167	184166.680
	As	75	**21.425**	**ug/L**	4.304	12869	0.069
	Se	77		**ug/L**		7275	0.013
	Se	82	**18.789**	**ug/L**	0.617	996	0.005
	Kr	83		**ug/L**		223	0.001
	Sr	88	**22.613**	**ug/L**	1.274	161540	1.466
	Y	89		**ug/L**		287	0.002
	Ag	107	**18.940**	**ug/L**	1.078	52010	0.472
	Cd	111	**19.473**	**ug/L**	1.671	12997	0.118
	Cd	114		**ug/L**		36583	0.332
>	In	115		**ug/L**		110092	110092.417
	Sn	120	**19.785**	**ug/L**	0.824	57974	0.524
	Sb	121	**20.574**	**ug/L**	0.616	52697	0.477
	Sb	123		**ug/L**		40986	0.371
	Ba	135		**ug/L**		15310	0.085
	Ba	137	**19.582**	**ug/L**	1.034	26892	0.149
	Ho	165		**ug/L**		3783	0.021
>	Lu	175		**ug/L**		180591	180591.456
	Tl	205	**18.879**	**ug/L**	0.883	115819	0.640
	Pb	208	**19.543**	**ug/L**	0.734	226456	1.245
	Bi	209		**ug/L**		1931	0.011
	U	238	**21.980**	**ug/L**	0.807	261702	1.448

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	107.092				
	Be	9	103.283				
	B	11	102.265				
	Na	23	97.300				
	Mg	24	93.896				
	Al	27	93.588				
	P	31	89.907				
	K	39	83.828				
	Ca	43	89.088				
>	Sc	45		72.9			
	V	51	102.076				
	Cr	52	93.969				
	Cr	53					
	Mn	55	97.989				
	Fe	57	89.493				
	Co	59	97.849				
	Ni	60	102.928				
	Cu	63					
	Cu	65	98.697				
	Zn	66	103.940				
	Zn	67					
	Zn	68					
>	Ge	74		72.8			
	As	75	107.127				
	Se	77					
	Se	82	93.946				
	Kr	83					
	Sr	88	98.490				
	Y	89					
	Ag	107	94.702				
	Cd	111	95.253				
	Cd	114					
>	In	115		77.8			
	Sn	120	98.923				
	Sb	121	102.869				
	Sb	123					
	Ba	135					
	Ba	137	94.152				
	Ho	165					
>	Lu	175		84.4			
	Tl	205	94.393				
	Pb	208	96.747				
	Bi	209					
	U	238	109.899				

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc	45	
Ge 74 Int Std for QCGe	74	
In 115 Int Std for QCIn	115	

QC Action

QC Action Line: Continue

Sample ID: QC Std 5

Report Date/Time: Friday, February 26, 2010 11:11:43

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 11:15:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.478**	**ug/L**	0.886	76083	0.069
	Be	9	**50.851**	**ug/L**	0.904	20695	0.019
	B	11	**98.892**	**ug/L**	3.695	42848	0.039
	Na	23	**4985.107**	**ug/L**	9.813	16970785	15.414
	Mg	24	**4781.731**	**ug/L**	5.645	12784008	11.621
	Al	27	**5220.532**	**ug/L**	2.325	20067066	18.241
	P	31	**4829.754**	**ug/L**	2.180	1000060	0.903
	K	39	**4581.719**	**ug/L**	4.079	21137317	18.854
	Ca	43	**4959.407**	**ug/L**	0.774	48889	0.044
>	Sc	45		**ug/L**		1099548	1099548.118
	V	51	**48.467**	**ug/L**	1.245	241566	0.210
	Cr	52	**49.801**	**ug/L**	0.351	206334	0.182
	Cr	53		**ug/L**		117813	0.005
	Mn	55	**51.780**	**ug/L**	1.013	299082	0.270
	Fe	57	**5020.129**	**ug/L**	1.607	565369	0.510
	Co	59	**49.808**	**ug/L**	1.274	216630	0.197
	Ni	60	**51.602**	**ug/L**	1.874	47847	0.043
	Cu	63		**ug/L**		110648	0.100
	Cu	65	**49.943**	**ug/L**	0.312	54993	0.050
	Zn	66	**52.331**	**ug/L**	1.402	36210	0.147
	Zn	67		**ug/L**		17769	0.006
	Zn	68		**ug/L**		26864	0.106
>	Ge	74		**ug/L**		244170	244170.189
	As	75	**46.838**	**ug/L**	1.876	37148	0.152
	Se	77		**ug/L**		8954	0.010
	Se	82	**50.464**	**ug/L**	0.800	3535	0.014
	Kr	83		**ug/L**		62	-0.000
	Sr	88	**51.360**	**ug/L**	1.600	464522	3.329
	Y	89		**ug/L**		107	0.000
	Ag	107	**50.590**	**ug/L**	1.479	175919	1.261
	Cd	111	**49.294**	**ug/L**	1.706	41666	0.299
	Cd	114		**ug/L**		97218	0.697
>	In	115		**ug/L**		139482	139482.276
	Sn	120	**52.258**	**ug/L**	1.006	193336	1.383
	Sb	121	**51.941**	**ug/L**	1.296	168095	1.203
	Sb	123		**ug/L**		131905	0.944
	Ba	135		**ug/L**		45932	0.217
	Ba	137	**50.451**	**ug/L**	0.795	81066	0.383
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		211542	211542.223
	Tl	205	**47.810**	**ug/L**	1.070	343231	1.621
	Pb	208	**50.125**	**ug/L**	0.707	677343	3.193
	Bi	209		**ug/L**		174	0.001
	U	238	**52.915**	**ug/L**	0.740	737692	3.486

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 6
Report Date/Time: Friday, February 26, 2010 11:17:36

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.956				
	Be	9	101.702				
	B	11	98.892				
	Na	23	99.702				
	Mg	24	95.635				
	Al	27	103.377				
	P	31	96.595				
	K	39	91.634				
	Ca	43	99.188				
>	Sc	45		95.6			
	V	51	96.934				
	Cr	52	99.602				
	Cr	53					
	Mn	55	103.561				
	Fe	57	100.403				
	Co	59	99.615				
	Ni	60	103.205				
	Cu	63					
	Cu	65	99.885				
	Zn	66	104.661				
	Zn	67					
	Zn	68					
>	Ge	74		96.5			
	As	75	93.676				
	Se	77					
	Se	82	100.929				
	Kr	83					
	Sr	88	102.720				
	Y	89					
	Ag	107	101.180				
	Cd	111	98.589				
	Cd	114					
>	In	115		98.5			
	Sn	120	104.516				
	Sb	121	103.882				
	Sb	123					
	Ba	135					
	Ba	137	100.901				
	Ho	165					
>	Lu	175		98.9			
	Tl	205	95.620				
	Pb	208	100.250				
	Bi	209					
	U	238	105.831				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 6

Report Date/Time: Friday, February 26, 2010 11:17:36

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 11:21:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.101**	ug/L	17.440	304	0.000
	Be	9	**0.009**	ug/L	128.886	14	0.000
	B	11	**2.228**	ug/L	21.187	1571	0.001
	Na	23	**4.538**	ug/L	16.366	41393	0.014
	Mg	24	**2.066**	ug/L	75.704	12006	0.005
	Al	27	**1.250**	ug/L	21.814	17010	0.004
	P	31	**-1.063**	ug/L	332.402	8113	-0.000
	K	39	**-0.043**	ug/L	18157.358	461357	-0.000
	Ca	43	**1.845**	ug/L	58.274	287	0.000
>	Sc	45		ug/L		1247167	1247167.138
	V	51	**0.574**	ug/L	58.224	14875	0.002
	Cr	52	**-0.004**	ug/L	1813.122	7093	-0.000
	Cr	53		ug/L		127620	0.000
	Mn	55	**-0.074**	ug/L	9.088	2000	-0.000
	Fe	57	**-3.679**	ug/L	11.415	5173	-0.000
	Co	59	**0.008**	ug/L	74.453	172	0.000
	Ni	60	**0.003**	ug/L	184.120	86	0.000
	Cu	63		ug/L		323	0.000
	Cu	65	**0.009**	ug/L	129.872	112	0.000
	Zn	66	**0.004**	ug/L	904.113	242	0.000
	Zn	67		ug/L		15931	-0.008
	Zn	68		ug/L		1048	-0.000
>	Ge	74		ug/L		269589	269588.675
	As	75	**0.286**	ug/L	71.978	388	0.001
	Se	77		ug/L		8682	0.006
	Se	82	**0.099**	ug/L	213.548	16	0.000
	Kr	83		ug/L		58	-0.000
	Sr	88	**0.000**	ug/L	507.496	268	0.000
	Y	89		ug/L		58	-0.000
	Ag	107	**0.009**	ug/L	17.197	88	0.000
	Cd	111	**0.014**	ug/L	102.444	24	0.000
	Cd	114		ug/L		43	0.000
>	In	115		ug/L		151055	151055.448
	Sn	120	**0.031**	ug/L	36.793	569	0.001
	Sb	121	**0.309**	ug/L	27.420	1409	0.007
	Sb	123		ug/L		1088	0.006
	Ba	135		ug/L		40	0.000
	Ba	137	**0.002**	ug/L	125.570	72	0.000
	Ho	165		ug/L		6	0.000
>	Lu	175		ug/L		226451	226450.505
	Tl	205	**0.054**	ug/L	22.926	671	0.002
	Pb	208	**-0.006**	ug/L	30.997	1984	-0.000
	Bi	209		ug/L		26	-0.000
	U	238	**0.008**	ug/L	32.760	371	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		108.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		106.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		105.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, February 26, 2010 11:26:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 10.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1057.731**	**ug/L**	0.507	1151081	1.366
	Be	9	**1065.921**	**ug/L**	0.432	332218	0.394
	B	11	**1.200**	**ug/L**	4.668	725	0.000
	Na	23	**54166.644**	**ug/L**	1.079	141114711	167.488
	Mg	24	**50918.373**	**ug/L**	4.512	104260448	123.747
	Al	27	**53332.096**	**ug/L**	6.466	156996246	186.350
	P	31	**23950.728**	**ug/L**	0.692	3777008	4.477
	K	39	**49206.123**	**ug/L**	1.964	170872917	202.484
	Ca	43	**49863.194**	**ug/L**	0.781	374950	0.445
>	Sc	45		**ug/L**		842409	842408.995
	V	51	**977.032**	**ug/L**	0.674	3578618	4.239
	Cr	52	**970.910**	**ug/L**	0.444	2993111	3.547
	Cr	53		**ug/L**		448814	0.431
	Mn	55	**959.763**	**ug/L**	0.553	4217726	5.005
	Fe	57	**48479.430**	**ug/L**	0.694	4149839	4.922
	Co	59	**959.204**	**ug/L**	0.339	3194547	3.792
	Ni	60	**970.853**	**ug/L**	0.772	688677	0.817
	Cu	63		**ug/L**		1517178	1.801
	Cu	65	**928.041**	**ug/L**	0.362	781691	0.928
	Zn	66	**2318.207**	**ug/L**	0.805	1214576	6.530
	Zn	67		**ug/L**		220571	1.119
	Zn	68		**ug/L**		891512	4.789
>	Ge	74		**ug/L**		185978	185977.700
	As	75	**937.371**	**ug/L**	0.595	564461	3.035
	Se	77		**ug/L**		25826	0.112
	Se	82	**505.082**	**ug/L**	1.130	26896	0.145
	Kr	83		**ug/L**		136	0.000
	Sr	88	**942.604**	**ug/L**	0.625	6683989	61.092
	Y	89		**ug/L**		319	0.002
	Ag	107	**245.457**	**ug/L**	0.376	669387	6.118
	Cd	111	**959.861**	**ug/L**	1.027	636242	5.816
	Cd	114		**ug/L**		1439406	13.157
>	In	115		**ug/L**		109411	109410.527
	Sn	120	**973.189**	**ug/L**	0.558	2818475	25.759
	Sb	121	**261.514**	**ug/L**	1.084	662882	6.057
	Sb	123		**ug/L**		522853	4.778
	Ba	135		**ug/L**		727752	4.216
	Ba	137	**951.308**	**ug/L**	1.211	1246345	7.220
	Ho	165		**ug/L**		62	0.000
>	Lu	175		**ug/L**		172623	172623.448
	Tl	205	**454.902**	**ug/L**	0.064	2663208	15.427
	Pb	208	**4815.701**	**ug/L**	1.214	52951392	306.751
	Bi	209		**ug/L**		1372	0.008
	U	238	**5130.176**	**ug/L**	1.000	58341974	337.988

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.773				
	Be	9	106.592				
	B	11					
	Na	23	108.333				
	Mg	24	101.837				
	Al	27	106.664				
	P	31	95.803				
	K	39	98.412				
	Ca	43	99.726				
>	Sc	45		73.3			
	V	51	97.703				
	Cr	52	97.091				
	Cr	53					
	Mn	55	95.976				
	Fe	57	96.959				
	Co	59	95.920				
	Ni	60	97.085				
	Cu	63					
	Cu	65	92.804				
	Zn	66	92.728				
	Zn	67					
	Zn	68					
>	Ge	74		73.5			
	As	75	93.737				
	Se	77					
	Se	82	101.016				
	Kr	83					
	Sr	88	94.260				
	Y	89					
	Ag	107	98.183				
	Cd	111	95.986				
	Cd	114					
>	In	115		77.3			
	Sn	120	97.319				
	Sb	121	104.606				
	Sb	123					
	Ba	135					
	Ba	137	95.131				
	Ho	165					
>	Lu	175		80.7			
	Tl	205	90.980				
	Pb	208	96.314				
	Bi	209					
	U	238	102.604				

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc	45	
Ge 74 Int Std for QC Ge	74	
In 115 Int Std for QC In	115	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, February 26, 2010 11:32:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 11.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.056**	**ug/L**	1.635	72323	0.069
	Be	9	**51.704**	**ug/L**	2.447	20161	0.019
	B	11	**97.936**	**ug/L**	2.772	40657	0.038
	Na	23	**4844.509**	**ug/L**	4.820	15796227	14.980
	Mg	24	**4662.352**	**ug/L**	0.881	11943808	11.331
	Al	27	**4653.473**	**ug/L**	0.647	17141416	16.260
	P	31	**4718.596**	**ug/L**	0.099	936359	0.882
	K	39	**4748.653**	**ug/L**	2.662	20982059	19.541
	Ca	43	**4858.033**	**ug/L**	0.435	45894	0.043
>	Sc	45		**ug/L**		1053600	1053600.078
	V	51	**49.538**	**ug/L**	1.209	236367	0.215
	Cr	52	**50.036**	**ug/L**	0.342	198619	0.183
	Cr	53		**ug/L**		110792	0.003
	Mn	55	**51.801**	**ug/L**	0.475	286704	0.270
	Fe	57	**4994.782**	**ug/L**	0.889	538987	0.507
	Co	59	**50.549**	**ug/L**	0.496	210656	0.200
	Ni	60	**52.314**	**ug/L**	0.868	46475	0.044
	Cu	63		**ug/L**		108174	0.103
	Cu	65	**51.280**	**ug/L**	0.901	54100	0.051
	Zn	66	**55.012**	**ug/L**	0.387	36417	0.155
	Zn	67		**ug/L**		18733	0.013
	Zn	68		**ug/L**		27018	0.111
>	Ge	74		**ug/L**		233664	233663.818
	As	75	**49.131**	**ug/L**	0.987	37287	0.159
	Se	77		**ug/L**		7582	0.006
	Se	82	**51.680**	**ug/L**	1.854	3464	0.015
	Kr	83		**ug/L**		71	0.000
	Sr	88	**51.264**	**ug/L**	1.647	453315	3.323
	Y	89		**ug/L**		106	0.000
	Ag	107	**50.596**	**ug/L**	1.210	172026	1.261
	Cd	111	**50.589**	**ug/L**	1.960	41806	0.307
	Cd	114		**ug/L**		98902	0.725
>	In	115		**ug/L**		136381	136381.362
	Sn	120	**52.539**	**ug/L**	1.489	190038	1.391
	Sb	121	**52.789**	**ug/L**	2.159	167018	1.223
	Sb	123		**ug/L**		130972	0.959
	Ba	135		**ug/L**		44712	0.211
	Ba	137	**49.562**	**ug/L**	1.483	79611	0.376
	Ho	165		**ug/L**		25	0.000
>	Lu	175		**ug/L**		211474	211474.204
	Tl	205	**48.957**	**ug/L**	1.871	351313	1.660
	Pb	208	**53.801**	**ug/L**	2.348	726664	3.427
	Bi	209		**ug/L**		161	0.001
	U	238	**56.334**	**ug/L**	0.692	785107	3.711

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 11
Report Date/Time: Friday, February 26, 2010 11:35:17

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.112				
	Be	9	103.408				
	B	11	97.936				
	Na	23	96.890				
	Mg	24	93.247				
	Al	27	92.148				
	P	31	94.372				
	K	39	94.973				
	Ca	43	97.161				
>	Sc	45		91.6			
	V	51	99.075				
	Cr	52	100.071				
	Cr	53					
	Mn	55	103.602				
	Fe	57	99.896				
	Co	59	101.097				
	Ni	60	104.627				
	Cu	63					
	Cu	65	102.561				
	Zn	66	110.025				
	Zn	67					
	Zn	68					
>	Ge	74		92.4			
	As	75	98.261				
	Se	77					
	Se	82	103.359				
	Kr	83					
	Sr	88	102.528				
	Y	89					
	Ag	107	101.192				
	Cd	111	101.178				
	Cd	114					
>	In	115		96.3			
	Sn	120	105.078				
	Sb	121	105.578				
	Sb	123					
	Ba	135					
	Ba	137	99.124				
	Ho	165					
>	Lu	175		98.8			
	Tl	205	97.913				
	Pb	208	107.601				
	Bi	209					
	U	238	112.669				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Zn	66	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, February 26, 2010 11:38:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 12.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.165**	**ug/L**	10.077	382	0.000
	Be	9	**0.041**	**ug/L**	7.294	27	0.000
	B	11	**2.101**	**ug/L**	19.811	1417	0.001
	Na	23	**3.287**	**ug/L**	65.578	34376	0.010
	Mg	24	**1.968**	**ug/L**	33.885	11004	0.005
	Al	27	**1.003**	**ug/L**	122.670	15009	0.004
	P	31	**0.935**	**ug/L**	59.898	8054	0.000
	K	39	**15.658**	**ug/L**	64.617	508253	0.064
	Ca	43	**3.165**	**ug/L**	92.700	283	0.000
>	Sc	45		**ug/L**		1170119	1170119.298
	V	51	**0.316**	**ug/L**	167.201	12663	0.001
	Cr	52	**-0.054**	**ug/L**	24.764	6442	-0.000
	Cr	53		**ug/L**		117167	-0.002
	Mn	55	**-0.076**	**ug/L**	13.635	1865	-0.000
	Fe	57	**-5.693**	**ug/L**	26.084	4612	-0.001
	Co	59	**0.034**	**ug/L**	23.470	284	0.000
	Ni	60	**0.029**	**ug/L**	31.200	106	0.000
	Cu	63		**ug/L**		242	0.000
	Cu	65	**0.046**	**ug/L**	7.600	149	0.000
	Zn	66	**0.027**	**ug/L**	94.351	246	0.000
	Zn	67		**ug/L**		16352	-0.003
	Zn	68		**ug/L**		1133	0.000
>	Ge	74		**ug/L**		255541	255541.205
	As	75	**0.561**	**ug/L**	17.082	596	0.002
	Se	77		**ug/L**		6988	0.001
	Se	82	**0.071**	**ug/L**	273.281	13	0.000
	Kr	83		**ug/L**		71	0.000
	Sr	88	**0.008**	**ug/L**	25.214	329	0.001
	Y	89		**ug/L**		50	-0.000
	Ag	107	**0.018**	**ug/L**	33.686	115	0.000
	Cd	111	**0.017**	**ug/L**	20.139	26	0.000
	Cd	114		**ug/L**		57	0.000
>	In	115		**ug/L**		145534	145533.832
	Sn	120	**0.240**	**ug/L**	13.684	1353	0.006
	Sb	121	**0.442**	**ug/L**	22.394	1801	0.010
	Sb	123		**ug/L**		1404	0.008
	Ba	135		**ug/L**		55	0.000
	Ba	137	**0.014**	**ug/L**	61.289	89	0.000
	Ho	165		**ug/L**		7	0.000
>	Lu	175		**ug/L**		218695	218695.096
	Tl	205	**0.228**	**ug/L**	14.651	1936	0.008
	Pb	208	**0.031**	**ug/L**	32.789	2429	0.002
	Bi	209		**ug/L**		35	-0.000
	U	238	**0.073**	**ug/L**	16.815	1285	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 12
Report Date/Time: Friday, February 26, 2010 11:41:14

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032646
Sample Date/Time: Friday, February 26, 2010 11:44:38
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtlmozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032646.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.047**	**ug/L**	10.840	204	0.000
	Be	9	**0.028**	**ug/L**	25.307	21	0.000
	B	11	**0.514**	**ug/L**	29.536	695	0.000
	Na	23	**6.446**	**ug/L**	27.704	45741	0.020
	Mg	24	**7.802**	**ug/L**	160.987	27724	0.019
	Al	27	**3.381**	**ug/L**	26.653	24688	0.012
	P	31	**13.172**	**ug/L**	11.440	10743	0.002
	K	39	**2.649**	**ug/L**	219.638	446555	0.011
	Ca	43	**2.295**	**ug/L**	88.244	275	0.000
>	Sc	45		**ug/L**		1171270	1171270.089
	V	51	**-0.842**	**ug/L**	33.266	6776	-0.004
	Cr	52	**-0.463**	**ug/L**	43.202	4696	-0.002
	Cr	53		**ug/L**		73614	-0.039
	Mn	55	**0.234**	**ug/L**	8.653	3761	0.001
	Fe	57	**16.190**	**ug/L**	1.361	7220	0.002
	Co	59	**0.038**	**ug/L**	24.538	302	0.000
	Ni	60	**0.090**	**ug/L**	6.709	166	0.000
	Cu	63		**ug/L**		386	0.000
	Cu	65	**0.102**	**ug/L**	10.158	214	0.000
	Zn	66	**1.215**	**ug/L**	3.648	1106	0.003
	Zn	67		**ug/L**		9824	-0.028
	Zn	68		**ug/L**		1430	0.001
>	Ge	74		**ug/L**		256922	256921.834
	As	75	**0.182**	**ug/L**	125.713	283	0.001
	Se	77		**ug/L**		4040	-0.011
	Se	82	**-0.027**	**ug/L**	1268.041	6	-0.000
	Kr	83		**ug/L**		61	-0.000
	Sr	88	**0.025**	**ug/L**	1.727	511	0.002
	Y	89		**ug/L**		96	0.000
	Ag	107	**-0.001**	**ug/L**	194.539	49	-0.000
	Cd	111	**0.006**	**ug/L**	62.234	16	0.000
	Cd	114		**ug/L**		28	-0.000
>	In	115		**ug/L**		150530	150530.088
	Sn	120	**0.242**	**ug/L**	12.163	1407	0.006
	Sb	121	**0.026**	**ug/L**	38.291	414	0.001
	Sb	123		**ug/L**		340	0.001
	Ba	135		**ug/L**		147	0.000
	Ba	137	**0.106**	**ug/L**	3.986	258	0.001
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		234104	234104.279
	Tl	205	**0.128**	**ug/L**	5.573	1280	0.004
	Pb	208	**0.069**	**ug/L**	44.082	3172	0.004
	Bi	209		**ug/L**		71	0.000
	U	238	**0.019**	**ug/L**	10.637	540	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		106.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		109.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032651
Sample Date/Time: Friday, February 26, 2010 11:50:35
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948782|40|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032651.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.840**	ug/L	0.962	4453	0.004
	Be	9	**20.165**	ug/L	0.305	8793	0.007
	B	11	**37.513**	ug/L	2.809	17690	0.015
	Na	23	**269.127**	ug/L	9.646	1002135	0.832
	Mg	24	**982.084**	ug/L	6.520	2815075	2.387
	Al	27	**3194.574**	ug/L	5.166	13153134	11.162
	P	31	**189.314**	ug/L	1.405	49564	0.035
	K	39	**1120.205**	ug/L	11.796	5863776	4.610
	Ca	43	**2536.232**	ug/L	1.403	26894	0.023
>	Sc	45		ug/L		1177439	1177438.589
	V	51	**27.365**	ug/L	2.892	150875	0.119
	Cr	52	**58.280**	ug/L	0.958	257415	0.213
	Cr	53		ug/L		128672	0.007
	Mn	55	**139.774**	ug/L	0.464	860536	0.729
	Fe	57	**4480.887**	ug/L	0.755	540937	0.455
	Co	59	**23.986**	ug/L	0.583	111776	0.095
	Ni	60	**35.485**	ug/L	1.627	35255	0.030
	Cu	63		ug/L		107717	0.091
	Cu	65	**44.736**	ug/L	0.324	52758	0.045
	Zn	66	**158.833**	ug/L	0.574	114541	0.447
	Zn	67		ug/L		31145	0.055
	Zn	68		ug/L		83085	0.321
>	Ge	74		ug/L		255491	255490.630
	As	75	**27.435**	ug/L	2.911	22827	0.089
	Se	77		ug/L		9804	0.012
	Se	82	**76.762**	ug/L	1.688	5623	0.022
	Kr	83		ug/L		78	0.000
	Sr	88	**59.790**	ug/L	1.536	567534	3.875
	Y	89		ug/L		30173	0.206
	Ag	107	**4.845**	ug/L	1.559	17730	0.121
	Cd	111	**15.588**	ug/L	2.634	13836	0.094
	Cd	114		ug/L		33293	0.227
>	In	115		ug/L		146389	146388.836
	Sn	120	**7.471**	ug/L	0.352	29377	0.198
	Sb	121	**12.461**	ug/L	0.544	42563	0.289
	Sb	123		ug/L		33202	0.225
	Ba	135		ug/L		47145	0.218
	Ba	137	**50.351**	ug/L	3.116	82530	0.382
	Ho	165		ug/L		1546	0.007
>	Lu	175		ug/L		215901	215901.319
	Tl	205	**31.497**	ug/L	2.104	230823	1.068
	Pb	208	**21.170**	ug/L	0.929	293082	1.349
	Bi	209		ug/L		2445	0.011
	U	238	**0.547**	ug/L	1.746	8014	0.036

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.4			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, February 26, 2010 11:56:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 8.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.971**	**ug/L**	1.344	77175	0.071
	Be	9	**54.346**	**ug/L**	0.974	21828	0.020
	B	11	**102.366**	**ug/L**	2.511	43751	0.040
	Na	23	**4950.200**	**ug/L**	3.700	16632575	15.306
	Mg	24	**4877.665**	**ug/L**	5.156	12865056	11.854
	Al	27	**5195.440**	**ug/L**	5.391	19714677	18.154
	P	31	**4910.355**	**ug/L**	0.501	1003307	0.918
	K	39	**4322.655**	**ug/L**	8.119	19695632	17.788
	Ca	43	**5002.269**	**ug/L**	0.739	48662	0.045
>	Sc	45		**ug/L**		1085153	1085153.371
	V	51	**50.458**	**ug/L**	1.704	247789	0.219
	Cr	52	**51.444**	**ug/L**	0.922	210152	0.188
	Cr	53		**ug/L**		117726	0.006
	Mn	55	**53.459**	**ug/L**	0.984	304659	0.279
	Fe	57	**5102.960**	**ug/L**	1.581	567058	0.518
	Co	59	**51.969**	**ug/L**	0.576	223070	0.205
	Ni	60	**53.345**	**ug/L**	1.057	48810	0.045
	Cu	63		**ug/L**		114652	0.106
	Cu	65	**52.117**	**ug/L**	0.911	56629	0.052
	Zn	66	**55.931**	**ug/L**	1.552	38065	0.158
	Zn	67		**ug/L**		19248	0.013
	Zn	68		**ug/L**		28191	0.113
>	Ge	74		**ug/L**		240256	240255.694
	As	75	**50.810**	**ug/L**	1.039	39647	0.164
	Se	77		**ug/L**		8207	0.008
	Se	82	**53.255**	**ug/L**	1.258	3671	0.015
	Kr	83		**ug/L**		65	0.000
	Sr	88	**53.431**	**ug/L**	2.051	474065	3.463
	Y	89		**ug/L**		118	0.000
	Ag	107	**53.016**	**ug/L**	1.278	180895	1.321
	Cd	111	**53.060**	**ug/L**	1.206	44005	0.321
	Cd	114		**ug/L**		102082	0.746
>	In	115		**ug/L**		136858	136857.806
	Sn	120	**53.988**	**ug/L**	1.133	195950	1.429
	Sb	121	**55.891**	**ug/L**	2.046	177417	1.295
	Sb	123		**ug/L**		140053	1.022
	Ba	135		**ug/L**		47101	0.222
	Ba	137	**51.332**	**ug/L**	0.603	82729	0.390
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		212190	212190.081
	Tl	205	**49.796**	**ug/L**	0.957	358552	1.689
	Pb	208	**51.179**	**ug/L**	0.568	693666	3.260
	Bi	209		**ug/L**		156	0.001
	U	238	**54.851**	**ug/L**	0.667	766993	3.614

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	109.942				
	Be	9	108.692				
	B	11	102.366				
	Na	23	99.004				
	Mg	24	97.553				
	Al	27	102.880				
	P	31	98.207				
	K	39	86.453				
	Ca	43	100.045				
>	Sc	45		94.4			
	V	51	100.916				
	Cr	52	102.888				
	Cr	53					
	Mn	55	106.918				
	Fe	57	102.059				
	Co	59	103.938				
	Ni	60	106.691				
	Cu	63					
	Cu	65	104.234				
	Zn	66	111.862				
	Zn	67					
	Zn	68					
>	Ge	74		95.0			
	As	75	101.619				
	Se	77					
	Se	82	106.509				
	Kr	83					
	Sr	88	106.862				
	Y	89					
	Ag	107	106.032				
	Cd	111	106.120				
	Cd	114					
>	In	115		96.7			
	Sn	120	107.977				
	Sb	121	111.782				
	Sb	123					
	Ba	135					
	Ba	137	102.664				
	Ho	165					
>	Lu	175		99.2			
	Tl	205	99.591				
	Pb	208	102.357				
	Bi	209					
	U	238	109.701				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	K	39	CCV is out of limits (+/- 10%)
QC Std 8	Zn	66	CCV is out of limits (+/- 10%)
QC Std 8	Sb	121	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 11:59:01

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 12:02:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.058	ug/L	14.775	226	0.000
	Be	9	0.028	ug/L	21.777	22	0.000
	B	11	2.305	ug/L	25.054	1548	0.001
	Na	23	1.640	ug/L	60.507	29030	0.005
	Mg	24	2.789	ug/L	56.512	13674	0.007
	Al	27	1.325	ug/L	11.667	16676	0.005
	P	31	-0.813	ug/L	136.929	7863	-0.000
	K	39	10.650	ug/L	78.965	496514	0.044
	Ca	43	0.887	ug/L	69.161	266	0.000
>	Sc	45		ug/L		1199045	1199045.410
	V	51	0.242	ug/L	133.062	12579	0.001
	Cr	52	0.047	ug/L	18.190	7045	0.000
	Cr	53		ug/L		121169	-0.001
	Mn	55	-0.082	ug/L	4.625	1873	-0.000
	Fe	57	-4.400	ug/L	3.442	4886	-0.000
	Co	59	0.020	ug/L	3.940	224	0.000
	Ni	60	0.015	ug/L	68.625	95	0.000
	Cu	63		ug/L		197	0.000
	Cu	65	0.025	ug/L	9.941	127	0.000
	Zn	66	0.020	ug/L	96.295	244	0.000
	Zn	67		ug/L		16427	-0.003
	Zn	68		ug/L		1144	0.000
>	Ge	74		ug/L		259290	259289.612
	As	75	0.589	ug/L	27.475	628	0.002
	Se	77		ug/L		7225	0.001
	Se	82	1.439	ug/L	15.451	115	0.000
	Kr	83		ug/L		65	-0.000
	Sr	88	0.007	ug/L	26.761	321	0.000
	Y	89		ug/L		45	-0.000
	Ag	107	0.012	ug/L	45.498	96	0.000
	Cd	111	0.026	ug/L	21.288	34	0.000
	Cd	114		ug/L		57	0.000
>	In	115		ug/L		146875	146875.038
	Sn	120	0.103	ug/L	20.700	834	0.003
	Sb	121	0.176	ug/L	38.194	915	0.004
	Sb	123		ug/L		701	0.003
	Ba	135		ug/L		46	0.000
	Ba	137	0.009	ug/L	13.264	81	0.000
	Ho	165		ug/L		7	0.000
>	Lu	175		ug/L		221072	221071.719
	Tl	205	0.141	ug/L	15.738	1303	0.005
	Pb	208	0.030	ug/L	5.618	2443	0.002
	Bi	209		ug/L		31	-0.000
	U	238	0.030	ug/L	15.116	670	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 9
Report Date/Time: Friday, February 26, 2010 12:04:58

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			104.3		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			102.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			103.7		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			103.3		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Friday, February 26, 2010 12:04:58

ICPMS#6 - Summary Report

Sample ID: 245998001
Sample Date/Time: Friday, February 26, 2010 12:08:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245998001.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**96.241**	**ug/L**	0.763	123072	0.124
	Be	9	**6.294**	**ug/L**	1.153	2311	0.002
	B	11	**22.512**	**ug/L**	2.688	9067	0.009
	Na	23	**822.182**	**ug/L**	5.995	2537883	2.542
	Mg	24	**16104.889**	**ug/L**	1.393	38730249	39.140
	Al	27	**111823.779**	**ug/L**	1.687	386546437	390.728
	P	31	**614.667**	**ug/L**	2.255	120200	0.115
	K	39	**10060.763**	**ug/L**	2.332	41343084	41.400
	Ca	43	**23873.898**	**ug/L**	0.702	210904	0.213
>	Sc	45		**ug/L**		989093	989093.470
	V	51	**142.959**	**ug/L**	1.436	622468	0.620
	Cr	52	**69.588**	**ug/L**	1.170	257023	0.254
	Cr	53		**ug/L**		87445	-0.014
	Mn	55	**2270.809**	**ug/L**	0.239	11714190	11.841
	Fe	57	**74515.106**	**ug/L**	0.487	7485720	7.565
	Co	59	**35.712**	**ug/L**	0.417	139766	0.141
	Ni	60	**50.011**	**ug/L**	0.643	41718	0.042
	Cu	63		**ug/L**		73527	0.074
	Cu	65	**38.662**	**ug/L**	0.661	38307	0.039
	Zn	66	**161.739**	**ug/L**	0.439	91546	0.456
	Zn	67		**ug/L**		29252	0.079
	Zn	68		**ug/L**		83148	0.411
>	Ge	74		**ug/L**		200514	200513.537
	As	75	**13.548**	**ug/L**	1.251	8897	0.044
	Se	77		**ug/L**		3564	-0.009
	Se	82	**-2.717**	**ug/L**	2.875	-149	-0.001
	Kr	83		**ug/L**		393	0.002
	Sr	88	**213.861**	**ug/L**	1.650	1700299	13.861
	Y	89		**ug/L**		565455	4.611
	Ag	107	**0.655**	**ug/L**	2.242	2044	0.016
	Cd	111	**2.110**	**ug/L**	4.742	1575	0.013
	Cd	114		**ug/L**		425	0.003
>	In	115		**ug/L**		122622	122622.224
	Sn	120	**0.653**	**ug/L**	3.456	2480	0.017
	Sb	121	**0.181**	**ug/L**	7.886	778	0.004
	Sb	123		**ug/L**		690	0.004
	Ba	135		**ug/L**		1025277	5.065
	Ba	137	**1136.739**	**ug/L**	0.384	1746355	8.627
	Ho	165		**ug/L**		33178	0.164
>	Lu	175		**ug/L**		202412	202412.482
	Tl	205	**1.323**	**ug/L**	3.133	9303	0.045
	Pb	208	**76.911**	**ug/L**	0.703	993398	4.899
	Bi	209		**ug/L**		10513	0.052
	U	238	**4.845**	**ug/L**	2.538	64814	0.319

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		86.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032647
Sample Date/Time: Friday, February 26, 2010 12:14:19
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032647.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**84.947**	**ug/L**	0.993	99055	0.110
	Be	9	**5.408**	**ug/L**	1.184	1811	0.002
	B	11	**20.428**	**ug/L**	1.276	7540	0.008
	Na	23	**704.550**	**ug/L**	5.979	1981017	2.179
	Mg	24	**14503.647**	**ug/L**	6.278	31814133	35.248
	Al	27	**101334.499**	**ug/L**	5.696	319237356	354.077
	P	31	**480.823**	**ug/L**	0.657	87097	0.090
	K	39	**8229.532**	**ug/L**	5.278	30874234	33.865
	Ca	43	**20689.825**	**ug/L**	0.860	166665	0.185
>	Sc	45		**ug/L**		901695	901695.266
	V	51	**113.713**	**ug/L**	0.477	453293	0.493
	Cr	52	**65.153**	**ug/L**	0.794	219783	0.238
	Cr	53		**ug/L**		80558	-0.013
	Mn	55	**1102.466**	**ug/L**	1.707	5184715	5.749
	Fe	57	**63116.483**	**ug/L**	2.309	5781171	6.408
	Co	59	**26.687**	**ug/L**	2.412	95213	0.106
	Ni	60	**44.709**	**ug/L**	1.499	34000	0.038
	Cu	63		**ug/L**		60017	0.066
	Cu	65	**34.882**	**ug/L**	0.708	31517	0.035
	Zn	66	**140.357**	**ug/L**	0.780	73850	0.395
	Zn	67		**ug/L**		24369	0.064
	Zn	68		**ug/L**		65955	0.350
>	Ge	74		**ug/L**		186387	186387.067
	As	75	**9.665**	**ug/L**	2.958	5930	0.031
	Se	77		**ug/L**		3451	-0.008
	Se	82	**-2.670**	**ug/L**	15.400	-137	-0.001
	Kr	83		**ug/L**		325	0.001
	Sr	88	**184.313**	**ug/L**	0.492	1368343	11.946
	Y	89		**ug/L**		438073	3.825
	Ag	107	**0.549**	**ug/L**	3.615	1607	0.014
	Cd	111	**1.923**	**ug/L**	4.967	1343	0.012
	Cd	114		**ug/L**		274	0.002
>	In	115		**ug/L**		114535	114534.798
	Sn	120	**0.714**	**ug/L**	3.018	2500	0.019
	Sb	121	**0.118**	**ug/L**	7.299	560	0.003
	Sb	123		**ug/L**		483	0.003
	Ba	135		**ug/L**		754343	3.894
	Ba	137	**880.978**	**ug/L**	0.877	1295232	6.686
	Ho	165		**ug/L**		26332	0.136
>	Lu	175		**ug/L**		193726	193725.899
	Tl	205	**1.133**	**ug/L**	3.638	7660	0.038
	Pb	208	**56.221**	**ug/L**	0.869	695481	3.581
	Bi	209		**ug/L**		9300	0.048
	U	238	**4.578**	**ug/L**	1.668	58627	0.302

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			78.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			73.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			80.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			90.6		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032649
Sample Date/Time: Friday, February 26, 2010 12:20:15
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032649.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**169.818**	**ug/L**	0.605	180908	0.219
	Be	9	**31.952**	**ug/L**	0.790	9750	0.012
	B	11	**76.060**	**ug/L**	3.910	24762	0.030
	Na	23	**2146.979**	**ug/L**	4.768	5490008	6.639
	Mg	24	**24078.979**	**ug/L**	1.368	48239909	58.519
	Al	27	**169016.459**	**ug/L**	4.625	486548501	590.567
	P	31	**1670.039**	**ug/L**	1.172	262811	0.312
	K	39	**14558.280**	**ug/L**	3.850	49682676	59.908
	Ca	43	**32490.092**	**ug/L**	0.243	239148	0.290
>	Sc	45		**ug/L**		824350	824349.860
	V	51	**216.872**	**ug/L**	0.517	783269	0.941
	Cr	52	**126.142**	**ug/L**	0.306	384604	0.461
	Cr	53		**ug/L**		93155	0.011
	Mn	55	**2483.359**	**ug/L**	0.731	10675670	12.950
	Fe	57	**100525.396**	**ug/L**	0.777	8416058	10.206
	Co	59	**76.361**	**ug/L**	0.864	248939	0.302
	Ni	60	**92.022**	**ug/L**	0.801	63920	0.077
	Cu	63		**ug/L**		124407	0.151
	Cu	65	**76.826**	**ug/L**	0.329	63388	0.077
	Zn	66	**246.304**	**ug/L**	0.729	112811	0.694
	Zn	67		**ug/L**		33837	0.142
	Zn	68		**ug/L**		104894	0.642
>	Ge	74		**ug/L**		162376	162375.642
	As	75	**50.647**	**ug/L**	0.751	26705	0.164
	Se	77		**ug/L**		3603	-0.004
	Se	82	**0.470**	**ug/L**	194.081	28	0.000
	Kr	83		**ug/L**		497	0.003
	Sr	88	**314.981**	**ug/L**	0.298	2063780	20.415
	Y	89		**ug/L**		626539	6.198
	Ag	107	**23.918**	**ug/L**	0.705	60291	0.596
	Cd	111	**8.203**	**ug/L**	3.952	5028	0.050
	Cd	114		**ug/L**		7250	0.072
>	In	115		**ug/L**		101082	101081.741
	Sn	120	**4.859**	**ug/L**	1.268	13299	0.129
	Sb	121	**13.621**	**ug/L**	1.418	32100	0.315
	Sb	123		**ug/L**		25439	0.250
	Ba	135		**ug/L**		1321510	7.416
	Ba	137	**1819.180**	**ug/L**	0.514	2460117	13.807
	Ho	165		**ug/L**		39990	0.224
>	Lu	175		**ug/L**		178179	178178.605
	Tl	205	**49.216**	**ug/L**	0.942	297559	1.669
	Pb	208	**201.971**	**ug/L**	1.318	2293644	12.865
	Bi	209		**ug/L**		13327	0.075
	U	238	**35.859**	**ug/L**	1.608	421081	2.362

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		71.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		64.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		71.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		83.3			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032650
Sample Date/Time: Friday, February 26, 2010 12:26:12
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032650.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**164.290**	**ug/L**	0.179	173236	0.212
	Be	9	**30.786**	**ug/L**	0.839	9300	0.011
	B	11	**74.023**	**ug/L**	1.472	23874	0.029
	Na	23	**2064.004**	**ug/L**	0.619	5222587	6.382
	Mg	24	**23467.132**	**ug/L**	4.201	46510880	57.032
	Al	27	**171418.266**	**ug/L**	0.385	488646446	598.959
	P	31	**1653.606**	**ug/L**	1.149	257616	0.309
	K	39	**13970.010**	**ug/L**	2.717	47198542	57.487
	Ca	43	**40897.265**	**ug/L**	0.431	297855	0.365
>	Sc	45		**ug/L**		815842	815842.416
	V	51	**194.112**	**ug/L**	0.036	694713	0.842
	Cr	52	**123.416**	**ug/L**	0.460	372503	0.451
	Cr	53		**ug/L**		92699	0.011
	Mn	55	**1393.347**	**ug/L**	0.755	5928813	7.266
	Fe	57	**95267.878**	**ug/L**	0.375	7894001	9.672
	Co	59	**54.057**	**ug/L**	0.742	174426	0.214
	Ni	60	**88.304**	**ug/L**	1.146	60706	0.074
	Cu	63		**ug/L**		118575	0.145
	Cu	65	**74.333**	**ug/L**	0.590	60700	0.074
	Zn	66	**241.370**	**ug/L**	0.833	109492	0.680
	Zn	67		**ug/L**		32400	0.135
	Zn	68		**ug/L**		100234	0.619
>	Ge	74		**ug/L**		160821	160820.791
	As	75	**46.307**	**ug/L**	0.889	24194	0.150
	Se	77		**ug/L**		4055	-0.001
	Se	82	**0.462**	**ug/L**	7.573	26	0.000
	Kr	83		**ug/L**		488	0.003
	Sr	88	**306.043**	**ug/L**	1.367	1995152	19.835
	Y	89		**ug/L**		621659	6.180
	Ag	107	**22.683**	**ug/L**	0.780	56901	0.565
	Cd	111	**7.980**	**ug/L**	3.462	4869	0.048
	Cd	114		**ug/L**		6807	0.067
>	In	115		**ug/L**		100594	100593.783
	Sn	120	**4.653**	**ug/L**	1.012	12685	0.123
	Sb	121	**12.082**	**ug/L**	1.225	28366	0.280
	Sb	123		**ug/L**		22494	0.222
	Ba	135		**ug/L**		1168769	6.617
	Ba	137	**1464.693**	**ug/L**	0.690	1963484	11.116
	Ho	165		**ug/L**		38455	0.218
>	Lu	175		**ug/L**		176635	176634.855
	Tl	205	**47.098**	**ug/L**	1.840	282268	1.597
	Pb	208	**172.139**	**ug/L**	0.891	1938242	10.965
	Bi	209		**ug/L**		12824	0.072
	U	238	**34.922**	**ug/L**	1.092	406557	2.301

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		70.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		63.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		71.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		82.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202032648
Sample Date/Time: Friday, February 26, 2010 12:32:09
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948782|10|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\1202032648.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.032**	**ug/L**	0.830	21870	0.025
	Be	9	**1.277**	**ug/L**	2.269	425	0.000
	B	11	**6.624**	**ug/L**	4.773	2635	0.003
	Na	23	**187.414**	**ug/L**	4.627	529995	0.579
	Mg	24	**3354.787**	**ug/L**	10.098	7221398	8.153
	Al	27	**24570.649**	**ug/L**	7.155	76050520	85.853
	P	31	**135.215**	**ug/L**	2.235	28324	0.025
	K	39	**1924.968**	**ug/L**	2.915	7341503	7.921
	Ca	43	**4964.570**	**ug/L**	1.422	39413	0.044
>	Sc	45		**ug/L**		885474	885473.867
	V	51	**30.616**	**ug/L**	1.616	125967	0.133
	Cr	52	**14.680**	**ug/L**	0.775	52542	0.054
	Cr	53		**ug/L**		82500	-0.009
	Mn	55	**465.138**	**ug/L**	1.994	2149417	2.426
	Fe	57	**15550.234**	**ug/L**	1.069	1401863	1.579
	Co	59	**7.619**	**ug/L**	1.660	26765	0.030
	Ni	60	**10.788**	**ug/L**	1.388	8101	0.009
	Cu	63		**ug/L**		14523	0.016
	Cu	65	**8.463**	**ug/L**	2.048	7563	0.008
	Zn	66	**31.482**	**ug/L**	1.560	17607	0.089
	Zn	67		**ug/L**		14596	0.008
	Zn	68		**ug/L**		16815	0.081
>	Ge	74		**ug/L**		196592	196591.980
	As	75	**3.160**	**ug/L**	12.701	2116	0.010
	Se	77		**ug/L**		5151	-0.000
	Se	82	**-0.605**	**ug/L**	33.039	-28	-0.000
	Kr	83		**ug/L**		118	0.000
	Sr	88	**44.982**	**ug/L**	1.745	341221	2.915
	Y	89		**ug/L**		108852	0.930
	Ag	107	**0.139**	**ug/L**	8.079	445	0.003
	Cd	111	**0.350**	**ug/L**	13.558	256	0.002
	Cd	114		**ug/L**		96	0.001
>	In	115		**ug/L**		116977	116976.602
	Sn	120	**0.104**	**ug/L**	4.115	666	0.003
	Sb	121	**0.005**	**ug/L**	113.123	264	0.000
	Sb	123		**ug/L**		211	0.000
	Ba	135		**ug/L**		203801	1.067
	Ba	137	**246.095**	**ug/L**	0.588	356649	1.868
	Ho	165		**ug/L**		6223	0.033
>	Lu	175		**ug/L**		190919	190918.511
	Tl	205	**0.387**	**ug/L**	3.475	2722	0.013
	Pb	208	**15.586**	**ug/L**	0.957	191291	0.993
	Bi	209		**ug/L**		2070	0.011
	U	238	**0.953**	**ug/L**	0.923	12194	0.063

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			77.0		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			77.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			82.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			89.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998002
Sample Date/Time: Friday, February 26, 2010 12:38:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245998002.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**66.232**	**ug/L**	1.621	74879	0.086
	Be	9	**4.221**	**ug/L**	1.732	1372	0.002
	B	11	**20.141**	**ug/L**	4.994	7207	0.008
	Na	23	**403.727**	**ug/L**	3.216	1107688	1.248
	Mg	24	**9701.402**	**ug/L**	8.337	20621372	23.577
	Al	27	**74773.722**	**ug/L**	3.528	228326389	261.270
	P	31	**758.965**	**ug/L**	1.705	129858	0.142
	K	39	**9140.366**	**ug/L**	8.959	33180930	37.613
	Ca	43	**9409.215**	**ug/L**	0.809	73572	0.084
>	Sc	45		**ug/L**		874245	874244.724
	V	51	**83.786**	**ug/L**	1.900	325944	0.363
	Cr	52	**39.146**	**ug/L**	1.346	129996	0.143
	Cr	53		**ug/L**		63581	-0.029
	Mn	55	**1266.308**	**ug/L**	1.280	5773403	6.603
	Fe	57	**43913.106**	**ug/L**	1.465	3900503	4.458
	Co	59	**22.475**	**ug/L**	0.887	77763	0.089
	Ni	60	**34.721**	**ug/L**	1.176	25613	0.029
	Cu	63		**ug/L**		65018	0.074
	Cu	65	**37.693**	**ug/L**	0.610	33014	0.038
	Zn	66	**111.929**	**ug/L**	0.339	58288	0.315
	Zn	67		**ug/L**		20035	0.042
	Zn	68		**ug/L**		52739	0.282
>	Ge	74		**ug/L**		184342	184342.418
	As	75	**7.951**	**ug/L**	2.212	4840	0.026
	Se	77		**ug/L**		2886	-0.011
	Se	82	**-2.100**	**ug/L**	29.119	-105	-0.001
	Kr	83		**ug/L**		267	0.001
	Sr	88	**112.689**	**ug/L**	0.656	838533	7.304
	Y	89		**ug/L**		365374	3.183
	Ag	107	**0.546**	**ug/L**	0.715	1601	0.014
	Cd	111	**1.813**	**ug/L**	6.230	1269	0.011
	Cd	114		**ug/L**		626	0.005
>	In	115		**ug/L**		114783	114782.848
	Sn	120	**0.755**	**ug/L**	3.132	2633	0.020
	Sb	121	**0.197**	**ug/L**	4.482	770	0.005
	Sb	123		**ug/L**		643	0.004
	Ba	135		**ug/L**		611325	3.098
	Ba	137	**702.714**	**ug/L**	0.889	1052360	5.333
	Ho	165		**ug/L**		22079	0.112
>	Lu	175		**ug/L**		197303	197302.850
	Tl	205	**0.867**	**ug/L**	0.308	6021	0.029
	Pb	208	**57.601**	**ug/L**	1.665	725654	3.669
	Bi	209		**ug/L**		8166	0.041
	U	238	**34.162**	**ug/L**	2.291	444223	2.251

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		72.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		81.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

Sample ID: 245998002
Report Date/Time: Friday, February 26, 2010 12:40:37

ICPMS#6 - Summary Report

Sample ID: 245998003
Sample Date/Time: Friday, February 26, 2010 12:44:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245998003.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**95.550**	**ug/L**	2.433	103242	0.123
	Be	9	**5.613**	**ug/L**	2.752	1742	0.002
	B	11	**21.121**	**ug/L**	3.176	7213	0.008
	Na	23	**896.056**	**ug/L**	6.032	2333385	2.771
	Mg	24	**12342.947**	**ug/L**	2.891	25070920	29.997
	Al	27	**109660.935**	**ug/L**	0.886	320286329	383.170
	P	31	**562.671**	**ug/L**	1.177	93517	0.105
	K	39	**9758.243**	**ug/L**	6.934	33890682	40.155
	Ca	43	**14115.670**	**ug/L**	1.166	105466	0.126
>	Sc	45		**ug/L**		835917	835916.998
	V	51	**98.420**	**ug/L**	1.493	364763	0.427
	Cr	52	**46.958**	**ug/L**	0.593	148185	0.172
	Cr	53		**ug/L**		62767	-0.027
	Mn	55	**1082.007**	**ug/L**	0.470	4718195	5.642
	Fe	57	**54797.229**	**ug/L**	0.793	4653779	5.563
	Co	59	**20.977**	**ug/L**	0.902	69408	0.083
	Ni	60	**38.355**	**ug/L**	0.599	27049	0.032
	Cu	63		**ug/L**		48960	0.058
	Cu	65	**30.849**	**ug/L**	0.973	25851	0.031
	Zn	66	**117.092**	**ug/L**	0.248	57680	0.330
	Zn	67		**ug/L**		20544	0.051
	Zn	68		**ug/L**		55254	0.313
>	Ge	74		**ug/L**		174410	174409.753
	As	75	**8.347**	**ug/L**	2.919	4803	0.027
	Se	77		**ug/L**		2942	-0.010
	Se	82	**-4.283**	**ug/L**	12.732	-208	-0.001
	Kr	83		**ug/L**		350	0.002
	Sr	88	**145.337**	**ug/L**	1.254	1024214	9.420
	Y	89		**ug/L**		385629	3.547
	Ag	107	**0.611**	**ug/L**	1.937	1692	0.015
	Cd	111	**2.027**	**ug/L**	7.660	1343	0.012
	Cd	114		**ug/L**		278	0.002
>	In	115		**ug/L**		108727	108727.050
	Sn	120	**0.690**	**ug/L**	2.268	2305	0.018
	Sb	121	**0.105**	**ug/L**	10.624	497	0.002
	Sb	123		**ug/L**		397	0.002
	Ba	135		**ug/L**		776285	4.161
	Ba	137	**937.045**	**ug/L**	0.189	1326862	7.112
	Ho	165		**ug/L**		23145	0.124
>	Lu	175		**ug/L**		186562	186562.240
	Tl	205	**0.973**	**ug/L**	0.827	6365	0.033
	Pb	208	**57.114**	**ug/L**	0.183	680430	3.638
	Bi	209		**ug/L**		9495	0.051
	U	238	**4.575**	**ug/L**	1.558	56424	0.301

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		72.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		69.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245998004
Sample Date/Time: Friday, February 26, 2010 12:49:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245998004.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**66.352**	**ug/L**	0.526	70782	0.086
	Be	9	**3.928**	**ug/L**	2.349	1205	0.001
	B	11	**15.465**	**ug/L**	1.340	5300	0.006
	Na	23	**448.206**	**ug/L**	12.599	1157780	1.386
	Mg	24	**7902.768**	**ug/L**	4.853	15844930	19.206
	Al	27	**66580.664**	**ug/L**	5.838	191787174	232.642
	P	31	**645.640**	**ug/L**	0.766	105066	0.121
	K	39	**7754.327**	**ug/L**	5.930	26615719	31.909
	Ca	43	**6983.511**	**ug/L**	0.436	51567	0.062
>	Sc	45		**ug/L**		824772	824771.792
	V	51	**71.575**	**ug/L**	0.963	263859	0.311
	Cr	52	**32.504**	**ug/L**	2.129	102633	0.119
	Cr	53		**ug/L**		56009	-0.034
	Mn	55	**1035.140**	**ug/L**	0.878	4453294	5.398
	Fe	57	**39323.951**	**ug/L**	0.383	3296323	3.992
	Co	59	**18.151**	**ug/L**	0.321	59271	0.072
	Ni	60	**30.190**	**ug/L**	1.620	21018	0.025
	Cu	63		**ug/L**		53316	0.065
	Cu	65	**33.152**	**ug/L**	0.339	27405	0.033
	Zn	66	**115.563**	**ug/L**	0.608	57572	0.326
	Zn	67		**ug/L**		18574	0.039
	Zn	68		**ug/L**		49766	0.278
>	Ge	74		**ug/L**		176374	176373.848
	As	75	**6.886**	**ug/L**	4.748	4023	0.022
	Se	77		**ug/L**		2621	-0.012
	Se	82	**-2.233**	**ug/L**	9.914	-107	-0.001
	Kr	83		**ug/L**		239	0.001
	Sr	88	**88.126**	**ug/L**	1.080	628695	5.712
	Y	89		**ug/L**		305333	2.774
	Ag	107	**0.485**	**ug/L**	0.970	1369	0.012
	Cd	111	**1.713**	**ug/L**	3.089	1150	0.010
	Cd	114		**ug/L**		480	0.004
>	In	115		**ug/L**		110044	110043.784
	Sn	120	**0.811**	**ug/L**	5.849	2687	0.021
	Sb	121	**0.119**	**ug/L**	14.562	540	0.003
	Sb	123		**ug/L**		477	0.003
	Ba	135		**ug/L**		476239	2.472
	Ba	137	**561.424**	**ug/L**	1.411	820978	4.261
	Ho	165		**ug/L**		19034	0.099
>	Lu	175		**ug/L**		192672	192672.249
	Tl	205	**0.872**	**ug/L**	0.708	5912	0.030
	Pb	208	**51.898**	**ug/L**	0.298	638714	3.306
	Bi	209		**ug/L**		7086	0.037
	U	238	**44.189**	**ug/L**	0.344	561120	2.911

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		71.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		69.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		77.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		90.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, February 26, 2010 12:55:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 8.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.567**	**ug/L**	1.990	60664	0.070
	Be	9	**53.323**	**ug/L**	2.406	16959	0.020
	B	11	**106.266**	**ug/L**	2.886	35971	0.041
	Na	23	**5282.678**	**ug/L**	7.612	14065852	16.334
	Mg	24	**4681.771**	**ug/L**	5.591	9777119	11.378
	Al	27	**5248.730**	**ug/L**	5.521	15778298	18.340
	P	31	**5153.674**	**ug/L**	0.707	833740	0.963
	K	39	**4453.969**	**ug/L**	3.108	16072013	18.328
	Ca	43	**4896.501**	**ug/L**	0.520	37730	0.044
>	Sc	45		**ug/L**		859468	859468.125
	V	51	**52.106**	**ug/L**	0.962	202372	0.226
	Cr	52	**52.891**	**ug/L**	0.990	170981	0.193
	Cr	53		**ug/L**		93602	0.007
	Mn	55	**52.965**	**ug/L**	1.211	239055	0.276
	Fe	57	**5091.673**	**ug/L**	1.447	448091	0.517
	Co	59	**52.091**	**ug/L**	1.132	177066	0.206
	Ni	60	**54.308**	**ug/L**	1.356	39351	0.046
	Cu	63		**ug/L**		91879	0.107
	Cu	65	**52.570**	**ug/L**	1.758	45235	0.053
	Zn	66	**52.286**	**ug/L**	0.594	28445	0.147
	Zn	67		**ug/L**		15165	0.012
	Zn	68		**ug/L**		21249	0.106
>	Ge	74		**ug/L**		191975	191975.273
	As	75	**50.273**	**ug/L**	0.458	31344	0.163
	Se	77		**ug/L**		6838	0.009
	Se	82	**53.423**	**ug/L**	1.185	2942	0.015
	Kr	83		**ug/L**		64	0.000
	Sr	88	**50.858**	**ug/L**	1.986	382589	3.296
	Y	89		**ug/L**		170	0.001
	Ag	107	**52.151**	**ug/L**	1.384	150835	1.300
	Cd	111	**49.715**	**ug/L**	3.557	34943	0.301
	Cd	114		**ug/L**		82792	0.714
>	In	115		**ug/L**		116022	116021.707
	Sn	120	**54.366**	**ug/L**	0.572	167284	1.439
	Sb	121	**54.327**	**ug/L**	2.518	146203	1.258
	Sb	123		**ug/L**		115800	0.997
	Ba	135		**ug/L**		41298	0.220
	Ba	137	**50.991**	**ug/L**	0.880	72588	0.387
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		187429	187429.458
	Tl	205	**51.274**	**ug/L**	1.085	326096	1.739
	Pb	208	**52.315**	**ug/L**	0.923	626265	3.332
	Bi	209		**ug/L**		132	0.001
	U	238	**57.226**	**ug/L**	1.240	706793	3.770

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	109.133				
	Be	9	106.646				
	B	11	106.266				
	Na	23	105.654				
	Mg	24	93.635				
	Al	27	103.935				
	P	31	103.073				
	K	39	89.079				
	Ca	43	97.930				
>	Sc	45		74.7			
	V	51	104.213				
	Cr	52	105.782				
	Cr	53					
	Mn	55	105.930				
	Fe	57	101.833				
	Co	59	104.182				
	Ni	60	108.615				
	Cu	63					
	Cu	65	105.139				
	Zn	66	104.571				
	Zn	67					
	Zn	68					
>	Ge	74		75.9			
	As	75	100.545				
	Se	77					
	Se	82	106.846				
	Kr	83					
	Sr	88	101.716				
	Y	89					
	Ag	107	104.302				
	Cd	111	99.429				
	Cd	114					
>	In	115		81.9			
	Sn	120	108.732				
	Sb	121	108.654				
	Sb	123					
	Ba	135					
	Ba	137	101.981				
	Ho	165					
>	Lu	175		87.6			
	Tl	205	102.548				
	Pb	208	104.630				
	Bi	209					
	U	238	114.451				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	K	39	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 12:58:25

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 13:01:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.072**	**ug/L**	13.671	207	0.000
	Be	9	**0.032**	**ug/L**	20.805	20	0.000
	B	11	**2.318**	**ug/L**	22.811	1301	0.001
	Na	23	**1.322**	**ug/L**	119.220	23353	0.004
	Mg	24	**3.567**	**ug/L**	34.388	13340	0.009
	Al	27	**3.052**	**ug/L**	10.240	20014	0.011
	P	31	**2.084**	**ug/L**	16.897	7125	0.000
	K	39	**2.530**	**ug/L**	573.687	381770	0.010
	Ca	43	**0.528**	**ug/L**	365.488	219	0.000
>	Sc	45		**ug/L**		1003660	1003660.132
	V	51	**0.219**	**ug/L**	221.467	10425	0.001
	Cr	52	**0.136**	**ug/L**	4.477	6223	0.000
	Cr	53		**ug/L**		100083	-0.002
	Mn	55	**0.080**	**ug/L**	9.320	2413	0.000
	Fe	57	**1.809**	**ug/L**	27.874	4722	0.000
	Co	59	**0.016**	**ug/L**	12.348	172	0.000
	Ni	60	**0.039**	**ug/L**	8.783	99	0.000
	Cu	63		**ug/L**		151	0.000
	Cu	65	**-0.002**	**ug/L**	1215.033	80	-0.000
	Zn	66	**-0.020**	**ug/L**	164.407	182	-0.000
	Zn	67		**ug/L**		14283	-0.002
	Zn	68		**ug/L**		871	-0.000
>	Ge	74		**ug/L**		219757	219757.091
	As	75	**0.712**	**ug/L**	21.044	620	0.002
	Se	77		**ug/L**		6266	0.002
	Se	82	**-0.074**	**ug/L**	188.640	2	-0.000
	Kr	83		**ug/L**		64	0.000
	Sr	88	**0.012**	**ug/L**	38.367	331	0.001
	Y	89		**ug/L**		70	0.000
	Ag	107	**0.011**	**ug/L**	37.552	82	0.000
	Cd	111	**0.022**	**ug/L**	74.111	27	0.000
	Cd	114		**ug/L**		54	0.000
>	In	115		**ug/L**		129697	129696.939
	Sn	120	**0.058**	**ug/L**	21.446	580	0.002
	Sb	121	**0.219**	**ug/L**	36.792	937	0.005
	Sb	123		**ug/L**		747	0.004
	Ba	135		**ug/L**		52	0.000
	Ba	137	**0.015**	**ug/L**	66.949	83	0.000
	Ho	165		**ug/L**		8	0.000
>	Lu	175		**ug/L**		203367	203367.364
	Tl	205	**0.079**	**ug/L**	25.082	771	0.003
	Pb	208	**0.046**	**ug/L**	15.745	2454	0.003
	Bi	209		**ug/L**		35	-0.000
	U	238	**0.034**	**ug/L**	4.441	679	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Sample ID: QC Std 9

Report Date/Time: Friday, February 26, 2010 13:04:22

ICPMS#6 - Summary Report

Sample ID: 245998005
Sample Date/Time: Friday, February 26, 2010 13:07:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245998005.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**115.472**	**ug/L**	2.429	132167	0.149
	Be	9	**6.566**	**ug/L**	2.626	2158	0.002
	B	11	**27.285**	**ug/L**	3.412	9769	0.011
	Na	23	**1924.399**	**ug/L**	6.428	5280266	5.950
	Mg	24	**15168.061**	**ug/L**	4.413	32678648	36.863
	Al	27	**130811.703**	**ug/L**	2.380	404903459	457.074
	P	31	**1070.948**	**ug/L**	2.147	183210	0.200
	K	39	**10324.114**	**ug/L**	0.976	37971759	42.484
	Ca	43	**43192.969**	**ug/L**	0.614	341625	0.385
>	Sc	45		**ug/L**		885941	885940.551
	V	51	**109.427**	**ug/L**	0.837	428863	0.475
	Cr	52	**59.226**	**ug/L**	1.138	196700	0.216
	Cr	53		**ug/L**		75383	-0.017
	Mn	55	**935.900**	**ug/L**	1.239	4324131	4.880
	Fe	57	**59549.024**	**ug/L**	1.366	5358172	6.046
	Co	59	**21.301**	**ug/L**	1.016	74714	0.084
	Ni	60	**46.832**	**ug/L**	0.424	34989	0.039
	Cu	63		**ug/L**		56710	0.064
	Cu	65	**33.198**	**ug/L**	1.266	29468	0.033
	Zn	66	**135.989**	**ug/L**	0.680	68647	0.383
	Zn	67		**ug/L**		25814	0.078
	Zn	68		**ug/L**		72407	0.401
>	Ge	74		**ug/L**		178767	178766.858
	As	75	**10.975**	**ug/L**	2.889	6444	0.036
	Se	77		**ug/L**		4317	-0.002
	Se	82	**-3.010**	**ug/L**	8.538	-149	-0.001
	Kr	83		**ug/L**		337	0.002
	Sr	88	**240.528**	**ug/L**	1.130	1719402	15.589
	Y	89		**ug/L**		507825	4.605
	Ag	107	**0.693**	**ug/L**	0.630	1944	0.017
	Cd	111	**2.010**	**ug/L**	5.990	1352	0.012
	Cd	114		**ug/L**		284	0.002
>	In	115		**ug/L**		110261	110260.695
	Sn	120	**0.671**	**ug/L**	4.323	2285	0.018
	Sb	121	**0.163**	**ug/L**	10.407	655	0.004
	Sb	123		**ug/L**		544	0.003
	Ba	135		**ug/L**		1273230	6.766
	Ba	137	**1653.678**	**ug/L**	0.725	2361715	12.551
	Ho	165		**ug/L**		28528	0.152
>	Lu	175		**ug/L**		188190	188189.913
	Tl	205	**1.096**	**ug/L**	1.920	7206	0.037
	Pb	208	**56.547**	**ug/L**	1.256	679479	3.602
	Bi	209		**ug/L**		9317	0.049
	U	238	**3.953**	**ug/L**	1.095	49213	0.260

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		77.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		70.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		77.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		88.0			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245998006
Sample Date/Time: Friday, February 26, 2010 13:13:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245998006.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	53.344	ug/L	0.766	58444	0.069
	Be	9	3.341	ug/L	3.425	1053	0.001
	B	11	23.364	ug/L	1.683	8049	0.009
	Na	23	355.104	ug/L	7.357	946477	1.098
	Mg	24	8364.843	ug/L	3.952	17220048	20.329
	Al	27	61867.643	ug/L	1.474	183045735	216.174
	P	31	1220.806	ug/L	0.714	198925	0.228
	K	39	8313.721	ug/L	2.979	29277291	34.211
	Ca	43	12245.676	ug/L	0.250	92703	0.109
>	Sc	45		ug/L		846804	846803.755
	V	51	78.963	ug/L	1.622	298042	0.343
	Cr	52	35.754	ug/L	1.182	115442	0.131
	Cr	53		ug/L		59400	-0.032
	Mn	55	1827.652	ug/L	1.278	8071392	9.531
	Fe	57	41223.614	ug/L	1.416	3547432	4.185
	Co	59	20.357	ug/L	1.489	68234	0.080
	Ni	60	28.713	ug/L	0.986	20527	0.024
	Cu	63		ug/L		129383	0.153
	Cu	65	76.455	ug/L	0.766	64794	0.076
	Zn	66	128.840	ug/L	0.309	64272	0.363
	Zn	67		ug/L		19916	0.046
	Zn	68		ug/L		55500	0.310
>	Ge	74		ug/L		176664	176663.551
	As	75	9.848	ug/L	6.286	5721	0.032
	Se	77		ug/L		2968	-0.010
	Se	82	-1.821	ug/L	26.511	-87	-0.001
	Kr	83		ug/L		227	0.001
	Sr	88	111.169	ug/L	1.383	809271	7.205
	Y	89		ug/L		274342	2.443
	Ag	107	0.493	ug/L	2.928	1418	0.012
	Cd	111	2.276	ug/L	6.684	1556	0.014
	Cd	114		ug/L		1509	0.013
>	In	115		ug/L		112315	112315.103
	Sn	120	1.050	ug/L	3.958	3450	0.028
	Sb	121	0.324	ug/L	3.937	1084	0.008
	Sb	123		ug/L		851	0.006
	Ba	135		ug/L		525893	2.720
	Ba	137	617.292	ug/L	0.482	905857	4.685
	Ho	165		ug/L		17191	0.089
>	Lu	175		ug/L		193340	193339.835
	Tl	205	0.634	ug/L	1.745	4373	0.021
	Pb	208	99.599	ug/L	0.999	1228310	6.344
	Bi	209		ug/L		7460	0.038
	U	238	63.953	ug/L	0.791	814794	4.213

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		73.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		69.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		79.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		90.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245998007
Sample Date/Time: Friday, February 26, 2010 13:19:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245998007.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**93.347**	**ug/L**	0.535	101515	0.121
	Be	9	**5.398**	**ug/L**	2.664	1686	0.002
	B	11	**24.384**	**ug/L**	0.206	8331	0.010
	Na	23	**683.127**	**ug/L**	11.111	1794455	2.112
	Mg	24	**15816.958**	**ug/L**	1.591	32332842	38.440
	Al	27	**102368.070**	**ug/L**	2.131	300880334	357.688
	P	31	**701.812**	**ug/L**	0.917	115978	0.131
	K	39	**8776.566**	**ug/L**	8.199	30696796	36.116
	Ca	43	**30466.701**	**ug/L**	0.728	228820	0.272
>	Sc	45		**ug/L**		841130	841130.148
	V	51	**115.845**	**ug/L**	0.141	430648	0.503
	Cr	52	**69.240**	**ug/L**	0.383	217574	0.253
	Cr	53		**ug/L**		71668	-0.017
	Mn	55	**1034.216**	**ug/L**	1.182	4537600	5.393
	Fe	57	**63827.916**	**ug/L**	0.795	5454229	6.480
	Co	59	**26.539**	**ug/L**	1.047	88341	0.105
	Ni	60	**46.138**	**ug/L**	0.764	32729	0.039
	Cu	63		**ug/L**		65566	0.078
	Cu	65	**40.157**	**ug/L**	0.546	33837	0.040
	Zn	66	**144.496**	**ug/L**	0.945	68745	0.407
	Zn	67		**ug/L**		24704	0.080
	Zn	68		**ug/L**		71756	0.422
>	Ge	74		**ug/L**		168515	168514.812
	As	75	**9.423**	**ug/L**	4.721	5229	0.031
	Se	77		**ug/L**		3682	-0.005
	Se	82	**-2.561**	**ug/L**	18.222	-118	-0.001
	Kr	83		**ug/L**		295	0.001
	Sr	88	**220.595**	**ug/L**	1.097	1505651	14.297
	Y	89		**ug/L**		515149	4.891
	Ag	107	**0.595**	**ug/L**	1.542	1598	0.015
	Cd	111	**1.771**	**ug/L**	7.296	1137	0.011
	Cd	114		**ug/L**		273	0.002
>	In	115		**ug/L**		105312	105312.377
	Sn	120	**0.635**	**ug/L**	2.282	2080	0.017
	Sb	121	**0.134**	**ug/L**	12.549	554	0.003
	Sb	123		**ug/L**		446	0.003
	Ba	135		**ug/L**		1191035	6.425
	Ba	137	**1516.517**	**ug/L**	5.239	2134577	11.510
	Ho	165		**ug/L**		30649	0.165
>	Lu	175		**ug/L**		185369	185368.883
	Tl	205	**1.099**	**ug/L**	1.213	7118	0.037
	Pb	208	**55.237**	**ug/L**	0.591	653892	3.519
	Bi	209		**ug/L**		8777	0.047
	U	238	**5.005**	**ug/L**	2.546	61307	0.330

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		73.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		66.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		74.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.6			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245998008
Sample Date/Time: Friday, February 26, 2010 13:25:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no tht\mozr.mth
Dataset File: C:\elandata\Dataset\100225\245998008.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**98.493**	**ug/L**	2.670	100394	0.127
	Be	9	**5.728**	**ug/L**	3.607	1678	0.002
	B	11	**23.326**	**ug/L**	1.633	7484	0.009
	Na	23	**561.875**	**ug/L**	0.974	1385048	1.737
	Mg	24	**12637.826**	**ug/L**	3.324	24230720	30.714
	Al	27	**110418.082**	**ug/L**	2.996	304202081	385.816
	P	31	**822.363**	**ug/L**	1.243	126496	0.154
	K	39	**11779.126**	**ug/L**	5.035	38504074	48.471
	Ca	43	**11604.122**	**ug/L**	1.322	81836	0.104
>	Sc	45		**ug/L**		788629	788628.545
	V	51	**114.262**	**ug/L**	1.309	398308	0.496
	Cr	52	**50.627**	**ug/L**	0.369	150359	0.185
	Cr	53		**ug/L**		60427	-0.026
	Mn	55	**1922.456**	**ug/L**	0.921	7906332	10.025
	Fe	57	**60582.216**	**ug/L**	1.513	4852833	6.150
	Co	59	**31.195**	**ug/L**	0.447	97345	0.123
	Ni	60	**46.270**	**ug/L**	2.924	30766	0.039
	Cu	63		**ug/L**		70496	0.089
	Cu	65	**45.516**	**ug/L**	0.257	35951	0.046
	Zn	66	**163.185**	**ug/L**	0.580	75389	0.460
	Zn	67		**ug/L**		22535	0.071
	Zn	68		**ug/L**		67598	0.409
>	Ge	74		**ug/L**		163682	163681.758
	As	75	**10.030**	**ug/L**	7.724	5400	0.032
	Se	77		**ug/L**		2889	-0.009
	Se	82	**-4.565**	**ug/L**	9.375	-208	-0.001
	Kr	83		**ug/L**		362	0.002
	Sr	88	**140.571**	**ug/L**	0.299	940114	9.111
	Y	89		**ug/L**		382999	3.712
	Ag	107	**0.706**	**ug/L**	2.760	1851	0.018
	Cd	111	**2.538**	**ug/L**	8.133	1593	0.015
	Cd	114		**ug/L**		794	0.007
>	In	115		**ug/L**		103172	103172.162
	Sn	120	**1.014**	**ug/L**	0.913	3073	0.027
	Sb	121	**0.170**	**ug/L**	10.108	628	0.004
	Sb	123		**ug/L**		499	0.003
	Ba	135		**ug/L**		734719	4.114
	Ba	137	**929.179**	**ug/L**	0.859	1259391	7.052
	Ho	165		**ug/L**		24381	0.137
>	Lu	175		**ug/L**		178571	178571.002
	Tl	205	**1.172**	**ug/L**	3.049	7295	0.040
	Pb	208	**89.024**	**ug/L**	0.622	1014235	5.671
	Bi	209		**ug/L**		10176	0.057
	U	238	**128.230**	**ug/L**	0.534	1508732	8.448

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		68.6			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		64.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		72.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		83.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245998009
Sample Date/Time: Friday, February 26, 2010 13:31:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\245998009.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.070**	**ug/L**	1.376	58505	0.075
	Be	9	**3.745**	**ug/L**	2.458	1085	0.001
	B	11	**16.781**	**ug/L**	1.301	5403	0.007
	Na	23	**424.549**	**ug/L**	5.575	1037048	1.313
	Mg	24	**7321.272**	**ug/L**	6.459	13861950	17.793
	Al	27	**65730.386**	**ug/L**	5.198	178849844	229.671
	P	31	**605.540**	**ug/L**	0.980	93371	0.113
	K	39	**7550.925**	**ug/L**	1.961	24486462	31.072
	Ca	43	**7036.366**	**ug/L**	1.079	49055	0.063
>	Sc	45		**ug/L**		778746	778745.530
	V	51	**74.554**	**ug/L**	1.988	259206	0.323
	Cr	52	**36.178**	**ug/L**	0.604	107373	0.132
	Cr	53		**ug/L**		56063	-0.030
	Mn	55	**1244.654**	**ug/L**	0.104	5055928	6.490
	Fe	57	**38272.784**	**ug/L**	0.799	3029313	3.886
	Co	59	**20.895**	**ug/L**	0.622	64413	0.083
	Ni	60	**30.566**	**ug/L**	2.146	20093	0.026
	Cu	63		**ug/L**		66759	0.086
	Cu	65	**43.530**	**ug/L**	0.399	33955	0.044
	Zn	66	**96.476**	**ug/L**	0.604	45131	0.272
	Zn	67		**ug/L**		16238	0.031
	Zn	68		**ug/L**		40243	0.239
>	Ge	74		**ug/L**		165530	165530.168
	As	75	**7.371**	**ug/L**	3.331	4036	0.024
	Se	77		**ug/L**		2667	-0.011
	Se	82	**-2.619**	**ug/L**	7.351	-119	-0.001
	Kr	83		**ug/L**		244	0.001
	Sr	88	**90.216**	**ug/L**	2.391	615125	5.847
	Y	89		**ug/L**		270852	2.575
	Ag	107	**0.450**	**ug/L**	2.165	1216	0.011
	Cd	111	**1.768**	**ug/L**	3.945	1135	0.011
	Cd	114		**ug/L**		707	0.006
>	In	115		**ug/L**		105207	105207.219
	Sn	120	**0.626**	**ug/L**	5.390	2053	0.017
	Sb	121	**0.152**	**ug/L**	7.941	596	0.004
	Sb	123		**ug/L**		483	0.003
	Ba	135		**ug/L**		440657	2.395
	Ba	137	**548.803**	**ug/L**	0.184	766503	4.165
	Ho	165		**ug/L**		16933	0.092
>	Lu	175		**ug/L**		184011	184011.352
	Tl	205	**0.695**	**ug/L**	1.643	4543	0.024
	Pb	208	**50.953**	**ug/L**	0.677	598906	3.246
	Bi	209		**ug/L**		6490	0.035
	U	238	**70.026**	**ug/L**	0.384	849131	4.613

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			67.7		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			65.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			74.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			86.0		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, February 26, 2010 13:49:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtimozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 8.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.901**	**ug/L**	0.618	68155	0.076
	Be	9	**53.548**	**ug/L**	1.458	17727	0.020
	B	11	**106.044**	**ug/L**	2.856	37353	0.041
	Na	23	**5361.753**	**ug/L**	1.442	14847143	16.579
	Mg	24	**4966.663**	**ug/L**	1.017	10801028	12.071
	Al	27	**4990.281**	**ug/L**	5.115	15608932	17.437
	P	31	**4922.433**	**ug/L**	1.194	829024	0.920
	K	39	**4568.226**	**ug/L**	3.990	17147732	18.798
	Ca	43	**5018.459**	**ug/L**	0.711	40240	0.045
>	Sc	45		**ug/L**		894452	894452.021
	V	51	**52.026**	**ug/L**	0.639	210321	0.226
	Cr	52	**52.054**	**ug/L**	0.565	175209	0.190
	Cr	53		**ug/L**		86530	-0.005
	Mn	55	**53.471**	**ug/L**	0.817	251169	0.279
	Fe	57	**5092.240**	**ug/L**	0.205	466454	0.517
	Co	59	**52.061**	**ug/L**	1.182	184178	0.206
	Ni	60	**53.879**	**ug/L**	1.455	40634	0.045
	Cu	63		**ug/L**		95375	0.107
	Cu	65	**52.138**	**ug/L**	0.196	46698	0.052
	Zn	66	**52.935**	**ug/L**	1.121	29896	0.149
	Zn	67		**ug/L**		14105	0.004
	Zn	68		**ug/L**		22137	0.107
>	Ge	74		**ug/L**		199311	199311.080
	As	75	**49.299**	**ug/L**	0.573	31913	0.160
	Se	77		**ug/L**		6345	0.005
	Se	82	**52.023**	**ug/L**	1.890	2974	0.015
	Kr	83		**ug/L**		71	0.000
	Sr	88	**51.718**	**ug/L**	0.913	402162	3.352
	Y	89		**ug/L**		222	0.001
	Ag	107	**52.232**	**ug/L**	1.299	156154	1.302
	Cd	111	**50.999**	**ug/L**	0.505	37062	0.309
	Cd	114		**ug/L**		86853	0.724
>	In	115		**ug/L**		119917	119917.373
	Sn	120	**54.264**	**ug/L**	1.126	172587	1.436
	Sb	121	**54.105**	**ug/L**	1.118	150529	1.253
	Sb	123		**ug/L**		117733	0.980
	Ba	135		**ug/L**		41285	0.215
	Ba	137	**50.179**	**ug/L**	0.366	73298	0.381
	Ho	165		**ug/L**		25	0.000
>	Lu	175		**ug/L**		192318	192317.525
	Tl	205	**49.352**	**ug/L**	0.980	322071	1.674
	Pb	208	**51.277**	**ug/L**	1.069	629900	3.266
	Bi	209		**ug/L**		143	0.001
	U	238	**55.534**	**ug/L**	0.366	703851	3.659

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

Sample ID: QC Std 8

Report Date/Time: Friday, February 26, 2010 13:51:53

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	117.802				
	Be	9	107.096				
	B	11	106.044				
	Na	23	107.235				
	Mg	24	99.333				
	Al	27	98.817				
	P	31	98.449				
	K	39	91.365				
	Ca	43	100.369				
>	Sc	45		77.8			
	V	51	104.051				
	Cr	52	104.107				
	Cr	53					
	Mn	55	106.942				
	Fe	57	101.845				
	Co	59	104.122				
	Ni	60	107.759				
	Cu	63					
	Cu	65	104.276				
	Zn	66	105.871				
	Zn	67					
	Zn	68					
>	Ge	74		78.8			
	As	75	98.598				
	Se	77					
	Se	82	104.047				
	Kr	83					
	Sr	88	103.436				
	Y	89					
	Ag	107	104.463				
	Cd	111	101.999				
	Cd	114					
>	In	115		84.7			
	Sn	120	108.528				
	Sb	121	108.211				
	Sb	123					
	Ba	135					
	Ba	137	100.359				
	Ho	165					
>	Lu	175		89.9			
	Tl	205	98.705				
	Pb	208	102.554				
	Bi	209					
	U	238	111.068				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, February 26, 2010 13:55:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 no thtlmozr.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 9.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.080**	**ug/L**	7.656	221	0.000
	Be	9	**0.012**	**ug/L**	101.309	12	0.000
	B	11	**2.027**	**ug/L**	19.890	1206	0.001
	Na	23	**3.447**	**ug/L**	62.192	30367	0.011
	Mg	24	**2.656**	**ug/L**	21.375	11338	0.006
	Al	27	**2.117**	**ug/L**	26.255	17010	0.007
	P	31	**0.774**	**ug/L**	214.544	6996	0.000
	K	39	**-1.226**	**ug/L**	212.981	373150	-0.005
	Ca	43	**-0.947**	**ug/L**	168.486	210	-0.000
>	Sc	45		**ug/L**		1021188	1021187.936
	V	51	**0.319**	**ug/L**	19.335	11053	0.001
	Cr	52	**-0.198**	**ug/L**	42.815	5083	-0.001
	Cr	53		**ug/L**		88703	-0.015
	Mn	55	**0.056**	**ug/L**	28.667	2326	0.000
	Fe	57	**-2.193**	**ug/L**	74.735	4387	-0.000
	Co	59	**0.011**	**ug/L**	17.872	154	0.000
	Ni	60	**0.006**	**ug/L**	229.241	73	0.000
	Cu	63		**ug/L**		157	0.000
	Cu	65	**0.003**	**ug/L**	313.012	86	0.000
	Zn	66	**-0.023**	**ug/L**	123.373	179	-0.000
	Zn	67		**ug/L**		12560	-0.009
	Zn	68		**ug/L**		733	-0.001
>	Ge	74		**ug/L**		217928	217928.348
	As	75	**0.178**	**ug/L**	165.084	237	0.001
	Se	77		**ug/L**		5381	-0.002
	Se	82	**0.040**	**ug/L**	79.869	9	0.000
	Kr	83		**ug/L**		60	0.000
	Sr	88	**0.012**	**ug/L**	25.807	328	0.001
	Y	89		**ug/L**		77	0.000
	Ag	107	**0.012**	**ug/L**	54.835	84	0.000
	Cd	111	**0.019**	**ug/L**	35.111	24	0.000
	Cd	114		**ug/L**		49	0.000
>	In	115		**ug/L**		130518	130517.960
	Sn	120	**0.055**	**ug/L**	10.971	576	0.001
	Sb	121	**0.217**	**ug/L**	29.164	935	0.005
	Sb	123		**ug/L**		710	0.004
	Ba	135		**ug/L**		52	0.000
	Ba	137	**0.016**	**ug/L**	53.691	86	0.000
	Ho	165		**ug/L**		5	0.000
>	Lu	175		**ug/L**		204400	204400.298
	Tl	205	**0.066**	**ug/L**	31.803	689	0.002
	Pb	208	**0.048**	**ug/L**	10.135	2491	0.003
	Bi	209		**ug/L**		30	-0.000
	U	238	**0.033**	**ug/L**	11.963	661	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		88.8			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		86.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, February 26, 2010 21:33:32
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1676
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2874.9	2874.890	102.453	3.6
	Mg	24.0	18310.9	18310.933	447.610	2.4
	Co	58.9	34076.2	34076.202	570.365	1.7
	Rh	102.9	78681.9	78681.905	859.088	1.1
	In	114.9	92589.9	92589.892	600.865	0.6
	Pb	208.0	72499.7	72499.713	644.746	0.9
⌈>	Ba	137.9	88745.2	88745.243	431.744	0.5
⌊	Ba++	69.0	1220.3	0.014	0.000	3.4
⌈>	Ce	139.9	117167.7	117167.746	815.209	0.7
⌊	CeO	155.9	2319.6	0.020	0.000	2.5
	Bkgd	220.0	3.1	3.100	1.194	38.5

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.8	2790.6
Co	59	11	6.5	32715.1
In	115	11	7.5	87414.0

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	577	2080	0.649
Be	9.0	8.9	2022	2080	0.663
Mg	24.0	24.0	5686	2124	0.607
Mg	25.0	25.0	5914	2080	0.664
Mg	26.0	26.0	6168	2120	0.665
Co	58.9	58.9	14184	2170	0.640
Rh	102.9	102.9	24871	2230	0.698
In	114.9	114.9	27787	2260	0.683
Ce	139.9	139.9	33849	2280	0.761
Pb	206.0	206.0	49948	2430	0.696
Pb	207.0	207.0	50159	2385	0.705
Pb	208.0	207.9	50439	2430	0.745
U	238.1	238.1	57734	2470	0.743

Report Date/Time: Friday, February 26, 2010 21:31:45

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, February 27, 2010 07:11:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\Blank.156

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		199584	
	U	238		ug/L		85	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, February 27, 2010 07:15:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\Standard 1.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		193312	193312.473
⌊	U	238	10.000	ug/L	0.689	104283	0.539

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, February 27, 2010 07:18:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\Standard 2.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		187387	187386.607
	U	238	99.998	ug/L	1.249	1008136	5.380

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, February 27, 2010 07:21:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 1.159

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		187640	187640.491
	U	238	53.228	ug/L	1.883	537377	2.864

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.0			
	U	238	106.456				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, February 27, 2010 07:24:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 2.160

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		197739	197739.382
	U	238	0.011	ug/L	14.243	204	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, February 27, 2010 07:27:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 3.161

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		189852	189852.415
[	U	238	0.265	ug/L	1.804	2790	0.014

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		95.1			
[	U	238	132.577				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, February 27, 2010 07:30:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 4.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		175056	175056.207
⌊	U	238	-0.003	ug/L	42.723	49	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		87.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, February 27, 2010 07:33:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 5.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		174044	174043.885
[	U	238	21.778	ug/L	1.009	203970	1.172

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		87.2			
[	U	238	108.888				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 07:36:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		183668	183667.621
	U	238	53.053	ug/L	1.261	524197	2.854

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.0			
	U	238	106.105				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 07:39:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		193476	193476.457
	U	238	0.008	ug/L	30.247	169	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032646
Sample Date/Time: Saturday, February 27, 2010 07:42:40
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\1202032646.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		198503	198502.518
⌊	U	238	0.062	ug/L	1.652	751	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032651
Sample Date/Time: Saturday, February 27, 2010 07:45:47
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948782|40|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\1202032651.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		194026	194025.686
	U	238	0.534	ug/L	2.581	5654	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 07:48:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		186500	186500.079
	U	238	52.806	ug/L	1.249	529857	2.841

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.4			
	U	238	105.613				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 07:51:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		196261	196261.436
[	U	238	0.007	ug/L	14.038	154	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		98.3			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998001
Sample Date/Time: Saturday, February 27, 2010 07:55:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\245998001.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		193381	193381.062
	U	238	4.862	ug/L	1.216	50667	0.262

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032647
Sample Date/Time: Saturday, February 27, 2010 07:58:09
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\1202032647.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		189943	189943.329
⌊	U	238	4.499	ug/L	0.800	46052	0.242

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		95.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032649
Sample Date/Time: Saturday, February 27, 2010 08:01:16
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\1202032649.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		182145	182144.798
	U	238	35.962	ug/L	0.694	352443	1.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		91.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032650
Sample Date/Time: Saturday, February 27, 2010 08:04:23
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948782|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\1202032650.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		178064	178064.387
⌊	U	238	35.846	ug/L	0.855	343451	1.928

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		89.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032648
Sample Date/Time: Saturday, February 27, 2010 08:07:30
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948782|10|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\1202032648.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		188102	188102.027
⌊	U	238	0.950	ug/L	2.771	9693	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		94.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998002
Sample Date/Time: Saturday, February 27, 2010 08:10:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\245998002.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		185266	185266.175
⌊	U	238	34.815	ug/L	0.951	347054	1.873

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998003
Sample Date/Time: Saturday, February 27, 2010 08:13:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\245998003.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		179698	179697.506
	U	238	4.623	ug/L	1.091	44774	0.249

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		90.0			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 08:16:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		177902	177901.708
⌊	U	238	54.404	ug/L	0.848	520721	2.927

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		89.1			
⌊	U	238	108.807				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 08:19:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		188408	188407.525
	U	238	0.006	ug/L	36.294	136	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998004
Sample Date/Time: Saturday, February 27, 2010 08:23:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\245998004.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		188685	188684.794
	U	238	44.485	ug/L	0.452	451632	2.393

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		94.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998005
Sample Date/Time: Saturday, February 27, 2010 08:26:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\245998005.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		185056	185055.886
	U	238	4.008	ug/L	1.039	39976	0.216

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998006
Sample Date/Time: Saturday, February 27, 2010 08:29:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rm|
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\245998006.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		183013	183013.324
	U	238	66.794	ug/L	0.367	657677	3.593

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		91.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998007
Sample Date/Time: Saturday, February 27, 2010 08:32:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\245998007.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		181468	181467.716
	U	238	5.150	ug/L	1.011	50344	0.277

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		90.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998009
Sample Date/Time: Saturday, February 27, 2010 08:38:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\245998009.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		177095	177095.081
	U	238	72.049	ug/L	0.376	686506	3.876

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		88.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 08:41:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.185

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		171160	171159.628
U	238	54.787	ug/L	0.135	504548	2.947

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Lu	175		85.8			
U	238	109.574				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 08:44:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		183241	183240.678
⌊	U	238	0.011	ug/L	1.377	185	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		91.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, February 27, 2010 09:39:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\Blank.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		5	
>	Sc	45		ug/L		890671	
	Ni	60		ug/L		56	
>	Ge	74		ug/L		188009	
	As	75		ug/L		697	
	Se	77		ug/L		4232	
	Se	82		ug/L		12	
	Kr	83		ug/L		42	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, February 27, 2010 09:43:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\Standard 1.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	0.965	2272	0.003
>	Sc	45		ug/L		830044	830043.992
	Ni	60	10.000	ug/L	4.106	5086	0.006
>	Ge	74		ug/L		176502	176502.088
	As	75	10.000	ug/L	4.495	5078	0.025
	Se	77		ug/L		3682	-0.002
	Se	82	10.000	ug/L	5.619	415	0.002
	Kr	83		ug/L		38	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, February 27, 2010 09:46:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\Standard 2.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.057**	**ug/L**	2.246	22702	0.029
>	Sc	45		**ug/L**		782992	782992.241
	Ni	60	**100.019**	**ug/L**	1.380	48504	0.062
>	Ge	74		**ug/L**		170383	170383.410
	As	75	**100.037**	**ug/L**	3.395	45005	0.260
	Se	77		**ug/L**		5912	0.012
	Se	82	**100.035**	**ug/L**	0.866	4053	0.024
	Kr	83		**ug/L**		51	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, February 27, 2010 09:49:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 1.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.980**	**ug/L**	1.775	11512	0.014
>	Sc	45		**ug/L**		794794	794793.963
	Ni	60	**51.956**	**ug/L**	1.984	25599	0.032
>	Ge	74		**ug/L**		173723	173722.849
	As	75	**46.996**	**ug/L**	1.675	21901	0.122
	Se	77		**ug/L**		4183	0.002
	Se	82	**51.866**	**ug/L**	4.096	2148	0.012
	Kr	83		**ug/L**		37	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.960				
>	Sc	45		89.2			
	Ni	60	103.913				
>	Ge	74		92.4			
	As	75	93.992				
	Se	77					
	Se	82	103.732				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, February 27, 2010 09:53:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 2.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.010**	**ug/L**	143.629	7	0.000
>	Sc	45		**ug/L**		852782	852781.595
	Ni	60	**0.011**	**ug/L**	130.378	60	0.000
>	Ge	74		**ug/L**		182043	182043.328
	As	75	**-0.460**	**ug/L**	89.568	459	-0.001
	Se	77		**ug/L**		3077	-0.006
	Se	82	**0.090**	**ug/L**	311.816	15	0.000
	Kr	83		**ug/L**		36	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.7			
	Ni	60					
>	Ge	74		96.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, February 27, 2010 09:56:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 3.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.589**	**ug/L**	9.150	141	0.000
>	Sc	45		**ug/L**		799581	799580.688
	Ni	60	**2.214**	**ug/L**	3.107	1146	0.001
>	Ge	74		**ug/L**		173218	173217.596
	As	75	**5.402**	**ug/L**	3.747	3078	0.014
	Se	77		**ug/L**		2854	-0.006
	Se	82	**5.314**	**ug/L**	7.151	229	0.001
	Kr	83		**ug/L**		35	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	117.821				
>	Sc	45		89.8			
	Ni	60	110.724				
>	Ge	74		92.1			
	As	75	108.038				
	Se	77					
	Se	82	106.273				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, February 27, 2010 10:00:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 4.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.115**	**ug/L**	40.276	26	0.000
>	Sc	45		**ug/L**		682399	682399.067
	Ni	60	**4.512**	**ug/L**	3.948	1948	0.003
>	Ge	74		**ug/L**		150676	150675.609
	As	75	**0.174**	**ug/L**	105.552	627	0.000
	Se	77		**ug/L**		2928	-0.003
	Se	82	**-2.665**	**ug/L**	23.824	-86	-0.001
	Kr	83		**ug/L**		148	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		76.6			
	Ni	60	167.109				
>	Ge	74		80.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc	45 Int Std for QC Sc	45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, February 27, 2010 10:03:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 5.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.847**	**ug/L**	2.199	3927	0.006
>	Sc	45		**ug/L**		682284	682284.395
	Ni	60	**23.865**	**ug/L**	2.686	10119	0.015
>	Ge	74		**ug/L**		151046	151046.194
	As	75	**19.989**	**ug/L**	2.590	8419	0.052
	Se	77		**ug/L**		3454	0.000
	Se	82	**18.006**	**ug/L**	5.608	655	0.004
	Kr	83		**ug/L**		148	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.237				
>	Sc	45		76.6			
	Ni	60	105.131				
>	Ge	74		80.3			
	As	75	99.944				
	Se	77					
	Se	82	90.028				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc		45	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 10:07:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.973**	**ug/L**	1.720	11427	0.014
>	Sc	45		**ug/L**		789020	789019.824
	Ni	60	**51.031**	**ug/L**	0.373	24963	0.032
>	Ge	74		**ug/L**		172165	172165.024
	As	75	**47.372**	**ug/L**	2.108	21875	0.123
	Se	77		**ug/L**		3910	0.000
	Se	82	**51.730**	**ug/L**	3.136	2123	0.012
	Kr	83		**ug/L**		36	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.945				
>	Sc	45		88.6			
	Ni	60	102.063				
>	Ge	74		91.6			
	As	75	94.743				
	Se	77					
	Se	82	103.460				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 10:10:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	42.523	6	0.000
>	Sc	45		**ug/L**		851166	851166.138
	Ni	60	**-0.004**	**ug/L**	360.279	51	-0.000
>	Ge	74		**ug/L**		183491	183490.502
	As	75	**-0.670**	**ug/L**	38.570	360	-0.002
	Se	77		**ug/L**		2672	-0.008
	Se	82	**-0.012**	**ug/L**	1312.714	11	-0.000
	Kr	83		**ug/L**		34	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.6			
	Ni	60					
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032646
Sample Date/Time: Saturday, February 27, 2010 10:14:02
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\1202032646.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.025	ug/L	68.536	10	0.000
>	Sc	45		ug/L		822872	822871.823
	Ni	60	0.075	ug/L	9.429	90	0.000
>	Ge	74		ug/L		178434	178433.971
	As	75	-0.659	ug/L	34.791	356	-0.002
	Se	77		ug/L		1704	-0.013
	Se	82	0.388	ug/L	80.599	28	0.000
	Kr	83		ug/L		30	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.4			
	Ni	60					
>	Ge	74		94.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032651
Sample Date/Time: Saturday, February 27, 2010 10:18:00
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948782|40|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\1202032651.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.243**	**ug/L**	2.644	4837	0.006
>	Sc	45		**ug/L**		823983	823983.486
	Ni	60	**36.792**	**ug/L**	1.446	18809	0.023
>	Ge	74		**ug/L**		179296	179295.789
	As	75	**27.830**	**ug/L**	2.517	13652	0.072
	Se	77		**ug/L**		4751	0.004
	Se	82	**77.634**	**ug/L**	0.821	3312	0.018
	Kr	83		**ug/L**		39	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.5			
	Ni	60					
>	Ge	74		95.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998001
Sample Date/Time: Saturday, February 27, 2010 10:21:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998001.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**6.229**	**ug/L**	3.312	1462	0.002
>	Sc	45		**ug/L**		807502	807502.417
	Ni	60	**51.576**	**ug/L**	2.144	25818	0.032
>	Ge	74		**ug/L**		163002	163001.829
	As	75	**13.339**	**ug/L**	3.784	6262	0.035
	Se	77		**ug/L**		1898	-0.011
	Se	82	**-2.243**	**ug/L**	40.343	-77	-0.001
	Kr	83		**ug/L**		273	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.7			
	Ni	60					
>	Ge	74		86.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032647
Sample Date/Time: Saturday, February 27, 2010 10:25:56
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\1202032647.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.176**	**ug/L**	4.105	1217	0.001
>	Sc	45		**ug/L**		808761	808760.631
	Ni	60	**45.394**	**ug/L**	2.045	22769	0.028
>	Ge	74		**ug/L**		167074	167074.000
	As	75	**8.712**	**ug/L**	3.618	4409	0.023
	Se	77		**ug/L**		1970	-0.011
	Se	82	**-2.762**	**ug/L**	22.127	-99	-0.001
	Kr	83		**ug/L**		252	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Ni	60					
>	Ge	74		88.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032649
Sample Date/Time: Saturday, February 27, 2010 10:29:55
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\1202032649.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**32.817**	**ug/L**	1.361	7271	0.010
>	Sc	45		**ug/L**		764382	764382.295
	Ni	60	**96.339**	**ug/L**	1.427	45615	0.060
>	Ge	74		**ug/L**		153584	153584.399
	As	75	**53.700**	**ug/L**	1.216	22039	0.140
	Se	77		**ug/L**		2154	-0.008
	Se	82	**0.080**	**ug/L**	1854.539	12	0.000
	Kr	83		**ug/L**		413	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.8			
	Ni	60					
>	Ge	74		81.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032650
Sample Date/Time: Saturday, February 27, 2010 10:33:53
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\1202032650.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**30.666**	**ug/L**	2.305	6753	0.009
>	Sc	45		**ug/L**		759669	759669.120
	Ni	60	**93.400**	**ug/L**	0.772	43950	0.058
>	Ge	74		**ug/L**		154065	154064.890
	As	75	**48.685**	**ug/L**	2.154	20097	0.127
	Se	77		**ug/L**		2372	-0.007
	Se	82	**-0.349**	**ug/L**	271.119	-3	-0.000
	Kr	83		**ug/L**		401	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.3			
	Ni	60					
>	Ge	74		81.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202032648
Sample Date/Time: Saturday, February 27, 2010 10:37:52
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948782|10|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\1202032648.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.261**	**ug/L**	4.515	310	0.000
>	Sc	45		**ug/L**		836667	836666.750
	Ni	60	**10.587**	**ug/L**	1.428	5533	0.007
>	Ge	74		**ug/L**		178330	178329.695
	As	75	**2.704**	**ug/L**	12.030	1917	0.007
	Se	77		**ug/L**		2782	-0.007
	Se	82	**-0.479**	**ug/L**	39.231	-9	-0.000
	Kr	83		**ug/L**		70	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.9			
	Ni	60					
>	Ge	74		94.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998002
Sample Date/Time: Saturday, February 27, 2010 10:41:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998002.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.223**	**ug/L**	8.629	990	0.001
>	Sc	45		**ug/L**		805701	805701.132
	Ni	60	**35.754**	**ug/L**	1.702	17876	0.022
>	Ge	74		**ug/L**		167359	167359.304
	As	75	**7.654**	**ug/L**	4.765	3955	0.020
	Se	77		**ug/L**		1849	-0.011
	Se	82	**-2.918**	**ug/L**	13.873	-105	-0.001
	Kr	83		**ug/L**		204	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.5			
	Ni	60					
>	Ge	74		89.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 10:45:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.063**	**ug/L**	1.121	11699	0.014
>	Sc	45		**ug/L**		822664	822664.493
	Ni	60	**51.424**	**ug/L**	1.901	26222	0.032
>	Ge	74		**ug/L**		178959	178959.209
	As	75	**47.215**	**ug/L**	1.215	22658	0.123
	Se	77		**ug/L**		4335	0.002
	Se	82	**50.341**	**ug/L**	0.661	2148	0.012
	Kr	83		**ug/L**		36	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.125				
>	Sc	45		92.4			
	Ni	60	102.848				
>	Ge	74		95.2			
	As	75	94.429				
	Se	77					
	Se	82	100.683				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 10:49:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.000	ug/L	2183.338	5	-0.000
>	Sc	45		ug/L		908986	908985.893
	Ni	60	0.011	ug/L	89.823	63	0.000
>	Ge	74		ug/L		190471	190471.080
	As	75	0.011	ug/L	5887.656	710	0.000
	Se	77		ug/L		3479	-0.004
	Se	82	0.102	ug/L	165.602	17	0.000
	Kr	83		ug/L		33	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.1			
	Ni	60					
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998003
Sample Date/Time: Saturday, February 27, 2010 10:52:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998003.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.529**	**ug/L**	3.038	1291	0.002
>	Sc	45		**ug/L**		803100	803100.374
	Ni	60	**39.712**	**ug/L**	2.585	19784	0.025
>	Ge	74		**ug/L**		166018	166017.565
	As	75	**8.247**	**ug/L**	4.882	4179	0.021
	Se	77		**ug/L**		1895	-0.011
	Se	82	**-5.423**	**ug/L**	5.719	-203	-0.001
	Kr	83		**ug/L**		288	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.2			
	Ni	60					
>	Ge	74		88.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Se	82	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245998004
Sample Date/Time: Saturday, February 27, 2010 10:56:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998004.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.928**	**ug/L**	0.633	912	0.001
>	Sc	45		**ug/L**		797671	797670.688
	Ni	60	**30.825**	**ug/L**	1.840	15262	0.019
>	Ge	74		**ug/L**		167246	167246.099
	As	75	**6.276**	**ug/L**	1.697	3352	0.016
	Se	77		**ug/L**		1687	-0.012
	Se	82	**-2.926**	**ug/L**	6.640	-105	-0.001
	Kr	83		**ug/L**		184	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.6			
	Ni	60					
>	Ge	74		89.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998005
Sample Date/Time: Saturday, February 27, 2010 11:00:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998005.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**6.830**	**ug/L**	1.623	1552	0.002
>	Sc	45		**ug/L**		782395	782395.220
	Ni	60	**49.830**	**ug/L**	1.032	24171	0.031
>	Ge	74		**ug/L**		159768	159768.097
	As	75	**11.067**	**ug/L**	1.632	5195	0.029
	Se	77		**ug/L**		2219	-0.009
	Se	82	**-4.100**	**ug/L**	7.192	-145	-0.001
	Kr	83		**ug/L**		257	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		87.8			
	Ni	60					
>	Ge	74		85.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998006
Sample Date/Time: Saturday, February 27, 2010 11:04:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998006.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	3.532	ug/L	4.586	810	0.001
>	Sc	45		ug/L		787651	787651.396
	Ni	60	29.676	ug/L	1.654	14513	0.018
>	Ge	74		ug/L		164311	164310.543
	As	75	9.448	ug/L	1.871	4651	0.025
	Se	77		ug/L		1854	-0.011
	Se	82	-2.220	ug/L	10.260	-76	-0.001
	Kr	83		ug/L		161	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.4			
	Ni	60					
>	Ge	74		87.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998007
Sample Date/Time: Saturday, February 27, 2010 11:08:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998007.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	5.507	ug/L	2.984	1264	0.002
>	Sc	45		ug/L		789513	789513.271
	Ni	60	48.235	ug/L	1.965	23609	0.030
>	Ge	74		ug/L		159619	159619.179
	As	75	9.045	ug/L	6.760	4349	0.024
	Se	77		ug/L		2052	-0.010
	Se	82	-2.873	ug/L	30.370	-99	-0.001
	Kr	83		ug/L		218	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.6			
	Ni	60					
>	Ge	74		84.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998008
Sample Date/Time: Saturday, February 27, 2010 11:12:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998008.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.939**	**ug/L**	2.860	1302	0.002
>	Sc	45		**ug/L**		754893	754893.333
	Ni	60	**47.808**	**ug/L**	2.041	22372	0.030
>	Ge	74		**ug/L**		156135	156135.366
	As	75	**10.454**	**ug/L**	3.581	4827	0.027
	Se	77		**ug/L**		1711	-0.012
	Se	82	**-5.029**	**ug/L**	10.246	-176	-0.001
	Kr	83		**ug/L**		280	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		84.8			
	Ni	60					
>	Ge	74		83.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Se	82	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 245998009
Sample Date/Time: Saturday, February 27, 2010 11:16:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\245998009.229

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.528**	**ug/L**	0.973	781	0.001
>	Sc	45		**ug/L**		760021	760020.883
	Ni	60	**31.258**	**ug/L**	3.800	14741	0.019
>	Ge	74		**ug/L**		163122	163122.245
	As	75	**6.176**	**ug/L**	8.082	3225	0.016
	Se	77		**ug/L**		1707	-0.012
	Se	82	**-2.647**	**ug/L**	11.941	-92	-0.001
	Kr	83		**ug/L**		177	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.3			
	Ni	60					
>	Ge	74		86.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, February 27, 2010 11:20:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 6.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.173**	**ug/L**	0.486	11153	0.015
>	Sc	45		**ug/L**		766964	766964.253
	Ni	60	**51.260**	**ug/L**	1.085	24373	0.032
>	Ge	74		**ug/L**		170034	170034.173
	As	75	**48.442**	**ug/L**	1.482	22071	0.126
	Se	77		**ug/L**		4099	0.002
	Se	82	**50.725**	**ug/L**	2.286	2056	0.012
	Kr	83		**ug/L**		34	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	100.346				
>	Sc	45		86.1			
	Ni	60	102.520				
>	Ge	74		90.4			
	As	75	96.885				
	Se	77					
	Se	82	101.449				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, February 27, 2010 11:23:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asbenise.mth
Dataset File: C:\elandata\Dataset\100226\QC Std 7.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.015**	**ug/L**	94.161	8	0.000
>	Sc	45		**ug/L**		842060	842059.865
	Ni	60	**0.001**	**ug/L**	2546.067	53	0.000
>	Ge	74		**ug/L**		183550	183550.170
	As	75	**-0.195**	**ug/L**	239.684	588	-0.001
	Se	77		**ug/L**		3198	-0.005
	Se	82	**-0.092**	**ug/L**	92.260	8	-0.000
	Kr	83		**ug/L**		40	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.5			
	Ni	60					
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, February 27, 2010 23:13:02
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1681
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1646.5	1646.495	46.355	2.8
	Mg	24.0	10161.0	10161.015	305.365	3.0
	Co	58.9	21345.1	21345.142	496.401	2.3
	Rh	102.9	55538.4	55538.377	1004.290	1.8
	In	114.9	64911.2	64911.206	1580.503	2.4
	Pb	208.0	43468.4	43468.440	528.057	1.2
⌈>	Ba	137.9	53237.5	53237.540	1033.858	1.9
⌊	Ba++	69.0	741.4	0.014	0.000	1.8
⌈>	Ce	139.9	72230.6	72230.594	1349.694	1.9
⌊	CeO	155.9	1056.0	0.015	0.001	4.3
	Bkgd	220.0	2.8	2.800	1.204	43.0

Current Optimization File Data

Current Value	Description
0.78	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	1504.1
Co	59	17	6.8	19845.8
In	115	17	8.0	65863.1

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	581	2080	0.633
Be	9.0	8.9	2028	2080	0.661
Mg	24.0	24.0	5682	2124	0.568
Mg	25.0	24.9	5898	2080	0.596
Mg	26.0	25.9	6177	2120	0.675
Co	58.9	59.0	14168	2170	0.629
Rh	102.9	102.9	24857	2230	0.691
In	114.9	114.9	27785	2260	0.707
Ce	139.9	140.0	33871	2280	0.770
Pb	206.0	206.0	49948	2430	0.715
Pb	207.0	207.0	50147	2385	0.737
Pb	208.0	207.9	50427	2430	0.749
U	238.1	238.1	57734	2470	0.760

Report Date/Time: Saturday, February 27, 2010 23:07:50

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 00:33:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\Blank.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		148918	
	U	238		ug/L		14	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 00:36:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\Standard 1.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		148735	148735.039
	U	238	10.000	ug/L	0.692	75076	0.505

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 00:39:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\Standard 2.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		147243	147242.512
[	U	238	100.011	ug/L	1.541	751738	5.106

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175					
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 00:42:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 1.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		152507	152507.209
[	U	238	51.014	ug/L	0.648	397190	2.604

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		102.4			
[	U	238	102.028				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 00:45:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 2.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		157213	157212.923
	U	238	0.011	ug/L	6.296	106	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		105.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 00:49:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 3.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		154659	154658.728
	U	238	0.254	ug/L	3.547	2021	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		103.9			
	U	238	127.122				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 00:52:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 4.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		138874	138873.796
⌊	U	238	0.002	ug/L	24.390	30	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 00:55:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 5.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		139687	139686.517
	U	238	21.298	ug/L	1.131	151879	1.087

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		93.8			
	U	238	106.492				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 00:58:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		151165	151164.971
	U	238	50.249	ug/L	0.304	387797	2.565

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		101.5			
	U	238	100.499				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 01:01:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		160296	160296.019
	U	238	0.009	ug/L	18.494	87	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		107.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 01:10:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		160843	160842.999
	U	238	48.353	ug/L	1.248	396991	2.469

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		108.0			
	U	238	96.706				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 01:13:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		163376	163375.763
⌊	U	238	0.011	ug/L	21.617	106	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		109.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 01:44:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
|>	Lu	175		ug/L		150200	150200.224
|	U	238	48.288	ug/L	1.154	370236	2.465

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
|>	Lu	175		100.9			
|	U	238	96.576				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 01:47:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		151108	151107.726
[	U	238	0.010	ug/L	14.500	92	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		101.5			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998008
Sample Date/Time: Sunday, February 28, 2010 01:53:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|4|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\245998008.041

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		ug/L		151888	151887.883
U	238	71.364	ug/L	1.653	553219	3.643

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Lu	175		102.0			
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 01:56:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		156446	156446.431
[	U	238	48.231	ug/L	0.411	385233	2.462

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		105.1			
[	U	238	96.461				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 01:59:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		160308	160307.875
	U	238	0.010	ug/L	14.273	101	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		107.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 02:05:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\Blank.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		208937	
	As	75		ug/L		596	
	Se	77		ug/L		2715	
	Se	82		ug/L		12	
	Kr	83		ug/L		31	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 02:08:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\Standard 1.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		209826	209825.539
	As	75	10.000	ug/L	2.280	5614	0.024
	Se	77		ug/L		3092	0.002
	Se	82	10.000	ug/L	2.377	455	0.002
	Kr	83		ug/L		30	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 02:11:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\Standard 2.046

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		197894	197893.548
As	75	100.095	ug/L	1.564	52867	0.264
Se	77		ug/L		6379	0.019
Se	82	100.105	ug/L	1.954	4688	0.024
Kr	83		ug/L		43	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 02:13:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 1.047

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		204103	204102.735
As	75	47.383	ug/L	1.997	26120	0.125
Se	77		ug/L		4553	0.009
Se	82	49.303	ug/L	2.979	2388	0.012
Kr	83		ug/L		33	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Ge	74		97.7			
As	75	94.765				
Se	77					
Se	82	98.606				
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 02:16:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 2.048

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		206310	206309.825
As	75	0.142	ug/L	95.427	666	0.000
Se	77		ug/L		2776	0.000
Se	82	-0.107	ug/L	49.553	6	-0.000
Kr	83		ug/L		37	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Ge	74		98.7			
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 02:19:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 3.049

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		204754	204754.297
As	75	6.174	ug/L	6.173	3923	0.016
Se	77		ug/L		2852	0.001
Se	82	5.983	ug/L	3.359	301	0.001
Kr	83		ug/L		32	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Ge	74		98.0			
As	75	123.486				
Se	77					
Se	82	119.656				
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 02:22:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 4.050

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		162746	162746.059
As	75	0.308	ug/L	125.424	597	0.001
Se	77		ug/L		2947	0.005
Se	82	-2.073	ug/L	9.032	-71	-0.000
Kr	83		ug/L		137	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Ge	74		77.9			
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 02:25:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 5.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		159720	159720.175
	As	75	21.943	ug/L	1.791	9711	0.058
	Se	77		ug/L		3518	0.009
	Se	82	20.220	ug/L	6.511	771	0.005
	Kr	83		ug/L		140	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		76.4			
	As	75	109.717				
	Se	77					
	Se	82	101.102				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 02:27:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		191386	191386.079
	As	75	48.318	ug/L	1.098	24965	0.128
	Se	77		ug/L		4437	0.010
	Se	82	49.706	ug/L	0.883	2257	0.012
	Kr	83		ug/L		38	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		91.6			
	As	75	96.635				
	Se	77					
	Se	82	99.411				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 02:30:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.053

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		197369	197369.278
As	75	0.492	ug/L	120.861	823	0.001
Se	77		ug/L		2879	0.002
Se	82	0.091	ug/L	258.687	15	0.000
Kr	83		ug/L		31	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Ge	74		94.5			
As	75					
Se	77					
Se	82					
Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998003
Sample Date/Time: Sunday, February 28, 2010 02:33:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\245998003.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		172121	172120.739
	As	75	9.336	ug/L	4.976	4734	0.025
	Se	77		ug/L		1887	-0.002
	Se	82	-3.747	ug/L	3.588	-143	-0.001
	Kr	83		ug/L		222	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		82.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 02:39:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		182023	182023.203
	As	75	**48.681**	ug/L	2.075	23914	0.129
	Se	77		ug/L		4564	0.012
	Se	82	**50.819**	ug/L	1.947	2194	0.012
	Kr	83		ug/L		41	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		87.1			
	As	75	97.362				
	Se	77					
	Se	82	101.638				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 02:41:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		186801	186801.389
	As	75	0.110	ug/L	213.876	587	0.000
	Se	77		ug/L		2963	0.003
	Se	82	-0.093	ug/L	272.296	6	-0.000
	Kr	83		ug/L		36	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		89.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 245998008
Sample Date/Time: Sunday, February 28, 2010 02:47:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948782|2|rmj
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\245998008.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		158987	158987.432
	As	75	9.402	ug/L	1.328	4401	0.025
	Se	77		ug/L		1826	-0.002
	Se	82	-2.292	ug/L	13.534	-77	-0.001
	Kr	83		ug/L		163	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		76.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 02:50:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		185039	185038.663
	As	75	48.618	ug/L	0.974	24278	0.128
	Se	77		ug/L		4510	0.011
	Se	82	50.990	ug/L	3.080	2239	0.012
	Kr	83		ug/L		44	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		88.6			
	As	75	97.237				
	Se	77					
	Se	82	101.980				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 02:53:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\asse.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		188731	188731.035
	As	75	0.880	ug/L	31.573	976	0.002
	Se	77		ug/L		2893	0.002
	Se	82	0.092	ug/L	60.806	15	0.000
	Kr	83		ug/L		31	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	0.9999
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Ge	74		90.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/18/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021810S1.SIF Results Data Set Name: 021810S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/18/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0046	0.0046	09:45:19	No
2			0.0045	0.0045	09:45:54	No
Mean:			0.0046			
SD :			0.0001			
%RSD:			2.6075			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/18/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0019	0.0065	09:47:17	No
2			0.0017	0.0063	09:47:51	No
Mean:			0.0018			
SD :			0.0001			
%RSD:			7.2627			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00908
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/18/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0052	0.0098	09:49:14	No
2			0.0054	0.0099	09:49:48	No
Mean:			0.0053			
SD :			0.0001			
%RSD:			2.3316			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99797 Slope: 0.01065
Intercept : -0.00012

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/18/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0209	0.0255	09:51:13	No
2			0.0210	0.0255	09:51:49	No
Mean:			0.0210			
SD :			0.0000			
%RSD:			0.1449			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99989 Slope: 0.01053
Intercept : -0.00009

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/18/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0521	0.0567	09:53:13	No
2			0.0519	0.0564	09:53:49	No
Mean:			0.0520			
SD :			0.0002			
%RSD:			0.3044			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01042
Intercept : -0.00003

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/18/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1014	0.1060	09:55:15	No
2			0.1009	0.1054	09:55:50	No
Mean:			0.1011			
SD :			0.0004			
%RSD:			0.3679			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99989 Slope: 0.01014
Intercept : 0.00028

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0046	---	----	----	----
S0.2	0.0018	0.200	0.152	0.0001	7.3
S0.5	0.0053	0.500	0.494	0.0001	2.3
S2.0	0.0210	2.000	2.039	0.0000	0.1
S5.0	0.0520	5.000	5.098	0.0002	0.3
S10	0.1011	10.000	9.944	0.0004	0.4

Correlation Coefficient: 0.99989 Slope: 0.01014 Intercept: 0.0003

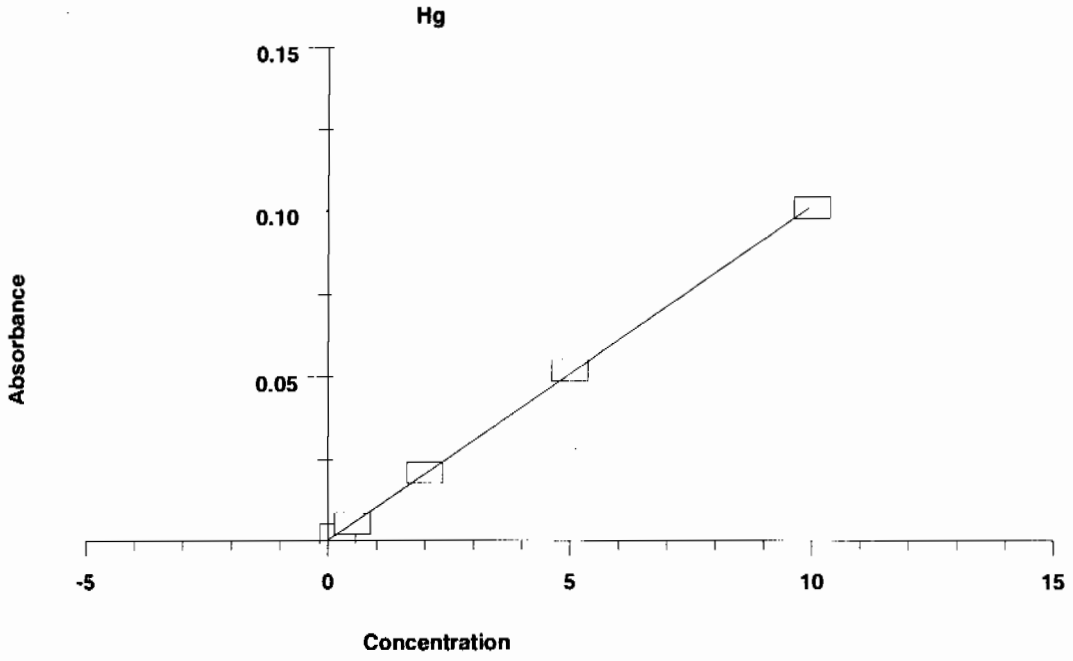

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/18/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.154	5.154	0.0525	0.0571	09:57:18	No
2	5.108	5.108	0.0521	0.0566	09:57:53	No
Mean:	5.131	5.131	0.0523			
SD :	0.0323	0.0323	0.0003			
%RSD:	0.6	0.6	0.6260			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/18/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.120	-0.120	-0.0009	0.0036	09:59:15	No
2	-0.138	-0.138	-0.0011	0.0034	09:59:50	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0127	0.0127	0.0001			
%RSD:	9.9	9.9	12.5442			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/18/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0026	0.0071	10:01:12	No
2	0.211	0.211	0.0024	0.0070	10:01:47	No
Mean:	0.218	0.218	0.0025			
SD :	0.0095	0.0095	0.0001			
%RSD:	4.3	4.3	3.8605			

QC value within specified limits.

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.040	5.040	0.0514	0.0559	10:03:12	No
2	5.078	5.078	0.0518	0.0563	10:03:46	No
Mean:	5.059	5.059	0.0516			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5390			

QC value within specified limits.

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0001	0.0044	10:05:14	No
2	-0.052	-0.052	-0.0003	0.0043	10:05:49	No
Mean:	-0.046	-0.046	-0.0002			
SD :	0.0083	0.0083	0.0001			
%RSD:	18.0	18.0	43.9084			

QC value within specified limits.

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/18/2010
Sample ID: 1202037115|i||950565|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0005	0.0041	10:07:15	No
2	-0.088	-0.088	-0.0006	0.0039	10:07:50	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0102	0.0102	0.0001			
%RSD:	12.7	12.7	19.1745			

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/18/2010
Sample ID: 1202037116|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.092	4.092	0.0418	0.0463	10:09:15	No
2	3.952	3.952	0.0404	0.0449	10:09:50	No
Mean:	4.022	4.022	0.0411			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.5	2.5	2.4475			

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/18/2010
Sample ID: 245969001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.246	0.246	0.0028	0.0073	10:11:18	No
2	0.244	0.244	0.0027	0.0073	10:11:53	No
Mean:	0.245	0.245	0.0028			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.8	0.8	0.7089			

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/18/2010
Sample ID: 1202037117|i|||DUP

```
%RSD:        1.2         1.2     1.1178

==========================================================================================
Element: Hg     Seq. No.: 21        AS Loc.: 21    Date: 02/18/2010
Sample ID: 245969004|i|||
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1        0.121      0.121     0.0015      0.0061   10:25:06   No
 2        0.086      0.086     0.0011      0.0057   10:25:41   No
Mean:     0.103      0.103     0.0013
SD  :    0.0247     0.0247     0.0003
%RSD:      23.9       23.9    18.9148

==========================================================================================
Element: Hg     Seq. No.: 22        AS Loc.: 7     Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1        5.046      5.046     0.0515      0.0560   10:27:06   No
 2        5.089      5.089     0.0519      0.0565   10:27:40   No
Mean:     5.068      5.068     0.0517
SD  :    0.0301     0.0301     0.0003
%RSD:       0.6        0.6     0.5903
QC value within specified limits.

==========================================================================================
Element: Hg     Seq. No.: 23        AS Loc.: 8     Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1       -0.064     -0.064    -0.0004      0.0042   10:29:09   No
 2       -0.067     -0.067    -0.0004      0.0042   10:29:44   No
Mean:    -0.065     -0.065    -0.0004
SD  :    0.0021     0.0021     0.0000
%RSD:       3.3        3.3     5.6045
QC value within specified limits.

==========================================================================================
Element: Hg     Seq. No.: 24        AS Loc.: 22    Date: 02/18/2010
Sample ID: 245969005|i|||
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1        0.140      0.140     0.0017      0.0063   10:31:09   No
 2        0.120      0.120     0.0015      0.0061   10:31:44   No
Mean:     0.130      0.130     0.0016
SD  :    0.0141     0.0141     0.0001
%RSD:      10.8       10.8     8.9311

==========================================================================================
Element: Hg     Seq. No.: 25        AS Loc.: 23    Date: 02/18/2010
Sample ID: 245969006|i|||
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1        0.096      0.096     0.0012      0.0058   10:33:07   No
 2        0.085      0.085     0.0011      0.0057   10:33:42   No
Mean:     0.090      0.090     0.0012
SD  :    0.0078     0.0078     0.0001
%RSD:       8.6        8.6     6.6265

==========================================================================================
Element: Hg     Seq. No.: 26        AS Loc.: 24    Date: 02/18/2010
Sample ID: 245969007|i|||
```

```
%RSD:        3.1         3.1    2.4888

==========================================================================================
Element: Hg    Seq. No.: 32       AS Loc.: 30   Date: 02/18/2010
Sample ID: 245969013|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.245     0.245    0.0028     0.0073   10:47:09  No
 2        0.224     0.224    0.0025     0.0071   10:47:44  No
Mean:     0.234     0.234    0.0027
SD  :    0.0147    0.0147    0.0001
%RSD:       6.3        6.3    5.6188

==========================================================================================
Element: Hg    Seq. No.: 33       AS Loc.: 31   Date: 02/18/2010
Sample ID: 245969014|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.144     0.144    0.0017     0.0063   10:49:12  No
 2        0.132     0.132    0.0016     0.0062   10:49:47  No
Mean:     0.138     0.138    0.0017
SD  :    0.0087    0.0087    0.0001
%RSD:       6.3        6.3    5.2634

==========================================================================================
Element: Hg    Seq. No.: 34       AS Loc.: 7    Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.163     5.163    0.0526     0.0572   10:51:15  No
 2        5.285     5.285    0.0539     0.0584   10:51:50  No
Mean:     5.224     5.224    0.0533
SD  :    0.0865    0.0865    0.0009
%RSD:       1.7        1.7    1.6467
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 35       AS Loc.: 8    Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.077    -0.077   -0.0005     0.0041   10:53:18  No
 2       -0.083    -0.083   -0.0006     0.0040   10:53:53  No
Mean:    -0.080    -0.080   -0.0005
SD  :    0.0044    0.0044    0.0000
%RSD:       5.4        5.4    8.2472
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 36       AS Loc.: 32   Date: 02/18/2010
Sample ID: 245969015|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.223     0.223    0.0025     0.0071   10:55:17  No
 2        0.204     0.204    0.0023     0.0069   10:55:51  No
Mean:     0.213     0.213    0.0024
SD  :    0.0132    0.0132    0.0001
%RSD:       6.2        6.2    5.4733

==========================================================================================
Element: Hg    Seq. No.: 37       AS Loc.: 33   Date: 02/18/2010
Sample ID: 1202039079|i||951467|MB
```

%RSD: 1.1 1.1 1.0627

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/18/2010
Sample ID: 1202039087|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.127	-0.127	-0.0010	0.0035	11:08:50	No
2	-0.131	-0.131	-0.0011	0.0035	11:09:24	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0029	0.0029	0.0000			
%RSD:	2.2	2.2	2.8265			

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/18/2010
Sample ID: 246285002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.103	0.103	0.0013	0.0059	11:10:48	No
2	0.090	0.090	0.0012	0.0058	11:11:23	No
Mean:	0.097	0.097	0.0013			
SD :	0.0086	0.0086	0.0001			
%RSD:	8.9	8.9	6.9719			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/18/2010
Sample ID: 246285003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.328	0.328	0.0036	0.0082	11:12:47	No
2	0.310	0.310	0.0034	0.0080	11:13:23	No
Mean:	0.319	0.319	0.0035			
SD :	0.0125	0.0125	0.0001			
%RSD:	3.9	3.9	3.6171			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.195	5.195	0.0530	0.0575	11:14:47	No
2	5.107	5.107	0.0521	0.0566	11:15:22	No
Mean:	5.151	5.151	0.0525			
SD :	0.0627	0.0627	0.0006			
%RSD:	1.2	1.2	1.2114			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.105	-0.105	-0.0008	0.0038	11:16:50	No
2	-0.107	-0.107	-0.0008	0.0037	11:17:25	No
Mean:	-0.106	-0.106	-0.0008			
SD :	0.0020	0.0020	0.0000			
%RSD:	1.9	1.9	2.5083			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/18/2010
Sample ID: 246285004|i|||

```
%RSD:        2.1        2.1    1.9191

==========================================================================================
Element: Hg    Seq. No.: 54       AS Loc.: 48   Date: 02/18/2010
Sample ID: 246285010|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.122     0.122    0.0015     0.0061   11:30:55  No
 2        0.119     0.119    0.0015     0.0060   11:31:30  No
Mean:     0.121     0.121    0.0015
SD  :    0.0026    0.0026    0.0000
%RSD:       2.2        2.2    1.7555

==========================================================================================
Element: Hg    Seq. No.: 55       AS Loc.: 49   Date: 02/18/2010
Sample ID: 246285011|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.024    -0.024    0.0000     0.0046   11:32:50  No
 2      -0.033    -0.033   -0.0001     0.0045   11:33:24  No
Mean:   -0.028    -0.028    0.0000
SD  :   0.0065    0.0065    0.0001
%RSD:     22.9      22.9  658.9645

==========================================================================================
Element: Hg    Seq. No.: 56       AS Loc.: 50   Date: 02/18/2010
Sample ID: 246291001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.580     0.580    0.0062     0.0107   11:34:44  No
 2        0.579     0.579    0.0061     0.0107   11:35:19  No
Mean:     0.579     0.579    0.0062
SD  :    0.0007    0.0007    0.0000
%RSD:       0.1        0.1    0.1126

==========================================================================================
Element: Hg    Seq. No.: 57       AS Loc.: 51   Date: 02/18/2010
Sample ID: 246291002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.075    -0.075   -0.0005     0.0041   11:36:41  No
 2      -0.092    -0.092   -0.0007     0.0039   11:37:16  No
Mean:   -0.084    -0.084   -0.0006
SD  :   0.0120    0.0120    0.0001
%RSD:     14.3      14.3   21.3135

==========================================================================================
Element: Hg    Seq. No.: 58       AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.997     4.997    0.0510     0.0555   11:38:40  No
 2        5.018     5.018    0.0512     0.0557   11:39:15  No
Mean:     5.007     5.007    0.0511
SD  :    0.0152    0.0152    0.0002
%RSD:       0.3        0.3    0.3010
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 59       AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.154	-0.154	-0.0013	0.0033	11:40:43	No
2	-0.153	-0.153	-0.0013	0.0033	11:41:18	No
Mean:	-0.154	-0.154	-0.0013			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.7	0.7	0.8705			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/18/2010
Sample ID: 246291003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.117	1.117	0.0116	0.0162	11:42:43	No
2	1.113	1.113	0.0116	0.0161	11:43:18	No
Mean:	1.115	1.115	0.0116			
SD :	0.0031	0.0031	0.0000			
%RSD:	0.3	0.3	0.2711			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/18/2010
Sample ID: 246291004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.954	0.954	0.0099	0.0145	11:44:40	No
2	0.930	0.930	0.0097	0.0143	11:45:15	No
Mean:	0.942	0.942	0.0098			
SD :	0.0168	0.0168	0.0002			
%RSD:	1.8	1.8	1.7363			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/18/2010
Sample ID: 246291005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0005	0.0050	11:46:37	No
2	0.013	0.013	0.0004	0.0050	11:47:12	No
Mean:	0.016	0.016	0.0004			
SD :	0.0038	0.0038	0.0000			
%RSD:	24.1	24.1	8.8365			

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/18/2010
Sample ID: 246291006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0001	0.0047	11:48:34	No
2	-0.026	-0.026	0.0000	0.0046	11:49:09	No
Mean:	-0.020	-0.020	0.0001			
SD :	0.0078	0.0078	0.0001			
%RSD:	38.5	38.5	110.3645			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/18/2010
Sample ID: 246291007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0002	0.0043	11:50:33	No
2	-0.052	-0.052	-0.0003	0.0043	11:51:08	No
Mean:	-0.050	-0.050	-0.0002			
SD :	0.0027	0.0027	0.0000			

```
%RSD:        5.5         5.5   11.9973

==========================================================================================
Element: Hg    Seq. No.: 65       AS Loc.: 57   Date: 02/18/2010
Sample ID: 246291008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.378     0.378    0.0041     0.0087   11:52:32  No
 2        0.374     0.374    0.0041     0.0086   11:53:06  No
Mean:     0.376     0.376    0.0041
SD  :    0.0033    0.0033    0.0000
%RSD:       0.9       0.9    0.8199

==========================================================================================
Element: Hg    Seq. No.: 66       AS Loc.: 58   Date: 02/18/2010
Sample ID: 246291009|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        1.880     1.880    0.0193     0.0239   11:54:30  No
 2        1.884     1.884    0.0194     0.0239   11:55:05  No
Mean:     1.882     1.882    0.0194
SD  :    0.0028    0.0028    0.0000
%RSD:       0.1       0.1    0.1449

==========================================================================================
Element: Hg    Seq. No.: 67       AS Loc.: 59   Date: 02/18/2010
Sample ID: 1202039184|i||951512|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1      -0.178    -0.178   -0.0015     0.0030   11:56:29  No
 2      -0.189    -0.189   -0.0016     0.0029   11:57:04  No
Mean:   -0.183    -0.183   -0.0016
SD  :    0.0082    0.0082    0.0001
%RSD:       4.5       4.5    5.2496

==========================================================================================
Element: Hg    Seq. No.: 68       AS Loc.: 60   Date: 02/18/2010
Sample ID: 1202039185|i|10||LCS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.043     4.043    0.0413     0.0458   11:58:29  No
 2        4.136     4.136    0.0422     0.0468   11:59:04  No
Mean:     4.090     4.090    0.0418
SD  :    0.0663    0.0663    0.0007
%RSD:       1.6       1.6    1.6101

==========================================================================================
Element: Hg    Seq. No.: 69       AS Loc.: 61   Date: 02/18/2010
Sample ID: 245960001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.131     0.131    0.0016     0.0062   12:00:31  No
 2        0.129     0.129    0.0016     0.0061   12:01:06  No
Mean:     0.130     0.130    0.0016
SD  :    0.0018    0.0018    0.0000
%RSD:       1.4       1.4    1.1554

==========================================================================================
Element: Hg    Seq. No.: 70       AS Loc.: 7    Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
```

#	µg/L	µg/L	Signal	Height		Stored
1	5.033	5.033	0.0513	0.0559	12:02:32	No
2	4.998	4.998	0.0510	0.0555	12:03:07	No
Mean:	5.015	5.015	0.0511			
SD :	0.0249	0.0249	0.0003			
%RSD:	0.5	0.5	0.4945			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0002	0.0047	12:04:35	No
2	-0.004	-0.004	0.0002	0.0048	12:05:09	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0053	0.0053	0.0001			
%RSD:	65.8	65.8	27.7211			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 02/18/2010
Sample ID: 245960002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.081	0.081	0.0011	0.0057	12:06:35	No
2	0.068	0.068	0.0010	0.0055	12:07:10	No
Mean:	0.074	0.074	0.0010			
SD :	0.0085	0.0085	0.0001			
%RSD:	11.4	11.4	8.3596			

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 02/18/2010
Sample ID: 245960003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0023	0.0068	12:08:32	No
2	0.194	0.194	0.0022	0.0068	12:09:06	No
Mean:	0.195	0.195	0.0023			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.5	0.5	0.3972			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 02/18/2010
Sample ID: 245960004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.164	0.164	0.0019	0.0065	12:10:26	No
2	0.162	0.162	0.0019	0.0065	12:11:01	No
Mean:	0.163	0.163	0.0019			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.6	0.6	0.5000			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 02/18/2010
Sample ID: 245960005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0022	0.0068	12:12:22	No
2	0.173	0.173	0.0020	0.0066	12:12:57	No
Mean:	0.181	0.181	0.0021			
SD :	0.0112	0.0112	0.0001			

#	µg/L	µg/L	Signal	Height		Stored
1	0.170	0.170	0.0020	0.0066	12:24:01	No
2	0.165	0.165	0.0020	0.0065	12:24:36	No
Mean:	0.168	0.168	0.0020			
SD :	0.0032	0.0032	0.0000			
%RSD:	1.9	1.9	1.6534			

==========

Element: Hg Seq. No.: 82 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0515	0.0560	12:26:01	No
2	5.085	5.085	0.0519	0.0564	12:26:36	No
Mean:	5.066	5.066	0.0517			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5371			

QC value within specified limits.

==========

Element: Hg Seq. No.: 83 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0002	0.0047	12:28:04	No
2	-0.005	-0.005	0.0002	0.0048	12:28:39	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0034	0.0034	0.0000			
%RSD:	43.5	43.5	17.5315			

QC value within specified limits.

==========

Element: Hg Seq. No.: 84 AS Loc.: 72 Date: 02/18/2010
Sample ID: 246470001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.300	9.300	0.0946	0.0992	12:30:05	No
2	9.140	9.140	0.0930	0.0975	12:30:40	No
Mean:	9.220	9.220	0.0938			
SD :	0.1128	0.1128	0.0011			
%RSD:	1.2	1.2	1.2200			

==========

Element: Hg Seq. No.: 85 AS Loc.: 73 Date: 02/18/2010
Sample ID: 1202039186|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.013	9.013	0.0917	0.0962	12:32:04	No
2	9.029	9.029	0.0918	0.0964	12:32:39	No
Mean:	9.021	9.021	0.0918			
SD :	0.0110	0.0110	0.0001			
%RSD:	0.1	0.1	0.1221			

==========

Element: Hg Seq. No.: 86 AS Loc.: 74 Date: 02/18/2010
Sample ID: 1202039187|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	12.91	12.91	0.1312	0.1358	12:34:03	No

Sample absorbance is greater than that of the highest standard.

2	12.95	12.95	0.1316	0.1362	12:34:37	No

Sample absorbance is greater than that of the highest standard.

```
 2        14.03     14.03    0.1426     0.1471   12:44:30  No
Sample absorbance is greater than that of the highest standard.
Mean:     14.03     14.03    0.1426
SD  :    0.0063    0.0063    0.0001
%RSD:
Sample absorbance is greater than that of the highest standard.

==================================================================================
Element: Hg    Seq. No.: 92       AS Loc.: 80   Date: 02/18/2010
Sample ID: 246470005|i|||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        160.5     160.5    1.6280  1  1.6326   12:45:50  No
Sample absorbance is greater than that of the highest standard.
 2        148.3     148.3    1.5041  1  1.5087   12:46:24  No
Sample absorbance is greater than that of the highest standard.
Mean:     154.4     154.4    1.5661
SD  :     8.640     8.640    0.0876
%RSD:       5.6       5.6    5.5956
Sample absorbance is greater than that of the highest standard.

==================================================================================
Element: Hg    Seq. No.: 93       AS Loc.: 81   Date: 02/18/2010
Sample ID: 246470006|i|||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.699     0.699    0.0074  -  0.0119   12:47:45  No
 2        1.028     1.028    0.0107     0.0153   12:48:20  No
Mean:     0.864     0.864    0.0090
SD  :    0.2332    0.2332    0.0024
%RSD:      27.0      27.0   26.1783

==================================================================================
Element: Hg    Seq. No.: 94       AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        4.963     4.963    0.0506     0.0552   12:49:44  No
 2        5.078     5.078    0.0518     0.0563   12:50:19  No
Mean:     5.020     5.020    0.0512
SD  :    0.0809    0.0809    0.0008
%RSD:       1.6       1.6    1.6030
QC value within specified limits.

==================================================================================
Element: Hg    Seq. No.: 95       AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.001     0.001    0.0003     0.0049   12:51:47  No
 2        0.006     0.006    0.0003     0.0049   12:52:21  No
Mean:     0.004     0.004    0.0003
SD  :    0.0038    0.0038    0.0000
%RSD:      98.6      98.6   12.0691
QC value within specified limits.

==================================================================================
Element: Hg    Seq. No.: 96       AS Loc.: 82   Date: 02/18/2010
Sample ID: 246470007|i|||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1        0.659     0.659    0.0070     0.0115   12:53:45  No
```

```
 2        0.662     0.662    0.0070     0.0116   12:54:20  No
Mean:     0.661     0.661    0.0070
SD  :    0.0024    0.0024    0.0000
%RSD:       0.4       0.4    0.3540

==========================================================================================
Element: Hg    Seq. No.: 97       AS Loc.: 83   Date: 02/18/2010
Sample ID: 246470008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       132.4     132.4    1.3427     1.3473   12:55:41  No
Sample absorbance is greater than that of the highest standard.
 2       129.8     129.8    1.3168     1.3214   12:56:15  No
Sample absorbance is greater than that of the highest standard.
Mean:    131.1     131.1    1.3298
SD  :    1.806     1.806    0.0183
%RSD:      1.4       1.4    1.3772
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 98       AS Loc.: 84   Date: 02/18/2010
Sample ID: 1202039198|i||951518|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1      -0.258    -0.258   -0.0023  -  0.0022   12:57:37  No
 2      -0.212    -0.212   -0.0019     0.0027   12:58:12  No
Mean:   -0.235    -0.235   -0.0021
SD  :   0.0325    0.0325    0.0003
%RSD:     13.8      13.8   15.6227

==========================================================================================
Element: Hg    Seq. No.: 99       AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       4.855     4.855    0.0495     0.0541   13:07:12  No
 2       5.001     5.001    0.0510     0.0556   13:07:48  No
Mean:    4.928     4.928    0.0503
SD  :   0.1032    0.1032    0.0010
%RSD:      2.1       2.1    2.0829
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 100      AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1      -0.060    -0.060   -0.0003     0.0042   13:09:15  No
 2      -0.064    -0.064   -0.0004     0.0042   13:09:50  No
Mean:   -0.062    -0.062   -0.0004
SD  :   0.0033    0.0033    0.0000
%RSD:      5.3       5.3    9.4330
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 101      AS Loc.: 77   Date: 02/18/2010
Sample ID: 246470002|i|50||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       1.359     1.359    0.0141     0.0186   13:11:17  No
 2       1.328     1.328    0.0137     0.0183   13:11:52  No
Mean:    1.343     1.343    0.0139
```

Element: Hg Seq. No.: 107 AS Loc.: 85 Date: 02/18/2010
Sample ID: 1202039199|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.945	3.945	0.0403	0.0449	13:22:55	No
2	3.805	3.805	0.0389	0.0434	13:23:30	No
Mean:	3.875	3.875	0.0396			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.6	2.6	2.5383			

Element: Hg Seq. No.: 108 AS Loc.: 86 Date: 02/18/2010
Sample ID: 245979001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.254	0.254	0.0029	0.0074	13:24:53	No
2	0.263	0.263	0.0029	0.0075	13:25:27	No
Mean:	0.259	0.259	0.0029			
SD :	0.0062	0.0062	0.0001			
%RSD:	2.4	2.4	2.1631			

Element: Hg Seq. No.: 109 AS Loc.: 87 Date: 02/18/2010
Sample ID: 1202039200|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.361	0.361	0.0039	0.0085	13:26:50	No
2	0.359	0.359	0.0039	0.0085	13:27:25	No
Mean:	0.360	0.360	0.0039			
SD :	0.0014	0.0014	0.0000			
%RSD:	0.4	0.4	0.3697			

Element: Hg Seq. No.: 110 AS Loc.: 88 Date: 02/18/2010
Sample ID: 1202039201|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.614	2.614	0.0268	0.0313	13:28:49	No
2	2.549	2.549	0.0261	0.0307	13:29:24	No
Mean:	2.581	2.581	0.0265			
SD :	0.0456	0.0456	0.0005			
%RSD:	1.8	1.8	1.7476			

Element: Hg Seq. No.: 111 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.837	4.837	0.0493	0.0539	13:30:49	No
2	4.919	4.919	0.0502	0.0547	13:31:24	No
Mean:	4.878	4.878	0.0497			
SD :	0.0586	0.0586	0.0006			
%RSD:	1.2	1.2	1.1946			

QC value within specified limits.

Element: Hg Seq. No.: 112 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.084	-0.084	-0.0006	0.0040	13:32:52	No

2	-0.081	-0.081	-0.0005	0.0040	13:33:28	No
Mean:	-0.082	-0.082	-0.0006			
SD :	0.0023	0.0023	0.0000			
%RSD:	2.8	2.8	4.2405			

QC value within specified limits.

==========

Element: Hg Seq. No.: 113 AS Loc.: 89 Date: 02/18/2010
Sample ID: 1202039207|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.588	2.588	0.0265	0.0311	13:34:54	No
2	2.636	2.636	0.0270	0.0316	13:35:28	No
Mean:	2.612	2.612	0.0268			
SD :	0.0337	0.0337	0.0003			
%RSD:	1.3	1.3	1.2787			

==========

Element: Hg Seq. No.: 114 AS Loc.: 90 Date: 02/18/2010
Sample ID: 1202039206|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.181	-0.181	-0.0016	0.0030	13:36:52	No
2	-0.194	-0.194	-0.0017	0.0029	13:37:27	No
Mean:	-0.187	-0.187	-0.0016			
SD :	0.0087	0.0087	0.0001			
%RSD:	4.7	4.7	5.4633			

==========

Element: Hg Seq. No.: 115 AS Loc.: 91 Date: 02/18/2010
Sample ID: 245979002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.175	0.175	0.0021	0.0066	13:38:53	No
2	0.163	0.163	0.0019	0.0065	13:39:27	No
Mean:	0.169	0.169	0.0020			
SD :	0.0091	0.0091	0.0001			
%RSD:	5.4	5.4	4.6298			

==========

Element: Hg Seq. No.: 116 AS Loc.: 92 Date: 02/18/2010
Sample ID: 245979003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.163	-0.163	-0.0014	0.0032	13:40:50	No
2	-0.207	-0.207	-0.0018	0.0027	13:41:24	No
Mean:	-0.185	-0.185	-0.0016			
SD :	0.0313	0.0313	0.0003			
%RSD:	16.9	16.9	19.8151			

==========

Element: Hg Seq. No.: 117 AS Loc.: 93 Date: 02/18/2010
Sample ID: 245979004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.191	-0.191	-0.0017	0.0029	13:42:43	No
2	-0.198	-0.198	-0.0017	0.0028	13:43:18	No
Mean:	-0.194	-0.194	-0.0017			
SD :	0.0050	0.0050	0.0001			
%RSD:	2.6	2.6	2.9823			

==========

Element: Hg Seq. No.: 118 AS Loc.: 94 Date: 02/18/2010
Sample ID: 245979005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.056	-0.056	-0.0003	0.0043	13:44:38	No
2	-0.058	-0.058	-0.0003	0.0043	13:45:13	No
Mean:	-0.057	-0.057	-0.0003			
SD :	0.0012	0.0012	0.0000			
%RSD:	2.2	2.2	4.2318			

Element: Hg Seq. No.: 119 AS Loc.: 95 Date: 02/18/2010
Sample ID: 245979006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.153	-0.153	-0.0013	0.0033	13:46:33	No
2	-0.166	-0.166	-0.0014	0.0032	13:47:08	No
Mean:	-0.159	-0.159	-0.0013			
SD :	0.0092	0.0092	0.0001			
%RSD:	5.8	5.8	6.9882			

Element: Hg Seq. No.: 120 AS Loc.: 96 Date: 02/18/2010
Sample ID: 245979007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.049	-0.049	-0.0002	0.0043	13:48:28	No
2	-0.051	-0.051	-0.0002	0.0043	13:49:03	No
Mean:	-0.050	-0.050	-0.0002			
SD :	0.0010	0.0010	0.0000			
%RSD:	2.1	2.1	4.5799			

Element: Hg Seq. No.: 121 AS Loc.: 97 Date: 02/18/2010
Sample ID: 245979008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.235	-0.235	-0.0021	0.0025	13:50:24	No
2	-0.230	-0.230	-0.0021	0.0025	13:50:59	No
Mean:	-0.233	-0.233	-0.0021			
SD :	0.0034	0.0034	0.0000			
%RSD:	1.5	1.5	1.6542			

Element: Hg Seq. No.: 122 AS Loc.: 98 Date: 02/18/2010
Sample ID: 245979009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0009	0.0036	13:52:20	No
2	-0.123	-0.123	-0.0010	0.0036	13:52:55	No
Mean:	-0.121	-0.121	-0.0010			
SD :	0.0027	0.0027	0.0000			
%RSD:	2.2	2.2	2.8459			

Element: Hg Seq. No.: 123 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.340	2.340	0.0240	0.0286	13:54:19	No
2	2.314	2.314	0.0237	0.0283	13:54:55	No

Mean:	2.327	2.327	0.0239
SD :	0.0187	0.0187	0.0002
%RSD:	0.8	0.8	0.7933

QC failed, value less than lower limit for Hg.
Current analysis method being continued.

==========

Element: Hg Seq. No.: 124 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.244	-0.244	-0.0022	0.0024	13:56:23	No
2	-0.237	-0.237	-0.0021	0.0024	13:56:57	No
Mean:	-0.241	-0.241	-0.0022			
SD :	0.0044	0.0044	0.0000			
%RSD:	1.8	1.8	2.0728			

==========

Element: Hg Seq. No.: 125 AS Loc.: 7 Date: 02/18/2010
Sample ID: Sample007

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.253	5.253	0.0535	0.0581	14:00:37	No
2	5.259	5.259	0.0536	0.0582	14:01:12	No
Mean:	5.256	5.256	0.0536			
SD :	0.0047	0.0047	0.0000			
%RSD:						

Element: Hg Seq. No.: 126 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.315	5.315	0.0542	0.0587	14:05:21	No
2	5.331	5.331	0.0543	0.0589	14:05:57	No
Mean:	5.323	5.323	0.0543			
SD :	0.0113	0.0113	0.0001			
%RSD:	0.2	0.2	0.2119			

QC value within specified limits.

Element: Hg Seq. No.: 127 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0006	0.0039	14:07:24	No
2	-0.098	-0.098	-0.0007	0.0038	14:08:00	No
Mean:	-0.094	-0.094	-0.0007			
SD :	0.0052	0.0052	0.0001			
%RSD:	5.6	5.6	7.8415			

QC value within specified limits.

Element: Hg Seq. No.: 128 AS Loc.: 80 Date: 02/18/2010
Sample ID: 246470005|i|400|951512|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	6.212	6.212	0.0633	0.0678	14:09:24	No
2	6.240	6.240	0.0636	0.0681	14:09:59	No
Mean:	6.226	6.226	0.0634			
SD :	0.0200	0.0200	0.0002			
%RSD:	0.3	0.3	0.3204			

Element: Hg Seq. No.: 129 AS Loc.: 89 Date: 02/18/2010
Sample ID: 1202039207|i||951518|MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.609	2.609	0.0267	0.0313	14:11:22	No
2	2.628	2.628	0.0269	0.0315	14:11:57	No
Mean:	2.619	2.619	0.0268			
SD :	0.0134	0.0134	0.0001			
%RSD:	0.5	0.5	0.5075			

Element: Hg Seq. No.: 130 AS Loc.: 90 Date: 02/18/2010
Sample ID: 1202039206|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0006	0.0040	14:13:22	No
2	-0.084	-0.084	-0.0006	0.0040	14:13:57	No
Mean:	-0.085	-0.085	-0.0006			
SD :	0.0010	0.0010	0.0000			
%RSD:	1.1	1.1	1.6625			

Element: Hg Seq. No.: 131 AS Loc.: 91 Date: 02/18/2010
Sample ID: 245979002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.170	0.170	0.0020	0.0066	14:15:22	No

Sample ID: 245979008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0002	0.0044	14:26:55	No
2	-0.066	-0.066	-0.0004	0.0042	14:27:30	No
Mean:	-0.054	-0.054	-0.0003			
SD :	0.0172	0.0172	0.0002			
%RSD:	31.6	31.6	63.5355			

Element: Hg Seq. No.: 138 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.087	5.087	0.0519	0.0564	14:28:54	No
2	5.101	5.101	0.0520	0.0566	14:29:29	No
Mean:	5.094	5.094	0.0519			
SD :	0.0098	0.0098	0.0001			
%RSD:	0.2	0.2	0.1911			

QC value within specified limits.

Element: Hg Seq. No.: 139 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0007	0.0039	14:30:56	No
2	-0.088	-0.088	-0.0006	0.0039	14:31:32	No
Mean:	-0.091	-0.091	-0.0006			
SD :	0.0043	0.0043	0.0000			
%RSD:	4.7	4.7	6.7349			

QC value within specified limits.

Element: Hg Seq. No.: 140 AS Loc.: 98 Date: 02/18/2010
Sample ID: 245979009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0015	0.0060	14:32:57	No
2	0.081	0.081	0.0011	0.0057	14:33:32	No
Mean:	0.099	0.099	0.0013			
SD :	0.0257	0.0257	0.0003			
%RSD:	25.9	25.9	20.2774			

Element: Hg Seq. No.: 141 AS Loc.: 99 Date: 02/18/2010
Sample ID: 245979010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.036	0.036	0.0006	0.0052	14:34:54	No
2	0.039	0.039	0.0007	0.0052	14:35:28	No
Mean:	0.038	0.038	0.0007			
SD :	0.0024	0.0024	0.0000			
%RSD:	6.3	6.3	3.6823			

Element: Hg Seq. No.: 142 AS Loc.: 100 Date: 02/18/2010
Sample ID: 245979011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.080	-0.080	-0.0005	0.0040	14:36:50	No

2	-0.092	-0.092	-0.0007	0.0039	14:37:25	No
Mean:	-0.086	-0.086	-0.0006			
SD :	0.0087	0.0087	0.0001			
%RSD:	10.1	10.1	14.8098			

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Element: Hg Seq. No.: 143 AS Loc.: 101 Date: 02/18/2010
Sample ID: 245979012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.121	-0.121	-0.0010	0.0036	14:38:48	No
2	-0.130	-0.130	-0.0010	0.0035	14:39:23	No
Mean:	-0.125	-0.125	-0.0010			
SD :	0.0058	0.0058	0.0001			
%RSD:	4.7	4.7	5.9459			

==========

Element: Hg Seq. No.: 144 AS Loc.: 102 Date: 02/18/2010
Sample ID: 245979013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.173	0.173	0.0020	0.0066	14:40:46	No
2	0.151	0.151	0.0018	0.0064	14:41:21	No
Mean:	0.162	0.162	0.0019			
SD :	0.0154	0.0154	0.0002			
%RSD:	9.5	9.5	8.1041			

==========

Element: Hg Seq. No.: 145 AS Loc.: 103 Date: 02/18/2010
Sample ID: 245979014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.075	-0.075	-0.0005	0.0041	14:42:45	No
2	-0.078	-0.078	-0.0005	0.0040	14:43:20	No
Mean:	-0.077	-0.077	-0.0005			
SD :	0.0021	0.0021	0.0000			
%RSD:	2.8	2.8	4.3162			

==========

Element: Hg Seq. No.: 146 AS Loc.: 104 Date: 02/18/2010
Sample ID: 245979015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0007	0.0052	14:44:45	No
2	0.029	0.029	0.0006	0.0051	14:45:20	No
Mean:	0.033	0.033	0.0006			
SD :	0.0057	0.0057	0.0001			
%RSD:	17.3	17.3	9.4840			

==========

Element: Hg Seq. No.: 147 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.935	4.935	0.0503	0.0549	14:46:45	No
2	5.008	5.008	0.0511	0.0556	14:47:20	No
Mean:	4.971	4.971	0.0507			
SD :	0.0515	0.0515	0.0005			
%RSD:	1.0	1.0	1.0306			

QC value within specified limits.

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Element: Hg Seq. No.: 148 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0009	0.0036	14:48:48	No
2	-0.103	-0.103	-0.0008	0.0038	14:49:23	No
Mean:	-0.111	-0.111	-0.0008			
SD :	0.0110	0.0110	0.0001			
%RSD:	9.9	9.9	13.1689			

QC value within specified limits.

Element: Hg Seq. No.: 149 AS Loc.: 12 Date: 02/18/2010
Sample ID: 1202039216|i||951523|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.043	-0.043	-0.0002	0.0044	14:51:27	No
2	-0.052	-0.052	-0.0002	0.0043	14:52:02	No
Mean:	-0.048	-0.048	-0.0002			
SD :	0.0058	0.0058	0.0001			
%RSD:	12.3	12.3	28.8669			

Element: Hg Seq. No.: 150 AS Loc.: 13 Date: 02/18/2010
Sample ID: 1202039217|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.143	4.143	0.0423	0.0469	14:53:26	No
2	4.032	4.032	0.0412	0.0457	14:54:02	No
Mean:	4.088	4.088	0.0417			
SD :	0.0787	0.0787	0.0008			
%RSD:	1.9	1.9	1.9124			

Element: Hg Seq. No.: 151 AS Loc.: 14 Date: 02/18/2010
Sample ID: 245998001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.323	0.323	0.0036	0.0081	14:55:28	No
2	0.307	0.307	0.0034	0.0080	14:56:03	No
Mean:	0.315	0.315	0.0035			
SD :	0.0114	0.0114	0.0001			
%RSD:	3.6	3.6	3.3400			

Element: Hg Seq. No.: 152 AS Loc.: 15 Date: 02/18/2010
Sample ID: 245998002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.060	0.060	0.0009	0.0054	14:57:29	No
2	0.059	0.059	0.0009	0.0054	14:58:04	No
Mean:	0.059	0.059	0.0009			
SD :	0.0005	0.0005	0.0000			
%RSD:	0.9	0.9	0.6315			

Element: Hg Seq. No.: 153 AS Loc.: 16 Date: 02/18/2010
Sample ID: 245998003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.202	0.202	0.0023	0.0069	14:59:32	No
2	0.207	0.207	0.0024	0.0069	15:00:07	No
Mean:	0.205	0.205	0.0024			
SD :	0.0036	0.0036	0.0000			
%RSD:	1.8	1.8	1.5481			

Element: Hg Seq. No.: 154 AS Loc.: 17 Date: 02/18/2010
Sample ID: 245998004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.138	0.138	0.0017	0.0062	15:01:31	No
2	0.127	0.127	0.0016	0.0061	15:02:05	No
Mean:	0.132	0.132	0.0016			

SD :	0.0079	0.0079	0.0001
%RSD:	5.9	5.9	4.9302

==========

Element: Hg Seq. No.: 155 AS Loc.: 18 Date: 02/18/2010
Sample ID: 245998005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.171	0.171	0.0020	0.0066	15:03:24	No
2	0.153	0.153	0.0018	0.0064	15:03:59	No
Mean:	0.162	0.162	0.0019			
SD :	0.0130	0.0130	0.0001			
%RSD:	8.0	8.0	6.8596			

==========

Element: Hg Seq. No.: 156 AS Loc.: 19 Date: 02/18/2010
Sample ID: 245998006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.410	0.410	0.0044	0.0090	15:05:20	No
2	0.408	0.408	0.0044	0.0090	15:05:54	No
Mean:	0.409	0.409	0.0044			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.2	0.2	0.2106			

==========

Element: Hg Seq. No.: 157 AS Loc.: 20 Date: 02/18/2010
Sample ID: 245998007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.368	0.368	0.0040	0.0086	15:07:17	No
2	0.368	0.368	0.0040	0.0086	15:07:51	No
Mean:	0.368	0.368	0.0040			
SD :	0.0002	0.0002	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 158 AS Loc.: 21 Date: 02/18/2010
Sample ID: 245998008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.239	0.239	0.0027	0.0073	15:09:13	No
2	0.230	0.230	0.0026	0.0072	15:09:48	No
Mean:	0.234	0.234	0.0027			
SD :	0.0059	0.0059	0.0001			
%RSD:	2.5	2.5	2.2384			

==========

Element: Hg Seq. No.: 159 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.059	5.059	0.0516	0.0561	15:11:12	No
2	5.093	5.093	0.0519	0.0565	15:11:47	No
Mean:	5.076	5.076	0.0518			
SD :	0.0240	0.0240	0.0002			
%RSD:	0.5	0.5	0.4698			

QC value within specified limits.

==========

Element: Hg Seq. No.: 160 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.120	-0.120	-0.0009	0.0036	15:13:15	No
2	-0.110	-0.110	-0.0008	0.0037	15:13:50	No
Mean:	-0.115	-0.115	-0.0009			
SD :	0.0066	0.0066	0.0001			
%RSD:	5.7	5.7	7.4766			

QC value within specified limits.

Element: Hg Seq. No.: 161 AS Loc.: 22 Date: 02/18/2010
Sample ID: 245998009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.145	0.145	0.0018	0.0063	15:15:16	No
2	0.145	0.145	0.0017	0.0063	15:15:50	No
Mean:	0.145	0.145	0.0017			
SD :	0.0005	0.0005	0.0000			
%RSD:	0.4	0.4	0.3053			

Element: Hg Seq. No.: 162 AS Loc.: 23 Date: 02/18/2010
Sample ID: 246012001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0024	0.0070	15:17:14	No
2	0.203	0.203	0.0023	0.0069	15:17:49	No
Mean:	0.207	0.207	0.0024			
SD :	0.0060	0.0060	0.0001			
%RSD:	2.9	2.9	2.5477			

Element: Hg Seq. No.: 163 AS Loc.: 24 Date: 02/18/2010
Sample ID: 1202039218|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.150	0.150	0.0018	0.0064	15:19:13	No
2	0.140	0.140	0.0017	0.0063	15:19:47	No
Mean:	0.145	0.145	0.0018			
SD :	0.0070	0.0070	0.0001			
%RSD:	4.8	4.8	4.0347			

Element: Hg Seq. No.: 164 AS Loc.: 25 Date: 02/18/2010
Sample ID: 1202039219|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.427	2.427	0.0249	0.0294	15:21:11	No
2	2.429	2.429	0.0249	0.0295	15:21:45	No
Mean:	2.428	2.428	0.0249			
SD :	0.0018	0.0018	0.0000			
%RSD:						

Element: Hg Seq. No.: 165 AS Loc.: 26 Date: 02/18/2010
Sample ID: 1202039221|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.503	2.503	0.0257	0.0302	15:23:09	No
2	2.451	2.451	0.0251	0.0297	15:23:44	No
Mean:	2.477	2.477	0.0254			

```
SD  :    0.0365    0.0365    0.0004
%RSD:       1.5       1.5    1.4594

==========================================================================================
Element: Hg    Seq. No.: 166      AS Loc.: 27   Date: 02/18/2010
Sample ID: 1202039220|i|5||SDILT
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.034    -0.034   -0.0001     0.0045   15:25:09  No
 2       -0.047    -0.047   -0.0002     0.0044   15:25:44  No
Mean:    -0.040    -0.040   -0.0001
SD  :    0.0088    0.0088    0.0001
%RSD:      21.7      21.7   67.1438

==========================================================================================
Element: Hg    Seq. No.: 167      AS Loc.: 28   Date: 02/18/2010
Sample ID: 246012002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.034    -0.034   -0.0001     0.0045   15:27:10  No
 2       -0.044    -0.044   -0.0002     0.0044   15:27:46  No
Mean:    -0.039    -0.039   -0.0001
SD  :    0.0075    0.0075    0.0001
%RSD:      19.3      19.3   65.1493

==========================================================================================
Element: Hg    Seq. No.: 168      AS Loc.: 29   Date: 02/18/2010
Sample ID: 246012003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       0.102     0.102    0.0013     0.0059   15:29:12  No
 2       0.104     0.104    0.0013     0.0059   15:29:47  No
Mean:    0.103     0.103    0.0013
SD  :   0.0012    0.0012    0.0000
%RSD:      1.1       1.1    0.9059

==========================================================================================
Element: Hg    Seq. No.: 169      AS Loc.: 30   Date: 02/18/2010
Sample ID: 246012004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       0.313     0.313    0.0035     0.0080   15:31:14  No
 2       0.307     0.307    0.0034     0.0080   15:31:48  No
Mean:    0.310     0.310    0.0034
SD  :   0.0039    0.0039    0.0000
%RSD:      1.3       1.3    1.1643

==========================================================================================
Element: Hg    Seq. No.: 170      AS Loc.: 31   Date: 02/18/2010
Sample ID: 246012005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       0.059     0.059    0.0009     0.0054   15:33:16  No
 2       0.037     0.037    0.0007     0.0052   15:33:51  No
Mean:    0.048     0.048    0.0008
SD  :   0.0159    0.0159    0.0002
%RSD:     33.1      33.1   21.1364

==========================================================================================
Element: Hg    Seq. No.: 171      AS Loc.: 7    Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.141	5.141	0.0524	0.0570	15:35:18	No
2	5.094	5.094	0.0519	0.0565	15:35:53	No
Mean:	5.118	5.118	0.0522			
SD :	0.0332	0.0332	0.0003			
%RSD:	0.6	0.6	0.6445			

QC value within specified limits.

==========

Element: Hg Seq. No.: 172 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0009	0.0036	15:37:21	No
2	-0.124	-0.124	-0.0010	0.0036	15:37:56	No
Mean:	-0.122	-0.122	-0.0010			
SD :	0.0035	0.0035	0.0000			
%RSD:	2.9	2.9	3.6860			

QC value within specified limits.

==========

Element: Hg Seq. No.: 173 AS Loc.: 32 Date: 02/18/2010
Sample ID: 246012006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.201	0.201	0.0023	0.0069	15:39:21	No
2	0.202	0.202	0.0023	0.0069	15:39:56	No
Mean:	0.202	0.202	0.0023			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.5	0.5	0.4708			

==========

Element: Hg Seq. No.: 174 AS Loc.: 33 Date: 02/18/2010
Sample ID: 246012007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.127	0.127	0.0016	0.0061	15:41:16	No
2	0.137	0.137	0.0017	0.0062	15:41:51	No
Mean:	0.132	0.132	0.0016			
SD :	0.0070	0.0070	0.0001			
%RSD:	5.3	5.3	4.4081			

==========

Element: Hg Seq. No.: 175 AS Loc.: 34 Date: 02/18/2010
Sample ID: 246012008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.264	0.264	0.0030	0.0075	15:43:12	No
2	0.250	0.250	0.0028	0.0074	15:43:47	No
Mean:	0.257	0.257	0.0029			
SD :	0.0104	0.0104	0.0001			
%RSD:	4.0	4.0	3.6429			

==========

Element: Hg Seq. No.: 176 AS Loc.: 35 Date: 02/18/2010
Sample ID: 246012009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0000	0.0045	15:45:07	No
2	-0.031	-0.031	0.0000	0.0045	15:45:42	No
Mean:	-0.030	-0.030	0.0000			

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948773

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032638	UI062540-I	.51	g
MS	1202032636	UI100120-01	.25	mL
MS	1202032636	UI100120-06	.25	mL
MSD	1202032637	UI100120-01	.25	mL
MSD	1202032637	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032633		SW846 3050B	10-FEB-2010 13:30	0.503 g	50 mL	99.40358	SOIL
LCS	1202032638		SW846 3050B	10-FEB-2010 13:30	0.51 g	50 mL	98.03922	SOIL
SAMPLE	245998001		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
DUP	1202032634	245998001	SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
SDILT	1202032635	245998001	SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
MS	1202032636	245998001	SW846 3050B	10-FEB-2010 13:30	0.512 g	50 mL	97.65625	SOIL
MSD	1202032637	245998001	SW846 3050B	10-FEB-2010 13:30	0.519 g	50 mL	96.33911	SOIL
SAMPLE	245998002		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245998003		SW846 3050B	10-FEB-2010 13:30	0.51 g	50 mL	98.03922	SOIL
SAMPLE	245998004		SW846 3050B	10-FEB-2010 13:30	0.536 g	50 mL	93.28358	SOIL
SAMPLE	245998005		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245998006		SW846 3050B	10-FEB-2010 13:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	245998007		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245998008		SW846 3050B	10-FEB-2010 13:30	0.507 g	50 mL	98.61933	SOIL
SAMPLE	245998009		SW846 3050B	10-FEB-2010 13:30	0.512 g	50 mL	97.65625	SOIL
SAMPLE	246012001		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246012002		SW846 3050B	10-FEB-2010 13:30	0.509 g	50 mL	98.23183	SOIL
SAMPLE	246012003		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	246012004		SW846 3050B	10-FEB-2010 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246012005		SW846 3050B	10-FEB-2010 13:30	0.529 g	50 mL	94.51796	SOIL
SAMPLE	246012006		SW846 3050B	10-FEB-2010 13:30	0.512 g	50 mL	97.65625	SOIL
SAMPLE	246012007		SW846 3050B	10-FEB-2010 13:30	0.524 g	50 mL	95.41985	SOIL
SAMPLE	246012008		SW846 3050B	10-FEB-2010 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246012009		SW846 3050B	10-FEB-2010 13:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	246012010		SW846 3050B	10-FEB-2010 13:30	0.526 g	50 mL	95.05703	SOIL
SAMPLE	246012011		SW846 3050B	10-FEB-2010 13:30	0.528 g	50 mL	94.69697	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

1265209	10 mL	HYDROCHLORIC ACID	Comments Soft,brown,clumpy soil.
1264396	1.25 mL	Nitric Acid CONC.	

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948780

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032651	UI062540-MS	.52	g
MS	1202032649	UI091015-A	.5	mL
MS	1202032649	UI091015-B	.5	mL
MSD	1202032650	UI091015-A	.5	mL
MSD	1202032650	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032646		SW846 3050B	10-FEB-2010 13:30	0.508 g	50 mL	98.4252	SOIL
LCS	1202032651		SW846 3050B	10-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
SAMPLE	245998001		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
DUP	1202032647	245998001	SW846 3050B	10-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
SDILT	1202032648	245998001	SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
MS	1202032649	245998001	SW846 3050B	10-FEB-2010 13:30	0.51 g	50 mL	98.03922	SOIL
MSD	1202032650	245998001	SW846 3050B	10-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	245998002		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	245998003		SW846 3050B	10-FEB-2010 13:30	0.502 g	50 mL	99.60159	SOIL
SAMPLE	245998004		SW846 3050B	10-FEB-2010 13:30	0.53 g	50 mL	94.33962	SOIL
SAMPLE	245998005		SW846 3050B	10-FEB-2010 13:30	0.503 g	50 mL	99.40358	SOIL
SAMPLE	245998006		SW846 3050B	10-FEB-2010 13:30	0.501 g	50 mL	99.8004	SOIL
SAMPLE	245998007		SW846 3050B	10-FEB-2010 13:30	0.517 g	50 mL	96.7118	SOIL
SAMPLE	245998008		SW846 3050B	10-FEB-2010 13:30	0.522 g	50 mL	95.78544	SOIL
SAMPLE	245998009		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246012001		SW846 3050B	10-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	246012002		SW846 3050B	10-FEB-2010 13:30	0.514 g	50 mL	97.27626	SOIL
SAMPLE	246012003		SW846 3050B	10-FEB-2010 13:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	246012004		SW846 3050B	10-FEB-2010 13:30	0.524 g	50 mL	95.41985	SOIL
SAMPLE	246012005		SW846 3050B	10-FEB-2010 13:30	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246012006		SW846 3050B	10-FEB-2010 13:30	0.53 g	50 mL	94.33962	SOIL
SAMPLE	246012007		SW846 3050B	10-FEB-2010 13:30	0.513 g	50 mL	97.46589	SOIL
SAMPLE	246012008		SW846 3050B	10-FEB-2010 13:30	0.5 g	50 mL	100	SOIL
SAMPLE	246012009		SW846 3050B	10-FEB-2010 13:30	0.52 g	50 mL	96.15385	SOIL
SAMPLE	246012010		SW846 3050B	10-FEB-2010 13:30	0.521 g	50 mL	95.96929	SOIL
SAMPLE	246012011		SW846 3050B	10-FEB-2010 13:30	0.526 g	50 mL	95.05703	SOIL

Reagent/Solvent Lot ID	Amount	Description

Prep LogBook

1203655-02	1.5 mL	Hydrogen Peroxide 30%	Comments Soft,brown,clumpy soil.
1264396	5 mL	Nitric Acid CONC.	

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 951522

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202039217	UI031809A	.205	g
MS	1202039219	WHG100217-14	.3	mL
MSD	1202039221	WHG100217-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202039216		SW846 7471A Prep	17-FEB-2010 19:30	0.559 g	30 mL	53.66726	SOIL
LCS	1202039217		SW846 7471A Prep	17-FEB-2010 19:30	0.205 g	30 mL	146.34146	SOIL
SAMPLE	245998001		SW846 7471A Prep	17-FEB-2010 19:30	0.536 g	30 mL	55.97015	SOIL
SAMPLE	245998002		SW846 7471A Prep	17-FEB-2010 19:30	0.559 g	30 mL	53.66726	SOIL
SAMPLE	245998003		SW846 7471A Prep	17-FEB-2010 19:30	0.516 g	30 mL	58.13953	SOIL
SAMPLE	245998004		SW846 7471A Prep	17-FEB-2010 19:30	0.506 g	30 mL	59.28854	SOIL
SAMPLE	245998005		SW846 7471A Prep	17-FEB-2010 19:30	0.531 g	30 mL	56.49718	SOIL
SAMPLE	245998006		SW846 7471A Prep	17-FEB-2010 19:30	0.511 g	30 mL	58.70841	SOIL
SAMPLE	245998007		SW846 7471A Prep	17-FEB-2010 19:30	0.581 g	30 mL	51.63511	SOIL
SAMPLE	245998008		SW846 7471A Prep	17-FEB-2010 19:30	0.543 g	30 mL	55.24862	SOIL
SAMPLE	245998009		SW846 7471A Prep	17-FEB-2010 19:30	0.529 g	30 mL	56.71078	SOIL
SAMPLE	246012001		SW846 7471A Prep	17-FEB-2010 19:30	0.501 g	30 mL	59.88024	SOIL
DUP	1202039218	246012001	SW846 7471A Prep	17-FEB-2010 19:30	0.5 g	30 mL	60	SOIL
MS	1202039219	246012001	SW846 7471A Prep	17-FEB-2010 19:30	0.528 g	30 mL	56.81818	SOIL
MSD	1202039221	246012001	SW846 7471A Prep	17-FEB-2010 19:30	0.523 g	30 mL	57.36138	SOIL
SDILT	1202039220	246012001	SW846 7471A Prep	17-FEB-2010 19:30	0.501 g	30 mL	59.88024	SOIL
SAMPLE	246012002		SW846 7471A Prep	17-FEB-2010 19:30	0.554 g	30 mL	54.15162	SOIL
SAMPLE	246012003		SW846 7471A Prep	17-FEB-2010 19:30	0.6 g	30 mL	50	SOIL
SAMPLE	246012004		SW846 7471A Prep	17-FEB-2010 19:30	0.541 g	30 mL	55.45287	SOIL
SAMPLE	246012005		SW846 7471A Prep	17-FEB-2010 19:30	0.569 g	30 mL	52.72408	SOIL
SAMPLE	246012006		SW846 7471A Prep	17-FEB-2010 19:30	0.579 g	30 mL	51.81347	SOIL
SAMPLE	246012007		SW846 7471A Prep	17-FEB-2010 19:30	0.531 g	30 mL	56.49718	SOIL
SAMPLE	246012008		SW846 7471A Prep	17-FEB-2010 19:30	0.583 g	30 mL	51.45798	SOIL
SAMPLE	246012009		SW846 7471A Prep	17-FEB-2010 19:30	0.518 g	30 mL	57.91506	SOIL
SAMPLE	246012010		SW846 7471A Prep	17-FEB-2010 19:30	0.542 g	30 mL	55.35055	SOIL
SAMPLE	246012011		SW846 7471A Prep	17-FEB-2010 19:30	0.549 g	30 mL	54.64481	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution

Comments Sample 246012001 is a muddy rocky brown soil.
Digestion Start Date: 17-FEB-10 19:30
Digestion End Date: 17-FEB-10 20:00

Prep LogBook

1255532-C	2 mL	Hg reducing agent
WHG100217-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100217-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100217-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100217-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100217-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100217-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DER Report No.: 793598
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
20-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
948776	See Below		

Potentially affected work order(s)(SDG): 245998(10-1517),246012(10-1523)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:

1. Failed Recovery for MS/PS:

   QC 1202032636MS

2. Failed RPD for DUP:

   QC 1202032634DUP

3. Failed RPD for MS/MSD, or PS/PSD:

   QC 1202032637MSD

4. Failed Recovery for MSD/PSD:

   QC 1202032637MSD

DER Disposition:

1. The matrix spike recovery failed outside of the control limits for potassium and antimony due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

2. The sample and sample duplicate % RPD failed outside the control limits for aluminum, cobalt, iron, lead, manganese, vanadium and zinc due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for manganese due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

4. The matrix spike duplicate recovery failed outside of the control limits for potassium and antimony due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jerry Wigfall 20-FEB-10

Data Validator/Group Leader:

Helen Camello 22-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
28-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
948782	See Below		

Potentially affected work order(s)(SDG): 245998(10-1517),246012(10-1523)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:

1. Failed Recovery for MS/PS:

   QC 1202032649MS

2. Failed Recovery for MSD/PSD:

   QC 1202032650MSD

DER Disposition:

The matrix spike and matrix spike duplicate failed outside the control limits for Se and Ni due to matrix interference and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Rose Jenkins 28-FEB-10

Data Validator/Group Leader:

Samantha Jacobs 28-FEB-10

Standard Logbook

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				
Description:	Mercury Source Standard #1 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID:	UHG1167641-02	**Opened:**	13-AUG-09	**Amount :**	100 mL
Name:	MHGSTOCK2	**Received:**	13-AUG-09	**Catalog Number :**	AHG1KN-100
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	4905530
Employee:	Bryan Davis			**Solvent :**	3% HNO3
Supplier:	Ricca Chemical Company				
Description:	Mercury Source Standard #2 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID:	UI031809A	**Opened:**	18-MAR-09	**Catalog Number :**	540
Name:	METALSOILSRM	**Received:**	18-MAR-09	**Lot Number :**	D061-540
Type:	Source Material	**Expires:**	10-OCT-10		
Employee:	Jamie Johnson				
Supplier:	ERA				
Description:	Metals LCS Soil SRM				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Carnello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100217-49.2 **Opened:** 19-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 20-FEB-10 **Lot Number :** 1018879
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100217-01 **Opened:** 17-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 17-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 18-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 18-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100217-07 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100217-08 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L.

Serial ID: WHG100217-09 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100217-10 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-11 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100217-12 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-14 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100219-42 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100219-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100219-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100219-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100219-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100219-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100219-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100219-43 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100219-44 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100219-45 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100219-46 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100219-47 **Opened:** 19-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 20-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100225-04AB **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100225-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100225-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-04B **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100225-05B
Name: ICPMS ICV
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Opened: 25-FEB-10
Received: 25-FEB-10
Expires: 26-FEB-10

Balance Id : 40245216
Pipet Id : 1758088
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100225-06B
Name: ICPMS CRDL
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 25-FEB-10
Received: 25-FEB-10
Expires: 26-FEB-10
Verified: 23-FEB-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100225-07B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-70B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100226-04AB **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 26-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100226-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100226-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100226-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100226-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100226-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100226-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100226-04B **Opened:** 26-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 26-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 27-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100226-05B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 26-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100226-06B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 26-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins **Verified:** 23-FEB-10
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100226-07B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 26-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 27-FEB-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100226-08B **Opened:** 26-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 26-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 27-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100227-04AB **Opened:** 27-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 27-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100227-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100227-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100227-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100227-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100227-04B **Opened:** 27-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 27-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 28-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100227-05B **Opened:** 27-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 27-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100227-06B **Opened:** 27-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 27-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins **Verified:** 23-FEB-10
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100227-07B
Name: ICPMS ICSA
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Opened: 27-FEB-10
Received: 27-FEB-10
Expires: 28-FEB-10

Balance Id : 40245216
Lot Number : 1010773
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100227-08B
Name: ICPMS ICSAB
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Opened: 27-FEB-10
Received: 27-FEB-10
Expires: 28-FEB-10

Balance Id : 40245216
Pipet Id : 3541598/1758088
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1270010 **Opened:** 15-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Carnello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1517-1

Sample Analysis

Sample ID	Client ID
246000001	RE15-10-8124
1202032557	Method Blank (MB) **ICP**
1202032558	Laboratory Control Sample (LCS)
1202032561	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032559	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032560	246000001(RE15-10-8124S) Matrix Spike (MS)
1202032562	Method Blank (MB) **ICP-MS**
1202032563	Laboratory Control Sample (LCS)
1202032566	246000001(RE15-10-8124L) Serial Dilution (SD)
1202032564	246000001(RE15-10-8124D) Sample Duplicate (DUP)
1202032565	246000001(RE15-10-8124S) Matrix Spike (MS)
1202033203	Method Blank (MB) **CVAA**
1202033204	Laboratory Control Sample (LCS)
1202033207	246056001(RE15-10-8233L) Serial Dilution (SD)
1202033205	246056001(RE15-10-8233D) Sample Duplicate (DUP)
1202033206	246056001(RE15-10-8233S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch: 948737, 948740 and 949020

Prep Batch :	948730, 948739 and 949018
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 246000001 (RE15-10-8124) and 246056001 (RE15-10-8233).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of thallium, as indicated by the "N" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 797043. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/1/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1517-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246000001 **BASIS:** As Received **DATE COLLECTED** 28-JAN-10

CLIENT ID: RE15-10-8124 **LEVEL:** Low **DATE RECEIVED** 02-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	02/25/10 05:09	100224-2	948740
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	02/25/10 15:37	100225-3	948740
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	02/25/10 05:09	100224-2	948740
7440-70-2	Calcium	59.5	ug/L	J	50	200	200	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-47-3	Chromium	1.31	ug/L	J	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 19:27	021110B-1	948737
7439-89-6	Iron	34.7	ug/L	J	30	100	100	1	P	HSC	02/11/10 19:27	021110B-1	948737
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	BAJ	02/25/10 15:37	100225-3	948740
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 19:27	021110B-1	948737
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	02/25/10 15:37	100225-3	948740
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:07	020510W1-6	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-09-7	Potassium	181	ug/L		50	150	150	1	P	HSC	02/11/10 19:27	021110B-1	948737
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-23-5	Sodium	200	ug/L	J	100	300	300	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-28-0	Thallium	1	ug/L	UN	0.3	1	1	1	MS	BAJ	02/28/10 14:46	100228-5	948740
7440-61-1	Uranium	0.20	ug/L	U	0.05	0.2	0.2	1	MS	BAJ	02/25/10 16:29	100225-4	948740
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 19:27	021110B-1	948737
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 19:27	021110B-1	948737

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
948737	948730	SW846 3005A	50	mL	50	mL	02/10/10	FGA
948740	948739	SW846 3005A	50	mL	50	mL	02/10/10	FGA
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	4.96	ug/L	5	ug/L	99.1	90.0 – 110.0	AV	05-FEB-10 09:17	020510W1-6
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Arsenic	450	ug/L	500	ug/L	89.9	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Calcium	4880	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Cobalt	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Copper	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Nickel	485	ug/L	500	ug/L	97	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Potassium	2410	ug/L	2500	ug/L	96.3	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Selenium	2440	ug/L	2500	ug/L	97.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Silver	253	ug/L	250	ug/L	101.2	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Sodium	2390	ug/L	2500	ug/L	95.6	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11-FEB-10 14:26	021110B-1
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	25-FEB-10 01:03	100224-2
	Cadmium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	25-FEB-10 01:03	100224-2
	Beryllium	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	25-FEB-10 14:19	100225-3
	Lead	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	25-FEB-10 14:19	100225-3
	Manganese	54.5	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	25-FEB-10 14:19	100225-3
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25-FEB-10 16:01	100225-4
	Thallium	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	28-FEB-10 11:42	100228-5
CCV01										
	Mercury	4.99	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	05-FEB-10 09:22	020510W1-6
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Arsenic	495	ug/L	500	ug/L	99	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Barium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Calcium	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1517–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Magnesium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Nickel	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Selenium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Vanadium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	11–FEB–10 14:49	021110B–1
	Antimony	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	25–FEB–10 01:33	100224–2
	Cadmium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	25–FEB–10 01:33	100224–2
	Beryllium	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	25–FEB–10 14:32	100225–3
	Lead	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	25–FEB–10 14:32	100225–3
	Manganese	54.4	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	25–FEB–10 14:32	100225–3
	Uranium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25–FEB–10 16:10	100225–4
	Thallium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	28–FEB–10 11:57	100228–5
CCV02										
	Mercury	4.93	ug/L	5	ug/L	98.5	80.0 – 120.0	AV	05–FEB–10 09:45	020510W1–6
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Arsenic	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Barium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Calcium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Chromium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Cobalt	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Copper	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1
	Magnesium	5300	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	11–FEB–10 15:15	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	516	ug/L	500	ug/L	103.2	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Selenium	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Silver	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Vanadium	517	ug/L	500	ug/L	103.4	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Zinc	512	ug/L	500	ug/L	102.3	90.0 - 110.0	P	11-FEB-10 15:15	021110B-1
	Antimony	54	ug/L	50	ug/L	108.1	90.0 - 110.0	MS	25-FEB-10 01:52	100224-2
	Cadmium	51.4	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	25-FEB-10 01:52	100224-2
	Beryllium	53	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	25-FEB-10 14:56	100225-3
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 - 110.0	MS	25-FEB-10 14:56	100225-3
	Manganese	55.1	ug/L	50	ug/L	110.2	90.0 - 110.0	MS	25-FEB-10 14:56	100225-3
	Uranium	49.1	ug/L	50	ug/L	98.2	90.0 - 110.0	MS	25-FEB-10 16:24	100225-4
	Thallium	53	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	28-FEB-10 12:20	100228-5
CCV03										
	Mercury	5.05	ug/L	5	ug/L	101	80.0 - 120.0	AV	05-FEB-10 10:08	020510W1-6
	Aluminum	4750	ug/L	5000	ug/L	94.9	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Arsenic	466	ug/L	500	ug/L	93.2	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Barium	468	ug/L	500	ug/L	93.6	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Chromium	467	ug/L	500	ug/L	93.4	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Cobalt	470	ug/L	500	ug/L	94	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Copper	466	ug/L	500	ug/L	93.2	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Nickel	467	ug/L	500	ug/L	93.5	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Selenium	475	ug/L	500	ug/L	94.9	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1
	Sodium	9790	ug/L	10000	ug/L	98	90.0 - 110.0	P	11-FEB-10 15:57	021110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1517–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Zinc	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11–FEB–10 15:57	021110B–1
	Antimony	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	25–FEB–10 03:06	100224–2
	Cadmium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	25–FEB–10 03:06	100224–2
	Beryllium	54.2	ug/L	50	ug/L	108.4	90.0 – 110.0	MS	25–FEB–10 15:23	100225–3
	Lead	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	25–FEB–10 15:23	100225–3
	Manganese	54.4	ug/L	50	ug/L	108.8	90.0 – 110.0	MS	25–FEB–10 15:23	100225–3
	Uranium	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	25–FEB–10 16:36	100225–4
	Thallium	53.7	ug/L	50	ug/L	107.3	90.0 – 110.0	MS	28–FEB–10 12:42	100228–5
CCV04										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	05–FEB–10 10:32	020510W1–6
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Arsenic	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Barium	460	ug/L	500	ug/L	92.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Chromium	459	ug/L	500	ug/L	91.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Cobalt	462	ug/L	500	ug/L	92.3	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Copper	455	ug/L	500	ug/L	91.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Iron	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Nickel	461	ug/L	500	ug/L	92.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Selenium	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Vanadium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 04:01	100224–2
	Cadmium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	25–FEB–10 04:01	100224–2
	Beryllium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1517–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Lead	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Manganese	53.6	ug/L	50	ug/L	107.1	90.0 – 110.0	MS	25–FEB–10 15:50	100225–3
	Thallium	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	28–FEB–10 13:06	100228–5
CCV05										
	Aluminum	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Calcium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Copper	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Magnesium	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Nickel	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Potassium	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Selenium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Silver	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Zinc	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Antimony	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Cadmium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	25–FEB–10 04:57	100224–2
	Thallium	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	28–FEB–10 13:29	100228–5
CCV06										
	Aluminum	4740	ug/L	5000	ug/L	94.8	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Arsenic	466	ug/L	500	ug/L	93.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Barium	469	ug/L	500	ug/L	93.9	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Chromium	468	ug/L	500	ug/L	93.7	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1
	Cobalt	472	ug/L	500	ug/L	94.4	90.0 – 110.0	P	11–FEB–10 17:27	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	467	ug/L	500	ug/L	93.3	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.4	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Nickel	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Potassium	4740	ug/L	5000	ug/L	94.7	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Selenium	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Sodium	9440	ug/L	10000	ug/L	94.4	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Vanadium	473	ug/L	500	ug/L	94.5	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Zinc	469	ug/L	500	ug/L	93.9	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Antimony	50.7	ug/L	50	ug/L	101.4	90.0 - 110.0	MS	25-FEB-10 05:34	100224-2
	Cadmium	49.4	ug/L	50	ug/L	98.7	90.0 - 110.0	MS	25-FEB-10 05:34	100224-2
	Thallium	53.9	ug/L	50	ug/L	107.8	90.0 - 110.0	MS	28-FEB-10 13:51	100228-5
CCV07										
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Arsenic	479	ug/L	500	ug/L	95.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Barium	484	ug/L	500	ug/L	96.9	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Calcium	4810	ug/L	5000	ug/L	96.2	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Chromium	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Copper	480	ug/L	500	ug/L	96	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Nickel	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Potassium	4790	ug/L	5000	ug/L	95.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Selenium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Sodium	9540	ug/L	10000	ug/L	95.4	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Thallium	52	ug/L	50	ug/L	104	90.0 - 110.0	MS	28-FEB-10 14:10	100228-5
CCV08										
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Arsenic	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Barium	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Nickel	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Potassium	5010	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Selenium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Silver	495	ug/L	500	ug/L	99	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Zinc	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Thallium	51.8	ug/L	50	ug/L	103.5	90.0 - 110.0	MS	28-FEB-10 14:39	100228-5
CCV09										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Arsenic	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Calcium	4970	ug/L	5000	ug/L	99.5	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Copper	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1
	Nickel	495	ug/L	500	ug/L	98.9	90.0 - 110.0	P	11-FEB-10 19:12	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Selenium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:12	021110B-1
	Thallium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	28-FEB-10 14:58	100228-5
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Arsenic	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Calcium	4850	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Cobalt	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Nickel	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Selenium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	11-FEB-10 19:41	021110B-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.191	ug/L	.2	ug/L	95.5	70.0 - 130.0	AV	05-FEB-10 09:20	020510W1-6
	Antimony	3.37	ug/L	3	ug/L	112.3	70.0 - 130.0	MS	25-FEB-10 01:15	100224-2
	Cadmium	1.11	ug/L	1	ug/L	111.1	70.0 - 130.0	MS	25-FEB-10 01:15	100224-2
	Lead	2.55	ug/L	2	ug/L	127.6	70.0 - 130.0	MS	25-FEB-10 14:24	100225-3
	Beryllium	.557	ug/L	.5	ug/L	111.4	70.0 - 130.0	MS	25-FEB-10 14:24	100225-3
	Manganese	6.28	ug/L	5	ug/L	125.5	70.0 - 130.0	MS	25-FEB-10 14:24	100225-3
	Uranium	.244	ug/L	.2	ug/L	122	70.0 - 130.0	MS	25-FEB-10 16:05	100225-4
	Thallium	1.27	ug/L	1	ug/L	126.6	70.0 - 130.0	MS	28-FEB-10 11:48	100228-5
PQL01										
	Aluminum	201	ug/L	200	ug/L	100.5	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Iron	119	ug/L	100	ug/L	118.9	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Magnesium	304	ug/L	300	ug/L	101.5	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Nickel	4.56	ug/L	5	ug/L	91.2	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Potassium	185	ug/L	150	ug/L	123.1	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Silver	5.04	ug/L	5	ug/L	100.7	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Sodium	294	ug/L	300	ug/L	98	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Arsenic	28.6	ug/L	30	ug/L	95.5	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Barium	4.75	ug/L	5	ug/L	95	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Chromium	4.99	ug/L	5	ug/L	99.9	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Cobalt	4.65	ug/L	5	ug/L	93.1	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Copper	9.86	ug/L	10	ug/L	98.6	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Vanadium	5.04	ug/L	5	ug/L	100.9	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Zinc	9.38	ug/L	10	ug/L	93.8	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Calcium	200	ug/L	200	ug/L	100	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1
	Selenium	28.7	ug/L	30	ug/L	95.7	70.0 - 130.0	P	11-FEB-10 14:33	021110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1517–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:18	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 14:30	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 14:30	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	25–FEB–10 01:09	100224–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	25–FEB–10 01:09	100224–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	25–FEB–10 14:22	100225–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	25–FEB–10 14:22	100225–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	25–FEB–10 14:22	100225–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	25–FEB–10 16:03	100225–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 11:45	100228–5
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:24	020510W1–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Chromium	1.23	+/–5	J	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Iron	39.3	+/-100	J	30.0	100	LIQ	P	11-FEB-10 14:53	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 14:53	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Potassium	77.71	+/-150	J	50.0	150	LIQ	P	11-FEB-10 14:53	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 14:53	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 01:40	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 01:40	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 14:34	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 14:34	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 14:34	100225-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	25-FEB-10 16:12	100225-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 12:01	100228-5
CCB02										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 09:47	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 15:19	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 15:19	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 15:19	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 15:19	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Potassium	56.33	+/-150	J	50.0	150	LIQ	P	11-FEB-10 15:19	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 15:19	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 01:58	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 01:58	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 14:59	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 14:59	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 14:59	100225-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	25-FEB-10 16:25	100225-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 12:23	100228-5
CCB03										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 10:10	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 16:01	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 16:01	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 16:01	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 16:01	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 16:01	021110B-1
	Selenium	-5.29	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Sodium	186.28	+/-300	J	100	300	LIQ	P	11-FEB-10 16:01	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 03:12	100224-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 03:12	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 15:26	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 15:26	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 15:26	100225-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	25-FEB-10 16:37	100225-4
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 12:45	100228-5
CCB04										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 10:34	020510W1-6
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 16:41	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 16:41	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 16:41	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 16:41	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 16:41	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Sodium	121.62	+/-300	J	100	300	LIQ	P	11-FEB-10 16:41	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 04:07	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 04:07	100224-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	25-FEB-10 15:52	100225-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	25-FEB-10 15:52	100225-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	25-FEB-10 15:52	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 13:09	100228-5

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 17:02	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 17:02	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 17:02	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 17:02	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 17:02	021110B-1
	Selenium	-6.0	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 17:02	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 05:03	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 05:03	100224-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 13:32	100228-5
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 17:31	021110B-1
	Arsenic	-8.04	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 17:31	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 17:31	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 17:31	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 17:31	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 17:31	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 17:31	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	25-FEB-10 05:40	100224-2
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	25-FEB-10 05:40	100224-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	28-FEB-10 13:54	100228-5
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 18:07	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 18:07	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 18:07	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 18:07	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 18:07	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 18:07	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 18:07	021110B-1
	Thallium	0.304	+/-1	J	0.3	1.0	LIQ	MS	28-FEB-10 14:13	100228-5
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 18:36	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 18:36	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 18:36	021110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1517–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 18:36	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 18:36	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	28–FEB–10 14:42	100228–5
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Arsenic	–6.17	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 19:16	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 19:16	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 19:16	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 19:16	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Thallium	0.778	+/–1	J	0.3	1.0	LIQ	MS	28–FEB–10 15:01	100228–5

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1517-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 19:45	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 19:45	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 19:45	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 19:45	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 19:45	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 19:45	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 19:45	021110B-1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1517–1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202032557								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Arsenic	5	ug/L	+/–30	U	P	5	30
	Barium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Chromium	1	ug/L	+/–5	U	P	1	5
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Nickel	1.5	ug/L	+/–5	U	P	1.5	5
	Potassium	50	ug/L	+/–150	U	P	50	150
	Selenium	5	ug/L	+/–30	U	P	5	30
	Silver	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202032562								
	Antimony	1	ug/L	+/–3	U	MS	1	3
	Beryllium	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Manganese	1	ug/L	+/–5	U	MS	1	5
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202033203								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Arsenic	-47.9	ug/L					11-FEB-10 14:37	021110B-1
	Barium	7.7	ug/L					11-FEB-10 14:37	021110B-1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Chromium	-0.331	ug/L					11-FEB-10 14:37	021110B-1
	Cobalt	1.88	ug/L					11-FEB-10 14:37	021110B-1
	Copper	-2.75	ug/L					11-FEB-10 14:37	021110B-1
	Iron	180000	ug/L	200000	ug/L	90.2	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Magnesium	469000	ug/L	500000	ug/L	93.8	80.0 – 120.0	11-FEB-10 14:37	021110B-1
	Nickel	-5.64	ug/L					11-FEB-10 14:37	021110B-1
	Potassium	-12.0	ug/L					11-FEB-10 14:37	021110B-1
	Selenium	-29.8	ug/L					11-FEB-10 14:37	021110B-1
	Silver	-8.02	ug/L					11-FEB-10 14:37	021110B-1
	Sodium	25.0	ug/L					11-FEB-10 14:37	021110B-1
	Vanadium	0.707	ug/L					11-FEB-10 14:37	021110B-1
	Zinc	-9.27	ug/L					11-FEB-10 14:37	021110B-1
ICSAB01									
	Aluminum	493000	ug/L	500000	ug/L	98.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Arsenic	460	ug/L	500	ug/L	92	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Barium	479	ug/L	500	ug/L	95.8	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Calcium	467000	ug/L	500000	ug/L	93.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Chromium	467	ug/L	500	ug/L	93.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Cobalt	417	ug/L	500	ug/L	83.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Copper	516	ug/L	500	ug/L	103	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Iron	181000	ug/L	200000	ug/L	90.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Magnesium	472000	ug/L	500000	ug/L	94.3	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Nickel	412	ug/L	500	ug/L	82.4	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Potassium	4870	ug/L	5000	ug/L	97.4	80.0 – 120.0	11-FEB-10 14:40	021110B-1
	Selenium	2240	ug/L	2500	ug/L	89.5	80.0 – 120.0	11-FEB-10 14:40	021110B-1

METALS
-4-
Interference Check Sample

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	244	ug/L	250	ug/L	97.7	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Sodium	4900	ug/L	5000	ug/L	98.1	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Vanadium	496	ug/L	500	ug/L	99.1	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Zinc	442	ug/L	500	ug/L	88.4	80.0 - 120.0	11-FEB-10 14:40	021110B-1

METALS
-4-
Interference Check Sample

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.383	ug/L					25-FEB-10 01:21	100224-2
	Cadmium	0.506	ug/L					25-FEB-10 01:21	100224-2
ICSAB01									
	Antimony	21.2	ug/L	20	ug/L	106	80.0 - 120.0	25-FEB-10 01:27	100224-2
	Cadmium	19.9	ug/L	20.44	ug/L	97.4	80.0 - 120.0	25-FEB-10 01:27	100224-2

METALS
-4-
Interference Check Sample

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.089	ug/L					25-FEB-10 14:27	100225-3
	Lead	0.239	ug/L					25-FEB-10 14:27	100225-3
	Manganese	6.37	ug/L					25-FEB-10 14:27	100225-3
ICSAB01									
	Beryllium	19.8	ug/L	20	ug/L	98.9	80.0 - 120.0	25-FEB-10 14:29	100225-3
	Lead	22.0	ug/L	20.19	ug/L	109	80.0 - 120.0	25-FEB-10 14:29	100225-3
	Manganese	28.5	ug/L	25.8	ug/L	110	80.0 - 120.0	25-FEB-10 14:29	100225-3

METALS
–4–
Interference Check Sample

SDG No: 10–1517–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.001	ug/L					25–FEB–10 16:07	100225–4
ICSAB01									
	Uranium	23.4	ug/L	20	ug/L	117	80.0 – 120.0	25–FEB–10 16:08	100225–4

METALS
-4-
Interference Check Sample

SDG No: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.013	ug/L					28-FEB-10 11:51	100228-5
ICSAB01									
	Thallium	22.7	ug/L	20	ug/L	114	80.0 - 120.0	28-FEB-10 11:54	100228-5

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1517-1 **Client ID** RE15-10-8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032560

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	4880		68	U	5000	97.2		P
Arsenic	ug/L	75-125	488		5	U	500	97.5		P
Barium	ug/L	75-125	489		1	U	500	97.7		P
Calcium	ug/L	75-125	4830		59.5	J	5000	95.3		P
Chromium	ug/L	75-125	487		1.31	J	500	97.2		P
Cobalt	ug/L	75-125	479		1	U	500	95.8		P
Copper	ug/L	75-125	490		3	U	500	97.9		P
Iron	ug/L	75-125	4890		34.7	J	5000	97.1		P
Magnesium	ug/L	75-125	4910		85	U	5000	97.7		P
Nickel	ug/L	75-125	489		1.5	U	500	97.9		P
Potassium	ug/L	75-125	5000		181		5000	96.3		P
Selenium	ug/L	75-125	470		5	U	500	94.1		P
Silver	ug/L	75-125	483		1	U	500	96.5		P
Sodium	ug/L	75-125	5010		200	J	5000	96.3		P
Vanadium	ug/L	75-125	493		1	U	500	98.5		P
Zinc	ug/L	75-125	475		3.3	U	500	94.6		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1517-1 **Client ID** RE15-10-8124S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246000001 **Spike ID:** 1202032565

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	196		1	U	200	98		MS
Beryllium	ug/L	75-125	47.7		0.1	U	50	95.3		MS
Cadmium	ug/L	75-125	10.3		0.11	U	10	102		MS
Lead	ug/L	75-125	42.2		0.5	U	40	105		MS
Manganese	ug/L	75-125	48.9		1	U	50	96.6		MS
Thallium	ug/L	75-125	75		0.3	U	100	74.9	N	MS
Uranium	ug/L	75-125	49.5		0.05	U	50	98.9		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1517-1 **Client ID** RE15-10-8233S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246056001 **Spike ID:** 1202033206

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	1.5		0.066	U	2	75		AV

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15-10-8124D

Sample ID: 246000001 **Duplicate ID:** 1202032559 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L		1	U	1	U			P
Calcium	ug/L	+/-200	59.5	J	52.6	J	12.4		P
Chromium	ug/L		1.31	J	1	U	200		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		34.7	J	30	U	200		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L	+/-150	181		193		6.09		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/-300	200	J	180	J	10.5		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15-10-8124D

Sample ID: 246000001 **Duplicate ID:** 1202032564 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Manganese	ug/L		1	U	1	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L		0.05	U	0.05	U			MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1517-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15-10-8233D

Sample ID: 246056001 **Duplicate ID:** 1202033205 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1517-1

Contract: LANL01004

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032558								
	Aluminum	ug/L	5000	4910		98.1	80-120	P
	Arsenic	ug/L	500	487		97.4	80-120	P
	Barium	ug/L	500	486		97.2	80-120	P
	Calcium	ug/L	5000	4880		97.6	80-120	P
	Chromium	ug/L	500	484		96.7	80-120	P
	Cobalt	ug/L	500	475		95.1	80-120	P
	Copper	ug/L	500	486		97.1	80-120	P
	Iron	ug/L	5000	4930		98.6	80-120	P
	Magnesium	ug/L	5000	4960		99.3	80-120	P
	Nickel	ug/L	500	487		97.4	80-120	P
	Potassium	ug/L	5000	4890		97.9	80-120	P
	Selenium	ug/L	500	481		96.3	80-120	P
	Silver	ug/L	500	481		96.2	80-120	P
	Sodium	ug/L	5000	4940		98.8	80-120	P
	Vanadium	ug/L	500	489		97.8	80-120	P
	Zinc	ug/L	500	474		94.8	80-120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1517-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202032563								
	Antimony	ug/L	50	52.3		105	80-120	MS
	Beryllium	ug/L	50	49.6		99.3	80-120	MS
	Cadmium	ug/L	50	48.6		97.1	80-120	MS
	Lead	ug/L	50	52.8		106	80-120	MS
	Manganese	ug/L	50	50.1		100	80-120	MS
	Thallium	ug/L	50	52.3		105	80-120	MS
	Uranium	ug/L	50	50.6		101	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1517-1

Contract: LANL01004

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033204								
	Mercury	ug/L	2	2.01		100	80-120	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1517-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032561

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Arsenic	5	U	25	U				P
Barium	1	U	5	U				P
Calcium	59.5	J	250	U	100			P
Chromium	1.31	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	34.7	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	181		267	J	47.5			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	200	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1517-1 **Client ID** RE15-10-8124L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246000001 **Serial Dilution ID:** 1202032566

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	.5	U	2.5	U				MS
Manganese	1	U	5	U				MS
Thallium	.3	U	8.35					MS
Uranium	.05	U	.25	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1517-1 **Client ID** RE15-10-8233L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246056001 **Serial Dilution ID:** 1202033207

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1517-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948730						
1202032557	MB for batch 948730	MB	W	10-FEB-10	50mL	50mL	
1202032558	LCS for batch 948730	LCS	W	10-FEB-10	50mL	50mL	
1202032560	RE15-10-8124S	MS	W	10-FEB-10	50mL	50mL	
1202032559	RE15-10-8124D	DUP	W	10-FEB-10	50mL	50mL	
246000001	RE15-10-8124	SAMPLE	W	10-FEB-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1517-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	948739						
1202032562	MB for batch 948739	MB	W	10-FEB-10	50mL	50mL	
1202032563	LCS for batch 948739	LCS	W	10-FEB-10	50mL	50mL	
1202032565	RE15-10-8124S	MS	W	10-FEB-10	50mL	50mL	
1202032564	RE15-10-8124D	DUP	W	10-FEB-10	50mL	50mL	
246000001	RE15-10-8124	SAMPLE	W	10-FEB-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1517-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949018						
1202033203	MB for batch 949018	MB	W	04-FEB-10	20mL	20mL	
1202033204	LCS for batch 949018	LCS	W	04-FEB-10	20mL	20mL	
1202033206	RE15-10-8233S	MS	W	04-FEB-10	20mL	20mL	
1202033205	RE15-10-8233D	DUP	W	04-FEB-10	20mL	20mL	
246000001	RE15-10-8124	SAMPLE	W	04-FEB-10	20mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25-FEB-10 **End Date:** 25-FEB-10

Client Sdg: 10-1517-1
Method MS
Data File: 100224-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	00:45		X				X																		
S10	1	00:51		X				X																		
S100	1	00:57		X				X																		
ICV01	1	01:03		X				X																		
ICB01	1	01:09		X				X																		
CRDL01	1	01:15		X				X																		
ICSA01	1	01:21		X				X																		
ICSAB01	1	01:27		X				X																		
CCV01	1	01:33		X				X																		
CCB01	1	01:40		X				X																		
LR01	1	01:46		X				X																		
CCV02	1	01:52		X				X																		
CCB02	1	01:58		X				X																		
ZZZZZZ	1	02:04																								
ZZZZZZ	1	02:10																								
ZZZZZZ	1	02:16																								
ZZZZZZ	1	02:23																								
ZZZZZZ	1	02:29																								
ZZZZZZ	1	02:35																								
ZZZZZZ	1	02:41																								
ZZZZZZ	1	02:47																								
ZZZZZZ	1	02:54																								
ZZZZZZ	1	03:00																								
CCV03	1	03:06		X				X																		
CCB03	1	03:12		X				X																		
ZZZZZZ	1	03:18																								
ZZZZZZ	1	03:24																								
ZZZZZZ	1	03:31																								
ZZZZZZ	1	03:37																								
ZZZZZZ	1	03:43																								
ZZZZZZ	1	03:49																								
ZZZZZZ	5	03:55																								
CCV04	1	04:01		X				X																		
CCB04	1	04:07		X				X																		
1202032562	1	04:14		X				X																		
1202032563	1	04:20		X				X																		
ZZZZZZ	1	04:26																								
ZZZZZZ	1	04:32																								
ZZZZZZ	1	04:38																								
ZZZZZZ	1	04:45																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	04:51																							
CCV05	1	04:57		X				X																	
CCB05	1	05:03		X				X																	
246000001	1	05:09		X				X																	
1202032564	1	05:15		X				X																	
1202032565	1	05:22		X				X																	
1202032566	5	05:28		X				X																	
CCV06	1	05:34		X				X																	
CCB06	1	05:40		X				X																	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25-FEB-10 **End Date:** 25-FEB-10

Client Sdg: 10-1517-1
Method MS
Data File: 100225-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:12					X							X		X										
S10	1	14:14					X							X		X										
S100	1	14:17					X							X		X										
ICV01	1	14:19					X							X		X										
ICB01	1	14:22					X							X		X										
CRDL01	1	14:24					X							X		X										
ICSA01	1	14:27					X							X		X										
ICSAB01	1	14:29					X							X		X										
CCV01	1	14:32					X							X		X										
CCB01	1	14:34					X							X		X										
ZZZZZZ	1	14:37																								
ZZZZZZ	1	14:40																								
ZZZZZZ	1	14:42																								
ZZZZZZ	1	14:46																								
ZZZZZZ	1	14:49																								
ZZZZZZ	1	14:51																								
ZZZZZZ	5	14:54																								
CCV02	1	14:56					X							X		X										
CCB02	1	14:59					X							X		X										
ZZZZZZ	1	15:02																								
ZZZZZZ	1	15:04																								
ZZZZZZ	1	15:07																								
ZZZZZZ	1	15:10																								
1202032562	1	15:13					X							X		X										
1202032563	1	15:15					X							X		X										
ZZZZZZ	1	15:18																								
ZZZZZZ	1	15:21																								
CCV03	1	15:23					X							X		X										
CCB03	1	15:26					X							X		X										
ZZZZZZ	1	15:28																								
ZZZZZZ	1	15:31																								
ZZZZZZ	1	15:34																								
246000001	1	15:37					X							X		X										
1202032564	1	15:39					X							X		X										
1202032565	1	15:42					X							X		X										
1202032566	5	15:44					X							X		X										
ZZZZZZ	5	15:47																								
CCV04	1	15:50					X							X		X										
CCB04	1	15:52					X							X		X										

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 25–FEB–10
End Date: 25–FEB–10
Client Sdg: 10–1517–1
Method MS
Data File: 100225–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	15:57																						X		
S10	1	15:58																						X		
S100	1	16:00																						X		
ICV01	1	16:01																						X		
ICB01	1	16:03																						X		
CRDL01	1	16:05																						X		
ICSA01	1	16:07																						X		
ICSAB01	1	16:08																						X		
CCV01	1	16:10																						X		
CCB01	1	16:12																						X		
1202032562	1	16:13																						X		
1202032563	1	16:15																						X		
ZZZZZZ	1	16:17																								
ZZZZZZ	1	16:18																								
ZZZZZZ	1	16:20																								
ZZZZZZ	1	16:22																								
CCV02	1	16:24																						X		
CCB02	1	16:25																						X		
ZZZZZZ	1	16:27																								
246000001	1	16:29																						X		
1202032564	1	16:30																						X		
1202032565	1	16:32																						X		
1202032566	5	16:34																						X		
CCV03	1	16:36																						X		
CCB03	1	16:37																						X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 28–FEB–10 **End Date:** 28–FEB–10

Client Sdg: 10–1517–1
Method MS
Data File: 100228–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	11:32																					X			
S10	1	11:35																					X			
S100	1	11:38																					X			
ICV01	1	11:42																					X			
ICB01	1	11:45																					X			
CRDL01	1	11:48																					X			
ICSA01	1	11:51																					X			
ICSAB01	1	11:54																					X			
CCV01	1	11:57																					X			
CCB01	1	12:01																					X			
ZZZZZZ	1	12:04																								
ZZZZZZ	1	12:07																								
ZZZZZZ	1	12:10																								
ZZZZZZ	1	12:13																								
ZZZZZZ	1	12:16																								
CCV02	1	12:20																					X			
CCB02	1	12:23																					X			
ZZZZZZ	1	12:26																								
ZZZZZZ	1	12:29																								
ZZZZZZ	1	12:32																								
ZZZZZZ	1	12:36																								
ZZZZZZ	5	12:39																								
CCV03	1	12:42																					X			
CCB03	1	12:45																					X			
ZZZZZZ	1	12:50																								
ZZZZZZ	1	12:53																								
ZZZZZZ	1	12:57																								
ZZZZZZ	1	13:00																								
ZZZZZZ	1	13:03																								
CCV04	1	13:06																					X			
CCB04	1	13:09																					X			
ZZZZZZ	1	13:13																								
ZZZZZZ	1	13:16																								
ZZZZZZ	1	13:19																								
ZZZZZZ	5	13:22																								
ZZZZZZ	1	13:25																								
CCV05	1	13:29																					X			
CCB05	1	13:32																					X			
ZZZZZZ	1	13:35																								
ZZZZZZ	1	13:38																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	13:41																							
ZZZZZZ	1	13:45																							
ZZZZZZ	1	13:48																							
CCV06	1	13:51																			X				
CCB06	1	13:54																			X				
ZZZZZZ	1	13:57																							
ZZZZZZ	1	14:01																							
ZZZZZZ	1	14:04																							
ZZZZZZ	5	14:07																							
CCV07	1	14:10																			X				
CCB07	1	14:13																			X				
1202032562	1	14:17																			X				
1202032563	1	14:20																			X				
ZZZZZZ	1	14:23																							
ZZZZZZ	1	14:26																							
ZZZZZZ	1	14:30																							
ZZZZZZ	1	14:33																							
ZZZZZZ	1	14:36																							
CCV08	1	14:39																			X				
CCB08	1	14:42																			X				
246000001	1	14:46																			X				
1202032564	1	14:49																			X				
1202032565	1	14:52																			X				
1202032566	5	14:55																			X				
CCV09	1	14:58																			X				
CCB09	1	15:01																			X				

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 05–FEB–10 **End Date:** 05–FEB–10

Client Sdg: 10–1517–1
Method AV
Data File: 020510W1–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	09:05															X									
S0.2	1	09:07															X									
S0.5	1	09:09															X									
S2.0	1	09:11															X									
S5.0	1	09:13															X									
S10.0	1	09:15															X									
ICV01	1	09:17															X									
ICB01	1	09:18															X									
CRDL01	1	09:20															X									
CCV01	1	09:22															X									
CCB01	1	09:24															X									
ZZZZZZ	1	09:26																								
ZZZZZZ	1	09:28																								
ZZZZZZ	1	09:30																								
ZZZZZZ	1	09:32																								
ZZZZZZ	1	09:34																								
ZZZZZZ	1	09:36																								
ZZZZZZ	1	09:38																								
ZZZZZZ	1	09:40																								
ZZZZZZ	5	09:42																								
1202033203	1	09:43															X									
CCV02	1	09:45															X									
CCB02	1	09:47															X									
1202033204	1	09:49															X									
ZZZZZZ	1	09:51																								
ZZZZZZ	1	09:53																								
ZZZZZZ	1	09:55																								
ZZZZZZ	1	09:57																								
ZZZZZZ	1	09:59																								
ZZZZZZ	1	10:01																								
ZZZZZZ	1	10:03																								
ZZZZZZ	1	10:05																								
246000001	1	10:07															X									
CCV03	1	10:08															X									
CCB03	1	10:10															X									
ZZZZZZ	1	10:12																								
ZZZZZZ	1	10:14																								
1202033205	1	10:16															X									
1202033206	1	10:18															X									
1202033207	5	10:20															X									

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:22																							
ZZZZZZ	1	10:24																							
ZZZZZZ	1	10:26																							
ZZZZZZ	1	10:28																							
ZZZZZZ	1	10:30																							
CCV04	1	10:32														X									
CCB04	1	10:34														X									

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 11-FEB-10 **End Date:** 11-FEB-10

Client Sdg: 10-1517-1
Method P
Data File: 021110B-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
S0.0	1	14:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S0.1	1	14:14			X	X				X	X	X						X	X	X	X				X	X
S0.5	1	14:17	X		X	X			X	X	X	X			X			X	X	X	X				X	X
SCAL	1	14:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
S10	1	14:24	X						X				X		X							X				
ICV01	1	14:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICB01	1	14:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
PQL01	1	14:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSA01	1	14:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ICSAB01	1	14:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR01	1	14:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR02	1	14:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV01	1	14:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB01	1	14:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR03	1	15:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
LR04	1	15:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV02	1	15:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB02	1	15:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	15:23																								
ZZZZZZ	1	15:26																								
ZZZZZZ	1	15:30																								
ZZZZZZ	1	15:34																								
ZZZZZZ	1	15:38																								
ZZZZZZ	5	15:42																								
ZZZZZZ	1	15:45																								
ZZZZZZ	1	15:49																								
ZZZZZZ	1	15:53																								
CCV03	1	15:57	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB03	1	16:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	16:04																								
ZZZZZZ	1	16:08																								
ZZZZZZ	1	16:12																								
ZZZZZZ	1	16:16																								
ZZZZZZ	1	16:20																								
ZZZZZZ	1	16:24																								
ZZZZZZ	1	16:28																								
ZZZZZZ	1	16:31																								
ZZZZZZ	1	16:34																								
CCV04	1	16:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB04	1	16:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	16:58	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB05	1	17:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:06																								
ZZZZZZ	1	17:09																								
ZZZZZZ	1	17:13																								
ZZZZZZ	1	17:16																								
ZZZZZZ	1	17:20																								
ZZZZZZ	5	17:24																								
CCV06	1	17:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB06	1	17:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	17:35																								
ZZZZZZ	1	17:38																								
ZZZZZZ	1	17:42																								
ZZZZZZ	1	17:45																								
ZZZZZZ	1	17:49																								
ZZZZZZ	1	17:53																								
ZZZZZZ	1	17:56																								
ZZZZZZ	1	18:00																								
CCV07	1	18:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB07	1	18:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:11																								
ZZZZZZ	1	18:14																								
ZZZZZZ	1	18:18																								
ZZZZZZ	1	18:21																								
ZZZZZZ	1	18:25																								
ZZZZZZ	5	18:29																								
CCV08	1	18:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB08	1	18:36	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
ZZZZZZ	1	18:40																								
ZZZZZZ	1	18:43																								
ZZZZZZ	1	18:47																								
ZZZZZZ	1	18:50																								
ZZZZZZ	1	18:54																								
ZZZZZZ	1	18:58																								
ZZZZZZ	1	19:01																								
ZZZZZZ	1	19:05																								
ZZZZZZ	1	19:08																								
CCV09	1	19:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB09	1	19:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032557	1	19:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	U	V	Zn
1202032558	1	19:23	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
246000001	1	19:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032559	1	19:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032560	1	19:34	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
1202032561	5	19:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCV10	1	19:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X
CCB10	1	19:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X			X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1517-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1517-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1517-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1517-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1517-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Uranium	1000	5000	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10

METALS
–12–
Linear Ranges

SDG NO. 10–1517–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 022710B

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

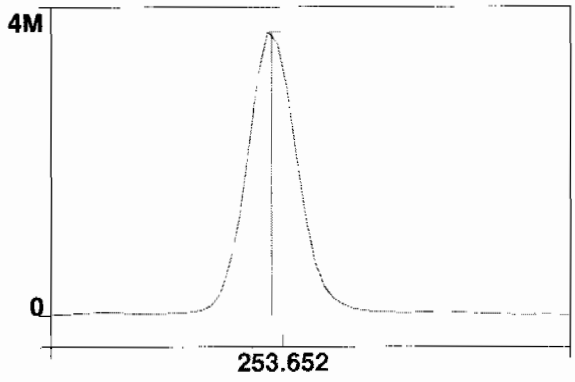

Intensity: 3672376.8 cps
Conc:

1

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Analysis Begun

Start Time: 2/11/2010 14:10:46 Plasma On Time: 2/8/2010 03:37:33
Logged In Analyst: optima Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 Autosampler Location: 8
Sample ID: S0 Date Collected: 2/11/2010 14:10:48
Analyst: Data Type: Original
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54739.4	54739.4	100	%	14:11:23
1	Al 396.153Radial†	-13.9	-13.8	[0.00]	µg/L	14:11:23
1	Ca 317.933Radial†	181.9	181.3	[0.00]	µg/L	14:11:43
1	Fe 238.204 Radial†	15.3	15.3	[0.00]	µg/L	14:11:43
1	K 766.490 Radial†	133.4	133.0	[0.00]	µg/L	14:11:23
1	Mg 279.077 IEC†	7.8	7.8	[0.00]	µg/L	14:11:43
1	Na 589.592 Radial†	544.1	542.5	[0.00]	µg/L	14:11:23
1	Sr 421.552†	47.1	46.9	[0.00]	µg/L	14:11:23
1	Sc 361.383	1911885.3	1911885.3	100.11	%	14:12:45
1	Y 371.029	1310700.1	1310700.1	100.06	%	14:12:45
1	Ag 328.068†	-547.3	-546.7	[0.00]	µg/L	14:12:50
1	As 188.979†	3.5	3.5	[0.00]	µg/L	14:13:11
1	B 249.677†	353.5	353.1	[0.00]	µg/L	14:13:11
1	Ba 233.527†	-32.2	-32.2	[0.00]	µg/L	14:13:11
1	Be 313.107†	-3446.9	-3443.2	[0.00]	µg/L	14:12:50
1	Cd 226.502†	-153.7	-153.5	[0.00]	µg/L	14:13:11
1	Co 228.616†	-1.3	-1.3	[0.00]	µg/L	14:13:11
1	Cr 267.716†	-55.4	-55.3	[0.00]	µg/L	14:12:50
1	Cu 324.752†	2504.0	2501.3	[0.00]	µg/L	14:12:50
1	Mn 257.610†	-239.6	-239.4	[0.00]	µg/L	14:13:11
1	Mo 202.031†	-2.8	-2.8	[0.00]	µg/L	14:13:11
1	Ni 231.604†	307.9	307.6	[0.00]	µg/L	14:13:11
1	P 214.914†	26.2	26.2	[0.00]	µg/L	14:13:11
1	Pb 220.353†	91.7	91.6	[0.00]	µg/L	14:13:11
1	S 181.975 Axial†	15.4	15.3	[0.00]	µg/L	14:13:11
1	Sb 206.836†	28.4	28.4	[0.00]	µg/L	14:13:11
1	Se 196.026†	16.7	16.7	[0.00]	µg/L	14:13:11
1	SiO2†	1235.3	1234.0	[0.00]	µg/L	14:12:50
1	Si 251.611†	309.0	308.7	[0.00]	µg/L	14:13:11
1	Sn 189.927†	-0.7	-0.7	[0.00]	µg/L	14:13:11
1	Ti 334.940†	89.4	89.3	[0.00]	µg/L	14:12:50
1	Tl 190.801†	-23.5	-23.5	[0.00]	µg/L	14:13:11
1	U 409.014†	-77.0	-76.9	[0.00]	µg/L	14:12:50
1	V 292.402†	-41.9	-41.9	[0.00]	µg/L	14:12:50
1	Zn 213.857†	474.5	474.0	[0.00]	µg/L	14:13:11
2	Sc RADIAL	54665.4	54665.4	100	%	14:11:49
2	Al 396.153Radial†	-1.2	-1.2	[0.00]	µg/L	14:11:49
2	Ca 317.933Radial†	175.4	175.1	[0.00]	µg/L	14:12:09
2	Fe 238.204 Radial†	14.9	14.8	[0.00]	µg/L	14:12:09
2	K 766.490 Radial†	144.1	143.8	[0.00]	µg/L	14:11:49
2	Mg 279.077 IEC†	11.1	11.1	[0.00]	µg/L	14:12:09
2	Na 589.592 Radial†	552.5	551.5	[0.00]	µg/L	14:11:49
2	Sr 421.552†	33.2	33.1	[0.00]	µg/L	14:11:49
2	Sc 361.383	1909838.0	1909838.0	100.000	%	14:13:17
2	Y 371.029	1310179.5	1310179.5	100.02	%	14:13:17
2	Ag 328.068†	-580.2	-580.2	[0.00]	µg/L	14:13:23
2	As 188.979†	-0.5	-0.5	[0.00]	µg/L	14:13:43

2	B 249.677†	311.8	311.8	[0.00]	µg/L	14:13:43
2	Ba 233.527†	-19.4	-19.4	[0.00]	µg/L	14:13:43
2	Be 313.107†	-3440.2	-3440.2	[0.00]	µg/L	14:13:23
2	Cd 226.502†	-136.8	-136.8	[0.00]	µg/L	14:13:43
2	Co 228.616†	-8.2	-8.2	[0.00]	µg/L	14:13:43
2	Cr 267.716†	-44.6	-44.6	[0.00]	µg/L	14:13:23
2	Cu 324.752†	2529.2	2529.2	[0.00]	µg/L	14:13:23
2	Mn 257.610†	-247.4	-247.4	[0.00]	µg/L	14:13:43
2	Mo 202.031†	-8.7	-8.7	[0.00]	µg/L	14:13:43
2	Ni 231.604†	295.5	295.5	[0.00]	µg/L	14:13:43
2	P 214.914†	27.9	27.9	[0.00]	µg/L	14:13:43
2	Pb 220.353†	98.3	98.3	[0.00]	µg/L	14:13:43
2	S 181.975 Axial†	16.8	16.8	[0.00]	µg/L	14:13:43
2	Sb 206.836†	27.6	27.6	[0.00]	µg/L	14:13:43
2	Se 196.026†	12.1	12.1	[0.00]	µg/L	14:13:43
2	SiO2†	1235.5	1235.5	[0.00]	µg/L	14:13:23
2	Si 251.611†	316.0	316.0	[0.00]	µg/L	14:13:43
2	Sn 189.927†	-2.2	-2.2	[0.00]	µg/L	14:13:43
2	Ti 334.940†	132.2	132.2	[0.00]	µg/L	14:13:23
2	Tl 190.801†	-27.5	-27.5	[0.00]	µg/L	14:13:43
2	U 409.014†	-52.6	-52.6	[0.00]	µg/L	14:13:23
2	V 292.402†	-46.9	-46.9	[0.00]	µg/L	14:13:23
2	Zn 213.857†	476.6	476.6	[0.00]	µg/L	14:13:43
3	Sc RADIAL	54318.4	54318.4	99.5	%	14:12:15
3	Al 396.153Radial†	-15.3	-15.3	[0.00]	µg/L	14:12:15
3	Ca 317.933Radial†	180.2	181.0	[0.00]	µg/L	14:12:35
3	Fe 238.204 Radial†	13.3	13.4	[0.00]	µg/L	14:12:35
3	K 766.490 Radial†	107.9	108.4	[0.00]	µg/L	14:12:15
3	Mg 279.077 IEC†	14.9	15.0	[0.00]	µg/L	14:12:35
3	Na 589.592 Radial†	529.1	531.6	[0.00]	µg/L	14:12:15
3	Sr 421.552†	38.4	38.6	[0.00]	µg/L	14:12:15
3	Sc 361.383	1907796.9	1907796.9	99.893	%	14:13:49
3	Y 371.029	1308876.2	1308876.2	99.920	%	14:13:49
3	Ag 328.068†	-566.0	-566.6	[0.00]	µg/L	14:13:55
3	As 188.979†	0.4	0.4	[0.00]	µg/L	14:14:15
3	B 249.677†	329.2	329.5	[0.00]	µg/L	14:14:15
3	Ba 233.527†	-26.4	-26.4	[0.00]	µg/L	14:14:15
3	Be 313.107†	-3434.3	-3437.9	[0.00]	µg/L	14:13:55
3	Cd 226.502†	-135.9	-136.0	[0.00]	µg/L	14:14:15
3	Co 228.616†	-17.0	-17.0	[0.00]	µg/L	14:14:15
3	Cr 267.716†	-57.1	-57.2	[0.00]	µg/L	14:13:55
3	Cu 324.752†	2425.2	2427.8	[0.00]	µg/L	14:13:55
3	Mn 257.610†	-245.3	-245.6	[0.00]	µg/L	14:14:15
3	Mo 202.031†	-11.1	-11.1	[0.00]	µg/L	14:14:15
3	Ni 231.604†	303.1	303.5	[0.00]	µg/L	14:14:15
3	P 214.914†	28.8	28.8	[0.00]	µg/L	14:14:15
3	Pb 220.353†	101.6	101.7	[0.00]	µg/L	14:14:15
3	S 181.975 Axial†	12.3	12.3	[0.00]	µg/L	14:14:15
3	Sb 206.836†	24.9	25.0	[0.00]	µg/L	14:14:15
3	Se 196.026†	18.7	18.7	[0.00]	µg/L	14:14:15
3	SiO2†	1279.2	1280.6	[0.00]	µg/L	14:13:55
3	Si 251.611†	313.6	313.9	[0.00]	µg/L	14:14:15
3	Sn 189.927†	0.3	0.3	[0.00]	µg/L	14:14:15
3	Ti 334.940†	126.8	126.9	[0.00]	µg/L	14:13:55
3	Tl 190.801†	-21.9	-21.9	[0.00]	µg/L	14:14:15
3	U 409.014†	-31.2	-31.3	[0.00]	µg/L	14:13:55
3	V 292.402†	-43.8	-43.9	[0.00]	µg/L	14:13:55
3	Zn 213.857†	475.5	476.0	[0.00]	µg/L	14:14:15

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1909840.1	2044.21	0.11%	100.00	%
Sc RADIAL	54574.4	224.80	0.41%	100	%
Y 371.029	1309918.6	939.52	0.07%	100.00	%
Ag 328.068†	-564.5	16.85	2.98%	[0.00]	µg/L
Al 396.153Radial†	-10.1	7.73	76.30%	[0.00]	µg/L
As 188.979†	1.1	2.09	182.38%	[0.00]	µg/L
B 249.677†	331.5	20.73	6.25%	[0.00]	µg/L
Ba 233.527†	-26.0	6.39	24.57%	[0.00]	µg/L

Be 313.107†	-3440.4	2.66	0.08%	[0.00]	µg/L
Ca 317.933Radial†	179.2	3.51	1.96%	[0.00]	µg/L
Cd 226.502†	-142.1	9.89	6.96%	[0.00]	µg/L
Co 228.616†	-8.8	7.85	88.83%	[0.00]	µg/L
Cr 267.716†	-52.4	6.82	13.02%	[0.00]	µg/L
Cu 324.752†	2486.1	52.42	2.11%	[0.00]	µg/L
Fe 238.204 Radial†	14.5	1.00	6.90%	[0.00]	µg/L
K 766.490 Radial†	128.4	18.15	14.13%	[0.00]	µg/L
Mg 279.077 IEC†	11.3	3.62	32.14%	[0.00]	µg/L
Mn 257.610†	-244.1	4.19	1.72%	[0.00]	µg/L
Mo 202.031†	-7.5	4.31	57.15%	[0.00]	µg/L
Na 589.592 Radial†	541.9	9.97	1.84%	[0.00]	µg/L
Ni 231.604†	302.2	6.13	2.03%	[0.00]	µg/L
P 214.914†	27.6	1.32	4.77%	[0.00]	µg/L
Pb 220.353†	97.2	5.13	5.27%	[0.00]	µg/L
S 181.975 Axial†	14.8	2.33	15.71%	[0.00]	µg/L
Sb 206.836†	27.0	1.78	6.62%	[0.00]	µg/L
Se 196.026†	15.8	3.37	21.27%	[0.00]	µg/L
SiO2†	1250.0	26.45	2.12%	[0.00]	µg/L
Si 251.611†	312.9	3.77	1.21%	[0.00]	µg/L
Sn 189.927†	-0.9	1.29	148.06%	[0.00]	µg/L
Sr 421.552†	39.6	6.94	17.54%	[0.00]	µg/L
Ti 334.940†	116.1	23.40	20.15%	[0.00]	µg/L
Tl 190.801†	-24.3	2.88	11.85%	[0.00]	µg/L
U 409.014†	-53.6	22.84	42.60%	[0.00]	µg/L
V 292.402†	-44.2	2.52	5.69%	[0.00]	µg/L
Zn 213.857†	475.5	1.38	0.29%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/11/2010 14:14:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55015.9	55015.9	101	%	14:15:00
1	K 766.490 Radial†	1529.6	1388.9	[1000]	µg/L	14:15:00
1	Sr 421.552†	9551.7	9435.5	[100]	µg/L	14:15:00
1	Sc 361.383	1906987.6	1906987.6	99.851	%	14:15:21
1	Y 371.029	1308080.3	1308080.3	99.860	%	14:15:21
1	Ag 328.068†	12337.2	12920.2	[100]	µg/L	14:15:27
1	As 188.979†	60.2	59.1	[100]	µg/L	14:15:48
1	B 249.677†	2597.7	2270.1	[100]	µg/L	14:15:27
1	Ba 233.527†	3962.5	3994.4	[100]	µg/L	14:15:27
1	Be 313.107†	151975.4	155643.2	[100]	µg/L	14:15:21
1	Cd 226.502†	3678.8	3826.5	[100]	µg/L	14:15:27
1	Co 228.616†	2095.6	2107.6	[100]	µg/L	14:15:48
1	Cr 267.716†	4700.6	4760.0	[100]	µg/L	14:15:27
1	Cu 324.752†	17516.6	15056.7	[100]	µg/L	14:15:27
1	Mn 257.610†	30035.0	30324.0	[100]	µg/L	14:15:27
1	Mo 202.031†	993.1	1002.1	[100]	µg/L	14:15:48
1	Ni 231.604†	2238.0	1939.1	[100]	µg/L	14:15:27
1	P 214.914†	275.5	248.3	[500]	µg/L	14:15:48
1	Pb 220.353†	495.9	399.5	[100]	µg/L	14:15:48
1	S 181.975 Axial†	61.0	46.2	[200]	µg/L	14:15:48
1	Sb 206.836†	127.3	100.5	[100]	µg/L	14:15:48
1	Se 196.026†	83.6	67.8	[100]	µg/L	14:15:48
1	SiO2†	6362.3	5121.8	[1069.5]	µg/L	14:15:27
1	Si 251.611†	6526.8	6223.6	[500]	µg/L	14:15:27
1	Sn 189.927†	236.7	237.9	[100]	µg/L	14:15:48
1	Ti 334.940†	41818.8	41765.2	[100]	µg/L	14:15:27
1	Tl 190.801†	52.7	77.0	[100]	µg/L	14:15:48
1	U 409.014†	1125.7	1181.0	[100]	µg/L	14:15:27
1	V 292.402†	9619.3	9677.9	[100]	µg/L	14:15:27
1	Zn 213.857†	4700.1	4231.6	[100]	µg/L	14:15:27
2	Sc RADIAL	55171.2	55171.2	101	%	14:15:05
2	K 766.490 Radial†	1577.1	1431.6	[1000]	µg/L	14:15:05
2	Sr 421.552†	9725.8	9581.1	[100]	µg/L	14:15:05
2	Sc 361.383	1919566.1	1919566.1	100.51	%	14:15:54
2	Y 371.029	1316225.3	1316225.3	100.48	%	14:15:54
2	Ag 328.068†	12296.8	12799.1	[100]	µg/L	14:16:00
2	As 188.979†	55.3	53.9	[100]	µg/L	14:16:20
2	B 249.677†	2620.3	2275.6	[100]	µg/L	14:16:00
2	Ba 233.527†	3925.8	3931.9	[100]	µg/L	14:16:00
2	Be 313.107†	153476.8	156139.6	[100]	µg/L	14:15:54
2	Cd 226.502†	3613.9	3737.7	[100]	µg/L	14:16:00
2	Co 228.616†	2078.6	2076.9	[100]	µg/L	14:16:20
2	Cr 267.716†	4668.3	4697.0	[100]	µg/L	14:16:00
2	Cu 324.752†	17487.1	14912.4	[100]	µg/L	14:16:00
2	Mn 257.610†	29867.9	29960.6	[100]	µg/L	14:16:00
2	Mo 202.031†	997.0	999.5	[100]	µg/L	14:16:20
2	Ni 231.604†	2232.7	1919.2	[100]	µg/L	14:16:00
2	P 214.914†	277.4	248.4	[500]	µg/L	14:16:20
2	Pb 220.353†	494.0	394.3	[100]	µg/L	14:16:20
2	S 181.975 Axial†	66.3	51.1	[200]	µg/L	14:16:20
2	Sb 206.836†	134.2	106.6	[100]	µg/L	14:16:20
2	Se 196.026†	81.0	64.7	[100]	µg/L	14:16:20
2	SiO2†	6316.5	5034.4	[1069.5]	µg/L	14:16:00
2	Si 251.611†	6524.6	6178.6	[500]	µg/L	14:16:00
2	Sn 189.927†	229.9	229.6	[100]	µg/L	14:16:20
2	Ti 334.940†	41713.2	41385.8	[100]	µg/L	14:16:00
2	Tl 190.801†	46.9	70.9	[100]	µg/L	14:16:20
2	U 409.014†	1094.4	1142.5	[100]	µg/L	14:16:00
2	V 292.402†	9634.9	9630.3	[100]	µg/L	14:16:00

2	Zn 213.857†	4683.2	4183.9	[100]	µg/L	14:16:00
3	Sc RADIAL	54696.3	54696.3	100	%	14:15:11
3	K 766.490 Radial†	1613.5	1481.5	[1000]	µg/L	14:15:11
3	Sr 421.552†	9663.0	9601.9	[100]	µg/L	14:15:11
3	Sc 361.383	1914175.0	1914175.0	100.23	%	14:16:26
3	Y 371.029	1314459.8	1314459.8	100.35	%	14:16:26
3	Ag 328.068†	12311.6	12848.2	[100]	µg/L	14:16:32
3	As 188.979†	52.2	51.0	[100]	µg/L	14:16:53
3	B 249.677†	2607.8	2270.5	[100]	µg/L	14:16:32
3	Ba 233.527†	3927.0	3944.1	[100]	µg/L	14:16:32
3	Be 313.107†	152121.7	155217.6	[100]	µg/L	14:16:26
3	Cd 226.502†	3649.8	3783.7	[100]	µg/L	14:16:32
3	Co 228.616†	2092.3	2096.4	[100]	µg/L	14:16:53
3	Cr 267.716†	4695.0	4736.7	[100]	µg/L	14:16:32
3	Cu 324.752†	17403.9	14878.4	[100]	µg/L	14:16:32
3	Mn 257.610†	29812.0	29988.6	[100]	µg/L	14:16:32
3	Mo 202.031†	994.2	999.5	[100]	µg/L	14:16:53
3	Ni 231.604†	2238.0	1930.8	[100]	µg/L	14:16:32
3	P 214.914†	276.9	248.7	[500]	µg/L	14:16:53
3	Pb 220.353†	496.4	398.1	[100]	µg/L	14:16:53
3	S 181.975 Axial†	63.6	48.7	[200]	µg/L	14:16:53
3	Sb 206.836†	131.7	104.5	[100]	µg/L	14:16:53
3	Se 196.026†	85.1	69.1	[100]	µg/L	14:16:53
3	SiO2†	6274.4	5010.2	[1069.5]	µg/L	14:16:32
3	Si 251.611†	6506.8	6179.2	[500]	µg/L	14:16:32
3	Sn 189.927†	233.2	233.5	[100]	µg/L	14:16:53
3	Ti 334.940†	41628.8	41418.4	[100]	µg/L	14:16:32
3	Tl 190.801†	52.0	76.1	[100]	µg/L	14:16:53
3	U 409.014†	1167.9	1218.9	[100]	µg/L	14:16:32
3	V 292.402†	9645.5	9667.9	[100]	µg/L	14:16:32
3	Zn 213.857†	4697.5	4211.3	[100]	µg/L	14:16:32

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1913576.2	6310.61	0.33%	100.20	%
Sc RADIAL	54961.1	242.12	0.44%	101	%
Y 371.029	1312921.8	4284.80	0.33%	100.23	%
Ag 328.068†	12855.8	60.90	0.47%	[100]	µg/L
As 188.979†	54.7	4.13	7.55%	[100]	µg/L
B 249.677†	2272.1	3.07	0.13%	[100]	µg/L
Ba 233.527†	3956.8	33.13	0.84%	[100]	µg/L
Be 313.107†	155666.8	461.42	0.30%	[100]	µg/L
Cd 226.502†	3782.6	44.38	1.17%	[100]	µg/L
Co 228.616†	2093.6	15.54	0.74%	[100]	µg/L
Cr 267.716†	4731.2	31.87	0.67%	[100]	µg/L
Cu 324.752†	14949.2	94.66	0.63%	[100]	µg/L
K 766.490 Radial†	1434.0	46.37	3.23%	[1000]	µg/L
Mn 257.610†	30091.1	202.22	0.67%	[100]	µg/L
Mo 202.031†	1000.4	1.54	0.15%	[100]	µg/L
Ni 231.604†	1929.7	10.00	0.52%	[100]	µg/L
P 214.914†	248.5	0.19	0.08%	[500]	µg/L
Pb 220.353†	397.3	2.68	0.67%	[100]	µg/L
S 181.975 Axial†	48.7	2.45	5.03%	[200]	µg/L
Sb 206.836†	103.8	3.08	2.97%	[100]	µg/L
Se 196.026†	67.2	2.24	3.33%	[100]	µg/L
SiO2†	5055.5	58.67	1.16%	[1069.5]	µg/L
Si 251.611†	6193.8	25.84	0.42%	[500]	µg/L
Sn 189.927†	233.7	4.16	1.78%	[100]	µg/L
Sr 421.552†	9539.5	90.63	0.95%	[100]	µg/L
Ti 334.940†	41523.1	210.28	0.51%	[100]	µg/L
Tl 190.801†	74.7	3.29	4.41%	[100]	µg/L
U 409.014†	1180.8	38.20	3.23%	[100]	µg/L
V 292.402†	9658.7	25.07	0.26%	[100]	µg/L
Zn 213.857†	4209.0	23.92	0.57%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/11/2010 14:17:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56431.2	56431.2	103	%	14:17:36
1	Al 396.153Radial†	6754.1	6542.0	[5000]	µg/L	14:17:36
1	Ca 317.933Radial†	5471.1	5111.9	[5000]	µg/L	14:17:56
1	K 766.490 Radial†	7121.7	6759.0	[5000]	µg/L	14:17:36
1	Mg 279.077 IEC†	566.8	536.8	[5000]	µg/L	14:17:56
1	Sr 421.552†	48100.9	46478.6	[500]	µg/L	14:17:36
1	Sc 361.383	1949267.7	1949267.7	102.06	%	14:18:59
1	Y 371.029	1332062.2	1332062.2	101.69	%	14:18:59
1	Ag 328.068†	62715.3	62011.3	[500]	µg/L	14:19:05
1	As 188.979†	268.2	261.6	[500]	µg/L	14:19:26
1	B 249.677†	11715.5	11147.1	[500]	µg/L	14:19:05
1	Ba 233.527†	19296.1	18931.8	[500]	µg/L	14:19:05
1	Be 313.107†	765143.4	753107.4	[500]	µg/L	14:18:59
1	Cd 226.502†	18181.3	17955.7	[500]	µg/L	14:19:05
1	Co 228.616†	10302.5	10103.0	[500]	µg/L	14:19:05
1	Cr 267.716†	23080.8	22666.4	[500]	µg/L	14:19:05
1	Cu 324.752†	74689.8	70693.0	[500]	µg/L	14:19:05
1	Mn 257.610†	147455.4	144716.9	[500]	µg/L	14:18:59
1	Mo 202.031†	4948.3	4855.8	[500]	µg/L	14:19:26
1	Ni 231.604†	9587.6	9091.5	[500]	µg/L	14:19:05
1	P 214.914†	1227.3	1174.8	[2500]	µg/L	14:19:26
1	Pb 220.353†	2024.6	1886.4	[500]	µg/L	14:19:26
1	S 181.975 Axial†	257.2	237.2	[1000]	µg/L	14:19:26
1	Sb 206.836†	565.6	527.2	[500]	µg/L	14:19:26
1	Se 196.026†	349.8	326.9	[500]	µg/L	14:19:26
1	SiO2†	26268.6	24487.3	[5347.5]	µg/L	14:19:05
1	Si 251.611†	30925.0	29986.6	[2500]	µg/L	14:19:05
1	Sn 189.927†	1150.8	1128.4	[500]	µg/L	14:19:26
1	Ti 334.940†	210237.3	205868.8	[500]	µg/L	14:18:59
1	Tl 190.801†	342.7	360.1	[500]	µg/L	14:19:26
1	U 409.014†	5574.8	5515.7	[500]	µg/L	14:19:05
1	V 292.402†	47320.5	46407.6	[500]	µg/L	14:19:05
1	Zn 213.857†	20885.0	19987.0	[500]	µg/L	14:19:05
2	Sc RADIAL	56400.3	56400.3	103	%	14:18:02
2	Al 396.153Radial†	6776.8	6567.5	[5000]	µg/L	14:18:02
2	Ca 317.933Radial†	5446.0	5090.5	[5000]	µg/L	14:18:22
2	K 766.490 Radial†	7209.5	6847.7	[5000]	µg/L	14:18:02
2	Mg 279.077 IEC†	558.9	529.5	[5000]	µg/L	14:18:22
2	Sr 421.552†	48009.1	46415.3	[500]	µg/L	14:18:02
2	Sc 361.383	1969776.8	1969776.8	103.14	%	14:19:33
2	Y 371.029	1347212.9	1347212.9	102.85	%	14:19:33
2	Ag 328.068†	63263.2	61902.7	[500]	µg/L	14:19:38
2	As 188.979†	264.1	254.9	[500]	µg/L	14:19:59
2	B 249.677†	11833.7	11142.2	[500]	µg/L	14:19:38
2	Ba 233.527†	19517.7	18949.8	[500]	µg/L	14:19:38
2	Be 313.107†	769998.9	750009.7	[500]	µg/L	14:19:33
2	Cd 226.502†	18459.9	18040.3	[500]	µg/L	14:19:38
2	Co 228.616†	10435.6	10126.9	[500]	µg/L	14:19:38
2	Cr 267.716†	23319.3	22662.1	[500]	µg/L	14:19:38
2	Cu 324.752†	75284.2	70507.3	[500]	µg/L	14:19:38
2	Mn 257.610†	148076.6	143815.0	[500]	µg/L	14:19:33
2	Mo 202.031†	4926.4	4784.1	[500]	µg/L	14:19:59
2	Ni 231.604†	9732.8	9134.4	[500]	µg/L	14:19:38
2	P 214.914†	1225.6	1160.7	[2500]	µg/L	14:19:59
2	Pb 220.353†	2028.4	1869.5	[500]	µg/L	14:19:59
2	S 181.975 Axial†	257.8	235.1	[1000]	µg/L	14:19:59
2	Sb 206.836†	552.2	508.4	[500]	µg/L	14:19:59
2	Se 196.026†	361.1	334.3	[500]	µg/L	14:19:59
2	SiO2†	26477.9	24422.2	[5347.5]	µg/L	14:19:38

2	Si 251.611†	31253.2	29989.4	[2500]	µg/L	14:19:38
2	Sn 189.927†	1150.3	1116.1	[500]	µg/L	14:19:59
2	Ti 334.940†	211105.1	204565.4	[500]	µg/L	14:19:33
2	Tl 190.801†	338.9	352.9	[500]	µg/L	14:19:59
2	U 409.014†	5592.5	5475.9	[500]	µg/L	14:19:38
2	V 292.402†	47778.9	46369.3	[500]	µg/L	14:19:38
2	Zn 213.857†	21066.0	19949.5	[500]	µg/L	14:19:38
3	Sc RADIAL	56116.0	56116.0	103	%	14:18:27
3	Al 396.153Radial†	6776.6	6600.6	[5000]	µg/L	14:18:27
3	Ca 317.933Radial†	5474.8	5145.3	[5000]	µg/L	14:18:48
3	K 766.490 Radial†	7167.4	6842.1	[5000]	µg/L	14:18:27
3	Mg 279.077 IEC†	570.0	543.0	[5000]	µg/L	14:18:48
3	Sr 421.552†	47985.8	46628.0	[500]	µg/L	14:18:27
3	Sc 361.383	1956384.8	1956384.8	102.44	%	14:20:06
3	Y 371.029	1336938.7	1336938.7	102.06	%	14:20:06
3	Ag 328.068†	58992.1	58153.2	[500]	µg/L	14:20:12
3	As 188.979†	227.0	220.5	[500]	µg/L	14:20:32
3	B 249.677†	10983.9	10391.2	[500]	µg/L	14:20:12
3	Ba 233.527†	17692.5	17297.6	[500]	µg/L	14:20:12
3	Be 313.107†	719301.4	705628.8	[500]	µg/L	14:20:06
3	Cd 226.502†	16595.4	16342.7	[500]	µg/L	14:20:12
3	Co 228.616†	9342.2	9128.8	[500]	µg/L	14:20:12
3	Cr 267.716†	20357.4	19925.5	[500]	µg/L	14:20:12
3	Cu 324.752†	68152.8	64045.2	[500]	µg/L	14:20:12
3	Mn 257.610†	138782.6	135724.9	[500]	µg/L	14:20:06
3	Mo 202.031†	4112.2	4021.9	[500]	µg/L	14:20:32
3	Ni 231.604†	8700.9	8191.7	[500]	µg/L	14:20:12
3	P 214.914†	1052.8	1000.2	[2500]	µg/L	14:20:32
3	Pb 220.353†	1780.7	1641.2	[500]	µg/L	14:20:32
3	S 181.975 Axial†	220.4	200.3	[1000]	µg/L	14:20:32
3	Sb 206.836†	483.7	445.3	[500]	µg/L	14:20:32
3	Se 196.026†	314.2	290.9	[500]	µg/L	14:20:32
3	SiO2†	24349.5	22520.2	[5347.5]	µg/L	14:20:12
3	Si 251.611†	28634.1	27640.0	[2500]	µg/L	14:20:12
3	Sn 189.927†	946.2	924.5	[500]	µg/L	14:20:32
3	Ti 334.940†	196408.6	191619.7	[500]	µg/L	14:20:06
3	Tl 190.801†	311.8	328.7	[500]	µg/L	14:20:32
3	U 409.014†	4970.2	4905.6	[500]	µg/L	14:20:12
3	V 292.402†	42533.9	41566.2	[500]	µg/L	14:20:12
3	Zn 213.857†	18957.2	18030.7	[500]	µg/L	14:20:12

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1958476.4	10413.33	0.53%	102.55	%
Sc RADIAL	56315.8	173.75	0.31%	103	%
Y 371.029	1338737.9	7733.97	0.58%	102.20	%
Ag 328.068†	60689.0	2196.81	3.62%	[500]	µg/L
Al 396.153Radial†	6570.0	29.39	0.45%	[5000]	µg/L
As 188.979†	245.7	22.07	8.99%	[500]	µg/L
B 249.677†	10893.5	435.04	3.99%	[500]	µg/L
Ba 233.527†	18393.1	948.76	5.16%	[500]	µg/L
Be 313.107†	736248.6	26562.75	3.61%	[500]	µg/L
Ca 317.933Radial†	5115.9	27.60	0.54%	[5000]	µg/L
Cd 226.502†	17446.2	956.62	5.48%	[500]	µg/L
Co 228.616†	9786.2	569.47	5.82%	[500]	µg/L
Cr 267.716†	21751.3	1581.21	7.27%	[500]	µg/L
Cu 324.752†	68415.2	3785.63	5.53%	[500]	µg/L
K 766.490 Radial†	6816.2	49.68	0.73%	[5000]	µg/L
Mg 279.077 IEC†	536.5	6.79	1.26%	[5000]	µg/L
Mn 257.610†	141419.0	4951.74	3.50%	[500]	µg/L
Mo 202.031†	4553.9	462.10	10.15%	[500]	µg/L
Ni 231.604†	8805.9	532.32	6.04%	[500]	µg/L
P 214.914†	1111.9	97.02	8.73%	[2500]	µg/L
Pb 220.353†	1799.0	136.97	7.61%	[500]	µg/L
S 181.975 Axial†	224.2	20.73	9.24%	[1000]	µg/L
Sb 206.836†	493.6	42.92	8.69%	[500]	µg/L
Se 196.026†	317.4	23.20	7.31%	[500]	µg/L
SiO2†	23809.9	1117.40	4.69%	[5347.5]	µg/L
Si 251.611†	29205.3	1355.64	4.64%	[2500]	µg/L

Sn 189.927†	1056.3	114.33	10.82%	[500] µg/L
Sr 421.552†	46507.3	109.22	0.23%	[500] µg/L
Ti 334.940†	200684.6	7877.46	3.93%	[500] µg/L
Tl 190.801†	347.2	16.45	4.74%	[500] µg/L
U 409.014†	5299.1	341.35	6.44%	[500] µg/L
V 292.402†	44781.0	2784.22	6.22%	[500] µg/L
Zn 213.857†	19322.4	1118.82	5.79%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 14:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54624.1	54624.1	100	%	14:21:14
1	Al 396.153Radial†	13945.5	13943.0	[10000]	µg/L	14:21:14
1	Ca 317.933Radial†	11091.0	10901.8	[10000]	µg/L	14:21:34
1	Fe 238.204 Radial†	1237.7	1222.1	[10000]	µg/L	14:21:34
1	K 766.490 Radial†	14553.2	14411.5	[10000]	µg/L	14:21:14
1	Mg 279.077 IEC†	1145.5	1133.2	[10000]	µg/L	14:21:34
1	Na 589.592 Radial†	32001.3	31430.3	[10000]	µg/L	14:21:14
1	Sr 421.552†	98763.5	98634.1	[1000]	µg/L	14:21:14
1	Sc 361.383	1918837.7	1918837.7	100.47	%	14:22:38
1	Y 371.029	1309873.4	1309873.4	99.997	%	14:22:38
1	Ag 328.068†	129789.4	129745.3	[1000]	µg/L	14:22:44
1	As 188.979†	545.1	541.4	[1000]	µg/L	14:23:05
1	B 249.677†	24100.3	23655.8	[1000]	µg/L	14:22:44
1	Ba 233.527†	40021.0	39859.3	[1000]	µg/L	14:22:44
1	Be 313.107†	1583359.7	1579375.6	[1000]	µg/L	14:22:38
1	Cd 226.502†	37676.7	37642.1	[1000]	µg/L	14:22:44
1	Co 228.616†	21224.5	21133.9	[1000]	µg/L	14:22:44
1	Cr 267.716†	47864.2	47692.2	[1000]	µg/L	14:22:44
1	Cu 324.752†	152208.7	149008.9	[1000]	µg/L	14:22:44
1	Mn 257.610†	300264.6	299100.8	[1000]	µg/L	14:22:44
1	Mo 202.031†	10059.0	10019.4	[1000]	µg/L	14:23:05
1	Ni 231.604†	19417.1	19023.9	[1000]	µg/L	14:22:44
1	P 214.914†	2522.7	2483.2	[5000]	µg/L	14:23:05
1	Pb 220.353†	4095.0	3978.6	[1000]	µg/L	14:23:05
1	S 181.975 Axial†	497.7	480.5	[2000]	µg/L	14:23:05
1	Sb 206.836†	1108.7	1076.5	[1000]	µg/L	14:23:05
1	Se 196.026†	705.0	685.9	[1000]	µg/L	14:23:05
1	SiO2†	52879.3	51381.3	[10695]	µg/L	14:22:44
1	Si 251.611†	63553.1	62942.2	[5000]	µg/L	14:22:44
1	Sn 189.927†	2343.4	2333.3	[1000]	µg/L	14:23:05
1	Ti 334.940†	431168.6	429030.7	[1000]	µg/L	14:22:38
1	Tl 190.801†	726.4	747.3	[1000]	µg/L	14:23:05
1	U 409.014†	11460.5	11460.4	[1000]	µg/L	14:22:44
1	V 292.402†	98389.1	97972.0	[1000]	µg/L	14:22:44
1	Zn 213.857†	42248.3	41574.6	[1000]	µg/L	14:22:44
2	Sc RADIAL	55757.6	55757.6	102	%	14:21:40
2	Al 396.153Radial†	13857.6	13573.7	[10000]	µg/L	14:21:40
2	Ca 317.933Radial†	11113.5	10698.5	[10000]	µg/L	14:22:00
2	Fe 238.204 Radial†	1242.3	1201.4	[10000]	µg/L	14:22:00
2	K 766.490 Radial†	14434.4	13999.7	[10000]	µg/L	14:21:40
2	Mg 279.077 IEC†	1155.1	1119.3	[10000]	µg/L	14:22:00
2	Na 589.592 Radial†	31736.9	30521.6	[10000]	µg/L	14:21:40
2	Sr 421.552†	98177.9	96055.0	[1000]	µg/L	14:21:40
2	Sc 361.383	1912891.8	1912891.8	100.16	%	14:23:11
2	Y 371.029	1304958.7	1304958.7	99.621	%	14:23:11
2	Ag 328.068†	130617.7	130973.8	[1000]	µg/L	14:23:17
2	As 188.979†	550.1	548.1	[1000]	µg/L	14:23:38
2	B 249.677†	24305.4	23935.1	[1000]	µg/L	14:23:17
2	Ba 233.527†	40326.4	40288.1	[1000]	µg/L	14:23:17
2	Be 313.107†	1586929.2	1587837.9	[1000]	µg/L	14:23:11
2	Cd 226.502†	37959.2	38040.8	[1000]	µg/L	14:23:17
2	Co 228.616†	21379.4	21354.1	[1000]	µg/L	14:23:17
2	Cr 267.716†	48340.5	48315.7	[1000]	µg/L	14:23:17
2	Cu 324.752†	153521.9	150790.9	[1000]	µg/L	14:23:17
2	Mn 257.610†	303225.9	302986.3	[1000]	µg/L	14:23:17
2	Mo 202.031†	10012.5	10004.1	[1000]	µg/L	14:23:38
2	Ni 231.604†	19568.5	19235.1	[1000]	µg/L	14:23:17
2	P 214.914†	2513.0	2481.4	[5000]	µg/L	14:23:38
2	Pb 220.353†	4075.3	3971.6	[1000]	µg/L	14:23:38

2	S 181.975 Axial†	494.3	478.7	[2000]	µg/L	14:23:38
2	Sb 206.836†	1106.5	1077.8	[1000]	µg/L	14:23:38
2	Se 196.026†	715.1	698.1	[1000]	µg/L	14:23:38
2	SiO2†	53340.3	52005.2	[10695]	µg/L	14:23:17
2	Si 251.611†	64000.9	63585.9	[5000]	µg/L	14:23:17
2	Sn 189.927†	2345.0	2342.2	[1000]	µg/L	14:23:38
2	Ti 334.940†	432325.2	431519.3	[1000]	µg/L	14:23:11
2	Tl 190.801†	726.1	749.2	[1000]	µg/L	14:23:38
2	U 409.014†	11741.1	11776.0	[1000]	µg/L	14:23:17
2	V 292.402†	99181.6	99067.5	[1000]	µg/L	14:23:17
2	Zn 213.857†	42614.4	42070.9	[1000]	µg/L	14:23:17
3	Sc RADIAL	54875.2	54875.2	101	%	14:22:06
3	Al 396.153Radial†	13886.4	13820.4	[10000]	µg/L	14:22:06
3	Ca 317.933Radial†	11079.2	10839.4	[10000]	µg/L	14:22:26
3	Fe 238.204 Radial†	1232.3	1211.0	[10000]	µg/L	14:22:26
3	K 766.490 Radial†	14321.1	14114.2	[10000]	µg/L	14:22:06
3	Mg 279.077 IEC†	1147.7	1130.1	[10000]	µg/L	14:22:26
3	Na 589.592 Radial†	31806.0	31089.8	[10000]	µg/L	14:22:06
3	Sr 421.552†	97911.9	97335.8	[1000]	µg/L	14:22:06
3	Sc 361.383	1943388.7	1943388.7	101.76	%	14:23:44
3	Y 371.029	1326037.1	1326037.1	101.23	%	14:23:44
3	Ag 328.068†	122308.3	120761.4	[1000]	µg/L	14:23:50
3	As 188.979†	468.8	459.6	[1000]	µg/L	14:24:11
3	B 249.677†	22603.8	21882.1	[1000]	µg/L	14:23:50
3	Ba 233.527†	36855.9	36245.6	[1000]	µg/L	14:23:50
3	Be 313.107†	1492194.6	1469875.4	[1000]	µg/L	14:23:44
3	Cd 226.502†	34480.3	34027.2	[1000]	µg/L	14:23:50
3	Co 228.616†	19338.4	19013.4	[1000]	µg/L	14:23:50
3	Cr 267.716†	42475.6	41794.7	[1000]	µg/L	14:23:50
3	Cu 324.752†	139121.1	134233.4	[1000]	µg/L	14:23:50
3	Mn 257.610†	272803.2	268337.9	[1000]	µg/L	14:23:50
3	Mo 202.031†	8402.4	8264.9	[1000]	µg/L	14:24:11
3	Ni 231.604†	17696.7	17089.1	[1000]	µg/L	14:23:50
3	P 214.914†	2160.3	2095.4	[5000]	µg/L	14:24:11
3	Pb 220.353†	3557.4	3398.8	[1000]	µg/L	14:24:11
3	S 181.975 Axial†	437.7	415.3	[2000]	µg/L	14:24:11
3	Sb 206.836†	957.8	914.3	[1000]	µg/L	14:24:11
3	Se 196.026†	625.8	599.2	[1000]	µg/L	14:24:11
3	SiO2†	49204.0	47104.6	[10695]	µg/L	14:23:50
3	Si 251.611†	59050.8	57718.6	[5000]	µg/L	14:23:50
3	Sn 189.927†	1920.9	1888.6	[1000]	µg/L	14:24:11
3	Ti 334.940†	404515.4	397416.1	[1000]	µg/L	14:23:44
3	Tl 190.801†	655.3	668.3	[1000]	µg/L	14:24:11
3	U 409.014†	10336.6	10211.8	[1000]	µg/L	14:23:50
3	V 292.402†	89071.2	87577.8	[1000]	µg/L	14:23:50
3	Zn 213.857†	38626.6	37484.3	[1000]	µg/L	14:23:50

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1925039.4	16166.66	0.84%	100.80	%
Sc RADIAL	55085.6	595.31	1.08%	101	%
Y 371.029	1313623.1	11028.13	0.84%	100.28	%
Ag 328.068†	127160.2	5575.45	4.38%	[1000]	µg/L
Al 396.153Radial†	13779.0	188.09	1.37%	[10000]	µg/L
As 188.979†	516.3	49.27	9.54%	[1000]	µg/L
B 249.677†	23157.7	1113.46	4.81%	[1000]	µg/L
Ba 233.527†	38797.7	2220.52	5.72%	[1000]	µg/L
Be 313.107†	1545696.3	65799.01	4.26%	[1000]	µg/L
Ca 317.933Radial†	10813.2	104.13	0.96%	[10000]	µg/L
Cd 226.502†	36570.0	2211.18	6.05%	[1000]	µg/L
Co 228.616†	20500.4	1292.54	6.30%	[1000]	µg/L
Cr 267.716†	45934.2	3598.42	7.83%	[1000]	µg/L
Cu 324.752†	144677.7	9088.85	6.28%	[1000]	µg/L
Fe 238.204 Radial†	1211.5	10.32	0.85%	[10000]	µg/L
K 766.490 Radial†	14175.1	212.58	1.50%	[10000]	µg/L
Mg 279.077 IEC†	1127.5	7.31	0.65%	[10000]	µg/L
Mn 257.610†	290141.7	18982.26	6.54%	[1000]	µg/L
Mo 202.031†	9429.5	1008.55	10.70%	[1000]	µg/L
Na 589.592 Radial†	31013.9	459.06	1.48%	[10000]	µg/L

Ni 231.604†	18449.4	1182.78	6.41%	[1000]	µg/L
P 214.914†	2353.3	223.38	9.49%	[5000]	µg/L
Pb 220.353†	3783.0	332.79	8.80%	[1000]	µg/L
S 181.975 Axial†	458.2	37.14	8.10%	[2000]	µg/L
Sb 206.836†	1022.9	94.00	9.19%	[1000]	µg/L
Se 196.026†	661.1	53.94	8.16%	[1000]	µg/L
SiO2†	50163.7	2667.59	5.32%	[10695]	µg/L
Si 251.611†	61415.6	3217.81	5.24%	[5000]	µg/L
Sn 189.927†	2188.0	259.31	11.85%	[1000]	µg/L
Sr 421.552†	97341.6	1289.53	1.32%	[1000]	µg/L
Ti 334.940†	419322.0	19011.87	4.53%	[1000]	µg/L
Tl 190.801†	721.6	46.19	6.40%	[1000]	µg/L
U 409.014†	11149.4	827.15	7.42%	[1000]	µg/L
V 292.402†	94872.5	6341.05	6.68%	[1000]	µg/L
Zn 213.857†	40376.6	2517.08	6.23%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 14:24:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55734.1	55734.1	102	%	14:24:53
1	Al 396.153Radial†	68477.1	67062.5	[50000]	µg/L	14:24:53
1	Ca 317.933Radial†	54301.8	52992.8	[50000]	µg/L	14:24:53
1	Fe 238.204 Radial†	2420.6	2355.7	[20000]	µg/L	14:25:13
1	Mg 279.077 IEC†	5505.9	5380.1	[50000]	µg/L	14:25:13
1	Na 589.592 Radial†	62235.4	60398.5	[20000]	µg/L	14:24:53
1	Sc 361.383	1922257.7	1922257.7	100.65	%	14:26:17
1	Y 371.029	1306511.6	1306511.6	99.740	%	14:26:17
2	Sc RADIAL	55997.4	55997.4	103	%	14:25:19
2	Al 396.153Radial†	68696.2	66960.7	[50000]	µg/L	14:25:19
2	Ca 317.933Radial†	54670.5	53102.1	[50000]	µg/L	14:25:19
2	Fe 238.204 Radial†	2419.7	2343.7	[20000]	µg/L	14:25:39
2	Mg 279.077 IEC†	5512.9	5361.5	[50000]	µg/L	14:25:39
2	Na 589.592 Radial†	62504.6	60374.4	[20000]	µg/L	14:25:19
2	Sc 361.383	1943938.9	1943938.9	101.79	%	14:26:25
2	Y 371.029	1321297.0	1321297.0	100.87	%	14:26:25
3	Sc RADIAL	56208.4	56208.4	103	%	14:25:45
3	Al 396.153Radial†	69051.1	67053.9	[50000]	µg/L	14:25:45
3	Ca 317.933Radial†	54933.8	53157.7	[50000]	µg/L	14:25:45
3	Fe 238.204 Radial†	2417.0	2332.2	[20000]	µg/L	14:26:05
3	Mg 279.077 IEC†	5516.6	5344.9	[50000]	µg/L	14:26:05
3	Na 589.592 Radial†	62899.5	60529.1	[20000]	µg/L	14:25:45
3	Sc 361.383	1959647.9	1959647.9	102.61	%	14:26:33
3	Y 371.029	1332766.9	1332766.9	101.74	%	14:26:33

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1941948.2	18774.43	0.97%	101.68	%
Sc RADIAL	55979.9	237.64	0.42%	103	%
Y 371.029	1320191.8	13162.49	1.00%	100.78	%
Al 396.153Radial†	67025.7	56.44	0.08%	[50000]	µg/L
Ca 317.933Radial†	53084.2	83.91	0.16%	[50000]	µg/L
Fe 238.204 Radial†	2343.9	11.76	0.50%	[20000]	µg/L
Mg 279.077 IEC†	5362.2	17.57	0.33%	[50000]	µg/L
Na 589.592 Radial†	60434.0	83.23	0.14%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	126.0	0.00000	0.999831	
Al 396.153Radial	3	Lin Thru 0	0.0	1.342	0.00000	0.999984	
As 188.979	3	Lin Thru 0	0.0	0.5116	0.00000	0.999791	
B 249.677	3	Lin Thru 0	0.0	22.88	0.00000	0.999715	
Ba 233.527	3	Lin Thru 0	0.0	38.40	0.00000	0.999779	
Be 313.107	3	Lin Thru 0	0.0	1531	0.00000	0.999818	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.062	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	36.25	0.00000	0.999822	
Co 228.616	3	Lin Thru 0	0.0	20.32	0.00000	0.999831	
Cr 267.716	3	Lin Thru 0	0.0	45.46	0.00000	0.999766	
Cu 324.752	3	Lin Thru 0	0.0	143.2	0.00000	0.999754	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1180	0.00000	0.999910	
K 766.490 Radial	3	Lin Thru 0	0.0	1.407	0.00000	0.999880	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1075	0.00000	0.999952	
Mn 257.610	3	Lin Thru 0	0.0	288.8	0.00000	0.999942	
Mo 202.031	3	Lin Thru 0	0.0	9.370	0.00000	0.999888	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.038	0.00000	0.999945	

Ni 231.604	3	Lin Thru 0	0.0	18.29	0.00000	0.999821
P 214.914	3	Lin Thru 0	0.0	0.4657	0.00000	0.999737
Pb 220.353	3	Lin Thru 0	0.0	3.748	0.00000	0.999792
S 181.975 Axial	3	Lin Thru 0	0.0	0.2282	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	1.016	0.00000	0.999901
Se 196.026	3	Lin Thru 0	0.0	0.6559	0.00000	0.999870
SiO2	3	Lin Thru 0	0.0	4.643	0.00000	0.999791
Si 251.611	3	Lin Thru 0	0.0	12.16	0.00000	0.999805
Sn 189.927	3	Lin Thru 0	0.0	2.174	0.00000	0.999882
Sr 421.552	3	Lin Thru 0	0.0	96.47	0.00000	0.999840
Ti 334.940	3	Lin Thru 0	0.0	415.7	0.00000	0.999852
Tl 190.801	3	Lin Thru 0	0.0	0.7164	0.00000	0.999879
U 409.014	3	Lin Thru 0	0.0	11.05	0.00000	0.999783
V 292.402	3	Lin Thru 0	0.0	93.83	0.00000	0.999742
Zn 213.857	3	Lin Thru 0	0.0	40.05	0.00000	0.999841

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 14:26:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56175.2	56175.2	103	%			14:27:15
1	Al 396.153Radial†	6827.4	6643.0	4939.9	µg/L	4939.9	ppb	14:27:35
1	Ca 317.933Radial†	5504.7	5168.7	4866.7	µg/L	4866.7	ppb	14:27:35
1	Fe 238.204 Radial†	619.4	587.3	4988.2	µg/L	4988.2	ppb	14:27:35
1	K 766.490 Radial†	3573.7	3343.4	2376.5	µg/L	2376.5	ppb	14:27:15
1	Mg 279.077 IEC†	579.7	551.9	5140.1	µg/L	5140.1	ppb	14:27:35
1	Na 589.592 Radial†	7985.2	7215.8	2375.5	µg/L	2375.5	ppb	14:27:15
1	Sr 421.552†	49736.5	48279.6	500.47	µg/L	500.47	ppb	14:27:15
1	Sc 361.383	1963746.6	1963746.6	102.82	%			14:28:38
1	Y 371.029	1343456.9	1343456.9	102.56	%			14:28:38
1	Ag 328.068†	32402.4	32077.4	258.20	µg/L	258.20	ppb	14:28:44
1	As 188.979†	252.0	244.0	475.79	µg/L	475.79	ppb	14:29:05
1	B 249.677†	12299.6	11630.5	506.47	µg/L	506.47	ppb	14:28:44
1	Ba 233.527†	19805.3	19287.7	503.14	µg/L	503.14	ppb	14:28:44
1	Be 313.107†	400944.5	393378.7	256.71	µg/L	256.71	ppb	14:28:38
1	Cd 226.502†	18448.5	18084.2	498.85	µg/L	498.85	ppb	14:28:44
1	Co 228.616†	10564.7	10283.6	505.57	µg/L	505.57	ppb	14:28:44
1	Cr 267.716†	22885.3	22309.5	491.04	µg/L	491.04	ppb	14:28:44
1	Cu 324.752†	76882.1	72285.6	505.62	µg/L	505.62	ppb	14:28:44
1	Mn 257.610†	151694.6	147774.6	512.18	µg/L	512.18	ppb	14:28:38
1	Mo 202.031†	5332.7	5193.9	554.49	µg/L	554.49	ppb	14:29:05
1	Ni 231.604†	9713.9	9145.0	499.47	µg/L	499.47	ppb	14:28:44
1	P 214.914†	1269.4	1206.9	2543.7	µg/L	2543.7	ppb	14:29:05
1	Pb 220.353†	2051.9	1898.4	506.85	µg/L	506.85	ppb	14:29:05
1	S 181.975 Axial†	610.0	578.4	2534.1	µg/L	2534.1	ppb	14:29:05
1	Sb 206.836†	565.9	523.4	518.27	µg/L	518.27	ppb	14:29:05
1	Se 196.026†	1740.7	1677.1	2564.5	µg/L	2564.5	ppb	14:29:05
1	SiO2†	50702.0	48060.2	10350	µg/L	10350	ppb	14:28:44
1	Si 251.611†	60656.9	58679.0	4823.7	µg/L	4823.7	ppb	14:28:44
1	Sn 189.927†	1247.6	1214.2	558.50	µg/L	558.50	ppb	14:29:05
1	Ti 334.940†	209346.8	203483.9	489.14	µg/L	489.14	ppb	14:28:38
1	Tl 190.801†	364.1	378.4	534.06	µg/L	534.06	ppb	14:29:05
1	U 409.014†	5596.2	5496.2	496.62	µg/L	496.62	ppb	14:28:44
1	V 292.402†	48924.8	47626.0	514.07	µg/L	514.07	ppb	14:28:44
1	Zn 213.857†	21567.2	20499.6	508.35	µg/L	508.35	ppb	14:28:44
2	Sc RADIAL	56033.1	56033.1	103	%			14:27:40
2	Al 396.153Radial†	6802.0	6635.1	4934.1	µg/L	4934.1	ppb	14:28:01
2	Ca 317.933Radial†	5475.3	5153.6	4852.4	µg/L	4852.4	ppb	14:28:01
2	Fe 238.204 Radial†	614.3	583.8	4958.8	µg/L	4958.8	ppb	14:28:01
2	K 766.490 Radial†	3641.5	3418.3	2429.7	µg/L	2429.7	ppb	14:27:40
2	Mg 279.077 IEC†	579.8	553.4	5154.4	µg/L	5154.4	ppb	14:28:01
2	Na 589.592 Radial†	8029.7	7278.8	2396.2	µg/L	2396.2	ppb	14:27:40
2	Sr 421.552†	50111.3	48767.2	505.53	µg/L	505.53	ppb	14:27:40
2	Sc 361.383	1959108.8	1959108.8	102.58	%			14:29:12
2	Y 371.029	1337906.1	1337906.1	102.14	%			14:29:12
2	Ag 328.068†	32371.7	32122.1	258.56	µg/L	258.56	ppb	14:29:17
2	As 188.979†	250.3	242.8	473.56	µg/L	473.56	ppb	14:29:38
2	B 249.677†	12349.9	11707.8	509.86	µg/L	509.86	ppb	14:29:17
2	Ba 233.527†	19859.1	19385.7	505.69	µg/L	505.69	ppb	14:29:17
2	Be 313.107†	397767.3	391204.5	255.29	µg/L	255.29	ppb	14:29:12
2	Cd 226.502†	18445.9	18124.1	499.96	µg/L	499.96	ppb	14:29:17
2	Co 228.616†	10616.9	10358.7	509.26	µg/L	509.26	ppb	14:29:17
2	Cr 267.716†	22880.0	22357.0	492.09	µg/L	492.09	ppb	14:29:17
2	Cu 324.752†	76966.8	72545.1	507.43	µg/L	507.43	ppb	14:29:17
2	Mn 257.610†	150503.7	146962.9	509.37	µg/L	509.37	ppb	14:29:12
2	Mo 202.031†	5249.3	5124.9	547.12	µg/L	547.12	ppb	14:29:38
2	Ni 231.604†	9710.9	9164.5	500.53	µg/L	500.53	ppb	14:29:17
2	P 214.914†	1234.6	1175.9	2476.8	µg/L	2476.8	ppb	14:29:38
2	Pb 220.353†	2014.2	1866.4	498.27	µg/L	498.27	ppb	14:29:38

2	S 181.975 Axial†	603.9	573.9	2514.5 µg/L	2514.5 ppb	14:29:38
2	Sb 206.836†	552.1	511.3	506.22 µg/L	506.22 ppb	14:29:38
2	Se 196.026†	1718.6	1659.6	2537.7 µg/L	2537.7 ppb	14:29:38
2	SiO2†	50804.5	48276.9	10397 µg/L	10397 ppb	14:29:17
2	Si 251.611†	60707.2	58867.6	4839.2 µg/L	4839.2 ppb	14:29:17
2	Sn 189.927†	1227.9	1197.9	551.01 µg/L	551.01 ppb	14:29:38
2	Ti 334.940†	208068.6	202719.9	487.30 µg/L	487.30 ppb	14:29:12
2	Tl 190.801†	356.4	371.7	524.72 µg/L	524.72 ppb	14:29:38
2	U 409.014†	5657.2	5568.6	503.18 µg/L	503.18 ppb	14:29:17
2	V 292.402†	48911.7	47725.9	515.09 µg/L	515.09 ppb	14:29:17
2	Zn 213.857†	21491.7	20475.7	507.74 µg/L	507.74 ppb	14:29:17
3	Sc RADIAL	55710.7	55710.7	102 %		14:28:06
3	Al 396.153Radial†	6837.6	6708.3	4990.5 µg/L	4990.5 ppb	14:28:27
3	Ca 317.933Radial†	5503.3	5211.9	4907.4 µg/L	4907.4 ppb	14:28:27
3	Fe 238.204 Radial†	619.1	592.0	5027.4 µg/L	5027.4 ppb	14:28:27
3	K 766.490 Radial†	3604.3	3402.4	2418.4 µg/L	2418.4 ppb	14:28:06
3	Mg 279.077 IEC†	577.0	553.9	5157.4 µg/L	5157.4 ppb	14:28:27
3	Na 589.592 Radial†	7999.1	7294.1	2401.2 µg/L	2401.2 ppb	14:28:06
3	Sr 421.552†	49756.2	48701.8	504.85 µg/L	504.85 ppb	14:28:06
3	Sc 361.383	1966591.1	1966591.1	102.97 %		14:29:45
3	Y 371.029	1344829.1	1344829.1	102.67 %		14:29:45
3	Ag 328.068†	30447.1	30133.0	242.44 µg/L	242.44 ppb	14:29:51
3	As 188.979†	212.1	204.8	399.46 µg/L	399.46 ppb	14:30:11
3	B 249.677†	11543.9	10879.3	473.52 µg/L	473.52 ppb	14:29:51
3	Ba 233.527†	18235.3	17735.1	462.62 µg/L	462.62 ppb	14:29:51
3	Be 313.107†	376544.4	369118.7	240.88 µg/L	240.88 ppb	14:29:45
3	Cd 226.502†	16808.4	16465.5	454.14 µg/L	454.14 ppb	14:29:51
3	Co 228.616†	9616.6	9347.9	459.50 µg/L	459.50 ppb	14:29:51
3	Cr 267.716†	20282.2	19749.2	434.69 µg/L	434.69 ppb	14:29:51
3	Cu 324.752†	70054.3	65546.6	458.56 µg/L	458.56 ppb	14:29:51
3	Mn 257.610†	142833.7	138956.0	481.65 µg/L	481.65 ppb	14:29:45
3	Mo 202.031†	4404.7	4285.1	457.51 µg/L	457.51 ppb	14:30:11
3	Ni 231.604†	8886.0	8327.4	454.82 µg/L	454.82 ppb	14:29:51
3	P 214.914†	1057.7	999.5	2101.9 µg/L	2101.9 ppb	14:30:11
3	Pb 220.353†	1779.9	1631.4	435.46 µg/L	435.46 ppb	14:30:11
3	S 181.975 Axial†	527.5	497.5	2179.7 µg/L	2179.7 ppb	14:30:11
3	Sb 206.836†	492.5	451.4	446.41 µg/L	446.41 ppb	14:30:11
3	Se 196.026†	1501.7	1442.5	2207.0 µg/L	2207.0 ppb	14:30:11
3	SiO2†	47105.5	44496.1	9582.5 µg/L	9582.5 ppb	14:29:51
3	Si 251.611†	56262.5	54326.1	4465.9 µg/L	4465.9 ppb	14:29:51
3	Sn 189.927†	1018.6	990.0	455.40 µg/L	455.40 ppb	14:30:11
3	Ti 334.940†	196112.8	190337.3	457.51 µg/L	457.51 ppb	14:29:45
3	Tl 190.801†	328.3	343.2	484.58 µg/L	484.58 ppb	14:30:11
3	U 409.014†	4922.5	4834.1	436.66 µg/L	436.66 ppb	14:29:51
3	V 292.402†	44109.1	42880.5	462.56 µg/L	462.56 ppb	14:29:51
3	Zn 213.857†	19646.9	18604.4	461.29 µg/L	461.29 ppb	14:29:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1963148.8	102.79	%	0.198				0.19%
Sc RADIAL	55973.0	103	%	0.4				0.43%
Y 371.029	1342064.0	102.45	%	0.280				0.27%
Ag 328.068†	31444.2	253.06	µg/L	9.205	253.06	ppb	9.205	3.64%
QC value within limits for Ag 328.068 Recovery = 101.23%								
Al 396.153Radial†	6662.1	4954.8	µg/L	31.04	4954.8	ppb	31.04	0.63%
QC value within limits for Al 396.153Radial Recovery = 99.10%								
As 188.979†	230.5	449.61	µg/L	43.438	449.61	ppb	43.438	9.66%
QC value less than the lower limit for As 188.979 Recovery = 89.92%								
B 249.677†	11405.9	496.62	µg/L	20.071	496.62	ppb	20.071	4.04%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	18802.8	490.48	µg/L	24.164	490.48	ppb	24.164	4.93%
QC value within limits for Ba 233.527 Recovery = 98.10%								
Be 313.107†	384567.3	250.96	µg/L	8.759	250.96	ppb	8.759	3.49%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	5178.1	4875.5	µg/L	28.51	4875.5	ppb	28.51	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.51%								
Cd 226.502†	17558.0	484.32	µg/L	26.137	484.32	ppb	26.137	5.40%
QC value within limits for Cd 226.502 Recovery = 96.86%								
Co 228.616†	9996.7	491.44	µg/L	27.727	491.44	ppb	27.727	5.64%

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   QC value within limits for Co 228.616  Recovery = 98.29%
Cr 267.716†            21471.9      472.61 µg/L        32.838      472.61 ppb         32.838   6.95%
   QC value within limits for Cr 267.716  Recovery = 94.52%
Cu 324.752†            70125.8      490.54 µg/L        27.712      490.54 ppb         27.712   5.65%
   QC value within limits for Cu 324.752  Recovery = 98.11%
Fe 238.204 Radial†       587.7      4991.5 µg/L         34.44      4991.5 ppb          34.44   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.83%
K 766.490 Radial†       3388.1      2408.2 µg/L         28.04      2408.2 ppb          28.04   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.33%
Mg 279.077 IEC†          553.1      5150.6 µg/L          9.21      5150.6 ppb           9.21   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.01%
Mn 257.610†           144564.5      501.06 µg/L        16.874      501.06 ppb         16.874   3.37%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†            4868.0      519.70 µg/L        53.991      519.70 ppb         53.991  10.39%
   QC value within limits for Mo 202.031  Recovery = 103.94%
Na 589.592 Radial†     7262.9      2391.0 µg/L         13.66      2391.0 ppb          13.66   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†            8879.0      484.94 µg/L        26.089      484.94 ppb         26.089   5.38%
   QC value within limits for Ni 231.604  Recovery = 96.99%
P 214.914†             1127.4      2374.2 µg/L        238.13      2374.2 ppb         238.13  10.03%
   QC value within limits for P 214.914  Recovery = 94.97%
Pb 220.353†            1798.7      480.19 µg/L        38.976      480.19 ppb         38.976   8.12%
   QC value within limits for Pb 220.353  Recovery = 96.04%
S 181.975 Axial†        549.9      2409.5 µg/L        199.20      2409.5 ppb         199.20   8.27%
   QC value within limits for S 181.975 Axial  Recovery = 96.38%
Sb 206.836†             495.4      490.30 µg/L        38.486      490.30 ppb         38.486   7.85%
   QC value within limits for Sb 206.836  Recovery = 98.06%
Se 196.026†            1593.1      2436.4 µg/L        199.13      2436.4 ppb         199.13   8.17%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†                 46944.4       10110 µg/L         457.2       10110 ppb          457.2   4.52%
   QC value within limits for SiO2  Recovery = 94.53%
Si 251.611†           57290.9      4709.6 µg/L        211.21      4709.6 ppb         211.21   4.48%
   QC value within limits for Si 251.611  Recovery = 94.19%
Sn 189.927†            1134.1      521.64 µg/L        57.487      521.64 ppb         57.487  11.02%
   QC value within limits for Sn 189.927  Recovery = 104.33%
Sr 421.552†           48582.8      503.62 µg/L         2.743      503.62 ppb          2.743   0.54%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†          198847.0      477.98 µg/L        17.751      477.98 ppb         17.751   3.71%
   QC value within limits for Ti 334.940  Recovery = 95.60%
Tl 190.801†             364.4      514.45 µg/L        26.290      514.45 ppb         26.290   5.11%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†             5299.6      478.82 µg/L        36.655      478.82 ppb         36.655   7.66%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†            46077.4      497.24 µg/L        30.036      497.24 ppb         30.036   6.04%
   QC value within limits for V 292.402  Recovery = 99.45%
Zn 213.857†           19859.9      492.46 µg/L        26.995      492.46 ppb         26.995   5.48%
   QC value within limits for Zn 213.857  Recovery = 98.49%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 14:30:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55908.8	55908.8	102	%			14:30:53
1	Al 396.153Radial†	-5.0	5.2	3.8899	µg/L	3.8899	ppb	14:30:53
1	Ca 317.933Radial†	192.7	9.0	8.4299	µg/L	8.4299	ppb	14:31:14
1	Fe 238.204 Radial†	14.3	-0.6	-4.9645	µg/L	-4.9645	ppb	14:31:14
1	K 766.490 Radial†	107.9	-23.1	-16.426	µg/L	-16.426	ppb	14:30:53
1	Mg 279.077 IEC†	15.7	4.0	37.295	µg/L	37.295	ppb	14:31:14
1	Na 589.592 Radial†	574.2	18.7	6.1420	µg/L	6.1420	ppb	14:30:53
1	Sr 421.552†	57.3	16.3	0.1694	µg/L	0.1694	ppb	14:30:53
1	Sc 361.383	1944300.1	1944300.1	101.80	%			14:32:16
1	Y 371.029	1332393.9	1332393.9	101.72	%			14:32:16
1	Ag 328.068†	-508.2	65.3	0.5177	µg/L	0.5177	ppb	14:32:21
1	As 188.979†	2.4	1.2	2.3247	µg/L	2.3247	ppb	14:32:42
1	B 249.677†	341.3	3.8	0.1701	µg/L	0.1701	ppb	14:32:42
1	Ba 233.527†	-14.2	12.0	0.3135	µg/L	0.3135	ppb	14:32:42
1	Be 313.107†	-3420.4	80.6	0.0526	µg/L	0.0526	ppb	14:32:21
1	Cd 226.502†	-141.7	2.9	0.0816	µg/L	0.0816	ppb	14:32:42
1	Co 228.616†	-8.8	0.2	0.0094	µg/L	0.0094	ppb	14:32:42
1	Cr 267.716†	-52.4	0.9	0.0196	µg/L	0.0196	ppb	14:32:21
1	Cu 324.752†	2516.4	-14.3	-0.1006	µg/L	-0.1006	ppb	14:32:21
1	Mn 257.610†	-222.7	25.3	0.0856	µg/L	0.0856	ppb	14:32:42
1	Mo 202.031†	-0.2	7.3	0.7799	µg/L	0.7799	ppb	14:32:42
1	Ni 231.604†	301.0	-6.6	-0.3591	µg/L	-0.3591	ppb	14:32:42
1	P 214.914†	32.4	4.2	8.9740	µg/L	8.9740	ppb	14:32:42
1	Pb 220.353†	88.6	-10.1	-2.7035	µg/L	-2.7035	ppb	14:32:42
1	S 181.975 Axial†	16.5	1.4	6.0966	µg/L	6.0966	ppb	14:32:42
1	Sb 206.836†	22.8	-4.6	-4.5144	µg/L	-4.5144	ppb	14:32:42
1	Se 196.026†	21.7	5.5	8.3158	µg/L	8.3158	ppb	14:32:42
1	SiO2†	1261.7	-10.7	-2.2937	µg/L	-2.2937	ppb	14:32:21
1	Si 251.611†	339.4	20.5	1.6875	µg/L	1.6875	ppb	14:32:42
1	Sn 189.927†	1.1	2.0	0.9031	µg/L	0.9031	ppb	14:32:42
1	Ti 334.940†	148.3	29.6	0.0683	µg/L	0.0683	ppb	14:32:21
1	Tl 190.801†	-21.8	2.8	3.9713	µg/L	3.9713	ppb	14:32:42
1	U 409.014†	-33.0	21.2	1.9223	µg/L	1.9223	ppb	14:32:21
1	V 292.402†	-53.1	-7.9	-0.0767	µg/L	-0.0767	ppb	14:32:21
1	Zn 213.857†	482.8	-1.3	-0.0325	µg/L	-0.0325	ppb	14:32:42
2	Sc RADIAL	55881.3	55881.3	102	%			14:31:19
2	Al 396.153Radial†	-15.6	-5.1	-3.7901	µg/L	-3.7901	ppb	14:31:19
2	Ca 317.933Radial†	181.6	-1.8	-1.6610	µg/L	-1.6610	ppb	14:31:40
2	Fe 238.204 Radial†	14.4	-0.5	-4.0234	µg/L	-4.0234	ppb	14:31:40
2	K 766.490 Radial†	165.7	33.4	23.714	µg/L	23.714	ppb	14:31:19
2	Mg 279.077 IEC†	9.4	-2.1	-19.910	µg/L	-19.910	ppb	14:31:40
2	Na 589.592 Radial†	521.5	-32.6	-10.727	µg/L	-10.727	ppb	14:31:19
2	Sr 421.552†	60.7	19.7	0.2040	µg/L	0.2040	ppb	14:31:19
2	Sc 361.383	1964760.3	1964760.3	102.88	%			14:32:48
2	Y 371.029	1347613.8	1347613.8	102.88	%			14:32:48
2	Ag 328.068†	-518.5	60.5	0.4799	µg/L	0.4799	ppb	14:32:53
2	As 188.979†	-1.3	-2.4	-4.7694	µg/L	-4.7694	ppb	14:33:14
2	B 249.677†	344.7	3.6	0.1600	µg/L	0.1600	ppb	14:33:14
2	Ba 233.527†	-16.3	10.1	0.2637	µg/L	0.2637	ppb	14:33:14
2	Be 313.107†	-3298.7	234.0	0.1527	µg/L	0.1527	ppb	14:32:53
2	Cd 226.502†	-133.3	12.6	0.3477	µg/L	0.3477	ppb	14:33:14
2	Co 228.616†	-4.9	4.1	0.2028	µg/L	0.2028	ppb	14:33:14
2	Cr 267.716†	-12.9	39.8	0.8752	µg/L	0.8752	ppb	14:32:53
2	Cu 324.752†	2529.4	-27.4	-0.1918	µg/L	-0.1918	ppb	14:32:53
2	Mn 257.610†	-202.1	47.7	0.1654	µg/L	0.1654	ppb	14:33:14
2	Mo 202.031†	1.2	8.7	0.9303	µg/L	0.9303	ppb	14:33:14
2	Ni 231.604†	305.7	-5.0	-0.2753	µg/L	-0.2753	ppb	14:33:14
2	P 214.914†	24.2	-4.1	-8.8167	µg/L	-8.8167	ppb	14:33:14
2	Pb 220.353†	97.8	-2.1	-0.5597	µg/L	-0.5597	ppb	14:33:14

2	S 181.975 Axial†	15.1	-0.1	-0.5770 µg/L	-0.5770 ppb	14:33:14
2	Sb 206.836†	27.2	-0.5	-0.4890 µg/L	-0.4890 ppb	14:33:14
2	Se 196.026†	14.7	-1.6	-2.3575 µg/L	-2.3575 ppb	14:33:14
2	SiO2†	1242.8	-41.9	-9.0338 µg/L	-9.0338 ppb	14:32:53
2	Si 251.611†	360.2	37.3	3.0664 µg/L	3.0664 ppb	14:33:14
2	Sn 189.927†	0.7	1.6	0.7280 µg/L	0.7280 ppb	14:33:14
2	Ti 334.940†	261.8	138.4	0.3344 µg/L	0.3344 ppb	14:32:53
2	Tl 190.801†	-26.1	-1.1	-1.5598 µg/L	-1.5598 ppb	14:33:14
2	U 409.014†	-15.1	39.0	3.5273 µg/L	3.5273 ppb	14:32:53
2	V 292.402†	-42.6	2.8	0.0426 µg/L	0.0426 ppb	14:32:53
2	Zn 213.857†	491.7	2.4	0.0627 µg/L	0.0627 ppb	14:33:14
3	Sc RADIAL	56329.8	56329.8	103 %		14:31:45
3	Al 396.153Radial†	2.8	12.8	9.5317 µg/L	9.5317 ppb	14:31:45
3	Ca 317.933Radial†	174.0	-10.6	-9.9765 µg/L	-9.9765 ppb	14:32:05
3	Fe 238.204 Radial†	15.1	0.1	1.1942 µg/L	1.1942 ppb	14:32:05
3	K 766.490 Radial†	116.0	-16.0	-11.375 µg/L	-11.375 ppb	14:31:45
3	Mg 279.077 IEC†	9.4	-2.1	-19.858 µg/L	-19.858 ppb	14:32:05
3	Na 589.592 Radial†	536.5	-22.1	-7.2800 µg/L	-7.2800 ppb	14:31:45
3	Sr 421.552†	17.2	-22.9	-0.2369 µg/L	-0.2369 ppb	14:31:45
3	Sc 361.383	1963041.8	1963041.8	102.79 %		14:33:20
3	Y 371.029	1346546.9	1346546.9	102.80 %		14:33:20
3	Ag 328.068†	-542.7	36.6	0.2929 µg/L	0.2929 ppb	14:33:26
3	As 188.979†	1.8	0.6	1.1689 µg/L	1.1689 ppb	14:33:46
3	B 249.677†	343.0	2.2	0.0978 µg/L	0.0978 ppb	14:33:46
3	Ba 233.527†	-18.5	8.0	0.2082 µg/L	0.2082 ppb	14:33:46
3	Be 313.107†	-3230.6	297.4	0.1942 µg/L	0.1942 ppb	14:33:26
3	Cd 226.502†	-130.1	15.5	0.4281 µg/L	0.4281 ppb	14:33:46
3	Co 228.616†	-21.8	-12.4	-0.6104 µg/L	-0.6104 ppb	14:33:46
3	Cr 267.716†	-41.2	12.3	0.2708 µg/L	0.2708 ppb	14:33:26
3	Cu 324.752†	2546.0	-9.1	-0.0637 µg/L	-0.0637 ppb	14:33:26
3	Mn 257.610†	-170.0	78.8	0.2737 µg/L	0.2737 ppb	14:33:46
3	Mo 202.031†	0.3	7.9	0.8413 µg/L	0.8413 ppb	14:33:46
3	Ni 231.604†	307.9	-2.6	-0.1428 µg/L	-0.1428 ppb	14:33:46
3	P 214.914†	31.7	3.2	7.0023 µg/L	7.0023 ppb	14:33:46
3	Pb 220.353†	97.7	-2.1	-0.5651 µg/L	-0.5651 ppb	14:33:46
3	S 181.975 Axial†	14.0	-1.2	-5.1565 µg/L	-5.1565 ppb	14:33:46
3	Sb 206.836†	18.5	-9.0	-8.8540 µg/L	-8.8540 ppb	14:33:46
3	Se 196.026†	7.7	-8.4	-12.762 µg/L	-12.762 ppb	14:33:46
3	SiO2†	1231.2	-52.2	-11.239 µg/L	-11.239 ppb	14:33:26
3	Si 251.611†	338.7	16.6	1.3655 µg/L	1.3655 ppb	14:33:46
3	Sn 189.927†	2.7	3.5	1.5931 µg/L	1.5931 ppb	14:33:46
3	Ti 334.940†	206.7	84.9	0.2057 µg/L	0.2057 ppb	14:33:26
3	Tl 190.801†	-23.5	1.4	1.9821 µg/L	1.9821 ppb	14:33:46
3	U 409.014†	-82.4	-26.6	-2.4037 µg/L	-2.4037 ppb	14:33:26
3	V 292.402†	-5.0	39.3	0.4238 µg/L	0.4238 ppb	14:33:26
3	Zn 213.857†	490.6	1.7	0.0448 µg/L	0.0448 ppb	14:33:46

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1957367.4	102.49	%	0.594				0.58%
Sc RADIAL	56040.0	103	%	0.5				0.45%
Y 371.029	1342184.9	102.46	%	0.649				0.63%
Ag 328.068†	54.1	0.4302	µg/L	0.12036	0.4302	ppb	0.12036	27.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	3.2105	µg/L	6.68686	3.2105	ppb	6.68686	208.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.4253	µg/L	3.80624	-0.4253	ppb	3.80624	895.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.2	0.1426	µg/L	0.03915	0.1426	ppb	0.03915	27.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.0	0.2618	µg/L	0.05266	0.2618	ppb	0.05266	20.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.1331	µg/L	0.07275	0.1331	ppb	0.07275	54.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.1	-1.0692	µg/L	9.21745	-1.0692	ppb	9.21745	862.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.2858	µg/L	0.18136	0.2858	ppb	0.18136	63.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.7	-0.1327	µg/L	0.42483	-0.1327	ppb	0.42483	320.06%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.7      0.3886 µg/L       0.43975      0.3886 ppb        0.43975 113.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -16.9     -0.1187 µg/L       0.06593     -0.1187 ppb        0.06593  55.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -2.5979 µg/L       3.31761     -2.5979 ppb        3.31761 127.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -1.9     -1.3625 µg/L      21.86298     -1.3625 ppb       21.86298 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.1     -0.8244 µg/L      33.01203     -0.8244 ppb       33.01203 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                50.6      0.1749 µg/L       0.09441      0.1749 ppb        0.09441  53.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 8.0      0.8505 µg/L       0.07561      0.8505 ppb        0.07561   8.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -12.0     -3.9548 µg/L       8.91231     -3.9548 ppb        8.91231 225.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.7     -0.2590 µg/L       0.10906     -0.2590 ppb        0.10906  42.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.1      2.3865 µg/L       9.75229      2.3865 ppb        9.75229 408.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.8     -1.2761 µg/L       1.23617     -1.2761 ppb        1.23617  96.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.1210 µg/L       5.65896      0.1210 ppb        5.65896 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.7     -4.6191 µg/L       4.18349     -4.6191 ppb        4.18349  90.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.5     -2.2678 µg/L      10.53912     -2.2678 ppb       10.53912 464.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -34.9     -7.5220 µg/L       4.66014     -7.5220 ppb        4.66014  61.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                24.8      2.0398 µg/L       0.90350      2.0398 ppb        0.90350  44.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.3      1.0747 µg/L       0.45737      1.0747 ppb        0.45737  42.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 4.4      0.0455 µg/L       0.24518      0.0455 ppb        0.24518 539.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.3      0.2028 µg/L       0.13307      0.2028 ppb        0.13307  65.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.4645 µg/L       2.80164      1.4645 ppb        2.80164 191.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 11.2      1.0153 µg/L       3.06778      1.0153 ppb        3.06778 302.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 11.4      0.1299 µg/L       0.26143      0.1299 ppb        0.26143 201.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 0.9      0.0250 µg/L       0.05061      0.0250 ppb        0.05061 202.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/11/2010 14:33:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54747.4	54747.4	100	%			14:34:28
1	Al 396.153Radial†	273.1	282.4	210.27	µg/L	210.27	ppb	14:34:28
1	Ca 317.933Radial†	397.1	216.7	204.01	µg/L	204.01	ppb	14:34:49
1	Fe 238.204 Radial†	30.8	16.2	137.25	µg/L	137.25	ppb	14:34:49
1	K 766.490 Radial†	363.7	234.1	166.40	µg/L	166.40	ppb	14:34:28
1	Mg 279.077 IEC†	45.5	34.1	317.43	µg/L	317.43	ppb	14:34:49
1	Na 589.592 Radial†	1424.0	877.6	288.92	µg/L	288.92	ppb	14:34:28
1	Sr 421.552†	486.3	445.2	4.6152	µg/L	4.6152	ppb	14:34:28
1	Sc 361.383	1940350.4	1940350.4	101.60	%			14:35:51
1	Y 371.029	1331501.6	1331501.6	101.65	%			14:35:51
1	Ag 328.068†	65.6	629.1	5.0332	µg/L	5.0332	ppb	14:35:56
1	As 188.979†	15.0	13.6	26.557	µg/L	26.557	ppb	14:36:17
1	B 249.677†	1481.9	1127.1	49.194	µg/L	49.194	ppb	14:35:56
1	Ba 233.527†	167.0	190.4	4.9664	µg/L	4.9664	ppb	14:36:17
1	Be 313.107†	4123.9	7499.6	4.8957	µg/L	4.8957	ppb	14:35:56
1	Cd 226.502†	43.2	184.7	5.0837	µg/L	5.0837	ppb	14:36:17
1	Co 228.616†	90.6	98.0	4.8213	µg/L	4.8213	ppb	14:36:17
1	Cr 267.716†	181.4	230.9	5.0824	µg/L	5.0824	ppb	14:36:17
1	Cu 324.752†	4005.0	1456.0	10.189	µg/L	10.189	ppb	14:35:56
1	Mn 257.610†	2747.7	2948.6	10.216	µg/L	10.216	ppb	14:35:56
1	Mo 202.031†	89.7	95.8	10.232	µg/L	10.232	ppb	14:36:17
1	Ni 231.604†	390.7	82.4	4.5019	µg/L	4.5019	ppb	14:36:17
1	P 214.914†	110.5	81.1	173.12	µg/L	173.12	ppb	14:36:17
1	Pb 220.353†	141.4	42.0	11.169	µg/L	11.169	ppb	14:36:17
1	S 181.975 Axial†	37.1	21.7	95.029	µg/L	95.029	ppb	14:36:17
1	Sb 206.836†	32.7	5.2	5.2344	µg/L	5.2344	ppb	14:36:17
1	Se 196.026†	25.6	9.4	14.367	µg/L	14.367	ppb	14:36:17
1	SiO2†	2267.0	981.4	211.34	µg/L	211.34	ppb	14:35:56
1	Si 251.611†	1501.7	1165.2	95.786	µg/L	95.786	ppb	14:36:17
1	Sn 189.927†	16.7	17.3	7.9752	µg/L	7.9752	ppb	14:36:17
1	Ti 334.940†	2212.8	2061.9	4.9379	µg/L	4.9379	ppb	14:35:56
1	Tl 190.801†	-5.1	19.2	27.011	µg/L	27.011	ppb	14:36:17
1	U 409.014†	558.4	603.3	54.587	µg/L	54.587	ppb	14:35:56
1	V 292.402†	425.6	463.2	5.0996	µg/L	5.0996	ppb	14:35:56
1	Zn 213.857†	892.7	403.1	10.006	µg/L	10.006	ppb	14:36:17
2	Sc RADIAL	54832.7	54832.7	100	%			14:34:54
2	Al 396.153Radial†	256.5	265.4	197.60	µg/L	197.60	ppb	14:34:54
2	Ca 317.933Radial†	389.1	208.2	196.00	µg/L	196.00	ppb	14:35:15
2	Fe 238.204 Radial†	27.3	12.7	107.86	µg/L	107.86	ppb	14:35:15
2	K 766.490 Radial†	367.8	237.7	168.93	µg/L	168.93	ppb	14:34:54
2	Mg 279.077 IEC†	46.2	34.7	322.64	µg/L	322.64	ppb	14:35:15
2	Na 589.592 Radial†	1434.3	885.7	291.57	µg/L	291.57	ppb	14:34:54
2	Sr 421.552†	510.9	468.9	4.8611	µg/L	4.8611	ppb	14:34:54
2	Sc 361.383	1945380.3	1945380.3	101.86	%			14:36:23
2	Y 371.029	1334631.9	1334631.9	101.89	%			14:36:23
2	Ag 328.068†	83.1	646.1	5.1667	µg/L	5.1667	ppb	14:36:29
2	As 188.979†	13.7	12.3	23.962	µg/L	23.962	ppb	14:36:49
2	B 249.677†	1439.6	1081.8	47.230	µg/L	47.230	ppb	14:36:29
2	Ba 233.527†	163.8	186.8	4.8734	µg/L	4.8734	ppb	14:36:49
2	Be 313.107†	4161.3	7525.8	4.9129	µg/L	4.9129	ppb	14:36:29
2	Cd 226.502†	40.3	181.7	5.0056	µg/L	5.0056	ppb	14:36:49
2	Co 228.616†	95.9	103.0	5.0691	µg/L	5.0691	ppb	14:36:49
2	Cr 267.716†	184.6	233.6	5.1411	µg/L	5.1411	ppb	14:36:49
2	Cu 324.752†	3976.5	1417.8	9.9186	µg/L	9.9186	ppb	14:36:29
2	Mn 257.610†	2754.8	2948.6	10.212	µg/L	10.212	ppb	14:36:29
2	Mo 202.031†	93.7	99.6	10.631	µg/L	10.631	ppb	14:36:49
2	Ni 231.604†	392.3	82.9	4.5279	µg/L	4.5279	ppb	14:36:49
2	P 214.914†	107.2	77.6	165.67	µg/L	165.67	ppb	14:36:49
2	Pb 220.353†	143.7	43.9	11.669	µg/L	11.669	ppb	14:36:49

2	S 181.975 Axial†	37.9	22.4	98.282 µg/L	98.282 ppb	14:36:49
2	Sb 206.836†	37.0	9.4	9.3125 µg/L	9.3125 ppb	14:36:49
2	Se 196.026†	40.5	23.9	36.431 µg/L	36.431 ppb	14:36:49
2	SiO2†	2237.3	946.4	203.81 µg/L	203.81 ppb	14:36:29
2	Si 251.611†	1509.6	1169.2	96.111 µg/L	96.111 ppb	14:36:49
2	Sn 189.927†	28.9	29.3	13.482 µg/L	13.482 ppb	14:36:49
2	Ti 334.940†	2191.1	2034.9	4.8725 µg/L	4.8725 ppb	14:36:29
2	Tl 190.801†	-12.7	11.8	16.671 µg/L	16.671 ppb	14:36:49
2	U 409.014†	565.8	609.0	55.113 µg/L	55.113 ppb	14:36:29
2	V 292.402†	429.8	466.2	5.1319 µg/L	5.1319 ppb	14:36:29
2	Zn 213.857†	888.5	396.7	9.8472 µg/L	9.8472 ppb	14:36:49
3	Sc RADIAL	54719.3	54719.3	100 %		14:35:20
3	Al 396.153Radial†	252.3	261.8	194.95 µg/L	194.95 ppb	14:35:20
3	Ca 317.933Radial†	392.4	212.2	199.82 µg/L	199.82 ppb	14:35:41
3	Fe 238.204 Radial†	27.7	13.1	111.51 µg/L	111.51 ppb	14:35:41
3	K 766.490 Radial†	437.0	307.5	218.53 µg/L	218.53 ppb	14:35:20
3	Mg 279.077 IEC†	40.7	29.3	272.95 µg/L	272.95 ppb	14:35:41
3	Na 589.592 Radial†	1460.8	915.0	301.22 µg/L	301.22 ppb	14:35:20
3	Sr 421.552†	523.6	482.7	5.0036 µg/L	5.0036 ppb	14:35:20
3	Sc 361.383	1939953.9	1939953.9	101.58 %		14:36:55
3	Y 371.029	1330294.0	1330294.0	101.56 %		14:36:55
3	Ag 328.068†	50.3	614.0	4.9107 µg/L	4.9107 ppb	14:37:01
3	As 188.979†	19.6	18.1	35.385 µg/L	35.385 ppb	14:37:21
3	B 249.677†	1372.3	1019.5	44.505 µg/L	44.505 ppb	14:37:01
3	Ba 233.527†	145.4	169.2	4.4133 µg/L	4.4133 ppb	14:37:21
3	Be 313.107†	3478.0	6864.4	4.4811 µg/L	4.4811 ppb	14:37:01
3	Cd 226.502†	11.9	153.8	4.2359 µg/L	4.2359 ppb	14:37:21
3	Co 228.616†	75.0	82.7	4.0666 µg/L	4.0666 ppb	14:37:21
3	Cr 267.716†	166.3	216.1	4.7559 µg/L	4.7559 ppb	14:37:21
3	Cu 324.752†	3902.1	1355.5	9.4837 µg/L	9.4837 ppb	14:37:01
3	Mn 257.610†	2548.1	2752.7	9.5360 µg/L	9.5360 ppb	14:37:01
3	Mo 202.031†	79.0	85.3	9.1080 µg/L	9.1080 ppb	14:37:21
3	Ni 231.604†	393.4	85.1	4.6522 µg/L	4.6522 ppb	14:37:21
3	P 214.914†	100.3	71.1	151.77 µg/L	151.77 ppb	14:37:21
3	Pb 220.353†	126.2	27.0	7.1738 µg/L	7.1738 ppb	14:37:21
3	S 181.975 Axial†	34.7	19.3	84.720 µg/L	84.720 ppb	14:37:21
3	Sb 206.836†	29.4	2.0	2.0741 µg/L	2.0741 ppb	14:37:21
3	Se 196.026†	39.6	23.1	35.285 µg/L	35.285 ppb	14:37:21
3	SiO2†	2171.3	887.6	191.15 µg/L	191.15 ppb	14:37:01
3	Si 251.611†	1361.3	1027.3	84.447 µg/L	84.447 ppb	14:37:21
3	Sn 189.927†	21.9	22.4	10.338 µg/L	10.338 ppb	14:37:21
3	Ti 334.940†	2058.9	1910.8	4.5779 µg/L	4.5779 ppb	14:37:01
3	Tl 190.801†	-4.2	20.2	28.271 µg/L	28.271 ppb	14:37:21
3	U 409.014†	515.1	560.7	50.740 µg/L	50.740 ppb	14:37:01
3	V 292.402†	407.9	445.8	4.8980 µg/L	4.8980 ppb	14:37:01
3	Zn 213.857†	822.6	334.3	8.2901 µg/L	8.2901 ppb	14:37:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1941894.9	101.68	%	0.158				0.16%
Sc RADIAL	54766.5	100	%	0.1				0.11%
Y 371.029	1332142.5	101.70	%	0.171				0.17%
Ag 328.068†	629.8	5.0369	µg/L	0.12806	5.0369	ppb	0.12806	2.54%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	269.9	200.94	µg/L	8.187	200.94	ppb	8.187	4.07%
QC value within limits for Al 396.153Radial Recovery = 100.47%								
As 188.979†	14.7	28.634	µg/L	5.9881	28.634	ppb	5.9881	20.91%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	1076.2	46.976	µg/L	2.3545	46.976	ppb	2.3545	5.01%
QC value within limits for B 249.677 Recovery = 93.95%								
Ba 233.527†	182.1	4.7510	µg/L	0.29615	4.7510	ppb	0.29615	6.23%
QC value within limits for Ba 233.527 Recovery = 95.02%								
Be 313.107†	7296.6	4.7633	µg/L	0.24448	4.7633	ppb	0.24448	5.13%
QC value within limits for Be 313.107 Recovery = 95.27%								
Ca 317.933Radial†	212.4	199.94	µg/L	4.009	199.94	ppb	4.009	2.00%
QC value within limits for Ca 317.933Radial Recovery = 99.97%								
Cd 226.502†	173.4	4.7751	µg/L	0.46856	4.7751	ppb	0.46856	9.81%
QC value within limits for Cd 226.502 Recovery = 95.50%								
Co 228.616†	94.6	4.6523	µg/L	0.52218	4.6523	ppb	0.52218	11.22%

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   QC value within limits for Co 228.616  Recovery = 93.05%
Cr 267.716†              226.9      4.9931 µg/L       0.20751      4.9931 ppb        0.20751   4.16%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†             1409.7      9.8638 µg/L       0.35593      9.8638 ppb        0.35593   3.61%
   QC value within limits for Cu 324.752  Recovery = 98.64%
Fe 238.204 Radial†        14.0      118.87 µg/L        16.021      118.87 ppb         16.021  13.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 118.87%
K 766.490 Radial†        259.7      184.62 µg/L        29.396      184.62 ppb         29.396  15.92%
   QC value within limits for K 766.490 Radial  Recovery = 123.08%
Mg 279.077 IEC†           32.7      304.34 µg/L        27.307      304.34 ppb         27.307   8.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†             2883.3      9.9880 µg/L       0.39151      9.9880 ppb        0.39151   3.92%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†               93.6      9.9904 µg/L       0.78979      9.9904 ppb        0.78979   7.91%
   QC value within limits for Mo 202.031  Recovery = 99.90%
Na 589.592 Radial†       892.8      293.90 µg/L         6.477      293.90 ppb          6.477   2.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.97%
Ni 231.604†               83.5      4.5606 µg/L       0.08032      4.5606 ppb        0.08032   1.76%
   QC value within limits for Ni 231.604  Recovery = 91.21%
P 214.914†                76.6      163.52 µg/L        10.837      163.52 ppb         10.837   6.63%
   QC value within limits for P 214.914  Recovery = 109.01%
Pb 220.353†               37.6      10.004 µg/L        2.4639      10.004 ppb         2.4639  24.63%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†          21.2      92.677 µg/L        7.0801      92.677 ppb         7.0801   7.64%
   QC value within limits for S 181.975 Axial  Recovery = 92.68%
Sb 206.836†                5.5      5.5403 µg/L       3.62890      5.5403 ppb        3.62890  65.50%
   QC value less than the lower limit for Sb 206.836  Recovery = 55.40%
Se 196.026†               18.8      28.694 µg/L       12.4212      28.694 ppb        12.4212  43.29%
   QC value within limits for Se 196.026  Recovery = 95.65%
SiO2†                    938.5      202.10 µg/L        10.205      202.10 ppb         10.205   5.05%
   QC value within limits for SiO2  Recovery = 94.88%
Si 251.611†             1120.6      92.115 µg/L        6.6423      92.115 ppb         6.6423   7.21%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†               23.0      10.598 µg/L        2.7624      10.598 ppb         2.7624  26.06%
   QC value within limits for Sn 189.927  Recovery = 105.98%
Sr 421.552†              465.6      4.8266 µg/L       0.19650      4.8266 ppb        0.19650   4.07%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†             2002.5      4.7961 µg/L       0.19174      4.7961 ppb        0.19174   4.00%
   QC value within limits for Ti 334.940  Recovery = 95.92%
Tl 190.801†               17.1      23.984 µg/L        6.3650      23.984 ppb         6.3650  26.54%
   QC value within limits for Tl 190.801  Recovery = 119.92%
U 409.014†               591.0      53.480 µg/L        2.3877      53.480 ppb         2.3877   4.46%
   QC value within limits for U 409.014  Recovery = 106.96%
V 292.402†               458.4      5.0431 µg/L       0.12672      5.0431 ppb        0.12672   2.51%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†              378.0      9.3810 µg/L       0.94809      9.3810 ppb        0.94809  10.11%
   QC value within limits for Zn 213.857  Recovery = 93.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/11/2010 14:37:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54929.8	54929.8	101	%			14:38:12
1	Al 396.153Radial†	662864.4	658585.8	490860	µg/L	490860	ppb	14:38:07
1	Ca 317.933Radial†	501017.0	497596.3	468520	µg/L	468520	ppb	14:38:07
1	Fe 238.204 Radial†	21302.2	21149.9	179260	µg/L	179260	ppb	14:38:12
1	K 766.490 Radial†	133.6	4.3	3.0615	µg/L	3.0615	ppb	14:38:12
1	Mg 279.077 IEC†	50419.1	50081.6	465880	µg/L	465880	ppb	14:38:12
1	Na 589.592 Radial†	588.4	42.7	14.053	µg/L	14.053	ppb	14:38:12
1	Sr 421.552†	369.2	327.3	3.3927	µg/L	3.3927	ppb	14:38:12
1	Sc 361.383	1857257.4	1857257.4	97.247	%			14:38:45
1	Y 371.029	1267408.3	1267408.3	96.755	%			14:38:45
1	Ag 328.068†	-2882.1	-2399.2	-7.8752	µg/L	-7.8752	ppb	14:38:51
1	As 188.979†	-10.9	-12.4	-38.129	µg/L	-38.129	ppb	14:39:11
1	B 249.677†	826.3	518.2	-70.891	µg/L	-70.891	ppb	14:38:51
1	Ba 233.527†	265.1	298.7	7.7406	µg/L	7.7406	ppb	14:39:11
1	Be 313.107†	-4111.4	-787.4	-0.5240	µg/L	-0.5240	ppb	14:38:51
1	Cd 226.502†	352.3	504.4	-6.3482	µg/L	-6.3482	ppb	14:39:11
1	Co 228.616†	33.3	43.1	2.0584	µg/L	2.0584	ppb	14:39:11
1	Cr 267.716†	-59.0	-8.3	-0.1945	µg/L	-0.1945	ppb	14:39:11
1	Cu 324.752†	-1400.3	-3926.0	-2.5072	µg/L	-2.5072	ppb	14:38:51
1	Mn 257.610†	37.6	282.8	6.1777	µg/L	6.1777	ppb	14:38:51
1	Mo 202.031†	-107.0	-102.5	-4.1257	µg/L	-4.1257	ppb	14:39:11
1	Ni 231.604†	157.1	-140.7	-5.3633	µg/L	-5.3633	ppb	14:39:11
1	P 214.914†	101.4	76.6	162.80	µg/L	162.80	ppb	14:39:11
1	Pb 220.353†	54.2	-41.5	9.1341	µg/L	9.1341	ppb	14:39:11
1	S 181.975 Axial†	32.3	18.4	80.756	µg/L	80.756	ppb	14:39:11
1	Sb 206.836†	58.1	32.8	-8.6501	µg/L	-8.6501	ppb	14:39:11
1	Se 196.026†	34.1	19.3	-25.969	µg/L	-25.969	ppb	14:39:11
1	SiO2†	1033.7	-187.0	-40.276	µg/L	-40.276	ppb	14:39:11
1	Si 251.611†	428.1	127.4	10.470	µg/L	10.470	ppb	14:39:11
1	Sn 189.927†	-61.0	-61.9	5.0665	µg/L	5.0665	ppb	14:39:11
1	Ti 334.940†	10534.2	10716.3	-3.5463	µg/L	-3.5463	ppb	14:38:51
1	Tl 190.801†	-30.9	-7.5	8.6675	µg/L	8.6675	ppb	14:39:11
1	U 409.014†	-29.2	23.6	-51.357	µg/L	-51.357	ppb	14:38:51
1	V 292.402†	-1857.1	-1865.5	1.1351	µg/L	1.1351	ppb	14:38:51
1	Zn 213.857†	1452.2	1017.8	-9.4487	µg/L	-9.4487	ppb	14:39:11
2	Sc RADIAL	55009.9	55009.9	101	%			14:38:23
2	Al 396.153Radial†	661057.1	655833.6	488810	µg/L	488810	ppb	14:38:18
2	Ca 317.933Radial†	498837.3	494708.8	465800	µg/L	465800	ppb	14:38:18
2	Fe 238.204 Radial†	21470.3	21285.8	180410	µg/L	180410	ppb	14:38:23
2	K 766.490 Radial†	106.0	-23.2	-16.506	µg/L	-16.506	ppb	14:38:23
2	Mg 279.077 IEC†	50738.3	50325.3	468150	µg/L	468150	ppb	14:38:23
2	Na 589.592 Radial†	648.0	101.0	33.250	µg/L	33.250	ppb	14:38:23
2	Sr 421.552†	361.1	318.7	3.3032	µg/L	3.3032	ppb	14:38:23
2	Sc 361.383	1846098.6	1846098.6	96.662	%			14:39:17
2	Y 371.029	1260367.6	1260367.6	96.217	%			14:39:17
2	Ag 328.068†	-2932.2	-2468.9	-8.3594	µg/L	-8.3594	ppb	14:39:23
2	As 188.979†	-14.6	-16.3	-45.537	µg/L	-45.537	ppb	14:39:43
2	B 249.677†	858.5	556.6	-69.813	µg/L	-69.813	ppb	14:39:23
2	Ba 233.527†	262.3	297.4	7.7059	µg/L	7.7059	ppb	14:39:43
2	Be 313.107†	-4105.1	-806.4	-0.5367	µg/L	-0.5367	ppb	14:39:23
2	Cd 226.502†	337.6	491.4	-6.8376	µg/L	-6.8376	ppb	14:39:43
2	Co 228.616†	17.7	27.1	1.2707	µg/L	1.2707	ppb	14:39:43
2	Cr 267.716†	-53.0	-2.4	-0.0661	µg/L	-0.0661	ppb	14:39:43
2	Cu 324.752†	-1461.5	-3998.0	-2.8500	µg/L	-2.8500	ppb	14:39:23
2	Mn 257.610†	43.7	289.4	6.2629	µg/L	6.2629	ppb	14:39:23
2	Mo 202.031†	-104.0	-100.0	-3.8203	µg/L	-3.8203	ppb	14:39:43
2	Ni 231.604†	142.4	-154.9	-6.1246	µg/L	-6.1246	ppb	14:39:43
2	P 214.914†	112.7	89.0	187.84	µg/L	187.84	ppb	14:39:43
2	Pb 220.353†	58.0	-37.2	10.116	µg/L	10.116	ppb	14:39:43

2	S 181.975 Axial†	36.2	22.6	98.941 µg/L	98.941 ppb	14:39:43
2	Sb 206.836†	53.9	28.8	-12.353 µg/L	-12.353 ppb	14:39:43
2	Se 196.026†	26.7	11.8	-35.549 µg/L	-35.549 ppb	14:39:43
2	SiO2†	1052.3	-161.4	-34.761 µg/L	-34.761 ppb	14:39:43
2	Si 251.611†	458.0	160.9	13.230 µg/L	13.230 ppb	14:39:43
2	Sn 189.927†	-63.6	-65.0	3.8069 µg/L	3.8069 ppb	14:39:43
2	Ti 334.940†	10748.6	11003.6	-3.0781 µg/L	-3.0781 ppb	14:39:23
2	Tl 190.801†	-35.3	-12.3	2.2973 µg/L	2.2973 ppb	14:39:43
2	U 409.014†	-80.2	-29.4	-56.150 µg/L	-56.150 ppb	14:39:23
2	V 292.402†	-1894.8	-1916.0	0.7299 µg/L	0.7299 ppb	14:39:23
2	Zn 213.857†	1462.8	1037.8	-9.1272 µg/L	-9.1272 ppb	14:39:43
3	Sc RADIAL	54631.5	54631.5	100 %		14:38:35
3	Al 396.153Radial†	667869.4	667182.1	497270 µg/L	497270 ppb	14:38:29
3	Ca 317.933Radial†	503599.4	502894.4	473510 µg/L	473510 ppb	14:38:29
3	Fe 238.204 Radial†	21467.0	21430.1	181630 µg/L	181630 ppb	14:38:35
3	K 766.490 Radial†	96.7	-31.8	-22.617 µg/L	-22.617 ppb	14:38:35
3	Mg 279.077 IEC†	50895.3	50830.8	472850 µg/L	472850 ppb	14:38:35
3	Na 589.592 Radial†	627.0	84.4	27.800 µg/L	27.800 ppb	14:38:35
3	Sr 421.552†	372.9	333.0	3.4514 µg/L	3.4514 ppb	14:38:35
3	Sc 361.383	1825493.4	1825493.4	95.584 %		14:39:49
3	Y 371.029	1244094.0	1244094.0	94.975 %		14:39:49
3	Ag 328.068†	-2843.3	-2410.2	-7.8207 µg/L	-7.8207 ppb	14:39:55
3	As 188.979†	-21.3	-23.4	-59.893 µg/L	-59.893 ppb	14:40:16
3	B 249.677†	774.3	478.6	-73.863 µg/L	-73.863 ppb	14:39:55
3	Ba 233.527†	257.2	295.1	7.6465 µg/L	7.6465 ppb	14:40:16
3	Be 313.107†	-4046.5	-793.0	-0.5281 µg/L	-0.5281 ppb	14:39:55
3	Cd 226.502†	377.7	537.3	-5.7094 µg/L	-5.7094 ppb	14:40:16
3	Co 228.616†	37.6	48.2	2.3043 µg/L	2.3043 ppb	14:40:16
3	Cr 267.716†	-81.4	-32.7	-0.7334 µg/L	-0.7334 ppb	14:40:16
3	Cu 324.752†	-1475.8	-4030.1	-2.9042 µg/L	-2.9042 ppb	14:39:55
3	Mn 257.610†	50.9	297.4	6.2652 µg/L	6.2652 ppb	14:39:55
3	Mo 202.031†	-108.7	-106.2	-4.4310 µg/L	-4.4310 ppb	14:40:16
3	Ni 231.604†	152.6	-142.5	-5.4329 µg/L	-5.4329 ppb	14:40:16
3	P 214.914†	105.4	82.6	175.78 µg/L	175.78 ppb	14:40:16
3	Pb 220.353†	72.0	-21.8	14.642 µg/L	14.642 ppb	14:40:16
3	S 181.975 Axial†	29.0	15.5	67.783 µg/L	67.783 ppb	14:40:16
3	Sb 206.836†	45.6	20.7	-20.949 µg/L	-20.949 ppb	14:40:16
3	Se 196.026†	33.1	18.8	-27.759 µg/L	-27.759 ppb	14:40:16
3	SiO2†	1033.4	-168.9	-36.378 µg/L	-36.378 ppb	14:40:16
3	Si 251.611†	441.5	149.0	12.252 µg/L	12.252 ppb	14:40:16
3	Sn 189.927†	-53.7	-55.3	8.6518 µg/L	8.6518 ppb	14:40:16
3	Ti 334.940†	10848.2	11233.3	-2.7738 µg/L	-2.7738 ppb	14:39:55
3	Tl 190.801†	-26.7	-3.6	14.470 µg/L	14.470 ppb	14:40:16
3	U 409.014†	-83.2	-33.5	-57.162 µg/L	-57.162 ppb	14:39:55
3	V 292.402†	-1928.3	-1973.2	0.2572 µg/L	0.2572 ppb	14:39:55
3	Zn 213.857†	1454.4	1046.1	-9.2482 µg/L	-9.2482 ppb	14:40:16

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1842949.8	96.498	%	0.8438				0.87%
Sc RADIAL	54857.1	101	%	0.4				0.36%
Y 371.029	1257290.0	95.982	%	0.9129				0.95%
Ag 328.068†	-2426.1	-8.0184	µg/L	0.29656	-8.0184	ppb	0.29656	3.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660533.8	492320	µg/L	4412.2	492320	ppb	4412.2	0.90%
QC value within limits for Al 396.153Radial Recovery = 98.46%								
As 188.979†	-17.4	-47.853	µg/L	11.0657	-47.853	ppb	11.0657	23.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	517.8	-71.522	µg/L	2.0977	-71.522	ppb	2.0977	2.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	297.0	7.6977	µg/L	0.04758	7.6977	ppb	0.04758	0.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-795.6	-0.5296	µg/L	0.00649	-0.5296	ppb	0.00649	1.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	498399.8	469270	µg/L	3908.9	469270	ppb	3908.9	0.83%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	511.0	-6.2984	µg/L	0.56575	-6.2984	ppb	0.56575	8.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	39.5	1.8778	µg/L	0.53996	1.8778	ppb	0.53996	28.75%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -14.5     -0.3313 µg/L      0.35406     -0.3313 ppb       0.35406 106.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†          -3984.7     -2.7538 µg/L      0.21524     -2.7538 ppb       0.21524   7.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    21288.6      180430 µg/L       1187.5      180430 ppb        1187.5   0.66%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.22%
K 766.490 Radial†       -16.9     -12.020 µg/L      13.4139     -12.020 ppb       13.4139 111.59%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       50412.6      468960 µg/L       3555.4      468960 ppb        3555.4   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.79%
Mn 257.610†            289.9      6.2353 µg/L      0.04986      6.2353 ppb       0.04986   0.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†           -102.9     -4.1257 µg/L      0.30534     -4.1257 ppb       0.30534   7.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       76.0      25.034 µg/L       9.8929      25.034 ppb        9.8929  39.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†           -146.0     -5.6403 µg/L      0.42090     -5.6403 ppb       0.42090   7.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†             82.7      175.47 µg/L       12.518      175.47 ppb        12.518   7.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -33.5      11.297 µg/L       2.9376      11.297 ppb        2.9376  26.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†       18.8      82.493 µg/L      15.6511      82.493 ppb       15.6511  18.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†            27.4     -13.984 µg/L       6.3094     -13.984 ppb        6.3094  45.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            16.6     -29.759 µg/L       5.0935     -29.759 ppb        5.0935  17.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                -172.5     -37.139 µg/L       2.8350     -37.139 ppb        2.8350   7.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†           145.8      11.984 µg/L       1.3994      11.984 ppb        1.3994  11.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†           -60.7      5.8417 µg/L      2.51374      5.8417 ppb       2.51374  43.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†           326.3      3.3825 µg/L      0.07464      3.3825 ppb       0.07464   2.21%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          10984.4     -3.1328 µg/L      0.38914     -3.1328 ppb       0.38914  12.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -7.8      8.4783 µg/L      6.08871      8.4783 ppb       6.08871  71.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†            -13.1     -54.890 µg/L       3.1009     -54.890 ppb        3.1009   5.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†           -1918.2      0.7074 µg/L      0.43934      0.7074 ppb       0.43934  62.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†           1033.9     -9.2747 µg/L      0.16235     -9.2747 ppb       0.16235   1.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/11/2010 14:40:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54743.7	54743.7	100	%			14:41:04
1	Al 396.153Radial†	662601.8	660562.7	492330	µg/L	492330	ppb	14:40:59
1	Ca 317.933Radial†	498259.5	496539.4	467520	µg/L	467520	ppb	14:40:59
1	Fe 238.204 Radial†	21341.6	21261.1	180210	µg/L	180210	ppb	14:41:04
1	K 766.490 Radial†	6958.5	6808.5	4839.5	µg/L	4839.5	ppb	14:41:04
1	Mg 279.077 IEC†	50755.9	50587.7	470600	µg/L	470600	ppb	14:41:04
1	Na 589.592 Radial†	15455.3	14865.6	4893.8	µg/L	4893.8	ppb	14:41:04
1	Sr 421.552†	46875.8	46691.2	484.01	µg/L	484.01	ppb	14:41:04
1	Sc 361.383	1846856.3	1846856.3	96.702	%			14:41:38
1	Y 371.029	1258300.6	1258300.6	96.059	%			14:41:38
1	Ag 328.068†	27332.2	28828.8	243.20	µg/L	243.20	ppb	14:41:44
1	As 188.979†	237.2	244.2	462.48	µg/L	462.48	ppb	14:42:04
1	B 249.677†	11716.6	11784.7	421.73	µg/L	421.73	ppb	14:41:44
1	Ba 233.527†	17712.8	18342.8	478.47	µg/L	478.47	ppb	14:41:44
1	Be 313.107†	339671.1	354695.4	231.45	µg/L	231.45	ppb	14:41:38
1	Cd 226.502†	15868.9	16552.3	436.70	µg/L	436.70	ppb	14:41:44
1	Co 228.616†	8171.6	8459.1	415.69	µg/L	415.69	ppb	14:42:04
1	Cr 267.716†	20395.5	21143.4	465.37	µg/L	465.37	ppb	14:41:44
1	Cu 324.752†	70107.6	70012.4	514.10	µg/L	514.10	ppb	14:41:44
1	Mn 257.610†	126842.6	131412.5	460.20	µg/L	460.20	ppb	14:41:44
1	Mo 202.031†	4309.3	4463.8	483.23	µg/L	483.23	ppb	14:42:04
1	Ni 231.604†	7535.7	7490.5	411.39	µg/L	411.39	ppb	14:42:04
1	P 214.914†	1206.8	1220.3	2570.8	µg/L	2570.8	ppb	14:42:04
1	Pb 220.353†	1703.5	1664.4	464.39	µg/L	464.39	ppb	14:42:04
1	S 181.975 Axial†	587.6	592.8	2597.2	µg/L	2597.2	ppb	14:42:04
1	Sb 206.836†	550.1	541.9	495.21	µg/L	495.21	ppb	14:42:04
1	Se 196.026†	1471.2	1505.6	2238.6	µg/L	2238.6	ppb	14:42:04
1	SiO2†	47866.2	48248.6	10391	µg/L	10391	ppb	14:41:44
1	Si 251.611†	57854.9	59515.0	4892.4	µg/L	4892.4	ppb	14:41:44
1	Sn 189.927†	962.7	996.5	492.28	µg/L	492.28	ppb	14:42:04
1	Ti 334.940†	201101.7	207843.8	470.24	µg/L	470.24	ppb	14:41:44
1	Tl 190.801†	278.9	312.7	461.24	µg/L	461.24	ppb	14:42:04
1	U 409.014†	5055.9	5282.0	424.65	µg/L	424.65	ppb	14:41:44
1	V 292.402†	42477.1	43969.9	495.05	µg/L	495.05	ppb	14:41:44
1	Zn 213.857†	19021.9	19195.0	441.47	µg/L	441.47	ppb	14:41:44
2	Sc RADIAL	55060.7	55060.7	101	%			14:41:16
2	Al 396.153Radial†	664887.8	659025.8	491180	µg/L	491180	ppb	14:41:10
2	Ca 317.933Radial†	499367.7	494778.3	465860	µg/L	465860	ppb	14:41:10
2	Fe 238.204 Radial†	21754.5	21547.8	182640	µg/L	182640	ppb	14:41:16
2	K 766.490 Radial†	7103.8	6912.7	4913.5	µg/L	4913.5	ppb	14:41:16
2	Mg 279.077 IEC†	51410.3	50945.0	473920	µg/L	473920	ppb	14:41:16
2	Na 589.592 Radial†	15635.7	14955.7	4923.5	µg/L	4923.5	ppb	14:41:16
2	Sr 421.552†	47418.4	46960.1	486.80	µg/L	486.80	ppb	14:41:16
2	Sc 361.383	1837075.1	1837075.1	96.190	%			14:42:10
2	Y 371.029	1253427.6	1253427.6	95.687	%			14:42:10
2	Ag 328.068†	27052.1	28688.2	242.21	µg/L	242.21	ppb	14:42:16
2	As 188.979†	226.7	234.5	443.77	µg/L	443.77	ppb	14:42:37
2	B 249.677†	11617.2	11745.8	418.76	µg/L	418.76	ppb	14:42:16
2	Ba 233.527†	17456.8	18174.2	474.07	µg/L	474.07	ppb	14:42:16
2	Be 313.107†	337736.8	354554.8	231.36	µg/L	231.36	ppb	14:42:10
2	Cd 226.502†	15582.5	16341.8	430.62	µg/L	430.62	ppb	14:42:16
2	Co 228.616†	8172.6	8505.1	417.96	µg/L	417.96	ppb	14:42:37
2	Cr 267.716†	20089.6	20937.7	460.84	µg/L	460.84	ppb	14:42:16
2	Cu 324.752†	69141.0	69393.5	510.12	µg/L	510.12	ppb	14:42:16
2	Mn 257.610†	124994.1	130189.1	456.15	µg/L	456.15	ppb	14:42:16
2	Mo 202.031†	4295.8	4473.5	484.36	µg/L	484.36	ppb	14:42:37
2	Ni 231.604†	7541.0	7537.5	413.99	µg/L	413.99	ppb	14:42:37
2	P 214.914†	1237.1	1258.5	2651.1	µg/L	2651.1	ppb	14:42:37
2	Pb 220.353†	1701.2	1671.4	466.10	µg/L	466.10	ppb	14:42:37

2	S 181.975 Axial†	598.3	607.2	2660.4 µg/L	2660.4 ppb	14:42:37
2	Sb 206.836†	550.2	545.1	498.59 µg/L	498.59 ppb	14:42:37
2	Se 196.026†	1466.3	1508.6	2247.3 µg/L	2247.3 ppb	14:42:37
2	SiO2†	47231.2	47852.0	10305 µg/L	10305 ppb	14:42:16
2	Si 251.611†	57079.6	59027.6	4852.4 µg/L	4852.4 ppb	14:42:16
2	Sn 189.927†	972.7	1012.1	499.64 µg/L	499.64 ppb	14:42:37
2	Ti 334.940†	198343.7	206083.8	465.72 µg/L	465.72 ppb	14:42:16
2	Tl 190.801†	259.5	294.1	435.56 µg/L	435.56 ppb	14:42:37
2	U 409.014†	4974.7	5225.3	419.28 µg/L	419.28 ppb	14:42:16
2	V 292.402†	41844.6	43546.2	490.82 µg/L	490.82 ppb	14:42:16
2	Zn 213.857†	18719.4	18985.3	435.92 µg/L	435.92 ppb	14:42:16
3	Sc RADIAL	54836.5	54836.5	100 %		14:41:27
3	Al 396.153Radial†	666707.4	663530.3	494540 µg/L	494540 ppb	14:41:21
3	Ca 317.933Radial†	500342.9	497771.9	468680 µg/L	468680 ppb	14:41:21
3	Fe 238.204 Radial†	21386.7	21269.9	180290 µg/L	180290 ppb	14:41:27
3	K 766.490 Radial†	6994.6	6832.8	4856.7 µg/L	4856.7 ppb	14:41:27
3	Mg 279.077 IEC†	50805.9	50551.7	470260 µg/L	470260 ppb	14:41:27
3	Na 589.592 Radial†	15470.0	14854.1	4890.0 µg/L	4890.0 ppb	14:41:27
3	Sr 421.552†	46844.7	46581.2	482.87 µg/L	482.87 ppb	14:41:27
3	Sc 361.383	1833431.9	1833431.9	95.999 %		14:42:43
3	Y 371.029	1252123.0	1252123.0	95.588 %		14:42:43
3	Ag 328.068†	27588.4	29302.7	247.00 µg/L	247.00 ppb	14:42:49
3	As 188.979†	241.1	250.0	473.71 µg/L	473.71 ppb	14:43:09
3	B 249.677†	11855.2	12017.8	431.89 µg/L	431.89 ppb	14:42:49
3	Ba 233.527†	17813.9	18582.3	484.71 µg/L	484.71 ppb	14:42:49
3	Be 313.107†	338767.0	356325.5	232.51 µg/L	232.51 ppb	14:42:43
3	Cd 226.502†	15965.4	16772.9	442.77 µg/L	442.77 ppb	14:42:49
3	Co 228.616†	8119.3	8466.6	416.04 µg/L	416.04 ppb	14:43:09
3	Cr 267.716†	20600.1	21511.0	473.46 µg/L	473.46 ppb	14:42:49
3	Cu 324.752†	70720.9	71182.1	522.28 µg/L	522.28 ppb	14:42:49
3	Mn 257.610†	127685.2	133250.6	466.59 µg/L	466.59 ppb	14:42:49
3	Mo 202.031†	4277.4	4463.2	483.17 µg/L	483.17 ppb	14:43:09
3	Ni 231.604†	7478.0	7487.4	411.22 µg/L	411.22 ppb	14:43:09
3	P 214.914†	1197.0	1219.3	2568.4 µg/L	2568.4 ppb	14:43:09
3	Pb 220.353†	1703.7	1677.5	467.96 µg/L	467.96 ppb	14:43:09
3	S 181.975 Axial†	585.7	595.2	2608.0 µg/L	2608.0 ppb	14:43:09
3	Sb 206.836†	542.2	537.9	491.06 µg/L	491.06 ppb	14:43:09
3	Se 196.026†	1453.1	1497.9	2227.0 µg/L	2227.0 ppb	14:43:09
3	SiO2†	48266.6	49028.1	10558 µg/L	10558 ppb	14:42:49
3	Si 251.611†	58341.2	60459.7	4970.1 µg/L	4970.1 ppb	14:42:49
3	Sn 189.927†	964.4	1005.4	496.36 µg/L	496.36 ppb	14:43:09
3	Ti 334.940†	202865.6	211203.9	478.37 µg/L	478.37 ppb	14:42:49
3	Tl 190.801†	278.4	314.2	463.55 µg/L	463.55 ppb	14:43:09
3	U 409.014†	5159.4	5428.1	437.79 µg/L	437.79 ppb	14:42:49
3	V 292.402†	42697.4	44521.1	500.97 µg/L	500.97 ppb	14:42:49
3	Zn 213.857†	19157.2	19480.1	448.59 µg/L	448.59 ppb	14:42:49

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1839121.1	96.297	%	0.3635				0.38%
Sc RADIAL	54880.3	101	%	0.3				0.30%
Y 371.029	1254617.1	95.778	%	0.2486				0.26%
Ag 328.068†	28939.9	244.14	µg/L	2.532	244.14	ppb	2.532	1.04%
QC value within limits for Ag 328.068 Recovery = 97.66%								
Al 396.153Radial†	661039.6	492680	µg/L	1706.7	492680	ppb	1706.7	0.35%
QC value within limits for Al 396.153Radial Recovery = 98.54%								
As 188.979†	242.9	459.99	µg/L	15.123	459.99	ppb	15.123	3.29%
QC value within limits for As 188.979 Recovery = 92.00%								
B 249.677†	11849.4	424.12	µg/L	6.887	424.12	ppb	6.887	1.62%
QC value within limits for B 249.677 Recovery = 84.82%								
Ba 233.527†	18366.5	479.08	µg/L	5.348	479.08	ppb	5.348	1.12%
QC value within limits for Ba 233.527 Recovery = 95.82%								
Be 313.107†	355191.9	231.77	µg/L	0.640	231.77	ppb	0.640	0.28%
QC value within limits for Be 313.107 Recovery = 92.71%								
Ca 317.933Radial†	496363.2	467360	µg/L	1416.6	467360	ppb	1416.6	0.30%
QC value within limits for Ca 317.933Radial Recovery = 93.47%								
Cd 226.502†	16555.7	436.70	µg/L	6.077	436.70	ppb	6.077	1.39%
QC value within limits for Cd 226.502 Recovery = 87.34%								
Co 228.616†	8476.9	416.56	µg/L	1.225	416.56	ppb	1.225	0.29%

```
   QC value within limits for Co 228.616  Recovery = 83.31%
Cr 267.716†            21197.4      466.55 µg/L        6.392      466.55 ppb        6.392   1.37%
   QC value within limits for Cr 267.716  Recovery = 93.31%
Cu 324.752†            70196.0      515.50 µg/L        6.202      515.50 ppb        6.202   1.20%
   QC value within limits for Cu 324.752  Recovery = 103.10%
Fe 238.204 Radial†     21359.6      181050 µg/L       1382.0      181050 ppb       1382.0   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.52%
K 766.490 Radial†       6851.3      4869.9 µg/L        38.72      4869.9 ppb        38.72   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 97.40%
Mg 279.077 IEC†        50694.8      471600 µg/L       2021.9      471600 ppb       2021.9   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.32%
Mn 257.610†           131617.4      460.98 µg/L        5.261      460.98 ppb        5.261   1.14%
   QC value within limits for Mn 257.610  Recovery = 92.20%
Mo 202.031†             4466.8      483.58 µg/L        0.671      483.58 ppb        0.671   0.14%
   QC value within limits for Mo 202.031  Recovery = 96.72%
Na 589.592 Radial†     14891.8      4902.4 µg/L        18.32      4902.4 ppb        18.32   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.05%
Ni 231.604†             7505.2      412.20 µg/L        1.552      412.20 ppb        1.552   0.38%
   QC value within limits for Ni 231.604  Recovery = 82.44%
P 214.914†              1232.7      2596.7 µg/L        47.05      2596.7 ppb        47.05   1.81%
   QC value within limits for P 214.914  Recovery = 103.87%
Pb 220.353†             1671.1      466.15 µg/L        1.785      466.15 ppb        1.785   0.38%
   QC value within limits for Pb 220.353  Recovery = 93.23%
S 181.975 Axial†         598.4      2621.9 µg/L        33.79      2621.9 ppb        33.79   1.29%
   QC value within limits for S 181.975 Axial  Recovery = 104.87%
Sb 206.836†              541.6      494.95 µg/L        3.768      494.95 ppb        3.768   0.76%
   QC value within limits for Sb 206.836  Recovery = 98.99%
Se 196.026†             1504.0      2237.7 µg/L        10.19      2237.7 ppb        10.19   0.46%
   QC value within limits for Se 196.026  Recovery = 89.51%
SiO2†                  48376.2       10418 µg/L        128.9       10418 ppb        128.9   1.24%
   QC value within limits for SiO2  Recovery = 97.41%
Si 251.611†            59667.4      4905.0 µg/L        59.86      4905.0 ppb        59.86   1.22%
   QC value within limits for Si 251.611  Recovery = 98.10%
Sn 189.927†             1004.7      496.10 µg/L        3.686      496.10 ppb        3.686   0.74%
   QC value within limits for Sn 189.927  Recovery = 99.22%
Sr 421.552†            46744.2      484.56 µg/L        2.020      484.56 ppb        2.020   0.42%
   QC value within limits for Sr 421.552  Recovery = 96.91%
Ti 334.940†           208377.1      471.44 µg/L        6.410      471.44 ppb        6.410   1.36%
   QC value within limits for Ti 334.940  Recovery = 94.29%
Tl 190.801†              307.0      453.45 µg/L       15.538      453.45 ppb       15.538   3.43%
   QC value within limits for Tl 190.801  Recovery = 90.69%
U 409.014†              5311.8      427.24 µg/L        9.525      427.24 ppb        9.525   2.23%
   QC value within limits for U 409.014  Recovery = 85.45%
V 292.402†             44012.4      495.61 µg/L        5.099      495.61 ppb        5.099   1.03%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            19220.1      441.99 µg/L        6.349      441.99 ppb        6.349   1.44%
   QC value within limits for Zn 213.857  Recovery = 88.40%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/11/2010 14:43:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54698.7	54698.7	100	%			14:43:59
1	Al 396.153Radial†	649050.7	647585.6	482670	µg/L	482670	ppb	14:43:54
1	Ca 317.933Radial†	489494.3	488202.6	459670	µg/L	459670	ppb	14:43:54
1	Fe 238.204 Radial†	51606.4	51474.6	436280	µg/L	436280	ppb	14:43:59
1	K 766.490 Radial†	59.9	-68.6	-48.776	µg/L	-48.776	ppb	14:43:59
1	Mg 279.077 IEC†	49787.3	49662.9	461710	µg/L	461710	ppb	14:43:59
1	Na 589.592 Radial†	1412387.5	1408635.5	463730	µg/L	463730	ppb	14:43:54
1	Sr 421.552†	535.1	494.4	5.1247	µg/L	5.1247	ppb	14:43:59
1	Sc 361.383	1832827.1	1832827.1	95.968	%			14:44:34
1	Y 371.029	1243371.2	1243371.2	94.920	%			14:44:34
1	Ag 328.068†	-5331.8	-4991.3	-12.516	µg/L	-12.516	ppb	14:44:40
1	As 188.979†	-25.3	-27.5	-52.401	µg/L	-52.401	ppb	14:45:01
1	B 249.677†	1493.7	1225.0	-174.11	µg/L	-174.11	ppb	14:44:40
1	Ba 233.527†	574.9	625.1	16.169	µg/L	16.169	ppb	14:45:01
1	Be 313.107†	-11067.4	-8092.0	-5.2972	µg/L	-5.2972	ppb	14:44:40
1	Cd 226.502†	1038.3	1224.0	-15.542	µg/L	-15.542	ppb	14:44:40
1	Co 228.616†	189.5	206.3	10.066	µg/L	10.066	ppb	14:45:01
1	Cr 267.716†	137.7	195.9	4.2704	µg/L	4.2704	ppb	14:45:01
1	Cu 324.752†	-8795.2	-11650.9	-20.741	µg/L	-20.741	ppb	14:44:40
1	Mn 257.610†	-7006.5	-7056.8	15.101	µg/L	15.101	ppb	14:44:34
1	Mo 202.031†	-203.3	-204.2	-5.2185	µg/L	-5.2185	ppb	14:45:01
1	Ni 231.604†	92.3	-206.0	-5.6060	µg/L	-5.6060	ppb	14:45:01
1	P 214.914†	278.7	262.7	357.28	µg/L	357.28	ppb	14:45:01
1	Pb 220.353†	191.0	101.8	23.594	µg/L	23.594	ppb	14:45:01
1	S 181.975 Axial†	34.6	21.2	93.001	µg/L	93.001	ppb	14:45:01
1	Sb 206.836†	60.3	35.8	-5.1147	µg/L	-5.1147	ppb	14:45:01
1	Se 196.026†	-124.6	-145.7	431.09	µg/L	431.09	ppb	14:45:01
1	SiO2†	971.9	-237.3	-51.105	µg/L	-51.105	ppb	14:45:01
1	Si 251.611†	-251.2	-574.6	-47.235	µg/L	-47.235	ppb	14:45:01
1	Sn 189.927†	-32.5	-33.0	-9.5042	µg/L	-9.5042	ppb	14:45:01
1	Ti 334.940†	13370.7	13816.4	4.0770	µg/L	4.0770	ppb	14:44:40
1	Tl 190.801†	-49.5	-27.3	33.449	µg/L	33.449	ppb	14:45:01
1	U 409.014†	138681.8	144562.6	13000	µg/L	13000	ppb	14:44:40
1	V 292.402†	-5434.6	-5618.7	4.9101	µg/L	4.9101	ppb	14:44:40
1	Zn 213.857†	2732.6	2371.8	12.479	µg/L	12.479	ppb	14:45:01
2	Sc RADIAL	54113.0	54113.0	99.2	%			14:44:11
2	Al 396.153Radial†	645987.5	651505.9	485590	µg/L	485590	ppb	14:44:06
2	Ca 317.933Radial†	485663.6	489625.6	461010	µg/L	461010	ppb	14:44:06
2	Fe 238.204 Radial†	51235.5	51657.9	437830	µg/L	437830	ppb	14:44:11
2	K 766.490 Radial†	83.9	-43.8	-31.167	µg/L	-31.167	ppb	14:44:11
2	Mg 279.077 IEC†	49624.6	50036.5	465180	µg/L	465180	ppb	14:44:11
2	Na 589.592 Radial†	1405673.5	1417117.7	466520	µg/L	466520	ppb	14:44:06
2	Sr 421.552†	505.9	470.7	4.8794	µg/L	4.8794	ppb	14:44:11
2	Sc 361.383	1837825.9	1837825.9	96.229	%			14:45:07
2	Y 371.029	1247268.6	1247268.6	95.217	%			14:45:07
2	Ag 328.068†	-5248.4	-4889.5	-11.624	µg/L	-11.624	ppb	14:45:13
2	As 188.979†	-21.7	-23.6	-44.761	µg/L	-44.761	ppb	14:45:33
2	B 249.677†	1467.3	1193.4	-176.30	µg/L	-176.30	ppb	14:45:13
2	Ba 233.527†	558.0	605.8	15.663	µg/L	15.663	ppb	14:45:33
2	Be 313.107†	-10966.6	-7955.9	-5.2083	µg/L	-5.2083	ppb	14:45:13
2	Cd 226.502†	1019.9	1202.0	-16.327	µg/L	-16.327	ppb	14:45:13
2	Co 228.616†	178.5	194.3	9.4767	µg/L	9.4767	ppb	14:45:33
2	Cr 267.716†	83.6	139.3	3.0246	µg/L	3.0246	ppb	14:45:33
2	Cu 324.752†	-8717.3	-11545.0	-19.786	µg/L	-19.786	ppb	14:45:13
2	Mn 257.610†	-6988.4	-7018.1	15.303	µg/L	15.303	ppb	14:45:07
2	Mo 202.031†	-191.4	-191.4	-3.7840	µg/L	-3.7840	ppb	14:45:33
2	Ni 231.604†	81.9	-217.1	-6.1913	µg/L	-6.1913	ppb	14:45:33
2	P 214.914†	298.0	282.1	398.14	µg/L	398.14	ppb	14:45:33
2	Pb 220.353†	188.3	98.5	22.919	µg/L	22.919	ppb	14:45:33

2	S 181.975 Axial†	34.5	21.1	92.318 µg/L	92.318 ppb	14:45:33
2	Sb 206.836†	49.5	24.4	-16.430 µg/L	-16.430 ppb	14:45:33
2	Se 196.026†	-135.7	-156.8	414.89 µg/L	414.89 ppb	14:45:33
2	SiO2†	995.7	-215.3	-46.357 µg/L	-46.357 ppb	14:45:33
2	Si 251.611†	-242.1	-564.4	-46.400 µg/L	-46.400 ppb	14:45:33
2	Sn 189.927†	-48.8	-49.9	-17.017 µg/L	-17.017 ppb	14:45:33
2	Ti 334.940†	13350.9	13757.9	3.6830 µg/L	3.6830 ppb	14:45:13
2	Tl 190.801†	-50.6	-28.2	32.395 µg/L	32.395 ppb	14:45:33
2	U 409.014†	138028.8	143491.0	12902 µg/L	12902 ppb	14:45:13
2	V 292.402†	-5635.2	-5811.8	2.9425 µg/L	2.9425 ppb	14:45:13
2	Zn 213.857†	2709.5	2340.1	11.417 µg/L	11.417 ppb	14:45:33
3	Sc RADIAL	54398.5	54398.5	99.7 %		14:44:23
3	Al 396.153Radial†	647423.4	649527.5	484110 µg/L	484110 ppb	14:44:18
3	Ca 317.933Radial†	488211.3	489611.2	461000 µg/L	461000 ppb	14:44:18
3	Fe 238.204 Radial†	51015.9	51166.4	433670 µg/L	433670 ppb	14:44:23
3	K 766.490 Radial†	138.6	10.6	7.5591 µg/L	7.5591 ppb	14:44:23
3	Mg 279.077 IEC†	49363.7	49512.1	460310 µg/L	460310 ppb	14:44:23
3	Na 589.592 Radial†	1412371.3	1416397.4	466280 µg/L	466280 ppb	14:44:18
3	Sr 421.552†	507.2	469.3	4.8646 µg/L	4.8646 ppb	14:44:23
3	Sc 361.383	1837461.1	1837461.1	96.210 %		14:45:40
3	Y 371.029	1245635.1	1245635.1	95.093 %		14:45:40
3	Ag 328.068†	-5107.3	-4744.0	-10.729 µg/L	-10.729 ppb	14:45:45
3	As 188.979†	-16.7	-18.5	-34.960 µg/L	-34.960 ppb	14:46:06
3	B 249.677†	1484.3	1211.3	-173.35 µg/L	-173.35 ppb	14:45:45
3	Ba 233.527†	553.8	601.6	15.554 µg/L	15.554 ppb	14:46:06
3	Be 313.107†	-10842.7	-7829.4	-5.1258 µg/L	-5.1258 ppb	14:45:45
3	Cd 226.502†	1000.6	1182.1	-16.404 µg/L	-16.404 ppb	14:45:45
3	Co 228.616†	166.8	182.2	8.8812 µg/L	8.8812 ppb	14:46:06
3	Cr 267.716†	114.6	171.5	3.7340 µg/L	3.7340 ppb	14:46:06
3	Cu 324.752†	-8778.8	-11610.6	-20.823 µg/L	-20.823 ppb	14:45:45
3	Mn 257.610†	-6849.7	-6875.4	15.438 µg/L	15.438 ppb	14:45:40
3	Mo 202.031†	-180.2	-179.7	-2.7014 µg/L	-2.7014 ppb	14:46:06
3	Ni 231.604†	78.6	-220.5	-6.4261 µg/L	-6.4261 ppb	14:46:06
3	P 214.914†	292.5	276.4	389.07 µg/L	389.07 ppb	14:46:06
3	Pb 220.353†	166.9	76.3	17.067 µg/L	17.067 ppb	14:46:06
3	S 181.975 Axial†	27.8	14.1	61.607 µg/L	61.607 ppb	14:46:06
3	Sb 206.836†	44.0	18.8	-21.940 µg/L	-21.940 ppb	14:46:06
3	Se 196.026†	-130.2	-151.2	416.38 µg/L	416.38 ppb	14:46:06
3	SiO2†	1012.2	-197.9	-42.626 µg/L	-42.626 ppb	14:46:06
3	Si 251.611†	-265.6	-588.9	-48.410 µg/L	-48.410 ppb	14:46:06
3	Sn 189.927†	-42.0	-42.7	-13.864 µg/L	-13.864 ppb	14:46:06
3	Ti 334.940†	13514.7	13930.9	4.4846 µg/L	4.4846 ppb	14:45:45
3	Tl 190.801†	-39.7	-17.0	47.407 µg/L	47.407 ppb	14:46:06
3	U 409.014†	138148.6	143644.0	12917 µg/L	12917 ppb	14:45:45
3	V 292.402†	-5603.1	-5779.6	2.8210 µg/L	2.8210 ppb	14:45:45
3	Zn 213.857†	2726.7	2358.5	12.353 µg/L	12.353 ppb	14:46:06

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1836038.0	96.136	%	0.1459				0.15%
Sc RADIAL	54403.4	99.7	%	0.54				0.54%
Y 371.029	1245425.0	95.077	%	0.1494				0.16%
Ag 328.068†	-4875.0	-11.623	µg/L	0.8935	-11.623	ppb	0.8935	7.69%
Al 396.153Radial†	649539.7	484120	µg/L	1461.0	484120	ppb	1461.0	0.30%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	-23.2	-44.041	µg/L	8.7426	-44.041	ppb	8.7426	19.85%
B 249.677†	1209.9	-174.59	µg/L	1.536	-174.59	ppb	1.536	0.88%
Ba 233.527†	610.9	15.795	µg/L	0.3282	15.795	ppb	0.3282	2.08%
Be 313.107†	-7959.1	-5.2104	µg/L	0.08573	-5.2104	ppb	0.08573	1.65%
Ca 317.933Radial†	489146.5	460560	µg/L	769.6	460560	ppb	769.6	0.17%
QC value within limits for Ca 317.933Radial Recovery = 92.11%								
Cd 226.502†	1202.7	-16.091	µg/L	0.4769	-16.091	ppb	0.4769	2.96%
Co 228.616†	194.3	9.4746	µg/L	0.59237	9.4746	ppb	0.59237	6.25%
Cr 267.716†	168.9	3.6764	µg/L	0.62486	3.6764	ppb	0.62486	17.00%
Cu 324.752†	-11602.2	-20.450	µg/L	0.5769	-20.450	ppb	0.5769	2.82%
Fe 238.204 Radial†	51433.0	435930	µg/L	2105.0	435930	ppb	2105.0	0.48%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.19%								
K 766.490 Radial†	-33.9	-24.128	µg/L	28.8197	-24.128	ppb	28.8197	119.44%
Mg 279.077 IEC†	49737.1	462400	µg/L	2510.3	462400	ppb	2510.3	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 92.48%

Mn 257.610†	-6983.5	15.281 µg/L	0.1695	15.281 ppb	0.1695	1.11%
Mo 202.031†	-191.8	-3.9013 µg/L	1.26264	-3.9013 ppb	1.26264	32.36%
Na 589.592 Radial†	1414050.2	465510 µg/L	1548.3	465510 ppb	1548.3	0.33%

QC value within limits for Na 589.592 Radial Recovery = 93.10%

Ni 231.604†	-214.5	-6.0745 µg/L	0.42234	-6.0745 ppb	0.42234	6.95%
P 214.914†	273.7	381.50 µg/L	21.461	381.50 ppb	21.461	5.63%
Pb 220.353†	92.2	21.194 µg/L	3.5893	21.194 ppb	3.5893	16.94%
S 181.975 Axial†	18.8	82.309 µg/L	17.9317	82.309 ppb	17.9317	21.79%
Sb 206.836†	26.4	-14.495 µg/L	8.5779	-14.495 ppb	8.5779	59.18%
Se 196.026†	-151.2	420.79 µg/L	8.956	420.79 ppb	8.956	2.13%
SiO2†	-216.8	-46.696 µg/L	4.2500	-46.696 ppb	4.2500	9.10%
Si 251.611†	-576.0	-47.348 µg/L	1.0098	-47.348 ppb	1.0098	2.13%
Sn 189.927†	-41.9	-13.462 µg/L	3.7726	-13.462 ppb	3.7726	28.02%
Sr 421.552†	478.1	4.9562 µg/L	0.14608	4.9562 ppb	0.14608	2.95%
Ti 334.940†	13835.1	4.0815 µg/L	0.40078	4.0815 ppb	0.40078	9.82%
Tl 190.801†	-24.2	37.750 µg/L	8.3798	37.750 ppb	8.3798	22.20%
U 409.014†	143899.2	12939 µg/L	52.5	12939 ppb	52.5	0.41%

QC value less than the lower limit for U 409.014 Recovery = 86.26%

V 292.402†	-5736.7	3.5579 µg/L	1.17264	3.5579 ppb	1.17264	32.96%
Zn 213.857†	2356.8	12.083 µg/L	0.5800	12.083 ppb	0.5800	4.80%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/11/2010 14:46:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55399.0	55399.0	102	%			14:46:58
1	Al 396.153Radial†	399.7	403.8	92.521	µg/L	92.521	ppb	14:46:58
1	Ca 317.933Radial†	334.1	149.9	141.18	µg/L	141.18	ppb	14:47:18
1	Fe 238.204 Radial†	7.1	-7.5	138.28	µg/L	138.28	ppb	14:47:18
1	K 766.490 Radial†	420398.0	414012.0	294280	µg/L	294280	ppb	14:46:52
1	Mg 279.077 IEC†	6.8	-4.5	128.44	µg/L	128.44	ppb	14:47:18
1	Na 589.592 Radial†	1342.1	780.2	256.86	µg/L	256.86	ppb	14:46:58
1	Sr 421.552†	951196.0	936997.9	9713.1	µg/L	9713.1	ppb	14:46:52
1	Sc 361.383	1973675.2	1973675.2	103.34	%			14:48:49
1	Y 371.029	1341693.6	1341693.6	102.43	%			14:48:49
1	Ag 328.068†	-7295.5	-6495.0	14.834	µg/L	14.834	ppb	14:48:55
1	As 188.979†	5210.7	5041.0	9833.2	µg/L	9833.2	ppb	14:48:55
1	B 249.677†	116645.4	112541.3	4957.2	µg/L	4957.2	ppb	14:48:49
1	Ba 233.527†	564583.2	546348.7	14244	µg/L	14244	ppb	14:48:49
1	Be 313.107†	4590165.2	4445144.6	2899.1	µg/L	2899.1	ppb	14:48:39
1	Cd 226.502†	360765.0	349238.8	9644.6	µg/L	9644.6	ppb	14:48:49
1	Co 228.616†	199452.7	193010.6	9487.0	µg/L	9487.0	ppb	14:48:49
1	Cr 267.716†	1141741.3	1104866.0	24309	µg/L	24309	ppb	14:48:49
1	Cu 324.752†	2993464.1	2894159.5	20216	µg/L	20216	ppb	14:48:49
1	Mn 257.610†	2858381.7	2766176.3	9578.9	µg/L	9578.9	ppb	14:48:49
1	Mo 202.031†	98264.3	95093.6	10148	µg/L	10148	ppb	14:48:49
1	Ni 231.604†	183070.7	176847.4	9657.8	µg/L	9657.8	ppb	14:48:49
1	P 214.914†	7469.6	7200.4	13482	µg/L	13482	ppb	14:48:55
1	Pb 220.353†	97644.4	94389.0	25180	µg/L	25180	ppb	14:48:49
1	S 181.975 Axial†	12516.5	12096.9	53001	µg/L	53001	ppb	14:48:55
1	Sb 206.836†	11239.2	10848.7	10569	µg/L	10569	ppb	14:48:55
1	Se 196.026†	6584.9	6356.1	9690.0	µg/L	9690.0	ppb	14:48:55
1	SiO2†	476520.0	459857.7	99033	µg/L	99033	ppb	14:48:49
1	Si 251.611†	580361.7	561278.0	46140	µg/L	46140	ppb	14:48:49
1	Sn 189.927†	23760.5	22992.8	10575	µg/L	10575	ppb	14:48:55
1	Ti 334.940†	4290484.1	4151599.7	9986.4	µg/L	9986.4	ppb	14:48:39
1	Tl 190.801†	7036.0	6832.7	9632.0	µg/L	9632.0	ppb	14:48:55
1	U 409.014†	835.4	862.0	78.046	µg/L	78.046	ppb	14:48:49
1	V 292.402†	975452.7	943947.6	10194	µg/L	10194	ppb	14:48:49
1	Zn 213.857†	598917.9	579071.4	14385	µg/L	14385	ppb	14:48:49
2	Sc RADIAL	55030.3	55030.3	101	%			14:47:30
2	Al 396.153Radial†	384.6	391.5	90.444	µg/L	90.444	ppb	14:47:30
2	Ca 317.933Radial†	398.0	215.6	202.97	µg/L	202.97	ppb	14:47:50
2	Fe 238.204 Radial†	10.5	-4.0	160.36	µg/L	160.36	ppb	14:47:50
2	K 766.490 Radial†	423060.2	419427.1	298130	µg/L	298130	ppb	14:47:24
2	Mg 279.077 IEC†	11.3	-0.0	164.54	µg/L	164.54	ppb	14:47:50
2	Na 589.592 Radial†	1212.5	660.6	217.48	µg/L	217.48	ppb	14:47:30
2	Sr 421.552†	957912.4	949937.4	9847.2	µg/L	9847.2	ppb	14:47:24
2	Sc 361.383	1973904.3	1973904.3	103.35	%			14:49:14
2	Y 371.029	1342735.7	1342735.7	102.51	%			14:49:14
2	Ag 328.068†	-6836.3	-6049.9	16.075	µg/L	16.075	ppb	14:49:19
2	As 188.979†	5005.3	4841.7	9444.3	µg/L	9444.3	ppb	14:49:19
2	B 249.677†	114403.0	110358.5	4860.1	µg/L	4860.1	ppb	14:49:14
2	Ba 233.527†	548071.4	530309.5	13826	µg/L	13826	ppb	14:49:14
2	Be 313.107†	4469193.3	4327583.5	2822.5	µg/L	2822.5	ppb	14:49:04
2	Cd 226.502†	349367.5	338170.7	9338.9	µg/L	9338.9	ppb	14:49:14
2	Co 228.616†	192536.9	186296.8	9156.8	µg/L	9156.8	ppb	14:49:14
2	Cr 267.716†	1093055.4	1057632.1	23270	µg/L	23270	ppb	14:49:14
2	Cu 324.752†	2898656.7	2802093.0	19573	µg/L	19573	ppb	14:49:14
2	Mn 257.610†	2761508.2	2672125.9	9253.2	µg/L	9253.2	ppb	14:49:14
2	Mo 202.031†	94921.3	91848.1	9802.1	µg/L	9802.1	ppb	14:49:14
2	Ni 231.604†	176871.2	170828.6	9329.1	µg/L	9329.1	ppb	14:49:14
2	P 214.914†	7023.8	6768.2	12612	µg/L	12612	ppb	14:49:19
2	Pb 220.353†	95131.3	91946.6	24529	µg/L	24529	ppb	14:49:14

2	S 181.975 Axial†	12036.4	11630.9	50959 µg/L	50959 ppb	14:49:19
2	Sb 206.836†	10693.6	10319.6	10054 µg/L	10054 ppb	14:49:19
2	Se 196.026†	6359.9	6137.7	9357.1 µg/L	9357.1 ppb	14:49:19
2	SiO2†	465181.8	448834.1	96659 µg/L	96659 ppb	14:49:14
2	Si 251.611†	566752.0	548044.9	45052 µg/L	45052 ppb	14:49:14
2	Sn 189.927†	22166.4	21447.8	9864.4 µg/L	9864.4 ppb	14:49:19
2	Ti 334.940†	4180020.8	4044239.7	9728.1 µg/L	9728.1 ppb	14:49:04
2	Tl 190.801†	6890.0	6690.7	9431.4 µg/L	9431.4 ppb	14:49:19
2	U 409.014†	947.2	970.1	87.818 µg/L	87.818 ppb	14:49:14
2	V 292.402†	941864.4	911339.9	9841.7 µg/L	9841.7 ppb	14:49:14
2	Zn 213.857†	579745.6	560454.1	13922 µg/L	13922 ppb	14:49:14
3	Sc RADIAL	56038.9	56038.9	103 %		14:48:02
3	Al 396.153Radial†	479.5	477.1	179.56 µg/L	179.56 ppb	14:48:02
3	Ca 317.933Radial†	383.6	194.4	183.07 µg/L	183.07 ppb	14:48:22
3	Fe 238.204 Radial†	9.4	-5.4	124.22 µg/L	124.22 ppb	14:48:22
3	K 766.490 Radial†	428756.3	417423.2	296700 µg/L	296700 ppb	14:47:56
3	Mg 279.077 IEC†	6.3	-5.2	95.926 µg/L	95.926 ppb	14:48:22
3	Na 589.592 Radial†	1260.6	685.8	225.77 µg/L	225.77 ppb	14:48:02
3	Sr 421.552†	974533.2	949026.3	9837.8 µg/L	9837.8 ppb	14:47:56
3	Sc 361.383	1967182.2	1967182.2	103.00 %		14:49:39
3	Y 371.029	1337106.2	1337106.2	102.08 %		14:49:39
3	Ag 328.068†	-5873.5	-5137.8	14.957 µg/L	14.957 ppb	14:49:44
3	As 188.979†	4335.2	4207.7	8207.5 µg/L	8207.5 ppb	14:49:44
3	B 249.677†	103256.6	99915.3	4398.2 µg/L	4398.2 ppb	14:49:39
3	Ba 233.527†	483121.0	469064.3	12229 µg/L	12229 ppb	14:49:39
3	Be 313.107†	4064814.3	3949767.9	2576.0 µg/L	2576.0 ppb	14:49:28
3	Cd 226.502†	306350.7	297562.9	8217.4 µg/L	8217.4 ppb	14:49:39
3	Co 228.616†	167417.3	162546.1	7988.6 µg/L	7988.6 ppb	14:49:39
3	Cr 267.716†	928569.1	901554.3	19836 µg/L	19836 ppb	14:49:39
3	Cu 324.752†	2527919.1	2451745.7	17126 µg/L	17126 ppb	14:49:39
3	Mn 257.610†	2402081.4	2332306.4	8076.5 µg/L	8076.5 ppb	14:49:39
3	Mo 202.031†	82713.5	80310.0	8570.8 µg/L	8570.8 ppb	14:49:39
3	Ni 231.604†	153785.8	149000.9	8137.1 µg/L	8137.1 ppb	14:49:39
3	P 214.914†	6020.9	5817.7	10807 µg/L	10807 ppb	14:49:44
3	Pb 220.353†	84806.2	82236.9	21938 µg/L	21938 ppb	14:49:39
3	S 181.975 Axial†	10412.0	10093.6	44224 µg/L	44224 ppb	14:49:44
3	Sb 206.836†	9221.8	8926.1	8701.4 µg/L	8701.4 ppb	14:49:44
3	Se 196.026†	5513.0	5336.4	8135.5 µg/L	8135.5 ppb	14:49:44
3	SiO2†	415353.7	401996.4	86572 µg/L	86572 ppb	14:49:39
3	Si 251.611†	505959.6	490898.3	40354 µg/L	40354 ppb	14:49:39
3	Sn 189.927†	18682.4	18138.7	8342.5 µg/L	8342.5 ppb	14:49:44
3	Ti 334.940†	3801346.2	3690423.2	8877.0 µg/L	8877.0 ppb	14:49:28
3	Tl 190.801†	6155.2	6000.1	8459.0 µg/L	8459.0 ppb	14:49:44
3	U 409.014†	834.8	864.1	78.225 µg/L	78.225 ppb	14:49:39
3	V 292.402†	816284.9	792534.9	8558.2 µg/L	8558.2 ppb	14:49:39
3	Zn 213.857†	507712.5	492437.5	12233 µg/L	12233 ppb	14:49:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1971587.2	103.23	%	0.200				0.19%
Sc RADIAL	55489.4	102	%	0.9				0.92%
Y 371.029	1340511.8	102.34	%	0.229				0.22%
Ag 328.068†	-5894.2	15.288	µg/L	0.6836	15.288	ppb	0.6836	4.47%
Al 396.153Radial†	424.2	120.84	µg/L	50.861	120.84	ppb	50.861	42.09%
As 188.979†	4696.8	9161.7	µg/L	848.90	9161.7	ppb	848.90	9.27%
QC value within limits for As 188.979 Recovery = 91.62%								
B 249.677†	107605.0	4738.5	µg/L	298.66	4738.5	ppb	298.66	6.30%
QC value within limits for B 249.677 Recovery = 94.77%								
Ba 233.527†	515240.8	13433	µg/L	1063.5	13433	ppb	1063.5	7.92%
QC value less than the lower limit for Ba 233.527 Recovery = 89.55%								
Be 313.107†	4240832.0	2765.9	µg/L	168.81	2765.9	ppb	168.81	6.10%
QC value within limits for Be 313.107 Recovery = 92.20%								
Ca 317.933Radial†	186.6	175.74	µg/L	31.540	175.74	ppb	31.540	17.95%
Cd 226.502†	328324.1	9067.0	µg/L	751.45	9067.0	ppb	751.45	8.29%
QC value within limits for Cd 226.502 Recovery = 90.67%								
Co 228.616†	180617.8	8877.5	µg/L	787.27	8877.5	ppb	787.27	8.87%
QC value less than the lower limit for Co 228.616 Recovery = 88.77%								
Cr 267.716†	1021350.8	22472	µg/L	2340.9	22472	ppb	2340.9	10.42%
QC value less than the lower limit for Cr 267.716 Recovery = 89.89%								

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Cu 324.752†          2715999.4       18972 µg/L        1630.6       18972 ppb         1630.6   8.59%
   QC value within limits for Cu 324.752  Recovery = 94.86%
Fe 238.204 Radial†        -5.6      140.95 µg/L        18.221      140.95 ppb         18.221  12.93%
K 766.490 Radial†     416954.1      296370 µg/L        1946.1      296370 ppb         1946.1   0.66%
   QC value within limits for K 766.490 Radial  Recovery = 98.79%
Mg 279.077 IEC†           -3.2      129.64 µg/L        34.323      129.64 ppb         34.323  26.48%
Mn 257.610†          2590202.9      8969.5 µg/L        790.37      8969.5 ppb         790.37   8.81%
   QC value less than the lower limit for Mn 257.610  Recovery = 89.70%
Mo 202.031†            89083.9      9507.1 µg/L        829.20      9507.1 ppb         829.20   8.72%
   QC value within limits for Mo 202.031  Recovery = 95.07%
Na 589.592 Radial†       708.9      233.37 µg/L        20.762      233.37 ppb         20.762   8.90%
Ni 231.604†           165559.0      9041.3 µg/L        800.17      9041.3 ppb         800.17   8.85%
   QC value within limits for Ni 231.604  Recovery = 90.41%
P 214.914†              6595.5      12300 µg/L        1364.7       12300 ppb         1364.7  11.09%
   QC value less than the lower limit for P 214.914  Recovery = 82.00%
Pb 220.353†            89524.2      23882 µg/L        1714.8       23882 ppb         1714.8   7.18%
   QC value within limits for Pb 220.353  Recovery = 95.53%
S 181.975 Axial†       11273.8      49394 µg/L        4592.8       49394 ppb         4592.8   9.30%
   QC value within limits for S 181.975 Axial  Recovery = 98.79%
Sb 206.836†            10031.5      9774.9 µg/L        964.64      9774.9 ppb         964.64   9.87%
   QC value within limits for Sb 206.836  Recovery = 97.75%
Se 196.026†             5943.4      9060.9 µg/L        818.48      9060.9 ppb         818.48   9.03%
   QC value within limits for Se 196.026  Recovery = 90.61%
SiO2†                 436896.1      94088 µg/L        6616.3       94088 ppb         6616.3   7.03%
   QC value less than the lower limit for SiO2  Recovery = 87.93%
Si 251.611†           533407.1      43849 µg/L        3074.8       43849 ppb         3074.8   7.01%
   QC value less than the lower limit for Si 251.611  Recovery = 87.70%
Sn 189.927†            20859.8      9594.0 µg/L       1140.59      9594.0 ppb        1140.59  11.89%
   QC value within limits for Sn 189.927  Recovery = 95.94%
Sr 421.552†           945320.6      9799.4 µg/L         74.86      9799.4 ppb          74.86   0.76%
   QC value within limits for Sr 421.552  Recovery = 97.99%
Ti 334.940†          3962087.5      9530.5 µg/L        580.46      9530.5 ppb         580.46   6.09%
   QC value within limits for Ti 334.940  Recovery = 95.30%
Tl 190.801†             6507.8      9174.1 µg/L        627.37      9174.1 ppb         627.37   6.84%
   QC value within limits for Tl 190.801  Recovery = 91.74%
U 409.014†               898.7      81.363 µg/L        5.5909      81.363 ppb         5.5909   6.87%
V 292.402†            882607.5      9531.4 µg/L        861.08      9531.4 ppb         861.08   9.03%
   QC value within limits for V 292.402  Recovery = 95.31%
Zn 213.857†           543987.7       13513 µg/L        1132.6       13513 ppb         1132.6   8.38%
   QC value within limits for Zn 213.857  Recovery = 90.09%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 14:49:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56804.1	56804.1	104	%			14:50:31
1	Al 396.153Radial†	6842.1	6583.7	4896.3	µg/L	4896.3	ppb	14:50:31
1	Ca 317.933Radial†	5575.3	5177.3	4874.7	µg/L	4874.7	ppb	14:50:52
1	Fe 238.204 Radial†	620.0	581.2	4936.5	µg/L	4936.5	ppb	14:50:52
1	K 766.490 Radial†	7520.1	7096.5	5044.1	µg/L	5044.1	ppb	14:50:31
1	Mg 279.077 IEC†	574.4	540.6	5034.2	µg/L	5034.2	ppb	14:50:52
1	Na 589.592 Radial†	31573.0	29791.8	9807.5	µg/L	9807.5	ppb	14:50:31
1	Sr 421.552†	48614.5	46666.6	483.75	µg/L	483.75	ppb	14:50:31
1	Sc 361.383	1985086.2	1985086.2	103.94	%			14:51:55
1	Y 371.029	1355705.3	1355705.3	103.50	%			14:51:55
1	Ag 328.068†	63419.1	61579.6	492.20	µg/L	492.20	ppb	14:52:00
1	As 188.979†	283.1	271.2	529.04	µg/L	529.04	ppb	14:52:21
1	B 249.677†	12082.8	11293.3	491.77	µg/L	491.77	ppb	14:52:00
1	Ba 233.527†	19621.7	18904.0	493.12	µg/L	493.12	ppb	14:52:00
1	Be 313.107†	773609.6	747725.8	488.12	µg/L	488.12	ppb	14:51:55
1	Cd 226.502†	18494.8	17935.8	494.76	µg/L	494.76	ppb	14:52:00
1	Co 228.616†	10503.4	10114.1	497.19	µg/L	497.19	ppb	14:52:00
1	Cr 267.716†	23548.0	22707.7	499.79	µg/L	499.79	ppb	14:52:00
1	Cu 324.752†	76174.0	70800.5	495.24	µg/L	495.24	ppb	14:52:00
1	Mn 257.610†	149145.1	143735.7	498.19	µg/L	498.19	ppb	14:51:55
1	Mo 202.031†	5080.3	4895.3	522.62	µg/L	522.62	ppb	14:52:21
1	Ni 231.604†	9759.2	9087.1	496.31	µg/L	496.31	ppb	14:52:00
1	P 214.914†	1255.3	1180.1	2486.8	µg/L	2486.8	ppb	14:52:21
1	Pb 220.353†	2124.3	1946.6	519.63	µg/L	519.63	ppb	14:52:21
1	S 181.975 Axial†	258.7	234.1	1025.7	µg/L	1025.7	ppb	14:52:21
1	Sb 206.836†	589.1	539.9	533.84	µg/L	533.84	ppb	14:52:21
1	Se 196.026†	360.1	330.7	511.73	µg/L	511.73	ppb	14:52:21
1	SiO2†	26768.3	24503.7	5277.0	µg/L	5277.0	ppb	14:52:00
1	Si 251.611†	31600.0	30089.3	2473.5	µg/L	2473.5	ppb	14:52:00
1	Sn 189.927†	1182.0	1138.1	523.47	µg/L	523.47	ppb	14:52:21
1	Ti 334.940†	213092.8	204899.2	492.55	µg/L	492.55	ppb	14:51:55
1	Tl 190.801†	347.4	358.5	506.37	µg/L	506.37	ppb	14:52:21
1	U 409.014†	5696.3	5534.0	500.04	µg/L	500.04	ppb	14:52:00
1	V 292.402†	48064.4	46286.7	499.57	µg/L	499.57	ppb	14:52:00
1	Zn 213.857†	21219.3	19939.4	494.39	µg/L	494.39	ppb	14:52:00
2	Sc RADIAL	56818.7	56818.7	104	%			14:50:57
2	Al 396.153Radial†	6864.1	6603.1	4910.8	µg/L	4910.8	ppb	14:50:57
2	Ca 317.933Radial†	5535.1	5137.3	4837.1	µg/L	4837.1	ppb	14:51:17
2	Fe 238.204 Radial†	615.6	576.8	4899.1	µg/L	4899.1	ppb	14:51:17
2	K 766.490 Radial†	7426.8	7005.0	4979.1	µg/L	4979.1	ppb	14:50:57
2	Mg 279.077 IEC†	575.7	541.7	5044.4	µg/L	5044.4	ppb	14:51:17
2	Na 589.592 Radial†	31604.5	29814.2	9814.9	µg/L	9814.9	ppb	14:50:57
2	Sr 421.552†	48545.6	46588.5	482.94	µg/L	482.94	ppb	14:50:57
2	Sc 361.383	1982851.3	1982851.3	103.82	%			14:52:28
2	Y 371.029	1354649.3	1354649.3	103.41	%			14:52:28
2	Ag 328.068†	64081.0	62286.0	497.83	µg/L	497.83	ppb	14:52:34
2	As 188.979†	276.6	265.3	517.47	µg/L	517.47	ppb	14:52:54
2	B 249.677†	12111.5	11334.1	493.59	µg/L	493.59	ppb	14:52:34
2	Ba 233.527†	19855.9	19150.8	499.56	µg/L	499.56	ppb	14:52:34
2	Be 313.107†	767601.6	742777.9	484.89	µg/L	484.89	ppb	14:52:28
2	Cd 226.502†	18724.1	18176.8	501.42	µg/L	501.42	ppb	14:52:34
2	Co 228.616†	10623.9	10241.5	503.47	µg/L	503.47	ppb	14:52:34
2	Cr 267.716†	23965.4	23135.3	509.20	µg/L	509.20	ppb	14:52:34
2	Cu 324.752†	76944.2	71624.9	501.00	µg/L	501.00	ppb	14:52:34
2	Mn 257.610†	147951.6	142747.9	494.77	µg/L	494.77	ppb	14:52:28
2	Mo 202.031†	5059.8	4881.0	521.09	µg/L	521.09	ppb	14:52:54
2	Ni 231.604†	9897.9	9231.3	504.18	µg/L	504.18	ppb	14:52:34
2	P 214.914†	1254.5	1180.6	2487.4	µg/L	2487.4	ppb	14:52:54
2	Pb 220.353†	2113.7	1938.7	517.51	µg/L	517.51	ppb	14:52:54

2	S 181.975 Axial†	253.9	229.7	1006.6 µg/L	1006.6 ppb	14:52:54
2	Sb 206.836†	570.0	522.0	516.18 µg/L	516.18 ppb	14:52:54
2	Se 196.026†	357.5	328.5	508.28 µg/L	508.28 ppb	14:52:54
2	SiO2†	27016.3	24771.5	5334.7 µg/L	5334.7 ppb	14:52:34
2	Si 251.611†	31927.7	30439.2	2502.3 µg/L	2502.3 ppb	14:52:34
2	Sn 189.927†	1183.2	1140.5	524.61 µg/L	524.61 ppb	14:52:54
2	Ti 334.940†	211586.4	203679.4	489.61 µg/L	489.61 ppb	14:52:28
2	Tl 190.801†	345.3	356.8	503.93 µg/L	503.93 ppb	14:52:54
2	U 409.014†	5694.5	5538.4	500.46 µg/L	500.46 ppb	14:52:34
2	V 292.402†	48494.6	46753.2	504.55 µg/L	504.55 ppb	14:52:34
2	Zn 213.857†	21488.9	20222.1	501.41 µg/L	501.41 ppb	14:52:34
3	Sc RADIAL	57349.9	57349.9	105 %		14:51:23
3	Al 396.153Radial†	6954.4	6628.0	4931.1 µg/L	4931.1 ppb	14:51:23
3	Ca 317.933Radial†	5532.3	5085.5	4788.3 µg/L	4788.3 ppb	14:51:43
3	Fe 238.204 Radial†	617.1	572.8	4864.4 µg/L	4864.4 ppb	14:51:43
3	K 766.490 Radial†	7512.2	7020.2	4989.9 µg/L	4989.9 ppb	14:51:23
3	Mg 279.077 IEC†	569.2	530.4	4937.8 µg/L	4937.8 ppb	14:51:43
3	Na 589.592 Radial†	31885.8	29800.8	9810.5 µg/L	9810.5 ppb	14:51:23
3	Sr 421.552†	49101.8	46686.0	483.95 µg/L	483.95 ppb	14:51:23
3	Sc 361.383	1990626.4	1990626.4	104.23 %		14:53:01
3	Y 371.029	1359542.7	1359542.7	103.79 %		14:53:01
3	Ag 328.068†	60113.1	58238.1	465.39 µg/L	465.39 ppb	14:53:07
3	As 188.979†	235.3	224.6	438.16 µg/L	438.16 ppb	14:53:28
3	B 249.677†	11347.7	10555.7	459.50 µg/L	459.50 ppb	14:53:07
3	Ba 233.527†	18299.9	17583.2	458.65 µg/L	458.65 ppb	14:53:07
3	Be 313.107†	726470.7	700428.5	457.24 µg/L	457.24 ppb	14:53:01
3	Cd 226.502†	17137.6	16584.2	457.44 µg/L	457.44 ppb	14:53:07
3	Co 228.616†	9675.2	9291.3	456.68 µg/L	456.68 ppb	14:53:07
3	Cr 267.716†	21632.8	20807.2	457.96 µg/L	457.96 ppb	14:53:07
3	Cu 324.752†	71181.3	65806.4	460.35 µg/L	460.35 ppb	14:53:07
3	Mn 257.610†	140886.2	135412.6	469.36 µg/L	469.36 ppb	14:53:01
3	Mo 202.031†	4241.7	4077.1	435.30 µg/L	435.30 ppb	14:53:28
3	Ni 231.604†	9011.2	8343.3	455.69 µg/L	455.69 ppb	14:53:07
3	P 214.914†	1075.3	1004.1	2111.2 µg/L	2111.2 ppb	14:53:28
3	Pb 220.353†	1866.0	1693.1	451.84 µg/L	451.84 ppb	14:53:28
3	S 181.975 Axial†	232.5	208.2	912.40 µg/L	912.40 ppb	14:53:28
3	Sb 206.836†	504.7	457.3	451.62 µg/L	451.62 ppb	14:53:28
3	Se 196.026†	310.0	281.6	436.86 µg/L	436.86 ppb	14:53:28
3	SiO2†	25184.9	22912.8	4934.4 µg/L	4934.4 ppb	14:53:07
3	Si 251.611†	29623.3	28108.2	2310.6 µg/L	2310.6 ppb	14:53:07
3	Sn 189.927†	974.4	935.7	430.40 µg/L	430.40 ppb	14:53:28
3	Ti 334.940†	200395.3	192146.5	461.88 µg/L	461.88 ppb	14:53:01
3	Tl 190.801†	314.8	326.3	461.00 µg/L	461.00 ppb	14:53:28
3	U 409.014†	5084.0	4931.3	445.50 µg/L	445.50 ppb	14:53:07
3	V 292.402†	43900.0	42162.6	454.79 µg/L	454.79 ppb	14:53:07
3	Zn 213.857†	19753.8	18476.6	458.11 µg/L	458.11 ppb	14:53:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1986188.0	104.00	%	0.210				0.20%
Sc RADIAL	56990.9	104	%	0.6				0.55%
Y 371.029	1356632.4	103.57	%	0.197				0.19%
Ag 328.068†	60701.2	485.14	µg/L	17.336	485.14	ppb	17.336	3.57%
QC value within limits for Ag 328.068 Recovery = 97.03%								
Al 396.153Radial†	6604.9	4912.7	µg/L	17.49	4912.7	ppb	17.49	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.25%								
As 188.979†	253.7	494.89	µg/L	49.467	494.89	ppb	49.467	10.00%
QC value within limits for As 188.979 Recovery = 98.98%								
B 249.677†	11061.0	481.62	µg/L	19.175	481.62	ppb	19.175	3.98%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	18546.0	483.78	µg/L	21.996	483.78	ppb	21.996	4.55%
QC value within limits for Ba 233.527 Recovery = 96.76%								
Be 313.107†	730310.7	476.75	µg/L	16.971	476.75	ppb	16.971	3.56%
QC value within limits for Be 313.107 Recovery = 95.35%								
Ca 317.933Radial†	5133.4	4833.4	µg/L	43.35	4833.4	ppb	43.35	0.90%
QC value within limits for Ca 317.933Radial Recovery = 96.67%								
Cd 226.502†	17565.6	484.54	µg/L	23.706	484.54	ppb	23.706	4.89%
QC value within limits for Cd 226.502 Recovery = 96.91%								
Co 228.616†	9882.3	485.78	µg/L	25.392	485.78	ppb	25.392	5.23%

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   QC value within limits for Co 228.616  Recovery = 97.16%
Cr 267.716†            22216.8      488.98 µg/L        27.276      488.98 ppb         27.276   5.58%
   QC value within limits for Cr 267.716  Recovery = 97.80%
Cu 324.752†            69410.6      485.53 µg/L        21.996      485.53 ppb         21.996   4.53%
   QC value within limits for Cu 324.752  Recovery = 97.11%
Fe 238.204 Radial†       576.9      4900.0 µg/L         36.10      4900.0 ppb          36.10   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.00%
K 766.490 Radial†       7040.6      5004.4 µg/L         34.84      5004.4 ppb          34.84   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 100.09%
Mg 279.077 IEC†          537.5      5005.5 µg/L         58.81      5005.5 ppb          58.81   1.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.11%
Mn 257.610†           140632.1      487.44 µg/L        15.748      487.44 ppb         15.748   3.23%
   QC value within limits for Mn 257.610  Recovery = 97.49%
Mo 202.031†             4617.8      493.00 µg/L        49.981      493.00 ppb         49.981  10.14%
   QC value within limits for Mo 202.031  Recovery = 98.60%
Na 589.592 Radial†     29802.3      9811.0 µg/L          3.72      9811.0 ppb           3.72   0.04%
   QC value within limits for Na 589.592 Radial  Recovery = 98.11%
Ni 231.604†             8887.2      485.39 µg/L        26.026      485.39 ppb         26.026   5.36%
   QC value within limits for Ni 231.604  Recovery = 97.08%
P 214.914†              1121.6      2361.8 µg/L        217.03      2361.8 ppb         217.03   9.19%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1859.5      496.33 µg/L        38.539      496.33 ppb         38.539   7.76%
   QC value within limits for Pb 220.353  Recovery = 99.27%
S 181.975 Axial†         224.0      981.57 µg/L        60.664      981.57 ppb         60.664   6.18%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†              506.4      500.55 µg/L        43.281      500.55 ppb         43.281   8.65%
   QC value within limits for Sb 206.836  Recovery = 100.11%
Se 196.026†              313.6      485.62 µg/L        42.263      485.62 ppb         42.263   8.70%
   QC value within limits for Se 196.026  Recovery = 97.12%
SiO2†                  24062.6      5182.0 µg/L        216.38      5182.0 ppb         216.38   4.18%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†            29545.6      2428.8 µg/L        103.33      2428.8 ppb         103.33   4.25%
   QC value within limits for Si 251.611  Recovery = 97.15%
Sn 189.927†             1071.4      492.83 µg/L        54.065      492.83 ppb         54.065  10.97%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†            46647.0      483.55 µg/L         0.535      483.55 ppb          0.535   0.11%
   QC value within limits for Sr 421.552  Recovery = 96.71%
Ti 334.940†           200241.7      481.35 µg/L        16.923      481.35 ppb         16.923   3.52%
   QC value within limits for Ti 334.940  Recovery = 96.27%
Tl 190.801†              347.2      490.43 µg/L        25.519      490.43 ppb         25.519   5.20%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†              5334.6      482.00 µg/L        31.611      482.00 ppb         31.611   6.56%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             45067.5      486.30 µg/L        27.408      486.30 ppb         27.408   5.64%
   QC value within limits for V 292.402  Recovery = 97.26%
Zn 213.857†            19546.0      484.64 µg/L        23.239      484.64 ppb         23.239   4.80%
   QC value within limits for Zn 213.857  Recovery = 96.93%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 14:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56199.9	56199.9	103	%			14:54:10
1	Al 396.153Radial†	38.0	47.1	35.072	µg/L	35.072	ppb	14:54:10
1	Ca 317.933Radial†	231.4	45.6	42.930	µg/L	42.930	ppb	14:54:31
1	Fe 238.204 Radial†	23.4	8.2	69.822	µg/L	69.822	ppb	14:54:31
1	K 766.490 Radial†	243.5	108.1	76.828	µg/L	76.828	ppb	14:54:10
1	Mg 279.077 IEC†	18.5	6.7	62.643	µg/L	62.643	ppb	14:54:31
1	Na 589.592 Radial†	743.1	179.7	59.159	µg/L	59.159	ppb	14:54:10
1	Sr 421.552†	105.8	63.2	0.6552	µg/L	0.6552	ppb	14:54:10
1	Sc 361.383	1982476.6	1982476.6	103.80	%			14:55:33
1	Y 371.029	1357413.1	1357413.1	103.63	%			14:55:33
1	Ag 328.068†	-522.2	61.5	0.4946	µg/L	0.4946	ppb	14:55:38
1	As 188.979†	1.8	0.6	1.0901	µg/L	1.0901	ppb	14:55:59
1	B 249.677†	408.1	61.7	2.6625	µg/L	2.6625	ppb	14:55:59
1	Ba 233.527†	2.5	28.5	0.7415	µg/L	0.7415	ppb	14:55:59
1	Be 313.107†	-3213.4	344.8	0.2250	µg/L	0.2250	ppb	14:55:38
1	Cd 226.502†	-134.6	12.5	0.3368	µg/L	0.3368	ppb	14:55:59
1	Co 228.616†	-7.7	1.4	0.0712	µg/L	0.0712	ppb	14:55:59
1	Cr 267.716†	4.1	56.4	1.2401	µg/L	1.2401	ppb	14:55:59
1	Cu 324.752†	2752.9	165.9	1.1688	µg/L	1.1688	ppb	14:55:38
1	Mn 257.610†	-137.5	111.6	0.3934	µg/L	0.3934	ppb	14:55:59
1	Mo 202.031†	2.7	10.2	1.0859	µg/L	1.0859	ppb	14:55:59
1	Ni 231.604†	309.2	-4.3	-0.2339	µg/L	-0.2339	ppb	14:55:59
1	P 214.914†	25.1	-3.5	-7.5860	µg/L	-7.5860	ppb	14:55:59
1	Pb 220.353†	124.3	22.6	6.0147	µg/L	6.0147	ppb	14:55:59
1	S 181.975 Axial†	16.6	1.2	5.2644	µg/L	5.2644	ppb	14:55:59
1	Sb 206.836†	32.4	4.3	4.2069	µg/L	4.2069	ppb	14:55:59
1	Se 196.026†	17.5	1.0	1.6734	µg/L	1.6734	ppb	14:55:59
1	SiO2†	1299.2	1.6	0.3503	µg/L	0.3503	ppb	14:55:38
1	Si 251.611†	379.1	52.3	4.3027	µg/L	4.3027	ppb	14:55:59
1	Sn 189.927†	7.8	8.4	3.8780	µg/L	3.8780	ppb	14:55:59
1	Ti 334.940†	271.8	145.7	0.3462	µg/L	0.3462	ppb	14:55:38
1	Tl 190.801†	-19.8	5.2	7.2432	µg/L	7.2432	ppb	14:55:59
1	U 409.014†	-9.7	44.3	3.9980	µg/L	3.9980	ppb	14:55:38
1	V 292.402†	-10.8	33.8	0.3839	µg/L	0.3839	ppb	14:55:38
1	Zn 213.857†	539.3	44.0	1.0899	µg/L	1.0899	ppb	14:55:59
2	Sc RADIAL	56663.5	56663.5	104	%			14:54:36
2	Al 396.153Radial†	53.4	61.6	45.892	µg/L	45.892	ppb	14:54:36
2	Ca 317.933Radial†	224.0	36.6	34.458	µg/L	34.458	ppb	14:54:57
2	Fe 238.204 Radial†	18.3	3.1	26.399	µg/L	26.399	ppb	14:54:57
2	K 766.490 Radial†	257.1	119.2	84.727	µg/L	84.727	ppb	14:54:36
2	Mg 279.077 IEC†	17.6	5.7	53.162	µg/L	53.162	ppb	14:54:57
2	Na 589.592 Radial†	788.5	217.6	71.620	µg/L	71.620	ppb	14:54:36
2	Sr 421.552†	88.8	46.0	0.4764	µg/L	0.4764	ppb	14:54:36
2	Sc 361.383	1976808.7	1976808.7	103.51	%			14:56:05
2	Y 371.029	1355511.3	1355511.3	103.48	%			14:56:05
2	Ag 328.068†	-510.0	71.8	0.5752	µg/L	0.5752	ppb	14:56:10
2	As 188.979†	1.2	0.0	0.0279	µg/L	0.0279	ppb	14:56:31
2	B 249.677†	396.3	51.4	2.2364	µg/L	2.2364	ppb	14:56:31
2	Ba 233.527†	2.6	28.5	0.7438	µg/L	0.7438	ppb	14:56:31
2	Be 313.107†	-3268.6	282.6	0.1844	µg/L	0.1844	ppb	14:56:10
2	Cd 226.502†	-122.2	24.1	0.6618	µg/L	0.6618	ppb	14:56:31
2	Co 228.616†	-10.0	-0.8	-0.0395	µg/L	-0.0395	ppb	14:56:31
2	Cr 267.716†	5.1	57.3	1.2611	µg/L	1.2611	ppb	14:56:31
2	Cu 324.752†	2702.2	124.6	0.8738	µg/L	0.8738	ppb	14:56:10
2	Mn 257.610†	-107.9	139.8	0.4856	µg/L	0.4856	ppb	14:56:31
2	Mo 202.031†	-1.1	6.4	0.6888	µg/L	0.6888	ppb	14:56:31
2	Ni 231.604†	302.7	-9.7	-0.5298	µg/L	-0.5298	ppb	14:56:31
2	P 214.914†	20.2	-8.1	-17.441	µg/L	-17.441	ppb	14:56:31
2	Pb 220.353†	118.9	17.7	4.7183	µg/L	4.7183	ppb	14:56:31

2	S 181.975 Axial†	14.4	-0.9	-4.1582 µg/L	-4.1582 ppb	14:56:31
2	Sb 206.836†	28.3	0.4	0.3915 µg/L	0.3915 ppb	14:56:31
2	Se 196.026†	9.3	-6.9	-10.429 µg/L	-10.429 ppb	14:56:31
2	SiO2†	1222.9	-68.6	-14.765 µg/L	-14.765 ppb	14:56:10
2	Si 251.611†	359.0	34.0	2.7936 µg/L	2.7936 ppb	14:56:31
2	Sn 189.927†	7.1	7.7	3.5568 µg/L	3.5568 ppb	14:56:31
2	Ti 334.940†	232.6	108.6	0.2576 µg/L	0.2576 ppb	14:56:10
2	Tl 190.801†	-24.5	0.6	0.8244 µg/L	0.8244 ppb	14:56:31
2	U 409.014†	-107.5	-50.2	-4.5523 µg/L	-4.5523 ppb	14:56:10
2	V 292.402†	15.1	58.8	0.6333 µg/L	0.6333 ppb	14:56:10
2	Zn 213.857†	534.3	40.7	1.0126 µg/L	1.0126 ppb	14:56:31
3	Sc RADIAL	56320.6	56320.6	103 %		14:55:02
3	Al 396.153Radial†	8.5	18.4	13.663 µg/L	13.663 ppb	14:55:02
3	Ca 317.933Radial†	216.9	31.1	29.241 µg/L	29.241 ppb	14:55:23
3	Fe 238.204 Radial†	17.6	2.6	21.668 µg/L	21.668 ppb	14:55:23
3	K 766.490 Radial†	236.5	100.7	71.584 µg/L	71.584 ppb	14:55:02
3	Mg 279.077 IEC†	12.2	0.5	5.0859 µg/L	5.0859 ppb	14:55:23
3	Na 589.592 Radial†	760.7	195.3	64.287 µg/L	64.287 ppb	14:55:02
3	Sr 421.552†	71.7	29.9	0.3097 µg/L	0.3097 ppb	14:55:02
3	Sc 361.383	1993913.4	1993913.4	104.40 %		14:56:37
3	Y 371.029	1367504.2	1367504.2	104.40 %		14:56:37
3	Ag 328.068†	-498.3	87.2	0.6944 µg/L	0.6944 ppb	14:56:43
3	As 188.979†	0.4	-0.8	-1.5138 µg/L	-1.5138 ppb	14:57:03
3	B 249.677†	385.9	38.1	1.6564 µg/L	1.6564 ppb	14:57:03
3	Ba 233.527†	1.2	27.2	0.7082 µg/L	0.7082 ppb	14:57:03
3	Be 313.107†	-3126.9	445.4	0.2907 µg/L	0.2907 ppb	14:56:43
3	Cd 226.502†	-117.4	29.7	0.8162 µg/L	0.8162 ppb	14:57:03
3	Co 228.616†	-8.6	0.6	0.0304 µg/L	0.0304 ppb	14:57:03
3	Cr 267.716†	2.0	54.3	1.1938 µg/L	1.1938 ppb	14:57:03
3	Cu 324.752†	2701.6	101.6	0.7126 µg/L	0.7126 ppb	14:56:43
3	Mn 257.610†	-86.5	161.3	0.5611 µg/L	0.5611 ppb	14:57:03
3	Mo 202.031†	5.2	12.5	1.3355 µg/L	1.3355 ppb	14:57:03
3	Ni 231.604†	315.6	0.1	0.0043 µg/L	0.0043 ppb	14:57:03
3	P 214.914†	33.2	4.1	8.8077 µg/L	8.8077 ppb	14:57:03
3	Pb 220.353†	109.3	7.5	2.0114 µg/L	2.0114 ppb	14:57:03
3	S 181.975 Axial†	10.6	-4.7	-20.521 µg/L	-20.521 ppb	14:57:03
3	Sb 206.836†	25.8	-2.2	-2.1813 µg/L	-2.1813 ppb	14:57:03
3	Se 196.026†	17.8	1.2	1.8776 µg/L	1.8776 ppb	14:57:03
3	SiO2†	1292.2	-12.3	-2.6550 µg/L	-2.6550 ppb	14:56:43
3	Si 251.611†	371.3	42.8	3.5163 µg/L	3.5163 ppb	14:57:03
3	Sn 189.927†	-2.0	-1.0	-0.4777 µg/L	-0.4777 ppb	14:57:03
3	Ti 334.940†	313.8	184.5	0.4438 µg/L	0.4438 ppb	14:56:43
3	Tl 190.801†	-24.1	1.2	1.6892 µg/L	1.6892 ppb	14:57:03
3	U 409.014†	-22.6	31.9	2.8863 µg/L	2.8863 ppb	14:56:43
3	V 292.402†	-34.6	11.0	0.1363 µg/L	0.1363 ppb	14:56:43
3	Zn 213.857†	532.5	34.5	0.8590 µg/L	0.8590 ppb	14:57:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984399.6	103.90	%	0.456				0.44%
Sc RADIAL	56394.7	103	%	0.4				0.43%
Y 371.029	1360142.9	103.83	%	0.492				0.47%
Ag 328.068†	73.5	0.5881	µg/L	0.10050	0.5881	ppb	0.10050	17.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.3	31.542	µg/L	16.4016	31.542	ppb	16.4016	52.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1319	µg/L	1.30928	-0.1319	ppb	1.30928	992.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.4	2.1851	µg/L	0.50501	2.1851	ppb	0.50501	23.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	28.1	0.7312	µg/L	0.01993	0.7312	ppb	0.01993	2.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	357.6	0.2334	µg/L	0.05362	0.2334	ppb	0.05362	22.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.7	35.543	µg/L	6.9088	35.543	ppb	6.9088	19.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.1	0.6049	µg/L	0.24471	0.6049	ppb	0.24471	40.45%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0207	µg/L	0.05597	0.0207	ppb	0.05597	270.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              56.0      1.2317 µg/L       0.03444      1.2317 ppb        0.03444   2.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             130.7      0.9184 µg/L       0.23134      0.9184 ppb        0.23134  25.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.6     39.296 µg/L      26.5417     39.296 ppb       26.5417  67.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       109.3     77.713 µg/L       6.6157     77.713 ppb        6.6157   8.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.3     40.297 µg/L      30.8602     40.297 ppb       30.8602  76.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             137.6      0.4800 µg/L       0.08402      0.4800 ppb        0.08402  17.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.7      1.0367 µg/L       0.32615      1.0367 ppb        0.32615  31.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      197.5     65.022 µg/L       6.2628     65.022 ppb        6.2628   9.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.6     -0.2531 µg/L      0.26755     -0.2531 ppb       0.26755 105.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.5     -5.4063 µg/L     13.25932     -5.4063 ppb      13.25932 245.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.9      4.2482 µg/L      2.04263      4.2482 ppb       2.04263  48.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -6.4715 µg/L     13.04721     -6.4715 ppb      13.04721 201.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.8      0.8057 µg/L      3.21418      0.8057 ppb       3.21418 398.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.5     -2.2926 µg/L      7.04698     -2.2926 ppb       7.04698 307.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -26.4     -5.6898 µg/L      8.00142     -5.6898 ppb       8.00142 140.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              43.0      3.5375 µg/L      0.75475      3.5375 ppb       0.75475  21.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.0      2.3190 µg/L      2.42737      2.3190 ppb       2.42737 104.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              46.3      0.4804 µg/L      0.17278      0.4804 ppb       0.17278  35.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             146.3      0.3492 µg/L      0.09310      0.3492 ppb       0.09310  26.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      3.2523 µg/L      3.48319      3.2523 ppb       3.48319 107.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                8.7      0.7773 µg/L      4.64898      0.7773 ppb       4.64898 598.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.6      0.3845 µg/L      0.24848      0.3845 ppb       0.24848  64.62%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              39.7      0.9871 µg/L      0.11756      0.9871 ppb       0.11756  11.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/11/2010 15:08:34 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/11/2010 13:51:13**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR1 **Date Collected: 2/11/2010 15:08:34**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55775.1	55775.1	102	%			15:09:19
1	Al 396.153Radial†	-12.5	-2.1	-1.5477	µg/L	-1.5477	ppb	15:09:19
1	Ca 317.933Radial†	109.7	-71.8	-67.596	µg/L	-67.596	ppb	15:09:39
1	Fe 238.204 Radial†	12.5	-2.2	-18.859	µg/L	-18.859	ppb	15:09:39

1	K 766.490 Radial†	153.1	21.4	15.223 µg/L	15.223 ppb	15:09:19
1	Mg 279.077 IEC†	21.3	9.6	89.132 µg/L	89.132 ppb	15:09:39
1	Na 589.592 Radial†	561.6	7.7	2.5239 µg/L	2.5239 ppb	15:09:19
1	Sr 421.552†	60.6	19.8	0.2050 µg/L	0.2050 ppb	15:09:19
1	Sc 361.383	1979575.8	1979575.8	103.65 %		15:10:41
1	Y 371.029	1359463.7	1359463.7	103.78 %		15:10:41
1	Ag 328.068†	-475.7	105.6	0.7790 µg/L	0.7790 ppb	15:10:47
1	As 188.979†	3.5	2.2	4.2811 µg/L	4.2811 ppb	15:11:08
1	B 249.677†	236.6	-103.2	-4.4890 µg/L	-4.4890 ppb	15:10:47
1	Ba 233.527†	-43.0	-15.5	-0.4185 µg/L	-0.4185 ppb	15:11:08
1	Be 313.107†	-9167.3	-5403.9	-3.5311 µg/L	-3.5311 ppb	15:10:47
1	Cd 226.502†	-304.4	-151.6	-4.1785 µg/L	-4.1785 ppb	15:11:08
1	Co 228.616†	19.8	27.9	1.3617 µg/L	1.3617 ppb	15:11:08
1	Cr 267.716†	233.0	277.1	6.0903 µg/L	6.0903 ppb	15:10:47
1	Cu 324.752†	1310.7	-1221.6	-8.5355 µg/L	-8.5355 ppb	15:10:47
1	Mn 257.610†	14.0	257.6	0.8861 µg/L	0.8861 ppb	15:10:47
1	Mo 202.031†	-13.4	-5.4	-0.5763 µg/L	-0.5763 ppb	15:11:08
1	Ni 231.604†	324.2	10.6	0.5789 µg/L	0.5789 ppb	15:11:08
1	P 214.914†	39.4	10.4	23.307 µg/L	23.307 ppb	15:11:08
1	Pb 220.353†	132.9	31.0	-2.3589 µg/L	-2.3589 ppb	15:11:08
1	S 181.975 Axial†	17.0	1.6	6.9914 µg/L	6.9914 ppb	15:11:08
1	Sb 206.836†	24.0	-3.8	-3.8211 µg/L	-3.8211 ppb	15:11:08
1	Se 196.026†	11.2	-5.0	-7.7508 µg/L	-7.7508 ppb	15:11:08
1	SiO2†	1260.6	-33.8	-7.2860 µg/L	-7.2860 ppb	15:10:47
1	Si 251.611†	175.4	-143.6	-11.809 µg/L	-11.809 ppb	15:11:08
1	Sn 189.927†	6.2	6.9	3.1737 µg/L	3.1737 ppb	15:11:08
1	Ti 334.940†	2413.3	2212.1	5.3130 µg/L	5.3130 ppb	15:10:47
1	Tl 190.801†	-31.2	-5.9	4.3972 µg/L	4.3972 ppb	15:11:08
1	U 409.014†	117155.1	113081.6	10238 µg/L	10238 ppb	15:10:41
1	V 292.402†	-897.2	-821.4	1.8907 µg/L	1.8907 ppb	15:10:47
1	Zn 213.857†	499.8	6.6	0.1728 µg/L	0.1728 ppb	15:11:08
2	Sc RADIAL	55251.0	55251.0	101 %		15:09:44
2	Al 396.153Radial†	-27.7	-17.2	-12.820 µg/L	-12.820 ppb	15:09:44
2	Ca 317.933Radial†	107.7	-72.8	-68.561 µg/L	-68.561 ppb	15:10:05
2	Fe 238.204 Radial†	14.6	-0.1	-0.7560 µg/L	-0.7560 ppb	15:10:05
2	K 766.490 Radial†	163.9	33.5	23.798 µg/L	23.798 ppb	15:09:44
2	Mg 279.077 IEC†	21.5	10.0	92.921 µg/L	92.921 ppb	15:10:05
2	Na 589.592 Radial†	549.7	1.1	0.3683 µg/L	0.3683 ppb	15:09:44
2	Sr 421.552†	65.4	25.1	0.2600 µg/L	0.2600 ppb	15:09:44
2	Sc 361.383	1991488.7	1991488.7	104.28 %		15:11:14
2	Y 371.029	1367480.0	1367480.0	104.39 %		15:11:14
2	Ag 328.068†	-460.8	122.6	0.9153 µg/L	0.9153 ppb	15:11:20
2	As 188.979†	3.4	2.1	4.1976 µg/L	4.1976 ppb	15:11:40
2	B 249.677†	245.3	-96.3	-4.1987 µg/L	-4.1987 ppb	15:11:20
2	Ba 233.527†	-30.4	-3.2	-0.0984 µg/L	-0.0984 ppb	15:11:40
2	Be 313.107†	-9053.1	-5241.5	-3.4251 µg/L	-3.4251 ppb	15:11:20
2	Cd 226.502†	-307.5	-152.7	-4.2119 µg/L	-4.2119 ppb	15:11:40
2	Co 228.616†	2.2	10.9	0.5250 µg/L	0.5250 ppb	15:11:40
2	Cr 267.716†	184.1	229.0	5.0309 µg/L	5.0309 ppb	15:11:20
2	Cu 324.752†	1378.2	-1164.4	-8.1337 µg/L	-8.1337 ppb	15:11:20
2	Mn 257.610†	56.5	298.3	1.0291 µg/L	1.0291 ppb	15:11:20
2	Mo 202.031†	-9.4	-1.5	-0.1584 µg/L	-0.1584 ppb	15:11:40
2	Ni 231.604†	337.2	21.2	1.1562 µg/L	1.1562 ppb	15:11:40
2	P 214.914†	47.1	17.5	38.462 µg/L	38.462 ppb	15:11:40
2	Pb 220.353†	140.3	37.4	-0.6060 µg/L	-0.6060 ppb	15:11:40
2	S 181.975 Axial†	16.6	1.1	4.9128 µg/L	4.9128 ppb	15:11:40
2	Sb 206.836†	18.1	-9.6	-9.5490 µg/L	-9.5490 ppb	15:11:40
2	Se 196.026†	12.7	-3.7	-5.6705 µg/L	-5.6705 ppb	15:11:40
2	SiO2†	1277.1	-25.3	-5.4423 µg/L	-5.4423 ppb	15:11:20
2	Si 251.611†	186.7	-133.8	-10.999 µg/L	-10.999 ppb	15:11:40
2	Sn 189.927†	5.7	6.3	2.9120 µg/L	2.9120 ppb	15:11:40
2	Ti 334.940†	2507.4	2288.5	5.4964 µg/L	5.4964 ppb	15:11:20
2	Tl 190.801†	-28.7	-3.2	8.0207 µg/L	8.0207 ppb	15:11:40
2	U 409.014†	117240.7	112487.6	10184 µg/L	10184 ppb	15:11:14
2	V 292.402†	-895.5	-814.6	1.9102 µg/L	1.9102 ppb	15:11:20
2	Zn 213.857†	510.6	14.1	0.3551 µg/L	0.3551 ppb	15:11:40
3	Sc RADIAL	56112.5	56112.5	103 %		15:10:10
3	Al 396.153Radial†	-19.4	-8.8	-6.5548 µg/L	-6.5548 ppb	15:10:10
3	Ca 317.933Radial†	114.8	-67.5	-63.545 µg/L	-63.545 ppb	15:10:31
3	Fe 238.204 Radial†	16.7	1.7	14.838 µg/L	14.838 ppb	15:10:31
3	K 766.490 Radial†	156.5	23.8	16.907 µg/L	16.907 ppb	15:10:10

3	Mg 279.077 IEC†	18.3	6.5	60.273 µg/L	60.273 ppb	15:10:31
3	Na 589.592 Radial†	544.2	-12.6	-4.1463 µg/L	-4.1463 ppb	15:10:10
3	Sr 421.552†	60.1	18.9	0.1962 µg/L	0.1962 ppb	15:10:10
3	Sc 361.383	1998454.5	1998454.5	104.64 %		15:11:47
3	Y 371.029	1371253.2	1371253.2	104.68 %		15:11:47
3	Ag 328.068†	-504.4	82.5	0.6071 µg/L	0.6071 ppb	15:11:53
3	As 188.979†	2.1	0.9	1.6782 µg/L	1.6782 ppb	15:12:13
3	B 249.677†	284.2	-59.9	-2.6163 µg/L	-2.6163 ppb	15:11:53
3	Ba 233.527†	-15.1	11.6	0.2883 µg/L	0.2883 ppb	15:12:13
3	Be 313.107†	-8272.3	-4465.0	-2.9180 µg/L	-2.9180 ppb	15:11:53
3	Cd 226.502†	-264.9	-111.0	-3.0636 µg/L	-3.0636 ppb	15:12:13
3	Co 228.616†	14.5	22.7	1.1081 µg/L	1.1081 ppb	15:12:13
3	Cr 267.716†	231.8	273.9	6.0206 µg/L	6.0206 ppb	15:11:53
3	Cu 324.752†	1499.3	-1053.3	-7.3552 µg/L	-7.3552 ppb	15:11:53
3	Mn 257.610†	138.5	376.5	1.3032 µg/L	1.3032 ppb	15:11:53
3	Mo 202.031†	-2.6	5.1	0.5398 µg/L	0.5398 ppb	15:12:13
3	Ni 231.604†	337.9	20.7	1.1315 µg/L	1.1315 ppb	15:12:13
3	P 214.914†	49.3	19.5	42.611 µg/L	42.611 ppb	15:12:13
3	Pb 220.353†	138.7	35.4	-0.5823 µg/L	-0.5823 ppb	15:12:13
3	S 181.975 Axial†	15.8	0.3	1.1838 µg/L	1.1838 ppb	15:12:13
3	Sb 206.836†	21.8	-6.1	-6.0924 µg/L	-6.0924 ppb	15:12:13
3	Se 196.026†	12.8	-3.6	-5.5591 µg/L	-5.5591 ppb	15:12:13
3	SiO2†	1308.9	0.8	0.1805 µg/L	0.1805 ppb	15:11:53
3	Si 251.611†	268.0	-56.8	-4.6690 µg/L	-4.6690 ppb	15:12:13
3	Sn 189.927†	4.1	4.8	2.1976 µg/L	2.1976 ppb	15:12:13
3	Ti 334.940†	2521.6	2293.7	5.5115 µg/L	5.5115 ppb	15:11:53
3	Tl 190.801†	-25.5	-0.1	11.785 µg/L	11.785 ppb	15:12:13
3	U 409.014†	111497.5	106607.2	9651.9 µg/L	9651.9 ppb	15:11:47
3	V 292.402†	-762.7	-684.7	2.7514 µg/L	2.7514 ppb	15:11:53
3	Zn 213.857†	523.6	24.8	0.6223 µg/L	0.6223 ppb	15:12:13

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1989839.7	104.19	%	0.500				0.48%
Sc RADIAL	55712.9	102	%	0.8				0.78%
Y 371.029	1366065.6	104.29	%	0.460				0.44%
Ag 328.068†	103.5	0.7671	µg/L	0.15443	0.7671	ppb	0.15443	20.13%
Al 396.153Radial†	-9.4	-6.9743	µg/L	5.64801	-6.9743	ppb	5.64801	80.98%
As 188.979†	1.7	3.3856	µg/L	1.47930	3.3856	ppb	1.47930	43.69%
B 249.677†	-86.4	-3.7680	µg/L	1.00792	-3.7680	ppb	1.00792	26.75%
Ba 233.527†	-2.4	-0.0762	µg/L	0.35392	-0.0762	ppb	0.35392	464.36%
Be 313.107†	-5036.8	-3.2914	µg/L	0.32768	-3.2914	ppb	0.32768	9.96%
Ca 317.933Radial†	-70.7	-66.567	µg/L	2.6618	-66.567	ppb	2.6618	4.00%
Cd 226.502†	-138.4	-3.8180	µg/L	0.65352	-3.8180	ppb	0.65352	17.12%
Co 228.616†	20.5	0.9983	µg/L	0.42901	0.9983	ppb	0.42901	42.97%
Cr 267.716†	260.0	5.7139	µg/L	0.59254	5.7139	ppb	0.59254	10.37%
Cu 324.752†	-1146.4	-8.0081	µg/L	0.60007	-8.0081	ppb	0.60007	7.49%
Fe 238.204 Radial†	-0.2	-1.5922	µg/L	16.86410	-1.5922	ppb	16.86410	>999.9%
K 766.490 Radial†	26.2	18.643	µg/L	4.5435	18.643	ppb	4.5435	24.37%
Mg 279.077 IEC†	8.7	80.775	µg/L	17.8566	80.775	ppb	17.8566	22.11%
Mn 257.610†	310.8	1.0728	µg/L	0.21196	1.0728	ppb	0.21196	19.76%
Mo 202.031†	-0.6	-0.0649	µg/L	0.56388	-0.0649	ppb	0.56388	868.32%
Na 589.592 Radial†	-1.3	-0.4181	µg/L	3.40391	-0.4181	ppb	3.40391	814.20%
Ni 231.604†	17.5	0.9555	µg/L	0.32641	0.9555	ppb	0.32641	34.16%
P 214.914†	15.8	34.793	µg/L	10.1611	34.793	ppb	10.1611	29.20%
Pb 220.353†	34.6	-1.1824	µg/L	1.01895	-1.1824	ppb	1.01895	86.18%
S 181.975 Axial†	1.0	4.3627	µg/L	2.94264	4.3627	ppb	2.94264	67.45%
Sb 206.836†	-6.5	-6.4875	µg/L	2.88435	-6.4875	ppb	2.88435	44.46%
Se 196.026†	-4.1	-6.3268	µg/L	1.23447	-6.3268	ppb	1.23447	19.51%
SiO2†	-19.4	-4.1826	µg/L	3.88938	-4.1826	ppb	3.88938	92.99%
Si 251.611†	-111.4	-9.1588	µg/L	3.90936	-9.1588	ppb	3.90936	42.68%
Sn 189.927†	6.0	2.7611	µg/L	0.50522	2.7611	ppb	0.50522	18.30%
Sr 421.552†	21.3	0.2204	µg/L	0.03458	0.2204	ppb	0.03458	15.69%
Ti 334.940†	2264.8	5.4403	µg/L	0.11049	5.4403	ppb	0.11049	2.03%
Tl 190.801†	-3.0	8.0675	µg/L	3.69388	8.0675	ppb	3.69388	45.79%
U 409.014†	110725.5	10025	µg/L	324.0	10025	ppb	324.0	3.23%
V 292.402†	-773.6	2.1841	µg/L	0.49139	2.1841	ppb	0.49139	22.50%
Zn 213.857†	15.2	0.3834	µg/L	0.22607	0.3834	ppb	0.22607	58.97%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 2/11/2010 15:12:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53713.3	53713.3	98.4	%			15:12:55
1	Al 396.153Radial†	-16.2	-6.3	-4.7161	µg/L	-4.7161	ppb	15:12:55
1	Ca 317.933Radial†	188.0	11.9	11.198	µg/L	11.198	ppb	15:13:15
1	Fe 238.204 Radial†	4.2	-10.3	23.498	µg/L	23.498	ppb	15:13:15
1	K 766.490 Radial†	165.7	39.9	28.393	µg/L	28.393	ppb	15:12:55
1	Mg 279.077 IEC†	10.1	-1.1	-9.7514	µg/L	-9.7514	ppb	15:13:15
1	Na 589.592 Radial†	614.8	82.8	27.252	µg/L	27.252	ppb	15:12:55
1	Sr 421.552†	64.3	25.8	0.2675	µg/L	0.2675	ppb	15:12:55
1	Sc 361.383	1941418.8	1941418.8	101.65	%			15:14:18
1	Y 371.029	1323859.1	1323859.1	101.06	%			15:14:18
1	Ag 328.068†	-525.2	47.9	0.3781	µg/L	0.3781	ppb	15:14:24
1	As 188.979†	-3.1	-4.2	-8.1869	µg/L	-8.1869	ppb	15:14:45
1	B 249.677†	750.9	407.3	17.845	µg/L	17.845	ppb	15:14:24
1	Ba 233.527†	-16.3	10.0	0.2610	µg/L	0.2610	ppb	15:14:45
1	Be 313.107†	-3458.2	38.5	0.0250	µg/L	0.0250	ppb	15:14:24
1	Cd 226.502†	-114.7	29.2	0.8189	µg/L	0.8189	ppb	15:14:45
1	Co 228.616†	107569.3	105828.5	5208.2	µg/L	5208.2	ppb	15:14:24
1	Cr 267.716†	-25.9	26.9	0.5925	µg/L	0.5925	ppb	15:14:45
1	Cu 324.752†	1814.1	-701.5	-4.9124	µg/L	-4.9124	ppb	15:14:24
1	Mn 257.610†	-161.2	85.5	0.2849	µg/L	0.2849	ppb	15:14:45
1	Mo 202.031†	-1.5	6.0	0.6418	µg/L	0.6418	ppb	15:14:45
1	Ni 231.604†	346.8	39.0	-4.0742	µg/L	-4.0742	ppb	15:14:45
1	P 214.914†	5345.7	5231.1	11233	µg/L	11233	ppb	15:14:24
1	Pb 220.353†	111.4	12.4	3.3090	µg/L	3.3090	ppb	15:14:45
1	S 181.975 Axial†	16.5	1.4	5.9830	µg/L	5.9830	ppb	15:14:45
1	Sb 206.836†	21.7	-5.6	-5.5036	µg/L	-5.5036	ppb	15:14:45
1	Se 196.026†	12.6	-3.4	-5.4894	µg/L	-5.4894	ppb	15:14:45
1	SiO2†	400045.4	392288.3	84482	µg/L	84482	ppb	15:14:18
1	Si 251.611†	483396.1	475220.4	39066	µg/L	39066	ppb	15:14:18
1	Sn 189.927†	3.3	4.1	1.8920	µg/L	1.8920	ppb	15:14:45
1	Ti 334.940†	305.9	184.8	0.4456	µg/L	0.4456	ppb	15:14:24
1	Tl 190.801†	-3.7	20.7	11.360	µg/L	11.360	ppb	15:14:45
1	U 409.014†	25.3	78.5	7.1194	µg/L	7.1194	ppb	15:14:24
1	V 292.402†	5.9	50.0	0.5361	µg/L	0.5361	ppb	15:14:24
1	Zn 213.857†	522.6	38.6	0.9665	µg/L	0.9665	ppb	15:14:45
2	Sc RADIAL	54832.8	54832.8	100	%			15:13:21
2	Al 396.153Radial†	1.7	11.8	8.7929	µg/L	8.7929	ppb	15:13:21
2	Ca 317.933Radial†	190.7	10.6	10.005	µg/L	10.005	ppb	15:13:42
2	Fe 238.204 Radial†	3.0	-11.5	14.135	µg/L	14.135	ppb	15:13:42
2	K 766.490 Radial†	204.4	75.0	53.328	µg/L	53.328	ppb	15:13:21
2	Mg 279.077 IEC†	11.2	-0.1	-0.6600	µg/L	-0.6600	ppb	15:13:42
2	Na 589.592 Radial†	630.7	85.9	28.272	µg/L	28.272	ppb	15:13:21
2	Sr 421.552†	34.5	-5.2	-0.0538	µg/L	-0.0538	ppb	15:13:21
2	Sc 361.383	1946646.9	1946646.9	101.93	%			15:14:51
2	Y 371.029	1327034.0	1327034.0	101.31	%			15:14:51
2	Ag 328.068†	-584.6	-9.0	-0.0733	µg/L	-0.0733	ppb	15:14:57
2	As 188.979†	-0.2	-1.3	-2.6409	µg/L	-2.6409	ppb	15:15:17
2	B 249.677†	783.8	437.5	19.174	µg/L	19.174	ppb	15:14:57
2	Ba 233.527†	-20.0	6.4	0.1666	µg/L	0.1666	ppb	15:15:17
2	Be 313.107†	-3481.4	24.9	0.0161	µg/L	0.0161	ppb	15:14:57
2	Cd 226.502†	-101.1	42.9	1.1972	µg/L	1.1972	ppb	15:15:17
2	Co 228.616†	108800.7	106752.3	5253.6	µg/L	5253.6	ppb	15:14:57
2	Cr 267.716†	-17.5	35.2	0.7745	µg/L	0.7745	ppb	15:15:17
2	Cu 324.752†	1718.5	-800.1	-5.6024	µg/L	-5.6024	ppb	15:14:57
2	Mn 257.610†	-163.9	83.3	0.2757	µg/L	0.2757	ppb	15:15:17
2	Mo 202.031†	-3.8	3.8	0.4036	µg/L	0.4036	ppb	15:15:17
2	Ni 231.604†	346.9	38.2	-4.1724	µg/L	-4.1724	ppb	15:15:17
2	P 214.914†	5358.7	5229.8	11230	µg/L	11230	ppb	15:14:57
2	Pb 220.353†	113.9	14.6	3.8918	µg/L	3.8918	ppb	15:15:17

2	S 181.975 Axial†	13.2	-1.8	-7.9889 µg/L	-7.9889 ppb	15:15:17
2	Sb 206.836†	30.6	3.1	3.0533 µg/L	3.0533 ppb	15:15:17
2	Se 196.026†	12.9	-3.2	-5.1244 µg/L	-5.1244 ppb	15:15:17
2	SiO2†	401576.7	392733.7	84577 µg/L	84577 ppb	15:14:51
2	Si 251.611†	485309.6	475820.6	39115 µg/L	39115 ppb	15:14:51
2	Sn 189.927†	3.1	3.9	1.7899 µg/L	1.7899 ppb	15:15:17
2	Ti 334.940†	323.3	201.1	0.4839 µg/L	0.4839 ppb	15:14:57
2	Tl 190.801†	-4.0	20.4	10.781 µg/L	10.781 ppb	15:15:17
2	U 409.014†	85.0	137.0	12.417 µg/L	12.417 ppb	15:14:57
2	V 292.402†	14.9	58.8	0.6334 µg/L	0.6334 ppb	15:14:57
2	Zn 213.857†	510.4	25.2	0.6333 µg/L	0.6333 ppb	15:15:17
3	Sc RADIAL	54620.7	54620.7	100 %		15:13:47
3	Al 396.153Radial†	15.7	25.8	19.227 µg/L	19.227 ppb	15:13:47
3	Ca 317.933Radial†	200.8	21.5	20.218 µg/L	20.218 ppb	15:14:07
3	Fe 238.204 Radial†	4.8	-9.7	21.721 µg/L	21.721 ppb	15:14:07
3	K 766.490 Radial†	161.9	33.3	23.669 µg/L	23.669 ppb	15:13:47
3	Mg 279.077 IEC†	10.5	-0.8	-6.9228 µg/L	-6.9228 ppb	15:14:07
3	Na 589.592 Radial†	616.0	73.6	24.220 µg/L	24.220 ppb	15:13:47
3	Sr 421.552†	73.7	34.1	0.3532 µg/L	0.3532 ppb	15:13:47
3	Sc 361.383	1935972.8	1935972.8	101.37 %		15:15:24
3	Y 371.029	1321116.1	1321116.1	100.85 %		15:15:24
3	Ag 328.068†	-522.4	49.2	0.3871 µg/L	0.3871 ppb	15:15:29
3	As 188.979†	-0.6	-1.7	-3.3886 µg/L	-3.3886 ppb	15:15:50
3	B 249.677†	727.0	385.8	16.903 µg/L	16.903 ppb	15:15:29
3	Ba 233.527†	-11.4	14.8	0.3862 µg/L	0.3862 ppb	15:15:50
3	Be 313.107†	-3553.1	-64.7	-0.0425 µg/L	-0.0425 ppb	15:15:29
3	Cd 226.502†	-114.3	29.4	0.8217 µg/L	0.8217 ppb	15:15:50
3	Co 228.616†	100765.6	99414.3	4892.5 µg/L	4892.5 ppb	15:15:29
3	Cr 267.716†	-15.7	36.9	0.8110 µg/L	0.8110 ppb	15:15:50
3	Cu 324.752†	1744.4	-765.3	-5.3569 µg/L	-5.3569 ppb	15:15:29
3	Mn 257.610†	-168.6	77.8	0.2588 µg/L	0.2588 ppb	15:15:50
3	Mo 202.031†	0.8	8.3	0.8836 µg/L	0.8836 ppb	15:15:50
3	Ni 231.604†	347.2	40.4	-3.6217 µg/L	-3.6217 ppb	15:15:50
3	P 214.914†	4995.9	4900.9	10524 µg/L	10524 ppb	15:15:29
3	Pb 220.353†	111.9	13.2	3.5300 µg/L	3.5300 ppb	15:15:50
3	S 181.975 Axial†	14.6	-0.4	-1.9121 µg/L	-1.9121 ppb	15:15:50
3	Sb 206.836†	26.4	-0.9	-0.9265 µg/L	-0.9265 ppb	15:15:50
3	Se 196.026†	6.2	-9.7	-15.059 µg/L	-15.059 ppb	15:15:50
3	SiO2†	389837.5	383325.3	82551 µg/L	82551 ppb	15:15:24
3	Si 251.611†	470845.5	464176.9	38158 µg/L	38158 ppb	15:15:24
3	Sn 189.927†	2.7	3.6	1.6476 µg/L	1.6476 ppb	15:15:50
3	Ti 334.940†	325.3	204.8	0.4935 µg/L	0.4935 ppb	15:15:29
3	Tl 190.801†	-3.6	20.7	12.467 µg/L	12.467 ppb	15:15:50
3	U 409.014†	27.1	80.3	7.2810 µg/L	7.2810 ppb	15:15:29
3	V 292.402†	-16.9	27.5	0.3000 µg/L	0.3000 ppb	15:15:29
3	Zn 213.857†	508.1	25.7	0.6443 µg/L	0.6443 ppb	15:15:50

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941346.1	101.65	%	0.279				0.27%
Sc RADIAL	54388.9	99.7	%	1.09				1.09%
Y 371.029	1324003.1	101.08	%	0.226				0.22%
Ag 328.068†	29.4	0.2306	µg/L	0.26325	0.2306	ppb	0.26325	114.16%
Al 396.153Radial†	10.4	7.7681	µg/L	12.00458	7.7681	ppb	12.00458	154.54%
As 188.979†	-2.4	-4.7388	µg/L	3.00947	-4.7388	ppb	3.00947	63.51%
B 249.677†	410.2	17.974	µg/L	1.1410	17.974	ppb	1.1410	6.35%
Ba 233.527†	10.4	0.2713	µg/L	0.11018	0.2713	ppb	0.11018	40.61%
Be 313.107†	-0.4	-0.0005	µg/L	0.03663	-0.0005	ppb	0.03663	>999.9%
Ca 317.933Radial†	14.7	13.807	µg/L	5.5841	13.807	ppb	5.5841	40.44%
Cd 226.502†	33.8	0.9459	µg/L	0.21761	0.9459	ppb	0.21761	23.01%
Co 228.616†	103998.4	5118.1	µg/L	196.69	5118.1	ppb	196.69	3.84%
Cr 267.716†	33.0	0.7260	µg/L	0.11700	0.7260	ppb	0.11700	16.12%
Cu 324.752†	-755.6	-5.2906	µg/L	0.34975	-5.2906	ppb	0.34975	6.61%
Fe 238.204 Radial†	-10.5	19.785	µg/L	4.9725	19.785	ppb	4.9725	25.13%
K 766.490 Radial†	49.4	35.130	µg/L	15.9357	35.130	ppb	15.9357	45.36%
Mg 279.077 IEC†	-0.6	-5.7780	µg/L	4.65251	-5.7780	ppb	4.65251	80.52%
Mn 257.610†	82.2	0.2731	µg/L	0.01325	0.2731	ppb	0.01325	4.85%
Mo 202.031†	6.1	0.6430	µg/L	0.24004	0.6430	ppb	0.24004	37.33%
Na 589.592 Radial†	80.7	26.581	µg/L	2.1079	26.581	ppb	2.1079	7.93%

Ni 231.604†	39.2	-3.9561	µg/L	0.29375	-3.9561	ppb	0.29375	7.43%
P 214.914†	5120.6	10995	µg/L	408.6	10995	ppb	408.6	3.72%
Pb 220.353†	13.4	3.5769	µg/L	0.29424	3.5769	ppb	0.29424	8.23%
S 181.975 Axial†	-0.3	-1.3060	µg/L	7.00565	-1.3060	ppb	7.00565	536.41%
Sb 206.836†	-1.1	-1.1256	µg/L	4.28189	-1.1256	ppb	4.28189	380.41%
Se 196.026†	-5.5	-8.5576	µg/L	5.63334	-8.5576	ppb	5.63334	65.83%
SiO2†	389449.1	83870	µg/L	1143.1	83870	ppb	1143.1	1.36%
Si 251.611†	471739.3	38779	µg/L	538.9	38779	ppb	538.9	1.39%
Sn 189.927†	3.8	1.7765	µg/L	0.12277	1.7765	ppb	0.12277	6.91%
Sr 421.552†	18.2	0.1890	µg/L	0.21456	0.1890	ppb	0.21456	113.55%
Ti 334.940†	196.9	0.4743	µg/L	0.02534	0.4743	ppb	0.02534	5.34%
Tl 190.801†	20.6	11.536	µg/L	0.8566	11.536	ppb	0.8566	7.43%
U 409.014†	98.6	8.9390	µg/L	3.01276	8.9390	ppb	3.01276	33.70%
V 292.402†	45.5	0.4899	µg/L	0.17143	0.4899	ppb	0.17143	35.00%
Zn 213.857†	29.8	0.7480	µg/L	0.18929	0.7480	ppb	0.18929	25.31%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54231.5	54231.5	99.4	%			15:16:36
1	Al 396.153Radial†	7106.2	7161.2	5326.1	µg/L	5326.1	ppb	15:16:36
1	Ca 317.933Radial†	5688.9	5545.7	5221.6	µg/L	5221.6	ppb	15:16:56
1	Fe 238.204 Radial†	634.7	624.2	5302.1	µg/L	5302.1	ppb	15:16:56
1	K 766.490 Radial†	7456.0	7374.7	5241.9	µg/L	5241.9	ppb	15:16:36
1	Mg 279.077 IEC†	577.6	570.0	5308.0	µg/L	5308.0	ppb	15:16:56
1	Na 589.592 Radial†	32401.3	32064.3	10556	µg/L	10556	ppb	15:16:36
1	Sr 421.552†	50354.2	50633.0	524.87	µg/L	524.87	ppb	15:16:36
1	Sc 361.383	1899310.9	1899310.9	99.449	%			15:17:59
1	Y 371.029	1297484.4	1297484.4	99.051	%			15:17:59
1	Ag 328.068†	65095.3	66020.7	527.69	µg/L	527.69	ppb	15:18:05
1	As 188.979†	283.8	284.2	554.43	µg/L	554.43	ppb	15:18:26
1	B 249.677†	12153.8	11889.7	517.70	µg/L	517.70	ppb	15:18:05
1	Ba 233.527†	20078.6	20215.9	527.34	µg/L	527.34	ppb	15:18:05
1	Be 313.107†	797857.7	805721.3	525.98	µg/L	525.98	ppb	15:17:59
1	Cd 226.502†	18953.5	19200.7	529.65	µg/L	529.65	ppb	15:18:05
1	Co 228.616†	10779.9	10848.5	533.28	µg/L	533.28	ppb	15:18:05
1	Cr 267.716†	24091.2	24277.1	534.33	µg/L	534.33	ppb	15:18:05
1	Cu 324.752†	77848.6	75794.1	530.18	µg/L	530.18	ppb	15:18:05
1	Mn 257.610†	153606.0	154701.7	536.20	µg/L	536.20	ppb	15:17:59
1	Mo 202.031†	5175.2	5211.4	556.37	µg/L	556.37	ppb	15:18:26
1	Ni 231.604†	10008.1	9761.4	533.14	µg/L	533.14	ppb	15:18:05
1	P 214.914†	1295.2	1274.7	2686.7	µg/L	2686.7	ppb	15:18:26
1	Pb 220.353†	2124.5	2039.1	544.31	µg/L	544.31	ppb	15:18:26
1	S 181.975 Axial†	260.7	247.3	1083.6	µg/L	1083.6	ppb	15:18:26
1	Sb 206.836†	587.4	563.7	557.41	µg/L	557.41	ppb	15:18:26
1	Se 196.026†	370.9	357.1	552.71	µg/L	552.71	ppb	15:18:26
1	SiO2†	27461.3	26363.5	5677.5	µg/L	5677.5	ppb	15:18:05
1	Si 251.611†	32393.9	32260.7	2652.0	µg/L	2652.0	ppb	15:18:05
1	Sn 189.927†	1213.6	1221.2	561.69	µg/L	561.69	ppb	15:18:26
1	Ti 334.940†	219433.8	220534.1	530.14	µg/L	530.14	ppb	15:17:59
1	Tl 190.801†	358.1	384.4	542.92	µg/L	542.92	ppb	15:18:26
1	U 409.014†	5858.6	5944.7	537.16	µg/L	537.16	ppb	15:18:05
1	V 292.402†	49239.4	49556.6	534.84	µg/L	534.84	ppb	15:18:05
1	Zn 213.857†	21646.0	21290.4	527.88	µg/L	527.88	ppb	15:18:05
2	Sc RADIAL	54850.6	54850.6	101	%			15:17:02
2	Al 396.153Radial†	7137.6	7111.8	5289.4	µg/L	5289.4	ppb	15:17:02
2	Ca 317.933Radial†	5661.7	5454.1	5135.3	µg/L	5135.3	ppb	15:17:22
2	Fe 238.204 Radial†	627.5	609.8	5179.7	µg/L	5179.7	ppb	15:17:22
2	K 766.490 Radial†	7509.6	7343.3	5219.6	µg/L	5219.6	ppb	15:17:02
2	Mg 279.077 IEC†	583.7	569.5	5303.7	µg/L	5303.7	ppb	15:17:22
2	Na 589.592 Radial†	32499.9	31794.4	10467	µg/L	10467	ppb	15:17:02
2	Sr 421.552†	50507.4	50213.6	520.52	µg/L	520.52	ppb	15:17:02
2	Sc 361.383	1912998.8	1912998.8	100.17	%			15:18:33
2	Y 371.029	1306161.3	1306161.3	99.713	%			15:18:33
2	Ag 328.068†	65237.5	65694.3	525.07	µg/L	525.07	ppb	15:18:38
2	As 188.979†	280.6	279.0	544.24	µg/L	544.24	ppb	15:18:59
2	B 249.677†	12200.8	11849.2	515.98	µg/L	515.98	ppb	15:18:38
2	Ba 233.527†	20133.5	20126.3	525.01	µg/L	525.01	ppb	15:18:38
2	Be 313.107†	793302.5	795433.1	519.26	µg/L	519.26	ppb	15:18:33
2	Cd 226.502†	18921.4	19032.3	525.02	µg/L	525.02	ppb	15:18:38
2	Co 228.616†	10784.1	10775.1	529.68	µg/L	529.68	ppb	15:18:38
2	Cr 267.716†	24047.5	24060.2	529.56	µg/L	529.56	ppb	15:18:38
2	Cu 324.752†	77783.7	75169.2	525.79	µg/L	525.79	ppb	15:18:38
2	Mn 257.610†	152510.0	152502.3	528.57	µg/L	528.57	ppb	15:18:33
2	Mo 202.031†	5149.2	5148.2	549.62	µg/L	549.62	ppb	15:18:59
2	Ni 231.604†	10009.6	9690.9	529.28	µg/L	529.28	ppb	15:18:38
2	P 214.914†	1298.8	1269.0	2674.9	µg/L	2674.9	ppb	15:18:59
2	Pb 220.353†	2130.1	2029.4	541.73	µg/L	541.73	ppb	15:18:59

2	S 181.975 Axial†	263.5	248.2	1087.5 µg/L	1087.5 ppb	15:18:59
2	Sb 206.836†	579.7	551.8	545.70 µg/L	545.70 ppb	15:18:59
2	Se 196.026†	360.4	343.9	532.32 µg/L	532.32 ppb	15:18:59
2	SiO2†	27531.6	26236.1	5650.1 µg/L	5650.1 ppb	15:18:38
2	Si 251.611†	32505.0	32138.5	2641.9 µg/L	2641.9 ppb	15:18:38
2	Sn 189.927†	1205.3	1204.2	553.89 µg/L	553.89 ppb	15:18:59
2	Ti 334.940†	218053.7	217577.6	523.03 µg/L	523.03 ppb	15:18:33
2	Tl 190.801†	351.0	374.7	529.24 µg/L	529.24 ppb	15:18:59
2	U 409.014†	5767.6	5811.7	525.14 µg/L	525.14 ppb	15:18:38
2	V 292.402†	49305.2	49268.0	531.68 µg/L	531.68 ppb	15:18:38
2	Zn 213.857†	21685.0	21173.7	524.99 µg/L	524.99 ppb	15:18:38
3	Sc RADIAL	55041.7	55041.7	101 %		15:17:27
3	Al 396.153Radial†	7150.5	7100.0	5282.4 µg/L	5282.4 ppb	15:17:27
3	Ca 317.933Radial†	5679.0	5451.7	5133.1 µg/L	5133.1 ppb	15:17:48
3	Fe 238.204 Radial†	630.1	610.3	5182.9 µg/L	5182.9 ppb	15:17:48
3	K 766.490 Radial†	7530.7	7338.3	5216.0 µg/L	5216.0 ppb	15:17:27
3	Mg 279.077 IEC†	585.8	569.6	5302.7 µg/L	5302.7 ppb	15:17:48
3	Na 589.592 Radial†	32646.4	31827.3	10478 µg/L	10478 ppb	15:17:27
3	Sr 421.552†	50673.8	50204.0	520.42 µg/L	520.42 ppb	15:17:27
3	Sc 361.383	1908268.1	1908268.1	99.918 %		15:19:06
3	Y 371.029	1302480.0	1302480.0	99.432 %		15:19:06
3	Ag 328.068†	61722.8	62338.2	498.13 µg/L	498.13 ppb	15:19:11
3	As 188.979†	239.2	238.3	464.88 µg/L	464.88 ppb	15:19:32
3	B 249.677†	11534.0	11212.0	488.05 µg/L	488.05 ppb	15:19:11
3	Ba 233.527†	18616.9	18658.3	486.70 µg/L	486.70 ppb	15:19:11
3	Be 313.107†	758183.0	762248.0	497.60 µg/L	497.60 ppb	15:19:06
3	Cd 226.502†	17482.4	17638.9	486.53 µg/L	486.53 ppb	15:19:11
3	Co 228.616†	9936.5	9953.5	489.22 µg/L	489.22 ppb	15:19:11
3	Cr 267.716†	21502.9	21573.0	474.82 µg/L	474.82 ppb	15:19:11
3	Cu 324.752†	71603.1	69176.0	483.93 µg/L	483.93 ppb	15:19:11
3	Mn 257.610†	146044.9	146409.3	507.47 µg/L	507.47 ppb	15:19:06
3	Mo 202.031†	4268.9	4280.0	456.96 µg/L	456.96 ppb	15:19:32
3	Ni 231.604†	9195.7	8901.1	486.15 µg/L	486.15 ppb	15:19:11
3	P 214.914†	1105.2	1078.5	2268.7 µg/L	2268.7 ppb	15:19:32
3	Pb 220.353†	1828.3	1732.6	462.41 µg/L	462.41 ppb	15:19:32
3	S 181.975 Axial†	232.1	217.5	952.80 µg/L	952.80 ppb	15:19:32
3	Sb 206.836†	493.7	467.1	461.46 µg/L	461.46 ppb	15:19:32
3	Se 196.026†	316.9	301.3	467.33 µg/L	467.33 ppb	15:19:32
3	SiO2†	25842.8	24614.0	5300.8 µg/L	5300.8 ppb	15:19:11
3	Si 251.611†	30435.2	30147.4	2478.3 µg/L	2478.3 ppb	15:19:11
3	Sn 189.927†	977.2	978.9	450.28 µg/L	450.28 ppb	15:19:32
3	Ti 334.940†	207237.8	207292.4	498.29 µg/L	498.29 ppb	15:19:06
3	Tl 190.801†	318.0	342.6	484.22 µg/L	484.22 ppb	15:19:32
3	U 409.014†	5210.6	5268.5	475.96 µg/L	475.96 ppb	15:19:11
3	V 292.402†	44791.7	44872.9	483.94 µg/L	483.94 ppb	15:19:11
3	Zn 213.857†	19890.6	19431.5	481.75 µg/L	481.75 ppb	15:19:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1906859.3	99.844	%	0.3640				0.36%
Sc RADIAL	54707.9	100	%	0.8				0.77%
Y 371.029	1302041.9	99.399	%	0.3325				0.33%
Ag 328.068†	64684.4	516.97	µg/L	16.362	516.97	ppb	16.362	3.16%
QC value within limits for Ag 328.068 Recovery = 103.39%								
Al 396.153Radial†	7124.3	5299.3	µg/L	23.43	5299.3	ppb	23.43	0.44%
QC value within limits for Al 396.153Radial Recovery = 105.99%								
As 188.979†	267.2	521.18	µg/L	49.028	521.18	ppb	49.028	9.41%
QC value within limits for As 188.979 Recovery = 104.24%								
B 249.677†	11650.3	507.24	µg/L	16.645	507.24	ppb	16.645	3.28%
QC value within limits for B 249.677 Recovery = 101.45%								
Ba 233.527†	19666.8	513.02	µg/L	22.823	513.02	ppb	22.823	4.45%
QC value within limits for Ba 233.527 Recovery = 102.60%								
Be 313.107†	787800.8	514.28	µg/L	14.831	514.28	ppb	14.831	2.88%
QC value within limits for Be 313.107 Recovery = 102.86%								
Ca 317.933Radial†	5483.8	5163.4	µg/L	50.50	5163.4	ppb	50.50	0.98%
QC value within limits for Ca 317.933Radial Recovery = 103.27%								
Cd 226.502†	18623.9	513.73	µg/L	23.671	513.73	ppb	23.671	4.61%
QC value within limits for Cd 226.502 Recovery = 102.75%								
Co 228.616†	10525.7	517.39	µg/L	24.470	517.39	ppb	24.470	4.73%

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   QC value within limits for Co 228.616  Recovery = 103.48%
Cr 267.716†            23303.5      512.91 µg/L        33.067      512.91 ppb         33.067   6.45%
   QC value within limits for Cr 267.716  Recovery = 102.58%
Cu 324.752†            73379.7      513.30 µg/L        25.529      513.30 ppb         25.529   4.97%
   QC value within limits for Cu 324.752  Recovery = 102.66%
Fe 238.204 Radial†       614.8      5221.6 µg/L         69.73      5221.6 ppb          69.73   1.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.43%
K 766.490 Radial†       7352.1      5225.8 µg/L         14.03      5225.8 ppb          14.03   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 104.52%
Mg 279.077 IEC†          569.7      5304.8 µg/L          2.78      5304.8 ppb           2.78   0.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.10%
Mn 257.610†           151204.4      524.08 µg/L        14.882      524.08 ppb         14.882   2.84%
   QC value within limits for Mn 257.610  Recovery = 104.82%
Mo 202.031†             4879.9      520.98 µg/L        55.549      520.98 ppb         55.549  10.66%
   QC value within limits for Mo 202.031  Recovery = 104.20%
Na 589.592 Radial†     31895.3       10500 µg/L          48.5       10500 ppb           48.5   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 105.00%
Ni 231.604†             9451.1      516.19 µg/L        26.085      516.19 ppb         26.085   5.05%
   QC value within limits for Ni 231.604  Recovery = 103.24%
P 214.914†              1207.4      2543.4 µg/L        237.97      2543.4 ppb         237.97   9.36%
   QC value within limits for P 214.914  Recovery = 101.74%
Pb 220.353†             1933.7      516.15 µg/L        46.558      516.15 ppb         46.558   9.02%
   QC value within limits for Pb 220.353  Recovery = 103.23%
S 181.975 Axial†         237.7      1041.3 µg/L         76.67      1041.3 ppb          76.67   7.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.13%
Sb 206.836†              527.5      521.52 µg/L        52.346      521.52 ppb         52.346  10.04%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              334.1      517.45 µg/L        44.586      517.45 ppb         44.586   8.62%
   QC value within limits for Se 196.026  Recovery = 103.49%
SiO2†                  25737.9      5542.8 µg/L        210.05      5542.8 ppb         210.05   3.79%
   QC value within limits for SiO2  Recovery = 103.65%
Si 251.611†            31515.5      2590.7 µg/L         97.53      2590.7 ppb          97.53   3.76%
   QC value within limits for Si 251.611  Recovery = 103.63%
Sn 189.927†             1134.8      521.95 µg/L        62.194      521.95 ppb         62.194  11.92%
   QC value within limits for Sn 189.927  Recovery = 104.39%
Sr 421.552†            50350.2      521.94 µg/L         2.539      521.94 ppb          2.539   0.49%
   QC value within limits for Sr 421.552  Recovery = 104.39%
Ti 334.940†           215134.7      517.15 µg/L        16.720      517.15 ppb         16.720   3.23%
   QC value within limits for Ti 334.940  Recovery = 103.43%
Tl 190.801†              367.2      518.79 µg/L        30.715      518.79 ppb         30.715   5.92%
   QC value within limits for Tl 190.801  Recovery = 103.76%
U 409.014†              5675.0      512.76 µg/L        32.426      512.76 ppb         32.426   6.32%
   QC value within limits for U 409.014  Recovery = 102.55%
V 292.402†             47899.1      516.82 µg/L        28.516      516.82 ppb         28.516   5.52%
   QC value within limits for V 292.402  Recovery = 103.36%
Zn 213.857†            20631.8      511.54 µg/L        25.841      511.54 ppb         25.841   5.05%
   QC value within limits for Zn 213.857  Recovery = 102.31%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:19:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53966.4	53966.4	98.9	%			15:20:14
1	Al 396.153Radial†	-26.0	-16.1	-12.005	µg/L	-12.005	ppb	15:20:14
1	Ca 317.933Radial†	184.6	7.5	7.0536	µg/L	7.0536	ppb	15:20:34
1	Fe 238.204 Radial†	14.2	-0.1	-0.8468	µg/L	-0.8468	ppb	15:20:34
1	K 766.490 Radial†	181.9	55.5	39.479	µg/L	39.479	ppb	15:20:14
1	Mg 279.077 IEC†	12.1	1.0	9.1967	µg/L	9.1967	ppb	15:20:34
1	Na 589.592 Radial†	657.2	122.7	40.408	µg/L	40.408	ppb	15:20:14
1	Sr 421.552†	65.1	26.3	0.2722	µg/L	0.2722	ppb	15:20:14
1	Sc 361.383	1911106.6	1911106.6	100.07	%			15:21:36
1	Y 371.029	1309549.6	1309549.6	99.972	%			15:21:36
1	Ag 328.068†	-559.4	5.5	0.0442	µg/L	0.0442	ppb	15:21:42
1	As 188.979†	-3.0	-4.1	-8.0395	µg/L	-8.0395	ppb	15:22:02
1	B 249.677†	346.9	15.2	0.6669	µg/L	0.6669	ppb	15:22:02
1	Ba 233.527†	-26.7	-0.7	-0.0185	µg/L	-0.0185	ppb	15:22:02
1	Be 313.107†	-3454.2	-11.4	-0.0075	µg/L	-0.0075	ppb	15:21:42
1	Cd 226.502†	-139.0	3.2	0.0893	µg/L	0.0893	ppb	15:22:02
1	Co 228.616†	-9.2	-0.3	-0.0170	µg/L	-0.0170	ppb	15:22:02
1	Cr 267.716†	-37.5	14.9	0.3282	µg/L	0.3282	ppb	15:21:42
1	Cu 324.752†	2557.0	69.2	0.4835	µg/L	0.4835	ppb	15:21:42
1	Mn 257.610†	-212.1	32.2	0.1110	µg/L	0.1110	ppb	15:22:02
1	Mo 202.031†	-8.5	-0.9	-0.1000	µg/L	-0.1000	ppb	15:22:02
1	Ni 231.604†	310.7	8.3	0.4558	µg/L	0.4558	ppb	15:22:02
1	P 214.914†	28.4	0.8	1.6386	µg/L	1.6386	ppb	15:22:02
1	Pb 220.353†	104.0	6.7	1.8057	µg/L	1.8057	ppb	15:22:02
1	S 181.975 Axial†	16.5	1.7	7.4394	µg/L	7.4394	ppb	15:22:02
1	Sb 206.836†	29.0	2.0	1.9993	µg/L	1.9993	ppb	15:22:02
1	Se 196.026†	21.9	6.0	9.1749	µg/L	9.1749	ppb	15:22:02
1	SiO2†	1293.6	42.7	9.2028	µg/L	9.2028	ppb	15:21:42
1	Si 251.611†	353.1	40.0	3.2887	µg/L	3.2887	ppb	15:22:02
1	Sn 189.927†	4.9	5.8	2.6719	µg/L	2.6719	ppb	15:22:02
1	Ti 334.940†	159.7	43.4	0.1039	µg/L	0.1039	ppb	15:21:42
1	Tl 190.801†	-23.8	0.5	0.6768	µg/L	0.6768	ppb	15:22:02
1	U 409.014†	-184.4	-130.7	-11.830	µg/L	-11.830	ppb	15:21:42
1	V 292.402†	-35.9	8.3	0.0760	µg/L	0.0760	ppb	15:21:42
1	Zn 213.857†	494.3	18.4	0.4572	µg/L	0.4572	ppb	15:22:02
2	Sc RADIAL	54869.8	54869.8	101	%			15:20:40
2	Al 396.153Radial†	13.7	23.8	17.738	µg/L	17.738	ppb	15:20:40
2	Ca 317.933Radial†	187.7	7.5	7.0950	µg/L	7.0950	ppb	15:21:00
2	Fe 238.204 Radial†	15.7	1.1	9.3064	µg/L	9.3064	ppb	15:21:00
2	K 766.490 Radial†	257.4	127.6	90.719	µg/L	90.719	ppb	15:20:40
2	Mg 279.077 IEC†	16.3	4.9	45.809	µg/L	45.809	ppb	15:21:00
2	Na 589.592 Radial†	606.0	60.8	20.024	µg/L	20.024	ppb	15:20:40
2	Sr 421.552†	22.5	-17.2	-0.1781	µg/L	-0.1781	ppb	15:20:40
2	Sc 361.383	1897412.4	1897412.4	99.349	%			15:22:08
2	Y 371.029	1298760.9	1298760.9	99.148	%			15:22:08
2	Ag 328.068†	-542.2	18.8	0.1523	µg/L	0.1523	ppb	15:22:14
2	As 188.979†	-3.1	-4.3	-8.3435	µg/L	-8.3435	ppb	15:22:34
2	B 249.677†	336.8	7.5	0.3241	µg/L	0.3241	ppb	15:22:34
2	Ba 233.527†	-16.5	9.4	0.2467	µg/L	0.2467	ppb	15:22:34
2	Be 313.107†	-3415.0	3.0	0.0019	µg/L	0.0019	ppb	15:22:14
2	Cd 226.502†	-128.8	12.5	0.3432	µg/L	0.3432	ppb	15:22:34
2	Co 228.616†	-5.7	3.1	0.1511	µg/L	0.1511	ppb	15:22:34
2	Cr 267.716†	-15.6	36.7	0.8074	µg/L	0.8074	ppb	15:22:14
2	Cu 324.752†	2549.9	80.5	0.5637	µg/L	0.5637	ppb	15:22:14
2	Mn 257.610†	-177.5	65.4	0.2260	µg/L	0.2260	ppb	15:22:34
2	Mo 202.031†	-7.3	0.2	0.0178	µg/L	0.0178	ppb	15:22:34
2	Ni 231.604†	306.5	6.3	0.3468	µg/L	0.3468	ppb	15:22:34
2	P 214.914†	31.7	4.3	9.0650	µg/L	9.0650	ppb	15:22:34
2	Pb 220.353†	106.2	9.7	2.5827	µg/L	2.5827	ppb	15:22:34

2	S 181.975 Axial†	17.2	2.5	10.929 µg/L	10.929 ppb	15:22:34
2	Sb 206.836†	25.7	-1.1	-1.0721 µg/L	-1.0721 ppb	15:22:34
2	Se 196.026†	18.6	2.9	4.4089 µg/L	4.4089 ppb	15:22:34
2	SiO2†	1247.0	5.2	1.1103 µg/L	1.1103 ppb	15:22:14
2	Si 251.611†	359.1	48.5	3.9904 µg/L	3.9904 ppb	15:22:34
2	Sn 189.927†	-1.6	-0.8	-0.3440 µg/L	-0.3440 ppb	15:22:34
2	Ti 334.940†	171.3	56.3	0.1319 µg/L	0.1319 ppb	15:22:14
2	Tl 190.801†	-21.8	2.3	3.2311 µg/L	3.2311 ppb	15:22:34
2	U 409.014†	-98.3	-45.3	-4.1055 µg/L	-4.1055 ppb	15:22:14
2	V 292.402†	-5.8	38.4	0.4080 µg/L	0.4080 ppb	15:22:14
2	Zn 213.857†	499.6	27.3	0.6761 µg/L	0.6761 ppb	15:22:34
3	Sc RADIAL	54385.0	54385.0	99.7 %		15:21:06
3	Al 396.153Radial†	-13.7	-3.6	-2.7248 µg/L	-2.7248 ppb	15:21:06
3	Ca 317.933Radial†	185.2	6.7	6.3429 µg/L	6.3429 ppb	15:21:26
3	Fe 238.204 Radial†	16.3	1.8	15.415 µg/L	15.415 ppb	15:21:26
3	K 766.490 Radial†	182.4	54.6	38.797 µg/L	38.797 ppb	15:21:06
3	Mg 279.077 IEC†	9.2	-2.0	-18.753 µg/L	-18.753 ppb	15:21:26
3	Na 589.592 Radial†	592.4	52.6	17.324 µg/L	17.324 ppb	15:21:06
3	Sr 421.552†	-3.5	-43.1	-0.4464 µg/L	-0.4464 ppb	15:21:06
3	Sc 361.383	1884488.6	1884488.6	98.673 %		15:22:40
3	Y 371.029	1291927.9	1291927.9	98.627 %		15:22:40
3	Ag 328.068†	-522.7	34.8	0.2806 µg/L	0.2806 ppb	15:22:46
3	As 188.979†	2.4	1.3	2.4649 µg/L	2.4649 ppb	15:23:06
3	B 249.677†	335.7	8.8	0.3768 µg/L	0.3768 ppb	15:23:06
3	Ba 233.527†	-11.8	14.1	0.3676 µg/L	0.3676 ppb	15:23:06
3	Be 313.107†	-3127.8	270.6	0.1766 µg/L	0.1766 ppb	15:22:46
3	Cd 226.502†	-124.4	16.0	0.4414 µg/L	0.4414 ppb	15:23:06
3	Co 228.616†	7.6	16.5	0.8149 µg/L	0.8149 ppb	15:23:06
3	Cr 267.716†	-23.5	28.6	0.6295 µg/L	0.6295 ppb	15:22:46
3	Cu 324.752†	2622.5	171.7	1.2017 µg/L	1.2017 ppb	15:22:46
3	Mn 257.610†	-142.0	100.2	0.3497 µg/L	0.3497 ppb	15:23:06
3	Mo 202.031†	3.2	10.8	1.1512 µg/L	1.1512 ppb	15:23:06
3	Ni 231.604†	306.2	8.2	0.4462 µg/L	0.4462 ppb	15:23:06
3	P 214.914†	29.6	2.4	5.0144 µg/L	5.0144 ppb	15:23:06
3	Pb 220.353†	103.4	7.6	2.0339 µg/L	2.0339 ppb	15:23:06
3	S 181.975 Axial†	18.5	3.9	17.268 µg/L	17.268 ppb	15:23:06
3	Sb 206.836†	29.4	2.8	2.8126 µg/L	2.8126 ppb	15:23:06
3	Se 196.026†	10.8	-4.9	-7.3717 µg/L	-7.3717 ppb	15:23:06
3	SiO2†	1294.7	62.1	13.372 µg/L	13.372 ppb	15:22:46
3	Si 251.611†	373.7	65.9	5.4177 µg/L	5.4177 ppb	15:23:06
3	Sn 189.927†	0.7	1.6	0.7177 µg/L	0.7177 ppb	15:23:06
3	Ti 334.940†	234.9	122.0	0.2950 µg/L	0.2950 ppb	15:22:46
3	Tl 190.801†	-24.9	-0.9	-1.2684 µg/L	-1.2684 ppb	15:23:06
3	U 409.014†	-88.3	-35.9	-3.2543 µg/L	-3.2543 ppb	15:22:46
3	V 292.402†	2.7	46.9	0.5091 µg/L	0.5091 ppb	15:22:46
3	Zn 213.857†	512.3	43.6	1.0859 µg/L	1.0859 ppb	15:23:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1897669.2	99.363	%	0.6970				0.70%
Sc RADIAL	54407.1	99.7	%	0.83				0.83%
Y 371.029	1300079.5	99.249	%	0.6782				0.68%
Ag 328.068†	19.7	0.1590	µg/L	0.11838	0.1590	ppb	0.11838	74.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	1.0028	µg/L	15.21758	1.0028	ppb	15.21758	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.6394	µg/L	6.15437	-4.6394	ppb	6.15437	132.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	10.5	0.4560	µg/L	0.18460	0.4560	ppb	0.18460	40.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1986	µg/L	0.19747	0.1986	ppb	0.19747	99.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	87.4	0.0570	µg/L	0.10368	0.0570	ppb	0.10368	181.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.3	6.8305	µg/L	0.42277	6.8305	ppb	0.42277	6.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.2913	µg/L	0.18170	0.2913	ppb	0.18170	62.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.4	0.3163	µg/L	0.43987	0.3163	ppb	0.43987	139.05%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                26.7      0.5884 µg/L       0.24227      0.5884 ppb        0.24227  41.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               107.2      0.7496 µg/L       0.39354      0.7496 ppb        0.39354  52.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9581 µg/L       8.21418      7.9581 ppb        8.21418 103.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          79.3      56.332 µg/L       29.7823      56.332 ppb        29.7823  52.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3      12.084 µg/L       32.3776      12.084 ppb        32.3776 267.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                65.9      0.2289 µg/L       0.11938      0.2289 ppb        0.11938  52.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.3      0.3563 µg/L       0.69086      0.3563 ppb        0.69086 193.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         78.7      25.918 µg/L       12.6205      25.918 ppb        12.6205  48.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.6      0.4162 µg/L       0.06037      0.4162 ppb        0.06037  14.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      5.2393 µg/L       3.71831      5.2393 ppb        3.71831  70.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.0      2.1408 µg/L       0.39934      2.1408 ppb        0.39934  18.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.7      11.879 µg/L        4.9829      11.879 ppb         4.9829  41.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.3      1.2466 µg/L       2.04884      1.2466 ppb        2.04884 164.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.4      2.0707 µg/L       8.51747      2.0707 ppb        8.51747 411.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      36.7      7.8950 µg/L       6.23447      7.8950 ppb        6.23447  78.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                51.5      4.2323 µg/L       1.08494      4.2323 ppb        1.08494  25.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.2      1.0152 µg/L       1.52977      1.0152 ppb        1.52977 150.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.3     -0.1174 µg/L       0.36313     -0.1174 ppb        0.36313 309.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.9      0.1769 µg/L       0.10323      0.1769 ppb        0.10323  58.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.6      0.8799 µg/L       2.25661      0.8799 ppb        2.25661 256.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -70.6     -6.3965 µg/L       4.72449     -6.3965 ppb        4.72449  73.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 31.2      0.3310 µg/L       0.22659      0.3310 ppb        0.22659  68.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                29.8      0.7397 µg/L       0.31916      0.7397 ppb        0.31916  43.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:57:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57410.8	57410.8	105	%			15:58:05
1	Al 396.153Radial†	6675.8	6356.1	4727.0	µg/L	4727.0	ppb	15:58:25
1	Ca 317.933Radial†	5505.2	5054.0	4758.7	µg/L	4758.7	ppb	15:58:25
1	Fe 238.204 Radial†	598.7	554.6	4711.3	µg/L	4711.3	ppb	15:58:25
1	K 766.490 Radial†	7251.0	6764.3	4808.0	µg/L	4808.0	ppb	15:58:05
1	Mg 279.077 IEC†	563.5	524.3	4883.2	µg/L	4883.2	ppb	15:58:25
1	Na 589.592 Radial†	31835.2	29720.5	9784.1	µg/L	9784.1	ppb	15:58:05
1	Sr 421.552†	47847.7	45444.2	471.08	µg/L	471.08	ppb	15:58:05
1	Sc 361.383	1983693.6	1983693.6	103.87	%			15:59:29
1	Y 371.029	1353410.2	1353410.2	103.32	%			15:59:29
1	Ag 328.068†	62797.6	61024.1	487.72	µg/L	487.72	ppb	15:59:34
1	As 188.979†	269.1	257.9	503.15	µg/L	503.15	ppb	15:59:55
1	B 249.677†	11717.3	10949.6	476.85	µg/L	476.85	ppb	15:59:34
1	Ba 233.527†	19343.1	18649.0	486.47	µg/L	486.47	ppb	15:59:34
1	Be 313.107†	754921.5	730256.0	476.72	µg/L	476.72	ppb	15:59:29
1	Cd 226.502†	18224.6	17688.2	487.95	µg/L	487.95	ppb	15:59:34
1	Co 228.616†	10367.0	9989.9	491.09	µg/L	491.09	ppb	15:59:34
1	Cr 267.716†	23052.3	22246.4	489.64	µg/L	489.64	ppb	15:59:34
1	Cu 324.752†	74680.1	69413.7	485.52	µg/L	485.52	ppb	15:59:34
1	Mn 257.610†	145483.3	140311.0	486.31	µg/L	486.31	ppb	15:59:29
1	Mo 202.031†	4926.8	4750.9	507.20	µg/L	507.20	ppb	15:59:55
1	Ni 231.604†	9598.3	8938.8	488.20	µg/L	488.20	ppb	15:59:34
1	P 214.914†	1237.2	1163.5	2452.0	µg/L	2452.0	ppb	15:59:55
1	Pb 220.353†	2038.1	1865.0	497.83	µg/L	497.83	ppb	15:59:55
1	S 181.975 Axial†	250.1	226.0	990.17	µg/L	990.17	ppb	15:59:55
1	Sb 206.836†	555.0	507.4	501.78	µg/L	501.78	ppb	15:59:55
1	Se 196.026†	350.7	321.8	497.82	µg/L	497.82	ppb	15:59:55
1	SiO2†	26261.5	24033.7	5175.8	µg/L	5175.8	ppb	15:59:34
1	Si 251.611†	31015.9	29548.3	2429.0	µg/L	2429.0	ppb	15:59:34
1	Sn 189.927†	1145.1	1103.3	507.48	µg/L	507.48	ppb	15:59:55
1	Ti 334.940†	207638.9	199792.4	480.28	µg/L	480.28	ppb	15:59:29
1	Tl 190.801†	339.0	350.7	495.21	µg/L	495.21	ppb	15:59:55
1	U 409.014†	5639.1	5482.7	495.44	µg/L	495.44	ppb	15:59:34
1	V 292.402†	47231.1	45516.9	491.19	µg/L	491.19	ppb	15:59:34
1	Zn 213.857†	20861.0	19608.8	486.21	µg/L	486.21	ppb	15:59:34
2	Sc RADIAL	56826.1	56826.1	104	%			15:58:31
2	Al 396.153Radial†	6645.2	6392.0	4754.0	µg/L	4754.0	ppb	15:58:51
2	Ca 317.933Radial†	5486.3	5089.8	4792.3	µg/L	4792.3	ppb	15:58:51
2	Fe 238.204 Radial†	599.8	561.5	4769.4	µg/L	4769.4	ppb	15:58:51
2	K 766.490 Radial†	7153.6	6741.7	4791.9	µg/L	4791.9	ppb	15:58:31
2	Mg 279.077 IEC†	560.2	526.7	4905.2	µg/L	4905.2	ppb	15:58:51
2	Na 589.592 Radial†	31532.3	29741.0	9790.8	µg/L	9790.8	ppb	15:58:31
2	Sr 421.552†	47455.8	45535.8	472.03	µg/L	472.03	ppb	15:58:31
2	Sc 361.383	1995410.5	1995410.5	104.48	%			16:00:02
2	Y 371.029	1361782.3	1361782.3	103.96	%			16:00:02
2	Ag 328.068†	62246.7	60141.9	480.68	µg/L	480.68	ppb	16:00:08
2	As 188.979†	257.7	245.5	478.82	µg/L	478.82	ppb	16:00:28
2	B 249.677†	11628.5	10798.3	470.20	µg/L	470.20	ppb	16:00:08
2	Ba 233.527†	19125.6	18331.5	478.19	µg/L	478.19	ppb	16:00:08
2	Be 313.107†	755807.0	726835.7	474.48	µg/L	474.48	ppb	16:00:02
2	Cd 226.502†	17996.1	17366.5	479.06	µg/L	479.06	ppb	16:00:08
2	Co 228.616†	10237.6	9807.4	482.11	µg/L	482.11	ppb	16:00:08
2	Cr 267.716†	22930.0	21999.0	484.19	µg/L	484.19	ppb	16:00:08
2	Cu 324.752†	74042.3	68381.0	478.32	µg/L	478.32	ppb	16:00:08
2	Mn 257.610†	145292.8	139306.3	482.84	µg/L	482.84	ppb	16:00:02
2	Mo 202.031†	4851.2	4650.7	496.51	µg/L	496.51	ppb	16:00:28
2	Ni 231.604†	9492.2	8782.9	479.69	µg/L	479.69	ppb	16:00:08
2	P 214.914†	1221.3	1141.3	2405.0	µg/L	2405.0	ppb	16:00:28
2	Pb 220.353†	1997.7	1814.9	484.45	µg/L	484.45	ppb	16:00:28

2	S 181.975 Axial†	253.2	227.5	996.93 µg/L	996.93 ppb	16:00:28
2	Sb 206.836†	551.9	501.3	495.60 µg/L	495.60 ppb	16:00:28
2	Se 196.026†	351.2	320.3	495.61 µg/L	495.61 ppb	16:00:28
2	SiO2†	26072.1	23704.0	5104.8 µg/L	5104.8 ppb	16:00:08
2	Si 251.611†	30669.0	29040.9	2387.3 µg/L	2387.3 ppb	16:00:08
2	Sn 189.927†	1132.5	1084.8	498.96 µg/L	498.96 ppb	16:00:28
2	Ti 334.940†	207816.1	198788.1	477.86 µg/L	477.86 ppb	16:00:02
2	Tl 190.801†	338.3	348.1	491.58 µg/L	491.58 ppb	16:00:28
2	U 409.014†	5511.6	5328.9	481.50 µg/L	481.50 ppb	16:00:08
2	V 292.402†	46887.0	44920.6	484.74 µg/L	484.74 ppb	16:00:08
2	Zn 213.857†	20639.1	19278.4	478.01 µg/L	478.01 ppb	16:00:08
3	Sc RADIAL	56910.2	56910.2	104 %		15:58:57
3	Al 396.153Radial†	6656.6	6393.5	4756.8 µg/L	4756.8 ppb	15:59:17
3	Ca 317.933Radial†	5495.6	5090.9	4793.4 µg/L	4793.4 ppb	15:59:17
3	Fe 238.204 Radial†	602.2	563.0	4781.1 µg/L	4781.1 ppb	15:59:17
3	K 766.490 Radial†	7220.2	6795.5	4830.2 µg/L	4830.2 ppb	15:58:57
3	Mg 279.077 IEC†	560.3	526.1	4897.6 µg/L	4897.6 ppb	15:59:17
3	Na 589.592 Radial†	31637.3	29796.9	9809.2 µg/L	9809.2 ppb	15:58:57
3	Sr 421.552†	47653.8	45658.4	473.30 µg/L	473.30 ppb	15:58:57
3	Sc 361.383	1998435.1	1998435.1	104.64 %		16:00:35
3	Y 371.029	1364968.8	1364968.8	104.20 %		16:00:35
3	Ag 328.068†	58612.3	56578.4	452.09 µg/L	452.09 ppb	16:00:41
3	As 188.979†	224.3	213.2	415.95 µg/L	415.95 ppb	16:01:01
3	B 249.677†	10895.6	10081.1	438.76 µg/L	438.76 ppb	16:00:41
3	Ba 233.527†	17588.9	16835.1	439.14 µg/L	439.14 ppb	16:00:41
3	Be 313.107†	714187.6	685966.5	447.80 µg/L	447.80 ppb	16:00:35
3	Cd 226.502†	16474.5	15886.3	438.17 µg/L	438.17 ppb	16:00:41
3	Co 228.616†	9303.8	8900.2	437.44 µg/L	437.44 ppb	16:00:41
3	Cr 267.716†	20256.0	19410.4	427.22 µg/L	427.22 ppb	16:00:41
3	Cu 324.752†	67621.8	62137.9	434.71 µg/L	434.71 ppb	16:00:41
3	Mn 257.610†	137721.9	131860.5	457.05 µg/L	457.05 ppb	16:00:35
3	Mo 202.031†	4037.0	3865.6	412.72 µg/L	412.72 ppb	16:01:01
3	Ni 231.604†	8629.5	7944.8	433.92 µg/L	433.92 ppb	16:00:41
3	P 214.914†	1036.7	963.1	2025.7 µg/L	2025.7 ppb	16:01:01
3	Pb 220.353†	1739.6	1565.3	417.74 µg/L	417.74 ppb	16:01:01
3	S 181.975 Axial†	221.7	197.0	863.32 µg/L	863.32 ppb	16:01:01
3	Sb 206.836†	474.2	426.2	421.04 µg/L	421.04 ppb	16:01:01
3	Se 196.026†	306.7	277.3	430.08 µg/L	430.08 ppb	16:01:01
3	SiO2†	24196.5	21873.8	4710.6 µg/L	4710.6 ppb	16:00:41
3	Si 251.611†	28513.0	26936.1	2214.3 µg/L	2214.3 ppb	16:00:41
3	Sn 189.927†	924.9	884.8	406.97 µg/L	406.97 ppb	16:01:01
3	Ti 334.940†	195303.4	186529.0	448.37 µg/L	448.37 ppb	16:00:35
3	Tl 190.801†	301.0	311.9	440.85 µg/L	440.85 ppb	16:01:01
3	U 409.014†	4905.4	4741.6	428.33 µg/L	428.33 ppb	16:00:41
3	V 292.402†	42233.7	40405.6	435.79 µg/L	435.79 ppb	16:00:41
3	Zn 213.857†	18819.8	17509.9	434.12 µg/L	434.12 ppb	16:00:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992513.1	104.33	%	0.408				0.39%
Sc RADIAL	57049.0	105	%	0.6				0.55%
Y 371.029	1360053.7	103.83	%	0.456				0.44%
Ag 328.068†	59248.1	473.50	µg/L	18.871	473.50	ppb	18.871	3.99%
QC value within limits for Ag 328.068 Recovery = 94.70%								
Al 396.153Radial†	6380.5	4745.9	µg/L	16.44	4745.9	ppb	16.44	0.35%
QC value within limits for Al 396.153Radial Recovery = 94.92%								
As 188.979†	238.9	465.97	µg/L	44.997	465.97	ppb	44.997	9.66%
QC value within limits for As 188.979 Recovery = 93.19%								
B 249.677†	10609.7	461.94	µg/L	20.345	461.94	ppb	20.345	4.40%
QC value within limits for B 249.677 Recovery = 92.39%								
Ba 233.527†	17938.5	467.93	µg/L	25.276	467.93	ppb	25.276	5.40%
QC value within limits for Ba 233.527 Recovery = 93.59%								
Be 313.107†	714352.7	466.33	µg/L	16.086	466.33	ppb	16.086	3.45%
QC value within limits for Be 313.107 Recovery = 93.27%								
Ca 317.933Radial†	5078.2	4781.5	µg/L	19.75	4781.5	ppb	19.75	0.41%
QC value within limits for Ca 317.933Radial Recovery = 95.63%								
Cd 226.502†	16980.3	468.39	µg/L	26.545	468.39	ppb	26.545	5.67%
QC value within limits for Cd 226.502 Recovery = 93.68%								
Co 228.616†	9565.8	470.21	µg/L	28.733	470.21	ppb	28.733	6.11%

```
   QC value within limits for Co 228.616  Recovery = 94.04%
Cr 267.716†            21218.6      467.02 µg/L        34.571      467.02 ppb         34.571   7.40%
   QC value within limits for Cr 267.716  Recovery = 93.40%
Cu 324.752†            66644.2      466.19 µg/L        27.494      466.19 ppb         27.494   5.90%
   QC value within limits for Cu 324.752  Recovery = 93.24%
Fe 238.204 Radial†       559.7      4753.9 µg/L         37.39      4753.9 ppb          37.39   0.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.08%
K 766.490 Radial†       6767.2      4810.1 µg/L         19.19      4810.1 ppb          19.19   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 96.20%
Mg 279.077 IEC†          525.7      4895.3 µg/L         11.18      4895.3 ppb          11.18   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           137159.3      475.40 µg/L        15.982      475.40 ppb         15.982   3.36%
   QC value within limits for Mn 257.610  Recovery = 95.08%
Mo 202.031†             4422.4      472.14 µg/L        51.737      472.14 ppb         51.737  10.96%
   QC value within limits for Mo 202.031  Recovery = 94.43%
Na 589.592 Radial†     29752.8      9794.7 µg/L         13.02      9794.7 ppb          13.02   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 97.95%
Ni 231.604†             8555.5      467.27 µg/L        29.194      467.27 ppb         29.194   6.25%
   QC value within limits for Ni 231.604  Recovery = 93.45%
P 214.914†              1089.3      2294.2 µg/L        233.77      2294.2 ppb         233.77  10.19%
   QC value within limits for P 214.914  Recovery = 91.77%
Pb 220.353†             1748.4      466.67 µg/L        42.900      466.67 ppb         42.900   9.19%
   QC value within limits for Pb 220.353  Recovery = 93.33%
S 181.975 Axial†         216.9      950.14 µg/L        75.264      950.14 ppb         75.264   7.92%
   QC value within limits for S 181.975 Axial  Recovery = 95.01%
Sb 206.836†              478.3      472.81 µg/L        44.937      472.81 ppb         44.937   9.50%
   QC value within limits for Sb 206.836  Recovery = 94.56%
Se 196.026†              306.5      474.50 µg/L        38.486      474.50 ppb         38.486   8.11%
   QC value within limits for Se 196.026  Recovery = 94.90%
SiO2†                  23203.8      4997.1 µg/L        250.58      4997.1 ppb         250.58   5.01%
   QC value within limits for SiO2  Recovery = 93.45%
Si 251.611†            28508.4      2343.5 µg/L        113.86      2343.5 ppb         113.86   4.86%
   QC value within limits for Si 251.611  Recovery = 93.74%
Sn 189.927†             1024.3      471.14 µg/L        55.734      471.14 ppb         55.734  11.83%
   QC value within limits for Sn 189.927  Recovery = 94.23%
Sr 421.552†            45546.1      472.14 µg/L         1.114      472.14 ppb          1.114   0.24%
   QC value within limits for Sr 421.552  Recovery = 94.43%
Ti 334.940†           195036.5      468.84 µg/L        17.764      468.84 ppb         17.764   3.79%
   QC value within limits for Ti 334.940  Recovery = 93.77%
Tl 190.801†              336.9      475.88 µg/L        30.390      475.88 ppb         30.390   6.39%
   QC value within limits for Tl 190.801  Recovery = 95.18%
U 409.014†              5184.4      468.43 µg/L        35.417      468.43 ppb         35.417   7.56%
   QC value within limits for U 409.014  Recovery = 93.69%
V 292.402†             43614.3      470.57 µg/L        30.297      470.57 ppb         30.297   6.44%
   QC value within limits for V 292.402  Recovery = 94.11%
Zn 213.857†            18799.0      466.11 µg/L        28.010      466.11 ppb         28.010   6.01%
   QC value within limits for Zn 213.857  Recovery = 93.22%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:01:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55658.0	55658.0	102	%			16:01:44
1	Al 396.153Radial†	-23.0	-12.4	-9.2620	µg/L	-9.2620	ppb	16:01:44
1	Ca 317.933Radial†	208.0	24.8	23.363	µg/L	23.363	ppb	16:02:05
1	Fe 238.204 Radial†	15.4	0.6	5.4204	µg/L	5.4204	ppb	16:02:05
1	K 766.490 Radial†	204.3	71.9	51.110	µg/L	51.110	ppb	16:01:44
1	Mg 279.077 IEC†	10.5	-1.0	-9.0434	µg/L	-9.0434	ppb	16:02:05
1	Na 589.592 Radial†	1039.6	477.5	157.20	µg/L	157.20	ppb	16:01:44
1	Sr 421.552†	56.9	16.2	0.1684	µg/L	0.1684	ppb	16:01:44
1	Sc 361.383	1982189.6	1982189.6	103.79	%			16:03:07
1	Y 371.029	1359337.0	1359337.0	103.77	%			16:03:07
1	Ag 328.068†	-578.1	7.5	0.0622	µg/L	0.0622	ppb	16:03:12
1	As 188.979†	-1.3	-2.4	-4.6084	µg/L	-4.6084	ppb	16:03:33
1	B 249.677†	325.8	-17.5	-0.7693	µg/L	-0.7693	ppb	16:03:33
1	Ba 233.527†	-23.3	3.6	0.0946	µg/L	0.0946	ppb	16:03:33
1	Be 313.107†	-3422.1	143.2	0.0935	µg/L	0.0935	ppb	16:03:12
1	Cd 226.502†	-146.3	1.2	0.0321	µg/L	0.0321	ppb	16:03:33
1	Co 228.616†	-12.7	-3.4	-0.1679	µg/L	-0.1679	ppb	16:03:33
1	Cr 267.716†	-41.9	12.0	0.2649	µg/L	0.2649	ppb	16:03:33
1	Cu 324.752†	2411.8	-162.3	-1.1332	µg/L	-1.1332	ppb	16:03:12
1	Mn 257.610†	-218.3	33.8	0.1180	µg/L	0.1180	ppb	16:03:33
1	Mo 202.031†	-10.7	-2.7	-0.2926	µg/L	-0.2926	ppb	16:03:33
1	Ni 231.604†	299.4	-13.7	-0.7472	µg/L	-0.7472	ppb	16:03:33
1	P 214.914†	42.9	13.7	29.528	µg/L	29.528	ppb	16:03:33
1	Pb 220.353†	92.5	-8.1	-2.1696	µg/L	-2.1696	ppb	16:03:33
1	S 181.975 Axial†	17.6	2.1	9.2574	µg/L	9.2574	ppb	16:03:33
1	Sb 206.836†	23.2	-4.6	-4.4961	µg/L	-4.4961	ppb	16:03:33
1	Se 196.026†	12.0	-4.3	-6.4748	µg/L	-6.4748	ppb	16:03:33
1	SiO2†	1238.2	-57.1	-12.288	µg/L	-12.288	ppb	16:03:12
1	Si 251.611†	320.8	-3.8	-0.3112	µg/L	-0.3112	ppb	16:03:33
1	Sn 189.927†	0.5	1.4	0.6395	µg/L	0.6395	ppb	16:03:33
1	Ti 334.940†	134.1	13.1	0.0325	µg/L	0.0325	ppb	16:03:12
1	Tl 190.801†	-24.9	0.3	0.4630	µg/L	0.4630	ppb	16:03:33
1	U 409.014†	-12.1	41.9	3.7948	µg/L	3.7948	ppb	16:03:12
1	V 292.402†	-10.2	34.4	0.3695	µg/L	0.3695	ppb	16:03:12
1	Zn 213.857†	479.7	-13.4	-0.3280	µg/L	-0.3280	ppb	16:03:33
2	Sc RADIAL	55313.8	55313.8	101	%			16:02:10
2	Al 396.153Radial†	-3.9	6.3	4.7164	µg/L	4.7164	ppb	16:02:10
2	Ca 317.933Radial†	201.6	19.8	18.599	µg/L	18.599	ppb	16:02:30
2	Fe 238.204 Radial†	15.1	0.4	3.5581	µg/L	3.5581	ppb	16:02:30
2	K 766.490 Radial†	165.7	35.0	24.913	µg/L	24.913	ppb	16:02:10
2	Mg 279.077 IEC†	9.2	-2.2	-20.801	µg/L	-20.801	ppb	16:02:30
2	Na 589.592 Radial†	1009.9	454.5	149.64	µg/L	149.64	ppb	16:02:10
2	Sr 421.552†	43.0	2.9	0.0298	µg/L	0.0298	ppb	16:02:10
2	Sc 361.383	2000056.5	2000056.5	104.72	%			16:03:39
2	Y 371.029	1371413.4	1371413.4	104.69	%			16:03:39
2	Ag 328.068†	-539.4	49.5	0.3929	µg/L	0.3929	ppb	16:03:44
2	As 188.979†	2.0	0.8	1.5259	µg/L	1.5259	ppb	16:04:05
2	B 249.677†	333.1	-13.4	-0.5861	µg/L	-0.5861	ppb	16:04:05
2	Ba 233.527†	-19.7	7.2	0.1863	µg/L	0.1863	ppb	16:04:05
2	Be 313.107†	-3284.4	304.2	0.1986	µg/L	0.1986	ppb	16:03:44
2	Cd 226.502†	-141.7	6.9	0.1883	µg/L	0.1883	ppb	16:04:05
2	Co 228.616†	-14.8	-5.3	-0.2603	µg/L	-0.2603	ppb	16:04:05
2	Cr 267.716†	-34.1	19.8	0.4350	µg/L	0.4350	ppb	16:04:05
2	Cu 324.752†	2452.1	-144.6	-1.0097	µg/L	-1.0097	ppb	16:03:44
2	Mn 257.610†	-201.5	51.7	0.1804	µg/L	0.1804	ppb	16:04:05
2	Mo 202.031†	-5.9	1.9	0.2060	µg/L	0.2060	ppb	16:04:05
2	Ni 231.604†	302.4	-13.4	-0.7317	µg/L	-0.7317	ppb	16:04:05
2	P 214.914†	22.4	-6.2	-13.288	µg/L	-13.288	ppb	16:04:05
2	Pb 220.353†	100.3	-1.4	-0.3652	µg/L	-0.3652	ppb	16:04:05

2	S 181.975 Axial†	18.4	2.7	12.047 µg/L	12.047 ppb		16:04:05
2	Sb 206.836†	25.7	-2.4	-2.3521 µg/L	-2.3521 ppb		16:04:05
2	Se 196.026†	11.2	-5.1	-7.8216 µg/L	-7.8216 ppb		16:04:05
2	SiO2†	1221.5	-83.6	-18.000 µg/L	-18.000 ppb		16:03:44
2	Si 251.611†	319.3	-8.0	-0.6538 µg/L	-0.6538 ppb		16:04:05
2	Sn 189.927†	1.8	2.6	1.1983 µg/L	1.1983 ppb		16:04:05
2	Ti 334.940†	170.3	46.5	0.1138 µg/L	0.1138 ppb		16:03:44
2	Tl 190.801†	-24.1	1.2	1.7367 µg/L	1.7367 ppb		16:04:05
2	U 409.014†	-68.4	-11.7	-1.0610 µg/L	-1.0610 ppb		16:03:44
2	V 292.402†	-47.0	-0.7	-0.0056 µg/L	-0.0056 ppb		16:03:44
2	Zn 213.857†	481.8	-15.5	-0.3808 µg/L	-0.3808 ppb		16:04:05
3	Sc RADIAL	56238.4	56238.4	103 %			16:02:36
3	Al 396.153Radial†	-4.5	5.7	4.2549 µg/L	4.2549 ppb		16:02:36
3	Ca 317.933Radial†	217.1	31.6	29.725 µg/L	29.725 ppb		16:02:56
3	Fe 238.204 Radial†	15.6	0.7	5.5166 µg/L	5.5166 ppb		16:02:56
3	K 766.490 Radial†	152.3	19.4	13.755 µg/L	13.755 ppb		16:02:36
3	Mg 279.077 IEC†	9.8	-1.7	-16.008 µg/L	-16.008 ppb		16:02:56
3	Na 589.592 Radial†	1347.3	765.5	252.01 µg/L	252.01 ppb		16:02:36
3	Sr 421.552†	41.3	0.5	0.0055 µg/L	0.0055 ppb		16:02:36
3	Sc 361.383	1997138.2	1997138.2	104.57 %			16:04:11
3	Y 371.029	1369234.6	1369234.6	104.53 %			16:04:11
3	Ag 328.068†	-498.6	87.7	0.6980 µg/L	0.6980 ppb		16:04:16
3	As 188.979†	2.9	1.6	3.1103 µg/L	3.1103 ppb		16:04:37
3	B 249.677†	327.9	-17.9	-0.7818 µg/L	-0.7818 ppb		16:04:37
3	Ba 233.527†	-15.6	11.1	0.2887 µg/L	0.2887 ppb		16:04:37
3	Be 313.107†	-3097.4	478.5	0.3124 µg/L	0.3124 ppb		16:04:16
3	Cd 226.502†	-131.7	16.2	0.4453 µg/L	0.4453 ppb		16:04:37
3	Co 228.616†	-2.6	6.4	0.3136 µg/L	0.3136 ppb		16:04:37
3	Cr 267.716†	-14.7	38.4	0.8440 µg/L	0.8440 ppb		16:04:37
3	Cu 324.752†	2433.5	-159.0	-1.1099 µg/L	-1.1099 ppb		16:04:16
3	Mn 257.610†	-172.9	78.8	0.2743 µg/L	0.2743 ppb		16:04:37
3	Mo 202.031†	-1.7	5.9	0.6314 µg/L	0.6314 ppb		16:04:37
3	Ni 231.604†	302.9	-12.6	-0.6873 µg/L	-0.6873 ppb		16:04:37
3	P 214.914†	28.9	0.0	0.1351 µg/L	0.1351 ppb		16:04:37
3	Pb 220.353†	98.8	-2.7	-0.7118 µg/L	-0.7118 ppb		16:04:37
3	S 181.975 Axial†	19.3	3.6	15.780 µg/L	15.780 ppb		16:04:37
3	Sb 206.836†	32.5	4.1	4.0170 µg/L	4.0170 ppb		16:04:37
3	Se 196.026†	15.5	-1.0	-1.5777 µg/L	-1.5777 ppb		16:04:37
3	SiO2†	1280.0	-25.9	-5.5874 µg/L	-5.5874 ppb		16:04:16
3	Si 251.611†	323.6	-3.4	-0.2805 µg/L	-0.2805 ppb		16:04:37
3	Sn 189.927†	1.4	2.2	1.0236 µg/L	1.0236 ppb		16:04:37
3	Ti 334.940†	204.8	79.7	0.1935 µg/L	0.1935 ppb		16:04:16
3	Tl 190.801†	-25.7	-0.3	-0.3909 µg/L	-0.3909 ppb		16:04:37
3	U 409.014†	-62.9	-6.5	-0.5917 µg/L	-0.5917 ppb		16:04:16
3	V 292.402†	-21.9	23.3	0.2547 µg/L	0.2547 ppb		16:04:16
3	Zn 213.857†	484.0	-12.7	-0.3127 µg/L	-0.3127 ppb		16:04:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1993128.1	104.36	%	0.502				0.48%
Sc RADIAL	55736.7	102	%	0.9				0.84%
Y 371.029	1366661.7	104.33	%	0.491				0.47%
Ag 328.068†	48.2	0.3844	µg/L	0.31802	0.3844	ppb	0.31802	82.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.1	-0.0969	µg/L	7.94054	-0.0969	ppb	7.94054	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.0	0.0093	µg/L	4.07671	0.0093	ppb	4.07671	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.7124	µg/L	0.10959	-0.7124	ppb	0.10959	15.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.1899	µg/L	0.09711	0.1899	ppb	0.09711	51.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.6	0.2015	µg/L	0.10946	0.2015	ppb	0.10946	54.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	25.4	23.896	µg/L	5.5823	23.896	ppb	5.5823	23.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.1	0.2219	µg/L	0.20862	0.2219	ppb	0.20862	94.02%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.8	-0.0382	µg/L	0.30817	-0.0382	ppb	0.30817	806.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              23.4      0.5146 µg/L       0.29767      0.5146 ppb        0.29767  57.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -155.3     -1.0843 µg/L       0.06563     -1.0843 ppb        0.06563   6.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.6      4.8317 µg/L       1.10403      4.8317 ppb        1.10403  22.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.1      29.926 µg/L       19.1758      29.926 ppb        19.1758  64.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -15.284 µg/L        5.9121     -15.284 ppb         5.9121  38.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.8      0.1909 µg/L       0.07866      0.1909 ppb        0.07866  41.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.7      0.1816 µg/L       0.46249      0.1816 ppb        0.46249 254.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       565.9      186.28 µg/L        57.047      186.28 ppb         57.047  30.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -13.2     -0.7220 µg/L       0.03109     -0.7220 ppb        0.03109   4.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      5.4583 µg/L      21.89861      5.4583 ppb       21.89861 401.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.1     -1.0822 µg/L       0.95750     -1.0822 ppb        0.95750  88.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.8      12.362 µg/L        3.2727      12.362 ppb         3.2727  26.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.0     -0.9437 µg/L       4.42784     -0.9437 ppb        4.42784 469.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5     -5.2914 µg/L       3.28586     -5.2914 ppb        3.28586  62.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -55.5     -11.958 µg/L        6.2126     -11.958 ppb         6.2126  51.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -5.1     -0.4151 µg/L       0.20723     -0.4151 ppb        0.20723  49.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.1      0.9538 µg/L       0.28585      0.9538 ppb        0.28585  29.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.6      0.0679 µg/L       0.08784      0.0679 ppb        0.08784 129.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              46.4      0.1133 µg/L       0.08046      0.1133 ppb        0.08046  71.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.6030 µg/L       1.07067      0.6030 ppb        1.07067 177.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                7.9      0.7140 µg/L       2.67833      0.7140 ppb        2.67833 375.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               19.0      0.2062 µg/L       0.19224      0.2062 ppb        0.19224  93.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -13.9     -0.3405 µg/L       0.03570     -0.3405 ppb        0.03570  10.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 16:37:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57270.5	57270.5	105	%			16:38:25
1	Al 396.153Radial†	6958.1	6640.6	4939.3	µg/L	4939.3	ppb	16:38:25
1	Ca 317.933Radial†	5712.0	5263.9	4956.3	µg/L	4956.3	ppb	16:38:46
1	Fe 238.204 Radial†	619.2	575.5	4888.0	µg/L	4888.0	ppb	16:38:46
1	K 766.490 Radial†	7274.3	6803.4	4835.8	µg/L	4835.8	ppb	16:38:25
1	Mg 279.077 IEC†	580.4	541.8	5044.9	µg/L	5044.9	ppb	16:38:46
1	Na 589.592 Radial†	31721.9	29686.7	9772.9	µg/L	9772.9	ppb	16:38:25
1	Sr 421.552†	48411.5	46092.9	477.81	µg/L	477.81	ppb	16:38:25
1	Sc 361.383	2050041.7	2050041.7	107.34	%			16:39:49
1	Y 371.029	1400914.7	1400914.7	106.95	%			16:39:49
1	Ag 328.068†	63102.9	59351.9	474.38	µg/L	474.38	ppb	16:39:55
1	As 188.979†	273.7	253.8	495.14	µg/L	495.14	ppb	16:40:15
1	B 249.677†	11802.0	10663.4	464.23	µg/L	464.23	ppb	16:39:55
1	Ba 233.527†	19451.3	18147.1	473.37	µg/L	473.37	ppb	16:39:55
1	Be 313.107†	769937.6	720722.3	470.49	µg/L	470.49	ppb	16:39:49
1	Cd 226.502†	18413.9	17296.7	477.11	µg/L	477.11	ppb	16:39:55
1	Co 228.616†	10377.6	9676.7	475.69	µg/L	475.69	ppb	16:39:55
1	Cr 267.716†	23222.4	21686.6	477.32	µg/L	477.32	ppb	16:39:55
1	Cu 324.752†	74708.1	67112.7	469.48	µg/L	469.48	ppb	16:39:55
1	Mn 257.610†	148224.3	138331.4	479.47	µg/L	479.47	ppb	16:39:49
1	Mo 202.031†	4976.6	4643.8	495.78	µg/L	495.78	ppb	16:40:15
1	Ni 231.604†	9664.7	8701.5	475.25	µg/L	475.25	ppb	16:39:55
1	P 214.914†	1251.0	1137.8	2398.4	µg/L	2398.4	ppb	16:40:15
1	Pb 220.353†	2064.6	1826.2	487.49	µg/L	487.49	ppb	16:40:15
1	S 181.975 Axial†	253.0	220.8	967.55	µg/L	967.55	ppb	16:40:15
1	Sb 206.836†	561.9	496.5	490.97	µg/L	490.97	ppb	16:40:15
1	Se 196.026†	348.6	308.9	478.47	µg/L	478.47	ppb	16:40:15
1	SiO2†	26407.2	23351.2	5028.8	µg/L	5028.8	ppb	16:39:55
1	Si 251.611†	31109.3	28668.8	2356.7	µg/L	2356.7	ppb	16:39:55
1	Sn 189.927†	1168.8	1089.7	501.23	µg/L	501.23	ppb	16:40:15
1	Ti 334.940†	210704.4	196178.3	471.57	µg/L	471.57	ppb	16:39:49
1	Tl 190.801†	345.6	346.3	489.05	µg/L	489.05	ppb	16:40:15
1	U 409.014†	5635.8	5304.0	479.22	µg/L	479.22	ppb	16:39:55
1	V 292.402†	47452.9	44251.8	477.60	µg/L	477.60	ppb	16:39:55
1	Zn 213.857†	20929.0	19022.1	471.63	µg/L	471.63	ppb	16:39:55
2	Sc RADIAL	57824.5	57824.5	106	%			16:38:51
2	Al 396.153Radial†	6951.6	6571.0	4887.5	µg/L	4887.5	ppb	16:38:51
2	Ca 317.933Radial†	5692.9	5193.8	4890.3	µg/L	4890.3	ppb	16:39:12
2	Fe 238.204 Radial†	614.8	565.7	4804.8	µg/L	4804.8	ppb	16:39:12
2	K 766.490 Radial†	7297.3	6758.7	4804.0	µg/L	4804.0	ppb	16:38:51
2	Mg 279.077 IEC†	578.6	534.8	4980.5	µg/L	4980.5	ppb	16:39:12
2	Na 589.592 Radial†	31791.5	29462.7	9699.2	µg/L	9699.2	ppb	16:38:51
2	Sr 421.552†	48548.0	45779.7	474.56	µg/L	474.56	ppb	16:38:51
2	Sc 361.383	2050967.6	2050967.6	107.39	%			16:40:22
2	Y 371.029	1401478.7	1401478.7	106.99	%			16:40:22
2	Ag 328.068†	63066.7	59291.5	473.89	µg/L	473.89	ppb	16:40:28
2	As 188.979†	260.8	241.7	471.43	µg/L	471.43	ppb	16:40:49
2	B 249.677†	11773.8	10632.2	462.91	µg/L	462.91	ppb	16:40:28
2	Ba 233.527†	19468.8	18155.2	473.58	µg/L	473.58	ppb	16:40:28
2	Be 313.107†	769423.9	719920.1	469.97	µg/L	469.97	ppb	16:40:22
2	Cd 226.502†	18369.5	17247.6	475.77	µg/L	475.77	ppb	16:40:28
2	Co 228.616†	10387.8	9681.8	475.93	µg/L	475.93	ppb	16:40:28
2	Cr 267.716†	23230.7	21684.6	477.27	µg/L	477.27	ppb	16:40:28
2	Cu 324.752†	74607.6	66987.7	468.59	µg/L	468.59	ppb	16:40:28
2	Mn 257.610†	147653.6	137737.6	477.41	µg/L	477.41	ppb	16:40:22
2	Mo 202.031†	4936.1	4604.0	491.53	µg/L	491.53	ppb	16:40:49
2	Ni 231.604†	9650.2	8684.0	474.29	µg/L	474.29	ppb	16:40:28
2	P 214.914†	1239.1	1126.2	2373.7	µg/L	2373.7	ppb	16:40:49
2	Pb 220.353†	2036.6	1799.3	480.30	µg/L	480.30	ppb	16:40:49

2	S 181.975 Axial†	251.7	219.6	962.01 µg/L	962.01 ppb	16:40:49
2	Sb 206.836†	560.6	495.1	489.53 µg/L	489.53 ppb	16:40:49
2	Se 196.026†	352.8	312.7	484.04 µg/L	484.04 ppb	16:40:49
2	SiO2†	26423.9	23355.6	5029.8 µg/L	5029.8 ppb	16:40:28
2	Si 251.611†	31116.7	28662.7	2356.2 µg/L	2356.2 ppb	16:40:28
2	Sn 189.927†	1158.0	1079.2	496.40 µg/L	496.40 ppb	16:40:49
2	Ti 334.940†	210552.3	195948.0	471.02 µg/L	471.02 ppb	16:40:22
2	Tl 190.801†	346.0	346.5	489.25 µg/L	489.25 ppb	16:40:49
2	U 409.014†	5584.5	5253.8	474.70 µg/L	474.70 ppb	16:40:28
2	V 292.402†	47503.1	44278.6	477.84 µg/L	477.84 ppb	16:40:28
2	Zn 213.857†	20951.2	19034.0	471.94 µg/L	471.94 ppb	16:40:28
3	Sc RADIAL	57919.3	57919.3	106 %		16:39:17
3	Al 396.153Radial†	6873.3	6486.5	4826.1 µg/L	4826.1 ppb	16:39:17
3	Ca 317.933Radial†	5675.3	5168.4	4866.3 µg/L	4866.3 ppb	16:39:38
3	Fe 238.204 Radial†	612.6	562.7	4778.5 µg/L	4778.5 ppb	16:39:38
3	K 766.490 Radial†	7223.5	6677.9	4746.6 µg/L	4746.6 ppb	16:39:17
3	Mg 279.077 IEC†	577.0	532.4	4956.6 µg/L	4956.6 ppb	16:39:38
3	Na 589.592 Radial†	31537.3	29174.1	9604.2 µg/L	9604.2 ppb	16:39:17
3	Sr 421.552†	47945.0	45136.6	467.89 µg/L	467.89 ppb	16:39:17
3	Sc 361.383	2047169.0	2047169.0	107.19 %		16:40:56
3	Y 371.029	1398213.9	1398213.9	106.74 %		16:40:56
3	Ag 328.068†	59282.1	55869.9	446.44 µg/L	446.44 ppb	16:41:01
3	As 188.979†	231.4	214.7	418.91 µg/L	418.91 ppb	16:41:22
3	B 249.677†	11101.6	10025.4	436.32 µg/L	436.32 ppb	16:41:01
3	Ba 233.527†	17825.1	16655.3	434.45 µg/L	434.45 ppb	16:41:01
3	Be 313.107†	720453.0	675563.8	441.01 µg/L	441.01 ppb	16:40:56
3	Cd 226.502†	16836.0	15848.7	437.13 µg/L	437.13 ppb	16:41:01
3	Co 228.616†	9439.7	8815.3	433.29 µg/L	433.29 ppb	16:41:01
3	Cr 267.716†	20551.5	19225.2	423.15 µg/L	423.15 ppb	16:41:01
3	Cu 324.752†	68186.1	61125.9	427.64 µg/L	427.64 ppb	16:41:01
3	Mn 257.610†	138984.9	129905.6	450.28 µg/L	450.28 ppb	16:40:56
3	Mo 202.031†	4143.4	3873.0	413.51 µg/L	413.51 ppb	16:41:22
3	Ni 231.604†	8808.1	7915.1	432.30 µg/L	432.30 ppb	16:41:01
3	P 214.914†	1067.2	968.0	2036.9 µg/L	2036.9 ppb	16:41:22
3	Pb 220.353†	1797.4	1579.7	421.60 µg/L	421.60 ppb	16:41:22
3	S 181.975 Axial†	226.2	196.2	859.46 µg/L	859.46 ppb	16:41:22
3	Sb 206.836†	485.7	426.1	420.98 µg/L	420.98 ppb	16:41:22
3	Se 196.026†	307.9	271.4	421.09 µg/L	421.09 ppb	16:41:22
3	SiO2†	24533.6	21637.8	4659.8 µg/L	4659.8 ppb	16:41:01
3	Si 251.611†	28891.7	26640.7	2190.0 µg/L	2190.0 ppb	16:41:01
3	Sn 189.927†	954.7	891.5	410.08 µg/L	410.08 ppb	16:41:22
3	Ti 334.940†	196335.7	183048.9	440.00 µg/L	440.00 ppb	16:40:56
3	Tl 190.801†	308.7	312.2	441.18 µg/L	441.18 ppb	16:41:22
3	U 409.014†	5011.7	4729.1	427.20 µg/L	427.20 ppb	16:41:01
3	V 292.402†	42781.7	39956.1	430.99 µg/L	430.99 ppb	16:41:01
3	Zn 213.857†	19123.4	17365.0	430.51 µg/L	430.51 ppb	16:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2049392.8	107.31	%	0.104				0.10%
Sc RADIAL	57671.4	106	%	0.6				0.61%
Y 371.029	1400202.5	106.89	%	0.133				0.12%
Ag 328.068†	58171.1	464.90	µg/L	15.993	464.90	ppb	15.993	3.44%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	6566.1	4884.3	µg/L	56.67	4884.3	ppb	56.67	1.16%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	236.7	461.83	µg/L	39.012	461.83	ppb	39.012	8.45%
QC value within limits for As 188.979 Recovery = 92.37%								
B 249.677†	10440.3	454.49	µg/L	15.747	454.49	ppb	15.747	3.46%
QC value within limits for B 249.677 Recovery = 90.90%								
Ba 233.527†	17652.5	460.47	µg/L	22.535	460.47	ppb	22.535	4.89%
QC value within limits for Ba 233.527 Recovery = 92.09%								
Be 313.107†	705402.1	460.49	µg/L	16.871	460.49	ppb	16.871	3.66%
QC value within limits for Be 313.107 Recovery = 92.10%								
Ca 317.933Radial†	5208.7	4904.3	µg/L	46.59	4904.3	ppb	46.59	0.95%
QC value within limits for Ca 317.933Radial Recovery = 98.09%								
Cd 226.502†	16797.7	463.34	µg/L	22.703	463.34	ppb	22.703	4.90%
QC value within limits for Cd 226.502 Recovery = 92.67%								
Co 228.616†	9391.3	461.63	µg/L	24.552	461.63	ppb	24.552	5.32%

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   QC value within limits for Co 228.616  Recovery = 92.33%
Cr 267.716†            20865.4      459.24 µg/L        31.262      459.24 ppb         31.262   6.81%
   QC value within limits for Cr 267.716  Recovery = 91.85%
Cu 324.752†            65075.5      455.24 µg/L        23.902      455.24 ppb         23.902   5.25%
   QC value within limits for Cu 324.752  Recovery = 91.05%
Fe 238.204 Radial†       568.0      4823.8 µg/L         57.17      4823.8 ppb          57.17   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.48%
K 766.490 Radial†       6746.7      4795.5 µg/L         45.22      4795.5 ppb          45.22   0.94%
   QC value within limits for K 766.490 Radial  Recovery = 95.91%
Mg 279.077 IEC†          536.3      4994.0 µg/L         45.66      4994.0 ppb          45.66   0.91%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           135324.9      469.05 µg/L        16.289      469.05 ppb         16.289   3.47%
   QC value within limits for Mn 257.610  Recovery = 93.81%
Mo 202.031†             4373.6      466.94 µg/L        46.322      466.94 ppb         46.322   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.39%
Na 589.592 Radial†     29441.2      9692.1 µg/L         84.60      9692.1 ppb          84.60   0.87%
   QC value within limits for Na 589.592 Radial  Recovery = 96.92%
Ni 231.604†             8433.5      460.62 µg/L        24.525      460.62 ppb         24.525   5.32%
   QC value within limits for Ni 231.604  Recovery = 92.12%
P 214.914†              1077.3      2269.6 µg/L        201.96      2269.6 ppb         201.96   8.90%
   QC value within limits for P 214.914  Recovery = 90.79%
Pb 220.353†             1735.0      463.13 µg/L        36.146      463.13 ppb         36.146   7.80%
   QC value within limits for Pb 220.353  Recovery = 92.63%
S 181.975 Axial†         212.2      929.67 µg/L        60.871      929.67 ppb         60.871   6.55%
   QC value within limits for S 181.975 Axial  Recovery = 92.97%
Sb 206.836†              472.6      467.16 µg/L        39.999      467.16 ppb         39.999   8.56%
   QC value within limits for Sb 206.836  Recovery = 93.43%
Se 196.026†              297.7      461.20 µg/L        34.847      461.20 ppb         34.847   7.56%
   QC value within limits for Se 196.026  Recovery = 92.24%
SiO2†                  22781.6      4906.1 µg/L        213.31      4906.1 ppb         213.31   4.35%
   QC value within limits for SiO2  Recovery = 91.75%
Si 251.611†            27990.8      2301.0 µg/L         96.11      2301.0 ppb          96.11   4.18%
   QC value within limits for Si 251.611  Recovery = 92.04%
Sn 189.927†             1020.1      469.24 µg/L        51.288      469.24 ppb         51.288  10.93%
   QC value within limits for Sn 189.927  Recovery = 93.85%
Sr 421.552†            45669.7      473.42 µg/L         5.054      473.42 ppb          5.054   1.07%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           191725.1      460.86 µg/L        18.074      460.86 ppb         18.074   3.92%
   QC value within limits for Ti 334.940  Recovery = 92.17%
Tl 190.801†              335.0      473.16 µg/L        27.695      473.16 ppb         27.695   5.85%
   QC value within limits for Tl 190.801  Recovery = 94.63%
U 409.014†              5095.6      460.37 µg/L        28.818      460.37 ppb         28.818   6.26%
   QC value within limits for U 409.014  Recovery = 92.07%
V 292.402†             42828.8      462.14 µg/L        26.978      462.14 ppb         26.978   5.84%
   QC value within limits for V 292.402  Recovery = 92.43%
Zn 213.857†            18473.7      458.03 µg/L        23.826      458.03 ppb         23.826   5.20%
   QC value within limits for Zn 213.857  Recovery = 91.61%
All analyte(s) passed QC.
```

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58584.5	58584.5	107	%			16:42:04
1	Al 396.153Radial†	51.2	57.8	43.068	µg/L	43.068	ppb	16:42:04
1	Ca 317.933Radial†	241.7	46.0	43.344	µg/L	43.344	ppb	16:42:24
1	Fe 238.204 Radial†	14.5	-1.0	-8.1938	µg/L	-8.1938	ppb	16:42:24
1	K 766.490 Radial†	158.2	19.0	13.495	µg/L	13.495	ppb	16:42:04
1	Mg 279.077 IEC†	19.4	6.8	63.641	µg/L	63.641	ppb	16:42:24
1	Na 589.592 Radial†	1003.5	392.9	129.35	µg/L	129.35	ppb	16:42:04
1	Sr 421.552†	45.5	2.9	0.0298	µg/L	0.0298	ppb	16:42:04
1	Sc 361.383	2059865.1	2059865.1	107.86	%			16:43:26
1	Y 371.029	1412010.5	1412010.5	107.79	%			16:43:26
1	Ag 328.068†	-580.2	26.6	0.2127	µg/L	0.2127	ppb	16:43:32
1	As 188.979†	-2.2	-3.1	-6.1457	µg/L	-6.1457	ppb	16:43:52
1	B 249.677†	314.7	-39.7	-1.7298	µg/L	-1.7298	ppb	16:43:52
1	Ba 233.527†	-34.6	-6.1	-0.1574	µg/L	-0.1574	ppb	16:43:52
1	Be 313.107†	-3476.5	217.1	0.1418	µg/L	0.1418	ppb	16:43:32
1	Cd 226.502†	-142.5	10.0	0.2771	µg/L	0.2771	ppb	16:43:52
1	Co 228.616†	-11.6	-1.9	-0.0950	µg/L	-0.0950	ppb	16:43:52
1	Cr 267.716†	-40.1	15.2	0.3343	µg/L	0.3343	ppb	16:43:32
1	Cu 324.752†	2513.6	-155.6	-1.0878	µg/L	-1.0878	ppb	16:43:32
1	Mn 257.610†	-238.3	23.1	0.0765	µg/L	0.0765	ppb	16:43:52
1	Mo 202.031†	-4.7	3.2	0.3434	µg/L	0.3434	ppb	16:43:52
1	Ni 231.604†	310.9	-14.0	-0.7640	µg/L	-0.7640	ppb	16:43:52
1	P 214.914†	32.2	2.3	4.9663	µg/L	4.9663	ppb	16:43:52
1	Pb 220.353†	102.0	-2.6	-0.7002	µg/L	-0.7002	ppb	16:43:52
1	S 181.975 Axial†	19.3	3.1	13.368	µg/L	13.368	ppb	16:43:52
1	Sb 206.836†	23.2	-5.4	-5.3618	µg/L	-5.3618	ppb	16:43:52
1	Se 196.026†	20.8	3.4	5.1089	µg/L	5.1089	ppb	16:43:52
1	SiO2†	1256.8	-84.7	-18.250	µg/L	-18.250	ppb	16:43:32
1	Si 251.611†	299.6	-35.1	-2.8840	µg/L	-2.8840	ppb	16:43:52
1	Sn 189.927†	-1.9	-0.9	-0.4213	µg/L	-0.4213	ppb	16:43:52
1	Ti 334.940†	103.7	-20.0	-0.0524	µg/L	-0.0524	ppb	16:43:32
1	Tl 190.801†	-18.7	7.0	9.7650	µg/L	9.7650	ppb	16:43:52
1	U 409.014†	8.9	61.9	5.6031	µg/L	5.6031	ppb	16:43:32
1	V 292.402†	-13.8	31.5	0.3435	µg/L	0.3435	ppb	16:43:32
1	Zn 213.857†	488.8	-22.3	-0.5552	µg/L	-0.5552	ppb	16:43:52
2	Sc RADIAL	57826.0	57826.0	106	%			16:42:30
2	Al 396.153Radial†	36.0	44.1	32.860	µg/L	32.860	ppb	16:42:30
2	Ca 317.933Radial†	243.6	50.8	47.787	µg/L	47.787	ppb	16:42:50
2	Fe 238.204 Radial†	18.8	3.3	27.831	µg/L	27.831	ppb	16:42:50
2	K 766.490 Radial†	189.0	49.9	35.479	µg/L	35.479	ppb	16:42:30
2	Mg 279.077 IEC†	19.0	6.7	61.954	µg/L	61.954	ppb	16:42:50
2	Na 589.592 Radial†	991.6	394.0	129.71	µg/L	129.71	ppb	16:42:30
2	Sr 421.552†	62.3	19.3	0.1997	µg/L	0.1997	ppb	16:42:30
2	Sc 361.383	2019733.9	2019733.9	105.75	%			16:43:58
2	Y 371.029	1384706.2	1384706.2	105.71	%			16:43:58
2	Ag 328.068†	-558.4	36.5	0.2916	µg/L	0.2916	ppb	16:44:04
2	As 188.979†	-1.6	-2.7	-5.2610	µg/L	-5.2610	ppb	16:44:24
2	B 249.677†	316.8	-31.9	-1.4069	µg/L	-1.4069	ppb	16:44:24
2	Ba 233.527†	-28.3	-0.8	-0.0199	µg/L	-0.0199	ppb	16:44:24
2	Be 313.107†	-3437.1	190.3	0.1243	µg/L	0.1243	ppb	16:44:04
2	Cd 226.502†	-144.6	5.4	0.1447	µg/L	0.1447	ppb	16:44:24
2	Co 228.616†	-10.6	-1.2	-0.0595	µg/L	-0.0595	ppb	16:44:24
2	Cr 267.716†	-44.1	10.7	0.2350	µg/L	0.2350	ppb	16:44:04
2	Cu 324.752†	2441.7	-177.3	-1.2343	µg/L	-1.2343	ppb	16:44:04
2	Mn 257.610†	-221.2	34.9	0.1222	µg/L	0.1222	ppb	16:44:24
2	Mo 202.031†	-2.8	4.9	0.5203	µg/L	0.5203	ppb	16:44:24
2	Ni 231.604†	305.8	-13.1	-0.7134	µg/L	-0.7134	ppb	16:44:24
2	P 214.914†	32.5	3.1	6.8494	µg/L	6.8494	ppb	16:44:24
2	Pb 220.353†	110.5	7.3	1.9444	µg/L	1.9444	ppb	16:44:24

2	S 181.975 Axial†	18.0	2.2	9.5789 µg/L	9.5789 ppb	16:44:24
2	Sb 206.836†	26.9	-1.5	-1.5033 µg/L	-1.5033 ppb	16:44:24
2	Se 196.026†	9.1	-7.3	-11.082 µg/L	-11.082 ppb	16:44:24
2	SiO2†	1234.9	-82.3	-17.728 µg/L	-17.728 ppb	16:44:04
2	Si 251.611†	315.8	-14.3	-1.1723 µg/L	-1.1723 ppb	16:44:24
2	Sn 189.927†	-0.9	0.0	0.0122 µg/L	0.0122 ppb	16:44:24
2	Ti 334.940†	107.0	-14.9	-0.0400 µg/L	-0.0400 ppb	16:44:04
2	Tl 190.801†	-22.2	3.3	4.6398 µg/L	4.6398 ppb	16:44:24
2	U 409.014†	11.6	64.6	5.8396 µg/L	5.8396 ppb	16:44:04
2	V 292.402†	-47.1	-0.3	0.0106 µg/L	0.0106 ppb	16:44:04
2	Zn 213.857†	485.9	-16.1	-0.4022 µg/L	-0.4022 ppb	16:44:24
3	Sc RADIAL	58203.8	58203.8	107 %		16:42:56
3	Al 396.153Radial†	16.5	25.6	19.057 µg/L	19.057 ppb	16:42:56
3	Ca 317.933Radial†	234.3	40.6	38.198 µg/L	38.198 ppb	16:43:16
3	Fe 238.204 Radial†	16.0	0.5	4.0830 µg/L	4.0830 ppb	16:43:16
3	K 766.490 Radial†	180.9	41.2	29.300 µg/L	29.300 ppb	16:42:56
3	Mg 279.077 IEC†	18.0	5.6	52.283 µg/L	52.283 ppb	16:43:16
3	Na 589.592 Radial†	920.7	321.4	105.80 µg/L	105.80 ppb	16:42:56
3	Sr 421.552†	52.3	9.5	0.0985 µg/L	0.0985 ppb	16:42:56
3	Sc 361.383	1997484.6	1997484.6	104.59 %		16:44:31
3	Y 371.029	1369124.4	1369124.4	104.52 %		16:44:31
3	Ag 328.068†	-544.9	43.6	0.3481 µg/L	0.3481 ppb	16:44:36
3	As 188.979†	3.1	1.8	3.4746 µg/L	3.4746 ppb	16:44:57
3	B 249.677†	317.2	-28.2	-1.2336 µg/L	-1.2336 ppb	16:44:57
3	Ba 233.527†	-26.0	1.1	0.0301 µg/L	0.0301 ppb	16:44:57
3	Be 313.107†	-3380.0	208.8	0.1363 µg/L	0.1363 ppb	16:44:36
3	Cd 226.502†	-138.7	9.5	0.2617 µg/L	0.2617 ppb	16:44:57
3	Co 228.616†	-17.3	-7.7	-0.3772 µg/L	-0.3772 ppb	16:44:57
3	Cr 267.716†	-57.1	-2.2	-0.0487 µg/L	-0.0487 ppb	16:44:36
3	Cu 324.752†	2481.2	-113.8	-0.7943 µg/L	-0.7943 ppb	16:44:36
3	Mn 257.610†	-222.0	31.9	0.1088 µg/L	0.1088 ppb	16:44:57
3	Mo 202.031†	-5.2	2.6	0.2766 µg/L	0.2766 ppb	16:44:57
3	Ni 231.604†	300.3	-15.1	-0.8254 µg/L	-0.8254 ppb	16:44:57
3	P 214.914†	30.5	1.5	3.4004 µg/L	3.4004 ppb	16:44:57
3	Pb 220.353†	108.4	6.5	1.7342 µg/L	1.7342 ppb	16:44:57
3	S 181.975 Axial†	15.4	-0.1	-0.3301 µg/L	-0.3301 ppb	16:44:57
3	Sb 206.836†	27.4	-0.8	-0.7588 µg/L	-0.7588 ppb	16:44:57
3	Se 196.026†	19.0	2.4	3.5402 µg/L	3.5402 ppb	16:44:57
3	SiO2†	1246.0	-58.7	-12.639 µg/L	-12.639 ppb	16:44:36
3	Si 251.611†	309.0	-17.4	-1.4306 µg/L	-1.4306 ppb	16:44:57
3	Sn 189.927†	-0.1	0.8	0.3816 µg/L	0.3816 ppb	16:44:57
3	Ti 334.940†	122.3	0.8	-0.0015 µg/L	-0.0015 ppb	16:44:36
3	Tl 190.801†	-19.4	5.7	7.9510 µg/L	7.9510 ppb	16:44:57
3	U 409.014†	-119.0	-60.2	-5.4508 µg/L	-5.4508 ppb	16:44:36
3	V 292.402†	-13.3	31.5	0.3324 µg/L	0.3324 ppb	16:44:36
3	Zn 213.857†	491.8	-5.3	-0.1315 µg/L	-0.1315 ppb	16:44:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2025694.5	106.07	%	1.655				1.56%
Sc RADIAL	58204.8	107	%	0.7				0.65%
Y 371.029	1388613.7	106.01	%	1.657				1.56%
Ag 328.068†	35.6	0.2841	µg/L	0.06799	0.2841	ppb	0.06799	23.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.5	31.661	µg/L	12.0501	31.661	ppb	12.0501	38.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-2.6440	µg/L	5.31733	-2.6440	ppb	5.31733	201.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-33.2	-1.4568	µg/L	0.25185	-1.4568	ppb	0.25185	17.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.9	-0.0491	µg/L	0.09709	-0.0491	ppb	0.09709	197.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	205.4	0.1341	µg/L	0.00896	0.1341	ppb	0.00896	6.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	45.8	43.110	µg/L	4.7990	43.110	ppb	4.7990	11.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.3	0.2278	µg/L	0.07242	0.2278	ppb	0.07242	31.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.6	-0.1772	µg/L	0.17409	-0.1772	ppb	0.17409	98.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.9      0.1735 µg/L       0.19876      0.1735 ppb        0.19876 114.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -148.9     -1.0388 µg/L       0.22407     -1.0388 ppb        0.22407  21.57%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.9      7.9067 µg/L      18.31420      7.9067 ppb       18.31420 231.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         36.7      26.091 µg/L       11.3376      26.091 ppb        11.3376  43.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.4      59.293 µg/L        6.1293      59.293 ppb         6.1293  10.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.0      0.1025 µg/L       0.02350      0.1025 ppb        0.02350  22.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.6      0.3801 µg/L       0.12595      0.3801 ppb        0.12595  33.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       369.4      121.62 µg/L        13.704      121.62 ppb         13.704  11.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.0     -0.7676 µg/L       0.05609     -0.7676 ppb        0.05609   7.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.3      5.0720 µg/L       1.72695      5.0720 ppb        1.72695  34.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.7      0.9928 µg/L       1.46997      0.9928 ppb        1.46997 148.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.7      7.5391 µg/L       7.07334      7.5391 ppb        7.07334  93.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.6     -2.5413 µg/L       2.47086     -2.5413 ppb        2.47086  97.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.5     -0.8111 µg/L       8.92964     -0.8111 ppb        8.92964 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -75.3     -16.206 µg/L        3.0998     -16.206 ppb         3.0998  19.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -22.2     -1.8290 µg/L       0.92279     -1.8290 ppb        0.92279  50.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.0     -0.0092 µg/L       0.40185     -0.0092 ppb        0.40185 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.5      0.1093 µg/L       0.08548      0.1093 ppb        0.08548  78.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -11.4     -0.0313 µg/L       0.02652     -0.0313 ppb        0.02652  84.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.3      7.4520 µg/L       2.59879      7.4520 ppb        2.59879  34.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                22.1      1.9973 µg/L       6.45136      1.9973 ppb        6.45136 323.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.9      0.2288 µg/L       0.18906      0.2288 ppb        0.18906  82.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.6     -0.3630 µg/L       0.21454     -0.3630 ppb        0.21454  59.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/11/2010 16:58:42
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502
Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 1
Date Collected: 2/11/2010 16:58:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58304.7	58304.7	107	%			16:59:20
1	Al 396.153Radial†	6786.5	6362.5	4732.0	µg/L	4732.0	ppb	16:59:20
1	Ca 317.933Radial†	5536.9	5003.5	4711.1	µg/L	4711.1	ppb	16:59:40
1	Fe 238.204 Radial†	610.2	556.6	4728.2	µg/L	4728.2	ppb	16:59:40
1	K 766.490 Radial†	7283.7	6689.2	4754.7	µg/L	4754.7	ppb	16:59:20
1	Mg 279.077 IEC†	569.3	521.6	4857.3	µg/L	4857.3	ppb	16:59:40
1	Na 589.592 Radial†	31197.2	28659.4	9434.8	µg/L	9434.8	ppb	16:59:20
1	Sr 421.552†	48428.4	45290.4	469.49	µg/L	469.49	ppb	16:59:20
1	Sc 361.383	2048192.0	2048192.0	107.24	%			17:00:43
1	Y 371.029	1396873.4	1396873.4	106.64	%			17:00:43
1	Ag 328.068†	62792.0	59115.0	472.54	µg/L	472.54	ppb	17:00:49
1	As 188.979†	276.2	256.4	500.17	µg/L	500.17	ppb	17:01:09
1	B 249.677†	11976.6	10836.1	471.87	µg/L	471.87	ppb	17:00:49
1	Ba 233.527†	19779.6	18469.6	481.79	µg/L	481.79	ppb	17:00:49
1	Be 313.107†	782023.1	732639.2	478.28	µg/L	478.28	ppb	17:00:43
1	Cd 226.502†	18757.9	17632.9	486.42	µg/L	486.42	ppb	17:00:49
1	Co 228.616†	10618.7	9910.3	487.18	µg/L	487.18	ppb	17:00:49
1	Cr 267.716†	23605.9	22063.7	485.62	µg/L	485.62	ppb	17:00:49
1	Cu 324.752†	75656.1	68059.5	476.07	µg/L	476.07	ppb	17:00:49
1	Mn 257.610†	150274.2	140367.5	486.51	µg/L	486.51	ppb	17:00:43
1	Mo 202.031†	4970.8	4642.6	495.64	µg/L	495.64	ppb	17:01:09
1	Ni 231.604†	9869.6	8900.8	486.13	µg/L	486.13	ppb	17:00:49
1	P 214.914†	1275.8	1162.0	2449.8	µg/L	2449.8	ppb	17:01:09
1	Pb 220.353†	2092.9	1854.3	494.97	µg/L	494.97	ppb	17:01:09
1	S 181.975 Axial†	258.0	225.7	989.09	µg/L	989.09	ppb	17:01:09
1	Sb 206.836†	558.6	493.9	488.34	µg/L	488.34	ppb	17:01:09
1	Se 196.026†	360.2	320.1	495.20	µg/L	495.20	ppb	17:01:09
1	SiO2†	26598.5	23551.8	5072.0	µg/L	5072.0	ppb	17:00:49
1	Si 251.611†	31394.2	28960.7	2380.7	µg/L	2380.7	ppb	17:00:49
1	Sn 189.927†	1171.7	1093.4	502.93	µg/L	502.93	ppb	17:01:09
1	Ti 334.940†	209687.5	195407.3	469.73	µg/L	469.73	ppb	17:00:43
1	Tl 190.801†	351.0	351.5	496.34	µg/L	496.34	ppb	17:01:09
1	U 409.014†	5705.8	5374.0	485.60	µg/L	485.60	ppb	17:00:49
1	V 292.402†	48262.6	45046.7	486.08	µg/L	486.08	ppb	17:00:49
1	Zn 213.857†	21405.2	19483.8	483.11	µg/L	483.11	ppb	17:00:49
2	Sc RADIAL	57809.4	57809.4	106	%			16:59:45
2	Al 396.153Radial†	6713.1	6347.6	4720.4	µg/L	4720.4	ppb	16:59:45
2	Ca 317.933Radial†	5573.2	5082.2	4785.2	µg/L	4785.2	ppb	17:00:06
2	Fe 238.204 Radial†	613.9	565.0	4800.0	µg/L	4800.0	ppb	17:00:06
2	K 766.490 Radial†	7246.0	6712.1	4770.9	µg/L	4770.9	ppb	16:59:45
2	Mg 279.077 IEC†	566.2	523.3	4873.4	µg/L	4873.4	ppb	17:00:06
2	Na 589.592 Radial†	31072.8	28792.1	9478.5	µg/L	9478.5	ppb	16:59:45
2	Sr 421.552†	48008.7	45282.6	469.41	µg/L	469.41	ppb	16:59:45
2	Sc 361.383	1951160.7	1951160.7	102.16	%			17:01:16
2	Y 371.029	1331856.8	1331856.8	101.67	%			17:01:16
2	Ag 328.068†	64120.5	63327.2	506.22	µg/L	506.22	ppb	17:01:22
2	As 188.979†	277.7	270.7	528.08	µg/L	528.08	ppb	17:01:43

2	B 249.677†	12297.9	11706.0	509.91 µg/L	509.91 ppb	17:01:22
2	Ba 233.527†	20306.8	19902.8	519.17 µg/L	519.17 ppb	17:01:22
2	Be 313.107†	802212.2	788663.9	514.85 µg/L	514.85 ppb	17:01:16
2	Cd 226.502†	19256.8	18991.1	523.92 µg/L	523.92 ppb	17:01:22
2	Co 228.616†	10882.2	10660.6	524.05 µg/L	524.05 ppb	17:01:22
2	Cr 267.716†	24198.0	23738.0	522.47 µg/L	522.47 ppb	17:01:22
2	Cu 324.752†	77364.3	73239.8	512.26 µg/L	512.26 ppb	17:01:22
2	Mn 257.610†	154462.4	151435.4	524.84 µg/L	524.84 ppb	17:01:16
2	Mo 202.031†	4974.0	4876.2	520.57 µg/L	520.57 ppb	17:01:43
2	Ni 231.604†	10143.4	9626.4	525.76 µg/L	525.76 ppb	17:01:22
2	P 214.914†	1278.9	1224.2	2579.9 µg/L	2579.9 ppb	17:01:43
2	Pb 220.353†	2103.7	1962.0	523.68 µg/L	523.68 ppb	17:01:43
2	S 181.975 Axial†	261.1	240.7	1054.7 µg/L	1054.7 ppb	17:01:43
2	Sb 206.836†	565.0	526.1	520.02 µg/L	520.02 ppb	17:01:43
2	Se 196.026†	363.5	340.0	525.72 µg/L	525.72 ppb	17:01:43
2	SiO2†	27321.6	25493.0	5490.1 µg/L	5490.1 ppb	17:01:22
2	Si 251.611†	32162.6	31168.6	2562.2 µg/L	2562.2 ppb	17:01:22
2	Sn 189.927†	1172.7	1148.8	528.40 µg/L	528.40 ppb	17:01:43
2	Ti 334.940†	216025.0	211334.0	508.04 µg/L	508.04 ppb	17:01:16
2	Tl 190.801†	350.8	367.7	519.30 µg/L	519.30 ppb	17:01:43
2	U 409.014†	5846.6	5776.4	522.02 µg/L	522.02 ppb	17:01:22
2	V 292.402†	49557.7	48552.4	523.76 µg/L	523.76 ppb	17:01:22
2	Zn 213.857†	21845.1	20906.9	518.41 µg/L	518.41 ppb	17:01:22
3	Sc RADIAL	58043.7	58043.7	106 %		17:00:11
3	Al 396.153Radial†	6748.6	6355.4	4728.2 µg/L	4728.2 ppb	17:00:11
3	Ca 317.933Radial†	5566.3	5054.5	4759.1 µg/L	4759.1 ppb	17:00:32
3	Fe 238.204 Radial†	616.6	565.2	4800.6 µg/L	4800.6 ppb	17:00:32
3	K 766.490 Radial†	7187.1	6629.1	4711.9 µg/L	4711.9 ppb	17:00:11
3	Mg 279.077 IEC†	562.5	517.6	4819.1 µg/L	4819.1 ppb	17:00:32
3	Na 589.592 Radial†	31179.2	28773.8	9472.4 µg/L	9472.4 ppb	17:00:11
3	Sr 421.552†	48277.8	45352.7	470.13 µg/L	470.13 ppb	17:00:11
3	Sc 361.383	2003631.8	2003631.8	104.91 %		17:01:50
3	Y 371.029	1367447.8	1367447.8	104.39 %		17:01:50
3	Ag 328.068†	59826.0	57590.0	460.26 µg/L	460.26 ppb	17:01:56
3	As 188.979†	236.7	224.5	438.03 µg/L	438.03 ppb	17:02:16
3	B 249.677†	11388.2	10523.6	458.12 µg/L	458.12 ppb	17:01:56
3	Ba 233.527†	18491.5	17651.9	460.45 µg/L	460.45 ppb	17:01:56
3	Be 313.107†	746381.1	714882.8	466.69 µg/L	466.69 ppb	17:01:50
3	Cd 226.502†	17452.2	16777.4	462.78 µg/L	462.78 ppb	17:01:56
3	Co 228.616†	9792.8	9343.2	459.24 µg/L	459.24 ppb	17:01:56
3	Cr 267.716†	21341.5	20394.9	448.89 µg/L	448.89 ppb	17:01:56
3	Cu 324.752†	70171.6	64400.7	450.52 µg/L	450.52 ppb	17:01:56
3	Mn 257.610†	143677.7	137196.1	475.54 µg/L	475.54 ppb	17:01:50
3	Mo 202.031†	4142.0	3955.7	422.34 µg/L	422.34 ppb	17:02:16
3	Ni 231.604†	9135.9	8406.0	459.11 µg/L	459.11 ppb	17:01:56
3	P 214.914†	1088.5	1009.9	2124.6 µg/L	2124.6 ppb	17:02:16
3	Pb 220.353†	1832.8	1649.8	440.26 µg/L	440.26 ppb	17:02:16
3	S 181.975 Axial†	227.5	202.0	885.22 µg/L	885.22 ppb	17:02:16
3	Sb 206.836†	480.8	431.3	425.93 µg/L	425.93 ppb	17:02:16
3	Se 196.026†	317.8	287.1	445.21 µg/L	445.21 ppb	17:02:16
3	SiO2†	25159.1	22731.4	4895.3 µg/L	4895.3 ppb	17:01:56
3	Si 251.611†	29597.8	27899.4	2293.5 µg/L	2293.5 ppb	17:01:56
3	Sn 189.927†	953.9	910.2	418.64 µg/L	418.64 ppb	17:02:16
3	Ti 334.940†	199390.2	189940.4	456.58 µg/L	456.58 ppb	17:01:50
3	Tl 190.801†	316.4	325.9	460.38 µg/L	460.38 ppb	17:02:16
3	U 409.014†	5187.8	4998.6	451.60 µg/L	451.60 ppb	17:01:56
3	V 292.402†	44415.7	42380.8	456.99 µg/L	456.99 ppb	17:01:56
3	Zn 213.857†	19887.4	18480.9	458.23 µg/L	458.23 ppb	17:01:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2000994.9	104.77	%	2.543				2.43%
Sc RADIAL	58052.6	106	%	0.5				0.43%
Y 371.029	1365392.6	104.23	%	2.485				2.38%
Ag 328.068†	60010.7	479.67	µg/L	23.794	479.67	ppb	23.794	4.96%
QC value within limits for Ag 328.068 Recovery = 95.93%								
Al 396.153Radial†	6355.1	4726.8	µg/L	5.90	4726.8	ppb	5.90	0.12%
QC value within limits for Al 396.153Radial Recovery = 94.54%								
As 188.979†	250.5	488.76	µg/L	46.092	488.76	ppb	46.092	9.43%

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   QC value within limits for As 188.979  Recovery = 97.75%
B 249.677†            11021.9      479.97 µg/L        26.827      479.97 ppb         26.827   5.59%
   QC value within limits for B 249.677  Recovery = 95.99%
Ba 233.527†           18674.8      487.13 µg/L        29.727      487.13 ppb         29.727   6.10%
   QC value within limits for Ba 233.527  Recovery = 97.43%
Be 313.107†          745395.3      486.60 µg/L        25.138      486.60 ppb         25.138   5.17%
   QC value within limits for Be 313.107  Recovery = 97.32%
Ca 317.933Radial†      5046.7      4751.8 µg/L         37.61      4751.8 ppb          37.61   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 95.04%
Cd 226.502†           17800.5      491.04 µg/L        30.831      491.04 ppb         30.831   6.28%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            9971.4      490.16 µg/L        32.508      490.16 ppb         32.508   6.63%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†           22065.5      485.66 µg/L        36.788      485.66 ppb         36.788   7.57%
   QC value within limits for Cr 267.716  Recovery = 97.13%
Cu 324.752†           68566.7      479.62 µg/L        31.024      479.62 ppb         31.024   6.47%
   QC value within limits for Cu 324.752  Recovery = 95.92%
Fe 238.204 Radial†      562.3      4776.3 µg/L         41.61      4776.3 ppb          41.61   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.53%
K 766.490 Radial†      6676.8      4745.8 µg/L         30.47      4745.8 ppb          30.47   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 94.92%
Mg 279.077 IEC†         520.8      4849.9 µg/L         27.89      4849.9 ppb          27.89   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.00%
Mn 257.610†          142999.7      495.63 µg/L        25.888      495.63 ppb         25.888   5.22%
   QC value within limits for Mn 257.610  Recovery = 99.13%
Mo 202.031†            4491.5      479.52 µg/L        51.064      479.52 ppb         51.064  10.65%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†    28741.7      9461.9 µg/L         23.68      9461.9 ppb          23.68   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 94.62%
Ni 231.604†            8977.7      490.33 µg/L        33.521      490.33 ppb         33.521   6.84%
   QC value within limits for Ni 231.604  Recovery = 98.07%
P 214.914†             1132.0      2384.7 µg/L        234.53      2384.7 ppb         234.53   9.83%
   QC value within limits for P 214.914  Recovery = 95.39%
Pb 220.353†            1822.0      486.30 µg/L        42.376      486.30 ppb         42.376   8.71%
   QC value within limits for Pb 220.353  Recovery = 97.26%
S 181.975 Axial†        222.8      976.34 µg/L        85.462      976.34 ppb         85.462   8.75%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†             483.8      478.10 µg/L        47.873      478.10 ppb         47.873  10.01%
   QC value within limits for Sb 206.836  Recovery = 95.62%
Se 196.026†             315.7      488.71 µg/L        40.646      488.71 ppb         40.646   8.32%
   QC value within limits for Se 196.026  Recovery = 97.74%
SiO2†                  23925.4      5152.5 µg/L        305.42      5152.5 ppb         305.42   5.93%
   QC value within limits for SiO2  Recovery = 96.35%
Si 251.611†            29342.9      2412.1 µg/L        137.10      2412.1 ppb         137.10   5.68%
   QC value within limits for Si 251.611  Recovery = 96.49%
Sn 189.927†            1050.8      483.32 µg/L        57.445      483.32 ppb         57.445  11.89%
   QC value within limits for Sn 189.927  Recovery = 96.66%
Sr 421.552†            45308.6      469.68 µg/L         0.398      469.68 ppb          0.398   0.08%
   QC value within limits for Sr 421.552  Recovery = 93.94%
Ti 334.940†           198893.9      478.12 µg/L        26.734      478.12 ppb         26.734   5.59%
   QC value within limits for Ti 334.940  Recovery = 95.62%
Tl 190.801†             348.4      492.01 µg/L        29.696      492.01 ppb         29.696   6.04%
   QC value within limits for Tl 190.801  Recovery = 98.40%
U 409.014†             5383.0      486.40 µg/L        35.218      486.40 ppb         35.218   7.24%
   QC value within limits for U 409.014  Recovery = 97.28%
V 292.402†             45326.6      488.94 µg/L        33.478      488.94 ppb         33.478   6.85%
   QC value within limits for V 292.402  Recovery = 97.79%
Zn 213.857†            19623.9      486.59 µg/L        30.241      486.59 ppb         30.241   6.21%
   QC value within limits for Zn 213.857  Recovery = 97.32%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:02:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56368.9	56368.9	103	%			17:03:01
1	Al 396.153Radial†	-30.7	-19.6	-14.585	µg/L	-14.585	ppb	17:03:01
1	Ca 317.933Radial†	198.1	12.6	11.864	µg/L	11.864	ppb	17:03:21
1	Fe 238.204 Radial†	17.2	2.2	18.515	µg/L	18.515	ppb	17:03:21
1	K 766.490 Radial†	209.8	74.8	53.133	µg/L	53.133	ppb	17:03:01
1	Mg 279.077 IEC†	16.1	4.3	39.936	µg/L	39.936	ppb	17:03:21
1	Na 589.592 Radial†	774.1	207.6	68.329	µg/L	68.329	ppb	17:03:01
1	Sr 421.552†	33.0	-7.6	-0.0789	µg/L	-0.0789	ppb	17:03:01
1	Sc 361.383	2029236.5	2029236.5	106.25	%			17:04:24
1	Y 371.029	1388942.8	1388942.8	106.03	%			17:04:24
1	Ag 328.068†	-592.1	7.2	0.0607	µg/L	0.0607	ppb	17:04:29
1	As 188.979†	-0.6	-1.7	-3.3695	µg/L	-3.3695	ppb	17:04:50
1	B 249.677†	324.7	-25.9	-1.1417	µg/L	-1.1417	ppb	17:04:50
1	Ba 233.527†	-22.4	4.9	0.1278	µg/L	0.1278	ppb	17:04:50
1	Be 313.107†	-3566.1	84.2	0.0549	µg/L	0.0549	ppb	17:04:29
1	Cd 226.502†	-151.8	-0.8	-0.0243	µg/L	-0.0243	ppb	17:04:50
1	Co 228.616†	-13.1	-3.5	-0.1727	µg/L	-0.1727	ppb	17:04:50
1	Cr 267.716†	-46.3	8.8	0.1931	µg/L	0.1931	ppb	17:04:50
1	Cu 324.752†	2496.7	-136.3	-0.9495	µg/L	-0.9495	ppb	17:04:29
1	Mn 257.610†	-248.9	9.9	0.0351	µg/L	0.0351	ppb	17:04:50
1	Mo 202.031†	-5.8	2.1	0.2273	µg/L	0.2273	ppb	17:04:50
1	Ni 231.604†	303.7	-16.3	-0.8932	µg/L	-0.8932	ppb	17:04:50
1	P 214.914†	32.7	3.2	6.8843	µg/L	6.8843	ppb	17:04:50
1	Pb 220.353†	96.4	-6.5	-1.7203	µg/L	-1.7203	ppb	17:04:50
1	S 181.975 Axial†	20.6	4.6	20.049	µg/L	20.049	ppb	17:04:50
1	Sb 206.836†	26.8	-1.7	-1.7124	µg/L	-1.7124	ppb	17:04:50
1	Se 196.026†	16.1	-0.6	-0.9715	µg/L	-0.9715	ppb	17:04:50
1	SiO2†	1235.6	-87.2	-18.769	µg/L	-18.769	ppb	17:04:29
1	Si 251.611†	286.6	-43.1	-3.5447	µg/L	-3.5447	ppb	17:04:50
1	Sn 189.927†	-4.0	-2.9	-1.3291	µg/L	-1.3291	ppb	17:04:50
1	Ti 334.940†	152.5	27.4	0.0631	µg/L	0.0631	ppb	17:04:29
1	Tl 190.801†	-22.1	3.5	4.9105	µg/L	4.9105	ppb	17:04:50
1	U 409.014†	-71.0	-13.2	-1.1992	µg/L	-1.1992	ppb	17:04:29
1	V 292.402†	-14.4	30.7	0.3301	µg/L	0.3301	ppb	17:04:29
1	Zn 213.857†	481.1	-22.7	-0.5654	µg/L	-0.5654	ppb	17:04:50
2	Sc RADIAL	56481.9	56481.9	103	%			17:03:27
2	Al 396.153Radial†	9.3	19.1	14.233	µg/L	14.233	ppb	17:03:27
2	Ca 317.933Radial†	192.6	6.9	6.5217	µg/L	6.5217	ppb	17:03:47
2	Fe 238.204 Radial†	14.6	-0.3	-2.9604	µg/L	-2.9604	ppb	17:03:47
2	K 766.490 Radial†	162.5	28.6	20.329	µg/L	20.329	ppb	17:03:27
2	Mg 279.077 IEC†	13.0	1.3	11.979	µg/L	11.979	ppb	17:03:47
2	Na 589.592 Radial†	797.1	228.3	75.169	µg/L	75.169	ppb	17:03:27
2	Sr 421.552†	46.5	5.4	0.0561	µg/L	0.0561	ppb	17:03:27
2	Sc 361.383	2012770.6	2012770.6	105.39	%			17:04:56
2	Y 371.029	1377597.1	1377597.1	105.17	%			17:04:56
2	Ag 328.068†	-578.5	15.6	0.1231	µg/L	0.1231	ppb	17:05:01
2	As 188.979†	2.2	1.0	1.9088	µg/L	1.9088	ppb	17:05:22
2	B 249.677†	310.5	-36.9	-1.6105	µg/L	-1.6105	ppb	17:05:22
2	Ba 233.527†	-26.6	0.8	0.0202	µg/L	0.0202	ppb	17:05:22
2	Be 313.107†	-3607.4	17.5	0.0114	µg/L	0.0114	ppb	17:05:01
2	Cd 226.502†	-140.3	9.0	0.2482	µg/L	0.2482	ppb	17:05:22
2	Co 228.616†	-20.8	-10.9	-0.5380	µg/L	-0.5380	ppb	17:05:22
2	Cr 267.716†	-50.1	4.9	0.1067	µg/L	0.1067	ppb	17:05:22
2	Cu 324.752†	2459.5	-152.4	-1.0650	µg/L	-1.0650	ppb	17:05:01
2	Mn 257.610†	-250.9	6.1	0.0201	µg/L	0.0201	ppb	17:05:22
2	Mo 202.031†	-3.2	4.5	0.4823	µg/L	0.4823	ppb	17:05:22
2	Ni 231.604†	300.2	-17.4	-0.9488	µg/L	-0.9488	ppb	17:05:22
2	P 214.914†	25.9	-3.0	-6.3600	µg/L	-6.3600	ppb	17:05:22
2	Pb 220.353†	99.5	-2.8	-0.7298	µg/L	-0.7298	ppb	17:05:22

2	S 181.975 Axial†	20.2	4.3	19.053 µg/L	19.053 ppb		17:05:22
2	Sb 206.836†	24.6	-3.6	-3.5810 µg/L	-3.5810 ppb		17:05:22
2	Se 196.026†	10.7	-5.7	-8.7427 µg/L	-8.7427 ppb		17:05:22
2	SiO2†	1253.5	-60.7	-13.065 µg/L	-13.065 ppb		17:05:01
2	Si 251.611†	291.0	-36.8	-3.0237 µg/L	-3.0237 ppb		17:05:22
2	Sn 189.927†	-0.9	-0.0	-0.0009 µg/L	-0.0009 ppb		17:05:22
2	Ti 334.940†	142.1	18.7	0.0441 µg/L	0.0441 ppb		17:05:01
2	Tl 190.801†	-21.2	4.2	5.8568 µg/L	5.8568 ppb		17:05:22
2	U 409.014†	-66.1	-9.1	-0.8270 µg/L	-0.8270 ppb		17:05:01
2	V 292.402†	-52.0	-5.1	-0.0519 µg/L	-0.0519 ppb		17:05:01
2	Zn 213.857†	477.8	-22.2	-0.5493 µg/L	-0.5493 ppb		17:05:22
3	Sc RADIAL	56062.3	56062.3	103 %			17:03:53
3	Al 396.153Radial†	-13.3	-2.8	-2.1100 µg/L	-2.1100 ppb		17:03:53
3	Ca 317.933Radial†	193.5	9.2	8.6834 µg/L	8.6834 ppb		17:04:13
3	Fe 238.204 Radial†	13.9	-1.0	-8.5236 µg/L	-8.5236 ppb		17:04:13
3	K 766.490 Radial†	145.6	13.3	9.4734 µg/L	9.4734 ppb		17:03:53
3	Mg 279.077 IEC†	12.4	0.8	7.7063 µg/L	7.7063 ppb		17:04:13
3	Na 589.592 Radial†	762.5	200.4	65.960 µg/L	65.960 ppb		17:03:53
3	Sr 421.552†	41.6	1.0	0.0099 µg/L	0.0099 ppb		17:03:53
3	Sc 361.383	1996457.8	1996457.8	104.54 %			17:05:28
3	Y 371.029	1367454.7	1367454.7	104.39 %			17:05:28
3	Ag 328.068†	-552.2	36.3	0.2878 µg/L	0.2878 ppb		17:05:33
3	As 188.979†	-1.4	-2.4	-4.7806 µg/L	-4.7806 ppb		17:05:54
3	B 249.677†	316.6	-28.6	-1.2466 µg/L	-1.2466 ppb		17:05:54
3	Ba 233.527†	-26.5	0.6	0.0163 µg/L	0.0163 ppb		17:05:54
3	Be 313.107†	-3498.2	94.1	0.0615 µg/L	0.0615 ppb		17:05:33
3	Cd 226.502†	-139.5	8.7	0.2407 µg/L	0.2407 ppb		17:05:54
3	Co 228.616†	-2.0	6.9	0.3417 µg/L	0.3417 ppb		17:05:54
3	Cr 267.716†	-37.2	16.7	0.3684 µg/L	0.3684 ppb		17:05:54
3	Cu 324.752†	2465.1	-128.0	-0.8950 µg/L	-0.8950 ppb		17:05:33
3	Mn 257.610†	-235.5	18.8	0.0637 µg/L	0.0637 ppb		17:05:54
3	Mo 202.031†	0.7	8.2	0.8795 µg/L	0.8795 ppb		17:05:54
3	Ni 231.604†	298.8	-16.4	-0.8963 µg/L	-0.8963 ppb		17:05:54
3	P 214.914†	31.0	2.0	4.4888 µg/L	4.4888 ppb		17:05:54
3	Pb 220.353†	112.9	10.8	2.8917 µg/L	2.8917 ppb		17:05:54
3	S 181.975 Axial†	16.6	1.1	4.7192 µg/L	4.7192 ppb		17:05:54
3	Sb 206.836†	24.2	-3.9	-3.7807 µg/L	-3.7807 ppb		17:05:54
3	Se 196.026†	10.9	-5.4	-8.2970 µg/L	-8.2970 ppb		17:05:54
3	SiO2†	1240.9	-63.0	-13.561 µg/L	-13.561 ppb		17:05:33
3	Si 251.611†	299.0	-26.9	-2.2074 µg/L	-2.2074 ppb		17:05:54
3	Sn 189.927†	0.3	1.1	0.5288 µg/L	0.5288 ppb		17:05:54
3	Ti 334.940†	59.1	-59.6	-0.1438 µg/L	-0.1438 ppb		17:05:33
3	Tl 190.801†	-24.5	0.9	1.2389 µg/L	1.2389 ppb		17:05:54
3	U 409.014†	-14.3	40.0	3.6190 µg/L	3.6190 ppb		17:05:33
3	V 292.402†	-38.2	7.6	0.0916 µg/L	0.0916 ppb		17:05:33
3	Zn 213.857†	475.0	-21.1	-0.5227 µg/L	-0.5227 ppb		17:05:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012821.6	105.39	%	0.858				0.81%
Sc RADIAL	56304.4	103	%	0.4				0.39%
Y 371.029	1377998.2	105.20	%	0.821				0.78%
Ag 328.068†	19.7	0.1572	µg/L	0.11730	0.1572	ppb	0.11730	74.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.1	-0.8207	µg/L	14.45235	-0.8207	ppb	14.45235	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-2.0804	µg/L	3.52609	-2.0804	ppb	3.52609	169.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.5	-1.3329	µg/L	0.24603	-1.3329	ppb	0.24603	18.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0547	µg/L	0.06331	0.0547	ppb	0.06331	115.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.3	0.0426	µg/L	0.02720	0.0426	ppb	0.02720	63.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	9.0232	µg/L	2.68752	9.0232	ppb	2.68752	29.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.7	0.1549	µg/L	0.15521	0.1549	ppb	0.15521	100.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.5	-0.1230	µg/L	0.44196	-0.1230	ppb	0.44196	359.31%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.1      0.2228 µg/L       0.13336      0.2228 ppb        0.13336  59.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -138.9     -0.9698 µg/L       0.08678     -0.9698 ppb        0.08678   8.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      2.3437 µg/L      14.27846      2.3437 ppb       14.27846 609.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        38.9      27.645 µg/L       22.7308      27.645 ppb        22.7308  82.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1      19.874 µg/L       17.5054      19.874 ppb        17.5054  88.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.6      0.0396 µg/L       0.02217      0.0396 ppb        0.02217  55.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.0      0.5297 µg/L       0.32865      0.5297 ppb        0.32865  62.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       212.1      69.819 µg/L        4.7822      69.819 ppb         4.7822   6.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -16.7     -0.9128 µg/L       0.03120     -0.9128 ppb        0.03120   3.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.7      1.6710 µg/L       7.05748      1.6710 ppb        7.05748 422.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.1472 µg/L       2.42781      0.1472 ppb        2.42781 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.3      14.607 µg/L        8.5775      14.607 ppb         8.5775  58.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.1     -3.0247 µg/L       1.14085     -3.0247 ppb        1.14085  37.72%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9     -6.0037 µg/L       4.36372     -6.0037 ppb        4.36372  72.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -70.3     -15.131 µg/L        3.1599     -15.131 ppb         3.1599  20.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -35.6     -2.9252 µg/L       0.67407     -2.9252 ppb        0.67407  23.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.2671 µg/L       0.95712     -0.2671 ppb        0.95712 358.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -0.4     -0.0043 µg/L       0.06861     -0.0043 ppb        0.06861 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -4.5     -0.0122 µg/L       0.11438     -0.0122 ppb        0.11438 935.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      4.0021 µg/L       2.43930      4.0021 ppb        2.43930  60.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                5.9      0.5309 µg/L       2.68081      0.5309 ppb        2.68081 504.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               11.1      0.1233 µg/L       0.19295      0.1233 ppb        0.19295 156.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.0     -0.5458 µg/L       0.02154     -0.5458 ppb        0.02154   3.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 17:27:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59035.7	59035.7	108	%			17:28:20
1	Al 396.153Radial†	6783.5	6281.0	4671.2	µg/L	4671.2	ppb	17:28:41
1	Ca 317.933Radial†	5601.2	4998.8	4706.7	µg/L	4706.7	ppb	17:28:41
1	Fe 238.204 Radial†	616.0	555.0	4714.2	µg/L	4714.2	ppb	17:28:41
1	K 766.490 Radial†	7145.2	6476.8	4603.7	µg/L	4603.7	ppb	17:28:20
1	Mg 279.077 IEC†	569.6	515.2	4798.3	µg/L	4798.3	ppb	17:28:41
1	Na 589.592 Radial†	30872.0	27997.1	9216.7	µg/L	9216.7	ppb	17:28:20
1	Sr 421.552†	47604.8	43967.8	455.78	µg/L	455.78	ppb	17:28:20
1	Sc 361.383	2041194.6	2041194.6	106.88	%			17:29:44
1	Y 371.029	1394791.7	1394791.7	106.48	%			17:29:44
1	Ag 328.068†	63072.7	59578.4	476.23	µg/L	476.23	ppb	17:29:50
1	As 188.979†	267.6	249.3	486.27	µg/L	486.27	ppb	17:30:10
1	B 249.677†	11989.2	10886.2	474.07	µg/L	474.07	ppb	17:29:50
1	Ba 233.527†	19747.0	18502.3	482.64	µg/L	482.64	ppb	17:29:50
1	Be 313.107†	767703.3	721740.7	471.16	µg/L	471.16	ppb	17:29:44
1	Cd 226.502†	18704.8	17643.2	486.70	µg/L	486.70	ppb	17:29:50
1	Co 228.616†	10605.3	9931.7	488.25	µg/L	488.25	ppb	17:29:50
1	Cr 267.716†	23632.0	22163.6	487.82	µg/L	487.82	ppb	17:29:50
1	Cu 324.752†	76228.6	68837.1	481.50	µg/L	481.50	ppb	17:29:50
1	Mn 257.610†	148178.1	138886.7	481.38	µg/L	481.38	ppb	17:29:44
1	Mo 202.031†	4955.0	4643.6	495.75	µg/L	495.75	ppb	17:30:10
1	Ni 231.604†	9868.1	8930.9	487.78	µg/L	487.78	ppb	17:29:50
1	P 214.914†	1270.5	1161.1	2447.3	µg/L	2447.3	ppb	17:30:10
1	Pb 220.353†	2082.6	1851.4	494.18	µg/L	494.18	ppb	17:30:10
1	S 181.975 Axial†	249.9	219.0	959.68	µg/L	959.68	ppb	17:30:10
1	Sb 206.836†	563.4	500.2	494.49	µg/L	494.49	ppb	17:30:10
1	Se 196.026†	362.5	323.3	500.24	µg/L	500.24	ppb	17:30:10
1	SiO2†	26645.9	23681.2	5099.9	µg/L	5099.9	ppb	17:29:50
1	Si 251.611†	31439.9	29103.8	2392.5	µg/L	2392.5	ppb	17:29:50
1	Sn 189.927†	1158.8	1085.1	499.11	µg/L	499.11	ppb	17:30:10
1	Ti 334.940†	206788.8	193365.5	464.82	µg/L	464.82	ppb	17:29:44
1	Tl 190.801†	353.5	355.1	501.20	µg/L	501.20	ppb	17:30:10
1	U 409.014†	5796.1	5476.7	494.90	µg/L	494.90	ppb	17:29:50
1	V 292.402†	48354.5	45287.0	488.65	µg/L	488.65	ppb	17:29:50
1	Zn 213.857†	21383.2	19531.6	484.30	µg/L	484.30	ppb	17:29:50
2	Sc RADIAL	57479.6	57479.6	105	%			17:28:46
2	Al 396.153Radial†	6775.5	6443.2	4792.2	µg/L	4792.2	ppb	17:29:07
2	Ca 317.933Radial†	5568.2	5107.6	4809.2	µg/L	4809.2	ppb	17:29:07
2	Fe 238.204 Radial†	613.4	567.9	4823.2	µg/L	4823.2	ppb	17:29:07
2	K 766.490 Radial†	7368.3	6867.5	4881.4	µg/L	4881.4	ppb	17:28:46
2	Mg 279.077 IEC†	569.1	529.1	4927.1	µg/L	4927.1	ppb	17:29:07
2	Na 589.592 Radial†	31686.3	29543.0	9725.6	µg/L	9725.6	ppb	17:28:46
2	Sr 421.552†	49060.1	46540.9	482.45	µg/L	482.45	ppb	17:28:46
2	Sc 361.383	2046028.0	2046028.0	107.13	%			17:30:18
2	Y 371.029	1397859.6	1397859.6	106.71	%			17:30:18
2	Ag 328.068†	62181.8	58607.4	468.48	µg/L	468.48	ppb	17:30:23
2	As 188.979†	270.5	251.3	490.33	µg/L	490.33	ppb	17:30:44
2	B 249.677†	11883.0	10760.6	468.51	µg/L	468.51	ppb	17:30:23
2	Ba 233.527†	19447.6	18179.1	474.21	µg/L	474.21	ppb	17:30:23
2	Be 313.107†	766991.4	719379.3	469.62	µg/L	469.62	ppb	17:30:18
2	Cd 226.502†	18417.3	17333.6	478.14	µg/L	478.14	ppb	17:30:23
2	Co 228.616†	10411.2	9727.0	478.18	µg/L	478.18	ppb	17:30:23
2	Cr 267.716†	23232.1	21738.1	478.45	µg/L	478.45	ppb	17:30:23
2	Cu 324.752†	75095.1	67610.5	472.94	µg/L	472.94	ppb	17:30:23
2	Mn 257.610†	147694.9	138108.1	478.69	µg/L	478.69	ppb	17:30:18
2	Mo 202.031†	4924.2	4604.0	491.52	µg/L	491.52	ppb	17:30:44
2	Ni 231.604†	9689.5	8742.4	477.48	µg/L	477.48	ppb	17:30:23
2	P 214.914†	1255.9	1144.7	2412.6	µg/L	2412.6	ppb	17:30:44
2	Pb 220.353†	2059.1	1824.8	487.10	µg/L	487.10	ppb	17:30:44

2	S 181.975 Axial†	252.0	220.4	965.86 µg/L	965.86 ppb	17:30:44
2	Sb 206.836†	552.5	488.7	483.25 µg/L	483.25 ppb	17:30:44
2	Se 196.026†	360.1	320.3	495.71 µg/L	495.71 ppb	17:30:44
2	SiO2†	26270.0	23271.4	5011.6 µg/L	5011.6 ppb	17:30:23
2	Si 251.611†	31001.1	28624.7	2353.1 µg/L	2353.1 ppb	17:30:23
2	Sn 189.927†	1147.6	1072.1	493.14 µg/L	493.14 ppb	17:30:44
2	Ti 334.940†	206329.6	192479.8	462.68 µg/L	462.68 ppb	17:30:18
2	Tl 190.801†	343.3	344.8	486.80 µg/L	486.80 ppb	17:30:44
2	U 409.014†	5690.4	5365.3	484.79 µg/L	484.79 ppb	17:30:23
2	V 292.402†	47623.9	44498.2	480.19 µg/L	480.19 ppb	17:30:23
2	Zn 213.857†	21043.3	19167.1	475.24 µg/L	475.24 ppb	17:30:23
3	Sc RADIAL	58545.2	58545.2	107 %		17:29:12
3	Al 396.153Radial†	6838.5	6384.8	4750.3 µg/L	4750.3 ppb	17:29:33
3	Ca 317.933Radial†	5643.2	5081.3	4784.4 µg/L	4784.4 ppb	17:29:33
3	Fe 238.204 Radial†	621.5	564.8	4796.6 µg/L	4796.6 ppb	17:29:33
3	K 766.490 Radial†	7265.1	6643.9	4722.5 µg/L	4722.5 ppb	17:29:12
3	Mg 279.077 IEC†	574.9	524.6	4884.3 µg/L	4884.3 ppb	17:29:33
3	Na 589.592 Radial†	31113.3	28461.2	9369.5 µg/L	9369.5 ppb	17:29:12
3	Sr 421.552†	48089.7	44788.5	464.29 µg/L	464.29 ppb	17:29:12
3	Sc 361.383	2017377.3	2017377.3	105.63 %		17:30:51
3	Y 371.029	1378304.1	1378304.1	105.22 %		17:30:51
3	Ag 328.068†	59471.1	56865.5	454.46 µg/L	454.46 ppb	17:30:57
3	As 188.979†	229.9	216.5	422.47 µg/L	422.47 ppb	17:31:17
3	B 249.677†	11339.4	10403.4	452.85 µg/L	452.85 ppb	17:30:57
3	Ba 233.527†	18247.7	17301.0	451.29 µg/L	451.29 ppb	17:30:57
3	Be 313.107†	738207.7	702297.7	458.47 µg/L	458.47 ppb	17:30:51
3	Cd 226.502†	17185.8	16411.8	452.68 µg/L	452.68 ppb	17:30:57
3	Co 228.616†	9649.4	9143.9	449.43 µg/L	449.43 ppb	17:30:57
3	Cr 267.716†	20989.9	19923.4	438.52 µg/L	438.52 ppb	17:30:57
3	Cu 324.752†	69862.4	63652.3	445.29 µg/L	445.29 ppb	17:30:57
3	Mn 257.610†	142669.2	135308.3	469.00 µg/L	469.00 ppb	17:30:51
3	Mo 202.031†	4082.7	3872.6	413.47 µg/L	413.47 ppb	17:31:17
3	Ni 231.604†	8980.8	8199.9	447.86 µg/L	447.86 ppb	17:30:57
3	P 214.914†	1067.7	983.2	2067.7 µg/L	2067.7 ppb	17:31:17
3	Pb 220.353†	1798.7	1605.6	428.46 µg/L	428.46 ppb	17:31:17
3	S 181.975 Axial†	223.6	196.9	862.47 µg/L	862.47 ppb	17:31:17
3	Sb 206.836†	480.2	427.6	422.29 µg/L	422.29 ppb	17:31:17
3	Se 196.026†	311.3	278.8	432.49 µg/L	432.49 ppb	17:31:17
3	SiO2†	24862.0	22286.7	4799.6 µg/L	4799.6 ppb	17:30:57
3	Si 251.611†	29262.2	27389.5	2251.6 µg/L	2251.6 ppb	17:30:57
3	Sn 189.927†	942.0	892.7	410.61 µg/L	410.61 ppb	17:31:17
3	Ti 334.940†	197920.3	187254.0	450.12 µg/L	450.12 ppb	17:30:51
3	Tl 190.801†	315.4	322.9	456.18 µg/L	456.18 ppb	17:31:17
3	U 409.014†	5127.6	4907.9	443.39 µg/L	443.39 ppb	17:30:57
3	V 292.402†	43917.4	41620.5	448.79 µg/L	448.79 ppb	17:30:57
3	Zn 213.857†	19595.2	18075.2	448.15 µg/L	448.15 ppb	17:30:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2034866.6	106.55	%	0.803				0.75%
Sc RADIAL	58353.5	107	%	1.5				1.36%
Y 371.029	1390318.5	106.14	%	0.803				0.76%
Ag 328.068†	58350.4	466.39	µg/L	11.039	466.39	ppb	11.039	2.37%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	6369.7	4737.9	µg/L	61.46	4737.9	ppb	61.46	1.30%
QC value within limits for Al 396.153Radial Recovery = 94.76%								
As 188.979†	239.1	466.36	µg/L	38.059	466.36	ppb	38.059	8.16%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	10683.4	465.15	µg/L	11.003	465.15	ppb	11.003	2.37%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	17994.1	469.38	µg/L	16.223	469.38	ppb	16.223	3.46%
QC value within limits for Ba 233.527 Recovery = 93.88%								
Be 313.107†	714472.6	466.42	µg/L	6.926	466.42	ppb	6.926	1.48%
QC value within limits for Be 313.107 Recovery = 93.28%								
Ca 317.933Radial†	5062.6	4766.7	µg/L	53.48	4766.7	ppb	53.48	1.12%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17129.5	472.51	µg/L	17.696	472.51	ppb	17.696	3.75%
QC value within limits for Cd 226.502 Recovery = 94.50%								
Co 228.616†	9600.9	471.95	µg/L	20.142	471.95	ppb	20.142	4.27%

```
   QC value within limits for Co 228.616  Recovery = 94.39%
Cr 267.716†            21275.0      468.26 µg/L        26.182      468.26 ppb         26.182   5.59%
   QC value within limits for Cr 267.716  Recovery = 93.65%
Cu 324.752†            66699.9      466.58 µg/L        18.924      466.58 ppb         18.924   4.06%
   QC value within limits for Cu 324.752  Recovery = 93.32%
Fe 238.204 Radial†       562.6      4778.0 µg/L         56.85      4778.0 ppb          56.85   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.56%
K 766.490 Radial†       6662.7      4735.8 µg/L        139.33      4735.8 ppb         139.33   2.94%
   QC value within limits for K 766.490 Radial  Recovery = 94.72%
Mg 279.077 IEC†          523.0      4869.9 µg/L         65.60      4869.9 ppb          65.60   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†           137434.4      476.36 µg/L         6.514      476.36 ppb          6.514   1.37%
   QC value within limits for Mn 257.610  Recovery = 95.27%
Mo 202.031†             4373.4      466.91 µg/L        46.335      466.91 ppb         46.335   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.38%
Na 589.592 Radial†     28667.1      9437.3 µg/L        261.13      9437.3 ppb         261.13   2.77%
   QC value within limits for Na 589.592 Radial  Recovery = 94.37%
Ni 231.604†             8624.4      471.04 µg/L        20.725      471.04 ppb         20.725   4.40%
   QC value within limits for Ni 231.604  Recovery = 94.21%
P 214.914†              1096.3      2309.2 µg/L        209.89      2309.2 ppb         209.89   9.09%
   QC value within limits for P 214.914  Recovery = 92.37%
Pb 220.353†             1760.6      469.91 µg/L        36.070      469.91 ppb         36.070   7.68%
   QC value within limits for Pb 220.353  Recovery = 93.98%
S 181.975 Axial†         212.1      929.34 µg/L        57.991      929.34 ppb         57.991   6.24%
   QC value within limits for S 181.975 Axial  Recovery = 92.93%
Sb 206.836†              472.2      466.68 µg/L        38.846      466.68 ppb         38.846   8.32%
   QC value within limits for Sb 206.836  Recovery = 93.34%
Se 196.026†              307.5      476.15 µg/L        37.872      476.15 ppb         37.872   7.95%
   QC value within limits for Se 196.026  Recovery = 95.23%
SiO2†                  23079.8      4970.4 µg/L        154.36      4970.4 ppb         154.36   3.11%
   QC value within limits for SiO2  Recovery = 92.95%
Si 251.611†            28372.7      2332.4 µg/L         72.71      2332.4 ppb          72.71   3.12%
   QC value within limits for Si 251.611  Recovery = 93.30%
Sn 189.927†             1016.6      467.62 µg/L        49.463      467.62 ppb         49.463  10.58%
   QC value within limits for Sn 189.927  Recovery = 93.52%
Sr 421.552†            45099.0      467.50 µg/L        13.625      467.50 ppb         13.625   2.91%
   QC value within limits for Sr 421.552  Recovery = 93.50%
Ti 334.940†           191033.1      459.21 µg/L         7.946      459.21 ppb          7.946   1.73%
   QC value within limits for Ti 334.940  Recovery = 91.84%
Tl 190.801†              340.9      481.40 µg/L        22.992      481.40 ppb         22.992   4.78%
   QC value within limits for Tl 190.801  Recovery = 96.28%
U 409.014†              5250.0      474.36 µg/L        27.295      474.36 ppb         27.295   5.75%
   QC value within limits for U 409.014  Recovery = 94.87%
V 292.402†             43801.9      472.54 µg/L        21.006      472.54 ppb         21.006   4.45%
   QC value within limits for V 292.402  Recovery = 94.51%
Zn 213.857†            18924.6      469.23 µg/L        18.806      469.23 ppb         18.806   4.01%
   QC value within limits for Zn 213.857  Recovery = 93.85%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:31:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57249.4	57249.4	105	%			17:32:01
1	Al 396.153Radial†	-19.1	-8.1	-6.0314	µg/L	-6.0314	ppb	17:32:01
1	Ca 317.933Radial†	186.6	-1.3	-1.1941	µg/L	-1.1941	ppb	17:32:21
1	Fe 238.204 Radial†	16.2	0.9	8.0275	µg/L	8.0275	ppb	17:32:21
1	K 766.490 Radial†	205.8	67.8	48.166	µg/L	48.166	ppb	17:32:01
1	Mg 279.077 IEC†	11.8	-0.0	-0.3578	µg/L	-0.3578	ppb	17:32:21
1	Na 589.592 Radial†	713.1	137.9	45.390	µg/L	45.390	ppb	17:32:01
1	Sr 421.552†	47.1	5.3	0.0553	µg/L	0.0553	ppb	17:32:01
1	Sc 361.383	2021263.0	2021263.0	105.83	%			17:33:23
1	Y 371.029	1385458.4	1385458.4	105.77	%			17:33:23
1	Ag 328.068†	-548.3	46.5	0.3696	µg/L	0.3696	ppb	17:33:29
1	As 188.979†	-3.1	-4.1	-8.0437	µg/L	-8.0437	ppb	17:33:50
1	B 249.677†	328.8	-20.8	-0.9109	µg/L	-0.9109	ppb	17:33:50
1	Ba 233.527†	-23.9	3.4	0.0895	µg/L	0.0895	ppb	17:33:50
1	Be 313.107†	-3534.2	101.1	0.0660	µg/L	0.0660	ppb	17:33:29
1	Cd 226.502†	-135.6	14.0	0.3833	µg/L	0.3833	ppb	17:33:50
1	Co 228.616†	-7.8	1.5	0.0715	µg/L	0.0715	ppb	17:33:50
1	Cr 267.716†	-39.7	14.9	0.3275	µg/L	0.3275	ppb	17:33:29
1	Cu 324.752†	2441.6	-179.0	-1.2495	µg/L	-1.2495	ppb	17:33:29
1	Mn 257.610†	-227.7	28.9	0.1013	µg/L	0.1013	ppb	17:33:50
1	Mo 202.031†	-11.3	-3.1	-0.3352	µg/L	-0.3352	ppb	17:33:50
1	Ni 231.604†	297.1	-21.4	-1.1721	µg/L	-1.1721	ppb	17:33:50
1	P 214.914†	29.1	-0.1	-0.1206	µg/L	-0.1206	ppb	17:33:50
1	Pb 220.353†	93.1	-9.2	-2.4716	µg/L	-2.4716	ppb	17:33:50
1	S 181.975 Axial†	17.0	1.2	5.2600	µg/L	5.2600	ppb	17:33:50
1	Sb 206.836†	21.2	-7.0	-6.8579	µg/L	-6.8579	ppb	17:33:50
1	Se 196.026†	17.1	0.4	0.5587	µg/L	0.5587	ppb	17:33:50
1	SiO2†	1257.7	-61.7	-13.286	µg/L	-13.286	ppb	17:33:29
1	Si 251.611†	315.2	-15.0	-1.2350	µg/L	-1.2350	ppb	17:33:50
1	Sn 189.927†	-0.7	0.2	0.0875	µg/L	0.0875	ppb	17:33:50
1	Ti 334.940†	99.4	-22.2	-0.0533	µg/L	-0.0533	ppb	17:33:29
1	Tl 190.801†	-25.0	0.6	0.8769	µg/L	0.8769	ppb	17:33:50
1	U 409.014†	-2.8	50.9	4.6107	µg/L	4.6107	ppb	17:33:29
1	V 292.402†	-42.3	4.3	0.0496	µg/L	0.0496	ppb	17:33:29
1	Zn 213.857†	478.9	-23.0	-0.5682	µg/L	-0.5682	ppb	17:33:50
2	Sc RADIAL	57058.0	57058.0	105	%			17:32:27
2	Al 396.153Radial†	-2.2	8.1	5.9887	µg/L	5.9887	ppb	17:32:27
2	Ca 317.933Radial†	185.4	-1.8	-1.6973	µg/L	-1.6973	ppb	17:32:47
2	Fe 238.204 Radial†	16.9	1.6	13.808	µg/L	13.808	ppb	17:32:47
2	K 766.490 Radial†	159.2	23.8	16.947	µg/L	16.947	ppb	17:32:27
2	Mg 279.077 IEC†	16.4	4.4	41.355	µg/L	41.355	ppb	17:32:47
2	Na 589.592 Radial†	724.2	150.8	49.634	µg/L	49.634	ppb	17:32:27
2	Sr 421.552†	-4.4	-43.8	-0.4540	µg/L	-0.4540	ppb	17:32:27
2	Sc 361.383	2001081.9	2001081.9	104.78	%			17:33:56
2	Y 371.029	1372125.9	1372125.9	104.75	%			17:33:56
2	Ag 328.068†	-553.2	36.5	0.2946	µg/L	0.2946	ppb	17:34:01
2	As 188.979†	-0.6	-1.7	-3.3761	µg/L	-3.3761	ppb	17:34:22
2	B 249.677†	320.5	-25.5	-1.1231	µg/L	-1.1231	ppb	17:34:22
2	Ba 233.527†	-11.0	15.5	0.4048	µg/L	0.4048	ppb	17:34:22
2	Be 313.107†	-3526.3	74.9	0.0489	µg/L	0.0489	ppb	17:34:01
2	Cd 226.502†	-133.8	14.4	0.3950	µg/L	0.3950	ppb	17:34:22
2	Co 228.616†	-11.0	-1.6	-0.0801	µg/L	-0.0801	ppb	17:34:22
2	Cr 267.716†	-44.3	10.1	0.2231	µg/L	0.2231	ppb	17:34:01
2	Cu 324.752†	2455.1	-143.0	-0.9967	µg/L	-0.9967	ppb	17:34:01
2	Mn 257.610†	-230.3	24.3	0.0842	µg/L	0.0842	ppb	17:34:22
2	Mo 202.031†	-2.3	5.3	0.5710	µg/L	0.5710	ppb	17:34:22
2	Ni 231.604†	304.4	-11.7	-0.6402	µg/L	-0.6402	ppb	17:34:22
2	P 214.914†	29.3	0.4	0.8548	µg/L	0.8548	ppb	17:34:22
2	Pb 220.353†	101.4	-0.5	-0.1165	µg/L	-0.1165	ppb	17:34:22

2	S 181.975 Axial†	19.4	3.7	16.024 µg/L	16.024 ppb	17:34:22
2	Sb 206.836†	27.6	-0.6	-0.5726 µg/L	-0.5726 ppb	17:34:22
2	Se 196.026†	16.9	0.3	0.5139 µg/L	0.5139 ppb	17:34:22
2	SiO2†	1231.1	-75.1	-16.163 µg/L	-16.163 ppb	17:34:01
2	Si 251.611†	308.3	-18.6	-1.5330 µg/L	-1.5330 ppb	17:34:22
2	Sn 189.927†	-2.5	-1.5	-0.6783 µg/L	-0.6783 ppb	17:34:22
2	Ti 334.940†	155.7	32.5	0.0749 µg/L	0.0749 ppb	17:34:01
2	Tl 190.801†	-24.6	0.8	1.0677 µg/L	1.0677 ppb	17:34:22
2	U 409.014†	-70.7	-13.8	-1.2553 µg/L	-1.2553 ppb	17:34:01
2	V 292.402†	13.1	56.7	0.6099 µg/L	0.6099 ppb	17:34:01
2	Zn 213.857†	482.3	-15.3	-0.3800 µg/L	-0.3800 ppb	17:34:22
3	Sc RADIAL	57391.7	57391.7	105 %		17:32:53
3	Al 396.153Radial†	-24.1	-12.7	-9.5161 µg/L	-9.5161 ppb	17:32:53
3	Ca 317.933Radial†	189.2	0.7	0.6854 µg/L	0.6854 ppb	17:33:13
3	Fe 238.204 Radial†	14.2	-1.0	-8.3318 µg/L	-8.3318 ppb	17:33:13
3	K 766.490 Radial†	170.0	33.2	23.601 µg/L	23.601 ppb	17:32:53
3	Mg 279.077 IEC†	13.6	1.6	15.113 µg/L	15.113 ppb	17:33:13
3	Na 589.592 Radial†	706.7	130.1	42.833 µg/L	42.833 ppb	17:32:53
3	Sr 421.552†	21.4	-19.2	-0.1993 µg/L	-0.1993 ppb	17:32:53
3	Sc 361.383	2035877.5	2035877.5	106.60 %		17:34:28
3	Y 371.029	1396783.1	1396783.1	106.63 %		17:34:28
3	Ag 328.068†	-558.0	41.1	0.3273 µg/L	0.3273 ppb	17:34:33
3	As 188.979†	-5.7	-6.5	-12.714 µg/L	-12.714 ppb	17:34:54
3	B 249.677†	310.2	-40.5	-1.7628 µg/L	-1.7628 ppb	17:34:54
3	Ba 233.527†	-23.8	3.7	0.0975 µg/L	0.0975 ppb	17:34:54
3	Be 313.107†	-3295.5	348.9	0.2278 µg/L	0.2278 ppb	17:34:33
3	Cd 226.502†	-134.4	16.1	0.4439 µg/L	0.4439 ppb	17:34:54
3	Co 228.616†	-16.8	-6.9	-0.3385 µg/L	-0.3385 ppb	17:34:54
3	Cr 267.716†	-31.9	22.4	0.4933 µg/L	0.4933 ppb	17:34:33
3	Cu 324.752†	2431.1	-205.5	-1.4364 µg/L	-1.4364 ppb	17:34:33
3	Mn 257.610†	-224.1	33.9	0.1156 µg/L	0.1156 ppb	17:34:54
3	Mo 202.031†	2.2	9.6	1.0266 µg/L	1.0266 ppb	17:34:54
3	Ni 231.604†	311.7	-9.8	-0.5337 µg/L	-0.5337 ppb	17:34:54
3	P 214.914†	26.4	-2.8	-5.9346 µg/L	-5.9346 ppb	17:34:54
3	Pb 220.353†	98.3	-5.0	-1.3370 µg/L	-1.3370 ppb	17:34:54
3	S 181.975 Axial†	14.7	-1.0	-4.4979 µg/L	-4.4979 ppb	17:34:54
3	Sb 206.836†	25.7	-2.9	-2.8125 µg/L	-2.8125 ppb	17:34:54
3	Se 196.026†	12.1	-4.5	-6.8217 µg/L	-6.8217 ppb	17:34:54
3	SiO2†	1207.8	-117.0	-25.202 µg/L	-25.202 ppb	17:34:33
3	Si 251.611†	320.7	-12.0	-0.9854 µg/L	-0.9854 ppb	17:34:54
3	Sn 189.927†	3.6	4.2	1.9540 µg/L	1.9540 ppb	17:34:54
3	Ti 334.940†	152.2	26.6	0.0629 µg/L	0.0629 ppb	17:34:33
3	Tl 190.801†	-31.1	-4.8	-6.7573 µg/L	-6.7573 ppb	17:34:54
3	U 409.014†	18.4	70.9	6.4223 µg/L	6.4223 ppb	17:34:33
3	V 292.402†	-21.9	23.7	0.2672 µg/L	0.2672 ppb	17:34:33
3	Zn 213.857†	481.8	-23.6	-0.5847 µg/L	-0.5847 ppb	17:34:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019407.5	105.74	%	0.915				0.87%
Sc RADIAL	57233.0	105	%	0.3				0.29%
Y 371.029	1384789.1	105.72	%	0.942				0.89%
Ag 328.068†	41.4	0.3305	µg/L	0.03757	0.3305	ppb	0.03757	11.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-3.1863	µg/L	8.13450	-3.1863	ppb	8.13450	255.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-8.0447	µg/L	4.66908	-8.0447	ppb	4.66908	58.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-28.9	-1.2656	µg/L	0.44348	-1.2656	ppb	0.44348	35.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1973	µg/L	0.17977	0.1973	ppb	0.17977	91.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	175.0	0.1143	µg/L	0.09874	0.1143	ppb	0.09874	86.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.8	-0.7353	µg/L	1.25585	-0.7353	ppb	1.25585	170.79%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.8	0.4074	µg/L	0.03216	0.4074	ppb	0.03216	7.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.4	-0.1157	µg/L	0.20732	-0.1157	ppb	0.20732	179.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.8      0.3480 µg/L       0.13629      0.3480 ppb        0.13629  39.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -175.8     -1.2276 µg/L       0.22068     -1.2276 ppb        0.22068  17.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.5      4.5012 µg/L      11.48343      4.5012 ppb       11.48343 255.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        41.6      29.571 µg/L       16.4438      29.571 ppb        16.4438  55.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.0      18.703 µg/L       21.0870      18.703 ppb        21.0870 112.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              29.0      0.1004 µg/L       0.01570      0.1004 ppb        0.01570  15.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.9      0.4208 µg/L       0.69318      0.4208 ppb        0.69318 164.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       139.6      45.952 µg/L        3.4354      45.952 ppb         3.4354   7.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.3     -0.7820 µg/L       0.34199     -0.7820 ppb        0.34199  43.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.9     -1.7335 µg/L       3.67082     -1.7335 ppb        3.67082 211.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.9     -1.3084 µg/L       1.17784     -1.3084 ppb        1.17784  90.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.3      5.5955 µg/L      10.26528      5.5955 ppb       10.26528 183.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.5     -3.4143 µg/L       3.18555     -3.4143 ppb        3.18555  93.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3     -1.9164 µg/L       4.24816     -1.9164 ppb        4.24816 221.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -84.6     -18.217 µg/L        6.2180     -18.217 ppb         6.2180  34.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -15.2     -1.2511 µg/L       0.27411     -1.2511 ppb        0.27411  21.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.0      0.4544 µg/L       1.35398      0.4544 ppb        1.35398 297.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -19.2     -0.1993 µg/L       0.25463     -0.1993 ppb        0.25463 127.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              12.3      0.0282 µg/L       0.07081      0.0282 ppb        0.07081 251.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.2     -1.6042 µg/L       4.46370     -1.6042 ppb        4.46370 278.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               36.0      3.2592 µg/L       4.01326      3.2592 ppb        4.01326 123.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               28.2      0.3089 µg/L       0.28245      0.3089 ppb        0.28245  91.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -20.6     -0.5110 µg/L       0.11370     -0.5110 ppb        0.11370  22.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:03:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57726.1	57726.1	106	%			18:04:22
1	Al 396.153Radial†	6766.7	6407.4	4765.2	µg/L	4765.2	ppb	18:04:22
1	Ca 317.933Radial†	5597.5	5112.8	4814.0	µg/L	4814.0	ppb	18:04:43
1	Fe 238.204 Radial†	618.0	569.7	4839.6	µg/L	4839.6	ppb	18:04:43
1	K 766.490 Radial†	7228.2	6705.1	4766.0	µg/L	4766.0	ppb	18:04:22
1	Mg 279.077 IEC†	567.3	525.0	4889.6	µg/L	4889.6	ppb	18:04:43
1	Na 589.592 Radial†	31079.1	28840.4	9494.4	µg/L	9494.4	ppb	18:04:22
1	Sr 421.552†	47930.5	45274.1	469.32	µg/L	469.32	ppb	18:04:22
1	Sc 361.383	1995865.2	1995865.2	104.50	%			18:05:46
1	Y 371.029	1362757.5	1362757.5	104.03	%			18:05:46
1	Ag 328.068†	63483.9	61312.1	490.10	µg/L	490.10	ppb	18:05:52
1	As 188.979†	273.1	260.2	507.53	µg/L	507.53	ppb	18:06:12
1	B 249.677†	12082.3	11230.0	489.06	µg/L	489.06	ppb	18:05:52
1	Ba 233.527†	19988.9	19153.3	499.62	µg/L	499.62	ppb	18:05:52
1	Be 313.107†	781981.3	751717.1	490.73	µg/L	490.73	ppb	18:05:46
1	Cd 226.502†	18909.7	18236.8	503.08	µg/L	503.08	ppb	18:05:52
1	Co 228.616†	10693.9	10241.8	503.48	µg/L	503.48	ppb	18:05:52
1	Cr 267.716†	23838.7	22863.6	503.22	µg/L	503.22	ppb	18:05:52
1	Cu 324.752†	76544.4	70759.2	494.94	µg/L	494.94	ppb	18:05:52
1	Mn 257.610†	150825.0	144568.3	501.07	µg/L	501.07	ppb	18:05:46
1	Mo 202.031†	4977.2	4770.3	509.27	µg/L	509.27	ppb	18:06:12
1	Ni 231.604†	9935.5	9205.0	502.75	µg/L	502.75	ppb	18:05:52
1	P 214.914†	1265.8	1183.6	2494.1	µg/L	2494.1	ppb	18:06:12
1	Pb 220.353†	2092.9	1905.5	508.60	µg/L	508.60	ppb	18:06:12
1	S 181.975 Axial†	254.0	228.2	999.80	µg/L	999.80	ppb	18:06:12
1	Sb 206.836†	555.5	504.6	498.91	µg/L	498.91	ppb	18:06:12
1	Se 196.026†	366.1	334.5	517.42	µg/L	517.42	ppb	18:06:12
1	SiO2†	26867.3	24459.3	5267.4	µg/L	5267.4	ppb	18:05:52
1	Si 251.611†	31625.0	29949.0	2462.0	µg/L	2462.0	ppb	18:05:52
1	Sn 189.927†	1151.3	1102.5	507.11	µg/L	507.11	ppb	18:06:12
1	Ti 334.940†	210462.3	201274.9	483.84	µg/L	483.84	ppb	18:05:46
1	Tl 190.801†	351.8	360.9	509.62	µg/L	509.62	ppb	18:06:12
1	U 409.014†	5780.2	5584.7	504.65	µg/L	504.65	ppb	18:05:52
1	V 292.402†	48773.6	46715.6	504.04	µg/L	504.04	ppb	18:05:52
1	Zn 213.857†	21610.6	20203.6	500.98	µg/L	500.98	ppb	18:05:52
2	Sc RADIAL	58137.3	58137.3	107	%			18:04:48
2	Al 396.153Radial†	6794.0	6387.8	4750.7	µg/L	4750.7	ppb	18:04:48
2	Ca 317.933Radial†	5592.3	5070.5	4774.2	µg/L	4774.2	ppb	18:05:09
2	Fe 238.204 Radial†	618.1	565.7	4805.7	µg/L	4805.7	ppb	18:05:09
2	K 766.490 Radial†	7287.3	6712.3	4771.1	µg/L	4771.1	ppb	18:04:48
2	Mg 279.077 IEC†	568.2	522.1	4862.2	µg/L	4862.2	ppb	18:05:09
2	Na 589.592 Radial†	31238.6	28782.3	9475.2	µg/L	9475.2	ppb	18:04:48
2	Sr 421.552†	48291.3	45292.3	469.51	µg/L	469.51	ppb	18:04:48
2	Sc 361.383	2007163.9	2007163.9	105.10	%			18:06:19
2	Y 371.029	1370434.0	1370434.0	104.62	%			18:06:19
2	Ag 328.068†	63627.6	61107.0	488.46	µg/L	488.46	ppb	18:06:25
2	As 188.979†	273.7	259.2	505.75	µg/L	505.75	ppb	18:06:46
2	B 249.677†	12114.9	11196.0	487.59	µg/L	487.59	ppb	18:06:25
2	Ba 233.527†	19979.9	19037.1	496.59	µg/L	496.59	ppb	18:06:25
2	Be 313.107†	784264.0	749676.9	489.40	µg/L	489.40	ppb	18:06:19
2	Cd 226.502†	18871.7	18098.7	499.27	µg/L	499.27	ppb	18:06:25
2	Co 228.616†	10694.5	10184.8	500.67	µg/L	500.67	ppb	18:06:25
2	Cr 267.716†	23892.4	22786.3	501.52	µg/L	501.52	ppb	18:06:25
2	Cu 324.752†	76884.7	70670.6	494.32	µg/L	494.32	ppb	18:06:25
2	Mn 257.610†	151108.1	144025.3	499.18	µg/L	499.18	ppb	18:06:19
2	Mo 202.031†	4921.9	4690.8	500.79	µg/L	500.79	ppb	18:06:46
2	Ni 231.604†	9959.3	9174.2	501.07	µg/L	501.07	ppb	18:06:25
2	P 214.914†	1267.5	1178.4	2483.0	µg/L	2483.0	ppb	18:06:46
2	Pb 220.353†	2074.4	1876.6	500.89	µg/L	500.89	ppb	18:06:46

2	S 181.975 Axial†	247.1	220.3	965.20 µg/L	965.20 ppb	18:06:46
2	Sb 206.836†	553.1	499.3	493.56 µg/L	493.56 ppb	18:06:46
2	Se 196.026†	362.2	328.8	508.76 µg/L	508.76 ppb	18:06:46
2	SiO2†	26954.0	24397.1	5254.0 µg/L	5254.0 ppb	18:06:25
2	Si 251.611†	31693.0	29843.4	2453.3 µg/L	2453.3 ppb	18:06:25
2	Sn 189.927†	1148.2	1093.4	502.92 µg/L	502.92 ppb	18:06:46
2	Ti 334.940†	211069.7	200719.2	482.51 µg/L	482.51 ppb	18:06:19
2	Tl 190.801†	350.2	357.5	504.86 µg/L	504.86 ppb	18:06:46
2	U 409.014†	5713.5	5490.1	496.10 µg/L	496.10 ppb	18:06:25
2	V 292.402†	48839.6	46515.7	501.83 µg/L	501.83 ppb	18:06:25
2	Zn 213.857†	21586.8	20064.5	497.52 µg/L	497.52 ppb	18:06:25
3	Sc RADIAL	57420.7	57420.7	105 %		18:05:14
3	Al 396.153Radial†	6887.1	6555.8	4877.6 µg/L	4877.6 ppb	18:05:14
3	Ca 317.933Radial†	5594.0	5137.6	4837.4 µg/L	4837.4 ppb	18:05:34
3	Fe 238.204 Radial†	619.5	574.3	4877.2 µg/L	4877.2 ppb	18:05:34
3	K 766.490 Radial†	7272.3	6783.4	4821.6 µg/L	4821.6 ppb	18:05:14
3	Mg 279.077 IEC†	569.6	530.1	4935.2 µg/L	4935.2 ppb	18:05:34
3	Na 589.592 Radial†	31447.7	29346.9	9661.1 µg/L	9661.1 ppb	18:05:14
3	Sr 421.552†	48895.8	46432.5	481.33 µg/L	481.33 ppb	18:05:14
3	Sc 361.383	2010251.9	2010251.9	105.26 %		18:06:53
3	Y 371.029	1371909.0	1371909.0	104.73 %		18:06:53
3	Ag 328.068†	59865.9	57440.1	459.05 µg/L	459.05 ppb	18:06:58
3	As 188.979†	229.2	216.7	422.67 µg/L	422.67 ppb	18:07:19
3	B 249.677†	11370.0	10470.6	455.76 µg/L	455.76 ppb	18:06:58
3	Ba 233.527†	18395.6	17502.7	456.55 µg/L	456.55 ppb	18:06:58
3	Be 313.107†	741644.3	708039.7	462.22 µg/L	462.22 ppb	18:06:53
3	Cd 226.502†	17275.3	16554.5	456.62 µg/L	456.62 ppb	18:06:58
3	Co 228.616†	9741.1	9263.3	455.31 µg/L	455.31 ppb	18:06:58
3	Cr 267.716†	21256.7	20247.3	445.64 µg/L	445.64 ppb	18:06:58
3	Cu 324.752†	70381.9	64380.2	450.39 µg/L	450.39 ppb	18:06:58
3	Mn 257.610†	143060.5	136158.7	471.95 µg/L	471.95 ppb	18:06:53
3	Mo 202.031†	4127.0	3928.4	419.43 µg/L	419.43 ppb	18:07:19
3	Ni 231.604†	9089.8	8333.5	455.16 µg/L	455.16 ppb	18:06:58
3	P 214.914†	1084.0	1002.2	2108.1 µg/L	2108.1 ppb	18:07:19
3	Pb 220.353†	1818.2	1630.2	435.03 µg/L	435.03 ppb	18:07:19
3	S 181.975 Axial†	224.4	198.4	869.26 µg/L	869.26 ppb	18:07:19
3	Sb 206.836†	480.4	429.5	424.14 µg/L	424.14 ppb	18:07:19
3	Se 196.026†	313.7	282.2	437.85 µg/L	437.85 ppb	18:07:19
3	SiO2†	25019.5	22519.8	4849.8 µg/L	4849.8 ppb	18:06:58
3	Si 251.611†	29405.8	27624.1	2270.8 µg/L	2270.8 ppb	18:06:58
3	Sn 189.927†	955.0	908.2	417.73 µg/L	417.73 ppb	18:07:19
3	Ti 334.940†	198942.9	188889.6	454.05 µg/L	454.05 ppb	18:06:53
3	Tl 190.801†	316.9	325.4	459.73 µg/L	459.73 ppb	18:07:19
3	U 409.014†	5179.0	4973.9	449.35 µg/L	449.35 ppb	18:06:58
3	V 292.402†	44254.0	42087.7	453.84 µg/L	453.84 ppb	18:06:58
3	Zn 213.857†	19673.0	18214.8	451.59 µg/L	451.59 ppb	18:06:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004427.0	104.95	%	0.397				0.38%
Sc RADIAL	57761.4	106	%	0.7				0.62%
Y 371.029	1368366.8	104.46	%	0.375				0.36%
Ag 328.068†	59953.1	479.20	µg/L	17.470	479.20	ppb	17.470	3.65%
QC value within limits for Ag 328.068 Recovery = 95.84%								
Al 396.153Radial†	6450.3	4797.9	µg/L	69.48	4797.9	ppb	69.48	1.45%
QC value within limits for Al 396.153Radial Recovery = 95.96%								
As 188.979†	245.3	478.65	µg/L	48.486	478.65	ppb	48.486	10.13%
QC value within limits for As 188.979 Recovery = 95.73%								
B 249.677†	10965.6	477.47	µg/L	18.814	477.47	ppb	18.814	3.94%
QC value within limits for B 249.677 Recovery = 95.49%								
Ba 233.527†	18564.4	484.26	µg/L	24.039	484.26	ppb	24.039	4.96%
QC value within limits for Ba 233.527 Recovery = 96.85%								
Be 313.107†	736477.9	480.78	µg/L	16.091	480.78	ppb	16.091	3.35%
QC value within limits for Be 313.107 Recovery = 96.16%								
Ca 317.933Radial†	5106.9	4808.5	µg/L	31.95	4808.5	ppb	31.95	0.66%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	17630.0	486.32	µg/L	25.796	486.32	ppb	25.796	5.30%
QC value within limits for Cd 226.502 Recovery = 97.26%								
Co 228.616†	9896.7	486.49	µg/L	27.038	486.49	ppb	27.038	5.56%

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   QC value within limits for Co 228.616  Recovery = 97.30%
Cr 267.716†            21965.7      483.46 µg/L        32.763      483.46 ppb         32.763   6.78%
   QC value within limits for Cr 267.716  Recovery = 96.69%
Cu 324.752†            68603.3      479.88 µg/L        25.545      479.88 ppb         25.545   5.32%
   QC value within limits for Cu 324.752  Recovery = 95.98%
Fe 238.204 Radial†       569.9      4840.8 µg/L         35.77      4840.8 ppb          35.77   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.82%
K 766.490 Radial†       6733.6      4786.2 µg/L         30.77      4786.2 ppb          30.77   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 95.72%
Mg 279.077 IEC†          525.8      4895.7 µg/L         36.85      4895.7 ppb          36.85   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           141584.1      490.73 µg/L        16.295      490.73 ppb         16.295   3.32%
   QC value within limits for Mn 257.610  Recovery = 98.15%
Mo 202.031†             4463.2      476.50 µg/L        49.601      476.50 ppb         49.601  10.41%
   QC value within limits for Mo 202.031  Recovery = 95.30%
Na 589.592 Radial†     28989.9      9543.6 µg/L        102.24      9543.6 ppb         102.24   1.07%
   QC value within limits for Na 589.592 Radial  Recovery = 95.44%
Ni 231.604†             8904.3      486.32 µg/L        27.004      486.32 ppb         27.004   5.55%
   QC value within limits for Ni 231.604  Recovery = 97.26%
P 214.914†              1121.4      2361.7 µg/L        219.74      2361.7 ppb         219.74   9.30%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1804.1      481.51 µg/L        40.435      481.51 ppb         40.435   8.40%
   QC value within limits for Pb 220.353  Recovery = 96.30%
S 181.975 Axial†         215.6      944.76 µg/L        67.630      944.76 ppb         67.630   7.16%
   QC value within limits for S 181.975 Axial  Recovery = 94.48%
Sb 206.836†              477.8      472.20 µg/L        41.713      472.20 ppb         41.713   8.83%
   QC value within limits for Sb 206.836  Recovery = 94.44%
Se 196.026†              315.2      488.01 µg/L        43.651      488.01 ppb         43.651   8.94%
   QC value within limits for Se 196.026  Recovery = 97.60%
SiO2†                  23792.0      5123.7 µg/L        237.37      5123.7 ppb         237.37   4.63%
   QC value within limits for SiO2  Recovery = 95.82%
Si 251.611†            29138.9      2395.4 µg/L        107.92      2395.4 ppb         107.92   4.51%
   QC value within limits for Si 251.611  Recovery = 95.81%
Sn 189.927†             1034.7      475.92 µg/L        50.437      475.92 ppb         50.437  10.60%
   QC value within limits for Sn 189.927  Recovery = 95.18%
Sr 421.552†            45666.3      473.38 µg/L         6.879      473.38 ppb          6.879   1.45%
   QC value within limits for Sr 421.552  Recovery = 94.68%
Ti 334.940†           196961.2      473.47 µg/L        16.830      473.47 ppb         16.830   3.55%
   QC value within limits for Ti 334.940  Recovery = 94.69%
Tl 190.801†              348.0      491.40 µg/L        27.532      491.40 ppb         27.532   5.60%
   QC value within limits for Tl 190.801  Recovery = 98.28%
U 409.014†              5349.6      483.37 µg/L        29.770      483.37 ppb         29.770   6.16%
   QC value within limits for U 409.014  Recovery = 96.67%
V 292.402†             45106.3      486.57 µg/L        28.365      486.57 ppb         28.365   5.83%
   QC value within limits for V 292.402  Recovery = 97.31%
Zn 213.857†            19494.3      483.36 µg/L        27.567      483.36 ppb         27.567   5.70%
   QC value within limits for Zn 213.857  Recovery = 96.67%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:07:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56532.0	56532.0	104	%			18:08:03
1	Al 396.153Radial†	-15.4	-4.8	-3.5570	µg/L	-3.5570	ppb	18:08:03
1	Ca 317.933Radial†	184.3	-1.2	-1.1516	µg/L	-1.1516	ppb	18:08:24
1	Fe 238.204 Radial†	15.7	0.7	5.7821	µg/L	5.7821	ppb	18:08:24
1	K 766.490 Radial†	164.9	30.8	21.873	µg/L	21.873	ppb	18:08:03
1	Mg 279.077 IEC†	16.1	4.2	39.497	µg/L	39.497	ppb	18:08:24
1	Na 589.592 Radial†	629.4	65.8	21.647	µg/L	21.647	ppb	18:08:03
1	Sr 421.552†	25.1	-15.3	-0.1589	µg/L	-0.1589	ppb	18:08:03
1	Sc 361.383	1970116.9	1970116.9	103.16	%			18:09:26
1	Y 371.029	1351478.3	1351478.3	103.17	%			18:09:26
1	Ag 328.068†	-586.1	-3.7	-0.0267	µg/L	-0.0267	ppb	18:09:32
1	As 188.979†	0.4	-0.7	-1.4081	µg/L	-1.4081	ppb	18:09:52
1	B 249.677†	319.9	-21.4	-0.9375	µg/L	-0.9375	ppb	18:09:52
1	Ba 233.527†	-23.6	3.1	0.0818	µg/L	0.0818	ppb	18:09:52
1	Be 313.107†	-3504.0	43.7	0.0286	µg/L	0.0286	ppb	18:09:32
1	Cd 226.502†	-151.5	-4.7	-0.1322	µg/L	-0.1322	ppb	18:09:52
1	Co 228.616†	-11.0	-1.8	-0.0886	µg/L	-0.0886	ppb	18:09:52
1	Cr 267.716†	-63.6	-9.3	-0.2036	µg/L	-0.2036	ppb	18:09:32
1	Cu 324.752†	2393.3	-166.0	-1.1590	µg/L	-1.1590	ppb	18:09:32
1	Mn 257.610†	-254.5	-2.6	-0.0100	µg/L	-0.0100	ppb	18:09:52
1	Mo 202.031†	-8.7	-0.9	-0.0948	µg/L	-0.0948	ppb	18:09:52
1	Ni 231.604†	290.0	-21.0	-1.1506	µg/L	-1.1506	ppb	18:09:52
1	P 214.914†	32.8	4.2	9.1562	µg/L	9.1562	ppb	18:09:52
1	Pb 220.353†	95.7	-4.4	-1.1812	µg/L	-1.1812	ppb	18:09:52
1	S 181.975 Axial†	14.0	-1.2	-5.3162	µg/L	-5.3162	ppb	18:09:52
1	Sb 206.836†	31.3	3.4	3.3775	µg/L	3.3775	ppb	18:09:52
1	Se 196.026†	11.2	-4.9	-7.5535	µg/L	-7.5535	ppb	18:09:52
1	SiO2†	1234.7	-53.1	-11.434	µg/L	-11.434	ppb	18:09:32
1	Si 251.611†	295.0	-26.9	-2.2136	µg/L	-2.2136	ppb	18:09:52
1	Sn 189.927†	1.4	2.3	1.0452	µg/L	1.0452	ppb	18:09:52
1	Ti 334.940†	70.3	-48.0	-0.1186	µg/L	-0.1186	ppb	18:09:32
1	Tl 190.801†	-29.3	-4.1	-5.6836	µg/L	-5.6836	ppb	18:09:52
1	U 409.014†	-64.3	-8.7	-0.7862	µg/L	-0.7862	ppb	18:09:32
1	V 292.402†	-16.1	28.6	0.3039	µg/L	0.3039	ppb	18:09:32
1	Zn 213.857†	475.3	-14.8	-0.3645	µg/L	-0.3645	ppb	18:09:52
2	Sc RADIAL	55658.7	55658.7	102	%			18:08:29
2	Al 396.153Radial†	8.4	18.4	13.722	µg/L	13.722	ppb	18:08:29
2	Ca 317.933Radial†	182.4	-0.3	-0.2942	µg/L	-0.2942	ppb	18:08:50
2	Fe 238.204 Radial†	17.1	2.3	19.276	µg/L	19.276	ppb	18:08:50
2	K 766.490 Radial†	186.5	54.5	38.722	µg/L	38.722	ppb	18:08:29
2	Mg 279.077 IEC†	15.0	3.4	31.500	µg/L	31.500	ppb	18:08:50
2	Na 589.592 Radial†	680.0	124.9	41.106	µg/L	41.106	ppb	18:08:29
2	Sr 421.552†	30.6	-9.6	-0.0993	µg/L	-0.0993	ppb	18:08:29
2	Sc 361.383	2007038.7	2007038.7	105.09	%			18:09:58
2	Y 371.029	1377314.4	1377314.4	105.15	%			18:09:58
2	Ag 328.068†	-493.3	95.1	0.7576	µg/L	0.7576	ppb	18:10:04
2	As 188.979†	-1.7	-2.7	-5.3378	µg/L	-5.3378	ppb	18:10:25
2	B 249.677†	329.1	-18.3	-0.8077	µg/L	-0.8077	ppb	18:10:25
2	Ba 233.527†	-25.2	2.0	0.0533	µg/L	0.0533	ppb	18:10:25
2	Be 313.107†	-3351.2	251.6	0.1643	µg/L	0.1643	ppb	18:10:04
2	Cd 226.502†	-144.2	4.9	0.1335	µg/L	0.1335	ppb	18:10:25
2	Co 228.616†	-14.3	-4.7	-0.2334	µg/L	-0.2334	ppb	18:10:25
2	Cr 267.716†	-47.8	6.9	0.1524	µg/L	0.1524	ppb	18:10:04
2	Cu 324.752†	2466.3	-139.3	-0.9702	µg/L	-0.9702	ppb	18:10:04
2	Mn 257.610†	-245.5	10.5	0.0378	µg/L	0.0378	ppb	18:10:25
2	Mo 202.031†	-7.5	0.4	0.0445	µg/L	0.0445	ppb	18:10:25
2	Ni 231.604†	299.7	-17.0	-0.9313	µg/L	-0.9313	ppb	18:10:25
2	P 214.914†	31.3	2.2	4.7306	µg/L	4.7306	ppb	18:10:25
2	Pb 220.353†	108.5	6.1	1.6290	µg/L	1.6290	ppb	18:10:25

2	S 181.975 Axial†	16.7	1.1	4.8755 µg/L	4.8755 ppb	18:10:25
2	Sb 206.836†	20.8	-7.2	-7.0445 µg/L	-7.0445 ppb	18:10:25
2	Se 196.026†	16.5	-0.1	-0.1477 µg/L	-0.1477 ppb	18:10:25
2	SiO2†	1217.3	-91.6	-19.736 µg/L	-19.736 ppb	18:10:04
2	Si 251.611†	298.1	-29.3	-2.4046 µg/L	-2.4046 ppb	18:10:25
2	Sn 189.927†	0.2	1.0	0.4758 µg/L	0.4758 ppb	18:10:25
2	Ti 334.940†	145.5	22.4	0.0513 µg/L	0.0513 ppb	18:10:04
2	Tl 190.801†	-26.0	-0.5	-0.6548 µg/L	-0.6548 ppb	18:10:25
2	U 409.014†	-106.1	-47.3	-4.2862 µg/L	-4.2862 ppb	18:10:04
2	V 292.402†	-24.2	21.2	0.2243 µg/L	0.2243 ppb	18:10:04
2	Zn 213.857†	472.5	-25.9	-0.6440 µg/L	-0.6440 ppb	18:10:25
3	Sc RADIAL	55952.9	55952.9	103 %		18:08:56
3	Al 396.153Radial†	-23.9	-13.2	-9.8258 µg/L	-9.8258 ppb	18:08:56
3	Ca 317.933Radial†	192.5	8.6	8.1332 µg/L	8.1332 ppb	18:09:16
3	Fe 238.204 Radial†	17.2	2.3	19.451 µg/L	19.451 ppb	18:09:16
3	K 766.490 Radial†	199.1	65.8	46.778 µg/L	46.778 ppb	18:08:56
3	Mg 279.077 IEC†	13.0	1.4	13.321 µg/L	13.321 ppb	18:09:16
3	Na 589.592 Radial†	622.9	65.7	21.628 µg/L	21.628 ppb	18:08:56
3	Sr 421.552†	22.5	-17.6	-0.1825 µg/L	-0.1825 ppb	18:08:56
3	Sc 361.383	1969215.9	1969215.9	103.11 %		18:10:31
3	Y 371.029	1350905.5	1350905.5	103.13 %		18:10:31
3	Ag 328.068†	-575.5	6.4	0.0513 µg/L	0.0513 ppb	18:10:36
3	As 188.979†	-0.8	-1.9	-3.6705 µg/L	-3.6705 ppb	18:10:57
3	B 249.677†	315.0	-25.9	-1.1434 µg/L	-1.1434 ppb	18:10:57
3	Ba 233.527†	-24.5	2.2	0.0583 µg/L	0.0583 ppb	18:10:57
3	Be 313.107†	-3286.5	253.0	0.1652 µg/L	0.1652 ppb	18:10:36
3	Cd 226.502†	-133.6	12.5	0.3430 µg/L	0.3430 ppb	18:10:57
3	Co 228.616†	-14.1	-4.9	-0.2403 µg/L	-0.2403 ppb	18:10:57
3	Cr 267.716†	-66.1	-11.7	-0.2584 µg/L	-0.2584 ppb	18:10:36
3	Cu 324.752†	2477.5	-83.3	-0.5792 µg/L	-0.5792 ppb	18:10:36
3	Mn 257.610†	-225.9	25.1	0.0888 µg/L	0.0888 ppb	18:10:57
3	Mo 202.031†	-9.8	-2.0	-0.2112 µg/L	-0.2112 ppb	18:10:57
3	Ni 231.604†	298.6	-12.6	-0.6902 µg/L	-0.6902 ppb	18:10:57
3	P 214.914†	27.1	-1.4	-2.9216 µg/L	-2.9216 ppb	18:10:57
3	Pb 220.353†	95.5	-4.6	-1.2298 µg/L	-1.2298 ppb	18:10:57
3	S 181.975 Axial†	18.9	3.5	15.355 µg/L	15.355 ppb	18:10:57
3	Sb 206.836†	19.3	-8.3	-8.1417 µg/L	-8.1417 ppb	18:10:57
3	Se 196.026†	11.7	-4.5	-6.8172 µg/L	-6.8172 ppb	18:10:57
3	SiO2†	1221.9	-65.0	-13.993 µg/L	-13.993 ppb	18:10:36
3	Si 251.611†	305.8	-16.3	-1.3398 µg/L	-1.3398 ppb	18:10:57
3	Sn 189.927†	-1.0	-0.1	-0.0571 µg/L	-0.0571 ppb	18:10:57
3	Ti 334.940†	185.2	63.5	0.1517 µg/L	0.1517 ppb	18:10:36
3	Tl 190.801†	-28.1	-3.0	-4.1975 µg/L	-4.1975 ppb	18:10:57
3	U 409.014†	-9.8	44.1	3.9892 µg/L	3.9892 ppb	18:10:36
3	V 292.402†	-52.5	-6.8	-0.0677 µg/L	-0.0677 ppb	18:10:36
3	Zn 213.857†	470.6	-19.2	-0.4765 µg/L	-0.4765 ppb	18:10:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1982123.8	103.78	%	1.130				1.09%
Sc RADIAL	56047.9	103	%	0.8				0.79%
Y 371.029	1359899.4	103.82	%	1.152				1.11%
Ag 328.068†	32.6	0.2608	µg/L	0.43206	0.2608	ppb	0.43206	165.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.1130	µg/L	12.19532	0.1130	ppb	12.19532	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-3.4721	µg/L	1.97235	-3.4721	ppb	1.97235	56.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21.9	-0.9628	µg/L	0.16927	-0.9628	ppb	0.16927	17.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.5	0.0645	µg/L	0.01519	0.0645	ppb	0.01519	23.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.7	0.1193	µg/L	0.07861	0.1193	ppb	0.07861	65.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.2291	µg/L	5.13097	2.2291	ppb	5.13097	230.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.3	0.1147	µg/L	0.23817	0.1147	ppb	0.23817	207.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.8	-0.1875	µg/L	0.08565	-0.1875	ppb	0.08565	45.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.7     -0.1032 µg/L       0.22302     -0.1032 ppb        0.22302 216.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -129.5     -0.9028 µg/L       0.29572     -0.9028 ppb        0.29572  32.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.8      14.837 µg/L        7.8419      14.837 ppb         7.8419  52.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          50.4      35.791 µg/L       12.7089      35.791 ppb        12.7089  35.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.0      28.106 µg/L       13.4141      28.106 ppb        13.4141  47.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.0       0.0389 µg/L       0.04940       0.0389 ppb        0.04940 127.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.8      -0.0872 µg/L       0.12800      -0.0872 ppb        0.12800 146.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         85.4      28.127 µg/L       11.2402      28.127 ppb        11.2402  39.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -16.9      -0.9240 µg/L       0.23026      -0.9240 ppb        0.23026  24.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.7       3.6551 µg/L       6.11031       3.6551 ppb        6.11031 167.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.0      -0.2607 µg/L       1.63670      -0.2607 ppb        1.63670 627.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.1       4.9715 µg/L      10.33607       4.9715 ppb       10.33607 207.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.0      -3.9362 µg/L       6.35757      -3.9362 ppb        6.35757 161.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.2      -4.8394 µg/L       4.07986      -4.8394 ppb        4.07986  84.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -69.9     -15.054 µg/L        4.2514     -15.054 ppb         4.2514  28.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -24.2      -1.9860 µg/L       0.56769      -1.9860 ppb        0.56769  28.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.1       0.4880 µg/L       0.55125       0.4880 ppb        0.55125 112.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.2      -0.1469 µg/L       0.04288      -0.1469 ppb        0.04288  29.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.6       0.0281 µg/L       0.13664       0.0281 ppb        0.13664 485.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.5      -3.5120 µg/L       2.58356      -3.5120 ppb        2.58356  73.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -4.0      -0.3611 µg/L       4.15405      -0.3611 ppb        4.15405 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 14.4       0.1535 µg/L       0.19568       0.1535 ppb        0.19568 127.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.0      -0.4950 µg/L       0.14064      -0.4950 ppb        0.14064  28.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:32:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55441.9	55441.9	102	%			18:33:25
1	Al 396.153Radial†	6917.9	6819.8	5072.2	µg/L	5072.2	ppb	18:33:25
1	Ca 317.933Radial†	5691.9	5423.7	5106.8	µg/L	5106.8	ppb	18:33:45
1	Fe 238.204 Radial†	625.4	601.1	5105.5	µg/L	5105.5	ppb	18:33:45
1	K 766.490 Radial†	7360.4	7116.9	5058.6	µg/L	5058.6	ppb	18:33:25
1	Mg 279.077 IEC†	579.1	558.7	5203.2	µg/L	5203.2	ppb	18:33:45
1	Na 589.592 Radial†	31674.9	30637.4	10086	µg/L	10086	ppb	18:33:25
1	Sr 421.552†	48916.5	48111.6	498.73	µg/L	498.73	ppb	18:33:25
1	Sc 361.383	1949198.7	1949198.7	102.06	%			18:34:49
1	Y 371.029	1332613.7	1332613.7	101.73	%			18:34:49
1	Ag 328.068†	63737.9	63015.4	503.72	µg/L	503.72	ppb	18:34:54
1	As 188.979†	273.4	266.7	520.31	µg/L	520.31	ppb	18:35:15
1	B 249.677†	12085.6	11510.1	501.18	µg/L	501.18	ppb	18:34:54
1	Ba 233.527†	19929.9	19553.5	510.07	µg/L	510.07	ppb	18:34:54
1	Be 313.107†	791453.2	778912.4	508.48	µg/L	508.48	ppb	18:34:49
1	Cd 226.502†	18764.5	18527.7	511.09	µg/L	511.09	ppb	18:34:54
1	Co 228.616†	10683.8	10476.9	515.03	µg/L	515.03	ppb	18:34:54
1	Cr 267.716†	23886.3	23456.4	516.27	µg/L	516.27	ppb	18:34:54
1	Cu 324.752†	77115.4	73072.1	511.13	µg/L	511.13	ppb	18:34:54
1	Mn 257.610†	152507.4	149672.0	518.76	µg/L	518.76	ppb	18:34:49
1	Mo 202.031†	5014.5	4920.8	525.34	µg/L	525.34	ppb	18:35:15
1	Ni 231.604†	9902.4	9400.2	513.41	µg/L	513.41	ppb	18:34:54
1	P 214.914†	1289.3	1235.7	2604.5	µg/L	2604.5	ppb	18:35:15
1	Pb 220.353†	2098.8	1959.2	522.95	µg/L	522.95	ppb	18:35:15
1	S 181.975 Axial†	252.9	233.0	1020.8	µg/L	1020.8	ppb	18:35:15
1	Sb 206.836†	562.5	524.2	518.28	µg/L	518.28	ppb	18:35:15
1	Se 196.026†	361.5	338.4	523.78	µg/L	523.78	ppb	18:35:15
1	SiO2†	26807.5	25016.2	5387.4	µg/L	5387.4	ppb	18:34:54
1	Si 251.611†	31683.4	30730.8	2526.2	µg/L	2526.2	ppb	18:34:54
1	Sn 189.927†	1171.2	1148.4	528.25	µg/L	528.25	ppb	18:35:15
1	Ti 334.940†	213415.9	208990.5	502.38	µg/L	502.38	ppb	18:34:49
1	Tl 190.801†	344.1	361.4	510.53	µg/L	510.53	ppb	18:35:15
1	U 409.014†	5808.1	5744.4	519.06	µg/L	519.06	ppb	18:34:54
1	V 292.402†	48900.4	47957.2	517.47	µg/L	517.47	ppb	18:34:54
1	Zn 213.857†	21532.1	20621.7	511.32	µg/L	511.32	ppb	18:34:54
2	Sc RADIAL	56230.3	56230.3	103	%			18:33:51
2	Al 396.153Radial†	6941.0	6746.8	5018.0	µg/L	5018.0	ppb	18:33:51
2	Ca 317.933Radial†	5664.7	5318.7	5007.9	µg/L	5007.9	ppb	18:34:11
2	Fe 238.204 Radial†	623.7	590.8	5018.6	µg/L	5018.6	ppb	18:34:11
2	K 766.490 Radial†	7345.4	7000.7	4976.0	µg/L	4976.0	ppb	18:33:51
2	Mg 279.077 IEC†	581.5	553.1	5150.5	µg/L	5150.5	ppb	18:34:11
2	Na 589.592 Radial†	31761.7	30284.4	9969.7	µg/L	9969.7	ppb	18:33:51
2	Sr 421.552†	49439.7	47944.2	497.00	µg/L	497.00	ppb	18:33:51
2	Sc 361.383	1968654.4	1968654.4	103.08	%			18:35:22
2	Y 371.029	1345275.7	1345275.7	102.70	%			18:35:22
2	Ag 328.068†	64265.9	62910.5	502.88	µg/L	502.88	ppb	18:35:28
2	As 188.979†	279.7	270.2	527.15	µg/L	527.15	ppb	18:35:48
2	B 249.677†	12199.0	11503.1	500.92	µg/L	500.92	ppb	18:35:28
2	Ba 233.527†	20118.0	19543.0	509.79	µg/L	509.79	ppb	18:35:28
2	Be 313.107†	797156.7	776781.8	507.09	µg/L	507.09	ppb	18:35:22
2	Cd 226.502†	19012.6	18586.7	512.73	µg/L	512.73	ppb	18:35:28
2	Co 228.616†	10795.4	10481.7	515.26	µg/L	515.26	ppb	18:35:28
2	Cr 267.716†	24075.5	23408.6	515.22	µg/L	515.22	ppb	18:35:28
2	Cu 324.752†	77661.1	72854.9	509.61	µg/L	509.61	ppb	18:35:28
2	Mn 257.610†	153284.1	148948.8	516.25	µg/L	516.25	ppb	18:35:22
2	Mo 202.031†	4982.7	4841.3	516.86	µg/L	516.86	ppb	18:35:48
2	Ni 231.604†	10038.8	9436.7	515.40	µg/L	515.40	ppb	18:35:28
2	P 214.914†	1275.2	1209.5	2548.3	µg/L	2548.3	ppb	18:35:48
2	Pb 220.353†	2089.9	1930.2	515.20	µg/L	515.20	ppb	18:35:48

2	S 181.975 Axial†	253.9	231.5	1014.3 µg/L	1014.3 ppb	18:35:48
2	Sb 206.836†	566.6	522.7	516.68 µg/L	516.68 ppb	18:35:48
2	Se 196.026†	362.7	336.1	520.05 µg/L	520.05 ppb	18:35:48
2	SiO2†	27183.9	25121.8	5410.1 µg/L	5410.1 ppb	18:35:28
2	Si 251.611†	31985.4	30716.9	2525.1 µg/L	2525.1 ppb	18:35:28
2	Sn 189.927†	1162.1	1128.3	518.97 µg/L	518.97 ppb	18:35:48
2	Ti 334.940†	214911.2	208374.5	500.90 µg/L	500.90 ppb	18:35:22
2	Tl 190.801†	347.2	361.1	510.11 µg/L	510.11 ppb	18:35:48
2	U 409.014†	5833.8	5713.1	516.25 µg/L	516.25 ppb	18:35:28
2	V 292.402†	49382.2	47951.1	517.33 µg/L	517.33 ppb	18:35:28
2	Zn 213.857†	21765.8	20640.0	511.77 µg/L	511.77 ppb	18:35:28
3	Sc RADIAL	56202.6	56202.6	103 %		18:34:17
3	Al 396.153Radial†	7002.2	6809.5	5066.3 µg/L	5066.3 ppb	18:34:17
3	Ca 317.933Radial†	5645.9	5303.2	4993.3 µg/L	4993.3 ppb	18:34:37
3	Fe 238.204 Radial†	622.2	589.7	5007.8 µg/L	5007.8 ppb	18:34:37
3	K 766.490 Radial†	7390.9	7048.4	5010.0 µg/L	5010.0 ppb	18:34:17
3	Mg 279.077 IEC†	576.6	548.6	5107.8 µg/L	5107.8 ppb	18:34:37
3	Na 589.592 Radial†	31993.1	30524.4	10049 µg/L	10049 ppb	18:34:17
3	Sr 421.552†	49671.5	48193.0	499.58 µg/L	499.58 ppb	18:34:17
3	Sc 361.383	1949854.5	1949854.5	102.10 %		18:35:55
3	Y 371.029	1332440.6	1332440.6	101.72 %		18:35:55
3	Ag 328.068†	60532.1	59854.4	478.35 µg/L	478.35 ppb	18:36:01
3	As 188.979†	230.7	224.8	438.55 µg/L	438.55 ppb	18:36:21
3	B 249.677†	11478.3	10911.2	474.98 µg/L	474.98 ppb	18:36:01
3	Ba 233.527†	18573.8	18218.6	475.23 µg/L	475.23 ppb	18:36:01
3	Be 313.107†	747182.5	735289.5	480.01 µg/L	480.01 ppb	18:35:55
3	Cd 226.502†	17437.8	17222.1	475.04 µg/L	475.04 ppb	18:36:01
3	Co 228.616†	9818.6	9625.9	473.13 µg/L	473.13 ppb	18:36:01
3	Cr 267.716†	21497.4	21108.6	464.60 µg/L	464.60 ppb	18:36:01
3	Cu 324.752†	71198.9	67251.7	470.46 µg/L	470.46 ppb	18:36:01
3	Mn 257.610†	144456.6	141736.2	491.27 µg/L	491.27 ppb	18:35:55
3	Mo 202.031†	4165.5	4087.6	436.42 µg/L	436.42 ppb	18:36:21
3	Ni 231.604†	9187.6	8696.9	475.00 µg/L	475.00 ppb	18:36:01
3	P 214.914†	1084.2	1034.3	2175.1 µg/L	2175.1 ppb	18:36:21
3	Pb 220.353†	1818.3	1683.8	449.34 µg/L	449.34 ppb	18:36:21
3	S 181.975 Axial†	223.4	204.0	893.71 µg/L	893.71 ppb	18:36:21
3	Sb 206.836†	482.5	445.7	440.11 µg/L	440.11 ppb	18:36:21
3	Se 196.026†	316.7	294.4	456.49 µg/L	456.49 ppb	18:36:21
3	SiO2†	25304.0	23534.7	5068.3 µg/L	5068.3 ppb	18:36:01
3	Si 251.611†	29685.2	28763.1	2364.5 µg/L	2364.5 ppb	18:36:01
3	Sn 189.927†	961.6	942.7	433.62 µg/L	433.62 ppb	18:36:21
3	Ti 334.940†	200490.3	196259.8	471.76 µg/L	471.76 ppb	18:35:55
3	Tl 190.801†	316.1	333.9	471.83 µg/L	471.83 ppb	18:36:21
3	U 409.014†	5179.3	5126.6	463.15 µg/L	463.15 ppb	18:36:01
3	V 292.402†	44764.1	43889.7	473.25 µg/L	473.25 ppb	18:36:01
3	Zn 213.857†	19900.8	19016.9	471.49 µg/L	471.49 ppb	18:36:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1955902.5	102.41	%	0.578				0.56%
Sc RADIAL	55958.3	103	%	0.8				0.80%
Y 371.029	1336776.6	102.05	%	0.562				0.55%
Ag 328.068†	61926.8	494.98	µg/L	14.414	494.98	ppb	14.414	2.91%
QC value within limits for Ag 328.068 Recovery = 99.00%								
Al 396.153Radial†	6792.0	5052.2	µg/L	29.77	5052.2	ppb	29.77	0.59%
QC value within limits for Al 396.153Radial Recovery = 101.04%								
As 188.979†	253.9	495.34	µg/L	49.299	495.34	ppb	49.299	9.95%
QC value within limits for As 188.979 Recovery = 99.07%								
B 249.677†	11308.1	492.36	µg/L	15.053	492.36	ppb	15.053	3.06%
QC value within limits for B 249.677 Recovery = 98.47%								
Ba 233.527†	19105.0	498.36	µg/L	20.034	498.36	ppb	20.034	4.02%
QC value within limits for Ba 233.527 Recovery = 99.67%								
Be 313.107†	763661.2	498.53	µg/L	16.055	498.53	ppb	16.055	3.22%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	5348.5	5036.0	µg/L	61.72	5036.0	ppb	61.72	1.23%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	18112.2	499.62	µg/L	21.301	499.62	ppb	21.301	4.26%
QC value within limits for Cd 226.502 Recovery = 99.92%								
Co 228.616†	10194.8	501.14	µg/L	24.256	501.14	ppb	24.256	4.84%

QC value within limits for Co 228.616 Recovery = 100.23%

Cr 267.716†	22657.9	498.70 µg/L	29.533	498.70 ppb	29.533	5.92%
QC value within limits for Cr 267.716 Recovery = 99.74%						
Cu 324.752†	71059.6	497.07 µg/L	23.052	497.07 ppb	23.052	4.64%
QC value within limits for Cu 324.752 Recovery = 99.41%						
Fe 238.204 Radial†	593.9	5044.0 µg/L	53.59	5044.0 ppb	53.59	1.06%
QC value within limits for Fe 238.204 Radial Recovery = 100.88%						
K 766.490 Radial†	7055.3	5014.9 µg/L	41.51	5014.9 ppb	41.51	0.83%
QC value within limits for K 766.490 Radial Recovery = 100.30%						
Mg 279.077 IEC†	553.5	5153.8 µg/L	47.82	5153.8 ppb	47.82	0.93%
QC value within limits for Mg 279.077 IEC Recovery = 103.08%						
Mn 257.610†	146785.7	508.76 µg/L	15.198	508.76 ppb	15.198	2.99%
QC value within limits for Mn 257.610 Recovery = 101.75%						
Mo 202.031†	4616.6	492.88 µg/L	49.074	492.88 ppb	49.074	9.96%
QC value within limits for Mo 202.031 Recovery = 98.58%						
Na 589.592 Radial†	30482.1	10035 µg/L	59.3	10035 ppb	59.3	0.59%
QC value within limits for Na 589.592 Radial Recovery = 100.35%						
Ni 231.604†	9177.9	501.27 µg/L	22.771	501.27 ppb	22.771	4.54%
QC value within limits for Ni 231.604 Recovery = 100.25%						
P 214.914†	1159.8	2442.6 µg/L	233.37	2442.6 ppb	233.37	9.55%
QC value within limits for P 214.914 Recovery = 97.71%						
Pb 220.353†	1857.7	495.83 µg/L	40.446	495.83 ppb	40.446	8.16%
QC value within limits for Pb 220.353 Recovery = 99.17%						
S 181.975 Axial†	222.8	976.27 µg/L	71.572	976.27 ppb	71.572	7.33%
QC value within limits for S 181.975 Axial Recovery = 97.63%						
Sb 206.836†	497.5	491.69 µg/L	44.681	491.69 ppb	44.681	9.09%
QC value within limits for Sb 206.836 Recovery = 98.34%						
Se 196.026†	322.9	500.11 µg/L	37.818	500.11 ppb	37.818	7.56%
QC value within limits for Se 196.026 Recovery = 100.02%						
SiO2†	24557.5	5288.6 µg/L	191.11	5288.6 ppb	191.11	3.61%
QC value within limits for SiO2 Recovery = 98.90%						
Si 251.611†	30070.3	2471.9 µg/L	93.06	2471.9 ppb	93.06	3.76%
QC value within limits for Si 251.611 Recovery = 98.88%						
Sn 189.927†	1073.1	493.61 µg/L	52.162	493.61 ppb	52.162	10.57%
QC value within limits for Sn 189.927 Recovery = 98.72%						
Sr 421.552†	48082.9	498.44 µg/L	1.315	498.44 ppb	1.315	0.26%
QC value within limits for Sr 421.552 Recovery = 99.69%						
Ti 334.940†	204541.6	491.68 µg/L	17.266	491.68 ppb	17.266	3.51%
QC value within limits for Ti 334.940 Recovery = 98.34%						
Tl 190.801†	352.2	497.49 µg/L	22.222	497.49 ppb	22.222	4.47%
QC value within limits for Tl 190.801 Recovery = 99.50%						
U 409.014†	5528.1	499.49 µg/L	31.500	499.49 ppb	31.500	6.31%
QC value within limits for U 409.014 Recovery = 99.90%						
V 292.402†	46599.3	502.68 µg/L	25.490	502.68 ppb	25.490	5.07%
QC value within limits for V 292.402 Recovery = 100.54%						
Zn 213.857†	20092.9	498.19 µg/L	23.129	498.19 ppb	23.129	4.64%
QC value within limits for Zn 213.857 Recovery = 99.64%						

All analyte(s) passed QC.

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:36:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56577.3	56577.3	104	%			18:37:06
1	Al 396.153Radial†	-31.7	-20.5	-15.254	µg/L	-15.254	ppb	18:37:06
1	Ca 317.933Radial†	178.1	-7.3	-6.9019	µg/L	-6.9019	ppb	18:37:27
1	Fe 238.204 Radial†	15.3	0.2	1.9399	µg/L	1.9399	ppb	18:37:27
1	K 766.490 Radial†	151.5	17.7	12.611	µg/L	12.611	ppb	18:37:06
1	Mg 279.077 IEC†	8.3	-3.3	-30.287	µg/L	-30.287	ppb	18:37:27
1	Na 589.592 Radial†	633.9	69.6	22.897	µg/L	22.897	ppb	18:37:06
1	Sr 421.552†	44.5	3.3	0.0346	µg/L	0.0346	ppb	18:37:06
1	Sc 361.383	1997175.6	1997175.6	104.57	%			18:38:28
1	Y 371.029	1371834.1	1371834.1	104.73	%			18:38:28
1	Ag 328.068†	-518.3	68.9	0.5460	µg/L	0.5460	ppb	18:38:34
1	As 188.979†	-0.7	-1.8	-3.4701	µg/L	-3.4701	ppb	18:38:54
1	B 249.677†	333.0	-13.0	-0.5696	µg/L	-0.5696	ppb	18:38:54
1	Ba 233.527†	-20.3	6.6	0.1716	µg/L	0.1716	ppb	18:38:54
1	Be 313.107†	-3492.3	100.9	0.0658	µg/L	0.0658	ppb	18:38:34
1	Cd 226.502†	-135.3	12.8	0.3518	µg/L	0.3518	ppb	18:38:54
1	Co 228.616†	-16.0	-6.4	-0.3169	µg/L	-0.3169	ppb	18:38:54
1	Cr 267.716†	-59.9	-4.9	-0.1071	µg/L	-0.1071	ppb	18:38:34
1	Cu 324.752†	2440.0	-152.8	-1.0669	µg/L	-1.0669	ppb	18:38:34
1	Mn 257.610†	-253.9	1.3	0.0061	µg/L	0.0061	ppb	18:38:54
1	Mo 202.031†	-12.2	-4.2	-0.4445	µg/L	-0.4445	ppb	18:38:54
1	Ni 231.604†	302.8	-12.6	-0.6910	µg/L	-0.6910	ppb	18:38:54
1	P 214.914†	25.9	-2.9	-6.0063	µg/L	-6.0063	ppb	18:38:54
1	Pb 220.353†	96.6	-4.8	-1.2749	µg/L	-1.2749	ppb	18:38:54
1	S 181.975 Axial†	16.8	1.3	5.5555	µg/L	5.5555	ppb	18:38:54
1	Sb 206.836†	26.1	-2.0	-1.9561	µg/L	-1.9561	ppb	18:38:54
1	Se 196.026†	17.3	0.7	1.1140	µg/L	1.1140	ppb	18:38:54
1	SiO2†	1249.6	-55.1	-11.856	µg/L	-11.856	ppb	18:38:34
1	Si 251.611†	302.7	-23.4	-1.9253	µg/L	-1.9253	ppb	18:38:54
1	Sn 189.927†	1.0	1.9	0.8554	µg/L	0.8554	ppb	18:38:54
1	Ti 334.940†	152.6	29.8	0.0741	µg/L	0.0741	ppb	18:38:34
1	Tl 190.801†	-22.3	3.0	4.1717	µg/L	4.1717	ppb	18:38:54
1	U 409.014†	-116.8	-58.1	-5.2596	µg/L	-5.2596	ppb	18:38:34
1	V 292.402†	-54.7	-8.1	-0.0953	µg/L	-0.0953	ppb	18:38:34
1	Zn 213.857†	472.6	-23.6	-0.5840	µg/L	-0.5840	ppb	18:38:54
2	Sc RADIAL	55383.9	55383.9	101	%			18:37:32
2	Al 396.153Radial†	-17.3	-7.0	-5.1964	µg/L	-5.1964	ppb	18:37:32
2	Ca 317.933Radial†	188.8	6.9	6.4546	µg/L	6.4546	ppb	18:37:52
2	Fe 238.204 Radial†	14.1	-0.6	-4.8767	µg/L	-4.8767	ppb	18:37:52
2	K 766.490 Radial†	126.5	-3.8	-2.6779	µg/L	-2.6779	ppb	18:37:32
2	Mg 279.077 IEC†	12.6	1.1	10.292	µg/L	10.292	ppb	18:37:52
2	Na 589.592 Radial†	623.8	72.8	23.955	µg/L	23.955	ppb	18:37:32
2	Sr 421.552†	31.5	-8.5	-0.0883	µg/L	-0.0883	ppb	18:37:32
2	Sc 361.383	2013350.1	2013350.1	105.42	%			18:39:00
2	Y 371.029	1381993.5	1381993.5	105.50	%			18:39:00
2	Ag 328.068†	-537.9	54.3	0.4351	µg/L	0.4351	ppb	18:39:06
2	As 188.979†	2.2	1.0	1.8812	µg/L	1.8812	ppb	18:39:26
2	B 249.677†	318.3	-29.5	-1.2874	µg/L	-1.2874	ppb	18:39:26
2	Ba 233.527†	-25.9	1.4	0.0380	µg/L	0.0380	ppb	18:39:26
2	Be 313.107†	-3437.1	180.0	0.1176	µg/L	0.1176	ppb	18:39:06
2	Cd 226.502†	-146.1	3.5	0.0976	µg/L	0.0976	ppb	18:39:26
2	Co 228.616†	-6.0	3.1	0.1553	µg/L	0.1553	ppb	18:39:26
2	Cr 267.716†	-56.6	-1.3	-0.0276	µg/L	-0.0276	ppb	18:39:06
2	Cu 324.752†	2488.4	-125.7	-0.8785	µg/L	-0.8785	ppb	18:39:06
2	Mn 257.610†	-244.3	12.4	0.0419	µg/L	0.0419	ppb	18:39:26
2	Mo 202.031†	-1.5	6.1	0.6511	µg/L	0.6511	ppb	18:39:26
2	Ni 231.604†	301.7	-16.0	-0.8752	µg/L	-0.8752	ppb	18:39:26
2	P 214.914†	26.3	-2.6	-5.5596	µg/L	-5.5596	ppb	18:39:26
2	Pb 220.353†	100.7	-1.7	-0.4405	µg/L	-0.4405	ppb	18:39:26

2	S 181.975 Axial†	19.5	3.7	16.100 µg/L	16.100 ppb		18:39:26
2	Sb 206.836†	25.7	-2.6	-2.5687 µg/L	-2.5687 ppb		18:39:26
2	Se 196.026†	18.4	1.6	2.4087 µg/L	2.4087 ppb		18:39:26
2	SiO2†	1290.6	-25.8	-5.5589 µg/L	-5.5589 ppb		18:39:06
2	Si 251.611†	298.6	-29.7	-2.4388 µg/L	-2.4388 ppb		18:39:26
2	Sn 189.927†	1.6	2.4	1.0965 µg/L	1.0965 ppb		18:39:26
2	Ti 334.940†	143.9	20.4	0.0483 µg/L	0.0483 ppb		18:39:06
2	Tl 190.801†	-19.4	5.9	8.2322 µg/L	8.2322 ppb		18:39:26
2	U 409.014†	-143.2	-82.3	-7.4471 µg/L	-7.4471 ppb		18:39:06
2	V 292.402†	19.9	63.0	0.6686 µg/L	0.6686 ppb		18:39:06
2	Zn 213.857†	478.6	-21.5	-0.5326 µg/L	-0.5326 ppb		18:39:26
3	Sc RADIAL	56905.3	56905.3	104 %			18:37:58
3	Al 396.153Radial†	-1.7	8.5	6.3212 µg/L	6.3212 ppb		18:37:58
3	Ca 317.933Radial†	181.4	-5.2	-4.9145 µg/L	-4.9145 ppb		18:38:18
3	Fe 238.204 Radial†	13.2	-1.8	-15.607 µg/L	-15.607 ppb		18:38:18
3	K 766.490 Radial†	186.8	50.7	36.048 µg/L	36.048 ppb		18:37:58
3	Mg 279.077 IEC†	11.5	-0.3	-2.5813 µg/L	-2.5813 ppb		18:38:18
3	Na 589.592 Radial†	645.3	77.0	25.346 µg/L	25.346 ppb		18:37:58
3	Sr 421.552†	17.2	-23.1	-0.2393 µg/L	-0.2393 ppb		18:37:58
3	Sc 361.383	1996384.7	1996384.7	104.53 %			18:39:32
3	Y 371.029	1369220.3	1369220.3	104.53 %			18:39:32
3	Ag 328.068†	-541.0	47.0	0.3741 µg/L	0.3741 ppb		18:39:38
3	As 188.979†	-1.0	-2.1	-4.0939 µg/L	-4.0939 ppb		18:39:59
3	B 249.677†	333.0	-12.9	-0.5555 µg/L	-0.5555 ppb		18:39:59
3	Ba 233.527†	-17.3	9.5	0.2478 µg/L	0.2478 ppb		18:39:59
3	Be 313.107†	-3308.4	275.5	0.1799 µg/L	0.1799 ppb		18:39:38
3	Cd 226.502†	-144.0	4.4	0.1228 µg/L	0.1228 ppb		18:39:59
3	Co 228.616†	-11.0	-1.7	-0.0836 µg/L	-0.0836 ppb		18:39:59
3	Cr 267.716†	-55.8	-1.0	-0.0220 µg/L	-0.0220 ppb		18:39:38
3	Cu 324.752†	2440.9	-151.0	-1.0572 µg/L	-1.0572 ppb		18:39:38
3	Mn 257.610†	-222.1	31.7	0.1077 µg/L	0.1077 ppb		18:39:59
3	Mo 202.031†	-3.2	4.5	0.4771 µg/L	0.4771 ppb		18:39:59
3	Ni 231.604†	303.2	-12.1	-0.6637 µg/L	-0.6637 ppb		18:39:59
3	P 214.914†	30.5	1.6	3.5034 µg/L	3.5034 ppb		18:39:59
3	Pb 220.353†	89.5	-11.6	-3.0790 µg/L	-3.0790 ppb		18:39:59
3	S 181.975 Axial†	17.8	2.2	9.6185 µg/L	9.6185 ppb		18:39:59
3	Sb 206.836†	27.7	-0.5	-0.4700 µg/L	-0.4700 ppb		18:39:59
3	Se 196.026†	15.0	-1.5	-2.2806 µg/L	-2.2806 ppb		18:39:59
3	SiO2†	1247.6	-56.5	-12.175 µg/L	-12.175 ppb		18:39:38
3	Si 251.611†	300.0	-25.8	-2.1244 µg/L	-2.1244 ppb		18:39:59
3	Sn 189.927†	3.2	3.9	1.8070 µg/L	1.8070 ppb		18:39:59
3	Ti 334.940†	156.9	34.0	0.0818 µg/L	0.0818 ppb		18:39:38
3	Tl 190.801†	-23.6	1.7	2.3286 µg/L	2.3286 ppb		18:39:59
3	U 409.014†	-48.9	6.8	0.6203 µg/L	0.6203 ppb		18:39:38
3	V 292.402†	-14.3	30.6	0.3283 µg/L	0.3283 ppb		18:39:38
3	Zn 213.857†	478.7	-17.6	-0.4352 µg/L	-0.4352 ppb		18:39:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2002303.4	104.84	%	0.501				0.48%
Sc RADIAL	56288.9	103	%	1.5				1.42%
Y 371.029	1374349.3	104.92	%	0.515				0.49%
Ag 328.068†	56.7	0.4517	µg/L	0.08717	0.4517	ppb	0.08717	19.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-4.7097	µg/L	10.79578	-4.7097	ppb	10.79578	229.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.8943	µg/L	3.28450	-1.8943	ppb	3.28450	173.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-18.5	-0.8042	µg/L	0.41854	-0.8042	ppb	0.41854	52.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.8	0.1525	µg/L	0.10621	0.1525	ppb	0.10621	69.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.5	0.1211	µg/L	0.05710	0.1211	ppb	0.05710	47.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-1.7872	µg/L	7.20651	-1.7872	ppb	7.20651	403.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1907	µg/L	0.14008	0.1907	ppb	0.14008	73.44%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0817	µg/L	0.23614	-0.0817	ppb	0.23614	288.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.4     -0.0522 µg/L       0.04756     -0.0522 ppb        0.04756  91.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -143.2     -1.0009 µg/L       0.10608     -1.0009 ppb        0.10608  10.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.7     -6.1811 µg/L       8.84567     -6.1811 ppb        8.84567 143.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          21.6      15.327 µg/L      19.5055      15.327 ppb       19.5055 127.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.5253 µg/L      20.73608     -7.5253 ppb       20.73608 275.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.1      0.0519 µg/L       0.05154      0.0519 ppb        0.05154  99.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.1      0.2279 µg/L       0.58875      0.2279 ppb        0.58875 258.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         73.1      24.066 µg/L        1.2283      24.066 ppb         1.2283   5.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -13.6     -0.7433 µg/L       0.11501     -0.7433 ppb        0.11501  15.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.3     -2.6875 µg/L       5.36613     -2.6875 ppb        5.36613 199.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.0     -1.5981 µg/L       1.34866     -1.5981 ppb        1.34866  84.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.4      10.425 µg/L        5.3180      10.425 ppb         5.3180  51.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.7     -1.6649 µg/L       1.07918     -1.6649 ppb        1.07918  64.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.4141 µg/L       2.42173      0.4141 ppb        2.42173 584.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -45.8     -9.8634 µg/L       3.73124     -9.8634 ppb        3.73124  37.83%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -26.3     -2.1628 µg/L       0.25893     -2.1628 ppb        0.25893  11.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      1.2530 µg/L       0.49474      1.2530 ppb        0.49474  39.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.4     -0.0977 µg/L       0.13720     -0.0977 ppb        0.13720 140.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.1      0.0681 µg/L       0.01753      0.0681 ppb        0.01753  25.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.5      4.9108 µg/L       3.02042      4.9108 ppb        3.02042  61.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -44.5     -4.0288 µg/L       4.17218     -4.0288 ppb        4.17218 103.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.5      0.3005 µg/L       0.38270      0.3005 ppb        0.38270 127.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.9     -0.5173 µg/L       0.07558     -0.5173 ppb        0.07558  14.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55671.1	55671.1	102	%			19:13:03
1	Al 396.153Radial†	7032.4	6904.0	5134.7	µg/L	5134.7	ppb	19:13:03
1	Ca 317.933Radial†	5628.4	5338.4	5026.4	µg/L	5026.4	ppb	19:13:23
1	Fe 238.204 Radial†	628.5	601.6	5110.3	µg/L	5110.3	ppb	19:13:23
1	K 766.490 Radial†	7390.7	7116.7	5058.5	µg/L	5058.5	ppb	19:13:03
1	Mg 279.077 IEC†	581.4	558.7	5202.9	µg/L	5202.9	ppb	19:13:23
1	Na 589.592 Radial†	32145.4	30970.2	10196	µg/L	10196	ppb	19:13:03
1	Sr 421.552†	49522.9	48507.7	502.84	µg/L	502.84	ppb	19:13:03
1	Sc 361.383	1951144.3	1951144.3	102.16	%			19:14:27
1	Y 371.029	1335064.4	1335064.4	101.92	%			19:14:27
1	Ag 328.068†	64845.5	64037.3	511.83	µg/L	511.83	ppb	19:14:32
1	As 188.979†	275.5	268.5	523.78	µg/L	523.78	ppb	19:14:53
1	B 249.677†	12049.2	11462.7	499.11	µg/L	499.11	ppb	19:14:32
1	Ba 233.527†	20008.0	19610.4	511.55	µg/L	511.55	ppb	19:14:32
1	Be 313.107†	795598.6	782196.8	510.62	µg/L	510.62	ppb	19:14:27
1	Cd 226.502†	18839.6	18582.9	512.61	µg/L	512.61	ppb	19:14:32
1	Co 228.616†	10676.1	10458.9	514.13	µg/L	514.13	ppb	19:14:32
1	Cr 267.716†	23927.2	23473.1	516.64	µg/L	516.64	ppb	19:14:32
1	Cu 324.752†	77230.7	73109.7	511.40	µg/L	511.40	ppb	19:14:32
1	Mn 257.610†	153022.2	150027.0	519.99	µg/L	519.99	ppb	19:14:27
1	Mo 202.031†	5147.6	5046.1	538.72	µg/L	538.72	ppb	19:14:53
1	Ni 231.604†	9909.1	9397.1	513.24	µg/L	513.24	ppb	19:14:32
1	P 214.914†	1284.0	1229.2	2590.7	µg/L	2590.7	ppb	19:14:53
1	Pb 220.353†	2100.1	1958.5	522.80	µg/L	522.80	ppb	19:14:53
1	S 181.975 Axial†	260.7	240.4	1053.2	µg/L	1053.2	ppb	19:14:53
1	Sb 206.836†	579.1	539.9	533.92	µg/L	533.92	ppb	19:14:53
1	Se 196.026†	368.4	344.8	533.59	µg/L	533.59	ppb	19:14:53
1	SiO2†	27092.9	25269.3	5441.9	µg/L	5441.9	ppb	19:14:32
1	Si 251.611†	31889.8	30901.8	2540.3	µg/L	2540.3	ppb	19:14:32
1	Sn 189.927†	1200.9	1176.4	541.09	µg/L	541.09	ppb	19:14:53
1	Ti 334.940†	218380.7	213641.7	513.57	µg/L	513.57	ppb	19:14:27
1	Tl 190.801†	350.6	367.5	519.14	µg/L	519.14	ppb	19:14:53
1	U 409.014†	5814.6	5745.1	519.13	µg/L	519.13	ppb	19:14:32
1	V 292.402†	48982.0	47989.3	517.92	µg/L	517.92	ppb	19:14:32
1	Zn 213.857†	21483.0	20552.7	509.59	µg/L	509.59	ppb	19:14:32
2	Sc RADIAL	56100.7	56100.7	103	%			19:13:29
2	Al 396.153Radial†	6945.6	6766.8	5032.6	µg/L	5032.6	ppb	19:13:29
2	Ca 317.933Radial†	5631.2	5298.9	4989.2	µg/L	4989.2	ppb	19:13:49
2	Fe 238.204 Radial†	627.7	596.1	5063.7	µg/L	5063.7	ppb	19:13:49
2	K 766.490 Radial†	7341.2	7013.0	4984.8	µg/L	4984.8	ppb	19:13:29
2	Mg 279.077 IEC†	586.0	558.8	5203.5	µg/L	5203.5	ppb	19:13:49
2	Na 589.592 Radial†	31976.7	30564.8	10062	µg/L	10062	ppb	19:13:29
2	Sr 421.552†	49170.9	47793.6	495.44	µg/L	495.44	ppb	19:13:29
2	Sc 361.383	1954250.3	1954250.3	102.33	%			19:15:00
2	Y 371.029	1335611.5	1335611.5	101.96	%			19:15:00
2	Ag 328.068†	65212.5	64295.1	513.88	µg/L	513.88	ppb	19:15:06
2	As 188.979†	274.4	267.0	520.94	µg/L	520.94	ppb	19:15:26
2	B 249.677†	12164.5	11556.6	503.24	µg/L	503.24	ppb	19:15:06
2	Ba 233.527†	20057.8	19628.0	512.01	µg/L	512.01	ppb	19:15:06
2	Be 313.107†	786582.3	772147.7	504.06	µg/L	504.06	ppb	19:15:00
2	Cd 226.502†	18912.0	18624.4	513.76	µg/L	513.76	ppb	19:15:06
2	Co 228.616†	10732.8	10497.7	516.05	µg/L	516.05	ppb	19:15:06
2	Cr 267.716†	24011.5	23518.2	517.63	µg/L	517.63	ppb	19:15:06
2	Cu 324.752†	77632.9	73382.6	513.30	µg/L	513.30	ppb	19:15:06
2	Mn 257.610†	151747.3	148542.9	514.85	µg/L	514.85	ppb	19:15:00
2	Mo 202.031†	5096.3	4988.0	532.52	µg/L	532.52	ppb	19:15:26
2	Ni 231.604†	9986.9	9457.7	516.55	µg/L	516.55	ppb	19:15:06
2	P 214.914†	1269.9	1213.4	2556.6	µg/L	2556.6	ppb	19:15:26
2	Pb 220.353†	2103.2	1958.2	522.70	µg/L	522.70	ppb	19:15:26

2	S 181.975 Axial†	261.6	240.8	1055.1 µg/L	1055.1 ppb	19:15:26
2	Sb 206.836†	583.1	542.9	536.77 µg/L	536.77 ppb	19:15:26
2	Se 196.026†	358.4	334.4	517.63 µg/L	517.63 ppb	19:15:26
2	SiO2†	27219.9	25351.3	5459.5 µg/L	5459.5 ppb	19:15:06
2	Si 251.611†	32020.8	30980.3	2546.7 µg/L	2546.7 ppb	19:15:06
2	Sn 189.927†	1194.0	1167.7	537.13 µg/L	537.13 ppb	19:15:26
2	Ti 334.940†	216182.4	211153.6	507.58 µg/L	507.58 ppb	19:15:00
2	Tl 190.801†	351.8	368.1	519.85 µg/L	519.85 ppb	19:15:26
2	U 409.014†	5813.7	5735.2	518.24 µg/L	518.24 ppb	19:15:06
2	V 292.402†	49127.5	48055.3	518.57 µg/L	518.57 ppb	19:15:06
2	Zn 213.857†	21549.0	20583.8	510.35 µg/L	510.35 ppb	19:15:06
3	Sc RADIAL	56646.4	56646.4	104 %		19:13:55
3	Al 396.153Radial†	6990.5	6744.9	5018.4 µg/L	5018.4 ppb	19:13:55
3	Ca 317.933Radial†	5597.5	5213.6	4908.9 µg/L	4908.9 ppb	19:14:15
3	Fe 238.204 Radial†	629.8	592.2	5029.2 µg/L	5029.2 ppb	19:14:15
3	K 766.490 Radial†	7441.3	7040.7	5004.5 µg/L	5004.5 ppb	19:13:55
3	Mg 279.077 IEC†	585.3	552.6	5144.3 µg/L	5144.3 ppb	19:14:15
3	Na 589.592 Radial†	32200.7	30481.0	10034 µg/L	10034 ppb	19:13:55
3	Sr 421.552†	49653.3	47797.6	495.48 µg/L	495.48 ppb	19:13:55
3	Sc 361.383	1989206.7	1989206.7	104.16 %		19:15:33
3	Y 371.029	1360871.5	1360871.5	103.89 %		19:15:33
3	Ag 328.068†	60452.0	58604.6	468.29 µg/L	468.29 ppb	19:15:39
3	As 188.979†	231.4	221.0	431.16 µg/L	431.16 ppb	19:15:59
3	B 249.677†	11200.8	10422.4	453.57 µg/L	453.57 ppb	19:15:39
3	Ba 233.527†	18155.6	17457.3	455.37 µg/L	455.37 ppb	19:15:39
3	Be 313.107†	746723.2	720370.4	470.26 µg/L	470.26 ppb	19:15:33
3	Cd 226.502†	17034.9	16497.4	455.02 µg/L	455.02 ppb	19:15:39
3	Co 228.616†	9575.0	9201.8	452.26 µg/L	452.26 ppb	19:15:39
3	Cr 267.716†	20898.9	20117.4	442.78 µg/L	442.78 ppb	19:15:39
3	Cu 324.752†	69759.8	64490.4	451.18 µg/L	451.18 ppb	19:15:39
3	Mn 257.610†	144303.8	138790.3	481.07 µg/L	481.07 ppb	19:15:33
3	Mo 202.031†	4187.5	4027.9	430.06 µg/L	430.06 ppb	19:15:59
3	Ni 231.604†	8969.1	8309.0	453.82 µg/L	453.82 ppb	19:15:39
3	P 214.914†	1074.2	1003.7	2111.2 µg/L	2111.2 ppb	19:15:59
3	Pb 220.353†	1799.2	1630.2	435.08 µg/L	435.08 ppb	19:15:59
3	S 181.975 Axial†	224.9	201.1	880.92 µg/L	880.92 ppb	19:15:59
3	Sb 206.836†	494.9	448.2	442.71 µg/L	442.71 ppb	19:15:59
3	Se 196.026†	304.8	276.8	429.75 µg/L	429.75 ppb	19:15:59
3	SiO2†	24880.7	22637.9	4875.2 µg/L	4875.2 ppb	19:15:39
3	Si 251.611†	29305.2	27823.1	2287.2 µg/L	2287.2 ppb	19:15:39
3	Sn 189.927†	959.0	921.6	423.93 µg/L	423.93 ppb	19:15:59
3	Ti 334.940†	203896.7	195645.3	470.28 µg/L	470.28 ppb	19:15:33
3	Tl 190.801†	305.5	317.6	449.03 µg/L	449.03 ppb	19:15:59
3	U 409.014†	5068.3	4919.7	444.42 µg/L	444.42 ppb	19:15:39
3	V 292.402†	43582.6	41887.9	451.80 µg/L	451.80 ppb	19:15:39
3	Zn 213.857†	19376.0	18127.3	449.39 µg/L	449.39 ppb	19:15:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1964867.1	102.88	%	1.107				1.08%
Sc RADIAL	56139.4	103	%	0.9				0.87%
Y 371.029	1343849.1	102.59	%	1.126				1.10%
Ag 328.068†	62312.3	498.00	µg/L	25.750	498.00	ppb	25.750	5.17%
QC value within limits for Ag 328.068 Recovery = 99.60%								
Al 396.153Radial†	6805.2	5061.9	µg/L	63.45	5061.9	ppb	63.45	1.25%
QC value within limits for Al 396.153Radial Recovery = 101.24%								
As 188.979†	252.2	491.96	µg/L	52.673	491.96	ppb	52.673	10.71%
QC value within limits for As 188.979 Recovery = 98.39%								
B 249.677†	11147.2	485.30	µg/L	27.561	485.30	ppb	27.561	5.68%
QC value within limits for B 249.677 Recovery = 97.06%								
Ba 233.527†	18898.6	492.97	µg/L	32.570	492.97	ppb	32.570	6.61%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	758238.3	494.98	µg/L	21.658	494.98	ppb	21.658	4.38%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	5283.6	4974.8	µg/L	60.06	4974.8	ppb	60.06	1.21%
QC value within limits for Ca 317.933Radial Recovery = 99.50%								
Cd 226.502†	17901.6	493.80	µg/L	33.585	493.80	ppb	33.585	6.80%
QC value within limits for Cd 226.502 Recovery = 98.76%								
Co 228.616†	10052.8	494.14	µg/L	36.289	494.14	ppb	36.289	7.34%

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   QC value within limits for Co 228.616  Recovery = 98.83%
Cr 267.716†            22369.6      492.35 µg/L        42.929      492.35 ppb         42.929   8.72%
   QC value within limits for Cr 267.716  Recovery = 98.47%
Cu 324.752†            70327.6      491.96 µg/L        35.329      491.96 ppb         35.329   7.18%
   QC value within limits for Cu 324.752  Recovery = 98.39%
Fe 238.204 Radial†       596.7      5067.7 µg/L         40.70      5067.7 ppb          40.70   0.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†       7056.8      5015.9 µg/L         38.15      5015.9 ppb          38.15   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 100.32%
Mg 279.077 IEC†          556.7      5183.6 µg/L         33.98      5183.6 ppb          33.98   0.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.67%
Mn 257.610†           145786.8      505.31 µg/L        21.142      505.31 ppb         21.142   4.18%
   QC value within limits for Mn 257.610  Recovery = 101.06%
Mo 202.031†            4687.4      500.43 µg/L        61.026      500.43 ppb         61.026  12.19%
   QC value within limits for Mo 202.031  Recovery = 100.09%
Na 589.592 Radial†     30672.0       10097 µg/L          86.1       10097 ppb           86.1   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 100.97%
Ni 231.604†            9054.6      494.54 µg/L        35.300      494.54 ppb         35.300   7.14%
   QC value within limits for Ni 231.604  Recovery = 98.91%
P 214.914†             1148.8      2419.5 µg/L        267.56      2419.5 ppb         267.56  11.06%
   QC value within limits for P 214.914  Recovery = 96.78%
Pb 220.353†            1849.0      493.53 µg/L        50.614      493.53 ppb         50.614  10.26%
   QC value within limits for Pb 220.353  Recovery = 98.71%
S 181.975 Axial†        227.4      996.40 µg/L       100.008      996.40 ppb        100.008  10.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†             510.3      504.47 µg/L        53.501      504.47 ppb         53.501  10.61%
   QC value within limits for Sb 206.836  Recovery = 100.89%
Se 196.026†             318.7      493.66 µg/L        55.921      493.66 ppb         55.921  11.33%
   QC value within limits for Se 196.026  Recovery = 98.73%
SiO2†                  24419.5      5258.9 µg/L        332.39      5258.9 ppb         332.39   6.32%
   QC value within limits for SiO2  Recovery = 98.34%
Si 251.611†            29901.8      2458.1 µg/L        148.02      2458.1 ppb         148.02   6.02%
   QC value within limits for Si 251.611  Recovery = 98.32%
Sn 189.927†            1088.6      500.71 µg/L        66.525      500.71 ppb         66.525  13.29%
   QC value within limits for Sn 189.927  Recovery = 100.14%
Sr 421.552†            48033.0      497.92 µg/L         4.262      497.92 ppb          4.262   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.58%
Ti 334.940†           206813.5      497.14 µg/L        23.455      497.14 ppb         23.455   4.72%
   QC value within limits for Ti 334.940  Recovery = 99.43%
Tl 190.801†             351.1      496.01 µg/L        40.687      496.01 ppb         40.687   8.20%
   QC value within limits for Tl 190.801  Recovery = 99.20%
U 409.014†             5466.7      493.93 µg/L        42.881      493.93 ppb         42.881   8.68%
   QC value within limits for U 409.014  Recovery = 98.79%
V 292.402†             45977.5      496.10 µg/L        38.364      496.10 ppb         38.364   7.73%
   QC value within limits for V 292.402  Recovery = 99.22%
Zn 213.857†            19754.6      489.78 µg/L        34.976      489.78 ppb         34.976   7.14%
   QC value within limits for Zn 213.857  Recovery = 97.96%
All analyte(s) passed QC.
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Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55600.7	55600.7	102	%			19:16:41
1	Al 396.153Radial†	-4.5	5.7	4.2256	µg/L	4.2256	ppb	19:16:41
1	Ca 317.933Radial†	176.7	-5.7	-5.4036	µg/L	-5.4036	ppb	19:17:01
1	Fe 238.204 Radial†	16.9	2.1	17.440	µg/L	17.440	ppb	19:17:01
1	K 766.490 Radial†	120.8	-9.9	-7.0161	µg/L	-7.0161	ppb	19:16:41
1	Mg 279.077 IEC†	10.9	-0.6	-5.3345	µg/L	-5.3345	ppb	19:17:01
1	Na 589.592 Radial†	652.7	98.7	32.500	µg/L	32.500	ppb	19:16:41
1	Sr 421.552†	22.7	-17.3	-0.1790	µg/L	-0.1790	ppb	19:16:41
1	Sc 361.383	1934829.6	1934829.6	101.31	%			19:18:03
1	Y 371.029	1327190.7	1327190.7	101.32	%			19:18:03
1	Ag 328.068†	-516.6	54.6	0.4388	µg/L	0.4388	ppb	19:18:09
1	As 188.979†	1.2	0.0	0.0845	µg/L	0.0845	ppb	19:18:29
1	B 249.677†	321.4	-14.2	-0.6284	µg/L	-0.6284	ppb	19:18:29
1	Ba 233.527†	-23.7	2.6	0.0683	µg/L	0.0683	ppb	19:18:29
1	Be 313.107†	-3408.1	76.3	0.0498	µg/L	0.0498	ppb	19:18:09
1	Cd 226.502†	-144.3	-0.3	-0.0100	µg/L	-0.0100	ppb	19:18:29
1	Co 228.616†	-6.0	2.9	0.1456	µg/L	0.1456	ppb	19:18:29
1	Cr 267.716†	-15.9	36.7	0.8069	µg/L	0.8069	ppb	19:18:09
1	Cu 324.752†	2442.5	-75.1	-0.5222	µg/L	-0.5222	ppb	19:18:09
1	Mn 257.610†	-225.9	21.1	0.0756	µg/L	0.0756	ppb	19:18:29
1	Mo 202.031†	-2.6	4.9	0.5275	µg/L	0.5275	ppb	19:18:29
1	Ni 231.604†	310.8	4.6	0.2529	µg/L	0.2529	ppb	19:18:29
1	P 214.914†	22.3	-5.6	-12.052	µg/L	-12.052	ppb	19:18:29
1	Pb 220.353†	97.2	-1.3	-0.3391	µg/L	-0.3391	ppb	19:18:29
1	S 181.975 Axial†	15.8	0.7	3.2436	µg/L	3.2436	ppb	19:18:29
1	Sb 206.836†	30.1	2.8	2.7305	µg/L	2.7305	ppb	19:18:29
1	Se 196.026†	14.9	-1.1	-1.6720	µg/L	-1.6720	ppb	19:18:29
1	SiO2†	1241.8	-24.3	-5.2260	µg/L	-5.2260	ppb	19:18:09
1	Si 251.611†	314.2	-2.7	-0.2249	µg/L	-0.2249	ppb	19:18:29
1	Sn 189.927†	3.0	3.9	1.7687	µg/L	1.7687	ppb	19:18:29
1	Ti 334.940†	129.2	11.4	0.0278	µg/L	0.0278	ppb	19:18:09
1	Tl 190.801†	-22.4	2.2	3.0821	µg/L	3.0821	ppb	19:18:29
1	U 409.014†	-44.2	10.0	0.9045	µg/L	0.9045	ppb	19:18:09
1	V 292.402†	22.3	66.2	0.7146	µg/L	0.7146	ppb	19:18:09
1	Zn 213.857†	480.2	-1.5	-0.0391	µg/L	-0.0391	ppb	19:18:29
2	Sc RADIAL	55841.1	55841.1	102	%			19:17:07
2	Al 396.153Radial†	-0.2	10.0	7.4245	µg/L	7.4245	ppb	19:17:07
2	Ca 317.933Radial†	185.5	2.1	1.9861	µg/L	1.9861	ppb	19:17:27
2	Fe 238.204 Radial†	13.8	-1.1	-8.9579	µg/L	-8.9579	ppb	19:17:27
2	K 766.490 Radial†	118.8	-12.3	-8.7251	µg/L	-8.7251	ppb	19:17:07
2	Mg 279.077 IEC†	12.4	0.9	8.1129	µg/L	8.1129	ppb	19:17:27
2	Na 589.592 Radial†	684.6	127.2	41.869	µg/L	41.869	ppb	19:17:07
2	Sr 421.552†	48.5	7.8	0.0810	µg/L	0.0810	ppb	19:17:07
2	Sc 361.383	1955516.9	1955516.9	102.39	%			19:18:35
2	Y 371.029	1342161.2	1342161.2	102.46	%			19:18:35
2	Ag 328.068†	-513.3	63.2	0.5022	µg/L	0.5022	ppb	19:18:41
2	As 188.979†	-5.0	-6.0	-11.703	µg/L	-11.703	ppb	19:19:01
2	B 249.677†	317.0	-21.8	-0.9495	µg/L	-0.9495	ppb	19:19:01
2	Ba 233.527†	-19.8	6.7	0.1743	µg/L	0.1743	ppb	19:19:01
2	Be 313.107†	-3409.1	110.9	0.0724	µg/L	0.0724	ppb	19:18:41
2	Cd 226.502†	-125.7	19.4	0.5362	µg/L	0.5362	ppb	19:19:01
2	Co 228.616†	-4.9	4.1	0.1998	µg/L	0.1998	ppb	19:19:01
2	Cr 267.716†	-35.7	17.5	0.3848	µg/L	0.3848	ppb	19:18:41
2	Cu 324.752†	2432.5	-110.5	-0.7728	µg/L	-0.7728	ppb	19:18:41
2	Mn 257.610†	-217.1	32.1	0.1097	µg/L	0.1097	ppb	19:19:01
2	Mo 202.031†	-0.2	7.4	0.7857	µg/L	0.7857	ppb	19:19:01
2	Ni 231.604†	307.3	-2.1	-0.1144	µg/L	-0.1144	ppb	19:19:01
2	P 214.914†	26.8	-1.4	-2.9443	µg/L	-2.9443	ppb	19:19:01
2	Pb 220.353†	98.0	-1.5	-0.3841	µg/L	-0.3841	ppb	19:19:01

2	S 181.975 Axial†	16.0	0.8	3.5945 µg/L	3.5945 ppb	19:19:01
2	Sb 206.836†	19.9	-7.6	-7.4359 µg/L	-7.4359 ppb	19:19:01
2	Se 196.026†	24.3	7.9	11.982 µg/L	11.982 ppb	19:19:01
2	SiO2†	1252.6	-26.7	-5.7496 µg/L	-5.7496 ppb	19:18:41
2	Si 251.611†	335.5	14.8	1.2146 µg/L	1.2146 ppb	19:19:01
2	Sn 189.927†	0.8	1.7	0.7658 µg/L	0.7658 ppb	19:19:01
2	Ti 334.940†	159.2	39.3	0.0940 µg/L	0.0940 ppb	19:18:41
2	Tl 190.801†	-19.6	5.1	7.1712 µg/L	7.1712 ppb	19:19:01
2	U 409.014†	-39.3	15.2	1.3764 µg/L	1.3764 ppb	19:18:41
2	V 292.402†	-32.1	12.8	0.1441 µg/L	0.1441 ppb	19:18:41
2	Zn 213.857†	480.1	-6.6	-0.1635 µg/L	-0.1635 ppb	19:19:01
3	Sc RADIAL	54991.0	54991.0	101 %		19:17:32
3	Al 396.153Radial†	-25.8	-15.4	-11.501 µg/L	-11.501 ppb	19:17:32
3	Ca 317.933Radial†	179.1	-1.4	-1.2826 µg/L	-1.2826 ppb	19:17:53
3	Fe 238.204 Radial†	16.1	1.5	12.918 µg/L	12.918 ppb	19:17:53
3	K 766.490 Radial†	157.4	27.8	19.781 µg/L	19.781 ppb	19:17:32
3	Mg 279.077 IEC†	9.1	-2.2	-20.551 µg/L	-20.551 ppb	19:17:53
3	Na 589.592 Radial†	624.4	77.8	25.618 µg/L	25.618 ppb	19:17:32
3	Sr 421.552†	39.8	-0.1	-0.0009 µg/L	-0.0009 ppb	19:17:32
3	Sc 361.383	1967438.1	1967438.1	103.02 %		19:19:07
3	Y 371.029	1348776.4	1348776.4	102.97 %		19:19:07
3	Ag 328.068†	-543.2	37.2	0.2976 µg/L	0.2976 ppb	19:19:13
3	As 188.979†	-2.4	-3.5	-6.8853 µg/L	-6.8853 ppb	19:19:33
3	B 249.677†	305.4	-35.0	-1.5334 µg/L	-1.5334 ppb	19:19:33
3	Ba 233.527†	-26.9	-0.1	-0.0009 µg/L	-0.0009 ppb	19:19:33
3	Be 313.107†	-3287.9	248.8	0.1624 µg/L	0.1624 ppb	19:19:13
3	Cd 226.502†	-133.1	12.9	0.3539 µg/L	0.3539 ppb	19:19:33
3	Co 228.616†	-14.2	-5.0	-0.2450 µg/L	-0.2450 ppb	19:19:33
3	Cr 267.716†	-20.7	32.3	0.7108 µg/L	0.7108 ppb	19:19:13
3	Cu 324.752†	2481.8	-76.9	-0.5355 µg/L	-0.5355 ppb	19:19:13
3	Mn 257.610†	-209.8	40.5	0.1427 µg/L	0.1427 ppb	19:19:33
3	Mo 202.031†	-10.0	-2.2	-0.2320 µg/L	-0.2320 ppb	19:19:33
3	Ni 231.604†	301.2	-9.8	-0.5340 µg/L	-0.5340 ppb	19:19:33
3	P 214.914†	26.0	-2.4	-5.0576 µg/L	-5.0576 ppb	19:19:33
3	Pb 220.353†	96.7	-3.3	-0.8887 µg/L	-0.8887 ppb	19:19:33
3	S 181.975 Axial†	14.9	-0.4	-1.5487 µg/L	-1.5487 ppb	19:19:33
3	Sb 206.836†	32.3	4.4	4.3137 µg/L	4.3137 ppb	19:19:33
3	Se 196.026†	14.2	-2.1	-3.1442 µg/L	-3.1442 ppb	19:19:33
3	SiO2†	1256.2	-30.6	-6.5854 µg/L	-6.5854 ppb	19:19:13
3	Si 251.611†	309.4	-12.5	-1.0288 µg/L	-1.0288 ppb	19:19:33
3	Sn 189.927†	-1.0	-0.1	-0.0403 µg/L	-0.0403 ppb	19:19:33
3	Ti 334.940†	153.9	33.3	0.0816 µg/L	0.0816 ppb	19:19:13
3	Tl 190.801†	-21.2	3.7	5.1463 µg/L	5.1463 ppb	19:19:33
3	U 409.014†	-6.3	47.5	4.3005 µg/L	4.3005 ppb	19:19:13
3	V 292.402†	-20.0	24.8	0.2699 µg/L	0.2699 ppb	19:19:13
3	Zn 213.857†	479.8	-9.8	-0.2409 µg/L	-0.2409 ppb	19:19:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952594.9	102.24	%	0.864				0.84%
Sc RADIAL	55477.6	102	%	0.8				0.79%
Y 371.029	1339376.1	102.25	%	0.844				0.83%
Ag 328.068†	51.7	0.4129	µg/L	0.10471	0.4129	ppb	0.10471	25.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.0498	µg/L	10.13010	0.0498	ppb	10.13010	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-6.1678	µg/L	5.92624	-6.1678	ppb	5.92624	96.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.7	-1.0371	µg/L	0.45878	-1.0371	ppb	0.45878	44.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0805	µg/L	0.08826	0.0805	ppb	0.08826	109.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.3	0.0949	µg/L	0.05957	0.0949	ppb	0.05957	62.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-1.5667	µg/L	3.70306	-1.5667	ppb	3.70306	236.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.7	0.2934	µg/L	0.27809	0.2934	ppb	0.27809	94.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0335	µg/L	0.24267	0.0335	ppb	0.24267	724.80%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                28.8      0.6341 µg/L       0.22120      0.6341 ppb        0.22120  34.88%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -87.5     -0.6102 µg/L       0.14102     -0.6102 ppb        0.14102  23.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.8      7.1335 µg/L      14.11778      7.1335 ppb       14.11778 197.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           1.9      1.3465 µg/L      15.98731      1.3465 ppb       15.98731 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -5.9243 µg/L      14.34120     -5.9243 ppb       14.34120 242.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                31.2      0.1094 µg/L       0.03354      0.1094 ppb        0.03354  30.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.4      0.3604 µg/L       0.52901      0.3604 ppb        0.52901 146.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        101.2     33.329 µg/L        8.1571     33.329 ppb         8.1571  24.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.4     -0.1318 µg/L       0.39372     -0.1318 ppb        0.39372 298.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.1     -6.6846 µg/L       4.76680     -6.6846 ppb        4.76680  71.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.0     -0.5373 µg/L       0.30511     -0.5373 ppb        0.30511  56.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      1.7632 µg/L       2.87351      1.7632 ppb        2.87351 162.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.1     -0.1306 µg/L       6.37594     -0.1306 ppb        6.37594 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.6      2.3884 µg/L       8.34041      2.3884 ppb        8.34041 349.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -27.2     -5.8537 µg/L       0.68563     -5.8537 ppb        0.68563  11.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                -0.2     -0.0130 µg/L       1.13664     -0.0130 ppb        1.13664 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.8314 µg/L       0.90630      0.8314 ppb        0.90630 109.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -3.2     -0.0330 µg/L       0.13293     -0.0330 ppb        0.13293 403.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.0      0.0678 µg/L       0.03518      0.0678 ppb        0.03518  51.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.7      5.1332 µg/L       2.04457      5.1332 ppb        2.04457  39.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.2      2.1938 µg/L       1.83966      2.1938 ppb        1.83966  83.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 34.6      0.3762 µg/L       0.29972      0.3762 ppb        0.29972  79.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -6.0     -0.1478 µg/L       0.10182     -0.1478 ppb        0.10182  68.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: 1202032557|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 2/11/2010 19:19:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032557|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56162.6	56162.6	103	%			19:20:21
1	Al 396.153Radial†	-0.9	9.2	6.8694	µg/L	6.8694	ppb	19:20:21
1	Ca 317.933Radial†	193.4	8.8	8.2949	µg/L	8.2949	ppb	19:20:41
1	Fe 238.204 Radial†	17.5	2.5	21.049	µg/L	21.049	ppb	19:20:41
1	K 766.490 Radial†	140.5	8.2	5.7964	µg/L	5.7964	ppb	19:20:21
1	Mg 279.077 IEC†	14.7	3.0	27.583	µg/L	27.583	ppb	19:20:41
1	Na 589.592 Radial†	619.9	60.5	19.922	µg/L	19.922	ppb	19:20:21
1	Sr 421.552†	24.9	-15.4	-0.1597	µg/L	-0.1597	ppb	19:20:21
1	Sc 361.383	1969009.3	1969009.3	103.10	%			19:21:43
1	Y 371.029	1347307.8	1347307.8	102.85	%			19:21:43
1	Ag 328.068†	-572.7	9.0	0.0759	µg/L	0.0759	ppb	19:21:49
1	As 188.979†	4.3	3.1	5.9676	µg/L	5.9676	ppb	19:22:09
1	B 249.677†	319.3	-21.8	-0.9629	µg/L	-0.9629	ppb	19:22:09
1	Ba 233.527†	-16.2	10.3	0.2702	µg/L	0.2702	ppb	19:22:09
1	Be 313.107†	-3531.0	15.6	0.0101	µg/L	0.0101	ppb	19:21:49
1	Cd 226.502†	-147.1	-0.5	-0.0161	µg/L	-0.0161	ppb	19:22:09
1	Co 228.616†	-17.1	-7.8	-0.3825	µg/L	-0.3825	ppb	19:22:09
1	Cr 267.716†	-24.9	28.2	0.6201	µg/L	0.6201	ppb	19:22:09
1	Cu 324.752†	2344.0	-212.5	-1.4815	µg/L	-1.4815	ppb	19:21:49
1	Mn 257.610†	-173.7	75.6	0.2635	µg/L	0.2635	ppb	19:22:09
1	Mo 202.031†	-7.4	0.3	0.0356	µg/L	0.0356	ppb	19:22:09
1	Ni 231.604†	312.9	1.3	0.0735	µg/L	0.0735	ppb	19:22:09
1	P 214.914†	30.5	2.0	4.4454	µg/L	4.4454	ppb	19:22:09
1	Pb 220.353†	103.9	3.6	0.9614	µg/L	0.9614	ppb	19:22:09
1	S 181.975 Axial†	17.6	2.3	9.8847	µg/L	9.8847	ppb	19:22:09
1	Sb 206.836†	28.0	0.2	0.2152	µg/L	0.2152	ppb	19:22:09
1	Se 196.026†	17.5	1.2	1.8091	µg/L	1.8091	ppb	19:22:09
1	SiO2†	1345.3	54.8	11.812	µg/L	11.812	ppb	19:21:49
1	Si 251.611†	418.6	93.2	7.6584	µg/L	7.6584	ppb	19:22:09
1	Sn 189.927†	-0.5	0.4	0.1929	µg/L	0.1929	ppb	19:22:09
1	Ti 334.940†	191.4	69.5	0.1652	µg/L	0.1652	ppb	19:21:49
1	Tl 190.801†	-19.7	5.2	7.2052	µg/L	7.2052	ppb	19:22:09
1	U 409.014†	-22.0	32.3	2.9184	µg/L	2.9184	ppb	19:21:49
1	V 292.402†	-1.5	42.8	0.4631	µg/L	0.4631	ppb	19:21:49
1	Zn 213.857†	523.7	32.4	0.8081	µg/L	0.8081	ppb	19:22:09
2	Sc RADIAL	57033.0	57033.0	105	%			19:20:47
2	Al 396.153Radial†	-29.2	-17.8	-13.303	µg/L	-13.303	ppb	19:20:47
2	Ca 317.933Radial†	198.1	10.4	9.7767	µg/L	9.7767	ppb	19:21:07
2	Fe 238.204 Radial†	15.7	0.5	4.2922	µg/L	4.2922	ppb	19:21:07
2	K 766.490 Radial†	163.1	27.6	19.636	µg/L	19.636	ppb	19:20:47
2	Mg 279.077 IEC†	8.2	-3.5	-32.175	µg/L	-32.175	ppb	19:21:07
2	Na 589.592 Radial†	627.1	58.2	19.145	µg/L	19.145	ppb	19:20:47
2	Sr 421.552†	15.7	-24.5	-0.2542	µg/L	-0.2542	ppb	19:20:47
2	Sc 361.383	1951926.6	1951926.6	102.20	%			19:22:15
2	Y 371.029	1336400.0	1336400.0	102.02	%			19:22:15
2	Ag 328.068†	-524.4	51.4	0.4117	µg/L	0.4117	ppb	19:22:21
2	As 188.979†	-1.8	-2.9	-5.6797	µg/L	-5.6797	ppb	19:22:41
2	B 249.677†	313.0	-25.2	-1.1037	µg/L	-1.1037	ppb	19:22:41
2	Ba 233.527†	-15.7	10.7	0.2791	µg/L	0.2791	ppb	19:22:41
2	Be 313.107†	-3486.1	29.5	0.0193	µg/L	0.0193	ppb	19:22:21
2	Cd 226.502†	-132.0	13.0	0.3577	µg/L	0.3577	ppb	19:22:41
2	Co 228.616†	-14.0	-4.8	-0.2372	µg/L	-0.2372	ppb	19:22:41
2	Cr 267.716†	-26.4	26.5	0.5835	µg/L	0.5835	ppb	19:22:41
2	Cu 324.752†	2384.5	-153.0	-1.0685	µg/L	-1.0685	ppb	19:22:21
2	Mn 257.610†	-179.0	69.0	0.2407	µg/L	0.2407	ppb	19:22:41
2	Mo 202.031†	-5.7	1.9	0.2054	µg/L	0.2054	ppb	19:22:41
2	Ni 231.604†	320.7	11.6	0.6340	µg/L	0.6340	ppb	19:22:41
2	P 214.914†	24.8	-3.3	-7.0323	µg/L	-7.0323	ppb	19:22:41
2	Pb 220.353†	91.9	-7.2	-1.9278	µg/L	-1.9278	ppb	19:22:41

2	S 181.975 Axial†	19.7	4.5	19.528 µg/L	19.528 ppb	19:22:41
2	Sb 206.836†	24.0	-3.5	-3.4566 µg/L	-3.4566 ppb	19:22:41
2	Se 196.026†	13.6	-2.5	-3.7596 µg/L	-3.7596 ppb	19:22:41
2	SiO2†	1333.2	54.4	11.718 µg/L	11.718 ppb	19:22:21
2	Si 251.611†	413.0	91.2	7.4996 µg/L	7.4996 ppb	19:22:41
2	Sn 189.927†	0.9	1.7	0.7999 µg/L	0.7999 ppb	19:22:41
2	Ti 334.940†	113.7	-4.8	-0.0089 µg/L	-0.0089 ppb	19:22:21
2	Tl 190.801†	-24.7	0.1	0.1231 µg/L	0.1231 ppb	19:22:41
2	U 409.014†	-59.8	-4.9	-0.4425 µg/L	-0.4425 ppb	19:22:21
2	V 292.402†	4.4	48.6	0.5204 µg/L	0.5204 ppb	19:22:21
2	Zn 213.857†	510.3	23.7	0.5934 µg/L	0.5934 ppb	19:22:41
3	Sc RADIAL	55968.5	55968.5	103 %		19:21:13
3	Al 396.153Radial†	-7.1	3.2	2.3751 µg/L	2.3751 ppb	19:21:13
3	Ca 317.933Radial†	199.5	15.4	14.455 µg/L	14.455 ppb	19:21:33
3	Fe 238.204 Radial†	15.7	0.8	6.8156 µg/L	6.8156 ppb	19:21:33
3	K 766.490 Radial†	147.8	15.7	11.190 µg/L	11.190 ppb	19:21:13
3	Mg 279.077 IEC†	15.9	4.2	39.435 µg/L	39.435 ppb	19:21:33
3	Na 589.592 Radial†	631.7	74.1	24.401 µg/L	24.401 ppb	19:21:13
3	Sr 421.552†	49.4	8.6	0.0895 µg/L	0.0895 ppb	19:21:13
3	Sc 361.383	1933204.1	1933204.1	101.22 %		19:22:47
3	Y 371.029	1323935.5	1323935.5	101.07 %		19:22:47
3	Ag 328.068†	-593.9	-22.2	-0.1725 µg/L	-0.1725 ppb	19:22:53
3	As 188.979†	2.3	1.1	2.1309 µg/L	2.1309 ppb	19:23:13
3	B 249.677†	321.0	-14.3	-0.6295 µg/L	-0.6295 ppb	19:23:13
3	Ba 233.527†	-21.8	4.5	0.1184 µg/L	0.1184 ppb	19:23:13
3	Be 313.107†	-3438.4	43.6	0.0285 µg/L	0.0285 ppb	19:22:53
3	Cd 226.502†	-140.8	3.0	0.0822 µg/L	0.0822 ppb	19:23:13
3	Co 228.616†	-13.8	-4.8	-0.2340 µg/L	-0.2340 ppb	19:23:13
3	Cr 267.716†	-34.4	18.4	0.4049 µg/L	0.4049 ppb	19:23:13
3	Cu 324.752†	2432.8	-82.7	-0.5764 µg/L	-0.5764 ppb	19:22:53
3	Mn 257.610†	-182.3	64.0	0.2209 µg/L	0.2209 ppb	19:23:13
3	Mo 202.031†	-4.6	3.0	0.3226 µg/L	0.3226 ppb	19:23:13
3	Ni 231.604†	307.3	1.4	0.0745 µg/L	0.0745 ppb	19:23:13
3	P 214.914†	29.5	1.5	3.2678 µg/L	3.2678 ppb	19:23:13
3	Pb 220.353†	88.5	-9.8	-2.6006 µg/L	-2.6006 ppb	19:23:13
3	S 181.975 Axial†	15.9	0.9	3.7746 µg/L	3.7746 ppb	19:23:13
3	Sb 206.836†	23.1	-4.2	-4.0869 µg/L	-4.0869 ppb	19:23:13
3	Se 196.026†	8.2	-7.7	-11.834 µg/L	-11.834 ppb	19:23:13
3	SiO2†	1331.0	64.9	13.967 µg/L	13.967 ppb	19:22:53
3	Si 251.611†	405.4	87.6	7.2021 µg/L	7.2021 ppb	19:23:13
3	Sn 189.927†	-4.0	-3.1	-1.4085 µg/L	-1.4085 ppb	19:23:13
3	Ti 334.940†	115.8	-1.7	-0.0070 µg/L	-0.0070 ppb	19:22:53
3	Tl 190.801†	-23.4	1.2	1.6907 µg/L	1.6907 ppb	19:23:13
3	U 409.014†	-46.8	7.4	0.6668 µg/L	0.6668 ppb	19:22:53
3	V 292.402†	-2.1	42.2	0.4542 µg/L	0.4542 ppb	19:22:53
3	Zn 213.857†	517.2	35.4	0.8820 µg/L	0.8820 ppb	19:23:13

Mean Data: 1202032557|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1951380.0	102.18	%	0.938				0.92%
Sc RADIAL	56388.0	103	%	1.0				1.01%
Y 371.029	1335881.1	101.98	%	0.893				0.88%
Ag 328.068†	12.8	0.1050	µg/L	0.29320	0.1050	ppb	0.29320	279.21%
Al 396.153Radial†	-1.8	-1.3527	µg/L	10.59010	-1.3527	ppb	10.59010	782.87%
As 188.979†	0.4	0.8062	µg/L	5.93558	0.8062	ppb	5.93558	736.20%
B 249.677†	-20.5	-0.8987	µg/L	0.24350	-0.8987	ppb	0.24350	27.09%
Ba 233.527†	8.5	0.2226	µg/L	0.09033	0.2226	ppb	0.09033	40.59%
Be 313.107†	29.6	0.0193	µg/L	0.00919	0.0193	ppb	0.00919	47.63%
Ca 317.933Radial†	11.5	10.842	µg/L	3.2155	10.842	ppb	3.2155	29.66%
Cd 226.502†	5.2	0.1413	µg/L	0.19380	0.1413	ppb	0.19380	137.20%
Co 228.616†	-5.8	-0.2846	µg/L	0.08480	-0.2846	ppb	0.08480	29.80%
Cr 267.716†	24.4	0.5362	µg/L	0.11516	0.5362	ppb	0.11516	21.48%
Cu 324.752†	-149.4	-1.0421	µg/L	0.45311	-1.0421	ppb	0.45311	43.48%
Fe 238.204 Radial†	1.3	10.719	µg/L	9.0344	10.719	ppb	9.0344	84.29%
K 766.490 Radial†	17.2	12.207	µg/L	6.9755	12.207	ppb	6.9755	57.14%
Mg 279.077 IEC†	1.2	11.614	µg/L	38.3828	11.614	ppb	38.3828	330.48%
Mn 257.610†	69.5	0.2417	µg/L	0.02130	0.2417	ppb	0.02130	8.81%
Mo 202.031†	1.8	0.1879	µg/L	0.14430	0.1879	ppb	0.14430	76.81%
Na 589.592 Radial†	64.3	21.156	µg/L	2.8374	21.156	ppb	2.8374	13.41%

Ni 231.604†	4.8	0.2607	µg/L	0.32337	0.2607	ppb	0.32337 124.06%
P 214.914†	0.1	0.2270	µg/L	6.31420	0.2270	ppb	6.31420 >999.9%
Pb 220.353†	-4.5	-1.1890	µg/L	1.89244	-1.1890	ppb	1.89244 159.16%
S 181.975 Axial†	2.5	11.063	µg/L	7.9427	11.063	ppb	7.9427 71.80%
Sb 206.836†	-2.5	-2.4428	µg/L	2.32335	-2.4428	ppb	2.32335 95.11%
Se 196.026†	-3.0	-4.5949	µg/L	6.85979	-4.5949	ppb	6.85979 149.29%
SiO2†	58.0	12.499	µg/L	1.2722	12.499	ppb	1.2722 10.18%
Si 251.611†	90.7	7.4534	µg/L	0.23165	7.4534	ppb	0.23165 3.11%
Sn 189.927†	-0.3	-0.1385	µg/L	1.14090	-0.1385	ppb	1.14090 823.53%
Sr 421.552†	-10.4	-0.1081	µg/L	0.17752	-0.1081	ppb	0.17752 164.18%
Ti 334.940†	21.0	0.0497	µg/L	0.09997	0.0497	ppb	0.09997 200.99%
Tl 190.801†	2.2	3.0063	µg/L	3.71983	3.0063	ppb	3.71983 123.73%
U 409.014†	11.6	1.0476	µg/L	1.71251	1.0476	ppb	1.71251 163.48%
V 292.402†	44.5	0.4792	µg/L	0.03595	0.4792	ppb	0.03595 7.50%
Zn 213.857†	30.5	0.7612	µg/L	0.14993	0.7612	ppb	0.14993 19.70%

Sequence No.: 41
Sample ID: 1202032558|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 2/11/2010 19:23:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032558|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55855.2	55855.2	102	%			19:23:56
1	Al 396.153Radial†	6859.1	6711.9	4992.3	µg/L	4992.3	ppb	19:24:17
1	Ca 317.933Radial†	5588.0	5280.7	4972.1	µg/L	4972.1	ppb	19:24:17
1	Fe 238.204 Radial†	622.5	593.7	5042.2	µg/L	5042.2	ppb	19:24:17
1	K 766.490 Radial†	7222.5	6928.5	4924.7	µg/L	4924.7	ppb	19:23:56
1	Mg 279.077 IEC†	568.8	544.5	5070.0	µg/L	5070.0	ppb	19:24:17
1	Na 589.592 Radial†	16067.2	15156.9	4989.7	µg/L	4989.7	ppb	19:23:56
1	Sr 421.552†	48385.5	47236.4	489.66	µg/L	489.66	ppb	19:23:56
1	Sc 361.383	1989589.0	1989589.0	104.18	%			19:25:20
1	Y 371.029	1358828.2	1358828.2	103.73	%			19:25:20
1	Ag 328.068†	62403.6	60466.8	483.35	µg/L	483.35	ppb	19:25:26
1	As 188.979†	266.7	254.9	497.19	µg/L	497.19	ppb	19:25:46
1	B 249.677†	11770.1	10966.8	477.43	µg/L	477.43	ppb	19:25:26
1	Ba 233.527†	19609.2	18849.2	491.69	µg/L	491.69	ppb	19:25:26
1	Be 313.107†	765769.4	738515.5	482.11	µg/L	482.11	ppb	19:25:20
1	Cd 226.502†	18133.6	17548.9	484.07	µg/L	484.07	ppb	19:25:26
1	Co 228.616†	10204.7	9804.5	481.95	µg/L	481.95	ppb	19:25:26
1	Cr 267.716†	23258.1	22378.3	492.54	µg/L	492.54	ppb	19:25:26
1	Cu 324.752†	75730.0	70208.4	491.12	µg/L	491.12	ppb	19:25:26
1	Mn 257.610†	147968.6	142281.7	493.17	µg/L	493.17	ppb	19:25:20
1	Mo 202.031†	4884.5	4696.3	501.38	µg/L	501.38	ppb	19:25:46
1	Ni 231.604†	9732.2	9040.0	493.75	µg/L	493.75	ppb	19:25:26
1	P 214.914†	274.6	235.9	460.07	µg/L	460.07	ppb	19:25:46
1	Pb 220.353†	2040.6	1861.6	496.90	µg/L	496.90	ppb	19:25:46
1	S 181.975 Axial†	1213.5	1150.0	5038.6	µg/L	5038.6	ppb	19:25:46
1	Sb 206.836†	565.3	515.7	509.80	µg/L	509.80	ppb	19:25:46
1	Se 196.026†	348.9	319.1	494.37	µg/L	494.37	ppb	19:25:46
1	SiO2†	50535.9	47260.3	10178	µg/L	10178	ppb	19:25:26
1	Si 251.611†	60336.9	57605.6	4735.5	µg/L	4735.5	ppb	19:25:26
1	Sn 189.927†	1211.5	1163.8	535.30	µg/L	535.30	ppb	19:25:46
1	Ti 334.940†	209639.9	201120.8	483.46	µg/L	483.46	ppb	19:25:20
1	Tl 190.801†	344.0	354.5	500.64	µg/L	500.64	ppb	19:25:46
1	U 409.014†	5812.7	5633.3	509.02	µg/L	509.02	ppb	19:25:26
1	V 292.402†	47804.6	45932.7	495.64	µg/L	495.64	ppb	19:25:26
1	Zn 213.857†	20684.3	19379.7	480.43	µg/L	480.43	ppb	19:25:26
2	Sc RADIAL	56621.3	56621.3	104	%			19:24:22
2	Al 396.153Radial†	6761.1	6526.9	4854.4	µg/L	4854.4	ppb	19:24:42
2	Ca 317.933Radial†	5510.9	5132.5	4832.6	µg/L	4832.6	ppb	19:24:42
2	Fe 238.204 Radial†	611.2	574.6	4880.2	µg/L	4880.2	ppb	19:24:42
2	K 766.490 Radial†	7318.8	6925.8	4922.8	µg/L	4922.8	ppb	19:24:22
2	Mg 279.077 IEC†	555.6	524.2	4881.7	µg/L	4881.7	ppb	19:24:42
2	Na 589.592 Radial†	16134.1	15009.0	4941.0	µg/L	4941.0	ppb	19:24:22
2	Sr 421.552†	48688.4	46888.7	486.06	µg/L	486.06	ppb	19:24:22
2	Sc 361.383	1981021.9	1981021.9	103.73	%			19:25:53
2	Y 371.029	1354467.5	1354467.5	103.40	%			19:25:53
2	Ag 328.068†	62083.9	60417.6	482.95	µg/L	482.95	ppb	19:25:59
2	As 188.979†	268.8	258.0	503.27	µg/L	503.27	ppb	19:26:19
2	B 249.677†	11697.0	10945.2	476.57	µg/L	476.57	ppb	19:25:59
2	Ba 233.527†	19543.5	18867.3	492.16	µg/L	492.16	ppb	19:25:59
2	Be 313.107†	766542.7	742439.8	484.67	µg/L	484.67	ppb	19:25:53
2	Cd 226.502†	18043.5	17537.3	483.77	µg/L	483.77	ppb	19:25:59
2	Co 228.616†	10157.9	9801.8	481.81	µg/L	481.81	ppb	19:25:59
2	Cr 267.716†	23124.1	22345.6	491.82	µg/L	491.82	ppb	19:25:59
2	Cu 324.752†	75467.1	70269.3	491.53	µg/L	491.53	ppb	19:25:59
2	Mn 257.610†	148155.6	143076.2	495.91	µg/L	495.91	ppb	19:25:53
2	Mo 202.031†	4832.3	4666.2	498.17	µg/L	498.17	ppb	19:26:19
2	Ni 231.604†	9667.7	9018.1	492.55	µg/L	492.55	ppb	19:25:59
2	P 214.914†	272.2	234.8	457.67	µg/L	457.67	ppb	19:26:19
2	Pb 220.353†	2044.7	1874.1	500.20	µg/L	500.20	ppb	19:26:19

2	S 181.975 Axial†	1199.8	1141.9	5003.1 µg/L	5003.1 ppb	19:26:19
2	Sb 206.836†	565.3	518.0	512.02 µg/L	512.02 ppb	19:26:19
2	Se 196.026†	343.0	314.9	487.68 µg/L	487.68 ppb	19:26:19
2	SiO2†	50279.9	47223.2	10170 µg/L	10170 ppb	19:25:59
2	Si 251.611†	60047.4	57576.9	4733.1 µg/L	4733.1 ppb	19:25:59
2	Sn 189.927†	1201.8	1159.5	533.31 µg/L	533.31 ppb	19:26:19
2	Ti 334.940†	209553.6	201907.8	485.37 µg/L	485.37 ppb	19:25:53
2	Tl 190.801†	347.4	359.2	507.29 µg/L	507.29 ppb	19:26:19
2	U 409.014†	5749.9	5596.9	505.75 µg/L	505.75 ppb	19:25:59
2	V 292.402†	47601.0	45934.8	495.61 µg/L	495.61 ppb	19:25:59
2	Zn 213.857†	20543.3	19329.6	479.20 µg/L	479.20 ppb	19:25:59
3	Sc RADIAL	56667.3	56667.3	104 %		19:24:48
3	Al 396.153Radial†	6785.5	6545.0	4869.0 µg/L	4869.0 ppb	19:25:08
3	Ca 317.933Radial†	5519.1	5136.1	4836.0 µg/L	4836.0 ppb	19:25:08
3	Fe 238.204 Radial†	610.2	573.1	4867.6 µg/L	4867.6 ppb	19:25:08
3	K 766.490 Radial†	7189.7	6795.7	4830.4 µg/L	4830.4 ppb	19:24:48
3	Mg 279.077 IEC†	562.6	530.6	4940.1 µg/L	4940.1 ppb	19:25:08
3	Na 589.592 Radial†	15967.1	14835.5	4883.9 µg/L	4883.9 ppb	19:24:48
3	Sr 421.552†	48078.7	46263.5	479.58 µg/L	479.58 ppb	19:24:48
3	Sc 361.383	1962516.7	1962516.7	102.76 %		19:26:26
3	Y 371.029	1343125.0	1343125.0	102.53 %		19:26:26
3	Ag 328.068†	60804.7	59737.2	477.42 µg/L	477.42 ppb	19:26:32
3	As 188.979†	243.9	236.2	460.84 µg/L	460.84 ppb	19:26:53
3	B 249.677†	11399.3	10761.9	468.53 µg/L	468.53 ppb	19:26:32
3	Ba 233.527†	18655.7	18181.0	474.25 µg/L	474.25 ppb	19:26:32
3	Be 313.107†	740791.3	724347.9	472.86 µg/L	472.86 ppb	19:26:26
3	Cd 226.502†	17306.9	16984.5	468.50 µg/L	468.50 ppb	19:26:32
3	Co 228.616†	9664.7	9414.2	462.72 µg/L	462.72 ppb	19:26:32
3	Cr 267.716†	21731.9	21201.0	466.63 µg/L	466.63 ppb	19:26:32
3	Cu 324.752†	72256.6	67831.0	474.49 µg/L	474.49 ppb	19:26:32
3	Mn 257.610†	143350.8	139747.2	484.37 µg/L	484.37 ppb	19:26:26
3	Mo 202.031†	4322.8	4214.3	449.94 µg/L	449.94 ppb	19:26:53
3	Ni 231.604†	9237.2	8687.0	474.47 µg/L	474.47 ppb	19:26:32
3	P 214.914†	257.0	222.5	432.24 µg/L	432.24 ppb	19:26:53
3	Pb 220.353†	1875.5	1728.0	461.14 µg/L	461.14 ppb	19:26:53
3	S 181.975 Axial†	1113.0	1068.4	4680.8 µg/L	4680.8 ppb	19:26:53
3	Sb 206.836†	514.5	473.7	467.94 µg/L	467.94 ppb	19:26:53
3	Se 196.026†	322.8	298.3	462.30 µg/L	462.30 ppb	19:26:53
3	SiO2†	48695.4	46138.3	9936.1 µg/L	9936.1 ppb	19:26:32
3	Si 251.611†	58040.6	56169.8	4617.4 µg/L	4617.4 ppb	19:26:32
3	Sn 189.927†	1062.2	1034.6	475.87 µg/L	475.87 ppb	19:26:53
3	Ti 334.940†	202050.2	196510.8	472.38 µg/L	472.38 ppb	19:26:26
3	Tl 190.801†	308.7	324.7	458.96 µg/L	458.96 ppb	19:26:53
3	U 409.014†	5501.6	5407.5	488.61 µg/L	488.61 ppb	19:26:32
3	V 292.402†	45248.4	44078.0	475.38 µg/L	475.38 ppb	19:26:32
3	Zn 213.857†	19651.1	18648.0	462.29 µg/L	462.29 ppb	19:26:32

Mean Data: 1202032558|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1977709.2	103.55	%	0.725				0.70%
Sc RADIAL	56381.3	103	%	0.8				0.81%
Y 371.029	1352140.2	103.22	%	0.619				0.60%
Ag 328.068†	60207.2	481.24	µg/L	3.315	481.24	ppb	3.315	0.69%
Al 396.153Radial†	6594.6	4905.2	µg/L	75.76	4905.2	ppb	75.76	1.54%
As 188.979†	249.7	487.10	µg/L	22.947	487.10	ppb	22.947	4.71%
B 249.677†	10891.3	474.18	µg/L	4.912	474.18	ppb	4.912	1.04%
Ba 233.527†	18632.5	486.03	µg/L	10.205	486.03	ppb	10.205	2.10%
Be 313.107†	735101.0	479.88	µg/L	6.212	479.88	ppb	6.212	1.29%
Ca 317.933Radial†	5183.1	4880.2	µg/L	79.59	4880.2	ppb	79.59	1.63%
Cd 226.502†	17356.9	478.78	µg/L	8.903	478.78	ppb	8.903	1.86%
Co 228.616†	9673.5	475.49	µg/L	11.063	475.49	ppb	11.063	2.33%
Cr 267.716†	21975.0	483.67	µg/L	14.755	483.67	ppb	14.755	3.05%
Cu 324.752†	69436.2	485.71	µg/L	9.720	485.71	ppb	9.720	2.00%
Fe 238.204 Radial†	580.5	4930.0	µg/L	97.39	4930.0	ppb	97.39	1.98%
K 766.490 Radial†	6883.3	4892.6	µg/L	53.94	4892.6	ppb	53.94	1.10%
Mg 279.077 IEC†	533.1	4963.9	µg/L	96.41	4963.9	ppb	96.41	1.94%
Mn 257.610†	141701.7	491.15	µg/L	6.025	491.15	ppb	6.025	1.23%
Mo 202.031†	4525.6	483.16	µg/L	28.817	483.16	ppb	28.817	5.96%
Na 589.592 Radial†	15000.5	4938.2	µg/L	52.96	4938.2	ppb	52.96	1.07%

Ni 231.604†	8915.0	486.93 µg/L	10.800	486.93 ppb	10.800	2.22%
P 214.914†	231.1	450.00 µg/L	15.419	450.00 ppb	15.419	3.43%
Pb 220.353†	1821.2	486.08 µg/L	21.661	486.08 ppb	21.661	4.46%
S 181.975 Axial†	1120.1	4907.5 µg/L	197.13	4907.5 ppb	197.13	4.02%
Sb 206.836†	502.5	496.59 µg/L	24.834	496.59 ppb	24.834	5.00%
Se 196.026†	310.8	481.45 µg/L	16.915	481.45 ppb	16.915	3.51%
SiO2†	46873.9	10095 µg/L	137.3	10095 ppb	137.3	1.36%
Si 251.611†	57117.4	4695.3 µg/L	67.47	4695.3 ppb	67.47	1.44%
Sn 189.927†	1119.3	514.83 µg/L	33.750	514.83 ppb	33.750	6.56%
Sr 421.552†	46796.2	485.10 µg/L	5.111	485.10 ppb	5.111	1.05%
Ti 334.940†	199846.5	480.40 µg/L	7.013	480.40 ppb	7.013	1.46%
Tl 190.801†	346.1	488.96 µg/L	26.193	488.96 ppb	26.193	5.36%
U 409.014†	5545.9	501.13 µg/L	10.961	501.13 ppb	10.961	2.19%
V 292.402†	45315.2	488.88 µg/L	11.691	488.88 ppb	11.691	2.39%
Zn 213.857†	19119.1	473.97 µg/L	10.138	473.97 ppb	10.138	2.14%

Sequence No.: 42
Sample ID: 246000001|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 332
Date Collected: 2/11/2010 19:27:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246000001|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55650.4	55650.4	102	%			19:27:35
1	Al 396.153Radial†	14.3	24.2	17.975	µg/L	17.975	ppb	19:27:35
1	Ca 317.933Radial†	247.5	63.6	59.862	µg/L	59.862	ppb	19:27:55
1	Fe 238.204 Radial†	19.3	4.5	37.740	µg/L	37.740	ppb	19:27:55
1	K 766.490 Radial†	401.6	265.4	188.64	µg/L	188.64	ppb	19:27:35
1	Mg 279.077 IEC†	13.6	2.1	19.565	µg/L	19.565	ppb	19:27:55
1	Na 589.592 Radial†	1195.6	630.6	207.61	µg/L	207.61	ppb	19:27:35
1	Sr 421.552†	72.8	31.8	0.3298	µg/L	0.3298	ppb	19:27:35
1	Sc 361.383	1983846.0	1983846.0	103.87	%			19:28:57
1	Y 371.029	1358055.0	1358055.0	103.67	%			19:28:57
1	Ag 328.068†	-556.5	28.8	0.2361	µg/L	0.2361	ppb	19:29:03
1	As 188.979†	-1.9	-2.9	-5.7574	µg/L	-5.7574	ppb	19:29:23
1	B 249.677†	727.0	368.4	16.081	µg/L	16.081	ppb	19:29:03
1	Ba 233.527†	-8.5	17.9	0.4667	µg/L	0.4667	ppb	19:29:23
1	Be 313.107†	-3354.4	211.2	0.1376	µg/L	0.1376	ppb	19:29:03
1	Cd 226.502†	-133.7	13.4	0.3654	µg/L	0.3654	ppb	19:29:23
1	Co 228.616†	-8.1	1.0	0.0504	µg/L	0.0504	ppb	19:29:23
1	Cr 267.716†	4.5	56.7	1.2479	µg/L	1.2479	ppb	19:29:23
1	Cu 324.752†	2586.1	3.6	0.0301	µg/L	0.0301	ppb	19:29:03
1	Mn 257.610†	-27.3	217.8	0.7586	µg/L	0.7586	ppb	19:29:23
1	Mo 202.031†	8.2	15.5	1.6542	µg/L	1.6542	ppb	19:29:23
1	Ni 231.604†	303.5	-10.0	-0.5451	µg/L	-0.5451	ppb	19:29:23
1	P 214.914†	28.1	-0.6	-1.2440	µg/L	-1.2440	ppb	19:29:23
1	Pb 220.353†	102.8	1.7	0.4588	µg/L	0.4588	ppb	19:29:23
1	S 181.975 Axial†	32.8	16.7	73.240	µg/L	73.240	ppb	19:29:23
1	Sb 206.836†	20.5	-7.3	-7.1410	µg/L	-7.1410	ppb	19:29:23
1	Se 196.026†	7.6	-8.5	-12.927	µg/L	-12.927	ppb	19:29:23
1	SiO2†	14546.8	12754.1	2746.7	µg/L	2746.7	ppb	19:29:03
1	Si 251.611†	16527.0	15597.6	1282.2	µg/L	1282.2	ppb	19:29:03
1	Sn 189.927†	0.6	1.5	0.6664	µg/L	0.6664	ppb	19:29:23
1	Ti 334.940†	450.9	318.0	0.7643	µg/L	0.7643	ppb	19:29:03
1	Tl 190.801†	-24.6	0.6	0.8306	µg/L	0.8306	ppb	19:29:23
1	U 409.014†	16.1	69.1	6.2502	µg/L	6.2502	ppb	19:29:03
1	V 292.402†	35.0	77.9	0.8564	µg/L	0.8564	ppb	19:29:03
1	Zn 213.857†	579.5	82.3	2.0548	µg/L	2.0548	ppb	19:29:23
2	Sc RADIAL	56357.1	56357.1	103	%			19:28:01
2	Al 396.153Radial†	31.0	40.2	29.943	µg/L	29.943	ppb	19:28:01
2	Ca 317.933Radial†	245.8	58.9	55.415	µg/L	55.415	ppb	19:28:21
2	Fe 238.204 Radial†	19.9	4.8	40.296	µg/L	40.296	ppb	19:28:21
2	K 766.490 Radial†	393.7	252.8	179.68	µg/L	179.68	ppb	19:28:01
2	Mg 279.077 IEC†	13.7	1.9	18.071	µg/L	18.071	ppb	19:28:21
2	Na 589.592 Radial†	1174.9	595.8	196.14	µg/L	196.14	ppb	19:28:01
2	Sr 421.552†	53.8	12.6	0.1305	µg/L	0.1305	ppb	19:28:01
2	Sc 361.383	1971554.6	1971554.6	103.23	%			19:29:29
2	Y 371.029	1348064.6	1348064.6	102.91	%			19:29:29
2	Ag 328.068†	-565.2	17.0	0.1383	µg/L	0.1383	ppb	19:29:35
2	As 188.979†	-0.7	-1.8	-3.5576	µg/L	-3.5576	ppb	19:29:56
2	B 249.677†	701.9	348.4	15.208	µg/L	15.208	ppb	19:29:35
2	Ba 233.527†	1.3	27.2	0.7094	µg/L	0.7094	ppb	19:29:56
2	Be 313.107†	-3313.0	231.2	0.1506	µg/L	0.1506	ppb	19:29:35
2	Cd 226.502†	-142.3	4.3	0.1144	µg/L	0.1144	ppb	19:29:56
2	Co 228.616†	-11.9	-2.7	-0.1336	µg/L	-0.1336	ppb	19:29:56
2	Cr 267.716†	13.7	65.6	1.4431	µg/L	1.4431	ppb	19:29:56
2	Cu 324.752†	2557.2	-8.9	-0.0566	µg/L	-0.0566	ppb	19:29:35
2	Mn 257.610†	-11.2	233.3	0.8125	µg/L	0.8125	ppb	19:29:56
2	Mo 202.031†	-4.5	3.2	0.3463	µg/L	0.3463	ppb	19:29:56
2	Ni 231.604†	317.7	5.5	0.3041	µg/L	0.3041	ppb	19:29:56
2	P 214.914†	30.4	1.8	3.8947	µg/L	3.8947	ppb	19:29:56
2	Pb 220.353†	96.8	-3.4	-0.9071	µg/L	-0.9071	ppb	19:29:56

2	S 181.975 Axial†	25.1	9.5	41.481 µg/L	41.481 ppb	19:29:56
2	Sb 206.836†	25.0	-2.8	-2.7386 µg/L	-2.7386 ppb	19:29:56
2	Se 196.026†	16.7	0.4	0.6171 µg/L	0.6171 ppb	19:29:56
2	SiO2†	14575.1	12868.8	2771.4 µg/L	2771.4 ppb	19:29:35
2	Si 251.611†	16575.7	15744.0	1294.2 µg/L	1294.2 ppb	19:29:35
2	Sn 189.927†	1.0	1.8	0.8434 µg/L	0.8434 ppb	19:29:56
2	Ti 334.940†	509.7	377.6	0.9077 µg/L	0.9077 ppb	19:29:35
2	Tl 190.801†	-21.3	3.7	5.1181 µg/L	5.1181 ppb	19:29:56
2	U 409.014†	-78.9	-22.8	-2.0702 µg/L	-2.0702 ppb	19:29:35
2	V 292.402†	-35.1	10.2	0.1175 µg/L	0.1175 ppb	19:29:35
2	Zn 213.857†	574.9	81.4	2.0274 µg/L	2.0274 ppb	19:29:56
3	Sc RADIAL	56074.3	56074.3	103 %		19:28:27
3	Al 396.153Radial†	20.1	29.7	22.096 µg/L	22.096 ppb	19:28:27
3	Ca 317.933Radial†	253.2	67.2	63.315 µg/L	63.315 ppb	19:28:47
3	Fe 238.204 Radial†	18.1	3.1	26.183 µg/L	26.183 ppb	19:28:47
3	K 766.490 Radial†	385.1	246.3	175.10 µg/L	175.10 ppb	19:28:27
3	Mg 279.077 IEC†	14.6	2.9	27.179 µg/L	27.179 ppb	19:28:47
3	Na 589.592 Radial†	1165.6	592.5	195.06 µg/L	195.06 ppb	19:28:27
3	Sr 421.552†	44.1	3.3	0.0346 µg/L	0.0346 ppb	19:28:27
3	Sc 361.383	1961867.7	1961867.7	102.72 %		19:30:02
3	Y 371.029	1342324.7	1342324.7	102.47 %		19:30:02
3	Ag 328.068†	-584.1	-4.1	-0.0331 µg/L	-0.0331 ppb	19:30:07
3	As 188.979†	-1.3	-2.4	-4.6476 µg/L	-4.6476 ppb	19:30:28
3	B 249.677†	683.2	333.6	14.569 µg/L	14.569 ppb	19:30:07
3	Ba 233.527†	7.3	33.1	0.8626 µg/L	0.8626 ppb	19:30:28
3	Be 313.107†	-3134.6	389.0	0.2537 µg/L	0.2537 ppb	19:30:07
3	Cd 226.502†	-130.3	15.3	0.4196 µg/L	0.4196 ppb	19:30:28
3	Co 228.616†	-9.6	-0.5	-0.0268 µg/L	-0.0268 ppb	19:30:28
3	Cr 267.716†	3.8	56.1	1.2333 µg/L	1.2333 ppb	19:30:28
3	Cu 324.752†	2627.0	71.3	0.5016 µg/L	0.5016 ppb	19:30:07
3	Mn 257.610†	25.0	268.4	0.9320 µg/L	0.9320 ppb	19:30:28
3	Mo 202.031†	0.6	8.1	0.8699 µg/L	0.8699 ppb	19:30:28
3	Ni 231.604†	323.2	12.4	0.6809 µg/L	0.6809 ppb	19:30:28
3	P 214.914†	33.1	4.6	9.7521 µg/L	9.7521 ppb	19:30:28
3	Pb 220.353†	99.3	-0.5	-0.1359 µg/L	-0.1359 ppb	19:30:28
3	S 181.975 Axial†	29.3	13.7	59.882 µg/L	59.882 ppb	19:30:28
3	Sb 206.836†	26.8	-0.8	-0.8268 µg/L	-0.8268 ppb	19:30:28
3	Se 196.026†	12.3	-3.9	-5.9001 µg/L	-5.9001 ppb	19:30:28
3	SiO2†	14459.5	12826.1	2762.2 µg/L	2762.2 ppb	19:30:07
3	Si 251.611†	16363.1	15616.3	1283.7 µg/L	1283.7 ppb	19:30:07
3	Sn 189.927†	-3.2	-2.2	-1.0133 µg/L	-1.0133 ppb	19:30:28
3	Ti 334.940†	532.6	402.4	0.9667 µg/L	0.9667 ppb	19:30:07
3	Tl 190.801†	-24.7	0.3	0.3676 µg/L	0.3676 ppb	19:30:28
3	U 409.014†	-63.7	-8.3	-0.7632 µg/L	-0.7632 ppb	19:30:07
3	V 292.402†	-74.7	-28.5	-0.2916 µg/L	-0.2916 ppb	19:30:07
3	Zn 213.857†	575.8	84.9	2.1145 µg/L	2.1145 ppb	19:30:28

Mean Data: 246000001|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1972422.8	103.28	%	0.577				0.56%
Sc RADIAL	56027.3	103	%	0.7				0.63%
Y 371.029	1349481.4	103.02	%	0.608				0.59%
Ag 328.068†	13.9	0.1137	µg/L	0.13628	0.1137	ppb	0.13628	119.82%
Al 396.153Radial†	31.3	23.338	µg/L	6.0799	23.338	ppb	6.0799	26.05%
As 188.979†	-2.4	-4.6542	µg/L	1.09989	-4.6542	ppb	1.09989	23.63%
B 249.677†	350.1	15.286	µg/L	0.7595	15.286	ppb	0.7595	4.97%
Ba 233.527†	26.1	0.6796	µg/L	0.19961	0.6796	ppb	0.19961	29.37%
Be 313.107†	277.1	0.1806	µg/L	0.06356	0.1806	ppb	0.06356	35.19%
Ca 317.933Radial†	63.2	59.530	µg/L	3.9606	59.530	ppb	3.9606	6.65%
Cd 226.502†	11.0	0.2998	µg/L	0.16283	0.2998	ppb	0.16283	54.31%
Co 228.616†	-0.7	-0.0367	µg/L	0.09239	-0.0367	ppb	0.09239	252.02%
Cr 267.716†	59.5	1.3081	µg/L	0.11716	1.3081	ppb	0.11716	8.96%
Cu 324.752†	22.0	0.1583	µg/L	0.30037	0.1583	ppb	0.30037	189.69%
Fe 238.204 Radial†	4.1	34.740	µg/L	7.5199	34.740	ppb	7.5199	21.65%
K 766.490 Radial†	254.8	181.14	µg/L	6.885	181.14	ppb	6.885	3.80%
Mg 279.077 IEC†	2.3	21.605	µg/L	4.8845	21.605	ppb	4.8845	22.61%
Mn 257.610†	239.9	0.8343	µg/L	0.08876	0.8343	ppb	0.08876	10.64%
Mo 202.031†	9.0	0.9568	µg/L	0.65826	0.9568	ppb	0.65826	68.80%
Na 589.592 Radial†	606.3	199.60	µg/L	6.950	199.60	ppb	6.950	3.48%

Ni 231.604†	2.7	0.1466	µg/L	0.62802	0.1466	ppb	0.62802 428.33%
P 214.914†	1.9	4.1343	µg/L	5.50197	4.1343	ppb	5.50197 133.08%
Pb 220.353†	-0.7	-0.1947	µg/L	0.68485	-0.1947	ppb	0.68485 351.68%
S 181.975 Axial†	13.3	58.201	µg/L	15.9464	58.201	ppb	15.9464 27.40%
Sb 206.836†	-3.6	-3.5688	µg/L	3.23794	-3.5688	ppb	3.23794 90.73%
Se 196.026†	-4.0	-6.0699	µg/L	6.77354	-6.0699	ppb	6.77354 111.59%
SiO2†	12816.3	2760.1	µg/L	12.49	2760.1	ppb	12.49 0.45%
Si 251.611†	15652.6	1286.7	µg/L	6.55	1286.7	ppb	6.55 0.51%
Sn 189.927†	0.4	0.1655	µg/L	1.02474	0.1655	ppb	1.02474 619.14%
Sr 421.552†	15.9	0.1650	µg/L	0.15060	0.1650	ppb	0.15060 91.28%
Ti 334.940†	366.0	0.8796	µg/L	0.10409	0.8796	ppb	0.10409 11.83%
Tl 190.801†	1.5	2.1054	µg/L	2.61928	2.1054	ppb	2.61928 124.41%
U 409.014†	12.7	1.1389	µg/L	4.47445	1.1389	ppb	4.47445 392.86%
V 292.402†	19.9	0.2275	µg/L	0.58185	0.2275	ppb	0.58185 255.81%
Zn 213.857†	82.9	2.0655	µg/L	0.04451	2.0655	ppb	0.04451 2.15%

Sequence No.: 43
Sample ID: 1202032559|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 333
Date Collected: 2/11/2010 19:30:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032559|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55369.8	55369.8	101	%			19:31:10
1	Al 396.153Radial†	27.3	37.1	27.641	µg/L	27.641	ppb	19:31:10
1	Ca 317.933Radial†	243.4	60.7	57.167	µg/L	57.167	ppb	19:31:30
1	Fe 238.204 Radial†	16.5	1.8	15.034	µg/L	15.034	ppb	19:31:30
1	K 766.490 Radial†	376.1	242.3	172.24	µg/L	172.24	ppb	19:31:10
1	Mg 279.077 IEC†	13.4	1.9	17.989	µg/L	17.989	ppb	19:31:30
1	Na 589.592 Radial†	1118.3	560.4	184.47	µg/L	184.47	ppb	19:31:10
1	Sr 421.552†	80.8	40.1	0.4152	µg/L	0.4152	ppb	19:31:10
1	Sc 361.383	1957288.3	1957288.3	102.48	%			19:32:32
1	Y 371.029	1341003.8	1341003.8	102.37	%			19:32:32
1	Ag 328.068†	-492.7	83.8	0.6666	µg/L	0.6666	ppb	19:32:37
1	As 188.979†	-0.9	-2.0	-4.0031	µg/L	-4.0031	ppb	19:32:58
1	B 249.677†	719.9	371.0	16.207	µg/L	16.207	ppb	19:32:37
1	Ba 233.527†	-10.5	15.7	0.4102	µg/L	0.4102	ppb	19:32:58
1	Be 313.107†	-3539.8	-13.5	-0.0090	µg/L	-0.0090	ppb	19:32:37
1	Cd 226.502†	-150.2	-4.4	-0.1235	µg/L	-0.1235	ppb	19:32:58
1	Co 228.616†	-12.4	-3.3	-0.1634	µg/L	-0.1634	ppb	19:32:58
1	Cr 267.716†	-22.0	30.9	0.6806	µg/L	0.6806	ppb	19:32:58
1	Cu 324.752†	2532.9	-14.6	-0.0998	µg/L	-0.0998	ppb	19:32:37
1	Mn 257.610†	-105.5	141.2	0.4903	µg/L	0.4903	ppb	19:32:58
1	Mo 202.031†	-9.0	-1.2	-0.1312	µg/L	-0.1312	ppb	19:32:58
1	Ni 231.604†	309.3	-0.4	-0.0191	µg/L	-0.0191	ppb	19:32:58
1	P 214.914†	35.6	7.1	15.341	µg/L	15.341	ppb	19:32:58
1	Pb 220.353†	89.9	-9.5	-2.5338	µg/L	-2.5338	ppb	19:32:58
1	S 181.975 Axial†	30.4	14.9	65.128	µg/L	65.128	ppb	19:32:58
1	Sb 206.836†	22.5	-5.0	-4.9601	µg/L	-4.9601	ppb	19:32:58
1	Se 196.026†	14.9	-1.3	-1.9004	µg/L	-1.9004	ppb	19:32:58
1	SiO2†	14720.0	13113.1	2824.0	µg/L	2824.0	ppb	19:32:37
1	Si 251.611†	16745.8	16026.9	1317.5	µg/L	1317.5	ppb	19:32:37
1	Sn 189.927†	4.4	5.2	2.3867	µg/L	2.3867	ppb	19:32:58
1	Ti 334.940†	342.8	218.3	0.5247	µg/L	0.5247	ppb	19:32:37
1	Tl 190.801†	-18.4	6.4	8.8912	µg/L	8.8912	ppb	19:32:58
1	U 409.014†	-31.7	22.7	2.0510	µg/L	2.0510	ppb	19:32:37
1	V 292.402†	-35.4	9.7	0.1073	µg/L	0.1073	ppb	19:32:37
1	Zn 213.857†	550.1	61.2	1.5266	µg/L	1.5266	ppb	19:32:58
2	Sc RADIAL	56232.0	56232.0	103	%			19:31:36
2	Al 396.153Radial†	20.5	30.0	22.366	µg/L	22.366	ppb	19:31:36
2	Ca 317.933Radial†	234.1	48.1	45.285	µg/L	45.285	ppb	19:31:56
2	Fe 238.204 Radial†	18.9	3.9	32.938	µg/L	32.938	ppb	19:31:56
2	K 766.490 Radial†	401.7	261.4	185.83	µg/L	185.83	ppb	19:31:36
2	Mg 279.077 IEC†	11.2	-0.4	-3.5186	µg/L	-3.5186	ppb	19:31:56
2	Na 589.592 Radial†	1117.4	542.6	178.63	µg/L	178.63	ppb	19:31:36
2	Sr 421.552†	60.4	19.0	0.1974	µg/L	0.1974	ppb	19:31:36
2	Sc 361.383	1985418.5	1985418.5	103.96	%			19:33:04
2	Y 371.029	1359374.4	1359374.4	103.78	%			19:33:04
2	Ag 328.068†	-475.1	107.5	0.8590	µg/L	0.8590	ppb	19:33:09
2	As 188.979†	-4.1	-5.1	-9.9165	µg/L	-9.9165	ppb	19:33:30
2	B 249.677†	718.8	360.0	15.716	µg/L	15.716	ppb	19:33:09
2	Ba 233.527†	-18.1	8.6	0.2255	µg/L	0.2255	ppb	19:33:30
2	Be 313.107†	-3406.7	163.4	0.1065	µg/L	0.1065	ppb	19:33:09
2	Cd 226.502†	-148.4	-0.7	-0.0227	µg/L	-0.0227	ppb	19:33:30
2	Co 228.616†	-10.8	-1.5	-0.0755	µg/L	-0.0755	ppb	19:33:30
2	Cr 267.716†	-16.3	36.7	0.8072	µg/L	0.8072	ppb	19:33:30
2	Cu 324.752†	2453.0	-126.5	-0.8788	µg/L	-0.8788	ppb	19:33:09
2	Mn 257.610†	-109.7	138.6	0.4845	µg/L	0.4845	ppb	19:33:30
2	Mo 202.031†	-6.5	1.3	0.1397	µg/L	0.1397	ppb	19:33:30
2	Ni 231.604†	303.1	-10.6	-0.5795	µg/L	-0.5795	ppb	19:33:30
2	P 214.914†	27.9	-0.8	-1.7271	µg/L	-1.7271	ppb	19:33:30
2	Pb 220.353†	100.2	-0.8	-0.2107	µg/L	-0.2107	ppb	19:33:30

2	S 181.975 Axial†	24.6	8.8	38.629 µg/L	38.629 ppb	19:33:30
2	Sb 206.836†	25.5	-2.4	-2.3573 µg/L	-2.3573 ppb	19:33:30
2	Se 196.026†	13.5	-2.9	-4.3357 µg/L	-4.3357 ppb	19:33:30
2	SiO2†	14565.5	12761.0	2748.2 µg/L	2748.2 ppb	19:33:09
2	Si 251.611†	16534.1	15591.9	1281.7 µg/L	1281.7 ppb	19:33:09
2	Sn 189.927†	-3.4	-2.4	-1.0908 µg/L	-1.0908 ppb	19:33:30
2	Ti 334.940†	415.8	283.9	0.6838 µg/L	0.6838 ppb	19:33:09
2	Tl 190.801†	-24.3	0.9	1.3234 µg/L	1.3234 ppb	19:33:30
2	U 409.014†	-74.6	-18.1	-1.6482 µg/L	-1.6482 ppb	19:33:09
2	V 292.402†	9.6	53.5	0.5749 µg/L	0.5749 ppb	19:33:09
2	Zn 213.857†	541.1	45.0	1.1253 µg/L	1.1253 ppb	19:33:30
3	Sc RADIAL	56023.2	56023.2	103 %		19:32:01
3	Al 396.153Radial†	23.5	33.0	24.583 µg/L	24.583 ppb	19:32:01
3	Ca 317.933Radial†	244.2	58.7	55.281 µg/L	55.281 ppb	19:32:22
3	Fe 238.204 Radial†	14.9	-0.0	-0.0783 µg/L	-0.0783 ppb	19:32:22
3	K 766.490 Radial†	448.8	308.8	219.46 µg/L	219.46 ppb	19:32:01
3	Mg 279.077 IEC†	9.0	-2.5	-23.358 µg/L	-23.358 ppb	19:32:22
3	Na 589.592 Radial†	1105.2	534.7	176.03 µg/L	176.03 ppb	19:32:01
3	Sr 421.552†	62.1	20.9	0.2170 µg/L	0.2170 ppb	19:32:01
3	Sc 361.383	1953368.2	1953368.2	102.28 %		19:33:36
3	Y 371.029	1335404.5	1335404.5	101.95 %		19:33:36
3	Ag 328.068†	-556.7	20.3	0.1596 µg/L	0.1596 ppb	19:33:41
3	As 188.979†	0.2	-0.9	-1.8467 µg/L	-1.8467 ppb	19:34:02
3	B 249.677†	701.7	354.6	15.499 µg/L	15.499 ppb	19:33:41
3	Ba 233.527†	-16.3	10.1	0.2614 µg/L	0.2614 ppb	19:34:02
3	Be 313.107†	-3559.8	-40.0	-0.0263 µg/L	-0.0263 ppb	19:33:41
3	Cd 226.502†	-146.9	-1.5	-0.0404 µg/L	-0.0404 ppb	19:34:02
3	Co 228.616†	-11.4	-2.3	-0.1134 µg/L	-0.1134 ppb	19:34:02
3	Cr 267.716†	-18.4	34.4	0.7558 µg/L	0.7558 ppb	19:34:02
3	Cu 324.752†	2463.5	-77.5	-0.5416 µg/L	-0.5416 ppb	19:33:41
3	Mn 257.610†	-124.1	122.8	0.4261 µg/L	0.4261 ppb	19:34:02
3	Mo 202.031†	-6.9	0.8	0.0892 µg/L	0.0892 ppb	19:34:02
3	Ni 231.604†	309.7	0.6	0.0333 µg/L	0.0333 ppb	19:34:02
3	P 214.914†	32.7	4.3	9.3269 µg/L	9.3269 ppb	19:34:02
3	Pb 220.353†	89.9	-9.3	-2.4747 µg/L	-2.4747 ppb	19:34:02
3	S 181.975 Axial†	20.7	5.5	23.923 µg/L	23.923 ppb	19:34:02
3	Sb 206.836†	18.4	-9.0	-8.8834 µg/L	-8.8834 ppb	19:34:02
3	Se 196.026†	8.1	-8.0	-12.127 µg/L	-12.127 ppb	19:34:02
3	SiO2†	14525.8	12952.1	2789.3 µg/L	2789.3 ppb	19:33:41
3	Si 251.611†	16428.3	15749.4	1294.7 µg/L	1294.7 ppb	19:33:41
3	Sn 189.927†	-0.7	0.2	0.1014 µg/L	0.1014 ppb	19:34:02
3	Ti 334.940†	337.4	213.7	0.5169 µg/L	0.5169 ppb	19:33:41
3	Tl 190.801†	-27.2	-2.3	-3.2110 µg/L	-3.2110 ppb	19:34:02
3	U 409.014†	-73.9	-18.6	-1.6874 µg/L	-1.6874 ppb	19:33:41
3	V 292.402†	-61.9	-16.4	-0.1736 µg/L	-0.1736 ppb	19:33:41
3	Zn 213.857†	546.4	58.6	1.4662 µg/L	1.4662 ppb	19:34:02

Mean Data: 1202032559|948737|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1965358.3	102.91	%	0.915				0.89%
Sc RADIAL	55875.0	102	%	0.8				0.81%
Y 371.029	1345260.9	102.70	%	0.957				0.93%
Ag 328.068†	70.5	0.5618	µg/L	0.36128	0.5618	ppb	0.36128	64.31%
Al 396.153Radial†	33.4	24.863	µg/L	2.6486	24.863	ppb	2.6486	10.65%
As 188.979†	-2.7	-5.2554	µg/L	4.17812	-5.2554	ppb	4.17812	79.50%
B 249.677†	361.9	15.807	µg/L	0.3629	15.807	ppb	0.3629	2.30%
Ba 233.527†	11.5	0.2990	µg/L	0.09794	0.2990	ppb	0.09794	32.75%
Be 313.107†	36.6	0.0237	µg/L	0.07220	0.0237	ppb	0.07220	304.72%
Ca 317.933Radial†	55.8	52.578	µg/L	6.3860	52.578	ppb	6.3860	12.15%
Cd 226.502†	-2.2	-0.0622	µg/L	0.05384	-0.0622	ppb	0.05384	86.58%
Co 228.616†	-2.4	-0.1174	µg/L	0.04408	-0.1174	ppb	0.04408	37.55%
Cr 267.716†	34.0	0.7479	µg/L	0.06369	0.7479	ppb	0.06369	8.52%
Cu 324.752†	-72.9	-0.5067	µg/L	0.39067	-0.5067	ppb	0.39067	77.10%
Fe 238.204 Radial†	1.9	15.964	µg/L	16.5276	15.964	ppb	16.5276	103.53%
K 766.490 Radial†	270.8	192.51	µg/L	24.311	192.51	ppb	24.311	12.63%
Mg 279.077 IEC†	-0.3	-2.9625	µg/L	20.67888	-2.9625	ppb	20.67888	698.02%
Mn 257.610†	134.2	0.4670	µg/L	0.03550	0.4670	ppb	0.03550	7.60%
Mo 202.031†	0.3	0.0326	µg/L	0.14408	0.0326	ppb	0.14408	442.34%
Na 589.592 Radial†	545.9	179.71	µg/L	4.323	179.71	ppb	4.323	2.41%

Ni 231.604†	-3.5	-0.1884	µg/L	0.33968	-0.1884	ppb	0.33968 180.30%
P 214.914†	3.5	7.6469	µg/L	8.65706	7.6469	ppb	8.65706 113.21%
Pb 220.353†	-6.5	-1.7397	µg/L	1.32454	-1.7397	ppb	1.32454 76.13%
S 181.975 Axial†	9.7	42.560	µg/L	20.8819	42.560	ppb	20.8819 49.07%
Sb 206.836†	-5.5	-5.4003	µg/L	3.28526	-5.4003	ppb	3.28526 60.84%
Se 196.026†	-4.0	-6.1210	µg/L	5.34190	-6.1210	ppb	5.34190 87.27%
SiO2†	12942.1	2787.1	µg/L	37.96	2787.1	ppb	37.96 1.36%
Si 251.611†	15789.4	1298.0	µg/L	18.11	1298.0	ppb	18.11 1.40%
Sn 189.927†	1.0	0.4657	µg/L	1.76718	0.4657	ppb	1.76718 379.43%
Sr 421.552†	26.7	0.2766	µg/L	0.12050	0.2766	ppb	0.12050 43.57%
Ti 334.940†	238.7	0.5751	µg/L	0.09422	0.5751	ppb	0.09422 16.38%
Tl 190.801†	1.7	2.3345	µg/L	6.11411	2.3345	ppb	6.11411 261.90%
U 409.014†	-4.7	-0.4282	µg/L	2.14716	-0.4282	ppb	2.14716 501.43%
V 292.402†	15.6	0.1695	µg/L	0.37811	0.1695	ppb	0.37811 223.01%
Zn 213.857†	54.9	1.3727	µg/L	0.21636	1.3727	ppb	0.21636 15.76%

Sequence No.: 44
Sample ID: 1202032560|948737|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 2/11/2010 19:34:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032560|948737|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56464.8	56464.8	103	%			19:34:44
1	Al 396.153Radial†	6806.1	6588.3	4900.2	µg/L	4900.2	ppb	19:35:04
1	Ca 317.933Radial†	5506.4	5142.9	4842.4	µg/L	4842.4	ppb	19:35:04
1	Fe 238.204 Radial†	611.9	576.9	4899.7	µg/L	4899.7	ppb	19:35:04
1	K 766.490 Radial†	7333.3	6959.3	4946.6	µg/L	4946.6	ppb	19:34:44
1	Mg 279.077 IEC†	557.7	527.7	4914.4	µg/L	4914.4	ppb	19:35:04
1	Na 589.592 Radial†	16217.5	15132.6	4981.7	µg/L	4981.7	ppb	19:34:44
1	Sr 421.552†	47317.0	45693.3	473.66	µg/L	473.66	ppb	19:34:44
1	Sc 361.383	1969504.1	1969504.1	103.12	%			19:36:08
1	Y 371.029	1344490.8	1344490.8	102.64	%			19:36:08
1	Ag 328.068†	61777.8	60470.9	483.38	µg/L	483.38	ppb	19:36:14
1	As 188.979†	267.3	258.0	503.42	µg/L	503.42	ppb	19:36:34
1	B 249.677†	12031.5	11335.6	493.62	µg/L	493.62	ppb	19:36:14
1	Ba 233.527†	19428.6	18866.0	492.13	µg/L	492.13	ppb	19:36:14
1	Be 313.107†	757639.6	738128.1	481.85	µg/L	481.85	ppb	19:36:08
1	Cd 226.502†	17872.8	17473.5	482.01	µg/L	482.01	ppb	19:36:14
1	Co 228.616†	10159.6	9860.7	484.72	µg/L	484.72	ppb	19:36:14
1	Cr 267.716†	23006.4	22361.8	492.18	µg/L	492.18	ppb	19:36:14
1	Cu 324.752†	75411.0	70640.4	494.12	µg/L	494.12	ppb	19:36:14
1	Mn 257.610†	147190.3	142975.5	495.56	µg/L	495.56	ppb	19:36:08
1	Mo 202.031†	4839.3	4700.2	501.80	µg/L	501.80	ppb	19:36:34
1	Ni 231.604†	9637.5	9043.3	493.93	µg/L	493.93	ppb	19:36:14
1	P 214.914†	274.0	238.0	464.37	µg/L	464.37	ppb	19:36:34
1	Pb 220.353†	2045.5	1886.3	503.48	µg/L	503.48	ppb	19:36:34
1	S 181.975 Axial†	1203.8	1152.6	5049.8	µg/L	5049.8	ppb	19:36:34
1	Sb 206.836†	563.5	519.5	513.56	µg/L	513.56	ppb	19:36:34
1	Se 196.026†	338.7	312.6	484.26	µg/L	484.26	ppb	19:36:34
1	SiO2†	63253.8	60087.6	12940	µg/L	12940	ppb	19:36:14
1	Si 251.611†	75809.8	73200.4	6017.4	µg/L	6017.4	ppb	19:36:14
1	Sn 189.927†	1195.5	1160.1	533.61	µg/L	533.61	ppb	19:36:34
1	Ti 334.940†	208361.9	201933.7	485.43	µg/L	485.43	ppb	19:36:08
1	Tl 190.801†	343.5	357.4	504.78	µg/L	504.78	ppb	19:36:34
1	U 409.014†	5786.5	5664.8	511.90	µg/L	511.90	ppb	19:36:14
1	V 292.402†	47433.2	46040.5	496.78	µg/L	496.78	ppb	19:36:14
1	Zn 213.857†	20405.0	19311.3	478.73	µg/L	478.73	ppb	19:36:14
2	Sc RADIAL	56738.3	56738.3	104	%			19:35:10
2	Al 396.153Radial†	6857.8	6606.4	4913.7	µg/L	4913.7	ppb	19:35:30
2	Ca 317.933Radial†	5550.5	5159.7	4858.2	µg/L	4858.2	ppb	19:35:30
2	Fe 238.204 Radial†	618.4	580.3	4928.8	µg/L	4928.8	ppb	19:35:30
2	K 766.490 Radial†	7512.7	7097.8	5045.0	µg/L	5045.0	ppb	19:35:10
2	Mg 279.077 IEC†	561.6	528.9	4925.0	µg/L	4925.0	ppb	19:35:30
2	Na 589.592 Radial†	16499.1	15328.0	5046.0	µg/L	5046.0	ppb	19:35:10
2	Sr 421.552†	48452.7	46565.3	482.70	µg/L	482.70	ppb	19:35:10
2	Sc 361.383	1963144.1	1963144.1	102.79	%			19:36:41
2	Y 371.029	1340072.9	1340072.9	102.30	%			19:36:41
2	Ag 328.068†	61611.8	60503.4	483.66	µg/L	483.66	ppb	19:36:47
2	As 188.979†	260.2	252.0	491.59	µg/L	491.59	ppb	19:37:07
2	B 249.677†	12050.1	11391.4	496.05	µg/L	496.05	ppb	19:36:47
2	Ba 233.527†	19468.1	18965.5	494.72	µg/L	494.72	ppb	19:36:47
2	Be 313.107†	756552.9	739451.1	482.72	µg/L	482.72	ppb	19:36:41
2	Cd 226.502†	17837.5	17495.3	482.61	µg/L	482.61	ppb	19:36:47
2	Co 228.616†	10063.1	9798.7	481.66	µg/L	481.66	ppb	19:36:47
2	Cr 267.716†	23000.6	22428.5	493.65	µg/L	493.65	ppb	19:36:47
2	Cu 324.752†	75255.1	70725.6	494.72	µg/L	494.72	ppb	19:36:47
2	Mn 257.610†	146664.2	142926.0	495.39	µg/L	495.39	ppb	19:36:41
2	Mo 202.031†	4791.0	4668.4	498.41	µg/L	498.41	ppb	19:37:07
2	Ni 231.604†	9624.9	9061.3	494.92	µg/L	494.92	ppb	19:36:47
2	P 214.914†	259.0	224.3	434.79	µg/L	434.79	ppb	19:37:07
2	Pb 220.353†	2029.3	1877.0	500.98	µg/L	500.98	ppb	19:37:07

2	S 181.975 Axial†	1194.9	1147.6	5028.2 µg/L	5028.2 ppb	19:37:07
2	Sb 206.836†	555.9	513.8	507.88 µg/L	507.88 ppb	19:37:07
2	Se 196.026†	334.4	309.5	479.52 µg/L	479.52 ppb	19:37:07
2	SiO2†	63264.3	60296.5	12985 µg/L	12985 ppb	19:36:47
2	Si 251.611†	75806.3	73435.1	6036.7 µg/L	6036.7 ppb	19:36:47
2	Sn 189.927†	1179.8	1148.7	528.34 µg/L	528.34 ppb	19:37:07
2	Ti 334.940†	208026.1	202261.6	486.21 µg/L	486.21 ppb	19:36:41
2	Tl 190.801†	339.5	354.5	500.78 µg/L	500.78 ppb	19:37:07
2	U 409.014†	5762.6	5659.8	511.44 µg/L	511.44 ppb	19:36:47
2	V 292.402†	47518.7	46272.7	499.23 µg/L	499.23 ppb	19:36:47
2	Zn 213.857†	20383.6	19354.6	479.81 µg/L	479.81 ppb	19:36:47
3	Sc RADIAL	56983.3	56983.3	104 %		19:35:36
3	Al 396.153Radial†	6778.1	6501.7	4836.4 µg/L	4836.4 ppb	19:35:56
3	Ca 317.933Radial†	5483.7	5072.7	4776.3 µg/L	4776.3 ppb	19:35:56
3	Fe 238.204 Radial†	610.2	569.9	4840.0 µg/L	4840.0 ppb	19:35:56
3	K 766.490 Radial†	7476.8	7032.3	4998.5 µg/L	4998.5 ppb	19:35:36
3	Mg 279.077 IEC†	558.6	523.7	4875.9 µg/L	4875.9 ppb	19:35:56
3	Na 589.592 Radial†	16463.0	15225.1	5012.2 µg/L	5012.2 ppb	19:35:36
3	Sr 421.552†	48028.2	45958.3	476.41 µg/L	476.41 ppb	19:35:36
3	Sc 361.383	1953228.5	1953228.5	102.27 %		19:37:14
3	Y 371.029	1334981.2	1334981.2	101.91 %		19:37:14
3	Ag 328.068†	60906.6	60118.1	480.49 µg/L	480.49 ppb	19:37:20
3	As 188.979†	246.6	240.0	468.20 µg/L	468.20 ppb	19:37:41
3	B 249.677†	11806.2	11212.5	488.25 µg/L	488.25 ppb	19:37:20
3	Ba 233.527†	18817.3	18425.3	480.63 µg/L	480.63 ppb	19:37:20
3	Be 313.107†	740878.0	727860.9	475.15 µg/L	475.15 ppb	19:37:14
3	Cd 226.502†	17362.9	17119.4	472.23 µg/L	472.23 ppb	19:37:20
3	Co 228.616†	9771.9	9563.6	470.08 µg/L	470.08 ppb	19:37:20
3	Cr 267.716†	22087.4	21649.1	476.50 µg/L	476.50 ppb	19:37:20
3	Cu 324.752†	72706.1	68604.9	479.89 µg/L	479.89 ppb	19:37:20
3	Mn 257.610†	143804.2	140853.9	488.21 µg/L	488.21 ppb	19:37:14
3	Mo 202.031†	4405.4	4315.1	460.70 µg/L	460.70 ppb	19:37:41
3	Ni 231.604†	9285.9	8777.4	479.41 µg/L	479.41 ppb	19:37:20
3	P 214.914†	254.1	220.8	428.19 µg/L	428.19 ppb	19:37:41
3	Pb 220.353†	1906.4	1766.9	471.52 µg/L	471.52 ppb	19:37:41
3	S 181.975 Axial†	1137.3	1097.2	4807.1 µg/L	4807.1 ppb	19:37:41
3	Sb 206.836†	512.2	473.8	468.13 µg/L	468.13 ppb	19:37:41
3	Se 196.026†	311.2	288.4	447.26 µg/L	447.26 ppb	19:37:41
3	SiO2†	61664.2	59044.4	12716 µg/L	12716 ppb	19:37:20
3	Si 251.611†	73998.6	72042.0	5922.2 µg/L	5922.2 ppb	19:37:20
3	Sn 189.927†	1081.7	1058.6	486.89 µg/L	486.89 ppb	19:37:41
3	Ti 334.940†	203268.0	198636.6	477.50 µg/L	477.50 ppb	19:37:14
3	Tl 190.801†	317.8	335.0	473.39 µg/L	473.39 ppb	19:37:41
3	U 409.014†	5643.9	5572.1	503.52 µg/L	503.52 ppb	19:37:20
3	V 292.402†	45704.3	44733.2	482.48 µg/L	482.48 ppb	19:37:20
3	Zn 213.857†	19736.3	18822.4	466.62 µg/L	466.62 ppb	19:37:20

Mean Data: 1202032560|948737|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1961958.9	102.73	%	0.429				0.42%
Sc RADIAL	56728.8	104	%	0.5				0.46%
Y 371.029	1339848.3	102.28	%	0.363				0.36%
Ag 328.068†	60364.1	482.51	µg/L	1.756	482.51	ppb	1.756	0.36%
Al 396.153Radial†	6565.5	4883.4	µg/L	41.27	4883.4	ppb	41.27	0.85%
As 188.979†	250.0	487.74	µg/L	17.922	487.74	ppb	17.922	3.67%
B 249.677†	11313.1	492.64	µg/L	3.992	492.64	ppb	3.992	0.81%
Ba 233.527†	18752.3	489.16	µg/L	7.501	489.16	ppb	7.501	1.53%
Be 313.107†	735146.7	479.91	µg/L	4.141	479.91	ppb	4.141	0.86%
Ca 317.933Radial†	5125.1	4825.6	µg/L	43.45	4825.6	ppb	43.45	0.90%
Cd 226.502†	17362.7	478.95	µg/L	5.826	478.95	ppb	5.826	1.22%
Co 228.616†	9741.0	478.82	µg/L	7.722	478.82	ppb	7.722	1.61%
Cr 267.716†	22146.5	487.44	µg/L	9.508	487.44	ppb	9.508	1.95%
Cu 324.752†	69990.3	489.58	µg/L	8.392	489.58	ppb	8.392	1.71%
Fe 238.204 Radial†	575.7	4889.5	µg/L	45.26	4889.5	ppb	45.26	0.93%
K 766.490 Radial†	7029.8	4996.7	µg/L	49.22	4996.7	ppb	49.22	0.98%
Mg 279.077 IEC†	526.8	4905.1	µg/L	25.83	4905.1	ppb	25.83	0.53%
Mn 257.610†	142251.8	493.05	µg/L	4.198	493.05	ppb	4.198	0.85%
Mo 202.031†	4561.2	486.97	µg/L	22.812	486.97	ppb	22.812	4.68%
Na 589.592 Radial†	15228.6	5013.3	µg/L	32.17	5013.3	ppb	32.17	0.64%

Ni 231.604†	8960.7	489.42	µg/L	8.683	489.42	ppb	8.683	1.77%
P 214.914†	227.7	442.45	µg/L	19.267	442.45	ppb	19.267	4.35%
Pb 220.353†	1843.4	491.99	µg/L	17.777	491.99	ppb	17.777	3.61%
S 181.975 Axial†	1132.5	4961.7	µg/L	134.32	4961.7	ppb	134.32	2.71%
Sb 206.836†	502.4	496.52	µg/L	24.756	496.52	ppb	24.756	4.99%
Se 196.026†	303.5	470.34	µg/L	20.133	470.34	ppb	20.133	4.28%
SiO2†	59809.5	12880	µg/L	144.5	12880	ppb	144.5	1.12%
Si 251.611†	72892.5	5992.1	µg/L	61.31	5992.1	ppb	61.31	1.02%
Sn 189.927†	1122.5	516.28	µg/L	25.587	516.28	ppb	25.587	4.96%
Sr 421.552†	46072.3	477.59	µg/L	4.634	477.59	ppb	4.634	0.97%
Ti 334.940†	200944.0	483.04	µg/L	4.822	483.04	ppb	4.822	1.00%
Tl 190.801†	349.0	492.98	µg/L	17.083	492.98	ppb	17.083	3.47%
U 409.014†	5632.2	508.95	µg/L	4.711	508.95	ppb	4.711	0.93%
V 292.402†	45682.1	492.83	µg/L	9.049	492.83	ppb	9.049	1.84%
Zn 213.857†	19162.7	475.05	µg/L	7.325	475.05	ppb	7.325	1.54%

Sequence No.: 45
Sample ID: 1202032561|948737|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 2/11/2010 19:37:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032561|948737|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55556.9	55556.9	102	%			19:38:23
1	Al 396.153Radial†	-14.4	-4.0	-3.0016	µg/L	-3.0016	ppb	19:38:23
1	Ca 317.933Radial†	193.6	11.0	10.352	µg/L	10.352	ppb	19:38:43
1	Fe 238.204 Radial†	16.0	1.2	10.568	µg/L	10.568	ppb	19:38:43
1	K 766.490 Radial†	200.3	68.3	48.549	µg/L	48.549	ppb	19:38:23
1	Mg 279.077 IEC†	17.4	5.8	54.431	µg/L	54.431	ppb	19:38:43
1	Na 589.592 Radial†	748.0	192.9	63.499	µg/L	63.499	ppb	19:38:23
1	Sr 421.552†	52.3	11.8	0.1221	µg/L	0.1221	ppb	19:38:23
1	Sc 361.383	1967786.0	1967786.0	103.03	%			19:39:45
1	Y 371.029	1347427.9	1347427.9	102.86	%			19:39:45
1	Ag 328.068†	-513.7	65.9	0.5269	µg/L	0.5269	ppb	19:39:51
1	As 188.979†	0.2	-0.9	-1.7879	µg/L	-1.7879	ppb	19:40:11
1	B 249.677†	392.7	49.7	2.1660	µg/L	2.1660	ppb	19:40:11
1	Ba 233.527†	-17.5	9.0	0.2357	µg/L	0.2357	ppb	19:40:11
1	Be 313.107†	-3261.5	274.9	0.1795	µg/L	0.1795	ppb	19:39:51
1	Cd 226.502†	-143.1	3.3	0.0883	µg/L	0.0883	ppb	19:40:11
1	Co 228.616†	-14.2	-4.9	-0.2416	µg/L	-0.2416	ppb	19:40:11
1	Cr 267.716†	-7.4	45.2	0.9940	µg/L	0.9940	ppb	19:40:11
1	Cu 324.752†	2443.8	-114.2	-0.7963	µg/L	-0.7963	ppb	19:39:51
1	Mn 257.610†	-169.1	79.9	0.2761	µg/L	0.2761	ppb	19:40:11
1	Mo 202.031†	-6.4	1.4	0.1476	µg/L	0.1476	ppb	19:40:11
1	Ni 231.604†	306.2	-5.0	-0.2754	µg/L	-0.2754	ppb	19:40:11
1	P 214.914†	36.4	7.7	16.712	µg/L	16.712	ppb	19:40:11
1	Pb 220.353†	91.5	-8.3	-2.2188	µg/L	-2.2188	ppb	19:40:11
1	S 181.975 Axial†	15.5	0.3	1.1200	µg/L	1.1200	ppb	19:40:11
1	Sb 206.836†	23.6	-4.0	-3.9935	µg/L	-3.9935	ppb	19:40:11
1	Se 196.026†	10.4	-5.8	-8.8371	µg/L	-8.8371	ppb	19:40:11
1	SiO2†	4053.3	2683.9	578.00	µg/L	578.00	ppb	19:39:51
1	Si 251.611†	3735.4	3312.5	272.31	µg/L	272.31	ppb	19:39:51
1	Sn 189.927†	1.4	2.2	1.0392	µg/L	1.0392	ppb	19:40:11
1	Ti 334.940†	209.0	86.7	0.2045	µg/L	0.2045	ppb	19:39:51
1	Tl 190.801†	-28.8	-3.6	-5.0793	µg/L	-5.0793	ppb	19:40:11
1	U 409.014†	-114.0	-57.1	-5.1684	µg/L	-5.1684	ppb	19:39:51
1	V 292.402†	0.4	44.6	0.4745	µg/L	0.4745	ppb	19:39:51
1	Zn 213.857†	490.8	0.8	0.0180	µg/L	0.0180	ppb	19:40:11
2	Sc RADIAL	55453.1	55453.1	102	%			19:38:49
2	Al 396.153Radial†	-1.2	8.9	6.6613	µg/L	6.6613	ppb	19:38:49
2	Ca 317.933Radial†	195.9	13.6	12.817	µg/L	12.817	ppb	19:39:09
2	Fe 238.204 Radial†	14.7	0.0	0.0944	µg/L	0.0944	ppb	19:39:09
2	K 766.490 Radial†	238.4	106.2	75.456	µg/L	75.456	ppb	19:38:49
2	Mg 279.077 IEC†	15.6	4.1	37.981	µg/L	37.981	ppb	19:39:09
2	Na 589.592 Radial†	708.0	154.9	51.000	µg/L	51.000	ppb	19:38:49
2	Sr 421.552†	57.2	16.8	0.1737	µg/L	0.1737	ppb	19:38:49
2	Sc 361.383	1975775.5	1975775.5	103.45	%			19:40:18
2	Y 371.029	1355586.5	1355586.5	103.49	%			19:40:18
2	Ag 328.068†	-512.8	68.9	0.5480	µg/L	0.5480	ppb	19:40:23
2	As 188.979†	-0.8	-1.9	-3.7879	µg/L	-3.7879	ppb	19:40:44
2	B 249.677†	398.7	53.9	2.3572	µg/L	2.3572	ppb	19:40:44
2	Ba 233.527†	-16.5	10.0	0.2613	µg/L	0.2613	ppb	19:40:44
2	Be 313.107†	-3291.3	258.9	0.1690	µg/L	0.1690	ppb	19:40:23
2	Cd 226.502†	-132.6	13.9	0.3835	µg/L	0.3835	ppb	19:40:44
2	Co 228.616†	-7.1	2.0	0.0984	µg/L	0.0984	ppb	19:40:44
2	Cr 267.716†	-22.7	30.4	0.6696	µg/L	0.6696	ppb	19:40:44
2	Cu 324.752†	2469.7	-98.8	-0.6905	µg/L	-0.6905	ppb	19:40:23
2	Mn 257.610†	-143.9	105.0	0.3620	µg/L	0.3620	ppb	19:40:44
2	Mo 202.031†	-4.2	3.5	0.3717	µg/L	0.3717	ppb	19:40:44
2	Ni 231.604†	302.9	-9.4	-0.5143	µg/L	-0.5143	ppb	19:40:44
2	P 214.914†	29.9	1.3	2.7919	µg/L	2.7919	ppb	19:40:44
2	Pb 220.353†	97.3	-3.1	-0.8261	µg/L	-0.8261	ppb	19:40:44

2	S 181.975 Axial†	20.0	4.5	19.710 µg/L	19.710 ppb	19:40:44
2	Sb 206.836†	23.7	-4.1	-4.0300 µg/L	-4.0300 ppb	19:40:44
2	Se 196.026†	9.3	-6.9	-10.492 µg/L	-10.492 ppb	19:40:44
2	SiO2†	4038.7	2653.9	571.53 µg/L	571.53 ppb	19:40:23
2	Si 251.611†	3707.4	3270.8	268.87 µg/L	268.87 ppb	19:40:23
2	Sn 189.927†	2.0	2.8	1.2773 µg/L	1.2773 ppb	19:40:44
2	Ti 334.940†	221.6	98.1	0.2331 µg/L	0.2331 ppb	19:40:23
2	Tl 190.801†	-21.6	3.4	4.7965 µg/L	4.7965 ppb	19:40:44
2	U 409.014†	-59.9	-4.3	-0.3880 µg/L	-0.3880 ppb	19:40:23
2	V 292.402†	-21.0	23.9	0.2589 µg/L	0.2589 ppb	19:40:23
2	Zn 213.857†	511.8	19.2	0.4807 µg/L	0.4807 ppb	19:40:44
3	Sc RADIAL	54997.2	54997.2	101 %		19:39:15
3	Al 396.153Radial†	-9.6	0.6	0.4496 µg/L	0.4496 ppb	19:39:15
3	Ca 317.933Radial†	197.1	16.5	15.498 µg/L	15.498 ppb	19:39:35
3	Fe 238.204 Radial†	17.3	2.6	22.415 µg/L	22.415 ppb	19:39:35
3	K 766.490 Radial†	180.6	50.8	36.115 µg/L	36.115 ppb	19:39:15
3	Mg 279.077 IEC†	14.5	3.2	29.331 µg/L	29.331 ppb	19:39:35
3	Na 589.592 Radial†	763.4	215.7	70.994 µg/L	70.994 ppb	19:39:15
3	Sr 421.552†	65.9	25.9	0.2681 µg/L	0.2681 ppb	19:39:15
3	Sc 361.383	1964922.8	1964922.8	102.88 %		19:40:50
3	Y 371.029	1347749.0	1347749.0	102.89 %		19:40:50
3	Ag 328.068†	-485.9	92.3	0.7322 µg/L	0.7322 ppb	19:40:55
3	As 188.979†	0.6	-0.6	-1.1015 µg/L	-1.1015 ppb	19:41:16
3	B 249.677†	385.4	43.2	1.8762 µg/L	1.8762 ppb	19:41:16
3	Ba 233.527†	-20.3	6.2	0.1623 µg/L	0.1623 ppb	19:41:16
3	Be 313.107†	-3155.8	373.1	0.2435 µg/L	0.2435 ppb	19:40:55
3	Cd 226.502†	-137.1	8.9	0.2432 µg/L	0.2432 ppb	19:41:16
3	Co 228.616†	-0.5	8.4	0.4121 µg/L	0.4121 ppb	19:41:16
3	Cr 267.716†	-8.2	44.4	0.9768 µg/L	0.9768 ppb	19:41:16
3	Cu 324.752†	2483.7	-72.0	-0.4999 µg/L	-0.4999 ppb	19:40:55
3	Mn 257.610†	-138.7	109.3	0.3805 µg/L	0.3805 ppb	19:41:16
3	Mo 202.031†	-5.4	2.3	0.2508 µg/L	0.2508 ppb	19:41:16
3	Ni 231.604†	316.9	5.9	0.3198 µg/L	0.3198 ppb	19:41:16
3	P 214.914†	26.0	-2.4	-5.0548 µg/L	-5.0548 ppb	19:41:16
3	Pb 220.353†	90.0	-9.7	-2.5999 µg/L	-2.5999 ppb	19:41:16
3	S 181.975 Axial†	20.6	5.2	22.743 µg/L	22.743 ppb	19:41:16
3	Sb 206.836†	23.9	-3.7	-3.6360 µg/L	-3.6360 ppb	19:41:16
3	Se 196.026†	14.1	-2.1	-3.2432 µg/L	-3.2432 ppb	19:41:16
3	SiO2†	3923.3	2563.3	552.03 µg/L	552.03 ppb	19:40:55
3	Si 251.611†	3574.4	3161.3	259.88 µg/L	259.88 ppb	19:40:55
3	Sn 189.927†	1.0	1.8	0.8318 µg/L	0.8318 ppb	19:41:16
3	Ti 334.940†	247.5	124.4	0.2972 µg/L	0.2972 ppb	19:40:55
3	Tl 190.801†	-20.5	4.4	6.0916 µg/L	6.0916 ppb	19:41:16
3	U 409.014†	-23.0	31.3	2.8278 µg/L	2.8278 ppb	19:40:55
3	V 292.402†	-67.0	-20.9	-0.2134 µg/L	-0.2134 ppb	19:40:55
3	Zn 213.857†	498.6	9.1	0.2239 µg/L	0.2239 ppb	19:41:16

Mean Data: 1202032561|948737|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1969494.8	103.12	%	0.295				0.29%
Sc RADIAL	55335.7	101	%	0.5				0.54%
Y 371.029	1350254.5	103.08	%	0.353				0.34%
Ag 328.068†	75.7	0.6024	µg/L	0.11293	0.6024	ppb	0.11293	18.75%
Al 396.153Radial†	1.8	1.3697	µg/L	4.89673	1.3697	ppb	4.89673	357.50%
As 188.979†	-1.1	-2.2258	µg/L	1.39574	-2.2258	ppb	1.39574	62.71%
B 249.677†	48.9	2.1331	µg/L	0.24218	2.1331	ppb	0.24218	11.35%
Ba 233.527†	8.4	0.2198	µg/L	0.05138	0.2198	ppb	0.05138	23.38%
Be 313.107†	302.3	0.1973	µg/L	0.04034	0.1973	ppb	0.04034	20.44%
Ca 317.933Radial†	13.7	12.889	µg/L	2.5739	12.889	ppb	2.5739	19.97%
Cd 226.502†	8.7	0.2383	µg/L	0.14769	0.2383	ppb	0.14769	61.96%
Co 228.616†	1.8	0.0896	µg/L	0.32695	0.0896	ppb	0.32695	364.74%
Cr 267.716†	40.0	0.8801	µg/L	0.18253	0.8801	ppb	0.18253	20.74%
Cu 324.752†	-95.0	-0.6622	µg/L	0.15020	-0.6622	ppb	0.15020	22.68%
Fe 238.204 Radial†	1.3	11.026	µg/L	11.1673	11.026	ppb	11.1673	101.28%
K 766.490 Radial†	75.1	53.373	µg/L	20.1092	53.373	ppb	20.1092	37.68%
Mg 279.077 IEC†	4.4	40.581	µg/L	12.7501	40.581	ppb	12.7501	31.42%
Mn 257.610†	98.1	0.3395	µg/L	0.05572	0.3395	ppb	0.05572	16.41%
Mo 202.031†	2.4	0.2567	µg/L	0.11216	0.2567	ppb	0.11216	43.69%
Na 589.592 Radial†	187.8	61.831	µg/L	10.1008	61.831	ppb	10.1008	16.34%

Ni 231.604†	-2.9	-0.1566	µg/L	0.42953	-0.1566	ppb	0.42953	274.22%
P 214.914†	2.2	4.8165	µg/L	11.02392	4.8165	ppb	11.02392	228.88%
Pb 220.353†	-7.1	-1.8816	µg/L	0.93377	-1.8816	ppb	0.93377	49.63%
S 181.975 Axial†	3.3	14.524	µg/L	11.7071	14.524	ppb	11.7071	80.60%
Sb 206.836†	-3.9	-3.8865	µg/L	0.21773	-3.8865	ppb	0.21773	5.60%
Se 196.026†	-4.9	-7.5242	µg/L	3.79864	-7.5242	ppb	3.79864	50.49%
SiO2†	2633.7	567.19	µg/L	13.522	567.19	ppb	13.522	2.38%
Si 251.611†	3248.2	267.02	µg/L	6.418	267.02	ppb	6.418	2.40%
Sn 189.927†	2.3	1.0494	µg/L	0.22288	1.0494	ppb	0.22288	21.24%
Sr 421.552†	18.1	0.1880	µg/L	0.07405	0.1880	ppb	0.07405	39.39%
Ti 334.940†	103.1	0.2449	µg/L	0.04745	0.2449	ppb	0.04745	19.37%
Tl 190.801†	1.4	1.9362	µg/L	6.11008	1.9362	ppb	6.11008	315.56%
U 409.014†	-10.0	-0.9095	µg/L	4.02356	-0.9095	ppb	4.02356	442.37%
V 292.402†	15.9	0.1733	µg/L	0.35183	0.1733	ppb	0.35183	203.00%
Zn 213.857†	9.7	0.2409	µg/L	0.23181	0.2409	ppb	0.23181	96.23%

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:41:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56419.4	56419.4	103	%			19:42:04
1	Al 396.153Radial†	6864.6	6650.3	4946.1	µg/L	4946.1	ppb	19:42:25
1	Ca 317.933Radial†	5559.4	5198.4	4894.6	µg/L	4894.6	ppb	19:42:25
1	Fe 238.204 Radial†	616.6	581.9	4942.5	µg/L	4942.5	ppb	19:42:25
1	K 766.490 Radial†	7352.0	6983.2	4963.6	µg/L	4963.6	ppb	19:42:04
1	Mg 279.077 IEC†	570.1	540.2	5030.2	µg/L	5030.2	ppb	19:42:25
1	Na 589.592 Radial†	31600.6	30025.3	9884.4	µg/L	9884.4	ppb	19:42:04
1	Sr 421.552†	48468.4	46843.8	485.59	µg/L	485.59	ppb	19:42:04
1	Sc 361.383	2003108.1	2003108.1	104.88	%			19:43:28
1	Y 371.029	1370730.2	1370730.2	104.64	%			19:43:28
1	Ag 328.068†	64726.1	62276.9	497.74	µg/L	497.74	ppb	19:43:34
1	As 188.979†	267.5	253.9	495.37	µg/L	495.37	ppb	19:43:54
1	B 249.677†	12041.2	11149.1	485.46	µg/L	485.46	ppb	19:43:34
1	Ba 233.527†	19842.7	18944.8	494.19	µg/L	494.19	ppb	19:43:34
1	Be 313.107†	766666.1	734409.3	479.43	µg/L	479.43	ppb	19:43:28
1	Cd 226.502†	18686.6	17958.6	495.39	µg/L	495.39	ppb	19:43:34
1	Co 228.616†	10595.4	10110.9	497.04	µg/L	497.04	ppb	19:43:34
1	Cr 267.716†	23720.3	22668.2	498.92	µg/L	498.92	ppb	19:43:34
1	Cu 324.752†	76984.9	70914.3	496.04	µg/L	496.04	ppb	19:43:34
1	Mn 257.610†	147751.2	141115.8	489.12	µg/L	489.12	ppb	19:43:28
1	Mo 202.031†	5026.0	4799.5	512.40	µg/L	512.40	ppb	19:43:54
1	Ni 231.604†	9826.5	9066.7	495.20	µg/L	495.20	ppb	19:43:34
1	P 214.914†	1254.6	1168.6	2461.8	µg/L	2461.8	ppb	19:43:54
1	Pb 220.353†	2050.1	1857.4	495.79	µg/L	495.79	ppb	19:43:54
1	S 181.975 Axial†	255.6	228.9	1003.0	µg/L	1003.0	ppb	19:43:54
1	Sb 206.836†	570.4	516.9	511.09	µg/L	511.09	ppb	19:43:54
1	Se 196.026†	360.0	327.4	506.74	µg/L	506.74	ppb	19:43:54
1	SiO2†	26928.3	24424.4	5259.9	µg/L	5259.9	ppb	19:43:34
1	Si 251.611†	31785.6	29992.7	2465.6	µg/L	2465.6	ppb	19:43:34
1	Sn 189.927†	1167.3	1113.9	512.34	µg/L	512.34	ppb	19:43:54
1	Ti 334.940†	210971.9	201032.6	483.25	µg/L	483.25	ppb	19:43:28
1	Tl 190.801†	351.0	358.9	506.83	µg/L	506.83	ppb	19:43:54
1	U 409.014†	5847.6	5628.9	508.64	µg/L	508.64	ppb	19:43:34
1	V 292.402†	48650.0	46429.0	501.02	µg/L	501.02	ppb	19:43:34
1	Zn 213.857†	21378.5	19907.5	493.60	µg/L	493.60	ppb	19:43:34
2	Sc RADIAL	57083.7	57083.7	105	%			19:42:30
2	Al 396.153Radial†	6804.1	6515.2	4845.3	µg/L	4845.3	ppb	19:42:51
2	Ca 317.933Radial†	5545.5	5122.6	4823.3	µg/L	4823.3	ppb	19:42:51
2	Fe 238.204 Radial†	613.4	571.9	4857.7	µg/L	4857.7	ppb	19:42:51
2	K 766.490 Radial†	7292.4	6843.5	4864.3	µg/L	4864.3	ppb	19:42:30
2	Mg 279.077 IEC†	572.7	536.3	4994.3	µg/L	4994.3	ppb	19:42:51
2	Na 589.592 Radial†	31703.2	29767.7	9799.6	µg/L	9799.6	ppb	19:42:30
2	Sr 421.552†	48760.9	46577.9	482.83	µg/L	482.83	ppb	19:42:30
2	Sc 361.383	1956478.6	1956478.6	102.44	%			19:44:02
2	Y 371.029	1338013.6	1338013.6	102.14	%			19:44:02
2	Ag 328.068†	63625.9	62673.7	500.90	µg/L	500.90	ppb	19:44:07
2	As 188.979†	268.7	261.1	509.35	µg/L	509.35	ppb	19:44:28
2	B 249.677†	11834.0	11220.4	488.63	µg/L	488.63	ppb	19:44:07
2	Ba 233.527†	19447.5	19009.9	495.89	µg/L	495.89	ppb	19:44:07
2	Be 313.107†	783080.7	767854.0	501.26	µg/L	501.26	ppb	19:44:02
2	Cd 226.502†	18262.0	17968.8	495.68	µg/L	495.68	ppb	19:44:07
2	Co 228.616†	10399.7	10160.6	499.45	µg/L	499.45	ppb	19:44:07
2	Cr 267.716†	23262.6	22760.4	500.95	µg/L	500.95	ppb	19:44:07
2	Cu 324.752†	75552.4	71265.3	498.48	µg/L	498.48	ppb	19:44:07
2	Mn 257.610†	151080.8	147723.5	511.99	µg/L	511.99	ppb	19:44:02
2	Mo 202.031†	4987.4	4876.0	520.56	µg/L	520.56	ppb	19:44:28
2	Ni 231.604†	9658.6	9126.2	498.44	µg/L	498.44	ppb	19:44:07
2	P 214.914†	1238.9	1181.7	2490.0	µg/L	2490.0	ppb	19:44:28
2	Pb 220.353†	2049.2	1903.2	508.02	µg/L	508.02	ppb	19:44:28

2	S 181.975 Axial†	249.6	228.9	1002.7 µg/L	1002.7 ppb	19:44:28
2	Sb 206.836†	564.1	523.7	517.93 µg/L	517.93 ppb	19:44:28
2	Se 196.026†	358.2	333.9	516.45 µg/L	516.45 ppb	19:44:28
2	SiO2†	26483.3	24601.9	5298.2 µg/L	5298.2 ppb	19:44:07
2	Si 251.611†	31145.7	30090.4	2473.6 µg/L	2473.6 ppb	19:44:07
2	Sn 189.927†	1159.9	1133.1	521.19 µg/L	521.19 ppb	19:44:28
2	Ti 334.940†	215458.6	210206.4	505.32 µg/L	505.32 ppb	19:44:02
2	Tl 190.801†	341.6	357.7	505.37 µg/L	505.37 ppb	19:44:28
2	U 409.014†	5729.0	5646.0	510.20 µg/L	510.20 ppb	19:44:07
2	V 292.402†	47728.9	46635.3	503.28 µg/L	503.28 ppb	19:44:07
2	Zn 213.857†	20977.4	20001.8	495.95 µg/L	495.95 ppb	19:44:07
3	Sc RADIAL	57202.6	57202.6	105 %		19:42:56
3	Al 396.153Radial†	6841.2	6537.0	4863.4 µg/L	4863.4 ppb	19:43:17
3	Ca 317.933Radial†	5579.2	5143.7	4843.1 µg/L	4843.1 ppb	19:43:17
3	Fe 238.204 Radial†	619.6	576.6	4896.7 µg/L	4896.7 ppb	19:43:17
3	K 766.490 Radial†	7296.8	6833.1	4856.9 µg/L	4856.9 ppb	19:42:56
3	Mg 279.077 IEC†	570.0	532.5	4957.7 µg/L	4957.7 ppb	19:43:17
3	Na 589.592 Radial†	31651.4	29655.3	9762.6 µg/L	9762.6 ppb	19:42:56
3	Sr 421.552†	48633.6	46359.5	480.57 µg/L	480.57 ppb	19:42:56
3	Sc 361.383	1968483.8	1968483.8	103.07 %		19:44:35
3	Y 371.029	1347474.9	1347474.9	102.87 %		19:44:35
3	Ag 328.068†	60287.4	59055.9	471.87 µg/L	471.87 ppb	19:44:40
3	As 188.979†	225.2	217.3	423.99 µg/L	423.99 ppb	19:45:01
3	B 249.677†	11150.7	10487.1	456.47 µg/L	456.47 ppb	19:44:40
3	Ba 233.527†	17981.9	17472.2	455.76 µg/L	455.76 ppb	19:44:40
3	Be 313.107†	731612.9	713257.7	465.62 µg/L	465.62 ppb	19:44:35
3	Cd 226.502†	16841.2	16481.6	454.60 µg/L	454.60 ppb	19:44:40
3	Co 228.616†	9509.8	9235.4	453.92 µg/L	453.92 ppb	19:44:40
3	Cr 267.716†	20728.9	20163.7	443.80 µg/L	443.80 ppb	19:44:40
3	Cu 324.752†	69473.8	64918.0	454.15 µg/L	454.15 ppb	19:44:40
3	Mn 257.610†	141487.4	137516.4	476.65 µg/L	476.65 ppb	19:44:35
3	Mo 202.031†	4166.6	4050.0	432.41 µg/L	432.41 ppb	19:45:01
3	Ni 231.604†	8868.9	8302.5	453.46 µg/L	453.46 ppb	19:44:40
3	P 214.914†	1068.6	1009.2	2122.7 µg/L	2122.7 ppb	19:45:01
3	Pb 220.353†	1791.6	1641.0	437.94 µg/L	437.94 ppb	19:45:01
3	S 181.975 Axial†	225.5	204.0	893.82 µg/L	893.82 ppb	19:45:01
3	Sb 206.836†	488.9	447.4	442.01 µg/L	442.01 ppb	19:45:01
3	Se 196.026†	320.0	294.7	456.84 µg/L	456.84 ppb	19:45:01
3	SiO2†	24830.7	22841.0	4918.9 µg/L	4918.9 ppb	19:44:40
3	Si 251.611†	29062.2	27883.6	2292.2 µg/L	2292.2 ppb	19:44:40
3	Sn 189.927†	952.2	924.7	425.35 µg/L	425.35 ppb	19:45:01
3	Ti 334.940†	200541.4	194450.9	467.42 µg/L	467.42 ppb	19:44:35
3	Tl 190.801†	313.2	328.1	463.67 µg/L	463.67 ppb	19:45:01
3	U 409.014†	5147.7	5048.0	456.05 µg/L	456.05 ppb	19:44:40
3	V 292.402†	43287.8	42042.5	453.47 µg/L	453.47 ppb	19:44:40
3	Zn 213.857†	19269.8	18220.2	451.73 µg/L	451.73 ppb	19:44:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1976023.5	103.47	%	1.268				1.23%
Sc RADIAL	56901.9	104	%	0.8				0.74%
Y 371.029	1352072.9	103.22	%	1.285				1.25%
Ag 328.068†	61335.5	490.17	µg/L	15.926	490.17	ppb	15.926	3.25%
QC value within limits for Ag 328.068 Recovery = 98.03%								
Al 396.153Radial†	6567.5	4884.9	µg/L	53.78	4884.9	ppb	53.78	1.10%
QC value within limits for Al 396.153Radial Recovery = 97.70%								
As 188.979†	244.1	476.24	µg/L	45.784	476.24	ppb	45.784	9.61%
QC value within limits for As 188.979 Recovery = 95.25%								
B 249.677†	10952.2	476.85	µg/L	17.725	476.85	ppb	17.725	3.72%
QC value within limits for B 249.677 Recovery = 95.37%								
Ba 233.527†	18475.6	481.94	µg/L	22.693	481.94	ppb	22.693	4.71%
QC value within limits for Ba 233.527 Recovery = 96.39%								
Be 313.107†	738507.0	482.10	µg/L	17.970	482.10	ppb	17.970	3.73%
QC value within limits for Be 313.107 Recovery = 96.42%								
Ca 317.933Radial†	5154.9	4853.7	µg/L	36.83	4853.7	ppb	36.83	0.76%
QC value within limits for Ca 317.933Radial Recovery = 97.07%								
Cd 226.502†	17469.7	481.89	µg/L	23.632	481.89	ppb	23.632	4.90%
QC value within limits for Cd 226.502 Recovery = 96.38%								
Co 228.616†	9835.6	483.47	µg/L	25.623	483.47	ppb	25.623	5.30%

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   QC value within limits for Co 228.616  Recovery = 96.69%
Cr 267.716†            21864.1      481.23 µg/L        32.425      481.23 ppb        32.425   6.74%
   QC value within limits for Cr 267.716  Recovery = 96.25%
Cu 324.752†            69032.5      482.89 µg/L        24.920      482.89 ppb        24.920   5.16%
   QC value within limits for Cu 324.752  Recovery = 96.58%
Fe 238.204 Radial†       576.8      4899.0 µg/L         42.44      4899.0 ppb         42.44   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.98%
K 766.490 Radial†       6886.6      4894.9 µg/L         59.56      4894.9 ppb         59.56   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 97.90%
Mg 279.077 IEC†          536.3      4994.1 µg/L         36.28      4994.1 ppb         36.28   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           142118.5      492.59 µg/L        17.923      492.59 ppb        17.923   3.64%
   QC value within limits for Mn 257.610  Recovery = 98.52%
Mo 202.031†             4575.2      488.46 µg/L        48.709      488.46 ppb        48.709   9.97%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†     29816.1      9815.6 µg/L         62.45      9815.6 ppb         62.45   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 98.16%
Ni 231.604†             8831.8      482.37 µg/L        25.085      482.37 ppb        25.085   5.20%
   QC value within limits for Ni 231.604  Recovery = 96.47%
P 214.914†              1119.8      2358.2 µg/L        204.40      2358.2 ppb        204.40   8.67%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†             1800.5      480.58 µg/L        37.434      480.58 ppb        37.434   7.79%
   QC value within limits for Pb 220.353  Recovery = 96.12%
S 181.975 Axial†         220.6      966.52 µg/L        62.959      966.52 ppb        62.959   6.51%
   QC value within limits for S 181.975 Axial  Recovery = 96.65%
Sb 206.836†              496.0      490.35 µg/L        41.996      490.35 ppb        41.996   8.56%
   QC value within limits for Sb 206.836  Recovery = 98.07%
Se 196.026†              318.6      493.35 µg/L        31.983      493.35 ppb        31.983   6.48%
   QC value within limits for Se 196.026  Recovery = 98.67%
SiO2†                  23955.8      5159.0 µg/L        208.79      5159.0 ppb        208.79   4.05%
   QC value within limits for SiO2  Recovery = 96.48%
Si 251.611†            29322.2      2410.4 µg/L        102.50      2410.4 ppb        102.50   4.25%
   QC value within limits for Si 251.611  Recovery = 96.42%
Sn 189.927†             1057.2      486.29 µg/L        52.962      486.29 ppb        52.962  10.89%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†            46593.7      483.00 µg/L         2.514      483.00 ppb         2.514   0.52%
   QC value within limits for Sr 421.552  Recovery = 96.60%
Ti 334.940†           201896.6      485.33 µg/L        19.033      485.33 ppb        19.033   3.92%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†              348.3      491.96 µg/L        24.505      491.96 ppb        24.505   4.98%
   QC value within limits for Tl 190.801  Recovery = 98.39%
U 409.014†              5441.0      491.63 µg/L        30.821      491.63 ppb        30.821   6.27%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†             45035.6      485.92 µg/L        28.129      485.92 ppb        28.129   5.79%
   QC value within limits for V 292.402  Recovery = 97.18%
Zn 213.857†            19376.5      480.43 µg/L        24.881      480.43 ppb        24.881   5.18%
   QC value within limits for Zn 213.857  Recovery = 96.09%
All analyte(s) passed QC.
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Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:45:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56376.8	56376.8	103	%			19:45:43
1	Al 396.153Radial†	-19.0	-8.3	-6.1741	µg/L	-6.1741	ppb	19:45:43
1	Ca 317.933Radial†	190.5	5.3	4.9933	µg/L	4.9933	ppb	19:46:03
1	Fe 238.204 Radial†	14.9	-0.1	-0.5495	µg/L	-0.5495	ppb	19:46:03
1	K 766.490 Radial†	145.1	12.1	8.5950	µg/L	8.5950	ppb	19:45:43
1	Mg 279.077 IEC†	10.6	-1.0	-9.5449	µg/L	-9.5449	ppb	19:46:03
1	Na 589.592 Radial†	582.4	21.9	7.2091	µg/L	7.2091	ppb	19:45:43
1	Sr 421.552†	18.5	-21.6	-0.2243	µg/L	-0.2243	ppb	19:45:43
1	Sc 361.383	1992362.0	1992362.0	104.32	%			19:47:05
1	Y 371.029	1368353.4	1368353.4	104.46	%			19:47:05
1	Ag 328.068†	-598.5	-9.1	-0.0730	µg/L	-0.0730	ppb	19:47:10
1	As 188.979†	-0.0	-1.2	-2.2711	µg/L	-2.2711	ppb	19:47:31
1	B 249.677†	346.6	0.7	0.0326	µg/L	0.0326	ppb	19:47:31
1	Ba 233.527†	-24.2	2.9	0.0744	µg/L	0.0744	ppb	19:47:31
1	Be 313.107†	-3339.3	239.4	0.1563	µg/L	0.1563	ppb	19:47:10
1	Cd 226.502†	-124.4	22.9	0.6311	µg/L	0.6311	ppb	19:47:31
1	Co 228.616†	-16.5	-7.0	-0.3445	µg/L	-0.3445	ppb	19:47:31
1	Cr 267.716†	-47.2	7.2	0.1575	µg/L	0.1575	ppb	19:47:31
1	Cu 324.752†	2430.9	-155.9	-1.0892	µg/L	-1.0892	ppb	19:47:10
1	Mn 257.610†	-240.7	13.4	0.0467	µg/L	0.0467	ppb	19:47:31
1	Mo 202.031†	-8.3	-0.4	-0.0415	µg/L	-0.0415	ppb	19:47:31
1	Ni 231.604†	297.2	-17.3	-0.9473	µg/L	-0.9473	ppb	19:47:31
1	P 214.914†	35.0	6.0	12.897	µg/L	12.897	ppb	19:47:31
1	Pb 220.353†	95.0	-6.2	-1.6460	µg/L	-1.6460	ppb	19:47:31
1	S 181.975 Axial†	14.6	-0.8	-3.7140	µg/L	-3.7140	ppb	19:47:31
1	Sb 206.836†	19.5	-8.3	-8.1804	µg/L	-8.1804	ppb	19:47:31
1	Se 196.026†	15.6	-0.9	-1.2950	µg/L	-1.2950	ppb	19:47:31
1	SiO2†	1248.6	-53.2	-11.446	µg/L	-11.446	ppb	19:47:10
1	Si 251.611†	306.0	-19.6	-1.6096	µg/L	-1.6096	ppb	19:47:31
1	Sn 189.927†	-6.1	-5.0	-2.2944	µg/L	-2.2944	ppb	19:47:31
1	Ti 334.940†	214.1	89.1	0.2152	µg/L	0.2152	ppb	19:47:10
1	Tl 190.801†	-21.4	3.7	5.2299	µg/L	5.2299	ppb	19:47:31
1	U 409.014†	10.3	63.5	5.7486	µg/L	5.7486	ppb	19:47:10
1	V 292.402†	-52.5	-6.1	-0.0596	µg/L	-0.0596	ppb	19:47:10
1	Zn 213.857†	478.7	-16.6	-0.4092	µg/L	-0.4092	ppb	19:47:31
2	Sc RADIAL	56044.6	56044.6	103	%			19:46:09
2	Al 396.153Radial†	-6.3	4.0	2.9768	µg/L	2.9768	ppb	19:46:09
2	Ca 317.933Radial†	183.8	-0.2	-0.1847	µg/L	-0.1847	ppb	19:46:29
2	Fe 238.204 Radial†	14.3	-0.6	-4.7213	µg/L	-4.7213	ppb	19:46:29
2	K 766.490 Radial†	167.1	34.3	24.398	µg/L	24.398	ppb	19:46:09
2	Mg 279.077 IEC†	11.1	-0.4	-4.0659	µg/L	-4.0659	ppb	19:46:29
2	Na 589.592 Radial†	618.2	60.1	19.792	µg/L	19.792	ppb	19:46:09
2	Sr 421.552†	69.0	27.6	0.2866	µg/L	0.2866	ppb	19:46:09
2	Sc 361.383	1989518.4	1989518.4	104.17	%			19:47:37
2	Y 371.029	1365606.7	1365606.7	104.25	%			19:47:37
2	Ag 328.068†	-547.2	39.3	0.3111	µg/L	0.3111	ppb	19:47:43
2	As 188.979†	-3.9	-4.9	-9.5988	µg/L	-9.5988	ppb	19:48:03
2	B 249.677†	322.6	-21.8	-0.9478	µg/L	-0.9478	ppb	19:48:03
2	Ba 233.527†	-14.9	11.7	0.3048	µg/L	0.3048	ppb	19:48:03
2	Be 313.107†	-3365.6	209.6	0.1369	µg/L	0.1369	ppb	19:47:43
2	Cd 226.502†	-135.4	12.1	0.3352	µg/L	0.3352	ppb	19:48:03
2	Co 228.616†	-12.8	-3.4	-0.1669	µg/L	-0.1669	ppb	19:48:03
2	Cr 267.716†	-34.1	19.6	0.4310	µg/L	0.4310	ppb	19:48:03
2	Cu 324.752†	2392.5	-189.4	-1.3239	µg/L	-1.3239	ppb	19:47:43
2	Mn 257.610†	-233.6	19.8	0.0682	µg/L	0.0682	ppb	19:48:03
2	Mo 202.031†	1.3	8.8	0.9388	µg/L	0.9388	ppb	19:48:03
2	Ni 231.604†	308.4	-6.2	-0.3371	µg/L	-0.3371	ppb	19:48:03
2	P 214.914†	38.1	8.9	19.315	µg/L	19.315	ppb	19:48:03
2	Pb 220.353†	86.4	-14.2	-3.7968	µg/L	-3.7968	ppb	19:48:03

2	S 181.975 Axial†	18.4	2.9	12.528 µg/L	12.528 ppb	19:48:03
2	Sb 206.836†	29.9	1.8	1.7421 µg/L	1.7421 ppb	19:48:03
2	Se 196.026†	17.4	0.9	1.3573 µg/L	1.3573 ppb	19:48:03
2	SiO2†	1243.9	-56.0	-12.052 µg/L	-12.052 ppb	19:47:43
2	Si 251.611†	297.9	-26.9	-2.2125 µg/L	-2.2125 ppb	19:48:03
2	Sn 189.927†	-3.7	-2.7	-1.2451 µg/L	-1.2451 ppb	19:48:03
2	Ti 334.940†	113.7	-7.0	-0.0165 µg/L	-0.0165 ppb	19:47:43
2	Tl 190.801†	-21.7	3.4	4.7734 µg/L	4.7734 ppb	19:48:03
2	U 409.014†	-37.3	17.8	1.6161 µg/L	1.6161 ppb	19:47:43
2	V 292.402†	-50.7	-4.5	-0.0381 µg/L	-0.0381 ppb	19:47:43
2	Zn 213.857†	476.3	-18.3	-0.4528 µg/L	-0.4528 ppb	19:48:03
3	Sc RADIAL	56131.1	56131.1	103 %		19:46:34
3	Al 396.153Radial†	10.7	20.5	15.284 µg/L	15.284 ppb	19:46:34
3	Ca 317.933Radial†	181.6	-2.5	-2.4004 µg/L	-2.4004 ppb	19:46:55
3	Fe 238.204 Radial†	13.6	-1.3	-10.669 µg/L	-10.669 ppb	19:46:55
3	K 766.490 Radial†	173.8	40.6	28.846 µg/L	28.846 ppb	19:46:34
3	Mg 279.077 IEC†	10.5	-1.0	-9.5132 µg/L	-9.5132 ppb	19:46:55
3	Na 589.592 Radial†	587.6	29.4	9.6947 µg/L	9.6947 ppb	19:46:34
3	Sr 421.552†	41.1	0.4	0.0044 µg/L	0.0044 ppb	19:46:34
3	Sc 361.383	1993278.2	1993278.2	104.37 %		19:48:09
3	Y 371.029	1367625.5	1367625.5	104.41 %		19:48:09
3	Ag 328.068†	-556.8	31.0	0.2472 µg/L	0.2472 ppb	19:48:15
3	As 188.979†	0.5	-0.7	-1.3924 µg/L	-1.3924 ppb	19:48:35
3	B 249.677†	311.8	-32.7	-1.4217 µg/L	-1.4217 ppb	19:48:35
3	Ba 233.527†	-24.9	2.1	0.0565 µg/L	0.0565 ppb	19:48:35
3	Be 313.107†	-3343.9	236.6	0.1544 µg/L	0.1544 ppb	19:48:15
3	Cd 226.502†	-139.6	8.3	0.2308 µg/L	0.2308 ppb	19:48:35
3	Co 228.616†	-13.5	-4.1	-0.2026 µg/L	-0.2026 ppb	19:48:35
3	Cr 267.716†	-29.8	23.8	0.5241 µg/L	0.5241 ppb	19:48:35
3	Cu 324.752†	2398.4	-188.1	-1.3155 µg/L	-1.3155 ppb	19:48:15
3	Mn 257.610†	-235.9	18.1	0.0616 µg/L	0.0616 ppb	19:48:35
3	Mo 202.031†	-7.4	0.5	0.0513 µg/L	0.0513 ppb	19:48:35
3	Ni 231.604†	308.0	-7.0	-0.3852 µg/L	-0.3852 ppb	19:48:35
3	P 214.914†	25.9	-2.8	-5.9057 µg/L	-5.9057 ppb	19:48:35
3	Pb 220.353†	95.4	-5.8	-1.5343 µg/L	-1.5343 ppb	19:48:35
3	S 181.975 Axial†	16.1	0.6	2.8080 µg/L	2.8080 ppb	19:48:35
3	Sb 206.836†	23.7	-4.2	-4.1849 µg/L	-4.1849 ppb	19:48:35
3	Se 196.026†	19.8	3.2	4.8107 µg/L	4.8107 ppb	19:48:35
3	SiO2†	1250.9	-51.4	-11.079 µg/L	-11.079 ppb	19:48:15
3	Si 251.611†	298.1	-27.3	-2.2426 µg/L	-2.2426 ppb	19:48:35
3	Sn 189.927†	2.3	3.1	1.4084 µg/L	1.4084 ppb	19:48:35
3	Ti 334.940†	175.4	51.9	0.1256 µg/L	0.1256 ppb	19:48:15
3	Tl 190.801†	-26.8	-1.4	-1.9510 µg/L	-1.9510 ppb	19:48:35
3	U 409.014†	-48.8	6.9	0.6237 µg/L	0.6237 ppb	19:48:15
3	V 292.402†	-16.2	28.7	0.3071 µg/L	0.3071 ppb	19:48:15
3	Zn 213.857†	476.7	-18.8	-0.4644 µg/L	-0.4644 ppb	19:48:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1991719.6	104.29	%	0.103				0.10%
Sc RADIAL	56184.2	103	%	0.3				0.31%
Y 371.029	1367195.2	104.37	%	0.109				0.10%
Ag 328.068†	20.4	0.1617	µg/L	0.20583	0.1617	ppb	0.20583	127.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	4.0289	µg/L	10.76761	4.0289	ppb	10.76761	267.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4208	µg/L	4.50578	-4.4208	ppb	4.50578	101.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.9	-0.7790	µg/L	0.74170	-0.7790	ppb	0.74170	95.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.1452	µg/L	0.13851	0.1452	ppb	0.13851	95.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	228.6	0.1492	µg/L	0.01069	0.1492	ppb	0.01069	7.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	0.8027	µg/L	3.79444	0.8027	ppb	3.79444	472.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.5	0.3990	µg/L	0.20768	0.3990	ppb	0.20768	52.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.8	-0.2380	µg/L	0.09392	-0.2380	ppb	0.09392	39.46%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.9      0.3709 µg/L       0.19057      0.3709 ppb        0.19057  51.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -177.8     -1.2429 µg/L       0.13310     -1.2429 ppb        0.13310  10.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -5.3132 µg/L       5.08561     -5.3132 ppb        5.08561  95.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.0      20.613 µg/L       10.6427      20.613 ppb        10.6427  51.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.7080 µg/L       3.15418     -7.7080 ppb        3.15418  40.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                17.1      0.0589 µg/L       0.01100      0.0589 ppb        0.01100  18.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.0      0.3162 µg/L       0.54117      0.3162 ppb        0.54117 171.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         37.2      12.232 µg/L        6.6641      12.232 ppb         6.6641  54.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.2     -0.5566 µg/L       0.33928     -0.5566 ppb        0.33928  60.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.0      8.7689 µg/L      13.10740      8.7689 ppb       13.10740 149.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.7     -2.3257 µg/L       1.27525     -2.3257 ppb        1.27525  54.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.9      3.8739 µg/L       8.17318      3.8739 ppb        8.17318 210.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.6     -3.5411 µg/L       4.99248     -3.5411 ppb        4.99248 140.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      1.6243 µg/L       3.06159      1.6243 ppb        3.06159 188.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -53.5     -11.526 µg/L        0.4912     -11.526 ppb         0.4912   4.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -24.6     -2.0216 µg/L       0.35706     -2.0216 ppb        0.35706  17.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.5     -0.7104 µg/L       1.90848     -0.7104 ppb        1.90848 268.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.1      0.0222 µg/L       0.25591      0.0222 ppb        0.25591 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                44.7      0.1081 µg/L       0.11683      0.1081 ppb        0.11683 108.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.9      2.6841 µg/L       4.02062      2.6841 ppb        4.02062 149.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 29.4      2.6628 µg/L       2.71803      2.6628 ppb        2.71803 102.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  6.0      0.0698 µg/L       0.20578      0.0698 ppb        0.20578 294.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -17.9     -0.4421 µg/L       0.02911     -0.4421 ppb        0.02911   6.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, February 24, 2010 13:58:21
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.583
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	8010.6	8010.646	132.493	1.7
	Mg	24.0	80464.0	80463.987	802.940	1.0
	Co	58.9	170262.1	170262.103	1828.524	1.1
	Rh	102.9	306904.0	306903.996	3738.938	1.2
	In	114.9	394981.4	394981.376	4192.916	1.1
	Pb	208.0	384651.8	384651.804	1928.620	0.5
⌈>	Ba	137.9	372209.0	372209.012	2646.026	0.7
⌊	Ba++	69.0	6742.3	0.018	0.000	0.8
⌈>	Ce	139.9	454620.9	454620.904	3860.277	0.8
⌊	CeO	155.9	12716.3	0.028	0.000	1.2
	Bkgd	220.0	18.7	18.700	3.546	19.0

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	8280.1
Co	59	13	6.3	167068.6
In	115	13	7.0	394570.1

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	586	2072	0.636
Be	9.0	9.0	2050	2088	0.616
Mg	24.0	24.0	5687	2100	0.608
Mg	25.0	25.0	5927	2100	0.597
Mg	26.0	26.0	6169	2100	0.611
Co	58.9	58.9	14169	2125	0.599
Rh	102.9	102.9	24868	2180	0.588
In	114.9	114.9	27782	2200	0.587
Ce	139.9	139.9	33866	2220	0.600
Pb	206.0	206.0	49948	2305	0.610
Pb	207.0	207.0	50159	2240	0.654
Pb	208.0	208.0	50451	2265	0.722
U	238.1	238.0	57720	2275	0.768

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 00:45:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Blank.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		116	
	Be	9		ug/L		27	
	B	11		ug/L		596	
	Na	23		ug/L		18679	
	Mg	24		ug/L		4334	
	Al	27		ug/L		7669	
	P	31		ug/L		5857	
	K	39		ug/L		561175	
	Ca	43		ug/L		363	
>	Sc	45		ug/L		466836	
	Ti	47		ug/L		402	
	V	51		ug/L		9348	
	Cr	52		ug/L		4541	
	Cr	53		ug/L		129660	
	Mn	55		ug/L		1656	
	Fe	57		ug/L		6902	
	Co	59		ug/L		147	
	Ni	60		ug/L		140	
	Cu	63		ug/L		473	
	Cu	65		ug/L		257	
	Zn	66		ug/L		698	
	Zn	67		ug/L		15316	
	Zn	68		ug/L		1656	
>	Ge	74		ug/L		572003	
	As	75		ug/L		-744	
	Se	77		ug/L		8264	
	Se	82		ug/L		0	
	Kr	83		ug/L		173	
	Sr	88		ug/L		291	
	Y	89		ug/L		76	
	Mo	98		ug/L		141	
	Ag	107		ug/L		88	
	Cd	111		ug/L		33	
	Cd	114		ug/L		69	
>	In	115		ug/L		379864	
	Sn	120		ug/L		422	
	Sb	121		ug/L		582	
	Sb	123		ug/L		457	
	Ba	135		ug/L		54	
	Ba	137		ug/L		91	
	Ho	165		ug/L		21	
>	Lu	175		ug/L		708476	
	Tl	205		ug/L		2105	
	Pb	208		ug/L		998	
	Bi	209		ug/L		589	
	Th	232		ug/L		830	
	U	238		ug/L		643	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9999
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	0.9999
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	0.9999
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9998
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 00:51:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 1.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.105	26890	0.057
	Be	9	10.000	ug/L	4.739	5729	0.012
	B	11	20.000	ug/L	0.321	12031	0.024
	Na	23	1000.000	ug/L	2.963	4393258	9.347
	Mg	24	1000.000	ug/L	10.705	3479543	7.430
	Al	27	1000.000	ug/L	4.107	5204106	11.105
	P	31	1000.000	ug/L	1.944	293596	0.615
	K	39	1000.000	ug/L	4.538	6809758	13.354
	Ca	43	1000.000	ug/L	3.254	17644	0.037
>	Sc	45		ug/L		468066	468065.824
	Ti	47	10.000	ug/L	0.987	9225	0.019
	V	51	10.000	ug/L	7.478	106749	0.208
	Cr	52	10.000	ug/L	3.903	84753	0.171
	Cr	53		ug/L		176266	0.099
	Mn	55	10.000	ug/L	2.802	130192	0.275
	Fe	57	1000.000	ug/L	3.218	274624	0.572
	Co	59	10.000	ug/L	0.895	105959	0.226
	Ni	60	10.000	ug/L	0.801	23096	0.049
	Cu	63		ug/L		56074	0.119
	Cu	65	10.000	ug/L	1.060	27358	0.058
	Zn	66	10.000	ug/L	2.012	16798	0.028
	Zn	67		ug/L		24399	0.016
	Zn	68		ug/L		13648	0.021
>	Ge	74		ug/L		567866	567865.985
	As	75	10.000	ug/L	1.836	16324	0.030
	Se	77		ug/L		12599	0.008
	Se	82	10.000	ug/L	1.240	1805	0.003
	Kr	83		ug/L		149	-0.000
	Sr	88	10.000	ug/L	1.351	227001	0.612
	Y	89		ug/L		106	0.000
	Mo	98	10.000	ug/L	1.107	53630	0.144
	Ag	107	10.000	ug/L	2.532	96282	0.259
	Cd	111	10.000	ug/L	1.876	22621	0.061
	Cd	114		ug/L		53302	0.144
>	In	115		ug/L		370762	370762.000
	Sn	120	10.000	ug/L	1.295	97007	0.261
	Sb	121	10.000	ug/L	1.532	76721	0.205
	Sb	123		ug/L		59935	0.160
	Ba	135		ug/L		24863	0.035
	Ba	137	10.000	ug/L	1.030	44448	0.063
	Ho	165		ug/L		31	0.000
>	Lu	175		ug/L		703071	703070.874
	Tl	205	10.000	ug/L	1.004	339248	0.480
	Pb	208	10.000	ug/L	1.089	600186	0.852
	Bi	209		ug/L		399	-0.000
	Th	232	10.000	ug/L	1.736	730929	1.038
	U	238	10.000	ug/L	0.633	764002	1.086

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 00:57:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\Standard 2.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.000**	**ug/L**	2.449	264489	0.572
	Be	9	**100.013**	**ug/L**	2.463	57085	0.123
	B	11	**200.038**	**ug/L**	4.593	115722	0.249
	Na	23	**10012.267**	**ug/L**	1.503	49330670	106.666
	Mg	24	**9994.280**	**ug/L**	2.912	32487077	70.242
	Al	27	**9977.507**	**ug/L**	5.822	41846838	90.451
	P	31	**9996.741**	**ug/L**	2.033	2758099	5.952
	K	39	**10004.212**	**ug/L**	7.305	65060133	139.467
	Ca	43	**9997.043**	**ug/L**	1.635	166192	0.359
>	Sc	45		**ug/L**		462373	462373.423
	Ti	47	**99.998**	**ug/L**	0.744	87343	0.188
	V	51	**99.954**	**ug/L**	3.260	929215	1.990
	Cr	52	**99.922**	**ug/L**	0.634	739071	1.589
	Cr	53		**ug/L**		234272	0.229
	Mn	55	**99.921**	**ug/L**	1.467	1177738	2.544
	Fe	57	**9998.285**	**ug/L**	1.799	2606334	5.623
	Co	59	**99.889**	**ug/L**	1.148	940185	2.033
	Ni	60	**99.956**	**ug/L**	1.897	217299	0.470
	Cu	63		**ug/L**		516746	1.117
	Cu	65	**99.972**	**ug/L**	2.114	260459	0.563
	Zn	66	**100.028**	**ug/L**	2.779	162696	0.292
	Zn	67		**ug/L**		45738	0.056
	Zn	68		**ug/L**		118988	0.211
>	Ge	74		**ug/L**		555091	555090.637
	As	75	**100.021**	**ug/L**	0.615	169753	0.307
	Se	77		**ug/L**		22553	0.026
	Se	82	**100.000**	**ug/L**	2.418	17642	0.032
	Kr	83		**ug/L**		176	0.000
	Sr	88	**99.847**	**ug/L**	2.397	1924500	5.295
	Y	89		**ug/L**		300	0.001
	Mo	98	**99.989**	**ug/L**	2.112	518934	1.427
	Ag	107	**99.918**	**ug/L**	1.456	871308	2.397
	Cd	111	**99.998**	**ug/L**	1.800	221055	0.608
	Cd	114		**ug/L**		511858	1.408
>	In	115		**ug/L**		363514	363514.297
	Sn	120	**99.927**	**ug/L**	2.597	881818	2.426
	Sb	121	**99.981**	**ug/L**	1.760	733263	2.016
	Sb	123		**ug/L**		577455	1.588
	Ba	135		**ug/L**		238428	0.344
	Ba	137	**99.967**	**ug/L**	2.692	423069	0.610
	Ho	165		**ug/L**		44	0.000
>	Lu	175		**ug/L**		693126	693125.998
	Tl	205	**99.819**	**ug/L**	1.206	2810893	4.052
	Pb	208	**99.830**	**ug/L**	3.632	5037257	7.270
	Bi	209		**ug/L**		848	0.000
	Th	232	**99.839**	**ug/L**	1.412	6188011	8.928
	U	238	**99.841**	**ug/L**	2.806	6479656	9.351

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 01:03:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.254**	ug/L	1.528	138357	0.293
	Be	9	**51.212**	ug/L	3.907	29827	0.063
	B	11	**103.919**	ug/L	2.684	61625	0.129
	Na	23	**4509.685**	ug/L	8.125	22670943	48.044
	Mg	24	**5347.344**	ug/L	7.877	17720997	37.582
	Al	27	**5620.619**	ug/L	10.095	24041127	50.954
	P	31	**4774.087**	ug/L	1.484	1346497	2.843
	K	39	**5130.417**	ug/L	9.736	34293745	71.522
	Ca	43	**4924.759**	ug/L	1.318	83672	0.177
>	Sc	45		ug/L		471629	471628.507
	Ti	47	**50.265**	ug/L	0.852	44987	0.095
	V	51	**51.480**	ug/L	3.069	492659	1.025
	Cr	52	**52.523**	ug/L	2.178	398384	0.835
	Cr	53		ug/L		196456	0.139
	Mn	55	**53.204**	ug/L	1.701	640426	1.355
	Fe	57	**4590.215**	ug/L	0.475	1224465	2.582
	Co	59	**51.968**	ug/L	2.609	498978	1.058
	Ni	60	**51.394**	ug/L	1.632	114032	0.241
	Cu	63		ug/L		269542	0.571
	Cu	65	**51.228**	ug/L	2.806	136262	0.288
	Zn	66	**53.041**	ug/L	2.954	87537	0.155
	Zn	67		ug/L		33730	0.033
	Zn	68		ug/L		63866	0.111
>	Ge	74		ug/L		561190	561190.119
	As	75	**48.840**	ug/L	3.695	83406	0.150
	Se	77		ug/L		16616	0.015
	Se	82	**51.104**	ug/L	2.320	9114	0.016
	Kr	83		ug/L		151	-0.000
	Sr	88	**54.911**	ug/L	2.149	1076141	2.912
	Y	89		ug/L		145	0.000
	Mo	98	**49.596**	ug/L	0.309	261705	0.708
	Ag	107	**51.305**	ug/L	0.925	454836	1.231
	Cd	111	**50.703**	ug/L	1.377	113953	0.308
	Cd	114		ug/L		265227	0.718
>	In	115		ug/L		369463	369462.806
	Sn	120	**51.875**	ug/L	1.341	465621	1.259
	Sb	121	**51.410**	ug/L	1.168	383561	1.037
	Sb	123		ug/L		300315	0.812
	Ba	135		ug/L		122938	0.178
	Ba	137	**51.554**	ug/L	2.548	217508	0.315
	Ho	165		ug/L		64	0.000
>	Lu	175		ug/L		690737	690736.635
	Tl	205	**50.995**	ug/L	2.545	1431651	2.070
	Pb	208	**54.050**	ug/L	1.463	2719376	3.936
	Bi	209		ug/L		944	0.001
	Th	232	**52.084**	ug/L	1.833	3217656	4.658
	U	238	**53.616**	ug/L	0.733	3469103	5.022

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.508				
	Be	9	102.424				
	B	11	103.919				
	Na	23	90.194				
	Mg	24	106.947				
	Al	27	111.299				
	P	31	95.482				
	K	39	102.608				
	Ca	43	98.495				
>	Sc	45		101.0			
	Ti	47	100.531				
	V	51	102.959				
	Cr	52	105.046				
	Cr	53					
	Mn	55	106.409				
	Fe	57	91.804				
	Co	59	103.937				
	Ni	60	102.788				
	Cu	63					
	Cu	65	102.456				
	Zn	66	106.082				
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75	97.681				
	Se	77					
	Se	82	102.207				
	Kr	83					
	Sr	88	109.822				
	Y	89					
	Mo	98	99.192				
	Ag	107	102.610				
	Cd	111	101.405				
	Cd	114					
>	In	115		97.3			
	Sn	120	103.750				
	Sb	121	102.819				
	Sb	123					
	Ba	135					
	Ba	137	103.108				
	Ho	165					
>	Lu	175		97.5			
	Tl	205	101.990				
	Pb	208	108.100				
	Bi	209					
	Th	232	104.169				
	U	238	107.231				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Al	27	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 01:09:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 2.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.021**	**ug/L**	19.019	172	0.000
	Be	9	**0.008**	**ug/L**	121.338	32	0.000
	B	11	**4.097**	**ug/L**	16.405	2984	0.005
	Na	23	**0.870**	**ug/L**	129.311	23019	0.009
	Mg	24	**-0.105**	**ug/L**	1050.249	4001	-0.001
	Al	27	**-0.861**	**ug/L**	96.914	4001	-0.008
	P	31	**0.980**	**ug/L**	180.971	6126	0.001
	K	39	**1.158**	**ug/L**	397.345	569148	0.016
	Ca	43	**-0.503**	**ug/L**	329.039	354	-0.000
>	Sc	45		**ug/L**		467005	467005.242
	Ti	47	**-0.009**	**ug/L**	325.615	395	-0.000
	V	51	**-0.308**	**ug/L**	153.633	6437	-0.006
	Cr	52	**-0.165**	**ug/L**	44.444	3309	-0.003
	Cr	53		**ug/L**		125809	-0.008
	Mn	55	**-0.010**	**ug/L**	32.542	1539	-0.000
	Fe	57	**0.291**	**ug/L**	190.434	6980	0.000
	Co	59	**0.004**	**ug/L**	70.690	182	0.000
	Ni	60	**0.004**	**ug/L**	50.335	150	0.000
	Cu	63		**ug/L**		487	0.000
	Cu	65	**-0.004**	**ug/L**	95.984	246	-0.000
	Zn	66	**0.001**	**ug/L**	1593.283	698	0.000
	Zn	67		**ug/L**		14449	-0.001
	Zn	68		**ug/L**		1604	-0.000
>	Ge	74		**ug/L**		569988	569987.791
	As	75	**-0.179**	**ug/L**	145.005	-1056	-0.001
	Se	77		**ug/L**		8396	0.000
	Se	82	**0.091**	**ug/L**	153.517	17	0.000
	Kr	83		**ug/L**		156	-0.000
	Sr	88	**0.006**	**ug/L**	12.878	419	0.000
	Y	89		**ug/L**		79	0.000
	Mo	98	**0.027**	**ug/L**	3.432	289	0.000
	Ag	107	**0.006**	**ug/L**	31.976	141	0.000
	Cd	111	**0.002**	**ug/L**	466.095	37	0.000
	Cd	114		**ug/L**		108	0.000
>	In	115		**ug/L**		378529	378529.037
	Sn	120	**0.012**	**ug/L**	32.804	534	0.000
	Sb	121	**0.437**	**ug/L**	10.437	3917	0.009
	Sb	123		**ug/L**		3199	0.007
	Ba	135		**ug/L**		72	0.000
	Ba	137	**0.004**	**ug/L**	36.133	109	0.000
	Ho	165		**ug/L**		30	0.000
>	Lu	175		**ug/L**		707983	707982.913
	Tl	205	**0.158**	**ug/L**	22.647	6640	0.006
	Pb	208	**0.007**	**ug/L**	21.254	1362	0.001
	Bi	209		**ug/L**		584	-0.000
	Th	232	**0.024**	**ug/L**	5.204	2323	0.002
	U	238	**0.008**	**ug/L**	26.689	1170	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 01:15:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 3.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.006**	ug/L	2.281	29478	0.063
	Be	9	**0.537**	ug/L	5.699	336	0.001
	B	11	**17.326**	ug/L	3.791	10659	0.022
	Na	23	**239.283**	ug/L	8.349	1207054	2.549
	Mg	24	**15.408**	ug/L	14.004	54772	0.108
	Al	27	**41.259**	ug/L	6.550	182157	0.374
	P	31	**65.019**	ug/L	7.889	23901	0.039
	K	39	**308.141**	ug/L	13.361	2562845	4.296
	Ca	43	**218.114**	ug/L	5.808	4012	0.008
>	Sc	45		ug/L		466658	466658.134
	Ti	47	**8.651**	ug/L	2.543	7993	0.016
	V	51	**10.208**	ug/L	9.674	104042	0.203
	Cr	52	**11.238**	ug/L	4.848	87857	0.179
	Cr	53		ug/L		157299	0.060
	Mn	55	**5.897**	ug/L	2.990	71691	0.150
	Fe	57	**105.485**	ug/L	2.669	34574	0.059
	Co	59	**1.130**	ug/L	3.872	10879	0.023
	Ni	60	**2.182**	ug/L	2.802	4924	0.010
	Cu	63		ug/L		6465	0.013
	Cu	65	**1.120**	ug/L	3.630	3199	0.006
	Zn	66	**11.321**	ug/L	1.546	18871	0.033
	Zn	67		ug/L		20464	0.010
	Zn	68		ug/L		14797	0.024
>	Ge	74		ug/L		550773	550772.701
	As	75	**5.563**	ug/L	3.738	8690	0.017
	Se	77		ug/L		10811	0.005
	Se	82	**5.873**	ug/L	3.974	1028	0.002
	Kr	83		ug/L		145	-0.000
	Sr	88	**12.294**	ug/L	0.262	241551	0.652
	Y	89		ug/L		69	-0.000
	Mo	98	**0.527**	ug/L	4.885	2922	0.008
	Ag	107	**1.067**	ug/L	2.030	9561	0.026
	Cd	111	**1.111**	ug/L	1.215	2532	0.007
	Cd	114		ug/L		5724	0.015
>	In	115		ug/L		370061	370060.601
	Sn	120	**5.583**	ug/L	1.724	50556	0.136
	Sb	121	**3.368**	ug/L	1.093	25697	0.068
	Sb	123		ug/L		20218	0.053
	Ba	135		ug/L		5288	0.007
	Ba	137	**2.158**	ug/L	2.765	9314	0.013
	Ho	165		ug/L		27	0.000
>	Lu	175		ug/L		700109	700108.585
	Tl	205	**1.260**	ug/L	1.742	37884	0.051
	Pb	208	**2.501**	ug/L	1.391	128493	0.182
	Bi	209		ug/L		429	-0.000
	Th	232	**1.296**	ug/L	2.070	81953	0.116
	U	238	**0.284**	ug/L	0.865	19262	0.027

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	110.055				
	Be	9	107.409				
	B	11	115.509				
	Na	23	95.713				
	Mg	24	102.717				
	Al	27	137.530				
	P	31	130.038				
	K	39	102.714				
	Ca	43	109.057				
>	Sc	45		100.0			
	Ti	47	86.512				
	V	51	102.076				
	Cr	52	112.379				
	Cr	53					
	Mn	55	117.941				
	Fe	57	105.485				
	Co	59	113.043				
	Ni	60	109.121				
	Cu	63					
	Cu	65	112.029				
	Zn	66	113.212				
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75	111.254				
	Se	77					
	Se	82	117.453				
	Kr	83					
	Sr	88	122.942				
	Y	89					
	Mo	98	105.486				
	Ag	107	106.734				
	Cd	111	111.062				
	Cd	114					
>	In	115		97.4			
	Sn	120	111.664				
	Sb	121	112.266				
	Sb	123					
	Ba	135					
	Ba	137	107.890				
	Ho	165					
>	Lu	175		98.8			
	Tl	205	125.991				
	Pb	208	125.060				
	Bi	209					
	Th	232	129.605				
	U	238	142.033				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	CRDL is out of limits
QC Std 3	P	31	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 01:21:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 4.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	ug/L	10.445	293	0.000
	Be	9	**0.069**	ug/L	19.825	59	0.000
	B	11	**1.597**	ug/L	19.431	1342	0.002
	Na	23	**76847.089**	ug/L	3.522	336523083	818.695
	Mg	24	**85091.727**	ug/L	8.994	245740237	598.043
	Al	27	**103851.194**	ug/L	11.407	387083249	941.464
	P	31	**82063.023**	ug/L	0.909	20088465	48.862
	K	39	**91466.419**	ug/L	0.853	524596315	1275.113
	Ca	43	**86955.724**	ug/L	1.654	1282259	3.119
>	Sc	45		ug/L		411013	411012.564
	Ti	47	**1517.851**	ug/L	0.321	1173570	2.854
	V	51	**-0.573**	ug/L	51.787	3536	-0.011
	Cr	52	**1.914**	ug/L	0.983	16506	0.030
	Cr	53		ug/L		118979	0.012
	Mn	55	**6.009**	ug/L	1.140	64334	0.153
	Fe	57	**94815.587**	ug/L	1.958	21921908	53.325
	Co	59	**0.371**	ug/L	5.093	3231	0.008
	Ni	60	**3.499**	ug/L	2.633	6881	0.016
	Cu	63		ug/L		11210	0.026
	Cu	65	**3.194**	ug/L	0.963	7617	0.018
	Zn	66	**4.370**	ug/L	5.913	6859	0.013
	Zn	67		ug/L		18056	0.010
	Zn	68		ug/L		2656	0.003
>	Ge	74		ug/L		490891	490890.577
	As	75	**0.176**	ug/L	570.093	-374	0.001
	Se	77		ug/L		11647	0.009
	Se	82	**-1.193**	ug/L	6.261	-186	-0.000
	Kr	83		ug/L		452	0.001
	Sr	88	**3.263**	ug/L	1.596	57326	0.173
	Y	89		ug/L		801	0.002
	Mo	98	**1814.342**	ug/L	1.582	8542173	25.899
	Ag	107	**0.140**	ug/L	4.308	1188	0.003
	Cd	111	**0.506**	ug/L	47.944	1046	0.003
	Cd	114		ug/L		14916	0.045
>	In	115		ug/L		329854	329854.132
	Sn	120	**0.262**	ug/L	2.872	2462	0.006
	Sb	121	**0.383**	ug/L	21.682	3049	0.008
	Sb	123		ug/L		2369	0.006
	Ba	135		ug/L		1601	0.002
	Ba	137	**0.714**	ug/L	1.305	2815	0.004
	Ho	165		ug/L		13545	0.022
>	Lu	175		ug/L		626869	626869.274
	Tl	205	**0.005**	ug/L	69.273	1989	0.000
	Pb	208	**0.229**	ug/L	0.450	11334	0.017
	Bi	209		ug/L		8402	0.013
	Th	232	**0.049**	ug/L	38.303	3510	0.004
	U	238	**-0.006**	ug/L	5.247	219	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	76.847				
	Mg	24	85.092				
	Al	27	103.851				
	P	31	82.063				
	K	39	91.466				
	Ca	43	86.956				
>	Sc	45		88.0			
	Ti	47	75.893				
	V	51					
	Cr	52	58.005				
	Cr	53					
	Mn	55	103.602				
	Fe	57	94.816				
	Co	59	157.727				
	Ni	60	105.723				
	Cu	63					
	Cu	65	95.623				
	Zn	66	116.221				
	Zn	67					
	Zn	68					
>	Ge	74		85.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	110.235				
	Y	89					
	Mo	98	90.717				
	Ag	107					
	Cd	111	114.002				
	Cd	114					
>	In	115		86.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	89.518				
	Ho	165					
>	Lu	175		88.5			
	Tl	205					
	Pb	208	121.132				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Na	23	ICSA is out of limits
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 01:27:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 5.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.541**	**ug/L**	1.142	41347	0.106
	Be	9	**17.910**	**ug/L**	2.065	8621	0.022
	B	11	**17.544**	**ug/L**	2.456	8996	0.022
	Na	23	**79986.935**	**ug/L**	2.610	331638859	852.145
	Mg	24	**87477.193**	**ug/L**	2.329	239206523	614.808
	Al	27	**104014.873**	**ug/L**	4.416	366730469	942.948
	P	31	**86226.228**	**ug/L**	1.257	19977908	51.341
	K	39	**89267.225**	**ug/L**	4.445	484619607	1244.455
	Ca	43	**89016.291**	**ug/L**	1.517	1242724	3.193
>	Sc	45		**ug/L**		389069	389069.436
	Ti	47	**1547.426**	**ug/L**	0.509	1132579	2.910
	V	51	**21.352**	**ug/L**	2.752	173144	0.425
	Cr	52	**23.295**	**ug/L**	2.523	147846	0.370
	Cr	53		**ug/L**		113519	0.014
	Mn	55	**28.422**	**ug/L**	0.512	282925	0.724
	Fe	57	**99769.769**	**ug/L**	2.675	21831986	56.111
	Co	59	**21.406**	**ug/L**	2.926	169597	0.436
	Ni	60	**22.852**	**ug/L**	1.826	41883	0.107
	Cu	63		**ug/L**		96563	0.247
	Cu	65	**22.637**	**ug/L**	2.014	49801	0.127
	Zn	66	**22.923**	**ug/L**	2.431	33260	0.067
	Zn	67		**ug/L**		18838	0.012
	Zn	68		**ug/L**		21732	0.042
>	Ge	74		**ug/L**		488347	488346.958
	As	75	**20.501**	**ug/L**	3.271	30109	0.063
	Se	77		**ug/L**		11207	0.009
	Se	82	**19.340**	**ug/L**	2.416	3002	0.006
	Kr	83		**ug/L**		429	0.001
	Sr	88	**25.956**	**ug/L**	2.112	455843	1.376
	Y	89		**ug/L**		717	0.002
	Mo	98	**1795.815**	**ug/L**	0.228	8485446	25.635
	Ag	107	**19.454**	**ug/L**	2.322	154561	0.467
	Cd	111	**19.913**	**ug/L**	1.616	40113	0.121
	Cd	114		**ug/L**		104916	0.317
>	In	115		**ug/L**		331007	331007.181
	Sn	120	**21.124**	**ug/L**	1.565	170090	0.513
	Sb	121	**21.156**	**ug/L**	0.969	141717	0.427
	Sb	123		**ug/L**		110137	0.332
	Ba	135		**ug/L**		44251	0.071
	Ba	137	**20.377**	**ug/L**	1.178	77727	0.124
	Ho	165		**ug/L**		13358	0.021
>	Lu	175		**ug/L**		624039	624039.312
	Tl	205	**20.864**	**ug/L**	1.138	530352	0.847
	Pb	208	**21.830**	**ug/L**	0.626	992892	1.590
	Bi	209		**ug/L**		9139	0.014
	Th	232	**22.315**	**ug/L**	1.168	1245990	1.996
	U	238	**22.980**	**ug/L**	0.724	1343671	2.152

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	92.705				
	Be	9	89.548				
	B	11	87.719				
	Na	23	79.987				
	Mg	24	87.477				
	Al	27	104.015				
	P	31	86.226				
	K	39	89.267				
	Ca	43	89.016				
>	Sc	45		83.3			
	Ti	47	77.371				
	V	51	106.760				
	Cr	52	99.977				
	Cr	53					
	Mn	55	110.163				
	Fe	57	99.770				
	Co	59	105.787				
	Ni	60	98.036				
	Cu	63					
	Cu	65	96.989				
	Zn	66	96.476				
	Zn	67					
	Zn	68					
>	Ge	74		85.4			
	As	75	102.506				
	Se	77					
	Se	82	96.699				
	Kr	83					
	Sr	88	113.049				
	Y	89					
	Mo	98	89.791				
	Ag	107	97.271				
	Cd	111	97.402				
	Cd	114					
>	In	115		87.1			
	Sn	120	105.621				
	Sb	121	105.778				
	Sb	123					
	Ba	135					
	Ba	137	97.974				
	Ho	165					
>	Lu	175		88.1			
	Tl	205	104.321				
	Pb	208	108.130				
	Bi	209					
	Th	232	111.574				
	U	238	114.899				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Na	23	ICSAB is out of limits
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 01:33:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.856**	**ug/L**	2.578	121226	0.291
	Be	9	**51.752**	**ug/L**	3.240	26620	0.064
	B	11	**98.342**	**ug/L**	3.613	51527	0.122
	Na	23	**4552.550**	**ug/L**	15.725	20195760	48.501
	Mg	24	**5042.300**	**ug/L**	2.663	14768916	35.438
	Al	27	**5207.421**	**ug/L**	7.037	19690007	47.208
	P	31	**4703.749**	**ug/L**	3.584	1171450	2.801
	K	39	**4332.637**	**ug/L**	4.484	25671318	60.400
	Ca	43	**4771.309**	**ug/L**	3.390	71592	0.171
>	Sc	45		**ug/L**		416580	416580.161
	Ti	47	**49.205**	**ug/L**	3.521	38889	0.093
	V	51	**52.394**	**ug/L**	4.403	442610	1.043
	Cr	52	**52.723**	**ug/L**	2.378	353165	0.838
	Cr	53		**ug/L**		173110	0.138
	Mn	55	**53.516**	**ug/L**	2.938	568853	1.362
	Fe	57	**4645.346**	**ug/L**	3.429	1094022	2.613
	Co	59	**52.672**	**ug/L**	3.053	446599	1.072
	Ni	60	**52.519**	**ug/L**	1.808	102895	0.247
	Cu	63		**ug/L**		246344	0.590
	Cu	65	**50.727**	**ug/L**	1.756	119188	0.286
	Zn	66	**51.222**	**ug/L**	2.930	77548	0.150
	Zn	67		**ug/L**		29593	0.031
	Zn	68		**ug/L**		56556	0.107
>	Ge	74		**ug/L**		514672	514672.218
	As	75	**48.752**	**ug/L**	2.768	76358	0.150
	Se	77		**ug/L**		14469	0.014
	Se	82	**50.062**	**ug/L**	2.082	8188	0.016
	Kr	83		**ug/L**		141	-0.000
	Sr	88	**53.781**	**ug/L**	1.710	984550	2.852
	Y	89		**ug/L**		168	0.000
	Mo	98	**49.077**	**ug/L**	0.791	241922	0.701
	Ag	107	**51.743**	**ug/L**	1.540	428488	1.241
	Cd	111	**50.768**	**ug/L**	0.996	106604	0.309
	Cd	114		**ug/L**		248527	0.720
>	In	115		**ug/L**		345156	345156.356
	Sn	120	**51.493**	**ug/L**	1.373	431744	1.250
	Sb	121	**51.330**	**ug/L**	1.027	357761	1.035
	Sb	123		**ug/L**		282382	0.817
	Ba	135		**ug/L**		115385	0.169
	Ba	137	**49.242**	**ug/L**	1.246	205400	0.301
	Ho	165		**ug/L**		67	0.000
>	Lu	175		**ug/L**		682807	682807.409
	Tl	205	**49.827**	**ug/L**	1.117	1383033	2.023
	Pb	208	**53.468**	**ug/L**	1.497	2659287	3.894
	Bi	209		**ug/L**		957	0.001
	Th	232	**51.536**	**ug/L**	1.197	3147381	4.609
	U	238	**51.542**	**ug/L**	1.737	3296507	4.828

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	101.711				
	Be	9	103.504				
	B	11	98.342				
	Na	23	91.051				
	Mg	24	100.846				
	Al	27	103.117				
	P	31	94.075				
	K	39	86.653				
	Ca	43	95.426				
>	Sc	45		89.2			
	Ti	47	98.410				
	V	51	104.788				
	Cr	52	105.446				
	Cr	53					
	Mn	55	107.032				
	Fe	57	92.907				
	Co	59	105.344				
	Ni	60	105.038				
	Cu	63					
	Cu	65	101.454				
	Zn	66	102.443				
	Zn	67					
	Zn	68					
>	Ge	74		90.0			
	As	75	97.504				
	Se	77					
	Se	82	100.123				
	Kr	83					
	Sr	88	107.563				
	Y	89					
	Mo	98	98.154				
	Ag	107	103.486				
	Cd	111	101.536				
	Cd	114					
>	In	115		90.9			
	Sn	120	102.986				
	Sb	121	102.661				
	Sb	123					
	Ba	135					
	Ba	137	98.484				
	Ho	165					
>	Lu	175		96.4			
	Tl	205	99.655				
	Pb	208	106.936				
	Bi	209					
	Th	232	103.073				
	U	238	103.085				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 01:40:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.019**	**ug/L**	19.141	149	0.000
	Be	9	**0.002**	**ug/L**	728.636	25	0.000
	B	11	**2.533**	**ug/L**	22.205	1848	0.003
	Na	23	**2.396**	**ug/L**	51.756	27360	0.026
	Mg	24	**0.956**	**ug/L**	114.511	6668	0.007
	Al	27	**2.695**	**ug/L**	31.242	17010	0.024
	P	31	**1.126**	**ug/L**	68.843	5507	0.001
	K	39	**5.504**	**ug/L**	74.073	532758	0.077
	Ca	43	**1.125**	**ug/L**	68.383	341	0.000
>	Sc	45		**ug/L**		416774	416774.349
	Ti	47	**0.051**	**ug/L**	49.426	400	0.000
	V	51	**-0.473**	**ug/L**	18.561	4423	-0.009
	Cr	52	**-0.473**	**ug/L**	9.957	914	-0.008
	Cr	53		**ug/L**		108799	-0.017
	Mn	55	**-0.012**	**ug/L**	34.432	1356	-0.000
	Fe	57	**-0.949**	**ug/L**	26.247	5940	-0.001
	Co	59	**0.004**	**ug/L**	38.201	167	0.000
	Ni	60	**0.010**	**ug/L**	18.742	146	0.000
	Cu	63		**ug/L**		387	-0.000
	Cu	65	**0.001**	**ug/L**	229.755	233	0.000
	Zn	66	**-0.024**	**ug/L**	53.198	599	-0.000
	Zn	67		**ug/L**		12866	-0.002
	Zn	68		**ug/L**		1437	-0.000
>	Ge	74		**ug/L**		521240	521240.111
	As	75	**0.221**	**ug/L**	53.128	-323	0.001
	Se	77		**ug/L**		6939	-0.001
	Se	82	**0.016**	**ug/L**	370.605	3	0.000
	Kr	83		**ug/L**		144	-0.000
	Sr	88	**0.005**	**ug/L**	47.801	374	0.000
	Y	89		**ug/L**		70	-0.000
	Mo	98	**0.063**	**ug/L**	5.593	450	0.001
	Ag	107	**0.006**	**ug/L**	14.955	132	0.000
	Cd	111	**0.005**	**ug/L**	128.110	43	0.000
	Cd	114		**ug/L**		91	0.000
>	In	115		**ug/L**		355440	355440.489
	Sn	120	**0.011**	**ug/L**	35.866	490	0.000
	Sb	121	**0.155**	**ug/L**	8.034	1659	0.003
	Sb	123		**ug/L**		1327	0.003
	Ba	135		**ug/L**		62	0.000
	Ba	137	**0.004**	**ug/L**	49.014	105	0.000
	Ho	165		**ug/L**		27	0.000
>	Lu	175		**ug/L**		691627	691626.720
	Tl	205	**0.224**	**ug/L**	18.598	8345	0.009
	Pb	208	**0.006**	**ug/L**	37.321	1281	0.000
	Bi	209		**ug/L**		617	0.000
	Th	232	**0.021**	**ug/L**	5.469	2137	0.002
	U	238	**0.007**	**ug/L**	32.882	1054	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, February 25, 2010 01:46:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 10.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**908.148**	ug/L	2.424	1874486	5.194
	Be	9	**951.375**	ug/L	1.719	423800	1.174
	B	11	**1.566**	ug/L	15.177	1165	0.002
	Na	23	**48963.331**	ug/L	5.462	188368267	521.633
	Mg	24	**52502.636**	ug/L	11.268	133033673	369.000
	Al	27	**54937.246**	ug/L	2.656	179751189	498.034
	P	31	**21975.073**	ug/L	2.357	4726633	13.085
	K	39	**47751.459**	ug/L	3.116	240644107	665.693
	Ca	43	**47390.870**	ug/L	1.958	613793	1.700
>	Sc	45		ug/L		361004	361003.669
	Ti	47	**43.749**	ug/L	1.635	30006	0.082
	V	51	**904.479**	ug/L	2.586	6505041	18.006
	Cr	52	**894.043**	ug/L	3.388	5132659	14.214
	Cr	53		ug/L		774563	1.869
	Mn	55	**965.413**	ug/L	1.448	8874170	24.579
	Fe	57	**49460.687**	ug/L	0.018	10047325	27.817
	Co	59	**879.775**	ug/L	2.549	6462298	17.907
	Ni	60	**855.509**	ug/L	3.761	1450545	4.019
	Cu	63		ug/L		3370054	9.337
	Cu	65	**809.449**	ug/L	1.865	1645282	4.558
	Zn	66	**2256.169**	ug/L	0.467	2956197	6.585
	Zn	67		ug/L		473424	1.028
	Zn	68		ug/L		1846360	4.111
>	Ge	74		ug/L		448846	448845.629
	As	75	**816.633**	ug/L	0.627	1125003	2.508
	Se	77		ug/L		55858	0.110
	Se	82	**459.331**	ug/L	2.018	65518	0.146
	Kr	83		ug/L		270	0.000
	Sr	88	**991.112**	ug/L	0.957	16759897	52.560
	Y	89		ug/L		613	0.002
	Mo	98	**915.334**	ug/L	1.384	4166215	13.066
	Ag	107	**211.925**	ug/L	0.351	1621230	5.084
	Cd	111	**830.235**	ug/L	0.459	1609938	5.049
	Cd	114		ug/L		3840458	12.044
>	In	115		ug/L		318855	318855.037
	Sn	120	**888.428**	ug/L	0.778	6876169	21.565
	Sb	121	**222.617**	ug/L	1.988	1431814	4.489
	Sb	123		ug/L		1131261	3.547
	Ba	135		ug/L		1734671	2.749
	Ba	137	**844.735**	ug/L	0.281	3255477	5.159
	Ho	165		ug/L		194	0.000
>	Lu	175		ug/L		631074	631073.614
	Tl	205	**466.428**	ug/L	3.113	11948443	18.934
	Pb	208	**4781.042**	ug/L	1.641	219700515	348.163
	Bi	209		ug/L		6701	0.010
	Th	232	**2537.017**	ug/L	2.540	143156342	226.877
	U	238	**5256.734**	ug/L	0.889	310701302	492.353

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	90.815				
	Be	9	95.138				
	B	11					
	Na	23	97.927				
	Mg	24	105.005				
	Al	27	109.874				
	P	31	87.900				
	K	39	95.503				
	Ca	43	94.782				
>	Sc	45		77.3			
	Ti	47					
	V	51	90.448				
	Cr	52	89.404				
	Cr	53					
	Mn	55	96.541				
	Fe	57	98.921				
	Co	59	87.977				
	Ni	60	85.551				
	Cu	63					
	Cu	65	80.945				
	Zn	66	90.247				
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75	81.663				
	Se	77					
	Se	82	91.866				
	Kr	83					
	Sr	88	99.111				
	Y	89					
	Mo	98	91.533				
	Ag	107	84.770				
	Cd	111	83.024				
	Cd	114					
>	In	115		83.9			
	Sn	120	88.843				
	Sb	121	89.047				
	Sb	123					
	Ba	135					
	Ba	137	84.474				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	93.286				
	Pb	208	95.621				
	Bi	209					
	Th	232	101.481				
	U	238	105.135				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	P	31	LRS is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 10	Cr	52	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	

QC Std 10	As	75LRS is out of limits (+/- 10%)
QC Std 10	Ag	107LRS is out of limits (+/- 10%)
QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Sb	121LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, February 25, 2010 01:52:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 11.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.196**	ug/L	0.675	124156	0.310
	Be	9	**54.193**	ug/L	1.593	26794	0.067
	B	11	**102.665**	ug/L	4.172	51685	0.128
	Na	23	**4788.488**	ug/L	4.856	20434884	51.014
	Mg	24	**5400.192**	ug/L	4.677	15194288	37.954
	Al	27	**5449.235**	ug/L	5.070	19779169	49.400
	P	31	**4764.081**	ug/L	0.169	1140414	2.837
	K	39	**5151.257**	ug/L	13.117	29223170	71.813
	Ca	43	**4933.715**	ug/L	1.733	71145	0.177
>	Sc	45		ug/L		400258	400258.051
	Ti	47	**50.075**	ug/L	2.048	38038	0.094
	V	51	**52.375**	ug/L	2.015	425346	1.043
	Cr	52	**52.430**	ug/L	1.642	337549	0.834
	Cr	53		ug/L		165024	0.135
	Mn	55	**54.510**	ug/L	0.980	556900	1.388
	Fe	57	**4766.520**	ug/L	1.578	1078880	2.681
	Co	59	**53.611**	ug/L	1.011	436890	1.091
	Ni	60	**53.600**	ug/L	1.754	100915	0.252
	Cu	63		ug/L		236140	0.589
	Cu	65	**52.077**	ug/L	1.536	117580	0.293
	Zn	66	**52.112**	ug/L	1.547	76044	0.152
	Zn	67		ug/L		29932	0.034
	Zn	68		ug/L		55232	0.108
>	Ge	74		ug/L		496057	496057.360
	As	75	**48.906**	ug/L	0.967	73856	0.150
	Se	77		ug/L		12992	0.012
	Se	82	**49.965**	ug/L	2.870	7876	0.016
	Kr	83		ug/L		137	-0.000
	Sr	88	**54.271**	ug/L	2.485	961158	2.878
	Y	89		ug/L		119	0.000
	Mo	98	**49.006**	ug/L	3.544	233635	0.700
	Ag	107	**52.610**	ug/L	2.993	421432	1.262
	Cd	111	**51.427**	ug/L	2.143	104455	0.313
	Cd	114		ug/L		244311	0.732
>	In	115		ug/L		334023	334023.113
	Sn	120	**52.691**	ug/L	3.573	427313	1.279
	Sb	121	**54.043**	ug/L	3.070	364319	1.090
	Sb	123		ug/L		286486	0.857
	Ba	135		ug/L		115314	0.174
	Ba	137	**49.566**	ug/L	2.291	200991	0.303
	Ho	165		ug/L		59	0.000
>	Lu	175		ug/L		663851	663850.793
	Tl	205	**52.389**	ug/L	2.109	1413544	2.127
	Pb	208	**55.266**	ug/L	1.770	2672392	4.025
	Bi	209		ug/L		902	0.001
	Th	232	**53.892**	ug/L	1.577	3199837	4.819
	U	238	**55.370**	ug/L	0.825	3443184	5.186

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	108.391				
	Be	9	108.386				
	B	11	102.665				
	Na	23	95.770				
	Mg	24	108.004				
	Al	27	107.906				
	P	31	95.282				
	K	39	103.025				
	Ca	43	98.674				
>	Sc	45		85.7			
	Ti	47	100.150				
	V	51	104.750				
	Cr	52	104.861				
	Cr	53					
	Mn	55	109.021				
	Fe	57	95.330				
	Co	59	107.223				
	Ni	60	107.200				
	Cu	63					
	Cu	65	104.154				
	Zn	66	104.223				
	Zn	67					
	Zn	68					
>	Ge	74		86.7			
	As	75	97.812				
	Se	77					
	Se	82	99.930				
	Kr	83					
	Sr	88	108.542				
	Y	89					
	Mo	98	98.011				
	Ag	107	105.220				
	Cd	111	102.854				
	Cd	114					
>	In	115		87.9			
	Sn	120	105.383				
	Sb	121	108.087				
	Sb	123					
	Ba	135					
	Ba	137	99.132				
	Ho	165					
>	Lu	175		93.7			
	Tl	205	104.778				
	Pb	208	110.532				
	Bi	209					
	Th	232	107.784				
	U	238	110.740				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, February 25, 2010 01:58:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 12.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.081**	**ug/L**	10.197	299	0.000
	Be	9	**0.018**	**ug/L**	51.844	33	0.000
	B	11	**2.579**	**ug/L**	15.125	1884	0.003
	Na	23	**1.316**	**ug/L**	84.987	22685	0.014
	Mg	24	**0.489**	**ug/L**	108.302	5334	0.003
	Al	27	**1.173**	**ug/L**	112.531	11338	0.011
	P	31	**1.722**	**ug/L**	86.879	5697	0.001
	K	39	**3.328**	**ug/L**	55.503	524112	0.046
	Ca	43	**0.968**	**ug/L**	59.645	341	0.000
>	Sc	45		**ug/L**		419767	419767.140
	Ti	47	**0.004**	**ug/L**	877.318	365	0.000
	V	51	**-1.017**	**ug/L**	82.790	-111	-0.020
	Cr	52	**-0.487**	**ug/L**	21.332	828	-0.008
	Cr	53		**ug/L**		109105	-0.018
	Mn	55	**-0.010**	**ug/L**	62.129	1378	-0.000
	Fe	57	**-2.374**	**ug/L**	42.893	5645	-0.001
	Co	59	**0.017**	**ug/L**	11.866	281	0.000
	Ni	60	**0.018**	**ug/L**	17.750	162	0.000
	Cu	63		**ug/L**		554	0.000
	Cu	65	**0.028**	**ug/L**	53.165	297	0.000
	Zn	66	**0.008**	**ug/L**	100.614	644	0.000
	Zn	67		**ug/L**		13924	0.000
	Zn	68		**ug/L**		1632	0.000
>	Ge	74		**ug/L**		518179	518178.770
	As	75	**0.331**	**ug/L**	97.478	-143	0.001
	Se	77		**ug/L**		6369	-0.002
	Se	82	**0.194**	**ug/L**	18.296	32	0.000
	Kr	83		**ug/L**		147	-0.000
	Sr	88	**0.016**	**ug/L**	25.521	573	0.001
	Y	89		**ug/L**		59	-0.000
	Mo	98	**0.086**	**ug/L**	12.447	565	0.001
	Ag	107	**0.009**	**ug/L**	7.425	155	0.000
	Cd	111	**0.019**	**ug/L**	49.545	72	0.000
	Cd	114		**ug/L**		158	0.000
>	In	115		**ug/L**		354160	354159.678
	Sn	120	**0.048**	**ug/L**	27.503	801	0.001
	Sb	121	**0.877**	**ug/L**	10.887	6799	0.018
	Sb	123		**ug/L**		5313	0.014
	Ba	135		**ug/L**		88	0.000
	Ba	137	**0.015**	**ug/L**	32.187	150	0.000
	Ho	165		**ug/L**		30	0.000
>	Lu	175		**ug/L**		692811	692811.033
	Tl	205	**0.297**	**ug/L**	15.828	10425	0.012
	Pb	208	**0.072**	**ug/L**	19.153	4624	0.005
	Bi	209		**ug/L**		573	-0.000
	Th	232	**0.062**	**ug/L**	6.357	4669	0.006
	U	238	**0.087**	**ug/L**	17.296	6259	0.008

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 03:06:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.465**	ug/L	1.954	118632	0.306
	Be	9	**53.925**	ug/L	1.997	25821	0.067
	B	11	**99.750**	ug/L	1.592	48652	0.124
	Na	23	**4455.631**	ug/L	3.102	18422685	47.468
	Mg	24	**4776.217**	ug/L	5.396	13019219	33.568
	Al	27	**5033.646**	ug/L	3.899	17701688	45.633
	P	31	**4544.170**	ug/L	0.649	1053826	2.706
	K	39	**4592.157**	ug/L	5.447	25279389	64.018
	Ca	43	**4816.015**	ug/L	1.923	67269	0.173
>	Sc	45		ug/L		387700	387700.329
	Ti	47	**49.528**	ug/L	3.202	36438	0.093
	V	51	**49.899**	ug/L	3.841	392794	0.993
	Cr	52	**51.839**	ug/L	1.935	323304	0.824
	Cr	53		ug/L		170480	0.162
	Mn	55	**54.104**	ug/L	2.127	535329	1.377
	Fe	57	**4692.131**	ug/L	2.583	1028649	2.639
	Co	59	**52.684**	ug/L	1.709	415824	1.072
	Ni	60	**52.046**	ug/L	2.538	94908	0.245
	Cu	63		ug/L		227636	0.586
	Cu	65	**51.237**	ug/L	1.995	112052	0.288
	Zn	66	**50.843**	ug/L	0.318	71998	0.148
	Zn	67		ug/L		29748	0.035
	Zn	68		ug/L		51891	0.105
>	Ge	74		ug/L		481221	481220.561
	As	75	**47.765**	ug/L	1.495	69952	0.147
	Se	77		ug/L		13474	0.014
	Se	82	**49.353**	ug/L	3.993	7546	0.016
	Kr	83		ug/L		134	-0.000
	Sr	88	**52.285**	ug/L	2.686	918989	2.773
	Y	89		ug/L		155	0.000
	Mo	98	**47.993**	ug/L	2.726	227104	0.685
	Ag	107	**51.141**	ug/L	2.709	406585	1.227
	Cd	111	**49.932**	ug/L	3.069	100630	0.304
	Cd	114		ug/L		235139	0.709
>	In	115		ug/L		331469	331469.489
	Sn	120	**52.088**	ug/L	3.245	419230	1.264
	Sb	121	**51.190**	ug/L	3.297	342473	1.032
	Sb	123		ug/L		271371	0.818
	Ba	135		ug/L		110871	0.165
	Ba	137	**48.101**	ug/L	0.597	197420	0.294
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		671772	671772.270
	Tl	205	**50.110**	ug/L	2.090	1368390	2.034
	Pb	208	**53.590**	ug/L	2.298	2621957	3.902
	Bi	209		ug/L		848	0.000
	Th	232	**50.971**	ug/L	1.947	3062468	4.558
	U	238	**51.964**	ug/L	0.543	3270061	4.867

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	106.929				
	Be	9	107.850				
	B	11	99.750				
	Na	23	89.113				
	Mg	24	95.524				
	Al	27	99.676				
	P	31	90.883				
	K	39	91.843				
	Ca	43	96.320				
>	Sc	45		83.0			
	Ti	47	99.055				
	V	51	99.799				
	Cr	52	103.679				
	Cr	53					
	Mn	55	108.207				
	Fe	57	93.843				
	Co	59	105.369				
	Ni	60	104.092				
	Cu	63					
	Cu	65	102.474				
	Zn	66	101.686				
	Zn	67					
	Zn	68					
>	Ge	74		84.1			
	As	75	95.529				
	Se	77					
	Se	82	98.706				
	Kr	83					
	Sr	88	104.570				
	Y	89					
	Mo	98	95.986				
	Ag	107	102.281				
	Cd	111	99.864				
	Cd	114					
>	In	115		87.3			
	Sn	120	104.176				
	Sb	121	102.380				
	Sb	123					
	Ba	135					
	Ba	137	96.202				
	Ho	165					
>	Lu	175		94.8			
	Tl	205	100.221				
	Pb	208	107.179				
	Bi	209					
	Th	232	101.942				
	U	238	103.927				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 03:12:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.002**	**ug/L**	181.797	93	-0.000
	Be	9	**0.013**	**ug/L**	92.819	29	0.000
	B	11	**2.538**	**ug/L**	12.464	1751	0.003
	Na	23	**0.699**	**ug/L**	252.559	18680	0.007
	Mg	24	**-0.119**	**ug/L**	174.163	3334	-0.001
	Al	27	**0.522**	**ug/L**	164.908	8336	0.005
	P	31	**1.329**	**ug/L**	32.453	5261	0.001
	K	39	**7.771**	**ug/L**	109.355	516903	0.108
	Ca	43	**2.269**	**ug/L**	113.069	339	0.000
>	Sc	45		**ug/L**		394424	394423.568
	Ti	47	**0.008**	**ug/L**	876.599	346	0.000
	V	51	**-1.188**	**ug/L**	23.281	-1433	-0.024
	Cr	52	**-0.577**	**ug/L**	10.875	218	-0.009
	Cr	53		**ug/L**		112822	0.008
	Mn	55	**-0.016**	**ug/L**	16.502	1237	-0.000
	Fe	57	**-2.116**	**ug/L**	7.287	5362	-0.001
	Co	59	**0.004**	**ug/L**	23.457	153	0.000
	Ni	60	**0.003**	**ug/L**	344.680	124	0.000
	Cu	63		**ug/L**		385	-0.000
	Cu	65	**-0.003**	**ug/L**	129.972	211	-0.000
	Zn	66	**-0.014**	**ug/L**	215.355	588	-0.000
	Zn	67		**ug/L**		13821	0.001
	Zn	68		**ug/L**		1600	0.000
>	Ge	74		**ug/L**		497771	497770.977
	As	75	**0.140**	**ug/L**	10.133	-434	0.000
	Se	77		**ug/L**		6583	-0.001
	Se	82	**-0.002**	**ug/L**	3289.256	-0	-0.000
	Kr	83		**ug/L**		151	0.000
	Sr	88	**0.003**	**ug/L**	27.952	314	0.000
	Y	89		**ug/L**		62	-0.000
	Mo	98	**0.020**	**ug/L**	18.977	229	0.000
	Ag	107	**0.003**	**ug/L**	65.382	102	0.000
	Cd	111	**0.007**	**ug/L**	30.382	44	0.000
	Cd	114		**ug/L**		74	0.000
>	In	115		**ug/L**		347292	347291.835
	Sn	120	**0.009**	**ug/L**	15.923	465	0.000
	Sb	121	**0.142**	**ug/L**	15.937	1529	0.003
	Sb	123		**ug/L**		1169	0.002
	Ba	135		**ug/L**		65	0.000
	Ba	137	**-0.000**	**ug/L**	430.105	87	-0.000
	Ho	165		**ug/L**		28	0.000
>	Lu	175		**ug/L**		688217	688216.705
	Tl	205	**0.228**	**ug/L**	22.575	8414	0.009
	Pb	208	**0.005**	**ug/L**	6.134	1229	0.000
	Bi	209		**ug/L**		507	-0.000
	Th	232	**0.025**	**ug/L**	11.434	2360	0.002
	U	238	**0.006**	**ug/L**	7.177	1001	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		84.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:01:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.297**	**ug/L**	0.876	110710	0.305
	Be	9	**54.146**	**ug/L**	3.019	24265	0.067
	B	11	**100.480**	**ug/L**	3.587	45859	0.125
	Na	23	**4171.471**	**ug/L**	2.958	16138293	44.441
	Mg	24	**4586.782**	**ug/L**	5.716	11694894	32.237
	Al	27	**5055.741**	**ug/L**	4.486	16631740	45.833
	P	31	**4577.718**	**ug/L**	2.256	993543	2.726
	K	39	**4802.389**	**ug/L**	2.715	24743549	66.949
	Ca	43	**4846.935**	**ug/L**	0.926	63379	0.174
>	Sc	45		**ug/L**		362947	362947.495
	Ti	47	**49.047**	**ug/L**	3.723	33775	0.092
	V	51	**50.336**	**ug/L**	6.076	370668	1.002
	Cr	52	**51.846**	**ug/L**	1.989	302704	0.824
	Cr	53		**ug/L**		167069	0.183
	Mn	55	**53.537**	**ug/L**	2.899	495800	1.363
	Fe	57	**4713.288**	**ug/L**	3.470	967035	2.651
	Co	59	**53.158**	**ug/L**	2.348	392706	1.082
	Ni	60	**52.434**	**ug/L**	1.328	89505	0.246
	Cu	63		**ug/L**		213057	0.586
	Cu	65	**51.062**	**ug/L**	1.162	104532	0.287
	Zn	66	**50.557**	**ug/L**	2.303	67110	0.148
	Zn	67		**ug/L**		27645	0.035
	Zn	68		**ug/L**		49177	0.106
>	Ge	74		**ug/L**		451139	451139.409
	As	75	**48.399**	**ug/L**	2.181	66454	0.149
	Se	77		**ug/L**		13618	0.016
	Se	82	**50.015**	**ug/L**	0.660	7172	0.016
	Kr	83		**ug/L**		136	-0.000
	Sr	88	**53.795**	**ug/L**	2.400	874162	2.853
	Y	89		**ug/L**		146	0.000
	Mo	98	**48.885**	**ug/L**	0.506	213906	0.698
	Ag	107	**51.628**	**ug/L**	1.230	379525	1.239
	Cd	111	**50.511**	**ug/L**	0.583	94137	0.307
	Cd	114		**ug/L**		218241	0.712
>	In	115		**ug/L**		306374	306373.728
	Sn	120	**52.632**	**ug/L**	1.336	391718	1.278
	Sb	121	**52.095**	**ug/L**	0.572	322301	1.050
	Sb	123		**ug/L**		255324	0.832
	Ba	135		**ug/L**		104261	0.162
	Ba	137	**47.032**	**ug/L**	1.624	184518	0.287
	Ho	165		**ug/L**		64	0.000
>	Lu	175		**ug/L**		642286	642285.524
	Tl	205	**47.409**	**ug/L**	2.192	1238198	1.924
	Pb	208	**53.506**	**ug/L**	1.974	2502884	3.896
	Bi	209		**ug/L**		767	0.000
	Th	232	**50.854**	**ug/L**	1.982	2920992	4.548
	U	238	**52.228**	**ug/L**	2.841	3141856	4.892

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.593				
	Be	9	108.292				
	B	11	100.480				
	Na	23	83.429				
	Mg	24	91.736				
	Al	27	100.114				
	P	31	91.554				
	K	39	96.048				
	Ca	43	96.939				
>	Sc	45		77.7			
	Ti	47	98.095				
	V	51	100.671				
	Cr	52	103.692				
	Cr	53					
	Mn	55	107.074				
	Fe	57	94.266				
	Co	59	106.317				
	Ni	60	104.868				
	Cu	63					
	Cu	65	102.124				
	Zn	66	101.114				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.798				
	Se	77					
	Se	82	100.031				
	Kr	83					
	Sr	88	107.591				
	Y	89					
	Mo	98	97.769				
	Ag	107	103.257				
	Cd	111	101.022				
	Cd	114					
>	In	115		80.7			
	Sn	120	105.263				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	94.064				
	Ho	165					
>	Lu	175		90.7			
	Tl	205	94.818				
	Pb	208	107.012				
	Bi	209					
	Th	232	101.709				
	U	238	104.456				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 04:07:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.007**	**ug/L**	70.600	75	-0.000
	Be	9	**0.001**	**ug/L**	427.705	21	0.000
	B	11	**2.858**	**ug/L**	13.649	1735	0.004
	Na	23	**2.439**	**ug/L**	61.149	23687	0.026
	Mg	24	**-0.394**	**ug/L**	209.953	2334	-0.003
	Al	27	**0.134**	**ug/L**	261.103	6335	0.001
	P	31	**1.182**	**ug/L**	136.933	4755	0.001
	K	39	**5.490**	**ug/L**	106.207	458943	0.077
	Ca	43	**3.046**	**ug/L**	45.207	318	0.000
>	Sc	45		**ug/L**		358890	358890.056
	Ti	47	**0.028**	**ug/L**	71.080	328	0.000
	V	51	**-1.351**	**ug/L**	6.580	-2470	-0.027
	Cr	52	**-0.516**	**ug/L**	15.492	547	-0.008
	Cr	53		**ug/L**		104474	0.013
	Mn	55	**-0.015**	**ug/L**	1.320	1138	-0.000
	Fe	57	**-3.066**	**ug/L**	9.844	4687	-0.002
	Co	59	**0.004**	**ug/L**	29.358	141	0.000
	Ni	60	**0.018**	**ug/L**	28.015	139	0.000
	Cu	63		**ug/L**		370	0.000
	Cu	65	**-0.003**	**ug/L**	222.559	192	-0.000
	Zn	66	**-0.088**	**ug/L**	17.806	449	-0.000
	Zn	67		**ug/L**		12172	-0.001
	Zn	68		**ug/L**		1411	0.000
>	Ge	74		**ug/L**		466737	466736.805
	As	75	**0.324**	**ug/L**	144.041	-140	0.001
	Se	77		**ug/L**		6273	-0.001
	Se	82	**0.082**	**ug/L**	142.286	12	0.000
	Kr	83		**ug/L**		123	-0.000
	Sr	88	**0.003**	**ug/L**	29.478	298	0.000
	Y	89		**ug/L**		55	-0.000
	Mo	98	**0.024**	**ug/L**	22.589	233	0.000
	Ag	107	**0.003**	**ug/L**	88.056	98	0.000
	Cd	111	**0.002**	**ug/L**	268.427	32	0.000
	Cd	114		**ug/L**		77	0.000
>	In	115		**ug/L**		324681	324681.252
	Sn	120	**0.012**	**ug/L**	31.440	456	0.000
	Sb	121	**0.144**	**ug/L**	16.700	1443	0.003
	Sb	123		**ug/L**		1182	0.002
	Ba	135		**ug/L**		58	0.000
	Ba	137	**-0.000**	**ug/L**	774.420	84	-0.000
	Ho	165		**ug/L**		23	0.000
>	Lu	175		**ug/L**		664658	664658.160
	Tl	205	**1.290**	**ug/L**	8.742	36744	0.052
	Pb	208	**0.004**	**ug/L**	43.036	1148	0.000
	Bi	209		**ug/L**		514	-0.000
	Th	232	**0.027**	**ug/L**	8.660	2372	0.002
	U	238	**0.006**	**ug/L**	26.064	963	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		81.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 04:14:08
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032562.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.016**	ug/L	22.151	128	0.000
	Be	9	**-0.009**	ug/L	29.117	17	-0.000
	B	11	**1.401**	ug/L	17.463	1134	0.002
	Na	23	**4.350**	ug/L	35.523	32371	0.046
	Mg	24	**-0.560**	ug/L	68.232	2000	-0.004
	Al	27	**7.783**	ug/L	4.956	32704	0.071
	P	31	**6.164**	ug/L	43.133	6087	0.004
	K	39	**21.005**	ug/L	11.696	561489	0.293
	Ca	43	**30.231**	ug/L	3.138	699	0.001
>	Sc	45		ug/L		375746	375745.796
	Ti	47	**0.449**	ug/L	5.663	641	0.001
	V	51	**-7.066**	ug/L	16.943	-45278	-0.141
	Cr	52	**-0.014**	ug/L	288.062	3574	-0.000
	Cr	53		ug/L		299123	0.519
	Mn	55	**0.270**	ug/L	5.227	3919	0.007
	Fe	57	**19.815**	ug/L	3.550	9741	0.011
	Co	59	**-0.002**	ug/L	64.075	105	-0.000
	Ni	60	**0.059**	ug/L	20.296	218	0.000
	Cu	63		ug/L		660	0.001
	Cu	65	**0.067**	ug/L	16.819	348	0.000
	Zn	66	**1.501**	ug/L	2.297	2515	0.004
	Zn	67		ug/L		55765	0.097
	Zn	68		ug/L		4784	0.008
>	Ge	74		ug/L		449040	449040.038
	As	75	**-1.259**	ug/L	75.403	-2320	-0.004
	Se	77		ug/L		21464	0.033
	Se	82	**0.095**	ug/L	50.908	14	0.000
	Kr	83		ug/L		116	-0.000
	Sr	88	**0.103**	ug/L	3.988	1818	0.005
	Y	89		ug/L		82	0.000
	Mo	98	**0.030**	ug/L	15.255	234	0.000
	Ag	107	**-0.001**	ug/L	75.904	61	-0.000
	Cd	111	**-0.003**	ug/L	179.448	20	-0.000
	Cd	114		ug/L		35	-0.000
>	In	115		ug/L		291215	291215.233
	Sn	120	**0.147**	ug/L	3.602	1361	0.004
	Sb	121	**0.093**	ug/L	28.490	990	0.002
	Sb	123		ug/L		800	0.002
	Ba	135		ug/L		131	0.000
	Ba	137	**0.040**	ug/L	11.205	230	0.000
	Ho	165		ug/L		28	0.000
>	Lu	175		ug/L		620339	620338.726
	Tl	205	**0.831**	ug/L	3.621	22760	0.034
	Pb	208	**0.012**	ug/L	8.330	1401	0.001
	Bi	209		ug/L		329	-0.000
	Th	232	**0.032**	ug/L	27.318	2528	0.003
	U	238	**-0.006**	ug/L	5.233	219	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		80.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 04:20:19
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032563.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.569**	**ug/L**	1.851	104603	0.283
	Be	9	**53.487**	**ug/L**	0.551	24361	0.066
	B	11	**98.988**	**ug/L**	1.738	45918	0.123
	Na	23	**1723.869**	**ug/L**	3.011	6784493	18.365
	Mg	24	**1958.303**	**ug/L**	5.903	5078942	13.763
	Al	27	**2003.800**	**ug/L**	6.081	6705005	18.165
	P	31	**1877.731**	**ug/L**	2.492	416782	1.118
	K	39	**1949.349**	**ug/L**	7.980	10459592	27.175
	Ca	43	**1885.290**	**ug/L**	1.577	25220	0.068
>	Sc	45		**ug/L**		368745	368744.994
	Ti	47	**42.497**	**ug/L**	2.978	29779	0.080
	V	51	**38.420**	**ug/L**	4.356	289276	0.765
	Cr	52	**47.878**	**ug/L**	3.131	284186	0.761
	Cr	53		**ug/L**		324168	0.602
	Mn	55	**50.570**	**ug/L**	2.495	475927	1.287
	Fe	57	**1870.062**	**ug/L**	1.803	393191	1.052
	Co	59	**49.544**	**ug/L**	3.461	371830	1.008
	Ni	60	**48.465**	**ug/L**	2.757	84051	0.228
	Cu	63		**ug/L**		202473	0.548
	Cu	65	**47.455**	**ug/L**	2.259	98703	0.267
	Zn	66	**49.371**	**ug/L**	2.096	64352	0.144
	Zn	67		**ug/L**		66996	0.125
	Zn	68		**ug/L**		49465	0.109
>	Ge	74		**ug/L**		442864	442864.089
	As	75	**45.802**	**ug/L**	0.542	61708	0.141
	Se	77		**ug/L**		25591	0.043
	Se	82	**49.700**	**ug/L**	0.975	6997	0.016
	Kr	83		**ug/L**		127	-0.000
	Sr	88	**52.381**	**ug/L**	1.355	801820	2.778
	Y	89		**ug/L**		124	0.000
	Mo	98	**48.629**	**ug/L**	2.407	200393	0.694
	Ag	107	**51.470**	**ug/L**	2.157	356353	1.235
	Cd	111	**48.569**	**ug/L**	2.043	85251	0.295
	Cd	114		**ug/L**		197890	0.685
>	In	115		**ug/L**		288597	288597.458
	Sn	120	**50.304**	**ug/L**	2.798	352607	1.221
	Sb	121	**52.327**	**ug/L**	2.756	304870	1.055
	Sb	123		**ug/L**		240133	0.831
	Ba	135		**ug/L**		92888	0.152
	Ba	137	**44.194**	**ug/L**	2.352	165053	0.270
	Ho	165		**ug/L**		52	0.000
>	Lu	175		**ug/L**		611402	611401.608
	Tl	205	**43.929**	**ug/L**	5.775	1091482	1.783
	Pb	208	**52.668**	**ug/L**	1.824	2345327	3.835
	Bi	209		**ug/L**		1852324	3.029
	Th	232	**47.940**	**ug/L**	2.144	2621285	4.287
	U	238	**49.516**	**ug/L**	2.470	2835286	4.638

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		79.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		77.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 04:57:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 8.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.506**	**ug/L**	0.339	109582	0.306
	Be	9	**54.515**	**ug/L**	0.898	24094	0.067
	B	11	**99.038**	**ug/L**	1.385	44587	0.123
	Na	23	**4616.235**	**ug/L**	9.139	17595928	49.179
	Mg	24	**5036.190**	**ug/L**	4.456	12664742	35.395
	Al	27	**5078.636**	**ug/L**	3.934	16474220	46.040
	P	31	**4592.433**	**ug/L**	3.138	982657	2.734
	K	39	**4762.234**	**ug/L**	3.561	24180152	66.389
	Ca	43	**4847.075**	**ug/L**	1.802	62484	0.174
>	Sc	45		**ug/L**		357833	357833.029
	Ti	47	**49.687**	**ug/L**	0.710	33742	0.093
	V	51	**50.563**	**ug/L**	4.728	367223	1.007
	Cr	52	**51.936**	**ug/L**	2.975	298873	0.826
	Cr	53		**ug/L**		170179	0.198
	Mn	55	**54.215**	**ug/L**	1.908	495131	1.380
	Fe	57	**4774.446**	**ug/L**	3.694	965925	2.685
	Co	59	**53.053**	**ug/L**	2.866	386422	1.080
	Ni	60	**53.199**	**ug/L**	1.625	89530	0.250
	Cu	63		**ug/L**		210242	0.587
	Cu	65	**51.309**	**ug/L**	2.290	103546	0.289
	Zn	66	**49.773**	**ug/L**	1.522	66136	0.145
	Zn	67		**ug/L**		28288	0.036
	Zn	68		**ug/L**		48867	0.105
>	Ge	74		**ug/L**		451461	451460.838
	As	75	**48.008**	**ug/L**	0.832	65967	0.147
	Se	77		**ug/L**		13698	0.016
	Se	82	**49.592**	**ug/L**	2.864	7117	0.016
	Kr	83		**ug/L**		128	-0.000
	Sr	88	**52.768**	**ug/L**	1.425	855952	2.798
	Y	89		**ug/L**		149	0.000
	Mo	98	**48.988**	**ug/L**	3.210	213900	0.699
	Ag	107	**51.362**	**ug/L**	2.086	376828	1.232
	Cd	111	**50.212**	**ug/L**	2.678	93390	0.305
	Cd	114		**ug/L**		216323	0.707
>	In	115		**ug/L**		305832	305831.645
	Sn	120	**51.900**	**ug/L**	2.512	385500	1.260
	Sb	121	**52.095**	**ug/L**	1.504	321698	1.050
	Sb	123		**ug/L**		251575	0.821
	Ba	135		**ug/L**		102932	0.163
	Ba	137	**47.701**	**ug/L**	2.112	184012	0.291
	Ho	165		**ug/L**		65	0.000
>	Lu	175		**ug/L**		631515	631515.344
	Tl	205	**46.443**	**ug/L**	1.654	1192587	1.885
	Pb	208	**54.462**	**ug/L**	2.067	2505112	3.966
	Bi	209		**ug/L**		753	0.000
	Th	232	**51.448**	**ug/L**	0.273	2906226	4.601
	U	238	**52.522**	**ug/L**	1.676	3106822	4.919

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	107.011				
	Be	9	109.029				
	B	11	99.038				
	Na	23	92.325				
	Mg	24	100.724				
	Al	27	100.567				
	P	31	91.849				
	K	39	95.245				
	Ca	43	96.942				
>	Sc	45		76.7			
	Ti	47	99.375				
	V	51	101.126				
	Cr	52	103.872				
	Cr	53					
	Mn	55	108.431				
	Fe	57	95.489				
	Co	59	106.105				
	Ni	60	106.397				
	Cu	63					
	Cu	65	102.617				
	Zn	66	99.546				
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75	96.016				
	Se	77					
	Se	82	99.183				
	Kr	83					
	Sr	88	105.535				
	Y	89					
	Mo	98	97.976				
	Ag	107	102.723				
	Cd	111	100.424				
	Cd	114					
>	In	115		80.5			
	Sn	120	103.799				
	Sb	121	104.191				
	Sb	123					
	Ba	135					
	Ba	137	95.401				
	Ho	165					
>	Lu	175		89.1			
	Tl	205	92.886				
	Pb	208	108.923				
	Bi	209					
	Th	232	102.896				
	U	238	105.044				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 05:03:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 9.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.012**	**ug/L**	7.011	65	-0.000
	Be	9	**0.018**	**ug/L**	81.045	29	0.000
	B	11	**2.520**	**ug/L**	20.602	1581	0.003
	Na	23	**1.317**	**ug/L**	109.316	19347	0.014
	Mg	24	**-0.261**	**ug/L**	317.906	2667	-0.002
	Al	27	**-0.580**	**ug/L**	91.800	4001	-0.005
	P	31	**0.653**	**ug/L**	186.201	4630	0.000
	K	39	**4.170**	**ug/L**	428.340	451196	0.058
	Ca	43	**1.918**	**ug/L**	39.840	303	0.000
>	Sc	45		**ug/L**		357906	357906.486
	Ti	47	**-0.014**	**ug/L**	177.898	299	-0.000
	V	51	**-1.313**	**ug/L**	9.952	-2185	-0.026
	Cr	52	**-0.637**	**ug/L**	9.607	-145	-0.010
	Cr	53		**ug/L**		103662	0.012
	Mn	55	**-0.012**	**ug/L**	60.588	1158	-0.000
	Fe	57	**-2.516**	**ug/L**	16.303	4785	-0.001
	Co	59	**0.005**	**ug/L**	11.714	149	0.000
	Ni	60	**0.003**	**ug/L**	57.184	112	0.000
	Cu	63		**ug/L**		346	-0.000
	Cu	65	**0.006**	**ug/L**	92.591	210	0.000
	Zn	66	**-0.091**	**ug/L**	4.032	435	-0.000
	Zn	67		**ug/L**		12332	0.000
	Zn	68		**ug/L**		1377	0.000
>	Ge	74		**ug/L**		455989	455989.224
	As	75	**0.415**	**ug/L**	33.315	-11	0.001
	Se	77		**ug/L**		6238	-0.001
	Se	82	**0.102**	**ug/L**	102.734	15	0.000
	Kr	83		**ug/L**		125	-0.000
	Sr	88	**0.004**	**ug/L**	21.231	308	0.000
	Y	89		**ug/L**		59	-0.000
	Mo	98	**0.022**	**ug/L**	28.215	216	0.000
	Ag	107	**0.004**	**ug/L**	88.816	106	0.000
	Cd	111	**0.006**	**ug/L**	78.285	39	0.000
	Cd	114		**ug/L**		85	0.000
>	In	115		**ug/L**		318667	318667.410
	Sn	120	**0.016**	**ug/L**	16.376	477	0.000
	Sb	121	**0.142**	**ug/L**	18.622	1397	0.003
	Sb	123		**ug/L**		1102	0.002
	Ba	135		**ug/L**		65	0.000
	Ba	137	**-0.000**	**ug/L**	3212.883	83	-0.000
	Ho	165		**ug/L**		22	0.000
>	Lu	175		**ug/L**		652645	652644.906
	Tl	205	**1.016**	**ug/L**	10.806	28833	0.041
	Pb	208	**0.005**	**ug/L**	2.478	1156	0.000
	Bi	209		**ug/L**		551	0.000
	Th	232	**0.027**	**ug/L**	8.748	2327	0.002
	U	238	**0.006**	**ug/L**	19.481	960	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 9	Tl	205	CCB is out of limits (+/- PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 246000001
Sample Date/Time: Thursday, February 25, 2010 05:09:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\246000001.232

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.113**	**ug/L**	6.799	331	0.001
	Be	9	**-0.001**	**ug/L**	1360.939	21	-0.000
	B	11	**18.817**	**ug/L**	0.796	9120	0.023
	Na	23	**168.608**	**ug/L**	18.434	678057	1.796
	Mg	24	**5.508**	**ug/L**	35.606	17678	0.039
	Al	27	**30.098**	**ug/L**	5.301	106731	0.273
	P	31	**8.838**	**ug/L**	16.959	6575	0.005
	K	39	**198.620**	**ug/L**	11.711	1465862	2.769
	Ca	43	**58.832**	**ug/L**	9.782	1065	0.002
>	Sc	45		**ug/L**		369053	369053.234
	Ti	47	**0.969**	**ug/L**	7.345	990	0.002
	V	51	**-6.020**	**ug/L**	25.263	-36788	-0.120
	Cr	52	**0.592**	**ug/L**	12.901	7063	0.009
	Cr	53		**ug/L**		294430	0.520
	Mn	55	**0.552**	**ug/L**	1.756	6494	0.014
	Fe	57	**14.892**	**ug/L**	2.869	8548	0.008
	Co	59	**0.004**	**ug/L**	35.876	144	0.000
	Ni	60	**0.103**	**ug/L**	7.609	289	0.000
	Cu	63		**ug/L**		2460	0.006
	Cu	65	**0.476**	**ug/L**	5.545	1191	0.003
	Zn	66	**1.566**	**ug/L**	2.629	2519	0.005
	Zn	67		**ug/L**		52841	0.095
	Zn	68		**ug/L**		4541	0.008
>	Ge	74		**ug/L**		435036	435035.872
	As	75	**-1.718**	**ug/L**	36.086	-2864	-0.005
	Se	77		**ug/L**		21852	0.036
	Se	82	**0.095**	**ug/L**	149.032	13	0.000
	Kr	83		**ug/L**		121	-0.000
	Sr	88	**0.224**	**ug/L**	4.217	3541	0.012
	Y	89		**ug/L**		299	0.001
	Mo	98	**0.015**	**ug/L**	30.937	163	0.000
	Ag	107	**0.002**	**ug/L**	51.161	80	0.000
	Cd	111	**0.007**	**ug/L**	78.682	36	0.000
	Cd	114		**ug/L**		41	-0.000
>	In	115		**ug/L**		280068	280067.956
	Sn	120	**0.301**	**ug/L**	2.886	2356	0.007
	Sb	121	**0.094**	**ug/L**	37.047	963	0.002
	Sb	123		**ug/L**		770	0.002
	Ba	135		**ug/L**		709	0.001
	Ba	137	**0.314**	**ug/L**	7.386	1251	0.002
	Ho	165		**ug/L**		43	0.000
>	Lu	175		**ug/L**		611959	611959.123
	Tl	205	**0.525**	**ug/L**	8.285	14854	0.021
	Pb	208	**0.114**	**ug/L**	1.270	5923	0.008
	Bi	209		**ug/L**		447	-0.000
	Th	232	**0.034**	**ug/L**	25.981	2558	0.003
	U	238	**0.004**	**ug/L**	2.863	777	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		79.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		76.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 05:15:52
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032564.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.124**	**ug/L**	3.159	347	0.001
	Be	9	**-0.001**	**ug/L**	1434.911	21	-0.000
	B	11	**18.592**	**ug/L**	1.446	8852	0.023
	Na	23	**251.160**	**ug/L**	6.598	984201	2.676
	Mg	24	**9.424**	**ug/L**	27.192	27360	0.066
	Al	27	**41.416**	**ug/L**	11.427	142042	0.375
	P	31	**8.631**	**ug/L**	15.302	6409	0.005
	K	39	**182.608**	**ug/L**	5.241	1357995	2.546
	Ca	43	**57.893**	**ug/L**	8.766	1034	0.002
>	Sc	45		**ug/L**		362357	362357.332
	Ti	47	**1.030**	**ug/L**	0.840	1014	0.002
	V	51	**-6.936**	**ug/L**	16.071	-42796	-0.138
	Cr	52	**0.861**	**ug/L**	29.754	8488	0.014
	Cr	53		**ug/L**		307959	0.572
	Mn	55	**0.615**	**ug/L**	0.837	6960	0.016
	Fe	57	**18.038**	**ug/L**	7.781	9033	0.010
	Co	59	**0.004**	**ug/L**	3.140	146	0.000
	Ni	60	**0.110**	**ug/L**	11.094	296	0.001
	Cu	63		**ug/L**		2657	0.006
	Cu	65	**0.543**	**ug/L**	1.168	1308	0.003
	Zn	66	**1.349**	**ug/L**	0.752	2194	0.004
	Zn	67		**ug/L**		53014	0.098
	Zn	68		**ug/L**		4405	0.007
>	Ge	74		**ug/L**		425364	425364.422
	As	75	**-1.587**	**ug/L**	30.338	-2626	-0.005
	Se	77		**ug/L**		24785	0.044
	Se	82	**0.113**	**ug/L**	126.016	15	0.000
	Kr	83		**ug/L**		114	-0.000
	Sr	88	**0.222**	**ug/L**	1.047	3507	0.012
	Y	89		**ug/L**		359	0.001
	Mo	98	**0.012**	**ug/L**	14.229	151	0.000
	Ag	107	**0.011**	**ug/L**	24.348	139	0.000
	Cd	111	**0.001**	**ug/L**	1063.766	26	0.000
	Cd	114		**ug/L**		47	-0.000
>	In	115		**ug/L**		280041	280040.501
	Sn	120	**0.276**	**ug/L**	0.637	2189	0.007
	Sb	121	**0.011**	**ug/L**	90.073	488	0.000
	Sb	123		**ug/L**		386	0.000
	Ba	135		**ug/L**		796	0.001
	Ba	137	**0.345**	**ug/L**	4.685	1343	0.002
	Ho	165		**ug/L**		45	0.000
>	Lu	175		**ug/L**		600179	600178.698
	Tl	205	**0.274**	**ug/L**	4.149	8469	0.011
	Pb	208	**0.137**	**ug/L**	3.445	6828	0.010
	Bi	209		**ug/L**		768	0.000
	Th	232	**0.014**	**ug/L**	11.562	1439	0.001
	U	238	**0.007**	**ug/L**	10.552	920	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		77.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		74.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 05:22:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032565.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.348**	**ug/L**	0.616	100386	0.265
	Be	9	**51.058**	**ug/L**	1.288	23862	0.063
	B	11	**112.113**	**ug/L**	3.218	53293	0.140
	Na	23	**2102.246**	**ug/L**	1.918	8491428	22.396
	Mg	24	**2025.051**	**ug/L**	9.582	5393717	14.232
	Al	27	**2096.404**	**ug/L**	8.492	7192425	19.005
	P	31	**1776.591**	**ug/L**	2.501	404903	1.058
	K	39	**1918.428**	**ug/L**	2.266	10575946	26.744
	Ca	43	**1903.254**	**ug/L**	3.144	26117	0.068
>	Sc	45		**ug/L**		378395	378394.950
	Ti	47	**41.965**	**ug/L**	2.097	30182	0.079
	V	51	**35.766**	**ug/L**	2.849	276914	0.712
	Cr	52	**48.741**	**ug/L**	1.558	296849	0.775
	Cr	53		**ug/L**		334865	0.607
	Mn	55	**47.573**	**ug/L**	2.893	459466	1.211
	Fe	57	**1784.687**	**ug/L**	3.326	385228	1.004
	Co	59	**46.837**	**ug/L**	3.092	360716	0.953
	Ni	60	**45.989**	**ug/L**	2.969	81841	0.216
	Cu	63		**ug/L**		194638	0.514
	Cu	65	**44.187**	**ug/L**	1.800	94328	0.249
	Zn	66	**48.302**	**ug/L**	2.556	61956	0.141
	Zn	67		**ug/L**		65350	0.123
	Zn	68		**ug/L**		47075	0.105
>	Ge	74		**ug/L**		435812	435811.885
	As	75	**69.840**	**ug/L**	2.673	92868	0.214
	Se	77		**ug/L**		25509	0.044
	Se	82	**19.025**	**ug/L**	4.187	2635	0.006
	Kr	83		**ug/L**		139	0.000
	Sr	88	**51.998**	**ug/L**	1.358	767904	2.758
	Y	89		**ug/L**		361	0.001
	Mo	98	**49.210**	**ug/L**	2.112	195647	0.702
	Ag	107	**52.208**	**ug/L**	1.463	348760	1.253
	Cd	111	**10.250**	**ug/L**	2.148	17377	0.062
	Cd	114		**ug/L**		38530	0.138
>	In	115		**ug/L**		278448	278447.753
	Sn	120	**50.999**	**ug/L**	1.680	344926	1.238
	Sb	121	**196.030**	**ug/L**	2.833	1100667	3.953
	Sb	123		**ug/L**		889988	3.196
	Ba	135		**ug/L**		90502	0.147
	Ba	137	**42.890**	**ug/L**	1.118	161441	0.262
	Ho	165		**ug/L**		363	0.001
>	Lu	175		**ug/L**		616160	616160.306
	Tl	205	**58.182**	**ug/L**	9.183	1455510	2.362
	Pb	208	**41.180**	**ug/L**	0.863	1848411	2.999
	Bi	209		**ug/L**		1068	0.001
	Th	232	**46.865**	**ug/L**	2.967	2582182	4.191
	U	238	**47.673**	**ug/L**	3.116	2750697	4.465

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	0.9999
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	0.9997
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	0.9999
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	0.9999
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovi	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		81.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		76.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		73.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 05:28:16
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\1202032566.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.006**	ug/L	54.667	104	0.000
	Be	9	**0.006**	ug/L	35.881	24	0.000
	B	11	**5.792**	ug/L	13.589	3137	0.007
	Na	23	**24.488**	ug/L	2.682	111434	0.261
	Mg	24	**0.719**	ug/L	72.606	5334	0.005
	Al	27	**6.155**	ug/L	11.270	26692	0.056
	P	31	**0.485**	ug/L	351.904	4746	0.000
	K	39	**38.380**	ug/L	33.080	641813	0.535
	Ca	43	**15.310**	ug/L	11.022	491	0.001
>	Sc	45		ug/L		370232	370232.331
	Ti	47	**0.207**	ug/L	11.588	463	0.000
	V	51	**-2.110**	ug/L	32.082	-8236	-0.042
	Cr	52	**0.149**	ug/L	116.356	4463	0.002
	Cr	53		ug/L		162376	0.161
	Mn	55	**0.103**	ug/L	10.337	2279	0.003
	Fe	57	**-0.969**	ug/L	127.725	5267	-0.001
	Co	59	**0.000**	ug/L	2365.380	117	0.000
	Ni	60	**0.023**	ug/L	10.007	152	0.000
	Cu	63		ug/L		665	0.001
	Cu	65	**0.071**	ug/L	8.532	351	0.000
	Zn	66	**0.311**	ug/L	4.184	961	0.001
	Zn	67		ug/L		17816	0.013
	Zn	68		ug/L		2050	0.002
>	Ge	74		ug/L		451489	451488.745
	As	75	**-0.393**	ug/L	65.339	-1130	-0.001
	Se	77		ug/L		12404	0.013
	Se	82	**0.092**	ug/L	176.230	13	0.000
	Kr	83		ug/L		114	-0.000
	Sr	88	**0.043**	ug/L	7.643	920	0.002
	Y	89		ug/L		105	0.000
	Mo	98	**0.011**	ug/L	20.574	161	0.000
	Ag	107	**0.000**	ug/L	504.683	73	0.000
	Cd	111	**-0.002**	ug/L	40.906	22	-0.000
	Cd	114		ug/L		40	-0.000
>	In	115		ug/L		303525	303525.381
	Sn	120	**0.059**	ug/L	8.927	775	0.001
	Sb	121	**0.003**	ug/L	180.420	486	0.000
	Sb	123		ug/L		379	0.000
	Ba	135		ug/L		167	0.000
	Ba	137	**0.056**	ug/L	7.739	299	0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		636269	636269.192
	Tl	205	**3.215**	ug/L	9.914	84931	0.130
	Pb	208	**0.015**	ug/L	2.741	1592	0.001
	Bi	209		ug/L		410	-0.000
	Th	232	**0.013**	ug/L	9.472	1473	0.001
	U	238	**-0.000**	ug/L	1010.928	572	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		79.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		79.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		89.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 05:34:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 6.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.917**	**ug/L**	1.868	108597	0.303
	Be	9	**54.344**	**ug/L**	3.265	24062	0.067
	B	11	**98.597**	**ug/L**	4.825	44462	0.123
	Na	23	**4364.899**	**ug/L**	10.122	16677592	46.502
	Mg	24	**5166.651**	**ug/L**	5.836	13022055	36.312
	Al	27	**5309.819**	**ug/L**	5.270	17255876	48.136
	P	31	**4490.103**	**ug/L**	3.876	962807	2.674
	K	39	**4761.044**	**ug/L**	2.718	24229143	66.373
	Ca	43	**4781.332**	**ug/L**	1.206	61786	0.172
>	Sc	45		**ug/L**		358648	358648.450
	Ti	47	**49.162**	**ug/L**	3.254	33457	0.092
	V	51	**48.521**	**ug/L**	5.223	353326	0.966
	Cr	52	**51.502**	**ug/L**	4.424	296952	0.819
	Cr	53		**ug/L**		159249	0.166
	Mn	55	**53.828**	**ug/L**	3.683	492501	1.370
	Fe	57	**4662.444**	**ug/L**	3.954	945190	2.622
	Co	59	**52.524**	**ug/L**	2.604	383384	1.069
	Ni	60	**51.967**	**ug/L**	2.640	87643	0.244
	Cu	63		**ug/L**		208193	0.580
	Cu	65	**51.065**	**ug/L**	2.197	103281	0.288
	Zn	66	**50.165**	**ug/L**	2.388	65743	0.146
	Zn	67		**ug/L**		26546	0.033
	Zn	68		**ug/L**		48197	0.105
>	Ge	74		**ug/L**		445320	445319.542
	As	75	**47.833**	**ug/L**	2.613	64826	0.147
	Se	77		**ug/L**		13497	0.016
	Se	82	**50.120**	**ug/L**	1.860	7094	0.016
	Kr	83		**ug/L**		138	0.000
	Sr	88	**52.759**	**ug/L**	3.617	862826	2.798
	Y	89		**ug/L**		136	0.000
	Mo	98	**47.856**	**ug/L**	2.730	210771	0.683
	Ag	107	**50.495**	**ug/L**	4.061	373528	1.211
	Cd	111	**49.369**	**ug/L**	3.327	92594	0.300
	Cd	114		**ug/L**		215515	0.699
>	In	115		**ug/L**		308474	308473.645
	Sn	120	**50.731**	**ug/L**	1.832	380087	1.231
	Sb	121	**50.710**	**ug/L**	3.139	315747	1.023
	Sb	123		**ug/L**		248882	0.806
	Ba	135		**ug/L**		103265	0.162
	Ba	137	**46.919**	**ug/L**	2.371	183074	0.287
	Ho	165		**ug/L**		62	0.000
>	Lu	175		**ug/L**		638898	638898.483
	Tl	205	**46.584**	**ug/L**	5.676	1208963	1.891
	Pb	208	**54.008**	**ug/L**	2.258	2512712	3.933
	Bi	209		**ug/L**		723	0.000
	Th	232	**50.785**	**ug/L**	5.054	2899879	4.542
	U	238	**52.456**	**ug/L**	4.393	3137205	4.913

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	105.835				
	Be	9	108.687				
	B	11	98.597				
	Na	23	87.298				
	Mg	24	103.333				
	Al	27	105.145				
	P	31	89.802				
	K	39	95.221				
	Ca	43	95.627				
>	Sc	45		76.8			
	Ti	47	98.324				
	V	51	97.043				
	Cr	52	103.003				
	Cr	53					
	Mn	55	107.655				
	Fe	57	93.249				
	Co	59	105.048				
	Ni	60	103.935				
	Cu	63					
	Cu	65	102.130				
	Zn	66	100.329				
	Zn	67					
	Zn	68					
>	Ge	74		77.9			
	As	75	95.665				
	Se	77					
	Se	82	100.239				
	Kr	83					
	Sr	88	105.518				
	Y	89					
	Mo	98	95.711				
	Ag	107	100.990				
	Cd	111	98.739				
	Cd	114					
>	In	115		81.2			
	Sn	120	101.463				
	Sb	121	101.420				
	Sb	123					
	Ba	135					
	Ba	137	93.838				
	Ho	165					
>	Lu	175		90.2			
	Tl	205	93.168				
	Pb	208	108.016				
	Bi	209					
	Th	232	101.570				
	U	238	104.911				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Na	23	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 05:40:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100224\QC Std 7.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.008**	ug/L	35.434	71	-0.000
	Be	9	**0.012**	ug/L	44.342	26	0.000
	B	11	**2.894**	ug/L	15.369	1738	0.004
	Na	23	**1.175**	ug/L	54.758	18679	0.013
	Mg	24	**-0.791**	ug/L	27.434	1333	-0.006
	Al	27	**1.002**	ug/L	131.615	9003	0.009
	P	31	**-0.273**	ug/L	450.430	4404	-0.000
	K	39	**5.024**	ug/L	159.839	452058	0.070
	Ca	43	**1.755**	ug/L	118.621	299	0.000
>	Sc	45		ug/L		355897	355897.204
	Ti	47	**0.024**	ug/L	59.762	323	0.000
	V	51	**-1.430**	ug/L	43.242	-3078	-0.028
	Cr	52	**-0.546**	ug/L	13.221	364	-0.009
	Cr	53		ug/L		100757	0.005
	Mn	55	**-0.012**	ug/L	22.218	1151	-0.000
	Fe	57	**-2.595**	ug/L	49.371	4738	-0.001
	Co	59	**0.003**	ug/L	75.329	136	0.000
	Ni	60	**0.006**	ug/L	57.367	117	0.000
	Cu	63		ug/L		374	0.000
	Cu	65	**0.001**	ug/L	1267.111	198	0.000
	Zn	66	**-0.105**	ug/L	6.230	414	-0.000
	Zn	67		ug/L		11868	-0.001
	Zn	68		ug/L		1291	-0.000
>	Ge	74		ug/L		453770	453770.256
	As	75	**0.178**	ug/L	92.795	-343	0.001
	Se	77		ug/L		6176	-0.001
	Se	82	**-0.039**	ug/L	402.610	-5	-0.000
	Kr	83		ug/L		130	-0.000
	Sr	88	**0.002**	ug/L	136.865	273	0.000
	Y	89		ug/L		58	-0.000
	Mo	98	**0.027**	ug/L	29.378	238	0.000
	Ag	107	**0.004**	ug/L	72.977	103	0.000
	Cd	111	**0.006**	ug/L	24.325	40	0.000
	Cd	114		ug/L		74	0.000
>	In	115		ug/L		316780	316780.065
	Sn	120	**0.009**	ug/L	42.527	422	0.000
	Sb	121	**0.141**	ug/L	22.448	1380	0.003
	Sb	123		ug/L		1128	0.002
	Ba	135		ug/L		52	0.000
	Ba	137	**-0.002**	ug/L	173.345	75	-0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		652981	652980.698
	Tl	205	**2.263**	ug/L	3.135	61943	0.092
	Pb	208	**0.005**	ug/L	17.380	1143	0.000
	Bi	209		ug/L		536	-0.000
	Th	232	**0.025**	ug/L	6.004	2231	0.002
	U	238	**0.005**	ug/L	19.730	901	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	0.9999
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9997
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	0.9999
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		76.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		79.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
Ge 74 Int Std for QC	Ge	74	
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 10:21:12
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.587
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	7667.7	7667.657	92.696	1.2
	Mg	24.0	65438.4	65438.352	810.719	1.2
	Co	58.9	148768.2	148768.250	1242.721	0.8
	Rh	102.9	281248.6	281248.630	3259.965	1.2
	In	114.9	364299.1	364299.123	3937.746	1.1
	Pb	208.0	327198.7	327198.660	900.422	0.3
>	Ba	137.9	337284.3	337284.262	1053.536	0.3
	Ba++	69.0	6381.2	0.019	0.000	1.2
>	Ce	139.9	411857.7	411857.650	5034.814	1.2
	CeO	155.9	10883.8	0.026	0.000	1.5
	Bkgd	220.0	24.6	24.600	6.358	25.8

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
5.75	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.8	7423.9
Co	59	13	6.3	140852.6
In	115	13	6.8	347281.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2072	0.604
Be	9.0	9.0	2056	2088	0.598
Mg	24.0	24.0	5695	2100	0.591
Mg	25.0	25.0	5935	2100	0.577
Mg	26.0	26.0	6177	2100	0.596
Co	58.9	59.0	14189	2125	0.594
Rh	102.9	102.9	24878	2180	0.579
In	114.9	114.9	27792	2200	0.585
Ce	139.9	139.9	33864	2220	0.581
Pb	206.0	206.0	49948	2305	0.587
Pb	207.0	207.0	50159	2240	0.631
Pb	208.0	208.0	50451	2265	0.710
U	238.1	238.1	57732	2275	0.744

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 14:12:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Blank.347

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		25	
>	Sc	45		ug/L		668888	
	Mn	55		ug/L		2291	
>	Lu	175		ug/L		595837	
	Tl	205		ug/L		883	
	Pb	208		ug/L		475	
	U	238		ug/L		204	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Mn	55	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 14:14:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.348

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	0.828	6540	0.010
>	Sc	45		ug/L		676851	676850.534
	Mn	55	10.000	ug/L	1.904	177072	0.258
>	Lu	175		ug/L		589758	589757.524
	Tl	205	10.000	ug/L	0.453	263884	0.446
	Pb	208	10.000	ug/L	2.877	474859	0.805
	U	238	10.000	ug/L	0.241	601643	1.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 14:17:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.349

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**100.022**	**ug/L**	1.049	63615	0.098
>	Sc	45		**ug/L**		645973	645972.524
	Mn	55	**99.878**	**ug/L**	2.401	1486823	2.298
>	Lu	175		**ug/L**		584303	584303.328
	Tl	205	**99.812**	**ug/L**	2.029	2189635	3.747
	Pb	208	**99.844**	**ug/L**	1.355	4061519	6.951
	U	238	**99.831**	**ug/L**	0.936	5089463	8.710

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Mn	55					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 14:19:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.350

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.337**	**ug/L**	0.831	31823	0.051
>	Sc	45		**ug/L**		629483	629482.623
	Mn	55	**54.535**	**ug/L**	2.129	791888	1.255
>	Lu	175		**ug/L**		589274	589274.225
	Tl	205	**52.420**	**ug/L**	0.813	1160354	1.968
	Pb	208	**53.310**	**ug/L**	1.745	2187052	3.711
	U	238	**52.301**	**ug/L**	0.705	2689274	4.563

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	102.674				
>	Sc	45		94.1			
	Mn	55	109.069				
>	Lu	175		98.9			
	Tl	205	104.839				
	Pb	208	106.620				
	U	238	104.602				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 14:22:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.351

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.002**	**ug/L**	214.675	24	-0.000
>	Sc	45		**ug/L**		654529	654529.493
	Mn	55	**-0.004**	**ug/L**	100.755	2183	-0.000
>	Lu	175		**ug/L**		595331	595330.522
	Tl	205	**0.102**	**ug/L**	6.118	3167	0.004
	Pb	208	**0.003**	**ug/L**	26.105	579	0.000
	U	238	**0.008**	**ug/L**	1.572	602	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.9			
	Mn	55					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 14:24:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.352

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.557**	**ug/L**	9.676	385	0.001
>	Sc	45		**ug/L**		658791	658790.794
	Mn	55	**6.275**	**ug/L**	4.301	97305	0.144
>	Lu	175		**ug/L**		592978	592978.327
	Tl	205	**1.277**	**ug/L**	1.263	29298	0.048
	Pb	208	**2.551**	**ug/L**	2.809	105733	0.178
	U	238	**0.290**	**ug/L**	0.556	15199	0.025

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Mn	55Linear Thru Zero	0.9999
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	111.411				
>	Sc	45		98.5			
	Mn	55	125.508				
>	Lu	175		99.5			
	Tl	205	127.675				
	Pb	208	127.538				
	U	238	144.913				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 14:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.353

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.089**	**ug/L**	12.417	70	0.000
>	Sc	45		**ug/L**		556722	556721.917
	Mn	55	**6.374**	**ug/L**	2.843	83520	0.147
>	Lu	175		**ug/L**		546173	546173.398
	Tl	205	**0.027**	**ug/L**	7.143	1352	0.001
	Pb	208	**0.239**	**ug/L**	1.772	9511	0.017
	U	238	**-0.001**	**ug/L**	7.538	150	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.2			
	Mn	55	109.892				
>	Lu	175		91.7			
	Tl	205					
	Pb	208	126.313				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 14:29:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.354

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.782**	**ug/L**	1.989	10470	0.019
>	Sc	45		**ug/L**		536856	536856.079
	Mn	55	**28.447**	**ug/L**	1.663	353252	0.655
>	Lu	175		**ug/L**		544762	544762.461
	Tl	205	**21.404**	**ug/L**	1.003	438467	0.803
	Pb	208	**21.975**	**ug/L**	2.109	833709	1.530
	U	238	**23.745**	**ug/L**	0.446	1128817	2.072

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.910				
>	Sc	45		80.3			
	Mn	55	110.258				
>	Lu	175		91.4			
	Tl	205	107.019				
	Pb	208	108.847				
	U	238	118.723				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 14:32:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.355

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.548**	**ug/L**	3.801	31989	0.053
>	Sc	45		**ug/L**		606838	606838.403
	Mn	55	**54.439**	**ug/L**	2.137	762096	1.253
>	Lu	175		**ug/L**		601484	601484.197
	Tl	205	**51.997**	**ug/L**	0.762	1174882	1.952
	Pb	208	**54.077**	**ug/L**	2.248	2264396	3.765
	U	238	**53.307**	**ug/L**	0.482	2797685	4.651

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.095				
>	Sc	45		90.7			
	Mn	55	108.878				
>	Lu	175		100.9			
	Tl	205	103.993				
	Pb	208	108.154				
	U	238	106.613				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 14:34:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.356

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	739.982	24	-0.000
>	Sc	45		ug/L		649200	649199.690
	Mn	55	-0.021	ug/L	1.269	1911	-0.000
>	Lu	175		ug/L		625070	625069.607
	Tl	205	0.087	ug/L	3.030	2978	0.003
	Pb	208	0.000	ug/L	61.802	513	0.000
	U	238	0.005	ug/L	17.144	503	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.1			
	Mn	55					
>	Lu	175		104.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, February 25, 2010 14:56:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 8.364

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.970**	**ug/L**	1.302	31179	0.052
>	Sc	45		**ug/L**		597786	597786.220
	Mn	55	**55.100**	**ug/L**	1.866	759807	1.268
>	Lu	175		**ug/L**		595134	595133.877
	Tl	205	**52.325**	**ug/L**	0.329	1169829	1.964
	Pb	208	**53.592**	**ug/L**	1.336	2220837	3.731
	U	238	**52.623**	**ug/L**	2.770	2733100	4.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	105.941				
>	Sc	45		89.4			
	Mn	55	110.199				
>	Lu	175		99.9			
	Tl	205	104.651				
	Pb	208	107.184				
	U	238	105.247				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, February 25, 2010 14:59:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 9.365

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	1466.131	23	0.000
>	Sc	45		**ug/L**		607338	607337.892
	Mn	55	**0.001**	**ug/L**	693.699	2089	0.000
>	Lu	175		**ug/L**		599774	599774.272
	Tl	205	**0.874**	**ug/L**	1.983	20554	0.033
	Pb	208	**0.003**	**ug/L**	4.189	607	0.000
	U	238	**0.008**	**ug/L**	2.310	641	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Mn	55					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 15:13:21
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.370

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	99.825	21	-0.000
>	Sc	45		ug/L		643470	643470.488
	Mn	55	0.283	ug/L	5.774	6389	0.007
>	Lu	175		ug/L		585134	585134.328
	Tl	205	0.483	ug/L	1.138	11475	0.018
	Pb	208	0.021	ug/L	5.320	1327	0.001
	U	238	-0.000	ug/L	198.800	193	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		98.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 15:15:56
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.371

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.625**	**ug/L**	4.308	32048	0.049
>	Sc	45		**ug/L**		656083	656083.082
	Mn	55	**50.137**	**ug/L**	2.054	758987	1.154
>	Lu	175		**ug/L**		589037	589037.009
	Tl	205	**42.034**	**ug/L**	2.037	930318	1.578
	Pb	208	**52.764**	**ug/L**	2.619	2163992	3.673
	U	238	**51.774**	**ug/L**	0.516	2660967	4.517

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.1			
	Mn	55					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:23:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.374

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.183**	**ug/L**	1.937	31055	0.053
>	Sc	45		**ug/L**		582090	582090.176
	Mn	55	**54.374**	**ug/L**	3.736	730010	1.251
>	Lu	175		**ug/L**		593497	593496.547
	Tl	205	**52.300**	**ug/L**	3.630	1165289	1.963
	Pb	208	**54.421**	**ug/L**	2.513	2248095	3.789
	U	238	**53.119**	**ug/L**	0.451	2750767	4.635

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	108.365				
>	Sc	45		87.0			
	Mn	55	108.748				
>	Lu	175		99.6			
	Tl	205	104.601				
	Pb	208	108.842				
	U	238	106.238				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:26:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.375

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.005	ug/L	23.854	26	0.000
>	Sc	45		ug/L		602746	602745.952
	Mn	55	0.003	ug/L	113.169	2105	0.000
>	Lu	175		ug/L		615579	615578.706
	Tl	205	0.490	ug/L	4.079	12233	0.018
	Pb	208	0.001	ug/L	113.914	533	0.000
	U	238	0.006	ug/L	6.248	549	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Mn	55					
>	Lu	175		103.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246000001
Sample Date/Time: Thursday, February 25, 2010 15:37:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\246000001.379

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	294.273	26	0.000
>	Sc	45		**ug/L**		638746	638746.070
	Mn	55	**0.570**	**ug/L**	1.732	10566	0.013
>	Lu	175		**ug/L**		585764	585763.695
	Tl	205	**0.131**	**ug/L**	3.833	3754	0.005
	Pb	208	**0.129**	**ug/L**	2.564	5712	0.009
	U	238	**0.011**	**ug/L**	2.653	741	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.5			
	Mn	55					
>	Lu	175		98.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 15:39:45
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.380

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	216.799	22	-0.000
>	Sc	45		ug/L		643322	643321.984
	Mn	55	0.626	ug/L	2.225	11465	0.014
>	Lu	175		ug/L		594600	594599.800
	Tl	205	0.097	ug/L	3.017	3045	0.004
	Pb	208	0.145	ug/L	1.845	6466	0.010
	U	238	0.013	ug/L	4.690	878	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.2			
	Mn	55					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 15:42:21
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.381

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	47.665	ug/L	3.328	29818	0.047
>	Sc	45		ug/L		635371	635371.076
	Mn	55	48.892	ug/L	0.732	717113	1.125
>	Lu	175		ug/L		588240	588240.219
	Tl	205	57.057	ug/L	5.253	1260682	2.142
	Pb	208	42.232	ug/L	0.828	1729953	2.940
	U	238	51.407	ug/L	1.109	2638697	4.485

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.0			
	Mn	55					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 15:44:58
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.382

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.000	ug/L	11232.568	23	0.000
>	Sc	45		ug/L		614367	614367.315
	Mn	55	0.101	ug/L	4.725	3533	0.002
>	Lu	175		ug/L		627621	627620.913
	Tl	205	2.853	ug/L	3.675	68114	0.107
	Pb	208	0.023	ug/L	6.465	1516	0.002
	U	238	0.004	ug/L	2.553	424	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.8			
	Mn	55					
>	Lu	175		105.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 15:50:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.384

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.732**	**ug/L**	4.848	29509	0.051
>	Sc	45		**ug/L**		579534	579534.140
	Mn	55	**53.551**	**ug/L**	1.178	716125	1.232
>	Lu	175		**ug/L**		613922	613922.104
	Tl	205	**50.004**	**ug/L**	1.850	1153173	1.877
	Pb	208	**52.325**	**ug/L**	1.116	2236872	3.643
	U	238	**51.422**	**ug/L**	0.906	2754482	4.487

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.463				
>	Sc	45		86.6			
	Mn	55	107.101				
>	Lu	175		103.0			
	Tl	205	100.009				
	Pb	208	104.651				
	U	238	102.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 15:52:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl 0225.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.385

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	176.091	23	0.000
>	Sc	45		**ug/L**		580751	580751.122
	Mn	55	**0.006**	**ug/L**	93.107	2066	0.000
>	Lu	175		**ug/L**		608046	608045.886
	Tl	205	**1.444**	**ug/L**	1.703	33844	0.054
	Pb	208	**0.002**	**ug/L**	22.146	571	0.000
	U	238	**0.007**	**ug/L**	7.541	605	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.8			
	Mn	55					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 7	Tl	205	CCB is out of limits (+-/ PQL)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, February 25, 2010 15:57:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Blank.386

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		599602	
	U	238		ug/L		354	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, February 25, 2010 15:58:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 1.387

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		598286	598285.760
⌊	U	238	10.000	ug/L	1.095	639626	1.069

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, February 25, 2010 16:00:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\Standard 2.388

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		591647	591647.028
	U	238	**99.816**	**ug/L**	0.480	5330455	9.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, February 25, 2010 16:01:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 1.389

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		594744	594744.465
	U	238	52.109	ug/L	1.185	2797259	4.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.2			
	U	238	104.217				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, February 25, 2010 16:03:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 2.390

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		616563	616563.277
	U	238	0.017	ug/L	6.946	1307	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		102.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, February 25, 2010 16:05:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 3.391

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		600065	600064.857
⌊	U	238	**0.244**	**ug/L**	1.225	13546	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		100.1			
⌊	U	238	121.797				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, February 25, 2010 16:07:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 4.392

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		544306	544305.822
	U	238	-0.001	ug/L	6.362	248	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		90.8			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, February 25, 2010 16:08:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 5.393

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		539792	539791.708
⌊	U	238	23.423	ug/L	0.126	1141451	2.114

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		90.0			
⌊	U	238	117.115				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:10:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.394

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		596598	596598.137
	U	238	**51.765**	ug/L	0.946	2787532	4.672

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.5			
	U	238	103.530				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:12:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.395

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		594162	594161.567
⌊	U	238	0.010	ug/L	6.225	887	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Thursday, February 25, 2010 16:13:44
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032562.396

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		561602	561602.446
[	U	238	-0.000	ug/L	231.891	321	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		93.7			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Thursday, February 25, 2010 16:15:27
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032563.397

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		570802	570802.292
	U	238	50.564	ug/L	1.023	2605073	4.564

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:24:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.402

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		619346	619345.966
	U	238	**49.089**	**ug/L**	0.403	2744254	4.430

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		103.3			
	U	238	98.177				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:25:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.403

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		622016	622015.783
	U	238	0.010	ug/L	6.333	921	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175		103.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246000001
Sample Date/Time: Thursday, February 25, 2010 16:29:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\246000001.405

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		574188	574187.732
⌊	U	238	0.008	ug/L	4.859	769	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		95.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Thursday, February 25, 2010 16:30:55
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|ba|
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032564.406

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		587644	587643.561
⌊	U	238	0.010	ug/L	6.425	883	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Thursday, February 25, 2010 16:32:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032565.407

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		587968	587967.926
⌊	U	238	49.454	ug/L	1.450	2624658	4.463

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Thursday, February 25, 2010 16:34:25
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\1202032566.408

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		624063	624063.010
	U	238	0.006	ug/L	8.896	693	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, February 25, 2010 16:36:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 6.409

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		604405	604404.935
	U	238	**50.306**	**ug/L**	0.810	2744319	4.540

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.8			
	U	238	100.612				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, February 25, 2010 16:37:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: c:\elandata\Dataset\100224\QC Std 7.410

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		601216	601215.925
	U	238	0.010	ug/L	9.203	908	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, February 28, 2010 11:19:11
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.612
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6196.3	6196.344	143.347	2.3
	Mg	24.0	67234.2	67234.247	309.860	0.5
	Co	58.9	132558.2	132558.202	1103.361	0.8
	Rh	102.9	258781.3	258781.341	1982.494	0.8
	In	114.9	336320.1	336320.050	2837.596	0.8
	Pb	208.0	320426.5	320426.537	1072.771	0.3
⌈>	Ba	137.9	331832.6	331832.612	2204.656	0.7
⌊	Ba++	69.0	5415.4	0.016	0.000	1.6
⌈>	Ce	139.9	412164.8	412164.835	3829.750	0.9
⌊	CeO	155.9	10667.4	0.026	0.001	3.8
	Bkgd	220.0	21.3	21.300	4.604	21.6

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	6.0	6925.3
Co	59	13	6.5	130705.5
In	115	13	7.3	340695.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2050	0.661
Be	9.0	9.0	2061	2075	0.622
Mg	24.0	24.0	5689	2080	0.610
Mg	25.0	25.0	5941	2080	0.625
Mg	26.0	26.0	6167	2080	0.630
Co	58.9	58.9	14183	2110	0.614
Rh	102.9	102.9	24875	2160	0.629
In	114.9	114.9	27789	2180	0.626
Ce	139.9	139.9	33873	2200	0.627
Pb	206.0	206.0	49948	2295	0.581
Pb	207.0	207.0	50171	2240	0.628
Pb	208.0	208.0	50451	2265	0.688
U	238.1	238.1	57734	2275	0.722

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 11:32:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		677057	
⌊	Tl	205		ug/L		808	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 11:35:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		667556	667556.025
⌊	Tl	205	10.000	ug/L	0.862	294295	0.440

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 11:38:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		659367	659366.978
⌊	Tl	205	99.812	ug/L	1.331	2437008	3.695

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 11:42:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		673365	673364.882
⌊	Tl	205	53.184	ug/L	1.645	1326362	1.969

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.5			
⌊	Tl	205	106.368				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 11:45:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		681777	681776.982
	Tl	205	0.030	ug/L	1.811	1560	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 11:48:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		672467	672467.132
	Tl	205	1.266	ug/L	0.670	32318	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.3			
	Tl	205	126.599				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 11:51:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		588832	588831.842
	Tl	205	0.013	ug/L	10.715	984	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		87.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 11:54:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 5.008

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		590656	590656.176
	Tl	205	**22.733**	**ug/L**	1.043	497747	0.842

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		87.2			
	Tl	205	113.667				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 11:57:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		670145	670145.439
	Tl	205	53.996	ug/L	0.427	1340274	1.999

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.0			
	Tl	205	107.992				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 12:01:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.010

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		686615	686614.820
⌊	Tl	205	**0.021**	**ug/L**	4.777	1342	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		101.4			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:20:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		686305	686304.568
	Tl	205	52.972	ug/L	1.323	1346565	1.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.4			
	Tl	205	105.943				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:23:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		688824	688824.054
	Tl	205	0.058	ug/L	1.241	2291	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		101.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 12:42:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		668337	668336.676
	Tl	205	53.656	ug/L	1.715	1328080	1.986

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.7			
	Tl	205	107.312				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 12:45:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		670679	670678.529
⌊	Tl	205	0.170	ug/L	2.585	5015	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		99.1			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:06:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.030

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		668176	668175.537
	Tl	205	**52.327**	**ug/L**	0.462	1295066	1.937

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.7			
	Tl	205	104.655				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:09:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.031

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		649044	649044.468
	Tl	205	**0.080**	**ug/L**	1.399	2707	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:29:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		635047	635047.332
	Tl	205	53.266	ug/L	1.058	1252817	1.972

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		93.8			
	Tl	205	106.531				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:32:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		653533	653533.489
⌊	Tl	205	0.138	ug/L	1.085	4121	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		96.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 13:51:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		630598	630597.877
⌊	Tl	205	53.890	ug/L	0.285	1258712	1.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		93.1			
⌊	Tl	205	107.780				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 13:54:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		655368	655368.483
	Tl	205	0.124	ug/L	1.141	3781	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:10:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.050

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		**ug/L**		656527	656526.813
[	Tl	205	**52.015**	**ug/L**	0.912	1264760	1.925

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
[>	Lu	175		97.0			
[	Tl	205	104.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:13:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		633750	633749.781
	Tl	205	0.304	ug/L	2.392	7889	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032562
Sample Date/Time: Sunday, February 28, 2010 14:17:07
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032562.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		637279	637278.987
⌊	Tl	205	**0.165**	ug/L	0.459	4652	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.1			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032563
Sample Date/Time: Sunday, February 28, 2010 14:20:21
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032563.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		618802	618801.549
	Tl	205	52.260	ug/L	0.827	1197858	1.935

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		91.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, February 28, 2010 14:39:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 8.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		636661	636661.313
	Tl	205	51.753	ug/L	1.268	1220367	1.916

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.0			
	Tl	205	103.507				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, February 28, 2010 14:42:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 9.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		646420	646420.439
	Tl	205	0.124	ug/L	3.474	3745	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246000001
Sample Date/Time: Sunday, February 28, 2010 14:46:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\246000001.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		606998	606997.527
⌊	Tl	205	0.053	ug/L	3.652	1904	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		89.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032564
Sample Date/Time: Sunday, February 28, 2010 14:49:15
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032564.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		606403	606402.736
	Tl	205	0.035	ug/L	8.276	1508	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		89.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032565
Sample Date/Time: Sunday, February 28, 2010 14:52:24
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 948740|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032565.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		604264	604263.531
	Tl	205	74.988	ug/L	1.789	1678038	2.776

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		89.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202032566
Sample Date/Time: Sunday, February 28, 2010 14:55:34
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 948740|5|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\1202032566.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		622697	622697.219
	Tl	205	1.665	ug/L	1.459	39115	0.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		92.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 14:58:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 6.065

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		639572	639571.983
	Tl	205	**52.103**	**ug/L**	0.346	1234316	1.929

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.5			
	Tl	205	104.206				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 15:01:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100228\QC Std 7.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		627865	627864.641
	Tl	205	0.778	ug/L	1.776	18837	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\020510W1.SIF
Batch ID:
Results Data Set: 020510W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/5/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0006	0.0003	09:04:56	Yes
2		[0.00]	0.0002	-0.0003	0.0002	09:05:30	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	20.18				

Auto-zero performed.

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/5/2010 09:05:49**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0019	0.0085	0.0021	09:06:50	Yes
2		[0.2]	0.0019	0.0079	0.0021	09:07:24	Yes
Mean:		[0.2]	0.0019				
SD:		0.0	0.0000				
%RSD:		0.0	0.42				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00933 Intercept: 0.00000

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/5/2010 09:07:43**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0047	0.0201	0.0049	09:08:45	Yes
2		[0.5]	0.0048	0.0214	0.0050	09:09:19	Yes
Mean:		[0.5]	0.0047				
SD:		0.0	0.0001				
%RSD:		0.0	1.87				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999967 Slope: 0.00950 Intercept: -0.00001

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/5/2010 09:09:39**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0191	0.0825	0.0194	09:10:40	Yes
2		[2.0]	0.0190	0.0814	0.0192	09:11:15	Yes
Mean:		[2.0]	0.0190				
SD:		0.0	0.0001				
%RSD:		0.0	0.73				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.00953 Intercept: -0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/5/2010 09:11:35**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0473	0.2057	0.0476	09:12:37	Yes
2		[5.0]	0.0469	0.2028	0.0471	09:13:12	Yes
Mean:		[5.0]	0.0471				
SD:		0.0	0.0003				
%RSD:		0.0	0.72				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00942 Intercept: 0.00004

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/5/2010 09:13:32**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0944	0.4143	0.0947	09:14:32	Yes
2		[10.0]	0.0937	0.4076	0.0940	09:15:07	Yes
Mean:		[10.0]	0.0941				
SD:		0.0	0.0005				
%RSD:		0.0	0.53				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

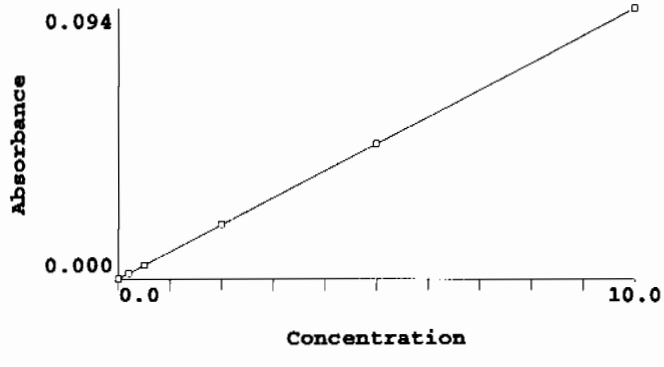

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.006	0.00	20.2
S0.2	0.0019	0.2	0.192	0.00	0.4
S0.5	0.0047	0.5	0.498	0.00	1.9
S2.0	0.0190	2.0	2.019	0.00	0.7

S5.0	0.0471	5.0	5.001	0.00	0.7
S10.0	0.0941	10.0	9.996	0.00	0.5

Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/5/2010 09:15:26**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.965	4.965	0.0468	0.2021	0.0470	09:16:27	Yes
2	4.945	4.945	0.0466	0.2010	0.0468	09:17:02	Yes
Mean:	4.955	4.955	0.0467				
SD:	0.014	0.014	0.0001				
%RSD:	0.281	0.281	0.28				

QC value within limits for Hg 253.7 Recovery = 99.10%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/5/2010 09:17:22**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	-0.0008	0.0002	09:18:23	Yes
2	-0.012	-0.012	-0.0000	-0.0006	0.0002	09:18:58	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.89	11.89	23.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/5/2010 09:19:18**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.191	0.191	0.0019	0.0082	0.0021	09:20:19	Yes
2	0.191	0.191	0.0019	0.0082	0.0021	09:20:54	Yes
Mean:	0.191	0.191	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.034	0.034	0.03				

QC value within limits for Hg 253.7 Recovery = 95.30%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 09:21:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.014	5.014	0.0472	0.2051	0.0475	09:22:14	Yes
2	4.974	4.974	0.0468	0.2038	0.0471	09:22:50	Yes
Mean:	4.994	4.994	0.0470				
SD:	0.029	0.029	0.0003				
%RSD:	0.577	0.577	0.58				

QC value within limits for Hg 253.7 Recovery = 99.88%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/5/2010 09:23:09
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0000	-0.0002	0.0002	09:24:10	Yes
2	-0.006	-0.006	0.0000	0.0002	0.0002	09:24:45	Yes
Mean:	-0.009	-0.009	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	42.32	42.32	156.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202029931|947628|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 2/5/2010 09:25:04
Data Type: Original

Replicate Data: 1202029931|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	-0.0005	0.0002	09:26:06	Yes
2	-0.005	-0.005	0.0000	-0.0001	0.0002	09:26:40	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	44.19	44.19	224.20				

Sequence No.: 13
Sample ID: 1202029932|947628|1
Analyst: JXL
Autosampler Location: 13
Date Collected: 2/5/2010 09:27:01
Data Type: Original

Replicate Data: 1202029932|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0191	0.0835	0.0193	09:28:02	Yes
2	2.026	2.026	0.0191	0.0827	0.0193	09:28:37	Yes
Mean:	2.024	2.024	0.0191				
SD:	0.003	0.003	0.0000				
%RSD:	0.144	0.144	0.14				

Sequence No.: 14
Sample ID: 245601001|947628|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 2/5/2010 09:28:58
Data Type: Original

Replicate Data: 245601001|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0002	0.0002	09:29:58	Yes
2	0.002	0.002	0.0001	0.0008	0.0003	09:30:33	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	299.4	299.4	87.21				

Sequence No.: 15
Sample ID: 245614001|947628|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 2/5/2010 09:30:52
Data Type: Original

Replicate Data: 245614001|947628|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202029937|947628|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	09:41:26	Yes
2	-0.008	-0.008	-0.0000	-0.0004	0.0002	09:42:01	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.270	1.270	5.82				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 1202033203|949020|1 Date Collected: 2/5/2010 09:42:20
Analyst: JXL Data Type: Original

Replicate Data: 1202033203|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0006	0.0003	09:43:21	Yes
2	0.003	0.003	0.0001	0.0014	0.0003	09:43:56	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	53.61	53.61	15.02				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 2/5/2010 09:44:15
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.947	4.947	0.0466	0.2056	0.0468	09:45:17	Yes
2	4.906	4.906	0.0462	0.2030	0.0464	09:45:52	Yes
Mean:	4.927	4.927	0.0464				
SD:	0.029	0.029	0.0003				
%RSD:	0.589	0.589	0.59				

QC value within limits for Hg 253.7 Recovery = 98.53%
All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 09:46:11
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0003	0.0002	09:47:12	Yes
2	0.006	0.006	0.0001	0.0006	0.0003	09:47:46	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.009	0.009	0.0001				
%RSD:	>999.9%	>999.9%	153.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 Autosampler Location: 22
Sample ID: 1202033204|949020|1 Date Collected: 2/5/2010 09:48:06
Analyst: JXL Data Type: Original

Replicate Data: 1202033204|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.013	2.013	0.0190	0.0852	0.0192	09:49:07	Yes
2	2.004	2.004	0.0189	0.0839	0.0191	09:49:42	Yes

Mean:	2.009	2.009	0.0190
SD:	0.006	0.006	0.0001
%RSD:	0.312	0.312	0.31

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 245911001|949020|1 **Date Collected: 2/5/2010 09:50:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 245911001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0002	0.0022	0.0004	09:51:03	Yes
2	0.017	0.017	0.0002	0.0028	0.0005	09:51:38	Yes
Mean:	0.016	0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	7.972	7.972	5.75				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 245922001|949020|1 **Date Collected: 2/5/2010 09:51:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 245922001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0012	0.0003	09:53:00	Yes
2	0.007	0.007	0.0001	0.0009	0.0004	09:53:35	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	44.12	44.12	20.60				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 245939001|949020|1 **Date Collected: 2/5/2010 09:53:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0030	0.0005	09:54:57	Yes
2	0.022	0.022	0.0003	0.0034	0.0005	09:55:32	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	14.54	14.54	11.04				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 245939002|949020|1 **Date Collected: 2/5/2010 09:55:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0010	0.0003	09:56:53	Yes
2	0.006	0.006	0.0001	0.0011	0.0003	09:57:28	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	80.46	80.46	31.18				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 245953001|949020|1 **Date Collected: 2/5/2010 09:57:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 245953001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	-0.0001	0.0003	09:58:48	Yes
2	0.005	0.005	0.0001	0.0008	0.0003	09:59:23	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	292.1	292.1	59.58				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 245965001|949020|1 **Date Collected: 2/5/2010 09:59:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 245965001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0007	0.0003	10:00:43	Yes
2	0.004	0.004	0.0001	0.0002	0.0003	10:01:18	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	33.02	33.02	15.09				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 245975001|949020|1 **Date Collected: 2/5/2010 10:01:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 245975001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0010	0.0003	10:02:38	Yes
2	0.004	0.004	0.0001	0.0015	0.0003	10:03:12	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	165.2	165.2	34.46				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 245981001|949020|1 **Date Collected: 2/5/2010 10:03:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 245981001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0021	0.0004	10:04:32	Yes
2	0.019	0.019	0.0002	0.0034	0.0005	10:05:07	Yes
Mean:	0.015	0.015	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	43.49	43.49	30.52				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246000001|949020|1 **Date Collected: 2/5/2010 10:05:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 246000001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0018	0.0003	10:06:27	Yes
2	0.012	0.012	0.0002	0.0024	0.0004	10:07:02	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	42.51	42.51	25.13				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 10:07:22**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.069	5.069	0.0477	0.2135	0.0480	10:08:22	Yes
2	5.033	5.033	0.0474	0.2110	0.0476	10:08:58	Yes
Mean:	5.051	5.051	0.0476				
SD:	0.025	0.025	0.0002				
%RSD:	0.502	0.502	0.50				

QC value within limits for Hg 253.7 Recovery = 101.01%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 10:09:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0004	0.0003	10:10:17	Yes
2	0.005	0.005	0.0001	0.0009	0.0003	10:10:52	Yes
Mean:	0.001	0.001	0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	>999.9%	>999.9%	94.99				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246010001|949020|1 Date Collected: 2/5/2010 10:11:11
Analyst: JXL Data Type: Original

Replicate Data: 246010001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0003	0.0002	10:12:12	Yes
2	-0.004	-0.004	0.0000	0.0007	0.0002	10:12:47	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.81	17.81	51.51				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246056001|949020|1 Date Collected: 2/5/2010 10:13:07
Analyst: JXL Data Type: Original

Replicate Data: 246056001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0004	0.0003	10:14:08	Yes
2	0.002	0.002	0.0001	0.0012	0.0003	10:14:43	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	>999.9%	>999.9%	65.75				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202033205|949020|1 Date Collected: 2/5/2010 10:15:03
Analyst: JXL Data Type: Original

Replicate Data: 1202033205|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0008	0.0002	10:16:04	Yes

2	0.005	0.005	0.0001	0.0017	0.0003	10:16:39	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	>999.9%	>999.9%	95.21				

==========

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 1202033206|949020|1 **Date Collected: 2/5/2010 10:16:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033206|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.503	1.503	0.0142	0.0680	0.0144	10:18:00	Yes
2	1.495	1.495	0.0141	0.0670	0.0143	10:18:35	Yes
Mean:	1.499	1.499	0.0142				
SD:	0.006	0.006	0.0001				
%RSD:	0.393	0.393	0.39				

==========

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 1202033207|949020|5 **Date Collected: 2/5/2010 10:18:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033207|949020|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	10:19:57	Yes
2	-0.002	-0.002	0.0000	0.0011	0.0003	10:20:32	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	84.26	84.26	326.78				

==========

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 246056002|949020|1 **Date Collected: 2/5/2010 10:20:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	0.0010	0.0003	10:21:54	Yes
2	-0.003	-0.003	0.0000	0.0008	0.0003	10:22:29	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	8.003	8.003	5.22				

==========

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 246056003|949020|1 **Date Collected: 2/5/2010 10:22:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056003|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0024	0.0005	10:23:50	Yes
2	0.023	0.023	0.0003	0.0022	0.0005	10:24:25	Yes
Mean:	0.021	0.021	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	10.47	10.47	8.06				

==========

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 246056004|949020|1 **Date Collected: 2/5/2010 10:24:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056004|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0004	0.0044	0.0006	10:25:45	Yes
2	0.016	0.016	0.0002	0.0017	0.0004	10:26:21	Yes
Mean:	0.026	0.026	0.0003				
SD:	0.015	0.015	0.0001				
%RSD:	56.65	56.65	45.73				

==========

Sequence No.: 44 Autosampler Location: 40
Sample ID: 1202033224|949028|1 Date Collected: 2/5/2010 10:26:40
Analyst: JXL Data Type: Original

Replicate Data: 1202033224|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0003	0.0022	0.0005	10:27:41	Yes
2	0.017	0.017	0.0002	0.0020	0.0005	10:28:17	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	11.82	11.82	8.89				

==========

Sequence No.: 45 Autosampler Location: 41
Sample ID: 1202033226|949028|1 Date Collected: 2/5/2010 10:28:36
Analyst: JXL Data Type: Original

Replicate Data: 1202033226|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.106	2.106	0.0199	0.0883	0.0201	10:29:37	Yes
2	2.076	2.076	0.0196	0.0876	0.0198	10:30:12	Yes
Mean:	2.091	2.091	0.0197				
SD:	0.022	0.022	0.0002				
%RSD:	1.033	1.033	1.03				

==========

Sequence No.: 46 Autosampler Location: 7
Sample ID: CCV Date Collected: 2/5/2010 10:30:32
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.111	5.111	0.0481	0.2129	0.0484	10:31:32	Yes
2	5.088	5.088	0.0479	0.2132	0.0481	10:32:08	Yes
Mean:	5.099	5.099	0.0480				
SD:	0.016	0.016	0.0001				
%RSD:	0.309	0.309	0.31				

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

==========

Sequence No.: 47 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 10:32:26
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0010	0.0002	10:33:27	Yes
2	-0.005	-0.005	0.0000	0.0011	0.0002	10:34:02	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.051	7.051	16.61				

QC value within limits for Hg 253.7 Recovery = Not calculated

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948730

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032558	U1100120-01	.25	mL
LCS	1202032558	U1100120-06	.25	mL
MS	1202032560	U1100120-01	.25	mL
MS	1202032560	U1100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032557		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032558		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032559	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032560	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032561	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 948739

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032563	UI100120-A	.5	mL
LCS	1202032563	UI100120-B	.5	mL
MS	1202032565	UI090930-A	.5	mL
MS	1202032565	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032562		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
LCS	1202032563		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245939002		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245965001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245975001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	245981001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SAMPLE	246000001		SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
DUP	1202032564	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
MS	1202032565	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER
SDILT	1202032566	246000001	SW846 3005A	10-FEB-2010 13:30	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 949018

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033204	WHG100204-13	.2	mL
MS	1202033206	WHG100204-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033203		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
LCS	1202033204		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245911001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245922001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245953001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245965001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245975001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245981001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246000001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246010001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
DUP	1202033205	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
MS	1202033206	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SDILT	1202033207	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056003		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056004		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1257474-1	.5 mL	NITRIC ACID
1261483-C	1.5 mL	5% Potassium Persulfate
1264984-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100204-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100204-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100204-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100204-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100204-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100204-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 04-FEB-10 12:15
Digestion End Date: 04-FEB-10 14:15

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020	Liquid	LANL
Batch ID:	**Sample Numbers:**		
948740	See Below		

Potentially affected work order(s)(SDG): 245939(10-1506-1),245965(10-1511-1),245975(10-1512-1),245981(10-1514-1),246000(10-1517-1)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202032565MS	The matrix spike recovery failed outside of the control limits for Tl due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 01-MAR-10

Data Validator/Group Leader:

Samantha Jacobs 01-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				

Description: SECOND SOURCE STD #1B

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				

Description: ICP-MS DOE liquid Spike Solution A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID:	UI091102-41	**Opened:**	16-NOV-09	**Amount :**	500 mL
Name:	TRACE CALSTD#1B SOUF	**Received:**	02-NOV-09	**Catalog Number :**	HP2270-2-500
Type:	Source Material	**Expires:**	31-OCT-10	**Lot Number :**	0930216
Employee:	Helen Camello			**Solvent :**	HNO3
Supplier:	Environmental Express				
Description:	Trace Calibration Standard #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID:	UI091102-42	**Opened:**	17-NOV-09	**Amount :**	200 mL
Name:	SILICON	**Received:**	02-NOV-09	**Catalog Number :**	HP100050-4F
Type:	Source Material	**Expires:**	17-NOV-10	**Lot Number :**	0921924
Employee:	Helen Camello			**Solvent :**	H20/tr HF
Supplier:	ENVIRNMENTAL EXPRESS				
Description:	SILICON 1000mg/L H20/tr HF				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID:	UI091217-06	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master A	**Received:**	17-DEC-09	**Catalog Number :**	160055-01
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018209
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV SOLN A - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID:	UI091217-07	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master B	**Received:**	17-DEC-09	**Catalog Number :**	160054-02
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018210
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV Soln B - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100114-48 **Opened:** 22-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-JAN-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 22-JAN-11 **Lot Number :** 1018466
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100114-49.16 **Opened:** 11-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-JAN-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 12-FEB-10 **Lot Number :** 1018458
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100120-A **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1018097
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100120-B **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1017644
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100128-40 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100128-41 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Standard Logbook

Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100204-01 **Opened:** 04-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 05-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100204-01a **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100204-03 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100204-04 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-05 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100204-06 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-13 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100211-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100211-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100224-04 **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100224-04A **Opened:** 24-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 24-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100224-04B **Opened:** 24-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 24-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100224-05
Name: ICPMS ICV
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Opened: 24-FEB-10
Received: 24-FEB-10
Expires: 25-FEB-10

Balance Id : 40245216
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100224-06 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 24-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100224-07 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 24-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 25-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-08 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100224-70 **Opened:** 24-FEB-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 24-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 25-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100225-04 **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100225-04A **Opened:** 25-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100224-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100224-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100224-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100224-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100224-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-05 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100225-06 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100225-07 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08 **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100228-04 **Opened:** 28-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 28-FEB-10 **Balance Id :** 4025216
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100228-04A **Opened:** 28-FEB-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100228-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100228-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100228-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100228-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100228-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100228-05 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 28-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100228-06 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 28-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100228-07 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 28-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 01-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100228-08 **Opened:** 28-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 28-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 01-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.

Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1517

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948618	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948616	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
245998001	RE15-10-8122
245998002	RE15-10-8112
245998003	RE15-10-8113
245998004	RE15-10-8116
245998005	RE15-10-8119
245998006	RE15-10-8114
245998007	RE15-10-8115
245998008	RE15-10-8117
245998009	RE15-10-8118
1202032248	Method Blank (MB)
1202032249	245960007(RE15-10-7313) Sample Duplicate (DUP)
1202032250	245960008(RE15-10-7314) Sample Duplicate (DUP)
1202032251	245960007(RE15-10-7313) Matrix Spike (MS)
1202032252	245960008(RE15-10-7314) Matrix Spike (MS)
1202032253	245960007(RE15-10-7313) Matrix Spike Duplicate (MSD)
1202032254	245960008(RE15-10-7314) Matrix Spike Duplicate (MSD)
1202032255	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245960007 (RE15-10-7313) and 245960008 (RE15-10-7314).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202032253 (RE15-10-7313) and 1202032254 (RE15-10-7314).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202032249 (RE15-10-7313) and 1202032250 (RE15-10-7314).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202032255 (LCS).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DERs were generated for this SDG: 790788 1202032253 (RE15-10-7313) and 1202032254 (RE15-10-7314).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 26Feb10

Sample Data Summary

GEL LABORATORIES LLC

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Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1517 GEL Work Order: 245998

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8122	Project:	LANL01004
Sample ID:	245998001	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.9	294	ug/kg	1	AXC2 02/11/10	1406	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID: RE15-10-8112
Sample ID: 245998002
Matrix: R
Collect Date: 28-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client
Moisture: 33%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	86.0	316	ug/kg	1	AXC2 02/11/10	1407	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8113	Project:	LANL01004
Sample ID:	245998003	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	10.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.6	260	ug/kg	1	AXC2 02/11/10	1408	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8116	Project:	LANL01004
Sample ID:	245998004	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	28.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	89.8	330	ug/kg	1	AXC2	02/11/10	1409	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8119	Project:	LANL01004
Sample ID:	245998005	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	11.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.7	271	ug/kg	1	AXC2 02/11/10	1410	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8114	Project:	LANL01004
Sample ID:	245998006	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	43.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total		407	108	398	ug/kg	1	AXC2 02/11/10	1411	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8115	Project:	LANL01004
Sample ID:	245998007	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	14.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	68.8	253	ug/kg	1	AXC2 02/11/10	1412	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8117	Project:	LANL01004
Sample ID:	245998008	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	7.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	67.9	249	ug/kg	1	AXC2	02/11/10	1412	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1517

Client Sample ID:	RE15-10-8118	Project:	LANL01004
Sample ID:	245998009	Client ID:	LANL010
Matrix:	R		
Collect Date:	28-JAN-10 12:00		
Receive Date:	02-FEB-10		
Collector:	Client		
Moisture:	27.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	90.2	332	ug/kg	1	AXC2 02/11/10	1413	948618	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/10/10	1454	948616

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: February 23, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 245998

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948618										
QC1202032249 245960007 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/11/10 13:54
QC1202032250 245960008 DUP										
Cyanide, Total	J	209	U	ND	ug/kg	200 ^				02/11/10 13:57
QC1202032255 LCS										
Cyanide, Total	67900			73500	ug/kg		108	(32%-157%)		02/11/10 13:48
QC1202032248 MB										
Cyanide, Total			U	250	ug/kg					02/11/10 13:47
QC1202032251 245960007 MS										
Cyanide, Total	5130	U	ND	4380	ug/kg		85.5	(26%-158%)		02/11/10 13:55
QC1202032252 245960008 MS										
Cyanide, Total	6290	J	209	5440	ug/kg		83.2	(26%-158%)		02/11/10 13:58
QC1202032253 245960007 MSD										
Cyanide, Total	5040	U	ND	3410	ug/kg	25.0	67.7	(0%-30%)		02/11/10 13:56
QC1202032254 245960008 MSD										
Cyanide, Total	6750	J	209	5240	ug/kg	3.71	74.6	(0%-30%)		02/11/10 13:59

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 245998

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-FEB-2010 18:46

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1517

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**11-FEB-2010 09:59:47**	**OM_2-11-2010_09-49-17**	**146**	**150**	**97.3**	**(90%-110%)**	**Yes**
CCV	11-FEB-2010 13:37:21	OM_2-11-2010_13-11-41	93.7	100	93.7	(90%-110%)	Yes
CCV	11-FEB-2010 13:49:43	OM_2-11-2010_13-11-41	94.6	100	94.6	(90%-110%)	Yes
CCV	11-FEB-2010 14:02:14	OM_2-11-2010_13-11-41	93.9	100	93.9	(90%-110%)	Yes
CCV	11-FEB-2010 14:14:42	OM_2-11-2010_13-11-41	97.6	100	97.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**11-FEB-2010 10:01:38**	**OM_2-11-2010_09-49-17**	**-1.07**	**10**	**Yes**
CCB	11-FEB-2010 13:39:10	OM_2-11-2010_13-11-41	2.68	10	Yes
CCB	11-FEB-2010 13:51:33	OM_2-11-2010_13-11-41	2.13	10	Yes
CCB	11-FEB-2010 14:04:04	OM_2-11-2010_13-11-41	1.78	10	Yes
CCB	11-FEB-2010 14:16:32	OM_2-11-2010_13-11-41	1.36	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948616

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202032255	URF1200957-01	.25	g
MS	1202032251	URF1184831-02	.025	mL
MS	1202032252	URF1184831-02	.025	mL
MSD	1202032253	URF1184831-02	.025	mL
MSD	1202032254	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202032248		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.5 g	25 mL	50	SOIL
LCS	1202032255		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.25 g	25 mL	100	SOIL
SAMPLE	245960007		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
DUP	1202032249	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202032251	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202032253	245960007	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960008		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
DUP	1202032250	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202032252	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
MSD	1202032254	245960008	SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960009		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	245960010		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245960011		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245998001		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.5 g	25 mL	50	SOIL
SAMPLE	245998002		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.59 g	25 mL	42.37288	SOIL
SAMPLE	245998003		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245998004		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	245998005		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	245998006		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	245998007		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	245998008		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	245998009		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246012001		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246012002		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246012003		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246012004		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246012005		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246012006		SW846 9010B Prep	10-FEB-2010 14:54	>12	0.56 g	25 mL	44.64286	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100210-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/11/2010 9:52:37	OM_2-11-2010_09-49-17
150 ppb		1	axc2	2/11/2010 9:53:30	OM_2-11-2010_09-49-17
100 ppb		1	axc2	2/11/2010 9:54:22	OM_2-11-2010_09-49-17
50 ppb		1	axc2	2/11/2010 9:55:15	OM_2-11-2010_09-49-17
10 ppb		1	axc2	2/11/2010 9:56:08	OM_2-11-2010_09-49-17
CRDL 5.0 ppb		1	axc2	2/11/2010 9:57:02	OM_2-11-2010_09-49-17
ICAL-00		1	axc2	2/11/2010 9:57:56	OM_2-11-2010_09-49-17
ICV		1	axc2	2/11/2010 9:59:47	OM_2-11-2010_09-49-17
ICB		1	axc2	2/11/2010 10:01:38	OM_2-11-2010_09-49-17
		1	axc2	2/11/2010 10:03:27	OM_2-11-2010_09-49-17
1202034323	949511	1	axc2	2/11/2010 10:05:17	OM_2-11-2010_09-49-17
1202034330	949511	1	axc2	2/11/2010 10:06:10	OM_2-11-2010_09-49-17
245934002	949511	1	axc2	2/11/2010 10:07:04	OM_2-11-2010_09-49-17
1202034324	949511	1	axc2	2/11/2010 10:07:57	OM_2-11-2010_09-49-17
1202034326	949511	1	axc2	2/11/2010 10:08:50	OM_2-11-2010_09-49-17
1202034328	949511	1	axc2	2/11/2010 10:09:43	OM_2-11-2010_09-49-17
245934003	949511	1	axc2	2/11/2010 10:10:35	OM_2-11-2010_09-49-17
246064001	949511	1	axc2	2/11/2010 10:11:28	OM_2-11-2010_09-49-17
1202034325	949511	1	axc2	2/11/2010 10:12:20	OM_2-11-2010_09-49-17
1202034327	949511	1	axc2	2/11/2010 10:13:12	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:14:05	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:15:55	OM_2-11-2010_09-49-17
1202034329	949511	1	axc2	2/11/2010 10:17:43	OM_2-11-2010_09-49-17
246064005	949511	1	axc2	2/11/2010 10:18:36	OM_2-11-2010_09-49-17
246064009	949511	1	axc2	2/11/2010 10:19:27	OM_2-11-2010_09-49-17
246225002	949511	1	axc2	2/11/2010 10:20:19	OM_2-11-2010_09-49-17
246264001	949511	1	axc2	2/11/2010 10:21:11	OM_2-11-2010_09-49-17
246269001	949511	1	axc2	2/11/2010 10:22:05	OM_2-11-2010_09-49-17
246278001	949511	1	axc2	2/11/2010 10:22:58	OM_2-11-2010_09-49-17
246292001	949511	1	axc2	2/11/2010 10:23:52	OM_2-11-2010_09-49-17
246292002	949511	1	axc2	2/11/2010 10:24:45	OM_2-11-2010_09-49-17
246293001	949511	1	axc2	2/11/2010 10:25:38	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:26:31	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:28:21	OM_2-11-2010_09-49-17
246293003	949511	1	axc2	2/11/2010 10:30:10	OM_2-11-2010_09-49-17
246306001	949511	1	axc2	2/11/2010 10:31:03	OM_2-11-2010_09-49-17
246313001	949511	1	axc2	2/11/2010 10:31:55	OM_2-11-2010_09-49-17
246323001	949511	1	axc2	2/11/2010 10:32:47	OM_2-11-2010_09-49-17
246334001	949511	1	axc2	2/11/2010 10:33:40	OM_2-11-2010_09-49-17
246436001	949511	1	axc2	2/11/2010 10:34:33	OM_2-11-2010_09-49-17
246448001	949511	1	axc2	2/11/2010 10:35:25	OM_2-11-2010_09-49-17
246472001	949511	1	axc2	2/11/2010 10:36:17	OM_2-11-2010_09-49-17
CCV		1	axc2	2/11/2010 10:37:09	OM_2-11-2010_09-49-17
CCB		1	axc2	2/11/2010 10:38:59	OM_2-11-2010_09-49-17

Author: axc2 Date : 2/11/2010

Original Run Filename: OM_2-11-2010_09-49-17.OMN created 2/11/2010 09:49:17
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-11-2010_09-49-17.OMN last modified 2/11/2010 10:40:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100211-01	1	S1	200	8.83	2/11/2010@09:52:37			200 ppb
WCN100211-02	1	S2	150	6.63	2/11/2010@09:53:30			150 ppb
WCN100211-03	1	S3	100	4.36	2/11/2010@09:54:22			100 ppb
WCN100211-04	1	S4	50.0	2.20	2/11/2010@09:55:15			50 ppb
WCN100211-05	1	S5	10.0	0.540	2/11/2010@09:56:08			10 ppb
WCN100211-06	1	S6	5.00	0.362	2/11/2010@09:57:02			CRDL 5.0 ppb
WCN100211-08	1	S7	0.00	0.0328	2/11/2010@09:57:56			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99988 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100211-07	1	S8	146	6.43	2/11/2010@09:59:47			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100211-08	1	S7	-1.07	0.0209	2/11/2010@10:01:38			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.07 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.07 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100211-06	1	S6	6.35	0.345	2/11/2010@10:03:27			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.35 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.35 > 2.50					
		Message	Pass					
		Action	None					
1202034323|949511|MB	1	1	-1.45	0.00419	2/11/2010@10:05:17			
1202034330||LCS	1	2	48.1	2.17	2/11/2010@10:06:10			
245934002	1	3	2.66	0.183	2/11/2010@10:07:04			
1202034324||DUP	1	4	4.23	0.252	2/11/2010@10:07:57			
1202034326||MS	1	5	105	4.65	2/11/2010@10:08:50			
1202034328||MSD	1	6	92.5	4.10	2/11/2010@10:09:43			
245934003	1	7	-0.642	0.0396	2/11/2010@10:10:35			
246064001	1	8	1.58	0.136	2/11/2010@10:11:28			
1202034325||DUP	1	9	2.13	0.161	2/11/2010@10:12:20			
1202034327||MS	1	10	104	4.59	2/11/2010@10:13:12			
WCN100211-03	1	S3	102	4.52	2/11/2010@10:14:05			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.1 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-0.943	0.0264	2/11/2010@10:15:55			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.943 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.943 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202034329||MSD	1	11	104	4.62	2/11/2010@10:17:43			
246064005	1	12	2.07	0.158	2/11/2010@10:18:36			
246064009	1	13	0.264	0.0791	2/11/2010@10:19:27			
246225002	1	14	39.6	1.80	2/11/2010@10:20:19			
246264001	1	15	-0.705	0.0368	2/11/2010@10:21:11			
246269001	1	16	0.112	0.0725	2/11/2010@10:22:05			
246278001	1	17	-1.45	0.00411	2/11/2010@10:22:58			
246292001	1	18	-0.826	0.0315	2/11/2010@10:23:52			
246292002	1	19	-1.37	0.00769	2/11/2010@10:24:45			
246293001	1	20	0.188	0.0758	2/11/2010@10:25:38			
WCN100211-03	1	S3	103	4.55	2/11/2010@10:26:31			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-1.02	0.0233	2/11/2010@10:28:21			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.02 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246293003	1	21	-0.359	0.0519	2/11/2010@10:30:10			
246306001	1	22	-0.770	0.0340	2/11/2010@10:31:03			
246313001	1	23	-1.08	0.0206	2/11/2010@10:31:55			
246323001	1	24	-0.601	0.0413	2/11/2010@10:32:47			
246334001	1	25	-2.72	-0.0512	2/11/2010@10:33:40			
246436001	1	26	-0.864	0.0299	2/11/2010@10:34:33			
246448001	1	27	-1.37	0.00777	2/11/2010@10:35:25			
246472001	1	28	-0.472	0.0470	2/11/2010@10:36:17			
WCN100211-03	1	S3	103	4.55	2/11/2010@10:37:09			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-0.764	0.0342	2/11/2010@10:38:59			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.764 < 5.00					

Author: axc2

Date : 2/11/2010

Message	CCB Passed
Action	Continue
DQM Test: < - Concentration Limit	
Result:	-0.764 > -5.00
Message	CCB Passed
Action	Continue

Analyte Properties Table for OM_2-11-2010_09-49-17.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

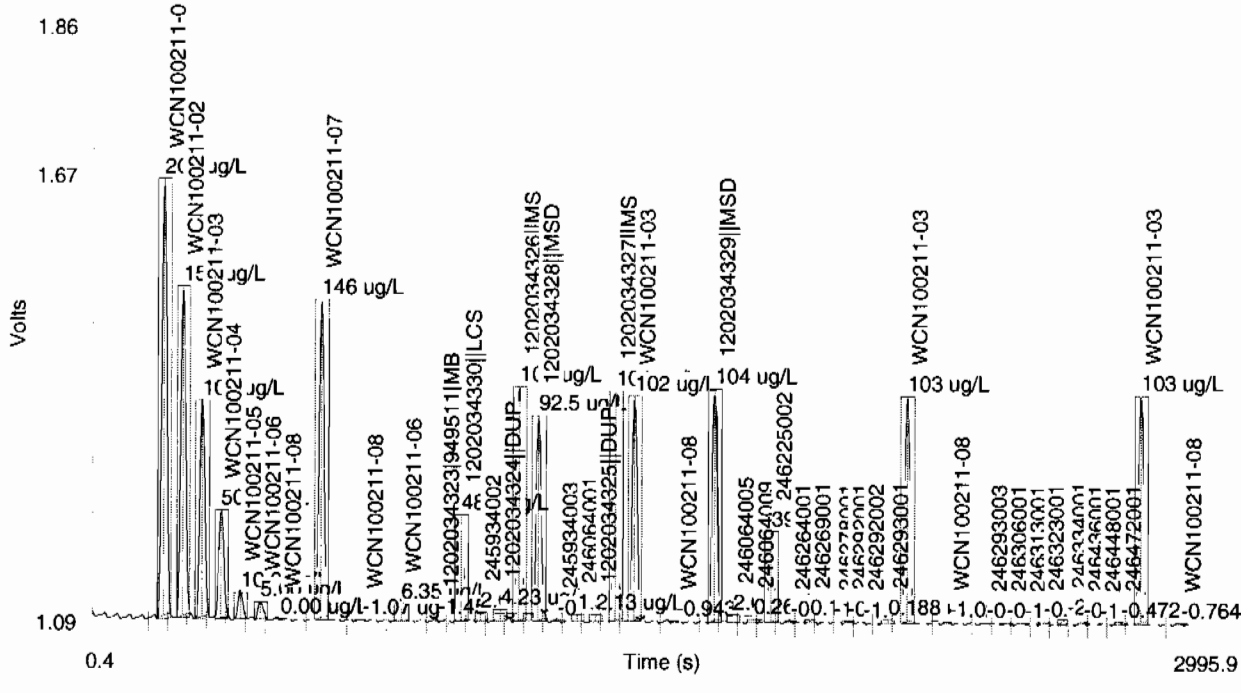

Author: axc2

Date : 2/11/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.83	0.563	-0.4	2/11/2010	09:53:41
2	150	1	6.63	0.424	-0.2	2/11/2010	09:54:33
3	100	1	4.36	0.279	1.6	2/11/2010	09:55:25
4	50.0	1	2.20	0.140	2.4	2/11/2010	09:56:18
5	10.0	1	0.540	0.0343	-7.1	2/11/2010	09:57:11
6	5.00	1	0.362	0.0225	-26.4	2/11/2010	09:58:05
7	0.00	1	0.0328	0.00101		2/11/2010	09:58:59

Figure 1: TCYANIDE

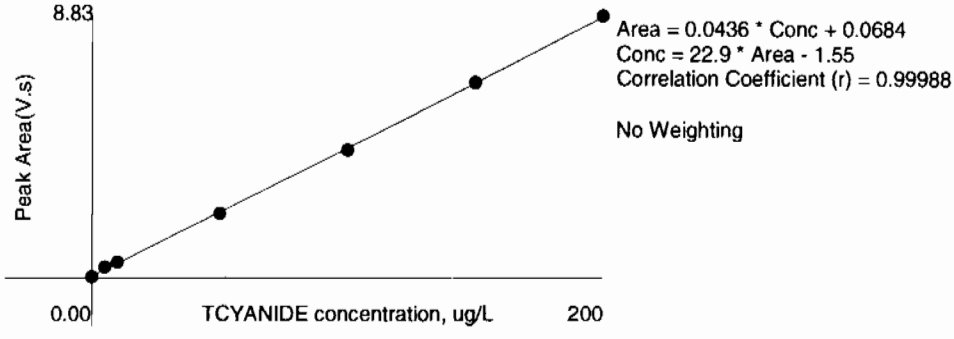

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	2/11/2010 13:12:27	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:14:17	OM_2-11-2010_13-11-41
1202032232	948614	1	axc2	2/11/2010 13:16:06	OM_2-11-2010_13-11-41
1202032239	948614	25	axc2	2/11/2010 13:17:00	OM_2-11-2010_13-11-41
245938001	948614	1	axc2	2/11/2010 13:17:53	OM_2-11-2010_13-11-41
245938002	948614	1	axc2	2/11/2010 13:18:46	OM_2-11-2010_13-11-41
245938003	948614	1	axc2	2/11/2010 13:19:39	OM_2-11-2010_13-11-41
245938004	948614	1	axc2	2/11/2010 13:20:32	OM_2-11-2010_13-11-41
245938005	948614	1	axc2	2/11/2010 13:21:25	OM_2-11-2010_13-11-41
245938006	948614	1	axc2	2/11/2010 13:22:17	OM_2-11-2010_13-11-41
245938007	948614	1	axc2	2/11/2010 13:23:10	OM_2-11-2010_13-11-41
245938008	948614	1	axc2	2/11/2010 13:24:02	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:24:54	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:26:45	OM_2-11-2010_13-11-41
245950006	948614	1	axc2	2/11/2010 13:28:34	OM_2-11-2010_13-11-41
1202032233	948614	1	axc2	2/11/2010 13:29:26	OM_2-11-2010_13-11-41
1202032235	948614	1	axc2	2/11/2010 13:30:17	OM_2-11-2010_13-11-41
1202032237	948614	1	axc2	2/11/2010 13:31:09	OM_2-11-2010_13-11-41
245950007	948614	1	axc2	2/11/2010 13:32:00	OM_2-11-2010_13-11-41
1202032234	948614	1	axc2	2/11/2010 13:32:54	OM_2-11-2010_13-11-41
1202032236	948614	1	axc2	2/11/2010 13:33:48	OM_2-11-2010_13-11-41
1202032238	948614	1	axc2	2/11/2010 13:34:42	OM_2-11-2010_13-11-41
245950008	948614	1	axc2	2/11/2010 13:35:35	OM_2-11-2010_13-11-41
245950009	948614	1	axc2	2/11/2010 13:36:28	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:37:21	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:39:10	OM_2-11-2010_13-11-41
245955001	948614	1	axc2	2/11/2010 13:40:59	OM_2-11-2010_13-11-41
245955002	948614	1	axc2	2/11/2010 13:41:53	OM_2-11-2010_13-11-41
245960001	948614	1	axc2	2/11/2010 13:42:45	OM_2-11-2010_13-11-41
245960002	948614	1	axc2	2/11/2010 13:43:37	OM_2-11-2010_13-11-41
245960003	948614	1	axc2	2/11/2010 13:44:30	OM_2-11-2010_13-11-41
245960004	948614	1	axc2	2/11/2010 13:45:22	OM_2-11-2010_13-11-41
245960005	948614	1	axc2	2/11/2010 13:46:14	OM_2-11-2010_13-11-41
245960006	948614	1	axc2	2/11/2010 13:47:06	OM_2-11-2010_13-11-41
1202032248	948618	1	axc2	2/11/2010 13:47:59	OM_2-11-2010_13-11-41
1202032255	948618	25	axc2	2/11/2010 13:48:50	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 13:49:43	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 13:51:33	OM_2-11-2010_13-11-41
245960007	948618	1	axc2	2/11/2010 13:53:23	OM_2-11-2010_13-11-41
1202032249	948618	1	axc2	2/11/2010 13:54:17	OM_2-11-2010_13-11-41
1202032251	948618	1	axc2	2/11/2010 13:55:10	OM_2-11-2010_13-11-41
1202032253	948618	1	axc2	2/11/2010 13:56:04	OM_2-11-2010_13-11-41
245960008	948618	1	axc2	2/11/2010 13:56:58	OM_2-11-2010_13-11-41
1202032250	948618	1	axc2	2/11/2010 13:57:50	OM_2-11-2010_13-11-41
1202032252	948618	1	axc2	2/11/2010 13:58:43	OM_2-11-2010_13-11-41
1202032254	948618	1	axc2	2/11/2010 13:59:37	OM_2-11-2010_13-11-41
245960009	948618	1	axc2	2/11/2010 14:00:29	OM_2-11-2010_13-11-41
245960010	948618	1	axc2	2/11/2010 14:01:22	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010 14:02:14	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010 14:04:04	OM_2-11-2010_13-11-41
245960011	948618	1	axc2	2/11/2010 14:05:52	OM_2-11-2010_13-11-41
245998001	948618	1	axc2	2/11/2010 14:06:45	OM_2-11-2010_13-11-41
245998002	948618	1	axc2	2/11/2010 14:07:37	OM_2-11-2010_13-11-41
245998003	948618	1	axc2	2/11/2010 14:08:29	OM_2-11-2010_13-11-41
245998004	948618	1	axc2	2/11/2010 14:09:21	OM_2-11-2010_13-11-41
245998005	948618	1	axc2	2/11/2010 14:10:15	OM_2-11-2010_13-11-41
245998006	948618	1	axc2	2/11/2010 14:11:10	OM_2-11-2010_13-11-41
245998007	948618	1	axc2	2/11/2010 14:12:03	OM_2-11-2010_13-11-41

245998008	948618	1	axc2	2/11/2010	14:12:56	OM_2-11-2010_13-11-41
245998009	948618	1	axc2	2/11/2010	14:13:50	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	14:14:42	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	14:16:32	OM_2-11-2010_13-11-41
246012001	948618	1	axc2	2/11/2010	14:18:21	OM_2-11-2010_13-11-41
246012002	948618	1	axc2	2/11/2010	14:19:15	OM_2-11-2010_13-11-41
246012003	948618	1	axc2	2/11/2010	14:20:08	OM_2-11-2010_13-11-41
246012004	948618	1	axc2	2/11/2010	14:21:01	OM_2-11-2010_13-11-41
246012005	948618	1	axc2	2/11/2010	14:21:53	OM_2-11-2010_13-11-41
246012006	948618	1	axc2	2/11/2010	14:22:47	OM_2-11-2010_13-11-41
1202040197	951938	1	axc2	2/11/2010	14:23:39	OM_2-11-2010_13-11-41
1202040204	951938	25	axc2	2/11/2010	14:24:31	OM_2-11-2010_13-11-41
246280011	951938	1	axc2	2/11/2010	14:25:23	OM_2-11-2010_13-11-41
1202040198	951938	1	axc2	2/11/2010	14:26:15	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	14:27:08	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	14:28:58	OM_2-11-2010_13-11-41
1202040200	951938	1	axc2	2/11/2010	14:30:48	OM_2-11-2010_13-11-41
1202040202	951938	1	axc2	2/11/2010	14:31:43	OM_2-11-2010_13-11-41
246291009	951938	1	axc2	2/11/2010	14:32:37	OM_2-11-2010_13-11-41
1202040199	951938	1	axc2	2/11/2010	14:33:30	OM_2-11-2010_13-11-41
1202040201	951938	1	axc2	2/11/2010	14:34:25	OM_2-11-2010_13-11-41
1202040203	951938	1	axc2	2/11/2010	14:35:17	OM_2-11-2010_13-11-41
246557001	951938	1	axc2	2/11/2010	14:36:10	OM_2-11-2010_13-11-41
246562001	951938	1	axc2	2/11/2010	14:37:04	OM_2-11-2010_13-11-41
246587007	951938	1	axc2	2/11/2010	14:37:58	OM_2-11-2010_13-11-41
246592001	951938	1	axc2	2/11/2010	14:38:49	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	14:39:42	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	14:41:33	OM_2-11-2010_13-11-41
246592002	951938	1	axc2	2/11/2010	14:43:22	OM_2-11-2010_13-11-41
246592003	951938	1	axc2	2/11/2010	14:44:15	OM_2-11-2010_13-11-41
246592004	951938	1	axc2	2/11/2010	14:45:07	OM_2-11-2010_13-11-41
246594001	951938	1	axc2	2/11/2010	14:45:59	OM_2-11-2010_13-11-41
246594002	951938	1	axc2	2/11/2010	14:46:51	OM_2-11-2010_13-11-41
246594003	951938	1	axc2	2/11/2010	14:47:46	OM_2-11-2010_13-11-41
246594004	951938	1	axc2	2/11/2010	14:48:40	OM_2-11-2010_13-11-41
246594005	951938	1	axc2	2/11/2010	14:49:34	OM_2-11-2010_13-11-41
246594006	951938	1	axc2	2/11/2010	14:50:28	OM_2-11-2010_13-11-41
246610001	951938	1	axc2	2/11/2010	14:51:22	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	14:52:15	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	14:54:05	OM_2-11-2010_13-11-41
246610002*	951938	1	axc2	2/11/2010	14:55:56	OM_2-11-2010_13-11-41
246610003*	951938	1	axc2	2/11/2010	14:56:50	OM_2-11-2010_13-11-41
246612001*	951938	1	axc2	2/11/2010	14:57:43	OM_2-11-2010_13-11-41
246615001*	951938	1	axc2	2/11/2010	14:58:36	OM_2-11-2010_13-11-41
1202040194*	951932	1	axc2	2/11/2010	14:59:31	OM_2-11-2010_13-11-41
1202040196*	951932	1	axc2	2/11/2010	15:00:25	OM_2-11-2010_13-11-41
246612001*	951932	1	axc2	2/11/2010	15:01:18	OM_2-11-2010_13-11-41
1202040195*	951932	1	axc2	2/11/2010	15:02:12	OM_2-11-2010_13-11-41
246615001*	951932	1	axc2	2/11/2010	15:03:05	OM_2-11-2010_13-11-41
CCV		1	axc2	2/11/2010	15:03:58	OM_2-11-2010_13-11-41
CCB		1	axc2	2/11/2010	15:05:48	OM_2-11-2010_13-11-41

Author: axc2 Date : 2/11/2010

Original Run Filename: OM_2-11-2010_13-11-41.OMN created 2/11/2010 13:11:41
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-11-2010_13-11-41.OMN last modified 2/11/2010 15:06:53
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100211-03	1	S3	94.8	4.20	2/11/2010@13:12:27			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-5.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-5.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100211-08	1	S7	1.93	0.152	2/11/2010@13:14:17			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		1.93 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.93 > -5.00					
	Message		CCB Passed					
	Action		Continue					
	Calibration:		Table/Fig. 1					
1202032232|948614|MB	1	1	-0.686	0.0376	2/11/2010@13:16:06			
1202032239||LCS	1	2	23.9	1.11	2/11/2010@13:17:00		25.00	
245938001	1	3	2.59	0.180	2/11/2010@13:17:53			
245938002	1	4	-0.603	0.0412	2/11/2010@13:18:46			
245938003	1	5	0.184	0.0756	2/11/2010@13:19:39			
245938004	1	6	-0.847	0.0306	2/11/2010@13:20:32			
245938005	1	7	1.39	0.128	2/11/2010@13:21:25			
245938006	1	8	-0.839	0.0309	2/11/2010@13:22:17			
245938007	1	9	-0.337	0.0529	2/11/2010@13:23:10			
245938008	1	10	0.766	0.101	2/11/2010@13:24:02			
WCN100211-03	1	S3	92.8	4.12	2/11/2010@13:24:54			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		-7.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		-7.2 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100211-08	1	S7	1.48	0.132	2/11/2010@13:26:45			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		1.48 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.48 > -5.00					
	Message		CCB Passed					
	Action		Continue					
245950006	1	11	6.80	0.364	2/11/2010@13:28:34			
1202032233||DUP	1	12	4.08	0.246	2/11/2010@13:29:26			
1202032235||MS	1	13	78.1	3.48	2/11/2010@13:30:17			
1202032237||MSD	1	14	76.8	3.42	2/11/2010@13:31:09			
245950007	1	15	2.92	0.195	2/11/2010@13:32:00			

1202032234||DUP	1	16	1.00	0.111	2/11/2010@13:32:54			
1202032236||MS	1	17	75.7	3.37	2/11/2010@13:33:48			
1202032238||MSD	1	18	80.5	3.58	2/11/2010@13:34:42			
245950008	1	19	2.77	0.189	2/11/2010@13:35:35			
245950009	1	20	13.9	0.676	2/11/2010@13:36:28			
WCN100211-03	1	S3	93.7	4.16	2/11/2010@13:37:21			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	2.68	0.185	2/11/2010@13:39:10			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	2.68 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.68 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245955001	1	21	-0.0162	0.0669	2/11/2010@13:40:59			
245955002	1	22	-1.55	-1.59e-4	2/11/2010@13:41:53			
245960001	1	23	0.0402	0.0693	2/11/2010@13:42:45			
245960002	1	24	1.17	0.118	2/11/2010@13:43:37			
245960003	1	25	0.304	0.0808	2/11/2010@13:44:30			
245960004	1	26	0.287	0.0801	2/11/2010@13:45:22			
245960005	1	27	0.431	0.0864	2/11/2010@13:46:14			
245960006	1	28	0.770	0.101	2/11/2010@13:47:06			
1202032248|948618|MB	1	29	0.407	0.0853	2/11/2010@13:47:59			
1202032255||LCS	1	30	29.4	1.35	2/11/2010@13:48:50		25.00	
WCN100211-03	1	S3	94.6	4.19	2/11/2010@13:49:43			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	-5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	2.13	0.160	2/11/2010@13:51:33			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	2.13 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	2.13 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245960007	1	31	0.0379	0.0692	2/11/2010@13:53:23			
1202032249||DUP	1	32	0.746	0.100	2/11/2010@13:54:17			
1202032251||MS	1	33	85.5	3.80	2/11/2010@13:55:10			
1202032253||MSD	1	34	67.7	3.02	2/11/2010@13:56:04			
245960008	1	35	3.10	0.203	2/11/2010@13:56:58			
1202032250||DUP	1	36	0.363	0.0834	2/11/2010@13:57:50			
1202032252||MS	1	37	86.5	3.84	2/11/2010@13:58:43			
1202032254||MSD	1	38	77.7	3.46	2/11/2010@13:59:37			
245960009	1	39	3.26	0.210	2/11/2010@14:00:29			
245960010	1	40	1.29	0.124	2/11/2010@14:01:22			
WCN100211-03	1	S3	93.9	4.17	2/11/2010@14:02:14			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	-6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.78	0.145	2/11/2010@14:04:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245960011	1	41	0.196	0.0761	2/11/2010@14:05:52			
245998001	1	42	-0.395	0.0503	2/11/2010@14:06:45			
245998002	1	43	0.821	0.103	2/11/2010@14:07:37			
245998003	1	44	-0.139	0.0615	2/11/2010@14:08:29			
245998004	1	45	0.289	0.0802	2/11/2010@14:09:21			
245998005	1	46	-0.410	0.0497	2/11/2010@14:10:15			
245998006	1	47	5.12	0.291	2/11/2010@14:11:10			
245998007	1	48	0.146	0.0739	2/11/2010@14:12:03			
245998008	1	49	-1.76	-0.00916	2/11/2010@14:12:56			
245998009	1	50	0.375	0.0839	2/11/2010@14:13:50			
WCN100211-03	1	S3	97.6	4.33	2/11/2010@14:14:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.36	0.127	2/11/2010@14:16:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.36 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.36 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246012001	1	51	0.266	0.0792	2/11/2010@14:18:21			
246012002	1	52	-0.481	0.0466	2/11/2010@14:19:15			
246012003	1	53	0.188	0.0758	2/11/2010@14:20:08			
246012004	1	54	-0.326	0.0533	2/11/2010@14:21:01			
246012005	1	55	-0.0652	0.0647	2/11/2010@14:21:53			
246012006	1	56	-0.712	0.0365	2/11/2010@14:22:47			
1202040197|951938|MB	1	57	-2.19	-0.0282	2/11/2010@14:23:39			
1202040204||LCS	1	58	23.2	1.08	2/11/2010@14:24:31		25.00	
246280011	1	59	-0.125	0.0621	2/11/2010@14:25:23			
1202040198||DUP	1	60	-0.908	0.0280	2/11/2010@14:26:15			
WCN100211-03	1	S3	93.4	4.15	2/11/2010@14:27:08			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.94	0.152	2/11/2010@14:28:58			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.94 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.94 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202040200||MS	1	61	91.2	4.05	2/11/2010@14:30:48			
1202040202||MSD	1	62	92.5	4.11	2/11/2010@14:31:43			
246291009	1	63	2.70	0.186	2/11/2010@14:32:37			
1202040199||DUP	1	64	-0.845	0.0307	2/11/2010@14:33:30			
1202040201||MS	1	65	80.2	3.57	2/11/2010@14:34:25			
1202040203||MSD	1	66	81.0	3.60	2/11/2010@14:35:17			
246557001	1	67	2.25	0.166	2/11/2010@14:36:10			
246562001	1	68	-0.806	0.0324	2/11/2010@14:37:04			
246587007	1	69	-0.127	0.0620	2/11/2010@14:37:58			
246592001	1	70	1.11	0.116	2/11/2010@14:38:49			
WCN100211-03	1	S3	93.3	4.14	2/11/2010@14:39:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.81	0.147	2/11/2010@14:41:33			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246592002	1	71	0.567	0.0923	2/11/2010@14:43:22			
246592003	1	72	1.71	0.142	2/11/2010@14:44:15			
246592004	1	73	0.407	0.0853	2/11/2010@14:45:07			
246594001	1	74	-0.143	0.0613	2/11/2010@14:45:59			
246594002	1	75	-0.134	0.0617	2/11/2010@14:46:51			
246594003	1	76	-0.329	0.0532	2/11/2010@14:47:46			
246594004	1	77	0.0585	0.0701	2/11/2010@14:48:40			
246594005	1	78	-2.65	-0.0480	2/11/2010@14:49:34			
246594006	1	79	-1.79	-0.0107	2/11/2010@14:50:28			
246610001	1	80	-1.55	0.00	2/11/2010@14:51:22			
WCN100211-03	1	S3	93.6	4.15	2/11/2010@14:52:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	1.02	0.112	2/11/2010@14:54:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > -5.00					
		Message	CCB Passed					

		Action	Continue					
246610002	1	81	-0.827	0.0315	2/11/2010@14:55:56			
246610003	1	82	-1.05	0.0217	2/11/2010@14:56:50			
246612001	1	83	0.0685	0.0706	2/11/2010@14:57:43			
246615001	1	84	22.5	1.05	2/11/2010@14:58:36			
1202040194|951932|MB	1	95	-0.101	0.0631	2/11/2010@14:59:31			
1202040196||LCS	1	96	-0.953	0.0259	2/11/2010@15:00:25			
246612001	1	97	1.37	0.128	2/11/2010@15:01:18			
1202040195||DUP	1	98	3.09	0.203	2/11/2010@15:02:12			
246615001	1	99	39.0	1.77	2/11/2010@15:03:05			
WCN100211-03	1	S3	94.2	4.18	2/11/2010@15:03:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100211-08	1	S7	-39.9	-1.67	2/11/2010@15:05:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-39.9 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-39.9 < -5.00					
		Message	CCB Failed					
		Action	Stop Run					

Analyte Properties Table for OM_2-11-2010_13-11-41.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2

Date : 2/11/2010

Channel 1: Current View

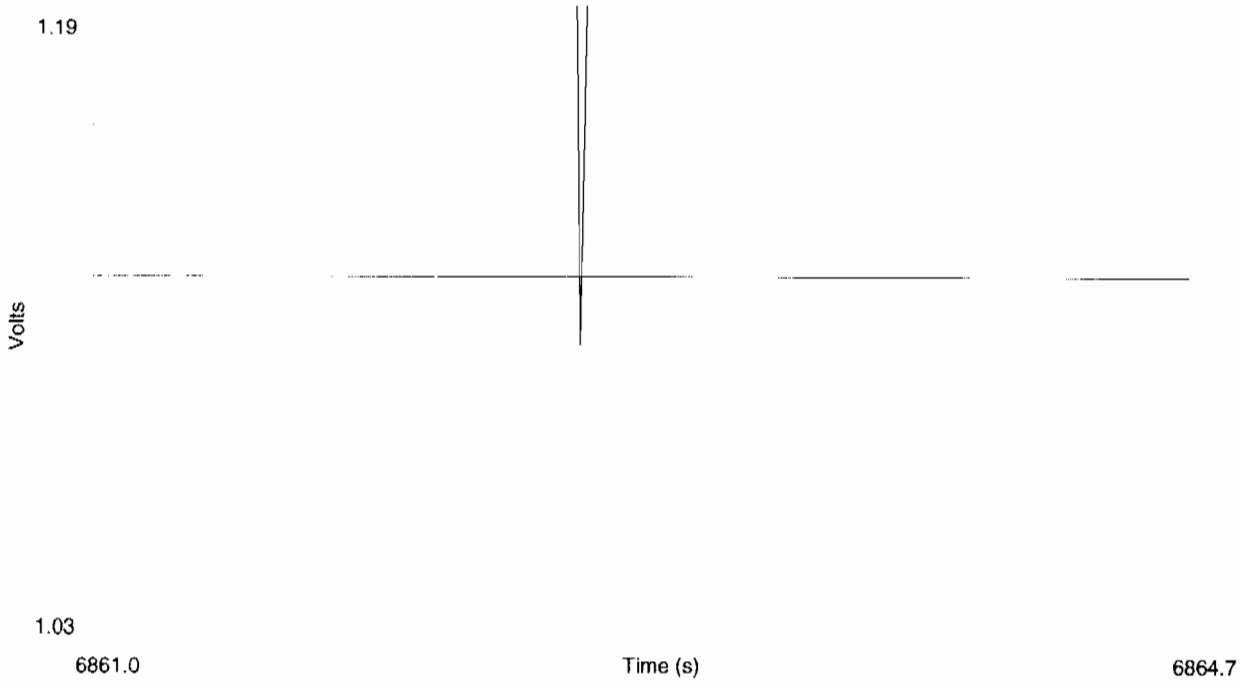

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.83	0.563	-0.4	2/11/2010	09:53:41
2	150	1	6.63	0.424	-0.2	2/11/2010	09:54:33
3	100	1	4.36	0.279	1.6	2/11/2010	09:55:25
4	50.0	1	2.20	0.140	2.4	2/11/2010	09:56:18
5	10.0	1	0.540	0.0343	-7.1	2/11/2010	09:57:11
6	5.00	1	0.362	0.0225	-26.4	2/11/2010	09:58:05
7	0.00	1	0.0328	0.00101		2/11/2010	09:58:59

Figure 1: TCYANIDE

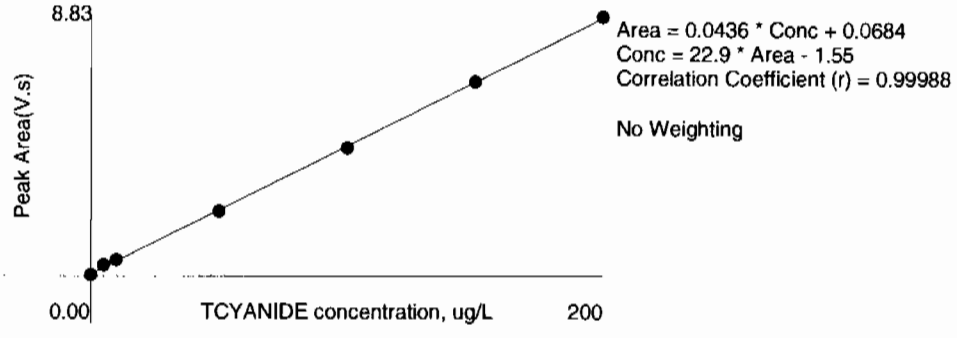

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-FEB-10			
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
948618	See Below		

Potentially affected work order(s)(SDG): 245960(10-1511),245998(10-1517),246012(10-1523)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD: QC 1202032253MSD 1202032254MSD	1. The spike recovery falls duplicate outside of the client specified acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.

Originator's Name:

Ashley Earl 15-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 22-FEB-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1517-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948940	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948939	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246000001	RE15-10-8124
1202033006	Method Blank (MB)
1202033007	246004001(RE16-10-11766) Sample Duplicate (DUP)
1202033008	245926003(CAMO-10-9289) Sample Duplicate (DUP)
1202033009	246004001(RE16-10-11766) Matrix Spike (MS)
1202033010	245926003(CAMO-10-9289) Matrix Spike (MS)
1202033011	246004001(RE16-10-11766) Matrix Spike Duplicate (MSD)
1202033012	245926003(CAMO-10-9289) Matrix Spike Duplicate (MSD)
1202033013	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245926003 (CAMO-10-9289) and 246004001 (RE16-10-11766).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033008 (CAMO-10-9289).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 27Feb10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1517-1 GEL Work Order: 246000

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1517-1

Client Sample ID: RE15-10-8124
Sample ID: 246000001
Matrix: W
Collect Date: 28-JAN-10 12:00
Receive Date: 02-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/08/10	1459	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 12, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 246000

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 948940											
QC1202033007 246004001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	02/08/10 15:01
QC1202033008 245926003 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				02/08/10 14:44
QC1202033013 LCS											
Cyanide, Total	50.0				51.4	ug/L		103	(90%-110%)		02/08/10 14:37
QC1202033006 MB											
Cyanide, Total				U	5.00	ug/L					02/08/10 14:36
QC1202033009 246004001 MS											
Cyanide, Total	100	U	ND		96.2	ug/L		96.2	(60%-144%)		02/08/10 15:02
QC1202033010 245926003 MS											
Cyanide, Total	100	U	ND		93.6	ug/L		92.2	(60%-144%)		02/08/10 14:45
QC1202033011 246004001 MSD											
Cyanide, Total	100	U	ND		94.3	ug/L	1.99	94.3	(0%-20%)		02/08/10 15:03
QC1202033012 245926003 MSD											
Cyanide, Total	100	U	ND		94.0	ug/L	0.426	92.6	(0%-20%)		02/08/10 14:46

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

QC Summary

Workorder: 246000

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-FEB-2010 13:09

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1517-1

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 14:26:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:39:11	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:51:47	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:04:19	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 14:28:32	OM_2-8-2010_13-14-40	-1.47	10	Yes
CCB	08-FEB-2010 14:41:01	OM_2-8-2010_13-14-40	-1.57	10	Yes
CCB	08-FEB-2010 14:53:37	OM_2-8-2010_13-14-40	-1.83	10	Yes
CCB	08-FEB-2010 15:06:09	OM_2-8-2010_13-14-40	-1.82	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948939

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033013	URF1184831-02	.0125	mL
MS	1202033009	URF1184831-02	.025	mL
MS	1202033010	URF1184831-02	.025	mL
MSD	1202033011	URF1184831-02	.025	mL
MSD	1202033012	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033006		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
LCS	1202033013		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245926001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926002		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926003		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202033008	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MS	1202033010	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202033012	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926004		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926005		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926006		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926007		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245939001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245939002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245953001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245965001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245975001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245981001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246000001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246004001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
DUP	1202033007	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MS	1202033009	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MSD	1202033011	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056003		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056004		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246080001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100205-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010 15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010 15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010 15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010 15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010 15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010 15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010 15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010 15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010 15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010 15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010 15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010 15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010 15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010 15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010 15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010 15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010 15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010 15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010 15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010 15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010 15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010 15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010 15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010 15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010 15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010 15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010 15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010 15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010 15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010 15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010 15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010 15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010 15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 16:02:41	OM_2-8-2010_13-14-40

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029237||LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231||DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233||MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235||MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232||DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234||MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236||MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.47 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.47 > -5.00					
		Message	CCB Passed					
		Action	Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/8/2010

Channel 1: Current View

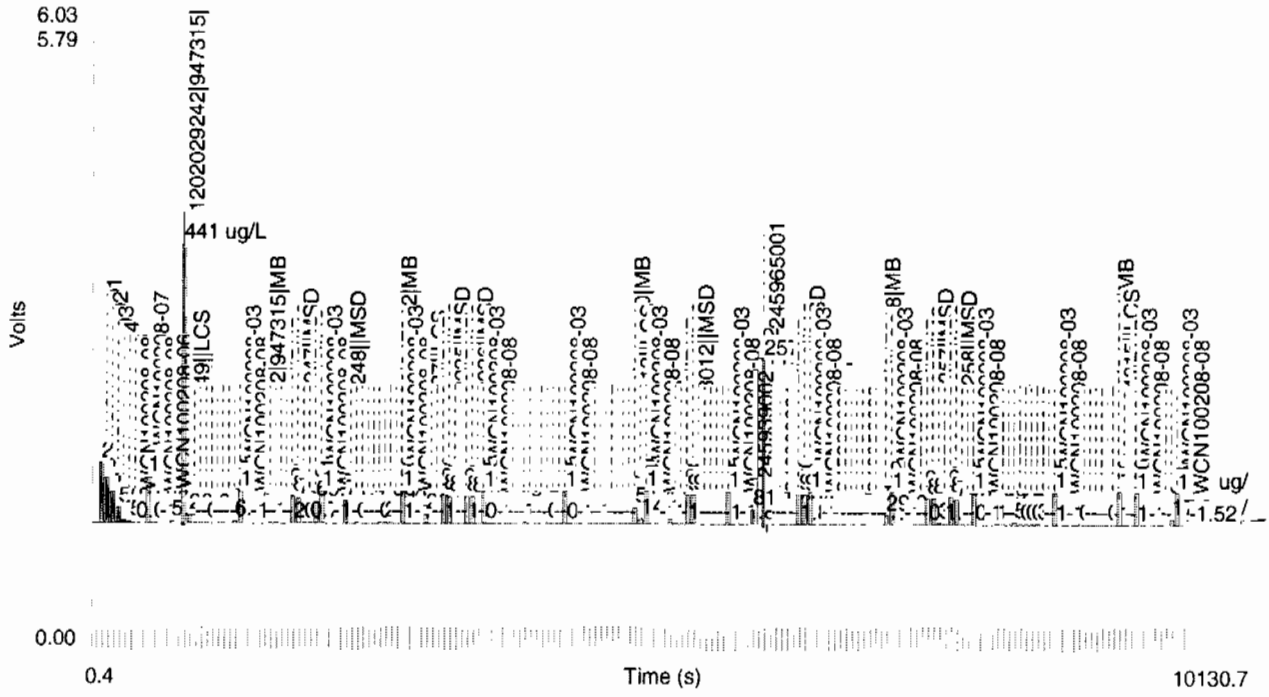

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE

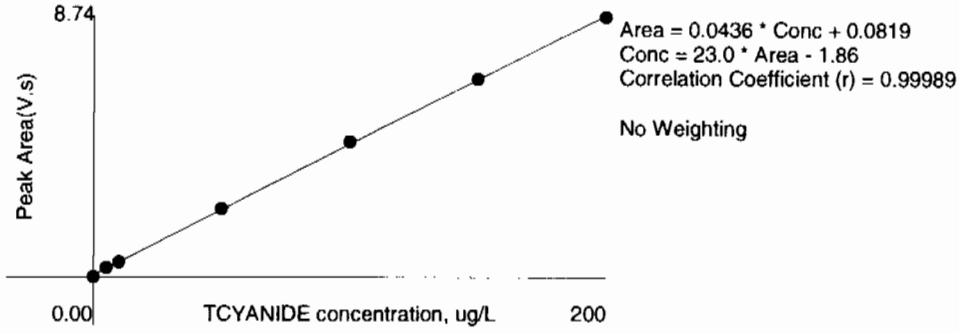

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1543

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/2/2010

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	
		1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	
		1	RE15-10-8147	R	1/29/2010	
	SW-846:8082	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	
		1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	
		1	RE15-10-8147	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	
		1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	
		1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8147	R	1/29/2010	

Final Page of REQUEST NUMBER 10-1543

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1543C

REQUEST NUMBER: 10-1543

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8129	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8129	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8131	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8131	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8130	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8130	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8127	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8127	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8128	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8128	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8126	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8126	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8140	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8140	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8147	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8147	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8142	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8142	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8146	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8146	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8136	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8136	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8139	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8139	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8134	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8134	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8137	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8137	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8143	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8143	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8138	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8138	1	AMBER GLASS	NMED Explosives list	Ice	R

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1543C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8145	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8145	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8141	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8141	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8135	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8135	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8144	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8144	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	**Date**	**Time**	**Received By:**	**Date**	**Time**
[illegible]	2/2/10	3:00			
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8126 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Auh
TIME COLLECTED (HH:MM)		0915	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610792	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Reddish brown sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-8

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 **dpm**
Beta/Gamma ≤ 1796 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) T. McFarland

REVIEWED BY (PRINT) A. Gowman

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowman (Signature)	1/29/10 1540	(Printed Name) S. MARIZTY (Signature)	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8127 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		0920	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610792	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown sandy silt, some weathered reddish gray tuff

SAMPLE COMMENTS: Hit tuff at 1'9"

LOCATION DESC: 7c-8

FIELD SCREENING/MEASUREMENT RESULTS:

PID Ambient 0.0 / Reading 0.0 ppm

HE neg

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1575 dpm

COLLECTED BY (PRINT) TMcFarland

REVIEWED BY (PRINT) A. Gomez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature)	1/29/10 1540	(Printed Name) S. MARCZAK (Signature)	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8128 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1042	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610793	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand, cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-7

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 16 dpm
Beta/Gamma = 1637 dpm

HE negative

PID Ambient 0.0 / Reading 0.0 = ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gouma

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gouma S	1/29/10	(Printed Name) S. MARTAY	1/29/10
(Signature)	1540	(Signature)	1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8129 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1050	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610793	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Reddish brown sandy silt, some rocks

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-7

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 **dpm**
Beta/Gamma ≤ 1707 **dpm**

PID Ambient Reading 0.0 / 0.0 **ppm** He neg

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gowans

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowans	1/29/10 1540	(Printed Name) S. MARRAY	1/29/10 1540
(Signature) [signature]		(Signature) [signature]	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8130 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1146	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610794	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown moist silty clay

FD RE15-10- ~~8130~~ 8222 | Tm 1/29/10

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-19

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 dpm
Beta/Gamma ≤ 1762 dpm

HE neg

PID Ambient Reading 0.0 / 0.1 ppm

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) A. Gowmas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowmas (Signature)	1/29/10 1540	(Printed Name) S. MAKCZAY (Signature)	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8131 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1149	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	↓
LOCATION ID:	15-610794	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown weathered tuff and silt, roots and clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 7C-19

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 10 dpm
Beta/Gamma ≤ 1658 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gorman

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gorman (Signature)	1/29/10 1540	(Printed Name) S. MARCZAK (Signature)	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8134 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		0925	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610796	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Reddish brown sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-13

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 27 dpm
Beta/Gamma ≤ 1755 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarlane **REVIEWED BY (PRINT)** A. Gorman

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gorman	1/29/10 1540	(Printed Name) S. MARCRAY	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8135 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0942	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610796	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Reddish brown sandy silt and weathered tuff

SAMPLE COMMENTS: Tuff interface at 1.5 ft

LOCATION DESC: 7c-13

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 0 dpm
Beta/Gamma ≤ 1955 dpm

PID Ambient/Reading 0.0/0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas	1/29/10 1540	(Printed Name) S. MARTAY	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8136 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	ATh
TIME COLLECTED (HH:MM)		0951	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610797	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Reddish brown sandy silt, rocks and roots

SAMPLE COMMENTS: NA

LOCATION DESC: 7c - 5

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 1665 **dpm**

PID Ambient Reading 0.0 / 1.5 **ppm** 1129/10

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** A. Gouma

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gouma	1/29/10 1540	(Printed Name) S. MARCHAY	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8137 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1001	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610797	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Reddish brown clay and organics

SAMPLE COMMENTS: FR RE 15-10-8230

LOCATION DESC: 7c-5

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 22 dpm
Beta/Gamma = 1610 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas	1/29/10	(Printed Name) S. MARCRAY	1/29/10
(Signature)	1546	(Signature)	1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8138 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1005	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610798	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Reddish brown sand and cobbles

SAMPLE COMMENTS: NA

LOCATION DESC: 7c - 2

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 1582 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) T.L. McFarland

REVIEWED BY (PRINT) A. Gowmas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowmas (Signature) [signature]	1/29/10 1540	(Printed Name) S. Martin (Signature) [signature]	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8139 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1036	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610798	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Gray tuff and brownish weathered tuff

~~FD RE10-8220~~ 15- TZM 1/29/10 FD RE15-10-8220

SAMPLE COMMENTS: Tuff interface at 0.5 ft

LOCATION DESC: Fc. 2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1444 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas	1/29/10 1540	(Printed Name) S. MARCZAK	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8140 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1043	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610799	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand, cobbles

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-6

FIELD SCREENING/MEASUREMENT RESULTS: HE neg

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1437 dpm

PID Ambient Reading 0.0 = 0.0 ppm

COLLECTED BY (PRINT) ThMcFarlane

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas	1/27/10	(Printed Name) S. MARCEAU	1/29/10
(Signature) [signature]	1540	(Signature) [signature]	1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8141 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1047	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610799	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-6

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 27 dpm
Beta/Gamma = 1596 dpm

PID Ambient Reading 0.0 = 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** A. Gouvmas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gouvmas (Signature)	1/29/10 1540	(Printed Name) S. MARCZAY (Signature)	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8142 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1056	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610800	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown moist silty clay, roots

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-17

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ± 11 dpm
Beta/Gamma ± 1368 dpm

HE negative

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) THMcFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas	1/29/10 1540	(Printed Name) S. MARQUEZ	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8143 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alth
TIME COLLECTED (HH:MM)		1100	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610800	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-17

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1520 dpm

PID Ambient 0.0 / Reading 0.9 ppm

COLLECTED BY (PRINT) T.L. McFarland

REVIEWED BY (PRINT) A. Gowman

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowman (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARRAY (Signature) [signature]	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8144 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1108	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610801	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty clay, roots and needles

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-22

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1423 dpm

PID Ambient Reading 0.1 / 0.2 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARCRAY (Signature) [signature]	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8145 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1120	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	↓
LOCATION ID:	15-610801	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown indurated tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 7C-22

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1624 dpm

PID Ambient 0.0 / Reading 1.3 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARCZAK (Signature) [signature]	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8146 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1116	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610802	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-18

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1707 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) T.L. McFarland

REVIEWED BY (PRINT) A. Gowmas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowmas (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARRAY (Signature) [signature]	1/29/10 1540
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8147 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		1111	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610802	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt, some clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-18

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 11 **dpm**
Beta/Gamma ≤ 1534 **dpm**

PID Ambient 0.1 / Reading 0.2 **ppm**

COLLECTED BY (PRINT) Th McFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas	1/29/10	(Printed Name) S. MARTIN	1/29/10
(Signature) [signature]	1540	(Signature) [signature]	1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-8126
8127
8128
8129
8130
8131
8132
8133
8134
8135
8136
8137
8138
8139

RE15-10

RE15-10-8140
8141
8142
8143
8144
8145 LMC 1/29/10
8146
8147
8148

RE15-10

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

NONE

LMC 1/29/10

Reason:

Print Last Name Lopez Signature Lanny A. Lopez Date 01/29/2010

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE - 15 - 10 - 8149
8150
8151
8152
8155 - 8171
8220 - 8224

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15 - 10 - 8230
8231
8232
8233

Reason:

QC

Print Last Name Gouma S Signature [signature] Date 1/29/2010

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RE15-10-8126
Sample Collection Date: 01/29/10 09:15
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-001
Date Received: 02/01/10 00:00
Report Date: 02/02/10 13:54

Analysis Description	Analysis Results	Analysis Error +/- 2 S	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	34.45	29.40	37.46	29.70		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	39.73	15.51	18.46	16.25		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.08	0.10	0.08	0.10		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	13.73	5.51	1.24	5.53		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	0.13	0.08	0.13		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.15	0.14	0.06	0.14		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	-0.01	10.03	0.05	10.03		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.24	0.32	0.09	0.32		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.06	0.38	0.11	0.38		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-228	1.55	0.64	0.22	0.64		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.12	0.16	0.15	0.16		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	2.05	2.06	0.91	2.16		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	-0.01	22.52	0.05	22.52		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 2.21

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8127	ARS Sample ID:	ARS2-10-00035-002
Sample Collection Date:	01/29/10 09:20	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	21.09	22.36	31.30	22.51		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	26.37	13.03	16.49	13.42		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	20.41	8.36	1.92	8.39		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	12.88	0.13	12.55		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.13	0.13	0.09	0.13		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.04	0.10	0.08	0.10		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.00	13.05	0.15	13.05		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.82	0.67	0.23	0.67		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-226	7.47	0.95	0.33	0.95		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	2.17	1.00	0.20	1.01		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	0.80	2.78	1.54	2.78		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.10	0.16	0.07	0.16		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.17

Matthew J. Eden
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the Analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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ARS AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RC15-10-0128
Sample Collection Date: 01/29/10 10:42
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-003
Date Received: 02/01/10 00:00
Report Date: 02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	10.14	18.58	28.72	16.63		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	40.46	15.80	19.14	16.56		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	17.77	6.12	1.20	6.14		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	7.88	0.08	7.88		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.33	0.20	0.05	0.20		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.15	0.27	0.09	0.27		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	0.90	0.40	0.16	0.40		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-228	1.54	0.64	0.21	0.64		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.94	0.66	0.23	0.66		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	4.29	3.03	1.16	3.18		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.22	0.10	0.06	0.18		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 2.79

Quality Assurance Review

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ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8129	ARS Sample ID:	ARS2-10-00035-004
Sample Collection Date:	01/29/10 10:50	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	25.35	25.77	37.10	25.96		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	36.09	14.97	18.39	15.60		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.18	0.21	0.10	0.21		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	0.21	4.84	2.77	4.84		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	10.36	0.11	10.36		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	-0.01	13.56	0.07	13.56		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.28	0.30	0.12	0.30		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.54	0.51	0.14	0.51		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-228	1.86	0.98	0.28	0.98		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	1.51	1.05	0.39	1.05		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	4.92	3.43	1.29	3.61		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	-0.01	10.49	0.04	10.49		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.28

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
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ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8130	ARS Sample ID:	ARS2-10-00035-005
Sample Collection Date:	01/29/10 11:46	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	24.51	26.01	37.46	26.16		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	52.47	16.65	18.46	17.85		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.08	0.11	0.06	0.11		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	11.23	4.42	0.98	4.44		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.08	6.41	0.06	6.41		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.04	0.05	0.05	0.05		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.12	0.11	0.04	0.11		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.31	0.26	0.07	0.26		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.21	0.33	0.06	0.34		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-228	2.03	0.63	0.17	0.64		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	1.17	0.52	0.21	0.52		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	5.44	2.85	1.05	3.11		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.20	0.25	0.10	0.25		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 2.87

Matthew L. Eden
Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8131	ARS Sample ID:	ARS2-10-00035-006
Sample Collection Date:	01/29/10 11:46	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	44.14	30.16	31.30	30.64		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	41.67	15.25	16.49	16.09		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	20.68	8.14	1.80	8.16		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	11.80	0.12	11.80		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.04	0.09	0.07	0.09		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.00	12.27	0.14	12.27		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.76	0.58	0.16	0.59		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA 228	-0.14	118.47	0.31	118.47		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	1.74	1.14	0.33	1.14		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	1.80	3.67	1.56	3.72		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.65	0.41	0.12	0.41		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.81

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RE15-10-8134
Sample Collection Date: 01/29/10 09:25
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-007
Date Received: 02/01/10 00:00
Report Date: 02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	14.97	19.09	28.72	19.18		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	31.62	14.88	19.14	15.38		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	15.96	7.35	1.86	7.37		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	12.17	0.12	12.17		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.08	0.13	0.08	0.13		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.57	0.49	0.14	0.49		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.07	0.51	0.18	0.51		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-226	2.23	1.97	0.55	1.97		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	1.47	1.19	0.36	1.19		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	3.95	3.05	1.32	3.18		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	-0.01	25.39	0.06	25.39		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.43

Quality Assurance Review

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133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RE15-10-8135
Sample Collection Date: 01/29/10 09:42
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-008
Date Received: 02/01/10 00:00
Report Date: 02/02/10 12:55

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	16.16	22.41	37.10	22.49		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	44.62	15.72	18.29	16.64		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	19.31	8.27	1.97	8.29		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	12.87	0.13	12.87		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.34	0.29	0.09	0.29		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.03	0.04	0.08	0.04		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.80	0.58	0.15	0.58		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.56	0.60	0.19	0.60		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-228	1.36	0.91	0.34	0.92		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	1.02	0.93	0.36	0.93		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	2.37	3.18	1.54	3.23		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.26	0.34	0.14	0.34		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 0.98

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8136	ARS Sample ID:	ARS2-10-00035-009
Sample Collection Date:	01/29/10 09:51	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	9.67	19.83	37.46	19.87		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	47.61	15.93	18.46	16.97		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.07	0.14	0.11	0.14		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	-2.31	-50.60	4.66	-50.60		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	11.56	0.12	11.56		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.12	0.12	0.08	0.12		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.17	0.18	0.07	0.18		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.67	0.50	0.13	0.50		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.30	0.50	0.15	0.51		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-226	1.31	0.92	0.36	0.92		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.57	0.65	0.25	0.65		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	2.82	3.18	1.47	3.24		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.15	0.30	0.13	0.30		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.32

Matthew L. Eden

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ARS AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RE15-10-8137
Sample Collection Date: 01/29/10 10:01
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-010
Date Received: 02/01/10 00:00
Report Date: 02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	2.63	13.14	31.30	13.15		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	25.30	12.50	16.49	12.88		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	15.02	6.58	1.60	6.60		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	10.45	0.11	10.45		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	-0.01	13.68	0.07	13.68		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.42	0.38	0.12	0.38		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.33	0.49	0.15	0.49		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-228	2.36	0.85	0.28	0.86		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	1.05	0.77	0.30	0.77		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	2.85	2.91	1.37	2.97		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.23	0.31	0.13	0.31		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.80

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8138	ARS Sample ID:	ARS2-10-00035-011
Sample Collection Date:	01/29/10 10:05	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	14.97	19.09	28.72	19.18		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	27.90	14.43	19.14	14.83		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.04	0.07	0.06	0.07		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	18.77	5.55	0.95	5.58		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.06	0.33	0.06	0.33		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.18	0.15	0.05	0.15		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.09	0.10	0.04	0.10		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.41	0.29	0.07	0.29		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.10	0.33	0.08	0.33		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-226	1.35	0.56	0.17	0.56		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.31	0.46	0.21	0.46		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	1.40	1.26	0.61	1.30		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.37	0.27	0.09	0.27		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.45

Matthew L. Eden

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
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ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RE15-10-8139
Sample Collection Date: 01/29/10 10:36
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-012
Date Received: 02/01/10 00:00
Report Date: 02/02/10 12:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	PRQ	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	2.40	16.08	37.10	16.08		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	20.84	12.67	18.29	12.93		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.07	0.13	0.11	0.13		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	26.03	8.83	1.72	8.86		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	11.39	0.11	11.39		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.08	0.13	0.08	0.13		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.12	0.15	0.07	0.15		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.00	11.67	0.13	11.67		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.28	0.52	0.18	0.53		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
BA-228	1.88	0.81	0.30	0.82		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.55	0.78	0.41	0.78		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	4.77	3.35	1.33	3.52		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	-0.01	23.42	0.05	23.42		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 0.77

Matthew L Eden
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ARS AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RE15-10-8140
Sample Collection Date: 01/29/10 10:43
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-013
Date Received: 02/01/10 00:00
Report Date: 02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.62	24.10	37.46	24.22		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	27.16	13.84	18.46	14.24		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	11.79	4.47	0.96	4.49		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.04	0.08	0.06	0.08		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.04	0.05	0.05	0.05		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.02	0.05	0.04	0.05		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.00	33.20	0.07	33.20		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	0.70	0.27	0.08	0.27		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-226	0.63	0.31	0.31	0.31		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	-0.04	56.00	0.13	56.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	2.83	2.25	0.87	2.34		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.17	0.19	0.07	0.19		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 2.25

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8141	ARS Sample ID:	ARS2-10-00035-014
Sample Collection Date:	01/29/10 10:47	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	11.85	18.38	31.30	18.40		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	36.58	14.09	16.49	14.78		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	17.73	7.42	1.73	7.44		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	11.35	0.17	11.35		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	-0.01	14.84	0.07	14.84		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.37	0.40	0.13	0.40		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.45	0.55	0.18	0.55		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-228	2.06	0.82	0.30	0.83		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.43	0.50	0.35	0.50		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	2.85	3.04	1.37	3.11		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.14	0.19	0.08	0.19		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.22

Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RE15-10-8142
Sample Collection Date: 01/29/10 10:56
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-015
Date Received: 02/01/10 00:00
Report Date: 02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	10.14	16.58	28.72	16.63		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	19.06	13.16	19.14	13.37		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	0.86	5.37	2.68	5.37		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.00	6.30	0.06	6.30		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.07	0.08	0.05	0.08		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	-0.01	0.24	0.04	0.24		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.53	0.37	0.07	0.37		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.43	0.35	0.06	0.36		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-228	1.92	0.57	0.17	0.57		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.61	0.53	0.17	0.53		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	1.41	1.71	0.80	1.74		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.44	0.23	0.07	0.23		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 2.46

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00035
Client Sample ID: RE15-10-8143
Sample Collection Date: 01/29/10 11:00
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00035-016
Date Received: 02/01/10 00:00
Report Date: 02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.96	27.30	37.10	27.54		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	26.23	13.93	18.29	14.29		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	22.32	9.34	2.18	9.37		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.36	0.30	0.14	0.30		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.03	0.06	0.11	0.06		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.01	0.04	0.09	0.04		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.00	14.84	0.17	14.84		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.71	0.59	0.12	0.59		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-226	3.34	1.28	0.38	1.29		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.76	0.66	0.38	0.66		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	2.34	4.01	1.93	4.04		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.01	0.08	0.10	0.08		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 1.00

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8144	ARS Sample ID:	ARS2-10-00035-017
Sample Collection Date:	01/29/10 11:08	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.50	27.75	37.46	27.98		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	36.68	15.10	18.46	15.73		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	18.10	6.63	1.36	6.65		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO 60	0.00	0.03	0.09	0.03		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.02	0.11	0.07	0.11		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.11	0.21	0.11	0.21		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.14	0.42	0.13	0.43		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
NA-328	1.85	0.76	0.24	0.76		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	0.31	0.43	0.23	0.43		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	3.02	3.29	1.41	3.37		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.15	0.21	0.09	0.21		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 3.63

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87556

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00035	Request or PO Number:	
Client Sample ID:	RE15-10-8145	ARS Sample ID:	ARS2-10-00035-018
Sample Collection Date:	01/29/10 11:20	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 13:55

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Cham Recovery
GROSS ALPHA	53.38	32.75	31.30	33.40		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
GROSS BETA	28.88	13.98	16.49	14.42		pCi/g	EPA 900.0M	2/2/2010	ME	N/A
NA-22	0.07	0.13	0.11	0.13		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
K-40	18.79	7.54	1.70	7.56		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CO-60	0.06	0.09	0.11	0.09		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
CS-137	0.03	0.15	0.08	0.15		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
EU-152	0.37	0.37	0.13	0.37		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
PB-212	1.24	0.46	0.15	0.49		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
RA-226	0.71	0.59	0.42	0.59		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-235	1.08	0.88	0.37	0.88		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
U-238	3.68	4.23	1.62	4.31		pCi/g	EPA 901.1M	2/1/2010	ME	N/A
AM-241	0.00	0.04	0.06	0.04		pCi/g	EPA 901.1M	2/1/2010	ME	N/A

NOTES: % Moisture: 0.43

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00036	Request or PO Number:	
Client Sample ID:	RE15-10-8146	ARS Sample ID:	ARS2-10-00036-001
Sample Collection Date:	01/29/10 11:16	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 22:50

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	14.66	22.06	37.46	22.14		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	29.25	14.00	18.46	14.45		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	16.58	7.16	1.69	7.11		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	11.05	0.11	11.05		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	14.46	0.07	14.46		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.64	0.45	0.13	0.46		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.09	0.48	0.16	0.48		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	2.00	0.79	0.29	0.79		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.68	0.86	0.31	0.86		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	5.02	3.74	1.52	3.91		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.43	0.35	0.11	0.35		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.83

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00036	Request or PO Number:	
Client Sample ID:	RE15-10-8147	ARS Sample ID:	ARS2-10-00036-002
Sample Collection Date:	01/29/10 11:11	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 22:50

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	16.47	20.45	31.30	20.55		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	30.18	13.41	16.49	13.91		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	14.60	5.44	1.15	5.46		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	7.52	0.08	7.52		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.12	0.09	0.06	0.09		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.01	0.03	0.05	0.03		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.36	0.28	0.09	0.28		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.17	0.38	0.11	0.39		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	1.25	0.81	0.20	0.81		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	-0.05	67.09	0.15	67.09		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	-0.42	-5.70	0.92	-5.70		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.04	0.11	0.05	0.11		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 3.99

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1543 VALIDATION DATE: 03/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/19/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☐	☒	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☐	☒	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8129

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.577	2.31	0.577	ug/kg	U	1	25-FEB-10 19:58	per0225015a
	Perchlorate Isotope Ratio						1	25-FEB-10 19:58	per0225015a
14797-73-0	Perchlorate-101	.577	2.31	0.577	ug/kg	U	1	25-FEB-10 19:58	per0225015a
	Perchlorate-O(18)			5.52	ug/kg		1	25-FEB-10 19:58	per0225015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/19/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8131

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.605	2.42	0.605	ug/kg	U	1	25-FEB-10 20:06	per0225016a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:06	per0225016a
14797-73-0	Perchlorate-101	.605	2.42	0.605	ug/kg	U	1	25-FEB-10 20:06	per0225016a
	Perchlorate-O(18)			5.74	ug/kg		1	25-FEB-10 20:06	per0225016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/19/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8130

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	25-FEB-10 20:28	per0225019a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:28	per0225019a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	25-FEB-10 20:28	per0225019a
	Perchlorate-O(18)			6.23	ug/kg		1	25-FEB-10 20:28	per0225019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/19/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8127

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	25-FEB-10 20:36	per0225020a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:36	per0225020a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	25-FEB-10 20:36	per0225020a
	Perchlorate-O(18)			5.52	ug/kg		1	25-FEB-10 20:36	per0225020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8128

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 21:06	per0225024a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:06	per0225024a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 21:06	per0225024a
	Perchlorate-O(18)			5.77	ug/kg		1	25-FEB-10 21:06	per0225024a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8126

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.612	2.45	0.612	ug/kg	U	1	25-FEB-10 21:14	per0225025a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:14	per0225025a
14797-73-0	Perchlorate-101	.612	2.45	0.612	ug/kg	U	1	25-FEB-10 21:14	per0225025a
	Perchlorate-O(18)			6.12	ug/kg		1	25-FEB-10 21:14	per0225025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8140

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.576	2.3	0.576	ug/kg	U	1	25-FEB-10 21:21	per0225026a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:21	per0225026a
14797-73-0	Perchlorate-101	.576	2.3	0.576	ug/kg	U	1	25-FEB-10 21:21	per0225026a
	Perchlorate-O(18)			5.74	ug/kg		1	25-FEB-10 21:21	per0225026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8147

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	25-FEB-10 21:29	per0225027a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:29	per0225027a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	25-FEB-10 21:29	per0225027a
	Perchlorate-O(18)			7.51	ug/kg		1	25-FEB-10 21:29	per0225027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8142

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	25-FEB-10 21:36	per0225028a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:36	per0225028a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	25-FEB-10 21:36	per0225028a
	Perchlorate-O(18)			6.06	ug/kg		1	25-FEB-10 21:36	per0225028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8146

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	25-FEB-10 21:44	per0225029a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:44	per0225029a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	25-FEB-10 21:44	per0225029a
	Perchlorate-O(18)			5.92	ug/kg		1	25-FEB-10 21:44	per0225029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8136

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	25-FEB-10 21:51	per0225030a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:51	per0225030a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	25-FEB-10 21:51	per0225030a
	Perchlorate-O(18)			5.72	ug/kg		1	25-FEB-10 21:51	per0225030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8139

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 92.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.540	ug/kg	U	1	25-FEB-10 21:59	per0225031a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:59	per0225031a
14797-73-0	Perchlorate-101	.54	2.16	0.540	ug/kg	U	1	25-FEB-10 21:59	per0225031a
	Perchlorate-O(18)			5.11	ug/kg		1	25-FEB-10 21:59	per0225031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8134

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 22:29	per0225035a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:29	per0225035a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 22:29	per0225035a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 22:29	per0225035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8137

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 22:37	per0225036a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:37	per0225036a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 22:37	per0225036a
	Perchlorate-O(18)			5.87	ug/kg		1	25-FEB-10 22:37	per0225036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8143

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.559	2.24	0.559	ug/kg	U	1	25-FEB-10 22:44	per0225037a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:44	per0225037a
14797-73-0	Perchlorate-101	.559	2.24	0.559	ug/kg	U	1	25-FEB-10 22:44	per0225037a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 22:44	per0225037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8138

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066016

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.557	ug/kg	U	1	25-FEB-10 22:52	per0225038a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:52	per0225038a
14797-73-0	Perchlorate-101	.557	2.23	0.557	ug/kg	U	1	25-FEB-10 22:52	per0225038a
	Perchlorate-O(18)			5.45	ug/kg		1	25-FEB-10 22:52	per0225038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8145

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066017

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 93.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.532	2.13	0.532	ug/kg	U	1	25-FEB-10 22:59	per0225039a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:59	per0225039a
14797-73-0	Perchlorate-101	.532	2.13	0.532	ug/kg	U	1	25-FEB-10 22:59	per0225039a
	Perchlorate-O(18)			5.29	ug/kg		1	25-FEB-10 22:59	per0225039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8141

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066018

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 23:07	per0225040a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:07	per0225040a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 23:07	per0225040a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 23:07	per0225040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8135

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066019

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.24	0.561	ug/kg	U	1	25-FEB-10 23:14	per0225041a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:14	per0225041a
14797-73-0	Perchlorate-101	.561	2.24	0.561	ug/kg	U	1	25-FEB-10 23:14	per0225041a
	Perchlorate-O(18)			5.60	ug/kg		1	25-FEB-10 23:14	per0225041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8144

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066020

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.741	2.96	0.741	ug/kg	U	1	25-FEB-10 23:22	per0225042a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:22	per0225042a
14797-73-0	Perchlorate-101	.741	2.96	0.741	ug/kg	U	1	25-FEB-10 23:22	per0225042a
	Perchlorate-O(18)			7.82	ug/kg		1	25-FEB-10 23:22	per0225042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1543 VALIDATION DATE: 03/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds were >20% with a positive bias for PETN and 2-amino-4,6-dinitrotoluene. The associated sample results were NDs and, thus, were not qualified.
2. The LCS %R was > the laboratory UAL for 2,4-diamino-6-nitrotoluene. The associate sample results were NDs and, thus, were not qualified.
3. The MS/MSD %Rs were > the laboratory UAL for TATB. The associated result for sample RE15-10-8128 was a detect and, thus was qualified J+,HE12f. All other associated sample results were NDs and, thus, were not qualified.
4. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/19/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☒	☐	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☒	☐	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066001

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304151a

Date Analyzed: 07-MAR-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066001

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260032.wiff

Date Analyzed: 26-FEB-10 23:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8131

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066002

Sample Amount 2

Moisture: 17.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304154a

Date Analyzed: 07-MAR-10 18:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8131

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066002

Sample Amount 2

Moisture: 17.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260035.wiff

Date Analyzed: 26-FEB-10 23:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8130

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066003

Sample Amount 2

Moisture: 22.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304155a

Date Analyzed: 07-MAR-10 19:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8130

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066003

Sample Amount 2

Moisture: 22.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260036.wiff

Date Analyzed: 27-FEB-10 00:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8127

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066004

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304156a

Date Analyzed: 07-MAR-10 19:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8127

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066004

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260040.wiff

Date Analyzed: 27-FEB-10 01:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8128

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066005

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304157a

Date Analyzed: 07-MAR-10 19:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8128

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066005

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EX$02260041.wiff

Date Analyzed: 27-FEB-10 01:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB J+,HE12f	496	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8126

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066006

Sample Amount 2

Moisture: 18.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304158a

Date Analyzed: 07-MAR-10 20:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8126

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066006

Sample Amount 2

Moisture: 18.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260042.wiff

Date Analyzed: 27-FEB-10 01:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8140

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066007

Sample Amount 2

Moisture: 13.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304162a

Date Analyzed: 07-MAR-10 22:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8140

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066007

Sample Amount 2

Moisture: 13.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260043.wiff

Date Analyzed: 27-FEB-10 01:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8147

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066008

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304163a

Date Analyzed: 07-MAR-10 22:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8147

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066008

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260044.wiff

Date Analyzed: 27-FEB-10 02:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8142

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066009

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304164a

Date Analyzed: 07-MAR-10 23:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8142

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066009

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260045.wiff

Date Analyzed: 27-FEB-10 02:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8146

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066010

Sample Amount 2

Moisture: 17.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304165a

Date Analyzed: 07-MAR-10 23:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8146

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066010

Sample Amount 2

Moisture: 17.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260046.wiff

Date Analyzed: 27-FEB-10 02:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8136

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066011

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304166a

Date Analyzed: 08-MAR-10 00:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8136

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066011

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260047.wiff

Date Analyzed: 27-FEB-10 02:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8139

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066012

Sample Amount 2

Moisture: 7.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304167a

Date Analyzed: 08-MAR-10 00:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8139

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066012

Sample Amount 2

Moisture: 7.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260048.wiff

Date Analyzed: 27-FEB-10 03:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8134

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066013

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304168a

Date Analyzed: 08-MAR-10 01:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8134

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066013

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260049.wiff

Date Analyzed: 27-FEB-10 03:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8137

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066014

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304169a

Date Analyzed: 08-MAR-10 01:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8137

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066014

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260053.wiff

Date Analyzed: 27-FEB-10 04:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8143

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066015

Sample Amount 2

Moisture: 10.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304170a

Date Analyzed: 08-MAR-10 02:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8143

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066015

Sample Amount 2

Moisture: 10.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 248887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260054.wiff

Date Analyzed: 27-FEB-10 04:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8138

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066016

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304171a

Date Analyzed: 08-MAR-10 02:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8138

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066016

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260055.wiff

Date Analyzed: 27-FEB-10 05:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8145

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066017

Sample Amount 2

Moisture: 6.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304175a

Date Analyzed: 08-MAR-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8145

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066017

Sample Amount 2

Moisture: 6.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260056.wiff

Date Analyzed: 27-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8141

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066018

Sample Amount 2

Moisture: 12.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304176a

Date Analyzed: 08-MAR-10 05:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8141

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066018

Sample Amount 2

Moisture: 12.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260057.wiff

Date Analyzed: 27-FEB-10 05:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8135

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066019

Sample Amount 2

Moisture: 10.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304177a

Date Analyzed: 08-MAR-10 05:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8135

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066019

Sample Amount 2

Moisture: 10.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260058.wiff

Date Analyzed: 27-FEB-10 05:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8144

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066020

Sample Amount 2

Moisture: 32.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304178a

Date Analyzed: 08-MAR-10 06:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8144

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066020

Sample Amount 2

Moisture: 32.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260059.wiff

Date Analyzed: 27-FEB-10 06:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1543 VALIDATION DATE: 03/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL parent sample from another RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/19/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066006**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**18.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8126**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 10:44**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**020f2001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	020b2001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.06	ug/kg	1.35	4.06	1
11104–28–2	Aroclor–1221	U	4.06	ug/kg	1.35	4.06	1
11141–16–5	Aroclor–1232	U	4.06	ug/kg	1.35	4.06	1
53469–21–9	Aroclor–1242	U	4.06	ug/kg	1.35	4.06	1
12672–29–6	Aroclor–1248	U	4.06	ug/kg	1.35	4.06	1
11097–69–1	Aroclor–1254	U	4.06	ug/kg	1.35	4.06	1
11096–82–5	Aroclor–1260	U	4.06	ug/kg	1.35	4.06	1

P.S. 3/19/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066004	**Date Received:**	02/03/2010 08:55	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8127	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 10:19	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	1 CLP1	**Level:**	LOW
	018b1801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.81	ug/kg	1.27	3.81	1
11104-28-2	Aroclor-1221	U	3.81	ug/kg	1.27	3.81	1
11141-16-5	Aroclor-1232	U	3.81	ug/kg	1.27	3.81	1
53469-21-9	Aroclor-1242	U	3.81	ug/kg	1.27	3.81	1
12672-29-6	Aroclor-1248	U	3.81	ug/kg	1.27	3.81	1
11097-69-1	Aroclor-1254	U	3.81	ug/kg	1.27	3.81	1
11096-82-5	Aroclor-1260	U	3.81	ug/kg	1.27	3.81	1

P.S. 3/19/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066005	**Date Received:**	02/03/2010 08:55	**%Moisture:**	16.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8128	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 10:32	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	019f1901.d	**Column:**	1 CLP1	**Level:**	LOW
	019b1901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.97	ug/kg	1.32	3.97	1
11104-28-2	Aroclor-1221	U	3.97	ug/kg	1.32	3.97	1
11141-16-5	Aroclor-1232	U	3.97	ug/kg	1.32	3.97	1
53469-21-9	Aroclor-1242	U	3.97	ug/kg	1.32	3.97	1
12672-29-6	Aroclor-1248	U	3.97	ug/kg	1.32	3.97	1
11097-69-1	Aroclor-1254	U	3.97	ug/kg	1.32	3.97	1
11096-82-5	Aroclor-1260	U	3.97	ug/kg	1.32	3.97	1

P.S. 3/19/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066001	**Date Received:**	02/03/2010 08:55	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8129	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 09:42	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	015f1501.d	**Column:**	1 CLP1	**Level:**	LOW
	015b1501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.85	ug/kg	1.28	3.85	1
11104–28–2	Aroclor–1221	U	3.85	ug/kg	1.28	3.85	1
11141–16–5	Aroclor–1232	U	3.85	ug/kg	1.28	3.85	1
53469–21–9	Aroclor–1242	U	3.85	ug/kg	1.28	3.85	1
12672–29–6	Aroclor–1248	U	3.85	ug/kg	1.28	3.85	1
11097–69–1	Aroclor–1254	U	3.85	ug/kg	1.28	3.85	1
11096–82–5	Aroclor–1260	U	3.85	ug/kg	1.28	3.85	1

P.S. 3/19/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066003	**Date Received:**	02/03/2010 08:55	**%Moisture:**	22.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8130	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 10:07	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	017f1701.d	**Column:**	1 CLP1	**Level:**	LOW
	017b1701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.30	ug/kg	1.43	4.30	1
11104-28-2	Aroclor-1221	U	4.30	ug/kg	1.43	4.30	1
11141-16-5	Aroclor-1232	U	4.30	ug/kg	1.43	4.30	1
53469-21-9	Aroclor-1242	U	4.30	ug/kg	1.43	4.30	1
12672-29-6	Aroclor-1248	U	4.30	ug/kg	1.43	4.30	1
11097-69-1	Aroclor-1254		5.50	ug/kg	1.43	4.30	2
11096-82-5	Aroclor-1260	U	4.30	ug/kg	1.43	4.30	1

P.S. 3/19/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066002**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8131**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:55**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.02	ug/kg	1.34	4.02	1
11104-28-2	Aroclor-1221	U	4.02	ug/kg	1.34	4.02	1
11141-16-5	Aroclor-1232	U	4.02	ug/kg	1.34	4.02	1
53469-21-9	Aroclor-1242	U	4.02	ug/kg	1.34	4.02	1
12672-29-6	Aroclor-1248	U	4.02	ug/kg	1.34	4.02	1
11097-69-1	Aroclor-1254	U	4.02	ug/kg	1.34	4.02	1
11096-82-5	Aroclor-1260	U	4.02	ug/kg	1.34	4.02	1

P.S. 3/19/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1543 VALIDATION DATE: 03/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, all analytes except Pb, Na, Be, Se, Tl, Hg, Cr and Zn were detected. The Sb results for all samples except RE15-10-8135 and -8144, the As results for samples -8140, -8147, -8142 and -8146 and the Ni results for samples -8147 and -8146 were detects ≤5X the MB concentration and, thus, were qualified U,I4. The remaining As sample results, the Co and Cu results for all samples, the K result for sample -8140 and the Ni results for all samples except -8147, -8146 and -8137 were detects >5X but ≤50X the greatest associated blank concentration and, thus, were qualified J,I4a. The Sb results for samples -8135 and -8144, the Cd results for all samples and the Ag results for all samples except -8130 were NDs and, thus, were not qualified. The remaining associated results were detects >50X and, thus, were not qualified, based on professional judgment.

2. In the ICB/CCBs, Sb was detected. The associated results for samples -8135 and -8144 were NDs and, thus, were not qualified. The remaining associated sample results were detects ≤5X the greatest associated blank concentration and, thus, were qualified U,I4b.

3. In the FR blanks, samples -8230 through -8233 from RN 10-1545, which were associated with all samples, Al, Ba, Ca, Fe, Pb, Mn, K, Na and Cr were detected. The Na results for all samples except -8131, -8127 and -8139 results were detects ≤5X the greatest associated FR concentration and, thus, were qualified U,I4d. The remaining associated sample results were detects >5X the FR blank concentration and, thus, were not qualified.

4. The MS %Rs were < the laboratory LAL but ≥10% for Sb, Co and Se. The Co results for all samples were detects and, thus, were qualified J-,I6a. The Se and Sb results for all samples were NDs or were qualified ND and, thus, were qualified UJ,I6a. The MS %R was > the laboratory UAL for K. The associated sample results were detects and, thus, were qualified J+,I6b. Also, the MS %Rs were > the laboratory UAL for Al, Fe and Mg and the MS %Rs were < the laboratory LAL but ≥10% for Ca and Mn. However, the associated parent sample concentrations were >4X the spike

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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concentrations. Thus, the associated sample results were not qualified, based on professional judgment.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/19/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066001 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8129 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14100000	ug/kg		7790	22900	22900	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-36-0	Antimony U,I4	898	ug/kg	JN	378	1150	1150	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-38-2	Arsenic J,I4a	3210	ug/kg	N	215	1080	1080	2	MS	BAJ	03/02/10 14:56	100302-5	949361
7440-39-3	Barium	195000	ug/kg	N	115	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-41-7	Beryllium	1160	ug/kg		21	105	105	2	MS	BAJ	03/04/10 16:38	100304-6	959912
7440-43-9	Cadmium	573	ug/kg	U	115	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-70-2	Calcium	2920000	ug/kg		9160	28600	28600	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-47-3	Chromium	13900	ug/kg		172	573	573	1	P	JWJ	02/24/10 05:55	022310A-3	956437
7440-48-4	Cobalt J,I4a	7420	ug/kg	N	172	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-50-8	Copper J,I4a	8030	ug/kg		344	1150	1150	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-89-6	Iron	16500000	ug/kg		9160	28600	28600	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-92-1	Lead	15300	ug/kg		286	1150	1150	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-95-4	Magnesium	2470000	ug/kg		9740	34400	34400	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-96-5	Manganese	429000	ug/kg	*	229	1150	1150	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-97-6	Mercury	12.8	ug/kg		4.25	12.5	12.5	1	AV	JXL1	02/22/10 10:56	022210S1-7	951551
7440-02-0	Nickel J,I4a	10900	ug/kg	N	108	430	430	2	MS	BAJ	03/02/10 14:56	100302-5	949361
7440-09-7	Potassium J+,I6b	1780000	ug/kg	N	7330	28600	28600	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1080	ug/kg	UN	538	1080	1080	2	MS	BAJ	03/02/10 14:56	100302-5	949361
7440-22-4	Silver	573	ug/kg	U	115	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-23-5	Sodium U,I4d	84800	ug/kg		8020	28600	28600	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-28-0	Thallium	223	ug/kg		62.9	210	210	2	MS	SKJ	03/02/10 22:18	100302-4	959912
7440-62-2	Vanadium	34000	ug/kg		115	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-66-6	Zinc	30600	ug/kg		378	1150	1150	1	P	JWJ	02/24/10 05:55	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.504	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.537	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.554	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.504	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.551	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066002 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8131 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10800000	ug/kg		8030	23600	23600	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-36-0	Antimony U,I4	846	ug/kg	JN	390	1180	1180	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-38-2	Arsenic J,I4a	3200	ug/kg	N	222	1110	1110	2	MS	BAJ	03/02/10 15:07	100302-5	949361
7440-39-3	Barium	158000	ug/kg	N	118	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-41-7	Beryllium	939	ug/kg		20.9	105	105	2	MS	BAJ	03/04/10 16:47	100304-6	959912
7440-43-9	Cadmium	591	ug/kg	U	118	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-70-2	Calcium	3510000	ug/kg		9450	29500	29500	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-47-3	Chromium	13100	ug/kg		175	583	583	1	P	JWJ	02/24/10 06:14	022310A-3	956437
7440-48-4	Cobalt J,I4a	5390	ug/kg	N	177	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-50-8	Copper J,I4a	6480	ug/kg		354	1180	1180	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-89-6	Iron	13100000	ug/kg		9450	29500	29500	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-92-1	Lead	12600	ug/kg		295	1180	1180	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-95-4	Magnesium	2120000	ug/kg		10000	35400	35400	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-96-5	Manganese	338000	ug/kg	*	236	1180	1180	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-97-6	Mercury	14.1	ug/kg		4.6	13.5	13.5	1	AV	JXL1	02/22/10 11:04	022210S1-7	951551
7440-02-0	Nickel J,I4a	9690	ug/kg	N	111	445	445	2	MS	BAJ	03/02/10 15:07	100302-5	949361
7440-09-7	Potassium J+,I6b	1620000	ug/kg	N	7560	29500	29500	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1110	ug/kg	UN	556	1110	1110	2	MS	BAJ	03/02/10 15:07	100302-5	949361
7440-22-4	Silver	591	ug/kg	U	118	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-23-5	Sodium	231000	ug/kg		8270	29500	29500	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-28-0	Thallium	181	ug/kg	J	62.8	209	209	2	MS	SKJ	03/02/10 22:44	100302-4	959912
7440-62-2	Vanadium	24700	ug/kg		118	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-66-6	Zinc	35700	ug/kg		385	1170	1170	1	P	JWJ	02/24/10 06:14	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.512	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.544	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.537	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.519	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.578	g	50	mL	03/02/10	BCD1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066003 **BASIS:** Dry Weight **DATE COLLECTED** 29–JAN–10

CLIENT ID: RE15–10–8130 **LEVEL:** Low **DATE RECEIVED** 03–FEB–10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	12800000	ug/kg		7870	23100	23100	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–36–0	Antimony U,I4	987	ug/kg	JN	382	1160	1160	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–38–2	Arsenic J,I4a	2780	ug/kg	N	252	1260	1260	2	MS	BAJ	03/02/10 15:09	100302–5	949361
7440–39–3	Barium	170000	ug/kg	N	116	578	578	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–41–7	Beryllium	1120	ug/kg		24.2	121	121	2	MS	BAJ	03/04/10 16:49	100304–6	959912
7440–43–9	Cadmium	578	ug/kg	U	116	578	578	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–70–2	Calcium	2410000	ug/kg		9250	28900	28900	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–47–3	Chromium	13700	ug/kg		191	638	638	1	P	JWJ	02/24/10 06:17	022310A–3	956437
7440–48–4	Cobalt J,I4a	5740	ug/kg	N	174	578	578	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–50–8	Copper J,I4a	9540	ug/kg		347	1160	1160	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7439–89–6	Iron	15300000	ug/kg		9250	28900	28900	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7439–92–1	Lead	44700	ug/kg		289	1160	1160	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7439–95–4	Magnesium	2330000	ug/kg		9830	34700	34700	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7439–96–5	Manganese	344000	ug/kg	*	231	1160	1160	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7439–97–6	Mercury	14.8	ug/kg	J	5.2	15.3	15.3	1	AV	JXL1	02/22/10 11:06	022210S1–7	951551
7440–02–0	Nickel J,I4a	10600	ug/kg	N	126	504	504	2	MS	BAJ	03/02/10 15:09	100302–5	949361
7440–09–7	Potassium J+,I6b	2090000	ug/kg	N	7400	28900	28900	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7782–49–2	Selenium UJ,I6a	1260	ug/kg	UN	630	1260	1260	2	MS	BAJ	03/02/10 15:09	100302–5	949361
7440–22–4	Silver	14700	ug/kg		116	578	578	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–23–5	Sodium U,I4d	101000	ug/kg		8100	28900	28900	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–28–0	Thallium	192	ug/kg	J	72.7	242	242	2	MS	SKJ	03/02/10 22:48	100302–4	959912
7440–62–2	Vanadium	30800	ug/kg		116	578	578	1	P	JWJ	02/21/10 01:16	022010C–1	949358
7440–66–6	Zinc	37500	ug/kg		421	1280	1280	1	P	JWJ	02/24/10 06:17	022310A–3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.559	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.513	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.507	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.507	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.534	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066004 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8127 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	22900000	ug/kg		7380	21700	21700	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-36-0	Antimony U,I4	823	ug/kg	JN	358	1090	1090	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-38-2	Arsenic J,I4a	3180	ug/kg	N	215	1080	1080	2	MS	BAJ	03/02/10 15:11	100302-5	949361
7440-39-3	Barium	253000	ug/kg	N	109	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-41-7	Beryllium	1580	ug/kg		20	100	100	2	MS	BAJ	03/04/10 16:50	100304-6	959912
7440-43-9	Cadmium	543	ug/kg	U	109	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-70-2	Calcium	3600000	ug/kg		8680	27100	27100	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-47-3	Chromium	23400	ug/kg		168	561	561	1	P	JWJ	02/24/10 06:28	022310A-3	956437
7440-48-4	Cobalt J,I4a	6280	ug/kg	N	163	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-50-8	Copper J,I4a	10200	ug/kg		326	1090	1090	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-89-6	Iron	18600000	ug/kg		8680	27100	27100	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-92-1	Lead	16800	ug/kg		271	1090	1090	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-95-4	Magnesium	3460000	ug/kg		9220	32600	32600	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-96-5	Manganese	349000	ug/kg	*	217	1090	1090	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-97-6	Mercury	23.9	ug/kg		4.09	12	12	1	AV	JXL1	02/22/10 11:11	022210S1-7	951551
7440-02-0	Nickel J,I4a	12600	ug/kg	N	108	431	431	2	MS	BAJ	03/02/10 15:11	100302-5	949361
7440-09-7	Potassium J+,I6b	2320000	ug/kg	N	6950	27100	27100	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1080	ug/kg	UN	539	1080	1080	2	MS	BAJ	03/02/10 15:11	100302-5	949361
7440-22-4	Silver	543	ug/kg	U	109	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-23-5	Sodium	281000	ug/kg		7600	27100	27100	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-28-0	Thallium	230	ug/kg		60	200	200	2	MS	SKJ	03/02/10 22:52	100302-4	959912
7440-62-2	Vanadium	32600	ug/kg		109	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-66-6	Zinc	54500	ug/kg		370	1120	1120	1	P	JWJ	02/24/10 06:28	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.528	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.532	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.571	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.511	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.573	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066005 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8128 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3990000	ug/kg		7870	23100	23100	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-36-0	Antimony U,I4	823	ug/kg	JN	382	1160	1160	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-38-2	Arsenic J,I4a	1650	ug/kg	N	237	1180	1180	2	MS	BAJ	03/02/10 15:17	100302-5	949361
7440-39-3	Barium	75900	ug/kg	N	116	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-41-7	Beryllium	408	ug/kg		22	110	110	2	MS	BAJ	03/04/10 17:11	100304-6	959912
7440-43-9	Cadmium	579	ug/kg	U	116	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-70-2	Calcium	3090000	ug/kg		9260	28900	28900	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-47-3	Chromium	9140	ug/kg		179	597	597	1	P	JWJ	02/24/10 06:31	022310A-3	956437
7440-48-4	Cobalt J,I4a	2990	ug/kg	N	174	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-50-8	Copper J,I4a	6460	ug/kg		347	1160	1160	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-89-6	Iron	9140000	ug/kg		9260	28900	28900	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-92-1	Lead	8090	ug/kg		289	1160	1160	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-95-4	Magnesium	1200000	ug/kg		9840	34700	34700	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-96-5	Manganese	202000	ug/kg	*	231	1160	1160	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-97-6	Mercury	12.4	ug/kg	U	4.23	12.4	12.4	1	AV	JXL1	02/22/10 11:12	022210S1-7	951551
7440-02-0	Nickel J,I4a	5040	ug/kg	N	118	473	473	2	MS	BAJ	03/02/10 15:17	100302-5	949361
7440-09-7	Potassium J+,I6b	828000	ug/kg	N	7410	28900	28900	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1180	ug/kg	UN	591	1180	1180	2	MS	BAJ	03/02/10 15:17	100302-5	949361
7440-22-4	Silver	579	ug/kg	U	116	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-23-5	Sodium U,I4d	54400	ug/kg		8100	28900	28900	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-28-0	Thallium	220	ug/kg	U	66.1	220	220	2	MS	SKJ	03/02/10 22:56	100302-4	959912
7440-62-2	Vanadium	17200	ug/kg		116	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-66-6	Zinc	27600	ug/kg		394	1190	1190	1	P	JWJ	02/24/10 06:31	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.516	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.505	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.576	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.5	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.542	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066006 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8126 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15400000	ug/kg		8090	23800	23800	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-36-0	Antimony U,I4	1240	ug/kg	N	393	1190	1190	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-38-2	Arsenic J,I4a	3530	ug/kg	N	223	1120	1120	2	MS	BAJ	03/02/10 15:19	100302-5	949361
7440-39-3	Barium	192000	ug/kg	N	119	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-41-7	Beryllium	1290	ug/kg		21.7	108	108	2	MS	BAJ	03/04/10 17:13	100304-6	959912
7440-43-9	Cadmium	595	ug/kg	U	119	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-70-2	Calcium	2510000	ug/kg		9520	29700	29700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-47-3	Chromium	17900	ug/kg		182	606	606	1	P	JWJ	02/24/10 06:35	022310A-3	956437
7440-48-4	Cobalt J,I4a	7730	ug/kg	N	178	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-50-8	Copper J,I4a	8760	ug/kg		357	1190	1190	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-89-6	Iron	17600000	ug/kg		9520	29700	29700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-92-1	Lead	16400	ug/kg		297	1190	1190	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-95-4	Magnesium	2770000	ug/kg		10100	35700	35700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-96-5	Manganese	408000	ug/kg	*	238	1190	1190	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-97-6	Mercury	37.1	ug/kg		4.67	13.7	13.7	1	AV	JXL1	02/22/10 11:14	022210S1-7	951551
7440-02-0	Nickel J,I4a	12900	ug/kg	N	112	446	446	2	MS	BAJ	03/02/10 15:19	100302-5	949361
7440-09-7	Potassium J+,I6b	2200000	ug/kg	N	7620	29700	29700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1120	ug/kg	UN	558	1120	1120	2	MS	BAJ	03/02/10 15:19	100302-5	949361
7440-22-4	Silver	595	ug/kg	U	119	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-23-5	Sodium U,I4d	104000	ug/kg		8330	29700	29700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-28-0	Thallium	217	ug/kg		65.1	217	217	2	MS	SKJ	03/02/10 22:59	100302-4	959912
7440-62-2	Vanadium	34700	ug/kg		119	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-66-6	Zinc	36100	ug/kg		400	1210	1210	1	P	JWJ	02/24/10 06:35	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.514	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.548	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.534	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.505	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.564	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066007 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8140 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2390000	ug/kg		7580	22300	22300	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-36-0	Antimony U,I4	646	ug/kg	JN	368	1110	1110	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-38-2	Arsenic U,I4	1200	ug/kg	N	225	1120	1120	2	MS	BAJ	03/02/10 15:21	100302-5	949361
7440-39-3	Barium	46900	ug/kg	N	111	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-41-7	Beryllium	198	ug/kg		22.8	114	114	2	MS	BAJ	03/04/10 17:14	100304-6	959912
7440-43-9	Cadmium	557	ug/kg	U	111	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-70-2	Calcium	4970000	ug/kg		8920	27900	27900	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-47-3	Chromium	22500	ug/kg		167	556	556	1	P	JWJ	02/24/10 06:39	022310A-3	956437
7440-48-4	Cobalt J,I4a	2050	ug/kg	N	167	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-50-8	Copper J,I4a	4090	ug/kg		334	1110	1110	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-89-6	Iron	7260000	ug/kg		8920	27900	27900	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-92-1	Lead	5890	ug/kg		279	1110	1110	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-95-4	Magnesium	820000	ug/kg		9470	33400	33400	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-96-5	Manganese	155000	ug/kg	*	223	1110	1110	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-97-6	Mercury	12.3	ug/kg	U	4.2	12.3	12.3	1	AV	JXL1	02/22/10 11:16	022210S1-7	951551
7440-02-0	Nickel J,I4a	4650	ug/kg	N	112	449	449	2	MS	BAJ	03/02/10 15:21	100302-5	949361
7440-09-7	Potassium J,I4a	498000	ug/kg	N	7130	27900	27900	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1120	ug/kg	UN	562	1120	1120	2	MS	BAJ	03/02/10 15:21	100302-5	949361
7440-22-4	Silver	557	ug/kg	U	111	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-23-5	Sodium U,I4d	44600	ug/kg		7800	27900	27900	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-28-0	Thallium	228	ug/kg	U	68.5	228	228	2	MS	SKJ	03/02/10 23:11	100302-4	959912
7440-62-2	Vanadium	13300	ug/kg		111	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-66-6	Zinc	24000	ug/kg		367	1110	1110	1	P	JWJ	02/24/10 06:39	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.517	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.513	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.56	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.518	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.505	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066008 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8147 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9370000	ug/kg		10600	31200	31200	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-36-0	Antimony U,I4	1170	ug/kg	JN	514	1560	1560	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-38-2	Arsenic U,I4	339	ug/kg	JN	293	1460	1460	2	MS	BAJ	03/02/10 15:23	100302-5	949361
7440-39-3	Barium	163000	ug/kg	N	156	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-41-7	Beryllium	938	ug/kg		28.7	144	144	2	MS	BAJ	03/04/10 17:16	100304-6	959912
7440-43-9	Cadmium	779	ug/kg	U	156	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-70-2	Calcium	2930000	ug/kg		12500	39000	39000	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-47-3	Chromium	23200	ug/kg		228	760	760	1	P	JWJ	02/24/10 06:42	022310A-3	956437
7440-48-4	Cobalt J,I4a	5620	ug/kg	N	234	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-50-8	Copper J,I4a	8550	ug/kg		468	1560	1560	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-89-6	Iron	12900000	ug/kg		12500	39000	39000	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-92-1	Lead	150000	ug/kg		390	1560	1560	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-95-4	Magnesium	1890000	ug/kg		13300	46800	46800	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-96-5	Manganese	376000	ug/kg	*	312	1560	1560	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-97-6	Mercury	9.06	ug/kg	J	6.22	18.3	18.3	1	AV	JXL1	02/22/10 11:17	022210S1-7	951551
7440-02-0	Nickel U,I4	849	ug/kg	N	146	585	585	2	MS	BAJ	03/02/10 15:23	100302-5	949361
7440-09-7	Potassium J+,I6b	1840000	ug/kg	N	9980	39000	39000	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1460	ug/kg	UN	731	1460	1460	2	MS	BAJ	03/02/10 15:23	100302-5	949361
7440-22-4	Silver	779	ug/kg	U	156	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-23-5	Sodium U,I4d	55800	ug/kg		10900	39000	39000	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-28-0	Thallium	151	ug/kg	J	86.2	287	287	2	MS	SKJ	03/02/10 23:14	100302-4	959912
7440-62-2	Vanadium	24800	ug/kg		156	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-66-6	Zinc	108000	ug/kg		501	1520	1520	1	P	JWJ	02/24/10 06:42	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.503	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.536	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.514	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.516	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.546	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066009 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8142 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13100000	ug/kg		8470	24900	24900	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-36-0	Antimony U,I4	903	ug/kg	JN	411	1250	1250	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-38-2	Arsenic U,I4	563	ug/kg	JN	238	1190	1190	2	MS	BAJ	03/02/10 15:25	100302-5	949361
7440-39-3	Barium	188000	ug/kg	N	125	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-41-7	Beryllium	995	ug/kg		22.5	113	113	2	MS	BAJ	03/04/10 17:18	100304-6	959912
7440-43-9	Cadmium	623	ug/kg	U	125	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-70-2	Calcium	2260000	ug/kg		9970	31200	31200	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-47-3	Chromium	13600	ug/kg		190	632	632	1	P	JWJ	02/24/10 06:46	022310A-3	956437
7440-48-4	Cobalt J,I4a	6480	ug/kg	N	187	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-50-8	Copper J,I4a	7870	ug/kg		374	1250	1250	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-89-6	Iron	15800000	ug/kg		9970	31200	31200	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-92-1	Lead	16900	ug/kg		312	1250	1250	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-95-4	Magnesium	2500000	ug/kg		10600	37400	37400	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-96-5	Manganese	394000	ug/kg	*	249	1250	1250	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-97-6	Mercury	14	ug/kg	J	4.83	14.2	14.2	1	AV	JXLI	02/22/10 11:19	022210S1-7	951551
7440-02-0	Nickel J,I4a	1500	ug/kg	N	119	476	476	2	MS	BAJ	03/02/10 15:25	100302-5	949361
7440-09-7	Potassium J+,I6b	2170000	ug/kg	N	7980	31200	31200	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1190	ug/kg	UN	595	1190	1190	2	MS	BAJ	03/02/10 15:25	100302-5	949361
7440-22-4	Silver	623	ug/kg	U	125	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-23-5	Sodium U,I4d	84800	ug/kg		8720	31200	31200	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-28-0	Thallium	179	ug/kg	J	67.6	225	225	2	MS	SKJ	03/02/10 23:18	100302-4	959912
7440-62-2	Vanadium	32700	ug/kg		125	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-66-6	Zinc	29600	ug/kg		417	1260	1260	1	P	JWJ	02/24/10 06:46	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.507	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.531	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.534	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.5	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.561	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066010 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8146 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11700000	ug/kg		7730	22700	22700	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-36-0	Antimony U,I4	1290	ug/kg	N	375	1140	1140	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-38-2	Arsenic U,I4	1120	ug/kg	UN	225	1120	1120	2	MS	BAJ	03/02/10 15:27	100302-5	949361
7440-39-3	Barium	158000	ug/kg	N	114	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-41-7	Beryllium	879	ug/kg		20.5	103	103	2	MS	BAJ	03/04/10 17:19	100304-6	959912
7440-43-9	Cadmium	568	ug/kg	U	114	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-70-2	Calcium	2300000	ug/kg		9090	28400	28400	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-47-3	Chromium	12000	ug/kg		171	570	570	1	P	JWJ	02/24/10 06:49	022310A-3	956437
7440-48-4	Cobalt J,I4a	5360	ug/kg	N	170	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-50-8	Copper J,I4a	9730	ug/kg		341	1140	1140	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-89-6	Iron	15100000	ug/kg		9090	28400	28400	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-92-1	Lead	200000	ug/kg		284	1140	1140	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-95-4	Magnesium	2230000	ug/kg		9660	34100	34100	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-96-5	Manganese	331000	ug/kg	*	227	1140	1140	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-97-6	Mercury	14.7	ug/kg		4.41	13	13	1	AV	JXL1	02/22/10 11:21	022210S1-7	951551
7440-02-0	Nickel U,I4	1300	ug/kg	N	112	449	449	2	MS	BAJ	03/02/10 15:27	100302-5	949361
7440-09-7	Potassium J+,I6b	1810000	ug/kg	N	7270	28400	28400	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1120	ug/kg	UN	562	1120	1120	2	MS	BAJ	03/02/10 15:27	100302-5	949361
7440-22-4	Silver	568	ug/kg	U	114	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-23-5	Sodium U,I4d	89100	ug/kg		7950	28400	28400	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-28-0	Thallium	148	ug/kg	J	61.6	205	205	2	MS	SKJ	03/02/10 23:22	100302-4	959912
7440-62-2	Vanadium	28900	ug/kg		114	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-66-6	Zinc	77500	ug/kg		376	1140	1140	1	P	JWJ	02/24/10 06:49	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.531	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.537	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.558	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.529	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.588	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066011 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8136 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10500000	ug/kg		7170	21100	21100	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-36-0	Antimony U,I4	1020	ug/kg	JN	348	1050	1050	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-38-2	Arsenic J,I4a	2540	ug/kg	N	213	1070	1070	2	MS	BAJ	03/02/10 15:29	100302-5	949361
7440-39-3	Barium	152000	ug/kg	N	105	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-41-7	Beryllium	743	ug/kg		20	100	100	2	MS	BAJ	03/04/10 17:21	100304-6	959912
7440-43-9	Cadmium	527	ug/kg	U	105	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-70-2	Calcium	2510000	ug/kg		8440	26400	26400	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-47-3	Chromium	19200	ug/kg		169	564	564	1	P	JWJ	02/24/10 06:53	022310A-3	956437
7440-48-4	Cobalt J,I4a	6120	ug/kg	N	158	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-50-8	Copper J,I4a	8890	ug/kg		316	1050	1050	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-89-6	Iron	14900000	ug/kg		8440	26400	26400	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-92-1	Lead	14700	ug/kg		264	1050	1050	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-95-4	Magnesium	1980000	ug/kg		8960	31600	31600	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-96-5	Manganese	370000	ug/kg	*	211	1050	1050	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-97-6	Mercury	10.3	ug/kg	J	4.16	12.2	12.2	1	AV	JXL1	02/22/10 11:22	022210S1-7	951551
7440-02-0	Nickel J,I4a	8670	ug/kg	N	107	427	427	2	MS	BAJ	03/02/10 15:29	100302-5	949361
7440-09-7	Potassium J+,I6b	1660000	ug/kg	N	6750	26400	26400	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1070	ug/kg	UN	533	1070	1070	2	MS	BAJ	03/02/10 15:29	100302-5	949361
7440-22-4	Silver	527	ug/kg	U	105	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-23-5	Sodium U,I4d	65600	ug/kg		7380	26400	26400	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-28-0	Thallium	137	ug/kg	J	60	200	200	2	MS	SKJ	03/02/10 23:26	100302-4	959912
7440-62-2	Vanadium	30000	ug/kg		105	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-66-6	Zinc	31400	ug/kg		372	1130	1130	1	P	JWJ	02/24/10 06:53	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.535	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.529	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.554	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.5	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.564	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066012 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8139 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 92.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13400000	ug/kg		7330	21600	21600	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-36-0	Antimony U,I4	1180	ug/kg	N	356	1080	1080	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-38-2	Arsenic J,I4a	2550	ug/kg	N	204	1020	1020	2	MS	BAJ	03/02/10 15:31	100302-5	949361
7440-39-3	Barium	150000	ug/kg	N	108	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-41-7	Beryllium	820	ug/kg		18.1	90.5	90.5	2	MS	BAJ	03/04/10 17:23	100304-6	959912
7440-43-9	Cadmium	539	ug/kg	U	108	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-70-2	Calcium	1980000	ug/kg		8630	27000	27000	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-47-3	Chromium	14400	ug/kg		160	533	533	1	P	JWJ	02/24/10 06:57	022310A-3	956437
7440-48-4	Cobalt J,I4a	4620	ug/kg	N	162	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-50-8	Copper J,I4a	6810	ug/kg		323	1080	1080	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-89-6	Iron	14500000	ug/kg		8630	27000	27000	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-92-1	Lead	12100	ug/kg		270	1080	1080	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-95-4	Magnesium	2060000	ug/kg		9170	32300	32300	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-96-5	Manganese	345000	ug/kg	*	216	1080	1080	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-97-6	Mercury	13.6	ug/kg		4.17	12.3	12.3	1	AV	JXL1	02/22/10 11:24	022210S1-7	951551
7440-02-0	Nickel J,I4a	8060	ug/kg	N	102	408	408	2	MS	BAJ	03/02/10 15:31	100302-5	949361
7440-09-7	Potassium J+,I6b	1450000	ug/kg	N	6900	27000	27000	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1020	ug/kg	UN	510	1020	1020	2	MS	BAJ	03/02/10 15:31	100302-5	949361
7440-22-4	Silver	539	ug/kg	U	108	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-23-5	Sodium	126000	ug/kg		7550	27000	27000	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-28-0	Thallium	113	ug/kg	J	54.3	181	181	2	MS	SKJ	03/02/10 23:37	100302-4	959912
7440-62-2	Vanadium	23900	ug/kg		108	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-66-6	Zinc	34700	ug/kg		352	1070	1070	1	P	JWJ	02/24/10 06:57	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.501	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.53	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.529	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.507	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.597	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066013 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8134 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11100000	ug/kg		7230	21300	21300	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-36-0	Antimony U,I4	976	ug/kg	JN	351	1060	1060	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-38-2	Arsenic J,I4a	2790	ug/kg	N	224	1120	1120	2	MS	BAJ	03/02/10 15:37	100302-5	949361
7440-39-3	Barium	158000	ug/kg	N	106	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-41-7	Beryllium	968	ug/kg		20.3	102	102	2	MS	BAJ	03/04/10 17:24	100304-6	959912
7440-43-9	Cadmium	531	ug/kg	U	106	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-70-2	Calcium	2140000	ug/kg		8500	26600	26600	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-47-3	Chromium	17400	ug/kg		162	539	539	1	P	JWJ	02/24/10 07:08	022310A-3	956437
7440-48-4	Cobalt J,I4a	5980	ug/kg	N	159	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-50-8	Copper J,I4a	8110	ug/kg		319	1060	1060	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-89-6	Iron	14600000	ug/kg		8500	26600	26600	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-92-1	Lead	15800	ug/kg		266	1060	1060	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-95-4	Magnesium	2100000	ug/kg		9030	31900	31900	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-96-5	Manganese	345000	ug/kg	*	213	1060	1060	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-97-6	Mercury	15.4	ug/kg		4.52	13.3	13.3	1	AV	JXL1	02/22/10 11:26	022210S1-7	951551
7440-02-0	Nickel J,I4a	10300	ug/kg	N	112	447	447	2	MS	BAJ	03/02/10 15:37	100302-5	949361
7440-09-7	Potassium J+,I6b	1910000	ug/kg	N	6800	26600	26600	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1120	ug/kg	UN	559	1120	1120	2	MS	BAJ	03/02/10 15:37	100302-5	949361
7440-22-4	Silver	531	ug/kg	U	106	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-23-5	Sodium U,I4d	55000	ug/kg		7440	26600	26600	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-28-0	Thallium	172	ug/kg	J	60.9	203	203	2	MS	SKJ	03/02/10 23:41	100302-4	959912
7440-62-2	Vanadium	30000	ug/kg		106	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-66-6	Zinc	31600	ug/kg		356	1080	1080	1	P	JWJ	02/24/10 07:08	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.538	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.511	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.516	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.53	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.563	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066014 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8137 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14700000	ug/kg		7480	22000	22000	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-36-0	Antimony U,I4	1850	ug/kg	N	363	1100	1100	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-38-2	Arsenic J,I4a	2740	ug/kg	N	229	1140	1140	2	MS	BAJ	03/02/10 15:40	100302-5	949361
7440-39-3	Barium	181000	ug/kg	N	110	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-41-7	Beryllium	1180	ug/kg		20.2	101	101	2	MS	BAJ	03/04/10 17:30	100304-6	959912
7440-43-9	Cadmium	550	ug/kg	U	110	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-70-2	Calcium	2790000	ug/kg		8790	27500	27500	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-47-3	Chromium	151000	ug/kg		174	581	581	1	P	JWJ	02/24/10 07:12	022310A-3	956437
7440-48-4	Cobalt J,I4a	7050	ug/kg	N	165	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-50-8	Copper J,I4a	10200	ug/kg		330	1100	1100	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-89-6	Iron	16900000	ug/kg		8790	27500	27500	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-92-1	Lead	14700	ug/kg		275	1100	1100	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-95-4	Magnesium	2680000	ug/kg		9340	33000	33000	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-96-5	Manganese	383000	ug/kg	*	220	1100	1100	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-97-6	Mercury	19.4	ug/kg		4.8	14.1	14.1	1	AV	JXL1	02/22/10 11:31	022210S1-7	951551
7440-02-0	Nickel	16800	ug/kg	N	114	457	457	2	MS	BAJ	03/02/10 15:40	100302-5	949361
7440-09-7	Potassium J+,I6b	1760000	ug/kg	N	7040	27500	27500	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1140	ug/kg	UN	572	1140	1140	2	MS	BAJ	03/02/10 15:40	100302-5	949361
7440-22-4	Silver	550	ug/kg	U	110	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-23-5	Sodium U,I4d	94100	ug/kg		7690	27500	27500	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-28-0	Thallium	178	ug/kg	J	60.5	202	202	2	MS	SKJ	03/02/10 23:45	100302-4	959912
7440-62-2	Vanadium	31400	ug/kg		110	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-66-6	Zinc	54300	ug/kg		383	1160	1160	1	P	JWJ	02/24/10 07:12	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.543	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.522	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.507	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.514	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.592	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066015 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8143 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	20400000	ug/kg		7500	22100	22100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-36-0	Antimony U,I4	1090	ug/kg	JN	364	1100	1100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-38-2	Arsenic J,I4a	2510	ug/kg	N	211	1060	1060	2	MS	BAJ	03/02/10 15:42	100302-5	949361
7440-39-3	Barium	232000	ug/kg	N	110	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-41-7	Beryllium	1320	ug/kg		22.2	111	111	2	MS	BAJ	03/04/10 17:31	100304-6	959912
7440-43-9	Cadmium	552	ug/kg	U	110	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-70-2	Calcium	2740000	ug/kg		8830	27600	27600	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-47-3	Chromium	14700	ug/kg		167	558	558	1	P	JWJ	02/24/10 07:15	022310A-3	956437
7440-48-4	Cobalt J,I4a	6810	ug/kg	N	165	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-50-8	Copper J,I4a	8440	ug/kg		331	1100	1100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-89-6	Iron	18400000	ug/kg		8830	27600	27600	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-92-1	Lead	16000	ug/kg		276	1100	1100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-95-4	Magnesium	2920000	ug/kg		9380	33100	33100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-96-5	Manganese	355000	ug/kg	*	221	1100	1100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-97-6	Mercury	25.7	ug/kg		4.27	12.5	12.5	1	AV	JXL1	02/22/10 11:32	022210S1-7	951551
7440-02-0	Nickel J,I4a	9860	ug/kg	N	106	422	422	2	MS	BAJ	03/02/10 15:42	100302-5	949361
7440-09-7	Potassium J+,I6b	2350000	ug/kg	N	7060	27600	27600	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1060	ug/kg	UN	528	1060	1060	2	MS	BAJ	03/02/10 15:42	100302-5	949361
7440-22-4	Silver	552	ug/kg	U	110	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-23-5	Sodium U,I4d	89600	ug/kg		7720	27600	27600	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-28-0	Thallium	192	ug/kg	J	66.6	222	222	2	MS	SKJ	03/02/10 23:48	100302-4	959912
7440-62-2	Vanadium	34800	ug/kg		110	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-66-6	Zinc	34200	ug/kg		368	1120	1120	1	P	JWJ	02/24/10 07:15	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.507	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.53	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.535	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.501	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.504	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066016 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8138 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4030000	ug/kg		7200	21200	21200	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-36-0	Antimony U,I4	783	ug/kg	JN	349	1060	1060	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-38-2	Arsenic J,I4a	1290	ug/kg	N	219	1100	1100	2	MS	BAJ	03/02/10 15:44	100302-5	949361
7440-39-3	Barium	54800	ug/kg	N	106	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-41-7	Beryllium	240	ug/kg		19.9	99.3	99.3	2	MS	BAJ	03/04/10 17:33	100304-6	959912
7440-43-9	Cadmium	529	ug/kg	U	106	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-70-2	Calcium	5210000	ug/kg		8470	26500	26500	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-47-3	Chromium	11000	ug/kg		163	543	543	1	P	JWJ	02/24/10 07:18	022310A-3	956437
7440-48-4	Cobalt J,I4a	2780	ug/kg	N	159	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-50-8	Copper J,I4a	6290	ug/kg		318	1060	1060	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-89-6	Iron	11100000	ug/kg		8470	26500	26500	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-92-1	Lead	6880	ug/kg		265	1060	1060	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-95-4	Magnesium	2070000	ug/kg		9000	31800	31800	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-96-5	Manganese	238000	ug/kg	*	212	1060	1060	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-97-6	Mercury	13.4	ug/kg	U	4.54	13.4	13.4	1	AV	JXL1	02/22/10 11:34	022210S1-7	951551
7440-02-0	Nickel J,I4a	4830	ug/kg	N	110	439	439	2	MS	BAJ	03/02/10 15:44	100302-5	949361
7440-09-7	Potassium J+,I6b	553000	ug/kg	N	6780	26500	26500	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1100	ug/kg	UN	548	1100	1100	2	MS	BAJ	03/02/10 15:44	100302-5	949361
7440-22-4	Silver	529	ug/kg	U	106	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-23-5	Sodium U,I4d	73800	ug/kg		7410	26500	26500	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-28-0	Thallium	199	ug/kg	U	59.6	199	199	2	MS	SKJ	03/02/10 23:52	100302-4	959912
7440-62-2	Vanadium	21500	ug/kg		106	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-66-6	Zinc	28200	ug/kg		358	1090	1090	1	P	JWJ	02/24/10 07:18	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.526	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.508	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.5	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.513	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.561	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066017 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8145 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 93.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7630000	ug/kg		7150	21000	21000	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-36-0	Antimony U,I4	919	ug/kg	JN	347	1050	1050	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-38-2	Arsenic J,I4a	2460	ug/kg	N	207	1040	1040	2	MS	BAJ	03/02/10 15:46	100302-5	949361
7440-39-3	Barium	125000	ug/kg	N	105	526	526	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-41-7	Beryllium	796	ug/kg		20	100	100	2	MS	BAJ	03/04/10 17:35	100304-6	959912
7440-43-9	Cadmium	526	ug/kg	U	105	526	526	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-70-2	Calcium	1430000	ug/kg		8420	26300	26300	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-47-3	Chromium	10100	ug/kg		158	526	526	1	P	JWJ	02/24/10 07:22	022310A-3	956437
7440-48-4	Cobalt J,I4a	5830	ug/kg	N	158	526	526	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-50-8	Copper J,I4a	6570	ug/kg		316	1050	1050	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7439-89-6	Iron	13300000	ug/kg		8420	26300	26300	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7439-92-1	Lead	9940	ug/kg		263	1050	1050	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7439-95-4	Magnesium	1860000	ug/kg		8940	31600	31600	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7439-96-5	Manganese	365000	ug/kg	*	210	1050	1050	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7439-97-6	Mercury	13.9	ug/kg		4.17	12.3	12.3	1	AV	JXL1	02/22/10 11:36	022210S1-7	951551
7440-02-0	Nickel J,I4a	6920	ug/kg	N	104	414	414	2	MS	BAJ	03/02/10 15:46	100302-5	949361
7440-09-7	Potassium J+,I6b	1450000	ug/kg	N	6730	26300	26300	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1040	ug/kg	UN	518	1040	1040	2	MS	BAJ	03/02/10 15:46	100302-5	949361
7440-22-4	Silver	526	ug/kg	U	105	526	526	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-23-5	Sodium U,I4d	62600	ug/kg		7360	26300	26300	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-28-0	Thallium	301	ug/kg		60.1	200	200	2	MS	SKJ	03/03/10 17:39	100302	959912
7440-62-2	Vanadium	24300	ug/kg		105	526	526	1	P	JWJ	02/21/10 02:22	022010C-1	949358
7440-66-6	Zinc	32600	ug/kg		347	1050	1050	1	P	JWJ	02/24/10 07:22	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.506	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.514	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.521	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.506	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.531	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066018 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8141 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10100000	ug/kg		7310	21500	21500	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-36-0	Antimony U,I4	738	ug/kg	JN	355	1080	1080	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-38-2	Arsenic J,I4a	2310	ug/kg	N	215	1080	1080	2	MS	BAJ	03/02/10 15:48	100302-5	949361
7440-39-3	Barium	153000	ug/kg	N	108	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-41-7	Beryllium	805	ug/kg		19.3	96.6	96.6	2	MS	BAJ	03/04/10 17:36	100304-6	959912
7440-43-9	Cadmium	538	ug/kg	U	108	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-70-2	Calcium	2450000	ug/kg		8600	26900	26900	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-47-3	Chromium	18400	ug/kg		168	560	560	1	P	JWJ	02/24/10 07:26	022310A-3	956437
7440-48-4	Cobalt J,I4a	6200	ug/kg	N	161	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-50-8	Copper J,I4a	6440	ug/kg		323	1080	1080	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-89-6	Iron	15000000	ug/kg		8600	26900	26900	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-92-1	Lead	12500	ug/kg		269	1080	1080	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-95-4	Magnesium	1940000	ug/kg		9140	32300	32300	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-96-5	Manganese	387000	ug/kg	*	215	1080	1080	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-97-6	Mercury	7.58	ug/kg	J	4.48	13.2	13.2	1	AV	JXL1	02/22/10 11:38	022210S1-7	951551
7440-02-0	Nickel J,I4a	9160	ug/kg	N	108	430	430	2	MS	BAJ	03/02/10 15:48	100302-5	949361
7440-09-7	Potassium J+,I6b	1550000	ug/kg	N	6880	26900	26900	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7782-49-2	Selenium UJ,I6a	1080	ug/kg	UN	538	1080	1080	2	MS	BAJ	03/02/10 15:48	100302-5	949361
7440-22-4	Silver	538	ug/kg	U	108	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-23-5	Sodium U,I4d	92500	ug/kg		7530	26900	26900	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-28-0	Thallium	172	ug/kg	J	58	193	193	2	MS	SKJ	03/03/10 17:40	100302	959912
7440-62-2	Vanadium	31600	ug/kg		108	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-66-6	Zinc	29900	ug/kg		369	1120	1120	1	P	JWJ	02/24/10 07:26	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.532	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.532	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.521	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.511	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.592	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066019 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8135 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10900000	ug/kg		7600	22400	22400	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-36-0	Antimony UJ,I6a	1120	ug/kg	UN	369	1120	1120	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-38-2	Arsenic J,I4a	1830	ug/kg	N	221	1100	1100	2	MS	BAJ	03/02/10 15:50	100302-5	949361
7440-39-3	Barium	214000	ug/kg	N	112	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-41-7	Beryllium	1330	ug/kg		20.2	101	101	2	MS	BAJ	03/04/10 17:38	100304-6	959912
7440-43-9	Cadmium	559	ug/kg	U	112	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-70-2	Calcium	2680000	ug/kg		8940	27900	27900	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-47-3	Chromium	18000	ug/kg		168	560	560	1	P	JWJ	02/24/10 07:29	022310A-3	956437
7440-48-4	Cobalt J,I4a	4950	ug/kg	N	168	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-50-8	Copper J,I4a	6820	ug/kg		335	1120	1120	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-89-6	Iron	8060000	ug/kg		8940	27900	27900	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-92-1	Lead	14500	ug/kg		279	1120	1120	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-95-4	Magnesium	2180000	ug/kg		9500	33500	33500	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-96-5	Manganese	326000	ug/kg	*	224	1120	1120	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-97-6	Mercury	23.3	ug/kg		4.42	13	13	1	AV	JXL1	02/22/10 11:39	022210S1-7	951551
7440-02-0	Nickel J,I4a	10500	ug/kg	N	110	442	442	2	MS	BAJ	03/02/10 15:50	100302-5	949361
7440-09-7	Potassium J+,I6b	1570000	ug/kg	N	7160	27900	27900	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7782-49-2	Selenium UJ,I6a	1100	ug/kg	UN	552	1100	1100	2	MS	BAJ	03/02/10 15:50	100302-5	949361
7440-22-4	Silver	559	ug/kg	U	112	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-23-5	Sodium U,I4d	104000	ug/kg		7830	27900	27900	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-28-0	Thallium	223	ug/kg		60.6	202	202	2	MS	SKJ	03/03/10 17:42	100302	959912
7440-62-2	Vanadium	11800	ug/kg		112	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-66-6	Zinc	36200	ug/kg		370	1120	1120	1	P	JWJ	02/24/10 07:29	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.502	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.508	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.518	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.501	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.556	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066020 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8144 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8100000	ug/kg		9880	29100	29100	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-36-0	Antimony UJ,I6a	1450	ug/kg	UN	479	1450	1450	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-38-2	Arsenic J,I4a	2960	ug/kg	N	264	1320	1320	2	MS	BAJ	03/02/10 15:52	100302-5	949361
7440-39-3	Barium	176000	ug/kg	N	145	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-41-7	Beryllium	1080	ug/kg		26.8	134	134	2	MS	BAJ	03/04/10 17:40	100304-6	959912
7440-43-9	Cadmium	727	ug/kg	U	145	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-70-2	Calcium	2890000	ug/kg		11600	36300	36300	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-47-3	Chromium	13100	ug/kg		219	729	729	1	P	JWJ	02/24/10 07:33	022310A-3	956437
7440-48-4	Cobalt J,I4a	5390	ug/kg	N	218	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-50-8	Copper J,I4a	7240	ug/kg		436	1450	1450	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-89-6	Iron	6750000	ug/kg		11600	36300	36300	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-92-1	Lead	19500	ug/kg		363	1450	1450	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-95-4	Magnesium	1850000	ug/kg		12400	43600	43600	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-96-5	Manganese	377000	ug/kg	*	291	1450	1450	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-97-6	Mercury	17	ug/kg		5.69	16.7	16.7	1	AV	JXLI	02/22/10 11:41	022210S1-7	951551
7440-02-0	Nickel J,I4a	9260	ug/kg	N	132	527	527	2	MS	BAJ	03/02/10 15:52	100302-5	949361
7440-09-7	Potassium J+,I6b	1910000	ug/kg	N	9300	36300	36300	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7782-49-2	Selenium UJ,I6a	1320	ug/kg	UN	659	1320	1320	2	MS	BAJ	03/02/10 15:52	100302-5	949361
7440-22-4	Silver	727	ug/kg	U	145	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-23-5	Sodium U,I4d	37200	ug/kg		10200	36300	36300	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-28-0	Thallium	176	ug/kg	J	80.4	268	268	2	MS	SKJ	03/03/10 17:44	100302	959912
7440-62-2	Vanadium	11700	ug/kg		145	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-66-6	Zinc	30200	ug/kg		481	1460	1460	1	P	JWJ	02/24/10 07:33	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.51	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.562	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.531	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.508	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.553	g	50	mL	03/02/10	BCD1

P.S. 3/19/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1543 VALIDATION DATE: 3/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Linda Thal ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total Cyanide only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Total cyanide was detected in a CCB. The associated result for sample RE15-10-8144 was a detect ≤5X the CCB concentration and, thus, was qualified U,I4b. The remaining associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the matrix QC for batch numbers 948330 and 948946 were performed on samples from other LANL RN. No sample data were qualified as a result.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: L Thal DATE: 3/19/10

Form 5120-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8129	Project:	LANL01004
Sample ID:	246066001	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	13.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.4	262	ug/kg	1	AXC2 02/12/10	1308	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/19/10

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8131	Project:	LANL01004
Sample ID:	246066002	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	70.9	261	ug/kg	1	AXC2 02/12/10	1309	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8130	Project:	LANL01004
Sample ID:	246066003	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	22.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.8	279	ug/kg	1	AXC2 02/12/10	1310	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8127	Project:	LANL01004
Sample ID:	246066004	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.9	275	ug/kg	1	AXC2 02/12/10	1311	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8128	Project:	LANL01004
Sample ID:	246066005	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	16.3%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.5	267	ug/kg	1	AXC2 02/12/10	1312	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8126	Project:	LANL01004
Sample ID:	246066006	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	18.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.0	283	ug/kg	1	AXC2 02/12/10	1312	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8140	Project:	LANL01004
Sample ID:	246066007	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	13.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.9	272	ug/kg	1	AXC2 02/12/10	1506	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/19/10

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8147	Project:	LANL01004
Sample ID:	246066008	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	36.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	91.9	338	ug/kg	1	AXC2	02/12/10	1507	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/19/10

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Certificate of Analysis

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8142	Project:	LANL01004
Sample ID:	246066009	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	20.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	85.9	316	ug/kg	1	AXC2 02/12/10	1511	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/19/10

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8146	Project:	LANL01004
Sample ID:	246066010	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	82.0	302	ug/kg	1	AXC2	02/12/10	1512	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/19/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8136	Project:	LANL01004
Sample ID:	246066011	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.7	282	ug/kg	1	AXC2 02/12/10	1513	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8139	Project:	LANL01004
Sample ID:	246066012	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	7.44%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.5	270	ug/kg	1	AXC2 02/12/10	1514	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8134	Project:	LANL01004
Sample ID:	246066013	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.7	286	ug/kg	1	AXC2 02/12/10	1515	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8137	Project:	LANL01004
Sample ID:	246066014	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	16.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	81.2	298	ug/kg	1	AXC2 02/12/10	1519	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8143	Project:	LANL01004
Sample ID:	246066015	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2	02/12/10	1526	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8138	Project:	LANL01004
Sample ID:	246066016	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	10.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.7	278	ug/kg	1	AXC2 02/12/10	1529	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8145	Project:	LANL01004
Sample ID:	246066017	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	6.07%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	72.4	266	ug/kg	1	AXC2	02/12/10	1530	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8141	Project:	LANL01004
Sample ID:	246066018	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	77.8	286	ug/kg	1	AXC2	02/12/10	1531	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8135	Project:	LANL01004
Sample ID:	246066019	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	10.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.3	281	ug/kg	1	AXC2 02/12/10	1532	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8144	Project:	LANL01004
Sample ID:	246066020	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	32.5%		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	136	U,I4b	101	371	ug/kg	1	AXC2 02/12/10	1537	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

LT 3/19/10

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1543C

REQUEST NUMBER: 10-1543

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246066 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8129	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8129	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8131	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8131	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8130	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8130	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8127	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8127	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8128	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8128	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8126	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8126	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8140	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8140	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8147	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8147	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8142	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8142	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8146	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8146	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8136	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8136	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8139	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8139	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8134	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8134	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8137	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8137	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8143	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8143	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8138	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8138	1	AMBER GLASS	NMED Explosives list	Ice	R

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1543C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8145	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8145	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8141	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8141	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8135	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8135	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8144	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8144	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/2/10	3:00	Greg Tyler		2-3-10	0855
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number: 10-1543
Per Agreement Number: 126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/2/2010
TURNAROUND/REPORT DUE: 3/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	
		1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	
		1	RE15-10-8147	R	1/29/2010	
	SW-846:8082	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	
		1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	
		1	RE15-10-8147	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	
		1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	
		1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8147	R	1/29/2010	

Final Page of REQUEST NUMBER 10-1543

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

February 09, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 246066
SDG: 10-1543

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 03, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1543
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 246066
SDG: 10-1543

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 15

LC/MS/MS Perchlorate Analysis..... 17
- Sample Data Summary.....23
- Quality Control Summary.....44
- Sample Data..... 70
- Standards Data..... 111
- Quality Control 128
- Miscellaneous Data.....137

LC/MS/MS Explosives Analysis.....143
- Sample Data Summary.....150
- Quality Control Summary.....191
- Sample Data..... 307
- Standards Data.....448
- Quality Control Data.....633
- Miscellaneous Data.....662

GC Semivolatile PCB Analysis.....678
- Sample Data Summary.....684
- Quality Control Summary.....691
- Sample Data..... 697
- Standards Data.....728
- Quality Control Data.....786
- Miscellaneous Data.....799

Metals Analysis..... 820
- Case Narrative..... 821

Sample Data Summary.....828
Quality Control Summary.....849
Standards.....933
Raw Data.....946
Miscellaneous.....1611

General Chemistry Analysis.....1668
Case Narrative.....1669
Sample Data Summary.....1675
Quality Control Summary.....1697
Instrument QC Data Summary.....1701
Cyanide, Total.....1703
Miscellaneous.....1723

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246066
SDG # : 10-1543

February 09, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 03, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
246066001	RE15-10-8129
246066002	RE15-10-8131
246066003	RE15-10-8130
246066004	RE15-10-8127
246066005	RE15-10-8128
246066006	RE15-10-8126
246066007	RE15-10-8140
246066008	RE15-10-8147
246066009	RE15-10-8142
246066010	RE15-10-8146
246066011	RE15-10-8136
246066012	RE15-10-8139
246066013	RE15-10-8134
246066014	RE15-10-8137
246066015	RE15-10-8143
246066016	RE15-10-8138
246066017	RE15-10-8145
246066018	RE15-10-8141
246066019	RE15-10-8135
246066020	RE15-10-8144

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

Valerie Davis

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 09 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1543C

REQUEST NUMBER: 10-1543

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246066 %

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8129	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8129	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8131	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8131	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8130	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8130	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8127	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8127	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8128	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8128	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8126	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8126	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8140	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8140	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8147	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8147	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8142	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8142	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8146	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8146	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8136	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8136	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8139	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8139	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8134	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8134	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8137	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8137	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8143	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8143	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8138	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8138	1	AMBER GLASS	NMED Explosives list	Ice	R

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1543C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8145	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8145	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8141	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8141	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8135	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8135	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8144	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8144	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
[illegible]		2/2/10	3:00	Greg Tyler	[illegible]	2-3-10	0855
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1543
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/2/2010
TURNAROUND/REPORT DUE: 3/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	
		1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	
		1	RE15-10-8147	R	1/29/2010	
	SW-846:8082	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	
		1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	
		1	RE15-10-8147	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8126	R	1/29/2010	
		1	RE15-10-8127	R	1/29/2010	
		1	RE15-10-8128	R	1/29/2010	
		1	RE15-10-8129	R	1/29/2010	
		1	RE15-10-8130	R	1/29/2010	
		1	RE15-10-8131	R	1/29/2010	
		1	RE15-10-8134	R	1/29/2010	
		1	RE15-10-8135	R	1/29/2010	
		1	RE15-10-8136	R	1/29/2010	
		1	RE15-10-8137	R	1/29/2010	
		1	RE15-10-8138	R	1/29/2010	
		1	RE15-10-8139	R	1/29/2010	
		1	RE15-10-8140	R	1/29/2010	
		1	RE15-10-8141	R	1/29/2010	
		1	RE15-10-8142	R	1/29/2010	
		1	RE15-10-8143	R	1/29/2010	
		1	RE15-10-8144	R	1/29/2010	
		1	RE15-10-8145	R	1/29/2010	
		1	RE15-10-8146	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1543

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8147	R	1/29/2010	

Final Page of REQUEST NUMBER 10-1543

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1543**
Received By: Greg Tyler	**Date Received: 2/03/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-3, 6C** **11,12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7849 8139 1C
7209 7849 8117 2C
7209 7849 8128 3C
7209 7849 8150 6C
7209 7849 8161 6C
7209 7849 8140 11C
7209 7849 8106 12C

PM (or PMA) review: Initials _____ Date 2/4/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

1°

FedEx Express

2 of 2 WED - 03FEB A1
PS# 7209 7849 8139 PRIORITY OVERNIGHT
MstrN 7209 7849 8128 0201

XX CHSA 29407 SC-US CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGKL0

2°

FedEx Express

3 of 3 WED - 03FEB A1
MPS# 7209 7849 8117 PRIORITY OVERNIGHT
MstrN 7209 7849 8091 0201

XX CHSA 29407 SC-US CHS

Part # 158148-434 NRIT V3 08-09

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

3°

FedEx Express

1 of 2 WED - 03FEB A1
TRK# 7209 7849 8128 PRIORITY OVERNIGHT
0201
MASTER

XX CHSA 29407 SC-US CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YD0

6°

FedEx Express

1 of 2 WED - 03FEB A1
TRK# 7209 7849 8150 PRIORITY OVERNIGHT
0201
MASTER

XX CHSA 29407 SC-US CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 0B010AMR2A05150YD0

6°

FedEx Express

2 of 2
MPS# 0263 7209 7849 8161
Mstr# 7209 7849 8150 0201

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 0B010AMR3A05520E00

11°

FedEx Express

TRKN 0201 7209 7849 8140

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 23.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 0B010AMR1A015AGHL0

12°

FedEx Express

2 of 3
MPS# 0263 7209 7849 8106
Mstr# 7209 7849 8091 0201

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

LC/MS/MS PERCHLORATE ANALYSIS

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1543

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950066
Prep Batch Number:	950065

Sample Analysis

Sample ID	**Client ID**
246066001	RE15-10-8129
246066002	RE15-10-8131
246066003	RE15-10-8130
246066004	RE15-10-8127
246066005	RE15-10-8128
246066006	RE15-10-8126
246066007	RE15-10-8140
246066008	RE15-10-8147
246066009	RE15-10-8142
246066010	RE15-10-8146
246066011	RE15-10-8136
246066012	RE15-10-8139
246066013	RE15-10-8134
246066014	RE15-10-8137

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246066015	RE15-10-8143
246066016	RE15-10-8138
246066017	RE15-10-8145
246066018	RE15-10-8141
246066019	RE15-10-8135
246066020	RE15-10-8144
1202035655	Interference Check Sample (ICS)
1202035651	Method Blank (MB)
1202035652	Laboratory Control Sample (LCS)
1202035653	246066002(RE15-10-8131) Matrix Spike (MS)
1202035654	246066002(RE15-10-8131) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 246066002 (RE15-10-8131) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

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Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

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Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Mauer **Date:** 03/02/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8129

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.577	2.31	0.577	ug/kg	U	1	25-FEB-10 19:58	per0225015a
	Perchlorate Isotope Ratio						1	25-FEB-10 19:58	per0225015a
14797-73-0	Perchlorate-101	.577	2.31	0.577	ug/kg	U	1	25-FEB-10 19:58	per0225015a
	Perchlorate-O(18)			5.52	ug/kg		1	25-FEB-10 19:58	per0225015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8131

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.605	2.42	0.605	ug/kg	U	1	25-FEB-10 20:06	per0225016a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:06	per0225016a
14797-73-0	Perchlorate-101	.605	2.42	0.605	ug/kg	U	1	25-FEB-10 20:06	per0225016a
	Perchlorate-O(18)			5.74	ug/kg		1	25-FEB-10 20:06	per0225016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8130

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	25-FEB-10 20:28	per0225019a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:28	per0225019a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	25-FEB-10 20:28	per0225019a
	Perchlorate-O(18)			6.23	ug/kg		1	25-FEB-10 20:28	per0225019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8127

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	25-FEB-10 20:36	per0225020a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:36	per0225020a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	25-FEB-10 20:36	per0225020a
	Perchlorate-O(18)			5.52	ug/kg		1	25-FEB-10 20:36	per0225020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8128

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 21:06	per0225024a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:06	per0225024a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 21:06	per0225024a
	Perchlorate-O(18)			5.77	ug/kg		1	25-FEB-10 21:06	per0225024a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8126

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.612	2.45	0.612	ug/kg	U	1	25-FEB-10 21:14	per0225025a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:14	per0225025a
14797-73-0	Perchlorate-101	.612	2.45	0.612	ug/kg	U	1	25-FEB-10 21:14	per0225025a
	Perchlorate-O(18)			6.12	ug/kg		1	25-FEB-10 21:14	per0225025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8140

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.576	2.3	0.576	ug/kg	U	1	25-FEB-10 21:21	per0225026a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:21	per0225026a
14797-73-0	Perchlorate-101	.576	2.3	0.576	ug/kg	U	1	25-FEB-10 21:21	per0225026a
	Perchlorate-O(18)			5.74	ug/kg		1	25-FEB-10 21:21	per0225026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8147

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	25-FEB-10 21:29	per0225027a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:29	per0225027a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	25-FEB-10 21:29	per0225027a
	Perchlorate-O(18)			7.51	ug/kg		1	25-FEB-10 21:29	per0225027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8142

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	25-FEB-10 21:36	per0225028a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:36	per0225028a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	25-FEB-10 21:36	per0225028a
	Perchlorate-O(18)			6.06	ug/kg		1	25-FEB-10 21:36	per0225028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8146

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	25-FEB-10 21:44	per0225029a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:44	per0225029a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	25-FEB-10 21:44	per0225029a
	Perchlorate-O(18)			5.92	ug/kg		1	25-FEB-10 21:44	per0225029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8136

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	25-FEB-10 21:51	per0225030a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:51	per0225030a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	25-FEB-10 21:51	per0225030a
	Perchlorate-O(18)			5.72	ug/kg		1	25-FEB-10 21:51	per0225030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8139

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 92.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.540	ug/kg	U	1	25-FEB-10 21:59	per0225031a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:59	per0225031a
14797-73-0	Perchlorate-101	.54	2.16	0.540	ug/kg	U	1	25-FEB-10 21:59	per0225031a
	Perchlorate-O(18)			5.11	ug/kg		1	25-FEB-10 21:59	per0225031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8134

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 22:29	per0225035a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:29	per0225035a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 22:29	per0225035a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 22:29	per0225035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8137

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 22:37	per0225036a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:37	per0225036a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 22:37	per0225036a
	Perchlorate-O(18)			5.87	ug/kg		1	25-FEB-10 22:37	per0225036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8143

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.559	2.24	0.559	ug/kg	U	1	25-FEB-10 22:44	per0225037a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:44	per0225037a
14797-73-0	Perchlorate-101	.559	2.24	0.559	ug/kg	U	1	25-FEB-10 22:44	per0225037a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 22:44	per0225037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8138

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066016

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.557	ug/kg	U	1	25-FEB-10 22:52	per0225038a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:52	per0225038a
14797-73-0	Perchlorate-101	.557	2.23	0.557	ug/kg	U	1	25-FEB-10 22:52	per0225038a
	Perchlorate-O(18)			5.45	ug/kg		1	25-FEB-10 22:52	per0225038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8145

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066017

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 93.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.532	2.13	0.532	ug/kg	U	1	25-FEB-10 22:59	per0225039a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:59	per0225039a
14797-73-0	Perchlorate-101	.532	2.13	0.532	ug/kg	U	1	25-FEB-10 22:59	per0225039a
	Perchlorate-O(18)			5.29	ug/kg		1	25-FEB-10 22:59	per0225039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8141

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066018

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 23:07	per0225040a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:07	per0225040a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 23:07	per0225040a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 23:07	per0225040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8135

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066019

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.24	0.561	ug/kg	U	1	25-FEB-10 23:14	per0225041a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:14	per0225041a
14797-73-0	Perchlorate-101	.561	2.24	0.561	ug/kg	U	1	25-FEB-10 23:14	per0225041a
	Perchlorate-O(18)			5.60	ug/kg		1	25-FEB-10 23:14	per0225041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8144

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066020

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.741	2.96	0.741	ug/kg	U	1	25-FEB-10 23:22	per0225042a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:22	per0225042a
14797-73-0	Perchlorate-101	.741	2.96	0.741	ug/kg	U	1	25-FEB-10 23:22	per0225042a
	Perchlorate-O(18)			7.82	ug/kg		1	25-FEB-10 23:22	per0225042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1543

Extract Batch Code: 950065

Date Filtered: 18–FEB–10

Matrix: SOIL

Sample ID: 1202035652

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.11	ug/kg	105		70 – 130
Perchlorate Isotope Ratio		3.18				–
Perchlorate–101	2.00	2.07	ug/kg	103		70 – 130
Perchlorate–O(18)		4.75	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1543

Extract Batch Code: 950065

Date Filtered: 18–FEB–10

Matrix: SOIL

Sample ID: 1202035655

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.24	ug/kg	112		70 – 130
Perchlorate Isotope Ratio		3.18				
Perchlorate–101	2.00	2.19	ug/kg	110		70 – 130
Perchlorate–O(18)		5.12	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Page 47 of 1725

Name: per0225014a
Date: 25-Feb-2010
Time: 19:51:16
ID: 1202035655
Vial: 1:3,C

| LANL | 950066 | 5020 | 2.5 | 1 |

02-26-10

Perchlorate

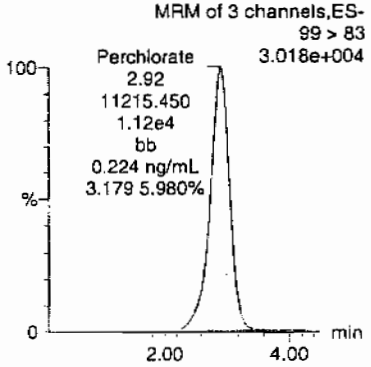

Perchlorate

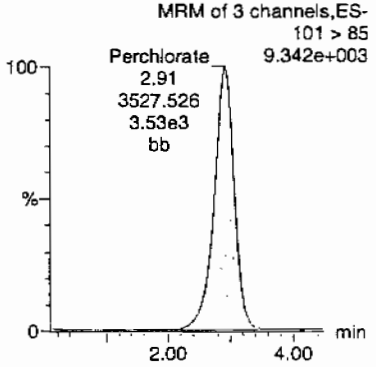

Perchlorate-101

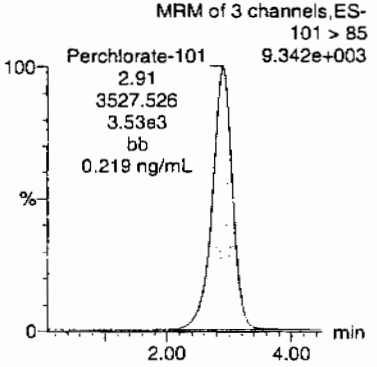

Perchlorate-O(18)

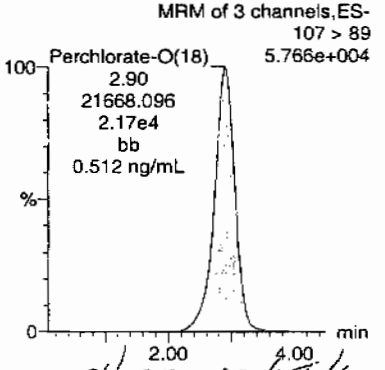

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035655	Perchlorate	99 > 83	2.92	11215.450	11215.450	bb			0.2237	111.85	11.85	1435.5...	3.18
1202035655	Perchlorate-101	101 > 85	2.91	3527.526	3527.526	bb			0.2193	109.63	9.63	4201.5...	
1202035655	Perchlorate-O(18)	107 > 89	2.90	21668.096	21668.096	bb			0.5125	102.50	2.50	9484.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1543

Extract Batch Code: 950065

Date Extracted: 18–FEB–10

GEL MS/PS ID: 1202035653

Client ID: RE15–10–8131

GEL MSD/PSD ID: 1202035654

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.42	0.0761	ug/kg	2.60	104	2.55	102	1.75	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.16		3.23		0		–
Perchlorate–101	2.42	0.0991	ug/kg	2.56	102	2.47	97.8	3.93	30	75 – 125
Perchlorate–O(18)	0	5.74	ug/kg	5.85		5.81		.586		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1543

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	25–FEB–10	per0225001a	IPB001
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225001a	IPB001
Perchlorate	0.00	0	NA	25–FEB–10	per0225002a	IPB001
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022510a.mdb 26 Feb 2010 09:10:03
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022510a.cdb 26 Feb 2010 09:11:04

Name: per0225001a
Date: 25-Feb-2010
Time: 18:13:03
ID: IPB001
Vial: 1:1,A

02-26-10

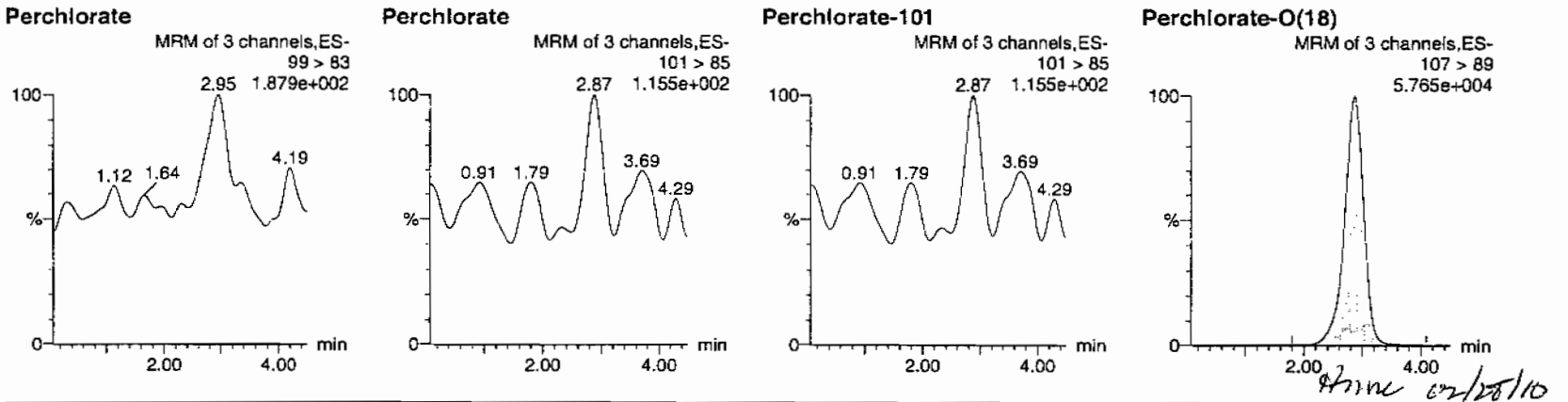

AMC 02/26/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.86	22049.646	22049.646	bb			0.5215	104.30	4.30	3848.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225002a
Date: 25-Feb-2010
Time: 18:20:49
ID: IPB001
Vial: 1:1,A

cmj 02-26-10

Perchlorate

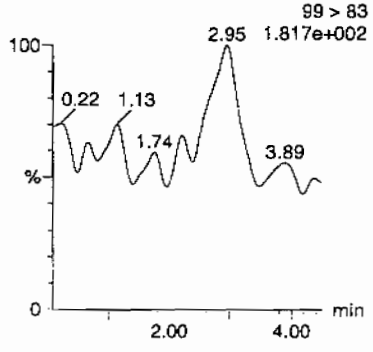

Perchlorate

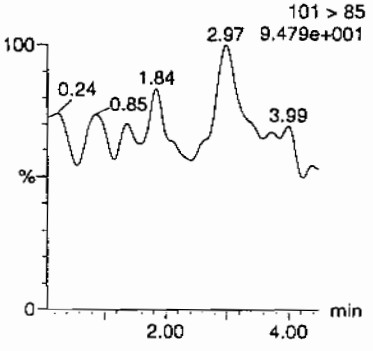

Perchlorate-101

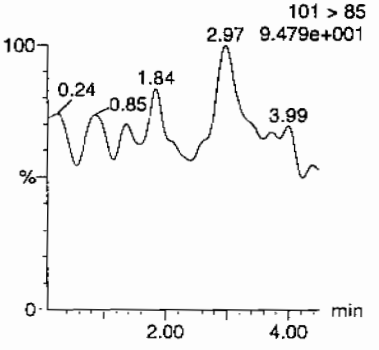

Perchlorate-O(18)

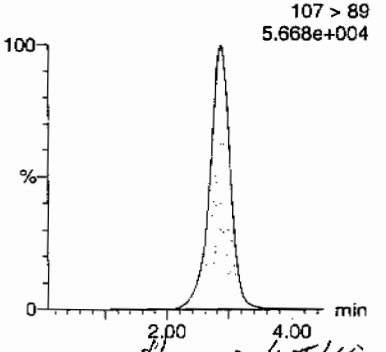

Hmm 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.86	21834.596	21834.596	bb			0.5164	103.29	3.29	4979.0...	

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1543

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	25–FEB–10	per0225008a	IPB002
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225008a	IPB002
Perchlorate	0.00	0	NA	25–FEB–10	per0225010a	IPB003
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225010a	IPB003
Perchlorate	0.00	0	NA	25–FEB–10	per0225022a	IPB004
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225022a	IPB004
Perchlorate	0.00	0	NA	25–FEB–10	per0225033a	IPB005
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225033a	IPB005
Perchlorate	0.00	0	NA	25–FEB–10	per0225044a	IPB006
Perchlorate–101	0.00	0	NA	25–FEB–10	per0225044a	IPB006

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225008a
Date: 25-Feb-2010
Time: 19:05:59
ID: IPB002
Vial: 1:1,A

CMJ 02-26-10

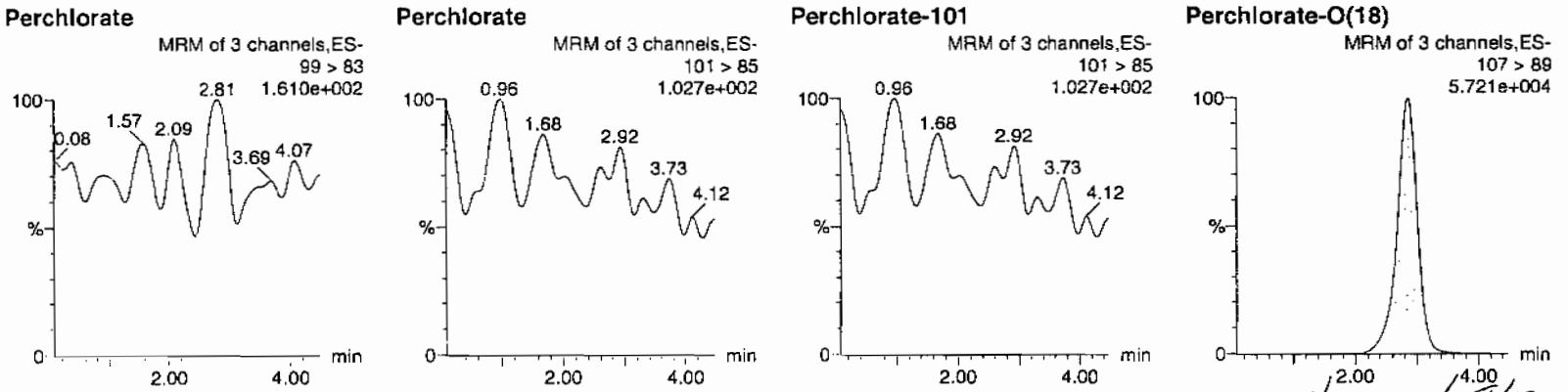

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.86	21745.854	21745.854	bb			0.5143	102.87	2.87	32982....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225010a
Date: 25-Feb-2010
Time: 19:21:04
ID: IPB003
Vial: 1:1,A

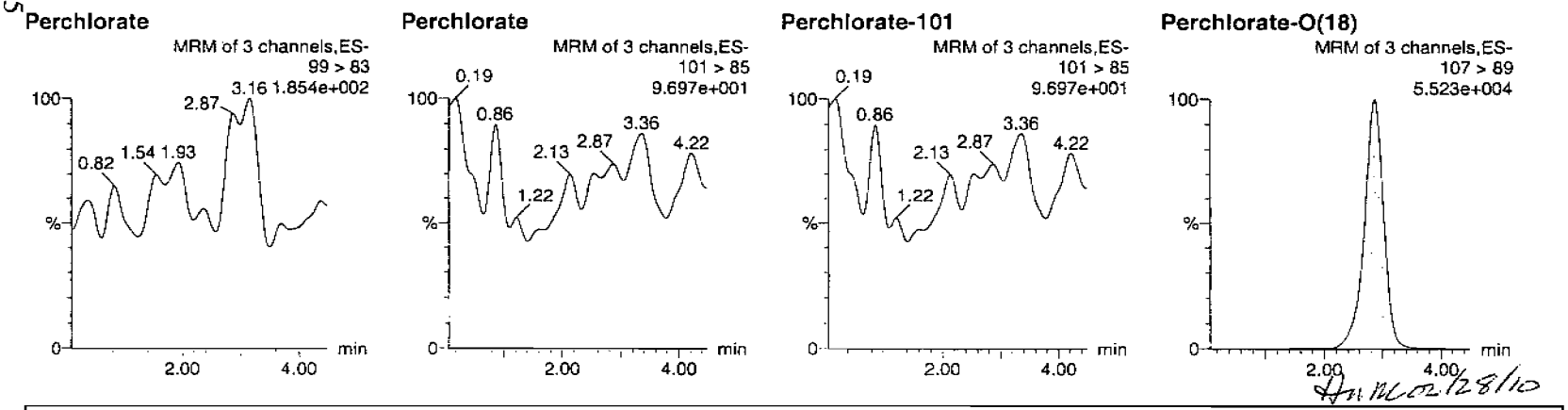

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.86	21138.484	21138.484	bb			0.5000	99.99	-0.01	4510.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225022a
Date: 25-Feb-2010
Time: 20:51:35
ID: IPB004
Vial: 1:1,A

02-26-10

Perchlorate

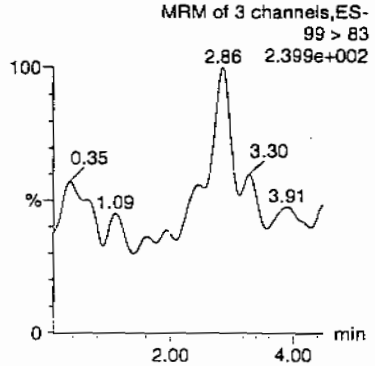

Perchlorate

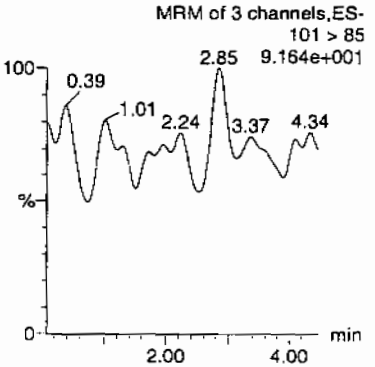

Perchlorate-101

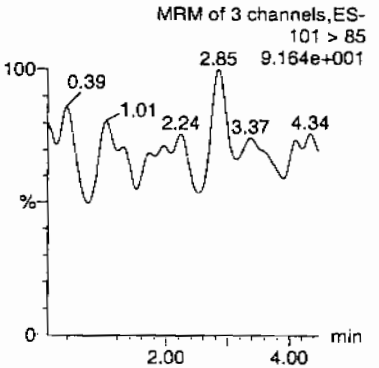

Perchlorate-O(18)

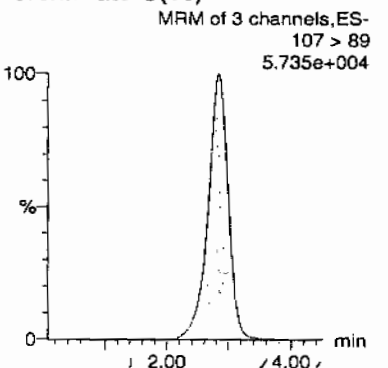

AM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.84	21807.609	21807.609	bb			0.5158	103.16	3.16	3722.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225033a
Date: 25-Feb-2010
Time: 22:14:33
ID: IPB005
Vial: 1:1,A

CWW
02-26-10

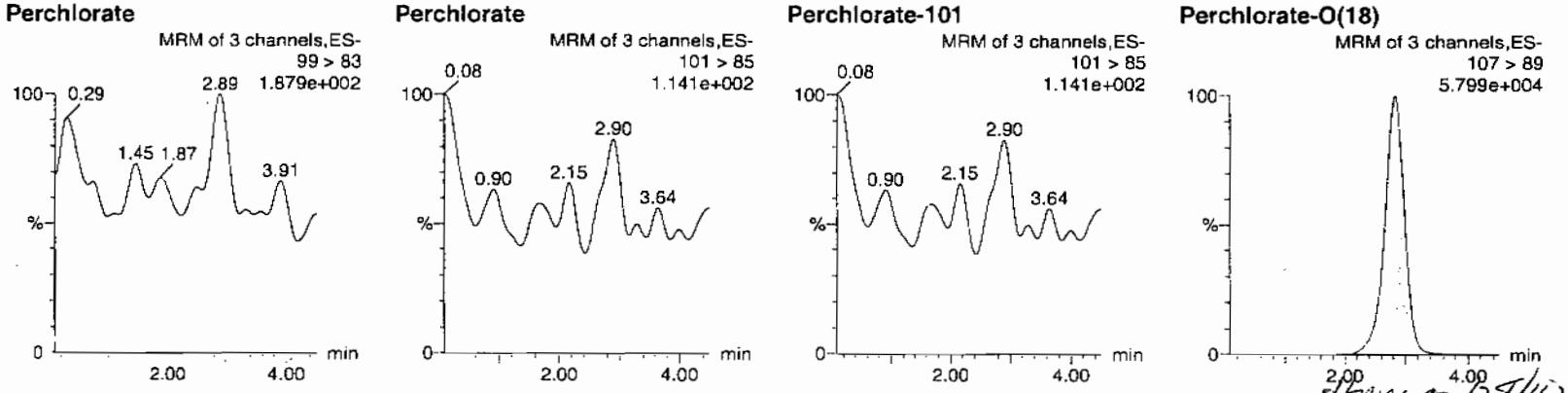

HMW 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.82	21791.963	21791.963	bb			0.5154	103.08	3.08	22188....	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225044a
Date: 25-Feb-2010
Time: 23:37:35
ID: IPB006
Vial: 1:1,A

CWW 02-26-10

Perchlorate

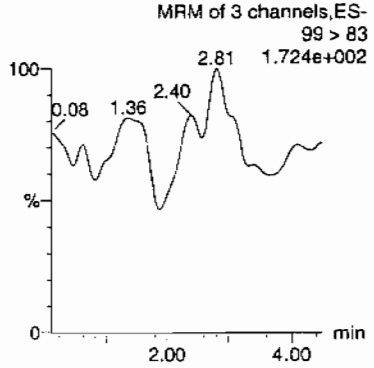

Perchlorate

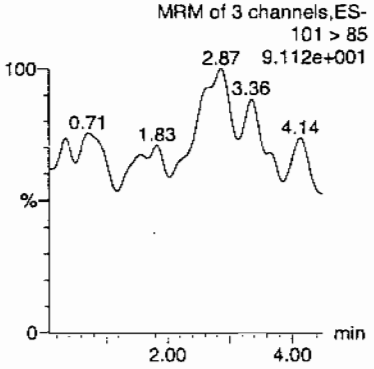

Perchlorate-101

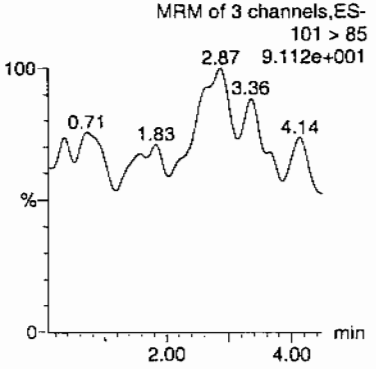

Perchlorate-O(18)

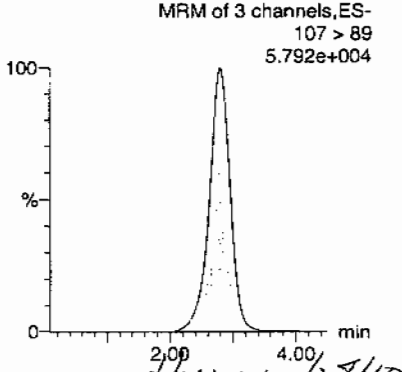

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	2.81	22167.750	22167.750	bb			0.5243	104.86	4.86	4261.7...	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

Data file: STATMS1 - Uncalibrated

7 matches of 7 tested references

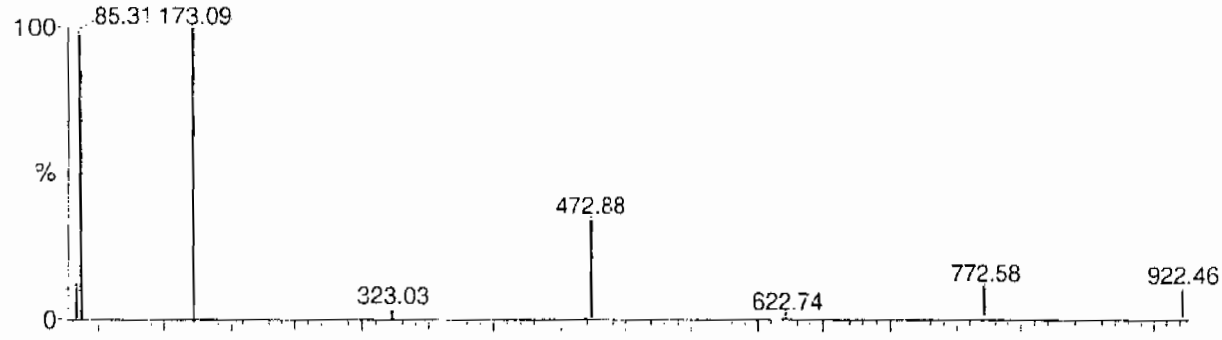

Reference file: Nairb

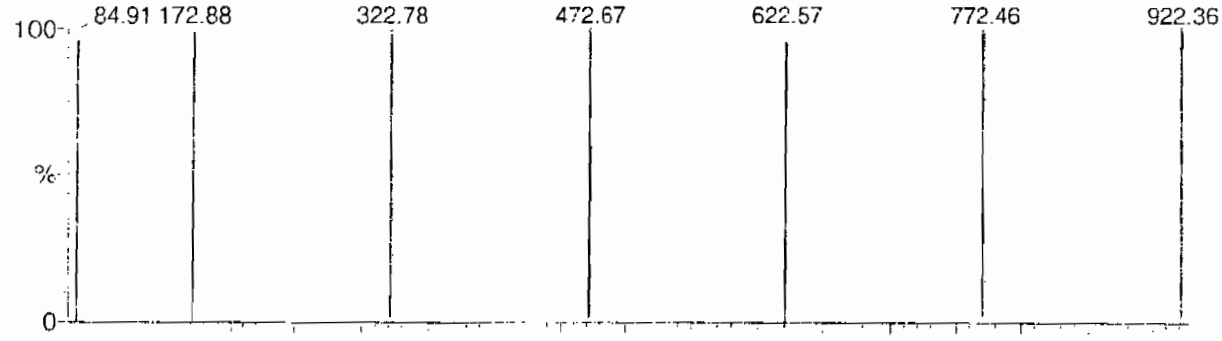

Mass difference (Raw - Ref mass)

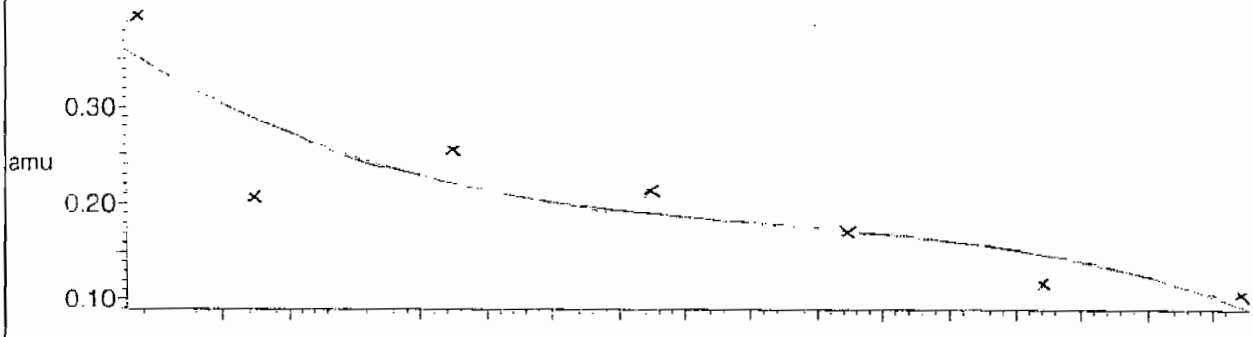

Residuals

Mean residual = 3.212012e-2 ± 0.024108

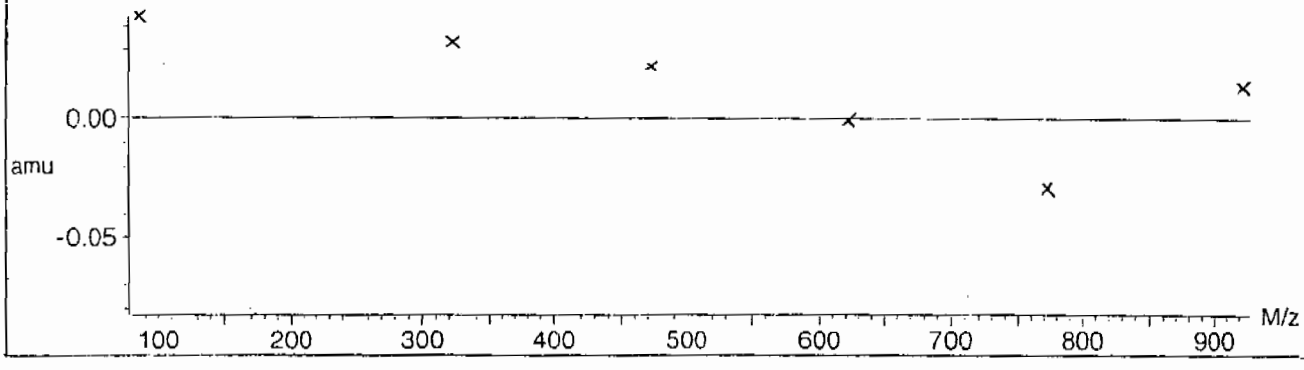

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

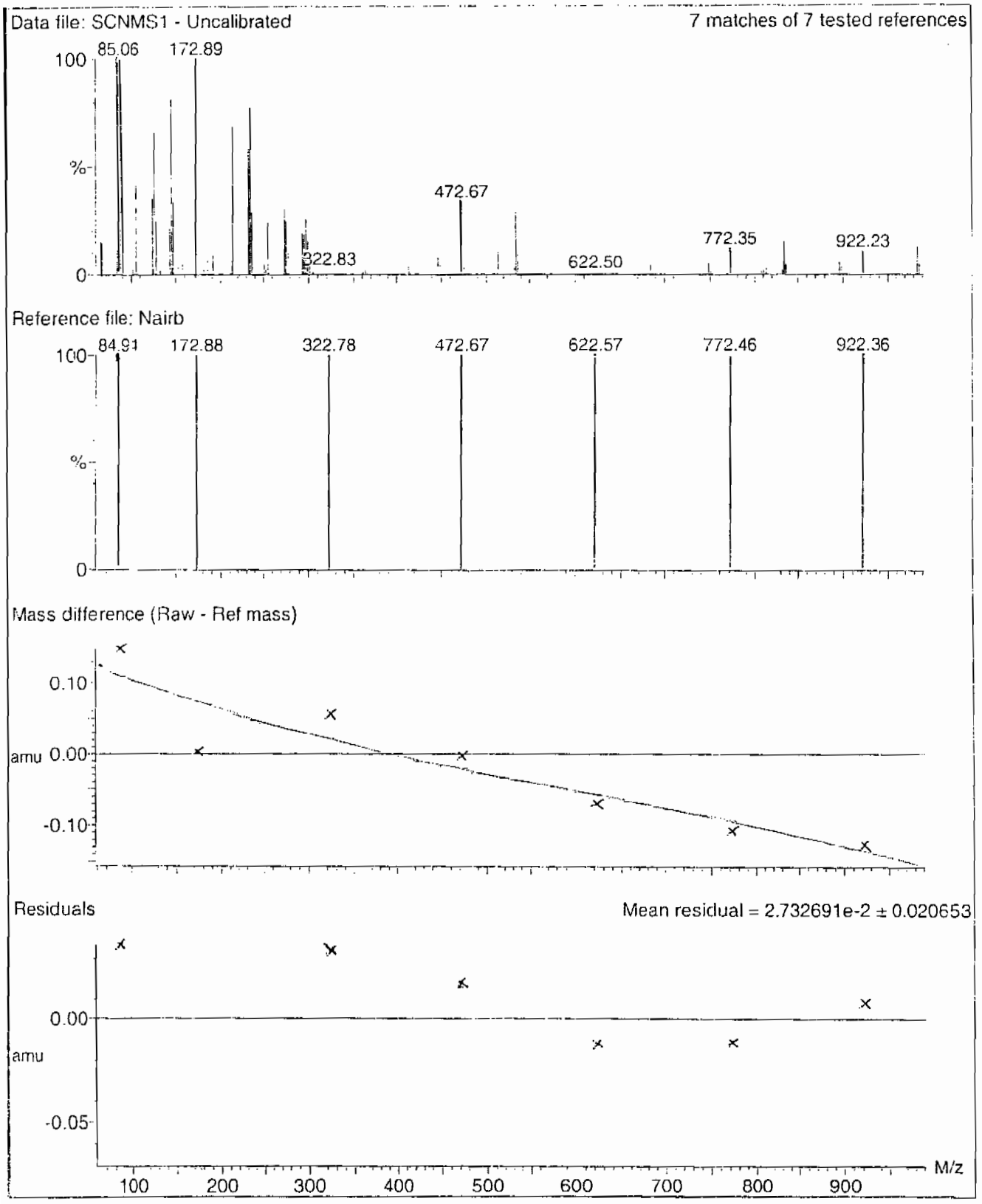

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

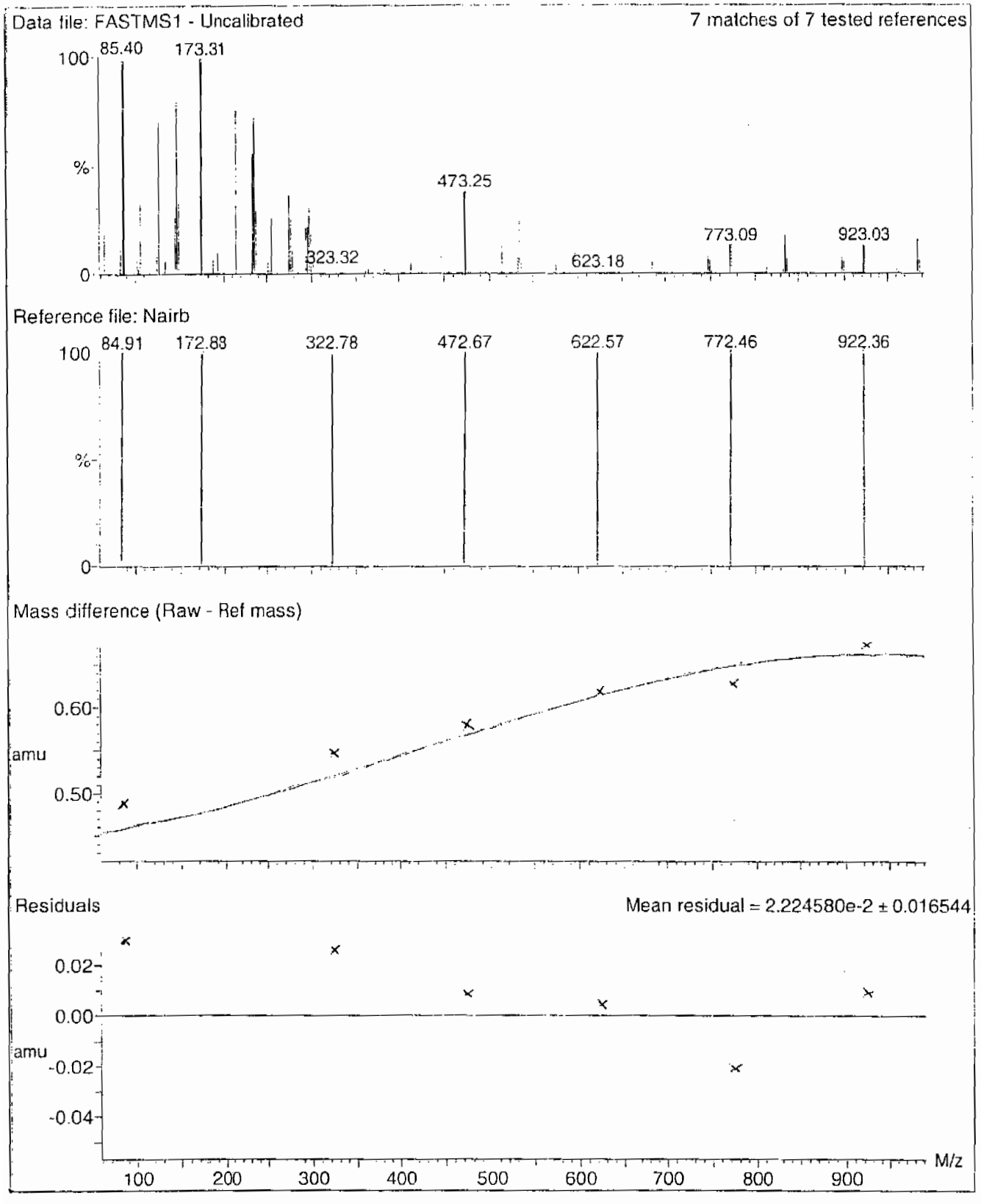

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

Data file: FASTMS2 - Uncalibrated

7 matches of 7 tested references

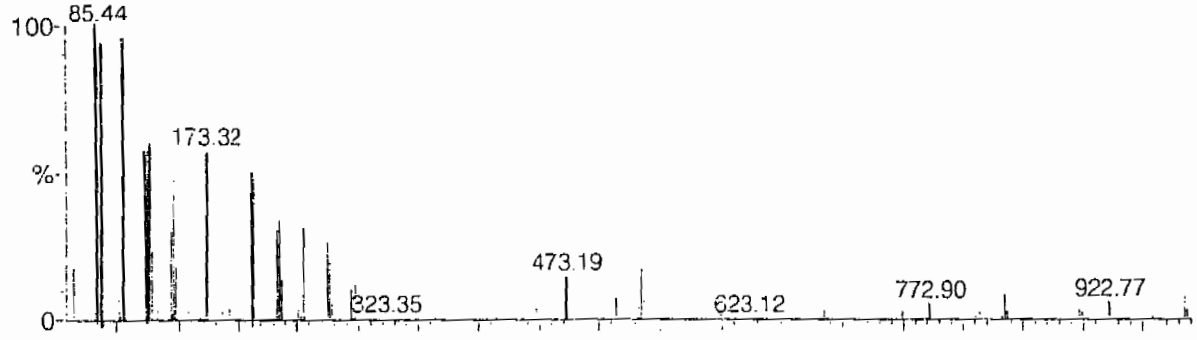

Reference file: Nairb

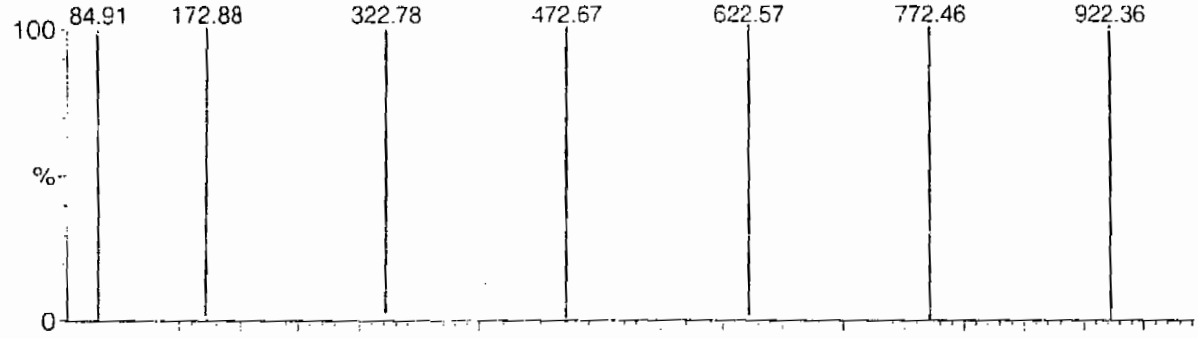

Mass difference (Raw - Ref mass)

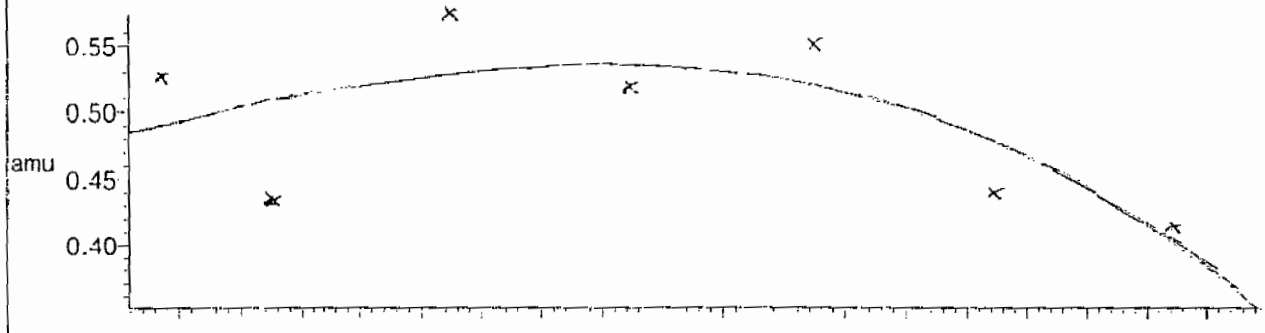

Residuals

Mean residual = 3.598289e-2 ± 0.017899

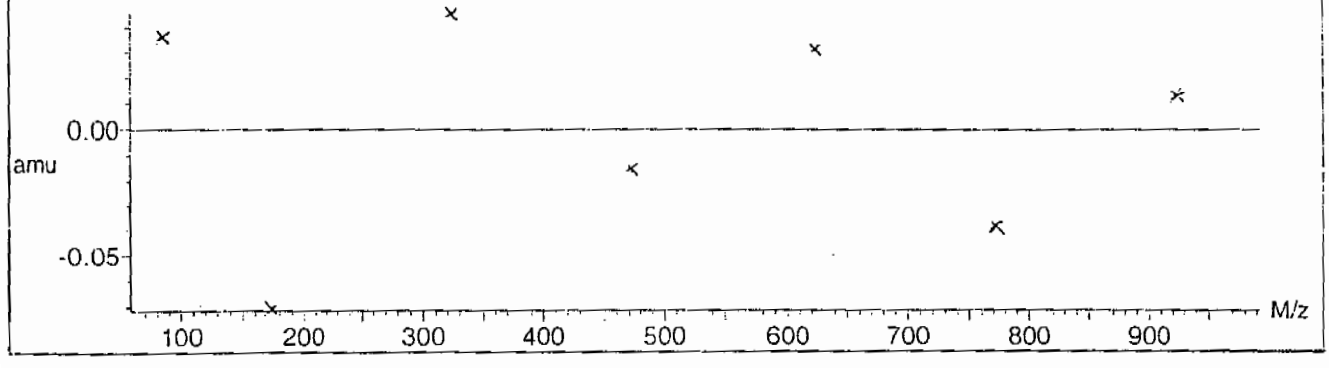

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

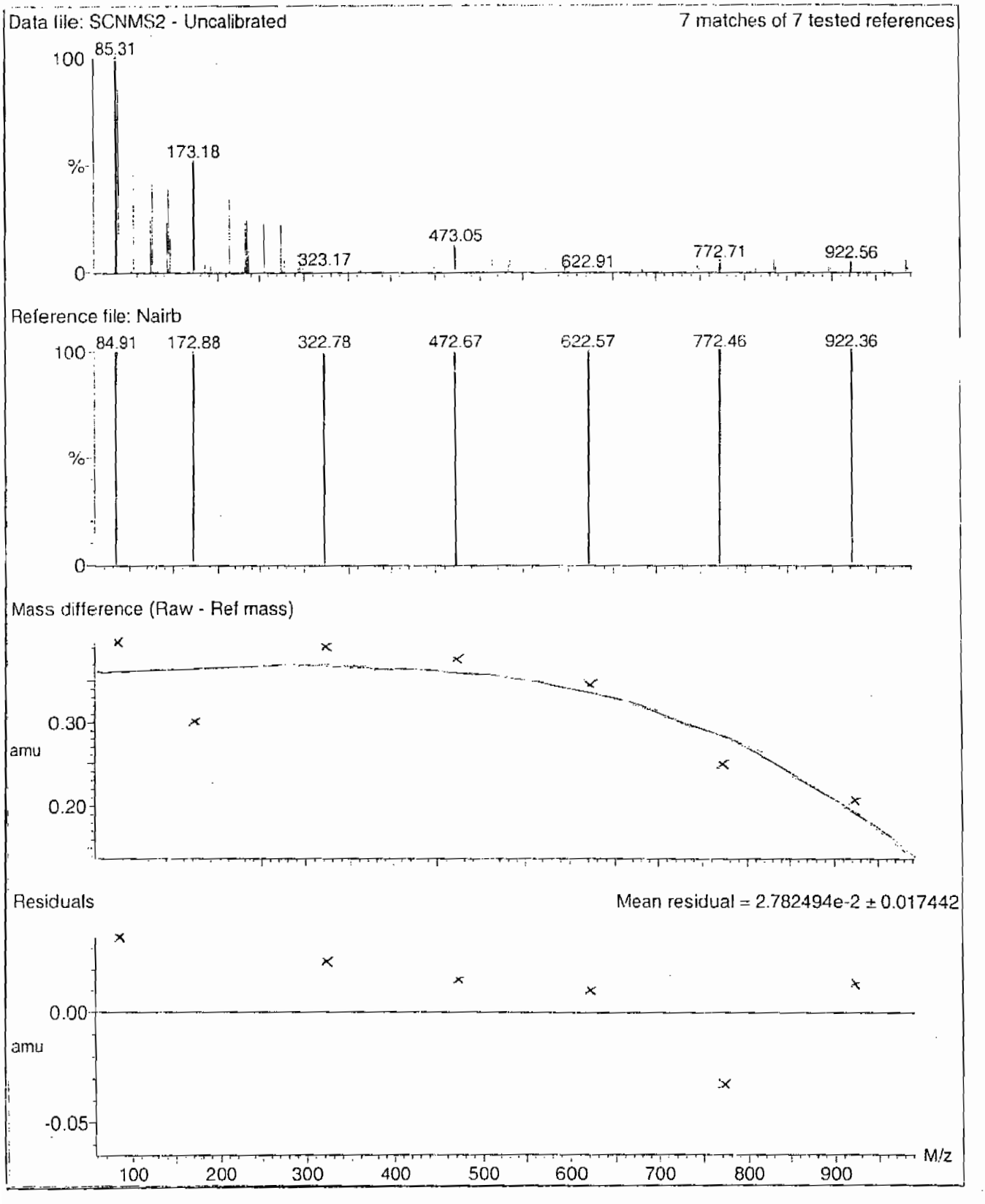

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

7 matches of 7 tested references

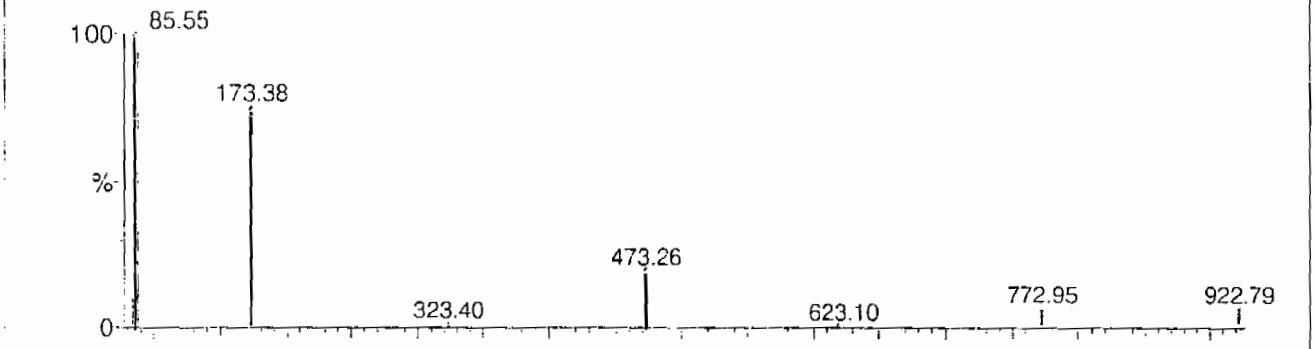

Reference file: Nairb

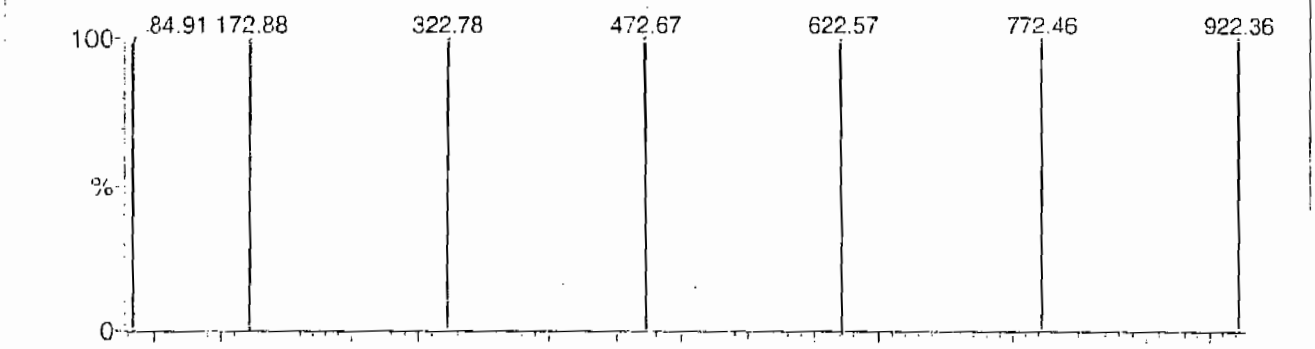

Mass difference (Raw - Ref mass)

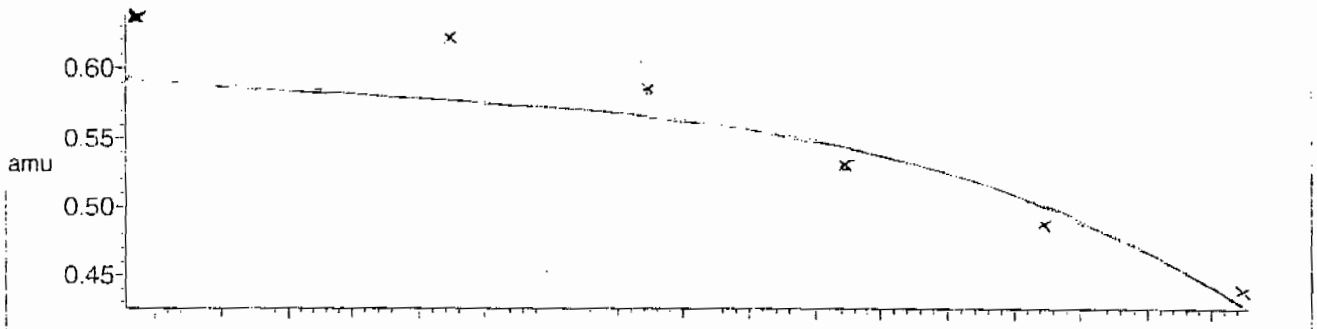

Residuals

Mean residual = 3.295980e-2 ± 0.025603

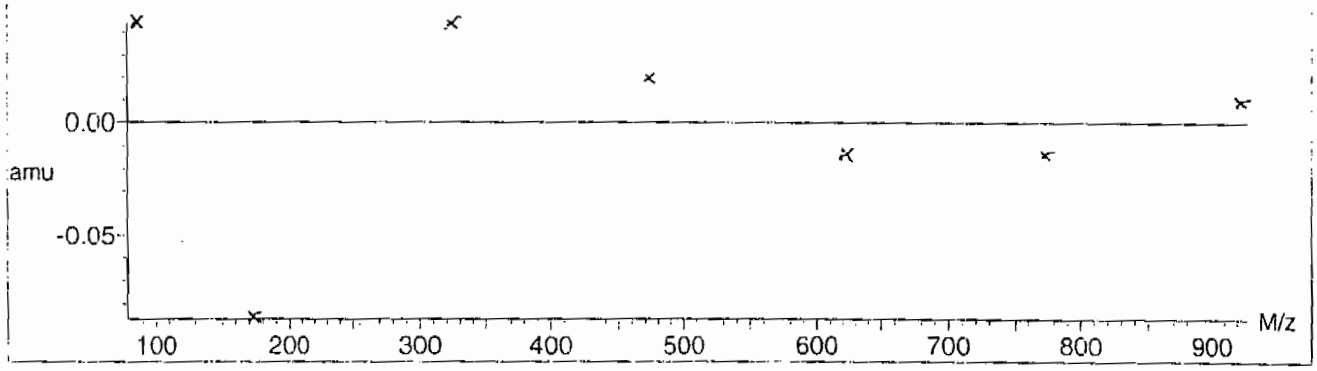

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Thursday, February 25, 2010 13:11:01 Eastern Standard Time

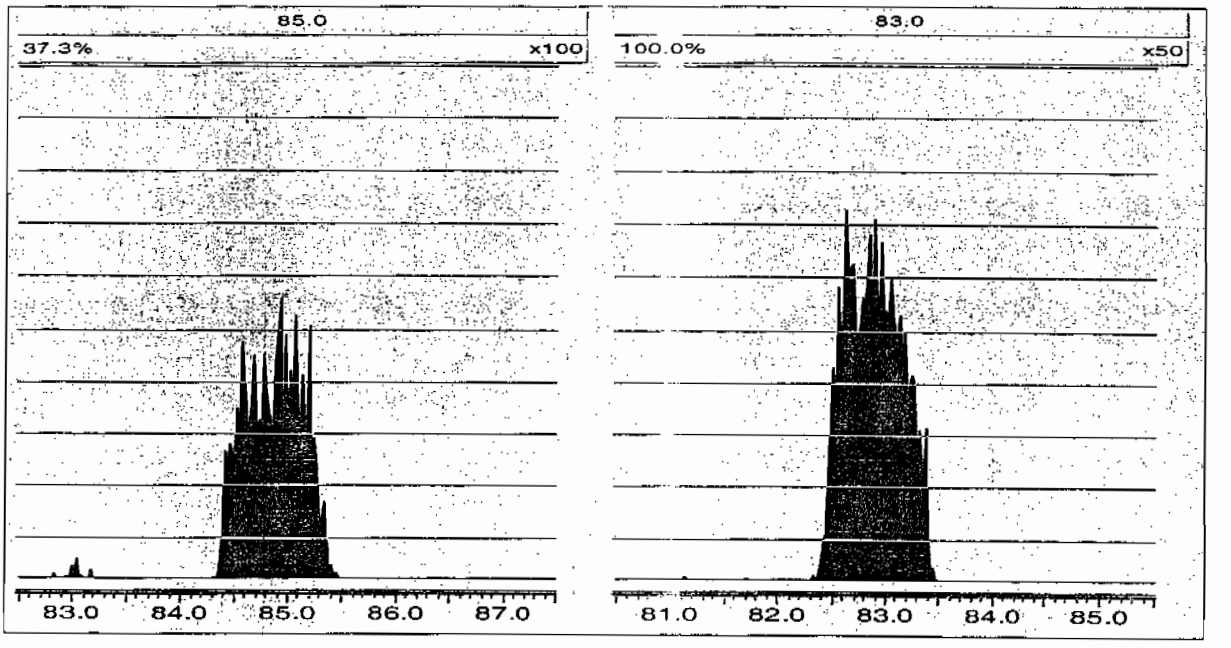

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1543

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0225006a**	**25–FEB–10**	**20699.3**				
Lower Area Limit			**10349.65**				
Upper Area Limit			**41398.6**				
1202035651	per0225012a	25–FEB–10 19:36	19627.3	2.86	2.8742	1.005	
1202035652	per0225013a	25–FEB–10 19:43	20103.8	2.86	2.87418	1.005	
1202035655	per0225014a	25–FEB–10 19:51	21668.1	2.9	2.92378	1.008	
246066001	per0225015a	25–FEB–10 19:58	20220.6	2.85	2.87418	1.008	
246066002	per0225016a	25–FEB–10 20:06	20071.2	2.85	2.86172	1.004	
1202035653	per0225017a	25–FEB–10 20:13	20441.6	2.86	2.87418	1.005	
1202035654	per0225018a	25–FEB–10 20:21	20322.2	2.85	2.87422	1.008	
246066003	per0225019a	25–FEB–10 20:28	20362.4	2.85	2.89903	1.017	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1543

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0225006a**	**25–FEB–10**	**20699.3**				
Lower Area Limit			**10349.65**				
Upper Area Limit			**41398.6**				
246066004	per0225020a	25–FEB–10 20:36	20348.8	2.85	2.86168	1.004	
246066005	per0225024a	25–FEB–10 21:06	20420.4	2.84	2.82445	.995	
246066006	per0225025a	25–FEB–10 21:14	21145.6	2.84	2.84925	1.003	
246066007	per0225026a	25–FEB–10 21:21	21043.2	2.84	2.86173	1.008	
246066008	per0225027a	25–FEB–10 21:29	20249	2.84	2.83693	.999	
246066009	per0225028a	25–FEB–10 21:36	20267.5	2.84	2.8369	.999	
246066010	per0225029a	25–FEB–10 21:44	20746.3	2.82	2.8369	1.006	
246066011	per0225030a	25–FEB–10 21:51	21420.5	2.82	2.83687	1.006	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1543

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0225006a**	**25–FEB–10**	**20699.3**				
Lower Area Limit			**10349.65**				
Upper Area Limit			**41398.6**				
246066012	per0225031a	25–FEB–10 21:59	20015.9	2.82	2.82447	1.002	
246066013	per0225035a	25–FEB–10 22:29	20679.5	2.82	2.8369	1.006	
246066014	per0225036a	25–FEB–10 22:37	20782.5	2.82	2.83692	1.006	
246066015	per0225037a	25–FEB–10 22:44	21112.3	2.81	2.8369	1.01	
246066016	per0225038a	25–FEB–10 22:52	20698.7	2.82	2.81197	.997	
246066017	per0225039a	25–FEB–10 22:59	21023.6	2.81	2.82445	1.005	
246066018	per0225040a	25–FEB–10 23:07	20670.5	2.81	2.8369	1.01	
246066019	per0225041a	25–FEB–10 23:14	21100.9	2.81	2.82448	1.005	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1543

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0225006a**	**25–FEB–10**	**20699.3**				
Lower Area Limit			**10349.65**				
Upper Area Limit			**41398.6**				
246066020	per0225042a	25–FEB–10 23:22	22299.2	2.81	2.82442	1.005	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8129

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.577	2.31	0.577	ug/kg	U	1	25-FEB-10 19:58	per0225015a
	Perchlorate Isotope Ratio						1	25-FEB-10 19:58	per0225015a
14797-73-0	Perchlorate-101	.577	2.31	0.577	ug/kg	U	1	25-FEB-10 19:58	per0225015a
	Perchlorate-O(18)			5.52	ug/kg		1	25-FEB-10 19:58	per0225015a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225015a
Date: 25-Feb-2010
Time: 19:58:49
ID: 246066001
Vial: 1:3,D

|LANL|950066|SOLD|1|

Perchlorate

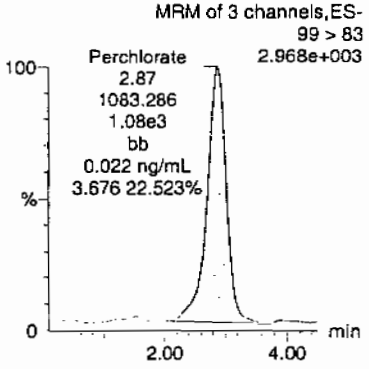

Perchlorate

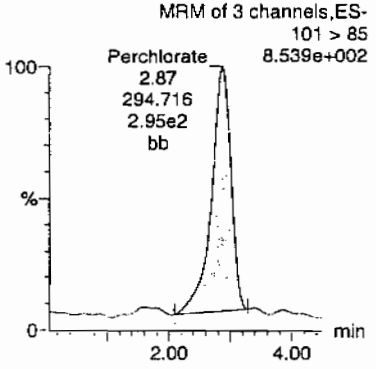

Perchlorate-101

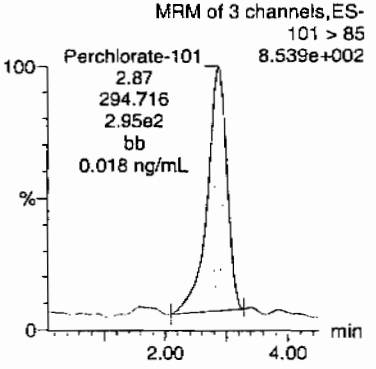

Perchlorate-O(18)

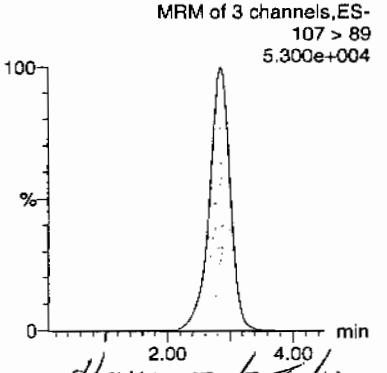

HMC 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066001	Perchlorate	99 > 83	2.87	1083.286	1083.286	bb			0.0216			172.657	3.68
246066001	Perchlorate-101	101 > 85	2.87	294.716	294.716	bb			0.0183			37.574	
246066001	Perchlorate-O(18)	107 > 89	2.85	20220.561	20220.561	bb			0.4783	95.65	-4.35	5718.2...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8131

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.605	2.42	0.605	ug/kg	U	1	25-FEB-10 20:06	per0225016a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:06	per0225016a
14797-73-0	Perchlorate-101	.605	2.42	0.605	ug/kg	U	1	25-FEB-10 20:06	per0225016a
	Perchlorate-O(18)			5.74	ug/kg		1	25-FEB-10 20:06	per0225016a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Page 74 of 1725

Name: per0225016a
Date: 25-Feb-2010
Time: 20:06:20
ID: 246066002
Vial: 1:3,E

| LANL | 950066 | 5020 | 1 |

GWS
02-26-10

Perchlorate

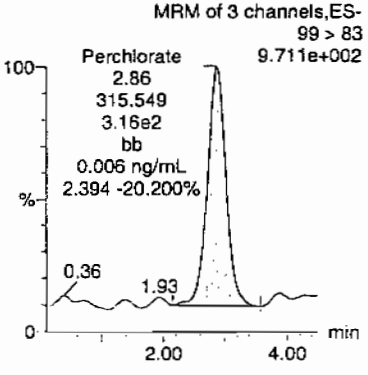

Perchlorate

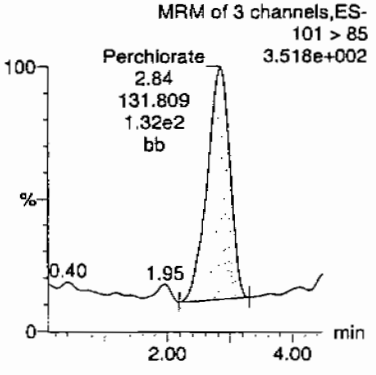

Perchlorate-101

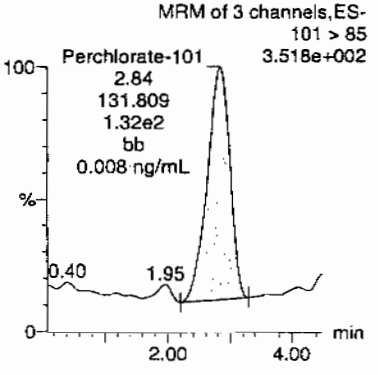

Perchlorate-O(18)

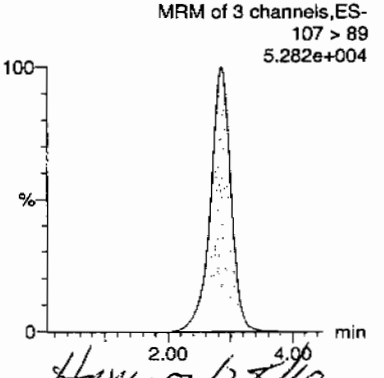

HMC 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066002	Perchlorate	99 > 83	2.86	315.549	315.549	bb			0.0063			112.722	2.39
246066002	Perchlorate-101	101 > 85	2.84	131.809	131.809	bb			0.0082			55.589	
246066002	Perchlorate-O(18)	107 > 89	2.85	20071.150	20071.150	bb			0.4747	94.94	-5.06	4372.3...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8130

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	25-FEB-10 20:28	per0225019a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:28	per0225019a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	25-FEB-10 20:28	per0225019a
	Perchlorate-O(18)			6.23	ug/kg		1	25-FEB-10 20:28	per0225019a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Page 70 of 125

Name: per0225019a
Date: 25-Feb-2010
Time: 20:28:56
ID: 246066003
Vial: 1:4,B

LANL | 950066 | 50125 | 1 |

WJ 02-26-10

Perchlorate

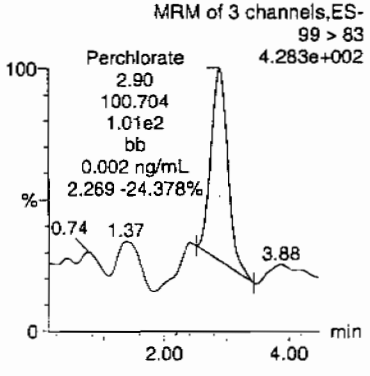

Perchlorate

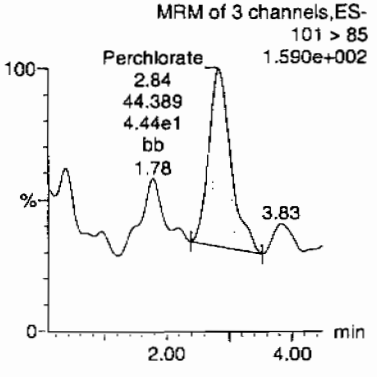

Perchlorate-101

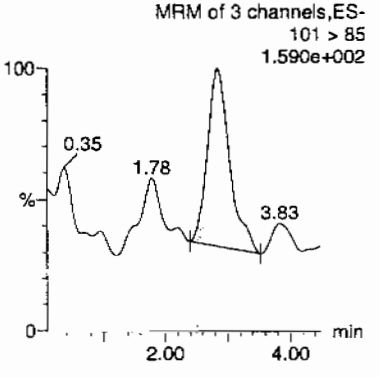

Perchlorate-O(18)

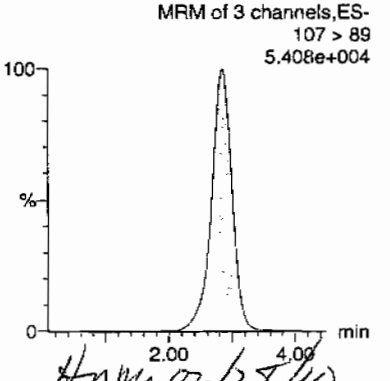

HNM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066003	Perchlorate	99 > 83	2.90	100.704	100.704	bb			0.0020			33.048	2.27
246066003	Perchlorate-101	101 > 85	2.84	44.389	44.389	bb			0.0028			35.351	
246066003	Perchlorate-O(18)	107 > 89	2.85	20362.432	20362.432	bb			0.4816	96.32	-3.68	4094.5...	

BKG74
2a0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8127

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.573	2.29	0.573	ug/kg	U	1	25-FEB-10 20:36	per0225020a
	Perchlorate Isotope Ratio						1	25-FEB-10 20:36	per0225020a
14797-73-0	Perchlorate-101	.573	2.29	0.573	ug/kg	U	1	25-FEB-10 20:36	per0225020a
	Perchlorate-O(18)			5.52	ug/kg		1	25-FEB-10 20:36	per0225020a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225020a
Date: 25-Feb-2010
Time: 20:36:28
ID: 246066004
Vial: 1:4,C

|LANL|950066|50125|1|

cw 02-26-10

Perchlorate

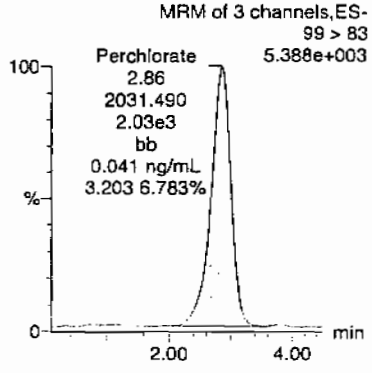

Perchlorate

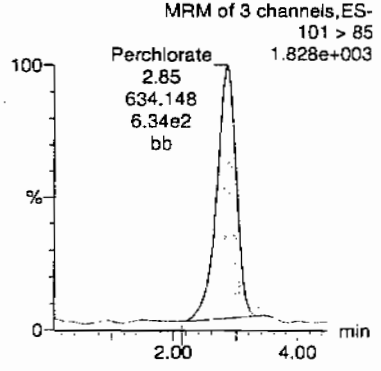

Perchlorate-101

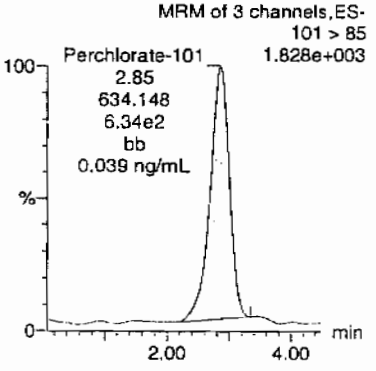

Perchlorate-O(18)

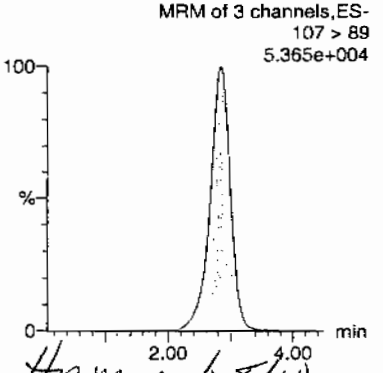

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066004	Perchlorate	99 > 83	2.86	2031.490	2031.490	bb			0.0405			393.494	3.20
246066004	Perchlorate-101	101 > 85	2.85	634.148	634.148	bb			0.0394			125.092	
246066004	Perchlorate-O(18)	107 > 89	2.85	20348.838	20348.838	bb			0.4813	96.26	-3.74	16755....	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8128

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 21:06	per0225024a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:06	per0225024a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 21:06	per0225024a
	Perchlorate-O(18)			5.77	ug/kg		1	25-FEB-10 21:06	per0225024a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225024a
Date: 25-Feb-2010
Time: 21:06:39
ID: 246066005
Vial: 1:4,D

LANL | 950066 | SOLCD | 1 |

02-26-10

Perchlorate

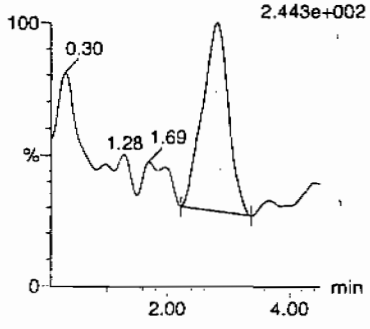

Perchlorate

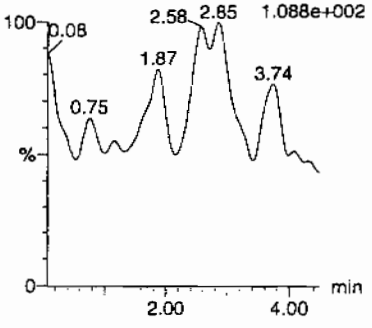

Perchlorate-101

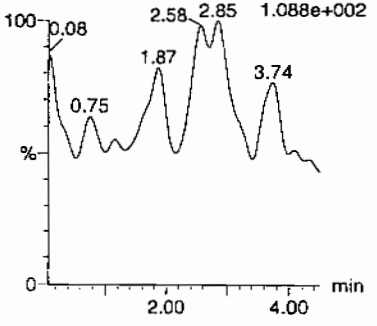

Perchlorate-O(18)

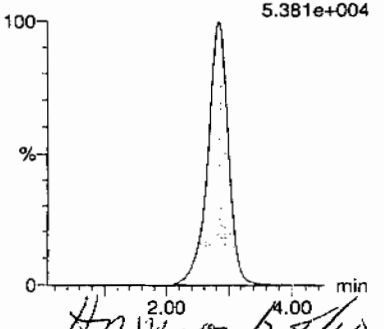

HMW 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066005	Perchlorate	99 > 83	2.82	88.158	88.158	bb			0.0018			47.073	0.00
246066005	Perchlorate-101	101 > 85											
246066005	Perchlorate-O(18)	107 > 89	2.84	20420.445	20420.445	bb			0.4830	96.60	-3.40	2672.0...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8126

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.612	2.45	0.612	ug/kg	U	1	25-FEB-10 21:14	per0225025a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:14	per0225025a
14797-73-0	Perchlorate-101	.612	2.45	0.612	ug/kg	U	1	25-FEB-10 21:14	per0225025a
	Perchlorate-O(18)			6.12	ug/kg		1	25-FEB-10 21:14	per0225025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225025a
Date: 25-Feb-2010
Time: 21:14:11
ID: 246066006
Vial: 1:4,E

|LANL|950066|50120|1|

02-26-10

Perchlorate

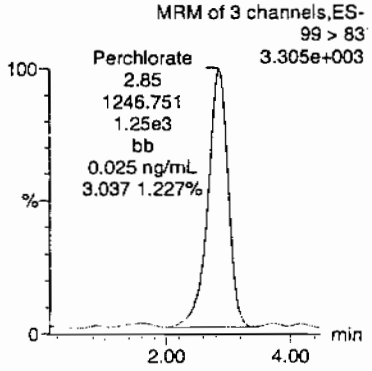

Perchlorate

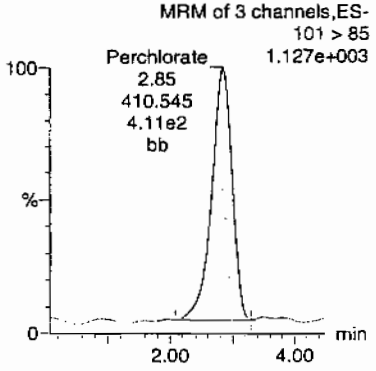

Perchlorate-101

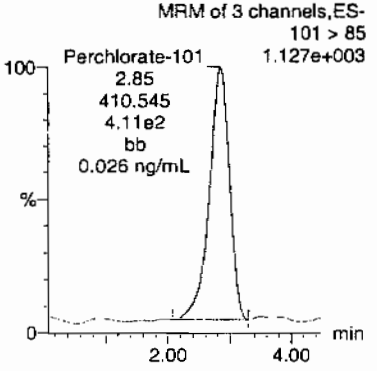

Perchlorate-O(18)

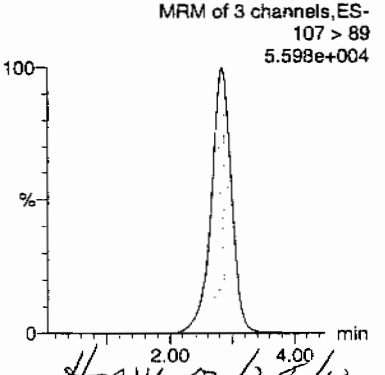

HMK 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066006	Perchlorate	99 > 83	2.85	1246.751	1246.751	bb			0.0249			258.434	3.04
246066006	Perchlorate-101	101 > 85	2.85	410.545	410.545	bb			0.0255			21.702	
246066006	Perchlorate-O(18)	107 > 89	2.84	21145.645	21145.645	bb			0.5001	100.03	0.03	10860....	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8140

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.576	2.3	0.576	ug/kg	U	1	25-FEB-10 21:21	per0225026a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:21	per0225026a
14797-73-0	Perchlorate-101	.576	2.3	0.576	ug/kg	U	1	25-FEB-10 21:21	per0225026a
	Perchlorate-O(18)			5.74	ug/kg		1	25-FEB-10 21:21	per0225026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225026a
Date: 25-Feb-2010
Time: 21:21:42
ID: 246066007
Vial: 1:4,F

LANL | 950064 | 50125 | 11

GWJ 02.26.10

Perchlorate

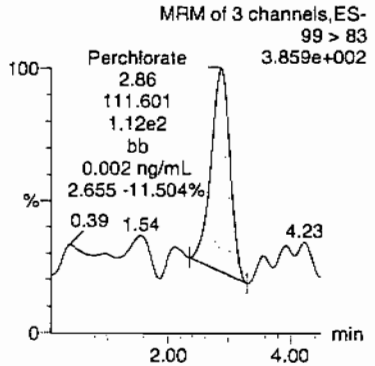

Perchlorate

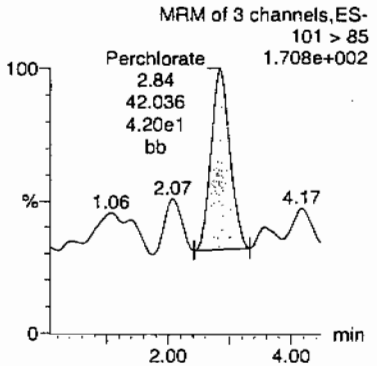

Perchlorate-101

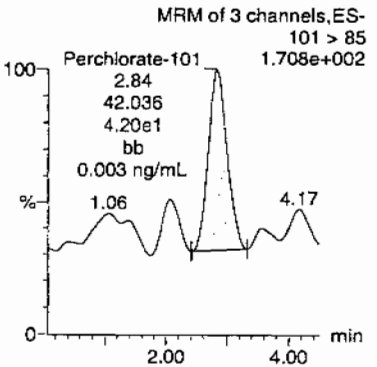

Perchlorate-O(18)

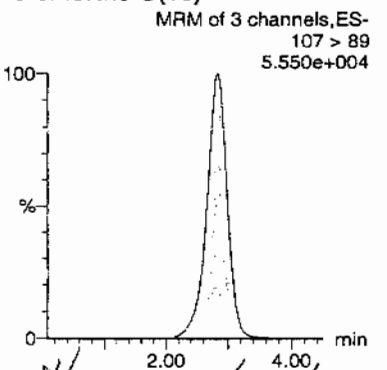

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066007	Perchlorate	99 > 83	2.86	111.601	111.601	bb			0.0022			10.333	2.65
246066007	Perchlorate-101	101 > 85	2.84	42.036	42.036	bb			0.0026			98.202	
246066007	Perchlorate-O(18)	107 > 89	2.84	21043.193	21043.193	bb			0.4977	99.54	-0.46	7380.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8147

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.784	3.14	0.784	ug/kg	U	1	25-FEB-10 21:29	per0225027a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:29	per0225027a
14797-73-0	Perchlorate-101	.784	3.14	0.784	ug/kg	U	1	25-FEB-10 21:29	per0225027a
	Perchlorate-O(18)			7.51	ug/kg		1	25-FEB-10 21:29	per0225027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Page 86 of 1725

Name: per0225027a
Date: 25-Feb-2010
Time: 21:29:14
ID: 246066008
Vial: 1:5,A

|LANL|9500066|30120|11|

02-26-10

Perchlorate

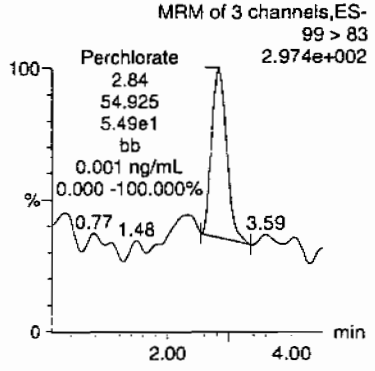

Perchlorate

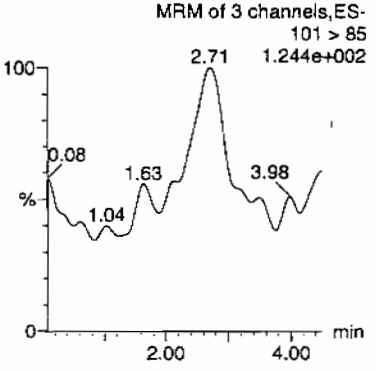

Perchlorate-101

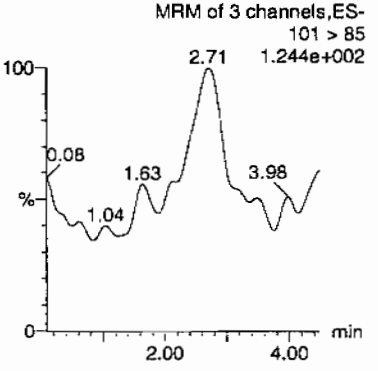

Perchlorate-O(18)

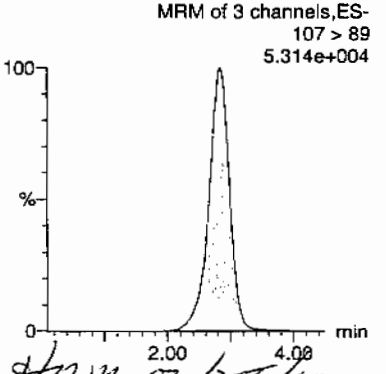

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066008	Perchlorate	99 > 83	2.84	54.925	54.925	bb			0.0011			10.756	0.00
246066008	Perchlorate-101	101 > 85											
246066008	Perchlorate-O(18)	107 > 89	2.84	20248.994	20248.994	bb			0.4789	95.79	-4.21	4970.7...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8142

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.632	2.53	0.632	ug/kg	U	1	25-FEB-10 21:36	per0225028a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:36	per0225028a
14797-73-0	Perchlorate-101	.632	2.53	0.632	ug/kg	U	1	25-FEB-10 21:36	per0225028a
	Perchlorate-O(18)			6.06	ug/kg		1	25-FEB-10 21:36	per0225028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225028a
Date: 25-Feb-2010
Time: 21:36:49
ID: 246066009
Vial: 1:5,B

|LANL|950066|50120|1|

02-26-10

Perchlorate

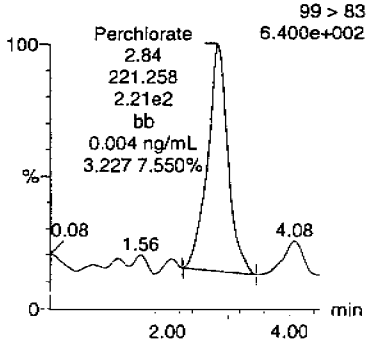

Perchlorate

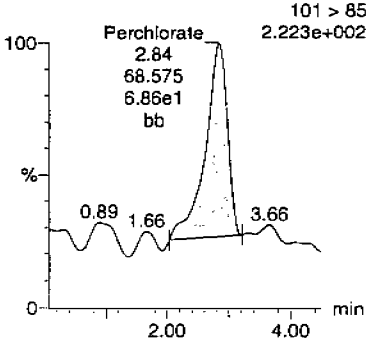

Perchlorate-101

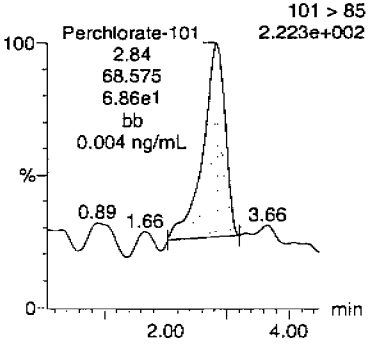

Perchlorate-O(18)

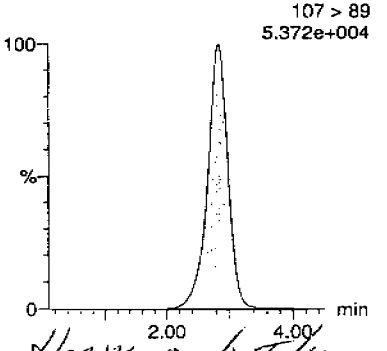

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066009	Perchlorate	99 > 83	2.84	221.258	221.258	bb			0.0044			63.158	3.23
246066009	Perchlorate-101	101 > 85	2.84	68.575	68.575	bb			0.0043			9.451	
246066009	Perchlorate-O(18)	107 > 89	2.84	20267.486	20267.486	bb			0.4794	95.87	-4.13	3184.1...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8146

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.603	2.41	0.603	ug/kg	U	1	25-FEB-10 21:44	per0225029a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:44	per0225029a
14797-73-0	Perchlorate-101	.603	2.41	0.603	ug/kg	U	1	25-FEB-10 21:44	per0225029a
	Perchlorate-O(18)			5.92	ug/kg		1	25-FEB-10 21:44	per0225029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225029a
Date: 25-Feb-2010
Time: 21:44:22
ID: 246066010
Vial: 1:5,C

ILANL | 950266 | 30120 | 1 |

08-26-10

Perchlorate

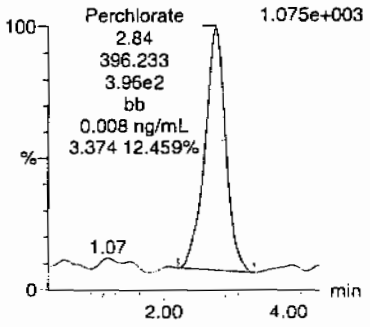

Perchlorate

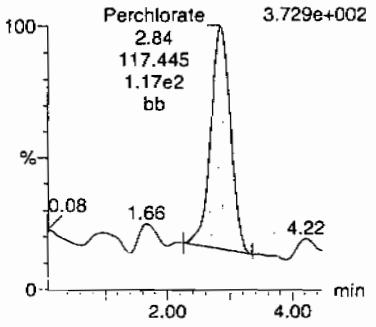

Perchlorate-101

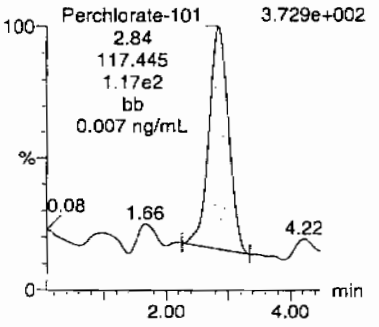

Perchlorate-O(18)

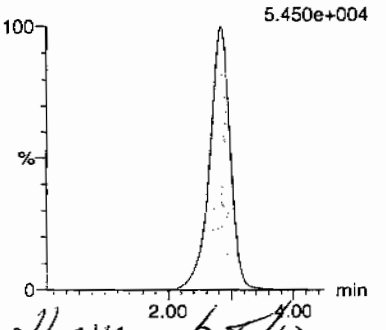

Hmm 02/26/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066010	Perchlorate	99 > 83	2.84	396.233	396.233	bb			0.0079			50.200	3.37
246066010	Perchlorate-101	101 > 85	2.84	117.445	117.445	bb			0.0073			24.878	
246066010	Perchlorate-O(18)	107 > 89	2.82	20746.270	20746.270	bb			0.4907	98.14	-1.86	31651....	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8136

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	25-FEB-10 21:51	per0225030a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:51	per0225030a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	25-FEB-10 21:51	per0225030a
	Perchlorate-O(18)			5.72	ug/kg		1	25-FEB-10 21:51	per0225030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Chariers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225030a
Date: 25-Feb-2010
Time: 21:51:55
ID: 246066011
Vial: 1:5,D

|LANL|950066|SOLID|1|

02-26-10

Perchlorate

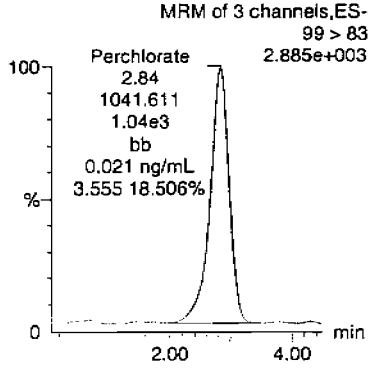

Perchlorate

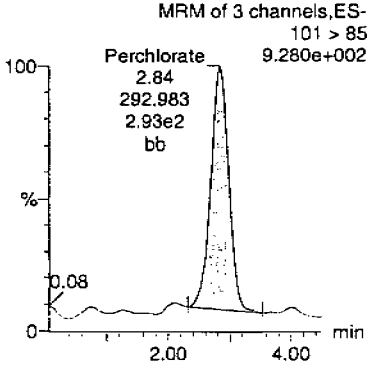

Perchlorate-101

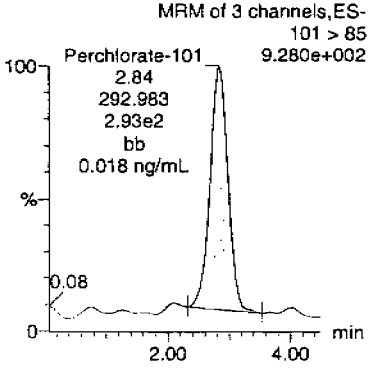

Perchlorate-O(18)

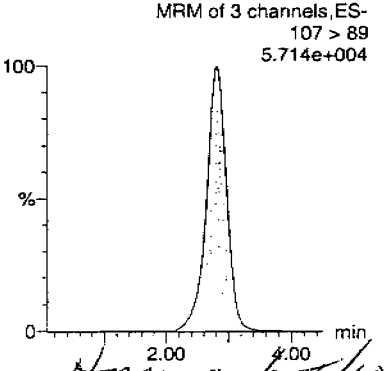

HMW 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066011	Perchlorate	99 > 83	2.84	1041.611	1041.611	bb			0.0208			517.645	3.56
246066011	Perchlorate-101	101 > 85	2.84	292.983	292.983	bb			0.0182			140.950	
246066011	Perchlorate-O(18)	107 > 89	2.82	21420.484	21420.484	bb			0.5066	101.33	1.33	6073.3...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8139

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 92.6

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.54	2.16	0.540	ug/kg	U	1	25-FEB-10 21:59	per0225031a
	Perchlorate Isotope Ratio						1	25-FEB-10 21:59	per0225031a
14797-73-0	Perchlorate-101	.54	2.16	0.540	ug/kg	U	1	25-FEB-10 21:59	per0225031a
	Perchlorate-O(18)			5.11	ug/kg		1	25-FEB-10 21:59	per0225031a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225031a
Date: 25-Feb-2010
Time: 21:59:27
ID: 246066012
Vial: 1:5,E

|LANL|950066|SDG25|1|

Perchlorate

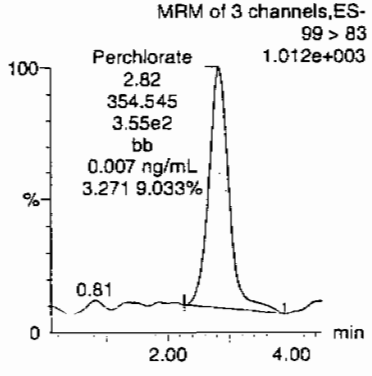

Perchlorate

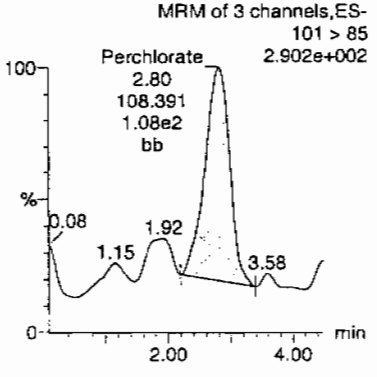

Perchlorate-101

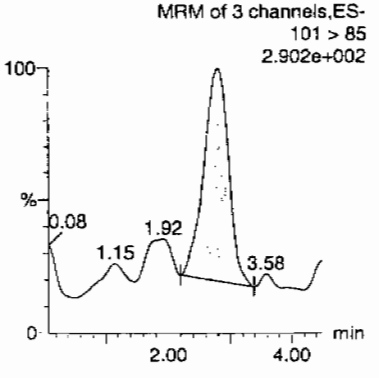

Perchlorate-O(18)

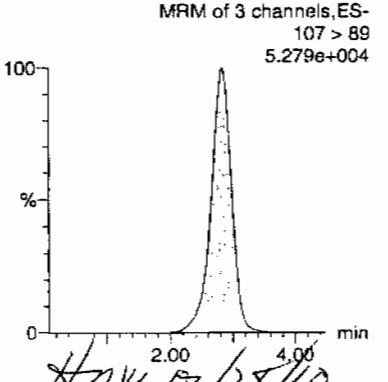

HMK 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066012	Perchlorate	99 > 83	2.82	354.545	354.545	bb			0.0071			13.045	3.27
246066012	Perchlorate-101	101 > 85	2.80	108.391	108.391	bb			0.0067			23.766	
246066012	Perchlorate-O(18)	107 > 89	2.82	20015.943	20015.943	bb			0.4734	94.68	-5.32	5495.8...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8134

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 22:29	per0225035a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:29	per0225035a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 22:29	per0225035a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 22:29	per0225035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Page 96 of 1725

Name: per0225035a
Date: 25-Feb-2010
Time: 22:29:37
ID: 246066013
Vial: 1:5,F

|LANL|950066|50120|11|

Cmo
02-26-10

Perchlorate

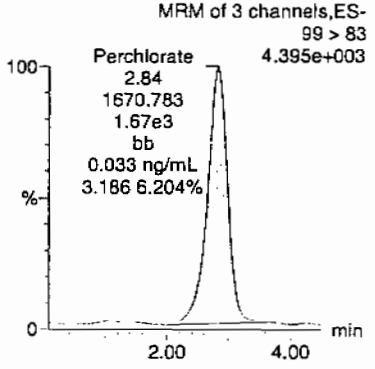

Perchlorate

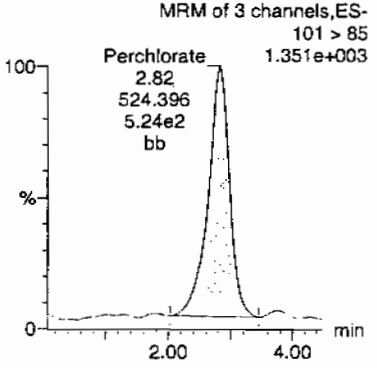

Perchlorate-101

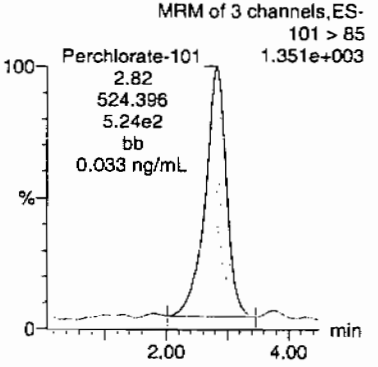

Perchlorate-O(18)

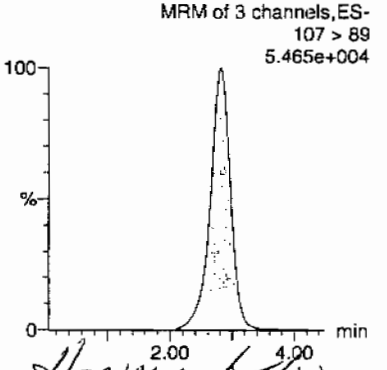

Hmmm...

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066013	Perchlorate	99 > 83	2.84	1670.783	1670.783	bb			0.0333			317.236	3.19
246066013	Perchlorate-101	101 > 85	2.82	524.396	524.396	bb			0.0326			137.349	
246066013	Perchlorate-O(18)	107 > 89	2.82	20679.461	20679.461	bb			0.4891	97.82	-2.18	30733....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8137

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 22:37	per0225036a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:37	per0225036a
14797-73-0	Perchlorate-101	.597	2.39	0.597	ug/kg	U	1	25-FEB-10 22:37	per0225036a
	Perchlorate-O(18)			5.87	ug/kg		1	25-FEB-10 22:37	per0225036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225036a
Date: 25-Feb-2010
Time: 22:37:09
ID: 246066014
Vial: 1:6,A

LANL | 950066 | 50120 | 11

AW 02-26-10

Perchlorate

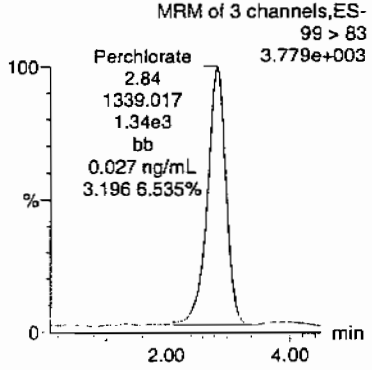

Perchlorate

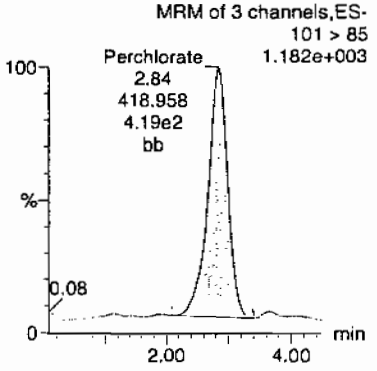

Perchlorate-101

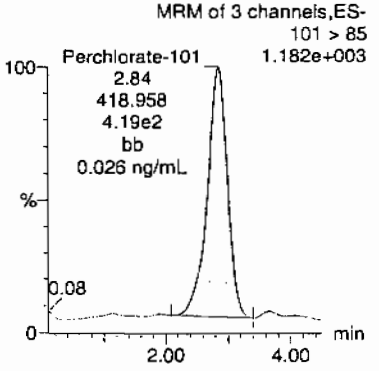

Perchlorate-O(18)

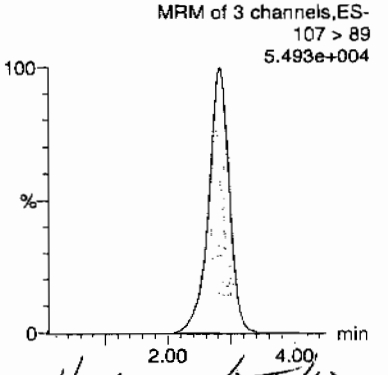

HMcoh 2/26/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066014	Perchlorate	99 > 83	2.84	1339.017	1339.017	bb			0.0267			87.189	3.20
246066014	Perchlorate-101	101 > 85	2.84	418.958	418.958	bb			0.0260			38.034	
246066014	Perchlorate-O(18)	107 > 89	2.82	20782.541	20782.541	bb			0.4915	98.31	-1.69	4894.5...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8143

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.559	2.24	0.559	ug/kg	U	1	25-FEB-10 22:44	per0225037a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:44	per0225037a
14797-73-0	Perchlorate-101	.559	2.24	0.559	ug/kg	U	1	25-FEB-10 22:44	per0225037a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 22:44	per0225037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225037a
Date: 25-Feb-2010
Time: 22:44:43
ID: 246066015
Vial: 1:6,B

|LANL|950066|50125|1|

02-26-10

Perchlorate

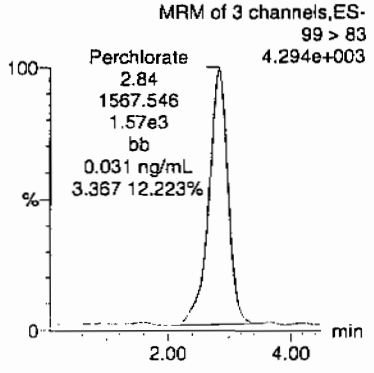

Perchlorate

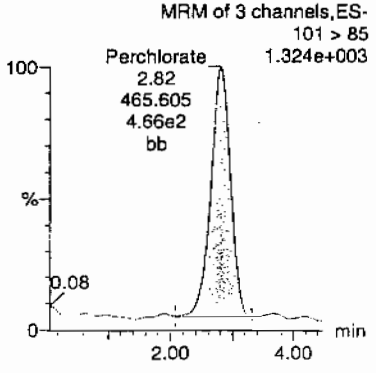

Perchlorate-101

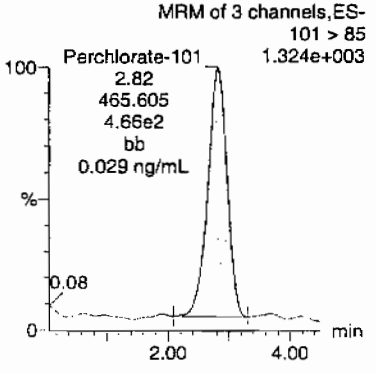

Perchlorate-O(18)

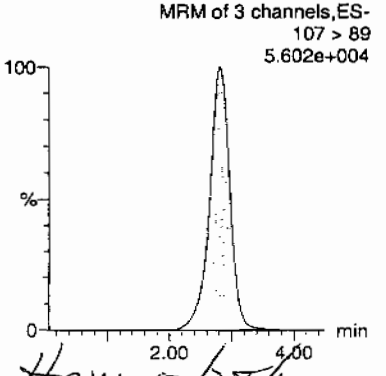

Hmm 02/27/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066015	Perchlorate	99 > 83	2.84	1567.546	1567.546	bb			0.0313			182.432	3.37
246066015	Perchlorate-101	101 > 85	2.82	465.605	465.605	bb			0.0289			206.132	
246066015	Perchlorate-O(18)	107 > 89	2.81	21112.348	21112.348	bb			0.4993	99.87	-0.13	7490.7...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8138

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066016

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.557	2.23	0.557	ug/kg	U	1	25-FEB-10 22:52	per0225038a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:52	per0225038a
14797-73-0	Perchlorate-101	.557	2.23	0.557	ug/kg	U	1	25-FEB-10 22:52	per0225038a
	Perchlorate-O(18)			5.45	ug/kg		1	25-FEB-10 22:52	per0225038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225038a
Date: 25-Feb-2010
Time: 22:52:16
ID: 246066016
Vial: 1:6,C

|LANL|950066|50120|1|

02-26-10

Perchlorate

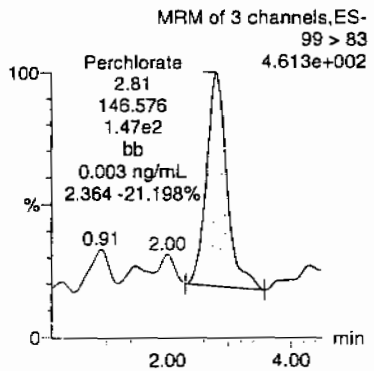

Perchlorate

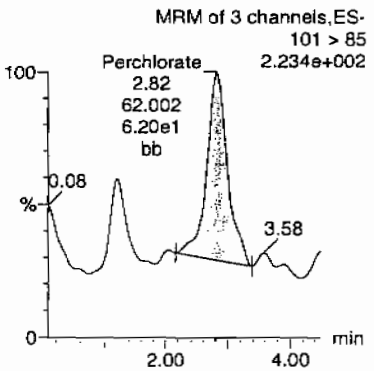

Perchlorate-101

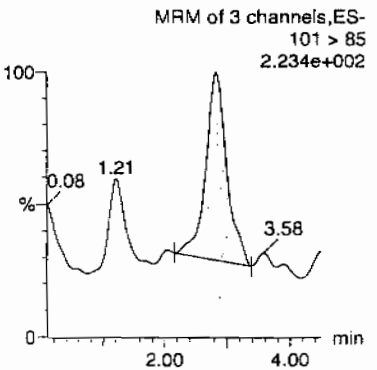

Perchlorate-O(18)

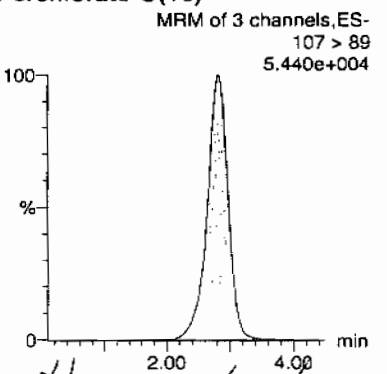

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066016	Perchlorate	99 > 83	2.81	146.576	146.576	bb			0.0029			16.179	2.36
246066016	Perchlorate-101	101 > 85	2.82	62.002	62.002	bb			0.0039			14.900	
246066016	Perchlorate-O(18)	107 > 89	2.82	20698.697	20698.697	bb			0.4896	97.91	-2.09	3771.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8145

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066017

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 93.9

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.532	2.13	0.532	ug/kg	U	1	25-FEB-10 22:59	per0225039a
	Perchlorate Isotope Ratio						1	25-FEB-10 22:59	per0225039a
14797-73-0	Perchlorate-101	.532	2.13	0.532	ug/kg	U	1	25-FEB-10 22:59	per0225039a
	Perchlorate-O(18)			5.29	ug/kg		1	25-FEB-10 22:59	per0225039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225039a
Date: 25-Feb-2010
Time: 22:59:50
ID: 246066017
Vial: 1:6,D

|LANL|950066|SDLCD|11

WJ 02-26-10

Perchlorate

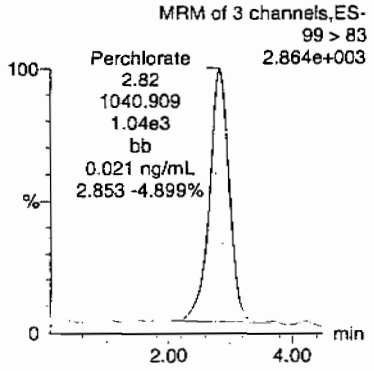

Perchlorate

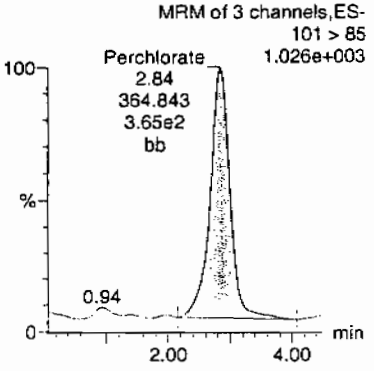

Perchlorate-101

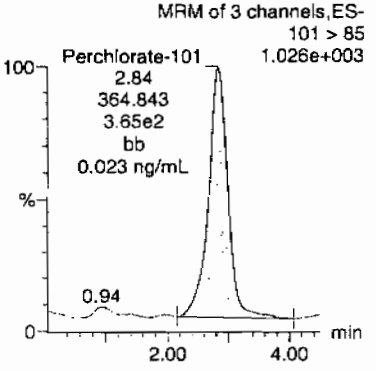

Perchlorate-O(18)

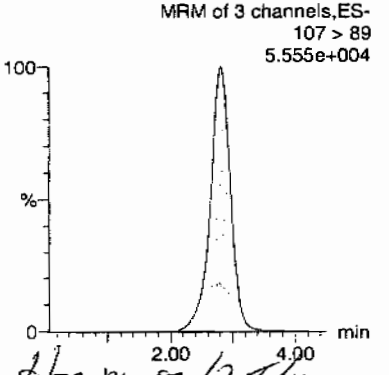

HM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066017	Perchlorate	99 > 83	2.82	1040.909	1040.909	bb			0.0208			122.723	2.85
246066017	Perchlorate-101	101 > 85	2.84	364.843	364.843	bb			0.0227			180.594	
246066017	Perchlorate-O(18)	107 > 89	2.81	21023.588	21023.588	bb			0.4972	99.45	-0.55	13547....	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8141

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066018

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 23:07	per0225040a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:07	per0225040a
14797-73-0	Perchlorate-101	.572	2.29	0.572	ug/kg	U	1	25-FEB-10 23:07	per0225040a
	Perchlorate-O(18)			5.59	ug/kg		1	25-FEB-10 23:07	per0225040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225040a
Date: 25-Feb-2010
Time: 23:07:22
ID: 246066018
Vial: 1:6,E

|LANL|950066|50120|11|

WJ 02-26-10

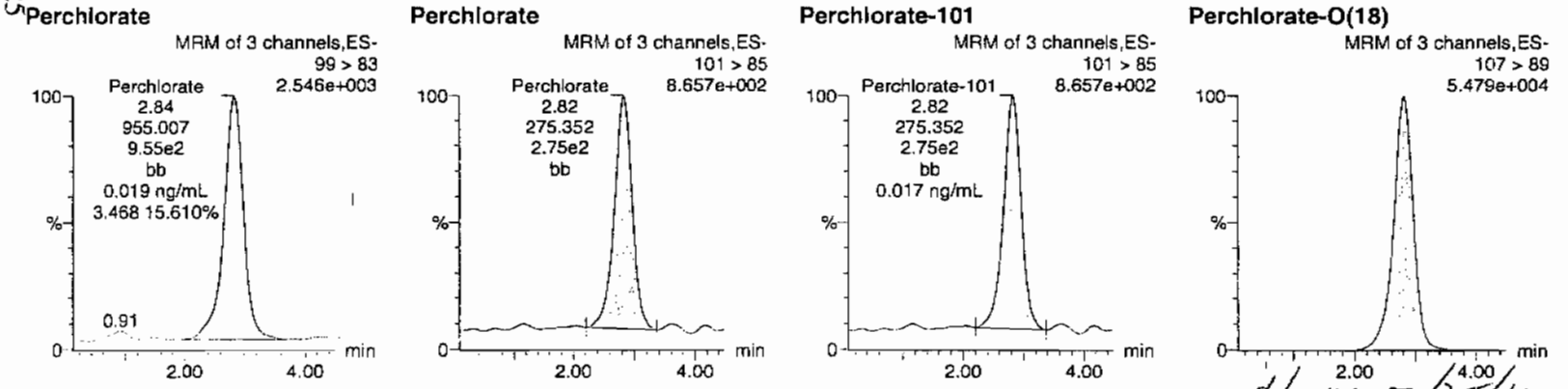

HMC 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066018	Perchlorate	99 > 83	2.84	955.007	955.007	bb			0.0190			87.462	3.47
246066018	Perchlorate-101	101 > 85	2.82	275.352	275.352	bb			0.0171			49.189	
246066018	Perchlorate-O(18)	107 > 89	2.81	20670.523	20670.523	bb			0.4889	97.78	-2.22	19221....	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8135

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066019

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.561	2.24	0.561	ug/kg	U	1	25-FEB-10 23:14	per0225041a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:14	per0225041a
14797-73-0	Perchlorate-101	.561	2.24	0.561	ug/kg	U	1	25-FEB-10 23:14	per0225041a
	Perchlorate-O(18)			5.60	ug/kg		1	25-FEB-10 23:14	per0225041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225041a
Date: 25-Feb-2010
Time: 23:14:55
ID: 246066019
Vial: 1:6,F

ILAN | 950066 | 50120 | 1 |

CWJ
02-26-10

Perchlorate

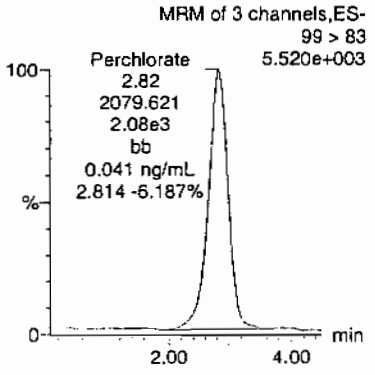

Perchlorate

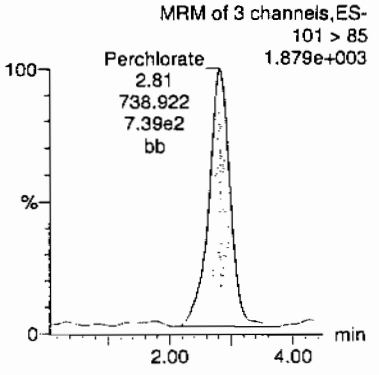

Perchlorate-101

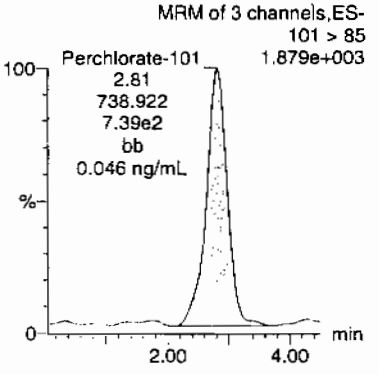

Perchlorate-O(18)

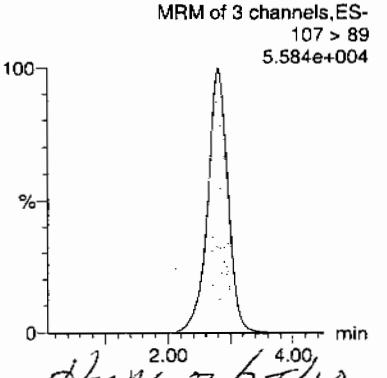

Amerzhelo

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066019	Perchlorate	99 > 83	2.82	2079.621	2079.621	bb			0.0415			1082.4...	2.81
246066019	Perchlorate-101	101 > 85	2.81	738.922	738.922	bb			0.0459			251.356	
246066019	Perchlorate-O(18)	107 > 89	2.81	21100.906	21100.906	bb			0.4991	99.82	-0.18	3679.1...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8144

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 246066020

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 67

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.741	2.96	0.741	ug/kg	U	1	25-FEB-10 23:22	per0225042a
	Perchlorate Isotope Ratio						1	25-FEB-10 23:22	per0225042a
14797-73-0	Perchlorate-101	.741	2.96	0.741	ug/kg	U	1	25-FEB-10 23:22	per0225042a
	Perchlorate-O(18)			7.82	ug/kg		1	25-FEB-10 23:22	per0225042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225042a
Date: 25-Feb-2010
Time: 23:22:28
ID: 246066020
Vial: 1:7,A

|LANL|950066|3220|11|

02-26-10

Perchlorate

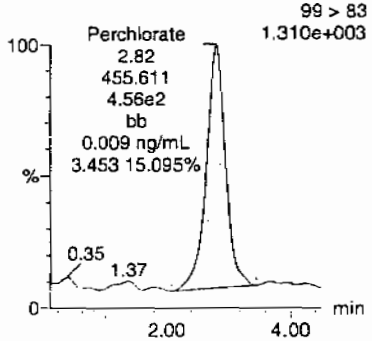

Perchlorate

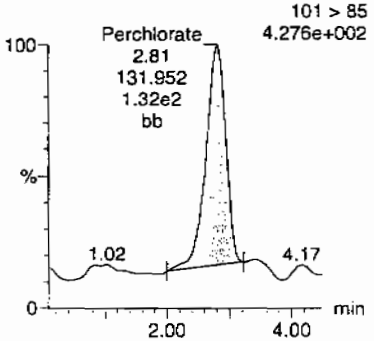

Perchlorate-101

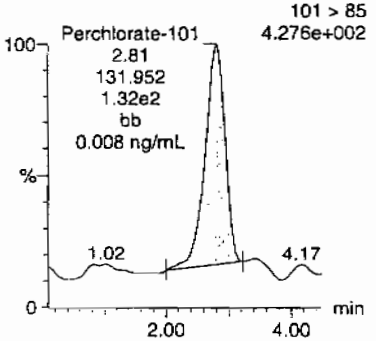

Perchlorate-O(18)

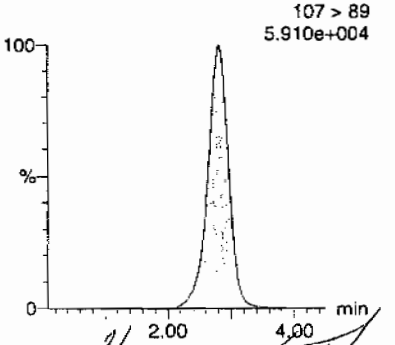

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246066020	Perchlorate	99 > 83	2.82	455.611	455.611	bb			0.0091			192.019	3.45
246066020	Perchlorate-101	101 > 85	2.81	131.952	131.952	bb			0.0082			124.950	
246066020	Perchlorate-O(18)	107 > 89	2.81	22299.230	22299.230	bb			0.5274	105.48	5.48	7543.0...	

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1543

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 25–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 50138.2

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1543

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 25–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 16088.98

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022510a.mdb 26 Feb 2010 09:10:03
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022510a.cdb 26 Feb 2010 09:11:04

Compound name: Perchlorate
Response Factor: 50138.2
RRF SD: 1505.36, % Relative SD: 3.00243
Response type: External Std, Area
Curve type: RF

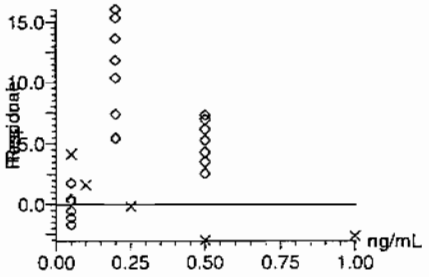

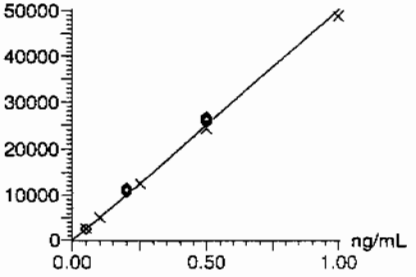

Compound name: Perchlorate-101
Response Factor: 16089
RRF SD: 840.652, % Relative SD: 5.22501
Response type: External Std, Area
Curve type: RF

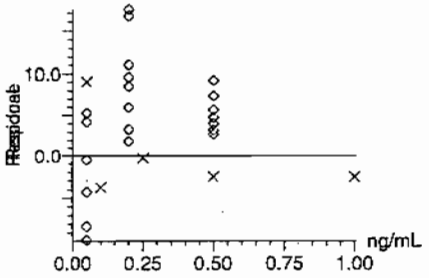

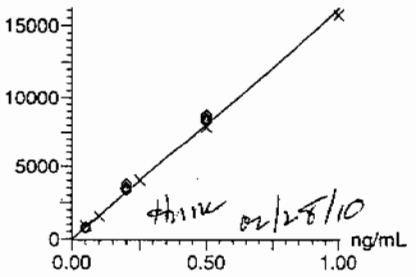

02/28/10

02-26-10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 42280
RRF SD: 835.81, % Relative SD: 1.97684
Response type: External Std, Area
Curve type: RF

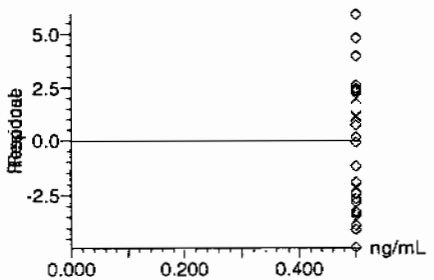

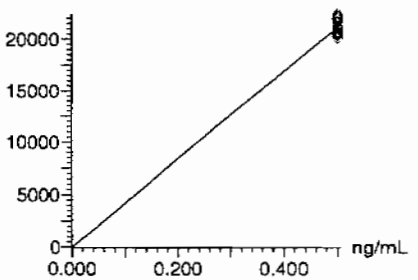

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1543

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	102.59	25–FEB–10 19:13	per0225009a
Perchlorate Isotope Ratio		3.03		25–FEB–10 19:13	per0225009a
Perchlorate–101	.5	.53	105.67	25–FEB–10 19:13	per0225009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225009a
Date: 25-Feb-2010
Time: 19:13:32
ID: WCL100219-06ICV
Vial: 1:2,A

02-26-10

Perchlorate

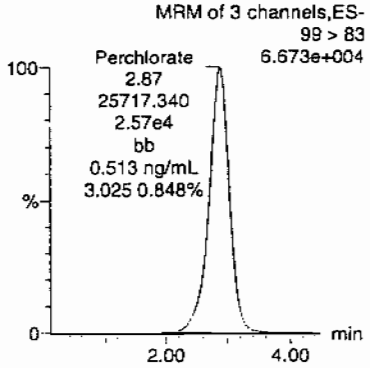

Perchlorate

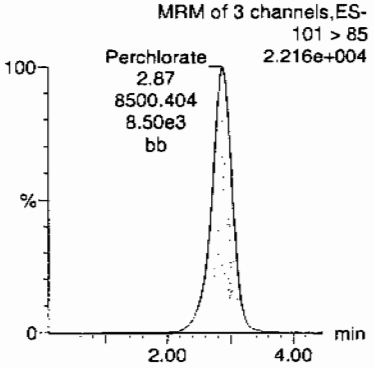

Perchlorate-101

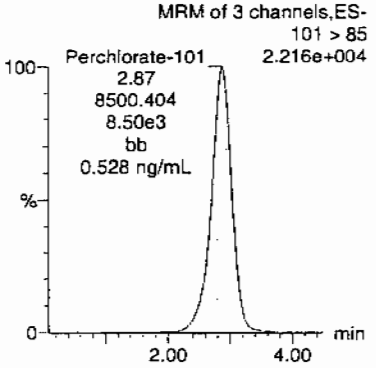

Perchlorate-O(18)

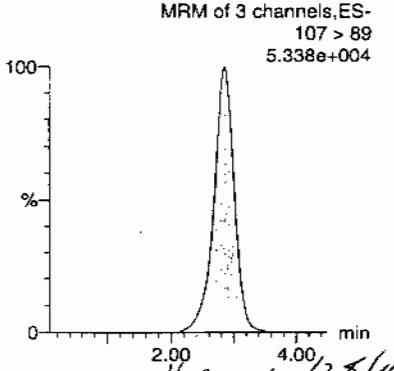

JMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06ICV	Perchlorate	99 > 83	2.87	25717.340	25717.340	bb			0.5129	102.59	2.59	5819.6...	3.03
WCL100219-06ICV	Perchlorate-101	101 > 85	2.87	8500.404	8500.404	bb			0.5283	105.67	5.67	4802.1...	
WCL100219-06ICV	Perchlorate-O(18)	107 > 89	2.86	20281.734	20281.734	bb			0.4797	95.94	-4.06	1576.6...	

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1543

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.29	25–FEB–10 20:44	per0225021a
Perchlorate Isotope Ratio		3.15		25–FEB–10 20:44	per0225021a
Perchlorate–101	.5	.52	104.01	25–FEB–10 20:44	per0225021a
Perchlorate	.5	.52	104.31	25–FEB–10 22:07	per0225032a
Perchlorate Isotope Ratio		3.16		25–FEB–10 22:07	per0225032a
Perchlorate–101	.5	.51	102.75	25–FEB–10 22:07	per0225032a
Perchlorate	.5	.54	107.27	25–FEB–10 23:30	per0225043a
Perchlorate Isotope Ratio		3.11		25–FEB–10 23:30	per0225043a
Perchlorate–101	.5	.54	107.41	25–FEB–10 23:30	per0225043a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225021a
Date: 25-Feb-2010
Time: 20:44:01
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
02-26-10

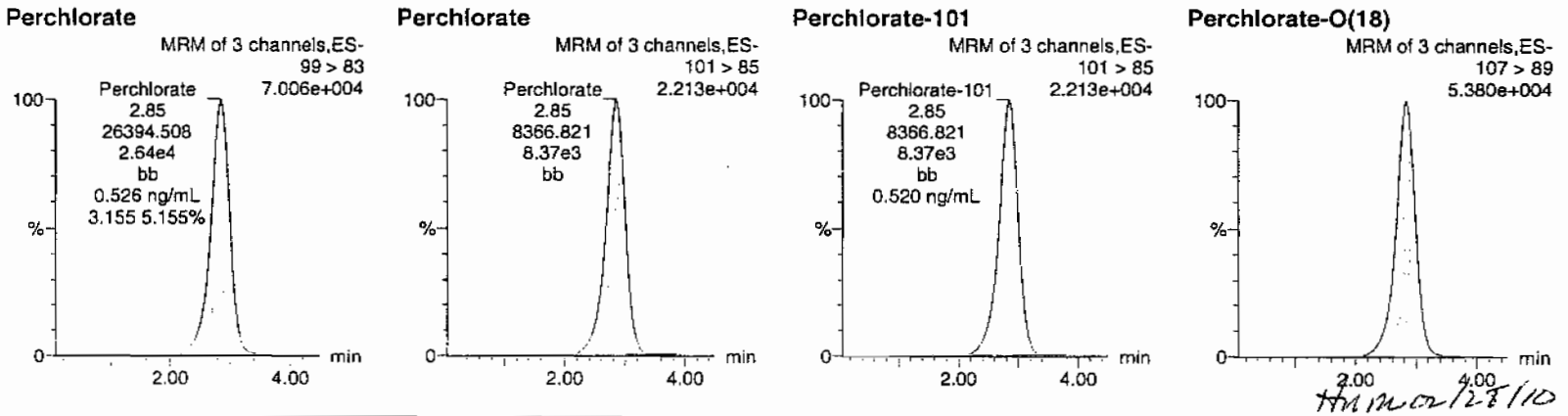

HM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.85	26394.508	26394.508	bb			0.5264	105.29	5.29	6425.5...	3.15
WCL100219-06CCV	Perchlorate-101	101 > 85	2.85	8366.821	8366.821	bb			0.5200	104.01	4.01	5111.1...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.84	20421.129	20421.129	bb			0.4830	96.60	-3.40	2822.6...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225032a
Date: 25-Feb-2010
Time: 22:07:00
ID: WCL100219-06CCV
Vial: 1:2,A

Per 02-26-10

Perchlorate

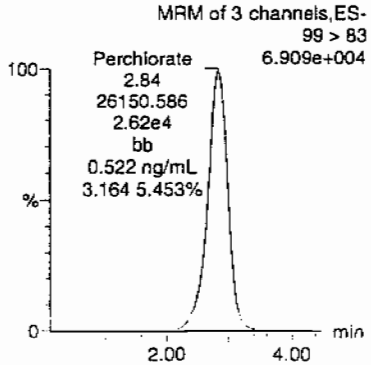

Perchlorate

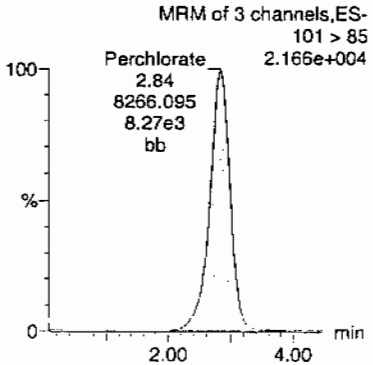

Perchlorate-101

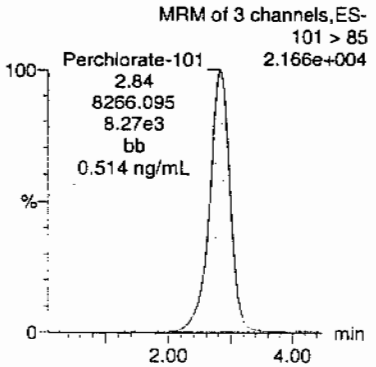

Perchlorate-O(18)

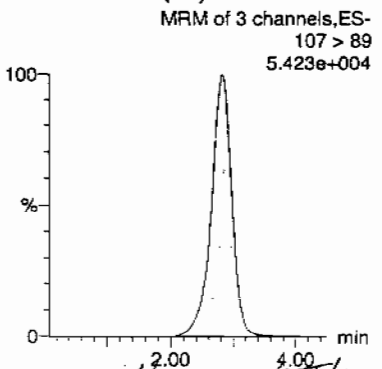

Hine 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.84	26150.586	26150.586	bb			0.5216	104.31	4.31	1767.7...	3.16
WCL100219-06CCV	Perchlorate-101	101 > 85	2.84	8266.095	8266.095	bb			0.5138	102.75	2.75	6255.0...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.82	20627.057	20627.057	bb			0.4879	97.57	-2.43	6604.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qid

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225043a
Date: 25-Feb-2010
Time: 23:30:02
ID: WCL100219-06CCV
Vial: 1:2,A

Perp
02-26-10

Perchlorate

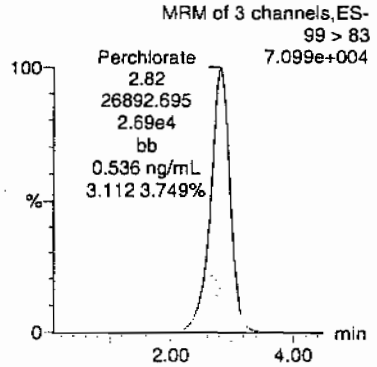

Perchlorate

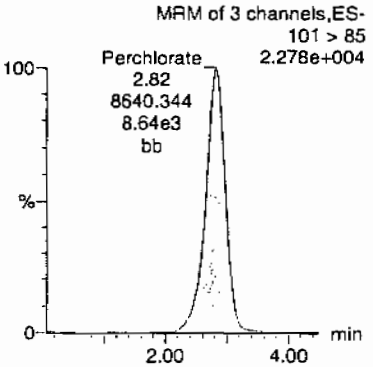

Perchlorate-101

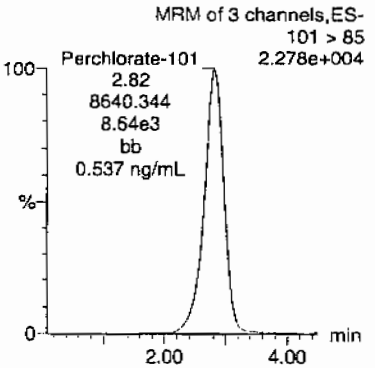

Perchlorate-O(18)

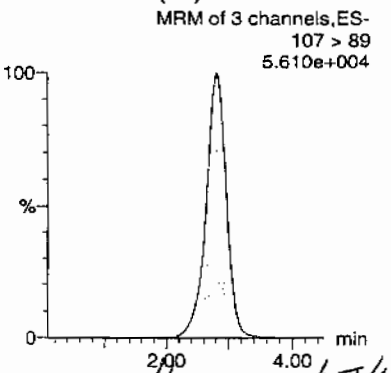

HMM 02/27/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.82	26892.695	26892.695	bb			0.5364	107.27	7.27	6390.7...	3.11
WCL100219-06CCV	Perchlorate-101	101 > 85	2.82	8640.344	8640.344	bb			0.5370	107.41	7.41	10835....	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.81	21125.762	21125.762	bb			0.4997	99.93	-0.07	4177.5...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1543

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.45	25–FEB–10 19:28	per0225011a
Perchlorate Isotope Ratio		3.44		25–FEB–10 19:28	per0225011a
Perchlorate–101	.05	.05	90.17	25–FEB–10 19:28	per0225011a
Perchlorate	.05	.05	100.48	25–FEB–10 20:59	per0225023a
Perchlorate Isotope Ratio		3.41		25–FEB–10 20:59	per0225023a
Perchlorate–101	.05	.05	91.78	25–FEB–10 20:59	per0225023a
Perchlorate	.05	.05	100.28	25–FEB–10 22:22	per0225034a
Perchlorate Isotope Ratio		3.14		25–FEB–10 22:22	per0225034a
Perchlorate–101	.05	.05	99.53	25–FEB–10 22:22	per0225034a
Perchlorate	.05	.05	101.77	25–FEB–10 23:45	per0225045a
Perchlorate Isotope Ratio		3.04		25–FEB–10 23:45	per0225045a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1543

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	104.21	25–FEB–10 23:45	per0225045a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225011a
Date: 25-Feb-2010
Time: 19:28:37
ID: WCL100219-07CRI
Vial: 1:2,B

CWO
02-26-10

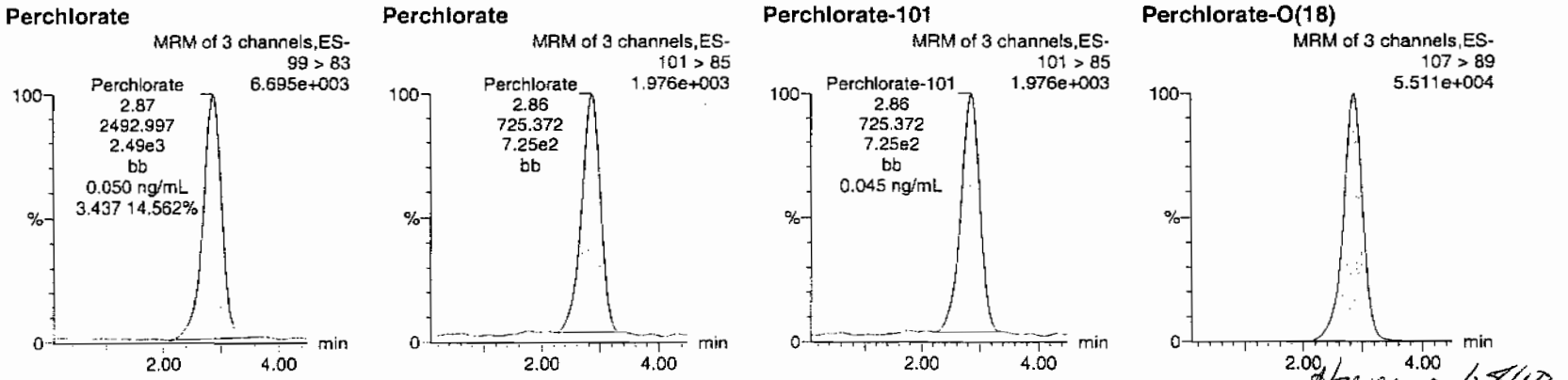

HM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.87	2492.997	2492.997	bb			0.0497	99.45	-0.55	447.232	3.44
WCL100219-07CRI	Perchlorate-101	101 > 85	2.86	725.372	725.372	bb			0.0451	90.17	-9.83	266.230	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.86	20892.951	20892.951	bb			0.4942	98.83	-1.17	25998....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225023a
Date: 25-Feb-2010
Time: 20:59:07
ID: WCL100219-07CRI
Vial: 1:2,B

Pwo 02-26-10

Perchlorate

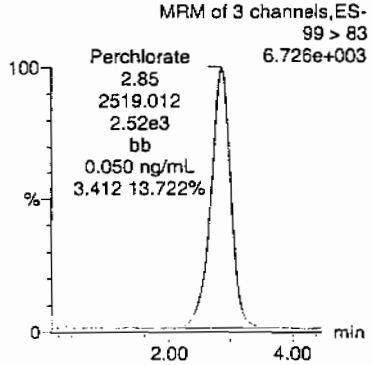

Perchlorate

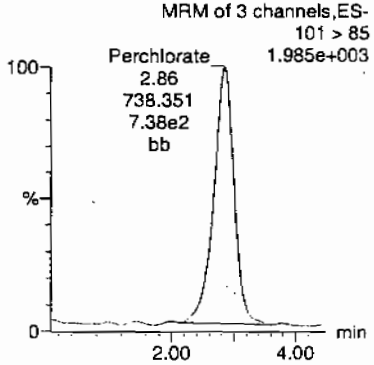

Perchlorate-101

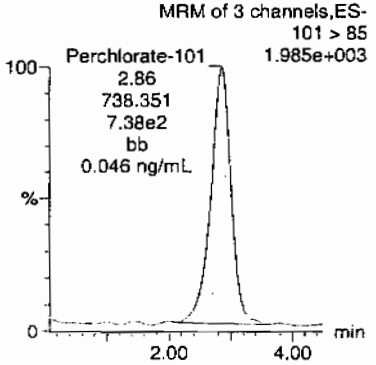

Perchlorate-O(18)

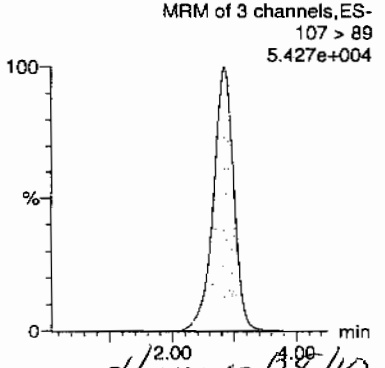

HMC 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.85	2519.012	2519.012	bb			0.0502	100.48	0.48	485.689	3.41
WCL100219-07CRI	Perchlorate-101	101 > 85	2.86	738.351	738.351	bb			0.0459	91.78	-8.22	398.772	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.84	20737.988	20737.988	bb			0.4905	98.10	-1.90	10457....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225034a
Date: 25-Feb-2010
Time: 22:22:05
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
03-26-10

Perchlorate

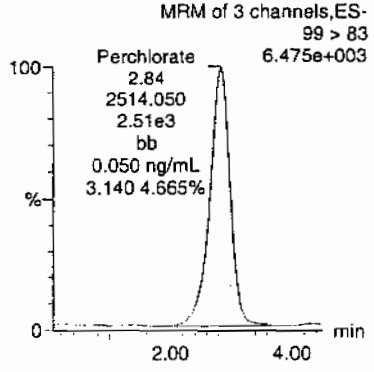

Perchlorate

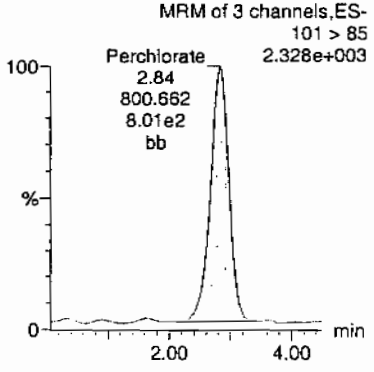

Perchlorate-101

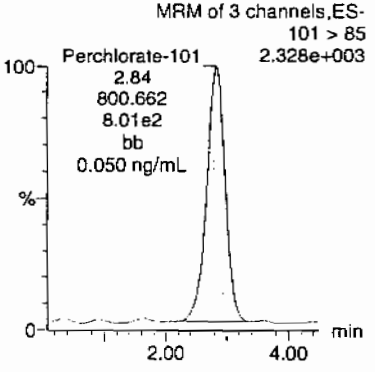

Perchlorate-O(18)

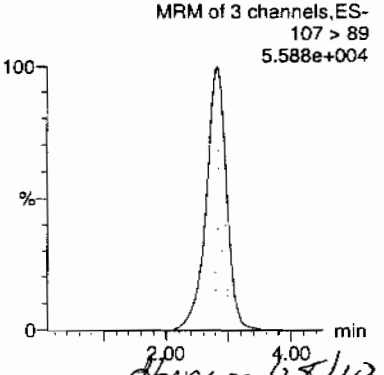

Hmc 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.84	2514.050	2514.050	bb			0.0501	100.28	0.28	644.176	3.14
WCL100219-07CRI	Perchlorate-101	101 > 85	2.84	800.662	800.662	bb			0.0498	99.53	-0.47	230.426	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.82	21177.027	21177.027	bb			0.5009	100.18	0.18	11607....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225045a
Date: 25-Feb-2010
Time: 23:45:07
ID: WCL100219-07CRI
Vial: 1:2,B

Pers
and
02-26-10

Perchlorate

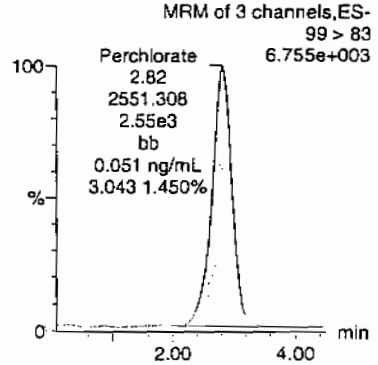

Perchlorate

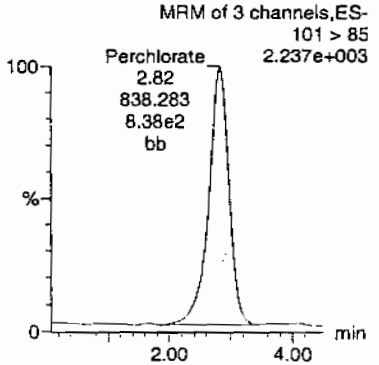

Perchlorate-101

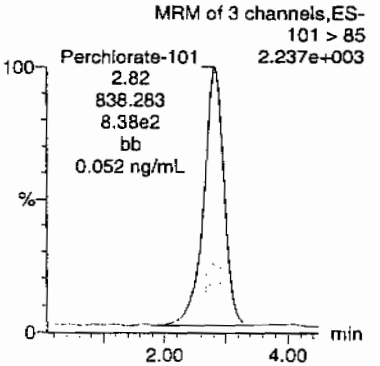

Perchlorate-O(18)

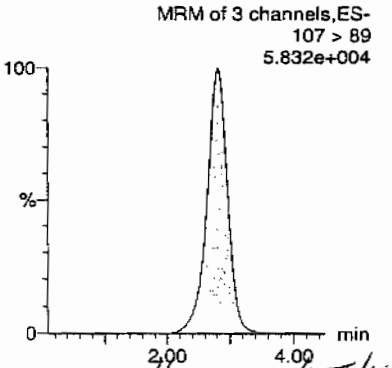

Hmw 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.82	2551.308	2551.308	bb			0.0509	101.77	1.77	623.238	3.04
WCL100219-07CRI	Perchlorate-101	101 > 85	2.82	838.283	838.283	bb			0.0521	104.21	4.21	1260.2...	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.81	21980.064	21980.064	bb			0.5199	103.97	3.97	4206.6...	

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 1202035651

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	25-FEB-10 19:36	per0225012a
	Perchlorate Isotope Ratio						1	25-FEB-10 19:36	per0225012a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	25-FEB-10 19:36	per0225012a
	Perchlorate-O(18)			4.64	ug/kg		1	25-FEB-10 19:36	per0225012a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225012a
Date: 25-Feb-2010
Time: 19:36:11
ID: 1202035651
Vial: 1:3,A

|LANL|950066|5020|MB|1|

CWW 02-26-10

Perchlorate

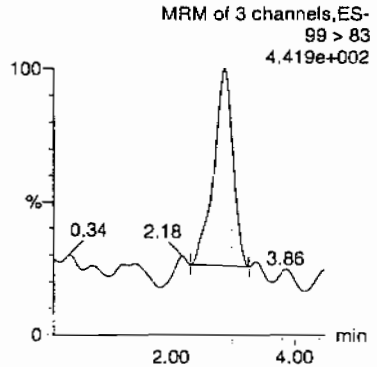

Perchlorate

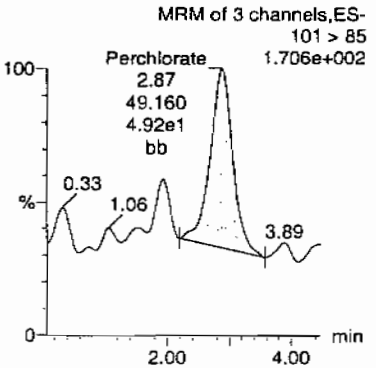

Perchlorate-101

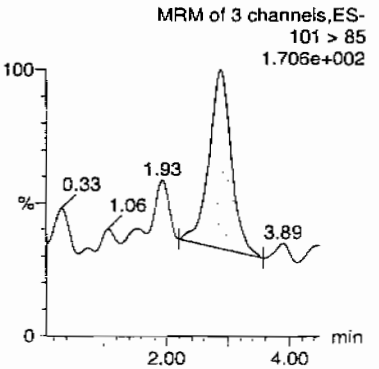

Perchlorate-O(18)

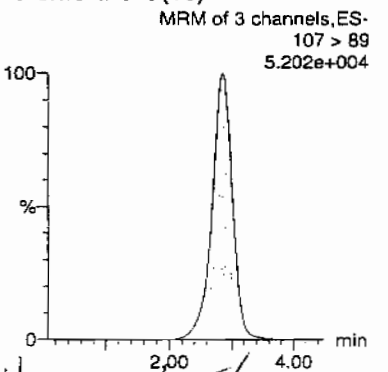

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035651	Perchlorate	99 > 83	2.87	121.517	121.517	bb			0.0024			46.442	2.47
1202035651	Perchlorate-101	101 > 85	2.87	49.160	49.160	bb			0.0031			6.688	
1202035651	Perchlorate-O(18)	107 > 89	2.86	19627.316	19627.316	bb			0.4642	92.84	-7.16	10539....	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 1202035652

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	2.11	ug/kg		1	25-FEB-10 19:43	per0225013a
	Perchlorate Isotope Ratio			3.18			1	25-FEB-10 19:43	per0225013a
14797-73-0	Perchlorate-101	.5	2	2.07	ug/kg		1	25-FEB-10 19:43	per0225013a
	Perchlorate-O(18)			4.75	ug/kg		1	25-FEB-10 19:43	per0225013a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225013a
Date: 25-Feb-2010
Time: 19:43:43
ID: 1202035652
Vial: 1:3,B

|LANL|950066|50120|LCS|1|

02-26-10

Perchlorate

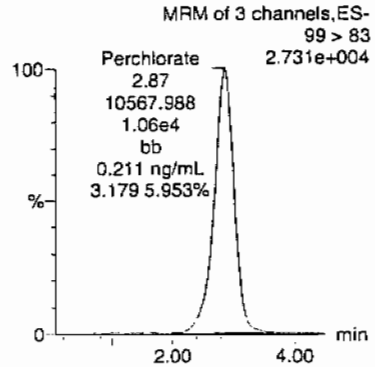

Perchlorate

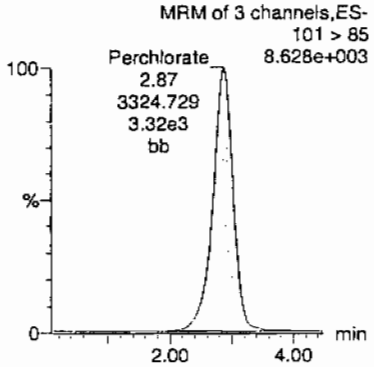

Perchlorate-101

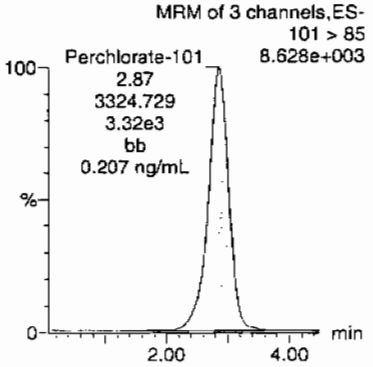

Perchlorate-O(18)

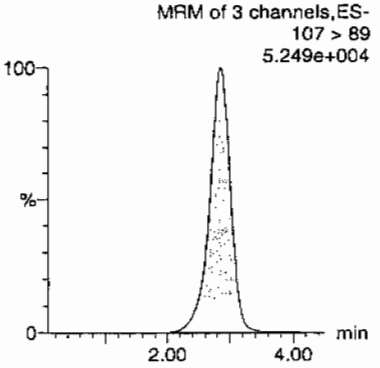

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035652	Perchlorate	99 > 83	2.87	10567.988	10567.988	bb			0.2108	105.39	5.39	2288.4...	3.18
1202035652	Perchlorate-101	101 > 85	2.87	3324.729	3324.729	bb			0.2066	103.32	3.32	1715.5...	
1202035652	Perchlorate-O(18)	107 > 89	2.86	20103.760	20103.760	bb			0.4755	95.10	-4.90	10064....	

$\frac{10567.988}{50136.2} = 0.2108$

HMW 02/28/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8131MS

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 1202035653

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.605	2.42	2.60	ug/kg		1	25-FEB-10 20:13	per0225017a
	Perchlorate Isotope Ratio			3.16			1	25-FEB-10 20:13	per0225017a
14797-73-0	Perchlorate-101	.605	2.42	2.56	ug/kg		1	25-FEB-10 20:13	per0225017a
	Perchlorate-O(18)			5.85	ug/kg		1	25-FEB-10 20:13	per0225017a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225017a
Date: 25-Feb-2010
Time: 20:13:52
ID: 1202035653
Vial: 1:3,F

| LANL | 950066 | 50L25 | MS | 1 |

WJ 02.26-10

Perchlorate

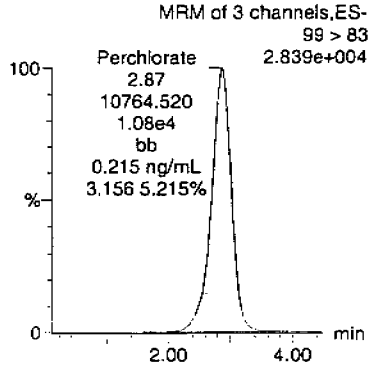

Perchlorate

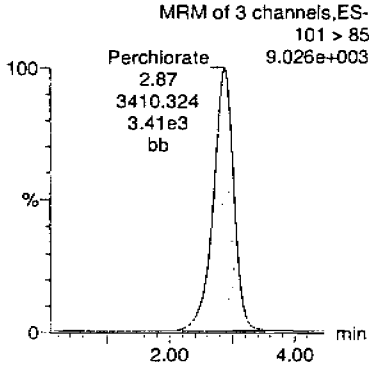

Perchlorate-101

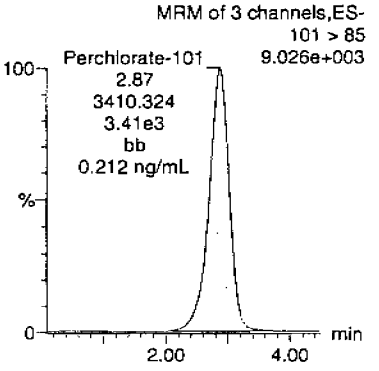

Perchlorate-O(18)

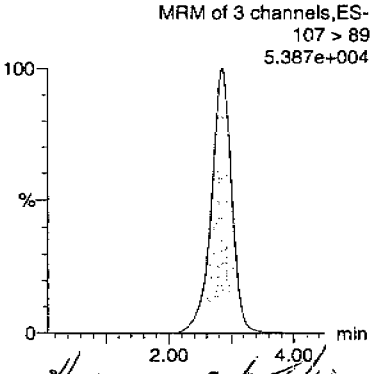

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035653	Perchlorate	99 > 83	2.87	10764.520	10764.520	bb			0.2147	107.35	7.35	413.781	3.16
1202035653	Perchlorate-101	101 > 85	2.87	3410.324	3410.324	bb			0.2120	105.98	5.98	1652.5...	
1202035653	Perchlorate-O(18)	107 > 89	2.86	20441.617	20441.617	bb			0.4835	96.70	-3.30	11720....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950065

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8131MSD

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1543

GEL Sample ID: 1202035654

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 83

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.605	2.42	2.55	ug/kg		1	25-FEB-10 20:21	per0225018a
	Perchlorate Isotope Ratio			3.23			1	25-FEB-10 20:21	per0225018a
14797-73-0	Perchlorate-101	.605	2.42	2.47	ug/kg		1	25-FEB-10 20:21	per0225018a
	Perchlorate-O(18)			5.81	ug/kg		1	25-FEB-10 20:21	per0225018a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022510a.qld

Last Altered: Friday, February 26, 2010 9:11:05 AM Eastern Standard Time
Printed: Friday, February 26, 2010 9:25:09 AM Eastern Standard Time

Name: per0225018a
Date: 25-Feb-2010
Time: 20:21:23
ID: 1202035654
Vial: 1:4,A

|LANL|950066|50120|M50|1|

WJ 02-26-10

Perchlorate

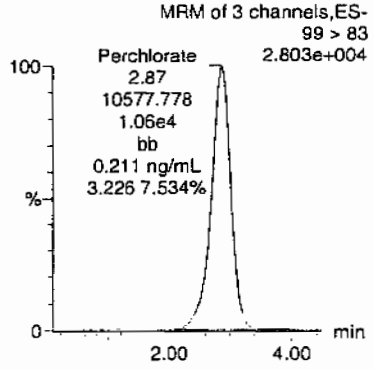

Perchlorate

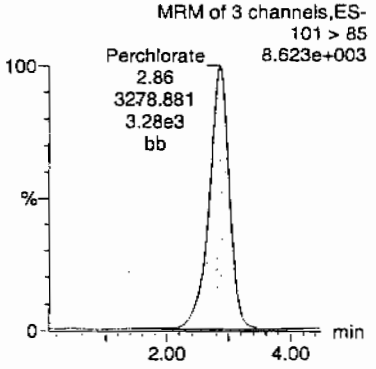

Perchlorate-101

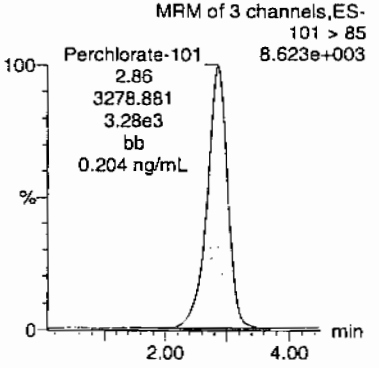

Perchlorate-O(18)

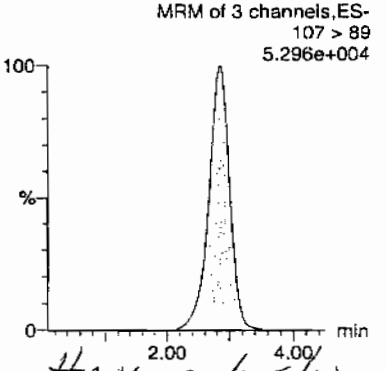

HMW 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035654	Perchlorate	99 > 83	2.87	10577.778	10577.778	bb			0.2110	105.49	5.49	1180.6...	3.23
1202035654	Perchlorate-101	101 > 85	2.86	3278.881	3278.881	bb			0.2038	101.90	1.90	423.648	
1202035654	Perchlorate-O(18)	107 > 89	2.85	20322.227	20322.227	bb			0.4807	96.13	-3.87	4066.0...	

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950065 Verified by:
Analyst: Charles Wilson
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035651 MB	18-FEB-2010 15:53:00	2	20	10
1202035652 LCS	18-FEB-2010 15:53:00	2	20	10
246066001	18-FEB-2010 15:53:00	2	20	10
246066002	18-FEB-2010 15:53:00	2	20	10
1202035653 MS (246066002)	18-FEB-2010 15:53:00	2	20	10
1202035654 MSD (246066002)	18-FEB-2010 15:53:00	2	20	10
246066003	18-FEB-2010 15:53:00	2	20	10
246066004	18-FEB-2010 15:53:00	2	20	10
246066005	18-FEB-2010 15:53:00	2	20	10
246066006	18-FEB-2010 15:53:00	2	20	10
246066007	18-FEB-2010 15:53:00	2	20	10
246066008	18-FEB-2010 15:53:00	2	20	10
246066009	18-FEB-2010 15:53:00	2	20	10
246066010	18-FEB-2010 15:53:00	2	20	10
246066011	18-FEB-2010 15:53:00	2	20	10
246066012	18-FEB-2010 15:53:00	2	20	10
246066013	18-FEB-2010 15:53:00	2	20	10
246066014	18-FEB-2010 15:53:00	2	20	10
246066015	18-FEB-2010 15:53:00	2	20	10
246066016	18-FEB-2010 15:53:00	2	20	10
246066017	18-FEB-2010 15:53:00	2	20	10
246066018	18-FEB-2010 15:53:00	2	20	10
246066019	18-FEB-2010 15:53:00	2	20	10
246066020	18-FEB-2010 15:53:00	2	20	10
1202035655 ICS	18-FEB-2010 15:53:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035655	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
LCS	1202035652	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MS	1202035653	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MSD	1202035654	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL

Comments:
Desalting Cartridge Lot#: 091120-1-Ba & 100112-1-H.

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 02/25/10
Extr. Injection Volume: 20uL
Sequence Number: per022510a
Initial Calibration Date: 02/25/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: [illegible]
Date: 02/28/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0225001a	IPB001	CWW	2/25/2010 18:13			1		USE	B
per0225002a	IPB001	CWW	2/25/2010 18:20			1		USE	B
per0225003a	WCLICAL-01	CWW	2/25/2010 18:28			1		USE	I
per0225004a	WCLICAL-02	CWW	2/25/2010 18:35			1		USE	I
per0225005a	WCLICAL-03	CWW	2/25/2010 18:43			1		USE	I
per0225006a	WCLICAL-04	CWW	2/25/2010 18:50			1		USE	I
per0225007a	WCLICAL-05	CWW	2/25/2010 18:58			1		USE	I
per0225008a	IPB002	CWW	2/25/2010 19:05			1		USE	B
per0225009a	WCLICV	CWW	2/25/2010 19:13			1		USE	C
per0225010a	IPB003	CWW	2/25/2010 19:21			1		USE	B
per0225011a	WCLCRI	CWW	2/25/2010 19:28			1		USE	C
per0225012a	1202035651	CWW	2/25/2010 19:36	950066	10-1543	1	LANL	USE	S
per0225013a	1202035652	CWW	2/25/2010 19:43	950066	10-1543	1	LANL	USE	S
per0225014a	1202035655	CWW	2/25/2010 19:51	950066	10-1543	1	LANL	USE	S
per0225015a	246066001	CWW	2/25/2010 19:58	950066	10-1543	1	LANL	USE	S
per0225016a	246066002	CWW	2/25/2010 20:06	950066	10-1543	1	LANL	USE	S
per0225017a	1202035653	CWW	2/25/2010 20:13	950066	10-1543	1	LANL	USE	S
per0225018a	1202035654	CWW	2/25/2010 20:21	950066	10-1543	1	LANL	USE	S
per0225019a	246066003	CWW	2/25/2010 20:28	950066	10-1543	1	LANL	USE	S
per0225020a	246066004	CWW	2/25/2010 20:36	950066	10-1543	1	LANL	USE	S
per0225021a	WCLCCV	CWW	2/25/2010 20:44			1		USE	C
per0225022a	IPB004	CWW	2/25/2010 20:51			1		USE	B
per0225023a	WCLCRI	CWW	2/25/2010 20:59			1		USE	C
per0225024a	246066005	CWW	2/25/2010 21:06	950066	10-1543	1	LANL	USE	S
per0225025a	246066006	CWW	2/25/2010 21:14	950066	10-1543	1	LANL	USE	S
per0225026a	246066007	CWW	2/25/2010 21:21	950066	10-1543	1	LANL	USE	S
per0225027a	246066008	CWW	2/25/2010 21:29	950066	10-1543	1	LANL	USE	S
per0225028a	246066009	CWW	2/25/2010 21:36	950066	10-1543	1	LANL	USE	S
per0225029a	246066010	CWW	2/25/2010 21:44	950066	10-1543	1	LANL	USE	S

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per0225030a	246066011	CWW	2/25/2010 21:51	950066	10-1543	1	LANL	USE	S
per0225031a	246066012	CWW	2/25/2010 21:59	950066	10-1543	1	LANL	USE	S
per0225032a	WCLCCV	CWW	2/25/2010 22:07			1		USE	C
per0225033a	IPB005	CWW	2/25/2010 22:14			1		USE	B
per0225034a	WCLCRI	CWW	2/25/2010 22:22			1		USE	C
per0225035a	246066013	CWW	2/25/2010 22:29	950066	10-1543	1	LANL	USE	S
per0225036a	246066014	CWW	2/25/2010 22:37	950066	10-1543	1	LANL	USE	S
per0225037a	246066015	CWW	2/25/2010 22:44	950066	10-1543	1	LANL	USE	S
per0225038a	246066016	CWW	2/25/2010 22:52	950066	10-1543	1	LANL	USE	S
per0225039a	246066017	CWW	2/25/2010 22:59	950066	10-1543	1	LANL	USE	S
per0225040a	246066018	CWW	2/25/2010 23:07	950066	10-1543	1	LANL	USE	S
per0225041a	246066019	CWW	2/25/2010 23:14	950066	10-1543	1	LANL	USE	S
per0225042a	246066020	CWW	2/25/2010 23:22	950066	10-1543	1	LANL	USE	S
per0225043a	WCLCCV	CWW	2/25/2010 23:30			1		USE	C
per0225044a	IPB006	CWW	2/25/2010 23:37			1		USE	B
per0225045a	WCLCRI	CWW	2/25/2010 23:45			1		USE	C
per0225046a	1202042686	CWW	2/25/2010 23:52	952999	VARIOUS	1	LANL	USE	S
per0225047a	1202042687	CWW	2/26/2010 0:00	952999	VARIOUS	1	LANL	USE	S
per0225048a	1202042690	CWW	2/26/2010 0:07	952999	VARIOUS	1	LANL	USE	S
per0225049a	246735001	CWW	2/26/2010 0:15	952999	10-1743	1	LANL	USE	S
per0225050a	246735002	CWW	2/26/2010 0:23	952999	10-1743	1	LANL	USE	S
per0225051a	1202042688	CWW	2/26/2010 0:30	952999	10-1743	1	LANL	USE	S
per0225052a	1202042689	CWW	2/26/2010 0:38	952999	10-1743	1	LANL	USE	S
per0225053a	246735003	CWW	2/26/2010 0:45	952999	10-1743	1	LANL	USE	S
per0225054a	246735004	CWW	2/26/2010 0:53	952999	10-1743	1	LANL	USE	S
per0225055a	WCLCCV	CWW	2/26/2010 1:00			1		USE	C
per0225056a	IPB007	CWW	2/26/2010 1:08			1		USE	B
per0225057a	WCLCRI	CWW	2/26/2010 1:15			1		USE	C
per0225058a	246735005	CWW	2/26/2010 1:23	952999	10-1743	1	LANL	USE	S
per0225059a	246752002	CWW	2/26/2010 1:31	952999	10-1745	1	LANL	USE	S
per0225060a	246752003	CWW	2/26/2010 1:38	952999	10-1745	1	LANL	USE	S
per0225061a	246837001	CWW	2/26/2010 1:46	952999	10-1747	1	LANL	USE	S
per0225062a	246837002	CWW	2/26/2010 1:53	952999	10-1747	1	LANL	USE	S
per0225063a	246837003	CWW	2/26/2010 2:01	952999	10-1747	1	LANL	USE	S
per0225064a	246837004	CWW	2/26/2010 2:08	952999	10-1747	1	LANL	USE	S
per0225065a	246837005	CWW	2/26/2010 2:16	952999	10-1747	1	LANL	USE	S
per0225066a	WCLCCV	CWW	2/26/2010 2:23			1		USE	C

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per0225067a	IPB008	CWW	2/26/2010 2:31			1		USE	B
per0225068a	WCLCRI	CWW	2/26/2010 2:39			1		USE	C
per0225069a	246837006	CWW	2/26/2010 2:46	952999	10-1747	1	LANL	DUSE_RA	S
per0225070a	246841001	CWW	2/26/2010 2:54	952999	10-1748	1	LANL	DUSE_RA	S
per0225071a	246841002	CWW	2/26/2010 3:02	952999	10-1748	1	LANL	DUSE_RA	S
per0225072a	246841003	CWW	2/26/2010 3:09	952999	10-1748	1	LANL	DUSE_RA	S
per0225073a	246843002	CWW	2/26/2010 3:17	952999	10-1749	1	LANL	DUSE_RA	S
per0225074a	246843003	CWW	2/26/2010 3:24	952999	10-1749	1	LANL	DUSE_RA	S
per0225075a	246843004	CWW	2/26/2010 3:32	952999	10-1749	1	LANL	DUSE_RA	S
per0225076a	WCLCCV	CWW	2/26/2010 3:39			1		DUSE	C
per0225077a	IPB009	CWW	2/26/2010 3:47			1		DUSE	B

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1543

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	948888
Prep Batch Number:	948887

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
246066001	RE15-10-8129
246066002	RE15-10-8131
246066003	RE15-10-8130
246066004	RE15-10-8127
246066005	RE15-10-8128
246066006	RE15-10-8126
246066007	RE15-10-8140
246066008	RE15-10-8147
246066009	RE15-10-8142
246066010	RE15-10-8146
246066011	RE15-10-8136
246066012	RE15-10-8139
246066013	RE15-10-8134

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246066014	RE15-10-8137
246066015	RE15-10-8143
246066016	RE15-10-8138
246066017	RE15-10-8145
246066018	RE15-10-8141
246066019	RE15-10-8135
246066020	RE15-10-8144
1202032874	Method Blank (MB)
1202032875	Laboratory Control Sample (LCS)
1202032876	246066001(RE15-10-8129) Matrix Spike (MS)
1202032877	246066001(RE15-10-8129) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

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Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 246066001 (RE15-10-8129) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

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Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered 2,4-Diamino-6-nitrotoluene at 115.4%. The limits are 52-114%. The data are considered unaffected and are reported. Please see data exception report 800893.

QC Sample Designation
Sample 246066001 (RE15-10-8129) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovered TATB at 163%. The limits are 29-155%. The data are considered unaffected and are reported. Please see data exception report 800893.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

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Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 800893 was generated for this SDG.

The LCS recovered 2,4-Diamino-6-nitrotoluene at 115.4%. The limits are 52-114%. The data are considered unaffected and are reported.

The MSD recovered TATB at 163%. The limits are 29-155%. The data are considered unaffected and are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

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Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather K Maier **Date:** 03/09/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066001

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304151a

Date Analyzed: 07-MAR-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066001

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260032.wiff

Date Analyzed: 26-FEB-10 23:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8131

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066002

Sample Amount 2

Moisture: 17.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304154a

Date Analyzed: 07-MAR-10 18:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8131

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066002

Sample Amount 2

Moisture: 17.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260035.wiff

Date Analyzed: 26-FEB-10 23:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8130

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066003

Sample Amount 2

Moisture: 22.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304155a

Date Analyzed: 07-MAR-10 19:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8130

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066003

Sample Amount 2

Moisture: 22.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260036.wiff

Date Analyzed: 27-FEB-10 00:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8127

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066004

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304156a

Date Analyzed: 07-MAR-10 19:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8127

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066004

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260040.wiff

Date Analyzed: 27-FEB-10 01:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8128

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066005

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304157a

Date Analyzed: 07-MAR-10 19:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8128

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066005

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260041.wiff

Date Analyzed: 27-FEB-10 01:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	496	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8126

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066006

Sample Amount 2

Moisture: 18.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304158a

Date Analyzed: 07-MAR-10 20:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8126

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066006

Sample Amount 2

Moisture: 18.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260042.wiff

Date Analyzed: 27-FEB-10 01:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8140

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066007

Sample Amount 2

Moisture: 13.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304162a

Date Analyzed: 07-MAR-10 22:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8140

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066007

Sample Amount 2

Moisture: 13.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260043.wiff

Date Analyzed: 27-FEB-10 01:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8147

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066008

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304163a

Date Analyzed: 07-MAR-10 22:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8147

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066008

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260044.wiff

Date Analyzed: 27-FEB-10 02:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8142

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066009

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304164a

Date Analyzed: 07-MAR-10 23:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8142

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066009

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260045.wiff

Date Analyzed: 27-FEB-10 02:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8146

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066010

Sample Amount 2

Moisture: 17.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304165a

Date Analyzed: 07-MAR-10 23:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8146

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066010

Sample Amount 2

Moisture: 17.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260046.wiff

Date Analyzed: 27-FEB-10 02:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8136

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066011

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304166a

Date Analyzed: 08-MAR-10 00:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8136

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066011

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260047.wiff

Date Analyzed: 27-FEB-10 02:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8139

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066012

Sample Amount 2

Moisture: 7.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304167a

Date Analyzed: 08-MAR-10 00:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8139

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066012

Sample Amount 2

Moisture: 7.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260048.wiff

Date Analyzed: 27-FEB-10 03:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8134

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066013

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304168a

Date Analyzed: 08-MAR-10 01:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8134

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066013

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260049.wiff

Date Analyzed: 27-FEB-10 03:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8137

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066014

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304169a

Date Analyzed: 08-MAR-10 01:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8137

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066014

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260053.wiff

Date Analyzed: 27-FEB-10 04:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8143

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066015

Sample Amount 2

Moisture: 10.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304170a

Date Analyzed: 08-MAR-10 02:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8143

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066015

Sample Amount 2

Moisture: 10.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260054.wiff

Date Analyzed: 27-FEB-10 04:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8138

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066016

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304171a

Date Analyzed: 08-MAR-10 02:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8138

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066016

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260055.wiff

Date Analyzed: 27-FEB-10 05:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8145

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066017

Sample Amount 2

Moisture: 6.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304175a

Date Analyzed: 08-MAR-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8145

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066017

Sample Amount 2

Moisture: 6.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260056.wiff

Date Analyzed: 27-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8141

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066018

Sample Amount 2

Moisture: 12.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304176a

Date Analyzed: 08-MAR-10 05:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8141

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066018

Sample Amount 2

Moisture: 12.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260057.wiff

Date Analyzed: 27-FEB-10 05:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8135

Lab Code: GEI

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066019

Sample Amount 2

Moisture: 10.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304177a

Date Analyzed: 08-MAR-10 05:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8135

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066019

Sample Amount 2

Moisture: 10.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260058.wiff

Date Analyzed: 27-FEB-10 05:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8144

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066020

Sample Amount 2

Moisture: 32.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304178a

Date Analyzed: 08-MAR-10 06:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8144

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066020

Sample Amount 2

Moisture: 32.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260059.wiff

Date Analyzed: 27-FEB-10 06:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1543

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
246066001	RE15-10-8129	110	70 – 144	
246066001	RE15-10-8129	105	70 – 144	
246066002	RE15-10-8131	102	70 – 144	
246066002	RE15-10-8131	96	70 – 144	
246066003	RE15-10-8130	101	70 – 144	
246066003	RE15-10-8130	98.8	70 – 144	
246066004	RE15-10-8127	96.3	70 – 144	
246066004	RE15-10-8127	103	70 – 144	
246066005	RE15-10-8128	104	70 – 144	
246066005	RE15-10-8128	104	70 – 144	
246066006	RE15-10-8126	102	70 – 144	
246066006	RE15-10-8126	101	70 – 144	
246066007	RE15-10-8140	113	70 – 144	
246066007	RE15-10-8140	101	70 – 144	
246066008	RE15-10-8147	106	70 – 144	
246066008	RE15-10-8147	97.6	70 – 144	
246066009	RE15-10-8142	106	70 – 144	
246066009	RE15-10-8142	96.4	70 – 144	
246066010	RE15-10-8146	109	70 – 144	
246066010	RE15-10-8146	106	70 – 144	
246066011	RE15-10-8136	111	70 – 144	
246066011	RE15-10-8136	102	70 – 144	
246066012	RE15-10-8139	115	70 – 144	
246066012	RE15-10-8139	103	70 – 144	
246066013	RE15-10-8134	116	70 – 144	
246066013	RE15-10-8134	99.2	70 – 144	
246066014	RE15-10-8137	106	70 – 144	
246066014	RE15-10-8137	98.8	70 – 144	
246066015	RE15-10-8143	108	70 – 144	
246066015	RE15-10-8143	103	70 – 144	
246066016	RE15-10-8138	109	70 – 144	
246066016	RE15-10-8138	103	70 – 144	
246066017	RE15-10-8145	108	70 – 144	
246066017	RE15-10-8145	101	70 – 144	
246066018	RE15-10-8141	111	70 – 144	
246066018	RE15-10-8141	108	70 – 144	
246066019	RE15-10-8135	98.7	70 – 144	

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High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1543

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
246066019	RE15–10–8135	103	70 – 144	
246066020	RE15–10–8144	109	70 – 144	
246066020	RE15--10–8144	102	70 – 144	
1202032874	MB for batch 948887	95.9	70 – 144	
1202032874	MB for batch 948887	96	70 – 144	
1202032875	LCS for batch 948887	99.3	70 – 144	
1202032875	LCS for batch 948887	97.6	70 – 144	
1202032876	RE15–10–8129(246066001MS)	104	70 – 144	
1202032876	RE15–10–8129(246066001MS)	95.2	70 – 144	
1202032877	RE15–10–8129(246066001MSD)	103	70 – 144	
1202032877	RE15–10–8129(246066001MSD)	98.4	70 – 144	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1543

Extract Batch Code: 948887

Date Extracted: 11-FEB-10

GEL LCS ID: 1202032875

GEL LCSDUP ID:

Analysis Date/Time: 07-MAR-10 16:32

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4090	81.7					69 – 126
2,4,6-Trinitrotoluene	5000	4960	99.3					73 – 149
2,4-Dinitrotoluene	5000	4490	89.8					87 – 137
2,6-Dinitrotoluene	5000	4730	94.6					89 – 120
2-Amino-4,6-dinitrotoluene	5000	5450	109					90 – 130
4-Amino-2,6-dinitrotoluene	5000	5500	110					84 – 130
HMX	5000	4240	84.8					58 – 138
Nitrobenzene	5000	4840	96.7					71 – 122
PETN	5000	5000	100					64 – 137
RDX	5000	4820	96.3					81 – 137
Tetryl	5000	2670	53.4					51 – 112
m-Dinitrobenzene	5000	4520	90.4					83 – 122
m-Nitrotoluene	5000	4490	89.9					73 – 118
o-Nitrotoluene	5000	4970	99.5					72 – 119
p-Nitrotoluene	5000	5020	100					67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1543

Extract Batch Code: 948887

Date Extracted: 11-FEB-10

GEL LCS ID: 1202032875

GEL LCSDUP ID:

Analysis Date/Time: 26-FEB-10 22:45

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	5770	115	*							52 – 114
2,6-Diamino-4-nitrotoluene	5000	5920	118								64 – 122
3,5-Dinitroaniline	5000	4960	99.2								70 – 127
tris(o-cresyl) phosphate	5000	5030	101								84 – 119
TATB	5000	6720	134								28 – 162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8129

Lab Code: GEL

GEL Job No (SDG) 10-1543

Extract Batch Code: 948887

Date Extracted: 11-FEB-10

GEL Spike ID: 1202032876

GEL SpikeDup ID: 1202032877

Analysis Date/Time: 07-MAR-10 17:31

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4420	88.4	4260	85.1	3.73	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	4880	97.6	4980	99.7	2.07	30	76 – 144
2,4-Dinitrotoluene	5000	0	4650	93.1	4610	92.3	.9	30	86 – 135
2,6-Dinitrotoluene	5000	0	4820	96.4	4790	95.8	.6	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	5530	111	5760	115	4.13	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5550	111	5550	111	.119	30	72 – 143
HMX	5000	0	4540	90.8	4490	89.8	1.13	30	51 – 144
Nitrobenzene	5000	0	4630	92.7	4660	93.3	.653	30	70 – 122
PETN	5000	0	6580	132	6030	121	8.7	30	60 – 140
RDX	5000	0	4450	88.9	4500	90	1.23	30	59 – 152
Tetryl	5000	0	2750	55	2310	46.1	17.6	30	36 – 124
m-Dinitrobenzene	5000	0	4670	93.4	4670	93.4	.064	30	85 – 118
m-Nitrotoluene	5000	0	4490	89.9	4460	89.2	.747	30	70 – 120
o-Nitrotoluene	5000	0	4790	95.7	4680	93.7	2.15	30	69 – 123
p-Nitrotoluene	5000	0	4920	98.4	4710	94.3	4.32	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8129

Lab Code: GEL

GEL Job No (SDG) 10-1543

Extract Batch Code: 948887

Date Extracted: 11-FEB-10

GEL Spike ID: 1202032876

GEL SpikeDup ID: 1202032877

Analysis Date/Time: 26-FEB-10 23:16

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
TATB	5000	0	7090	142	8160	163 *	14	30	29 – 155
tris(o-cresyl) phosphate	5000	0	5260	105	5270	105	.19	30	72 – 127
3,5-Dinitroaniline	5000	0	4990	99.8	4940	98.8	1.01	30	73 – 129
2,6-Diamino-4-nitrotoluene	5000	0	5820	116	6060	121	4.04	30	55 – 130
2,4-Diamino-6-nitrotoluene	5000	0	5500	110	5360	107	2.58	26	34 – 135

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1543

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04–MAR–10 15:16

GEL Data File: EXP0304001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	607.958
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	536.234

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
Calibration: Untitled, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304001a
Date: 04-Mar-2010
Time: 15:16:39
ID: XIBLK01
Vial: 1:1,A

HMT 3/6/10

HMX

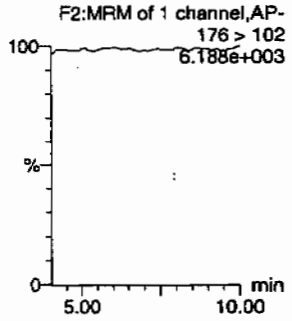

RDX

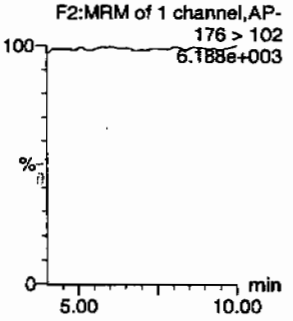

135-Trinitrobenzene

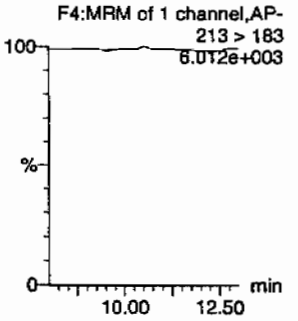

13-Dinitrobenzene-d4

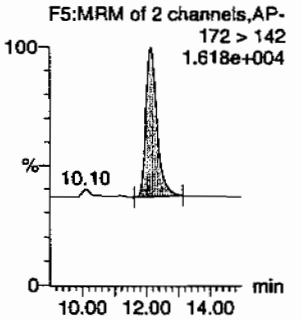

13-Dinitrobenzene

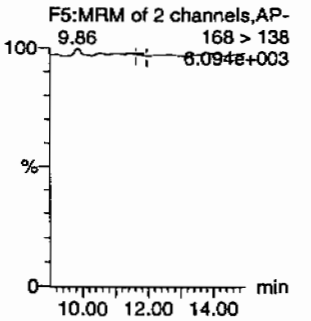

Tetryl

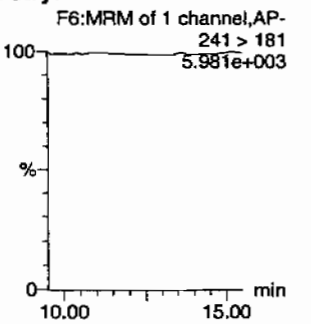

Nitrobenzene

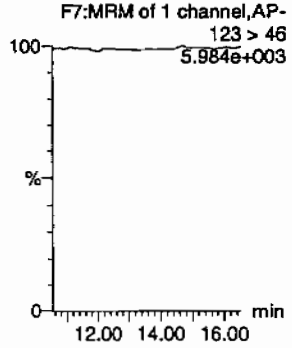

4-Amino-26-dinitrotoluene

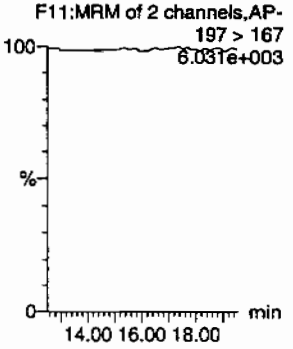

2-Amino-46-dinitrotoluene

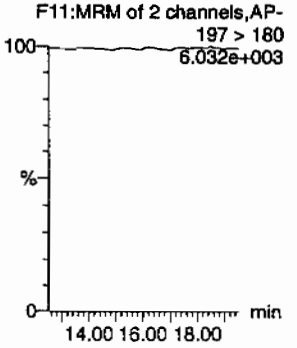

246-Trinitrotoluene

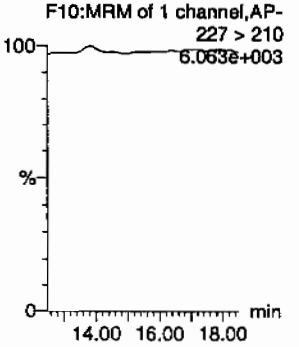

34-dinitrotoluene

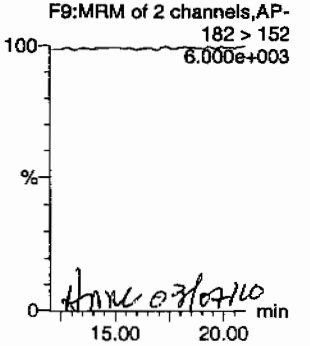

HMC 03/07/10

26-dinitrotoluene

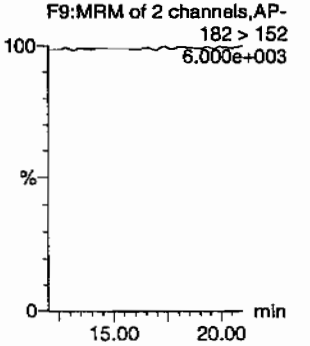

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

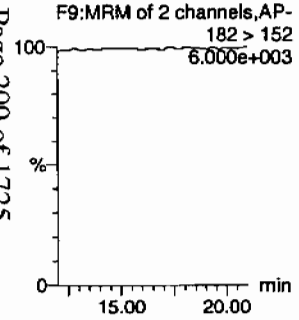

26-dinitrotoluene-d3

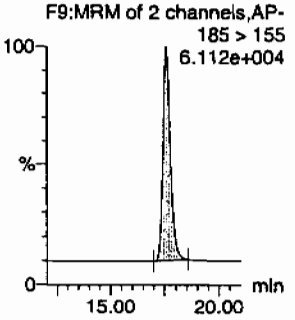

2-Nitrotoluene

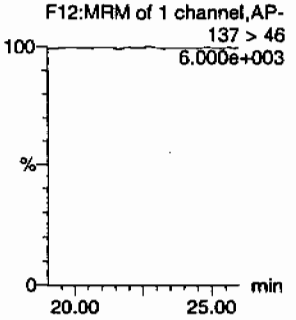

4-Nitrotoluene

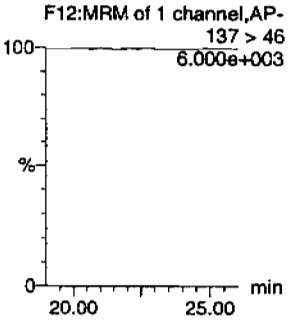

3-Nitrotoluene

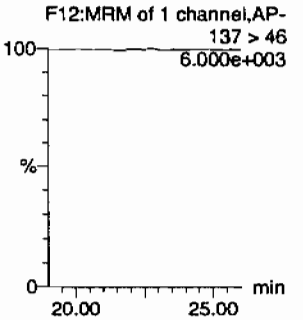

PETN

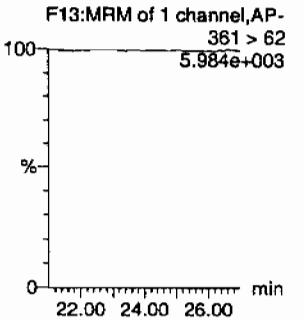

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			4270.042									
XIBLK01	RDX	176 > 102			4270.042									
XIBLK01	135-Trinitrobenzene	213 > 183			4270.042									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.14	4270.042		4270.042	4270.042	bb			607.9583	121.6	21.6	332.0
XIBLK01	13-Dinitrobenzene	168 > 138			4270.042			MM-	05-Mar-10	10:02:47				
XIBLK01	Tetryl	241 > 181			4270.042									
XIBLK01	Nitrobenzene	123 > 46			4270.042									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			22050.561									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			22050.561									
XIBLK01	246-Trinitrotoluene	227 > 210			22050.561									
XIBLK01	34-dinitrotoluene	182 > 152			22050.561									
XIBLK01	26-dinitrotoluene	182 > 152			22050.561									
XIBLK01	24-dinitrotoluene	182 > 152			22050.561									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.60	22050.561		22050.561	22050.561	bb			536.2338	107.2	7.2	2058.0
XIBLK01	2-Nitrotoluene	137 > 46			22050.561									
XIBLK01	4-Nitrotoluene	137 > 46			22050.561									
XIBLK01	3-Nitrotoluene	137 > 46			22050.561									
XIBLK01	PETN	361 > 62			22050.561									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-MAR-10 15:46

GEL Data File: EXP0304002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	579.131
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	573.881
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304002a
Date: 04-Mar-2010
Time: 15:46:08
ID: XIBLK01
Vial: 1:1,A

MMT 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.354e+003

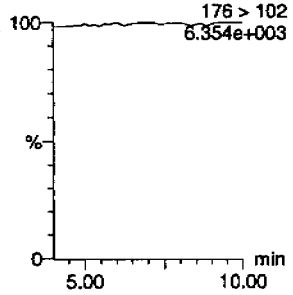

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.354e+003

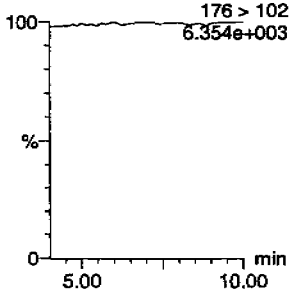

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.177e+003

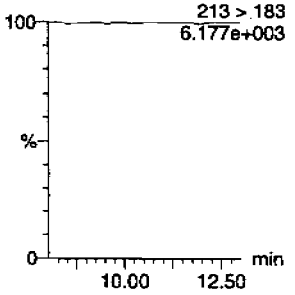

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.591e+004

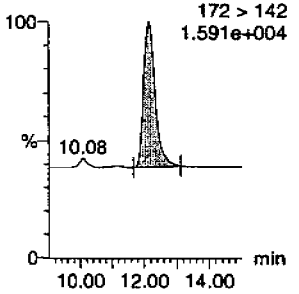

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.186e+003

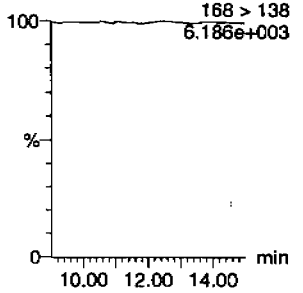

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.222e+003

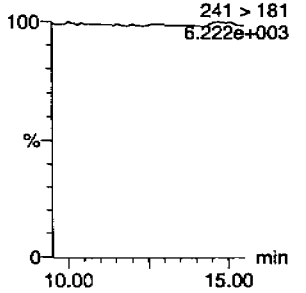

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.270e+003

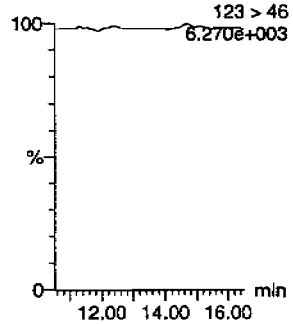

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.260e+003

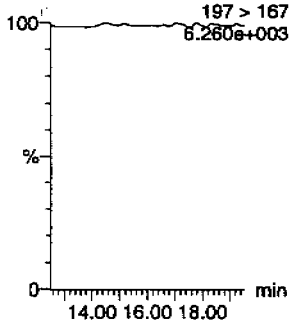

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.297e+003

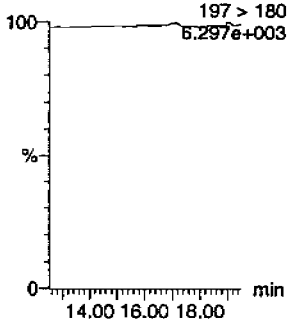

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.220e+003

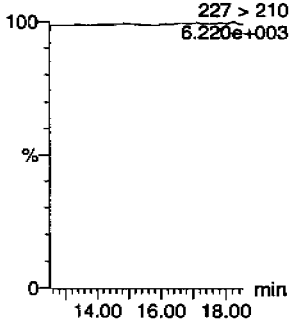

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.236e+003

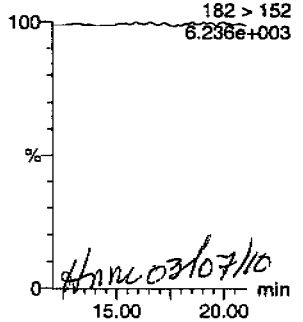

Hmc 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.236e+003

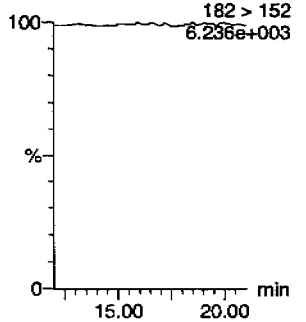

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

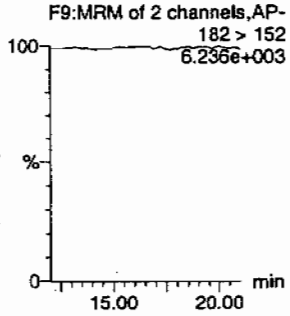

26-dinitrotoluene-d3

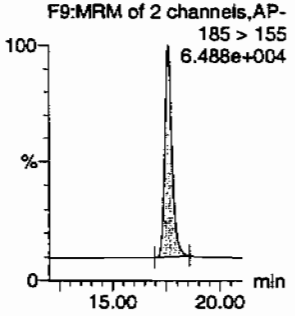

2-Nitrotoluene

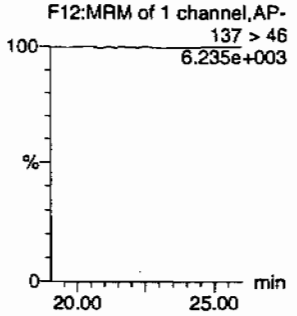

4-Nitrotoluene

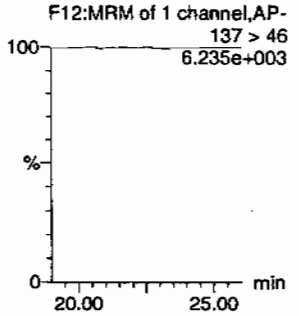

3-Nitrotoluene

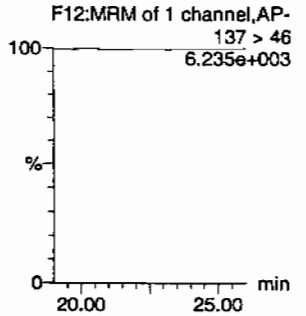

PETN

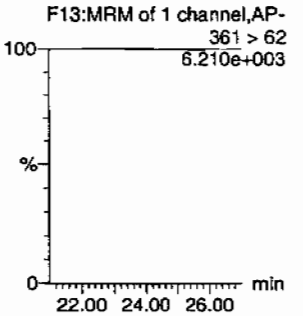

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			4067.572									
XIBLK01	RDX	176 > 102			4067.572									
XIBLK01	135-Trinitrobenzene	213 > 183			4067.572									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.14	4067.572		4067.572	4067.572	bb			579.1311	115.8	15.8	625.2
XIBLK01	13-Dinitrobenzene	168 > 138			4067.572									
XIBLK01	Tetryl	241 > 181			4067.572									
XIBLK01	Nitrobenzene	123 > 46			4067.572									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			23598.654									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			23598.654									
XIBLK01	246-Trinitrotoluene	227 > 210			23598.654									
XIBLK01	34-dinitrotoluene	182 > 152			23598.654									
XIBLK01	26-dinitrotoluene	182 > 152			23598.654									
XIBLK01	24-dinitrotoluene	182 > 152			23598.654									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.60	23598.654		23598.654	23598.654	bb			573.8809	114.8	14.8	787.1
XIBLK01	2-Nitrotoluene	137 > 46			23598.654									
XIBLK01	4-Nitrotoluene	137 > 46			23598.654									
XIBLK01	3-Nitrotoluene	137 > 46			23598.654									
XIBLK01	PETN	361 > 62			23598.654									

Page 203 of 1725

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1543

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26–FEB–10 14:53

GEL Data File: EXS02260001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lar 3/1/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

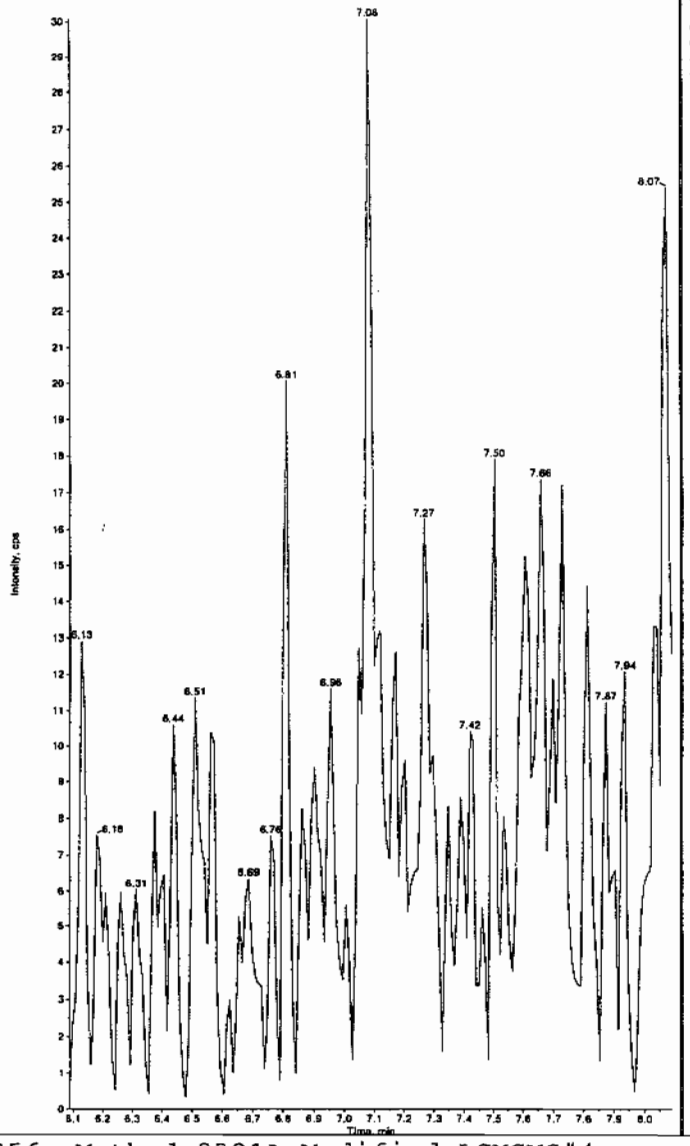

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

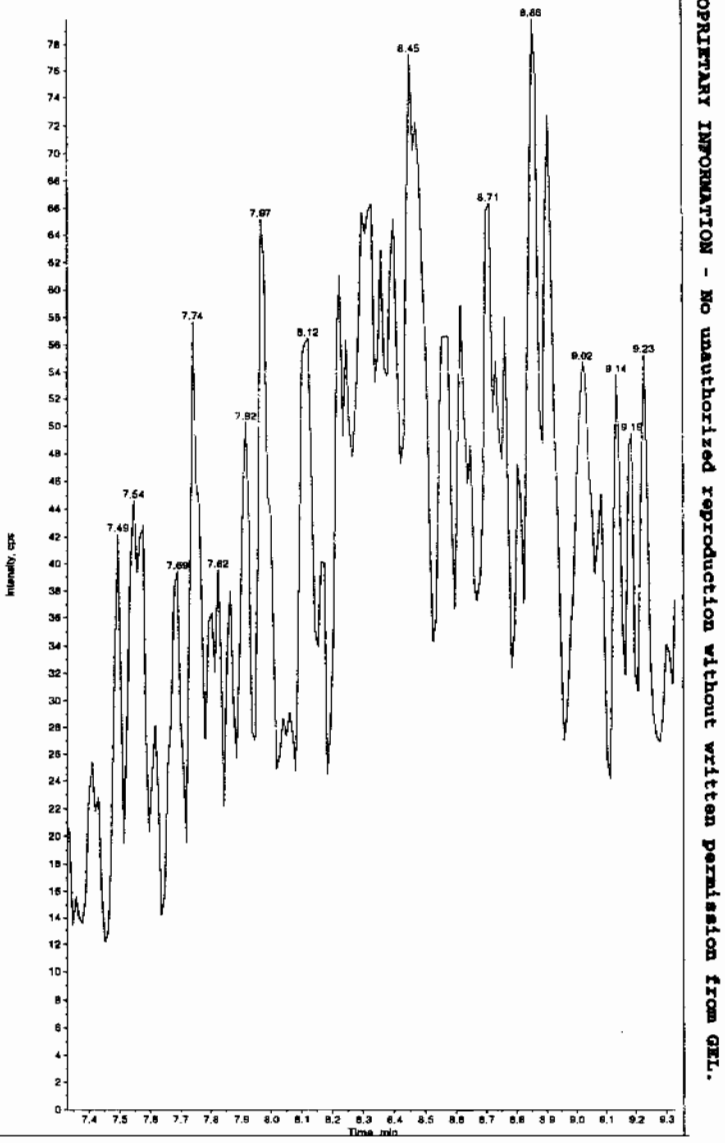

Hm 02/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

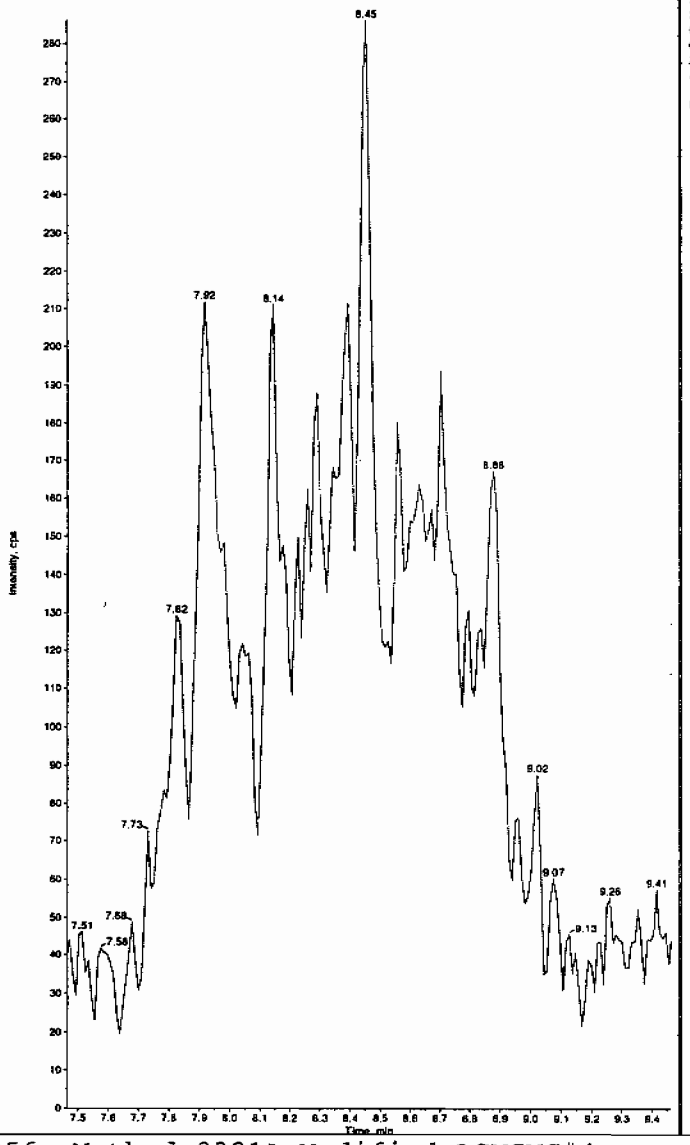

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

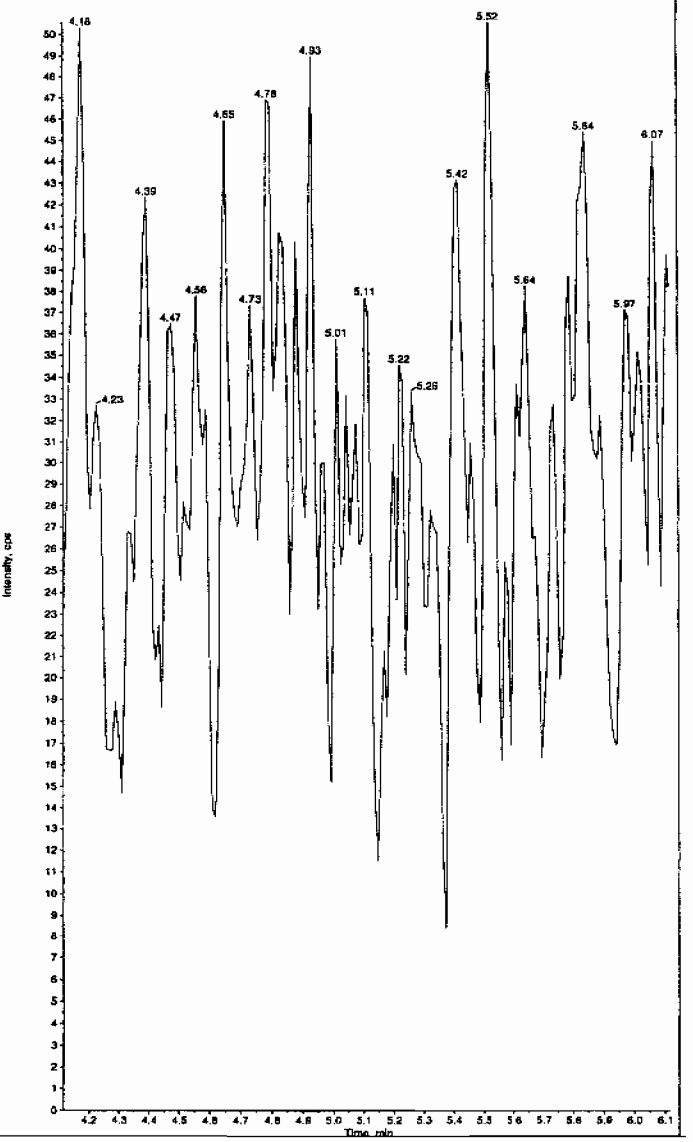

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

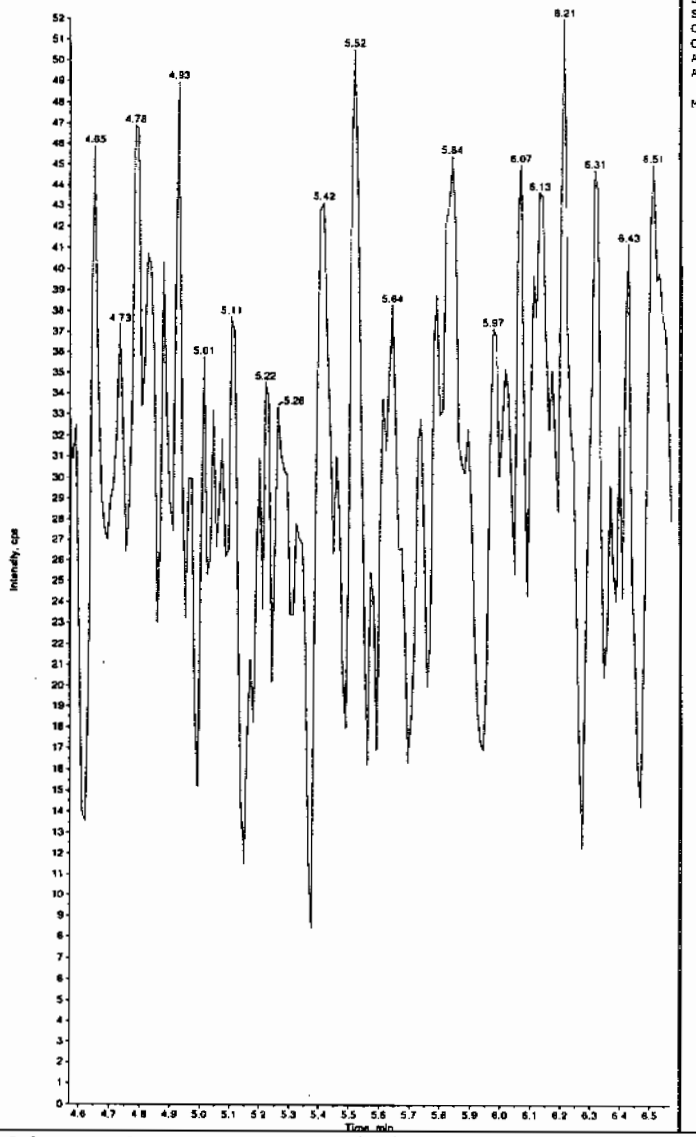

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

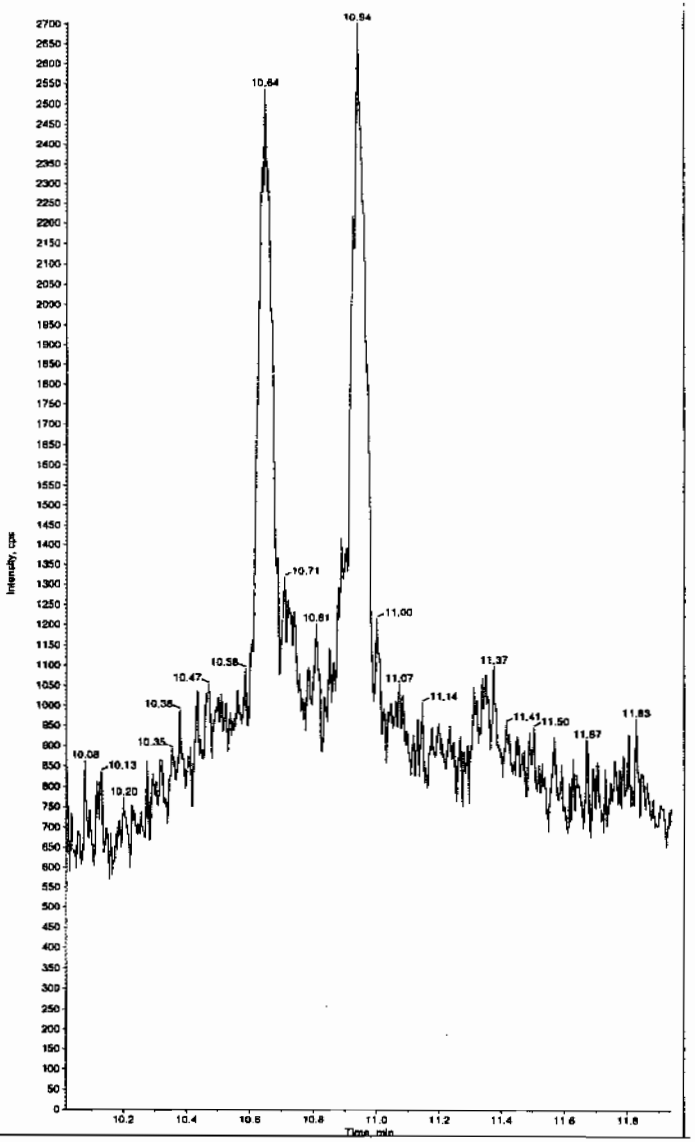

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26-FEB-10 15:09

GEL Data File: EXS02260002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jan 3/1/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM
Modified: No

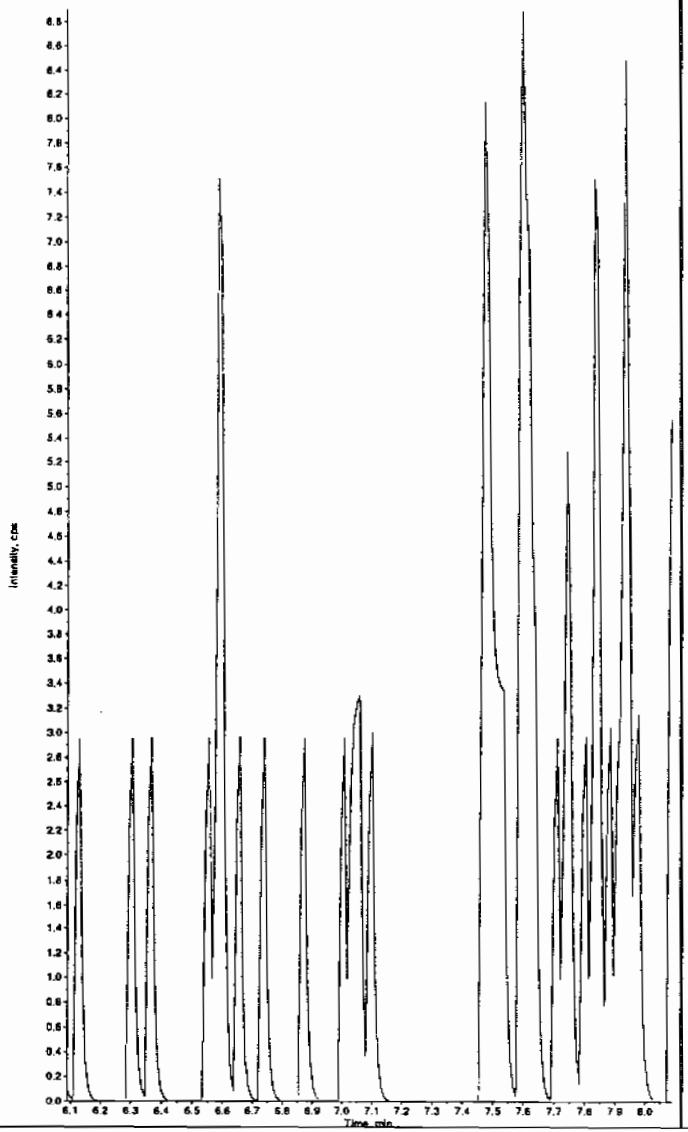

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM
Modified: No

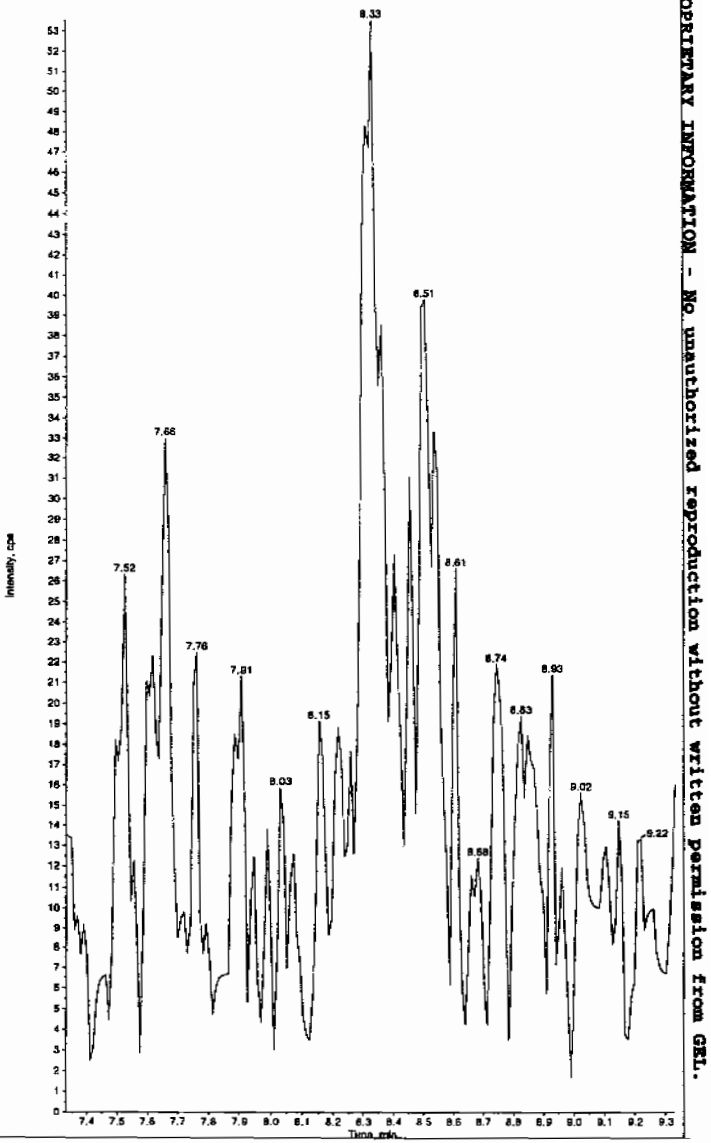

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

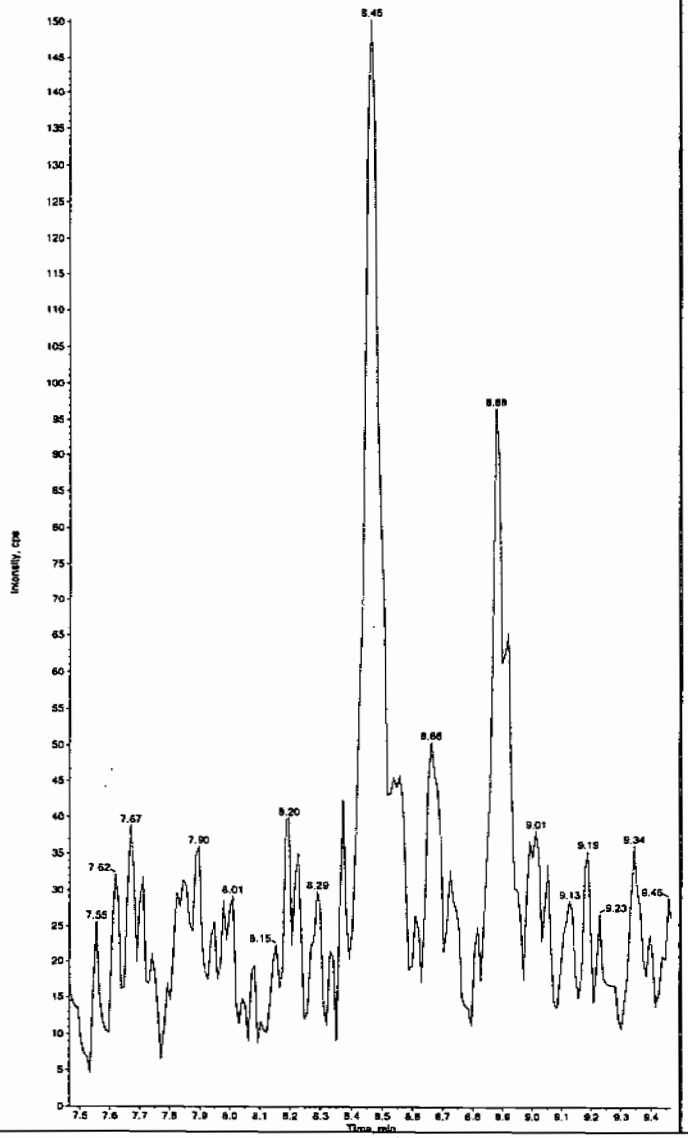

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

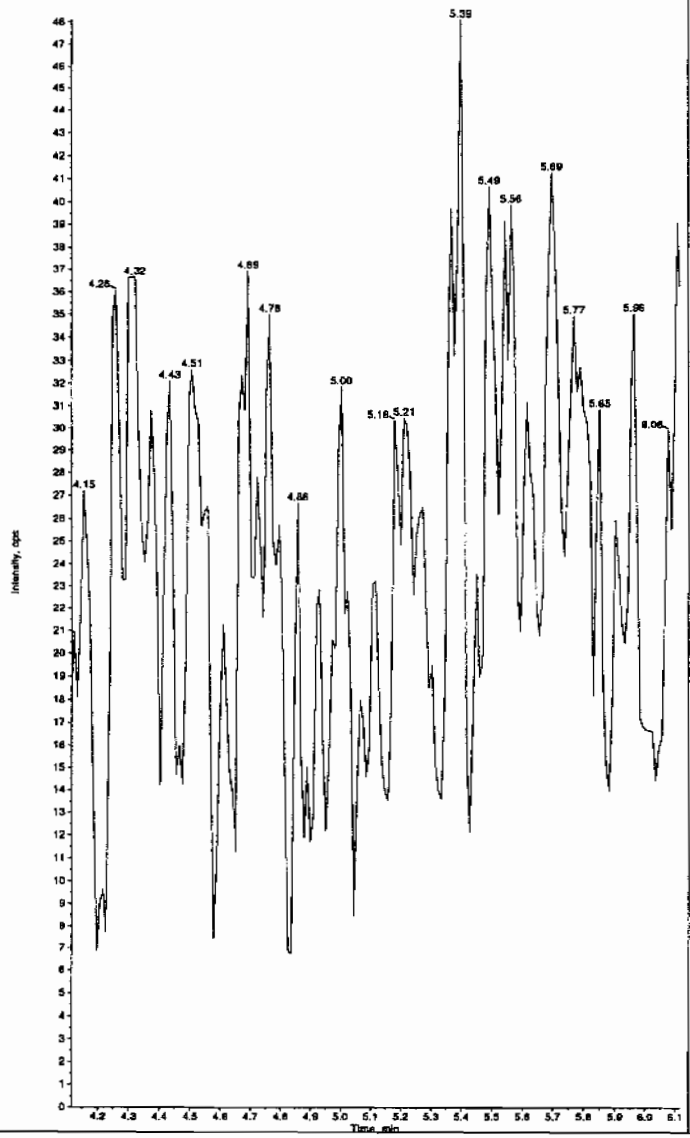

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

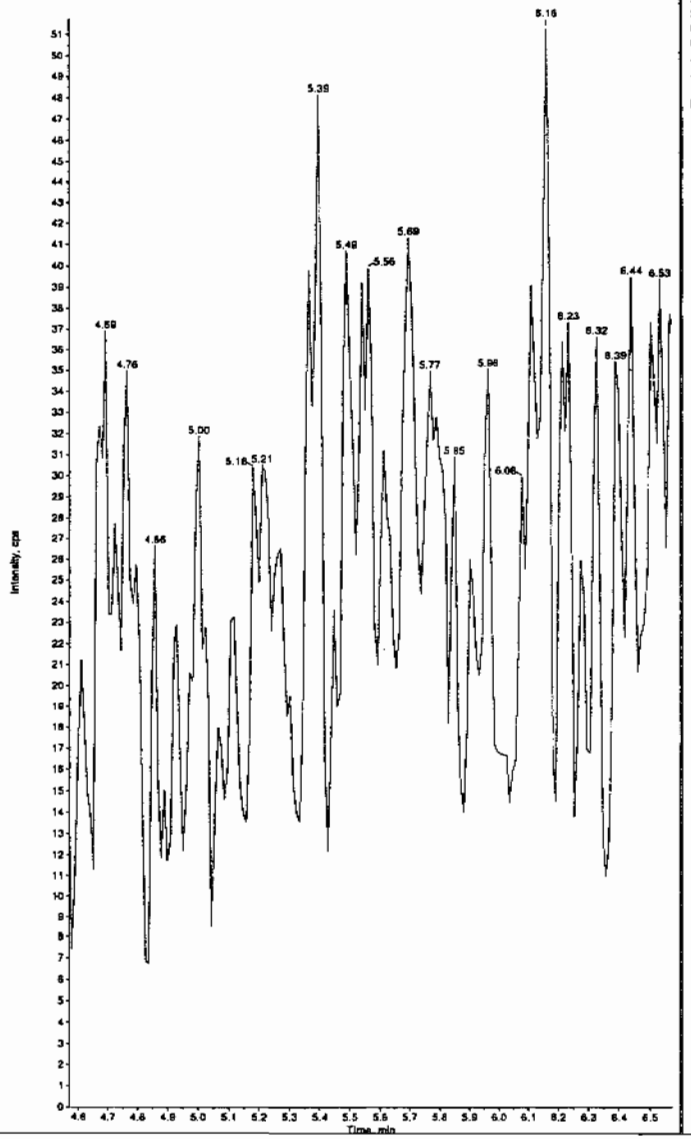

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

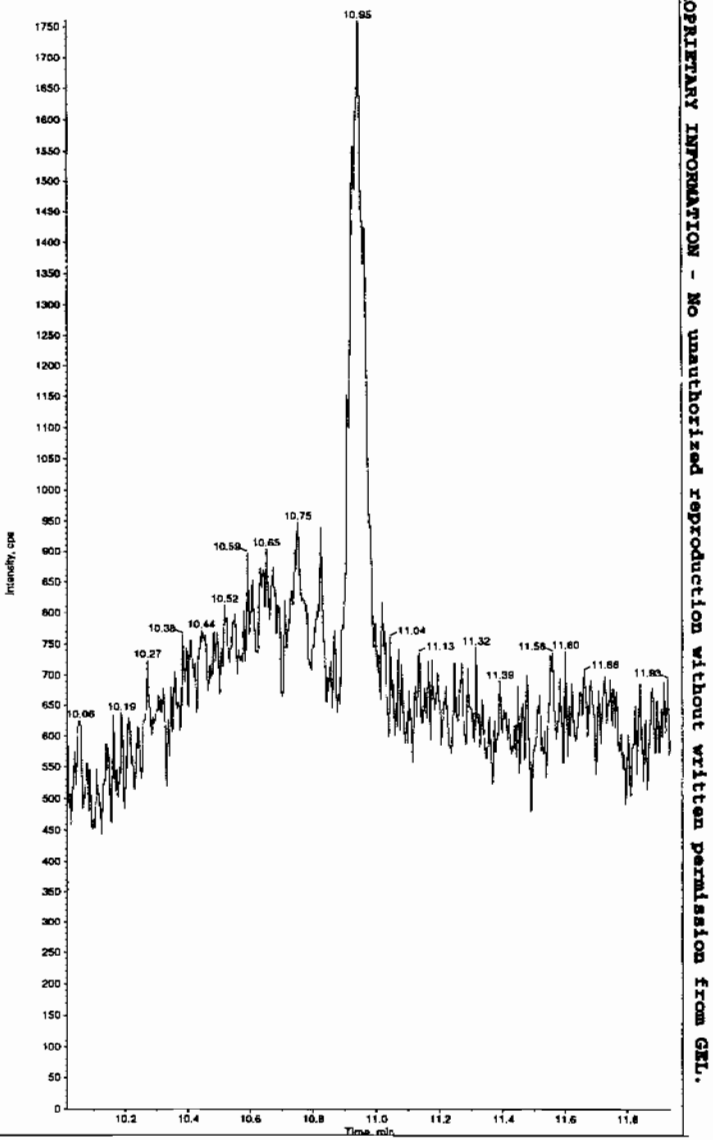

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 04-MAR-10 19:12

GEL Data File: EXP0304009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	522.148
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.283
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304009a
Date: 04-Mar-2010
Time: 19:12:28
ID: XIBLK02
Vial: 1:1,A

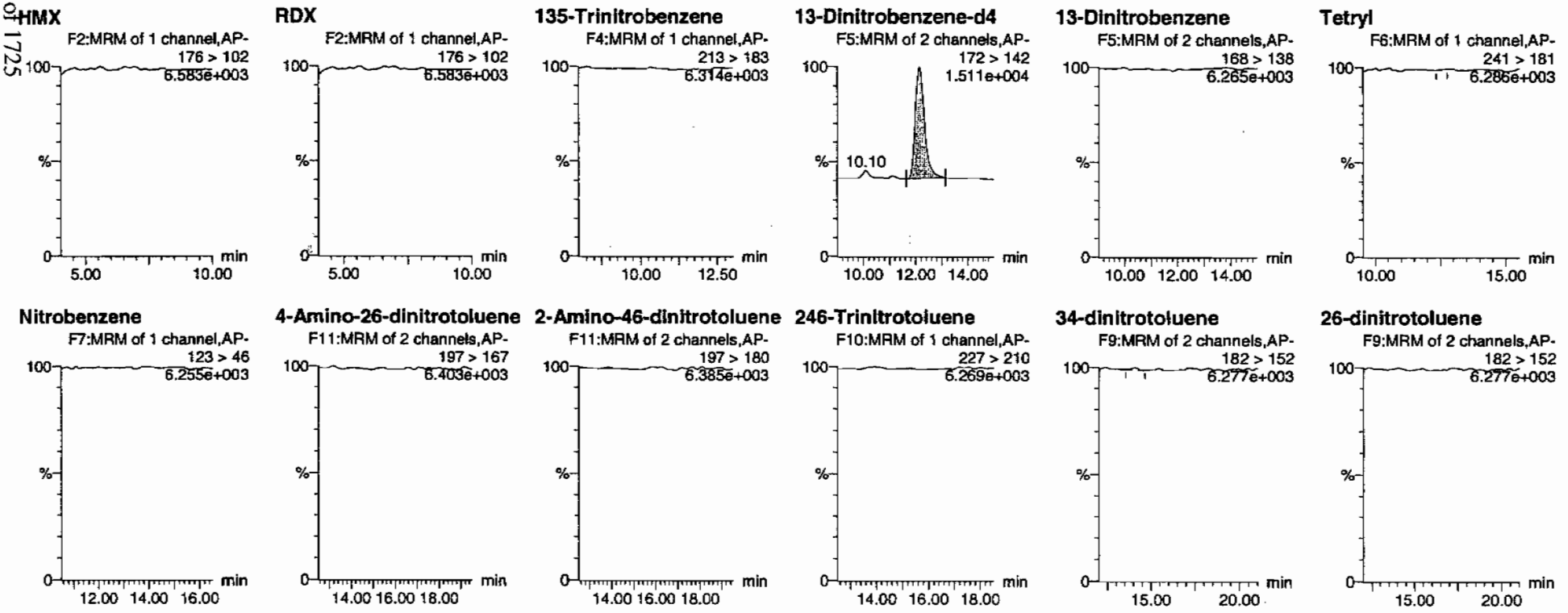

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

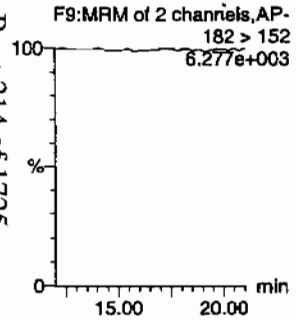

26-dinitrotoluene-d3

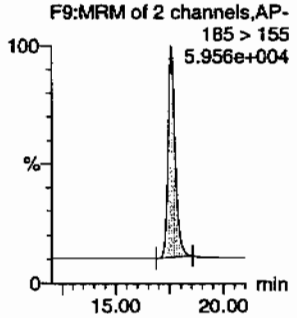

2-Nitrotoluene

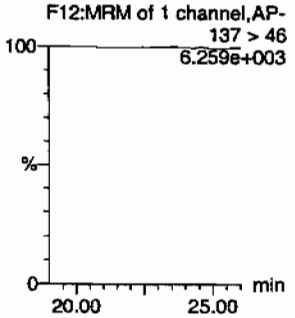

4-Nitrotoluene

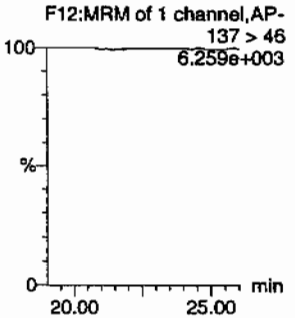

3-Nitrotoluene

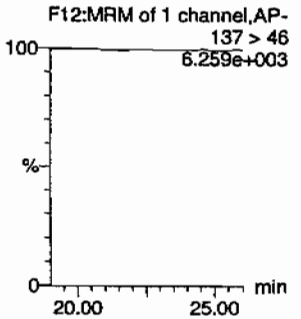

PETN

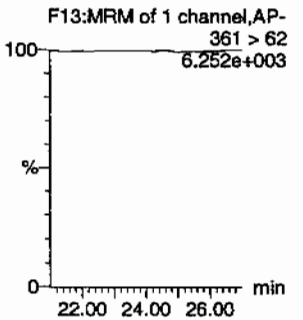

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
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XIBLK02	RDX	176 > 102			3667.345									
XIBLK02	135-Trinitrobenzene	213 > 183			3667.345									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.14	3667.345		3667.345	3667.345	bb			522.1477	104.4	4.4	148.9
XIBLK02	13-Dinitrobenzene	168 > 138			3667.345									
XIBLK02	Tetryl	241 > 181			3667.345			MM-	05-Mar-10	10:04:00				
XIBLK02	Nitrobenzene	123 > 46			3667.345									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			21353.541									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			21353.541									
XIBLK02	246-Trinitrotoluene	227 > 210			21353.541									
XIBLK02	34-dinitrotoluene	182 > 152			21353.541			MM-	05-Mar-10	10:08:28				
XIBLK02	26-dinitrotoluene	182 > 152			21353.541									
XIBLK02	24-dinitrotoluene	182 > 152			21353.541									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.58	21353.541		21353.541	21353.541	bb			519.2834	103.9	3.9	1891.3
XIBLK02	2-Nitrotoluene	137 > 46			21353.541									
XIBLK02	4-Nitrotoluene	137 > 46			21353.541									
XIBLK02	3-Nitrotoluene	137 > 46			21353.541									
XIBLK02	PETN	361 > 62			21353.541									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 04-MAR-10 20:11

GEL Data File: EXP0304011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	542.741
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	569.446
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304011a
Date: 04-Mar-2010
Time: 20:11:24
ID: XIBLK03
Vial: 1:1,A

Page 216 of 1725

HMX

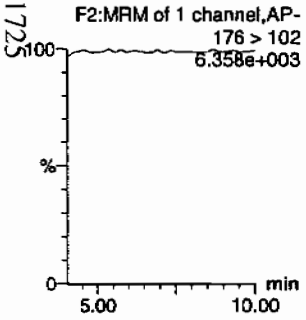

RDX

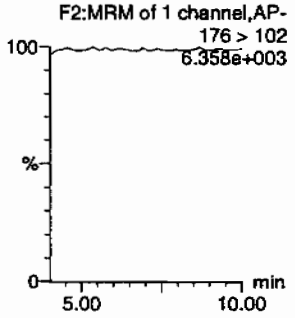

135-Trinitrobenzene

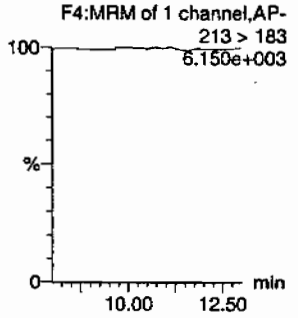

13-Dinitrobenzene-d4

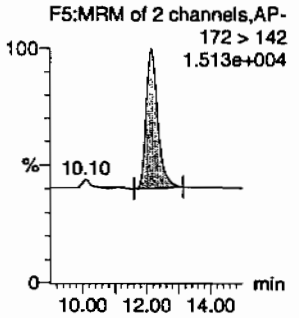

13-Dinitrobenzene

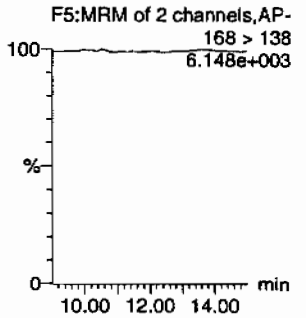

Tetryl

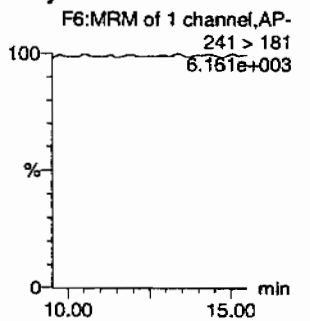

Nitrobenzene

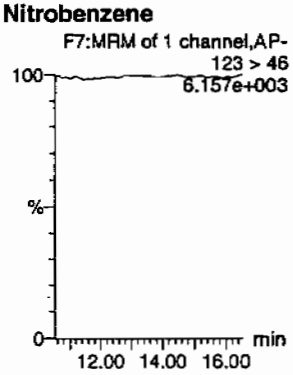

4-Amino-26-dinitrotoluene

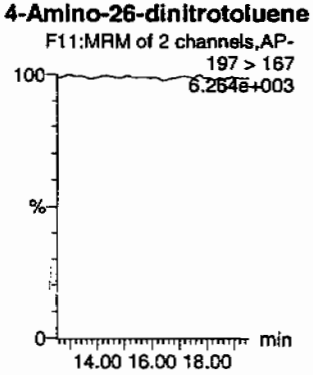

2-Amino-46-dinitrotoluene

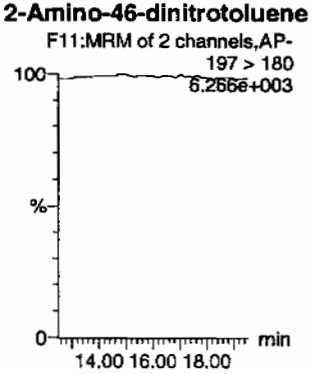

246-Trinitrotoluene

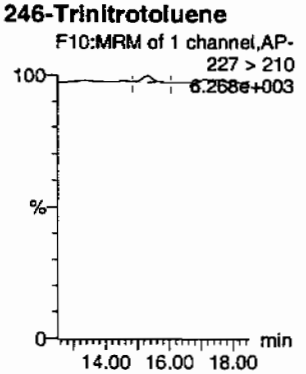

34-dinitrotoluene

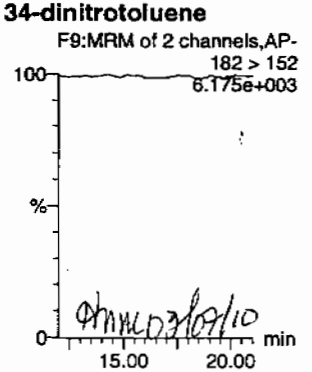

26-dinitrotoluene

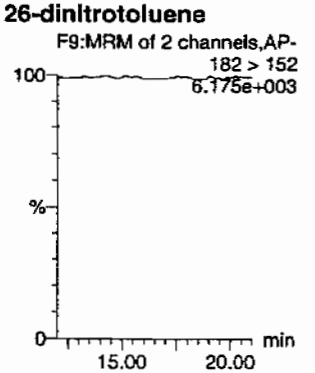

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24-dinitrotoluene

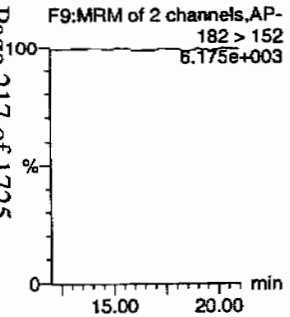

26-dinitrotoluene-d3

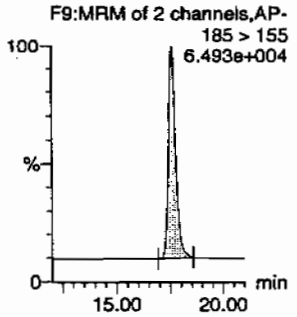

2-Nitrotoluene

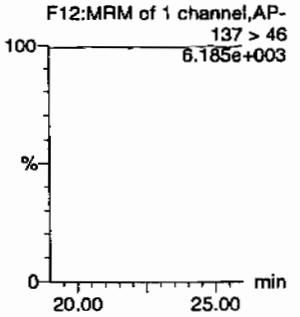

4-Nitrotoluene

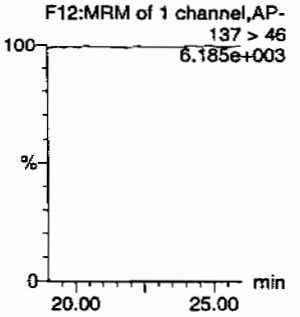

3-Nitrotoluene

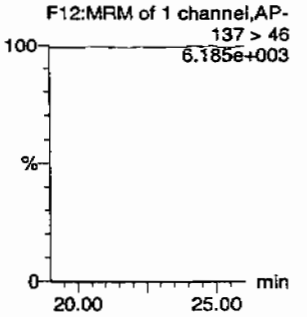

PETN

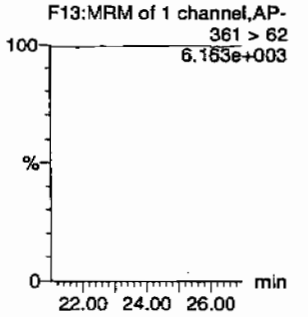

ID	Name	Trace	RT	Area	IS Area	Abs Resp	IS Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			3811.982									
XIBLK03	RDX	176 > 102			3811.982									
XIBLK03	135-Trinitrobenzene	213 > 183			3811.982									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.14	3811.982		3811.982	3811.982	bb			542.7408	108.5	8.5	563.6
XIBLK03	13-Dinitrobenzene	168 > 138			3811.982									
XIBLK03	Tetryl	241 > 181			3811.982									
XIBLK03	Nitrobenzene	123 > 46			3811.982									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			23416.273									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			23416.273									
XIBLK03	246-Trinitrotoluene	227 > 210			23416.273			MM-	05-Mar-10	10:08:06				
XIBLK03	34-dinitrotoluene	182 > 152			23416.273									
XIBLK03	26-dinitrotoluene	182 > 152			23416.273									
XIBLK03	24-dinitrotoluene	182 > 152			23416.273									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.57	23416.273		23416.273	23416.273	bb			569.4457	113.9	13.9	2213.1
XIBLK03	2-Nitrotoluene	137 > 46			23416.273									
XIBLK03	4-Nitrotoluene	137 > 46			23416.273									
XIBLK03	3-Nitrotoluene	137 > 46			23416.273									
XIBLK03	PETN	361 > 62			23416.273									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1543
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 05-MAR-10 02:34
GEL Data File: EXP0304024a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	521.731
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	509.028
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304024a
Date: 05-Mar-2010
Time: 02:34:46
ID: XIBLK04
Vial: 1:1,A

MATT 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.380e+003

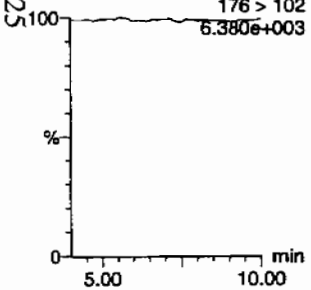

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.380e+003

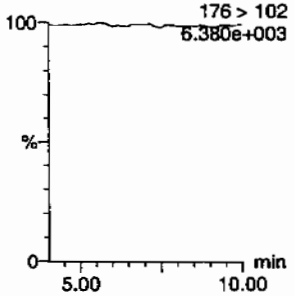

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.291e+003

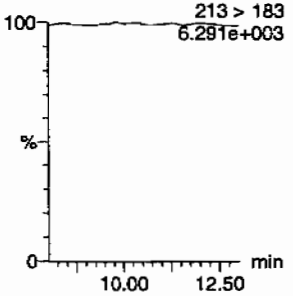

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.523e+004

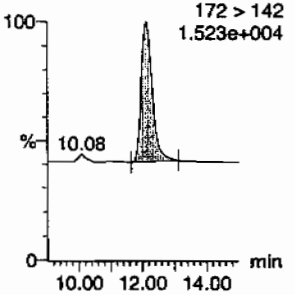

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.285e+003

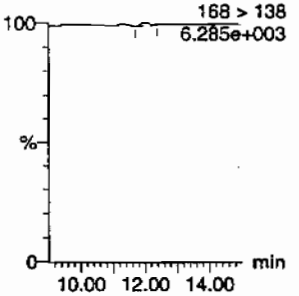

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.270e+003

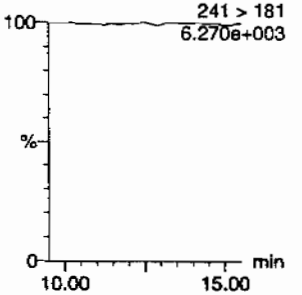

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.285e+003

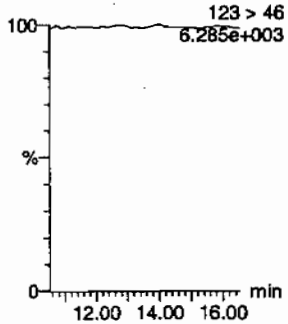

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.326e+003

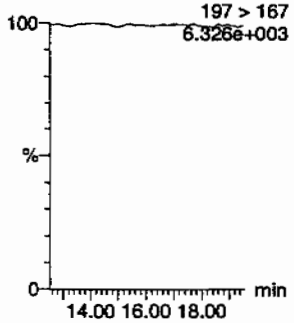

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.323e+003

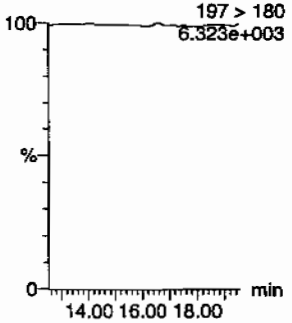

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.280e+003

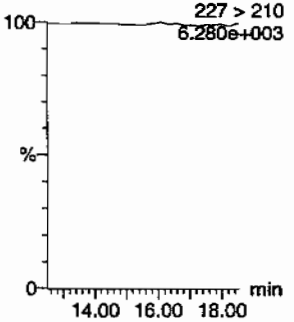

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.280e+003

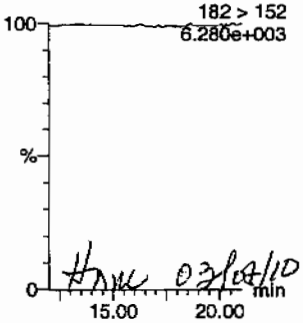

HMC 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.280e+003

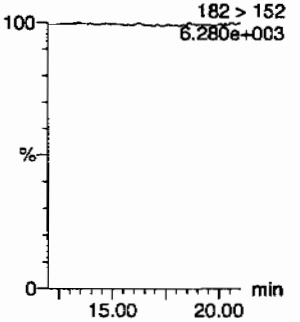

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24-dinitrotoluene

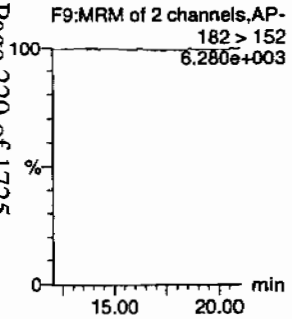

26-dinitrotoluene-d3

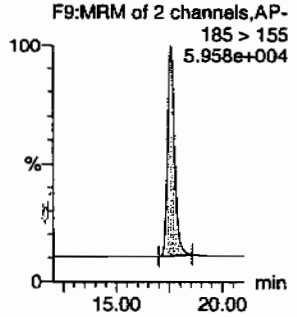

2-Nitrotoluene

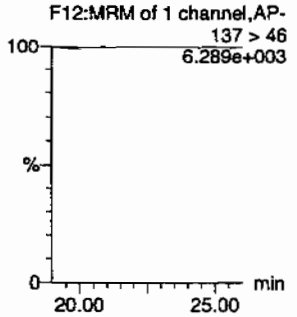

4-Nitrotoluene

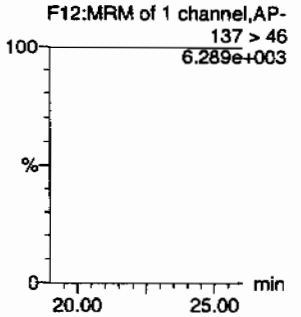

3-Nitrotoluene

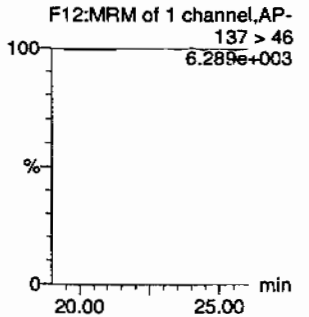

PETN

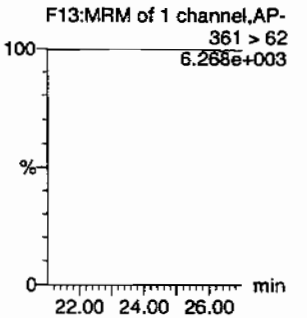

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3664.416									
XIBLK04	RDX	176 > 102			3664.416									
XIBLK04	135-Trinitrobenzene	213 > 183			3664.416									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.14	3664.416		3664.416	3664.416	bb			521.7307	104.3	4.3	406.8
XIBLK04	13-Dinitrobenzene	168 > 138			3664.416			MM-	05-Mar-10	10:02:41				
XIBLK04	Tetryl	241 > 181			3664.416									
XIBLK04	Nitrobenzene	123 > 46			3664.416									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			20931.807									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			20931.807									
XIBLK04	246-Trinitrotoluene	227 > 210			20931.807									
XIBLK04	34-dinitrotoluene	182 > 152			20931.807									
XIBLK04	26-dinitrotoluene	182 > 152			20931.807									
XIBLK04	24-dinitrotoluene	182 > 152			20931.807									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.57	20931.807		20931.807	20931.807	bb			509.0276	101.8	1.8	1779.3
XIBLK04	2-Nitrotoluene	137 > 46			20931.807									
XIBLK04	4-Nitrotoluene	137 > 46			20931.807									
XIBLK04	3-Nitrotoluene	137 > 46			20931.807									
XIBLK04	PETN	361 > 62			20931.807									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1543
Lab Code: GEL
Lab Sample ID: XIBLK05
Analysis Date: 05-MAR-10 08:58
GEL Data File: EXP0304037a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	520.666
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	533.265
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304037a
Date: 05-Mar-2010
Time: 08:58:06
ID: XIBLK05
Vial: 1:1,A

MATT 3/6/10

HMX

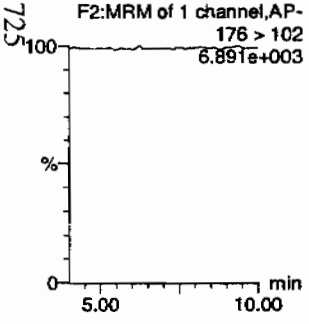

RDX

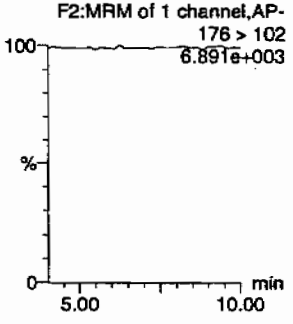

135-Trinitrobenzene

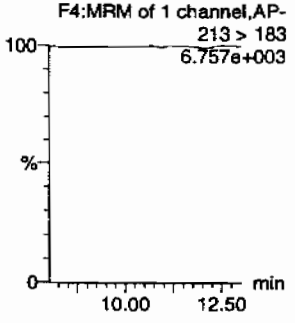

13-Dinitrobenzene-d4

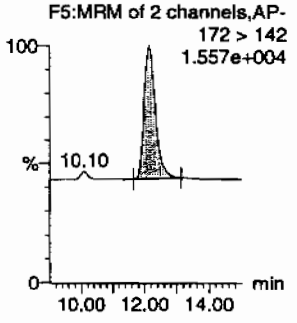

13-Dinitrobenzene

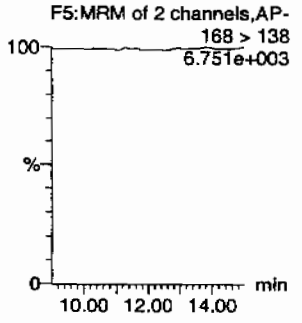

Tetryl

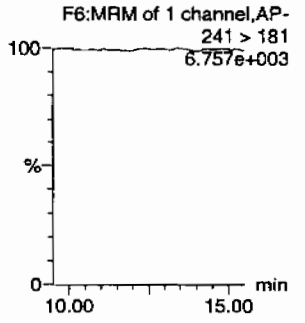

Nitrobenzene

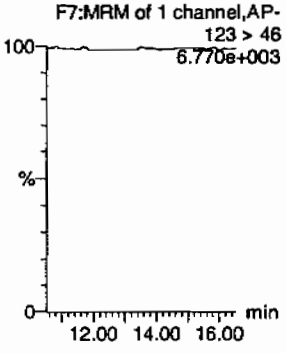

4-Amino-26-dinitrotoluene

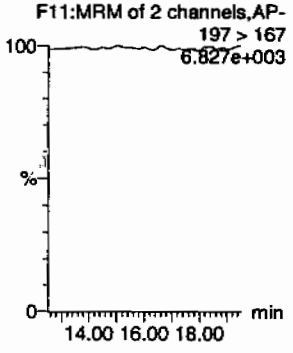

2-Amino-46-dinitrotoluene

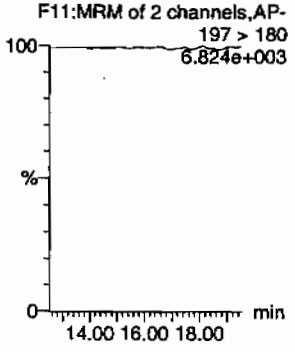

246-Trinitrotoluene

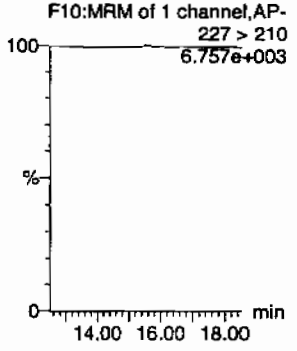

34-dinitrotoluene

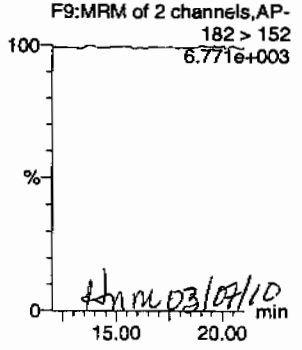

tbm 03/07/10

26-dinitrotoluene

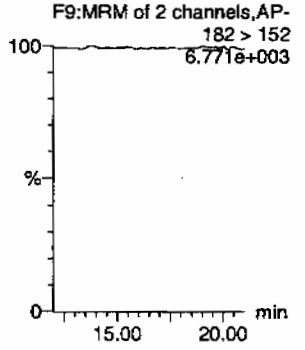

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

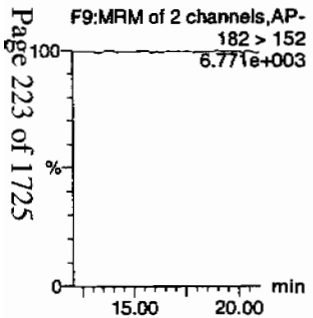

26-dinitrotoluene-d3

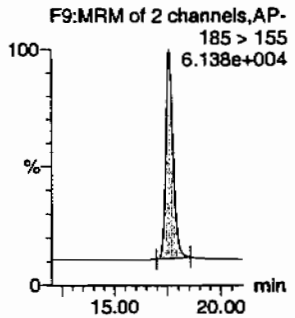

2-Nitrotoluene

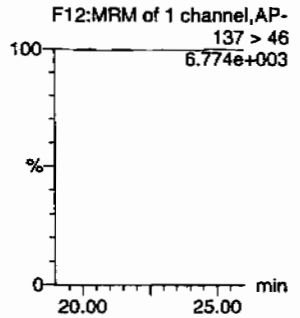

4-Nitrotoluene

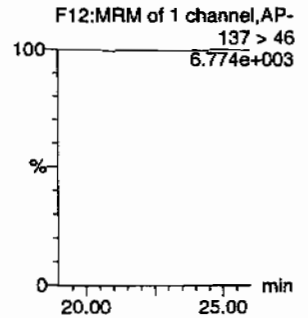

3-Nitrotoluene

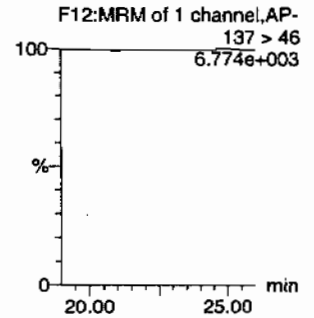

PETN

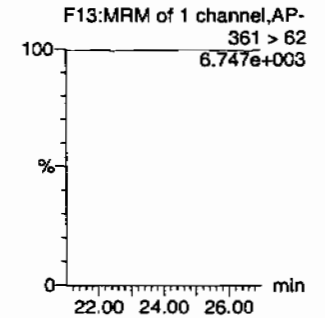

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			3656.936									
XIBLK05	RDX	176 > 102			3656.936									
XIBLK05	135-Trinitrobenzene	213 > 183			3656.936									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.14	3656.936		3656.936	3656.936	bb			520.6657	104.1	4.1	660.6
XIBLK05	13-Dinitrobenzene	168 > 138			3656.936									
XIBLK05	Tetryl	241 > 181			3656.936									
XIBLK05	Nitrobenzene	123 > 46			3656.936									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			21928.471									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			21928.471									
XIBLK05	246-Trinitrotoluene	227 > 210			21928.471									
XIBLK05	34-dinitrotoluene	182 > 152			21928.471									
XIBLK05	26-dinitrotoluene	182 > 152			21928.471									
XIBLK05	24-dinitrotoluene	182 > 152			21928.471									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.60	21928.471		21928.471	21928.471	bb			533.2648	106.7	6.7	2452.1
XIBLK05	2-Nitrotoluene	137 > 46			21928.471									
XIBLK05	4-Nitrotoluene	137 > 46			21928.471									
XIBLK05	3-Nitrotoluene	137 > 46			21928.471									
XIBLK05	PETN	361 > 62			21928.471									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 05-MAR-10 15:21

GEL Data File: EXP0304050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
PETN	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	566.455
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	585.17
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304050a
Date: 05-Mar-2010
Time: 15:21:48
ID: XIBLK06
Vial: 1:1,A

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.051e+003

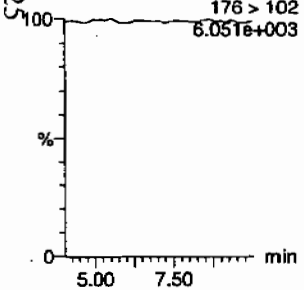

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.051e+003

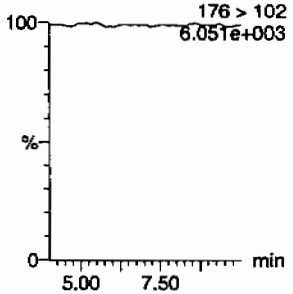

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.933e+003

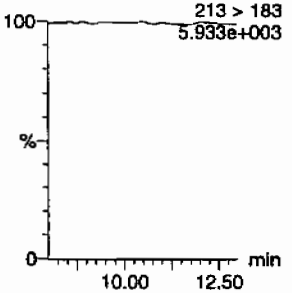

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.546e+004

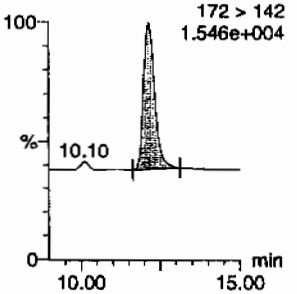

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.928e+003

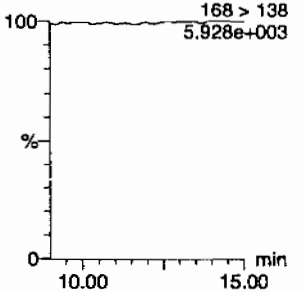

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.942e+003

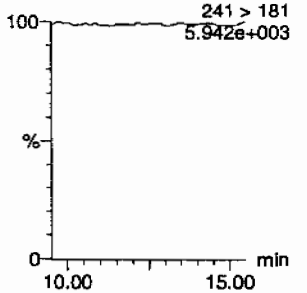

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.946e+003

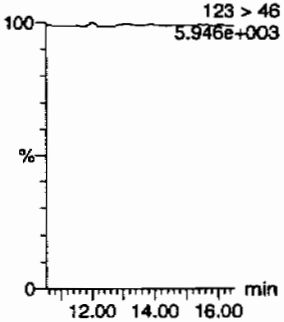

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.004e+003

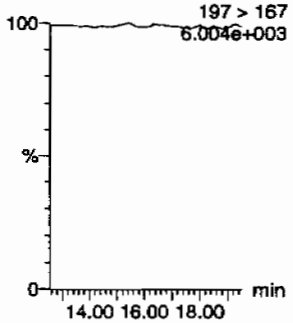

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.991e+003

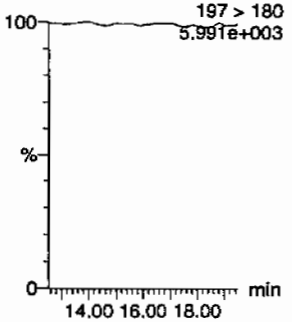

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.919e+003

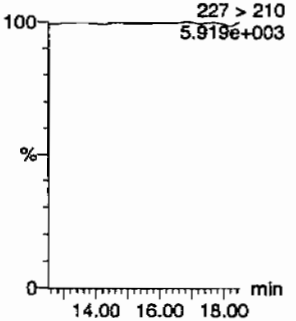

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.981e+003

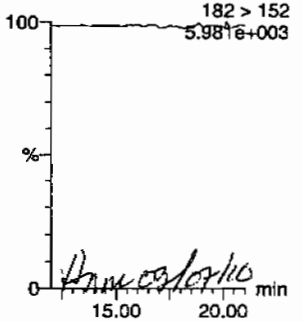

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.981e+003

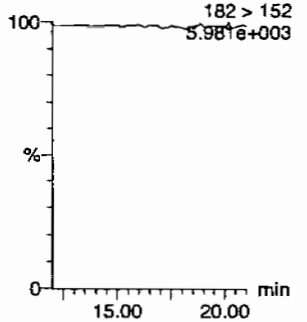

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

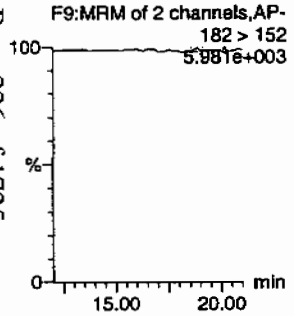

26-dinitrotoluene-d3

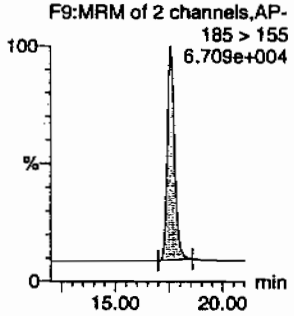

2-Nitrotoluene

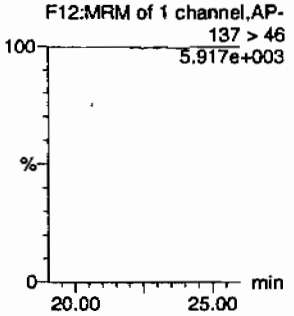

4-Nitrotoluene

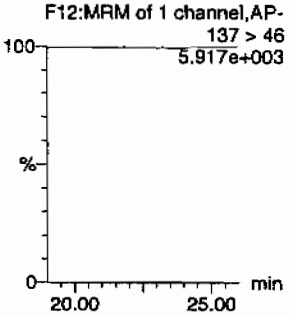

3-Nitrotoluene

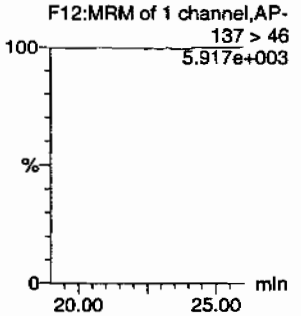

PETN

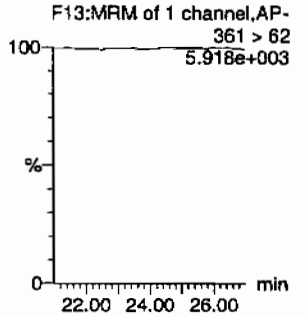

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			3978.542									
XIBLK06	RDX	176 > 102			3978.542									
XIBLK06	135-Trinitrobenzene	213 > 183			3978.542									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.13	3978.542		3978.542	3978.542	bb			566.4552	113.3	13.3	507.0
XIBLK06	13-Dinitrobenzene	168 > 138			3978.542									
XIBLK06	Tetryl	241 > 181			3978.542									
XIBLK06	Nitrobenzene	123 > 46			3978.542									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			24062.877									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			24062.877									
XIBLK06	246-Trinitrotoluene	227 > 210			24062.877									
XIBLK06	34-dinitrotoluene	182 > 152			24062.877									
XIBLK06	26-dinitrotoluene	182 > 152			24062.877									
XIBLK06	24-dinitrotoluene	182 > 152			24062.877			MM-	06-Mar-10	12:15:04				
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.59	24062.877		24062.877	24062.877	bb			585.1701	117.0	17.0	2396.3
XIBLK06	2-Nitrotoluene	137 > 46			24062.877									
XIBLK06	4-Nitrotoluene	137 > 46			24062.877									
XIBLK06	3-Nitrotoluene	137 > 46			24062.877									
XIBLK06	PETN	361 > 62			24062.877									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 05-MAR-10 17:19

GEL Data File: EXP0304054a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	550.421
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	589.463
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304054a
Date: 05-Mar-2010
Time: 17:19:56
ID: XIBLK07
Vial: 1:1,A

MMT 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.780e+003

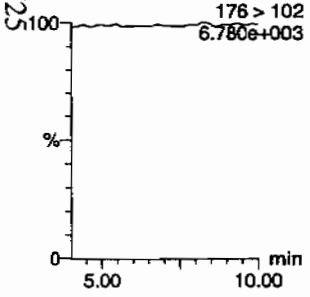

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.780e+003

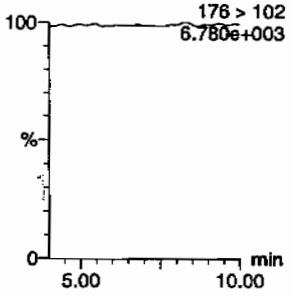

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.672e+003

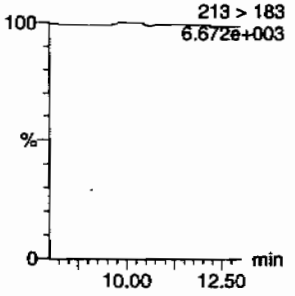

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.604e+004

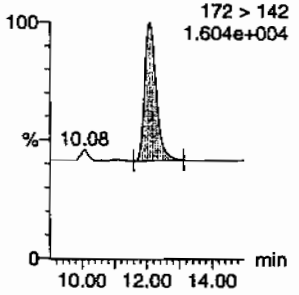

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.654e+003

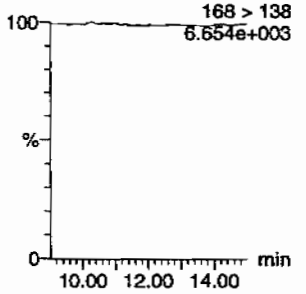

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.627e+003

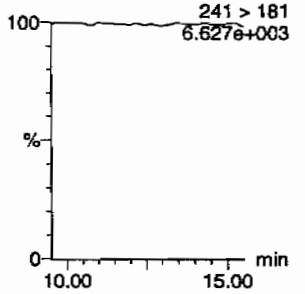

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.637e+003

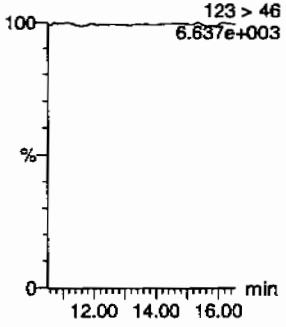

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.696e+003

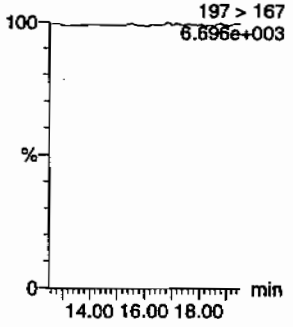

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.701e+003

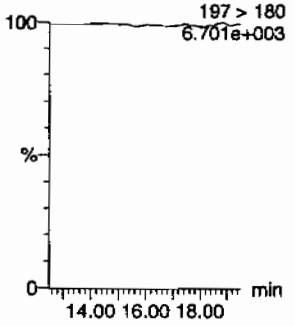

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.623e+003

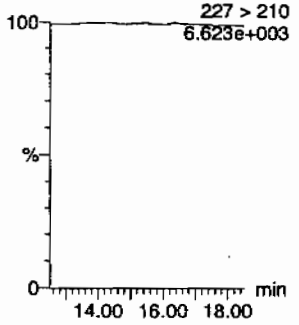

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003

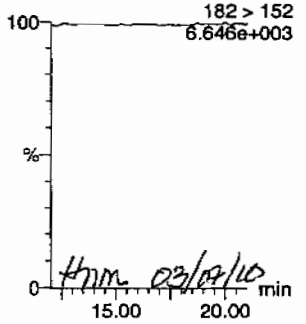

tmm 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003

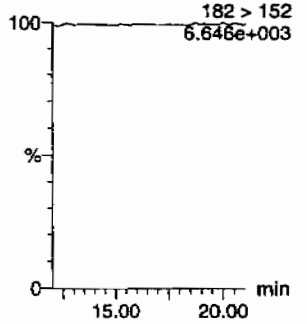

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

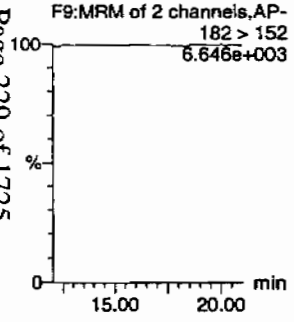

26-dinitrotoluene-d3

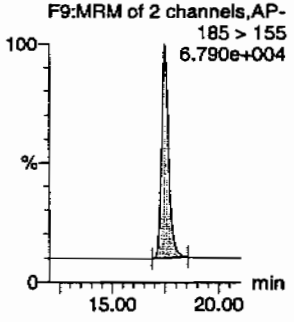

2-Nitrotoluene

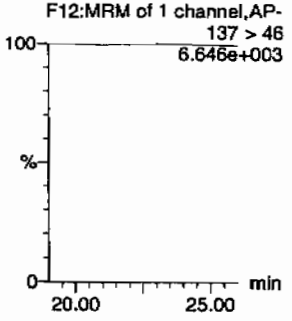

4-Nitrotoluene

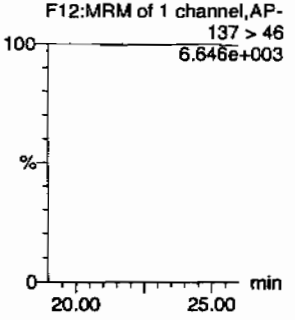

3-Nitrotoluene

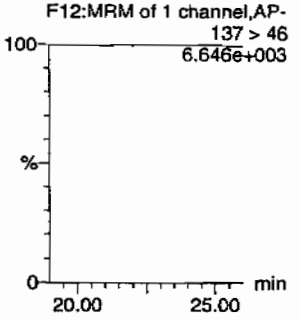

PETN

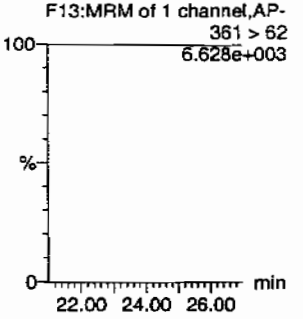

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3865.926									
XIBLK07	RDX	176 > 102			3865.926									
XIBLK07	135-Trinitrobenzene	213 > 183			3865.926									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.10	3865.926		3865.926	3865.926	bb			550.4212	110.1	10.1	286.5
XIBLK07	13-Dinitrobenzene	168 > 138			3865.926									
XIBLK07	Tetryl	241 > 181			3865.926									
XIBLK07	Nitrobenzene	123 > 46			3865.926									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			24239.424									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			24239.424									
XIBLK07	246-Trinitrotoluene	227 > 210			24239.424									
XIBLK07	34-dinitrotoluene	182 > 152			24239.424									
XIBLK07	26-dinitrotoluene	182 > 152			24239.424									
XIBLK07	24-dinitrotoluene	182 > 152			24239.424									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.49	24239.424		24239.424	24239.424	bb			589.4634	117.9	17.9	2856.4
XIBLK07	2-Nitrotoluene	137 > 46			24239.424									
XIBLK07	4-Nitrotoluene	137 > 46			24239.424									
XIBLK07	3-Nitrotoluene	137 > 46			24239.424									
XIBLK07	PETN	361 > 62			24239.424									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1543
Lab Code: GEL
Lab Sample ID: XIBLK08
Analysis Date: 05-MAR-10 22:44
GEL Data File: EXP0304065a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	526.538
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	517.577
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304065a
Date: 05-Mar-2010
Time: 22:44:30
ID: XIBLK08
Vial: 1:1,A

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.526e+003

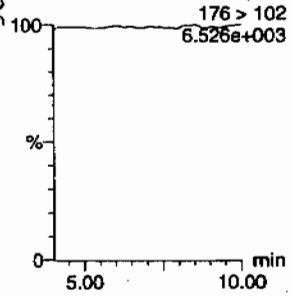

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.526e+003

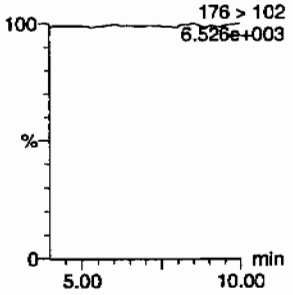

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.413e+003

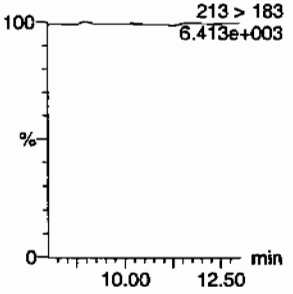

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.545e+004

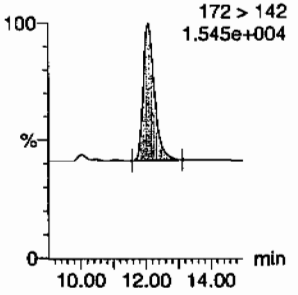

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.409e+003

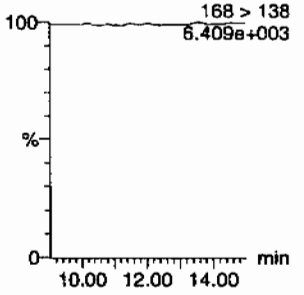

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.486e+003

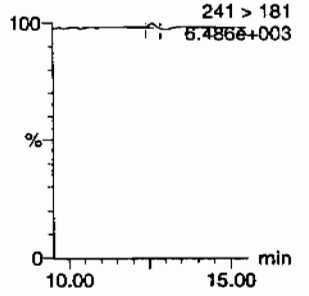

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.427e+003

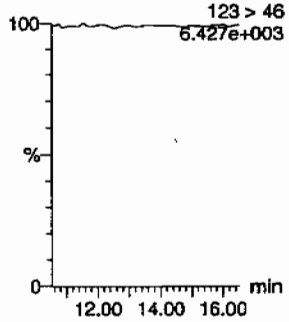

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.463e+003

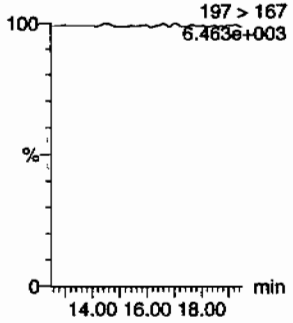

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.460e+003

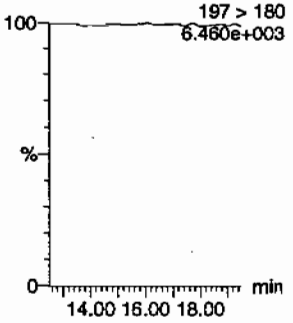

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.407e+003

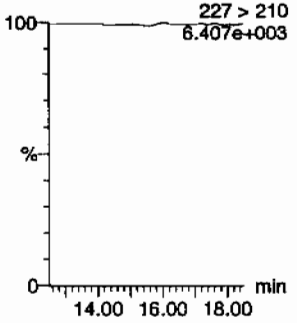

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.425e+003

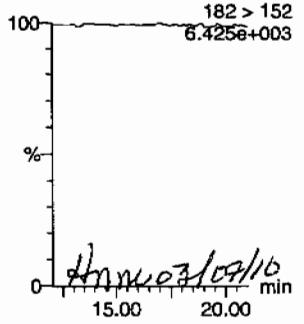

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.425e+003

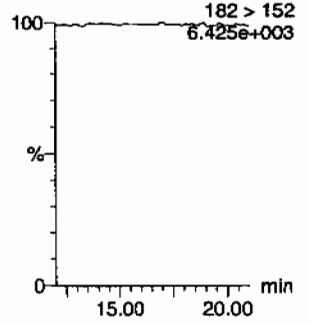

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

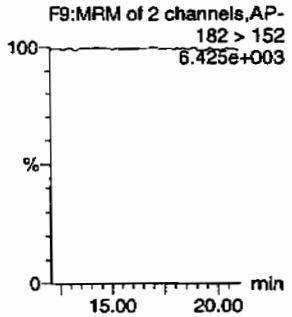

26-dinitrotoluene-d3

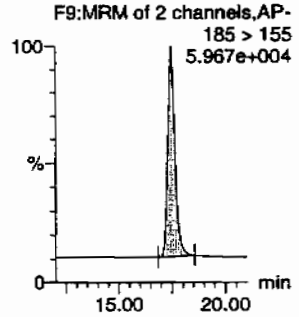

2-Nitrotoluene

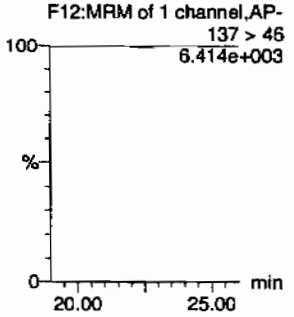

4-Nitrotoluene

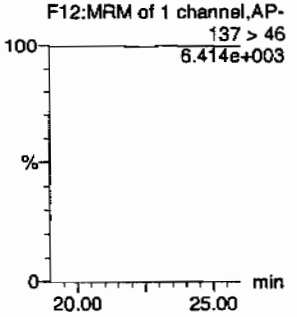

3-Nitrotoluene

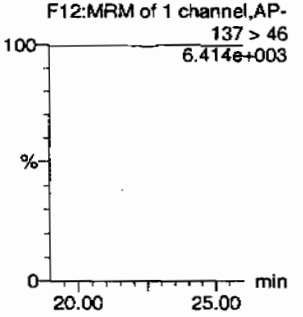

PETN

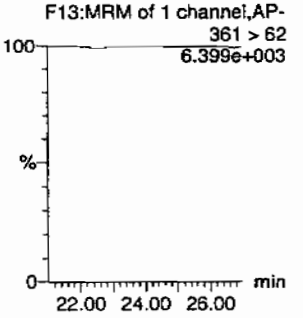

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3698.178									
XIBLK08	RDX	176 > 102			3698.178									
XIBLK08	135-Trinitrobenzene	213 > 183			3698.178									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.07	3698.178		3698.178	3698.178	bb			526.5377	105.3	5.3	528.8
XIBLK08	13-Dinitrobenzene	168 > 138			3698.178									
XIBLK08	Tetryl	241 > 181			3698.178			MM-	06-Mar-10	12:07:04				
XIBLK08	Nitrobenzene	123 > 46			3698.178									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			21283.357									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			21283.357									
XIBLK08	246-Trinitrotoluene	227 > 210			21283.357									
XIBLK08	34-dinitrotoluene	182 > 152			21283.357									
XIBLK08	26-dinitrotoluene	182 > 152			21283.357									
XIBLK08	24-dinitrotoluene	182 > 152			21283.357									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.49	21283.357		21283.357	21283.357	bb			517.5767	103.5	3.5	1698.2
XIBLK08	2-Nitrotoluene	137 > 46			21283.357									
XIBLK08	4-Nitrotoluene	137 > 46			21283.357									
XIBLK08	3-Nitrotoluene	137 > 46			21283.357									
XIBLK08	PETN	361 > 62			21283.357									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06-MAR-10 04:38

GEL Data File: EXP0304077a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	566.283
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	540.156
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304077a
Date: 06-Mar-2010
Time: 04:38:34
ID: XIBLK09
Vial: 1:1,A

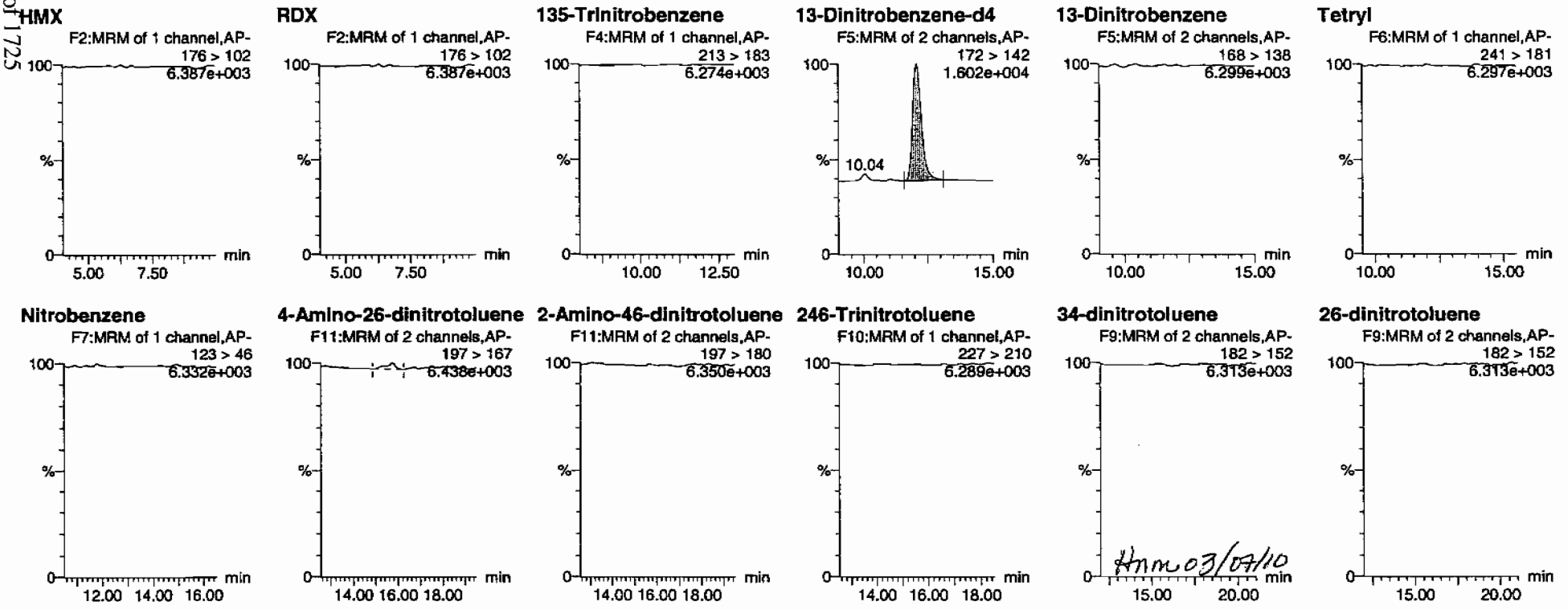

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

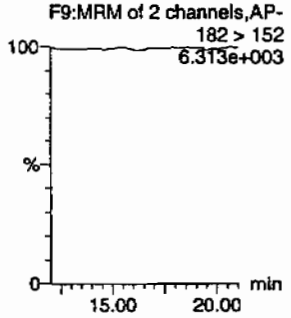

26-dinitrotoluene-d3

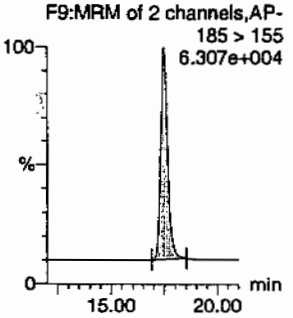

2-Nitrotoluene

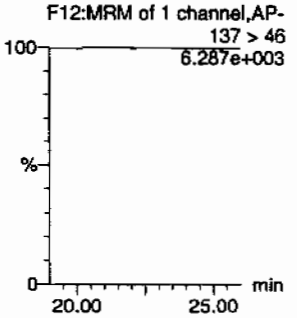

4-Nitrotoluene

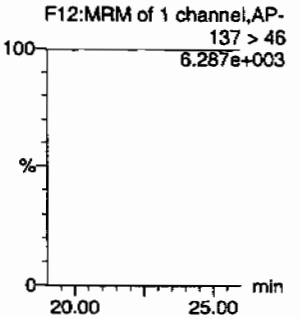

3-Nitrotoluene

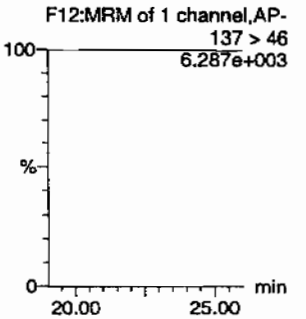

PETN

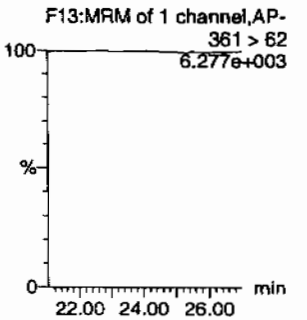

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3977.332									
XIBLK09	RDX	176 > 102			3977.332									
XIBLK09	135-Trinitrobenzene	213 > 183			3977.332									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.06	3977.332		3977.332	3977.332	bb			566.2829	113.3	13.3	313.5
XIBLK09	13-Dinitrobenzene	168 > 138			3977.332									
XIBLK09	Tetryl	241 > 181			3977.332									
XIBLK09	Nitrobenzene	123 > 46			3977.332									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			22211.859			MM-	06-Mar-10	12:09:02				
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			22211.859									
XIBLK09	246-Trinitrotoluene	227 > 210			22211.859									
XIBLK09	34-dinitrotoluene	182 > 152			22211.859									
XIBLK09	26-dinitrotoluene	182 > 152			22211.859									
XIBLK09	24-dinitrotoluene	182 > 152			22211.859									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.48	22211.859		22211.859	22211.859	bb			540.1563	108.0	8.0	2088.0
XIBLK09	2-Nitrotoluene	137 > 46			22211.859									
XIBLK09	4-Nitrotoluene	137 > 46			22211.859									
XIBLK09	3-Nitrotoluene	137 > 46			22211.859									
XIBLK09	PETN	361 > 62			22211.859									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06-MAR-10 07:35

GEL Data File: EXP0304083a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	560.254
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	557.283
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304083a
Date: 06-Mar-2010
Time: 07:35:40
ID: XIBLK10
Vial: 1:1,A

MATT 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.356e+003

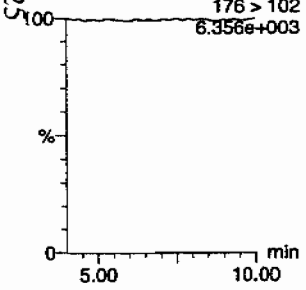

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.356e+003

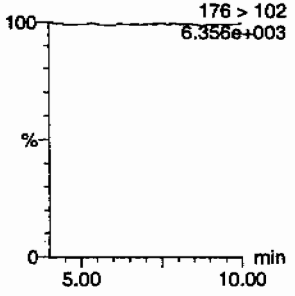

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.306e+003

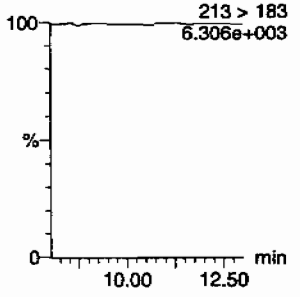

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.602e+004

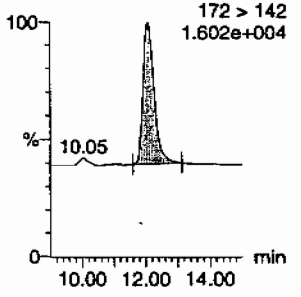

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.328e+003

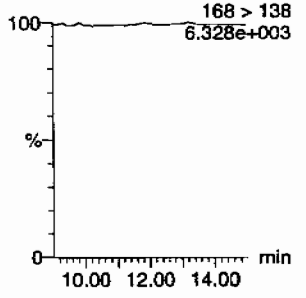

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.312e+003

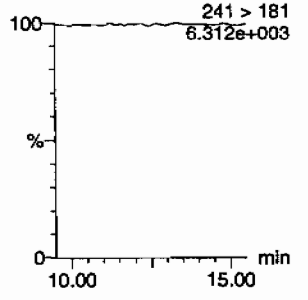

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.330e+003

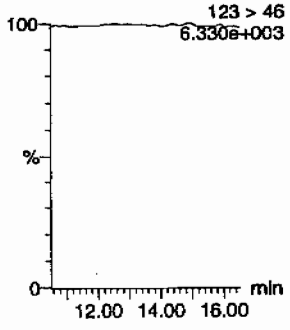

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.333e+003

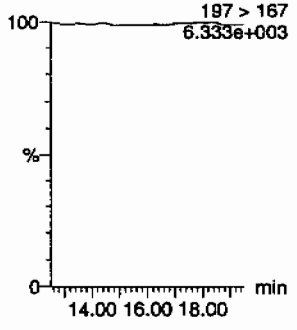

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.330e+003

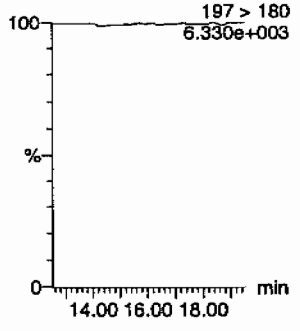

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.320e+003

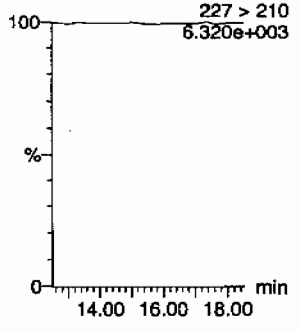

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.387e+003

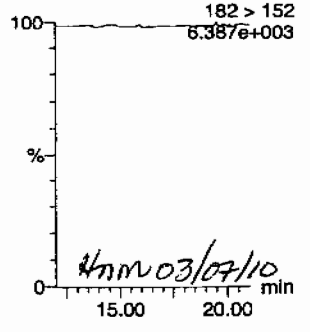

HMM 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.387e+003

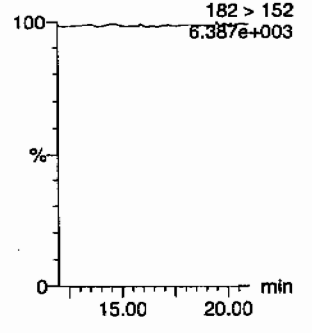

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

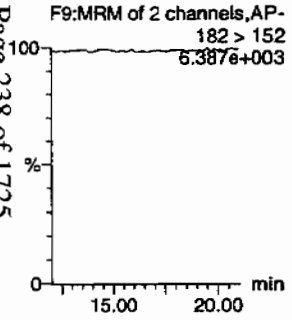

26-dinitrotoluene-d3

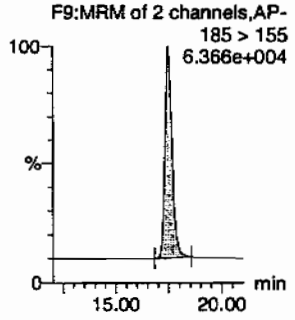

2-Nitrotoluene

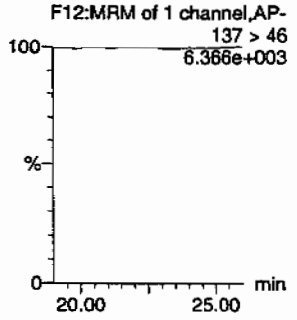

4-Nitrotoluene

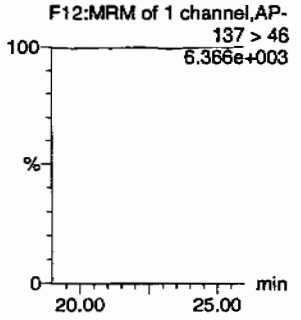

3-Nitrotoluene

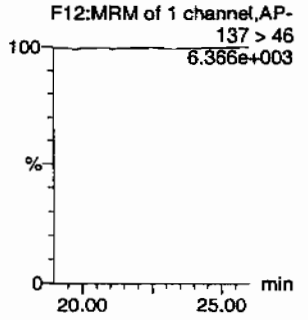

PETN

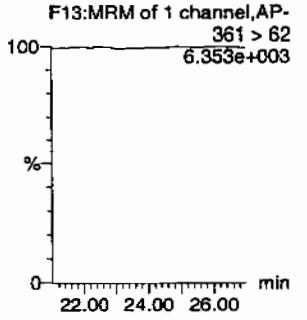

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			3934.990									
XIBLK10	RDX	176 > 102			3934.990									
XIBLK10	135-Trinitrobenzene	213 > 183			3934.990									
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.07	3934.990		3934.990	3934.990	bb			560.2544	112.1	12.1	500.1
XIBLK10	13-Dinitrobenzene	168 > 138			3934.990									
XIBLK10	Tetryl	241 > 181			3934.990									
XIBLK10	Nitrobenzene	123 > 46			3934.990									
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			22916.141									
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			22916.141									
XIBLK10	246-Trinitrotoluene	227 > 210			22916.141									
XIBLK10	34-dinitrotoluene	182 > 152			22916.141									
XIBLK10	26-dinitrotoluene	182 > 152			22916.141									
XIBLK10	24-dinitrotoluene	182 > 152			22916.141									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.49	22916.141		22916.141	22916.141	bb			557.2833	111.5	11.5	1454.1
XIBLK10	2-Nitrotoluene	137 > 46			22916.141									
XIBLK10	4-Nitrotoluene	137 > 46			22916.141									
XIBLK10	3-Nitrotoluene	137 > 46			22916.141									
XIBLK10	PETN	361 > 62			22916.141									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1543

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 06–MAR–10 11:02

GEL Data File: EXP0304090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	527.941
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	529.903
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304090a
Date: 06-Mar-2010
Time: 11:02:17
ID: XIBLK11
Vial: 1:1,A

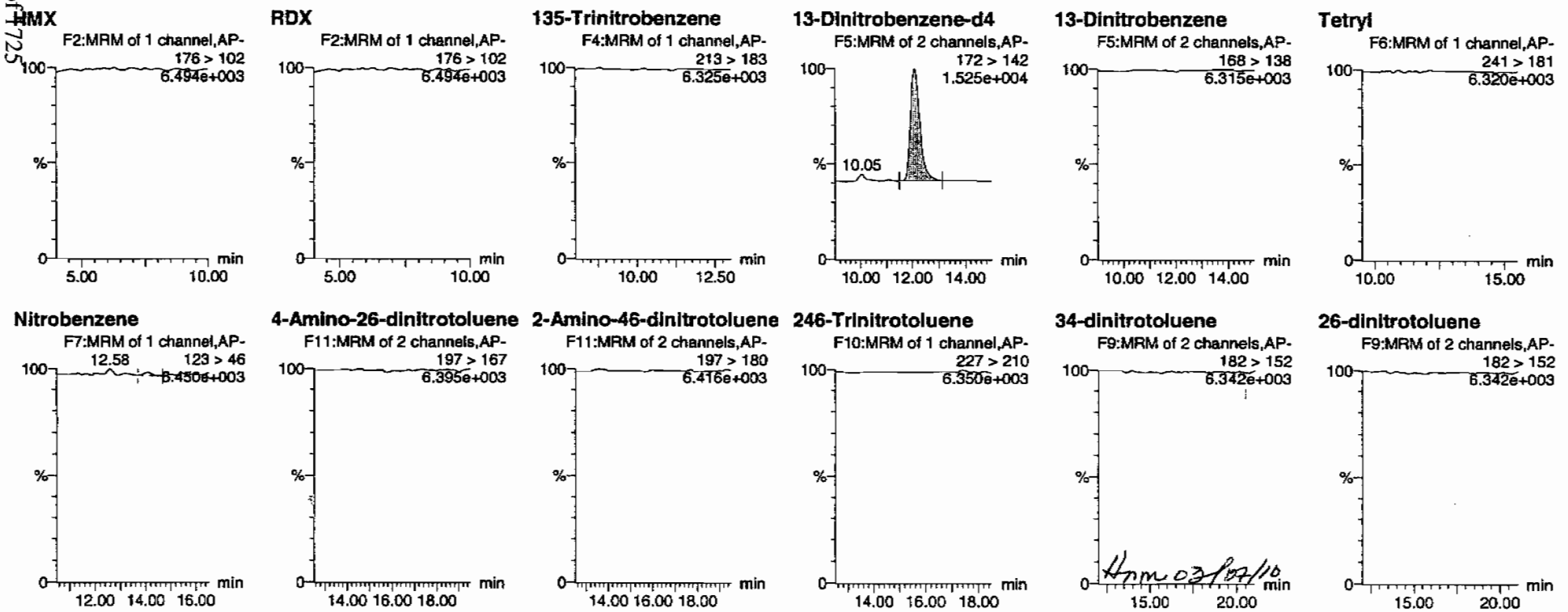

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

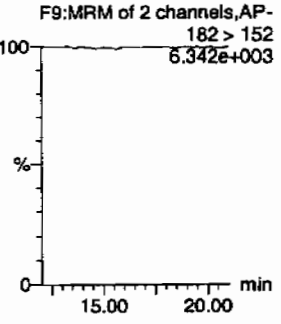

26-dinitrotoluene-d3

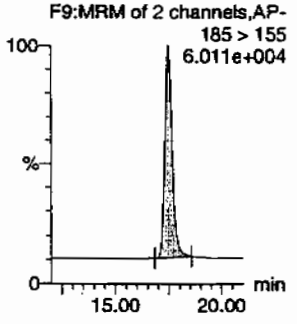

2-Nitrotoluene

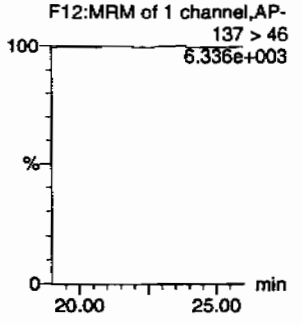

4-Nitrotoluene

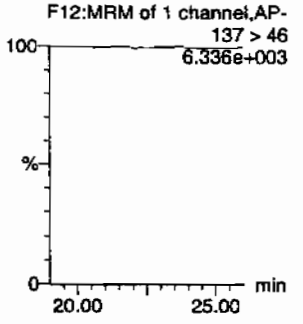

3-Nitrotoluene

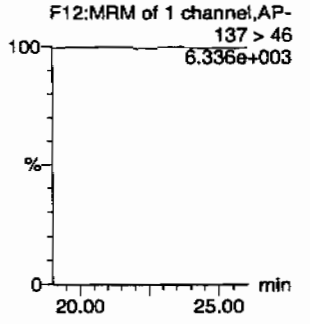

PETN

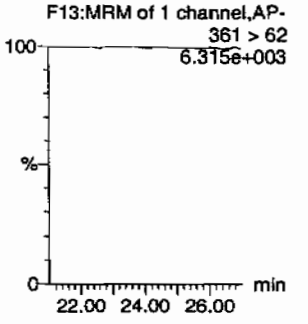

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			3721.816									
XIBLK11	RDX	176 > 102			3721.816									
XIBLK11	135-Trinitrobenzene	213 > 183			3721.816									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.07	3721.816		3721.816	3721.816	bb			529.9032	106.0	6.0	363.9
XIBLK11	13-Dinitrobenzene	168 > 138			3721.816									
XIBLK11	Tetryl	241 > 181			3721.816									
XIBLK11	Nitrobenzene	123 > 46			3721.816			MM-	06-Mar-10	12:08:01				
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			21709.531									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			21709.531									
XIBLK11	246-Trinitrotoluene	227 > 210			21709.531									
XIBLK11	34-dinitrotoluene	182 > 152			21709.531									
XIBLK11	26-dinitrotoluene	182 > 152			21709.531									
XIBLK11	24-dinitrotoluene	182 > 152			21709.531									
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.49	21709.531		21709.531	21709.531	bb			527.9405	105.6	5.6	1605.8
XIBLK11	2-Nitrotoluene	137 > 46			21709.531									
XIBLK11	4-Nitrotoluene	137 > 46			21709.531									
XIBLK11	3-Nitrotoluene	137 > 46			21709.531									
XIBLK11	PETN	361 > 62			21709.531									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 06-MAR-10 16:56

GEL Data File: EXP0304102a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	576.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	562.132
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304102a
Date: 06-Mar-2010
Time: 16:56:16
ID: XIBLK12
Vial: 1:1,A

MM 3/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.843e+003

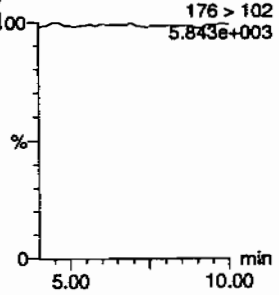

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.843e+003

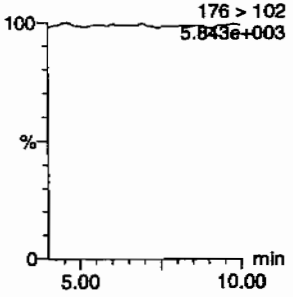

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.713e+003

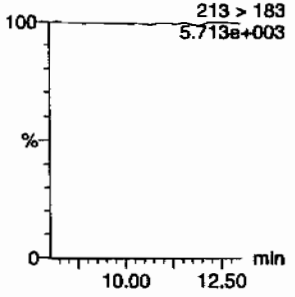

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.539e+004

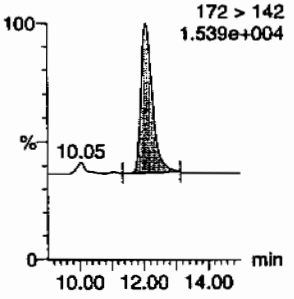

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.698e+003

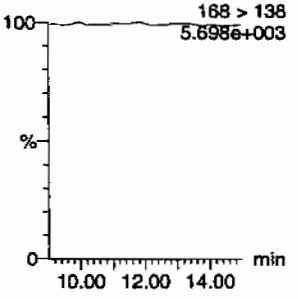

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.724e+003

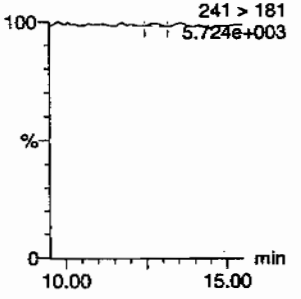

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.699e+003

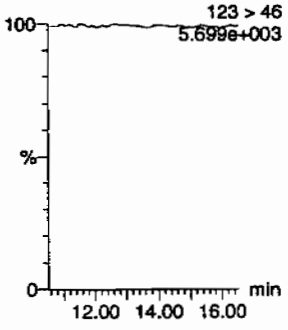

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.767e+003

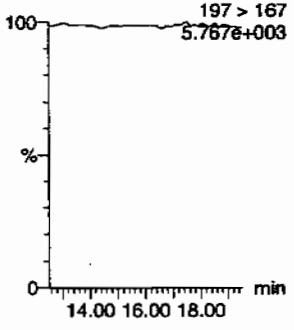

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.757e+003

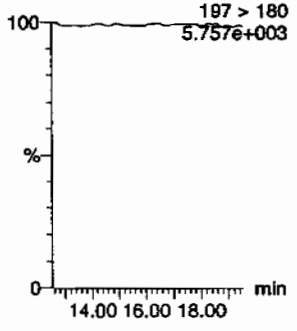

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.701e+003

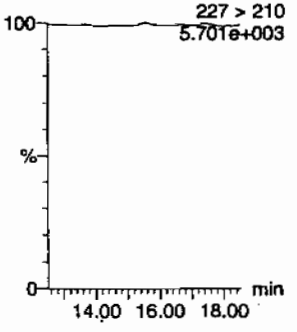

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.732e+003

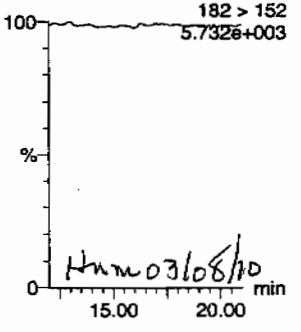

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.732e+003

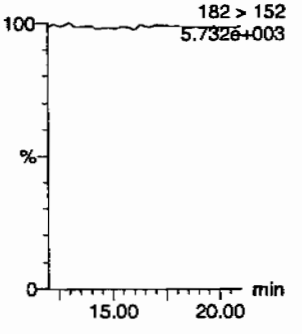

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

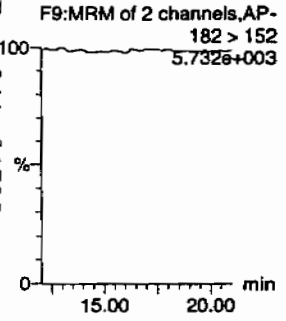

26-dinitrotoluene-d3

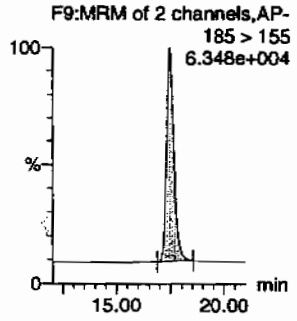

2-Nitrotoluene

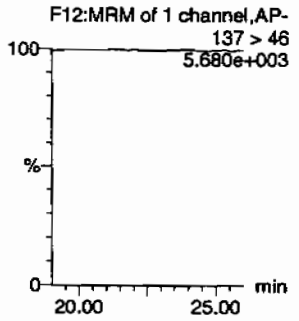

4-Nitrotoluene

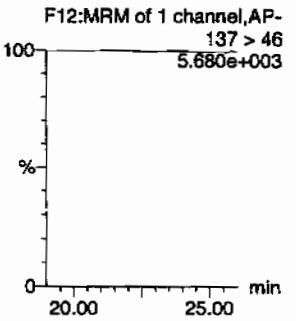

3-Nitrotoluene

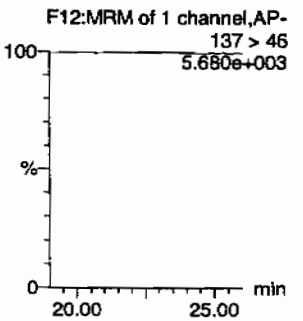

PETN

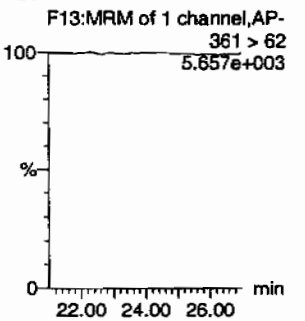

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			4047.082									
XIBLK12	RDX	176 > 102			4047.082									
XIBLK12	135-Trinitrobenzene	213 > 183			4047.082									
XIBLK12	13-Dinitrobenzene-d4	172 > 142	12.07	4047.082		4047.082	4047.082	bb			576.2138	115.2	15.2	319.2
XIBLK12	13-Dinitrobenzene	168 > 138			4047.082									
XIBLK12	Tetryl	241 > 181			4047.082			MM-	07-Mar-10	13:21:33				
XIBLK12	Nitrobenzene	123 > 46			4047.082									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			23115.531									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			23115.531									
XIBLK12	246-Trinitrotoluene	227 > 210			23115.531									
XIBLK12	34-dinitrotoluene	182 > 152			23115.531									
XIBLK12	26-dinitrotoluene	182 > 152			23115.531									
XIBLK12	24-dinitrotoluene	182 > 152			23115.531									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.47	23115.531		23115.531	23115.531	bb			562.1322	112.4	12.4	2059.7
XIBLK12	2-Nitrotoluene	137 > 46			23115.531									
XIBLK12	4-Nitrotoluene	137 > 46			23115.531									
XIBLK12	3-Nitrotoluene	137 > 46			23115.531									
XIBLK12	PETN	361 > 62			23115.531									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 06-MAR-10 22:50

GEL Data File: EXP0304114a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	537.14
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	529.515
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304114a
Date: 06-Mar-2010
Time: 22:50:11
ID: XIBLK13
Vial: 1:1,A

MMT 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.251e+003

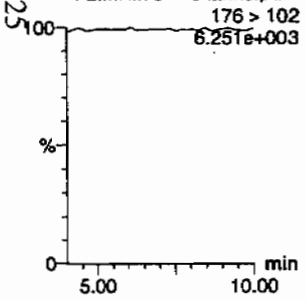

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.251e+003

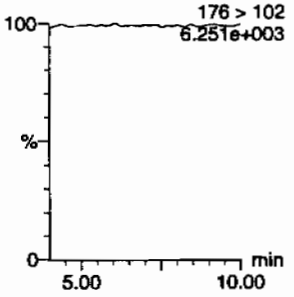

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.141e+003

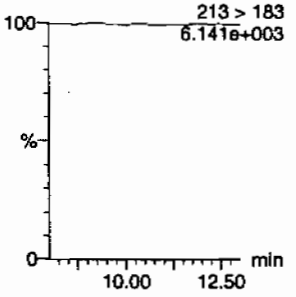

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.518e+004

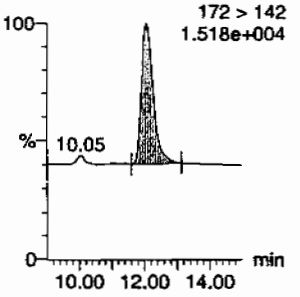

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.160e+003

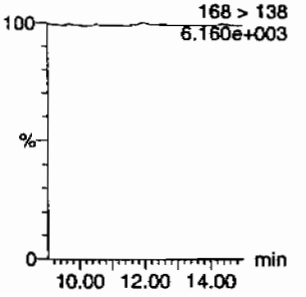

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.178e+003

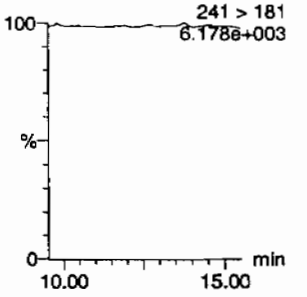

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.144e+003

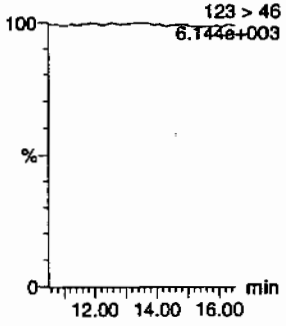

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.213e+003

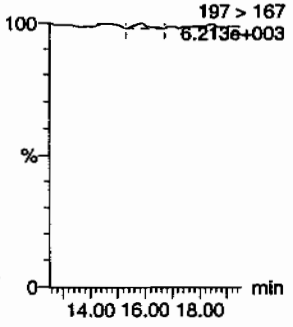

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.197e+003

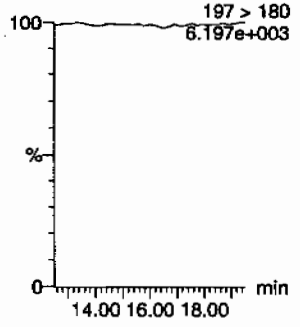

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.123e+003

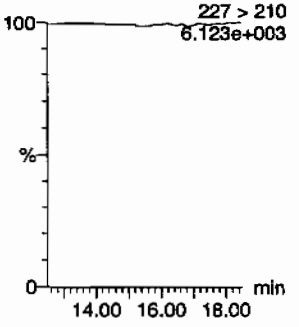

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.141e+003

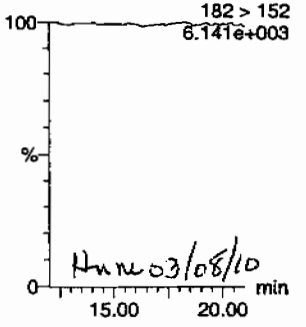

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.141e+003

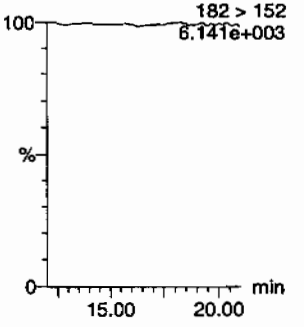

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

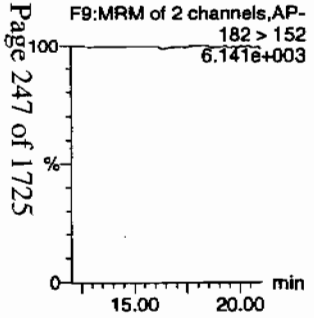

26-dinitrotoluene-d3

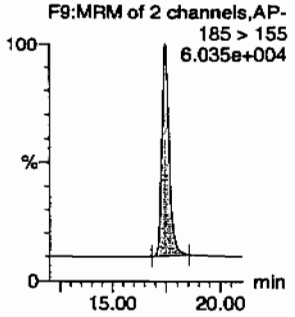

2-Nitrotoluene

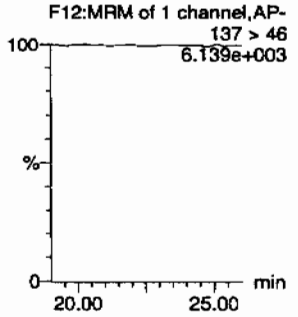

4-Nitrotoluene

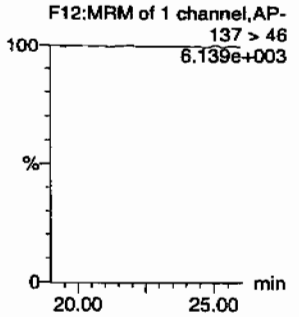

3-Nitrotoluene

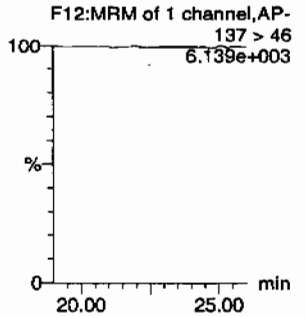

PETN

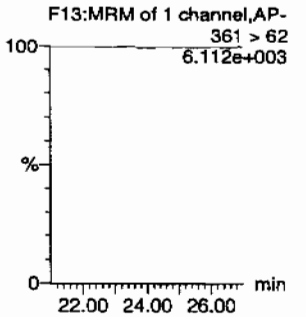

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Amt	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			3772.644									
XIBLK13	RDX	176 > 102			3772.644									
XIBLK13	135-Trinitrobenzene	213 > 183			3772.644									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	12.07	3772.644		3772.644	3772.644	bb			537.1400	107.4	7.4	520.5
XIBLK13	13-Dinitrobenzene	168 > 138			3772.644									
XIBLK13	Tetryl	241 > 181			3772.644									
XIBLK13	Nitrobenzene	123 > 46			3772.644									
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			21774.285			MM-	07-Mar-10	13:25:28				
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			21774.285									
XIBLK13	246-Trinitrotoluene	227 > 210			21774.285									
XIBLK13	34-dinitrotoluene	182 > 152			21774.285									
XIBLK13	26-dinitrotoluene	182 > 152			21774.285									
XIBLK13	24-dinitrotoluene	182 > 152			21774.285									
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.47	21774.285		21774.285	21774.285	bb			529.5153	105.9	5.9	2496.7
XIBLK13	2-Nitrotoluene	137 > 46			21774.285									
XIBLK13	4-Nitrotoluene	137 > 46			21774.285									
XIBLK13	3-Nitrotoluene	137 > 46			21774.285									
XIBLK13	PETN	361 > 62			21774.285									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1543

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 07–MAR–10 05:13

GEL Data File: EXP0304127a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	644.848
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	590.438
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304127a
Date: 07-Mar-2010
Time: 05:13:46
ID: XIBLK14
Vial: 1:1,A

MM 3/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.298e+003

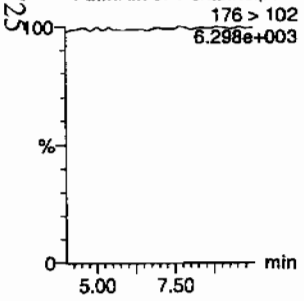

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.298e+003

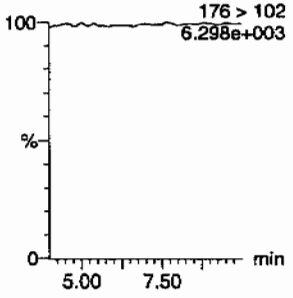

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.215e+003

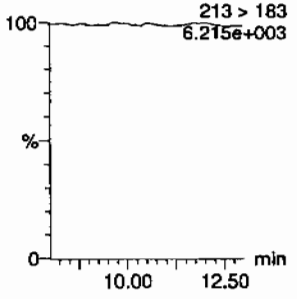

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.755e+004

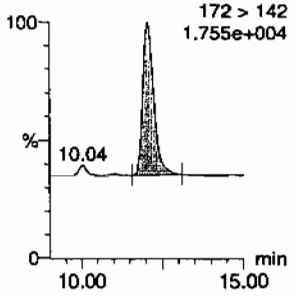

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.196e+003

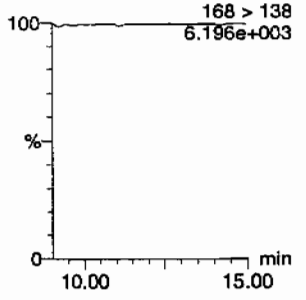

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.212e+003

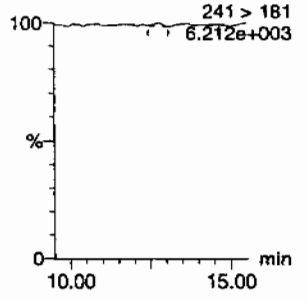

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.207e+003

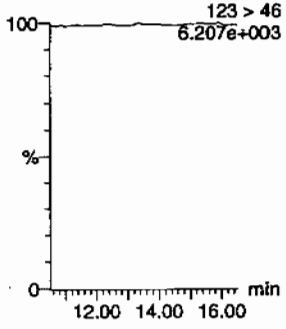

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.272e+003

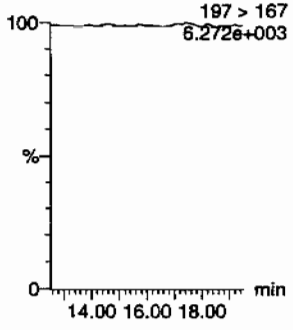

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.287e+003

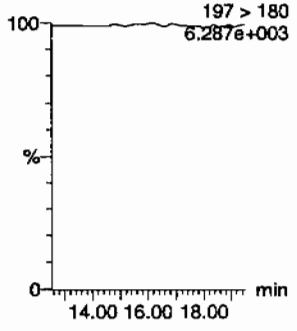

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.207e+003

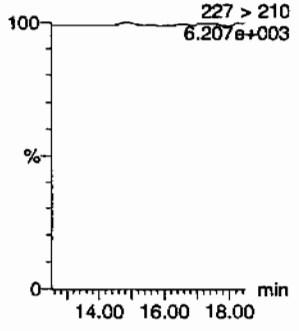

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.217e+003

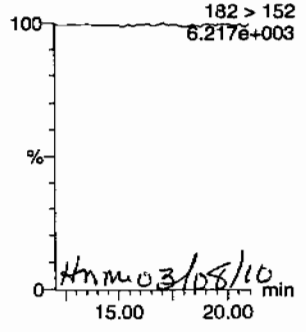

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.217e+003

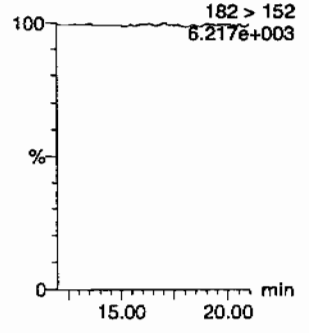

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

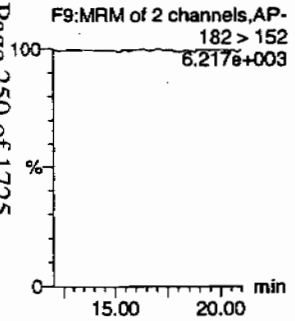

26-dinitrotoluene-d3

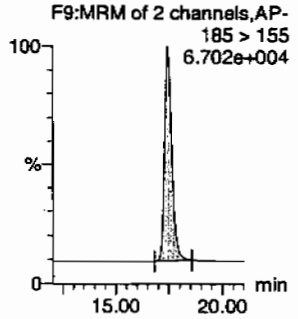

2-Nitrotoluene

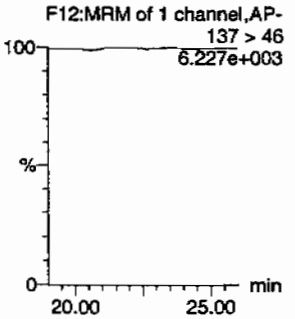

4-Nitrotoluene

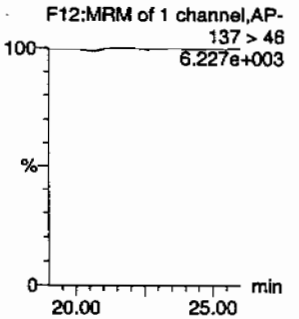

3-Nitrotoluene

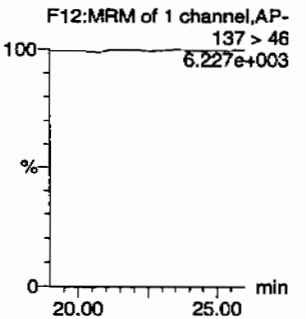

PETN

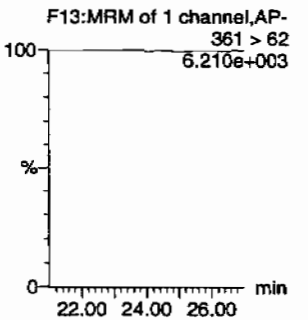

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	%Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK14	HMX	176 > 102			4529.140									
XIBLK14	RDX	176 > 102			4529.140									
XIBLK14	135-Trinitrobenzene	213 > 183			4529.140									
XIBLK14	13-Dinitrobenzene-d4	172 > 142	12.06	4529.140		4529.140	4529.140	bb			644.8480	129.0	29.0	454.4
XIBLK14	13-Dinitrobenzene	168 > 138			4529.140									
XIBLK14	Tetryl	241 > 181			4529.140			MM-	07-Mar-10	13:21:14				
XIBLK14	Nitrobenzene	123 > 46			4529.140									
XIBLK14	4-Amino-26-dinitrotoluene	197 > 167			24279.488									
XIBLK14	2-Amino-46-dinitrotoluene	197 > 180			24279.488									
XIBLK14	246-Trinitrotoluene	227 > 210			24279.488									
XIBLK14	34-dinitrotoluene	182 > 152			24279.488									
XIBLK14	26-dinitrotoluene	182 > 152			24279.488									
XIBLK14	24-dinitrotoluene	182 > 152			24279.488									
XIBLK14	26-dinitrotoluene-d3	185 > 155	17.45	24279.488		24279.488	24279.488	bb			590.4377	118.1	18.1	3202.9
XIBLK14	2-Nitrotoluene	137 > 46			24279.488									
XIBLK14	4-Nitrotoluene	137 > 46			24279.488									
XIBLK14	3-Nitrotoluene	137 > 46			24279.488									
XIBLK14	PETN	361 > 62			24279.488									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 07-MAR-10 11:37

GEL Data File: EXP0304140a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	606.883
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	475.497
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304140a
Date: 07-Mar-2010
Time: 11:37:25
ID: XIBLK15
Vial: 1:1,A

MM 3/9/10

Page 52 of 725

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.573e+003

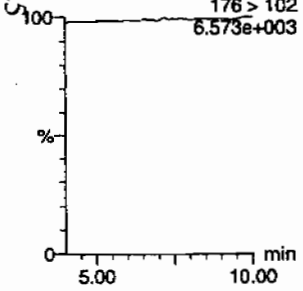

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.573e+003

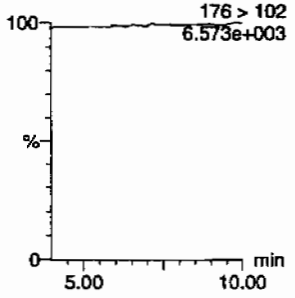

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.476e+003

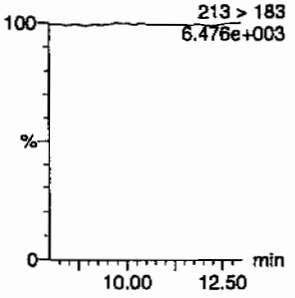

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.700e+004

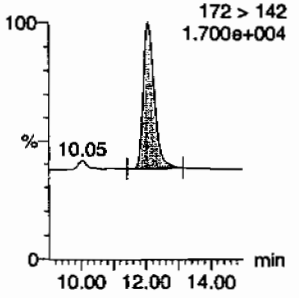

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.476e+003

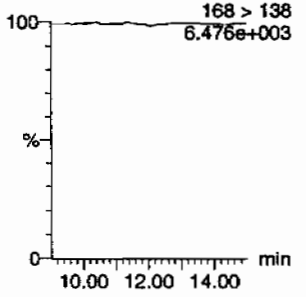

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.471e+003

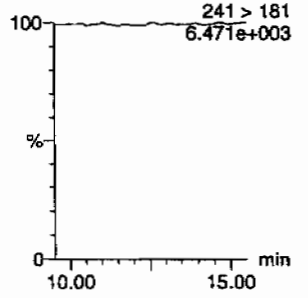

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.479e+003

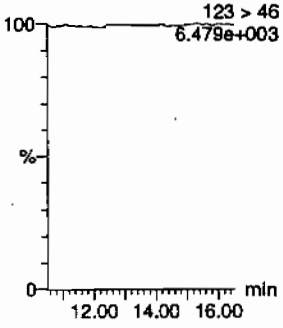

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.565e+003

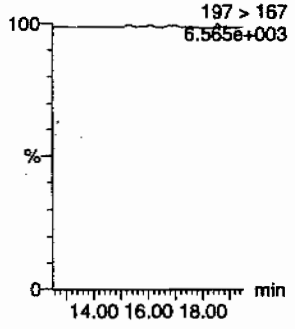

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.542e+003

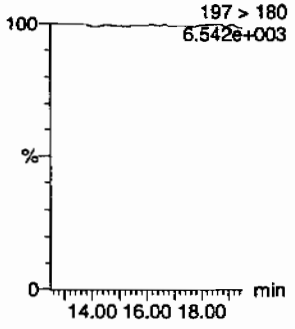

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.472e+003

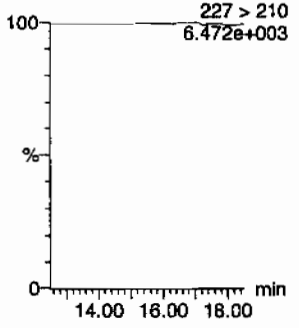

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.498e+003

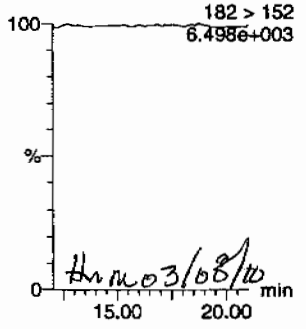

HM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.498e+003

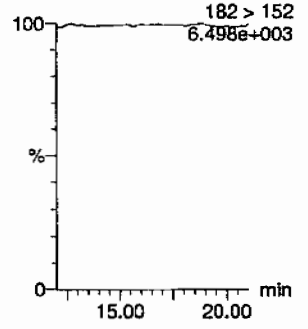

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.498e+003

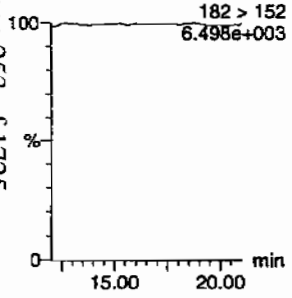

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.564e+004

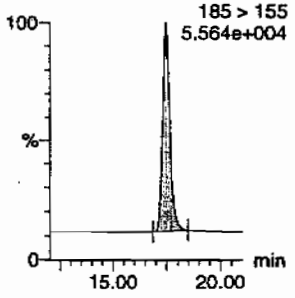

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.470e+003

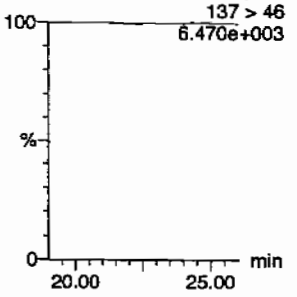

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.470e+003

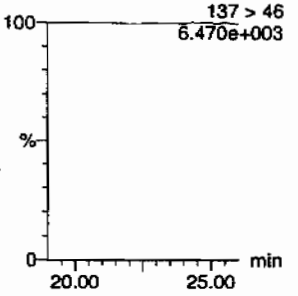

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.470e+003

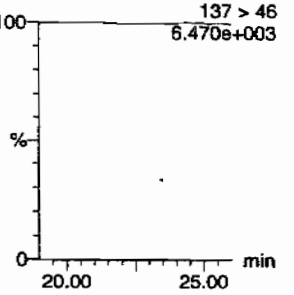

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.470e+003

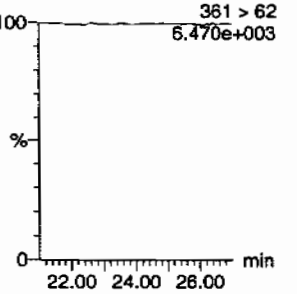

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK15	HMX	176 > 102			4262.488									
XIBLK15	RDX	176 > 102			4262.488									
XIBLK15	135-Trinitrobenzene	213 > 183			4262.488									
XIBLK15	13-Dinitrobenzene-d4	172 > 142	12.07	4262.488		4262.488	4262.488	bb			606.8828	121.4	21.4	472.5
XIBLK15	13-Dinitrobenzene	168 > 138			4262.488									
XIBLK15	Tetryl	241 > 181			4262.488									
XIBLK15	Nitrobenzene	123 > 46			4262.488									
XIBLK15	4-Amino-26-dinitrotoluene	197 > 167			19553.002									
XIBLK15	2-Amino-46-dinitrotoluene	197 > 180			19553.002									
XIBLK15	246-Trinitrotoluene	227 > 210			19553.002									
XIBLK15	34-dinitrotoluene	182 > 152			19553.002									
XIBLK15	26-dinitrotoluene	182 > 152			19553.002									
XIBLK15	24-dinitrotoluene	182 > 152			19553.002									
XIBLK15	26-dinitrotoluene-d3	185 > 155	17.47	19553.002		19553.002	19553.002	bb			475.4973	95.1	-4.9	1968.1
XIBLK15	2-Nitrotoluene	137 > 46			19553.002									
XIBLK15	4-Nitrotoluene	137 > 46			19553.002									
XIBLK15	3-Nitrotoluene	137 > 46			19553.002									
XIBLK15	PETN	361 > 62			19553.002									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 07-MAR-10 15:04

GEL Data File: EXP0304147a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
Tetryl	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	546.85
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.472
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304147a
Date: 07-Mar-2010
Time: 15:04:12
ID: XIBLK16
Vial: 1:1,A

MMP 3/5/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.931e+003

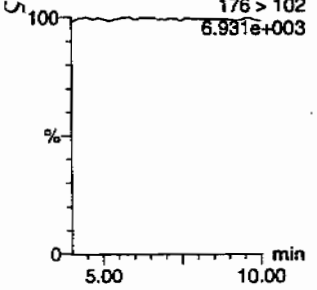

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.931e+003

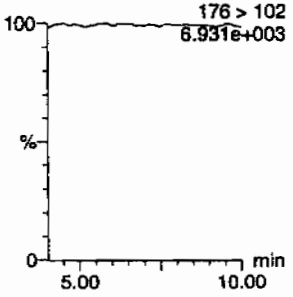

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.799e+003

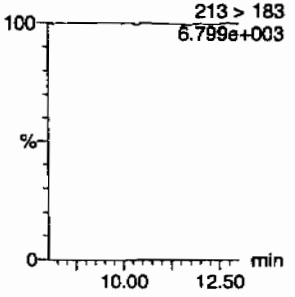

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.601e+004

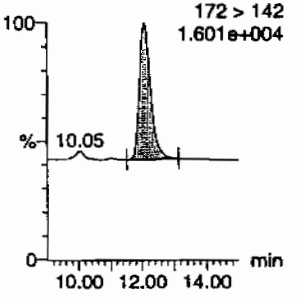

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.790e+003

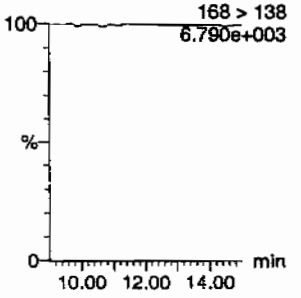

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.808e+003

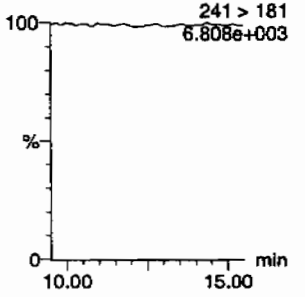

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.802e+003

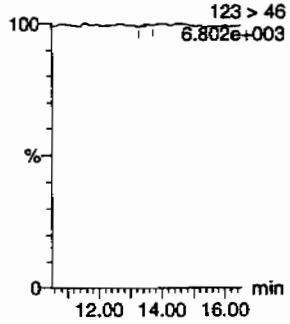

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.843e+003

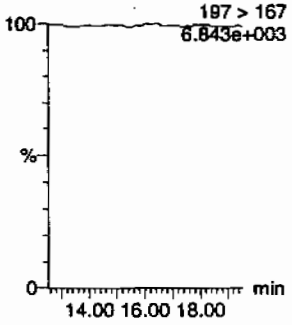

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.876e+003

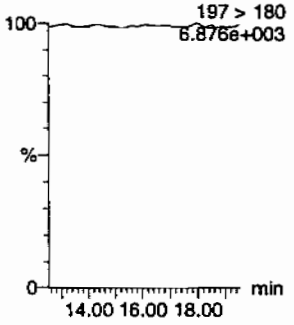

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.802e+003

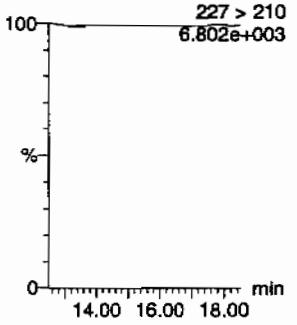

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.810e+003

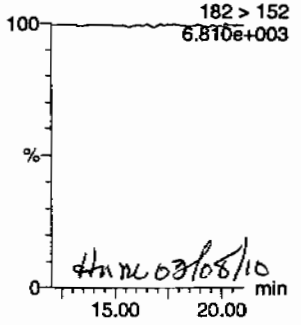

HM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.810e+003

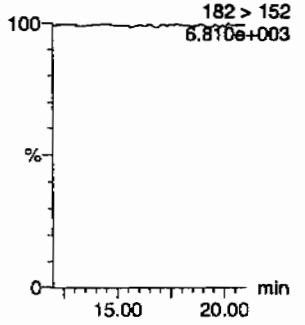

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

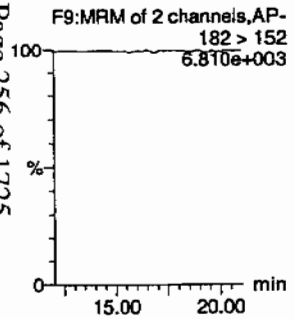

26-dinitrotoluene-d3

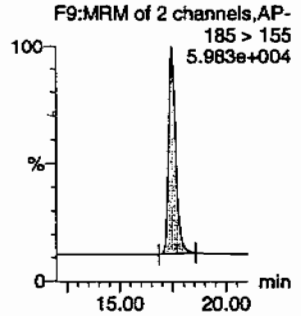

2-Nitrotoluene

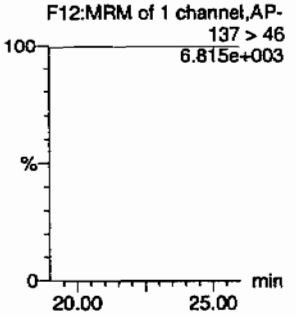

4-Nitrotoluene

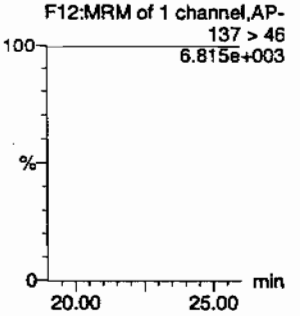

3-Nitrotoluene

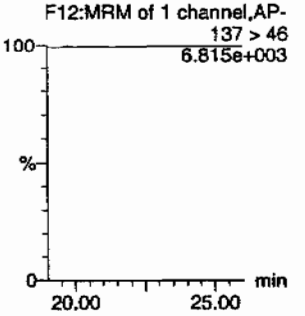

PETN

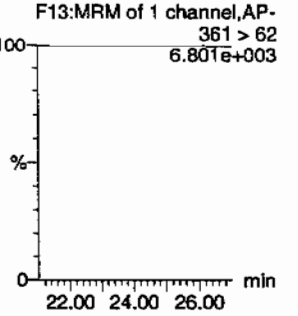

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK16	HMX	176 > 102			3840.846									
XIBLK16	RDX	176 > 102			3840.846									
XIBLK16	135-Trinitrobenzene	213 > 183			3840.846									
XIBLK16	13-Dinitrobenzene-d4	172 > 142	12.07	3840.846		3840.846	3840.846	bb			546.8504	109.4	9.4	224.3
XIBLK16	13-Dinitrobenzene	168 > 138			3840.846									
XIBLK16	Tetryl	241 > 181			3840.846									
XIBLK16	Nitrobenzene	123 > 46			3840.846			MM-	08-Mar-10	11:33:27				
XIBLK16	4-Amino-26-dinitrotoluene	197 > 167			21361.277									
XIBLK16	2-Amino-46-dinitrotoluene	197 > 180			21361.277									
XIBLK16	246-Trinitrotoluene	227 > 210			21361.277									
XIBLK16	34-dinitrotoluene	182 > 152			21361.277									
XIBLK16	26-dinitrotoluene	182 > 152			21361.277									
XIBLK16	24-dinitrotoluene	182 > 152			21361.277									
XIBLK16	26-dinitrotoluene-d3	185 > 155	17.47	21361.277		21361.277	21361.277	bb			519.4716	103.9	3.9	2944.1
XIBLK16	2-Nitrotoluene	137 > 46			21361.277									
XIBLK16	4-Nitrotoluene	137 > 46			21361.277									
XIBLK16	3-Nitrotoluene	137 > 46			21361.277									
XIBLK16	PETN	361 > 62			21361.277									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 07-MAR-10 21:27

GEL Data File: EXP0304160a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	560.78
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	555.358
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304160a
Date: 07-Mar-2010
Time: 21:27:32
ID: XIBLK17
Vial: 1:1,A

MAT 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.254e+003

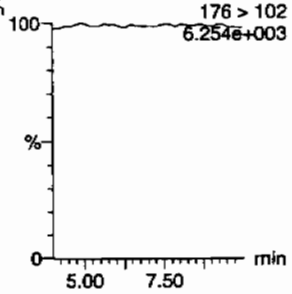

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.254e+003

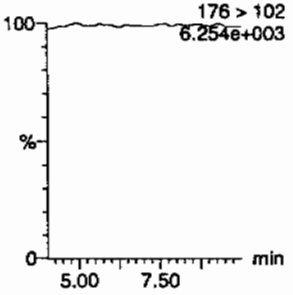

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.119e+003

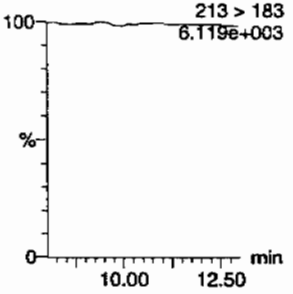

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.589e+004

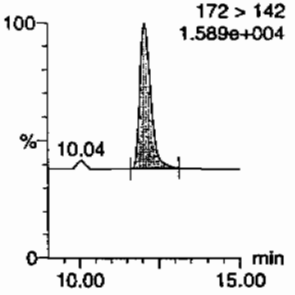

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
13.39 168 > 138
6.252e+003

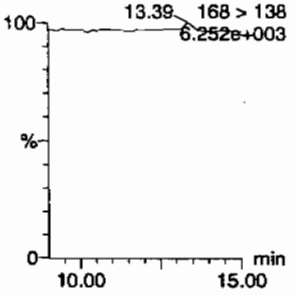

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.100e+003

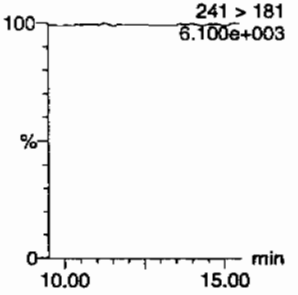

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.124e+003

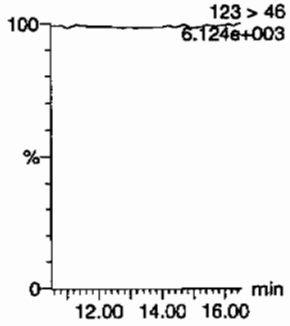

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.177e+003

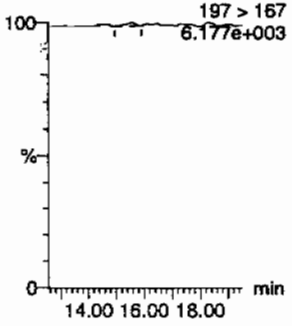

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.200e+003

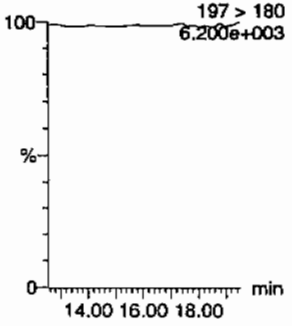

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.118e+003

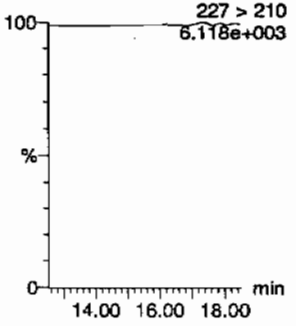

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.181e+003

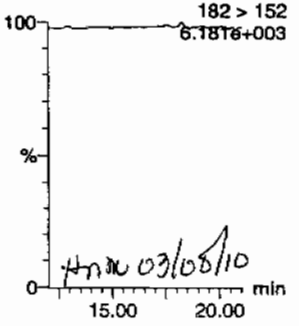

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.181e+003

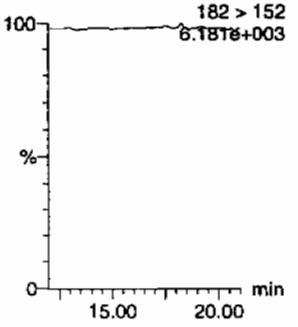

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

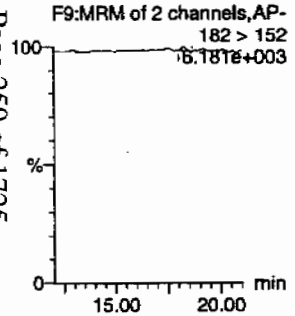

26-dinitrotoluene-d3

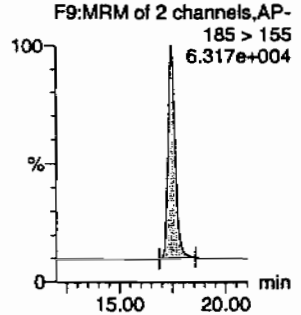

2-Nitrotoluene

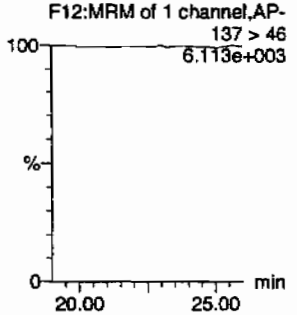

4-Nitrotoluene

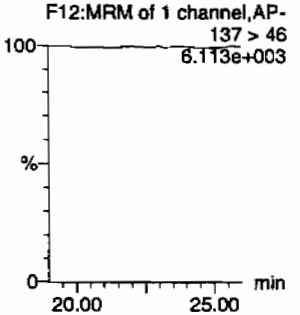

3-Nitrotoluene

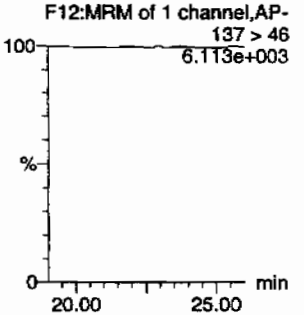

PETN

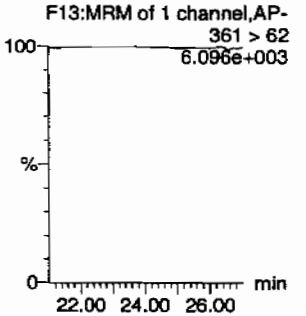

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK17	HMX	176 > 102			3938.683									
XIBLK17	RDX	176 > 102			3938.683									
XIBLK17	135-Trinitrobenzene	213 > 183			3938.683									
XIBLK17	13-Dinitrobenzene-d4	172 > 142	12.06	3938.683		3938.683	3938.683	bb			560.7802	112.2	12.2	468.5
XIBLK17	13-Dinitrobenzene	168 > 138			3938.683									
XIBLK17	Tetryl	241 > 181			3938.683									
XIBLK17	Nitrobenzene	123 > 46			3938.683									
XIBLK17	4-Amino-26-dinitrotoluene	197 > 167			22836.973			MM-	08-Mar-10	11:34:52				
XIBLK17	2-Amino-46-dinitrotoluene	197 > 180			22836.973									
XIBLK17	246-Trinitrotoluene	227 > 210			22836.973									
XIBLK17	34-dinitrotoluene	182 > 152			22836.973									
XIBLK17	26-dinitrotoluene	182 > 152			22836.973									
XIBLK17	24-dinitrotoluene	182 > 152			22836.973			MM-	08-Mar-10	11:55:53				
XIBLK17	26-dinitrotoluene-d3	185 > 155	17.48	22836.973		22836.973	22836.973	bb			555.3581	111.1	11.1	1688.8
XIBLK17	2-Nitrotoluene	137 > 46			22836.973									
XIBLK17	4-Nitrotoluene	137 > 46			22836.973									
XIBLK17	3-Nitrotoluene	137 > 46			22836.973									
XIBLK17	PETN	361 > 62			22836.973									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 08-MAR-10 03:50

GEL Data File: EXP0304173a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	520.029
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	555.047
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304173a
Date: 08-Mar-2010
Time: 03:50:54
ID: XIBLK18
Vial: 1:1,A

MM 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.239e+003

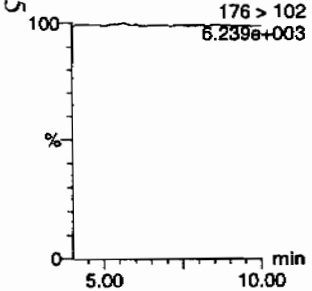

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.239e+003

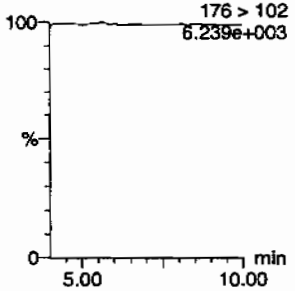

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.170e+003

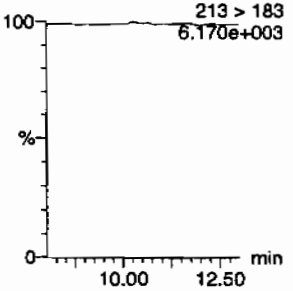

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.524e+004

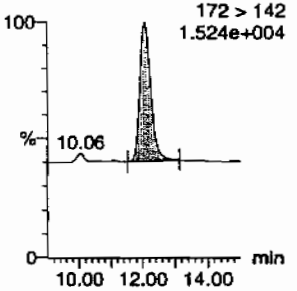

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.156e+003

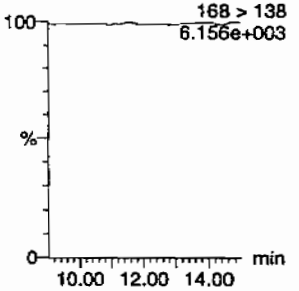

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.137e+003

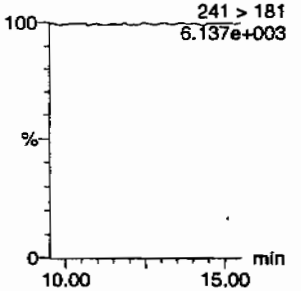

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.281e+003

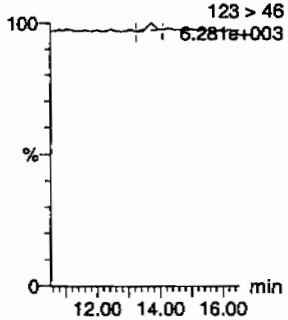

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.216e+003

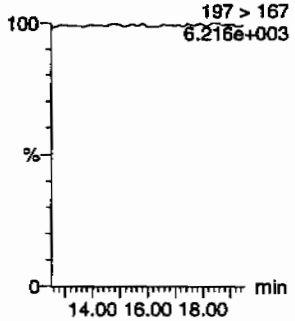

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.247e+003

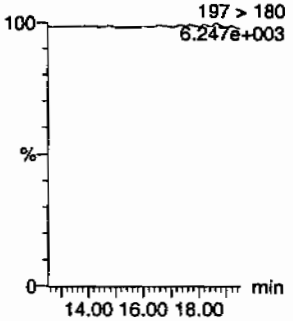

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.174e+003

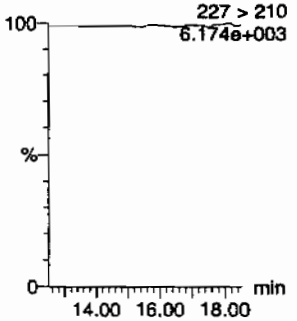

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.161e+003

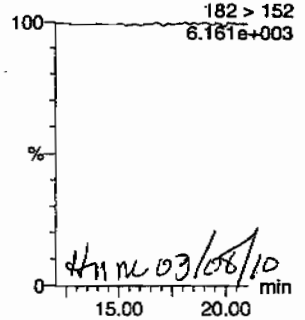

HM MC 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.161e+003

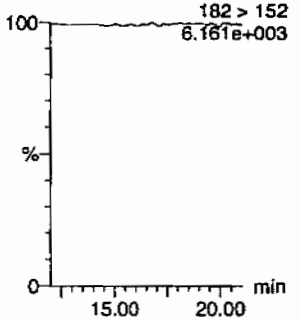

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

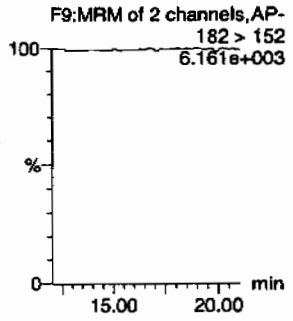

26-dinitrotoluene-d3

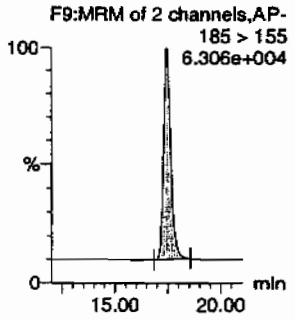

2-Nitrotoluene

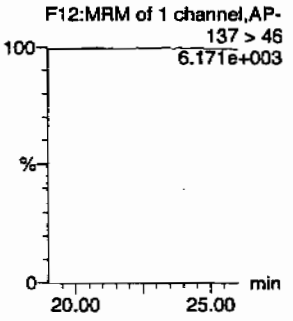

4-Nitrotoluene

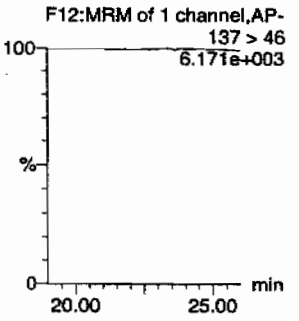

3-Nitrotoluene

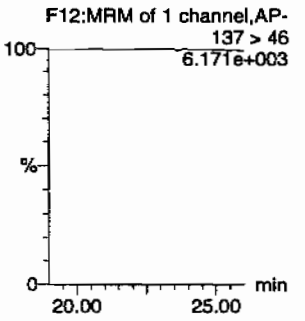

PETN

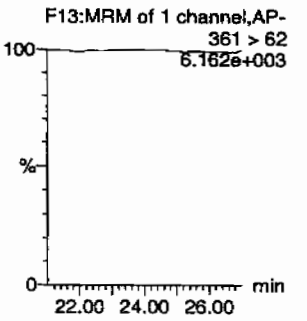

ID	Name	Trace	RT	Area	S/Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK18	HMX	176 > 102			3652.467									
XIBLK18	RDX	176 > 102			3652.467									
XIBLK18	135-Trinitrobenzene	213 > 183			3652.467									
XIBLK18	13-Dinitrobenzene-d4	172 > 142	12.07	3652.467		3652.467	3652.467	bb			520.0294	104.0	4.0	218.6
XIBLK18	13-Dinitrobenzene	168 > 138			3652.467									
XIBLK18	Tetryl	241 > 181			3652.467									
XIBLK18	Nitrobenzene	123 > 46			3652.467			MM-	08-Mar-10	11:33:15				
XIBLK18	4-Amino-26-dinitrotoluene	197 > 167			22824.164									
XIBLK18	2-Amino-46-dinitrotoluene	197 > 180			22824.164									
XIBLK18	246-Trinitrotoluene	227 > 210			22824.164									
XIBLK18	34-dinitrotoluene	182 > 152			22824.164									
XIBLK18	26-dinitrotoluene	182 > 152			22824.164									
XIBLK18	24-dinitrotoluene	182 > 152			22824.164									
XIBLK18	26-dinitrotoluene-d3	185 > 155	17.47	22824.164		22824.164	22824.164	bb			555.0466	111.0	11.0	1739.5
XIBLK18	2-Nitrotoluene	137 > 46			22824.164									
XIBLK18	4-Nitrotoluene	137 > 46			22824.164									
XIBLK18	3-Nitrotoluene	137 > 46			22824.164									
XIBLK18	PETN	361 > 62			22824.164									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 08-MAR-10 06:47

GEL Data File: EXP0304179a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	530.016
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	485.003

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304179a
Date: 08-Mar-2010
Time: 06:47:54
ID: XIBLK19
Vial: 1:1,A

MM 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.205e+003

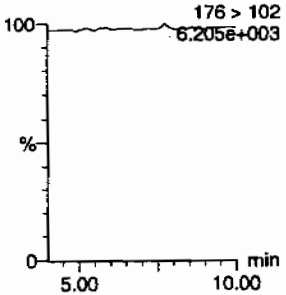

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.205e+003

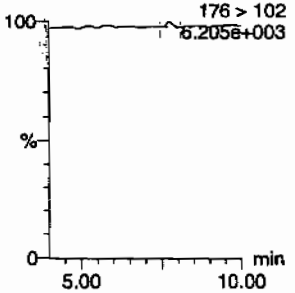

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.118e+003

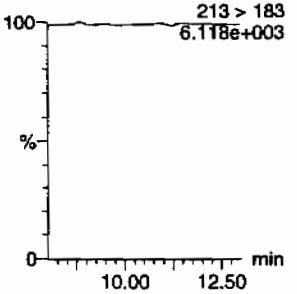

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.533e+004

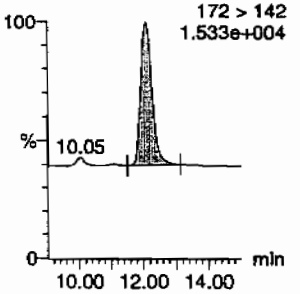

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.101e+003

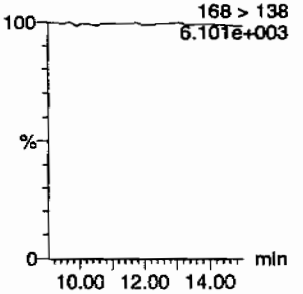

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.143e+003

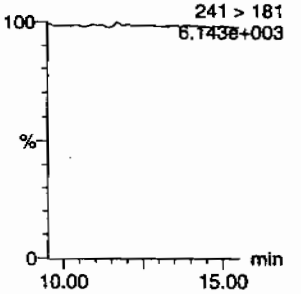

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.087e+003

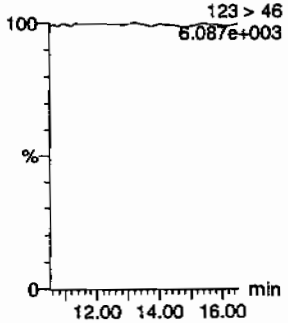

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.109e+003

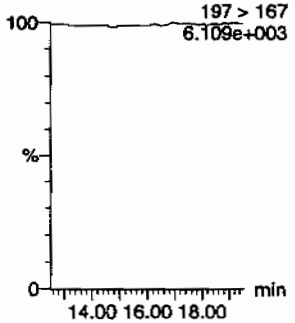

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.130e+003

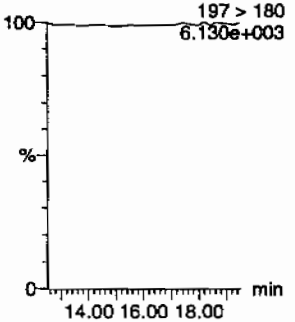

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.097e+003

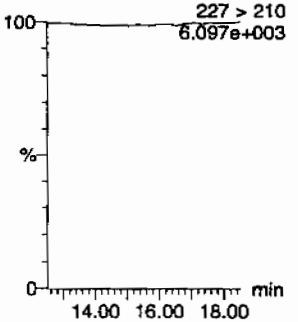

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.096e+003

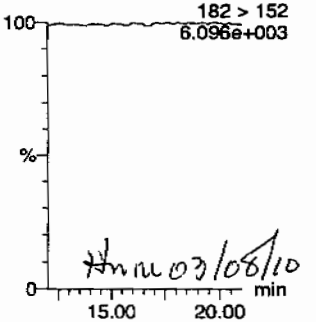

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.096e+003

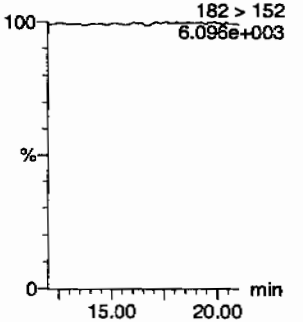

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

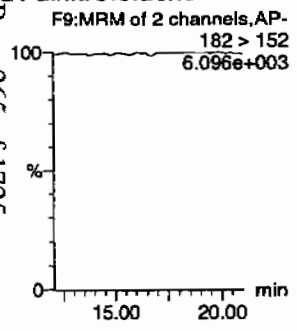

26-dinitrotoluene-d3

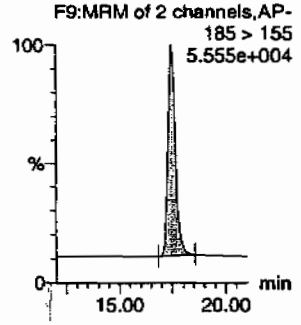

2-Nitrotoluene

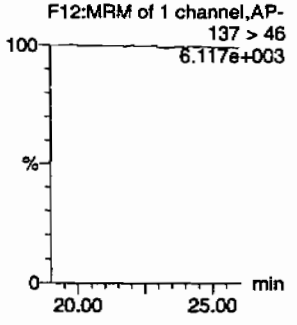

4-Nitrotoluene

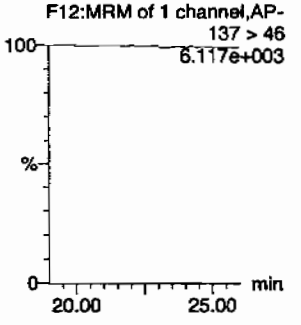

3-Nitrotoluene

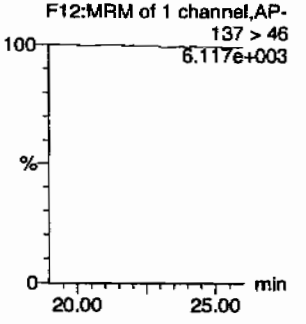

PETN

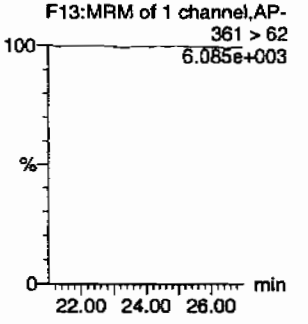

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK19	HMX	176 > 102			3722.607									
XIBLK19	RDX	176 > 102			3722.607			MM-	08-Mar-10	11:14:44				
XIBLK19	135-Trinitrobenzene	213 > 183			3722.607									
XIBLK19	13-Dinitrobenzene-d4	172 > 142	12.07	3722.607		3722.607	3722.607	bb			530.0158	106.0	6.0	436.5
XIBLK19	13-Dinitrobenzene	168 > 138			3722.607									
XIBLK19	Tetryl	241 > 181			3722.607									
XIBLK19	Nitrobenzene	123 > 46			3722.607									
XIBLK19	4-Amino-26-dinitrotoluene	197 > 167			19943.895									
XIBLK19	2-Amino-46-dinitrotoluene	197 > 180			19943.895									
XIBLK19	246-Trinitrotoluene	227 > 210			19943.895									
XIBLK19	34-dinitrotoluene	182 > 152			19943.895									
XIBLK19	26-dinitrotoluene	182 > 152			19943.895									
XIBLK19	24-dinitrotoluene	182 > 152			19943.895									
XIBLK19	26-dinitrotoluene-d3	185 > 155	17.47	19943.895		19943.895	19943.895	bb			485.0031	97.0	-3.0	2344.1
XIBLK19	2-Nitrotoluene	137 > 46			19943.895									
XIBLK19	4-Nitrotoluene	137 > 46			19943.895									
XIBLK19	3-Nitrotoluene	137 > 46			19943.895									
XIBLK19	PETN	361 > 62			19943.895									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK20

Analysis Date: 08-MAR-10 10:14

GEL Data File: EXP0304186a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	699.444
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	520.333
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304186a
Date: 08-Mar-2010
Time: 10:14:33
ID: XIBLK20
Vial: 1:1,A

MMT 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.958e+003

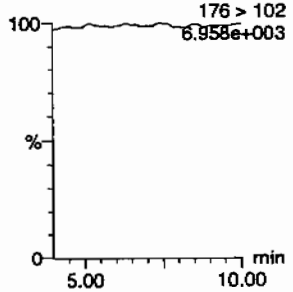

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.958e+003

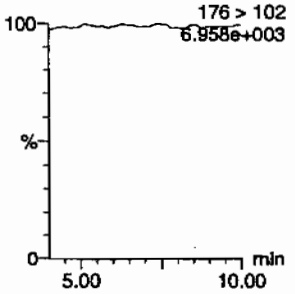

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.803e+003

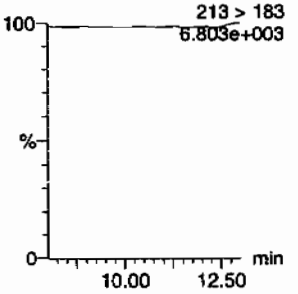

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.902e+004

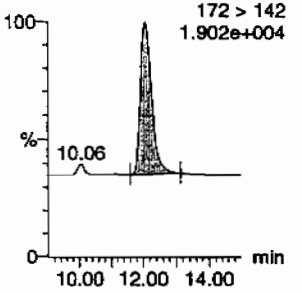

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.725e+003

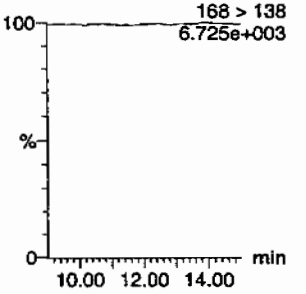

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.732e+003

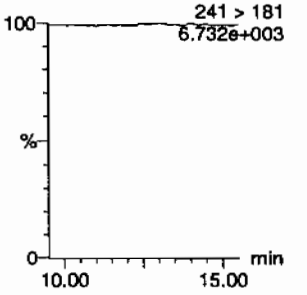

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.753e+003

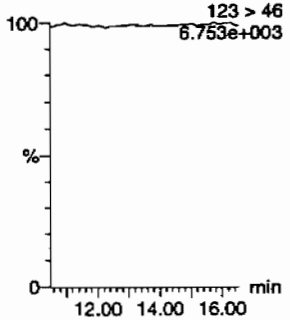

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.899e+003

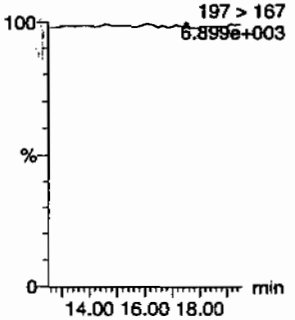

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.874e+003

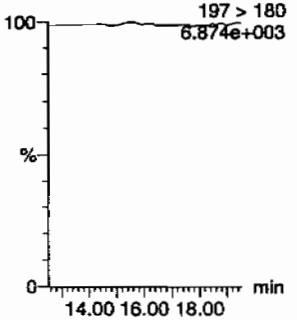

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.739e+003

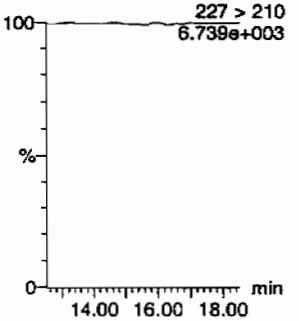

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.776e+003

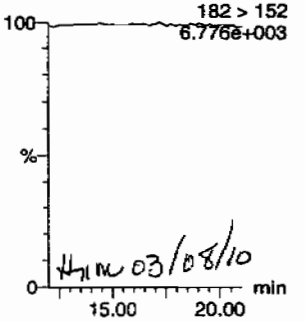

HMW 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.776e+003

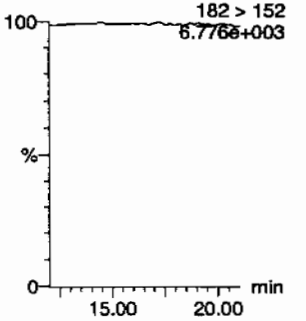

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

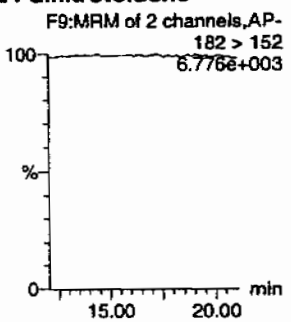

26-dinitrotoluene-d3

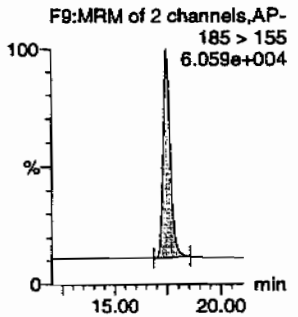

2-Nitrotoluene

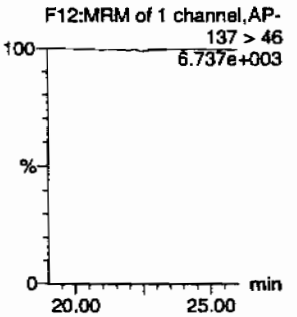

4-Nitrotoluene

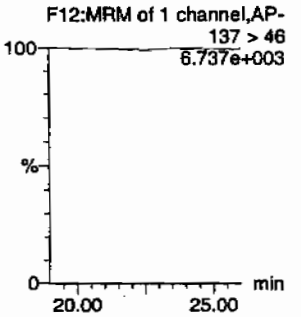

3-Nitrotoluene

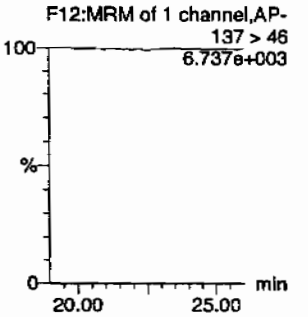

PETN

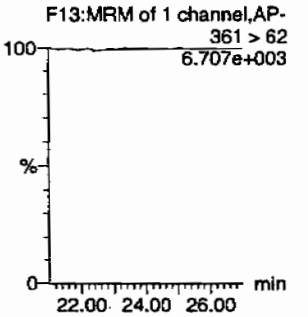

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK20	HMX	176 > 102			4912.598									
XIBLK20	RDX	176 > 102			4912.598									
XIBLK20	135-Trinitrobenzene	213 > 183			4912.598									
XIBLK20	13-Dinitrobenzene-d4	172 > 142	12.07	4912.598		4912.598	4912.598	bb			699.4439	139.9	39.9	1193.3
XIBLK20	13-Dinitrobenzene	168 > 138			4912.598									
XIBLK20	Tetryl	241 > 181			4912.598									
XIBLK20	Nitrobenzene	123 > 46			4912.598									
XIBLK20	4-Amino-26-dinitrotoluene	197 > 167			21396.686									
XIBLK20	2-Amino-46-dinitrotoluene	197 > 180			21396.686									
XIBLK20	246-Trinitrotoluene	227 > 210			21396.686									
XIBLK20	34-dinitrotoluene	182 > 152			21396.686									
XIBLK20	26-dinitrotoluene	182 > 152			21396.686									
XIBLK20	24-dinitrotoluene	182 > 152			21396.686									
XIBLK20	26-dinitrotoluene-d3	185 > 155	17.49	21396.686		21396.686	21396.686	bb			520.3327	104.1	4.1	1672.6
XIBLK20	2-Nitrotoluene	137 > 46			21396.686									
XIBLK20	4-Nitrotoluene	137 > 46			21396.686									
XIBLK20	3-Nitrotoluene	137 > 46			21396.686									
XIBLK20	PETN	361 > 62			21396.686									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 26-FEB-10 17:15

GEL Data File: EXS02260010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ran 3/1/10

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

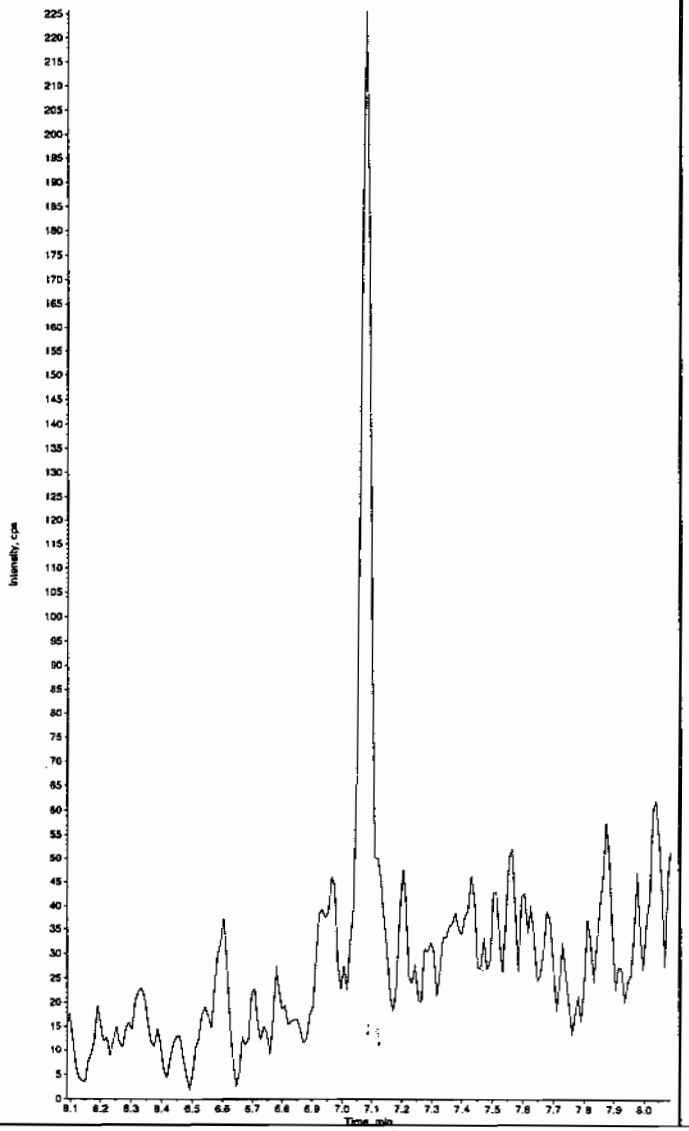

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

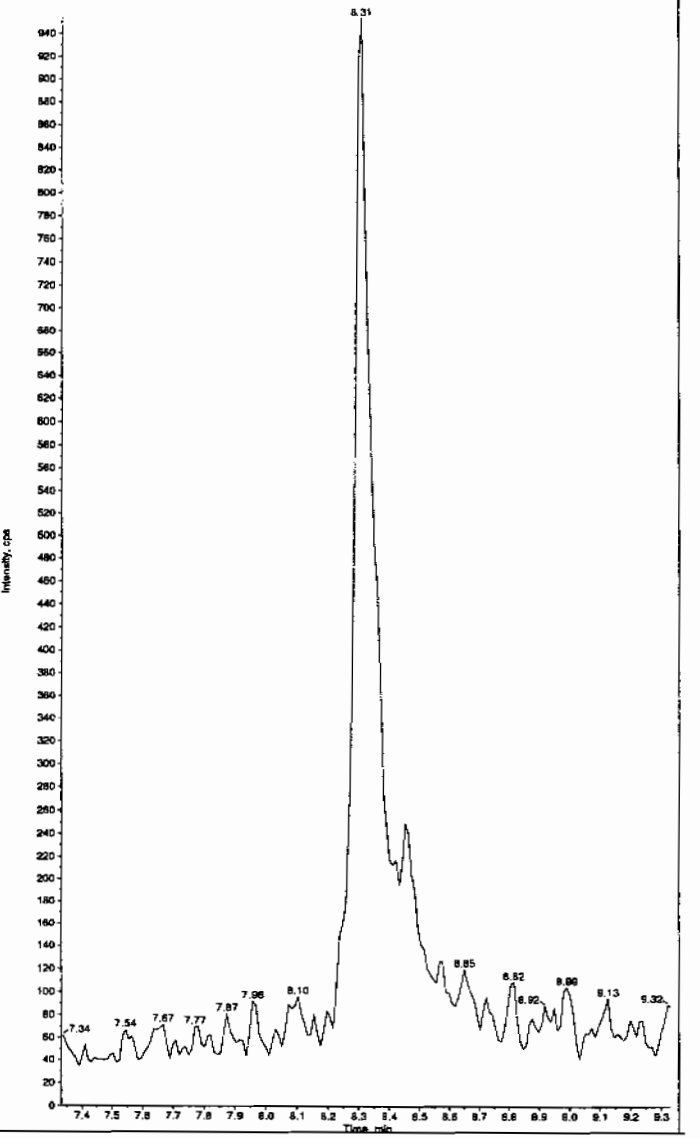

Hnm 03/01/10

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

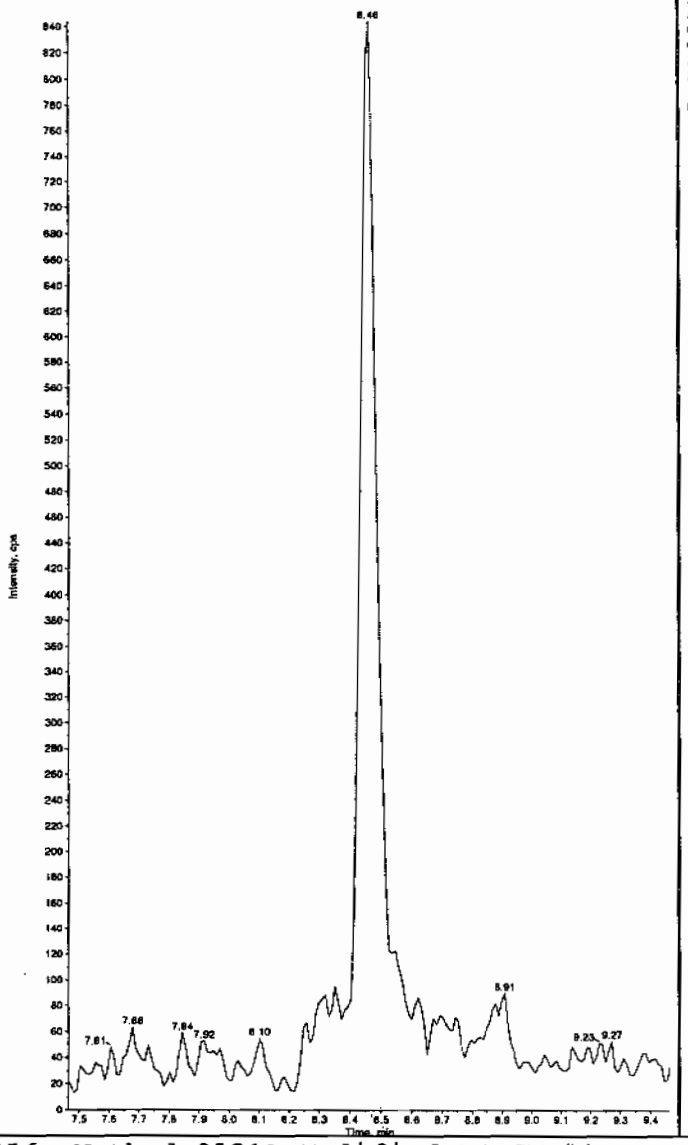

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

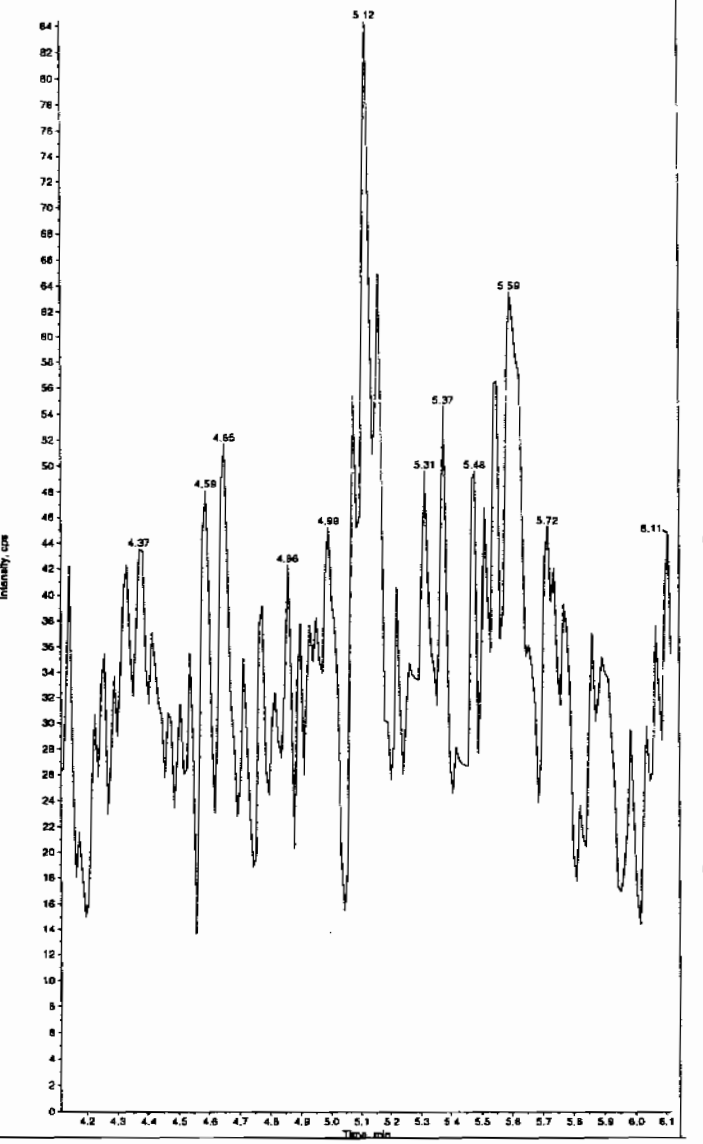

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

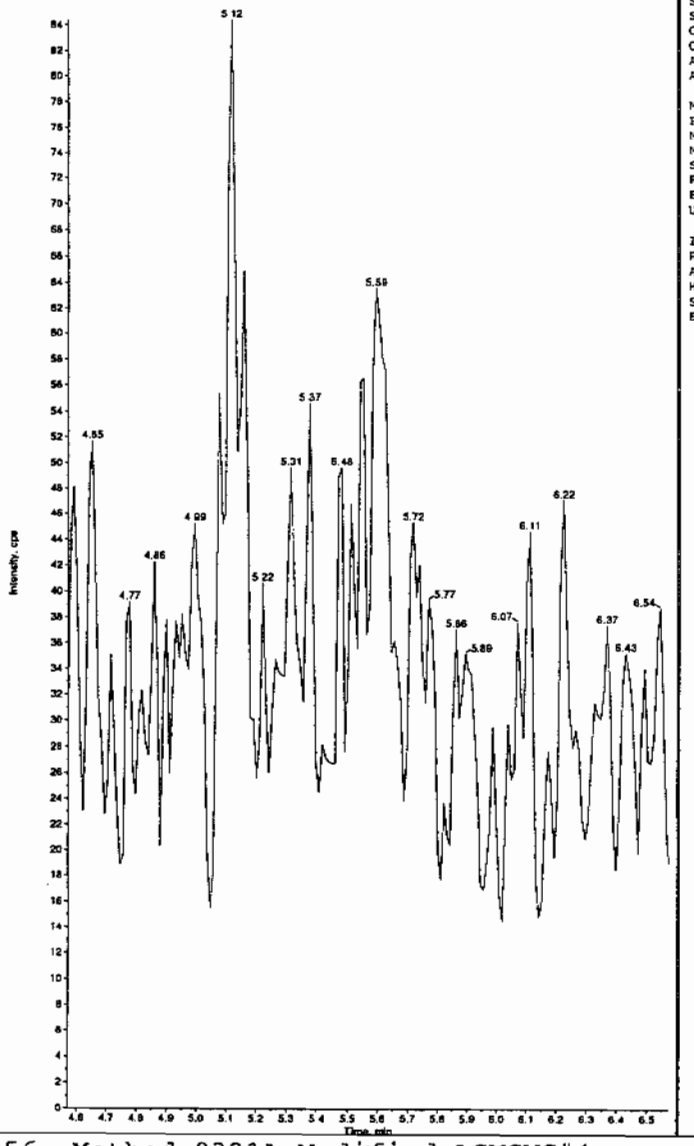

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.88e+004 counts
Height: 23771.599 cps
Start Time: 10.9 min
End Time: 11.1 min

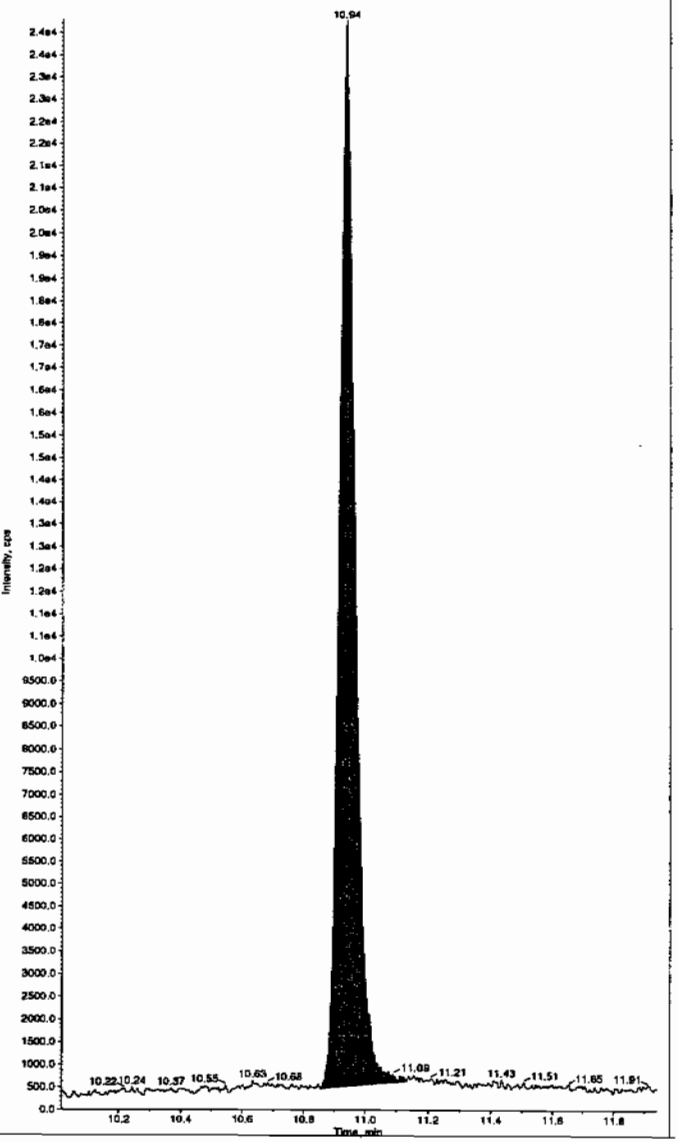

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1543
Lab Code: GEL
Lab Sample ID: XIBLK03
Analysis Date: 26–FEB–10 17:46
GEL Data File: EXS02260012.wiff
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lm 3/1/10

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

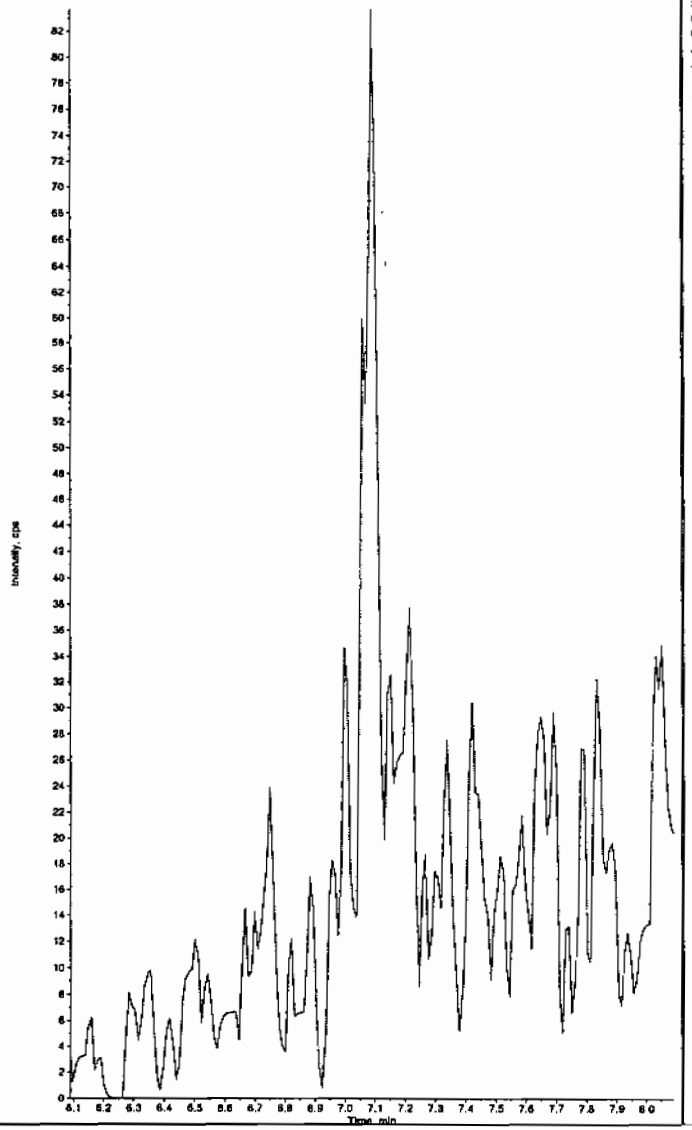

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

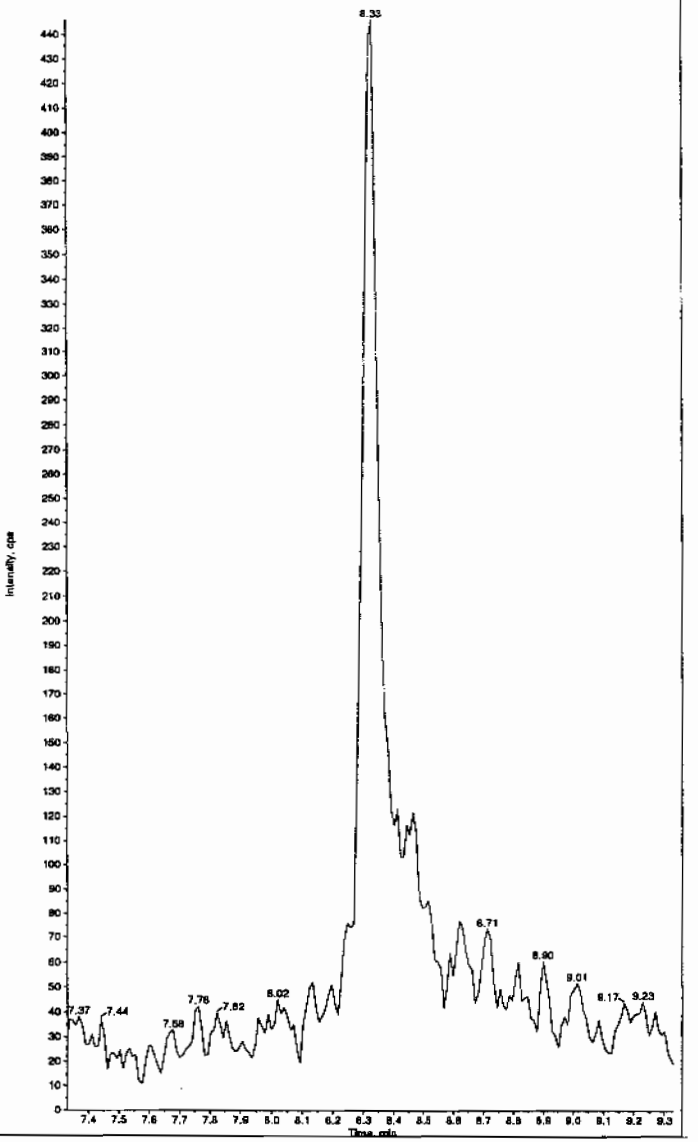

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

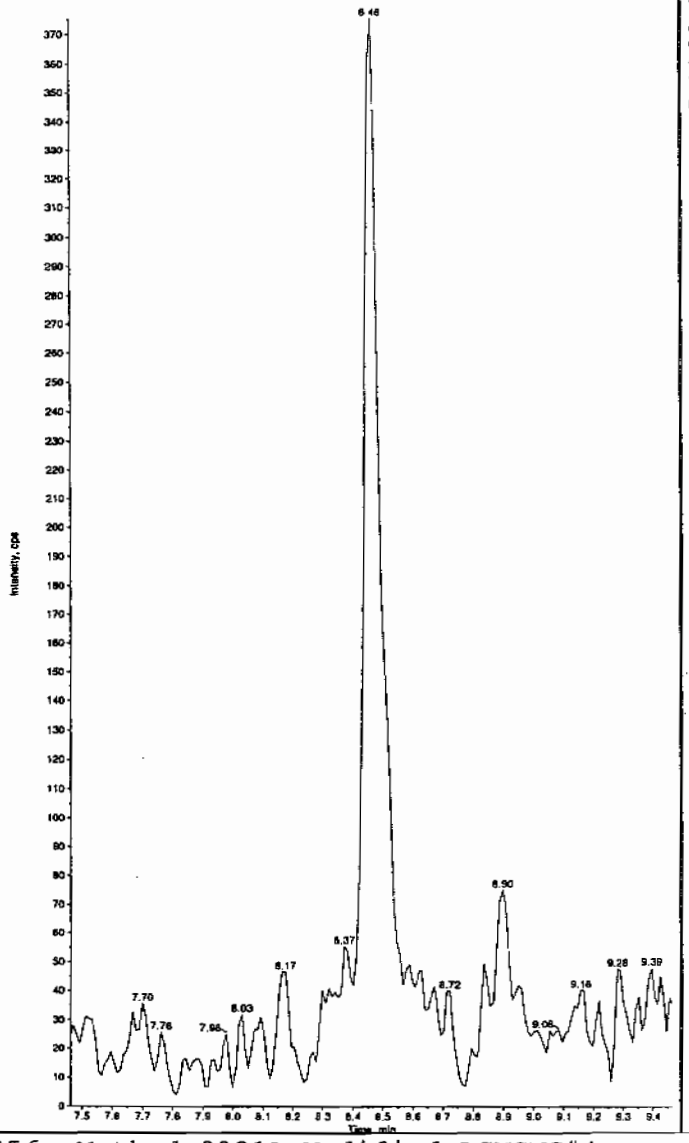

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

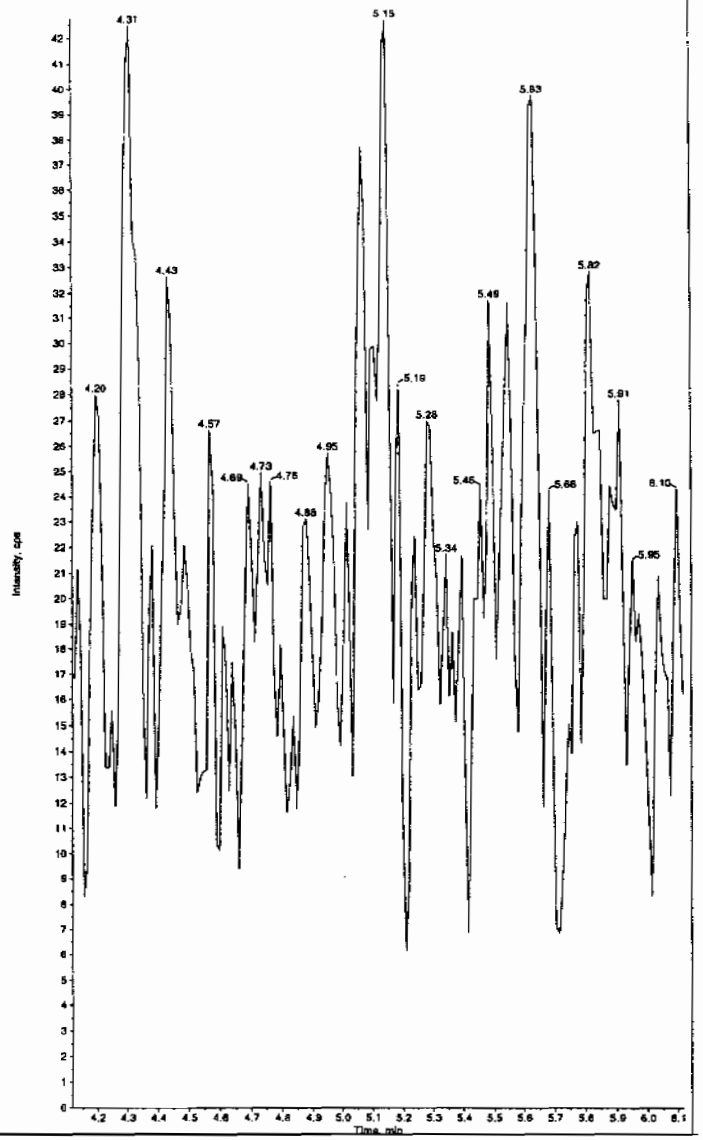

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

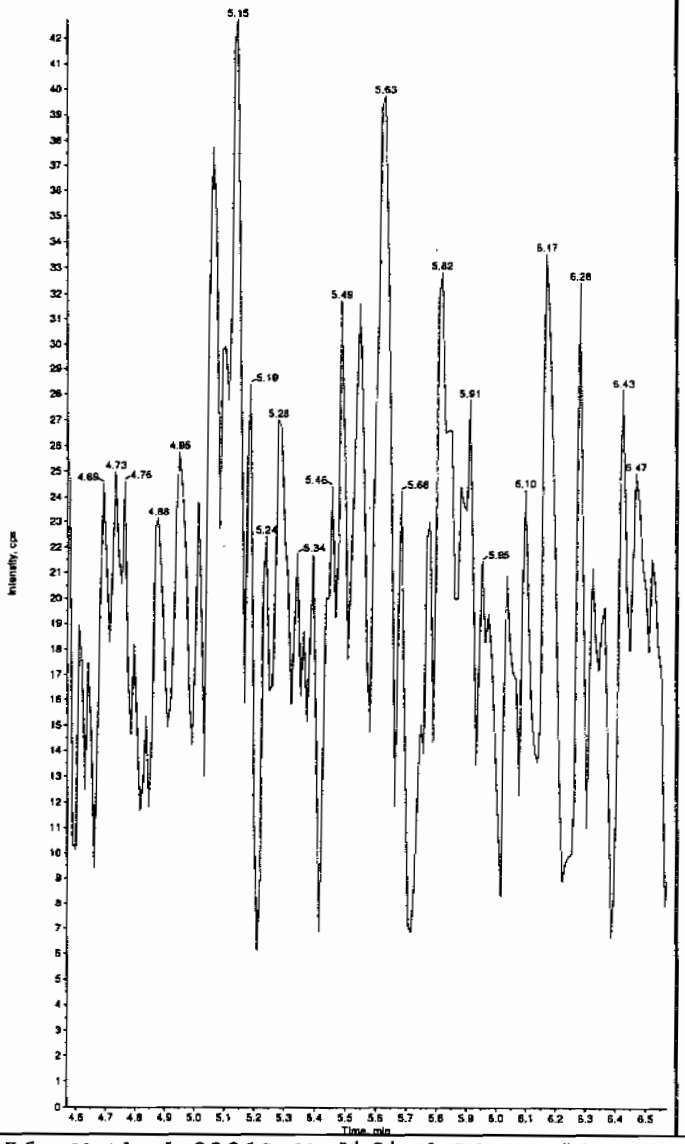

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.68e+004 counts
Height: 12137.585 cps
Start Time: 10.9 min
End Time: 11.1 min

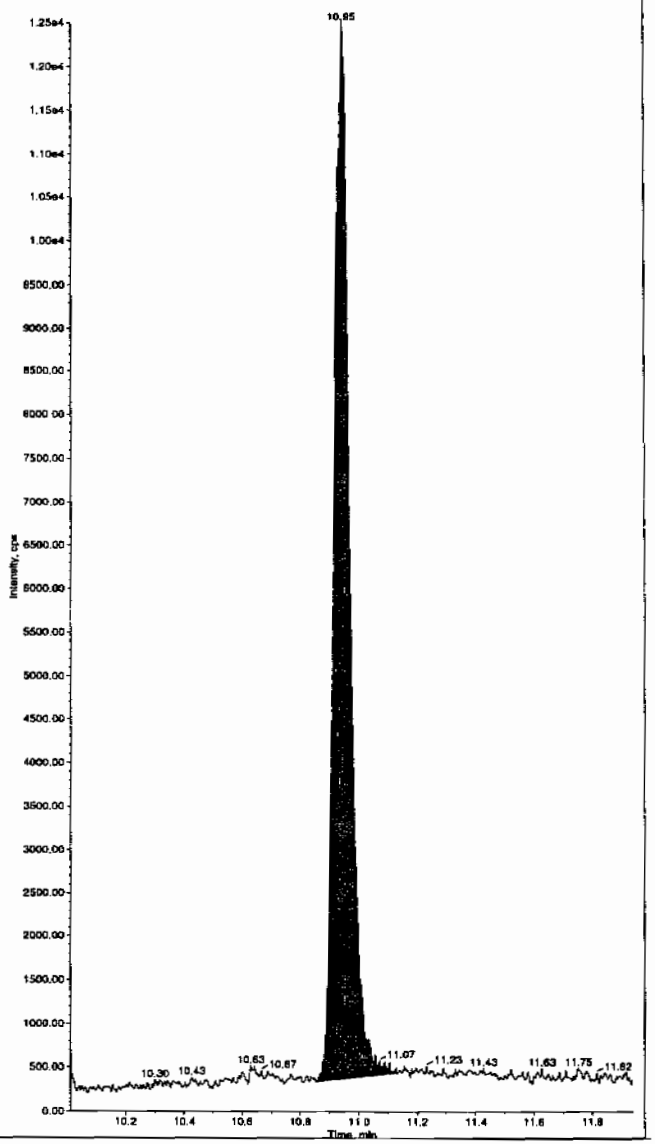

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1543

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 26–FEB–10 21:10

GEL Data File: EXS02260025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcn 3/1/10

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

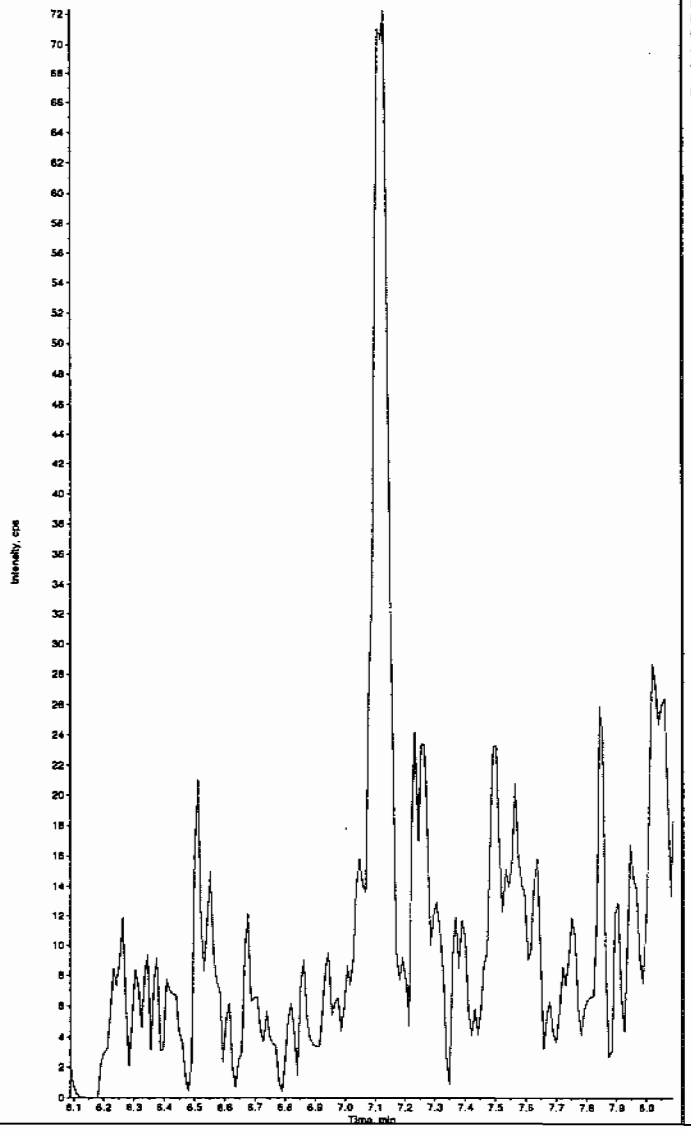

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

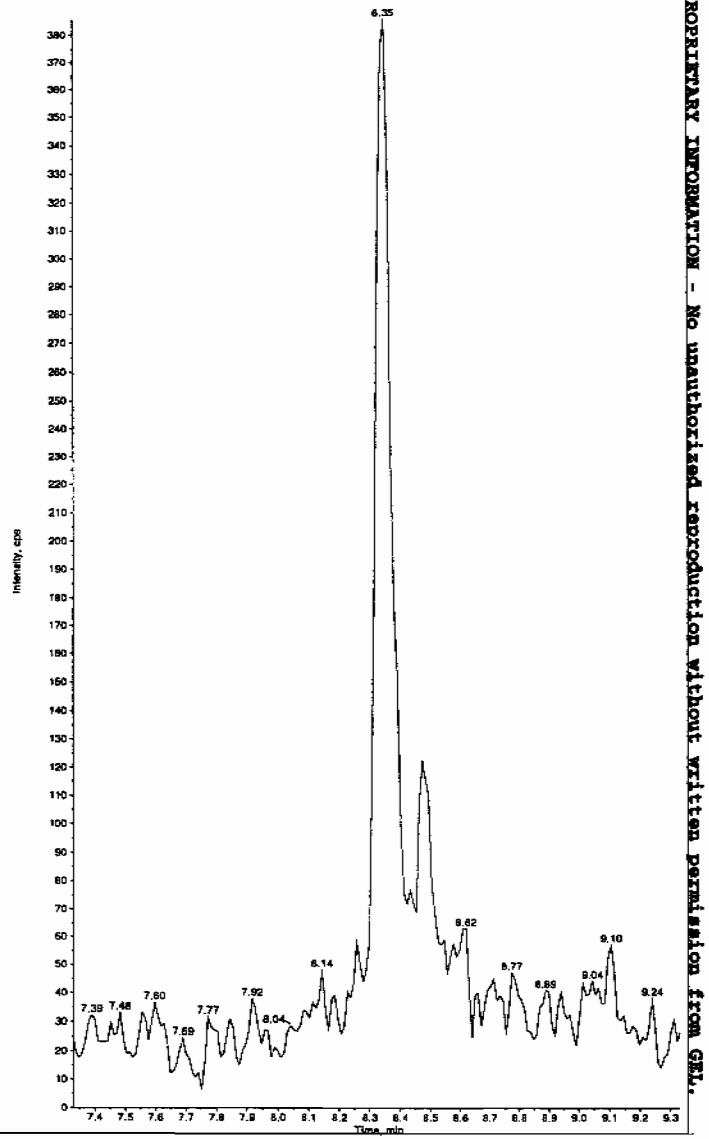

Hnm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

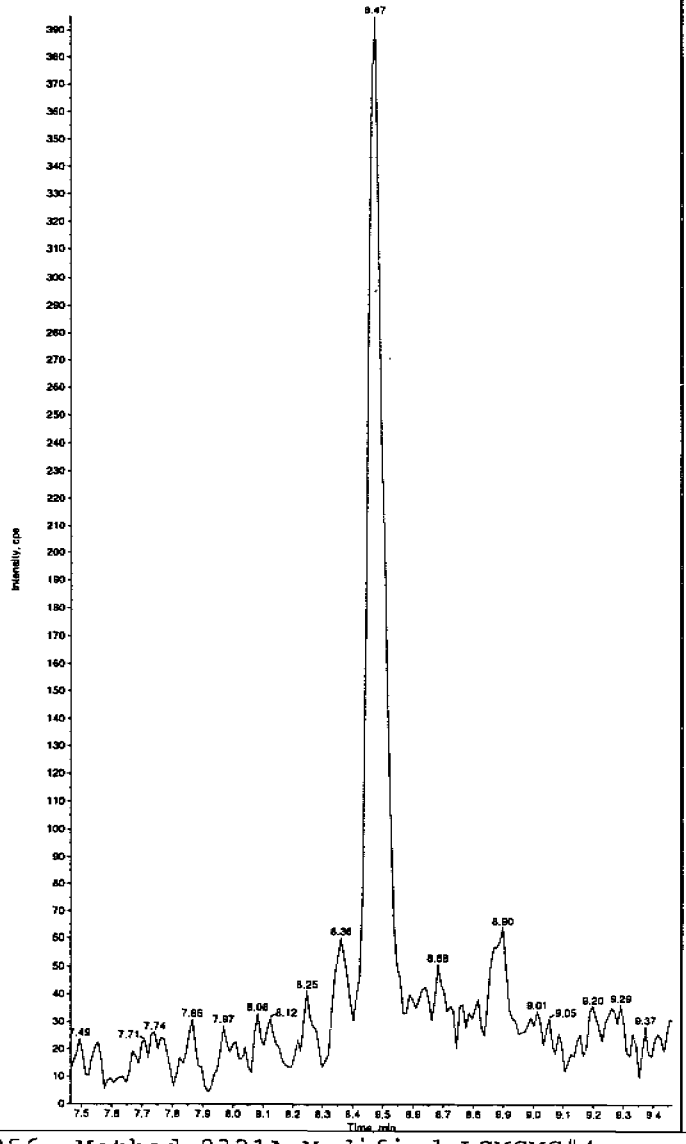

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

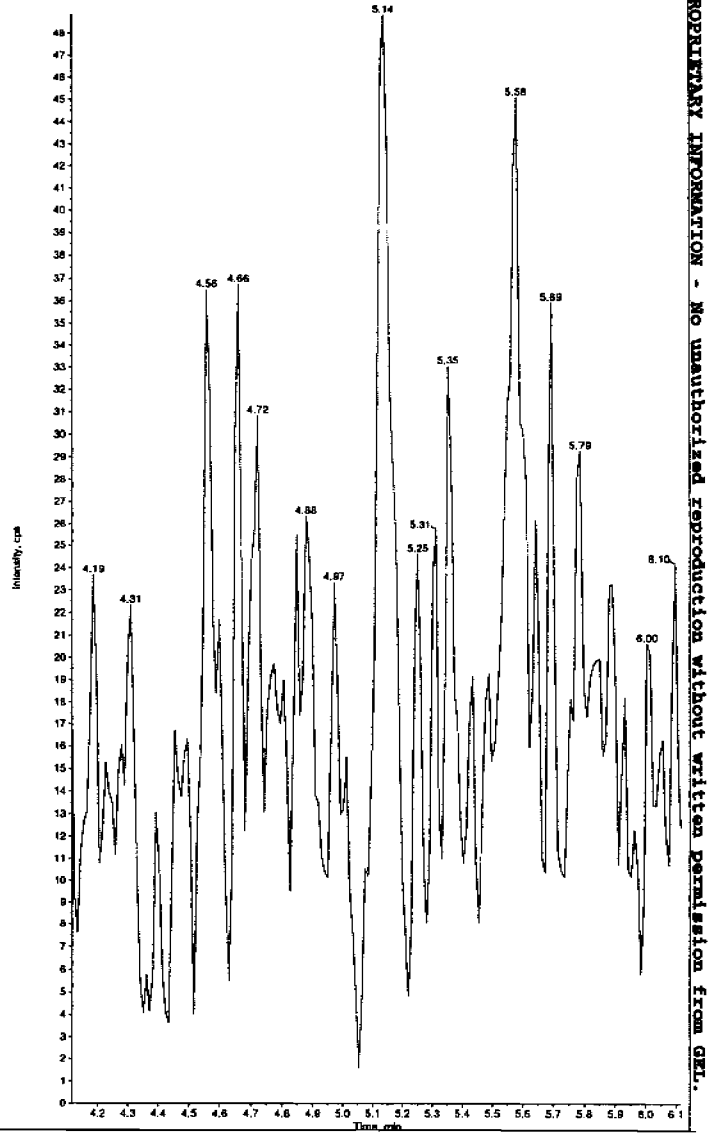

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

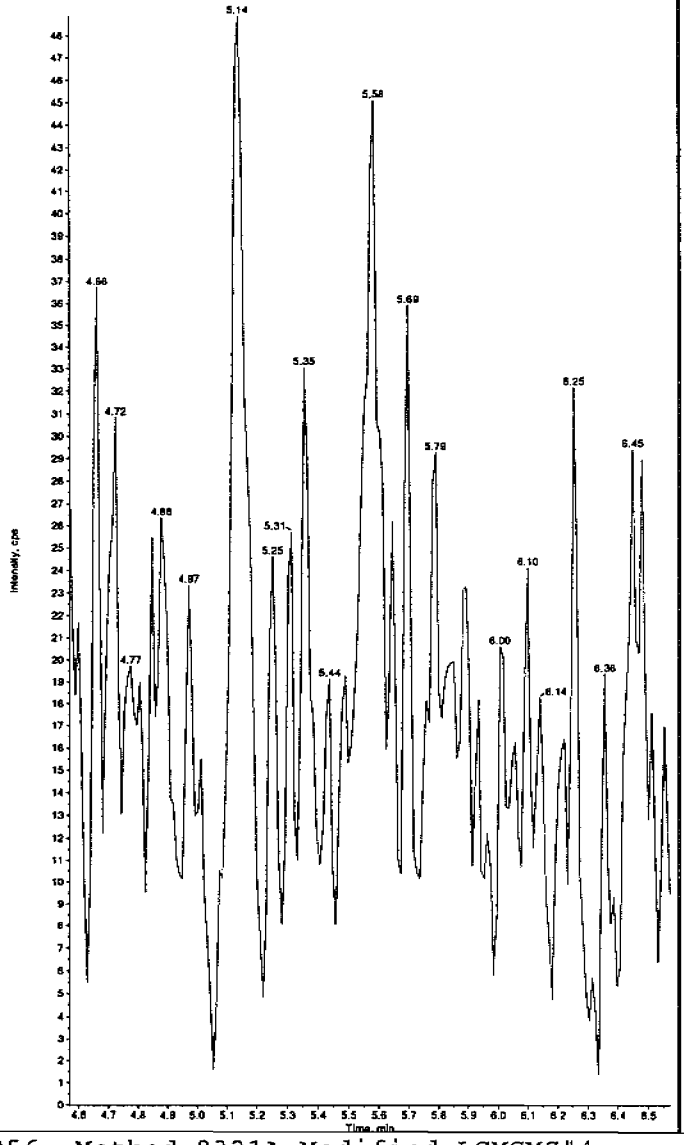

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 3.47e+004 counts
Height: 8966.046 cps
Start Time: 10.8 min
End Time: 11.1 min

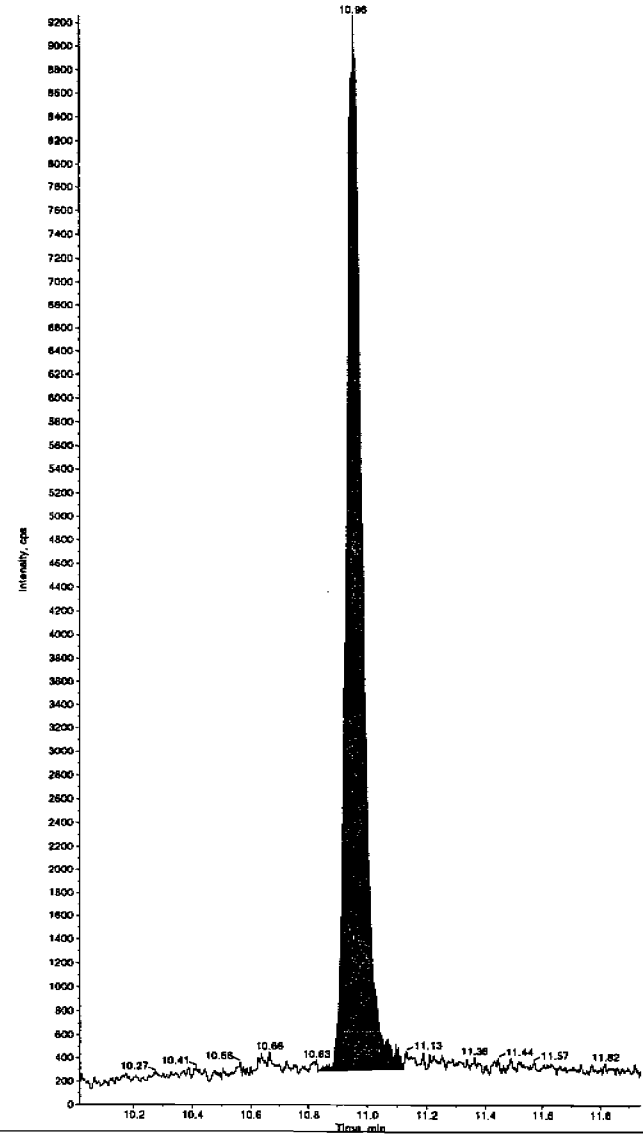

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 26-FEB-10 22:13

GEL Data File: EXS02260029.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 3/1/10

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02260029.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

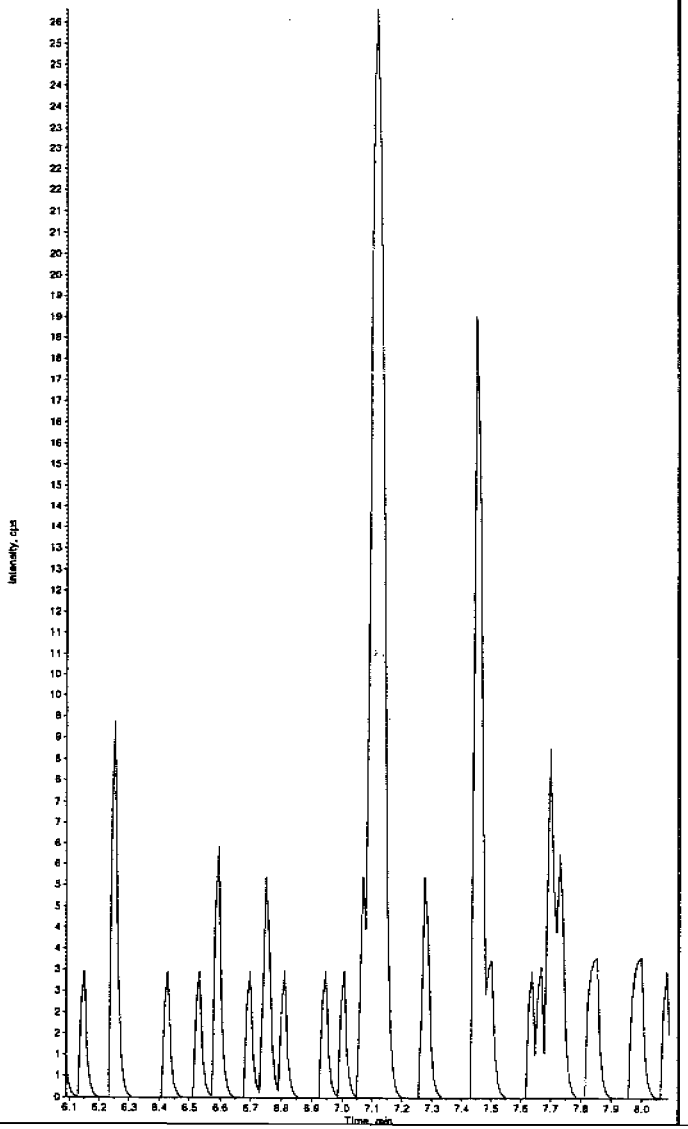

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02260029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

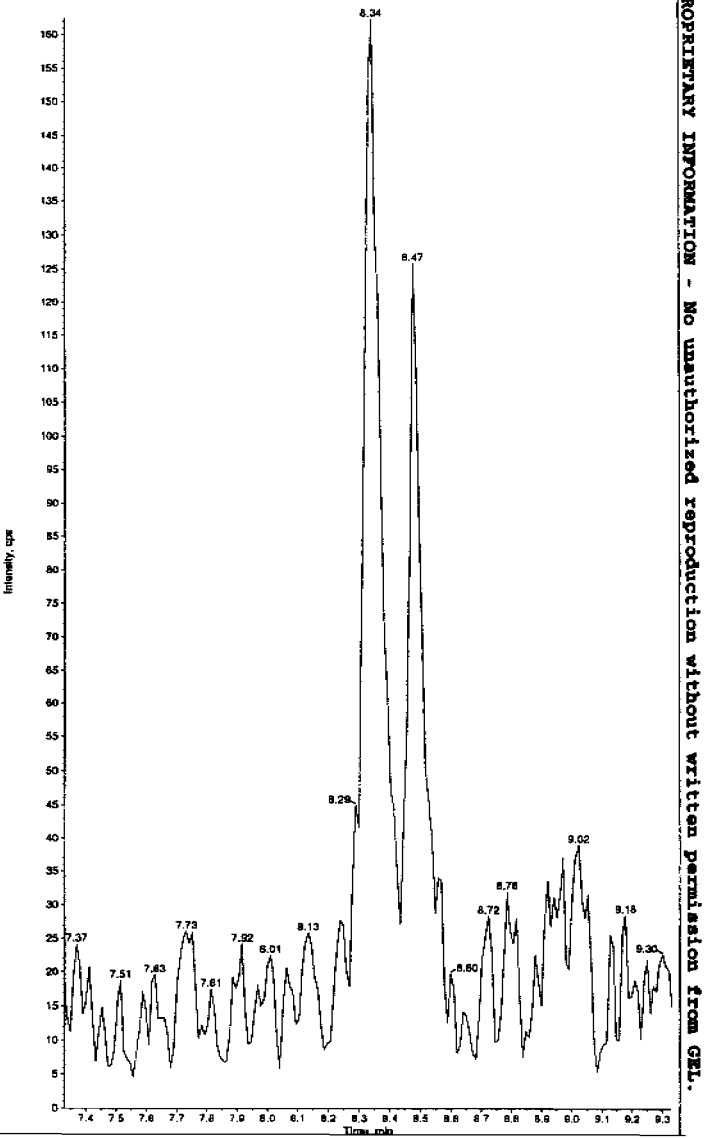

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02260029.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

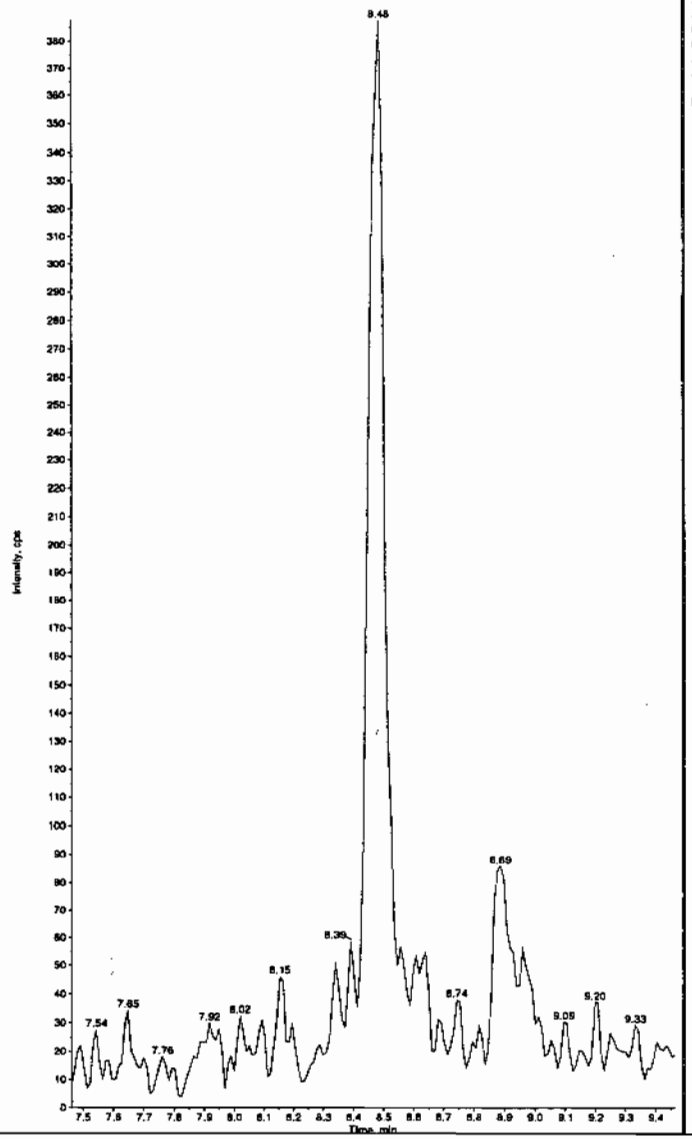

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02260029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

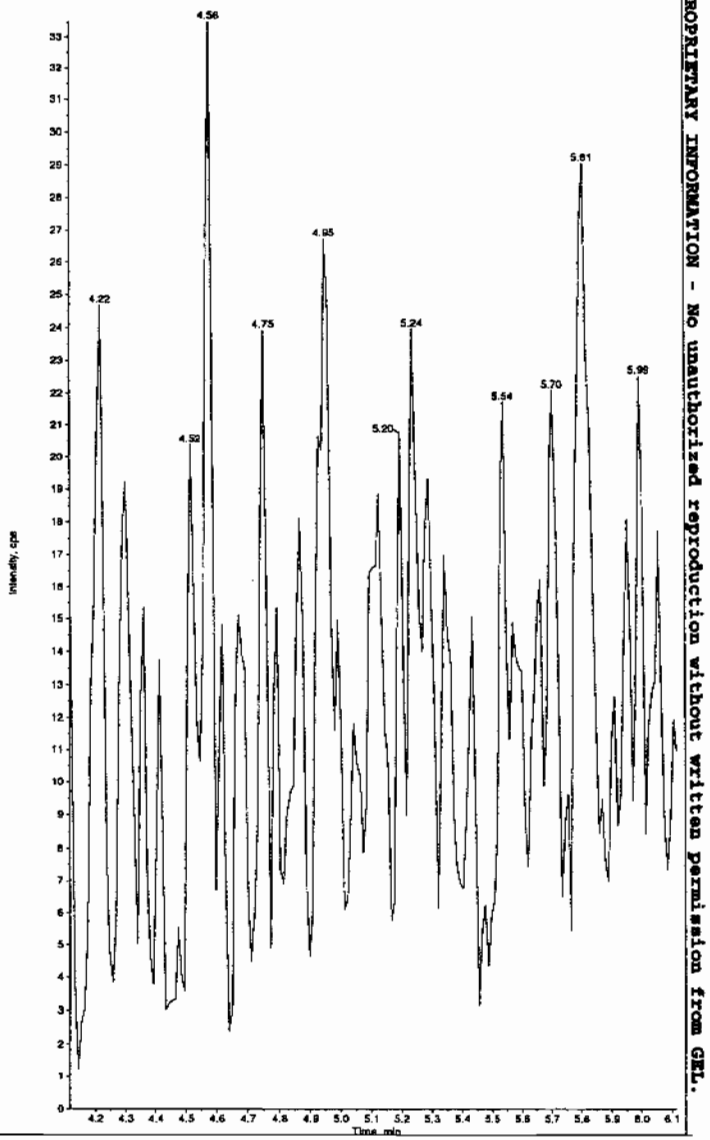

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02260029.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

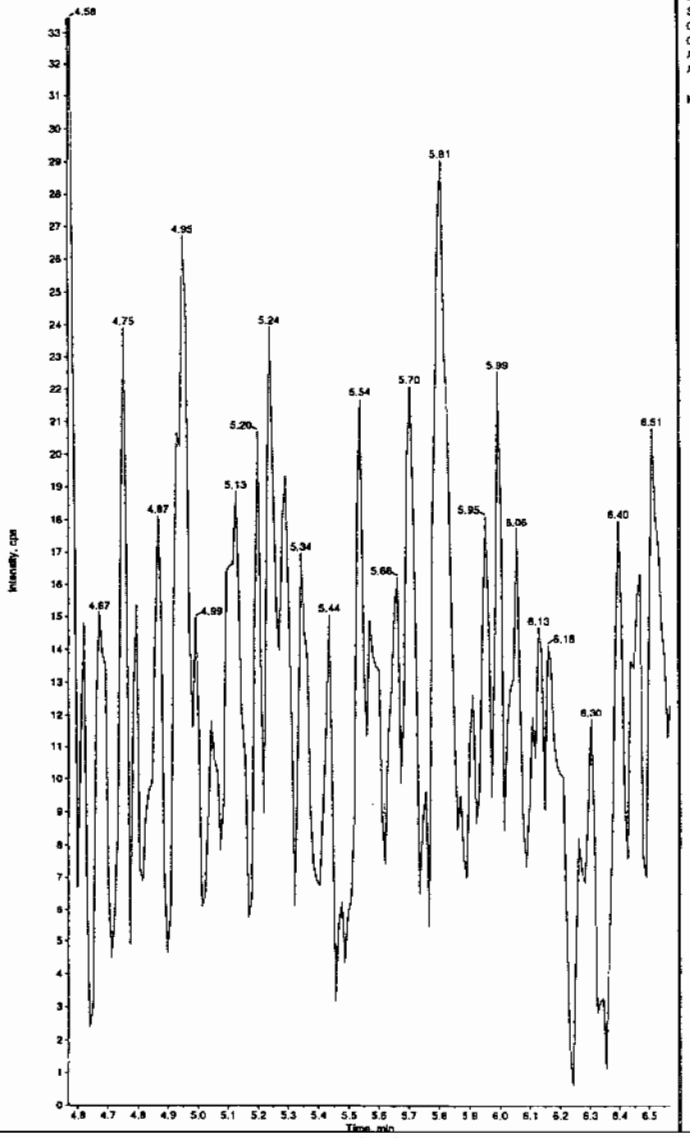

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02260029.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

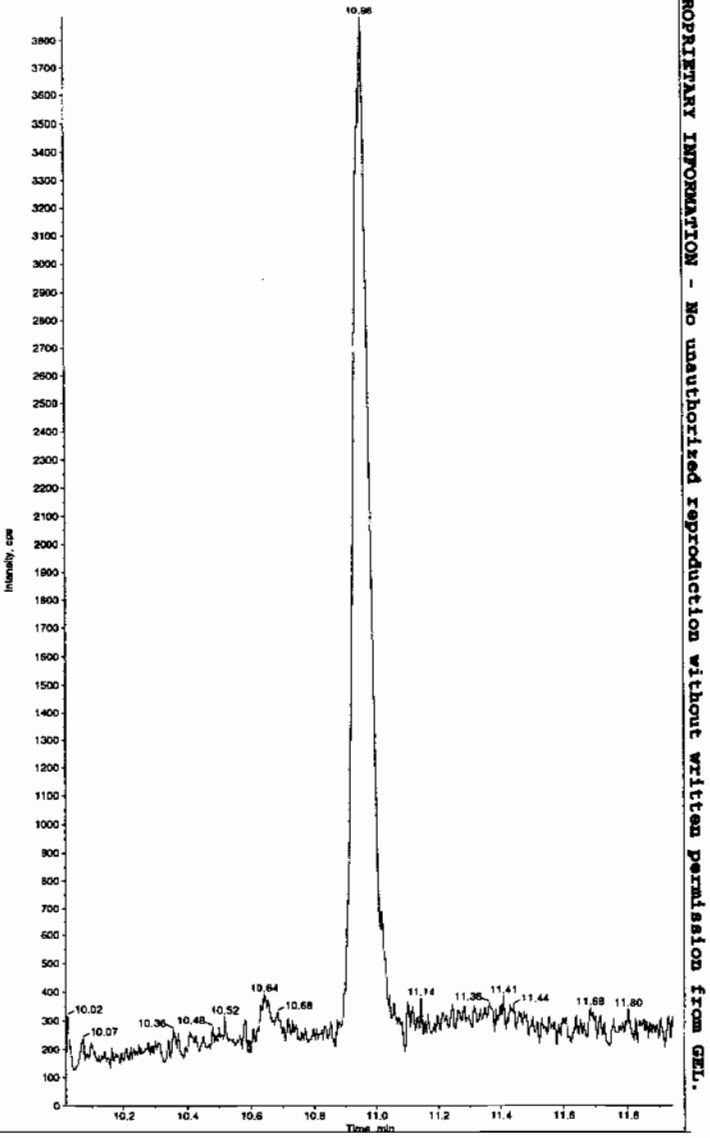

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1543

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 27–FEB–10 00:35

GEL Data File: EXS02260038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rcu 3/1/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

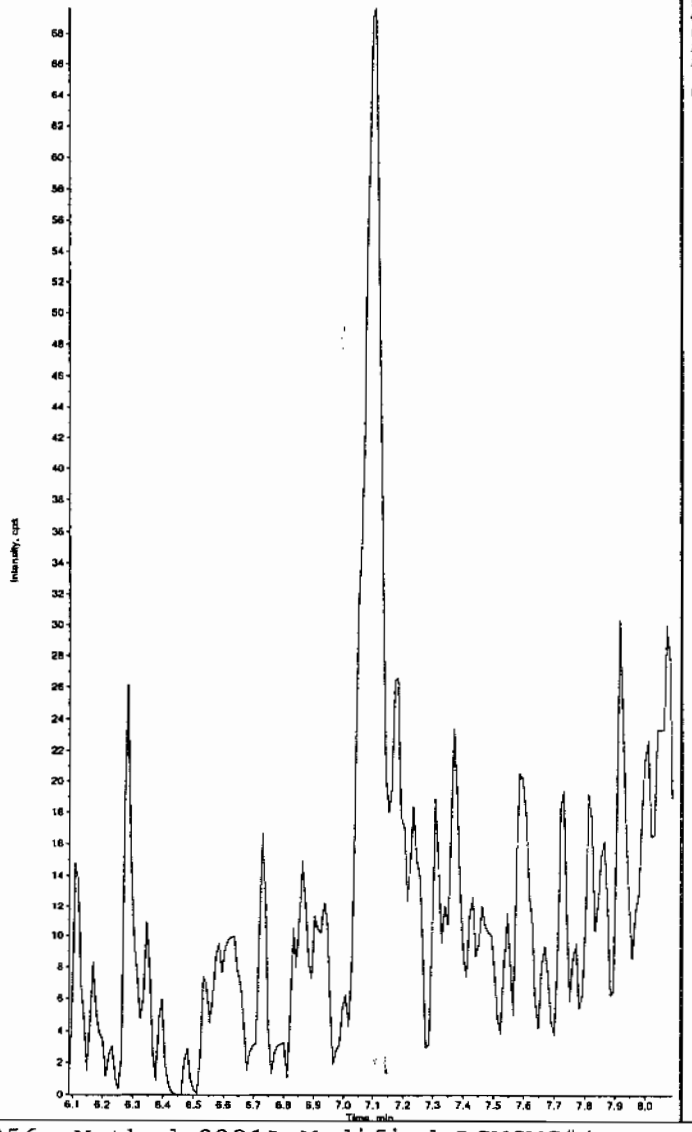

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

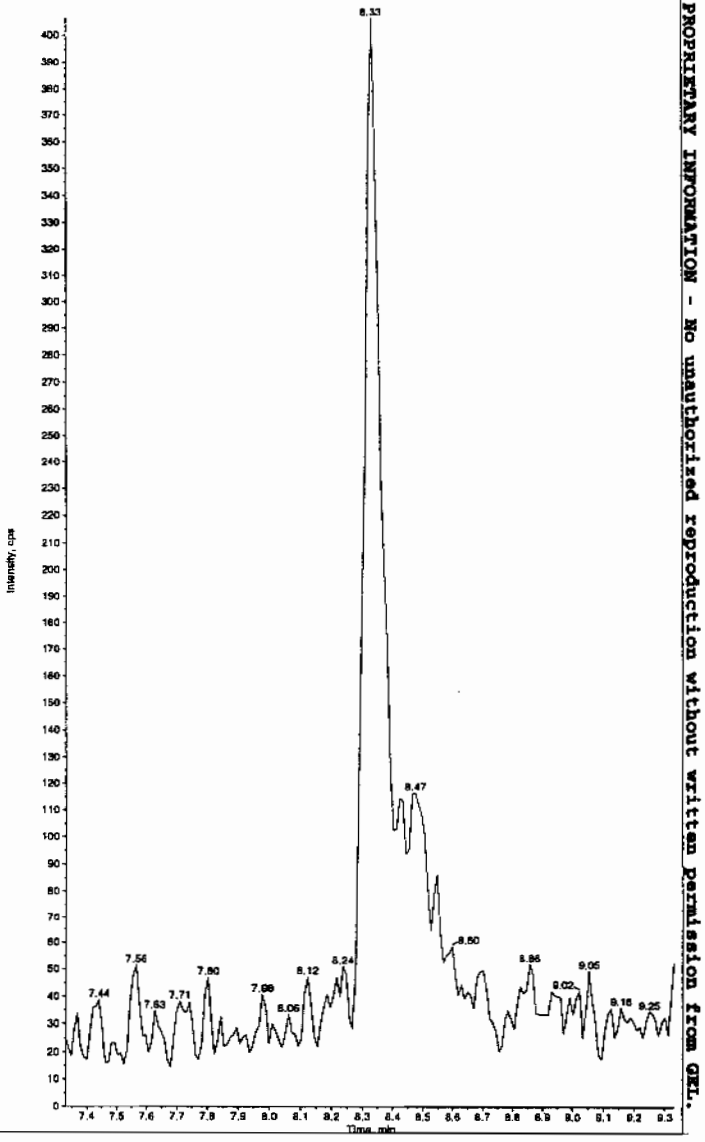

Hm 03/01/10

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Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02260036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

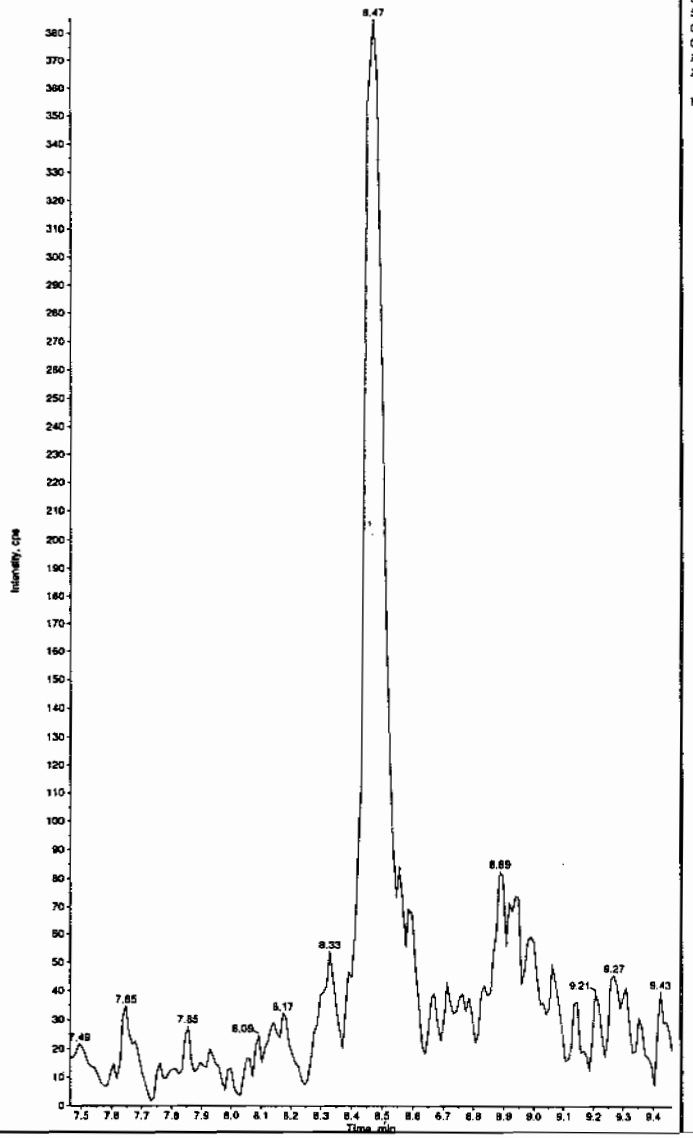

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02260038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

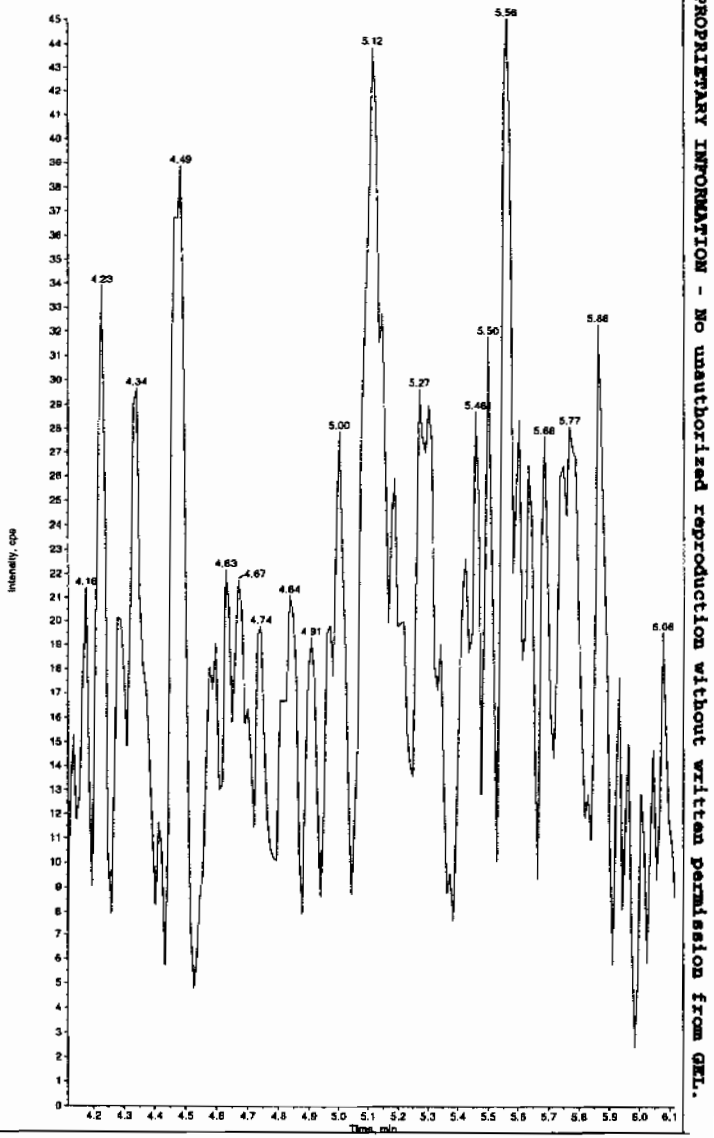

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

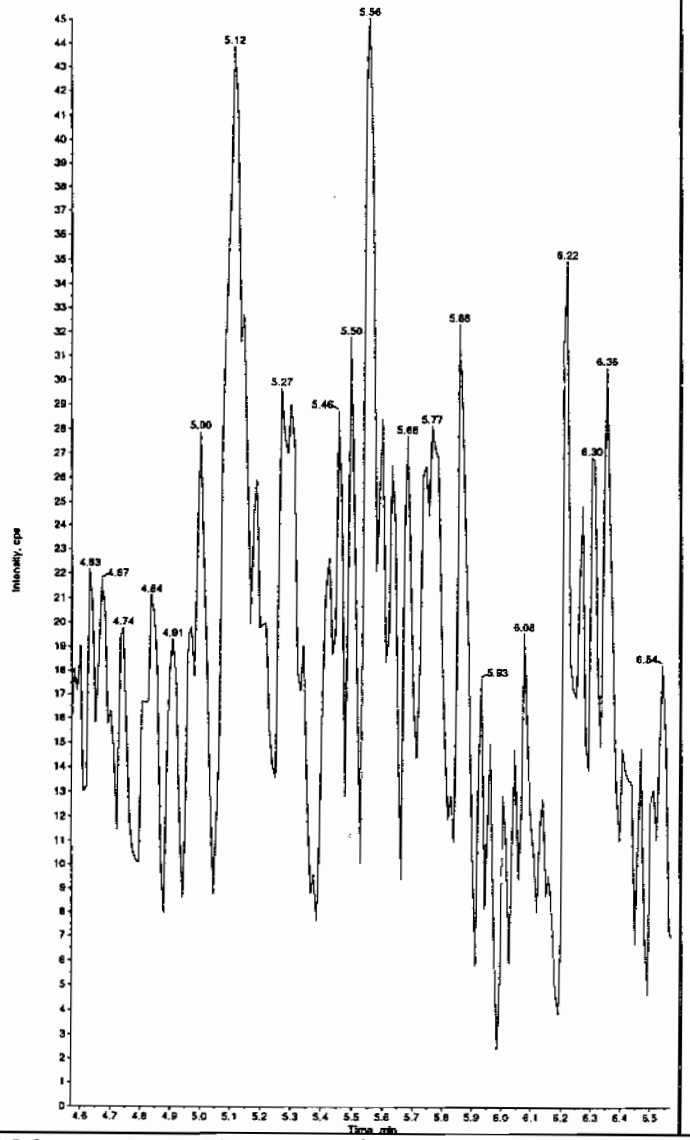

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.01e+004 counts
Height: 11519.382 cps
Start Time: 10.9 min
End Time: 11.1 min

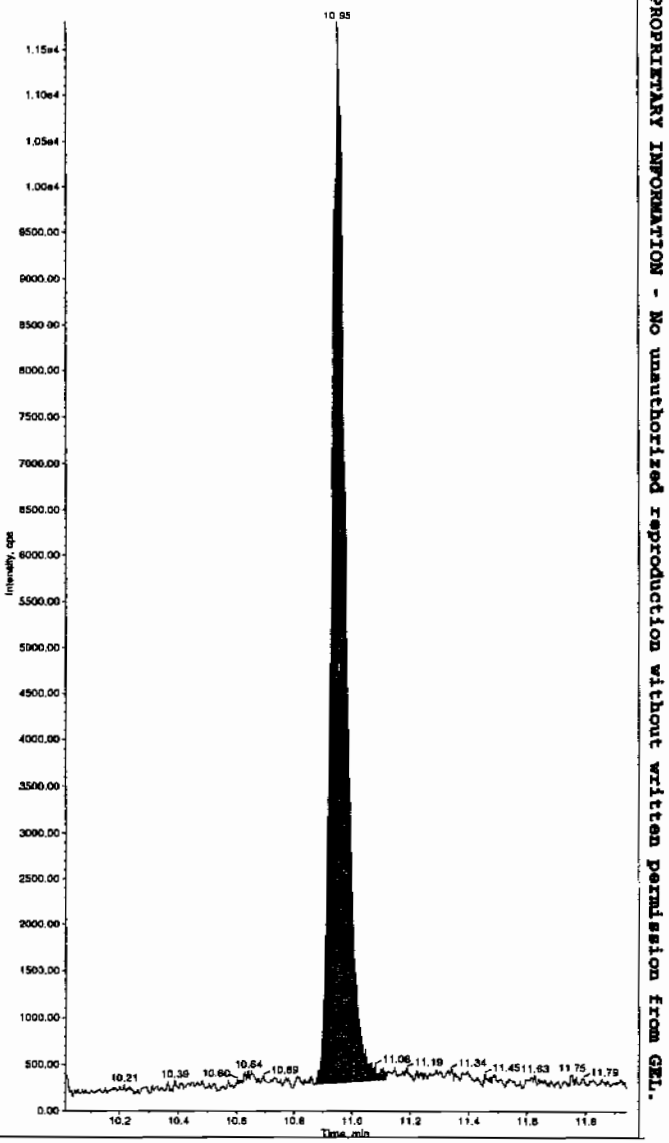

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1543

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 27-FEB-10 03:59

GEL Data File: EXS02260051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 3/1/10

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

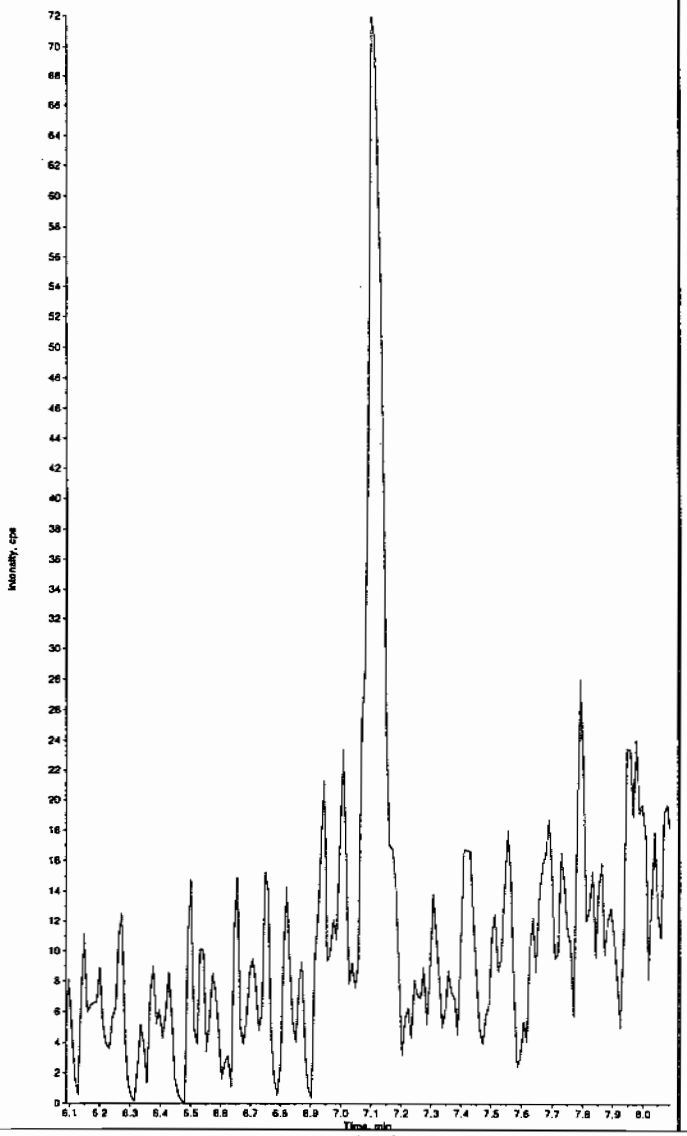

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

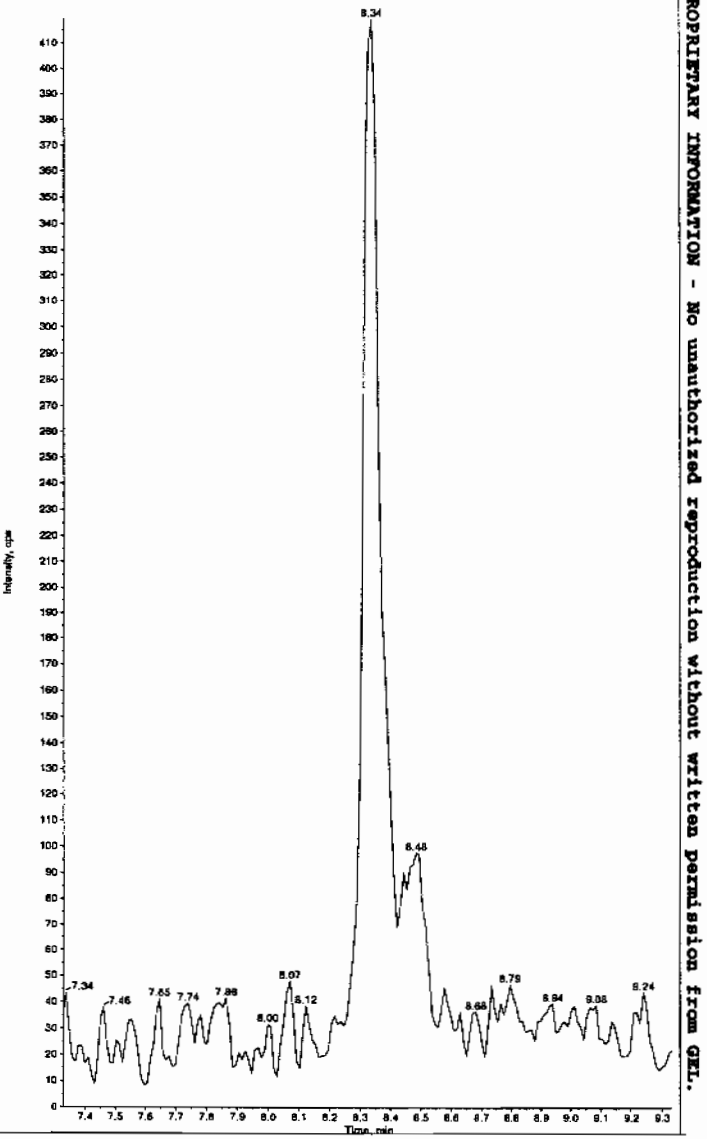

Hmm 03/01/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

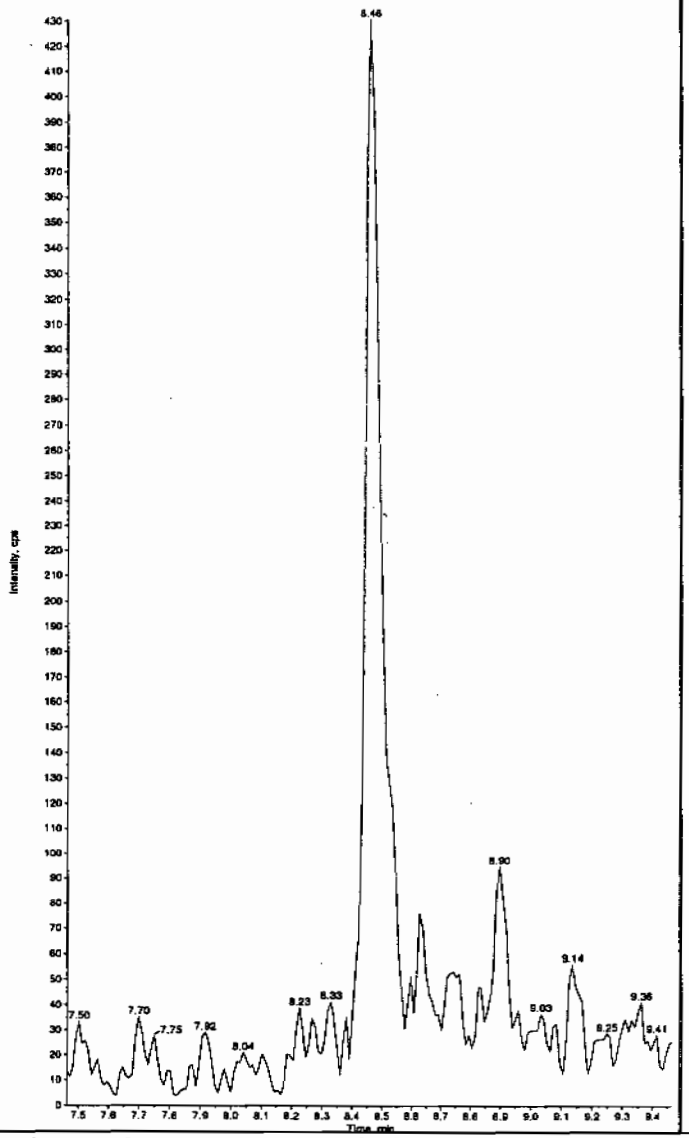

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

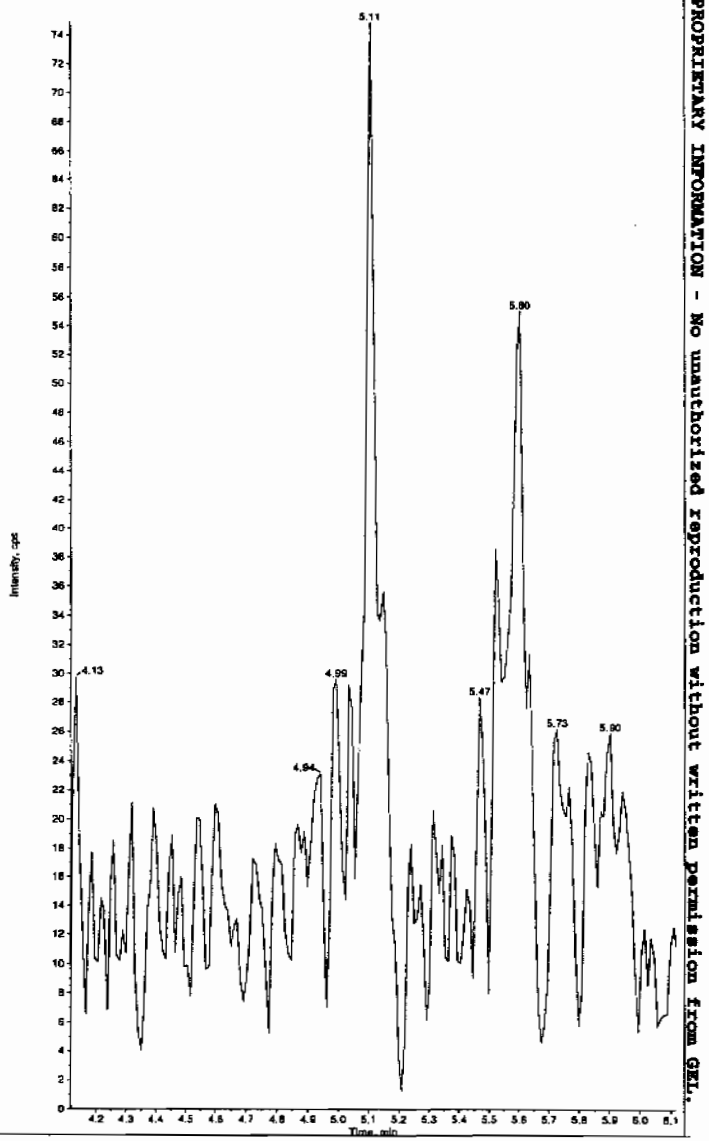

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

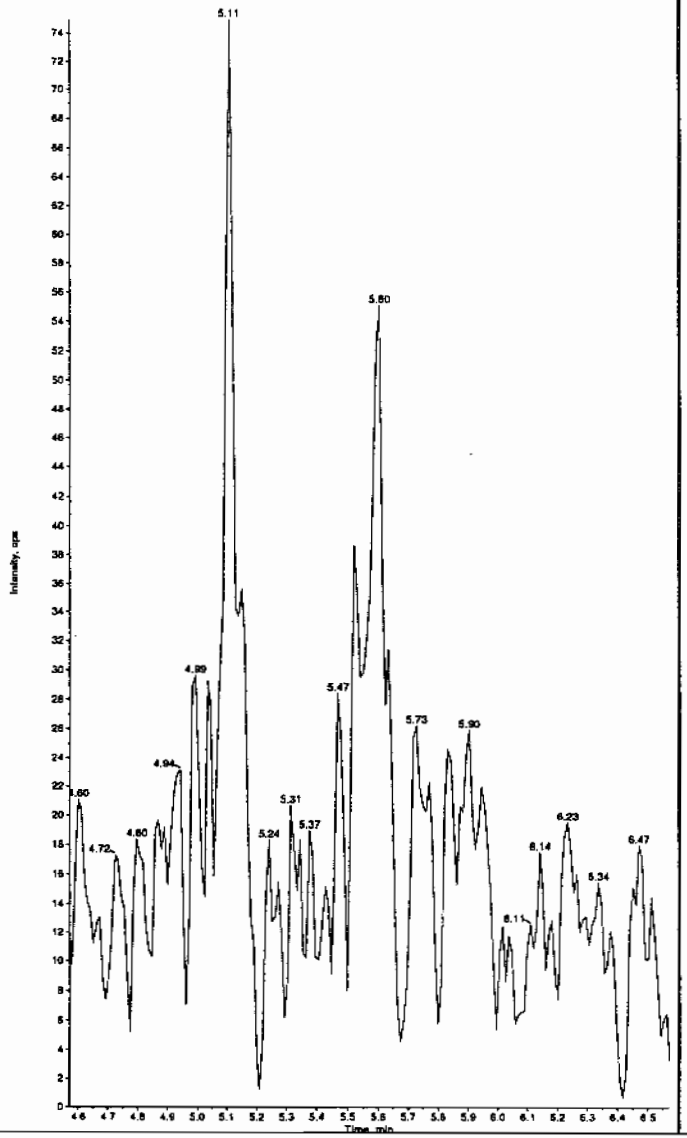

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.38e+004 counts
Height: 11821.117 cps
Start Time: 10.9 min
End Time: 11.1 min

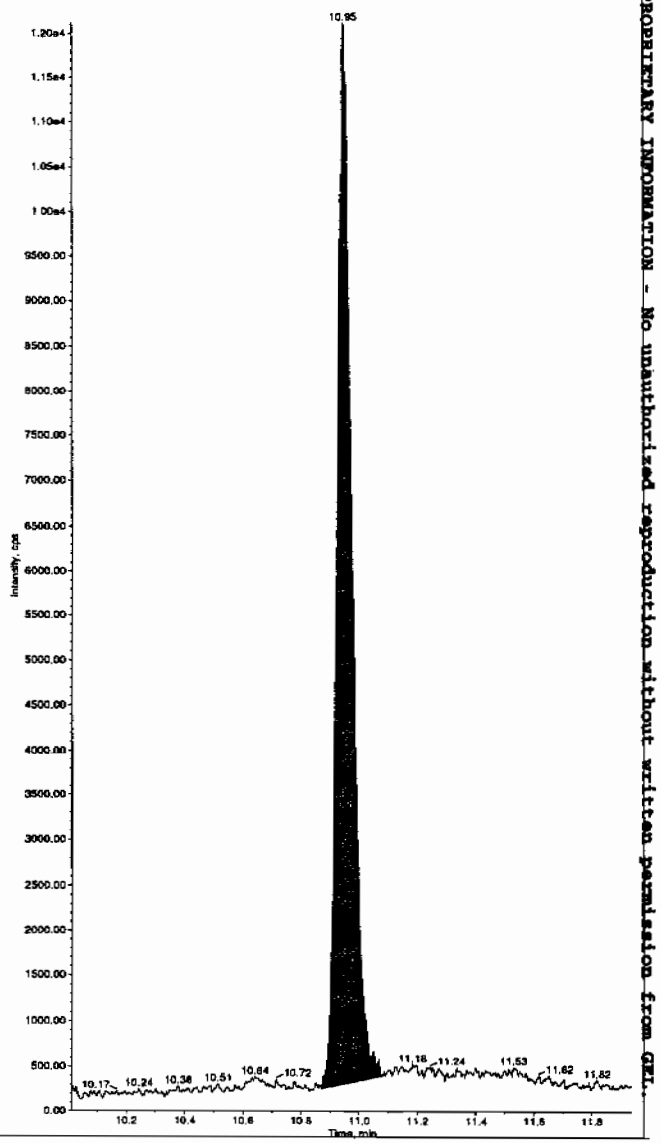

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1543

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 27–FEB–10 06:36

GEL Data File: EXS02260061.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 3/1/10

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02260061.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

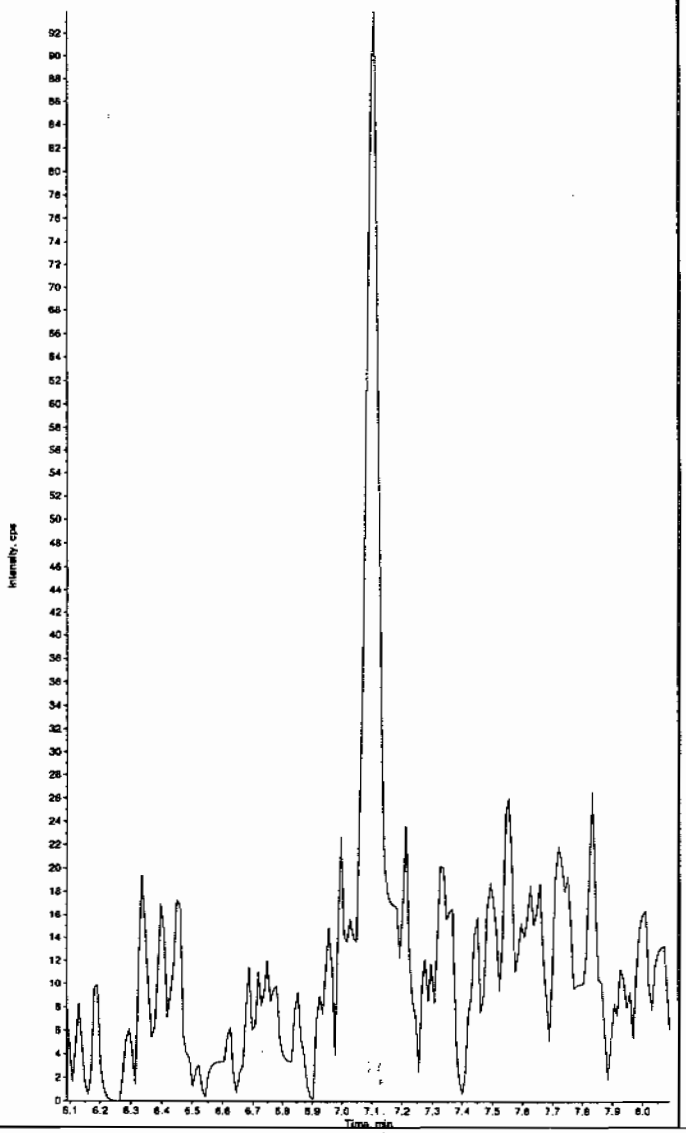

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02260061.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

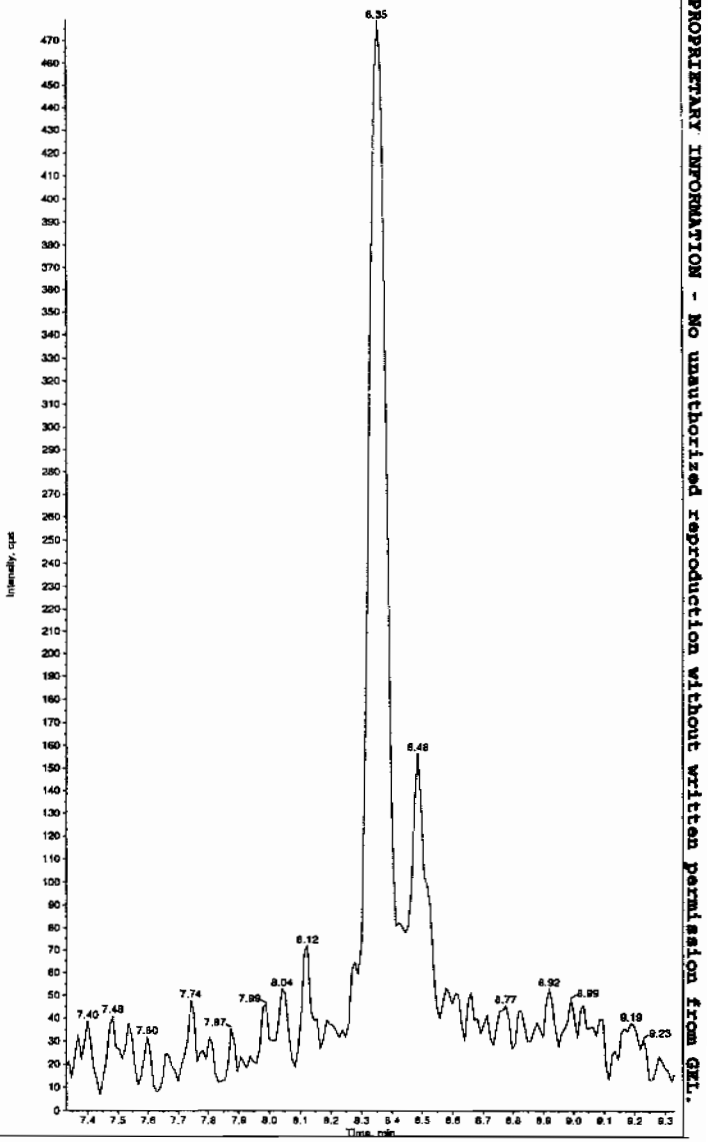

dhm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02260061.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

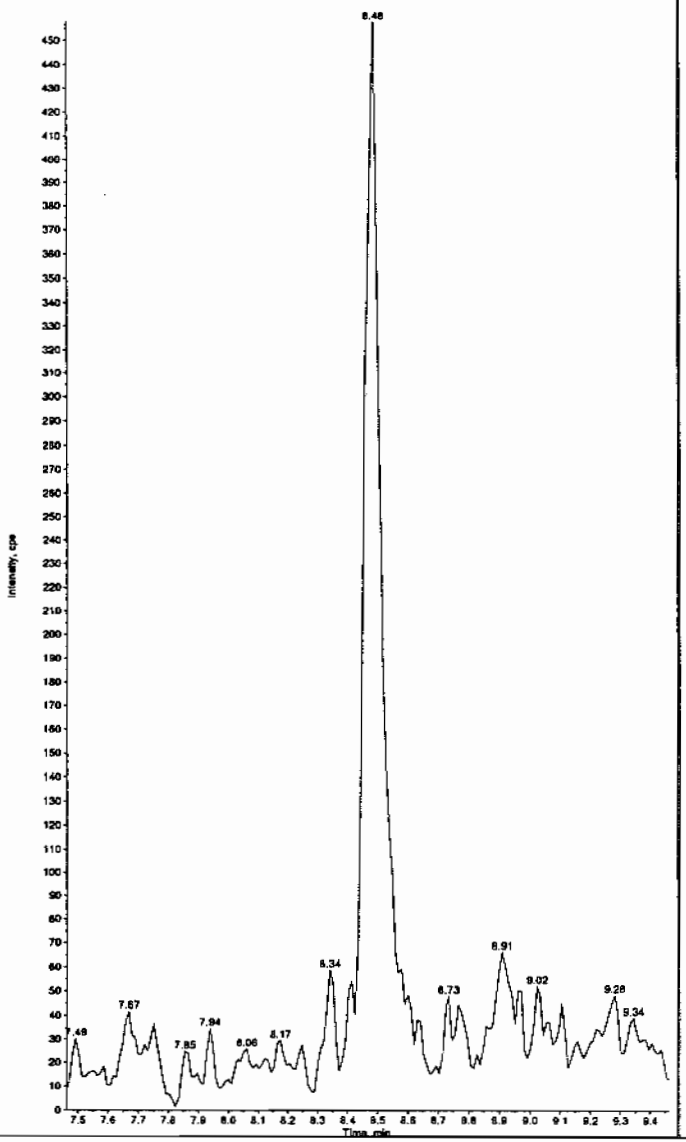

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02260061.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

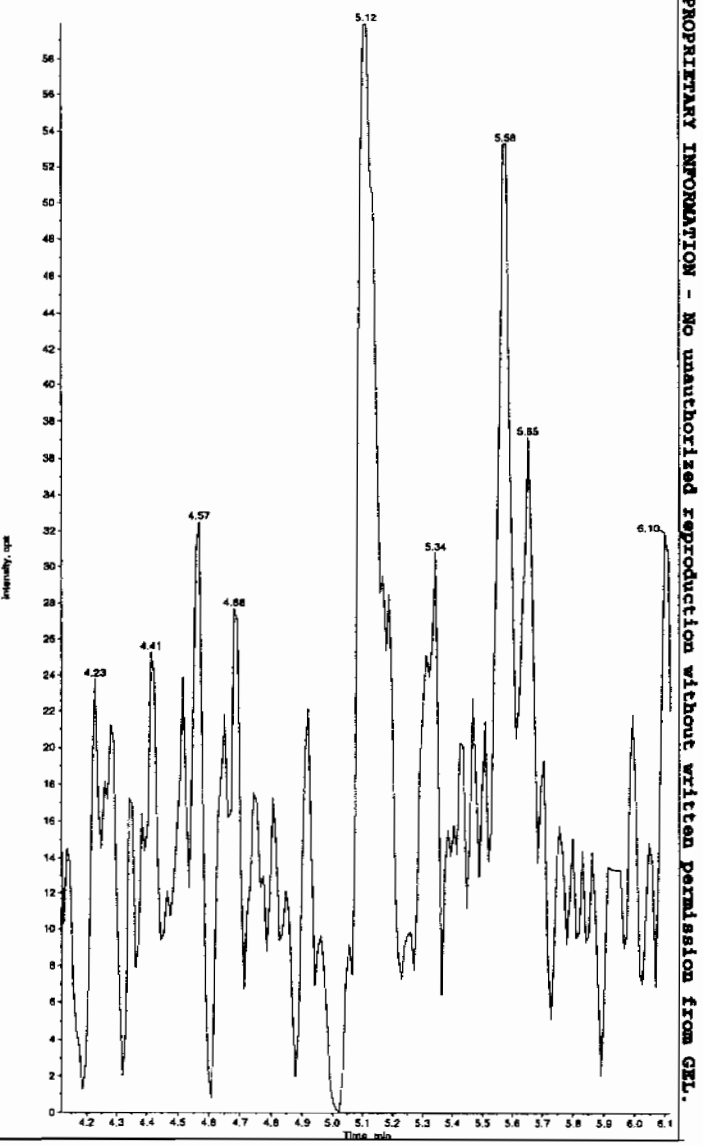

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wiff"
Peak Name: "2,4-Diamino-6-nitrotoluene" Mass(as): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

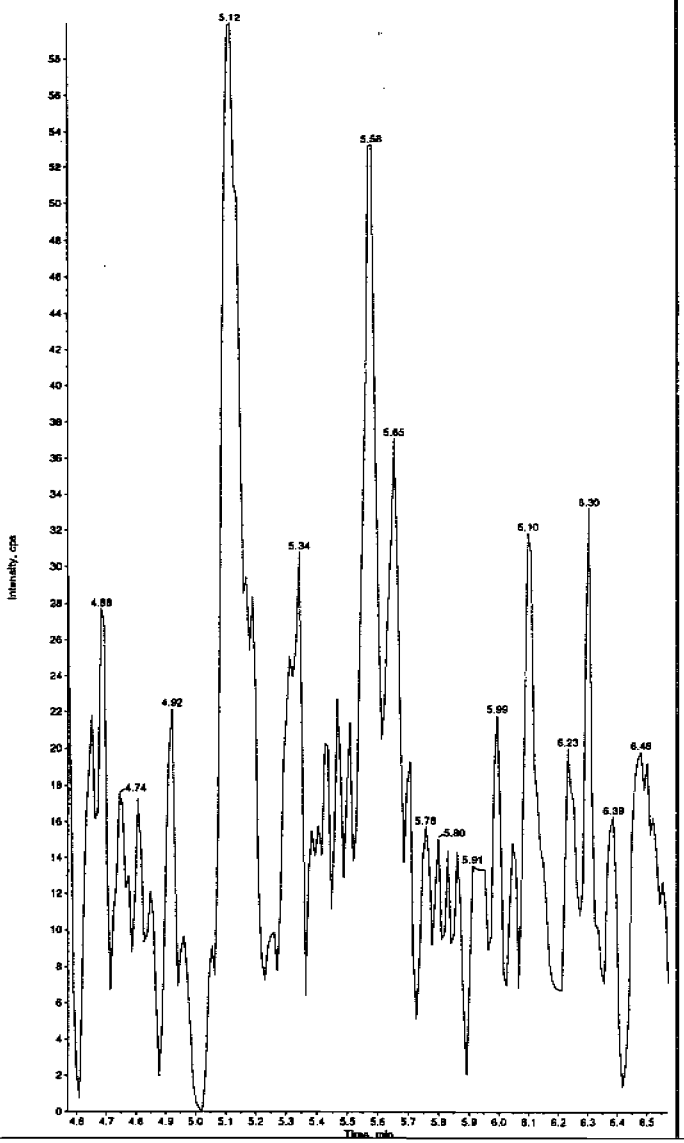

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 4.34e+004 counts
Height: 11941.468 cps
Start Time: 10.9 min
End Time: 11.2 min

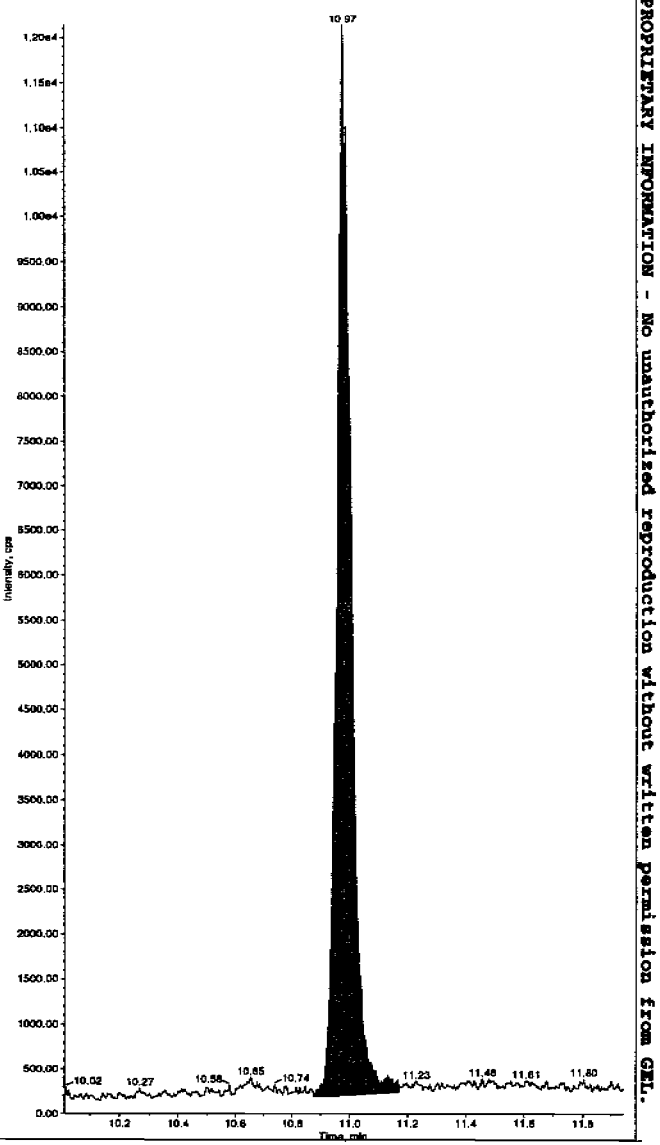

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

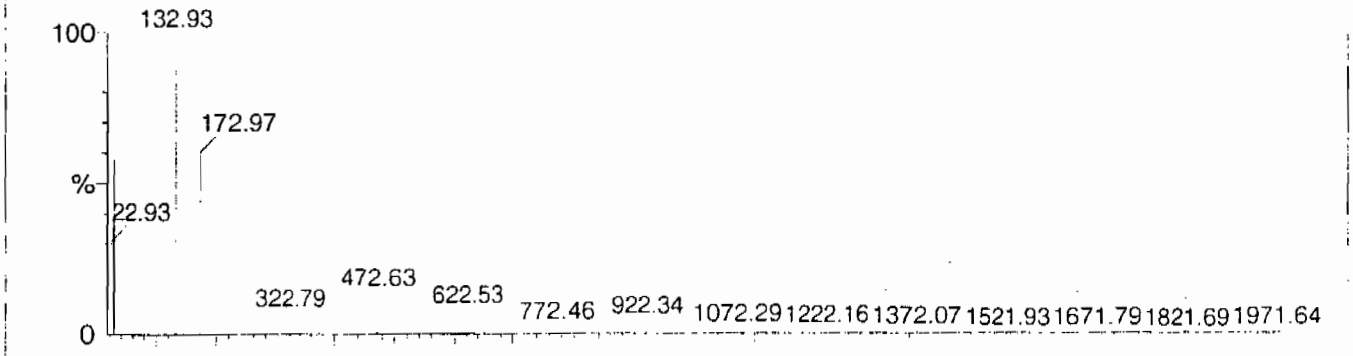

Reference file: Naics2

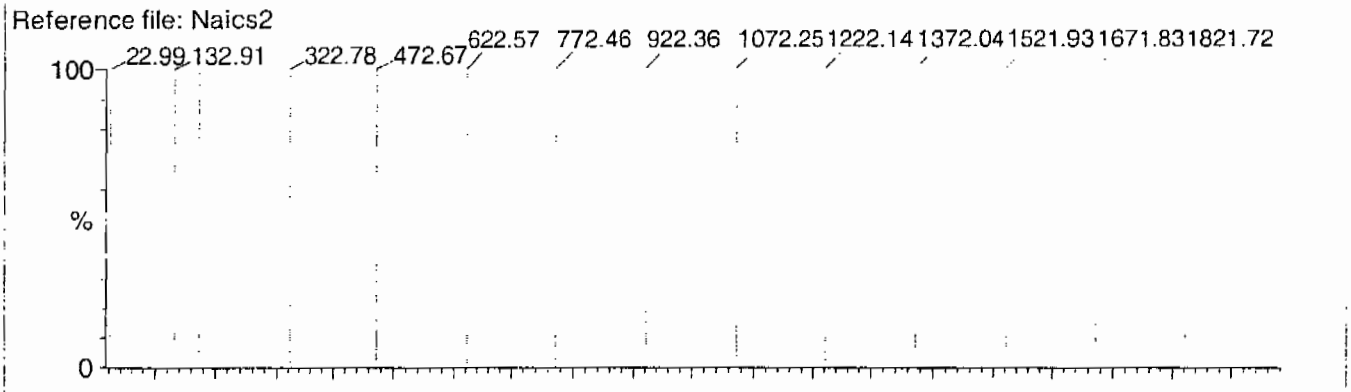

Mass difference (Raw - Ref mass)

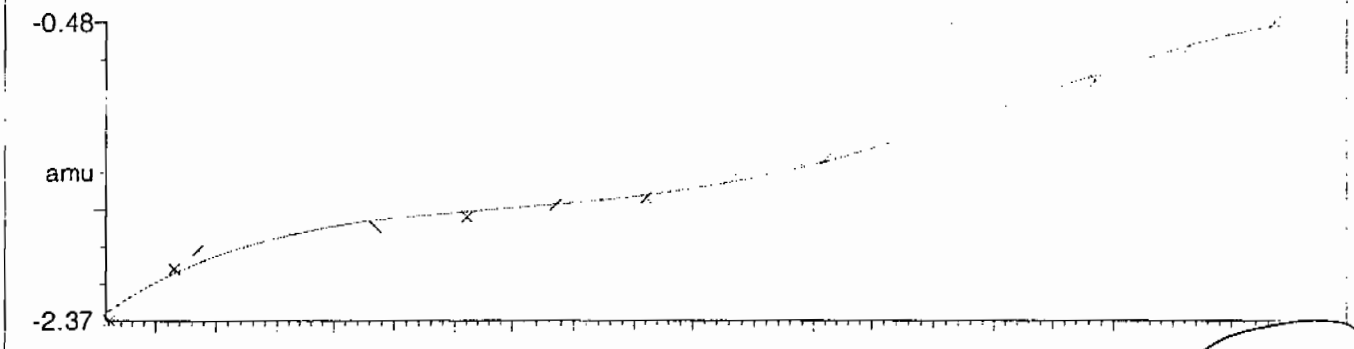

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

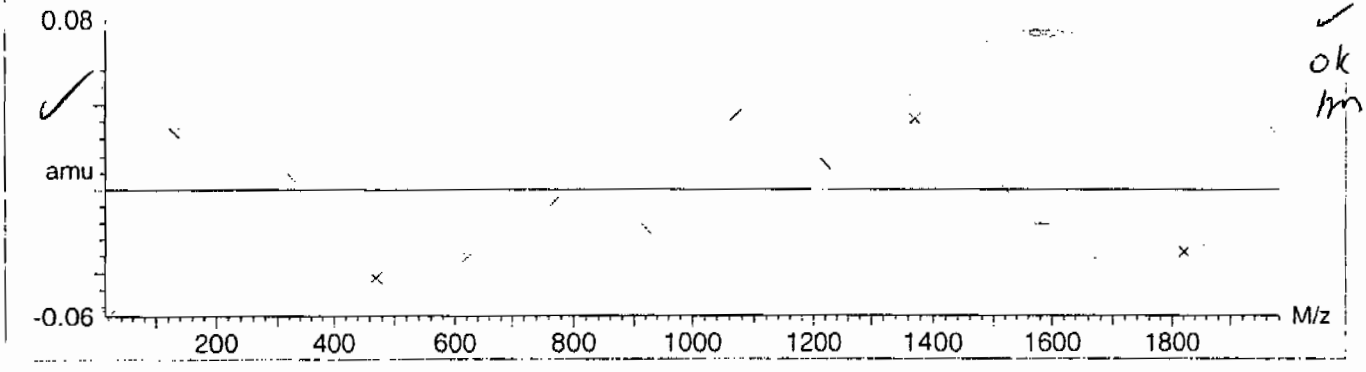

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

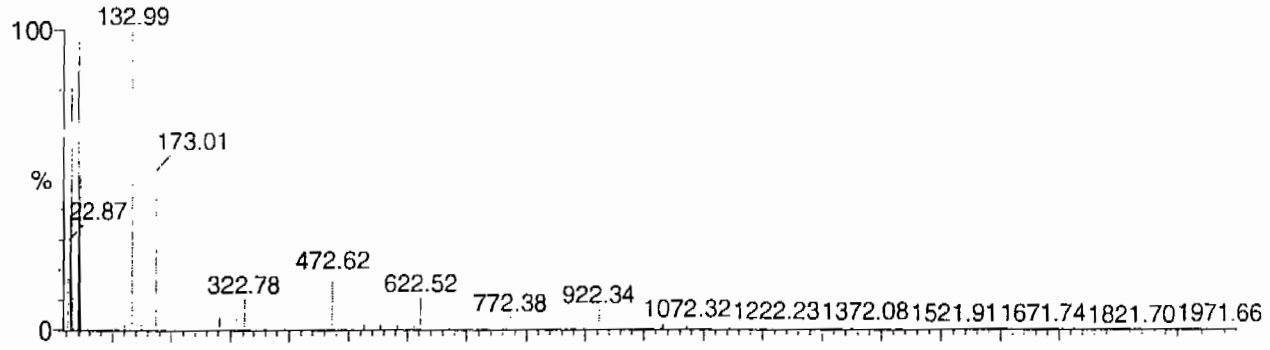

Reference file: Naics2

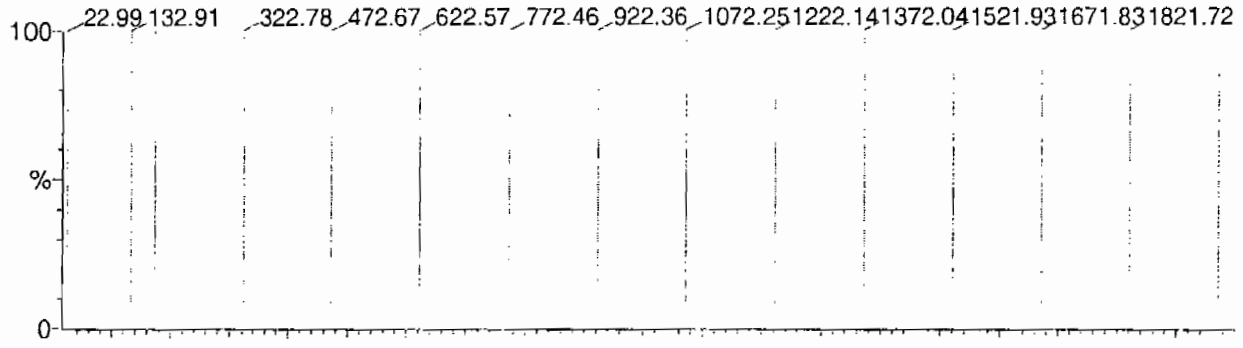

Mass difference (Raw - Ref mass)

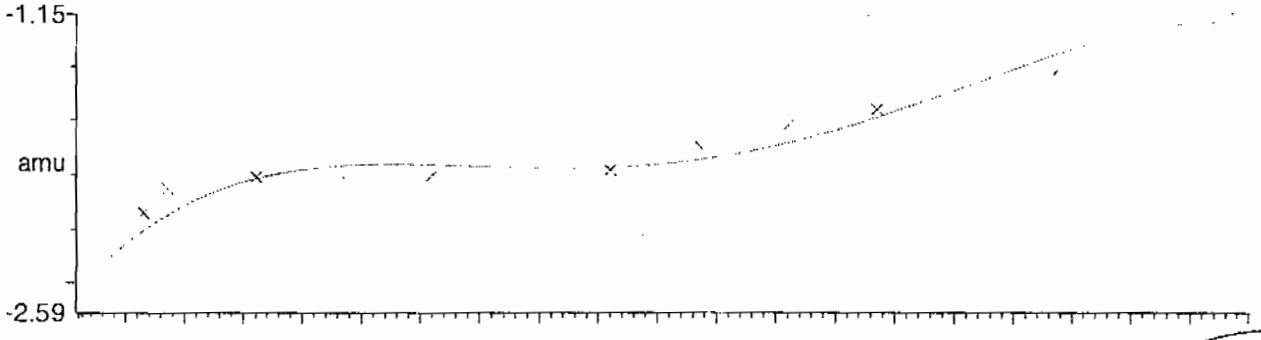

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

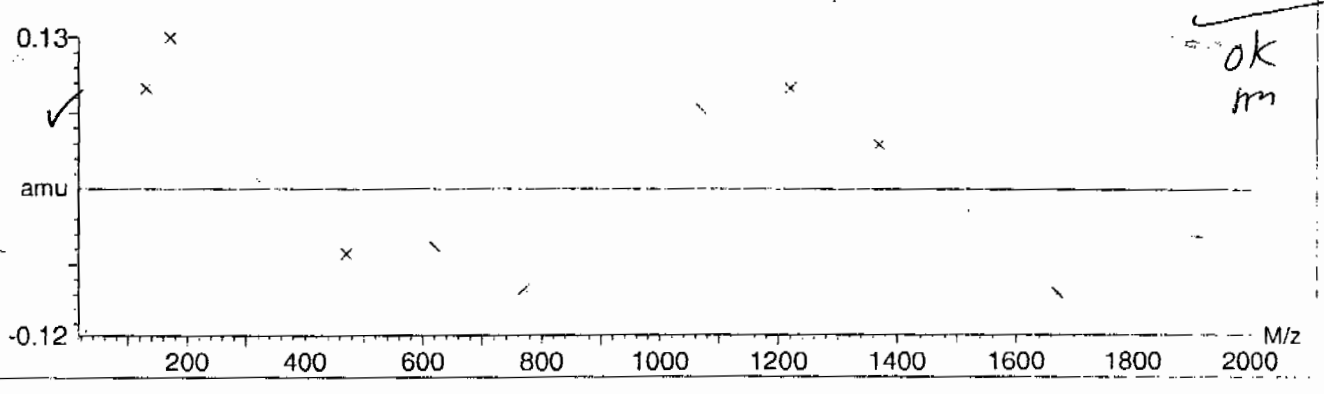

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

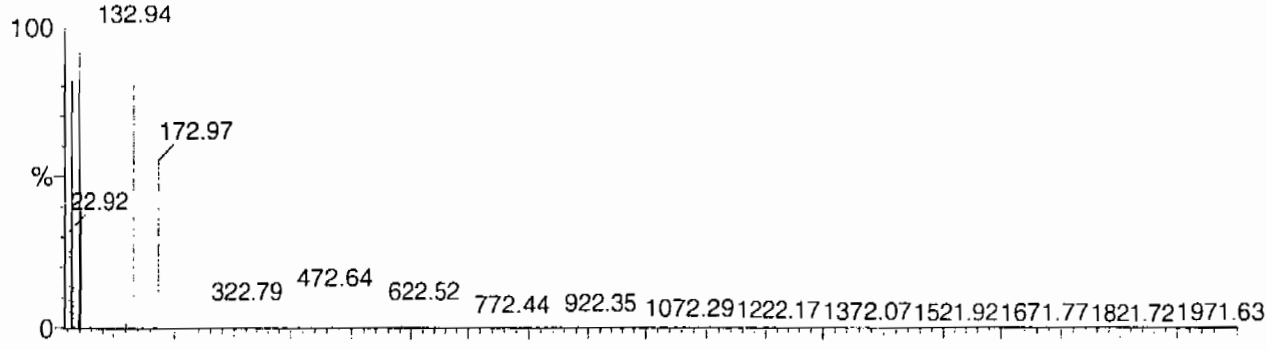

Reference file: Naics2

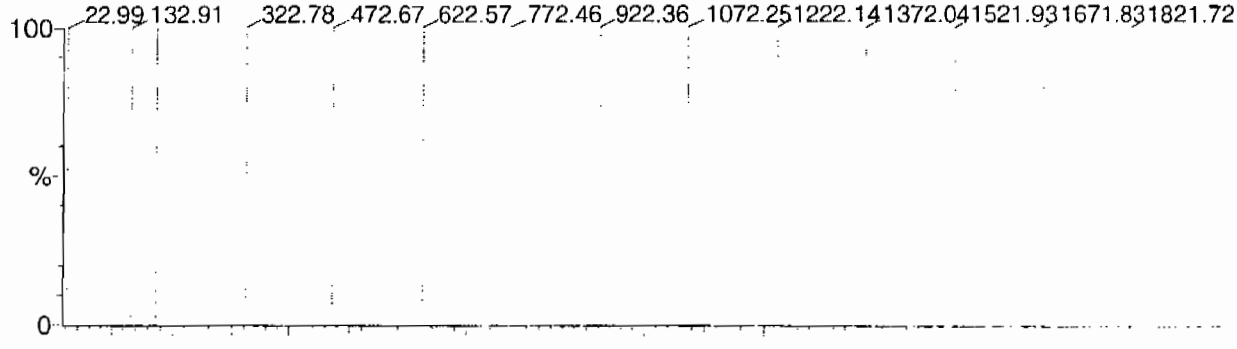

Mass difference (Raw - Ref mass)

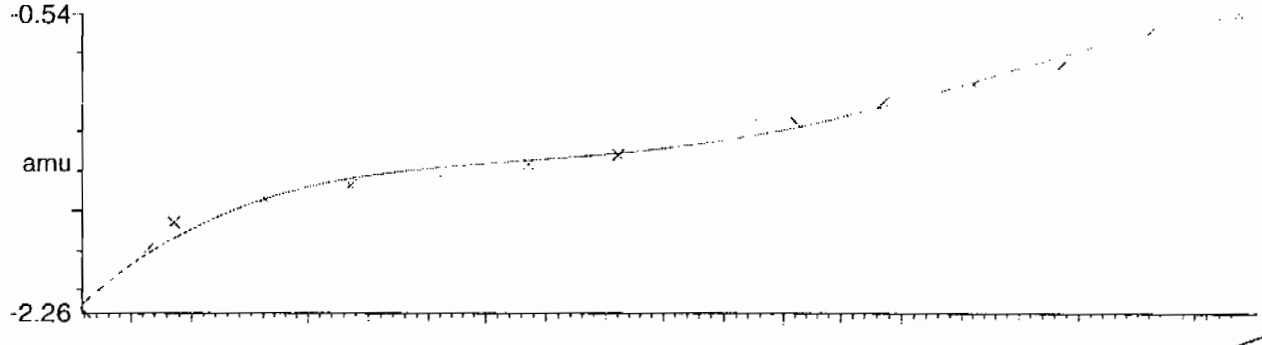

Residuals

Mean residual = 3.486639e-9 ± 0.040487

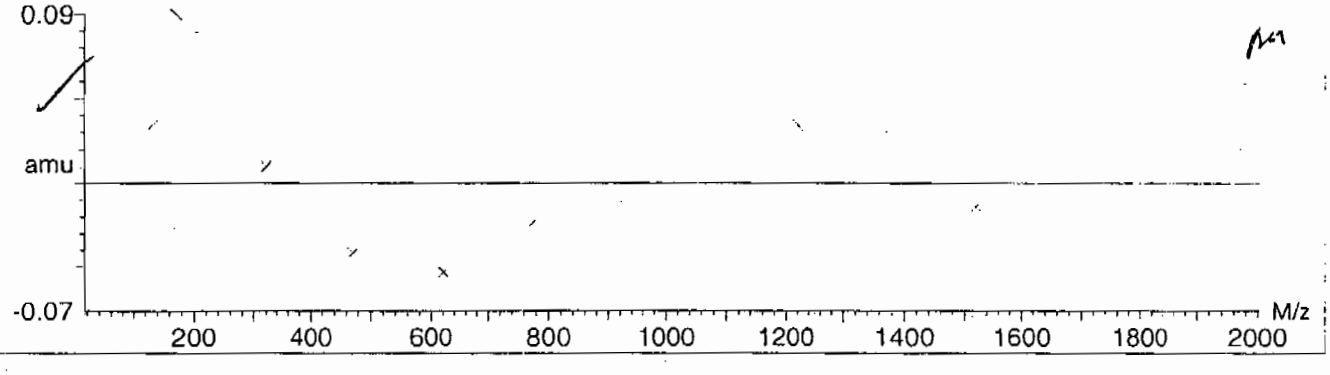

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

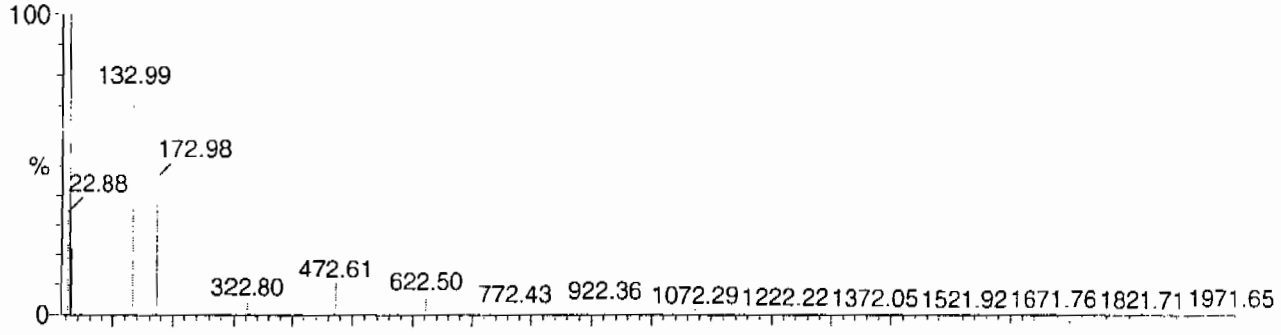

Reference file: Naics2

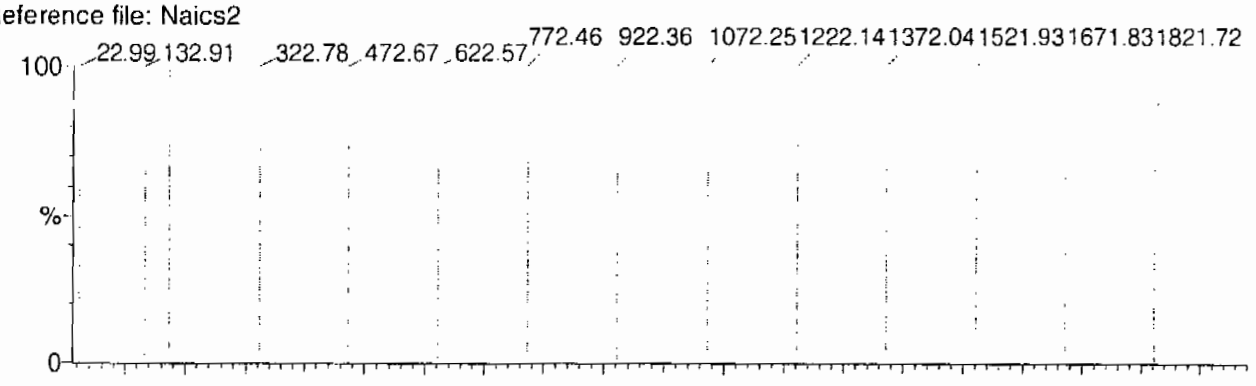

Mass difference (Raw - Ref mass)

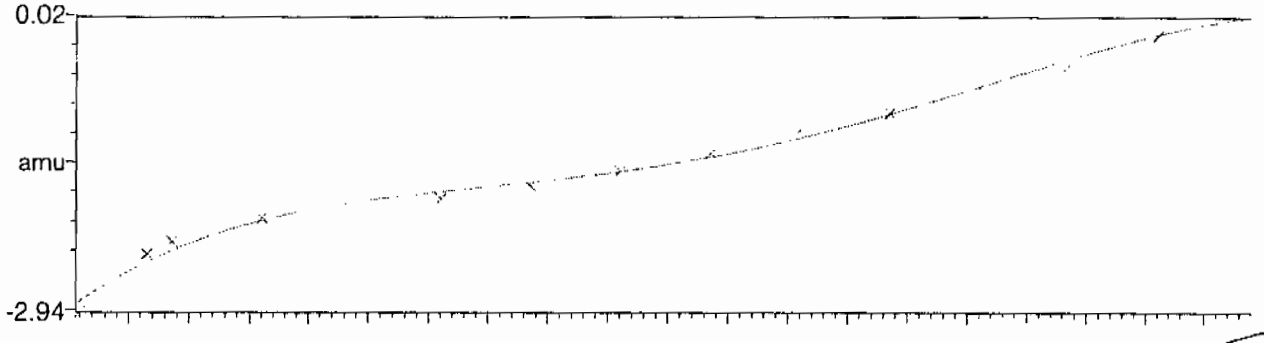

Residuals

Mean residual = 2.048910e-9 ± 0.057803

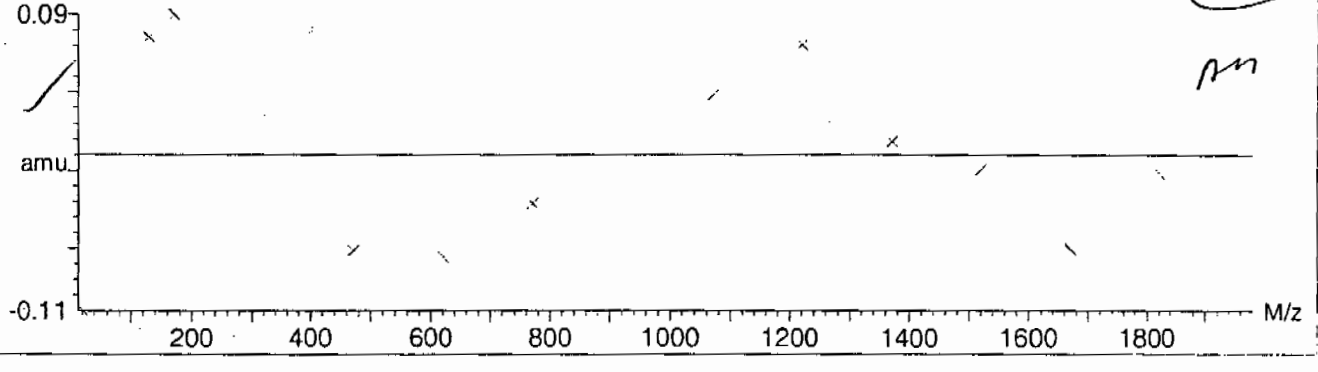

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

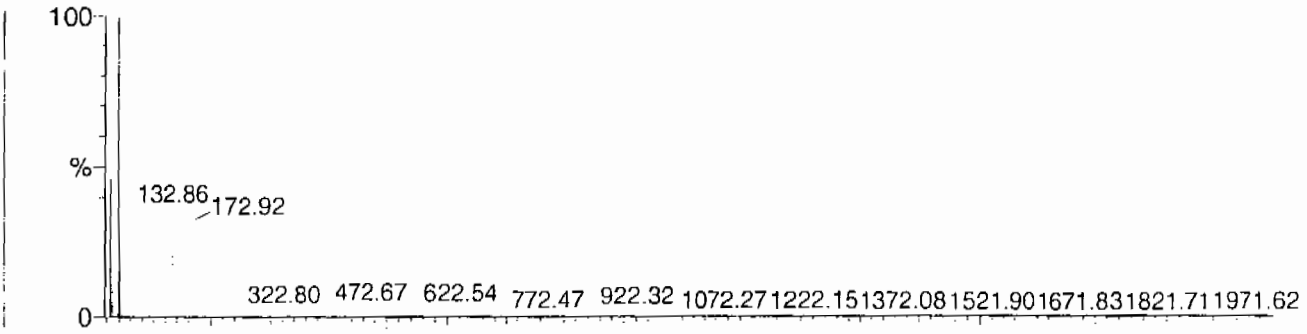

Reference file: Naics2

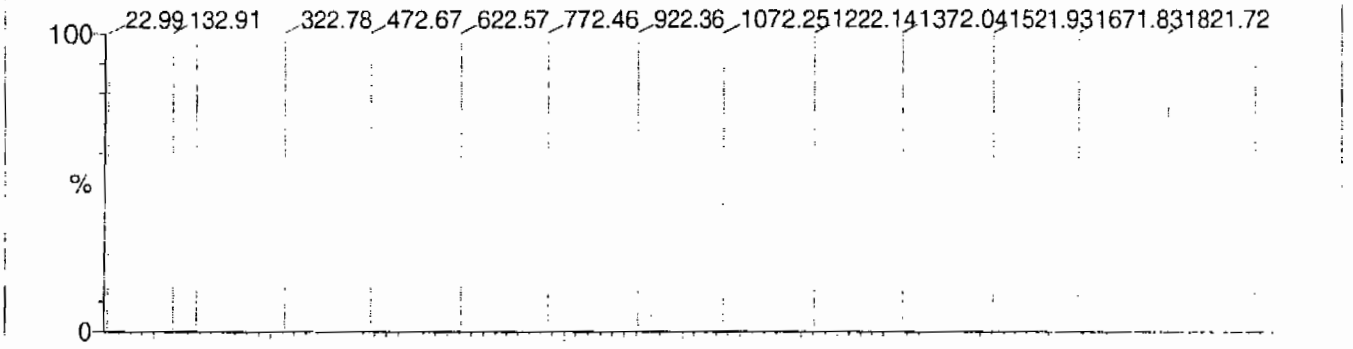

Mass difference (Raw - Ref mass)

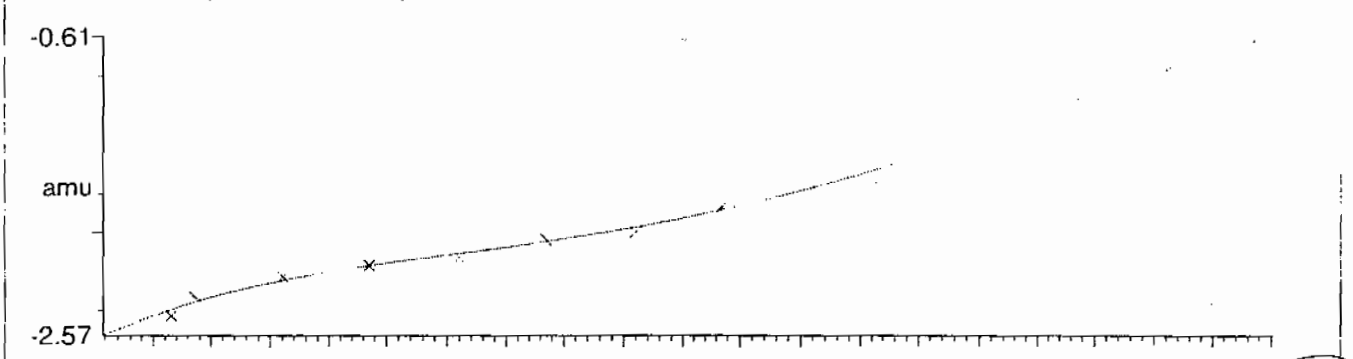

Residuals

Mean residual = -2.623502e-9 ± 0.025622

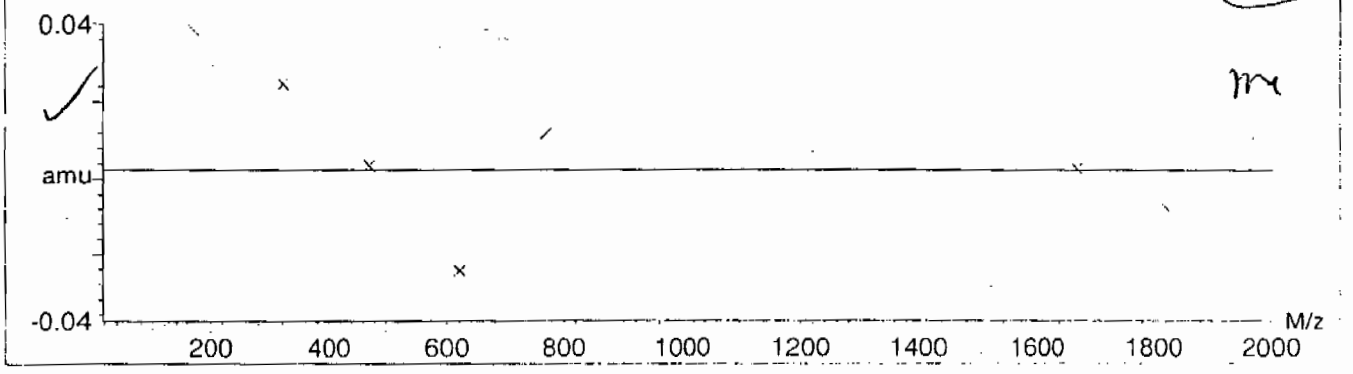

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

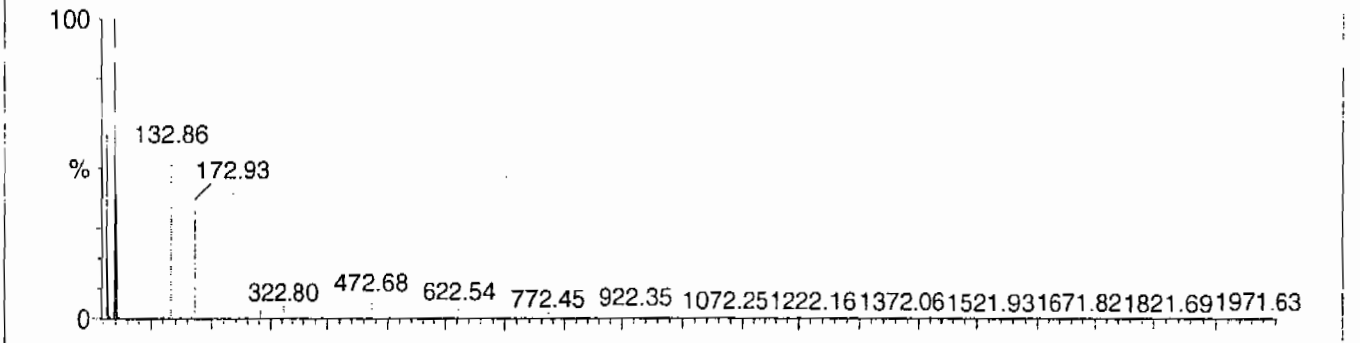

Reference file: Naics2

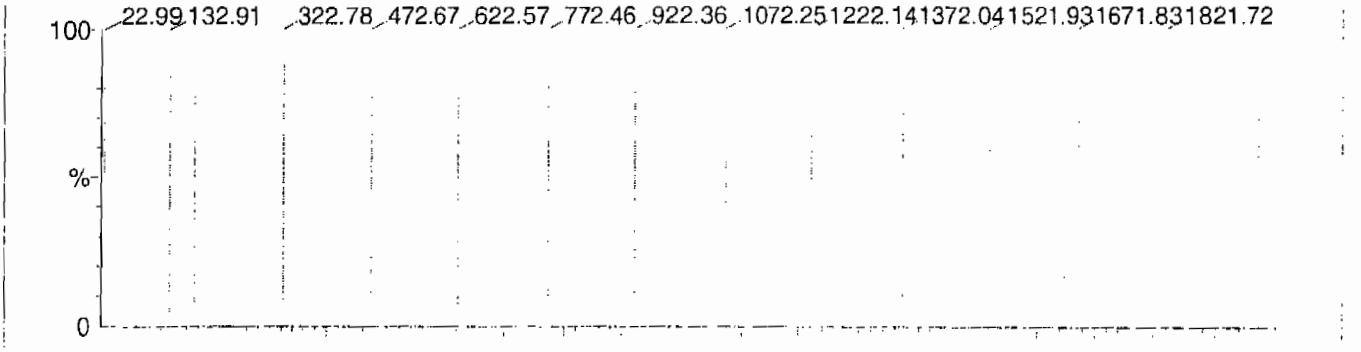

Mass difference (Raw - Ref mass)

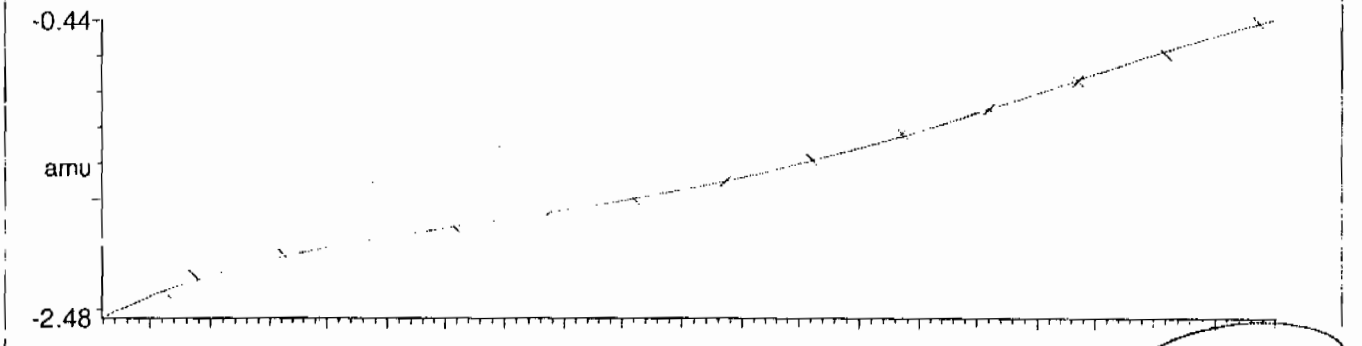

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

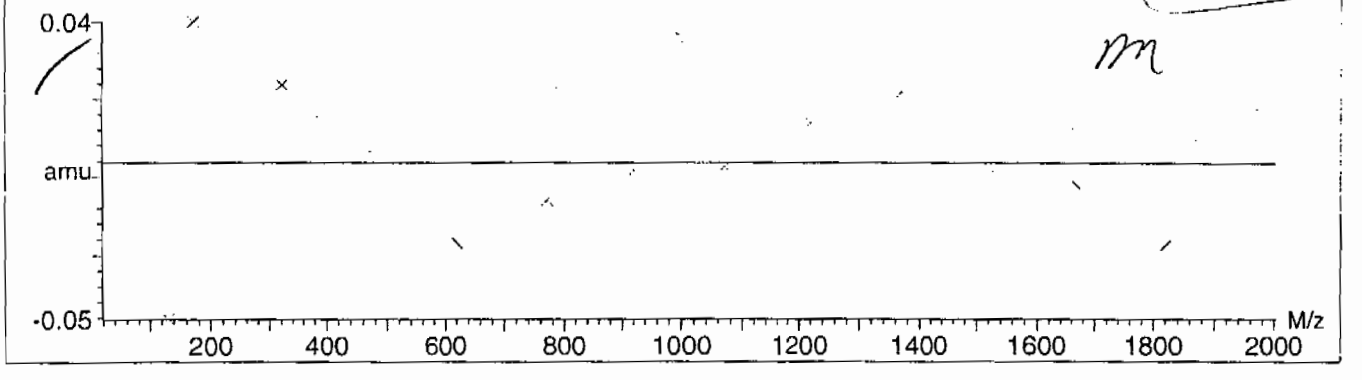

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Thu Mar 04 09:08:29 2010

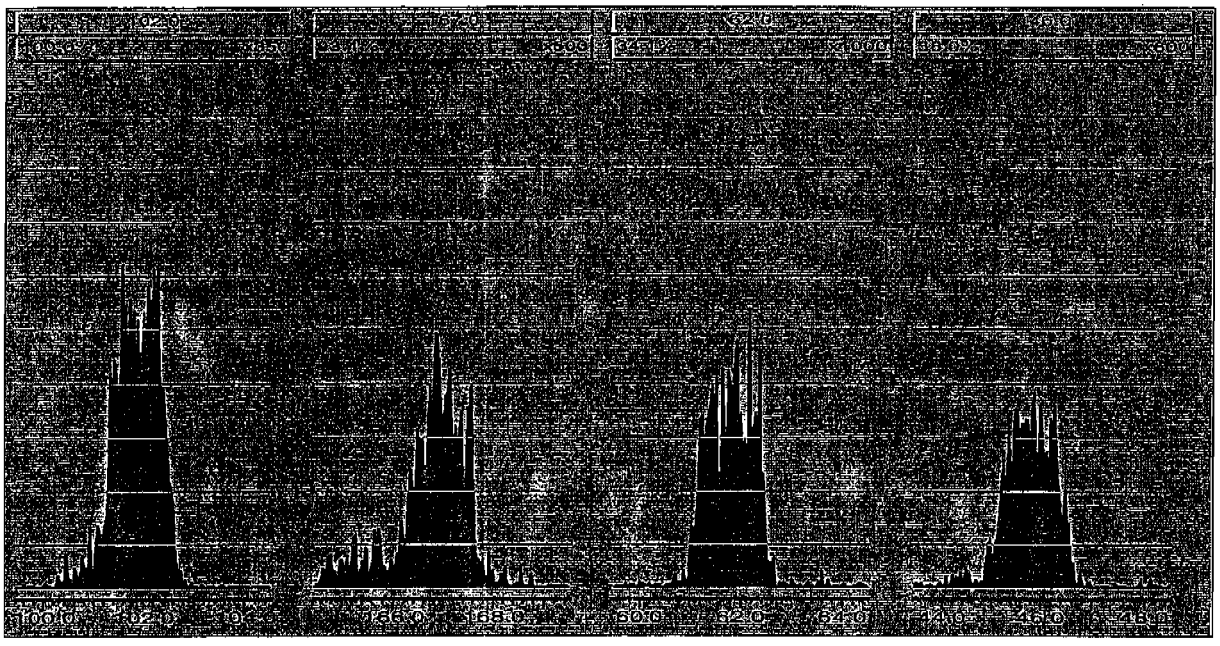

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3511.79	12.136	20560.6	17.579
Upper Limit			4565.327	12.636	26728.78	18.079
Lower Limit			2458.253	11.636	14392.42	17.079
MB for batch 948887	07-mar-10 16:03	EXP0304149a	3586.98	12.067	20767.1	17.465
LCS for batch 948887	07-mar-10 16:32	EXP0304150a	3735.27	12.067	21453.8	17.466
RE15-10-8129	07-mar-10 17:02	EXP0304151a	3905.34	12.067	22473.9	17.465
RE15-10-8129(246066001MS)	07-mar-10 17:31	EXP0304152a	3892.66	12.067	22666.7	17.466
RE15-10-8129(246066001MSD)	07-mar-10 18:01	EXP0304153a	4120.64	12.067	23898.7	17.466
RE15-10-8131	07-mar-10 18:30	EXP0304154a	3644.94	12.067	21132.3	17.466
RE15-10-8130	07-mar-10 19:00	EXP0304155a	3785.27	12.067	24519.2	17.466
RE15-10-8127	07-mar-10 19:29	EXP0304156a	3816.98	12.067	22859	17.466
RE15-10-8128	07-mar-10 19:59	EXP0304157a	3921.44	12.067	23320.1	17.466
RE15-10-8126	07-mar-10 20:28	EXP0304158a	3987.93	12.064	23905.9	17.455
RE15-10-8140	07-mar-10 22:26	EXP0304162a	3774.76	12.067	20788.3	17.466
RE15-10-8147	07-mar-10 22:56	EXP0304163a	3411.35	12.067	20720.2	17.465
RE15-10-8142	07-mar-10 23:25	EXP0304164a	3296.67	12.067	17344.4	17.466
RE15-10-8146	07-mar-10 23:55	EXP0304165a	3587.91	12.067	20108.7	17.465
RE15-10-8136	08-mar-10 00:24	EXP0304166a	3720.26	12.067	20983.7	17.465
RE15-10-8139	08-mar-10 00:53	EXP0304167a	3789.41	12.067	19773.3	17.465
RE15-10-8134	08-mar-10 01:23	EXP0304168a	3341.39	12.067	18247.7	17.465
RE15-10-8137	08-mar-10 01:52	EXP0304169a	3250.79	12.067	19138.9	17.465
RE15-10-8143	08-mar-10 02:22	EXP0304170a	2975.68	12.064	18210	17.454
RE15-10-8138	08-mar-10 02:51	EXP0304171a	3492.75	12.067	20173.3	17.466
RE15-10-8145	08-mar-10 04:49	EXP0304175a	3232.11	12.067	19075	17.465
RE15-10-8141	08-mar-10 05:19	EXP0304176a	3593.53	12.067	21515.7	17.465
RE15-10-8135	08-mar-10 05:48	EXP0304177a	3812.55	12.067	22987.2	17.465
RE15-10-8144	08-mar-10 06:18	EXP0304178a	3618.04	12.067	19015.6	17.465

IS1 (DNB) = 1,3-Dinitrobenzene-d4
IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = -0.5 of average multipoint RT

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1543

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066001

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304151a

Date Analyzed: 07-MAR-10 17:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304151a
Date: 07-Mar-2010
Time: 17:02:14
ID: 246066001 | LANE | 948888 | SOLID | 2 |
Vial: 4:1,C

MAP 3/8/10

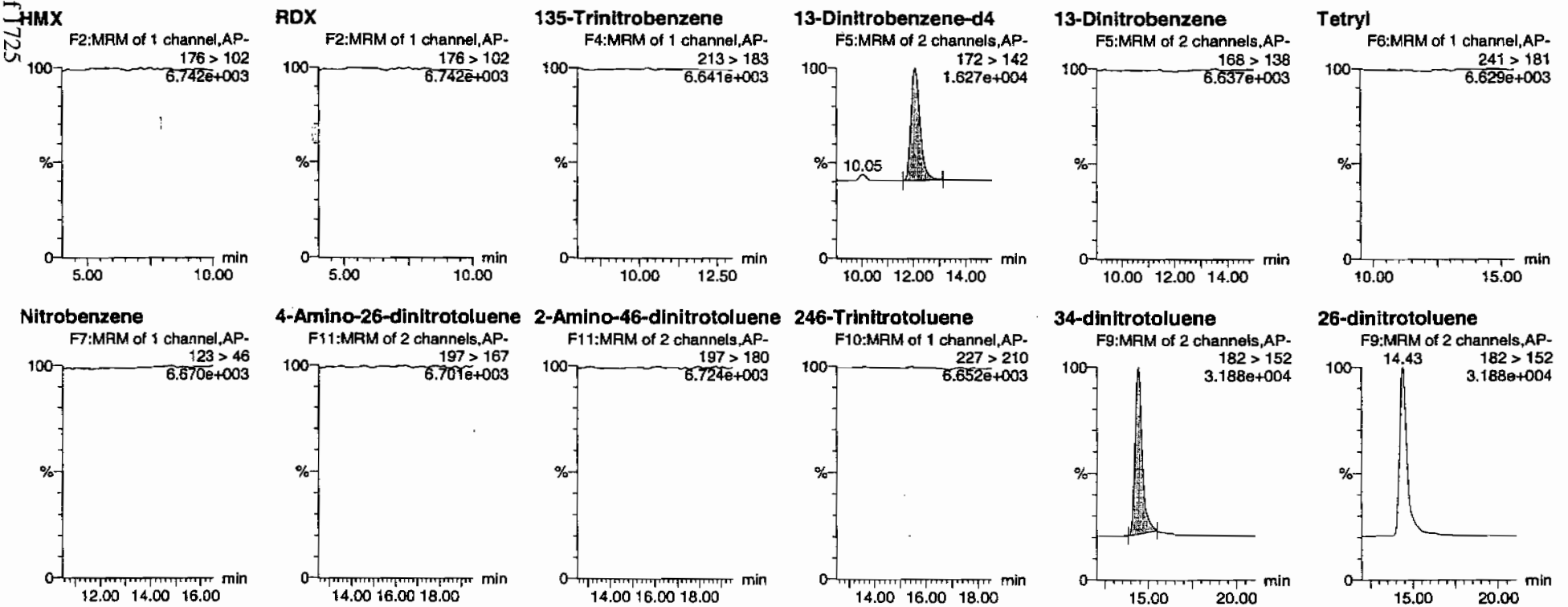

dmm 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

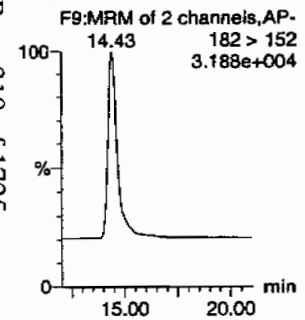

26-dinitrotoluene-d3

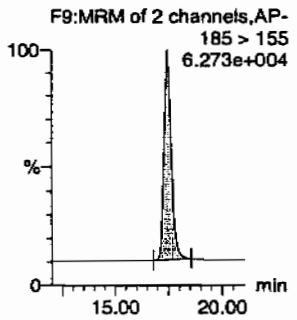

2-Nitrotoluene

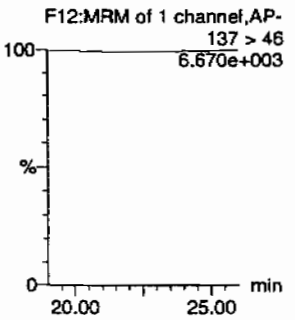

4-Nitrotoluene

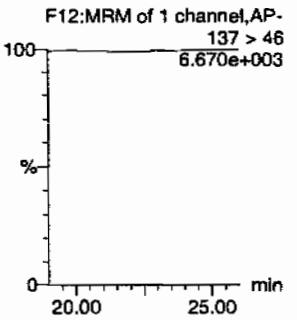

3-Nitrotoluene

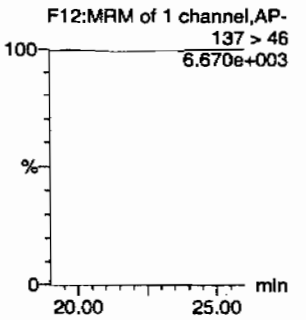

PETN

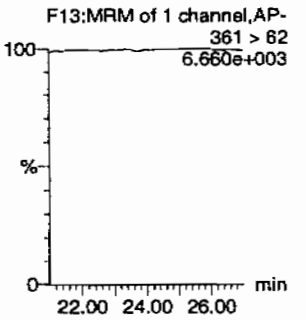

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066001	HMX	176 > 102			3905.345									
246066001	RDX	176 > 102			3905.345									
246066001	135-Trinitrobenzene	213 > 183			3905.345									
246066001	13-Dinitrobenzene-d4	172 > 142	12.07	3905.345		3905.345	3905.345	bb			556.0336	111.2	11.2	243.5
246066001	13-Dinitrobenzene	168 > 138			3905.345									
246066001	Tetryl	241 > 181			3905.345									
246066001	Nitrobenzene	123 > 46			3905.345									
246066001	4-Amino-26-dinitrotoluene	197 > 167			22473.932									
246066001	2-Amino-46-dinitrotoluene	197 > 180			22473.932									
246066001	246-Trinitrotoluene	227 > 210			22473.932									
246066001	34-dinitrotoluene	182 > 152	14.43	11925.122	22473.932	11925.122	265.310	bb			274.5155	109.8	9.8	721.3
246066001	26-dinitrotoluene	182 > 152			22473.932									
246066001	24-dinitrotoluene	182 > 152			22473.932									
246066001	26-dinitrotoluene-d3	185 > 155	17.47	22473.932		22473.932	22473.932	bb			546.5295	109.3	9.3	1565.7
246066001	2-Nitrotoluene	137 > 46			22473.932									
246066001	4-Nitrotoluene	137 > 46			22473.932									
246066001	3-Nitrotoluene	137 > 46			22473.932									
246066001	PETN	361 > 62			22473.932									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066001

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260032.wiff

Date Analyzed: 26-FEB-10 23:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lear 3/1/10

Sample Name: "246066001" Sample ID: "948888|2|LER" File: "EXS02260032.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:01:02 PM

Modified: No

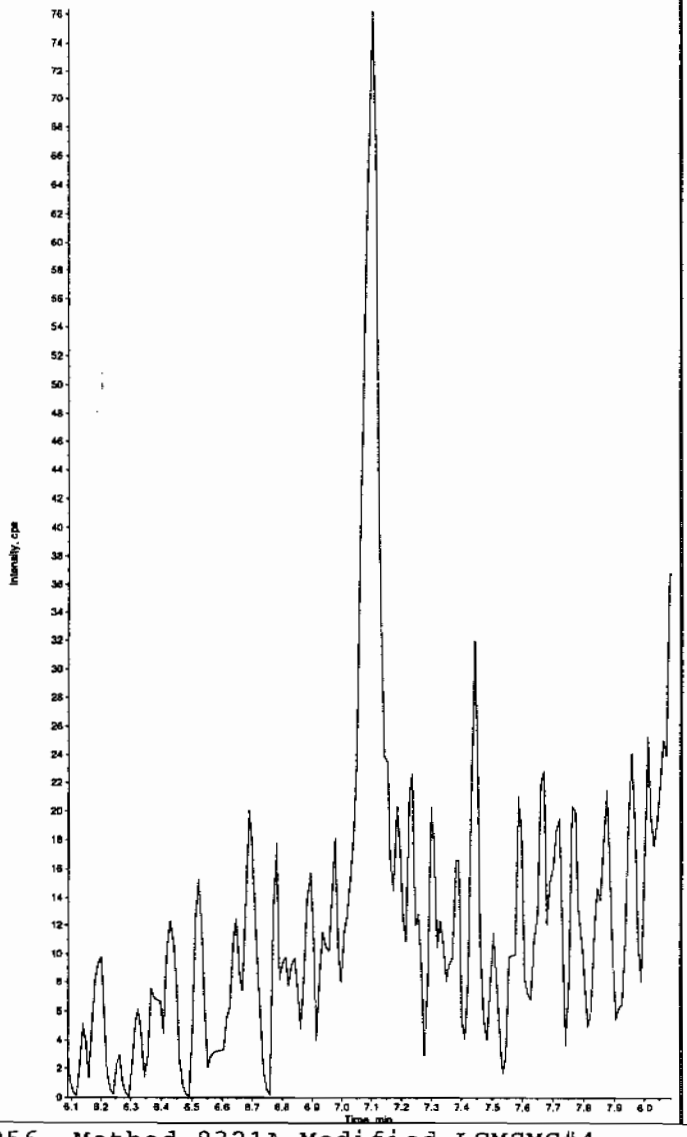

Sample Name: "246066001" Sample ID: "948888|2|LER" File: "EXS02260032.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:01:02 PM

Modified: No

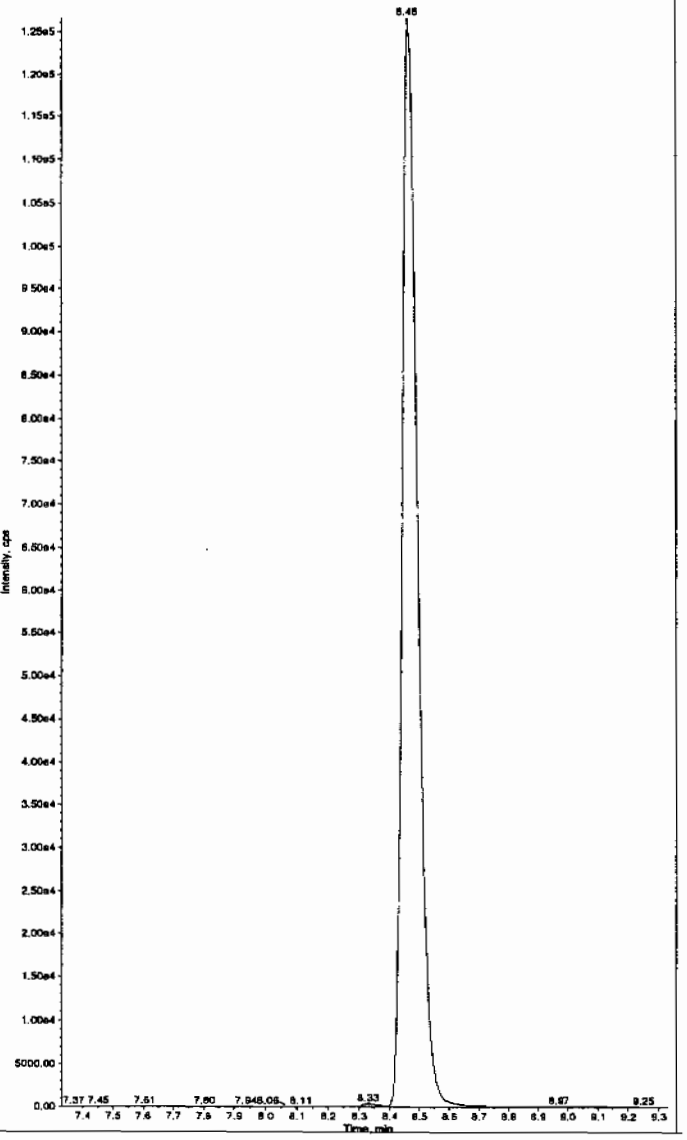

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246056001" Sample ID: "948888|2|LER" File: "EXS02260032.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 263. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:01:02 PM

Modified: No
Calc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.61e+006 counts
Height: 1023977.112 cps
Start Time: 8.31 min
End Time: 8.81 min

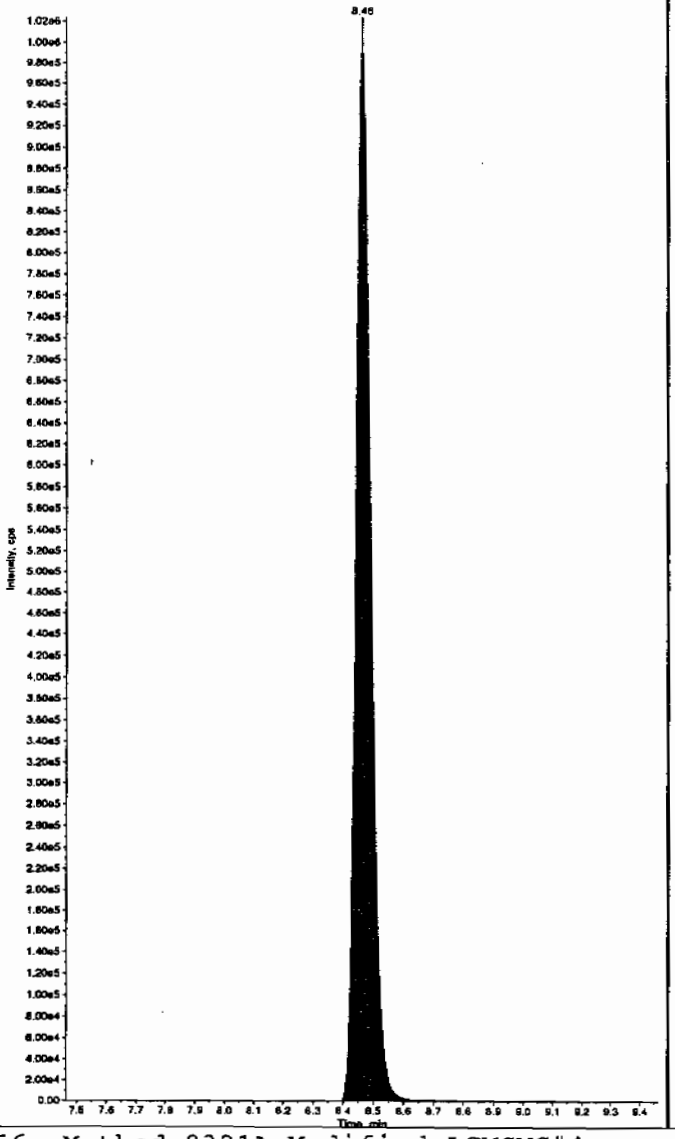

Sample Name: "246056001" Sample ID: "948888|2|LER" File: "EXS02260032.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:01:02 PM

Modified: No

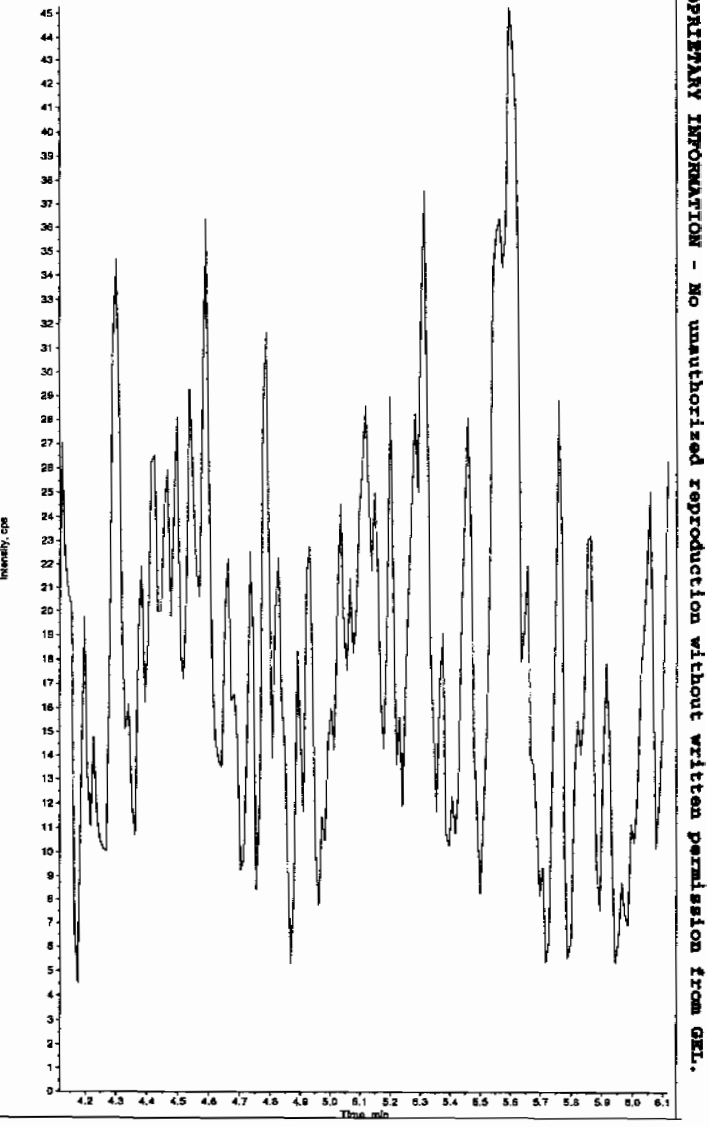

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066001" Sample ID: "948888|2|LER" File: "EXS02260032.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:01:02 PM

Modified: No

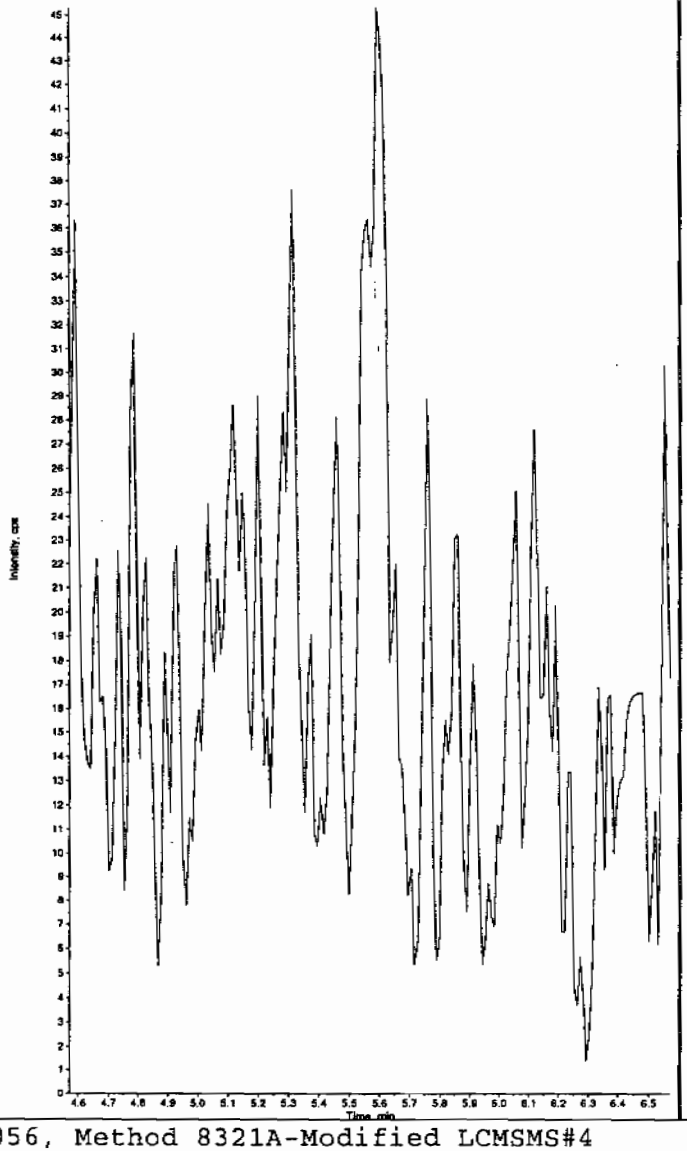

Sample Name: "246066001" Sample ID: "948888|2|LER" File: "EXS02260032.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/26/2010
Acq. Time: 11:01:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 3.26e+004 counts
Height: 8576.721 cps
Start Time: 10.8 min
End Time: 11.1 min

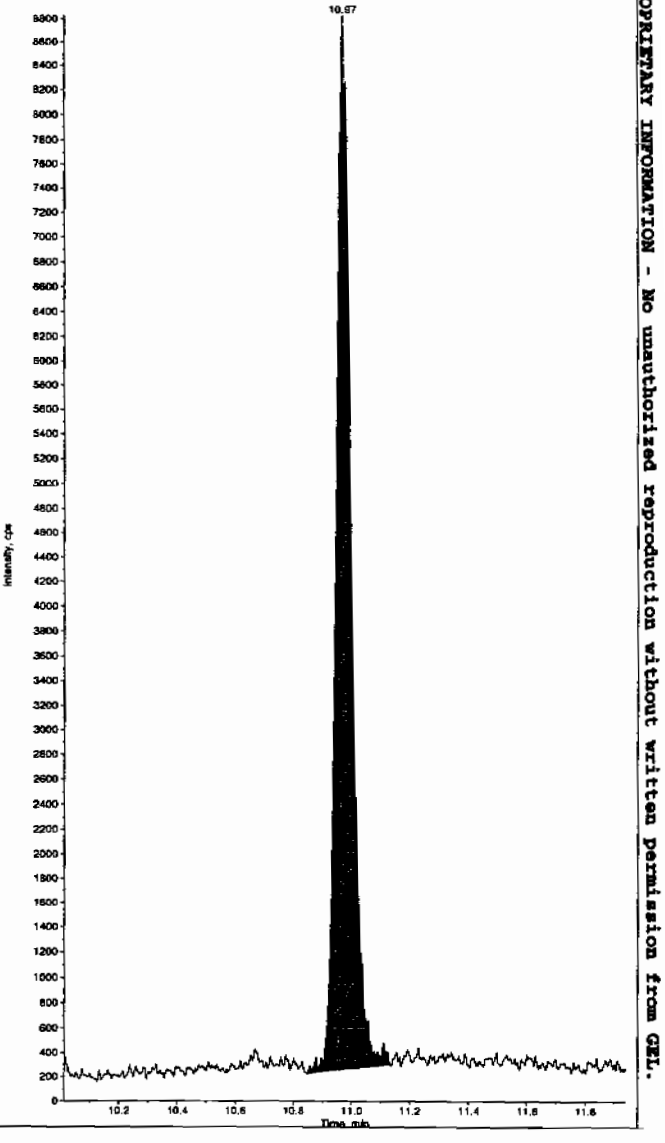

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8131

Lab Code: GEI

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066002

Sample Amount 2

Moisture: 17.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304154a

Date Analyzed: 07-MAR-10 18:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304154a
Date: 07-Mar-2010
Time: 18:30:37
ID: 246066002
Vial: 4:1,F

| LANL | 948888 | Soil | 2 |

LMT 3/8/10

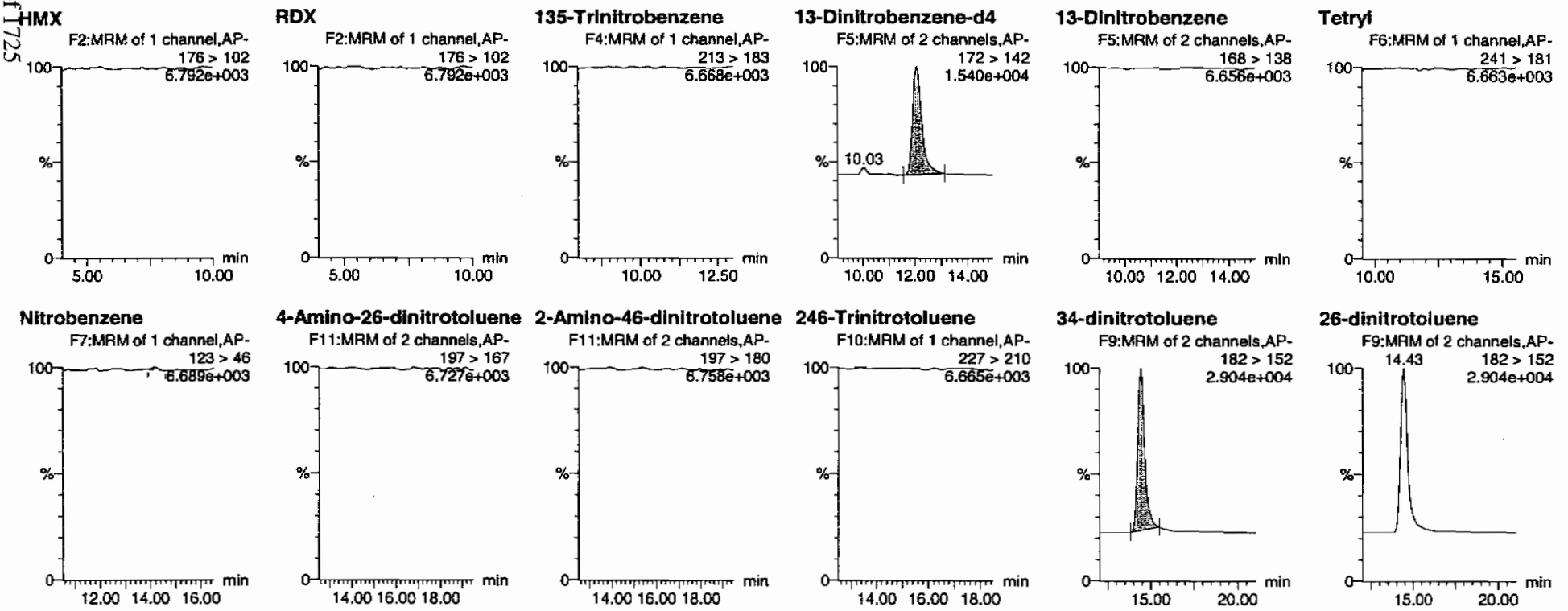

HMM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

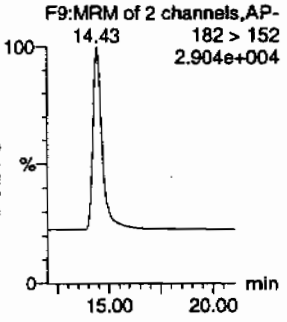

26-dinitrotoluene-d3

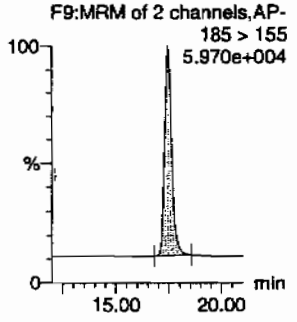

2-Nitrotoluene

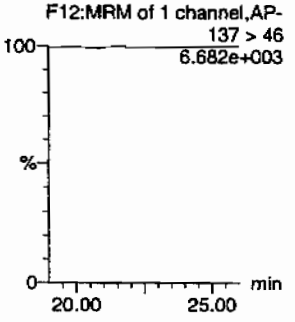

4-Nitrotoluene

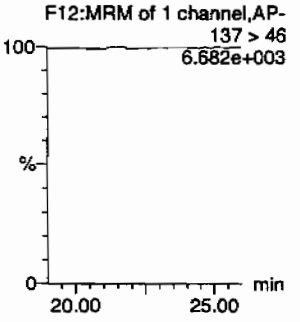

3-Nitrotoluene

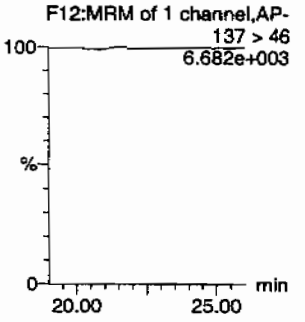

PETN

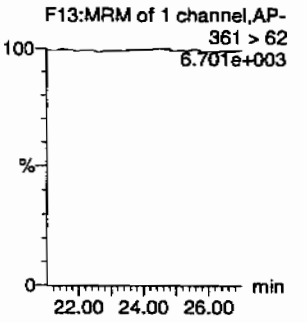

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246066002	HMX	176 > 102			3644.941									
246066002	RDX	176 > 102			3644.941									
246066002	135-Trinitrobenzene	213 > 183			3644.941									
246066002	13-Dinitrobenzene-d4	172 > 142	12.07	3644.941		3644.941	3644.941	bb			518.9579	103.8	3.8	357.7
246066002	13-Dinitrobenzene	168 > 138			3644.941									
246066002	Tetryl	241 > 181			3644.941									
246066002	Nitrobenzene	123 > 46			3644.941			MM-	08-Mar-10	11:33:23				
246066002	4-Amino-26-dinitrotoluene	197 > 167			21132.285									
246066002	2-Amino-46-dinitrotoluene	197 > 180			21132.285									
246066002	246-Trinitrotoluene	227 > 210			21132.285									
246066002	34-dinitrotoluene	182 > 152	14.43	10432.397	21132.285	10432.397	246.836	bb			255.3999	102.2	2.2	238.1
246066002	26-dinitrotoluene	182 > 152			21132.285									
246066002	24-dinitrotoluene	182 > 152			21132.285									
246066002	26-dinitrotoluene-d3	185 > 155	17.47	21132.285		21132.285	21132.285	bb			513.9029	102.8	2.8	1230.3
246066002	2-Nitrotoluene	137 > 46			21132.285									
246066002	4-Nitrotoluene	137 > 46			21132.285									
246066002	3-Nitrotoluene	137 > 46			21132.285									
246066002	PETN	361 > 62			21132.285									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8131

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066002

Sample Amount 2

Moisture: 17.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260035.wiff

Date Analyzed: 26-FEB-10 23:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ker 3/1/10

Sample Name: "246066002" Sample ID: "948888|2|LER" File: "EXS02260035.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCXB3212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:48:11 PM

Modified: No

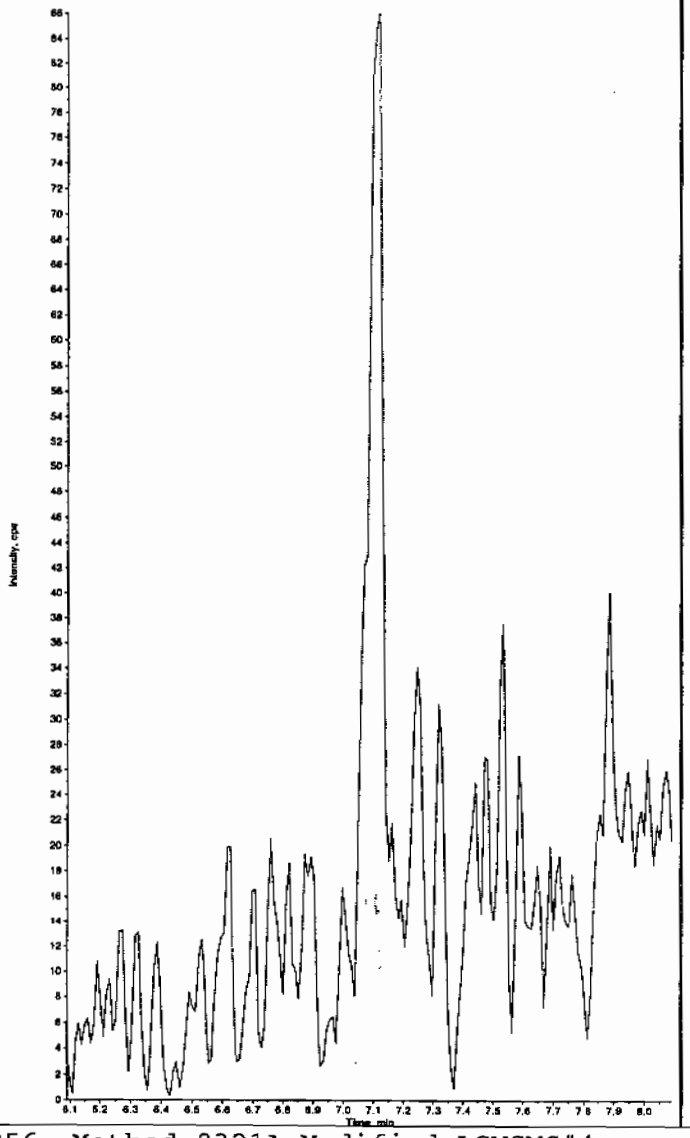

Sample Name: "246066002" Sample ID: "948888|2|LER" File: "EXS02260035.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:48:11 PM

Modified: No

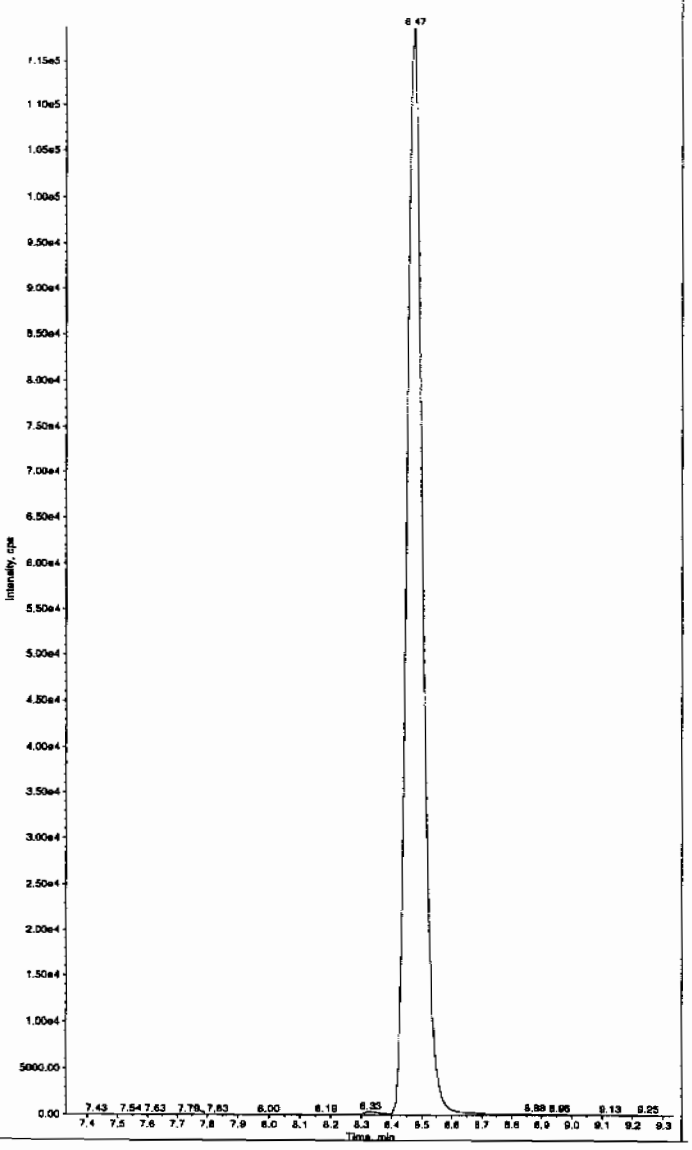

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066002" Sample ID: "948888[2]LER" File: "EXS02260035.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 240. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:48:11 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.31e+006 counts
Height: 942335.571 cps
Start Time: 8.37 min
End Time: 8.79 min

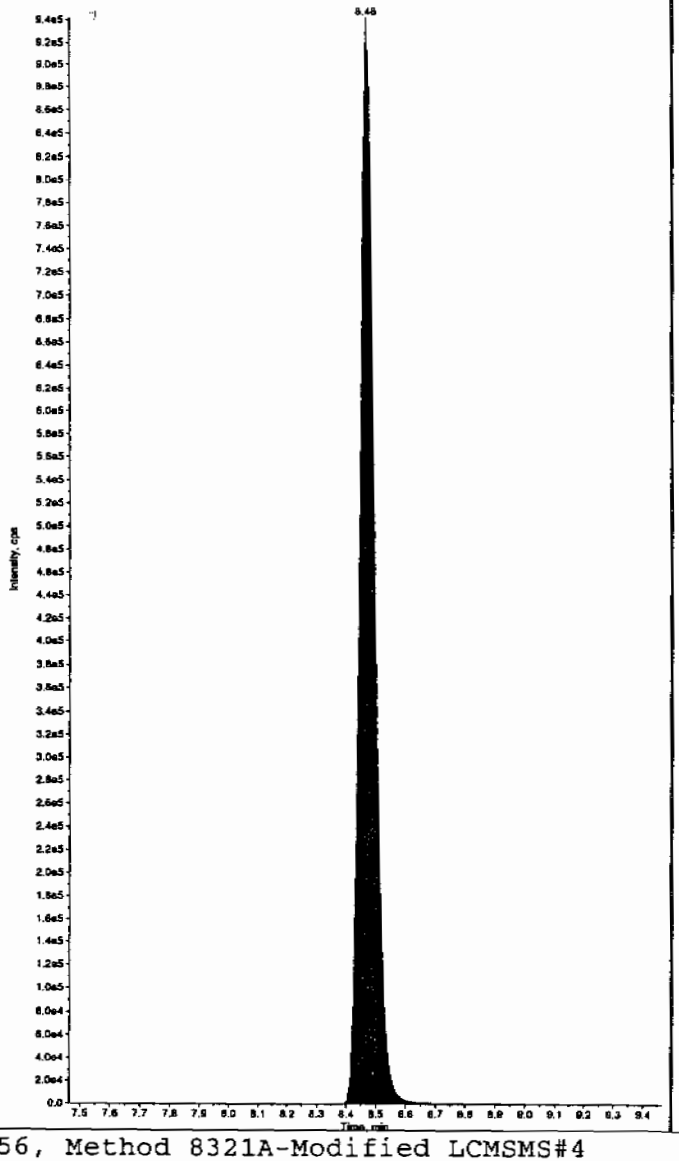

Sample Name: "246066002" Sample ID: "948888[2]LER" File: "EXS02260035.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:48:11 PM

Modified: No

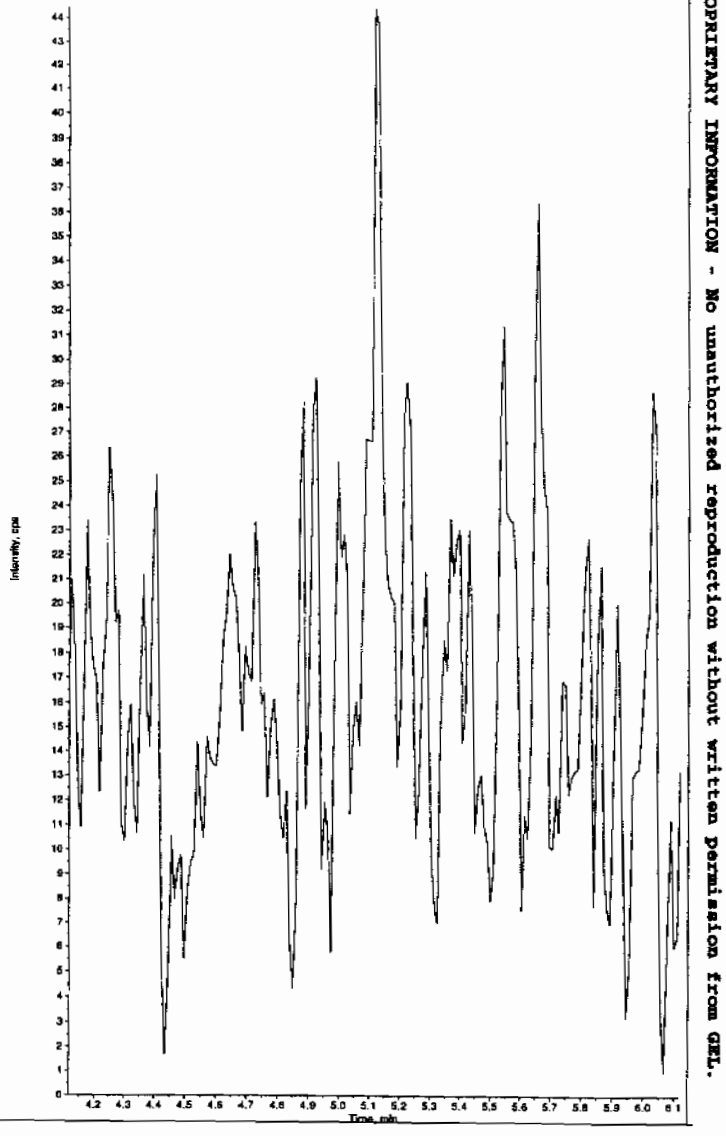

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066002" Sample ID: "948888|2|LER" File: "EXS02260035.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:48:11 PM

Modified: No

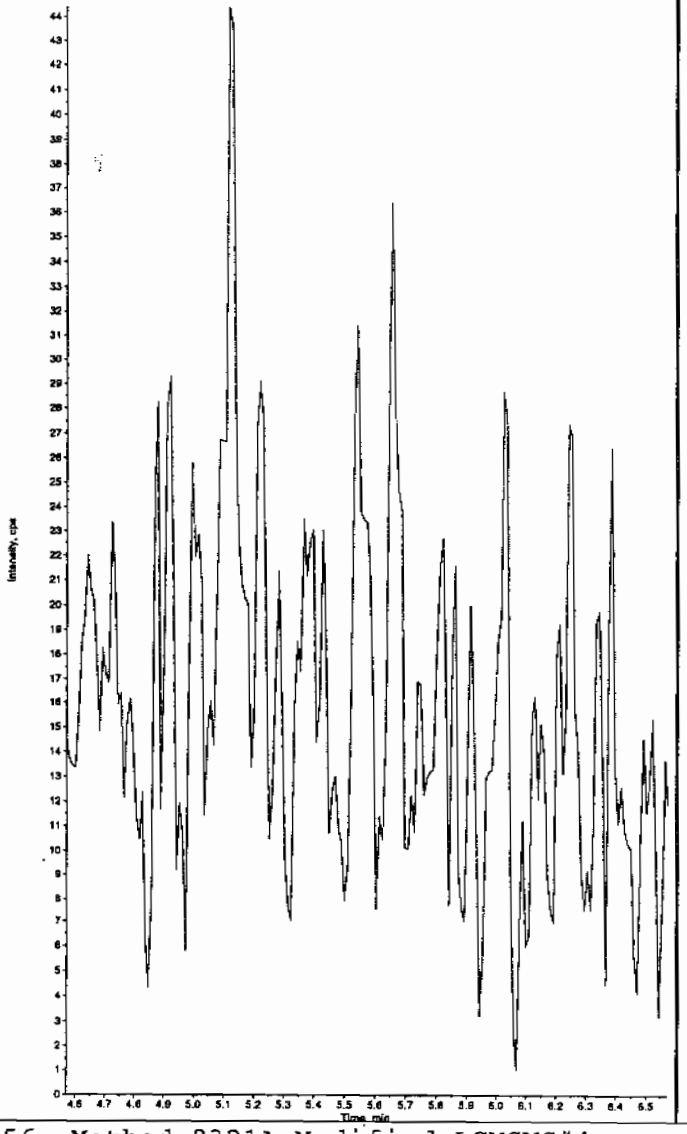

Sample Name: "246066002" Sample ID: "948888|2|LER" File: "EXS02260035.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/26/2010
Acq. Time: 11:48:11 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.66e+004 counts
Height: 9875.150 cps
Start Time: 10.8 min
End Time: 11.1 min

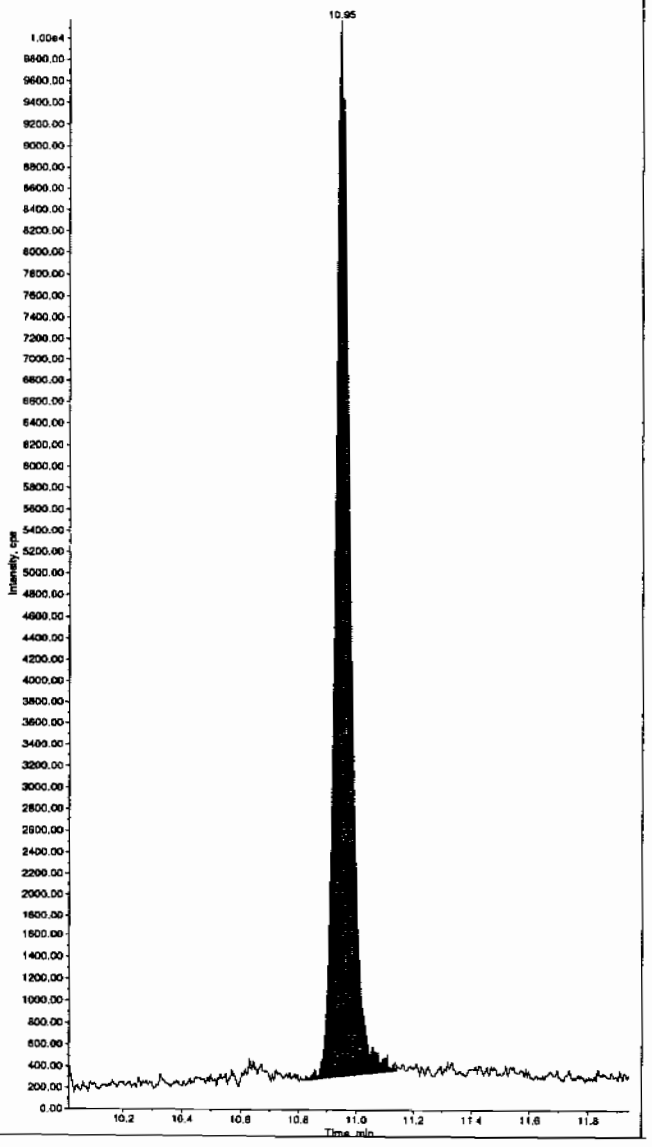

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8130

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066003

Sample Amount 2

Moisture: 22.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304155a

Date Analyzed: 07-MAR-10 19:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qid, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304155a
Date: 07-Mar-2010
Time: 19:00:05
ID: 246066003 | LANU | 948888 | Soil | 2 |
Vial: 4:2,A

MAP 3/8/10

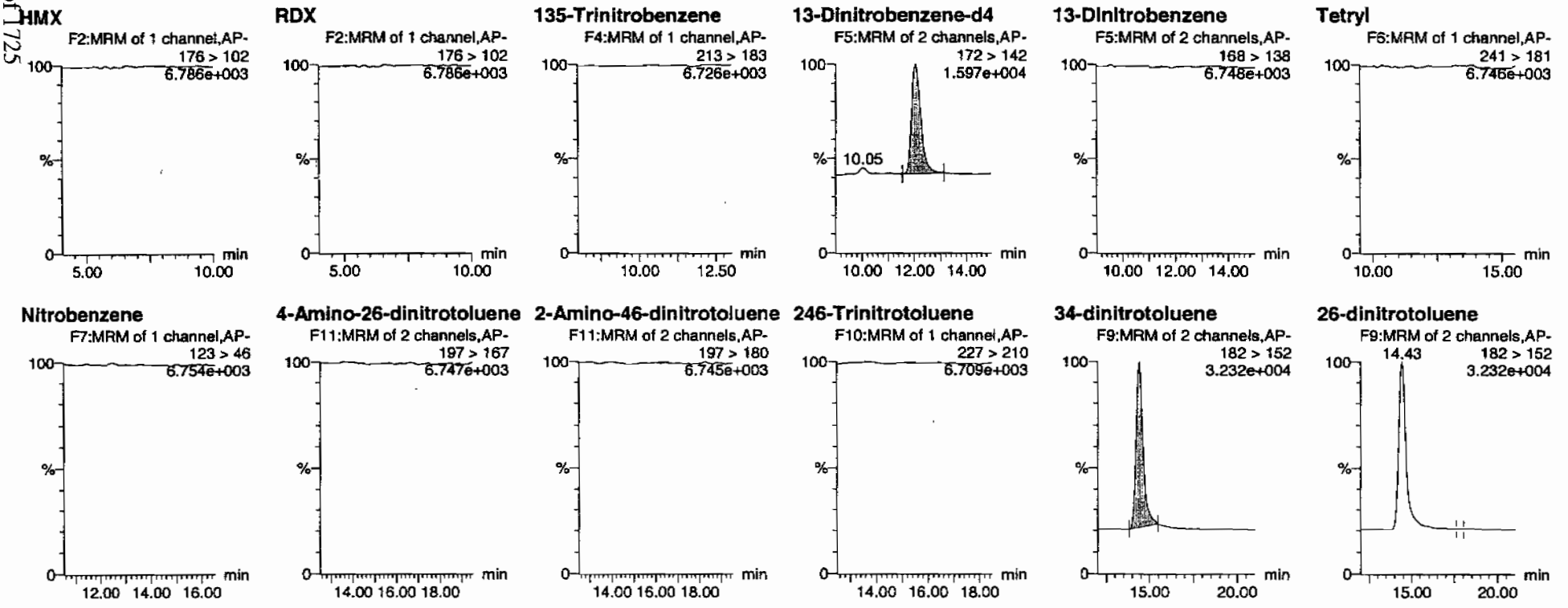

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

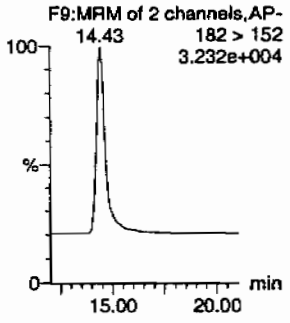

26-dinitrotoluene-d3

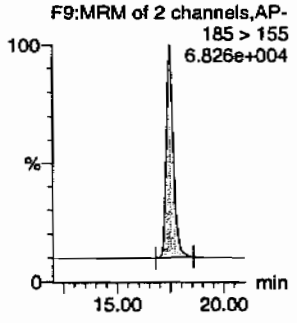

2-Nitrotoluene

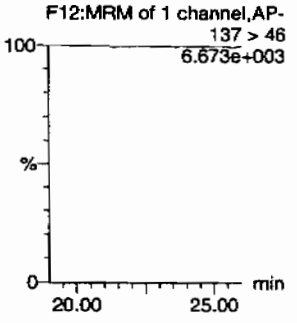

4-Nitrotoluene

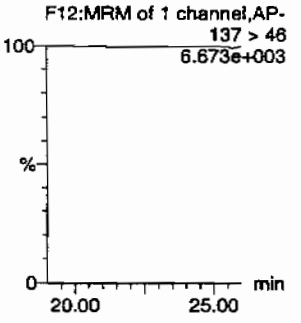

3-Nitrotoluene

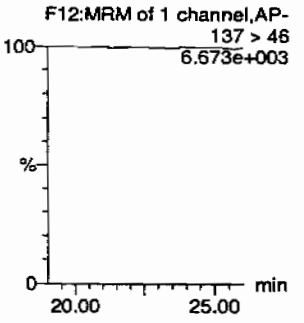

PETN

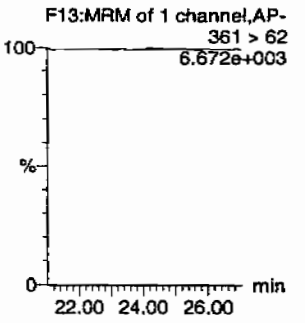

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066003	HMX	176 > 102			3785.266									
246066003	RDX	176 > 102			3785.266									
246066003	135-Trinitrobenzene	213 > 183			3785.266									
246066003	13-Dinitrobenzene-d4	172 > 142	12.07	3785.266		3785.266	3785.266	bb			538.9370	107.8	7.8	417.3
246066003	13-Dinitrobenzene	168 > 138			3785.266									
246066003	Tetryl	241 > 181			3785.266									
246066003	Nitrobenzene	123 > 46			3785.266									
246066003	4-Amino-26-dinitrotoluene	197 > 167			24519.223									
246066003	2-Amino-46-dinitrotoluene	197 > 180			24519.223									
246066003	246-Trinitrotoluene	227 > 210			24519.223									
246066003	34-dinitrotoluene	182 > 152	14.43	12006.623	24519.223	12006.623	244.841	bb			253.3362	101.3	1.3	485.1
246066003	26-dinitrotoluene	182 > 152			24519.223			MM-	08-Mar-10	11:51:06				
246066003	24-dinitrotoluene	182 > 152			24519.223									
246066003	26-dinitrotoluene-d3	185 > 155	17.47	24519.223		24519.223	24519.223	bb			596.2677	119.3	19.3	1796.1
246066003	2-Nitrotoluene	137 > 46			24519.223									
246066003	4-Nitrotoluene	137 > 46			24519.223									
246066003	3-Nitrotoluene	137 > 46			24519.223									
246066003	PETN	361 > 62			24519.223									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8130

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066003

Sample Amount 2

Moisture: 22.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260036.wiff

Date Analyzed: 27-FEB-10 00:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcer 3/1/10

Sample Name: "246066003" Sample ID: "948888|2|LER" File: "EXS02260036.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:03:52 AM
Modified: No

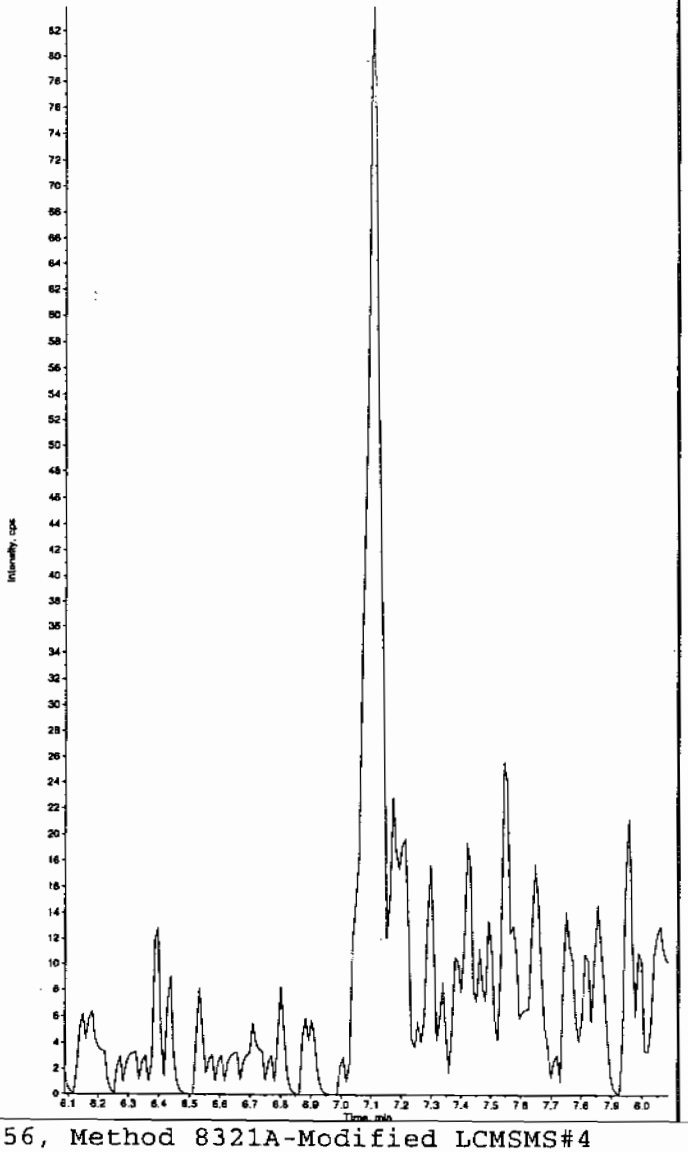

Sample Name: "246066003" Sample ID: "948888|2|LER" File: "EXS02260036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:03:52 AM
Modified: No

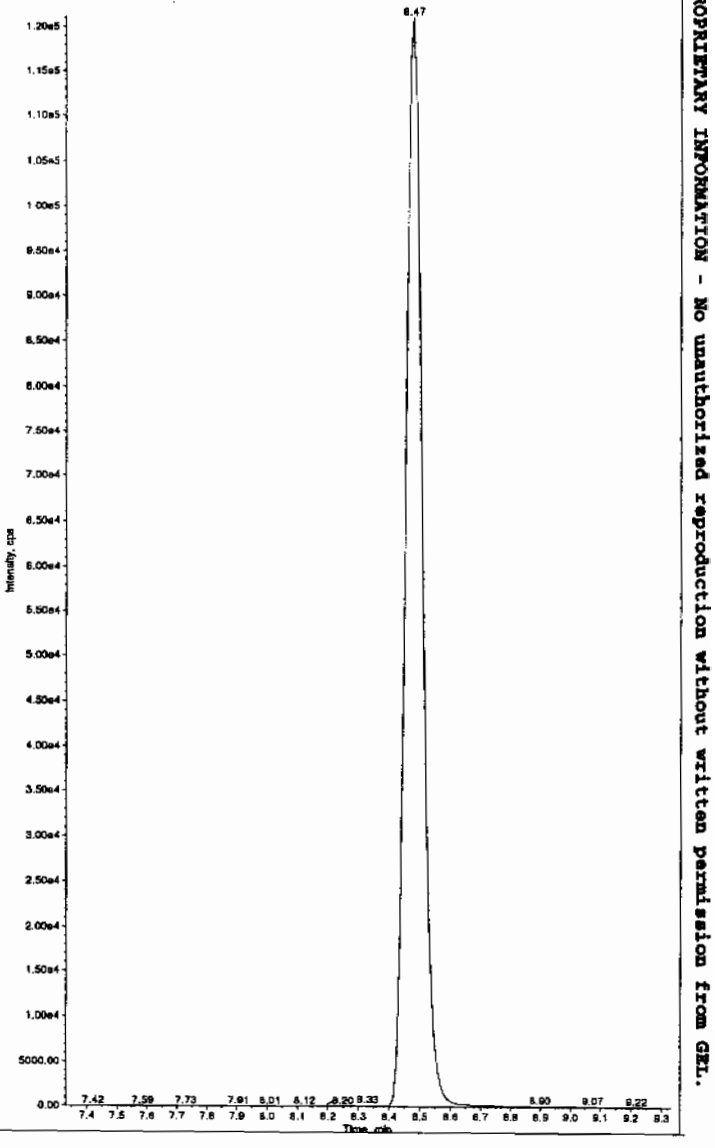

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066003" Sample ID: "948888|2|LER" File: "EXS02260036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 247. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:03:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.40e+006 counts
Height: 946687.988 cps
Start Time: 8.36 min
End Time: 8.82 min

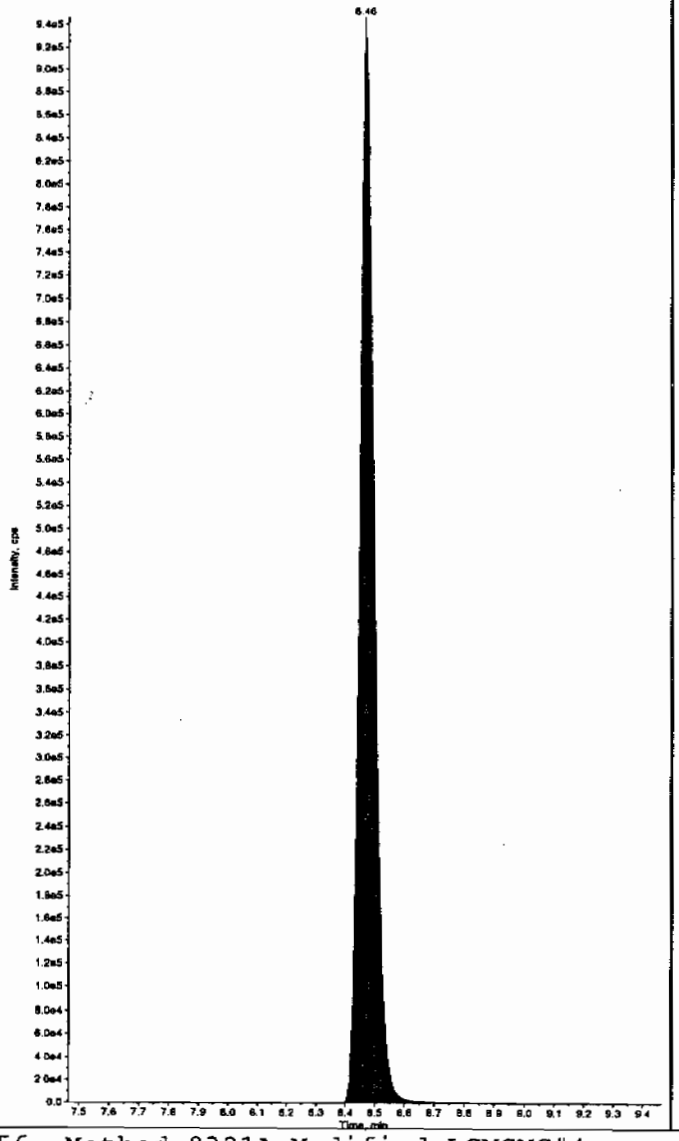

Sample Name: "246066003" Sample ID: "948888|2|LER" File: "EXS02260036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:03:52 AM

Modified: No

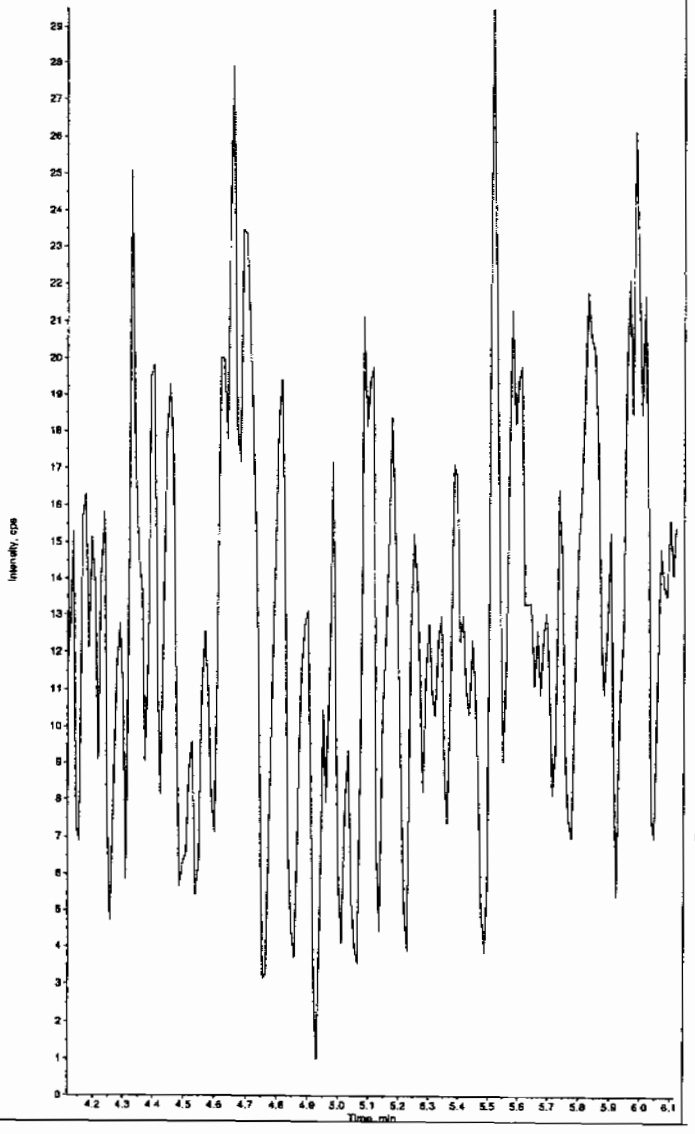

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066003" Sample ID: "948888[2]LER" File: "EXS02260036.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:03:52 AM

Modified: No

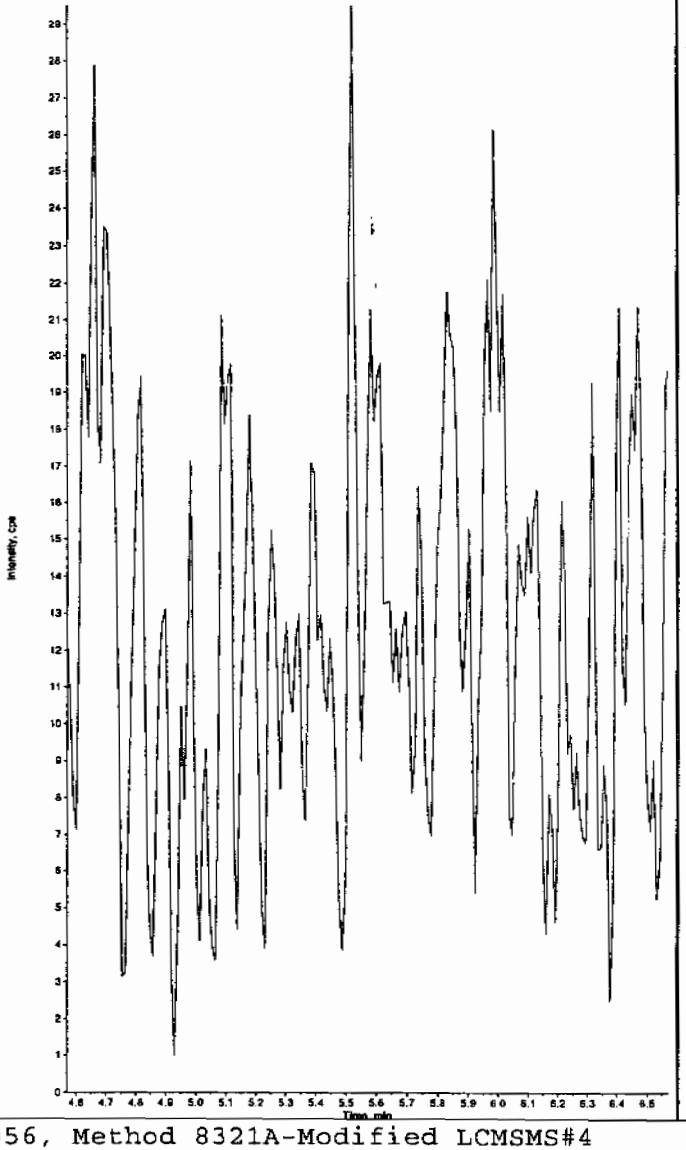

Sample Name: "246066003" Sample ID: "948888[2]LER" File: "EXS02260036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:03:52 AM

Modified: No

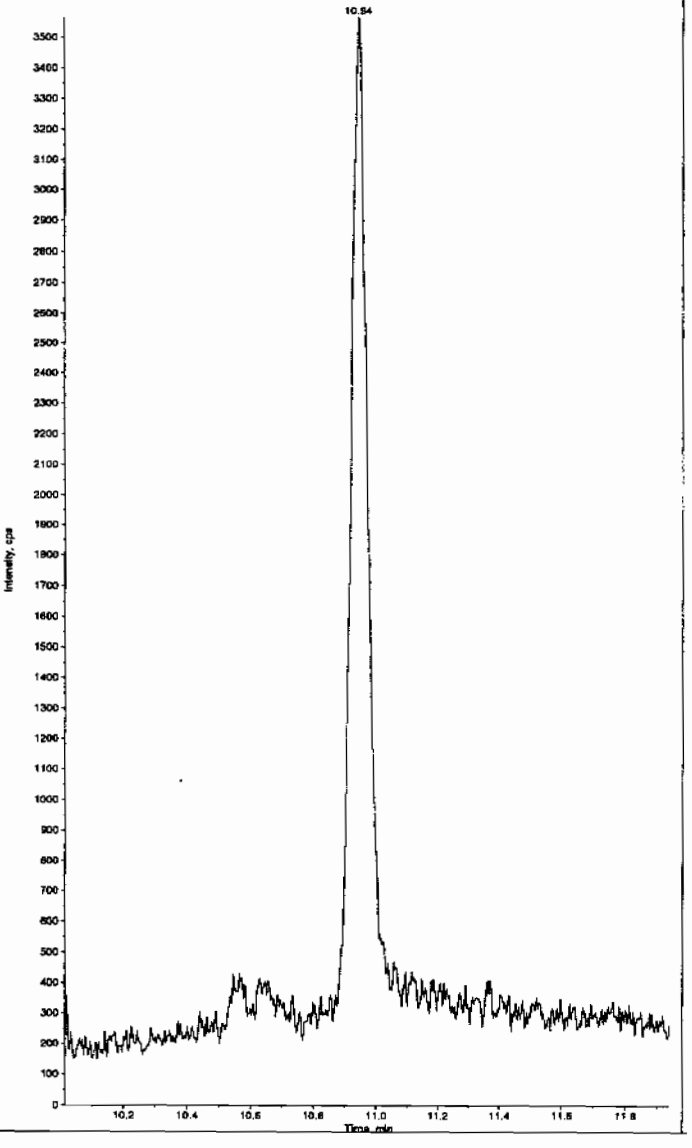

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8127

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066004

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304156a

Date Analyzed: 07-MAR-10 19:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304156a
Date: 07-Mar-2010
Time: 19:29:34
ID: 246066004 | LANL | 948888 | Soil | 2 |
Vial: 4:2,B

MAP 3/8/10

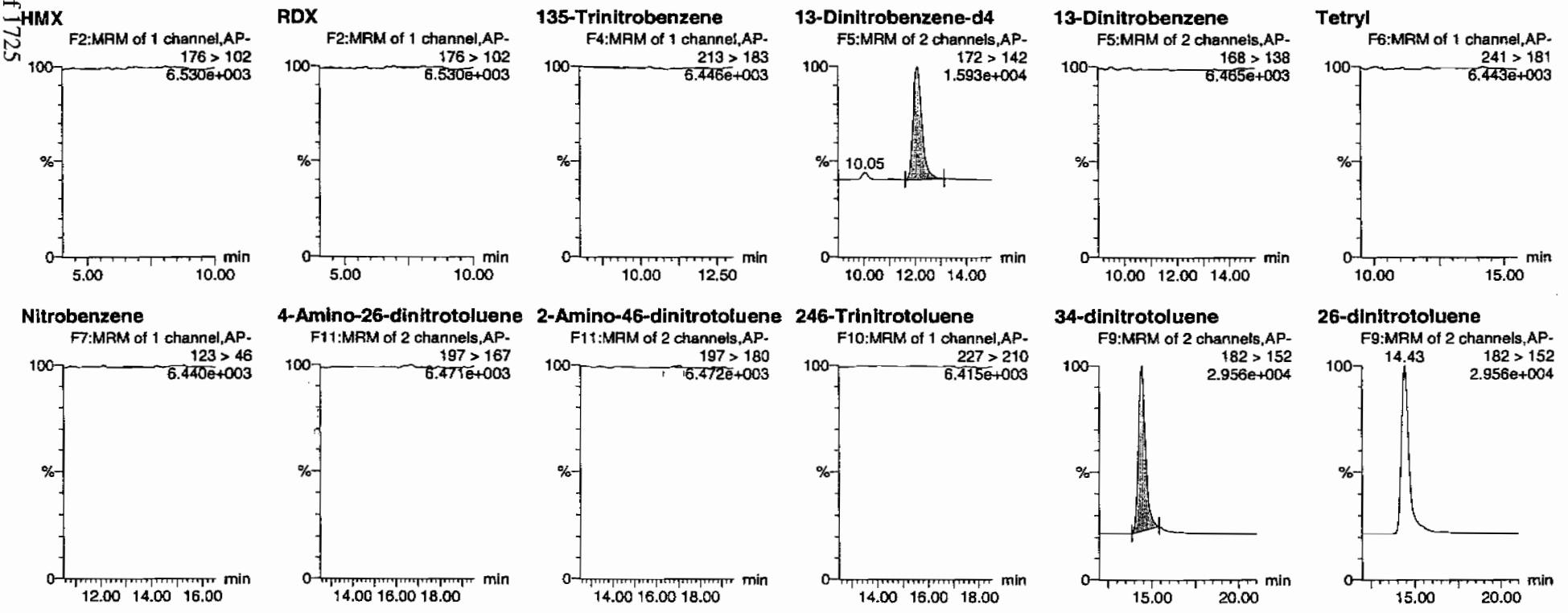

AMM 03/08/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

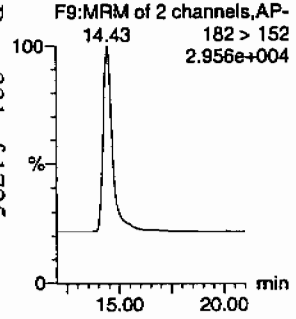

26-dinitrotoluene-d3

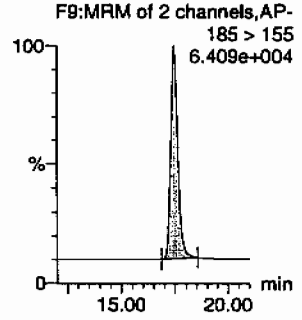

2-Nitrotoluene

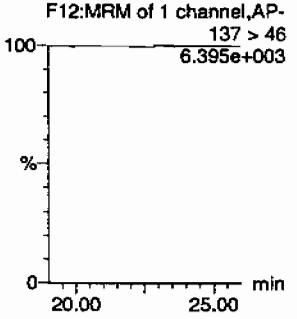

4-Nitrotoluene

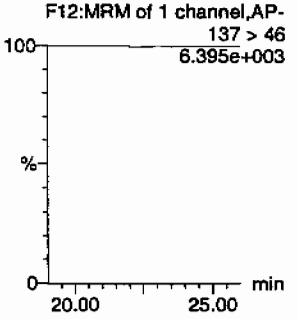

3-Nitrotoluene

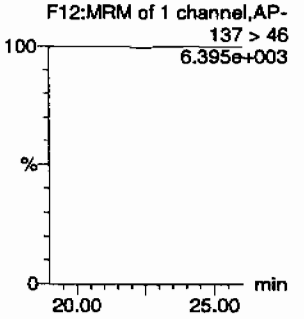

PETN

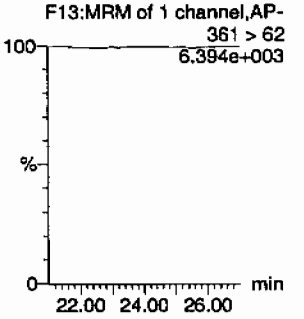

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246066004	HMX	176 > 102			3816.983									
246066004	RDX	176 > 102			3816.983									
246066004	135-Trinitrobenzene	213 > 183			3816.983									
246066004	13-Dinitrobenzene-d4	172 > 142	12.07	3816.983		3816.983	3816.983	bb			543.4528	108.7	8.7	207.7
246066004	13-Dinitrobenzene	168 > 138			3816.983									
246066004	Tetryl	241 > 181			3816.983									
246066004	Nitrobenzene	123 > 46			3816.983									
246066004	4-Amino-26-dinitrotoluene	197 > 167			22859.033									
246066004	2-Amino-46-dinitrotoluene	197 > 180			22859.033			MM-	08-Mar-10	11:39:10				
246066004	246-Trinitrotoluene	227 > 210			22859.033									
246066004	34-dinitrotoluene	182 > 152	14.43	10632.261	22859.033	10632.261	232.561	bb			240.6306	96.3	-3.7	1182.7
246066004	26-dinitrotoluene	182 > 152			22859.033									
246066004	24-dinitrotoluene	182 > 152			22859.033									
246066004	26-dinitrotoluene-d3	185 > 155	17.47	22859.033		22859.033	22859.033	bb			555.8946	111.2	11.2	5038.6
246066004	2-Nitrotoluene	137 > 46			22859.033									
246066004	4-Nitrotoluene	137 > 46			22859.033									
246066004	3-Nitrotoluene	137 > 46			22859.033									
246066004	PETN	361 > 62			22859.033									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8127

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066004

Sample Amount 2

Moisture: 12.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260040.wiff

Date Analyzed: 27-FEB-10 01:06

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Hum 3/1/10

Sample Name: "245066004" Sample ID: "948888|2|LER" File: "EXS02260040.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:06:42 AM

Modified: No

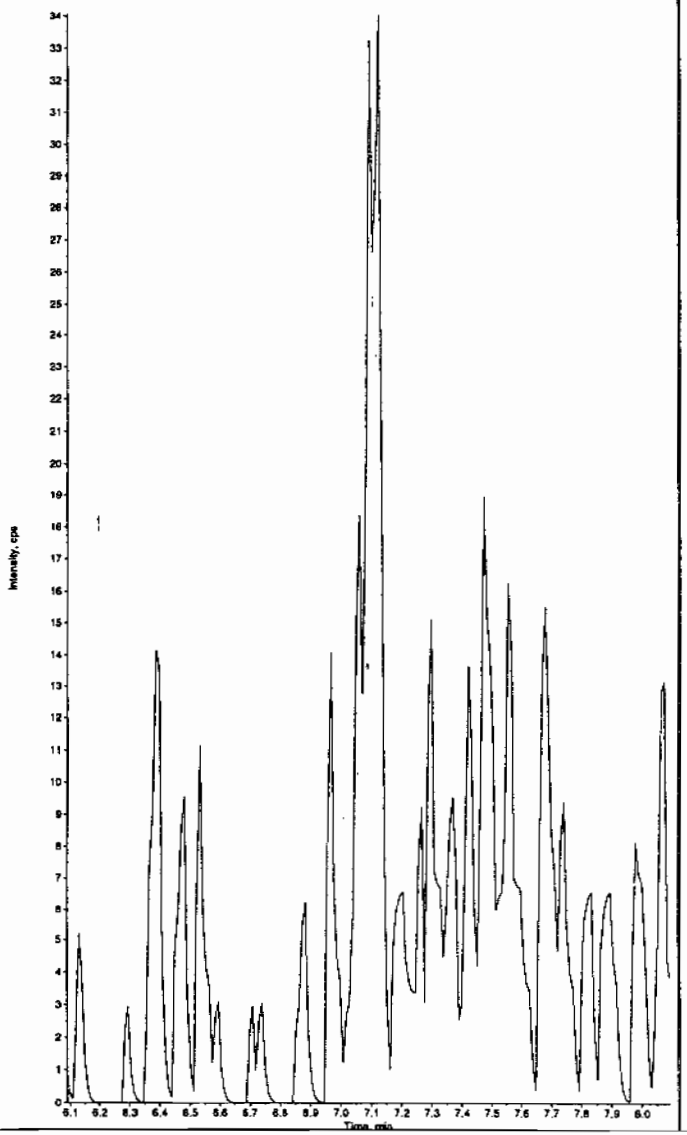

Sample Name: "245066004" Sample ID: "948888|2|LER" File: "EXS02260040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:06:42 AM

Modified: No

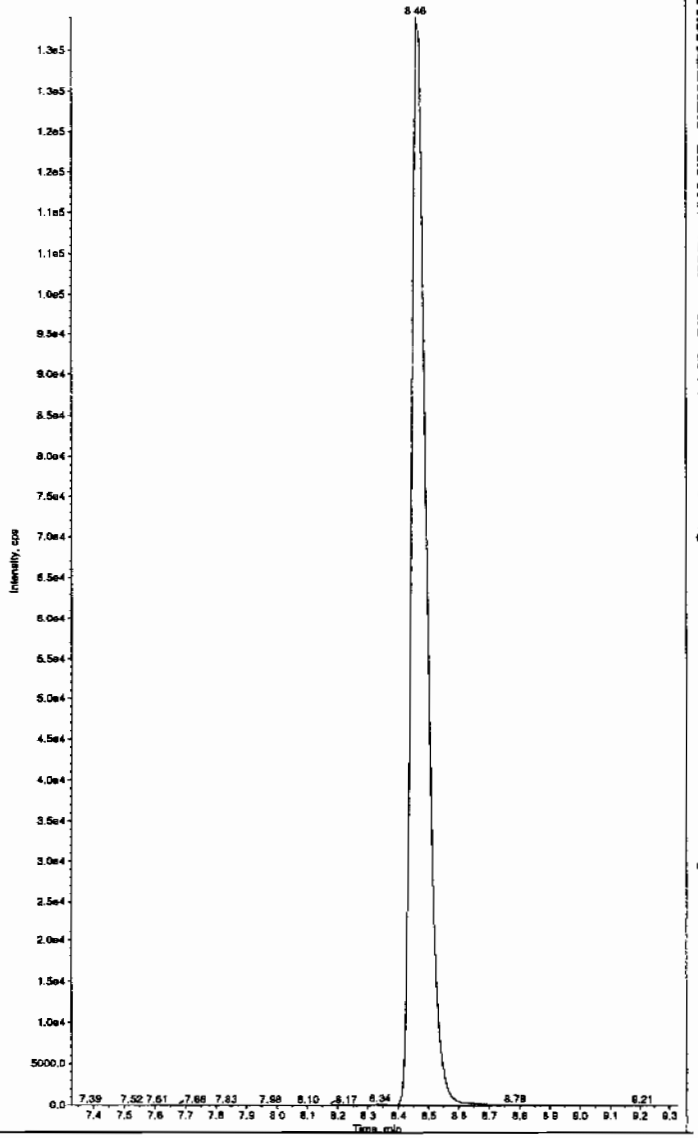

Hum 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066004" Sample ID: "948888|2|LER" File: "EXS02260040.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 258. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:06:42 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Max. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.54e+006 counts
Height: 1053363.281 cps
Start Time: 8.35 min
End Time: 8.82 min

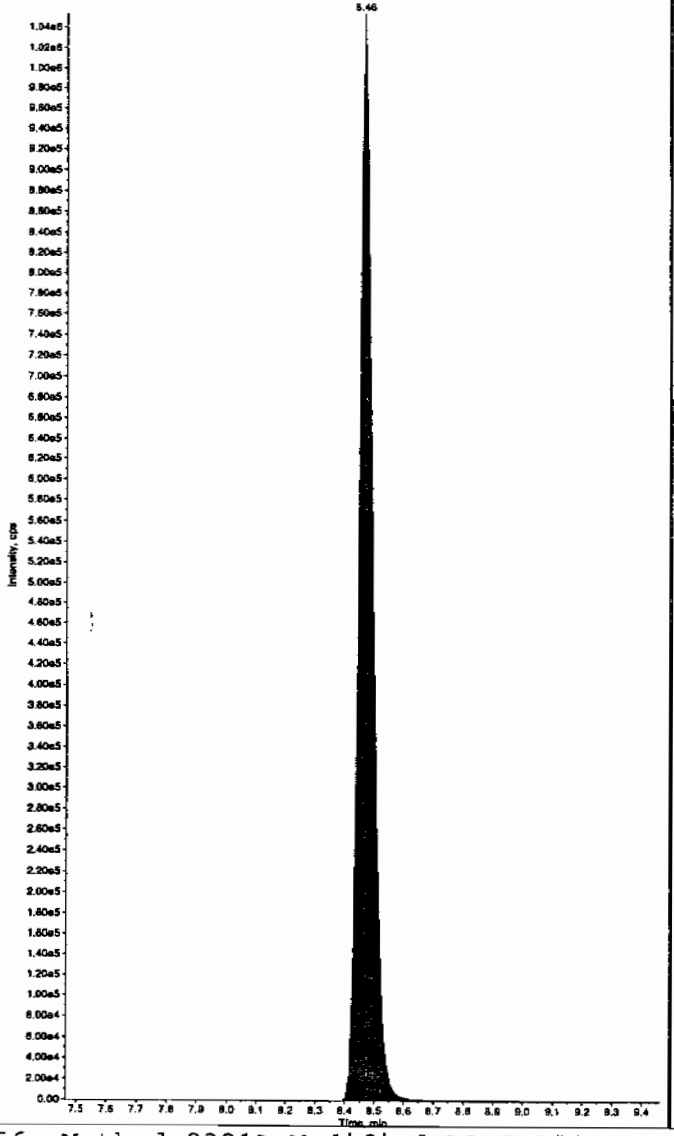

Sample Name: "246066004" Sample ID: "948888|2|LER" File: "EXS02260040.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:06:42 AM

Modified: No

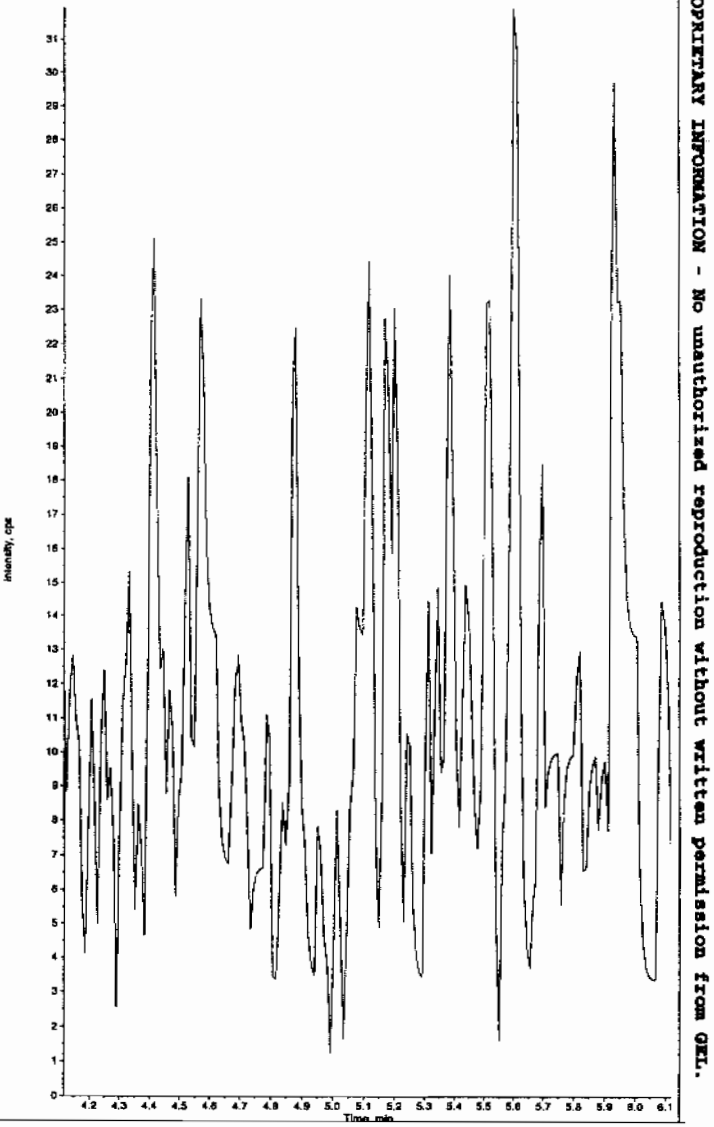

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066004" Sample ID: "948888[2]LER" File: "EXS02260040.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:06:42 AM

Modified: No

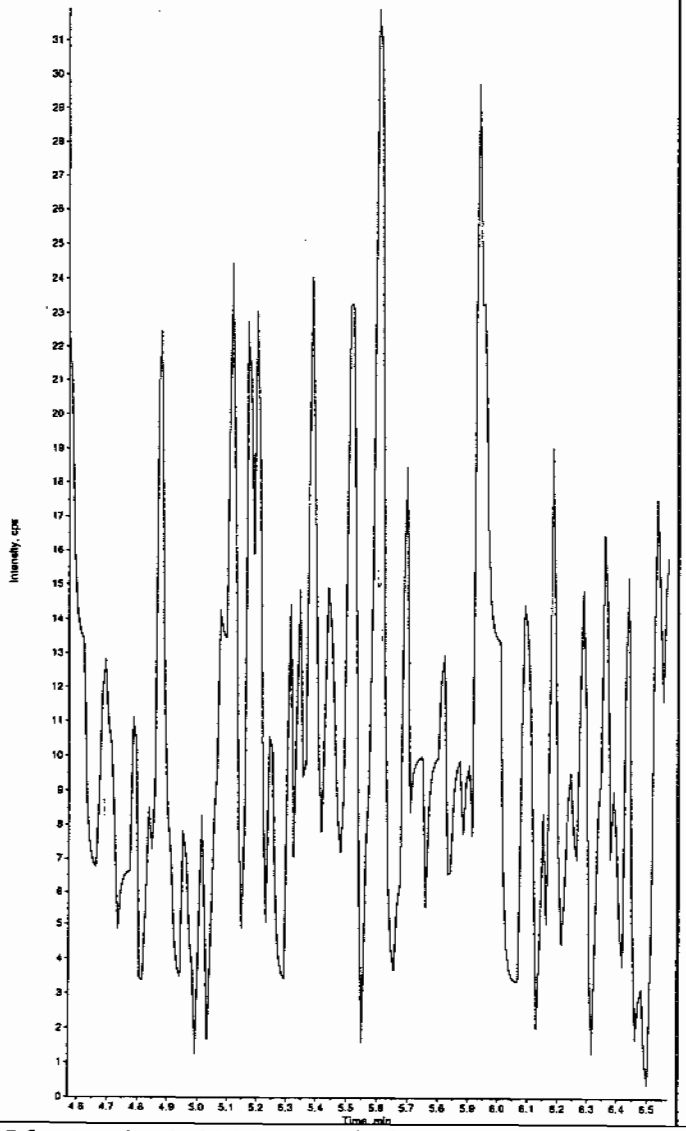

Sample Name: "246066004" Sample ID: "948888[2]LER" File: "EXS02260040.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:06:42 AM

Modified: No

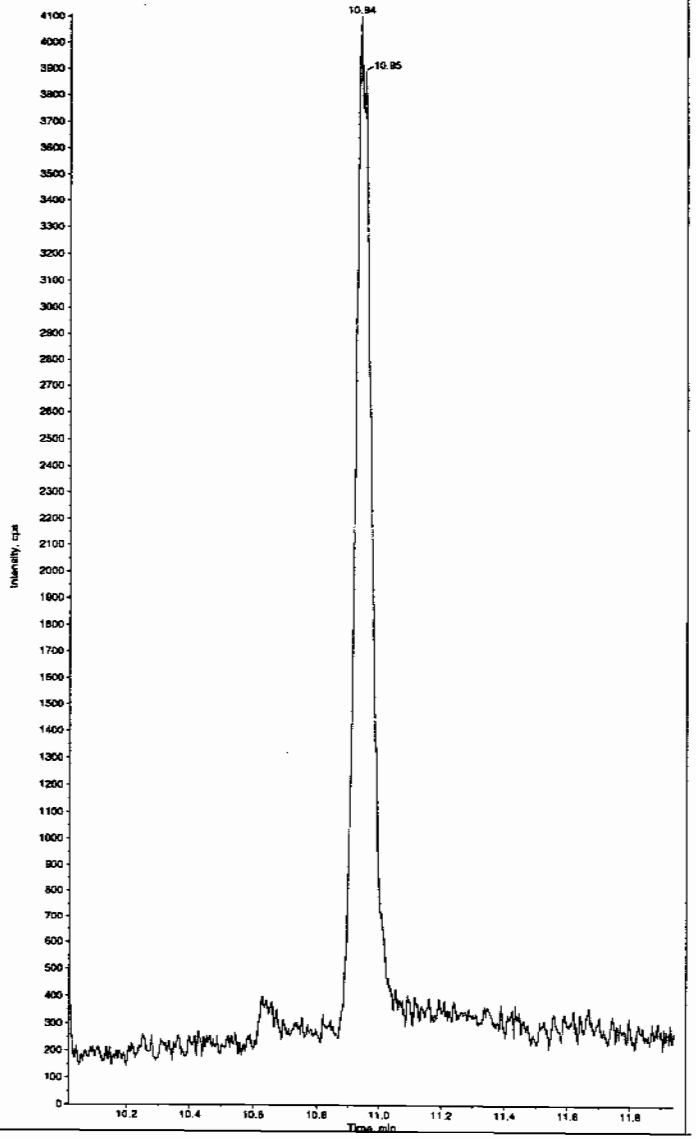

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8128

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066005

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304157a

Date Analyzed: 07-MAR-10 19:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304157a
Date: 07-Mar-2010
Time: 19:59:04
ID: 246066005 | LANC | 948888 | Soils | 2 |
Vial: 4:2,C

MATT 3/10/10

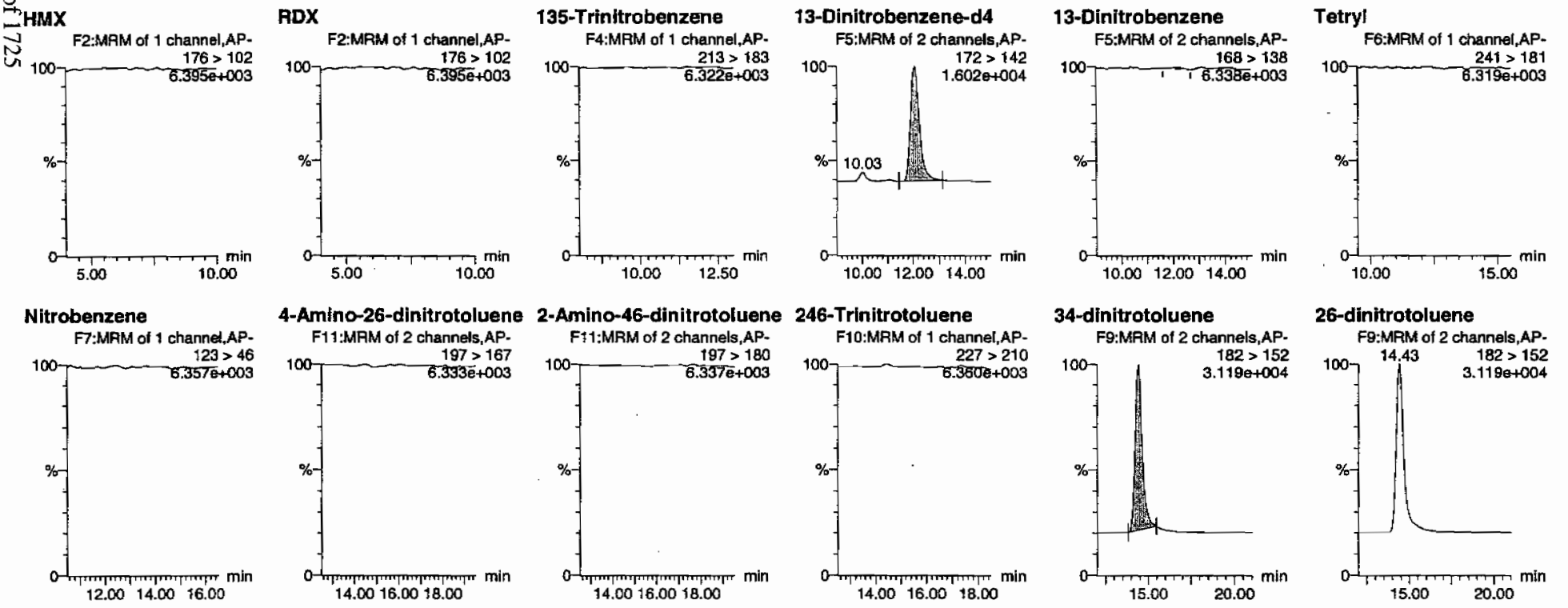

HMM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

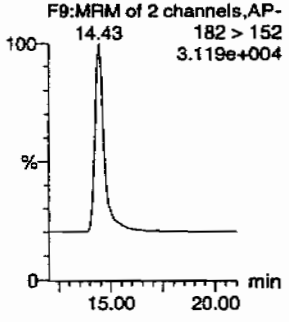

26-dinitrotoluene-d3

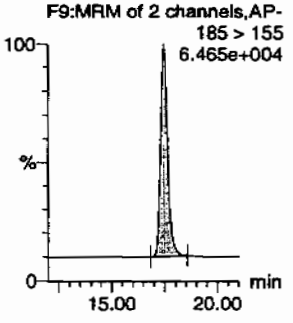

2-Nitrotoluene

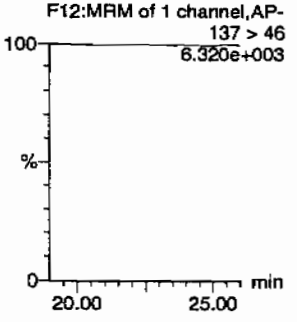

4-Nitrotoluene

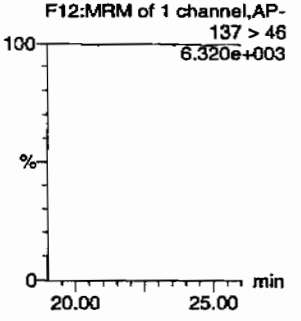

3-Nitrotoluene

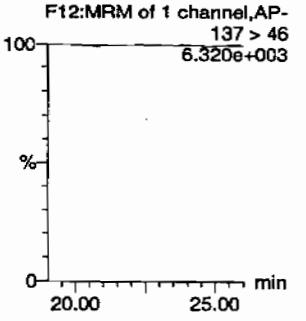

PETN

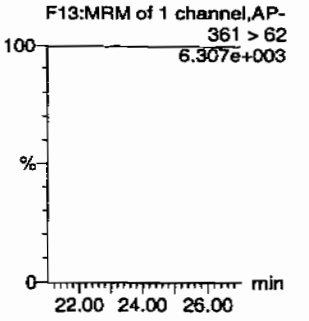

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246066005	HMX	176 > 102			3921.437									
246066005	RDX	176 > 102			3921.437									
246066005	135-Trinitrobenzene	213 > 183			3921.437									
246066005	13-Dinitrobenzene-d4	172 > 142	12.07	3921.437		3921.437	3921.437	bb			558.3247	111.7	11.7	358.4
246066005	13-Dinitrobenzene	168 > 138			3921.437			MM-	08-Mar-10	11:15:21				
246066005	Tetryl	241 > 181			3921.437									
246066005	Nitrobenzene	123 > 46			3921.437									
246066005	4-Amino-26-dinitrotoluene	197 > 167			23320.059									
246066005	2-Amino-46-dinitrotoluene	197 > 180			23320.059									
246066005	246-Trinitrotoluene	227 > 210			23320.059									
246066005	34-dinitrotoluene	182 > 152	14.43	11757.889	23320.059	11757.889	252.098	bb			260.8452	104.3	4.3	655.7
246066005	26-dinitrotoluene	182 > 152			23320.059									
246066005	24-dinitrotoluene	182 > 152			23320.059									
246066005	26-dinitrotoluene-d3	185 > 155	17.47	23320.059		23320.059	23320.059	bb			567.1060	113.4	13.4	2035.5
246066005	2-Nitrotoluene	137 > 46			23320.059									
246066005	4-Nitrotoluene	137 > 46			23320.059									
246066005	3-Nitrotoluene	137 > 46			23320.059									
246066005	PETN	361 > 62			23320.059									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8128

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066005

Sample Amount 2

Moisture: 16.3

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260041.wiff

Date Analyzed: 27-FEB-10 01:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	496	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Kan 3/1/10

Sample Name: "246066005" Sample ID: "948888|2|LER" File: "EXS02260041.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 49.6 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:22:24 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.10 min
Area: 4.14e+004 counts
Height: 10663.236 cps
Start Time: 7.02 min
End Time: 7.45 min

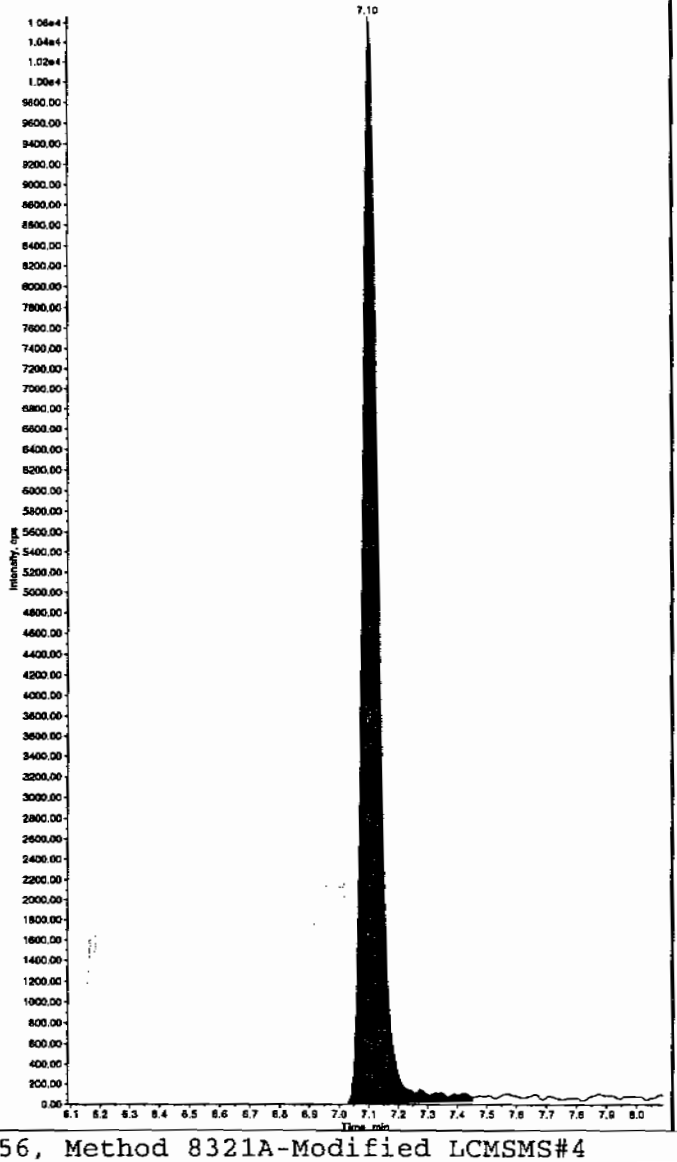

Sample Name: "246066005" Sample ID: "948888|2|LER" File: "EXS02260041.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:22:24 AM

Modified: No

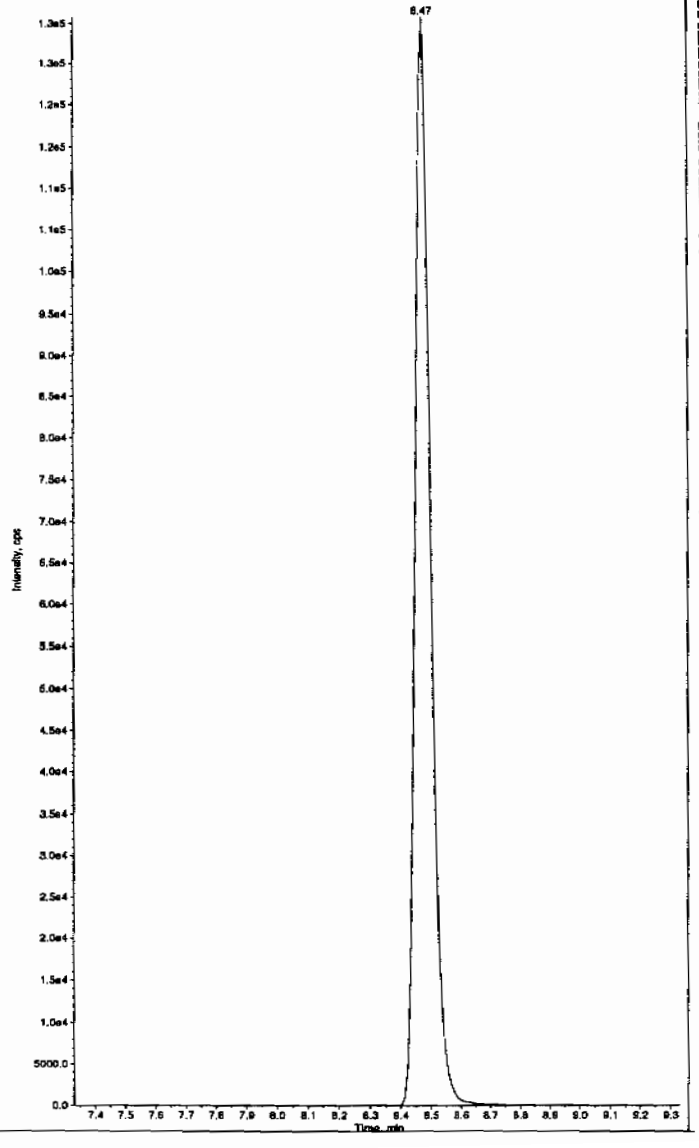

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066005" Sample ID: "948888[2]LER" File: "EXS02260041.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 259. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:22:24 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.56e+006 counts
Height: 1015043.762 cps
Start Time: 8.35 min
End Time: 8.82 min

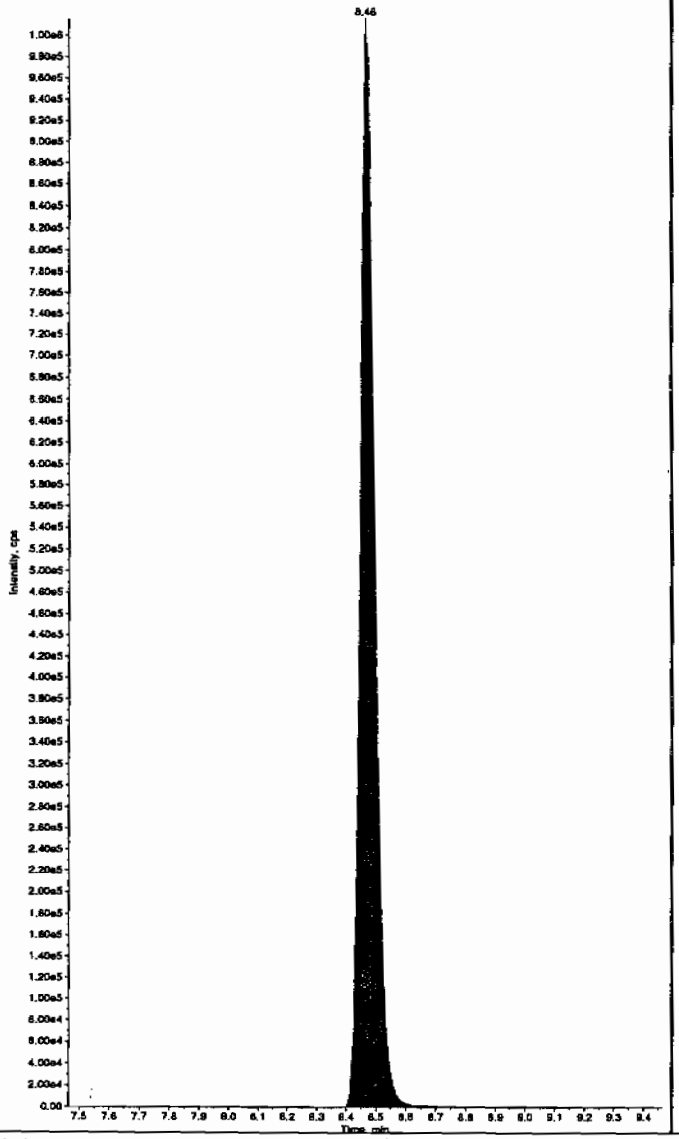

Sample Name: "246066005" Sample ID: "948888[2]LER" File: "EXS02260041.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:22:24 AM

Modified: No

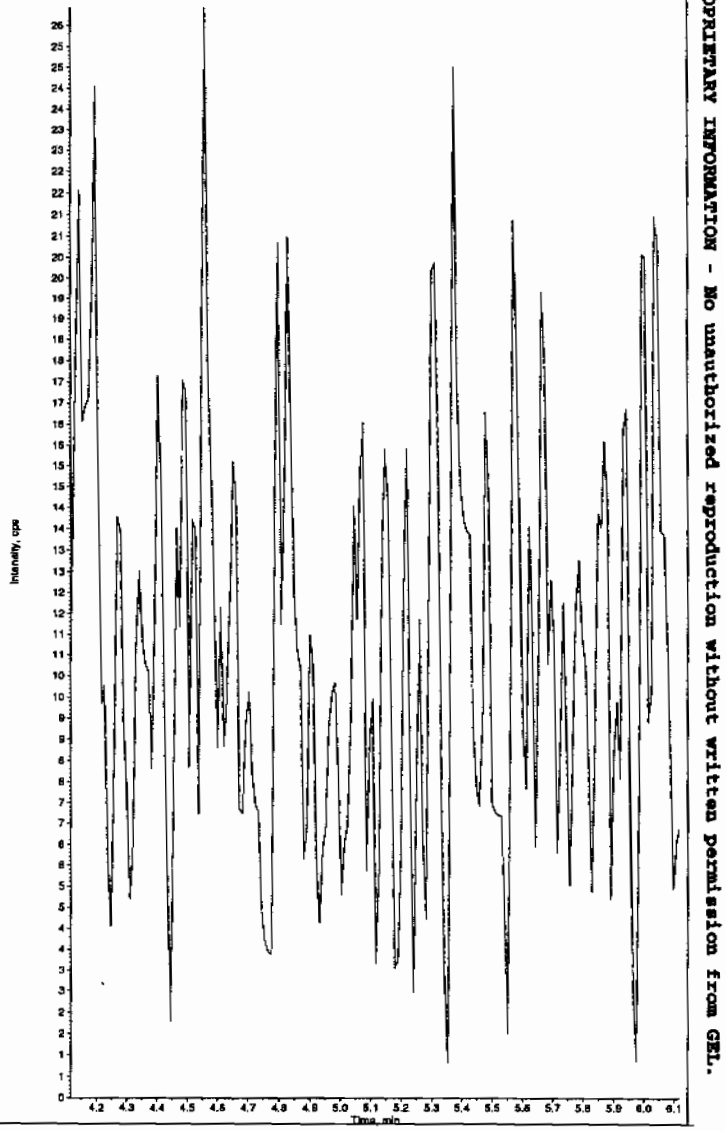

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066005" Sample ID: "548888[2]LER" File: "EXS02260041.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:22:24 AM

Modified: No

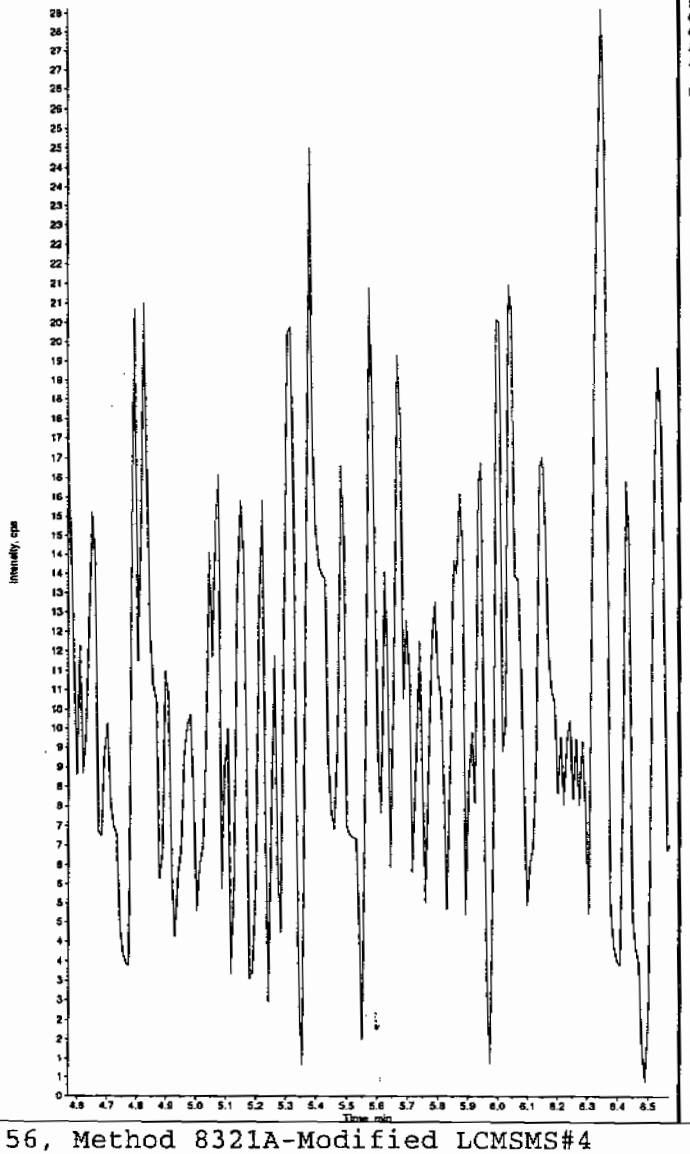

Sample Name: "246066005" Sample ID: "548888[2]LER" File: "EXS02260041.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:22:24 AM

Modified: No

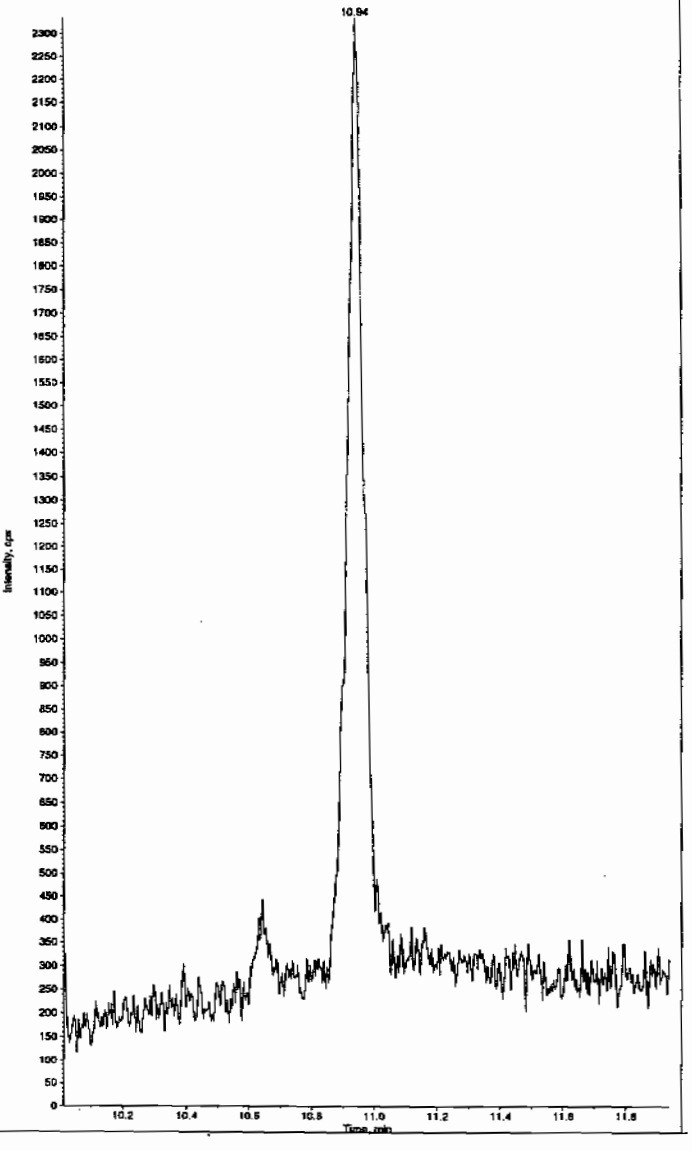

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8126

Lab Code: GEI

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066006

Sample Amount 2

Moisture: 18.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304158a

Date Analyzed: 07-MAR-10 20:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304158a
Date: 07-Mar-2010
Time: 20:28:32
ID: 246066006 | LAW | 943888 | Soil | 21
Vial: 4:2,D

MAP 3/8/10

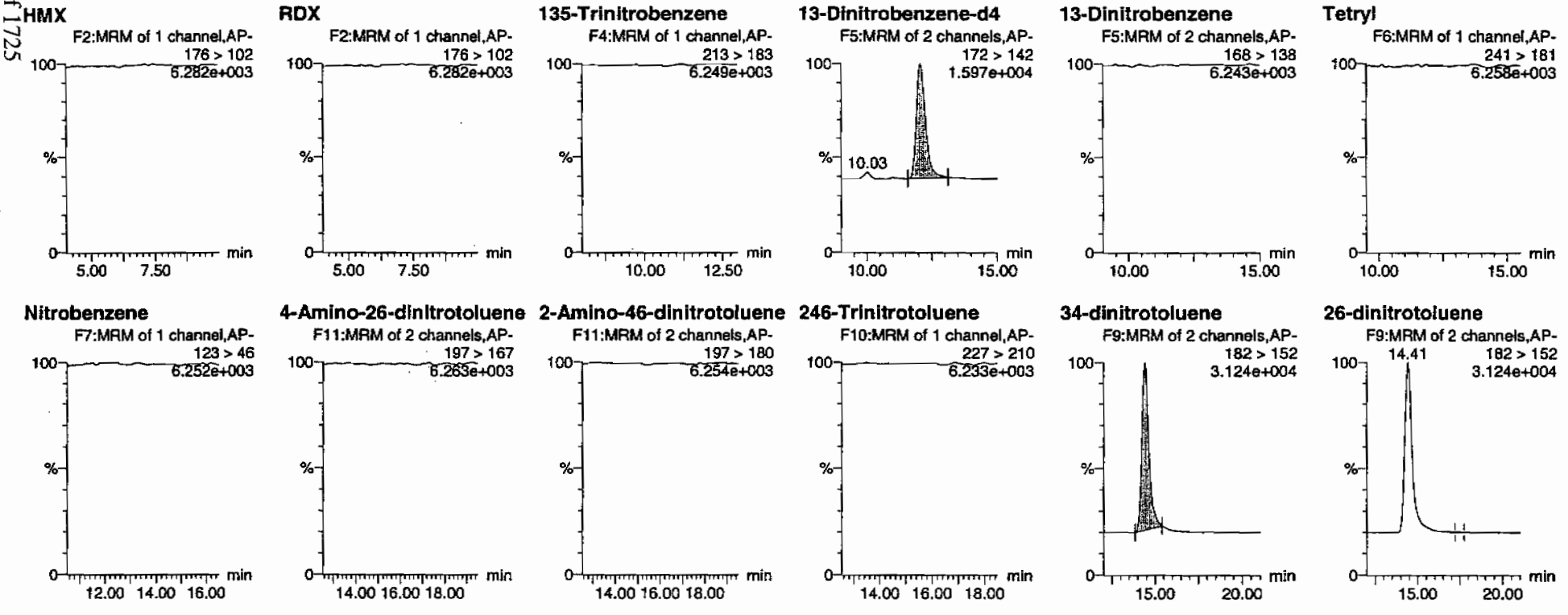

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

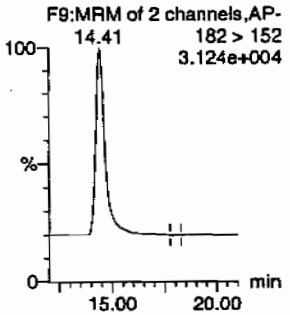

26-dinitrotoluene-d3

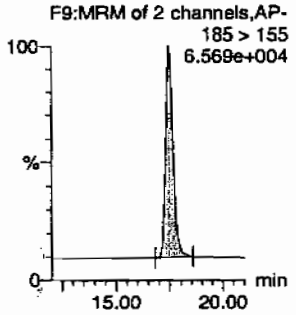

2-Nitrotoluene

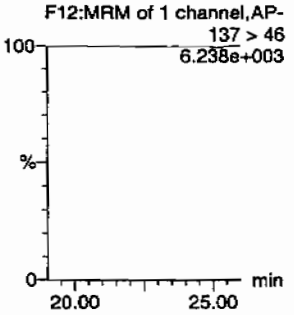

4-Nitrotoluene

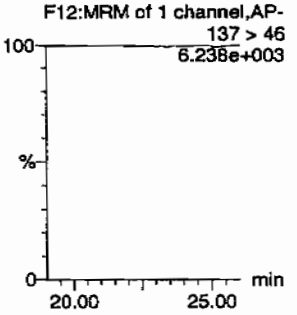

3-Nitrotoluene

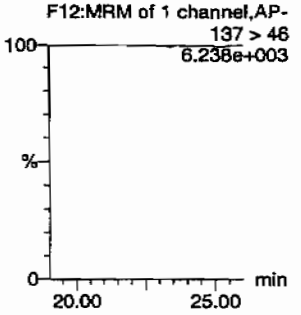

PETN

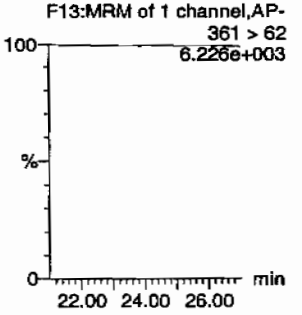

ID	Name	Trace	RT	Area	ISArea	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
246066006	HMX	176 > 102			3987.925									
246066006	RDX	176 > 102			3987.925									
246066006	135-Trinitrobenzene	213 > 183			3987.925									
246066006	13-Dinitrobenzene-d4	172 > 142	12.06	3987.925		3987.925	3987.925	bb			567.7911	113.6	13.6	325.5
246066006	13-Dinitrobenzene	168 > 138			3987.925									
246066006	Tetryl	241 > 181			3987.925									
246066006	Nitrobenzene	123 > 46			3987.925									
246066006	4-Amino-26-dinitrotoluene	197 > 167			23905.910									
246066006	2-Amino-46-dinitrotoluene	197 > 180			23905.910									
246066006	246-Trinitrotoluene	227 > 210			23905.910									
246066006	34-dinitrotoluene	182 > 152	14.41	11739.555	23905.910	11739.555	245.537	bb			254.0560	101.6	1.6	546.1
246066006	26-dinitrotoluene	182 > 152			23905.910			MM-	08-Mar-10	11:50:59				
246066006	24-dinitrotoluene	182 > 152			23905.910			MM-	08-Mar-10	11:55:20				
246066006	26-dinitrotoluene-d3	185 > 155	17.45	23905.910		23905.910	23905.910	bb			581.3529	116.3	16.3	2056.7
246066006	2-Nitrotoluene	137 > 46			23905.910									
246066006	4-Nitrotoluene	137 > 46			23905.910									
246066006	3-Nitrotoluene	137 > 46			23905.910									
246066006	PETN	361 > 62			23905.910									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8126

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066006

Sample Amount 2

Moisture: 18.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260042.wiff

Date Analyzed: 27-FEB-10 01:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 3/1/10

Sample Name: "246066006" Sample ID: "948888[2]LER" File: "EXS02260042.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:38:07 AM

Modified: No

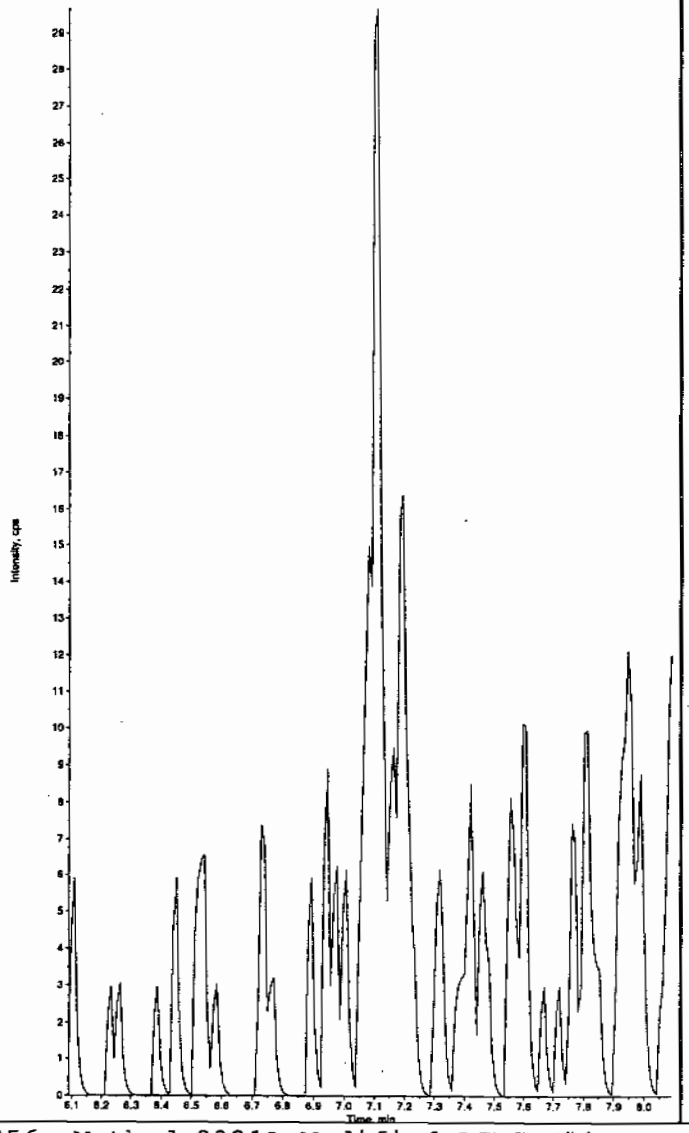

Sample Name: "246066006" Sample ID: "948888[2]LER" File: "EXS02260042.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:38:07 AM

Modified: No

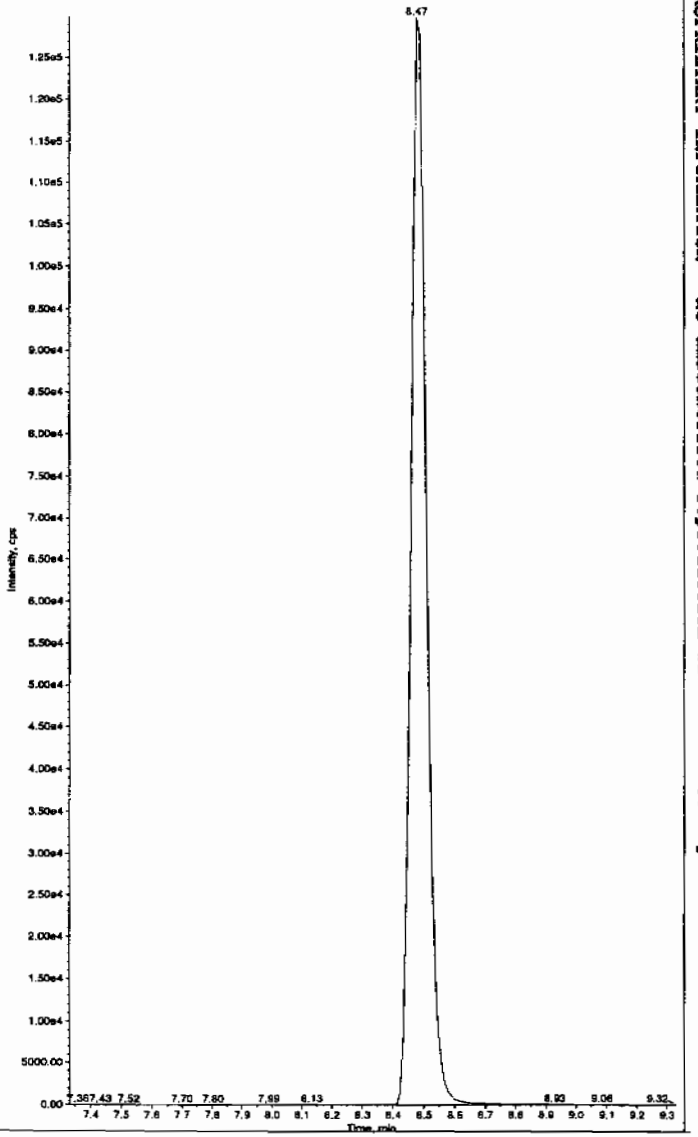

Hmm 03/01/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246066006" Sample ID: "948888|2|LER" File: "EXS02260042.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 252. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:38:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.47e+006 counts
Height: 996145.508 cps
Start Time: 8.37 min
End Time: 8.83 min

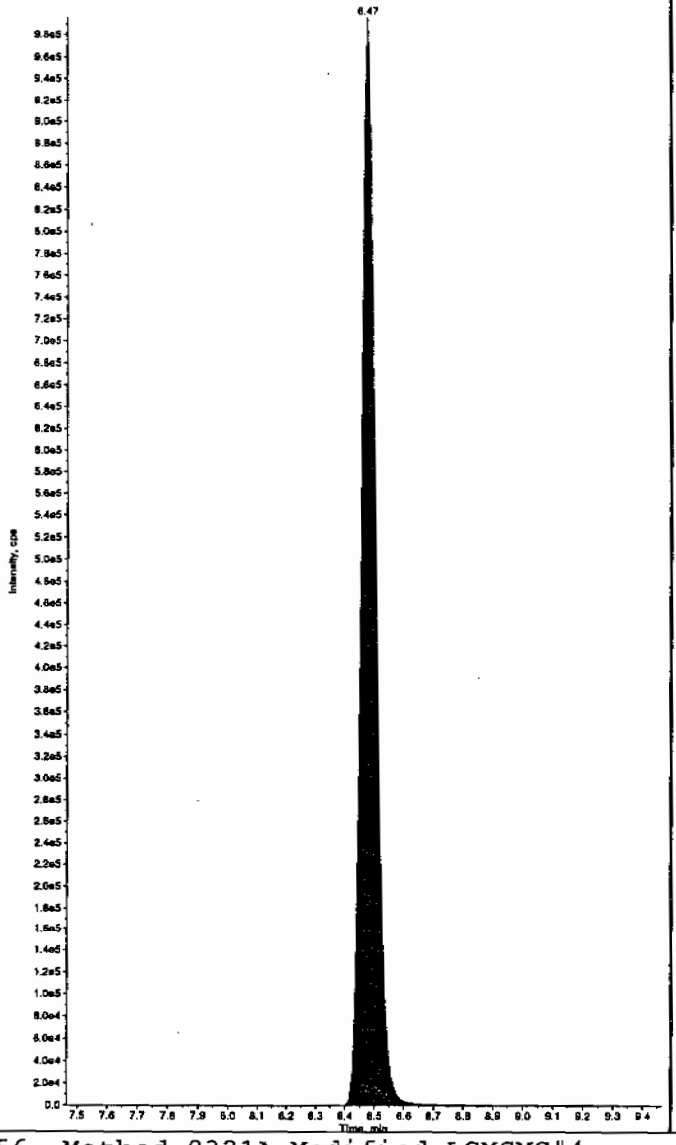

Sample Name: "246066006" Sample ID: "948888|2|LER" File: "EXS02260042.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:38:07 AM

Modified: No

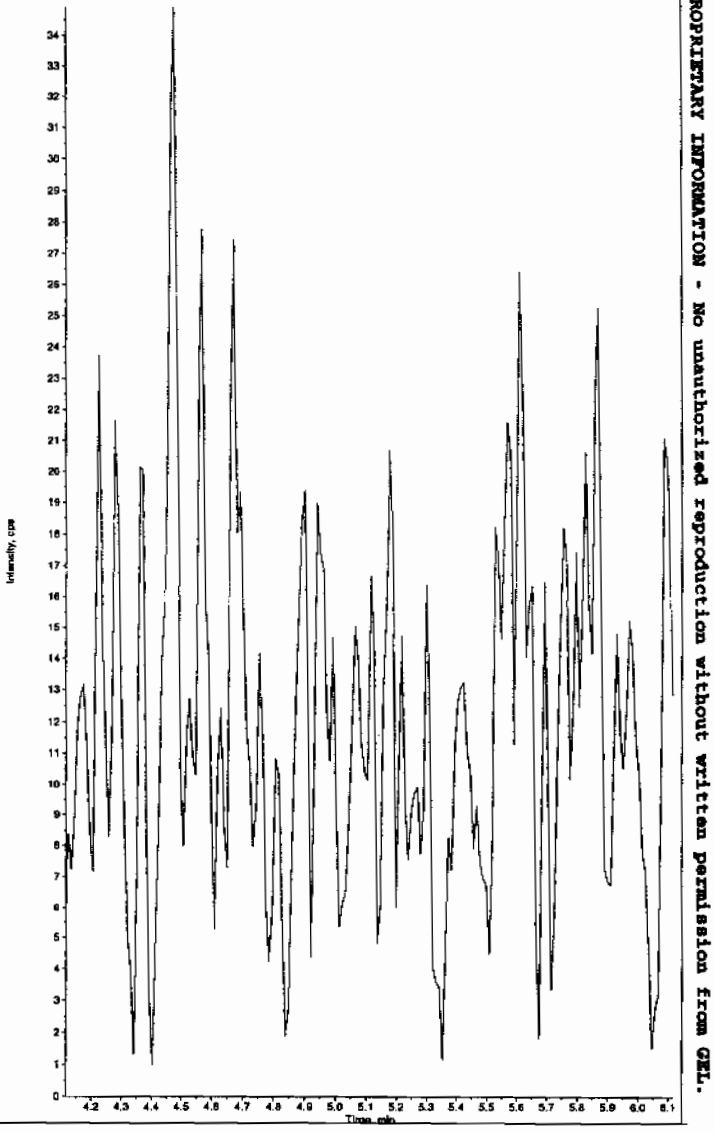

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245066006" Sample ID: "948888|2|LER" File: "EXS02260042.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:38:07 AM

Modified: No

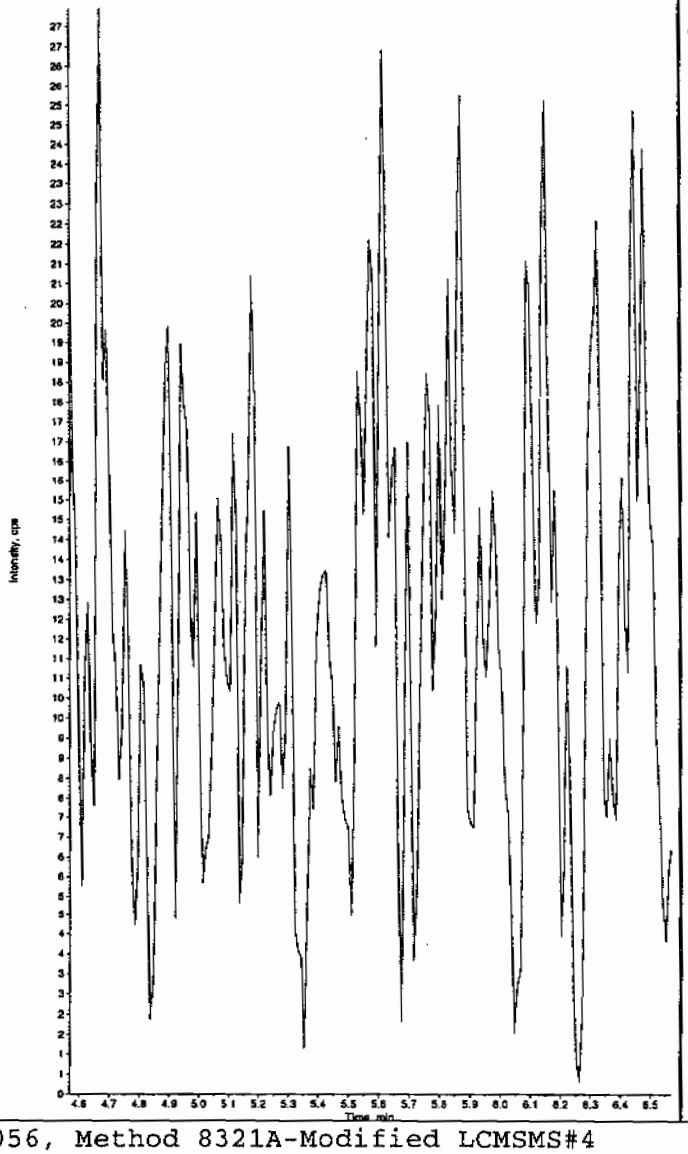

Sample Name: "245066006" Sample ID: "948888|2|LER" File: "EXS02260042.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:38:07 AM

Modified: No

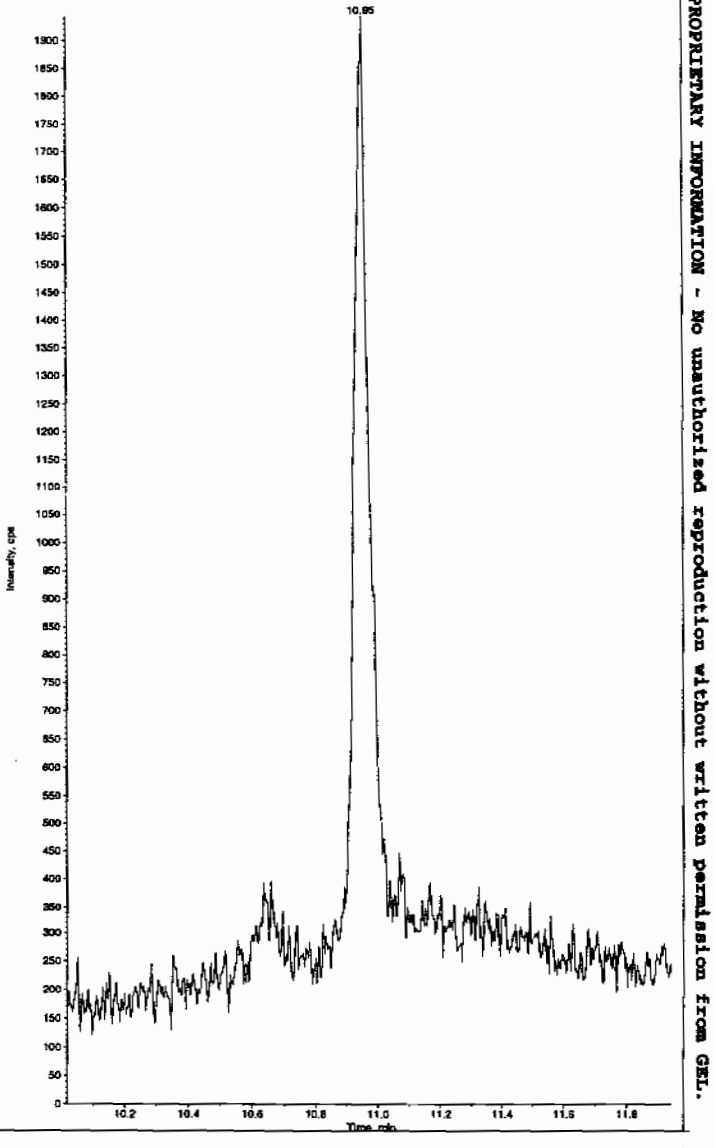

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8140

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066007

Sample Amount 2

Moisture: 13.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304162a

Date Analyzed: 07-MAR-10 22:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304162a
Date: 07-Mar-2010
Time: 22:26:28
ID: 246066007 | LANL | 948888 | Soils | 2 |
Vial: 4:2,E

MAP 3/8/10

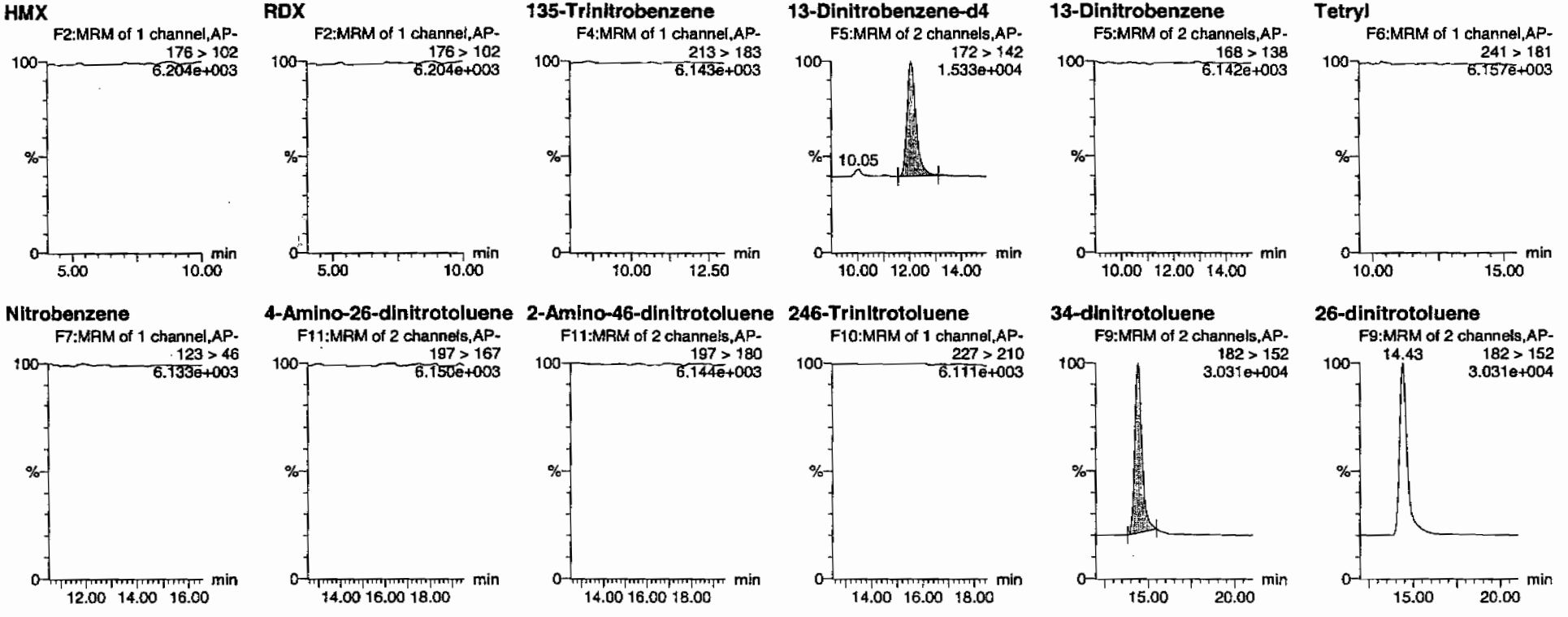

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

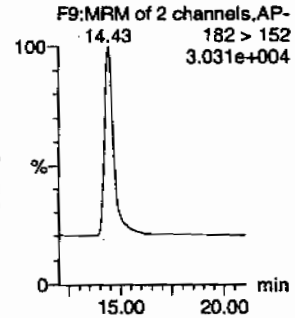

26-dinitrotoluene-d3

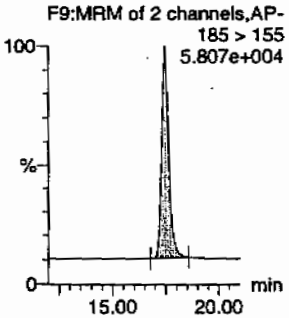

2-Nitrotoluene

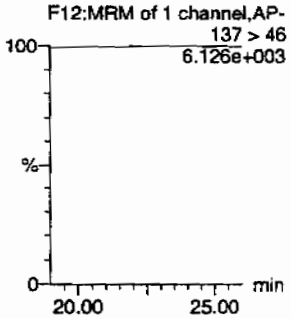

4-Nitrotoluene

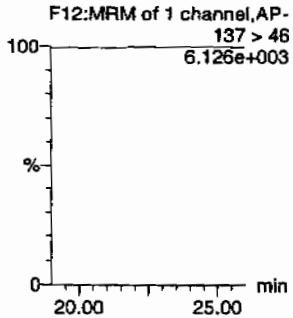

3-Nitrotoluene

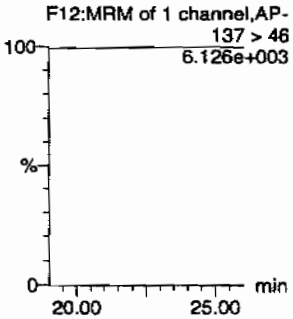

PETN

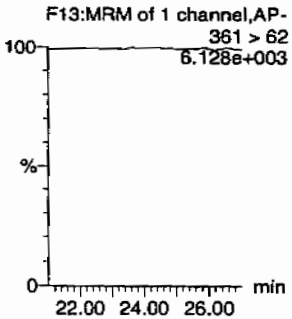

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246066007	HMX	176 > 102			3774.760									
246066007	RDX	176 > 102			3774.760									
246066007	135-Trinitrobenzene	213 > 183			3774.760									
246066007	13-Dinitrobenzene-d4	172 > 142	12.07	3774.760		3774.760	3774.760	bb			537.4412	107.5	7.5	320.1
246066007	13-Dinitrobenzene	168 > 138			3774.760									
246066007	Tetryl	241 > 181			3774.760									
246066007	Nitrobenzene	123 > 46			3774.760									
246066007	4-Amino-26-dinitrotoluene	197 > 167			20788.254									
246066007	2-Amino-46-dinitrotoluene	197 > 180			20788.254									
246066007	246-Trinitrotoluene	227 > 210			20788.254									
246066007	34-dinitrotoluene	182 > 152	14.43	11376.844	20788.254	11376.844	273.636	bb			283.1307	113.3	13.3	740.5
246066007	26-dinitrotoluene	182 > 152			20788.254									
246066007	24-dinitrotoluene	182 > 152			20788.254									
246066007	26-dinitrotoluene-d3	185 > 155	17.47	20788.254		20788.254	20788.254	bb			505.5366	101.1	1.1	1458.2
246066007	2-Nitrotoluene	137 > 46			20788.254									
246066007	4-Nitrotoluene	137 > 46			20788.254									
246066007	3-Nitrotoluene	137 > 46			20788.254									
246066007	PETN	361 > 62			20788.254									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8140

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066007

Sample Amount 2

Moisture: 13.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260043.wiff

Date Analyzed: 27-FEB-10 01:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ker 3/1/10

Sample Name: "246066007" Sample ID: "948888|2|LER" File: "EXS02260043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:53:49 AM

Modified: No

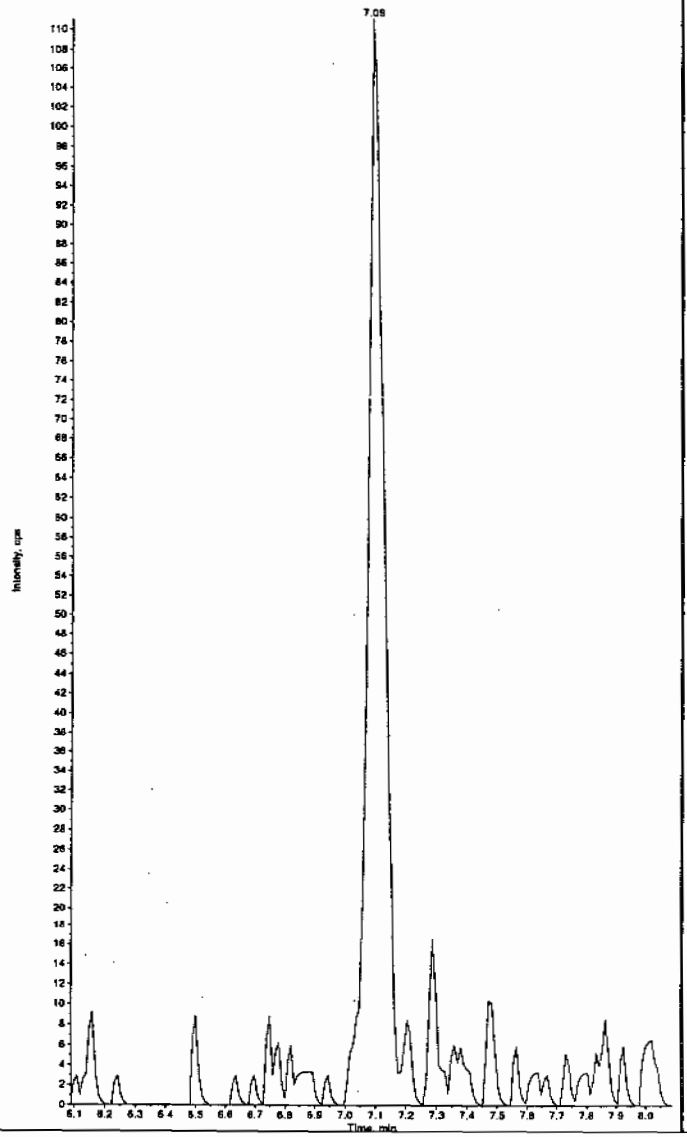

Sample Name: "246066007" Sample ID: "948888|2|LER" File: "EXS02260043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:53:49 AM

Modified: No

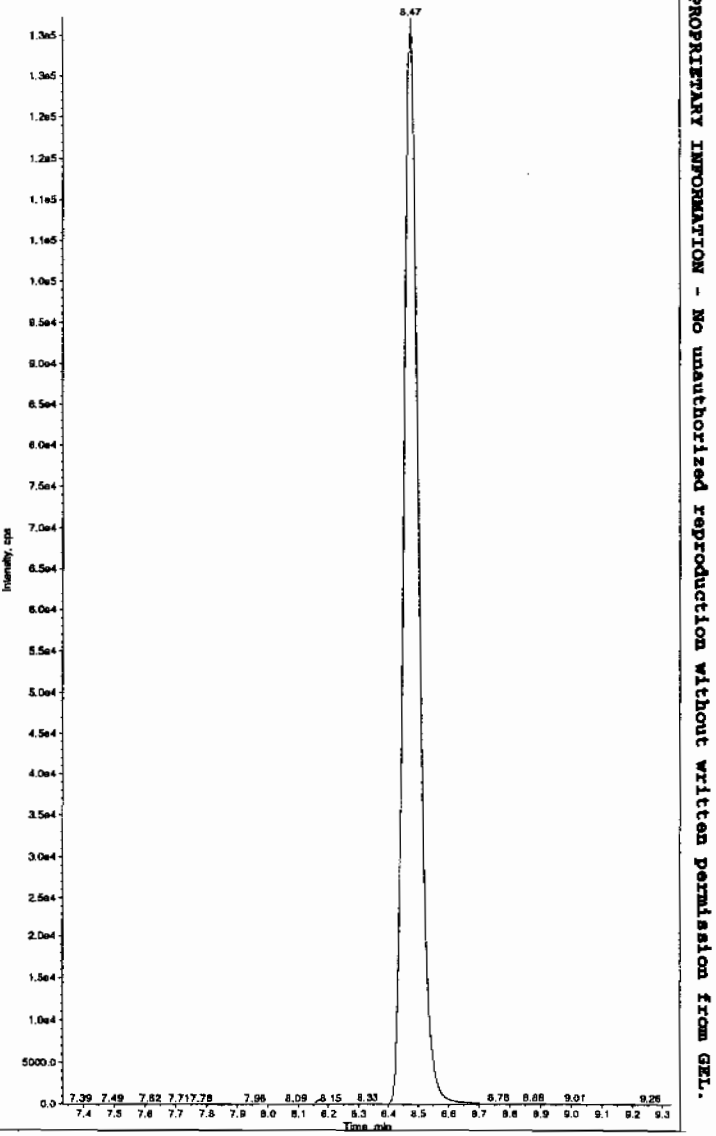

HMM 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066007" Sample ID: "948888|2|LER" File: "EXS02260043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 253. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:53:49 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.48e+006 counts
Height: 967510.254 cps
Start Time: 8.37 min
End Time: 8.83 min

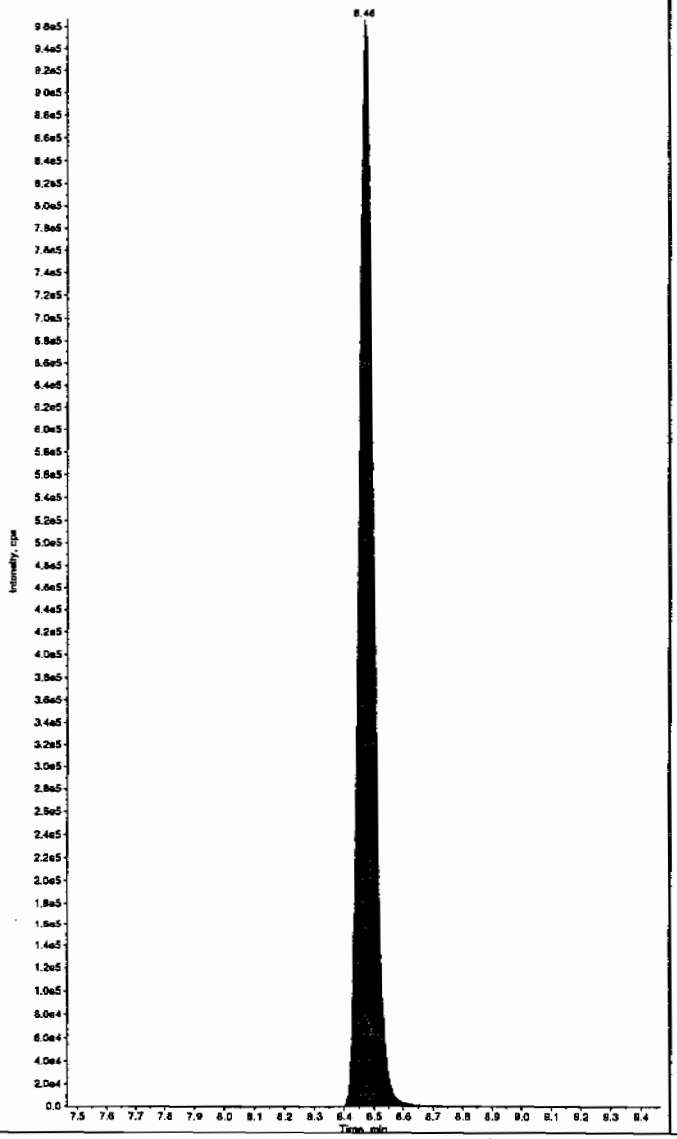

Sample Name: "246066007" Sample ID: "948888|2|LER" File: "EXS02260043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:53:49 AM

Modified: No

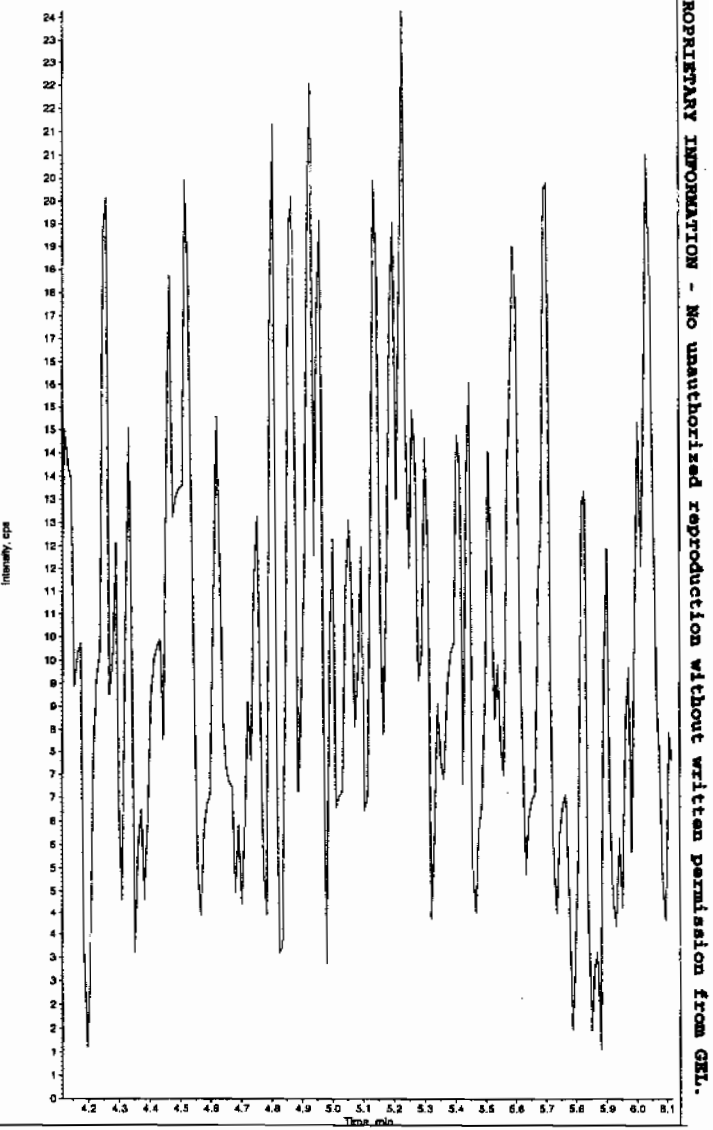

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246066007" Sample ID: "948888|2|LER" File: "EXS02260043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/[illegible].0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:53:49 AM

Modified: No

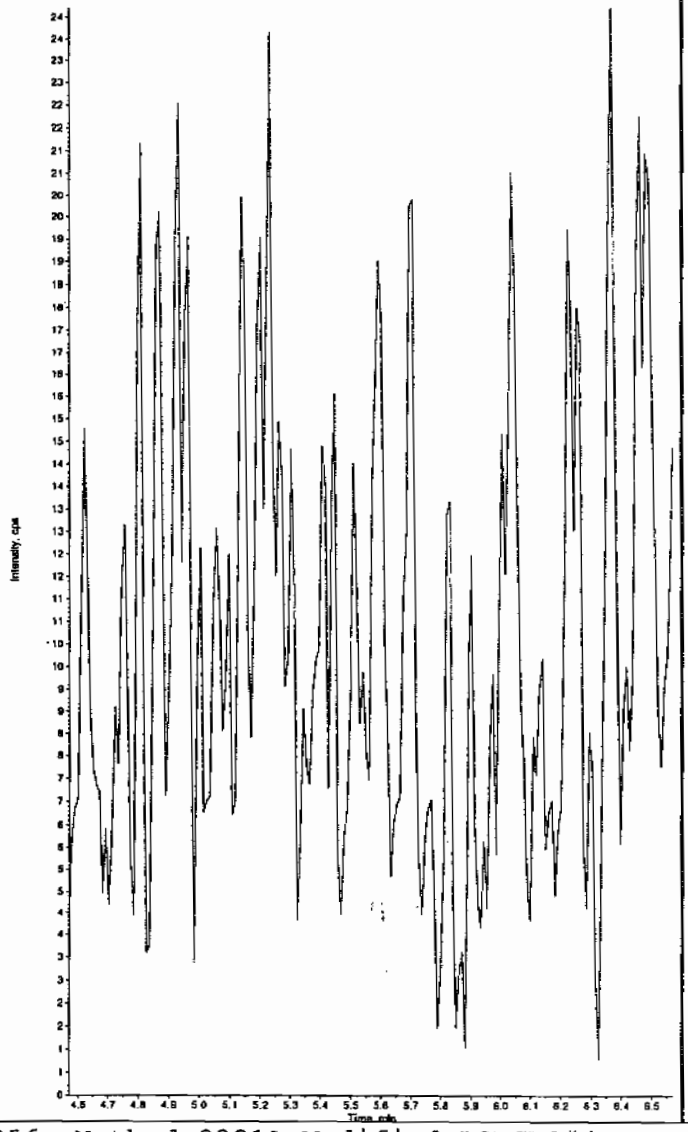

Sample Name: "246066007" Sample ID: "948888|2|LER" File: "EXS02260043.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:53:49 AM

Modified: No

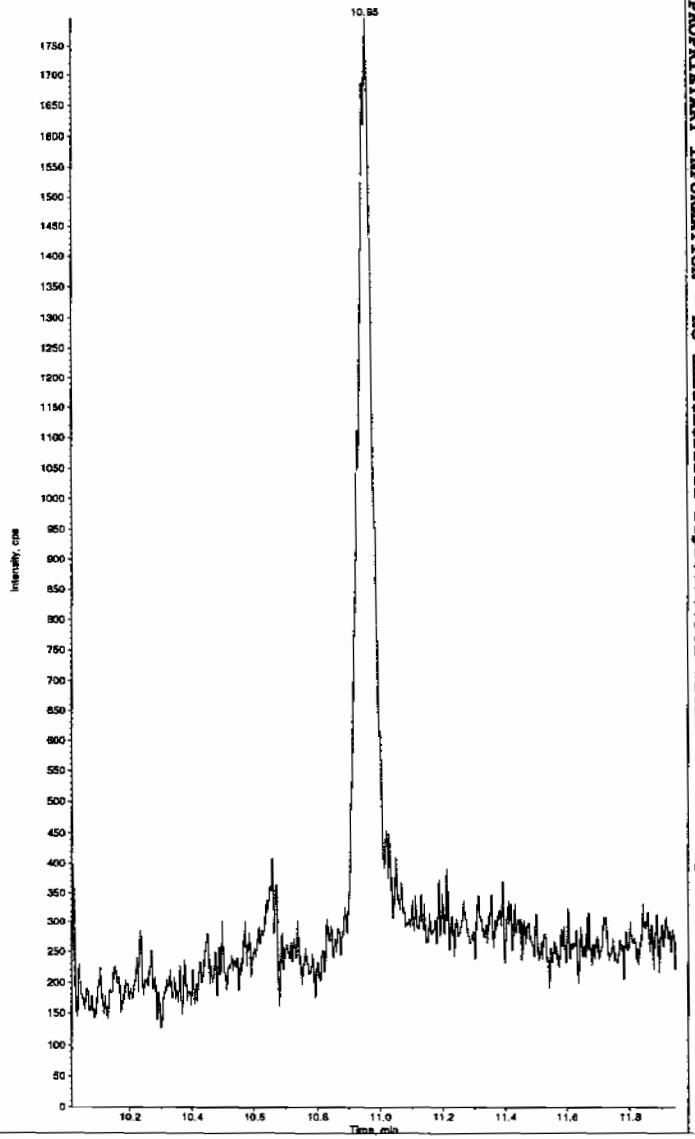

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8147

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066008

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304163a

Date Analyzed: 07-MAR-10 22:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304163a
Date: 07-Mar-2010
Time: 22:56:03
ID: 246066008 | LANU | 948888 | Soil | 2 |
Vial: 4:2,F

LMT 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.085e+003

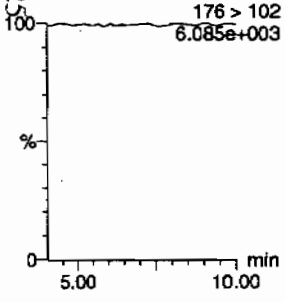

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.085e+003

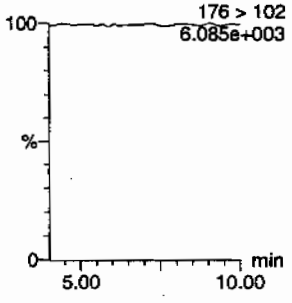

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.071e+003

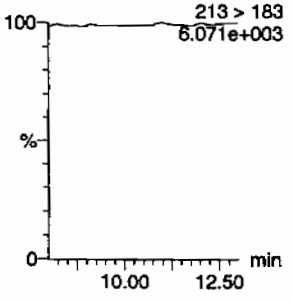

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.418e+004

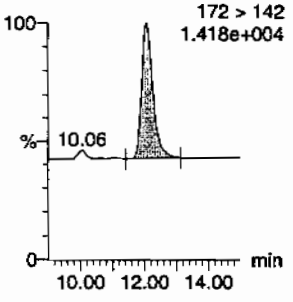

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.046e+003

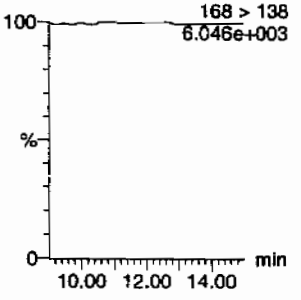

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.099e+003

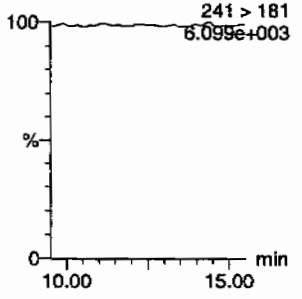

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.068e+003

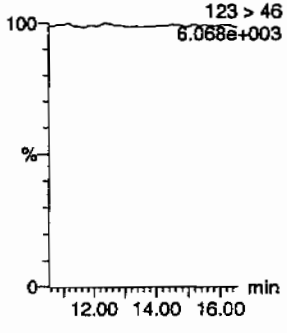

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.067e+003

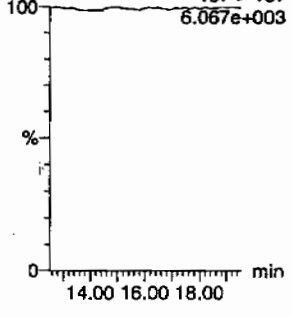

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.091e+003

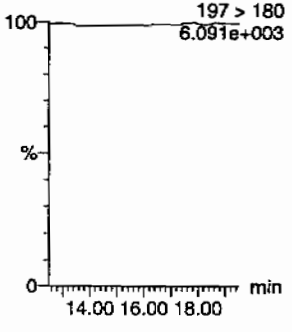

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.041e+003

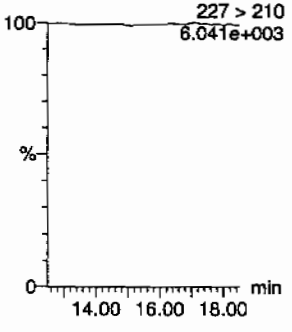

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.847e+004

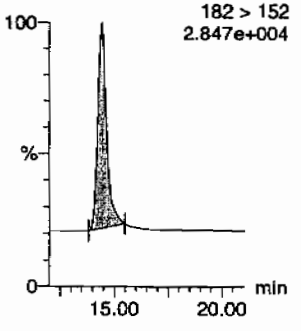

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43 182 > 152
2.847e+004

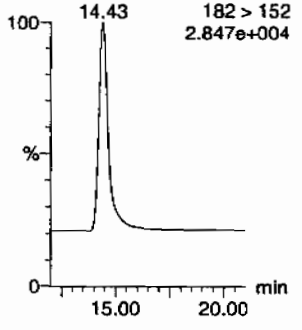

HMM 03/08/10

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

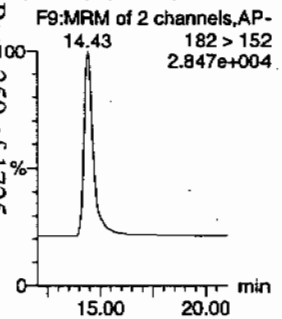

26-dinitrotoluene-d3

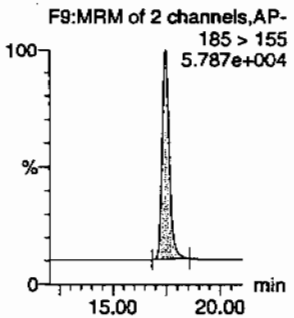

2-Nitrotoluene

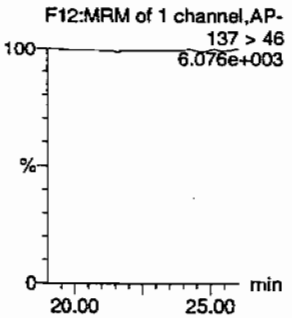

4-Nitrotoluene

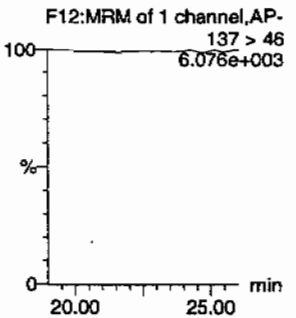

3-Nitrotoluene

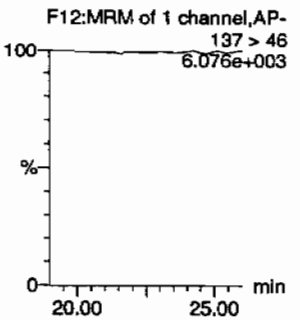

PETN

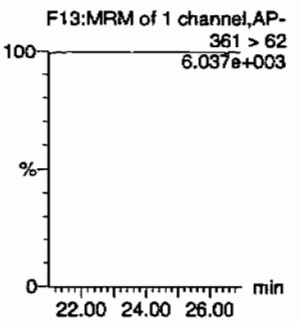

ID	Name	Trace	RT	Area	IStArea	Abs.Resp	%Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
246066008	HMX	176 > 102			3411.353									
246066008	RDX	176 > 102			3411.353									
246066008	135-Trinitrobenzene	213 > 183			3411.353									
246066008	13-Dinitrobenzene-d4	172 > 142	12.07	3411.353		3411.353	3411.353	bb			485.7002	97.1	-2.9	369.8
246066008	13-Dinitrobenzene	168 > 138			3411.353									
246066008	Tetryl	241 > 181			3411.353									
246066008	Nitrobenzene	123 > 46			3411.353									
246066008	4-Amino-26-dinitrotoluene	197 > 167			20720.215									
246066008	2-Amino-46-dinitrotoluene	197 > 180			20720.215									
246066008	246-Trinitrotoluene	227 > 210			20720.215									
246066008	34-dinitrotoluene	182 > 152	14.43	10567.420	20720.215	10567.420	255.003	bb			263.8504	105.5	5.5	442.0
246066008	26-dinitrotoluene	182 > 152			20720.215									
246066008	24-dinitrotoluene	182 > 152			20720.215									
246066008	26-dinitrotoluene-d3	185 > 155	17.47	20720.215		20720.215	20720.215	bb			503.8820	100.8	0.8	1584.4
246066008	2-Nitrotoluene	137 > 46			20720.215									
246066008	4-Nitrotoluene	137 > 46			20720.215									
246066008	3-Nitrotoluene	137 > 46			20720.215									
246066008	PETN	361 > 62			20720.215									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8147

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066008

Sample Amount 2

Moisture: 36.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260044.wiff

Date Analyzed: 27-FEB-10 02:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lur 3/1/10

Sample Name: "246066008" Sample ID: "948888[2]LER" File: "EXS02260044.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:09:31 AM

Modified: No

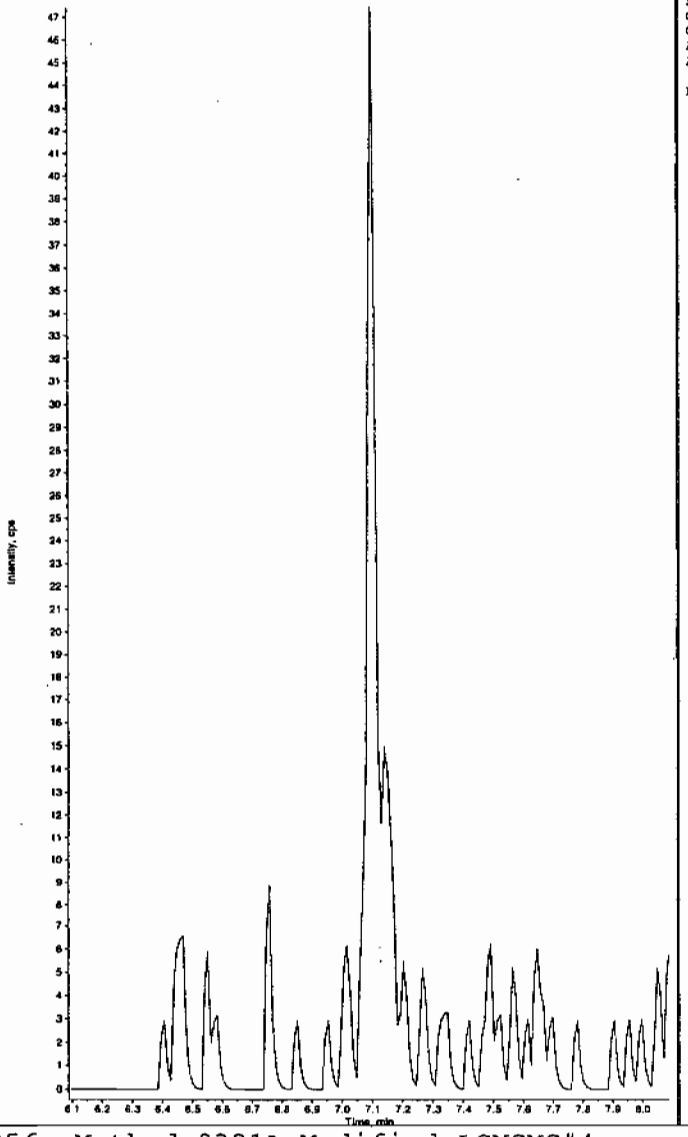

Sample Name: "246066008" Sample ID: "948888[2]LER" File: "EXS02260044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:09:31 AM

Modified: No

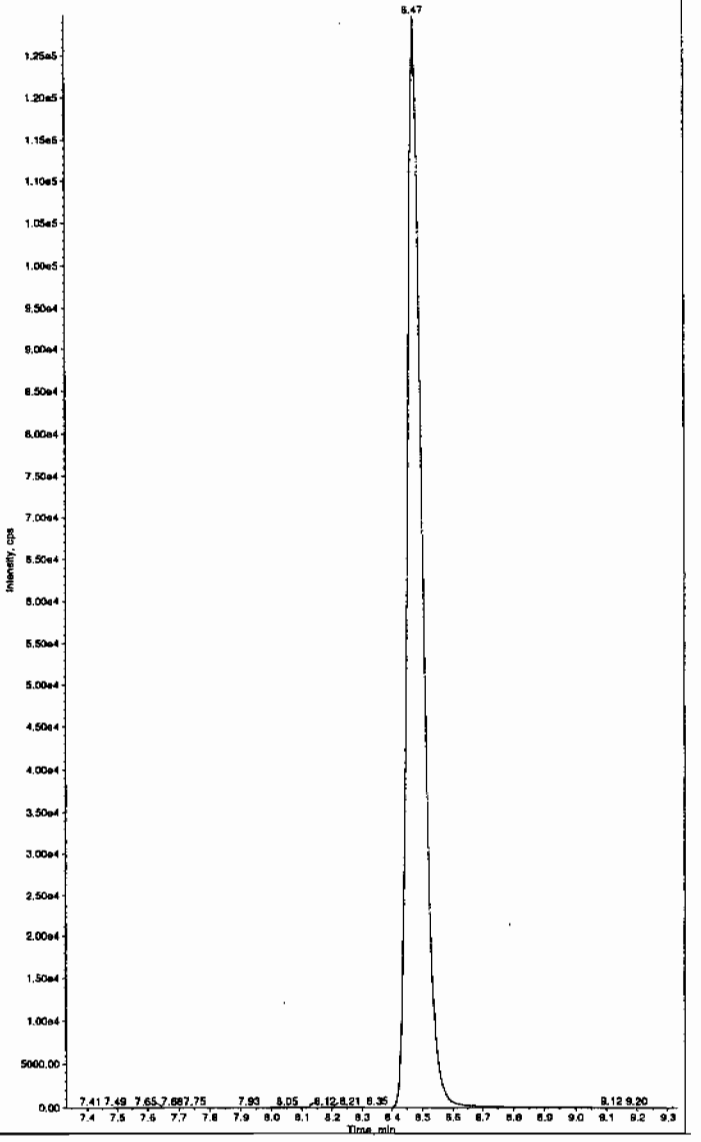

HMM 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066008" Sample ID: "948888|2|LER" File: "EXS02260044.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 244. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:09:31 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.36e+006 counts
Height: 943790.833 cps
Start Time: 8.38 min
End Time: 8.84 min

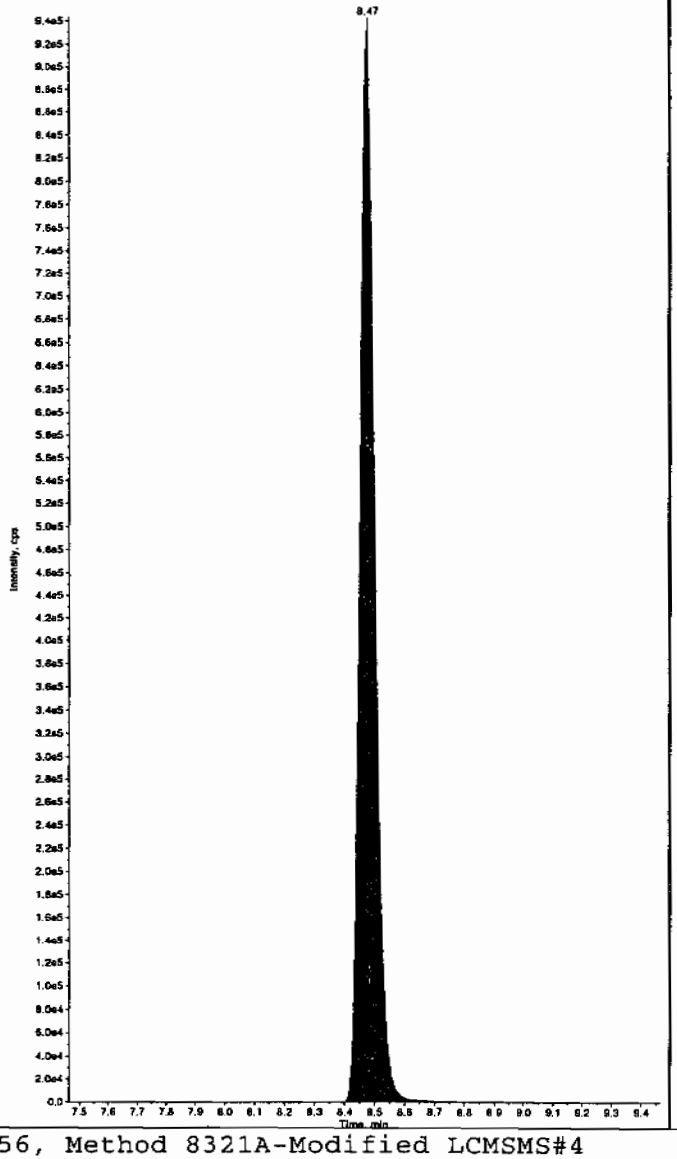

Sample Name: "246066008" Sample ID: "948888|2|LER" File: "EXS02260044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:09:31 AM

Modified: No

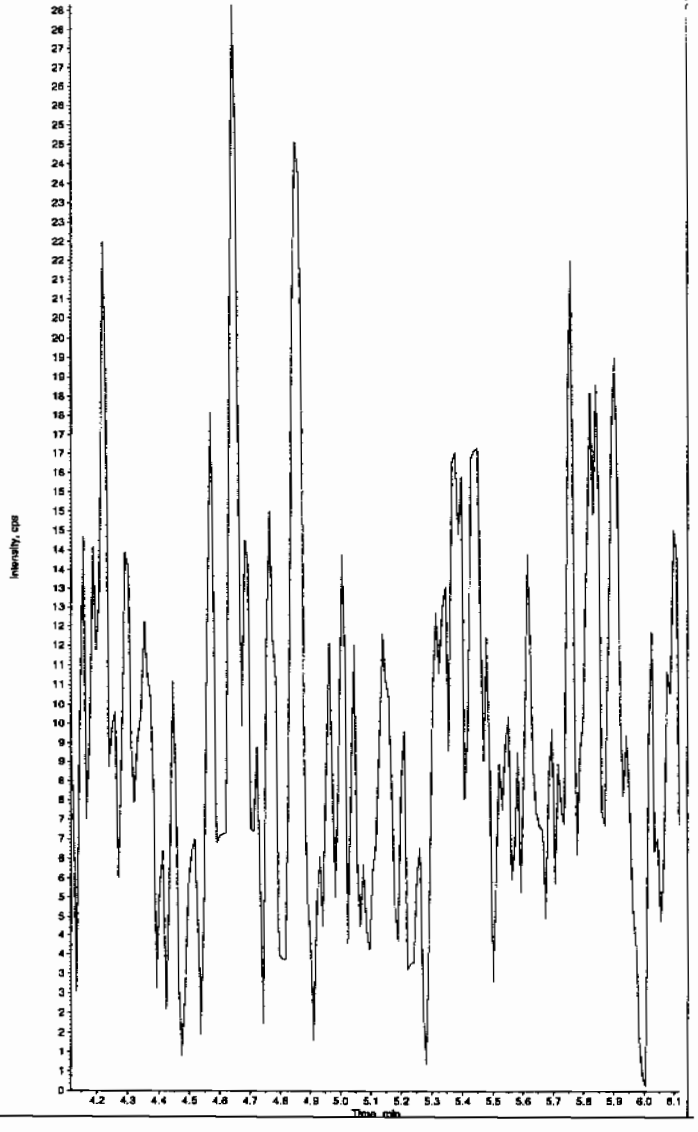

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246066008" Sample ID: "948868|2|LER" File: "EXS02260044.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:09:31 AM

Modified: No

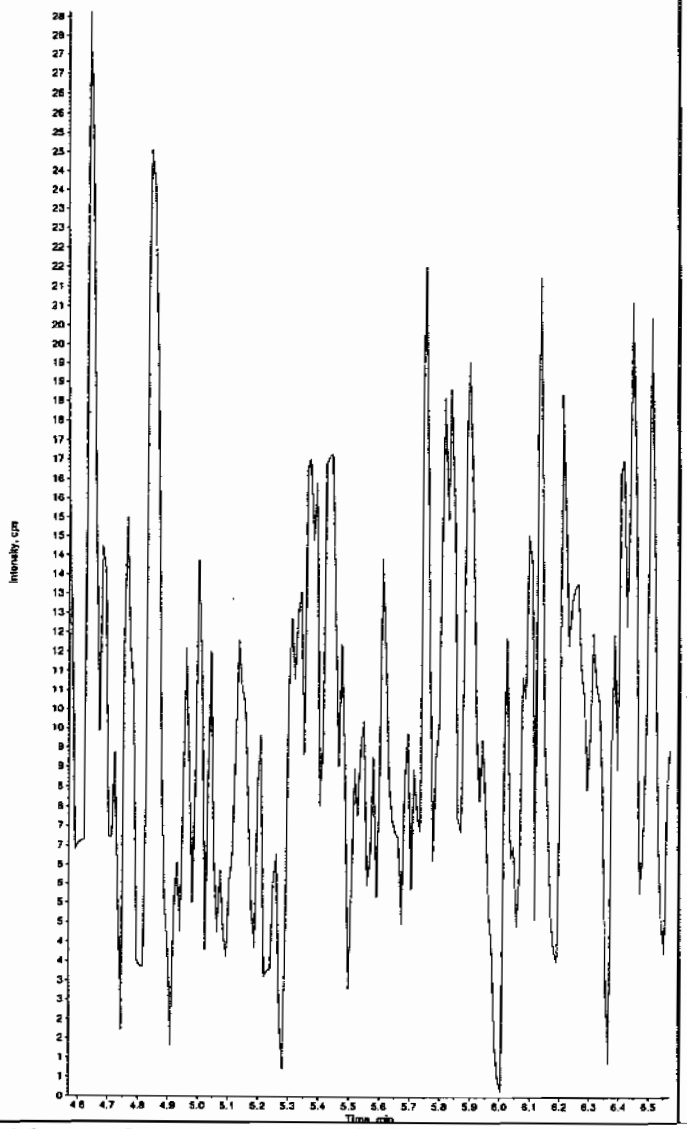

Sample Name: "246066008" Sample ID: "948868|2|LER" File: "EXS02260044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:09:31 AM

Modified: No

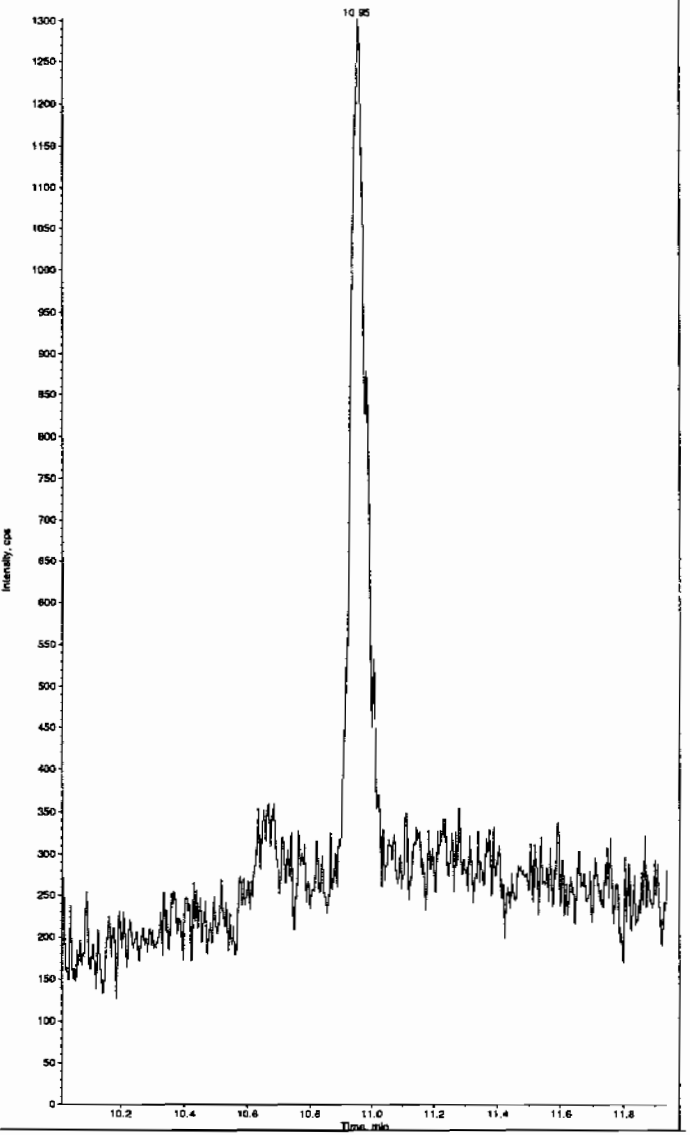

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8142

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066009

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304164a

Date Analyzed: 07-MAR-10 23:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304164a
Date: 07-Mar-2010
Time: 23:25:30
ID: 246066009 | LANL | 943888 | Soil | 2 |
Vial: 4:3,A

MM 3/8/10

Page 66 of 125

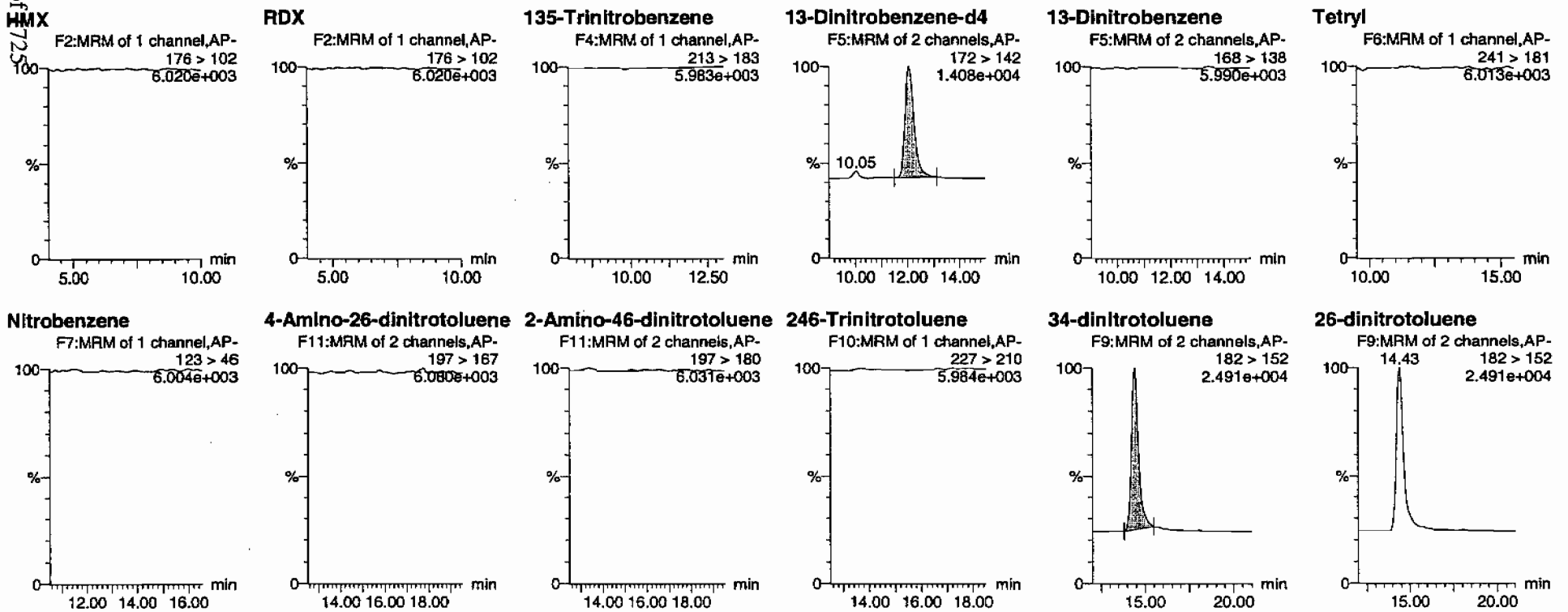

HMK 03/08/10

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

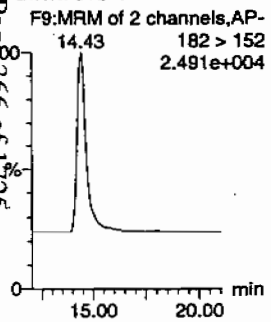

26-dinitrotoluene-d3

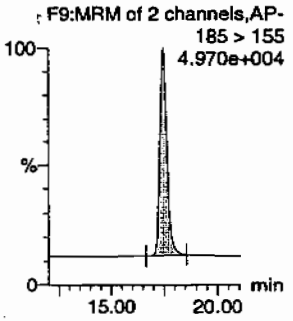

2-Nitrotoluene

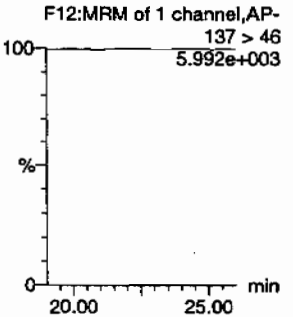

4-Nitrotoluene

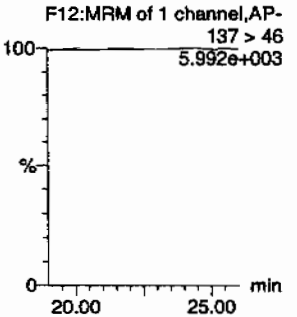

3-Nitrotoluene

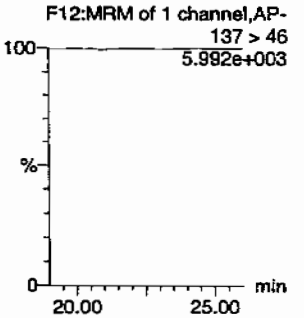

PETN

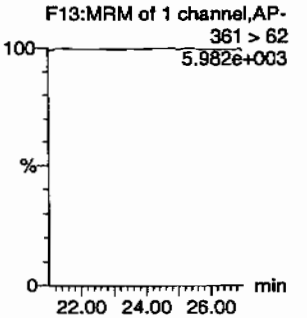

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/ml	%Rec	%Dev	S/N
246066009	HMX	176 > 102			3296.671									
246066009	RDX	176 > 102			3296.671									
246066009	135-Trinitrobenzene	213 > 183			3296.671									
246066009	13-Dinitrobenzene-d4	172 > 142	12.07	3296.671		3296.671	3296.671	bb			469.3721	93.9	-6.1	446.8
246066009	13-Dinitrobenzene	168 > 138			3296.671									
246066009	Tetryl	241 > 181			3296.671									
246066009	Nitrobenzene	123 > 46			3296.671									
246066009	4-Amino-26-dinitrotoluene	197 > 167			17344.406									
246066009	2-Amino-46-dinitrotoluene	197 > 180			17344.406									
246066009	246-Trinitrotoluene	227 > 210			17344.406									
246066009	34-dinitrotoluene	182 > 152	14.43	8857.938	17344.406	8857.938	255.354	bb			264.2143	105.7	5.7	414.2
246066009	26-dinitrotoluene	182 > 152			17344.406									
246066009	24-dinitrotoluene	182 > 152			17344.406									
246066009	26-dinitrotoluene-d3	185 > 155	17.47	17344.406		17344.406	17344.406	bb			421.7878	84.4	-15.6	771.1
246066009	2-Nitrotoluene	137 > 46			17344.406									
246066009	4-Nitrotoluene	137 > 46			17344.406									
246066009	3-Nitrotoluene	137 > 46			17344.406									
246066009	PETN	361 > 62			17344.406									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8142

Lab Code: GEI

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066009

Sample Amount 2

Moisture: 20.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260045.wiff

Date Analyzed: 27-FEB-10 02:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 3/1/10

Sample Name: "246066009" Sample ID: "948888[2]LER" File: "EXS02260045.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:25:14 AM

Modified: No

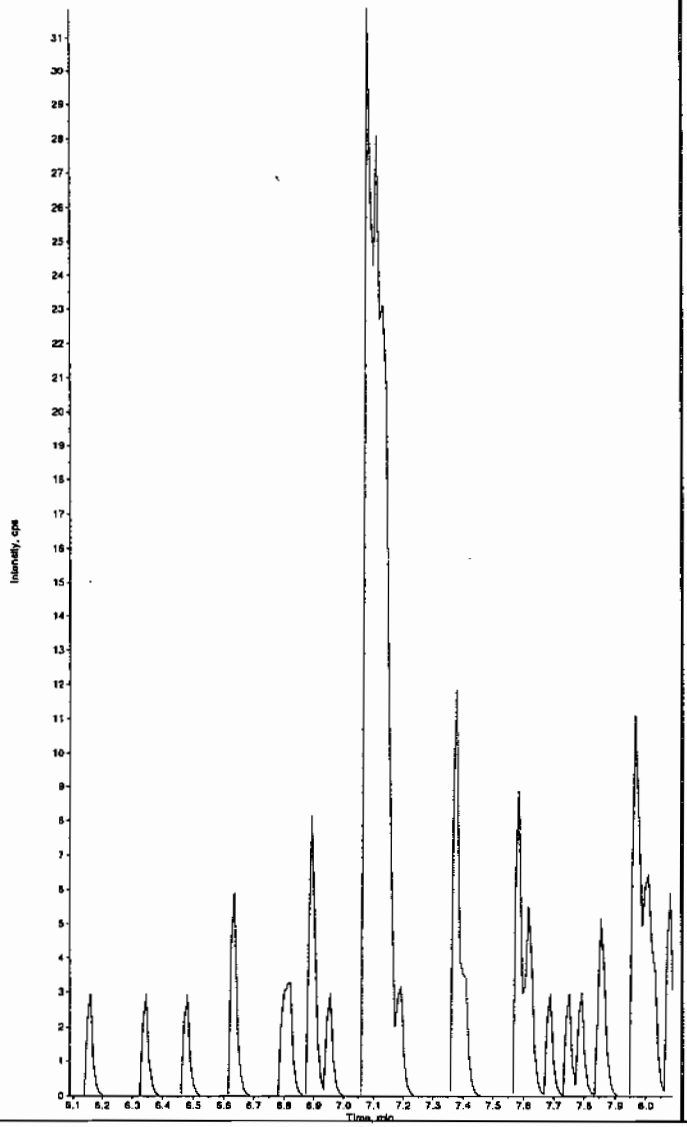

Sample Name: "246066009" Sample ID: "948888[2]LER" File: "EXS02260045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:25:14 AM

Modified: No

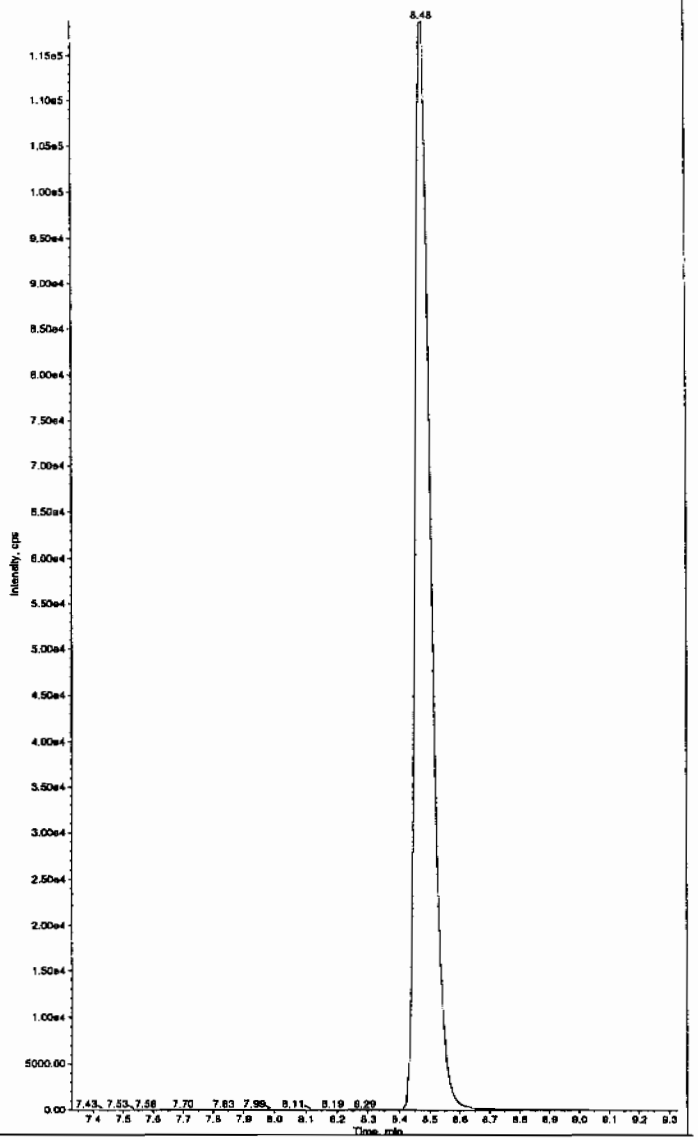

Hmr 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246066009" Sample ID: "948888|2|LER" File: "EXS02260045.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 241. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:25:14 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 1.33e+006 counts
Height: 969471.313 cps
Start Time: 8.37 min
End Time: 8.84 min

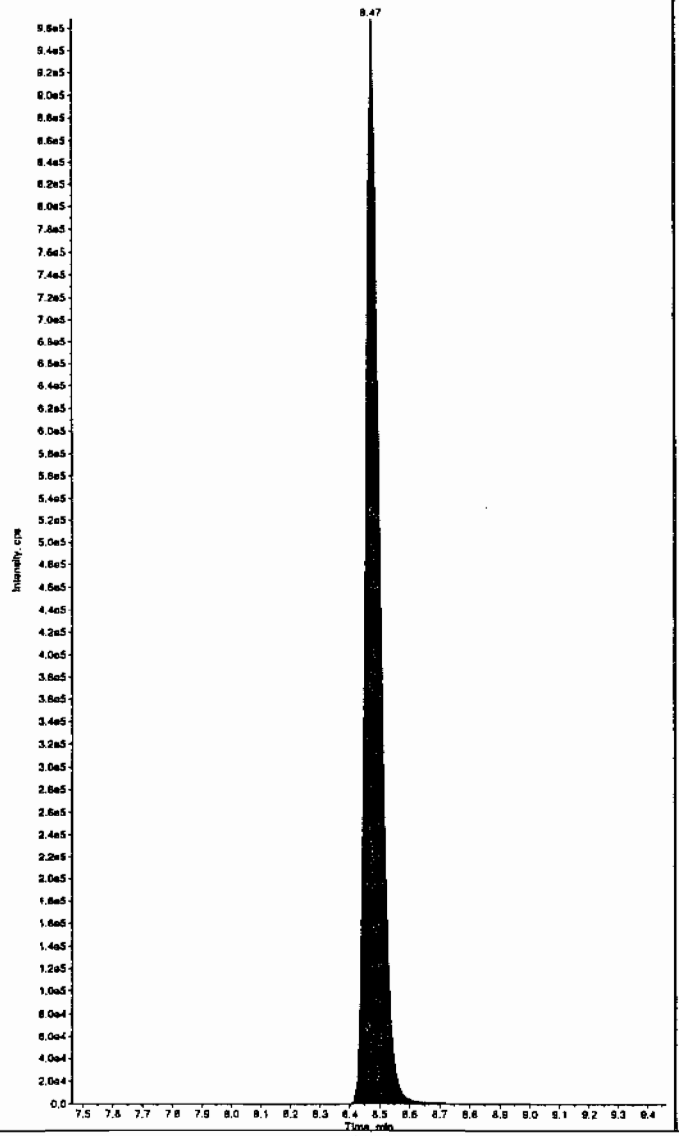

Sample Name: "246066009" Sample ID: "948888|2|LER" File: "EXS02260045.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:25:14 AM

Modified: No

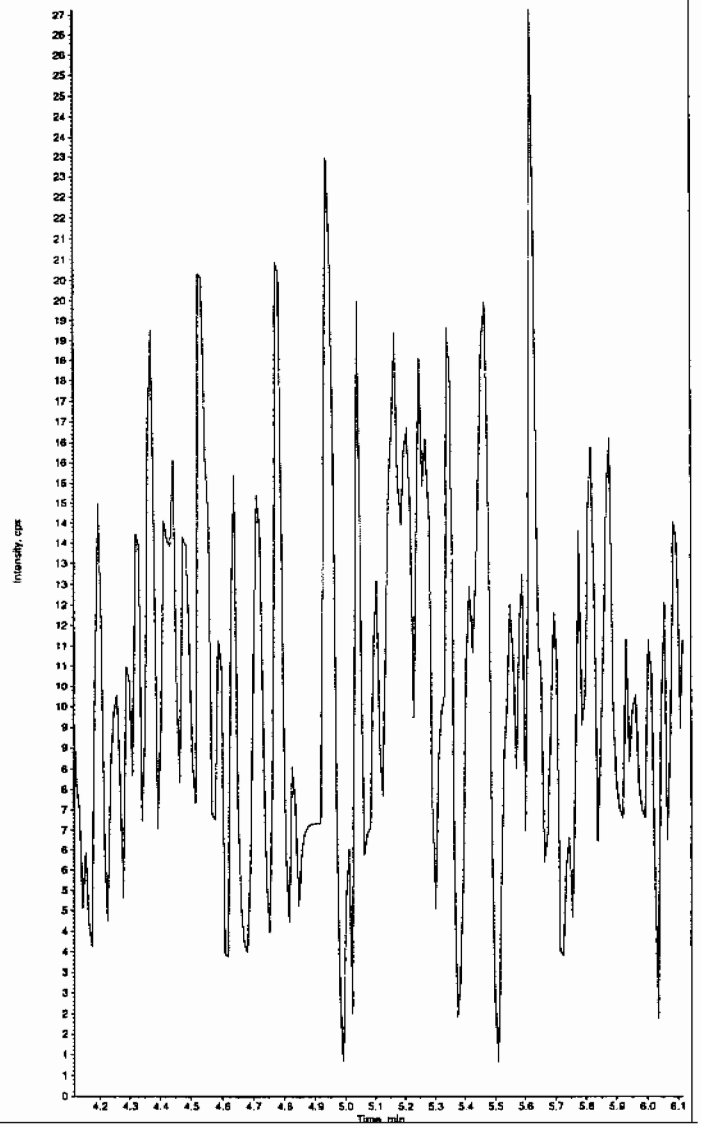

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066009" Sample ID: "948888|2|LER" File: "EXS02260045.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:25:14 AM

Modified: No

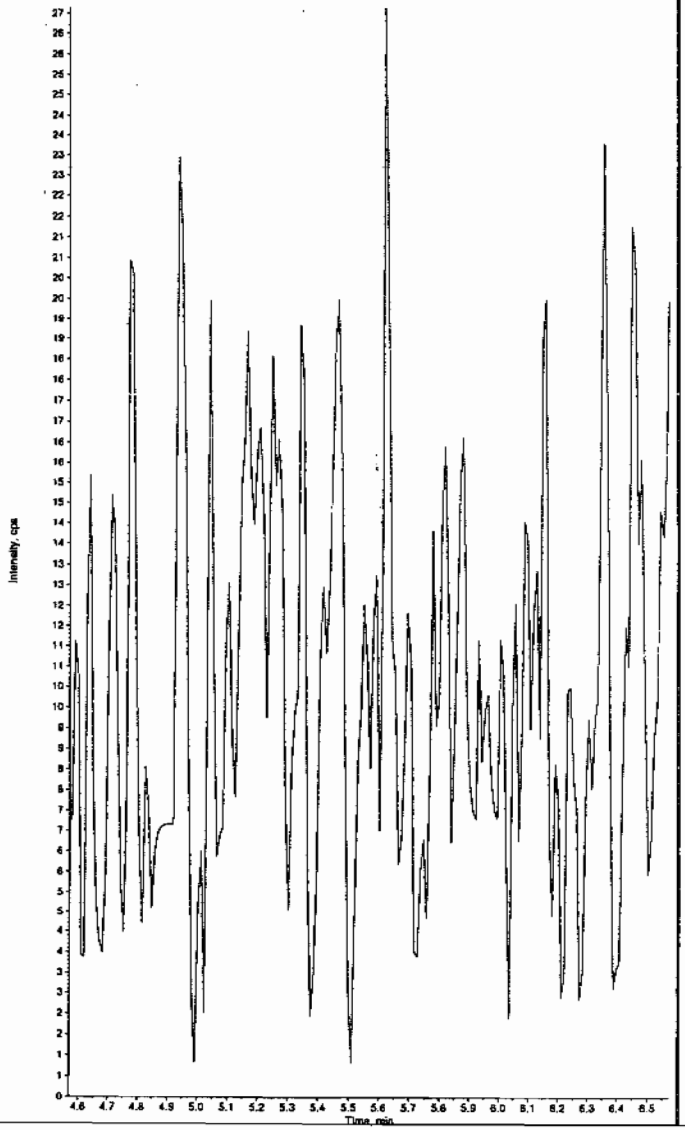

Sample Name: "246066009" Sample ID: "948888|2|LER" File: "EXS02260045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:25:14 AM

Modified: No

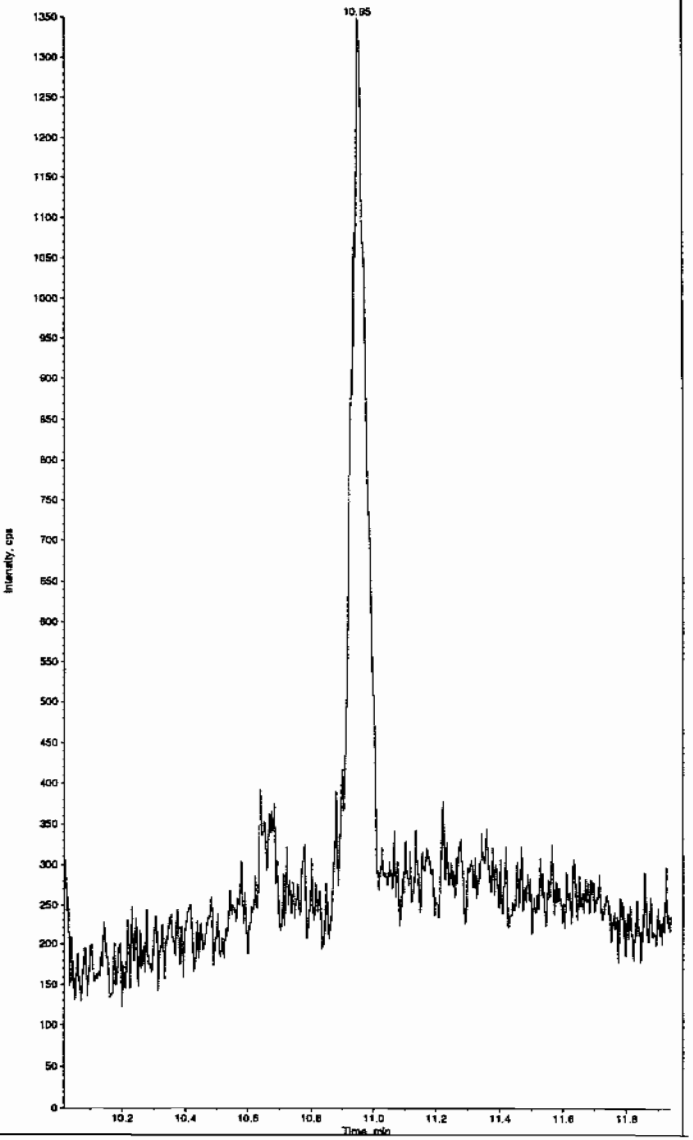

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8146

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066010

Sample Amount 2

Moisture: 17.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304165a

Date Analyzed: 07-MAR-10 23:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304165a
Date: 07-Mar-2010
Time: 23:55:00
ID: 246066010 | LANL | 940885 | SOLID | 21
Vial: 4:3,B

MM 3/8/10

HMX

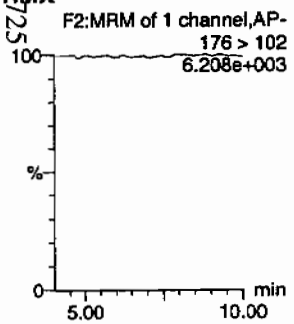

RDX

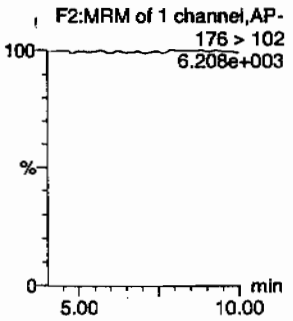

135-Trinitrobenzene

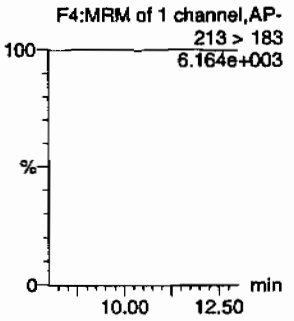

13-Dinitrobenzene-d4

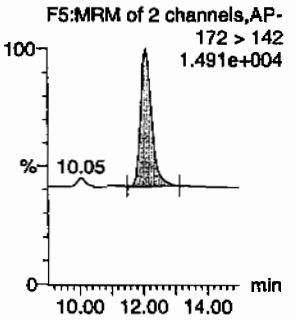

13-Dinitrobenzene

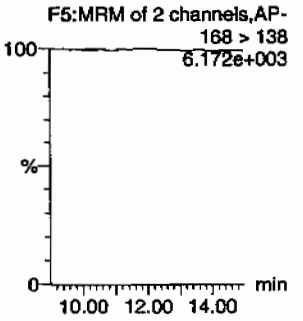

Tetryl

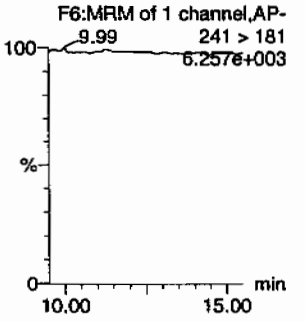

Nitrobenzene

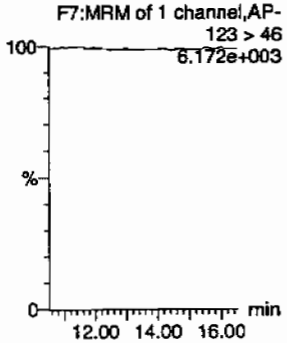

4-Amino-26-dinitrotoluene

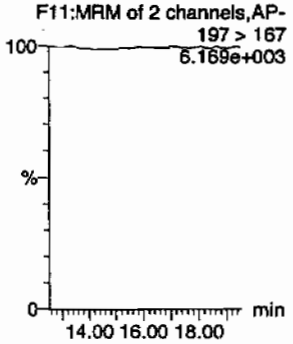

2-Amino-46-dinitrotoluene

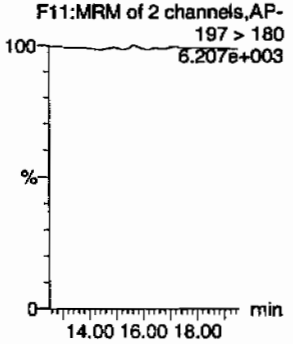

246-Trinitrotoluene

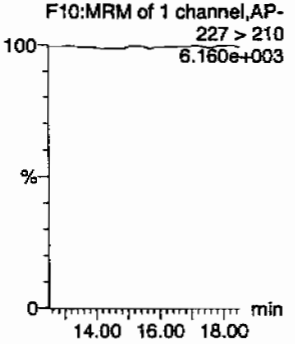

34-dinitrotoluene

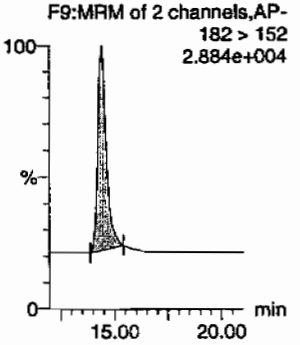

26-dinitrotoluene

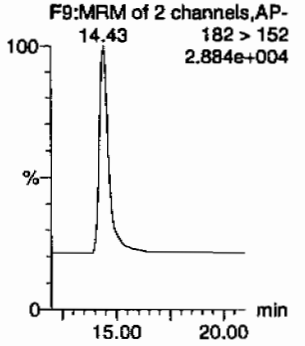

Hmm 03/08/10

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

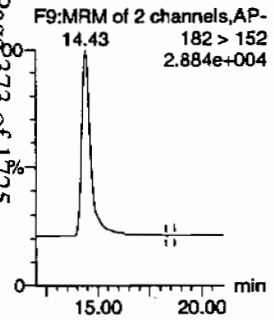

26-dinitrotoluene-d3

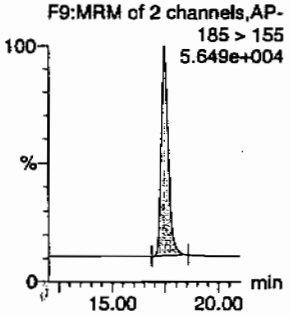

2-Nitrotoluene

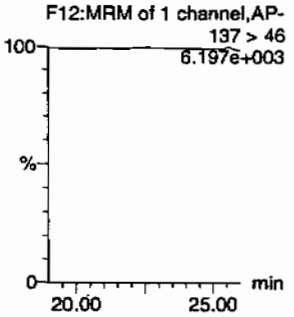

4-Nitrotoluene

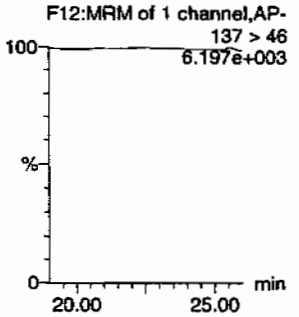

3-Nitrotoluene

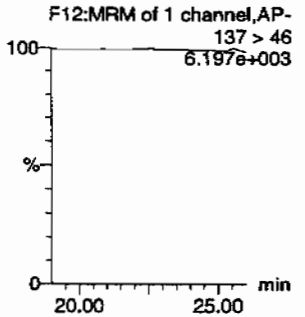

PETN

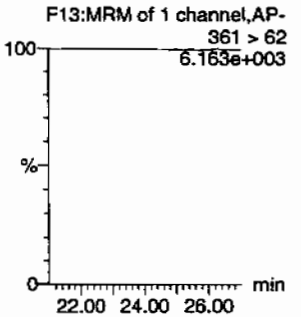

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246066010	HMX	176 > 102			3587.907									
246066010	RDX	176 > 102			3587.907									
246066010	135-Trinitrobenzene	213 > 183			3587.907									
246066010	13-Dinitrobenzene-d4	172 > 142	12.07	3587.907		3587.907	3587.907	bb			510.8375	102.2	2.2	408.4
246066010	13-Dinitrobenzene	168 > 138			3587.907									
246066010	Tetryl	241 > 181			3587.907									
246066010	Nitrobenzene	123 > 46			3587.907									
246066010	4-Amino-26-dinitrotoluene	197 > 167			20108.713									
246066010	2-Amino-46-dinitrotoluene	197 > 180			20108.713									
246066010	246-Trinitrotoluene	227 > 210			20108.713									
246066010	34-dinitrotoluene	182 > 152	14.43	10548.422	20108.713	10548.422	262.285	bb			271.3853	108.6	8.6	736.1
246066010	26-dinitrotoluene	182 > 152			20108.713									
246066010	24-dinitrotoluene	182 > 152			20108.713			MM-	08-Mar-10	11:56:10				
246066010	26-dinitrotoluene-d3	185 > 155	17.47	20108.713		20108.713	20108.713	bb			489.0113	97.8	-2.2	1241.5
246066010	2-Nitrotoluene	137 > 46			20108.713									
246066010	4-Nitrotoluene	137 > 46			20108.713									
246066010	3-Nitrotoluene	137 > 46			20108.713									
246066010	PETN	361 > 62			20108.713									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8146

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066010

Sample Amount 2

Moisture: 17.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260046.wiff

Date Analyzed: 27-FEB-10 02:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 3/1/10

Sample Name: "246066010" Sample ID: "948888[2]LER" File: "EXS02260046.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:40:56 AM

Modified: No

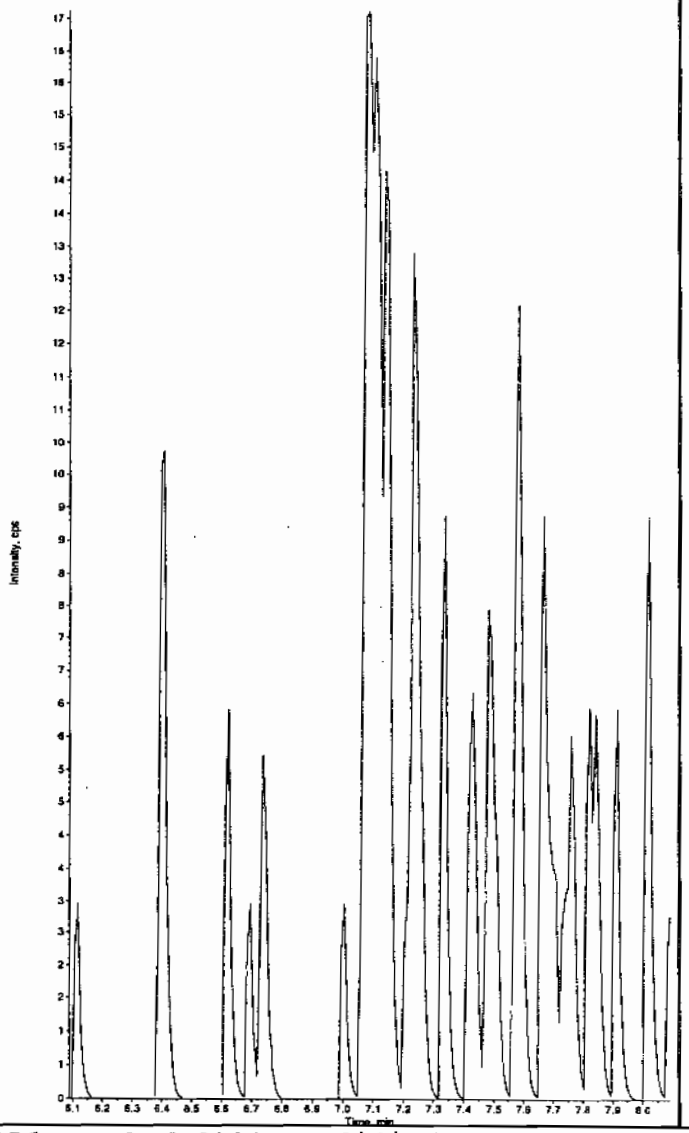

Sample Name: "246066010" Sample ID: "948888[2]LER" File: "EXS02260046.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:40:56 AM

Modified: No

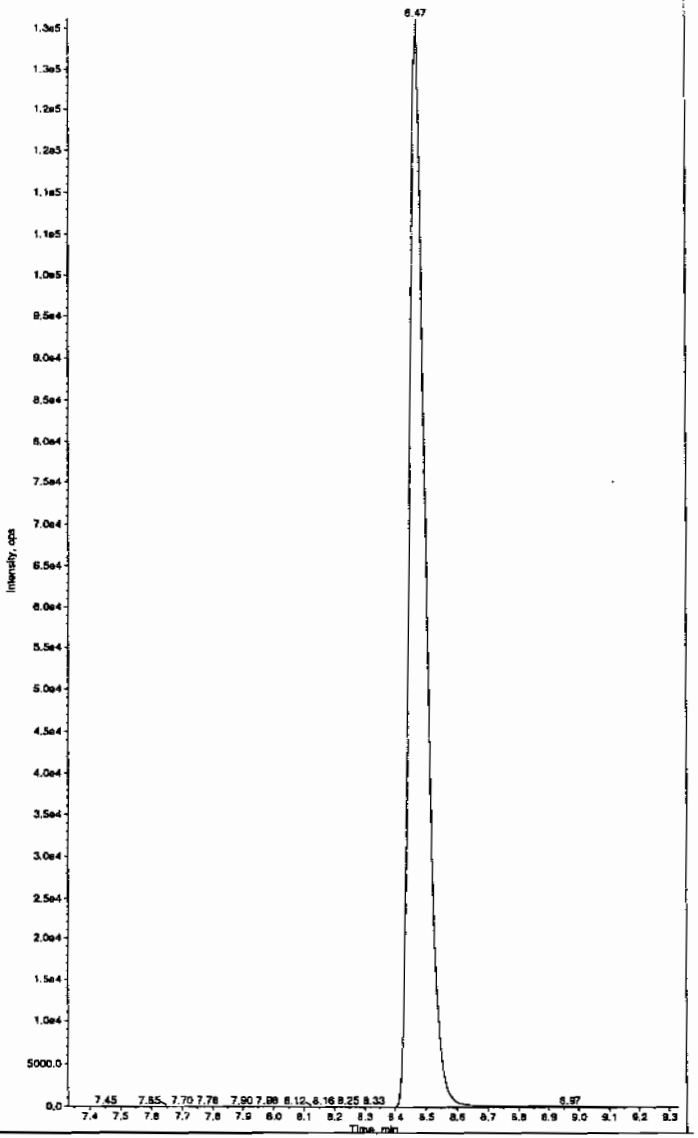

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066010" Sample ID: "948888[2]LER" File: "EXS02260045.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 266. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:40:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.64e+006 counts
Height: 1019622.437 cps
Start Time: 8.36 min
End Time: 8.84 min

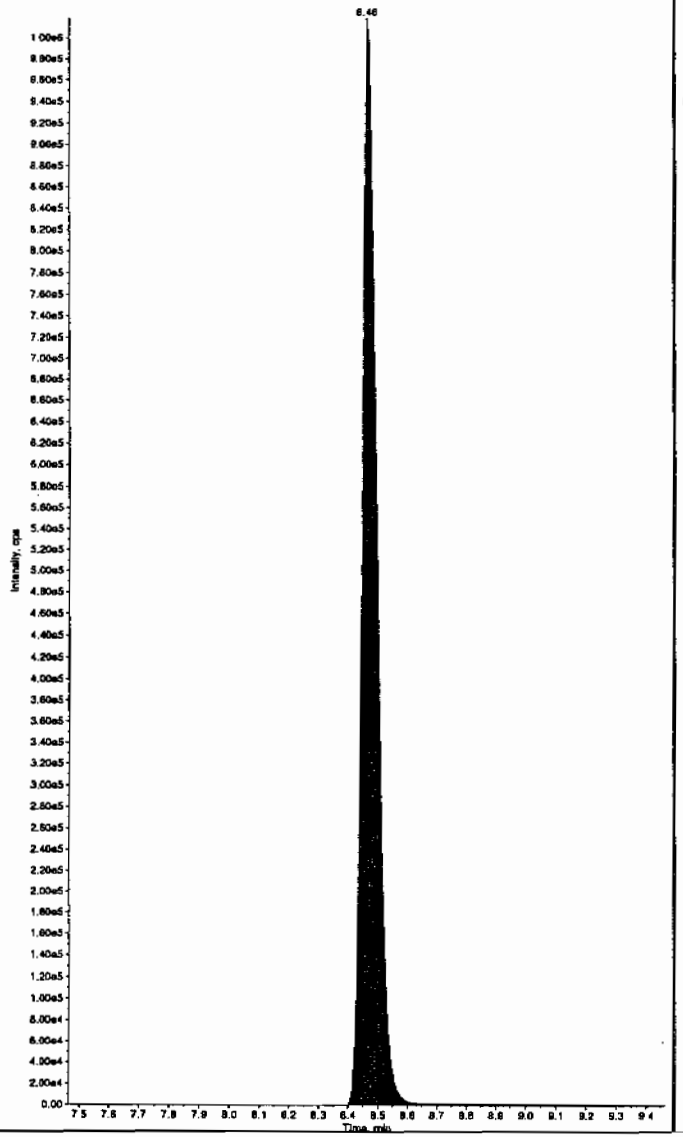

Sample Name: "246066010" Sample ID: "948888[2]LER" File: "EXS02260046.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:40:56 AM

Modified: No

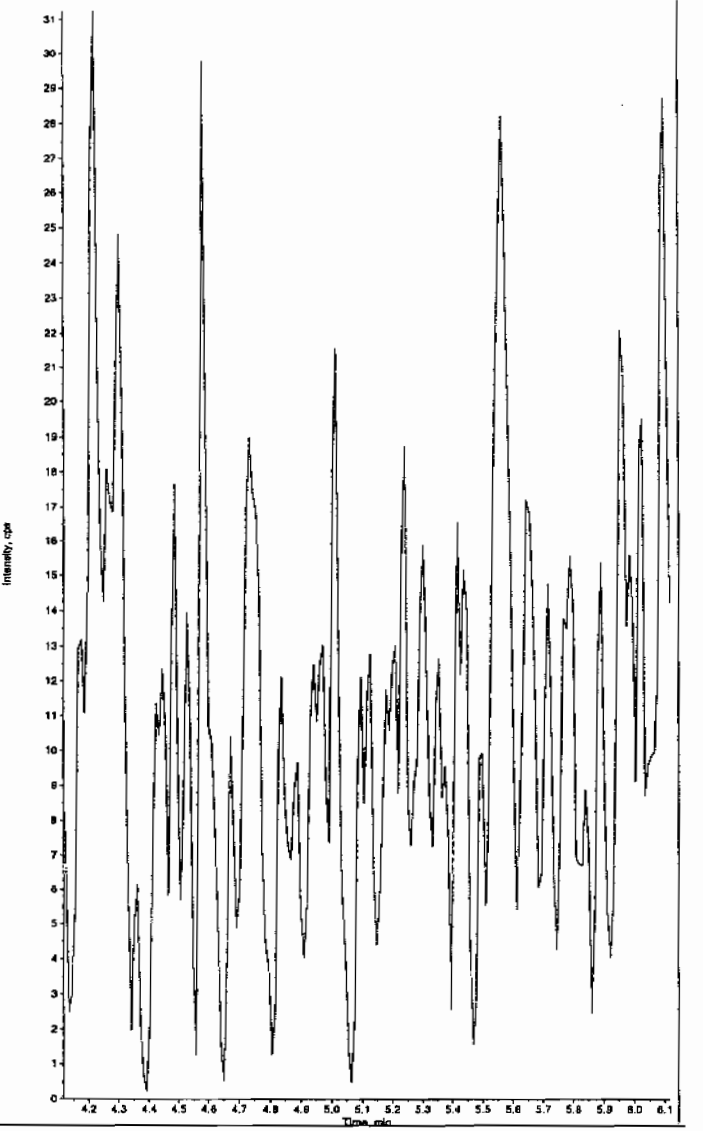

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066010" Sample ID: "948888|2|LER" File: "EXS02260046.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:40:56 AM

Modified: No

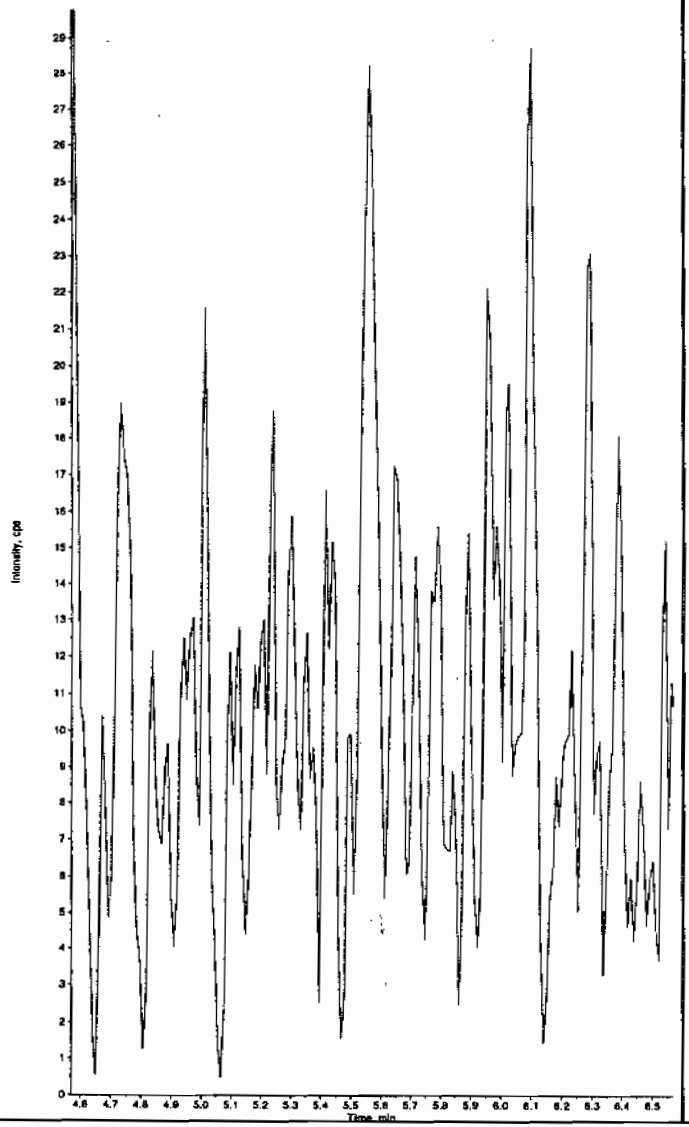

Sample Name: "246066010" Sample ID: "948888|2|LER" File: "EXS02260046.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:40:56 AM

Modified: No

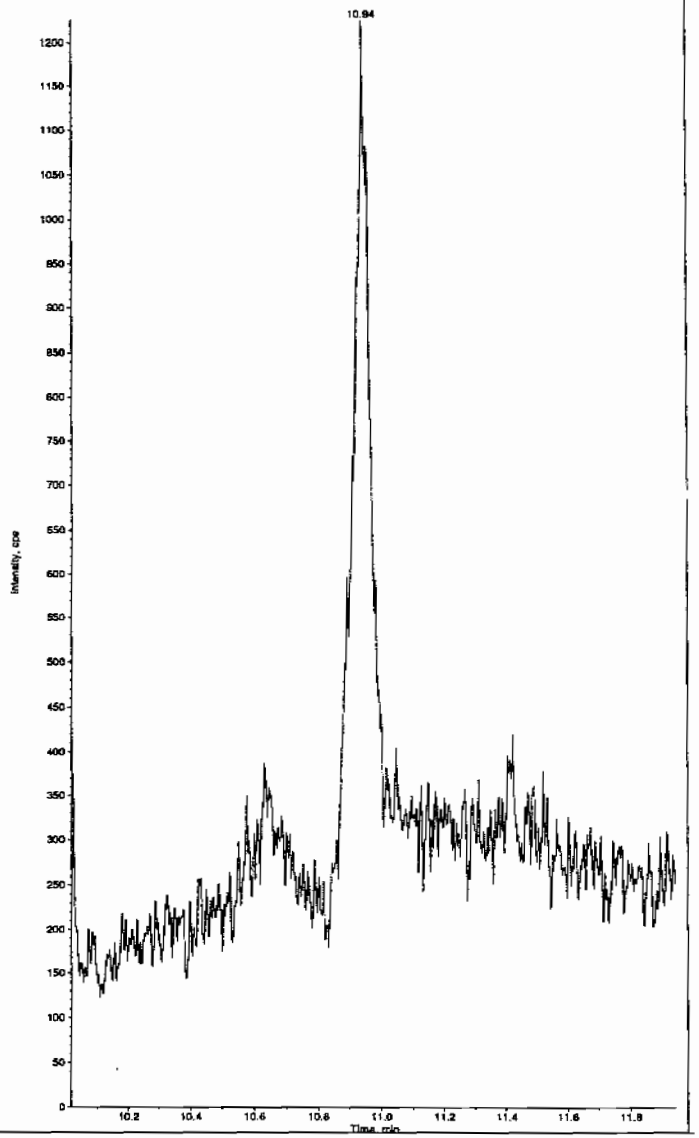

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8136

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066011

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304166a

Date Analyzed: 08-MAR-10 00:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304166a
Date: 08-Mar-2010
Time: 00:24:29
ID: 246066011 | LANL | 948888 | Soil | 21
Vial: 4:3,C

MAP 3/8/10

HMX

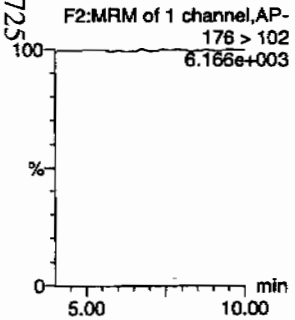

RDX

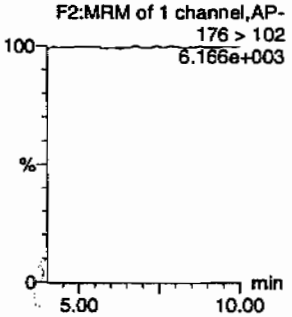

135-Trinitrobenzene

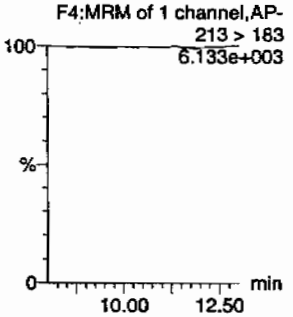

13-Dinitrobenzene-d4

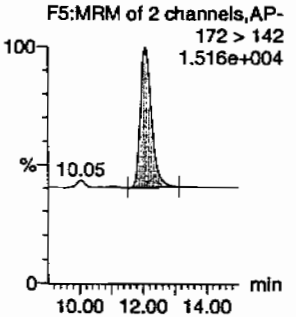

13-Dinitrobenzene

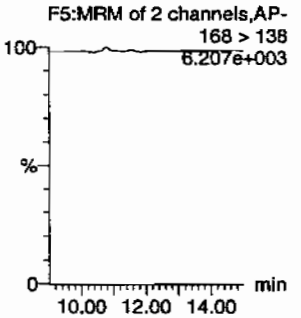

Tetryl

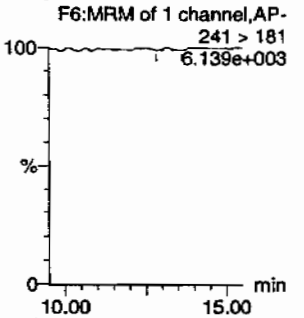

Nitrobenzene

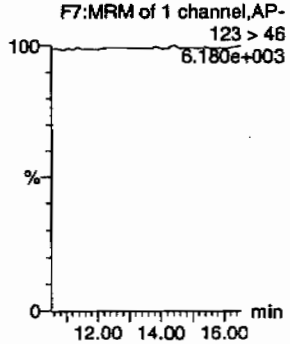

4-Amino-26-dinitrotoluene

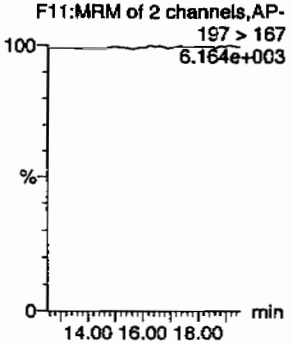

2-Amino-46-dinitrotoluene

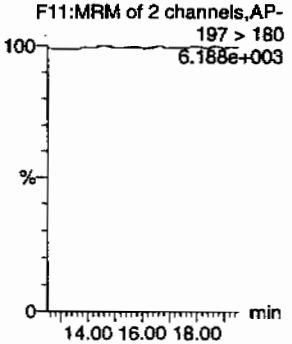

246-Trinitrotoluene

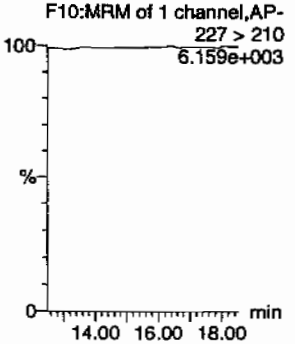

34-dinitrotoluene

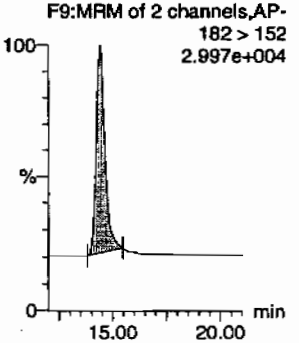

26-dinitrotoluene

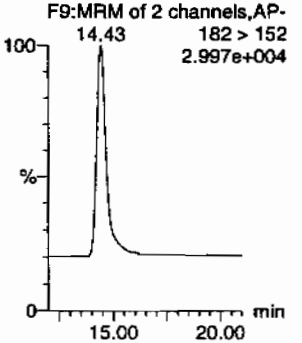

HMM 03/08/10

Page 87 of 125

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

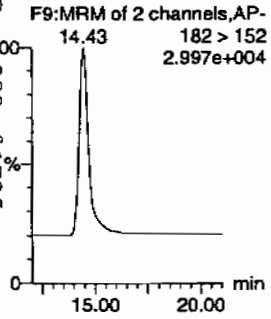

26-dinitrotoluene-d3

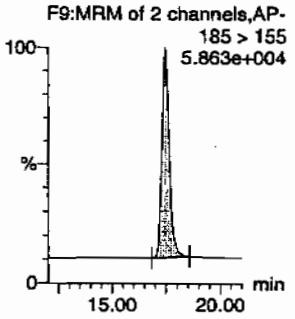

2-Nitrotoluene

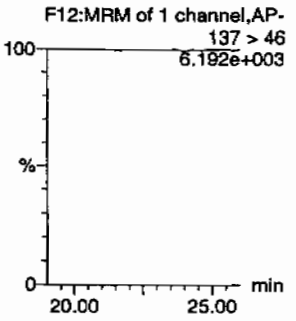

4-Nitrotoluene

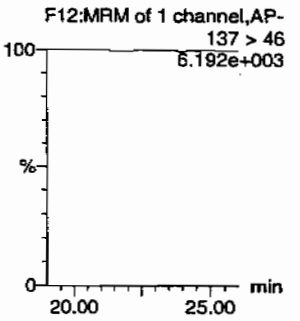

3-Nitrotoluene

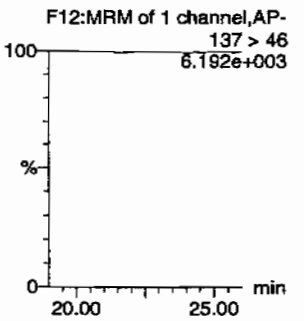

PETN

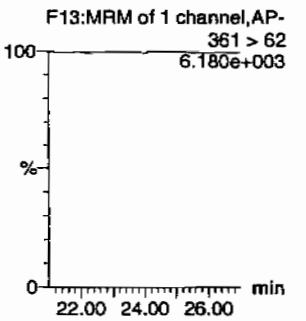

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066011	HMX	176 > 102			3720.259									
246066011	RDX	176 > 102			3720.259									
246066011	135-Trinitrobenzene	213 > 183			3720.259									
246066011	13-Dinitrobenzene-d4	172 > 142	12.07	3720.259		3720.259	3720.259	bb			529.6815	105.9	5.9	366.4
246066011	13-Dinitrobenzene	168 > 138			3720.259									
246066011	Tetryl	241 > 181			3720.259			MM-	08-Mar-10	11:15:33				
246066011	Nitrobenzene	123 > 46			3720.259									
246066011	4-Amino-26-dinitrotoluene	197 > 167			20983.738									
246066011	2-Amino-46-dinitrotoluene	197 > 180			20983.738									
246066011	246-Trinitrotoluene	227 > 210			20983.738									
246066011	34-dinitrotoluene	182 > 152	14.43	11241.035	20983.738	11241.035	267.851	bb			277.1447	110.9	10.9	542.9
246066011	26-dinitrotoluene	182 > 152			20983.738									
246066011	24-dinitrotoluene	182 > 152			20983.738									
246066011	26-dinitrotoluene-d3	185 > 155	17.47	20983.738		20983.738	20983.738	bb			510.2904	102.1	2.1	2478.9
246066011	2-Nitrotoluene	137 > 46			20983.738									
246066011	4-Nitrotoluene	137 > 46			20983.738									
246066011	3-Nitrotoluene	137 > 46			20983.738									
246066011	PETN	361 > 62			20983.738									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8136

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066011

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260047.wiff

Date Analyzed: 27-FEB-10 02:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcvd 3/1/10

Sample Name: "246066011" Sample ID: "948888|2|LER" File: "EXS02260047.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:56:37 AM

Modified: No

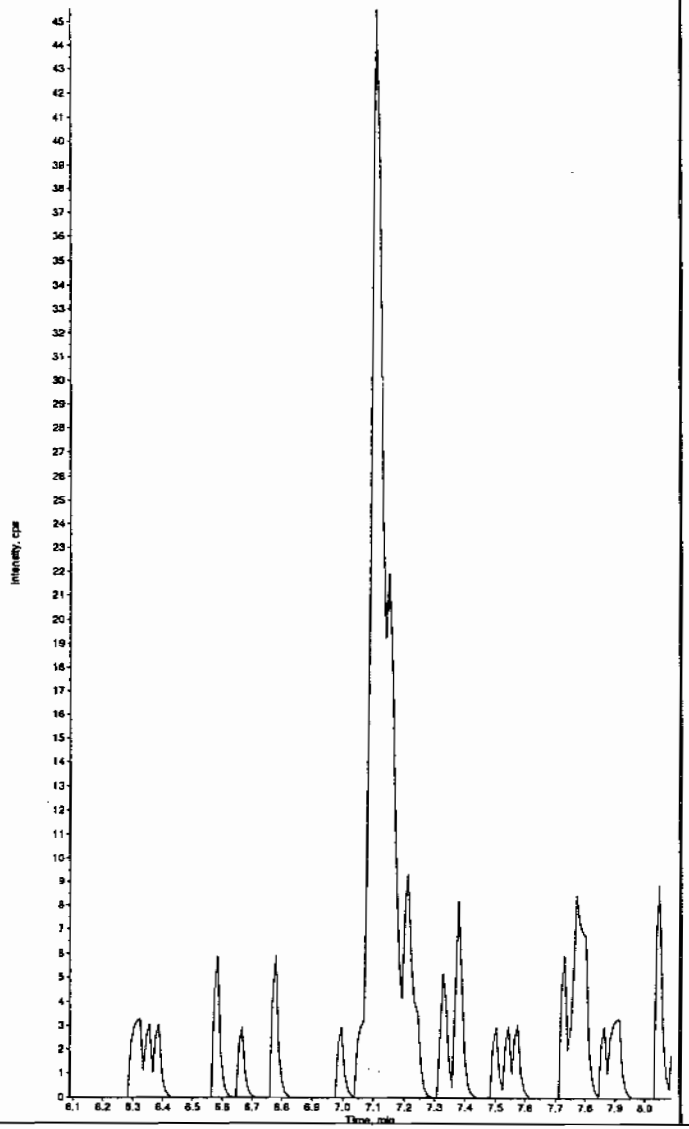

Sample Name: "246066011" Sample ID: "948888|2|LER" File: "EXS02260047.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:56:37 AM

Modified: No

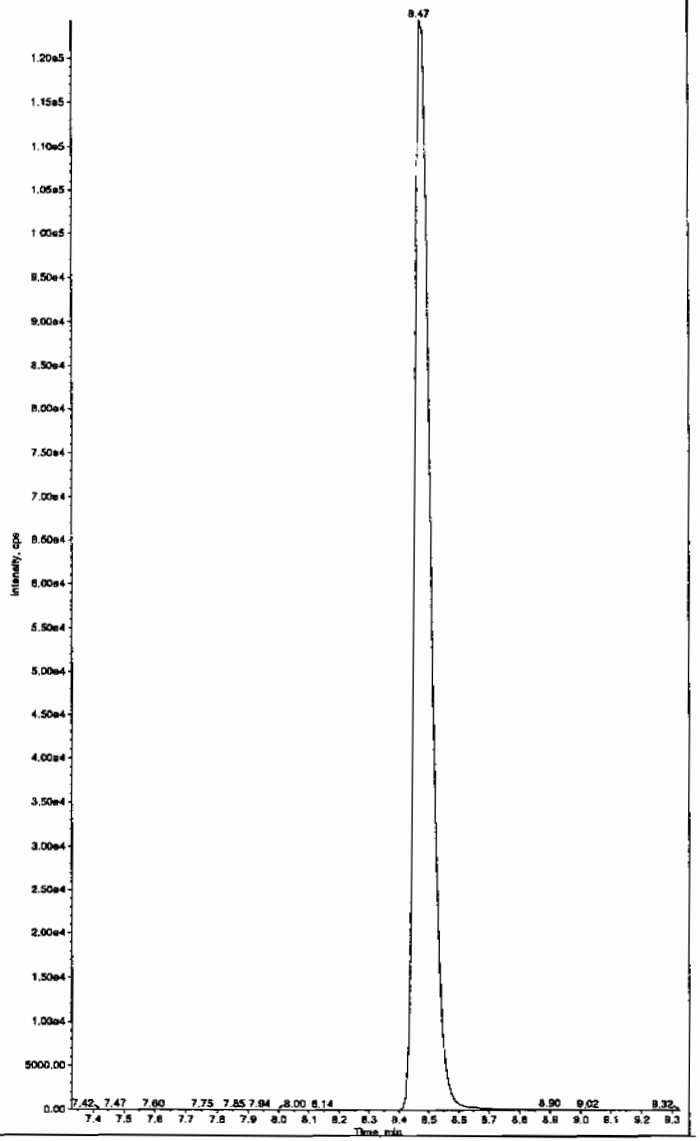

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066011" Sample ID: "948888|2|LER" File: "EXS02260047.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 254. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:56:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.49e+006 counts
Height: 1006263.489 cps
Start Time: 8.38 min
End Time: 8.63 min

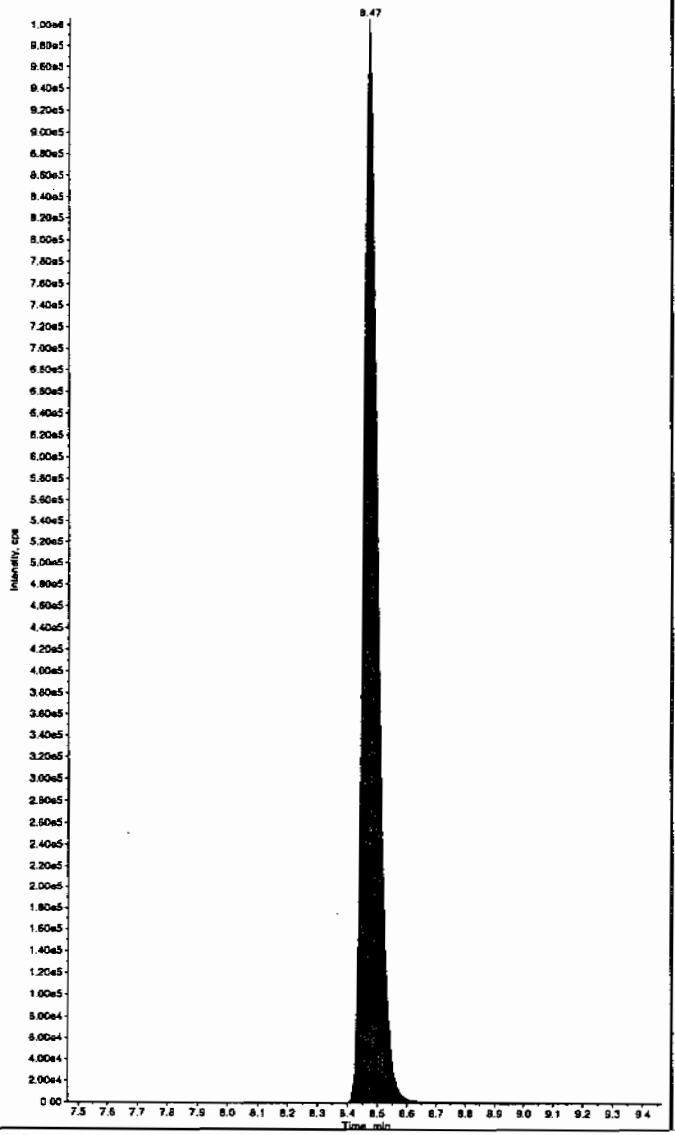

Sample Name: "246066011" Sample ID: "948888|2|LER" File: "EXS02260047.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:56:37 AM

Modified: No

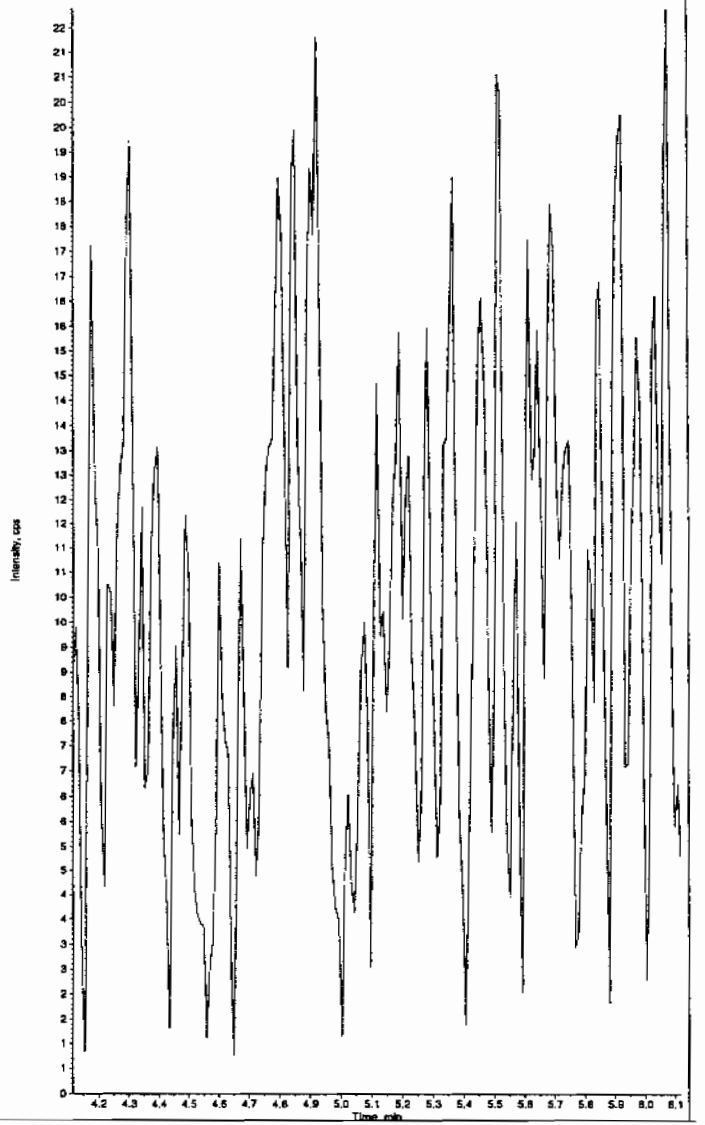

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066011" Sample ID: "948888|2|LER" File: "EXS02260047.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:56:37 AM

Modified: No

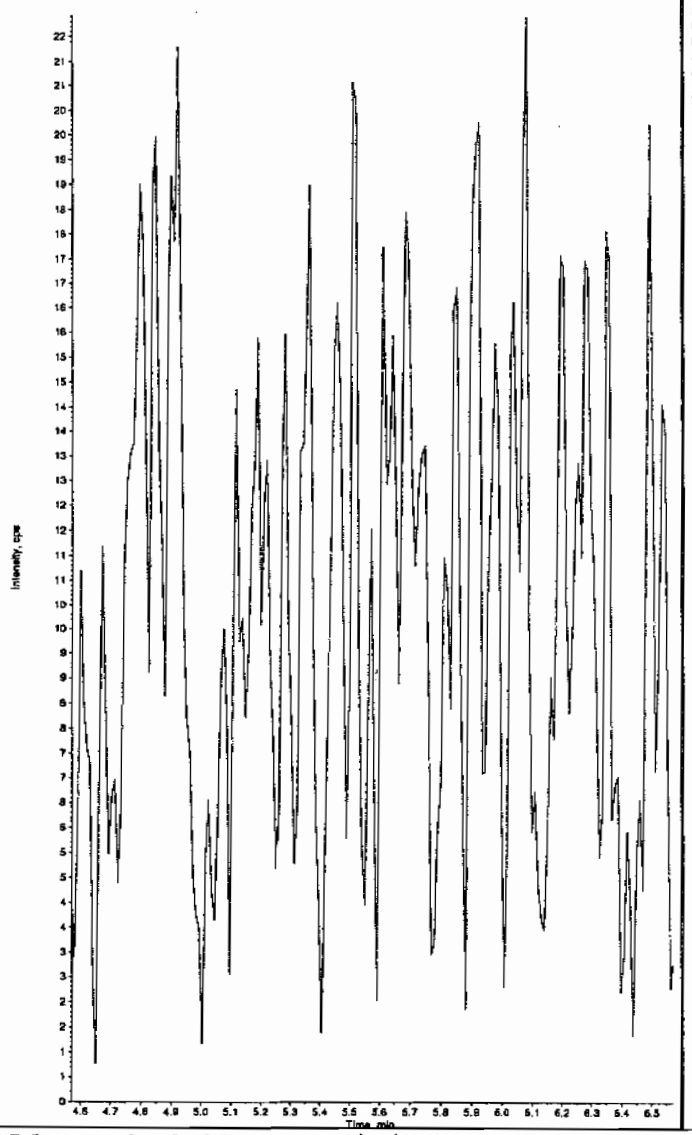

Sample Name: "246066011" Sample ID: "948888|2|LER" File: "EXS02260047.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:56:37 AM

Modified: No

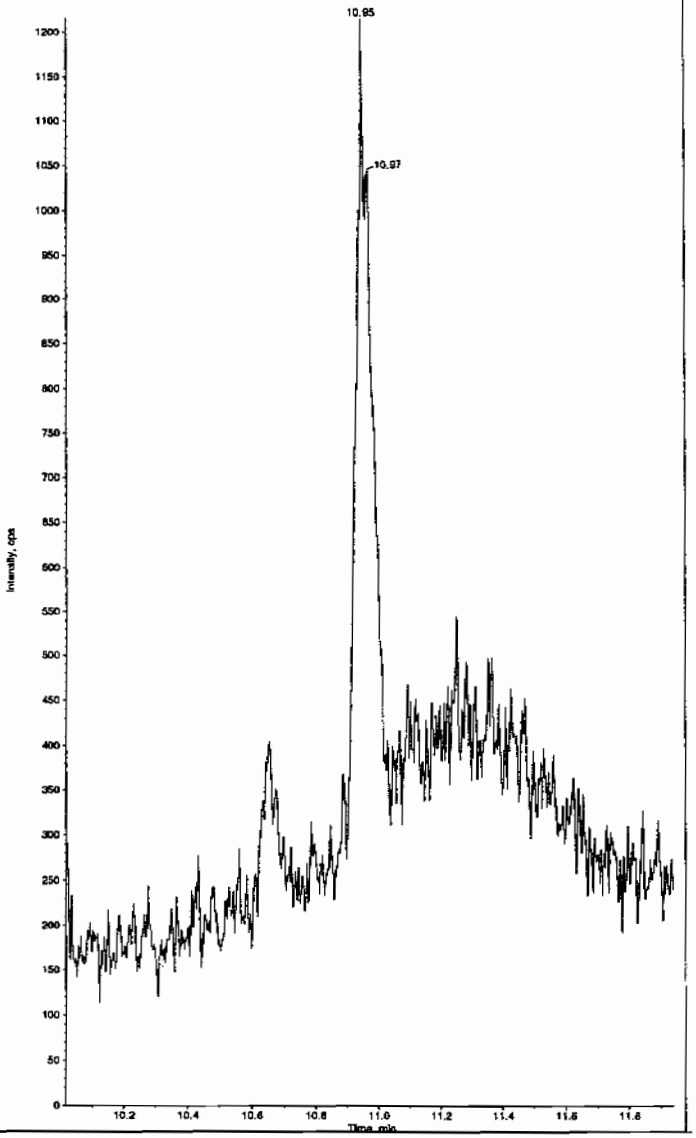

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8139

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066012

Sample Amount 2

Moisture: 7.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304167a

Date Analyzed: 08-MAR-10 00:53

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304167a
Date: 08-Mar-2010
Time: 00:53:58
ID: 246066012 | LANL | 948888 | Soil | 2 |
Vial: 4:3,D

MAP 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.240e+003

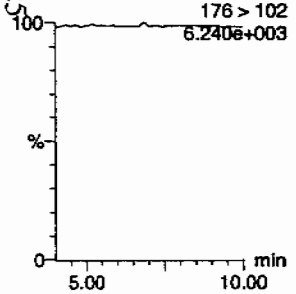

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.240e+003

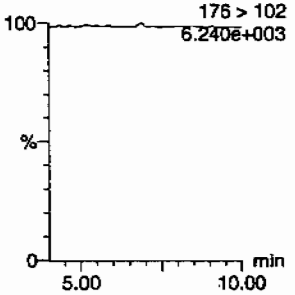

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.187e+003

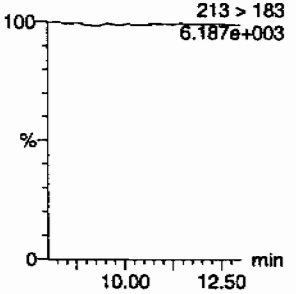

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.544e+004

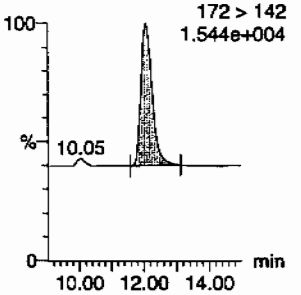

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.177e+003

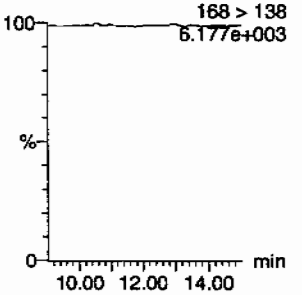

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.177e+003

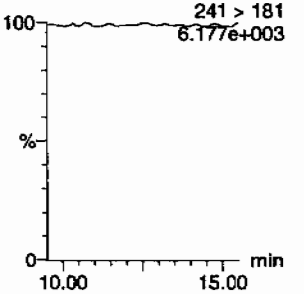

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.193e+003

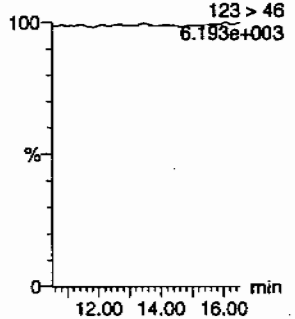

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.211e+003

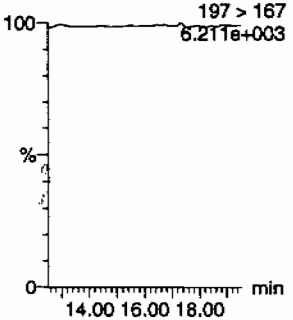

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.261e+003

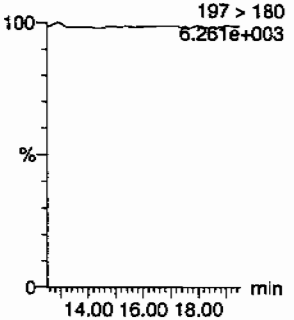

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.173e+003

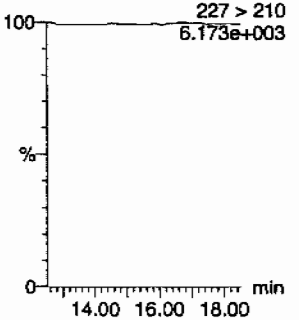

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.957e+004

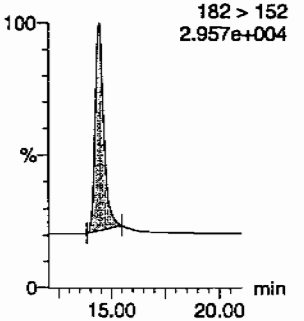

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.957e+004

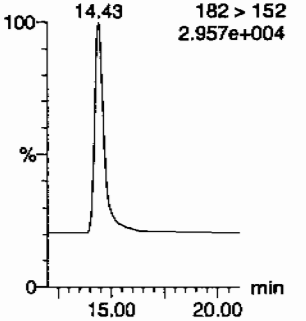

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

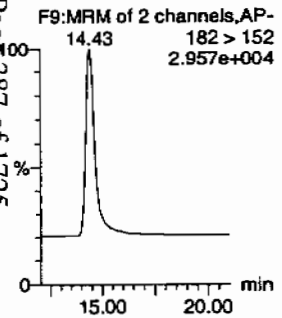

26-dinitrotoluene-d3

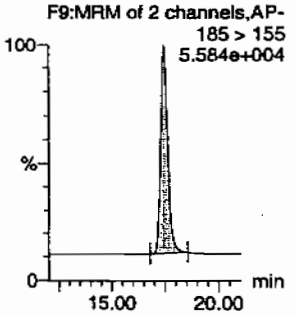

2-Nitrotoluene

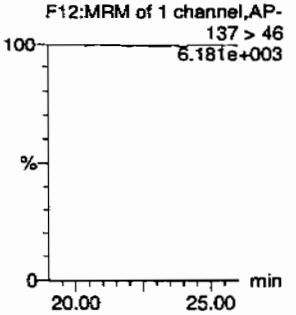

4-Nitrotoluene

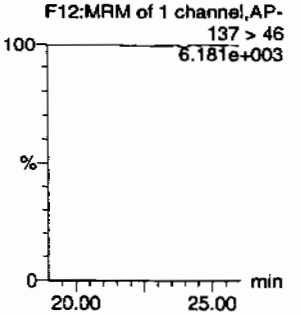

3-Nitrotoluene

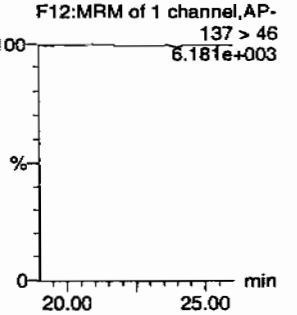

PETN

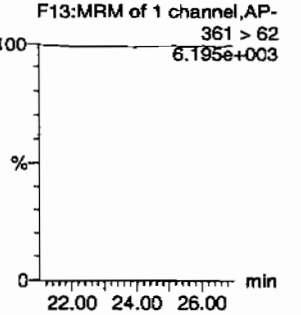

ID	Name	Trace	RT	Area	IS Area	%Abs Resp	%Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066012	HMX	176 > 102			3789.408									
246066012	RDX	176 > 102			3789.408									
246066012	135-Trinitrobenzene	213 > 183			3789.408									
246066012	13-Dinitrobenzene-d4	172 > 142	12.07	3789.408		3789.408	3789.408	bb			539.5268	107.9	7.9	423.7
246066012	13-Dinitrobenzene	168 > 138			3789.408									
246066012	Tetryl	241 > 181			3789.408									
246066012	Nitrobenzene	123 > 46			3789.408									
246066012	4-Amino-26-dinitrotoluene	197 > 167			19773.338									
246066012	2-Amino-46-dinitrotoluene	197 > 180			19773.338									
246066012	246-Trinitrotoluene	227 > 210			19773.338									
246066012	34-dinitrotoluene	182 > 152	14.43	11022.813	19773.338	11022.813	278.729	bb			288.4002	115.4	15.4	626.4
246066012	26-dinitrotoluene	182 > 152			19773.338									
246066012	24-dinitrotoluene	182 > 152			19773.338									
246066012	26-dinitrotoluene-d3	185 > 155	17.47	19773.338		19773.338	19773.338	bb			480.8555	96.2	-3.8	1953.3
246066012	2-Nitrotoluene	137 > 46			19773.338									
246066012	4-Nitrotoluene	137 > 46			19773.338									
246066012	3-Nitrotoluene	137 > 46			19773.338									
246066012	PETN	361 > 62			19773.338									

Page 387 of 1725

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8139

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066012

Sample Amount 2

Moisture: 7.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260048.wiff

Date Analyzed: 27-FEB-10 03:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 3/1/10

Sample Name: "246066012" Sample ID: "948888|2|LER" File: "EXS02260048.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:12:18 AM

Modified: No

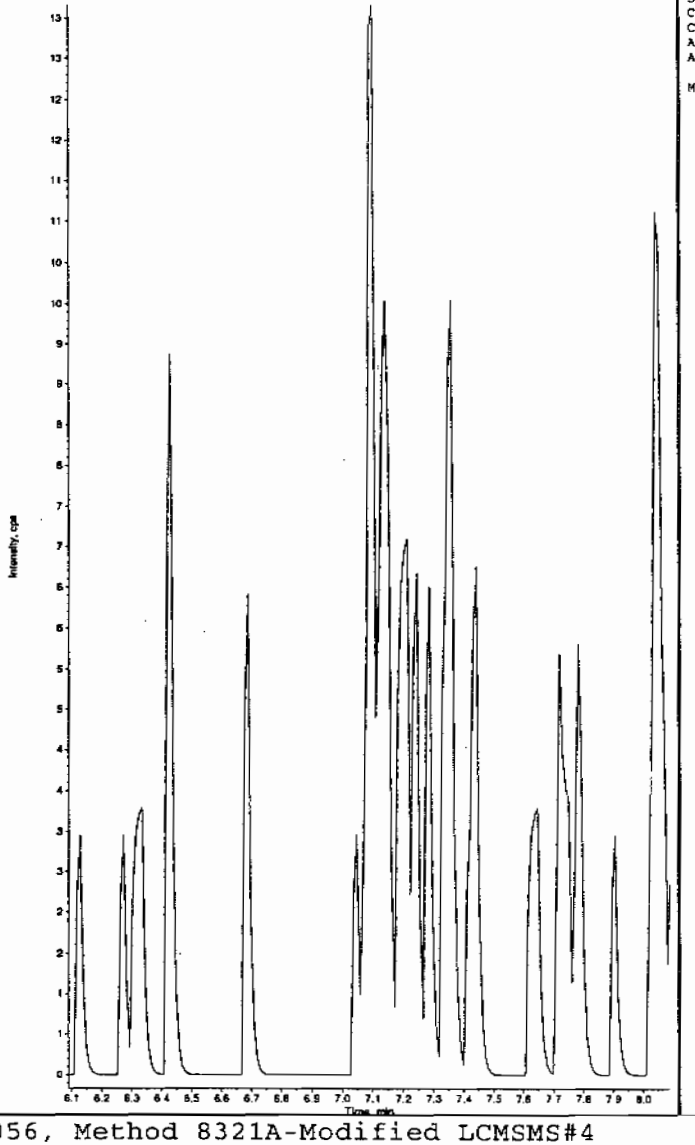

Sample Name: "246066012" Sample ID: "948888|2|LER" File: "EXS02260048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:12:18 AM

Modified: No

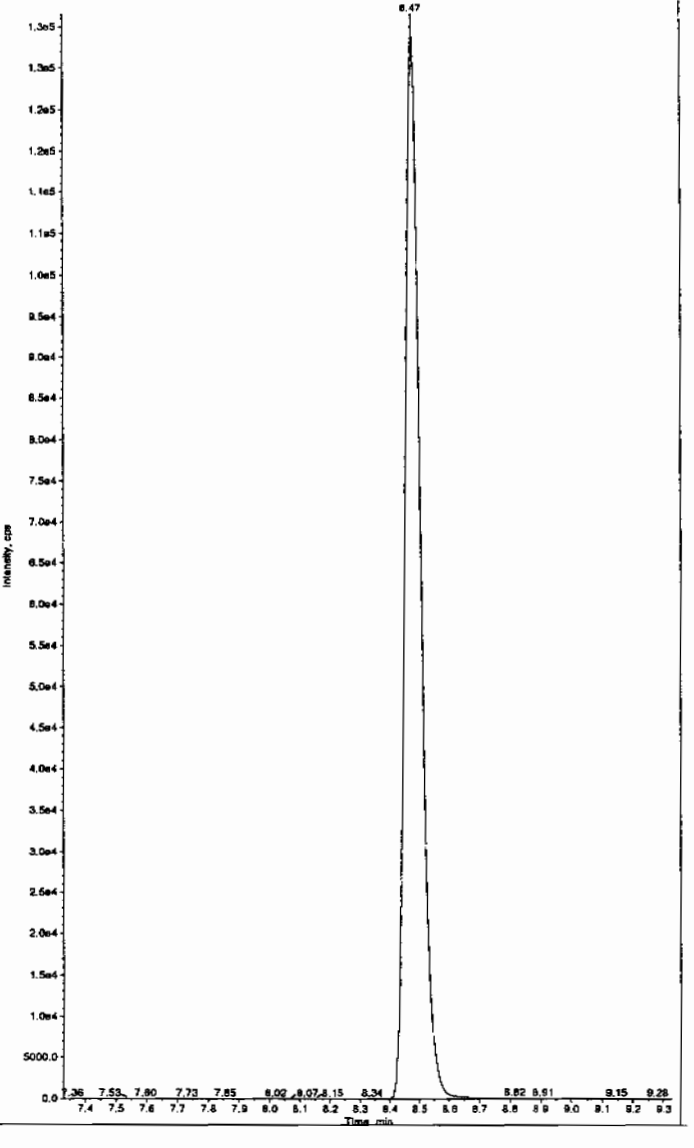

HMM 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066012" Sample ID: "948888|2|LER" File: "EXS02260048.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 258. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:12:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.53e+006 counts
Height: 1034475.220 cps
Start Time: 8.34 min
End Time: 8.77 min

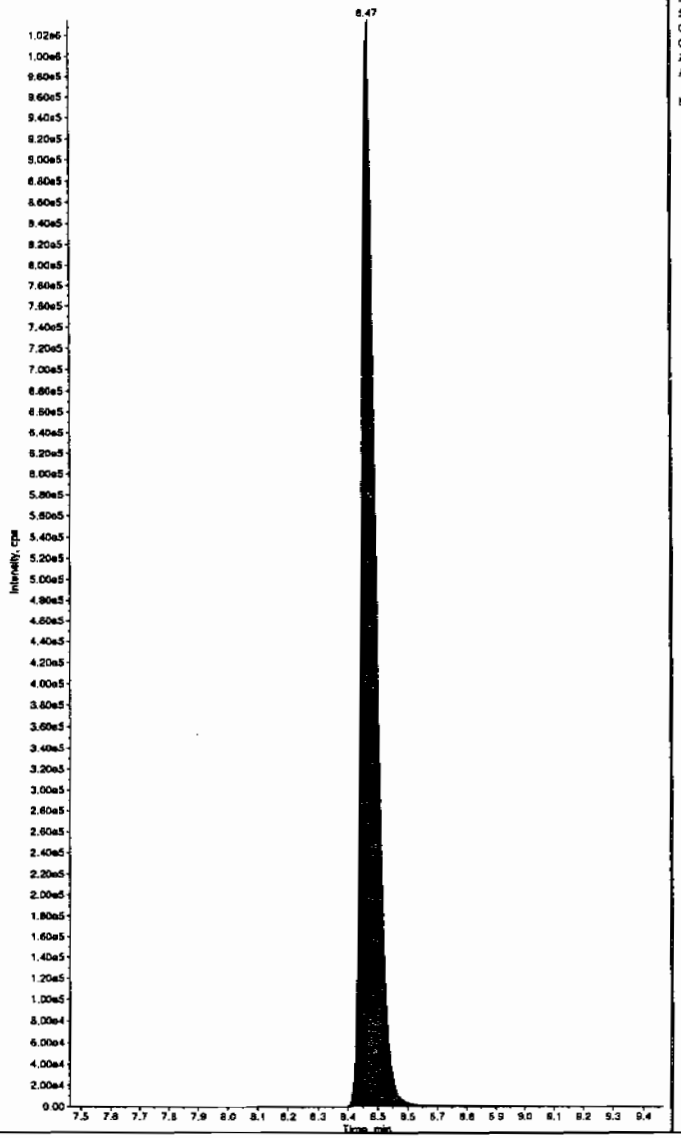

Sample Name: "246066012" Sample ID: "948888|2|LER" File: "EXS02260048.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:12:18 AM

Modified: No

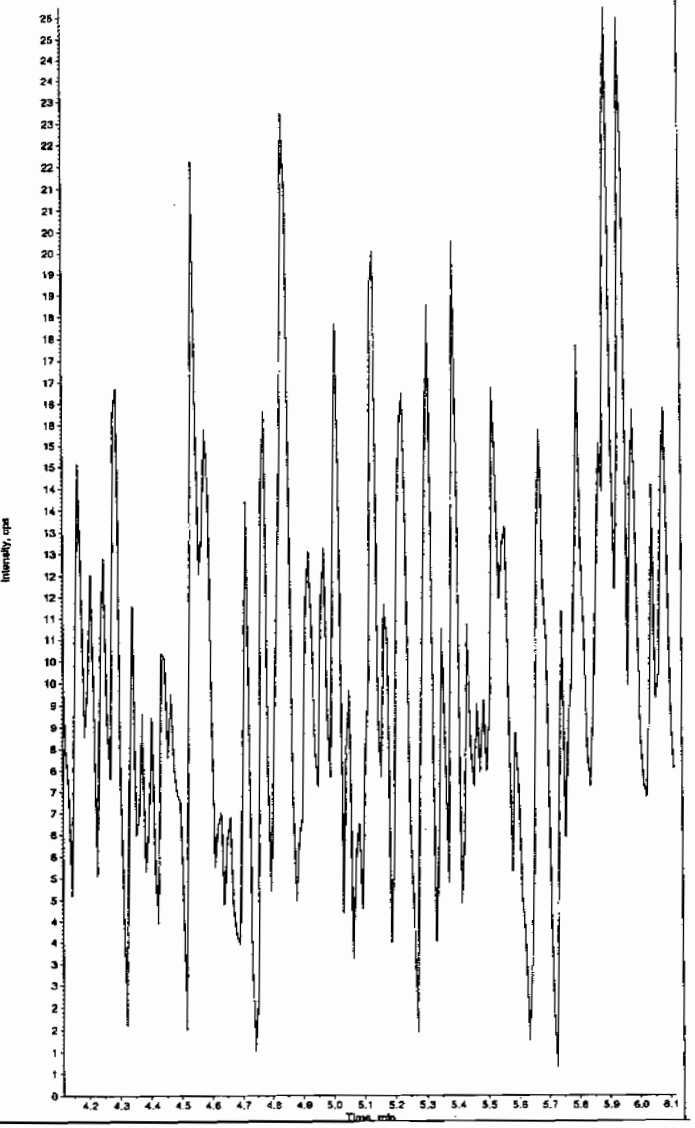

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066012" Sample ID: "948888|2|LER" File: "EXS02260048.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:12:18 AM

Modified: No

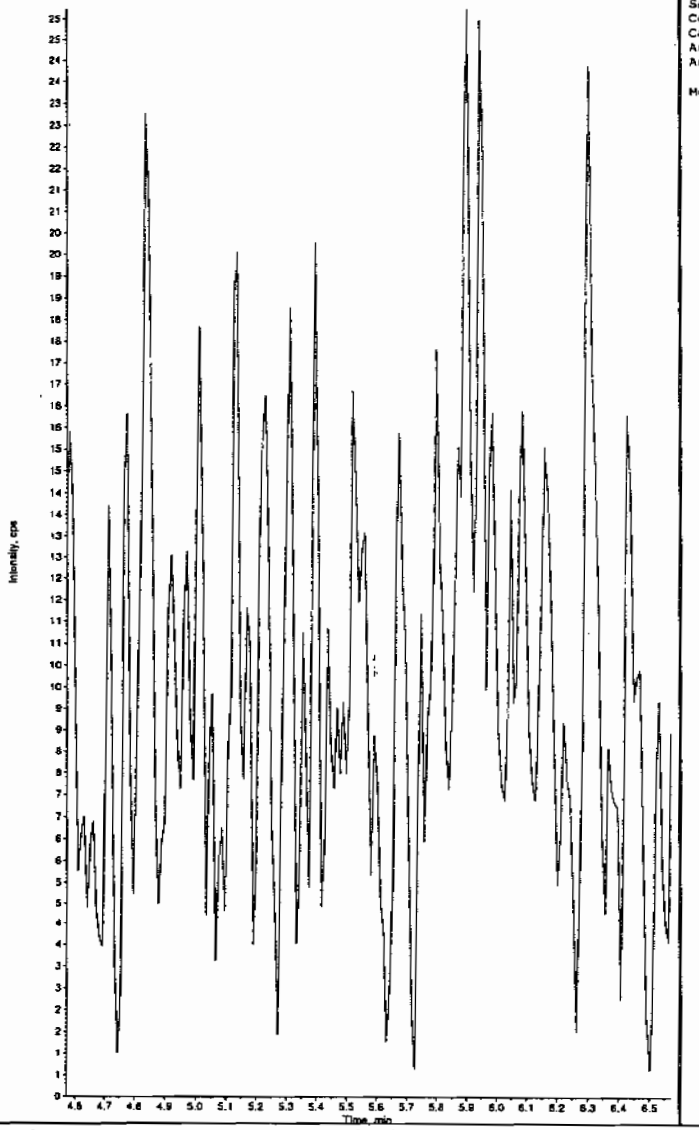

Sample Name: "246066012" Sample ID: "948888|2|LER" File: "EXS02260048.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:12:18 AM

Modified: No

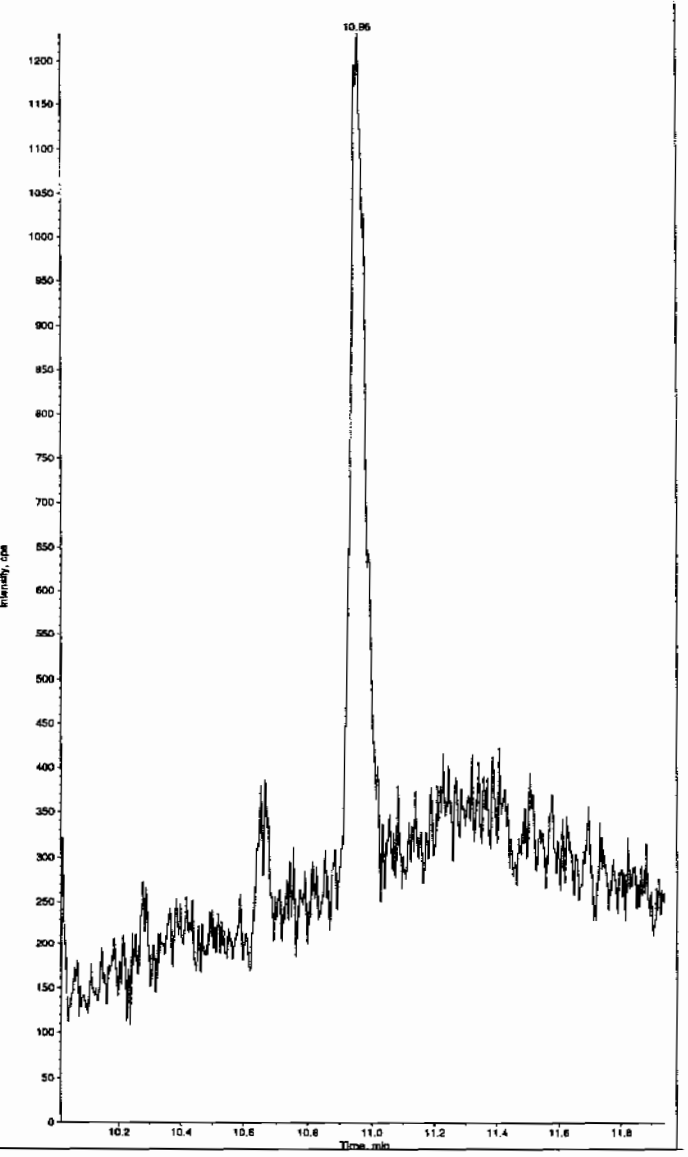

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8134

Lab Code: GEI

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066013

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304168a

Date Analyzed: 08-MAR-10 01:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304168a
Date: 08-Mar-2010
Time: 01:23:26
ID: 246066013 | LANCL | 948888 | Soil | 21
Vial: 4:3,E

MM 3/8/10

Page 53 of 725

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.216e+003

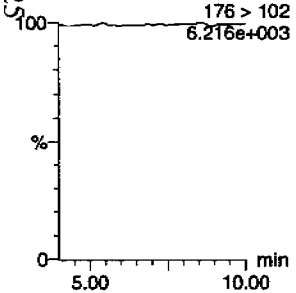

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.216e+003

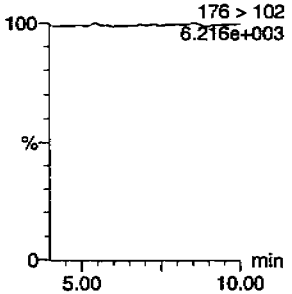

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.178e+003

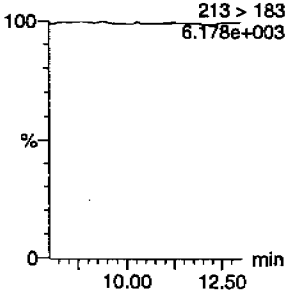

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.435e+004

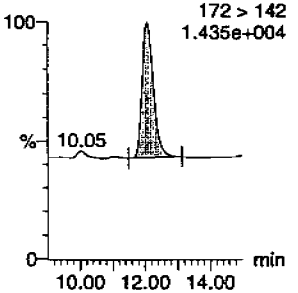

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.177e+003

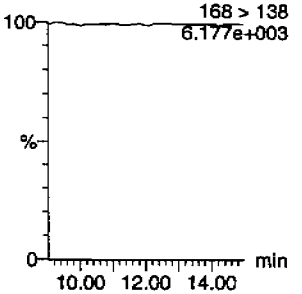

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.201e+003

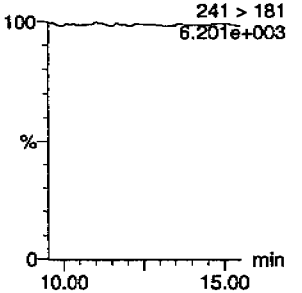

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.180e+003

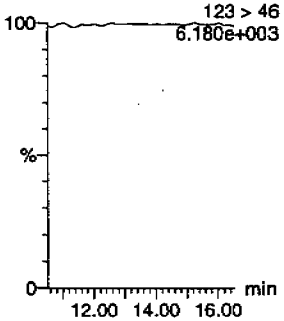

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.167e+003

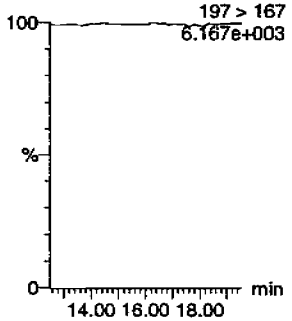

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.192e+003

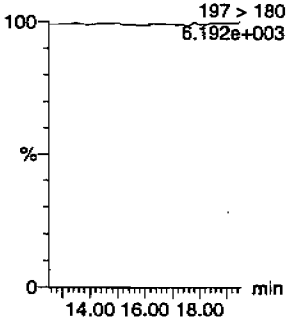

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.177e+003

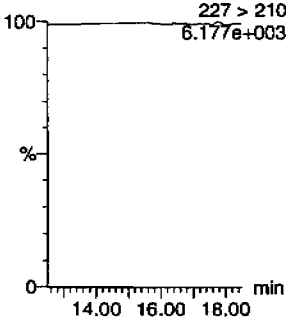

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.839e+004

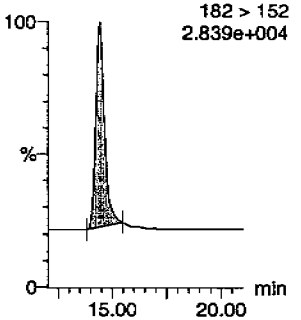

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.839e+004

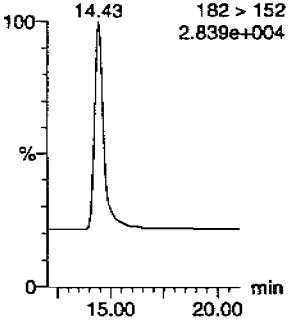

HMM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

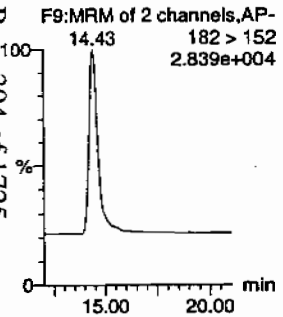

26-dinitrotoluene-d3

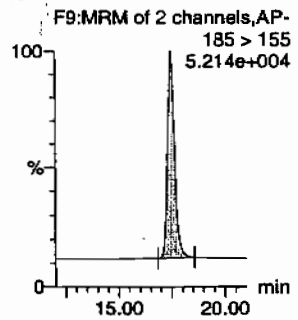

2-Nitrotoluene

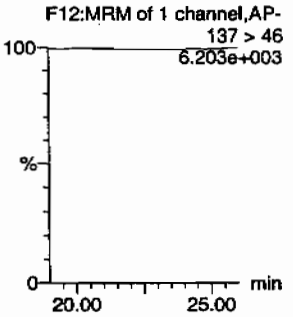

4-Nitrotoluene

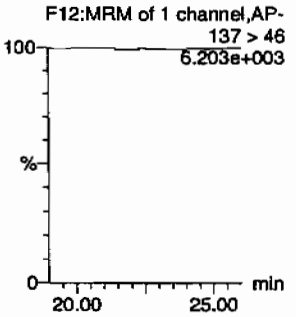

3-Nitrotoluene

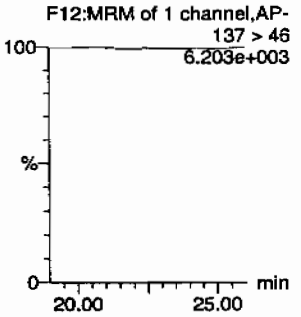

PETN

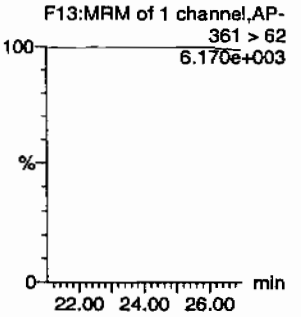

ID	Name	Trace	RT	RtArea	ISTArea	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
246066013	HMX	176 > 102			3341.393									
246066013	RDX	176 > 102			3341.393									
246066013	135-Trinitrobenzene	213 > 183			3341.393									
246066013	13-Dinitrobenzene-d4	172 > 142	12.07	3341.393		3341.393	3341.393	bb			475.7395	95.1	-4.9	300.4
246066013	13-Dinitrobenzene	168 > 138			3341.393									
246066013	Tetryl	241 > 181			3341.393									
246066013	Nitrobenzene	123 > 46			3341.393									
246066013	4-Amino-26-dinitrotoluene	197 > 167			18247.670									
246066013	2-Amino-46-dinitrotoluene	197 > 180			18247.670									
246066013	246-Trinitrotoluene	227 > 210			18247.670									
246066013	34-dinitrotoluene	182 > 152	14.43	10233.264	18247.670	10233.264	280.399	bb			290.1281	116.1	16.1	964.9
246066013	26-dinitrotoluene	182 > 152			18247.670									
246066013	24-dinitrotoluene	182 > 152			18247.670									
246066013	26-dinitrotoluene-d3	185 > 155	17.47	18247.670		18247.670	18247.670	bb			443.7537	88.8	-11.2	2113.8
246066013	2-Nitrotoluene	137 > 46			18247.670									
246066013	4-Nitrotoluene	137 > 46			18247.670									
246066013	3-Nitrotoluene	137 > 46			18247.670									
246066013	PETN	361 > 62			18247.670									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8134

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066013

Sample Amount 2

Moisture: 12.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260049.wiff

Date Analyzed: 27-FEB-10 03:28

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcr 3/1/10

Sample Name: "246066013" Sample ID: "948888|2|LER" File: "EXS02260049.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:28:01 AM

Modified: No

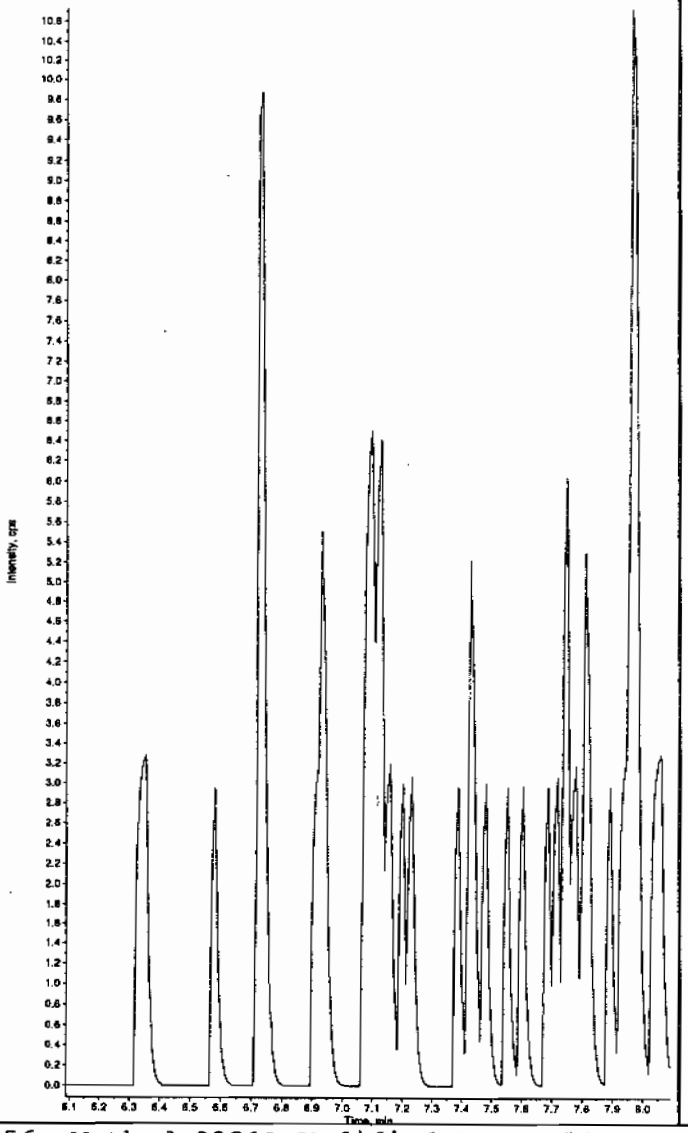

Sample Name: "246066013" Sample ID: "948888|2|LER" File: "EXS02260049.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:28:01 AM

Modified: No

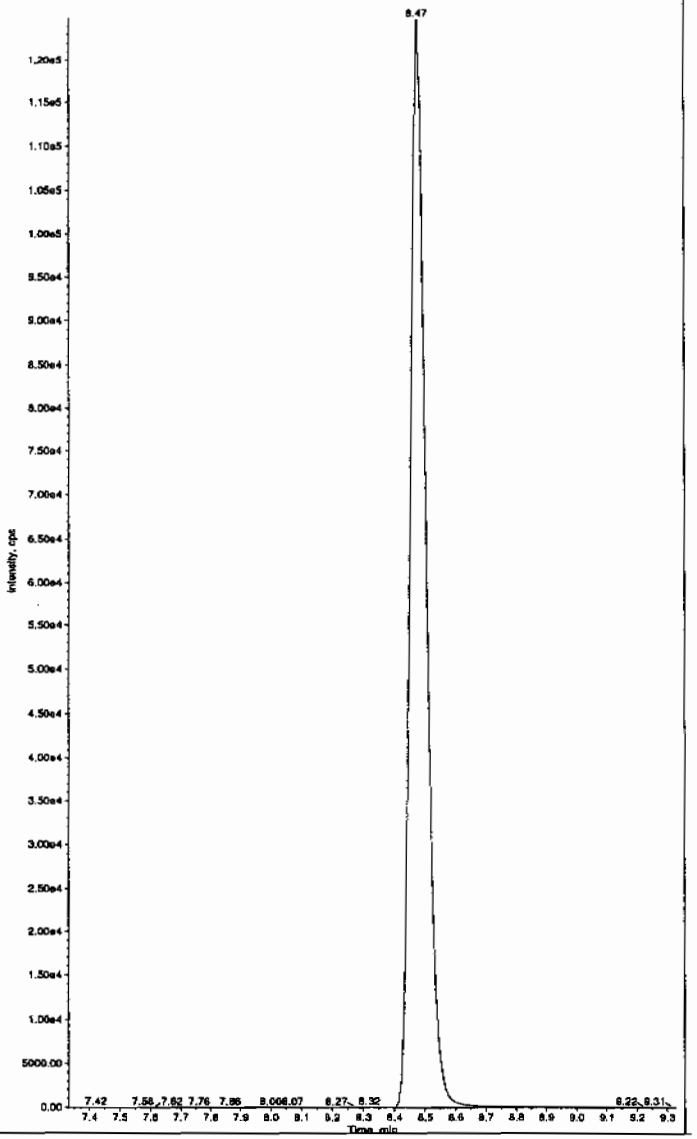

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066013" Sample ID: "948888|2|LER" File: "EXS02260049.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 248. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:28:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 1.41e+006 counts
Height: 976939.392 cps
Start Time: 8.36 min
End Time: 8.83 min

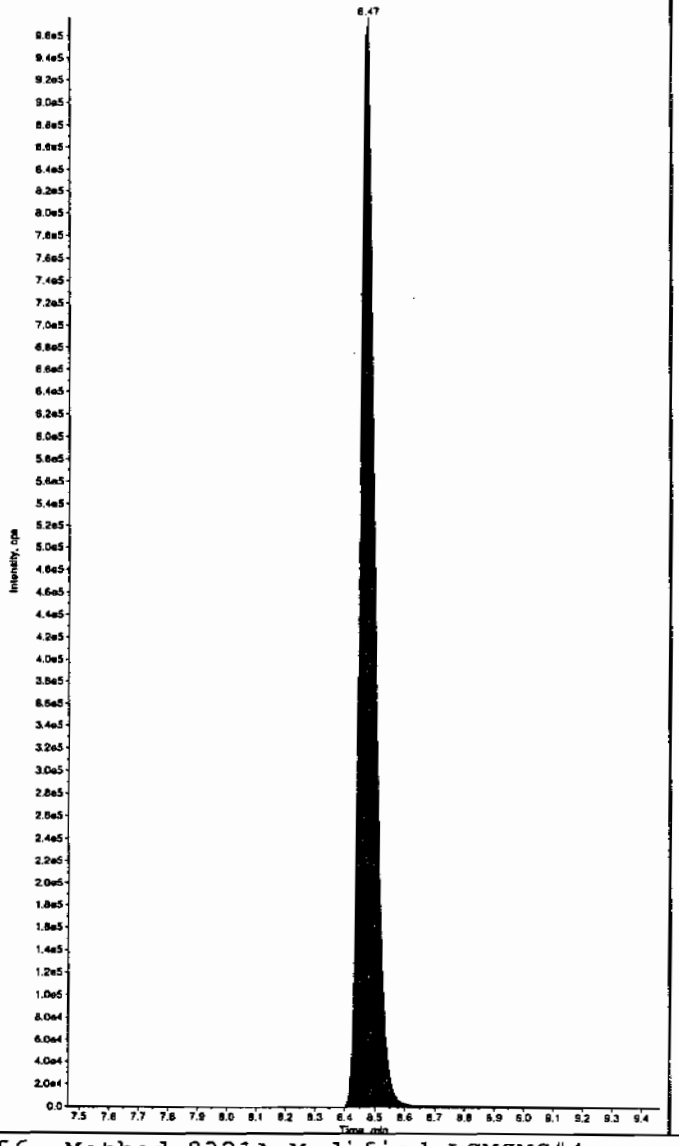

Sample Name: "246066013" Sample ID: "948888|2|LER" File: "EXS02260049.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:28:01 AM

Modified: No

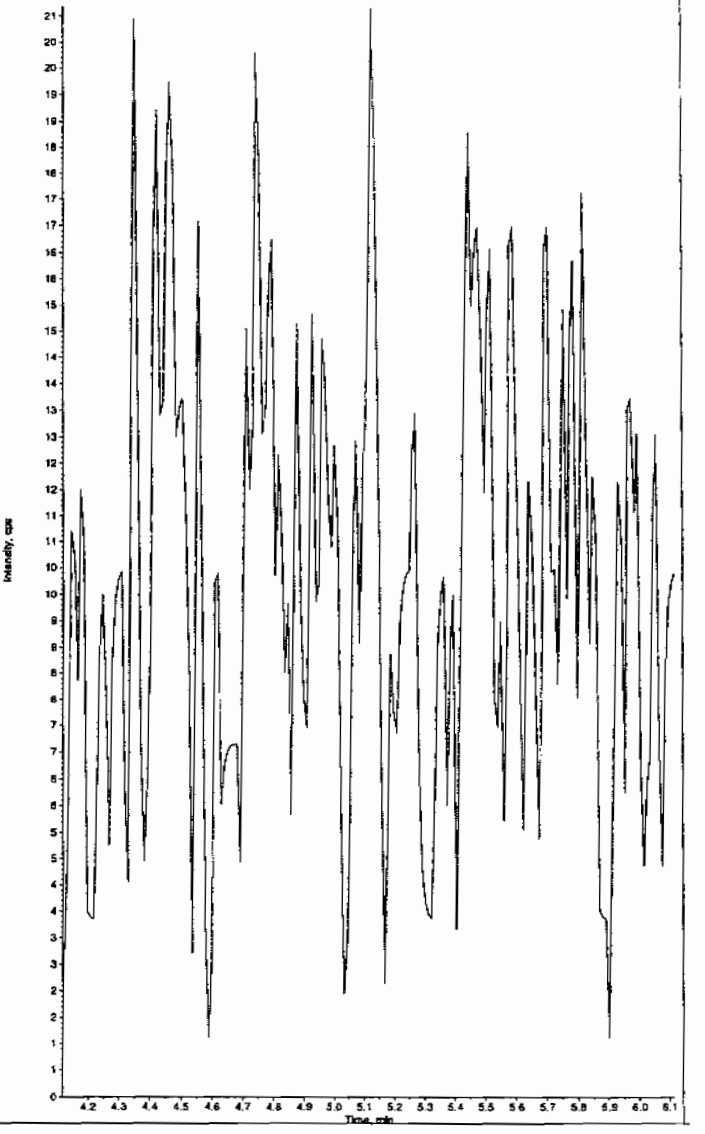

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GAL.

Sample Name: "246066013" Sample ID: "948888|2|LER" File: "EXS02260049.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:28:01 AM

Modified: No

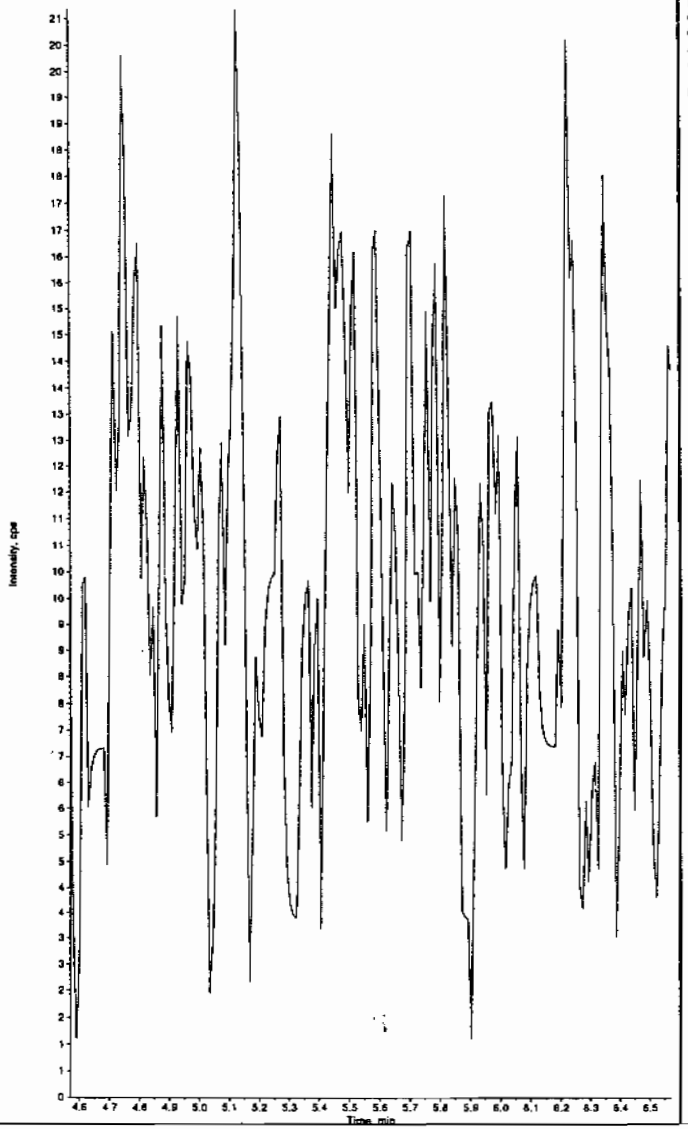

Sample Name: "246066013" Sample ID: "948888|2|LER" File: "EXS02260049.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
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Acq. Time: 3:28:01 AM

Modified: No

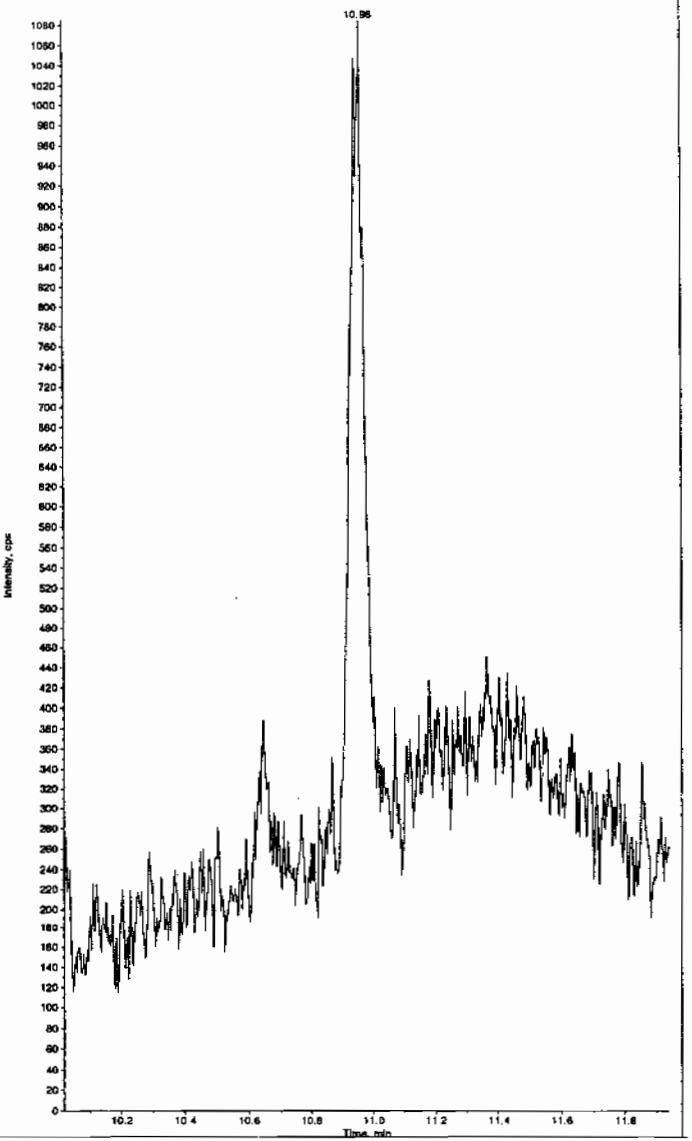

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8137

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066014

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304169a

Date Analyzed: 08-MAR-10 01:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304169a
Date: 08-Mar-2010
Time: 01:52:54
ID: 246066014 | LANL | 948888 | Soil | 21
Vial: 4:3,F

MAP 3/8/10

HMX

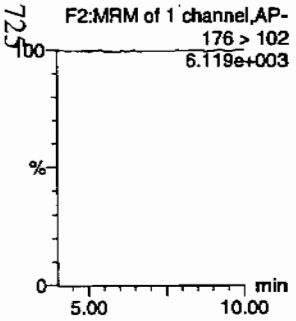

RDX

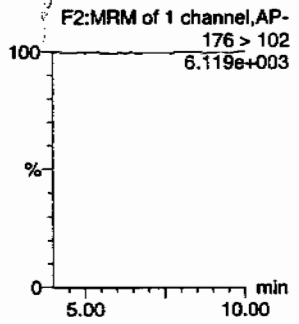

135-Trinitrobenzene

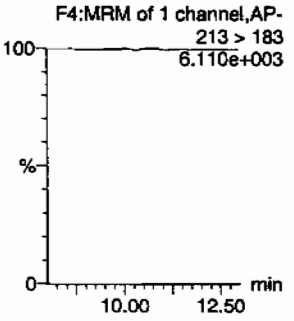

13-Dinitrobenzene-d4

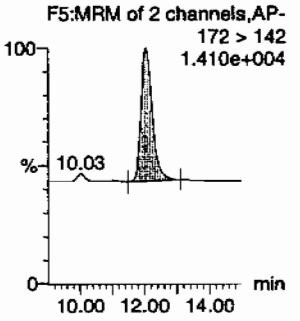

13-Dinitrobenzene

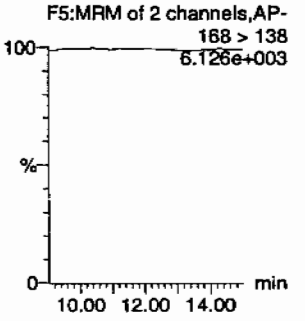

Tetryl

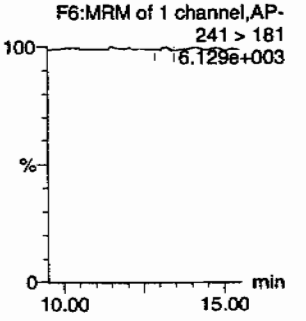

Nitrobenzene

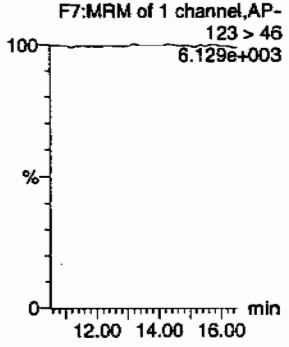

4-Amino-26-dinitrotoluene

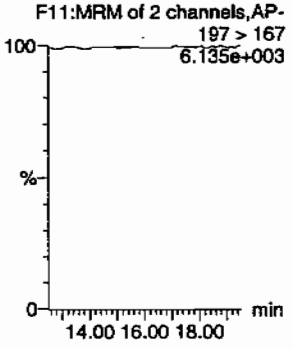

2-Amino-46-dinitrotoluene

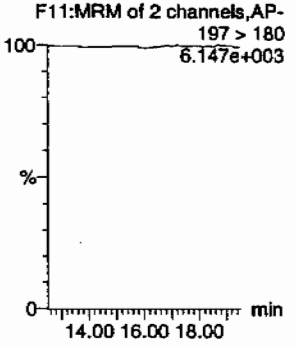

246-Trinitrotoluene

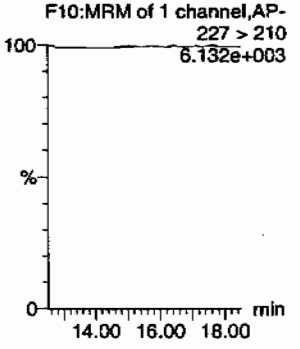

34-dinitrotoluene

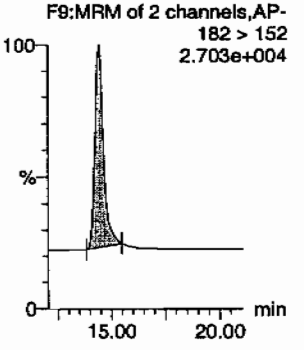

26-dinitrotoluene

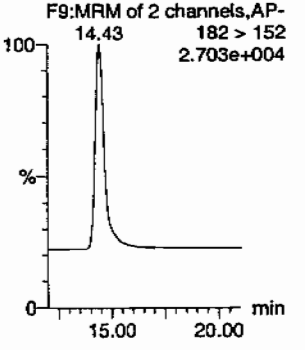

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

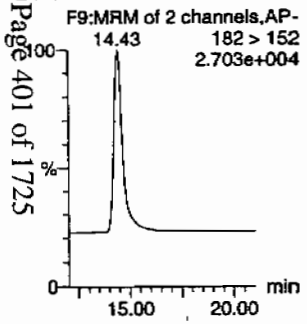

26-dinitrotoluene-d3

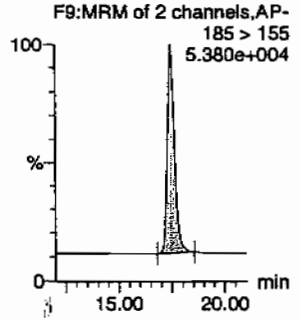

2-Nitrotoluene

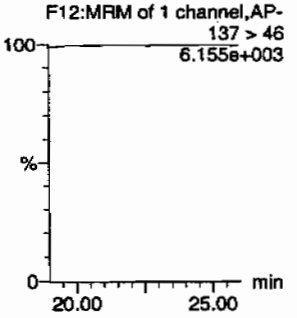

4-Nitrotoluene

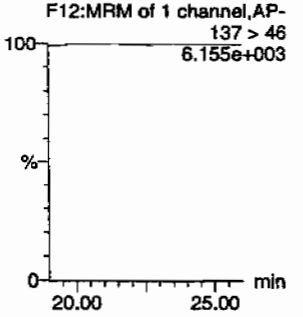

3-Nitrotoluene

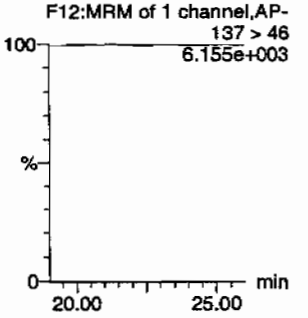

PETN

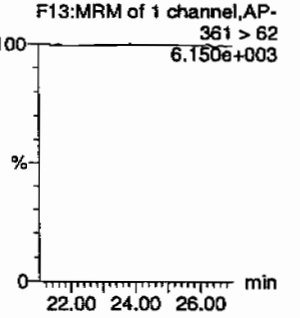

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066014	HMX	176 > 102			3250.788									
246066014	RDX	176 > 102			3250.788									
246066014	135-Trinitrobenzene	213 > 183			3250.788									
246066014	13-Dinitrobenzene-d4	172 > 142	12.07	3250.788		3250.788	3250.788	bb			462.8394	92.6	-7.4	194.7
246066014	13-Dinitrobenzene	168 > 138			3250.788									
246066014	Tetryl	241 > 181			3250.788			MM-	08-Mar-10	11:15:37				
246066014	Nitrobenzene	123 > 46			3250.788									
246066014	4-Amino-26-dinitrotoluene	197 > 167			19138.852									
246066014	2-Amino-46-dinitrotoluene	197 > 180			19138.852									
246066014	246-Trinitrotoluene	227 > 210			19138.852									
246066014	34-dinitrotoluene	182 > 152	14.43	9840.807	19138.852	9840.807	257.090	bb			266.0100	106.4	6.4	625.9
246066014	26-dinitrotoluene	182 > 152			19138.852									
246066014	24-dinitrotoluene	182 > 152			19138.852									
246066014	26-dinitrotoluene-d3	185 > 155	17.47	19138.852		19138.852	19138.852	bb			465.4258	93.1	-6.9	605.1
246066014	2-Nitrotoluene	137 > 46			19138.852									
246066014	4-Nitrotoluene	137 > 46			19138.852									
246066014	3-Nitrotoluene	137 > 46			19138.852									
246066014	PETN	361 > 62			19138.852									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8137

Lab Code: GEI

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066014

Sample Amount 2

Moisture: 16.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260053.wiff

Date Analyzed: 27-FEB-10 04:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Hcm 3/1/10

Sample Name: "246066014" Sample ID: "948888|2|LER" File: "EXS02260053.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:30:52 AM

Modified: No

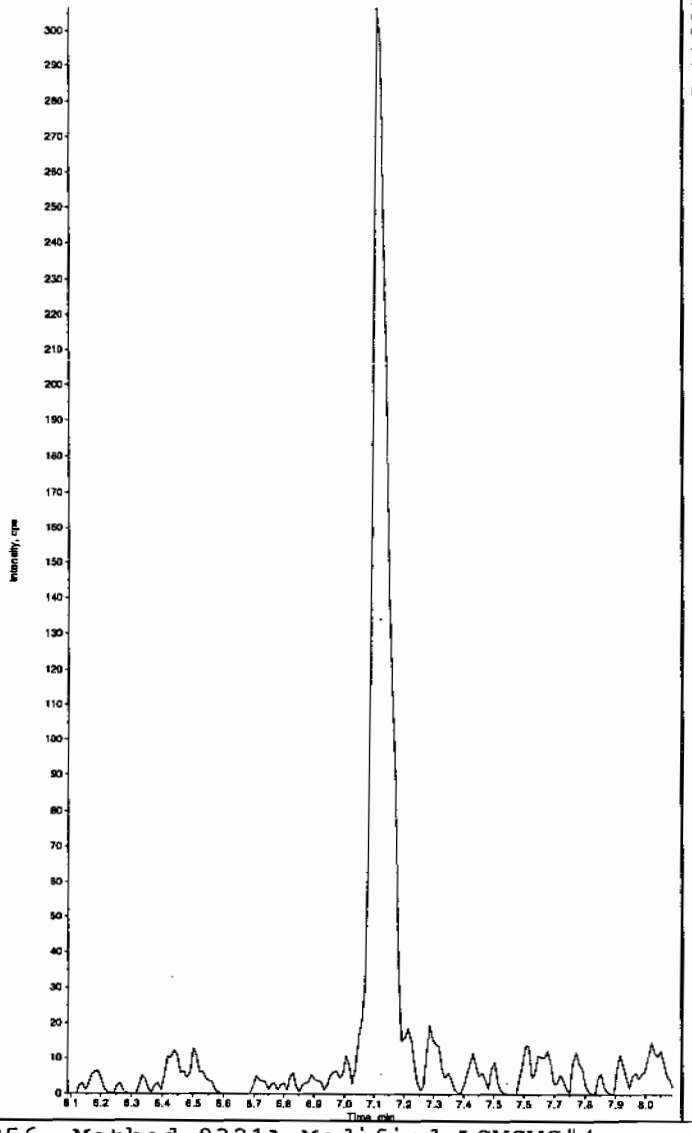

Sample Name: "246066014" Sample ID: "948888|2|LER" File: "EXS02260053.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:30:52 AM

Modified: No

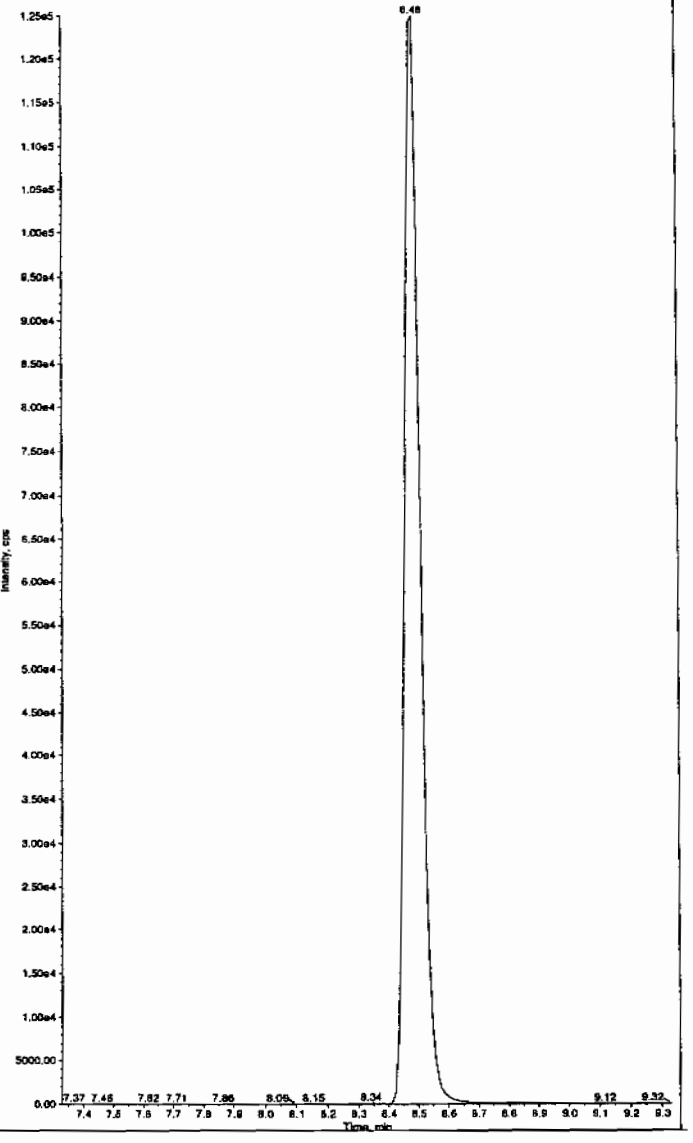

Hcm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066014" Sample ID: "948888|2|LER" File: "EXS02260053.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 247. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:30:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.40e+006 counts
Height: 983178.406 cps
Start Time: 8.38 min
End Time: 8.84 min

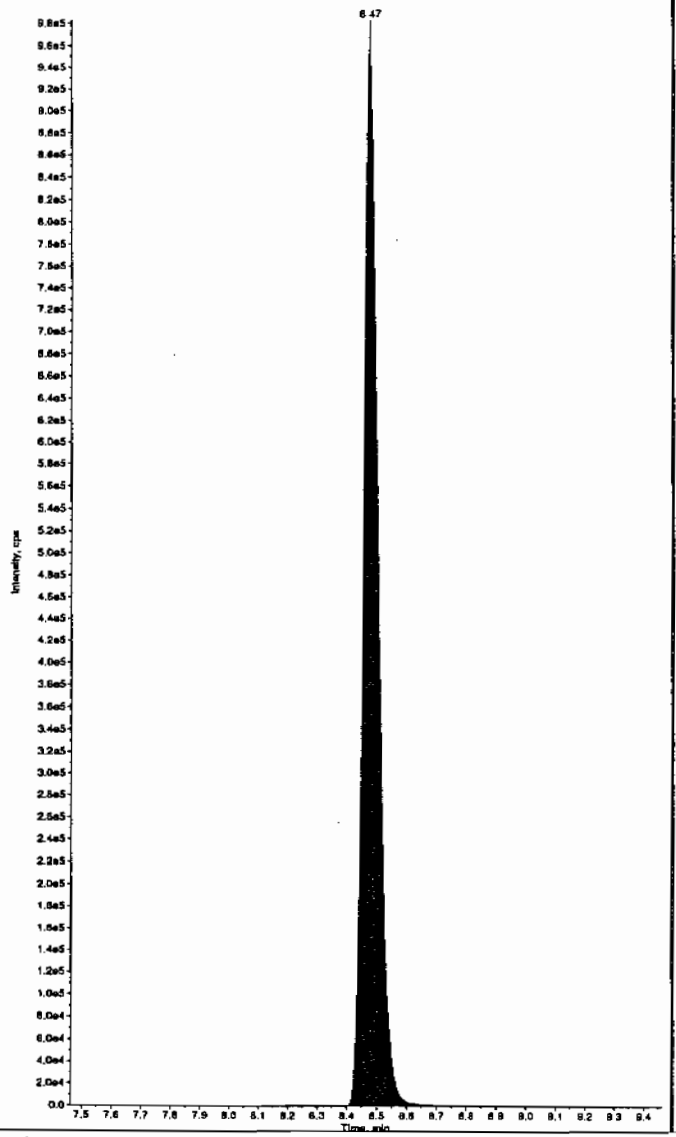

Sample Name: "246066014" Sample ID: "948888|2|LER" File: "EXS02260053.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:30:52 AM

Modified: No

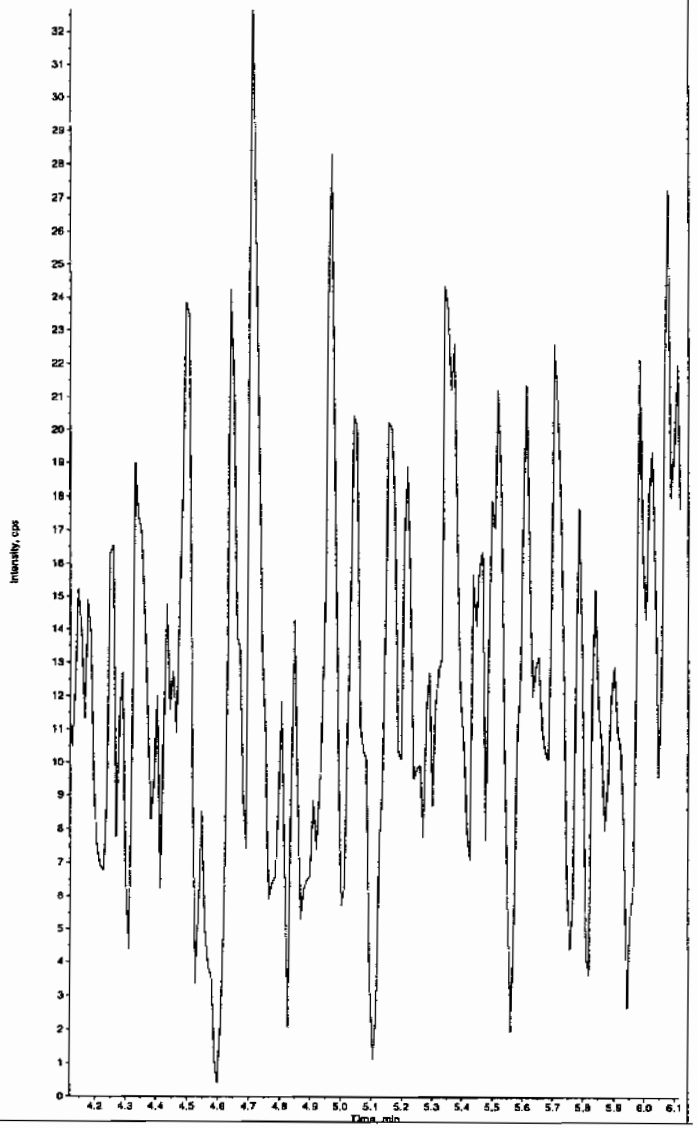

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066014" Sample ID: "948888|2|LER" File: "EXS02260053.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:30:52 AM

Modified: No

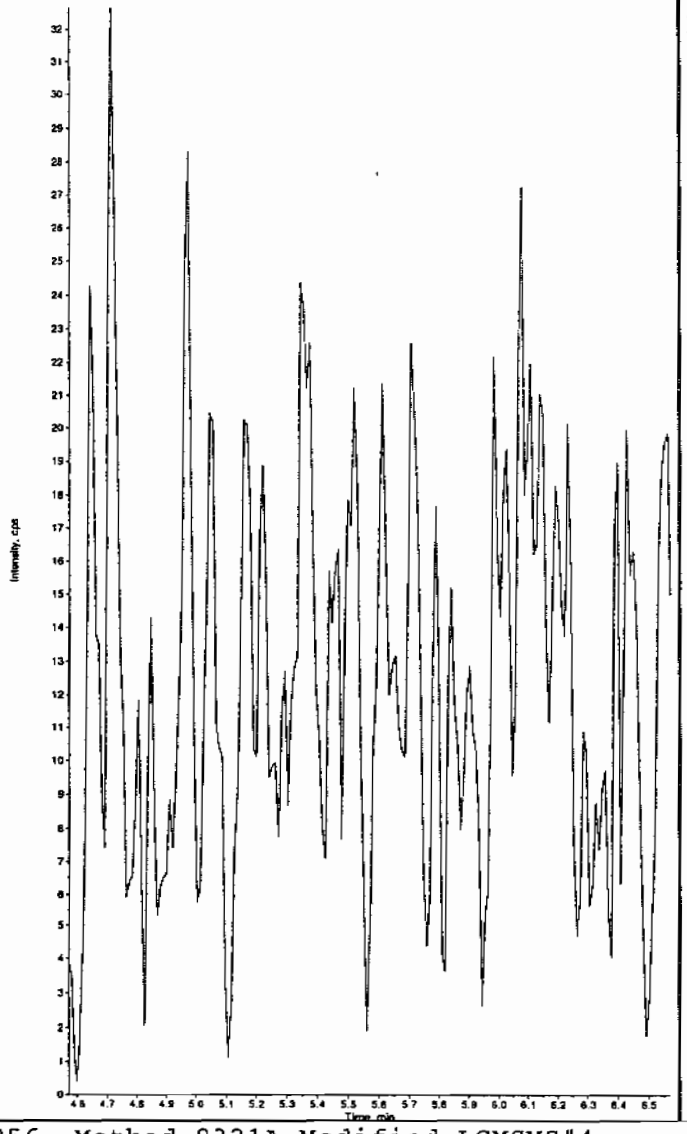

Sample Name: "246066014" Sample ID: "948888|2|LER" File: "EXS02260053.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:30:52 AM

Modified: No

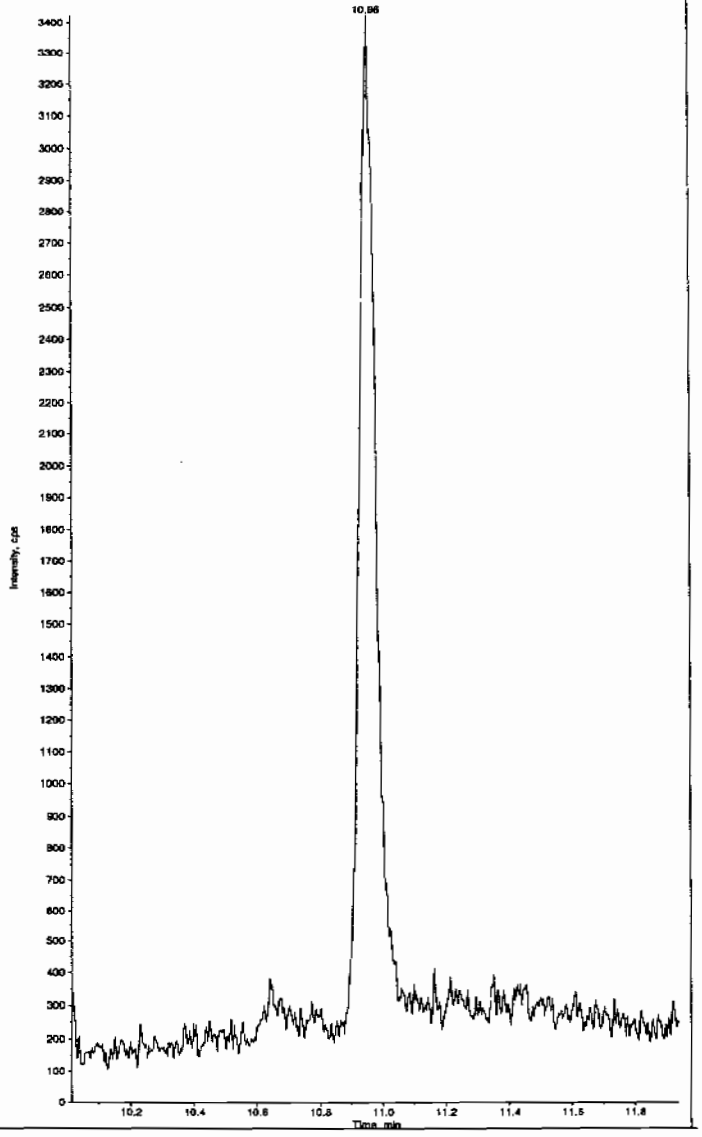

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8143

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066015

Sample Amount 2

Moisture: 10.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304170a

Date Analyzed: 08-MAR-10 02:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304170a
Date: 08-Mar-2010
Time: 02:22:23
ID: 246066015 | LANL | 948888 | Solids | 2 |
Vial: 4:4,A

MATP 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.190e+003

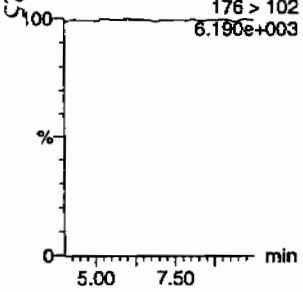

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.190e+003

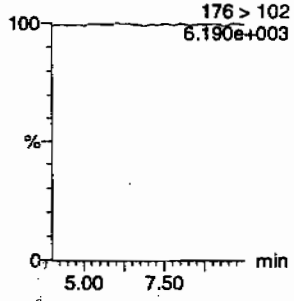

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.182e+003

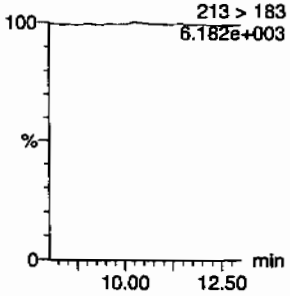

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.365e+004

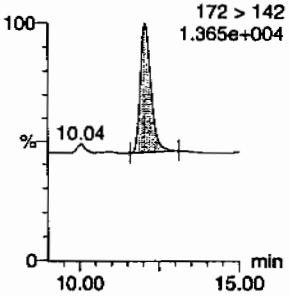

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.189e+003

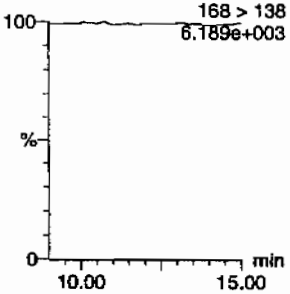

Tetryl
F6:MRM of 1 channel,AP-
11.43
241 > 181
6.309e+003

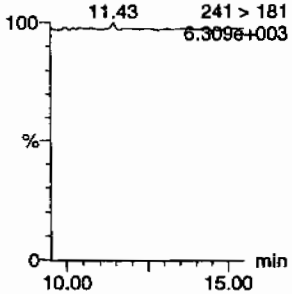

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.202e+003

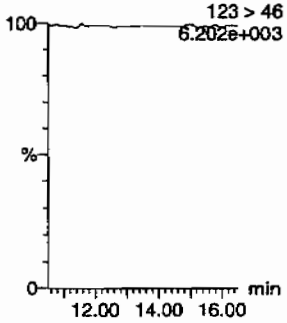

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.196e+003

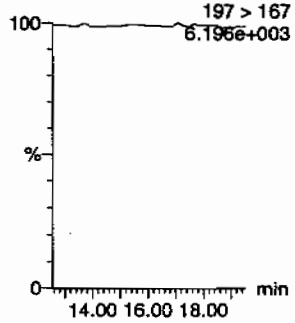

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.189e+003

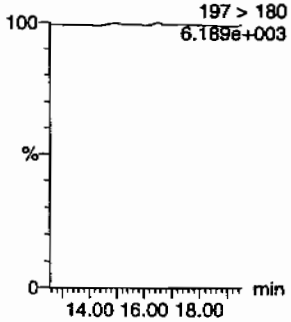

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.309e+003

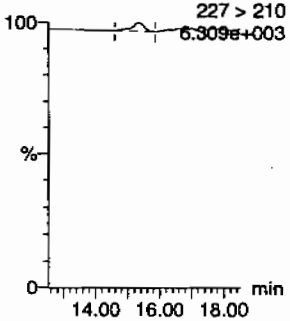

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.673e+004

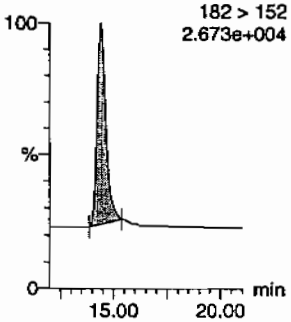

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.41
182 > 152
2.673e+004

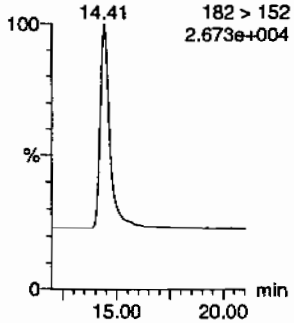

Amm 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

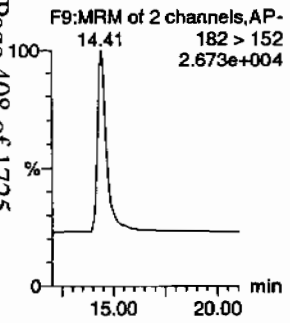

26-dinitrotoluene-d3

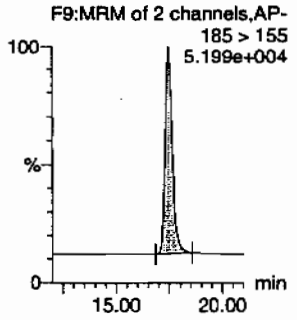

2-Nitrotoluene

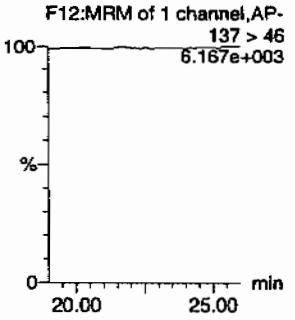

4-Nitrotoluene

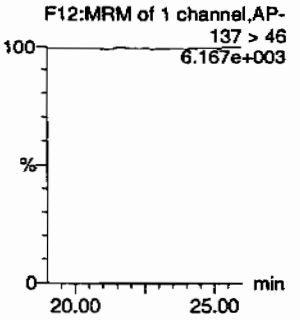

3-Nitrotoluene

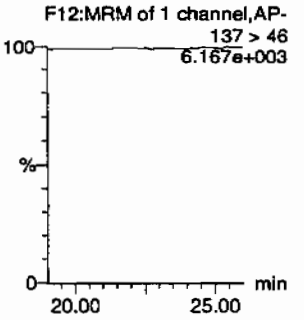

PETN

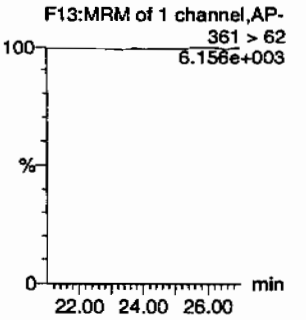

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066015	HMX	176 > 102			2975.681									
246066015	RDX	176 > 102			2975.681									
246066015	135-Trinitrobenzene	213 > 183			2975.681									
246066015	13-Dinitrobenzene-d4	172 > 142	12.06	2975.681		2975.681	2975.681	bb			423.6703	84.7	-15.3	444.1
246066015	13-Dinitrobenzene	168 > 138			2975.681									
246066015	Tetryl	241 > 181			2975.681									
246066015	Nitrobenzene	123 > 46			2975.681									
246066015	4-Amino-26-dinitrotoluene	197 > 167			18209.992									
246066015	2-Amino-46-dinitrotoluene	197 > 180			18209.992									
246066015	246-Trinitrotoluene	227 > 210			18209.992			MM-	08-Mar-10	11:40:43				
246066015	34-dinitrotoluene	182 > 152	14.41	9525.173	18209.992	9525.173	261.537	bb			270.6115	108.2	8.2	413.7
246066015	26-dinitrotoluene	182 > 152			18209.992									
246066015	24-dinitrotoluene	182 > 152			18209.992									
246066015	26-dinitrotoluene-d3	185 > 155	17.45	18209.992		18209.992	18209.992	bb			442.8374	88.6	-11.4	1450.3
246066015	2-Nitrotoluene	137 > 46			18209.992									
246066015	4-Nitrotoluene	137 > 46			18209.992									
246066015	3-Nitrotoluene	137 > 46			18209.992									
246066015	PETN	361 > 62			18209.992									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8143

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066015

Sample Amount 2

Moisture: 10.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260054.wiff

Date Analyzed: 27-FEB-10 04:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcv 3/1/10

Sample Name: "246066015" Sample ID: "948888|2|LER" File: "EXS02260054.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:46:35 AM

Modified: No

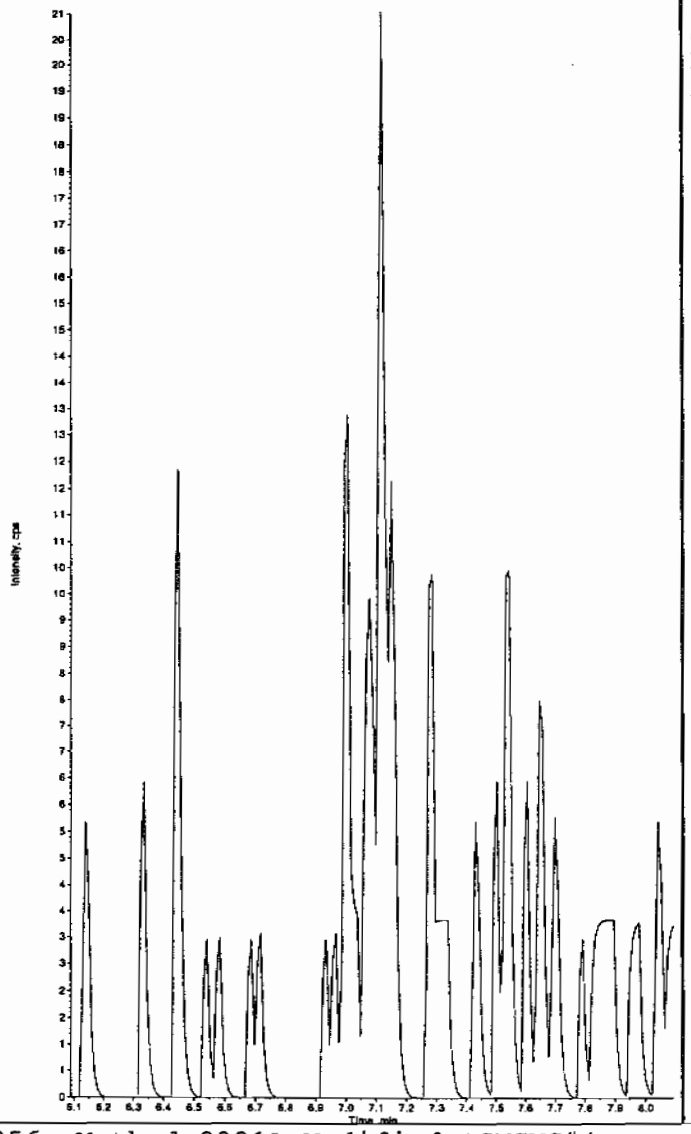

Sample Name: "246066015" Sample ID: "948888|2|LER" File: "EXS02260054.wiff"
Peak Name: "3,5-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:46:35 AM

Modified: No

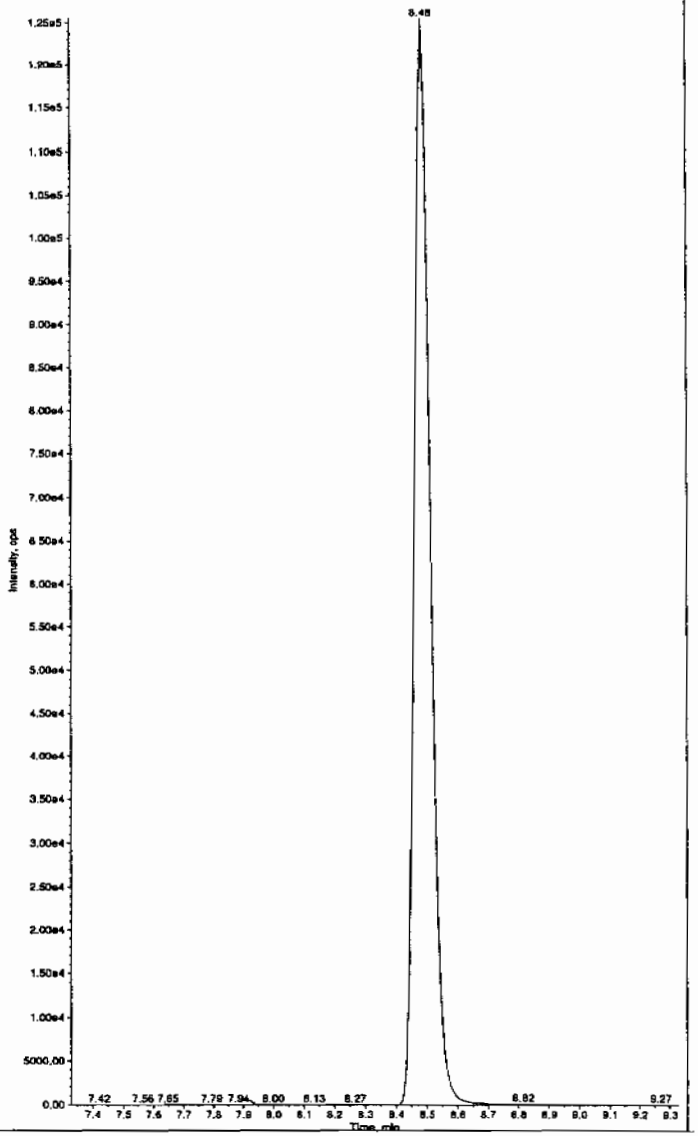

Hum 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Page 4 of 5

Sample Name: "246066015" Sample ID: "948888|2|LER" File: "EXS02260054.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 257. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:46:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.52e+006 counts
Height: 1003937.500 cps
Start Time: 8.38 min
End Time: 8.78 min

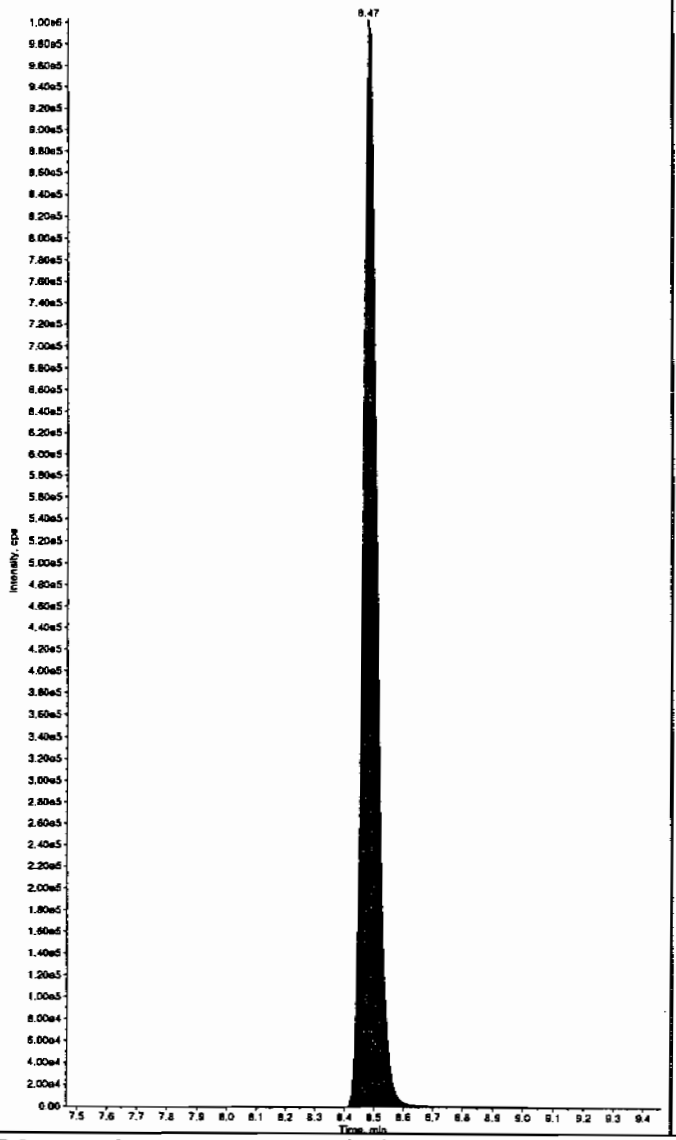

Sample Name: "246066015" Sample ID: "948888|2|LER" File: "EXS02260054.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:46:35 AM

Modified: No

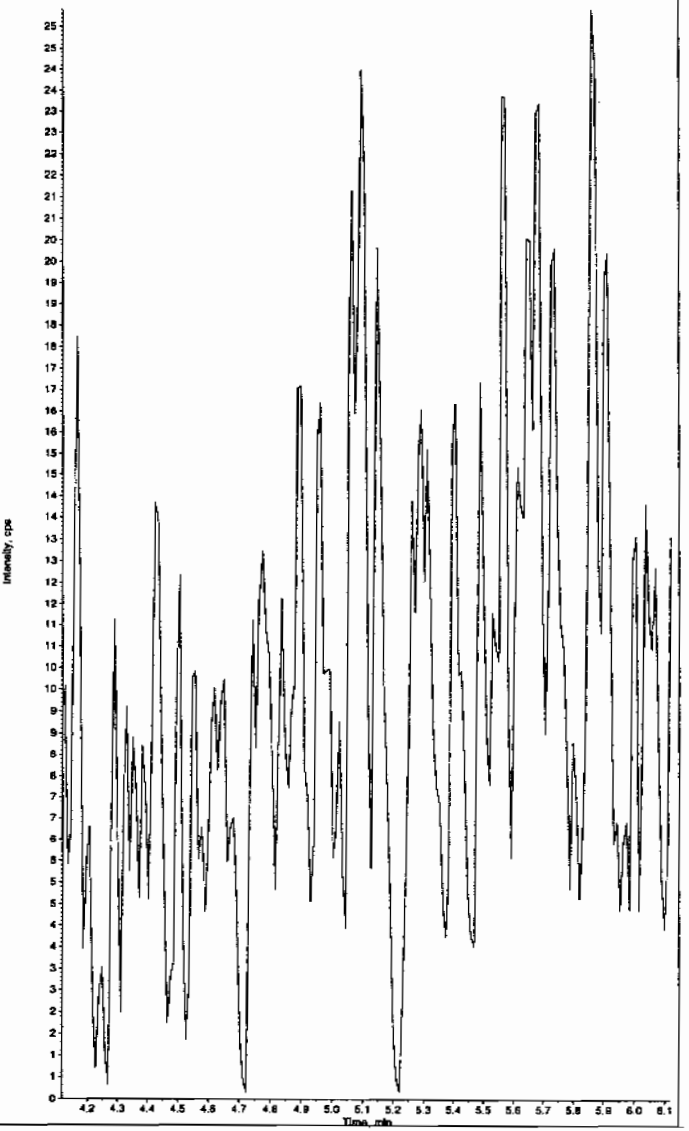

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "245066015" Sample ID: "948888|2|LER" File: "EXS02260054.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:46:35 AM

Modified: No

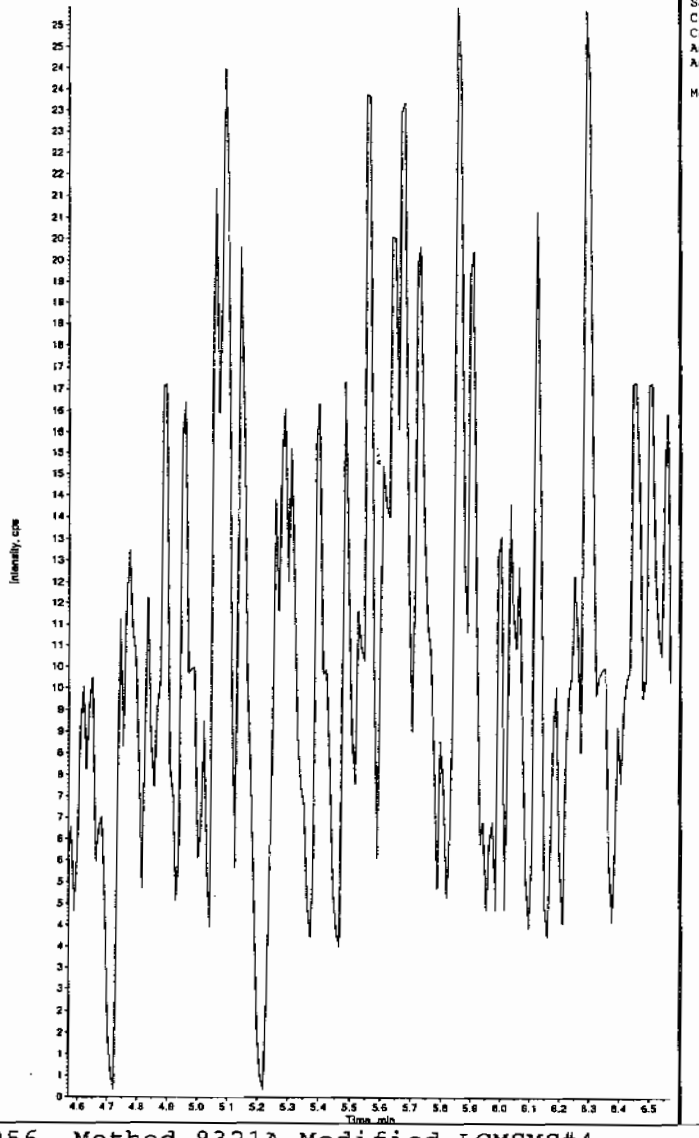

Sample Name: "245066015" Sample ID: "948888|2|LER" File: "EXS02260054.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:46:35 AM

Modified: No

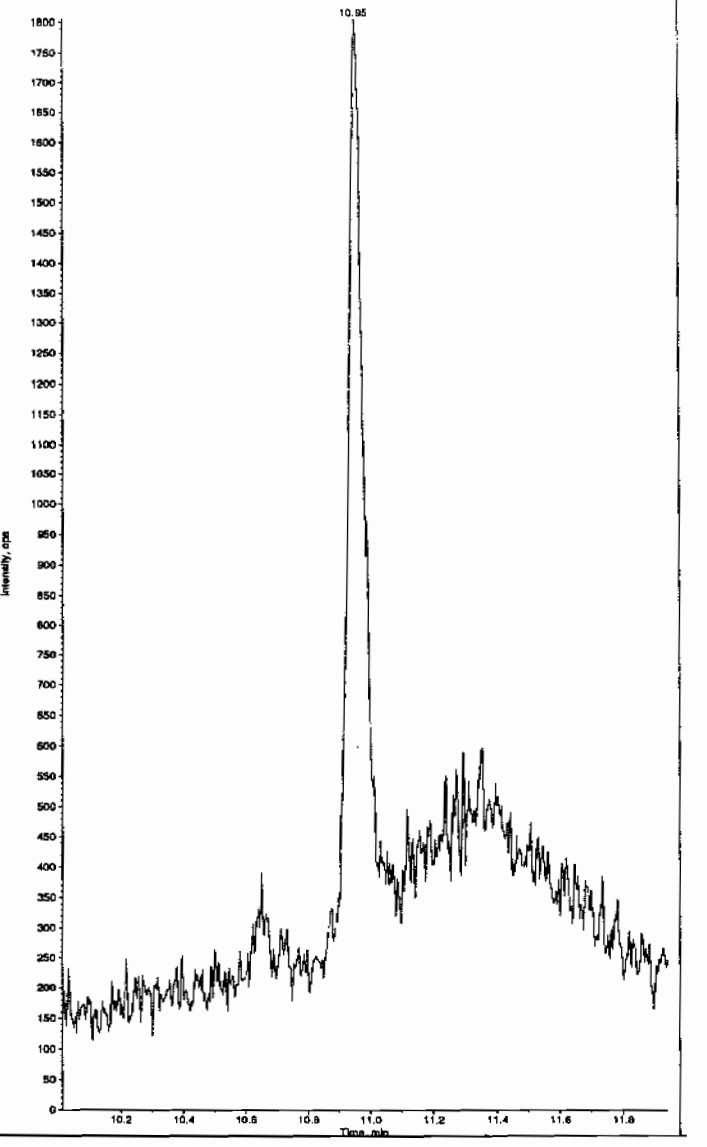

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8138

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066016

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304171a

Date Analyzed: 08-MAR-10 02:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304171a
Date: 08-Mar-2010
Time: 02:51:53
ID: 246066016
Vial: 4:4,B

| LANL | 948888 | Solids | 2 |

MM 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.266e+003

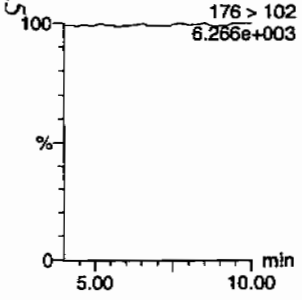

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.266e+003

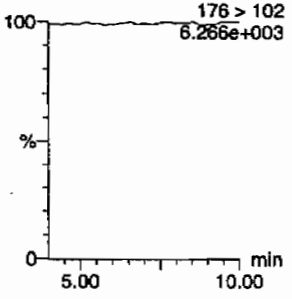

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.239e+003

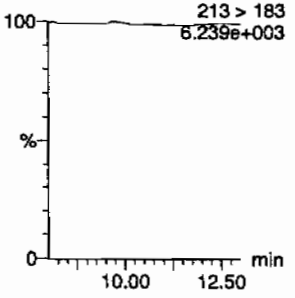

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.459e+004

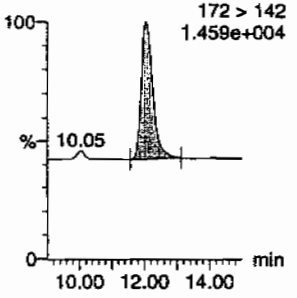

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.229e+003

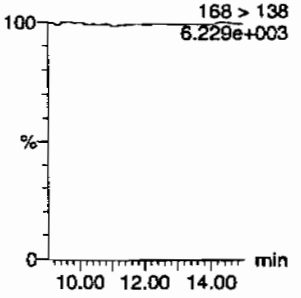

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.232e+003

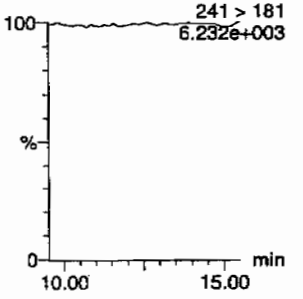

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.258e+003

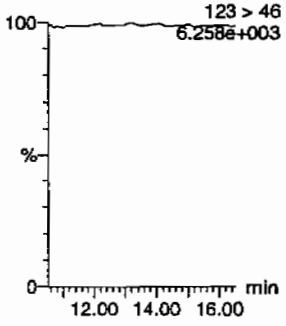

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.230e+003

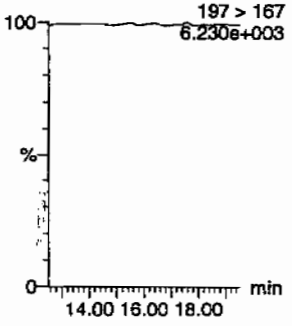

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.239e+003

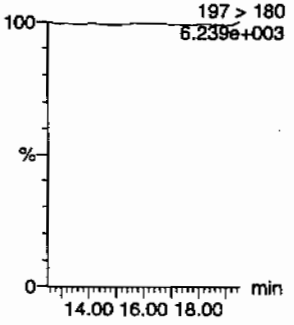

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.219e+003

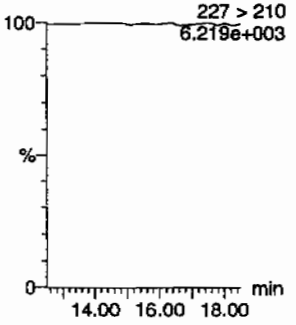

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.868e+004

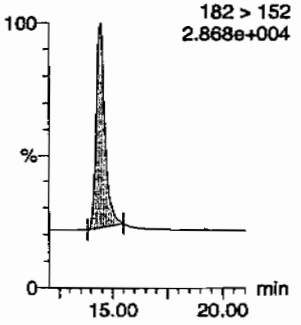

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.868e+004

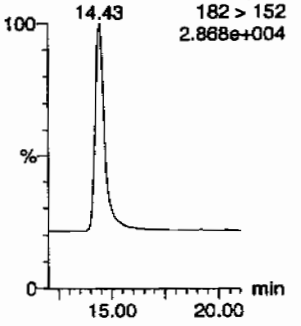

Anne 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

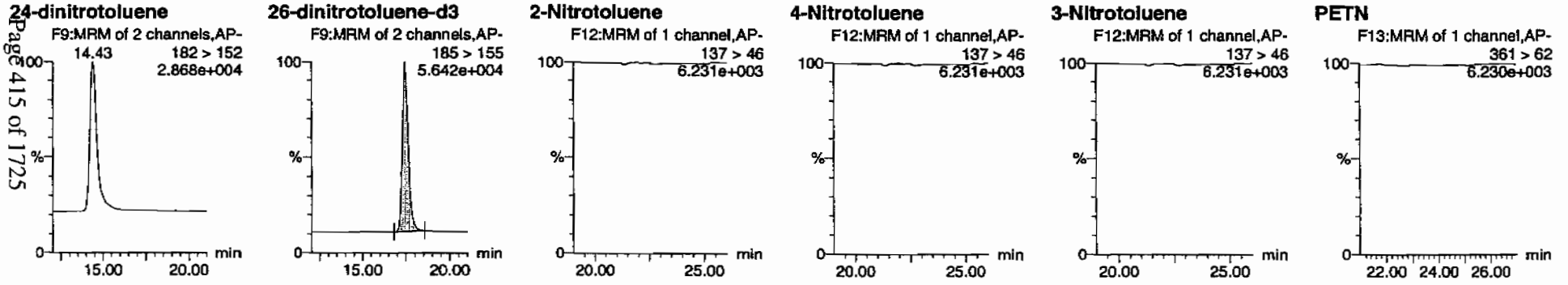

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066016	HMX	176 > 102			3492.746									
246066016	RDX	176 > 102			3492.746									
246066016	135-Trinitrobenzene	213 > 183			3492.746									
246066016	13-Dinitrobenzene-d4	172 > 142	12.07	3492.746		3492.746	3492.746	bb			497.2888	99.5	-0.5	280.3
246066016	13-Dinitrobenzene	168 > 138			3492.746									
246066016	Tetryl	241 > 181			3492.746									
246066016	Nitrobenzene	123 > 46			3492.746									
246066016	4-Amino-26-dinitrotoluene	197 > 167			20173.258									
246066016	2-Amino-46-dinitrotoluene	197 > 180			20173.258									
246066016	246-Trinitrotoluene	227 > 210			20173.258									
246066016	34-dinitrotoluene	182 > 152	14.43	10600.600	20173.258	10600.600	262.739	bb			271.8551	108.7	8.7	787.5
246066016	26-dinitrotoluene	182 > 152			20173.258									
246066016	24-dinitrotoluene	182 > 152			20173.258									
246066016	26-dinitrotoluene-d3	185 > 155	17.47	20173.258		20173.258	20173.258	bb			490.5809	98.1	-1.9	1339.4
246066016	2-Nitrotoluene	137 > 46			20173.258									
246066016	4-Nitrotoluene	137 > 46			20173.258									
246066016	3-Nitrotoluene	137 > 46			20173.258									
246066016	PETN	361 > 62			20173.258									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8138

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066016

Sample Amount 2

Moisture: 10.2

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260055.wiff

Date Analyzed: 27-FEB-10 05:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rev 3/1/10

Sample Name: "246056016" Sample ID: "948888|2|LER" File: "EXS02260055.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:02:19 AM

Modified: No

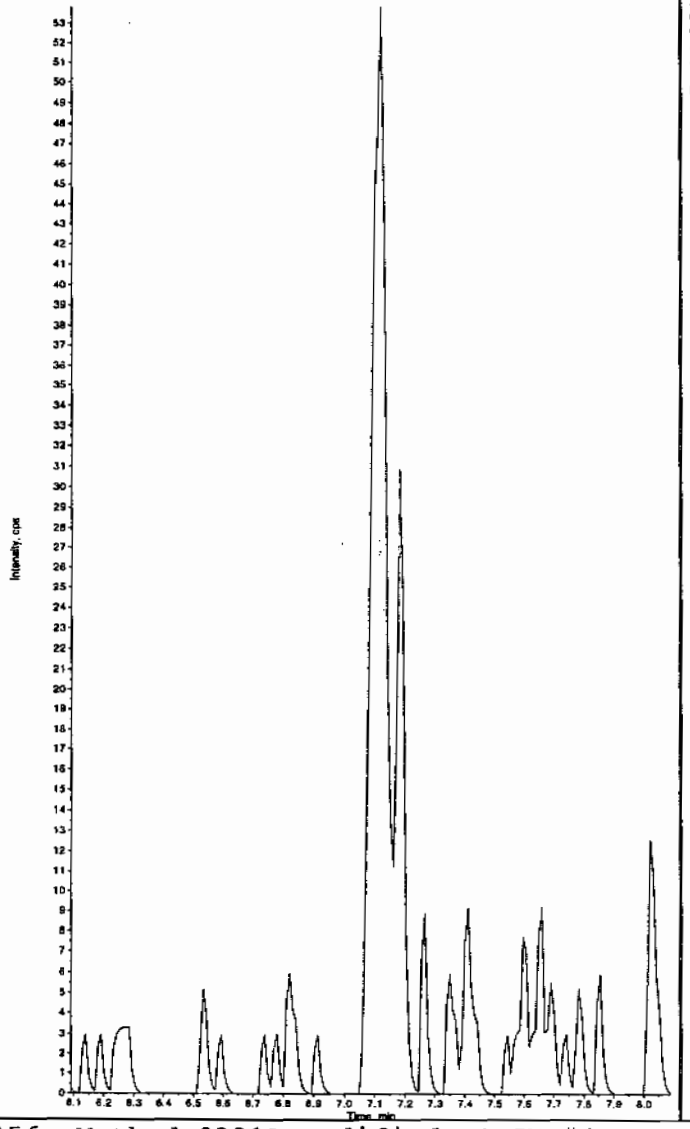

Sample Name: "246056016" Sample ID: "948888|2|LER" File: "EXS02260055.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:02:19 AM

Modified: No

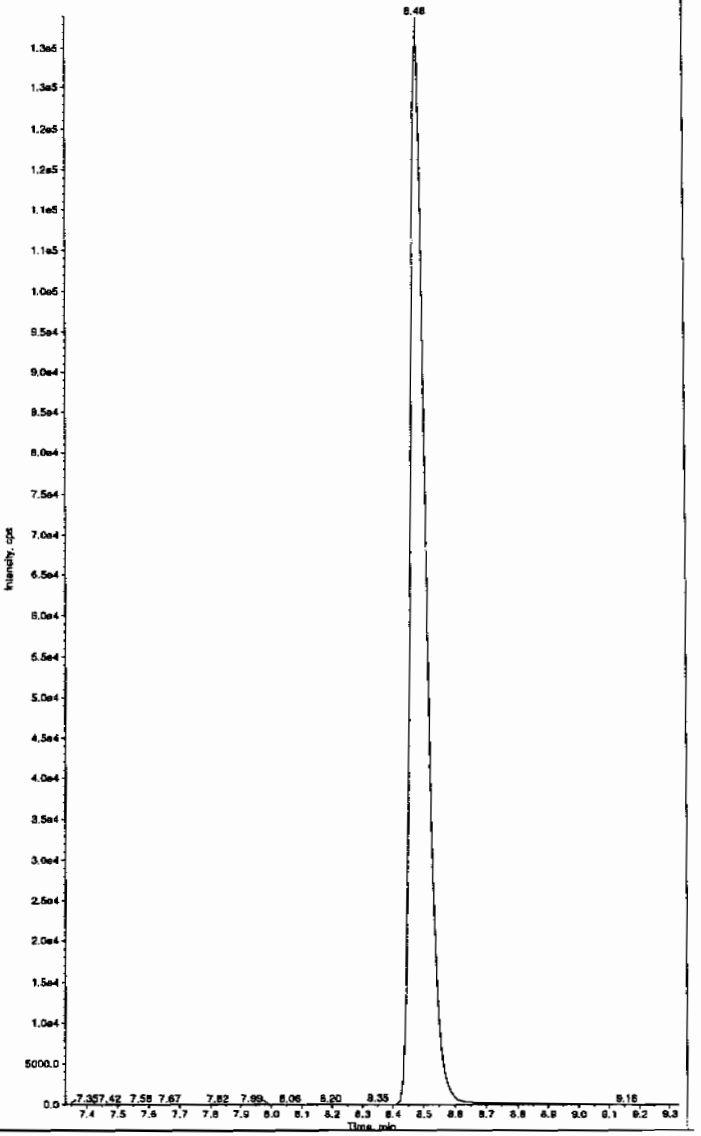

HMW 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066016" Sample ID: "948888[2]LER" File: "EXS02260055.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 258. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:02:19 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.54e+006 counts
Height: 1029147.705 cps
Start Time: 8.37 min
End Time: 8.75 min

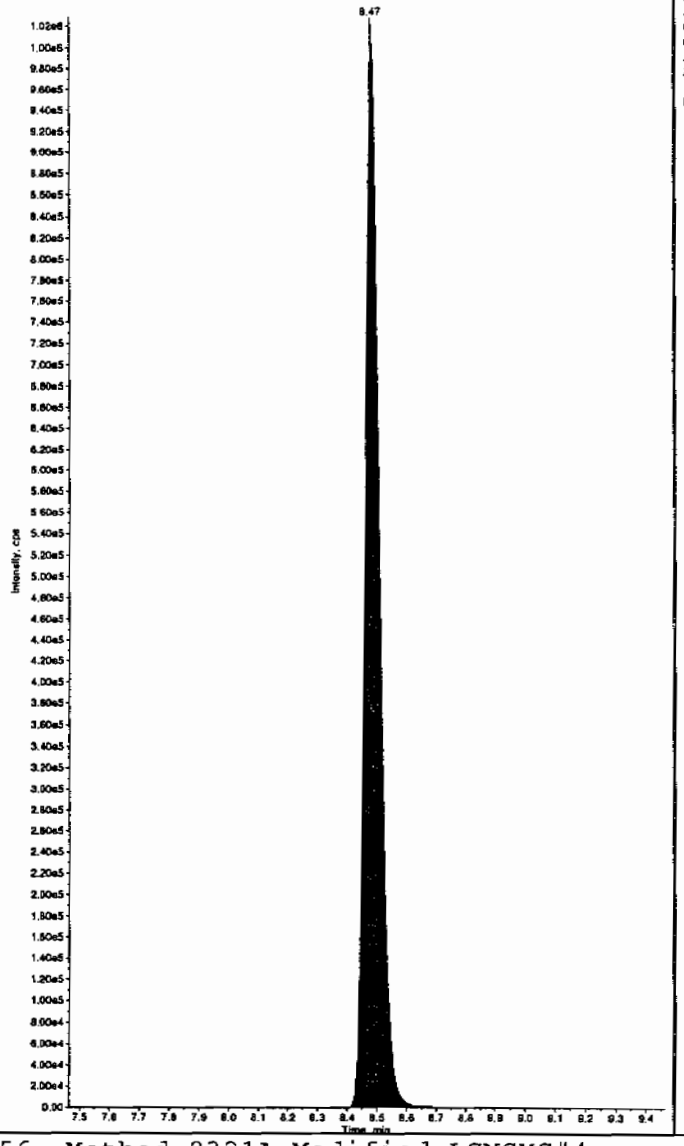

Sample Name: "246066016" Sample ID: "948888[2]LER" File: "EXS02260055.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:02:19 AM

Modified: No

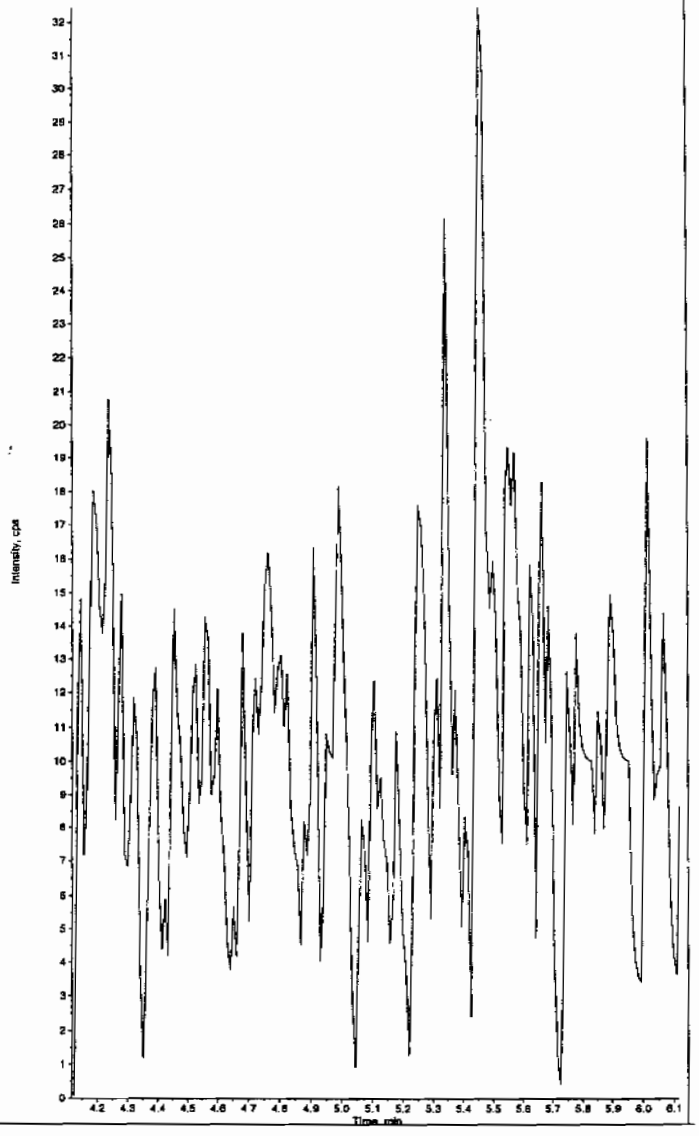

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066016" Sample ID: "948888[2]LER" File: "EXS02260055.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:02:19 AM

Modified: No

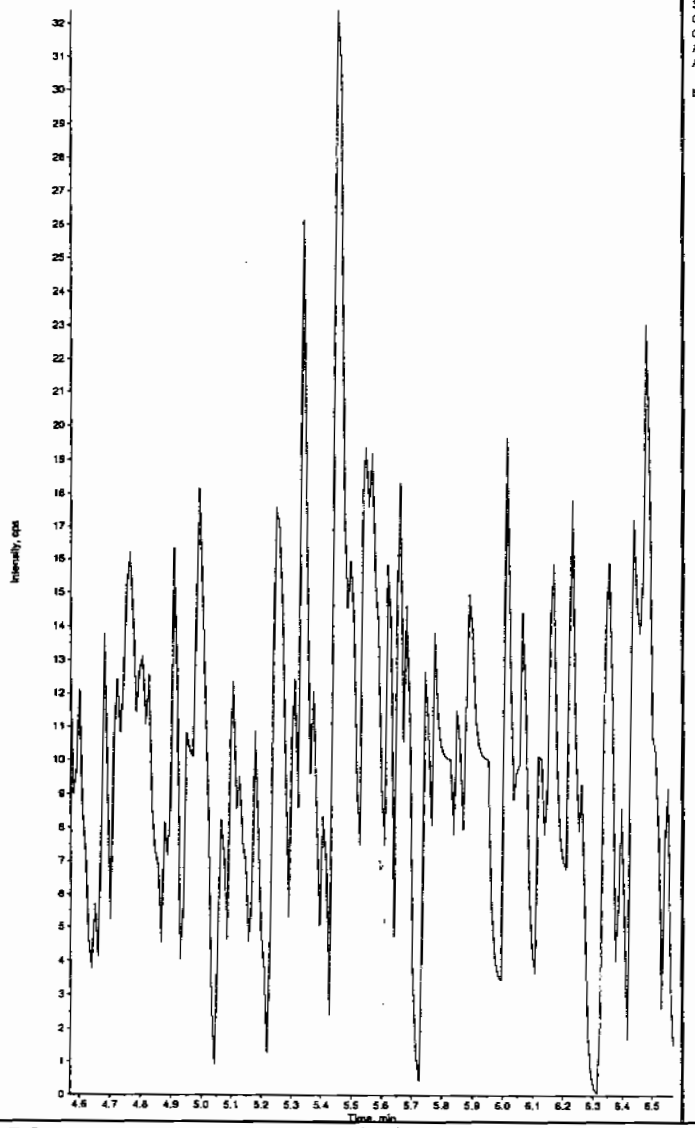

Sample Name: "246066016" Sample ID: "948888[2]LER" File: "EXS02260055.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:02:19 AM

Modified: No

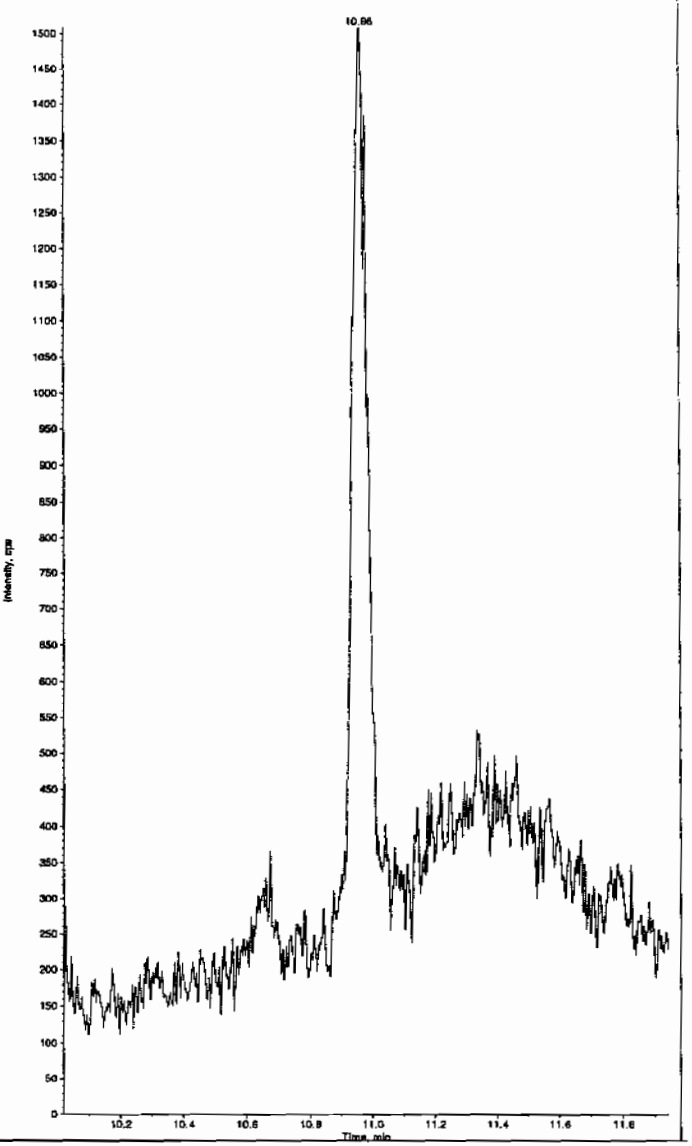

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8145

Lab Code: GEI

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066017

Sample Amount 2

Moisture: 6.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304175a

Date Analyzed: 08-MAR-10 04:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304175a
Date: 08-Mar-2010
Time: 04:49:51
ID: 246066017 | LANU | 948888 | Solid | 21
Vial: 4:4,C

MM 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.237e+003

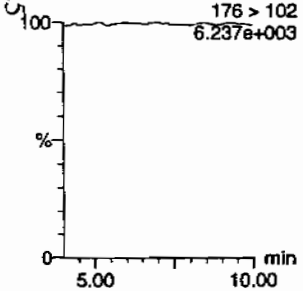

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.237e+003

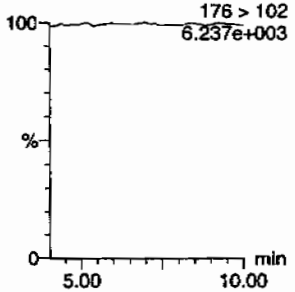

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.188e+003

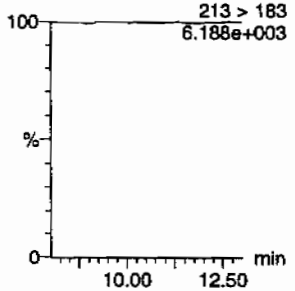

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.413e+004

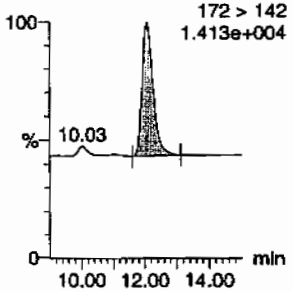

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.205e+003

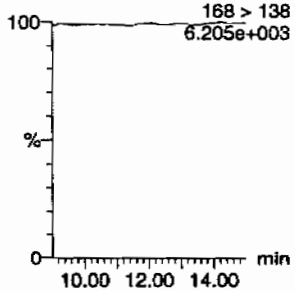

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.214e+003

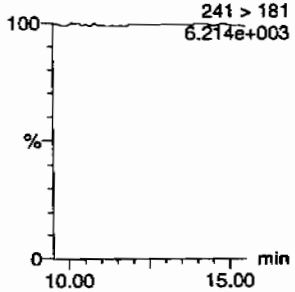

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.209e+003

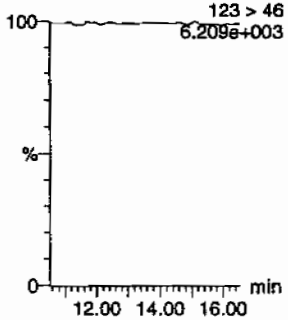

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
17.19
197 > 167
6.356e+003

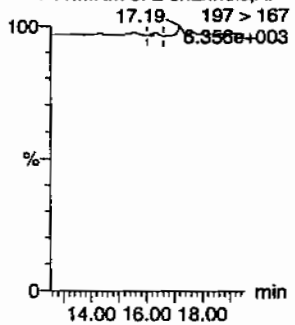

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.213e+003

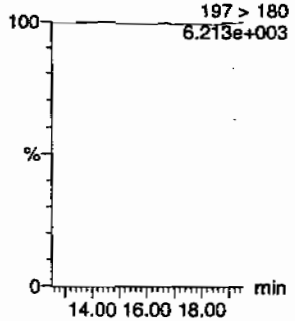

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.191e+003

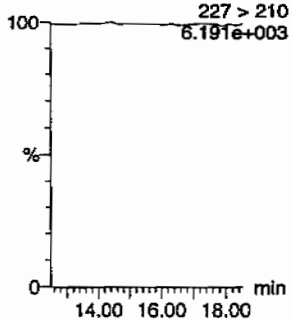

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.715e+004

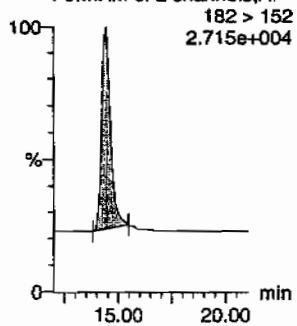

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.715e+004

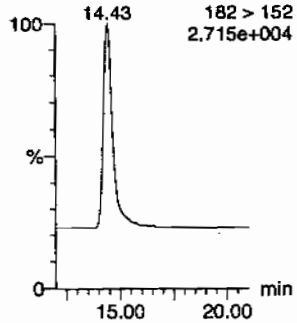

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

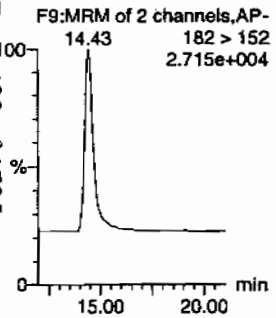

26-dinitrotoluene-d3

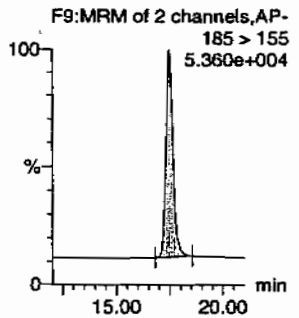

2-Nitrotoluene

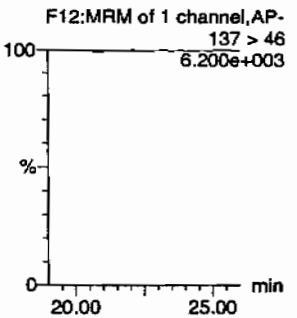

4-Nitrotoluene

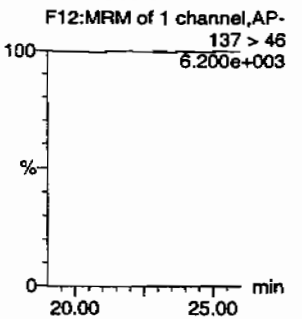

3-Nitrotoluene

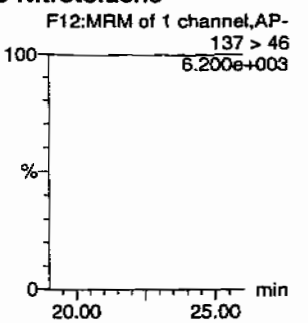

PETN

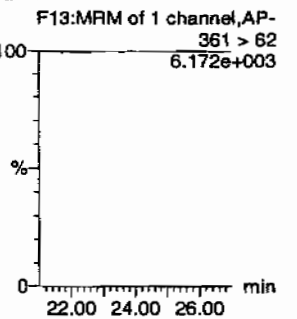

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Rel Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066017	HMX	176 > 102			3232.107									
246066017	RDX	176 > 102			3232.107									
246066017	135-Trinitrobenzene	213 > 183			3232.107									
246066017	13-Dinitrobenzene-d4	172 > 142	12.07	3232.107		3232.107	3232.107	bb			460.1796	92.0	-8.0	160.3
246066017	13-Dinitrobenzene	168 > 138			3232.107									
246066017	Tetryl	241 > 181			3232.107									
246066017	Nitrobenzene	123 > 46			3232.107									
246066017	4-Amino-26-dinitrotoluene	197 > 167			19074.980			MM-	08-Mar-10	11:35:17				
246066017	2-Amino-46-dinitrotoluene	197 > 180			19074.980									
246066017	246-Trinitrotoluene	227 > 210			19074.980									
246066017	34-dinitrotoluene	182 > 152	14.43	9912.461	19074.980	9912.461	259.829	bb			268.8441	107.5	7.5	479.7
246066017	26-dinitrotoluene	182 > 152			19074.980									
246066017	24-dinitrotoluene	182 > 152			19074.980									
246066017	26-dinitrotoluene-d3	185 > 155	17.47	19074.980		19074.980	19074.980	bb			463.8725	92.8	-7.2	1548.6
246066017	2-Nitrotoluene	137 > 46			19074.980									
246066017	4-Nitrotoluene	137 > 46			19074.980									
246066017	3-Nitrotoluene	137 > 46			19074.980									
246066017	PETN	361 > 62			19074.980									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8145

Lab Code: GEI

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066017

Sample Amount 2

Moisture: 6.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260056.wiff

Date Analyzed: 27-FEB-10 05:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LER 3/1/10

Sample Name: "246066017" Sample ID: "948888|2|LER" File: "EXS02260056.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:18:01 AM

Modified: No

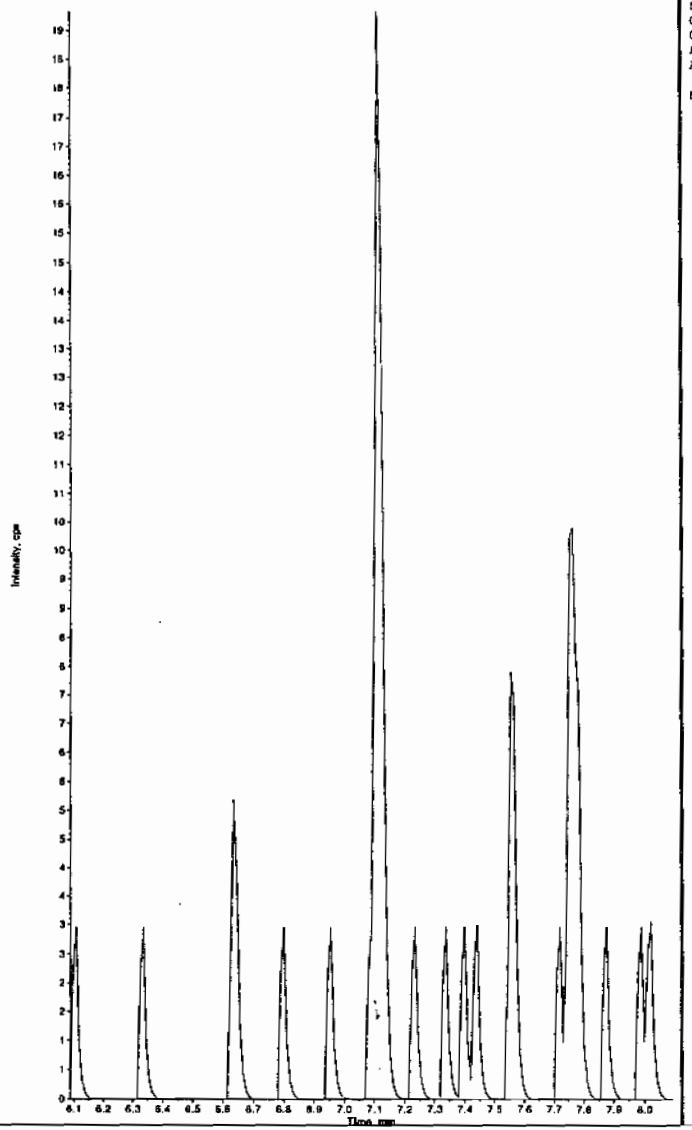

Sample Name: "246066017" Sample ID: "948888|2|LER" File: "EXS02260056.wiff"
Peak Name: "35-Dinitroanilina" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:18:01 AM

Modified: No

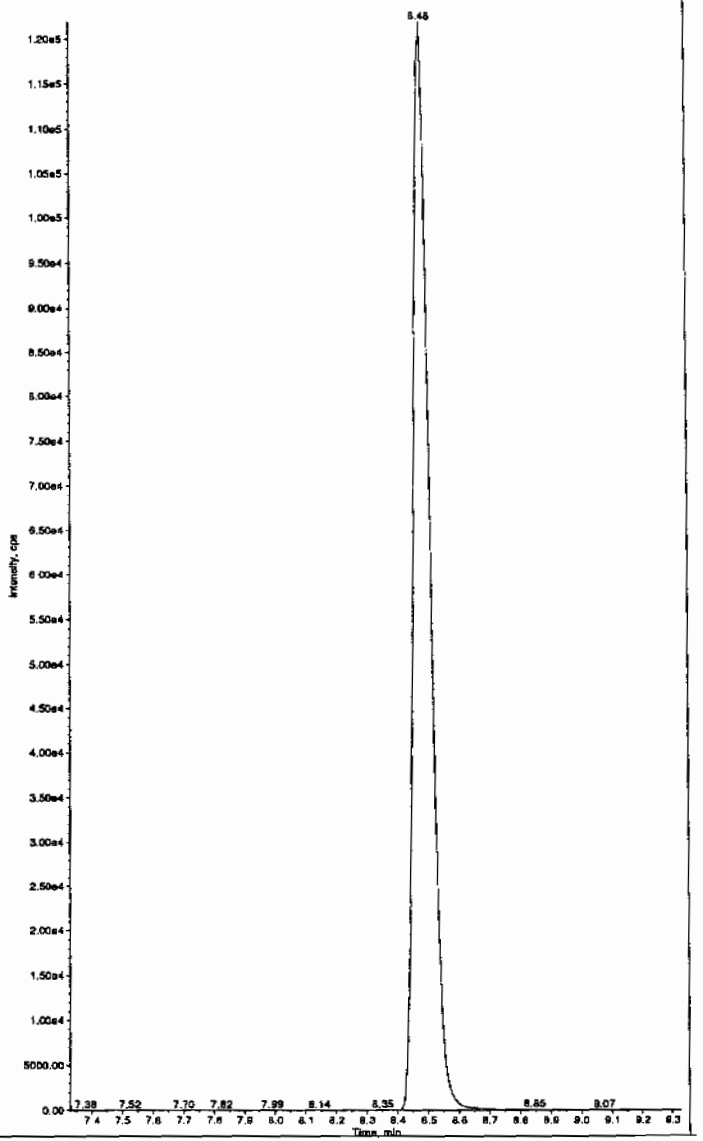

HMM 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066017" Sample ID: "948888[2]LER" File: "EXS02260056.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 253. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:18:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.48e+006 counts
Height: 1000197.388 cps
Start Time: 8.33 min
End Time: 8.84 min

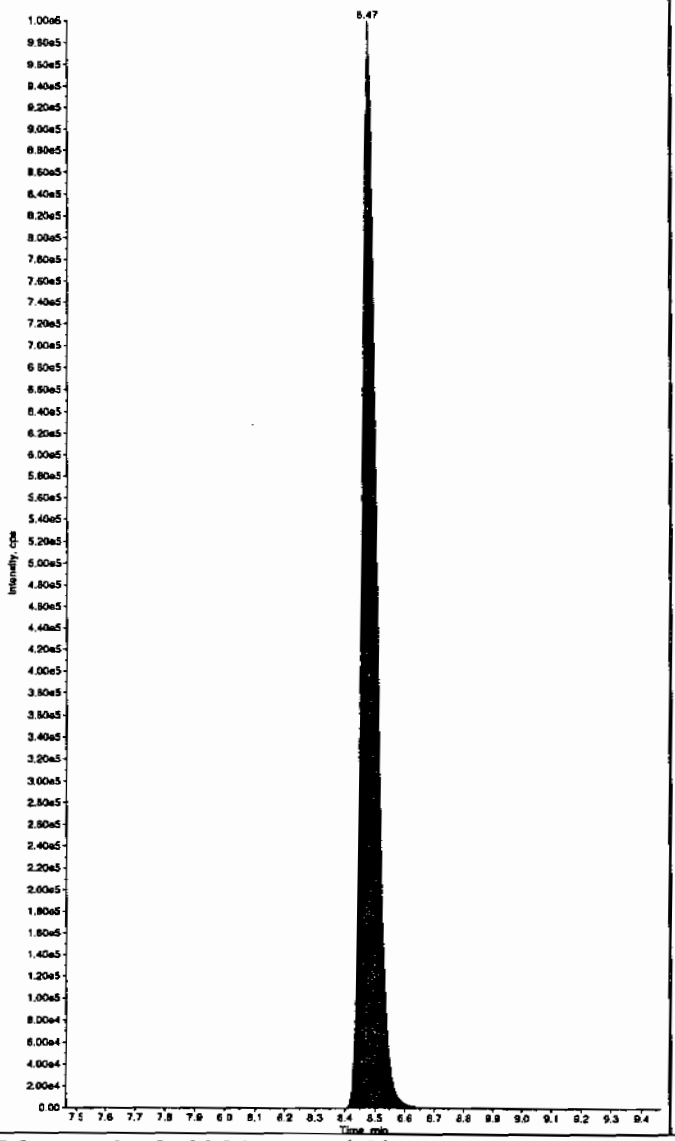

Sample Name: "246066017" Sample ID: "948888[2]LER" File: "EXS02260056.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:18:01 AM

Modified: No

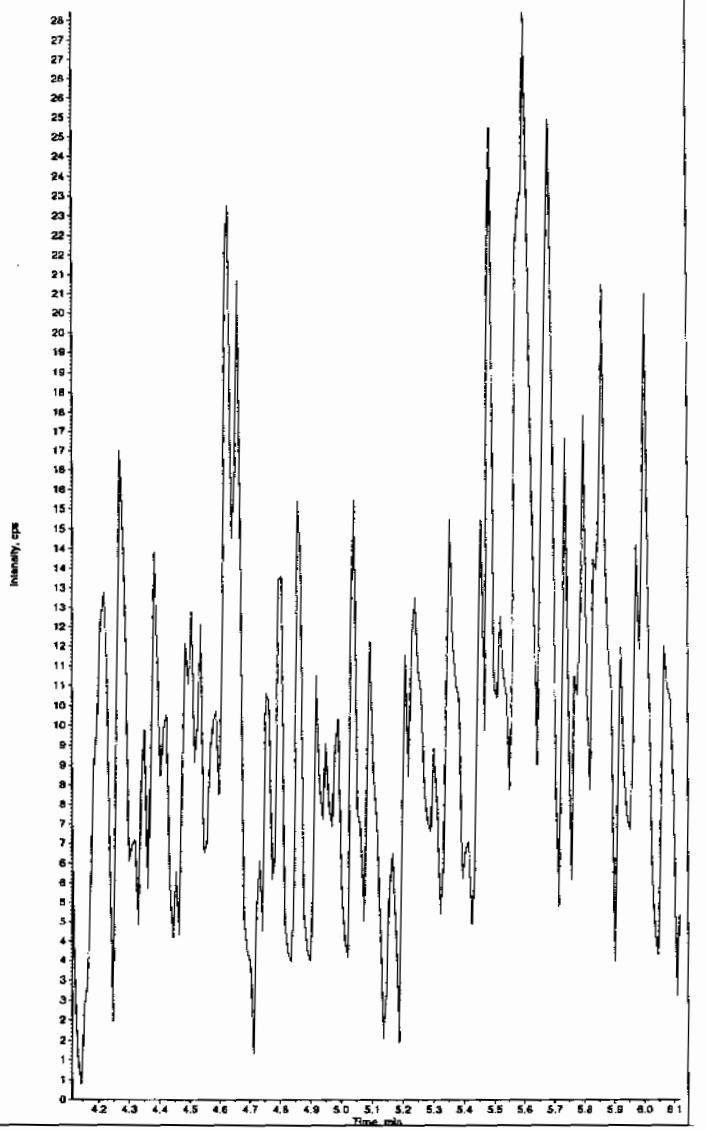

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066017" Sample ID: "948888|2|LER" File: "EXS02260056.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:18:01 AM

Modified: No

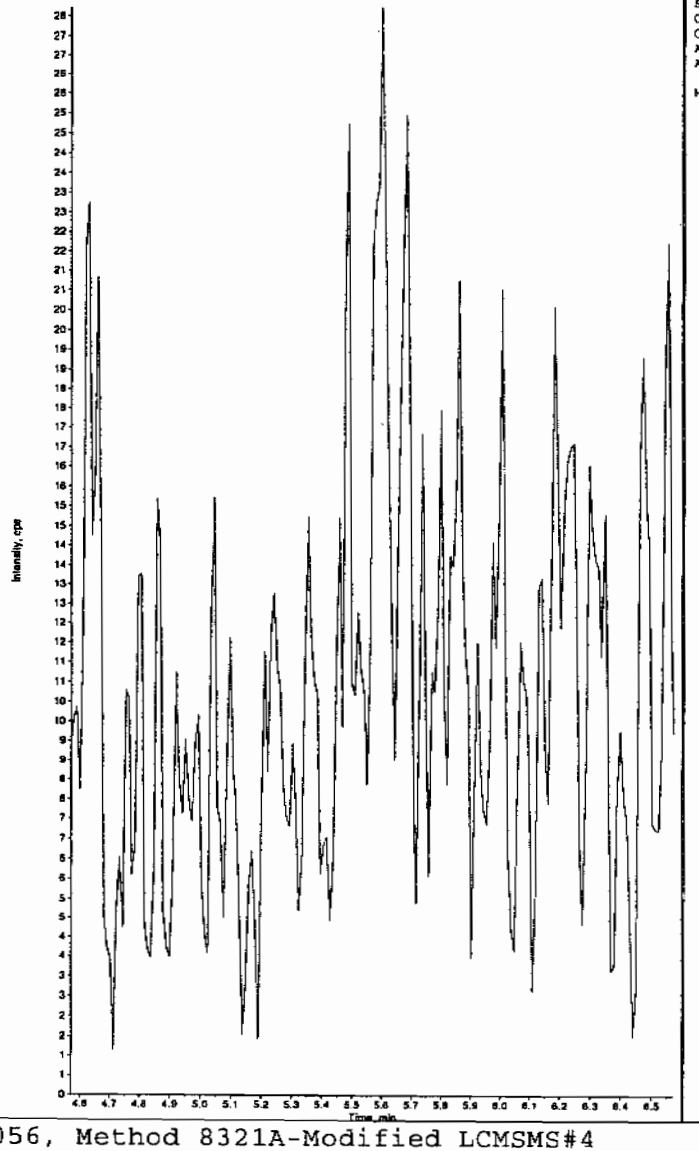

Sample Name: "246066017" Sample ID: "948888|2|LER" File: "EXS02260056.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:18:01 AM

Modified: No

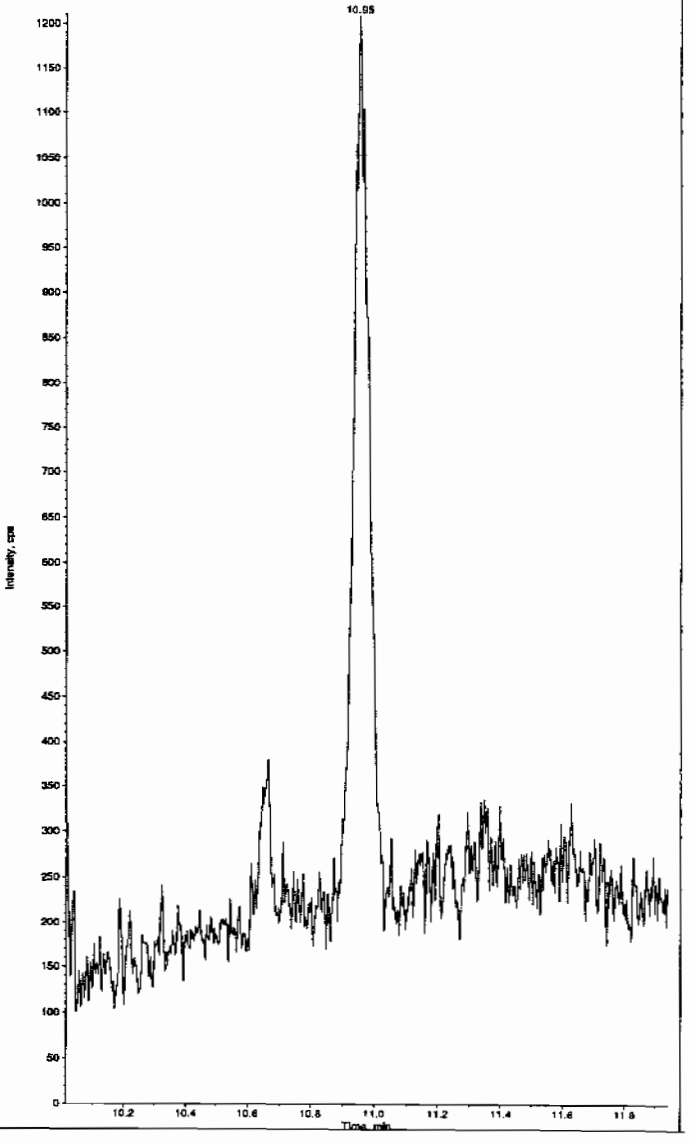

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8141

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066018

Sample Amount 2

Moisture: 12.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304176a

Date Analyzed: 08-MAR-10 05:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304176a
Date: 08-Mar-2010
Time: 05:19:28
ID: 246066018 | LAW | 948888 | Solids | 21
Vial: 4:4,D

MAP 3/8/10

Page 68 of 1725

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.197e+003

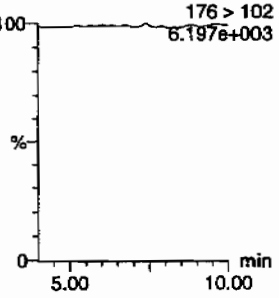

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.197e+003

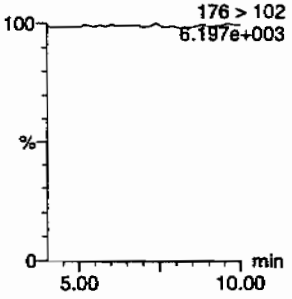

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.160e+003

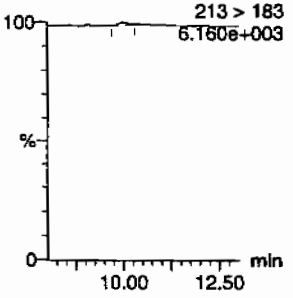

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.493e+004

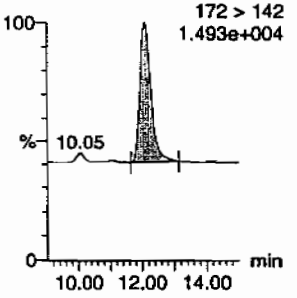

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.130e+003

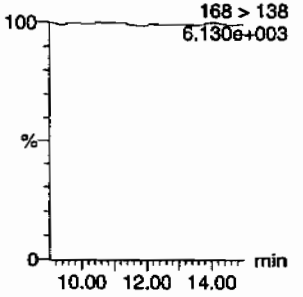

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.140e+003

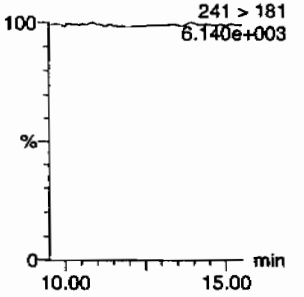

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.165e+003

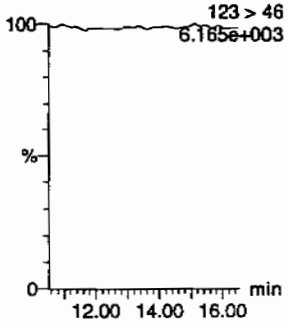

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.122e+003

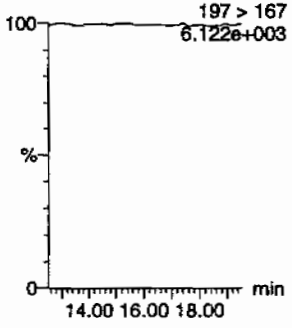

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.136e+003

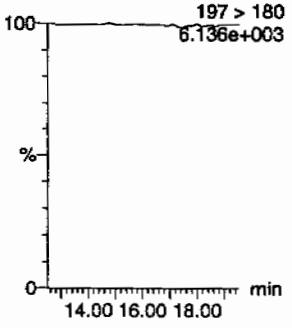

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.095e+003

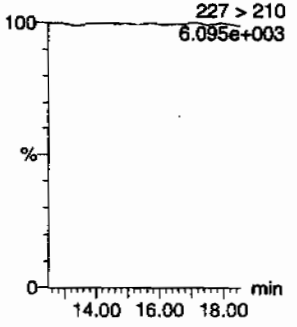

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.038e+004

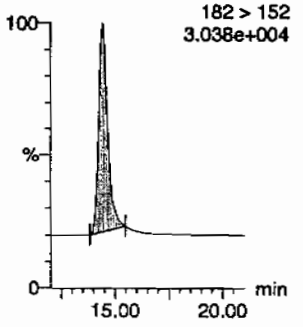

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
3.038e+004

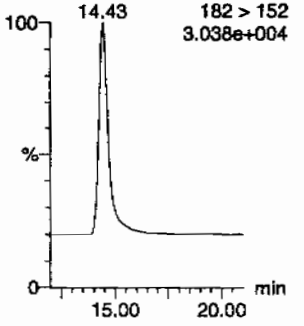

Hmm 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

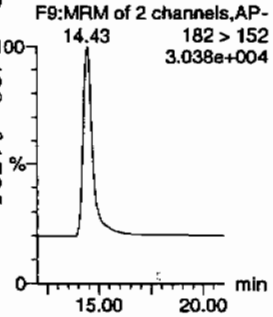

26-dinitrotoluene-d3

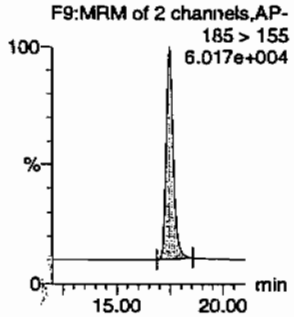

2-Nitrotoluene

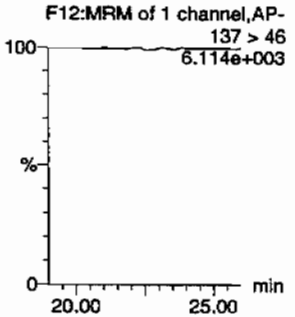

4-Nitrotoluene

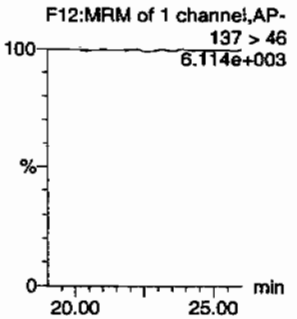

3-Nitrotoluene

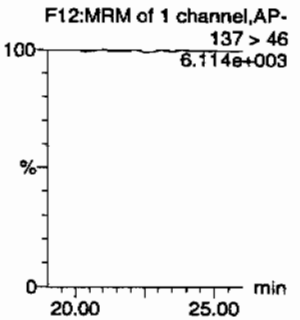

PETN

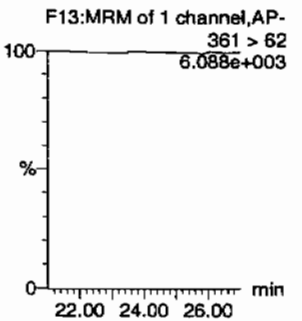

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066018	HMX	176 > 102			3593.534									
246066018	RDX	176 > 102			3593.534									
246066018	135-Trinitrobenzene	213 > 183			3593.534			MM-	08-Mar-10	11:14:56				
246066018	13-Dinitrobenzene-d4	172 > 142	12.07	3593.534		3593.534	3593.534	bb			511.6387	102.3	2.3	310.0
246066018	13-Dinitrobenzene	168 > 138			3593.534									
246066018	Tetryl	241 > 181			3593.534									
246066018	Nitrobenzene	123 > 46			3593.534									
246066018	4-Amino-26-dinitrotoluene	197 > 167			21515.715									
246066018	2-Amino-46-dinitrotoluene	197 > 180			21515.715									
246066018	246-Trinitrotoluene	227 > 210			21515.715									
246066018	34-dinitrotoluene	182 > 152	14.43	11591.891	21515.715	11591.891	269.382	bb			278.7286	111.5	11.5	645.6
246066018	26-dinitrotoluene	182 > 152			21515.715									
246066018	24-dinitrotoluene	182 > 152			21515.715									
246066018	26-dinitrotoluene-d3	185 > 155	17.47	21515.715		21515.715	21515.715	bb			523.2273	104.6	4.6	2673.9
246066018	2-Nitrotoluene	137 > 46			21515.715									
246066018	4-Nitrotoluene	137 > 46			21515.715									
246066018	3-Nitrotoluene	137 > 46			21515.715									
246066018	PETN	361 > 62			21515.715									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8141

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066018

Sample Amount 2

Moisture: 12.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260057.wiff

Date Analyzed: 27-FEB-10 05:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rev 3/1/10

Sample Name: "248066018" Sample ID: "948888|2|LER" File: "EXS02260057.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:33:43 AM

Modified: No

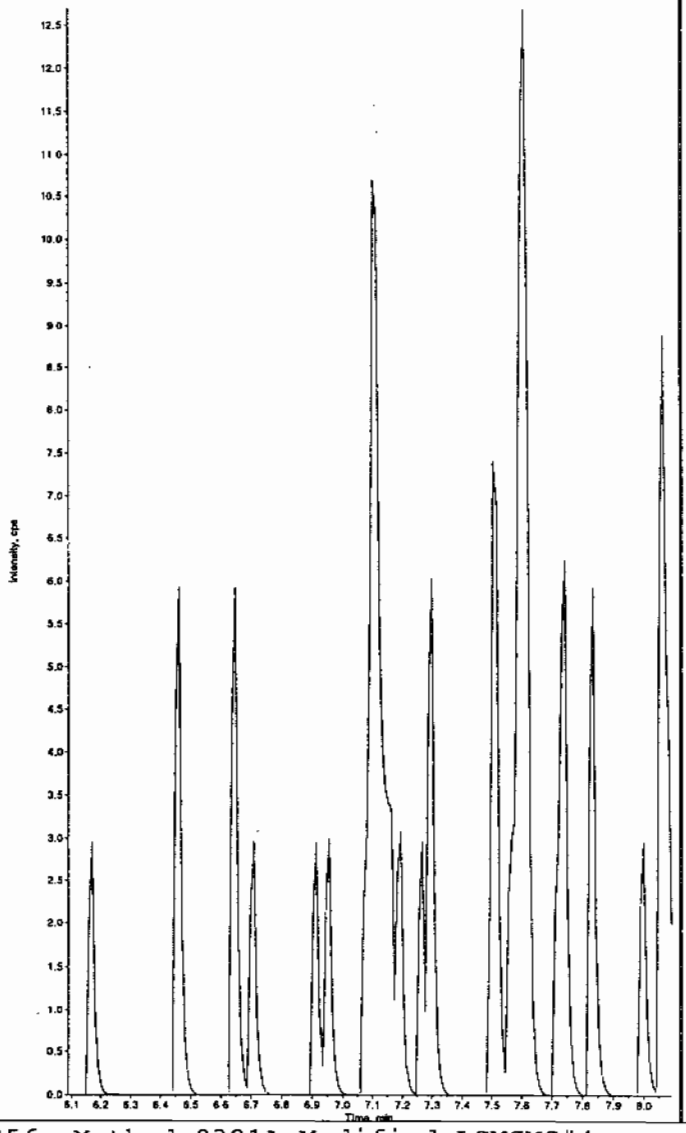

Sample Name: "248066018" Sample ID: "948888|2|LER" File: "EXS02260057.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:33:43 AM

Modified: No

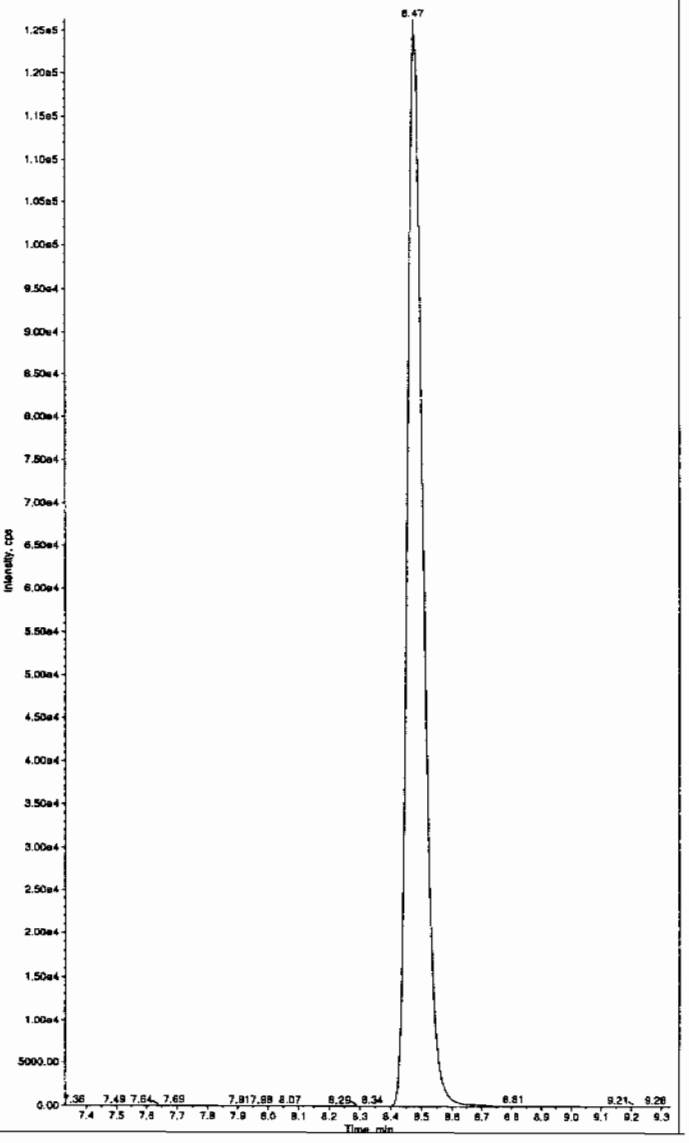

HMW 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066018" Sample ID: "948888|2|LER" File: "EXS02260057.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 269. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:33:43 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.68e+006 counts
Height: 1062792.236 cps
Start Time: 8.31 min
End Time: 8.78 min

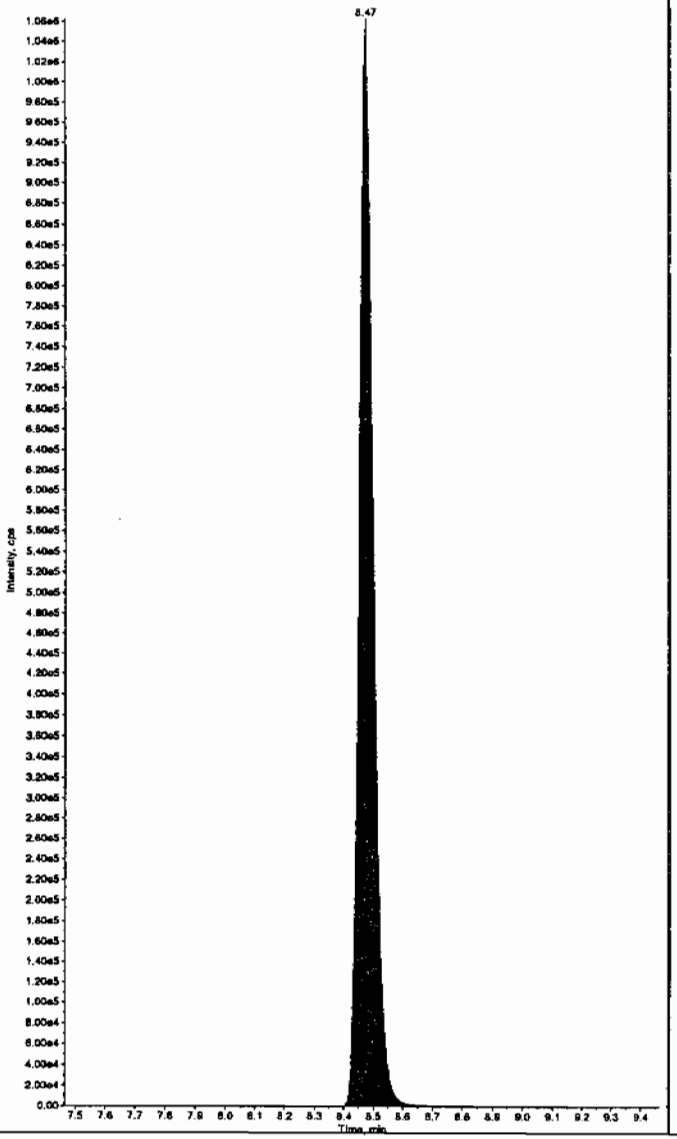

Sample Name: "246066018" Sample ID: "948888|2|LER" File: "EXS02260057.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:33:43 AM

Modified: No

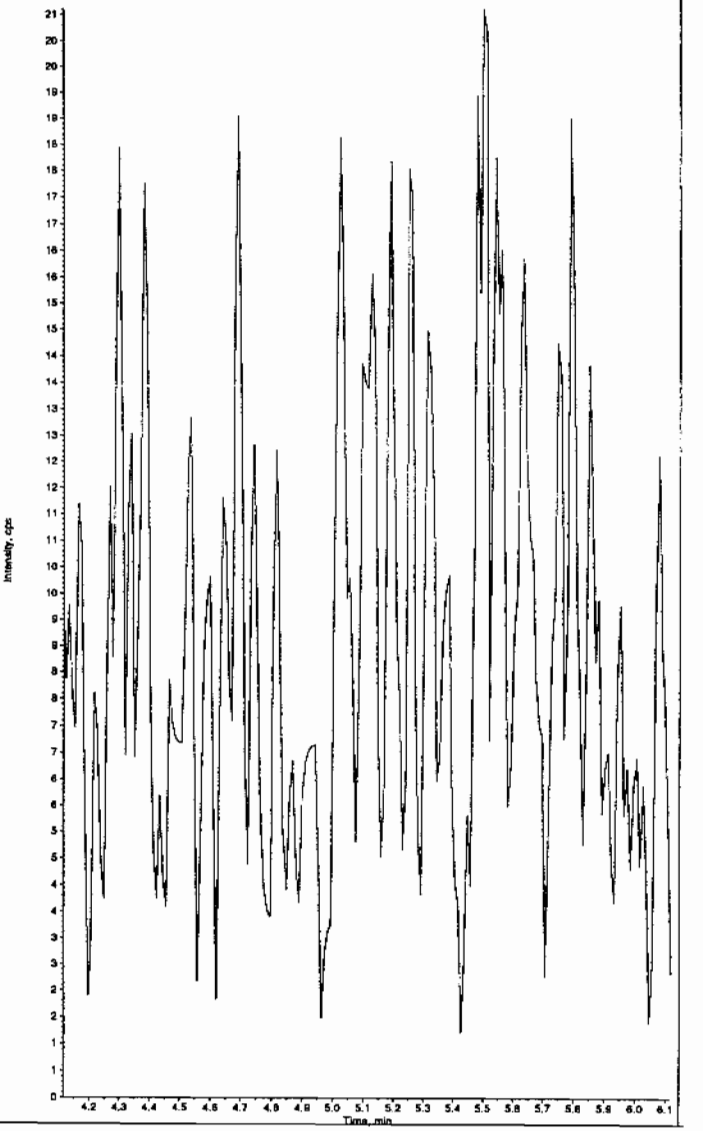

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066018" Sample ID: "948888[2]LER" File: "EXS02260057.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:33:43 AM

Modified: No

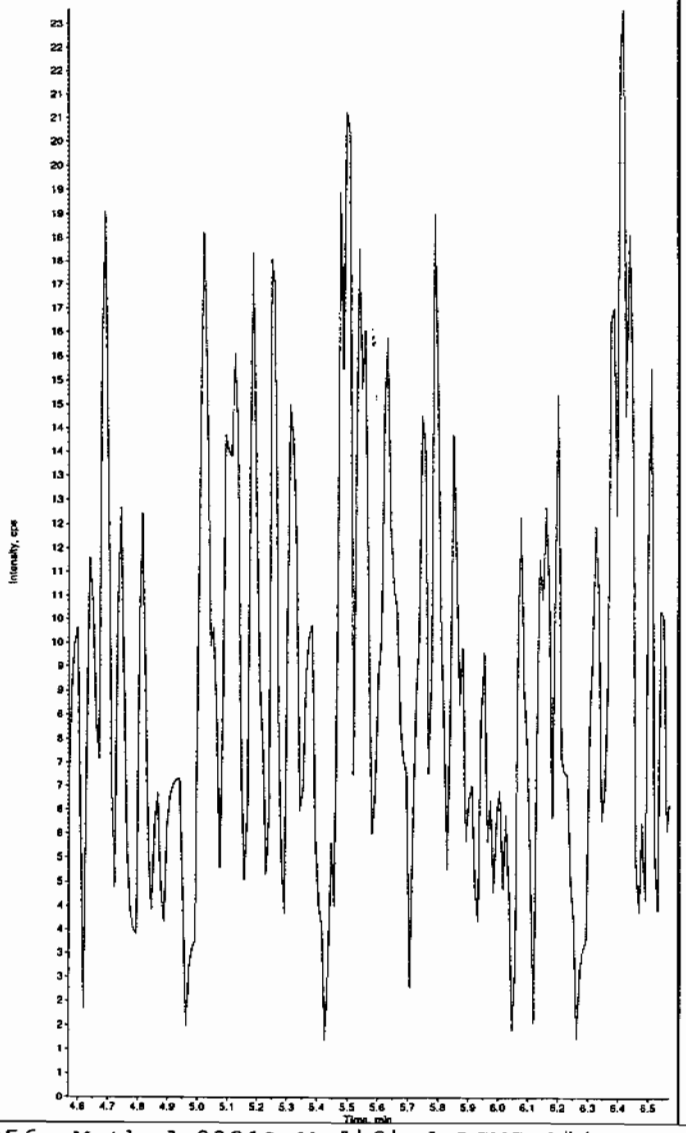

Sample Name: "246066018" Sample ID: "948888[2]LER" File: "EXS02260057.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:33:43 AM

Modified: No

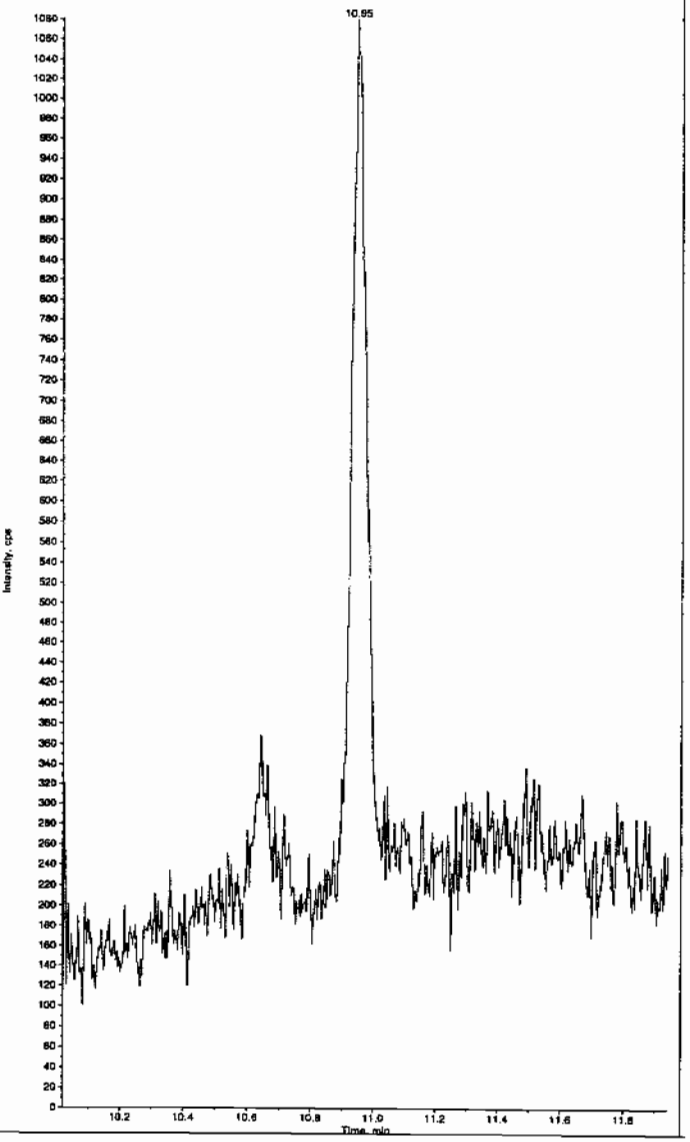

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8135

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066019

Sample Amount 2

Moisture: 10.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304177a

Date Analyzed: 08-MAR-10 05:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304177a
Date: 08-Mar-2010
Time: 05:48:57
ID: 246066019 | LANW | 948888 | Soil | 21
Vial: 4:4,E

MAP 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.406e+003

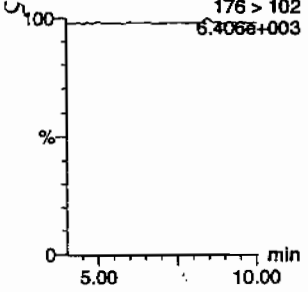

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.406e+003

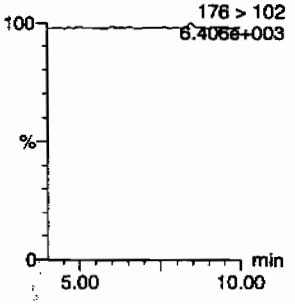

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.285e+003

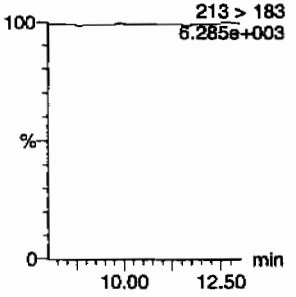

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.549e+004

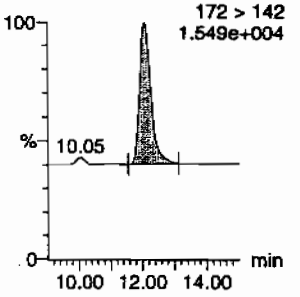

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.281e+003

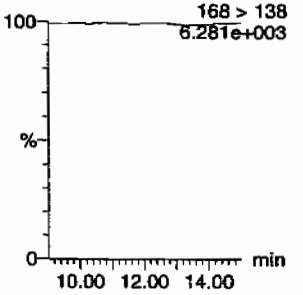

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.305e+003

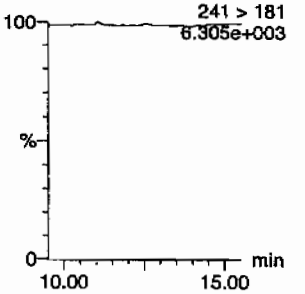

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.301e+003

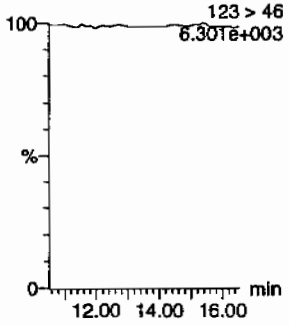

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.276e+003

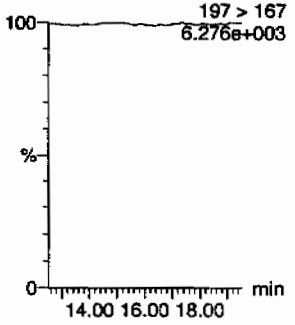

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.297e+003

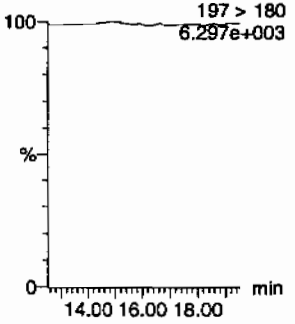

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.258e+003

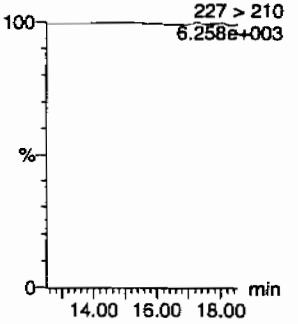

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.944e+004

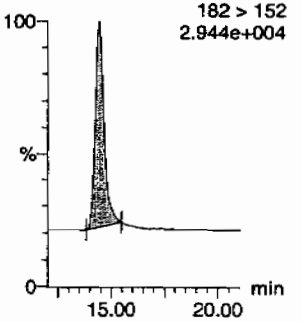

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.944e+004

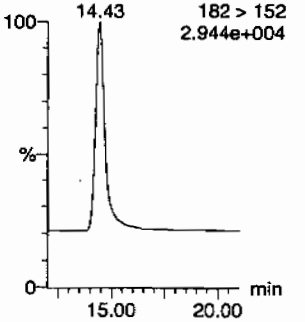

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

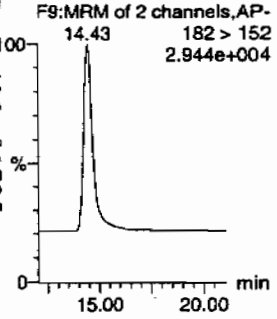

26-dinitrotoluene-d3

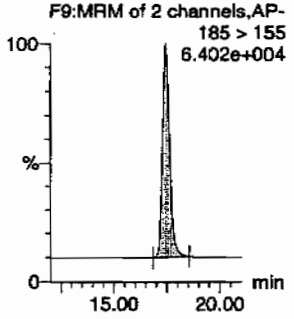

2-Nitrotoluene

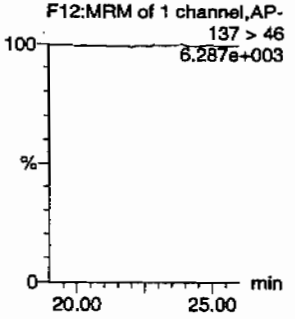

4-Nitrotoluene

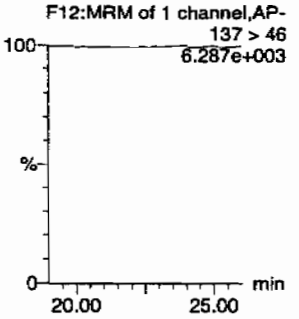

3-Nitrotoluene

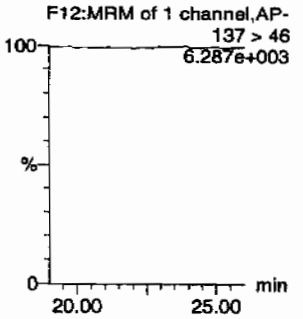

PETN

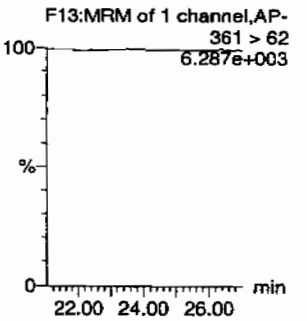

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246066019	HMX	176 > 102			3812.550									
246066019	RDX	176 > 102			3812.550									
246066019	135-Trinitrobenzene	213 > 183			3812.550									
246066019	13-Dinitrobenzene-d4	172 > 142	12.07	3812.550		3812.550	3812.550	bb			542.8217	108.6	8.6	514.3
246066019	13-Dinitrobenzene	168 > 138			3812.550									
246066019	Tetryl	241 > 181			3812.550									
246066019	Nitrobenzene	123 > 46			3812.550									
246066019	4-Amino-26-dinitrotoluene	197 > 167			22987.207									
246066019	2-Amino-46-dinitrotoluene	197 > 180			22987.207									
246066019	246-Trinitrotoluene	227 > 210			22987.207									
246066019	34-dinitrotoluene	182 > 152	14.43	10963.625	22987.207	10963.625	238.472	bb			246.7465	98.7	-1.3	540.1
246066019	26-dinitrotoluene	182 > 152			22987.207									
246066019	24-dinitrotoluene	182 > 152			22987.207									
246066019	26-dinitrotoluene-d3	185 > 155	17.47	22987.207		22987.207	22987.207	bb			559.0116	111.8	11.8	962.0
246066019	2-Nitrotoluene	137 > 46			22987.207									
246066019	4-Nitrotoluene	137 > 46			22987.207									
246066019	3-Nitrotoluene	137 > 46			22987.207									
246066019	PETN	361 > 62			22987.207									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8135

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066019

Sample Amount 2

Moisture: 10.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260058.wiff

Date Analyzed: 27-FEB-10 05:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 3/1/10

Sample Name: "246066019" Sample ID: "948888|2|LER" File: "EXS02260058.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:49:24 AM

Modified: No

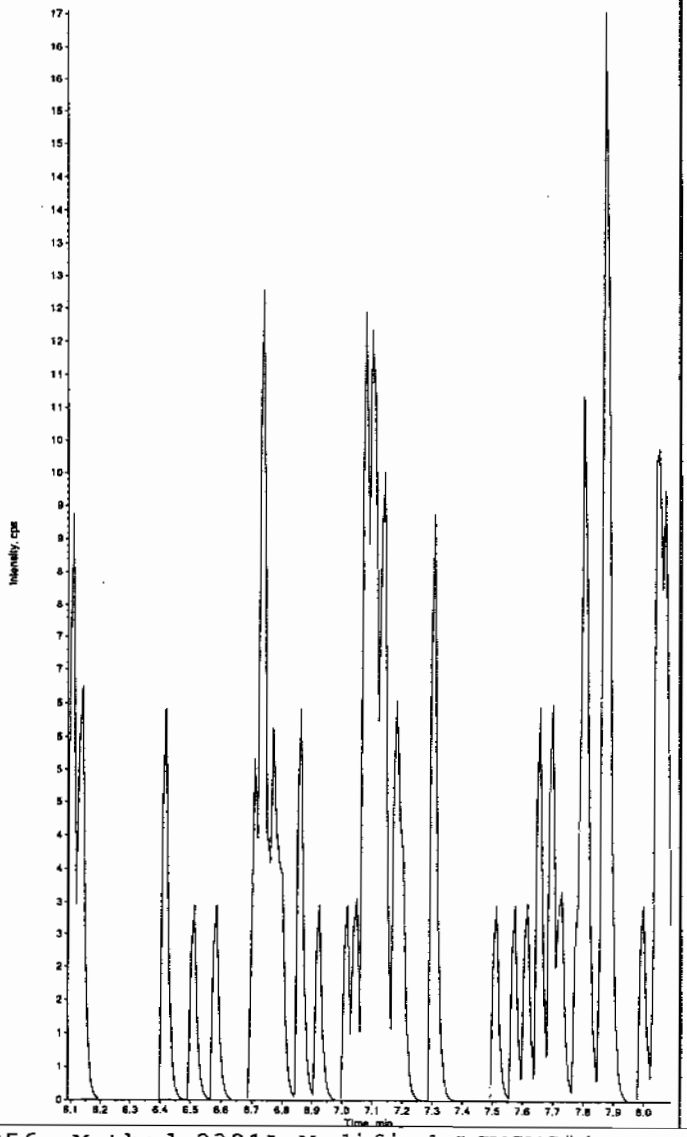

Sample Name: "246066019" Sample ID: "948888|2|LER" File: "EXS02260058.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:49:24 AM

Modified: No

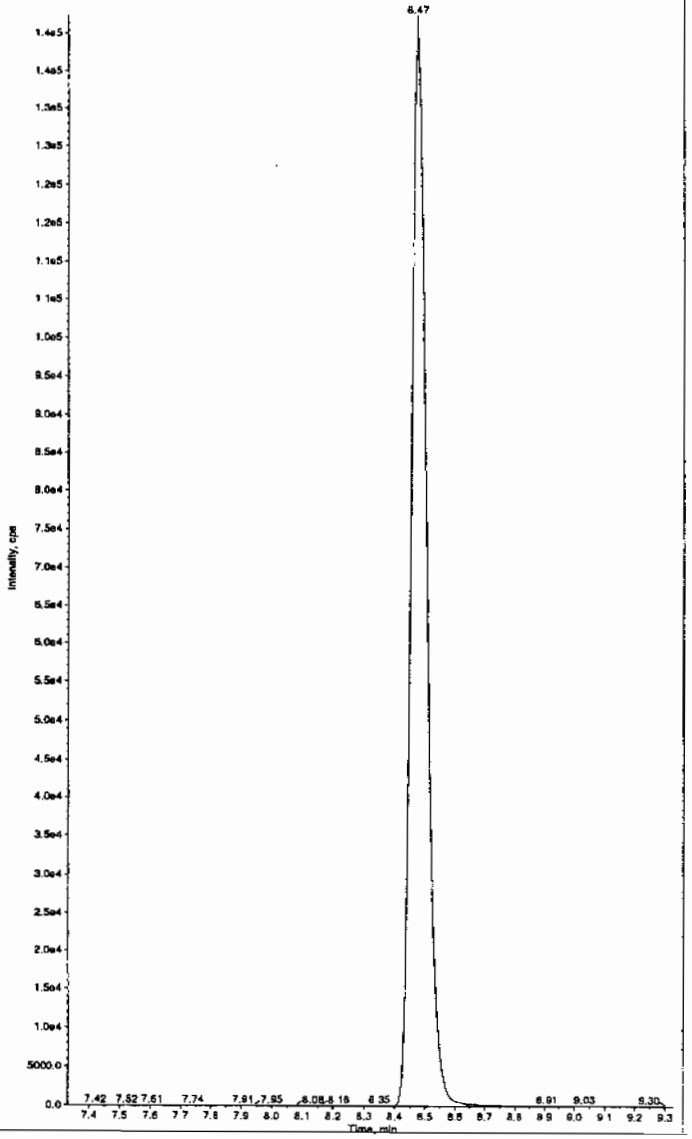

Anne 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066019" Sample ID: "948888|2|LER" File: "EXS02260058.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 258. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:49:24 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.54e+006 counts
Height: 987058.533 cps
Start Time: 8.35 min
End Time: 8.85 min

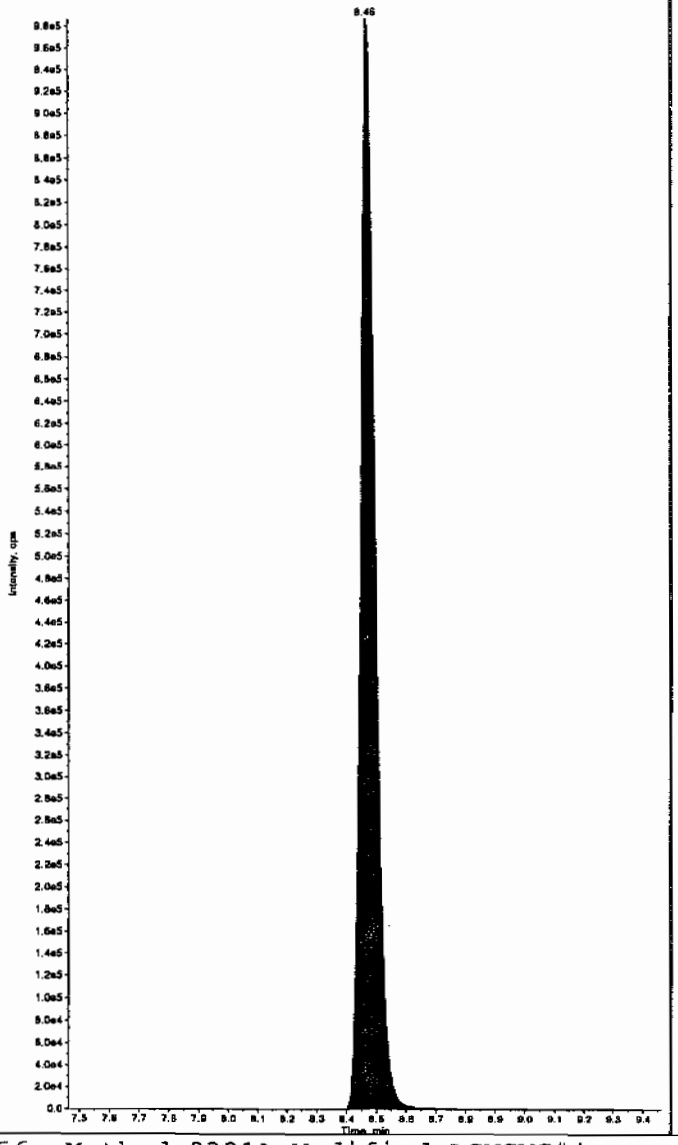

Sample Name: "246066019" Sample ID: "948888|2|LER" File: "EXS02260058.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:49:24 AM

Modified: No

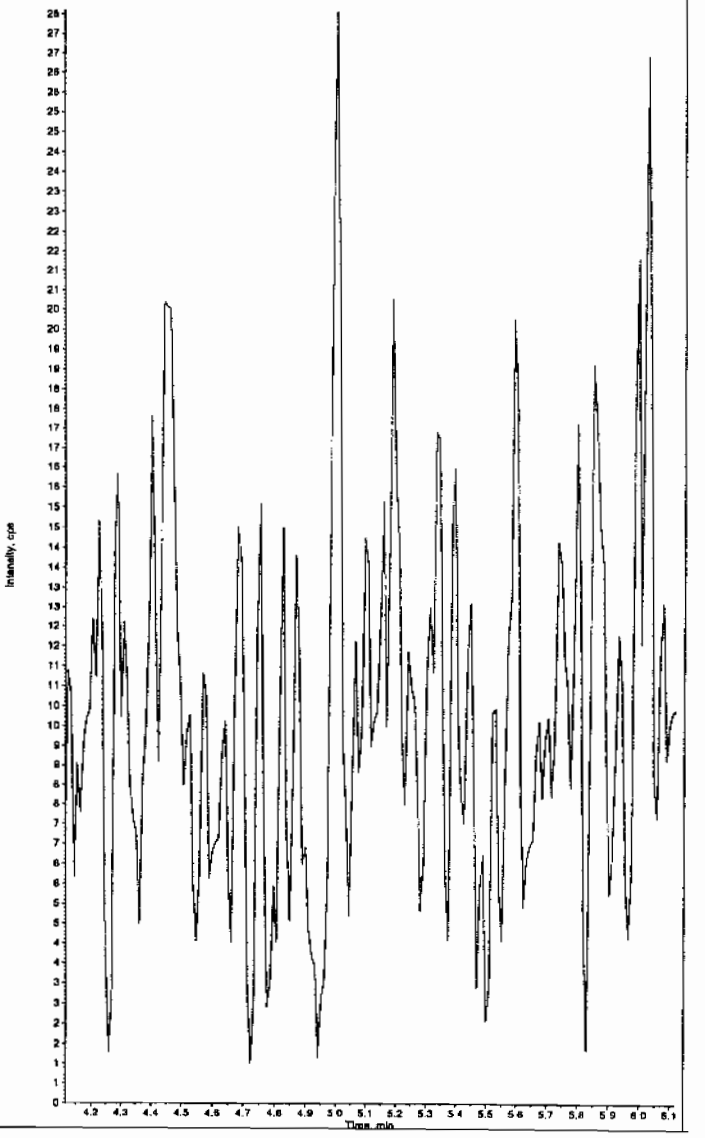

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066019" Sample ID: "948888[2]LER" File: "EXS02260058.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:49:24 AM

Modified: No

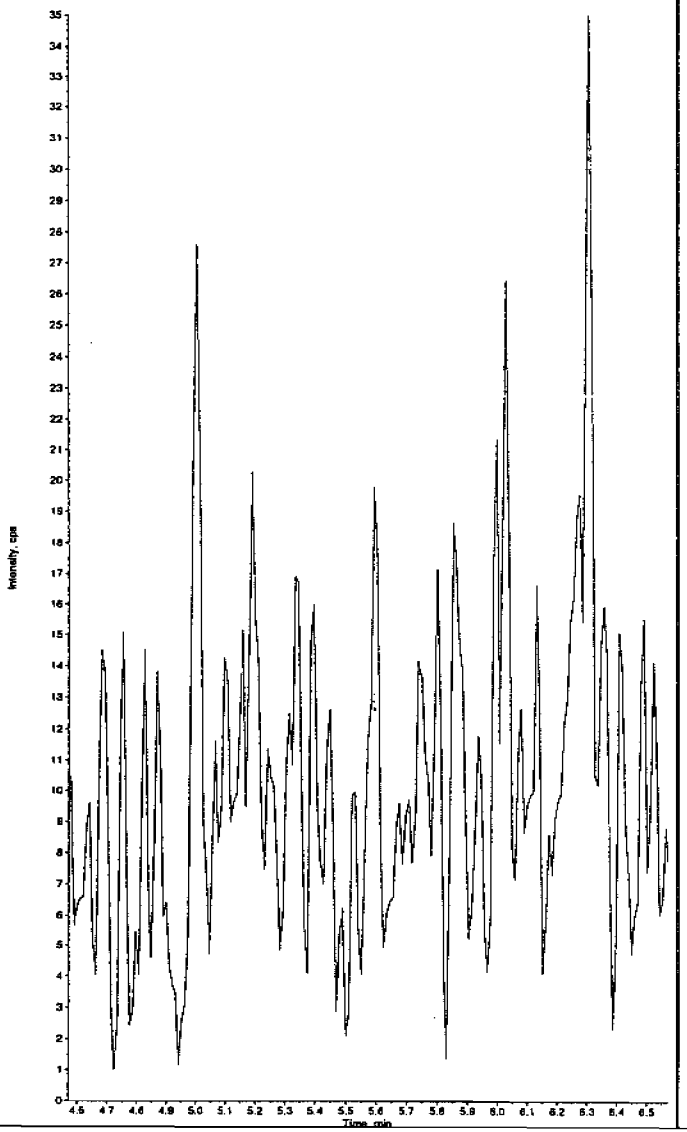

Sample Name: "246066019" Sample ID: "948888[2]LER" File: "EXS02260058.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
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Acq. Time: 5:49:24 AM

Modified: No

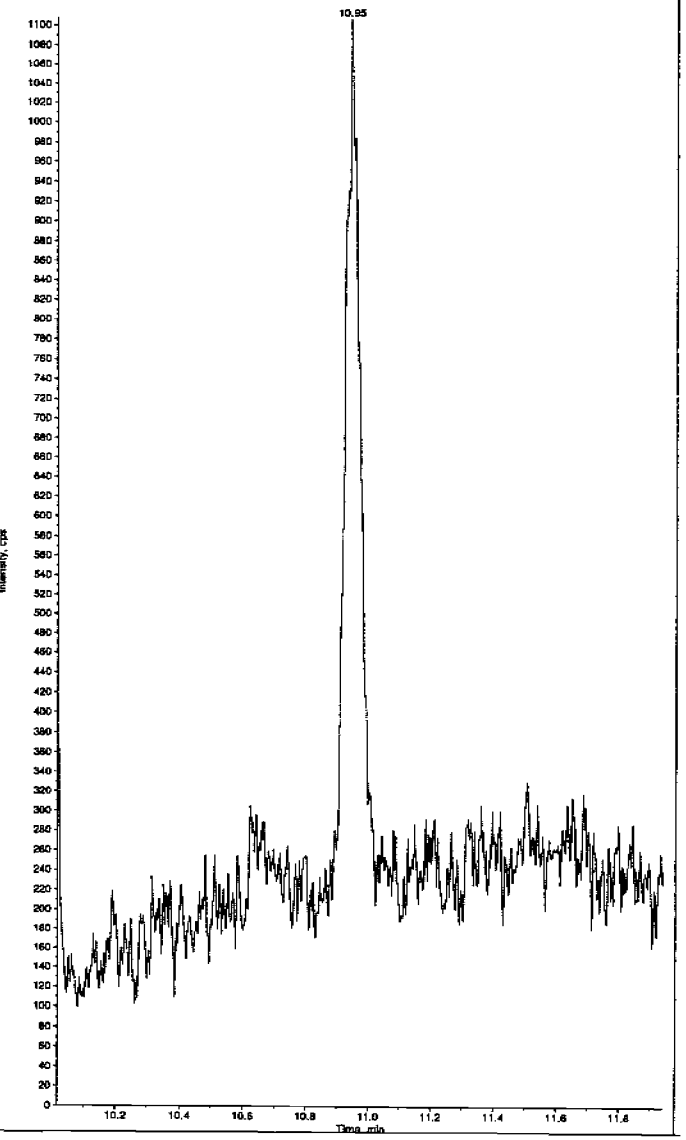

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8144

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066020

Sample Amount 2

Moisture: 32.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304178a

Date Analyzed: 08-MAR-10 06:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304178a
Date: 08-Mar-2010
Time: 06:18:26
ID: 246066020 | LAOL | 948888 | Soils | 21
Vial: 4:4,F

MAP 3/8/10

Page 42 of 725

HMX

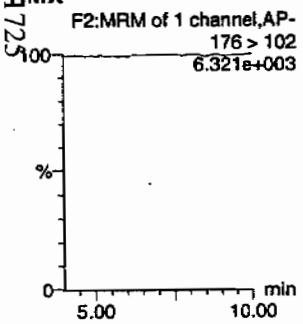

RDX

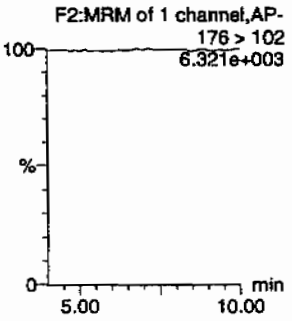

135-Trinitrobenzene

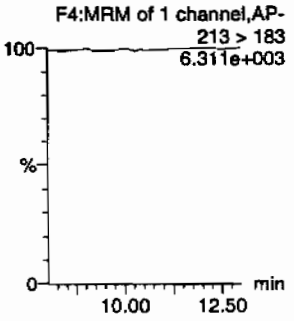

13-Dinitrobenzene-d4

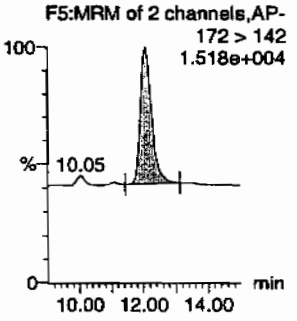

13-Dinitrobenzene

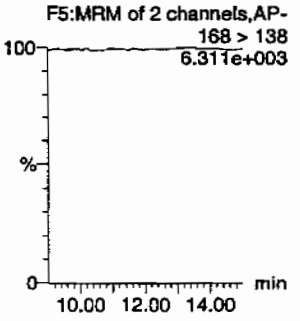

Tetryl

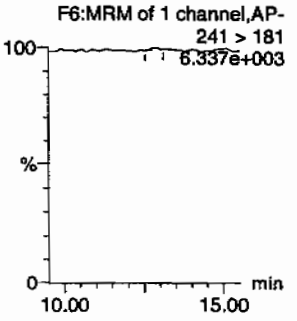

Nitrobenzene

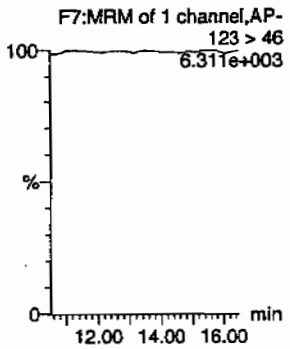

4-Amino-26-dinitrotoluene

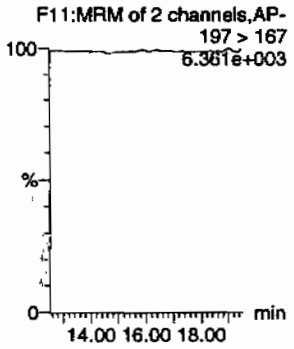

2-Amino-46-dinitrotoluene

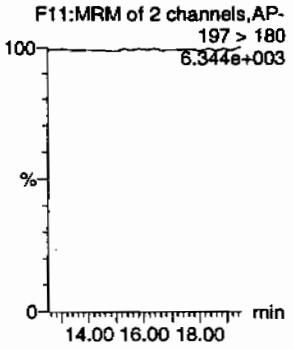

246-Trinitrotoluene

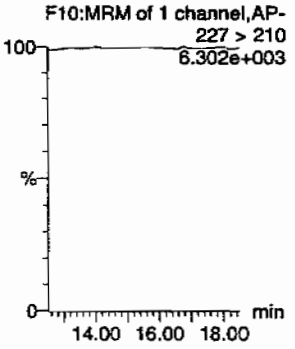

34-dinitrotoluene

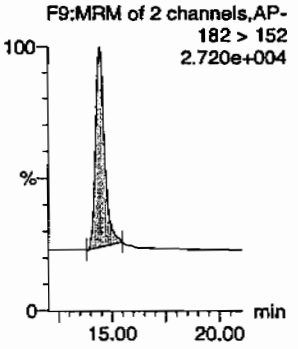

26-dinitrotoluene

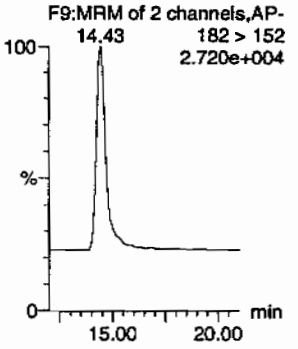

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

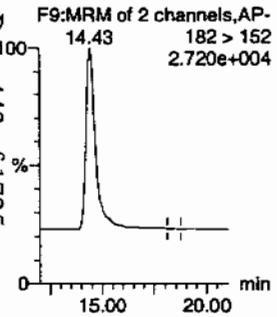

26-dinitrotoluene-d3

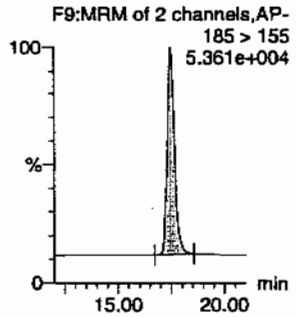

2-Nitrotoluene

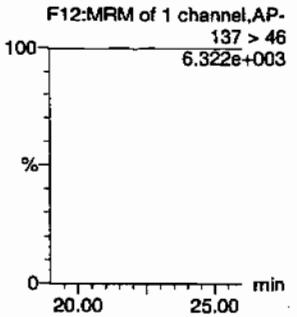

4-Nitrotoluene

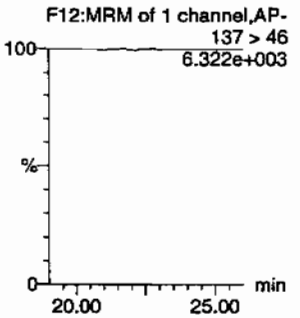

3-Nitrotoluene

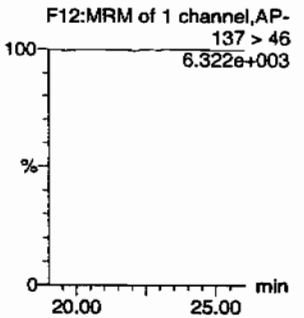

PETN

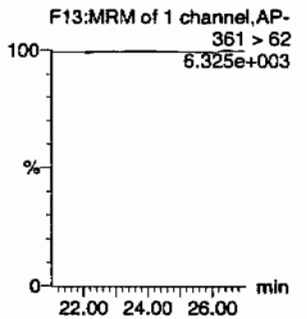

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246066020	HMX	176 > 102			3618.037									
246066020	RDX	176 > 102			3618.037									
246066020	135-Trinitrobenzene	213 > 183			3618.037									
246066020	13-Dinitrobenzene-d4	172 > 142	12.07	3618.037		3618.037	3618.037	bb			515.1274	103.0	3.0	383.0
246066020	13-Dinitrobenzene	168 > 138			3618.037									
246066020	Tetryl	241 > 181			3618.037			MM-	08-Mar-10	11:15:43				
246066020	Nitrobenzene	123 > 46			3618.037									
246066020	4-Amino-26-dinitrotoluene	197 > 167			19015.570									
246066020	2-Amino-46-dinitrotoluene	197 > 180			19015.570									
246066020	246-Trinitrotoluene	227 > 210			19015.570									
246066020	34-dinitrotoluene	182 > 152	14.43	10014.414	19015.570	10014.414	263.321	bb			272.4578	109.0	9.0	774.8
246066020	26-dinitrotoluene	182 > 152			19015.570									
246066020	24-dinitrotoluene	182 > 152			19015.570			MM-	08-Mar-10	11:57:06				
246066020	26-dinitrotoluene-d3	185 > 155	17.47	19015.570		19015.570	19015.570	bb			462.4278	92.5	-7.5	2391.9
246066020	2-Nitrotoluene	137 > 46			19015.570									
246066020	4-Nitrotoluene	137 > 46			19015.570									
246066020	3-Nitrotoluene	137 > 46			19015.570									
246066020	PETN	361 > 62			19015.570									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8144

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 246066020

Sample Amount 2

Moisture: 32.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260059.wiff

Date Analyzed: 27-FEB-10 06:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 3/1/10

Sample Name: "246066020" Sample ID: "948888|2|LER" File: "EXS02260059.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:05:05 AM

Modified: No

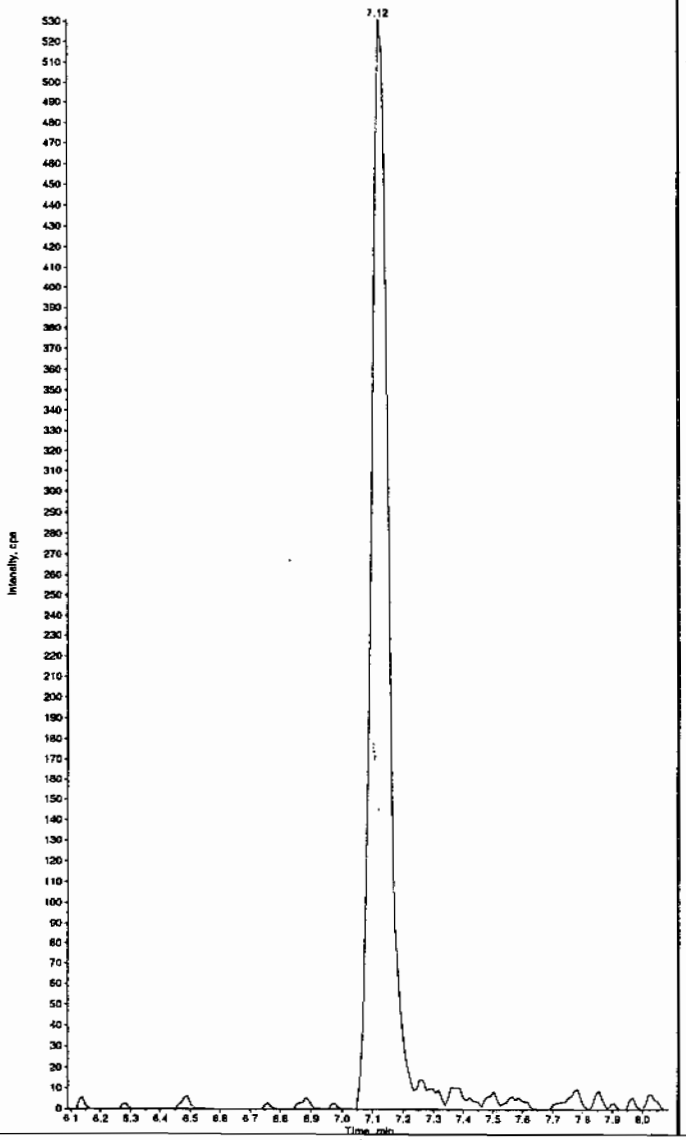

Sample Name: "246066020" Sample ID: "948888|2|LER" File: "EXS02260059.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:05:05 AM

Modified: No

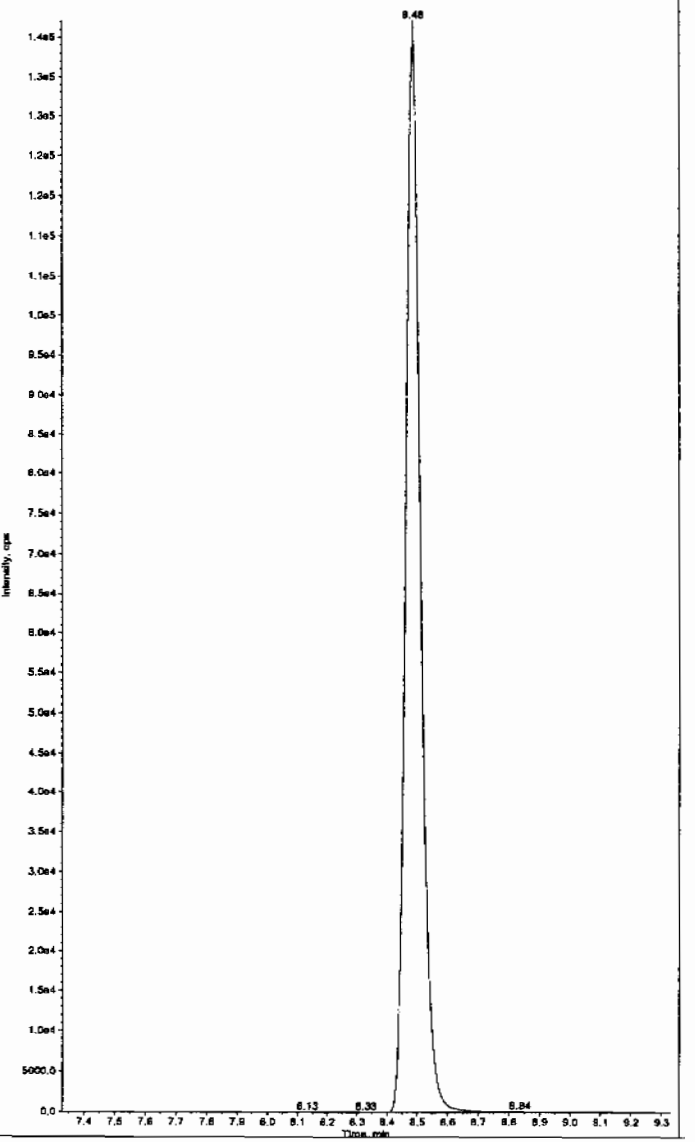

HMW 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246056020" Sample ID: "948888|2|LER" File: "EXS02260059.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 254. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:05:05 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.49e+006 counts
Height: 1021284.241 cps
Start Time: 8.32 min
End Time: 8.79 min

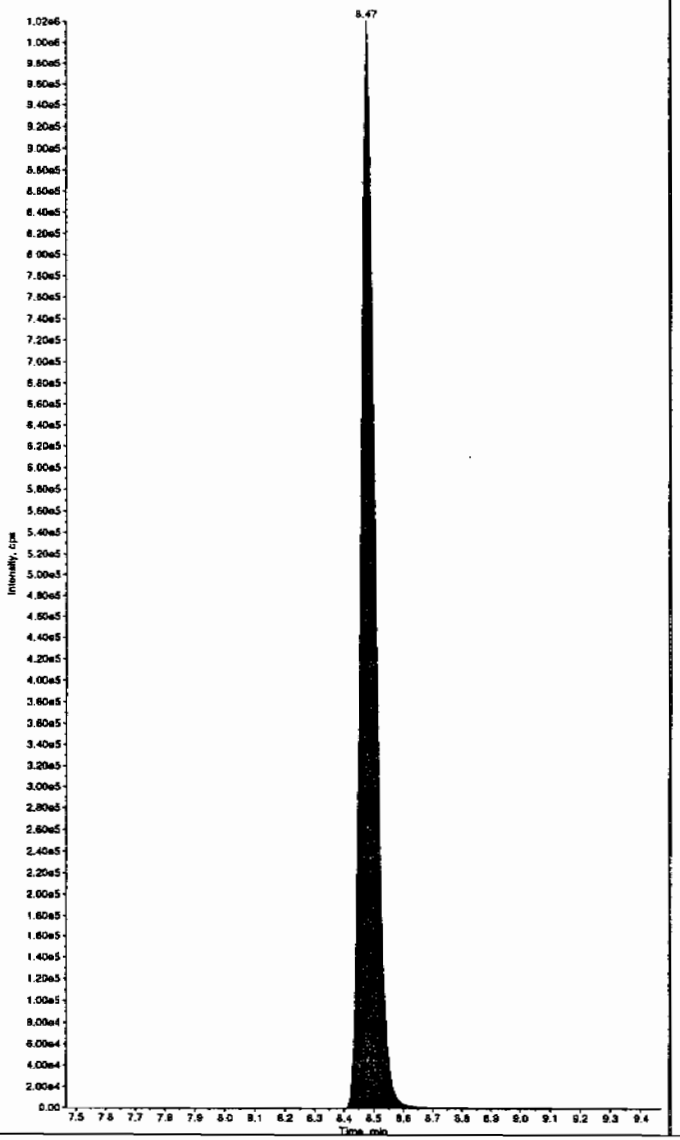

Sample Name: "246056020" Sample ID: "948888|2|LER" File: "EXS02260059.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:05:05 AM

Modified: No

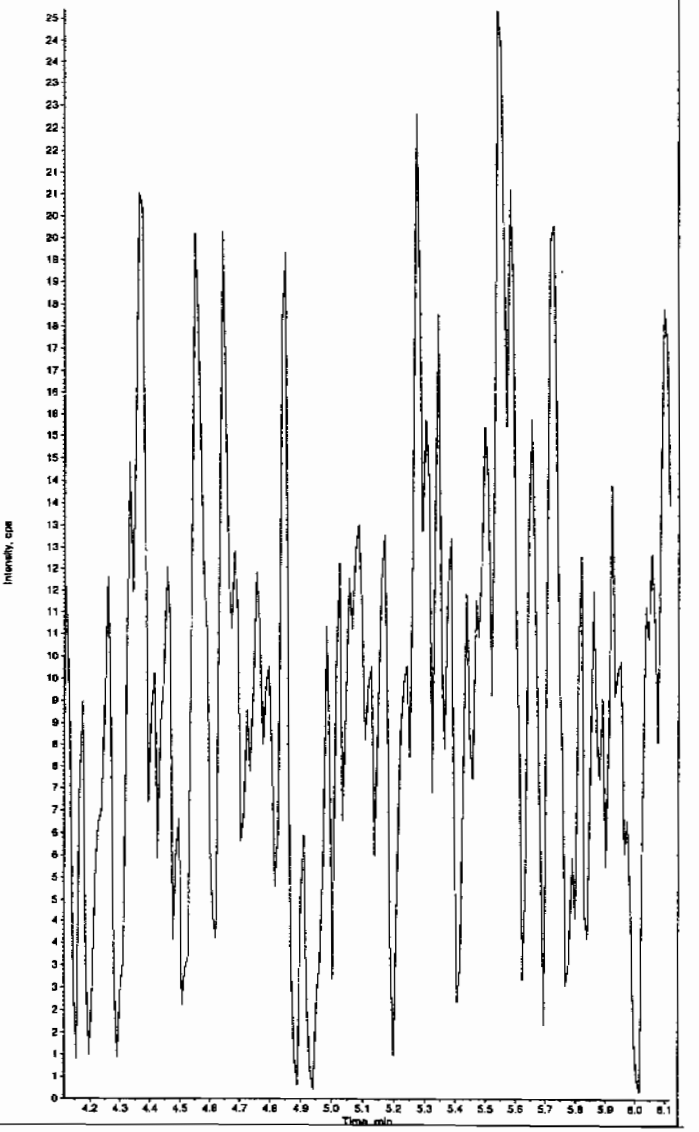

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246066020" Sample ID: "948888|2|LER" File: "EXS02260059.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:05:05 AM

Modified: No

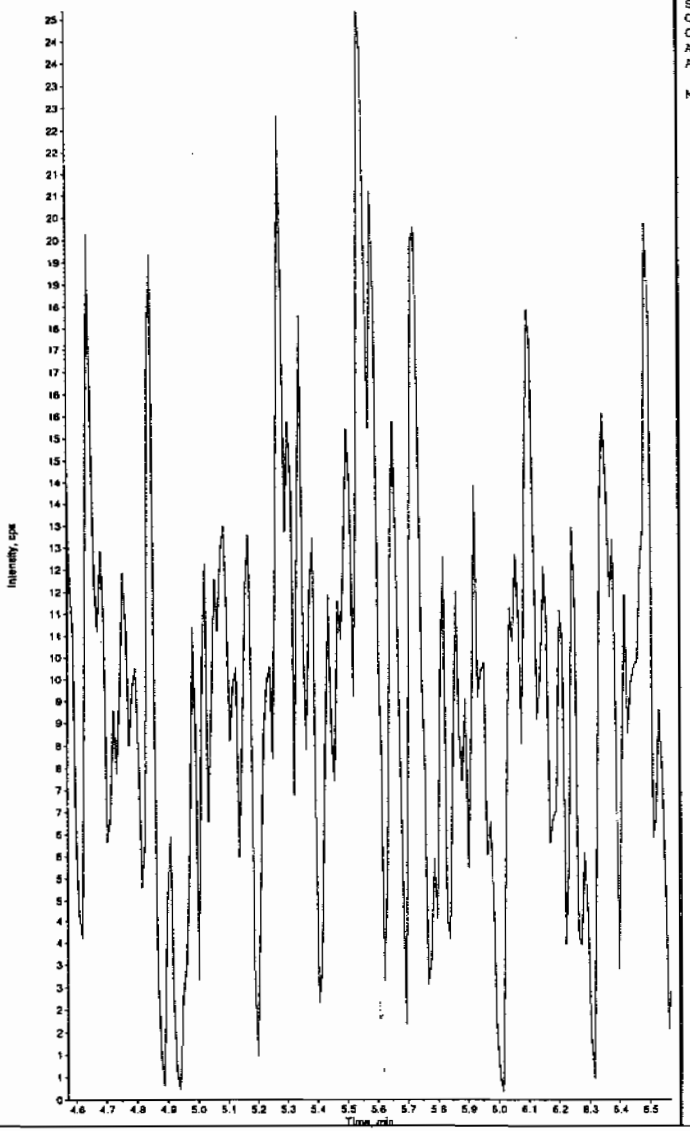

Sample Name: "246066020" Sample ID: "948888|2|LER" File: "EXS02260059.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:05:05 AM

Modified: No

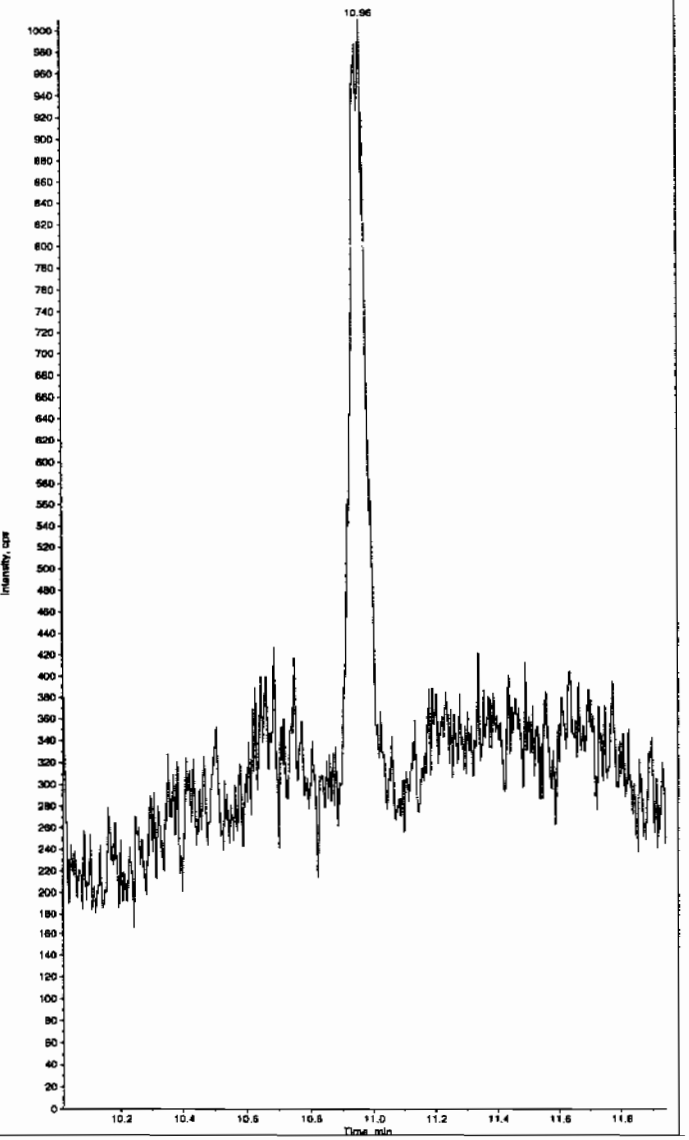

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1543

Lab Code: GEL

Run Date: 04-MAR-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a			
Parmname									
1,3,5-Trinitrobenzene	5.003	4.577	3.342	3.576	3.258	3.608	3.894	18.476	
1,3-Dinitrobenzene-d4	6.789	7.374	7.348	6.733	7.315	6.583	7.024	5.121	
2,4,6-Trinitrotoluene	.3	.336	.341	.337	.35	.308	0.329	6.027	
2,4-Dinitrotoluene	.281	.305	.251	.262	.282	.273	0.276	6.75	
2,6-Dinitrotoluene	1.138	1.111	1.096	1.102	1.137	1.11	1.116	1.607	
2,6-Dinitrotoluene-d3	43.655	42.215	41.583	39.474	40.005	39.795	41.121	4.004	
2-Amino-4,6-dinitrotoluene	.343	.423	.391	.415	.418	.441	0.405	8.534	
3,4-Dinitrotoluene	1.067	.913	.958	.95	1.085	.826	0.967	10.048	
4-Amino-2,6-dinitrotoluene	.248	.266	.292	.289	.283	.277	0.276	5.889	
HMX	5.7	4.915	4.501	4.556	4.433	3.881	4.664	13.011	
Nitrobenzene	.847	.822	.819	.885	.844	.737	0.826	5.999	
RDX	3.372	3.021	2.826	2.815	2.597	2.536	2.861	10.661	
Tetryl	1.148	1.088	.978	.967	.995	.93	1.018	8.121	
m-Dinitrobenzene	1.232	1.296	1.278	1.225	1.314	1.254	1.267	2.82	
m-Nitrotoluene	.108	.096	.087	.092	.093	.09	0.094	7.937	
o-Nitrotoluene	.162	.165	.148	.152	.152	.15	0.155	4.487	
p-Nitrotoluene	.078	.08	.073	.075	.076	.074	0.076	3.543	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1543

Lab Code: GEL

Run Date: 04-MAR-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a					
Parmname:											
PETN	3472.76	5897.1	19825.4	32819.1	49655	58513.4	2.265	-.0008626	37.152	.9967	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
Calibration: Untitled, Time: Fri Mar 05 10:16:18 2010

Page 1 of 9 20101725

Compound name: HMX
Response Factor: 4.66431
RRF SD: 0.606877, % Relative SD: 13.0111
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

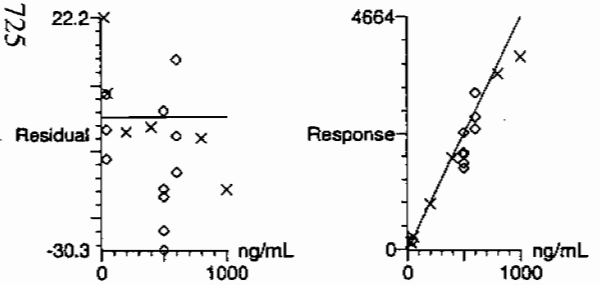

MM 3/6/10

Compound name: RDX
Response Factor: 2.8614
RRF SD: 0.305061, % Relative SD: 10.6612
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

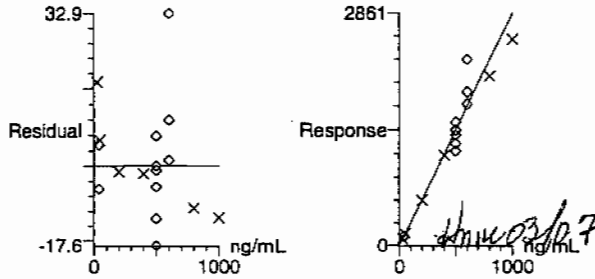

MM 03/07/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.89381
RRF SD: 0.719425, % Relative SD: 18.4761
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

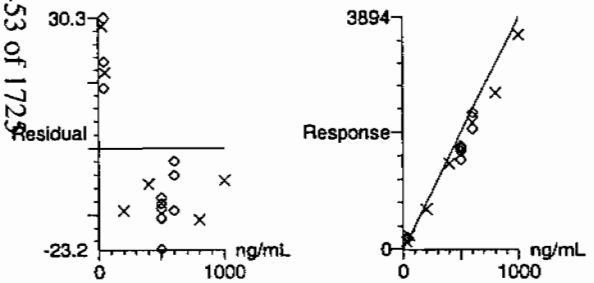

Compound name: 13-Dinitrobenzene-d4
Response Factor: 7.02358
RRF SD: 0.359695, % Relative SD: 5.12125
Response type: External Std, Area
Curve type: RF

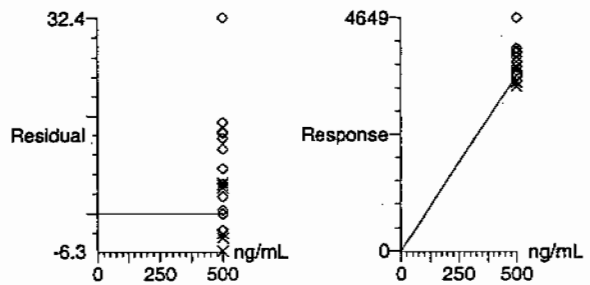

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.26646
RRF SD: 0.0357173, % Relative SD: 2.82024
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

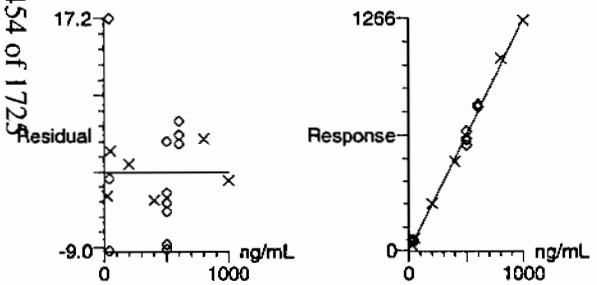

Compound name: Tetryl
Response Factor: 1.01755
RRF SD: 0.0826324, % Relative SD: 8.1207
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

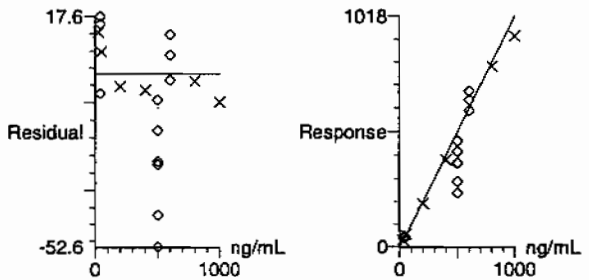

Page 454 of 1725

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: Nitrobenzene
Response Factor: 0.825734
RRF SD: 0.0495369, % Relative SD: 5.99913
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

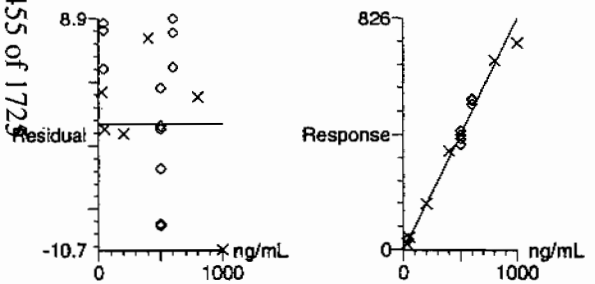

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.275828
RRF SD: 0.0162429, % Relative SD: 5.88879
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

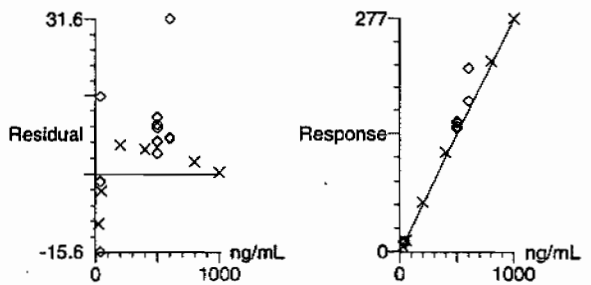

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.405103
RRF SD: 0.0345707, % Relative SD: 8.53382
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

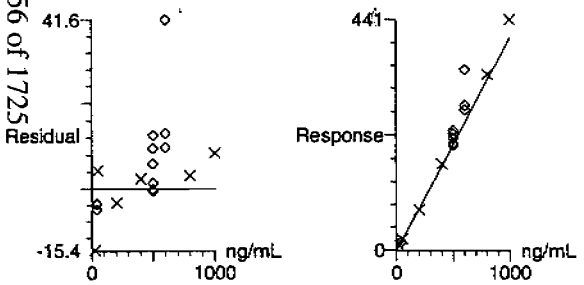

Compound name: 246-Trinitrotoluene
Response Factor: 0.328607
RRF SD: 0.0198061, % Relative SD: 6.02729
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

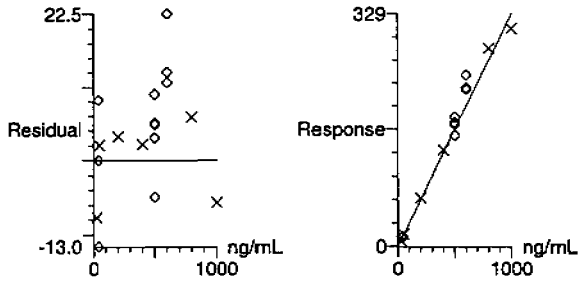

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.966467
RRF SD: 0.097114, % Relative SD: 10.0484
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

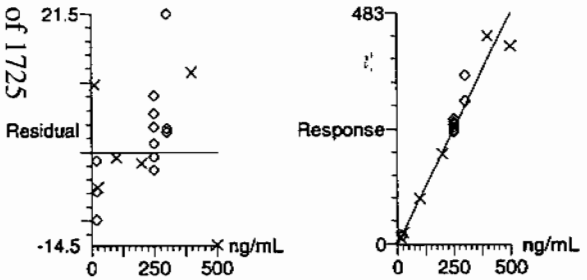

Compound name: 26-dinitrotoluene
Response Factor: 1.11554
RRF SD: 0.0179296, % Relative SD: 1.60726
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

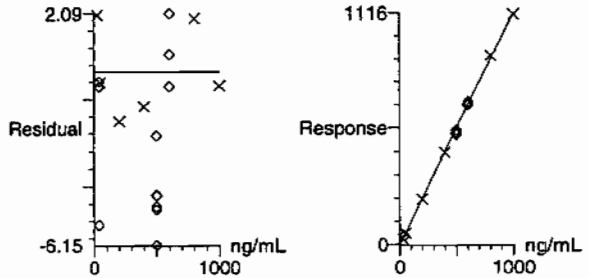

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.275647
RRF SD: 0.0186056, % Relative SD: 6.74978
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

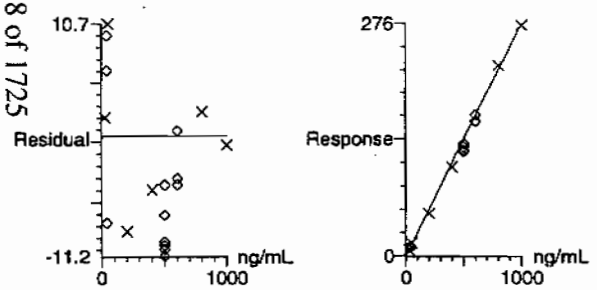

Compound name: 26-dinitrotoluene-d3
Response Factor: 41.1212
RRF SD: 1.6463, % Relative SD: 4.00354
Response type: External Std, Area
Curve type: RF

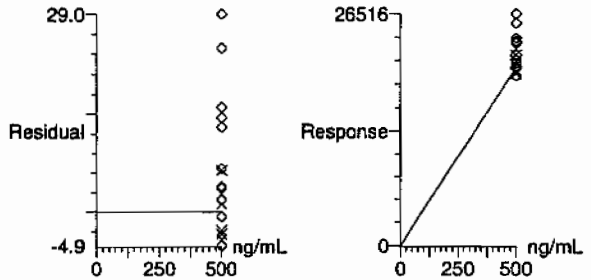

Page 458 of 1725

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.154899
RRF SD: 0.00695032, % Relative SD: 4.487
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

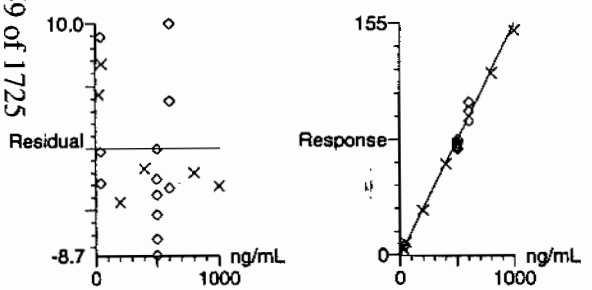

Compound name: 4-Nitrotoluene
Response Factor: 0.0762739
RRF SD: 0.00270209, % Relative SD: 3.54261
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

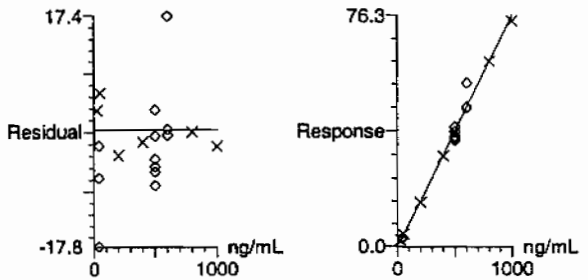

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0943545
RRF SD: 0.00748873, % Relative SD: 7.9368
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

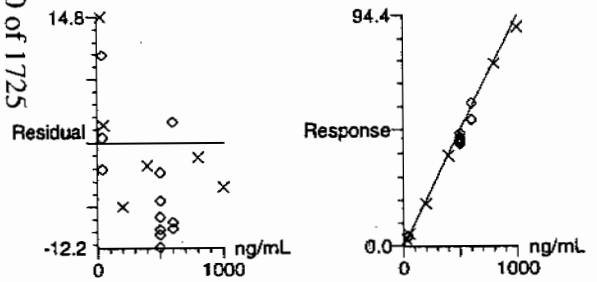

Compound name: PETN
Coefficient of Determination: 0.996692
Calibration curve: -0.000862571 * x^2 + 2.26503 * x + 37.1516
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

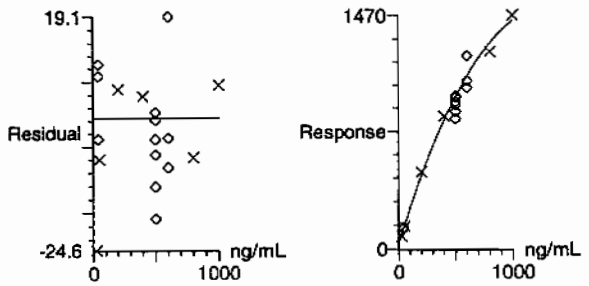

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0304010a

Analysis Date: 04-MAR-10 19:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	634.792	106	
m-Dinitrobenzene	600	625.108	104	
m-Nitrotoluene	600	544.846	91	
o-Nitrotoluene	600	580.638	97	
p-Nitrotoluene	600	595.264	99	
1,3,5-Trinitrobenzene	600	563.54	94	
1,3-Dinitrobenzene-d4	500	499.497	100	
2,4,6-Trinitrotoluene	600	681.185	114	
2,4-Dinitrotoluene	600	576.449	96	
2,6-Dinitrotoluene	600	596.772	99	
2,6-Dinitrotoluene-d3	500	517.678	104	
2-Amino-4,6-dinitrotoluene	600	660.901	110	
3,4-Dinitrotoluene	300	309.423	103	
4-Amino-2,6-dinitrotoluene	600	641.886	107	
HMX	600	573.556	96	
Nitrobenzene	600	645.754	108	
PETN	600	544.002	91	
RDX	600	658.987	110	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304010a
Date: 04-Mar-2010
Time: 19:41:56
ID: WXX100304-07ICV
Vial: 1:1,B

MM 3/6/10

HMX

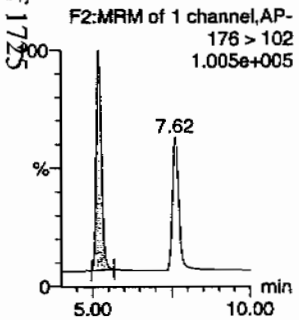

RDX

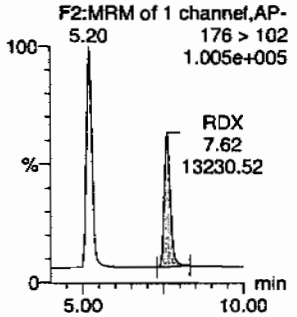

135-Trinitrobenzene

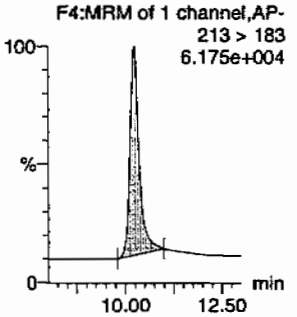

13-Dinitrobenzene-d4

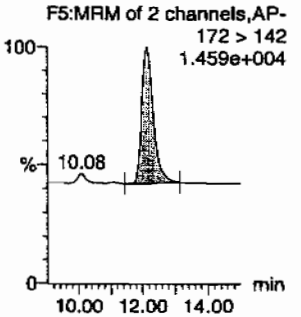

13-Dinitrobenzene

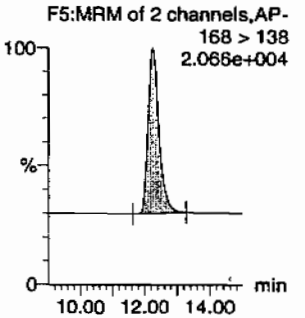

Tetryl

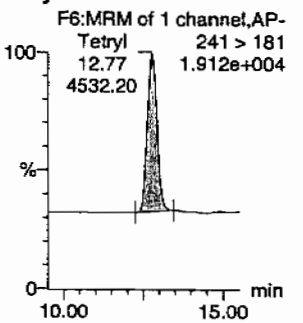

Nitrobenzene

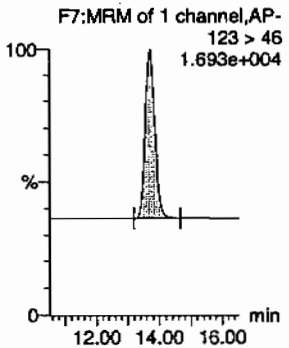

4-Amino-26-dinitrotoluene

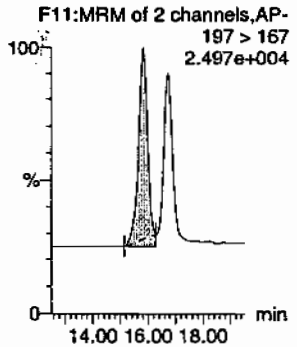

2-Amino-46-dinitrotoluene

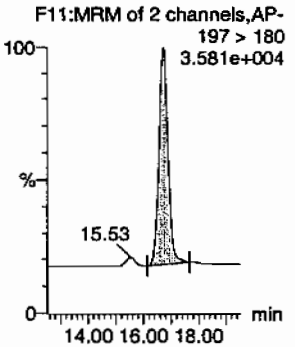

246-Trinitrotoluene

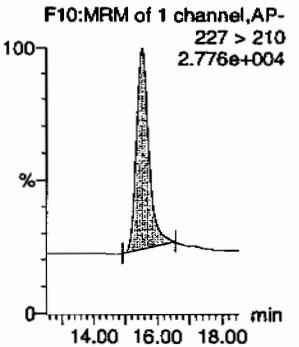

34-dinitrotoluene

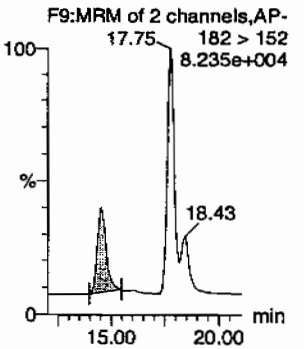

26-dinitrotoluene

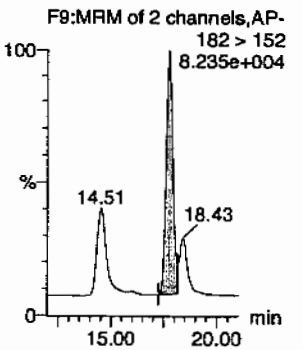

thme 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

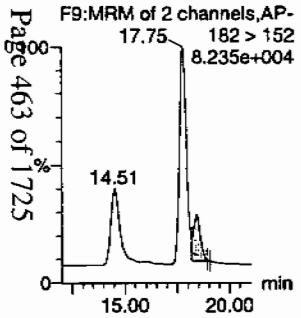

26-dinitrotoluene-d3

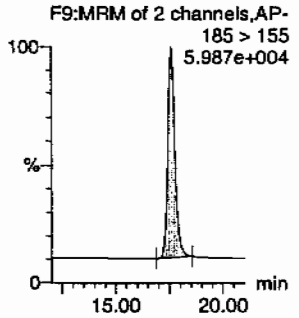

2-Nitrotoluene

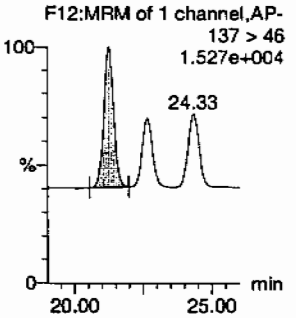

4-Nitrotoluene

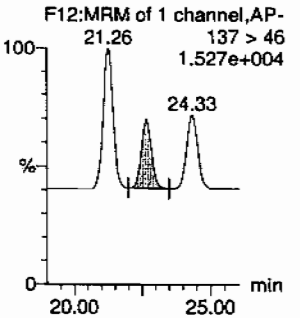

3-Nitrotoluene

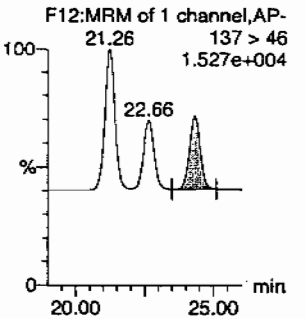

PETN

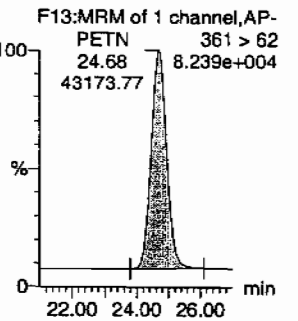

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07ICV	HMX	176 > 102	5.20	18770.877	3508.256	18770.877	2675.243	bb			573.5564	95.6	-4.4	1993.1
WXX100304-07ICV	RDX	176 > 102	7.62	13230.516	3508.256	13230.516	1885.626	bb			658.9874	109.8	9.8	1203.8
WXX100304-07ICV	135-Trinitrobenzene	213 > 183	10.23	15396.480	3508.256	15396.480	2194.321	bb			563.5402	93.9	-6.1	1042.0
WXX100304-07ICV	13-Dinitrobenzene-d4	172 > 142	12.14	3508.256		3508.256	3508.256	bb			499.4970	99.9	-0.1	169.8
WXX100304-07ICV	13-Dinitrobenzene	168 > 138	12.27	5554.798	3508.256	5554.798	791.675	bb			625.1075	104.2	4.2	539.3
WXX100304-07ICV	Tetryl	241 > 181	12.77	4532.205	3508.256	4532.205	645.934	bb			634.7921	105.8	5.8	454.7
WXX100304-07ICV	Nitrobenzene	123 > 46	13.72	3741.350	3508.256	3741.350	533.221	bb			645.7538	107.6	7.6	316.6
WXX100304-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7537.907	21287.525	7537.907	177.050	MM	05-Mar-10	10:05:37	641.8862	107.0	7.0	199.0
WXX100304-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11398.739	21287.525	11398.739	267.733	bb			660.9014	110.2	10.2	1125.1
WXX100304-07ICV	246-Trinitrotoluene	227 > 210	15.55	9530.100	21287.525	9530.100	223.842	bb			681.1854	113.5	13.5	588.8
WXX100304-07ICV	34-dinitrotoluene	182 > 152	14.51	12731.959	21287.525	12731.959	299.047	bb			309.4234	103.1	3.1	594.2
WXX100304-07ICV	26-dinitrotoluene	182 > 152	17.75	28343.234	21287.525	28343.234	665.724	MM	05-Mar-10	10:09:47	596.7715	99.5	-0.5	1698.9
WXX100304-07ICV	24-dinitrotoluene	182 > 152	18.43	6765.037	21287.525	6765.037	158.897	MM	05-Mar-10	10:13:35	576.4492	96.1	-3.9	371.1
WXX100304-07ICV	26-dinitrotoluene-d3	185 > 155	17.57	21287.525		21287.525	21287.525	bb			517.6780	103.5	3.5	1368.6
WXX100304-07ICV	2-Nitrotoluene	137 > 46	21.26	3829.206	21287.525	3829.206	89.940	bb			580.6380	96.8	-3.2	780.1
WXX100304-07ICV	4-Nitrotoluene	137 > 46	22.66	1933.041	21287.525	1933.041	45.403	bb			595.2642	99.2	-0.8	380.6
WXX100304-07ICV	3-Nitrotoluene	137 > 46	24.33	2188.727	21287.525	2188.727	51.409	bb			544.8458	90.8	-9.2	406.5
WXX100304-07ICV	PETN	361 > 62	24.68	43173.770	21287.525	43173.770	1014.063	bb			544.0022	90.7	-9.3	13474.5

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/04/10
Time of Injection: 1941
Standard Number: WXX100304-07ICV
Data File: EXP0304010a

HMX	95.6
RDX	109.8
135-TNB	93.9
13-DNB	104.2
Tetryl	105.8
Nitrobenzene	107.6
4A-26-DNT	107.0
2A-46-DNT	110.2
246-TNT	113.5
34-DNT(surr)	103.1
26-DNT	99.5
24-DNT	96.1
2-NT	96.8
4-NT	99.2
3-NT	90.8
PETN	90.7
Total	1623.8
Average	101.5

MJT 3/6/10

HMC 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1543

Lab Code: GEL

Run Date: 04-MAR-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02260003.wifl	EXS02260004.wifl	EXS02260005.wifl	EXS02260006.wifl	EXS02260007.wifl	EXS02260008.wifl	EXS02260009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	80600	158000	383000	773000	1220000	1610000	3220000	-10100	1620	.001	.9999	
2,6-Diamino-4-nitrotoluene	113000	219000	551000	1070000	1680000	2170000	4260000	-5880	2240	-.055	.9999	
3,4-Dinitrotoluene	365000	719000	1740000	3170000	4890000	6230000	11300000	2650	14600	-3.26	.9979	
3,5-Dinitroaniline	531000	1010000	2370000	4530000	6700000	8310000	13900000	41000	9760	-1.41	.9999	
TATB	50800	103000	279000	574000	909000	1230000	2540000	-18200	1200	.04	.9999	
tris(o-cresyl) phosphate	893000	1730000	4120000	7610000	11100000	14100000	23200000	92000	16500	-2.46	1	

Quadradic Fit: $y = Ax^2 + Bx + C$
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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022610ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.82e+004			
a1	1.2e+003			
a2	0.0401			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	4.1e+004			
a1	9.76e+003			
a2	-1.41			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.65e+003			
a1	1.46e+004			
a2	-3.26			

Correlation coefficient 0.9979
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.88e+003			
a1	2.24e+003			
a2	-0.055			

Correlation coefficient 0.9999
Use Area

Lan 3/1/10

Hnw 03/01/10

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.01e+004			
a1	1.62e+003			
a2	0.000677			

Correlation coefficient 0.9999
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	9.2e+004			
a1	1.65e+004			
a2	-2.46			

Correlation coefficient 1.0000
Use Area

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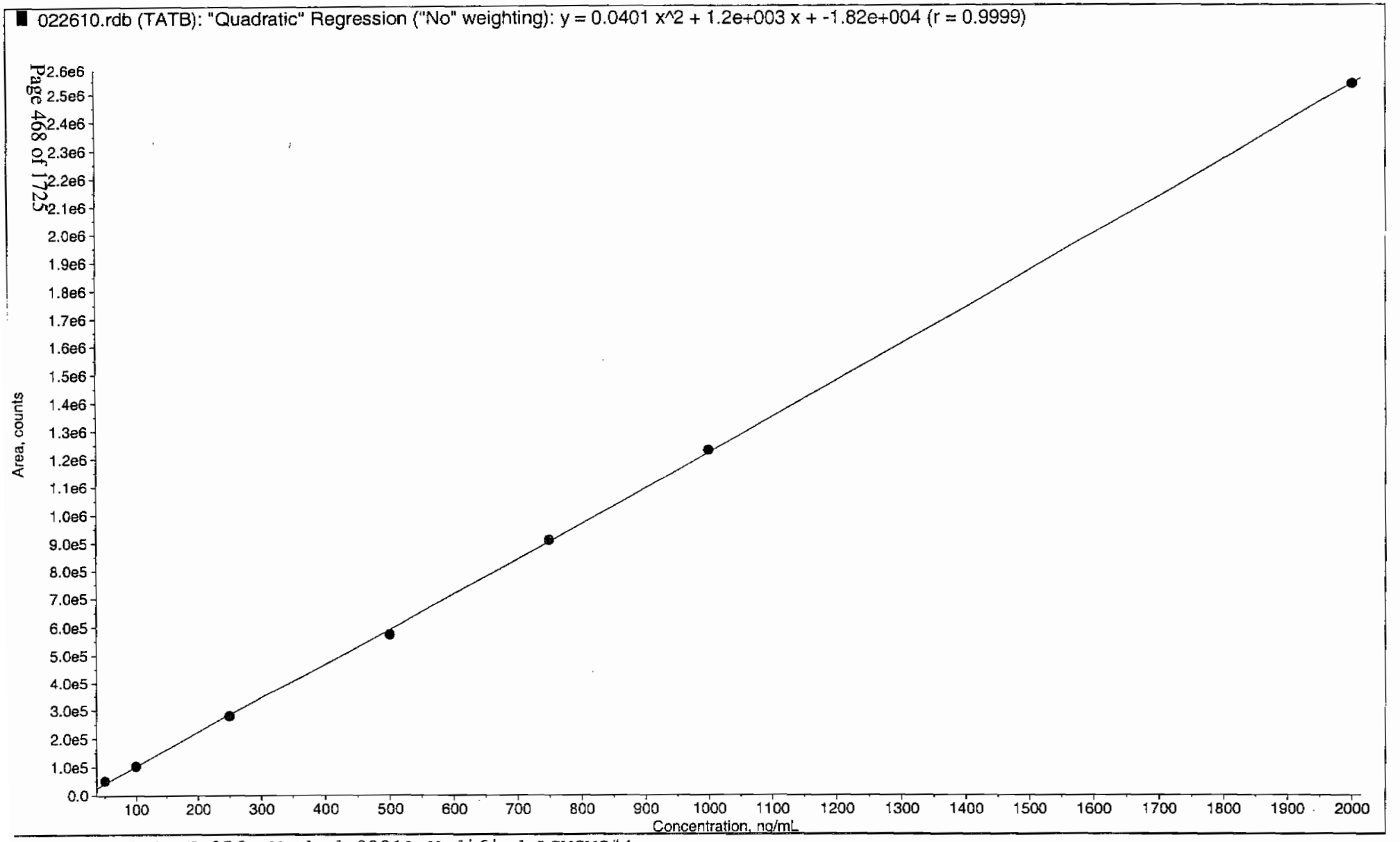

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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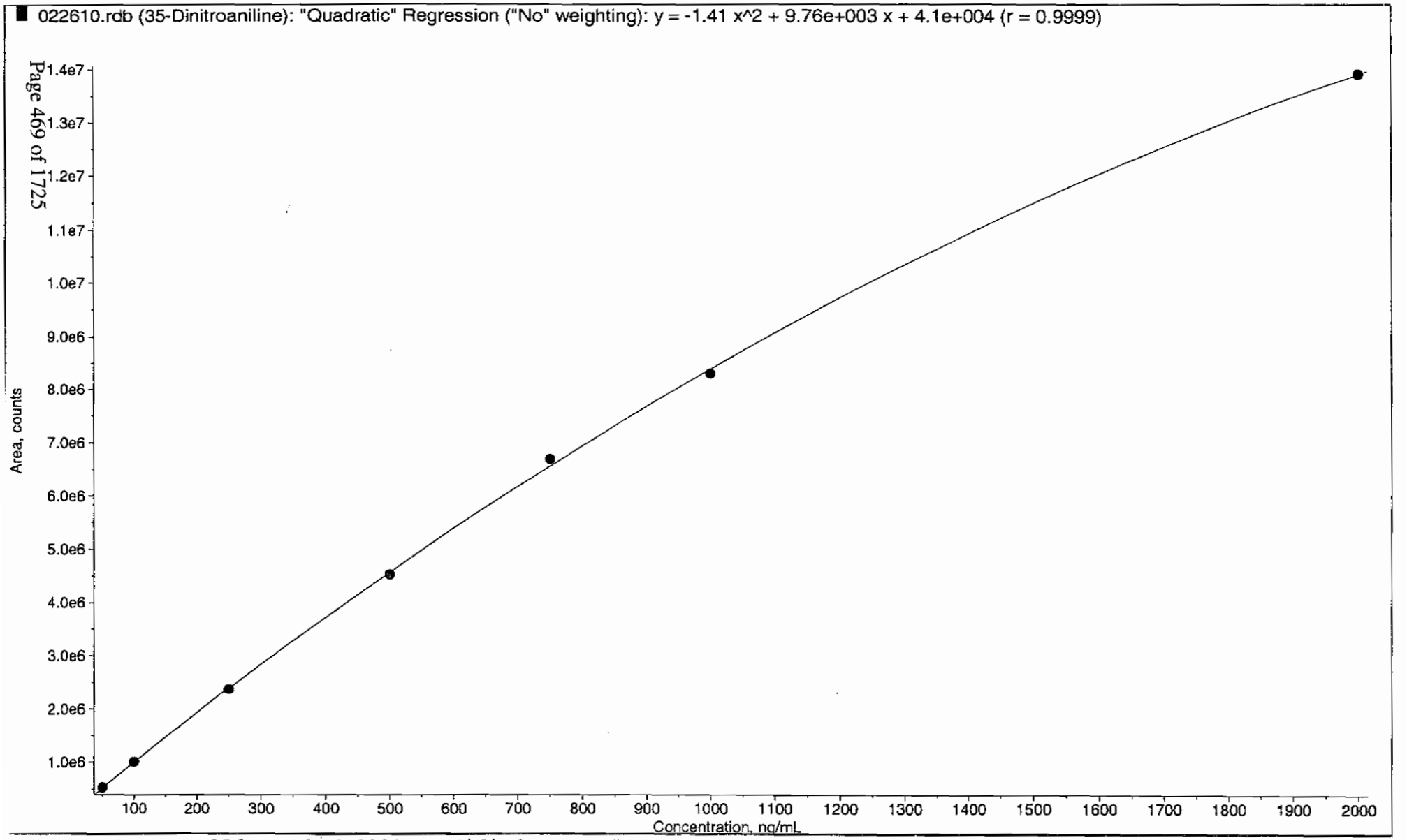

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

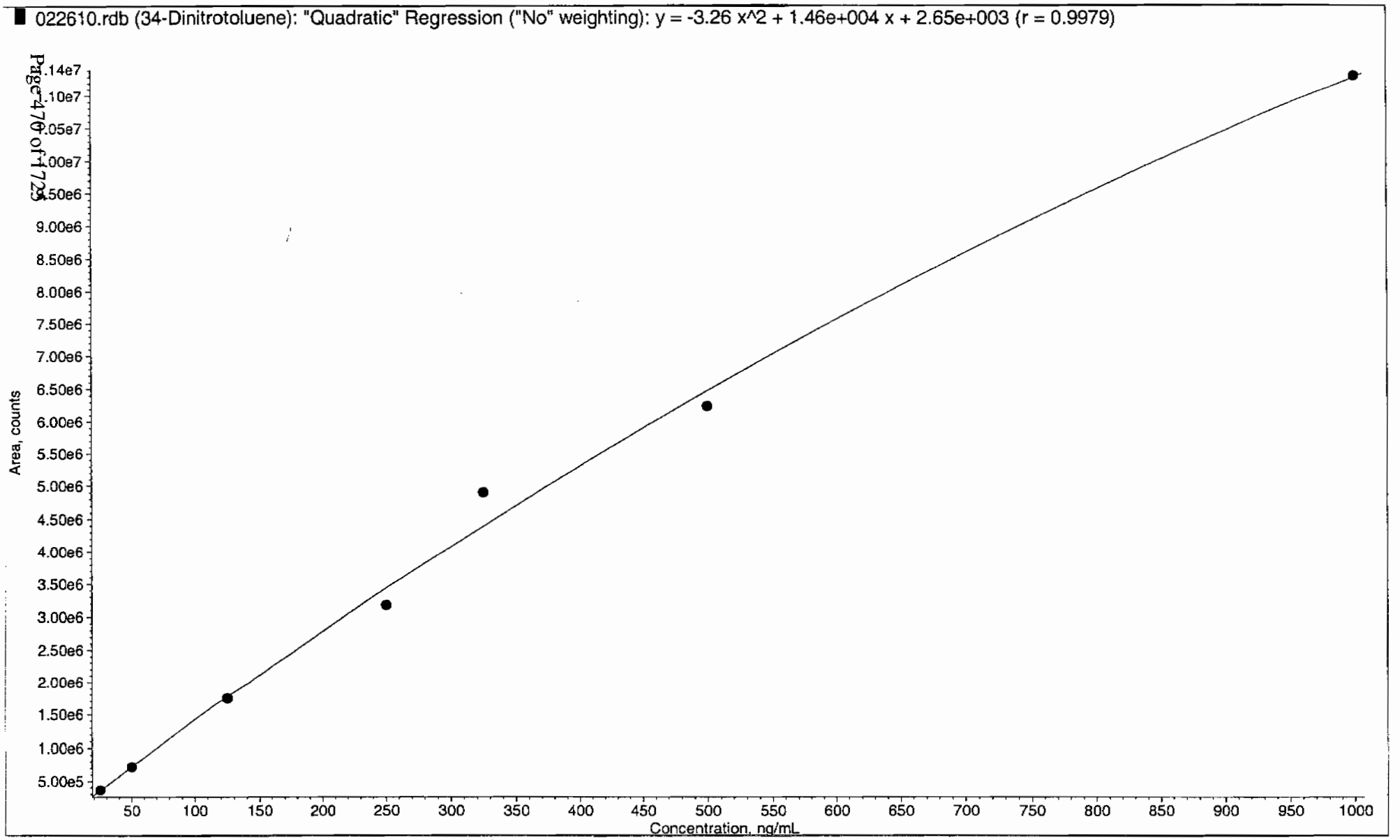

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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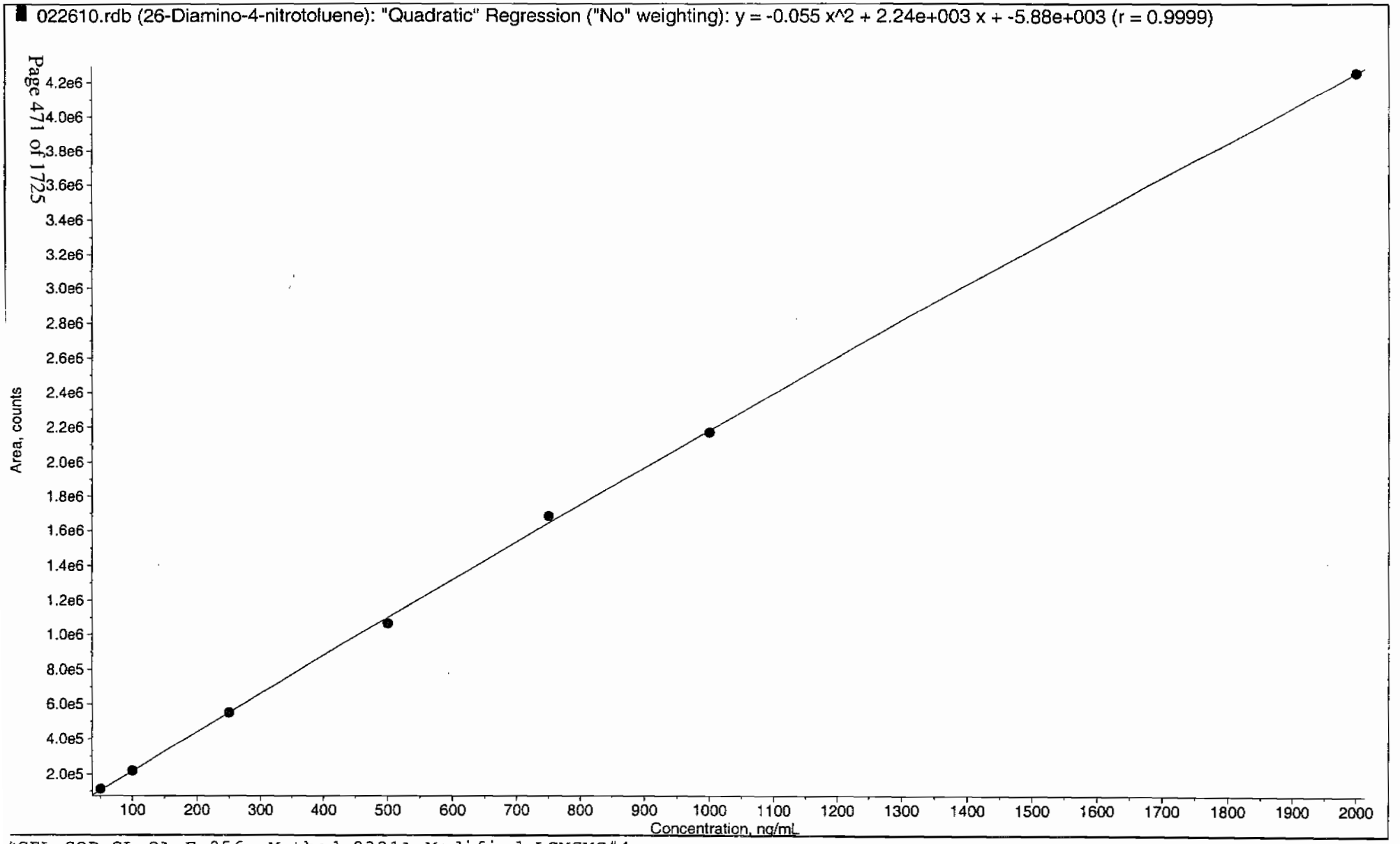

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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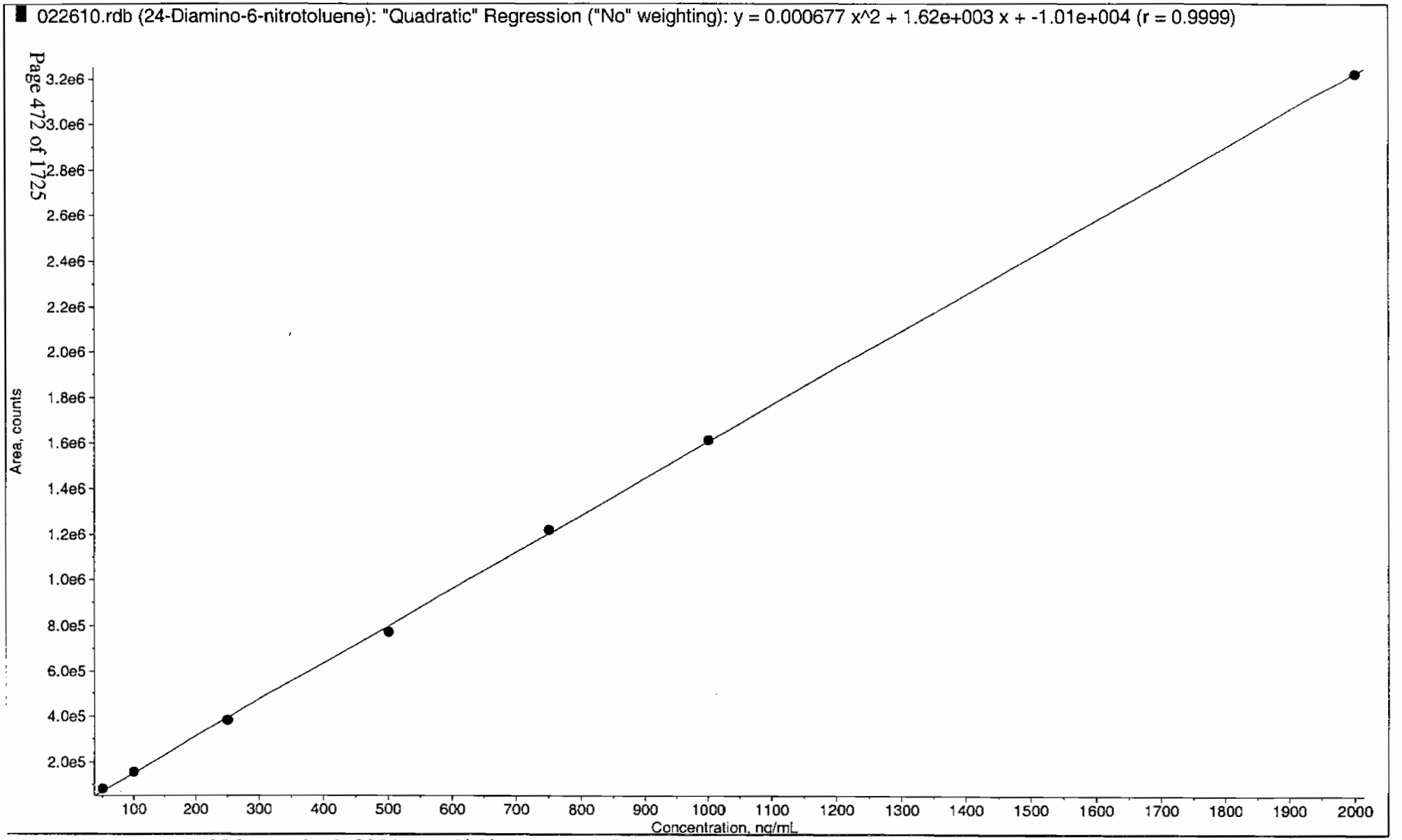

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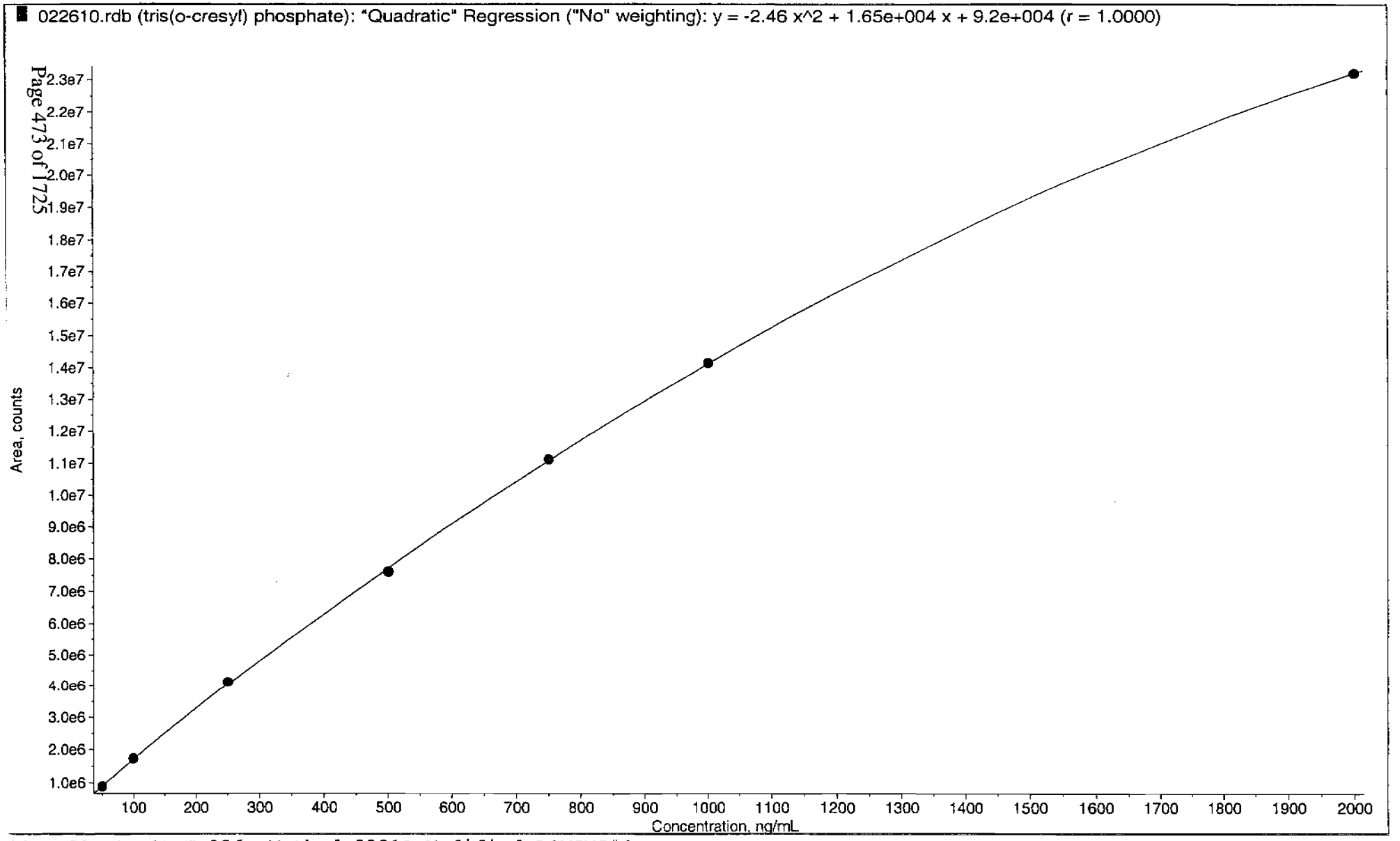

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02260011.wiff

Analysis Date: 26-FEB-10 17:31

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	483	97	
2,6-Diamino-4-nitrotoluene	500	465	93	
3,4-Dinitrotoluene	250	226	90	
3,5-Dinitroaniline	500	474	95	
TATB	500	472	95	
tris(o-cresyl) phosphate	500	494	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcr 3/1/10

Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 472. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.09 min
Area: 5.57e+005 counts
Height: 137406.067 cps
Start Time: 7.00 min
End Time: 7.72 min

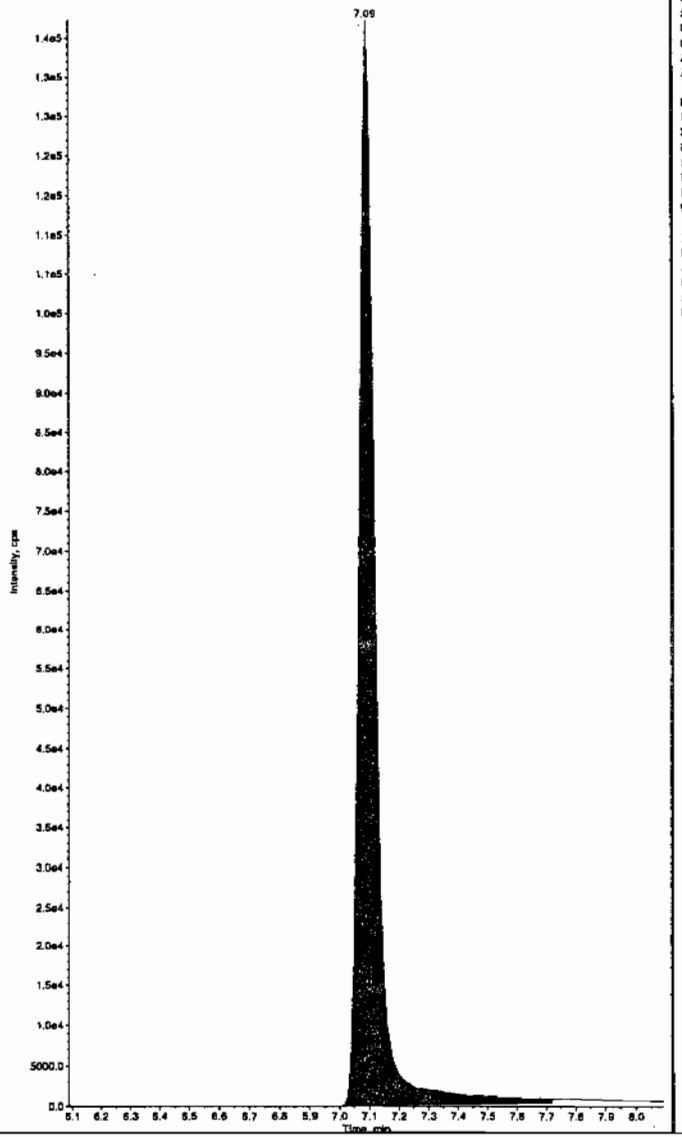

Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 474. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.35e+006 counts
Height: 1097292.725 cps
Start Time: 8.24 min
End Time: 8.42 min

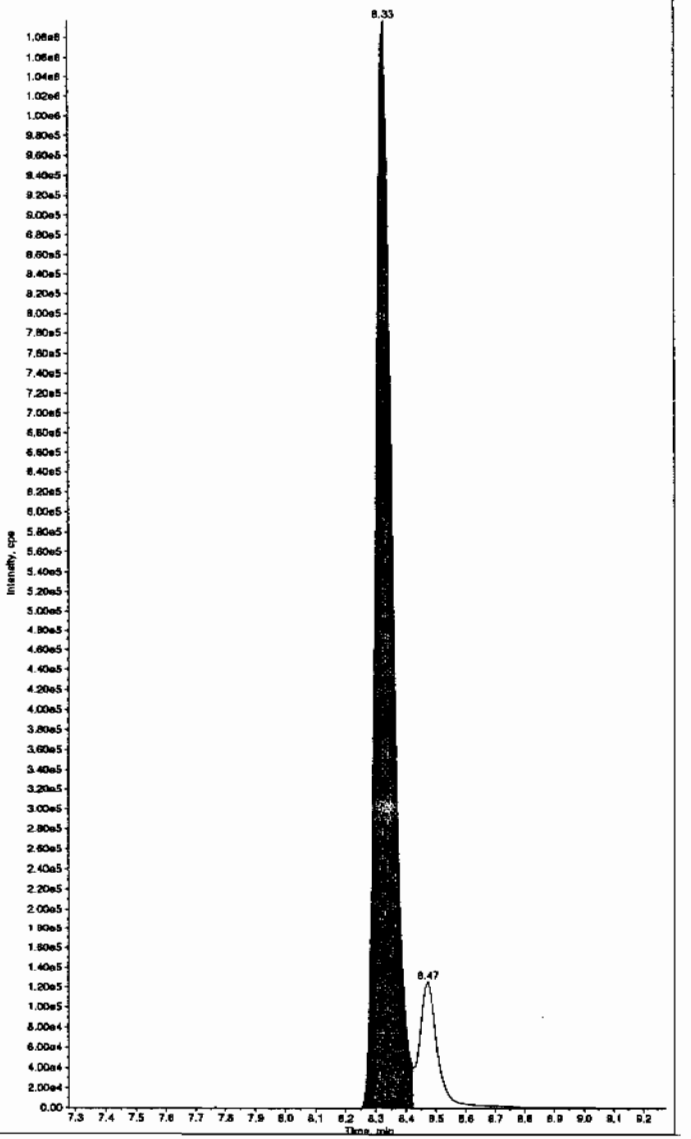

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 226. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.12e+006 counts
Height: 869437.378 cps
Start Time: 8.40 min
End Time: 8.83 min

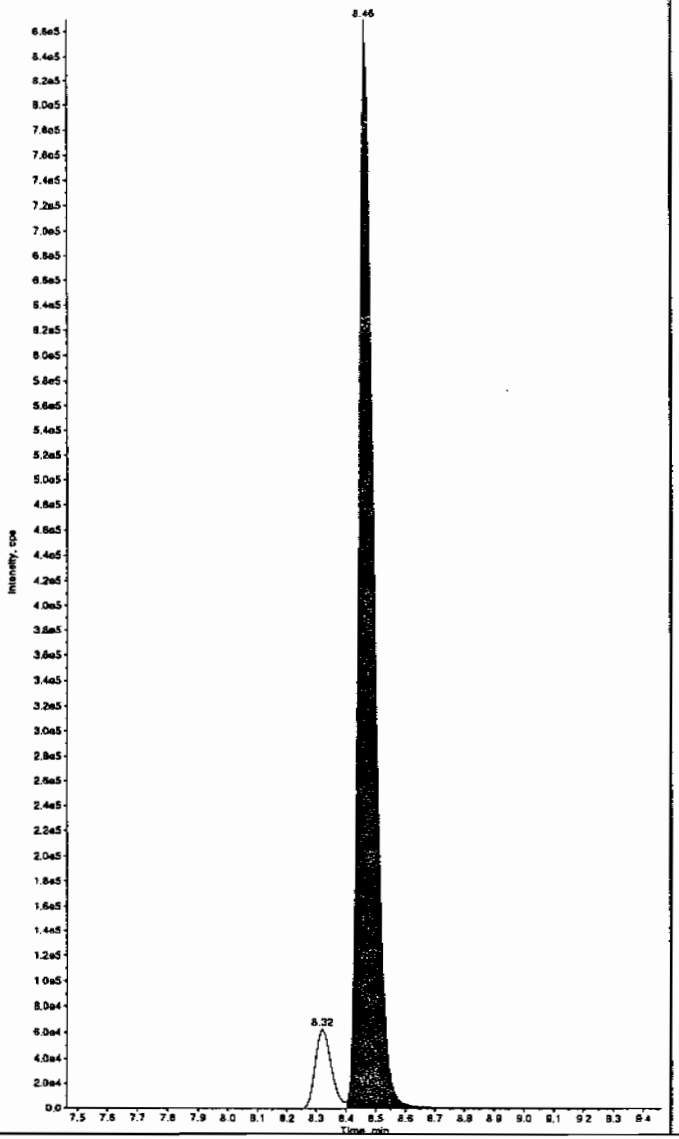

Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 465. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.02e+006 counts
Height: 240925.003 cps
Start Time: 5.01 min
End Time: 5.41 min

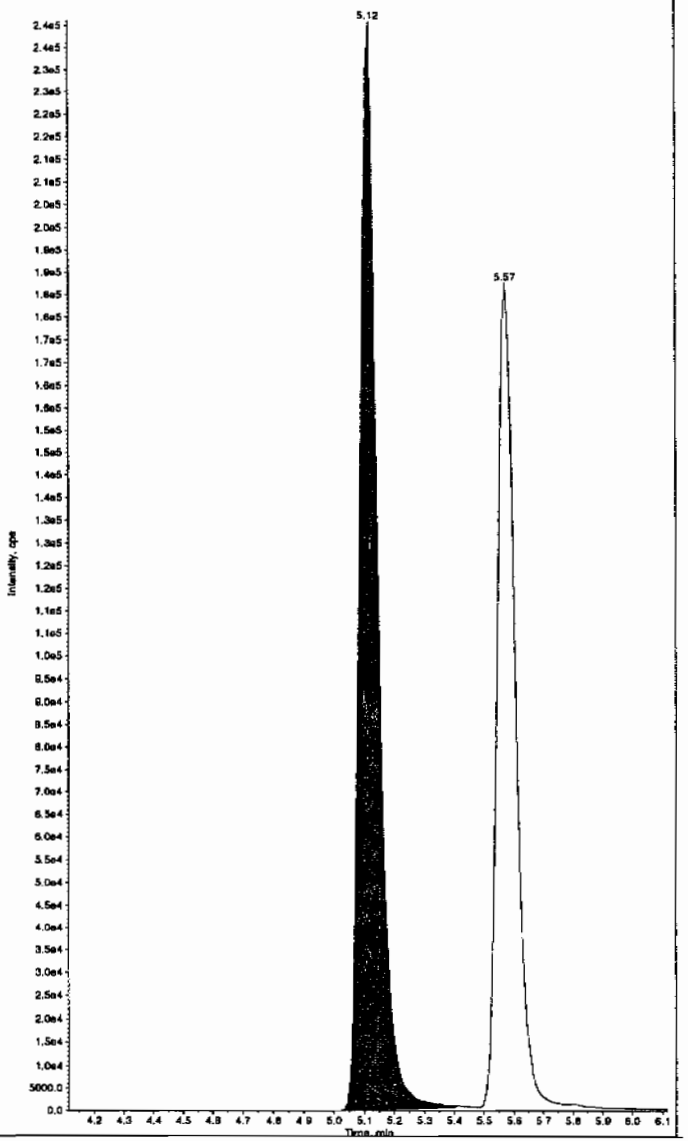

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Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.57 min
Area: 7.72e+005 counts
Height: 182073.196 cps
Start Time: 5.49 min
End Time: 5.92 min

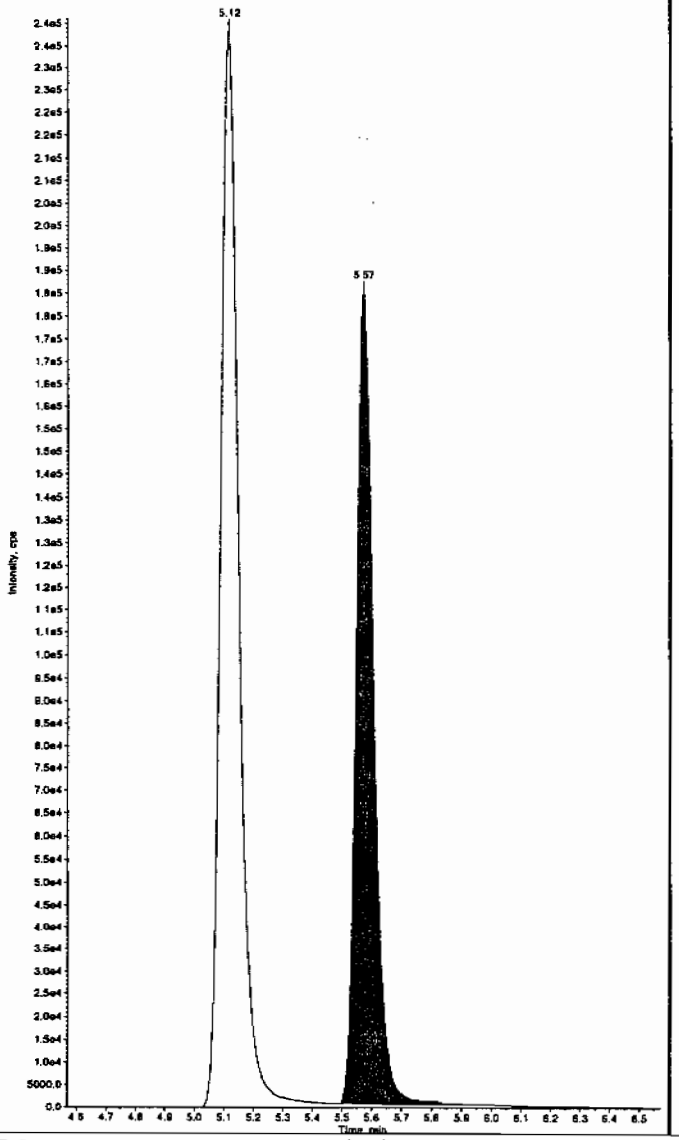

Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 494. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.63e+006 counts
Height: 2044473.877 cps
Start Time: 10.8 min
End Time: 11.3 min

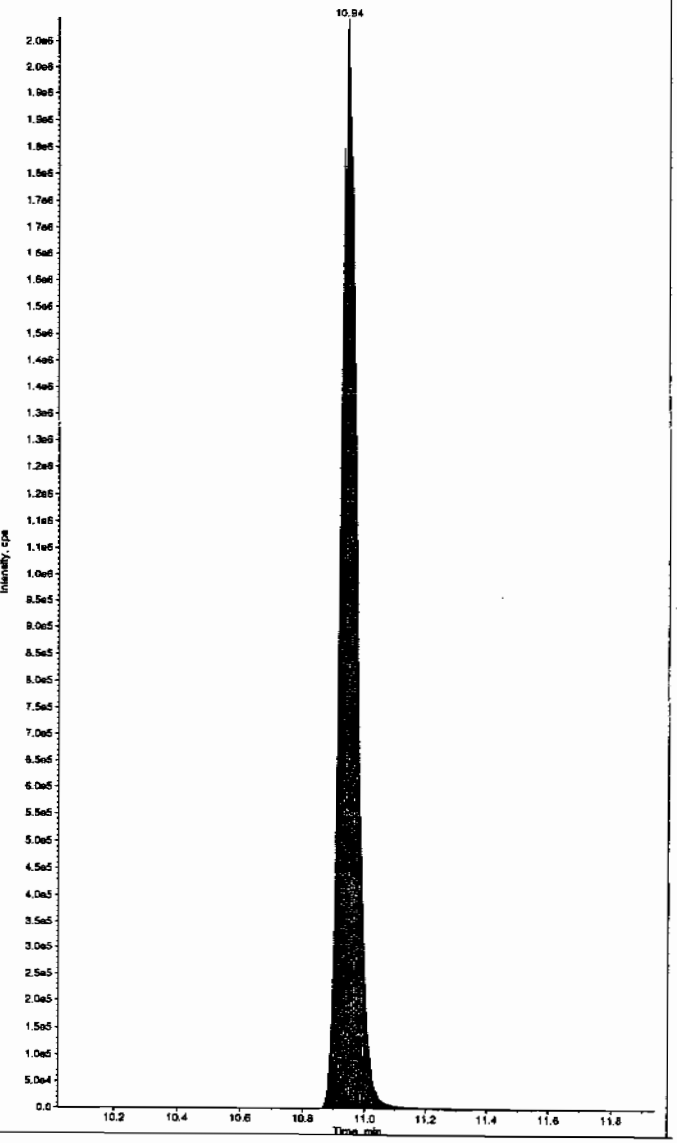

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRl Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304012a

Analysis Date: 04-MAR-10 20:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	40	42.515	106	
2,6-Dinitrotoluene	40	39.781	99	
2,6-Dinitrotoluene-d3	500	509.301	102	
2-Amino-4,6-dinitrotoluene	40	37.902	95	
3,4-Dinitrotoluene	20	19.742	99	
4-Amino-2,6-dinitrotoluene	40	33.746	84	
HMX	40	42.046	105	
Nitrobenzene	40	43.151	108	
PETN	40	43.178	108	
RDX	40	41.86	105	
Tetryl	40	46.154	115	
m-Dinitrobenzene	40	46.893	117	
m-Nitrotoluene	40	38.785	97	
o-Nitrotoluene	40	39.894	100	
p-Nitrotoluene	40	32.889	82	
1,3,5-Trinitrobenzene	40	52.132	130	*
1,3-Dinitrobenzene-d4	500	502.653	101	
2,4,6-Trinitrotoluene	40	43.716	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304012a
Date: 04-Mar-2010
Time: 20:40:53
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/16/10

HMX

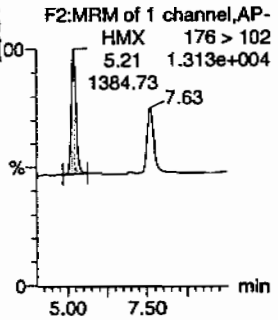

RDX

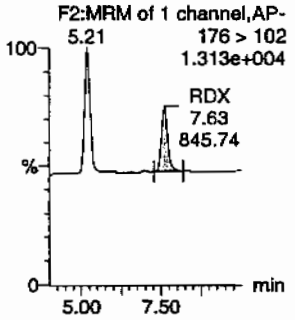

135-Trinitrobenzene

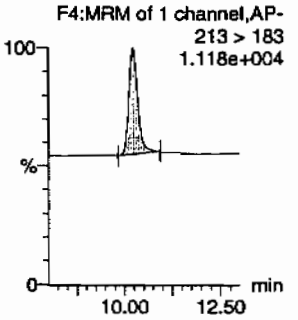

13-Dinitrobenzene-d4

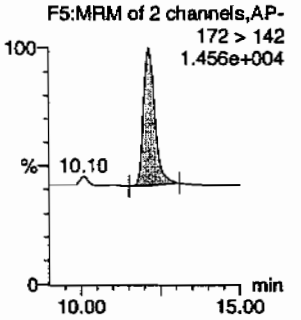

13-Dinitrobenzene

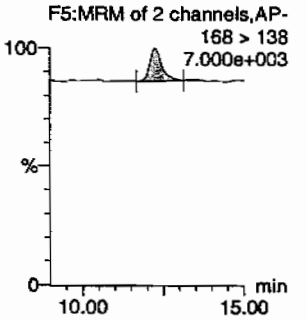

Tetryl

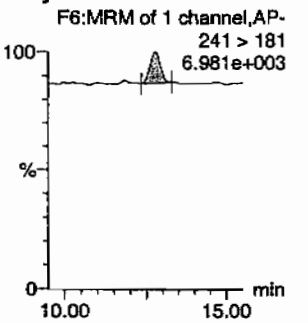

Nitrobenzene

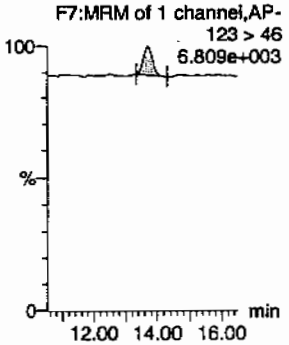

4-Amino-26-dinitrotoluene

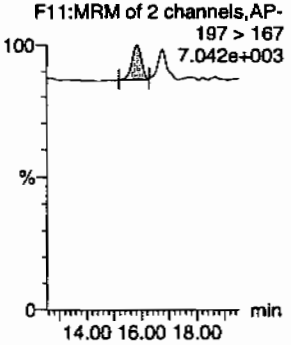

2-Amino-46-dinitrotoluene

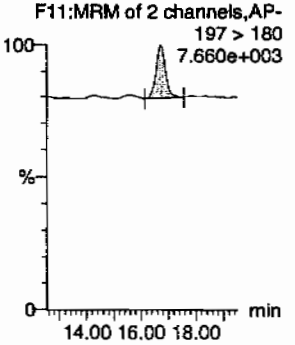

246-Trinitrotoluene

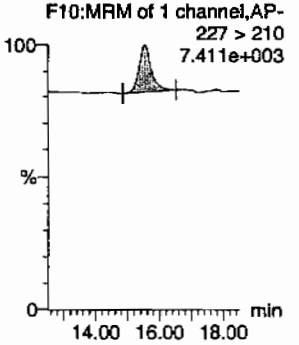

34-dinitrotoluene

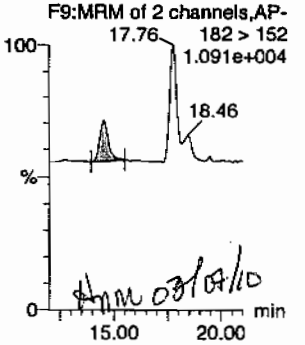

MM 03/04/10

26-dinitrotoluene

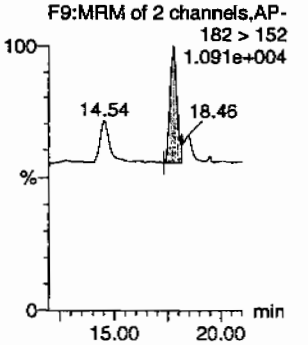

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

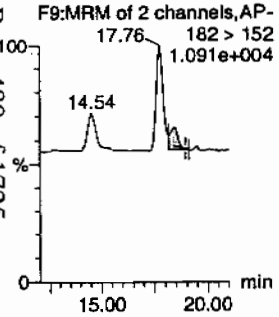

26-dinitrotoluene-d3

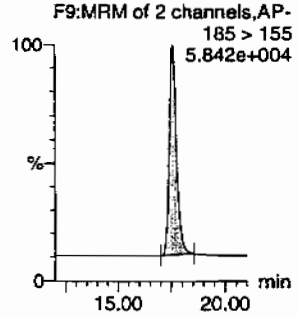

2-Nitrotoluene

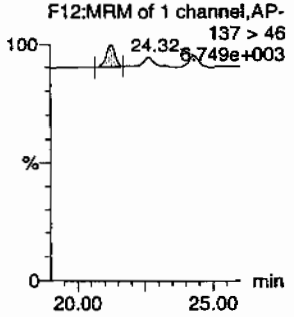

4-Nitrotoluene

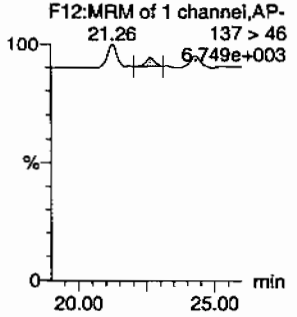

3-Nitrotoluene

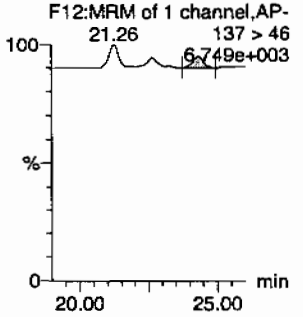

PETN

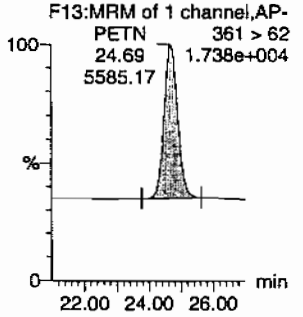

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.21	1384.730	3530.423	1384.730	196.114	bb			42.0457	105.1	5.1	144.1
WXX100304-08CRI	RDX	176 > 102	7.63	845.744	3530.423	845.744	119.779	bb			41.8604	104.7	4.7	75.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1433.303	3530.423	1433.303	202.993	bb			52.1322	130.3	30.3	167.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.13	3530.423		3530.423	3530.423	bb			502.6531	100.5	0.5	557.7
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.24	419.332	3530.423	419.332	59.388	bb			46.8931	117.2	17.2	49.7
WXX100304-08CRI	Tetryl	241 > 181	12.80	331.609	3530.423	331.609	46.964	bb			46.1544	115.4	15.4	33.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.70	251.584	3530.423	251.584	35.631	bb			43.1505	107.9	7.9	26.0
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.85	389.877	20943.066	389.877	9.308	MM	05-Mar-10	10:05:44	33.7458	84.4	-15.6	20.6
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.72	643.123	20943.066	643.123	15.354	bb			37.9017	94.8	-5.2	59.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.54	601.715	20943.066	601.715	14.365	bb			43.7163	109.3	9.3	34.7
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.54	799.203	20943.066	799.203	19.080	bb			19.7424	98.7	-1.3	67.9
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.76	1858.792	20943.066	1858.792	44.377	MM	05-Mar-10	10:10:03	39.7809	99.5	-0.5	195.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.46	490.874	20943.066	490.874	11.719	MM	05-Mar-10	10:13:43	42.5154	106.3	6.3	42.9
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.59	20943.066		20943.066	20943.066	bb			509.3014	101.9	1.9	2489.6
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.26	258.838	20943.066	258.838	6.180	bb			39.8942	99.7	-0.3	72.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.65	105.073	20943.066	105.073	2.509	bb			32.8885	82.2	-17.8	28.3
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.32	153.282	20943.066	153.282	3.659	bb			38.7845	97.0	-3.0	37.4
WXX100304-08CRI	PETN	361 > 62	24.69	5585.170	20943.066	5585.170	133.342	bb			43.1775	107.9	7.9	1559.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/04/10
Time of Injection	2040
Standard Number	WXX100304-08CRI
Data File	EXP0304012a

HMX	105.1
RDX	104.7
135-TNB	130.3
13-DNB	117.2
Tetryl	115.4
Nitrobenzene	107.9
4A-26-DNT	84.4
2A-46-DNT	94.8
246-TNT	109.3
34-DNT(surr)	98.7
26-DNT	99.5
24-DNT	106.3
2-NT	99.7
4-NT	82.2
3-NT	97.0
PETN	107.9
Total	1660.4
Average	103.8

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

MMT 3/6/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304023a

Analysis Date: 05-MAR-10 02:05

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	600	603.708	101	
2,6-Dinitrotoluene-d3	500	475.367	95	
2-Amino-4,6-dinitrotoluene	600	849.542	142	*
3,4-Dinitrotoluene	300	364.434	121	*
4-Amino-2,6-dinitrotoluene	600	789.715	132	*
HMX	600	677.366	113	
Nitrobenzene	600	653.257	109	
PETN	600	714.882	119	
RDX	600	797.625	133	*
Tetryl	600	672.594	112	
m-Dinitrobenzene	600	619.329	103	
m-Nitrotoluene	600	614.199	102	
o-Nitrotoluene	600	660.057	110	
p-Nitrotoluene	600	704.198	117	
1,3,5-Trinitrobenzene	600	582.184	97	
1,3-Dinitrobenzene-d4	500	523.805	105	
2,4,6-Trinitrotoluene	600	735.028	123	*
2,4-Dinitrotoluene	600	602.974	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304023a
Date: 05-Mar-2010
Time: 02:05:17
ID: WXX100304-07CCV
Vial: 1:1,B

HMX

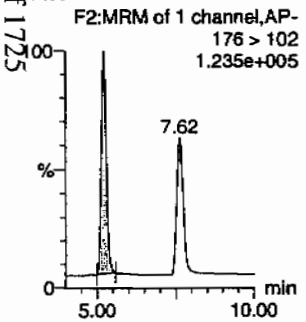

RDX

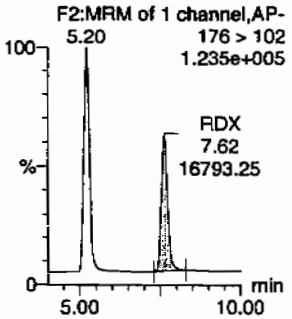

135-Trinitrobenzene

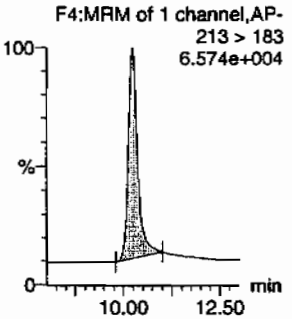

13-Dinitrobenzene-d4

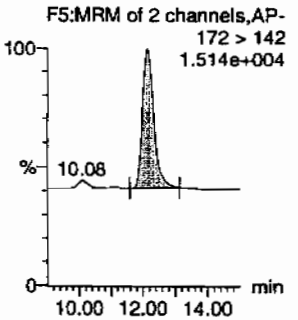

13-Dinitrobenzene

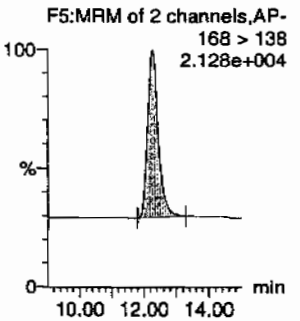

Tetryl

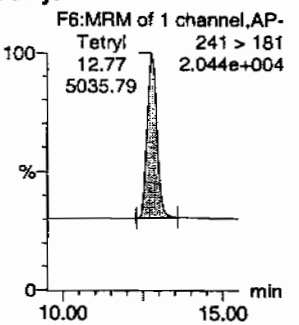

Nitrobenzene

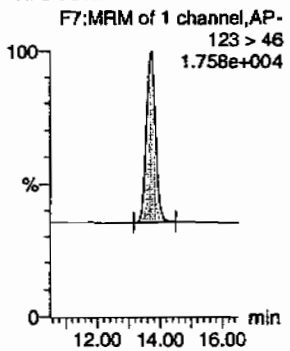

4-Amino-26-dinitrotoluene

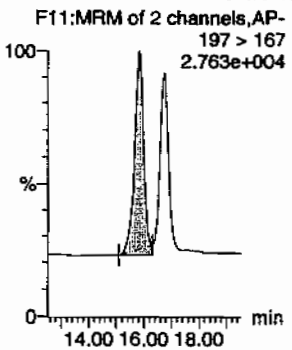

2-Amino-46-dinitrotoluene

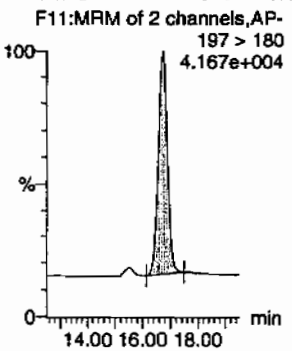

246-Trinitrotoluene

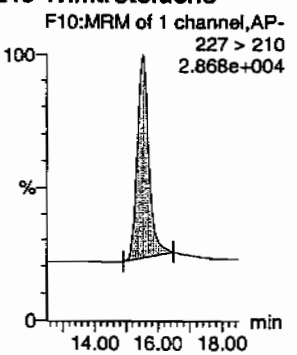

34-dinitrotoluene

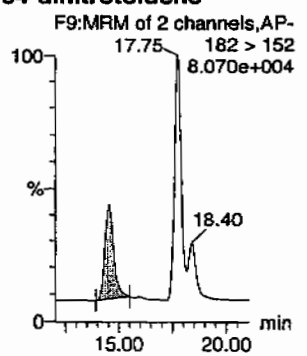

26-dinitrotoluene

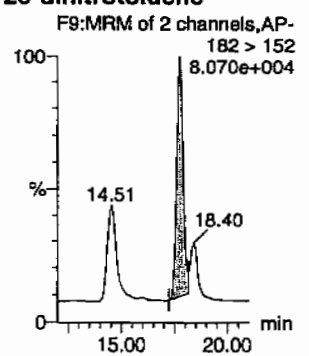

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

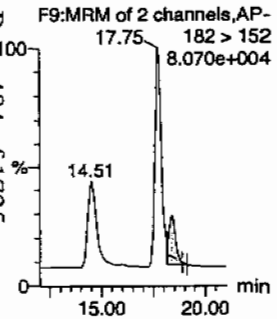

26-dinitrotoluene-d3

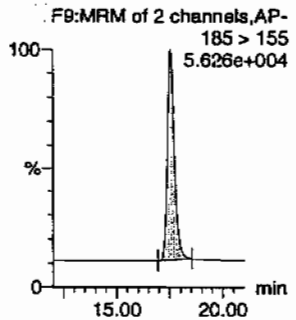

2-Nitrotoluene

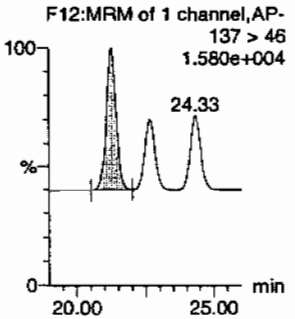

4-Nitrotoluene

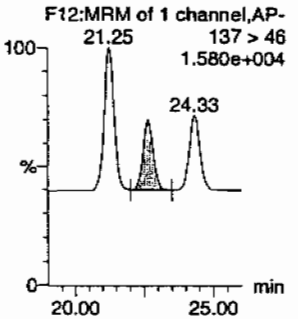

3-Nitrotoluene

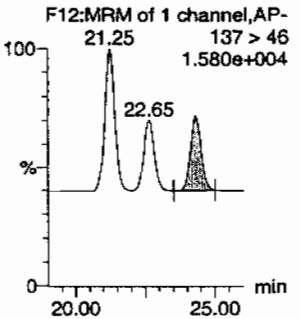

PETN

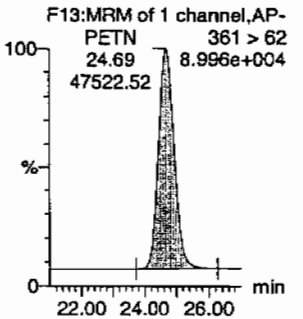

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.20	23247.100	3678.984	23247.100	3159.446	bb			677.3665	112.9	12.9	2560.3
WXX100304-07CCV	RDX	176 > 102	7.62	16793.252	3678.984	16793.252	2282.322	bb			797.6245	132.9	32.9	1567.4
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	16679.912	3678.984	16679.912	2266.918	bb			582.1844	97.0	-3.0	428.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3678.984		3678.984	3678.984	bb			523.8049	104.8	4.8	230.9
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	5771.273	3678.984	5771.273	784.357	bb			619.3290	103.2	3.2	630.1
WXX100304-07CCV	Tetryl	241 > 181	12.77	5035.788	3678.984	5035.788	684.399	bb			672.5937	112.1	12.1	382.1
WXX100304-07CCV	Nitrobenzene	123 > 46	13.71	3969.008	3678.984	3969.008	539.416	bb			653.2568	108.9	8.9	464.3
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	8515.934	19547.650	8515.934	217.825	MM	05-Mar-10	10:06:27	789.7146	131.6	31.6	450.0
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	13454.715	19547.650	13454.715	344.152	bb			849.5422	141.6	41.6	1164.7
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.52	9442.896	19547.650	9442.896	241.535	bb			735.0276	122.5	22.5	274.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	13769.875	19547.650	13769.875	352.213	bb			364.4337	121.5	21.5	676.9
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	26329.188	19547.650	26329.188	673.462	bd			603.7078	100.6	0.6	1723.2
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.40	6497.957	19547.650	6497.957	166.208	MM	05-Mar-10	10:14:36	602.9736	100.5	0.5	387.9
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	19547.650		19547.650	19547.650	bb			475.3671	95.1	-4.9	1057.7
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.25	3997.184	19547.650	3997.184	102.242	bb			660.0571	110.0	10.0	1109.3
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.65	2099.885	19547.650	2099.885	53.712	bb			704.1980	117.4	17.4	556.9
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.33	2265.668	19547.650	2265.668	57.952	bb			614.1987	102.4	2.4	587.3
WXX100304-07CCV	PETN	361 > 62	24.69	47522.520	19547.650	47522.520	1215.556	bb			714.8825	119.1	19.1	12806.0

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 0205
Standard Number: WXX100304-07CCV
Data File: EXP0304023a

HMX		112.9
RDX		132.9
135-TNB		97.0
13-DNB		103.2
Tetryl		112.1
Nitrobenzene		108.9
4A-26-DNT		131.6
2A-46-DNT		141.6
246-TNT		122.5
34-DNT(surr)		121.5
26-DNT		100.6
24-DNT		100.5
2-NT		110.0
4-NT		117.4
3-NT		102.1
PETN		119.1
Total		1833.9
Average		114.6

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304025a

Analysis Date: 05-MAR-10 03:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	36.407	91	
m-Nitrotoluene	40	44.127	110	
o-Nitrotoluene	40	43.573	109	
p-Nitrotoluene	40	37.14	93	
1,3,5-Trinitrobenzene	40	45.531	114	
1,3-Dinitrobenzene-d4	500	486.162	97	
2,4,6-Trinitrotoluene	40	34.785	87	
2,4-Dinitrotoluene	40	43.839	110	
2,6-Dinitrotoluene	40	37.827	95	
2,6-Dinitrotoluene-d3	500	496.377	99	
2-Amino-4,6-dinitrotoluene	40	38.416	96	
3,4-Dinitrotoluene	20	18.756	94	
4-Amino-2,6-dinitrotoluene	40	39.423	99	
HMX	40	36.072	90	
Nitrobenzene	40	41.851	105	
PETN	40	44.092	110	
RDX	40	37.991	95	
Tetryl	40	37.595	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304025a
Date: 05-Mar-2010
Time: 03:04:14
ID: WXX100304-08CRI
Dil: 1:1,C

MAT 3/6/10

HMX

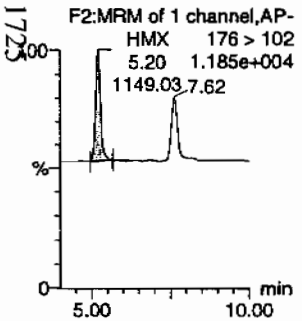

RDX

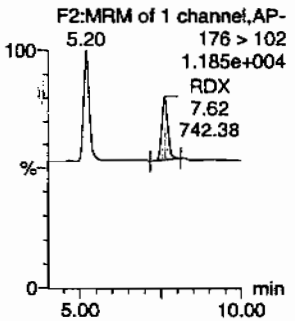

135-Trinitrobenzene

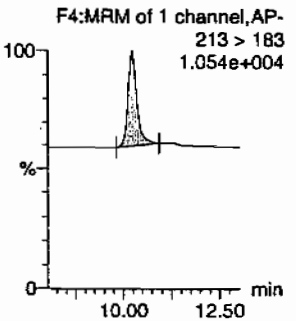

13-Dinitrobenzene-d4

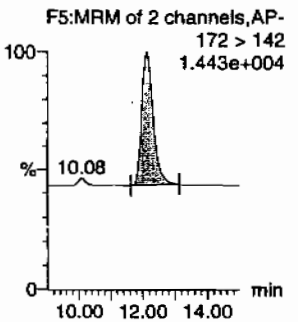

13-Dinitrobenzene

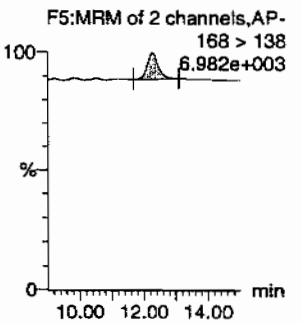

Tetryl

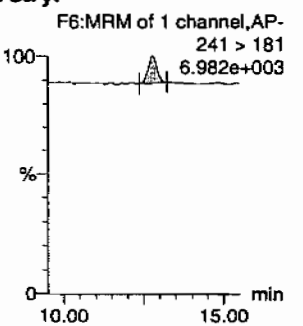

Nitrobenzene

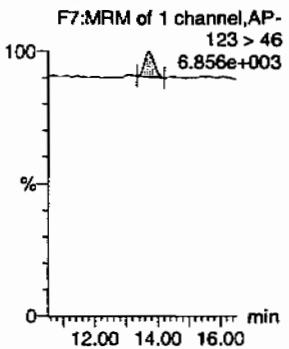

4-Amino-26-dinitrotoluene

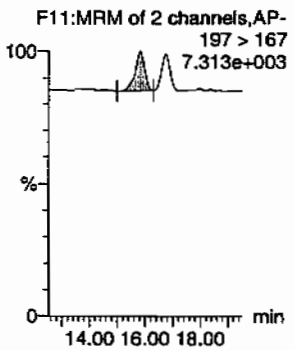

2-Amino-46-dinitrotoluene

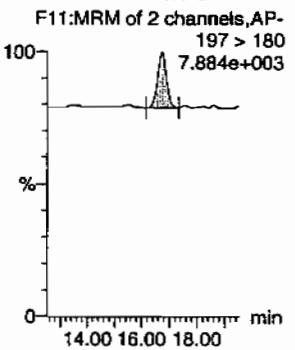

246-Trinitrotoluene

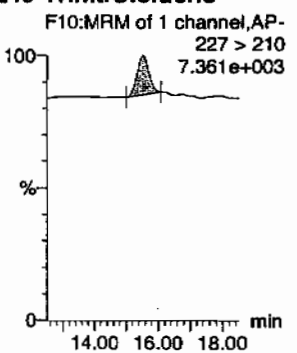

34-dinitrotoluene

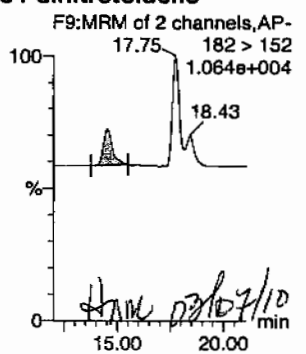

HAK 03/07/10

26-dinitrotoluene

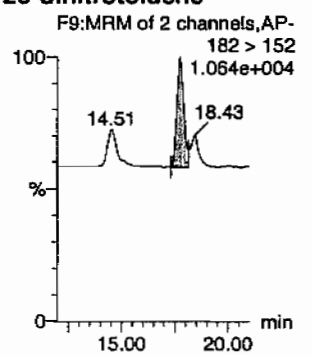

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

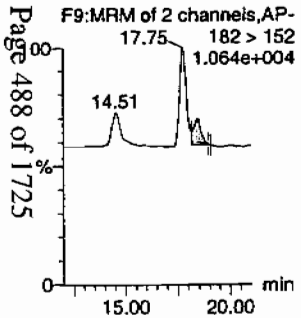

26-dinitrotoluene-d3

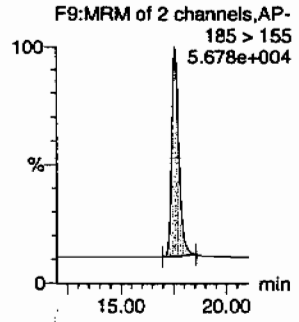

2-Nitrotoluene

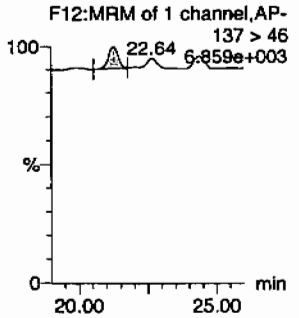

4-Nitrotoluene

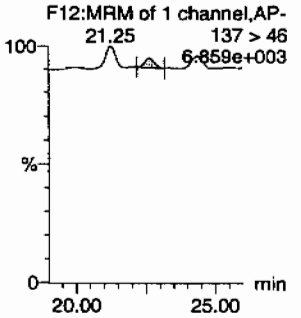

3-Nitrotoluene

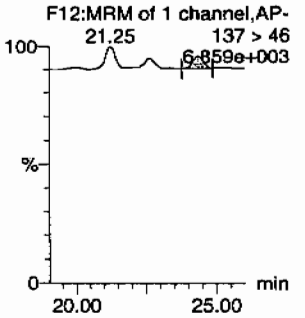

PETN

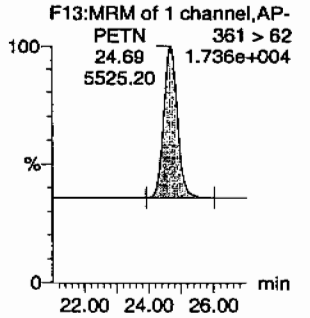

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1149.025	3414.594	1149.025	168.252	bb			36.0722	90.2	-9.8	165.6
WXX100304-08CRI	RDX	176 > 102	7.62	742.378	3414.594	742.378	108.707	bb			37.9907	95.0	-5.0	95.5
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1210.741	3414.594	1210.741	177.289	bb			45.5310	113.8	13.8	229.8
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3414.594		3414.594	3414.594	bb			486.1617	97.2	-2.8	85.2
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	314.881	3414.594	314.881	46.108	bb			36.4070	91.0	-9.0	27.6
WXX100304-08CRI	Tetryl	241 > 181	12.77	261.250	3414.594	261.250	38.255	bb			37.5950	94.0	-6.0	25.8
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	236.004	3414.594	236.004	34.558	bb			41.8514	104.6	4.6	38.7
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	443.909	20411.605	443.909	10.874	bb			39.4230	98.6	-1.4	32.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	635.304	20411.605	635.304	15.562	bb			38.4158	96.0	-4.0	53.4
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.55	466.627	20411.605	466.627	11.430	bb			34.7845	87.0	-13.0	48.2
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	740.008	20411.605	740.008	18.127	bb			18.7561	93.8	-6.2	47.1
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.75	1722.620	20411.605	1722.620	42.197	MM	05-Mar-10	10:11:23	37.8265	94.6	-5.4	142.3
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.43	493.310	20411.605	493.310	12.084	MM	05-Mar-10	10:14:45	43.8388	109.6	9.6	38.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.57	20411.605		20411.605	20411.605	bb			496.3771	99.3	-0.7	287.3
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.25	275.529	20411.605	275.529	6.749	bb			43.5725	108.9	8.9	54.8
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.64	115.645	20411.605	115.645	2.833	bb			37.1401	92.9	-7.1	23.6
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.36	169.971	20411.605	169.971	4.164	bb			44.1270	110.3	10.3	31.1
WXX100304-08CRI	PETN	361 > 62	24.69	5525.200	20411.605	5525.200	135.345	bb			44.0922	110.2	10.2	367.0

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	0304
Standard Number	WXX100304-08CRI
Data File	EXP0304025a

HMX	90.2
RDX	95.0
135-TNB	113.8
13-DNB	91.0
Tetryl	94.0
Nitrobenzene	104.6
4A-26-DNT	98.6
2A-46-DNT	96.0
246-TNT	87.0
34-DNT(surr)	93.8
26-DNT	94.6
24-DNT	109.6
2-NT	108.9
4-NT	92.9
3-NT	110.3
PETN	110.2
Total	1590.5
Average	99.4

3/6/10

03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304036a

Analysis Date: 05-MAR-10 08:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	634.351	106	
m-Nitrotoluene	600	540.173	90	
o-Nitrotoluene	600	622.879	104	
p-Nitrotoluene	600	600.392	100	
1,3,5-Trinitrobenzene	600	515.274	86	
1,3-Dinitrobenzene-d4	500	536.623	107	
2,4,6-Trinitrotoluene	600	672.018	112	
2,4-Dinitrotoluene	600	572.889	95	
2,6-Dinitrotoluene	600	612.517	102	
2,6-Dinitrotoluene-d3	500	508.792	102	
2-Amino-4,6-dinitrotoluene	600	681.036	114	
3,4-Dinitrotoluene	300	311.088	104	
4-Amino-2,6-dinitrotoluene	600	643.868	107	
HMX	600	523.143	87	
Nitrobenzene	600	628.495	105	
PETN	600	577.567	96	
RDX	600	607.989	101	
Tetryl	600	588.724	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304036a
Date: 05-Mar-2010
Time: 08:28:30
ID: WXX100304-07CCV
Vial: 1:1,B

Page 49 of 725

MTP 3/6/10

HMX

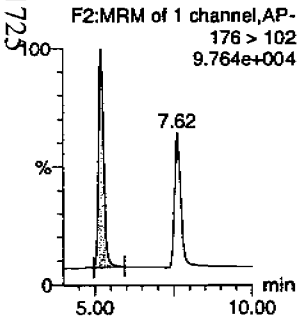

RDX

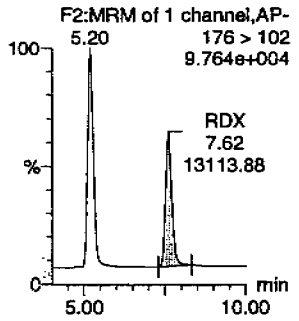

135-Trinitrobenzene

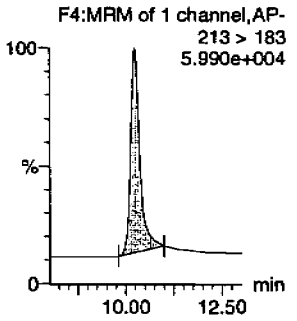

13-Dinitrobenzene-d4

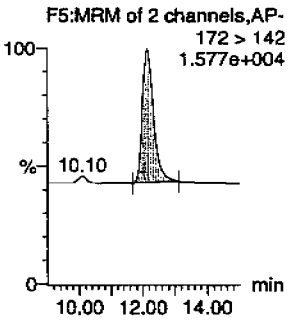

13-Dinitrobenzene

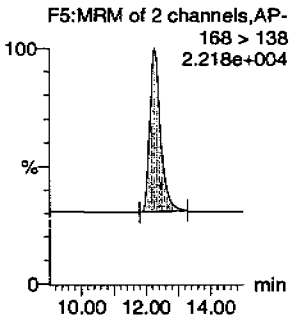

Tetryl

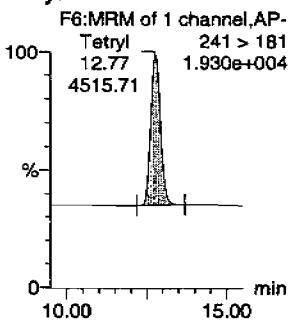

Nitrobenzene

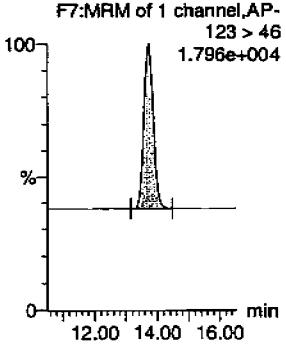

4-Amino-26-dinitrotoluene

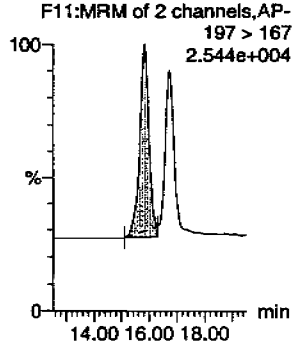

2-Amino-46-dinitrotoluene

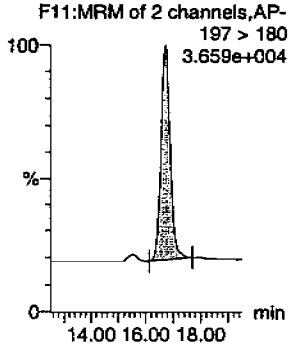

246-Trinitrotoluene

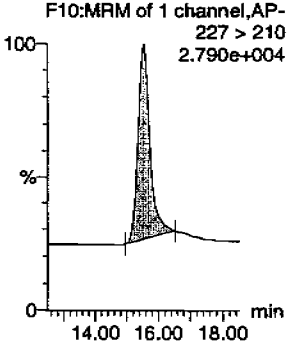

34-dinitrotoluene

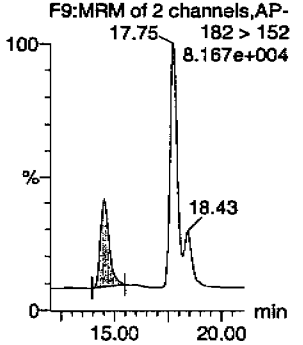

26-dinitrotoluene

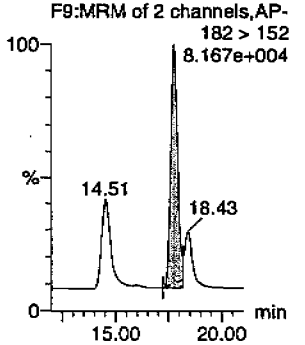

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

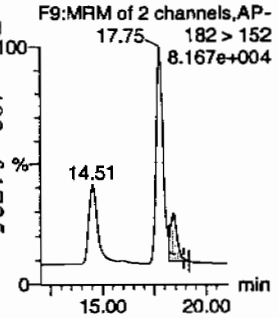

26-dinitrotoluene-d3

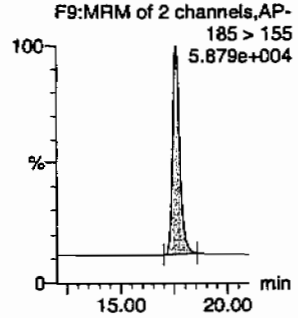

2-Nitrotoluene

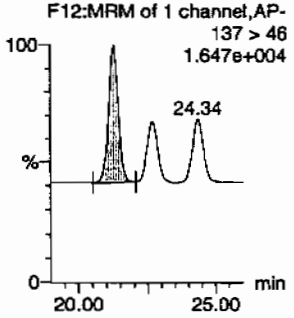

4-Nitrotoluene

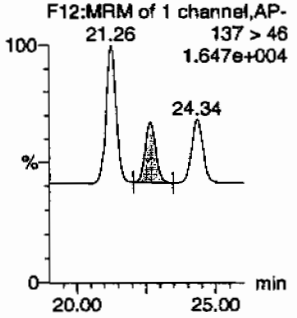

3-Nitrotoluene

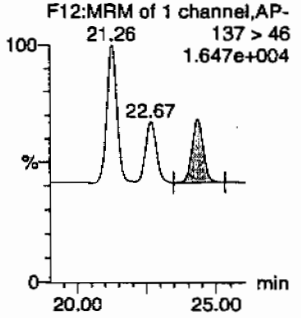

PETN

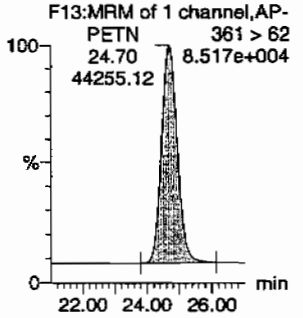

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
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WXX100304-07CCV	RDX	176 > 102	7.62	13113.881	3769.010	13113.881	1739.698	bb			607.9888	101.3	1.3	912.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	15124.150	3769.010	15124.150	2006.382	bb			515.2742	85.9	-14.1	1681.4
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3769.010		3769.010	3769.010	bb			536.6226	107.3	7.3	211.6
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	6055.908	3769.010	6055.908	803.382	bb			634.3511	105.7	5.7	341.1
WXX100304-07CCV	Tetryl	241 > 181	12.77	4515.707	3769.010	4515.707	599.057	bb			588.7240	98.1	-1.9	461.6
WXX100304-07CCV	Nitrobenzene	123 > 46	13.72	3912.001	3769.010	3912.001	518.969	bb			628.4946	104.7	4.7	410.3
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7431.390	20922.104	7431.390	177.597	MM	05-Mar-10	10:07:06	643.8684	107.3	7.3	244.6
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11544.367	20922.104	11544.367	275.889	bb			681.0355	113.5	13.5	719.9
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.55	9240.455	20922.104	9240.455	220.830	bb			672.0182	112.0	12.0	377.4
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	12580.740	20922.104	12580.740	300.657	bb			311.0885	103.7	3.7	401.3
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	28591.688	20922.104	28591.688	683.289	MM	05-Mar-10	10:12:12	612.5172	102.1	2.1	1125.2
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.43	6607.849	20922.104	6607.849	157.915	MM	05-Mar-10	10:15:32	572.8894	95.5	-4.5	244.0
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	20922.104		20922.104	20922.104	bb			508.7916	101.8	1.8	2012.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.26	4037.262	20922.104	4037.262	96.483	bb			622.8787	103.8	3.8	781.2
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.67	1916.226	20922.104	1916.226	45.794	bb			600.3925	100.1	0.1	346.0
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.34	2132.706	20922.104	2132.706	50.968	bb			540.1729	90.0	-10.0	362.7
WXX100304-07CCV	PETN	361 > 62	24.70	44255.117	20922.104	44255.117	1057.616	bb			577.5671	96.3	-3.7	1129.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 0828
Standard Number: WXX100304-07CCV
Data File: EXP0304036a

HMX	87.2
RDX	101.3
135-TNB	85.9
13-DNB	105.7
Tetryl	98.1
Nitrobenzene	104.7
4A-26-DNT	107.3
2A-46-DNT	113.5
246-TNT	112.0
34-DNT(surr)	103.7
26-DNT	102.1
24-DNT	95.5
2-NT	103.8
4-NT	100.1
3-NT	90.0
PETN	96.3
Total	1607.2
Average	100.5

MHT 3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304038a

Analysis Date: 05-MAR-10 09:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.063	120	
1,3-Dinitrobenzene-d4	500	567.712	114	
2,4,6-Trinitrotoluene	40	40.001	100	
2,4-Dinitrotoluene	40	36.759	92	
2,6-Dinitrotoluene	40	39.855	100	
2,6-Dinitrotoluene-d3	500	569.834	114	
2-Amino-4,6-dinitrotoluene	40	38.546	96	
3,4-Dinitrotoluene	20	17.879	89	
4-Amino-2,6-dinitrotoluene	40	46.263	116	
HMX	40	38.837	97	
Nitrobenzene	40	43.406	109	
PETN	40	38.4	96	
RDX	40	41.881	105	
Tetryl	40	47.052	118	
m-Dinitrobenzene	40	39.692	99	
m-Nitrotoluene	40	40.239	101	
o-Nitrotoluene	40	38.86	97	
p-Nitrotoluene	40	39.046	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304038a
Date: 05-Mar-2010
Time: 09:27:34
ID: WXX100304-08CRI
Dial: 1:1,C

Page 495 of 1725

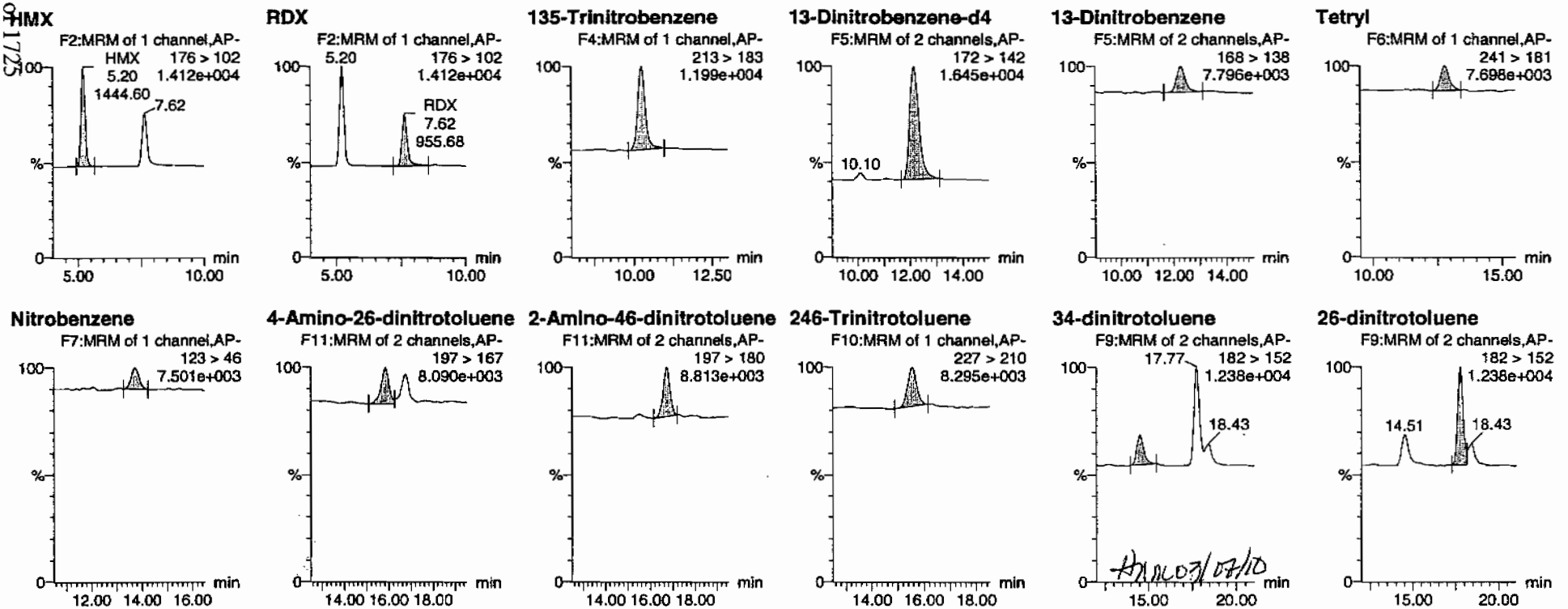

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

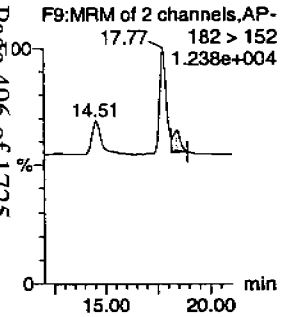

26-dinitrotoluene-d3

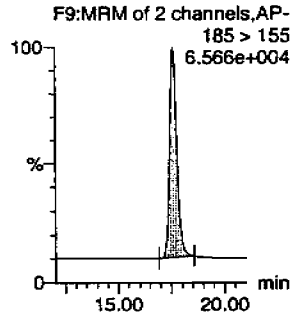

2-Nitrotoluene

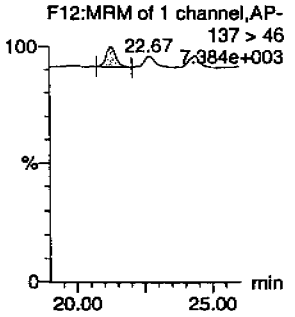

4-Nitrotoluene

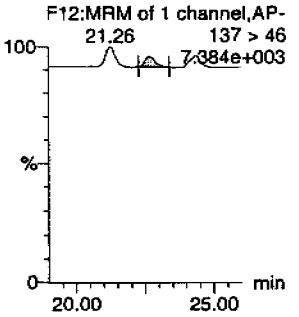

3-Nitrotoluene

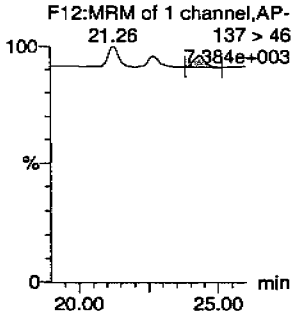

PETN

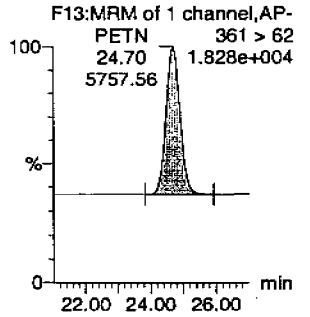

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1444.595	3987.369	1444.595	181.146	bb			38.8367	97.1	-2.9	378.8
WXX100304-08CRI	RDX	176 > 102	7.62	955.681	3987.369	955.681	119.839	bb			41.8811	104.7	4.7	198.0
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1492.464	3987.369	1492.464	187.149	bb			48.0631	120.2	20.2	84.1
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3987.369		3987.369	3987.369	bb			567.7120	113.5	13.5	417.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	400.882	3987.369	400.882	50.269	bb			39.6924	99.2	-0.8	24.5
WXX100304-08CRI	Tetryl	241 > 181	12.77	381.817	3987.369	381.817	47.878	bb			47.0524	117.6	17.6	25.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	285.830	3987.369	285.830	35.842	bb			43.4061	108.5	8.5	24.9
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	598.013	23432.250	598.013	12.760	MM	05-Mar-10	10:07:28	46.2625	115.7	15.7	34.2
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	731.783	23432.250	731.783	15.615	bb			38.5455	96.4	-3.6	66.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.55	616.013	23432.250	616.013	13.145	bb			40.0008	100.0	0.0	42.1
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	809.807	23432.250	809.807	17.280	bb			17.8793	89.4	-10.6	40.6
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.77	2083.575	23432.250	2083.575	44.460	MM	05-Mar-10	10:12:20	39.8547	99.6	-0.4	131.5
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.43	474.849	23432.250	474.849	10.132	MM	05-Mar-10	10:15:38	36.7585	91.9	-8.1	26.6
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23432.250		23432.250	23432.250	bb			569.8343	114.0	14.0	2088.9
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.26	282.094	23432.250	282.094	6.019	bb			38.8599	97.1	-2.9	32.5
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.67	139.572	23432.250	139.572	2.978	bb			39.0461	97.6	-2.4	16.0
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.38	177.933	23432.250	177.933	3.797	bb			40.2392	100.6	0.6	18.9
WXX100304-08CRI	PETN	361 > 62	24.70	5757.563	23432.250	5757.563	122.856	bb			38.3995	96.0	-4.0	941.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	0927
Standard Number	WXX100304-08CRI
Data File	EXP0304038a

HMX	97.1
RDX	104.7
135-TNB	120.2
13-DNB	99.2
Tetryl	117.6
Nitrobenzene	108.5
4A-26-DNT	115.7
2A-46-DNT	96.4
246-TNT	100.0
34-DNT(surr)	89.4
26-DNT	99.6
24-DNT	91.9
2-NT	97.1
4-NT	97.6
3-NT	100.6
PETN	96.0
Total	1631.6
Average	102.0

MTP 3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304049a

Analysis Date: 05-MAR-10 14:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	658.826	110	
2,4-Dinitrotoluene	600	563.598	94	
2,6-Dinitrotoluene	600	590.275	98	
2,6-Dinitrotoluene-d3	500	516.322	103	
2-Amino-4,6-dinitrotoluene	600	640.403	107	
3,4-Dinitrotoluene	300	295.719	99	
4-Amino-2,6-dinitrotoluene	600	631.798	105	
HMX	600	537.583	90	
Nitrobenzene	600	626.896	104	
PETN	600	590.161	98	
RDX	600	630.1	105	
Tetryl	600	629.847	105	
m-Dinitrobenzene	600	598.536	100	
m-Nitrotoluene	600	561.186	94	
o-Nitrotoluene	600	596.576	99	
p-Nitrotoluene	600	615.575	103	
1,3,5-Trinitrobenzene	600	553.66	92	
1,3-Dinitrobenzene-d4	500	505.7	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304049a
Date: 05-Mar-2010
Time: 14:52:12
ID: WXX100304-07CCV
Vial: 1:1,B

MATP 3/6/10

HMX

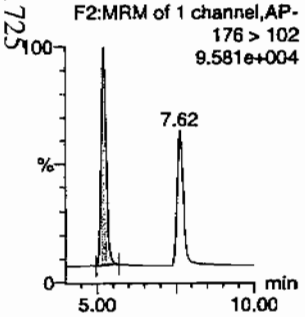

RDX

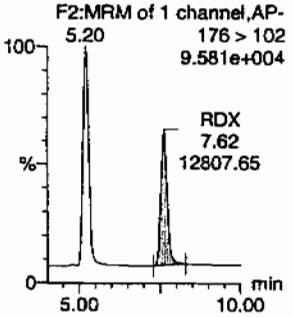

135-Trinitrobenzene

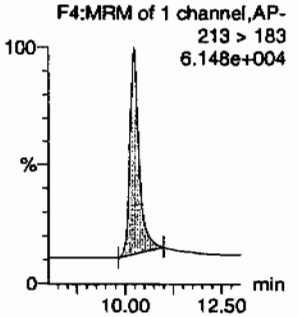

13-Dinitrobenzene-d4

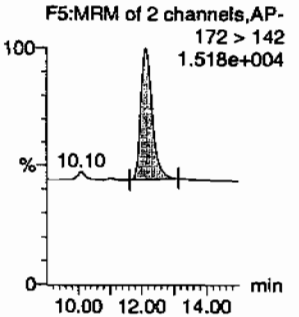

13-Dinitrobenzene

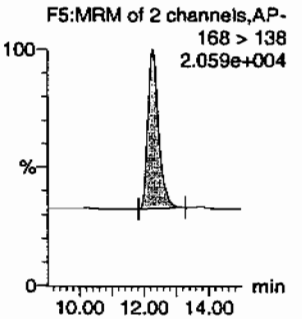

Tetryl

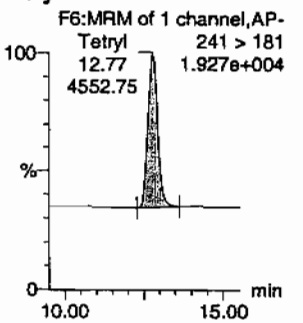

Nitrobenzene

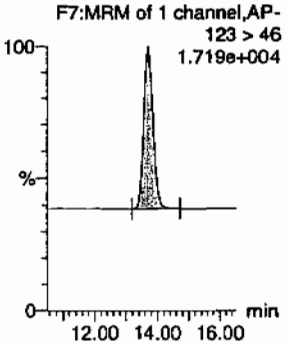

4-Amino-26-dinitrotoluene

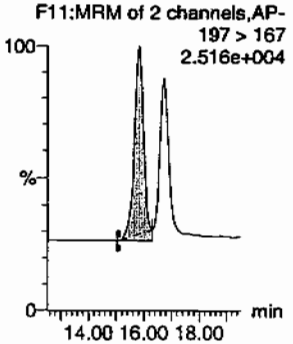

2-Amino-46-dinitrotoluene

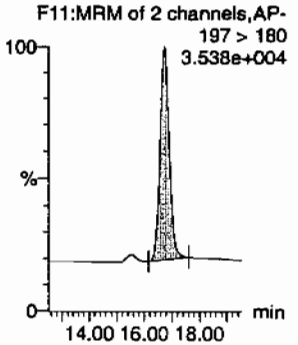

246-Trinitrotoluene

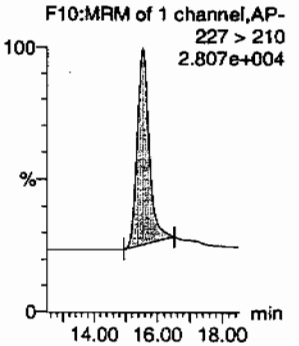

34-dinitrotoluene

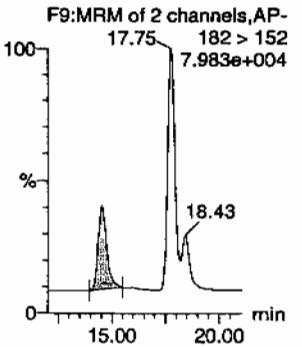

26-dinitrotoluene

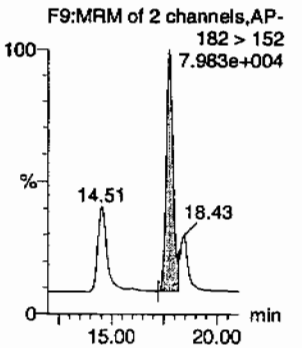

tnm 03/07/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp\PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

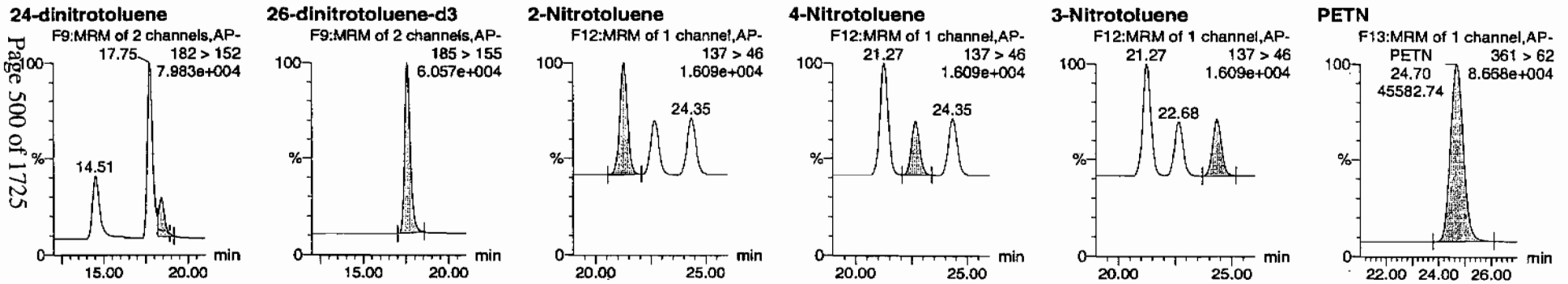

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.20	17812.063	3551.826	17812.063	2507.452	bb			537.5828	89.6	-10.4	1664.9
WXX100304-07CCV	RDX	176 > 102	7.62	12807.652	3551.826	12807.652	1802.967	bb			630.0999	105.0	5.0	1029.0
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	15314.414	3551.826	15314.414	2155.851	bb			553.6603	92.3	-7.7	787.1
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3551.826		3551.826	3551.826	bb			505.7004	101.1	1.1	212.6
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	5384.733	3551.826	5384.733	758.023	bb			598.5359	99.8	-0.2	403.2
WXX100304-07CCV	Tetryl	241 > 181	12.77	4552.748	3551.826	4552.748	640.902	bb			629.8472	105.0	5.0	552.4
WXX100304-07CCV	Nitrobenzene	123 > 46	13.72	3677.203	3551.826	3677.203	517.650	bb			626.8964	104.5	4.5	408.6
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7399.999	21231.762	7399.999	174.267	MM	06-Mar-10	12:11:04	631.7977	105.3	5.3	496.7
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11016.273	21231.762	11016.273	259.429	bb			640.4034	106.7	6.7	751.3
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.55	9193.135	21231.762	9193.135	216.495	bb			658.8258	109.8	9.8	813.4
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	12136.202	21231.762	12136.202	285.803	bb			295.7194	98.6	-1.4	558.4
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	27961.234	21231.762	27961.234	658.477	MM	06-Mar-10	12:14:47	590.2747	98.4	-1.6	1598.9
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.43	6596.898	21231.762	6596.898	155.354	MM	06-Mar-10	12:15:00	563.5984	93.9	-6.1	349.0
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	21231.762		21231.762	21231.762	bb			516.3220	103.3	3.3	1428.5
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.27	3924.011	21231.762	3924.011	92.409	bb			596.5764	99.4	-0.6	813.6
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.68	1993.761	21231.762	1993.761	46.952	bb			615.5749	102.6	2.6	395.6
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.35	2248.463	21231.762	2248.463	52.950	bb			561.1861	93.5	-6.5	417.7
WXX100304-07CCV	PETN	361 > 62	24.70	45582.738	21231.762	45582.738	1073.456	bb			590.1608	98.4	-1.6	3875.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 1452
Standard Number: WXX100304-07CCV
Data File: EXP0304049a

HMX	89.6
RDX	105.0
135-TNB	92.3
13-DNB	99.8
Tetryl	105.0
Nitrobenzene	104.5
4A-26-DNT	105.3
2A-46-DNT	106.7
246-TNT	109.8
34-DNT(surr)	98.6
26-DNT	98.4
24-DNT	93.9
2-NT	99.4
4-NT	102.6
3-NT	93.5
PETN	98.4
Total	1602.8
Average	100.2

MATT 3/6/10

HMC 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0304051a

Analysis Date: 05-MAR-10 15:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	41.661	104	
3,4-Dinitrotoluene	20	18.026	90	
4-Amino-2,6-dinitrotoluene	40	34.434	86	
HMX	40	42.762	107	
Nitrobenzene	40	43.048	108	
PETN	40	41.201	103	
RDX	40	42.966	107	
Tetryl	40	50.733	127	
m-Dinitrobenzene	40	39.555	99	
m-Nitrotoluene	40	42.174	105	
o-Nitrotoluene	40	36.513	91	
p-Nitrotoluene	40	41.047	103	
1,3,5-Trinitrobenzene	40	51.153	128	
1,3-Dinitrobenzene-d4	500	505.962	101	
2,4,6-Trinitrotoluene	40	43.019	108	
2,4-Dinitrotoluene	40	36.168	90	
2,6-Dinitrotoluene	40	40.992	102	
2,6-Dinitrotoluene-d3	500	562.467	112	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304051a
Date: 05-Mar-2010
Time: 15:51:17
ID: WXX100304-08CRI
Vial: 1:1,C

KMT 3/6/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 1.378e+004
1417.59
7.62

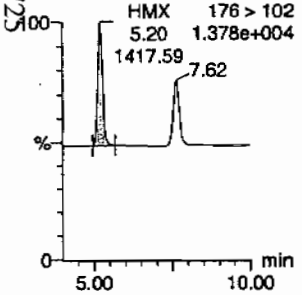

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
1.378e+004
RDX
7.62
873.80

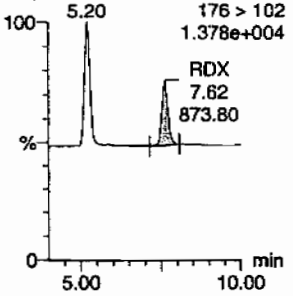

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.141e+004

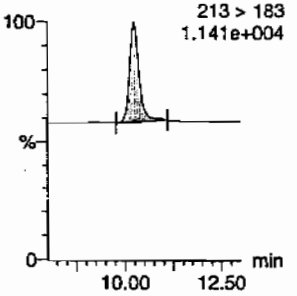

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.531e+004
10.10

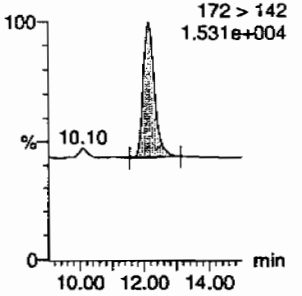

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.642e+003

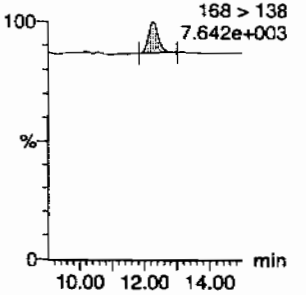

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.592e+003

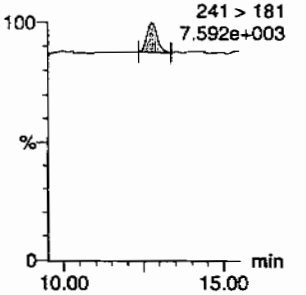

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.429e+003

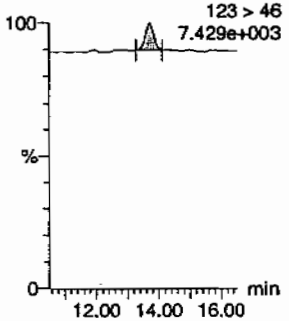

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
16.73 197 > 167
7.824e+003

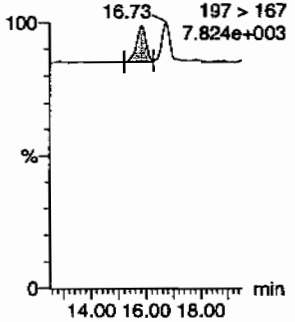

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.594e+003

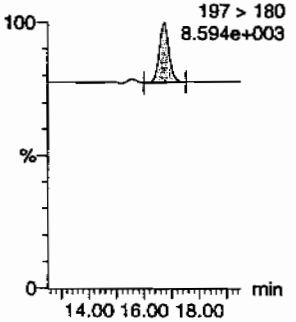

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
8.207e+003

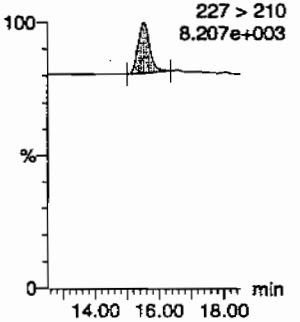

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.77 182 > 152
1.215e+004
18.45

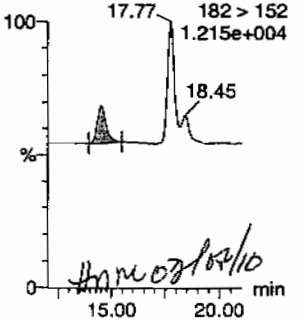

HMM 03/06/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.215e+004
14.51
18.45

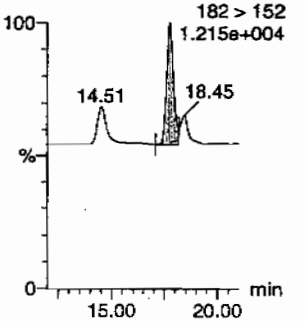

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

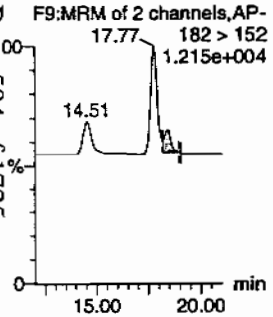

26-dinitrotoluene-d3

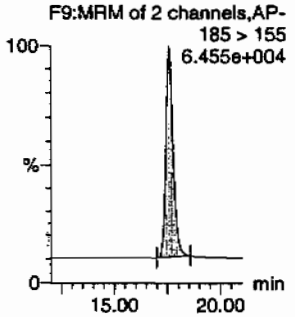

2-Nitrotoluene

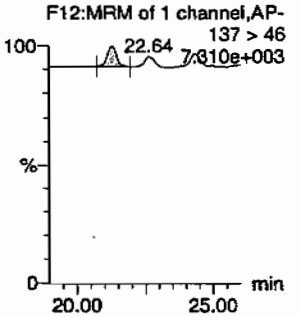

4-Nitrotoluene

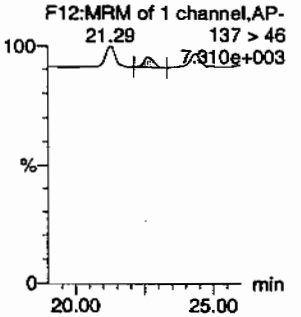

3-Nitrotoluene

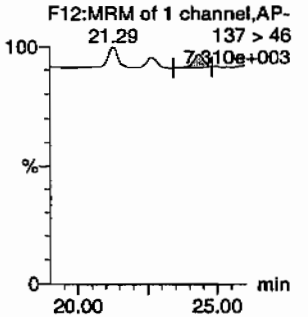

PETN

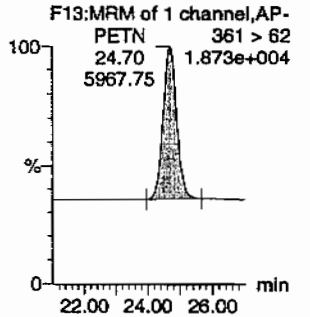

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1417.593	3553.665	1417.593	199.455	bb			42.7620	106.9	6.9	172.8
WXX100304-08CRI	RDX	176 > 102	7.62	873.798	3553.665	873.798	122.943	bb			42.9661	107.4	7.4	91.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1415.644	3553.665	1415.644	199.181	bb			51.1531	127.9	27.9	144.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3553.665		3553.665	3553.665	bb			505.9623	101.2	1.2	134.1
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	356.044	3553.665	356.044	50.095	bb			39.5553	98.9	-1.1	61.5
WXX100304-08CRI	Tetryl	241 > 181	12.77	366.905	3553.665	366.905	51.623	bb			50.7330	126.8	26.8	38.1
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	252.641	3553.665	252.641	35.547	bb			43.0484	107.6	7.6	26.8
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	439.361	23129.281	439.361	9.498	MM	06-Mar-10	12:10:49	34.4343	86.1	-13.9	41.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	780.703	23129.281	780.703	16.877	bb			41.6609	104.2	4.2	107.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.52	653.919	23129.281	653.919	14.136	bb			43.0185	107.5	7.5	46.5
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	805.904	23129.281	805.904	17.422	bb			18.0262	90.1	-9.9	92.2
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.77	2115.341	23129.281	2115.341	45.729	MM	06-Mar-10	12:14:36	40.9923	102.5	2.5	301.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.45	461.181	23129.281	461.181	9.970	MM	06-Mar-10	12:15:17	36.1681	90.4	-9.6	64.8
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23129.281		23129.281	23129.281	bb			562.4666	112.5	12.5	1880.7
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.29	261.630	23129.281	261.630	5.656	bb			36.5130	91.3	-8.7	58.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.64	144.827	23129.281	144.827	3.131	bb			41.0470	102.6	2.6	29.7
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.34	184.075	23129.281	184.075	3.979	bb			42.1735	105.4	5.4	36.7
WXX100304-08CRI	PETN	361 > 62	24.70	5967.752	23129.281	5967.752	129.009	bb			41.2009	103.0	3.0	1834.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	1551
Standard Number	WXX100304-08CRI
Data File	EXP0304051a

HMX	106.9
RDX	107.4
135-TNB	127.9
13-DNB	98.9
Tetryl	126.8
Nitrobenzene	107.6
4A-26-DNT	86.1
2A-46-DNT	104.2
246-TNT	107.5
34-DNT(surr)	90.1
26-DNT	102.5
24-DNT	90.4
2-NT	91.3
4-NT	102.6
3-NT	105.4
PETN	103.0
Total	1658.6
Average	103.7

MAT 3/6/10

HMW 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304064a

Analysis Date: 05-MAR-10 22:14

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	631.612	105	
Tetryl	600	585.793	98	
m-Dinitrobenzene	600	571.183	95	
m-Nitrotoluene	600	594.436	99	
o-Nitrotoluene	600	627.073	105	
p-Nitrotoluene	600	632.094	105	
1,3,5-Trinitrobenzene	600	563.548	94	
1,3-Dinitrobenzene-d4	500	511.802	102	
2,4,6-Trinitrotoluene	600	684.022	114	
2,4-Dinitrotoluene	600	572.807	95	
2,6-Dinitrotoluene	600	602.144	100	
2,6-Dinitrotoluene-d3	500	514.259	103	
2-Amino-4,6-dinitrotoluene	600	681.738	114	
3,4-Dinitrotoluene	300	308.574	103	
4-Amino-2,6-dinitrotoluene	600	672.822	112	
HMX	600	559.79	93	
Nitrobenzene	600	614.548	102	
PETN	600	770.241	128	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304064a
Date: 05-Mar-2010
Time: 22:14:55
ID: WXX100304-07CCV
Vial: 1:1,B

LMP 3/6/10

HMX

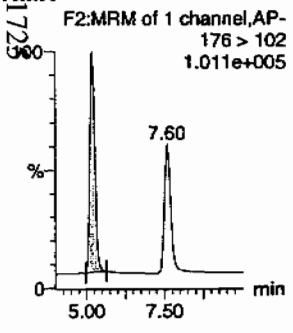

RDX

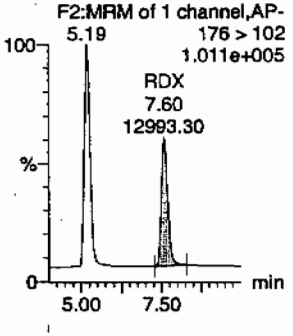

135-Trinitrobenzene

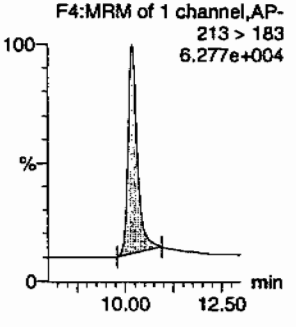

13-Dinitrobenzene-d4

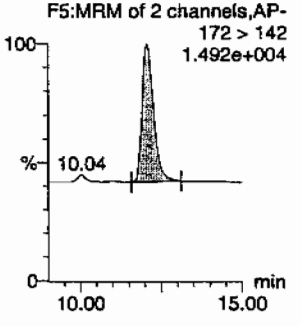

13-Dinitrobenzene

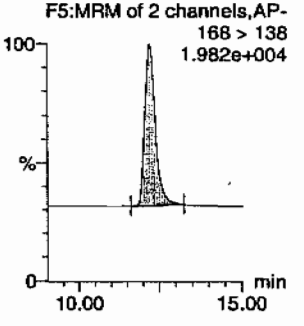

Tetryl

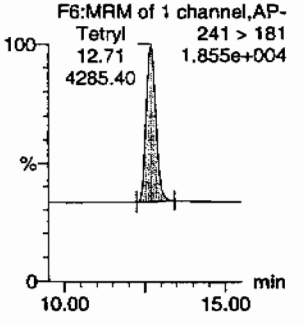

Nitrobenzene

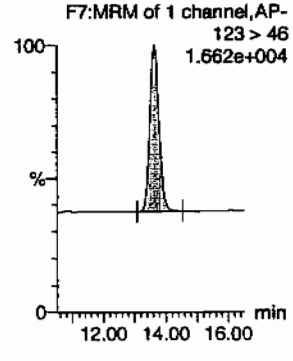

4-Amino-26-dinitrotoluene

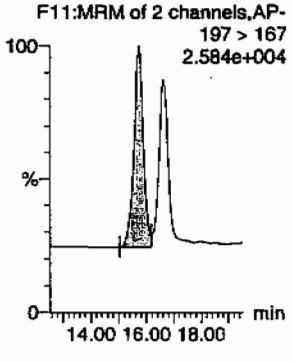

2-Amino-46-dinitrotoluene

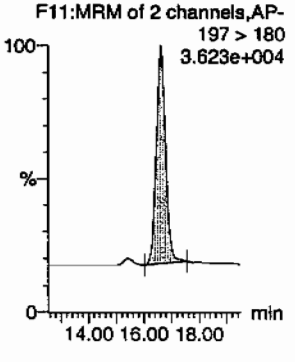

246-Trinitrotoluene

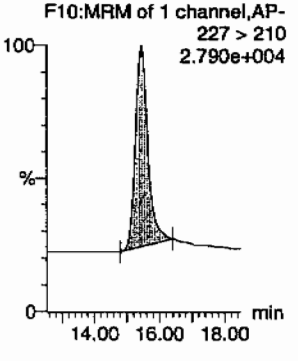

34-dinitrotoluene

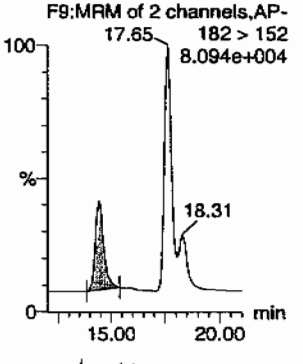

26-dinitrotoluene

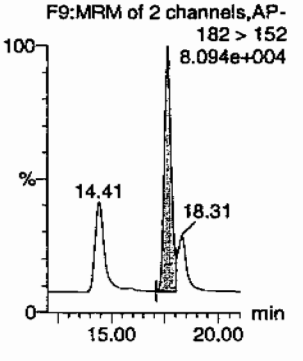

HMW 03/07/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

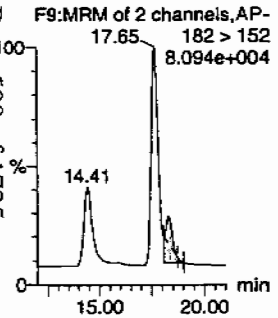

26-dinitrotoluene-d3

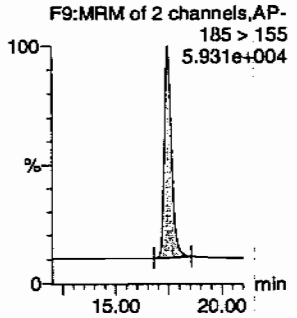

2-Nitrotoluene

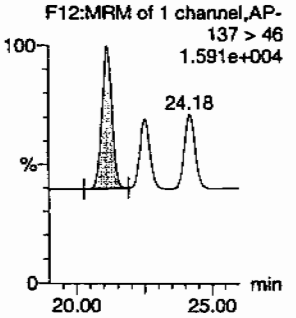

4-Nitrotoluene

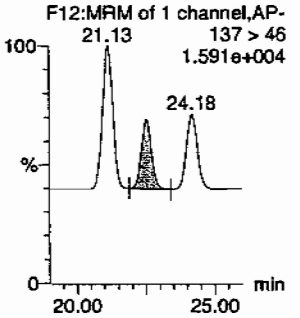

3-Nitrotoluene

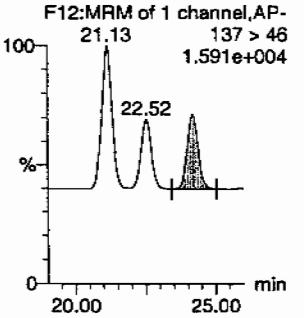

PETN

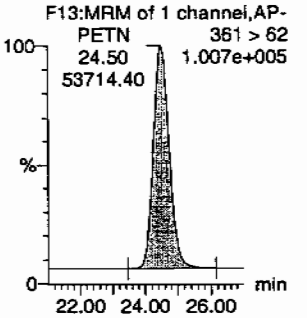

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	18771.666	3594.682	18771.666	2611.033	bb			559.7900	93.3	-6.7	1043.3
WXX100304-07CCV	RDX	176 > 102	7.60	12993.296	3594.682	12993.296	1807.294	bb			631.6121	105.3	5.3	610.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.19	15775.996	3594.682	15775.996	2194.352	bb			563.5481	93.9	-6.1	3611.2
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3594.682		3594.682	3594.682	bb			511.8022	102.4	2.4	147.2
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5200.653	3594.682	5200.653	723.382	bb			571.1828	95.2	-4.8	212.5
WXX100304-07CCV	Tetryl	241 > 181	12.71	4285.402	3594.682	4285.402	596.075	bb			585.7932	97.6	-2.4	284.4
WXX100304-07CCV	Nitrobenzene	123 > 46	13.61	3648.266	3594.682	3648.266	507.453	bb			614.5481	102.4	2.4	254.9
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7849.007	21146.920	7849.007	185.583	MM	06-Mar-10	12:09:33	672.8217	112.1	12.1	316.7
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11680.449	21146.920	11680.449	276.174	bb			681.7379	113.6	13.6	1008.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9506.581	21146.920	9506.581	224.775	bb			684.0223	114.0	14.0	131.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.41	12613.161	21146.920	12613.161	298.227	bb			308.5744	102.9	2.9	354.8
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.65	28409.504	21146.920	28409.504	671.717	MM	06-Mar-10	12:13:32	602.1441	100.4	0.4	993.5
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.31	6677.896	21146.920	6677.896	157.893	MM	06-Mar-10	12:17:10	572.8073	95.5	-4.5	212.4
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	21146.920		21146.920	21146.920	bb			514.2588	102.9	2.9	1777.2
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.13	4108.123	21146.920	4108.123	97.133	bb			627.0731	104.5	4.5	746.4
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.52	2039.084	21146.920	2039.084	48.212	bb			632.0943	105.3	5.3	366.9
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.18	2372.165	21146.920	2372.165	56.088	bb			594.4358	99.1	-0.9	394.8
WXX100304-07CCV	PETN	361 > 62	24.50	53714.398	21146.920	53714.398	1270.029	bb			770.2412	128.4	28.4	6214.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 2214
Standard Number: WXX100304-07CCV
Data File: EXP0304064a

HMX	93.3
RDX	105.3
135-TNB	93.9
13-DNB	95.2
Tetryl	97.6
Nitrobenzene	102.4
4A-26-DNT	112.1
2A-46-DNT	113.6
246-TNT	114.0
34-DNT(surr)	102.9
26-DNT	100.4
24-DNT	95.5
2-NT	104.5
4-NT	105.3
3-NT	99.1
PETN	128.4
Total	1663.5
Average	104.0

MTP 3/6/10

HMM 03/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304066a

Analysis Date: 05-MAR-10 23:13

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	41.622	104	
1,3,5-Trinitrobenzene	40	45.259	113	
1,3-Dinitrobenzene-d4	500	507.864	102	
2,4,6-Trinitrotoluene	40	36.863	92	
2,4-Dinitrotoluene	40	36.208	91	
2,6-Dinitrotoluene	40	38.64	97	
2,6-Dinitrotoluene-d3	500	550.381	110	
2-Amino-4,6-dinitrotoluene	40	44.961	112	
3,4-Dinitrotoluene	20	22.033	110	
4-Amino-2,6-dinitrotoluene	40	40.967	102	
HMX	40	40.601	102	
Nitrobenzene	40	46.373	116	
PETN	40	50.567	126	
RDX	40	39.862	100	
Tetryl	40	44.962	112	
m-Dinitrobenzene	40	38.965	97	
m-Nitrotoluene	40	40.333	101	
o-Nitrotoluene	40	39.738	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304066a
Date: 05-Mar-2010
Time: 23:13:59
ID: WXX100304-08CRI
Vial: 1:1,C

MM 3/6/10

HMX

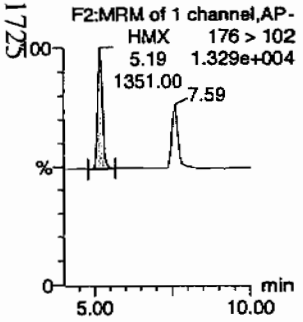

RDX

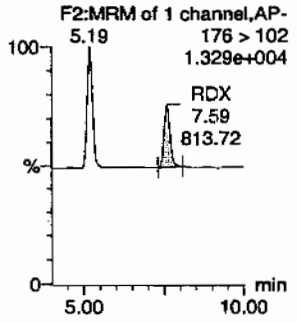

135-Trinitrobenzene

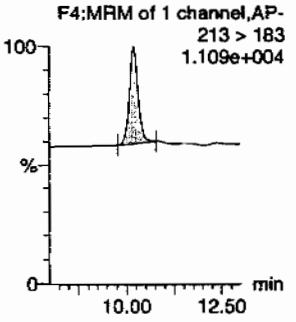

13-Dinitrobenzene-d4

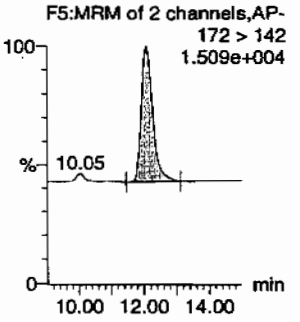

13-Dinitrobenzene

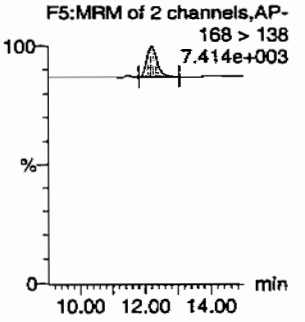

Tetryl

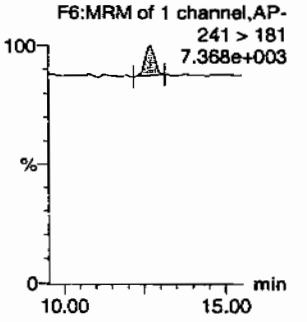

Nitrobenzene

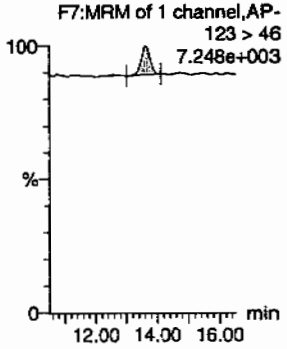

4-Amino-26-dinitrotoluene

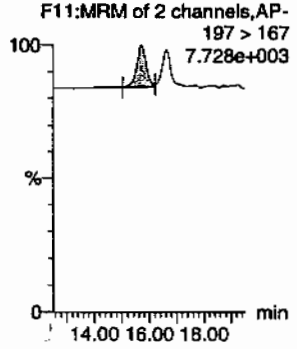

2-Amino-46-dinitrotoluene

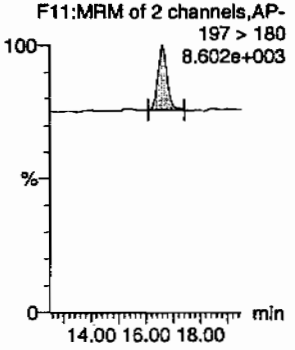

246-Trinitrotoluene

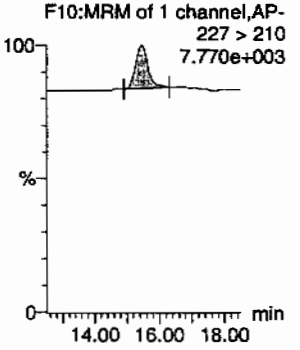

34-dinitrotoluene

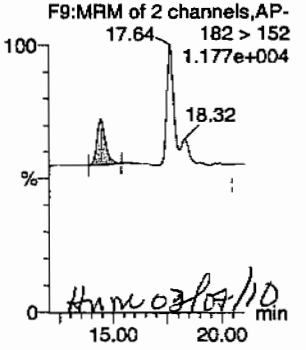

HMM 03/04/10

26-dinitrotoluene

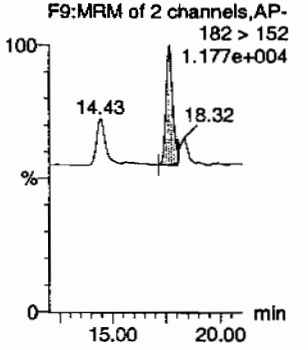

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

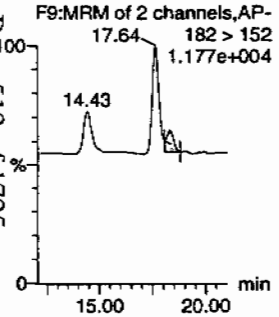

26-dinitrotoluene-d3

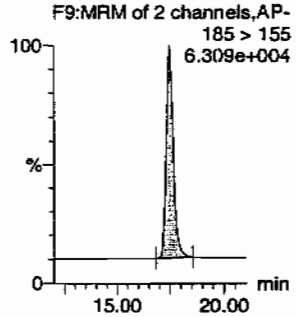

2-Nitrotoluene

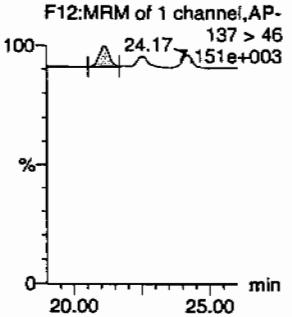

4-Nitrotoluene

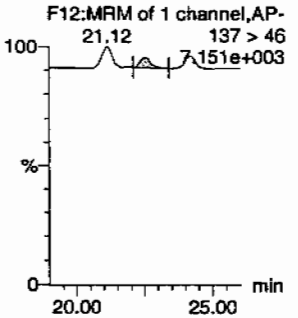

3-Nitrotoluene

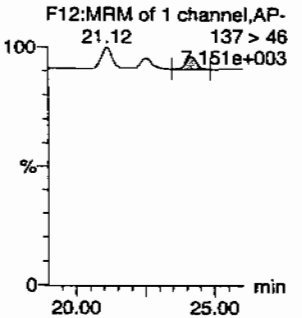

PETN

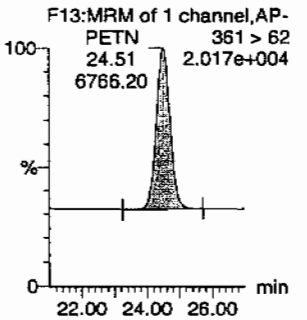

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1351.002	3567.025	1351.002	189.374	bb			40.6006	101.5	1.5	260.1
WXX100304-08CRI	RDX	176 > 102	7.59	813.718	3567.025	813.718	114.061	bb			39.8620	99.7	-0.3	135.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1257.242	3567.025	1257.242	176.231	bb			45.2593	113.1	13.1	251.2
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3567.025		3567.025	3567.025	bb			507.8644	101.6	1.6	201.8
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	352.048	3567.025	352.048	49.348	bb			38.9649	97.4	-2.6	48.8
WXX100304-08CRI	Tetryl	241 > 181	12.68	326.391	3567.025	326.391	45.751	bb			44.9620	112.4	12.4	22.2
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	273.177	3567.025	273.177	38.292	bb			46.3733	115.9	15.9	20.5
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	511.486	22632.297	511.486	11.300	MM	06-Mar-10	12:09:24	40.9673	102.4	2.4	47.7
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	824.442	22632.297	824.442	18.214	bb			44.9611	112.4	12.4	109.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	548.303	22632.297	548.303	12.113	bb			36.8625	92.2	-7.8	78.8
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	963.852	22632.297	963.852	21.294	bb			22.0326	110.2	10.2	29.0
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1951.119	22632.297	1951.119	43.105	MM	06-Mar-10	12:13:21	38.6402	96.6	-3.4	74.9
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	451.769	22632.297	451.769	9.981	MM	06-Mar-10	12:17:18	36.2079	90.5	-9.5	15.3
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	22632.297		22632.297	22632.297	bb			550.3807	110.1	10.1	2079.0
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.12	278.623	22632.297	278.623	6.155	bb			39.7384	99.3	-0.7	65.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.53	143.700	22632.297	143.700	3.175	bb			41.6219	104.1	4.1	31.0
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	172.257	22632.297	172.257	3.806	bb			40.3325	100.8	0.8	37.8
WXX100304-08CRI	PETN	361 > 62	24.51	6766.197	22632.297	6766.197	149.481	bb			50.5667	126.4	26.4	2009.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	2313
Standard Number	WXX100304-08CRI
Data File	EXP0304066a

HMX	101.5
RDX	99.7
135-TNB	113.1
13-DNB	97.4
Tetryl	112.4
Nitrobenzene	115.9
4A-26-DNT	102.4
2A-46-DNT	112.4
246-TNT	92.2
34-DNT(surr)	110.2
26-DNT	96.6
24-DNT	90.5
2-NT	99.3
4-NT	104.1
3-NT	100.8
PETN	126.4
Total	1674.9
Average	104.7

HM 03/05/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304076a

Analysis Date: 06-MAR-10 04:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	589.2	98	
1,3-Dinitrobenzene-d4	500	483.866	97	
2,4,6-Trinitrotoluene	600	655.326	109	
2,4-Dinitrotoluene	600	604.001	101	
2,6-Dinitrotoluene	600	599.969	100	
2,6-Dinitrotoluene-d3	500	511.697	102	
2-Amino-4,6-dinitrotoluene	600	680.408	113	
3,4-Dinitrotoluene	300	309.322	103	
4-Amino-2,6-dinitrotoluene	600	655.281	109	
HMX	600	622.243	104	
Nitrobenzene	600	610.192	102	
PETN	600	828.113	138	*
RDX	600	676.064	113	
Tetryl	600	623.054	104	
m-Dinitrobenzene	600	593.851	99	
m-Nitrotoluene	600	569.058	95	
o-Nitrotoluene	600	606.407	101	
p-Nitrotoluene	600	588.238	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304076a
Date: 06-Mar-2010
Time: 04:08:58
ID: WXX100304-07CCV
Vial: 1:1,B

KATT 3/6/10

Page 315 of 1725

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.022e+005

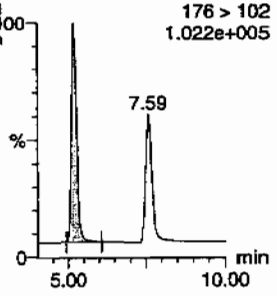

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.022e+005

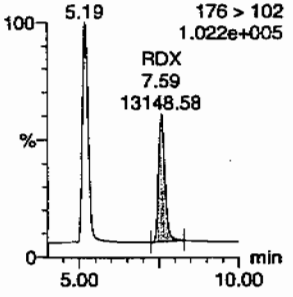

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.199e+004

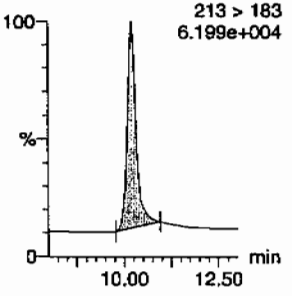

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.458e+004

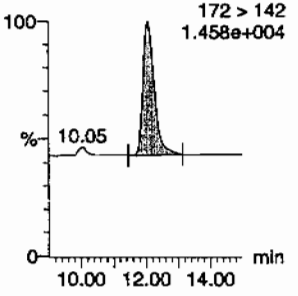

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.946e+004

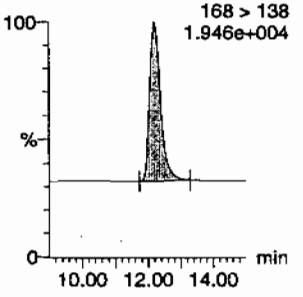

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.849e+004

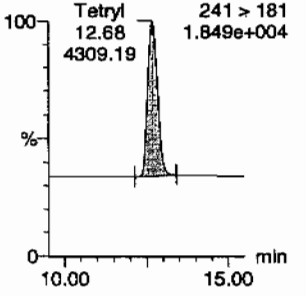

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.647e+004

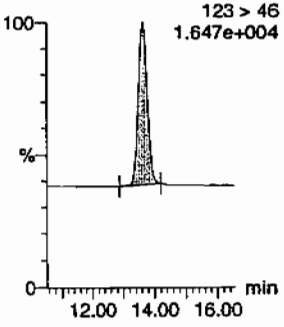

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.531e+004

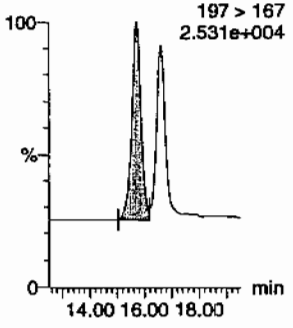

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.608e+004

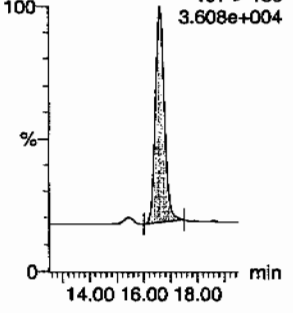

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.680e+004

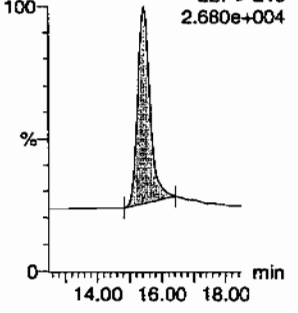

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.111e+004

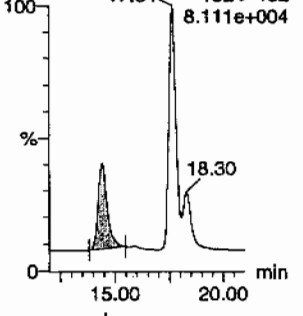

HNM 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.111e+004

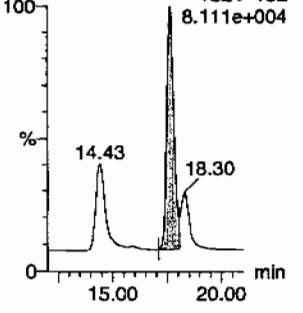

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

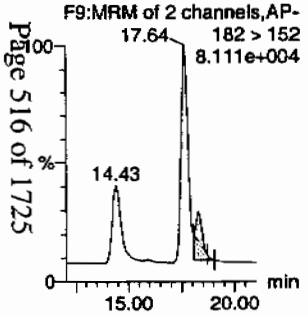

26-dinitrotoluene-d3

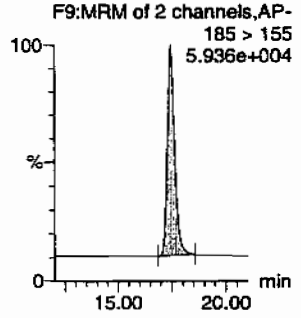

2-Nitrotoluene

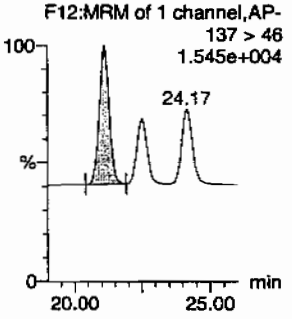

4-Nitrotoluene

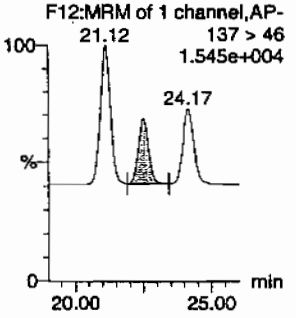

3-Nitrotoluene

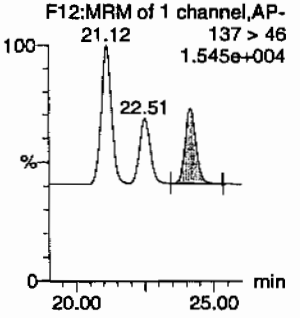

PETN

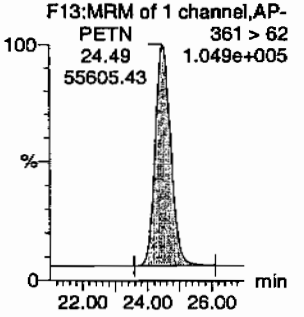

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	19726.965	3398.467	19726.965	2902.333	db			622.2430	103.7	3.7	4565.0
WXX100304-07CCV	RDX	176 > 102	7.59	13148.583	3398.467	13148.583	1934.487	bb			676.0635	112.7	12.7	2653.1
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.20	15593.780	3398.467	15593.780	2294.237	bb			589.2004	98.2	-1.8	1170.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3398.467		3398.467	3398.467	bb			483.8655	96.8	-3.2	717.3
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5111.909	3398.467	5111.909	752.090	bb			593.8514	99.0	-1.0	390.5
WXX100304-07CCV	Tetryl	241 > 181	12.68	4309.189	3398.467	4309.189	633.990	bb			623.0541	103.8	3.8	472.5
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3424.676	3398.467	3424.676	503.856	bb			610.1917	101.7	1.7	484.4
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7606.306	21041.582	7606.306	180.745	MM	06-Mar-10	12:09:12	655.2814	109.2	9.2	352.5
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11599.599	21041.582	11599.599	275.635	bb			680.4083	113.4	13.4	146.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9062.394	21041.582	9062.394	215.345	bb			655.3263	109.2	9.2	258.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	12580.745	21041.582	12580.745	298.950	bb			309.3222	103.1	3.1	551.3
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28165.873	21041.582	28165.873	669.291	MM	06-Mar-10	12:13:13	599.9688	100.0	-0.0	1564.5
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	7006.479	21041.582	7006.479	166.491	MM	06-Mar-10	12:17:36	604.0007	100.7	0.7	350.7
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21041.582		21041.582	21041.582	bb			511.6971	102.3	2.3	878.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	3952.942	21041.582	3952.942	93.932	bb			606.4066	101.1	1.1	552.8
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	1888.156	21041.582	1888.156	44.867	bb			588.2384	98.0	-2.0	258.2
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2259.582	21041.582	2259.582	53.693	bb			569.0585	94.8	-5.2	298.2
WXX100304-07CCV	PETN	361 > 62	24.49	55605.426	21041.582	55605.426	1321.322	bb			828.1129	138.0	38.0	21170.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 0408
Standard Number: WXX100304-07CCV
Data File: EXP0304076a

HMX	103.7
RDX	112.7
135-TNB	98.2
13-DNB	99.0
Tetryl	103.8
Nitrobenzene	101.7
4A-26-DNT	109.2
2A-46-DNT	113.4
246-TNT	109.2
34-DNT(surr)	103.1
26-DNT	100.0
24-DNT	100.7
2-NT	101.1
4-NT	98.0
3-NT	94.8
PETN	138.0
Total	1686.6
Average	105.4

MJP 3/6/10

HMM 03/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0304078a

Analysis Date: 06-MAR-10 05:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.824	122	
1,3-Dinitrobenzene-d4	500	497.56	100	
2,4,6-Trinitrotoluene	40	42.485	106	
2,4-Dinitrotoluene	40	37.142	93	
2,6-Dinitrotoluene	40	39.595	99	
2,6-Dinitrotoluene-d3	500	512.953	103	
2-Amino-4,6-dinitrotoluene	40	40.704	102	
3,4-Dinitrotoluene	20	18.958	95	
4-Amino-2,6-dinitrotoluene	40	44.438	111	
HMX	40	44.364	111	
Nitrobenzene	40	44.712	112	
PETN	40	54.239	136	*
RDX	40	46.673	117	
Tetryl	40	40.325	101	
m-Dinitrobenzene	40	38.944	97	
m-Nitrotoluene	40	43.213	108	
o-Nitrotoluene	40	39.546	99	
p-Nitrotoluene	40	36.291	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304078a
Date: 06-Mar-2010
Time: 05:08:03
ID: WXX100304-08CRI
Vial: 1:1,C

Page 79 of 1725

HMX

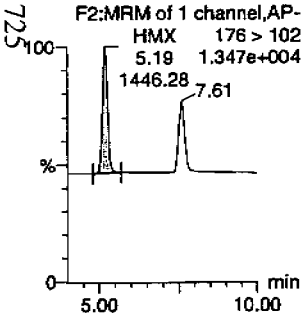

RDX

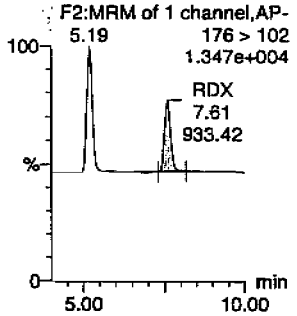

135-Trinitrobenzene

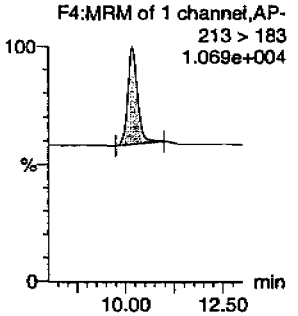

13-Dinitrobenzene-d4

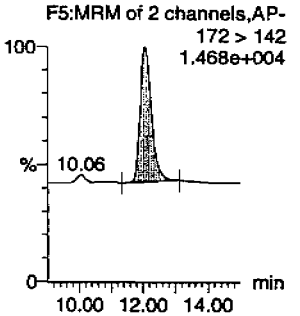

13-Dinitrobenzene

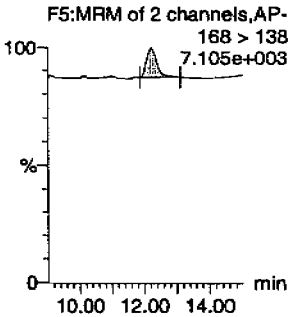

Tetryl

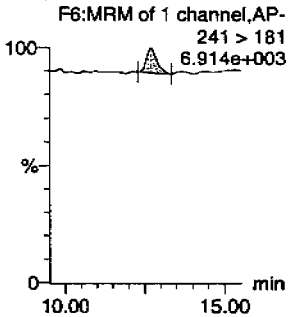

Nitrobenzene

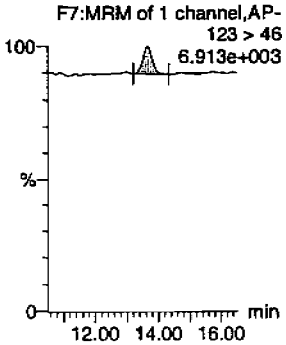

4-Amino-26-dinitrotoluene

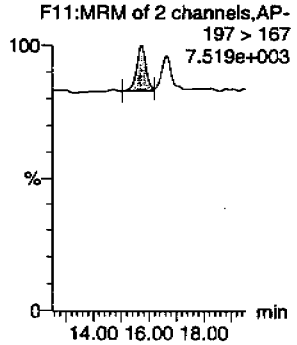

2-Amino-46-dinitrotoluene

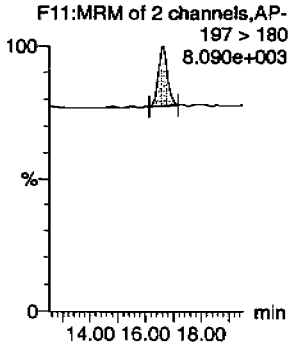

246-Trinitrotoluene

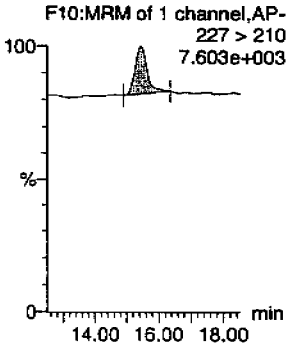

34-dinitrotoluene

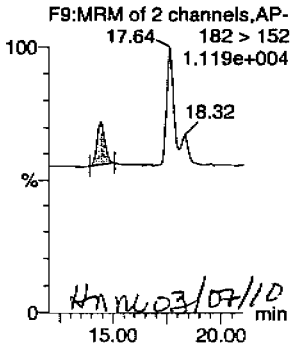

26-dinitrotoluene

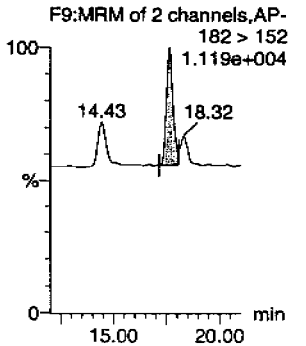

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

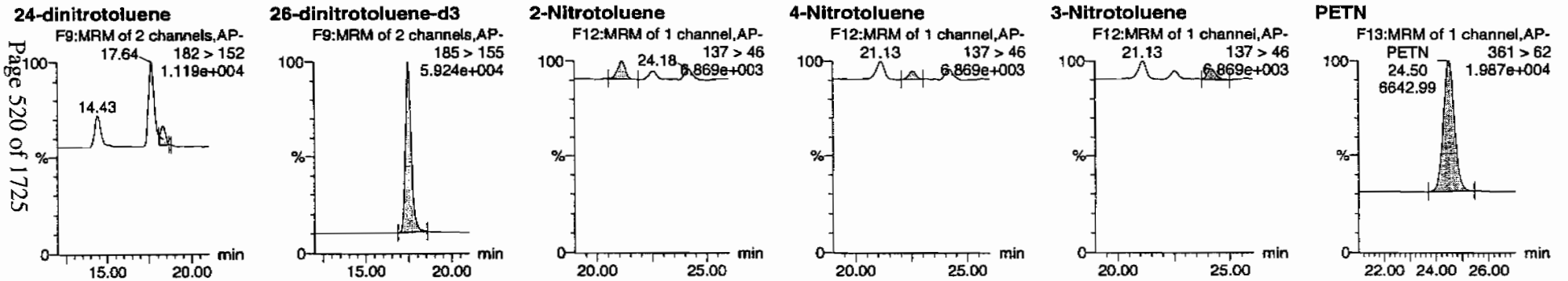

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1446.278	3494.653	1446.278	206.927	bb			44.3640	110.9	10.9	195.2
WXX100304-08CRI	RDX	176 > 102	7.61	933.425	3494.653	933.425	133.550	bb			46.6731	116.7	16.7	109.3
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1328.744	3494.653	1328.744	190.111	bb			48.8238	122.1	22.1	108.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3494.653		3494.653	3494.653	bb			497.5603	99.5	-0.5	251.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	344.722	3494.653	344.722	49.321	bb			38.9442	97.4	-2.6	30.0
WXX100304-08CRI	Tetryl	241 > 181	12.72	286.792	3494.653	286.792	41.033	bb			40.3252	100.8	0.8	21.0
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	258.047	3494.653	258.047	36.920	bb			44.7121	111.8	11.8	22.5
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	517.084	21093.240	517.084	12.257	MM	06-Mar-10	12:08:56	44.4376	111.1	11.1	51.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	695.617	21093.240	695.617	16.489	bb			40.7035	101.8	1.8	47.2
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	588.958	21093.240	588.958	13.961	bb			42.4848	106.2	6.2	69.7
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	772.950	21093.240	772.950	18.322	bb			18.9579	94.8	-5.2	60.5
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1863.380	21093.240	1863.380	44.170	MM	06-Mar-10	12:13:06	39.5952	99.0	-1.0	165.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	431.908	21093.240	431.908	10.238	MM	06-Mar-10	12:17:44	37.1419	92.9	-7.1	38.4
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	21093.240		21093.240	21093.240	bb			512.9533	102.6	2.6	1620.2
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	258.417	21093.240	258.417	6.126	bb			39.5457	98.9	-1.1	64.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.55	116.773	21093.240	116.773	2.768	bb			36.2905	90.7	-9.3	29.5
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.18	172.009	21093.240	172.009	4.077	bb			43.2131	108.0	8.0	39.1
WXX100304-08CRI	PETN	361 > 62	24.50	6642.990	21093.240	6642.990	157.467	bb			54.2392	135.6	35.6	771.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	0508
Standard Number	WXX100304-08CRI
Data File	EXP0304078a

HMX	110.9
RDX	116.7
135-TNB	122.1
13-DNB	97.4
Tetryl	100.8
Nitrobenzene	111.8
4A-26-DNT	111.1
2A-46-DNT	101.8
246-TNT	106.2
34-DNT(surr)	94.8
26-DNT	99.0
24-DNT	92.9
2-NT	98.9
4-NT	90.7
3-NT	108.0
PETN	135.6
Total	1698.7
Average	106.2

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304089a

Analysis Date: 06–MAR–10 10:32

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	553.473	92	
1,3–Dinitrobenzene–d4	500	503.069	101	
2,4,6–Trinitrotoluene	600	674.145	112	
2,4–Dinitrotoluene	600	580.325	97	
2,6–Dinitrotoluene	600	597.561	100	
2,6–Dinitrotoluene–d3	500	512.552	103	
2–Amino–4,6–dinitrotoluene	600	669.438	112	
3,4–Dinitrotoluene	300	311.876	104	
4–Amino–2,6–dinitrotoluene	600	656.337	109	
HMX	600	553.757	92	
Nitrobenzene	600	617.957	103	
PETN	600	732.772	122	*
RDX	600	630.521	105	
Tetryl	600	603.367	101	
m–Dinitrobenzene	600	584.838	97	
m–Nitrotoluene	600	548.387	91	
o–Nitrotoluene	600	591.399	99	
p–Nitrotoluene	600	580.434	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304089a
Date: 06-Mar-2010
Time: 10:32:42
ID: WXX100304-07CCV
Vial: 1:1,B

MATT 3/6/10

HMX

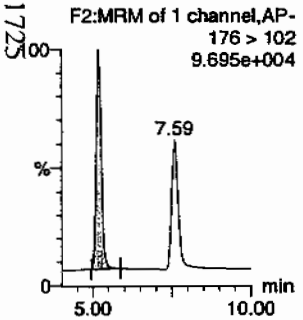

RDX

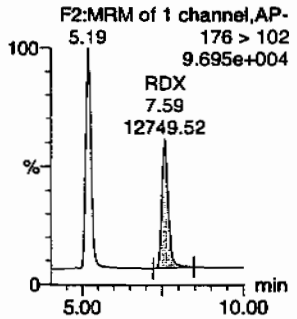

135-Trinitrobenzene

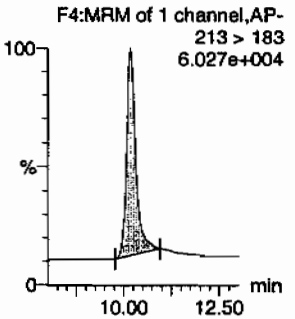

13-Dinitrobenzene-d4

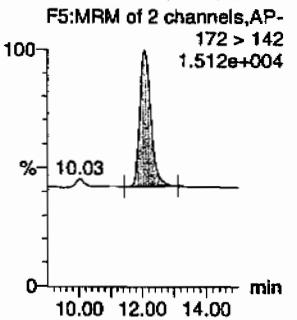

13-Dinitrobenzene

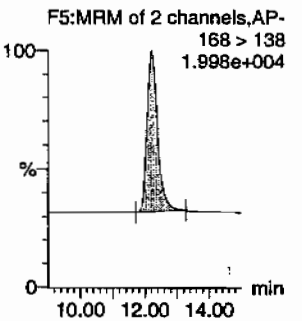

Tetryl

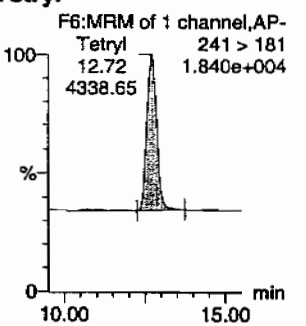

Nitrobenzene

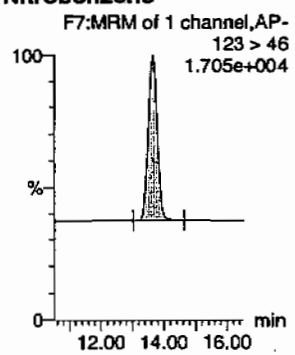

4-Amino-26-dinitrotoluene

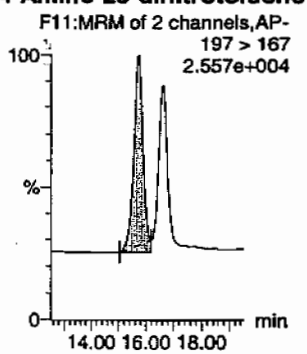

2-Amino-46-dinitrotoluene

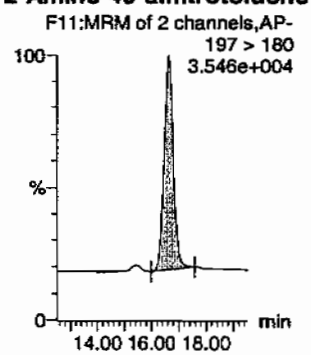

246-Trinitrotoluene

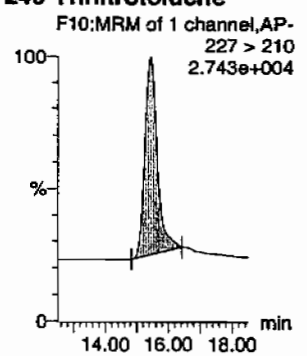

34-dinitrotoluene

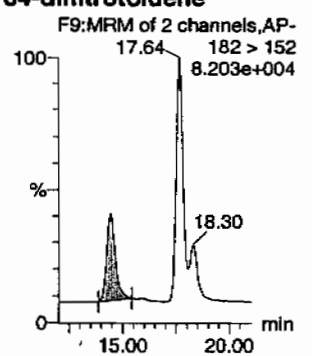

Hmm 03/07/10

26-dinitrotoluene

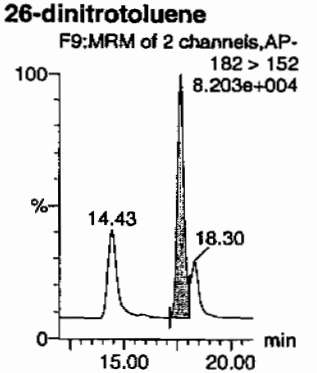

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

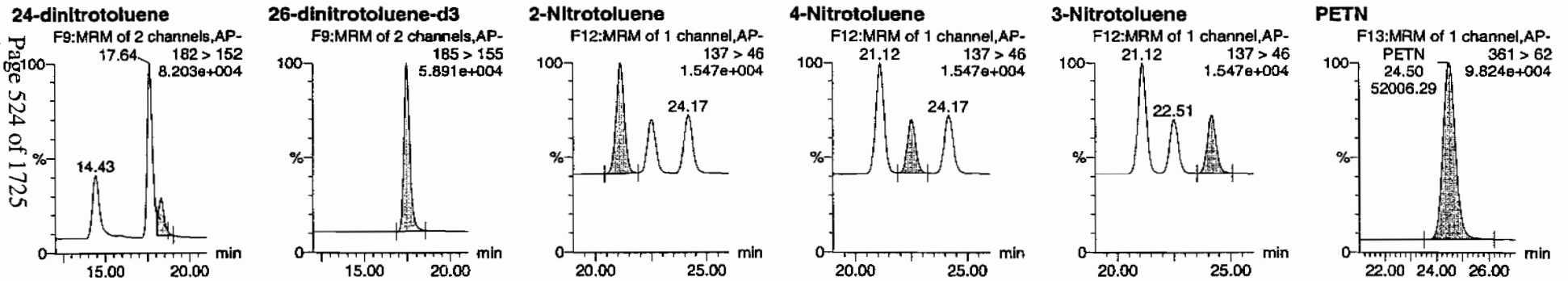

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%rec	%dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	18252.482	3533.342	18252.482	2582.892	db			553.7568	92.3	-7.7	1165.1
WXX100304-07CCV	RDX	176 > 102	7.59	12749.517	3533.342	12749.517	1804.173	bb			630.5211	105.1	5.1	685.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.20	15229.551	3533.342	15229.551	2155.120	bb			553.4726	92.2	-7.8	907.4
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3533.342		3533.342	3533.342	bb			503.0687	100.6	0.6	231.2
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5234.116	3533.342	5234.116	740.675	bb			584.8377	97.5	-2.5	297.4
WXX100304-07CCV	Tetryl	241 > 181	12.72	4338.646	3533.342	4338.646	613.958	bb			603.3673	100.6	0.6	222.3
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3605.905	3533.342	3605.905	510.268	bb			617.9573	103.0	3.0	361.1
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	7631.281	21076.730	7631.281	181.036	MM	06-Mar-10	12:08:21	656.3366	109.4	9.4	323.0
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	11431.646	21076.730	11431.646	271.191	bb			669.4383	111.6	11.6	409.7
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9338.211	21076.730	9338.211	221.529	bb			674.1452	112.4	12.4	1636.3
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	12705.782	21076.730	12705.782	301.417	bb			311.8755	104.0	4.0	273.4
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28099.705	21076.730	28099.705	666.605	MM	06-Mar-10	12:12:35	597.5612	99.6	-0.4	767.4
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	6743.083	21076.730	6743.083	159.965	MM	06-Mar-10	12:18:37	580.3250	96.7	-3.3	166.4
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21076.730		21076.730	21076.730	bb			512.5519	102.5	2.5	1117.0
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	3861.552	21076.730	3861.552	91.607	bb			591.3989	98.6	-1.4	186.8
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	1866.217	21076.730	1866.217	44.272	bb			580.4339	96.7	-3.3	89.1
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2181.137	21076.730	2181.137	51.743	bb			548.3867	91.4	-8.6	96.8
WXX100304-07CCV	PETN	361 > 62	24.50	52006.285	21076.730	52006.285	1233.737	bb			732.7717	122.1	22.1	8860.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 1032
Standard Number: WXX100304-07CCV
Data File: EXP0304089a

HMX	92.3
RDX	105.1
135-TNB	92.2
13-DNB	97.5
Tetryl	100.6
Nitrobenzene	103.0
4A-26-DNT	109.4
2A-46-DNT	111.6
246-TNT	112.4
34-DNT(surr)	104.0
26-DNT	99.6
24-DNT	96.7
2-NT	98.6
4-NT	96.7
3-NT	91.4
PETN	122.1
Total	1633.2
Average	102.1

MTP 3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304091a

Analysis Date: 06-MAR-10 11:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	42.165	105	
Nitrobenzene	40	42.58	106	
PETN	40	51.168	128	
RDX	40	43.537	109	
Tetryl	40	43.891	110	
m-Dinitrobenzene	40	41.557	104	
m-Nitrotoluene	40	38.735	97	
o-Nitrotoluene	40	46.96	117	
p-Nitrotoluene	40	44.509	111	
1,3,5-Trinitrobenzene	40	47.447	119	
1,3-Dinitrobenzene-d4	500	555.149	111	
2,4,6-Trinitrotoluene	40	43.328	108	
2,4-Dinitrotoluene	40	38.335	96	
2,6-Dinitrotoluene	40	40.616	102	
2,6-Dinitrotoluene-d3	500	541.704	108	
2-Amino-4,6-dinitrotoluene	40	48.053	120	
3,4-Dinitrotoluene	20	20.798	104	
4-Amino-2,6-dinitrotoluene	40	45.468	114	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304091a
Date: 06-Mar-2010
Time: 11:31:45
ID: WXX100304-08CRI
Vial: 1:1,C

MMP 3/6/10

HMX

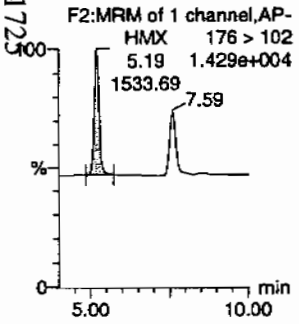

RDX

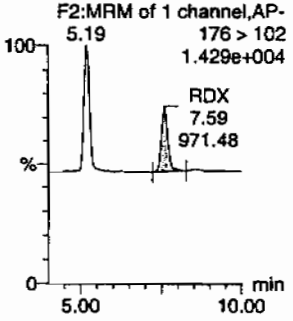

135-Trinitrobenzene

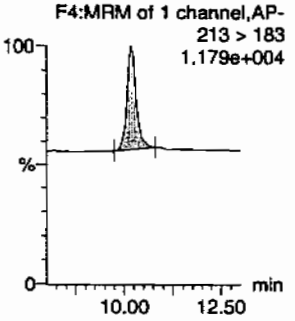

13-Dinitrobenzene-d4

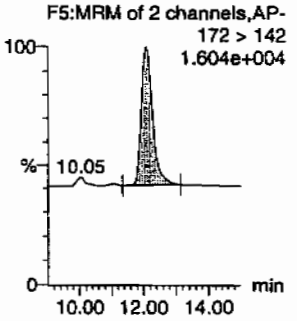

13-Dinitrobenzene

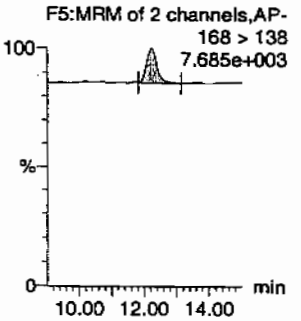

Tetryl

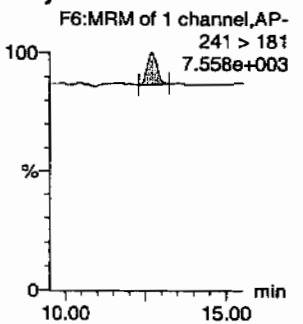

Nitrobenzene

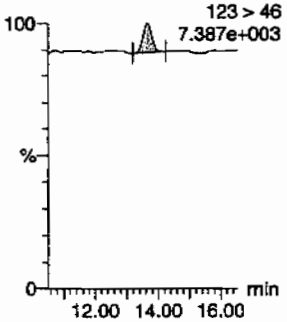

4-Amino-26-dinitrotoluene

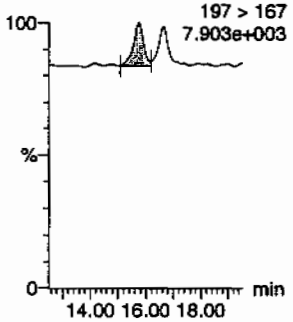

2-Amino-46-dinitrotoluene

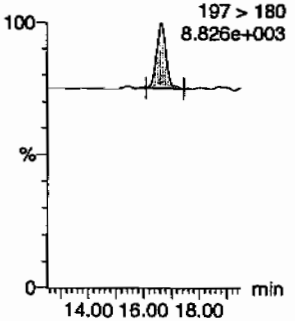

246-Trinitrotoluene

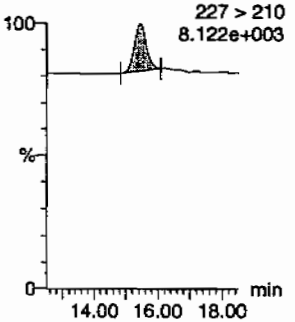

34-dinitrotoluene

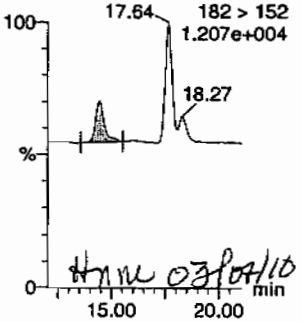

HMM 03/04/10

26-dinitrotoluene

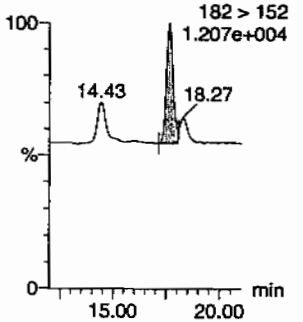

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

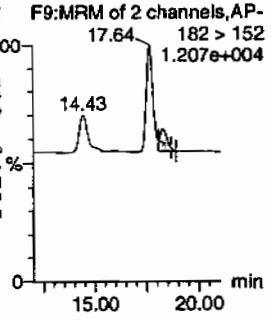

26-dinitrotoluene-d3

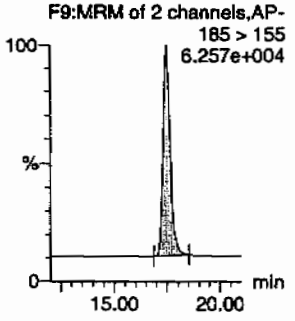

2-Nitrotoluene

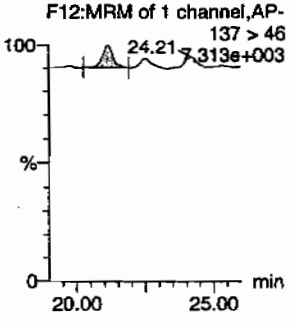

4-Nitrotoluene

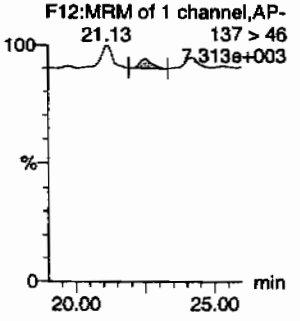

3-Nitrotoluene

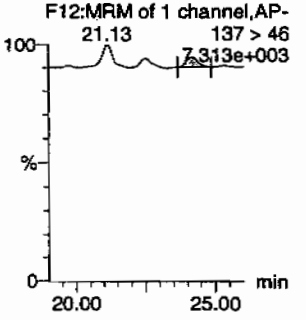

PETN

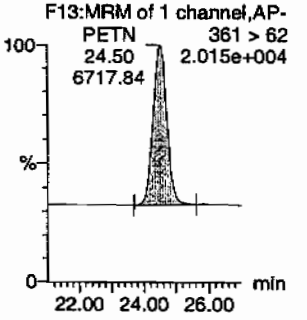

ID	Name	Trace	RT	Area	ISArea	AbsResp	Response	Flags	ModDate	ModTime	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1533.692	3899.129	1533.692	196.671	bb			42.1651	105.4	5.4	202.2
WXX100304-08CRI	RDX	176 > 102	7.59	971.480	3899.129	971.480	124.577	bb			43.5369	108.8	8.8	106.5
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1440.717	3899.129	1440.717	184.749	bb			47.4467	118.6	18.6	117.2
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3899.129		3899.129	3899.129	bb			555.1486	111.0	11.0	158.7
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	410.425	3899.129	410.425	52.630	bb			41.5570	103.9	3.9	23.6
WXX100304-08CRI	Tetryl	241 > 181	12.68	348.279	3899.129	348.279	44.661	bb			43.8907	109.7	9.7	32.0
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	274.182	3899.129	274.182	35.159	bb			42.5796	106.4	6.4	29.5
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	558.731	22275.498	558.731	12.541	MM	06-Mar-10	12:08:13	45.4682	113.7	13.7	47.2
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	867.252	22275.498	867.252	19.467	bb			48.0533	120.1	20.1	36.1
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	634.306	22275.498	634.306	14.238	bb			43.3276	108.3	8.3	36.0
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	895.479	22275.498	895.479	20.100	bb			20.7975	104.0	4.0	26.9
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	2018.552	22275.498	2018.552	45.309	MM	06-Mar-10	12:12:23	40.6159	101.5	1.5	78.5
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.27	470.763	22275.498	470.763	10.567	MM	06-Mar-10	12:18:45	38.3346	95.8	-4.2	15.9
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22275.498		22275.498	22275.498	bb			541.7039	108.3	8.3	2395.4
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	324.066	22275.498	324.066	7.274	bb			46.9600	117.4	17.4	44.6
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.51	151.246	22275.498	151.246	3.395	bb			44.5093	111.3	11.3	18.9
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.21	162.824	22275.498	162.824	3.655	bb			38.7345	96.8	-3.2	19.9
WXX100304-08CRI	PETN	361 > 62	24.50	6717.837	22275.498	6717.837	150.790	bb			51.1679	127.9	27.9	1576.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	1131
Standard Number	WXX100304-08CRI
Data File	EXP0304091a

HMX	105.4
RDX	108.8
135-TNB	118.6
13-DNB	103.9
Tetryl	109.7
Nitrobenzene	106.4
4A-26-DNT	113.7
2A-46-DNT	120.1
246-TNT	108.3
34-DNT(surr)	104.0
26-DNT	101.5
24-DNT	95.8
2-NT	117.4
4-NT	111.3
3-NT	96.8
PETN	127.9
Total	1749.6
Average	109.4

MMT 3/6/10

HM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304101a

Analysis Date: 06-MAR-10 16:26

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	587.261	98	
1,3-Dinitrobenzene-d4	500	465.389	93	
2,4,6-Trinitrotoluene	600	683.072	114	
2,4-Dinitrotoluene	600	521.302	87	
2,6-Dinitrotoluene	600	601.174	100	
2,6-Dinitrotoluene-d3	500	580.685	116	
2-Amino-4,6-dinitrotoluene	600	708.501	118	
3,4-Dinitrotoluene	300	324.528	108	
4-Amino-2,6-dinitrotoluene	600	649.296	108	
HMX	600	614.149	102	
Nitrobenzene	600	698.592	116	
PETN	600	592.689	99	
RDX	600	791.111	132	*
Tetryl	600	592.657	99	
m-Dinitrobenzene	600	614.282	102	
m-Nitrotoluene	600	534.445	89	
o-Nitrotoluene	600	583.716	97	
p-Nitrotoluene	600	549.111	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304101a
Date: 06-Mar-2010
Time: 16:26:43
ID: WXX100304-07CCV
Vial: 1:1,B

Page 31 of 725

MATT 3/7/10

HMX

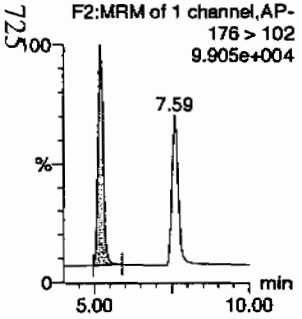

RDX

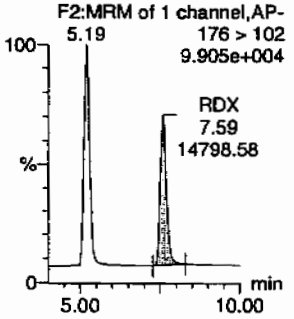

135-Trinitrobenzene

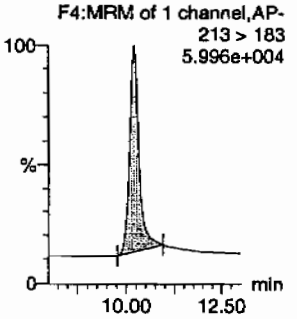

13-Dinitrobenzene-d4

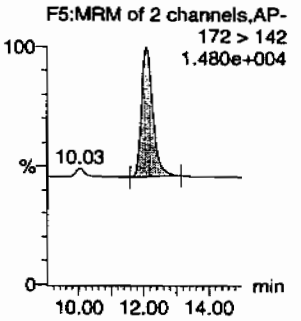

13-Dinitrobenzene

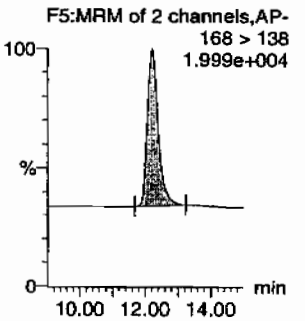

Tetryl

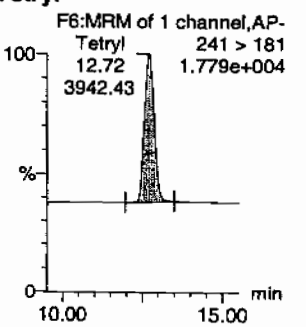

Nitrobenzene

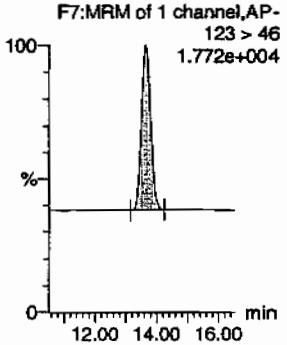

4-Amino-26-dinitrotoluene

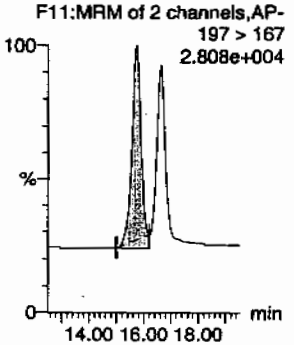

2-Amino-46-dinitrotoluene

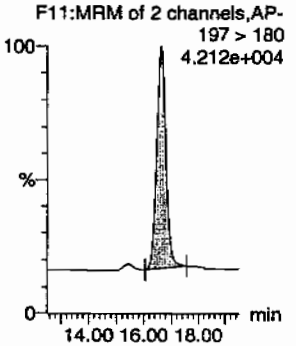

246-Trinitrotoluene

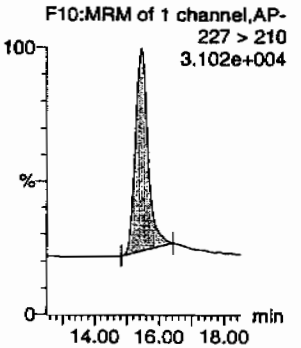

34-dinitrotoluene

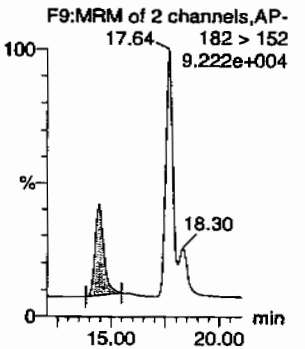

26-dinitrotoluene

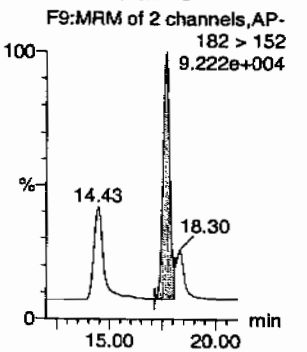

Hmc 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

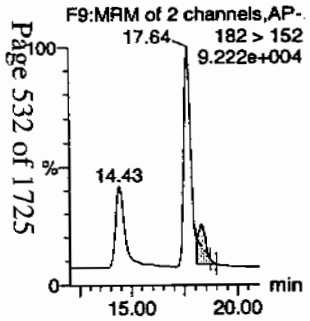

26-dinitrotoluene-d3

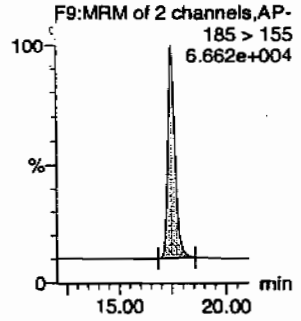

2-Nitrotoluene

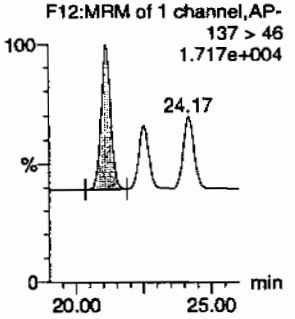

4-Nitrotoluene

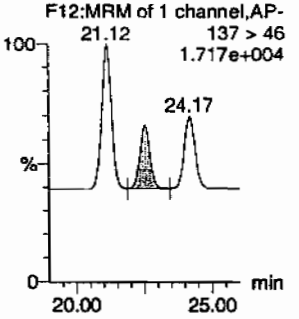

3-Nitrotoluene

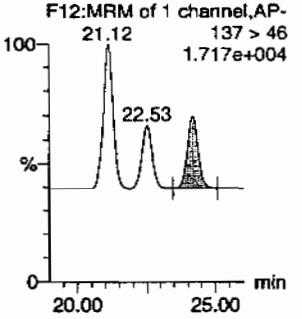

PETN

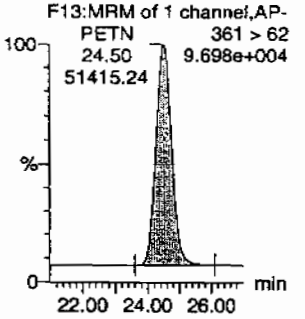

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	18726.861	3268.693	18726.861	2864.579	bb			614.1489	102.4	2.4	2087.5
WXX100304-07CCV	RDX	176 > 102	7.59	14798.579	3268.693	14798.579	2263.684	bb			791.1111	131.9	31.9	1419.4
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.20	14948.942	3268.693	14948.942	2286.685	bb			587.2608	97.9	-2.1	864.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3268.693		3268.693	3268.693	bb			465.3886	93.1	-6.9	511.6
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5085.855	3268.693	5085.855	777.965	bb			614.2817	102.4	2.4	574.4
WXX100304-07CCV	Tetryl	241 > 181	12.72	3942.433	3268.693	3942.433	603.060	bb			592.6570	98.8	-1.2	337.2
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3771.098	3268.693	3771.098	576.851	bb			698.5919	116.4	16.4	260.3
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	8552.964	23878.449	8552.964	179.094	MM	07-Mar-10	13:24:55	649.2963	108.2	8.2	773.5
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	13706.979	23878.449	13706.979	287.016	bb			708.5013	118.1	18.1	349.6
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	10719.617	23878.449	10719.617	224.462	bb			683.0715	113.8	13.8	768.2
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	14978.756	23878.449	14978.756	313.646	bb			324.5284	108.2	8.2	1105.2
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	32027.473	23878.449	32027.473	670.636	MM	07-Mar-10	13:27:42	601.1743	100.2	0.2	2998.1
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	6862.457	23878.449	6862.457	143.696	MM	07-Mar-10	13:32:09	521.3022	86.9	-13.1	554.4
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	23878.449		23878.449	23878.449	bb			580.6851	116.1	16.1	1296.0
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	4318.029	23878.449	4318.029	90.417	bb			583.7156	97.3	-2.7	852.3
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.53	2000.195	23878.449	2000.195	41.883	bb			549.1109	91.5	-8.5	372.7
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2408.250	23878.449	2408.250	50.427	bb			534.4445	89.1	-10.9	424.0
WXX100304-07CCV	PETN	361 > 62	24.50	51415.242	23878.449	51415.242	1076.603	bb			592.6892	98.8	-1.2	3710.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 1626
Standard Number: WXX100304-07CCV
Data File: EXP0304101a

HMX		102.4
RDX		131.9
135-TNB		97.9
13-DNB		102.4
Tetryl		98.8
Nitrobenzene		116.4
4A-26-DNT		108.2
2A-46-DNT		118.1
246-TNT		113.8
34-DNT(surr)		108.2
26-DNT		100.2
24-DNT		86.9
2-NT		97.3
4-NT		91.5
3-NT		89.1
PETN		98.8
Total		1661.9
Average		103.9

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304103a

Analysis Date: 06-MAR-10 17:25

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	43.717	109	
1,3-Dinitrobenzene-d4	500	554.792	111	
2,4,6-Trinitrotoluene	40	39.922	100	
2,4-Dinitrotoluene	40	34.956	87	
2,6-Dinitrotoluene	40	40.043	100	
2,6-Dinitrotoluene-d3	500	520.302	104	
2-Amino-4,6-dinitrotoluene	40	41.209	103	
3,4-Dinitrotoluene	20	23.339	117	
4-Amino-2,6-dinitrotoluene	40	46.12	115	
HMX	40	33.904	85	
Nitrobenzene	40	37.192	93	
PETN	40	49.668	124	
RDX	40	33.251	83	
Tetryl	40	40.4	101	
m-Dinitrobenzene	40	44.614	112	
m-Nitrotoluene	40	36.714	92	
o-Nitrotoluene	40	52.856	132	*
p-Nitrotoluene	40	50.186	125	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304103a
Date: 06-Mar-2010
Time: 17:25:45
ID: WXX100304-08CRI
Vial: 1:1,C

MATT 3/7/10

HMX

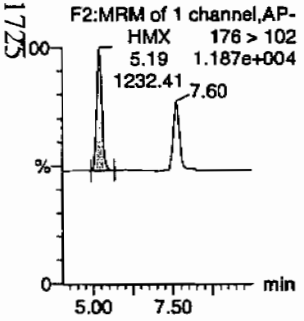

RDX

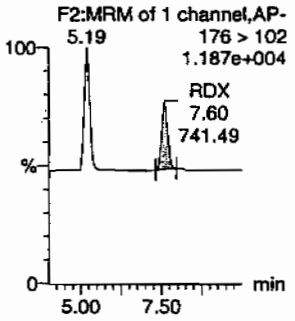

135-Trinitrobenzene

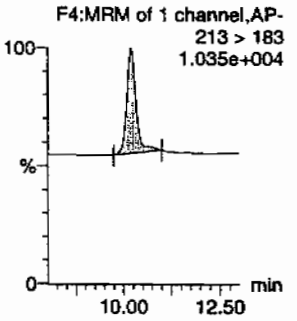

13-Dinitrobenzene-d4

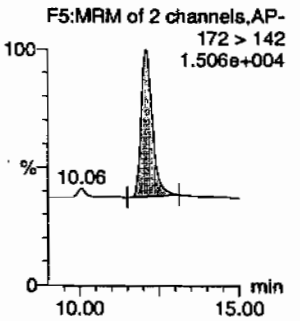

13-Dinitrobenzene

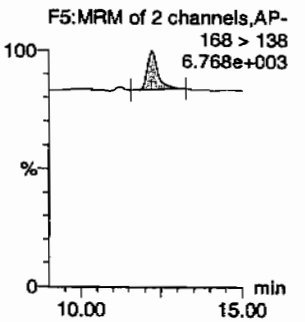

Tetryl

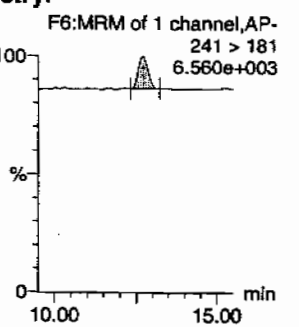

Nitrobenzene

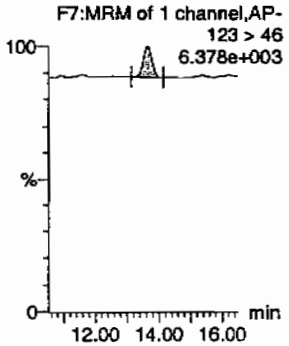

4-Amino-26-dinitrotoluene

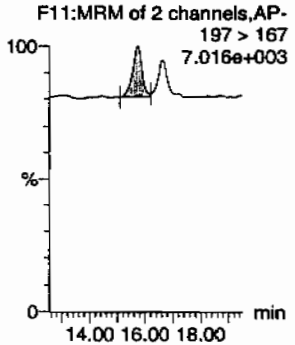

2-Amino-46-dinitrotoluene

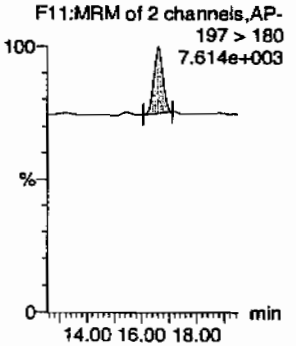

246-Trinitrotoluene

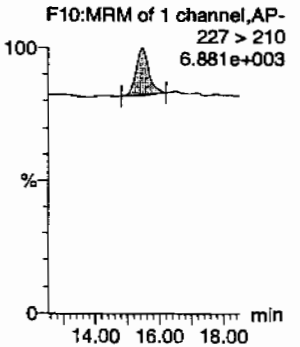

34-dinitrotoluene

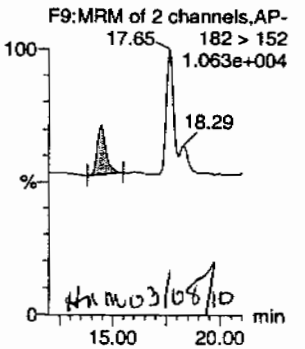

HM 03/08/10

26-dinitrotoluene

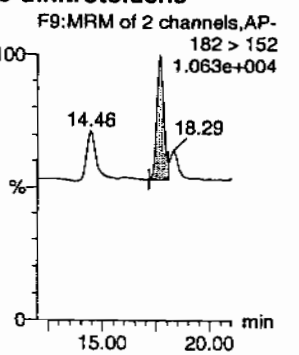

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

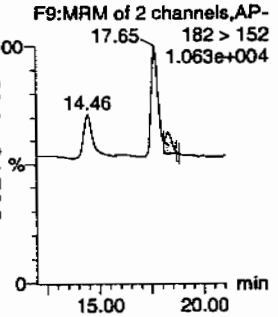

26-dinitrotoluene-d3

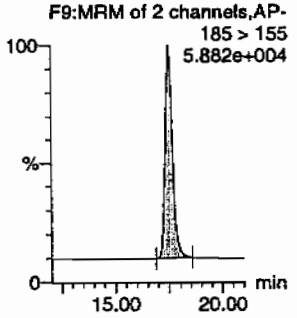

2-Nitrotoluene

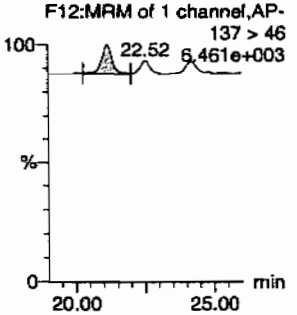

4-Nitrotoluene

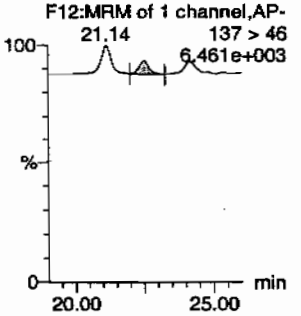

3-Nitrotoluene

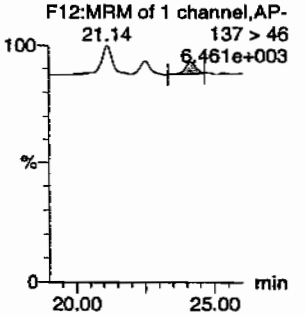

PETN

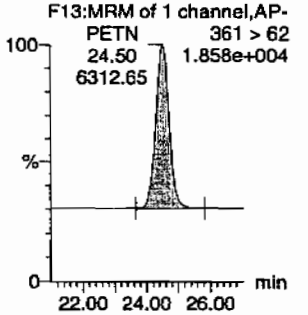

ID	Name	Trace	RT	Area	IStArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1232.405	3896.626	1232.405	158.137	bb			33.9037	84.8	-15.2	190.0
WXX100304-08CRI	RDX	176 > 102	7.60	741.492	3896.626	741.492	95.145	bb			33.2514	83.1	-16.9	103.7
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.19	1326.625	3896.626	1326.625	170.227	bb			43.7174	109.3	9.3	195.5
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.10	3896.626		3896.626	3896.626	bb			554.7922	111.0	11.0	299.8
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	440.335	3896.626	440.335	56.502	bb			44.6141	111.5	11.5	30.7
WXX100304-08CRI	Tetryl	241 > 181	12.71	320.374	3896.626	320.374	41.109	bb			40.4000	101.0	1.0	45.4
WXX100304-08CRI	Nitrobenzene	123 > 46	13.66	239.336	3896.626	239.336	30.711	bb			37.1920	93.0	-7.0	19.2
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	544.347	21395.426	544.347	12.721	MM	07-Mar-10	13:25:01	46.1198	115.3	15.3	29.7
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	714.343	21395.426	714.343	16.694	bb			41.2089	103.0	3.0	73.9
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.44	561.354	21395.426	561.354	13.119	bb			39.9217	99.8	-0.2	62.9
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.46	965.184	21395.426	965.184	22.556	bb			23.3385	116.7	16.7	61.3
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.65	1911.469	21395.426	1911.469	44.670	MM	07-Mar-10	13:27:50	40.0433	100.1	0.1	155.0
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.29	412.308	21395.426	412.308	9.635	MM	07-Mar-10	13:31:56	34.9556	87.4	-12.6	31.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	21395.426		21395.426	21395.426	bb			520.3020	104.1	4.1	3319.8
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.14	350.345	21395.426	350.345	8.187	bb			52.8563	132.1	32.1	91.6
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.52	163.797	21395.426	163.797	3.828	bb			50.1856	125.5	25.5	43.3
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	148.233	21395.426	148.233	3.464	bb			36.7140	91.8	-8.2	37.5
WXX100304-08CRI	PETN	361 > 62	24.50	6312.647	21395.426	6312.647	147.523	bb			49.6681	124.2	24.2	2068.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	1725
Standard Number	WXX100304-08CRI
Data File	EXP0304103a

HMX	84.8
RDX	83.1
135-TNB	109.3
13-DNB	111.5
Tetryl	101.0
Nitrobenzene	93.0
4A-26-DNT	115.3
2A-46-DNT	103.0
246-TNT	99.8
34-DNT(surr)	116.7
26-DNT	100.1
24-DNT	87.4
2-NT	132.1
4-NT	125.5
3-NT	91.8
PETN	124.2
Total	1678.6
Average	104.9

03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304113a

Analysis Date: 06-MAR-10 22:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	540.591	90	
1,3-Dinitrobenzene-d4	500	533.105	107	
2,4,6-Trinitrotoluene	600	652.208	109	
2,4-Dinitrotoluene	600	560.172	93	
2,6-Dinitrotoluene	600	593.564	99	
2,6-Dinitrotoluene-d3	500	529.569	106	
2-Amino-4,6-dinitrotoluene	600	630.466	105	
3,4-Dinitrotoluene	300	315.943	105	
4-Amino-2,6-dinitrotoluene	600	633.97	106	
HMX	600	558.17	93	
Nitrobenzene	600	582.752	97	
PETN	600	719.523	120	
RDX	600	605.837	101	
Tetryl	600	566.333	94	
m-Dinitrobenzene	600	588.821	98	
m-Nitrotoluene	600	526.711	88	
o-Nitrotoluene	600	548.289	91	
p-Nitrotoluene	600	549.39	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304113a
Date: 06-Mar-2010
Time: 22:20:37
ID: WXX100304-07CCV
Vial: 1:1,B

Page 339 of 1725

HMX

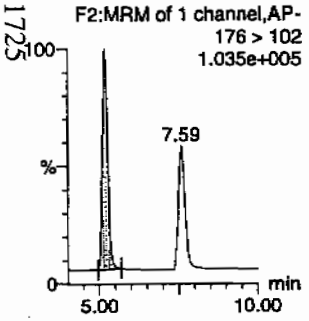

RDX

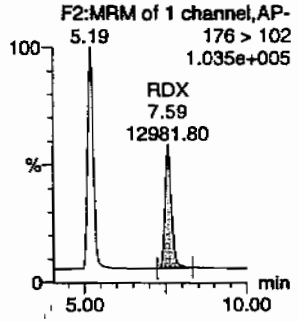

135-Trinitrobenzene

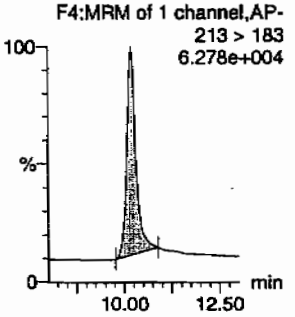

13-Dinitrobenzene-d4

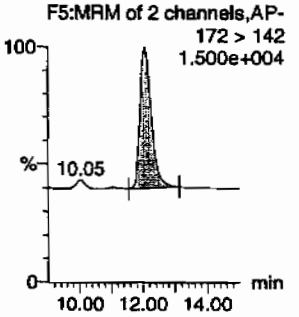

13-Dinitrobenzene

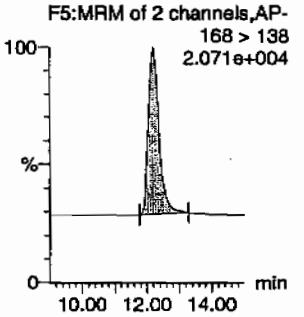

Tetryl

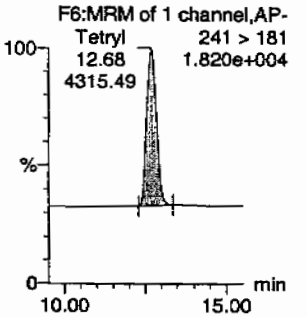

Nitrobenzene

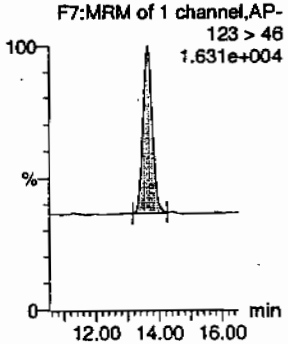

4-Amino-26-dinitrotoluene

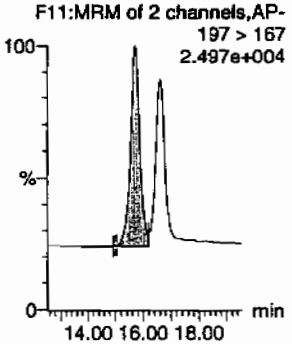

2-Amino-46-dinitrotoluene

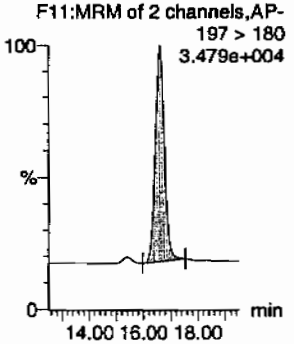

246-Trinitrotoluene

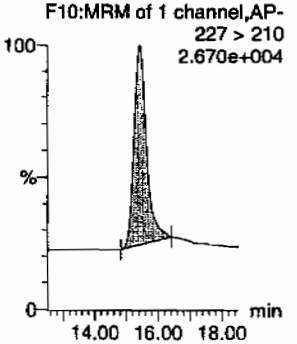

34-dinitrotoluene

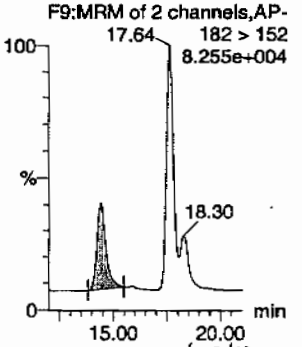

26-dinitrotoluene

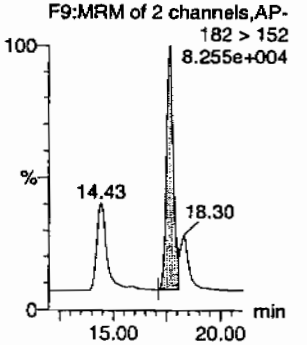

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

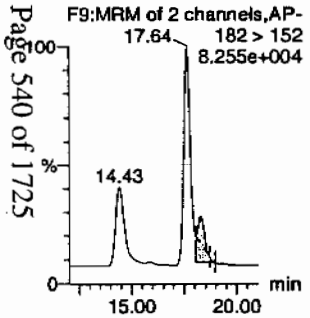

26-dinitrotoluene-d3

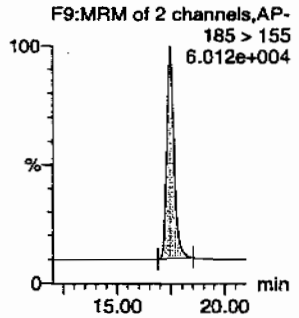

2-Nitrotoluene

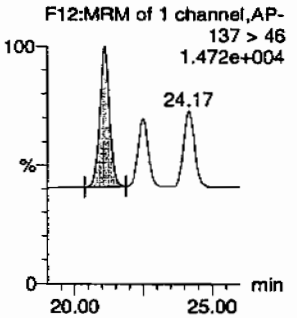

4-Nitrotoluene

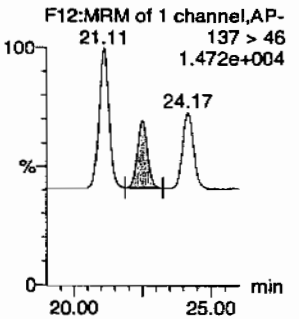

3-Nitrotoluene

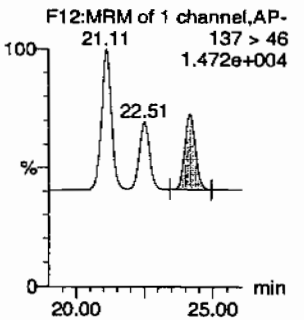

PETN

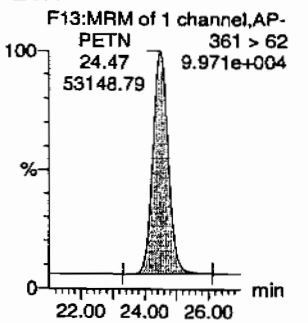

ID	Name	Rt	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX		176 > 102	5.19	19496.410	3744.302	19496.410	2603.477	bb			558.1701	93.0	-7.0	2424.3
WXX100304-07CCV	RDX		176 > 102	7.59	12981.799	3744.302	12981.799	1733.541	bb			605.8367	101.0	1.0	1357.5
WXX100304-07CCV	135-Trinitrobenzene		213 > 183	10.18	15763.218	3744.302	15763.218	2104.961	bb			540.5909	90.1	-9.9	1483.8
WXX100304-07CCV	13-Dinitrobenzene-d4		172 > 142	12.07	3744.302		3744.302	3744.302	bb			533.1047	106.6	6.6	316.8
WXX100304-07CCV	13-Dinitrobenzene		168 > 138	12.20	5584.403	3744.302	5584.403	745.720	bb			588.8214	98.1	-1.9	607.0
WXX100304-07CCV	Tetryl		241 > 181	12.68	4315.487	3744.302	4315.487	576.274	bb			566.3334	94.4	-5.6	461.0
WXX100304-07CCV	Nitrobenzene		123 > 46	13.63	3603.499	3744.302	3603.499	481.198	bd			582.7515	97.1	-2.9	252.5
WXX100304-07CCV	4-Amino-26-dinitrotoluene		197 > 167	15.71	7615.953	21776.480	7615.953	174.866	MM	07-Mar-10	13:25:24	633.9704	105.7	5.7	471.8
WXX100304-07CCV	2-Amino-46-dinitrotoluene		197 > 180	16.60	11123.577	21776.480	11123.577	255.403	bb			630.4662	105.1	5.1	242.8
WXX100304-07CCV	246-Trinitrotoluene		227 > 210	15.45	9334.282	21776.480	9334.282	214.320	bb			652.2082	108.7	8.7	501.4
WXX100304-07CCV	34-dinitrotoluene		182 > 152	14.43	13298.813	21776.480	13298.813	305.348	bb			315.9427	105.3	5.3	492.9
WXX100304-07CCV	26-dinitrotoluene		182 > 152	17.64	28838.430	21776.480	28838.430	662.146	MM	07-Mar-10	13:28:01	593.5643	98.9	-1.1	1377.7
WXX100304-07CCV	24-dinitrotoluene		182 > 152	18.30	6725.012	21776.480	6725.012	154.410	MM	07-Mar-10	13:31:45	560.1720	93.4	-6.6	290.4
WXX100304-07CCV	26-dinitrotoluene-d3		185 > 155	17.47	21776.480		21776.480	21776.480	bb			529.5686	105.9	5.9	2107.6
WXX100304-07CCV	2-Nitrotoluene		137 > 46	21.11	3698.925	21776.480	3698.925	84.929	bb			548.2893	91.4	-8.6	643.1
WXX100304-07CCV	4-Nitrotoluene		137 > 46	22.51	1825.049	21776.480	1825.049	41.904	bb			549.3899	91.6	-8.4	311.5
WXX100304-07CCV	3-Nitrotoluene		137 > 46	24.17	2164.477	21776.480	2164.477	49.698	bb			526.7111	87.8	-12.2	349.0
WXX100304-07CCV	PETN		361 > 62	24.47	53148.789	21776.480	53148.789	1220.326	bb			719.5234	119.9	19.9	10981.9

Page 540 of 1725

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 2220
Standard Number: WXX100304-07CCV
Data File: EXP0304113a

HMX	93.0
RDX	101.0
135-TNB	90.1
13-DNB	98.1
Tetryl	94.4
Nitrobenzene	97.1
4A-26-DNT	105.7
2A-46-DNT	105.1
246-TNT	108.7
34-DNT(surr)	105.3
26-DNT	98.9
24-DNT	93.4
2-NT	91.4
4-NT	91.6
3-NT	87.8
PETN	119.9
Total	1581.5
Average	98.8

MTP 3/7/10

tm 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304115a

Analysis Date: 06-MAR-10 23:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	40	43.289	108	
2,4-Dinitrotoluene	40	32.71	82	
2,6-Dinitrotoluene	40	40.13	100	
2,6-Dinitrotoluene-d3	500	547.162	109	
2-Amino-4,6-dinitrotoluene	40	41.723	104	
3,4-Dinitrotoluene	20	21.531	108	
4-Amino-2,6-dinitrotoluene	40	42.41	106	
HMX	40	37.966	95	
Nitrobenzene	40	28.768	72	
PETN	40	49.806	125	
RDX	40	37.916	95	
Tetryl	40	44.352	111	
m-Dinitrobenzene	40	39.17	98	
m-Nitrotoluene	40	34.211	86	
o-Nitrotoluene	40	39.798	99	
p-Nitrotoluene	40	46.592	116	
1,3,5-Trinitrobenzene	40	43.572	109	
1,3-Dinitrobenzene-d4	500	549.103	110	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304115a
Date: 06-Mar-2010
Time: 23:19:40
ID: WXX100304-08CRI
Vial: 1:1,C

MM 3/8/10

HMX

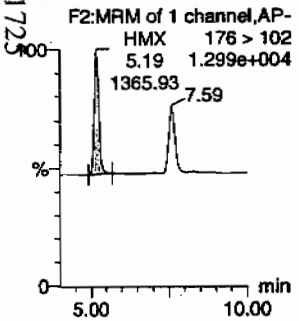

RDX

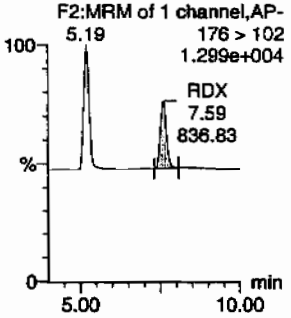

135-Trinitrobenzene

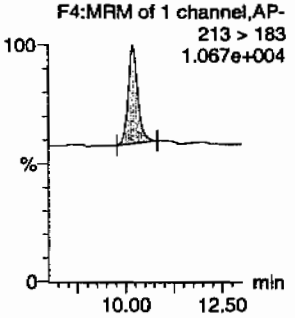

13-Dinitrobenzene-d4

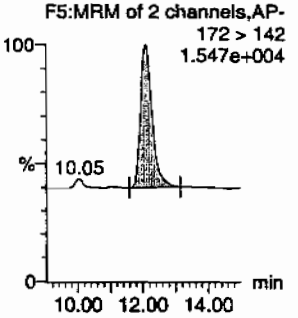

13-Dinitrobenzene

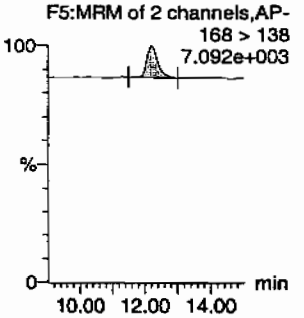

Tetryl

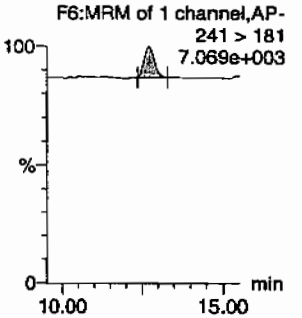

Nitrobenzene

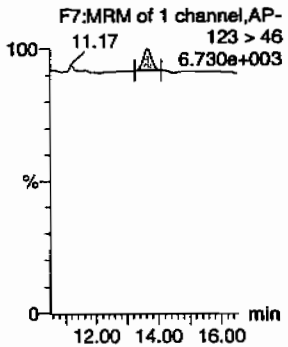

4-Amino-26-dinitrotoluene

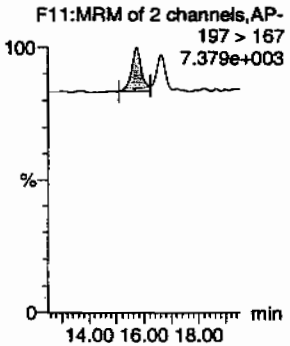

2-Amino-46-dinitrotoluene

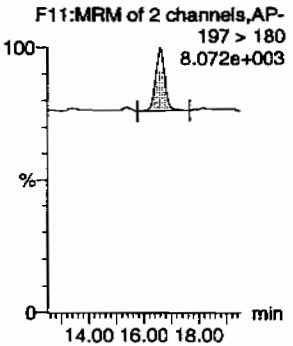

246-Trinitrotoluene

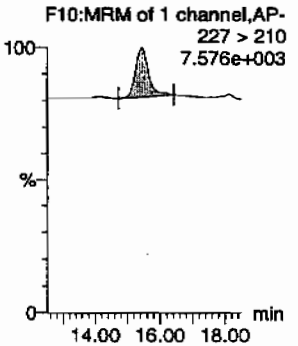

34-dinitrotoluene

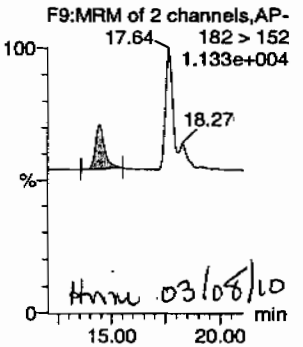

Hmm 03/08/10

26-dinitrotoluene

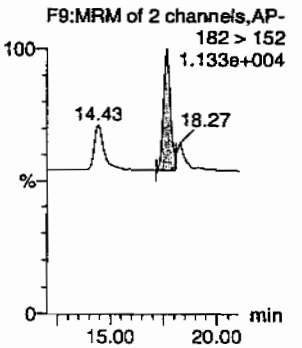

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

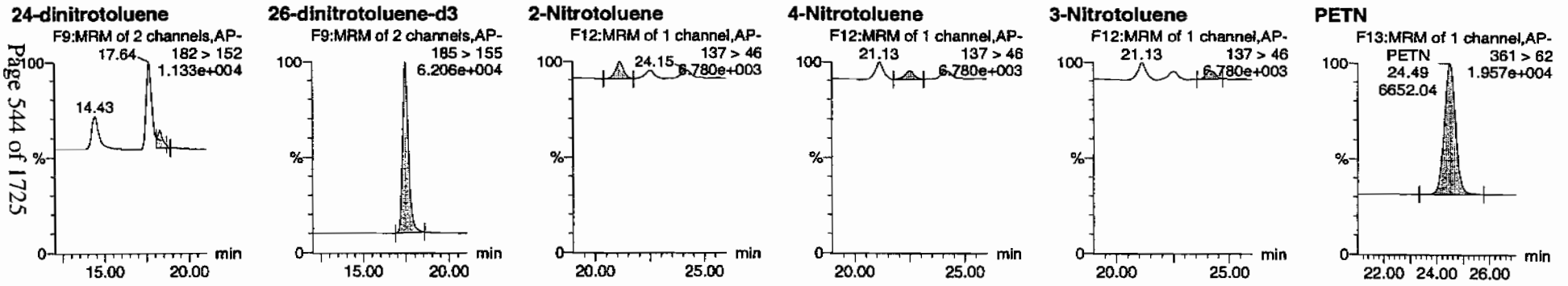

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ug/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1365.932	3856.666	1365.932	177.087	bb			37.9664	94.9	-5.1	230.0
WXX100304-08CRI	RDX	176 > 102	7.59	836.831	3856.666	836.831	108.492	bb			37.9155	94.8	-5.2	123.0
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.18	1308.658	3856.666	1308.658	169.662	bb			43.5721	108.9	8.9	79.0
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3856.666		3856.666	3856.666	bb			549.1028	109.8	9.8	395.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	382.634	3856.666	382.634	49.607	bb			39.1696	97.9	-2.1	59.0
WXX100304-08CRI	Tetryl	241 > 181	12.72	348.105	3856.666	348.105	45.130	bb			44.3518	110.9	10.9	30.8
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	183.230	3856.666	183.230	23.755	bb			28.7683	71.9	-28.1	22.7
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	526.396	22499.932	526.396	11.698	MM	07-Mar-10	13:25:38	42.4096	106.0	6.0	39.7
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	760.583	22499.932	760.583	16.902	bb			41.7225	104.3	4.3	40.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	640.125	22499.932	640.125	14.225	bb			43.2889	108.2	8.2	44.4
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	936.421	22499.932	936.421	20.809	bb			21.5314	107.7	7.7	52.9
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	2014.470	22499.932	2014.470	44.766	MM	07-Mar-10	13:28:30	40.1295	100.3	0.3	145.5
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.27	405.736	22499.932	405.736	9.016	MM	07-Mar-10	13:31:35	32.7098	81.8	-18.2	29.3
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22499.932		22499.932	22499.932	bb			547.1618	109.4	9.4	1657.8
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	277.406	22499.932	277.406	6.165	bb			39.7976	99.5	-0.5	72.9
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.52	159.918	22499.932	159.918	3.554	bb			46.5919	116.5	16.5	35.8
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.15	145.256	22499.932	145.256	3.228	bb			34.2105	85.5	-14.5	32.8
WXX100304-08CRI	PETN	361 > 62	24.49	6652.039	22499.932	6652.039	147.824	bb			49.8059	124.5	24.5	2184.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	2319
Standard Number	WXX100304-08CRI
Data File	EXP0304115a

HMX		94.9
RDX		94.8
135-TNB		108.9
13-DNB		97.9
Tetryl		110.9
Nitrobenzene		71.9
4A-26-DNT		106.0
2A-46-DNT		104.3
246-TNT		108.2
34-DNT(surr)		107.7
26-DNT		100.3
24-DNT		81.8
2-NT		99.5
4-NT		116.5
3-NT		85.5
PETN		124.5
Total		1613.6
Average		100.9

MR 3/17/10

Hmc 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0304126a

Analysis Date: 07-MAR-10 04:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	568.57	95	
1,3-Dinitrobenzene-d4	500	558.522	112	
2,4,6-Trinitrotoluene	600	698.222	116	
2,4-Dinitrotoluene	600	603.344	101	
2,6-Dinitrotoluene	600	597.429	100	
2,6-Dinitrotoluene-d3	500	528.041	106	
2-Amino-4,6-dinitrotoluene	600	816.024	136	*
3,4-Dinitrotoluene	300	346.312	115	
4-Amino-2,6-dinitrotoluene	600	741.134	124	*
HMX	600	692.406	115	
Nitrobenzene	600	605.334	101	
PETN	600	690.898	115	
RDX	600	736.312	123	*
Tetryl	600	619.275	103	
m-Dinitrobenzene	600	567.553	95	
m-Nitrotoluene	600	614.616	102	
o-Nitrotoluene	600	653.972	109	
p-Nitrotoluene	600	663.056	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304126a
Date: 07-Mar-2010
Time: 04:44:13
ID: WXX100304-07CCV
Vial: 1:1,B

Page 547 of 1725

MMT 3/7/10

HMX

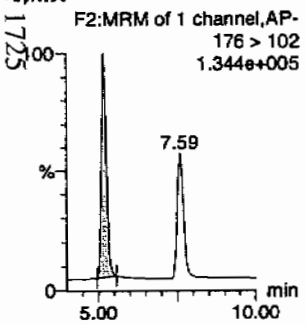

RDX

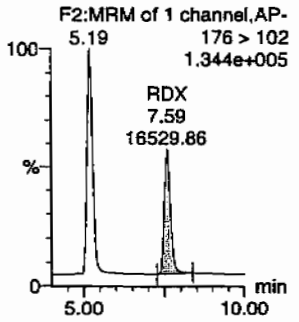

135-Trinitrobenzene

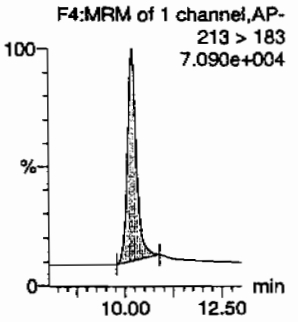

13-Dinitrobenzene-d4

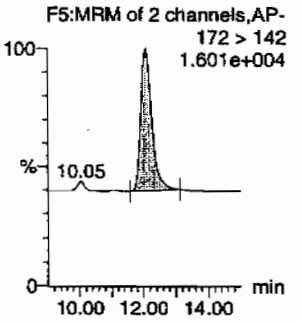

13-Dinitrobenzene

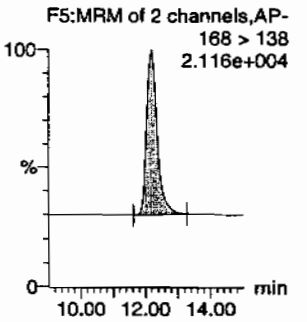

Tetryl

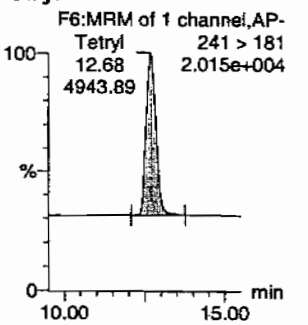

Nitrobenzene

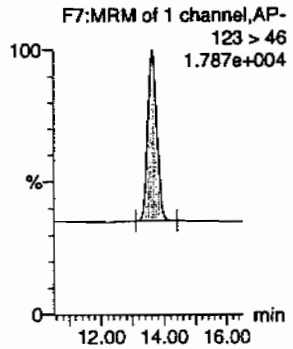

4-Amino-26-dinitrotoluene

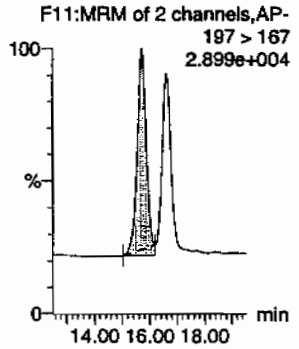

2-Amino-46-dinitrotoluene

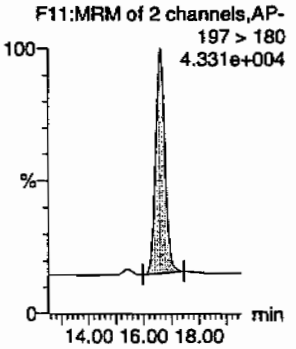

246-Trinitrotoluene

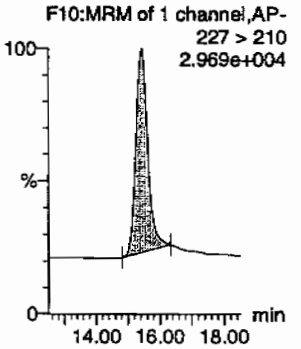

34-dinitrotoluene

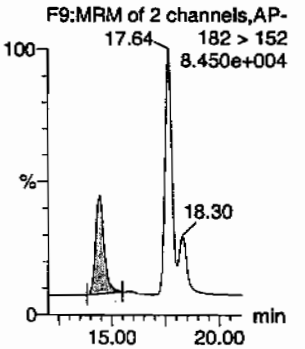

26-dinitrotoluene

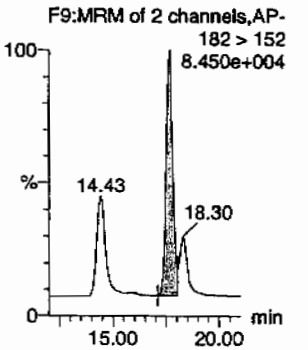

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

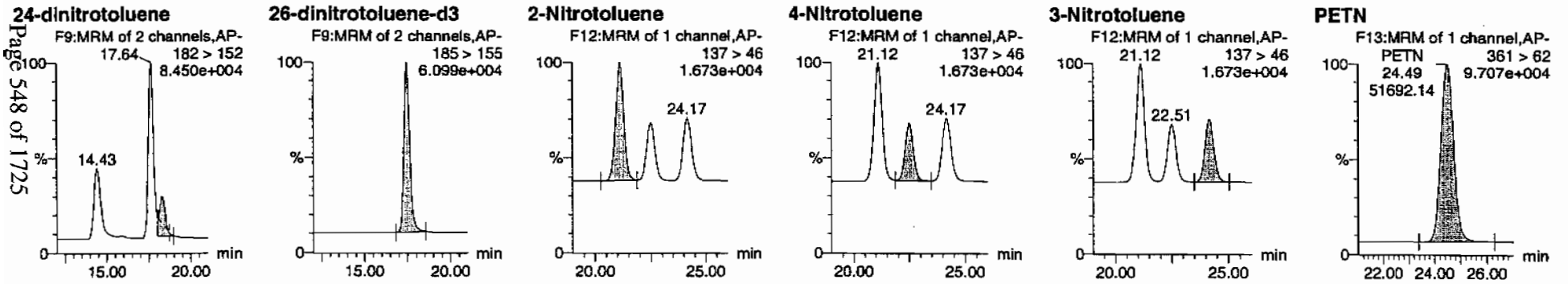

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	25338.254	3922.825	25338.254	3229.593	bb			692.4056	115.4	15.4	3349.1
WXX100304-07CCV	RDX	176 > 102	7.59	16529.859	3922.825	16529.859	2106.882	bb			736.3119	122.7	22.7	1867.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.18	17369.531	3922.825	17369.531	2213.906	bb			568.5699	94.8	-5.2	969.7
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3922.825		3922.825	3922.825	bb			558.5224	111.7	11.7	548.8
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5639.335	3922.825	5639.335	718.785	bb			567.5533	94.6	-5.4	542.2
WXX100304-07CCV	Tetryl	241 > 181	12.68	4943.892	3922.825	4943.892	630.144	bb			619.2746	103.2	3.2	382.6
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3921.610	3922.825	3921.610	499.845	bb			605.3344	100.9	0.9	492.4
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	8877.644	21713.674	8877.644	204.425	MM	07-Mar-10	13:26:13	741.1342	123.5	23.5	341.1
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	14355.930	21713.674	14355.930	330.573	bb			816.0242	136.0	36.0	1138.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.41	9964.003	21713.674	9964.003	229.441	bb			698.2220	116.4	16.4	799.0
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	14535.098	21713.674	14535.098	334.699	bb			346.3122	115.4	15.4	552.9
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28942.479	21713.674	28942.479	666.457	MM	07-Mar-10	13:29:10	597.4290	99.6	-0.4	1381.9
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	7222.412	21713.674	7222.412	166.310	MM	07-Mar-10	13:30:37	603.3440	100.6	0.6	317.9
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21713.674		21713.674	21713.674	bb			528.0413	105.6	5.6	2793.7
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	4399.167	21713.674	4399.167	101.299	bb			653.9718	109.0	9.0	570.5
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	2196.290	21713.674	2196.290	50.574	bb			663.0560	110.5	10.5	276.7
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2518.430	21713.674	2518.430	57.992	bb			614.6158	102.4	2.4	300.4
WXX100304-07CCV	PETN	361 > 62	24.49	51692.145	21713.674	51692.145	1190.313	bb			690.8976	115.1	15.1	5875.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 0444
Standard Number: WXX100304-07CCV
Data File: EXP0304126a

HMX	115.4
RDX	122.7
135-TNB	94.8
13-DNB	94.6
Tetryl	103.2
Nitrobenzene	100.9
4A-26-DNT	123.5
2A-46-DNT	136.0
246-TNT	116.4
34-DNT(surr)	115.4
26-DNT	99.6
24-DNT	100.6
2-NT	109.0
4-NT	110.5
3-NT	102.4
PETN	115.1
Total	1760.1
Average	110.0

AMT 3/7/10

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304128a

Analysis Date: 07-MAR-10 05:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	35.061	88	
Tetryl	40	39.432	99	
m-Dinitrobenzene	40	41.676	104	
m-Nitrotoluene	40	35.683	89	
o-Nitrotoluene	40	36.507	91	
p-Nitrotoluene	40	42.08	105	
1,3,5-Trinitrobenzene	40	40.314	101	
1,3-Dinitrobenzene-d4	500	526.897	105	
2,4,6-Trinitrotoluene	40	34.77	87	
2,4-Dinitrotoluene	40	32.591	81	
2,6-Dinitrotoluene	40	41.49	104	
2,6-Dinitrotoluene-d3	500	563.769	113	
2-Amino-4,6-dinitrotoluene	40	36.882	92	
3,4-Dinitrotoluene	20	21.251	106	
4-Amino-2,6-dinitrotoluene	40	39.317	98	
HMX	40	33.443	84	
Nitrobenzene	40	37.013	93	
PETN	40	41.779	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304128a
Date: 07-Mar-2010
Time: 05:43:15
ID: WXX100304-08CRI
Vial: 1:1,C

MJP 3/7/10

Page 37 of 725

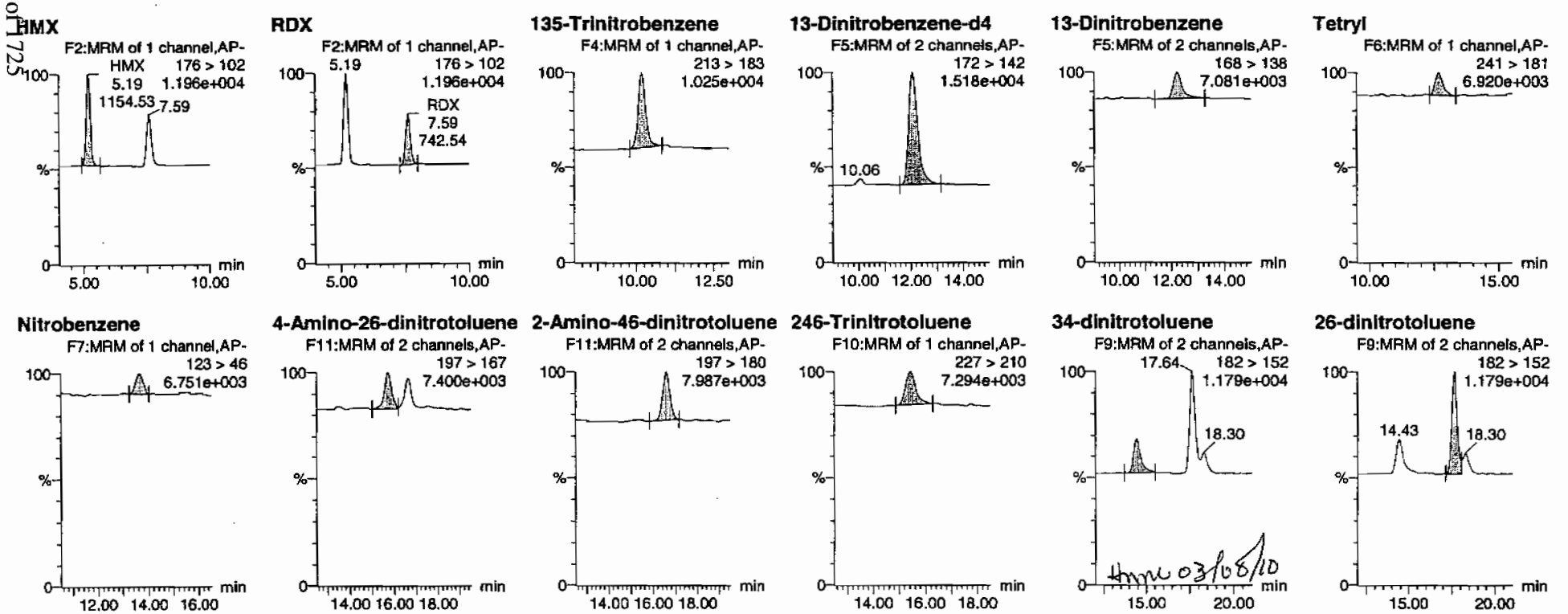

Hmc 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qid, Time: Sun Mar 07 13:32:46 2010

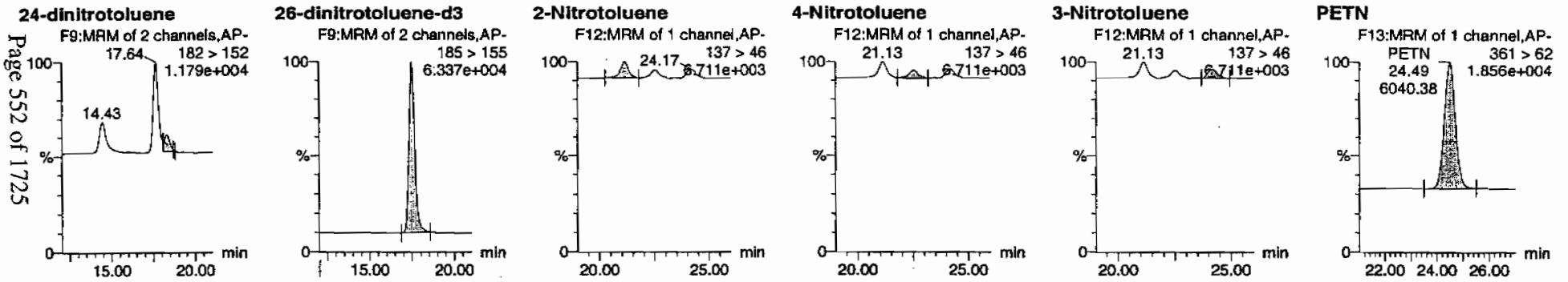

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1154.527	3700.700	1154.527	155.988	bb			33.4428	83.6	-16.4	273.7
WXX100304-08CRI	RDX	176 > 102	7.59	742.539	3700.700	742.539	100.324	bb			35.0612	87.7	-12.3	154.0
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1161.825	3700.700	1161.825	156.974	bb			40.3136	100.8	0.8	185.9
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3700.700		3700.700	3700.700	bb			526.8967	105.4	5.4	209.3
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.24	390.652	3700.700	390.652	52.781	bb			41.6758	104.2	4.2	44.6
WXX100304-08CRI	Tetryl	241 > 181	12.68	296.977	3700.700	296.977	40.124	bb			39.4323	98.6	-1.4	20.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	226.207	3700.700	226.207	30.563	bb			37.0128	92.5	-7.5	19.7
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	502.817	23182.834	502.817	10.845	MM	07-Mar-10	13:26:20	39.3166	98.3	-1.7	52.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	692.750	23182.834	692.750	14.941	bb			36.8820	92.2	-7.8	68.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	529.763	23182.834	529.763	11.426	bb			34.7703	86.9	-13.1	71.0
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	952.272	23182.834	952.272	20.538	bb			21.2509	106.3	6.3	33.7
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	2145.957	23182.834	2145.957	46.283	MM	07-Mar-10	13:29:23	41.4895	103.7	3.7	100.0
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.30	416.527	23182.834	416.527	8.984	MM	07-Mar-10	13:30:22	32.5906	81.5	-18.5	18.5
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	23182.834		23182.834	23182.834	bb			563.7689	112.8	12.8	1520.3
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	262.196	23182.834	262.196	5.655	bb			36.5074	91.3	-8.7	40.8
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.53	148.814	23182.834	148.814	3.210	bb			42.0796	105.2	5.2	20.6
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	156.104	23182.834	156.104	3.367	bb			35.6825	89.2	-10.8	22.3
WXX100304-08CRI	PETN	361 > 62	24.49	6040.378	23182.834	6040.378	130.277	bb			41.7792	104.4	4.4	1396.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	0543
Standard Number	WXX100304-08CRI
Data File	EXP0304128a

HMX	83.6
RDX	87.7
135-TNB	100.8
13-DNB	104.2
Tetryl	98.6
Nitrobenzene	92.5
4A-26-DNT	98.3
2A-46-DNT	92.2
246-TNT	86.9
34-DNT(surr)	106.3
26-DNT	103.7
24-DNT	81.5
2-NT	91.3
4-NT	105.2
3-NT	89.2
PETN	104.4
Total	1526.4
Average	95.4

MTP 3/9/10

Hmm 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1543

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0304139a **Analysis Date:** 07-MAR-10 11:07

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	600	574.855	96	
PETN	600	533.256	89	
RDX	600	699.96	117	
Tetryl	600	552.331	92	
m-Dinitrobenzene	600	604.819	101	
m-Nitrotoluene	600	530.755	88	
o-Nitrotoluene	600	667.006	111	
p-Nitrotoluene	600	620.102	103	
1,3,5-Trinitrobenzene	600	576.366	96	
1,3-Dinitrobenzene-d4	500	493.791	99	
2,4,6-Trinitrotoluene	600	622.65	104	
2,4-Dinitrotoluene	600	620.507	103	
2,6-Dinitrotoluene	600	594.181	99	
2,6-Dinitrotoluene-d3	500	537.834	108	
2-Amino-4,6-dinitrotoluene	600	667.838	111	
3,4-Dinitrotoluene	300	299.843	100	
4-Amino-2,6-dinitrotoluene	600	633.205	106	
HMX	600	667.227	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304139a
Date: 07-Mar-2010
Time: 11:07:52
ID: WXX100304-07CCV
Vial: 1:1,B

MMT 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.145e+005

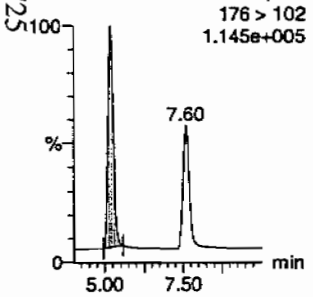

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.145e+005

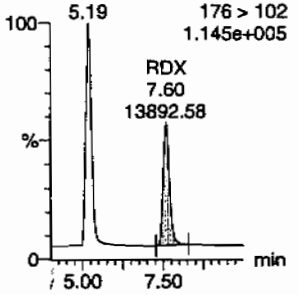

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.186e+004

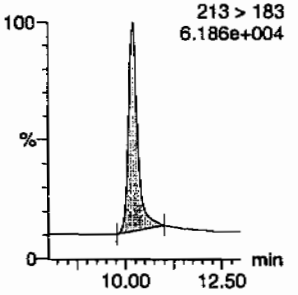

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.494e+004

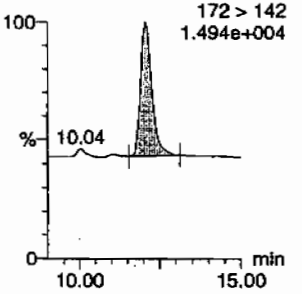

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.023e+004

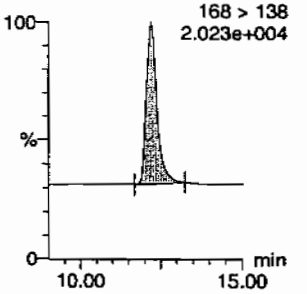

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.778e+004

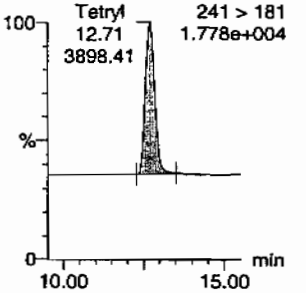

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.593e+004

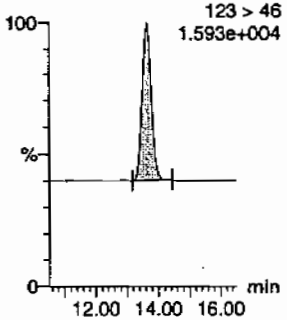

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.576e+004

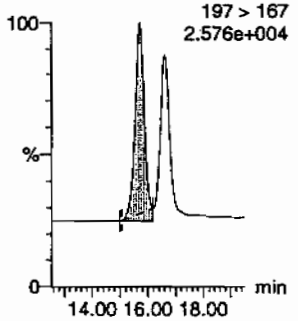

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.670e+004

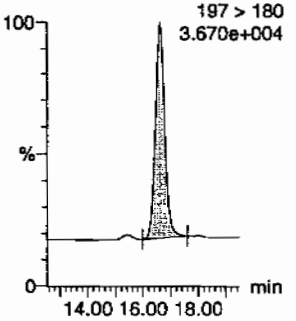

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.717e+004

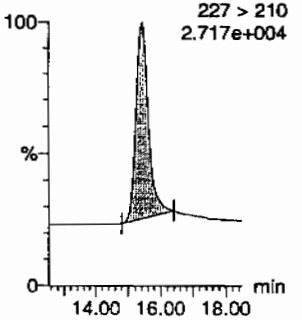

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.592e+004

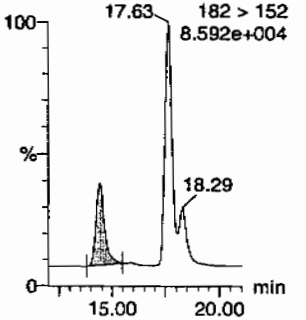

Hmm 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.592e+004

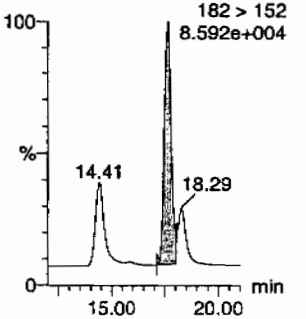

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

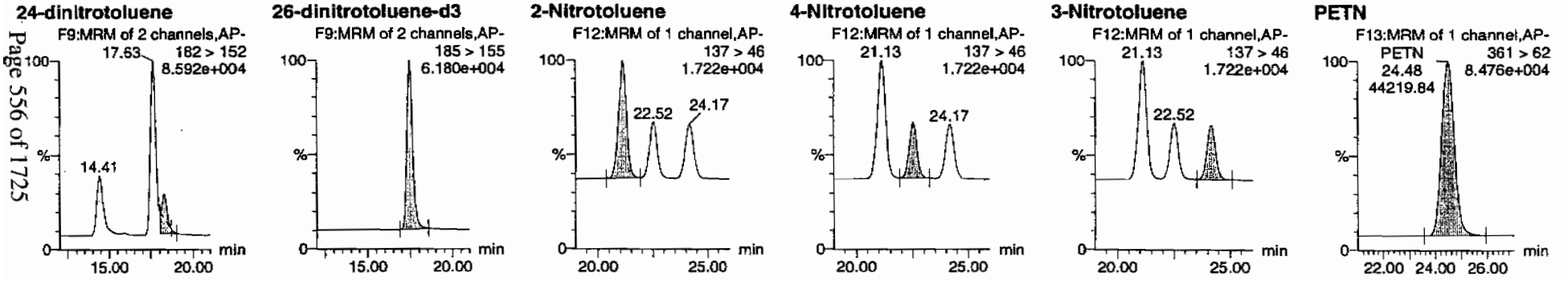

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	21586.969	3468.176	21586.969	3112.150	bb			667.2266	111.2	11.2	2182.3
WXX100304-07CCV	RDX	176 > 102	7.60	13892.584	3468.176	13892.584	2002.866	bb			699.9604	116.7	16.7	1206.4
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.19	15567.002	3468.176	15567.002	2244.264	bb			576.3663	96.1	-3.9	2734.4
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3468.176		3468.176	3468.176	bb			493.7905	98.8	-1.2	127.7
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5313.112	3468.176	5313.112	765.981	bb			604.8192	100.8	0.8	469.4
WXX100304-07CCV	Tetryl	241 > 181	12.71	3898.411	3468.176	3898.411	562.026	bb			552.3314	92.1	-7.9	343.2
WXX100304-07CCV	Nitrobenzene	123 > 46	13.61	3292.529	3468.176	3292.529	474.677	bb			574.8551	95.8	-4.2	478.4
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7725.487	22116.371	7725.487	174.655	MM	07-Mar-10	13:26:32	633.2051	105.5	5.5	321.1
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11966.849	22116.371	11966.849	270.543	bb			667.8377	111.3	11.3	1813.8
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9050.346	22116.371	9050.346	204.607	bb			622.6505	103.8	3.8	444.5
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.41	12818.127	22116.371	12818.127	289.788	bb			299.8429	99.9	-0.1	271.1
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.63	29318.959	22116.371	29318.959	662.834	MM	07-Mar-10	13:29:40	594.1807	99.0	-1.0	795.3
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.29	7565.616	22116.371	7565.616	171.041	MM	07-Mar-10	13:30:11	620.5067	103.4	3.4	181.3
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	22116.371		22116.371	22116.371	bb			537.8342	107.6	7.6	1452.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.13	4570.058	22116.371	4570.058	103.318	bb			667.0060	111.2	11.2	920.7
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.52	2092.102	22116.371	2092.102	47.298	bb			620.1016	103.4	3.4	432.4
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2215.137	22116.371	2215.137	50.079	bb			530.7548	88.5	-11.5	418.0
WXX100304-07CCV	PETN	361 > 62	24.48	44219.840	22116.371	44219.840	999.708	bb			533.2564	88.9	-11.1	8673.6

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 1107
Standard Number: WXX100304-07CCV
Data File: EXP0304139a

HMX	111.2
RDX	116.7
135-TNB	96.1
13-DNB	100.8
Tetryl	92.1
Nitrobenzene	95.8
4A-26-DNT	105.5
2A-46-DNT	111.3
246-TNT	103.8
34-DNT(surr)	99.9
26-DNT	99.0
24-DNT	103.4
2-NT	111.2
4-NT	103.4
3-NT	88.5
PETN	88.9
Total	1627.6
Average	101.7

MJP 3/7/10

HAM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304141a

Analysis Date: 07-MAR-10 12:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	42.864	107	
1,3-Dinitrobenzene-d4	500	543.802	109	
2,4,6-Trinitrotoluene	40	39.405	99	
2,4-Dinitrotoluene	40	34.117	85	
2,6-Dinitrotoluene	40	41.089	103	
2,6-Dinitrotoluene-d3	500	522.237	104	
2-Amino-4,6-dinitrotoluene	40	46.396	116	
3,4-Dinitrotoluene	20	17.875	89	
4-Amino-2,6-dinitrotoluene	40	41.16	103	
HMX	40	36.496	91	
Nitrobenzene	40	38.472	96	
PETN	40	57.261	143	*
RDX	40	35.957	90	
Tetryl	40	39.267	98	
m-Dinitrobenzene	40	41.353	103	
m-Nitrotoluene	40	39.049	98	
o-Nitrotoluene	40	37.499	94	
p-Nitrotoluene	40	40.552	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304141a
Date: 07-Mar-2010
Time: 12:06:54
ID: WXX100304-08CRI
Vial: 1:1,C

MM 3/9/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.300e+004
1300.36 7.59

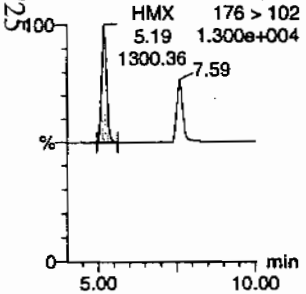

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.300e+004
RDX
7.59
785.95

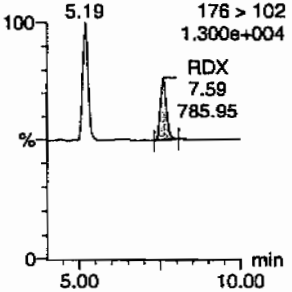

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.102e+004

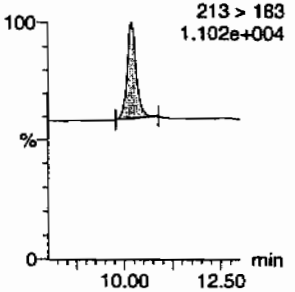

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.552e+004

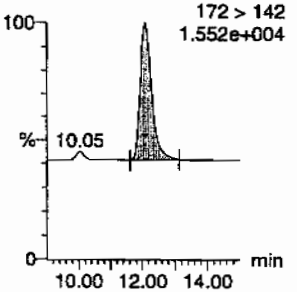

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.518e+003

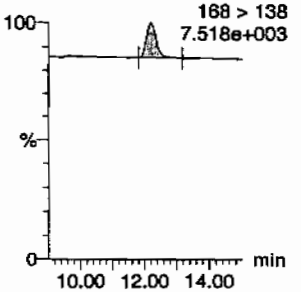

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.270e+003

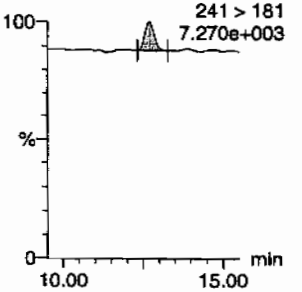

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.013e+003

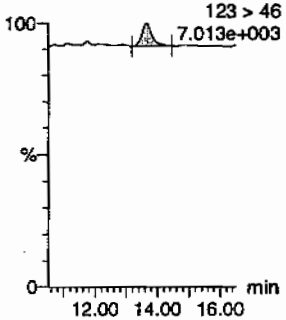

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.665e+003

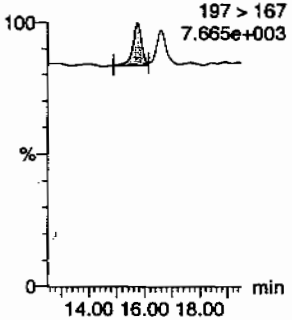

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.526e+003

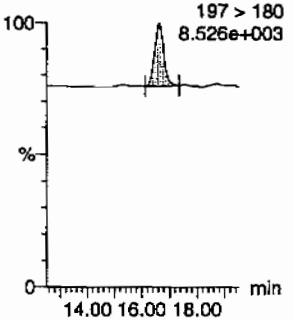

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.726e+003

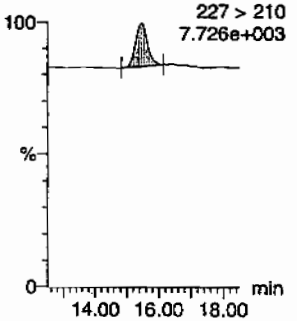

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64 182 > 152
1.154e+004
18.32

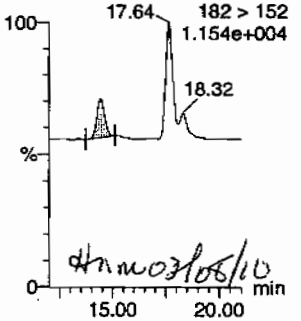

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.154e+004
14.43
18.32

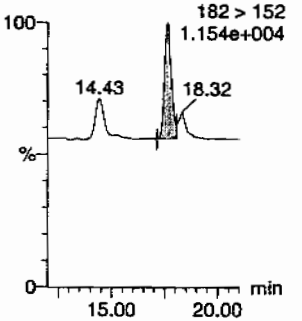

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

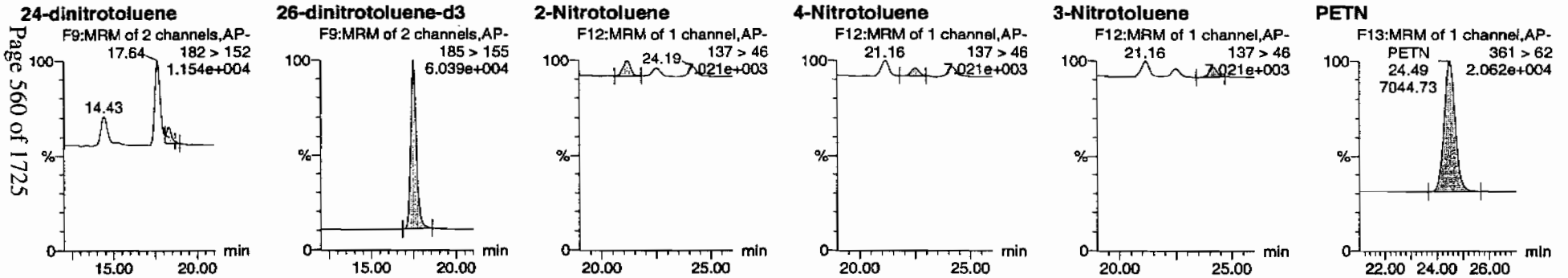

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1300.355	3819.438	1300.355	170.229	bb			36.4960	91.2	-8.8	242.0
WXX100304-08CRI	RDX	176 > 102	7.59	785.948	3819.438	785.948	102.888	bb			35.9572	89.9	-10.1	128.4
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.18	1274.962	3819.438	1274.962	166.904	bb			42.8640	107.2	7.2	124.4
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3819.438		3819.438	3819.438	bb			543.8024	108.8	8.8	438.1
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	400.061	3819.438	400.061	52.372	bb			41.3528	103.4	3.4	62.1
WXX100304-08CRI	Tetryl	241 > 181	12.68	305.221	3819.438	305.221	39.956	bb			39.2670	98.2	-1.8	22.3
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	242.671	3819.438	242.671	31.768	bb			38.4723	96.2	-3.8	13.9
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	487.615	21475.008	487.615	11.353	MM	07-Mar-10	13:26:39	41.1601	102.9	2.9	25.1
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	807.255	21475.008	807.255	18.795	bb			46.3962	116.0	16.0	80.7
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	556.148	21475.008	556.148	12.949	bb			39.4049	98.5	-1.5	38.0
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	741.980	21475.008	741.980	17.275	bb			17.8748	89.4	-10.6	45.0
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1968.676	21475.008	1968.676	45.836	MM	07-Mar-10	13:29:53	41.0889	102.7	2.7	135.6
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	403.917	21475.008	403.917	9.404	MM	07-Mar-10	13:30:03	34.1173	85.3	-14.7	27.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	21475.008		21475.008	21475.008	bb			522.2373	104.4	4.4	1724.4
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.16	249.480	21475.008	249.480	5.809	bb			37.4994	93.7	-6.3	46.9
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.50	132.846	21475.008	132.846	3.093	bb			40.5517	101.4	1.4	24.1
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.19	158.247	21475.008	158.247	3.684	bb			39.0489	97.6	-2.4	28.5
WXX100304-08CRI	PETN	361 > 62	24.49	7044.725	21475.008	7044.725	164.021	bb			57.2612	143.2	43.2	1280.2

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	1206
Standard Number	WXX100304-08CRI
Data File	EXP0304141a

HMX	91.2
RDX	89.9
135-TNB	107.2
13-DNB	103.4
Tetryl	98.2
Nitrobenzene	96.2
4A-26-DNT	102.9
2A-46-DNT	116.0
246-TNT	98.5
34-DNT(surr)	89.4
26-DNT	102.7
24-DNT	85.3
2-NT	93.7
4-NT	101.4
3-NT	97.6
PETN	143.2
Total	1616.8
Average	101.1

MDT 3/7/10

HMK 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304146a

Analysis Date: 07-MAR-10 14:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	600	705.31	118	
3,4-Dinitrotoluene	300	316.867	106	
4-Amino-2,6-dinitrotoluene	600	683.603	114	
HMX	600	556.277	93	
Nitrobenzene	600	571.879	95	
PETN	600	618.034	103	
RDX	600	622.846	104	
Tetryl	600	548.624	91	
m-Dinitrobenzene	600	583.825	97	
m-Nitrotoluene	600	570.191	95	
o-Nitrotoluene	600	604.577	101	
p-Nitrotoluene	600	621.97	104	
1,3,5-Trinitrobenzene	600	558.926	93	
1,3-Dinitrobenzene-d4	500	556.32	111	
2,4,6-Trinitrotoluene	600	662.99	110	
2,4-Dinitrotoluene	600	604.969	101	
2,6-Dinitrotoluene	600	610.904	102	
2,6-Dinitrotoluene-d3	500	512.665	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304146a
Date: 07-Mar-2010
Time: 14:34:39
ID: WXX100304-07CCV
Vial: 1:1,B

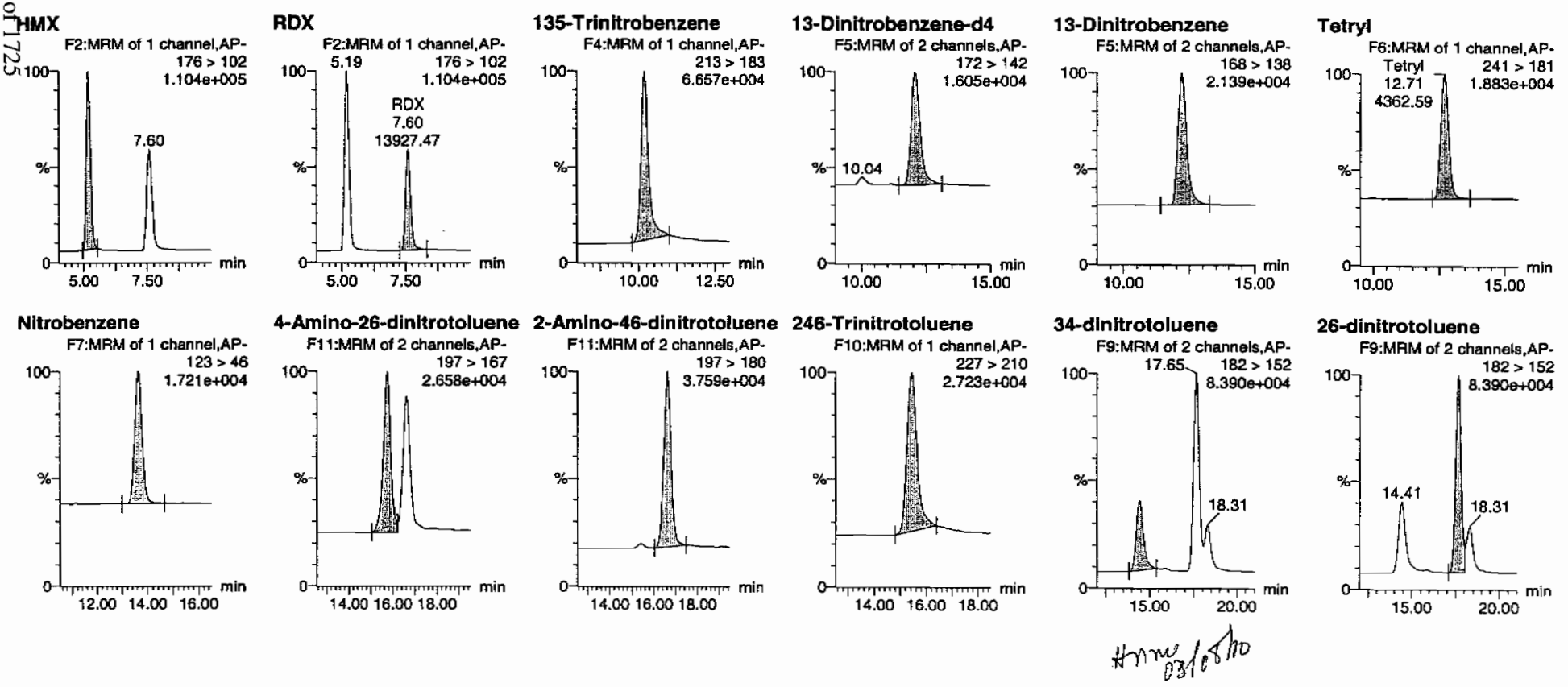

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

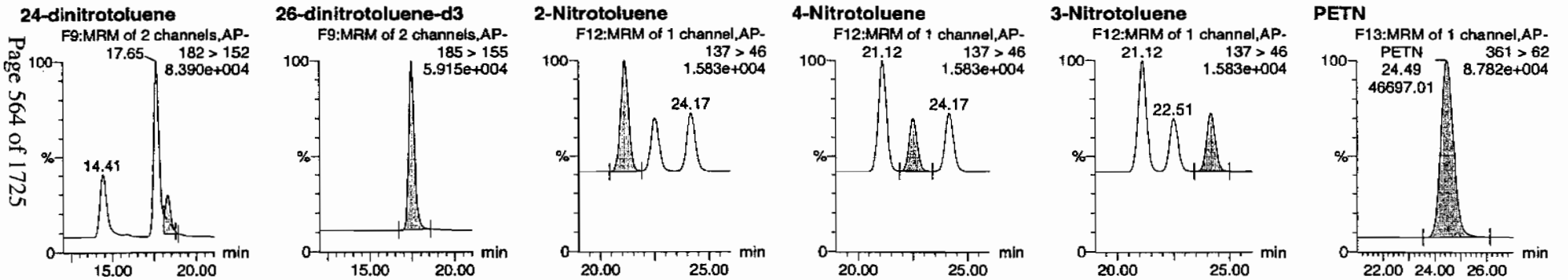

ID	Name	Trace	RT	Area	ISArea	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ug/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	20276.393	3907.354	20276.393	2594.645	bb			556.2765	92.7	-7.3	2391.1
WXX100304-07CCV	RDX	176 > 102	7.60	13927.465	3907.354	13927.465	1782.212	bb			622.8463	103.8	3.8	1359.0
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.19	17007.564	3907.354	17007.564	2176.353	bb			558.9257	93.2	-6.8	1116.3
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3907.354		3907.354	3907.354	bb			556.3196	111.3	11.3	287.7
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5778.132	3907.354	5778.132	739.392	bb			583.8246	97.3	-2.7	498.5
WXX100304-07CCV	Tetryl	241 > 181	12.71	4362.592	3907.354	4362.592	558.254	bb			548.6244	91.4	-8.6	367.7
WXX100304-07CCV	Nitrobenzene	123 > 46	13.61	3690.261	3907.354	3690.261	472.220	bb			571.8791	95.3	-4.7	365.5
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7950.056	21081.367	7950.056	188.556	MM	08-Mar-10	11:33:36	683.6028	113.9	13.9	595.9
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	12046.863	21081.367	12046.863	285.723	bb			705.3103	117.6	17.6	484.2
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9185.715	21081.367	9185.715	217.863	bb			662.9904	110.5	10.5	489.7
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.41	12911.955	21081.367	12911.955	306.241	bb			316.8665	105.6	5.6	606.5
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.65	28733.469	21081.367	28733.469	681.490	MM	08-Mar-10	11:51:50	610.9043	101.8	1.8	1727.2
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.31	7030.979	21081.367	7030.979	166.758	MM	08-Mar-10	11:52:36	604.9689	100.8	0.8	381.8
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	21081.367		21081.367	21081.367	bb			512.6646	102.5	2.5	1209.3
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	3948.466	21081.367	3948.466	93.648	bb			604.5769	100.8	0.8	471.6
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	2000.205	21081.367	2000.205	47.440	bb			621.9702	103.7	3.7	228.6
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2268.361	21081.367	2268.361	53.800	bb			570.1913	95.0	-5.0	250.8
WXX100304-07CCV	PETN	361 > 62	24.49	46697.008	21081.367	46697.008	1107.542	bb			618.0345	103.0	3.0	7203.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 1434
Standard Number: WXX100304-07CCV
Data File: EXP0304146a

HMX	92.7
RDX	103.8
135-TNB	93.2
13-DNB	97.3
Tetryl	91.4
Nitrobenzene	95.3
4A-26-DNT	113.9
2A-46-DNT	117.6
246-TNT	110.5
34-DNT(surr)	105.6
26-DNT	101.8
24-DNT	100.8
2-NT	100.8
4-NT	103.7
3-NT	95.0
PETN	103.0
Total	1626.4
Average	101.7

MATT 3/15/10

03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304148a

Analysis Date: 07-MAR-10 15:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	550.313	110	
2-Amino-4,6-dinitrotoluene	40	47.189	118	
3,4-Dinitrotoluene	20	20.504	103	
4-Amino-2,6-dinitrotoluene	40	48.089	120	
HMX	40	45.84	115	
Nitrobenzene	40	41.167	103	
PETN	40	55.645	139	*
RDX	40	44.484	111	
Tetryl	40	36.664	92	
m-Dinitrobenzene	40	34.02	85	
m-Nitrotoluene	40	36.88	92	
o-Nitrotoluene	40	39.142	98	
p-Nitrotoluene	40	43.464	109	
1,3,5-Trinitrobenzene	40	47.467	119	
1,3-Dinitrobenzene-d4	500	542.513	109	
2,4,6-Trinitrotoluene	40	38.864	97	
2,4-Dinitrotoluene	40	36.945	92	
2,6-Dinitrotoluene	40	38.784	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304148a
Date: 07-Mar-2010
Time: 15:33:40
ID: WXX100304-08CRI
Vial: 1:1,C

MMP 3/8/10

HMX

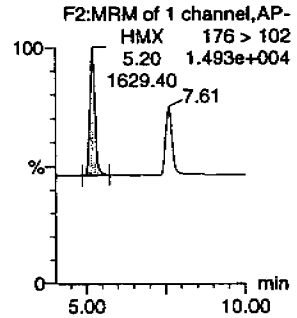

RDX

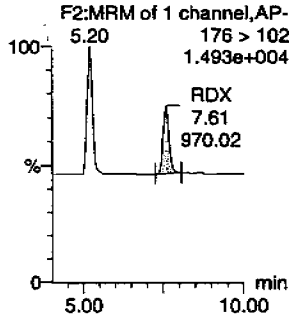

135-Trinitrobenzene

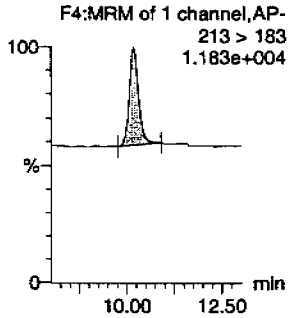

13-Dinitrobenzene-d4

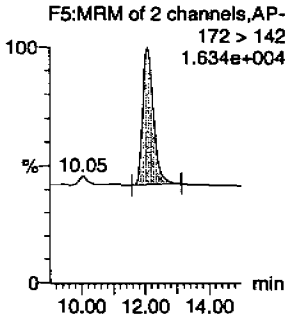

13-Dinitrobenzene

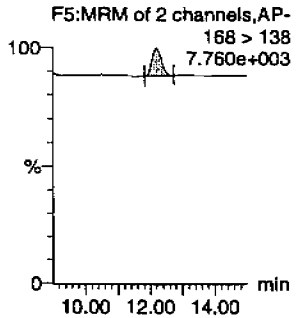

Tetryl

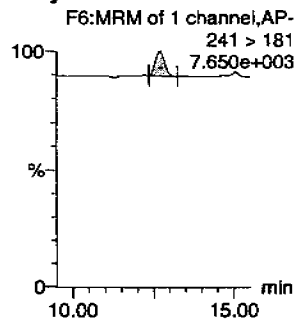

Nitrobenzene

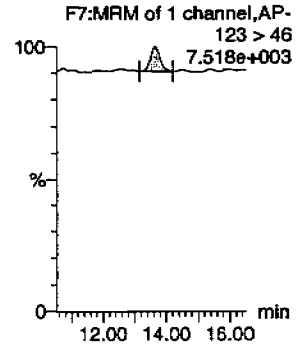

4-Amino-26-dinitrotoluene

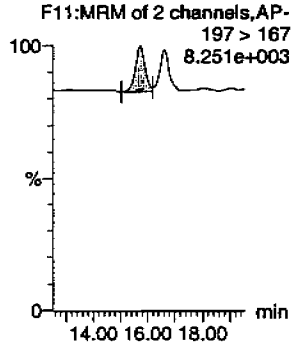

2-Amino-46-dinitrotoluene

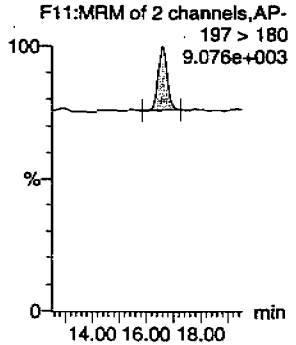

246-Trinitrotoluene

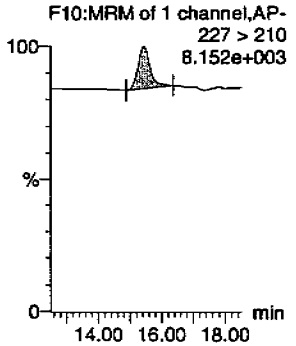

34-dinitrotoluene

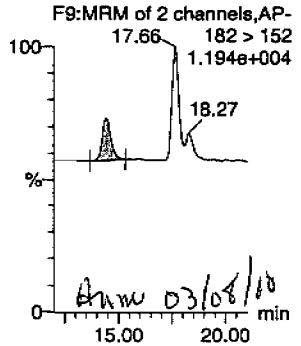

Amw 03/08/10

26-dinitrotoluene

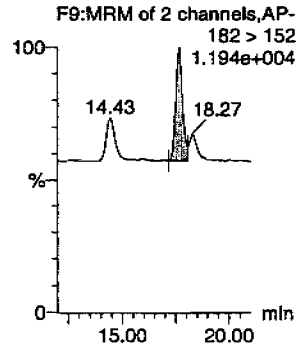

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

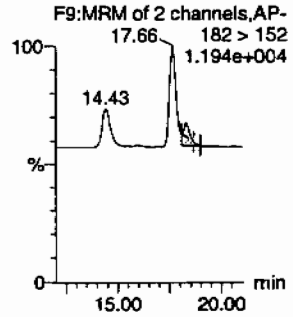

26-dinitrotoluene-d3

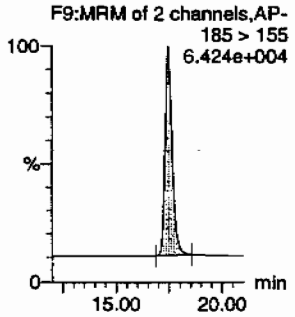

2-Nitrotoluene

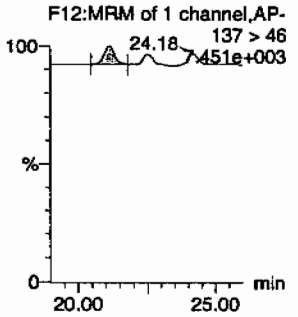

4-Nitrotoluene

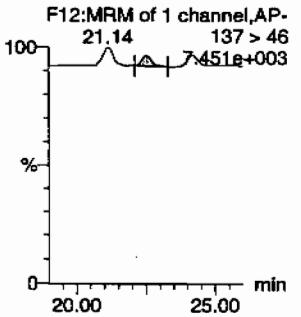

3-Nitrotoluene

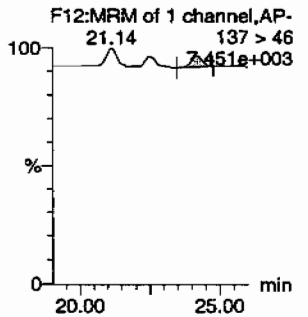

PETN

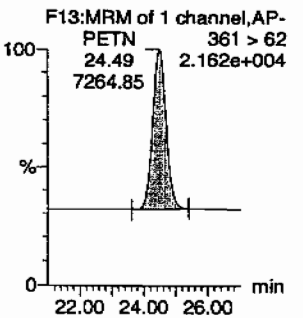

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1629.401	3810.383	1629.401	213.811	bb			45.8397	114.6	14.6	388.1
WXX100304-08CRI	RDX	176 > 102	7.61	970.024	3810.383	970.024	127.287	bb			44.4842	111.2	11.2	203.5
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1408.539	3810.383	1408.539	184.829	bb			47.4673	118.7	18.7	246.9
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3810.383		3810.383	3810.383	bb			542.5131	108.5	8.5	450.2
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	328.342	3810.383	328.342	43.085	bb			34.0201	85.1	-14.9	41.2
WXX100304-08CRI	Tetryl	241 > 181	12.68	284.310	3810.383	284.310	37.307	bb			36.6637	91.7	-8.3	39.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	259.052	3810.383	259.052	33.993	bb			41.1669	102.9	2.9	25.6
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	600.325	22629.516	600.325	13.264	MM	08-Mar-10	11:33:46	48.0888	120.2	20.2	22.8
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	865.188	22629.516	865.188	19.116	bb			47.1889	118.0	18.0	57.4
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	577.999	22629.516	577.999	12.771	bb			38.8638	97.2	-2.8	45.6
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	896.863	22629.516	896.863	19.816	bb			20.5038	102.5	2.5	70.8
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.66	1958.128	22629.516	1958.128	43.265	MM	08-Mar-10	11:51:38	38.7837	97.0	-3.0	188.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.27	460.912	22629.516	460.912	10.184	MM	08-Mar-10	11:54:42	36.9453	92.4	-7.6	43.3
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22629.516		22629.516	22629.516	bb			550.3131	110.1	10.1	1392.3
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.14	274.408	22629.516	274.408	6.063	bb			39.1420	97.9	-2.1	66.4
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.51	150.040	22629.516	150.040	3.315	bb			43.4636	108.7	8.7	37.1
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.18	157.494	22629.516	157.494	3.480	bb			36.8804	92.2	-7.8	39.8
WXX100304-08CRI	PETN	361 > 62	24.49	7264.852	22629.516	7264.852	160.517	bb			55.6445	139.1	39.1	2871.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	1533
Standard Number	WXX100304-08CRI
Data File	EXP0304148a

HMX	114.6
RDX	111.2
135-TNB	118.7
13-DNB	85.1
Tetryl	91.7
Nitrobenzene	102.9
4A-26-DNT	120.2
2A-46-DNT	118.0
246-TNT	97.2
34-DNT(surr)	102.5
26-DNT	97.0
24-DNT	92.4
2-NT	97.9
4-NT	108.7
3-NT	92.2
PETN	139.1
Total	1689.4
Average	105.6

MTP 3/8/10

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1543

Lab Code: GEI **GEL Sample ID:** WXXCCV

GEL Data File EXP0304159a **Analysis Date:** 07-MAR-10 20:58

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	600	549.102	92	
p-Nitrotoluene	600	592.181	99	
1,3,5-Trinitrobenzene	600	585.041	98	
1,3-Dinitrobenzene-d4	500	556.17	111	
2,4,6-Trinitrotoluene	600	673.261	112	
2,4-Dinitrotoluene	600	600.36	100	
2,6-Dinitrotoluene	600	601.1	100	
2,6-Dinitrotoluene-d3	500	560.036	112	
2-Amino-4,6-dinitrotoluene	600	674.068	112	
3,4-Dinitrotoluene	300	326.525	109	
4-Amino-2,6-dinitrotoluene	600	653.255	109	
HMX	600	618.608	103	
Nitrobenzene	600	587.842	98	
PETN	600	713.827	119	
RDX	600	721.108	120	*
Tetryl	600	627.476	105	
m-Dinitrobenzene	600	599.197	100	
m-Nitrotoluene	600	525.179	88	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304159a
Date: 07-Mar-2010
Time: 20:58:00
ID: WXX100307-07CCV
Vial: 1:1,D

MMT 3/8/10

HMX

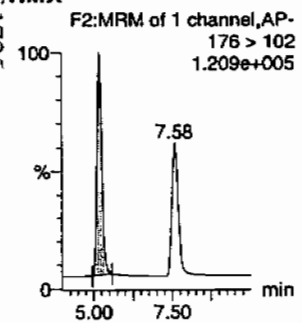

RDX

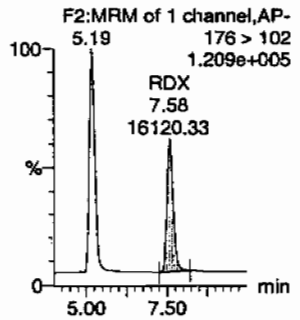

135-Trinitrobenzene

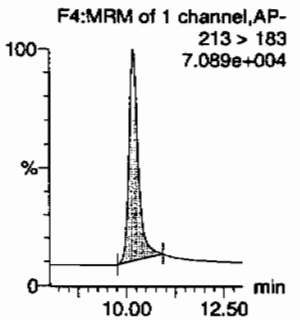

13-Dinitrobenzene-d4

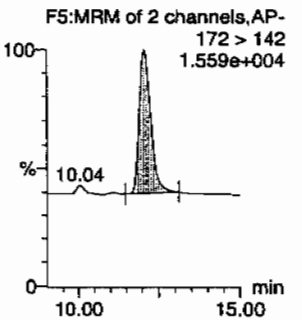

13-Dinitrobenzene

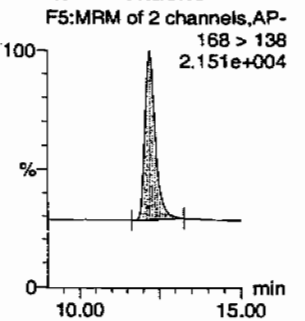

Tetryl

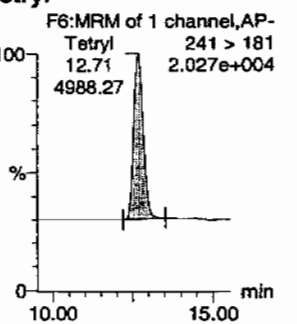

Nitrobenzene

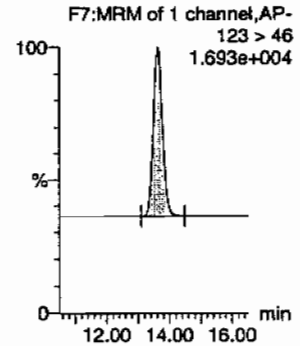

4-Amino-26-dinitrotoluene

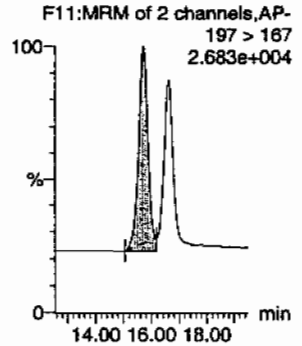

2-Amino-46-dinitrotoluene

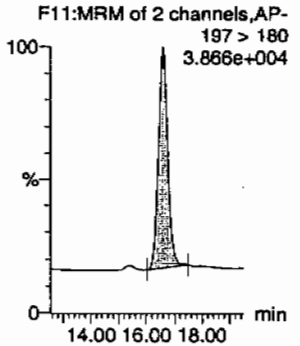

246-Trinitrotoluene

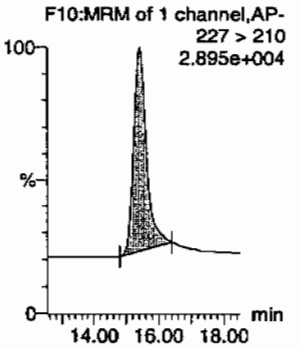

34-dinitrotoluene

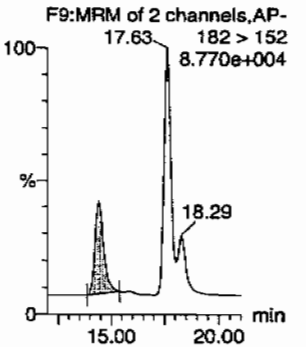

26-dinitrotoluene

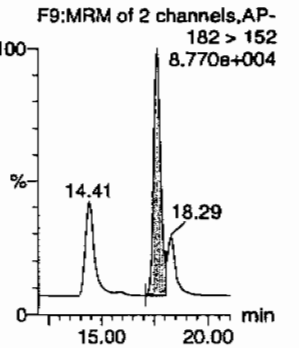

thm 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

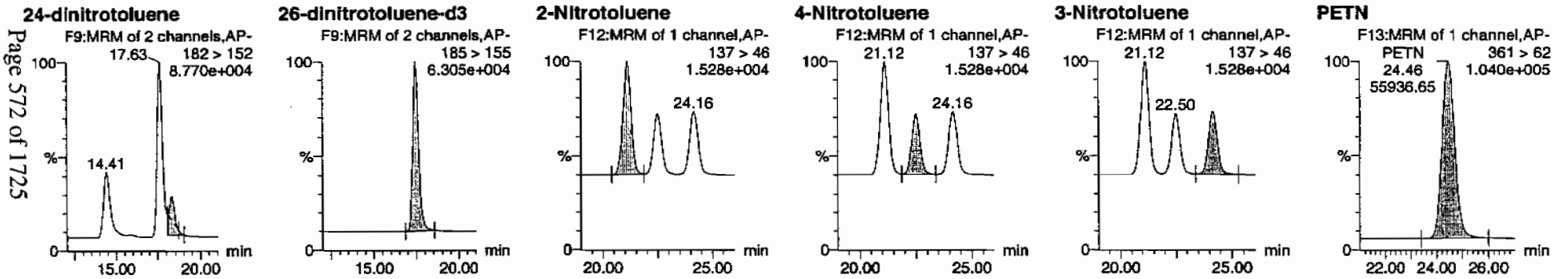

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100307-07CCV	HMX	176 > 102	5.19	22542.322	3906.300	22542.322	2885.380	bb			618.6085	103.1	3.1	4945.0
WXX100307-07CCV	RDX	176 > 102	7.58	16120.335	3906.300	16120.335	2063.376	bb			721.1076	120.2	20.2	2981.1
WXX100307-07CCV	135-Trinitrobenzene	213 > 183	10.18	17797.439	3906.300	17797.439	2278.043	bb			585.0414	97.5	-2.5	2851.1
WXX100307-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3906.300		3906.300	3906.300	bb			556.1696	111.2	11.2	452.5
WXX100307-07CCV	13-Dinitrobenzene	168 > 138	12.20	5928.672	3906.300	5928.672	758.860	bb			599.1969	99.9	-0.1	741.9
WXX100307-07CCV	Tetryl	241 > 181	12.71	4988.266	3906.300	4988.266	638.490	bb			627.4762	104.6	4.6	413.8
WXX100307-07CCV	Nitrobenzene	123 > 46	13.61	3792.245	3906.300	3792.245	485.401	bb			587.8421	98.0	-2.0	281.8
WXX100307-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	8299.111	23029.318	8299.111	180.186	MM	08-Mar-10	11:34:48	653.2553	108.9	8.9	358.7
WXX100307-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.59	12577.080	23029.318	12577.080	273.067	bb			674.0681	112.3	12.3	1018.8
WXX100307-07CCV	246-Trinitrotoluene	227 > 210	15.44	10189.931	23029.318	10189.931	221.238	bb			673.2606	112.2	12.2	644.0
WXX100307-07CCV	34-dinitrotoluene	182 > 152	14.41	14534.964	23029.318	14534.964	315.575	bb			326.5247	108.8	8.8	694.3
WXX100307-07CCV	26-dinitrotoluene	182 > 152	17.63	30884.742	23029.318	30884.742	670.553	MM	08-Mar-10	11:50:49	601.1001	100.2	0.2	1864.1
WXX100307-07CCV	24-dinitrotoluene	182 > 152	18.29	7622.137	23029.318	7622.137	165.488	MM	08-Mar-10	11:55:49	600.3599	100.1	0.1	420.9
WXX100307-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	23029.318		23029.318	23029.318	bb			560.0356	112.0	12.0	2738.3
WXX100307-07CCV	2-Nitrotoluene	137 > 46	21.12	3917.528	23029.318	3917.528	85.055	bb			549.1019	91.5	-8.5	937.6
WXX100307-07CCV	4-Nitrotoluene	137 > 46	22.50	2080.375	23029.318	2080.375	45.168	bb			592.1809	98.7	-1.3	491.3
WXX100307-07CCV	3-Nitrotoluene	137 > 46	24.16	2282.346	23029.318	2282.346	49.553	bb			525.1793	87.5	-12.5	510.1
WXX100307-07CCV	PETN	361 > 62	24.46	55936.652	23029.318	55936.652	1214.466	bb			713.8272	119.0	19.0	8650.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 2058
Standard Number: WXX100307-07CCV
Data File: EXP0304159a

HMX	103.1
RDX	120.2
135-TNB	97.5
13-DNB	99.9
Tetryl	104.6
Nitrobenzene	98.0
4A-26-DNT	108.9
2A-46-DNT	112.3
246-TNT	112.2
34-DNT(surr)	108.8
26-DNT	100.2
24-DNT	100.1
2-NT	91.5
4-NT	98.7
3-NT	87.5
PETN	119.0
Total	1662.5
Average	103.9

MAT 3/5/10

Hum 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304161a

Analysis Date: 07-MAR-10 21:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	40	38.286	96	
p-Nitrotoluene	40	34.049	85	
1,3,5-Trinitrobenzene	40	50.227	126	
1,3-Dinitrobenzene-d4	500	541.886	108	
2,4,6-Trinitrotoluene	40	44.85	112	
2,4-Dinitrotoluene	40	35.359	88	
2,6-Dinitrotoluene	40	40.272	101	
2,6-Dinitrotoluene-d3	500	549.235	110	
2-Amino-4,6-dinitrotoluene	40	47.998	120	
3,4-Dinitrotoluene	20	20.571	103	
4-Amino-2,6-dinitrotoluene	40	45.081	113	
HMX	40	40.951	102	
Nitrobenzene	40	47.556	119	
PETN	40	53.617	134	*
RDX	40	42.046	105	
Tetryl	40	49.527	124	
m-Dinitrobenzene	40	39.101	98	
m-Nitrotoluene	40	40.759	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304161a
Date: 07-Mar-2010
Time: 21:57:01
ID: WXX100307-08CRI
Vial: 1:1,E

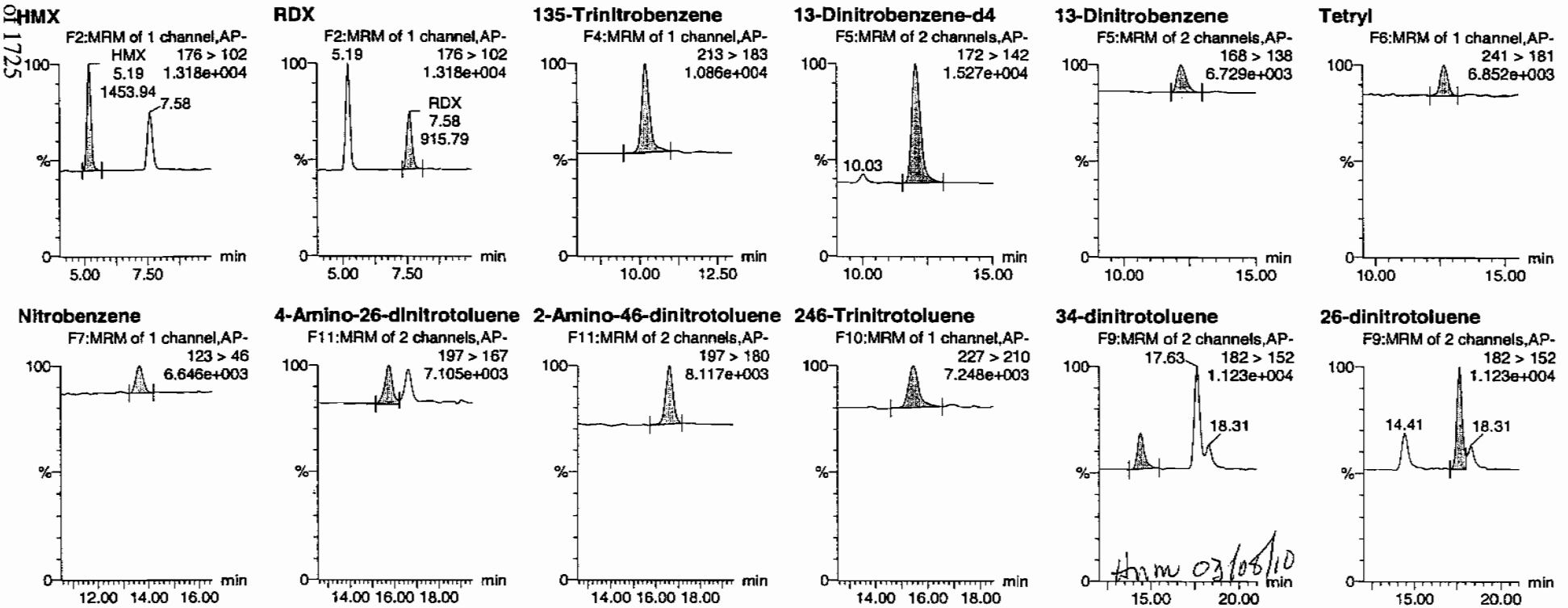

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

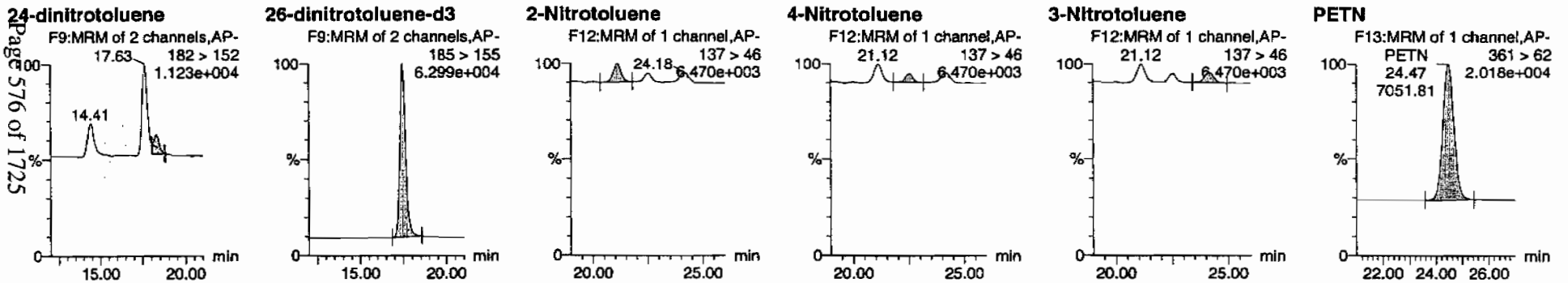

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-08CRI	HMX	176 > 102	5.19	1453.943	3805.979	1453.943	191.008	bb			40.9509	102.4	2.4	168.5
WXX100307-08CRI	RDX	176 > 102	7.58	915.792	3805.979	915.792	120.310	bb			42.0457	105.1	5.1	91.3
WXX100307-08CRI	135-Trinitrobenzene	213 > 183	10.18	1488.702	3805.979	1488.702	195.574	bb			50.2269	125.6	25.6	138.6
WXX100307-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	3805.979		3805.979	3805.979	bb			541.8861	108.4	8.4	406.6
WXX100307-08CRI	13-Dinitrobenzene	168 > 138	12.20	376.940	3805.979	376.940	49.519	bb			39.1006	97.8	-2.2	35.0
WXX100307-08CRI	Tetryl	241 > 181	12.66	383.612	3805.979	383.612	50.396	bb			49.5267	123.8	23.8	32.1
WXX100307-08CRI	Nitrobenzene	123 > 46	13.61	298.912	3805.979	298.912	39.269	bb			47.5562	118.9	18.9	25.1
WXX100307-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	561.673	22585.193	561.673	12.435	MM	08-Mar-10	11:34:59	45.0809	112.7	12.7	34.5
WXX100307-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	878.301	22585.193	878.301	19.444	bb			47.9982	120.0	20.0	99.9
WXX100307-08CRI	246-Trinitrotoluene	227 > 210	15.44	665.724	22585.193	665.724	14.738	bb			44.8501	112.1	12.1	91.8
WXX100307-08CRI	34-dinitrotoluene	182 > 152	14.41	898.023	22585.193	898.023	19.881	bb			20.5706	102.9	2.9	66.7
WXX100307-08CRI	26-dinitrotoluene	182 > 152	17.63	2029.307	22585.193	2029.307	44.926	MM	08-Mar-10	11:50:24	40.2724	100.7	0.7	190.1
WXX100307-08CRI	24-dinitrotoluene	182 > 152	18.31	440.258	22585.193	440.258	9.747	MM	08-Mar-10	11:56:03	35.3590	88.4	-11.6	40.2
WXX100307-08CRI	26-dinitrotoluene-d3	185 > 155	17.45	22585.193		22585.193	22585.193	bb			549.2352	109.8	9.8	1758.8
WXX100307-08CRI	2-Nitrotoluene	137 > 46	21.12	267.884	22585.193	267.884	5.931	bb			38.2864	95.7	-4.3	17.0
WXX100307-08CRI	4-Nitrotoluene	137 > 46	22.52	117.309	22585.193	117.309	2.597	bb			34.0488	85.1	-14.9	7.7
WXX100307-08CRI	3-Nitrotoluene	137 > 46	24.18	173.714	22585.193	173.714	3.846	bb			40.7585	101.9	1.9	9.0
WXX100307-08CRI	PETN	361 > 62	24.47	7051.809	22585.193	7051.809	156.116	bb			53.6170	134.0	34.0	4247.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	2157
Standard Number	WXX100307-08CRI
Data File	EXP0304161a

HMX	102.4
RDX	105.1
135-TNB	125.6
13-DNB	97.8
Tetryl	123.8
Nitrobenzene	118.9
4A-26-DNT	112.7
2A-46-DNT	120.0
246-TNT	112.1
34-DNT(surr)	102.9
26-DNT	100.7
24-DNT	88.4
2-NT	95.7
4-NT	85.1
3-NT	101.9
PETN	134.0
Total	1727.1
Average	107.9

MJT 3/8/10

dmm 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304172a

Analysis Date: 08-MAR-10 03:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	562.286	94	
1,3-Dinitrobenzene-d4	500	530.913	106	
2,4,6-Trinitrotoluene	600	611.063	102	
2,4-Dinitrotoluene	600	539.907	90	
2,6-Dinitrotoluene	600	612.576	102	
2,6-Dinitrotoluene-d3	500	477.512	96	
2-Amino-4,6-dinitrotoluene	600	738.793	123	*
3,4-Dinitrotoluene	300	367.23	122	*
4-Amino-2,6-dinitrotoluene	600	640.174	107	
HMX	600	536.302	89	
Nitrobenzene	600	566.687	94	
PETN	600	791.866	132	*
RDX	600	542.202	90	
Tetryl	600	585.702	98	
m-Dinitrobenzene	600	594.753	99	
m-Nitrotoluene	600	532.719	89	
o-Nitrotoluene	600	535.785	89	
p-Nitrotoluene	600	582.76	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304172a
Date: 08-Mar-2010
Time: 03:21:23
ID: WXX100307-07CCV
Vial: 1:1,D

Page 379 of 1725

MMT 3/8/10

HMX

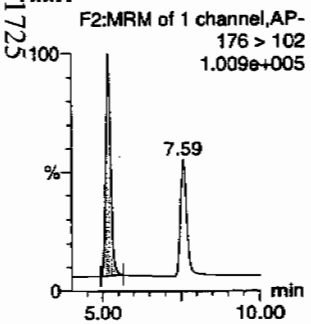

RDX

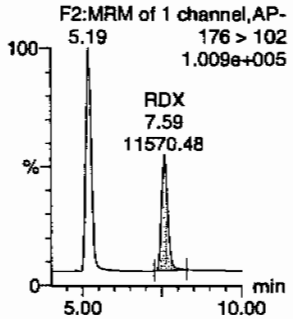

135-Trinitrobenzene

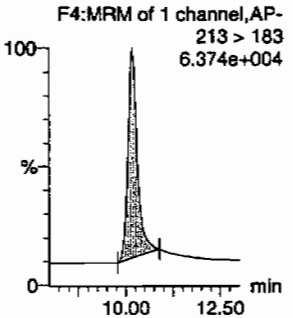

13-Dinitrobenzene-d4

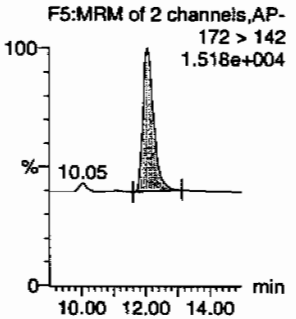

13-Dinitrobenzene

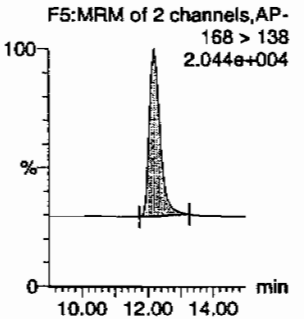

Tetryl

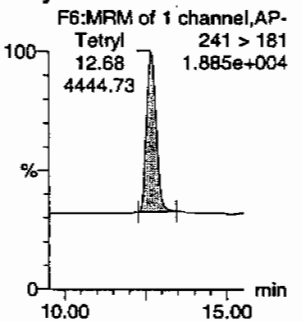

Nitrobenzene

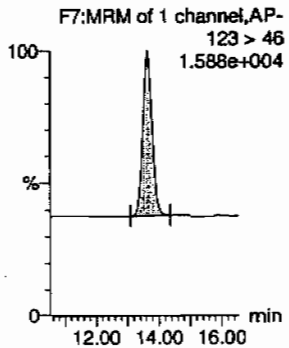

4-Amino-26-dinitrotoluene

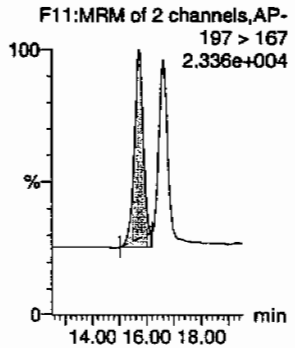

2-Amino-46-dinitrotoluene

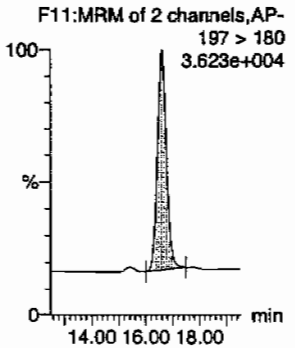

246-Trinitrotoluene

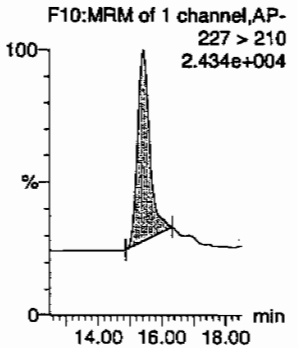

34-dinitrotoluene

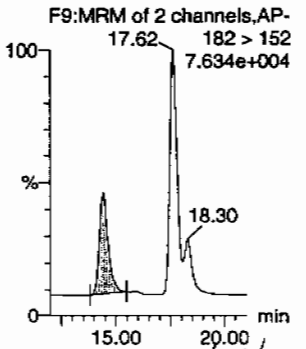

HMM 03/08/10

26-dinitrotoluene

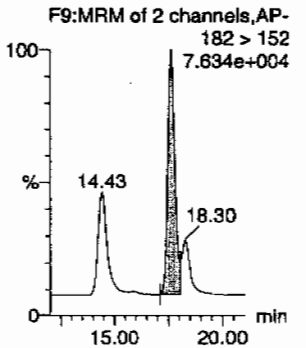

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

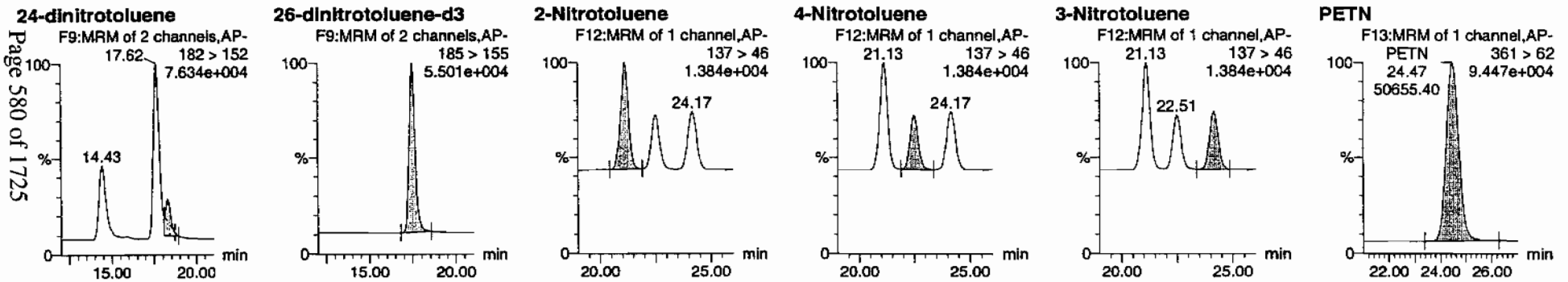

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-07CCV	HMX	176 > 102	5.19	18655.549	3728.907	18655.549	2501.477	bb			536.3018	89.4	-10.6	1954.2
WXX100307-07CCV	RDX	176 > 102	7.59	11570.481	3728.907	11570.481	1551.457	bb			542.2024	90.4	-9.6	1021.2
WXX100307-07CCV	135-Trinitrobenzene	213 > 183	10.18	16328.408	3728.907	16328.408	2189.436	bb			562.2857	93.7	-6.3	2624.4
WXX100307-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3728.907		3728.907	3728.907	bb			530.9128	106.2	6.2	465.1
WXX100307-07CCV	13-Dinitrobenzene	168 > 138	12.20	5617.470	3728.907	5617.470	753.233	bb			594.7534	99.1	-0.9	290.3
WXX100307-07CCV	Tetryl	241 > 181	12.68	4444.726	3728.907	4444.726	595.982	bb			585.7020	97.6	-2.4	400.3
WXX100307-07CCV	Nitrobenzene	123 > 46	13.63	3489.753	3728.907	3489.753	467.932	bb			566.6867	94.4	-5.6	280.4
WXX100307-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	6934.497	19635.836	6934.497	176.578	MM	08-Mar-10	11:35:10	640.1739	106.7	6.7	333.4
WXX100307-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11753.496	19635.836	11753.496	299.287	bb			738.7928	123.1	23.1	325.8
WXX100307-07CCV	246-Trinitrotoluene	227 > 210	15.41	7885.735	19635.836	7885.735	200.800	bb			611.0627	101.8	1.8	1411.5
WXX100307-07CCV	34-dinitrotoluene	182 > 152	14.43	13938.127	19635.836	13938.127	354.916	bb			367.2300	122.4	22.4	794.6
WXX100307-07CCV	26-dinitrotoluene	182 > 152	17.62	26836.455	19635.836	26836.455	683.354	MM	08-Mar-10	11:50:14	612.5755	102.1	2.1	1927.0
WXX100307-07CCV	24-dinitrotoluene	182 > 152	18.30	5844.563	19635.836	5844.563	148.824	MM	08-Mar-10	11:56:26	539.9066	90.0	-10.0	399.9
WXX100307-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	19635.836		19635.836	19635.836	bb			477.5117	95.5	-4.5	1868.9
WXX100307-07CCV	2-Nitrotoluene	137 > 46	21.13	3259.251	19635.836	3259.251	82.992	bb			535.7847	89.3	-10.7	696.6
WXX100307-07CCV	4-Nitrotoluene	137 > 46	22.51	1745.601	19635.836	1745.601	44.449	bb			582.7596	97.1	-2.9	358.3
WXX100307-07CCV	3-Nitrotoluene	137 > 46	24.17	1973.970	19635.836	1973.970	50.264	bb			532.7192	88.8	-11.2	380.9
WXX100307-07CCV	PETN	361 > 62	24.47	50655.402	19635.836	50655.402	1289.871	bb			791.8655	132.0	32.0	11863.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/08/10
Time of Injection: 0321
Standard Number: WXX100307-07CCV
Data File: EXP0304172a

HMX	89.4
RDX	90.4
135-TNB	93.7
13-DNB	99.1
Tetryl	97.6
Nitrobenzene	94.4
4A-26-DNT	106.7
2A-46-DNT	123.1
246-TNT	101.8
34-DNT(surr)	122.4
26-DNT	102.1
24-DNT	90.0
2-NT	89.3
4-NT	97.1
3-NT	88.8
PETN	132.0
Total	1617.9
Average	101.1

HMC 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304174a

Analysis Date: 08-MAR-10 04:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	53.114	133	*
1,3-Dinitrobenzene-d4	500	497.279	99	
2,4,6-Trinitrotoluene	40	43.446	109	
2,4-Dinitrotoluene	40	37.987	95	
2,6-Dinitrotoluene	40	40.715	102	
2,6-Dinitrotoluene-d3	500	475.178	95	
2-Amino-4,6-dinitrotoluene	40	42.13	105	
3,4-Dinitrotoluene	20	21.12	106	
4-Amino-2,6-dinitrotoluene	40	35.768	89	
HMX	40	45.949	115	
Nitrobenzene	40	44.197	110	
PETN	40	54.182	135	*
RDX	40	40.661	102	
Tetryl	40	39.779	99	
m-Dinitrobenzene	40	36.194	90	
m-Nitrotoluene	40	35.913	90	
o-Nitrotoluene	40	43.601	109	
p-Nitrotoluene	40	41.759	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304174a
Date: 08-Mar-2010
Time: 04:20:23
ID: WXX100307-08CRI
Vial: 1:1,E

MMP 3/8/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.354e+004
1497.10
7.59

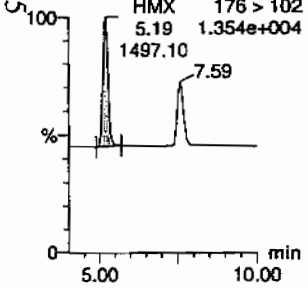

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.354e+004
RDX
7.59
812.72

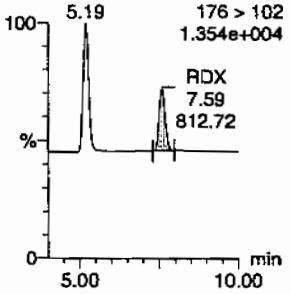

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.075e+004

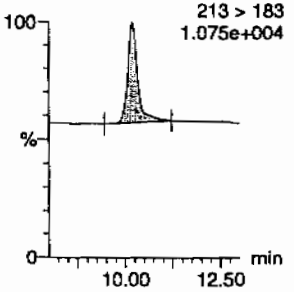

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.459e+004

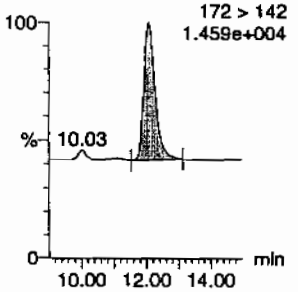

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.918e+003

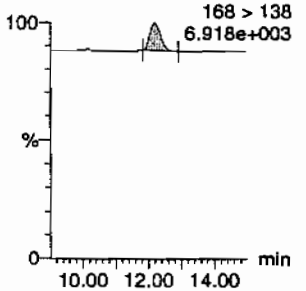

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.869e+003

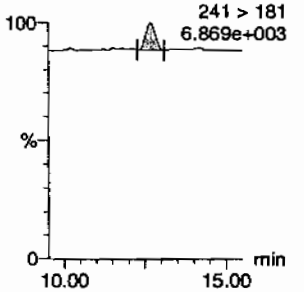

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.711e+003

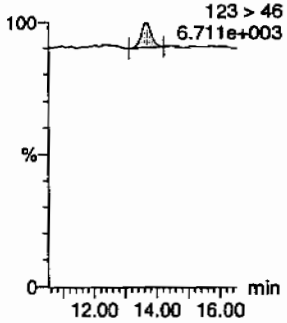

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
16.63 197 > 167
7.128e+003

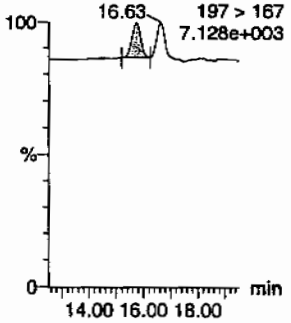

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.933e+003

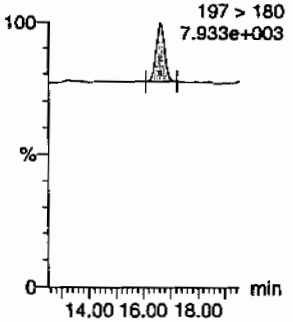

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.256e+003

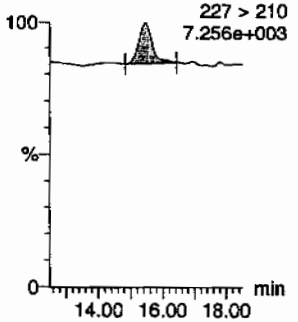

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.62 182 > 152
1.085e+004
18.32

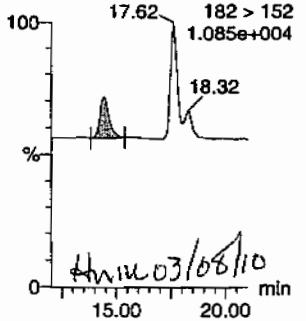

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.085e+004
14.43
18.32

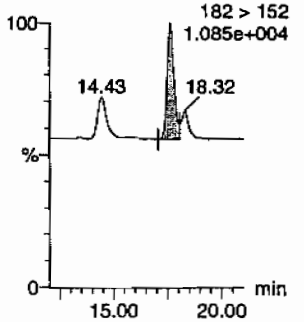

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

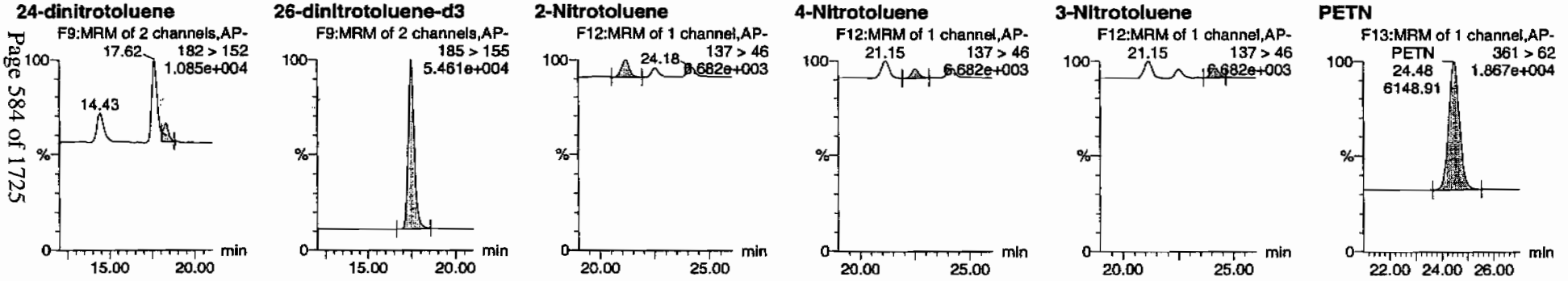

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-08CRI	HMX	176 > 102	5.19	1497.097	3492.680	1497.097	214.319	bb			45.9488	114.9	14.9	317.9
WXX100307-08CRI	RDX	176 > 102	7.59	812.723	3492.680	812.723	116.347	bb			40.6607	101.7	1.7	153.9
WXX100307-08CRI	135-Trinitrobenzene	213 > 183	10.18	1444.688	3492.680	1444.688	206.817	bb			53.1141	132.8	32.8	260.5
WXX100307-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3492.680		3492.680	3492.680	bb			497.2794	99.5	-0.5	219.4
WXX100307-08CRI	13-Dinitrobenzene	168 > 138	12.20	320.198	3492.680	320.198	45.838	bb			36.1941	90.5	-9.5	40.2
WXX100307-08CRI	Tetryl	241 > 181	12.68	282.751	3492.680	282.751	40.478	bb			39.7794	99.4	-0.6	19.9
WXX100307-08CRI	Nitrobenzene	123 > 46	13.63	254.932	3492.680	254.932	36.495	bb			44.1973	110.5	10.5	27.4
WXX100307-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	385.547	19539.873	385.547	9.866	bb			35.7675	89.4	-10.6	32.9
WXX100307-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	666.978	19539.873	666.978	17.067	bb			42.1303	105.3	5.3	90.0
WXX100307-08CRI	246-Trinitrotoluene	227 > 210	15.45	557.928	19539.873	557.928	14.277	bb			43.4460	108.6	8.6	38.7
WXX100307-08CRI	34-dinitrotoluene	182 > 152	14.43	797.688	19539.873	797.688	20.412	bb			21.1200	105.6	5.6	43.1
WXX100307-08CRI	26-dinitrotoluene	182 > 152	17.62	1774.992	19539.873	1774.992	45.420	MM	08-Mar-10	11:49:59	40.7154	101.8	1.8	125.4
WXX100307-08CRI	24-dinitrotoluene	182 > 152	18.32	409.203	19539.873	409.203	10.471	MM	08-Mar-10	11:57:02	37.9868	95.0	-5.0	28.2
WXX100307-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	19539.873		19539.873	19539.873	bb			475.1780	95.0	-5.0	1582.9
WXX100307-08CRI	2-Nitrotoluene	137 > 46	21.15	263.933	19539.873	263.933	6.754	bb			43.6007	109.0	9.0	51.8
WXX100307-08CRI	4-Nitrotoluene	137 > 46	22.51	124.475	19539.873	124.475	3.185	bb			41.7594	104.4	4.4	26.7
WXX100307-08CRI	3-Nitrotoluene	137 > 46	24.18	132.422	19539.873	132.422	3.389	bb			35.9125	89.8	-10.2	27.7
WXX100307-08CRI	PETN	361 > 62	24.48	6148.912	19539.873	6148.912	157.343	bb			54.1818	135.5	35.5	957.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/08/10
Time of Injection	0420
Standard Number	WXX100307-08CRI
Data File	EXP0304174a

HMX	114.9
RDX	101.7
135-TNB	132.8
13-DNB	90.5
Tetryl	99.4
Nitrobenzene	110.5
4A-26-DNT	89.4
2A-46-DNT	105.3
246-TNT	108.6
34-DNT(surr)	105.6
26-DNT	101.8
24-DNT	95.0
2-NT	109.0
4-NT	104.4
3-NT	89.8
PETN	135.5
Total	1694.2
Average	105.9

3/8/10

03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304185a

Analysis Date: 08-MAR-10 09:45

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	600	649.726	108	
HMX	600	635.925	106	
Nitrobenzene	600	610.485	102	
PETN	600	806.82	134	*
RDX	600	667.924	111	
Tetryl	600	511.64	85	
m-Dinitrobenzene	600	594.115	99	
m-Nitrotoluene	600	590.365	98	
o-Nitrotoluene	600	602.331	100	
p-Nitrotoluene	600	616.672	103	
1,3,5-Trinitrobenzene	600	572.565	95	
1,3-Dinitrobenzene-d4	500	522.535	105	
2,4,6-Trinitrotoluene	600	653.289	109	
2,4-Dinitrotoluene	600	607.279	101	
2,6-Dinitrotoluene	600	616.127	103	
2,6-Dinitrotoluene-d3	500	469.458	94	
2-Amino-4,6-dinitrotoluene	600	719.312	120	
3,4-Dinitrotoluene	300	317.062	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304185a
Date: 08-Mar-2010
Time: 09:45:03
ID: WXX100307-07CCV
Vial: 1:1,D

MMT 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.167e+005

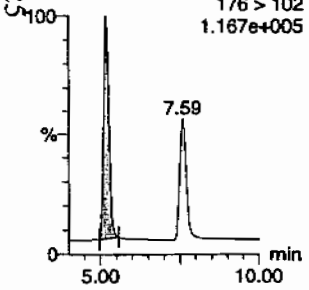

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
1.167e+005

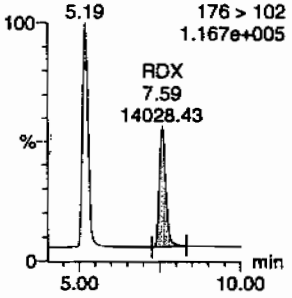

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.519e+004

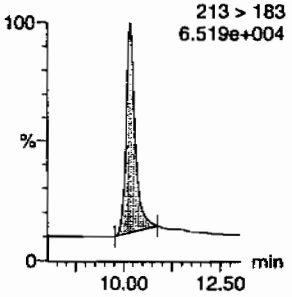

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.548e+004

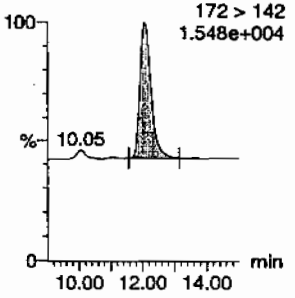

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.098e+004

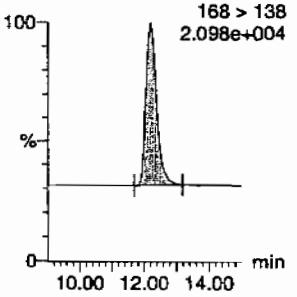

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.68
3821.42
241 > 181
1.717e+004

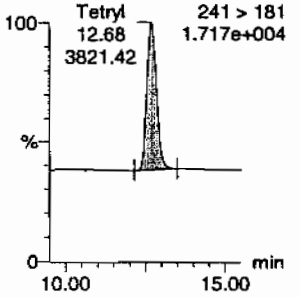

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.727e+004

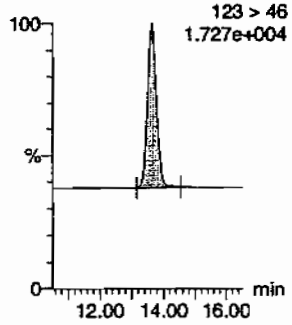

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.426e+004

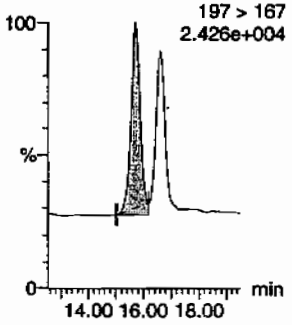

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.586e+004

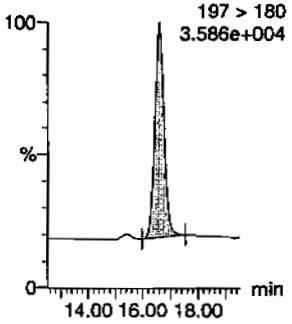

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.548e+004

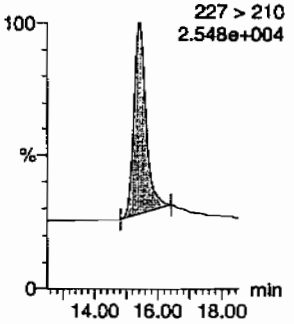

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64
182 > 152
7.610e+004

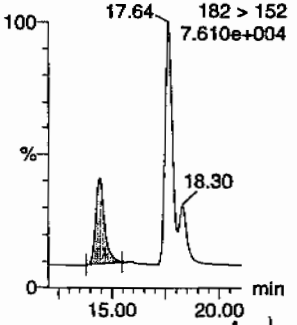

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.610e+004

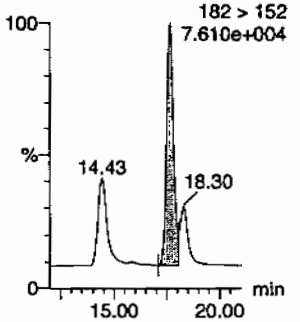

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

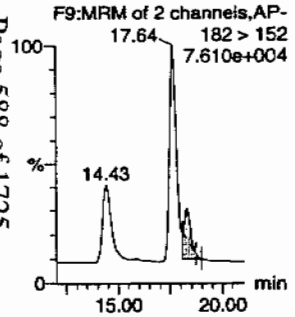

26-dinitrotoluene-d3

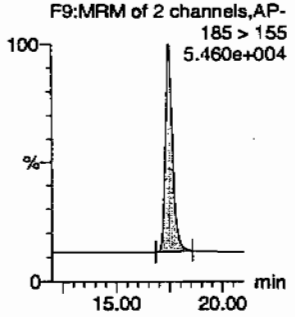

2-Nitrotoluene

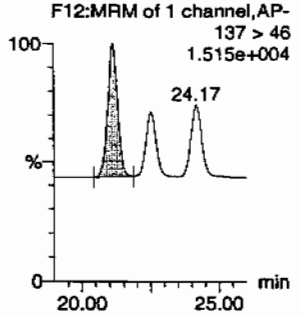

4-Nitrotoluene

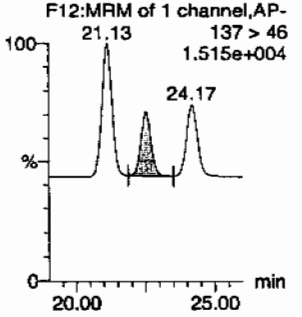

3-Nitrotoluene

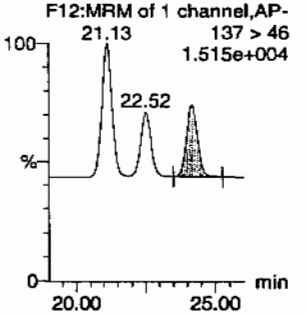

PETN

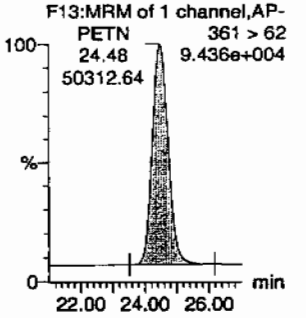

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100307-07CCV	HMX	176 > 102	5.19	21771.916	3670.062	21771.916	2966.151	bb			635.9252	106.0	6.0	2602.0
WXX100307-07CCV	RDX	176 > 102	7.59	14028.431	3670.062	14028.431	1911.198	bb			667.9244	111.3	11.3	1409.4
WXX100307-07CCV	135-Trinitrobenzene	213 > 183	10.18	16364.542	3670.062	16364.542	2229.464	bb			572.5655	95.4	-4.6	1519.9
WXX100307-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3670.062		3670.062	3670.062	bb			522.5346	104.5	4.5	379.9
WXX100307-07CCV	13-Dinitrobenzene	168 > 138	12.20	5522.885	3670.062	5522.885	752.424	bb			594.1147	99.0	-1.0	416.2
WXX100307-07CCV	Tetryl	241 > 181	12.68	3821.422	3670.062	3821.422	520.621	bb			511.6404	85.3	-14.7	350.2
WXX100307-07CCV	Nitrobenzene	123 > 46	13.63	3700.145	3670.062	3700.145	504.098	bb			610.4853	101.7	1.7	217.0
WXX100307-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	6919.263	19304.658	6919.263	179.212	MM	08-Mar-10	11:36:29	649.7259	108.3	8.3	291.3
WXX100307-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11250.569	19304.658	11250.569	291.395	bb			719.3121	119.9	19.9	345.7
WXX100307-07CCV	246-Trinitrotoluene	227 > 210	15.45	8288.476	19304.658	8288.476	214.676	bb			653.2894	108.9	8.9	462.7
WXX100307-07CCV	34-dinitrotoluene	182 > 152	14.43	11831.042	19304.658	11831.042	306.430	bb			317.0618	105.7	5.7	370.6
WXX100307-07CCV	26-dinitrotoluene	182 > 152	17.64	26536.779	19304.658	26536.779	687.315	MM	08-Mar-10	11:48:34	616.1266	102.7	2.7	1055.4
WXX100307-07CCV	24-dinitrotoluene	182 > 152	18.30	6462.998	19304.658	6462.998	167.395	MM	08-Mar-10	11:58:11	607.2785	101.2	1.2	242.1
WXX100307-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	19304.658		19304.658	19304.658	bb			469.4579	93.9	-6.1	1424.1
WXX100307-07CCV	2-Nitrotoluene	137 > 46	21.13	3602.265	19304.658	3602.265	93.300	bb			602.3313	100.4	0.4	1008.0
WXX100307-07CCV	4-Nitrotoluene	137 > 46	22.52	1816.028	19304.658	1816.028	47.036	bb			616.6721	102.8	2.8	494.0
WXX100307-07CCV	3-Nitrotoluene	137 > 46	24.17	2150.677	19304.658	2150.677	55.704	bb			590.3645	98.4	-1.6	548.5
WXX100307-07CCV	PETN	361 > 62	24.48	50312.637	19304.658	50312.637	1303.122	bb			806.8201	134.5	34.5	10629.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/08/10
Time of Injection: 0945
Standard Number: WXX100307-07CCV
Data File: EXP0304185a

HMX	106.0
RDX	111.3
135-TNB	95.4
13-DNB	99.0
Tetryl	85.3
Nitrobenzene	101.7
4A-26-DNT	108.3
2A-46-DNT	119.9
246-TNT	108.9
34-DNT(surr)	105.7
26-DNT	102.7
24-DNT	101.2
2-NT	100.4
4-NT	102.8
3-NT	98.4
PETN	134.5
Total	1681.5
Average	105.1

MJT 3/8/10

HMK 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304187a

Analysis Date: 08-MAR-10 10:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	40	45.676	114	
HMX	40	39.354	98	
Nitrobenzene	40	39.828	100	
PETN	40	44.856	112	
RDX	40	43.65	109	
Tetryl	40	35.439	89	
m-Dinitrobenzene	40	45.241	113	
m-Nitrotoluene	40	39.609	99	
o-Nitrotoluene	40	36.13	90	
p-Nitrotoluene	40	39.566	99	
1,3,5-Trinitrobenzene	40	51.994	130	
1,3-Dinitrobenzene-d4	500	460.445	92	
2,4,6-Trinitrotoluene	40	39.776	99	
2,4-Dinitrotoluene	40	36.568	91	
2,6-Dinitrotoluene	40	41.086	103	
2,6-Dinitrotoluene-d3	500	508.042	102	
2-Amino-4,6-dinitrotoluene	40	47.707	119	
3,4-Dinitrotoluene	20	24.234	121	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304187a
Date: 08-Mar-2010
Time: 10:44:02
ID: WXX100307-08CRI
Vial: 1:1,E

MM 3/8/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.282e+004
1187.25 7.59

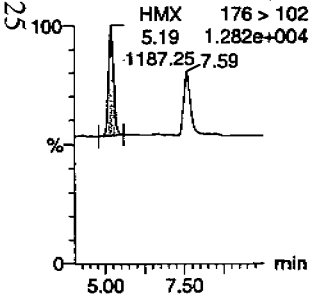

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.282e+004
RDX
7.59
807.85

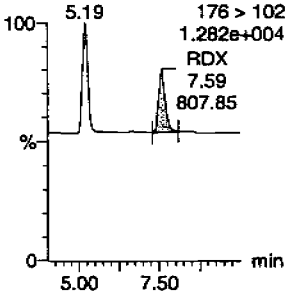

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.128e+004

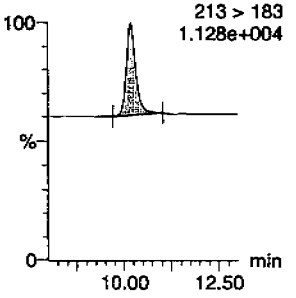

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.466e+004
10.04

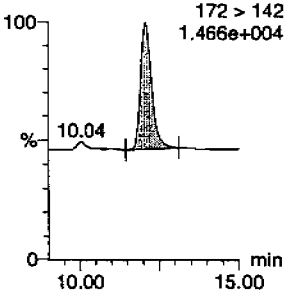

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.658e+003

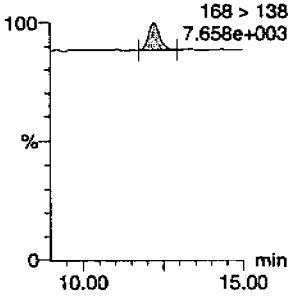

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.494e+003

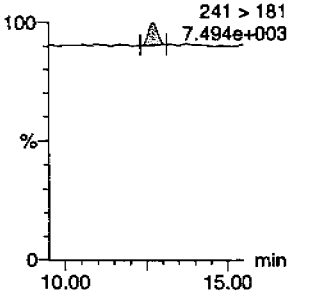

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.391e+003

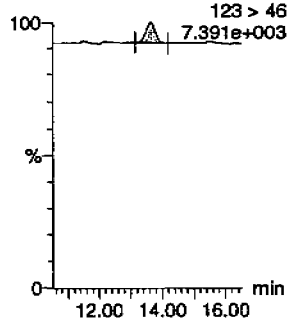

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.186e+003

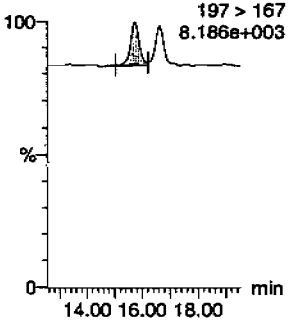

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.908e+003

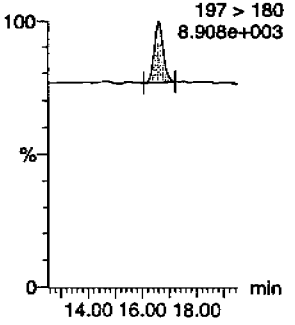

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.863e+003

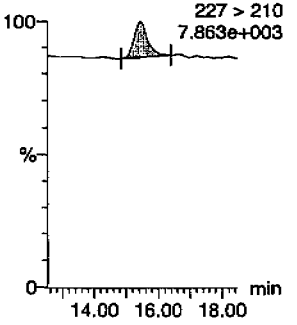

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.63 182 > 152
1.166e+004
18.29

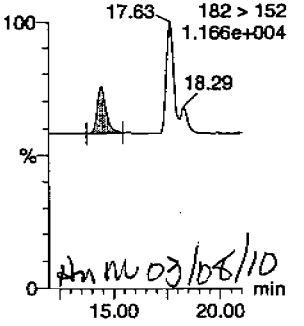

MM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.166e+004
14.41
18.29

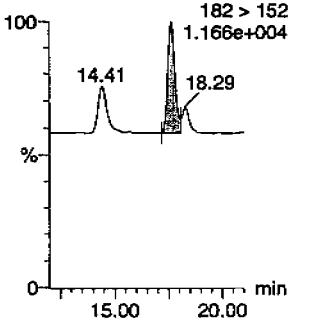

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

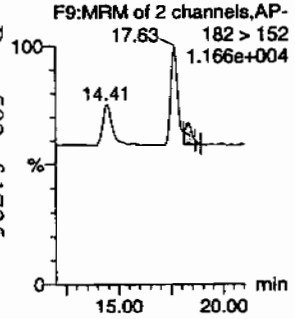

26-dinitrotoluene-d3

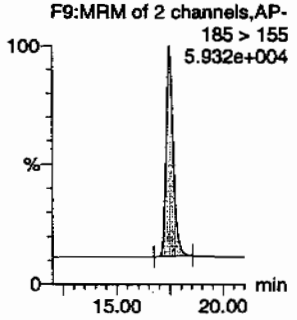

2-Nitrotoluene

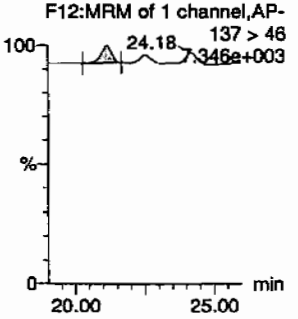

4-Nitrotoluene

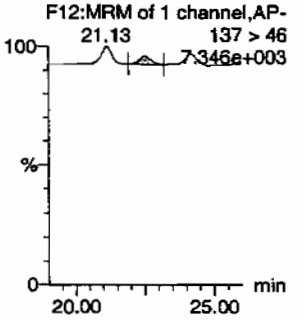

3-Nitrotoluene

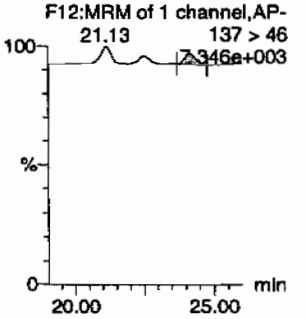

PETN

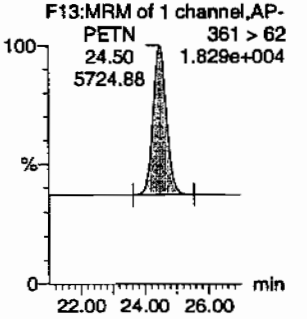

ID	Name	Trace	RT	Area	ISTArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-08CRI	HMX	176 > 102	5.19	1187.254	3233.970	1187.254	183.560	bb			39.3541	98.4	-1.6	155.3
WXX100307-08CRI	RDX	176 > 102	7.59	807.848	3233.970	807.848	124.900	bb			43.6501	109.1	9.1	88.6
WXX100307-08CRI	135-Trinitrobenzene	213 > 183	10.18	1309.476	3233.970	1309.476	202.456	bb			51.9944	130.0	30.0	270.1
WXX100307-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	3233.970		3233.970	3233.970	bb			460.4448	92.1	-7.9	280.2
WXX100307-08CRI	13-Dinitrobenzene	168 > 138	12.20	370.590	3233.970	370.590	57.296	bb			45.2413	113.1	13.1	55.7
WXX100307-08CRI	Tetryl	241 > 181	12.71	233.243	3233.970	233.243	36.061	bb			35.4394	88.6	-11.4	16.9
WXX100307-08CRI	Nitrobenzene	123 > 46	13.66	212.714	3233.970	212.714	32.887	bb			39.8281	99.6	-0.4	34.2
WXX100307-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	526.406	20891.283	526.406	12.599	MM	08-Mar-10	11:37:02	45.6760	114.2	14.2	80.6
WXX100307-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	807.496	20891.283	807.496	19.326	bb			47.7068	119.3	19.3	44.1
WXX100307-08CRI	246-Trinitrotoluene	227 > 210	15.47	546.124	20891.283	546.124	13.071	bb			39.7758	99.4	-0.6	36.9
WXX100307-08CRI	34-dinitrotoluene	182 > 152	14.41	978.598	20891.283	978.598	23.421	bb			24.2338	121.2	21.2	21.4
WXX100307-08CRI	26-dinitrotoluene	182 > 152	17.63	1915.009	20891.283	1915.009	45.833	MM	08-Mar-10	11:48:27	41.0856	102.7	2.7	52.2
WXX100307-08CRI	24-dinitrotoluene	182 > 152	18.29	421.167	20891.283	421.167	10.080	MM	08-Mar-10	11:58:25	36.5683	91.4	-8.6	11.7
WXX100307-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	20891.283		20891.283	20891.283	bb			508.0421	101.6	1.6	2052.4
WXX100307-08CRI	2-Nitrotoluene	137 > 46	21.13	233.836	20891.283	233.836	5.596	bb			36.1300	90.3	-9.7	40.9
WXX100307-08CRI	4-Nitrotoluene	137 > 46	22.52	126.094	20891.283	126.094	3.018	bb			39.5661	98.9	-1.1	19.5
WXX100307-08CRI	3-Nitrotoluene	137 > 46	24.18	156.153	20891.283	156.153	3.737	bb			39.6089	99.0	-1.0	25.3
WXX100307-08CRI	PETN	361 > 62	24.50	5724.876	20891.283	5724.876	137.016	bb			44.8559	112.1	12.1	1619.9

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/08/10
Time of Injection	1044
Standard Number	WXX100307-08CRI
Data File	EXP0304187a

HMX	98.4
RDX	109.1
135-TNB	130.0
13-DNB	113.1
Tetryl	88.6
Nitrobenzene	99.6
4A-26-DNT	114.2
2A-46-DNT	119.3
246-TNT	99.4
34-DNT(surr)	121.2
26-DNT	102.7
24-DNT	91.4
2-NT	90.3
4-NT	98.9
3-NT	99.0
PETN	112.1
Total	1687.3
Average	105.5

MTT 3/8/10

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260013.wiff

Analysis Date: 26-FEB-10 18:02

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	46.1	92	
3,5-Dinitroaniline	100	94.6	95	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	103	103	
2,4-Diamino-6-nitrotoluene	100	110	110	
2,6-Diamino-4-nitrotoluene	100	104	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lur 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.08 min
Area: 1.08e+005 counts
Height: 28029.306 cps
Start Time: 6.99 min
End Time: 7.63 min

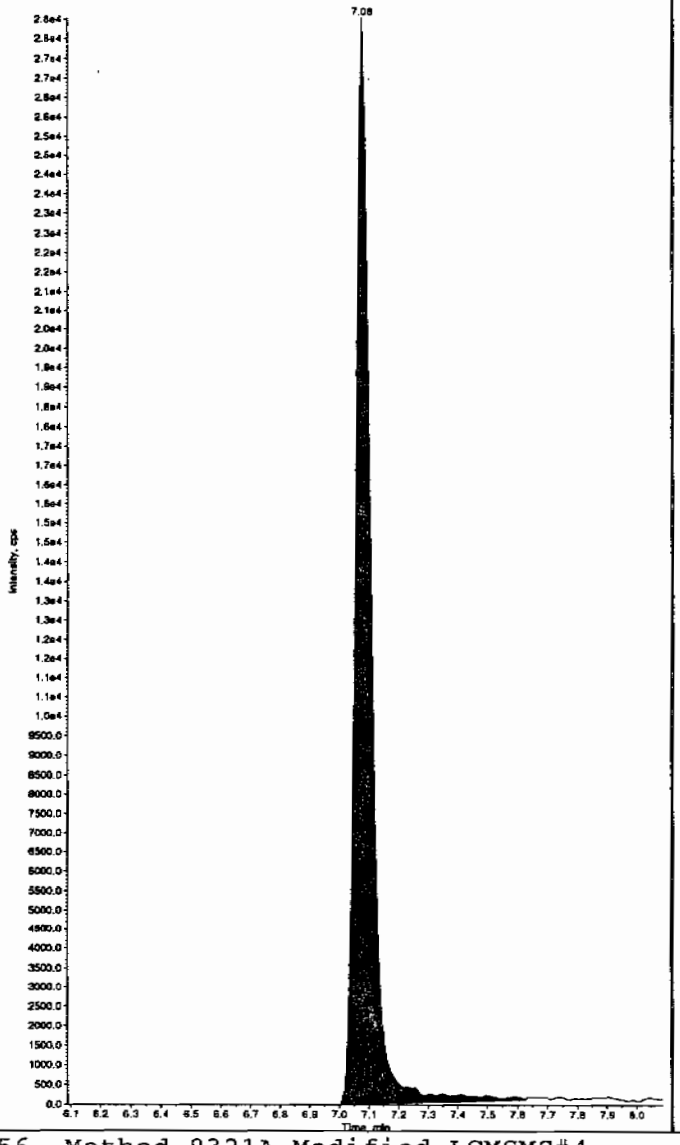

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.6 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.32 min
Area: 9.52e+005 counts
Height: 246685.013 cps
Start Time: 8.22 min
End Time: 8.42 min

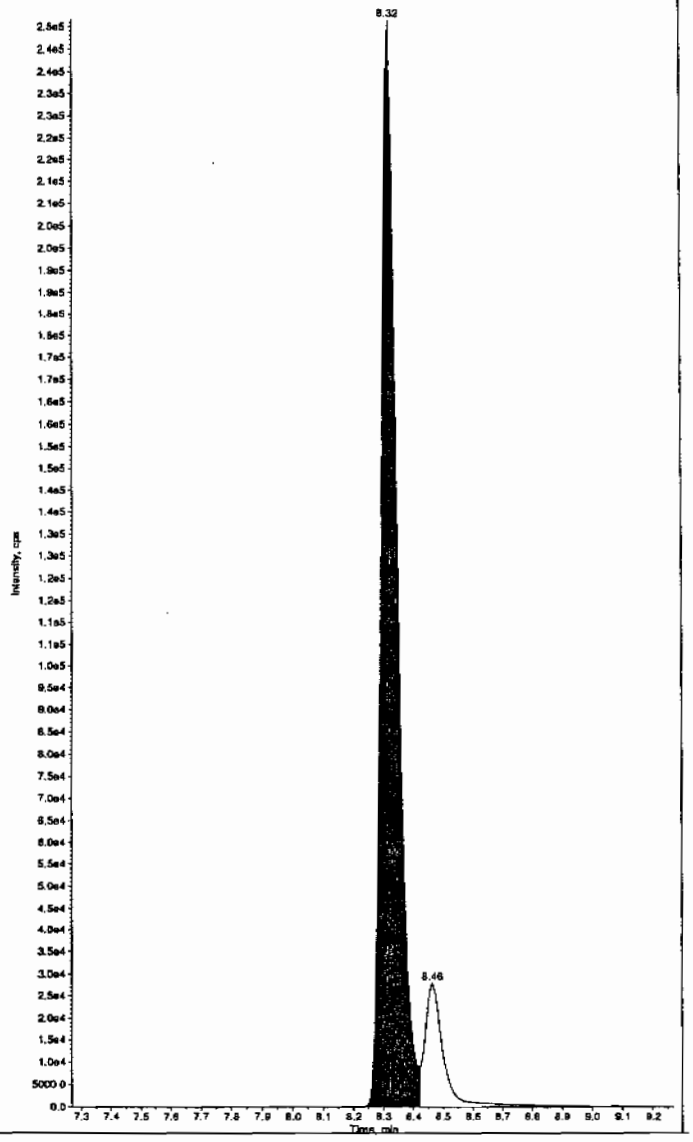

Hnm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 46.1 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 6.66e+005 counts
Height: 181473.358 cps
Start Time: 8.39 min
End Time: 8.79 min

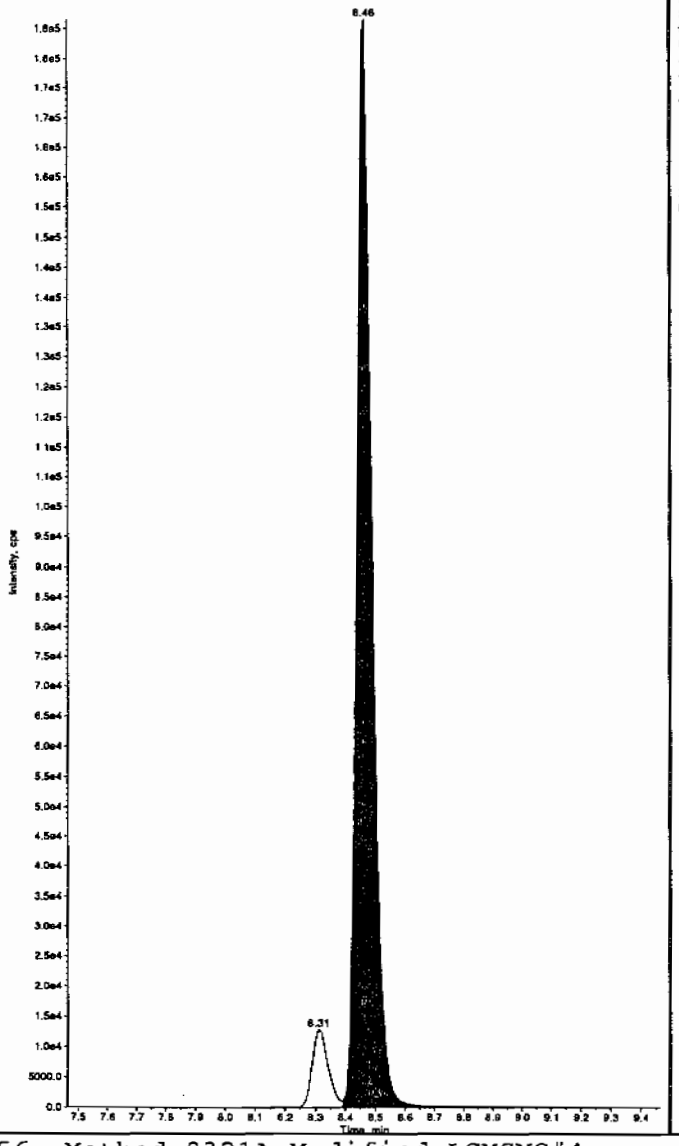

Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.11 min
Area: 2.28e+005 counts
Height: 53935.883 cps
Start Time: 5.01 min
End Time: 5.35 min

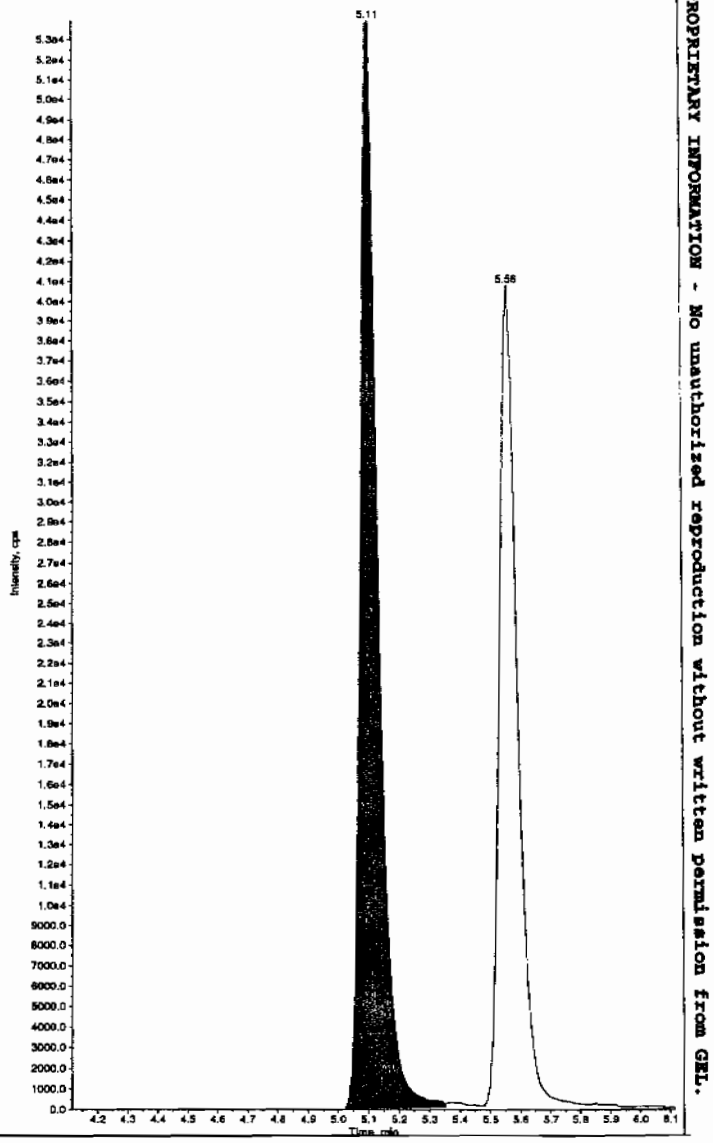

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.56 min
Area: 1.68e+005 counts
Height: 40613.808 cps
Start Time: 5.48 min
End Time: 5.80 min

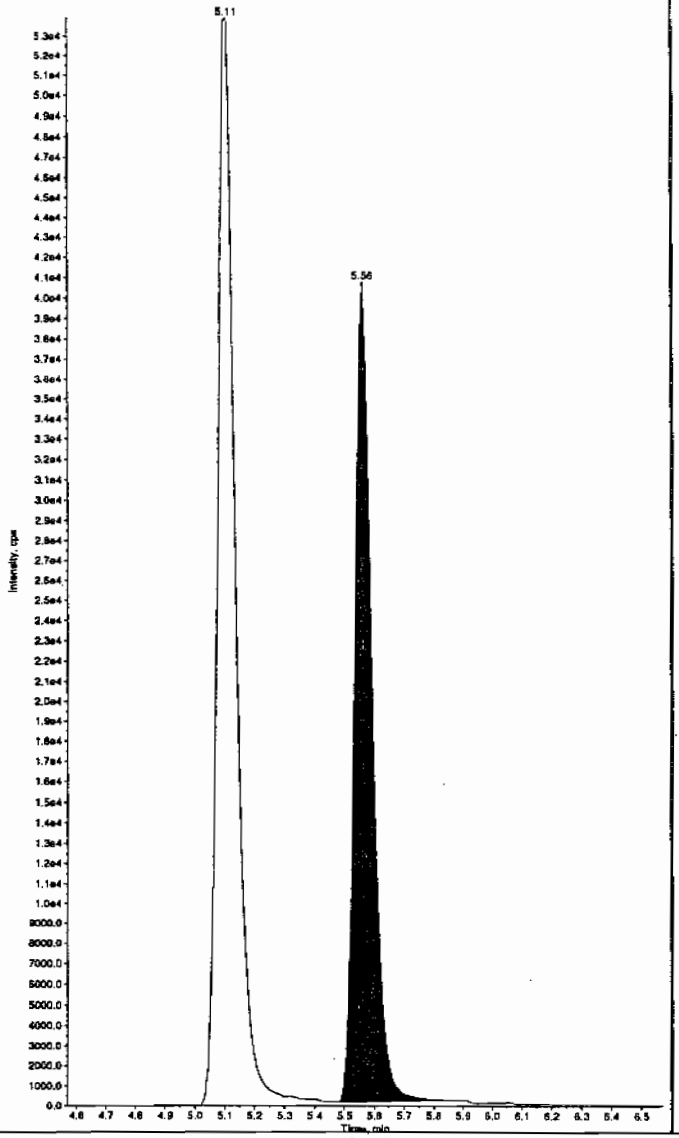

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.76e+006 counts
Height: 481600.250 cps
Start Time: 10.8 min
End Time: 11.2 min

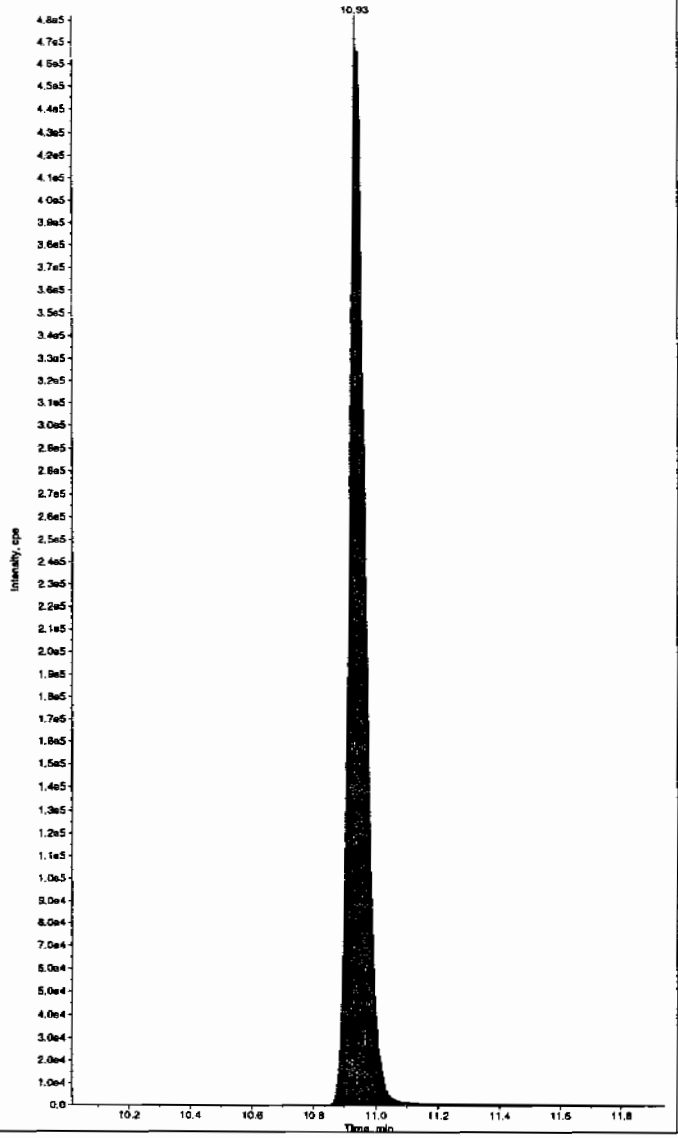

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260024.wiff

Analysis Date: 26–FEB–10 20:55

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	536	107	
2,6–Diamino–4–nitrotoluene	500	541	108	
3,4–Dinitrotoluene	250	219	88	
3,5–Dinitroaniline	500	464	93	
TATB	500	493	99	
tris(o–cresyl) phosphate	500	498	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.09 min
Area: 5.82e+005 counts
Height: 146054.626 cps
Start Time: 6.99 min
End Time: 7.71 min

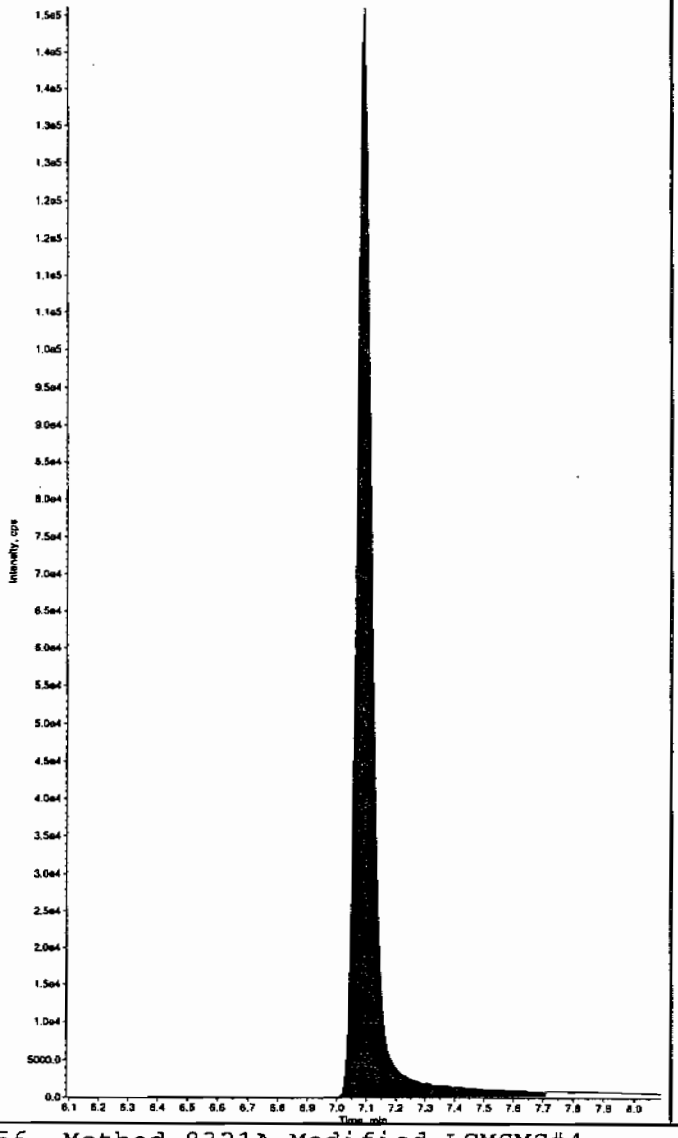

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 439. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.32 min
Area: 4.06e+006 counts
Height: 1111148.438 cps
Start Time: 8.26 min
End Time: 8.42 min

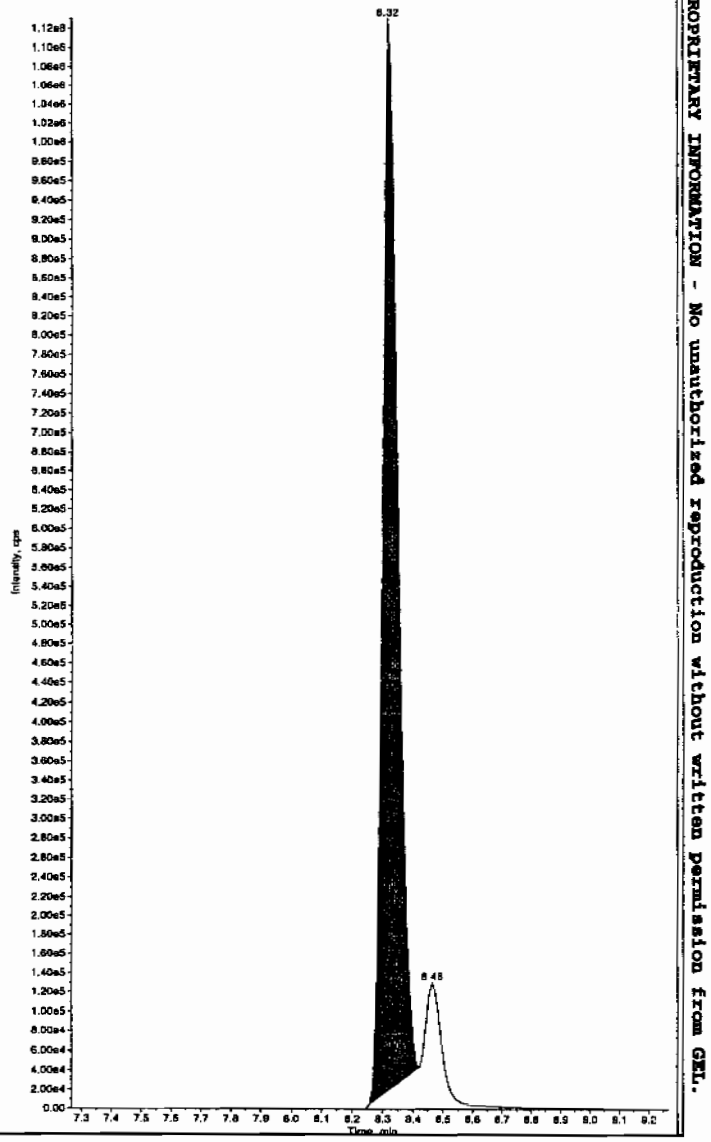

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after [illegible] 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Avg. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.09 min
Area: 5.82e+005 counts
Height: 146054.626 cps
Start Time: 6.99 min
End Time: 7.71 min

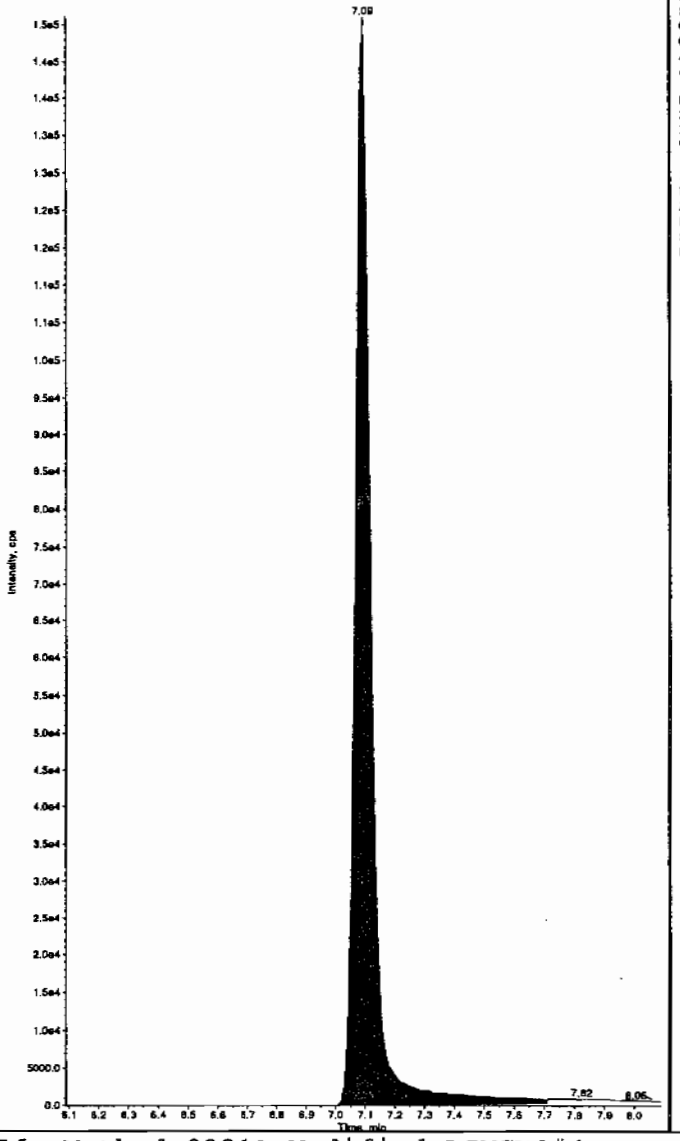

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "3S-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 464. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.32 min
Area: 4.27e+006 counts
Height: 1136132.036 cps
Start Time: 8.26 min
End Time: 8.42 min

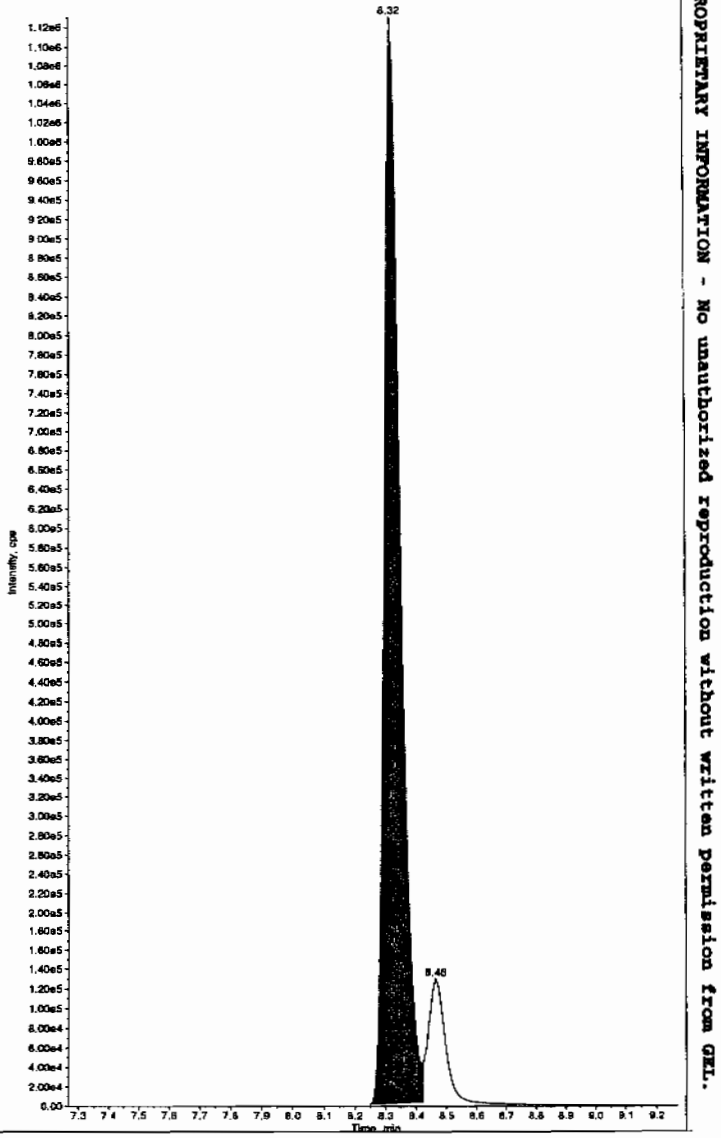

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 219. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.04e+006 counts
Height: 837212.036 cps
Start Time: 8.39 min
End Time: 8.82 min

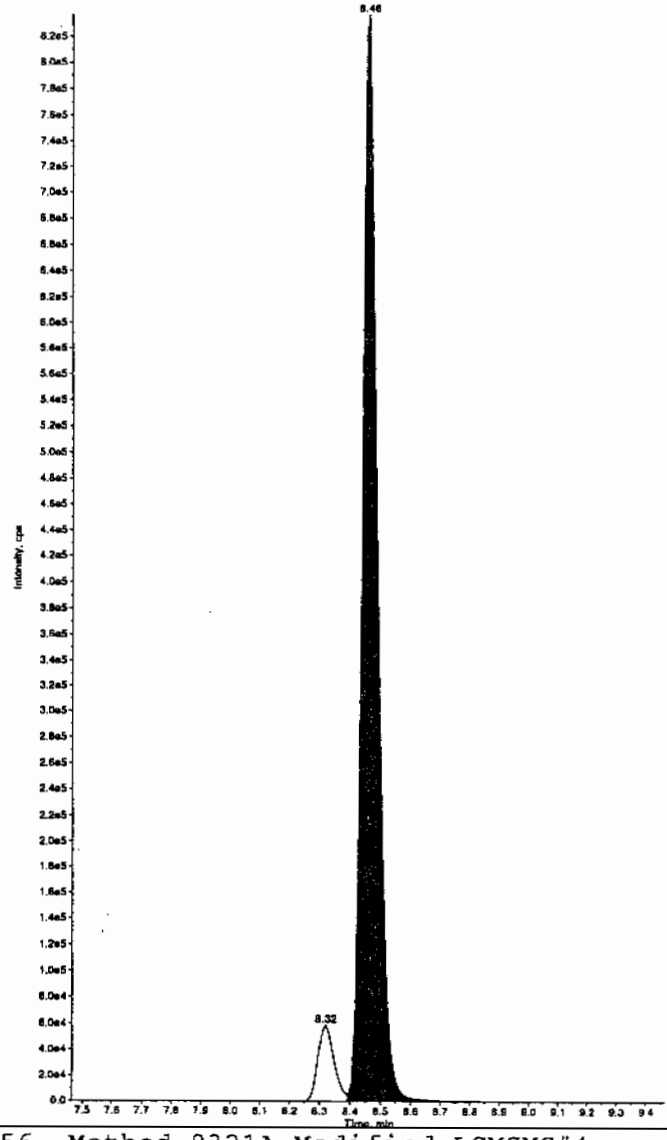

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 541. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.11 min
Area: 1.19e+006 counts
Height: 280100.037 cps
Start Time: 5.01 min
End Time: 5.41 min

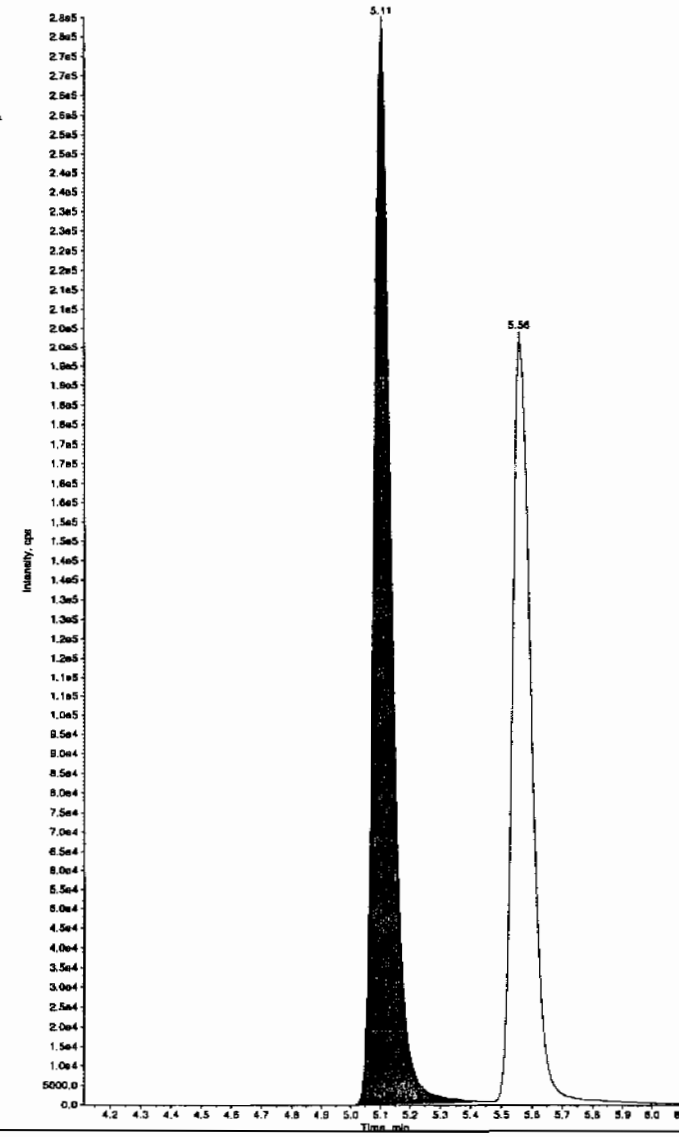

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 536. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.56 min
Area: 8.57e+005 counts
Height: 199263.412 cps
Start Time: 5.48 min
End Time: 6.09 min

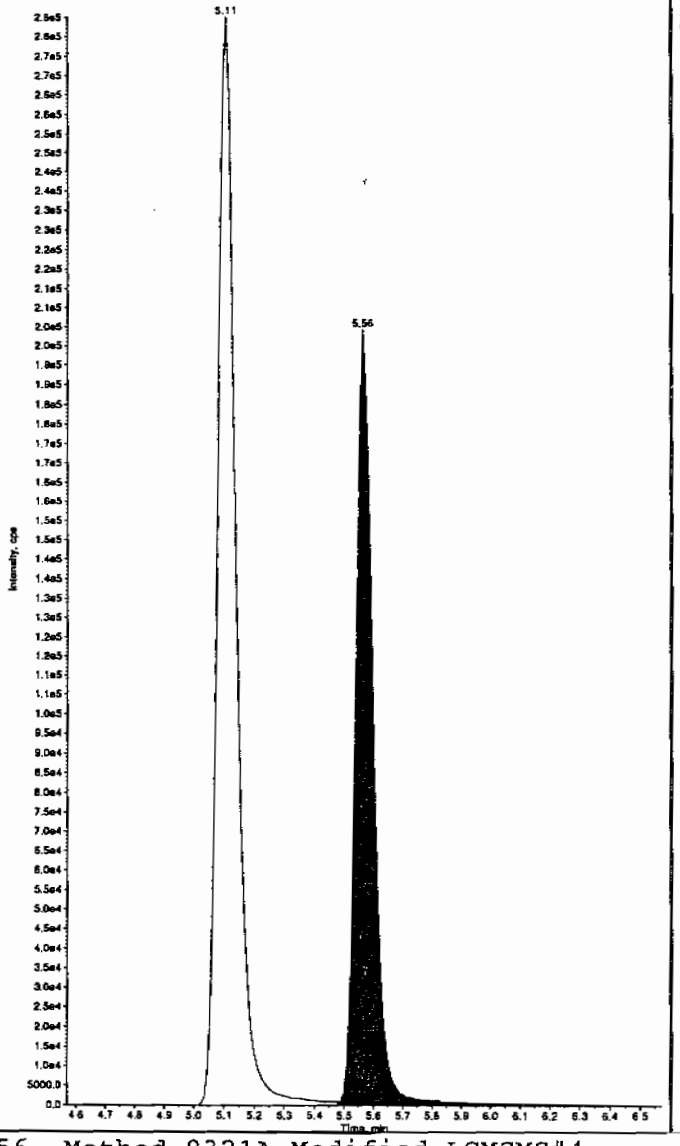

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.70e+006 counts
Height: 2130550.781 cps
Start Time: 10.8 min
End Time: 11.2 min

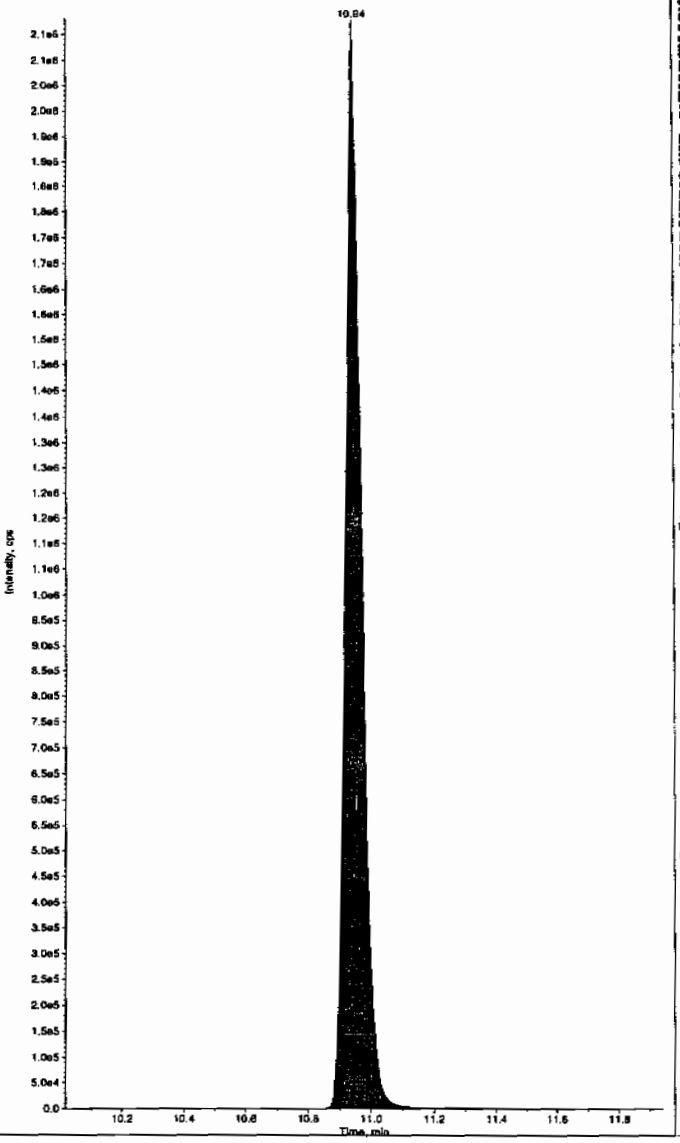

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02260026.wiff

Analysis Date: 26-FEB-10 21:26

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	104	104	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	43.5	87	
3,5-Dinitroaniline	100	91.3	91	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Ken 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.11 min
Area: 1.08e+005 counts
Height: 28018.894 cps
Start Time: 7.03 min
End Time: 7.49 min

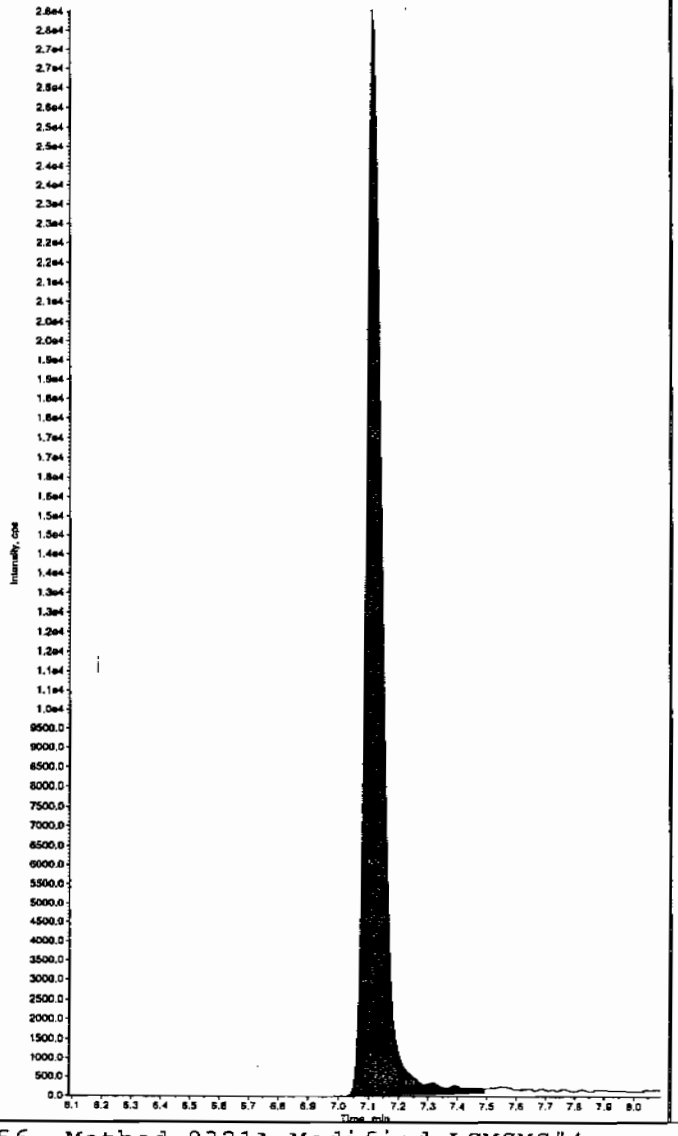

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 85.6 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 8.66e+005 counts
Height: 243722.839 cps
Start Time: 8.28 min
End Time: 8.43 min

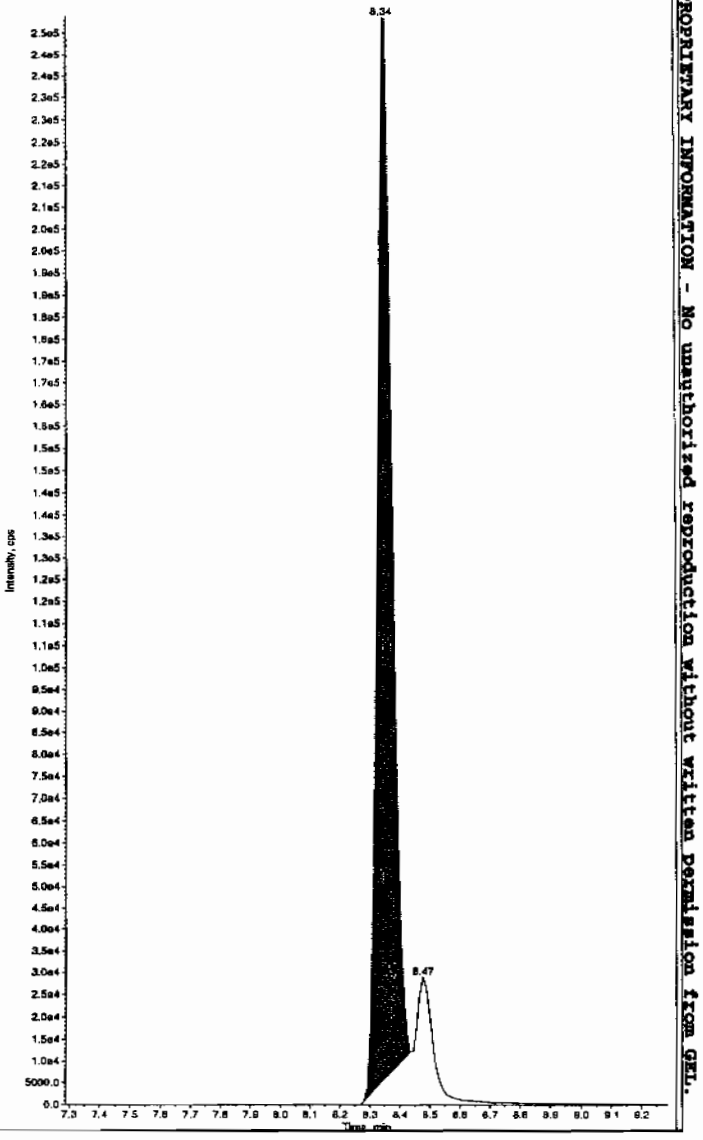

Hm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Ran 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.11 min
Area: 1.08e+005 counts
Height: 28018.894 cps
Start Time: 7.03 min
End Time: 7.49 min

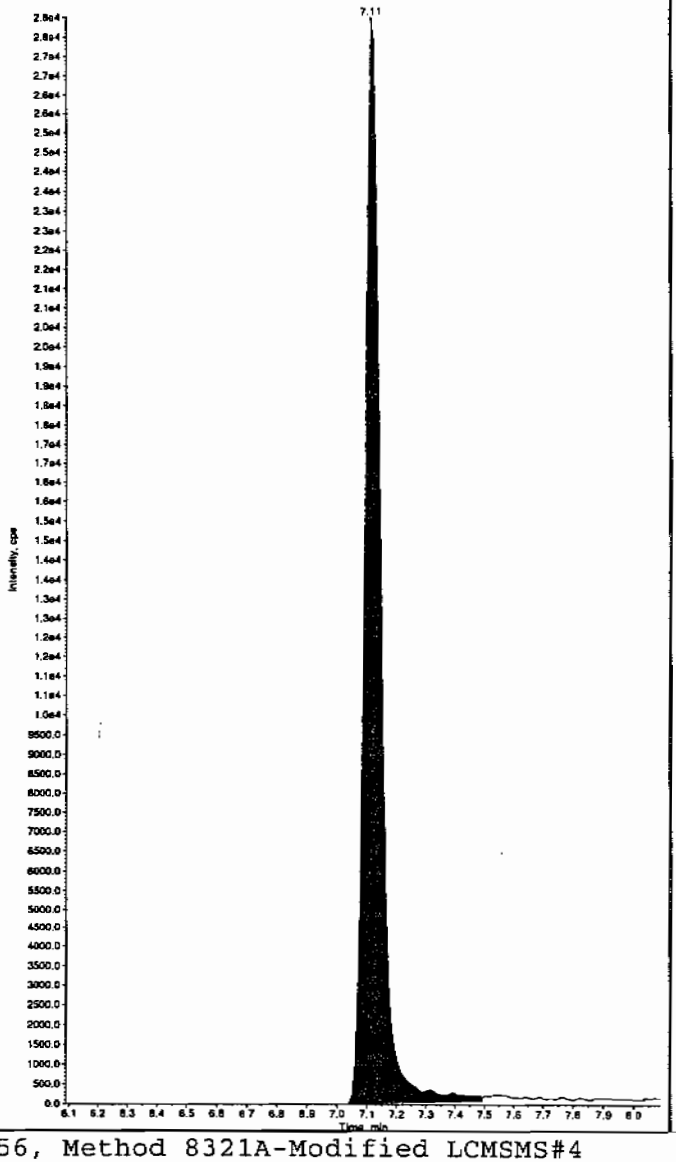

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.3 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.35 min
Area: 9.21e+005 counts
Height: 255293.764 cps
Start Time: 8.28 min
End Time: 8.43 min

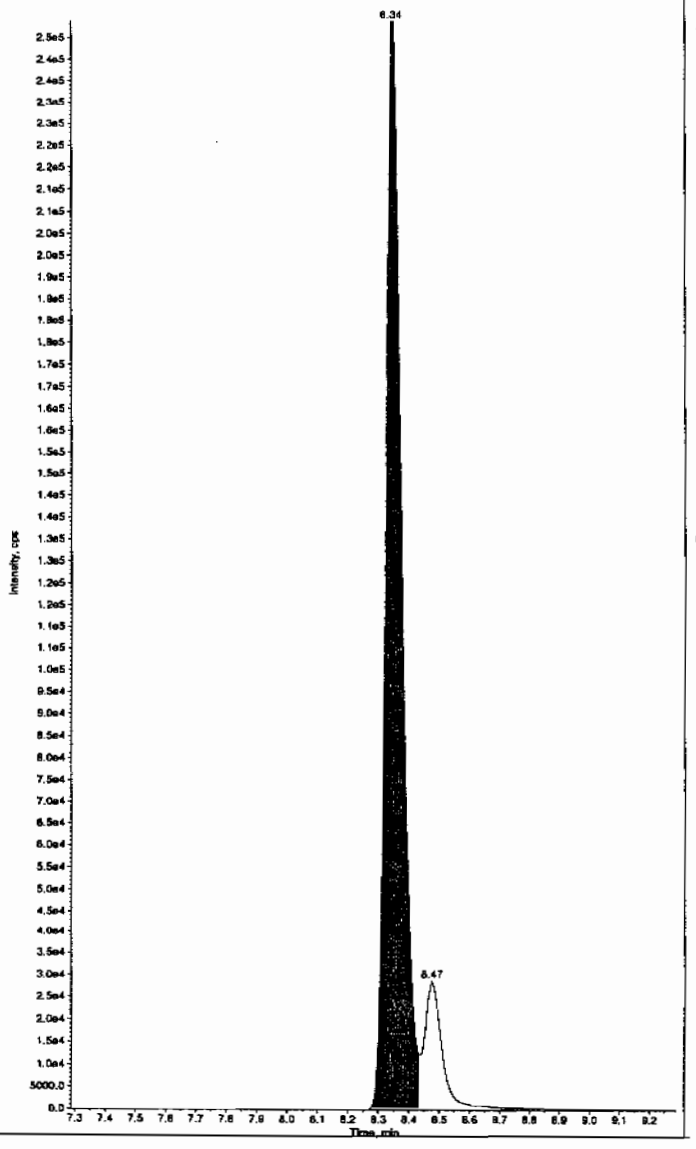

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 43.5 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 6.30e+005 counts
Height: 179327.957 cps
Start Time: 8.40 min
End Time: 8.81 min

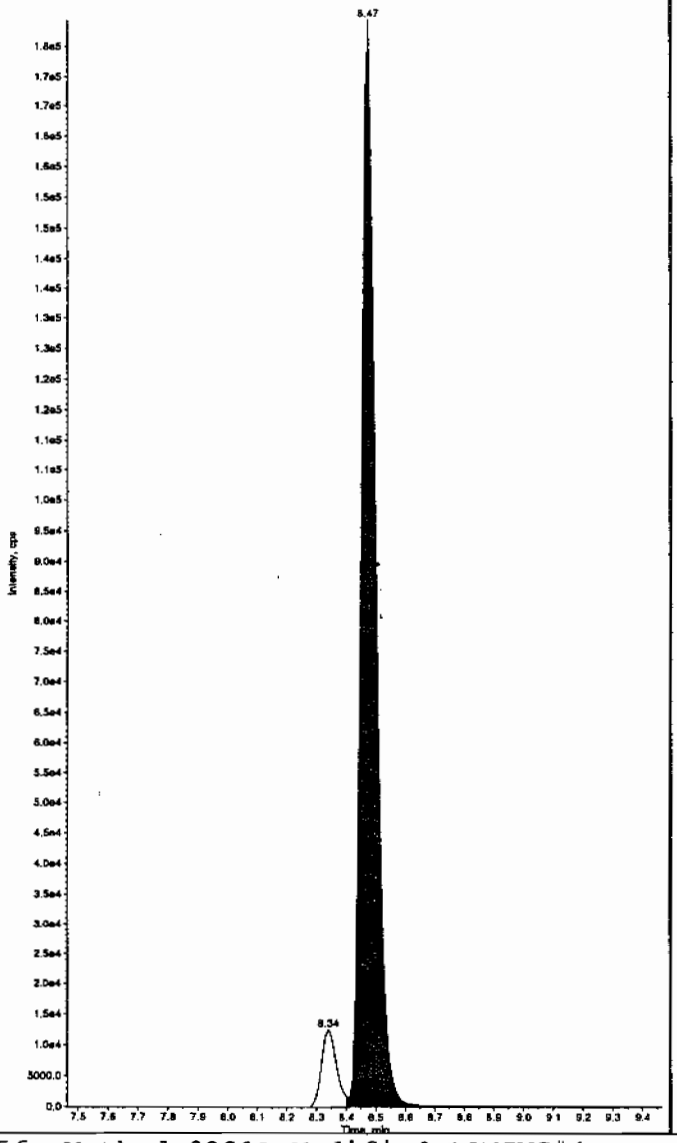

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 2.38e+005 counts
Height: 56011.360 cps
Start Time: 5.00 min
End Time: 5.38 min

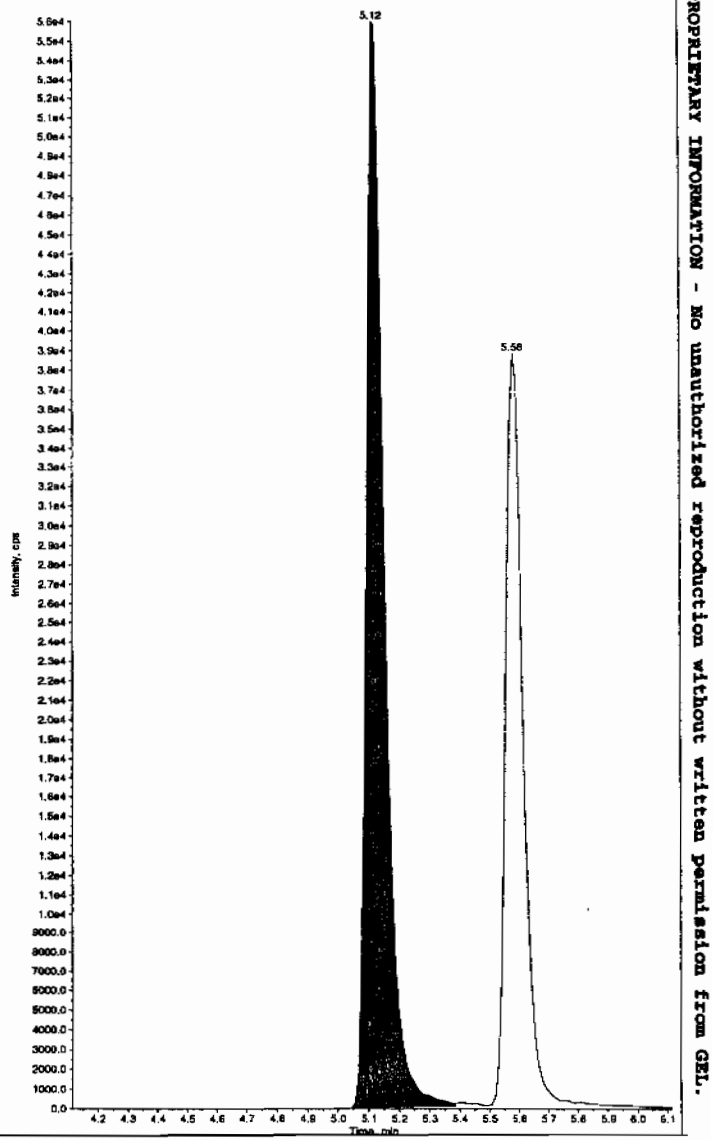

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.58 min
Area: 1.58e+005 counts
Height: 38749.264 cps
Start Time: 5.50 min
End Time: 5.89 min

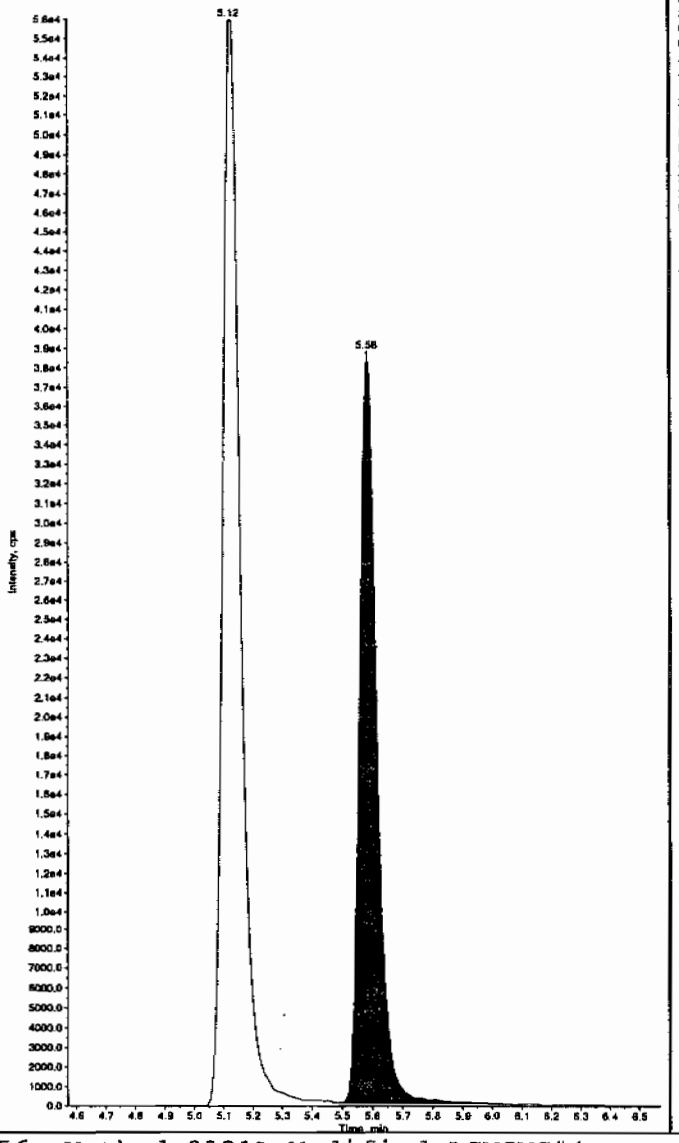

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.77e+006 counts
Height: 501760.681 cps
Start Time: 10.9 min
End Time: 11.3 min

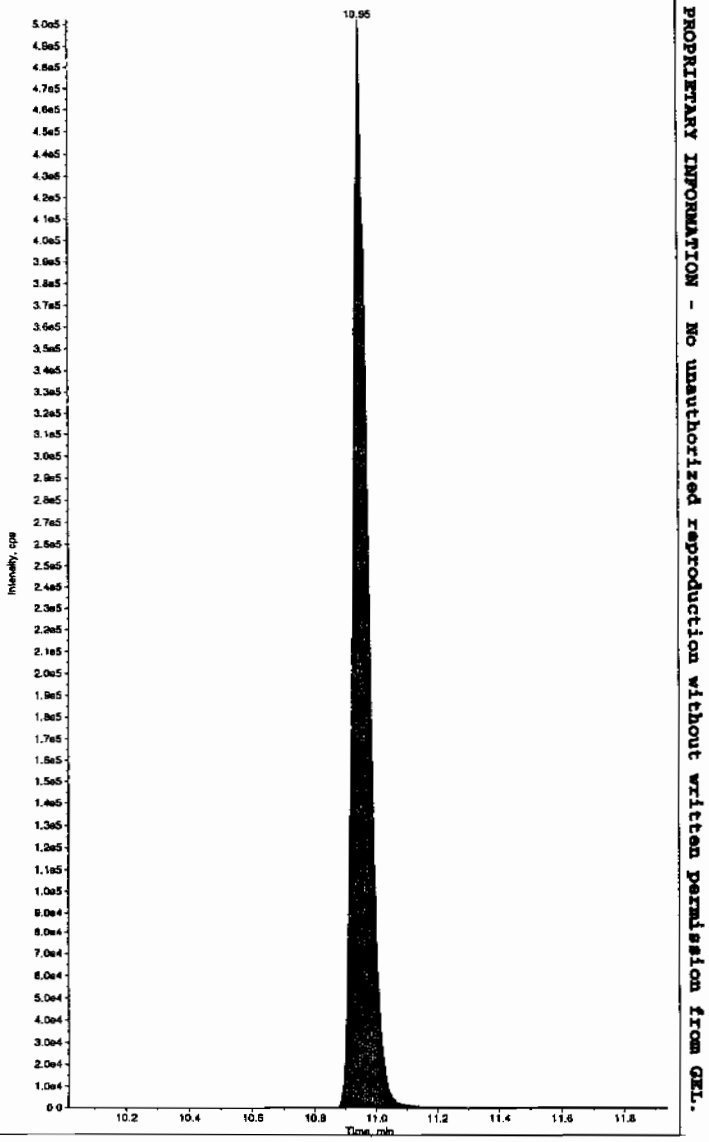

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260037.wiff

Analysis Date: 27-FEB-10 00:19

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	482	96	
2,6-Diamino-4-nitrotoluene	500	477	96	
3,4-Dinitrotoluene	250	222	89	
3,5-Dinitroaniline	500	469	94	
TATB	500	487	97	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcn 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:19:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.09 min
Area: 5.75e+005 counts
Height: 143670.853 cps
Start Time: 7.00 min
End Time: 7.76 min

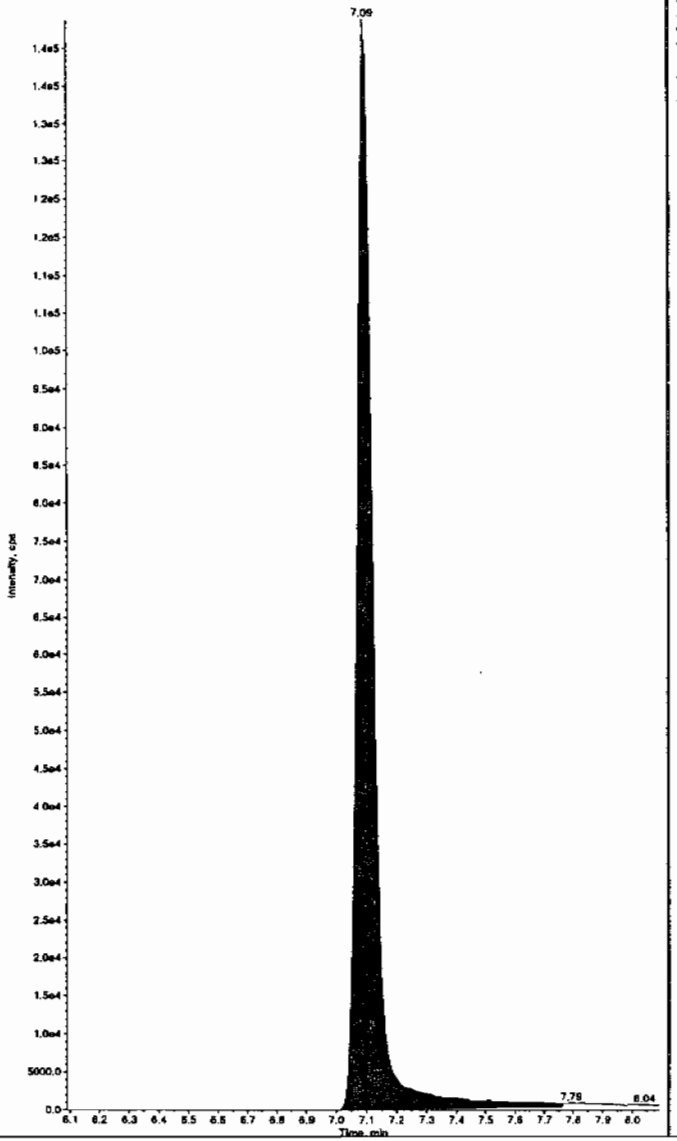

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 469. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:19:36 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.31e+006 counts
Height: 1119113.281 cps
Start Time: 8.24 min
End Time: 8.42 min

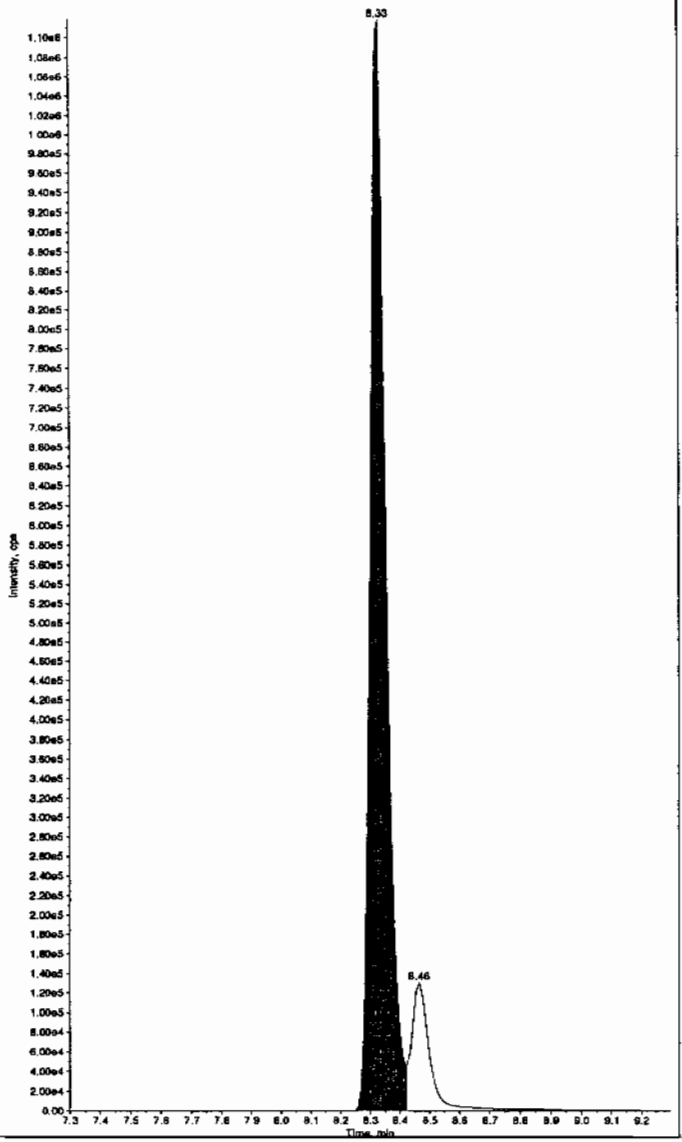

Hnm 03/01/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02260037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 222. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:19:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.08e+006 counts
Height: 850868.896 cps
Start Time: 8.39 min
End Time: 8.79 min

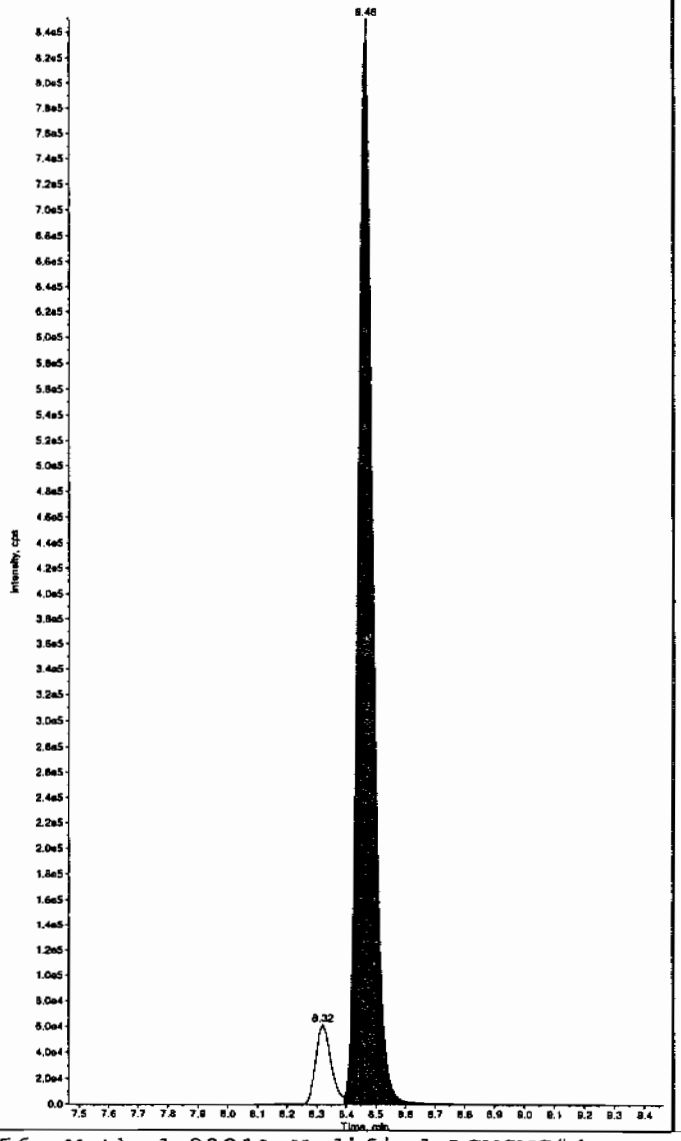

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02260037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 477. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:19:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.11 min
Area: 1.05e+006 counts
Height: 251884.293 cps
Start Time: 5.01 min
End Time: 5.42 min

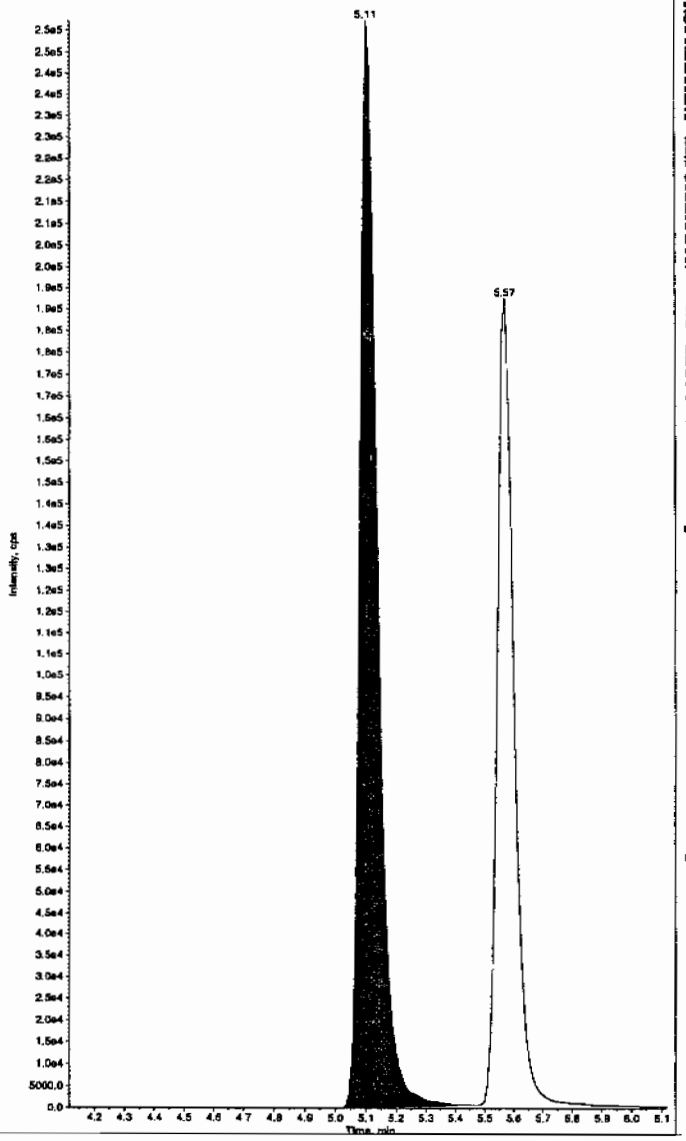

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 482. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:19:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.57 min
Area: 7.69e+005 counts
Height: 187302.551 cps
Start Time: 5.47 min
End Time: 6.07 min

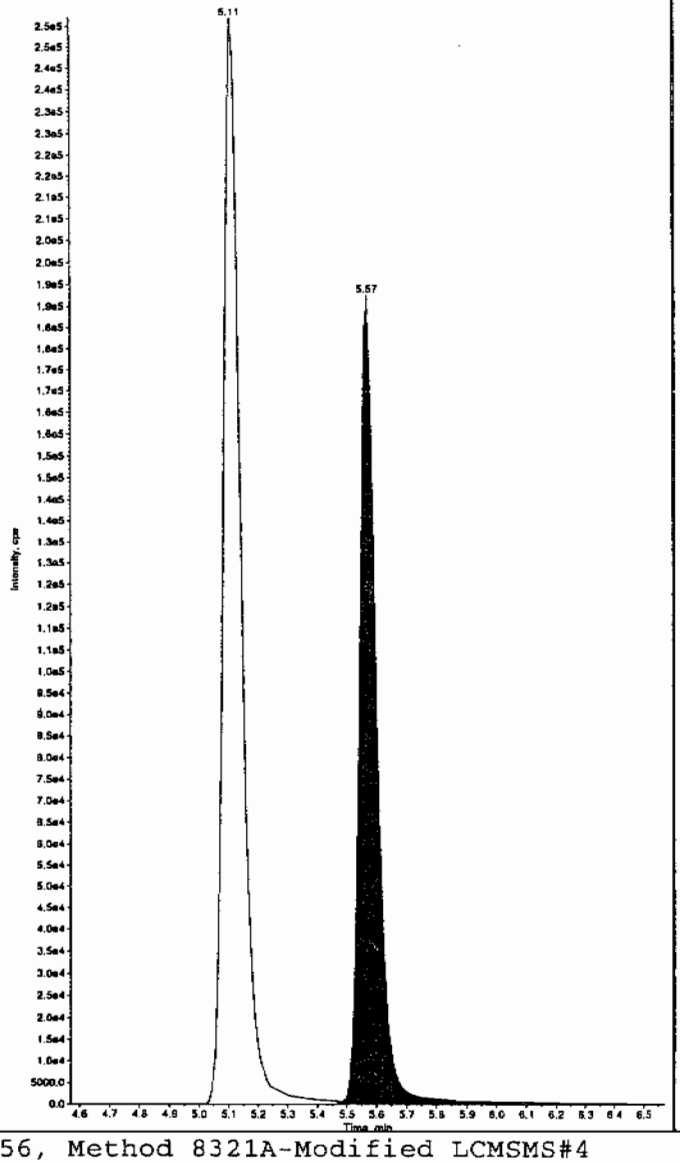

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:19:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 7.60e+006 counts
Height: 2133710.449 cps
Start Time: 10.8 min
End Time: 11.3 min

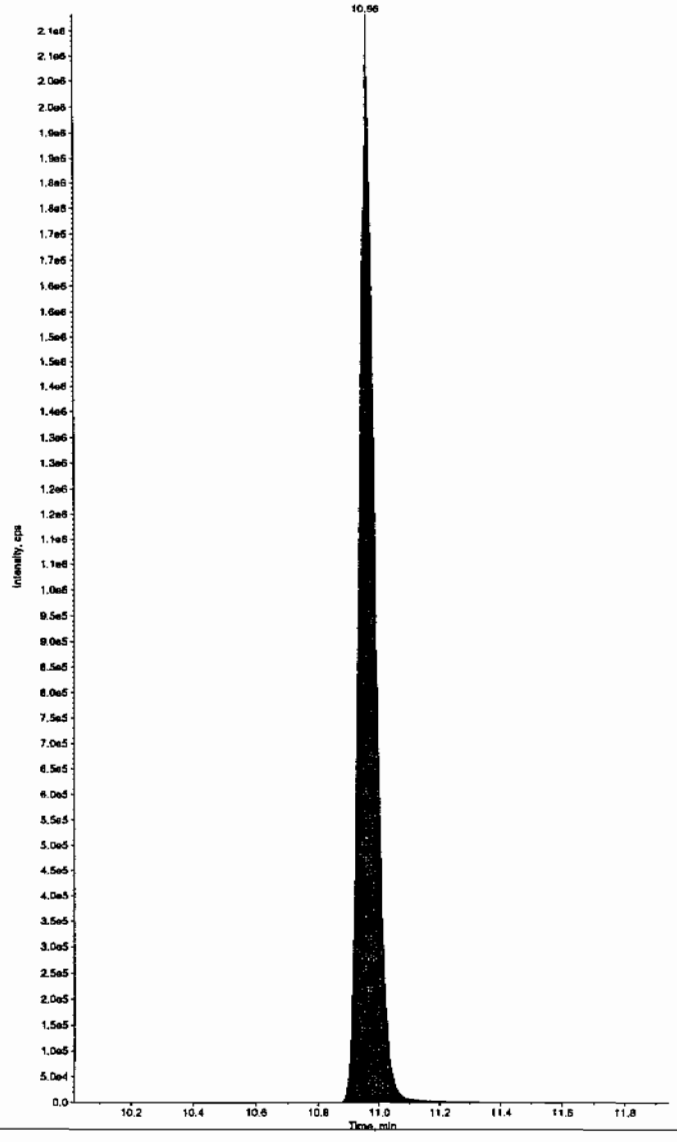

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260039.wiff

Analysis Date: 27-FEB-10 00:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	102	102	
3,4--Dinitrotoluene	50	43.9	88	
3,5-Dinitroaniline	100	91.6	92	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:51:00 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.10 min
Area: 1.11e+005 counts
Height: 28614.511 cps
Start Time: 7.00 min
End Time: 7.58 min

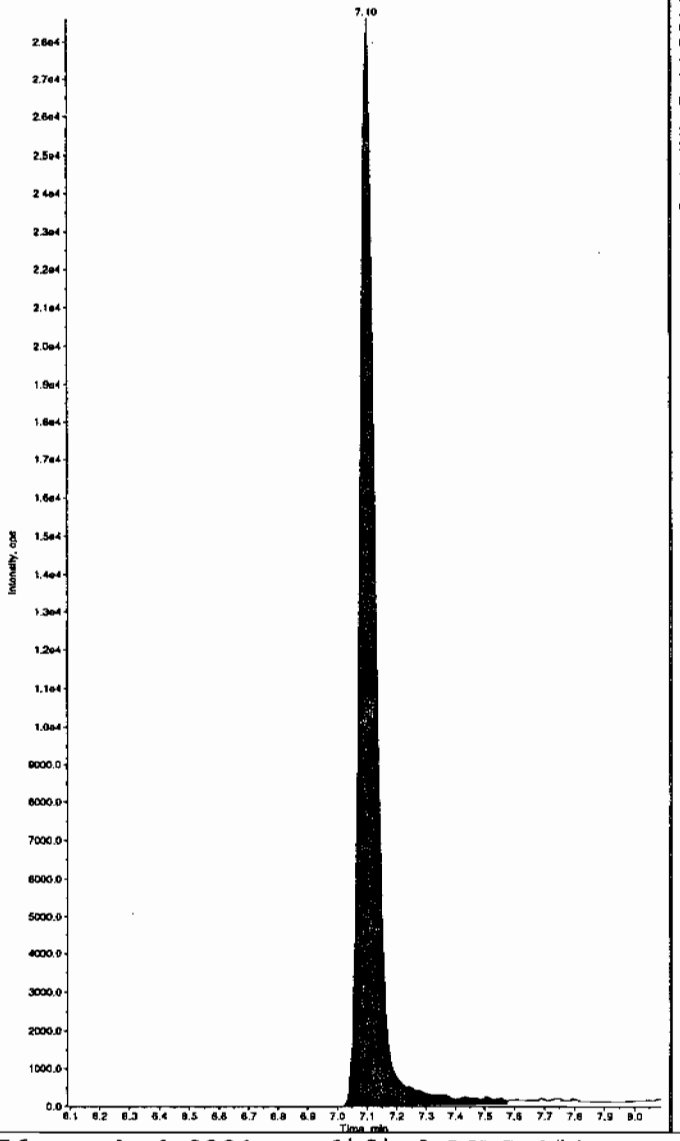

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.6 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:51:00 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 9.23e+005 counts
Height: 251086.685 cps
Start Time: 8.24 min
End Time: 8.42 min

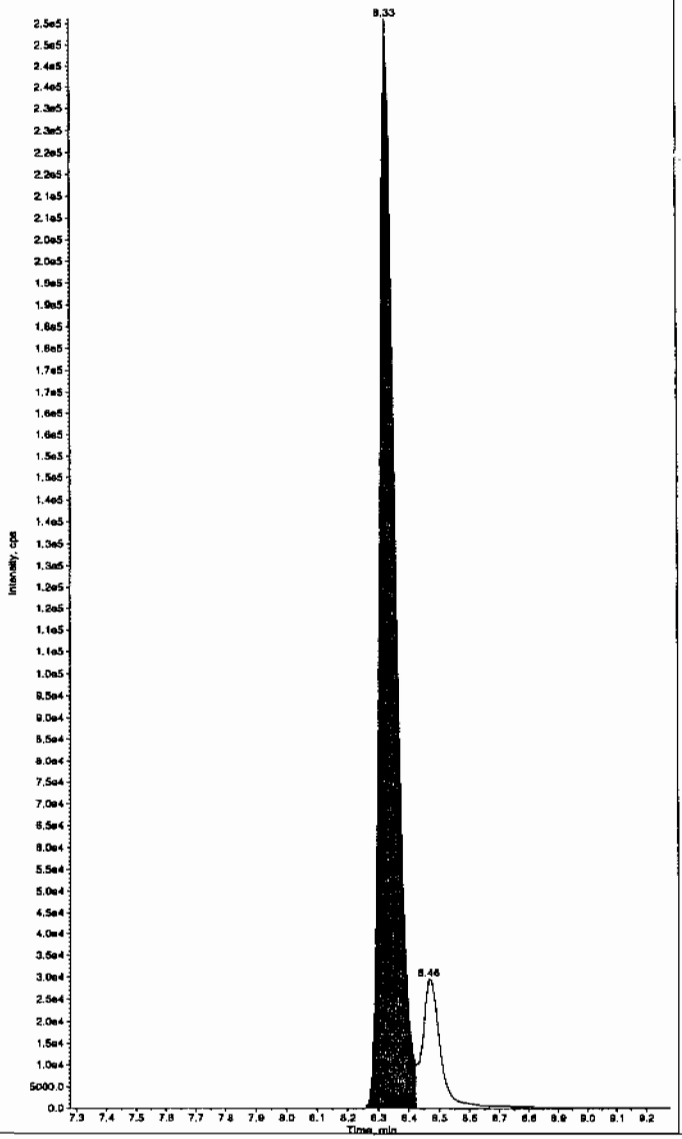

Hnm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-27CRi" Sample ID: "|1|LER" File: "EXS02260039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 43.9 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:51:00 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 6.35e+005 counts
Height: 189587.891 cps
Start Time: 8.40 min
End Time: 8.76 min

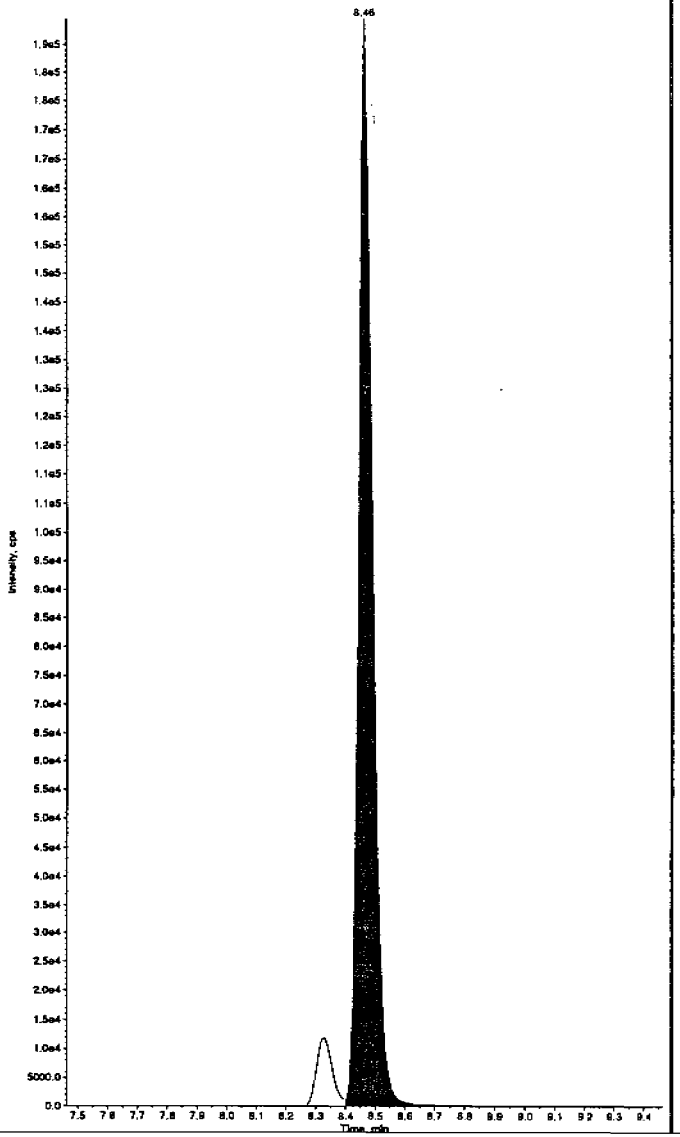

Sample Name: "WXX100226-27CRi" Sample ID: "|1|LER" File: "EXS02260039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:51:00 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 2.21e+005 counts
Height: 53184.658 cps
Start Time: 4.97 min
End Time: 5.42 min

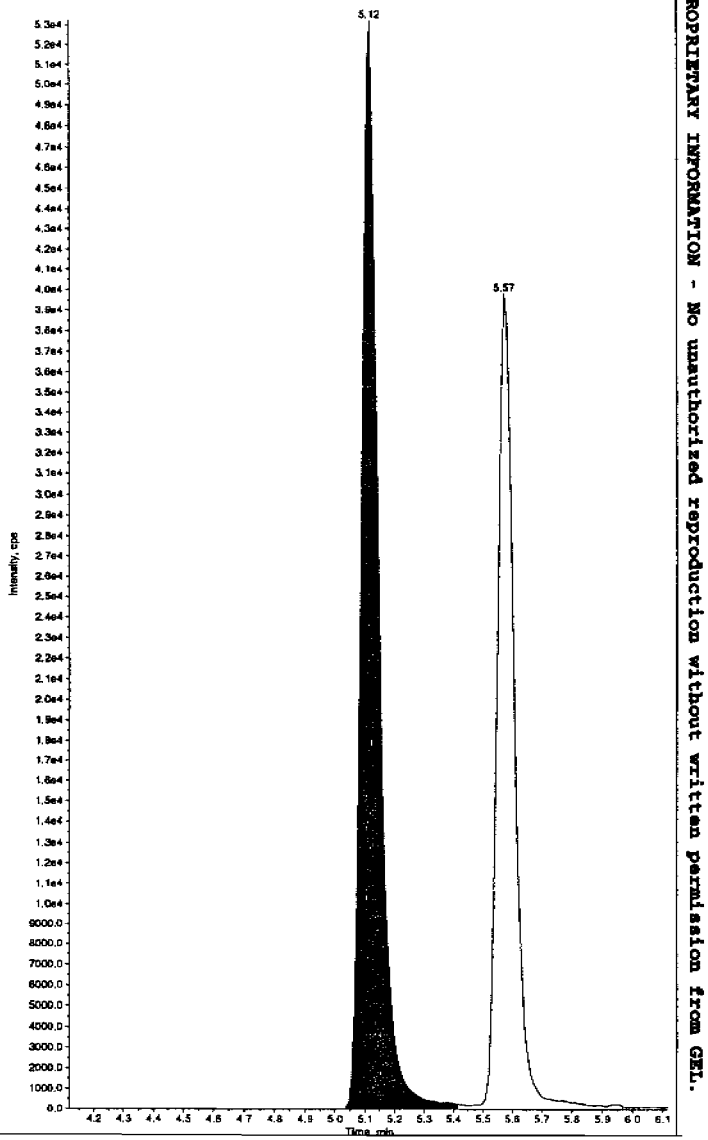

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:51:00 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.57 min
Area: 1.57e+005 counts
Height: 39630.726 cps
Start Time: 5.46 min
End Time: 5.87 min

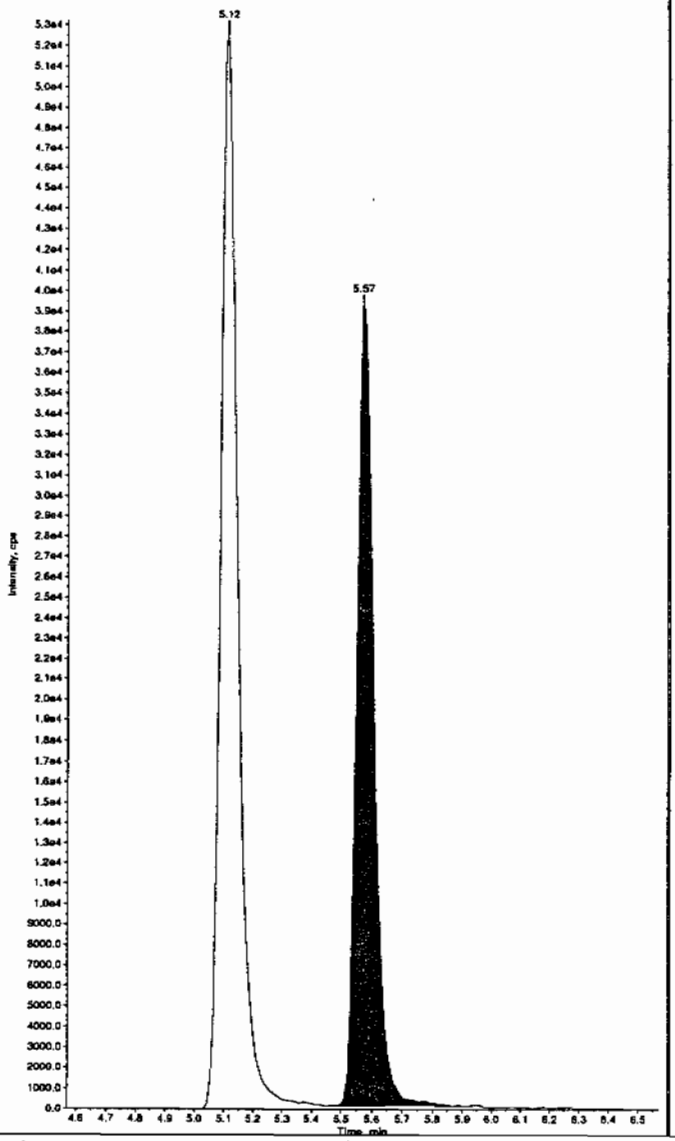

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:51:00 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.75e+006 counts
Height: 488172.638 cps
Start Time: 10.8 min
End Time: 11.3 min

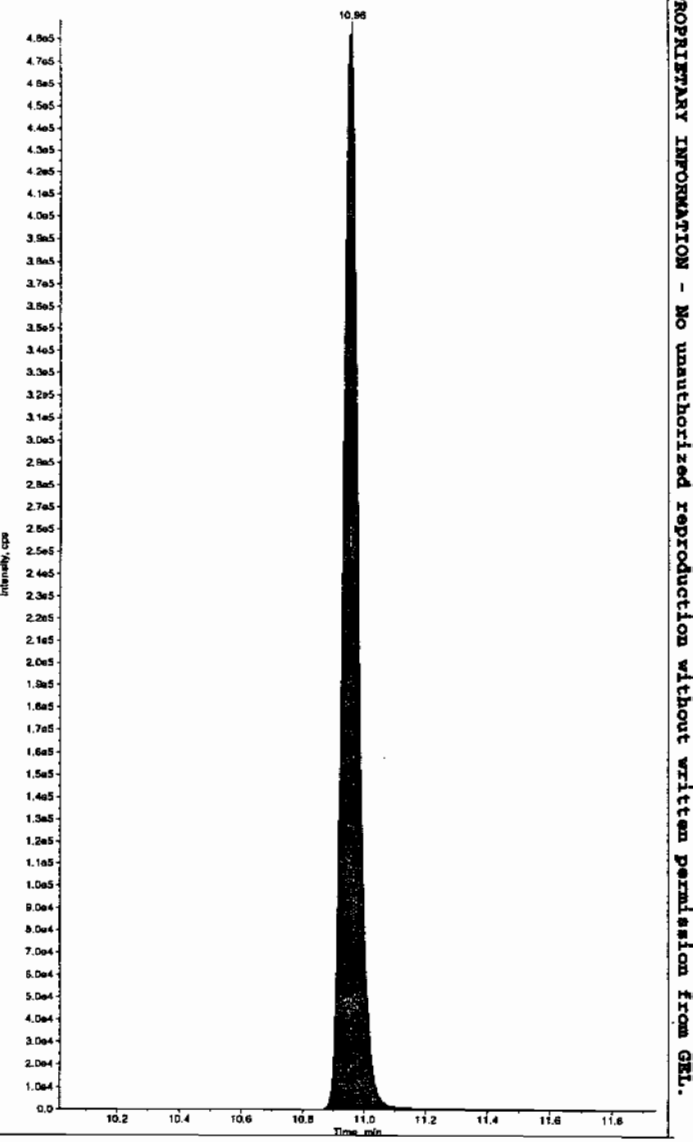

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260050.wiff

Analysis Date: 27-FEB-10 03:43

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	556	111	
2,6-Diamino-4-nitrotoluene	500	574	115	
3,4-Dinitrotoluene	250	226	91	
3,5-Dinitroaniline	500	482	96	
TATB	500	521	104	
tris(o-cresyl) phosphate	500	513	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 3/1/10

Sample Name: "WXX100226-25CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 521. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:43:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.11 min
Area: 6.17e+005 counts
Height: 155759.445 cps
Start Time: 7.02 min
End Time: 7.77 min

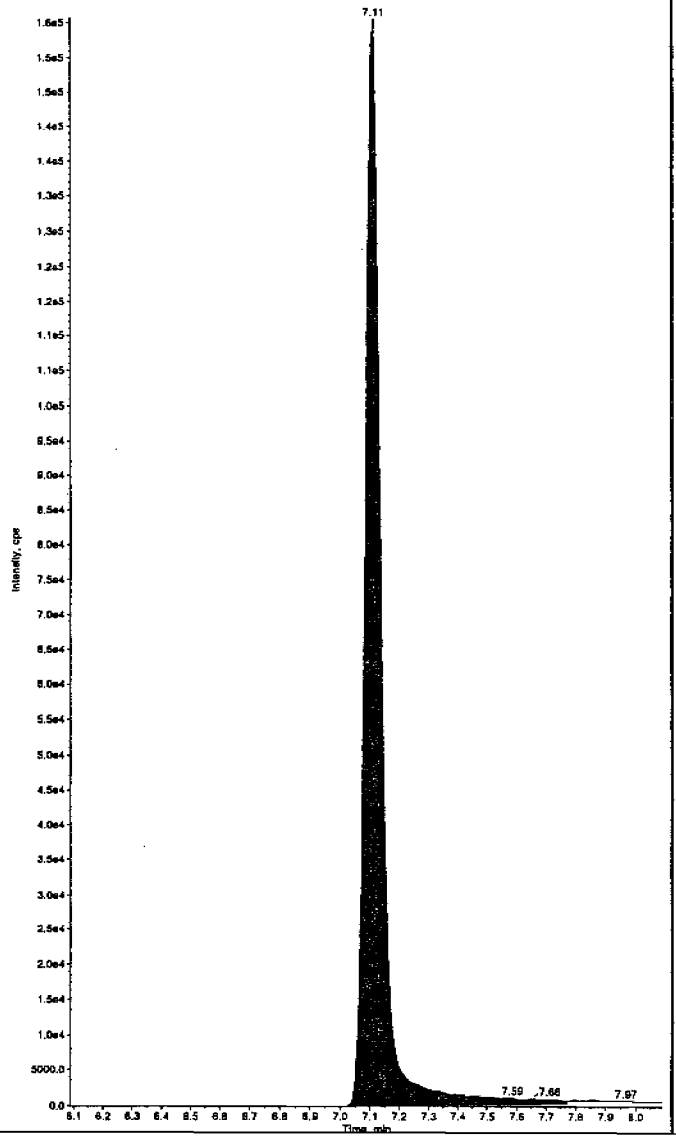

Sample Name: "WXX100226-25CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 482. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:43:44 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 4.42e+006 counts
Height: 1165491.943 cps
Start Time: 8.25 min
End Time: 8.43 min

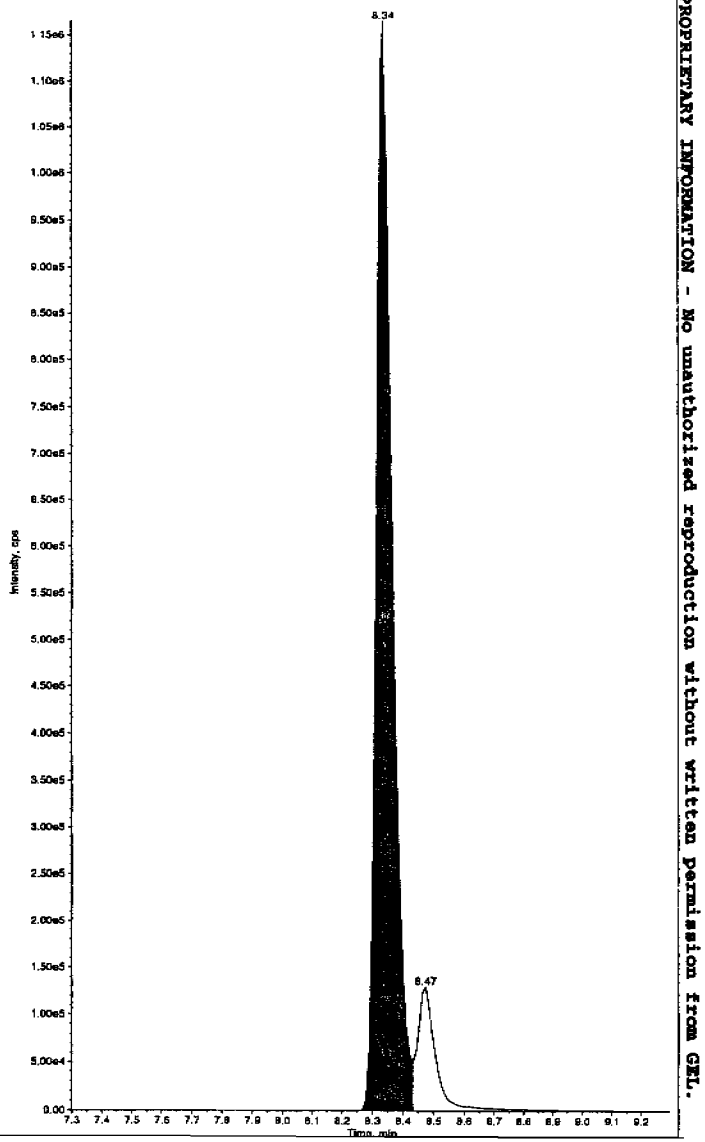

Hnm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 226. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:43:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.13e+006 counts
Height: 884715.454 cps
Start Time: 8.40 min
End Time: 8.79 min

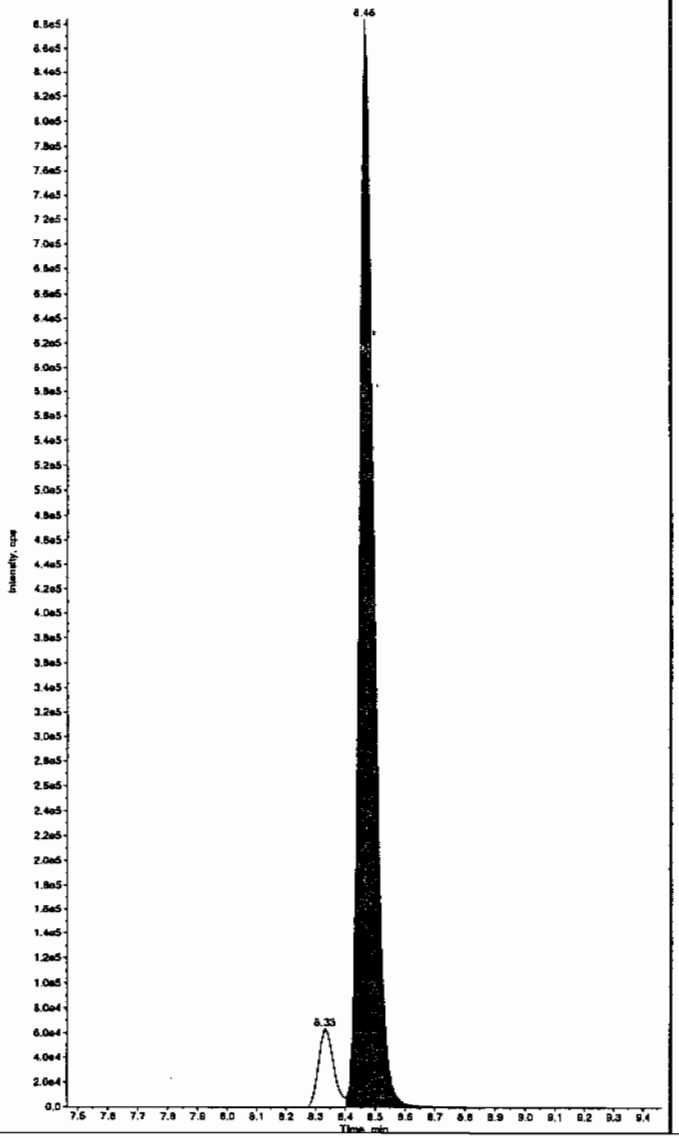

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 574. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:43:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.26e+006 counts
Height: 290760.040 cps
Start Time: 5.02 min
End Time: 5.43 min

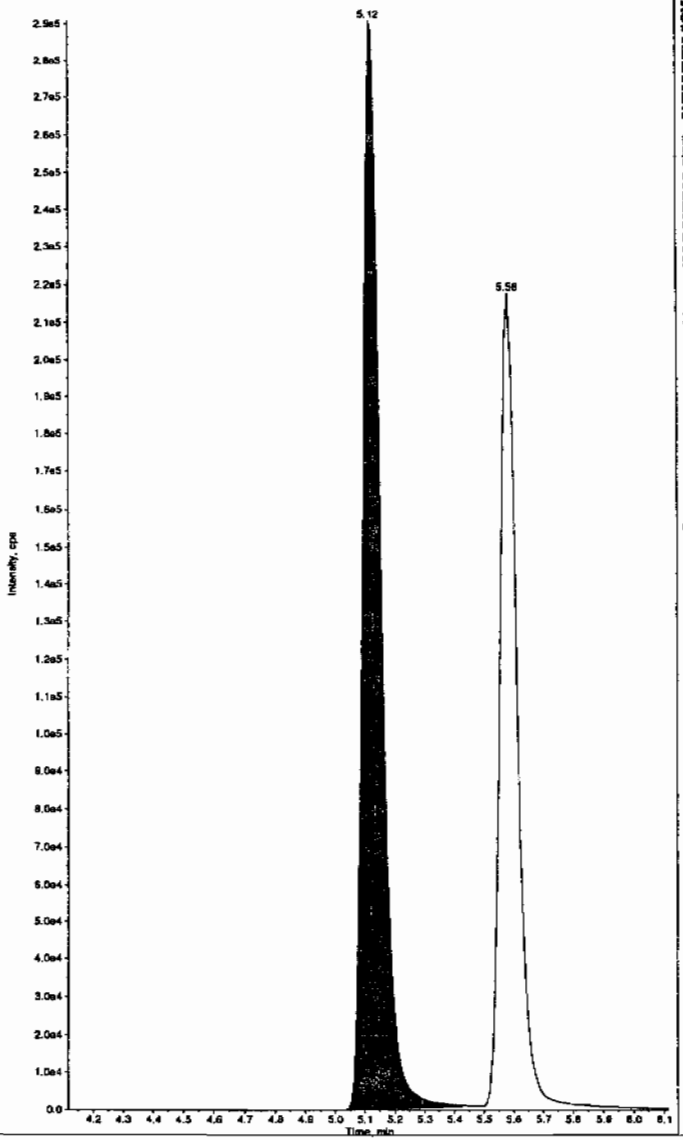

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 556. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:43:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.58 min
Area: 8.90e+005 counts
Height: 217654.068 cps
Start Time: 5.49 min
End Time: 6.08 min

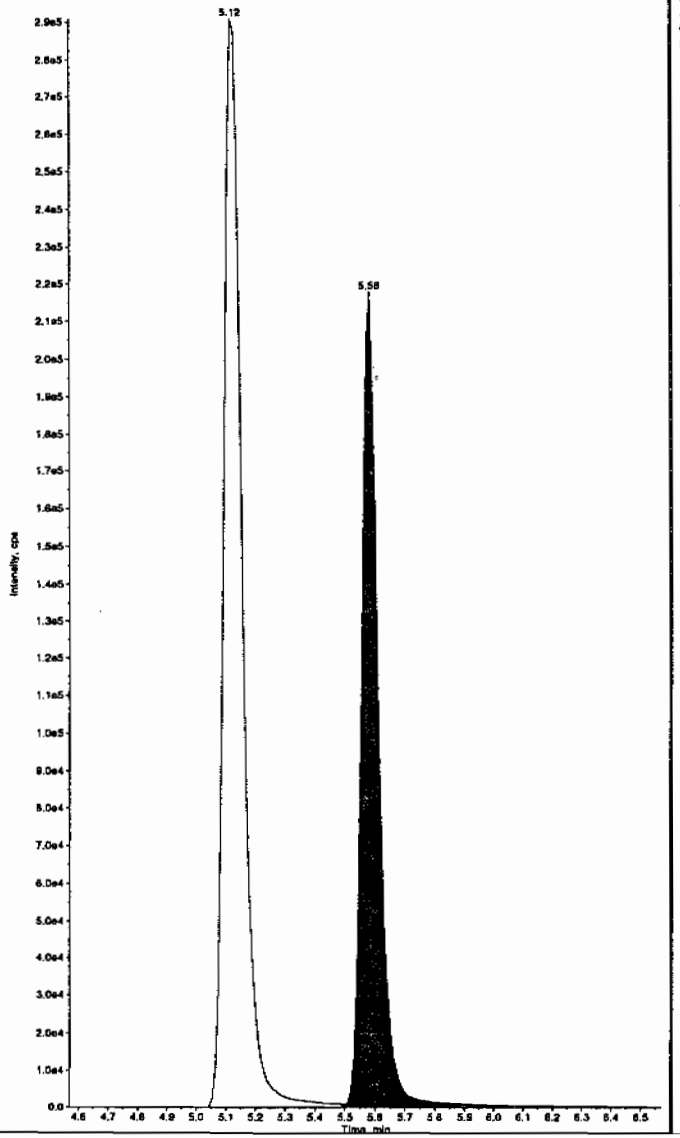

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 513. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:43:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.90e+006 counts
Height: 2125021.484 cps
Start Time: 10.8 min
End Time: 11.2 min

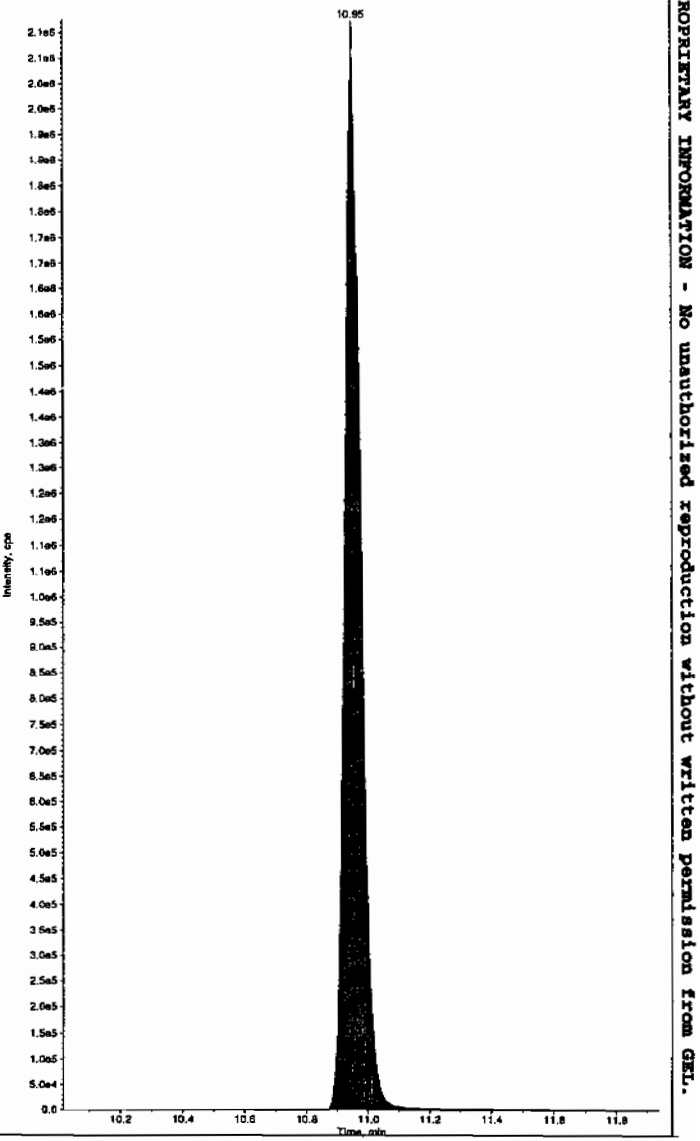

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260052.wiff

Analysis Date: 27-FEB-10 04:15

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	119	119	
2,6-Diamino-4-nitrotoluene	100	121	121	
3,4-Dinitrotoluene	50	46.3	93	
3,5-Dinitroaniline	100	92.4	92	
TATB	100	109	109	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.11 min
Area: 1.13e+005 counts
Height: 28701.506 cps
Start Time: 7.02 min
End Time: 7.50 min

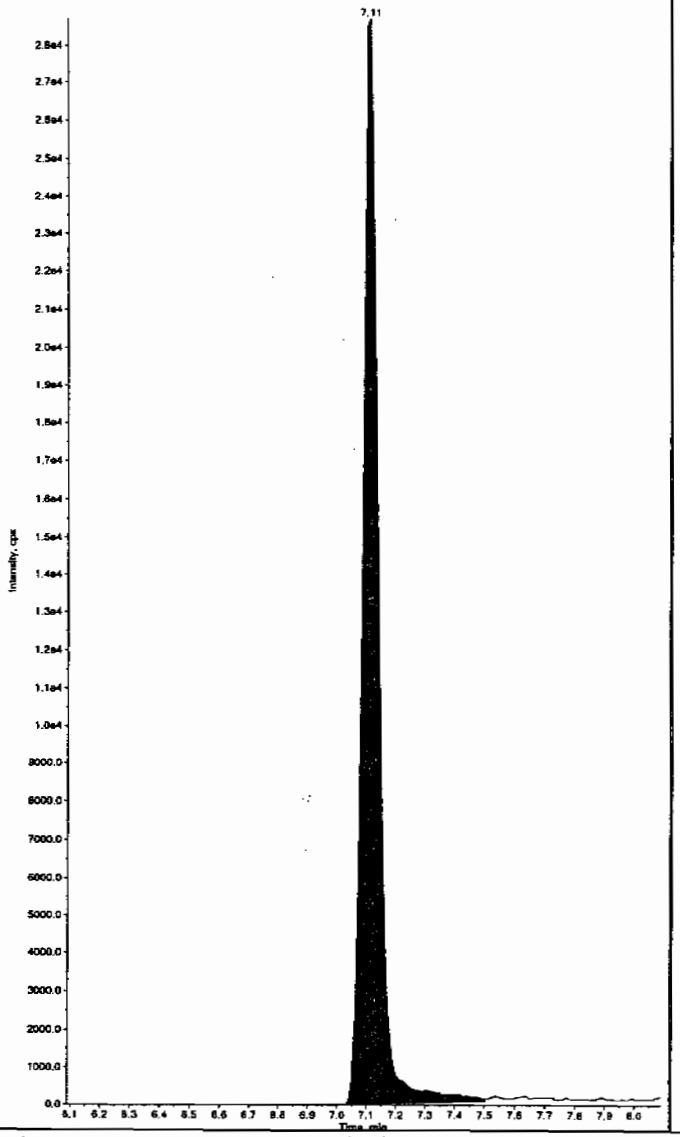

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 86.8 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 8.78e+005 counts
Height: 248106.522 cps
Start Time: 8.27 min
End Time: 8.43 min

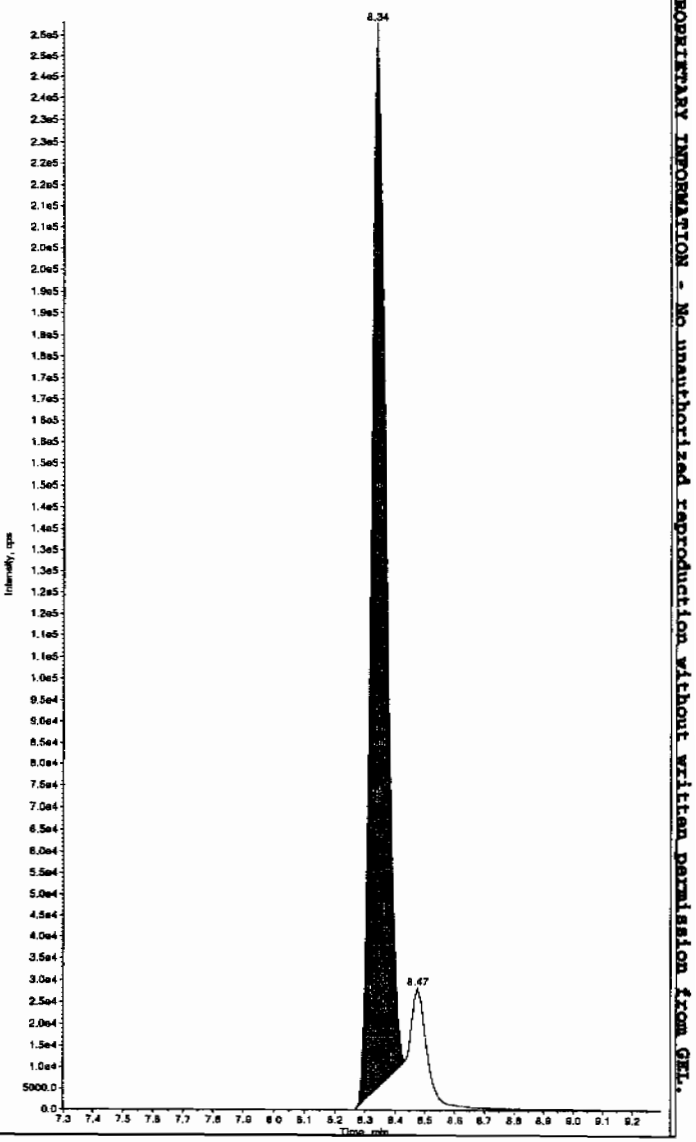

HJM 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

After Scan 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.11 min
Area: 1.13e+005 counts
Height: 28701.506 cps
Start Time: 7.02 min
End Time: 7.50 min

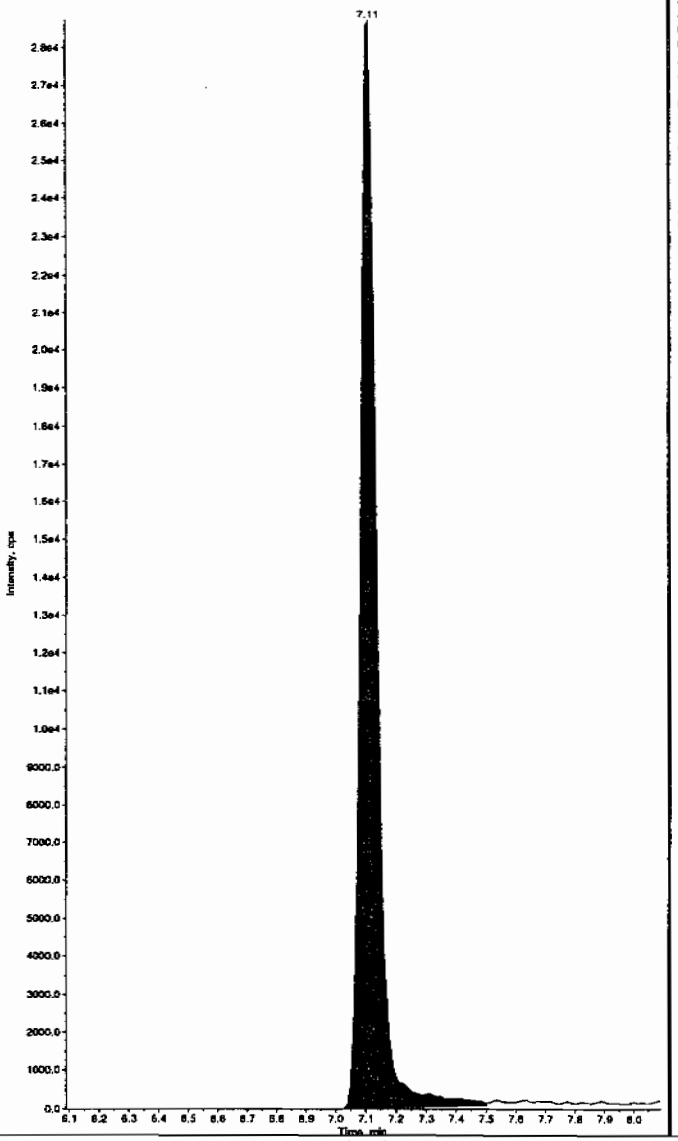

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.4 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 9.31e+005 counts
Height: 252788.637 cps
Start Time: 8.27 min
End Time: 8.43 min

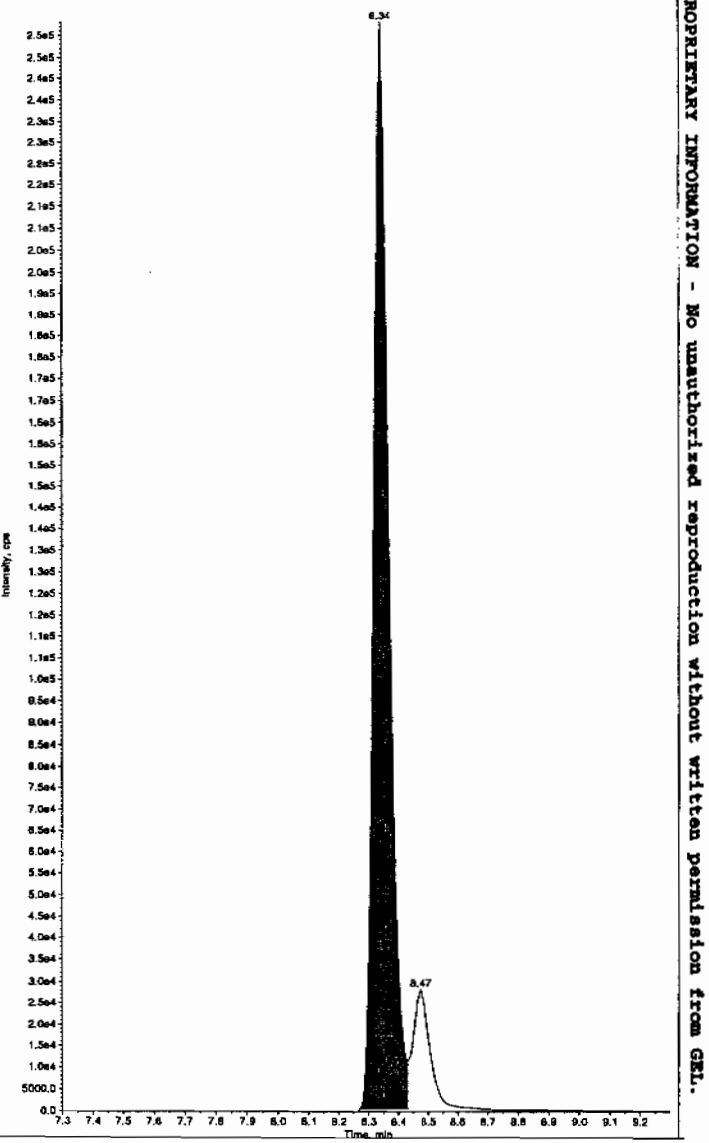

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 46.3 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 6.70e+005 counts
Height: 187516.296 cps
Start Time: 8.40 min
End Time: 8.79 min

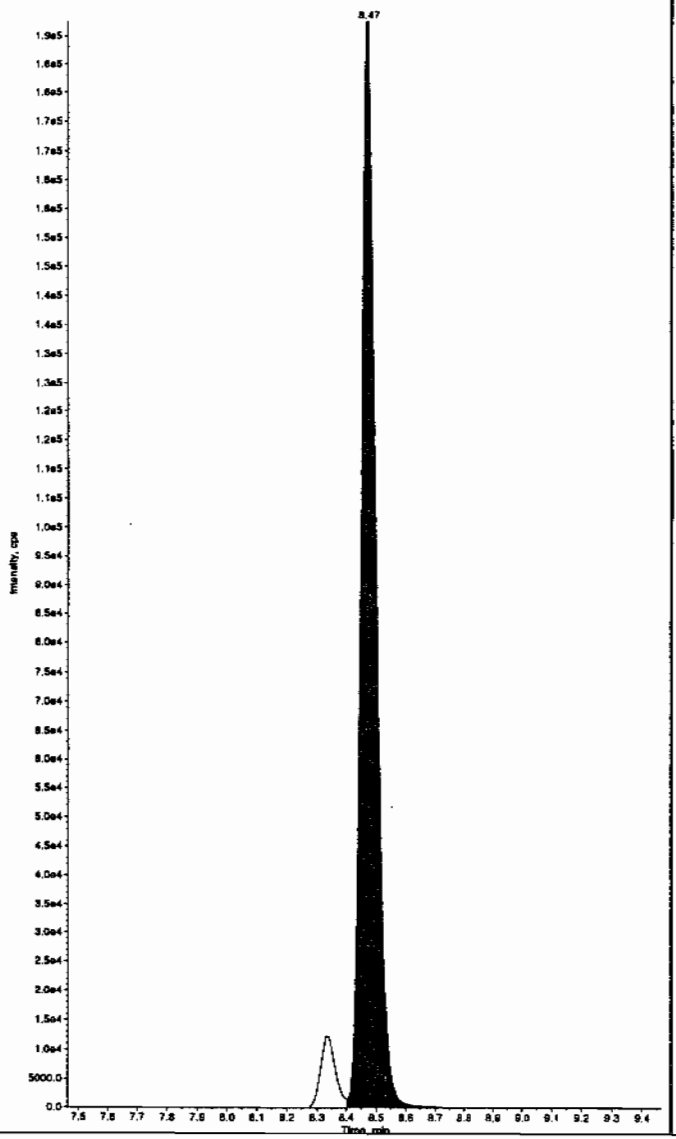

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 121. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 2.64e+005 counts
Height: 64638.481 cps
Start Time: 5.02 min
End Time: 5.42 min

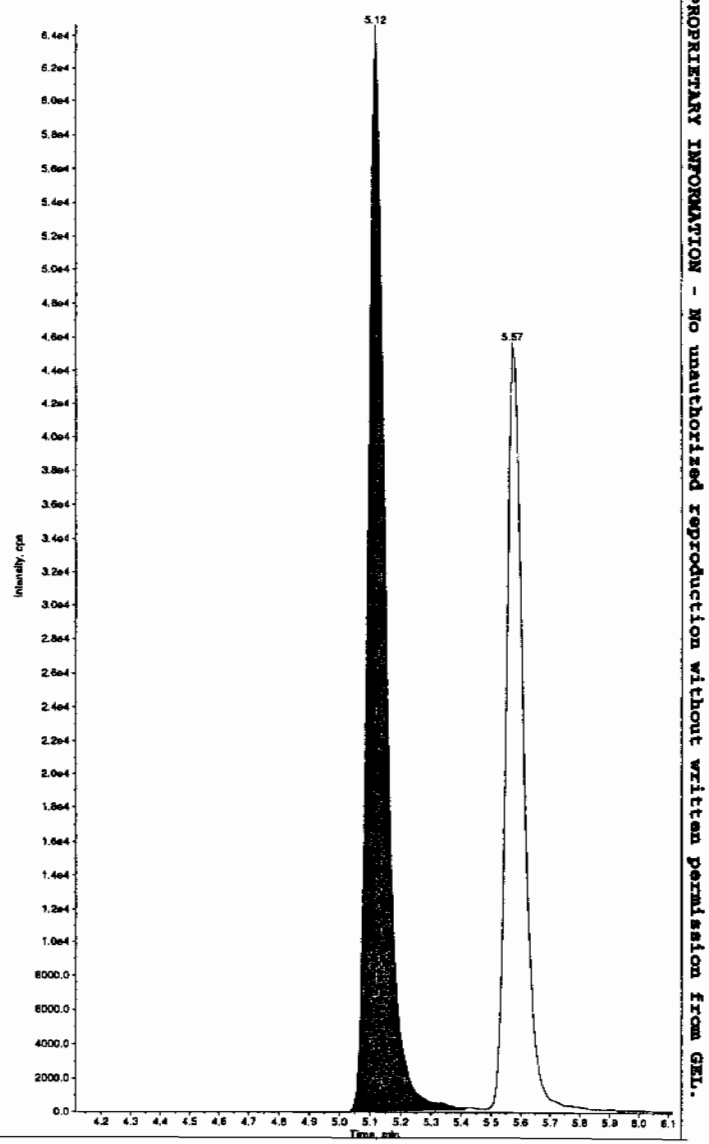

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 119. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.57 min
Area: 1.82e+005 counts
Height: 45589.886 cps
Start Time: 5.48 min
End Time: 5.93 min

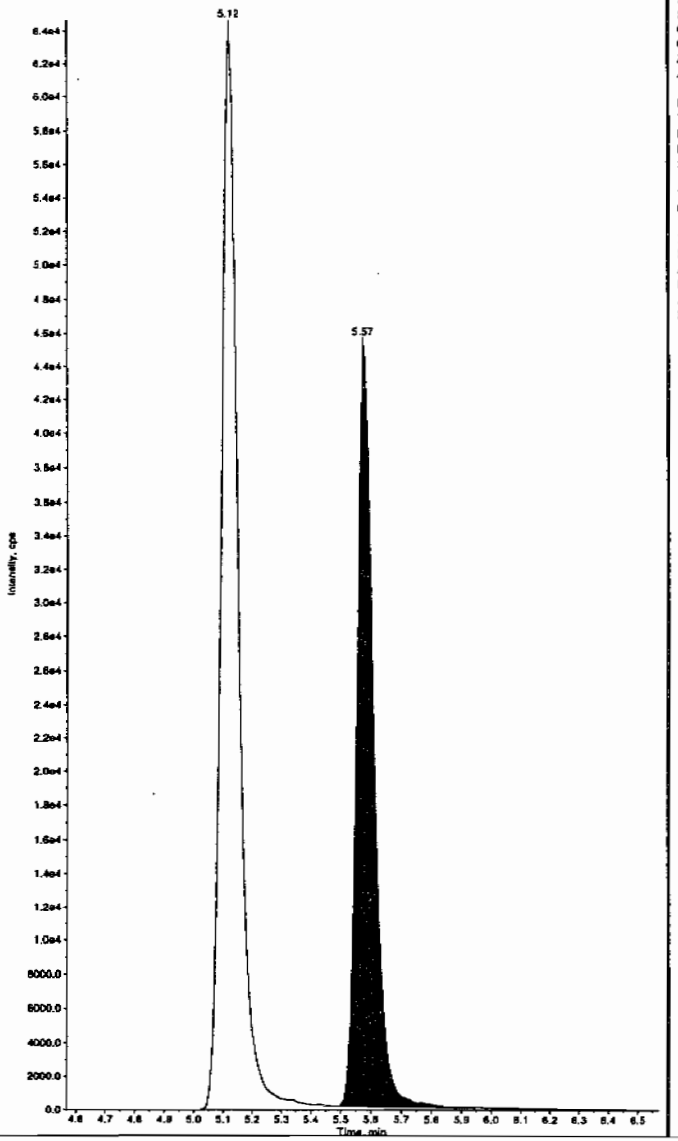

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.75e+006 counts
Height: 488648.682 cps
Start Time: 10.8 min
End Time: 11.2 min

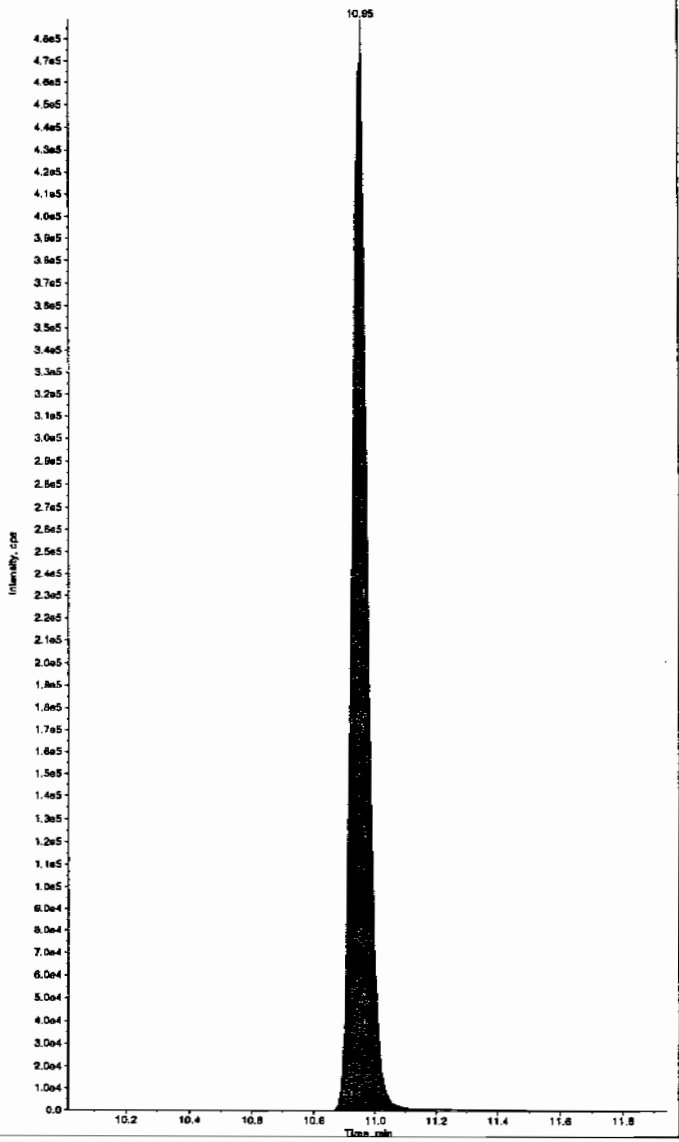

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1543

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260060.wiff

Analysis Date: 27–FEB–10 06:20

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	571	114	
2,6–Diamino–4–nitrotoluene	500	590	118	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	480	96	
TATB	500	542	108	
tris(o–cresyl) phosphate	500	485	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "j1|LER" File: "EXS02260060.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 542. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.11 min
Area: 6.43e+005 counts
Height: 164211.945 cps
Start Time: 7.01 min
End Time: 7.89 min

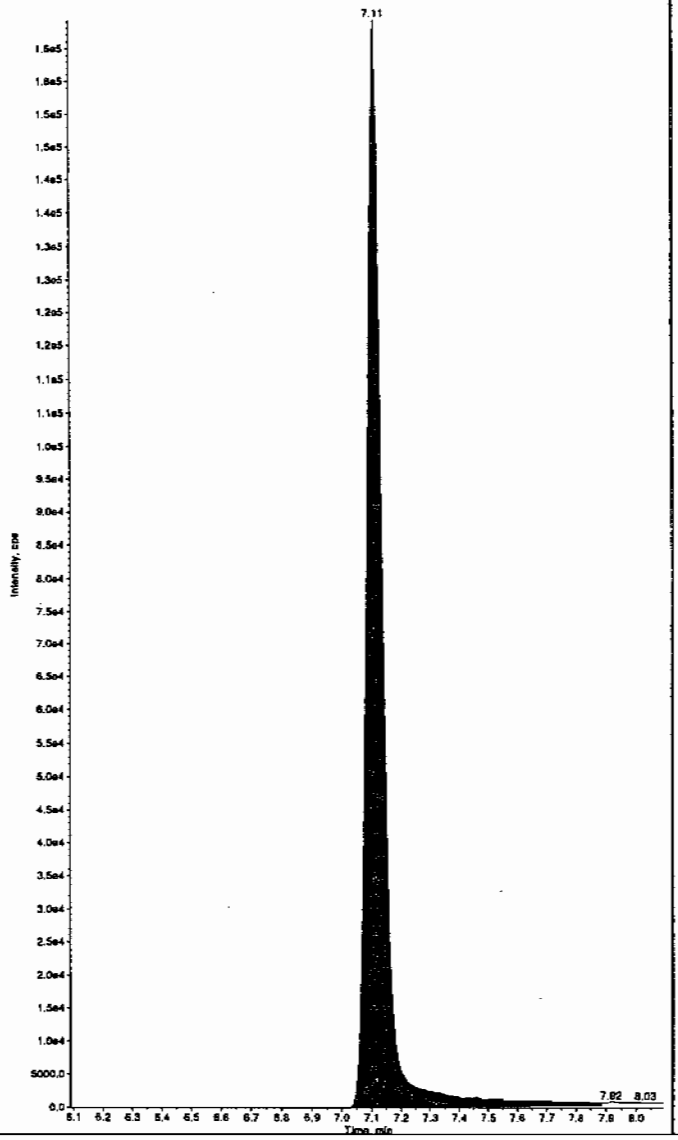

Sample Name: "WXX100226-26CCV" Sample ID: "j1|LER" File: "EXS02260060.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 480. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 4.40e+006 counts
Height: 1138583.862 cps
Start Time: 8.25 min
End Time: 8.43 min

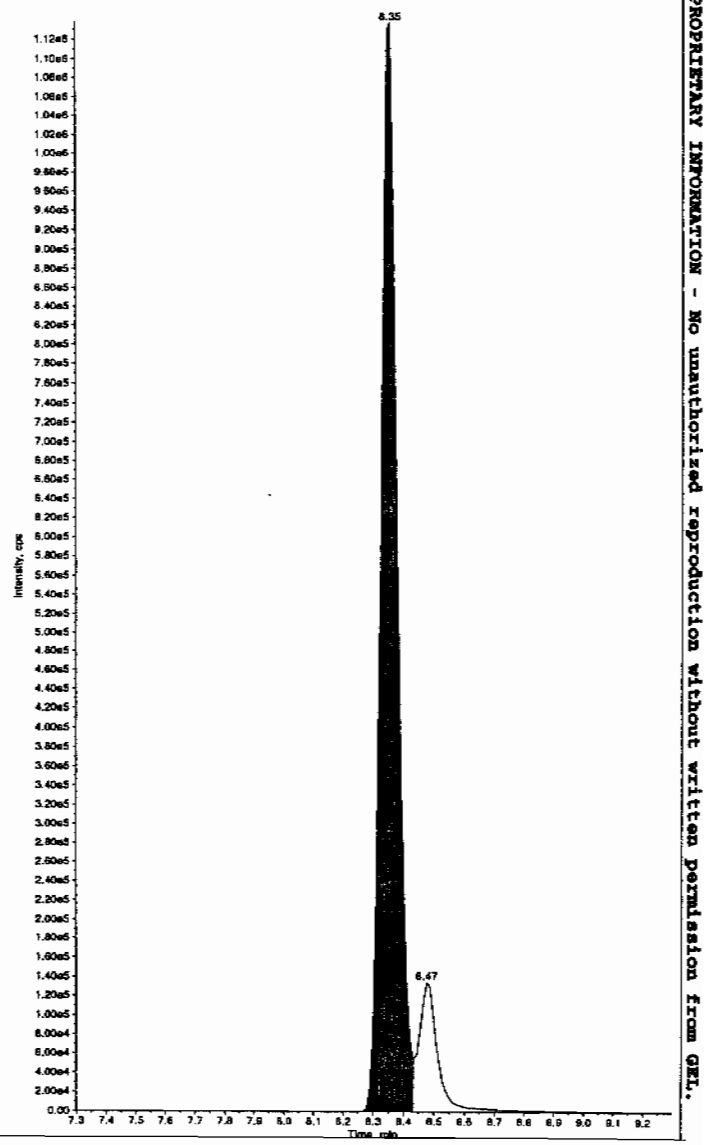

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 232. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.47 min
Area: 3.20e+006 counts
Height: 905951.762 cps
Start Time: 8.40 min
End Time: 8.64 min

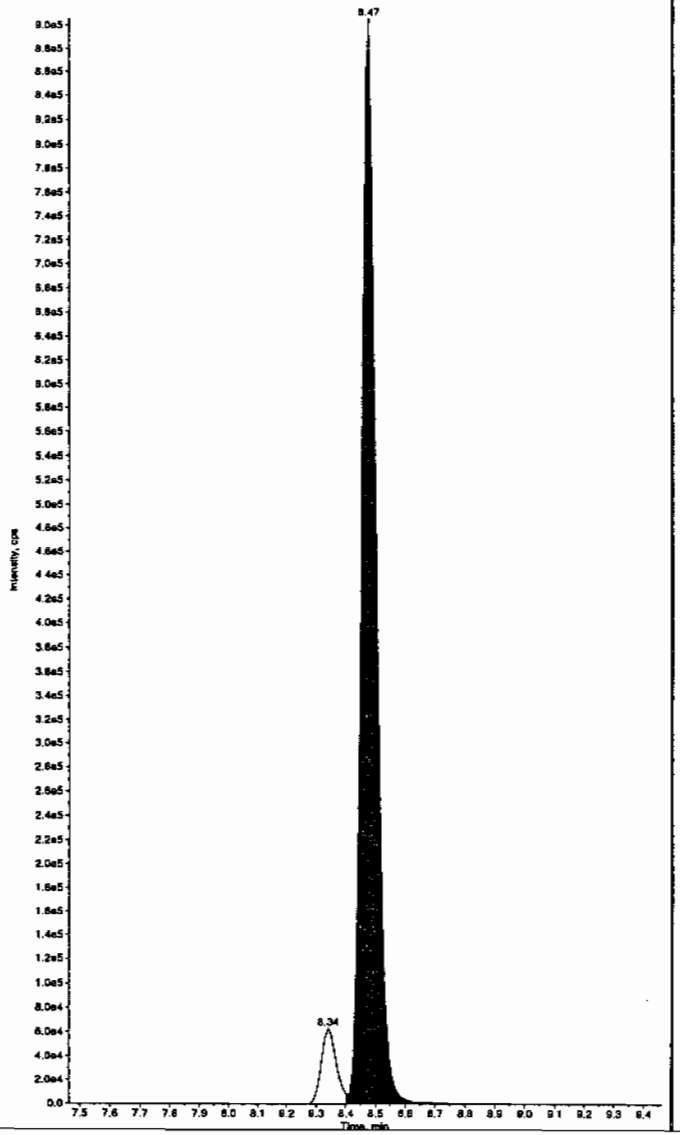

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 590. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.30e+006 counts
Height: 311600.555 cps
Start Time: 5.02 min
End Time: 5.42 min

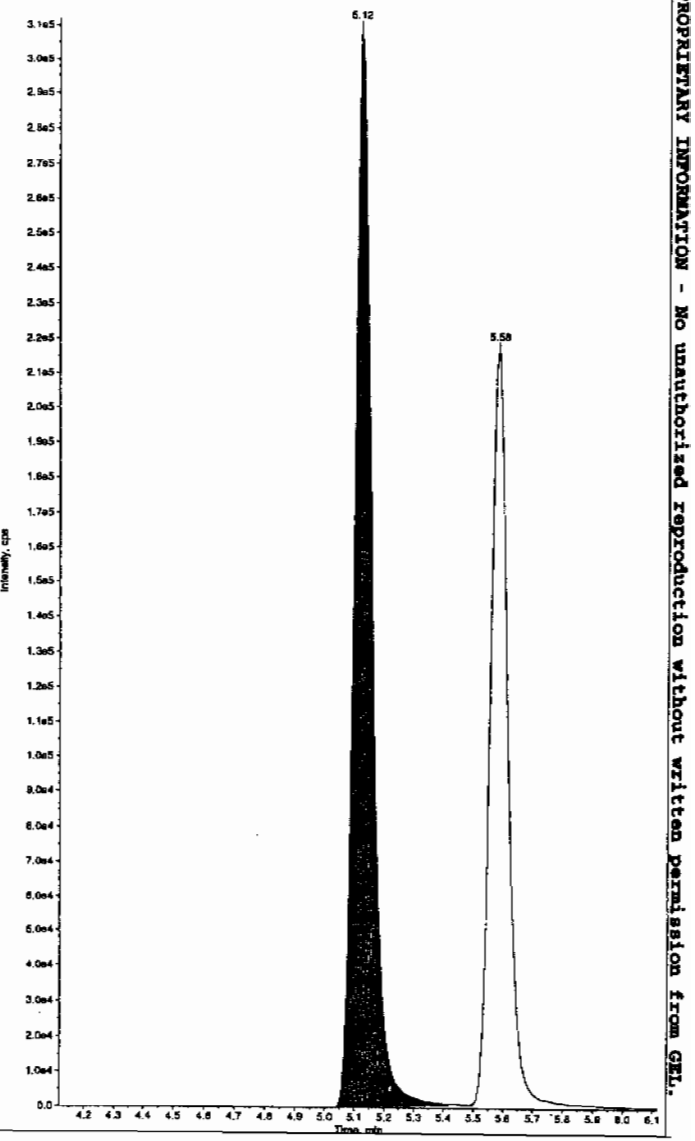

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 571. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.58 min
Area: 9.14e+005 counts
Height: 219210.556 cps
Start Time: 5.49 min
End Time: 6.07 min

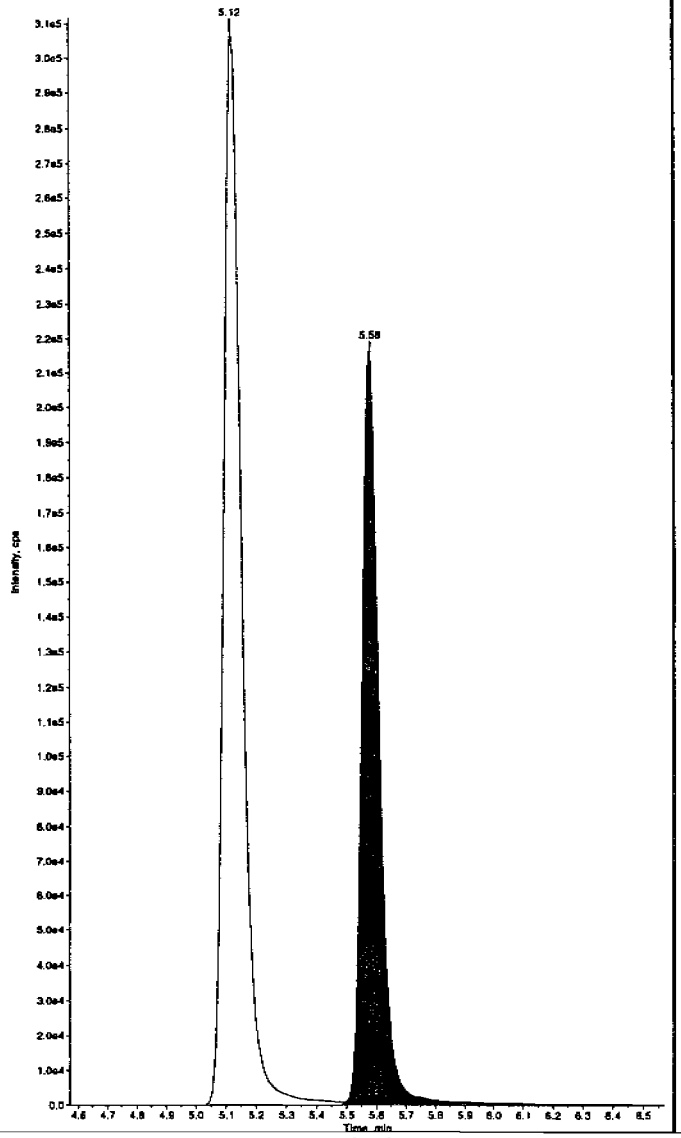

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 7.50e+006 counts
Height: 2068702.393 cps
Start Time: 10.9 min
End Time: 11.2 min

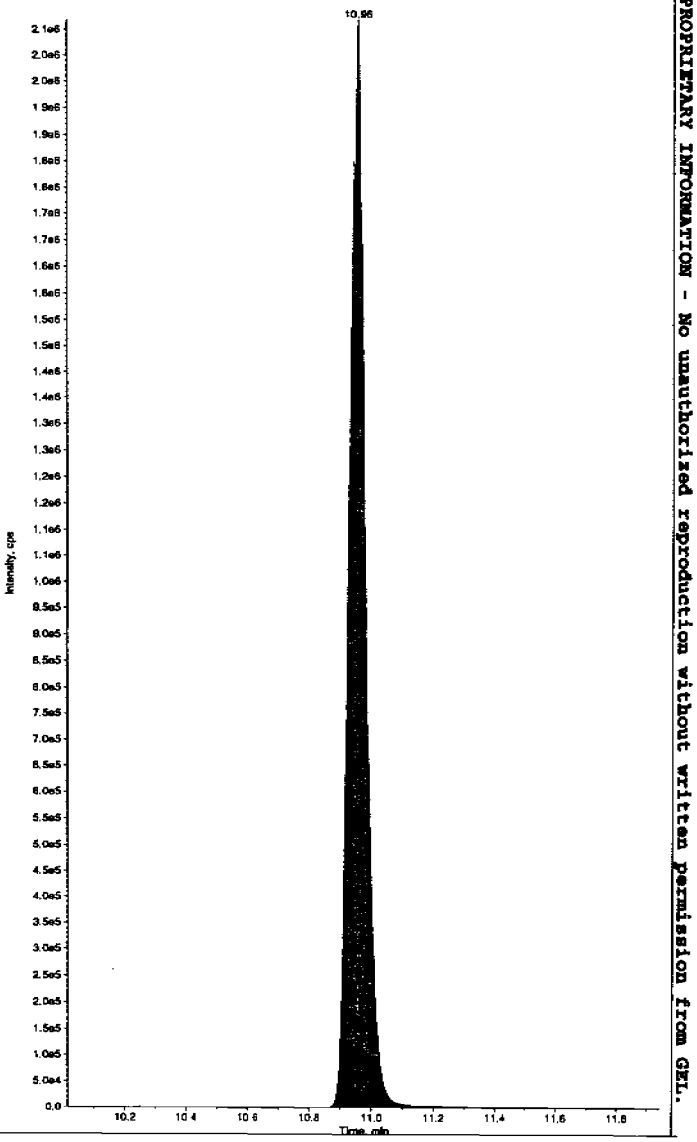

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1543

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02260062.wiff

Analysis Date: 27-FEB-10 06:52

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	115	115	
2,6-Diamino-4-nitrotoluene	100	115	115	
3,4-Dinitrotoluene	50	45.9	92	
3,5-Dinitroaniline	100	93	93	
TATB	100	117	117	
tris(o-cresyl) phosphate	100	96.2	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rcn 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260062.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 117. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:52:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.10 min
Area: 1.23e+005 counts
Height: 31840.464 cps
Start Time: 6.99 min
End Time: 7.77 min

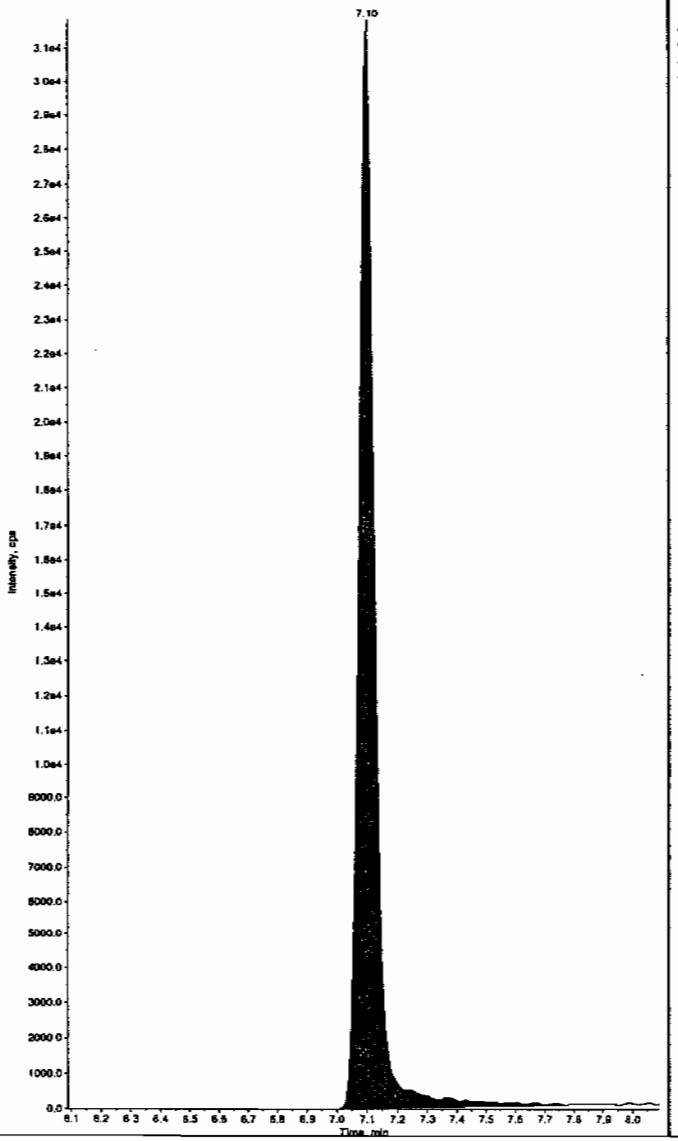

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260062.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.0 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:52:11 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 9.37e+005 counts
Height: 260031.525 cps
Start Time: 8.23 min
End Time: 8.42 min

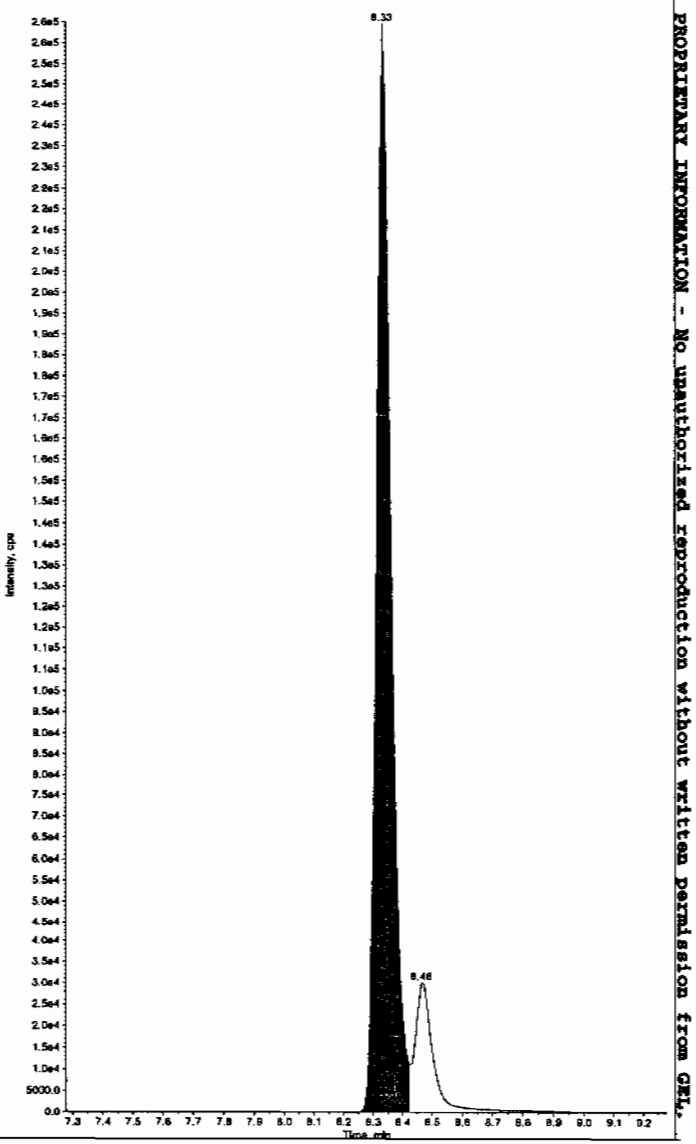

Hnm 03/01/10

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       50.0     ng/mL
Calculated Conc:     45.9     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       6:52:11 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          15.0     sec
Expected RT:         8.46    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.46    min
Area:         6.63e+005    counts
Height:         191753.464  cps
Start Time:          8.39    min
End Time:            8.81    min
```

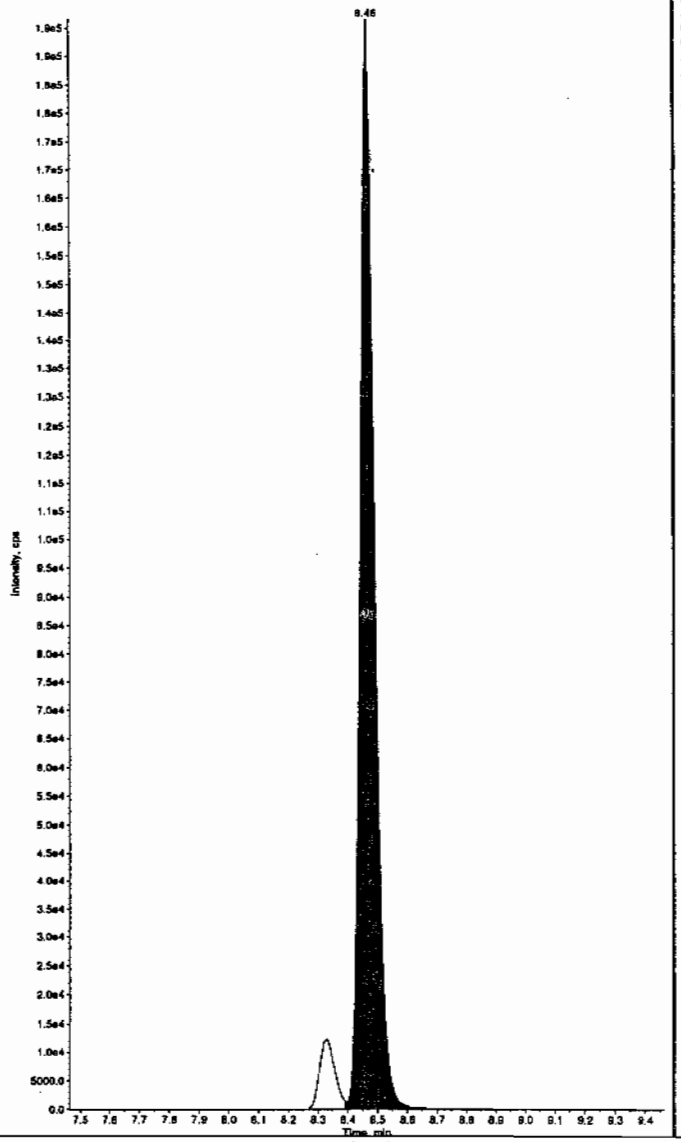

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     115.     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       6:52:11 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:         5.12    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      5.12    min
Area:         2.52e+005    counts
Height:         59789.192   cps
Start Time:          5.00    min
End Time:            5.36    min
```

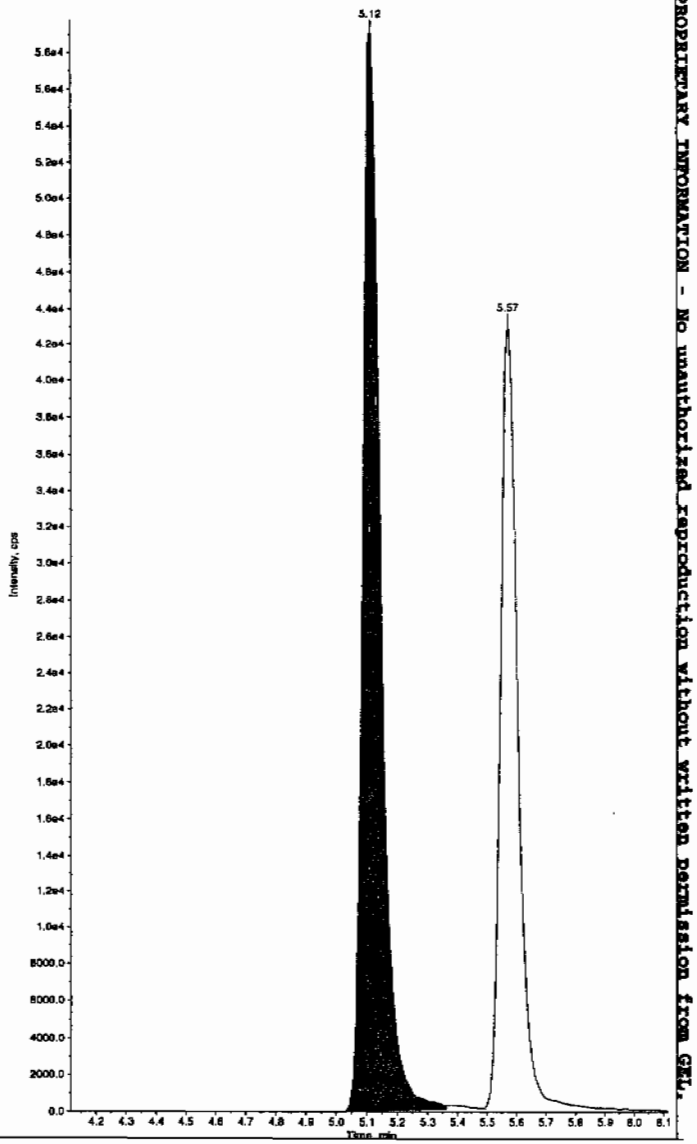

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100226-27CRi" Sample ID: "[1]LER" File: "EXS02250062.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 115. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:52:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.57 min
Area: 1.76e+005 counts
Height: 43545.845 cps
Start Time: 5.49 min
End Time: 5.95 min

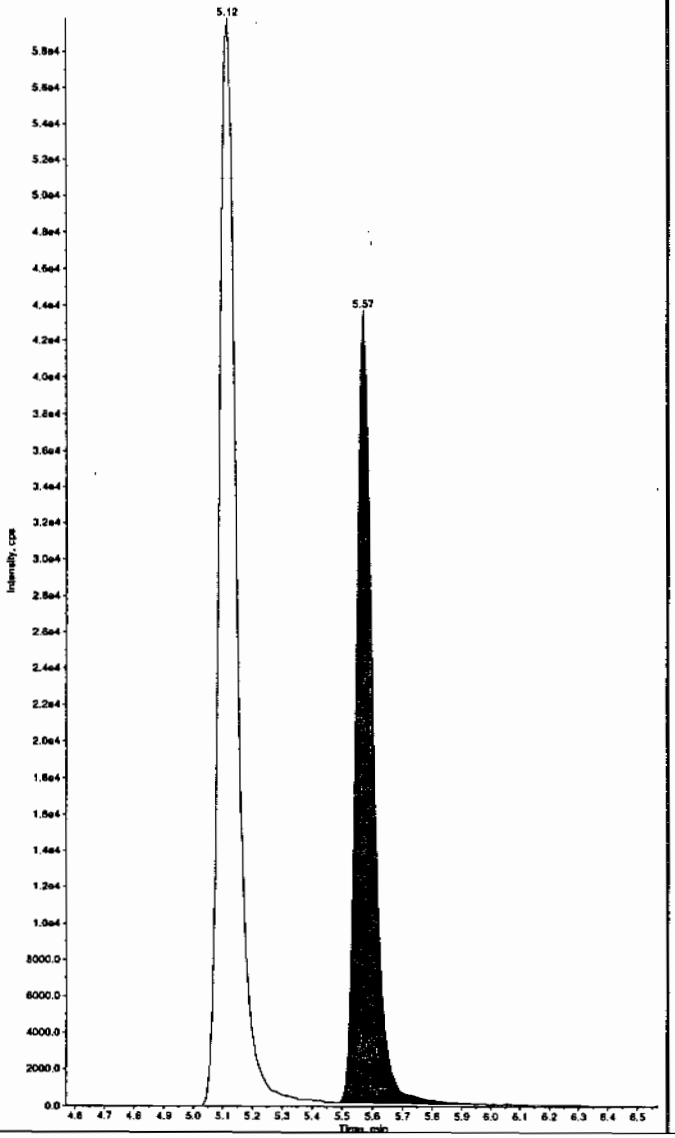

Sample Name: "WXX100226-27CRi" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.2 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:52:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.66e+006 counts
Height: 430343.140 cps
Start Time: 10.8 min
End Time: 11.2 min

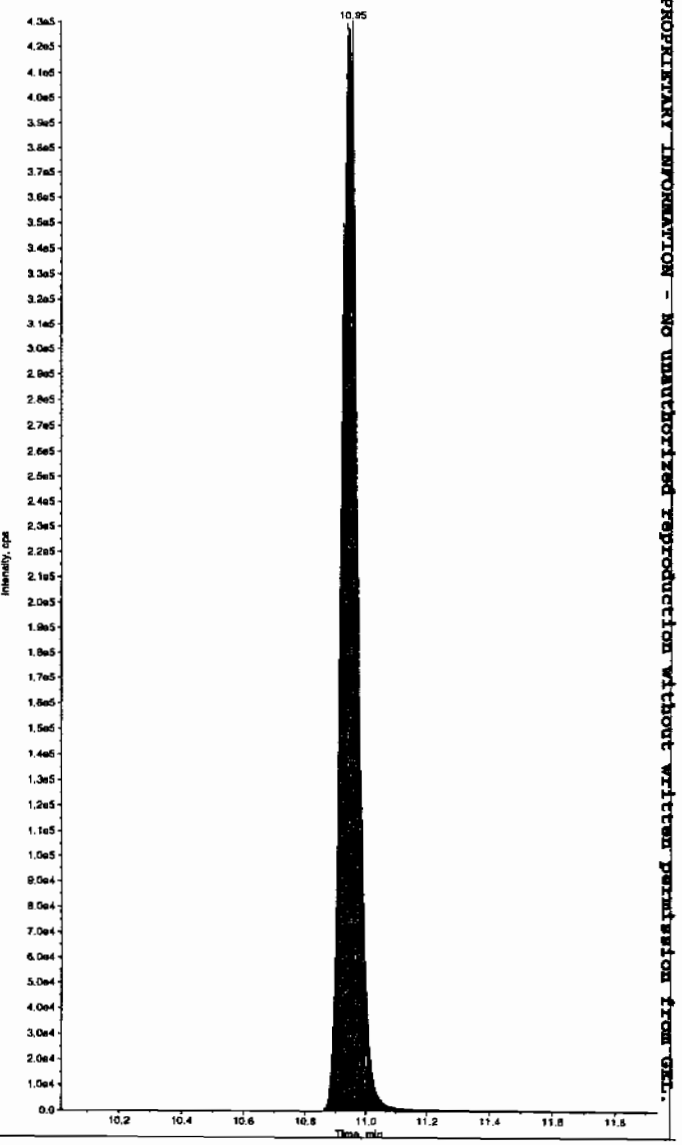

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948887

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 1202032874

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304149a

Date Analyzed: 07-MAR-10 16:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304149a
Date: 07-Mar-2010
Time: 16:03:10
ID: 1202032874 | LANC | 943588 | Solids | MB | 2 |
Vial: 4:1,A

MAP 3/8/10

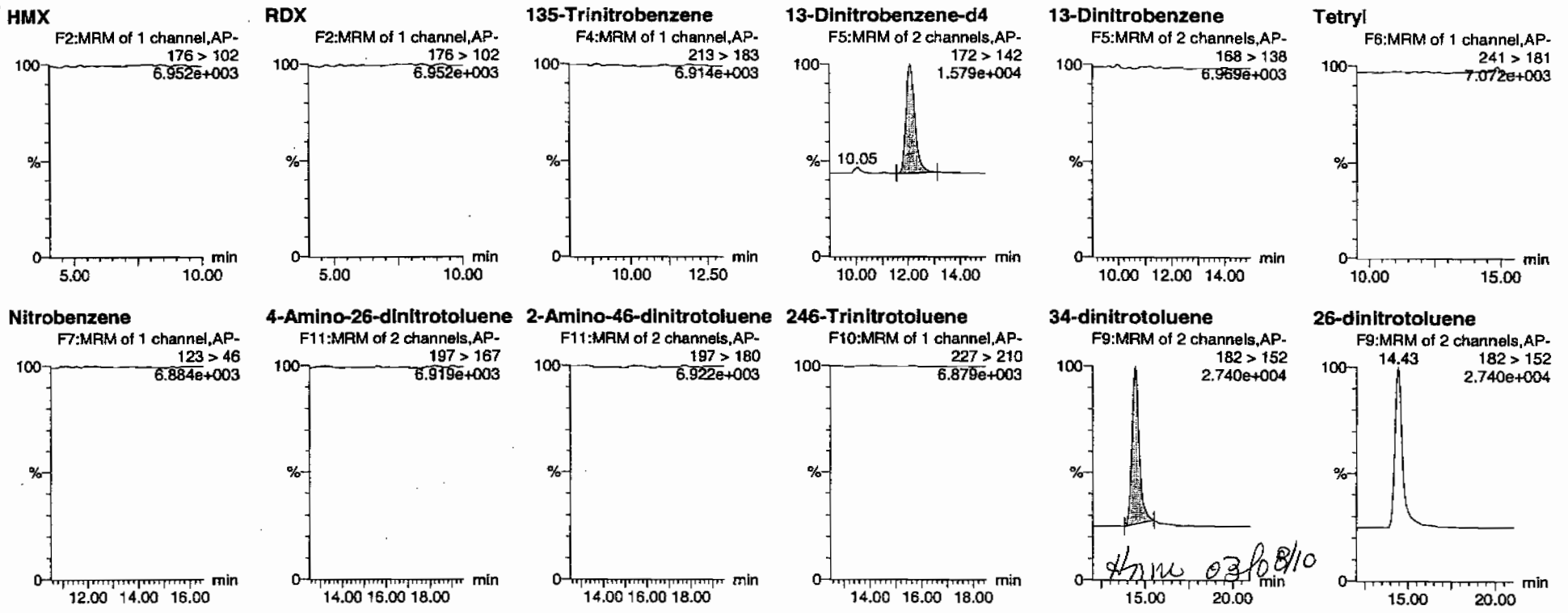

HMW 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

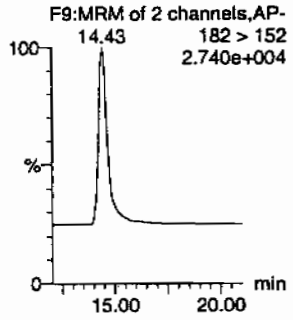

26-dinitrotoluene-d3

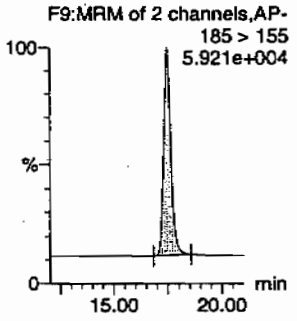

2-Nitrotoluene

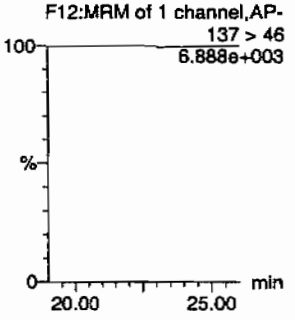

4-Nitrotoluene

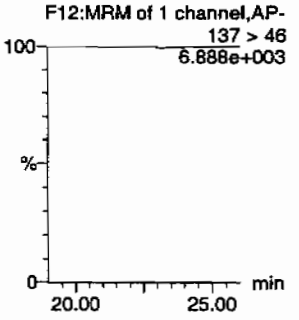

3-Nitrotoluene

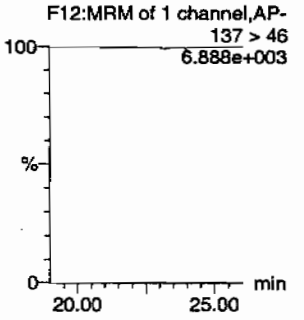

PETN

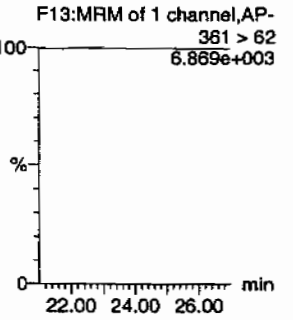

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202032874	HMX	176 > 102			3586.980									
1202032874	RDX	176 > 102			3586.980									
1202032874	135-Trinitrobenzene	213 > 183			3586.980									
1202032874	13-Dinitrobenzene-d4	172 > 142	12.07	3586.980		3586.980	3586.980	bb			510.7056	102.1	2.1	293.4
1202032874	13-Dinitrobenzene	168 > 138			3586.980									
1202032874	Tetryl	241 > 181			3586.980									
1202032874	Nitrobenzene	123 > 46			3586.980									
1202032874	4-Amino-26-dinitrotoluene	197 > 167			20767.057									
1202032874	2-Amino-46-dinitrotoluene	197 > 180			20767.057									
1202032874	246-Trinitrotoluene	227 > 210			20767.057									
1202032874	34-dinitrotoluene	182 > 152	14.43	9626.537	20767.057	9626.537	231.774	bb			239.8160	95.9	-4.1	797.6
1202032874	26-dinitrotoluene	182 > 152			20767.057									
1202032874	24-dinitrotoluene	182 > 152			20767.057									
1202032874	26-dinitrotoluene-d3	185 > 155	17.47	20767.057		20767.057	20767.057	bb			505.0211	101.0	1.0	1493.6
1202032874	2-Nitrotoluene	137 > 46			20767.057									
1202032874	4-Nitrotoluene	137 > 46			20767.057									
1202032874	3-Nitrotoluene	137 > 46			20767.057									
1202032874	PETN	361 > 62			20767.057									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948887

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 1202032874

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260030.wiff

Date Analyzed: 26-FEB-10 22:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 3/1/10

Sample Name: "1202032874" Sample ID: "948888|2|LER" File: "EXS02260030.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:29:36 PM

Modified: No

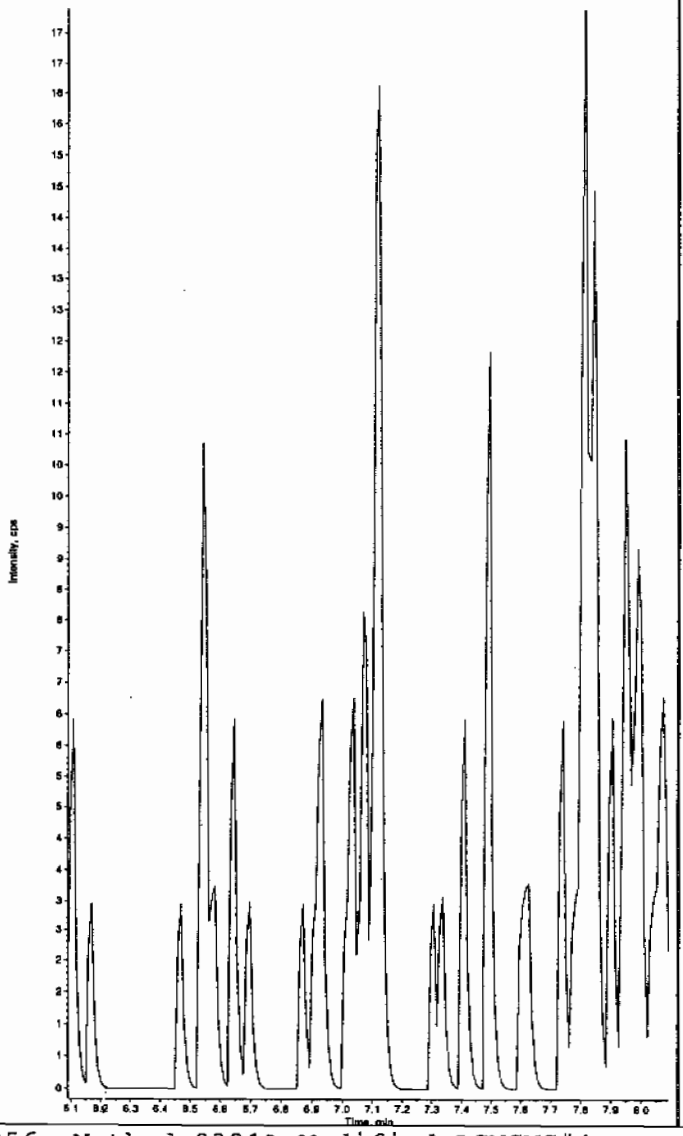

Sample Name: "1202032874" Sample ID: "948888|2|LER" File: "EXS02260030.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:29:36 PM

Modified: No

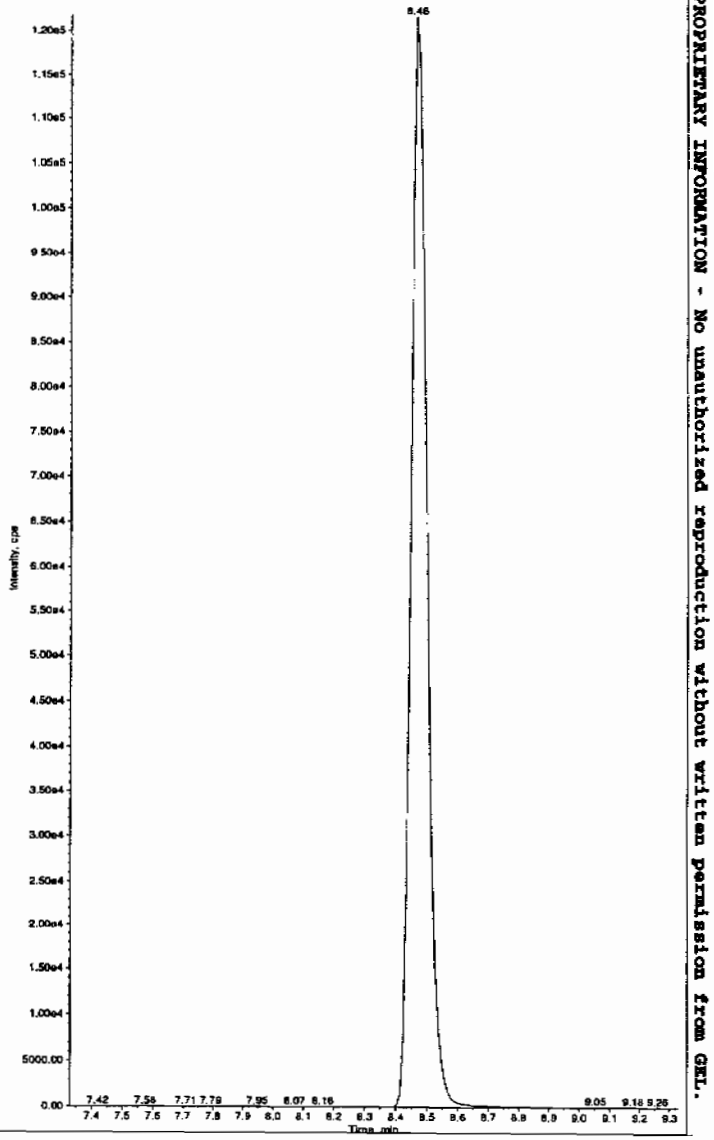

Hum 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032874" Sample ID: "948888|2|LER" File: "EXS02250030.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 240. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:29:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.30e+006 counts
Height: 920121.094 cps
Start Time: 8.31 min
End Time: 8.85 min

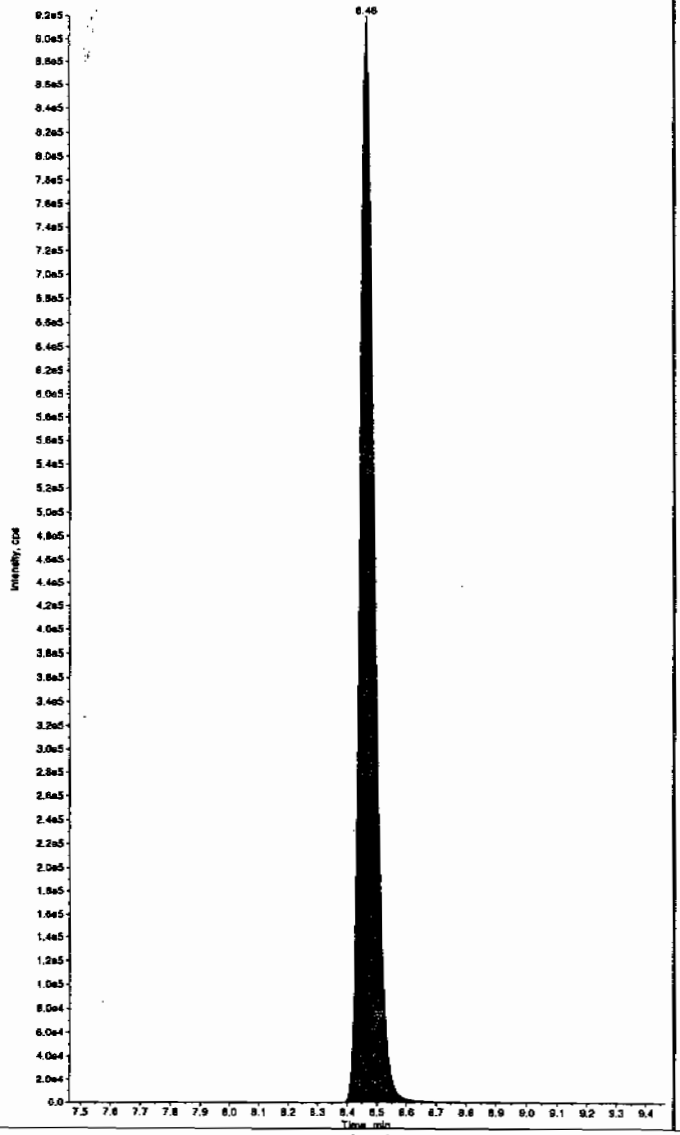

Sample Name: "1202032874" Sample ID: "948888|2|LER" File: "EXS02250030.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:29:36 PM

Modified: No

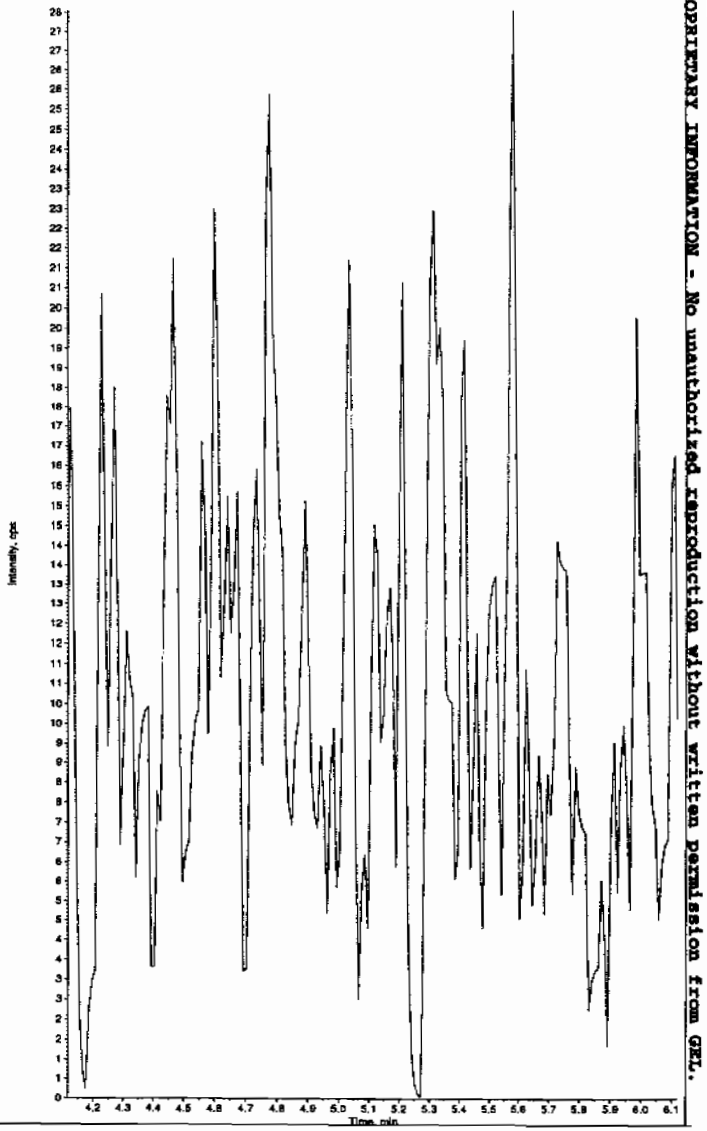

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032874" Sample ID: "948888|2|LER" File: "EXS02260030.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:29:36 PM

Modified: No

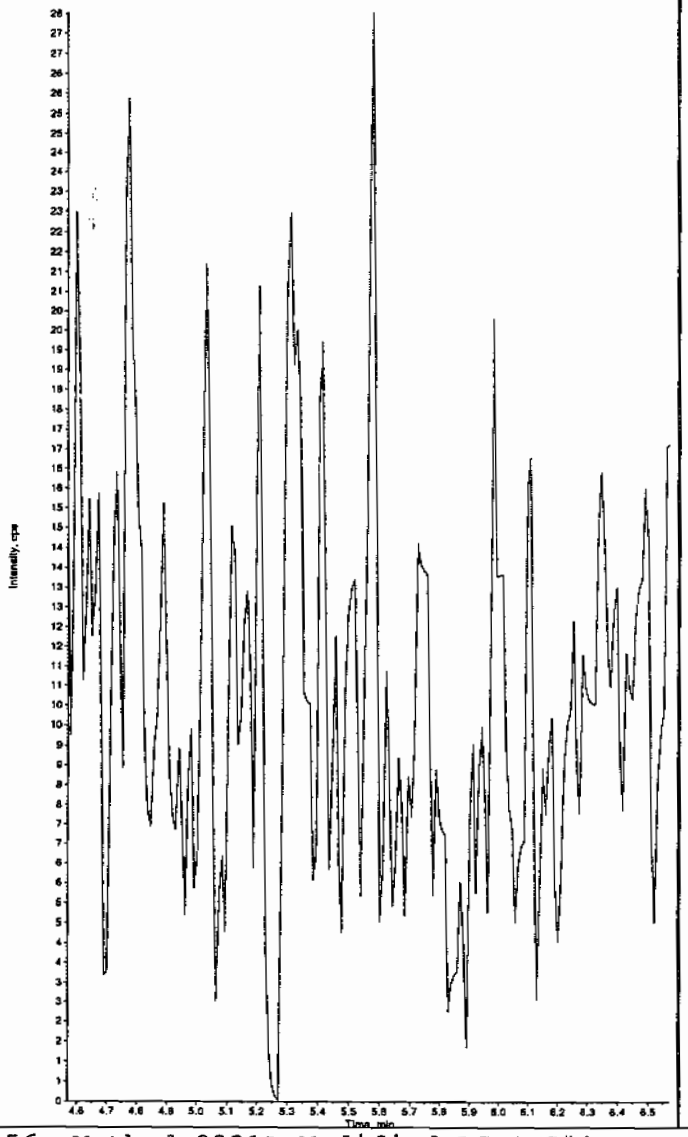

Sample Name: "1202032874" Sample ID: "948888|2|LER" File: "EXS02260030.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:29:36 PM

Modified: No

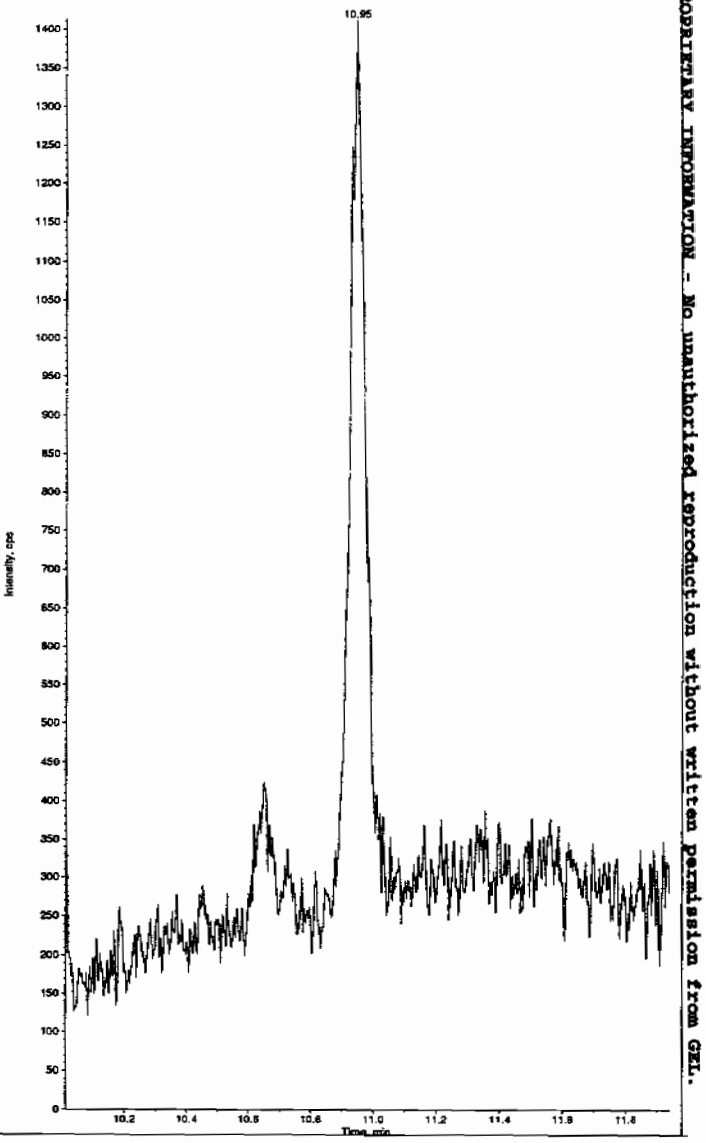

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948887

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 1202032875

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304150a

Date Analyzed: 07-MAR-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4960	
121-14-2	2,4-Dinitrotoluene	4490	
121-82-4	RDX	4820	
19406-51-0	4-Amino-2,6-dinitrotoluene	5500	
2691-41-0	HMX	4240	
35572-78-2	2-Amino-4,6-dinitrotoluene	5450	
479-45-8	Tetryl	2670	
606-20-2	2,6-Dinitrotoluene	4730	
78-11-5	PETN	5000	
88-72-2	o-Nitrotoluene	4970	
98-95-3	Nitrobenzene	4840	
99-08-1	m-Nitrotoluene	4490	
99-35-4	1,3,5-Trinitrobenzene	4090	
99-65-0	m-Dinitrobenzene	4520	
99-99-0	p-Nitrotoluene	5020	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304150a
Date: 07-Mar-2010
Time: 16:32:46
ID: 1202032875 | LANL | 940888 | Soils | tcs | 21
Vial: 4:1,B

MMP 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.135e+004

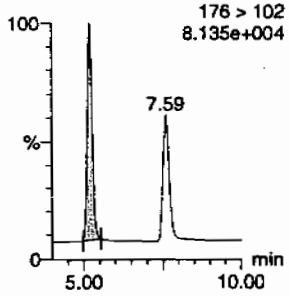

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.135e+004

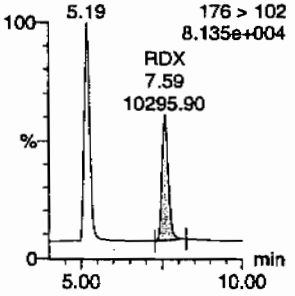

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.856e+004

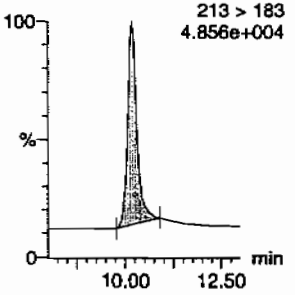

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.497e+004

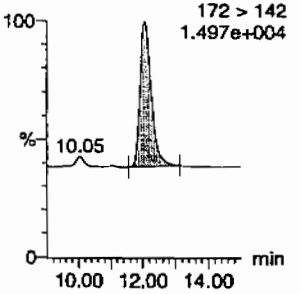

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.703e+004

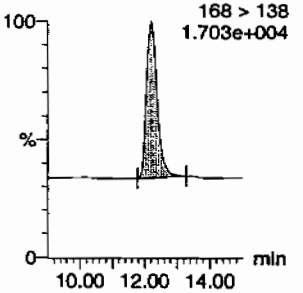

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.164e+004

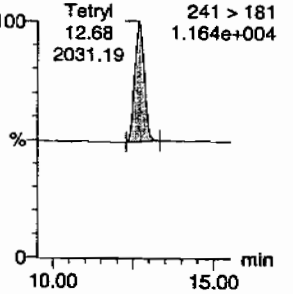

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.445e+004

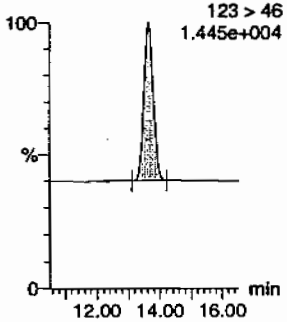

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.211e+004

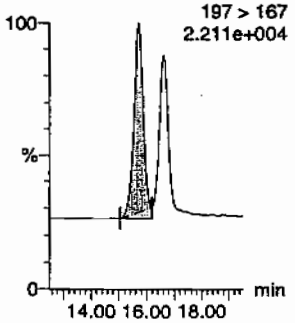

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.021e+004

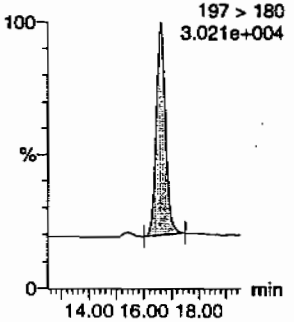

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.128e+004

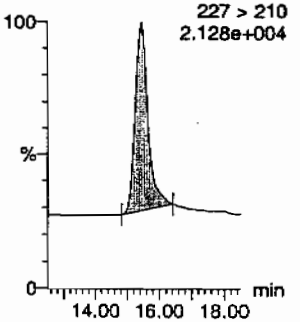

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.585e+004

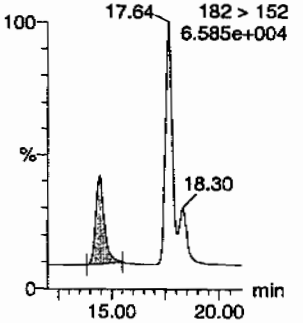

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.585e+004

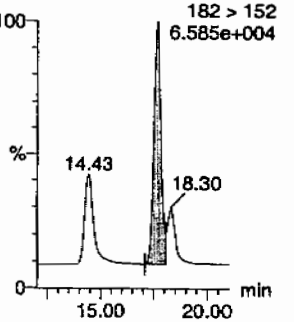

HMM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

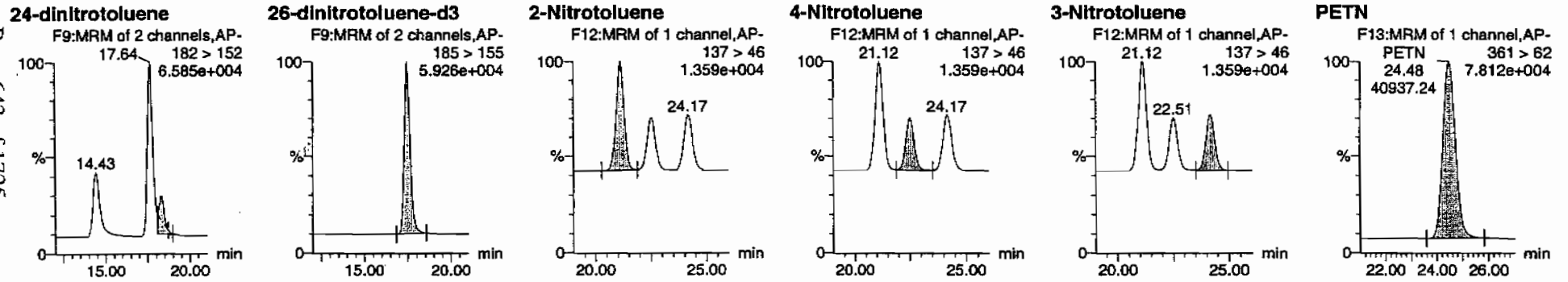

ID	Name	Trace	RT	Area	S'Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202032875	HMX	176 > 102	5.19	14766.854	3735.273	14766.854	1976.677	bb			423.7878	84.8	-15.2	2620.5
1202032875	RDX	176 > 102	7.59	10295.900	3735.273	10295.900	1378.199	bb			481.6522	96.3	-3.7	1527.6
1202032875	135-Trinitrobenzene	213 > 183	10.18	11887.563	3735.273	11887.563	1591.258	bb			408.6629	81.7	-18.3	1498.7
1202032875	13-Dinitrobenzene-d4	172 > 142	12.07	3735.273		3735.273	3735.273	bb			531.8192	106.4	6.4	253.1
1202032875	13-Dinitrobenzene	168 > 138	12.20	4278.383	3735.273	4278.383	572.700	bb			452.2047	90.4	-9.6	439.1
1202032875	Tetryl	241 > 181	12.68	2031.188	3735.273	2031.188	271.893	bb			267.2028	53.4	-46.6	198.6
1202032875	Nitrobenzene	123 > 46	13.63	2983.646	3735.273	2983.646	399.388	bb			483.6763	96.7	-3.3	242.6
1202032875	4-Amino-26-dinitrotoluene	197 > 167	15.71	6508.592	21453.850	6508.592	151.688	MM	08-Mar-10	11:34:12	549.9386	110.0	10.0	467.3
1202032875	2-Amino-46-dinitrotoluene	197 > 180	16.60	9465.320	21453.850	9465.320	220.597	bb			544.5466	108.9	8.9	358.0
1202032875	246-Trinitrotoluene	227 > 210	15.45	6997.477	21453.850	6997.477	163.082	bb			496.2828	99.3	-0.7	456.6
1202032875	34-dinitrotoluene	182 > 152	14.43	10294.788	21453.850	10294.788	239.929	bb			248.2534	99.3	-0.7	441.9
1202032875	26-dinitrotoluene	182 > 152	17.64	22649.576	21453.850	22649.576	527.867	MM	08-Mar-10	11:51:30	473.1934	94.6	-5.4	1226.7
1202032875	24-dinitrotoluene	182 > 152	18.30	5309.563	21453.850	5309.563	123.744	MM	08-Mar-10	11:54:53	448.9206	89.8	-10.2	267.0
1202032875	26-dinitrotoluene-d3	185 > 155	17.47	21453.850		21453.850	21453.850	bb			521.7228	104.3	4.3	1378.3
1202032875	2-Nitrotoluene	137 > 46	21.12	3306.068	21453.850	3306.068	77.051	bb			497.4259	99.5	-0.5	755.1
1202032875	4-Nitrotoluene	137 > 46	22.51	1643.274	21453.850	1643.274	38.298	bb			502.1097	100.4	0.4	362.4
1202032875	3-Nitrotoluene	137 > 46	24.17	1819.695	21453.850	1819.695	42.410	bb			449.4698	89.9	-10.1	384.2
1202032875	PETN	361 > 62	24.48	40937.238	21453.850	40937.238	954.077	bb			500.0392	100.0	0.0	5022.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948887

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 1202032875

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260031.wiff

Date Analyzed: 26-FEB-10 22:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6720	
59229-75-3	2,6-Diamino-4-nitrotoluene	5920	
618-87-1	3,5-Dinitroaniline	4960	
6629-29-4	2,4-Diamino-6-nitrotoluene	5770	
78-30-8	tris(o-cresyl) phosphate	5030	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 3/1/10

Sample Name: "1202032875" Sample ID: "948888|2|LER" File: "EXS02260031.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 672. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:45:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.10 min
Area: 8.06e+005 counts
Height: 198169.342 cps
Start Time: 7.01 min
End Time: 7.80 min

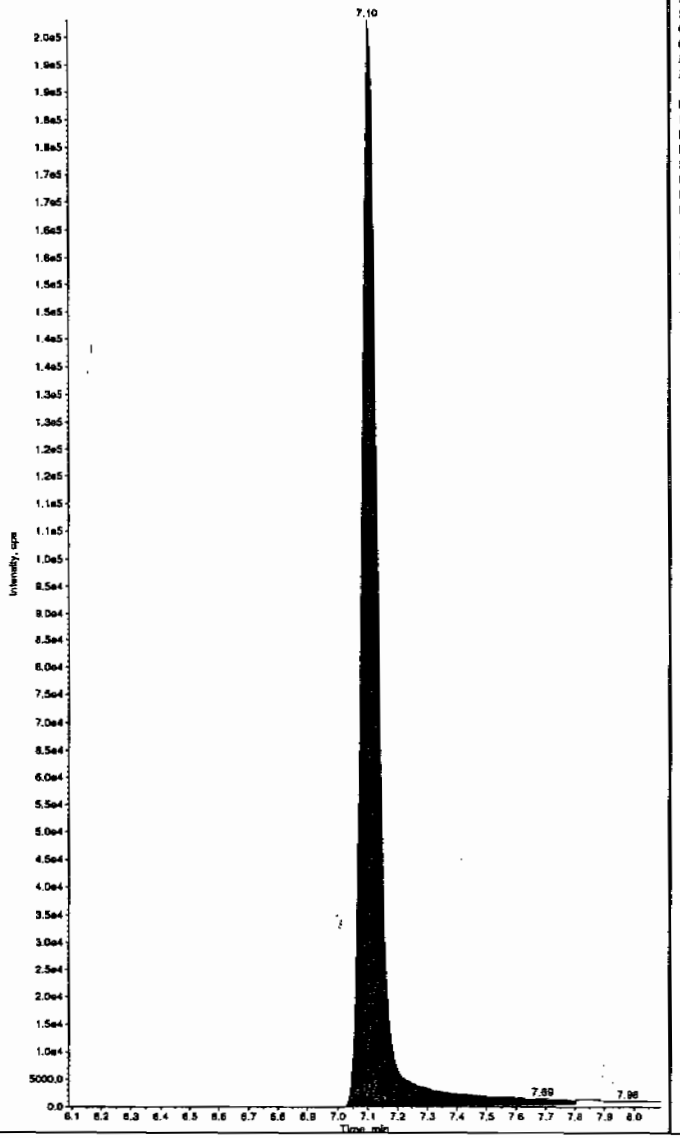

Sample Name: "1202032875" Sample ID: "948888|2|LER" File: "EXS02260031.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 496. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:45:19 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.54e+006 counts
Height: 1211570.190 cps
Start Time: 8.26 min
End Time: 8.43 min

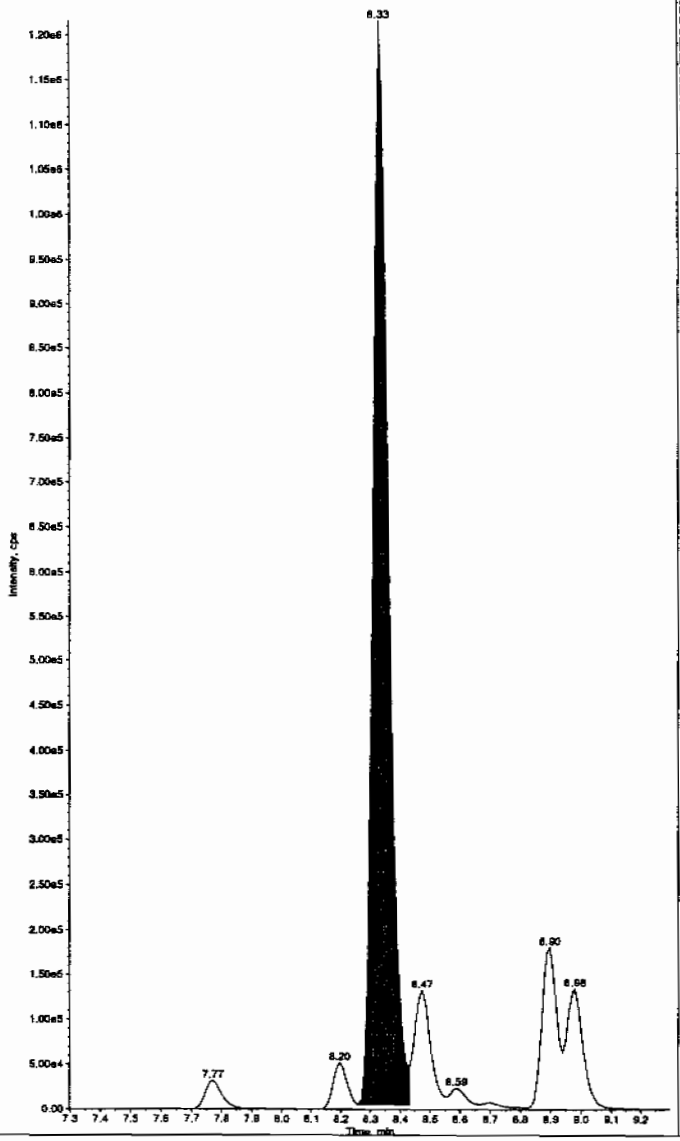

dm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032875" Sample ID: "948888|2|LER" File: "EXS02260031.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 244. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:45:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.36e+006 counts
Height: 956053.284 cps
Start Time: 8.40 min
End Time: 8.66 min

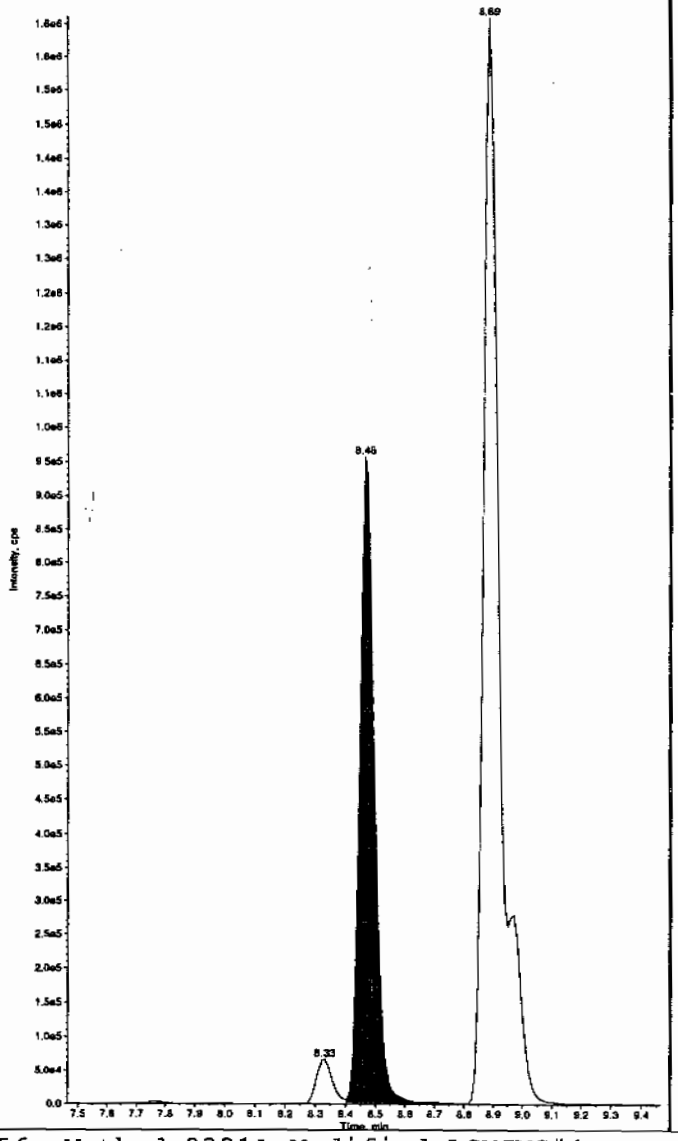

Sample Name: "1202032875" Sample ID: "948888|2|LER" File: "EXS02260031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 592. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:45:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.30e+006 counts
Height: 304642.822 cps
Start Time: 5.02 min
End Time: 5.43 min

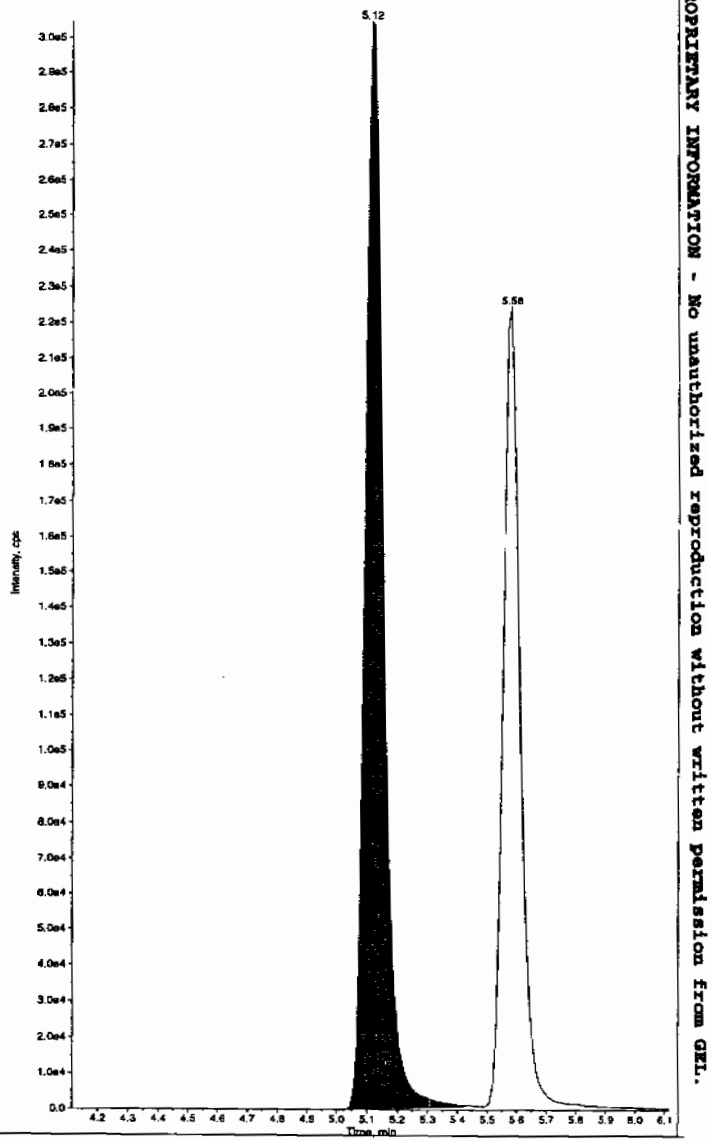

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Sample Name: "1202032875" Sample ID: "948888[2]LER" File: "EXS02260031.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 577. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:45:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.58 min
Area: 9.23e+005 counts
Height: 224653.061 cps
Start Time: 5.48 min
End Time: 6.32 min

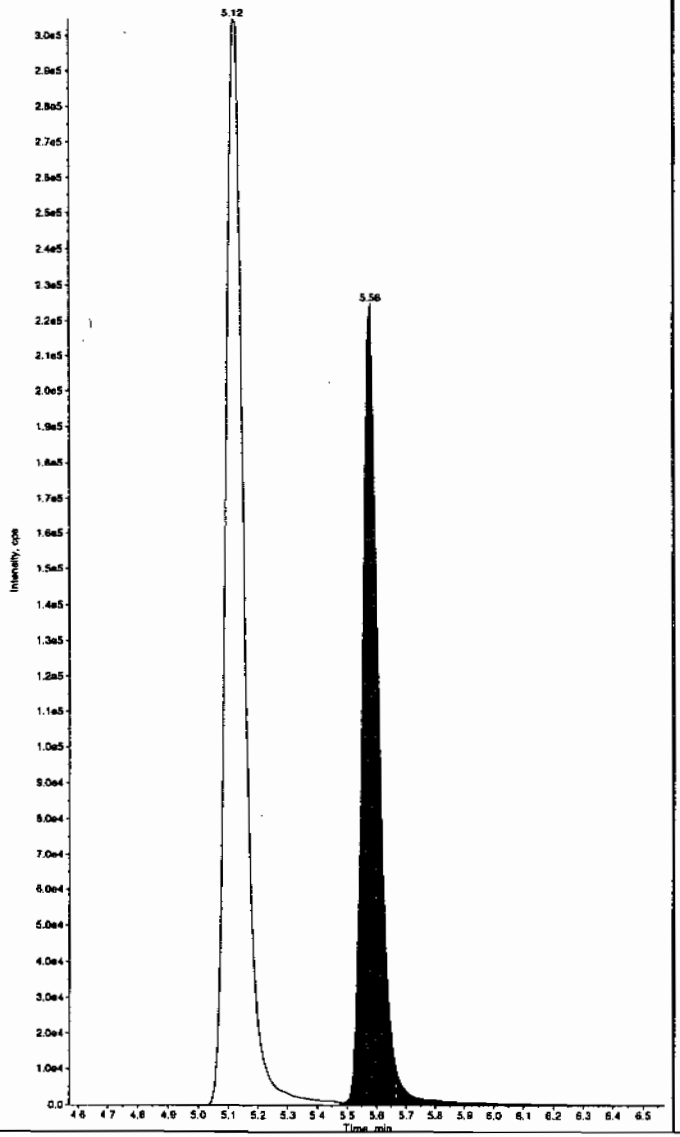

Sample Name: "1202032875" Sample ID: "948888[2]LER" File: "EXS02260031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 503. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:45:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 7.76e+006 counts
Height: 2121757.568 cps
Start Time: 10.9 min
End Time: 11.3 min

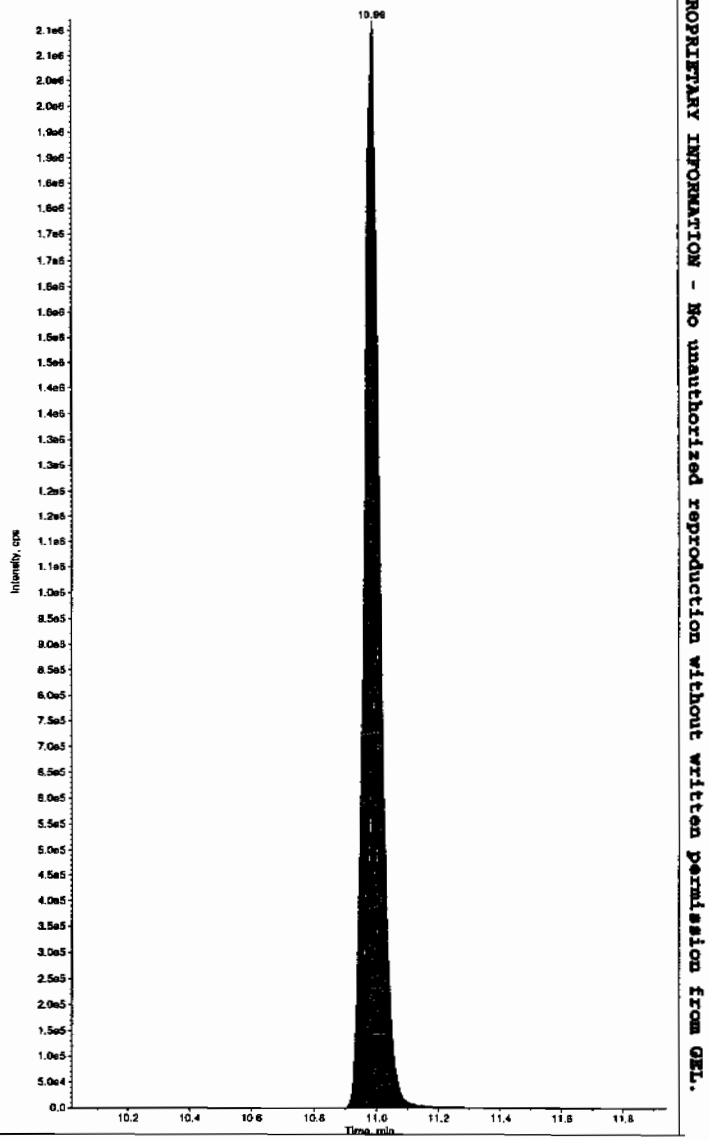

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129(246066001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 1202032876

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304152a

Date Analyzed: 07-MAR-10 17:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4880	
121-14-2	2,4-Dinitrotoluene	4650	
121-82-4	RDX	4450	
19406-51-0	4-Amino-2,6-dinitrotoluene	5550	
2691-41-0	HMX	4540	
35572-78-2	2-Amino-4,6-dinitrotoluene	5530	
479-45-8	Tetryl	2750	
606-20-2	2,6-Dinitrotoluene	4820	
78-11-5	PETN	6580	
88-72-2	o-Nitrotoluene	4790	
98-95-3	Nitrobenzene	4630	
99-08-1	m-Nitrotoluene	4490	
99-35-4	1,3,5-Trinitrobenzene	4420	
99-65-0	m-Dinitrobenzene	4670	
99-99-0	p-Nitrotoluene	4920	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304152a
Date: 07-Mar-2010
Time: 17:31:42
ID: 1202032876
Vial: 4:1,D

| LANL | 943888 | Soils | 246066001MS | 2 |

MAP 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.942e+004

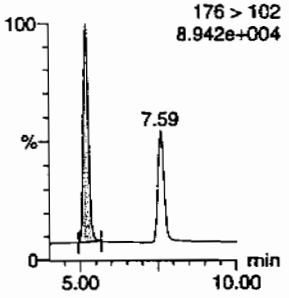

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
8.942e+004

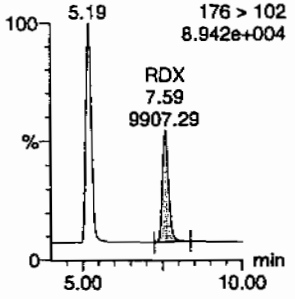

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.392e+004

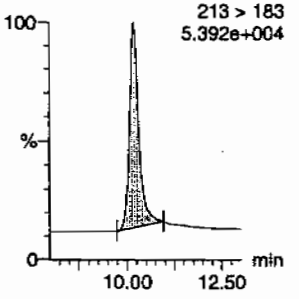

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.600e+004

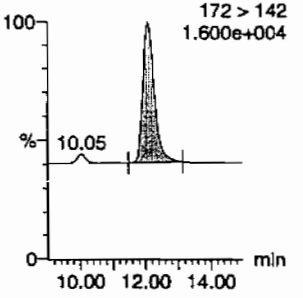

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.871e+004

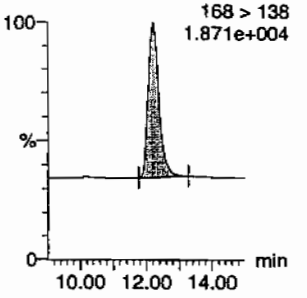

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.72
2177.82
241 > 181
1.267e+004

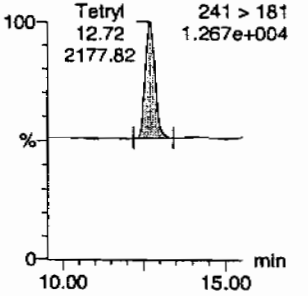

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.523e+004

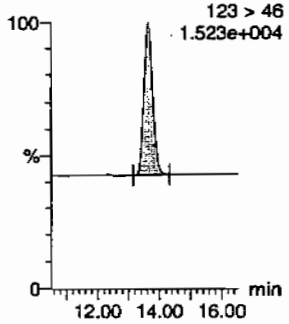

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.426e+004

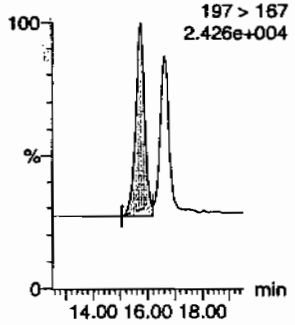

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.254e+004

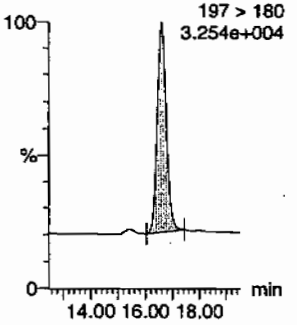

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.273e+004

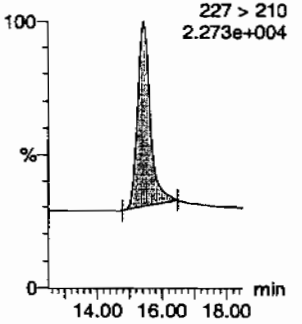

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64
182 > 152
7.216e+004

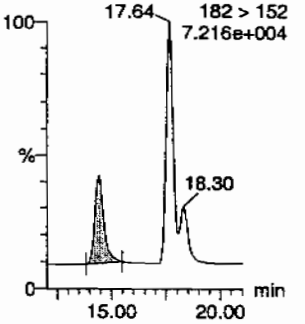

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.216e+004

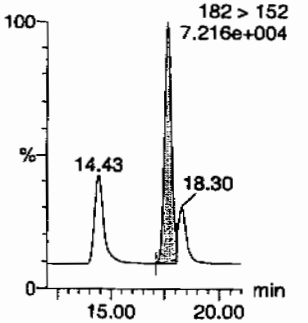

HMW 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

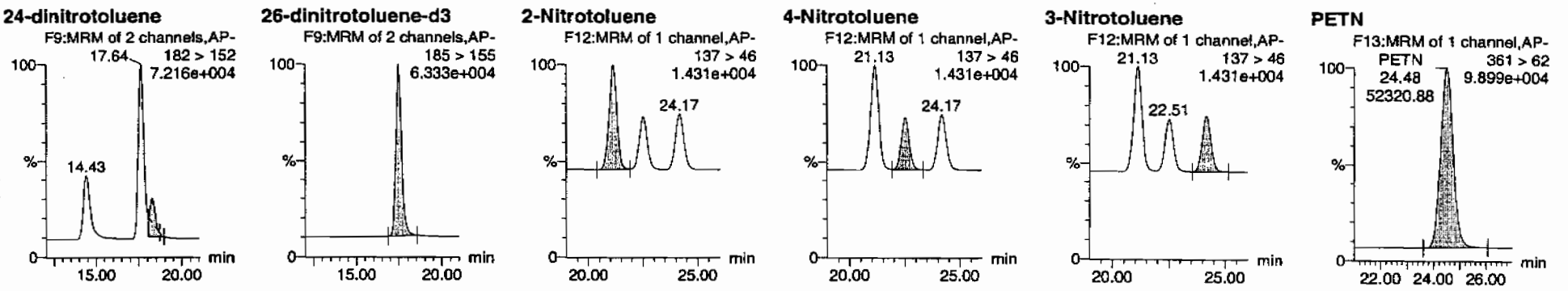

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202032876	HMX	176 > 102	5.19	16488.395	3892.655	16488.395	2117.885	bb			454.0621	90.8	-9.2	1663.0
1202032876	RDX	176 > 102	7.59	9907.287	3892.655	9907.287	1272.562	bb			444.7341	88.9	-11.1	846.5
1202032876	135-Trinitrobenzene	213 > 183	10.20	13396.138	3892.655	13396.138	1720.694	bb			441.9045	88.4	-11.6	2766.2
1202032876	13-Dinitrobenzene-d4	172 > 142	12.07	3892.655		3892.655	3892.655	bb			554.2268	110.8	10.8	330.2
1202032876	13-Dinitrobenzene	168 > 138	12.20	4602.766	3892.655	4602.766	591.212	bb			466.8213	93.4	-6.6	662.8
1202032876	Tetryl	241 > 181	12.72	2177.821	3892.655	2177.821	279.735	bb			274.9094	55.0	-45.0	212.2
1202032876	Nitrobenzene	123 > 46	13.63	2978.974	3892.655	2978.974	382.640	bb			463.3943	92.7	-7.3	375.6
1202032876	4-Amino-26-dinitrotoluene	197 > 167	15.74	6944.307	22666.717	6944.307	153.183	MM	08-Mar-10	11:34:24	555.3576	111.1	11.1	228.2
1202032876	2-Amino-46-dinitrotoluene	197 > 180	16.60	10154.940	22666.717	10154.940	224.006	bb			552.9600	110.6	10.6	544.6
1202032876	246-Trinitrotoluene	227 > 210	15.45	7272.413	22666.717	7272.413	160.421	bb			488.1833	97.6	-2.4	283.1
1202032876	34-dinitrotoluene	182 > 152	14.43	11432.775	22666.717	11432.775	252.193	bb			260.9433	104.4	4.4	345.8
1202032876	26-dinitrotoluene	182 > 152	17.64	24365.523	22666.717	24365.523	537.474	MM	08-Mar-10	11:51:23	481.8047	96.4	-3.6	947.5
1202032876	24-dinitrotoluene	182 > 152	18.30	5816.794	22666.717	5816.794	128.311	MM	08-Mar-10	11:55:02	465.4908	93.1	-6.9	208.9
1202032876	26-dinitrotoluene-d3	185 > 155	17.47	22666.717		22666.717	22666.717	bb			551.2178	110.2	10.2	1299.3
1202032876	2-Nitrotoluene	137 > 46	21.13	3360.642	22666.717	3360.642	74.132	bb			478.5811	95.7	-4.3	345.8
1202032876	4-Nitrotoluene	137 > 46	22.51	1701.751	22666.717	1701.751	37.539	bb			492.1543	98.4	-1.6	175.4
1202032876	3-Nitrotoluene	137 > 46	24.17	1921.937	22666.717	1921.937	42.396	bb			449.3220	89.9	-10.1	185.6
1202032876	PETN	361 > 62	24.48	52320.883	22666.717	52320.883	1154.135	bb			658.0516	131.6	31.6	14653.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129(246066001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 1202032876

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260033.wiff

Date Analyzed: 26-FEB-10 23:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	7090	
59229-75-3	2,6-Diamino-4-nitrotoluene	5820	
618-87-1	3,5-Dinitroaniline	4990	
6629-29-4	2,4-Diamino-6-nitrotoluene	5500	
78-30-8	tris(o-cresyl) phosphate	5260	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sen 3/1/10

Sample Name: "1202032876" Sample ID: "948888|2|LER" File: "EXS02260033.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 709. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:16:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.10 min
Area: 8.52e+005 counts
Height: 216268.509 cps
Start Time: 7.01 min
End Time: 7.82 min

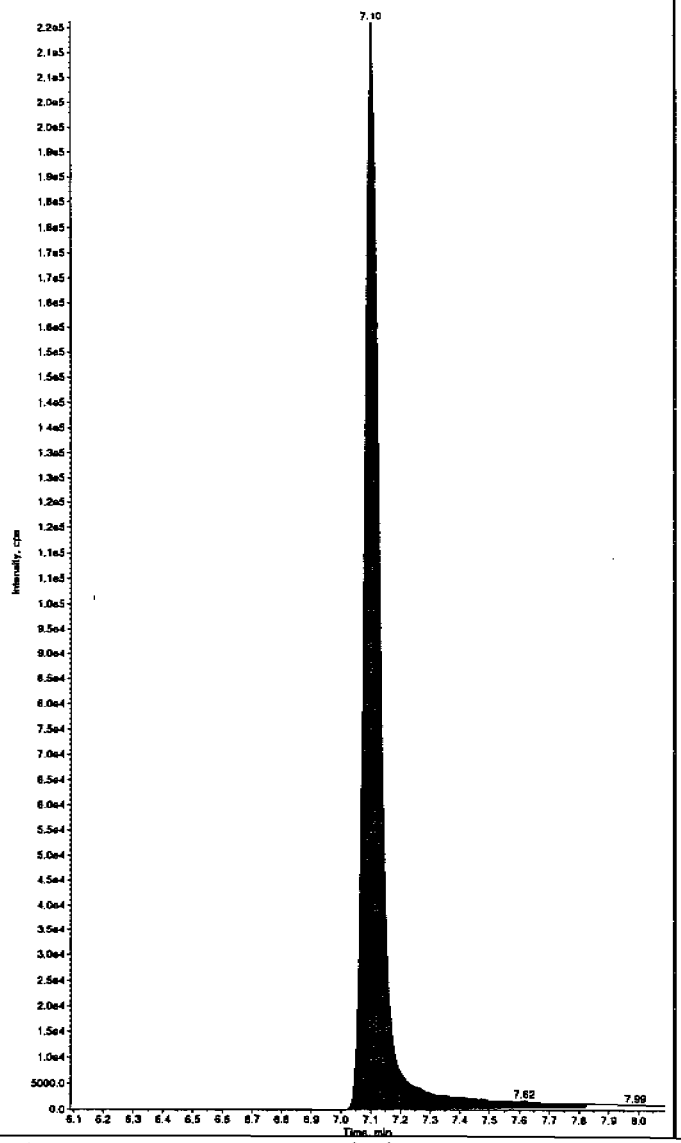

Sample Name: "1202032876" Sample ID: "948888|2|LER" File: "EXS02260033.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 499. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:16:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.33 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.56e+006 counts
Height: 1218146.484 cps
Start Time: 8.26 min
End Time: 8.43 min

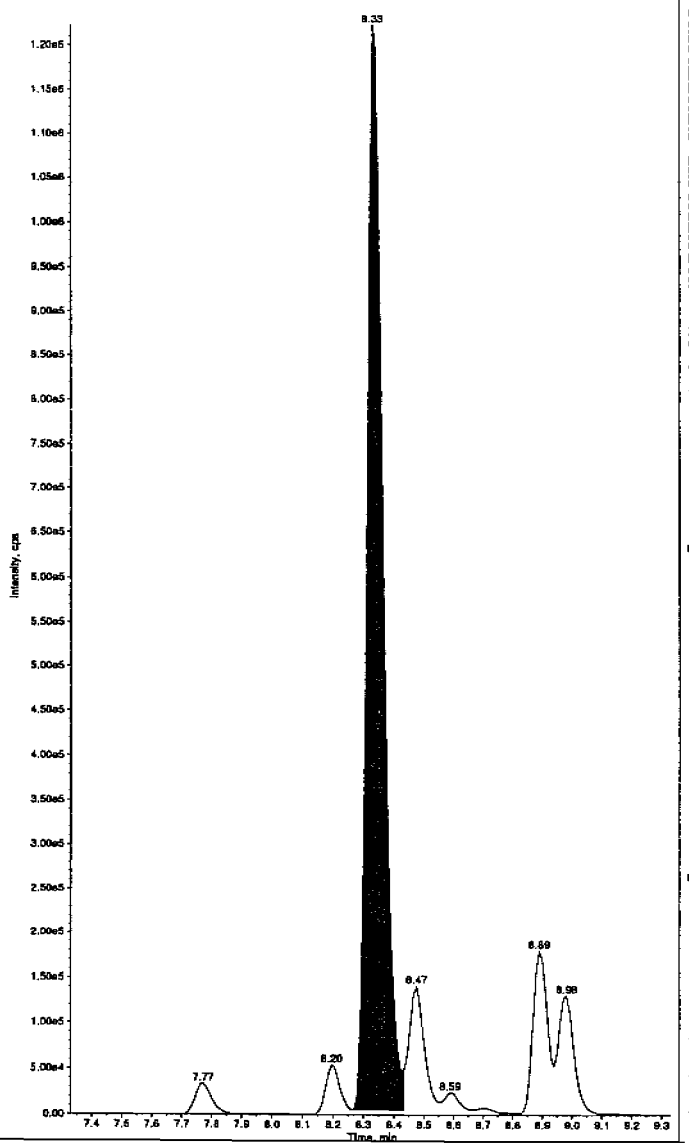

Hnm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032876" Sample ID: "948888|2|LER" File: "EXS02260033.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 238. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:16:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.28e+006 counts
Height: 929831.787 cps
Start Time: 8.40 min
End Time: 8.66 min

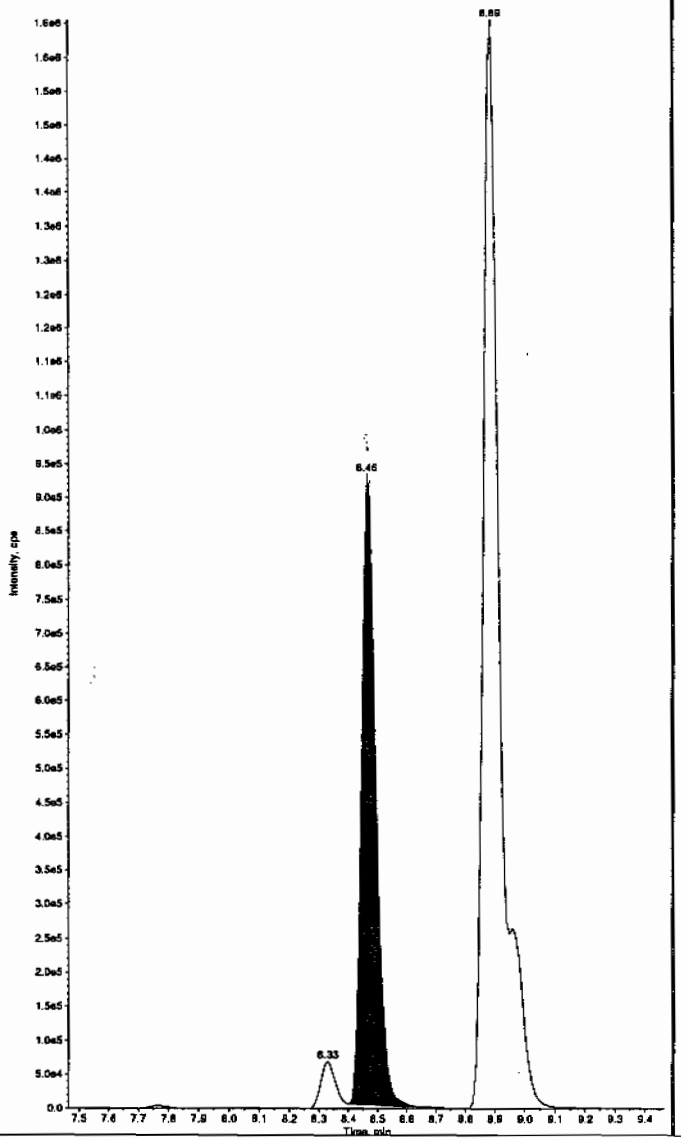

Sample Name: "1202032876" Sample ID: "948888|2|LER" File: "EXS02260033.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 582. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:16:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.28e+006 counts
Height: 307320.740 cps
Start Time: 5.01 min
End Time: 5.43 min

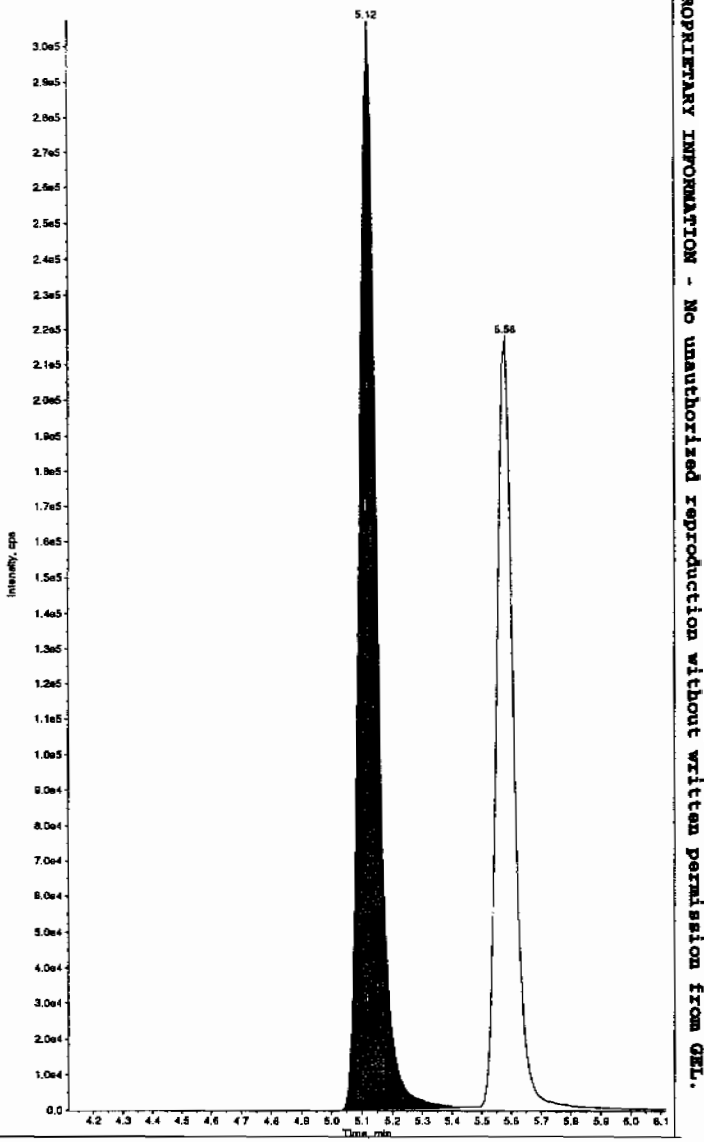

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032876" Sample ID: "948888[2]LER" File: "EXS02260033.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 550. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:16:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.58 min
Area: 8.80e+005 counts
Height: 218362.564 cps
Start Time: 5.46 min
End Time: 6.08 min

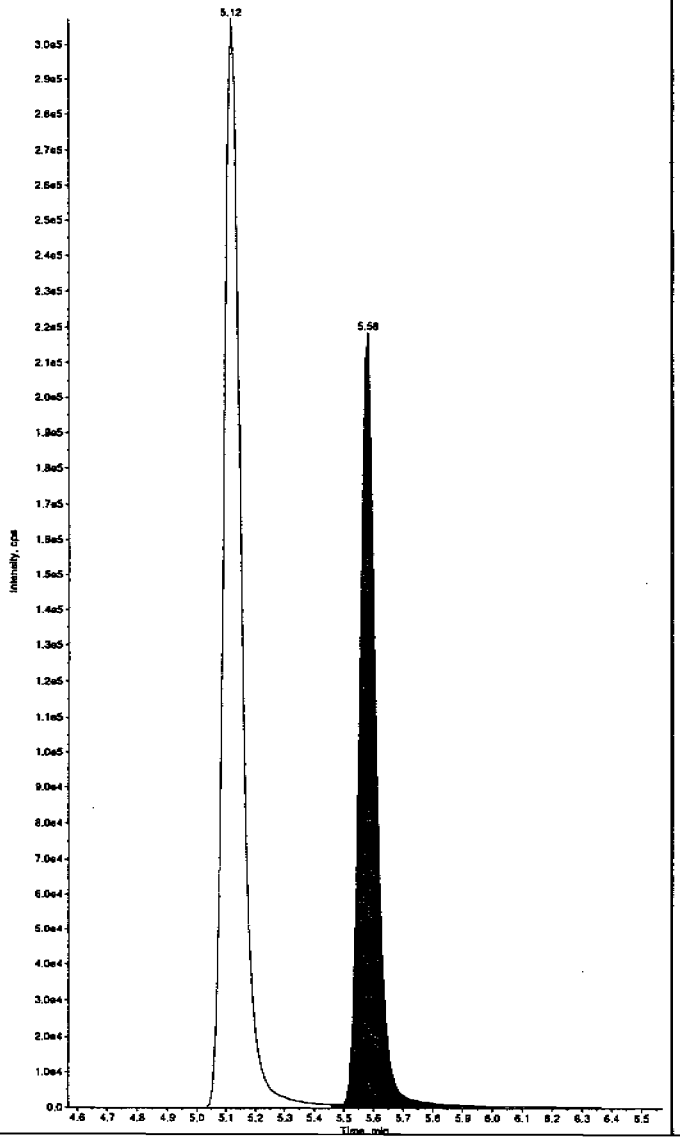

Sample Name: "1202032876" Sample ID: "948888[2]LER" File: "EXS02260033.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 526. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:16:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.08e+006 counts
Height: 2178845.947 cps
Start Time: 10.8 min
End Time: 11.2 min

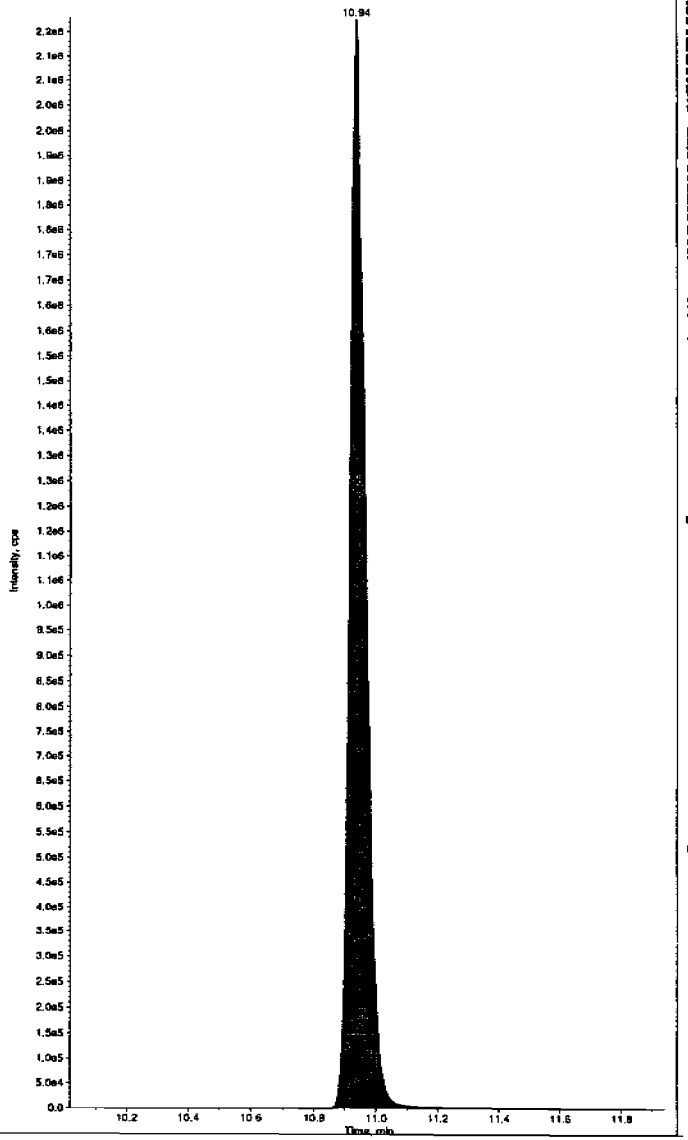

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129(246066001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 1202032877

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304153a

Date Analyzed: 07-MAR-10 18:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4980	
121-14-2	2,4-Dinitrotoluene	4610	
121-82-4	RDX	4500	
19406-51-0	4-Amino-2,6-dinitrotoluene	5550	
2691-41-0	HMX	4490	
35572-78-2	2-Amino-4,6-dinitrotoluene	5760	
479-45-8	Tetryl	2310	
606-20-2	2,6-Dinitrotoluene	4790	
78-11-5	PETN	6030	
88-72-2	o-Nitrotoluene	4680	
98-95-3	Nitrobenzene	4660	
99-08-1	m-Nitrotoluene	4460	
99-35-4	1,3,5-Trinitrobenzene	4260	
99-65-0	m-Dinitrobenzene	4670	
99-99-0	p-Nitrotoluene	4710	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304153a
Date: 07-Mar-2010
Time: 18:01:10
ID: 1202032877 | LANL | 948888 | Soil | 246066001 MS | 21
Vial: 4:1,E

MAP 3/8/10

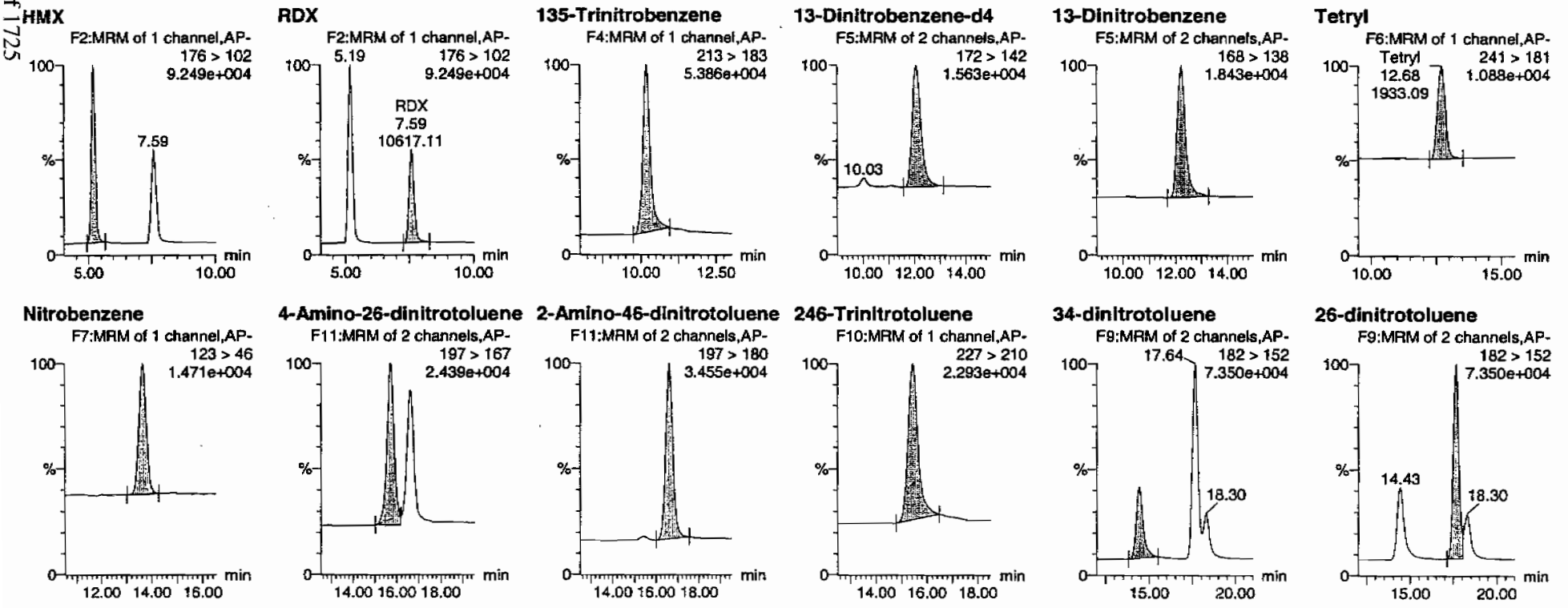

HMK 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

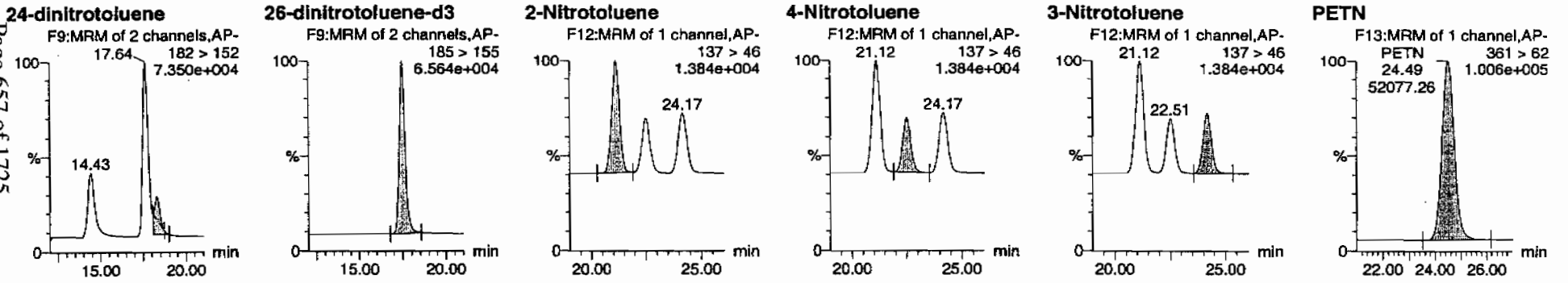

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202032877	HMX	176 > 102	5.19	17258.154	4120.640	17258.154	2094.111	bb			448.9650	89.8	-10.2	1656.1
1202032877	RDX	176 > 102	7.59	10617.114	4120.640	10617.114	1288.285	bb			450.2289	90.0	-10.0	865.6
1202032877	135-Trinitrobenzene	213 > 183	10.20	13662.055	4120.640	13662.055	1657.759	bb			425.7416	85.1	-14.9	295.2
1202032877	13-Dinitrobenzene-d4	172 > 142	12.07	4120.640		4120.640	4120.640	bb			586.6868	117.3	17.3	265.8
1202032877	13-Dinitrobenzene	168 > 138	12.20	4875.450	4120.640	4875.450	591.589	bb			467.1192	93.4	-6.6	385.6
1202032877	Tetryl	241 > 181	12.68	1933.090	4120.640	1933.090	234.562	bb			230.5158	46.1	-53.9	224.7
1202032877	Nitrobenzene	123 > 46	13.63	3174.111	4120.640	3174.111	385.148	bb			466.4309	93.3	-6.7	229.6
1202032877	4-Amino-26-dinitrotoluene	197 > 167	15.71	7313.058	23898.730	7313.058	153.001	MM	08-Mar-10	11:34:34	554.6980	110.9	10.9	306.4
1202032877	2-Amino-46-dinitrotoluene	197 > 180	16.60	11158.701	23898.730	11158.701	233.458	bb			576.2936	115.3	15.3	715.1
1202032877	246-Trinitrotoluene	227 > 210	15.45	7827.926	23898.730	7827.926	163.773	bb			498.3849	99.7	-0.3	625.8
1202032877	34-dinitrotoluene	182 > 152	14.43	11881.721	23898.730	11881.721	248.585	bb			257.2099	102.9	2.9	745.4
1202032877	26-dinitrotoluene	182 > 152	17.64	25536.152	23898.730	25536.152	534.258	MM	08-Mar-10	11:51:15	478.9217	95.8	-4.2	2033.7
1202032877	24-dinitrotoluene	182 > 152	18.30	6078.029	23898.730	6078.029	127.162	MM	08-Mar-10	11:55:11	461.3218	92.3	-7.7	446.5
1202032877	26-dinitrotoluene-d3	185 > 155	17.47	23898.730		23898.730	23898.730	bb			581.1783	116.2	16.2	859.8
1202032877	2-Nitrotoluene	137 > 46	21.12	3467.917	23898.730	3467.917	72.554	bb			468.3988	93.7	-6.3	1042.1
1202032877	4-Nitrotoluene	137 > 46	22.51	1718.378	23898.730	1718.378	35.951	bb			471.3437	94.3	-5.7	502.4
1202032877	3-Nitrotoluene	137 > 46	24.17	2011.318	23898.730	2011.318	42.080	bb			445.9776	89.2	-10.8	553.2
1202032877	PETN	361 > 62	24.49	52077.262	23898.730	52077.262	1089.540	bb			603.1771	120.6	20.6	9701.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8129(246066001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1543

Matrix: SOIL

GEL Sample ID: 1202032877

Sample Amount 2

Moisture: 13.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948887

Concentrated Extract Volume (mL) 10

Date Extracted: 11-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260034.wiff

Date Analyzed: 26-FEB-10 23:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	8160	
59229-75-3	2,6-Diamino-4-nitrotoluene	6060	
618-87-1	3,5-Dinitroaniline	4940	
6629-29-4	2,4-Diamino-6-nitrotoluene	5360	
78-30-8	tris(o-cresyl) phosphate	5270	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sher 3/1/10

Sample Name: "1202032877" Sample ID: "948888|2|LER" File: "EXS02260034.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 816. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:32:28 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.09 min
Area: 9.87e+005 counts
Height: 239950.211 cps
Start Time: 7.00 min
End Time: 7.83 min

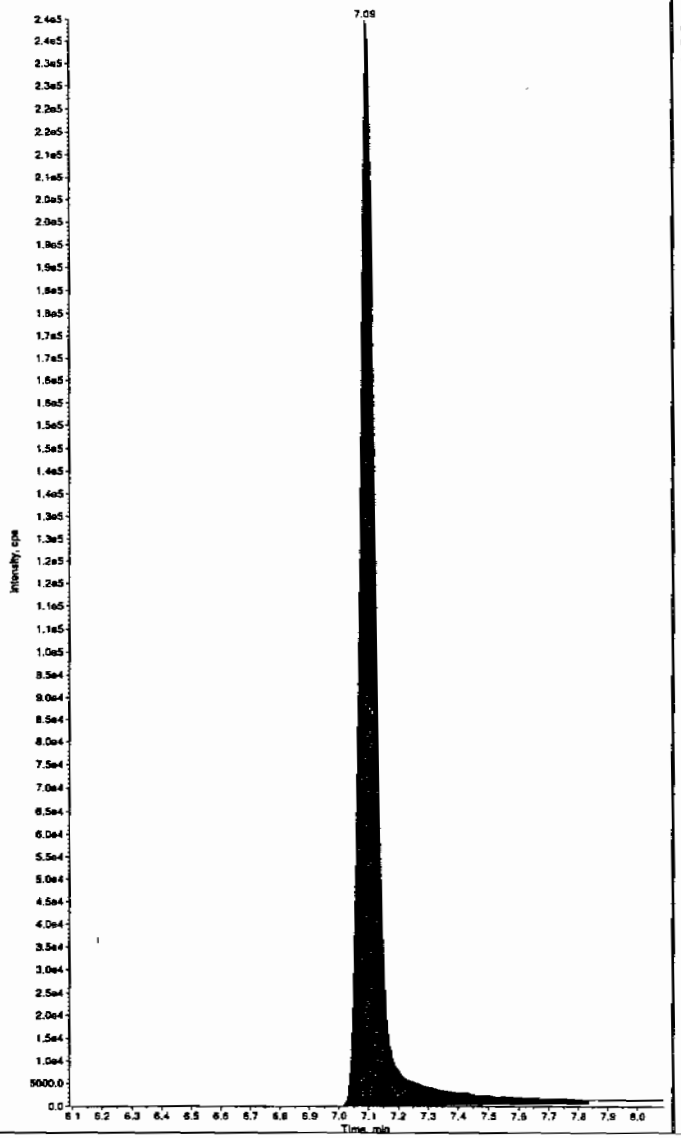

Sample Name: "1202032877" Sample ID: "948888|2|LER" File: "EXS02260034.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 494. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:32:28 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.52e+006 counts
Height: 1196231.812 cps
Start Time: 8.26 min
End Time: 8.42 min

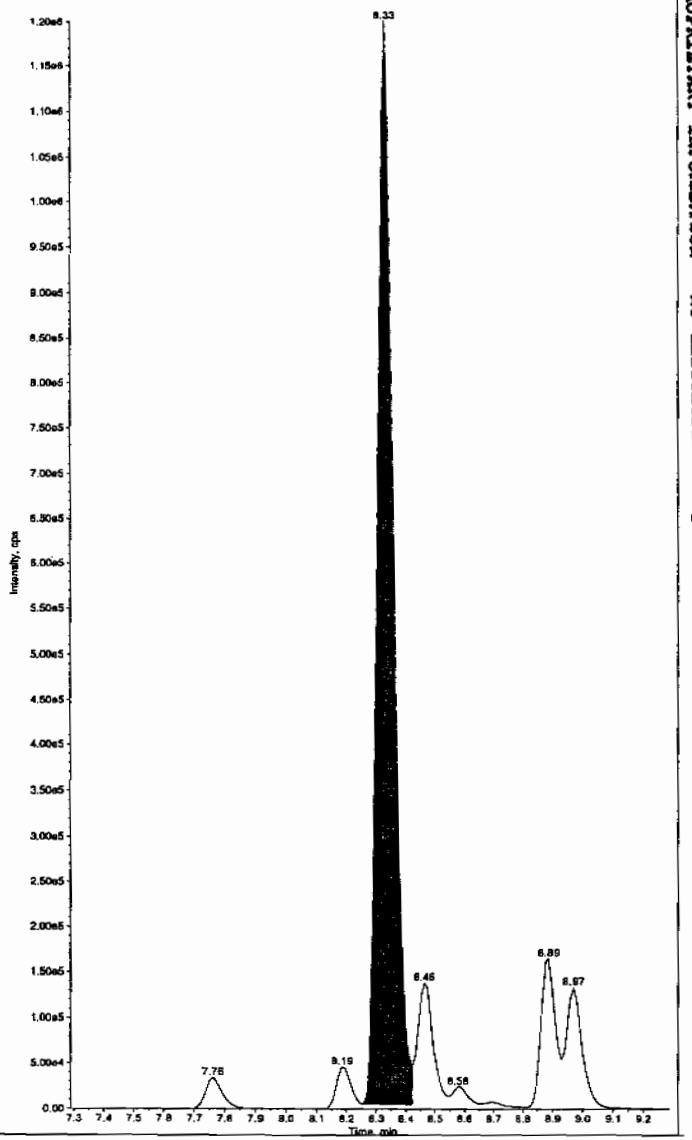

thm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032877" Sample ID: "948888|2|LER" File: "EXS02260034.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 246. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:32:28 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.38e+006 counts
Height: 967095.520 cps
Start Time: 8.39 min
End Time: 8.64 min

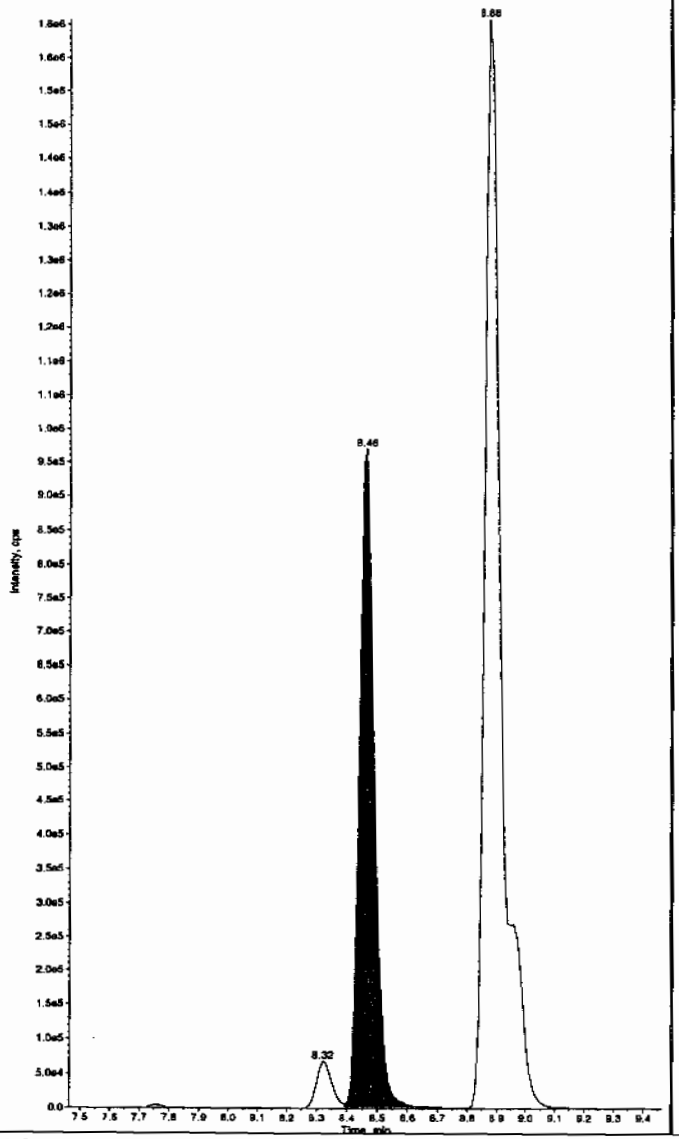

Sample Name: "1202032877" Sample ID: "948888|2|LER" File: "EXS02260034.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 606. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:32:28 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.11 min
Area: 1.33e+006 counts
Height: 324394.012 cps
Start Time: 5.01 min
End Time: 5.42 min

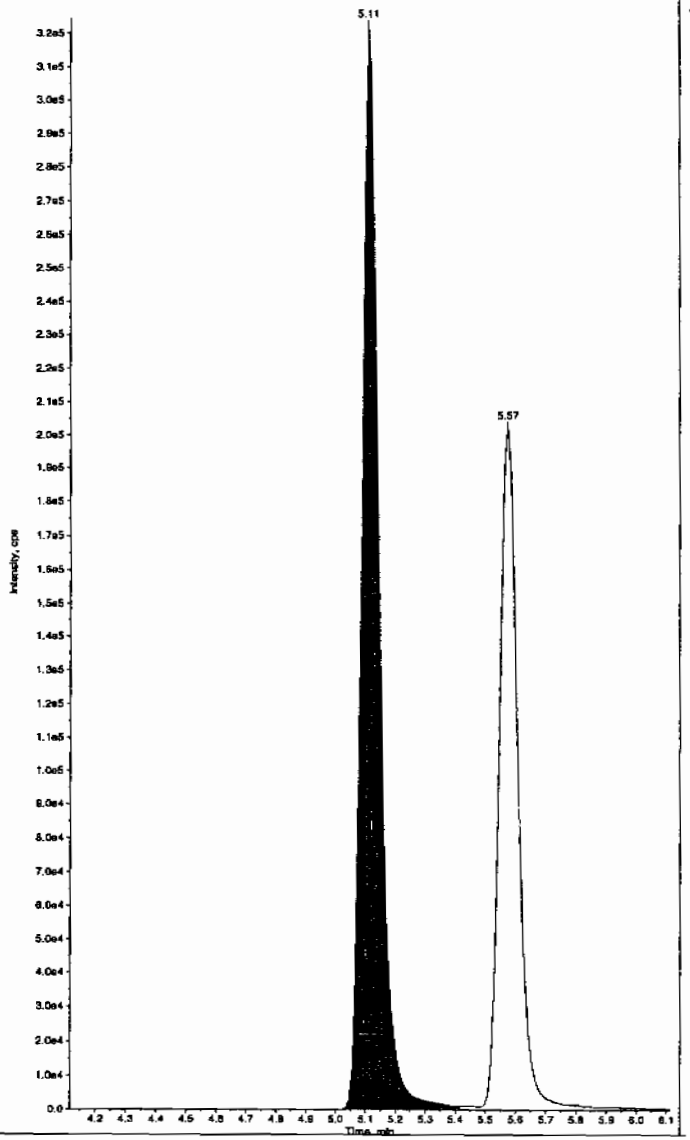

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032877" Sample ID: "948888|2|LER" File: "EXS02260034.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 536. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:32:28 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.57 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.57 min
Area: 8.56e+005 counts
Height: 203675.003 cps
Start Time: 5.48 min
End Time: 5.87 min

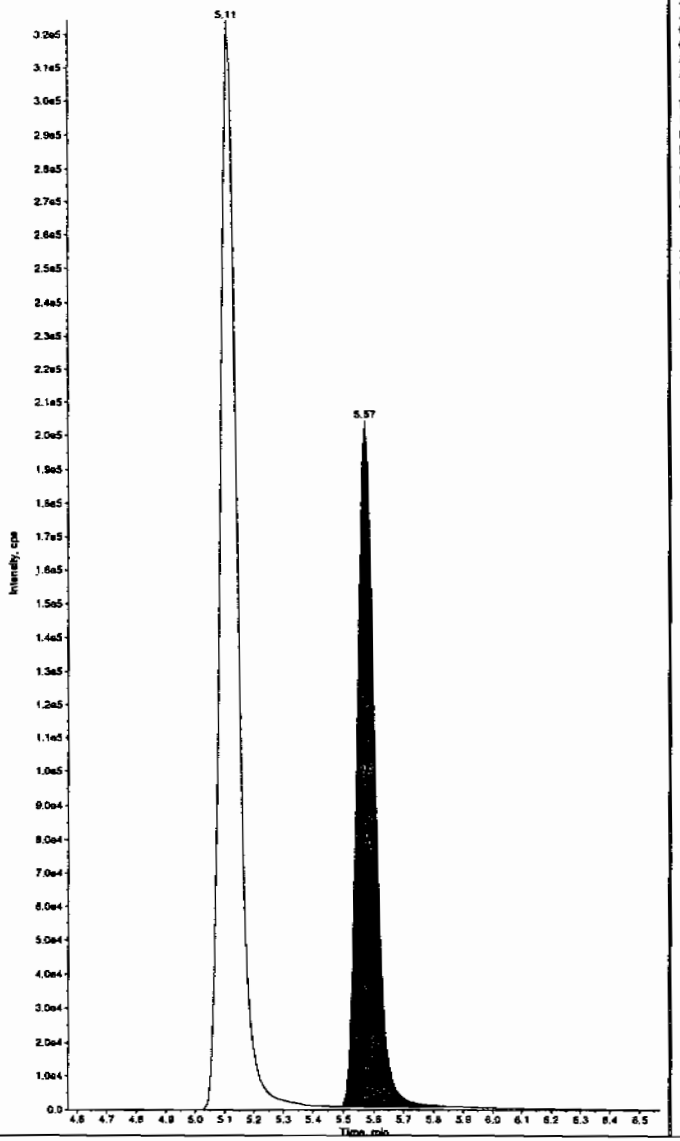

Sample Name: "1202032877" Sample ID: "948888|2|LER" File: "EXS02260034.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 527. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 11:32:28 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.10e+006 counts
Height: 2177668.457 cps
Start Time: 10.8 min
End Time: 11.2 min

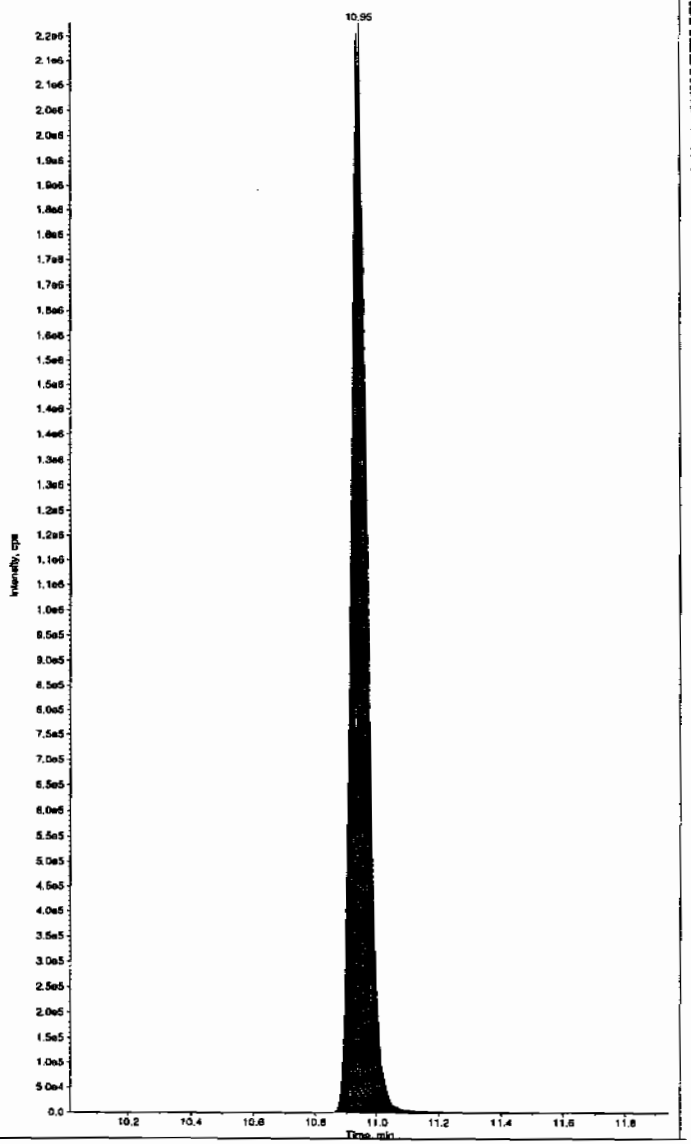

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 948887 **Verified by:** _____
Analyst: Sirena White
Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202032874 MB	11-FEB-2010 14:15:00	2	10	5
1202032875 LCS	11-FEB-2010 14:15:00	2	10	5
246066001	11-FEB-2010 14:15:00	2	10	5
1202032876 MS (246066001)	11-FEB-2010 14:15:00	2	10	5
1202032877 MSD (246066001)	11-FEB-2010 14:15:00	2	10	5
246066002	11-FEB-2010 14:15:00	2	10	5
246066003	11-FEB-2010 14:15:00	2	10	5
246066004	11-FEB-2010 14:15:00	2	10	5
246066005	11-FEB-2010 14:15:00	2	10	5
246066006	11-FEB-2010 14:15:00	2	10	5
246066007	11-FEB-2010 14:15:00	2	10	5
246066008	11-FEB-2010 14:15:00	2	10	5
246066009	11-FEB-2010 14:15:00	2	10	5
246066010	11-FEB-2010 14:15:00	2	10	5
246066011	11-FEB-2010 14:15:00	2	10	5
246066012	11-FEB-2010 14:15:00	2	10	5
246066013	11-FEB-2010 14:15:00	2	10	5
246066014	11-FEB-2010 14:15:00	2	10	5
246066015	11-FEB-2010 14:15:00	2	10	5
246066016	11-FEB-2010 14:15:00	2	10	5
246066017	11-FEB-2010 14:15:00	2	10	5
246066018	11-FEB-2010 14:15:00	2	10	5
246066019	11-FEB-2010 14:15:00	2	10	5
246066020	11-FEB-2010 14:15:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202032875	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202032875	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
MS	1202032876	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202032876	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
MSD	1202032877	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202032877	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100210-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date:03/04/10
Extr. Injection Volume: 50uL
Sequence Number: 030410expA
Initial Calibration Date: 03/04/10

Method: SW846 8321A-Modified
Int. Std.: UXX1000220-01
Mobile Phase Lot#: 1277087, 1268566
Standard-Samp Reagent Lot#: 1274562, 1271949

Reviewed BY: Hmm
Date: 03/08/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100304-07& WXX100307-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0304001a	XIBLK01	MAP	3/4/10 15:16			1		USE	B
EXP0304002a	XIBLK01	MAP	3/4/10 15:46			1		USE	B
EXP0304003a	WXXICAL-01	MAP	3/4/10 16:15			1		USE	I
EXP0304004a	WXXICAL-02	MAP	3/4/10 16:45			1		USE	I
EXP0304005a	WXXICAL-03	MAP	3/4/10 17:14			1		USE	I
EXP0304006a	WXXICAL-04	MAP	3/4/10 17:44			1		USE	I
EXP0304007a	WXXICAL-05	MAP	3/4/10 18:13			1		USE	I
EXP0304008a	WXXICAL-06	MAP	3/4/10 18:43			1		USE	I
EXP0304009a	XIBLK02	MAP	3/4/10 19:12			1		USE	B
EXP0304010a	WXXICV	MAP	3/4/10 19:41			1		USE	C
EXP0304011a	XIBLK03	MAP	3/4/10 20:11			1		USE	B
EXP0304012a	WXXCRI	MAP	3/4/10 20:40			1		USE	C
EXP0304013a	1202038795	MAP	3/4/10 21:10	951357	Various	2	LANL	USE	S
EXP0304014a	1202038796	MAP	3/4/10 21:39	951357	Various	2	LANL	USE	S
EXP0304015a	246610001	MAP	3/4/10 22:09	951357	10-1701	2	LANL	USE	S
EXP0304016a	1202038797	MAP	3/4/10 22:38	951357	10-1701	2	LANL	USE	S
EXP0304017a	1202038798	MAP	3/4/10 23:08	951357	10-1701	2	LANL	DUSE-RA	S
EXP0304018a	246610002	MAP	3/4/10 23:37	951357	10-1701	2	LANL	USE	S
EXP0304019a	246610003	MAP	3/5/10 0:07	951357	10-1701	2	LANL	USE	S
EXP0304020a	246611001	MAP	3/5/10 0:36	951357	10-1702	2	LANL	USE	S
EXP0304021a	246611002	MAP	3/5/10 1:06	951357	10-1702	2	LANL	USE	S
EXP0304022a	246611003	MAP	3/5/10 1:35	951357	10-1702	2	LANL	USE	S
EXP0304023a	WXXCCV	MAP	3/5/10 2:05			1		USE	C
EXP0304024a	XIBLK04	MAP	3/5/10 2:34			1		USE	B
EXP0304025a	WXXCRI	MAP	3/5/10 3:04			1		USE	C
EXP0304026a	1202038789	MAP	3/5/10 3:33	951353	Various	2	LANL	USE	S
EXP0304027a	1202038790	MAP	3/5/10 4:03	951353	Various	2	LANL	USE	S
EXP0304028a	246588002	MAP	3/5/10 4:32	951353	10-1688	2	LANL	USE	S
EXP0304029a	1202038791	MAP	3/5/10 5:02	951353	10-1688	2	LANL	USE	S

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EXP0304030a	1202038792	MAP	3/5/10 5:31	951353	10-1688	2	LANL	USE	S
EXP0304031a	246588003	MAP	3/5/10 6:01	951353	10-1688	2	LANL	USE	S
EXP0304032a	246588004	MAP	3/5/10 6:30	951353	10-1688	2	LANL	USE	S
EXP0304033a	246588005	MAP	3/5/10 7:00	951353	10-1688	2	LANL	USE	S
EXP0304034a	246588006	MAP	3/5/10 7:29	951353	10-1688	2	LANL	USE	S
EXP0304035a	246588007	MAP	3/5/10 7:59	951353	10-1688	2	LANL	USE	S
EXP0304036a	WXXCCV	MAP	3/5/10 8:28			1		USE	C
EXP0304037a	XIBLK05	MAP	3/5/10 8:58			1		USE	B
EXP0304038a	WXXCRI	MAP	3/5/10 9:27			1		USE	C
EXP0304039a	246588008	MAP	3/5/10 9:57	951353	10-1688	2	LANL	USE	S
EXP0304040a	246588009	MAP	3/5/10 10:26	951353	10-1688	2	LANL	USE	S
EXP0304041a	246588010	MAP	3/5/10 10:56	951353	10-1688	2	LANL	USE	S
EXP0304042a	246588011	MAP	3/5/10 11:25	951353	10-1688	2	LANL	USE	S
EXP0304043a	246588012	MAP	3/5/10 11:55	951353	10-1688	2	LANL	USE	S
EXP0304044a	246605001	MAP	3/5/10 12:24	951353	10-1698-1	2	LANL	USE	S
EXP0304045a	246605002	MAP	3/5/10 12:54	951353	10-1698-1	2	LANL	USE	S
EXP0304046a	246605003	MAP	3/5/10 13:23	951353	10-1698-1	2	LANL	USE	S
EXP0304047a	246605004	MAP	3/5/10 13:53	951353	10-1698-1	2	LANL	USE	S
EXP0304048a	246605005	MAP	3/5/10 14:22	951353	10-1698-1	2	LANL	USE	S
EXP0304049a	WXXCCV	MAP	3/5/10 14:52			1	LANL	USE	C
EXP0304050a	XIBLK06	MAP	3/5/10 15:21			1	LANL	USE	B
EXP0304051a	WXXCRI	MAP	3/5/10 15:51			1	LANL	USE	C
EXP0304052a	246605006	MAP	3/5/10 16:20	951353	10-1698-1	2	LANL	USE	S
EXP0304053a	1202038798	MAP	3/5/10 16:50	951357	10-1701	2	LANL	USE	S
EXP0304054a	XIBLK07	MAP	3/5/10 17:19			1	LANL	USE	B
EXP0304055a	1202041901	MAP	3/5/10 17:49	952679	Various	2	LANL	USE	S
EXP0304056a	1202041902	MAP	3/5/10 18:18	952679	Various	2	LANL	USE	S
EXP0304057a	246721001	MAP	3/5/10 18:48	952679	10-1709	2	LANL	USE	S
EXP0304058a	1202041903	MAP	3/5/10 19:17	952679	10-1709	2	LANL	USE	S
EXP0304059a	1202041904	MAP	3/5/10 19:47	952679	10-1709	2	LANL	USE	S
EXP0304060a	246721002	MAP	3/5/10 20:16	952679	10-1709	2	LANL	USE	S
EXP0304061a	246837001	MAP	3/5/10 20:46	952679	10-1747	2	LANL	USE	S
EXP0304062a	246837002	MAP	3/5/10 21:15	952679	10-1747	2	LANL	USE	S
EXP0304063a	246837003	MAP	3/5/10 21:45	952679	10-1747	2	LANL	USE	S
EXP0304064a	WXXCCV	MAP	3/5/10 22:14			1		USE	C
EXP0304065a	XIBLK08	MAP	3/5/10 22:44			1		USE	B
EXP0304066a	WXXCRI	MAP	3/5/10 23:13			1		USE	C

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EXP0304067a	246837004	MAP	3/5/10 23:43	952679	10-1747	2	LANL	USE	S
EXP0304068a	246837005	MAP	3/6/10 0:13	952679	10-1747	2	LANL	USE	S
EXP0304069a	246837006	MAP	3/6/10 0:42	952679	10-1747	2	LANL	USE	S
EXP0304070a	246841001	MAP	3/6/10 1:11	952679	10-1748	2	LANL	USE	S
EXP0304071a	246841002	MAP	3/6/10 1:41	952679	10-1748	2	LANL	USE	S
EXP0304072a	246841003	MAP	3/6/10 2:11	952679	10-1748	2	LANL	USE	S
EXP0304073a	246843002	MAP	3/6/10 2:40	952679	10-1749	2	LANL	USE	S
EXP0304074a	246843003	MAP	3/6/10 3:10	952679	10-1749	2	LANL	USE	S
EXP0304075a	246843004	MAP	3/6/10 3:39	952679	10-1749	2	LANL	USE	S
EXP0304076a	WXXCCV	MAP	3/6/10 4:08			1		USE	C
EXP0304077a	XIBLK09	MAP	3/6/10 4:38			1		USE	B
EXP0304078a	WXXCRI	MAP	3/6/10 5:08			1		USE	C
EXP0304079a	246846001	MAP	3/6/10 5:37	952679	10-1750	2	LANL	USE	S
EXP0304080a	246846002	MAP	3/6/10 6:07	952679	10-1750	2	LANL	USE	S
EXP0304081a	246847001	MAP	3/6/10 6:36	952679	10-1751	2	LANL	USE	S
EXP0304082a	246847002	MAP	3/6/10 7:06	952679	10-1751	2	LANL	USE	S
EXP0304083a	XIBLK10	MAP	3/6/10 7:35			1		USE	B
EXP0304084a	1202045764	MAP	3/6/10 8:05	954338	Various	2	LANL	USE	S
EXP0304085a	1202045765	MAP	3/6/10 8:34	954338	Various	2	LANL	USE	S
EXP0304086a	247083001	MAP	3/6/10 9:04	954338	10-1827	2	LANL	USE	S
EXP0304087a	1202045766	MAP	3/6/10 9:33	954338	10-1827	2	LANL	USE	S
EXP0304088a	1202045767	MAP	3/6/10 10:03	954338	10-1827	2	LANL	USE	S
EXP0304089a	WXXCCV	MAP	3/6/10 10:32			1		USE	C
EXP0304090a	XIBLK11	MAP	3/6/10 11:02			1		USE	B
EXP0304091a	WXXCRI	MAP	3/6/10 11:31			1		USE	C
EXP0304092a	247083002	MAP	3/6/10 12:01	954338	10-1827	2	LANL	USE	S
EXP0304093a	247083003	MAP	3/6/10 12:30	954338	10-1827	2	LANL	USE	S
EXP0304094a	247083004	MAP	3/6/10 13:00	954338	10-1827	2	LANL	USE	S
EXP0304095a	247084001	MAP	3/6/10 13:29	954338	10-1828	2	LANL	USE	S
EXP0304096a	247084002	MAP	3/6/10 13:59	954338	10-1828	2	LANL	USE	S
EXP0304097a	247086001	MAP	3/6/10 14:28	954338	10-1829	2	LANL	USE	S
EXP0304098a	247088001	MAP	3/6/10 14:58	954338	10-1830	2	LANL	USE	S
EXP0304099a	247088002	MAP	3/6/10 15:27	954338	10-1830	2	LANL	USE	S
EXP0304100a	247088003	MAP	3/6/10 15:57	954338	10-1830	2	LANL	USE	S
EXP0304101a	WXXCCV	MAP	3/6/10 16:26			1		USE	C
EXP0304102a	XIBLK12	MAP	3/6/10 16:56			1		USE	B
EXP0304103a	WXXCRI	MAP	3/6/10 17:25			1		USE	C

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EXP0304104a	247091001	MAP	3/6/10 17:55	954338	10-1831	2	LANL	USE	S
EXP0304105a	247091002	MAP	3/6/10 18:24	954338	10-1831	2	LANL	USE	S
EXP0304106a	247094001	MAP	3/6/10 18:54	954338	10-1832	2	LANL	USE	S
EXP0304107a	247094002	MAP	3/6/10 19:23	954338	10-1832	2	LANL	USE	S
EXP0304108a	247121002	MAP	3/6/10 19:53	954338	10-1846	2	LANL	USE	S
EXP0304109a	247123001	MAP	3/6/10 20:22	954338	10-1848	2	LANL	USE	S
EXP0304110a	247123002	MAP	3/6/10 20:52	954338	10-1848	2	LANL	USE	S
EXP0304111a	247123003	MAP	3/6/10 21:21	954338	10-1848	2	LANL	USE	S
EXP0304112a	247123004	MAP	3/6/10 21:51	954338	10-1848	2	LANL	USE	S
EXP0304113a	WXXCCV	MAP	3/6/10 22:20			1		USE	C
EXP0304114a	XIBLK13	MAP	3/6/10 22:50			1		USE	B
EXP0304115a	WXXCRI	MAP	3/6/10 23:19			1		USE	C
EXP0304116a	1202032878	MAP	3/6/10 23:49	948890	10-1544	2	LANL	USE	S
EXP0304117a	1202032879	MAP	3/7/10 0:18	948890	10-1544	2	LANL	USE	S
EXP0304118a	246070001	MAP	3/7/10 0:48	948890	10-1544	2	LANL	USE	S
EXP0304119a	1202032880	MAP	3/7/10 1:17	948890	10-1544	2	LANL	USE	S
EXP0304120a	1202032881	MAP	3/7/10 1:47	948890	10-1544	2	LANL	USE	S
EXP0304121a	246070002	MAP	3/7/10 2:16	948890	10-1544	2	LANL	USE	S
EXP0304122a	246070003	MAP	3/7/10 2:46	948890	10-1544	2	LANL	USE	S
EXP0304123a	246070004	MAP	3/7/10 3:15	948890	10-1544	2	LANL	USE	S
EXP0304124a	246070005	MAP	3/7/10 3:45	948890	10-1544	2	LANL	USE	S
EXP0304125a	246070006	MAP	3/7/10 4:14	948890	10-1544	2	LANL	USE	S
EXP0304126a	WXXCCV	MAP	3/7/10 4:44			1		USE	C
EXP0304127a	XIBLK14	MAP	3/7/10 5:13			1		USE	B
EXP0304128a	WXXCRI	MAP	3/7/10 5:43			1		USE	C
EXP0304129a	246070007	MAP	3/7/10 6:12	948890	10-1544	2	LANL	USE	S
EXP0304130a	246070008	MAP	3/7/10 6:42	948890	10-1544	2	LANL	USE	S
EXP0304131a	246070009	MAP	3/7/10 7:11	948890	10-1544	2	LANL	USE	S
EXP0304132a	246070010	MAP	3/7/10 7:41	948890	10-1544	2	LANL	USE	S
EXP0304133a	246070011	MAP	3/7/10 8:10	948890	10-1544	2	LANL	USE	S
EXP0304134a	246070012	MAP	3/7/10 8:40	948890	10-1544	2	LANL	USE	S
EXP0304135a	246070013	MAP	3/7/10 9:09	948890	10-1544	2	LANL	USE	S
EXP0304136a	246070014	MAP	3/7/10 9:39	948890	10-1544	2	LANL	USE	S
EXP0304137a	246070015	MAP	3/7/10 10:08	948890	10-1544	2	LANL	USE	S
EXP0304138a	246070016	MAP	3/7/10 10:38	948890	10-1544	2	LANL	USE	S
EXP0304139a	WXXCCV	MAP	3/7/10 11:07			1		USE	C
EXP0304140a	XIBLK15	MAP	3/7/10 11:37			1		USE	B

EXP0304141a	WXXCRI	MAP	3/7/10 12:06			1		USE	C
EXP0304142a	246070017	MAP	3/7/10 12:36	948890	10-1544	2	LANL	USE	S
EXP0304143a	246070018	MAP	3/7/10 13:05	948890	10-1544	2	LANL	USE	S
EXP0304144a	246070019	MAP	3/7/10 13:35	948890	10-1544	2	LANL	USE	S
EXP0304145a	246070020	MAP	3/7/10 14:05	948890	10-1544	2	LANL	USE	S
EXP0304146a	WXXCCV	MAP	3/7/10 14:34			1		USE	C
EXP0304147a	XIBLK16	MAP	3/7/10 15:04			1		USE	B
EXP0304148a	WXXCRI	MAP	3/7/10 15:33			1		USE	C
EXP0304149a	1202032874	MAP	3/7/10 16:03	948888	10-1543	2	LANL	USE	S
EXP0304150a	1202032875	MAP	3/7/10 16:32	948888	10-1543	2	LANL	USE	S
EXP0304151a	246066001	MAP	3/7/10 17:02	948888	10-1543	2	LANL	USE	S
EXP0304152a	1202032876	MAP	3/7/10 17:31	948888	10-1543	2	LANL	USE	S
EXP0304153a	1202032877	MAP	3/7/10 18:01	948888	10-1543	2	LANL	USE	S
EXP0304154a	246066002	MAP	3/7/10 18:30	948888	10-1543	2	LANL	USE	S
EXP0304155a	246066003	MAP	3/7/10 19:00	948888	10-1543	2	LANL	USE	S
EXP0304156a	246066004	MAP	3/7/10 19:29	948888	10-1543	2	LANL	USE	S
EXP0304157a	246066005	MAP	3/7/10 19:59	948888	10-1543	2	LANL	USE	S
EXP0304158a	246066006	MAP	3/7/10 20:28	948888	10-1543	2	LANL	USE	S
EXP0304159a	WXXCCV	MAP	3/7/10 20:58			1		USE	C
EXP0304160a	XIBLK17	MAP	3/7/10 21:27			1		USE	B
EXP0304161a	WXXCRI	MAP	3/7/10 21:57			1		USE	C
EXP0304162a	246066007	MAP	3/7/10 22:26	948888	10-1543	2	LANL	USE	S
EXP0304163a	246066008	MAP	3/7/10 22:56	948888	10-1543	2	LANL	USE	S
EXP0304164a	246066009	MAP	3/7/10 23:25	948888	10-1543	2	LANL	USE	S
EXP0304165a	246066010	MAP	3/7/10 23:55	948888	10-1543	2	LANL	USE	S
EXP0304166a	246066011	MAP	3/8/10 0:24	948888	10-1543	2	LANL	USE	S
EXP0304167a	246066012	MAP	3/8/10 0:53	948888	10-1543	2	LANL	USE	S
EXP0304168a	246066013	MAP	3/8/10 1:23	948888	10-1543	2	LANL	USE	S
EXP0304169a	246066014	MAP	3/8/10 1:52	948888	10-1543	2	LANL	USE	S
EXP0304170a	246066015	MAP	3/8/10 2:22	948888	10-1543	2	LANL	USE	S
EXP0304171a	246066016	MAP	3/8/10 2:51	948888	10-1543	2	LANL	USE	S
EXP0304172a	WXXCCV	MAP	3/8/10 3:21			1		USE	C
EXP0304173a	XIBLK18	MAP	3/8/10 3:50			1		USE	B
EXP0304174a	WXXCRI	MAP	3/8/10 4:20			1		USE	C
EXP0304175a	246066017	MAP	3/8/10 4:49	948888	10-1543	2	LANL	USE	S
EXP0304176a	246066018	MAP	3/8/10 5:19	948888	10-1543	2	LANL	USE	S
EXP0304177a	246066019	MAP	3/8/10 5:48	948888	10-1543	2	LANL	USE	S

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EXP0304178a	246066020	MAP	3/8/10 6:18	948888	10-1543	2	LANL	USE	S
EXP0304179a	XIBLK19	MAP	3/8/10 6:47			1		USE	B
EXP0304180a	1202032884	MAP	3/8/10 7:17	948893	10-1545	2	LANL	USE	S
EXP0304181a	1202032885	MAP	3/8/10 7:47	948893	10-1545	2	LANL	USE	S
EXP0304182a	246055001	MAP	3/8/10 8:16	948893	10-1545	2	LANL	USE	S
EXP0304183a	1202032886	MAP	3/8/10 8:46	948893	10-1545	2	LANL	USE	S
EXP0304184a	1202032887	MAP	3/8/10 9:15	948893	10-1545	2	LANL	USE	S
EXP0304185a	WXXCCV	MAP	3/8/10 9:45			1		USE	C
EXP0304186a	XIBLK20	MAP	3/8/10 10:14			1		USE	B
EXP0304187a	WXXCRI	MAP	3/8/10 10:44			1		USE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/26/10
Extr. Injection Volume: 10uL
Sequence Number: 022610exs
Initial Calibration Date: 022610

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1274562, 1261217

Reviewed By: HMC
Date: 03/01/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100226-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02260001.wiff	XIBLK01	LER	2/26/2010 14:53			1		USE	B
EXS02260002.wiff	XIBLK01	LER	2/26/2010 15:09			1		USE	B
EXS02260003.wiff	WXXICAL-19	LER	2/26/2010 15:25			1		USE	I
EXS02260004.wiff	WXXICAL-20	LER	2/26/2010 15:41			1		USE	I
EXS02260005.wiff	WXXICAL-21	LER	2/26/2010 15:56			1		USE	I
EXS02260006.wiff	WXXICAL-22	LER	2/26/2010 16:12			1		USE	I
EXS02260007.wiff	WXXICAL-23	LER	2/26/2010 16:28			1		USE	I
EXS02260008.wiff	WXXICAL-24	LER	2/26/2010 16:43			1		USE	I
EXS02260009.wiff	WXXICAL-25	LER	2/26/2010 16:59			1		USE	I
EXS02260010.wiff	XIBLK02	LER	2/26/2010 17:15			1		USE	B
EXS02260011.wiff	WXXICV	LER	2/26/2010 17:31			1		USE	C
EXS02260012.wiff	XIBLK03	LER	2/26/2010 17:46			1		USE	B
EXS02260013.wiff	WXXCRI	LER	2/26/2010 18:02			1		USE	C
EXS02260014.wiff	246837005	LER	2/26/2010 18:18	952679	10-1747	2	LANL	USE	S
EXS02260015.wiff	246837006	LER	2/26/2010 18:33	952679	10-1747	2	LANL	USE	S
EXS02260016.wiff	246841001	LER	2/26/2010 18:49	952679	10-1748	2	LANL	USE	S
EXS02260017.wiff	246841002	LER	2/26/2010 19:05	952679	10-1748	2	LANL	USE	S
EXS02260018.wiff	246841003	LER	2/26/2010 19:21	952679	10-1748	2	LANL	USE	S
EXS02260019.wiff	246843002	LER	2/26/2010 19:36	952679	10-1749	2	LANL	USE	S
EXS02260020.wiff	246843003	LER	2/26/2010 19:52	952679	10-1749	2	LANL	USE	S
EXS02260021.wiff	246843004	LER	2/26/2010 20:08	952679	10-1749	2	LANL	USE	S
EXS02260022.wiff	246846001	LER	2/26/2010 20:23	952679	10-1750	2	LANL	USE	S
EXS02260023.wiff	246846002	LER	2/26/2010 20:39	952679	10-1750	2	LANL	USE	S
EXS02260024.wiff	WXXCCV	LER	2/26/2010 20:55			1		USE	C
EXS02260025.wiff	XIBLK04	LER	2/26/2010 21:10			1		USE	B
EXS02260026.wiff	WXXCRI	LER	2/26/2010 21:26			1		USE	C
EXS02260027.wiff	246847001	LER	2/26/2010 21:42	952679	10-1751	2	LANL	USE	S
EXS02260028.wiff	246847002	LER	2/26/2010 21:58	952679	10-1751	2	LANL	USE	S
EXS02260029.wiff	XIBLK05	LER	2/26/2010 22:13			1		USE	B
EXS02260030.wiff	1202032874	LER	2/26/2010 22:29	948888	10-1543	2	LANL	USE	S

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EXS02260031.wiff	1202032875	LER	2/26/2010 22:45	948888	10-1543	2	LANL	USE	S
EXS02260032.wiff	246066001	LER	2/26/2010 23:01	948888	10-1543	2	LANL	USE	S
EXS02260033.wiff	1202032876	LER	2/26/2010 23:16	948888	10-1543	2	LANL	USE	S
EXS02260034.wiff	1202032877	LER	2/26/2010 23:32	948888	10-1543	2	LANL	USE	S
EXS02260035.wiff	246066002	LER	2/26/2010 23:48	948888	10-1543	2	LANL	USE	S
EXS02260036.wiff	246066003	LER	2/27/2010 0:03	948888	10-1543	2	LANL	USE	S
EXS02260037.wiff	WXXCCV	LER	2/27/2010 0:19			1		USE	C
EXS02260038.wiff	XIBLK06	LER	2/27/2010 0:35			1		USE	B
EXS02260039.wiff	WXXCRI	LER	2/27/2010 0:51			1		USE	C
EXS02260040.wiff	246066004	LER	2/27/2010 1:06	948888	10-1543	2	LANL	USE	S
EXS02260041.wiff	246066005	LER	2/27/2010 1:22	948888	10-1543	2	LANL	USE	S
EXS02260042.wiff	246066006	LER	2/27/2010 1:38	948888	10-1543	2	LANL	USE	S
EXS02260043.wiff	246066007	LER	2/27/2010 1:53	948888	10-1543	2	LANL	USE	S
EXS02260044.wiff	246066008	LER	2/27/2010 2:09	948888	10-1543	2	LANL	USE	S
EXS02260045.wiff	246066009	LER	2/27/2010 2:25	948888	10-1543	2	LANL	USE	S
EXS02260046.wiff	246066010	LER	2/27/2010 2:40	948888	10-1543	2	LANL	USE	S
EXS02260047.wiff	246066011	LER	2/27/2010 2:56	948888	10-1543	2	LANL	USE	S
EXS02260048.wiff	246066012	LER	2/27/2010 3:12	948888	10-1543	2	LANL	USE	S
EXS02260049.wiff	246066013	LER	2/27/2010 3:28	948888	10-1543	2	LANL	USE	S
EXS02260050.wiff	WXXCCV	LER	2/27/2010 3:43			1		USE	C
EXS02260051.wiff	XIBLK07	LER	2/27/2010 3:59			1		USE	B
EXS02260052.wiff	WXXCRI	LER	2/27/2010 4:15			1		USE	C
EXS02260053.wiff	246066014	LER	2/27/2010 4:30	948888	10-1543	2	LANL	USE	S
EXS02260054.wiff	246066015	LER	2/27/2010 4:46	948888	10-1543	2	LANL	USE	S
EXS02260055.wiff	246066016	LER	2/27/2010 5:02	948888	10-1543	2	LANL	USE	S
EXS02260056.wiff	246066017	LER	2/27/2010 5:18	948888	10-1543	2	LANL	USE	S
EXS02260057.wiff	246066018	LER	2/27/2010 5:33	948888	10-1543	2	LANL	USE	S
EXS02260058.wiff	246066019	LER	2/27/2010 5:49	948888	10-1543	2	LANL	USE	S
EXS02260059.wiff	246066020	LER	2/27/2010 6:05	948888	10-1543	2	LANL	USE	S
EXS02260060.wiff	WXXCCV	LER	2/27/2010 6:20			1		USE	C
EXS02260061.wiff	XIBLK08	LER	2/27/2010 6:36			1		USE	B
EXS02260062.wiff	WXXCRI	LER	2/27/2010 6:52			1		USE	C
EXS02260063.wiff	1202045764	LER	2/27/2010 7:07	954338	VARIOUS	2	LANL	USE	S
EXS02260064.wiff	1202045765	LER	2/27/2010 7:23	954338	VARIOUS	2	LANL	USE	S
EXS02260065.wiff	247083001	LER	2/27/2010 7:39	954338	10-1827	2	LANL	USE	S
EXS02260066.wiff	1202045766	LER	2/27/2010 7:55	954338	10-1827	2	LANL	USE	S
EXS02260067.wiff	1202045767	LER	2/27/2010 8:10	954338	10-1827	2	LANL	USE	S

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EXS02260068.wiff	247083002	LER	2/27/2010 8:26	954338	10-1827	2	LANL	USE	S
EXS02260069.wiff	247083003	LER	2/27/2010 8:42	954338	10-1827	2	LANL	USE	S
EXS02260070.wiff	247083004	LER	2/27/2010 8:57	954338	10-1827	2	LANL	USE	S
EXS02260071.wiff	247084001	LER	2/27/2010 9:13	954338	10-1828	2	LANL	USE	S
EXS02260072.wiff	247084002	LER	2/27/2010 9:29	954338	10-1828	2	LANL	USE	S
EXS02260073.wiff	WXXCCV	LER	2/27/2010 9:44			1		USE	C
EXS02260074.wiff	XIBLK09	LER	2/27/2010 10:00			1		USE	B
EXS02260075.wiff	WXXCRI	LER	2/27/2010 10:16			1		USE	C
EXS02260076.wiff	247086001	LER	2/27/2010 10:32	954338	10-1829	2	LANL	USE	S
EXS02260077.wiff	247088001	LER	2/27/2010 10:47	954338	10-1830	2	LANL	USE	S
EXS02260078.wiff	247088002	LER	2/27/2010 11:03	954338	10-1830	2	LANL	USE	S
EXS02260079.wiff	247088003	LER	2/27/2010 11:19	954338	10-1830	2	LANL	USE	S
EXS02260080.wiff	247091001	LER	2/27/2010 11:34	954338	10-1831	2	LANL	USE	S
EXS02260081.wiff	247091002	LER	2/27/2010 11:50	954338	10-1831	2	LANL	USE	S
EXS02260082.wiff	247094001	LER	2/27/2010 12:06	954338	10-1832	2	LANL	USE	S
EXS02260083.wiff	247094002	LER	2/27/2010 12:21	954338	10-1832	2	LANL	USE	S
EXS02260084.wiff	247121002	LER	2/27/2010 12:37	954338	10-1846	2	LANL	USE	S
EXS02260085.wiff	247123001	LER	2/27/2010 12:53	954338	10-1848	2	LANL	USE	S
EXS02260086.wiff	WXXCCV	LER	2/27/2010 13:09			1		USE	C
EXS02260087.wiff	XIBLK10	LER	2/27/2010 13:24			1		USE	B
EXS02260088.wiff	WXXCRI	LER	2/27/2010 13:40			1		USE	C
EXS02260089.wiff	247123002	LER	2/27/2010 13:56	954338	10-1848	2	LANL	USE	S
EXS02260090.wiff	247123003	LER	2/27/2010 14:11	954338	10-1848	2	LANL	USE	S
EXS02260091.wiff	247123004	LER	2/27/2010 14:27	954338	10-1848	2	LANL	USE	S
EXS02260092.wiff	XIBLK11	LER	2/27/2010 14:43			1		USE	B
EXS02260093.wiff	1202032878	LER	2/27/2010 14:59	948890	10-1544	2	LANL	USE	S
EXS02260094.wiff	1202032879	LER	2/27/2010 15:14	948890	10-1544	2	LANL	USE	S
EXS02260095.wiff	246070001	LER	2/27/2010 15:30	948890	10-1544	2	LANL	USE	S
EXS02260096.wiff	1202032880	LER	2/27/2010 15:46	948890	10-1544	2	LANL	USE	S
EXS02260097.wiff	1202032881	LER	2/27/2010 16:01	948890	10-1544	2	LANL	USE	S
EXS02260098.wiff	246070002	LER	2/27/2010 16:17	948890	10-1544	2	LANL	USE	S
EXS02260099.wiff	WXXCCV	LER	2/27/2010 16:33			1		USE	C
EXS02260100.wiff	XIBLK12	LER	2/27/2010 16:48			1		USE	B
EXS02260101.wiff	WXXCRI	LER	2/27/2010 17:04			1		USE	C
EXS02260102.wiff	246070003	LER	2/27/2010 17:20	948890	10-1544	2	LANL	USE	S
EXS02260103.wiff	246070004	LER	2/27/2010 17:35	948890	10-1544	2	LANL	USE	S
EXS02260104.wiff	246070005	LER	2/27/2010 17:51	948890	10-1544	2	LANL	USE	S

EXS02260105.wiff	246070006	LER	2/27/2010 18:07	948890	10-1544	2	LANL	USE	S
EXS02260106.wiff	246070007	LER	2/27/2010 18:23	948890	10-1544	2	LANL	USE	S
EXS02260107.wiff	246070008	LER	2/27/2010 18:38	948890	10-1544	2	LANL	USE	S
EXS02260108.wiff	246070009	LER	2/27/2010 18:54	948890	10-1544	2	LANL	USE	S
EXS02260109.wiff	246070010	LER	2/27/2010 19:10	948890	10-1544	2	LANL	USE	S
EXS02260110.wiff	246070011	LER	2/27/2010 19:25	948890	10-1544	2	LANL	USE	S
EXS02260111.wiff	246070012	LER	2/27/2010 19:41	948890	10-1544	2	LANL	USE	S
EXS02260112.wiff	WXXCCV	LER	2/27/2010 19:57			1		USE	C
EXS02260113.wiff	XIBLK13	LER	2/27/2010 20:12			1		USE	B
EXS02260114.wiff	WXXCRI	LER	2/27/2010 20:28			1		USE	C
EXS02260115.wiff	246070013	LER	2/27/2010 20:44	948890	10-1544	2	LANL	USE	S
EXS02260116.wiff	246070014	LER	2/27/2010 21:00	948890	10-1544	2	LANL	USE	S
EXS02260117.wiff	246070015	LER	2/27/2010 21:15	948890	10-1544	2	LANL	USE	S
EXS02260118.wiff	246070016	LER	2/27/2010 21:31	948890	10-1544	2	LANL	USE	S
EXS02260119.wiff	246070017	LER	2/27/2010 21:47	948890	10-1544	2	LANL	USE	S
EXS02260120.wiff	246070018	LER	2/27/2010 22:02	948890	10-1544	2	LANL	USE	S
EXS02260121.wiff	246070019	LER	2/27/2010 22:18	948890	10-1544	2	LANL	USE	S
EXS02260122.wiff	246070020	LER	2/27/2010 22:34	948890	10-1544	2	LANL	USE	S
EXS02260123.wiff	WXXCCV	LER	2/27/2010 22:49			1		USE	C
EXS02260124.wiff	XIBLK14	LER	2/27/2010 23:05			1		USE	B
EXS02260125.wiff	WXXCRI	LER	2/27/2010 23:21			1		USE	C
EXS02260126.wiff	1202032884	LER	2/27/2010 23:36	948893	10-1545	2	LANL	USE	S
EXS02260127.wiff	1202032885	LER	2/27/2010 23:52	948893	10-1545	2	LANL	USE	S
EXS02260128.wiff	246055001	LER	2/28/2010 0:08	948893	10-1545	2	LANL	USE	S
EXS02260129.wiff	1202032886	LER	2/28/2010 0:24	948893	10-1545	2	LANL	USE	S
EXS02260130.wiff	1202032887	LER	2/28/2010 0:39	948893	10-1545	2	LANL	USE	S
EXS02260131.wiff	246055002	LER	2/28/2010 0:55	948893	10-1545	2	LANL	USE	S
EXS02260132.wiff	246055003	LER	2/28/2010 1:11	948893	10-1545	2	LANL	USE	S
EXS02260133.wiff	246055004	LER	2/28/2010 1:26	948893	10-1545	2	LANL	USE	S
EXS02260134.wiff	246055005	LER	2/28/2010 1:42	948893	10-1545	2	LANL	USE	S
EXS02260135.wiff	246055006	LER	2/28/2010 1:58	948893	10-1545	2	LANL	USE	S
EXS02260136.wiff	WXXCCV	LER	2/28/2010 2:14			1		USE	C
EXS02260137.wiff	XIBLK15	LER	2/28/2010 2:29			1		USE	B
EXS02260138.wiff	WXXCRI	LER	2/28/2010 2:45			1		USE	C
EXS02260139.wiff	246055007	LER	2/28/2010 3:01	948893	10-1545	2	LANL	USE	S
EXS02260140.wiff	246055008	LER	2/28/2010 3:17	948893	10-1545	2	LANL	USE	S
EXS02260141.wiff	246055009	LER	2/28/2010 3:32	948893	10-1545	2	LANL	USE	S

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EXS02260142.wiff	UXX100122-01.3	LER	2/28/2010 3:48	SCREEN	SOLID	2	O2SI	USE	S
EXS02260143.wiff	XIBLK16	LER	2/28/2010 4:04			1		USE	B
EXS02260144.wiff	1202040473	LER	2/28/2010 4:20	952049	VARIOUS	2	LANL	USE	S
EXS02260145.wiff	1202040474	LER	2/28/2010 4:36	952049	VARIOUS	2	LANL	USE	S
EXS02260146.wiff	246713001	LER	2/28/2010 4:51	952049	10-1728	2	LANL	USE	S
EXS02260147.wiff	1202040475	LER	2/28/2010 5:07	952049	10-1728	2	LANL	USE	S
EXS02260148.wiff	1202040476	LER	2/28/2010 5:23	952049	10-1728	2	LANL	USE	S
EXS02260149.wiff	WXXCCV	LER	2/28/2010 5:38			1		USE	C
EXS02260150.wiff	XIBLK17	LER	2/28/2010 5:54			1		USE	B
EXS02260151.wiff	WXXCRI	LER	2/28/2010 6:10			1		USE	C
EXS02260152.wiff	246713002	LER	2/28/2010 6:26	952049	10-1728	2	LANL	USE	S
EXS02260153.wiff	246713003	LER	2/28/2010 6:41	952049	10-1728	2	LANL	USE	S
EXS02260154.wiff	246713004	LER	2/28/2010 6:57	952049	10-1728	2	LANL	USE	S
EXS02260155.wiff	246713005	LER	2/28/2010 7:13	952049	10-1728	2	LANL	USE	S
EXS02260156.wiff	246713006	LER	2/28/2010 7:29	952049	10-1728	2	LANL	USE	S
EXS02260157.wiff	246713007	LER	2/28/2010 7:44	952049	10-1728	2	LANL	USE	S
EXS02260158.wiff	246713008	LER	2/28/2010 8:00	952049	10-1728	2	LANL	USE	S
EXS02260159.wiff	246734001	LER	2/28/2010 8:16	952049	10-1731-1	2	LANL	USE	S
EXS02260160.wiff	246736001	LER	2/28/2010 8:31	952049	10-1732	2	LANL	USE	S
EXS02260161.wiff	246736002	LER	2/28/2010 8:47	952049	10-1732	2	LANL	USE	S
EXS02260162.wiff	WXXCCV	LER	2/28/2010 9:03			1		USE	C
EXS02260163.wiff	XIBLK18	LER	2/28/2010 9:19			1		USE	B
EXS02260164.wiff	WXXCRI	LER	2/28/2010 9:34			1		USE	C
EXS02260165.wiff	246739002	LER	2/28/2010 9:50	952049	10-1733	2	LANL	USE	S
EXS02260166.wiff	246739003	LER	2/28/2010 10:06	952049	10-1733	2	LANL	USE	S
EXS02260167.wiff	246739004	LER	2/28/2010 10:22	952049	10-1733	2	LANL	USE	S
EXS02260168.wiff	246739005	LER	2/28/2010 10:37	952049	10-1733	2	LANL	USE	S
EXS02260169.wiff	246739006	LER	2/28/2010 10:53	952049	10-1733	2	LANL	USE	S
EXS02260170.wiff	246739007	LER	2/28/2010 11:09	952049	10-1733	2	LANL	USE	S
EXS02260171.wiff	246739008	LER	2/28/2010 11:25	952049	10-1733	2	LANL	USE	S
EXS02260172.wiff	246739009	LER	2/28/2010 11:40	952049	10-1733	2	LANL	USE	S
EXS02260173.wiff	246739010	LER	2/28/2010 11:56	952049	10-1733	2	LANL	USE	S
EXS02260174.wiff	WXXCCV	LER	2/28/2010 12:12			1		USE	C
EXS02260175.wiff	XIBLK19	LER	2/28/2010 12:28			1		USE	B
EXS02260176.wiff	WXXCRI	LER	2/28/2010 12:43			1		USE	C
EXS02260177.wiff	1202040477	LER	2/28/2010 12:59	952051	VARIOUS	2	LANL	USE	S
EXS02260178.wiff	1202040478	LER	2/28/2010 13:15	952051	VARIOUS	2	LANL	USE	S

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EXS02260179.wiff	246732002	LER	2/28/2010 13:30	952051	10-1742	2	LANL	USE	S
EXS02260180.wiff	246732003	LER	2/28/2010 13:46	952051	10-1742	2	LANL	USE	S
EXS02260181.wiff	246732004	LER	2/28/2010 14:02	952051	10-1742	2	LANL	USE	S
EXS02260182.wiff	246732005	LER	2/28/2010 14:18	952051	10-1742	2	LANL	USE	S
EXS02260183.wiff	246732006	LER	2/28/2010 14:33	952051	10-1742	2	LANL	USE	S
EXS02260184.wiff	246744002	LER	2/28/2010 14:49	952051	10-1736	2	LANL	USE	S
EXS02260185.wiff	1202040479	LER	2/28/2010 15:05	952051	10-1736	2	LANL	USE	S
EXS02260186.wiff	1202040480	LER	2/28/2010 15:20	952051	10-1736	2	LANL	USE	S
EXS02260187.wiff	WXXCCV	LER	2/28/2010 15:36			1		USE	C
EXS02260188.wiff	XIBLK20	LER	2/28/2010 15:52			1		USE	B
EXS02260189.wiff	WXXCRI	LER	2/28/2010 16:08			1		USE	C
EXS02260190.wiff	246744003	LER	2/28/2010 16:23	952051	10-1736	2	LANL	DUSE-RA	S
EXS02260191.wiff	246744004	LER	2/28/2010 16:39	952051	10-1736	2	LANL	DUSE-RA	S
EXS02260192.wiff	246752002	LER	2/28/2010 16:55	952051	10-1745	2	LANL	DUSE-RA	S
EXS02260193.wiff	246752003	LER	2/28/2010 17:11	952051	10-1745	2	LANL	DUSE-RA	S
EXS02260194.wiff	246760001	LER	2/28/2010 17:27	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260195.wiff	246760002	LER	2/28/2010 17:42	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260196.wiff	246760003	LER	2/28/2010 17:58	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260197.wiff	246760004	LER	2/28/2010 18:14	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260198.wiff	246760005	LER	2/28/2010 18:29	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260199.wiff	246760006	LER	2/28/2010 18:45	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260200.wiff	WXXCCV	LER	2/28/2010 19:01			1		DUSE-RA	C
EXS02260201.wiff	XIBLK21	LER	2/28/2010 19:17			1		DUSE-RA	B
EXS02260202.wiff	WXXCRI	LER	2/28/2010 19:32			1		DUSE-RA	C
EXS02260203.wiff	246760007	LER	2/28/2010 19:48	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260204.wiff	246760008	LER	2/28/2010 20:04	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260205.wiff	246760009	LER	2/28/2010 20:20	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260206.wiff	246760010	LER	2/28/2010 20:35	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260207.wiff	XIBLK22	LER	2/28/2010 20:51			1		DUSE-RA	B
EXS02260208.wiff	1202040457	LER	2/28/2010 21:07	952043	VARIOUS	2	LANL	DUSE-RA	S
EXS02260209.wiff	1202040458	LER	2/28/2010 21:23	952043	VARIOUS	2	LANL	DUSE-RA	S
EXS02260210.wiff	246677001	LER	2/28/2010 21:38	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260211.wiff	1202040459	LER	2/28/2010 21:54	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260212.wiff	1202040460	LER	2/28/2010 22:10	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260213.wiff	WXXCCV	LER	2/28/2010 22:26			1		USE	C
EXS02260214.wiff	XIBLK23	LER	2/28/2010 22:41			1		USE	B
EXS02260215.wiff	WXXCRI	LER	2/28/2010 22:57			1		USE	C

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EXS02260216.wiff	246677002	LER	2/28/2010 23:13	952043	10-1703	2	LANL	USE	S
EXS02260217.wiff	246677003	LER	2/28/2010 23:29	952043	10-1703	2	LANL	USE	S
EXS02260218.wiff	246677004	LER	2/28/2010 23:44	952043	10-1703	2	LANL	USE	S
EXS02260219.wiff	246677005	LER	3/1/2010 0:00	952043	10-1703	2	LANL	USE	S
EXS02260220.wiff	246677006	LER	3/1/2010 0:16	952043	10-1703	2	LANL	USE	S
EXS02260221.wiff	246677007	LER	3/1/2010 0:31	952043	10-1703	2	LANL	USE	S
EXS02260222.wiff	246677008	LER	3/1/2010 0:47	952043	10-1703	2	LANL	USE	S
EXS02260223.wiff	246682002	LER	3/1/2010 1:03	952043	10-1706	2	LANL	USE	S
EXS02260224.wiff	WXXCCV	LER	3/1/2010 1:19			1		USE	C
EXS02260225.wiff	XIBLK24	LER	3/1/2010 1:34			1		USE	B
EXS02260226.wiff	WXXCRI	LER	3/1/2010 1:50			1		USE	C
EXS02260227.wiff	246682003	LER	3/1/2010 2:06	952043	10-1706	2	LANL	USE	S
EXS02260228.wiff	246682004	LER	3/1/2010 2:22	952043	10-1706	2	LANL	USE	S
EXS02260229.wiff	246682005	LER	3/1/2010 2:37	952043	10-1706	2	LANL	USE	S
EXS02260230.wiff	246682006	LER	3/1/2010 2:53	952043	10-1706	2	LANL	USE	S
EXS02260231.wiff	246682007	LER	3/1/2010 3:09	952043	10-1706	2	LANL	USE	S
EXS02260232.wiff	246682008	LER	3/1/2010 3:24	952043	10-1706	2	LANL	USE	S
EXS02260233.wiff	246682009	LER	3/1/2010 3:40	952043	10-1706	2	LANL	USE	S
EXS02260234.wiff	WXXCCV	LER	3/1/2010 3:56			1		USE	C
EXS02260235.wiff	XIBLK25	LER	3/1/2010 4:12			1		USE	B
EXS02260236.wiff	WXXCRI	LER	3/1/2010 4:27			1		USE	C
EXS02260237.wiff	UXX100210-02.3	LER	3/1/2010 4:43	SCREEN	SOLID	2	O2SI	USE	S
EXS02260238.wiff	XIBLK26	LER	3/1/2010 4:59			1		USE	B
EXS02260239.wiff	1202032038	LER	3/1/2010 5:15	948558	VARIOUS	2	LANL	USE	S
EXS02260240.wiff	1202032039	LER	3/1/2010 5:31	948558	VARIOUS	2	LANL	USE	S
EXS02260241.wiff	1202032154	LER	3/1/2010 5:46	948558	VARIOUS	2	LANL	USE	S
EXS02260242.wiff	245928018	LER	3/1/2010 6:02	948558	10-1495	2	LANL	USE	S
EXS02260243.wiff	245928025	LER	3/1/2010 6:18	948558	10-1495	2	LANL	USE	S
EXS02260244.wiff	245932006	LER	3/1/2010 6:33	948558	10-1501	2	LANL	USE	S
EXS02260245.wiff	1202032040	LER	3/1/2010 6:49	948558	10-1501	2	LANL	USE	S
EXS02260246.wiff	1202032041	LER	3/1/2010 7:05	948558	10-1501	2	LANL	USE	S
EXS02260247.wiff	WXXCCV	LER	3/1/2010 7:21			1		USE	C
EXS02260248.wiff	XIBLK27	LER	3/1/2010 7:36			1		USE	B
EXS02260249.wiff	WXXCRI	LER	3/1/2010 7:52			1		USE	C

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 800893
Revision No.: 2

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
08-MAR-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
948888	1202032875		

Potentially affected work order(s)(SDG): 246066(10-1543)

Application Issues:

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS recovered 2,4-Diamino-6-nitrotoluene at 115.4%. The limits are 52-114%.	1. The data are considered unaffected and are reported.
2. The MSD recovered TATB at 163%. The limits are 29-155%.	2. The data are considered unaffected and are reported.

Originator's Name:
Michael Penny 08-MAR-10

Data Validator/Group Leader:
Herbert Maier 09-MAR-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1543

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	951946
Prep Batch Number:	951941

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
246066001	RE15-10-8129
246066002	RE15-10-8131
246066003	RE15-10-8130
246066004	RE15-10-8127
246066005	RE15-10-8128
246066006	RE15-10-8126
1202040223	Method Blank (MB)
1202040224	Laboratory Control Sample (LCS)
1202040225	246575003(WST15-10-11621) Matrix Spike (MS)
1202040226	246575003(WST15-10-11621) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y

axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1675) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/2/10

Roadmap for LANL 10-1543 PCB

This roadmap was analyzed by jen01212 on 02-15-2010, 12:05.
This roadmap was reviewed by jim01140 on 02-18-2010, 11:05.
This roadmap was packaged by yml on 03-01-2010, 17:14.
This roadmap was validated by jim01140 on 03-02-2010, 09:16.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/015f1501.d	246066001	sample	12-FEB-2010	09:42	10-1543.sub	RE15-10-8129	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/016f1601.d	246066002	sample	12-FEB-2010	09:55	10-1543.sub	RE15-10-8131	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/017f1701.d	246066003	sample	12-FEB-2010	10:07	10-1543.sub	RE15-10-8130	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/018f1801.d	246066004	sample	12-FEB-2010	10:19	10-1543.sub	RE15-10-8127	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/019f1901.d	246066005	sample	12-FEB-2010	10:32	10-1543.sub	RE15-10-8128	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/020f2001.d	246066006	sample	12-FEB-2010	10:44	10-1543.sub	RE15-10-8126	1.00000	951946	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/015b1501.d	246066001	sample	12-FEB-2010	09:42	10-1543.sub	RE15-10-8129	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/016b1601.d	246066002	sample	12-FEB-2010	09:55	10-1543.sub	RE15-10-8131	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/017b1701.d	246066003	sample	12-FEB-2010	10:07	10-1543.sub	RE15-10-8130	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/018b1801.d	246066004	sample	12-FEB-2010	10:19	10-1543.sub	RE15-10-8127	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/019b1901.d	246066005	sample	12-FEB-2010	10:32	10-1543.sub	RE15-10-8128	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/020b2001.d	246066006	sample	12-FEB-2010	10:44	10-1543.sub	RE15-10-8126	1.00000	951946	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/012f1201.d	1202040223	mb	12-FEB-2010	09:05	10-1543.sub	PBLK01	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/013f1301.d	1202040224	lcs	12-FEB-2010	09:18	10-1543.sub	PBLK01LCS	1.00000	951946	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/012b1201.d	1202040223	mb	12-FEB-2010	09:05	10-1543.sub	PBLK01	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/013b1301.d	1202040224	lcs	12-FEB-2010	09:18	10-1543.sub	PBLK01LCS	1.00000	951946	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066006**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**18.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8126**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 10:44**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.14 g**	**Final Volume:**	**1 mL**
Data File:	**020f2001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	020b2001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.06	ug/kg	1.35	4.06	1
11104-28-2	Aroclor-1221	U	4.06	ug/kg	1.35	4.06	1
11141-16-5	Aroclor-1232	U	4.06	ug/kg	1.35	4.06	1
53469-21-9	Aroclor-1242	U	4.06	ug/kg	1.35	4.06	1
12672-29-6	Aroclor-1248	U	4.06	ug/kg	1.35	4.06	1
11097-69-1	Aroclor-1254	U	4.06	ug/kg	1.35	4.06	1
11096-82-5	Aroclor-1260	U	4.06	ug/kg	1.35	4.06	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066004	**Date Received:**	02/03/2010 08:55	**%Moisture:**	12.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8127	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 10:19	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.04 g	**Final Volume:**	1 mL
Data File:	018f1801.d	**Column:**	1 CLP1	**Level:**	LOW
	018b1801.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.81	ug/kg	1.27	3.81	1
11104–28–2	Aroclor–1221	U	3.81	ug/kg	1.27	3.81	1
11141–16–5	Aroclor–1232	U	3.81	ug/kg	1.27	3.81	1
53469–21–9	Aroclor–1242	U	3.81	ug/kg	1.27	3.81	1
12672–29–6	Aroclor–1248	U	3.81	ug/kg	1.27	3.81	1
11097–69–1	Aroclor–1254	U	3.81	ug/kg	1.27	3.81	1
11096–82–5	Aroclor–1260	U	3.81	ug/kg	1.27	3.81	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066005	**Date Received:**	02/03/2010 08:55	**%Moisture:**	16.3
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8128	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 10:32	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	019f1901.d	**Column:**	1 CLP1	**Level:**	LOW
	019b1901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.97	ug/kg	1.32	3.97	1
11104-28-2	Aroclor-1221	U	3.97	ug/kg	1.32	3.97	1
11141-16-5	Aroclor-1232	U	3.97	ug/kg	1.32	3.97	1
53469-21-9	Aroclor-1242	U	3.97	ug/kg	1.32	3.97	1
12672-29-6	Aroclor-1248	U	3.97	ug/kg	1.32	3.97	1
11097-69-1	Aroclor-1254	U	3.97	ug/kg	1.32	3.97	1
11096-82-5	Aroclor-1260	U	3.97	ug/kg	1.32	3.97	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066001	**Date Received:**	02/03/2010 08:55	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8129	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 09:42	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	015f1501.d	**Column:**	1 CLP1	**Level:**	LOW
	015b1501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.85	ug/kg	1.28	3.85	1
11104-28-2	Aroclor-1221	U	3.85	ug/kg	1.28	3.85	1
11141-16-5	Aroclor-1232	U	3.85	ug/kg	1.28	3.85	1
53469-21-9	Aroclor-1242	U	3.85	ug/kg	1.28	3.85	1
12672-29-6	Aroclor-1248	U	3.85	ug/kg	1.28	3.85	1
11097-69-1	Aroclor-1254	U	3.85	ug/kg	1.28	3.85	1
11096-82-5	Aroclor-1260	U	3.85	ug/kg	1.28	3.85	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066003**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**22.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8130**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 10:07**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.30	ug/kg	1.43	4.30	1
11104–28–2	Aroclor–1221	U	4.30	ug/kg	1.43	4.30	1
11141–16–5	Aroclor–1232	U	4.30	ug/kg	1.43	4.30	1
53469–21–9	Aroclor–1242	U	4.30	ug/kg	1.43	4.30	1
12672–29–6	Aroclor–1248	U	4.30	ug/kg	1.43	4.30	1
11097–69–1	Aroclor–1254		5.50	ug/kg	1.43	4.30	2
11096–82–5	Aroclor–1260	U	4.30	ug/kg	1.43	4.30	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066002**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8131**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:55**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.02	ug/kg	1.34	4.02	1
11104-28-2	Aroclor-1221	U	4.02	ug/kg	1.34	4.02	1
11141-16-5	Aroclor-1232	U	4.02	ug/kg	1.34	4.02	1
53469-21-9	Aroclor-1242	U	4.02	ug/kg	1.34	4.02	1
12672-29-6	Aroclor-1248	U	4.02	ug/kg	1.34	4.02	1
11097-69-1	Aroclor-1254	U	4.02	ug/kg	1.34	4.02	1
11096-82-5	Aroclor- 1260	U	4.02	ug/kg	1.34	4.02	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1543

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202040223	MB for batch 951941	64	64	67	70
1202040224	LCS for batch 951941	60	61	64	66
246066001	RE15-10-8129	61	60	61	64
246066002	RE15-10-8131	62	62	66	68
246066003	RE15-10-8130	63	58	65	68
246066004	RE15-10-8127	61	61	62	64
246066005	RE15-10-8128	63	63	67	69
246066006	RE15-10-8126	66	66	70	72

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1543**
Client ID: **LCS for batch 951941**
Lab Sample ID: **1202040224**
Instrument: **ECD8A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **02/12/2010 09:18**
Dilution: **1**
Prep Batch ID **951941**
Batch ID: **951946**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	18.6	56	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	22.7	68	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1675**	**Sample Type:**	**Matrix Spike**	
Client ID:	**WST15-10-11621MS**	**Matrix:**	**R**	
Lab Sample ID:	**1202040225**	**%Moisture:**	**6.6**	
Instrument:	**ECD8A.I**	**Analysis Date:**	**02/12/2010 14:02**	**Dilution: 1**
Analyst:	**JAOC**	**Prep Batch ID**	**951941**	
Inj. Vol:	**1 uL**	**Batch ID:**	**951946**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	35.6	0.00	U	19.0	53	23-119
11096-82-5	MS	Aroclor-1260	35.6	0.00	U	23.1	65	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–1675
Client ID: WST15–10–11621MSD
Lab Sample ID: 1202040226
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 6.6
Analysis Date: 02/12/2010 14:14
Prep Batch ID: 951941
Batch ID: 951946
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	35.6	0.00	U	19.4	54	23–119	2	0–28
11096–82–5	MSD Aroclor–1260	35.6	0.00	U	23.0	65	28–124	0	0–30

Method Blank Summary

SDG Number:	10-1543	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 951941	Instrument ID:	ECD8A.I_2 ECD8A.J_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202040223				
Column:	CLP2 CLP1	Prep Date:	02/11/2010 22:01	Analyzed:	02/12/10 09:05
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 951941	1202040224	013f1301-1.d 013b1301-1.d	02/12/10	0918
02	RE15-10-8129	246066001	015f1501.d 015b1501.d	02/12/10	0942
03	RE15-10-8131	246066002	016f1601.d 016b1601.d	02/12/10	0955
04	RE15-10-8130	246066003	017f1701.d 017b1701.d	02/12/10	1007
05	RE15-10-8127	246066004	018f1801.d 018b1801.d	02/12/10	1019
06	RE15-10-8128	246066005	019f1901.d 019b1901.d	02/12/10	1032
07	RE15-10-8126	246066006	020f2001.d 020b2001.d	02/12/10	1044

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066006	**Date Received:**	02/03/2010 08:55	**%Moisture:**	18.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8126	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 10:44	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.14 g	**Final Volume:**	1 mL
Data File:	020f2001.d	**Column:**	1 CLP1	**Level:**	LOW
	020b2001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.06	ug/kg	1.35	4.06	1
11104-28-2	Aroclor-1221	U	4.06	ug/kg	1.35	4.06	1
11141-16-5	Aroclor-1232	U	4.06	ug/kg	1.35	4.06	1
53469-21-9	Aroclor-1242	U	4.06	ug/kg	1.35	4.06	1
12672-29-6	Aroclor-1248	U	4.06	ug/kg	1.35	4.06	1
11097-69-1	Aroclor-1254	U	4.06	ug/kg	1.35	4.06	1
11096-82-5	Aroclor-1260	U	4.06	ug/kg	1.35	4.06	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/020f2001.d
Lab Smp Id: 246066006 Client Smp ID: RE15-10-8126
Inj Date : 12-FEB-2010 10:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066006|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8126|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	18.24450	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	17398079	132.399	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	13923049	139.256	5.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/020f2001.d
Date : 12-FEB-2010 10:44
Client ID: RE15-10-8126
Sample Info: 1246066006|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

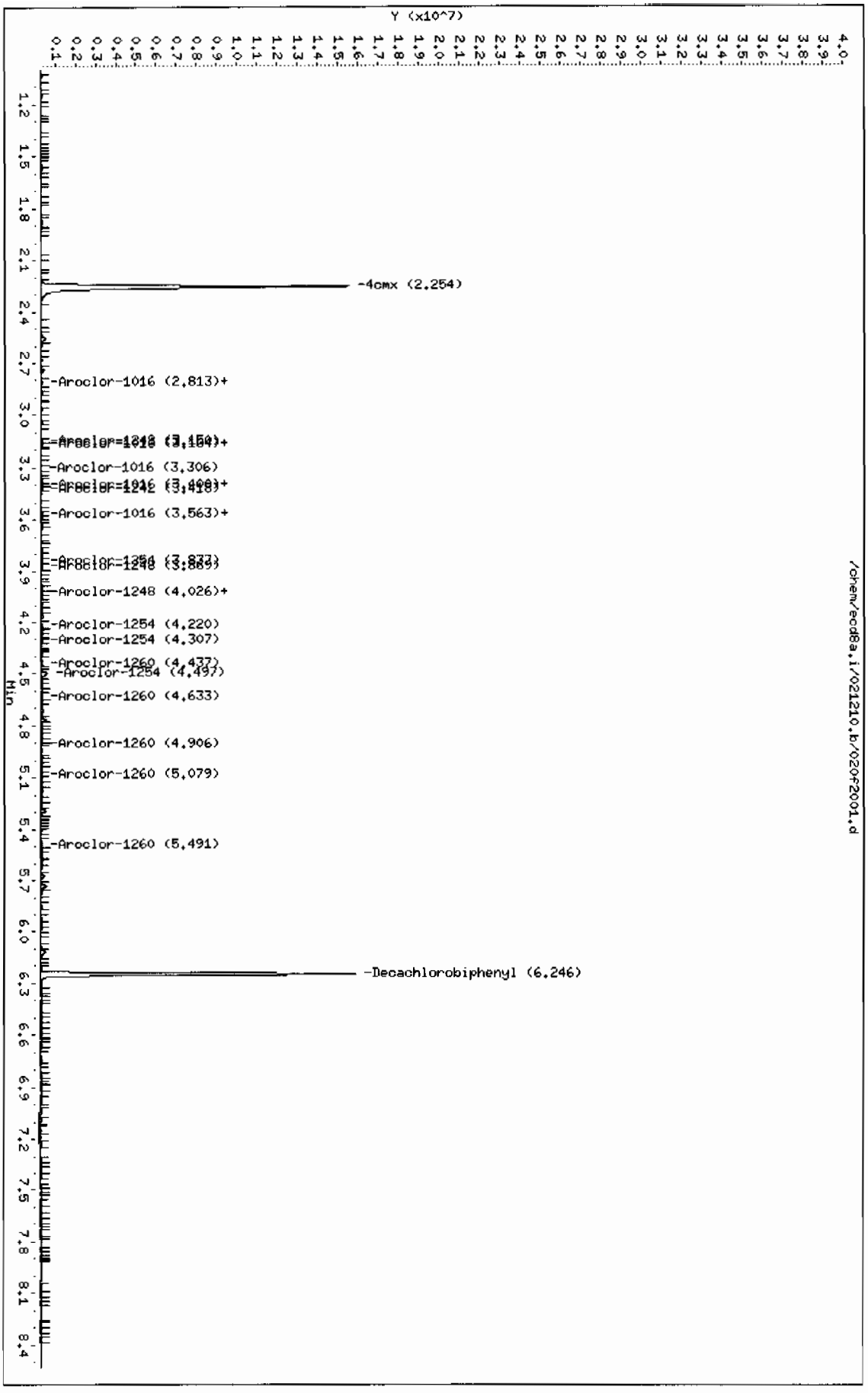

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/020b2001.d
Lab Smp Id: 246066006 Client Smp ID: RE15-10-8126
Inj Date : 12-FEB-2010 10:44
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066006|1|
Misc Info : |ECD82P 1S|951946|SVA|LANL|SOIL|RE15-10-8126|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.14000	Weight of sample extracted (g)
M	18.24450	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	11479918	132.191	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	9319575	143.724	5.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/020b2001.d

Date : 12-FEB-2010 10:44

Client ID: RE15-10-8126

Sample Info: 1246066006111

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

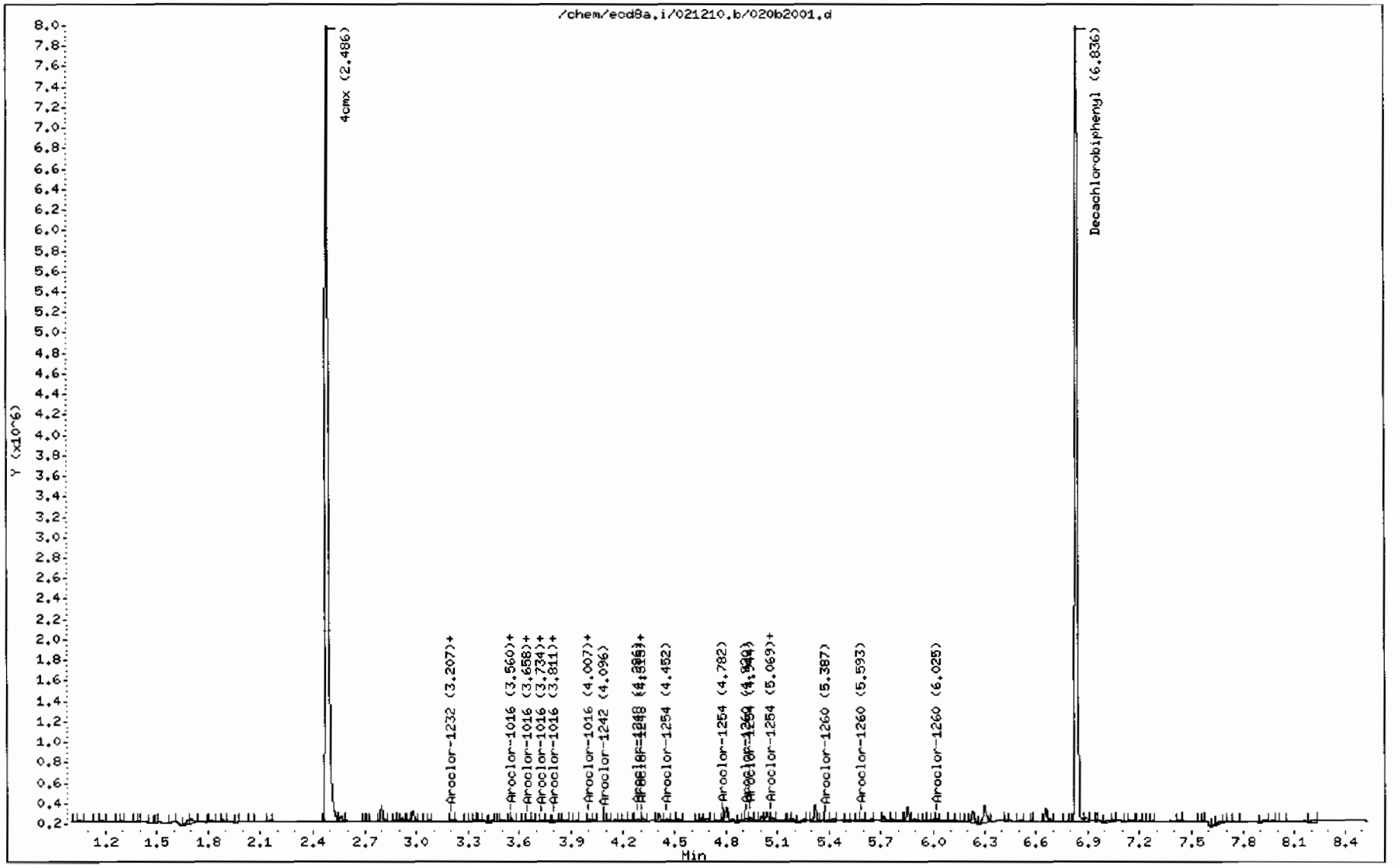

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066004**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**12.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8127**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 10:19**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.04 g**	**Final Volume:**	**1 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	018b1801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.81	ug/kg	1.27	3.81	1
11104–28–2	Aroclor–1221	U	3.81	ug/kg	1.27	3.81	1
11141–16–5	Aroclor–1232	U	3.81	ug/kg	1.27	3.81	1
53469–21–9	Aroclor–1242	U	3.81	ug/kg	1.27	3.81	1
12672–29–6	Aroclor–1248	U	3.81	ug/kg	1.27	3.81	1
11097–69–1	Aroclor–1254	U	3.81	ug/kg	1.27	3.81	1
11096–82–5	Aroclor–1260	U	3.81	ug/kg	1.27	3.81	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/018f1801.d
Lab Smp Id: 246066004 Client Smp ID: RE15-10-8127
Inj Date : 12-FEB-2010 10:19
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066004|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8127|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	12.73510	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	15954143	121.411	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	12418533	124.208	4.7	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/018f1801.d

Page 1

Date : 12-FEB-2010 10:19

Client ID: RE15-10-8127

Instrument: ecd8a.i

Sample Info: |2460660041|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

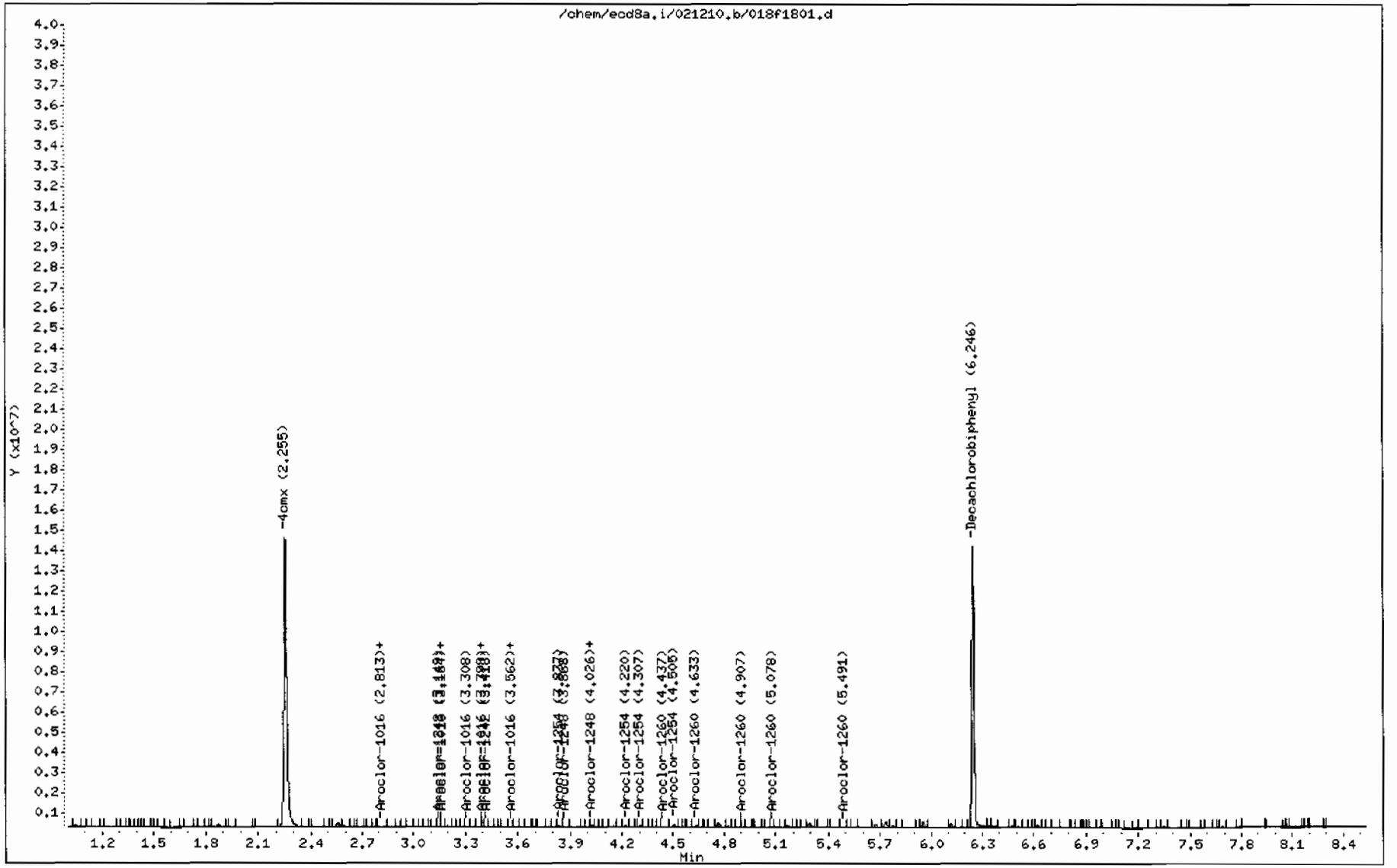

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/018b1801.d
Lab Smp Id: 246066004 Client Smp ID: RE15-10-8127
Inj Date : 12-FEB-2010 10:19
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066004|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8127|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.04000	Weight of sample extracted (g)
M	12.73510	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	10566651	121.675	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	8355283	128.853	4.9	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/018b1801.d

Date : 12-FEB-2010 10:19

Client ID: RE15-10-8127

Sample Info: |246066004111

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

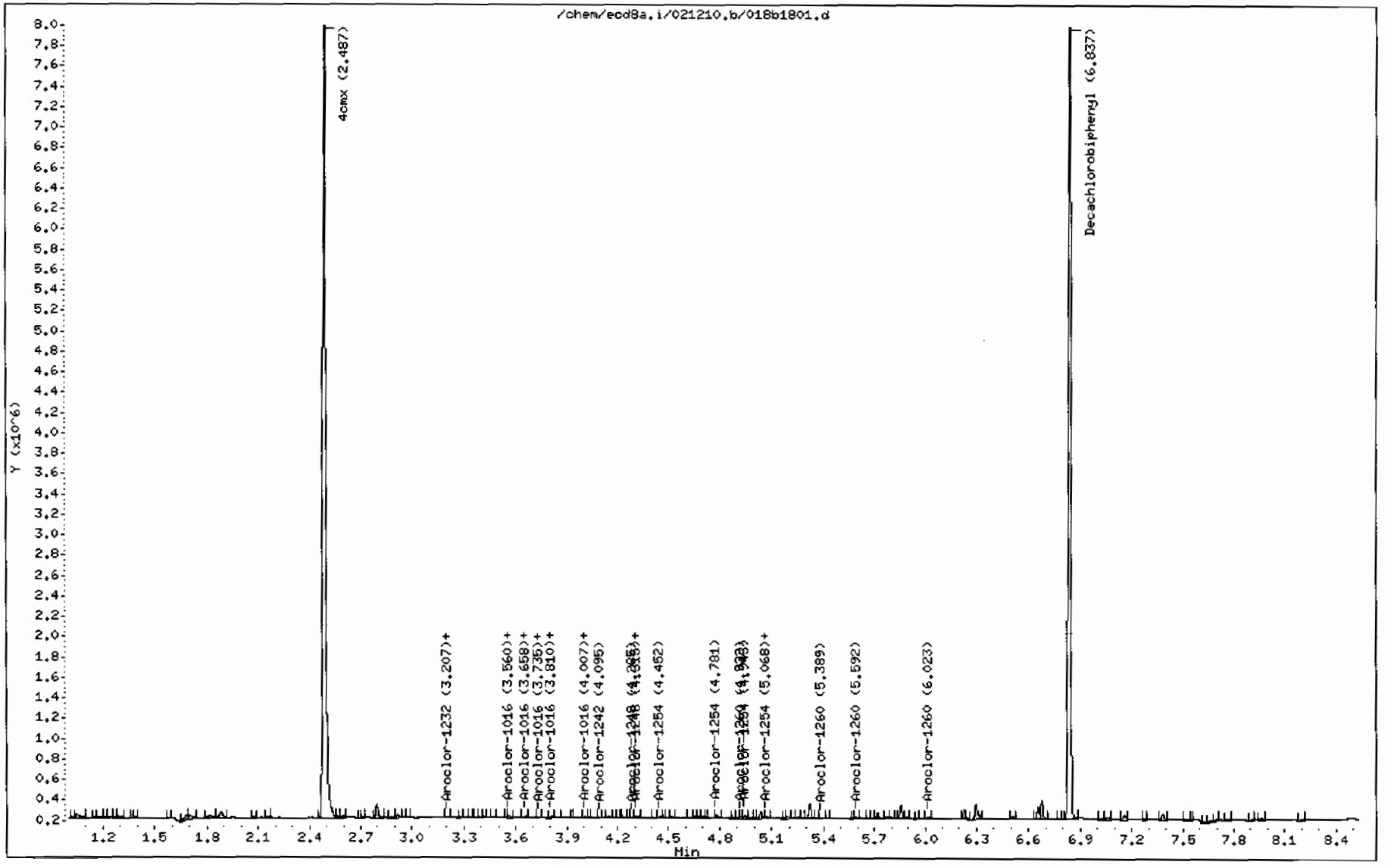

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066005**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**16.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8128**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 10:32**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	019b1901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.97	ug/kg	1.32	3.97	1
11104-28-2	Aroclor-1221	U	3.97	ug/kg	1.32	3.97	1
11141-16-5	Aroclor-1232	U	3.97	ug/kg	1.32	3.97	1
53469-21-9	Aroclor-1242	U	3.97	ug/kg	1.32	3.97	1
12672-29-6	Aroclor-1248	U	3.97	ug/kg	1.32	3.97	1
11097-69-1	Aroclor-1254	U	3.97	ug/kg	1.32	3.97	1
11096-82-5	Aroclor-1260	U	3.97	ug/kg	1.32	3.97	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/019f1901.d
Lab Smp Id: 246066005 Client Smp ID: RE15-10-8128
Inj Date : 12-FEB-2010 10:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066005|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8128|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	16.27890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	16485994	125.458	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	13410890	134.134	5.3	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/019f1901.d

Page 1

Date : 12-FEB-2010 10:32

Client ID: RE15-10-8128

Instrument: ecd8a.i

Sample Info: |246066005|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

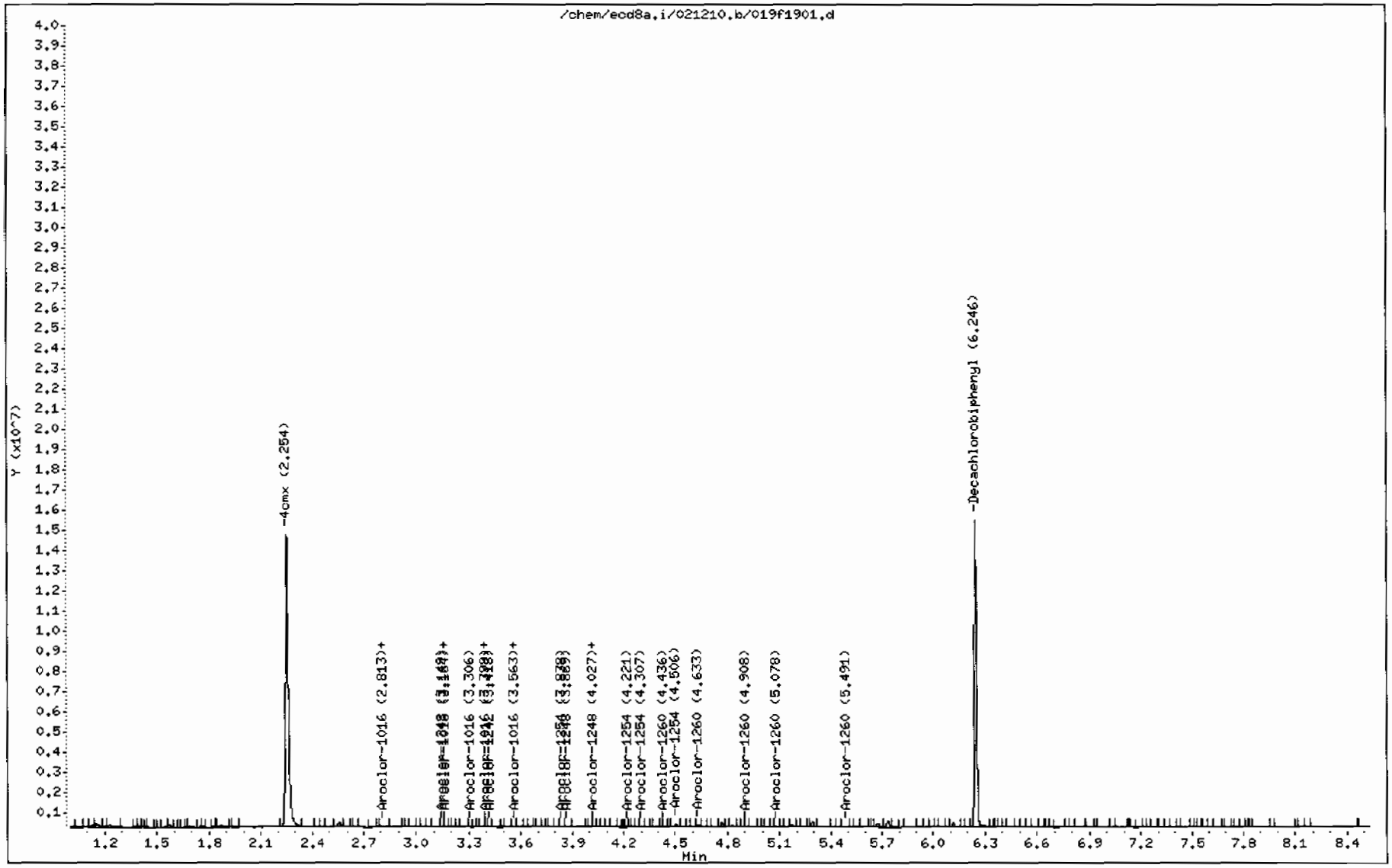

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/019b1901.d
Lab Smp Id: 246066005 Client Smp ID: RE15-10-8128
Inj Date : 12-FEB-2010 10:32
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066005|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8128|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	16.27890	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	10912878	125.662	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	9006602	138.897	5.5	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/019b1901.d

Date : 12-FEB-2010 10:32

Client ID: RE15-10-8128

Sample Info: 1246066005111

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

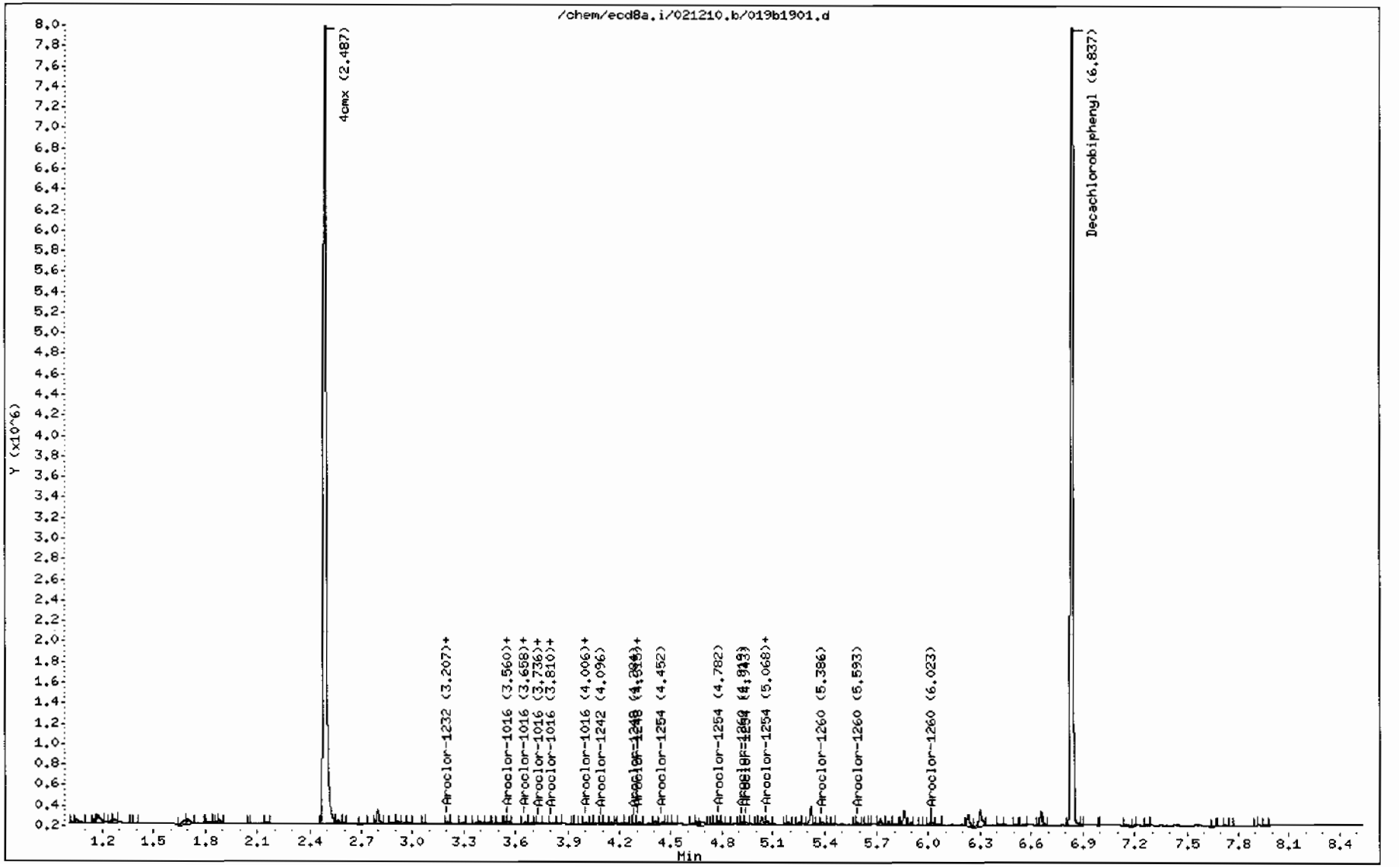

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1543	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246066001	**Date Received:**	02/03/2010 08:55	**%Moisture:**	13.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8129	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 09:42	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.02 g	**Final Volume:**	1 mL
Data File:	015f1501.d	**Column:**	1 CLP1	**Level:**	LOW
	015b1501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.85	ug/kg	1.28	3.85	1
11104–28–2	Aroclor-1221	U	3.85	ug/kg	1.28	3.85	1
11141–16–5	Aroclor–1232	U	3.85	ug/kg	1.28	3.85	1
53469–21–9	Aroclor–1242	U	3.85	ug/kg	1.28	3.85	1
12672–29–6	Aroclor–1248	U	3.85	ug/kg	1.28	3.85	1
11097–69–1	Aroclor–1254	U	3.85	ug/kg	1.28	3.85	1
11096–82–5	Aroclor–1260	U	3.85	ug/kg	1.28	3.85	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/015f1501.d
Lab Smp Id: 246066001 Client Smp ID: RE15-10-8129
Inj Date : 12-FEB-2010 09:42
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066001|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8129|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	13.39430	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	16048619	122.130	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12269499	122.718	4.7	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/015f1501.d
Date : 12-FEB-2010 09:42
Client ID: RE15-10-8129
Sample Info: 1246066001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

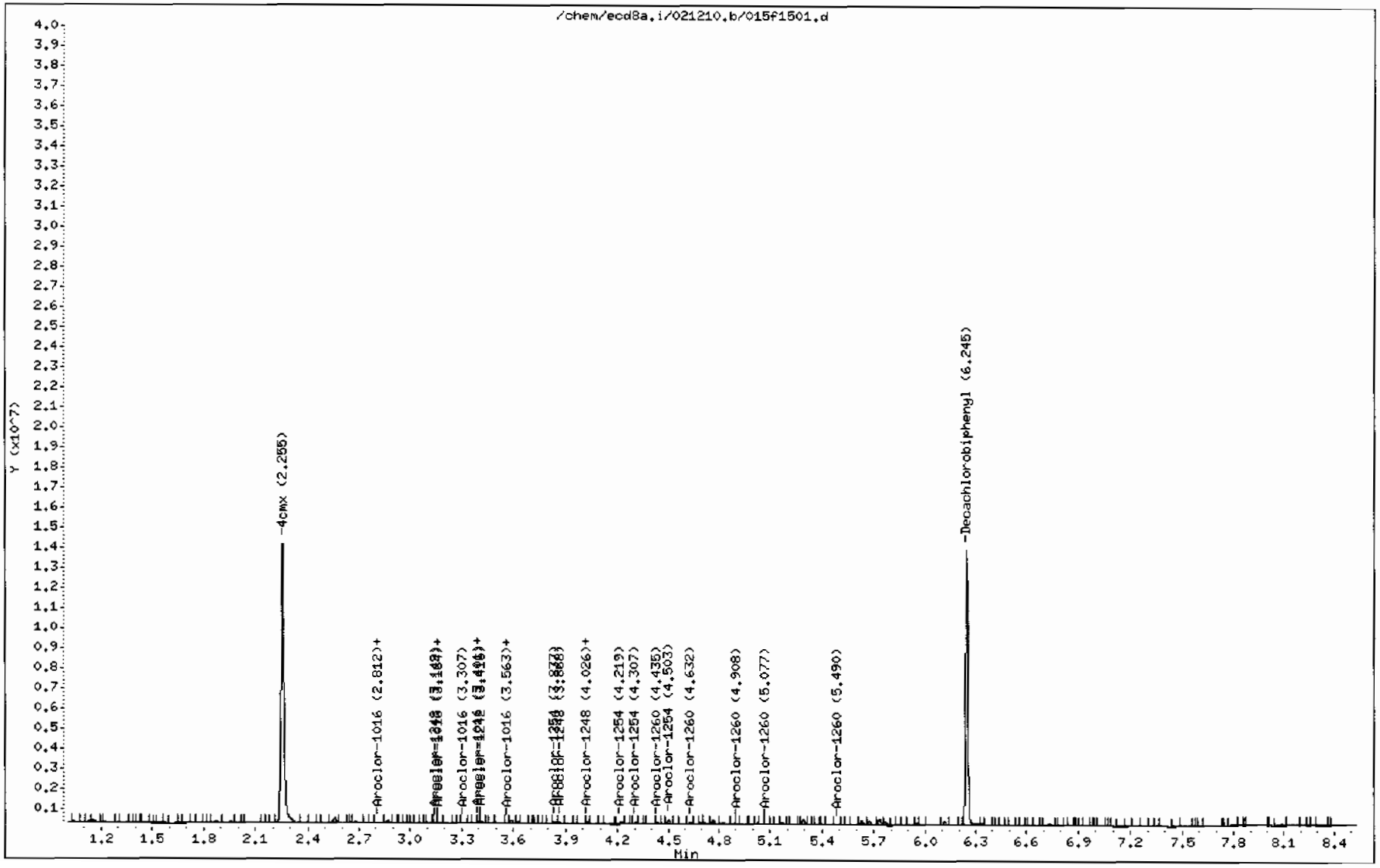

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/015b1501.d
Lab Smp Id: 246066001 Client Smp ID: RE15-10-8129
Inj Date : 12-FEB-2010 09:42
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066001|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8129|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.02000	Weight of sample extracted (g)
M	13.39430	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	10395947	119.709	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	8303693	128.057	4.9	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/015b1501.d
Date : 12-FEB-2010 09:42
Client ID: RE15-10-8129
Sample Info: 1246066001111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

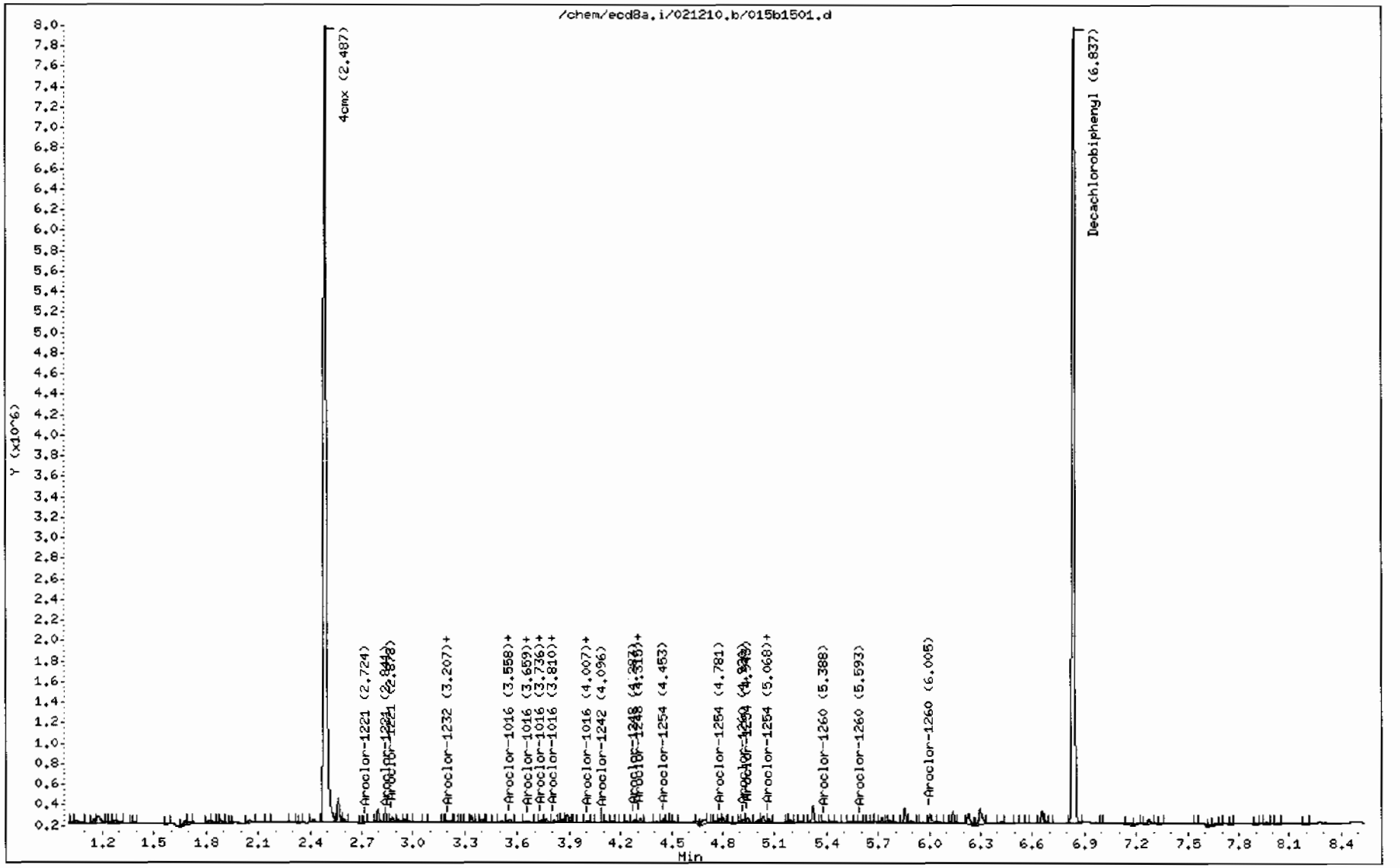

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066003**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**22.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8130**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 10:07**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	017b1701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.30	ug/kg	1.43	4.30	1
11104-28-2	Aroclor-1221	U	4.30	ug/kg	1.43	4.30	1
11141-16-5	Aroclor-1232	U	4.30	ug/kg	1.43	4.30	1
53469-21-9	Aroclor-1242	U	4.30	ug/kg	1.43	4.30	1
12672-29-6	Aroclor-1248	U	4.30	ug/kg	1.43	4.30	1
11097-69-1	Aroclor-1254		5.50	ug/kg	1.43	4.30	2
11096-82-5	Aroclor-1260	U	4.30	ug/kg	1.43	4.30	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/017f1701.d
Lab Smp Id: 246066003 Client Smp ID: RE15-10-8130
Inj Date : 12-FEB-2010 10:07
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066003|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8130|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	22.68100	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	16601588	126.338	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12910429	129.128	5.6	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.837	3.837	0.000	792984	165.724	7.1	80.00- 120.00	100.00
4.025	4.025	0.000	791398	120.467	5.2	115.47- 155.47	99.80
4.220	4.220	0.000	588768	114.588	4.9	82.45- 122.45	74.25
4.306	4.306	0.000	720671	81.9196	3.5	157.78- 197.78	90.88
4.500	4.501	-0.001	823306	119.084	5.1	118.51- 158.51	103.82

Average of Peak Concentrations = 5.2

Data File: /chem/ecd8a.i/021210.b/017f1701.d
Date : 12-FEB-2010 10:07
Client ID: RE15-10-8130
Sample Info: 1246066003|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

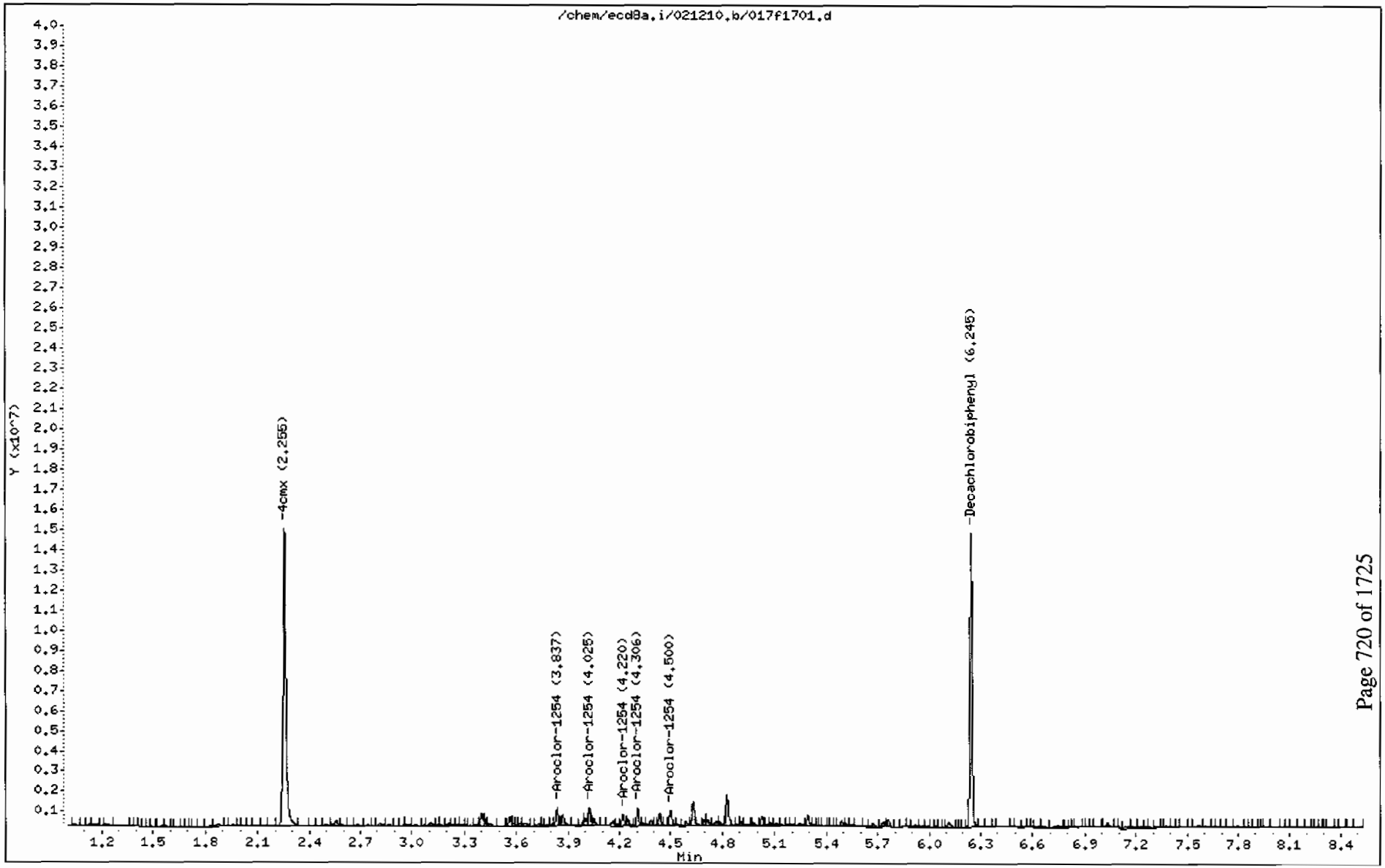

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/017b1701.d
Lab Smp Id: 246066003 Client Smp ID: RE15-10-8130
Inj Date : 12-FEB-2010 10:07
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066003|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8130|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	22.68100	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	10103197	116.338	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8832912	136.218	5.9	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.312	4.313	-0.001	511502	148.259	6.4	80.00- 120.00	100.00
4.451	4.451	0.000	434075	111.014	4.8	92.68- 132.68	84.86
4.781	4.780	0.001	470263	85.5030	3.7	140.87- 180.87	91.94
4.943	4.942	0.001	292970	73.0466	3.1	96.68- 136.68	57.28
5.067	5.068	-0.001	557047	218.547	9.4	53.90- 93.90	108.90

Average of Peak Concentrations = 5.5

Data File: /chem/ecd8a.i/021210.b/017b1701.d

Date : 12-FEB-2010 10:07

Client ID: RE15-10-8130

Sample Info: 1246066003111

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

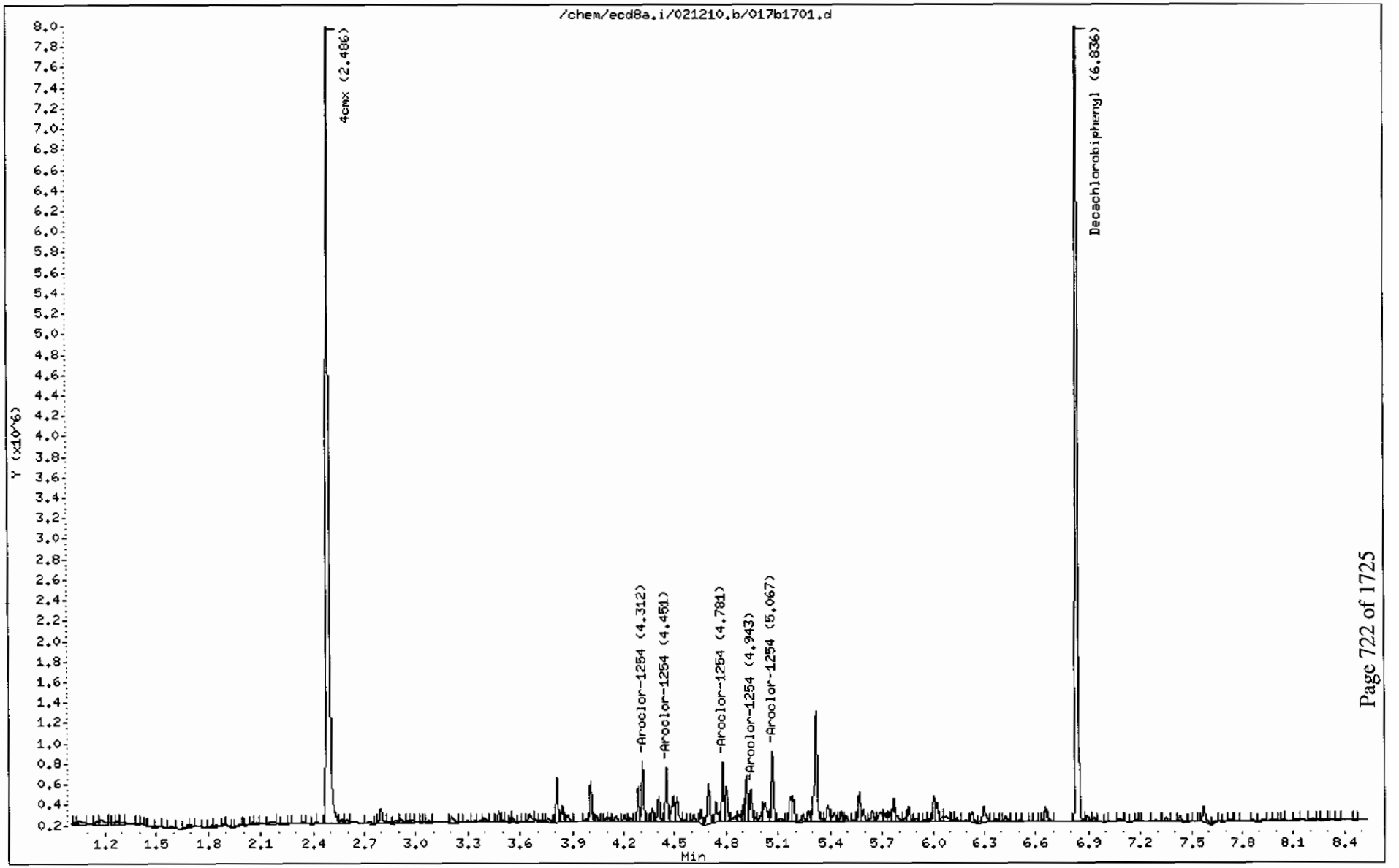

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1543**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246066002**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**17.3**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8131**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:55**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.11 g**	**Final Volume:**	**1 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	016b1601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.02	ug/kg	1.34	4.02	1
11104-28-2	Aroclor-1221	U	4.02	ug/kg	1.34	4.02	1
11141-16-5	Aroclor-1232	U	4.02	ug/kg	1.34	4.02	1
53469-21-9	Aroclor-1242	U	4.02	ug/kg	1.34	4.02	1
12672-29-6	Aroclor-1248	U	4.02	ug/kg	1.34	4.02	1
11097-69-1	Aroclor-1254	U	4.02	ug/kg	1.34	4.02	1
11096-82-5	Aroclor-1260	U	4.02	ug/kg	1.34	4.02	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/016f1601.d
Lab Smp Id: 246066002 Client Smp ID: RE15-10-8131
Inj Date : 12-FEB-2010 09:55
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066002|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8131|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	17.33430	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	16379998	124.652	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	13199853	132.023	5.3	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/016f1601.d
Date : 12-FEB-2010 09:55
Client ID: RE15-10-8131
Sample Info: 1246066021 1
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

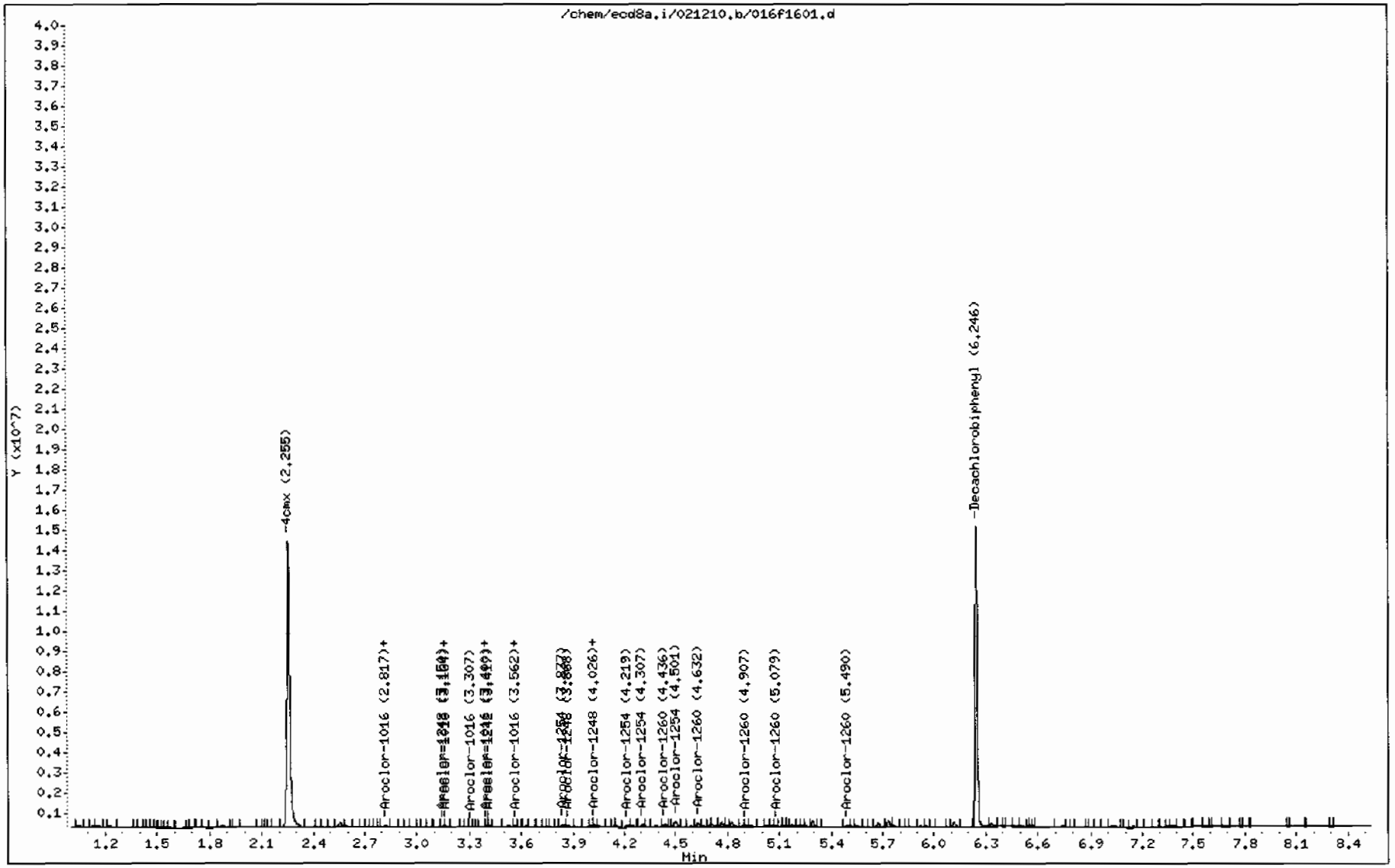

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/016b1601.d
Lab Smp Id: 246066002 Client Smp ID: RE15-10-8131
Inj Date : 12-FEB-2010 09:55
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246066002|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8131|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	17.33430	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	10754093	123.833	5.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8807206	135.822	5.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/016b1601.d
Date : 12-FEB-2010 09:55
Client ID: RE15-10-8131
Sample Info: [246066002|1]
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

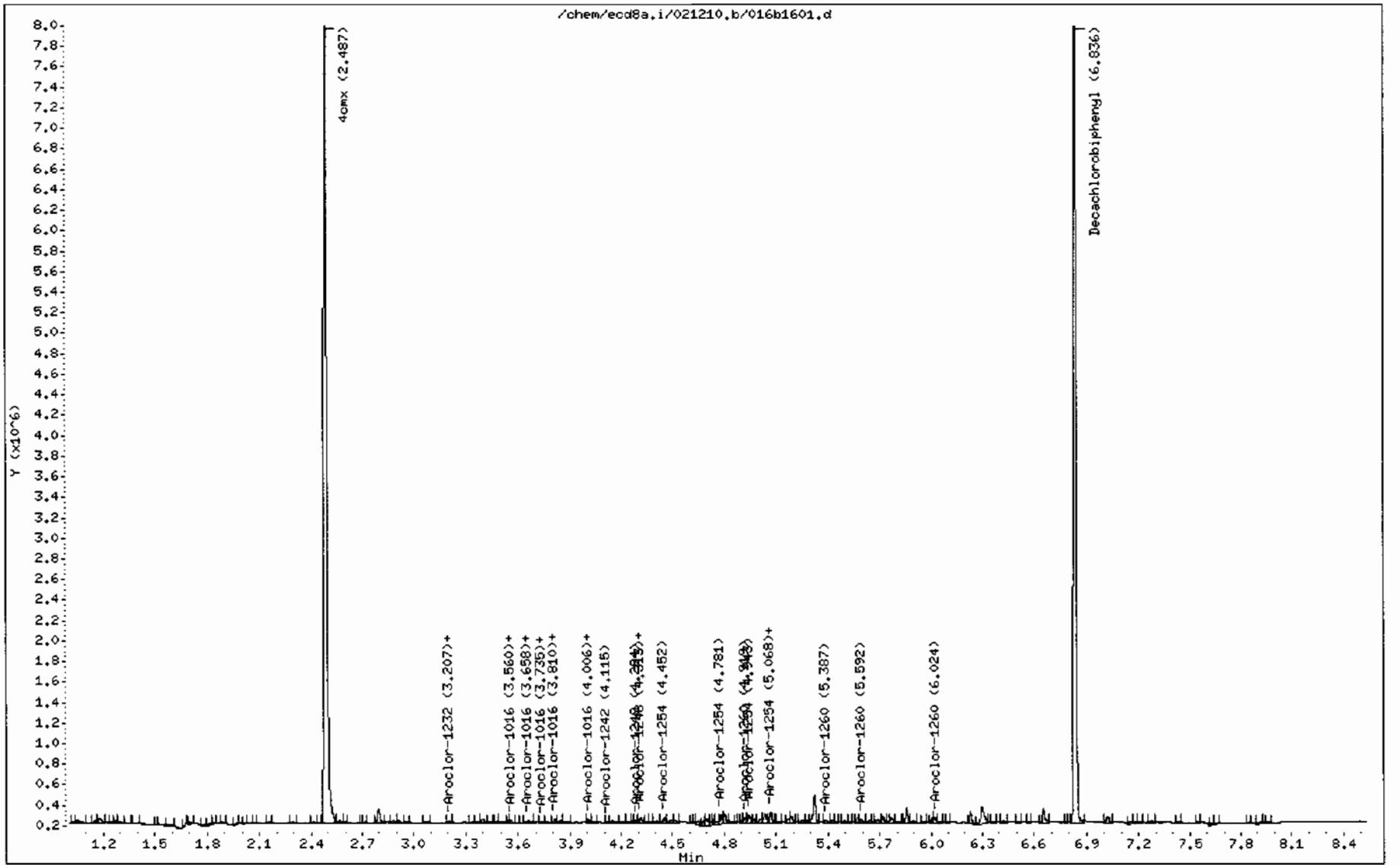

STANDARDS DATA

Report Date: 15-Feb-2010 11:17

Calibration History

Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020f2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008f0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021f2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009f0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022f2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010f1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027f2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023f2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011f1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024f2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012f1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 15:04	AR1660	/chem/ecd8a.i/021210.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 13:25	AR1660	/chem/ecd8a.i/021210.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 10:56	AR1660	/chem/ecd8a.i/021210.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:28	AR1268	/chem/ecd8a.i/021210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:16	AR1262	/chem/ecd8a.i/021210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:03	AR1221	/chem/ecd8a.i/021210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:51	AR1232	/chem/ecd8a.i/021210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:38	AR1248	/chem/ecd8a.i/021210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:26	AR1242	/chem/ecd8a.i/021210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:14	AR1254	/chem/ecd8a.i/021210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:02	AR1660	/chem/ecd8a.i/021210.b/002f0201.d

Report Date: 15-Feb-2010 11:17

Calibration History

Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020b2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008b0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021b2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009b0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022b2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010b1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027b2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023b2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011b1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024b2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012b1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

12-FEB-2010 15:04	AR1660	/chem/ecd8a.i/021210.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 13:25	AR1660	/chem/ecd8a.i/021210.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 10:56	AR1660	/chem/ecd8a.i/021210.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:28	AR1268	/chem/ecd8a.i/021210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:16	AR1262	/chem/ecd8a.i/021210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:03	AR1221	/chem/ecd8a.i/021210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:51	AR1232	/chem/ecd8a.i/021210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:38	AR1248	/chem/ecd8a.i/021210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:26	AR1242	/chem/ecd8a.i/021210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:14	AR1254	/chem/ecd8a.i/021210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:02	AR1660	/chem/ecd8a.i/021210.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Feb-2010 06:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.811	2.781-2.841	4.665e+03
	3.163	3.133-3.193	5.770e+03
	3.306	3.276-3.336	2.454e+03
	3.399	3.369-3.429	2.198e+03
	3.561	3.531-3.591	3.142e+03
2 Aroclor-1221	1.855	1.825-1.885	1.100e+03
	2.394	2.364-2.424	1.460e+03
	2.541	2.511-2.571	3.385e+03
3 Aroclor-1232	2.541	2.511-2.571	2.601e+03
	2.812	2.782-2.842	2.261e+03
	3.308	3.278-3.338	1.243e+03
	3.562	3.532-3.592	1.479e+03
	3.624	3.594-3.654	9.227e+02
4 Aroclor-1242	2.812	2.782-2.842	3.974e+03
	3.164	3.134-3.194	4.796e+03
	3.400	3.369-3.430	1.805e+03
	3.417	3.387-3.447	1.889e+03
	3.562	3.532-3.592	2.645e+03
5 Aroclor-1248	3.148	3.118-3.178	2.990e+03
	3.399	3.369-3.429	3.823e+03
	3.562	3.532-3.592	5.000e+03
	3.867	3.837-3.897	5.990e+03
	4.027	3.997-4.057	4.826e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.837	3.807-3.867	4.785e+03
		4.025	3.995-4.055	6.569e+03
		4.220	4.190-4.250	5.138e+03
		4.306	4.276-4.336	8.797e+03
		4.501	4.471-4.531	6.914e+03
	7 Aroclor-1260	4.435	4.405-4.465	6.739e+03
		4.631	4.601-4.661	1.026e+04
		4.906	4.876-4.936	6.130e+03
		5.078	5.048-5.108	6.386e+03
		5.490	5.460-5.520	6.860e+03
	8 Aroclor-1262	4.337	4.307-4.367	3.367e+03
		4.436	4.406-4.466	5.243e+03
		4.631	4.601-4.661	7.103e+03
		4.906	4.876-4.936	8.580e+03
		5.079	5.049-5.109	7.966e+03
	9 Aroclor-1268	5.514	5.484-5.544	1.632e+04
		5.541	5.511-5.571	1.572e+04
		5.673	5.643-5.703	1.207e+04
		5.919	5.889-5.949	6.023e+03
		6.116	6.086-6.146	3.601e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.252	2.222-2.282	1.314e+05
$	12 Decachlorobiphenyl	6.245	6.215-6.275	9.998e+04
	13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
	14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
	15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Feb-2010 06:49 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.558	3.528-3.588	3.766e+03
	3.658	3.628-3.688	2.494e+03
	3.734	3.704-3.764	1.515e+03
	3.809	3.779-3.839	1.493e+03
	4.006	3.976-4.036	2.036e+03
2 Aroclor-1221	2.727	2.697-2.757	8.949e+02
	2.839	2.809-2.869	5.569e+02
	2.888	2.858-2.918	2.060e+03
3 Aroclor-1232	3.207	3.177-3.237	1.515e+03
	3.560	3.530-3.590	1.744e+03
	3.659	3.629-3.689	1.176e+03
	3.735	3.705-3.765	7.101e+02
	3.810	3.780-3.840	6.182e+02
4 Aroclor-1242	3.206	3.176-3.236	2.677e+03
	3.559	3.530-3.590	3.126e+03
	3.659	3.629-3.689	2.127e+03
	4.006	3.976-4.036	1.703e+03
	4.096	4.066-4.126	1.567e+03
5 Aroclor-1248	3.657	3.627-3.687	1.427e+03
	3.810	3.780-3.840	2.467e+03
	4.006	3.976-4.036	3.089e+03
	4.284	4.254-4.314	3.647e+03
	4.317	4.287-4.347	4.004e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	4.313	4.283-4.343	3.450e+03
		4.451	4.421-4.481	3.910e+03
		4.780	4.750-4.810	5.500e+03
		4.942	4.912-4.972	4.011e+03
		5.068	5.038-5.098	2.549e+03
	7 Aroclor-1260	4.919	4.889-4.949	4.084e+03
		5.068	5.038-5.098	4.969e+03
		5.384	5.354-5.414	3.788e+03
		5.591	5.561-5.621	3.953e+03
		6.023	5.993-6.053	6.227e+03
	8 Aroclor-1262	4.920	4.890-4.950	3.276e+03
		5.068	5.038-5.098	3.827e+03
		5.386	5.356-5.416	5.446e+03
		5.592	5.562-5.622	5.047e+03
		6.021	5.991-6.051	7.196e+03
	9 Aroclor-1268	6.018	5.988-6.048	1.138e+04
		6.051	6.021-6.081	1.041e+04
		6.230	6.200-6.260	8.192e+03
		6.427	6.397-6.457	4.057e+03
		6.656	6.626-6.686	2.464e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.486	2.456-2.516	8.684e+04
$	12 Decachlorobiphenyl	6.836	6.806-6.866	6.484e+04
	13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
	14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
	15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Cal Date : 15-Feb-2010 06:50 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028f2801.d
Level 2: /chem/ecd8a.i/020310a.b/029f2901.d
Level 3: /chem/ecd8a.i/020310a.b/030f3001.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/020310a.b/032f3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5614	5138	4704	4321	3545	4665	16.943
(2)	6383	6264	5935	5475	4791	5770	11.275
(3)	2817	2639	2454	2319	2042	2454	12.124
(4)	2629	2406	2216	2019	1720	2198	15.914
(5)	3708	3411	3117	2938	2537	3142	14.248
2 Aroclor-1221(1)	+++++	+++++	+++++	1100	+++++	1100	0.000
(2)	+++++	+++++	+++++	1460	+++++	1460	0.000
(3)	+++++	+++++	+++++	3385	+++++	3385	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3599	3150	2999	2805	2397	2990	14.793
(2)	4688	4030	3804	3549	3043	3823	15.884
(3)	6028	5281	4903	4737	4053	5000	14.533
(4)	7068	6330	5909	5676	4965	5990	13.024
(5)	5743	5075	4737	4591	3986	4826	13.394
6 Aroclor-1254(1)	5857	5096	4715	4450	3806	4785	15.921
(2)	7961	7038	6468	6172	5208	6569	15.558
(3)	6032	5571	5105	4741	4242	5138	13.582
(4)	10107	9649	8877	8173	7180	8797	13.271
(5)	7953	7619	6996	6322	5678	6914	13.452

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Cal Date : 15-Feb-2010 06:50 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	7706	7225	6868	6425	5470	6739	12.628
(2)	11735	10983	10481	9771	8329	10260	12.630
(3)	7075	6577	6171	5792	5035	6130	12.657
(4)	7317	6857	6397	6058	5301	6386	12.066
(5)	7655	7335	6855	6540	5914	6860	9.924
8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
(2)	5935	5551	5239	5102	4386	5243	10.995
(3)	7996	7523	7022	6963	6012	7103	10.414
(4)	9555	9028	8567	8433	7318	8580	9.694
(5)	8875	8357	7946	7802	6850	7966	9.421
9 Aroclor-1268(1)	#####	#####	#####	16324	#####	16324	0.000
(2)	#####	#####	#####	15723	#####	15723	0.000
(3)	#####	#####	#####	12075	#####	12075	0.000
(4)	#####	#####	#####	6023	#####	6023	0.000
(5)	#####	#####	#####	36012	#####	36012	0.000
M 10 Aroclor-Total	#####	#####	#####	#####	#####	#####	#####
13 4,4'-DDT	#####	#####	#####	23929	#####	23929	0.000
14 4,4'-DDD	#####	#####	#####	157020	#####	157020	0.000
15 4,4'-DDE	#####	#####	#####	133975	#####	133975	0.000
$ 11 4cmx	141196	137660	133177	129355	115643	131406	7.521
$ 12 Decachlorobiphenyl	111693	106508	99006	96244	86457	99981	9.718

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Cal Date : 15-Feb-2010 06:49 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028b2801.d
Level 2: /chem/ecd8a.i/020310a.b/029b2901.d
Level 3: /chem/ecd8a.i/020310a.b/030b3001.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/020310a.b/032b3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3955	3879	3768	3829	3401	3766	5.726
(2)	2683	2623	2522	2463	2181	2494	7.814
(3)	1588	1565	1522	1510	1392	1515	5.000
(4)	1644	1573	1498	1453	1297	1493	8.812
(5)	2161	2107	2068	2025	1817	2036	6.473
2 Aroclor-1221(1)	+++++	+++++	+++++	895	+++++	895	0.000
(2)	+++++	+++++	+++++	557	+++++	557	0.000
(3)	+++++	+++++	+++++	2060	+++++	2060	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1621	1511	1422	1366	1213	1427	10.773
(2)	2779	2594	2491	2383	2090	2467	10.392
(3)	3403	3233	3131	3022	2657	3089	9.043
(4)	3964	3788	3692	3588	3204	3647	7.785
(5)	4333	4155	4060	3948	3526	4004	7.553
6 Aroclor-1254(1)	3700	3695	3475	3389	2993	3450	8.395
(2)	4204	4194	3940	3836	3377	3910	8.648
(3)	5766	5885	5570	5452	4827	5500	7.494
(4)	4254	4252	4044	3942	3562	4011	7.104
(5)	2775	2711	2546	2462	2250	2549	8.187

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Cal Date : 15-Feb-2010 06:49 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	4328	4278	4140	4064	3611	4084	6.976
(2)	5221	5198	5036	4963	4428	4969	6.467
(3)	3970	3947	3809	3790	3427	3788	5.744
(4)	4121	4108	3975	3957	3605	3953	5.268
(5)	6395	6455	6249	6250	5789	6227	4.190
8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
(2)	4038	3929	3844	3825	3498	3827	5.277
(3)	5683	5613	5515	5463	4958	5446	5.255
(4)	5266	5178	5090	5067	4633	5047	4.838
(5)	7327	7356	7286	7270	6740	7196	3.572
9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$ 11 4cmx	86244	88409	88291	88885	82388	86843	3.097
$ 12 Decachlorobiphenyl	68541	67257	64616	64263	59541	64844	5.342

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0702

Lab File ID: 002F0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4548.503	0.01	-2.5	15.0
(2)	5769.588	5603.764	0.01	-2.9	15.0
(3)	2454.201	2323.075	0.01	-5.3	15.0
(4)	2198.179	2073.021	0.01	-5.7	15.0
(5)	3142.156	2985.422	0.01	-5.0	15.0
Aroclor-1260	6738.969	6360.304	0.01	-5.6	15.0
(2)	10259.796	9595.648	0.01	-6.5	15.0
(3)	6129.851	5825.535	0.01	-5.0	15.0
(4)	6385.867	6234.879	0.01	-2.4	15.0
(5)	6859.759	6996.429	0.01	2.0	15.0
4cmx	131406.10	139136.78	0.01	5.9	15.0
Decachlorobiphenyl	99981.358	97993.400	0.01	-2.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0702

Lab File ID: 002B0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3777.022	0.01	0.3	15.0
(2)	2494.427	2504.931	0.01	0.4	15.0
(3)	1515.492	1469.542	0.01	-3.0	15.0
(4)	1493.163	1424.438	0.01	-4.6	15.0
(5)	2035.618	1995.101	0.01	-2.0	15.0
Aroclor-1260	4084.417	4339.858	0.01	6.2	15.0
(2)	4968.902	5272.238	0.01	6.1	15.0
(3)	3788.418	4034.101	0.01	6.5	15.0
(4)	3953.106	4196.512	0.01	6.2	15.0
(5)	6227.437	6650.370	0.01	6.8	15.0
4cmx	86843.352	91859.720	0.01	5.8	15.0
Decachlorobiphenyl	64843.758	65029.570	0.01	0.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0714

Lab File ID: 003F0301 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1139 1228

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	4784.971	4792.956	0.01	0.2	15.0
(2)	6569.400	6493.193	0.01	-1.2	15.0
(3)	5138.123	4910.433	0.01	-4.4	15.0
(4)	8797.294	8520.921	0.01	-3.1	15.0
(5)	6913.634	6638.642	0.01	-4.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0714

Lab File ID: 003B0301 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1139 1228

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	3450.063	3619.477	0.01	4.9	15.0
(2)	3910.106	4078.317	0.01	4.3	15.0
(3)	5499.957	5822.784	0.01	5.9	15.0
(4)	4010.730	4223.179	0.01	5.3	15.0
(5)	2548.871	2674.832	0.01	4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 1056

Lab File ID: 021F2101 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4427.289	0.01	-5.1	15.0
(2)	5769.588	5231.669	0.01	-9.3	15.0
(3)	2454.201	2257.198	0.01	-8.0	15.0
(4)	2198.179	2027.637	0.01	-7.8	15.0
(5)	3142.156	2907.902	0.01	-7.4	15.0
Aroclor-1260	6738.969	6210.653	0.01	-7.8	15.0
(2)	10259.796	9429.792	0.01	-8.1	15.0
(3)	6129.851	5734.817	0.01	-6.4	15.0
(4)	6385.867	6164.329	0.01	-3.5	15.0
(5)	6859.759	6924.069	0.01	0.9	15.0
4cmx	131406.10	134284.87	0.01	2.2	15.0
Decachlorobiphenyl	99981.358	96393.950	0.01	-3.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 1056

Lab File ID: 021B2101 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3579.581	0.01	-5.0	15.0
(2)	2494.427	2425.109	0.01	-2.8	15.0
(3)	1515.492	1415.842	0.01	-6.6	15.0
(4)	1493.163	1374.673	0.01	-7.9	15.0
(5)	2035.618	1929.912	0.01	-5.2	15.0
Aroclor-1260	4084.417	4222.628	0.01	3.4	15.0
(2)	4968.902	5138.981	0.01	3.4	15.0
(3)	3788.418	3947.606	0.01	4.2	15.0
(4)	3953.106	4089.217	0.01	3.4	15.0
(5)	6227.437	6559.427	0.01	5.3	15.0
4cmx	86843.352	88065.490	0.01	1.4	15.0
Decachlorobiphenyl	64843.758	63780.140	0.01	-1.6	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 12-FEB-2010 07:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.252	2.252	0.000	13913678	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	9799340	100.000	98.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.811	2.811	0.000	4548503	1000.00	975	80.00- 120.00	100.00
3.163	3.163	0.000	5603763	1000.00	971	98.17- 138.17	123.20
3.306	3.306	0.000	2323075	1000.00	946	30.98- 70.98	51.07
3.399	3.399	0.000	2073020	1000.00	943	25.80- 65.80	45.58
3.561	3.561	0.000	2985421	1000.00	950	45.68- 85.68	65.64
Average of Peak Amounts =					957		
7 Aroclor-1260					CAS #: 11096-82-5		
4.435	4.435	0.000	6360304	1000.00	944	80.00- 120.00	100.00
4.631	4.631	0.000	9595648	1000.00	935	131.83- 171.83	150.87
4.906	4.906	0.000	5825535	1000.00	950	72.34- 112.34	91.59
5.078	5.078	0.000	6234878	1000.00	976	79.25- 119.25	98.03
5.490	5.490	0.000	6996429	1000.00	1020	91.49- 131.49	110.00
Average of Peak Amounts =					965		

Data File: /chem/ecd8a.i/021210.b/002f0201.d

Date : 12-FEB-2010 07:02

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

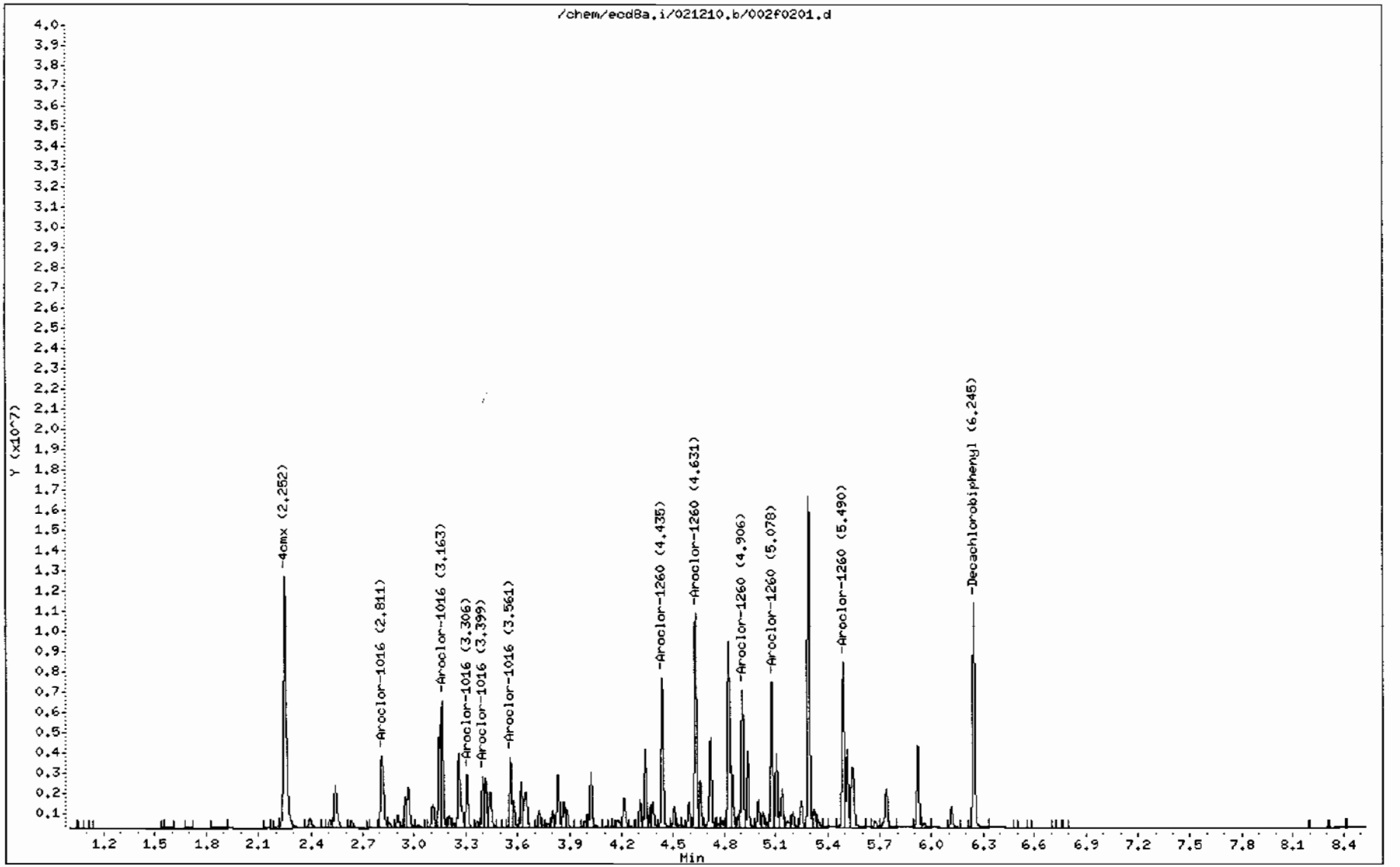

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 12-FEB-2010 07:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	9185972	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	6502957	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.558	3.558	0.000	3777022	1000.00	1000	80.00- 120.00	100.00
3.658	3.658	0.000	2504931	1000.00	1000	47.75- 87.75	66.32
3.734	3.734	0.000	1469541	1000.00	970	19.55- 59.55	38.91
3.809	3.809	0.000	1424437	1000.00	954	18.40- 58.40	37.71
4.006	4.006	0.000	1995100	1000.00	980	33.91- 73.91	52.82
Average of Peak Amounts					982		
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	4339858	1000.00	1060	80.00- 120.00	100.00
5.068	5.068	0.000	5272237	1000.00	1060	101.70- 141.70	121.48
5.384	5.384	0.000	4034100	1000.00	1060	73.49- 113.49	92.95
5.591	5.591	0.000	4196512	1000.00	1060	76.84- 116.84	96.70
6.023	6.023	0.000	6650370	1000.00	1070	135.34- 175.34	153.24
Average of Peak Amounts -					1.06e+03		

Data File: /chem/ecd8a.i/021210.b/002b0201.d

Date : 12-FEB-2010 07:02

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Page 1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

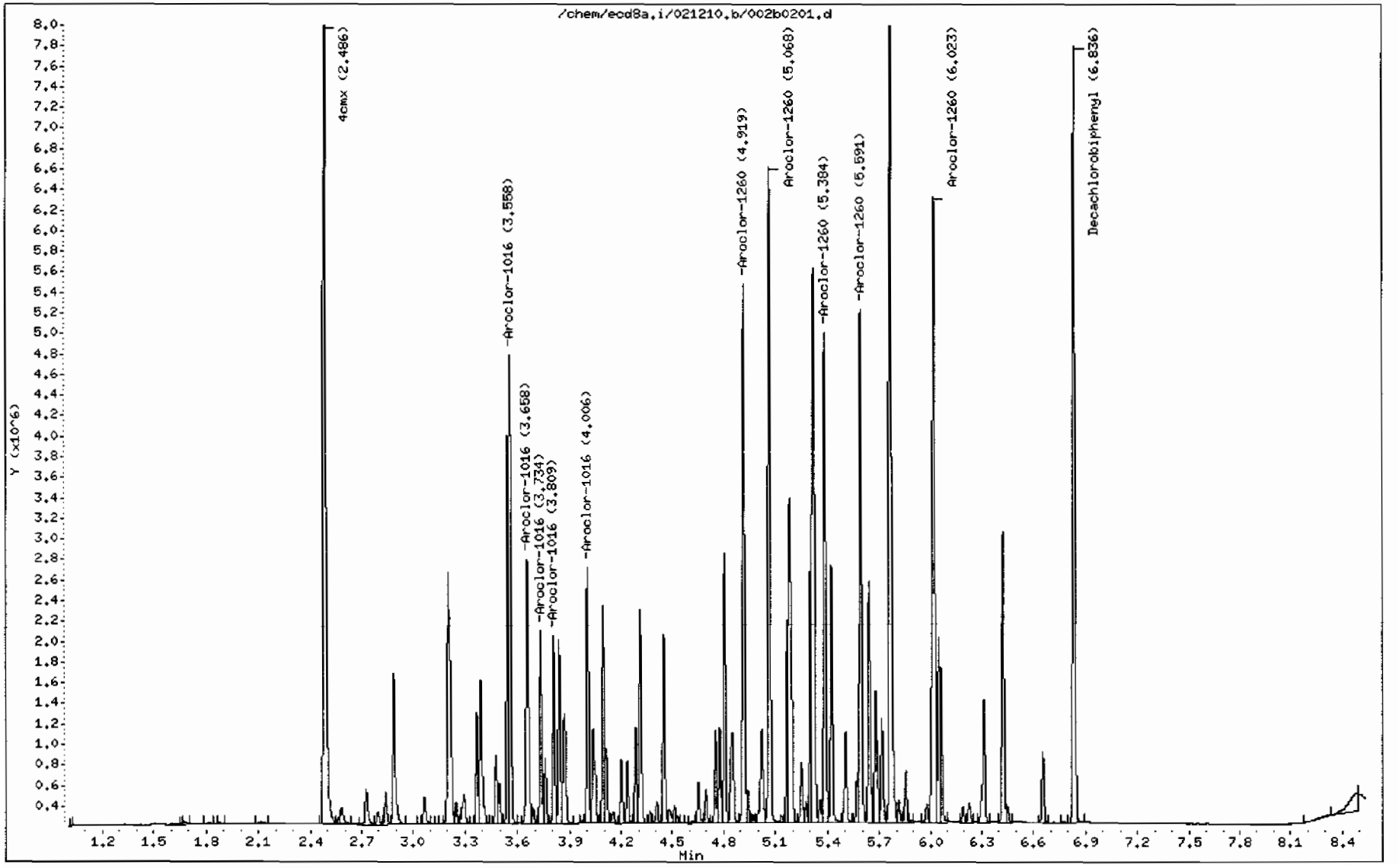

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/003f0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 12-FEB-2010 07:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.837	3.837	0.000	4792955	1000.00	1000	80.00- 120.00	100.00
4.025	4.025	0.000	6493192	1000.00	988	115.47- 155.47	135.47
4.220	4.220	0.000	4910432	1000.00	956	82.45- 122.45	102.45
4.306	4.306	0.000	8520921	1000.00	968	157.78- 197.78	177.78
4.501	4.501	0.000	6638641	1000.00	960	118.51- 158.51	138.51
Average of Peak Amounts =					975		

Data File: /chem/ecd8a.i/021210.b/003f0301.d

Date : 12-FEB-2010 07:14

Client ID: AR125401

Sample Info: IWAR100201-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

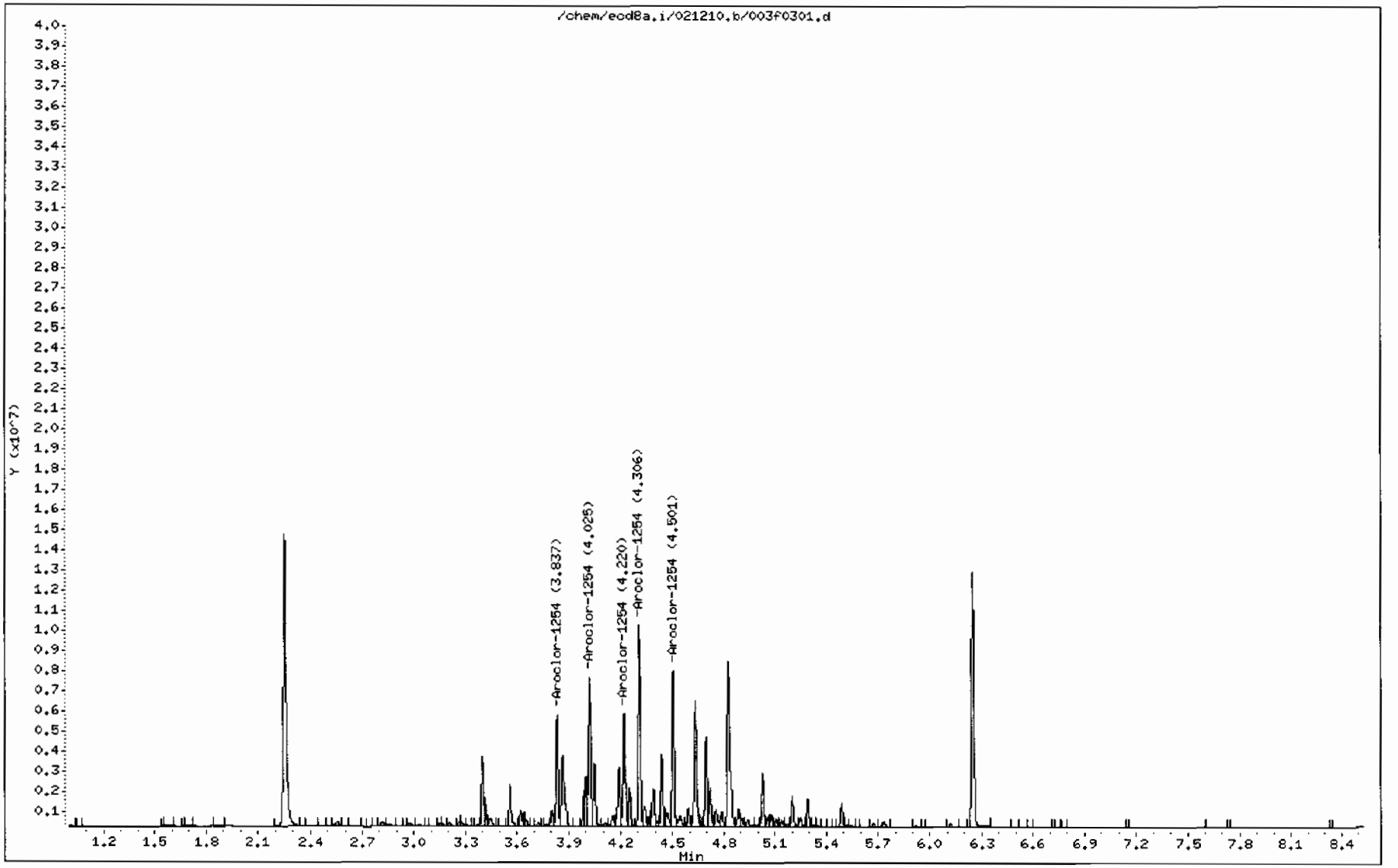

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/003b0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 12-FEB-2010 07:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.313	4.313	0.000	3619477	1000.00	1050	80.00- 120.00	100.00
4.451	4.451	0.000	4078317	1000.00	1040	92.68- 132.68	112.68
4.780	4.780	0.000	5822783	1000.00	1060	140.87- 180.87	160.87
4.942	4.942	0.000	4223178	1000.00	1050	96.68- 136.68	116.68
5.068	5.068	0.000	2674832	1000.00	1050	53.90- 93.90	73.90

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/021210.b/003b0301.d

Date : 12-FEB-2010 07:14

Client ID: AR125401

Sample Info: IWAR100201-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

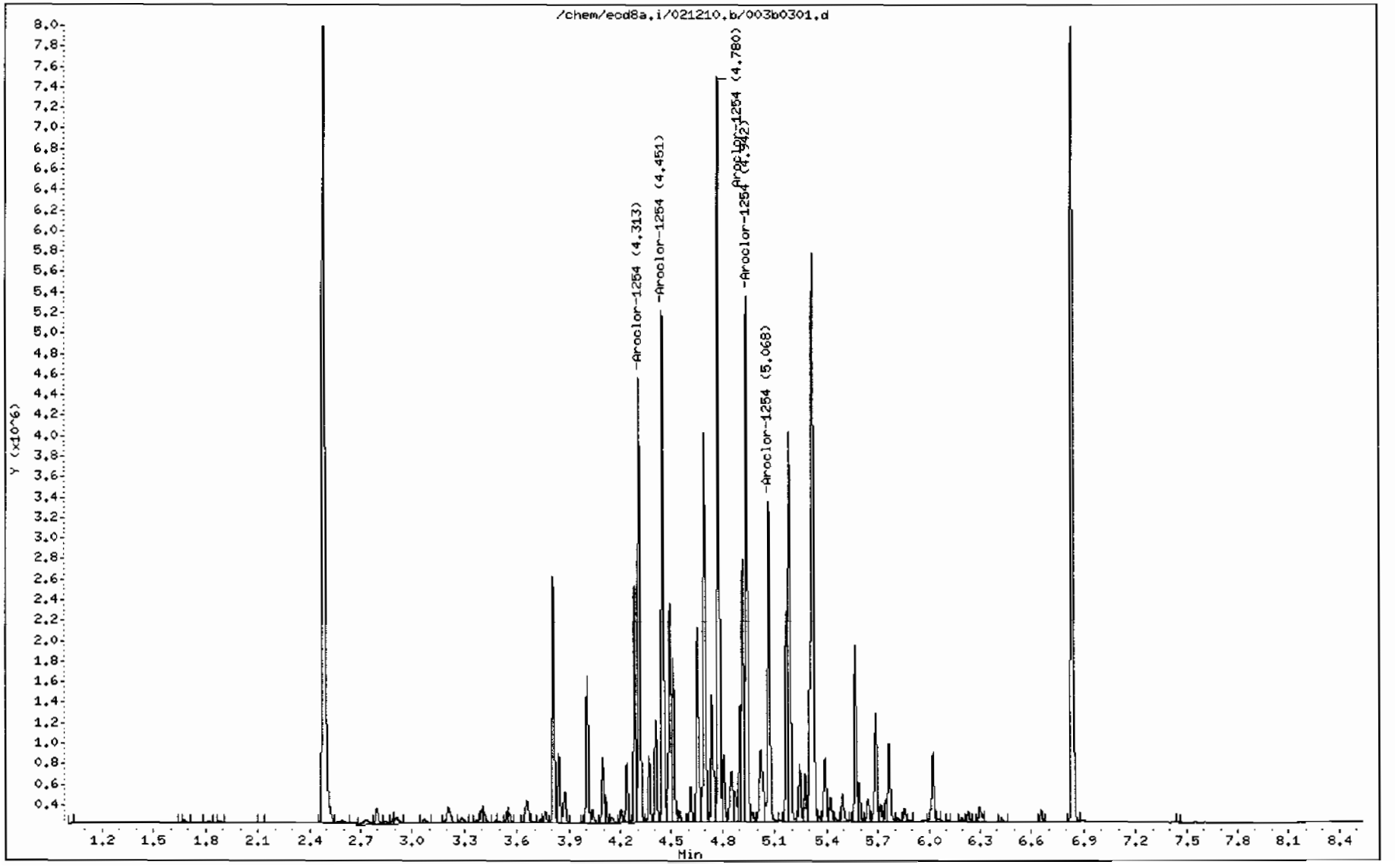

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 12-FEB-2010 07:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.812	2.812	0.000	3721427	1000.00	936	80.00- 120.00	100.00
3.164	3.164	0.000	4447831	1000.00	927	99.52- 139.52	119.52
3.400	3.400	0.000	1643502	1000.00	910	24.16- 64.16	44.16
3.417	3.417	0.000	1688795	1000.00	894	25.38- 65.38	45.38
3.562	3.562	0.000	2416012	1000.00	913	44.92- 84.92	64.92
Average of Peak Amounts =					916		

Data File: /chem/ecd8a.i/021210.b/004f0401.d

Date : 12-FEB-2010 07:26

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

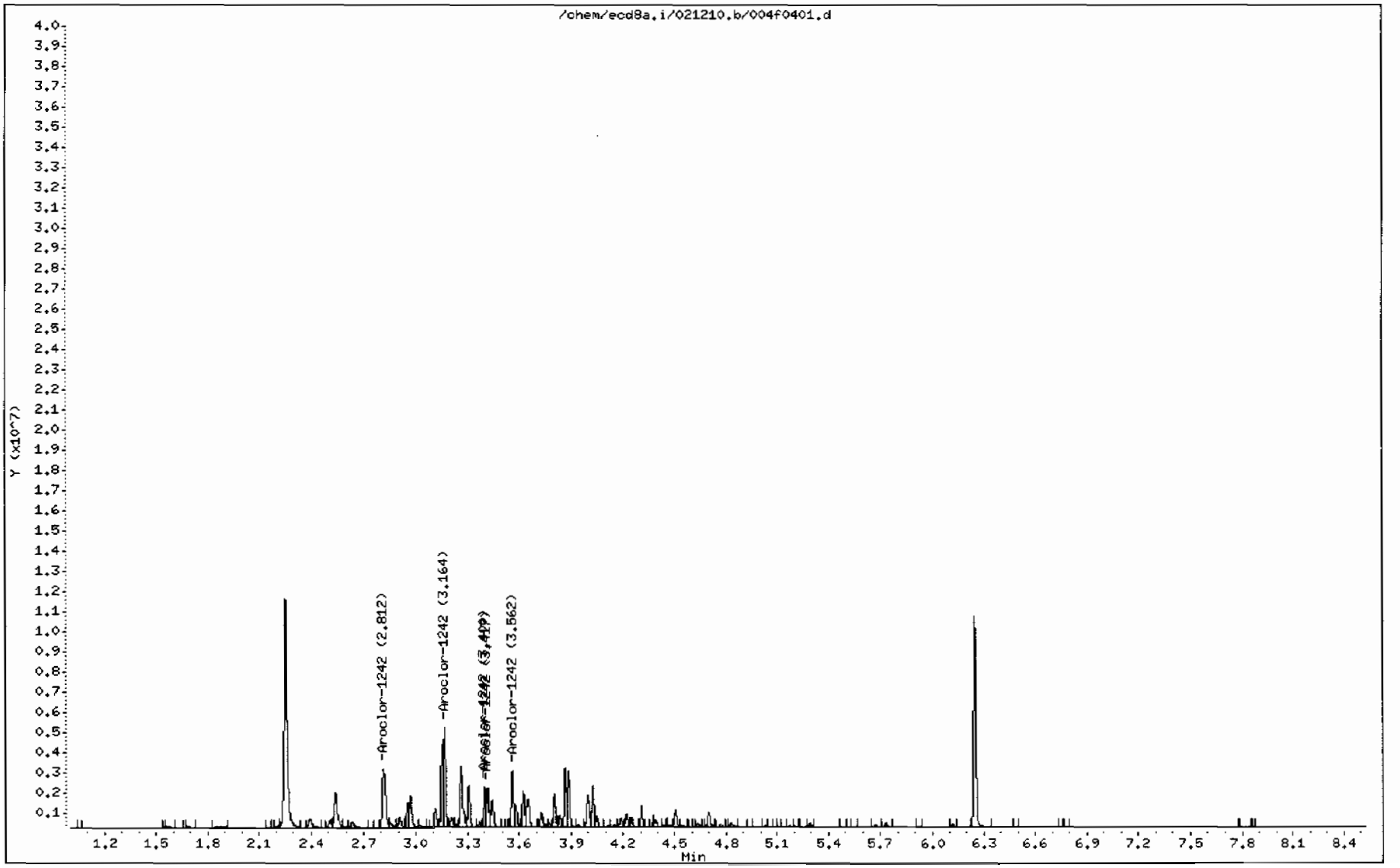

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 12-FEB-2010 07:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.206	3.206	0.000	2518361	1000.00	941	80.00- 120.00	100.00
3.559	3.559	0.000	2915172	1000.00	933	95.76- 135.76	115.76
3.659	3.659	0.000	2010413	1000.00	945	59.83- 99.83	79.83
4.006	4.006	0.000	1576801	1000.00	926	42.61- 82.61	62.61
4.096	4.096	0.000	1486237	1000.00	949	39.02- 79.02	59.02
Average of Peak Amounts					939		

Data File: /chem/ecd8a.i/021210.b/004b0401.d

Date : 12-FEB-2010 07:26

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

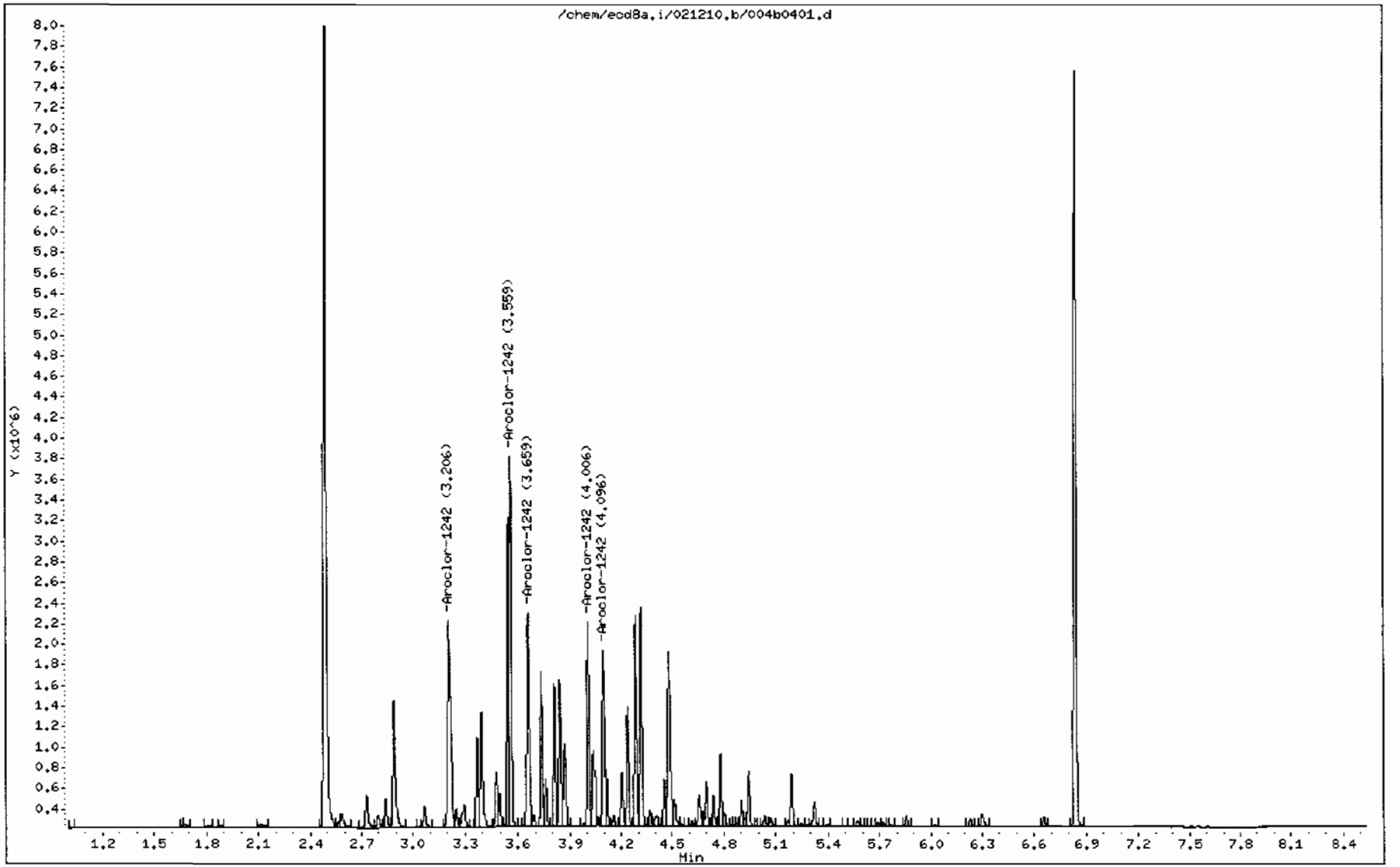

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 12-FEB-2010 07:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.148	3.148	0.000	2353370	1000.00	787	80.00- 120.00	100.00
3.399	3.399	0.000	3094483	1000.00	809	111.49- 151.49	131.49
3.562	3.562	0.000	4049295	1000.00	810	152.06- 192.06	172.06
3.867	3.867	0.000	4836876	1000.00	808	185.53- 225.53	205.53
4.027	4.027	0.000	3828514	1000.00	793	142.68- 182.68	162.68
Average of Peak Amounts =					801		

Data File: /chem/ecd8a.i/021210.b/005f0501.d

Page 1

Date : 12-FEB-2010 07:38

Client ID: AR124801

Instrument: ecd8a.i

Sample Info: IWAR091217-48

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

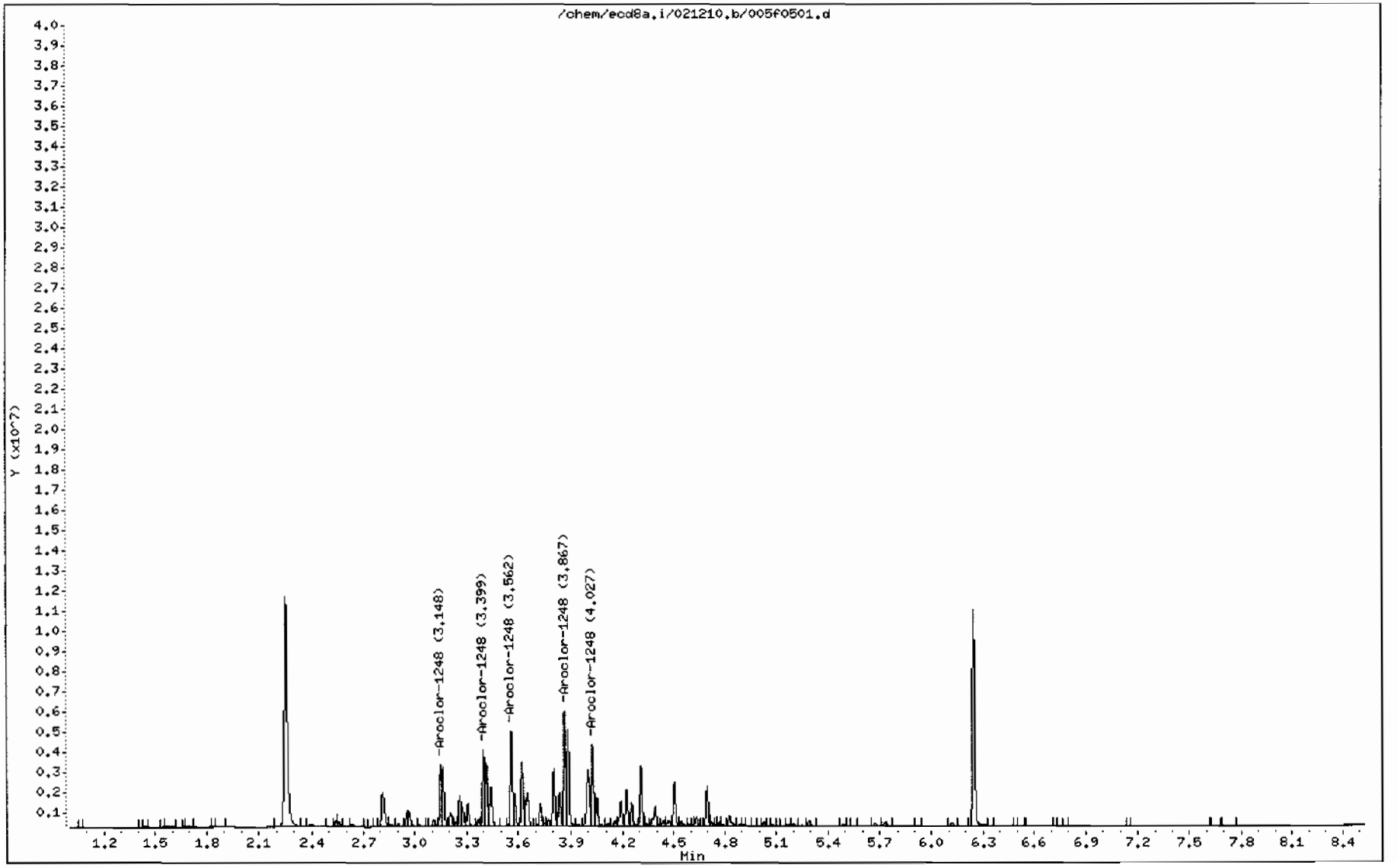

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 12-FEB-2010 07:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.657	3.657	0.000	1278541	1000.00	896	80.00- 120.00	100.00
3.810	3.810	0.000	2151154	1000.00	872	148.25- 188.25	168.25
4.006	4.006	0.000	2705822	1000.00	876	191.63- 231.63	211.63
4.284	4.284	0.000	3187472	1000.00	874	229.31- 269.31	249.31
4.317	4.317	0.000	3516359	1000.00	878	255.03- 295.03	275.03
Average of Peak Amounts =					879		

Data File: /chem/ecd8a.i/021210.b/005b0501.d

Date : 12-FEB-2010 07:38

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

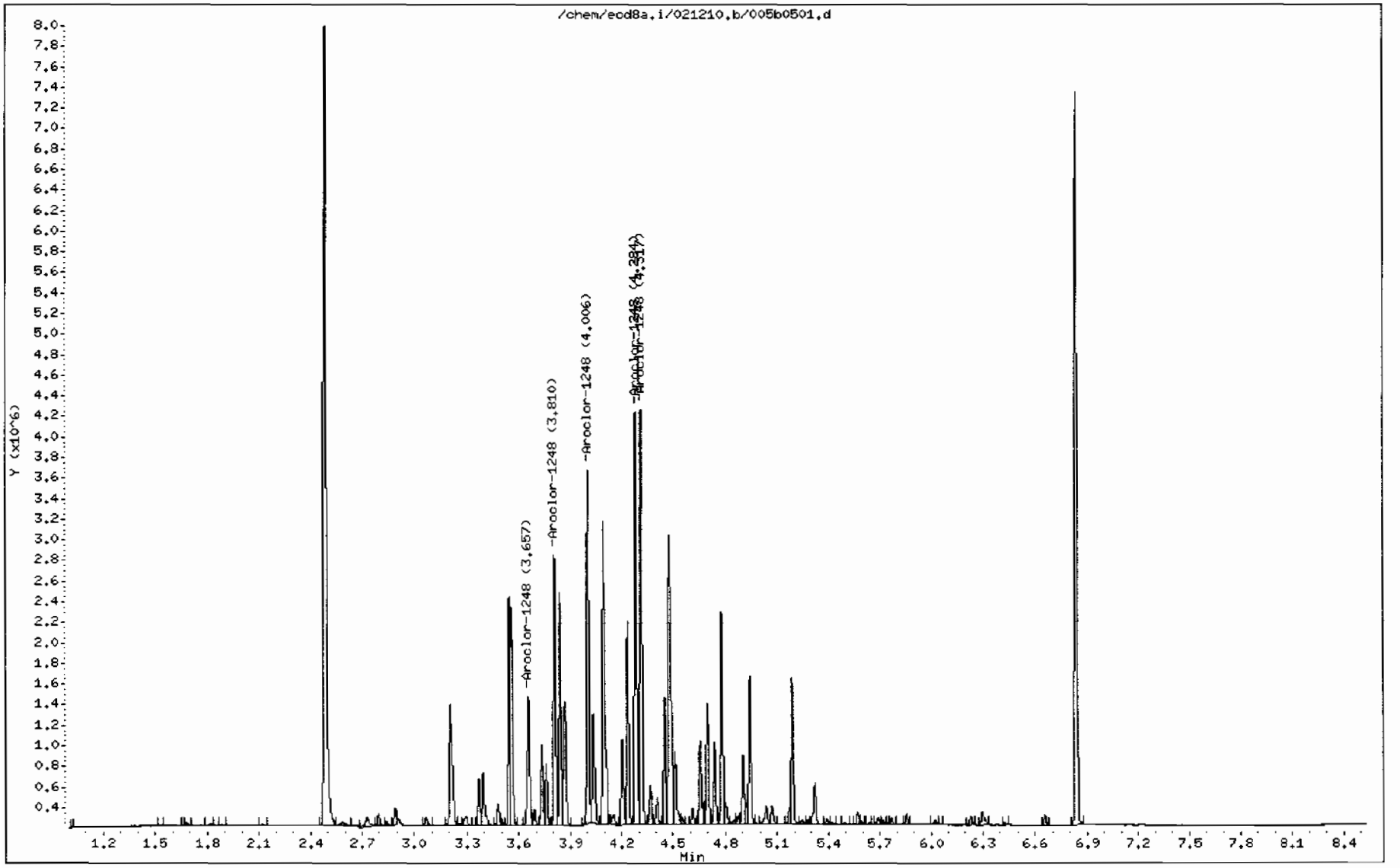

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 12-FEB-2010 07:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.541	2.541	0.000	2439278	1000.00	938	80.00- 120.00	100.00
2.812	2.812	0.000	2151380	1000.00	952	68.20- 108.20	88.20
3.308	3.308	0.000	1097887	1000.00	883	25.01- 65.01	45.01
3.562	3.562	0.000	1342194	1000.00	908	35.02- 75.02	55.02
3.624	3.624	0.000	820349	1000.00	889	13.63- 53.63	33.63
Average of Peak Amounts =					914		

Data File: /chem/ecd8a.i/021210.b/006f0601.d

Page 1

Date : 12-FEB-2010 07:51

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

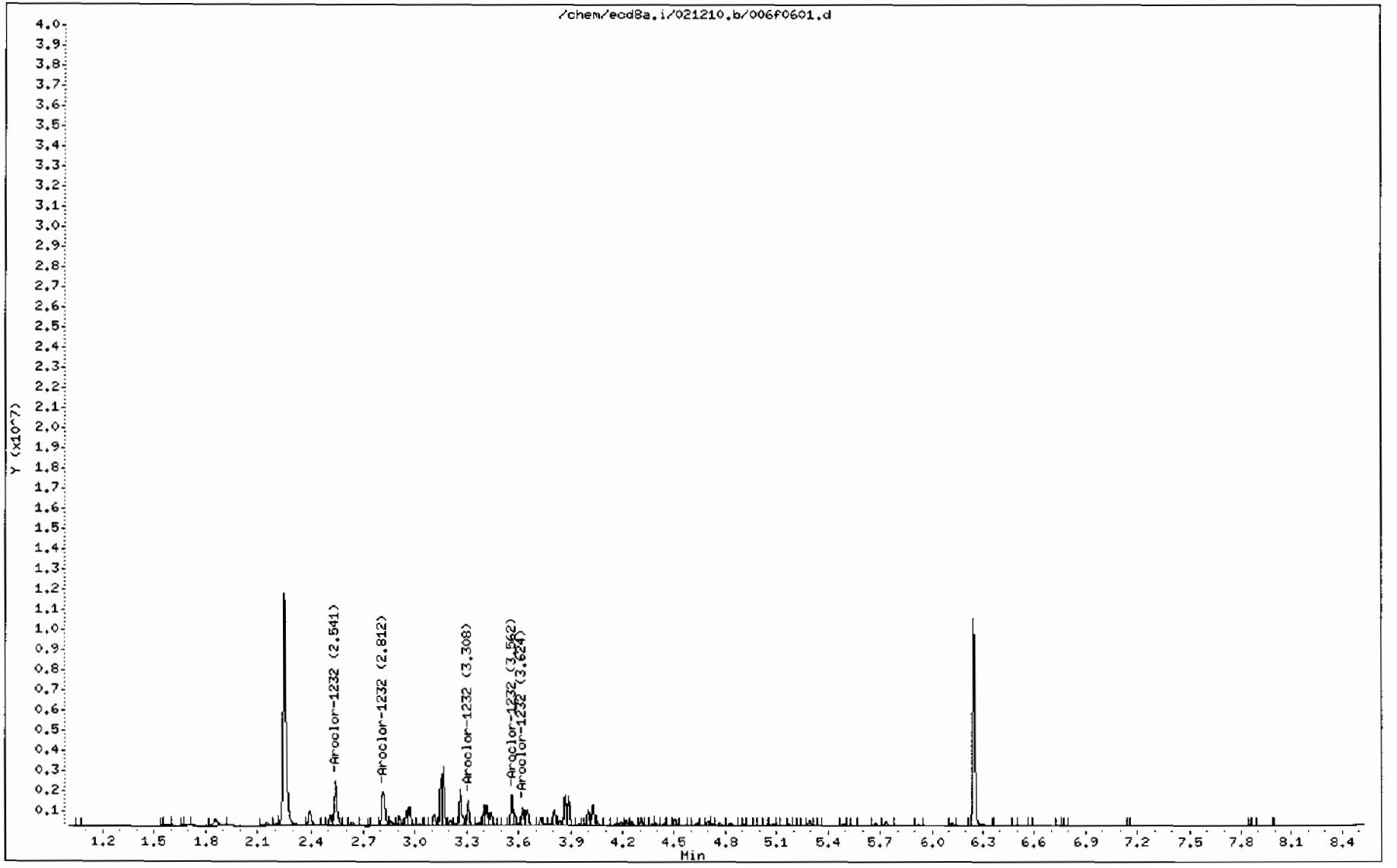

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 12-FEB-2010 07:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.207	3.207	0.000	1484066	1000.00	980	80.00- 120.00	100.00
3.560	3.560	0.000	1629700	1000.00	934	89.81- 129.81	109.81
3.659	3.659	0.000	1148925	1000.00	976	57.42- 97.42	77.42
3.735	3.735	0.000	677509	1000.00	954	25.65- 65.65	45.65
3.810	3.810	0.000	592816	1000.00	959	19.95- 59.95	39.95
Average of Peak Amounts =					961		

Data File: /chem/ecd8a.i/021210.b/006b0601.d

Date : 12-FEB-2010 07:51

Client ID: AR123201

Sample Info: iWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

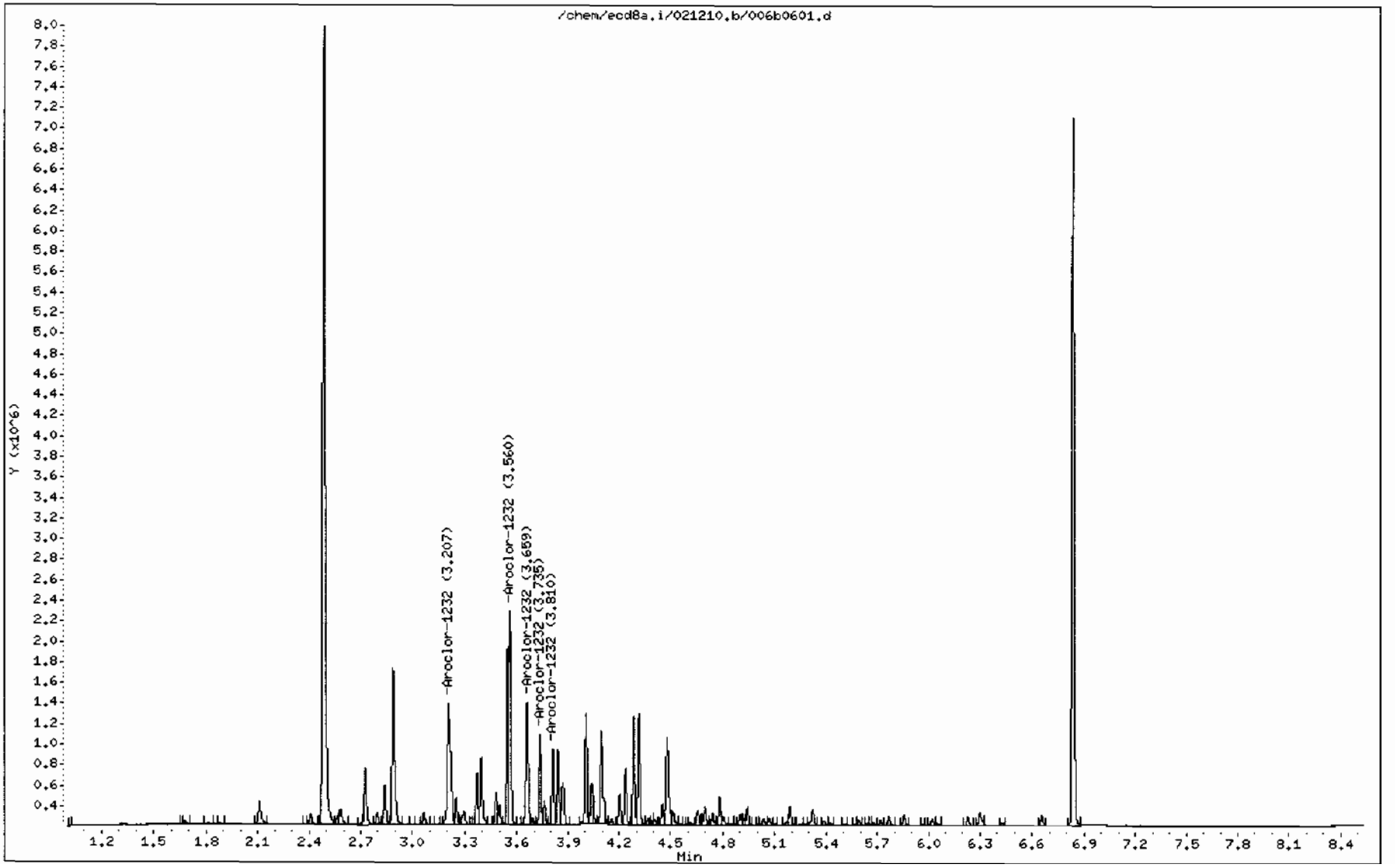

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 12-FEB-2010 08:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
1.855	1.855	0.000	1199847	1000.00	1090	80.00- 120.00	100.00
2.394	2.394	0.000	1489304	1000.00	1020	104.12- 144.12	124.12
2.541	2.541	0.000	3334932	1000.00	985	257.95- 297.95	277.95

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd8a.i/021210.b/007f0701.d

Date : 12-FEB-2010 08:03

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

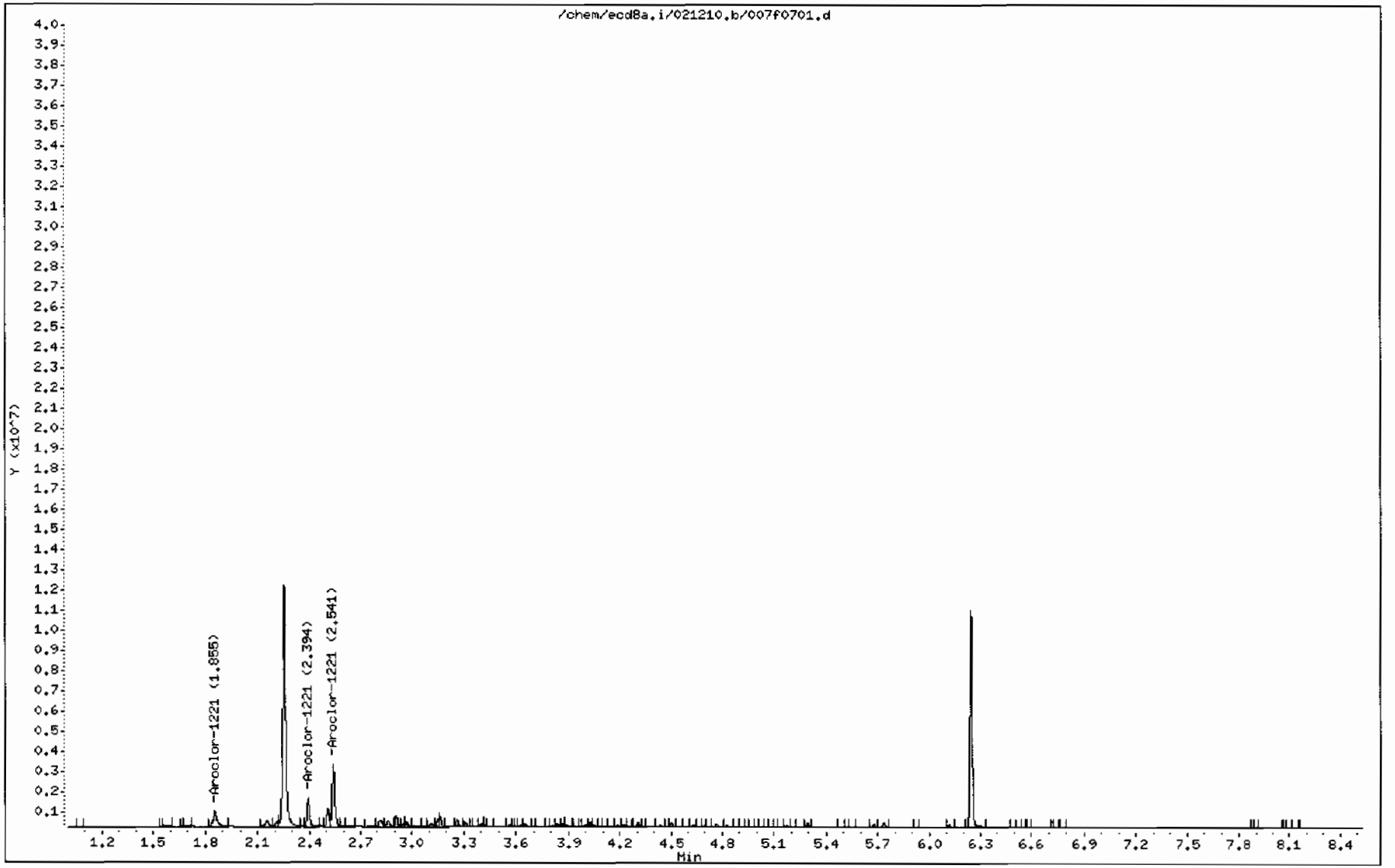

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 12-FEB-2010 08:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.727	2.727	0.000	978372	1000.00	1090	80.00- 120.00	100.00
2.839	2.839	0.000	583525	1000.00	1050	39.64- 79.64	59.64
2.888	2.888	0.000	2087832	1000.00	1010	193.40- 233.40	213.40

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/021210.b/007b0701.d

Page 1

Date : 12-FEB-2010 08:03

Client ID: AR122101

Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

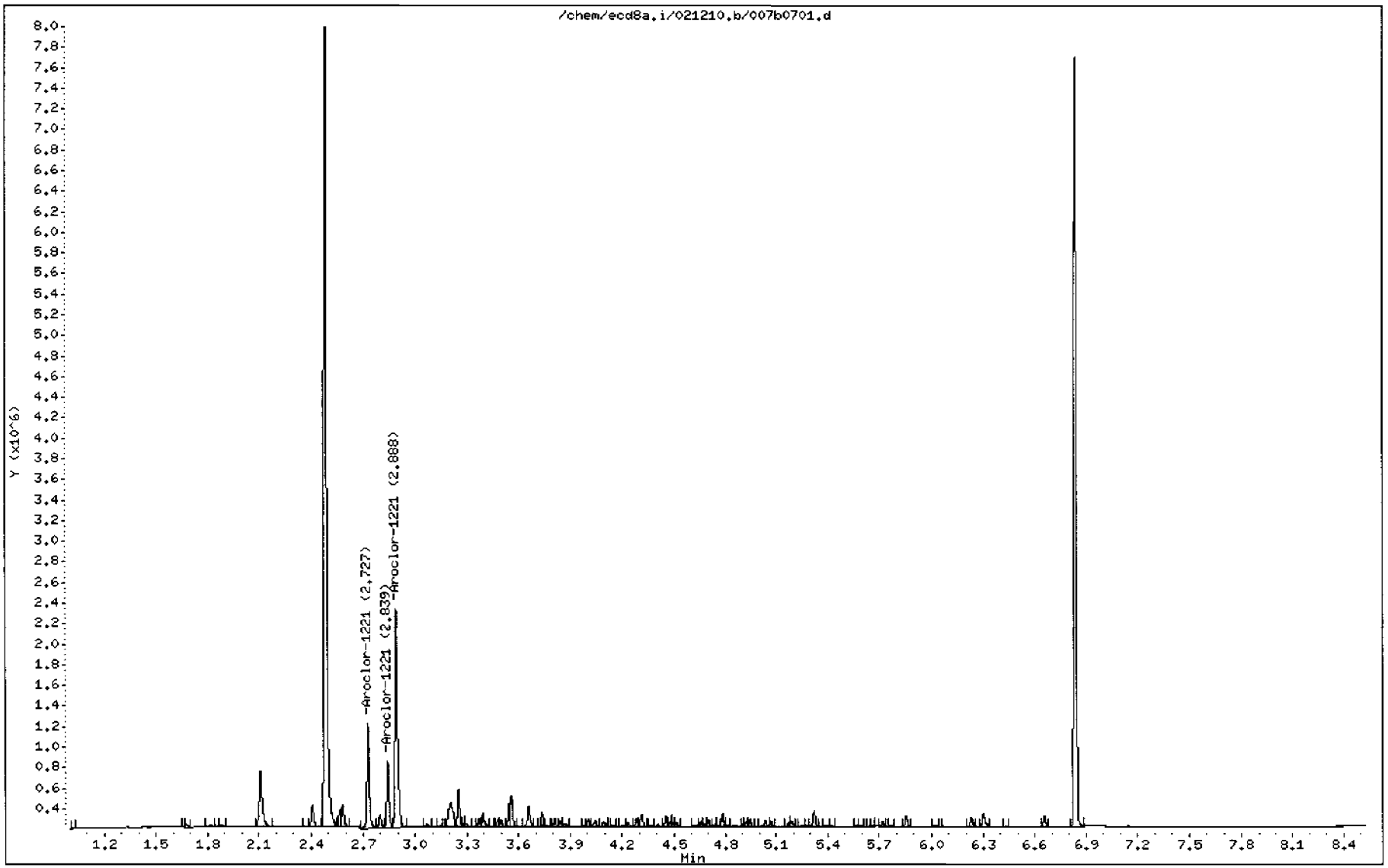

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/021f2101.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 12-FEB-2010 10:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	13428487	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.245	0.002	9639395	100.000	96.4	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.811	0.002	4427289	1000.00	949	80.00- 120.00	100.00
3.164	3.163	0.001	5231669	1000.00	907	98.17- 138.17	118.17
3.308	3.306	0.002	2257198	1000.00	920	30.98- 70.98	50.98
3.399	3.399	0.000	2027637	1000.00	922	25.80- 65.80	45.80
3.562	3.561	0.001	2907902	1000.00	925	45.68- 85.68	65.68
Average of Peak Amounts =					925		
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.435	0.001	6210653	1000.00	922	80.00- 120.00	100.00(M)
4.632	4.631	0.001	9429792	1000.00	919	131.83- 171.83	151.83
4.907	4.906	0.001	5734817	1000.00	936	72.34- 112.34	92.34
5.079	5.078	0.001	6164329	1000.00	965	79.25- 119.25	99.25
5.490	5.490	0.000	6924069	1000.00	1010	91.49- 131.49	111.49
Average of Peak Amounts =					950		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/021210.b/021f2101.d

Date : 12-FEB-2010 10:56

Client ID: AR166002

Sample Info: IWAR100203-60 02

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

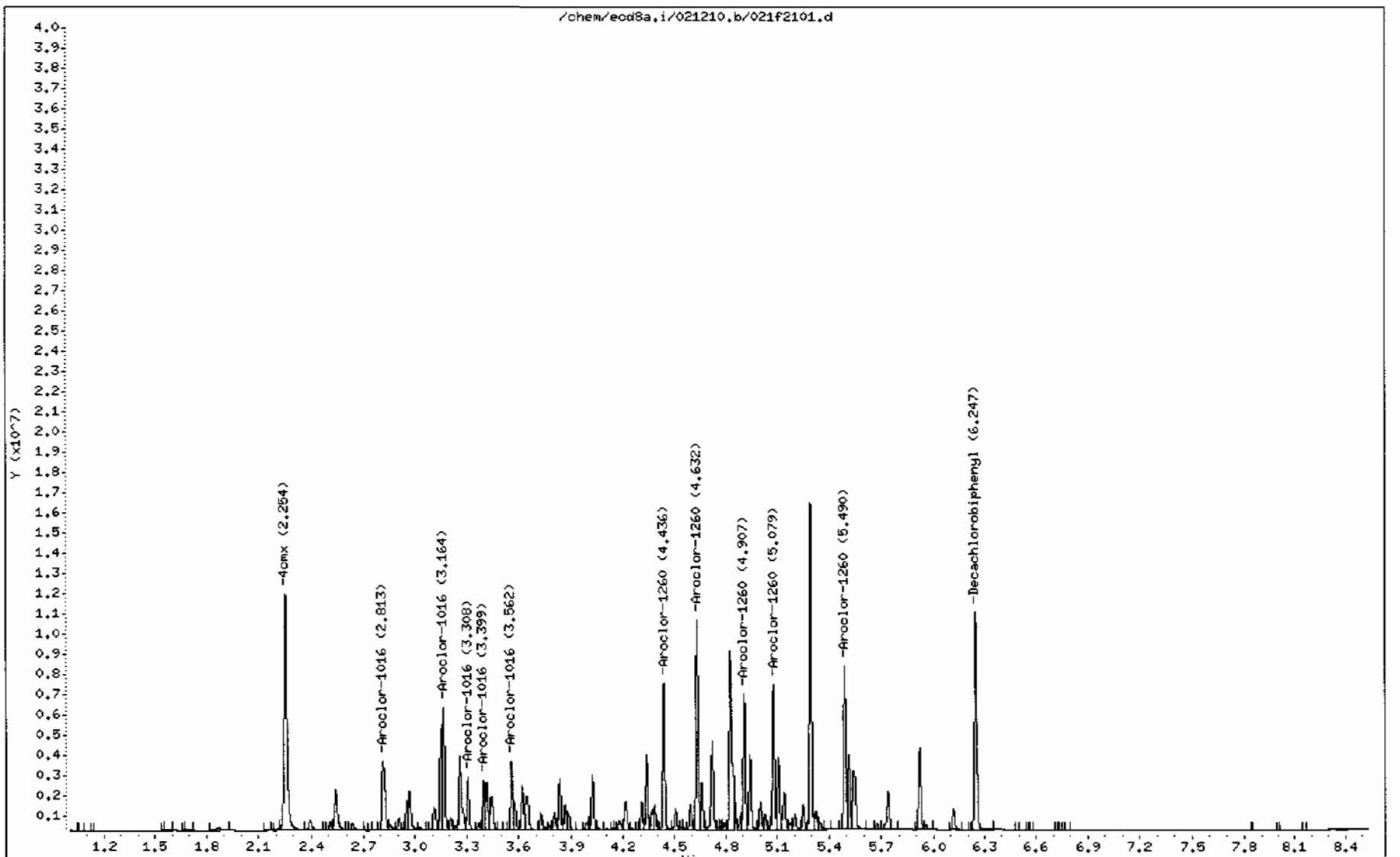

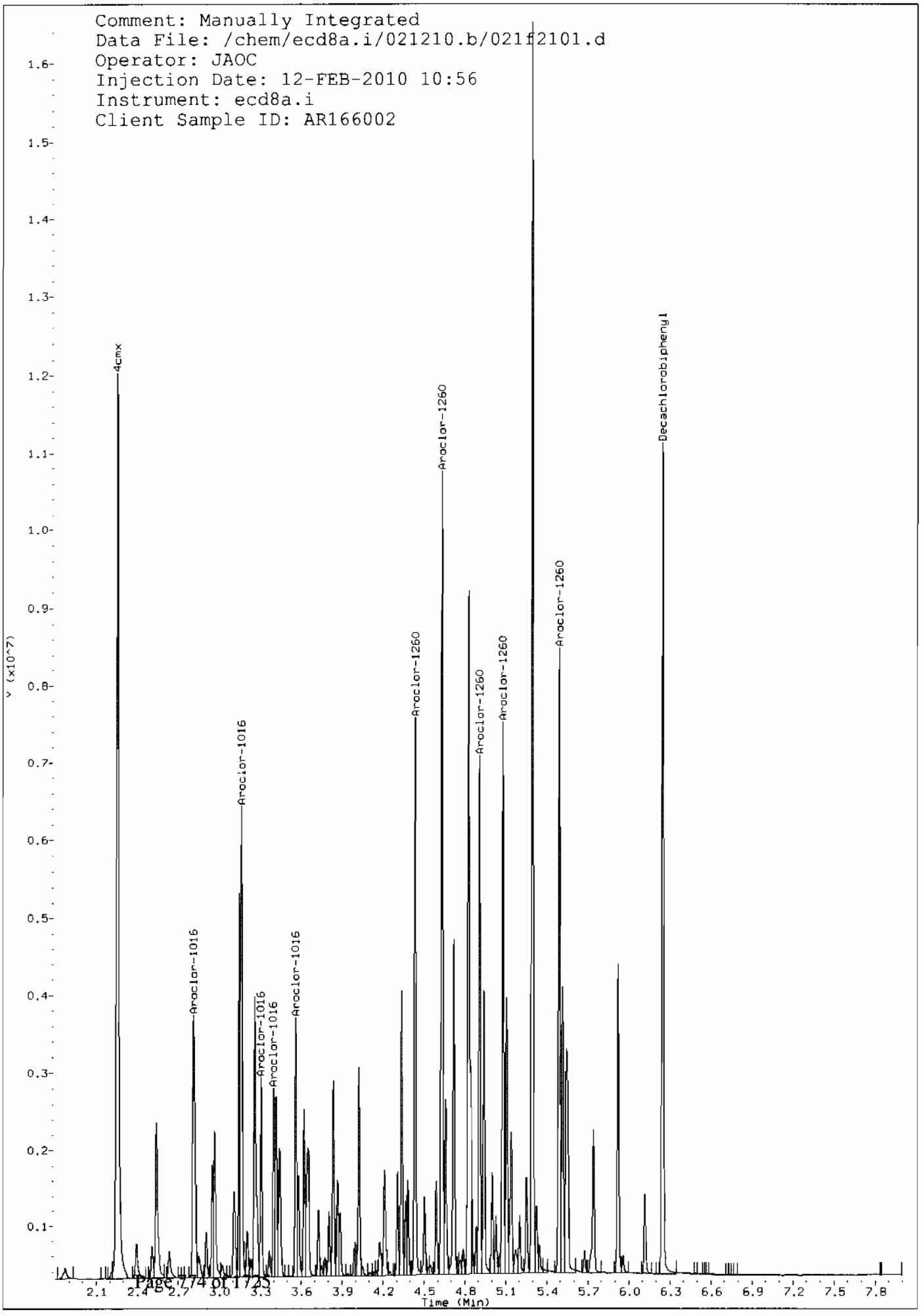
Comment: Manually Integrated
Data File: /chem/ecd8a.i/021210.b/021f2101.d
Operator: JAOC
Injection Date: 12-FEB-2010 10:56
Instrument: ecd8a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
y (x10^7)
Time (Min)

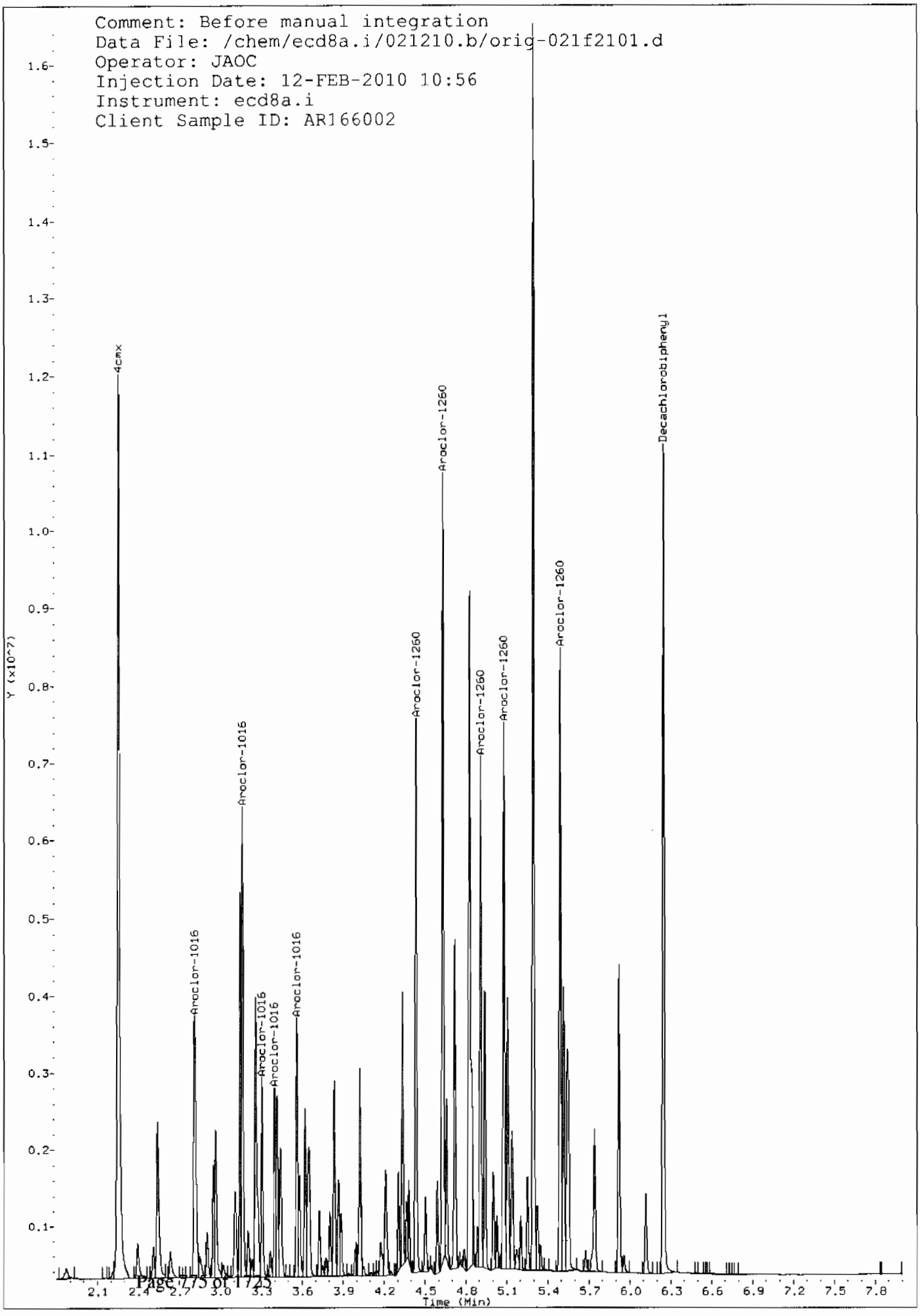
Comment: Before manual integration
Data File: /chem/ecd8a.i/021210.b/orig-021f2101.d
Operator: JAOC
Injection Date: 12-FEB-2010 10:56
Instrument: ecd8a.i
Client Sample ID: AR166002
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/021b2101.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 12-FEB-2010 10:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	8806549	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	6378014	100.000	98.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	3579581	1000.00	950	80.00- 120.00	100.00
3.659	3.658	0.001	2425108	1000.00	972	47.75- 87.75	67.75
3.735	3.734	0.001	1415841	1000.00	934	19.55- 59.55	39.55
3.809	3.809	0.000	1374673	1000.00	921	18.40- 58.40	38.40
4.006	4.006	0.000	1929912	1000.00	948	33.91- 73.91	53.91
Average of Peak Amounts =					945		
7 Aroclor-1260					CAS #: 11096-82-5		
4.920	4.919	0.001	4222628	1000.00	1030	80.00- 120.00	100.00
5.069	5.068	0.001	5138980	1000.00	1030	101.70- 141.70	121.70
5.385	5.384	0.001	3947606	1000.00	1040	73.49- 113.49	93.49
5.592	5.591	0.001	4089217	1000.00	1030	76.84- 116.84	96.84
6.024	6.023	0.001	6559427	1000.00	1050	135.34- 175.34	155.34
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd8a.i/021210.b/021b2101.d

Date : 12-FEB-2010 10:56

Client ID: AR166002

Sample Info: IWAR100203-60 02

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

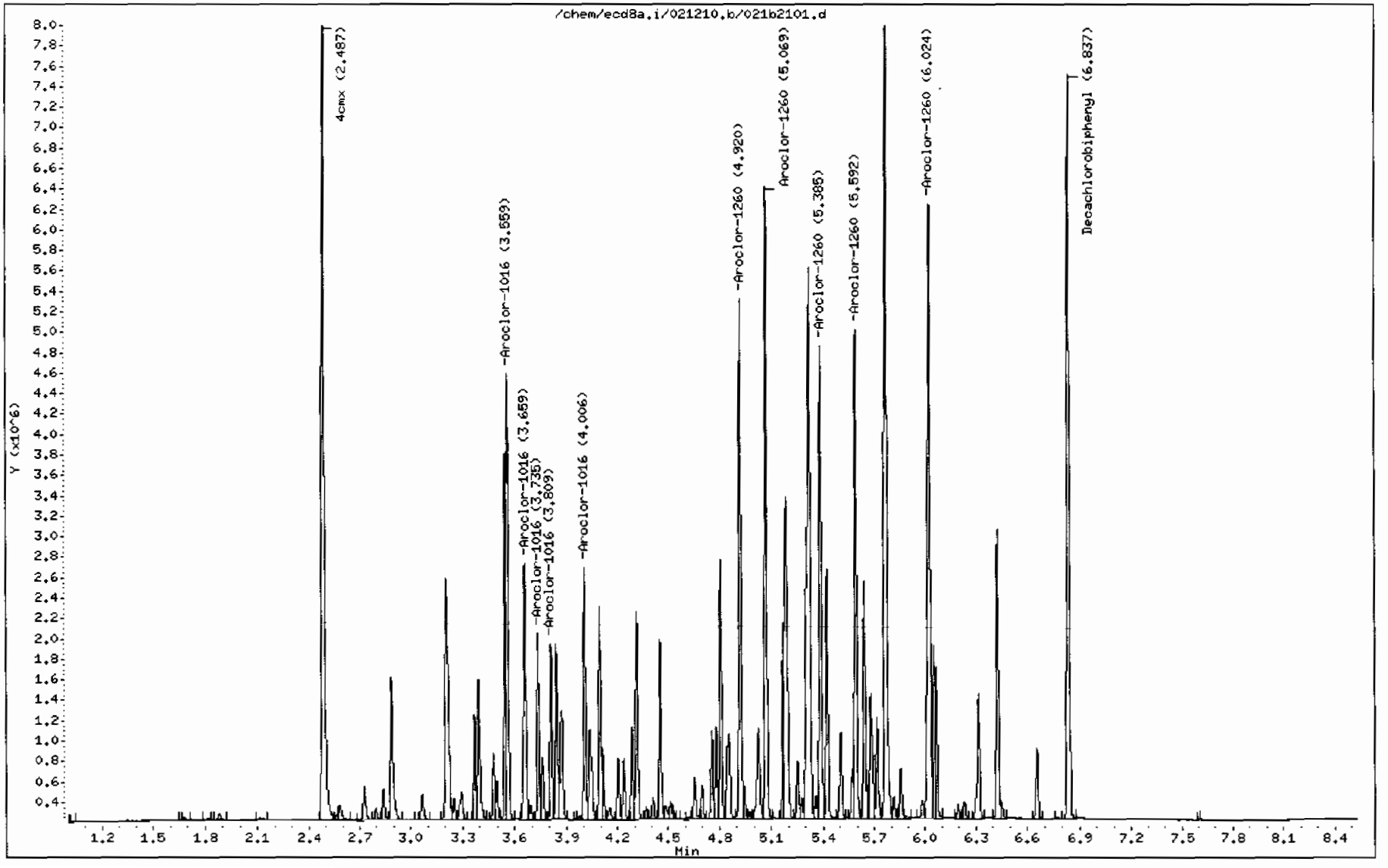

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.25	6.24
02	AR166001	WAR100203-01	02/03/10	1024	2.26	6.25
03	AR166002	WAR100203-02	02/03/10	1037	2.26	6.25
04	AR166003	WAR100203-03	02/03/10	1049	2.26	6.25
05	AR166004	WAR100203-04	02/03/10	1101	2.26	6.25
06	AR166005	IAR100104-01	02/03/10	1114	2.26	6.25
07	AR166001	WAR100203-60	02/03/10	1126	2.26	6.25
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.26	6.25
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.26	6.25
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.26	6.25
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.26	6.25
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.26	6.25
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.26	6.25
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.26	6.25
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.26	6.25
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.26	6.25
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.26	6.25
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.26	6.25
16	AR166002	WAR100203-60	02/03/10	1954	2.26	6.25
17	PIBLK03	WAR091130-99	02/03/10	2006	2.26	6.25
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.26	6.25
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.26	6.25
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.26	6.25
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.26	6.25
22	AR166003	WAR100203-60	02/03/10	2108	2.26	6.25
23	PIBLK04	WAR091130-99	02/03/10	2120	2.26	6.25
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.26	6.25
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.26	6.25
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.26	6.25
27	AR166004	WAR100203-60	02/03/10	2210	2.26	6.25
28	PIBLK05	WAR091130-99	02/03/10	2222	2.26	6.25
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.26	6.25
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.26	6.25
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.49	6.84
02	AR166001	WAR100203-01	02/03/10	1024	2.49	6.84
03	AR166002	WAR100203-02	02/03/10	1037	2.49	6.84
04	AR166003	WAR100203-03	02/03/10	1049	2.49	6.84
05	AR166004	WAR100203-04	02/03/10	1101	2.49	6.84
06	AR166005	IAR100104-01	02/03/10	1114	2.49	6.84
07	AR166001	WAR100203-60	02/03/10	1126	2.49	6.84
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.49	6.84
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.49	6.84
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.49	6.84
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.49	6.84
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.49	6.84
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.49	6.84
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.49	6.84
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.49	6.84
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.49	6.84
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.49	6.84
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.49	6.84
16	AR166002	WAR100203-60	02/03/10	1954	2.49	6.84
17	PIBLK03	WAR091130-99	02/03/10	2006	2.49	6.84
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.49	6.84
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.49	6.84
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.49	6.84
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.49	6.84
22	AR166003	WAR100203-60	02/03/10	2108	2.49	6.84
23	PIBLK04	WAR091130-99	02/03/10	2120	2.49	6.84
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.49	6.84
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.49	6.84
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.49	6.84
27	AR166004	WAR100203-60	02/03/10	2210	2.49	6.84
28	PIBLK05	WAR091130-99	02/03/10	2222	2.49	6.84
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.49	6.84
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.49	6.84
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/12/10	0649	2.25	6.24
02	AR166001	WAR100203-60	02/12/10	0702	2.25	6.24
03	AR125401	WAR100201-54	02/12/10	0714		
04	AR124201	WAR091217-42	02/12/10	0726		
05	AR124801	WAR091217-48	02/12/10	0738		
06	AR123201	WAR100104-32	02/12/10	0751		
07	AR122101	WAR100104-21	02/12/10	0803		
08	AR126201	WAR100104-62	02/12/10	0816		
09	AR126801	WAR100107-68	02/12/10	0828		
10	DDTANALOGSTD	WAR091219-DD	02/12/10	0840		
11	PIBLK02	WAR100105-99	02/12/10	0853	2.25	6.25
12	PBLK01	1202040223	02/12/10	0905	2.25	6.25
13	PBLK01LCS	1202040224	02/12/10	0918	2.25	6.25
14	ZZZZZ	ZZZZZ	02/12/10	0930	2.26	6.25
15	RE15-10-8129	246066001	02/12/10	0942	2.26	6.25
16	RE15-10-8131	246066002	02/12/10	0955	2.25	6.25
17	RE15-10-8130	246066003	02/12/10	1007	2.25	6.24
18	RE15-10-8127	246066004	02/12/10	1019	2.25	6.25
19	RE15-10-8128	246066005	02/12/10	1032	2.25	6.25
20	RE15-10-8126	246066006	02/12/10	1044	2.25	6.25
21	AR166002	WAR100203-60	02/12/10	1056	2.25	6.25
22	PIBLK03	WAR100105-99	02/12/10	1109	2.26	6.25
23	ZZZZZ	ZZZZZ	02/12/10	1121	2.25	6.25
24	ZZZZZ	ZZZZZ	02/12/10	1134	2.26	6.25
25	ZZZZZ	ZZZZZ	02/12/10	1146	2.25	6.25
26	ZZZZZ	ZZZZZ	02/12/10	1158	2.25	6.24
27	ZZZZZ	ZZZZZ	02/12/10	1211	2.25	6.25
28	ZZZZZ	ZZZZZ	02/12/10	1223	2.25	6.25
29	ZZZZZ	ZZZZZ	02/12/10	1235	2.25	6.25
30	ZZZZZ	ZZZZZ	02/12/10	1248	2.25	6.25
31	ZZZZZ	ZZZZZ	02/12/10	1300	2.25	6.25
32	ZZZZZ	ZZZZZ	02/12/10	1313	2.25	6.25

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1543

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/12/10	0649	2.48	6.83
02	AR166001	WAR100203-60	02/12/10	0702	2.49	6.84
03	AR125401	WAR100201-54	02/12/10	0714		
04	AR124201	WAR091217-42	02/12/10	0726		
05	AR124801	WAR091217-48	02/12/10	0738		
06	AR123201	WAR100104-32	02/12/10	0751		
07	AR122101	WAR100104-21	02/12/10	0803		
08	AR126201	WAR100104-62	02/12/10	0816		
09	AR126801	WAR100107-68	02/12/10	0828		
10	DDTANALOGSTD	WAR091219-DD	02/12/10	0840		
11	PIBLK02	WAR100105-99	02/12/10	0853	2.49	6.84
12	PBLK01	1202040223	02/12/10	0905	2.49	6.84
13	PBLK01LCS	1202040224	02/12/10	0918	2.49	6.84
14	ZZZZZ	ZZZZZ	02/12/10	0930	2.49	6.84
15	RE15-10-8129	246066001	02/12/10	0942	2.49	6.84
16	RE15-10-8131	246066002	02/12/10	0955	2.49	6.84
17	RE15-10-8130	246066003	02/12/10	1007	2.49	6.84
18	RE15-10-8127	246066004	02/12/10	1019	2.49	6.84
19	RE15-10-8128	246066005	02/12/10	1032	2.49	6.84
20	RE15-10-8126	246066006	02/12/10	1044	2.49	6.84
21	AR166002	WAR100203-60	02/12/10	1056	2.49	6.84
22	PIBLK03	WAR100105-99	02/12/10	1109	2.49	6.84
23	ZZZZZ	ZZZZZ	02/12/10	1121	2.49	6.84
24	ZZZZZ	ZZZZZ	02/12/10	1134	2.49	6.84
25	ZZZZZ	ZZZZZ	02/12/10	1146	2.49	6.84
26	ZZZZZ	ZZZZZ	02/12/10	1158	2.49	6.84
27	ZZZZZ	ZZZZZ	02/12/10	1211	2.49	6.84
28	ZZZZZ	ZZZZZ	02/12/10	1223	2.49	6.84
29	ZZZZZ	ZZZZZ	02/12/10	1235	2.49	6.84
30	ZZZZZ	ZZZZZ	02/12/10	1248	2.49	6.84
31	ZZZZZ	ZZZZZ	02/12/10	1300	2.49	6.84
32	ZZZZZ	ZZZZZ	02/12/10	1313	2.49	6.84

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10-1543 **Client ID:** LCS for batch 951941

Lab Sample ID: 1202040224

Data File: 013f1301.d **Data File:** 013b1301.d

Inst: ECD8A.I_1 **Inst:** ECD8A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 12-FEB-10 09:18 **Analyzed:** 12-FEB-10 09:18

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							.119
Column 1	1	2.81	2.78 – 2.84	19.3		ug/kg	
	2	3.16	3.13 – 3.19	18.6		ug/kg	
	3	3.31	3.28 – 3.34	17.8		ug/kg	
	4	3.4	3.37 – 3.43	18.8		ug/kg	
	5	3.56	3.53 – 3.59	18.4		ug/kg	
					18.6		
Column 2	1	3.56	3.53 – 3.59	18.3		ug/kg	
	2	3.66	3.63 – 3.69	19.4		ug/kg	
	3	3.73	3.7 – 3.76	17.8		ug/kg	
	4	3.81	3.78 – 3.84	18.6		ug/kg	
	5	4.01	3.98 – 4.04	18.7		ug/kg	
					18.6		
Aroclor-1260							8.76
Column 1	1	4.44	4.4 – 4.46	19.6		ug/kg	
	2	4.63	4.6 – 4.66	20		ug/kg	
	3	4.91	4.88 – 4.94	20.8		ug/kg	
	4	5.08	5.05 – 5.11	21.1		ug/kg	
	5	5.49	5.46 – 5.52	22.7		ug/kg	
					20.8		
Column 2	1	4.92	4.89 – 4.95	21.9		ug/kg	
	2	5.07	5.04 – 5.1	22.5		ug/kg	
	3	5.38	5.35 – 5.41	23		ug/kg	
	4	5.59	5.56 – 5.62	22.6		ug/kg	
	5	6.02	5.99 – 6.05	23.7		ug/kg	
					22.8		

Identification Summary

SDG Number: 10-1543 **Client ID:** RE15-10-8130

Lab Sample ID: 246066003

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	12-FEB-10 10:07	**Analyzed:**	12-FEB-10 10:07

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1254							5.59
Column 1	1	3.84	3.81 - 3.87	7.13		ug/kg	
	2	4.02	3.99 - 4.05	5.18		ug/kg	
	3	4.22	4.19 - 4.25	4.93		ug/kg	
	4	4.31	4.28 - 4.34	3.52		ug/kg	
	5	4.5	4.47 - 4.53	5.12		ug/kg	
					5.18		
Column 2	1	4.31	4.28 - 4.34	6.38		ug/kg	
	2	4.45	4.42 - 4.48	4.78		ug/kg	
	3	4.78	4.75 - 4.81	3.68		ug/kg	
	4	4.94	4.91 - 4.97	3.14		ug/kg	
	5	5.07	5.04 - 5.1	9.4		ug/kg	
					5.48		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1543			**Matrix:**	SOIL
Lab Sample ID:	1202040223				
Client Sample:	QC for batch 951941	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 951941	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 09:05	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	012f1201–1.d	**Column:**	1 CLPJ	**Level:**	LOW
	012b1201–1.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.33	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/012f1201.d
Lab Smp Id: 1202040223 Client Smp ID: PBLK01
Inj Date : 12-FEB-2010 09:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040223|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	16792727	127.793	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	13359652	133.621	4.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/012f1201.d

Date : 12-FEB-2010 09:05

Client ID: PBLK01

Sample Info: 1120204022311

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

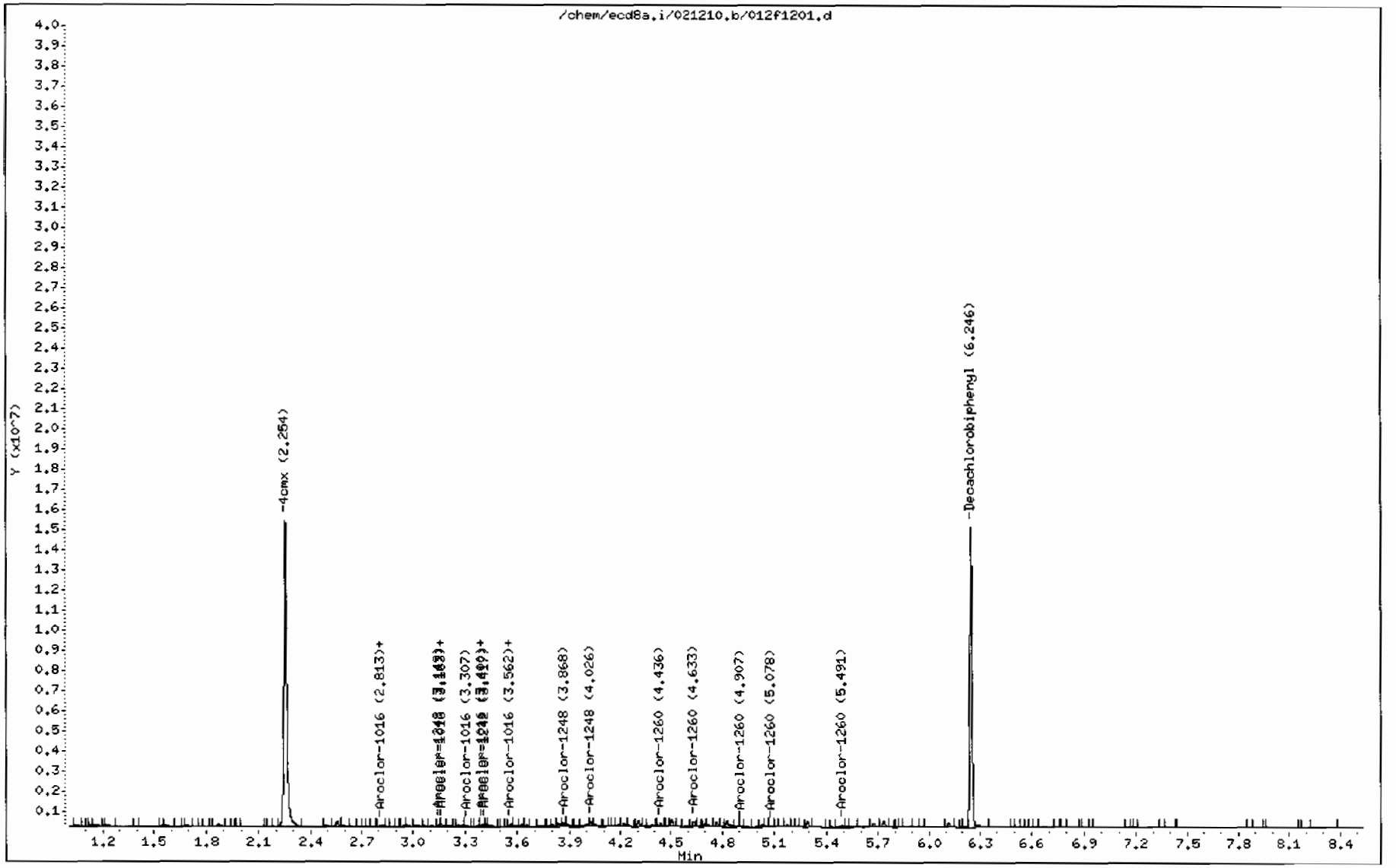

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/012b1201.d
Lab Smp Id: 1202040223 Client Smp ID: PBLK01
Inj Date : 12-FEB-2010 09:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040223|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	11165707	128.573	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	9020376	139.109	4.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/012b1201.d
Date : 12-FEB-2010 09:05
Client ID: PBLK01
Sample Info: |1202040223|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

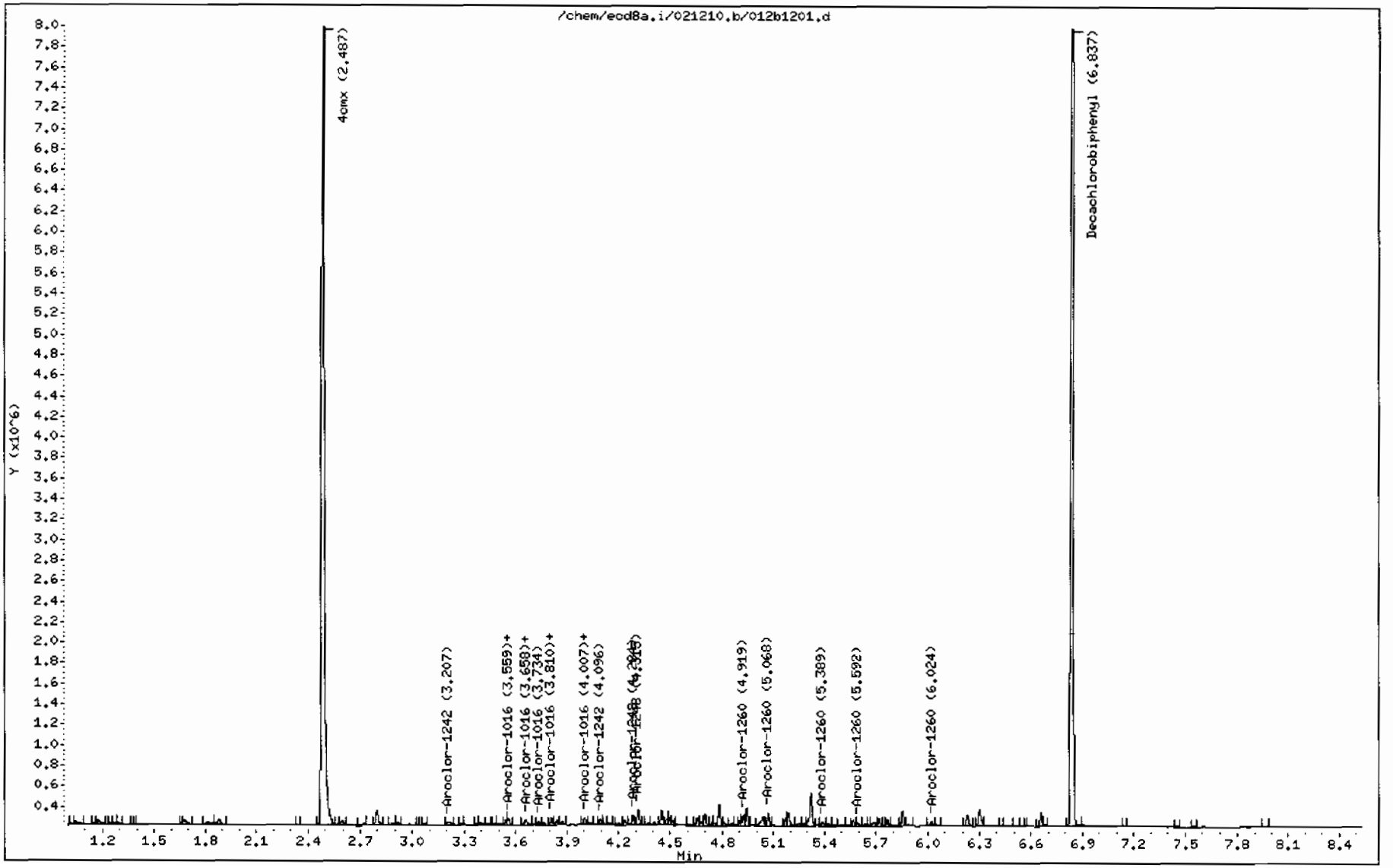

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1543**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202040224**				
Client Sample:	**QC for batch 951941**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 951941**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951946**	**Inst:**	**ECD8A.1**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:18**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		18.6	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		22.7	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/013f1301.d
Lab Smp Id: 1202040224 Client Smp ID: PBLK01LCS
Inj Date : 12-FEB-2010 09:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040224|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	15865945	120.740	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12800089	128.025	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.811	0.001	2707124	580.352	19.3	80.00- 120.00	100.00
3.164	3.163	0.001	3212095	556.729	18.6	98.17- 138.17	118.65
3.307	3.306	0.001	1314074	535.439	17.8	30.98- 70.98	48.54
3.399	3.399	0.000	1238665	563.496	18.8	25.80- 65.80	45.76
3.562	3.561	0.001	1733760	551.774	18.4	45.68- 85.68	64.04

Average of Peak Concentrations = 18.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.435	4.435	0.000	3969225	588.996	19.6	80.00- 120.00	100.00
4.631	4.631	0.000	6164661	600.856	20.0	131.83- 171.83	155.31
4.906	4.906	0.000	3821768	623.468	20.8	72.34- 112.34	96.28
5.079	5.078	0.001	4049290	634.102	21.1	79.25- 119.25	102.02
5.489	5.490	-0.001	4662565	679.698	22.6	91.49- 131.49	117.47
			Average of Peak Concentrations =		20.8		

Data File: /chem/ecd8a.i/021210.b/013f1301.d

Date : 12-FEB-2010 09:18

Client ID: PBLK01LCS

Sample Info: !1202040224!1!

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

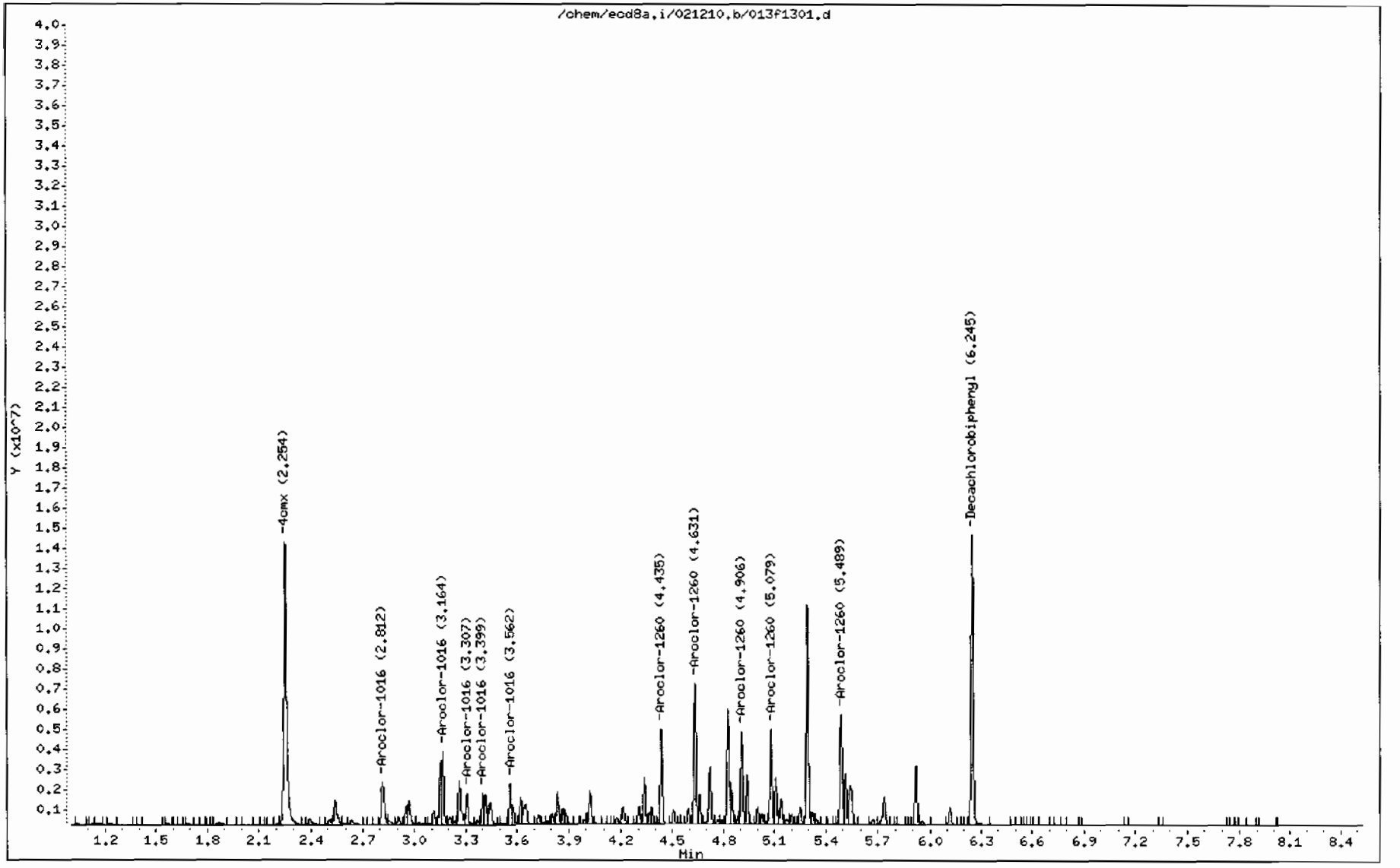

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/013b1301.d
Lab Smp Id: 1202040224 Client Smp ID: PBLK01LCS
Inj Date : 12-FEB-2010 09:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040224|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1543.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	10544249	121.417	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8619569	132.928	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2069472	549.456	18.3	80.00- 120.00	100.00
3.659	3.658	0.001	1448200	580.574	19.4	47.75- 87.75	69.98
3.734	3.734	0.000	810130	534.566	17.8	19.55- 59.55	39.15
3.809	3.809	0.000	835367	559.461	18.6	18.40- 58.40	40.37
4.006	4.006	0.000	1140786	560.413	18.7	33.91- 73.91	55.12

Average of Peak Concentrations = 18.6

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	2684257	657.195	21.9	80.00- 120.00	100.00
5.068	5.068	0.000	3352987	674.794	22.5	101.70- 141.70	124.91
5.384	5.384	0.000	2616685	690.706	23.0	73.49- 113.49	97.48
5.592	5.591	0.001	2686088	679.488	22.6	76.84- 116.84	100.07
6.023	6.023	0.000	4430734	711.486	23.7	135.34- 175.34	165.06

Average of Peak Concentrations = 22.7

Data File: /chem/ecd8a.i/021210.b/013b1301.d

Page 1

Date : 12-FEB-2010 09:18

Client ID: PBLK01LCS

Instrument: ecd8a.i

Sample Info: |1202040224|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

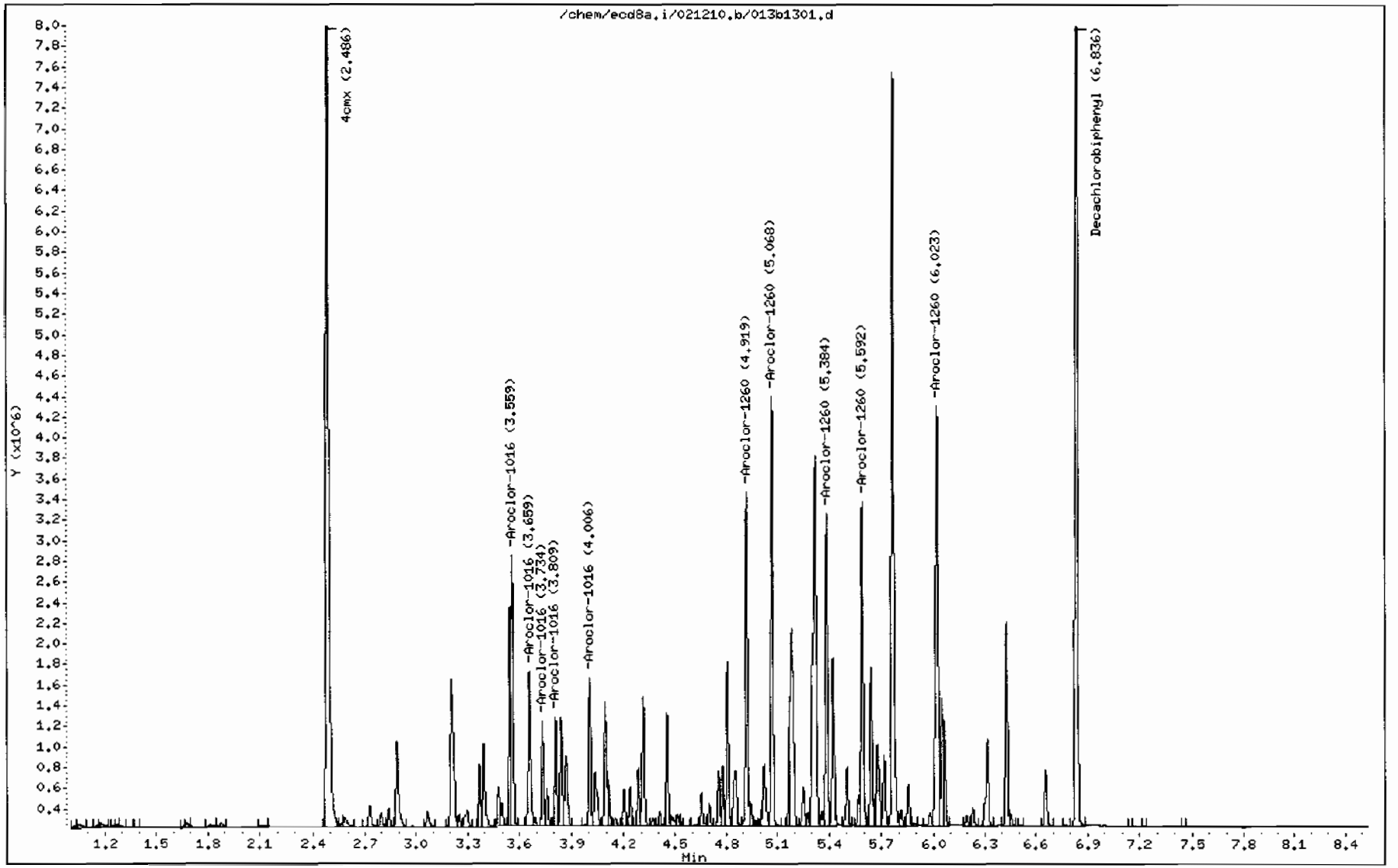

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/04/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/020310a.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	03-FEB-2010 10:12		020310a	1.0	CLEAN	
002f0201.d	WAR100203-01 60	JAOC	03-FEB-2010 10:24		020310a	1.0	1660 LEVEL 1	
003f0301.d	WAR100203-02 60	JAOC	03-FEB-2010 10:37		020310a	1.0	1660 LEVEL 2	
004f0401.d	WAR100203-03 60	JAOC	03-FEB-2010 10:49		020310a	1.0	1660 LEVEL 3	
005f0501.d	WAR100203-04 60	JAOC	03-FEB-2010 11:01		020310a	1.0	1660 LEVEL 4	
006f0601.d	IAR100104-01 60	JAOC	03-FEB-2010 11:14		020310a	1.0	1660 LEVEL 5	
007f0701.d	WAR100203-60 01	JAOC	03-FEB-2010 11:26		020310a	1.0	PASSES BOTH COLUMNS	
008f0801.d	WAR100203-05 54	JAOC	03-FEB-2010 11:39		020310a	1.0	1254 LEVEL 1	
009f0901.d	WAR100203-06 54	JAOC	03-FEB-2010 11:51		020310a	1.0	1254 LEVEL 2	
010f1001.d	WAR100203-07 54	JAOC	03-FEB-2010 12:03		020310a	1.0	1254 LEVEL 3	
011f1101.d	WAR100203-08 54	JAOC	03-FEB-2010 12:16		020310a	1.0	1254 LEVEL 4	
012f1201.d	IAR091027-01 54	JAOC	03-FEB-2010 12:28		020310a	1.0	1254 LEVEL 5	
013f1301.d	WAR100201-54	JAOC	03-FEB-2010 12:40		020310a	1.0	PASSES BOTH COLUMNS	
014f1401.d	WAR100203-09 42	JAOC	03-FEB-2010 12:53		020310a	1.0	1242 LEVEL 1	
015f1501.d	WAR100203-10 42	JAOC	03-FEB-2010 13:05		020310a	1.0	1242 LEVEL 2	

Instrument Batch: /chem/ecd8a.i/020310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100203-11 42	JAOC	03-FEB-2010 13:18		020310a	1.0	1242 LEVEL 3	
017f1701.d	WAR100203-12 42	JAOC	03-FEB-2010 13:30		020310a	1.0	1242 LEVEL 4	

018f1801.d	IAR091111-01 42	JAOC	03-FEB-2010 13:42		020310a	1.0	1242 LEVEL 5
019f1901.d	WAR091217-42	JAOC	03-FEB-2010 13:55		020310a	1.0	PASSES BOTH COLUMNS
020f2001.d	WAR100203-13 48	JAOC	03-FEB-2010 14:07		020310a	1.0	1248 LEVEL 1
021f2101.d	WAR100203-14 48	JAOC	03-FEB-2010 14:19		020310a	1.0	1248 LEVEL 2
022f2201.d	WAR100203-15 48	JAOC	03-FEB-2010 14:32		020310a	1.0	1248 LEVEL 3
023f2301.d	WAR100203-16 48	JAOC	03-FEB-2010 14:44		020310a	1.0	1248 LEVEL 4
024f2401.d	IAR091027-02 48	JAOC	03-FEB-2010 14:57		020310a	1.0	1248 LEVEL 5
025f2501.d	WAR091217-48	JAOC	03-FEB-2010 15:09		020310a	1.0	DUSE RE-RUN
026f2601.d	WAR100104-32	JAOC	03-FEB-2010 15:21		020310a	1.0	PATTERN ONLY
027f2701.d	WAR100104-21	JAOC	03-FEB-2010 15:34		020310a	1.0	PATTERN ONLY
028f2801.d	WAR100203-17 62	JAOC	03-FEB-2010 15:46		020310a	1.0	1262 LEVEL 1
029f2901.d	WAR100203-18 62	JAOC	03-FEB-2010 15:58		020310a	1.0	1262 LEVEL 2
030f3001.d	WAR100203-19 62	JAOC	03-FEB-2010 16:11		020310a	1.0	1262 LEVEL 3
031f3101.d	WAR100203-20 62	JAOC	03-FEB-2010 16:23		020310a	1.0	1262 LEVEL 4
032f3201.d	IAR100104-04 62	JAOC	03-FEB-2010 16:36		020310a	1.0	1262 LEVEL 5
033f3301.d	WAR100104-62	JAOC	03-FEB-2010 16:48		020310a	1.0	PASSES BOTH COLUMNS
034f3401.d	WAR091107-68	JAOC	03-FEB-2010 17:00		020310a	1.0	PATTERN ONLY
035f3501.d	WAR091217-48	JAOC	03-FEB-2010 17:13		020310a	1.0	PASSES BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091219-DDT	JAOC	03-FEB-2010 17:25		020310a	1.0		DDT
037f3701.d	WAR091130-99 02	JAOC	03-FEB-2010 17:38		020310a	1.0		CLEAN
038f3801.d	1202026314	JAOC	03-FEB-2010 17:50	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
039f3901.d	1202026315	JAOC	03-FEB-2010 18:02	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
040f4001.d	243859001	JAOC	03-FEB-2010 18:15	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
041f4101.d	243859002	JAOC	03-FEB-2010 18:27	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH

042f4201.d	243859003	JAOC	03-FEB-2010 18:39	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
043f4301.d	243859004	JAOC	03-FEB-2010 18:52	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
044f4401.d	243859005	JAOC	03-FEB-2010 19:04	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
045f4501.d	243859006	JAOC	03-FEB-2010 19:16	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
046f4601.d	243859007	JAOC	03-FEB-2010 19:29	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
047f4701.d	243859008	JAOC	03-FEB-2010 19:41	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
048f4801.d	WAR100203-60 02	JAOC	03-FEB-2010 19:54		020310a	1.0		PASSES BOTH COLUMNS
049f4901.d	WAR091130-99 03	JAOC	03-FEB-2010 20:06		020310a	1.0		CLEAN
050f5001.d	243865001	JAOC	03-FEB-2010 20:18	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
051f5101.d	243865002	JAOC	03-FEB-2010 20:31	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
052f5201.d	243865003	JAOC	03-FEB-2010 20:43	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
053f5301.d	243865004	JAOC	03-FEB-2010 20:55	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
054f5401.d	WAR100203-60 03	JAOC	03-FEB-2010 21:08		020310a	1.0		PASSES BOTH COLUMNS
055f5501.d	WAR091130-99 04	JAOC	03-FEB-2010 21:20		020310a	1.0		CLEAN

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245679008	JAOC	03-FEB-2010 21:33	947574	10-1449	5.0	LANL	UPLOAD BOTH, USE HIGHER
057f5701.d	245679011	JAOC	03-FEB-2010 21:45	947574	10-1449	10.0	LANL	UPLOAD BOTH, USE HIGHER
058f5801.d	245686001	JAOC	03-FEB-2010 21:57	947574	10-1432	1.0	LANL	UPLOAD BOTH, USE HIGHER
059f5901.d	WAR100203-60 04	JAOC	03-FEB-2010 22:10		020310a	1.0		PASSES BOTH COLUMNS
060f6001.d	WAR091130-99 05	JAOC	03-FEB-2010 22:22		020310a	1.0		CLEAN
061f6101.d	1202030643	JAOC	03-FEB-2010 22:34	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
062f6201.d	1202030644	JAOC	03-FEB-2010 22:47	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
063f6301.d	245873001	JAOC	03-FEB-2010 22:59	947944	245873	50.0	GEEL	UPLOAD BOTH, USE HIGHER
064f6401.d	1202030645	JAOC	03-FEB-2010 23:12	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
065f6501.d	1202030646	JAOC	03-FEB-2010 23:24	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
066f6601.d	245873002	JAOC	03-FEB-2010 23:36	947944	245873	1.0	GEEL	UPLOAD BOTH, USE HIGHER

067f6701.d	WAR100203-60 05	JAOC	03-FEB-2010 23:49	020310a	1.0	PASSES BOTH COLUMNS
068f6801.d	WAR091130-99 06	JAOC	04-FEB-2010 00:01	020310a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/15/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/021210.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	JAOC	12-FEB-2010 06:49		021210	1.0		CLEAN
002f0201.d	WAR100203-60 01	JAOC	12-FEB-2010 07:02		021210	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100201-54	JAOC	12-FEB-2010 07:14		021210	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	12-FEB-2010 07:26		021210	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	12-FEB-2010 07:38		021210	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	12-FEB-2010 07:51		021210	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	12-FEB-2010 08:03		021210	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	12-FEB-2010 08:16		021210	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	12-FEB-2010 08:28		021210	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	12-FEB-2010 08:40		021210	1.0		DDT
011f1101.d	WAR100105-99 02	JAOC	12-FEB-2010 08:53		021210	1.0		CLEAN
012f1201.d	1202040223	JAOC	12-FEB-2010 09:05	951946	10-1543	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202040224	JAOC	12-FEB-2010 09:18	951946	10-1543	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	246055005	JAOC	12-FEB-2010 09:30	951946	10-1545	1.0	LANL	UPLOAD BOTH, USE HIGHER
015f1501.d	246066001	JAOC	12-FEB-2010 09:42	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/021210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	246066002	JAOC	12-FEB-2010 09:55	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
017f1701.d	246066003	JAOC	12-FEB-2010 10:07	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER

018f1801.d	246066004	JAOC	12-FEB-2010 10:19	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
019f1901.d	246066005	JAOC	12-FEB-2010 10:32	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
020f2001.d	246066006	JAOC	12-FEB-2010 10:44	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
021f2101.d	WAR100203-60 02	JAOC	12-FEB-2010 10:56		021210	1.0		PASSES BOTH COLUMNS
022f2201.d	WAR100105-99 03	JAOC	12-FEB-2010 11:09		021210	1.0		CLEAN
023f2301.d	246318001	JAOC	12-FEB-2010 11:21	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
024f2401.d	246318002	JAOC	12-FEB-2010 11:34	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	246318003	JAOC	12-FEB-2010 11:46	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	246330008	JAOC	12-FEB-2010 11:58	951946	10-1567	1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	246330009	JAOC	12-FEB-2010 12:11	951946	10-1567	1.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	246463002	JAOC	12-FEB-2010 12:23	951946	10-1634	1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	246463003	JAOC	12-FEB-2010 12:35	951946	10-1634	5.0	LANL	DUSE, NEEDS A 5X
030f3001.d	246463004	JAOC	12-FEB-2010 12:48	951946	10-1634	1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	246463005	JAOC	12-FEB-2010 13:00	951946	10-1634	5.0	LANL	UPLOAD BOTH, USE HIGHER
032f3201.d	246477002	JAOC	12-FEB-2010 13:13	951946	10-1647	1.0	LANL	DUSE, NEEDS A 10X
033f3301.d	WAR100203-60 03	JAOC	12-FEB-2010 13:25		021210	1.0		PASSES BOTH COLUMNS
034f3401.d	WAR100105-99 04	JAOC	12-FEB-2010 13:37		021210	1.0		CLEAN
035f3501.d	246575003	JAOC	12-FEB-2010 13:50	951946	10-1675	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/021210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202040225	JAOC	12-FEB-2010 14:02	951946	10-1675	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202040226	JAOC	12-FEB-2010 14:14	951946	10-1675	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	246575004	JAOC	12-FEB-2010 14:27	951946	10-1675	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	246463003	JAOC	12-FEB-2010 14:39	951946	10-1634	25.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	246477002	JAOC	12-FEB-2010 14:51	951946	10-1647	10.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	WAR100203-60 04	JAOC	12-FEB-2010 15:04		021210	1.0		PASSES BOTH COLUMNS

|042f4201.d |WAR100105-99 05 |JAOC |12-FEB-2010 15:16 : |021210 | 1.0| | CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/036b3601.d
Lab Smp Id: 1202040225 Client Smp ID: WST15-10-11621MS
Inj Date : 12-FEB-2010 14:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040225|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	7818097	90.0253	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8399553	129.535	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2136861	567.348	20.2	80.00- 120.00	100.00
3.658	3.658	0.000	1333132	534.444	19.0	45.12- 85.12	62.39
3.735	3.734	0.001	838835	553.507	19.7	19.91- 59.91	39.26
3.810	3.809	0.001	886981	594.028	21.1	18.22- 58.22	41.51
4.006	4.006	0.000	1183238	581.267	20.7	33.52- 73.52	55.37

Average of Peak Concentrations = 20.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.918	4.919	-0.001	2738229	670.409	23.9	80.00- 120.00	100.00
5.066	5.068	-0.002	3114317	626.762	22.3	102.34- 142.34	113.73
5.384	5.384	0.000	2651239	699.827	24.9	74.38- 114.38	96.82
5.591	5.591	0.000	2645273	669.163	23.8	77.60- 117.60	96.61
6.023	6.023	0.000	4408302	707.884	25.2	139.44- 179.44	160.99
Average of Peak Concentrations =					24.0		

Data File: /chem/ecd8a.i/021210.b/036b3601.d

Date : 12-FEB-2010 14:02

Client ID: WST15-10-11621MS

Sample Info: |12020402251|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

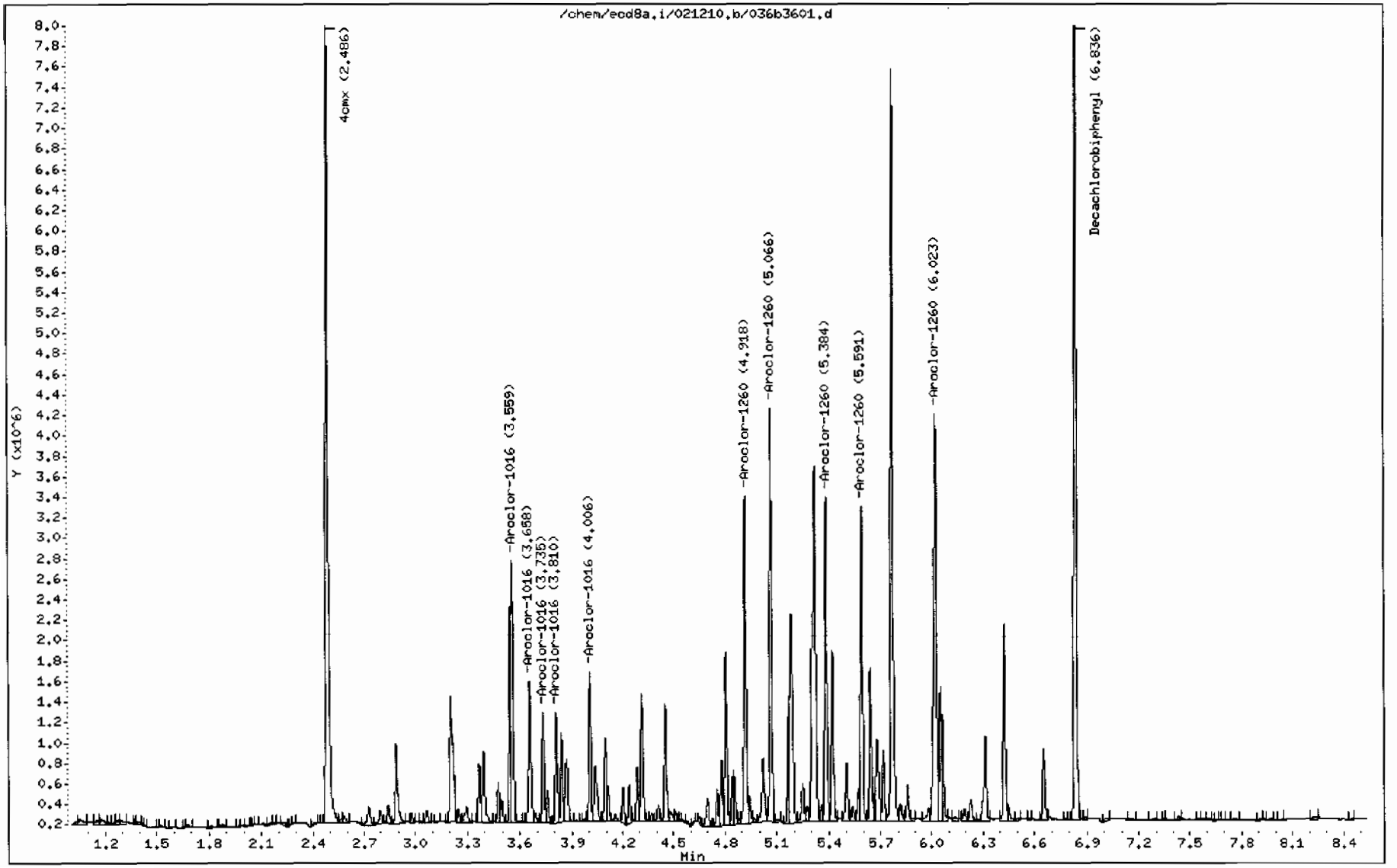

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/036f3601.d
Lab Smp Id: 1202040225 Client Smp ID: WST15-10-11621MS
Inj Date : 12-FEB-2010 14:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040225|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	15651204	119.106	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12370057	123.724	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.811	0.001	2650281	568.166	20.2	80.00- 120.00	100.00
3.164	3.163	0.001	3250319	563.354	20.0	110.21- 150.21	122.64
3.308	3.306	0.002	1225834	499.484	17.8	32.76- 72.76	46.25
3.400	3.399	0.001	1272487	578.882	20.6	26.33- 66.33	48.01
3.562	3.561	0.001	1448968	461.138	16.4	47.15- 87.15	54.67

Average of Peak Concentrations = 19.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.435	-0.001	4026930	597.559	21.3	80.00- 120.00	100.00
4.630	4.631	-0.001	6495755	633.127	22.5	131.14- 171.14	161.31
4.906	4.906	0.000	4108716	670.280	23.8	71.88- 111.88	102.03
5.077	5.078	-0.001	4204853	658.462	23.4	78.48- 118.48	104.42
5.489	5.490	-0.001	4689455	683.618	24.3	91.90- 131.90	116.45

Average of Peak Concentrations = 23.1

Data File: /chem/ecd8a.i/021210.b/036f3601.d

Date : 12-FEB-2010 14:02

Client ID: WST15-10-11621MS

Sample Info: |1202040225|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

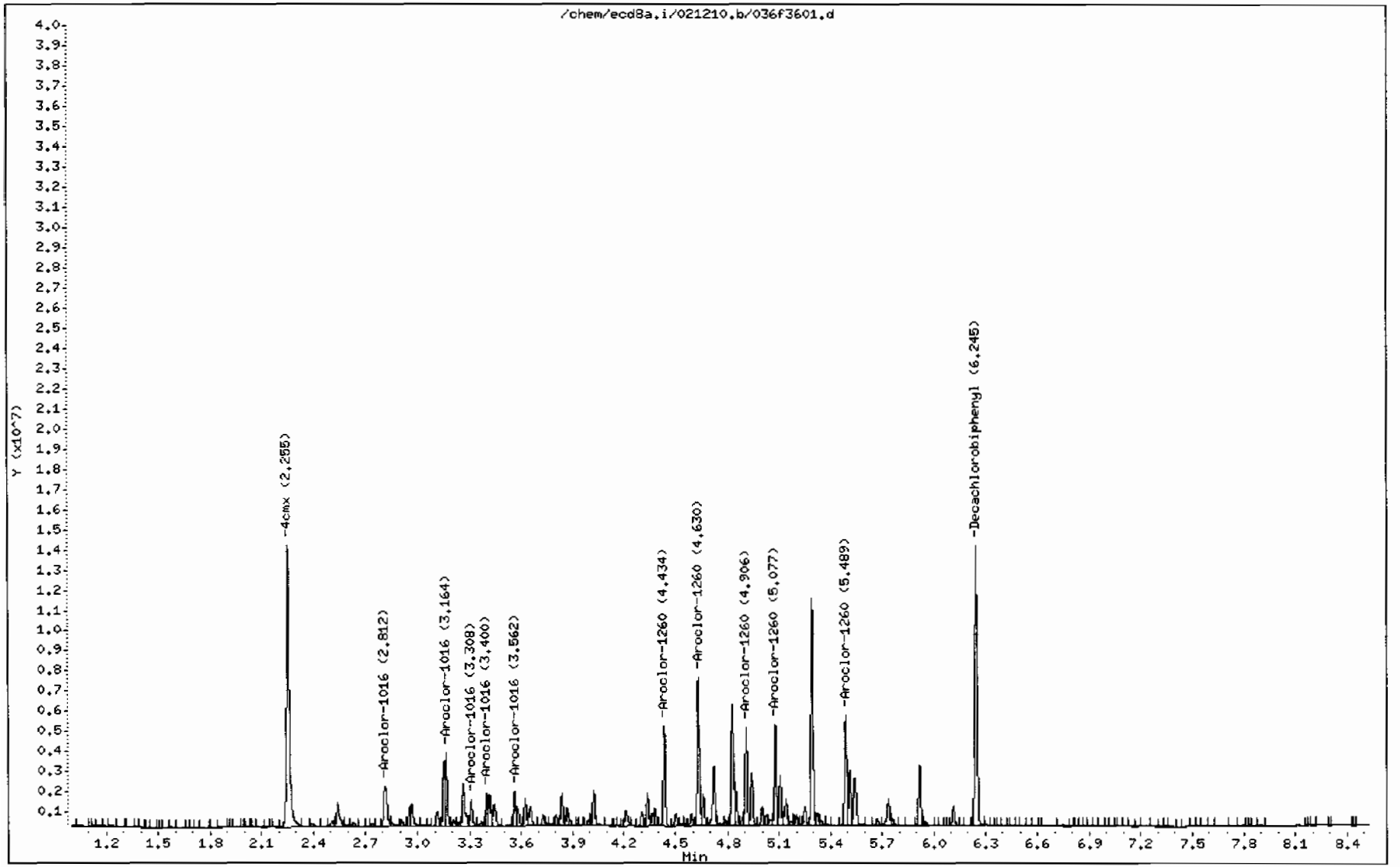

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/037b3701.d
Lab Smp Id: 1202040226 Client Smp ID: WST15-10-11621MSD
Inj Date : 12-FEB-2010 14:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040226|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	7915555	91.1475	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8112348	125.106	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2159261	573.296	20.4	80.00- 120.00	100.00
3.659	3.658	0.001	1431513	573.884	20.4	45.12- 85.12	66.30
3.734	3.734	0.000	873605	576.450	20.5	19.91- 59.91	40.46
3.809	3.809	0.000	891892	597.317	21.3	18.22- 58.22	41.31
4.006	4.006	0.000	1205896	592.398	21.1	33.52- 73.52	55.85

Average of Peak Concentrations = 20.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	2742802	671.528	23.9	80.00- 120.00	100.00
5.067	5.068	-0.001	3222183	648.470	23.1	102.34- 142.34	117.48
5.384	5.384	0.000	2633939	695.261	24.8	74.38- 114.38	96.03
5.591	5.591	0.000	2702363	683.605	24.4	77.60- 117.60	98.53
6.024	6.023	0.001	4396008	705.910	25.2	139.44- 179.44	160.27

Average of Peak Concentrations = 24.3

Data File: /chem/ecd8a.i/021210.b/037b3701.d

Page 1

Date : 12-FEB-2010 14:14

Client ID: WST15-10-11621MSD

Instrument: ecd8a.i

Sample Info: |1202040226|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

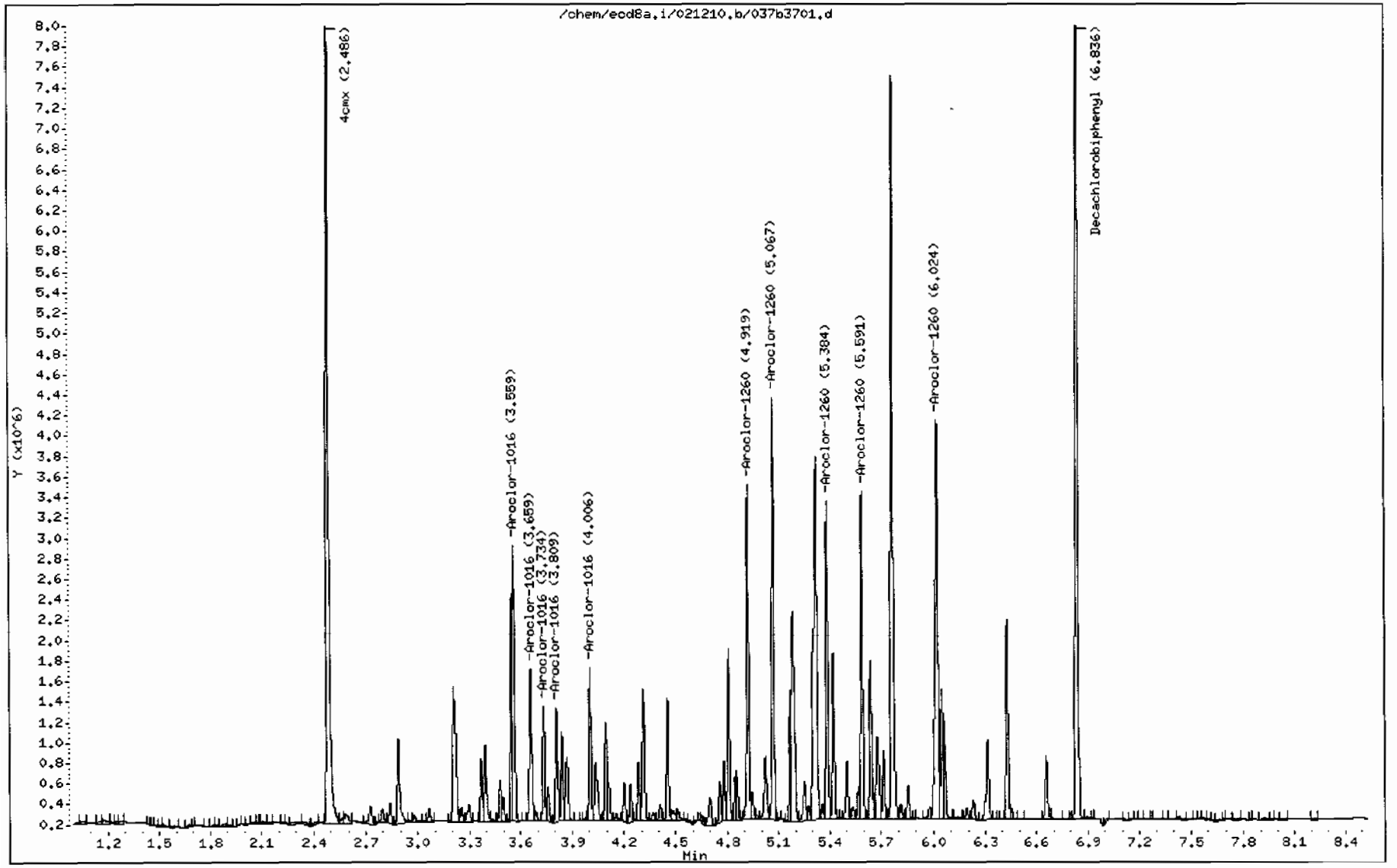

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/037f3701.d
Lab Smp Id: 1202040226 Client Smp ID: WST15-10-11621MSD
Inj Date : 12-FEB-2010 14:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040226|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	14945127	113.732	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12312625	123.149	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.811	0.002	2629777	563.770	20.1	80.00- 120.00	100.00
3.164	3.163	0.001	3389389	587.458	20.9	110.21- 150.21	128.89
3.307	3.306	0.001	1250969	509.726	18.2	32.76- 72.76	47.57
3.399	3.399	0.000	1315163	598.296	21.3	26.33- 66.33	50.01
3.562	3.561	0.001	1458448	464.155	16.5	47.15- 87.15	55.46

Average of Peak Concentrations = 19.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.435	-0.001	4029047	597.873	21.3	80.00- 120.00	100.00
4.630	4.631	-0.001	6356744	619.578	22.1	131.14- 171.14	157.77
4.906	4.906	0.000	3997986	652.216	23.2	71.88- 111.88	99.23
5.079	5.078	0.001	4228363	662.144	23.6	78.48- 118.48	104.95
5.489	5.490	-0.001	4730617	689.619	24.6	91.90- 131.90	117.41
Average of Peak Concentrations					23.0		

Data File: /chem/ecd8a.i/021210.b/037f3701.d

Date : 12-FEB-2010 14:14

Client ID: WST15-10-11621MSD

Sample Info: |120204022611|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

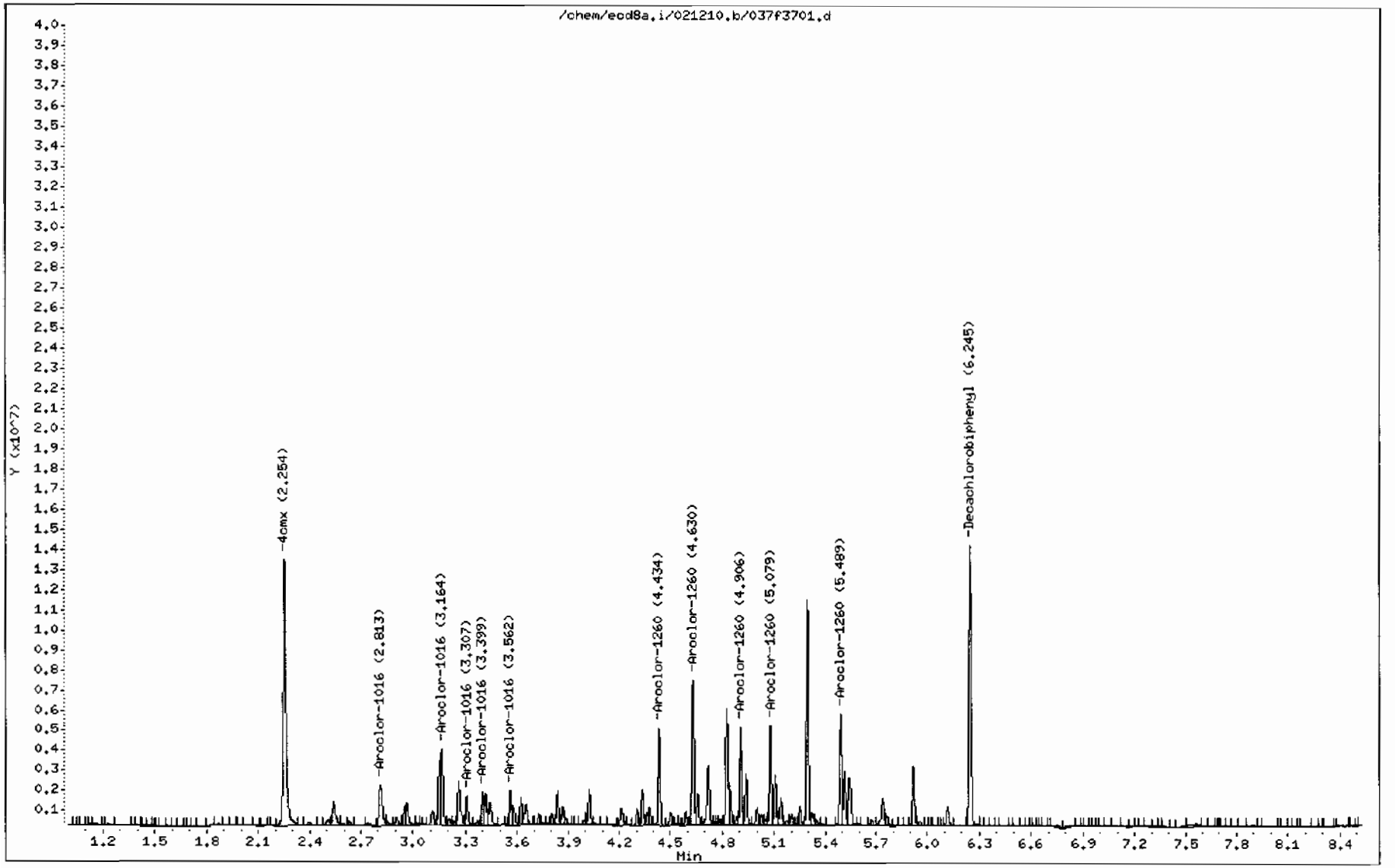

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 951941 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202040223 MB	11-FEB-2010 22:01:00	30	H2SO4/KMn2		2	9	1	0.03333
1202040224 LCS	11-FEB-2010 22:01:00	30	H2SO4/KMn2		2	9	1	0.03333
246055005	11-FEB-2010 22:01:00	30.18	H2SO4/KMn2		2	9	1	0.03313
246066001	11-FEB-2010 22:01:00	30.02	H2SO4/KMn2		2	9	1	0.03331
246066002	11-FEB-2010 22:01:00	30.11	H2SO4/KMn2		2	9	1	0.03321
246066003	11-FEB-2010 22:01:00	30.06	H2SO4/KMn2		2	9	1	0.03327
246066004	11-FEB-2010 22:01:00	30.04	H2SO4/KMn2		2	9	1	0.03329
246066005	11-FEB-2010 22:01:00	30.12	H2SO4/KMn2		2	9	1	0.0332
246066006	11-FEB-2010 22:01:00	30.14	H2SO4/KMn2		2	9	1	0.03318
246318001	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246318002	11-FEB-2010 22:01:00	30.06	H2SO4/KMn2		2	9	1	0.03327
246318003	11-FEB-2010 22:01:00	30.07	H2SO4/KMn2		2	9	1	0.03326
246330008	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246330009	11-FEB-2010 22:01:00	30.13	H2SO4/KMn2		2	9	1	0.03319
246463002	11-FEB-2010 22:01:00	30.06	H2SO4/KMn2		2	9	1	0.03327
246463003	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246463004	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246463005	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246477002	11-FEB-2010 22:01:00	30.02	H2SO4/KMn2		2	9	1	0.03331
246575003	11-FEB-2010 22:01:00	30.01	H2SO4/KMn2		2	9	1	0.03332
1202040225 MS (246575003)	11-FEB-2010 22:01:00	30.07	H2SO4/KMn2		2	9	1	0.03326
1202040226 MSD (246575003)	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246575004	11-FEB-2010 22:01:00	30.12	H2SO4/KMn2		2	9	1	0.0332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202040224	PCB Laboratory Control	WE100126-07	1	mL
MS	1202040225	PCB Laboratory Control	WE100126-07	1	mL
MSD	1202040226	PCB Laboratory Control	WE100126-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100127-15	1	mL
REGNT	All	Acetone	100211-B1	150	mL
REGNT	All	Hexane	100211-B2	150	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/11/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1543

Sample Analysis

Sample ID	Client ID
246066001	RE15-10-8129
246066002	RE15-10-8131
246066003	RE15-10-8130
246066004	RE15-10-8127
246066005	RE15-10-8128
246066006	RE15-10-8126
246066007	RE15-10-8140
246066008	RE15-10-8147
246066009	RE15-10-8142
246066010	RE15-10-8146
246066011	RE15-10-8136
246066012	RE15-10-8139
246066013	RE15-10-8134
246066014	RE15-10-8137
246066015	RE15-10-8143
246066016	RE15-10-8138
246066017	RE15-10-8145
246066018	RE15-10-8141
246066019	RE15-10-8135
246066020	RE15-10-8144

1202033968	Method Blank (MB) **ICP**
1202050830	Method Blank (MB) **ICP**
1202033973	Laboratory Control Sample (LCS)
1202050831	Laboratory Control Sample (LCS)
1202033970	246066001(RE15-10-8129L) Serial Dilution (SD)
1202050834	246066001(RE15-10-8129L) Serial Dilution (SD)
1202033969	246066001(RE15-10-8129D) Sample Duplicate (DUP)
1202050832	246066001(RE15-10-8129D) Sample Duplicate (DUP)
1202033971	246066001(RE15-10-8129S) Matrix Spike (MS)
1202050833	246066001(RE15-10-8129S) Matrix Spike (MS)
1202033972	246066001(RE15-10-8129SD) Matrix Spike Duplicate (MSD)
1202050835	246066001(RE15-10-8129SD) Matrix Spike Duplicate (MSD)
1202033978	Method Blank (MB) **ICP-MS**
1202033983	Laboratory Control Sample (LCS)
1202033980	246066001(RE15-10-8129L) Serial Dilution (SD)
1202033979	246066001(RE15-10-8129D) Sample Duplicate (DUP)
1202033981	246066001(RE15-10-8129S) Matrix Spike (MS)
1202033982	246066001(RE15-10-8129SD) Matrix Spike Duplicate (MSD)
1202039295	Method Blank (MB) **CVAA**
1202039296	Laboratory Control Sample (LCS)
1202039299	246066001(RE15-10-8129L) Serial Dilution (SD)
1202039297	246066001(RE15-10-8129D) Sample Duplicate (DUP)
1202039298	246066001(RE15-10-8129S) Matrix Spike (MS)
1202039300	246066001(RE15-10-8129SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	949358, 956437, 949361, 959912 and 951551
Prep Batch :	949355, 956436, 949360, 959910 and 951550
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen

carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria with the exceptions of aluminum, iron and manganese. The samples in this SDG contained aluminum, iron and manganese at concentrations more than ten times the amount present in the method blank (MB), therefore the data was not adversely affected.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 246066001 (RE15-10-8129).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of antimony, cobalt, potassium, arsenic and selenium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of antimony, barium, potassium, arsenic, nickel and selenium, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exception of manganese, as indicated by the "*" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of manganese, as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 794402, 795492 and 798221. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/6/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066001 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8129 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14100000	ug/kg		7790	22900	22900	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-36-0	Antimony	898	ug/kg	JN	378	1150	1150	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-38-2	Arsenic	3210	ug/kg	N	215	1080	1080	2	MS	BAJ	03/02/10 14:56	100302-5	949361
7440-39-3	Barium	195000	ug/kg	N	115	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-41-7	Beryllium	1160	ug/kg		21	105	105	2	MS	BAJ	03/04/10 16:38	100304-6	959912
7440-43-9	Cadmium	573	ug/kg	U	115	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-70-2	Calcium	2920000	ug/kg		9160	28600	28600	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-47-3	Chromium	13900	ug/kg		172	573	573	1	P	JWJ	02/24/10 05:55	022310A-3	956437
7440-48-4	Cobalt	7420	ug/kg	N	172	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-50-8	Copper	8030	ug/kg		344	1150	1150	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-89-6	Iron	16500000	ug/kg		9160	28600	28600	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-92-1	Lead	15300	ug/kg		286	1150	1150	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-95-4	Magnesium	2470000	ug/kg		9740	34400	34400	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-96-5	Manganese	429000	ug/kg	*	229	1150	1150	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7439-97-6	Mercury	12.8	ug/kg		4.25	12.5	12.5	1	AV	JXLJ	02/22/10 10:56	022210S1-7	951551
7440-02-0	Nickel	10900	ug/kg	N	108	430	430	2	MS	BAJ	03/02/10 14:56	100302-5	949361
7440-09-7	Potassium	1780000	ug/kg	N	7330	28600	28600	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7782-49-2	Selenium	1080	ug/kg	UN	538	1080	1080	2	MS	BAJ	03/02/10 14:56	100302-5	949361
7440-22-4	Silver	573	ug/kg	U	115	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-23-5	Sodium	84800	ug/kg		8020	28600	28600	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-28-0	Thallium	223	ug/kg		62.9	210	210	2	MS	SKJ	03/02/10 22:18	100302-4	959912
7440-62-2	Vanadium	34000	ug/kg		115	573	573	1	P	JWJ	02/21/10 00:54	022010C-1	949358
7440-66-6	Zinc	30600	ug/kg		378	1150	1150	1	P	JWJ	02/24/10 05:55	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.504	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.537	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.554	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.504	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.551	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066002 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8131 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10800000	ug/kg		8030	23600	23600	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-36-0	Antimony	846	ug/kg	JN	390	1180	1180	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-38-2	Arsenic	3200	ug/kg	N	222	1110	1110	2	MS	BAJ	03/02/10 15:07	100302-5	949361
7440-39-3	Barium	158000	ug/kg	N	118	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-41-7	Beryllium	939	ug/kg		20.9	105	105	2	MS	BAJ	03/04/10 16:47	100304-6	959912
7440-43-9	Cadmium	591	ug/kg	U	118	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-70-2	Calcium	3510000	ug/kg		9450	29500	29500	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-47-3	Chromium	13100	ug/kg		175	583	583	1	P	JWJ	02/24/10 06:14	022310A-3	956437
7440-48-4	Cobalt	5390	ug/kg	N	177	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-50-8	Copper	6480	ug/kg		354	1180	1180	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-89-6	Iron	13100000	ug/kg		9450	29500	29500	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-92-1	Lead	12600	ug/kg		295	1180	1180	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-95-4	Magnesium	2120000	ug/kg		10000	35400	35400	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-96-5	Manganese	338000	ug/kg	*	236	1180	1180	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7439-97-6	Mercury	14.1	ug/kg		4.6	13.5	13.5	1	AV	JXL1	02/22/10 11:04	022210S1-7	951551
7440-02-0	Nickel	9690	ug/kg	N	111	445	445	2	MS	BAJ	03/02/10 15:07	100302-5	949361
7440-09-7	Potassium	1620000	ug/kg	N	7560	29500	29500	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7782-49-2	Selenium	1110	ug/kg	UN	556	1110	1110	2	MS	BAJ	03/02/10 15:07	100302-5	949361
7440-22-4	Silver	591	ug/kg	U	118	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-23-5	Sodium	231000	ug/kg		8270	29500	29500	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-28-0	Thallium	181	ug/kg	J	62.8	209	209	2	MS	SKJ	03/02/10 22:44	100302-4	959912
7440-62-2	Vanadium	24700	ug/kg		118	591	591	1	P	JWJ	02/21/10 01:12	022010C-1	949358
7440-66-6	Zinc	35700	ug/kg		385	1170	1170	1	P	JWJ	02/24/10 06:14	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.512	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.544	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.537	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.519	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.578	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066003 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8130 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12800000	ug/kg		7870	23100	23100	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-36-0	Antimony	987	ug/kg	JN	382	1160	1160	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-38-2	Arsenic	2780	ug/kg	N	252	1260	1260	2	MS	BAJ	03/02/10 15:09	100302-5	949361
7440-39-3	Barium	170000	ug/kg	N	116	578	578	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-41-7	Beryllium	1120	ug/kg		24.2	121	121	2	MS	BAJ	03/04/10 16:49	100304-6	959912
7440-43-9	Cadmium	578	ug/kg	U	116	578	578	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-70-2	Calcium	2410000	ug/kg		9250	28900	28900	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-47-3	Chromium	13700	ug/kg		191	638	638	1	P	JWJ	02/24/10 06:17	022310A-3	956437
7440-48-4	Cobalt	5740	ug/kg	N	174	578	578	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-50-8	Copper	9540	ug/kg		347	1160	1160	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7439-89-6	Iron	15300000	ug/kg		9250	28900	28900	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7439-92-1	Lead	44700	ug/kg		289	1160	1160	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7439-95-4	Magnesium	2330000	ug/kg		9830	34700	34700	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7439-96-5	Manganese	344000	ug/kg	*	231	1160	1160	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7439-97-6	Mercury	14.8	ug/kg	J	5.2	15.3	15.3	1	AV	JXL1	02/22/10 11:06	022210S1-7	951551
7440-02-0	Nickel	10600	ug/kg	N	126	504	504	2	MS	BAJ	03/02/10 15:09	100302-5	949361
7440-09-7	Potassium	2090000	ug/kg	N	7400	28900	28900	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7782-49-2	Selenium	1260	ug/kg	UN	630	1260	1260	2	MS	BAJ	03/02/10 15:09	100302-5	949361
7440-22-4	Silver	14700	ug/kg		116	578	578	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-23-5	Sodium	101000	ug/kg		8100	28900	28900	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-28-0	Thallium	192	ug/kg	J	72.7	242	242	2	MS	SKJ	03/02/10 22:48	100302-4	959912
7440-62-2	Vanadium	30800	ug/kg		116	578	578	1	P	JWJ	02/21/10 01:16	022010C-1	949358
7440-66-6	Zinc	37500	ug/kg		421	1280	1280	1	P	JWJ	02/24/10 06:17	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.559	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.513	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.507	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.507	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.534	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066004 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8127 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	22900000	ug/kg		7380	21700	21700	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-36-0	Antimony	823	ug/kg	JN	358	1090	1090	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-38-2	Arsenic	3180	ug/kg	N	215	1080	1080	2	MS	BAJ	03/02/10 15:11	100302-5	949361
7440-39-3	Barium	253000	ug/kg	N	109	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-41-7	Beryllium	1580	ug/kg		20	100	100	2	MS	BAJ	03/04/10 16:50	100304-6	959912
7440-43-9	Cadmium	543	ug/kg	U	109	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-70-2	Calcium	3600000	ug/kg		8680	27100	27100	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-47-3	Chromium	23400	ug/kg		168	561	561	1	P	JWJ	02/24/10 06:28	022310A-3	956437
7440-48-4	Cobalt	6280	ug/kg	N	163	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-50-8	Copper	10200	ug/kg		326	1090	1090	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-89-6	Iron	18600000	ug/kg		8680	27100	27100	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-92-1	Lead	16800	ug/kg		271	1090	1090	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-95-4	Magnesium	3460000	ug/kg		9220	32600	32600	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-96-5	Manganese	349000	ug/kg	*	217	1090	1090	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7439-97-6	Mercury	23.9	ug/kg		4.09	12	12	1	AV	JXL1	02/22/10 11:11	022210S1-7	951551
7440-02-0	Nickel	12600	ug/kg	N	108	431	431	2	MS	BAJ	03/02/10 15:11	100302-5	949361
7440-09-7	Potassium	2320000	ug/kg	N	6950	27100	27100	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7782-49-2	Selenium	1080	ug/kg	UN	539	1080	1080	2	MS	BAJ	03/02/10 15:11	100302-5	949361
7440-22-4	Silver	543	ug/kg	U	109	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-23-5	Sodium	281000	ug/kg		7600	27100	27100	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-28-0	Thallium	230	ug/kg		60	200	200	2	MS	SKJ	03/02/10 22:52	100302-4	959912
7440-62-2	Vanadium	32600	ug/kg		109	543	543	1	P	JWJ	02/21/10 01:27	022010C-1	949358
7440-66-6	Zinc	54500	ug/kg		370	1120	1120	1	P	JWJ	02/24/10 06:28	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.528	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.532	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.571	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.511	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.573	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066005 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8128 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3990000	ug/kg		7870	23100	23100	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-36-0	Antimony	823	ug/kg	JN	382	1160	1160	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-38-2	Arsenic	1650	ug/kg	N	237	1180	1180	2	MS	BAJ	03/02/10 15:17	100302-5	949361
7440-39-3	Barium	75900	ug/kg	N	116	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-41-7	Beryllium	408	ug/kg		22	110	110	2	MS	BAJ	03/04/10 17:11	100304-6	959912
7440-43-9	Cadmium	579	ug/kg	U	116	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-70-2	Calcium	3090000	ug/kg		9260	28900	28900	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-47-3	Chromium	9140	ug/kg		179	597	597	1	P	JWJ	02/24/10 06:31	022310A-3	956437
7440-48-4	Cobalt	2990	ug/kg	N	174	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-50-8	Copper	6460	ug/kg		347	1160	1160	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-89-6	Iron	9140000	ug/kg		9260	28900	28900	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-92-1	Lead	8090	ug/kg		289	1160	1160	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-95-4	Magnesium	1200000	ug/kg		9840	34700	34700	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-96-5	Manganese	202000	ug/kg	*	231	1160	1160	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7439-97-6	Mercury	12.4	ug/kg	U	4.23	12.4	12.4	1	AV	JXL1	02/22/10 11:12	022210S1-7	951551
7440-02-0	Nickel	5040	ug/kg	N	118	473	473	2	MS	BAJ	03/02/10 15:17	100302-5	949361
7440-09-7	Potassium	828000	ug/kg	N	7410	28900	28900	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7782-49-2	Selenium	1180	ug/kg	UN	591	1180	1180	2	MS	BAJ	03/02/10 15:17	100302-5	949361
7440-22-4	Silver	579	ug/kg	U	116	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-23-5	Sodium	54400	ug/kg		8100	28900	28900	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-28-0	Thallium	220	ug/kg	U	66.1	220	220	2	MS	SKJ	03/02/10 22:56	100302-4	959912
7440-62-2	Vanadium	17200	ug/kg		116	579	579	1	P	JWJ	02/21/10 01:30	022010C-1	949358
7440-66-6	Zinc	27600	ug/kg		394	1190	1190	1	P	JWJ	02/24/10 06:31	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.516	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.505	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.576	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.5	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.542	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066006 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8126 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15400000	ug/kg		8090	23800	23800	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-36-0	Antimony	1240	ug/kg	N	393	1190	1190	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-38-2	Arsenic	3530	ug/kg	N	223	1120	1120	2	MS	BAJ	03/02/10 15:19	100302-5	949361
7440-39-3	Barium	192000	ug/kg	N	119	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-41-7	Beryllium	1290	ug/kg		21.7	108	108	2	MS	BAJ	03/04/10 17:13	100304-6	959912
7440-43-9	Cadmium	595	ug/kg	U	119	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-70-2	Calcium	2510000	ug/kg		9520	29700	29700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-47-3	Chromium	17900	ug/kg		182	606	606	1	P	JWJ	02/24/10 06:35	022310A-3	956437
7440-48-4	Cobalt	7730	ug/kg	N	178	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-50-8	Copper	8760	ug/kg		357	1190	1190	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-89-6	Iron	17600000	ug/kg		9520	29700	29700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-92-1	Lead	16400	ug/kg		297	1190	1190	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-95-4	Magnesium	2770000	ug/kg		10100	35700	35700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-96-5	Manganese	408000	ug/kg	*	238	1190	1190	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7439-97-6	Mercury	37.1	ug/kg		4.67	13.7	13.7	1	AV	JXL1	02/22/10 11:14	022210S1-7	951551
7440-02-0	Nickel	12900	ug/kg	N	112	446	446	2	MS	BAJ	03/02/10 15:19	100302-5	949361
7440-09-7	Potassium	2200000	ug/kg	N	7620	29700	29700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7782-49-2	Selenium	1120	ug/kg	UN	558	1120	1120	2	MS	BAJ	03/02/10 15:19	100302-5	949361
7440-22-4	Silver	595	ug/kg	U	119	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-23-5	Sodium	104000	ug/kg		8330	29700	29700	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-28-0	Thallium	217	ug/kg		65.1	217	217	2	MS	SKJ	03/02/10 22:59	100302-4	959912
7440-62-2	Vanadium	34700	ug/kg		119	595	595	1	P	JWJ	02/21/10 01:34	022010C-1	949358
7440-66-6	Zinc	36100	ug/kg		400	1210	1210	1	P	JWJ	02/24/10 06:35	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.514	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.548	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.534	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.505	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.564	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066007 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8140 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	2390000	ug/kg		7580	22300	22300	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-36-0	Antimony	646	ug/kg	JN	368	1110	1110	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-38-2	Arsenic	1200	ug/kg	N	225	1120	1120	2	MS	BAJ	03/02/10 15:21	100302-5	949361
7440-39-3	Barium	46900	ug/kg	N	111	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-41-7	Beryllium	198	ug/kg		22.8	114	114	2	MS	BAJ	03/04/10 17:14	100304-6	959912
7440-43-9	Cadmium	557	ug/kg	U	111	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-70-2	Calcium	4970000	ug/kg		8920	27900	27900	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-47-3	Chromium	22500	ug/kg		167	556	556	1	P	JWJ	02/24/10 06:39	022310A-3	956437
7440-48-4	Cobalt	2050	ug/kg	N	167	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-50-8	Copper	4090	ug/kg		334	1110	1110	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-89-6	Iron	7260000	ug/kg		8920	27900	27900	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-92-1	Lead	5890	ug/kg		279	1110	1110	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-95-4	Magnesium	820000	ug/kg		9470	33400	33400	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-96-5	Manganese	155000	ug/kg	*	223	1110	1110	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7439-97-6	Mercury	12.3	ug/kg	U	4.2	12.3	12.3	1	AV	JXL1	02/22/10 11:16	022210S1-7	951551
7440-02-0	Nickel	4650	ug/kg	N	112	449	449	2	MS	BAJ	03/02/10 15:21	100302-5	949361
7440-09-7	Potassium	498000	ug/kg	N	7130	27900	27900	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7782-49-2	Selenium	1120	ug/kg	UN	562	1120	1120	2	MS	BAJ	03/02/10 15:21	100302-5	949361
7440-22-4	Silver	557	ug/kg	U	111	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-23-5	Sodium	44600	ug/kg		7800	27900	27900	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-28-0	Thallium	228	ug/kg	U	68.5	228	228	2	MS	SKJ	03/02/10 23:11	100302-4	959912
7440-62-2	Vanadium	13300	ug/kg		111	557	557	1	P	JWJ	02/21/10 01:38	022010C-1	949358
7440-66-6	Zinc	24000	ug/kg		367	1110	1110	1	P	JWJ	02/24/10 06:39	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.517	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.513	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.56	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.518	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.505	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066008 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8147 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9370000	ug/kg		10600	31200	31200	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-36-0	Antimony	1170	ug/kg	JN	514	1560	1560	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-38-2	Arsenic	339	ug/kg	JN	293	1460	1460	2	MS	BAJ	03/02/10 15:23	100302-5	949361
7440-39-3	Barium	163000	ug/kg	N	156	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-41-7	Beryllium	938	ug/kg		28.7	144	144	2	MS	BAJ	03/04/10 17:16	100304-6	959912
7440-43-9	Cadmium	779	ug/kg	U	156	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-70-2	Calcium	2930000	ug/kg		12500	39000	39000	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-47-3	Chromium	23200	ug/kg		228	760	760	1	P	JWJ	02/24/10 06:42	022310A-3	956437
7440-48-4	Cobalt	5620	ug/kg	N	234	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-50-8	Copper	8550	ug/kg		468	1560	1560	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-89-6	Iron	12900000	ug/kg		12500	39000	39000	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-92-1	Lead	150000	ug/kg		390	1560	1560	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-95-4	Magnesium	1890000	ug/kg		13300	46800	46800	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-96-5	Manganese	376000	ug/kg	*	312	1560	1560	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7439-97-6	Mercury	9.06	ug/kg	J	6.22	18.3	18.3	1	AV	JXL1	02/22/10 11:17	022210S1-7	951551
7440-02-0	Nickel	849	ug/kg	N	146	585	585	2	MS	BAJ	03/02/10 15:23	100302-5	949361
7440-09-7	Potassium	1840000	ug/kg	N	9980	39000	39000	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7782-49-2	Selenium	1460	ug/kg	UN	731	1460	1460	2	MS	BAJ	03/02/10 15:23	100302-5	949361
7440-22-4	Silver	779	ug/kg	U	156	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-23-5	Sodium	55800	ug/kg		10900	39000	39000	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-28-0	Thallium	151	ug/kg	J	86.2	287	287	2	MS	SKJ	03/02/10 23:14	100302-4	959912
7440-62-2	Vanadium	24800	ug/kg		156	779	779	1	P	JWJ	02/21/10 01:41	022010C-1	949358
7440-66-6	Zinc	108000	ug/kg		501	1520	1520	1	P	JWJ	02/24/10 06:42	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.503	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.536	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.514	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.516	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.546	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066009 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8142 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13100000	ug/kg		8470	24900	24900	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-36-0	Antimony	903	ug/kg	JN	411	1250	1250	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-38-2	Arsenic	563	ug/kg	JN	238	1190	1190	2	MS	BAJ	03/02/10 15:25	100302-5	949361
7440-39-3	Barium	188000	ug/kg	N	125	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-41-7	Beryllium	995	ug/kg		22.5	113	113	2	MS	BAJ	03/04/10 17:18	100304-6	959912
7440-43-9	Cadmium	623	ug/kg	U	125	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-70-2	Calcium	2260000	ug/kg		9970	31200	31200	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-47-3	Chromium	13600	ug/kg		190	632	632	1	P	JWJ	02/24/10 06:46	022310A-3	956437
7440-48-4	Cobalt	6480	ug/kg	N	187	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-50-8	Copper	7870	ug/kg		374	1250	1250	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-89-6	Iron	15800000	ug/kg		9970	31200	31200	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-92-1	Lead	16900	ug/kg		312	1250	1250	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-95-4	Magnesium	2500000	ug/kg		10600	37400	37400	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-96-5	Manganese	394000	ug/kg	*	249	1250	1250	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7439-97-6	Mercury	14	ug/kg	J	4.83	14.2	14.2	1	AV	JXL1	02/22/10 11:19	022210S1-7	951551
7440-02-0	Nickel	1500	ug/kg	N	119	476	476	2	MS	BAJ	03/02/10 15:25	100302-5	949361
7440-09-7	Potassium	2170000	ug/kg	N	7980	31200	31200	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7782-49-2	Selenium	1190	ug/kg	UN	595	1190	1190	2	MS	BAJ	03/02/10 15:25	100302-5	949361
7440-22-4	Silver	623	ug/kg	U	125	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-23-5	Sodium	84800	ug/kg		8720	31200	31200	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-28-0	Thallium	179	ug/kg	J	67.6	225	225	2	MS	SKJ	03/02/10 23:18	100302-4	959912
7440-62-2	Vanadium	32700	ug/kg		125	623	623	1	P	JWJ	02/21/10 01:45	022010C-1	949358
7440-66-6	Zinc	29600	ug/kg		417	1260	1260	1	P	JWJ	02/24/10 06:46	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.507	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.531	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.534	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.5	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.561	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066010 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8146 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 83

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11700000	ug/kg		7730	22700	22700	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-36-0	Antimony	1290	ug/kg	N	375	1140	1140	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-38-2	Arsenic	1120	ug/kg	UN	225	1120	1120	2	MS	BAJ	03/02/10 15:27	100302-5	949361
7440-39-3	Barium	158000	ug/kg	N	114	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-41-7	Beryllium	879	ug/kg		20.5	103	103	2	MS	BAJ	03/04/10 17:19	100304-6	959912
7440-43-9	Cadmium	568	ug/kg	U	114	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-70-2	Calcium	2300000	ug/kg		9090	28400	28400	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-47-3	Chromium	12000	ug/kg		171	570	570	1	P	JWJ	02/24/10 06:49	022310A-3	956437
7440-48-4	Cobalt	5360	ug/kg	N	170	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-50-8	Copper	9730	ug/kg		341	1140	1140	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-89-6	Iron	15100000	ug/kg		9090	28400	28400	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-92-1	Lead	200000	ug/kg		284	1140	1140	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-95-4	Magnesium	2230000	ug/kg		9660	34100	34100	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-96-5	Manganese	331000	ug/kg	*	227	1140	1140	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7439-97-6	Mercury	14.7	ug/kg		4.41	13	13	1	AV	JXL1	02/22/10 11:21	022210S1-7	951551
7440-02-0	Nickel	1300	ug/kg	N	112	449	449	2	MS	BAJ	03/02/10 15:27	100302-5	949361
7440-09-7	Potassium	1810000	ug/kg	N	7270	28400	28400	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7782-49-2	Selenium	1120	ug/kg	UN	562	1120	1120	2	MS	BAJ	03/02/10 15:27	100302-5	949361
7440-22-4	Silver	568	ug/kg	U	114	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-23-5	Sodium	89100	ug/kg		7950	28400	28400	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-28-0	Thallium	148	ug/kg	J	61.6	205	205	2	MS	SKJ	03/02/10 23:22	100302-4	959912
7440-62-2	Vanadium	28900	ug/kg		114	568	568	1	P	JWJ	02/21/10 01:49	022010C-1	949358
7440-66-6	Zinc	77500	ug/kg		376	1140	1140	1	P	JWJ	02/24/10 06:49	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.531	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.537	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.558	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.529	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.588	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066011 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8136 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10500000	ug/kg		7170	21100	21100	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-36-0	Antimony	1020	ug/kg	JN	348	1050	1050	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-38-2	Arsenic	2540	ug/kg	N	213	1070	1070	2	MS	BAJ	03/02/10 15:29	100302-5	949361
7440-39-3	Barium	152000	ug/kg	N	105	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-41-7	Beryllium	743	ug/kg		20	100	100	2	MS	BAJ	03/04/10 17:21	100304-6	959912
7440-43-9	Cadmium	527	ug/kg	U	105	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-70-2	Calcium	2510000	ug/kg		8440	26400	26400	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-47-3	Chromium	19200	ug/kg		169	564	564	1	P	JWJ	02/24/10 06:53	022310A-3	956437
7440-48-4	Cobalt	6120	ug/kg	N	158	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-50-8	Copper	8890	ug/kg		316	1050	1050	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-89-6	Iron	14900000	ug/kg		8440	26400	26400	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-92-1	Lead	14700	ug/kg		264	1050	1050	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-95-4	Magnesium	1980000	ug/kg		8960	31600	31600	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-96-5	Manganese	370000	ug/kg	*	211	1050	1050	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7439-97-6	Mercury	10.3	ug/kg	J	4.16	12.2	12.2	1	AV	JXL1	02/22/10 11:22	022210S1-7	951551
7440-02-0	Nickel	8670	ug/kg	N	107	427	427	2	MS	BAJ	03/02/10 15:29	100302-5	949361
7440-09-7	Potassium	1660000	ug/kg	N	6750	26400	26400	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7782-49-2	Selenium	1070	ug/kg	UN	533	1070	1070	2	MS	BAJ	03/02/10 15:29	100302-5	949361
7440-22-4	Silver	527	ug/kg	U	105	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-23-5	Sodium	65600	ug/kg		7380	26400	26400	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-28-0	Thallium	137	ug/kg	J	60	200	200	2	MS	SKJ	03/02/10 23:26	100302-4	959912
7440-62-2	Vanadium	30000	ug/kg		105	527	527	1	P	JWJ	02/21/10 01:52	022010C-1	949358
7440-66-6	Zinc	31400	ug/kg		372	1130	1130	1	P	JWJ	02/24/10 06:53	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.535	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.529	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.554	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.5	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.564	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066012 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8139 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 92.6

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13400000	ug/kg		7330	21600	21600	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-36-0	Antimony	1180	ug/kg	N	356	1080	1080	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-38-2	Arsenic	2550	ug/kg	N	204	1020	1020	2	MS	BAJ	03/02/10 15:31	100302-5	949361
7440-39-3	Barium	150000	ug/kg	N	108	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-41-7	Beryllium	820	ug/kg		18.1	90.5	90.5	2	MS	BAJ	03/04/10 17:23	100304-6	959912
7440-43-9	Cadmium	539	ug/kg	U	108	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-70-2	Calcium	1980000	ug/kg		8630	27000	27000	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-47-3	Chromium	14400	ug/kg		160	533	533	1	P	JWJ	02/24/10 06:57	022310A-3	956437
7440-48-4	Cobalt	4620	ug/kg	N	162	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-50-8	Copper	6810	ug/kg		323	1080	1080	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-89-6	Iron	14500000	ug/kg		8630	27000	27000	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-92-1	Lead	12100	ug/kg		270	1080	1080	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-95-4	Magnesium	2060000	ug/kg		9170	32300	32300	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-96-5	Manganese	345000	ug/kg	*	216	1080	1080	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7439-97-6	Mercury	13.6	ug/kg		4.17	12.3	12.3	1	AV	JXLI	02/22/10 11:24	022210S1-7	951551
7440-02-0	Nickel	8060	ug/kg	N	102	408	408	2	MS	BAJ	03/02/10 15:31	100302-5	949361
7440-09-7	Potassium	1450000	ug/kg	N	6900	27000	27000	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7782-49-2	Selenium	1020	ug/kg	UN	510	1020	1020	2	MS	BAJ	03/02/10 15:31	100302-5	949361
7440-22-4	Silver	539	ug/kg	U	108	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-23-5	Sodium	126000	ug/kg		7550	27000	27000	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-28-0	Thallium	113	ug/kg	J	54.3	181	181	2	MS	SKJ	03/02/10 23:37	100302-4	959912
7440-62-2	Vanadium	23900	ug/kg		108	539	539	1	P	JWJ	02/21/10 01:56	022010C-1	949358
7440-66-6	Zinc	34700	ug/kg		352	1070	1070	1	P	JWJ	02/24/10 06:57	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.501	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.53	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.529	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.507	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.597	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066013 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8134 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11100000	ug/kg		7230	21300	21300	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-36-0	Antimony	976	ug/kg	JN	351	1060	1060	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-38-2	Arsenic	2790	ug/kg	N	224	1120	1120	2	MS	BAJ	03/02/10 15:37	100302-5	949361
7440-39-3	Barium	158000	ug/kg	N	106	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-41-7	Beryllium	968	ug/kg		20.3	102	102	2	MS	BAJ	03/04/10 17:24	100304-6	959912
7440-43-9	Cadmium	531	ug/kg	U	106	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-70-2	Calcium	2140000	ug/kg		8500	26600	26600	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-47-3	Chromium	17400	ug/kg		162	539	539	1	P	JWJ	02/24/10 07:08	022310A-3	956437
7440-48-4	Cobalt	5980	ug/kg	N	159	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-50-8	Copper	8110	ug/kg		319	1060	1060	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-89-6	Iron	14600000	ug/kg		8500	26600	26600	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-92-1	Lead	15800	ug/kg		266	1060	1060	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-95-4	Magnesium	2100000	ug/kg		9030	31900	31900	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-96-5	Manganese	345000	ug/kg	*	213	1060	1060	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7439-97-6	Mercury	15.4	ug/kg		4.52	13.3	13.3	1	AV	JXL1	02/22/10 11:26	022210S1-7	951551
7440-02-0	Nickel	10300	ug/kg	N	112	447	447	2	MS	BAJ	03/02/10 15:37	100302-5	949361
7440-09-7	Potassium	1910000	ug/kg	N	6800	26600	26600	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7782-49-2	Selenium	1120	ug/kg	UN	559	1120	1120	2	MS	BAJ	03/02/10 15:37	100302-5	949361
7440-22-4	Silver	531	ug/kg	U	106	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-23-5	Sodium	55000	ug/kg		7440	26600	26600	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-28-0	Thallium	172	ug/kg	J	60.9	203	203	2	MS	SKJ	03/02/10 23:41	100302-4	959912
7440-62-2	Vanadium	30000	ug/kg		106	531	531	1	P	JWJ	02/21/10 02:07	022010C-1	949358
7440-66-6	Zinc	31600	ug/kg		356	1080	1080	1	P	JWJ	02/24/10 07:08	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.538	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.511	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.516	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.53	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.563	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066014 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8137 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	14700000	ug/kg		7480	22000	22000	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-36-0	Antimony	1850	ug/kg	N	363	1100	1100	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-38-2	Arsenic	2740	ug/kg	N	229	1140	1140	2	MS	BAJ	03/02/10 15:40	100302-5	949361
7440-39-3	Barium	181000	ug/kg	N	110	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-41-7	Beryllium	1180	ug/kg		20.2	101	101	2	MS	BAJ	03/04/10 17:30	100304-6	959912
7440-43-9	Cadmium	550	ug/kg	U	110	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-70-2	Calcium	2790000	ug/kg		8790	27500	27500	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-47-3	Chromium	151000	ug/kg		174	581	581	1	P	JWJ	02/24/10 07:12	022310A-3	956437
7440-48-4	Cobalt	7050	ug/kg	N	165	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-50-8	Copper	10200	ug/kg		330	1100	1100	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-89-6	Iron	16900000	ug/kg		8790	27500	27500	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-92-1	Lead	14700	ug/kg		275	1100	1100	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-95-4	Magnesium	2680000	ug/kg		9340	33000	33000	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-96-5	Manganese	383000	ug/kg	*	220	1100	1100	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7439-97-6	Mercury	19.4	ug/kg		4.8	14.1	14.1	1	AV	JXL1	02/22/10 11:31	022210S1-7	951551
7440-02-0	Nickel	16800	ug/kg	N	114	457	457	2	MS	BAJ	03/02/10 15:40	100302-5	949361
7440-09-7	Potassium	1760000	ug/kg	N	7040	27500	27500	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7782-49-2	Selenium	1140	ug/kg	UN	572	1140	1140	2	MS	BAJ	03/02/10 15:40	100302-5	949361
7440-22-4	Silver	550	ug/kg	U	110	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-23-5	Sodium	94100	ug/kg		7690	27500	27500	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-28-0	Thallium	178	ug/kg	J	60.5	202	202	2	MS	SKJ	03/02/10 23:45	100302-4	959912
7440-62-2	Vanadium	31400	ug/kg		110	550	550	1	P	JWJ	02/21/10 02:11	022010C-1	949358
7440-66-6	Zinc	54300	ug/kg		383	1160	1160	1	P	JWJ	02/24/10 07:12	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.543	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.522	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.507	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.514	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.592	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066015 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8143 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	20400000	ug/kg		7500	22100	22100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-36-0	Antimony	1090	ug/kg	JN	364	1100	1100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-38-2	Arsenic	2510	ug/kg	N	211	1060	1060	2	MS	BAJ	03/02/10 15:42	100302-5	949361
7440-39-3	Barium	232000	ug/kg	N	110	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-41-7	Beryllium	1320	ug/kg		22.2	111	111	2	MS	BAJ	03/04/10 17:31	100304-6	959912
7440-43-9	Cadmium	552	ug/kg	U	110	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-70-2	Calcium	2740000	ug/kg		8830	27600	27600	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-47-3	Chromium	14700	ug/kg		167	558	558	1	P	JWJ	02/24/10 07:15	022310A-3	956437
7440-48-4	Cobalt	6810	ug/kg	N	165	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-50-8	Copper	8440	ug/kg		331	1100	1100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-89-6	Iron	18400000	ug/kg		8830	27600	27600	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-92-1	Lead	16000	ug/kg		276	1100	1100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-95-4	Magnesium	2920000	ug/kg		9380	33100	33100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-96-5	Manganese	355000	ug/kg	*	221	1100	1100	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7439-97-6	Mercury	25.7	ug/kg		4.27	12.5	12.5	1	AV	JXL1	02/22/10 11:32	022210S1-7	951551
7440-02-0	Nickel	9860	ug/kg	N	106	422	422	2	MS	BAJ	03/02/10 15:42	100302-5	949361
7440-09-7	Potassium	2350000	ug/kg	N	7060	27600	27600	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7782-49-2	Selenium	1060	ug/kg	UN	528	1060	1060	2	MS	BAJ	03/02/10 15:42	100302-5	949361
7440-22-4	Silver	552	ug/kg	U	110	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-23-5	Sodium	89600	ug/kg		7720	27600	27600	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-28-0	Thallium	192	ug/kg	J	66.6	222	222	2	MS	SKJ	03/02/10 23:48	100302-4	959912
7440-62-2	Vanadium	34800	ug/kg		110	552	552	1	P	JWJ	02/21/10 02:15	022010C-1	949358
7440-66-6	Zinc	34200	ug/kg		368	1120	1120	1	P	JWJ	02/24/10 07:15	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.507	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.53	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.535	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.501	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.504	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066016 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8138 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4030000	ug/kg		7200	21200	21200	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-36-0	Antimony	783	ug/kg	JN	349	1060	1060	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-38-2	Arsenic	1290	ug/kg	N	219	1100	1100	2	MS	BAJ	03/02/10 15:44	100302-5	949361
7440-39-3	Barium	54800	ug/kg	N	106	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-41-7	Beryllium	240	ug/kg		19.9	99.3	99.3	2	MS	BAJ	03/04/10 17:33	100304-6	959912
7440-43-9	Cadmium	529	ug/kg	U	106	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-70-2	Calcium	5210000	ug/kg		8470	26500	26500	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-47-3	Chromium	11000	ug/kg		163	543	543	1	P	JWJ	02/24/10 07:18	022310A-3	956437
7440-48-4	Cobalt	2780	ug/kg	N	159	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-50-8	Copper	6290	ug/kg		318	1060	1060	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-89-6	Iron	11100000	ug/kg		8470	26500	26500	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-92-1	Lead	6880	ug/kg		265	1060	1060	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-95-4	Magnesium	2070000	ug/kg		9000	31800	31800	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-96-5	Manganese	238000	ug/kg	*	212	1060	1060	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7439-97-6	Mercury	13.4	ug/kg	U	4.54	13.4	13.4	1	AV	JXL1	02/22/10 11:34	022210S1-7	951551
7440-02-0	Nickel	4830	ug/kg	N	110	439	439	2	MS	BAJ	03/02/10 15:44	100302-5	949361
7440-09-7	Potassium	553000	ug/kg	N	6780	26500	26500	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7782-49-2	Selenium	1100	ug/kg	UN	548	1100	1100	2	MS	BAJ	03/02/10 15:44	100302-5	949361
7440-22-4	Silver	529	ug/kg	U	106	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-23-5	Sodium	73800	ug/kg		7410	26500	26500	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-28-0	Thallium	199	ug/kg	U	59.6	199	199	2	MS	SKJ	03/02/10 23:52	100302-4	959912
7440-62-2	Vanadium	21500	ug/kg		106	529	529	1	P	JWJ	02/21/10 02:18	022010C-1	949358
7440-66-6	Zinc	28200	ug/kg		358	1090	1090	1	P	JWJ	02/24/10 07:18	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.526	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.508	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.5	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.513	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.561	g	50	mL	03/02/10	BCD1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066017 **BASIS:** Dry Weight **DATE COLLECTED** 29–JAN–10

CLIENT ID: RE15–10–8145 **LEVEL:** Low **DATE RECEIVED** 03–FEB–10

MATRIX: SOIL **%SOLIDS:** 93.9

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429–90–5	Aluminum	7630000	ug/kg		7150	21000	21000	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–36–0	Antimony	919	ug/kg	JN	347	1050	1050	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–38–2	Arsenic	2460	ug/kg	N	207	1040	1040	2	MS	BAJ	03/02/10 15:46	100302–5	949361
7440–39–3	Barium	125000	ug/kg	N	105	526	526	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–41–7	Beryllium	796	ug/kg		20	100	100	2	MS	BAJ	03/04/10 17:35	100304–6	959912
7440–43–9	Cadmium	526	ug/kg	U	105	526	526	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–70–2	Calcium	1430000	ug/kg		8420	26300	26300	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–47–3	Chromium	10100	ug/kg		158	526	526	1	P	JWJ	02/24/10 07:22	022310A–3	956437
7440–48–4	Cobalt	5830	ug/kg	N	158	526	526	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–50–8	Copper	6570	ug/kg		316	1050	1050	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7439–89–6	Iron	13300000	ug/kg		8420	26300	26300	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7439–92–1	Lead	9940	ug/kg		263	1050	1050	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7439–95–4	Magnesium	1860000	ug/kg		8940	31600	31600	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7439–96–5	Manganese	365000	ug/kg	*	210	1050	1050	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7439–97–6	Mercury	13.9	ug/kg		4.17	12.3	12.3	1	AV	JXL1	02/22/10 11:36	022210S1–7	951551
7440–02–0	Nickel	6920	ug/kg	N	104	414	414	2	MS	BAJ	03/02/10 15:46	100302–5	949361
7440–09–7	Potassium	1450000	ug/kg	N	6730	26300	26300	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7782–49–2	Selenium	1040	ug/kg	UN	518	1040	1040	2	MS	BAJ	03/02/10 15:46	100302–5	949361
7440–22–4	Silver	526	ug/kg	U	105	526	526	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–23–5	Sodium	62600	ug/kg		7360	26300	26300	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–28–0	Thallium	301	ug/kg		60.1	200	200	2	MS	SKJ	03/03/10 17:39	100302	959912
7440–62–2	Vanadium	24300	ug/kg		105	526	526	1	P	JWJ	02/21/10 02:22	022010C–1	949358
7440–66–6	Zinc	32600	ug/kg		347	1050	1050	1	P	JWJ	02/24/10 07:22	022310A–3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.506	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.514	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.521	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.506	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.531	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066018 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8141 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10100000	ug/kg		7310	21500	21500	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-36-0	Antimony	738	ug/kg	JN	355	1080	1080	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-38-2	Arsenic	2310	ug/kg	N	215	1080	1080	2	MS	BAJ	03/02/10 15:48	100302-5	949361
7440-39-3	Barium	153000	ug/kg	N	108	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-41-7	Beryllium	805	ug/kg		19.3	96.6	96.6	2	MS	BAJ	03/04/10 17:36	100304-6	959912
7440-43-9	Cadmium	538	ug/kg	U	108	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-70-2	Calcium	2450000	ug/kg		8600	26900	26900	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-47-3	Chromium	18400	ug/kg		168	560	560	1	P	JWJ	02/24/10 07:26	022310A-3	956437
7440-48-4	Cobalt	6200	ug/kg	N	161	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-50-8	Copper	6440	ug/kg		323	1080	1080	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-89-6	Iron	15000000	ug/kg		8600	26900	26900	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-92-1	Lead	12500	ug/kg		269	1080	1080	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-95-4	Magnesium	1940000	ug/kg		9140	32300	32300	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-96-5	Manganese	387000	ug/kg	*	215	1080	1080	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7439-97-6	Mercury	7.58	ug/kg	J	4.48	13.2	13.2	1	AV	JXL1	02/22/10 11:38	022210S1-7	951551
7440-02-0	Nickel	9160	ug/kg	N	108	430	430	2	MS	BAJ	03/02/10 15:48	100302-5	949361
7440-09-7	Potassium	1550000	ug/kg	N	6880	26900	26900	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7782-49-2	Selenium	1080	ug/kg	UN	538	1080	1080	2	MS	BAJ	03/02/10 15:48	100302-5	949361
7440-22-4	Silver	538	ug/kg	U	108	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-23-5	Sodium	92500	ug/kg		7530	26900	26900	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-28-0	Thallium	172	ug/kg	J	58	193	193	2	MS	SKJ	03/03/10 17:40	100302	959912
7440-62-2	Vanadium	31600	ug/kg		108	538	538	1	P	JWJ	02/21/10 02:26	022010C-1	949358
7440-66-6	Zinc	29900	ug/kg		369	1120	1120	1	P	JWJ	02/24/10 07:26	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.532	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.532	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.521	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.511	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.592	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066019 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8135 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10900000	ug/kg		7600	22400	22400	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-36-0	Antimony	1120	ug/kg	UN	369	1120	1120	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-38-2	Arsenic	1830	ug/kg	N	221	1100	1100	2	MS	BAJ	03/02/10 15:50	100302-5	949361
7440-39-3	Barium	214000	ug/kg	N	112	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-41-7	Beryllium	1330	ug/kg		20.2	101	101	2	MS	BAJ	03/04/10 17:38	100304-6	959912
7440-43-9	Cadmium	559	ug/kg	U	112	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-70-2	Calcium	2680000	ug/kg		8940	27900	27900	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-47-3	Chromium	18000	ug/kg		168	560	560	1	P	JWJ	02/24/10 07:29	022310A-3	956437
7440-48-4	Cobalt	4950	ug/kg	N	168	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-50-8	Copper	6820	ug/kg		335	1120	1120	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-89-6	Iron	8060000	ug/kg		8940	27900	27900	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-92-1	Lead	14500	ug/kg		279	1120	1120	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-95-4	Magnesium	2180000	ug/kg		9500	33500	33500	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-96-5	Manganese	326000	ug/kg	*	224	1120	1120	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7439-97-6	Mercury	23.3	ug/kg		4.42	13	13	1	AV	JXLJ	02/22/10 11:39	022210S1-7	951551
7440-02-0	Nickel	10500	ug/kg	N	110	442	442	2	MS	BAJ	03/02/10 15:50	100302-5	949361
7440-09-7	Potassium	1570000	ug/kg	N	7160	27900	27900	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7782-49-2	Selenium	1100	ug/kg	UN	552	1100	1100	2	MS	BAJ	03/02/10 15:50	100302-5	949361
7440-22-4	Silver	559	ug/kg	U	112	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-23-5	Sodium	104000	ug/kg		7830	27900	27900	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-28-0	Thallium	223	ug/kg		60.6	202	202	2	MS	SKJ	03/03/10 17:42	100302	959912
7440-62-2	Vanadium	11800	ug/kg		112	559	559	1	P	JWJ	02/22/10 00:55	022110B-2	949358
7440-66-6	Zinc	36200	ug/kg		370	1120	1120	1	P	JWJ	02/24/10 07:29	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.502	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.508	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.518	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.501	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.556	g	50	mL	03/02/10	BCD1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1543 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246066020 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8144 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 67

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	8100000	ug/kg		9880	29100	29100	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-36-0	Antimony	1450	ug/kg	UN	479	1450	1450	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-38-2	Arsenic	2960	ug/kg	N	264	1320	1320	2	MS	BAJ	03/02/10 15:52	100302-5	949361
7440-39-3	Barium	176000	ug/kg	N	145	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-41-7	Beryllium	1080	ug/kg		26.8	134	134	2	MS	BAJ	03/04/10 17:40	100304-6	959912
7440-43-9	Cadmium	727	ug/kg	U	145	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-70-2	Calcium	2890000	ug/kg		11600	36300	36300	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-47-3	Chromium	13100	ug/kg		219	729	729	1	P	JWJ	02/24/10 07:33	022310A-3	956437
7440-48-4	Cobalt	5390	ug/kg	N	218	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-50-8	Copper	7240	ug/kg		436	1450	1450	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-89-6	Iron	6750000	ug/kg		11600	36300	36300	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-92-1	Lead	19500	ug/kg		363	1450	1450	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-95-4	Magnesium	1850000	ug/kg		12400	43600	43600	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-96-5	Manganese	377000	ug/kg	*	291	1450	1450	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7439-97-6	Mercury	17	ug/kg		5.69	16.7	16.7	1	AV	JXL1	02/22/10 11:41	022210S1-7	951551
7440-02-0	Nickel	9260	ug/kg	N	132	527	527	2	MS	BAJ	03/02/10 15:52	100302-5	949361
7440-09-7	Potassium	1910000	ug/kg	N	9300	36300	36300	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7782-49-2	Selenium	1320	ug/kg	UN	659	1320	1320	2	MS	BAJ	03/02/10 15:52	100302-5	949361
7440-22-4	Silver	727	ug/kg	U	145	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-23-5	Sodium	37200	ug/kg		10200	36300	36300	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-28-0	Thallium	176	ug/kg	J	80.4	268	268	2	MS	SKJ	03/03/10 17:44	100302	959912
7440-62-2	Vanadium	11700	ug/kg		145	727	727	1	P	JWJ	02/22/10 00:59	022110B-2	949358
7440-66-6	Zinc	30200	ug/kg		481	1460	1460	1	P	JWJ	02/24/10 07:33	022310A-3	956437

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949358	949355	SW846 3050B	0.51	g	50	mL	02/17/10	LYH1
949361	949360	SW846 3050B	0.562	g	50	mL	02/17/10	LYH1
951551	951550	SW846 7471A Prep	0.531	g	30	mL	02/19/10	TXB3
956437	956436	SW846 3050B	0.508	g	50	mL	02/23/10	AXG2
959912	959910	SW846 3050B	0.553	g	50	mL	03/02/10	BCD1

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
JCV01										
	Aluminum	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Antimony	457	ug/L	500	ug/L	91.5	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Barium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Cadmium	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Cobalt	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Copper	480	ug/L	500	ug/L	96	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Lead	474	ug/L	500	ug/L	94.8	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Manganese	485	ug/L	500	ug/L	97	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Potassium	2400	ug/L	2500	ug/L	96.1	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Silver	242	ug/L	250	ug/L	96.9	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Sodium	2480	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Vanadium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	20–FEB–10 21:07	022010C–1
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Antimony	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Barium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Cadmium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Calcium	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Copper	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Lead	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Manganese	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Potassium	2540	ug/L	2500	ug/L	101.5	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Silver	261	ug/L	250	ug/L	104.3	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Sodium	2490	ug/L	2500	ug/L	99.7	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	21–FEB–10 23:22	022110B–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Mercury	5.15	ug/L	5	ug/L	103	90.0 – 110.0	AV	22–FEB–10 09:22	022210S1–7
	Chromium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	23–FEB–10 15:08	022310A–3
	Zinc	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	23–FEB–10 15:08	022310A–3
	Arsenic	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	02–MAR–10 13:48	100302–5
	Nickel	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	02–MAR–10 13:48	100302–5
	Selenium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	02–MAR–10 13:48	100302–5
	Thallium	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	02–MAR–10 21:37	100302–4
	Beryllium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	04–MAR–10 16:24	100304–6
CCV01										
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Antimony	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Barium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Cadmium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Calcium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Copper	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Iron	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Lead	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Magnesium	5380	ug/L	5000	ug/L	107.5	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Sodium	10400	ug/L	10000	ug/L	104.5	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–FEB–10 21:30	022010C–1
	Aluminum	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	21–FEB–10 23:45	022110B–2
	Antimony	532	ug/L	500	ug/L	106.5	90.0 – 110.0	P	21–FEB–10 23:45	022110B–2
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	21–FEB–10 23:45	022110B–2
	Cadmium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	21–FEB–10 23:45	022110B–2
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	21–FEB–10 23:45	022110B–2
	Cobalt	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	21–FEB–10 23:45	022110B–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	509	ug/L	500	ug/L	101.9	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Iron	5110	ug/L	5000	ug/L	102.2	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Lead	514	ug/L	500	ug/L	102.7	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Manganese	518	ug/L	500	ug/L	103.5	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Potassium	5320	ug/L	5000	ug/L	106.4	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Silver	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Sodium	10300	ug/L	10000	ug/L	102.9	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	21-FEB-10 23:45	022110B-2
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 - 120.0	AV	22-FEB-10 09:27	022210S1-7
	Chromium	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	23-FEB-10 15:30	022310A-3
	Zinc	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	23-FEB-10 15:30	022310A-3
	Arsenic	50.3	ug/L	50	ug/L	100.7	90.0 - 110.0	MS	02-MAR-10 13:58	100302-5
	Nickel	50.6	ug/L	50	ug/L	101.3	90.0 - 110.0	MS	02-MAR-10 13:58	100302-5
	Selenium	51.6	ug/L	50	ug/L	103.2	90.0 - 110.0	MS	02-MAR-10 13:58	100302-5
	Thallium	49.9	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	02-MAR-10 21:55	100302-4
	Beryllium	53.3	ug/L	50	ug/L	106.5	90.0 - 110.0	MS	04-MAR-10 16:32	100304-6
CCV02										
	Aluminum	5280	ug/L	5000	ug/L	105.5	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Antimony	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Barium	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Calcium	5180	ug/L	5000	ug/L	103.7	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Cobalt	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Copper	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Iron	5300	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Lead	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Magnesium	5430	ug/L	5000	ug/L	108.5	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Manganese	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	20-FEB-10 22:12	022010C-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20–FEB–10 22:12	022010C–1
	Sodium	10500	ug/L	10000	ug/L	105.2	90.0 – 110.0	P	20–FEB–10 22:12	022010C–1
	Vanadium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–FEB–10 22:12	022010C–1
	Aluminum	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Antimony	535	ug/L	500	ug/L	107	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Barium	529	ug/L	500	ug/L	105.9	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Cadmium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Calcium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Cobalt	531	ug/L	500	ug/L	106.3	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Copper	528	ug/L	500	ug/L	105.7	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Iron	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Lead	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Manganese	536	ug/L	500	ug/L	107.3	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Potassium	5320	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Silver	537	ug/L	500	ug/L	107.4	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Sodium	10500	ug/L	10000	ug/L	105.3	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Vanadium	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	22–FEB–10 00:20	022110B–2
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	22–FEB–10 09:47	022210S1–7
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	23–FEB–10 16:12	022310A–3
	Zinc	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	23–FEB–10 16:12	022310A–3
	Arsenic	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	02–MAR–10 14:13	100302–5
	Nickel	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	02–MAR–10 14:13	100302–5
	Selenium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	02–MAR–10 14:13	100302–5
	Thallium	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	02–MAR–10 22:10	100302–4
	Beryllium	53.3	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	04–MAR–10 16:52	100304–6
CCV03										
	Aluminum	5360	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Antimony	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Calcium	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Cobalt	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Iron	5410	ug/L	5000	ug/L	108.3	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Lead	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Magnesium	5520	ug/L	5000	ug/L	110.4	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Manganese	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Silver	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Sodium	10700	ug/L	10000	ug/L	106.6	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20–FEB–10 23:26	022010C–1
	Aluminum	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Antimony	539	ug/L	500	ug/L	107.8	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Barium	527	ug/L	500	ug/L	105.3	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Cadmium	525	ug/L	500	ug/L	105	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Calcium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Cobalt	528	ug/L	500	ug/L	105.7	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Copper	528	ug/L	500	ug/L	105.7	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Iron	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Lead	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Magnesium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Manganese	534	ug/L	500	ug/L	106.8	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Potassium	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Silver	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Sodium	10500	ug/L	10000	ug/L	105.1	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Vanadium	530	ug/L	500	ug/L	106	90.0 – 110.0	P	22–FEB–10 01:06	022110B–2
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	22–FEB–10 10:07	022210S1–7
	Chromium	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	23–FEB–10 16:26	022310A–3
	Zinc	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	23–FEB–10 16:26	022310A–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	02–MAR–10 14:29	100302–5
	Nickel	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	02–MAR–10 14:29	100302–5
	Selenium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	02–MAR–10 14:29	100302–5
	Thallium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	02–MAR–10 22:37	100302–4
	Beryllium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	04–MAR–10 17:07	100304–6
CCV04										
	Aluminum	5260	ug/L	5000	ug/L	105.3	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Antimony	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Cobalt	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Iron	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Lead	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Magnesium	5400	ug/L	5000	ug/L	108	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Sodium	10500	ug/L	10000	ug/L	104.9	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Vanadium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	21–FEB–10 00:03	022010C–1
	Mercury	5.11	ug/L	5	ug/L	102.3	80.0 – 120.0	AV	22–FEB–10 10:27	022210S1–7
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	23–FEB–10 16:39	022310A–3
	Zinc	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	23–FEB–10 16:39	022310A–3
	Arsenic	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	02–MAR–10 14:47	100302–5
	Nickel	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	02–MAR–10 14:47	100302–5
	Selenium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	02–MAR–10 14:47	100302–5
	Thallium	49.6	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	02–MAR–10 23:03	100302–4
	Beryllium	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	04–MAR–10 17:26	100304–6

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Aluminum	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Antimony	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Barium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Cadmium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Cobalt	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Copper	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Iron	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Lead	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Magnesium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Manganese	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Potassium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Silver	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Sodium	10400	ug/L	10000	ug/L	104.1	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Vanadium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	21-FEB-10 00:40	022010C-1
	Mercury	5.2	ug/L	5	ug/L	103.9	80.0 – 120.0	AV	22-FEB-10 10:47	022210S1-7
	Chromium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	23-FEB-10 16:52	022310A-3
	Zinc	485	ug/L	500	ug/L	97	90.0 – 110.0	P	23-FEB-10 16:52	022310A-3
	Arsenic	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	02-MAR-10 15:13	100302-5
	Nickel	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	02-MAR-10 15:13	100302-5
	Selenium	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	02-MAR-10 15:13	100302-5
	Thallium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	02-MAR-10 23:30	100302-4
	Beryllium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	04-MAR-10 17:41	100304-6
CCV06										
	Aluminum	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Antimony	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Cadmium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Calcium	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	21-FEB-10 01:19	022010C-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Iron	5270	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Lead	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Manganese	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Potassium	5110	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Silver	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	21-FEB-10 01:19	022010C-1
	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 - 120.0	AV	22-FEB-10 11:07	022210S1-7
	Chromium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	23-FEB-10 17:17	022310A-3
	Zinc	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	23-FEB-10 17:17	022310A-3
	Arsenic	50.1	ug/L	50	ug/L	100.2	90.0 - 110.0	MS	02-MAR-10 15:33	100302-5
	Nickel	49.8	ug/L	50	ug/L	99.6	90.0 - 110.0	MS	02-MAR-10 15:33	100302-5
	Selenium	50.4	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	02-MAR-10 15:33	100302-5
	Thallium	49.3	ug/L	50	ug/L	98.5	90.0 - 110.0	MS	02-MAR-10 23:56	100302-4
CCV07										
	Aluminum	5190	ug/L	5000	ug/L	103.8	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Antimony	475	ug/L	500	ug/L	95	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Barium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Cadmium	484	ug/L	500	ug/L	96.7	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Calcium	5060	ug/L	5000	ug/L	101.2	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Cobalt	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Copper	483	ug/L	500	ug/L	96.5	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Lead	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1
	Silver	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	21-FEB-10 02:00	022010C-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	10300	ug/L	10000	ug/L	103	90.0 – 110.0	P	21–FEB–10 02:00	022010C–1
	Vanadium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	21–FEB–10 02:00	022010C–1
	Mercury	5.16	ug/L	5	ug/L	103.2	80.0 – 120.0	AV	22–FEB–10 11:27	022210S1–7
	Chromium	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	23–FEB–10 17:45	022310A–3
	Zinc	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	23–FEB–10 17:45	022310A–3
	Arsenic	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	02–MAR–10 15:54	100302–5
	Nickel	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	02–MAR–10 15:54	100302–5
	Selenium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	02–MAR–10 15:54	100302–5
CCV08										
	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Antimony	474	ug/L	500	ug/L	94.9	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Barium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Cadmium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Copper	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Magnesium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Potassium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Sodium	10200	ug/L	10000	ug/L	102.4	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Vanadium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	21–FEB–10 02:37	022010C–1
	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	22–FEB–10 11:48	022210S1–7
	Chromium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	23–FEB–10 18:20	022310A–3
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	23–FEB–10 18:20	022310A–3
CCV09										
	Chromium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	23–FEB–10 19:00	022310A–3
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	23–FEB–10 19:00	022310A–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV10										
	Chromium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	23–FEB–10 19:44	022310A–3
	Zinc	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	23–FEB–10 19:44	022310A–3
CCV11										
	Chromium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	23–FEB–10 20:13	022310A–3
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	23–FEB–10 20:13	022310A–3
CCV12										
	Chromium	466	ug/L	500	ug/L	93.1	90.0 – 110.0	P	23–FEB–10 20:57	022310A–3
	Zinc	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	23–FEB–10 20:57	022310A–3
CCV13										
	Chromium	476	ug/L	500	ug/L	95.2	90.0 – 110.0	P	23–FEB–10 21:36	022310A–3
	Zinc	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	23–FEB–10 21:36	022310A–3
CCV14										
	Chromium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	23–FEB–10 22:15	022310A–3
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	23–FEB–10 22:15	022310A–3
CCV15										
	Chromium	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	23–FEB–10 22:56	022310A–3
	Zinc	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	23–FEB–10 22:56	022310A–3
CCV16										
	Chromium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	23–FEB–10 23:51	022310A–3
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	23–FEB–10 23:51	022310A–3
CCV17										
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	24–FEB–10 00:25	022310A–3
	Zinc	487	ug/L	500	ug/L	97.3	90.0 – 110.0	P	24–FEB–10 00:25	022310A–3
CCV18										
	Chromium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	24–FEB–10 01:13	022310A–3
	Zinc	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	24–FEB–10 01:13	022310A–3
CCV19										
	Chromium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24–FEB–10 01:52	022310A–3
	Zinc	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24–FEB–10 01:52	022310A–3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV20										
	Chromium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	24-FEB-10 02:32	022310A-3
	Zinc	503	ug/L	500	ug/L	100.6	90.0 - 110.0	P	24-FEB-10 02:32	022310A-3
CCV21										
	Chromium	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	24-FEB-10 02:58	022310A-3
	Zinc	507	ug/L	500	ug/L	101.3	90.0 - 110.0	P	24-FEB-10 02:58	022310A-3
CCV22										
	Chromium	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	24-FEB-10 03:42	022310A-3
	Zinc	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	24-FEB-10 03:42	022310A-3
CCV23										
	Chromium	496	ug/L	500	ug/L	99.2	90.0 - 110.0	P	24-FEB-10 04:04	022310A-3
	Zinc	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	24-FEB-10 04:04	022310A-3
CCV24										
	Chromium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	24-FEB-10 04:36	022310A-3
	Zinc	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	24-FEB-10 04:36	022310A-3
CCV25										
	Chromium	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	24-FEB-10 05:02	022310A-3
	Zinc	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	24-FEB-10 05:02	022310A-3
CCV26										
	Chromium	498	ug/L	500	ug/L	99.6	90.0 - 110.0	P	24-FEB-10 05:41	022310A-3
	Zinc	500	ug/L	500	ug/L	100.1	90.0 - 110.0	P	24-FEB-10 05:41	022310A-3
CCV27										
	Chromium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	24-FEB-10 06:21	022310A-3
	Zinc	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	24-FEB-10 06:21	022310A-3
CCV28										
	Chromium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	24-FEB-10 07:01	022310A-3
	Zinc	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	24-FEB-10 07:01	022310A-3
CCV29										
	Chromium	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	24-FEB-10 07:36	022310A-3
	Zinc	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	24-FEB-10 07:36	022310A-3

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.151	ug/L	.2	ug/L	75.5	70.0 - 130.0	AV	22-FEB-10 09:25	022210S1-7
	Nickel	2.26	ug/L	2	ug/L	112.9	70.0 - 130.0	MS	02-MAR-10 13:52	100302-5
	Arsenic	5.99	ug/L	5	ug/L	119.9	70.0 - 130.0	MS	02-MAR-10 13:52	100302-5
	Selenium	5.72	ug/L	5	ug/L	114.3	70.0 - 130.0	MS	02-MAR-10 13:52	100302-5
	Thallium	1.11	ug/L	1	ug/L	111.2	70.0 - 130.0	MS	02-MAR-10 21:44	100302-4
	Beryllium	.614	ug/L	.5	ug/L	122.8	70.0 - 130.0	MS	04-MAR-10 16:27	100304-6
PQL01										
	Aluminum	201	ug/L	200	ug/L	100.5	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Iron	107	ug/L	100	ug/L	107.3	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Lead	8.54	ug/L	10	ug/L	85.4	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Magnesium	314	ug/L	300	ug/L	104.7	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Manganese	10.2	ug/L	10	ug/L	102.3	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Potassium	155	ug/L	150	ug/L	103.4	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Silver	5.53	ug/L	5	ug/L	110.7	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Sodium	315	ug/L	300	ug/L	105.1	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Antimony	8.87	ug/L	10	ug/L	88.7	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Barium	4.95	ug/L	5	ug/L	99	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Cadmium	4.49	ug/L	5	ug/L	89.8	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Cobalt	4.65	ug/L	5	ug/L	93	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Copper	10.7	ug/L	10	ug/L	106.7	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Vanadium	5.24	ug/L	5	ug/L	104.9	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Calcium	209	ug/L	200	ug/L	104.6	70.0 - 130.0	P	20-FEB-10 21:14	022010C-1
	Aluminum	202	ug/L	200	ug/L	100.8	70.0 - 130.0	P	21-FEB-10 23:29	022110B-2
	Iron	107	ug/L	100	ug/L	107.2	70.0 - 130.0	P	21-FEB-10 23:29	022110B-2
	Lead	8.54	ug/L	10	ug/L	85.4	70.0 - 130.0	P	21-FEB-10 23:29	022110B-2
	Magnesium	321	ug/L	300	ug/L	107.1	70.0 - 130.0	P	21-FEB-10 23:29	022110B-2
	Manganese	10.7	ug/L	10	ug/L	106.5	70.0 - 130.0	P	21-FEB-10 23:29	022110B-2
	Potassium	165	ug/L	150	ug/L	110.3	70.0 - 130.0	P	21-FEB-10 23:29	022110B-2
	Silver	5.37	ug/L	5	ug/L	107.5	70.0 - 130.0	P	21-FEB-10 23:29	022110B-2
	Sodium	317	ug/L	300	ug/L	105.7	70.0 - 130.0	P	21-FEB-10 23:29	022110B-2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS4,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Antimony	11.1	ug/L	10	ug/L	110.8	70.0 – 130.0	P	21–FEB–10 23:29	022110B–2
	Barium	5.17	ug/L	5	ug/L	103.4	70.0 – 130.0	P	21–FEB–10 23:29	022110B–2
	Cadmium	4.91	ug/L	5	ug/L	98.2	70.0 – 130.0	P	21–FEB–10 23:29	022110B–2
	Cobalt	4.75	ug/L	5	ug/L	95.1	70.0 – 130.0	P	21–FEB–10 23:29	022110B–2
	Copper	10.8	ug/L	10	ug/L	107.5	70.0 – 130.0	P	21–FEB–10 23:29	022110B–2
	Vanadium	5.28	ug/L	5	ug/L	105.6	70.0 – 130.0	P	21–FEB–10 23:29	022110B–2
	Calcium	197	ug/L	200	ug/L	98.3	70.0 – 130.0	P	21–FEB–10 23:29	022110B–2
	Chromium	4.88	ug/L	5	ug/L	97.7	70.0 – 130.0	P	23–FEB–10 15:15	022310A–3
	Zinc	9.77	ug/L	10	ug/L	97.7	70.0 – 130.0	P	23–FEB–10 15:15	022310A–3
PQL02										
	Chromium	4.8	ug/L	5	ug/L	96	70.0 – 130.0	P	23–FEB–10 16:16	022310A–3
	Zinc	11.7	ug/L	10	ug/L	117.4	70.0 – 130.0	P	23–FEB–10 16:16	022310A–3

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 21:10	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 21:10	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 21:10	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 21:10	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 21:10	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 21:10	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 21:10	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:10	022010C-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 23:25	022110B-2
	Antimony	5.6	+/-10	J	3.3	10.0	SOL	P	21-FEB-10 23:25	022110B-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 23:25	022110B-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 23:25	022110B-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 23:25	022110B-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 23:25	022110B-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 23:25	022110B-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 23:25	022110B-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 23:25	022110B-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 23:25	022110B-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 23:25	022110B-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 23:25	022110B-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 23:25	022110B-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 23:25	022110B-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 23:25	022110B-2
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	22-FEB-10 09:23	022210S1-7

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 15:12	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 15:12	022310A-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	02-MAR-10 13:50	100302-5
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 13:50	100302-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 13:50	100302-5
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	02-MAR-10 21:41	100302-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	04-MAR-10 16:25	100304-6
CCB01										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 21:34	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 21:34	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 21:34	022010C-1
	Lead	6.22	+/-10	J	2.5	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 21:34	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 21:34	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 21:34	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Sodium	80.39	+/-250	J	70.0	250	SOL	P	20-FEB-10 21:34	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 21:34	022010C-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 23:49	022110B-2
	Antimony	6.13	+/-10	J	3.3	10.0	SOL	P	21-FEB-10 23:49	022110B-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 23:49	022110B-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 23:49	022110B-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 23:49	022110B-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 23:49	022110B-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 23:49	022110B-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 23:49	022110B-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	7.41	+/-10	J	2.5	10.0	SOL	P	21-FEB-10 23:49	022110B-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 23:49	022110B-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 23:49	022110B-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 23:49	022110B-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 23:49	022110B-2
	Sodium	81.46	+/-250	J	70.0	250	SOL	P	21-FEB-10 23:49	022110B-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 23:49	022110B-2
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	22-FEB-10 09:28	022210S1-7
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 15:34	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 15:34	022310A-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	02-MAR-10 14:00	100302-5
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 14:00	100302-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 14:00	100302-5
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	02-MAR-10 21:59	100302-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	04-MAR-10 16:33	100304-6
CCB02										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	20-FEB-10 22:16	022010C-1
	Antimony	4.28	+/-10	J	3.3	10.0	SOL	P	20-FEB-10 22:16	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 22:16	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	20-FEB-10 22:16	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 22:16	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 22:16	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 22:16	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 22:16	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 22:16	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 22:16	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 22:16	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 22:16	022010C-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	22–FEB–10 00:24	022110B–2
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	22–FEB–10 00:24	022110B–2
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	22–FEB–10 00:24	022110B–2
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	22–FEB–10 00:24	022110B–2
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	22–FEB–10 00:24	022110B–2
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	22–FEB–10 00:24	022110B–2
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	22–FEB–10 00:24	022110B–2
	Iron	80.0	+/–250	U	80.0	250	SOL	P	22–FEB–10 00:24	022110B–2
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	22–FEB–10 00:24	022110B–2
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	22–FEB–10 00:24	022110B–2
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	22–FEB–10 00:24	022110B–2
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	22–FEB–10 00:24	022110B–2
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	22–FEB–10 00:24	022110B–2
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	22–FEB–10 00:24	022110B–2
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	22–FEB–10 00:24	022110B–2
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 09:48	022210S1–7
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	23–FEB–10 16:19	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	23–FEB–10 16:19	022310A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 14:15	100302–5
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 14:15	100302–5
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 14:15	100302–5
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	02–MAR–10 22:14	100302–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	04–MAR–10 16:54	100304–6
CCB03										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	20–FEB–10 23:30	022010C–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	20–FEB–10 23:30	022010C–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 23:30	022010C–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	20–FEB–10 23:30	022010C–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	20–FEB–10 23:30	022010C–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	20–FEB–10 23:30	022010C–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	20–FEB–10 23:30	022010C–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/-250	U	80.0	250	SOL	P	20-FEB-10 23:30	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	20-FEB-10 23:30	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	20-FEB-10 23:30	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	20-FEB-10 23:30	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	20-FEB-10 23:30	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 23:30	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	20-FEB-10 23:30	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	20-FEB-10 23:30	022010C-1
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	22-FEB-10 01:10	022110B-2
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	22-FEB-10 01:10	022110B-2
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	22-FEB-10 01:10	022110B-2
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	22-FEB-10 01:10	022110B-2
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	22-FEB-10 01:10	022110B-2
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	22-FEB-10 01:10	022110B-2
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	22-FEB-10 01:10	022110B-2
	Iron	80.0	+/-250	U	80.0	250	SOL	P	22-FEB-10 01:10	022110B-2
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	22-FEB-10 01:10	022110B-2
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	22-FEB-10 01:10	022110B-2
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	22-FEB-10 01:10	022110B-2
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	22-FEB-10 01:10	022110B-2
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	22-FEB-10 01:10	022110B-2
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	22-FEB-10 01:10	022110B-2
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	22-FEB-10 01:10	022110B-2
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	22-FEB-10 10:09	022210S1-7
	Chromium	13.82	+/-5		1.5	5.0	SOL	P	23-FEB-10 16:30	022310A-3
	Zinc	14.12	+/-10		3.3	10.0	SOL	P	23-FEB-10 16:30	022310A-3
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	02-MAR-10 14:31	100302-5
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 14:31	100302-5
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 14:31	100302-5
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	02-MAR-10 22:41	100302-4
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	04-MAR-10 17:09	100304-6

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	21–FEB–10 00:07	022010C–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	21–FEB–10 00:07	022010C–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 00:07	022010C–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 00:07	022010C–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	21–FEB–10 00:07	022010C–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	21–FEB–10 00:07	022010C–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	21–FEB–10 00:07	022010C–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	21–FEB–10 00:07	022010C–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	21–FEB–10 00:07	022010C–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	21–FEB–10 00:07	022010C–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	21–FEB–10 00:07	022010C–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	21–FEB–10 00:07	022010C–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 00:07	022010C–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	21–FEB–10 00:07	022010C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 00:07	022010C–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 10:29	022210S1–7
	Chromium	10.71	+/–5		1.5	5.0	SOL	P	23–FEB–10 16:43	022310A–3
	Zinc	10.88	+/–10		3.3	10.0	SOL	P	23–FEB–10 16:43	022310A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 14:49	100302–5
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 14:49	100302–5
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 14:49	100302–5
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	02–MAR–10 23:07	100302–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	04–MAR–10 17:28	100304–6
CCB05										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	21–FEB–10 00:44	022010C–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	21–FEB–10 00:44	022010C–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 00:44	022010C–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 00:44	022010C–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	21–FEB–10 00:44	022010C–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	21–FEB–10 00:44	022010C–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	21–FEB–10 00:44	022010C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1543

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	80.0	+/–250	U	80.0	250	SOL	P	21–FEB–10 00:44	022010C–1
	Lead	–2.8	+/–10	J	2.5	10.0	SOL	P	21–FEB–10 00:44	022010C–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	21–FEB–10 00:44	022010C–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	21–FEB–10 00:44	022010C–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	21–FEB–10 00:44	022010C–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 00:44	022010C–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	21–FEB–10 00:44	022010C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 00:44	022010C–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 10:49	022210S1–7
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	23–FEB–10 16:56	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	23–FEB–10 16:56	022310A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 15:15	100302–5
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 15:15	100302–5
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 15:15	100302–5
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	02–MAR–10 23:33	100302–4
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	04–MAR–10 17:43	100304–6
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	21–FEB–10 01:23	022010C–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	21–FEB–10 01:23	022010C–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 01:23	022010C–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 01:23	022010C–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	21–FEB–10 01:23	022010C–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	21–FEB–10 01:23	022010C–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	21–FEB–10 01:23	022010C–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	21–FEB–10 01:23	022010C–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	21–FEB–10 01:23	022010C–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	21–FEB–10 01:23	022010C–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	21–FEB–10 01:23	022010C–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	21–FEB–10 01:23	022010C–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 01:23	022010C–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	21–FEB–10 01:23	022010C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 01:23	022010C–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 11:09	022210S1–7
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	23–FEB–10 17:20	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	23–FEB–10 17:20	022310A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 15:35	100302–5
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 15:35	100302–5
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 15:35	100302–5
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	03–MAR–10 00:00	100302–4
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	21–FEB–10 02:03	022010C–1
	Antimony	5.46	+/–10	J	3.3	10.0	SOL	P	21–FEB–10 02:03	022010C–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 02:03	022010C–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 02:03	022010C–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	21–FEB–10 02:03	022010C–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	21–FEB–10 02:03	022010C–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	21–FEB–10 02:03	022010C–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	21–FEB–10 02:03	022010C–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	21–FEB–10 02:03	022010C–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	21–FEB–10 02:03	022010C–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	21–FEB–10 02:03	022010C–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	21–FEB–10 02:03	022010C–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 02:03	022010C–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	21–FEB–10 02:03	022010C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	21–FEB–10 02:03	022010C–1
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 11:29	022210S1–7
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	23–FEB–10 17:48	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	23–FEB–10 17:48	022310A–3
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 15:56	100302–5
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 15:56	100302–5
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 15:56	100302–5

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB08										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	21-FEB-10 02:40	022010C-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 02:40	022010C-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	21-FEB-10 02:40	022010C-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	21-FEB-10 02:40	022010C-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	21-FEB-10 02:40	022010C-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	21-FEB-10 02:40	022010C-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	21-FEB-10 02:40	022010C-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	21-FEB-10 02:40	022010C-1
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	22-FEB-10 11:49	022210S1-7
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 18:24	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 18:24	022310A-3
CCB09										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 19:04	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 19:04	022310A-3
CCB10										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 19:48	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 19:48	022310A-3
CCB11										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 20:17	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 20:17	022310A-3
CCB12										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 21:01	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 21:01	022310A-3

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB13										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 21:40	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 21:40	022310A-3
CCB14										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 22:19	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 22:19	022310A-3
CCB15										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 22:59	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 22:59	022310A-3
CCB16										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	23-FEB-10 23:54	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	23-FEB-10 23:54	022310A-3
CCB17										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 00:28	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 00:28	022310A-3
CCB18										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 01:16	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 01:16	022310A-3
CCB19										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 01:56	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 01:56	022310A-3
CCB20										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 02:36	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 02:36	022310A-3
CCB21										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 03:01	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 03:01	022310A-3
CCB22										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 03:46	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 03:46	022310A-3
CCB23										
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 04:08	022310A-3
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 04:08	022310A-3

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1543

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB24										
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 04:40	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 04:40	022310A–3
CCB25										
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 05:05	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 05:05	022310A–3
CCB26										
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 05:45	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 05:45	022310A–3
CCB27										
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 06:25	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 06:25	022310A–3
CCB28										
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 07:04	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 07:04	022310A–3
CCB29										
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 07:40	022310A–3
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 07:40	022310A–3

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1543

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202033968								
	Aluminum	19600	ug/kg	+/-19200		P	6540	19200
	Antimony	503	ug/kg	+/-962	J	P	317	962
	Barium	480	ug/kg	+/-481	J	P	96.2	481
	Cadmium	103	ug/kg	+/-481	J	P	96.2	481
	Calcium	22800	ug/kg	+/-24000	J	P	7690	24000
	Cobalt	231	ug/kg	+/-481	J	P	144	481
	Copper	542	ug/kg	+/-962	J	P	288	962
	Iron	39000	ug/kg	+/-24000		P	7690	24000
	Lead	240	ug/kg	+/-962	U	P	240	962
	Magnesium	9030	ug/kg	+/-28800	J	P	8170	28800
	Manganese	1320	ug/kg	+/-962		P	192	962
	Potassium	10600	ug/kg	+/-24000	J	P	6150	24000
	Silver	118	ug/kg	+/-481	J	P	96.2	481
	Sodium	6730	ug/kg	+/-24000	U	P	6730	24000
	Vanadium	220	ug/kg	+/-481	J	P	96.2	481
1202033978								
	Arsenic	245	ug/kg	+/-978	J	MS	196	978
	Beryllium	19.3	ug/kg	+/-96.3	U	MS	19.3	96.3
	Nickel	293	ug/kg	+/-391	J	MS	97.8	391
	Selenium	489	ug/kg	+/-978	U	MS	489	978
	Thallium	57.8	ug/kg	+/-193	U	MS	57.8	193
1202039295								
	Mercury	3.97	ug/kg	+/-11.7	U	AV	3.97	11.7
1202050830								
	Chromium	149	ug/kg	+/-495	U	P	149	495
	Zinc	327	ug/kg	+/-990	U	P	327	990

METALS
-4-
Interference Check Sample

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	514000	ug/L	500000	ug/L	103	80.0 - 120.0	20-FEB-10 21:18	022010C-1
	Antimony	-16.2	ug/L					20-FEB-10 21:18	022010C-1
	Barium	7.42	ug/L					20-FEB-10 21:18	022010C-1
	Cadmium	-6.77	ug/L					20-FEB-10 21:18	022010C-1
	Calcium	491000	ug/L	500000	ug/L	98.1	80.0 - 120.0	20-FEB-10 21:18	022010C-1
	Cobalt	2.52	ug/L					20-FEB-10 21:18	022010C-1
	Copper	-0.461	ug/L					20-FEB-10 21:18	022010C-1
	Iron	192000	ug/L	200000	ug/L	95.9	80.0 - 120.0	20-FEB-10 21:18	022010C-1
	Lead	4.99	ug/L					20-FEB-10 21:18	022010C-1
	Magnesium	495000	ug/L	500000	ug/L	98.9	80.0 - 120.0	20-FEB-10 21:18	022010C-1
	Manganese	9.86	ug/L					20-FEB-10 21:18	022010C-1
	Potassium	-19.3	ug/L					20-FEB-10 21:18	022010C-1
	Silver	-4.62	ug/L					20-FEB-10 21:18	022010C-1
	Sodium	38.1	ug/L					20-FEB-10 21:18	022010C-1
	Vanadium	-4.3	ug/L					20-FEB-10 21:18	022010C-1
ICSAB01									
	Aluminum	520000	ug/L	500000	ug/L	104	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Antimony	489	ug/L	500	ug/L	97.7	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Barium	488	ug/L	500	ug/L	97.7	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Cadmium	446	ug/L	500	ug/L	89.3	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Calcium	492000	ug/L	500000	ug/L	98.5	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Cobalt	424	ug/L	500	ug/L	84.9	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Copper	527	ug/L	500	ug/L	105	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Iron	191000	ug/L	200000	ug/L	95.6	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Lead	472	ug/L	500	ug/L	94.4	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Magnesium	497000	ug/L	500000	ug/L	99.3	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Manganese	475	ug/L	500	ug/L	95	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Potassium	5020	ug/L	5000	ug/L	100	80.0 - 120.0	20-FEB-10 21:20	022010C-1
	Silver	251	ug/L	250	ug/L	101	80.0 - 120.0	20-FEB-10 21:20	022010C-1

METALS
–4–
Interference Check Sample

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Sodium	5190	ug/L	5000	ug/L	104	80.0 – 120.0	20–FEB–10 21:20	022010C–1
	Vanadium	503	ug/L	500	ug/L	101	80.0 – 120.0	20–FEB–10 21:20	022010C–1

METALS
–4–
Interference Check Sample

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	516000	ug/L	500000	ug/L	103	80.0 – 120.0	21–FEB–10 23:33	022110B–2
	Antimony	–9.84	ug/L					21–FEB–10 23:33	022110B–2
	Barium	7.99	ug/L					21–FEB–10 23:33	022110B–2
	Cadmium	–6.34	ug/L					21–FEB–10 23:33	022110B–2
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	21–FEB–10 23:33	022110B–2
	Cobalt	2.79	ug/L					21–FEB–10 23:33	022110B–2
	Copper	13.5	ug/L					21–FEB–10 23:33	022110B–2
	Iron	188000	ug/L	200000	ug/L	94.1	80.0 – 120.0	21–FEB–10 23:33	022110B–2
	Lead	9.66	ug/L					21–FEB–10 23:33	022110B–2
	Magnesium	488000	ug/L	500000	ug/L	97.6	80.0 – 120.0	21–FEB–10 23:33	022110B–2
	Manganese	8.21	ug/L					21–FEB–10 23:33	022110B–2
	Potassium	–14.5	ug/L					21–FEB–10 23:33	022110B–2
	Silver	–7.98	ug/L					21–FEB–10 23:33	022110B–2
	Sodium	36.0	ug/L					21–FEB–10 23:33	022110B–2
	Vanadium	–2.37	ug/L					21–FEB–10 23:33	022110B–2
ICSAB01									
	Aluminum	514000	ug/L	500000	ug/L	103	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Antimony	546	ug/L	500	ug/L	109	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Barium	527	ug/L	500	ug/L	105	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Cadmium	480	ug/L	500	ug/L	96.1	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Calcium	486000	ug/L	500000	ug/L	97.2	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Cobalt	458	ug/L	500	ug/L	91.7	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Copper	580	ug/L	500	ug/L	116	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Iron	189000	ug/L	200000	ug/L	94.6	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Lead	508	ug/L	500	ug/L	102	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Magnesium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Manganese	508	ug/L	500	ug/L	102	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Potassium	5210	ug/L	5000	ug/L	104	80.0 – 120.0	21–FEB–10 23:35	022110B–2
	Silver	269	ug/L	250	ug/L	108	80.0 – 120.0	21–FEB–10 23:35	022110B–2

METALS
-4-
Interference Check Sample

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Sodium	5210	ug/L	5000	ug/L	104	80.0 - 120.0	21-FEB-10 23:35	022110B-2
	Vanadium	544	ug/L	500	ug/L	109	80.0 - 120.0	21-FEB-10 23:35	022110B-2

METALS
-4-
Interference Check Sample

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Chromium	-0.356	ug/L					23-FEB-10 15:19	022310A-3
	Zinc	-9.04	ug/L					23-FEB-10 15:19	022310A-3
ICSAB01									
	Chromium	489	ug/L	500	ug/L	97.9	80.0 - 120.0	23-FEB-10 15:21	022310A-3
	Zinc	465	ug/L	500	ug/L	93.1	80.0 - 120.0	23-FEB-10 15:21	022310A-3

METALS
–4–
Interference Check Sample

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	–0.019	ug/L					02–MAR–10 21:48	100302–4
ICSAB01									
	Thallium	18.4	ug/L	20	ug/L	92.2	80.0 – 120.0	02–MAR–10 21:52	100302–4

METALS
–4–
Interference Check Sample

SDG No: 10–1543

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.021	ug/L					02–MAR–10 13:54	100302–5
	Nickel	3.75	ug/L					02–MAR–10 13:54	100302–5
	Selenium	–1.23	ug/L					02–MAR–10 13:54	100302–5
ICSAB01									
	Arsenic	21.8	ug/L	20	ug/L	109	80.0 – 120.0	02–MAR–10 13:56	100302–5
	Nickel	23.2	ug/L	23.31	ug/L	99.5	80.0 – 120.0	02–MAR–10 13:56	100302–5
	Selenium	19.2	ug/L	20	ug/L	95.8	80.0 – 120.0	02–MAR–10 13:56	100302–5

METALS
-4-
Interference Check Sample

SDG No: 10-1543

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Beryllium	0.1	ug/L					04-MAR-10 16:28	100304-6
ICSAB01									
	Beryllium	19.4	ug/L	20	ug/L	96.9	80.0 - 120.0	04-MAR-10 16:30	100304-6

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1543 **Client ID** RE15-10-8129S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 246066001 **Spike ID:** 1202033971

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		23100000		14100000		561000	1610	N/A	P
Antimony	ug/kg	75-125	41600		898	J	56100	72.6	N	P
Barium	ug/kg	75-125	258000		195000		56100	113		P
Cadmium	ug/kg	75-125	43600		115	U	56100	77.8		P
Calcium	ug/kg		3110000		2920000		561000	34.7	N/A	P
Cobalt	ug/kg	75-125	49000		7420		56100	74.2	N	P
Copper	ug/kg	75-125	67400		8030		56100	106		P
Iron	ug/kg		18600000		16500000		561000	371	N/A	P
Lead	ug/kg	75-125	59800		15300		56100	79.4		P
Magnesium	ug/kg		3360000		2470000		561000	160	N/A	P
Manganese	ug/kg		467000		429000		56100	68.5	N/A	P
Potassium	ug/kg	75-125	2590000		1780000		561000	145	N	P
Silver	ug/kg	75-125	45600		115	U	56100	81.3		P
Sodium	ug/kg	75-125	557000		84800		561000	84.3		P
Vanadium	ug/kg	75-125	90400		34000		56100	101		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1543 **Client ID** RE15–10–8129SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 246066001 **Spike ID:** 1202033972

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Potassium	ug/kg	75–125	2530000		1780000		559000	134	N	P
Silver	ug/kg	75–125	45100		115	U	55900	80.6		P
Sodium	ug/kg	75–125	550000		84800		559000	83.2		P
Vanadium	ug/kg	75–125	89700		34000		55900	99.6		P
Aluminum	ug/kg		23300000		14100000		559000	1640	N/A	P
Antimony	ug/kg	75–125	40500		898	J	55900	70.7	N	P
Barium	ug/kg	75–125	267000		195000		55900	130	N	P
Cadmium	ug/kg	75–125	43100		115	U	55900	77.1		P
Calcium	ug/kg		3130000		2920000		559000	38.3	N/A	P
Cobalt	ug/kg	75–125	49700		7420		55900	75.7		P
Copper	ug/kg	75–125	66200		8030		55900	104		P
Iron	ug/kg		18600000		16500000		559000	373	N/A	P
Lead	ug/kg	75–125	60200		15300		55900	80.2		P
Magnesium	ug/kg		3330000		2470000		559000	154	N/A	P
Manganese	ug/kg		580000		429000		55900	270	N/A	P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1543 **Client ID** RE15–10–8129S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 246066001 **Spike ID:** 1202033981

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9970		3210		9040	74.8	N	MS
Beryllium	ug/kg	75–125	7020		1160		5470	107		MS
Nickel	ug/kg	75–125	15500		10900		5650	81.3		MS
Selenium	ug/kg	75–125	742	J	538	U	2260	32.8	N	MS
Thallium	ug/kg	75–125	10700		223		10900	95.9		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1543 **Client ID** RE15–10–8129SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 246066001 **Spike ID:** 1202033982

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	9420		3210		8880	69.9	N	MS
Beryllium	ug/kg	75–125	6860		1160		5410	105		MS
Nickel	ug/kg	75–125	14700		10900		5550	69.2	N	MS
Selenium	ug/kg	75–125	656	J	538	U	2220	29.5	N	MS
Thallium	ug/kg	75–125	10200		223		10800	92.7		MS

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1543 **Client ID** RE15-10-8129S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 87

Sample ID: 246066001 **Spike ID:** 1202039298

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	155		12.8		130	109		AV

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–1543	**Client ID**	RE15–10–8129SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	87
Sample ID:	246066001	**Spike ID:**	1202039300

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	142		12.8		117	110		AV

METALS
–5a–

Matrix Spike Summary

SDG NO.	10–1543	**Client ID**	RE15–10–8129S
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	87
Sample ID:	246066001	**Spike ID:**	1202050833

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Chromium	ug/kg	75–125	74700		13900		57000	107		P
Zinc	ug/kg	75–125	92400		30600		57000	108		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO.	10–1543	**Client ID**	RE15–10–8129SD
Contract:	LANL01004	**Level:**	Low
Matrix:	SOIL	**% Solids:**	87
Sample ID:	246066001	**Spike ID:**	1202050835

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Chromium	ug/kg	75–125	74000		13900		57000	105		P
Zinc	ug/kg	75–125	93700		30600		57000	111		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8129D

Sample ID: 246066001 **Duplicate ID:** 1202033969 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	14100000		13700000		2.88		P
Antimony	ug/kg	+/–1120	898	J	1210		29.8		P
Barium	ug/kg	+/–20%	195000		194000		.53		P
Cadmium	ug/kg		115	U	112	U			P
Calcium	ug/kg	+/–20%	2920000		2610000		11.1		P
Cobalt	ug/kg	+/–20%	7420		6560		12.3		P
Copper	ug/kg	+/–20%	8030		8380		4.3		P
Iron	ug/kg	+/–20%	16500000		15700000		5.21		P
Lead	ug/kg	+/–20%	15300		14800		3.79		P
Magnesium	ug/kg	+/–20%	2470000		2390000		3.18		P
Manganese	ug/kg	+/–20%	429000		347000		21.1	*	P
Potassium	ug/kg	+/–20%	1780000		1760000		.815		P
Silver	ug/kg		115	U	112	U			P
Sodium	ug/kg	+/–28000	84800		83800		1.23		P
Vanadium	ug/kg	+/–20%	34000		31300		8.38		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8129SD

Sample ID: 1202033971 **Duplicate ID:** 1202033972 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20	23100000		23300000		.699		P
Antimony	ug/kg	+/–20	41600		40500		2.8		P
Barium	ug/kg	+/–20	258000		267000		3.59		P
Cadmium	ug/kg	+/–20	43600		43100		1.11		P
Calcium	ug/kg	+/–20	3110000		3130000		.624		P
Cobalt	ug/kg	+/–20	49000		49700		1.44		P
Copper	ug/kg	+/–20	67400		66200		1.85		P
Iron	ug/kg	+/–20	18600000		18600000		.0167		P
Lead	ug/kg	+/–20	59800		60200		.573		P
Magnesium	ug/kg	+/–20	3360000		3330000		1.03		P
Manganese	ug/kg	+/–20	467000		580000		21.5	*	P
Potassium	ug/kg	+/–20	2590000		2530000		2.55		P
Silver	ug/kg	+/–20	45600		45100		1.02		P
Sodium	ug/kg	+/–20	557000		550000		1.27		P
Vanadium	ug/kg	+/–20	90400		89700		.791		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1543

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-8129D

Sample ID: 246066001 **Duplicate ID:** 1202033979 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/-1090	3210		2920		9.49		MS
Beryllium	ug/kg	+/-20%	1160		1130		2.89		MS
Nickel	ug/kg	+/-20%	10900		10400		4.49		MS
Selenium	ug/kg		538	U	546	U			MS
Thallium	ug/kg	+/-211	223		198	J	11.9		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8129SD

Sample ID: 1202033981 **Duplicate ID:** 1202033982 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	9970		9420		5.7		MS
Beryllium	ug/kg	+/–20	7020		6860		2.42		MS
Nickel	ug/kg	+/–20	15500		14700		4.96		MS
Selenium	ug/kg	+/–20	742	J	656	J	12.4		MS
Thallium	ug/kg	+/–20	10700		10200		4.44		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8129D

Sample ID: 246066001 **Duplicate ID:** 1202039297 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–12.5	12.8		13.9		8.54		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8129SD

Sample ID: 1202039298 **Duplicate ID:** 1202039300 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	155		142		8.9		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8129D

Sample ID: 246066001 **Duplicate ID:** 1202050832 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Chromium	ug/kg	+/–20%	13900		15400		10.4		P
Zinc	ug/kg	+/–20%	30600		32600		6.47		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1543

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8129SD

Sample ID: 1202050833 **Duplicate ID:** 1202050835 **Percent Solids for Dup:** 87

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Chromium	ug/kg	+/–20	74700		74000		.916		P
Zinc	ug/kg	+/–20	92400		93700		1.34		P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1543

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033973								
	Aluminum	ug/kg	10500000	9060000		86	56-144	P
	Antimony	ug/kg	174000	160000		92.3	71-130	P
	Barium	ug/kg	199000	196000		98.5	80-120	P
	Cadmium	ug/kg	60900	60400		99.1	81-120	P
	Calcium	ug/kg	9910000	10500000		106	83-117	P
	Cobalt	ug/kg	91600	95600		104	81-120	P
	Copper	ug/kg	175000	186000		107	81-118	P
	Iron	ug/kg	18100000	19600000		108	51-149	P
	Lead	ug/kg	86300	84800		98.3	79-121	P
	Magnesium	ug/kg	4020000	4040000		101	79-122	P
	Manganese	ug/kg	560000	564000		101	81-119	P
	Potassium	ug/kg	4320000	4120000		95.4	74-127	P
	Silver	ug/kg	30200	31200		103	66-134	P
	Sodium	ug/kg	1020000	1060000		103	74-127	P
	Vanadium	ug/kg	115000	126000		109	79-121	P

METALS
--7--
Laboratory Control Sample Summary

SDG NO. 10-1543

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

SDG NO. 10-1543

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033983								
	Arsenic	ug/kg	105000	112000		107	78-123	MS
	Beryllium	ug/kg	77600	86100		111	84-116	MS
	Nickel	ug/kg	135000	138000		102	78-123	MS
	Selenium	ug/kg	289000	302000		105	77-123	MS
	Thallium	ug/kg	121000	130000		108	78-122	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1543

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202039296								
	Mercury	ug/kg	5150	5680		110	71.6-128.3	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1543

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202050831								
	Chromium	ug/kg	236000	259000		110	80–120	P
	Zinc	ug/kg	594000	610000		103	80–121	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1543 **Client ID** RE15-10-8129L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246066001 **Serial Dilution ID:** 1202033970

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	123000		128000		4.07		10	P
Antimony	7.84	J	16.5	U	100			P
Barium	1700		1730		1.76		10	P
Cadmium	1	U	5	U				P
Calcium	25500		26700		4.51		10	P
Cobalt	64.8		65.5		1.08			P
Copper	70.1		69.5		.856			P
Iron	144000		153000		6.25		10	P
Lead	134		131		2.24		10	P
Magnesium	21500		22700		5.58		10	P
Manganese	3740		3870		3.48		10	P
Potassium	15500		16300		4.84		10	P
Silver	1	U	5	U				P
Sodium	741		795	J	7.29			P
Vanadium	297		299		.673		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1543 **Client ID** RE15–10–8129L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246066001 **Serial Dilution ID:** 1202033980

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	14.9		16.5	J	10.4			MS
Beryllium	5.54		5.55		.181			MS
Nickel	50.5		55.5		9.9		10	MS
Selenium	2.5	U	12.5	U				MS
Thallium	1.06		1.5	U	100			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1543 **Client ID** RE15-10-8129L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246066001 **Serial Dilution ID:** 1202039299

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.204		.34	U	100			AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1543 **Client ID** RE15-10-8129L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246066001 **Serial Dilution ID:** 1202050834

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Chromium	121		122		.413		10	P
Zinc	267		271		1.5		10	P

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1543 **Method Type** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949355						
1202033968	MB for batch 949355	MB	S	17-FEB-10	.52g	50mL	
1202033973	LCS for batch 949355	LCS	S	17-FEB-10	.506g	50mL	
1202033971	RE15-10-8129S	MS	S	17-FEB-10	.515g	50mL	
1202033972	RE15-10-8129SD	MSD	S	17-FEB-10	.516g	50mL	
1202033969	RE15-10-8129D	DUP	S	17-FEB-10	.515g	50mL	
246066001	RE15-10-8129	SAMPLE	S	17-FEB-10	.504g	50mL	
246066002	RE15-10-8131	SAMPLE	S	17-FEB-10	.512g	50mL	
246066003	RE15-10-8130	SAMPLE	S	17-FEB-10	.559g	50mL	
246066004	RE15-10-8127	SAMPLE	S	17-FEB-10	.528g	50mL	
246066005	RE15-10-8128	SAMPLE	S	17-FEB-10	.516g	50mL	
246066006	RE15-10-8126	SAMPLE	S	17-FEB-10	.514g	50mL	
246066007	RE15-10-8140	SAMPLE	S	17-FEB-10	.517g	50mL	
246066008	RE15-10-8147	SAMPLE	S	17-FEB-10	.503g	50mL	
246066009	RE15-10-8142	SAMPLE	S	17-FEB-10	.507g	50mL	
246066010	RE15-10-8146	SAMPLE	S	17-FEB-10	.531g	50mL	
246066011	RE15-10-8136	SAMPLE	S	17-FEB-10	.535g	50mL	
246066012	RE15-10-8139	SAMPLE	S	17-FEB-10	.501g	50mL	
246066013	RE15-10-8134	SAMPLE	S	17-FEB-10	.538g	50mL	
246066014	RE15-10-8137	SAMPLE	S	17-FEB-10	.543g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1543 **Method Type** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246066015	RE15-10-8143	SAMPLE	S	17-FEB-10	.507g	50mL	
246066016	RE15-10-8138	SAMPLE	S	17-FEB-10	.526g	50mL	
246066017	RE15-10-8145	SAMPLE	S	17-FEB-10	.506g	50mL	
246066018	RE15-10-8141	SAMPLE	S	17-FEB-10	.532g	50mL	
246066019	RE15-10-8135	SAMPLE	S	17-FEB-10	.502g	50mL	
246066020	RE15-10-8144	SAMPLE	S	17-FEB-10	.51g	50mL	
Batch Number 956436							
1202050830	MB for batch 956436	MB	S	23-FEB-10	.505g	50mL	
1202050831	LCS for batch 956436	LCS	S	23-FEB-10	.505g	50mL	
1202050833	RE15-10-8129S	MS	S	23-FEB-10	.506g	50mL	
1202050835	RE15-10-8129SD	MSD	S	23-FEB-10	.506g	50mL	
1202050832	RE15-10-8129D	DUP	S	23-FEB-10	.517g	50mL	
246066001	RE15-10-8129	SAMPLE	S	23-FEB-10	.504g	50mL	
246066002	RE15-10-8131	SAMPLE	S	23-FEB-10	.519g	50mL	
246066003	RE15-10-8130	SAMPLE	S	23-FEB-10	.507g	50mL	
246066004	RE15-10-8127	SAMPLE	S	23-FEB-10	.511g	50mL	
246066005	RE15-10-8128	SAMPLE	S	23-FEB-10	.5g	50mL	
246066006	RE15-10-8126	SAMPLE	S	23-FEB-10	.505g	50mL	
246066007	RE15-10-8140	SAMPLE	S	23-FEB-10	.518g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1543 **Method Type** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246066008	RE15-10-8147	SAMPLE	S	23-FEB-10	.516g	50mL	
246066009	RE15-10-8142	SAMPLE	S	23-FEB-10	.5g	50mL	
246066010	RE15-10-8146	SAMPLE	S	23-FEB-10	.529g	50mL	
246066011	RE15-10-8136	SAMPLE	S	23-FEB-10	.5g	50mL	
246066012	RE15-10-8139	SAMPLE	S	23-FEB-10	.507g	50mL	
246066013	RE15-10-8134	SAMPLE	S	23-FEB-10	.53g	50mL	
246066014	RE15-10-8137	SAMPLE	S	23-FEB-10	.514g	50mL	
246066015	RE15-10-8143	SAMPLE	S	23-FEB-10	.501g	50mL	
246066016	RE15-10-8138	SAMPLE	S	23-FEB-10	.513g	50mL	
246066017	RE15-10-8145	SAMPLE	S	23-FEB-10	.506g	50mL	
246066018	RE15-10-8141	SAMPLE	S	23-FEB-10	.511g	50mL	
246066019	RE15-10-8135	SAMPLE	S	23-FEB-10	.501g	50mL	
246066020	RE15-10-8144	SAMPLE	S	23-FEB-10	.508g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1543 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949360						
1202033978	MB for batch 949360	MB	S	17-FEB-10	.511g	50mL	
1202033983	LCS for batch 949360	LCS	S	17-FEB-10	.503g	50mL	
1202033981	RE15-10-8129S	MS	S	17-FEB-10	.511g	50mL	
1202033982	RE15-10-8129SD	MSD	S	17-FEB-10	.52g	50mL	
1202033979	RE15-10-8129D	DUP	S	17-FEB-10	.529g	50mL	
246066001	RE15-10-8129	SAMPLE	S	17-FEB-10	.537g	50mL	
246066002	RE15-10-8131	SAMPLE	S	17-FEB-10	.544g	50mL	
246066003	RE15-10-8130	SAMPLE	S	17-FEB-10	.513g	50mL	
246066004	RE15-10-8127	SAMPLE	S	17-FEB-10	.532g	50mL	
246066005	RE15-10-8128	SAMPLE	S	17-FEB-10	.505g	50mL	
246066006	RE15-10-8126	SAMPLE	S	17-FEB-10	.548g	50mL	
246066007	RE15-10-8140	SAMPLE	S	17-FEB-10	.513g	50mL	
246066008	RE15-10-8147	SAMPLE	S	17-FEB-10	.536g	50mL	
246066009	RE15-10-8142	SAMPLE	S	17-FEB-10	.531g	50mL	
246066010	RE15-10-8146	SAMPLE	S	17-FEB-10	.537g	50mL	
246066011	RE15-10-8136	SAMPLE	S	17-FEB-10	.529g	50mL	
246066012	RE15-10-8139	SAMPLE	S	17-FEB-10	.53g	50mL	
246066013	RE15-10-8134	SAMPLE	S	17-FEB-10	.511g	50mL	
246066014	RE15-10-8137	SAMPLE	S	17-FEB-10	.522g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1543 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246066015	RE15–10–8143	SAMPLE	S	17–FEB–10	.53g	50mL	
246066016	RE15–10–8138	SAMPLE	S	17–FEB–10	.508g	50mL	
246066017	RE15–10–8145	SAMPLE	S	17–FEB–10	.514g	50mL	
246066018	RE15–10–8141	SAMPLE	S	17–FEB–10	.532g	50mL	
246066019	RE15–10–8135	SAMPLE	S	17–FEB–10	.508g	50mL	
246066020	RE15–10–8144	SAMPLE	S	17–FEB–10	.562g	50mL	
Batch Number 959910							
1202033978	MB for batch 949360	MB	S	02–MAR–10	.519g	50mL	
1202033983	LCS for batch 949360	LCS	S	02–MAR–10	.558g	50mL	
1202033981	RE15–10–8129S	MS	S	02–MAR–10	.528g	50mL	
1202033982	RE15–10–8129SD	MSD	S	02–MAR–10	.534g	50mL	
1202033979	RE15–10–8129D	DUP	S	02–MAR–10	.548g	50mL	
246066001	RE15–10–8129	SAMPLE	S	02–MAR–10	.551g	50mL	
246066002	RE15–10–8131	SAMPLE	S	02–MAR–10	.578g	50mL	
246066003	RE15–10–8130	SAMPLE	S	02–MAR–10	.534g	50mL	
246066004	RE15–10–8127	SAMPLE	S	02–MAR–10	.573g	50mL	
246066005	RE15–10–8128	SAMPLE	S	02–MAR–10	.542g	50mL	
246066006	RE15–10–8126	SAMPLE	S	02–MAR–10	.564g	50mL	
246066007	RE15–10–8140	SAMPLE	S	02–MAR–10	.505g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1543 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246066008	RE15–10–8147	SAMPLE	S	02–MAR–10	.546g	50mL	
246066009	RE15–10–8142	SAMPLE	S	02–MAR–10	.561g	50mL	
246066010	RE15–10–8146	SAMPLE	S	02–MAR–10	.588g	50mL	
246066011	RE15–10–8136	SAMPLE	S	02–MAR–10	.564g	50mL	
246066012	RE15–10–8139	SAMPLE	S	02–MAR–10	.597g	50mL	
246066013	RE15–10–8134	SAMPLE	S	02–MAR–10	.563g	50mL	
246066014	RE15–10–8137	SAMPLE	S	02–MAR–10	.592g	50mL	
246066015	RE15–10–8143	SAMPLE	S	02–MAR–10	.504g	50mL	
246066016	RE15–10–8138	SAMPLE	S	02–MAR–10	.561g	50mL	
246066017	RE15–10–8145	SAMPLE	S	02–MAR–10	.531g	50mL	
246066018	RE15–10–8141	SAMPLE	S	02–MAR–10	.592g	50mL	
246066019	RE15–10–8135	SAMPLE	S	02–MAR–10	.556g	50mL	
246066020	RE15–10–8144	SAMPLE	S	02–MAR–10	.553g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1543 **Method Type** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	951550						
1202039295	MB for batch 951550	MB	S	19–FEB–10	.514g	30mL	
1202039296	LCS for batch 951550	LCS	S	19–FEB–10	.208g	30mL	
1202039298	RE15–10–8129S	MS	S	19–FEB–10	.531g	30mL	
1202039300	RE15–10–8129SD	MSD	S	19–FEB–10	.59g	30mL	
1202039297	RE15–10–8129D	DUP	S	19–FEB–10	.556g	30mL	
246066001	RE15–10–8129	SAMPLE	S	19–FEB–10	.554g	30mL	
246066002	RE15–10–8131	SAMPLE	S	19–FEB–10	.537g	30mL	
246066003	RE15–10–8130	SAMPLE	S	19–FEB–10	.507g	30mL	
246066004	RE15–10–8127	SAMPLE	S	19–FEB–10	.571g	30mL	
246066005	RE15–10–8128	SAMPLE	S	19–FEB–10	.576g	30mL	
246066006	RE15–10–8126	SAMPLE	S	19–FEB–10	.534g	30mL	
246066007	RE15–10–8140	SAMPLE	S	19–FEB–10	.56g	30mL	
246066008	RE15–10–8147	SAMPLE	S	19–FEB–10	.514g	30mL	
246066009	RE15–10–8142	SAMPLE	S	19–FEB–10	.534g	30mL	
246066010	RE15–10–8146	SAMPLE	S	19–FEB–10	.558g	30mL	
246066011	RE15–10–8136	SAMPLE	S	19–FEB–10	.554g	30mL	
246066012	RE15–10–8139	SAMPLE	S	19–FEB–10	.529g	30mL	
246066013	RE15–10–8134	SAMPLE	S	19–FEB–10	.516g	30mL	
246066014	RE15–10–8137	SAMPLE	S	19–FEB–10	.507g	30mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1543 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246066015	RE15-10-8143	SAMPLE	S	19-FEB-10	.535g	30mL	
246066016	RE15-10-8138	SAMPLE	S	19-FEB-10	.5g	30mL	
246066017	RE15-10-8145	SAMPLE	S	19-FEB-10	.521g	30mL	
246066018	RE15-10-8141	SAMPLE	S	19-FEB-10	.521g	30mL	
246066019	RE15-10-8135	SAMPLE	S	19-FEB-10	.518g	30mL	
246066020	RE15-10-8144	SAMPLE	S	19-FEB-10	.531g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 02–MAR–10 **End Date:** 03–MAR–10

Client Sdg: 10–1543
Method MS
Data File: 100302–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	13:42			X													X		X					
S10	1	13:44			X													X		X					
S100	1	13:46			X													X		X					
ICV01	1	13:48			X													X		X					
ICB01	1	13:50			X													X		X					
CRDL01	1	13:52			X													X		X					
ICSA01	1	13:54			X													X		X					
ICSAB01	1	13:56			X													X		X					
CCV01	1	13:58			X													X		X					
CCB01	1	14:00			X													X		X					
ZZZZZZ	2	14:02																							
ZZZZZZ	40	14:04																							
ZZZZZZ	2	14:06																							
ZZZZZZ	2	14:08																							
ZZZZZZ	2	14:11																							
CCV02	1	14:13			X													X		X					
CCB02	1	14:15			X													X		X					
ZZZZZZ	2	14:17																							
ZZZZZZ	2	14:19																							
ZZZZZZ	2	14:21																							
ZZZZZZ	2	14:23																							
ZZZZZZ	10	14:25																							
ZZZZZZ	2	14:27																							
CCV03	1	14:29			X													X		X					
CCB03	1	14:31			X													X		X					
ZZZZZZ	2	14:33																							
ZZZZZZ	2	14:35																							
ZZZZZZ	2	14:37																							
ZZZZZZ	2	14:39																							
ZZZZZZ	2	14:41																							
ZZZZZZ	2	14:43																							
ZZZZZZ	2	14:45																							
CCV04	1	14:47			X													X		X					
CCB04	1	14:49			X													X		X					
1202033978	2	14:52			X													X		X					
1202033983	40	14:54			X													X		X					
246066001	2	14:56			X													X		X					
1202033979	2	14:58			X													X		X					
1202033981	2	15:00			X													X		X					
1202033982	2	15:02			X													X		X					

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
1202033980	10	15:04			X													X		X					
246066002	2	15:07			X													X		X					
246066003	2	15:09			X													X		X					
246066004	2	15:11			X													X		X					
CCV05	1	15:13			X													X		X					
CCB05	1	15:15			X													X		X					
246066005	2	15:17			X													X		X					
246066006	2	15:19			X													X		X					
246066007	2	15:21			X													X		X					
246066008	2	15:23			X													X		X					
246066009	2	15:25			X													X		X					
246066010	2	15:27			X													X		X					
246066011	2	15:29			X													X		X					
246066012	2	15:31			X													X		X					
CCV06	1	15:33			X													X		X					
CCB06	1	15:35			X													X		X					
246066013	2	15:37			X													X		X					
246066014	2	15:40			X													X		X					
246066015	2	15:42			X													X		X					
246066016	2	15:44			X													X		X					
246066017	2	15:46			X													X		X					
246066018	2	15:48			X													X		X					
246066019	2	15:50			X													X		X					
246066020	2	15:52			X													X		X					
CCV07	1	15:54			X													X		X					
CCB07	1	15:56			X													X		X					

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 04-MAR-10 **End Date:** 04-MAR-10

Client Sdg: 10-1543
Method MS
Data File: 100304-6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	16:19					X																		
S10	1	16:20					X																		
S100	1	16:22					X																		
ICV01	1	16:24					X																		
ICB01	1	16:25					X																		
CRDL01	1	16:27					X																		
ICSA01	1	16:28					X																		
ICSAB01	1	16:30					X																		
CCV01	1	16:32					X																		
CCB01	1	16:33					X																		
1202033978	2	16:35					X																		
1202033983	40	16:37					X																		
246066001	2	16:38					X																		
1202033979	2	16:40					X																		
1202033981	2	16:42					X																		
1202033982	2	16:43					X																		
1202033980	10	16:45					X																		
246066002	2	16:47					X																		
246066003	2	16:49					X																		
246066004	2	16:50					X																		
CCV02	1	16:52					X																		
CCB02	1	16:54					X																		
ZZZZZZ	1	17:05																							
CCV03	1	17:07					X																		
CCB03	1	17:09					X																		
246066005	2	17:11					X																		
246066006	2	17:13					X																		
246066007	2	17:14					X																		
246066008	2	17:16					X																		
246066009	2	17:18					X																		
246066010	2	17:19					X																		
246066011	2	17:21					X																		
246066012	2	17:23					X																		
246066013	2	17:24					X																		
CCV04	1	17:26					X																		
CCB04	1	17:28					X																		
246066014	2	17:30					X																		
246066015	2	17:31					X																		
246066016	2	17:33					X																		
246066017	2	17:35					X																		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
246066018	2	17:36					X																		
246066019	2	17:38					X																		
246066020	2	17:40					X																		
CCV05	1	17:41					X																		
CCB05	1	17:43					X																		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 22–FEB–10 **End Date:** 22–FEB–10

Client Sdg: 10–1543
Method AV
Data File: 022210S1–7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:12															X								
S0.2	1	09:13															X								
S0.5	1	09:15															X								
S2.0	1	09:17															X								
S5.0	1	09:18															X								
S10.0	1	09:20															X								
ICV01	1	09:22															X								
ICB01	1	09:23															X								
CRDL01	1	09:25															X								
CCV01	1	09:27															X								
CCB01	1	09:28															X								
ZZZZZZ	1	09:30																							
ZZZZZZ	10	09:32																							
ZZZZZZ	1	09:34																							
ZZZZZZ	1	09:35																							
ZZZZZZ	1	09:37																							
ZZZZZZ	1	09:38																							
ZZZZZZ	1	09:40																							
ZZZZZZ	1	09:42																							
ZZZZZZ	1	09:43																							
ZZZZZZ	1	09:45																							
CCV02	1	09:47															X								
CCB02	1	09:48															X								
ZZZZZZ	1	09:50																							
ZZZZZZ	1	09:52																							
ZZZZZZ	1	09:54																							
ZZZZZZ	1	09:55																							
ZZZZZZ	1	09:57																							
ZZZZZZ	1	09:59																							
ZZZZZZ	1	10:00																							
ZZZZZZ	5	10:02																							
ZZZZZZ	1	10:04																							
ZZZZZZ	1	10:05																							
CCV03	1	10:07															X								
CCB03	1	10:09															X								
ZZZZZZ	1	10:10																							
ZZZZZZ	1	10:12																							
ZZZZZZ	1	10:14																							
ZZZZZZ	1	10:15																							
ZZZZZZ	1	10:17																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:19																							
ZZZZZZ	1	10:20																							
ZZZZZZ	10	10:22																							
ZZZZZZ	1	10:24																							
ZZZZZZ	1	10:25																							
CCV04	1	10:27														X									
CCB04	1	10:29														X									
ZZZZZZ	1	10:30																							
ZZZZZZ	1	10:32																							
ZZZZZZ	5	10:34																							
ZZZZZZ	1	10:35																							
ZZZZZZ	1	10:37																							
ZZZZZZ	1	10:39																							
ZZZZZZ	1	10:40																							
ZZZZZZ	1	10:42																							
ZZZZZZ	1	10:44																							
ZZZZZZ	1	10:45																							
CCV05	1	10:47														X									
CCB05	1	10:49														X									
ZZZZZZ	1	10:50																							
1202039295	1	10:52														X									
1202039296	10	10:54														X									
246066001	1	10:56														X									
1202039297	1	10:57														X									
1202039298	1	10:59														X									
1202039300	1	11:01														X									
1202039299	5	11:02														X									
246066002	1	11:04														X									
246066003	1	11:06														X									
CCV06	1	11:07														X									
CCB06	1	11:09														X									
246066004	1	11:11														X									
246066005	1	11:12														X									
246066006	1	11:14														X									
246066007	1	11:16														X									
246066008	1	11:17														X									
246066009	1	11:19														X									
246066010	1	11:21														X									
246066011	1	11:22														X									
246066012	1	11:24														X									

Metals
--14--
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
246066013	1	11:26															X								
CCV07	1	11:27															X								
CCB07	1	11:29															X								
246066014	1	11:31															X								
246066015	1	11:32															X								
246066016	1	11:34															X								
246066017	1	11:36															X								
246066018	1	11:38															X								
246066019	1	11:39															X								
246066020	1	11:41															X								
ZZZZZZ	1	11:43																							
ZZZZZZ	10	11:44																							
ZZZZZZ	1	11:46																							
CCV08	1	11:48															X								
CCB08	1	11:49															X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS4
Start Date: 02–MAR–10 **End Date:** 03–MAR–10

Client Sdg: 10–1543
Method MS
Data File: 100302–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	21:26																					X		
S10	1	21:30																					X		
S100	1	21:33																					X		
ICV01	1	21:37																					X		
ICB01	1	21:41																					X		
CRDL01	1	21:44																					X		
ICSA01	1	21:48																					X		
ICSAB01	1	21:52																					X		
CCV01	1	21:55																					X		
CCB01	1	21:59																					X		
1202033978	2	22:03																					X		
1202033983	40	22:07																					X		
CCV02	1	22:10																					X		
CCB02	1	22:14																					X		
246066001	2	22:18																					X		
1202033979	2	22:22																					X		
1202033981	2	22:25																					X		
1202033982	2	22:29																					X		
1202033980	10	22:33																					X		
CCV03	1	22:37																					X		
CCB03	1	22:41																					X		
246066002	2	22:44																					X		
246066003	2	22:48																					X		
246066004	2	22:52																					X		
246066005	2	22:56																					X		
246066006	2	22:59																					X		
CCV04	1	23:03																					X		
CCB04	1	23:07																					X		
246066007	2	23:11																					X		
246066008	2	23:14																					X		
246066009	2	23:18																					X		
246066010	2	23:22																					X		
246066011	2	23:26																					X		
CCV05	1	23:30																					X		
CCB05	1	23:33																					X		
246066012	2	23:37																					X		
246066013	2	23:41																					X		
246066014	2	23:45																					X		
246066015	2	23:48																					X		
246066016	2	23:52																					X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
CCV06	1	23:56																			X		
CCB06	1	00:00																			X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 20-FEB-10 **End Date:** 21-FEB-10

Client Sdg: 10-1543
Method P
Data File: 022010C-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	20:51	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
S0.1	1	20:54		X		X		X			X	X		X		X			X		X			X	
S0.5	1	20:57	X	X		X		X	X		X	X		X	X	X			X		X			X	
SCAL	1	21:01	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
S10	1	21:04	X						X				X		X							X			
ICV01	1	21:07	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ICB01	1	21:10	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
PQL01	1	21:14	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ICSA01	1	21:18	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ICSAB01	1	21:20	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
LR01	1	21:23	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
LR02	1	21:26	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCV01	1	21:30	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCB01	1	21:34	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCV02	1	22:12	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCB02	1	22:16	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	22:58																							
ZZZZZZ	1	23:01																							
ZZZZZZ	1	23:04																							
ZZZZZZ	1	23:08																							
ZZZZZZ	1	23:12																							
ZZZZZZ	1	23:15																							
ZZZZZZ	5	23:19																							
ZZZZZZ	1	23:23																							
CCV03	1	23:26	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCB03	1	23:30	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	23:34																							
ZZZZZZ	1	23:37																							
ZZZZZZ	1	23:41																							
ZZZZZZ	1	23:45																							
ZZZZZZ	1	23:48																							
ZZZZZZ	1	23:52																							
ZZZZZZ	1	23:56																							
ZZZZZZ	1	23:59																							
CCV04	1	00:03	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCB04	1	00:07	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	00:10																							
ZZZZZZ	1	00:14																							
ZZZZZZ	1	00:18																							
ZZZZZZ	1	00:21																							

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																		
ZZZZZZ	1	00:25																		
ZZZZZZ	1	00:29																		
ZZZZZZ	1	00:32																		
ZZZZZZ	1	00:36																		
CCV05	1	00:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB05	1	00:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202033968	1	00:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202033973	1	00:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066001	1	00:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202033969	1	00:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202033971	1	01:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202033972	1	01:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1202033970	5	01:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066002	1	01:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066003	1	01:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV06	1	01:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB06	1	01:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066004	1	01:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066005	1	01:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066006	1	01:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066007	1	01:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066008	1	01:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066009	1	01:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066010	1	01:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066011	1	01:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066012	1	01:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV07	1	02:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB07	1	02:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066013	1	02:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066014	1	02:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066015	1	02:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066016	1	02:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066017	1	02:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
246066018	1	02:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ	1	02:29																		
ZZZZZZ	1	02:33																		
CCV08	1	02:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB08	1	02:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 21–FEB–10
End Date: 22–FEB–10
Client Sdg: 10–1543
Method P
Data File: 022110B–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	23:06	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
S0.1	1	23:10		X		X		X			X	X		X		X			X		X			X	
S0.5	1	23:12	X	X		X		X	X		X	X		X	X	X			X		X			X	
SCAL	1	23:16	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
S10	1	23:19	X						X				X		X							X			
ICV01	1	23:22	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ICB01	1	23:25	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
PQL01	1	23:29	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ICSA01	1	23:33	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ICSAB01	1	23:35	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
LR01	1	23:38	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
LR02	1	23:41	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCV01	1	23:45	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCB01	1	23:49	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCV02	1	00:20	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCB02	1	00:24	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	1	00:52																							
246066019	1	00:55	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
246066020	1	00:59	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
ZZZZZZ	5	01:03																							
CCV03	1	01:06	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	
CCB03	1	01:10	X	X		X		X	X		X	X	X	X	X	X			X		X	X		X	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 23-FEB-10 **End Date:** 24-FEB-10

Client Sdg: 10-1543
Method P
Data File: 022310A-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	14:53								X															X
S0.1	1	14:56								X															X
S0.5	1	14:59								X															X
SCAL	1	15:02								X															X
S10	1	15:06																							
ICV01	1	15:08								X															X
ICB01	1	15:12								X															X
PQL01	1	15:15								X															X
ICSA01	1	15:19								X															X
ICSAB01	1	15:21								X															X
LR01	1	15:24								X															X
LR02	1	15:27								X															X
CCV01	1	15:30								X															X
CCB01	1	15:34								X															X
ZZZZZZ	1	15:46																							
ZZZZZZ	1	15:49																							
ZZZZZZ	1	15:52																							
ZZZZZZ	1	15:55																							
ZZZZZZ	1	15:58																							
ZZZZZZ	1	16:02																							
ZZZZZZ	5	16:05																							
ZZZZZZ	1	16:09																							
CCV02	1	16:12								X															X
PQL02	1	16:16								X															X
CCB02	1	16:19								X															X
ZZZZZZ	100	16:22																							
CCV03	1	16:26								X															X
CCB03	1	16:30								X															X
CCV04	1	16:39								X															X
CCB04	1	16:43								X															X
CCV05	1	16:52								X															X
CCB05	1	16:56								X															X
ZZZZZZ	10	16:59																							
ZZZZZZ	10	17:03																							
ZZZZZZ	10	17:06																							
ZZZZZZ	10	17:10																							
ZZZZZZ	50	17:13																							
CCV06	1	17:17								X															X
CCB06	1	17:20								X															X
ZZZZZZ	50	17:24																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	17:27																						
ZZZZZZ	1	17:31																						
ZZZZZZ	1	17:34																						
ZZZZZZ	1	17:38																						
ZZZZZZ	5	17:41																						
CCV07	1	17:45							X															X
CCB07	1	17:48							X															X
ZZZZZZ	1	17:54																						
ZZZZZZ	1	17:58																						
ZZZZZZ	1	18:02																						
ZZZZZZ	1	18:05																						
ZZZZZZ	1	18:09																						
ZZZZZZ	1	18:13																						
ZZZZZZ	5	18:16																						
CCV08	1	18:20							X															X
CCB08	1	18:24							X															X
ZZZZZZ	1	18:27																						
ZZZZZZ	1	18:31																						
ZZZZZZ	1	18:35																						
ZZZZZZ	1	18:38																						
ZZZZZZ	1	18:42																						
ZZZZZZ	1	18:46																						
ZZZZZZ	1	18:49																						
ZZZZZZ	1	18:53																						
ZZZZZZ	1	18:57																						
CCV09	1	19:00							X															X
CCB09	1	19:04							X															X
ZZZZZZ	1	19:08																						
ZZZZZZ	1	19:11																						
ZZZZZZ	1	19:15																						
ZZZZZZ	1	19:19																						
ZZZZZZ	1	19:22																						
ZZZZZZ	1	19:26																						
ZZZZZZ	1	19:30																						
ZZZZZZ	1	19:33																						
ZZZZZZ	1	19:37																						
ZZZZZZ	1	19:41																						
CCV10	1	19:44							X															X
CCB10	1	19:48							X															X
ZZZZZZ	1	19:52																						

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	19:55																							
ZZZZZZ	1	19:59																							
ZZZZZZ	1	20:03																							
ZZZZZZ	1	20:06																							
ZZZZZZ	5	20:10																							
CCV11	1	20:13								X															X
CCB11	1	20:17								X															X
ZZZZZZ	1	20:21																							
ZZZZZZ	1	20:24																							
ZZZZZZ	1	20:28																							
ZZZZZZ	1	20:32																							
ZZZZZZ	1	20:35																							
ZZZZZZ	1	20:39																							
ZZZZZZ	1	20:42																							
ZZZZZZ	1	20:46																							
ZZZZZZ	1	20:50																							
ZZZZZZ	1	20:53																							
CCV12	1	20:57								X															X
CCB12	1	21:01								X															X
ZZZZZZ	1	21:04																							
ZZZZZZ	1	21:08																							
ZZZZZZ	1	21:11																							
ZZZZZZ	1	21:14																							
ZZZZZZ	1	21:18																							
ZZZZZZ	1	21:22																							
ZZZZZZ	1	21:25																							
ZZZZZZ	1	21:29																							
ZZZZZZ	1	21:32																							
CCV13	1	21:36								X															X
CCB13	1	21:40								X															X
ZZZZZZ	1	21:43																							
ZZZZZZ	1	21:47																							
ZZZZZZ	1	21:50																							
ZZZZZZ	1	21:54																							
ZZZZZZ	1	21:57																							
ZZZZZZ	1	22:01																							
ZZZZZZ	5	22:05																							
ZZZZZZ	1	22:08																							
ZZZZZZ	1	22:12																							
CCV14	1	22:15								X															X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
CCB14	1	22:19							X															X
ZZZZZZ	1	22:23																						
ZZZZZZ	1	22:26																						
ZZZZZZ	1	22:30																						
ZZZZZZ	1	22:34																						
ZZZZZZ	1	22:37																						
ZZZZZZ	1	22:41																						
ZZZZZZ	1	22:45																						
ZZZZZZ	1	22:48																						
ZZZZZZ	1	22:52																						
CCV15	1	22:56							X															X
CCB15	1	22:59							X															X
CCV16	1	23:51							X															X
CCB16	1	23:54							X															X
CCV17	1	00:25							X															X
CCB17	1	00:28							X															X
CCV18	1	01:13							X															X
CCB18	1	01:16							X															X
ZZZZZZ	10	01:20																						
ZZZZZZ	10	01:24																						
ZZZZZZ	10	01:27																						
ZZZZZZ	10	01:31																						
ZZZZZZ	50	01:34																						
ZZZZZZ	10	01:38																						
ZZZZZZ	10	01:42																						
ZZZZZZ	10	01:45																						
ZZZZZZ	10	01:49																						
CCV19	1	01:52							X															X
CCB19	1	01:56							X															X
ZZZZZZ	20	02:00																						
ZZZZZZ	20	02:04																						
ZZZZZZ	20	02:07																						
ZZZZZZ	20	02:11																						
ZZZZZZ	100	02:14																						
ZZZZZZ	20	02:18																						
ZZZZZZ	20	02:22																						
ZZZZZZ	20	02:25																						
ZZZZZZ	20	02:29																						
CCV20	1	02:32							X															X
CCB20	1	02:36							X															X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	5	02:40																							
ZZZZZZ	5	02:43																							
ZZZZZZ	5	02:47																							
ZZZZZZ	5	02:51																							
ZZZZZZ	5	02:54																							
CCV21	1	02:58								X															X
CCB21	1	03:01								X															X
CCV22	1	03:42								X															X
CCB22	1	03:46								X															X
CCV23	1	04:04								X															X
CCB23	1	04:08								X															X
ZZZZZZ	1	04:11																							
ZZZZZZ	1	04:15																							
ZZZZZZ	1	04:18																							
ZZZZZZ	1	04:21																							
ZZZZZZ	1	04:25																							
ZZZZZZ	1	04:29																							
ZZZZZZ	5	04:32																							
CCV24	1	04:36								X															X
CCB24	1	04:40								X															X
ZZZZZZ	1	04:43																							
ZZZZZZ	1	04:47																							
ZZZZZZ	1	04:51																							
ZZZZZZ	1	04:54																							
ZZZZZZ	1	04:58																							
CCV25	1	05:02								X															X
CCB25	1	05:05								X															X
ZZZZZZ	1	05:09																							
ZZZZZZ	1	05:13																							
ZZZZZZ	1	05:16																							
ZZZZZZ	1	05:19																							
ZZZZZZ	1	05:23																							
ZZZZZZ	1	05:27																							
ZZZZZZ	5	05:30																							
ZZZZZZ	1	05:34																							
ZZZZZZ	1	05:38																							
CCV26	1	05:41								X															X
CCB26	1	05:45								X															X
1202050830	1	05:49								X															X
1202050831	1	05:52								X															X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time								X															X
246066001	1	05:55								X															X
1202050832	1	05:59								X															X
1202050833	1	06:02								X															X
1202050835	1	06:06								X															X
1202050834	5	06:10								X															X
246066002	1	06:14								X															X
246066003	1	06:17								X															X
CCV27	1	06:21								X															X
CCB27	1	06:25								X															X
246066004	1	06:28								X															X
246066005	1	06:31								X															X
246066006	1	06:35								X															X
246066007	1	06:39								X															X
246066008	1	06:42								X															X
246066009	1	06:46								X															X
246066010	1	06:49								X															X
246066011	1	06:53								X															X
246066012	1	06:57								X															X
CCV28	1	07:01								X															X
CCB28	1	07:04								X															X
246066013	1	07:08								X															X
246066014	1	07:12								X															X
246066015	1	07:15								X															X
246066016	1	07:18								X															X
246066017	1	07:22								X															X
246066018	1	07:26								X															X
246066019	1	07:29								X															X
246066020	1	07:33								X															X
CCV29	1	07:36								X															X
CCB29	1	07:40								X															X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1543

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1543

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1543

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1543
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1543
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-1543
Contract: LANL01004
Instrument: OPTIMA1 **Effective Dates:** 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1543
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1543
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1543
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1543

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1543

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS4

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10
Aluminum	1	50000	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1543

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

Raw Data

Method: Hg_ReAlign
Result: 030510

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

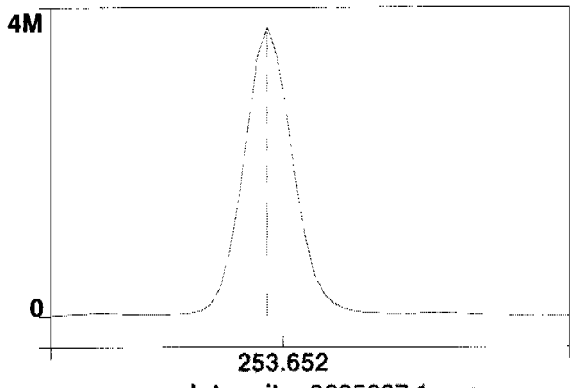

Intensity: 3685637.1 cps
Conc:

1

2/20/2010 20:49:28 Hg ReAlign... Actual peak offset (nm): -0.001
Drift (nm): 0.000 Slit adjustment: 0

Analysis Begun

Start Time: 2/20/2010 20:51:18 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022010.SIF
Batch ID:
Results Data Set: 022010C
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/20/2010 20:51:20**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	58448.9	58448.9	99.0	%	20:51:55
1	Al 396.153Radial†	-15.2	-15.4	[0.00]	µg/L	20:51:55
1	Ca 317.933Radial†	194.3	196.3	[0.00]	µg/L	20:52:16
1	Fe 238.204 Radial†	14.6	14.8	[0.00]	µg/L	20:52:16
1	K 766.490 Radial†	192.6	194.5	[0.00]	µg/L	20:51:55
1	Mg 279.077 IEC†	11.9	12.1	[0.00]	µg/L	20:52:16
1	Na 589.592 Radial†	440.9	445.4	[0.00]	µg/L	20:51:55
1	Sr 421.552†	28.8	29.1	[0.00]	µg/L	20:51:55
1	Sc 361.383	2094656.1	2094656.1	99.763	%	20:53:17
1	Y 371.029	1452202.2	1452202.2	99.774	%	20:53:17
1	Ag 328.068†	-422.6	-423.6	[0.00]	µg/L	20:53:23
1	As 188.979†	-2.8	-2.8	[0.00]	µg/L	20:53:43
1	B 249.677†	330.9	331.7	[0.00]	µg/L	20:53:43
1	Ba 233.527†	-14.5	-14.5	[0.00]	µg/L	20:53:43
1	Be 313.107†	-3741.6	-3750.5	[0.00]	µg/L	20:53:23
1	Cd 226.502†	-132.1	-132.4	[0.00]	µg/L	20:53:43
1	Co 228.616†	6.5	6.6	[0.00]	µg/L	20:53:43
1	Cr 267.716†	-54.3	-54.4	[0.00]	µg/L	20:53:23
1	Cu 324.752†	2873.7	2880.5	[0.00]	µg/L	20:53:23
1	Mn 257.610†	-298.2	-298.9	[0.00]	µg/L	20:53:43
1	Mo 202.031†	-6.3	-6.3	[0.00]	µg/L	20:53:43
1	Ni 231.604†	310.1	310.8	[0.00]	µg/L	20:53:43
1	P 214.914†	17.5	17.6	[0.00]	µg/L	20:53:43
1	Pb 220.353†	108.8	109.0	[0.00]	µg/L	20:53:43
1	S 181.975 Axial†	18.2	18.3	[0.00]	µg/L	20:53:43
1	Sb 206.836†	23.7	23.7	[0.00]	µg/L	20:53:43
1	Se 196.026†	14.2	14.2	[0.00]	µg/L	20:53:43
1	SiO2†	1469.0	1472.4	[0.00]	µg/L	20:53:23
1	Si 251.611†	284.2	284.9	[0.00]	µg/L	20:53:43
1	Sn 189.927†	4.2	4.2	[0.00]	µg/L	20:53:43
1	Ti 334.940†	162.5	162.9	[0.00]	µg/L	20:53:23
1	Tl 190.801†	-20.4	-20.4	[0.00]	µg/L	20:53:43
1	U 409.014†	-4.3	-4.3	[0.00]	µg/L	20:53:23
1	V 292.402†	-116.7	-117.0	[0.00]	µg/L	20:53:23
1	Zn 213.857†	500.3	501.5	[0.00]	µg/L	20:53:43
2	Sc RADIAL	59409.4	59409.4	101	%	20:52:21
2	Al 396.153Radial†	-5.5	-5.5	[0.00]	µg/L	20:52:21
2	Ca 317.933Radial†	197.9	196.6	[0.00]	µg/L	20:52:41
2	Fe 238.204 Radial†	14.4	14.3	[0.00]	µg/L	20:52:41
2	K 766.490 Radial†	231.7	230.3	[0.00]	µg/L	20:52:21
2	Mg 279.077 IEC†	13.5	13.4	[0.00]	µg/L	20:52:41
2	Na 589.592 Radial†	487.2	484.2	[0.00]	µg/L	20:52:21
2	Sr 421.552†	70.6	70.1	[0.00]	µg/L	20:52:21

2	Sc 361.383	2104522.3	2104522.3	100.23	%	20:53:49
2	Y 371.029	1458624.5	1458624.5	100.22	%	20:53:49
2	Ag 328.068†	-484.5	-483.4	[0.00]	µg/L	20:53:55
2	As 188.979†	3.1	3.1	[0.00]	µg/L	20:54:15
2	B 249.677†	331.7	330.9	[0.00]	µg/L	20:54:15
2	Ba 233.527†	-22.2	-22.1	[0.00]	µg/L	20:54:15
2	Be 313.107†	-3797.7	-3788.9	[0.00]	µg/L	20:53:55
2	Cd 226.502†	-140.2	-139.8	[0.00]	µg/L	20:54:15
2	Co 228.616†	0.9	0.9	[0.00]	µg/L	20:54:15
2	Cr 267.716†	-48.3	-48.2	[0.00]	µg/L	20:53:55
2	Cu 324.752†	2909.8	2903.1	[0.00]	µg/L	20:53:55
2	Mn 257.610†	-303.5	-302.8	[0.00]	µg/L	20:54:15
2	Mo 202.031†	-2.0	-2.0	[0.00]	µg/L	20:54:15
2	Ni 231.604†	308.7	307.9	[0.00]	µg/L	20:54:15
2	P 214.914†	12.7	12.7	[0.00]	µg/L	20:54:15
2	Pb 220.353†	87.0	86.8	[0.00]	µg/L	20:54:15
2	S 181.975 Axial†	16.8	16.7	[0.00]	µg/L	20:54:15
2	Sb 206.836†	26.2	26.1	[0.00]	µg/L	20:54:15
2	Se 196.026†	14.8	14.8	[0.00]	µg/L	20:54:15
2	SiO2†	1489.6	1486.1	[0.00]	µg/L	20:53:55
2	Si 251.611†	290.6	289.9	[0.00]	µg/L	20:54:15
2	Sn 189.927†	7.4	7.4	[0.00]	µg/L	20:54:15
2	Ti 334.940†	137.6	137.3	[0.00]	µg/L	20:53:55
2	Tl 190.801†	-26.8	-26.7	[0.00]	µg/L	20:54:15
2	U 409.014†	30.6	30.5	[0.00]	µg/L	20:53:55
2	V 292.402†	-76.2	-76.0	[0.00]	µg/L	20:53:55
2	Zn 213.857†	503.0	501.9	[0.00]	µg/L	20:54:15
3	Sc RADIAL	59272.8	59272.8	100	%	20:52:47
3	Al 396.153Radial†	-5.2	-5.2	[0.00]	µg/L	20:52:47
3	Ca 317.933Radial†	186.7	186.0	[0.00]	µg/L	20:53:07
3	Fe 238.204 Radial†	17.1	17.0	[0.00]	µg/L	20:53:07
3	K 766.490 Radial†	171.1	170.4	[0.00]	µg/L	20:52:47
3	Mg 279.077 IEC†	10.8	10.8	[0.00]	µg/L	20:53:07
3	Na 589.592 Radial†	493.5	491.6	[0.00]	µg/L	20:52:47
3	Sr 421.552†	25.0	24.9	[0.00]	µg/L	20:52:47
3	Sc 361.383	2099721.0	2099721.0	100.00	%	20:54:21
3	Y 371.029	1455632.1	1455632.1	100.01	%	20:54:21
3	Ag 328.068†	-482.4	-482.3	[0.00]	µg/L	20:54:27
3	As 188.979†	-1.1	-1.1	[0.00]	µg/L	20:54:48
3	B 249.677†	313.8	313.8	[0.00]	µg/L	20:54:48
3	Ba 233.527†	-18.4	-18.4	[0.00]	µg/L	20:54:48
3	Be 313.107†	-3737.3	-3737.2	[0.00]	µg/L	20:54:27
3	Cd 226.502†	-137.6	-137.6	[0.00]	µg/L	20:54:48
3	Co 228.616†	0.3	0.3	[0.00]	µg/L	20:54:48
3	Cr 267.716†	-39.6	-39.6	[0.00]	µg/L	20:54:27
3	Cu 324.752†	2825.7	2825.6	[0.00]	µg/L	20:54:27
3	Mn 257.610†	-306.0	-306.0	[0.00]	µg/L	20:54:48
3	Mo 202.031†	-1.7	-1.7	[0.00]	µg/L	20:54:48
3	Ni 231.604†	307.2	307.2	[0.00]	µg/L	20:54:48
3	P 214.914†	18.5	18.5	[0.00]	µg/L	20:54:48
3	Pb 220.353†	88.6	88.6	[0.00]	µg/L	20:54:48
3	S 181.975 Axial†	16.9	16.9	[0.00]	µg/L	20:54:48
3	Sb 206.836†	16.5	16.5	[0.00]	µg/L	20:54:48
3	Se 196.026†	16.0	16.0	[0.00]	µg/L	20:54:48
3	SiO2†	1494.7	1494.6	[0.00]	µg/L	20:54:27
3	Si 251.611†	305.8	305.8	[0.00]	µg/L	20:54:48
3	Sn 189.927†	2.5	2.5	[0.00]	µg/L	20:54:48
3	Ti 334.940†	124.8	124.8	[0.00]	µg/L	20:54:27
3	Tl 190.801†	-19.6	-19.6	[0.00]	µg/L	20:54:48
3	U 409.014†	-28.5	-28.5	[0.00]	µg/L	20:54:27
3	V 292.402†	-95.1	-95.0	[0.00]	µg/L	20:54:27
3	Zn 213.857†	502.5	502.5	[0.00]	µg/L	20:54:48

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2099633.2	4933.68	0.23%	100.00	%
Sc RADIAL	59043.7	519.64	0.88%	100	%
Y 371.029	1455486.3	3213.62	0.22%	100.00	%
Ag 328.068†	-463.1	34.20	7.39%	[0.00]	µg/L

Al 396.153Radial†	-8.7	5.81	66.78%	[0.00]	µg/L
As 188.979†	-0.3	3.05	>999.9%	[0.00]	µg/L
B 249.677†	325.5	10.09	3.10%	[0.00]	µg/L
Ba 233.527†	-18.4	3.82	20.83%	[0.00]	µg/L
Be 313.107†	-3758.9	26.86	0.71%	[0.00]	µg/L
Ca 317.933Radial†	193.0	6.04	3.13%	[0.00]	µg/L
Cd 226.502†	-136.6	3.80	2.78%	[0.00]	µg/L
Co 228.616†	2.6	3.47	135.12%	[0.00]	µg/L
Cr 267.716†	-47.4	7.44	15.70%	[0.00]	µg/L
Cu 324.752†	2869.7	39.84	1.39%	[0.00]	µg/L
Fe 238.204 Radial†	15.4	1.44	9.38%	[0.00]	µg/L
K 766.490 Radial†	198.4	30.11	15.18%	[0.00]	µg/L
Mg 279.077 IEC†	12.1	1.31	10.86%	[0.00]	µg/L
Mn 257.610†	-302.6	3.56	1.18%	[0.00]	µg/L
Mo 202.031†	-3.3	2.62	78.84%	[0.00]	µg/L
Na 589.592 Radial†	473.7	24.82	5.24%	[0.00]	µg/L
Ni 231.604†	308.6	1.90	0.62%	[0.00]	µg/L
P 214.914†	16.2	3.12	19.25%	[0.00]	µg/L
Pb 220.353†	94.8	12.36	13.04%	[0.00]	µg/L
S 181.975 Axial†	17.3	0.84	4.84%	[0.00]	µg/L
Sb 206.836†	22.1	5.03	22.74%	[0.00]	µg/L
Se 196.026†	15.0	0.89	5.93%	[0.00]	µg/L
SiO2†	1484.4	11.19	0.75%	[0.00]	µg/L
Si 251.611†	293.5	10.90	3.71%	[0.00]	µg/L
Sn 189.927†	4.7	2.49	52.70%	[0.00]	µg/L
Sr 421.552†	41.4	24.99	60.43%	[0.00]	µg/L
Ti 334.940†	141.7	19.43	13.72%	[0.00]	µg/L
Tl 190.801†	-22.2	3.89	17.52%	[0.00]	µg/L
U 409.014†	-0.8	29.68	>999.9%	[0.00]	µg/L
V 292.402†	-96.0	20.49	21.35%	[0.00]	µg/L
Zn 213.857†	501.9	0.52	0.10%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/20/2010 20:54:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	60231.0	60231.0	102	%	20:55:32
1	K 766.490 Radial†	1682.2	1450.6	[1000]	µg/L	20:55:32
1	Sr 421.552†	9970.9	9733.0	[100]	µg/L	20:55:32
1	Sc 361.383	2095468.6	2095468.6	99.802	%	20:55:54
1	Y 371.029	1450728.0	1450728.0	99.673	%	20:55:54
1	Ag 328.068†	12683.7	13172.0	[100]	µg/L	20:55:59
1	As 188.979†	57.2	57.6	[100]	µg/L	20:56:20
1	B 249.677†	2642.3	2322.1	[100]	µg/L	20:55:59
1	Ba 233.527†	3983.6	4009.9	[100]	µg/L	20:55:59
1	Be 313.107†	158762.4	162836.8	[100]	µg/L	20:55:54
1	Cd 226.502†	3804.5	3948.7	[100]	µg/L	20:55:59
1	Co 228.616†	2135.7	2137.4	[100]	µg/L	20:56:20
1	Cr 267.716†	4838.6	4895.6	[100]	µg/L	20:55:59
1	Cu 324.752†	17911.4	15077.2	[100]	µg/L	20:55:59
1	Mn 257.610†	30916.6	31280.6	[100]	µg/L	20:55:59
1	Mo 202.031†	1002.9	1008.2	[100]	µg/L	20:56:20
1	Ni 231.604†	2295.0	1990.9	[100]	µg/L	20:55:59
1	P 214.914†	265.2	249.5	[500]	µg/L	20:56:20
1	Pb 220.353†	494.0	400.2	[100]	µg/L	20:56:20
1	S 181.975 Axial†	61.7	44.5	[200]	µg/L	20:56:20
1	Sb 206.836†	129.9	108.1	[100]	µg/L	20:56:20
1	Se 196.026†	89.9	75.1	[100]	µg/L	20:56:20
1	SiO2†	6595.6	5124.3	[1069.5]	µg/L	20:55:59
1	Si 251.611†	6540.9	6260.3	[500]	µg/L	20:55:59
1	Sn 189.927†	237.5	233.3	[100]	µg/L	20:56:20
1	Ti 334.940†	42581.6	42524.6	[100]	µg/L	20:55:59
1	Tl 190.801†	56.8	79.2	[100]	µg/L	20:56:20
1	U 409.014†	1187.9	1191.0	[100]	µg/L	20:55:59
1	V 292.402†	9838.9	9954.5	[100]	µg/L	20:55:59
1	Zn 213.857†	4771.0	4278.6	[100]	µg/L	20:55:59
2	Sc RADIAL	59982.5	59982.5	102	%	20:55:38
2	K 766.490 Radial†	1686.9	1462.2	[1000]	µg/L	20:55:38
2	Sr 421.552†	10019.9	9821.7	[100]	µg/L	20:55:38
2	Sc 361.383	2083683.4	2083683.4	99.240	%	20:56:26
2	Y 371.029	1443727.8	1443727.8	99.192	%	20:56:26
2	Ag 328.068†	12701.4	13261.8	[100]	µg/L	20:56:32
2	As 188.979†	56.0	56.8	[100]	µg/L	20:56:52
2	B 249.677†	2666.9	2361.8	[100]	µg/L	20:56:32
2	Ba 233.527†	4011.6	4060.6	[100]	µg/L	20:56:32
2	Be 313.107†	157999.5	162967.8	[100]	µg/L	20:56:26
2	Cd 226.502†	3841.7	4007.7	[100]	µg/L	20:56:32
2	Co 228.616†	2125.8	2139.5	[100]	µg/L	20:56:52
2	Cr 267.716†	4835.1	4919.5	[100]	µg/L	20:56:32
2	Cu 324.752†	17997.2	15265.2	[100]	µg/L	20:56:32
2	Mn 257.610†	31096.9	31637.5	[100]	µg/L	20:56:32
2	Mo 202.031†	1001.9	1012.9	[100]	µg/L	20:56:52
2	Ni 231.604†	2288.5	1997.4	[100]	µg/L	20:56:32
2	P 214.914†	261.1	246.8	[500]	µg/L	20:56:52
2	Pb 220.353†	494.2	403.2	[100]	µg/L	20:56:52
2	S 181.975 Axial†	64.6	47.8	[200]	µg/L	20:56:52
2	Sb 206.836†	132.3	111.2	[100]	µg/L	20:56:52
2	Se 196.026†	97.4	83.1	[100]	µg/L	20:56:52
2	SiO2†	6674.6	5241.3	[1069.5]	µg/L	20:56:32
2	Si 251.611†	6587.1	6344.0	[500]	µg/L	20:56:32
2	Sn 189.927†	239.4	236.5	[100]	µg/L	20:56:52
2	Ti 334.940†	42771.3	42957.0	[100]	µg/L	20:56:32
2	Tl 190.801†	48.9	71.5	[100]	µg/L	20:56:52
2	U 409.014†	1202.1	1212.1	[100]	µg/L	20:56:32
2	V 292.402†	9871.9	10043.4	[100]	µg/L	20:56:32

2	Zn 213.857†	4797.5	4332.3	[100]	µg/L	20:56:32
3	Sc RADIAL	59501.1	59501.1	101	%	20:55:43
3	K 766.490 Radial†	1557.1	1346.7	[1000]	µg/L	20:55:43
3	Sr 421.552†	9925.5	9807.9	[100]	µg/L	20:55:43
3	Sc 361.383	2088502.3	2088502.3	99.470	%	20:56:59
3	Y 371.029	1446604.0	1446604.0	99.390	%	20:56:59
3	Ag 328.068†	12678.4	13209.1	[100]	µg/L	20:57:04
3	As 188.979†	53.4	54.0	[100]	µg/L	20:57:25
3	B 249.677†	2669.0	2357.8	[100]	µg/L	20:57:04
3	Ba 233.527†	4010.7	4050.4	[100]	µg/L	20:57:04
3	Be 313.107†	158721.9	163326.7	[100]	µg/L	20:56:59
3	Cd 226.502†	3816.9	3973.9	[100]	µg/L	20:57:04
3	Co 228.616†	2149.2	2158.1	[100]	µg/L	20:57:25
3	Cr 267.716†	4805.9	4879.0	[100]	µg/L	20:57:04
3	Cu 324.752†	17911.9	15137.7	[100]	µg/L	20:57:04
3	Mn 257.610†	30979.9	31447.6	[100]	µg/L	20:57:04
3	Mo 202.031†	1008.1	1016.8	[100]	µg/L	20:57:25
3	Ni 231.604†	2297.0	2000.6	[100]	µg/L	20:57:04
3	P 214.914†	271.5	256.7	[500]	µg/L	20:57:25
3	Pb 220.353†	500.0	407.9	[100]	µg/L	20:57:25
3	S 181.975 Axial†	61.2	44.3	[200]	µg/L	20:57:25
3	Sb 206.836†	132.0	110.6	[100]	µg/L	20:57:25
3	Se 196.026†	88.5	74.0	[100]	µg/L	20:57:25
3	SiO2†	6602.5	5153.3	[1069.5]	µg/L	20:57:04
3	Si 251.611†	6582.4	6324.0	[500]	µg/L	20:57:04
3	Sn 189.927†	244.2	240.8	[100]	µg/L	20:57:25
3	Ti 334.940†	42614.4	42699.8	[100]	µg/L	20:57:04
3	Tl 190.801†	48.8	71.3	[100]	µg/L	20:57:25
3	U 409.014†	1112.7	1119.4	[100]	µg/L	20:57:04
3	V 292.402†	9933.7	10082.7	[100]	µg/L	20:57:04
3	Zn 213.857†	4763.3	4286.7	[100]	µg/L	20:57:04

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2089218.1	5925.11	0.28%	99.504	%
Sc RADIAL	59904.9	371.08	0.62%	101	%
Y 371.029	1447019.9	3518.57	0.24%	99.418	%
Ag 328.068†	13214.3	45.11	0.34%	[100]	µg/L
As 188.979†	56.1	1.92	3.42%	[100]	µg/L
B 249.677†	2347.2	21.88	0.93%	[100]	µg/L
Ba 233.527†	4040.3	26.83	0.66%	[100]	µg/L
Be 313.107†	163043.7	253.62	0.16%	[100]	µg/L
Cd 226.502†	3976.8	29.62	0.74%	[100]	µg/L
Co 228.616†	2145.0	11.38	0.53%	[100]	µg/L
Cr 267.716†	4898.0	20.38	0.42%	[100]	µg/L
Cu 324.752†	15160.0	95.96	0.63%	[100]	µg/L
K 766.490 Radial†	1419.8	63.57	4.48%	[1000]	µg/L
Mn 257.610†	31455.2	178.57	0.57%	[100]	µg/L
Mo 202.031†	1012.6	4.27	0.42%	[100]	µg/L
Ni 231.604†	1996.3	4.90	0.25%	[100]	µg/L
P 214.914†	251.0	5.13	2.04%	[500]	µg/L
Pb 220.353†	403.8	3.87	0.96%	[100]	µg/L
S 181.975 Axial†	45.5	1.97	4.34%	[200]	µg/L
Sb 206.836†	109.9	1.64	1.49%	[100]	µg/L
Se 196.026†	77.4	5.00	6.46%	[100]	µg/L
SiO2†	5173.0	60.92	1.18%	[1069.5]	µg/L
Si 251.611†	6309.4	43.68	0.69%	[500]	µg/L
Sn 189.927†	236.8	3.76	1.59%	[100]	µg/L
Sr 421.552†	9787.5	47.74	0.49%	[100]	µg/L
Ti 334.940†	42727.1	217.52	0.51%	[100]	µg/L
Tl 190.801†	74.0	4.49	6.07%	[100]	µg/L
U 409.014†	1174.2	48.60	4.14%	[100]	µg/L
V 292.402†	10026.9	65.68	0.66%	[100]	µg/L
Zn 213.857†	4299.2	28.95	0.67%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/20/2010 20:57:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59227.0	59227.0	100	%	20:58:07
1	Al 396.153Radial†	6666.8	6654.8	[5000]	µg/L	20:58:07
1	Ca 317.933Radial†	5603.4	5393.1	[5000]	µg/L	20:58:27
1	K 766.490 Radial†	7261.7	7040.9	[5000]	µg/L	20:58:07
1	Mg 279.077 IEC†	541.6	527.8	[5000]	µg/L	20:58:27
1	Sr 421.552†	49363.8	49169.6	[500]	µg/L	20:58:07
1	Sc 361.383	2099306.9	2099306.9	99.984	%	20:59:31
1	Y 371.029	1449551.5	1449551.5	99.592	%	20:59:31
1	Ag 328.068†	64806.3	65279.5	[500]	µg/L	20:59:36
1	As 188.979†	279.4	279.8	[500]	µg/L	20:59:57
1	B 249.677†	12233.8	11910.2	[500]	µg/L	20:59:36
1	Ba 233.527†	20099.7	20121.1	[500]	µg/L	20:59:36
1	Be 313.107†	809214.8	813099.4	[500]	µg/L	20:59:31
1	Cd 226.502†	19527.9	19667.6	[500]	µg/L	20:59:36
1	Co 228.616†	10750.6	10749.7	[500]	µg/L	20:59:36
1	Cr 267.716†	24287.6	24338.8	[500]	µg/L	20:59:36
1	Cu 324.752†	76692.9	73835.1	[500]	µg/L	20:59:36
1	Mn 257.610†	155162.7	155489.4	[500]	µg/L	20:59:31
1	Mo 202.031†	5073.3	5077.4	[500]	µg/L	20:59:57
1	Ni 231.604†	10161.8	9854.7	[500]	µg/L	20:59:36
1	P 214.914†	1287.2	1271.2	[2500]	µg/L	20:59:57
1	Pb 220.353†	2118.6	2024.2	[500]	µg/L	20:59:57
1	S 181.975 Axial†	259.5	242.2	[1000]	µg/L	20:59:57
1	Sb 206.836†	567.7	545.7	[500]	µg/L	20:59:57
1	Se 196.026†	378.9	363.9	[500]	µg/L	20:59:57
1	SiO2†	27719.4	26239.3	[5347.5]	µg/L	20:59:36
1	Si 251.611†	32170.8	31882.3	[2500]	µg/L	20:59:36
1	Sn 189.927†	1201.7	1197.2	[500]	µg/L	20:59:57
1	Ti 334.940†	216326.3	216218.2	[500]	µg/L	20:59:31
1	Tl 190.801†	355.8	378.1	[500]	µg/L	20:59:57
1	U 409.014†	5849.8	5851.5	[500]	µg/L	20:59:36
1	V 292.402†	49629.9	49733.6	[500]	µg/L	20:59:36
1	Zn 213.857†	21637.6	21139.1	[500]	µg/L	20:59:36
2	Sc RADIAL	59249.3	59249.3	100	%	20:58:33
2	Al 396.153Radial†	6692.0	6677.5	[5000]	µg/L	20:58:33
2	Ca 317.933Radial†	5642.9	5430.4	[5000]	µg/L	20:58:53
2	K 766.490 Radial†	7335.0	7111.1	[5000]	µg/L	20:58:33
2	Mg 279.077 IEC†	536.3	522.3	[5000]	µg/L	20:58:53
2	Sr 421.552†	49509.2	49296.1	[500]	µg/L	20:58:33
2	Sc 361.383	2102625.9	2102625.9	100.14	%	21:00:04
2	Y 371.029	1453568.6	1453568.6	99.868	%	21:00:04
2	Ag 328.068†	64581.7	64952.9	[500]	µg/L	21:00:10
2	As 188.979†	273.0	272.9	[500]	µg/L	21:00:30
2	B 249.677†	12164.5	11821.7	[500]	µg/L	21:00:10
2	Ba 233.527†	20007.1	19996.9	[500]	µg/L	21:00:10
2	Be 313.107†	811385.9	813989.9	[500]	µg/L	21:00:04
2	Cd 226.502†	19386.0	19495.0	[500]	µg/L	21:00:10
2	Co 228.616†	10648.4	10630.7	[500]	µg/L	21:00:10
2	Cr 267.716†	24137.7	24150.7	[500]	µg/L	21:00:10
2	Cu 324.752†	76382.2	73403.7	[500]	µg/L	21:00:10
2	Mn 257.610†	155515.3	155596.5	[500]	µg/L	21:00:04
2	Mo 202.031†	4982.5	4978.7	[500]	µg/L	21:00:30
2	Ni 231.604†	10088.0	9765.0	[500]	µg/L	21:00:10
2	P 214.914†	1259.9	1241.9	[2500]	µg/L	21:00:30
2	Pb 220.353†	2119.2	2021.4	[500]	µg/L	21:00:30
2	S 181.975 Axial†	255.2	237.5	[1000]	µg/L	21:00:30
2	Sb 206.836†	559.7	536.8	[500]	µg/L	21:00:30
2	Se 196.026†	381.8	366.3	[500]	µg/L	21:00:30
2	SiO2†	27683.2	26159.4	[5347.5]	µg/L	21:00:10

2	Si 251.611†	32044.2	31705.0	[2500]	µg/L	21:00:10
2	Sn 189.927†	1175.2	1168.8	[500]	µg/L	21:00:30
2	Ti 334.940†	216499.2	216049.4	[500]	µg/L	21:00:04
2	Tl 190.801†	350.4	372.1	[500]	µg/L	21:00:30
2	U 409.014†	5757.2	5749.7	[500]	µg/L	21:00:10
2	V 292.402†	49422.0	49447.7	[500]	µg/L	21:00:10
2	Zn 213.857†	21443.5	20911.1	[500]	µg/L	21:00:10
3	Sc RADIAL	59262.1	59262.1	100	%	20:58:59
3	Al 396.153Radial†	6698.8	6682.8	[5000]	µg/L	20:58:59
3	Ca 317.933Radial†	5625.0	5411.3	[5000]	µg/L	20:59:19
3	K 766.490 Radial†	7351.8	7126.3	[5000]	µg/L	20:58:59
3	Mg 279.077 IEC†	539.1	525.0	[5000]	µg/L	20:59:19
3	Sr 421.552†	49542.1	49318.1	[500]	µg/L	20:58:59
3	Sc 361.383	2090574.9	2090574.9	99.569	%	21:00:37
3	Y 371.029	1444442.1	1444442.1	99.241	%	21:00:37
3	Ag 328.068†	60634.2	61360.1	[500]	µg/L	21:00:43
3	As 188.979†	231.6	232.9	[500]	µg/L	21:01:03
3	B 249.677†	11315.3	11038.8	[500]	µg/L	21:00:43
3	Ba 233.527†	18100.7	18197.5	[500]	µg/L	21:00:43
3	Be 313.107†	745374.2	752362.7	[500]	µg/L	21:00:37
3	Cd 226.502†	17553.6	17766.2	[500]	µg/L	21:00:43
3	Co 228.616†	9546.1	9584.9	[500]	µg/L	21:00:43
3	Cr 267.716†	21031.8	21170.4	[500]	µg/L	21:00:43
3	Cu 324.752†	68692.8	66120.7	[500]	µg/L	21:00:43
3	Mn 257.610†	143478.9	144403.2	[500]	µg/L	21:00:37
3	Mo 202.031†	4102.3	4123.4	[500]	µg/L	21:01:03
3	Ni 231.604†	9076.4	8807.1	[500]	µg/L	21:00:43
3	P 214.914†	1065.5	1053.9	[2500]	µg/L	21:01:03
3	Pb 220.353†	1816.3	1729.4	[500]	µg/L	21:01:03
3	S 181.975 Axial†	223.3	207.0	[1000]	µg/L	21:01:03
3	Sb 206.836†	475.1	455.1	[500]	µg/L	21:01:03
3	Se 196.026†	322.0	308.4	[500]	µg/L	21:01:03
3	SiO2†	25559.9	24186.3	[5347.5]	µg/L	21:00:43
3	Si 251.611†	29523.2	29357.6	[2500]	µg/L	21:00:43
3	Sn 189.927†	956.6	956.0	[500]	µg/L	21:01:03
3	Ti 334.940†	198087.6	198804.3	[500]	µg/L	21:00:37
3	Tl 190.801†	309.7	333.2	[500]	µg/L	21:01:03
3	U 409.014†	5157.8	5180.9	[500]	µg/L	21:00:43
3	V 292.402†	43891.6	44177.8	[500]	µg/L	21:00:43
3	Zn 213.857†	19304.6	18886.3	[500]	µg/L	21:00:43

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2097502.5	6224.83	0.30%	99.899	%
Sc RADIAL	59246.1	17.79	0.03%	100	%
Y 371.029	1449187.4	4574.13	0.32%	99.567	%
Ag 328.068†	63864.1	2174.72	3.41%	[500]	µg/L
Al 396.153Radial†	6671.7	14.86	0.22%	[5000]	µg/L
As 188.979†	261.9	25.31	9.66%	[500]	µg/L
B 249.677†	11590.2	479.57	4.14%	[500]	µg/L
Ba 233.527†	19438.5	1076.57	5.54%	[500]	µg/L
Be 313.107†	793150.7	35326.24	4.45%	[500]	µg/L
Ca 317.933Radial†	5411.6	18.66	0.34%	[5000]	µg/L
Cd 226.502†	18976.3	1051.48	5.54%	[500]	µg/L
Co 228.616†	10321.8	640.94	6.21%	[500]	µg/L
Cr 267.716†	23220.0	1777.48	7.65%	[500]	µg/L
Cu 324.752†	71119.9	4334.73	6.09%	[500]	µg/L
K 766.490 Radial†	7092.8	45.59	0.64%	[5000]	µg/L
Mg 279.077 IEC†	525.1	2.76	0.52%	[5000]	µg/L
Mn 257.610†	151829.7	6431.77	4.24%	[500]	µg/L
Mo 202.031†	4726.5	524.65	11.10%	[500]	µg/L
Ni 231.604†	9475.6	580.65	6.13%	[500]	µg/L
P 214.914†	1189.0	117.88	9.91%	[2500]	µg/L
Pb 220.353†	1925.0	169.42	8.80%	[500]	µg/L
S 181.975 Axial†	228.9	19.12	8.35%	[1000]	µg/L
Sb 206.836†	512.5	49.94	9.74%	[500]	µg/L
Se 196.026†	346.2	32.75	9.46%	[500]	µg/L
SiO2†	25528.3	1162.94	4.56%	[5347.5]	µg/L
Si 251.611†	30981.6	1409.26	4.55%	[2500]	µg/L

Sn 189.927†	1107.3	131.83	11.90%	[500] µg/L
Sr 421.552†	49261.3	80.10	0.16%	[500] µg/L
Ti 334.940†	210357.3	10005.59	4.76%	[500] µg/L
Tl 190.801†	361.1	24.36	6.75%	[500] µg/L
U 409.014†	5594.0	361.39	6.46%	[500] µg/L
V 292.402†	47786.3	3128.37	6.55%	[500] µg/L
Zn 213.857†	20312.1	1240.06	6.11%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/20/2010 21:01:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	60156.6	60156.6	102	%	21:01:46
1	Al 396.153Radial†	14096.5	13844.4	[10000]	µg/L	21:01:46
1	Ca 317.933Radial†	11567.0	11160.1	[10000]	µg/L	21:02:07
1	Fe 238.204 Radial†	1237.6	1199.3	[10000]	µg/L	21:02:07
1	K 766.490 Radial†	15035.1	14558.6	[10000]	µg/L	21:01:46
1	Mg 279.077 IEC†	1108.9	1076.3	[10000]	µg/L	21:02:07
1	Na 589.592 Radial†	32632.6	31555.2	[10000]	µg/L	21:01:46
1	Sr 421.552†	104229.5	102259.9	[1000]	µg/L	21:01:46
1	Sc 361.383	2088573.1	2088573.1	99.473	%	21:03:10
1	Y 371.029	1441916.2	1441916.2	99.068	%	21:03:10
1	Ag 328.068†	135179.9	136358.8	[1000]	µg/L	21:03:16
1	As 188.979†	579.2	582.6	[1000]	µg/L	21:03:37
1	B 249.677†	25141.1	24948.8	[1000]	µg/L	21:03:16
1	Ba 233.527†	41576.8	41815.3	[1000]	µg/L	21:03:16
1	Be 313.107†	1685742.4	1698428.1	[1000]	µg/L	21:03:10
1	Cd 226.502†	40328.7	40678.9	[1000]	µg/L	21:03:16
1	Co 228.616†	22041.9	22156.0	[1000]	µg/L	21:03:16
1	Cr 267.716†	50424.8	50739.2	[1000]	µg/L	21:03:16
1	Cu 324.752†	157161.0	155123.5	[1000]	µg/L	21:03:16
1	Mn 257.610†	319858.7	321855.1	[1000]	µg/L	21:03:16
1	Mo 202.031†	10542.0	10601.1	[1000]	µg/L	21:03:37
1	Ni 231.604†	20518.2	20318.2	[1000]	µg/L	21:03:16
1	P 214.914†	2655.9	2653.7	[5000]	µg/L	21:03:37
1	Pb 220.353†	4343.8	4272.0	[1000]	µg/L	21:03:37
1	S 181.975 Axial†	519.8	505.3	[2000]	µg/L	21:03:37
1	Sb 206.836†	1178.1	1162.2	[1000]	µg/L	21:03:37
1	Se 196.026†	767.3	756.3	[1000]	µg/L	21:03:37
1	SiO2†	55621.0	54431.1	[10695]	µg/L	21:03:16
1	Si 251.611†	65937.9	65993.6	[5000]	µg/L	21:03:16
1	Sn 189.927†	2486.5	2495.0	[1000]	µg/L	21:03:37
1	Ti 334.940†	449191.9	451429.0	[1000]	µg/L	21:03:10
1	Tl 190.801†	752.0	778.2	[1000]	µg/L	21:03:37
1	U 409.014†	12111.5	12176.4	[1000]	µg/L	21:03:16
1	V 292.402†	103704.6	104349.8	[1000]	µg/L	21:03:16
1	Zn 213.857†	43749.1	43478.8	[1000]	µg/L	21:03:16
2	Sc RADIAL	59483.2	59483.2	101	%	21:02:12
2	Al 396.153Radial†	14015.6	13920.7	[10000]	µg/L	21:02:12
2	Ca 317.933Radial†	11589.5	11310.9	[10000]	µg/L	21:02:33
2	Fe 238.204 Radial†	1247.6	1223.0	[10000]	µg/L	21:02:33
2	K 766.490 Radial†	15007.8	14698.5	[10000]	µg/L	21:02:12
2	Mg 279.077 IEC†	1115.7	1095.4	[10000]	µg/L	21:02:33
2	Na 589.592 Radial†	32442.9	31729.5	[10000]	µg/L	21:02:12
2	Sr 421.552†	103196.7	102392.9	[1000]	µg/L	21:02:12
2	Sc 361.383	2076936.3	2076936.3	98.919	%	21:03:44
2	Y 371.029	1433096.3	1433096.3	98.462	%	21:03:44
2	Ag 328.068†	135646.8	137592.3	[1000]	µg/L	21:03:49
2	As 188.979†	580.7	587.4	[1000]	µg/L	21:04:10
2	B 249.677†	25220.2	25170.4	[1000]	µg/L	21:03:49
2	Ba 233.527†	41800.5	42275.7	[1000]	µg/L	21:03:49
2	Be 313.107†	1674002.4	1696054.8	[1000]	µg/L	21:03:44
2	Cd 226.502†	40550.0	41129.7	[1000]	µg/L	21:03:49
2	Co 228.616†	22185.4	22425.3	[1000]	µg/L	21:03:49
2	Cr 267.716†	50687.7	51289.0	[1000]	µg/L	21:03:49
2	Cu 324.752†	157816.1	156671.0	[1000]	µg/L	21:03:49
2	Mn 257.610†	320975.4	324785.6	[1000]	µg/L	21:03:49
2	Mo 202.031†	10422.5	10539.8	[1000]	µg/L	21:04:10
2	Ni 231.604†	20570.4	20486.6	[1000]	µg/L	21:03:49
2	P 214.914†	2634.0	2646.5	[5000]	µg/L	21:04:10
2	Pb 220.353†	4295.5	4247.7	[1000]	µg/L	21:04:10

2	S 181.975 Axial†	519.1	507.5	[2000]	µg/L	21:04:10
2	Sb 206.836†	1162.4	1153.0	[1000]	µg/L	21:04:10
2	Se 196.026†	774.3	767.8	[1000]	µg/L	21:04:10
2	SiO2†	55947.2	55074.2	[10695]	µg/L	21:03:49
2	Si 251.611†	66408.5	66840.7	[5000]	µg/L	21:03:49
2	Sn 189.927†	2453.5	2475.6	[1000]	µg/L	21:04:10
2	Ti 334.940†	446354.9	451091.1	[1000]	µg/L	21:03:44
2	Tl 190.801†	749.5	779.9	[1000]	µg/L	21:04:10
2	U 409.014†	12159.8	12293.4	[1000]	µg/L	21:03:49
2	V 292.402†	104178.5	105413.0	[1000]	µg/L	21:03:49
2	Zn 213.857†	43897.6	43875.3	[1000]	µg/L	21:03:49
3	Sc RADIAL	60224.9	60224.9	102	%	21:02:38
3	Al 396.153Radial†	14209.8	13939.8	[10000]	µg/L	21:02:38
3	Ca 317.933Radial†	11532.6	11113.4	[10000]	µg/L	21:02:59
3	Fe 238.204 Radial†	1240.6	1200.9	[10000]	µg/L	21:02:59
3	K 766.490 Radial†	15145.7	14650.3	[10000]	µg/L	21:02:38
3	Mg 279.077 IEC†	1110.7	1076.8	[10000]	µg/L	21:02:59
3	Na 589.592 Radial†	32889.7	31770.9	[10000]	µg/L	21:02:38
3	Sr 421.552†	104952.1	102852.3	[1000]	µg/L	21:02:38
3	Sc 361.383	2086636.2	2086636.2	99.381	%	21:04:17
3	Y 371.029	1440282.4	1440282.4	98.955	%	21:04:17
3	Ag 328.068†	131729.1	133012.8	[1000]	µg/L	21:04:23
3	As 188.979†	516.9	520.4	[1000]	µg/L	21:04:43
3	B 249.677†	24365.3	24191.6	[1000]	µg/L	21:04:23
3	Ba 233.527†	39525.4	39790.0	[1000]	µg/L	21:04:23
3	Be 313.107†	1611957.3	1625756.5	[1000]	µg/L	21:04:17
3	Cd 226.502†	38378.8	38754.4	[1000]	µg/L	21:04:23
3	Co 228.616†	20799.7	20926.7	[1000]	µg/L	21:04:23
3	Cr 267.716†	46683.3	47021.4	[1000]	µg/L	21:04:23
3	Cu 324.752†	148756.8	146813.6	[1000]	µg/L	21:04:23
3	Mn 257.610†	301499.5	303680.0	[1000]	µg/L	21:04:23
3	Mo 202.031†	9131.4	9191.6	[1000]	µg/L	21:04:43
3	Ni 231.604†	19364.3	19176.2	[1000]	µg/L	21:04:23
3	P 214.914†	2348.3	2346.7	[5000]	µg/L	21:04:43
3	Pb 220.353†	3904.7	3834.3	[1000]	µg/L	21:04:43
3	S 181.975 Axial†	468.4	454.0	[2000]	µg/L	21:04:43
3	Sb 206.836†	1038.9	1023.2	[1000]	µg/L	21:04:43
3	Se 196.026†	703.1	692.5	[1000]	µg/L	21:04:43
3	SiO2†	53682.7	52532.6	[10695]	µg/L	21:04:23
3	Si 251.611†	63568.9	63671.4	[5000]	µg/L	21:04:23
3	Sn 189.927†	2128.2	2136.7	[1000]	µg/L	21:04:43
3	Ti 334.940†	428580.9	431108.8	[1000]	µg/L	21:04:17
3	Tl 190.801†	679.5	705.9	[1000]	µg/L	21:04:43
3	U 409.014†	11258.4	11329.3	[1000]	µg/L	21:04:23
3	V 292.402†	96976.6	97676.7	[1000]	µg/L	21:04:23
3	Zn 213.857†	41296.0	41051.3	[1000]	µg/L	21:04:23

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2084048.5	6235.06	0.30%	99.258	%
Sc RADIAL	59954.9	409.94	0.68%	102	%
Y 371.029	1438431.6	4692.20	0.33%	98.828	%
Ag 328.068†	135654.6	2369.59	1.75%	[1000]	µg/L
Al 396.153Radial†	13901.6	50.49	0.36%	[10000]	µg/L
As 188.979†	563.4	37.36	6.63%	[1000]	µg/L
B 249.677†	24770.2	513.22	2.07%	[1000]	µg/L
Ba 233.527†	41293.7	1322.42	3.20%	[1000]	µg/L
Be 313.107†	1673413.1	41288.92	2.47%	[1000]	µg/L
Ca 317.933Radial†	11194.8	103.22	0.92%	[10000]	µg/L
Cd 226.502†	40187.7	1261.54	3.14%	[1000]	µg/L
Co 228.616†	21836.0	798.93	3.66%	[1000]	µg/L
Cr 267.716†	49683.2	2321.51	4.67%	[1000]	µg/L
Cu 324.752†	152869.4	5301.19	3.47%	[1000]	µg/L
Fe 238.204 Radial†	1207.7	13.26	1.10%	[10000]	µg/L
K 766.490 Radial†	14635.8	71.07	0.49%	[10000]	µg/L
Mg 279.077 IEC†	1082.8	10.87	1.00%	[10000]	µg/L
Mn 257.610†	316773.6	11433.63	3.61%	[1000]	µg/L
Mo 202.031†	10110.8	796.66	7.88%	[1000]	µg/L
Na 589.592 Radial†	31685.2	114.46	0.36%	[10000]	µg/L

Ni 231.604†	19993.7	712.91	3.57%	[1000] µg/L
P 214.914†	2549.0	175.19	6.87%	[5000] µg/L
Pb 220.353†	4118.0	246.02	5.97%	[1000] µg/L
S 181.975 Axial†	488.9	30.24	6.18%	[2000] µg/L
Sb 206.836†	1112.8	77.72	6.98%	[1000] µg/L
Se 196.026†	738.9	40.56	5.49%	[1000] µg/L
SiO2†	54012.7	1321.46	2.45%	[10695] µg/L
Si 251.611†	65501.9	1640.90	2.51%	[5000] µg/L
Sn 189.927†	2369.1	201.49	8.50%	[1000] µg/L
Sr 421.552†	102501.7	310.79	0.30%	[1000] µg/L
Ti 334.940†	444542.9	11635.57	2.62%	[1000] µg/L
Tl 190.801†	754.7	42.24	5.60%	[1000] µg/L
U 409.014†	11933.0	526.12	4.41%	[1000] µg/L
V 292.402†	102479.8	4193.48	4.09%	[1000] µg/L
Zn 213.857†	42801.8	1528.90	3.57%	[1000] µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/20/2010 21:04:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59919.1	59919.1	101	%	21:05:25
1	Al 396.153Radial†	67636.3	66656.8	[50000]	µg/L	21:05:25
1	Ca 317.933Radial†	55352.9	54351.2	[50000]	µg/L	21:05:25
1	Fe 238.204 Radial†	2357.4	2307.6	[20000]	µg/L	21:05:45
1	Mg 279.077 IEC†	5199.4	5111.3	[50000]	µg/L	21:05:45
1	Na 589.592 Radial†	61841.3	60464.1	[20000]	µg/L	21:05:25
1	Sc 361.383	2083386.2	2083386.2	99.226	%	21:06:49
1	Y 371.029	1430016.9	1430016.9	98.250	%	21:06:49
2	Sc RADIAL	59375.6	59375.6	101	%	21:05:51
2	Al 396.153Radial†	67037.3	66671.2	[50000]	µg/L	21:05:51
2	Ca 317.933Radial†	54848.8	54349.2	[50000]	µg/L	21:05:51
2	Fe 238.204 Radial†	2348.8	2320.3	[20000]	µg/L	21:06:11
2	Mg 279.077 IEC†	5193.5	5152.4	[50000]	µg/L	21:06:11
2	Na 589.592 Radial†	61435.9	60618.8	[20000]	µg/L	21:05:51
2	Sc 361.383	2076508.3	2076508.3	98.899	%	21:06:57
2	Y 371.029	1426990.7	1426990.7	98.042	%	21:06:57
3	Sc RADIAL	59694.5	59694.5	101	%	21:06:17
3	Al 396.153Radial†	67735.8	67006.1	[50000]	µg/L	21:06:17
3	Ca 317.933Radial†	55463.3	54665.7	[50000]	µg/L	21:06:17
3	Fe 238.204 Radial†	2338.4	2297.5	[20000]	µg/L	21:06:37
3	Mg 279.077 IEC†	5179.3	5110.8	[50000]	µg/L	21:06:37
3	Na 589.592 Radial†	61946.4	60797.3	[20000]	µg/L	21:06:17
3	Sc 361.383	2085817.8	2085817.8	99.342	%	21:07:05
3	Y 371.029	1433003.8	1433003.8	98.455	%	21:07:05

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2081904.1	4828.46	0.23%	99.156	%
Sc RADIAL	59663.1	273.11	0.46%	101	%
Y 371.029	1430003.8	3006.55	0.21%	98.249	%
Al 396.153Radial†	66778.0	197.64	0.30%	[50000]	µg/L
Ca 317.933Radial†	54455.4	182.14	0.33%	[50000]	µg/L
Fe 238.204 Radial†	2308.5	11.43	0.49%	[20000]	µg/L
Mg 279.077 IEC†	5124.8	23.86	0.47%	[50000]	µg/L
Na 589.592 Radial†	60626.7	166.76	0.28%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	134.1	0.00000	0.999722	
Al 396.153Radial	3	Lin Thru 0	0.0	1.338	0.00000	0.999969	
As 188.979	3	Lin Thru 0	0.0	0.5555	0.00000	0.999594	
B 249.677	3	Lin Thru 0	0.0	24.44	0.00000	0.999658	
Ba 233.527	3	Lin Thru 0	0.0	40.81	0.00000	0.999721	
Be 313.107	3	Lin Thru 0	0.0	1656	0.00000	0.999779	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.090	0.00000	0.999986	
Cd 226.502	3	Lin Thru 0	0.0	39.74	0.00000	0.999749	
Co 228.616	3	Lin Thru 0	0.0	21.60	0.00000	0.999758	
Cr 267.716	3	Lin Thru 0	0.0	49.03	0.00000	0.999653	
Cu 324.752	3	Lin Thru 0	0.0	150.8	0.00000	0.999606	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1165	0.00000	0.999831	
K 766.490 Radial	3	Lin Thru 0	0.0	1.454	0.00000	0.999922	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1027	0.00000	0.999940	
Mn 257.610	3	Lin Thru 0	0.0	314.2	0.00000	0.999862	
Mo 202.031	3	Lin Thru 0	0.0	9.980	0.00000	0.999655	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.059	0.00000	0.999839	

Ni 231.604	3	Lin Thru 0	0.0	19.79	0.00000	0.999779
P 214.914	3	Lin Thru 0	0.0	0.5030	0.00000	0.999633
Pb 220.353	3	Lin Thru 0	0.0	4.064	0.00000	0.999655
S 181.975 Axial	3	Lin Thru 0	0.0	0.2412	0.00000	0.999657
Sb 206.836	3	Lin Thru 0	0.0	1.095	0.00000	0.999490
Se 196.026	3	Lin Thru 0	0.0	0.7300	0.00000	0.999665
SiO2	3	Lin Thru 0	0.0	4.994	0.00000	0.999753
Si 251.611	3	Lin Thru 0	0.0	12.96	0.00000	0.999761
Sn 189.927	3	Lin Thru 0	0.0	2.338	0.00000	0.999653
Sr 421.552	3	Lin Thru 0	0.0	101.7	0.00000	0.999873
Ti 334.940	3	Lin Thru 0	0.0	439.7	0.00000	0.999764
Tl 190.801	3	Lin Thru 0	0.0	0.7481	0.00000	0.999851
U 409.014	3	Lin Thru 0	0.0	11.78	0.00000	0.999683
V 292.402	3	Lin Thru 0	0.0	101.1	0.00000	0.999629
Zn 213.857	3	Lin Thru 0	0.0	42.37	0.00000	0.999790

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/20/2010 21:07:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59298.2	59298.2	100	%			21:07:47
1	Al 396.153Radial†	6742.2	6722.0	5014.4	µg/L	5014.4	ppb	21:07:47
1	Ca 317.933Radial†	5609.2	5392.1	4946.0	µg/L	4946.0	ppb	21:08:08
1	Fe 238.204 Radial†	610.2	592.2	5093.8	µg/L	5093.8	ppb	21:08:08
1	K 766.490 Radial†	3647.7	3433.7	2361.1	µg/L	2361.1	ppb	21:07:47
1	Mg 279.077 IEC†	537.6	523.2	5095.7	µg/L	5095.7	ppb	21:08:08
1	Na 589.592 Radial†	8072.8	7564.4	2473.0	µg/L	2473.0	ppb	21:07:47
1	Sr 421.552†	51335.1	51073.4	502.32	µg/L	502.32	ppb	21:07:47
1	Sc 361.383	2093410.3	2093410.3	99.704	%			21:09:11
1	Y 371.029	1444904.7	1444904.7	99.273	%			21:09:11
1	Ag 328.068†	32149.4	32708.1	247.53	µg/L	247.53	ppb	21:09:17
1	As 188.979†	267.3	268.4	482.08	µg/L	482.08	ppb	21:09:37
1	B 249.677†	12545.6	12257.4	499.56	µg/L	499.56	ppb	21:09:17
1	Ba 233.527†	20210.0	20288.4	498.06	µg/L	498.06	ppb	21:09:17
1	Be 313.107†	410657.7	415637.3	250.84	µg/L	250.84	ppb	21:09:11
1	Cd 226.502†	19282.1	19476.0	489.99	µg/L	489.99	ppb	21:09:17
1	Co 228.616†	10782.3	10811.8	500.12	µg/L	500.12	ppb	21:09:17
1	Cr 267.716†	23531.4	23648.8	482.60	µg/L	482.60	ppb	21:09:17
1	Cu 324.752†	77386.4	74746.7	496.54	µg/L	496.54	ppb	21:09:17
1	Mn 257.610†	155171.3	155935.1	496.84	µg/L	496.84	ppb	21:09:11
1	Mo 202.031†	5279.5	5298.5	531.08	µg/L	531.08	ppb	21:09:37
1	Ni 231.604†	9881.0	9601.7	484.73	µg/L	484.73	ppb	21:09:17
1	P 214.914†	1282.8	1270.4	2478.8	µg/L	2478.8	ppb	21:09:37
1	Pb 220.353†	2131.1	2042.7	502.90	µg/L	502.90	ppb	21:09:37
1	S 181.975 Axial†	604.4	588.9	2441.3	µg/L	2441.3	ppb	21:09:37
1	Sb 206.836†	547.4	526.9	483.83	µg/L	483.83	ppb	21:09:37
1	Se 196.026†	1866.4	1856.9	2551.9	µg/L	2551.9	ppb	21:09:37
1	SiO2†	52341.1	51012.3	10215	µg/L	10215	ppb	21:09:17
1	Si 251.611†	61706.4	61596.3	4754.2	µg/L	4754.2	ppb	21:09:17
1	Sn 189.927†	1246.3	1245.3	532.55	µg/L	532.55	ppb	21:09:37
1	Ti 334.940†	208718.0	209196.8	475.47	µg/L	475.47	ppb	21:09:11
1	Tl 190.801†	355.4	378.7	511.90	µg/L	511.90	ppb	21:09:37
1	U 409.014†	5449.2	5466.1	462.86	µg/L	462.86	ppb	21:09:17
1	V 292.402†	49021.9	49263.7	493.60	µg/L	493.60	ppb	21:09:17
1	Zn 213.857†	21386.8	20948.4	490.93	µg/L	490.93	ppb	21:09:17
2	Sc RADIAL	58520.2	58520.2	99.1	%			21:08:13
2	Al 396.153Radial†	6708.2	6776.9	5055.6	µg/L	5055.6	ppb	21:08:13
2	Ca 317.933Radial†	5585.4	5442.4	4992.1	µg/L	4992.1	ppb	21:08:34
2	Fe 238.204 Radial†	606.9	596.9	5134.9	µg/L	5134.9	ppb	21:08:34
2	K 766.490 Radial†	3713.9	3548.7	2440.2	µg/L	2440.2	ppb	21:08:13
2	Mg 279.077 IEC†	536.0	528.7	5148.9	µg/L	5148.9	ppb	21:08:34
2	Na 589.592 Radial†	8041.1	7639.3	2497.5	µg/L	2497.5	ppb	21:08:13
2	Sr 421.552†	50922.5	51336.7	504.91	µg/L	504.91	ppb	21:08:13
2	Sc 361.383	2092537.1	2092537.1	99.662	%			21:09:44
2	Y 371.029	1445744.5	1445744.5	99.331	%			21:09:44
2	Ag 328.068†	32120.3	32692.3	247.42	µg/L	247.42	ppb	21:09:50
2	As 188.979†	260.5	261.7	470.04	µg/L	470.04	ppb	21:10:10
2	B 249.677†	12595.0	12312.2	501.78	µg/L	501.78	ppb	21:09:50
2	Ba 233.527†	20197.1	20283.9	497.95	µg/L	497.95	ppb	21:09:50
2	Be 313.107†	410209.2	415359.2	250.67	µg/L	250.67	ppb	21:09:44
2	Cd 226.502†	19361.4	19563.7	492.19	µg/L	492.19	ppb	21:09:50
2	Co 228.616†	10832.8	10867.0	502.67	µg/L	502.67	ppb	21:09:50
2	Cr 267.716†	23645.5	23773.1	485.14	µg/L	485.14	ppb	21:09:50
2	Cu 324.752†	77350.7	74743.3	496.52	µg/L	496.52	ppb	21:09:50
2	Mn 257.610†	154859.2	155686.9	496.05	µg/L	496.05	ppb	21:09:44
2	Mo 202.031†	5189.9	5210.9	522.30	µg/L	522.30	ppb	21:10:10
2	Ni 231.604†	9855.9	9580.7	483.67	µg/L	483.67	ppb	21:09:50
2	P 214.914†	1266.5	1254.6	2447.1	µg/L	2447.1	ppb	21:10:10
2	Pb 220.353†	2092.1	2004.4	493.46	µg/L	493.46	ppb	21:10:10

2	S 181.975 Axial†	602.7	587.5	2435.3 µg/L	2435.3 ppb	21:10:10
2	Sb 206.836†	541.9	521.7	478.88 µg/L	478.88 ppb	21:10:10
2	Se 196.026†	1842.6	1833.9	2520.3 µg/L	2520.3 ppb	21:10:10
2	SiO2†	52485.3	51178.9	10249 µg/L	10249 ppb	21:09:50
2	Si 251.611†	61901.1	61817.5	4771.3 µg/L	4771.3 ppb	21:09:50
2	Sn 189.927†	1223.9	1223.3	523.17 µg/L	523.17 ppb	21:10:10
2	Ti 334.940†	208285.0	208849.7	474.68 µg/L	474.68 ppb	21:09:44
2	Tl 190.801†	366.2	389.6	526.51 µg/L	526.51 ppb	21:10:10
2	U 409.014†	5476.2	5495.5	465.35 µg/L	465.35 ppb	21:09:50
2	V 292.402†	49179.3	49442.1	495.31 µg/L	495.31 ppb	21:09:50
2	Zn 213.857†	21439.3	21010.1	492.38 µg/L	492.38 ppb	21:09:50
3	Sc RADIAL	59096.0	59096.0	100 %		21:08:39
3	Al 396.153Radial†	6747.8	6750.6	5037.7 µg/L	5037.7 ppb	21:08:39
3	Ca 317.933Radial†	5596.7	5398.8	4952.1 µg/L	4952.1 ppb	21:08:59
3	Fe 238.204 Radial†	606.6	590.7	5080.1 µg/L	5080.1 ppb	21:08:59
3	K 766.490 Radial†	3696.9	3495.2	2403.4 µg/L	2403.4 ppb	21:08:39
3	Mg 279.077 IEC†	535.3	522.7	5089.9 µg/L	5089.9 ppb	21:08:59
3	Na 589.592 Radial†	8071.9	7591.0	2481.7 µg/L	2481.7 ppb	21:08:39
3	Sr 421.552†	51459.2	51372.3	505.26 µg/L	505.26 ppb	21:08:39
3	Sc 361.383	2094405.8	2094405.8	99.751 %		21:10:18
3	Y 371.029	1447263.1	1447263.1	99.435 %		21:10:18
3	Ag 328.068†	30096.5	30634.8	231.71 µg/L	231.71 ppb	21:10:23
3	As 188.979†	226.6	227.4	408.55 µg/L	408.55 ppb	21:10:44
3	B 249.677†	11723.3	11427.1	465.50 µg/L	465.50 ppb	21:10:23
3	Ba 233.527†	18382.6	18446.8	452.83 µg/L	452.83 ppb	21:10:23
3	Be 313.107†	380739.4	385448.5	232.62 µg/L	232.62 ppb	21:10:18
3	Cd 226.502†	17489.2	17669.5	444.48 µg/L	444.48 ppb	21:10:23
3	Co 228.616†	9671.7	9693.2	448.32 µg/L	448.32 ppb	21:10:23
3	Cr 267.716†	20510.3	20608.9	420.57 µg/L	420.57 ppb	21:10:23
3	Cu 324.752†	69854.0	67158.6	446.20 µg/L	446.20 ppb	21:10:23
3	Mn 257.610†	144167.2	144829.6	461.49 µg/L	461.49 ppb	21:10:18
3	Mo 202.031†	4313.1	4327.2	433.76 µg/L	433.76 ppb	21:10:44
3	Ni 231.604†	8882.5	8596.0	433.97 µg/L	433.97 ppb	21:10:23
3	P 214.914†	1071.9	1058.4	2061.0 µg/L	2061.0 ppb	21:10:44
3	Pb 220.353†	1818.3	1728.0	425.34 µg/L	425.34 ppb	21:10:44
3	S 181.975 Axial†	531.7	515.7	2137.7 µg/L	2137.7 ppb	21:10:44
3	Sb 206.836†	466.9	445.9	409.02 µg/L	409.02 ppb	21:10:44
3	Se 196.026†	1609.6	1598.6	2197.9 µg/L	2197.9 ppb	21:10:44
3	SiO2†	48374.9	47011.3	9414.0 µg/L	9414.0 ppb	21:10:23
3	Si 251.611†	57002.4	56851.1	4388.0 µg/L	4388.0 ppb	21:10:23
3	Sn 189.927†	1010.2	1008.0	431.08 µg/L	431.08 ppb	21:10:44
3	Ti 334.940†	192169.6	192507.6	437.51 µg/L	437.51 ppb	21:10:18
3	Tl 190.801†	325.3	348.3	470.89 µg/L	470.89 ppb	21:10:44
3	U 409.014†	4809.6	4822.4	408.23 µg/L	408.23 ppb	21:10:23
3	V 292.402†	43652.8	43857.8	439.18 µg/L	439.18 ppb	21:10:23
3	Zn 213.857†	19288.3	18834.5	441.35 µg/L	441.35 ppb	21:10:23

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2093451.0	99.706	%	0.0445				0.04%
Sc RADIAL	58971.5	99.9	%	0.68				0.68%
Y 371.029	1445970.8	99.346	%	0.0821				0.08%
Ag 328.068†	32011.7	242.22	µg/L	9.104	242.22	ppb	9.104	3.76%
QC value within limits for Ag 328.068 Recovery = 96.89%								
Al 396.153Radial†	6749.8	5035.9	µg/L	20.68	5035.9	ppb	20.68	0.41%
QC value within limits for Al 396.153Radial Recovery = 100.72%								
As 188.979†	252.5	453.56	µg/L	39.442	453.56	ppb	39.442	8.70%
QC value within limits for As 188.979 Recovery = 90.71%								
B 249.677†	11998.9	488.95	µg/L	20.337	488.95	ppb	20.337	4.16%
QC value within limits for B 249.677 Recovery = 97.79%								
Ba 233.527†	19673.0	482.95	µg/L	26.080	482.95	ppb	26.080	5.40%
QC value within limits for Ba 233.527 Recovery = 96.59%								
Be 313.107†	405481.7	244.71	µg/L	10.470	244.71	ppb	10.470	4.28%
QC value within limits for Be 313.107 Recovery = 97.88%								
Ca 317.933Radial†	5411.1	4963.4	µg/L	25.04	4963.4	ppb	25.04	0.50%
QC value within limits for Ca 317.933Radial Recovery = 99.27%								
Cd 226.502†	18903.1	475.55	µg/L	26.932	475.55	ppb	26.932	5.66%
QC value within limits for Cd 226.502 Recovery = 95.11%								
Co 228.616†	10457.3	483.70	µg/L	30.670	483.70	ppb	30.670	6.34%

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   QC value within limits for Co 228.616  Recovery = 96.74%
Cr 267.716†            22676.9      462.77 µg/L        36.566      462.77 ppb         36.566   7.90%
   QC value within limits for Cr 267.716  Recovery = 92.55%
Cu 324.752†            72216.2      479.75 µg/L        29.057      479.75 ppb         29.057   6.06%
   QC value within limits for Cu 324.752  Recovery = 95.95%
Fe 238.204 Radial†       593.3      5102.9 µg/L         28.53      5102.9 ppb          28.53   0.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.06%
K 766.490 Radial†       3492.6      2401.5 µg/L         39.58      2401.5 ppb          39.58   1.65%
   QC value within limits for K 766.490 Radial  Recovery = 96.06%
Mg 279.077 IEC†          524.9      5111.5 µg/L         32.52      5111.5 ppb          32.52   0.64%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.23%
Mn 257.610†           152150.5      484.79 µg/L        20.187      484.79 ppb         20.187   4.16%
   QC value within limits for Mn 257.610  Recovery = 96.96%
Mo 202.031†             4945.5      495.71 µg/L        53.833      495.71 ppb         53.833  10.86%
   QC value within limits for Mo 202.031  Recovery = 99.14%
Na 589.592 Radial†      7598.3      2484.1 µg/L         12.42      2484.1 ppb          12.42   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 99.36%
Ni 231.604†             9259.5      467.46 µg/L        29.007      467.46 ppb         29.007   6.21%
   QC value within limits for Ni 231.604  Recovery = 93.49%
P 214.914†              1194.5      2329.0 µg/L        232.60      2329.0 ppb         232.60   9.99%
   QC value within limits for P 214.914  Recovery = 93.16%
Pb 220.353†             1925.0      473.90 µg/L        42.315      473.90 ppb         42.315   8.93%
   QC value within limits for Pb 220.353  Recovery = 94.78%
S 181.975 Axial†         564.0      2338.1 µg/L        173.55      2338.1 ppb         173.55   7.42%
   QC value within limits for S 181.975 Axial  Recovery = 93.52%
Sb 206.836†              498.2      457.24 µg/L        41.837      457.24 ppb         41.837   9.15%
   QC value within limits for Sb 206.836  Recovery = 91.45%
Se 196.026†             1763.1      2423.4 µg/L        195.88      2423.4 ppb         195.88   8.08%
   QC value within limits for Se 196.026  Recovery = 96.94%
SiO2†                  49734.2      9959.3 µg/L        472.51      9959.3 ppb         472.51   4.74%
   QC value within limits for SiO2  Recovery = 93.12%
Si 251.611†            60088.3      4637.8 µg/L        216.55      4637.8 ppb         216.55   4.67%
   QC value within limits for Si 251.611  Recovery = 92.76%
Sn 189.927†             1158.9      495.60 µg/L        56.074      495.60 ppb         56.074  11.31%
   QC value within limits for Sn 189.927  Recovery = 99.12%
Sr 421.552†            51260.8      504.16 µg/L         1.605      504.16 ppb          1.605   0.32%
   QC value within limits for Sr 421.552  Recovery = 100.83%
Ti 334.940†           203518.0      462.56 µg/L        21.689      462.56 ppb         21.689   4.69%
   QC value within limits for Ti 334.940  Recovery = 92.51%
Tl 190.801†              372.2      503.10 µg/L        28.835      503.10 ppb         28.835   5.73%
   QC value within limits for Tl 190.801  Recovery = 100.62%
U 409.014†              5261.3      445.48 µg/L        32.282      445.48 ppb         32.282   7.25%
   QC value less than the lower limit for U 409.014  Recovery = 89.10%
V 292.402†             47521.2      476.03 µg/L        31.929      476.03 ppb         31.929   6.71%
   QC value within limits for V 292.402  Recovery = 95.21%
Zn 213.857†            20264.3      474.89 µg/L        29.056      474.89 ppb         29.056   6.12%
   QC value within limits for Zn 213.857  Recovery = 94.98%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/20/2010 21:10:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58564.9	58564.9	99.2	%			21:11:26
1	Al 396.153Radial†	-6.1	2.5	1.8721	µg/L	1.8721	ppb	21:11:26
1	Ca 317.933Radial†	199.2	7.8	7.1783	µg/L	7.1783	ppb	21:11:47
1	Fe 238.204 Radial†	17.4	2.1	18.159	µg/L	18.159	ppb	21:11:47
1	K 766.490 Radial†	203.0	6.2	4.2821	µg/L	4.2821	ppb	21:11:26
1	Mg 279.077 IEC†	7.5	-4.6	-44.441	µg/L	-44.441	ppb	21:11:47
1	Na 589.592 Radial†	519.5	50.0	16.342	µg/L	16.342	ppb	21:11:26
1	Sr 421.552†	55.6	14.7	0.1441	µg/L	0.1441	ppb	21:11:26
1	Sc 361.383	2085452.9	2085452.9	99.325	%			21:12:48
1	Y 371.029	1444872.9	1444872.9	99.271	%			21:12:48
1	Ag 328.068†	-369.2	91.4	0.6816	µg/L	0.6816	ppb	21:12:54
1	As 188.979†	3.0	3.3	6.0043	µg/L	6.0043	ppb	21:13:15
1	B 249.677†	395.3	72.5	2.9550	µg/L	2.9550	ppb	21:13:15
1	Ba 233.527†	-4.0	14.3	0.3502	µg/L	0.3502	ppb	21:13:15
1	Be 313.107†	-3487.7	247.5	0.1493	µg/L	0.1493	ppb	21:12:54
1	Cd 226.502†	-128.3	7.4	0.1844	µg/L	0.1844	ppb	21:13:15
1	Co 228.616†	5.6	3.1	0.1421	µg/L	0.1421	ppb	21:13:15
1	Cr 267.716†	-37.4	9.7	0.1985	µg/L	0.1985	ppb	21:12:54
1	Cu 324.752†	2887.5	37.4	0.2505	µg/L	0.2505	ppb	21:12:54
1	Mn 257.610†	-248.0	52.8	0.1724	µg/L	0.1724	ppb	21:13:15
1	Mo 202.031†	6.8	10.2	1.0191	µg/L	1.0191	ppb	21:13:15
1	Ni 231.604†	312.7	6.2	0.3110	µg/L	0.3110	ppb	21:13:15
1	P 214.914†	1.1	-15.2	-30.169	µg/L	-30.169	ppb	21:13:15
1	Pb 220.353†	95.1	1.0	0.2452	µg/L	0.2452	ppb	21:13:15
1	S 181.975 Axial†	16.9	-0.3	-1.2677	µg/L	-1.2677	ppb	21:13:15
1	Sb 206.836†	21.3	-0.7	-0.6239	µg/L	-0.6239	ppb	21:13:15
1	Se 196.026†	12.1	-2.8	-3.7521	µg/L	-3.7521	ppb	21:13:15
1	SiO2†	1508.7	34.5	6.9110	µg/L	6.9110	ppb	21:12:54
1	Si 251.611†	341.0	49.8	3.8443	µg/L	3.8443	ppb	21:13:15
1	Sn 189.927†	3.8	-0.9	-0.3913	µg/L	-0.3913	ppb	21:13:15
1	Ti 334.940†	281.1	141.4	0.3252	µg/L	0.3252	ppb	21:12:54
1	Tl 190.801†	-21.8	0.2	0.3385	µg/L	0.3385	ppb	21:13:15
1	U 409.014†	19.5	20.4	1.7315	µg/L	1.7315	ppb	21:12:54
1	V 292.402†	-116.7	-21.5	-0.2000	µg/L	-0.2000	ppb	21:12:54
1	Zn 213.857†	524.7	26.3	0.6208	µg/L	0.6208	ppb	21:13:15
2	Sc RADIAL	58481.1	58481.1	99.0	%			21:11:52
2	Al 396.153Radial†	-24.1	-15.6	-11.699	µg/L	-11.699	ppb	21:11:52
2	Ca 317.933Radial†	197.0	5.9	5.4176	µg/L	5.4176	ppb	21:12:12
2	Fe 238.204 Radial†	14.7	-0.6	-4.7257	µg/L	-4.7257	ppb	21:12:12
2	K 766.490 Radial†	178.6	-18.0	-12.399	µg/L	-12.399	ppb	21:11:52
2	Mg 279.077 IEC†	12.4	0.5	4.6624	µg/L	4.6624	ppb	21:12:12
2	Na 589.592 Radial†	494.5	25.5	8.3432	µg/L	8.3432	ppb	21:11:52
2	Sr 421.552†	30.4	-10.7	-0.1050	µg/L	-0.1050	ppb	21:11:52
2	Sc 361.383	2081054.4	2081054.4	99.115	%			21:13:21
2	Y 371.029	1441674.9	1441674.9	99.051	%			21:13:21
2	Ag 328.068†	-383.8	75.9	0.5684	µg/L	0.5684	ppb	21:13:26
2	As 188.979†	4.6	5.0	8.9367	µg/L	8.9367	ppb	21:13:47
2	B 249.677†	377.6	55.4	2.2708	µg/L	2.2708	ppb	21:13:47
2	Ba 233.527†	-14.7	3.5	0.0865	µg/L	0.0865	ppb	21:13:47
2	Be 313.107†	-3395.4	333.2	0.2011	µg/L	0.2011	ppb	21:13:26
2	Cd 226.502†	-146.1	-10.8	-0.2704	µg/L	-0.2704	ppb	21:13:47
2	Co 228.616†	14.9	12.4	0.5763	µg/L	0.5763	ppb	21:13:47
2	Cr 267.716†	-38.0	9.1	0.1857	µg/L	0.1857	ppb	21:13:26
2	Cu 324.752†	2936.4	92.9	0.6156	µg/L	0.6156	ppb	21:13:26
2	Mn 257.610†	-256.0	44.3	0.1401	µg/L	0.1401	ppb	21:13:47
2	Mo 202.031†	2.5	5.8	0.5834	µg/L	0.5834	ppb	21:13:47
2	Ni 231.604†	315.1	9.3	0.4672	µg/L	0.4672	ppb	21:13:47
2	P 214.914†	17.3	1.2	2.3923	µg/L	2.3923	ppb	21:13:47
2	Pb 220.353†	90.5	-3.5	-0.8520	µg/L	-0.8520	ppb	21:13:47

2	S 181.975 Axial†	20.2	3.1	12.918 µg/L	12.918 ppb	21:13:47
2	Sb 206.836†	23.6	1.7	1.5439 µg/L	1.5439 ppb	21:13:47
2	Se 196.026†	13.3	-1.6	-2.1637 µg/L	-2.1637 ppb	21:13:47
2	SiO2†	1438.6	-32.9	-6.5928 µg/L	-6.5928 ppb	21:13:26
2	Si 251.611†	330.0	39.4	3.0397 µg/L	3.0397 ppb	21:13:47
2	Sn 189.927†	2.0	-2.7	-1.1480 µg/L	-1.1480 ppb	21:13:47
2	Ti 334.940†	279.5	140.3	0.3189 µg/L	0.3189 ppb	21:13:26
2	Tl 190.801†	-29.6	-7.7	-10.244 µg/L	-10.244 ppb	21:13:47
2	U 409.014†	-34.5	-34.1	-2.8921 µg/L	-2.8921 ppb	21:13:26
2	V 292.402†	-60.5	35.0	0.3474 µg/L	0.3474 ppb	21:13:26
2	Zn 213.857†	528.7	31.5	0.7408 µg/L	0.7408 ppb	21:13:47
3	Sc RADIAL	58246.0	58246.0	98.6 %		21:12:18
3	Al 396.153Radial†	-18.3	-9.9	-7.3904 µg/L	-7.3904 ppb	21:12:18
3	Ca 317.933Radial†	194.4	4.1	3.7831 µg/L	3.7831 ppb	21:12:38
3	Fe 238.204 Radial†	16.3	1.1	9.6301 µg/L	9.6301 ppb	21:12:38
3	K 766.490 Radial†	228.7	33.5	23.010 µg/L	23.010 ppb	21:12:18
3	Mg 279.077 IEC†	15.5	3.6	34.925 µg/L	34.925 ppb	21:12:38
3	Na 589.592 Radial†	490.9	23.9	7.8279 µg/L	7.8279 ppb	21:12:18
3	Sr 421.552†	30.7	-10.2	-0.1003 µg/L	-0.1003 ppb	21:12:18
3	Sc 361.383	2087627.0	2087627.0	99.428 %		21:13:53
3	Y 371.029	1446373.3	1446373.3	99.374 %		21:13:53
3	Ag 328.068†	-400.9	59.9	0.4476 µg/L	0.4476 ppb	21:13:58
3	As 188.979†	-4.1	-3.9	-6.9926 µg/L	-6.9926 ppb	21:14:19
3	B 249.677†	385.6	62.3	2.5452 µg/L	2.5452 ppb	21:14:19
3	Ba 233.527†	-12.3	6.0	0.1471 µg/L	0.1471 ppb	21:14:19
3	Be 313.107†	-3568.2	170.1	0.1026 µg/L	0.1026 ppb	21:13:58
3	Cd 226.502†	-143.3	-7.5	-0.1900 µg/L	-0.1900 ppb	21:14:19
3	Co 228.616†	10.0	7.5	0.3489 µg/L	0.3489 ppb	21:14:19
3	Cr 267.716†	-23.2	24.1	0.4908 µg/L	0.4908 ppb	21:13:58
3	Cu 324.752†	2910.0	57.0	0.3793 µg/L	0.3793 ppb	21:13:58
3	Mn 257.610†	-265.6	35.5	0.1128 µg/L	0.1128 ppb	21:14:19
3	Mo 202.031†	3.3	6.7	0.6685 µg/L	0.6685 ppb	21:14:19
3	Ni 231.604†	308.4	1.5	0.0748 µg/L	0.0748 ppb	21:14:19
3	P 214.914†	9.7	-6.5	-13.002 µg/L	-13.002 ppb	21:14:19
3	Pb 220.353†	90.1	-4.2	-1.0268 µg/L	-1.0268 ppb	21:14:19
3	S 181.975 Axial†	17.9	0.7	2.7428 µg/L	2.7428 ppb	21:14:19
3	Sb 206.836†	25.1	3.1	2.8622 µg/L	2.8622 ppb	21:14:19
3	Se 196.026†	18.3	3.4	4.6867 µg/L	4.6867 ppb	21:14:19
3	SiO2†	1440.1	-36.0	-7.2055 µg/L	-7.2055 ppb	21:13:58
3	Si 251.611†	331.4	39.7	3.0667 µg/L	3.0667 ppb	21:14:19
3	Sn 189.927†	1.7	-3.0	-1.2716 µg/L	-1.2716 ppb	21:14:19
3	Ti 334.940†	276.4	136.3	0.3074 µg/L	0.3074 ppb	21:13:58
3	Tl 190.801†	-22.2	-0.1	-0.1300 µg/L	-0.1300 ppb	21:14:19
3	U 409.014†	-28.2	-27.6	-2.3446 µg/L	-2.3446 ppb	21:13:58
3	V 292.402†	-98.1	-2.7	-0.0214 µg/L	-0.0214 ppb	21:13:58
3	Zn 213.857†	526.3	27.4	0.6421 µg/L	0.6421 ppb	21:14:19

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2084711.4	99.289	%	0.1595				0.16%
Sc RADIAL	58430.7	99.0	%	0.28				0.28%
Y 371.029	1444307.0	99.232	%	0.1649				0.17%
Ag 328.068†	75.8	0.5659	µg/L	0.11703	0.5659	ppb	0.11703	20.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-7.7	-5.7391	µg/L	6.93458	-5.7391	ppb	6.93458	120.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	2.6495	µg/L	8.47799	2.6495	ppb	8.47799	319.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	63.4	2.5903	µg/L	0.34433	2.5903	ppb	0.34433	13.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.1946	µg/L	0.13811	0.1946	ppb	0.13811	70.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	250.2	0.1510	µg/L	0.04926	0.1510	ppb	0.04926	32.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.0	5.4596	µg/L	1.69798	5.4596	ppb	1.69798	31.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.6	-0.0920	µg/L	0.24271	-0.0920	ppb	0.24271	263.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.7	0.3558	µg/L	0.21721	0.3558	ppb	0.21721	61.06%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.3      0.2916 µg/L       0.17257      0.2916 ppb        0.17257  59.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                62.4      0.4151 µg/L       0.18513      0.4151 ppb        0.18513  44.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.6878 µg/L      11.56524      7.6878 ppb       11.56524 150.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           7.2      4.9642 µg/L      17.71413      4.9642 ppb       17.71413 356.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -1.6181 µg/L      40.05410     -1.6181 ppb       40.05410 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                44.2      0.1418 µg/L       0.02981      0.1418 ppb        0.02981  21.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.6      0.7570 µg/L       0.23098      0.7570 ppb        0.23098  30.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         33.2      10.838 µg/L        4.7739      10.838 ppb         4.7739  44.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.6      0.2844 µg/L       0.19756      0.2844 ppb        0.19756  69.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.8     -13.593 µg/L       16.2889     -13.593 ppb       16.2889 119.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.2     -0.5445 µg/L       0.68946     -0.5445 ppb       0.68946 126.61%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.2      4.7978 µg/L       7.31276      4.7978 ppb       7.31276 152.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      1.2607 µg/L       1.76022      1.2607 ppb       1.76022 139.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.3     -0.4097 µg/L       4.48454     -0.4097 ppb       4.48454 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -11.5     -2.2958 µg/L       7.97915     -2.2958 ppb       7.97915 347.56%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                43.0      3.3169 µg/L       0.45696      3.3169 ppb       0.45696  13.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.2     -0.9370 µg/L       0.47656     -0.9370 ppb       0.47656  50.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.1     -0.0204 µg/L       0.14247     -0.0204 ppb       0.14247 698.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               139.3      0.3171 µg/L       0.00903      0.3171 ppb       0.00903   2.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.5     -3.3451 µg/L       5.97899     -3.3451 ppb       5.97899 178.74%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -13.8     -1.1684 µg/L       2.52625     -1.1684 ppb       2.52625 216.21%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  3.6      0.0420 µg/L       0.27913      0.0420 ppb       0.27913 664.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                28.4      0.6679 µg/L       0.06403      0.6679 ppb       0.06403   9.59%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/20/2010 21:14:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58458.4	58458.4	99.0	%			21:15:01
1	Al 396.153Radial†	258.8	270.1	201.71	µg/L	201.71	ppb	21:15:01
1	Ca 317.933Radial†	411.5	222.6	204.21	µg/L	204.21	ppb	21:15:21
1	Fe 238.204 Radial†	27.1	12.0	103.29	µg/L	103.29	ppb	21:15:21
1	K 766.490 Radial†	436.6	242.6	166.81	µg/L	166.81	ppb	21:15:01
1	Mg 279.077 IEC†	43.2	31.6	307.43	µg/L	307.43	ppb	21:15:21
1	Na 589.592 Radial†	1411.3	951.7	311.14	µg/L	311.14	ppb	21:15:01
1	Sr 421.552†	548.2	512.4	5.0393	µg/L	5.0393	ppb	21:15:01
1	Sc 361.383	2076756.1	2076756.1	98.910	%			21:16:24
1	Y 371.029	1438554.1	1438554.1	98.837	%			21:16:24
1	Ag 328.068†	275.7	741.9	5.5767	µg/L	5.5767	ppb	21:16:29
1	As 188.979†	18.9	19.4	34.854	µg/L	34.854	ppb	21:16:50
1	B 249.677†	1544.9	1236.4	50.536	µg/L	50.536	ppb	21:16:29
1	Ba 233.527†	188.0	208.4	5.1169	µg/L	5.1169	ppb	21:16:50
1	Be 313.107†	4586.8	8396.2	5.0689	µg/L	5.0689	ppb	21:16:29
1	Cd 226.502†	48.0	185.1	4.6526	µg/L	4.6526	ppb	21:16:50
1	Co 228.616†	122.0	120.8	5.5928	µg/L	5.5928	ppb	21:16:50
1	Cr 267.716†	187.5	237.0	4.8358	µg/L	4.8358	ppb	21:16:29
1	Cu 324.752†	4427.8	1606.9	10.674	µg/L	10.674	ppb	21:16:29
1	Mn 257.610†	2956.6	3291.7	10.479	µg/L	10.479	ppb	21:16:29
1	Mo 202.031†	101.5	106.0	10.621	µg/L	10.621	ppb	21:16:50
1	Ni 231.604†	423.2	119.2	6.0200	µg/L	6.0200	ppb	21:16:50
1	P 214.914†	87.1	71.9	141.87	µg/L	141.87	ppb	21:16:50
1	Pb 220.353†	128.7	35.3	8.6690	µg/L	8.6690	ppb	21:16:50
1	S 181.975 Axial†	42.4	25.6	106.10	µg/L	106.10	ppb	21:16:50
1	Sb 206.836†	34.3	12.6	11.564	µg/L	11.564	ppb	21:16:50
1	Se 196.026†	35.5	20.9	28.580	µg/L	28.580	ppb	21:16:50
1	SiO2†	2540.4	1084.0	217.07	µg/L	217.07	ppb	21:16:29
1	Si 251.611†	1606.9	1331.0	102.73	µg/L	102.73	ppb	21:16:29
1	Sn 189.927†	22.6	18.1	7.7813	µg/L	7.7813	ppb	21:16:50
1	Ti 334.940†	2333.3	2217.4	5.0222	µg/L	5.0222	ppb	21:16:29
1	Tl 190.801†	-10.0	12.1	16.365	µg/L	16.365	ppb	21:16:50
1	U 409.014†	545.1	551.8	46.805	µg/L	46.805	ppb	21:16:29
1	V 292.402†	448.5	549.4	5.5885	µg/L	5.5885	ppb	21:16:29
1	Zn 213.857†	962.3	470.9	11.048	µg/L	11.048	ppb	21:16:50
2	Sc RADIAL	58637.7	58637.7	99.3	%			21:15:27
2	Al 396.153Radial†	246.9	257.3	192.14	µg/L	192.14	ppb	21:15:27
2	Ca 317.933Radial†	420.8	230.7	211.63	µg/L	211.63	ppb	21:15:48
2	Fe 238.204 Radial†	27.6	12.4	106.26	µg/L	106.26	ppb	21:15:48
2	K 766.490 Radial†	399.5	203.9	140.19	µg/L	140.19	ppb	21:15:27
2	Mg 279.077 IEC†	42.6	30.8	299.94	µg/L	299.94	ppb	21:15:48
2	Na 589.592 Radial†	1434.6	970.9	317.40	µg/L	317.40	ppb	21:15:27
2	Sr 421.552†	537.3	499.6	4.9139	µg/L	4.9139	ppb	21:15:27
2	Sc 361.383	2073118.3	2073118.3	98.737	%			21:16:56
2	Y 371.029	1436197.3	1436197.3	98.675	%			21:16:56
2	Ag 328.068†	299.5	766.4	5.7589	µg/L	5.7589	ppb	21:17:01
2	As 188.979†	16.0	16.4	29.570	µg/L	29.570	ppb	21:17:22
2	B 249.677†	1526.7	1220.7	49.891	µg/L	49.891	ppb	21:17:01
2	Ba 233.527†	192.5	213.4	5.2381	µg/L	5.2381	ppb	21:17:22
2	Be 313.107†	4573.1	8390.5	5.0654	µg/L	5.0654	ppb	21:17:01
2	Cd 226.502†	52.5	189.8	4.7698	µg/L	4.7698	ppb	21:17:22
2	Co 228.616†	96.1	94.7	4.3852	µg/L	4.3852	ppb	21:17:22
2	Cr 267.716†	195.6	245.5	5.0105	µg/L	5.0105	ppb	21:17:01
2	Cu 324.752†	4459.6	1646.9	10.939	µg/L	10.939	ppb	21:17:01
2	Mn 257.610†	2958.3	3298.7	10.502	µg/L	10.502	ppb	21:17:01
2	Mo 202.031†	92.6	97.1	9.7325	µg/L	9.7325	ppb	21:17:22
2	Ni 231.604†	412.3	109.0	5.5035	µg/L	5.5035	ppb	21:17:22
2	P 214.914†	88.8	73.7	145.61	µg/L	145.61	ppb	21:17:22
2	Pb 220.353†	131.8	38.7	9.4863	µg/L	9.4863	ppb	21:17:22

2	S 181.975 Axial†	44.5	27.8	115.16 µg/L	115.16 ppb	21:17:22
2	Sb 206.836†	32.0	10.3	9.4435 µg/L	9.4435 ppb	21:17:22
2	Se 196.026†	37.8	23.3	31.877 µg/L	31.877 ppb	21:17:22
2	SiO2†	2511.2	1059.0	212.06 µg/L	212.06 ppb	21:17:01
2	Si 251.611†	1616.7	1343.8	103.72 µg/L	103.72 ppb	21:17:01
2	Sn 189.927†	29.7	25.3	10.859 µg/L	10.859 ppb	21:17:22
2	Ti 334.940†	2319.7	2207.8	5.0010 µg/L	5.0010 ppb	21:17:01
2	Tl 190.801†	-8.6	13.5	18.179 µg/L	18.179 ppb	21:17:22
2	U 409.014†	590.2	598.5	50.764 µg/L	50.764 ppb	21:17:01
2	V 292.402†	431.8	533.3	5.4276 µg/L	5.4276 ppb	21:17:01
2	Zn 213.857†	954.9	465.2	10.915 µg/L	10.915 ppb	21:17:22
3	Sc RADIAL	58244.5	58244.5	98.6 %		21:15:53
3	Al 396.153Radial†	267.7	280.0	209.15 µg/L	209.15 ppb	21:15:53
3	Ca 317.933Radial†	418.2	231.0	211.88 µg/L	211.88 ppb	21:16:13
3	Fe 238.204 Radial†	28.1	13.1	112.44 µg/L	112.44 ppb	21:16:13
3	K 766.490 Radial†	422.6	230.0	158.15 µg/L	158.15 ppb	21:15:53
3	Mg 279.077 IEC†	45.9	34.4	334.98 µg/L	334.98 ppb	21:16:13
3	Na 589.592 Radial†	1426.0	971.9	317.74 µg/L	317.74 ppb	21:15:53
3	Sr 421.552†	551.3	517.5	5.0897 µg/L	5.0897 ppb	21:15:53
3	Sc 361.383	2071181.4	2071181.4	98.645 %		21:17:28
3	Y 371.029	1436162.0	1436162.0	98.672 %		21:17:28
3	Ag 328.068†	234.7	701.0	5.2665 µg/L	5.2665 ppb	21:17:34
3	As 188.979†	15.6	16.1	28.992 µg/L	28.992 ppb	21:17:54
3	B 249.677†	1459.8	1154.4	47.175 µg/L	47.175 ppb	21:17:34
3	Ba 233.527†	162.7	183.3	4.5003 µg/L	4.5003 ppb	21:17:54
3	Be 313.107†	3897.6	7710.0	4.6546 µg/L	4.6546 ppb	21:17:34
3	Cd 226.502†	24.5	161.4	4.0536 µg/L	4.0536 ppb	21:17:54
3	Co 228.616†	87.0	85.6	3.9641 µg/L	3.9641 ppb	21:17:54
3	Cr 267.716†	185.3	235.2	4.7995 µg/L	4.7995 ppb	21:17:34
3	Cu 324.752†	4376.3	1566.7	10.408 µg/L	10.408 ppb	21:17:34
3	Mn 257.610†	2707.4	3047.2	9.7012 µg/L	9.7012 ppb	21:17:34
3	Mo 202.031†	93.8	98.4	9.8684 µg/L	9.8684 ppb	21:17:54
3	Ni 231.604†	397.4	94.2	4.7570 µg/L	4.7570 ppb	21:17:54
3	P 214.914†	76.6	61.4	121.13 µg/L	121.13 ppb	21:17:54
3	Pb 220.353†	123.5	30.4	7.4641 µg/L	7.4641 ppb	21:17:54
3	S 181.975 Axial†	39.0	22.3	92.294 µg/L	92.294 ppb	21:17:54
3	Sb 206.836†	27.8	6.1	5.6139 µg/L	5.6139 ppb	21:17:54
3	Se 196.026†	47.6	33.2	45.482 µg/L	45.482 ppb	21:17:54
3	SiO2†	2440.9	990.1	198.26 µg/L	198.26 ppb	21:17:34
3	Si 251.611†	1532.4	1259.9	97.245 µg/L	97.245 ppb	21:17:34
3	Sn 189.927†	23.1	18.7	8.0229 µg/L	8.0229 ppb	21:17:54
3	Ti 334.940†	2183.5	2071.9	4.6891 µg/L	4.6891 ppb	21:17:34
3	Tl 190.801†	-5.3	16.9	22.678 µg/L	22.678 ppb	21:17:54
3	U 409.014†	509.5	517.3	43.867 µg/L	43.867 ppb	21:17:34
3	V 292.402†	361.2	462.2	4.7178 µg/L	4.7178 ppb	21:17:34
3	Zn 213.857†	893.4	403.7	9.4663 µg/L	9.4663 ppb	21:17:54

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2073685.3	98.764	%	0.1348				0.14%
Sc RADIAL	58446.8	99.0	%	0.33				0.34%
Y 371.029	1436971.1	98.728	%	0.0942				0.10%
Ag 328.068†	736.4	5.5340	µg/L	0.24894	5.5340	ppb	0.24894	4.50%
QC value within limits for Ag 328.068 Recovery = 110.68%								
Al 396.153Radial†	269.1	201.00	µg/L	8.529	201.00	ppb	8.529	4.24%
QC value within limits for Al 396.153Radial Recovery = 100.50%								
As 188.979†	17.3	31.138	µg/L	3.2305	31.138	ppb	3.2305	10.37%
QC value within limits for As 188.979 Recovery = 103.79%								
B 249.677†	1203.9	49.200	µg/L	1.7837	49.200	ppb	1.7837	3.63%
QC value within limits for B 249.677 Recovery = 98.40%								
Ba 233.527†	201.7	4.9518	µg/L	0.39562	4.9518	ppb	0.39562	7.99%
QC value within limits for Ba 233.527 Recovery = 99.04%								
Be 313.107†	8165.6	4.9297	µg/L	0.23820	4.9297	ppb	0.23820	4.83%
QC value within limits for Be 313.107 Recovery = 98.59%								
Ca 317.933Radial†	228.1	209.24	µg/L	4.355	209.24	ppb	4.355	2.08%
QC value within limits for Ca 317.933Radial Recovery = 104.62%								
Cd 226.502†	178.8	4.4920	µg/L	0.38420	4.4920	ppb	0.38420	8.55%
QC value within limits for Cd 226.502 Recovery = 89.84%								
Co 228.616†	100.4	4.6474	µg/L	0.84542	4.6474	ppb	0.84542	18.19%

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   QC value within limits for Co 228.616  Recovery = 92.95%
Cr 267.716†              239.2      4.8819 µg/L       0.11286      4.8819 ppb        0.11286   2.31%
   QC value within limits for Cr 267.716  Recovery = 97.64%
Cu 324.752†             1606.8      10.674 µg/L        0.2654      10.674 ppb         0.2654   2.49%
   QC value within limits for Cu 324.752  Recovery = 106.74%
Fe 238.204 Radial†       12.5      107.33 µg/L         4.670      107.33 ppb          4.670   4.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.33%
K 766.490 Radial†       225.5      155.05 µg/L        13.579      155.05 ppb         13.579   8.76%
   QC value within limits for K 766.490 Radial  Recovery = 103.37%
Mg 279.077 IEC†          32.3      314.12 µg/L        18.454      314.12 ppb         18.454   5.87%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.71%
Mn 257.610†             3212.5      10.228 µg/L        0.4560      10.228 ppb         0.4560   4.46%
   QC value within limits for Mn 257.610  Recovery = 102.28%
Mo 202.031†              100.5      10.074 µg/L        0.4788      10.074 ppb         0.4788   4.75%
   QC value within limits for Mo 202.031  Recovery = 100.74%
Na 589.592 Radial†       964.8      315.43 µg/L         3.714      315.43 ppb          3.714   1.18%
   QC value within limits for Na 589.592 Radial  Recovery = 105.14%
Ni 231.604†              107.5      5.4268 µg/L       0.63497      5.4268 ppb        0.63497  11.70%
   QC value within limits for Ni 231.604  Recovery = 108.54%
P 214.914†                69.0      136.20 µg/L        13.187      136.20 ppb         13.187   9.68%
   QC value within limits for P 214.914  Recovery = 90.80%
Pb 220.353†               34.8      8.5398 µg/L       1.01723      8.5398 ppb        1.01723  11.91%
   QC value within limits for Pb 220.353  Recovery = 85.40%
S 181.975 Axial†          25.2      104.52 µg/L        11.515      104.52 ppb         11.515  11.02%
   QC value within limits for S 181.975 Axial  Recovery = 104.52%
Sb 206.836†                9.6      8.8738 µg/L       3.01568      8.8738 ppb        3.01568  33.98%
   QC value within limits for Sb 206.836  Recovery = 88.74%
Se 196.026†               25.8      35.313 µg/L        8.9596      35.313 ppb         8.9596  25.37%
   QC value within limits for Se 196.026  Recovery = 117.71%
SiO2†                   1044.4      209.13 µg/L         9.740      209.13 ppb          9.740   4.66%
   QC value within limits for SiO2  Recovery = 98.18%
Si 251.611†             1311.6      101.23 µg/L         3.489      101.23 ppb          3.489   3.45%
   QC value within limits for Si 251.611  Recovery = 101.23%
Sn 189.927†               20.7      8.8878 µg/L       1.71151      8.8878 ppb        1.71151  19.26%
   QC value within limits for Sn 189.927  Recovery = 88.88%
Sr 421.552†              509.8      5.0143 µg/L       0.09056      5.0143 ppb        0.09056   1.81%
   QC value within limits for Sr 421.552  Recovery = 100.29%
Ti 334.940†             2165.7      4.9041 µg/L       0.18646      4.9041 ppb        0.18646   3.80%
   QC value within limits for Ti 334.940  Recovery = 98.08%
Tl 190.801†               14.2      19.074 µg/L        3.2505      19.074 ppb         3.2505  17.04%
   QC value within limits for Tl 190.801  Recovery = 95.37%
U 409.014†               555.9      47.145 µg/L        3.4611      47.145 ppb         3.4611   7.34%
   QC value within limits for U 409.014  Recovery = 94.29%
V 292.402†               515.0      5.2446 µg/L       0.46328      5.2446 ppb        0.46328   8.83%
   QC value within limits for V 292.402  Recovery = 104.89%
Zn 213.857†              446.6      10.477 µg/L        0.8775      10.477 ppb         0.8775   8.38%
   QC value within limits for Zn 213.857  Recovery = 104.77%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/20/2010 21:18:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56819.2	56819.2	96.2	%			21:18:45
1	Al 396.153Radial†	663448.7	689430.9	515410	µg/L	515410	ppb	21:18:39
1	Ca 317.933Radial†	515921.4	535926.3	491590	µg/L	491590	ppb	21:18:39
1	Fe 238.204 Radial†	21482.2	22307.8	191490	µg/L	191490	ppb	21:18:45
1	K 766.490 Radial†	168.1	-23.7	-16.325	µg/L	-16.325	ppb	21:18:45
1	Mg 279.077 IEC†	48942.9	50846.9	494700	µg/L	494700	ppb	21:18:45
1	Na 589.592 Radial†	575.8	124.6	40.751	µg/L	40.751	ppb	21:18:45
1	Sr 421.552†	383.3	356.9	3.5102	µg/L	3.5102	ppb	21:18:45
1	Sc 361.383	1959635.9	1959635.9	93.332	%			21:19:18
1	Y 371.029	1348760.4	1348760.4	92.667	%			21:19:18
1	Ag 328.068†	-2471.8	-2185.3	-4.4145	µg/L	-4.4145	ppb	21:19:23
1	As 188.979†	-17.6	-18.6	-47.859	µg/L	-47.859	ppb	21:19:44
1	B 249.677†	807.2	539.4	-77.855	µg/L	-77.855	ppb	21:19:23
1	Ba 233.527†	259.9	296.8	7.2241	µg/L	7.2241	ppb	21:19:44
1	Be 313.107†	-4248.7	-793.4	-0.4893	µg/L	-0.4893	ppb	21:19:23
1	Cd 226.502†	409.4	575.2	-7.1705	µg/L	-7.1705	ppb	21:19:44
1	Co 228.616†	58.0	59.6	2.6931	µg/L	2.6931	ppb	21:19:44
1	Cr 267.716†	-77.6	-35.8	-0.7464	µg/L	-0.7464	ppb	21:19:44
1	Cu 324.752†	-1129.5	-4079.9	-0.4461	µg/L	-0.4461	ppb	21:19:23
1	Mn 257.610†	950.3	1320.7	9.8767	µg/L	9.8767	ppb	21:19:23
1	Mo 202.031†	-96.1	-99.6	-2.7058	µg/L	-2.7058	ppb	21:19:44
1	Ni 231.604†	172.4	-124.0	-3.7785	µg/L	-3.7785	ppb	21:19:44
1	P 214.914†	82.2	71.9	138.26	µg/L	138.26	ppb	21:19:44
1	Pb 220.353†	25.6	-67.3	4.5259	µg/L	4.5259	ppb	21:19:44
1	S 181.975 Axial†	39.8	25.4	105.27	µg/L	105.27	ppb	21:19:44
1	Sb 206.836†	45.7	26.9	-18.388	µg/L	-18.388	ppb	21:19:44
1	Se 196.026†	17.5	3.7	-48.894	µg/L	-48.894	ppb	21:19:44
1	SiO2†	1279.5	-113.5	-22.734	µg/L	-22.734	ppb	21:19:44
1	Si 251.611†	453.4	192.2	14.837	µg/L	14.837	ppb	21:19:44
1	Sn 189.927†	-65.6	-75.0	3.4240	µg/L	3.4240	ppb	21:19:44
1	Ti 334.940†	11042.3	11689.5	-4.6455	µg/L	-4.6455	ppb	21:19:23
1	Tl 190.801†	-36.3	-16.7	-1.6599	µg/L	-1.6599	ppb	21:19:44
1	U 409.014†	-77.2	-82.0	-63.564	µg/L	-63.564	ppb	21:19:23
1	V 292.402†	-2625.3	-2716.9	-4.4225	µg/L	-4.4225	ppb	21:19:23
1	Zn 213.857†	1555.9	1165.1	-9.5890	µg/L	-9.5890	ppb	21:19:44
2	Sc RADIAL	57074.7	57074.7	96.7	%			21:18:56
2	Al 396.153Radial†	663732.9	686639.5	513330	µg/L	513330	ppb	21:18:51
2	Ca 317.933Radial†	516332.9	533952.7	489780	µg/L	489780	ppb	21:18:51
2	Fe 238.204 Radial†	21585.3	22314.6	191550	µg/L	191550	ppb	21:18:56
2	K 766.490 Radial†	149.3	-43.9	-30.192	µg/L	-30.192	ppb	21:18:56
2	Mg 279.077 IEC†	49168.6	50852.8	494760	µg/L	494760	ppb	21:18:56
2	Na 589.592 Radial†	578.5	124.8	40.785	µg/L	40.785	ppb	21:18:56
2	Sr 421.552†	373.8	345.3	3.3960	µg/L	3.3960	ppb	21:18:56
2	Sc 361.383	1939757.2	1939757.2	92.386	%			21:19:50
2	Y 371.029	1335581.2	1335581.2	91.762	%			21:19:50
2	Ag 328.068†	-2478.6	-2219.8	-4.6699	µg/L	-4.6699	ppb	21:19:56
2	As 188.979†	-10.5	-11.1	-34.286	µg/L	-34.286	ppb	21:20:16
2	B 249.677†	780.0	518.8	-78.730	µg/L	-78.730	ppb	21:19:56
2	Ba 233.527†	269.1	309.6	7.5380	µg/L	7.5380	ppb	21:20:16
2	Be 313.107†	-4253.7	-845.4	-0.5216	µg/L	-0.5216	ppb	21:19:56
2	Cd 226.502†	422.3	593.7	-6.7140	µg/L	-6.7140	ppb	21:20:16
2	Co 228.616†	53.2	55.0	2.4766	µg/L	2.4766	ppb	21:20:16
2	Cr 267.716†	-89.6	-49.6	-1.0286	µg/L	-1.0286	ppb	21:20:16
2	Cu 324.752†	-1145.7	-4109.9	-0.6368	µg/L	-0.6368	ppb	21:19:56
2	Mn 257.610†	927.9	1306.9	9.8383	µg/L	9.8383	ppb	21:19:56
2	Mo 202.031†	-107.8	-113.3	-4.0775	µg/L	-4.0775	ppb	21:20:16
2	Ni 231.604†	141.2	-155.8	-5.3889	µg/L	-5.3889	ppb	21:20:16
2	P 214.914†	85.2	76.0	145.79	µg/L	145.79	ppb	21:20:16
2	Pb 220.353†	31.0	-61.3	5.8949	µg/L	5.8949	ppb	21:20:16

2	S 181.975 Axial†	38.7	24.6	102.13 µg/L	102.13 ppb	21:20:16
2	Sb 206.836†	47.0	28.7	-16.542 µg/L	-16.542 ppb	21:20:16
2	Se 196.026†	20.1	6.8	-44.081 µg/L	-44.081 ppb	21:20:16
2	SiO2†	1274.3	-105.0	-21.030 µg/L	-21.030 ppb	21:20:16
2	Si 251.611†	460.3	204.7	15.801 µg/L	15.801 ppb	21:20:16
2	Sn 189.927†	-76.9	-87.9	-2.0815 µg/L	-2.0815 ppb	21:20:16
2	Ti 334.940†	11870.4	12707.1	-2.3645 µg/L	-2.3645 ppb	21:19:56
2	Tl 190.801†	-46.1	-27.7	-16.388 µg/L	-16.388 ppb	21:20:16
2	U 409.014†	-49.4	-52.7	-60.971 µg/L	-60.971 ppb	21:19:56
2	V 292.402†	-2622.2	-2742.3	-4.6756 µg/L	-4.6756 ppb	21:19:56
2	Zn 213.857†	1556.5	1182.8	-9.1685 µg/L	-9.1685 ppb	21:20:16
3	Sc RADIAL	57166.4	57166.4	96.8 %		21:19:07
3	Al 396.153Radial†	665337.5	687194.8	513740 µg/L	513740 ppb	21:19:02
3	Ca 317.933Radial†	517835.0	534646.9	490410 µg/L	490410 ppb	21:19:02
3	Fe 238.204 Radial†	21673.8	22370.2	192030 µg/L	192030 ppb	21:19:07
3	K 766.490 Radial†	176.2	-16.4	-11.291 µg/L	-11.291 ppb	21:19:07
3	Mg 279.077 IEC†	49234.8	50839.6	494630 µg/L	494630 ppb	21:19:07
3	Na 589.592 Radial†	555.4	100.0	32.681 µg/L	32.681 ppb	21:19:07
3	Sr 421.552†	387.4	358.7	3.5283 µg/L	3.5283 ppb	21:19:07
3	Sc 361.383	1950951.0	1950951.0	92.919 %		21:20:22
3	Y 371.029	1342787.4	1342787.4	92.257 %		21:20:22
3	Ag 328.068†	-2511.8	-2240.1	-4.7858 µg/L	-4.7858 ppb	21:20:28
3	As 188.979†	-10.9	-11.5	-35.015 µg/L	-35.015 ppb	21:20:49
3	B 249.677†	758.6	490.9	-80.121 µg/L	-80.121 ppb	21:20:28
3	Ba 233.527†	269.1	308.0	7.4991 µg/L	7.4991 ppb	21:20:49
3	Be 313.107†	-4316.3	-886.4	-0.5454 µg/L	-0.5454 ppb	21:20:28
3	Cd 226.502†	437.0	606.9	-6.4355 µg/L	-6.4355 ppb	21:20:49
3	Co 228.616†	51.8	53.2	2.3986 µg/L	2.3986 ppb	21:20:49
3	Cr 267.716†	-94.8	-54.6	-1.1309 µg/L	-1.1309 ppb	21:20:49
3	Cu 324.752†	-1114.5	-4069.1	-0.3003 µg/L	-0.3003 ppb	21:20:28
3	Mn 257.610†	923.5	1296.5	9.8735 µg/L	9.8735 ppb	21:20:28
3	Mo 202.031†	-100.1	-104.4	-3.1665 µg/L	-3.1665 ppb	21:20:49
3	Ni 231.604†	153.4	-143.5	-4.7588 µg/L	-4.7588 ppb	21:20:49
3	P 214.914†	98.0	89.2	171.81 µg/L	171.81 ppb	21:20:49
3	Pb 220.353†	26.1	-66.7	4.5588 µg/L	4.5588 ppb	21:20:49
3	S 181.975 Axial†	32.5	17.7	73.342 µg/L	73.342 ppb	21:20:49
3	Sb 206.836†	50.2	31.9	-13.690 µg/L	-13.690 ppb	21:20:49
3	Se 196.026†	16.4	2.7	-48.480 µg/L	-48.480 ppb	21:20:49
3	SiO2†	1286.5	-99.8	-19.991 µg/L	-19.991 ppb	21:20:49
3	Si 251.611†	421.6	160.2	12.361 µg/L	12.361 ppb	21:20:49
3	Sn 189.927†	-53.7	-62.5	8.7246 µg/L	8.7246 ppb	21:20:49
3	Ti 334.940†	10959.8	11653.4	-4.7408 µg/L	-4.7408 ppb	21:20:28
3	Tl 190.801†	-49.9	-31.5	-21.446 µg/L	-21.446 ppb	21:20:49
3	U 409.014†	-70.3	-74.9	-62.961 µg/L	-62.961 ppb	21:20:28
3	V 292.402†	-2559.7	-2658.7	-3.7882 µg/L	-3.7882 ppb	21:20:28
3	Zn 213.857†	1572.6	1190.5	-9.0051 µg/L	-9.0051 ppb	21:20:49

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1950114.7	92.879	%	0.4746				0.51%
Sc RADIAL	57020.1	96.6	%	0.30				0.32%
Y 371.029	1342376.4	92.229	%	0.4534				0.49%
Ag 328.068†	-2215.0	-4.6234	µg/L	0.18995	-4.6234	ppb	0.18995	4.11%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	687755.1	514160	µg/L	1104.7	514160	ppb	1104.7	0.21%
QC value within limits for Al 396.153Radial Recovery = 102.83%								
As 188.979†	-13.7	-39.053	µg/L	7.6348	-39.053	ppb	7.6348	19.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	516.4	-78.902	µg/L	1.1426	-78.902	ppb	1.1426	1.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	304.8	7.4204	µg/L	0.17114	7.4204	ppb	0.17114	2.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-841.7	-0.5188	µg/L	0.02819	-0.5188	ppb	0.02819	5.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	534842.0	490590	µg/L	918.3	490590	ppb	918.3	0.19%
QC value within limits for Ca 317.933Radial Recovery = 98.12%								
Cd 226.502†	591.9	-6.7733	µg/L	0.37107	-6.7733	ppb	0.37107	5.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	55.9	2.5228	µg/L	0.15258	2.5228	ppb	0.15258	6.05%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -46.7     -0.9686 µg/L       0.19914     -0.9686 ppb        0.19914  20.56%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -4086.3     -0.4611 µg/L       0.16874     -0.4611 ppb        0.16874  36.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     22330.9      191690 µg/L         293.9      191690 ppb          293.9   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.85%
K 766.490 Radial†        -28.0     -19.269 µg/L        9.7882     -19.269 ppb         9.7882  50.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        50846.4      494690 µg/L          64.9      494690 ppb           64.9   0.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.94%
Mn 257.610†             1308.0      9.8628 µg/L       0.02134      9.8628 ppb        0.02134   0.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -105.8     -3.3166 µg/L       0.69809     -3.3166 ppb        0.69809  21.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       116.5      38.072 µg/L        4.6692      38.072 ppb         4.6692  12.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -141.1     -4.6421 µg/L       0.81155     -4.6421 ppb        0.81155  17.48%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                79.0      151.96 µg/L        17.606      151.96 ppb         17.606  11.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -65.1      4.9932 µg/L       0.78104      4.9932 ppb        0.78104  15.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          22.6      93.582 µg/L       17.5980      93.582 ppb        17.5980  18.80%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               29.2     -16.207 µg/L        2.3667     -16.207 ppb         2.3667  14.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.4     -47.151 µg/L        2.6675     -47.151 ppb         2.6675   5.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -106.1     -21.252 µg/L        1.3852     -21.252 ppb         1.3852   6.52%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              185.7      14.333 µg/L        1.7743      14.333 ppb         1.7743  12.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -75.2      3.3557 µg/L       5.40337      3.3557 ppb        5.40337 161.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              353.6      3.4782 µg/L       0.07176      3.4782 ppb        0.07176   2.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            12016.7     -3.9169 µg/L       1.34528     -3.9169 ppb        1.34528  34.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -25.3     -13.165 µg/L       10.2795     -13.165 ppb        10.2795  78.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -69.8     -62.498 µg/L        1.3566     -62.498 ppb         1.3566   2.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2706.0     -4.2954 µg/L       0.45718     -4.2954 ppb        0.45718  10.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1179.5     -9.2542 µg/L       0.30128     -9.2542 ppb        0.30128   3.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/20/2010 21:20:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56972.6	56972.6	96.5	%			21:21:37
1	Al 396.153Radial†	667700.7	691981.7	517310	µg/L	517310	ppb	21:21:32
1	Ca 317.933Radial†	516453.9	535035.1	490770	µg/L	490770	ppb	21:21:32
1	Fe 238.204 Radial†	21548.4	22316.4	191580	µg/L	191580	ppb	21:21:37
1	K 766.490 Radial†	7197.7	7261.0	4992.8	µg/L	4992.8	ppb	21:21:37
1	Mg 279.077 IEC†	49172.8	50948.3	495690	µg/L	495690	ppb	21:21:37
1	Na 589.592 Radial†	15775.0	15874.7	5189.9	µg/L	5189.9	ppb	21:21:37
1	Sr 421.552†	48706.0	50435.2	496.04	µg/L	496.04	ppb	21:21:37
1	Sc 361.383	1950890.0	1950890.0	92.916	%			21:22:11
1	Y 371.029	1344114.6	1344114.6	92.348	%			21:22:11
1	Ag 328.068†	28700.0	31351.3	249.04	µg/L	249.04	ppb	21:22:17
1	As 188.979†	248.2	267.4	465.90	µg/L	465.90	ppb	21:22:37
1	B 249.677†	12106.5	12704.0	420.50	µg/L	420.50	ppb	21:22:17
1	Ba 233.527†	18309.4	19723.7	484.19	µg/L	484.19	ppb	21:22:17
1	Be 313.107†	362856.0	394280.4	237.93	µg/L	237.93	ppb	21:22:11
1	Cd 226.502†	17002.7	18435.6	442.66	µg/L	442.66	ppb	21:22:17
1	Co 228.616†	8513.4	9159.9	423.51	µg/L	423.51	ppb	21:22:37
1	Cr 267.716†	21301.8	22973.3	468.81	µg/L	468.81	ppb	21:22:17
1	Cu 324.752†	72110.4	74738.7	522.41	µg/L	522.41	ppb	21:22:17
1	Mn 257.610†	135669.4	146316.0	471.39	µg/L	471.39	ppb	21:22:17
1	Mo 202.031†	4462.9	4806.5	488.87	µg/L	488.87	ppb	21:22:37
1	Ni 231.604†	7948.6	8246.0	418.73	µg/L	418.73	ppb	21:22:37
1	P 214.914†	1244.6	1323.2	2578.9	µg/L	2578.9	ppb	21:22:37
1	Pb 220.353†	1768.6	1808.7	466.25	µg/L	466.25	ppb	21:22:37
1	S 181.975 Axial†	619.0	648.9	2689.6	µg/L	2689.6	ppb	21:22:37
1	Sb 206.836†	562.9	583.7	492.74	µg/L	492.74	ppb	21:22:37
1	Se 196.026†	1589.8	1696.0	2269.0	µg/L	2269.0	ppb	21:22:37
1	SiO2†	50384.2	52741.3	10561	µg/L	10561	ppb	21:22:17
1	Si 251.611†	59987.1	64267.2	4960.4	µg/L	4960.4	ppb	21:22:17
1	Sn 189.927†	1013.7	1086.3	500.15	µg/L	500.15	ppb	21:22:37
1	Ti 334.940†	209590.3	225428.5	481.39	µg/L	481.39	ppb	21:22:17
1	Tl 190.801†	283.8	327.6	464.12	µg/L	464.12	ppb	21:22:37
1	U 409.014†	5253.6	5654.9	423.32	µg/L	423.32	ppb	21:22:17
1	V 292.402†	44010.3	47461.8	497.33	µg/L	497.33	ppb	21:22:17
1	Zn 213.857†	19739.7	20742.8	449.69	µg/L	449.69	ppb	21:22:17
2	Sc RADIAL	56486.9	56486.9	95.7	%			21:21:49
2	Al 396.153Radial†	665996.8	696150.6	520430	µg/L	520430	ppb	21:21:43
2	Ca 317.933Radial†	513896.2	536963.7	492540	µg/L	492540	ppb	21:21:43
2	Fe 238.204 Radial†	21339.9	22290.4	191350	µg/L	191350	ppb	21:21:49
2	K 766.490 Radial†	7195.3	7322.5	5035.1	µg/L	5035.1	ppb	21:21:49
2	Mg 279.077 IEC†	48865.9	51065.6	496840	µg/L	496840	ppb	21:21:49
2	Na 589.592 Radial†	15574.5	15805.8	5167.4	µg/L	5167.4	ppb	21:21:49
2	Sr 421.552†	48292.5	50437.0	496.06	µg/L	496.06	ppb	21:21:49
2	Sc 361.383	1928851.3	1928851.3	91.866	%			21:22:43
2	Y 371.029	1328576.4	1328576.4	91.281	%			21:22:43
2	Ag 328.068†	28877.8	31897.8	253.16	µg/L	253.16	ppb	21:22:50
2	As 188.979†	236.8	258.0	449.02	µg/L	449.02	ppb	21:23:10
2	B 249.677†	12225.8	12982.8	432.03	µg/L	432.03	ppb	21:22:50
2	Ba 233.527†	18385.3	20031.5	491.75	µg/L	491.75	ppb	21:22:50
2	Be 313.107†	358164.9	393636.0	237.53	µg/L	237.53	ppb	21:22:43
2	Cd 226.502†	17066.4	18714.0	449.70	µg/L	449.70	ppb	21:22:50
2	Co 228.616†	8445.4	9190.6	424.91	µg/L	424.91	ppb	21:23:10
2	Cr 267.716†	21470.0	23418.3	477.89	µg/L	477.89	ppb	21:22:50
2	Cu 324.752†	72376.8	75915.4	530.18	µg/L	530.18	ppb	21:22:50
2	Mn 257.610†	136127.7	148483.1	478.21	µg/L	478.21	ppb	21:22:50
2	Mo 202.031†	4432.6	4828.4	491.06	µg/L	491.06	ppb	21:23:10
2	Ni 231.604†	7911.3	8303.2	421.62	µg/L	421.62	ppb	21:23:10
2	P 214.914†	1258.9	1354.2	2640.7	µg/L	2640.7	ppb	21:23:10
2	Pb 220.353†	1783.3	1846.5	475.72	µg/L	475.72	ppb	21:23:10

2	S 181.975 Axial†	612.4	649.3	2691.5 µg/L	2691.5 ppb	21:23:10
2	Sb 206.836†	545.5	571.7	481.62 µg/L	481.62 ppb	21:23:10
2	Se 196.026†	1567.3	1691.1	2260.1 µg/L	2260.1 ppb	21:23:10
2	SiO2†	50752.3	53761.5	10766 µg/L	10766 ppb	21:22:50
2	Si 251.611†	60354.6	65404.9	5048.2 µg/L	5048.2 ppb	21:22:50
2	Sn 189.927†	1012.7	1097.7	505.18 µg/L	505.18 ppb	21:23:10
2	Ti 334.940†	211110.8	229661.0	490.95 µg/L	490.95 ppb	21:22:50
2	Tl 190.801†	268.4	314.3	446.50 µg/L	446.50 ppb	21:23:10
2	U 409.014†	5240.2	5704.9	427.49 µg/L	427.49 ppb	21:22:50
2	V 292.402†	44336.8	48358.4	506.22 µg/L	506.22 ppb	21:22:50
2	Zn 213.857†	19816.0	21068.6	457.30 µg/L	457.30 ppb	21:22:50
3	Sc RADIAL	56093.4	56093.4	95.0 %		21:22:00
3	Al 396.153Radial†	664211.5	699155.3	522670 µg/L	522670 ppb	21:21:54
3	Ca 317.933Radial†	511912.6	538644.4	494080 µg/L	494080 ppb	21:21:54
3	Fe 238.204 Radial†	21142.1	22238.7	190910 µg/L	190910 ppb	21:22:00
3	K 766.490 Radial†	7140.4	7317.6	5031.7 µg/L	5031.7 ppb	21:22:00
3	Mg 279.077 IEC†	48557.1	51098.9	497160 µg/L	497160 ppb	21:22:00
3	Na 589.592 Radial†	15560.1	15904.8	5199.7 µg/L	5199.7 ppb	21:22:00
3	Sr 421.552†	47868.4	50344.8	495.15 µg/L	495.15 ppb	21:22:00
3	Sc 361.383	1926645.3	1926645.3	91.761 %		21:23:16
3	Y 371.029	1326726.5	1326726.5	91.153 %		21:23:16
3	Ag 328.068†	28729.6	31772.3	252.18 µg/L	252.18 ppb	21:23:22
3	As 188.979†	238.4	260.1	452.54 µg/L	452.54 ppb	21:23:43
3	B 249.677†	12156.5	12922.5	429.79 µg/L	429.79 ppb	21:23:22
3	Ba 233.527†	18270.9	19929.7	489.25 µg/L	489.25 ppb	21:23:22
3	Be 313.107†	358197.5	394117.9	237.83 µg/L	237.83 ppb	21:23:16
3	Cd 226.502†	16931.2	18588.0	446.58 µg/L	446.58 ppb	21:23:22
3	Co 228.616†	8424.2	9178.0	424.34 µg/L	424.34 ppb	21:23:43
3	Cr 267.716†	21333.0	23295.8	475.39 µg/L	475.39 ppb	21:23:22
3	Cu 324.752†	72177.6	75788.5	529.28 µg/L	529.28 ppb	21:23:22
3	Mn 257.610†	135165.3	147604.0	475.34 µg/L	475.34 ppb	21:23:22
3	Mo 202.031†	4456.1	4859.5	494.16 µg/L	494.16 ppb	21:23:43
3	Ni 231.604†	7868.4	8266.2	419.75 µg/L	419.75 ppb	21:23:43
3	P 214.914†	1244.4	1339.9	2613.3 µg/L	2613.3 ppb	21:23:43
3	Pb 220.353†	1772.3	1836.6	473.45 µg/L	473.45 ppb	21:23:43
3	S 181.975 Axial†	608.5	645.8	2677.1 µg/L	2677.1 ppb	21:23:43
3	Sb 206.836†	554.9	582.6	491.50 µg/L	491.50 ppb	21:23:43
3	Se 196.026†	1574.7	1701.1	2271.9 µg/L	2271.9 ppb	21:23:43
3	SiO2†	50447.2	53492.3	10712 µg/L	10712 ppb	21:23:22
3	Si 251.611†	60006.1	65100.4	5024.7 µg/L	5024.7 ppb	21:23:22
3	Sn 189.927†	988.8	1072.9	494.66 µg/L	494.66 ppb	21:23:43
3	Ti 334.940†	209795.6	228490.8	488.29 µg/L	488.29 ppb	21:23:22
3	Tl 190.801†	270.5	317.0	450.03 µg/L	450.03 ppb	21:23:43
3	U 409.014†	5253.4	5725.9	429.24 µg/L	429.24 ppb	21:23:22
3	V 292.402†	44112.1	48168.7	504.31 µg/L	504.31 ppb	21:23:22
3	Zn 213.857†	19695.1	20961.5	454.79 µg/L	454.79 ppb	21:23:22

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1935462.2	92.181	%	0.6385				0.69%
Sc RADIAL	56517.6	95.7	%	0.75				0.78%
Y 371.029	1333139.1	91.594	%	0.6561				0.72%
Ag 328.068†	31673.8	251.46	µg/L	2.154	251.46	ppb	2.154	0.86%
QC value within limits for Ag 328.068 Recovery = 100.58%								
Al 396.153Radial†	695762.5	520140	µg/L	2693.2	520140	ppb	2693.2	0.52%
QC value within limits for Al 396.153Radial Recovery = 104.03%								
As 188.979†	261.8	455.82	µg/L	8.904	455.82	ppb	8.904	1.95%
QC value within limits for As 188.979 Recovery = 91.16%								
B 249.677†	12869.8	427.44	µg/L	6.116	427.44	ppb	6.116	1.43%
QC value within limits for B 249.677 Recovery = 85.49%								
Ba 233.527†	19895.0	488.39	µg/L	3.851	488.39	ppb	3.851	0.79%
QC value within limits for Ba 233.527 Recovery = 97.68%								
Be 313.107†	394011.4	237.76	µg/L	0.204	237.76	ppb	0.204	0.09%
QC value within limits for Be 313.107 Recovery = 95.11%								
Ca 317.933Radial†	536881.0	492460	µg/L	1656.6	492460	ppb	1656.6	0.34%
QC value within limits for Ca 317.933Radial Recovery = 98.49%								
Cd 226.502†	18579.2	446.31	µg/L	3.524	446.31	ppb	3.524	0.79%
QC value within limits for Cd 226.502 Recovery = 89.26%								
Co 228.616†	9176.2	424.25	µg/L	0.705	424.25	ppb	0.705	0.17%

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   QC value within limits for Co 228.616  Recovery = 84.85%
Cr 267.716†            23229.2      474.03 µg/L         4.691      474.03 ppb          4.691   0.99%
   QC value within limits for Cr 267.716  Recovery = 94.81%
Cu 324.752†            75480.9      527.29 µg/L         4.252      527.29 ppb          4.252   0.81%
   QC value within limits for Cu 324.752  Recovery = 105.46%
Fe 238.204 Radial†     22281.8      191280 µg/L         339.4      191280 ppb          339.4   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.64%
K 766.490 Radial†       7300.4      5019.9 µg/L         23.52      5019.9 ppb          23.52   0.47%
   QC value within limits for K 766.490 Radial  Recovery = 100.40%
Mg 279.077 IEC†        51037.6      496560 µg/L         770.4      496560 ppb          770.4   0.16%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.31%
Mn 257.610†           147467.7      474.98 µg/L         3.426      474.98 ppb          3.426   0.72%
   QC value within limits for Mn 257.610  Recovery = 95.00%
Mo 202.031†             4831.5      491.36 µg/L         2.654      491.36 ppb          2.654   0.54%
   QC value within limits for Mo 202.031  Recovery = 98.27%
Na 589.592 Radial†     15861.8      5185.7 µg/L         16.60      5185.7 ppb          16.60   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 103.71%
Ni 231.604†             8271.8      420.03 µg/L         1.463      420.03 ppb          1.463   0.35%
   QC value within limits for Ni 231.604  Recovery = 84.01%
P 214.914†              1339.1      2611.0 µg/L         30.99      2611.0 ppb          30.99   1.19%
   QC value within limits for P 214.914  Recovery = 104.44%
Pb 220.353†             1830.6      471.81 µg/L         4.941      471.81 ppb          4.941   1.05%
   QC value within limits for Pb 220.353  Recovery = 94.36%
S 181.975 Axial†         648.0      2686.1 µg/L          7.86      2686.1 ppb           7.86   0.29%
   QC value within limits for S 181.975 Axial  Recovery = 107.44%
Sb 206.836†              579.3      488.62 µg/L         6.092      488.62 ppb          6.092   1.25%
   QC value within limits for Sb 206.836  Recovery = 97.72%
Se 196.026†             1696.1      2267.0 µg/L          6.15      2267.0 ppb           6.15   0.27%
   QC value within limits for Se 196.026  Recovery = 90.68%
SiO2†                  53331.7       10680 µg/L         105.9       10680 ppb          105.9   0.99%
   QC value within limits for SiO2  Recovery = 99.86%
Si 251.611†            64924.2      5011.1 µg/L         45.46      5011.1 ppb          45.46   0.91%
   QC value within limits for Si 251.611  Recovery = 100.22%
Sn 189.927†             1085.6      500.00 µg/L         5.263      500.00 ppb          5.263   1.05%
   QC value within limits for Sn 189.927  Recovery = 100.00%
Sr 421.552†            50405.7      495.75 µg/L         0.519      495.75 ppb          0.519   0.10%
   QC value within limits for Sr 421.552  Recovery = 99.15%
Ti 334.940†           227860.1      486.88 µg/L         4.936      486.88 ppb          4.936   1.01%
   QC value within limits for Ti 334.940  Recovery = 97.38%
Tl 190.801†              319.7      453.55 µg/L         9.321      453.55 ppb          9.321   2.06%
   QC value within limits for Tl 190.801  Recovery = 90.71%
U 409.014†              5695.2      426.69 µg/L         3.040      426.69 ppb          3.040   0.71%
   QC value within limits for U 409.014  Recovery = 85.34%
V 292.402†             47996.3      502.62 µg/L         4.677      502.62 ppb          4.677   0.93%
   QC value within limits for V 292.402  Recovery = 100.52%
Zn 213.857†            20924.3      453.93 µg/L         3.877      453.93 ppb          3.877   0.85%
   QC value within limits for Zn 213.857  Recovery = 90.79%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/20/2010 21:23:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56319.3	56319.3	95.4	%			21:24:32
1	Al 396.153Radial†	661176.1	693168.0	518210	µg/L	518210	ppb	21:24:27
1	Ca 317.933Radial†	511430.3	535976.8	491630	µg/L	491630	ppb	21:24:27
1	Fe 238.204 Radial†	51860.2	54353.5	466580	µg/L	466580	ppb	21:24:32
1	K 766.490 Radial†	33.2	-163.6	-112.50	µg/L	-112.50	ppb	21:24:32
1	Mg 279.077 IEC†	48662.4	51004.2	495930	µg/L	495930	ppb	21:24:32
1	Na 589.592 Radial†	1456053.1	1526013.2	498900	µg/L	498900	ppb	21:24:27
1	Sr 421.552†	539.0	523.7	5.1507	µg/L	5.1507	ppb	21:24:32
1	Sc 361.383	1911423.8	1911423.8	91.036	%			21:25:07
1	Y 371.029	1306810.1	1306810.1	89.785	%			21:25:07
1	Ag 328.068†	-4548.6	-4533.3	-4.9291	µg/L	-4.9291	ppb	21:25:12
1	As 188.979†	-17.6	-19.1	-32.763	µg/L	-32.763	ppb	21:25:33
1	B 249.677†	1331.4	1137.0	-196.95	µg/L	-196.95	ppb	21:25:12
1	Ba 233.527†	550.5	623.1	15.131	µg/L	15.131	ppb	21:25:33
1	Be 313.107†	-11562.8	-8942.5	-5.4150	µg/L	-5.4150	ppb	21:25:12
1	Cd 226.502†	1148.5	1398.2	-17.553	µg/L	-17.553	ppb	21:25:12
1	Co 228.616†	198.0	214.9	9.8562	µg/L	9.8562	ppb	21:25:33
1	Cr 267.716†	1.5	49.0	0.9514	µg/L	0.9514	ppb	21:25:33
1	Cu 324.752†	-8413.1	-12111.2	-15.485	µg/L	-15.485	ppb	21:25:12
1	Mn 257.610†	-5482.5	-5719.8	23.991	µg/L	23.991	ppb	21:25:07
1	Mo 202.031†	-187.8	-203.0	-2.6104	µg/L	-2.6104	ppb	21:25:33
1	Ni 231.604†	63.7	-238.7	-6.0095	µg/L	-6.0095	ppb	21:25:33
1	P 214.914†	259.3	268.6	312.54	µg/L	312.54	ppb	21:25:33
1	Pb 220.353†	137.1	55.8	10.569	µg/L	10.569	ppb	21:25:33
1	S 181.975 Axial†	31.6	17.4	72.183	µg/L	72.183	ppb	21:25:33
1	Sb 206.836†	36.0	17.4	-27.203	µg/L	-27.203	ppb	21:25:33
1	Se 196.026†	-135.6	-163.9	472.01	µg/L	472.01	ppb	21:25:33
1	SiO2†	1118.5	-255.7	-51.211	µg/L	-51.211	ppb	21:25:33
1	Si 251.611†	-273.7	-594.2	-45.863	µg/L	-45.863	ppb	21:25:33
1	Sn 189.927†	-53.7	-63.8	-20.924	µg/L	-20.924	ppb	21:25:33
1	Ti 334.940†	15108.6	16454.6	6.0720	µg/L	6.0720	ppb	21:25:12
1	Tl 190.801†	-47.7	-30.2	35.804	µg/L	35.804	ppb	21:25:33
1	U 409.014†	144507.5	158737.3	13376	µg/L	13376	ppb	21:25:12
1	V 292.402†	-7150.1	-7758.1	-7.9850	µg/L	-7.9850	ppb	21:25:12
1	Zn 213.857†	2868.1	2648.5	12.380	µg/L	12.380	ppb	21:25:33
2	Sc RADIAL	56307.2	56307.2	95.4	%			21:24:44
2	Al 396.153Radial†	660050.3	692136.2	517440	µg/L	517440	ppb	21:24:39
2	Ca 317.933Radial†	509132.0	533681.9	489530	µg/L	489530	ppb	21:24:39
2	Fe 238.204 Radial†	51640.2	54134.4	464700	µg/L	464700	ppb	21:24:44
2	K 766.490 Radial†	93.5	-100.3	-68.978	µg/L	-68.978	ppb	21:24:44
2	Mg 279.077 IEC†	48394.2	50734.0	493310	µg/L	493310	ppb	21:24:44
2	Na 589.592 Radial†	1453903.8	1524087.1	498270	µg/L	498270	ppb	21:24:39
2	Sr 421.552†	530.3	514.7	5.0620	µg/L	5.0620	ppb	21:24:44
2	Sc 361.383	1899083.9	1899083.9	90.448	%			21:25:39
2	Y 371.029	1299144.4	1299144.4	89.258	%			21:25:39
2	Ag 328.068†	-4569.6	-4589.1	-5.4734	µg/L	-5.4734	ppb	21:25:45
2	As 188.979†	-29.7	-32.6	-57.152	µg/L	-57.152	ppb	21:26:06
2	B 249.677†	1359.0	1177.1	-194.33	µg/L	-194.33	ppb	21:25:45
2	Ba 233.527†	547.5	623.6	15.141	µg/L	15.141	ppb	21:26:06
2	Be 313.107†	-11635.7	-9105.6	-5.5135	µg/L	-5.5135	ppb	21:25:45
2	Cd 226.502†	1224.3	1490.1	-15.026	µg/L	-15.026	ppb	21:25:45
2	Co 228.616†	198.8	217.3	9.9633	µg/L	9.9633	ppb	21:26:06
2	Cr 267.716†	-2.4	44.7	0.8631	µg/L	0.8631	ppb	21:26:06
2	Cu 324.752†	-8395.8	-12152.1	-16.018	µg/L	-16.018	ppb	21:25:45
2	Mn 257.610†	-5392.3	-5659.2	24.039	µg/L	24.039	ppb	21:25:39
2	Mo 202.031†	-191.0	-207.9	-3.1681	µg/L	-3.1681	ppb	21:26:06
2	Ni 231.604†	67.1	-234.4	-5.8181	µg/L	-5.8181	ppb	21:26:06
2	P 214.914†	286.9	301.0	378.33	µg/L	378.33	ppb	21:26:06
2	Pb 220.353†	141.4	61.5	11.934	µg/L	11.934	ppb	21:26:06

2	S 181.975 Axial†	26.3	11.8	48.887 µg/L	48.887 ppb	21:26:06
2	Sb 206.836†	32.3	13.6	-30.568 µg/L	-30.568 ppb	21:26:06
2	Se 196.026†	-161.8	-193.9	428.79 µg/L	428.79 ppb	21:26:06
2	SiO2†	1124.4	-241.3	-48.318 µg/L	-48.318 ppb	21:26:06
2	Si 251.611†	-285.4	-609.1	-47.011 µg/L	-47.011 ppb	21:26:06
2	Sn 189.927†	-49.2	-59.2	-19.057 µg/L	-19.057 ppb	21:26:06
2	Ti 334.940†	15009.5	16452.9	6.2422 µg/L	6.2422 ppb	21:25:45
2	Tl 190.801†	-46.2	-28.8	37.585 µg/L	37.585 ppb	21:26:06
2	U 409.014†	144309.1	159549.3	13445 µg/L	13445 ppb	21:25:45
2	V 292.402†	-7245.7	-7914.8	-9.6891 µg/L	-9.6891 ppb	21:25:45
2	Zn 213.857†	2873.8	2675.3	13.249 µg/L	13.249 ppb	21:26:06
3	Sc RADIAL	56293.2	56293.2	95.3 %		21:24:56
3	Al 396.153Radial†	663696.2	696133.0	520420 µg/L	520420 ppb	21:24:50
3	Ca 317.933Radial†	512414.1	537257.6	492810 µg/L	492810 ppb	21:24:50
3	Fe 238.204 Radial†	51778.0	54292.5	466060 µg/L	466060 ppb	21:24:56
3	K 766.490 Radial†	127.5	-64.6	-44.448 µg/L	-44.448 ppb	21:24:56
3	Mg 279.077 IEC†	48568.4	50929.4	495210 µg/L	495210 ppb	21:24:56
3	Na 589.592 Radial†	1463081.6	1534093.7	501540 µg/L	501540 ppb	21:24:50
3	Sr 421.552†	546.3	531.6	5.2284 µg/L	5.2284 ppb	21:24:56
3	Sc 361.383	1897183.6	1897183.6	90.358 %		21:26:12
3	Y 371.029	1297152.7	1297152.7	89.122 %		21:26:12
3	Ag 328.068†	-4551.0	-4573.6	-5.2757 µg/L	-5.2757 ppb	21:26:18
3	As 188.979†	-29.1	-31.9	-56.001 µg/L	-56.001 ppb	21:26:39
3	B 249.677†	1366.1	1186.4	-194.65 µg/L	-194.65 ppb	21:26:18
3	Ba 233.527†	566.2	645.0	15.663 µg/L	15.663 ppb	21:26:39
3	Be 313.107†	-11542.1	-9014.9	-5.4586 µg/L	-5.4586 ppb	21:26:18
3	Cd 226.502†	1196.3	1460.6	-15.924 µg/L	-15.924 ppb	21:26:18
3	Co 228.616†	193.4	211.4	9.6922 µg/L	9.6922 ppb	21:26:39
3	Cr 267.716†	-23.2	21.8	0.3941 µg/L	0.3941 ppb	21:26:39
3	Cu 324.752†	-8442.9	-12213.6	-16.237 µg/L	-16.237 ppb	21:26:18
3	Mn 257.610†	-5234.6	-5490.6	24.680 µg/L	24.680 ppb	21:26:12
3	Mo 202.031†	-201.3	-219.4	-4.2764 µg/L	-4.2764 ppb	21:26:39
3	Ni 231.604†	61.8	-240.2	-6.0921 µg/L	-6.0921 ppb	21:26:39
3	P 214.914†	283.4	297.4	371.05 µg/L	371.05 ppb	21:26:39
3	Pb 220.353†	126.8	45.5	8.0375 µg/L	8.0375 ppb	21:26:39
3	S 181.975 Axial†	36.6	23.3	96.417 µg/L	96.417 ppb	21:26:39
3	Sb 206.836†	40.4	22.6	-22.620 µg/L	-22.620 ppb	21:26:39
3	Se 196.026†	-154.3	-185.8	441.00 µg/L	441.00 ppb	21:26:39
3	SiO2†	1148.6	-213.2	-42.702 µg/L	-42.702 ppb	21:26:39
3	Si 251.611†	-280.9	-604.4	-46.648 µg/L	-46.648 ppb	21:26:39
3	Sn 189.927†	-44.9	-54.4	-16.967 µg/L	-16.967 ppb	21:26:39
3	Ti 334.940†	14850.0	16293.0	5.7807 µg/L	5.7807 ppb	21:26:18
3	Tl 190.801†	-56.3	-40.1	22.746 µg/L	22.746 ppb	21:26:39
3	U 409.014†	144838.3	160294.9	13508 µg/L	13508 ppb	21:26:18
3	V 292.402†	-7286.7	-7968.3	-10.002 µg/L	-10.002 ppb	21:26:18
3	Zn 213.857†	2875.2	2680.1	13.192 µg/L	13.192 ppb	21:26:39

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1902563.7	90.614	%	0.3682				0.41%
Sc RADIAL	56306.6	95.4	%	0.02				0.02%
Y 371.029	1301035.8	89.388	%	0.3503				0.39%
Ag 328.068†	-4565.3	-5.2261	µg/L	0.27555	-5.2261	ppb	0.27555	5.27%
Al 396.153Radial†	693812.4	518690	µg/L	1551.2	518690	ppb	1551.2	0.30%
QC value within limits for Al 396.153Radial Recovery = 103.74%								
As 188.979†	-27.9	-48.639	µg/L	13.7607	-48.639	ppb	13.7607	28.29%
B 249.677†	1166.8	-195.31	µg/L	1.428	-195.31	ppb	1.428	0.73%
Ba 233.527†	630.6	15.312	µg/L	0.3045	15.312	ppb	0.3045	1.99%
Be 313.107†	-9021.0	-5.4624	µg/L	0.04935	-5.4624	ppb	0.04935	0.90%
Ca 317.933Radial†	535638.8	491320	µg/L	1661.8	491320	ppb	1661.8	0.34%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	1449.6	-16.168	µg/L	1.2808	-16.168	ppb	1.2808	7.92%
Co 228.616†	214.5	9.8373	µg/L	0.13654	9.8373	ppb	0.13654	1.39%
Cr 267.716†	38.5	0.7362	µg/L	0.29954	0.7362	ppb	0.29954	40.69%
Cu 324.752†	-12159.0	-15.913	µg/L	0.3867	-15.913	ppb	0.3867	2.43%
Fe 238.204 Radial†	54260.1	465780	µg/L	970.6	465780	ppb	970.6	0.21%
QC value within limits for Fe 238.204 Radial Recovery = 93.16%								
K 766.490 Radial†	-109.5	-75.310	µg/L	34.4673	-75.310	ppb	34.4673	45.77%
Mg 279.077 IEC†	50889.2	494820	µg/L	1356.9	494820	ppb	1356.9	0.27%

QC value within limits for Mg 279.077 IEC Recovery = 98.96%

Mn 257.610†	-5623.2	24.237	µg/L	0.3846	24.237	ppb	0.3846	1.59%
Mo 202.031†	-210.1	-3.3516	µg/L	0.84803	-3.3516	ppb	0.84803	25.30%
Na 589.592 Radial†	1528064.7	499570	µg/L	1735.8	499570	ppb	1735.8	0.35%

QC value within limits for Na 589.592 Radial Recovery = 99.91%

Ni 231.604†	-237.8	-5.9732	µg/L	0.14058	-5.9732	ppb	0.14058	2.35%
P 214.914†	289.0	353.97	µg/L	36.063	353.97	ppb	36.063	10.19%
Pb 220.353†	54.3	10.180	µg/L	1.9773	10.180	ppb	1.9773	19.42%
S 181.975 Axial†	17.5	72.496	µg/L	23.7669	72.496	ppb	23.7669	32.78%
Sb 206.836†	17.9	-26.797	µg/L	3.9894	-26.797	ppb	3.9894	14.89%
Se 196.026†	-181.2	447.27	µg/L	22.280	447.27	ppb	22.280	4.98%
SiO2†	-236.8	-47.410	µg/L	4.3267	-47.410	ppb	4.3267	9.13%
Si 251.611†	-602.6	-46.507	µg/L	0.5872	-46.507	ppb	0.5872	1.26%
Sn 189.927†	-59.1	-18.983	µg/L	1.9794	-18.983	ppb	1.9794	10.43%
Sr 421.552†	523.3	5.1470	µg/L	0.08328	5.1470	ppb	0.08328	1.62%
Ti 334.940†	16400.2	6.0316	µg/L	0.23335	6.0316	ppb	0.23335	3.87%
Tl 190.801†	-33.0	32.045	µg/L	8.1022	32.045	ppb	8.1022	25.28%
U 409.014†	159527.2	13443	µg/L	66.1	13443	ppb	66.1	0.49%

QC value less than the lower limit for U 409.014 Recovery = 89.62%

V 292.402†	-7880.4	-9.2255	µg/L	1.08567	-9.2255	ppb	1.08567	11.77%
Zn 213.857†	2668.0	12.941	µg/L	0.4861	12.941	ppb	0.4861	3.76%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/20/2010 21:26:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57570.1	57570.1	97.5	%			21:27:31
1	Al 396.153Radial†	354.6	372.3	71.948	µg/L	71.948	ppb	21:27:31
1	Ca 317.933Radial†	323.0	138.3	126.90	µg/L	126.90	ppb	21:27:51
1	Fe 238.204 Radial†	20.9	6.1	254.03	µg/L	254.03	ppb	21:27:51
1	K 766.490 Radial†	426369.9	437085.3	300550	µg/L	300550	ppb	21:27:25
1	Mg 279.077 IEC†	3.4	-8.6	85.087	µg/L	85.087	ppb	21:27:51
1	Na 589.592 Radial†	1212.7	770.0	251.74	µg/L	251.74	ppb	21:27:31
1	Sr 421.552†	975982.4	1000923.2	9844.3	µg/L	9844.3	ppb	21:27:25
1	Sc 361.383	2029765.1	2029765.1	96.672	%			21:29:22
1	Y 371.029	1394099.3	1394099.3	95.782	%			21:29:22
1	Ag 328.068†	-7470.5	-7264.5	12.428	µg/L	12.428	ppb	21:29:28
1	As 188.979†	5223.9	5404.0	9707.6	µg/L	9707.6	ppb	21:29:28
1	B 249.677†	116739.4	120432.3	4965.6	µg/L	4965.6	ppb	21:29:22
1	Ba 233.527†	575109.5	594924.2	14597	µg/L	14597	ppb	21:29:22
1	Be 313.107†	4646470.7	4810169.2	2901.2	µg/L	2901.2	ppb	21:29:12
1	Cd 226.502†	368833.4	381665.9	9613.5	µg/L	9613.5	ppb	21:29:22
1	Co 228.616†	198549.2	205381.1	9498.2	µg/L	9498.2	ppb	21:29:22
1	Cr 267.716†	1152796.9	1192525.5	24327	µg/L	24327	ppb	21:29:22
1	Cu 324.752†	2973051.4	3072519.3	20382	µg/L	20382	ppb	21:29:22
1	Mn 257.610†	2913350.0	3013935.2	9593.8	µg/L	9593.8	ppb	21:29:22
1	Mo 202.031†	96941.9	100282.1	10048	µg/L	10048	ppb	21:29:22
1	Ni 231.604†	185082.7	191144.9	9649.0	µg/L	9649.0	ppb	21:29:22
1	P 214.914†	7533.3	7776.4	13467	µg/L	13467	ppb	21:29:28
1	Pb 220.353†	99093.8	102410.0	25193	µg/L	25193	ppb	21:29:22
1	S 181.975 Axial†	12552.0	12966.8	53750	µg/L	53750	ppb	21:29:28
1	Sb 206.836†	11176.0	11538.6	10423	µg/L	10423	ppb	21:29:28
1	Se 196.026†	6976.8	7202.0	9866.5	µg/L	9866.5	ppb	21:29:28
1	SiO2†	482128.7	497240.0	99573	µg/L	99573	ppb	21:29:22
1	Si 251.611†	581728.1	601458.7	46423	µg/L	46423	ppb	21:29:22
1	Sn 189.927†	24049.3	24872.4	10636	µg/L	10636	ppb	21:29:28
1	Ti 334.940†	4256383.8	4402754.3	10014	µg/L	10014	ppb	21:29:12
1	Tl 190.801†	6983.3	7245.9	9779.9	µg/L	9779.9	ppb	21:29:28
1	U 409.014†	901.5	933.3	79.184	µg/L	79.184	ppb	21:29:22
1	V 292.402†	986603.2	1020659.8	10230	µg/L	10230	ppb	21:29:22
1	Zn 213.857†	597835.2	617911.8	14508	µg/L	14508	ppb	21:29:22
2	Sc RADIAL	57078.6	57078.6	96.7	%			21:28:03
2	Al 396.153Radial†	352.3	373.1	76.000	µg/L	76.000	ppb	21:28:03
2	Ca 317.933Radial†	312.2	129.9	119.19	µg/L	119.19	ppb	21:28:23
2	Fe 238.204 Radial†	17.3	2.5	220.00	µg/L	220.00	ppb	21:28:23
2	K 766.490 Radial†	423893.6	438289.0	301380	µg/L	301380	ppb	21:27:57
2	Mg 279.077 IEC†	2.7	-9.3	75.162	µg/L	75.162	ppb	21:28:23
2	Na 589.592 Radial†	1105.5	669.8	218.98	µg/L	218.98	ppb	21:28:03
2	Sr 421.552†	969342.4	1002673.6	9861.5	µg/L	9861.5	ppb	21:27:57
2	Sc 361.383	2028163.4	2028163.4	96.596	%			21:29:47
2	Y 371.029	1393408.8	1393408.8	95.735	%			21:29:47
2	Ag 328.068†	-7099.6	-6886.6	14.057	µg/L	14.057	ppb	21:29:53
2	As 188.979†	5031.0	5208.6	9356.2	µg/L	9356.2	ppb	21:29:53
2	B 249.677†	115607.6	119355.9	4920.7	µg/L	4920.7	ppb	21:29:47
2	Ba 233.527†	566441.9	586420.9	14388	µg/L	14388	ppb	21:29:47
2	Be 313.107†	4612573.7	4778873.4	2882.4	µg/L	2882.4	ppb	21:29:37
2	Cd 226.502†	363199.7	376134.9	9474.2	µg/L	9474.2	ppb	21:29:47
2	Co 228.616†	194824.0	201686.7	9327.1	µg/L	9327.1	ppb	21:29:47
2	Cr 267.716†	1125042.3	1164734.7	23760	µg/L	23760	ppb	21:29:47
2	Cu 324.752†	2916624.0	3016532.2	20010	µg/L	20010	ppb	21:29:47
2	Mn 257.610†	2861035.9	2962157.5	9429.0	µg/L	9429.0	ppb	21:29:47
2	Mo 202.031†	95232.3	98591.5	9878.5	µg/L	9878.5	ppb	21:29:47
2	Ni 231.604†	181755.8	187852.0	9482.8	µg/L	9482.8	ppb	21:29:47
2	P 214.914†	7167.0	7403.3	12755	µg/L	12755	ppb	21:29:53
2	Pb 220.353†	97865.0	101218.9	24900	µg/L	24900	ppb	21:29:47

2	S 181.975 Axial†	12058.1	12465.7	51673	µg/L	51673 ppb	21:29:53
2	Sb 206.836†	10663.3	11016.9	9950.7	µg/L	9950.7 ppb	21:29:53
2	Se 196.026†	6714.4	6936.0	9502.0	µg/L	9502.0 ppb	21:29:53
2	SiO2†	477940.5	493298.1	98783	µg/L	98783 ppb	21:29:47
2	Si 251.611†	576641.4	596667.9	46053	µg/L	46053 ppb	21:29:47
2	Sn 189.927†	22523.4	23312.4	9969.1	µg/L	9969.1 ppb	21:29:53
2	Ti 334.940†	4224180.4	4372893.1	9945.7	µg/L	9945.7 ppb	21:29:37
2	Tl 190.801†	6829.2	7092.1	9573.7	µg/L	9573.7 ppb	21:29:53
2	U 409.014†	845.2	875.8	74.310	µg/L	74.310 ppb	21:29:47
2	V 292.402†	968239.1	1002454.5	10047	µg/L	10047 ppb	21:29:47
2	Zn 213.857†	587539.9	607742.1	14269	µg/L	14269 ppb	21:29:47
3	Sc RADIAL	57562.2	57562.2	97.5	%		21:28:35
3	Al 396.153Radial†	336.7	354.1	87.622	µg/L	87.622 ppb	21:28:35
3	Ca 317.933Radial†	297.4	112.1	102.83	µg/L	102.83 ppb	21:28:55
3	Fe 238.204 Radial†	19.3	4.4	210.74	µg/L	210.74 ppb	21:28:55
3	K 766.490 Radial†	428234.2	439057.3	301900	µg/L	301900 ppb	21:28:29
3	Mg 279.077 IEC†	-0.2	-12.3	25.060	µg/L	25.060 ppb	21:28:55
3	Na 589.592 Radial†	1027.6	580.3	189.73	µg/L	189.73 ppb	21:28:35
3	Sr 421.552†	980045.3	1005227.6	9886.6	µg/L	9886.6 ppb	21:28:29
3	Sc 361.383	2036165.2	2036165.2	96.977	%		21:30:12
3	Y 371.029	1397984.2	1397984.2	96.049	%		21:30:12
3	Ag 328.068†	-6111.9	-5839.3	13.309	µg/L	13.309 ppb	21:30:17
3	As 188.979†	4468.8	4608.3	8278.2	µg/L	8278.2 ppb	21:30:17
3	B 249.677†	105724.6	108694.6	4478.9	µg/L	4478.9 ppb	21:30:12
3	Ba 233.527†	502450.4	518130.2	12713	µg/L	12713 ppb	21:30:12
3	Be 313.107†	4258535.6	4395034.4	2650.9	µg/L	2650.9 ppb	21:30:02
3	Cd 226.502†	321177.4	331325.2	8345.4	µg/L	8345.4 ppb	21:30:12
3	Co 228.616†	170352.2	175659.6	8122.5	µg/L	8122.5 ppb	21:30:12
3	Cr 267.716†	960792.7	990788.3	20212	µg/L	20212 ppb	21:30:12
3	Cu 324.752†	2556467.1	2633283.3	17468	µg/L	17468 ppb	21:30:12
3	Mn 257.610†	2509934.7	2588472.7	8239.5	µg/L	8239.5 ppb	21:30:12
3	Mo 202.031†	83435.6	86039.6	8620.8	µg/L	8620.8 ppb	21:30:12
3	Ni 231.604†	158831.9	163474.1	8252.2	µg/L	8252.2 ppb	21:30:12
3	P 214.914†	6202.0	6379.0	10964	µg/L	10964 ppb	21:30:17
3	Pb 220.353†	88046.6	90696.3	22311	µg/L	22311 ppb	21:30:12
3	S 181.975 Axial†	10674.1	10989.5	45554	µg/L	45554 ppb	21:30:17
3	Sb 206.836†	9290.3	9557.8	8638.2	µg/L	8638.2 ppb	21:30:17
3	Se 196.026†	5942.3	6112.6	8374.1	µg/L	8374.1 ppb	21:30:17
3	SiO2†	432835.4	444842.6	89080	µg/L	89080 ppb	21:30:12
3	Si 251.611†	522227.7	538212.2	41541	µg/L	41541 ppb	21:30:12
3	Sn 189.927†	19231.9	19826.6	8478.5	µg/L	8478.5 ppb	21:30:17
3	Ti 334.940†	3898845.7	4020232.3	9143.6	µg/L	9143.6 ppb	21:30:02
3	Tl 190.801†	6234.2	6450.8	8708.6	µg/L	8708.6 ppb	21:30:17
3	U 409.014†	735.3	758.9	64.395	µg/L	64.395 ppb	21:30:12
3	V 292.402†	844854.5	871284.9	8731.9	µg/L	8731.9 ppb	21:30:12
3	Zn 213.857†	517334.3	532957.9	12514	µg/L	12514 ppb	21:30:12

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031364.6	96.749	%	0.2017				0.21%
Sc RADIAL	57403.6	97.2	%	0.48				0.49%
Y 371.029	1395164.1	95.856	%	0.1695				0.18%
Ag 328.068†	-6663.5	13.265	µg/L	0.8152	13.265	ppb	0.8152	6.15%
Al 396.153Radial†	366.5	78.523	µg/L	8.1361	78.523	ppb	8.1361	10.36%
As 188.979†	5073.6	9114.0	µg/L	744.83	9114.0	ppb	744.83	8.17%
QC value within limits for As 188.979 Recovery = 91.14%								
B 249.677†	116160.9	4788.4	µg/L	269.00	4788.4	ppb	269.00	5.62%
QC value within limits for B 249.677 Recovery = 95.77%								
Ba 233.527†	566491.8	13899	µg/L	1033.1	13899	ppb	1033.1	7.43%
QC value within limits for Ba 233.527 Recovery = 92.66%								
Be 313.107†	4661359.0	2811.5	µg/L	139.43	2811.5	ppb	139.43	4.96%
QC value within limits for Be 313.107 Recovery = 93.72%								
Ca 317.933Radial†	126.8	116.31	µg/L	12.291	116.31	ppb	12.291	10.57%
Cd 226.502†	363042.0	9144.4	µg/L	695.42	9144.4	ppb	695.42	7.60%
QC value within limits for Cd 226.502 Recovery = 91.44%								
Co 228.616†	194242.5	8982.6	µg/L	749.77	8982.6	ppb	749.77	8.35%
QC value less than the lower limit for Co 228.616 Recovery = 89.83%								
Cr 267.716†	1116016.2	22766	µg/L	2230.3	22766	ppb	2230.3	9.80%
QC value within limits for Cr 267.716 Recovery = 91.06%								

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Cu 324.752†          2907444.9       19287 µg/L        1585.9       19287 ppb        1585.9   8.22%
   QC value within limits for Cu 324.752  Recovery = 96.43%
Fe 238.204 Radial†         4.4      228.26 µg/L        22.796      228.26 ppb        22.796   9.99%
K 766.490 Radial†     438143.9      301280 µg/L         683.5      301280 ppb         683.5   0.23%
   QC value within limits for K 766.490 Radial  Recovery = 100.43%
Mg 279.077 IEC†          -10.1      61.770 µg/L       32.1767      61.770 ppb       32.1767  52.09%
Mn 257.610†          2854855.1      9087.5 µg/L        738.94      9087.5 ppb        738.94   8.13%
   QC value within limits for Mn 257.610  Recovery = 90.87%
Mo 202.031†            94971.1      9515.7 µg/L        779.62      9515.7 ppb        779.62   8.19%
   QC value within limits for Mo 202.031  Recovery = 95.16%
Na 589.592 Radial†       673.4      220.15 µg/L        31.021      220.15 ppb        31.021  14.09%
Ni 231.604†           180823.7      9128.0 µg/L        763.01      9128.0 ppb        763.01   8.36%
   QC value within limits for Ni 231.604  Recovery = 91.28%
P 214.914†              7186.3      12395 µg/L        1289.4       12395 ppb        1289.4  10.40%
   QC value less than the lower limit for P 214.914  Recovery = 82.64%
Pb 220.353†            98108.4      24135 µg/L        1585.8       24135 ppb        1585.8   6.57%
   QC value within limits for Pb 220.353  Recovery = 96.54%
S 181.975 Axial†       12140.7      50326 µg/L        4261.0       50326 ppb        4261.0   8.47%
   QC value within limits for S 181.975 Axial  Recovery = 100.65%
Sb 206.836†            10704.4      9670.7 µg/L        924.95      9670.7 ppb        924.95   9.56%
   QC value within limits for Sb 206.836  Recovery = 96.71%
Se 196.026†             6750.2      9247.5 µg/L        778.07      9247.5 ppb        778.07   8.41%
   QC value within limits for Se 196.026  Recovery = 92.48%
SiO2†                 478460.3      95812 µg/L        5843.4       95812 ppb        5843.4   6.10%
   QC value less than the lower limit for SiO2  Recovery = 89.54%
Si 251.611†           578779.6      44672 µg/L        2717.9       44672 ppb        2717.9   6.08%
   QC value less than the lower limit for Si 251.611  Recovery = 89.34%
Sn 189.927†            22670.5      9694.6 µg/L       1104.76      9694.6 ppb       1104.76  11.40%
   QC value within limits for Sn 189.927  Recovery = 96.95%
Sr 421.552†          1002941.5      9864.1 µg/L         21.29      9864.1 ppb         21.29   0.22%
   QC value within limits for Sr 421.552  Recovery = 98.64%
Ti 334.940†          4265293.2      9701.0 µg/L        483.88      9701.0 ppb        483.88   4.99%
   QC value within limits for Ti 334.940  Recovery = 97.01%
Tl 190.801†             6929.6      9354.1 µg/L        568.44      9354.1 ppb        568.44   6.08%
   QC value within limits for Tl 190.801  Recovery = 93.54%
U 409.014†               856.0      72.629 µg/L        7.5363      72.629 ppb        7.5363  10.38%
V 292.402†            964799.7      9669.7 µg/L        817.32      9669.7 ppb        817.32   8.45%
   QC value within limits for V 292.402  Recovery = 96.70%
Zn 213.857†           586203.9      13764 µg/L        1089.0       13764 ppb        1089.0   7.91%
   QC value within limits for Zn 213.857  Recovery = 91.76%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 21:30:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58258.0	58258.0	98.7	%			21:31:05
1	Al 396.153Radial†	6918.0	7020.0	5237.2	µg/L	5237.2	ppb	21:31:26
1	Ca 317.933Radial†	5814.9	5700.3	5228.7	µg/L	5228.7	ppb	21:31:26
1	Fe 238.204 Radial†	617.1	610.0	5247.5	µg/L	5247.5	ppb	21:31:26
1	K 766.490 Radial†	7653.7	7558.5	5197.4	µg/L	5197.4	ppb	21:31:05
1	Mg 279.077 IEC†	556.5	552.0	5375.6	µg/L	5375.6	ppb	21:31:26
1	Na 589.592 Radial†	31918.2	31874.9	10421	µg/L	10421	ppb	21:31:05
1	Sr 421.552†	49932.5	50564.6	497.31	µg/L	497.31	ppb	21:31:05
1	Sc 361.383	2055342.0	2055342.0	97.891	%			21:32:29
1	Y 371.029	1419555.7	1419555.7	97.531	%			21:32:29
1	Ag 328.068†	65831.4	67713.1	508.83	µg/L	508.83	ppb	21:32:35
1	As 188.979†	283.8	290.2	521.31	µg/L	521.31	ppb	21:32:55
1	B 249.677†	12674.3	12621.9	514.45	µg/L	514.45	ppb	21:32:35
1	Ba 233.527†	20512.3	20972.7	514.87	µg/L	514.87	ppb	21:32:35
1	Be 313.107†	822161.1	843637.0	509.31	µg/L	509.31	ppb	21:32:29
1	Cd 226.502†	19793.2	20356.3	512.15	µg/L	512.15	ppb	21:32:35
1	Co 228.616†	10945.4	11178.7	517.03	µg/L	517.03	ppb	21:32:35
1	Cr 267.716†	24904.8	25488.8	520.14	µg/L	520.14	ppb	21:32:35
1	Cu 324.752†	79044.9	77878.5	517.33	µg/L	517.33	ppb	21:32:35
1	Mn 257.610†	158354.9	162069.9	516.37	µg/L	516.37	ppb	21:32:29
1	Mo 202.031†	5194.6	5309.9	532.23	µg/L	532.23	ppb	21:32:55
1	Ni 231.604†	10266.4	10179.0	513.89	µg/L	513.89	ppb	21:32:35
1	P 214.914†	1294.8	1306.5	2548.2	µg/L	2548.2	ppb	21:32:55
1	Pb 220.353†	2218.3	2171.4	534.48	µg/L	534.48	ppb	21:32:55
1	S 181.975 Axial†	265.9	254.3	1054.3	µg/L	1054.3	ppb	21:32:55
1	Sb 206.836†	579.1	569.4	522.22	µg/L	522.22	ppb	21:32:55
1	Se 196.026†	398.8	392.4	545.68	µg/L	545.68	ppb	21:32:55
1	SiO2†	28465.2	27594.2	5525.8	µg/L	5525.8	ppb	21:32:35
1	Si 251.611†	33015.0	33432.9	2580.5	µg/L	2580.5	ppb	21:32:35
1	Sn 189.927†	1221.3	1242.9	531.57	µg/L	531.57	ppb	21:32:55
1	Ti 334.940†	221072.4	225694.7	512.98	µg/L	512.98	ppb	21:32:29
1	Tl 190.801†	353.3	383.1	518.22	µg/L	518.22	ppb	21:32:55
1	U 409.014†	5936.1	6064.7	513.62	µg/L	513.62	ppb	21:32:35
1	V 292.402†	50601.0	51787.4	518.73	µg/L	518.73	ppb	21:32:35
1	Zn 213.857†	22201.9	22178.4	519.77	µg/L	519.77	ppb	21:32:35
2	Sc RADIAL	58528.4	58528.4	99.1	%			21:31:31
2	Al 396.153Radial†	6911.1	6980.7	5207.8	µg/L	5207.8	ppb	21:31:52
2	Ca 317.933Radial†	5816.8	5675.0	5205.5	µg/L	5205.5	ppb	21:31:52
2	Fe 238.204 Radial†	621.0	611.1	5256.9	µg/L	5256.9	ppb	21:31:52
2	K 766.490 Radial†	7645.9	7514.9	5167.3	µg/L	5167.3	ppb	21:31:31
2	Mg 279.077 IEC†	562.3	555.2	5406.9	µg/L	5406.9	ppb	21:31:52
2	Na 589.592 Radial†	32154.9	31964.3	10450	µg/L	10450	ppb	21:31:31
2	Sr 421.552†	50256.5	50657.6	498.23	µg/L	498.23	ppb	21:31:31
2	Sc 361.383	2049002.3	2049002.3	97.589	%			21:33:02
2	Y 371.029	1415800.4	1415800.4	97.273	%			21:33:02
2	Ag 328.068†	66395.3	68499.1	514.72	µg/L	514.72	ppb	21:33:08
2	As 188.979†	281.3	288.5	518.30	µg/L	518.30	ppb	21:33:29
2	B 249.677†	12746.7	12736.2	519.12	µg/L	519.12	ppb	21:33:08
2	Ba 233.527†	20498.4	21023.3	516.12	µg/L	516.12	ppb	21:33:08
2	Be 313.107†	822769.6	846859.1	511.26	µg/L	511.26	ppb	21:33:02
2	Cd 226.502†	19891.6	20519.7	516.26	µg/L	516.26	ppb	21:33:08
2	Co 228.616†	10978.0	11246.7	520.17	µg/L	520.17	ppb	21:33:08
2	Cr 267.716†	24873.7	25535.7	521.10	µg/L	521.10	ppb	21:33:08
2	Cu 324.752†	79277.4	78366.6	520.57	µg/L	520.57	ppb	21:33:08
2	Mn 257.610†	158426.5	162643.8	518.20	µg/L	518.20	ppb	21:33:02
2	Mo 202.031†	5139.8	5270.1	528.25	µg/L	528.25	ppb	21:33:29
2	Ni 231.604†	10369.8	10317.4	520.88	µg/L	520.88	ppb	21:33:08
2	P 214.914†	1278.0	1293.4	2521.8	µg/L	2521.8	ppb	21:33:29
2	Pb 220.353†	2203.0	2162.6	532.31	µg/L	532.31	ppb	21:33:29

2	S 181.975 Axial†	260.6	249.8	1035.3 µg/L	1035.3 ppb	21:33:29
2	Sb 206.836†	590.6	583.1	534.60 µg/L	534.60 ppb	21:33:29
2	Se 196.026†	385.9	380.5	529.28 µg/L	529.28 ppb	21:33:29
2	SiO2†	28603.4	27825.8	5572.1 µg/L	5572.1 ppb	21:33:08
2	Si 251.611†	33225.8	33753.3	2605.2 µg/L	2605.2 ppb	21:33:08
2	Sn 189.927†	1218.5	1243.9	531.99 µg/L	531.99 ppb	21:33:29
2	Ti 334.940†	221391.6	226720.5	515.31 µg/L	515.31 ppb	21:33:02
2	Tl 190.801†	360.6	391.8	529.83 µg/L	529.83 ppb	21:33:29
2	U 409.014†	6004.7	6153.9	521.19 µg/L	521.19 ppb	21:33:08
2	V 292.402†	50812.9	52164.5	522.44 µg/L	522.44 ppb	21:33:08
2	Zn 213.857†	22254.7	22302.7	522.67 µg/L	522.67 ppb	21:33:08
3	Sc RADIAL	58868.7	58868.7	99.7 %		21:31:57
3	Al 396.153Radial†	6921.4	6950.7	5187.3 µg/L	5187.3 ppb	21:32:17
3	Ca 317.933Radial†	5823.1	5647.5	5180.2 µg/L	5180.2 ppb	21:32:17
3	Fe 238.204 Radial†	618.4	604.9	5202.2 µg/L	5202.2 ppb	21:32:17
3	K 766.490 Radial†	7742.9	7567.5	5203.6 µg/L	5203.6 ppb	21:31:57
3	Mg 279.077 IEC†	559.2	548.8	5343.2 µg/L	5343.2 ppb	21:32:17
3	Na 589.592 Radial†	32419.4	32042.1	10475 µg/L	10475 ppb	21:31:57
3	Sr 421.552†	50911.5	51021.5	501.81 µg/L	501.81 ppb	21:31:57
3	Sc 361.383	2043315.4	2043315.4	97.318 %		21:33:36
3	Y 371.029	1411646.9	1411646.9	96.988 %		21:33:36
3	Ag 328.068†	61998.6	64170.5	482.04 µg/L	482.04 ppb	21:33:41
3	As 188.979†	234.6	241.3	433.58 µg/L	433.58 ppb	21:34:02
3	B 249.677†	11861.3	11862.8	483.31 µg/L	483.31 ppb	21:33:41
3	Ba 233.527†	18520.3	19049.1	467.64 µg/L	467.64 ppb	21:33:41
3	Be 313.107†	758581.3	783248.1	472.86 µg/L	472.86 ppb	21:33:36
3	Cd 226.502†	17923.1	18553.7	466.74 µg/L	466.74 ppb	21:33:41
3	Co 228.616†	9807.5	10075.2	465.93 µg/L	465.93 ppb	21:33:41
3	Cr 267.716†	21574.8	22216.8	453.38 µg/L	453.38 ppb	21:33:41
3	Cu 324.752†	71081.7	70171.1	466.20 µg/L	466.20 ppb	21:33:41
3	Mn 257.610†	146406.7	150744.5	480.32 µg/L	480.32 ppb	21:33:36
3	Mo 202.031†	4257.5	4378.1	438.87 µg/L	438.87 ppb	21:34:02
3	Ni 231.604†	9243.2	9189.3	463.93 µg/L	463.93 ppb	21:33:41
3	P 214.914†	1085.3	1099.0	2139.6 µg/L	2139.6 ppb	21:34:02
3	Pb 220.353†	1894.5	1852.0	455.77 µg/L	455.77 ppb	21:34:02
3	S 181.975 Axial†	233.0	222.1	920.81 µg/L	920.81 ppb	21:34:02
3	Sb 206.836†	504.5	496.2	454.65 µg/L	454.65 ppb	21:34:02
3	Se 196.026†	333.2	327.4	456.46 µg/L	456.46 ppb	21:34:02
3	SiO2†	26341.3	25582.9	5123.0 µg/L	5123.0 ppb	21:33:41
3	Si 251.611†	30488.1	31034.9	2395.4 µg/L	2395.4 ppb	21:33:41
3	Sn 189.927†	988.1	1010.6	432.21 µg/L	432.21 ppb	21:34:02
3	Ti 334.940†	202773.8	208221.0	473.24 µg/L	473.24 ppb	21:33:36
3	Tl 190.801†	315.1	346.0	468.23 µg/L	468.23 ppb	21:34:02
3	U 409.014†	5246.0	5391.4	456.49 µg/L	456.49 ppb	21:33:41
3	V 292.402†	45024.2	46361.1	464.12 µg/L	464.12 ppb	21:33:41
3	Zn 213.857†	19886.7	19932.9	467.08 µg/L	467.08 ppb	21:33:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2049219.9	97.599	%	0.2865				0.29%
Sc RADIAL	58551.7	99.2	%	0.52				0.52%
Y 371.029	1415667.7	97.264	%	0.2718				0.28%
Ag 328.068†	66794.3	501.86	µg/L	17.414	501.86	ppb	17.414	3.47%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	6983.8	5210.8	µg/L	25.08	5210.8	ppb	25.08	0.48%
QC value within limits for Al 396.153Radial Recovery = 104.22%								
As 188.979†	273.3	491.06	µg/L	49.809	491.06	ppb	49.809	10.14%
QC value within limits for As 188.979 Recovery = 98.21%								
B 249.677†	12407.0	505.63	µg/L	19.468	505.63	ppb	19.468	3.85%
QC value within limits for B 249.677 Recovery = 101.13%								
Ba 233.527†	20348.4	499.54	µg/L	27.638	499.54	ppb	27.638	5.53%
QC value within limits for Ba 233.527 Recovery = 99.91%								
Be 313.107†	824581.4	497.81	µg/L	21.631	497.81	ppb	21.631	4.35%
QC value within limits for Be 313.107 Recovery = 99.56%								
Ca 317.933Radial†	5674.3	5204.8	µg/L	24.26	5204.8	ppb	24.26	0.47%
QC value within limits for Ca 317.933Radial Recovery = 104.10%								
Cd 226.502†	19809.9	498.39	µg/L	27.480	498.39	ppb	27.480	5.51%
QC value within limits for Cd 226.502 Recovery = 99.68%								
Co 228.616†	10833.5	501.05	µg/L	30.448	501.05	ppb	30.448	6.08%

```
   QC value within limits for Co 228.616  Recovery = 100.21%
Cr 267.716†            24413.8      498.21 µg/L        38.826      498.21 ppb         38.826   7.79%
   QC value within limits for Cr 267.716  Recovery = 99.64%
Cu 324.752†            75472.1      501.37 µg/L        30.500      501.37 ppb         30.500   6.08%
   QC value within limits for Cu 324.752  Recovery = 100.27%
Fe 238.204 Radial†       608.7      5235.5 µg/L         29.27      5235.5 ppb          29.27   0.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.71%
K 766.490 Radial†       7547.0      5189.4 µg/L         19.38      5189.4 ppb          19.38   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 103.79%
Mg 279.077 IEC†          552.0      5375.2 µg/L         31.85      5375.2 ppb          31.85   0.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.50%
Mn 257.610†           158486.1      504.97 µg/L        21.363      504.97 ppb         21.363   4.23%
   QC value within limits for Mn 257.610  Recovery = 100.99%
Mo 202.031†             4986.1      499.78 µg/L        52.790      499.78 ppb         52.790  10.56%
   QC value within limits for Mo 202.031  Recovery = 99.96%
Na 589.592 Radial†     31960.4       10449 µg/L          27.3       10449 ppb           27.3   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 104.49%
Ni 231.604†             9895.2      499.57 µg/L        31.060      499.57 ppb         31.060   6.22%
   QC value within limits for Ni 231.604  Recovery = 99.91%
P 214.914†              1233.0      2403.2 µg/L        228.67      2403.2 ppb         228.67   9.52%
   QC value within limits for P 214.914  Recovery = 96.13%
Pb 220.353†             2062.0      507.52 µg/L        44.832      507.52 ppb         44.832   8.83%
   QC value within limits for Pb 220.353  Recovery = 101.50%
S 181.975 Axial†         242.1      1003.5 µg/L         72.21      1003.5 ppb          72.21   7.20%
   QC value within limits for S 181.975 Axial  Recovery = 100.35%
Sb 206.836†              549.6      503.82 µg/L        43.033      503.82 ppb         43.033   8.54%
   QC value within limits for Sb 206.836  Recovery = 100.76%
Se 196.026†              366.7      510.47 µg/L        47.489      510.47 ppb         47.489   9.30%
   QC value within limits for Se 196.026  Recovery = 102.09%
SiO2†                   27001.0      5407.0 µg/L        247.02      5407.0 ppb         247.02   4.57%
   QC value within limits for SiO2  Recovery = 101.11%
Si 251.611†             32740.4      2527.0 µg/L        114.67      2527.0 ppb         114.67   4.54%
   QC value within limits for Si 251.611  Recovery = 101.08%
Sn 189.927†             1165.8      498.59 µg/L        57.483      498.59 ppb         57.483  11.53%
   QC value within limits for Sn 189.927  Recovery = 99.72%
Sr 421.552†            50747.9      499.12 µg/L         2.375      499.12 ppb          2.375   0.48%
   QC value within limits for Sr 421.552  Recovery = 99.82%
Ti 334.940†           220212.1      500.51 µg/L        23.646      500.51 ppb         23.646   4.72%
   QC value within limits for Ti 334.940  Recovery = 100.10%
Tl 190.801†              373.6      505.43 µg/L        32.736      505.43 ppb         32.736   6.48%
   QC value within limits for Tl 190.801  Recovery = 101.09%
U 409.014†              5870.0      497.10 µg/L        35.374      497.10 ppb         35.374   7.12%
   QC value within limits for U 409.014  Recovery = 99.42%
V 292.402†             50104.4      501.77 µg/L        32.656      501.77 ppb         32.656   6.51%
   QC value within limits for V 292.402  Recovery = 100.35%
Zn 213.857†            21471.3      503.17 µg/L        31.289      503.17 ppb         31.289   6.22%
   QC value within limits for Zn 213.857  Recovery = 100.63%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 21:34:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57134.4	57134.4	96.8	%			21:34:44
1	Al 396.153Radial†	12.3	21.4	15.996	µg/L	15.996	ppb	21:34:44
1	Ca 317.933Radial†	226.6	41.2	37.828	µg/L	37.828	ppb	21:35:04
1	Fe 238.204 Radial†	16.2	1.4	11.796	µg/L	11.796	ppb	21:35:04
1	K 766.490 Radial†	325.0	137.5	94.513	µg/L	94.513	ppb	21:34:44
1	Mg 279.077 IEC†	13.3	1.6	15.841	µg/L	15.841	ppb	21:35:04
1	Na 589.592 Radial†	736.3	287.2	93.896	µg/L	93.896	ppb	21:34:44
1	Sr 421.552†	116.9	79.5	0.7816	µg/L	0.7816	ppb	21:34:44
1	Sc 361.383	2053403.3	2053403.3	97.798	%			21:36:06
1	Y 371.029	1422840.1	1422840.1	97.757	%			21:36:06
1	Ag 328.068†	-371.1	83.7	0.6280	µg/L	0.6280	ppb	21:36:12
1	As 188.979†	1.0	1.3	2.3692	µg/L	2.3692	ppb	21:36:33
1	B 249.677†	518.8	205.0	8.3831	µg/L	8.3831	ppb	21:36:33
1	Ba 233.527†	8.6	27.1	0.6651	µg/L	0.6651	ppb	21:36:33
1	Be 313.107†	-3351.1	332.3	0.2005	µg/L	0.2005	ppb	21:36:12
1	Cd 226.502†	-120.3	13.6	0.3419	µg/L	0.3419	ppb	21:36:33
1	Co 228.616†	13.8	11.5	0.5347	µg/L	0.5347	ppb	21:36:33
1	Cr 267.716†	20.8	68.7	1.4014	µg/L	1.4014	ppb	21:36:12
1	Cu 324.752†	3165.9	367.4	2.4389	µg/L	2.4389	ppb	21:36:12
1	Mn 257.610†	-152.9	146.3	0.4665	µg/L	0.4665	ppb	21:36:33
1	Mo 202.031†	9.9	13.5	1.3512	µg/L	1.3512	ppb	21:36:33
1	Ni 231.604†	324.4	23.0	1.1634	µg/L	1.1634	ppb	21:36:33
1	P 214.914†	16.0	0.2	0.1011	µg/L	0.1011	ppb	21:36:33
1	Pb 220.353†	124.8	32.8	8.0675	µg/L	8.0675	ppb	21:36:33
1	S 181.975 Axial†	18.1	1.2	4.8561	µg/L	4.8561	ppb	21:36:33
1	Sb 206.836†	24.5	3.0	2.7028	µg/L	2.7028	ppb	21:36:33
1	Se 196.026†	24.5	10.1	13.821	µg/L	13.821	ppb	21:36:33
1	SiO2†	1544.0	94.4	18.894	µg/L	18.894	ppb	21:36:12
1	Si 251.611†	374.6	89.6	6.9122	µg/L	6.9122	ppb	21:36:33
1	Sn 189.927†	7.1	2.6	1.0956	µg/L	1.0956	ppb	21:36:33
1	Ti 334.940†	371.2	237.9	0.5404	µg/L	0.5404	ppb	21:36:12
1	Tl 190.801†	-25.6	-4.0	-5.3134	µg/L	-5.3134	ppb	21:36:33
1	U 409.014†	9.7	10.7	0.9049	µg/L	0.9049	ppb	21:36:12
1	V 292.402†	-51.3	43.5	0.4466	µg/L	0.4466	ppb	21:36:12
1	Zn 213.857†	599.8	111.4	2.6177	µg/L	2.6177	ppb	21:36:33
2	Sc RADIAL	57584.4	57584.4	97.5	%			21:35:10
2	Al 396.153Radial†	5.4	14.3	10.634	µg/L	10.634	ppb	21:35:10
2	Ca 317.933Radial†	220.2	32.8	30.087	µg/L	30.087	ppb	21:35:30
2	Fe 238.204 Radial†	17.5	2.6	21.985	µg/L	21.985	ppb	21:35:30
2	K 766.490 Radial†	218.9	26.1	17.917	µg/L	17.917	ppb	21:35:10
2	Mg 279.077 IEC†	14.6	2.9	27.793	µg/L	27.793	ppb	21:35:30
2	Na 589.592 Radial†	662.7	205.7	67.259	µg/L	67.259	ppb	21:35:10
2	Sr 421.552†	77.0	37.6	0.3694	µg/L	0.3694	ppb	21:35:10
2	Sc 361.383	2045860.3	2045860.3	97.439	%			21:36:38
2	Y 371.029	1417907.7	1417907.7	97.418	%			21:36:38
2	Ag 328.068†	-375.1	78.2	0.5885	µg/L	0.5885	ppb	21:36:44
2	As 188.979†	4.9	5.3	9.5965	µg/L	9.5965	ppb	21:37:05
2	B 249.677†	501.2	188.9	7.7183	µg/L	7.7183	ppb	21:37:05
2	Ba 233.527†	10.7	29.3	0.7188	µg/L	0.7188	ppb	21:37:05
2	Be 313.107†	-3374.8	295.3	0.1781	µg/L	0.1781	ppb	21:36:44
2	Cd 226.502†	-126.7	6.5	0.1622	µg/L	0.1622	ppb	21:37:05
2	Co 228.616†	12.3	10.1	0.4656	µg/L	0.4656	ppb	21:37:05
2	Cr 267.716†	18.2	66.1	1.3478	µg/L	1.3478	ppb	21:36:44
2	Cu 324.752†	3217.3	432.2	2.8698	µg/L	2.8698	ppb	21:36:44
2	Mn 257.610†	-152.8	145.8	0.4659	µg/L	0.4659	ppb	21:37:05
2	Mo 202.031†	5.9	9.4	0.9444	µg/L	0.9444	ppb	21:37:05
2	Ni 231.604†	307.6	7.0	0.3538	µg/L	0.3538	ppb	21:37:05
2	P 214.914†	10.7	-5.3	-10.805	µg/L	-10.805	ppb	21:37:05
2	Pb 220.353†	109.4	17.5	4.3032	µg/L	4.3032	ppb	21:37:05

2	S 181.975 Axial†	16.6	-0.3	-1.1655 µg/L	-1.1655 ppb	21:37:05
2	Sb 206.836†	26.1	4.6	4.2202 µg/L	4.2202 ppb	21:37:05
2	Se 196.026†	17.6	3.0	4.1962 µg/L	4.1962 ppb	21:37:05
2	SiO2†	1544.4	100.6	20.146 µg/L	20.146 ppb	21:36:44
2	Si 251.611†	389.3	106.0	8.1841 µg/L	8.1841 ppb	21:37:05
2	Sn 189.927†	5.7	1.2	0.5057 µg/L	0.5057 ppb	21:37:05
2	Ti 334.940†	442.3	312.3	0.7085 µg/L	0.7085 ppb	21:36:44
2	Tl 190.801†	-22.1	-0.4	-0.5366 µg/L	-0.5366 ppb	21:37:05
2	U 409.014†	77.1	79.9	6.7734 µg/L	6.7734 ppb	21:36:44
2	V 292.402†	-36.4	58.6	0.5998 µg/L	0.5998 ppb	21:36:44
2	Zn 213.857†	604.7	118.6	2.7914 µg/L	2.7914 ppb	21:37:05
3	Sc RADIAL	57348.8	57348.8	97.1 %		21:35:36
3	Al 396.153Radial†	9.1	18.1	13.478 µg/L	13.478 ppb	21:35:36
3	Ca 317.933Radial†	222.5	36.1	33.128 µg/L	33.128 ppb	21:35:56
3	Fe 238.204 Radial†	17.6	2.7	23.399 µg/L	23.399 ppb	21:35:56
3	K 766.490 Radial†	272.0	81.6	56.131 µg/L	56.131 ppb	21:35:36
3	Mg 279.077 IEC†	15.3	3.6	35.472 µg/L	35.472 ppb	21:35:56
3	Na 589.592 Radial†	697.9	244.8	80.020 µg/L	80.020 ppb	21:35:36
3	Sr 421.552†	63.5	24.0	0.2364 µg/L	0.2364 ppb	21:35:36
3	Sc 361.383	2060878.4	2060878.4	98.154 %		21:37:11
3	Y 371.029	1428093.8	1428093.8	98.118 %		21:37:11
3	Ag 328.068†	-406.7	48.8	0.3697 µg/L	0.3697 ppb	21:37:16
3	As 188.979†	1.3	1.6	2.9013 µg/L	2.9013 ppb	21:37:37
3	B 249.677†	493.4	177.2	7.2381 µg/L	7.2381 ppb	21:37:37
3	Ba 233.527†	24.8	43.6	1.0692 µg/L	1.0692 ppb	21:37:37
3	Be 313.107†	-3499.3	193.8	0.1168 µg/L	0.1168 ppb	21:37:16
3	Cd 226.502†	-123.2	11.1	0.2773 µg/L	0.2773 ppb	21:37:37
3	Co 228.616†	10.7	8.3	0.3869 µg/L	0.3869 ppb	21:37:37
3	Cr 267.716†	-11.0	36.2	0.7393 µg/L	0.7393 ppb	21:37:16
3	Cu 324.752†	3123.2	312.2	2.0741 µg/L	2.0741 ppb	21:37:16
3	Mn 257.610†	-179.2	120.0	0.3838 µg/L	0.3838 ppb	21:37:37
3	Mo 202.031†	14.4	18.0	1.8034 µg/L	1.8034 ppb	21:37:37
3	Ni 231.604†	318.5	15.8	0.8000 µg/L	0.8000 ppb	21:37:37
3	P 214.914†	11.5	-4.5	-9.0965 µg/L	-9.0965 ppb	21:37:37
3	Pb 220.353†	118.2	25.6	6.2932 µg/L	6.2932 ppb	21:37:37
3	S 181.975 Axial†	15.5	-1.5	-6.0762 µg/L	-6.0762 ppb	21:37:37
3	Sb 206.836†	24.7	3.1	2.8299 µg/L	2.8299 ppb	21:37:37
3	Se 196.026†	19.1	4.5	6.1770 µg/L	6.1770 ppb	21:37:37
3	SiO2†	1494.4	38.1	7.6305 µg/L	7.6305 ppb	21:37:16
3	Si 251.611†	382.0	95.7	7.3845 µg/L	7.3845 ppb	21:37:37
3	Sn 189.927†	8.3	3.8	1.6138 µg/L	1.6138 ppb	21:37:37
3	Ti 334.940†	379.8	245.3	0.5555 µg/L	0.5555 ppb	21:37:16
3	Tl 190.801†	-21.3	0.6	0.7731 µg/L	0.7731 ppb	21:37:37
3	U 409.014†	46.7	48.4	4.0995 µg/L	4.0995 ppb	21:37:16
3	V 292.402†	-29.8	65.7	0.6722 µg/L	0.6722 ppb	21:37:16
3	Zn 213.857†	587.7	96.8	2.2748 µg/L	2.2748 ppb	21:37:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2053380.7	97.797	%	0.3576				0.37%
Sc RADIAL	57355.9	97.1	%	0.38				0.39%
Y 371.029	1422947.2	97.764	%	0.3500				0.36%
Ag 328.068†	70.2	0.5287	µg/L	0.13915	0.5287	ppb	0.13915	26.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.9	13.369	µg/L	2.6826	13.369	ppb	2.6826	20.07%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	4.9557	µg/L	4.02788	4.9557	ppb	4.02788	81.28%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	190.4	7.7798	µg/L	0.57496	7.7798	ppb	0.57496	7.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	33.3	0.8177	µg/L	0.21948	0.8177	ppb	0.21948	26.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	273.8	0.1651	µg/L	0.04331	0.1651	ppb	0.04331	26.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	36.7	33.681	µg/L	3.8999	33.681	ppb	3.8999	11.58%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.2605	µg/L	0.09104	0.2605	ppb	0.09104	34.95%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.0	0.4624	µg/L	0.07393	0.4624	ppb	0.07393	15.99%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                57.0      1.1628 µg/L       0.36776      1.1628 ppb        0.36776  31.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               370.6      2.4609 µg/L       0.39832      2.4609 ppb        0.39832  16.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.2      19.060 µg/L        6.3305     19.060 ppb         6.3305  33.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          81.7      56.187 µg/L       38.2981     56.187 ppb        38.2981  68.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.7      26.369 µg/L        9.8923     26.369 ppb         9.8923  37.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               137.4      0.4387 µg/L       0.04758      0.4387 ppb        0.04758  10.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.6      1.3663 µg/L       0.42970      1.3663 ppb        0.42970  31.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        245.9      80.392 µg/L       13.3222     80.392 ppb        13.3222  16.57%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                15.3      0.7724 µg/L       0.40552      0.7724 ppb        0.40552  52.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.2     -6.6003 µg/L       5.86613     -6.6003 ppb        5.86613  88.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                25.3      6.2213 µg/L       1.88319      6.2213 ppb        1.88319  30.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.2     -0.7952 µg/L       5.47556     -0.7952 ppb        5.47556 688.55%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.6      3.2510 µg/L       0.84177      3.2510 ppb        0.84177  25.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.9      8.0648 µg/L       5.08269      8.0648 ppb        5.08269  63.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      77.7      15.557 µg/L        6.8931     15.557 ppb         6.8931  44.31%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                97.1      7.4936 µg/L       0.64290      7.4936 ppb        0.64290   8.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.5      1.0717 µg/L       0.55441      1.0717 ppb        0.55441  51.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                47.0      0.4625 µg/L       0.28430      0.4625 ppb        0.28430  61.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               265.1      0.6015 µg/L       0.09301      0.6015 ppb        0.09301  15.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.3     -1.6923 µg/L       3.20365     -1.6923 ppb        3.20365 189.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 46.3      3.9259 µg/L       2.93808      3.9259 ppb        2.93808  74.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 55.9      0.5728 µg/L       0.11519      0.5728 ppb        0.11519  20.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               108.9      2.5613 µg/L       0.26286      2.5613 ppb        0.26286  10.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/20/2010 22:12:52 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022010.SIF
Batch ID:
Results Data Set: 022010C
Results Library: c:\pe\optima1\Results\Results.mdb

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/20/2010 19:48:18**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/20/2010 22:12:55**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56823.3	56823.3	96.2	%			22:13:29
1	Al 396.153Radial†	6779.6	7053.2	5262.2	µg/L	5262.2	ppb	22:13:29
1	Ca 317.933Radial†	5656.2	5684.2	5213.9	µg/L	5213.9	ppb	22:13:49
1	Fe 238.204 Radial†	612.3	620.8	5340.4	µg/L	5340.4	ppb	22:13:49

1	K 766.490 Radial†	7360.7	7449.9	5122.7 µg/L	5122.7 ppb	22:13:29
1	Mg 279.077 IEC†	551.2	560.7	5460.5 µg/L	5460.5 ppb	22:13:49
1	Na 589.592 Radial†	31464.7	32220.5	10534 µg/L	10534 ppb	22:13:29
1	Sr 421.552†	49272.3	51156.2	503.13 µg/L	503.13 ppb	22:13:29
1	Sc 361.383	2061302.8	2061302.8	98.174 %		22:14:53
1	Y 371.029	1421783.1	1421783.1	97.684 %		22:14:53
1	Ag 328.068†	65899.8	67588.3	507.89 µg/L	507.89 ppb	22:14:58
1	As 188.979†	280.7	286.2	514.11 µg/L	514.11 ppb	22:15:19
1	B 249.677†	12356.0	12260.3	499.60 µg/L	499.60 ppb	22:14:58
1	Ba 233.527†	20373.0	20770.2	509.90 µg/L	509.90 ppb	22:14:58
1	Be 313.107†	828097.3	847254.8	511.50 µg/L	511.50 ppb	22:14:53
1	Cd 226.502†	19746.1	20249.9	509.46 µg/L	509.46 ppb	22:14:58
1	Co 228.616†	10940.2	11141.1	515.28 µg/L	515.28 ppb	22:14:58
1	Cr 267.716†	24642.8	25148.5	513.20 µg/L	513.20 ppb	22:14:58
1	Cu 324.752†	78467.9	77057.3	511.90 µg/L	511.90 ppb	22:14:58
1	Mn 257.610†	159108.4	162369.6	517.34 µg/L	517.34 ppb	22:14:53
1	Mo 202.031†	5106.6	5204.9	521.71 µg/L	521.71 ppb	22:15:19
1	Ni 231.604†	10301.1	10184.0	514.15 µg/L	514.15 ppb	22:14:58
1	P 214.914†	1277.0	1284.6	2505.0 µg/L	2505.0 ppb	22:15:19
1	Pb 220.353†	2145.9	2091.0	514.68 µg/L	514.68 ppb	22:15:19
1	S 181.975 Axial†	265.3	253.0	1048.6 µg/L	1048.6 ppb	22:15:19
1	Sb 206.836†	574.3	562.9	516.17 µg/L	516.17 ppb	22:15:19
1	Se 196.026†	386.2	378.4	526.66 µg/L	526.66 ppb	22:15:19
1	SiO2†	28213.4	27253.6	5457.6 µg/L	5457.6 ppb	22:14:58
1	Si 251.611†	32765.5	33081.2	2553.3 µg/L	2553.3 ppb	22:14:58
1	Sn 189.927†	1207.9	1225.7	524.19 µg/L	524.19 ppb	22:15:19
1	Ti 334.940†	222142.4	226131.6	513.96 µg/L	513.96 ppb	22:14:53
1	Tl 190.801†	360.7	389.7	527.00 µg/L	527.00 ppb	22:15:19
1	U 409.014†	6010.5	6123.0	518.56 µg/L	518.56 ppb	22:14:58
1	V 292.402†	50504.7	51539.9	516.20 µg/L	516.20 ppb	22:14:58
1	Zn 213.857†	21927.1	21832.9	511.62 µg/L	511.62 ppb	22:14:58
2	Sc RADIAL	57242.8	57242.8	96.9 %		22:13:55
2	Al 396.153Radial†	6869.5	7094.3	5292.9 µg/L	5292.9 ppb	22:13:55
2	Ca 317.933Radial†	5669.5	5654.9	5187.0 µg/L	5187.0 ppb	22:14:15
2	Fe 238.204 Radial†	613.7	617.6	5312.2 µg/L	5312.2 ppb	22:14:15
2	K 766.490 Radial†	7451.6	7487.6	5148.6 µg/L	5148.6 ppb	22:13:55
2	Mg 279.077 IEC†	551.2	556.5	5419.6 µg/L	5419.6 ppb	22:14:15
2	Na 589.592 Radial†	31655.2	32177.4	10520 µg/L	10520 ppb	22:13:55
2	Sr 421.552†	49674.6	51196.1	503.52 µg/L	503.52 ppb	22:13:55
2	Sc 361.383	2034508.7	2034508.7	96.898 %		22:15:26
2	Y 371.029	1404777.1	1404777.1	96.516 %		22:15:26
2	Ag 328.068†	65111.9	67659.3	508.42 µg/L	508.42 ppb	22:15:32
2	As 188.979†	276.9	286.0	513.83 µg/L	513.83 ppb	22:15:52
2	B 249.677†	12217.6	12283.2	500.55 µg/L	500.55 ppb	22:15:32
2	Ba 233.527†	20109.4	20771.4	509.94 µg/L	509.94 ppb	22:15:32
2	Be 313.107†	818478.3	848436.6	512.21 µg/L	512.21 ppb	22:15:26
2	Cd 226.502†	19476.7	20236.8	509.13 µg/L	509.13 ppb	22:15:32
2	Co 228.616†	10743.6	11085.0	512.68 µg/L	512.68 ppb	22:15:32
2	Cr 267.716†	24304.7	25130.1	512.82 µg/L	512.82 ppb	22:15:32
2	Cu 324.752†	77516.2	77127.8	512.36 µg/L	512.36 ppb	22:15:32
2	Mn 257.610†	157296.9	162634.5	518.18 µg/L	518.18 ppb	22:15:26
2	Mo 202.031†	5051.7	5216.7	522.90 µg/L	522.90 ppb	22:15:52
2	Ni 231.604†	10117.7	10132.9	511.57 µg/L	511.57 ppb	22:15:32
2	P 214.914†	1275.0	1299.5	2534.8 µg/L	2534.8 ppb	22:15:52
2	Pb 220.353†	2141.4	2115.2	520.65 µg/L	520.65 ppb	22:15:52
2	S 181.975 Axial†	252.7	243.5	1009.5 µg/L	1009.5 ppb	22:15:52
2	Sb 206.836†	565.0	561.0	514.48 µg/L	514.48 ppb	22:15:52
2	Se 196.026†	378.8	376.0	523.29 µg/L	523.29 ppb	22:15:52
2	SiO2†	27857.1	27264.4	5459.7 µg/L	5459.7 ppb	22:15:32
2	Si 251.611†	32373.2	33116.0	2556.0 µg/L	2556.0 ppb	22:15:32
2	Sn 189.927†	1189.0	1222.4	522.77 µg/L	522.77 ppb	22:15:52
2	Ti 334.940†	219896.1	226793.3	515.47 µg/L	515.47 ppb	22:15:26
2	Tl 190.801†	352.9	386.4	522.65 µg/L	522.65 ppb	22:15:52
2	U 409.014†	5845.5	6033.3	510.95 µg/L	510.95 ppb	22:15:32
2	V 292.402†	49914.5	51608.3	516.88 µg/L	516.88 ppb	22:15:32
2	Zn 213.857†	21654.1	21845.3	511.92 µg/L	511.92 ppb	22:15:32
3	Sc RADIAL	57543.1	57543.1	97.5 %		22:14:20
3	Al 396.153Radial†	6877.7	7065.8	5273.5 µg/L	5273.5 ppb	22:14:20
3	Ca 317.933Radial†	5660.8	5615.5	5150.9 µg/L	5150.9 ppb	22:14:41
3	Fe 238.204 Radial†	610.5	611.1	5255.2 µg/L	5255.2 ppb	22:14:41
3	K 766.490 Radial†	7434.8	7430.3	5109.2 µg/L	5109.2 ppb	22:14:20

3	Mg 279.077 IEC†	551.8	554.1	5395.2 µg/L	5395.2 ppb	22:14:41
3	Na 589.592 Radial†	31802.3	32157.9	10513 µg/L	10513 ppb	22:14:20
3	Sr 421.552†	49999.8	51262.3	504.18 µg/L	504.18 ppb	22:14:20
3	Sc 361.383	2052108.6	2052108.6	97.737 %		22:15:59
3	Y 371.029	1416657.7	1416657.7	97.332 %		22:15:59
3	Ag 328.068†	61547.1	63435.6	476.51 µg/L	476.51 ppb	22:16:05
3	As 188.979†	236.3	242.1	434.90 µg/L	434.90 ppb	22:16:25
3	B 249.677†	11462.5	11402.5	464.44 µg/L	464.44 ppb	22:16:05
3	Ba 233.527†	18301.3	18743.5	460.13 µg/L	460.13 ppb	22:16:05
3	Be 313.107†	763518.1	784959.2	473.89 µg/L	473.89 ppb	22:15:59
3	Cd 226.502†	17660.5	18206.1	457.98 µg/L	457.98 ppb	22:16:05
3	Co 228.616†	9679.7	9901.3	457.87 µg/L	457.87 ppb	22:16:05
3	Cr 267.716†	21297.1	21837.7	445.64 µg/L	445.64 ppb	22:16:05
3	Cu 324.752†	70165.8	68921.1	457.92 µg/L	457.92 ppb	22:16:05
3	Mn 257.610†	147281.8	150995.3	481.12 µg/L	481.12 ppb	22:15:59
3	Mo 202.031†	4169.8	4269.7	428.01 µg/L	428.01 ppb	22:16:25
3	Ni 231.604†	9147.2	9050.4	456.92 µg/L	456.92 ppb	22:16:05
3	P 214.914†	1082.1	1090.9	2124.3 µg/L	2124.3 ppb	22:16:25
3	Pb 220.353†	1845.5	1793.4	441.36 µg/L	441.36 ppb	22:16:25
3	S 181.975 Axial†	228.0	216.0	895.36 µg/L	895.36 ppb	22:16:25
3	Sb 206.836†	479.1	468.0	428.82 µg/L	428.82 ppb	22:16:25
3	Se 196.026†	334.4	327.1	456.22 µg/L	456.22 ppb	22:16:25
3	SiO2†	25891.7	25006.9	5007.7 µg/L	5007.7 ppb	22:16:05
3	Si 251.611†	29967.0	30367.5	2343.9 µg/L	2343.9 ppb	22:16:05
3	Sn 189.927†	968.4	986.2	421.77 µg/L	421.77 ppb	22:16:25
3	Ti 334.940†	203768.6	208345.9	473.52 µg/L	473.52 ppb	22:15:59
3	Tl 190.801†	308.0	337.4	456.71 µg/L	456.71 ppb	22:16:25
3	U 409.014†	5292.0	5415.3	458.52 µg/L	458.52 ppb	22:16:05
3	V 292.402†	44442.9	45568.1	456.18 µg/L	456.18 ppb	22:16:05
3	Zn 213.857†	19577.7	19529.1	457.59 µg/L	457.59 ppb	22:16:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2049306.7	97.603	%	0.6484				0.66%
Sc RADIAL	57203.1	96.9	%	0.61				0.63%
Y 371.029	1414406.0	97.178	%	0.5994				0.62%
Ag 328.068†	66227.7	497.61	µg/L	18.269	497.61	ppb	18.269	3.67%
QC value within limits for Ag 328.068 Recovery = 99.52%								
Al 396.153Radial†	7071.1	5276.2	µg/L	15.52	5276.2	ppb	15.52	0.29%
QC value within limits for Al 396.153Radial Recovery = 105.52%								
As 188.979†	271.4	487.62	µg/L	45.651	487.62	ppb	45.651	9.36%
QC value within limits for As 188.979 Recovery = 97.52%								
B 249.677†	11982.0	488.19	µg/L	20.577	488.19	ppb	20.577	4.21%
QC value within limits for B 249.677 Recovery = 97.64%								
Ba 233.527†	20095.0	493.32	µg/L	28.745	493.32	ppb	28.745	5.83%
QC value within limits for Ba 233.527 Recovery = 98.66%								
Be 313.107†	826883.5	499.20	µg/L	21.921	499.20	ppb	21.921	4.39%
QC value within limits for Be 313.107 Recovery = 99.84%								
Ca 317.933Radial†	5651.5	5183.9	µg/L	31.64	5183.9	ppb	31.64	0.61%
QC value within limits for Ca 317.933Radial Recovery = 103.68%								
Cd 226.502†	19564.3	492.19	µg/L	29.625	492.19	ppb	29.625	6.02%
QC value within limits for Cd 226.502 Recovery = 98.44%								
Co 228.616†	10709.1	495.28	µg/L	32.420	495.28	ppb	32.420	6.55%
QC value within limits for Co 228.616 Recovery = 99.06%								
Cr 267.716†	24038.8	490.55	µg/L	38.896	490.55	ppb	38.896	7.93%
QC value within limits for Cr 267.716 Recovery = 98.11%								
Cu 324.752†	74368.7	494.06	µg/L	31.302	494.06	ppb	31.302	6.34%
QC value within limits for Cu 324.752 Recovery = 98.81%								
Fe 238.204 Radial†	616.5	5302.6	µg/L	43.37	5302.6	ppb	43.37	0.82%
QC value within limits for Fe 238.204 Radial Recovery = 106.05%								
K 766.490 Radial†	7456.0	5126.8	µg/L	20.03	5126.8	ppb	20.03	0.39%
QC value within limits for K 766.490 Radial Recovery = 102.54%								
Mg 279.077 IEC†	557.1	5425.1	µg/L	33.00	5425.1	ppb	33.00	0.61%
QC value within limits for Mg 279.077 IEC Recovery = 108.50%								
Mn 257.610†	158666.5	505.55	µg/L	21.156	505.55	ppb	21.156	4.18%
QC value within limits for Mn 257.610 Recovery = 101.11%								
Mo 202.031†	4897.1	490.87	µg/L	54.446	490.87	ppb	54.446	11.09%
QC value within limits for Mo 202.031 Recovery = 98.17%								
Na 589.592 Radial†	32185.2	10522	µg/L	10.5	10522	ppb	10.5	0.10%

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   QC value within limits for Na 589.592 Radial  Recovery = 105.22%
Ni 231.604†            9789.1      494.21 µg/L        32.319      494.21 ppb        32.319   6.54%
   QC value within limits for Ni 231.604  Recovery = 98.84%
P 214.914†             1225.0      2388.0 µg/L       228.90      2388.0 ppb        228.90   9.59%
   QC value within limits for P 214.914  Recovery = 95.52%
Pb 220.353†            1999.9      492.23 µg/L        44.158      492.23 ppb        44.158   8.97%
   QC value within limits for Pb 220.353  Recovery = 98.45%
S 181.975 Axial†        237.5      984.47 µg/L        79.605      984.47 ppb        79.605   8.09%
   QC value within limits for S 181.975 Axial  Recovery = 98.45%
Sb 206.836†             530.6      486.49 µg/L        49.951      486.49 ppb        49.951  10.27%
   QC value within limits for Sb 206.836  Recovery = 97.30%
Se 196.026†             360.5      502.06 µg/L        39.734      502.06 ppb        39.734   7.91%
   QC value within limits for Se 196.026  Recovery = 100.41%
SiO2†                  26508.3      5308.3 µg/L       260.37      5308.3 ppb        260.37   4.90%
   QC value within limits for SiO2  Recovery = 99.27%
Si 251.611†            32188.2      2484.4 µg/L       121.71      2484.4 ppb        121.71   4.90%
   QC value within limits for Si 251.611  Recovery = 99.38%
Sn 189.927†            1144.7      489.58 µg/L        58.731      489.58 ppb        58.731  12.00%
   QC value within limits for Sn 189.927  Recovery = 97.92%
Sr 421.552†            51204.9      503.61 µg/L         0.527      503.61 ppb         0.527   0.10%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†           220423.6      500.98 µg/L        23.800      500.98 ppb        23.800   4.75%
   QC value within limits for Ti 334.940  Recovery = 100.20%
Tl 190.801†             371.1      502.12 µg/L        39.384      502.12 ppb        39.384   7.84%
   QC value within limits for Tl 190.801  Recovery = 100.42%
U 409.014†             5857.2      496.01 µg/L        32.692      496.01 ppb        32.692   6.59%
   QC value within limits for U 409.014  Recovery = 99.20%
V 292.402†            49572.1      496.42 µg/L        34.850      496.42 ppb        34.850   7.02%
   QC value within limits for V 292.402  Recovery = 99.28%
Zn 213.857†           21069.1      493.71 µg/L        31.280      493.71 ppb        31.280   6.34%
   QC value within limits for Zn 213.857  Recovery = 98.74%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 22:16:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56690.7	56690.7	96.0	%			22:17:07
1	Al 396.153Radial†	-16.2	-8.1	-6.0850	µg/L	-6.0850	ppb	22:17:07
1	Ca 317.933Radial†	187.6	2.4	2.1692	µg/L	2.1692	ppb	22:17:28
1	Fe 238.204 Radial†	14.2	-0.6	-4.8794	µg/L	-4.8794	ppb	22:17:28
1	K 766.490 Radial†	253.3	65.4	45.004	µg/L	45.004	ppb	22:17:07
1	Mg 279.077 IEC†	12.1	0.6	5.4377	µg/L	5.4377	ppb	22:17:28
1	Na 589.592 Radial†	501.2	48.3	15.796	µg/L	15.796	ppb	22:17:07
1	Sr 421.552†	52.2	13.1	0.1284	µg/L	0.1284	ppb	22:17:07
1	Sc 361.383	2044523.0	2044523.0	97.375	%			22:18:29
1	Y 371.029	1416244.4	1416244.4	97.304	%			22:18:29
1	Ag 328.068†	-376.8	76.2	0.5704	µg/L	0.5704	ppb	22:18:35
1	As 188.979†	-0.4	-0.1	-0.2510	µg/L	-0.2510	ppb	22:18:55
1	B 249.677†	369.4	53.8	2.2047	µg/L	2.2047	ppb	22:18:55
1	Ba 233.527†	-7.2	10.9	0.2687	µg/L	0.2687	ppb	22:18:55
1	Be 313.107†	-3638.5	22.2	0.0133	µg/L	0.0133	ppb	22:18:35
1	Cd 226.502†	-132.8	0.2	0.0051	µg/L	0.0051	ppb	22:18:55
1	Co 228.616†	-1.0	-3.6	-0.1674	µg/L	-0.1674	ppb	22:18:55
1	Cr 267.716†	-58.2	-12.3	-0.2514	µg/L	-0.2514	ppb	22:18:35
1	Cu 324.752†	2937.3	146.8	0.9729	µg/L	0.9729	ppb	22:18:35
1	Mn 257.610†	-281.5	13.5	0.0420	µg/L	0.0420	ppb	22:18:55
1	Mo 202.031†	1.3	4.7	0.4660	µg/L	0.4660	ppb	22:18:55
1	Ni 231.604†	297.6	-3.0	-0.1533	µg/L	-0.1533	ppb	22:18:55
1	P 214.914†	18.1	2.4	4.5665	µg/L	4.5665	ppb	22:18:55
1	Pb 220.353†	93.5	1.2	0.2968	µg/L	0.2968	ppb	22:18:55
1	S 181.975 Axial†	14.8	-2.1	-8.7907	µg/L	-8.7907	ppb	22:18:55
1	Sb 206.836†	30.0	8.7	7.9428	µg/L	7.9428	ppb	22:18:55
1	Se 196.026†	14.1	-0.5	-0.6684	µg/L	-0.6684	ppb	22:18:55
1	SiO2†	1435.5	-10.3	-2.0535	µg/L	-2.0535	ppb	22:18:35
1	Si 251.611†	314.0	28.9	2.2323	µg/L	2.2323	ppb	22:18:55
1	Sn 189.927†	3.1	-1.5	-0.6542	µg/L	-0.6542	ppb	22:18:55
1	Ti 334.940†	250.4	115.5	0.2624	µg/L	0.2624	ppb	22:18:35
1	Tl 190.801†	-18.8	3.0	3.9540	µg/L	3.9540	ppb	22:18:55
1	U 409.014†	-2.3	-1.6	-0.1352	µg/L	-0.1352	ppb	22:18:35
1	V 292.402†	-60.1	34.3	0.3418	µg/L	0.3418	ppb	22:18:35
1	Zn 213.857†	516.6	28.6	0.6744	µg/L	0.6744	ppb	22:18:55
2	Sc RADIAL	56718.4	56718.4	96.1	%			22:17:33
2	Al 396.153Radial†	-2.8	5.8	4.3005	µg/L	4.3005	ppb	22:17:33
2	Ca 317.933Radial†	197.7	12.8	11.737	µg/L	11.737	ppb	22:17:53
2	Fe 238.204 Radial†	14.6	-0.2	-1.3875	µg/L	-1.3875	ppb	22:17:53
2	K 766.490 Radial†	188.2	-2.4	-1.6769	µg/L	-1.6769	ppb	22:17:33
2	Mg 279.077 IEC†	9.3	-2.4	-23.345	µg/L	-23.345	ppb	22:17:53
2	Na 589.592 Radial†	507.7	54.8	17.905	µg/L	17.905	ppb	22:17:33
2	Sr 421.552†	60.1	21.2	0.2085	µg/L	0.2085	ppb	22:17:33
2	Sc 361.383	2044848.8	2044848.8	97.391	%			22:19:01
2	Y 371.029	1415277.2	1415277.2	97.237	%			22:19:01
2	Ag 328.068†	-435.9	15.6	0.1141	µg/L	0.1141	ppb	22:19:07
2	As 188.979†	-3.2	-3.0	-5.3653	µg/L	-5.3653	ppb	22:19:28
2	B 249.677†	353.2	37.2	1.5224	µg/L	1.5224	ppb	22:19:28
2	Ba 233.527†	-16.0	1.9	0.0468	µg/L	0.0468	ppb	22:19:28
2	Be 313.107†	-3616.2	45.8	0.0275	µg/L	0.0275	ppb	22:19:07
2	Cd 226.502†	-134.3	-1.3	-0.0313	µg/L	-0.0313	ppb	22:19:28
2	Co 228.616†	4.9	2.5	0.1147	µg/L	0.1147	ppb	22:19:28
2	Cr 267.716†	-54.1	-8.2	-0.1673	µg/L	-0.1673	ppb	22:19:07
2	Cu 324.752†	2929.6	138.3	0.9174	µg/L	0.9174	ppb	22:19:07
2	Mn 257.610†	-256.9	38.8	0.1242	µg/L	0.1242	ppb	22:19:28
2	Mo 202.031†	2.4	5.8	0.5761	µg/L	0.5761	ppb	22:19:28
2	Ni 231.604†	311.6	11.4	0.5740	µg/L	0.5740	ppb	22:19:28
2	P 214.914†	13.7	-2.1	-4.3406	µg/L	-4.3406	ppb	22:19:28
2	Pb 220.353†	88.8	-3.6	-0.8839	µg/L	-0.8839	ppb	22:19:28

2	S 181.975 Axial†	18.1	1.3	5.3479 µg/L	5.3479 ppb		22:19:28
2	Sb 206.836†	27.3	5.9	5.3724 µg/L	5.3724 ppb		22:19:28
2	Se 196.026†	22.0	7.6	10.407 µg/L	10.407 ppb		22:19:28
2	SiO2†	1478.5	33.7	6.7532 µg/L	6.7532 ppb		22:19:07
2	Si 251.611†	336.0	51.4	3.9704 µg/L	3.9704 ppb		22:19:28
2	Sn 189.927†	3.9	-0.7	-0.3194 µg/L	-0.3194 ppb		22:19:28
2	Ti 334.940†	256.3	121.5	0.2784 µg/L	0.2784 ppb		22:19:07
2	Tl 190.801†	-24.9	-3.3	-4.4510 µg/L	-4.4510 ppb		22:19:28
2	U 409.014†	-17.4	-17.1	-1.4524 µg/L	-1.4524 ppb		22:19:07
2	V 292.402†	-124.6	-32.0	-0.3138 µg/L	-0.3138 ppb		22:19:07
2	Zn 213.857†	518.6	30.5	0.7183 µg/L	0.7183 ppb		22:19:28
3	Sc RADIAL	56709.5	56709.5	96.0 %			22:17:59
3	Al 396.153Radial†	-10.8	-2.5	-1.8802 µg/L	-1.8802 ppb		22:17:59
3	Ca 317.933Radial†	198.6	13.8	12.681 µg/L	12.681 ppb		22:18:19
3	Fe 238.204 Radial†	14.2	-0.6	-5.3099 µg/L	-5.3099 ppb		22:18:19
3	K 766.490 Radial†	198.2	8.0	5.4794 µg/L	5.4794 ppb		22:17:59
3	Mg 279.077 IEC†	6.9	-4.9	-47.572 µg/L	-47.572 ppb		22:18:19
3	Na 589.592 Radial†	542.6	91.2	29.809 µg/L	29.809 ppb		22:17:59
3	Sr 421.552†	36.4	-3.4	-0.0338 µg/L	-0.0338 ppb		22:17:59
3	Sc 361.383	2051656.6	2051656.6	97.715 %			22:19:34
3	Y 371.029	1420449.0	1420449.0	97.593 %			22:19:34
3	Ag 328.068†	-390.0	64.0	0.4781 µg/L	0.4781 ppb		22:19:39
3	As 188.979†	3.1	3.4	6.1846 µg/L	6.1846 ppb		22:20:00
3	B 249.677†	351.8	34.5	1.4159 µg/L	1.4159 ppb		22:20:00
3	Ba 233.527†	-5.4	12.9	0.3153 µg/L	0.3153 ppb		22:20:00
3	Be 313.107†	-3585.3	89.7	0.0540 µg/L	0.0540 ppb		22:19:39
3	Cd 226.502†	-132.5	1.0	0.0254 µg/L	0.0254 ppb		22:20:00
3	Co 228.616†	0.5	-2.0	-0.0950 µg/L	-0.0950 ppb		22:20:00
3	Cr 267.716†	-26.6	20.2	0.4113 µg/L	0.4113 ppb		22:19:39
3	Cu 324.752†	2896.9	95.0	0.6292 µg/L	0.6292 ppb		22:19:39
3	Mn 257.610†	-277.2	18.9	0.0613 µg/L	0.0613 ppb		22:20:00
3	Mo 202.031†	0.9	4.2	0.4244 µg/L	0.4244 ppb		22:20:00
3	Ni 231.604†	316.1	14.9	0.7517 µg/L	0.7517 ppb		22:20:00
3	P 214.914†	9.2	-6.8	-13.569 µg/L	-13.569 ppb		22:20:00
3	Pb 220.353†	72.8	-20.3	-4.9887 µg/L	-4.9887 ppb		22:20:00
3	S 181.975 Axial†	17.0	0.1	0.5553 µg/L	0.5553 ppb		22:20:00
3	Sb 206.836†	21.1	-0.5	-0.4646 µg/L	-0.4646 ppb		22:20:00
3	Se 196.026†	13.9	-0.8	-1.0457 µg/L	-1.0457 ppb		22:20:00
3	SiO2†	1463.4	13.2	2.6405 µg/L	2.6405 ppb		22:19:39
3	Si 251.611†	318.4	32.3	2.4907 µg/L	2.4907 ppb		22:20:00
3	Sn 189.927†	0.9	-3.8	-1.6168 µg/L	-1.6168 ppb		22:20:00
3	Ti 334.940†	280.5	145.4	0.3348 µg/L	0.3348 ppb		22:19:39
3	Tl 190.801†	-23.1	-1.5	-1.9664 µg/L	-1.9664 ppb		22:20:00
3	U 409.014†	-89.3	-90.6	-7.6908 µg/L	-7.6908 ppb		22:19:39
3	V 292.402†	-84.2	9.9	0.0933 µg/L	0.0933 ppb		22:19:39
3	Zn 213.857†	513.7	23.8	0.5608 µg/L	0.5608 ppb		22:20:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2047009.5	97.494	%	0.1918				0.20%
Sc RADIAL	56706.2	96.0	%	0.02				0.02%
Y 371.029	1417323.5	97.378	%	0.1889				0.19%
Ag 328.068†	51.9	0.3875	µg/L	0.24123	0.3875	ppb	0.24123	62.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.6	-1.2215	µg/L	5.22398	-1.2215	ppb	5.22398	427.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.1894	µg/L	5.78751	0.1894	ppb	5.78751	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	41.9	1.7144	µg/L	0.42800	1.7144	ppb	0.42800	24.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.6	0.2103	µg/L	0.14350	0.2103	ppb	0.14350	68.25%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	52.6	0.0316	µg/L	0.02066	0.0316	ppb	0.02066	65.31%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.7	8.8624	µg/L	5.81566	8.8624	ppb	5.81566	65.62%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-0.0	-0.0003	µg/L	0.02873	-0.0003	ppb	0.02873	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.1	-0.0493	µg/L	0.14653	-0.0493	ppb	0.14653	297.51%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -0.1     -0.0025 µg/L       0.36078     -0.0025 ppb        0.36078 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               126.7      0.8399 µg/L       0.18449      0.8399 ppb        0.18449  21.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.8589 µg/L       2.15113     -3.8589 ppb        2.15113  55.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          23.7      16.269 µg/L       25.1413      16.269 ppb        25.1413 154.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.2     -21.826 µg/L       26.5375     -21.826 ppb        26.5375 121.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                23.7      0.0758 µg/L       0.04301      0.0758 ppb        0.04301  56.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.9      0.4888 µg/L       0.07837      0.4888 ppb        0.07837  16.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         64.8      21.170 µg/L        7.5553      21.170 ppb         7.5553  35.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.7      0.3908 µg/L       0.47949      0.3908 ppb        0.47949 122.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.2     -4.4478 µg/L       9.06832     -4.4478 ppb        9.06832 203.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.6     -1.8586 µg/L       2.77430     -1.8586 ppb        2.77430 149.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.2     -0.9625 µg/L       7.19044     -0.9625 ppb        7.19044 747.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.7      4.2835 µg/L       4.30813      4.2835 ppb        4.30813 100.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      2.8976 µg/L       6.50604      2.8976 ppb        6.50604 224.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      12.2      2.4467 µg/L       4.40657      2.4467 ppb        4.40657 180.10%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                37.5      2.8978 µg/L       0.93785      2.8978 ppb        0.93785  32.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.0     -0.8635 µg/L       0.67354     -0.8635 ppb        0.67354  78.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.3      0.1010 µg/L       0.12347      0.1010 ppb        0.12347 122.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               127.5      0.2918 µg/L       0.03803      0.2918 ppb        0.03803  13.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.8211 µg/L       4.31796     -0.8211 ppb        4.31796 525.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -36.4     -3.0928 µg/L       4.03610     -3.0928 ppb        4.03610 130.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  4.1      0.0404 µg/L       0.33099      0.0404 ppb        0.33099 818.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                27.7      0.6512 µg/L       0.08127      0.6512 ppb        0.08127  12.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/20/2010 23:26:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56330.5	56330.5	95.4	%			23:27:25
1	Al 396.153Radial†	6838.9	7177.0	5354.4	µg/L	5354.4	ppb	23:27:25
1	Ca 317.933Radial†	5704.4	5786.2	5307.4	µg/L	5307.4	ppb	23:27:45
1	Fe 238.204 Radial†	620.2	634.6	5459.0	µg/L	5459.0	ppb	23:27:45
1	K 766.490 Radial†	7410.1	7568.7	5204.3	µg/L	5204.3	ppb	23:27:25
1	Mg 279.077 IEC†	556.6	571.3	5564.0	µg/L	5564.0	ppb	23:27:45
1	Na 589.592 Radial†	31622.1	32671.4	10681	µg/L	10681	ppb	23:27:25
1	Sr 421.552†	49311.4	51645.1	507.94	µg/L	507.94	ppb	23:27:25
1	Sc 361.383	2042292.5	2042292.5	97.269	%			23:28:48
1	Y 371.029	1408589.0	1408589.0	96.778	%			23:28:48
1	Ag 328.068†	66253.9	68577.2	515.32	µg/L	515.32	ppb	23:28:54
1	As 188.979†	289.0	297.4	534.28	µg/L	534.28	ppb	23:29:15
1	B 249.677†	12397.5	12420.1	506.09	µg/L	506.09	ppb	23:28:54
1	Ba 233.527†	20472.6	21065.8	517.16	µg/L	517.16	ppb	23:28:54
1	Be 313.107†	830688.1	857769.9	517.84	µg/L	517.84	ppb	23:28:48
1	Cd 226.502†	19841.6	20535.2	516.63	µg/L	516.63	ppb	23:28:54
1	Co 228.616†	11022.5	11329.4	524.00	µg/L	524.00	ppb	23:28:54
1	Cr 267.716†	24858.5	25603.8	522.49	µg/L	522.49	ppb	23:28:54
1	Cu 324.752†	78561.6	77897.6	517.49	µg/L	517.49	ppb	23:28:54
1	Mn 257.610†	159582.8	164365.9	523.70	µg/L	523.70	ppb	23:28:48
1	Mo 202.031†	5208.8	5358.4	537.10	µg/L	537.10	ppb	23:29:15
1	Ni 231.604†	10332.3	10313.8	520.70	µg/L	520.70	ppb	23:28:54
1	P 214.914†	1319.5	1340.3	2615.5	µg/L	2615.5	ppb	23:29:15
1	Pb 220.353†	2190.2	2156.9	530.93	µg/L	530.93	ppb	23:29:15
1	S 181.975 Axial†	264.7	254.8	1056.2	µg/L	1056.2	ppb	23:29:15
1	Sb 206.836†	575.3	569.3	522.18	µg/L	522.18	ppb	23:29:15
1	Se 196.026†	384.2	380.0	529.08	µg/L	529.08	ppb	23:29:15
1	SiO2†	28510.0	27826.0	5572.2	µg/L	5572.2	ppb	23:28:54
1	Si 251.611†	33161.7	33799.3	2608.7	µg/L	2608.7	ppb	23:28:54
1	Sn 189.927†	1234.2	1264.1	540.63	µg/L	540.63	ppb	23:29:15
1	Ti 334.940†	223294.7	229422.4	521.44	µg/L	521.44	ppb	23:28:48
1	Tl 190.801†	358.9	391.2	529.11	µg/L	529.11	ppb	23:29:15
1	U 409.014†	5987.0	6155.9	521.32	µg/L	521.32	ppb	23:28:54
1	V 292.402†	50717.1	52237.1	523.26	µg/L	523.26	ppb	23:28:54
1	Zn 213.857†	22060.8	22178.3	519.72	µg/L	519.72	ppb	23:28:54
2	Sc RADIAL	57430.1	57430.1	97.3	%			23:27:51
2	Al 396.153Radial†	6965.0	7169.4	5349.0	µg/L	5349.0	ppb	23:27:51
2	Ca 317.933Radial†	5725.6	5693.5	5222.5	µg/L	5222.5	ppb	23:28:11
2	Fe 238.204 Radial†	620.1	622.1	5351.7	µg/L	5351.7	ppb	23:28:11
2	K 766.490 Radial†	7476.9	7488.6	5149.3	µg/L	5149.3	ppb	23:27:51
2	Mg 279.077 IEC†	557.8	561.4	5467.4	µg/L	5467.4	ppb	23:28:11
2	Na 589.592 Radial†	32080.0	32507.6	10628	µg/L	10628	ppb	23:27:51
2	Sr 421.552†	50471.1	51847.8	509.93	µg/L	509.93	ppb	23:27:51
2	Sc 361.383	2054918.9	2054918.9	97.870	%			23:29:22
2	Y 371.029	1416762.5	1416762.5	97.339	%			23:29:22
2	Ag 328.068†	66701.2	68615.7	515.60	µg/L	515.60	ppb	23:29:27
2	As 188.979†	276.9	283.2	508.74	µg/L	508.74	ppb	23:29:48
2	B 249.677†	12524.2	12471.3	508.23	µg/L	508.23	ppb	23:29:27
2	Ba 233.527†	20631.2	21098.5	517.96	µg/L	517.96	ppb	23:29:27
2	Be 313.107†	832869.8	854751.6	516.02	µg/L	516.02	ppb	23:29:22
2	Cd 226.502†	19978.0	20549.3	517.00	µg/L	517.00	ppb	23:29:27
2	Co 228.616†	11072.2	11310.5	523.11	µg/L	523.11	ppb	23:29:27
2	Cr 267.716†	24957.6	25548.0	521.35	µg/L	521.35	ppb	23:29:27
2	Cu 324.752†	79210.4	78064.3	518.58	µg/L	518.58	ppb	23:29:27
2	Mn 257.610†	160168.0	163955.8	522.39	µg/L	522.39	ppb	23:29:22
2	Mo 202.031†	5111.5	5226.0	523.83	µg/L	523.83	ppb	23:29:48
2	Ni 231.604†	10393.7	10311.2	520.57	µg/L	520.57	ppb	23:29:27
2	P 214.914†	1303.1	1315.2	2565.2	µg/L	2565.2	ppb	23:29:48
2	Pb 220.353†	2156.7	2108.8	519.05	µg/L	519.05	ppb	23:29:48

2	S 181.975 Axial†	264.6	253.0	1048.9 µg/L	1048.9 ppb	23:29:48
2	Sb 206.836†	578.6	569.0	521.72 µg/L	521.72 ppb	23:29:48
2	Se 196.026†	377.1	370.3	515.54 µg/L	515.54 ppb	23:29:48
2	SiO2†	28873.1	28017.0	5610.4 µg/L	5610.4 ppb	23:29:27
2	Si 251.611†	33504.9	33940.4	2619.6 µg/L	2619.6 ppb	23:29:27
2	Sn 189.927†	1199.8	1221.2	522.28 µg/L	522.28 ppb	23:29:48
2	Ti 334.940†	223897.9	228628.2	519.64 µg/L	519.64 ppb	23:29:22
2	Tl 190.801†	354.0	383.9	519.36 µg/L	519.36 ppb	23:29:48
2	U 409.014†	6049.5	6181.9	523.56 µg/L	523.56 ppb	23:29:27
2	V 292.402†	51068.6	52275.8	523.53 µg/L	523.53 ppb	23:29:27
2	Zn 213.857†	22196.3	22177.3	519.71 µg/L	519.71 ppb	23:29:27
3	Sc RADIAL	56802.4	56802.4	96.2 %		23:28:16
3	Al 396.153Radial†	6911.2	7192.5	5368.1 µg/L	5368.1 ppb	23:28:16
3	Ca 317.933Radial†	5728.6	5761.7	5285.0 µg/L	5285.0 ppb	23:28:37
3	Fe 238.204 Radial†	622.1	631.2	5428.7 µg/L	5428.7 ppb	23:28:37
3	K 766.490 Radial†	7497.5	7594.9	5222.4 µg/L	5222.4 ppb	23:28:16
3	Mg 279.077 IEC†	558.5	568.5	5534.8 µg/L	5534.8 ppb	23:28:37
3	Na 589.592 Radial†	31884.2	32668.5	10680 µg/L	10680 ppb	23:28:16
3	Sr 421.552†	49822.6	51747.1	508.94 µg/L	508.94 ppb	23:28:16
3	Sc 361.383	2052647.1	2052647.1	97.762 %		23:29:55
3	Y 371.029	1416680.5	1416680.5	97.334 %		23:29:55
3	Ag 328.068†	62677.9	64575.7	485.09 µg/L	485.09 ppb	23:30:01
3	As 188.979†	239.9	245.7	441.47 µg/L	441.47 ppb	23:30:21
3	B 249.677†	11686.2	11628.2	473.60 µg/L	473.60 ppb	23:30:01
3	Ba 233.527†	18696.5	19142.8	469.94 µg/L	469.94 ppb	23:30:01
3	Be 313.107†	776698.6	798236.4	481.90 µg/L	481.90 ppb	23:29:55
3	Cd 226.502†	18058.3	18608.3	468.10 µg/L	468.10 ppb	23:30:01
3	Co 228.616†	9890.6	10114.5	467.73 µg/L	467.73 ppb	23:30:01
3	Cr 267.716†	21790.7	22336.9	455.83 µg/L	455.83 ppb	23:30:01
3	Cu 324.752†	71427.3	70192.6	466.38 µg/L	466.38 ppb	23:30:01
3	Mn 257.610†	149598.9	153325.9	488.56 µg/L	488.56 ppb	23:29:55
3	Mo 202.031†	4266.2	4367.2	437.78 µg/L	437.78 ppb	23:30:21
3	Ni 231.604†	9355.9	9261.4	467.58 µg/L	467.58 ppb	23:30:01
3	P 214.914†	1099.2	1108.1	2157.6 µg/L	2157.6 ppb	23:30:21
3	Pb 220.353†	1893.0	1841.5	453.20 µg/L	453.20 ppb	23:30:21
3	S 181.975 Axial†	234.1	222.2	920.91 µg/L	920.91 ppb	23:30:21
3	Sb 206.836†	487.3	476.4	436.43 µg/L	436.43 ppb	23:30:21
3	Se 196.026†	335.0	327.7	457.35 µg/L	457.35 ppb	23:30:21
3	SiO2†	26605.4	25730.0	5152.4 µg/L	5152.4 ppb	23:30:01
3	Si 251.611†	30897.0	31310.7	2416.7 µg/L	2416.7 ppb	23:30:01
3	Sn 189.927†	988.5	1006.4	430.43 µg/L	430.43 ppb	23:30:21
3	Ti 334.940†	207641.6	212253.0	482.39 µg/L	482.39 ppb	23:29:55
3	Tl 190.801†	318.3	347.8	470.71 µg/L	470.71 ppb	23:30:21
3	U 409.014†	5235.3	5355.9	453.44 µg/L	453.44 ppb	23:30:01
3	V 292.402†	45428.0	46563.9	466.15 µg/L	466.15 ppb	23:30:01
3	Zn 213.857†	19978.4	19933.7	467.07 µg/L	467.07 ppb	23:30:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2049952.8	97.634	%	0.3206				0.33%
Sc RADIAL	56854.3	96.3	%	0.93				0.97%
Y 371.029	1414010.7	97.150	%	0.3226				0.33%
Ag 328.068†	67256.2	505.34	µg/L	17.531	505.34	ppb	17.531	3.47%
QC value within limits for Ag 328.068 Recovery = 101.07%								
Al 396.153Radial†	7179.6	5357.2	µg/L	9.85	5357.2	ppb	9.85	0.18%
QC value within limits for Al 396.153Radial Recovery = 107.14%								
As 188.979†	275.4	494.83	µg/L	47.944	494.83	ppb	47.944	9.69%
QC value within limits for As 188.979 Recovery = 98.97%								
B 249.677†	12173.2	495.97	µg/L	19.407	495.97	ppb	19.407	3.91%
QC value within limits for B 249.677 Recovery = 99.19%								
Ba 233.527†	20435.7	501.69	µg/L	27.500	501.69	ppb	27.500	5.48%
QC value within limits for Ba 233.527 Recovery = 100.34%								
Be 313.107†	836919.3	505.26	µg/L	20.244	505.26	ppb	20.244	4.01%
QC value within limits for Be 313.107 Recovery = 101.05%								
Ca 317.933Radial†	5747.1	5271.6	µg/L	44.03	5271.6	ppb	44.03	0.84%
QC value within limits for Ca 317.933Radial Recovery = 105.43%								
Cd 226.502†	19897.6	500.58	µg/L	28.130	500.58	ppb	28.130	5.62%
QC value within limits for Cd 226.502 Recovery = 100.12%								
Co 228.616†	10918.1	504.95	µg/L	32.233	504.95	ppb	32.233	6.38%

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   QC value within limits for Co 228.616  Recovery = 100.99%
Cr 267.716†            24496.3      499.89 µg/L        38.162      499.89 ppb         38.162   7.63%
   QC value within limits for Cr 267.716  Recovery = 99.98%
Cu 324.752†            75384.8      500.82 µg/L        29.831      500.82 ppb         29.831   5.96%
   QC value within limits for Cu 324.752  Recovery = 100.16%
Fe 238.204 Radial†       629.3      5413.1 µg/L         55.31      5413.1 ppb          55.31   1.02%
   QC value within limits for Fe 238.204 Radial  Recovery = 108.26%
K 766.490 Radial†       7550.7      5192.0 µg/L         38.08      5192.0 ppb          38.08   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 103.84%
Mg 279.077 IEC†          567.1      5522.1 µg/L         49.58      5522.1 ppb          49.58   0.90%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.44%
Mn 257.610†           160549.2      511.55 µg/L        19.922      511.55 ppb         19.922   3.89%
   QC value within limits for Mn 257.610  Recovery = 102.31%
Mo 202.031†             4983.8      499.57 µg/L        53.921      499.57 ppb         53.921  10.79%
   QC value within limits for Mo 202.031  Recovery = 99.91%
Na 589.592 Radial†     32615.8       10663 µg/L          30.7       10663 ppb           30.7   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 106.63%
Ni 231.604†             9962.1      502.95 µg/L        30.630      502.95 ppb         30.630   6.09%
   QC value within limits for Ni 231.604  Recovery = 100.59%
P 214.914†              1254.5      2446.1 µg/L        251.15      2446.1 ppb         251.15  10.27%
   QC value within limits for P 214.914  Recovery = 97.84%
Pb 220.353†             2035.7      501.06 µg/L        41.871      501.06 ppb         41.871   8.36%
   QC value within limits for Pb 220.353  Recovery = 100.21%
S 181.975 Axial†         243.3      1008.7 µg/L         76.11      1008.7 ppb          76.11   7.55%
   QC value within limits for S 181.975 Axial  Recovery = 100.87%
Sb 206.836†              538.2      493.45 µg/L        49.373      493.45 ppb         49.373  10.01%
   QC value within limits for Sb 206.836  Recovery = 98.69%
Se 196.026†              359.3      500.66 µg/L        38.110      500.66 ppb         38.110   7.61%
   QC value within limits for Se 196.026  Recovery = 100.13%
SiO2†                  27191.0      5445.0 µg/L        254.09      5445.0 ppb         254.09   4.67%
   QC value within limits for SiO2  Recovery = 101.82%
Si 251.611†            33016.8      2548.4 µg/L        114.17      2548.4 ppb         114.17   4.48%
   QC value within limits for Si 251.611  Recovery = 101.93%
Sn 189.927†             1163.9      497.78 µg/L        59.044      497.78 ppb         59.044  11.86%
   QC value within limits for Sn 189.927  Recovery = 99.56%
Sr 421.552†            51746.7      508.94 µg/L         0.997      508.94 ppb          0.997   0.20%
   QC value within limits for Sr 421.552  Recovery = 101.79%
Ti 334.940†           223434.5      507.83 µg/L        22.043      507.83 ppb         22.043   4.34%
   QC value within limits for Ti 334.940  Recovery = 101.57%
Tl 190.801†              374.3      506.39 µg/L        31.287      506.39 ppb         31.287   6.18%
   QC value within limits for Tl 190.801  Recovery = 101.28%
U 409.014†              5897.9      499.44 µg/L        39.850      499.44 ppb         39.850   7.98%
   QC value within limits for U 409.014  Recovery = 99.89%
V 292.402†             50358.9      504.31 µg/L        33.052      504.31 ppb         33.052   6.55%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†            21429.8      502.16 µg/L        30.396      502.16 ppb         30.396   6.05%
   QC value within limits for Zn 213.857  Recovery = 100.43%
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/20/2010 23:30:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56597.7	56597.7	95.9	%			23:31:03
1	Al 396.153Radial†	-0.8	7.9	5.8734	µg/L	5.8734	ppb	23:31:03
1	Ca 317.933Radial†	191.2	6.5	5.9558	µg/L	5.9558	ppb	23:31:24
1	Fe 238.204 Radial†	15.7	1.0	8.6808	µg/L	8.6808	ppb	23:31:24
1	K 766.490 Radial†	217.3	28.3	19.449	µg/L	19.449	ppb	23:31:03
1	Mg 279.077 IEC†	10.6	-1.0	-9.7422	µg/L	-9.7422	ppb	23:31:24
1	Na 589.592 Radial†	461.3	7.5	2.4505	µg/L	2.4505	ppb	23:31:03
1	Sr 421.552†	47.1	7.7	0.0761	µg/L	0.0761	ppb	23:31:03
1	Sc 361.383	2058481.8	2058481.8	98.040	%			23:32:26
1	Y 371.029	1425545.5	1425545.5	97.943	%			23:32:26
1	Ag 328.068†	-373.6	82.0	0.6126	µg/L	0.6126	ppb	23:32:31
1	As 188.979†	3.1	3.5	6.2164	µg/L	6.2164	ppb	23:32:52
1	B 249.677†	369.7	51.6	2.1077	µg/L	2.1077	ppb	23:32:52
1	Ba 233.527†	-15.2	2.8	0.0697	µg/L	0.0697	ppb	23:32:52
1	Be 313.107†	-3583.9	103.3	0.0623	µg/L	0.0623	ppb	23:32:31
1	Cd 226.502†	-146.6	-13.0	-0.3259	µg/L	-0.3259	ppb	23:32:52
1	Co 228.616†	0.9	-1.6	-0.0753	µg/L	-0.0753	ppb	23:32:52
1	Cr 267.716†	-55.1	-8.9	-0.1806	µg/L	-0.1806	ppb	23:32:31
1	Cu 324.752†	2905.9	94.2	0.6262	µg/L	0.6262	ppb	23:32:31
1	Mn 257.610†	-228.1	69.9	0.2241	µg/L	0.2241	ppb	23:32:52
1	Mo 202.031†	1.7	5.0	0.5026	µg/L	0.5026	ppb	23:32:52
1	Ni 231.604†	328.5	26.5	1.3383	µg/L	1.3383	ppb	23:32:52
1	P 214.914†	13.1	-2.9	-5.8038	µg/L	-5.8038	ppb	23:32:52
1	Pb 220.353†	89.3	-3.7	-0.9092	µg/L	-0.9092	ppb	23:32:52
1	S 181.975 Axial†	15.1	-1.8	-7.6484	µg/L	-7.6484	ppb	23:32:52
1	Sb 206.836†	26.8	5.2	4.7642	µg/L	4.7642	ppb	23:32:52
1	Se 196.026†	12.5	-2.2	-3.0313	µg/L	-3.0313	ppb	23:32:52
1	SiO2†	1531.2	77.4	15.504	µg/L	15.504	ppb	23:32:31
1	Si 251.611†	394.6	108.9	8.4067	µg/L	8.4067	ppb	23:32:52
1	Sn 189.927†	5.0	0.4	0.1651	µg/L	0.1651	ppb	23:32:52
1	Ti 334.940†	275.6	139.5	0.3181	µg/L	0.3181	ppb	23:32:31
1	Tl 190.801†	-21.0	0.8	1.1068	µg/L	1.1068	ppb	23:32:52
1	U 409.014†	-38.0	-38.0	-3.2223	µg/L	-3.2223	ppb	23:32:31
1	V 292.402†	-90.1	4.1	0.0416	µg/L	0.0416	ppb	23:32:31
1	Zn 213.857†	513.1	21.5	0.4997	µg/L	0.4997	ppb	23:32:52
2	Sc RADIAL	56998.6	56998.6	96.5	%			23:31:29
2	Al 396.153Radial†	-15.5	-7.3	-5.4832	µg/L	-5.4832	ppb	23:31:29
2	Ca 317.933Radial†	194.2	8.2	7.4814	µg/L	7.4814	ppb	23:31:49
2	Fe 238.204 Radial†	16.5	1.8	15.072	µg/L	15.072	ppb	23:31:49
2	K 766.490 Radial†	187.3	-4.4	-3.0096	µg/L	-3.0096	ppb	23:31:29
2	Mg 279.077 IEC†	14.0	2.4	23.405	µg/L	23.405	ppb	23:31:49
2	Na 589.592 Radial†	531.6	76.9	25.147	µg/L	25.147	ppb	23:31:29
2	Sr 421.552†	61.0	21.9	0.2150	µg/L	0.2150	ppb	23:31:29
2	Sc 361.383	2043982.4	2043982.4	97.350	%			23:32:58
2	Y 371.029	1414969.6	1414969.6	97.216	%			23:32:58
2	Ag 328.068†	-456.0	-5.3	-0.0372	µg/L	-0.0372	ppb	23:33:03
2	As 188.979†	4.4	4.8	8.5664	µg/L	8.5664	ppb	23:33:24
2	B 249.677†	375.8	60.6	2.4698	µg/L	2.4698	ppb	23:33:24
2	Ba 233.527†	-13.9	4.1	0.0996	µg/L	0.0996	ppb	23:33:24
2	Be 313.107†	-3641.4	18.3	0.0110	µg/L	0.0110	ppb	23:33:03
2	Cd 226.502†	-141.8	-9.0	-0.2292	µg/L	-0.2292	ppb	23:33:24
2	Co 228.616†	10.2	7.9	0.3668	µg/L	0.3668	ppb	23:33:24
2	Cr 267.716†	-34.4	12.0	0.2456	µg/L	0.2456	ppb	23:33:03
2	Cu 324.752†	2865.3	73.6	0.4901	µg/L	0.4901	ppb	23:33:03
2	Mn 257.610†	-238.1	58.0	0.1857	µg/L	0.1857	ppb	23:33:24
2	Mo 202.031†	2.0	5.3	0.5356	µg/L	0.5356	ppb	23:33:24
2	Ni 231.604†	301.1	0.6	0.0326	µg/L	0.0326	ppb	23:33:24
2	P 214.914†	16.4	0.6	1.1371	µg/L	1.1371	ppb	23:33:24
2	Pb 220.353†	86.5	-6.0	-1.4750	µg/L	-1.4750	ppb	23:33:24

2	S 181.975 Axial†	16.4	-0.4	-1.8512 µg/L	-1.8512 ppb	23:33:24
2	Sb 206.836†	26.0	4.6	4.2209 µg/L	4.2209 ppb	23:33:24
2	Se 196.026†	17.1	2.6	3.5596 µg/L	3.5596 ppb	23:33:24
2	SiO2†	1535.1	92.5	18.530 µg/L	18.530 ppb	23:33:03
2	Si 251.611†	409.0	126.6	9.7715 µg/L	9.7715 ppb	23:33:24
2	Sn 189.927†	3.7	-0.9	-0.3803 µg/L	-0.3803 ppb	23:33:24
2	Ti 334.940†	243.7	108.6	0.2453 µg/L	0.2453 ppb	23:33:03
2	Tl 190.801†	-24.0	-2.4	-3.2418 µg/L	-3.2418 ppb	23:33:24
2	U 409.014†	31.8	33.4	2.8340 µg/L	2.8340 ppb	23:33:03
2	V 292.402†	-76.9	17.0	0.1780 µg/L	0.1780 ppb	23:33:03
2	Zn 213.857†	520.4	32.6	0.7660 µg/L	0.7660 ppb	23:33:24
3	Sc RADIAL	56938.6	56938.6	96.4 %		23:31:55
3	Al 396.153Radial†	-11.1	-2.8	-2.0917 µg/L	-2.0917 ppb	23:31:55
3	Ca 317.933Radial†	197.6	12.0	10.967 µg/L	10.967 ppb	23:32:15
3	Fe 238.204 Radial†	14.8	0.0	0.0818 µg/L	0.0818 ppb	23:32:15
3	K 766.490 Radial†	158.3	-34.3	-23.568 µg/L	-23.568 ppb	23:31:55
3	Mg 279.077 IEC†	16.9	5.4	52.591 µg/L	52.591 ppb	23:32:15
3	Na 589.592 Radial†	520.3	65.8	21.512 µg/L	21.512 ppb	23:31:55
3	Sr 421.552†	35.8	-4.2	-0.0417 µg/L	-0.0417 ppb	23:31:55
3	Sc 361.383	2054454.8	2054454.8	97.848 %		23:33:30
3	Y 371.029	1422965.1	1422965.1	97.766 %		23:33:30
3	Ag 328.068†	-440.4	13.0	0.1001 µg/L	0.1001 ppb	23:33:35
3	As 188.979†	1.9	2.2	4.0082 µg/L	4.0082 ppb	23:33:56
3	B 249.677†	364.8	47.3	1.9353 µg/L	1.9353 ppb	23:33:56
3	Ba 233.527†	-14.0	4.1	0.1006 µg/L	0.1006 ppb	23:33:56
3	Be 313.107†	-3655.9	22.6	0.0135 µg/L	0.0135 ppb	23:33:35
3	Cd 226.502†	-153.0	-19.7	-0.4965 µg/L	-0.4965 ppb	23:33:56
3	Co 228.616†	2.8	0.3	0.0153 µg/L	0.0153 ppb	23:33:56
3	Cr 267.716†	-24.7	22.2	0.4529 µg/L	0.4529 ppb	23:33:35
3	Cu 324.752†	2916.6	111.0	0.7362 µg/L	0.7362 ppb	23:33:35
3	Mn 257.610†	-230.1	67.4	0.2123 µg/L	0.2123 ppb	23:33:56
3	Mo 202.031†	1.4	4.7	0.4718 µg/L	0.4718 ppb	23:33:56
3	Ni 231.604†	303.9	2.0	0.0999 µg/L	0.0999 ppb	23:33:56
3	P 214.914†	13.0	-2.9	-5.9281 µg/L	-5.9281 ppb	23:33:56
3	Pb 220.353†	84.4	-8.5	-2.1070 µg/L	-2.1070 ppb	23:33:56
3	S 181.975 Axial†	15.7	-1.3	-5.1940 µg/L	-5.1940 ppb	23:33:56
3	Sb 206.836†	20.6	-1.0	-0.9220 µg/L	-0.9220 ppb	23:33:56
3	Se 196.026†	18.0	3.4	4.5710 µg/L	4.5710 ppb	23:33:56
3	SiO2†	1537.6	87.0	17.424 µg/L	17.424 ppb	23:33:35
3	Si 251.611†	429.7	145.6	11.239 µg/L	11.239 ppb	23:33:56
3	Sn 189.927†	2.1	-2.5	-1.0841 µg/L	-1.0841 ppb	23:33:56
3	Ti 334.940†	313.1	178.3	0.4016 µg/L	0.4016 ppb	23:33:35
3	Tl 190.801†	-19.0	2.9	3.8293 µg/L	3.8293 ppb	23:33:56
3	U 409.014†	57.0	59.0	5.0081 µg/L	5.0081 ppb	23:33:35
3	V 292.402†	-48.7	46.2	0.4673 µg/L	0.4673 ppb	23:33:35
3	Zn 213.857†	511.5	20.8	0.4860 µg/L	0.4860 ppb	23:33:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2052306.3	97.746	%	0.3565				0.36%
Sc RADIAL	56845.0	96.3	%	0.37				0.38%
Y 371.029	1421160.1	97.642	%	0.3789				0.39%
Ag 328.068†	29.9	0.2252	µg/L	0.34250	0.2252	ppb	0.34250	152.10%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.7	-0.5672	µg/L	5.82978	-0.5672	ppb	5.82978	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.5	6.2637	µg/L	2.27951	6.2637	ppb	2.27951	36.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	53.2	2.1709	µg/L	0.27277	2.1709	ppb	0.27277	12.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.7	0.0899	µg/L	0.01757	0.0899	ppb	0.01757	19.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	48.1	0.0289	µg/L	0.02891	0.0289	ppb	0.02891	100.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.9	8.1348	µg/L	2.56885	8.1348	ppb	2.56885	31.58%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-13.9	-0.3505	µg/L	0.13534	-0.3505	ppb	0.13534	38.61%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.2	0.1023	µg/L	0.23353	0.1023	ppb	0.23353	228.35%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.5      0.1726 µg/L       0.32301      0.1726 ppb        0.32301 187.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                92.9      0.6175 µg/L       0.12327      0.6175 ppb        0.12327  19.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9448 µg/L       7.52214      7.9448 ppb        7.52214  94.68%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -3.5     -2.3760 µg/L      21.51560     -2.3760 ppb       21.51560 905.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.3      22.085 µg/L       31.1877      22.085 ppb        31.1877 141.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                65.1      0.2074 µg/L       0.01965      0.2074 ppb        0.01965   9.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.0      0.5033 µg/L       0.03194      0.5033 ppb        0.03194   6.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         50.1      16.370 µg/L       12.1907      16.370 ppb        12.1907  74.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.7      0.4903 µg/L       0.73516      0.4903 ppb        0.73516 149.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.7     -3.5316 µg/L       4.04367     -3.5316 ppb        4.04367 114.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.1     -1.4971 µg/L       0.59924     -1.4971 ppb        0.59924  40.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.2     -4.8979 µg/L       2.90991     -4.8979 ppb        2.90991  59.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.9      2.6877 µg/L       3.13784      2.6877 ppb        3.13784 116.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.2      1.6998 µg/L       4.12830      1.6998 ppb        4.12830 242.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      85.7      17.153 µg/L        1.5311      17.153 ppb         1.5311   8.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               127.0      9.8056 µg/L       1.41621      9.8056 ppb        1.41621  14.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.0     -0.4331 µg/L       0.62629     -0.4331 ppb        0.62629 144.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.5      0.0831 µg/L       0.12853      0.0831 ppb        0.12853 154.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               142.1      0.3217 µg/L       0.07819      0.3217 ppb        0.07819  24.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.4      0.5648 µg/L       3.56656      0.5648 ppb        3.56656 631.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 18.2      1.5399 µg/L       4.26509      1.5399 ppb        4.26509 276.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 22.5      0.2290 µg/L       0.21738      0.2290 ppb        0.21738  94.94%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.9      0.5839 µg/L       0.15784      0.5839 ppb        0.15784  27.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 00:03:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57415.5	57415.5	97.2	%			00:04:07
1	Al 396.153Radial†	6854.0	7057.1	5264.9	µg/L	5264.9	ppb	00:04:07
1	Ca 317.933Radial†	5695.7	5664.2	5195.6	µg/L	5195.6	ppb	00:04:27
1	Fe 238.204 Radial†	613.4	615.4	5293.7	µg/L	5293.7	ppb	00:04:27
1	K 766.490 Radial†	7454.4	7467.4	5134.7	µg/L	5134.7	ppb	00:04:07
1	Mg 279.077 IEC†	554.3	557.9	5433.5	µg/L	5433.5	ppb	00:04:27
1	Na 589.592 Radial†	31689.3	32114.3	10499	µg/L	10499	ppb	00:04:07
1	Sr 421.552†	49564.2	50928.4	500.89	µg/L	500.89	ppb	00:04:07
1	Sc 361.383	2064117.9	2064117.9	98.309	%			00:05:31
1	Y 371.029	1426502.9	1426502.9	98.009	%			00:05:31
1	Ag 328.068†	66769.1	68381.1	513.84	µg/L	513.84	ppb	00:05:36
1	As 188.979†	285.7	290.9	522.63	µg/L	522.63	ppb	00:05:57
1	B 249.677†	12494.0	12383.5	504.67	µg/L	504.67	ppb	00:05:36
1	Ba 233.527†	20677.2	21051.4	516.81	µg/L	516.81	ppb	00:05:36
1	Be 313.107†	826682.0	844664.8	509.93	µg/L	509.93	ppb	00:05:31
1	Cd 226.502†	20017.2	20498.2	515.72	µg/L	515.72	ppb	00:05:36
1	Co 228.616†	11069.1	11257.0	520.65	µg/L	520.65	ppb	00:05:36
1	Cr 267.716†	25065.6	25544.3	521.28	µg/L	521.28	ppb	00:05:36
1	Cu 324.752†	79232.5	77726.1	516.33	µg/L	516.33	ppb	00:05:36
1	Mn 257.610†	158863.3	161899.2	515.84	µg/L	515.84	ppb	00:05:31
1	Mo 202.031†	5190.0	5282.6	529.50	µg/L	529.50	ppb	00:05:57
1	Ni 231.604†	10438.8	10309.8	520.50	µg/L	520.50	ppb	00:05:36
1	P 214.914†	1302.3	1308.4	2552.2	µg/L	2552.2	ppb	00:05:57
1	Pb 220.353†	2189.3	2132.1	524.82	µg/L	524.82	ppb	00:05:57
1	S 181.975 Axial†	266.9	254.2	1053.7	µg/L	1053.7	ppb	00:05:57
1	Sb 206.836†	573.6	561.4	514.82	µg/L	514.82	ppb	00:05:57
1	Se 196.026†	389.5	381.2	530.42	µg/L	530.42	ppb	00:05:57
1	SiO2†	28760.8	27771.2	5561.2	µg/L	5561.2	ppb	00:05:36
1	Si 251.611†	33414.9	33696.3	2600.8	µg/L	2600.8	ppb	00:05:36
1	Sn 189.927†	1225.9	1242.3	531.29	µg/L	531.29	ppb	00:05:57
1	Ti 334.940†	221942.7	225619.8	512.80	µg/L	512.80	ppb	00:05:31
1	Tl 190.801†	360.6	389.0	526.07	µg/L	526.07	ppb	00:05:57
1	U 409.014†	6053.7	6158.6	521.59	µg/L	521.59	ppb	00:05:36
1	V 292.402†	51256.8	52234.8	523.15	µg/L	523.15	ppb	00:05:36
1	Zn 213.857†	22169.6	22049.1	516.69	µg/L	516.69	ppb	00:05:36
2	Sc RADIAL	57827.3	57827.3	97.9	%			00:04:33
2	Al 396.153Radial†	6893.7	7047.4	5258.0	µg/L	5258.0	ppb	00:04:33
2	Ca 317.933Radial†	5700.5	5627.4	5161.8	µg/L	5161.8	ppb	00:04:53
2	Fe 238.204 Radial†	615.8	613.3	5275.8	µg/L	5275.8	ppb	00:04:53
2	K 766.490 Radial†	7531.6	7491.7	5151.4	µg/L	5151.4	ppb	00:04:33
2	Mg 279.077 IEC†	548.6	548.1	5337.6	µg/L	5337.6	ppb	00:04:53
2	Na 589.592 Radial†	31949.3	32147.6	10510	µg/L	10510	ppb	00:04:33
2	Sr 421.552†	50012.1	51022.7	501.82	µg/L	501.82	ppb	00:04:33
2	Sc 361.383	2071786.3	2071786.3	98.674	%			00:06:04
2	Y 371.029	1431109.7	1431109.7	98.325	%			00:06:04
2	Ag 328.068†	66150.2	67502.5	507.24	µg/L	507.24	ppb	00:06:10
2	As 188.979†	278.9	283.0	508.37	µg/L	508.37	ppb	00:06:30
2	B 249.677†	12317.5	12157.6	495.43	µg/L	495.43	ppb	00:06:10
2	Ba 233.527†	20441.0	20734.1	509.02	µg/L	509.02	ppb	00:06:10
2	Be 313.107†	826922.1	841795.6	508.20	µg/L	508.20	ppb	00:06:04
2	Cd 226.502†	19844.2	20247.5	509.41	µg/L	509.41	ppb	00:06:10
2	Co 228.616†	10939.6	11084.1	512.64	µg/L	512.64	ppb	00:06:10
2	Cr 267.716†	24768.4	25148.7	513.20	µg/L	513.20	ppb	00:06:10
2	Cu 324.752†	78472.6	76657.6	509.24	µg/L	509.24	ppb	00:06:10
2	Mn 257.610†	159085.5	161526.3	514.65	µg/L	514.65	ppb	00:06:04
2	Mo 202.031†	5075.5	5147.1	515.92	µg/L	515.92	ppb	00:06:30
2	Ni 231.604†	10303.5	10133.4	511.59	µg/L	511.59	ppb	00:06:10
2	P 214.914†	1279.9	1280.9	2498.0	µg/L	2498.0	ppb	00:06:30
2	Pb 220.353†	2143.2	2077.3	511.29	µg/L	511.29	ppb	00:06:30

2	S 181.975 Axial†	263.1	249.3	1033.4 µg/L	1033.4 ppb	00:06:30
2	Sb 206.836†	565.6	551.1	505.33 µg/L	505.33 ppb	00:06:30
2	Se 196.026†	378.1	368.2	512.59 µg/L	512.59 ppb	00:06:30
2	SiO2†	28495.1	27393.7	5485.6 µg/L	5485.6 ppb	00:06:10
2	Si 251.611†	33093.1	33244.4	2565.9 µg/L	2565.9 ppb	00:06:10
2	Sn 189.927†	1196.1	1207.5	516.40 µg/L	516.40 ppb	00:06:30
2	Ti 334.940†	222052.0	224895.0	511.16 µg/L	511.16 ppb	00:06:04
2	Tl 190.801†	352.9	379.9	513.94 µg/L	513.94 ppb	00:06:30
2	U 409.014†	6014.3	6095.9	516.27 µg/L	516.27 ppb	00:06:10
2	V 292.402†	50766.2	51544.5	516.20 µg/L	516.20 ppb	00:06:10
2	Zn 213.857†	21962.1	21755.3	509.81 µg/L	509.81 ppb	00:06:10
3	Sc RADIAL	57722.0	57722.0	97.8 %		00:04:59
3	Al 396.153Radial†	6896.4	7063.0	5271.3 µg/L	5271.3 ppb	00:04:59
3	Ca 317.933Radial†	5715.0	5652.9	5185.2 µg/L	5185.2 ppb	00:05:19
3	Fe 238.204 Radial†	613.9	612.6	5268.1 µg/L	5268.1 ppb	00:05:19
3	K 766.490 Radial†	7377.9	7348.5	5052.9 µg/L	5052.9 ppb	00:04:59
3	Mg 279.077 IEC†	557.1	557.8	5430.6 µg/L	5430.6 ppb	00:05:19
3	Na 589.592 Radial†	31767.7	32021.4	10469 µg/L	10469 ppb	00:04:59
3	Sr 421.552†	49751.5	50849.4	500.11 µg/L	500.11 ppb	00:04:59
3	Sc 361.383	2057993.8	2057993.8	98.017 %		00:06:37
3	Y 371.029	1421787.4	1421787.4	97.685 %		00:06:37
3	Ag 328.068†	62121.2	63841.2	479.58 µg/L	479.58 ppb	00:06:43
3	As 188.979†	240.0	245.1	440.36 µg/L	440.36 ppb	00:07:03
3	B 249.677†	11580.9	11489.7	468.01 µg/L	468.01 ppb	00:06:43
3	Ba 233.527†	18574.3	18968.5	465.66 µg/L	465.66 ppb	00:06:43
3	Be 313.107†	767265.6	786548.6	474.85 µg/L	474.85 ppb	00:06:37
3	Cd 226.502†	17953.0	18452.8	464.20 µg/L	464.20 ppb	00:06:43
3	Co 228.616†	9804.2	10000.0	462.44 µg/L	462.44 ppb	00:06:43
3	Cr 267.716†	21658.9	22144.5	451.90 µg/L	451.90 ppb	00:06:43
3	Cu 324.752†	70892.5	69457.1	461.47 µg/L	461.47 ppb	00:06:43
3	Mn 257.610†	148137.6	151437.4	482.53 µg/L	482.53 ppb	00:06:37
3	Mo 202.031†	4229.1	4318.0	432.85 µg/L	432.85 ppb	00:07:03
3	Ni 231.604†	9286.8	9166.0	462.76 µg/L	462.76 ppb	00:06:43
3	P 214.914†	1094.8	1100.7	2143.4 µg/L	2143.4 ppb	00:07:03
3	Pb 220.353†	1866.2	1809.2	445.24 µg/L	445.24 ppb	00:07:03
3	S 181.975 Axial†	233.3	220.8	915.15 µg/L	915.15 ppb	00:07:03
3	Sb 206.836†	488.7	476.5	436.51 µg/L	436.51 ppb	00:07:03
3	Se 196.026†	335.8	327.6	456.89 µg/L	456.89 ppb	00:07:03
3	SiO2†	26439.5	25490.1	5104.4 µg/L	5104.4 ppb	00:06:43
3	Si 251.611†	30590.6	30916.1	2386.2 µg/L	2386.2 ppb	00:06:43
3	Sn 189.927†	983.9	999.0	427.28 µg/L	427.28 ppb	00:07:03
3	Ti 334.940†	205015.2	209021.6	475.05 µg/L	475.05 ppb	00:06:37
3	Tl 190.801†	319.1	347.7	470.58 µg/L	470.58 ppb	00:07:03
3	U 409.014†	5267.4	5374.7	455.06 µg/L	455.06 ppb	00:06:43
3	V 292.402†	45133.8	46142.9	461.92 µg/L	461.92 ppb	00:06:43
3	Zn 213.857†	19842.4	19742.0	462.58 µg/L	462.58 ppb	00:06:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2064632.7	98.333	%	0.3291				0.33%
Sc RADIAL	57654.9	97.6	%	0.36				0.37%
Y 371.029	1426466.7	98.006	%	0.3203				0.33%
Ag 328.068†	66574.9	500.22	µg/L	18.180	500.22	ppb	18.180	3.63%
QC value within limits for Ag 328.068 Recovery = 100.04%								
Al 396.153Radial†	7055.8	5264.8	µg/L	6.66	5264.8	ppb	6.66	0.13%
QC value within limits for Al 396.153Radial Recovery = 105.30%								
As 188.979†	273.0	490.46	µg/L	43.965	490.46	ppb	43.965	8.96%
QC value within limits for As 188.979 Recovery = 98.09%								
B 249.677†	12010.3	489.37	µg/L	19.067	489.37	ppb	19.067	3.90%
QC value within limits for B 249.677 Recovery = 97.87%								
Ba 233.527†	20251.3	497.16	µg/L	27.560	497.16	ppb	27.560	5.54%
QC value within limits for Ba 233.527 Recovery = 99.43%								
Be 313.107†	824336.3	497.66	µg/L	19.775	497.66	ppb	19.775	3.97%
QC value within limits for Be 313.107 Recovery = 99.53%								
Ca 317.933Radial†	5648.2	5180.9	µg/L	17.30	5180.9	ppb	17.30	0.33%
QC value within limits for Ca 317.933Radial Recovery = 103.62%								
Cd 226.502†	19732.8	496.44	µg/L	28.102	496.44	ppb	28.102	5.66%
QC value within limits for Cd 226.502 Recovery = 99.29%								
Co 228.616†	10780.4	498.58	µg/L	31.549	498.58	ppb	31.549	6.33%

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   QC value within limits for Co 228.616  Recovery = 99.72%
Cr 267.716†            24279.2      495.46 µg/L        37.938      495.46 ppb         37.938   7.66%
   QC value within limits for Cr 267.716  Recovery = 99.09%
Cu 324.752†            74613.6      495.68 µg/L        29.835      495.68 ppb         29.835   6.02%
   QC value within limits for Cu 324.752  Recovery = 99.14%
Fe 238.204 Radial†       613.8      5279.2 µg/L         13.10      5279.2 ppb          13.10   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.58%
K 766.490 Radial†       7435.8      5113.0 µg/L         52.69      5113.0 ppb          52.69   1.03%
   QC value within limits for K 766.490 Radial  Recovery = 102.26%
Mg 279.077 IEC†          554.6      5400.6 µg/L         54.55      5400.6 ppb          54.55   1.01%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.01%
Mn 257.610†           158287.7      504.34 µg/L        18.896      504.34 ppb         18.896   3.75%
   QC value within limits for Mn 257.610  Recovery = 100.87%
Mo 202.031†             4915.9      492.75 µg/L        52.321      492.75 ppb         52.321  10.62%
   QC value within limits for Mo 202.031  Recovery = 98.55%
Na 589.592 Radial†     32094.4       10493 µg/L          21.4       10493 ppb           21.4   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 104.93%
Ni 231.604†             9869.7      498.28 µg/L        31.083      498.28 ppb         31.083   6.24%
   QC value within limits for Ni 231.604  Recovery = 99.66%
P 214.914†              1230.0      2397.9 µg/L       221.99      2397.9 ppb        221.99   9.26%
   QC value within limits for P 214.914  Recovery = 95.91%
Pb 220.353†             2006.2      493.78 µg/L        42.581      493.78 ppb         42.581   8.62%
   QC value within limits for Pb 220.353  Recovery = 98.76%
S 181.975 Axial†         241.4      1000.8 µg/L         74.84      1000.8 ppb          74.84   7.48%
   QC value within limits for S 181.975 Axial  Recovery = 100.08%
Sb 206.836†              529.6      485.55 µg/L        42.736      485.55 ppb         42.736   8.80%
   QC value within limits for Sb 206.836  Recovery = 97.11%
Se 196.026†              359.0      499.97 µg/L        38.354      499.97 ppb         38.354   7.67%
   QC value within limits for Se 196.026  Recovery = 99.99%
SiO2†                  26885.0      5383.7 µg/L       244.85      5383.7 ppb        244.85   4.55%
   QC value within limits for SiO2  Recovery = 100.68%
Si 251.611†            32618.9      2517.6 µg/L       115.15      2517.6 ppb        115.15   4.57%
   QC value within limits for Si 251.611  Recovery = 100.71%
Sn 189.927†             1149.6      491.66 µg/L        56.249      491.66 ppb         56.249  11.44%
   QC value within limits for Sn 189.927  Recovery = 98.33%
Sr 421.552†            50933.5      500.94 µg/L         0.853      500.94 ppb          0.853   0.17%
   QC value within limits for Sr 421.552  Recovery = 100.19%
Ti 334.940†           219845.5      499.67 µg/L        21.337      499.67 ppb         21.337   4.27%
   QC value within limits for Ti 334.940  Recovery = 99.93%
Tl 190.801†              372.2      503.53 µg/L        29.173      503.53 ppb         29.173   5.79%
   QC value within limits for Tl 190.801  Recovery = 100.71%
U 409.014†              5876.4      497.64 µg/L        36.969      497.64 ppb         36.969   7.43%
   QC value within limits for U 409.014  Recovery = 99.53%
V 292.402†             49974.1      500.42 µg/L        33.528      500.42 ppb         33.528   6.70%
   QC value within limits for V 292.402  Recovery = 100.08%
Zn 213.857†            21182.1      496.36 µg/L        29.454      496.36 ppb         29.454   5.93%
   QC value within limits for Zn 213.857  Recovery = 99.27%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 00:07:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56827.9	56827.9	96.2	%			00:07:46
1	Al 396.153Radial†	-11.9	-3.7	-2.7798	µg/L	-2.7798	ppb	00:07:46
1	Ca 317.933Radial†	191.0	5.4	4.9932	µg/L	4.9932	ppb	00:08:07
1	Fe 238.204 Radial†	17.6	2.9	25.038	µg/L	25.038	ppb	00:08:07
1	K 766.490 Radial†	227.0	37.5	25.770	µg/L	25.770	ppb	00:07:46
1	Mg 279.077 IEC†	5.0	-6.9	-67.444	µg/L	-67.444	ppb	00:08:07
1	Na 589.592 Radial†	474.5	19.3	6.3097	µg/L	6.3097	ppb	00:07:46
1	Sr 421.552†	52.2	12.9	0.1264	µg/L	0.1264	ppb	00:07:46
1	Sc 361.383	2048811.8	2048811.8	97.580	%			00:09:08
1	Y 371.029	1421637.4	1421637.4	97.674	%			00:09:08
1	Ag 328.068†	-402.5	50.6	0.3802	µg/L	0.3802	ppb	00:09:14
1	As 188.979†	0.1	0.4	0.6624	µg/L	0.6624	ppb	00:09:35
1	B 249.677†	345.4	28.5	1.1536	µg/L	1.1536	ppb	00:09:35
1	Ba 233.527†	-7.9	10.2	0.2511	µg/L	0.2511	ppb	00:09:35
1	Be 313.107†	-3529.5	141.9	0.0854	µg/L	0.0854	ppb	00:09:14
1	Cd 226.502†	-133.2	0.1	-0.0004	µg/L	-0.0004	ppb	00:09:35
1	Co 228.616†	2.6	0.1	0.0041	µg/L	0.0041	ppb	00:09:35
1	Cr 267.716†	-21.2	25.7	0.5236	µg/L	0.5236	ppb	00:09:14
1	Cu 324.752†	2883.1	84.9	0.5666	µg/L	0.5666	ppb	00:09:14
1	Mn 257.610†	-43.8	257.7	0.8263	µg/L	0.8263	ppb	00:09:35
1	Mo 202.031†	5.7	9.2	0.9218	µg/L	0.9218	ppb	00:09:35
1	Ni 231.604†	304.8	3.8	0.1904	µg/L	0.1904	ppb	00:09:35
1	P 214.914†	18.0	2.2	4.3058	µg/L	4.3058	ppb	00:09:35
1	Pb 220.353†	88.6	-4.0	-0.9893	µg/L	-0.9893	ppb	00:09:35
1	S 181.975 Axial†	19.6	2.8	11.780	µg/L	11.780	ppb	00:09:35
1	Sb 206.836†	20.5	-1.1	-1.0267	µg/L	-1.0267	ppb	00:09:35
1	Se 196.026†	17.3	2.7	3.8268	µg/L	3.8268	ppb	00:09:35
1	SiO2†	1591.3	146.4	29.313	µg/L	29.313	ppb	00:09:14
1	Si 251.611†	446.5	164.0	12.660	µg/L	12.660	ppb	00:09:35
1	Sn 189.927†	4.9	0.3	0.1048	µg/L	0.1048	ppb	00:09:35
1	Ti 334.940†	476.1	346.2	0.7928	µg/L	0.7928	ppb	00:09:14
1	Tl 190.801†	-23.9	-2.3	-3.0080	µg/L	-3.0080	ppb	00:09:35
1	U 409.014†	-26.8	-26.7	-2.2692	µg/L	-2.2692	ppb	00:09:14
1	V 292.402†	-78.6	15.5	0.1620	µg/L	0.1620	ppb	00:09:14
1	Zn 213.857†	511.1	21.8	0.5155	µg/L	0.5155	ppb	00:09:35
2	Sc RADIAL	56976.7	56976.7	96.5	%			00:08:12
2	Al 396.153Radial†	1.1	9.8	7.3287	µg/L	7.3287	ppb	00:08:12
2	Ca 317.933Radial†	188.1	2.0	1.7975	µg/L	1.7975	ppb	00:08:32
2	Fe 238.204 Radial†	17.2	2.4	20.850	µg/L	20.850	ppb	00:08:32
2	K 766.490 Radial†	220.2	29.8	20.496	µg/L	20.496	ppb	00:08:12
2	Mg 279.077 IEC†	13.3	1.7	16.748	µg/L	16.748	ppb	00:08:32
2	Na 589.592 Radial†	450.8	-6.5	-2.1321	µg/L	-2.1321	ppb	00:08:12
2	Sr 421.552†	23.3	-17.2	-0.1691	µg/L	-0.1691	ppb	00:08:12
2	Sc 361.383	2061213.2	2061213.2	98.170	%			00:09:41
2	Y 371.029	1429644.0	1429644.0	98.224	%			00:09:41
2	Ag 328.068†	-411.8	43.6	0.3297	µg/L	0.3297	ppb	00:09:46
2	As 188.979†	-3.2	-3.0	-5.4202	µg/L	-5.4202	ppb	00:10:07
2	B 249.677†	353.3	34.4	1.3935	µg/L	1.3935	ppb	00:10:07
2	Ba 233.527†	-7.9	10.3	0.2534	µg/L	0.2534	ppb	00:10:07
2	Be 313.107†	-3550.5	142.2	0.0855	µg/L	0.0855	ppb	00:09:46
2	Cd 226.502†	-138.6	-4.6	-0.1171	µg/L	-0.1171	ppb	00:10:07
2	Co 228.616†	3.1	0.6	0.0277	µg/L	0.0277	ppb	00:10:07
2	Cr 267.716†	-79.6	-33.6	-0.6859	µg/L	-0.6859	ppb	00:09:46
2	Cu 324.752†	2945.2	130.4	0.8681	µg/L	0.8681	ppb	00:09:46
2	Mn 257.610†	-43.7	258.0	0.8234	µg/L	0.8234	ppb	00:10:07
2	Mo 202.031†	0.2	3.6	0.3577	µg/L	0.3577	ppb	00:10:07
2	Ni 231.604†	309.5	6.7	0.3374	µg/L	0.3374	ppb	00:10:07
2	P 214.914†	9.6	-6.4	-12.836	µg/L	-12.836	ppb	00:10:07
2	Pb 220.353†	93.2	0.2	0.0620	µg/L	0.0620	ppb	00:10:07

2	S 181.975 Axial†	17.6	0.7	2.8242 µg/L	2.8242 ppb	00:10:07
2	Sb 206.836†	18.1	-3.7	-3.3805 µg/L	-3.3805 ppb	00:10:07
2	Se 196.026†	21.2	6.6	9.0772 µg/L	9.0772 ppb	00:10:07
2	SiO2†	1578.3	123.3	24.690 µg/L	24.690 ppb	00:09:46
2	Si 251.611†	447.3	162.1	12.510 µg/L	12.510 ppb	00:10:07
2	Sn 189.927†	4.9	0.3	0.1188 µg/L	0.1188 ppb	00:10:07
2	Ti 334.940†	549.0	417.6	0.9484 µg/L	0.9484 ppb	00:09:46
2	Tl 190.801†	-26.3	-4.5	-6.0444 µg/L	-6.0444 ppb	00:10:07
2	U 409.014†	-155.2	-157.4	-13.356 µg/L	-13.356 ppb	00:09:46
2	V 292.402†	-52.5	42.5	0.4101 µg/L	0.4101 ppb	00:09:46
2	Zn 213.857†	521.8	29.6	0.6944 µg/L	0.6944 ppb	00:10:07
3	Sc RADIAL	57148.0	57148.0	96.8 %		00:08:38
3	Al 396.153Radial†	-21.0	-13.0	-9.7230 µg/L	-9.7230 ppb	00:08:38
3	Ca 317.933Radial†	205.2	19.0	17.463 µg/L	17.463 ppb	00:08:58
3	Fe 238.204 Radial†	16.0	1.1	9.7862 µg/L	9.7862 ppb	00:08:58
3	K 766.490 Radial†	172.9	-19.7	-13.576 µg/L	-13.576 ppb	00:08:38
3	Mg 279.077 IEC†	11.6	-0.1	-1.3133 µg/L	-1.3133 ppb	00:08:58
3	Na 589.592 Radial†	491.4	34.0	11.119 µg/L	11.119 ppb	00:08:38
3	Sr 421.552†	45.6	5.8	0.0568 µg/L	0.0568 ppb	00:08:38
3	Sc 361.383	2058859.2	2058859.2	98.058 %		00:10:13
3	Y 371.029	1427504.8	1427504.8	98.078 %		00:10:13
3	Ag 328.068†	-407.6	47.4	0.3542 µg/L	0.3542 ppb	00:10:19
3	As 188.979†	-1.6	-1.4	-2.4452 µg/L	-2.4452 ppb	00:10:39
3	B 249.677†	345.6	27.0	1.1001 µg/L	1.1001 ppb	00:10:39
3	Ba 233.527†	-10.8	7.3	0.1793 µg/L	0.1793 ppb	00:10:39
3	Be 313.107†	-3550.4	138.1	0.0831 µg/L	0.0831 ppb	00:10:19
3	Cd 226.502†	-138.9	-5.0	-0.1281 µg/L	-0.1281 ppb	00:10:39
3	Co 228.616†	9.2	6.8	0.3141 µg/L	0.3141 ppb	00:10:39
3	Cr 267.716†	-26.7	20.2	0.4110 µg/L	0.4110 ppb	00:10:19
3	Cu 324.752†	2907.8	95.6	0.6357 µg/L	0.6357 ppb	00:10:19
3	Mn 257.610†	-111.8	188.6	0.6017 µg/L	0.6017 ppb	00:10:39
3	Mo 202.031†	-0.0	3.3	0.3311 µg/L	0.3311 ppb	00:10:39
3	Ni 231.604†	300.3	-2.4	-0.1200 µg/L	-0.1200 ppb	00:10:39
3	P 214.914†	13.4	-2.5	-5.1026 µg/L	-5.1026 ppb	00:10:39
3	Pb 220.353†	89.9	-3.1	-0.7731 µg/L	-0.7731 ppb	00:10:39
3	S 181.975 Axial†	17.6	0.6	2.6706 µg/L	2.6706 ppb	00:10:39
3	Sb 206.836†	21.6	-0.1	-0.0875 µg/L	-0.0875 ppb	00:10:39
3	Se 196.026†	20.9	6.3	8.6805 µg/L	8.6805 ppb	00:10:39
3	SiO2†	1581.5	128.5	25.723 µg/L	25.723 ppb	00:10:19
3	Si 251.611†	427.7	142.6	11.006 µg/L	11.006 ppb	00:10:39
3	Sn 189.927†	4.2	-0.4	-0.1884 µg/L	-0.1884 ppb	00:10:39
3	Ti 334.940†	552.9	422.2	0.9607 µg/L	0.9607 ppb	00:10:19
3	Tl 190.801†	-20.1	1.7	2.2786 µg/L	2.2786 ppb	00:10:39
3	U 409.014†	-1.8	-1.1	-0.0980 µg/L	-0.0980 ppb	00:10:19
3	V 292.402†	-97.2	-3.2	-0.0267 µg/L	-0.0267 ppb	00:10:19
3	Zn 213.857†	515.9	24.1	0.5685 µg/L	0.5685 ppb	00:10:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2056294.7	97.936	%	0.3137				0.32%
Sc RADIAL	56984.2	96.5	%	0.27				0.28%
Y 371.029	1426262.1	97.992	%	0.2848				0.29%
Ag 328.068†	47.2	0.3547	µg/L	0.02525	0.3547	ppb	0.02525	7.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.3	-1.7247	µg/L	8.57468	-1.7247	ppb	8.57468	497.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.3	-2.4010	µg/L	3.04154	-2.4010	ppb	3.04154	126.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	30.0	1.2158	µg/L	0.15625	1.2158	ppb	0.15625	12.85%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.3	0.2279	µg/L	0.04213	0.2279	ppb	0.04213	18.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	140.7	0.0847	µg/L	0.00138	0.0847	ppb	0.00138	1.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.8	8.0845	µg/L	8.27760	8.0845	ppb	8.27760	102.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.2	-0.0819	µg/L	0.07074	-0.0819	ppb	0.07074	86.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.5	0.1153	µg/L	0.17258	0.1153	ppb	0.17258	149.65%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.1      0.0829 µg/L       0.66815      0.0829 ppb        0.66815 805.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              103.6      0.6901 µg/L       0.15793      0.6901 ppb        0.15793  22.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.2      18.558 µg/L        7.8801      18.558 ppb         7.8801  42.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         15.8      10.897 µg/L       21.3573      10.897 ppb        21.3573 196.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.8     -17.336 µg/L       44.3242     -17.336 ppb        44.3242 255.67%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              234.8      0.7505 µg/L       0.12888      0.7505 ppb        0.12888  17.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.4      0.5369 µg/L       0.33365      0.5369 ppb        0.33365  62.15%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        15.6      5.0989 µg/L       6.70808      5.0989 ppb        6.70808 131.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                2.7      0.1359 µg/L       0.23349      0.1359 ppb        0.23349 171.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -2.2     -4.5444 µg/L       8.58475     -4.5444 ppb        8.58475 188.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.3     -0.5668 µg/L       0.55518     -0.5668 ppb        0.55518  97.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.4      5.7582 µg/L       5.21534      5.7582 ppb        5.21534  90.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.6     -1.4982 µg/L       1.69637     -1.4982 ppb        1.69637 113.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.2      7.1948 µg/L       2.92353      7.1948 ppb        2.92353  40.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    132.7      26.575 µg/L        2.4263      26.575 ppb         2.4263   9.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              156.2      12.059 µg/L        0.9143      12.059 ppb         0.9143   7.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.0      0.0117 µg/L       0.17349      0.0117 ppb        0.17349 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                0.5      0.0047 µg/L       0.15451      0.0047 ppb        0.15451 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              395.3      0.9007 µg/L       0.09358      0.9007 ppb        0.09358  10.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.7     -2.2579 µg/L       4.21187     -2.2579 ppb        4.21187 186.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -61.7     -5.2412 µg/L       7.11135     -5.2412 ppb        7.11135 135.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                18.3      0.1818 µg/L       0.21908      0.1818 ppb        0.21908 120.51%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               25.2      0.5928 µg/L       0.09190      0.5928 ppb        0.09190  15.50%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 00:40:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57881.2	57881.2	98.0	%			00:40:54
1	Al 396.153Radial†	6874.3	7021.1	5238.1	µg/L	5238.1	ppb	00:40:54
1	Ca 317.933Radial†	5664.1	5584.9	5122.8	µg/L	5122.8	ppb	00:41:15
1	Fe 238.204 Radial†	610.6	607.5	5225.8	µg/L	5225.8	ppb	00:41:15
1	K 766.490 Radial†	7410.5	7360.9	5061.5	µg/L	5061.5	ppb	00:40:54
1	Mg 279.077 IEC†	547.1	546.0	5317.3	µg/L	5317.3	ppb	00:41:15
1	Na 589.592 Radial†	31642.9	31804.7	10398	µg/L	10398	ppb	00:40:54
1	Sr 421.552†	49374.6	50324.8	494.96	µg/L	494.96	ppb	00:40:54
1	Sc 361.383	2058449.1	2058449.1	98.039	%			00:42:18
1	Y 371.029	1422350.2	1422350.2	97.723	%			00:42:18
1	Ag 328.068†	65498.8	67272.4	505.50	µg/L	505.50	ppb	00:42:24
1	As 188.979†	278.6	284.5	511.07	µg/L	511.07	ppb	00:42:45
1	B 249.677†	12182.9	12101.1	493.14	µg/L	493.14	ppb	00:42:24
1	Ba 233.527†	20217.2	20640.0	506.71	µg/L	506.71	ppb	00:42:24
1	Be 313.107†	813128.2	833155.6	502.98	µg/L	502.98	ppb	00:42:18
1	Cd 226.502†	19525.0	20052.3	504.49	µg/L	504.49	ppb	00:42:24
1	Co 228.616†	10814.6	11028.4	510.08	µg/L	510.08	ppb	00:42:24
1	Cr 267.716†	24537.6	25075.9	511.72	µg/L	511.72	ppb	00:42:24
1	Cu 324.752†	77653.4	76337.4	507.11	µg/L	507.11	ppb	00:42:24
1	Mn 257.610†	156762.6	160201.6	510.43	µg/L	510.43	ppb	00:42:18
1	Mo 202.031†	5112.7	5218.3	523.05	µg/L	523.05	ppb	00:42:45
1	Ni 231.604†	10181.2	10076.3	508.71	µg/L	508.71	ppb	00:42:24
1	P 214.914†	1284.0	1293.5	2523.3	µg/L	2523.3	ppb	00:42:45
1	Pb 220.353†	2131.2	2079.0	511.75	µg/L	511.75	ppb	00:42:45
1	S 181.975 Axial†	258.7	246.5	1022.0	µg/L	1022.0	ppb	00:42:45
1	Sb 206.836†	562.1	551.2	505.59	µg/L	505.59	ppb	00:42:45
1	Se 196.026†	376.8	369.3	514.08	µg/L	514.08	ppb	00:42:45
1	SiO2†	28192.4	27272.0	5461.2	µg/L	5461.2	ppb	00:42:24
1	Si 251.611†	32691.3	33051.9	2551.1	µg/L	2551.1	ppb	00:42:24
1	Sn 189.927†	1202.0	1221.3	522.33	µg/L	522.33	ppb	00:42:45
1	Ti 334.940†	218714.5	222948.7	506.73	µg/L	506.73	ppb	00:42:18
1	Tl 190.801†	360.0	389.5	526.64	µg/L	526.64	ppb	00:42:45
1	U 409.014†	5957.1	6077.0	514.68	µg/L	514.68	ppb	00:42:24
1	V 292.402†	50130.9	51229.9	513.13	µg/L	513.13	ppb	00:42:24
1	Zn 213.857†	21705.2	21637.6	507.05	µg/L	507.05	ppb	00:42:24
2	Sc RADIAL	57384.3	57384.3	97.2	%			00:41:20
2	Al 396.153Radial†	6807.4	7013.0	5232.4	µg/L	5232.4	ppb	00:41:20
2	Ca 317.933Radial†	5637.9	5607.9	5143.9	µg/L	5143.9	ppb	00:41:41
2	Fe 238.204 Radial†	607.5	609.7	5244.8	µg/L	5244.8	ppb	00:41:41
2	K 766.490 Radial†	7386.7	7401.9	5089.7	µg/L	5089.7	ppb	00:41:20
2	Mg 279.077 IEC†	550.0	553.8	5393.5	µg/L	5393.5	ppb	00:41:41
2	Na 589.592 Radial†	31475.5	31912.0	10433	µg/L	10433	ppb	00:41:20
2	Sr 421.552†	49051.1	50428.2	495.97	µg/L	495.97	ppb	00:41:20
2	Sc 361.383	2075281.0	2075281.0	98.840	%			00:42:52
2	Y 371.029	1432661.4	1432661.4	98.432	%			00:42:52
2	Ag 328.068†	65552.1	66784.5	501.84	µg/L	501.84	ppb	00:42:57
2	As 188.979†	275.4	278.9	501.05	µg/L	501.05	ppb	00:43:18
2	B 249.677†	12290.4	12109.1	493.45	µg/L	493.45	ppb	00:42:57
2	Ba 233.527†	20250.0	20506.0	503.42	µg/L	503.42	ppb	00:42:57
2	Be 313.107†	815905.2	829238.2	500.62	µg/L	500.62	ppb	00:42:52
2	Cd 226.502†	19614.8	19981.6	502.71	µg/L	502.71	ppb	00:42:57
2	Co 228.616†	10794.9	10919.0	505.00	µg/L	505.00	ppb	00:42:57
2	Cr 267.716†	24518.7	24853.8	507.19	µg/L	507.19	ppb	00:42:57
2	Cu 324.752†	77695.4	75737.4	503.13	µg/L	503.13	ppb	00:42:57
2	Mn 257.610†	156827.5	158970.4	506.51	µg/L	506.51	ppb	00:42:52
2	Mo 202.031†	5025.0	5087.3	509.92	µg/L	509.92	ppb	00:43:18
2	Ni 231.604†	10201.7	10012.8	505.50	µg/L	505.50	ppb	00:42:57
2	P 214.914†	1256.2	1254.7	2446.5	µg/L	2446.5	ppb	00:43:18
2	Pb 220.353†	2112.1	2042.1	502.65	µg/L	502.65	ppb	00:43:18

2	S 181.975 Axial†	257.4	243.1	1007.6 µg/L	1007.6 ppb	00:43:18
2	Sb 206.836†	561.0	545.5	500.16 µg/L	500.16 ppb	00:43:18
2	Se 196.026†	373.0	362.4	504.55 µg/L	504.55 ppb	00:43:18
2	SiO2†	28219.5	27066.3	5420.0 µg/L	5420.0 ppb	00:42:57
2	Si 251.611†	32775.0	32866.0	2536.7 µg/L	2536.7 ppb	00:42:57
2	Sn 189.927†	1183.0	1192.2	509.88 µg/L	509.88 ppb	00:43:18
2	Ti 334.940†	219319.0	221750.9	504.00 µg/L	504.00 ppb	00:42:52
2	Tl 190.801†	346.1	372.4	503.80 µg/L	503.80 ppb	00:43:18
2	U 409.014†	5900.4	5970.4	505.63 µg/L	505.63 ppb	00:42:57
2	V 292.402†	50215.4	50900.7	509.75 µg/L	509.75 ppb	00:42:57
2	Zn 213.857†	21723.0	21476.0	503.25 µg/L	503.25 ppb	00:42:57
3	Sc RADIAL	57362.8	57362.8	97.2 %		00:41:46
3	Al 396.153Radial†	6816.6	7025.1	5243.1 µg/L	5243.1 ppb	00:41:46
3	Ca 317.933Radial†	5637.3	5609.5	5145.4 µg/L	5145.4 ppb	00:42:07
3	Fe 238.204 Radial†	607.4	609.8	5244.1 µg/L	5244.1 ppb	00:42:07
3	K 766.490 Radial†	7349.2	7366.2	5065.1 µg/L	5065.1 ppb	00:41:46
3	Mg 279.077 IEC†	550.3	554.3	5396.8 µg/L	5396.8 ppb	00:42:07
3	Na 589.592 Radial†	31396.3	31842.5	10410 µg/L	10410 ppb	00:41:46
3	Sr 421.552†	48853.4	50243.6	494.16 µg/L	494.16 ppb	00:41:46
3	Sc 361.383	2057125.1	2057125.1	97.975 %		00:43:25
3	Y 371.029	1420790.7	1420790.7	97.616 %		00:43:25
3	Ag 328.068†	61278.1	63007.4	473.31 µg/L	473.31 ppb	00:43:31
3	As 188.979†	237.3	242.5	435.64 µg/L	435.64 ppb	00:43:51
3	B 249.677†	11357.0	11266.2	458.87 µg/L	458.87 ppb	00:43:31
3	Ba 233.527†	18273.7	18669.6	458.32 µg/L	458.32 ppb	00:43:31
3	Be 313.107†	755469.0	774838.7	467.78 µg/L	467.78 ppb	00:43:25
3	Cd 226.502†	17664.9	18166.6	456.99 µg/L	456.99 ppb	00:43:31
3	Co 228.616†	9661.2	9858.3	455.89 µg/L	455.89 ppb	00:43:31
3	Cr 267.716†	21236.1	21722.3	443.29 µg/L	443.29 ppb	00:43:31
3	Cu 324.752†	69937.5	68513.0	455.21 µg/L	455.21 ppb	00:43:31
3	Mn 257.610†	145958.9	149277.5	475.65 µg/L	475.65 ppb	00:43:25
3	Mo 202.031†	4159.4	4248.6	425.90 µg/L	425.90 ppb	00:43:51
3	Ni 231.604†	9107.2	8986.7	453.71 µg/L	453.71 ppb	00:43:31
3	P 214.914†	1072.9	1078.8	2100.5 µg/L	2100.5 ppb	00:43:51
3	Pb 220.353†	1836.4	1779.6	437.96 µg/L	437.96 ppb	00:43:51
3	S 181.975 Axial†	229.3	216.7	898.33 µg/L	898.33 ppb	00:43:51
3	Sb 206.836†	477.3	465.1	426.09 µg/L	426.09 ppb	00:43:51
3	Se 196.026†	334.1	326.0	454.62 µg/L	454.62 ppb	00:43:51
3	SiO2†	25997.3	25050.1	5016.3 µg/L	5016.3 ppb	00:43:31
3	Si 251.611†	30110.7	30439.3	2349.4 µg/L	2349.4 ppb	00:43:31
3	Sn 189.927†	967.9	983.2	420.48 µg/L	420.48 ppb	00:43:51
3	Ti 334.940†	201941.0	205972.2	468.12 µg/L	468.12 ppb	00:43:25
3	Tl 190.801†	313.7	342.4	463.38 µg/L	463.38 ppb	00:43:51
3	U 409.014†	5162.9	5270.3	446.21 µg/L	446.21 ppb	00:43:31
3	V 292.402†	44408.7	45422.3	454.70 µg/L	454.70 ppb	00:43:31
3	Zn 213.857†	19499.7	19400.7	454.58 µg/L	454.58 ppb	00:43:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2063618.4	98.285	%	0.4821				0.49%
Sc RADIAL	57542.8	97.5	%	0.50				0.51%
Y 371.029	1425267.4	97.924	%	0.4432				0.45%
Ag 328.068†	65688.1	493.55	µg/L	17.625	493.55	ppb	17.625	3.57%
QC value within limits for Ag 328.068 Recovery = 98.71%								
Al 396.153Radial†	7019.7	5237.9	µg/L	5.39	5237.9	ppb	5.39	0.10%
QC value within limits for Al 396.153Radial Recovery = 104.76%								
As 188.979†	268.6	482.59	µg/L	40.964	482.59	ppb	40.964	8.49%
QC value within limits for As 188.979 Recovery = 96.52%								
B 249.677†	11825.5	481.82	µg/L	19.878	481.82	ppb	19.878	4.13%
QC value within limits for B 249.677 Recovery = 96.36%								
Ba 233.527†	19938.5	489.48	µg/L	27.038	489.48	ppb	27.038	5.52%
QC value within limits for Ba 233.527 Recovery = 97.90%								
Be 313.107†	812410.8	490.46	µg/L	19.679	490.46	ppb	19.679	4.01%
QC value within limits for Be 313.107 Recovery = 98.09%								
Ca 317.933Radial†	5600.8	5137.4	µg/L	12.66	5137.4	ppb	12.66	0.25%
QC value within limits for Ca 317.933Radial Recovery = 102.75%								
Cd 226.502†	19400.1	488.06	µg/L	26.928	488.06	ppb	26.928	5.52%
QC value within limits for Cd 226.502 Recovery = 97.61%								
Co 228.616†	10601.9	490.32	µg/L	29.930	490.32	ppb	29.930	6.10%

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   QC value within limits for Co 228.616  Recovery = 98.06%
Cr 267.716†            23884.0      487.40 µg/L        38.266      487.40 ppb         38.266   7.85%
   QC value within limits for Cr 267.716  Recovery = 97.48%
Cu 324.752†            73529.3      488.48 µg/L        28.885      488.48 ppb         28.885   5.91%
   QC value within limits for Cu 324.752  Recovery = 97.70%
Fe 238.204 Radial†       609.0      5238.2 µg/L         10.73      5238.2 ppb          10.73   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.76%
K 766.490 Radial†       7376.3      5072.1 µg/L         15.33      5072.1 ppb          15.33   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 101.44%
Mg 279.077 IEC†          551.4      5369.2 µg/L         45.00      5369.2 ppb          45.00   0.84%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.38%
Mn 257.610†           156149.8      497.53 µg/L        19.046      497.53 ppb         19.046   3.83%
   QC value within limits for Mn 257.610  Recovery = 99.51%
Mo 202.031†             4851.4      486.29 µg/L        52.714      486.29 ppb         52.714  10.84%
   QC value within limits for Mo 202.031  Recovery = 97.26%
Na 589.592 Radial†     31853.1       10414 µg/L          17.8       10414 ppb           17.8   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 104.14%
Ni 231.604†             9691.9      489.31 µg/L        30.871      489.31 ppb         30.871   6.31%
   QC value within limits for Ni 231.604  Recovery = 97.86%
P 214.914†              1209.0      2356.7 µg/L        225.22      2356.7 ppb         225.22   9.56%
   QC value within limits for P 214.914  Recovery = 94.27%
Pb 220.353†             1966.9      484.12 µg/L        40.236      484.12 ppb         40.236   8.31%
   QC value within limits for Pb 220.353  Recovery = 96.82%
S 181.975 Axial†         235.4      975.97 µg/L        67.623      975.97 ppb         67.623   6.93%
   QC value within limits for S 181.975 Axial  Recovery = 97.60%
Sb 206.836†              520.6      477.28 µg/L        44.414      477.28 ppb         44.414   9.31%
   QC value within limits for Sb 206.836  Recovery = 95.46%
Se 196.026†              352.6      491.09 µg/L        31.935      491.09 ppb         31.935   6.50%
   QC value within limits for Se 196.026  Recovery = 98.22%
SiO2†                  26462.8      5299.2 µg/L        245.85      5299.2 ppb         245.85   4.64%
   QC value within limits for SiO2  Recovery = 99.10%
Si 251.611†            32119.1      2479.1 µg/L        112.51      2479.1 ppb         112.51   4.54%
   QC value within limits for Si 251.611  Recovery = 99.16%
Sn 189.927†             1132.2      484.23 µg/L        55.558      484.23 ppb         55.558  11.47%
   QC value within limits for Sn 189.927  Recovery = 96.85%
Sr 421.552†            50332.2      495.03 µg/L         0.910      495.03 ppb          0.910   0.18%
   QC value within limits for Sr 421.552  Recovery = 99.01%
Ti 334.940†           216890.6      492.95 µg/L        21.551      492.95 ppb         21.551   4.37%
   QC value within limits for Ti 334.940  Recovery = 98.59%
Tl 190.801†              368.1      497.94 µg/L        32.034      497.94 ppb         32.034   6.43%
   QC value within limits for Tl 190.801  Recovery = 99.59%
U 409.014†              5772.6      488.84 µg/L        37.191      488.84 ppb         37.191   7.61%
   QC value within limits for U 409.014  Recovery = 97.77%
V 292.402†             49184.3      492.53 µg/L        32.800      492.53 ppb         32.800   6.66%
   QC value within limits for V 292.402  Recovery = 98.51%
Zn 213.857†            20838.1      488.30 µg/L        29.259      488.30 ppb         29.259   5.99%
   QC value within limits for Zn 213.857  Recovery = 97.66%
All analyte(s) passed QC.
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Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 00:44:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56896.4	56896.4	96.4	%			00:44:34
1	Al 396.153Radial†	-29.0	-21.4	-16.015	µg/L	-16.015	ppb	00:44:34
1	Ca 317.933Radial†	186.7	0.8	0.7488	µg/L	0.7488	ppb	00:44:55
1	Fe 238.204 Radial†	16.7	2.0	17.106	µg/L	17.106	ppb	00:44:55
1	K 766.490 Radial†	181.9	-9.6	-6.5992	µg/L	-6.5992	ppb	00:44:34
1	Mg 279.077 IEC†	9.8	-1.9	-18.464	µg/L	-18.464	ppb	00:44:55
1	Na 589.592 Radial†	456.3	-0.2	-0.0705	µg/L	-0.0705	ppb	00:44:34
1	Sr 421.552†	51.5	12.0	0.1185	µg/L	0.1185	ppb	00:44:34
1	Sc 361.383	2073373.1	2073373.1	98.749	%			00:45:57
1	Y 371.029	1437404.4	1437404.4	98.758	%			00:45:57
1	Ag 328.068†	-433.1	24.5	0.1815	µg/L	0.1815	ppb	00:46:02
1	As 188.979†	4.2	4.5	8.0821	µg/L	8.0821	ppb	00:46:23
1	B 249.677†	342.9	21.7	0.8791	µg/L	0.8791	ppb	00:46:23
1	Ba 233.527†	-15.6	2.6	0.0632	µg/L	0.0632	ppb	00:46:23
1	Be 313.107†	-3530.6	183.6	0.1108	µg/L	0.1108	ppb	00:46:02
1	Cd 226.502†	-146.9	-12.2	-0.3078	µg/L	-0.3078	ppb	00:46:23
1	Co 228.616†	3.0	0.5	0.0217	µg/L	0.0217	ppb	00:46:23
1	Cr 267.716†	-64.7	-18.2	-0.3707	µg/L	-0.3707	ppb	00:46:02
1	Cu 324.752†	2872.3	39.0	0.2609	µg/L	0.2609	ppb	00:46:02
1	Mn 257.610†	-233.0	66.7	0.2152	µg/L	0.2152	ppb	00:46:23
1	Mo 202.031†	5.1	8.5	0.8533	µg/L	0.8533	ppb	00:46:23
1	Ni 231.604†	305.4	0.6	0.0317	µg/L	0.0317	ppb	00:46:23
1	P 214.914†	12.9	-3.1	-6.2855	µg/L	-6.2855	ppb	00:46:23
1	Pb 220.353†	84.7	-9.0	-2.2213	µg/L	-2.2213	ppb	00:46:23
1	S 181.975 Axial†	17.8	0.7	2.8936	µg/L	2.8936	ppb	00:46:23
1	Sb 206.836†	20.5	-1.4	-1.2500	µg/L	-1.2500	ppb	00:46:23
1	Se 196.026†	13.2	-1.6	-2.1416	µg/L	-2.1416	ppb	00:46:23
1	SiO2†	1510.2	44.9	8.9960	µg/L	8.9960	ppb	00:46:02
1	Si 251.611†	398.1	109.7	8.4643	µg/L	8.4643	ppb	00:46:23
1	Sn 189.927†	3.6	-1.1	-0.4635	µg/L	-0.4635	ppb	00:46:23
1	Ti 334.940†	199.4	60.3	0.1385	µg/L	0.1385	ppb	00:46:02
1	Tl 190.801†	-19.6	2.4	3.2210	µg/L	3.2210	ppb	00:46:23
1	U 409.014†	-43.8	-43.6	-3.7052	µg/L	-3.7052	ppb	00:46:02
1	V 292.402†	-130.2	-35.8	-0.3505	µg/L	-0.3505	ppb	00:46:02
1	Zn 213.857†	511.9	16.4	0.3872	µg/L	0.3872	ppb	00:46:23
2	Sc RADIAL	56812.6	56812.6	96.2	%			00:45:00
2	Al 396.153Radial†	-8.2	0.1	0.1128	µg/L	0.1128	ppb	00:45:00
2	Ca 317.933Radial†	185.7	0.0	0.0285	µg/L	0.0285	ppb	00:45:21
2	Fe 238.204 Radial†	13.6	-1.2	-10.584	µg/L	-10.584	ppb	00:45:21
2	K 766.490 Radial†	174.4	-17.1	-11.774	µg/L	-11.774	ppb	00:45:00
2	Mg 279.077 IEC†	7.5	-4.3	-42.175	µg/L	-42.175	ppb	00:45:21
2	Na 589.592 Radial†	444.6	-11.7	-3.8255	µg/L	-3.8255	ppb	00:45:00
2	Sr 421.552†	46.5	7.0	0.0689	µg/L	0.0689	ppb	00:45:00
2	Sc 361.383	2065404.0	2065404.0	98.370	%			00:46:29
2	Y 371.029	1431739.7	1431739.7	98.368	%			00:46:29
2	Ag 328.068†	-456.2	-0.7	-0.0036	µg/L	-0.0036	ppb	00:46:34
2	As 188.979†	1.1	1.4	2.5097	µg/L	2.5097	ppb	00:46:55
2	B 249.677†	343.1	23.3	0.9591	µg/L	0.9591	ppb	00:46:55
2	Ba 233.527†	-18.7	-0.7	-0.0162	µg/L	-0.0162	ppb	00:46:55
2	Be 313.107†	-3596.1	103.2	0.0622	µg/L	0.0622	ppb	00:46:34
2	Cd 226.502†	-131.1	3.3	0.0844	µg/L	0.0844	ppb	00:46:55
2	Co 228.616†	7.9	5.5	0.2517	µg/L	0.2517	ppb	00:46:55
2	Cr 267.716†	-76.0	-29.9	-0.6087	µg/L	-0.6087	ppb	00:46:34
2	Cu 324.752†	2833.6	10.9	0.0706	µg/L	0.0706	ppb	00:46:34
2	Mn 257.610†	-227.8	71.0	0.2262	µg/L	0.2262	ppb	00:46:55
2	Mo 202.031†	-4.7	-1.5	-0.1461	µg/L	-0.1461	ppb	00:46:55
2	Ni 231.604†	306.0	2.4	0.1232	µg/L	0.1232	ppb	00:46:55
2	P 214.914†	10.9	-5.1	-10.181	µg/L	-10.181	ppb	00:46:55
2	Pb 220.353†	78.8	-14.6	-3.6015	µg/L	-3.6015	ppb	00:46:55

2	S 181.975 Axial†	17.3	0.3	1.2946 µg/L	1.2946 ppb	00:46:55
2	Sb 206.836†	25.4	3.7	3.4016 µg/L	3.4016 ppb	00:46:55
2	Se 196.026†	17.0	2.3	3.1238 µg/L	3.1238 ppb	00:46:55
2	SiO2†	1516.5	57.3	11.468 µg/L	11.468 ppb	00:46:34
2	Si 251.611†	398.3	111.4	8.5984 µg/L	8.5984 ppb	00:46:55
2	Sn 189.927†	4.2	-0.4	-0.1825 µg/L	-0.1825 ppb	00:46:55
2	Ti 334.940†	291.1	154.2	0.3541 µg/L	0.3541 ppb	00:46:34
2	Tl 190.801†	-18.8	3.1	4.1166 µg/L	4.1166 ppb	00:46:55
2	U 409.014†	6.1	7.0	0.5913 µg/L	0.5913 ppb	00:46:34
2	V 292.402†	-62.1	32.9	0.3220 µg/L	0.3220 ppb	00:46:34
2	Zn 213.857†	508.8	15.3	0.3633 µg/L	0.3633 ppb	00:46:55
3	Sc RADIAL	56934.4	56934.4	96.4 %		00:45:26
3	Al 396.153Radial†	-15.3	-7.1	-5.3436 µg/L	-5.3436 ppb	00:45:26
3	Ca 317.933Radial†	188.9	2.9	2.6763 µg/L	2.6763 ppb	00:45:47
3	Fe 238.204 Radial†	15.5	0.7	6.2831 µg/L	6.2831 ppb	00:45:47
3	K 766.490 Radial†	197.0	5.9	4.0896 µg/L	4.0896 ppb	00:45:26
3	Mg 279.077 IEC†	15.3	3.8	36.639 µg/L	36.639 ppb	00:45:47
3	Na 589.592 Radial†	443.2	-14.0	-4.5928 µg/L	-4.5928 ppb	00:45:26
3	Sr 421.552†	51.4	11.9	0.1174 µg/L	0.1174 ppb	00:45:26
3	Sc 361.383	2075668.4	2075668.4	98.859 %		00:47:01
3	Y 371.029	1439968.1	1439968.1	98.934 %		00:47:01
3	Ag 328.068†	-392.6	66.0	0.4947 µg/L	0.4947 ppb	00:47:07
3	As 188.979†	-4.5	-4.3	-7.7675 µg/L	-7.7675 ppb	00:47:27
3	B 249.677†	338.1	16.6	0.6735 µg/L	0.6735 ppb	00:47:27
3	Ba 233.527†	-15.2	3.0	0.0732 µg/L	0.0732 ppb	00:47:27
3	Be 313.107†	-3468.6	250.2	0.1510 µg/L	0.1510 ppb	00:47:07
3	Cd 226.502†	-140.5	-5.5	-0.1398 µg/L	-0.1398 ppb	00:47:27
3	Co 228.616†	-1.4	-4.0	-0.1860 µg/L	-0.1860 ppb	00:47:27
3	Cr 267.716†	-67.3	-20.7	-0.4221 µg/L	-0.4221 ppb	00:47:07
3	Cu 324.752†	2855.7	18.9	0.1264 µg/L	0.1264 ppb	00:47:07
3	Mn 257.610†	-240.4	59.4	0.1885 µg/L	0.1885 ppb	00:47:27
3	Mo 202.031†	2.3	5.6	0.5634 µg/L	0.5634 ppb	00:47:27
3	Ni 231.604†	304.7	-0.4	-0.0189 µg/L	-0.0189 ppb	00:47:27
3	P 214.914†	9.0	-7.1	-14.198 µg/L	-14.198 ppb	00:47:27
3	Pb 220.353†	83.4	-10.4	-2.5635 µg/L	-2.5635 ppb	00:47:27
3	S 181.975 Axial†	18.2	1.1	4.7095 µg/L	4.7095 ppb	00:47:27
3	Sb 206.836†	19.4	-2.5	-2.2840 µg/L	-2.2840 ppb	00:47:27
3	Se 196.026†	23.9	9.2	12.607 µg/L	12.607 ppb	00:47:27
3	SiO2†	1508.4	41.5	8.3010 µg/L	8.3010 ppb	00:47:07
3	Si 251.611†	400.3	111.4	8.5957 µg/L	8.5957 ppb	00:47:27
3	Sn 189.927†	-0.3	-5.1	-2.1635 µg/L	-2.1635 ppb	00:47:27
3	Ti 334.940†	221.9	82.8	0.1855 µg/L	0.1855 ppb	00:47:07
3	Tl 190.801†	-20.4	1.6	2.1244 µg/L	2.1244 ppb	00:47:27
3	U 409.014†	-38.3	-38.0	-3.2256 µg/L	-3.2256 ppb	00:47:07
3	V 292.402†	-60.6	34.7	0.3442 µg/L	0.3442 ppb	00:47:07
3	Zn 213.857†	511.1	15.1	0.3541 µg/L	0.3541 ppb	00:47:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2071481.9	98.659	%	0.2566				0.26%
Sc RADIAL	56881.2	96.3	%	0.11				0.11%
Y 371.029	1436370.7	98.687	%	0.2893				0.29%
Ag 328.068†	29.9	0.2242	µg/L	0.25188	0.2242	ppb	0.25188	112.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.5	-7.0820	µg/L	8.20331	-7.0820	ppb	8.20331	115.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.9414	µg/L	8.04035	0.9414	ppb	8.04035	854.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	20.5	0.8372	µg/L	0.14733	0.8372	ppb	0.14733	17.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.6	0.0401	µg/L	0.04900	0.0401	ppb	0.04900	122.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	179.0	0.1080	µg/L	0.04449	0.1080	ppb	0.04449	41.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.3	1.1512	µg/L	1.36898	1.1512	ppb	1.36898	118.91%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.8	-0.1211	µg/L	0.19680	-0.1211	ppb	0.19680	162.56%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.6	0.0291	µg/L	0.21895	0.0291	ppb	0.21895	751.75%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -22.9     -0.4672 µg/L       0.12520     -0.4672 ppb        0.12520  26.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               22.9      0.1526 µg/L       0.09782      0.1526 ppb        0.09782  64.09%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      4.2682 µg/L      13.95442      4.2682 ppb       13.95442 326.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -6.9     -4.7612 µg/L       8.08983     -4.7612 ppb        8.08983 169.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -7.9998 µg/L      40.43557     -7.9998 ppb       40.43557 505.46%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               65.7      0.2099 µg/L       0.01941      0.2099 ppb        0.01941   9.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.2      0.4235 µg/L       0.51419      0.4235 ppb        0.51419 121.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -8.7     -2.8296 µg/L       2.42002     -2.8296 ppb        2.42002  85.53%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                0.9      0.0453 µg/L       0.07199      0.0453 ppb        0.07199 158.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.1     -10.222 µg/L        3.9565     -10.222 ppb         3.9565  38.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -11.4     -2.7954 µg/L       0.71873     -2.7954 ppb        0.71873  25.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.7      2.9659 µg/L       1.70856      2.9659 ppb        1.70856  57.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.1     -0.0442 µg/L       3.02857     -0.0442 ppb        3.02857 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.3      4.5299 µg/L       7.47441      4.5299 ppb        7.47441 165.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     47.9      9.5882 µg/L       1.66428      9.5882 ppb        1.66428  17.36%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              110.8      8.5528 µg/L       0.07667      8.5528 ppb        0.07667   0.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.2     -0.9365 µg/L       1.07188     -0.9365 ppb        1.07188 114.45%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.3      0.1016 µg/L       0.02835      0.1016 ppb        0.02835  27.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               99.1      0.2260 µg/L       0.11335      0.2260 ppb        0.11335  50.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.4      3.1540 µg/L       0.99778      3.1540 ppb        0.99778  31.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -24.9     -2.1132 µg/L       2.35439     -2.1132 ppb        2.35439 111.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                10.6      0.1052 µg/L       0.39487      0.1052 ppb        0.39487 375.26%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               15.6      0.3682 µg/L       0.01710      0.3682 ppb        0.01710   4.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: 1202033968|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 325
Date Collected: 2/21/2010 00:47:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033968|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56653.7	56653.7	96.0	%			00:48:12
1	Al 396.153Radial†	245.1	264.2	197.47	µg/L	197.47	ppb	00:48:12
1	Ca 317.933Radial†	435.1	260.5	238.91	µg/L	238.91	ppb	00:48:32
1	Fe 238.204 Radial†	58.7	45.8	393.25	µg/L	393.25	ppb	00:48:32
1	K 766.490 Radial†	374.5	191.9	131.99	µg/L	131.99	ppb	00:48:12
1	Mg 279.077 IEC†	18.9	7.6	73.906	µg/L	73.906	ppb	00:48:32
1	Na 589.592 Radial†	606.4	158.3	51.759	µg/L	51.759	ppb	00:48:12
1	Sr 421.552†	507.1	487.2	4.7914	µg/L	4.7914	ppb	00:48:12
1	Sc 361.383	2029306.1	2029306.1	96.651	%			00:49:34
1	Y 371.029	1404107.0	1404107.0	96.470	%			00:49:34
1	Ag 328.068†	-300.9	151.8	1.1718	µg/L	1.1718	ppb	00:49:40
1	As 188.979†	-3.0	-2.8	-5.0113	µg/L	-5.0113	ppb	00:50:00
1	B 249.677†	412.5	101.3	3.9474	µg/L	3.9474	ppb	00:50:00
1	Ba 233.527†	184.6	209.4	5.1350	µg/L	5.1350	ppb	00:50:00
1	Be 313.107†	-560.7	3178.8	1.9136	µg/L	1.9136	ppb	00:49:40
1	Cd 226.502†	-88.7	44.9	1.0885	µg/L	1.0885	ppb	00:50:00
1	Co 228.616†	56.1	55.5	2.5362	µg/L	2.5362	ppb	00:50:00
1	Cr 267.716†	246.5	302.4	6.1686	µg/L	6.1686	ppb	00:49:40
1	Cu 324.752†	3633.9	890.1	5.9592	µg/L	5.9592	ppb	00:49:40
1	Mn 257.610†	3949.2	4388.6	14.019	µg/L	14.019	ppb	00:49:40
1	Mo 202.031†	4.7	8.2	0.8360	µg/L	0.8360	ppb	00:50:00
1	Ni 231.604†	381.1	85.6	4.3293	µg/L	4.3293	ppb	00:50:00
1	P 214.914†	13.3	-2.4	-5.6612	µg/L	-5.6612	ppb	00:50:00
1	Pb 220.353†	96.2	4.7	1.1580	µg/L	1.1580	ppb	00:50:00
1	S 181.975 Axial†	24.4	7.9	32.795	µg/L	32.795	ppb	00:50:00
1	Sb 206.836†	28.0	6.9	6.1792	µg/L	6.1792	ppb	00:50:00
1	Se 196.026†	21.6	7.3	11.001	µg/L	11.001	ppb	00:50:00
1	SiO2†	4873.2	3557.7	712.44	µg/L	712.44	ppb	00:49:40
1	Si 251.611†	4422.4	4282.1	330.51	µg/L	330.51	ppb	00:49:40
1	Sn 189.927†	17.7	13.6	5.8002	µg/L	5.8002	ppb	00:50:00
1	Ti 334.940†	7027.2	7129.1	16.212	µg/L	16.212	ppb	00:49:40
1	Tl 190.801†	-18.2	3.4	4.7144	µg/L	4.7144	ppb	00:50:00
1	U 409.014†	-44.1	-44.8	-3.8742	µg/L	-3.8742	ppb	00:49:40
1	V 292.402†	127.4	227.8	2.3167	µg/L	2.3167	ppb	00:49:40
1	Zn 213.857†	1184.9	724.1	17.037	µg/L	17.037	ppb	00:50:00
2	Sc RADIAL	56592.6	56592.6	95.8	%			00:48:38
2	Al 396.153Radial†	257.3	277.1	207.12	µg/L	207.12	ppb	00:48:38
2	Ca 317.933Radial†	437.0	262.9	241.19	µg/L	241.19	ppb	00:48:58
2	Fe 238.204 Radial†	61.3	48.6	417.08	µg/L	417.08	ppb	00:48:58
2	K 766.490 Radial†	351.0	167.8	115.37	µg/L	115.37	ppb	00:48:38
2	Mg 279.077 IEC†	18.8	7.5	72.649	µg/L	72.649	ppb	00:48:58
2	Na 589.592 Radial†	621.3	174.5	57.039	µg/L	57.039	ppb	00:48:38
2	Sr 421.552†	518.8	499.9	4.9167	µg/L	4.9167	ppb	00:48:38
2	Sc 361.383	2029586.7	2029586.7	96.664	%			00:50:07
2	Y 371.029	1406001.3	1406001.3	96.600	%			00:50:07
2	Ag 328.068†	-299.0	153.8	1.1900	µg/L	1.1900	ppb	00:50:12
2	As 188.979†	1.4	1.8	3.2063	µg/L	3.2063	ppb	00:50:33
2	B 249.677†	407.5	96.1	3.7244	µg/L	3.7244	ppb	00:50:33
2	Ba 233.527†	182.1	206.8	5.0719	µg/L	5.0719	ppb	00:50:33
2	Be 313.107†	-646.2	3090.4	1.8603	µg/L	1.8603	ppb	00:50:12
2	Cd 226.502†	-84.6	49.1	1.1917	µg/L	1.1917	ppb	00:50:33
2	Co 228.616†	54.0	53.3	2.4343	µg/L	2.4343	ppb	00:50:33
2	Cr 267.716†	281.5	338.6	6.9076	µg/L	6.9076	ppb	00:50:12
2	Cu 324.752†	3562.9	816.2	5.4722	µg/L	5.4722	ppb	00:50:12
2	Mn 257.610†	3887.9	4324.6	13.818	µg/L	13.818	ppb	00:50:12
2	Mo 202.031†	12.3	16.1	1.6278	µg/L	1.6278	ppb	00:50:33
2	Ni 231.604†	379.2	83.7	4.2323	µg/L	4.2323	ppb	00:50:33
2	P 214.914†	28.9	13.6	26.324	µg/L	26.324	ppb	00:50:33
2	Pb 220.353†	97.6	6.2	1.5130	µg/L	1.5130	ppb	00:50:33

2	S 181.975 Axial†	22.7	6.2	25.529 µg/L	25.529 ppb	00:50:33
2	Sb 206.836†	29.2	8.1	7.3159 µg/L	7.3159 ppb	00:50:33
2	Se 196.026†	12.3	-2.3	-2.1028 µg/L	-2.1028 ppb	00:50:33
2	SiO2†	4817.1	3499.0	700.67 µg/L	700.67 ppb	00:50:12
2	Si 251.611†	4409.2	4267.9	329.41 µg/L	329.41 ppb	00:50:12
2	Sn 189.927†	16.9	12.8	5.4284 µg/L	5.4284 ppb	00:50:33
2	Ti 334.940†	6954.3	7052.6	16.039 µg/L	16.039 ppb	00:50:12
2	Tl 190.801†	-24.1	-2.7	-3.3805 µg/L	-3.3805 ppb	00:50:33
2	U 409.014†	-55.9	-57.0	-4.9133 µg/L	-4.9133 ppb	00:50:12
2	V 292.402†	151.6	252.8	2.5735 µg/L	2.5735 ppb	00:50:12
2	Zn 213.857†	1180.1	718.9	16.916 µg/L	16.916 ppb	00:50:33
3	Sc RADIAL	56530.8	56530.8	95.7 %		00:49:04
3	Al 396.153Radial†	254.7	274.7	205.35 µg/L	205.35 ppb	00:49:04
3	Ca 317.933Radial†	425.8	251.7	230.92 µg/L	230.92 ppb	00:49:24
3	Fe 238.204 Radial†	60.0	47.2	405.52 µg/L	405.52 ppb	00:49:24
3	K 766.490 Radial†	304.8	120.0	82.512 µg/L	82.512 ppb	00:49:04
3	Mg 279.077 IEC†	24.9	13.9	135.28 µg/L	135.28 ppb	00:49:24
3	Na 589.592 Radial†	632.4	186.8	61.081 µg/L	61.081 ppb	00:49:04
3	Sr 421.552†	497.6	478.4	4.7048 µg/L	4.7048 ppb	00:49:04
3	Sc 361.383	2049049.0	2049049.0	97.591 %		00:50:39
3	Y 371.029	1419181.5	1419181.5	97.506 %		00:50:39
3	Ag 328.068†	-284.8	171.3	1.3162 µg/L	1.3162 ppb	00:50:44
3	As 188.979†	1.6	1.9	3.4095 µg/L	3.4095 ppb	00:51:05
3	B 249.677†	399.0	83.3	3.2079 µg/L	3.2079 ppb	00:51:05
3	Ba 233.527†	171.8	194.4	4.7681 µg/L	4.7681 ppb	00:51:05
3	Be 313.107†	-607.2	3136.6	1.8884 µg/L	1.8884 ppb	00:50:44
3	Cd 226.502†	-95.5	38.7	0.9324 µg/L	0.9324 ppb	00:51:05
3	Co 228.616†	50.3	48.9	2.2342 µg/L	2.2342 ppb	00:51:05
3	Cr 267.716†	255.4	309.1	6.3047 µg/L	6.3047 ppb	00:50:44
3	Cu 324.752†	3597.9	817.0	5.4761 µg/L	5.4761 ppb	00:50:44
3	Mn 257.610†	3815.6	4212.4	13.457 µg/L	13.457 ppb	00:50:44
3	Mo 202.031†	10.6	14.2	1.4359 µg/L	1.4359 ppb	00:51:05
3	Ni 231.604†	368.0	68.4	3.4605 µg/L	3.4605 ppb	00:51:05
3	P 214.914†	17.5	1.7	2.6002 µg/L	2.6002 ppb	00:51:05
3	Pb 220.353†	96.4	4.0	0.9712 µg/L	0.9712 ppb	00:51:05
3	S 181.975 Axial†	19.9	3.1	12.688 µg/L	12.688 ppb	00:51:05
3	Sb 206.836†	24.0	2.5	2.2075 µg/L	2.2075 ppb	00:51:05
3	Se 196.026†	26.1	11.8	17.056 µg/L	17.056 ppb	00:51:05
3	SiO2†	4843.9	3479.1	696.69 µg/L	696.69 ppb	00:50:44
3	Si 251.611†	4345.5	4159.2	321.02 µg/L	321.02 ppb	00:50:44
3	Sn 189.927†	15.8	11.4	4.8620 µg/L	4.8620 ppb	00:51:05
3	Ti 334.940†	6798.4	6824.5	15.515 µg/L	15.515 ppb	00:50:44
3	Tl 190.801†	-28.7	-7.2	-9.4032 µg/L	-9.4032 ppb	00:51:05
3	U 409.014†	38.4	40.1	3.3322 µg/L	3.3322 ppb	00:50:44
3	V 292.402†	93.9	192.2	1.9778 µg/L	1.9778 ppb	00:50:44
3	Zn 213.857†	1139.9	666.1	15.669 µg/L	15.669 ppb	00:51:05

Mean Data: 1202033968|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2035980.6	96.968	%	0.5391				0.56%
Sc RADIAL	56592.4	95.8	%	0.10				0.11%
Y 371.029	1409763.3	96.859	%	0.5642				0.58%
Ag 328.068†	159.0	1.2260	µg/L	0.07867	1.2260	ppb	0.07867	6.42%
Al 396.153Radial†	272.0	203.32	µg/L	5.135	203.32	ppb	5.135	2.53%
As 188.979†	0.3	0.5348	µg/L	4.80413	0.5348	ppb	4.80413	898.25%
B 249.677†	93.6	3.6266	µg/L	0.37933	3.6266	ppb	0.37933	10.46%
Ba 233.527†	203.5	4.9917	µg/L	0.19615	4.9917	ppb	0.19615	3.93%
Be 313.107†	3135.3	1.8874	µg/L	0.02667	1.8874	ppb	0.02667	1.41%
Ca 317.933Radial†	258.4	237.01	µg/L	5.393	237.01	ppb	5.393	2.28%
Cd 226.502†	44.2	1.0709	µg/L	0.13053	1.0709	ppb	0.13053	12.19%
Co 228.616†	52.6	2.4016	µg/L	0.15364	2.4016	ppb	0.15364	6.40%
Cr 267.716†	316.7	6.4603	µg/L	0.39329	6.4603	ppb	0.39329	6.09%
Cu 324.752†	841.1	5.6358	µg/L	0.28010	5.6358	ppb	0.28010	4.97%
Fe 238.204 Radial†	47.2	405.29	µg/L	11.918	405.29	ppb	11.918	2.94%
K 766.490 Radial†	159.9	109.96	µg/L	25.178	109.96	ppb	25.178	22.90%
Mg 279.077 IEC†	9.7	93.944	µg/L	35.8007	93.944	ppb	35.8007	38.11%
Mn 257.610†	4308.5	13.765	µg/L	0.2847	13.765	ppb	0.2847	2.07%
Mo 202.031†	12.8	1.2999	µg/L	0.41308	1.2999	ppb	0.41308	31.78%
Na 589.592 Radial†	173.2	56.626	µg/L	4.6748	56.626	ppb	4.6748	8.26%

Ni 231.604†	79.2	4.0074 µg/L	0.47609	4.0074 ppb	0.47609	11.88%
P 214.914†	4.3	7.7543 µg/L	16.60369	7.7543 ppb	16.60369	214.12%
Pb 220.353†	5.0	1.2141 µg/L	0.27519	1.2141 ppb	0.27519	22.67%
S 181.975 Axial†	5.7	23.670 µg/L	10.1814	23.670 ppb	10.1814	43.01%
Sb 206.836†	5.8	5.2342 µg/L	2.68215	5.2342 ppb	2.68215	51.24%
Se 196.026†	5.6	8.6512 µg/L	9.79294	8.6512 ppb	9.79294	113.20%
SiO2†	3511.9	703.27 µg/L	8.191	703.27 ppb	8.191	1.16%
Si 251.611†	4236.4	326.98 µg/L	5.190	326.98 ppb	5.190	1.59%
Sn 189.927†	12.6	5.3636 µg/L	0.47247	5.3636 ppb	0.47247	8.81%
Sr 421.552†	488.5	4.8043 µg/L	0.10655	4.8043 ppb	0.10655	2.22%
Ti 334.940†	7002.1	15.922 µg/L	0.3631	15.922 ppb	0.3631	2.28%
Tl 190.801†	-2.2	-2.6897 µg/L	7.08412	-2.6897 ppb	7.08412	263.38%
U 409.014†	-20.6	-1.8185 µg/L	4.49072	-1.8185 ppb	4.49072	246.95%
V 292.402†	224.3	2.2893 µg/L	0.29882	2.2893 ppb	0.29882	13.05%
Zn 213.857†	703.0	16.541 µg/L	0.7577	16.541 ppb	0.7577	4.58%

Sequence No.: 31
Sample ID: 1202033968|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 325
Date Collected: 2/21/2010 00:47:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033968|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56653.7	56653.7	96.0	%			00:48:12
1	Al 396.153Radial†	245.1	264.2	197.47	µg/L	197.47	ppb	00:48:12
1	Ca 317.933Radial†	435.1	260.5	238.91	µg/L	238.91	ppb	00:48:32
1	Fe 238.204 Radial†	58.7	45.8	393.25	µg/L	393.25	ppb	00:48:32
1	K 766.490 Radial†	374.5	191.9	131.99	µg/L	131.99	ppb	00:48:12
1	Mg 279.077 IEC†	18.9	7.6	73.906	µg/L	73.906	ppb	00:48:32
1	Na 589.592 Radial†	606.4	158.3	51.759	µg/L	51.759	ppb	00:48:12
1	Sr 421.552†	507.1	487.2	4.7914	µg/L	4.7914	ppb	00:48:12
1	Sc 361.383	2029306.1	2029306.1	96.651	%			00:49:34
1	Y 371.029	1404107.0	1404107.0	96.470	%			00:49:34
1	Ag 328.068†	-300.9	151.8	1.1718	µg/L	1.1718	ppb	00:49:40
1	As 188.979†	-3.0	-2.8	-5.0113	µg/L	-5.0113	ppb	00:50:00
1	B 249.677†	412.5	101.3	3.9474	µg/L	3.9474	ppb	00:50:00
1	Ba 233.527†	184.6	209.4	5.1350	µg/L	5.1350	ppb	00:50:00
1	Be 313.107†	-560.7	3178.8	1.9136	µg/L	1.9136	ppb	00:49:40
1	Cd 226.502†	-88.7	44.9	1.0885	µg/L	1.0885	ppb	00:50:00
1	Co 228.616†	56.1	55.5	2.5362	µg/L	2.5362	ppb	00:50:00
1	Cr 267.716†	246.5	302.4	6.1686	µg/L	6.1686	ppb	00:49:40
1	Cu 324.752†	3633.9	890.1	5.9592	µg/L	5.9592	ppb	00:49:40
1	Mn 257.610†	3949.2	4388.6	14.019	µg/L	14.019	ppb	00:49:40
1	Mo 202.031†	4.7	8.2	0.8360	µg/L	0.8360	ppb	00:50:00
1	Ni 231.604†	381.1	85.6	4.3293	µg/L	4.3293	ppb	00:50:00
1	P 214.914†	13.3	-2.4	-5.6612	µg/L	-5.6612	ppb	00:50:00
1	Pb 220.353†	96.2	4.7	1.1580	µg/L	1.1580	ppb	00:50:00
1	S 181.975 Axial†	24.4	7.9	32.795	µg/L	32.795	ppb	00:50:00
1	Sb 206.836†	28.0	6.9	6.1792	µg/L	6.1792	ppb	00:50:00
1	Se 196.026†	21.6	7.3	11.001	µg/L	11.001	ppb	00:50:00
1	SiO2†	4873.2	3557.7	712.44	µg/L	712.44	ppb	00:49:40
1	Si 251.611†	4422.4	4282.1	330.51	µg/L	330.51	ppb	00:49:40
1	Sn 189.927†	17.7	13.6	5.8002	µg/L	5.8002	ppb	00:50:00
1	Ti 334.940†	7027.2	7129.1	16.212	µg/L	16.212	ppb	00:49:40
1	Tl 190.801†	-18.2	3.4	4.7144	µg/L	4.7144	ppb	00:50:00
1	U 409.014†	-44.1	-44.8	-3.8742	µg/L	-3.8742	ppb	00:49:40
1	V 292.402†	127.4	227.8	2.3167	µg/L	2.3167	ppb	00:49:40
1	Zn 213.857†	1184.9	724.1	17.037	µg/L	17.037	ppb	00:50:00
2	Sc RADIAL	56592.6	56592.6	95.8	%			00:48:38
2	Al 396.153Radial†	257.3	277.1	207.12	µg/L	207.12	ppb	00:48:38
2	Ca 317.933Radial†	437.0	262.9	241.19	µg/L	241.19	ppb	00:48:58
2	Fe 238.204 Radial†	61.3	48.6	417.08	µg/L	417.08	ppb	00:48:58
2	K 766.490 Radial†	351.0	167.8	115.37	µg/L	115.37	ppb	00:48:38
2	Mg 279.077 IEC†	18.8	7.5	72.649	µg/L	72.649	ppb	00:48:58
2	Na 589.592 Radial†	621.3	174.5	57.039	µg/L	57.039	ppb	00:48:38
2	Sr 421.552†	518.8	499.9	4.9167	µg/L	4.9167	ppb	00:48:38
2	Sc 361.383	2029586.7	2029586.7	96.664	%			00:50:07
2	Y 371.029	1406001.3	1406001.3	96.600	%			00:50:07
2	Ag 328.068†	-299.0	153.8	1.1900	µg/L	1.1900	ppb	00:50:12
2	As 188.979†	1.4	1.8	3.2063	µg/L	3.2063	ppb	00:50:33
2	B 249.677†	407.5	96.1	3.7244	µg/L	3.7244	ppb	00:50:33
2	Ba 233.527†	182.1	206.8	5.0719	µg/L	5.0719	ppb	00:50:33
2	Be 313.107†	-646.2	3090.4	1.8603	µg/L	1.8603	ppb	00:50:12
2	Cd 226.502†	-84.6	49.1	1.1917	µg/L	1.1917	ppb	00:50:33
2	Co 228.616†	54.0	53.3	2.4343	µg/L	2.4343	ppb	00:50:33
2	Cr 267.716†	281.5	338.6	6.9076	µg/L	6.9076	ppb	00:50:12
2	Cu 324.752†	3562.9	816.2	5.4722	µg/L	5.4722	ppb	00:50:12
2	Mn 257.610†	3887.9	4324.6	13.818	µg/L	13.818	ppb	00:50:12
2	Mo 202.031†	12.3	16.1	1.6278	µg/L	1.6278	ppb	00:50:33
2	Ni 231.604†	379.2	83.7	4.2323	µg/L	4.2323	ppb	00:50:33
2	P 214.914†	28.9	13.6	26.324	µg/L	26.324	ppb	00:50:33
2	Pb 220.353†	97.6	6.2	1.5130	µg/L	1.5130	ppb	00:50:33

2	S 181.975 Axial†	22.7	6.2	25.529	µg/L	25.529 ppb	00:50:33
2	Sb 206.836†	29.2	8.1	7.3159	µg/L	7.3159 ppb	00:50:33
2	Se 196.026†	12.3	-2.3	-2.1028	µg/L	-2.1028 ppb	00:50:33
2	SiO2†	4817.1	3499.0	700.67	µg/L	700.67 ppb	00:50:12
2	Si 251.611†	4409.2	4267.9	329.41	µg/L	329.41 ppb	00:50:12
2	Sn 189.927†	16.9	12.8	5.4284	µg/L	5.4284 ppb	00:50:33
2	Ti 334.940†	6954.3	7052.6	16.039	µg/L	16.039 ppb	00:50:12
2	Tl 190.801†	-24.1	-2.7	-3.3805	µg/L	-3.3805 ppb	00:50:33
2	U 409.014†	-55.9	-57.0	-4.9133	µg/L	-4.9133 ppb	00:50:12
2	V 292.402†	151.6	252.8	2.5735	µg/L	2.5735 ppb	00:50:12
2	Zn 213.857†	1180.1	718.9	16.916	µg/L	16.916 ppb	00:50:33
3	Sc RADIAL	56530.8	56530.8	95.7	%		00:49:04
3	Al 396.153Radial†	254.7	274.7	205.35	µg/L	205.35 ppb	00:49:04
3	Ca 317.933Radial†	425.8	251.7	230.92	µg/L	230.92 ppb	00:49:24
3	Fe 238.204 Radial†	60.0	47.2	405.52	µg/L	405.52 ppb	00:49:24
3	K 766.490 Radial†	304.8	120.0	82.512	µg/L	82.512 ppb	00:49:04
3	Mg 279.077 IEC†	24.9	13.9	135.28	µg/L	135.28 ppb	00:49:24
3	Na 589.592 Radial†	632.4	186.8	61.081	µg/L	61.081 ppb	00:49:04
3	Sr 421.552†	497.6	478.4	4.7048	µg/L	4.7048 ppb	00:49:04
3	Sc 361.383	2049049.0	2049049.0	97.591	%		00:50:39
3	Y 371.029	1419181.5	1419181.5	97.506	%		00:50:39
3	Ag 328.068†	-284.8	171.3	1.3162	µg/L	1.3162 ppb	00:50:44
3	As 188.979†	1.6	1.9	3.4095	µg/L	3.4095 ppb	00:51:05
3	B 249.677†	399.0	83.3	3.2079	µg/L	3.2079 ppb	00:51:05
3	Ba 233.527†	171.8	194.4	4.7681	µg/L	4.7681 ppb	00:51:05
3	Be 313.107†	-607.2	3136.6	1.8884	µg/L	1.8884 ppb	00:50:44
3	Cd 226.502†	-95.5	38.7	0.9324	µg/L	0.9324 ppb	00:51:05
3	Co 228.616†	50.3	48.9	2.2342	µg/L	2.2342 ppb	00:51:05
3	Cr 267.716†	255.4	309.1	6.3047	µg/L	6.3047 ppb	00:50:44
3	Cu 324.752†	3597.9	817.0	5.4761	µg/L	5.4761 ppb	00:50:44
3	Mn 257.610†	3815.6	4212.4	13.457	µg/L	13.457 ppb	00:50:44
3	Mo 202.031†	10.6	14.2	1.4359	µg/L	1.4359 ppb	00:51:05
3	Ni 231.604†	368.0	68.4	3.4605	µg/L	3.4605 ppb	00:51:05
3	P 214.914†	17.5	1.7	2.6002	µg/L	2.6002 ppb	00:51:05
3	Pb 220.353†	96.4	4.0	0.9712	µg/L	0.9712 ppb	00:51:05
3	S 181.975 Axial†	19.9	3.1	12.688	µg/L	12.688 ppb	00:51:05
3	Sb 206.836†	24.0	2.5	2.2075	µg/L	2.2075 ppb	00:51:05
3	Se 196.026†	26.1	11.8	17.056	µg/L	17.056 ppb	00:51:05
3	SiO2†	4843.9	3479.1	696.69	µg/L	696.69 ppb	00:50:44
3	Si 251.611†	4345.5	4159.2	321.02	µg/L	321.02 ppb	00:50:44
3	Sn 189.927†	15.8	11.4	4.8620	µg/L	4.8620 ppb	00:51:05
3	Ti 334.940†	6798.4	6824.5	15.515	µg/L	15.515 ppb	00:50:44
3	Tl 190.801†	-28.7	-7.2	-9.4032	µg/L	-9.4032 ppb	00:51:05
3	U 409.014†	38.4	40.1	3.3322	µg/L	3.3322 ppb	00:50:44
3	V 292.402†	93.9	192.2	1.9778	µg/L	1.9778 ppb	00:50:44
3	Zn 213.857†	1139.9	666.1	15.669	µg/L	15.669 ppb	00:51:05

Mean Data: 1202033968|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2035980.6	96.968	%	0.5391				0.56%
Sc RADIAL	56592.4	95.8	%	0.10				0.11%
Y 371.029	1409763.3	96.859	%	0.5642				0.58%
Ag 328.068†	159.0	1.2260	µg/L	0.07867	1.2260	ppb	0.07867	6.42%
Al 396.153Radial†	272.0	203.32	µg/L	5.135	203.32	ppb	5.135	2.53%
As 188.979†	0.3	0.5348	µg/L	4.80413	0.5348	ppb	4.80413	898.25%
B 249.677†	93.6	3.6266	µg/L	0.37933	3.6266	ppb	0.37933	10.46%
Ba 233.527†	203.5	4.9917	µg/L	0.19615	4.9917	ppb	0.19615	3.93%
Be 313.107†	3135.3	1.8874	µg/L	0.02667	1.8874	ppb	0.02667	1.41%
Ca 317.933Radial†	258.4	237.01	µg/L	5.393	237.01	ppb	5.393	2.28%
Cd 226.502†	44.2	1.0709	µg/L	0.13053	1.0709	ppb	0.13053	12.19%
Co 228.616†	52.6	2.4016	µg/L	0.15364	2.4016	ppb	0.15364	6.40%
Cr 267.716†	316.7	6.4603	µg/L	0.39329	6.4603	ppb	0.39329	6.09%
Cu 324.752†	841.1	5.6358	µg/L	0.28010	5.6358	ppb	0.28010	4.97%
Fe 238.204 Radial†	47.2	405.29	µg/L	11.918	405.29	ppb	11.918	2.94%
K 766.490 Radial†	159.9	109.96	µg/L	25.178	109.96	ppb	25.178	22.90%
Mg 279.077 IEC†	9.7	93.944	µg/L	35.8007	93.944	ppb	35.8007	38.11%
Mn 257.610†	4308.5	13.765	µg/L	0.2847	13.765	ppb	0.2847	2.07%
Mo 202.031†	12.8	1.2999	µg/L	0.41308	1.2999	ppb	0.41308	31.78%
Na 589.592 Radial†	173.2	56.626	µg/L	4.6748	56.626	ppb	4.6748	8.26%

Ni 231.604†	79.2	4.0074	µg/L	0.47609	4.0074	ppb	0.47609 11.88%
P 214.914†	4.3	7.7543	µg/L	16.60369	7.7543	ppb	16.60369 214.12%
Pb 220.353†	5.0	1.2141	µg/L	0.27519	1.2141	ppb	0.27519 22.67%
S 181.975 Axial†	5.7	23.670	µg/L	10.1814	23.670	ppb	10.1814 43.01%
Sb 206.836†	5.8	5.2342	µg/L	2.68215	5.2342	ppb	2.68215 51.24%
Se 196.026†	5.6	8.6512	µg/L	9.79294	8.6512	ppb	9.79294 113.20%
SiO2†	3511.9	703.27	µg/L	8.191	703.27	ppb	8.191 1.16%
Si 251.611†	4236.4	326.98	µg/L	5.190	326.98	ppb	5.190 1.59%
Sn 189.927†	12.6	5.3636	µg/L	0.47247	5.3636	ppb	0.47247 8.81%
Sr 421.552†	488.5	4.8043	µg/L	0.10655	4.8043	ppb	0.10655 2.22%
Ti 334.940†	7002.1	15.922	µg/L	0.3631	15.922	ppb	0.3631 2.28%
Tl 190.801†	-2.2	-2.6897	µg/L	7.08412	-2.6897	ppb	7.08412 263.38%
U 409.014†	-20.6	-1.8185	µg/L	4.49072	-1.8185	ppb	4.49072 246.95%
V 292.402†	224.3	2.2893	µg/L	0.29882	2.2893	ppb	0.29882 13.05%
Zn 213.857†	703.0	16.541	µg/L	0.7577	16.541	ppb	0.7577 4.58%

Sequence No.: 32
Sample ID: 1202033973|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 326
Date Collected: 2/21/2010 00:51:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033973|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57588.3	57588.3	97.5	%			00:51:53
1	Al 396.153Radial†	119004.3	122020.4	91210	µg/L	91210	ppb	00:51:48
1	Ca 317.933Radial†	112778.5	115435.7	105880	µg/L	105880	ppb	00:51:48
1	Fe 238.204 Radial†	22646.6	23203.6	199200	µg/L	199200	ppb	00:51:53
1	K 766.490 Radial†	59037.1	60330.7	41484	µg/L	41484	ppb	00:51:48
1	Mg 279.077 IEC†	4125.0	4217.1	40842	µg/L	40842	ppb	00:51:53
1	Na 589.592 Radial†	32192.1	32532.0	10636	µg/L	10636	ppb	00:51:48
1	Sr 421.552†	233985.9	239857.7	2359.1	µg/L	2359.1	ppb	00:51:48
1	Sc 361.383	2051561.8	2051561.8	97.710	%			00:52:28
1	Y 371.029	1445705.6	1445705.6	99.328	%			00:52:28
1	Ag 328.068†	38411.0	39774.1	317.49	µg/L	317.49	ppb	00:52:34
1	As 188.979†	599.6	613.9	1110.0	µg/L	1110.0	ppb	00:52:54
1	B 249.677†	37383.7	37934.1	1452.0	µg/L	1452.0	ppb	00:52:34
1	Ba 233.527†	79258.5	81134.0	1990.5	µg/L	1990.5	ppb	00:52:34
1	Be 313.107†	1321073.9	1355787.7	816.61	µg/L	816.61	ppb	00:52:28
1	Cd 226.502†	24531.1	25242.5	614.07	µg/L	614.07	ppb	00:52:34
1	Co 228.616†	20751.5	21235.2	971.67	µg/L	971.67	ppb	00:52:34
1	Cr 267.716†	122513.6	125431.7	2558.8	µg/L	2558.8	ppb	00:52:34
1	Cu 324.752†	278332.8	281984.8	1898.2	µg/L	1898.2	ppb	00:52:34
1	Mn 257.610†	1745698.2	1786905.2	5712.8	µg/L	5712.8	ppb	00:52:28
1	Mo 202.031†	5498.3	5630.4	571.72	µg/L	571.72	ppb	00:52:54
1	Ni 231.604†	27452.4	27787.1	1405.8	µg/L	1405.8	ppb	00:52:34
1	P 214.914†	4295.8	4380.2	8392.7	µg/L	8392.7	ppb	00:52:54
1	Pb 220.353†	3536.0	3524.1	863.16	µg/L	863.16	ppb	00:52:54
1	S 181.975 Axial†	976.2	981.8	4069.7	µg/L	4069.7	ppb	00:52:54
1	Sb 206.836†	1795.1	1815.1	1628.2	µg/L	1628.2	ppb	00:52:54
1	Se 196.026†	2092.6	2126.6	3391.8	µg/L	3391.8	ppb	00:52:54
1	SiO2†	202688.9	205953.8	41242	µg/L	41242	ppb	00:52:34
1	Si 251.611†	243469.3	248880.7	19209	µg/L	19209	ppb	00:52:34
1	Sn 189.927†	2568.2	2623.7	1105.0	µg/L	1105.0	ppb	00:52:54
1	Ti 334.940†	2494198.3	2552499.7	5803.8	µg/L	5803.8	ppb	00:52:28
1	Tl 190.801†	858.5	900.8	1299.5	µg/L	1299.5	ppb	00:52:54
1	U 409.014†	-1464.3	-1497.8	-161.26	µg/L	-161.26	ppb	00:52:34
1	V 292.402†	123328.5	126314.3	1283.1	µg/L	1283.1	ppb	00:52:34
1	Zn 213.857†	250147.8	255507.2	6009.2	µg/L	6009.2	ppb	00:52:34
2	Sc RADIAL	57711.2	57711.2	97.7	%			00:52:04
2	Al 396.153Radial†	119422.6	122188.7	91336	µg/L	91336	ppb	00:51:59
2	Ca 317.933Radial†	112872.2	115285.4	105750	µg/L	105750	ppb	00:51:59
2	Fe 238.204 Radial†	22496.4	23000.4	197460	µg/L	197460	ppb	00:52:04
2	K 766.490 Radial†	59208.9	60377.6	41517	µg/L	41517	ppb	00:51:59
2	Mg 279.077 IEC†	4129.8	4213.1	40805	µg/L	40805	ppb	00:52:04
2	Na 589.592 Radial†	32311.3	32583.6	10653	µg/L	10653	ppb	00:51:59
2	Sr 421.552†	234693.9	240071.5	2361.2	µg/L	2361.2	ppb	00:51:59
2	Sc 361.383	2057510.9	2057510.9	97.994	%			00:53:02
2	Y 371.029	1449378.5	1449378.5	99.580	%			00:53:02
2	Ag 328.068†	38199.8	39445.0	314.88	µg/L	314.88	ppb	00:53:07
2	As 188.979†	603.8	616.4	1114.5	µg/L	1114.5	ppb	00:53:28
2	B 249.677†	37248.2	37685.3	1442.7	µg/L	1442.7	ppb	00:53:07
2	Ba 233.527†	79092.5	80730.1	1980.6	µg/L	1980.6	ppb	00:53:07
2	Be 313.107†	1324816.2	1355697.2	816.55	µg/L	816.55	ppb	00:53:02
2	Cd 226.502†	24480.2	25118.0	611.13	µg/L	611.13	ppb	00:53:07
2	Co 228.616†	20705.9	21127.2	966.68	µg/L	966.68	ppb	00:53:07
2	Cr 267.716†	122209.5	124758.8	2545.1	µg/L	2545.1	ppb	00:53:07
2	Cu 324.752†	276918.4	279717.9	1882.9	µg/L	1882.9	ppb	00:53:07
2	Mn 257.610†	1748859.4	1784965.4	5706.4	µg/L	5706.4	ppb	00:53:02
2	Mo 202.031†	5475.4	5590.8	567.68	µg/L	567.68	ppb	00:53:28
2	Ni 231.604†	27335.4	27586.4	1395.6	µg/L	1395.6	ppb	00:53:07
2	P 214.914†	4257.1	4328.1	8291.9	µg/L	8291.9	ppb	00:53:28
2	Pb 220.353†	3525.7	3503.1	858.08	µg/L	858.08	ppb	00:53:28

2	S 181.975 Axial†	977.6	980.3	4063.5 µg/L	4063.5 ppb	00:53:28
2	Sb 206.836†	1800.6	1815.3	1628.5 µg/L	1628.5 ppb	00:53:28
2	Se 196.026†	2109.1	2137.2	3401.7 µg/L	3401.7 ppb	00:53:28
2	SiO2†	201920.0	204569.4	40965 µg/L	40965 ppb	00:53:07
2	Si 251.611†	242578.0	247250.6	19084 µg/L	19084 ppb	00:53:07
2	Sn 189.927†	2553.0	2600.5	1095.3 µg/L	1095.3 ppb	00:53:28
2	Ti 334.940†	2500149.3	2551191.8	5800.9 µg/L	5800.9 ppb	00:53:02
2	Tl 190.801†	853.8	893.5	1289.5 µg/L	1289.5 ppb	00:53:28
2	U 409.014†	-1382.1	-1409.7	-153.52 µg/L	-153.52 ppb	00:53:07
2	V 292.402†	122977.8	125591.5	1275.6 µg/L	1275.6 ppb	00:53:07
2	Zn 213.857†	249239.7	253840.3	5970.0 µg/L	5970.0 ppb	00:53:07
3	Sc RADIAL	57194.2	57194.2	96.9 %		00:52:15
3	Al 396.153Radial†	119942.2	123829.3	92562 µg/L	92562 ppb	00:52:10
3	Ca 317.933Radial†	113608.5	117089.2	107400 µg/L	107400 ppb	00:52:10
3	Fe 238.204 Radial†	22377.5	23085.7	198190 µg/L	198190 ppb	00:52:15
3	K 766.490 Radial†	59443.8	61167.6	42060 µg/L	42060 ppb	00:52:10
3	Mg 279.077 IEC†	4112.0	4232.9	40997 µg/L	40997 ppb	00:52:15
3	Na 589.592 Radial†	32491.1	33068.0	10811 µg/L	10811 ppb	00:52:10
3	Sr 421.552†	235993.1	243582.8	2395.7 µg/L	2395.7 ppb	00:52:10
3	Sc 361.383	2076036.7	2076036.7	98.876 %		00:53:35
3	Y 371.029	1463175.9	1463175.9	100.53 %		00:53:35
3	Ag 328.068†	38424.6	39324.5	314.00 µg/L	314.00 ppb	00:53:41
3	As 188.979†	597.9	604.9	1093.7 µg/L	1093.7 ppb	00:54:02
3	B 249.677†	37531.2	37632.3	1440.2 µg/L	1440.2 ppb	00:53:41
3	Ba 233.527†	79568.2	80490.9	1974.7 µg/L	1974.7 ppb	00:53:41
3	Be 313.107†	1338796.5	1357772.3	817.80 µg/L	817.80 ppb	00:53:35
3	Cd 226.502†	24614.6	25030.9	608.85 µg/L	608.85 ppb	00:53:41
3	Co 228.616†	20842.5	21076.8	964.32 µg/L	964.32 ppb	00:53:41
3	Cr 267.716†	123081.7	124528.0	2540.4 µg/L	2540.4 ppb	00:53:41
3	Cu 324.752†	278364.8	278659.0	1876.0 µg/L	1876.0 ppb	00:53:41
3	Mn 257.610†	1766652.8	1787035.4	5713.1 µg/L	5713.1 ppb	00:53:35
3	Mo 202.031†	5461.1	5526.5	561.27 µg/L	561.27 ppb	00:54:02
3	Ni 231.604†	27487.2	27491.0	1390.8 µg/L	1390.8 ppb	00:53:41
3	P 214.914†	4300.9	4333.5	8303.2 µg/L	8303.2 ppb	00:54:02
3	Pb 220.353†	3543.2	3488.7	854.58 µg/L	854.58 ppb	00:54:02
3	S 181.975 Axial†	980.1	973.9	4037.1 µg/L	4037.1 ppb	00:54:02
3	Sb 206.836†	1799.6	1797.9	1612.4 µg/L	1612.4 ppb	00:54:02
3	Se 196.026†	2116.4	2125.4	3386.8 µg/L	3386.8 ppb	00:54:02
3	SiO2†	202964.6	203787.1	40809 µg/L	40809 ppb	00:53:41
3	Si 251.611†	243600.1	246075.4	18993 µg/L	18993 ppb	00:53:41
3	Sn 189.927†	2569.5	2594.0	1092.4 µg/L	1092.4 ppb	00:54:02
3	Ti 334.940†	2525970.1	2554539.0	5808.5 µg/L	5808.5 ppb	00:53:35
3	Tl 190.801†	864.9	897.0	1294.3 µg/L	1294.3 ppb	00:54:02
3	U 409.014†	-1584.6	-1601.9	-170.04 µg/L	-170.04 ppb	00:53:41
3	V 292.402†	123706.2	125208.3	1271.9 µg/L	1271.9 ppb	00:53:41
3	Zn 213.857†	250933.0	253283.2	5956.8 µg/L	5956.8 ppb	00:53:41

Mean Data: 1202033973|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2061703.1	98.193	%	0.6079				0.62%
Sc RADIAL	57497.9	97.4	%	0.46				0.47%
Y 371.029	1452753.3	99.812	%	0.6329				0.63%
Ag 328.068†	39514.5	315.46	µg/L	1.815	315.46	ppb	1.815	0.58%
Al 396.153Radial†	122679.5	91703	µg/L	747.2	91703	ppb	747.2	0.81%
As 188.979†	611.8	1106.1	µg/L	10.92	1106.1	ppb	10.92	0.99%
B 249.677†	37750.6	1445.0	µg/L	6.24	1445.0	ppb	6.24	0.43%
Ba 233.527†	80785.0	1981.9	µg/L	7.98	1981.9	ppb	7.98	0.40%
Be 313.107†	1356419.1	816.99	µg/L	0.707	816.99	ppb	0.707	0.09%
Ca 317.933Radial†	115936.7	106340	µg/L	918.1	106340	ppb	918.1	0.86%
Cd 226.502†	25130.5	611.35	µg/L	2.620	611.35	ppb	2.620	0.43%
Co 228.616†	21146.4	967.56	µg/L	3.754	967.56	ppb	3.754	0.39%
Cr 267.716†	124906.2	2548.1	µg/L	9.58	2548.1	ppb	9.58	0.38%
Cu 324.752†	280120.6	1885.7	µg/L	11.36	1885.7	ppb	11.36	0.60%
Fe 238.204 Radial†	23096.6	198290	µg/L	875.6	198290	ppb	875.6	0.44%
K 766.490 Radial†	60625.3	41687	µg/L	323.3	41687	ppb	323.3	0.78%
Mg 279.077 IEC†	4221.1	40881	µg/L	101.8	40881	ppb	101.8	0.25%
Mn 257.610†	1786302.0	5710.8	µg/L	3.78	5710.8	ppb	3.78	0.07%
Mo 202.031†	5582.6	566.89	µg/L	5.271	566.89	ppb	5.271	0.93%
Na 589.592 Radial†	32727.9	10700	µg/L	96.7	10700	ppb	96.7	0.90%

Ni 231.604†	27621.5	1397.4 µg/L	7.64	1397.4 ppb	7.64	0.55%
P 214.914†	4347.3	8329.3 µg/L	55.24	8329.3 ppb	55.24	0.66%
Pb 220.353†	3505.3	858.61 µg/L	4.312	858.61 ppb	4.312	0.50%
S 181.975 Axial†	978.7	4056.8 µg/L	17.31	4056.8 ppb	17.31	0.43%
Sb 206.836†	1809.4	1623.0 µg/L	9.18	1623.0 ppb	9.18	0.57%
Se 196.026†	2129.8	3393.4 µg/L	7.55	3393.4 ppb	7.55	0.22%
SiO2†	204770.1	41005 µg/L	219.7	41005 ppb	219.7	0.54%
Si 251.611†	247402.2	19095 µg/L	108.7	19095 ppb	108.7	0.57%
Sn 189.927†	2606.1	1097.6 µg/L	6.59	1097.6 ppb	6.59	0.60%
Sr 421.552†	241170.7	2372.0 µg/L	20.57	2372.0 ppb	20.57	0.87%
Ti 334.940†	2552743.5	5804.4 µg/L	3.84	5804.4 ppb	3.84	0.07%
Tl 190.801†	897.1	1294.4 µg/L	5.02	1294.4 ppb	5.02	0.39%
U 409.014†	-1503.1	-161.61 µg/L	8.264	-161.61 ppb	8.264	5.11%
V 292.402†	125704.7	1276.9 µg/L	5.69	1276.9 ppb	5.69	0.45%
Zn 213.857†	254210.2	5978.7 µg/L	27.23	5978.7 ppb	27.23	0.46%

Sequence No.: 33
Sample ID: 246066001|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 327
Date Collected: 2/21/2010 00:54:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066001|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59071.4	59071.4	100	%			00:54:44
1	Al 396.153Radial†	163678.6	163610.4	122310	µg/L	122310	ppb	00:54:44
1	Ca 317.933Radial†	27709.0	27503.0	25228	µg/L	25228	ppb	00:55:05
1	Fe 238.204 Radial†	16659.8	16636.6	142810	µg/L	142810	ppb	00:55:05
1	K 766.490 Radial†	22753.2	22544.1	15502	µg/L	15502	ppb	00:54:44
1	Mg 279.077 IEC†	2220.5	2207.4	21332	µg/L	21332	ppb	00:55:05
1	Na 589.592 Radial†	2725.6	2250.6	735.80	µg/L	735.80	ppb	00:55:05
1	Sr 421.552†	28786.4	28731.5	282.58	µg/L	282.58	ppb	00:54:44
1	Sc 361.383	2082539.9	2082539.9	99.186	%			00:56:10
1	Y 371.029	1474909.5	1474909.5	101.33	%			00:56:10
1	Ag 328.068†	-1980.3	-1533.5	-0.5805	µg/L	-0.5805	ppb	00:56:15
1	As 188.979†	8.4	8.7	22.672	µg/L	22.672	ppb	00:56:35
1	B 249.677†	1232.5	917.1	-36.790	µg/L	-36.790	ppb	00:56:15
1	Ba 233.527†	69265.7	69852.6	1712.3	µg/L	1712.3	ppb	00:56:15
1	Be 313.107†	17942.0	21848.1	11.190	µg/L	11.190	ppb	00:56:15
1	Cd 226.502†	391.8	531.7	-2.6698	µg/L	-2.6698	ppb	00:56:15
1	Co 228.616†	1663.8	1674.9	66.571	µg/L	66.571	ppb	00:56:35
1	Cr 267.716†	6394.6	6494.5	132.63	µg/L	132.63	ppb	00:56:15
1	Cu 324.752†	10353.6	7568.9	70.059	µg/L	70.059	ppb	00:56:15
1	Mn 257.610†	1165466.8	1175335.4	3759.4	µg/L	3759.4	ppb	00:56:10
1	Mo 202.031†	-14.3	-11.1	4.3154	µg/L	4.3154	ppb	00:56:35
1	Ni 231.604†	2072.8	1781.2	91.785	µg/L	91.785	ppb	00:56:35
1	P 214.914†	423.7	411.0	730.89	µg/L	730.89	ppb	00:56:35
1	Pb 220.353†	630.7	541.1	134.46	µg/L	134.46	ppb	00:56:35
1	S 181.975 Axial†	176.9	161.1	667.60	µg/L	667.60	ppb	00:56:35
1	Sb 206.836†	38.4	16.6	11.457	µg/L	11.457	ppb	00:56:35
1	Se 196.026†	-45.9	-61.3	280.27	µg/L	280.27	ppb	00:56:35
1	SiO2†	226256.7	226629.4	45383	µg/L	45383	ppb	00:56:10
1	Si 251.611†	270860.3	272789.9	21055	µg/L	21055	ppb	00:56:10
1	Sn 189.927†	-27.1	-32.1	-26.548	µg/L	-26.548	ppb	00:56:35
1	Ti 334.940†	2294847.1	2313541.3	5260.6	µg/L	5260.6	ppb	00:56:10
1	Tl 190.801†	-76.4	-54.8	15.386	µg/L	15.386	ppb	00:56:35
1	U 409.014†	-1261.9	-1271.5	-129.29	µg/L	-129.29	ppb	00:56:10
1	V 292.402†	28194.9	28522.3	299.14	µg/L	299.14	ppb	00:56:15
1	Zn 213.857†	11818.5	11413.5	260.89	µg/L	260.89	ppb	00:56:15
2	Sc RADIAL	58702.3	58702.3	99.4	%			00:55:10
2	Al 396.153Radial†	164338.4	165302.7	123580	µg/L	123580	ppb	00:55:10
2	Ca 317.933Radial†	27814.5	27783.2	25485	µg/L	25485	ppb	00:55:31
2	Fe 238.204 Radial†	16748.2	16830.2	144480	µg/L	144480	ppb	00:55:31
2	K 766.490 Radial†	22662.0	22595.4	15537	µg/L	15537	ppb	00:55:10
2	Mg 279.077 IEC†	2227.4	2228.3	21533	µg/L	21533	ppb	00:55:31
2	Na 589.592 Radial†	2732.8	2275.0	743.76	µg/L	743.76	ppb	00:55:31
2	Sr 421.552†	28844.6	28971.0	284.94	µg/L	284.94	ppb	00:55:10
2	Sc 361.383	2061885.9	2061885.9	98.202	%			00:56:43
2	Y 371.029	1459354.1	1459354.1	100.27	%			00:56:43
2	Ag 328.068†	-1915.7	-1487.7	-0.1306	µg/L	-0.1306	ppb	00:56:49
2	As 188.979†	17.8	18.4	40.267	µg/L	40.267	ppb	00:57:09
2	B 249.677†	1201.2	897.7	-38.451	µg/L	-38.451	ppb	00:56:49
2	Ba 233.527†	68555.0	69828.4	1711.7	µg/L	1711.7	ppb	00:56:49
2	Be 313.107†	17729.5	21813.0	11.155	µg/L	11.155	ppb	00:56:49
2	Cd 226.502†	404.0	548.0	-2.4468	µg/L	-2.4468	ppb	00:56:49
2	Co 228.616†	1644.6	1672.1	66.366	µg/L	66.366	ppb	00:57:09
2	Cr 267.716†	6322.2	6485.3	132.44	µg/L	132.44	ppb	00:56:49
2	Cu 324.752†	10231.2	7548.7	70.156	µg/L	70.156	ppb	00:56:49
2	Mn 257.610†	1160765.9	1182318.8	3781.8	µg/L	3781.8	ppb	00:56:43
2	Mo 202.031†	-20.7	-17.8	3.7081	µg/L	3.7081	ppb	00:57:09
2	Ni 231.604†	2057.0	1786.0	92.051	µg/L	92.051	ppb	00:57:09
2	P 214.914†	416.1	407.4	722.84	µg/L	722.84	ppb	00:57:09
2	Pb 220.353†	641.2	558.1	138.65	µg/L	138.65	ppb	00:57:09

2	S 181.975 Axial†	179.3	165.3	685.07	µg/L	685.07 ppb	00:57:09
2	Sb 206.836†	30.4	8.8	4.3260	µg/L	4.3260 ppb	00:57:09
2	Se 196.026†	-56.1	-72.1	269.75	µg/L	269.75 ppb	00:57:09
2	SiO2†	225223.0	227861.7	45629	µg/L	45629 ppb	00:56:43
2	Si 251.611†	269439.9	274079.0	21154	µg/L	21154 ppb	00:56:43
2	Sn 189.927†	-32.8	-38.1	-29.263	µg/L	-29.263 ppb	00:57:09
2	Ti 334.940†	2287881.1	2329624.1	5297.2	µg/L	5297.2 ppb	00:56:43
2	Tl 190.801†	-70.2	-49.3	23.457	µg/L	23.457 ppb	00:57:09
2	U 409.014†	-1151.1	-1171.4	-121.04	µg/L	-121.04 ppb	00:56:43
2	V 292.402†	27968.4	28576.4	299.87	µg/L	299.87 ppb	00:56:49
2	Zn 213.857†	11738.9	11451.8	261.70	µg/L	261.70 ppb	00:56:49
3	Sc RADIAL	58320.2	58320.2	98.8	%		00:55:36
3	Al 396.153Radial†	162825.6	164854.2	123240	µg/L	123240 ppb	00:55:36
3	Ca 317.933Radial†	27851.4	28003.9	25687	µg/L	25687 ppb	00:55:57
3	Fe 238.204 Radial†	16742.9	16935.2	145380	µg/L	145380 ppb	00:55:57
3	K 766.490 Radial†	22492.3	22573.0	15522	µg/L	15522 ppb	00:55:36
3	Mg 279.077 IEC†	2230.3	2245.8	21703	µg/L	21703 ppb	00:55:57
3	Na 589.592 Radial†	2709.7	2269.6	742.01	µg/L	742.01 ppb	00:55:57
3	Sr 421.552†	28579.8	28893.0	284.17	µg/L	284.17 ppb	00:55:36
3	Sc 361.383	2070446.9	2070446.9	98.610	%		00:57:17
3	Y 371.029	1463145.5	1463145.5	100.53	%		00:57:17
3	Ag 328.068†	-1910.1	-1473.9	-0.0274	µg/L	-0.0274 ppb	00:57:23
3	As 188.979†	11.4	11.8	28.371	µg/L	28.371 ppb	00:57:43
3	B 249.677†	1169.7	860.7	-40.441	µg/L	-40.441 ppb	00:57:23
3	Ba 233.527†	67234.1	68200.3	1671.8	µg/L	1671.8 ppb	00:57:23
3	Be 313.107†	17107.8	21107.8	10.789	µg/L	10.789 ppb	00:57:23
3	Cd 226.502†	375.2	517.1	-3.3316	µg/L	-3.3316 ppb	00:57:23
3	Co 228.616†	1540.1	1559.3	61.469	µg/L	61.469 ppb	00:57:43
3	Cr 267.716†	6136.8	6270.7	128.06	µg/L	128.06 ppb	00:57:23
3	Cu 324.752†	10228.6	7503.1	69.979	µg/L	69.979 ppb	00:57:23
3	Mn 257.610†	1137338.6	1153673.8	3690.8	µg/L	3690.8 ppb	00:57:17
3	Mo 202.031†	-10.7	-7.5	4.7746	µg/L	4.7746 ppb	00:57:43
3	Ni 231.604†	1968.4	1687.5	87.087	µg/L	87.087 ppb	00:57:43
3	P 214.914†	402.6	392.1	691.52	µg/L	691.52 ppb	00:57:43
3	Pb 220.353†	602.2	515.9	128.21	µg/L	128.21 ppb	00:57:43
3	S 181.975 Axial†	174.3	159.4	660.93	µg/L	660.93 ppb	00:57:43
3	Sb 206.836†	34.2	12.5	7.7411	µg/L	7.7411 ppb	00:57:43
3	Se 196.026†	-44.8	-60.4	288.01	µg/L	288.01 ppb	00:57:43
3	SiO2†	221597.2	223236.6	44703	µg/L	44703 ppb	00:57:17
3	Si 251.611†	265252.1	268697.7	20739	µg/L	20739 ppb	00:57:17
3	Sn 189.927†	-25.3	-30.4	-26.049	µg/L	-26.049 ppb	00:57:43
3	Ti 334.940†	2229519.9	2260806.8	5140.6	µg/L	5140.6 ppb	00:57:17
3	Tl 190.801†	-75.5	-54.4	14.990	µg/L	14.990 ppb	00:57:43
3	U 409.014†	-1249.9	-1266.7	-129.27	µg/L	-129.27 ppb	00:57:17
3	V 292.402†	27230.2	27710.1	291.40	µg/L	291.40 ppb	00:57:23
3	Zn 213.857†	11502.1	11162.3	254.84	µg/L	254.84 ppb	00:57:23

Mean Data: 246066001|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2071624.2	98.666	%	0.4942				0.50%
Sc RADIAL	58698.0	99.4	%	0.64				0.64%
Y 371.029	1465803.0	100.71	%	0.557				0.55%
Ag 328.068†	-1498.3	-0.2462	µg/L	0.29413	-0.2462	ppb	0.29413	119.48%
Al 396.153Radial†	164589.1	123050	µg/L	655.4	123050	ppb	655.4	0.53%
As 188.979†	13.0	30.437	µg/L	8.9773	30.437	ppb	8.9773	29.49%
B 249.677†	891.8	-38.561	µg/L	1.8277	-38.561	ppb	1.8277	4.74%
Ba 233.527†	69293.8	1698.6	µg/L	23.22	1698.6	ppb	23.22	1.37%
Be 313.107†	21589.6	11.045	µg/L	0.2223	11.045	ppb	0.2223	2.01%
Ca 317.933Radial†	27763.4	25466	µg/L	230.3	25466	ppb	230.3	0.90%
Cd 226.502†	532.2	-2.8160	µg/L	0.46017	-2.8160	ppb	0.46017	16.34%
Co 228.616†	1635.4	64.802	µg/L	2.8883	64.802	ppb	2.8883	4.46%
Cr 267.716†	6416.9	131.04	µg/L	2.585	131.04	ppb	2.585	1.97%
Cu 324.752†	7540.2	70.065	µg/L	0.0889	70.065	ppb	0.0889	0.13%
Fe 238.204 Radial†	16800.7	144220	µg/L	1300.1	144220	ppb	1300.1	0.90%
K 766.490 Radial†	22570.8	15520	µg/L	17.7	15520	ppb	17.7	0.11%
Mg 279.077 IEC†	2227.2	21523	µg/L	185.9	21523	ppb	185.9	0.86%
Mn 257.610†	1170442.6	3744.0	µg/L	47.45	3744.0	ppb	47.45	1.27%
Mo 202.031†	-12.1	4.2660	µg/L	0.53493	4.2660	ppb	0.53493	12.54%
Na 589.592 Radial†	2265.1	740.52	µg/L	4.181	740.52	ppb	4.181	0.56%

Ni 231.604†	1751.6	90.308	µg/L	2.7922	90.308	ppb	2.7922	3.09%
P 214.914†	403.5	715.08	µg/L	20.802	715.08	ppb	20.802	2.91%
Pb 220.353†	538.4	133.77	µg/L	5.252	133.77	ppb	5.252	3.93%
S 181.975 Axial†	161.9	671.20	µg/L	12.468	671.20	ppb	12.468	1.86%
Sb 206.836†	12.7	7.8412	µg/L	3.56630	7.8412	ppb	3.56630	45.48%
Se 196.026†	-64.6	279.34	µg/L	9.166	279.34	ppb	9.166	3.28%
SiO2†	225909.2	45239	µg/L	479.6	45239	ppb	479.6	1.06%
Si 251.611†	271855.6	20983	µg/L	216.9	20983	ppb	216.9	1.03%
Sn 189.927†	-33.5	-27.287	µg/L	1.7298	-27.287	ppb	1.7298	6.34%
Sr 421.552†	28865.1	283.89	µg/L	1.201	283.89	ppb	1.201	0.42%
Ti 334.940†	2301324.1	5232.8	µg/L	81.88	5232.8	ppb	81.88	1.56%
Tl 190.801†	-52.8	17.944	µg/L	4.7781	17.944	ppb	4.7781	26.63%
U 409.014†	-1236.5	-126.54	µg/L	4.757	-126.54	ppb	4.757	3.76%
V 292.402†	28269.6	296.80	µg/L	4.695	296.80	ppb	4.695	1.58%
Zn 213.857†	11342.6	259.14	µg/L	3.749	259.14	ppb	3.749	1.45%

Sequence No.: 34
Sample ID: 1202033969|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 328
Date Collected: 2/21/2010 00:57:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033969|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59146.5	59146.5	100	%			00:58:25
1	Al 396.153Radial†	163696.1	163420.3	122170	µg/L	122170	ppb	00:58:25
1	Ca 317.933Radial†	25707.6	25469.9	23363	µg/L	23363	ppb	00:58:46
1	Fe 238.204 Radial†	16402.1	16358.2	140420	µg/L	140420	ppb	00:58:46
1	K 766.490 Radial†	23130.1	22891.5	15741	µg/L	15741	ppb	00:58:25
1	Mg 279.077 IEC†	2220.9	2205.0	21311	µg/L	21311	ppb	00:58:46
1	Na 589.592 Radial†	2770.3	2291.8	749.25	µg/L	749.25	ppb	00:58:46
1	Sr 421.552†	29206.4	29114.3	286.35	µg/L	286.35	ppb	00:58:25
1	Sc 361.383	2080089.7	2080089.7	99.069	%			00:59:51
1	Y 371.029	1474629.0	1474629.0	101.32	%			00:59:51
1	Ag 328.068†	-2013.6	-1569.4	-1.1011	µg/L	-1.1011	ppb	00:59:56
1	As 188.979†	12.2	12.6	29.555	µg/L	29.555	ppb	01:00:17
1	B 249.677†	1145.3	830.5	-39.089	µg/L	-39.089	ppb	00:59:56
1	Ba 233.527†	70481.0	71161.5	1744.3	µg/L	1744.3	ppb	00:59:56
1	Be 313.107†	17350.2	21272.1	10.915	µg/L	10.915	ppb	00:59:56
1	Cd 226.502†	369.9	510.0	-2.9500	µg/L	-2.9500	ppb	01:00:17
1	Co 228.616†	1517.1	1528.7	60.204	µg/L	60.204	ppb	01:00:17
1	Cr 267.716†	6235.9	6341.9	129.50	µg/L	129.50	ppb	00:59:56
1	Cu 324.752†	11217.0	8452.7	75.589	µg/L	75.589	ppb	00:59:56
1	Mn 257.610†	961528.6	970865.2	3108.2	µg/L	3108.2	ppb	00:59:51
1	Mo 202.031†	-23.2	-20.1	3.3197	µg/L	3.3197	ppb	01:00:17
1	Ni 231.604†	1987.4	1697.5	87.529	µg/L	87.529	ppb	01:00:17
1	P 214.914†	430.8	418.7	747.42	µg/L	747.42	ppb	01:00:17
1	Pb 220.353†	619.2	530.3	131.87	µg/L	131.87	ppb	01:00:17
1	S 181.975 Axial†	185.3	169.7	703.62	µg/L	703.62	ppb	01:00:17
1	Sb 206.836†	40.7	19.0	13.823	µg/L	13.823	ppb	01:00:17
1	Se 196.026†	-51.6	-67.1	266.35	µg/L	266.35	ppb	01:00:17
1	SiO2†	220617.9	221206.3	44297	µg/L	44297	ppb	00:59:51
1	Si 251.611†	264120.0	266308.0	20555	µg/L	20555	ppb	00:59:51
1	Sn 189.927†	-33.7	-38.7	-29.131	µg/L	-29.131	ppb	01:00:17
1	Ti 334.940†	2208609.6	2229218.9	5068.8	µg/L	5068.8	ppb	00:59:51
1	Tl 190.801†	-60.1	-38.4	32.728	µg/L	32.728	ppb	01:00:17
1	U 409.014†	-1229.6	-1240.4	-126.21	µg/L	-126.21	ppb	00:59:51
1	V 292.402†	26608.4	26954.4	283.33	µg/L	283.33	ppb	00:59:56
1	Zn 213.857†	11817.5	11426.6	261.32	µg/L	261.32	ppb	00:59:56
2	Sc RADIAL	59067.6	59067.6	100	%			00:58:51
2	Al 396.153Radial†	163516.4	163459.0	122200	µg/L	122200	ppb	00:58:51
2	Ca 317.933Radial†	25600.3	25396.9	23296	µg/L	23296	ppb	00:59:12
2	Fe 238.204 Radial†	16326.5	16304.5	139960	µg/L	139960	ppb	00:59:12
2	K 766.490 Radial†	23030.8	22823.1	15694	µg/L	15694	ppb	00:58:51
2	Mg 279.077 IEC†	2219.3	2206.3	21324	µg/L	21324	ppb	00:59:12
2	Na 589.592 Radial†	2764.1	2289.2	748.42	µg/L	748.42	ppb	00:59:12
2	Sr 421.552†	29105.3	29052.2	285.73	µg/L	285.73	ppb	00:58:51
2	Sc 361.383	2093174.2	2093174.2	99.692	%			01:00:24
2	Y 371.029	1483492.6	1483492.6	101.92	%			01:00:24
2	Ag 328.068†	-1948.9	-1491.8	-0.5534	µg/L	-0.5534	ppb	01:00:30
2	As 188.979†	14.2	14.5	33.067	µg/L	33.067	ppb	01:00:50
2	B 249.677†	1146.6	824.6	-39.089	µg/L	-39.089	ppb	01:00:30
2	Ba 233.527†	71176.5	71414.4	1750.5	µg/L	1750.5	ppb	01:00:30
2	Be 313.107†	17461.9	21274.6	10.906	µg/L	10.906	ppb	01:00:30
2	Cd 226.502†	380.1	517.9	-2.6980	µg/L	-2.6980	ppb	01:00:50
2	Co 228.616†	1526.5	1528.6	60.137	µg/L	60.137	ppb	01:00:50
2	Cr 267.716†	6324.3	6391.2	130.51	µg/L	130.51	ppb	01:00:30
2	Cu 324.752†	11262.7	8427.7	75.360	µg/L	75.360	ppb	01:00:30
2	Mn 257.610†	974221.6	977530.3	3129.4	µg/L	3129.4	ppb	01:00:24
2	Mo 202.031†	-20.2	-17.0	3.6161	µg/L	3.6161	ppb	01:00:50
2	Ni 231.604†	2012.6	1710.2	88.167	µg/L	88.167	ppb	01:00:50
2	P 214.914†	423.6	408.7	728.05	µg/L	728.05	ppb	01:00:50
2	Pb 220.353†	637.5	544.7	135.43	µg/L	135.43	ppb	01:00:50

2	S 181.975 Axial†	188.5	171.8	711.96 µg/L	711.96 ppb	01:00:50
2	Sb 206.836†	39.5	17.5	12.468 µg/L	12.468 ppb	01:00:50
2	Se 196.026†	-49.9	-65.0	267.89 µg/L	267.89 ppb	01:00:50
2	SiO2†	223314.4	222519.1	44560 µg/L	44560 ppb	01:00:24
2	Si 251.611†	267314.7	267846.0	20673 µg/L	20673 ppb	01:00:24
2	Sn 189.927†	-28.1	-32.9	-26.576 µg/L	-26.576 ppb	01:00:50
2	Ti 334.940†	2235360.0	2242116.1	5098.1 µg/L	5098.1 ppb	01:00:24
2	Tl 190.801†	-68.9	-46.9	21.694 µg/L	21.694 ppb	01:00:50
2	U 409.014†	-1136.0	-1138.8	-117.52 µg/L	-117.52 ppb	01:00:24
2	V 292.402†	26746.7	26925.3	283.01 µg/L	283.01 ppb	01:00:30
2	Zn 213.857†	11920.0	11454.8	262.01 µg/L	262.01 ppb	01:00:30
3	Sc RADIAL	59074.8	59074.8	100 %		00:59:17
3	Al 396.153Radial†	163411.1	163333.6	122110 µg/L	122110 ppb	00:59:17
3	Ca 317.933Radial†	25492.9	25286.5	23194 µg/L	23194 ppb	00:59:38
3	Fe 238.204 Radial†	16250.2	16226.2	139290 µg/L	139290 ppb	00:59:38
3	K 766.490 Radial†	23125.7	22915.1	15757 µg/L	15757 ppb	00:59:17
3	Mg 279.077 IEC†	2214.8	2201.6	21279 µg/L	21279 ppb	00:59:38
3	Na 589.592 Radial†	2752.5	2277.4	744.53 µg/L	744.53 ppb	00:59:38
3	Sr 421.552†	29139.4	29082.6	286.03 µg/L	286.03 ppb	00:59:17
3	Sc 361.383	2106314.7	2106314.7	100.32 %		01:00:58
3	Y 371.029	1491836.1	1491836.1	102.50 %		01:00:58
3	Ag 328.068†	-1852.9	-1383.9	0.1258 µg/L	0.1258 ppb	01:01:04
3	As 188.979†	14.0	14.3	32.556 µg/L	32.556 ppb	01:01:24
3	B 249.677†	1134.1	805.0	-39.550 µg/L	-39.550 ppb	01:01:04
3	Ba 233.527†	68922.6	68722.3	1684.5 µg/L	1684.5 ppb	01:01:04
3	Be 313.107†	16681.5	20387.5	10.430 µg/L	10.430 ppb	01:01:04
3	Cd 226.502†	324.0	459.5	-4.0971 µg/L	-4.0971 ppb	01:01:24
3	Co 228.616†	1424.0	1416.9	55.294 µg/L	55.294 ppb	01:01:24
3	Cr 267.716†	6071.0	6099.1	124.55 µg/L	124.55 ppb	01:01:04
3	Cu 324.752†	11033.3	8128.5	73.282 µg/L	73.282 ppb	01:01:04
3	Mn 257.610†	955377.8	952649.7	3050.1 µg/L	3050.1 ppb	01:00:58
3	Mo 202.031†	-29.3	-25.9	2.6947 µg/L	2.6947 ppb	01:01:24
3	Ni 231.604†	1888.5	1573.9	81.275 µg/L	81.275 ppb	01:01:24
3	P 214.914†	398.5	381.0	673.79 µg/L	673.79 ppb	01:01:24
3	Pb 220.353†	609.2	512.5	127.53 µg/L	127.53 ppb	01:01:24
3	S 181.975 Axial†	185.5	167.7	695.00 µg/L	695.00 ppb	01:01:24
3	Sb 206.836†	32.8	10.6	6.1736 µg/L	6.1736 ppb	01:01:24
3	Se 196.026†	-42.0	-56.9	277.32 µg/L	277.32 ppb	01:01:24
3	SiO2†	219673.5	217492.3	43553 µg/L	43553 ppb	01:00:58
3	Si 251.611†	263062.9	261934.9	20217 µg/L	20217 ppb	01:00:58
3	Sn 189.927†	-25.9	-30.6	-25.518 µg/L	-25.518 ppb	01:01:24
3	Ti 334.940†	2179754.2	2172698.0	4940.2 µg/L	4940.2 ppb	01:00:58
3	Tl 190.801†	-64.8	-42.4	25.973 µg/L	25.973 ppb	01:01:24
3	U 409.014†	-1156.8	-1152.3	-118.57 µg/L	-118.57 ppb	01:00:58
3	V 292.402†	25637.9	25652.6	270.31 µg/L	270.31 ppb	01:01:04
3	Zn 213.857†	11572.2	11033.6	252.13 µg/L	252.13 ppb	01:01:04

Mean Data: 1202033969|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2093192.9	99.693	%	0.6245				0.63%
Sc RADIAL	59096.3	100	%	0.1				0.07%
Y 371.029	1483319.2	101.91	%	0.591				0.58%
Ag 328.068†	-1481.7	-0.5095	µg/L	0.61463	-0.5095	ppb	0.61463	120.62%
Al 396.153Radial†	163404.3	122160	µg/L	48.0	122160	ppb	48.0	0.04%
As 188.979†	13.8	31.726	µg/L	1.8973	31.726	ppb	1.8973	5.98%
B 249.677†	820.1	-39.243	µg/L	0.2662	-39.243	ppb	0.2662	0.68%
Ba 233.527†	70432.8	1726.5	µg/L	36.45	1726.5	ppb	36.45	2.11%
Be 313.107†	20978.1	10.750	µg/L	0.2774	10.750	ppb	0.2774	2.58%
Ca 317.933Radial†	25384.5	23284	µg/L	84.7	23284	ppb	84.7	0.36%
Cd 226.502†	495.8	-3.2484	µg/L	0.74575	-3.2484	ppb	0.74575	22.96%
Co 228.616†	1491.4	58.545	µg/L	2.8159	58.545	ppb	2.8159	4.81%
Cr 267.716†	6277.4	128.19	µg/L	3.193	128.19	ppb	3.193	2.49%
Cu 324.752†	8336.3	74.744	µg/L	1.2712	74.744	ppb	1.2712	1.70%
Fe 238.204 Radial†	16296.3	139890	µg/L	569.7	139890	ppb	569.7	0.41%
K 766.490 Radial†	22876.6	15730	µg/L	32.9	15730	ppb	32.9	0.21%
Mg 279.077 IEC†	2204.3	21305	µg/L	23.3	21305	ppb	23.3	0.11%
Mn 257.610†	967015.1	3095.9	µg/L	41.06	3095.9	ppb	41.06	1.33%
Mo 202.031†	-21.0	3.2102	µg/L	0.47037	3.2102	ppb	0.47037	14.65%
Na 589.592 Radial†	2286.1	747.40	µg/L	2.517	747.40	ppb	2.517	0.34%

Ni 231.604†	1660.5	85.657	µg/L	3.8084	85.657	ppb	3.8084	4.45%
P 214.914†	402.8	716.42	µg/L	38.167	716.42	ppb	38.167	5.33%
Pb 220.353†	529.2	131.61	µg/L	3.958	131.61	ppb	3.958	3.01%
S 181.975 Axial†	169.7	703.53	µg/L	8.479	703.53	ppb	8.479	1.21%
Sb 206.836†	15.7	10.821	µg/L	4.0817	10.821	ppb	4.0817	37.72%
Se 196.026†	-63.0	270.52	µg/L	5.943	270.52	ppb	5.943	2.20%
SiO2†	220405.9	44136	µg/L	522.1	44136	ppb	522.1	1.18%
Si 251.611†	265363.0	20482	µg/L	236.7	20482	ppb	236.7	1.16%
Sn 189.927†	-34.1	-27.075	µg/L	1.8576	-27.075	ppb	1.8576	6.86%
Sr 421.552†	29083.0	286.04	µg/L	0.305	286.04	ppb	0.305	0.11%
Ti 334.940†	2214677.6	5035.7	µg/L	83.98	5035.7	ppb	83.98	1.67%
Tl 190.801†	-42.6	26.798	µg/L	5.5634	26.798	ppb	5.5634	20.76%
U 409.014†	-1177.2	-120.76	µg/L	4.744	-120.76	ppb	4.744	3.93%
V 292.402†	26510.8	278.88	µg/L	7.423	278.88	ppb	7.423	2.66%
Zn 213.857†	11305.0	258.49	µg/L	5.513	258.49	ppb	5.513	2.13%

Sequence No.: 35
Sample ID: 1202033971|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 329
Date Collected: 2/21/2010 01:01:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033971|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59080.5	59080.5	100	%			01:02:06
1	Al 396.153Radial†	276819.8	276655.8	206820	µg/L	206820	ppb	01:02:06
1	Ca 317.933Radial†	30646.5	30434.4	27916	µg/L	27916	ppb	01:02:27
1	Fe 238.204 Radial†	19481.5	19454.0	167010	µg/L	167010	ppb	01:02:27
1	K 766.490 Radial†	33947.6	33728.0	23192	µg/L	23192	ppb	01:02:06
1	Mg 279.077 IEC†	3138.6	3124.6	30241	µg/L	30241	ppb	01:02:27
1	Na 589.592 Radial†	15744.1	15260.6	4989.1	µg/L	4989.1	ppb	01:02:06
1	Sr 421.552†	71910.7	71824.5	706.41	µg/L	706.41	ppb	01:02:06
1	Sc 361.383	2083168.7	2083168.7	99.216	%			01:03:32
1	Y 371.029	1469524.5	1469524.5	100.96	%			01:03:32
1	Ag 328.068†	51819.1	52691.8	408.81	µg/L	408.81	ppb	01:03:38
1	As 188.979†	239.3	241.4	441.91	µg/L	441.91	ppb	01:03:58
1	B 249.677†	10475.3	10232.6	332.49	µg/L	332.49	ppb	01:03:38
1	Ba 233.527†	93924.3	94684.9	2321.7	µg/L	2321.7	ppb	01:03:38
1	Be 313.107†	692412.9	701644.3	421.13	µg/L	421.13	ppb	01:03:32
1	Cd 226.502†	16043.2	16306.6	392.04	µg/L	392.04	ppb	01:03:38
1	Co 228.616†	9948.5	10024.5	450.24	µg/L	450.24	ppb	01:03:58
1	Cr 267.716†	31203.8	31497.8	642.86	µg/L	642.86	ppb	01:03:38
1	Cu 324.752†	90337.8	88182.1	608.17	µg/L	608.17	ppb	01:03:38
1	Mn 257.610†	1298468.9	1309034.0	4187.8	µg/L	4187.8	ppb	01:03:32
1	Mo 202.031†	4657.4	4697.6	477.02	µg/L	477.02	ppb	01:03:58
1	Ni 231.604†	11866.4	11651.6	590.48	µg/L	590.48	ppb	01:03:38
1	P 214.914†	700.0	689.3	1240.3	µg/L	1240.3	ppb	01:03:58
1	Pb 220.353†	2278.1	2201.3	546.63	µg/L	546.63	ppb	01:03:58
1	S 181.975 Axial†	1433.6	1427.7	5918.0	µg/L	5918.0	ppb	01:03:58
1	Sb 206.836†	436.8	418.2	379.76	µg/L	379.76	ppb	01:03:58
1	Se 196.026†	289.5	276.8	800.89	µg/L	800.89	ppb	01:03:58
1	SiO2†	253909.4	254431.8	50950	µg/L	50950	ppb	01:03:38
1	Si 251.611†	305681.3	307803.7	23757	µg/L	23757	ppb	01:03:38
1	Sn 189.927†	1185.9	1190.6	494.75	µg/L	494.75	ppb	01:03:58
1	Ti 334.940†	3003408.7	3027004.6	6882.6	µg/L	6882.6	ppb	01:03:32
1	Tl 190.801†	273.8	298.2	512.64	µg/L	512.64	ppb	01:03:58
1	U 409.014†	4670.4	4708.1	374.63	µg/L	374.63	ppb	01:03:38
1	V 292.402†	79270.2	79992.7	816.47	µg/L	816.47	ppb	01:03:38
1	Zn 213.857†	34612.2	34383.8	798.29	µg/L	798.29	ppb	01:03:38
2	Sc RADIAL	59493.8	59493.8	101	%			01:02:33
2	Al 396.153Radial†	277915.4	275821.5	206190	µg/L	206190	ppb	01:02:33
2	Ca 317.933Radial†	30725.4	30300.0	27793	µg/L	27793	ppb	01:02:53
2	Fe 238.204 Radial†	19518.8	19355.8	166160	µg/L	166160	ppb	01:02:53
2	K 766.490 Radial†	34044.8	33588.8	23096	µg/L	23096	ppb	01:02:33
2	Mg 279.077 IEC†	3134.2	3098.4	29987	µg/L	29987	ppb	01:02:53
2	Na 589.592 Radial†	15817.2	15223.8	4977.1	µg/L	4977.1	ppb	01:02:33
2	Sr 421.552†	72109.2	71522.3	703.44	µg/L	703.44	ppb	01:02:33
2	Sc 361.383	2113625.1	2113625.1	100.67	%			01:04:05
2	Y 371.029	1491080.7	1491080.7	102.45	%			01:04:05
2	Ag 328.068†	52147.9	52265.8	405.53	µg/L	405.53	ppb	01:04:11
2	As 188.979†	239.6	238.3	436.18	µg/L	436.18	ppb	01:04:32
2	B 249.677†	10527.2	10132.0	328.81	µg/L	328.81	ppb	01:04:11
2	Ba 233.527†	94448.9	93842.0	2301.1	µg/L	2301.1	ppb	01:04:11
2	Be 313.107†	704786.8	703880.0	422.47	µg/L	422.47	ppb	01:04:05
2	Cd 226.502†	16145.3	16175.1	388.82	µg/L	388.82	ppb	01:04:11
2	Co 228.616†	9950.6	9882.1	443.60	µg/L	443.60	ppb	01:04:32
2	Cr 267.716†	31339.6	31179.5	636.37	µg/L	636.37	ppb	01:04:11
2	Cu 324.752†	90957.4	87485.6	603.43	µg/L	603.43	ppb	01:04:11
2	Mn 257.610†	1321522.3	1313076.5	4200.6	µg/L	4200.6	ppb	01:04:05
2	Mo 202.031†	4651.2	4623.8	469.60	µg/L	469.60	ppb	01:04:32
2	Ni 231.604†	11977.8	11589.8	587.36	µg/L	587.36	ppb	01:04:11
2	P 214.914†	708.9	688.0	1238.5	µg/L	1238.5	ppb	01:04:32
2	Pb 220.353†	2267.9	2158.1	535.98	µg/L	535.98	ppb	01:04:32

2	S 181.975 Axial†	1438.9	1412.1	5853.4 µg/L	5853.4 ppb	01:04:32
2	Sb 206.836†	435.0	410.0	372.31 µg/L	372.31 ppb	01:04:32
2	Se 196.026†	293.1	276.1	797.91 µg/L	797.91 ppb	01:04:32
2	SiO2†	255239.4	252065.3	50476 µg/L	50476 ppb	01:04:11
2	Si 251.611†	306818.2	304493.6	23502 µg/L	23502 ppb	01:04:11
2	Sn 189.927†	1187.7	1175.1	488.22 µg/L	488.22 ppb	01:04:32
2	Ti 334.940†	3055554.7	3035185.7	6901.3 µg/L	6901.3 ppb	01:04:05
2	Tl 190.801†	286.0	306.3	523.49 µg/L	523.49 ppb	01:04:32
2	U 409.014†	4722.9	4692.4	373.42 µg/L	373.42 ppb	01:04:11
2	V 292.402†	79763.7	79331.7	809.76 µg/L	809.76 ppb	01:04:11
2	Zn 213.857†	34825.6	34093.1	791.50 µg/L	791.50 ppb	01:04:11
3	Sc RADIAL	59776.1	59776.1	101 %		01:02:59
3	Al 396.153Radial†	278986.9	275577.2	206010 µg/L	206010 ppb	01:02:59
3	Ca 317.933Radial†	30617.1	30049.0	27563 µg/L	27563 ppb	01:03:19
3	Fe 238.204 Radial†	19431.8	19178.4	164640 µg/L	164640 ppb	01:03:19
3	K 766.490 Radial†	34145.0	33528.3	23055 µg/L	23055 ppb	01:02:59
3	Mg 279.077 IEC†	3119.4	3069.1	29703 µg/L	29703 ppb	01:03:19
3	Na 589.592 Radial†	15792.8	15125.6	4945.0 µg/L	4945.0 ppb	01:02:59
3	Sr 421.552†	72338.7	71411.0	702.34 µg/L	702.34 ppb	01:02:59
3	Sc 361.383	2092701.3	2092701.3	99.670 %		01:04:39
3	Y 371.029	1475935.6	1475935.6	101.40 %		01:04:39
3	Ag 328.068†	51589.0	52223.0	405.01 µg/L	405.01 ppb	01:04:45
3	As 188.979†	229.1	230.2	421.56 µg/L	421.56 ppb	01:05:05
3	B 249.677†	10371.4	10080.3	327.46 µg/L	327.46 ppb	01:04:45
3	Ba 233.527†	92401.5	92725.9	2273.7 µg/L	2273.7 ppb	01:04:45
3	Be 313.107†	683374.6	689397.1	413.79 µg/L	413.79 ppb	01:04:39
3	Cd 226.502†	15877.8	16067.0	386.27 µg/L	386.27 ppb	01:04:45
3	Co 228.616†	9302.3	9330.5	418.36 µg/L	418.36 ppb	01:05:05
3	Cr 267.716†	30351.5	30499.5	622.49 µg/L	622.49 ppb	01:04:45
3	Cu 324.752†	88522.3	85945.8	593.00 µg/L	593.00 ppb	01:04:45
3	Mn 257.610†	1282109.9	1286659.4	4116.3 µg/L	4116.3 ppb	01:04:39
3	Mo 202.031†	4368.3	4386.1	445.73 µg/L	445.73 ppb	01:05:05
3	Ni 231.604†	11674.5	11404.6	578.00 µg/L	578.00 ppb	01:04:45
3	P 214.914†	662.6	648.6	1162.0 µg/L	1162.0 ppb	01:05:05
3	Pb 220.353†	2175.2	2087.7	518.65 µg/L	518.65 ppb	01:05:05
3	S 181.975 Axial†	1370.0	1357.3	5626.2 µg/L	5626.2 ppb	01:05:05
3	Sb 206.836†	419.0	398.3	361.40 µg/L	361.40 ppb	01:05:05
3	Se 196.026†	281.8	267.7	782.56 µg/L	782.56 ppb	01:05:05
3	SiO2†	246413.6	245745.4	49211 µg/L	49211 ppb	01:04:45
3	Si 251.611†	296250.7	296938.4	22919 µg/L	22919 ppb	01:04:45
3	Sn 189.927†	1117.6	1116.6	463.31 µg/L	463.31 ppb	01:05:05
3	Ti 334.940†	2956684.7	2966336.7	6744.7 µg/L	6744.7 ppb	01:04:39
3	Tl 190.801†	270.8	294.0	505.15 µg/L	505.15 ppb	01:05:05
3	U 409.014†	4502.0	4517.7	358.82 µg/L	358.82 ppb	01:04:45
3	V 292.402†	77347.4	77699.6	793.20 µg/L	793.20 ppb	01:04:45
3	Zn 213.857†	34123.3	33734.3	783.18 µg/L	783.18 ppb	01:04:45

Mean Data: 1202033971|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2096498.4	99.851	%	0.7420				0.74%
Sc RADIAL	59450.1	101	%	0.6				0.59%
Y 371.029	1478846.9	101.61	%	0.761				0.75%
Ag 328.068†	52393.5	406.45	µg/L	2.058	406.45	ppb	2.058	0.51%
Al 396.153Radial†	276018.2	206340	µg/L	422.5	206340	ppb	422.5	0.20%
As 188.979†	236.6	433.22	µg/L	10.495	433.22	ppb	10.495	2.42%
B 249.677†	10148.3	329.59	µg/L	2.604	329.59	ppb	2.604	0.79%
Ba 233.527†	93750.9	2298.8	µg/L	24.10	2298.8	ppb	24.10	1.05%
Be 313.107†	698307.1	419.13	µg/L	4.676	419.13	ppb	4.676	1.12%
Ca 317.933Radial†	30261.1	27757	µg/L	179.4	27757	ppb	179.4	0.65%
Cd 226.502†	16182.9	389.04	µg/L	2.893	389.04	ppb	2.893	0.74%
Co 228.616†	9745.7	437.40	µg/L	16.818	437.40	ppb	16.818	3.85%
Cr 267.716†	31058.9	633.91	µg/L	10.408	633.91	ppb	10.408	1.64%
Cu 324.752†	87204.5	601.53	µg/L	7.757	601.53	ppb	7.757	1.29%
Fe 238.204 Radial†	19329.4	165940	µg/L	1199.4	165940	ppb	1199.4	0.72%
K 766.490 Radial†	33615.0	23114	µg/L	70.4	23114	ppb	70.4	0.30%
Mg 279.077 IEC†	3097.3	29977	µg/L	269.2	29977	ppb	269.2	0.90%
Mn 257.610†	1302923.3	4168.3	µg/L	45.43	4168.3	ppb	45.43	1.09%
Mo 202.031†	4569.1	464.12	µg/L	16.351	464.12	ppb	16.351	3.52%
Na 589.592 Radial†	15203.3	4970.4	µg/L	22.82	4970.4	ppb	22.82	0.46%

Ni 231.604†	11548.7	585.28	µg/L	6.491	585.28	ppb	6.491	1.11%
P 214.914†	675.3	1213.6	µg/L	44.68	1213.6	ppb	44.68	3.68%
Pb 220.353†	2149.0	533.75	µg/L	14.119	533.75	ppb	14.119	2.65%
S 181.975 Axial†	1399.0	5799.2	µg/L	153.25	5799.2	ppb	153.25	2.64%
Sb 206.836†	408.8	371.16	µg/L	9.235	371.16	ppb	9.235	2.49%
Se 196.026†	273.6	793.79	µg/L	9.835	793.79	ppb	9.835	1.24%
SiO2†	250747.5	50212	µg/L	899.3	50212	ppb	899.3	1.79%
Si 251.611†	303078.6	23393	µg/L	429.8	23393	ppb	429.8	1.84%
Sn 189.927†	1160.8	482.09	µg/L	16.593	482.09	ppb	16.593	3.44%
Sr 421.552†	71585.9	704.06	µg/L	2.104	704.06	ppb	2.104	0.30%
Ti 334.940†	3009509.0	6842.9	µg/L	85.53	6842.9	ppb	85.53	1.25%
Tl 190.801†	299.5	513.76	µg/L	9.221	513.76	ppb	9.221	1.79%
U 409.014†	4639.4	368.96	µg/L	8.799	368.96	ppb	8.799	2.38%
V 292.402†	79008.0	806.48	µg/L	11.975	806.48	ppb	11.975	1.48%
Zn 213.857†	34070.4	790.99	µg/L	7.566	790.99	ppb	7.566	0.96%

Sequence No.: 36
Sample ID: 1202033972|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 2/21/2010 01:05:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033972|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59842.9	59842.9	101	%			01:05:48
1	Al 396.153Radial†	282006.7	278249.0	208010	µg/L	208010	ppb	01:05:48
1	Ca 317.933Radial†	31097.3	30489.0	27966	µg/L	27966	ppb	01:06:08
1	Fe 238.204 Radial†	19610.6	19333.2	165970	µg/L	165970	ppb	01:06:08
1	K 766.490 Radial†	33458.9	32813.6	22563	µg/L	22563	ppb	01:05:48
1	Mg 279.077 IEC†	3117.0	3063.3	29645	µg/L	29645	ppb	01:06:08
1	Na 589.592 Radial†	15695.8	15012.4	4908.0	µg/L	4908.0	ppb	01:05:48
1	Sr 421.552†	72006.4	71003.4	698.33	µg/L	698.33	ppb	01:05:48
1	Sc 361.383	2107527.3	2107527.3	100.38	%			01:07:13
1	Y 371.029	1490684.4	1490684.4	102.42	%			01:07:13
1	Ag 328.068†	52213.4	52481.0	407.16	µg/L	407.16	ppb	01:07:19
1	As 188.979†	237.9	237.3	434.36	µg/L	434.36	ppb	01:07:39
1	B 249.677†	10528.5	10163.5	330.20	µg/L	330.20	ppb	01:07:19
1	Ba 233.527†	99169.1	98816.0	2423.0	µg/L	2423.0	ppb	01:07:19
1	Be 313.107†	703364.0	704488.2	422.88	µg/L	422.88	ppb	01:07:13
1	Cd 226.502†	16196.8	16272.7	391.31	µg/L	391.31	ppb	01:07:19
1	Co 228.616†	10225.3	10184.4	457.78	µg/L	457.78	ppb	01:07:39
1	Cr 267.716†	31227.2	31157.7	635.93	µg/L	635.93	ppb	01:07:19
1	Cu 324.752†	90240.3	87032.5	600.40	µg/L	600.40	ppb	01:07:19
1	Mn 257.610†	1638304.8	1632470.7	5217.3	µg/L	5217.3	ppb	01:07:13
1	Mo 202.031†	4623.0	4609.0	468.11	µg/L	468.11	ppb	01:07:39
1	Ni 231.604†	12014.0	11660.4	590.90	µg/L	590.90	ppb	01:07:19
1	P 214.914†	663.9	645.1	1154.3	µg/L	1154.3	ppb	01:07:39
1	Pb 220.353†	2308.5	2205.1	547.65	µg/L	547.65	ppb	01:07:39
1	S 181.975 Axial†	1400.6	1378.0	5712.2	µg/L	5712.2	ppb	01:07:39
1	Sb 206.836†	426.0	402.3	365.18	µg/L	365.18	ppb	01:07:39
1	Se 196.026†	289.3	273.2	793.63	µg/L	793.63	ppb	01:07:39
1	SiO2†	252560.4	250130.0	50089	µg/L	50089	ppb	01:07:19
1	Si 251.611†	303814.2	302382.7	23339	µg/L	23339	ppb	01:07:19
1	Sn 189.927†	1174.8	1165.7	484.17	µg/L	484.17	ppb	01:07:39
1	Ti 334.940†	3006119.2	2994717.5	6809.3	µg/L	6809.3	ppb	01:07:13
1	Tl 190.801†	277.0	298.2	516.12	µg/L	516.12	ppb	01:07:39
1	U 409.014†	4621.5	4604.9	366.01	µg/L	366.01	ppb	01:07:19
1	V 292.402†	80153.7	79949.4	815.83	µg/L	815.83	ppb	01:07:19
1	Zn 213.857†	34541.7	33910.4	787.21	µg/L	787.21	ppb	01:07:19
2	Sc RADIAL	59646.9	59646.9	101	%			01:06:14
2	Al 396.153Radial†	282121.8	279277.5	208780	µg/L	208780	ppb	01:06:14
2	Ca 317.933Radial†	30999.2	30492.8	27970	µg/L	27970	ppb	01:06:34
2	Fe 238.204 Radial†	19576.6	19363.3	166230	µg/L	166230	ppb	01:06:34
2	K 766.490 Radial†	33448.5	32911.9	22631	µg/L	22631	ppb	01:06:14
2	Mg 279.077 IEC†	3113.9	3070.3	29713	µg/L	29713	ppb	01:06:34
2	Na 589.592 Radial†	15735.0	15102.2	4937.3	µg/L	4937.3	ppb	01:06:14
2	Sr 421.552†	71860.5	71092.5	699.21	µg/L	699.21	ppb	01:06:14
2	Sc 361.383	2125961.5	2125961.5	101.25	%			01:07:46
2	Y 371.029	1503674.4	1503674.4	103.31	%			01:07:46
2	Ag 328.068†	52317.6	52132.8	404.56	µg/L	404.56	ppb	01:07:52
2	As 188.979†	236.4	233.8	428.12	µg/L	428.12	ppb	01:08:13
2	B 249.677†	10599.0	10142.3	329.19	µg/L	329.19	ppb	01:07:52
2	Ba 233.527†	99814.6	98596.9	2417.6	µg/L	2417.6	ppb	01:07:52
2	Be 313.107†	710382.8	705344.1	423.39	µg/L	423.39	ppb	01:07:46
2	Cd 226.502†	16317.2	16251.7	390.75	µg/L	390.75	ppb	01:07:52
2	Co 228.616†	10148.5	10020.3	450.17	µg/L	450.17	ppb	01:08:13
2	Cr 267.716†	31336.4	30995.7	632.62	µg/L	632.62	ppb	01:07:52
2	Cu 324.752†	90579.8	86588.4	597.49	µg/L	597.49	ppb	01:07:52
2	Mn 257.610†	1654668.9	1634479.7	5223.7	µg/L	5223.7	ppb	01:07:46
2	Mo 202.031†	4598.7	4545.1	461.71	µg/L	461.71	ppb	01:08:13
2	Ni 231.604†	12085.2	11626.9	589.22	µg/L	589.22	ppb	01:07:52
2	P 214.914†	680.7	656.0	1176.1	µg/L	1176.1	ppb	01:08:13
2	Pb 220.353†	2307.2	2183.8	542.45	µg/L	542.45	ppb	01:08:13

2	S 181.975 Axial†	1404.4	1369.7	5677.9 µg/L	5677.9 ppb	01:08:13
2	Sb 206.836†	431.9	404.5	367.13 µg/L	367.13 ppb	01:08:13
2	Se 196.026†	286.3	267.7	786.77 µg/L	786.77 ppb	01:08:13
2	SiO2†	253504.7	248880.9	49839 µg/L	49839 ppb	01:07:52
2	Si 251.611†	304891.1	300821.7	23218 µg/L	23218 ppb	01:07:52
2	Sn 189.927†	1166.5	1147.3	476.29 µg/L	476.29 ppb	01:08:13
2	Ti 334.940†	3034566.7	2996844.3	6814.1 µg/L	6814.1 ppb	01:07:46
2	Tl 190.801†	284.3	303.0	522.74 µg/L	522.74 ppb	01:08:13
2	U 409.014†	4609.5	4553.1	361.58 µg/L	361.58 ppb	01:07:52
2	V 292.402†	80480.2	79579.5	812.13 µg/L	812.13 ppb	01:07:52
2	Zn 213.857†	34700.1	33768.4	783.85 µg/L	783.85 ppb	01:07:52
3	Sc RADIAL	59711.7	59711.7	101 %		01:06:40
3	Al 396.153Radial†	281095.8	277959.9	207790 µg/L	207790 ppb	01:06:40
3	Ca 317.933Radial†	31085.3	30544.6	28017 µg/L	28017 ppb	01:07:00
3	Fe 238.204 Radial†	19649.4	19414.1	166660 µg/L	166660 ppb	01:07:00
3	K 766.490 Radial†	33337.6	32766.3	22531 µg/L	22531 ppb	01:06:40
3	Mg 279.077 IEC†	3128.8	3081.7	29824 µg/L	29824 ppb	01:07:00
3	Na 589.592 Radial†	15653.9	15005.1	4905.6 µg/L	4905.6 ppb	01:06:40
3	Sr 421.552†	71497.1	70655.9	694.92 µg/L	694.92 ppb	01:06:40
3	Sc 361.383	2104466.7	2104466.7	100.23 %		01:08:20
3	Y 371.029	1487454.1	1487454.1	102.20 %		01:08:20
3	Ag 328.068†	50878.4	51224.6	397.58 µg/L	397.58 ppb	01:08:26
3	As 188.979†	222.8	222.5	407.93 µg/L	407.93 ppb	01:08:46
3	B 249.677†	10171.5	9822.6	315.84 µg/L	315.84 ppb	01:08:26
3	Ba 233.527†	94888.7	94689.1	2321.8 µg/L	2321.8 ppb	01:08:26
3	Be 313.107†	686102.6	688285.6	413.15 µg/L	413.15 ppb	01:08:20
3	Cd 226.502†	15505.3	15606.2	374.43 µg/L	374.43 ppb	01:08:26
3	Co 228.616†	9513.6	9489.1	425.92 µg/L	425.92 ppb	01:08:46
3	Cr 267.716†	29518.6	29498.2	602.06 µg/L	602.06 ppb	01:08:26
3	Cu 324.752†	86576.6	83508.0	577.11 µg/L	577.11 ppb	01:08:26
3	Mn 257.610†	1599922.6	1596550.5	5103.0 µg/L	5103.0 ppb	01:08:20
3	Mo 202.031†	4311.4	4304.8	437.66 µg/L	437.66 ppb	01:08:46
3	Ni 231.604†	11524.1	11189.0	567.13 µg/L	567.13 ppb	01:08:26
3	P 214.914†	635.3	617.6	1100.9 µg/L	1100.9 ppb	01:08:46
3	Pb 220.353†	2207.0	2107.2	523.49 µg/L	523.49 ppb	01:08:46
3	S 181.975 Axial†	1353.8	1333.4	5527.2 µg/L	5527.2 ppb	01:08:46
3	Sb 206.836†	411.6	388.5	352.50 µg/L	352.50 ppb	01:08:46
3	Se 196.026†	272.5	256.9	773.05 µg/L	773.05 ppb	01:08:46
3	SiO2†	239671.5	237636.7	47587 µg/L	47587 ppb	01:08:26
3	Si 251.611†	288127.1	287171.8	22165 µg/L	22165 ppb	01:08:26
3	Sn 189.927†	1084.7	1077.5	446.38 µg/L	446.38 ppb	01:08:46
3	Ti 334.940†	2926811.8	2919947.9	6639.2 µg/L	6639.2 ppb	01:08:20
3	Tl 190.801†	273.2	294.8	509.79 µg/L	509.79 ppb	01:08:46
3	U 409.014†	4421.0	4411.6	349.51 µg/L	349.51 ppb	01:08:26
3	V 292.402†	76137.4	76058.5	777.09 µg/L	777.09 ppb	01:08:26
3	Zn 213.857†	33160.2	32582.1	755.96 µg/L	755.96 ppb	01:08:26

Mean Data: 1202033972|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2112651.8	100.62	%	0.554				0.55%
Sc RADIAL	59733.8	101	%	0.2				0.17%
Y 371.029	1493937.6	102.64	%	0.590				0.57%
Ag 328.068†	51946.1	403.10	µg/L	4.954	403.10	ppb	4.954	1.23%
Al 396.153Radial†	278495.5	208190	µg/L	517.6	208190	ppb	517.6	0.25%
As 188.979†	231.2	423.47	µg/L	13.816	423.47	ppb	13.816	3.26%
B 249.677†	10042.8	325.07	µg/L	8.017	325.07	ppb	8.017	2.47%
Ba 233.527†	97367.3	2387.4	µg/L	56.94	2387.4	ppb	56.94	2.38%
Be 313.107†	699372.6	419.81	µg/L	5.767	419.81	ppb	5.767	1.37%
Ca 317.933Radial†	30508.8	27985	µg/L	28.5	27985	ppb	28.5	0.10%
Cd 226.502†	16043.6	385.49	µg/L	9.584	385.49	ppb	9.584	2.49%
Co 228.616†	9897.9	444.62	µg/L	16.641	444.62	ppb	16.641	3.74%
Cr 267.716†	30550.5	623.54	µg/L	18.673	623.54	ppb	18.673	2.99%
Cu 324.752†	85709.6	591.67	µg/L	12.686	591.67	ppb	12.686	2.14%
Fe 238.204 Radial†	19370.2	166290	µg/L	350.7	166290	ppb	350.7	0.21%
K 766.490 Radial†	32830.6	22575	µg/L	51.1	22575	ppb	51.1	0.23%
Mg 279.077 IEC†	3071.8	29727	µg/L	90.0	29727	ppb	90.0	0.30%
Mn 257.610†	1621167.0	5181.3	µg/L	67.90	5181.3	ppb	67.90	1.31%
Mo 202.031†	4486.3	455.83	µg/L	16.059	455.83	ppb	16.059	3.52%
Na 589.592 Radial†	15039.9	4917.0	µg/L	17.67	4917.0	ppb	17.67	0.36%

Ni 231.604†	11492.1	582.42 µg/L	13.267	582.42 ppb	13.267	2.28%
P 214.914†	639.6	1143.8 µg/L	38.68	1143.8 ppb	38.68	3.38%
Pb 220.353†	2165.4	537.86 µg/L	12.718	537.86 ppb	12.718	2.36%
S 181.975 Axial†	1360.4	5639.1 µg/L	98.38	5639.1 ppb	98.38	1.74%
Sb 206.836†	398.4	361.60 µg/L	7.942	361.60 ppb	7.942	2.20%
Se 196.026†	266.0	784.48 µg/L	10.482	784.48 ppb	10.482	1.34%
SiO2†	245549.2	49171 µg/L	1377.9	49171 ppb	1377.9	2.80%
Si 251.611†	296792.1	22907 µg/L	645.9	22907 ppb	645.9	2.82%
Sn 189.927†	1130.2	468.94 µg/L	19.934	468.94 ppb	19.934	4.25%
Sr 421.552†	70917.2	697.49 µg/L	2.269	697.49 ppb	2.269	0.33%
Ti 334.940†	2970503.2	6754.2 µg/L	99.61	6754.2 ppb	99.61	1.47%
Tl 190.801†	298.7	516.22 µg/L	6.478	516.22 ppb	6.478	1.25%
U 409.014†	4523.2	359.03 µg/L	8.541	359.03 ppb	8.541	2.38%
V 292.402†	78529.2	801.68 µg/L	21.379	801.68 ppb	21.379	2.67%
Zn 213.857†	33420.3	775.67 µg/L	17.155	775.67 ppb	17.155	2.21%

Sequence No.: 37
Sample ID: 1202033970|949358|5
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 2/21/2010 01:08:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033970|949358|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57445.1	57445.1	97.3	%			01:09:28
1	Al 396.153Radial†	33376.4	34313.9	25653	µg/L	25653	ppb	01:09:28
1	Ca 317.933Radial†	5868.2	5838.6	5355.5	µg/L	5355.5	ppb	01:09:49
1	Fe 238.204 Radial†	3496.3	3578.2	30716	µg/L	30716	ppb	01:09:49
1	K 766.490 Radial†	4782.9	4717.6	3243.9	µg/L	3243.9	ppb	01:09:28
1	Mg 279.077 IEC†	473.9	475.0	4590.5	µg/L	4590.5	ppb	01:09:49
1	Na 589.592 Radial†	931.2	483.4	158.03	µg/L	158.03	ppb	01:09:28
1	Sr 421.552†	5881.6	6003.9	59.050	µg/L	59.050	ppb	01:09:28
1	Sc 361.383	2104433.0	2104433.0	100.23	%			01:10:52
1	Y 371.029	1460785.8	1460785.8	100.36	%			01:10:52
1	Ag 328.068†	-690.7	-226.0	0.6347	µg/L	0.6347	ppb	01:10:57
1	As 188.979†	4.2	4.5	9.5769	µg/L	9.5769	ppb	01:11:18
1	B 249.677†	533.5	206.8	-7.5255	µg/L	-7.5255	ppb	01:10:57
1	Ba 233.527†	14608.6	14593.6	357.73	µg/L	357.73	ppb	01:10:57
1	Be 313.107†	870.6	4627.5	2.3811	µg/L	2.3811	ppb	01:10:57
1	Cd 226.502†	-26.6	110.1	-0.6823	µg/L	-0.6823	ppb	01:11:18
1	Co 228.616†	356.8	353.4	14.098	µg/L	14.098	ppb	01:11:18
1	Cr 267.716†	1306.3	1350.7	27.583	µg/L	27.583	ppb	01:10:57
1	Cu 324.752†	4385.1	1505.4	14.256	µg/L	14.256	ppb	01:10:57
1	Mn 257.610†	245661.9	245404.2	785.06	µg/L	785.06	ppb	01:10:52
1	Mo 202.031†	1.0	4.3	1.5973	µg/L	1.5973	ppb	01:11:18
1	Ni 231.604†	688.9	378.7	19.520	µg/L	19.520	ppb	01:11:18
1	P 214.914†	95.3	78.8	138.01	µg/L	138.01	ppb	01:11:18
1	Pb 220.353†	203.9	108.7	26.989	µg/L	26.989	ppb	01:11:18
1	S 181.975 Axial†	50.5	33.1	137.05	µg/L	137.05	ppb	01:11:18
1	Sb 206.836†	24.8	2.7	1.6606	µg/L	1.6606	ppb	01:11:18
1	Se 196.026†	8.7	-6.3	69.706	µg/L	69.706	ppb	01:11:18
1	SiO2†	48205.5	46611.1	9333.9	µg/L	9333.9	ppb	01:10:57
1	Si 251.611†	56605.1	56182.5	4336.4	µg/L	4336.4	ppb	01:10:57
1	Sn 189.927†	-6.2	-10.9	-7.4014	µg/L	-7.4014	ppb	01:11:18
1	Ti 334.940†	478609.6	477376.3	1085.5	µg/L	1085.5	ppb	01:10:52
1	Tl 190.801†	-31.3	-9.0	6.5083	µg/L	6.5083	ppb	01:11:18
1	U 409.014†	-284.2	-282.8	-28.597	µg/L	-28.597	ppb	01:10:57
1	V 292.402†	5818.2	5901.0	62.029	µg/L	62.029	ppb	01:10:57
1	Zn 213.857†	2893.5	2384.9	54.465	µg/L	54.465	ppb	01:10:57
2	Sc RADIAL	57808.3	57808.3	97.9	%			01:09:54
2	Al 396.153Radial†	33497.5	34222.1	25584	µg/L	25584	ppb	01:09:54
2	Ca 317.933Radial†	5894.2	5827.2	5345.1	µg/L	5345.1	ppb	01:10:15
2	Fe 238.204 Radial†	3516.0	3575.8	30695	µg/L	30695	ppb	01:10:15
2	K 766.490 Radial†	4817.9	4722.4	3247.2	µg/L	3247.2	ppb	01:09:54
2	Mg 279.077 IEC†	470.5	468.5	4527.1	µg/L	4527.1	ppb	01:10:15
2	Na 589.592 Radial†	921.7	467.7	152.90	µg/L	152.90	ppb	01:09:54
2	Sr 421.552†	5882.4	5966.7	58.684	µg/L	58.684	ppb	01:09:54
2	Sc 361.383	2122119.8	2122119.8	101.07	%			01:11:25
2	Y 371.029	1472408.3	1472408.3	101.16	%			01:11:25
2	Ag 328.068†	-722.0	-251.3	0.4388	µg/L	0.4388	ppb	01:11:30
2	As 188.979†	4.0	4.2	9.0727	µg/L	9.0727	ppb	01:11:51
2	B 249.677†	515.0	184.1	-8.4431	µg/L	-8.4431	ppb	01:11:30
2	Ba 233.527†	14465.4	14330.4	351.28	µg/L	351.28	ppb	01:11:30
2	Be 313.107†	898.5	4647.9	2.3919	µg/L	2.3919	ppb	01:11:30
2	Cd 226.502†	-26.8	110.1	-0.6791	µg/L	-0.6791	ppb	01:11:51
2	Co 228.616†	355.1	348.8	13.876	µg/L	13.876	ppb	01:11:51
2	Cr 267.716†	1294.1	1327.8	27.115	µg/L	27.115	ppb	01:11:30
2	Cu 324.752†	4415.2	1498.7	14.208	µg/L	14.208	ppb	01:11:30
2	Mn 257.610†	248872.3	246537.8	788.67	µg/L	788.67	ppb	01:11:25
2	Mo 202.031†	-0.6	2.7	1.4353	µg/L	1.4353	ppb	01:11:51
2	Ni 231.604†	675.9	360.1	18.579	µg/L	18.579	ppb	01:11:51
2	P 214.914†	89.7	72.6	125.57	µg/L	125.57	ppb	01:11:51
2	Pb 220.353†	199.4	102.5	25.464	µg/L	25.464	ppb	01:11:51

2	S 181.975 Axial†	44.5	26.7	110.78	µg/L	110.78 ppb	01:11:51
2	Sb 206.836†	23.9	1.5	0.6329	µg/L	0.6329 ppb	01:11:51
2	Se 196.026†	-12.2	-27.1	41.266	µg/L	41.266 ppb	01:11:51
2	SiO2†	47710.2	45720.2	9155.5	µg/L	9155.5 ppb	01:11:30
2	Si 251.611†	55983.1	55096.3	4252.5	µg/L	4252.5 ppb	01:11:30
2	Sn 189.927†	-7.5	-12.1	-7.9356	µg/L	-7.9356 ppb	01:11:51
2	Ti 334.940†	484306.5	479033.0	1089.2	µg/L	1089.2 ppb	01:11:25
2	Tl 190.801†	-30.1	-7.5	8.4846	µg/L	8.4846 ppb	01:11:51
2	U 409.014†	-265.3	-261.7	-26.800	µg/L	-26.800 ppb	01:11:30
2	V 292.402†	5779.0	5813.8	61.164	µg/L	61.164 ppb	01:11:30
2	Zn 213.857†	2920.2	2387.3	54.529	µg/L	54.529 ppb	01:11:30
3	Sc RADIAL	58048.3	58048.3	98.3	%		01:10:20
3	Al 396.153Radial†	33539.4	34123.2	25510	µg/L	25510 ppb	01:10:20
3	Ca 317.933Radial†	5862.1	5769.7	5292.3	µg/L	5292.3 ppb	01:10:41
3	Fe 238.204 Radial†	3511.9	3556.8	30532	µg/L	30532 ppb	01:10:41
3	K 766.490 Radial†	4855.2	4740.1	3259.4	µg/L	3259.4 ppb	01:10:20
3	Mg 279.077 IEC†	470.5	466.5	4507.6	µg/L	4507.6 ppb	01:10:41
3	Na 589.592 Radial†	963.1	505.9	165.39	µg/L	165.39 ppb	01:10:20
3	Sr 421.552†	5901.8	5961.6	58.634	µg/L	58.634 ppb	01:10:20
3	Sc 361.383	2119316.5	2119316.5	100.94	%		01:11:58
3	Y 371.029	1470641.6	1470641.6	101.04	%		01:11:58
3	Ag 328.068†	-757.3	-287.2	0.1292	µg/L	0.1292 ppb	01:12:03
3	As 188.979†	-0.9	-0.6	0.3297	µg/L	0.3297 ppb	01:12:24
3	B 249.677†	513.0	182.8	-8.4152	µg/L	-8.4152 ppb	01:12:03
3	Ba 233.527†	13506.9	13399.8	328.46	µg/L	328.46 ppb	01:12:03
3	Be 313.107†	382.9	4138.2	2.1078	µg/L	2.1078 ppb	01:12:03
3	Cd 226.502†	-54.8	82.3	-1.3634	µg/L	-1.3634 ppb	01:12:24
3	Co 228.616†	295.4	290.1	11.289	µg/L	11.289 ppb	01:12:24
3	Cr 267.716†	1167.1	1203.6	24.579	µg/L	24.579 ppb	01:12:03
3	Cu 324.752†	4261.1	1351.8	13.211	µg/L	13.211 ppb	01:12:03
3	Mn 257.610†	236132.6	234242.1	749.51	µg/L	749.51 ppb	01:11:58
3	Mo 202.031†	-5.9	-2.5	0.9111	µg/L	0.9111 ppb	01:12:24
3	Ni 231.604†	635.7	321.2	16.612	µg/L	16.612 ppb	01:12:24
3	P 214.914†	79.7	62.7	106.31	µg/L	106.31 ppb	01:12:24
3	Pb 220.353†	201.7	105.0	26.098	µg/L	26.098 ppb	01:12:24
3	S 181.975 Axial†	46.6	28.9	119.79	µg/L	119.79 ppb	01:12:24
3	Sb 206.836†	19.5	-2.8	-3.3091	µg/L	-3.3091 ppb	01:12:24
3	Se 196.026†	0.9	-14.1	58.684	µg/L	58.684 ppb	01:12:24
3	SiO2†	45022.8	43120.2	8634.9	µg/L	8634.9 ppb	01:12:03
3	Si 251.611†	52850.8	52066.4	4018.7	µg/L	4018.7 ppb	01:12:03
3	Sn 189.927†	-4.0	-8.7	-6.4716	µg/L	-6.4716 ppb	01:12:24
3	Ti 334.940†	456119.9	451742.0	1027.2	µg/L	1027.2 ppb	01:11:58
3	Tl 190.801†	-32.2	-9.7	4.8764	µg/L	4.8764 ppb	01:12:24
3	U 409.014†	-332.1	-328.3	-32.428	µg/L	-32.428 ppb	01:12:03
3	V 292.402†	5282.1	5329.0	56.334	µg/L	56.334 ppb	01:12:03
3	Zn 213.857†	2689.8	2162.8	49.251	µg/L	49.251 ppb	01:12:03

Mean Data: 1202033970|949358|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2115289.7	100.75	%	0.453				0.45%
Sc RADIAL	57767.2	97.8	%	0.51				0.53%
Y 371.029	1467945.2	100.86	%	0.430				0.43%
Ag 328.068†	-254.8	0.4009	µg/L	0.25485	0.4009	ppb	0.25485	63.57%
Al 396.153Radial†	34219.7	25582	µg/L	71.3	25582	ppb	71.3	0.28%
As 188.979†	2.7	6.3264	µg/L	5.19945	6.3264	ppb	5.19945	82.19%
B 249.677†	191.2	-8.1279	µg/L	0.52196	-8.1279	ppb	0.52196	6.42%
Ba 233.527†	14108.0	345.82	µg/L	15.376	345.82	ppb	15.376	4.45%
Be 313.107†	4471.2	2.2936	µg/L	0.16101	2.2936	ppb	0.16101	7.02%
Ca 317.933Radial†	5811.8	5331.0	µg/L	33.88	5331.0	ppb	33.88	0.64%
Cd 226.502†	100.8	-0.9083	µg/L	0.39419	-0.9083	ppb	0.39419	43.40%
Co 228.616†	330.8	13.088	µg/L	1.5613	13.088	ppb	1.5613	11.93%
Cr 267.716†	1294.0	26.426	µg/L	1.6162	26.426	ppb	1.6162	6.12%
Cu 324.752†	1452.0	13.892	µg/L	0.5896	13.892	ppb	0.5896	4.24%
Fe 238.204 Radial†	3570.3	30648	µg/L	100.7	30648	ppb	100.7	0.33%
K 766.490 Radial†	4726.7	3250.2	µg/L	8.13	3250.2	ppb	8.13	0.25%
Mg 279.077 IEC†	470.0	4541.7	µg/L	43.37	4541.7	ppb	43.37	0.95%
Mn 257.610†	242061.3	774.41	µg/L	21.643	774.41	ppb	21.643	2.79%
Mo 202.031†	1.5	1.3145	µg/L	0.35868	1.3145	ppb	0.35868	27.29%
Na 589.592 Radial†	485.7	158.77	µg/L	6.280	158.77	ppb	6.280	3.96%

Ni 231.604†	353.3	18.237	µg/L	1.4838	18.237	ppb	1.4838	8.14%
P 214.914†	71.4	123.30	µg/L	15.969	123.30	ppb	15.969	12.95%
Pb 220.353†	105.4	26.184	µg/L	0.7659	26.184	ppb	0.7659	2.93%
S 181.975 Axial†	29.6	122.54	µg/L	13.349	122.54	ppb	13.349	10.89%
Sb 206.836†	0.5	-0.3385	µg/L	2.62343	-0.3385	ppb	2.62343	774.94%
Se 196.026†	-15.8	56.552	µg/L	14.3393	56.552	ppb	14.3393	25.36%
SiO2†	45150.5	9041.4	µg/L	363.22	9041.4	ppb	363.22	4.02%
Si 251.611†	54448.4	4202.5	µg/L	164.64	4202.5	ppb	164.64	3.92%
Sn 189.927†	-10.6	-7.2695	µg/L	0.74087	-7.2695	ppb	0.74087	10.19%
Sr 421.552†	5977.4	58.789	µg/L	0.2271	58.789	ppb	0.2271	0.39%
Ti 334.940†	469383.8	1067.3	µg/L	34.80	1067.3	ppb	34.80	3.26%
Tl 190.801†	-8.7	6.6231	µg/L	1.80686	6.6231	ppb	1.80686	27.28%
U 409.014†	-290.9	-29.275	µg/L	2.8744	-29.275	ppb	2.8744	9.82%
V 292.402†	5681.3	59.843	µg/L	3.0693	59.843	ppb	3.0693	5.13%
Zn 213.857†	2311.7	52.748	µg/L	3.0289	52.748	ppb	3.0289	5.74%

Sequence No.: 38
Sample ID: 246066002|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 332
Date Collected: 2/21/2010 01:12:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066002|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58757.7	58757.7	99.5	%			01:13:06
1	Al 396.153Radial†	121652.5	122253.3	91396	µg/L	91396	ppb	01:13:06
1	Ca 317.933Radial†	32456.5	32421.5	29739	µg/L	29739	ppb	01:13:26
1	Fe 238.204 Radial†	12938.2	12985.8	111470	µg/L	111470	ppb	01:13:26
1	K 766.490 Radial†	20006.4	19905.3	13687	µg/L	13687	ppb	01:13:06
1	Mg 279.077 IEC†	1851.2	1848.1	17868	µg/L	17868	ppb	01:13:26
1	Na 589.592 Radial†	6435.1	5992.7	1959.2	µg/L	1959.2	ppb	01:13:26
1	Sr 421.552†	23055.0	23125.9	227.45	µg/L	227.45	ppb	01:13:06
1	Sc 361.383	2071519.9	2071519.9	98.661	%			01:14:31
1	Y 371.029	1456880.0	1456880.0	100.10	%			01:14:31
1	Ag 328.068†	-1693.7	-1253.5	-1.0185	µg/L	-1.0185	ppb	01:14:36
1	As 188.979†	14.4	14.9	31.768	µg/L	31.768	ppb	01:14:57
1	B 249.677†	985.3	673.2	-30.499	µg/L	-30.499	ppb	01:14:36
1	Ba 233.527†	54610.4	55369.9	1357.2	µg/L	1357.2	ppb	01:14:36
1	Be 313.107†	13257.2	17195.9	9.0752	µg/L	9.0752	ppb	01:14:36
1	Cd 226.502†	243.6	383.5	-2.8848	µg/L	-2.8848	ppb	01:14:57
1	Co 228.616†	1152.2	1165.3	46.779	µg/L	46.779	ppb	01:14:57
1	Cr 267.716†	3829.0	3928.4	80.240	µg/L	80.240	ppb	01:14:36
1	Cu 324.752†	8829.5	6079.6	55.823	µg/L	55.823	ppb	01:14:36
1	Mn 257.610†	884269.4	896572.7	2868.0	µg/L	2868.0	ppb	01:14:31
1	Mo 202.031†	-10.5	-7.4	3.4988	µg/L	3.4988	ppb	01:14:57
1	Ni 231.604†	1487.0	1198.6	61.960	µg/L	61.960	ppb	01:14:57
1	P 214.914†	568.3	559.8	1044.3	µg/L	1044.3	ppb	01:14:57
1	Pb 220.353†	527.9	440.3	109.17	µg/L	109.17	ppb	01:14:57
1	S 181.975 Axial†	115.3	99.6	412.92	µg/L	412.92	ppb	01:14:57
1	Sb 206.836†	31.9	10.2	5.7837	µg/L	5.7837	ppb	01:14:57
1	Se 196.026†	-36.4	-51.9	209.34	µg/L	209.34	ppb	01:14:57
1	SiO2†	182911.1	183909.1	36828	µg/L	36828	ppb	01:14:31
1	Si 251.611†	218807.0	221483.0	17095	µg/L	17095	ppb	01:14:31
1	Sn 189.927†	-22.2	-27.3	-21.578	µg/L	-21.578	ppb	01:14:57
1	Ti 334.940†	1491780.4	1511884.2	3437.7	µg/L	3437.7	ppb	01:14:31
1	Tl 190.801†	-57.2	-35.7	13.954	µg/L	13.954	ppb	01:14:57
1	U 409.014†	-1324.6	-1341.8	-131.18	µg/L	-131.18	ppb	01:14:36
1	V 292.402†	19702.5	20065.9	211.67	µg/L	211.67	ppb	01:14:36
1	Zn 213.857†	10182.8	9819.0	225.09	µg/L	225.09	ppb	01:14:36
2	Sc RADIAL	58985.1	58985.1	99.9	%			01:13:32
2	Al 396.153Radial†	122991.5	123122.4	92045	µg/L	92045	ppb	01:13:32
2	Ca 317.933Radial†	32646.1	32485.5	29798	µg/L	29798	ppb	01:13:52
2	Fe 238.204 Radial†	12980.8	12978.3	111410	µg/L	111410	ppb	01:13:52
2	K 766.490 Radial†	20206.2	20027.9	13771	µg/L	13771	ppb	01:13:32
2	Mg 279.077 IEC†	1868.4	1858.2	17967	µg/L	17967	ppb	01:13:52
2	Na 589.592 Radial†	6462.1	5994.8	1959.9	µg/L	1959.9	ppb	01:13:52
2	Sr 421.552†	23246.2	23227.9	228.45	µg/L	228.45	ppb	01:13:32
2	Sc 361.383	2079344.4	2079344.4	99.034	%			01:15:04
2	Y 371.029	1462216.1	1462216.1	100.46	%			01:15:04
2	Ag 328.068†	-1620.9	-1173.6	-0.4405	µg/L	-0.4405	ppb	01:15:09
2	As 188.979†	12.6	13.0	28.358	µg/L	28.358	ppb	01:15:30
2	B 249.677†	976.1	660.1	-31.002	µg/L	-31.002	ppb	01:15:09
2	Ba 233.527†	53992.2	54537.4	1336.8	µg/L	1336.8	ppb	01:15:09
2	Be 313.107†	13182.4	17069.8	8.9932	µg/L	8.9932	ppb	01:15:09
2	Cd 226.502†	249.1	388.2	-2.7615	µg/L	-2.7615	ppb	01:15:30
2	Co 228.616†	1161.0	1169.8	46.956	µg/L	46.956	ppb	01:15:30
2	Cr 267.716†	3776.8	3861.1	78.866	µg/L	78.866	ppb	01:15:09
2	Cu 324.752†	8707.3	5922.5	54.773	µg/L	54.773	ppb	01:15:09
2	Mn 257.610†	892479.5	901490.3	2883.7	µg/L	2883.7	ppb	01:15:04
2	Mo 202.031†	-16.5	-13.4	2.8930	µg/L	2.8930	ppb	01:15:30
2	Ni 231.604†	1489.4	1195.3	61.795	µg/L	61.795	ppb	01:15:30
2	P 214.914†	570.2	559.5	1044.2	µg/L	1044.2	ppb	01:15:30
2	Pb 220.353†	524.2	434.5	107.79	µg/L	107.79	ppb	01:15:30

2	S 181.975 Axial†	114.7	98.5	408.20	µg/L	408.20 ppb	01:15:30
2	Sb 206.836†	33.0	11.2	6.7501	µg/L	6.7501 ppb	01:15:30
2	Se 196.026†	-35.6	-50.9	210.37	µg/L	210.37 ppb	01:15:30
2	SiO2†	184276.0	184589.7	36964	µg/L	36964 ppb	01:15:04
2	Si 251.611†	220319.6	222175.7	17148	µg/L	17148 ppb	01:15:04
2	Sn 189.927†	-25.5	-30.4	-22.914	µg/L	-22.914 ppb	01:15:30
2	Ti 334.940†	1504170.2	1518705.2	3453.2	µg/L	3453.2 ppb	01:15:04
2	Tl 190.801†	-56.8	-35.1	15.016	µg/L	15.016 ppb	01:15:30
2	U 409.014†	-1232.9	-1244.2	-122.89	µg/L	-122.89 ppb	01:15:09
2	V 292.402†	19562.7	19849.5	209.53	µg/L	209.53 ppb	01:15:09
2	Zn 213.857†	10059.8	9656.0	221.24	µg/L	221.24 ppb	01:15:09
3	Sc RADIAL	58989.2	58989.2	99.9	%		01:13:58
3	Al 396.153Radial†	123031.5	123153.8	92069	µg/L	92069 ppb	01:13:58
3	Ca 317.933Radial†	32379.5	32216.5	29551	µg/L	29551 ppb	01:14:18
3	Fe 238.204 Radial†	12885.8	12882.3	110590	µg/L	110590 ppb	01:14:18
3	K 766.490 Radial†	20228.6	20048.9	13786	µg/L	13786 ppb	01:13:58
3	Mg 279.077 IEC†	1859.9	1849.6	17884	µg/L	17884 ppb	01:14:18
3	Na 589.592 Radial†	6434.2	5966.4	1950.6	µg/L	1950.6 ppb	01:14:18
3	Sr 421.552†	23302.9	23283.1	228.99	µg/L	228.99 ppb	01:13:58
3	Sc 361.383	2067439.7	2067439.7	98.467	%		01:15:37
3	Y 371.029	1452997.6	1452997.6	99.829	%		01:15:37
3	Ag 328.068†	-1615.1	-1177.1	-0.5494	µg/L	-0.5494 ppb	01:15:43
3	As 188.979†	8.8	9.2	21.516	µg/L	21.516 ppb	01:16:03
3	B 249.677†	1037.7	728.4	-27.780	µg/L	-27.780 ppb	01:15:43
3	Ba 233.527†	52935.5	53778.1	1318.2	µg/L	1318.2 ppb	01:15:43
3	Be 313.107†	12591.3	16546.2	8.7082	µg/L	8.7082 ppb	01:15:43
3	Cd 226.502†	208.1	347.9	-3.6850	µg/L	-3.6850 ppb	01:16:03
3	Co 228.616†	1071.2	1085.3	43.216	µg/L	43.216 ppb	01:16:03
3	Cr 267.716†	3686.8	3791.6	77.446	µg/L	77.446 ppb	01:15:43
3	Cu 324.752†	8547.3	5810.7	53.916	µg/L	53.916 ppb	01:15:43
3	Mn 257.610†	867775.6	881590.9	2820.2	µg/L	2820.2 ppb	01:15:37
3	Mo 202.031†	0.7	4.0	4.6033	µg/L	4.6033 ppb	01:16:03
3	Ni 231.604†	1400.7	1113.9	57.672	µg/L	57.672 ppb	01:16:03
3	P 214.914†	533.7	525.8	977.84	µg/L	977.84 ppb	01:16:03
3	Pb 220.353†	506.5	419.5	104.13	µg/L	104.13 ppb	01:16:03
3	S 181.975 Axial†	109.1	93.5	387.43	µg/L	387.43 ppb	01:16:03
3	Sb 206.836†	35.1	13.6	8.9476	µg/L	8.9476 ppb	01:16:03
3	Se 196.026†	-32.1	-47.6	212.85	µg/L	212.85 ppb	01:16:03
3	SiO2†	180146.3	181467.1	36339	µg/L	36339 ppb	01:15:37
3	Si 251.611†	215511.8	218574.1	16870	µg/L	16870 ppb	01:15:37
3	Sn 189.927†	-26.0	-31.1	-23.141	µg/L	-23.141 ppb	01:16:03
3	Ti 334.940†	1459982.5	1482575.2	3371.0	µg/L	3371.0 ppb	01:15:37
3	Tl 190.801†	-56.1	-34.8	14.450	µg/L	14.450 ppb	01:16:03
3	U 409.014†	-1159.5	-1176.8	-117.04	µg/L	-117.04 ppb	01:15:43
3	V 292.402†	18989.3	19381.0	204.81	µg/L	204.81 ppb	01:15:43
3	Zn 213.857†	9887.2	9539.2	218.55	µg/L	218.55 ppb	01:15:43

Mean Data: 246066002|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2072768.0	98.720	%	0.2881				0.29%
Sc RADIAL	58910.7	99.8	%	0.22				0.22%
Y 371.029	1457364.6	100.13	%	0.318				0.32%
Ag 328.068†	-1201.4	-0.6695	µg/L	0.30716	-0.6695	ppb	0.30716	45.88%
Al 396.153Radial†	122843.2	91837	µg/L	382.1	91837	ppb	382.1	0.42%
As 188.979†	12.4	27.214	µg/L	5.2210	27.214	ppb	5.2210	19.19%
B 249.677†	687.2	-29.760	µg/L	1.7335	-29.760	ppb	1.7335	5.82%
Ba 233.527†	54561.8	1337.4	µg/L	19.52	1337.4	ppb	19.52	1.46%
Be 313.107†	16937.3	8.9255	µg/L	0.19263	8.9255	ppb	0.19263	2.16%
Ca 317.933Radial†	32374.5	29696	µg/L	128.9	29696	ppb	128.9	0.43%
Cd 226.502†	373.2	-3.1105	µg/L	0.50139	-3.1105	ppb	0.50139	16.12%
Co 228.616†	1140.1	45.650	µg/L	2.1104	45.650	ppb	2.1104	4.62%
Cr 267.716†	3860.3	78.851	µg/L	1.3967	78.851	ppb	1.3967	1.77%
Cu 324.752†	5937.6	54.837	µg/L	0.9552	54.837	ppb	0.9552	1.74%
Fe 238.204 Radial†	12948.8	111160	µg/L	495.5	111160	ppb	495.5	0.45%
K 766.490 Radial†	19994.0	13748	µg/L	53.3	13748	ppb	53.3	0.39%
Mg 279.077 IEC†	1852.0	17906	µg/L	52.9	17906	ppb	52.9	0.30%
Mn 257.610†	893218.0	2857.3	µg/L	33.06	2857.3	ppb	33.06	1.16%
Mo 202.031†	-5.6	3.6650	µg/L	0.86720	3.6650	ppb	0.86720	23.66%
Na 589.592 Radial†	5984.6	1956.5	µg/L	5.18	1956.5	ppb	5.18	0.26%

Ni 231.604†	1169.3	60.476	µg/L	2.4296	60.476	ppb	2.4296	4.02%
P 214.914†	548.4	1022.1	µg/L	38.34	1022.1	ppb	38.34	3.75%
Pb 220.353†	431.5	107.03	µg/L	2.603	107.03	ppb	2.603	2.43%
S 181.975 Axial†	97.2	402.85	µg/L	13.556	402.85	ppb	13.556	3.37%
Sb 206.836†	11.7	7.1604	µg/L	1.62137	7.1604	ppb	1.62137	22.64%
Se 196.026†	-50.1	210.85	µg/L	1.804	210.85	ppb	1.804	0.86%
SiO2†	183321.9	36710	µg/L	328.8	36710	ppb	328.8	0.90%
Si 251.611†	220744.3	17038	µg/L	147.5	17038	ppb	147.5	0.87%
Sn 189.927†	-29.6	-22.544	µg/L	0.8445	-22.544	ppb	0.8445	3.75%
Sr 421.552†	23212.3	228.30	µg/L	0.784	228.30	ppb	0.784	0.34%
Ti 334.940†	1504388.2	3420.6	µg/L	43.66	3420.6	ppb	43.66	1.28%
Tl 190.801†	-35.2	14.473	µg/L	0.5312	14.473	ppb	0.5312	3.67%
U 409.014†	-1254.3	-123.70	µg/L	7.104	-123.70	ppb	7.104	5.74%
V 292.402†	19765.5	208.67	µg/L	3.511	208.67	ppb	3.511	1.68%
Zn 213.857†	9671.4	221.63	µg/L	3.287	221.63	ppb	3.287	1.48%

Sequence No.: 39
Sample ID: 246066003|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 333
Date Collected: 2/21/2010 01:16:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066003|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58661.8	58661.8	99.4	%			01:16:45
1	Al 396.153Radial†	147071.5	148037.6	110670	µg/L	110670	ppb	01:16:45
1	Ca 317.933Radial†	22807.7	22763.2	20880	µg/L	20880	ppb	01:17:06
1	Fe 238.204 Radial†	15364.3	15448.9	132620	µg/L	132620	ppb	01:17:06
1	K 766.490 Radial†	26263.7	26236.3	18041	µg/L	18041	ppb	01:16:45
1	Mg 279.077 IEC†	2086.4	2088.0	20180	µg/L	20180	ppb	01:17:06
1	Na 589.592 Radial†	3138.4	2685.1	877.83	µg/L	877.83	ppb	01:17:06
1	Sr 421.552†	24784.0	24904.0	244.94	µg/L	244.94	ppb	01:16:45
1	Sc 361.383	2069378.8	2069378.8	98.559	%			01:18:10
1	Y 371.029	1463436.3	1463436.3	100.55	%			01:18:10
1	Ag 328.068†	15108.3	15792.3	127.84	µg/L	127.84	ppb	01:18:15
1	As 188.979†	17.3	17.9	38.753	µg/L	38.753	ppb	01:18:36
1	B 249.677†	1244.2	936.9	-30.706	µg/L	-30.706	ppb	01:18:15
1	Ba 233.527†	60113.6	61010.8	1495.6	µg/L	1495.6	ppb	01:18:15
1	Be 313.107†	17003.2	21010.7	10.776	µg/L	10.776	ppb	01:18:15
1	Cd 226.502†	356.3	498.1	-2.3809	µg/L	-2.3809	ppb	01:18:36
1	Co 228.616†	1311.0	1327.6	50.990	µg/L	50.990	ppb	01:18:36
1	Cr 267.716†	4932.3	5051.8	103.19	µg/L	103.19	ppb	01:18:15
1	Cu 324.752†	12488.5	9801.4	83.451	µg/L	83.451	ppb	01:18:15
1	Mn 257.610†	922717.3	936510.1	2997.9	µg/L	2997.9	ppb	01:18:10
1	Mo 202.031†	-27.6	-24.7	2.5612	µg/L	2.5612	ppb	01:18:36
1	Ni 231.604†	1697.8	1414.0	73.114	µg/L	73.114	ppb	01:18:36
1	P 214.914†	544.3	536.0	982.87	µg/L	982.87	ppb	01:18:36
1	Pb 220.353†	1667.0	1596.6	393.85	µg/L	393.85	ppb	01:18:36
1	S 181.975 Axial†	216.5	202.4	838.89	µg/L	838.89	ppb	01:18:36
1	Sb 206.836†	31.0	9.3	5.4992	µg/L	5.4992	ppb	01:18:36
1	Se 196.026†	-56.6	-72.5	239.36	µg/L	239.36	ppb	01:18:36
1	SiO2†	191473.0	192788.0	38606	µg/L	38606	ppb	01:18:10
1	Si 251.611†	229028.5	232083.3	17913	µg/L	17913	ppb	01:18:10
1	Sn 189.927†	-20.4	-25.4	-22.718	µg/L	-22.718	ppb	01:18:36
1	Ti 334.940†	2176579.1	2208259.1	5021.2	µg/L	5021.2	ppb	01:18:10
1	Tl 190.801†	-81.2	-60.2	1.0687	µg/L	1.0687	ppb	01:18:36
1	U 409.014†	-873.5	-885.5	-94.852	µg/L	-94.852	ppb	01:18:15
1	V 292.402†	25319.6	25785.8	270.82	µg/L	270.82	ppb	01:18:15
1	Zn 213.857†	13134.0	12824.1	294.79	µg/L	294.79	ppb	01:18:15
2	Sc RADIAL	58719.5	58719.5	99.5	%			01:17:11
2	Al 396.153Radial†	147074.2	147895.0	110570	µg/L	110570	ppb	01:17:11
2	Ca 317.933Radial†	22802.8	22735.7	20855	µg/L	20855	ppb	01:17:32
2	Fe 238.204 Radial†	15316.2	15385.4	132070	µg/L	132070	ppb	01:17:32
2	K 766.490 Radial†	26286.3	26233.0	18038	µg/L	18038	ppb	01:17:11
2	Mg 279.077 IEC†	2085.9	2085.3	20155	µg/L	20155	ppb	01:17:32
2	Na 589.592 Radial†	3127.7	2671.3	873.31	µg/L	873.31	ppb	01:17:32
2	Sr 421.552†	24870.5	24966.5	245.55	µg/L	245.55	ppb	01:17:11
2	Sc 361.383	2067184.2	2067184.2	98.455	%			01:18:43
2	Y 371.029	1462598.5	1462598.5	100.49	%			01:18:43
2	Ag 328.068†	14981.1	15679.4	126.94	µg/L	126.94	ppb	01:18:49
2	As 188.979†	13.9	14.4	32.462	µg/L	32.462	ppb	01:19:09
2	B 249.677†	1180.3	873.3	-33.024	µg/L	-33.024	ppb	01:18:49
2	Ba 233.527†	59376.5	60326.9	1478.8	µg/L	1478.8	ppb	01:18:49
2	Be 313.107†	16699.8	20720.8	10.603	µg/L	10.603	ppb	01:18:49
2	Cd 226.502†	344.7	486.7	-2.6065	µg/L	-2.6065	ppb	01:19:09
2	Co 228.616†	1314.8	1332.9	51.247	µg/L	51.247	ppb	01:19:09
2	Cr 267.716†	4871.0	4994.9	102.02	µg/L	102.02	ppb	01:18:49
2	Cu 324.752†	12369.3	9693.7	82.661	µg/L	82.661	ppb	01:18:49
2	Mn 257.610†	923478.5	938277.1	3003.4	µg/L	3003.4	ppb	01:18:43
2	Mo 202.031†	-13.7	-10.6	3.9611	µg/L	3.9611	ppb	01:19:09
2	Ni 231.604†	1682.0	1399.7	72.385	µg/L	72.385	ppb	01:19:09
2	P 214.914†	519.0	510.9	933.41	µg/L	933.41	ppb	01:19:09
2	Pb 220.353†	1663.8	1595.2	393.52	µg/L	393.52	ppb	01:19:09

2	S 181.975 Axial†	207.9	193.9	803.56	µg/L	803.56	ppb	01:19:09
2	Sb 206.836†	36.4	14.9	10.597	µg/L	10.597	ppb	01:19:09
2	Se 196.026†	-47.2	-62.9	250.93	µg/L	250.93	ppb	01:19:09
2	SiO2†	190772.5	192282.6	38505	µg/L	38505	ppb	01:18:43
2	Si 251.611†	228320.2	231610.6	17877	µg/L	17877	ppb	01:18:43
2	Sn 189.927†	-21.3	-26.4	-23.085	µg/L	-23.085	ppb	01:19:09
2	Ti 334.940†	2171588.2	2205534.4	5015.0	µg/L	5015.0	ppb	01:18:43
2	Tl 190.801†	-74.3	-53.2	10.280	µg/L	10.280	ppb	01:19:09
2	U 409.014†	-897.8	-911.1	-96.949	µg/L	-96.949	ppb	01:18:49
2	V 292.402†	24947.6	25435.2	267.30	µg/L	267.30	ppb	01:18:49
2	Zn 213.857†	12951.1	12652.5	290.77	µg/L	290.77	ppb	01:18:49
3	Sc RADIAL	58946.6	58946.6	99.8	%			01:17:37
3	Al 396.153Radial†	147720.5	147972.4	110620	µg/L	110620	ppb	01:17:37
3	Ca 317.933Radial†	22795.3	22639.9	20767	µg/L	20767	ppb	01:17:58
3	Fe 238.204 Radial†	15354.4	15364.3	131890	µg/L	131890	ppb	01:17:58
3	K 766.490 Radial†	26337.4	26182.3	18003	µg/L	18003	ppb	01:17:37
3	Mg 279.077 IEC†	2082.6	2074.0	20045	µg/L	20045	ppb	01:17:58
3	Na 589.592 Radial†	3103.0	2634.4	861.26	µg/L	861.26	ppb	01:17:58
3	Sr 421.552†	24998.4	24998.2	245.86	µg/L	245.86	ppb	01:17:37
3	Sc 361.383	2064926.3	2064926.3	98.347	%			01:19:16
3	Y 371.029	1460116.6	1460116.6	100.32	%			01:19:16
3	Ag 328.068†	14818.0	15530.2	125.77	µg/L	125.77	ppb	01:19:22
3	As 188.979†	18.6	19.2	41.189	µg/L	41.189	ppb	01:19:42
3	B 249.677†	1153.7	847.7	-33.987	µg/L	-33.987	ppb	01:19:22
3	Ba 233.527†	57874.7	58865.8	1443.0	µg/L	1443.0	ppb	01:19:22
3	Be 313.107†	16044.0	20072.6	10.260	µg/L	10.260	ppb	01:19:22
3	Cd 226.502†	311.1	452.9	-3.4420	µg/L	-3.4420	ppb	01:19:42
3	Co 228.616†	1210.6	1228.4	46.679	µg/L	46.679	ppb	01:19:42
3	Cr 267.716†	4677.6	4803.6	98.119	µg/L	98.119	ppb	01:19:22
3	Cu 324.752†	12165.1	9499.8	81.350	µg/L	81.350	ppb	01:19:22
3	Mn 257.610†	900075.3	915506.2	2930.9	µg/L	2930.9	ppb	01:19:16
3	Mo 202.031†	-16.5	-13.4	3.6650	µg/L	3.6650	ppb	01:19:42
3	Ni 231.604†	1577.0	1294.9	67.088	µg/L	67.088	ppb	01:19:42
3	P 214.914†	487.2	479.1	870.59	µg/L	870.59	ppb	01:19:42
3	Pb 220.353†	1574.4	1506.1	371.62	µg/L	371.62	ppb	01:19:42
3	S 181.975 Axial†	202.7	188.8	782.63	µg/L	782.63	ppb	01:19:42
3	Sb 206.836†	35.1	13.6	9.4941	µg/L	9.4941	ppb	01:19:42
3	Se 196.026†	-49.9	-65.7	246.75	µg/L	246.75	ppb	01:19:42
3	SiO2†	187153.4	188814.6	37810	µg/L	37810	ppb	01:19:16
3	Si 251.611†	223707.7	227174.2	17534	µg/L	17534	ppb	01:19:16
3	Sn 189.927†	-16.7	-21.7	-21.069	µg/L	-21.069	ppb	01:19:42
3	Ti 334.940†	2113649.6	2149033.7	4886.5	µg/L	4886.5	ppb	01:19:16
3	Tl 190.801†	-70.7	-49.7	13.525	µg/L	13.525	ppb	01:19:42
3	U 409.014†	-934.0	-949.0	-100.13	µg/L	-100.13	ppb	01:19:22
3	V 292.402†	24212.9	24715.9	260.14	µg/L	260.14	ppb	01:19:22
3	Zn 213.857†	12620.6	12330.8	283.22	µg/L	283.22	ppb	01:19:22

Mean Data: 246066003|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2067163.1	98.454	%	0.1060				0.11%
Sc RADIAL	58776.0	99.5	%	0.26				0.26%
Y 371.029	1462050.5	100.45	%	0.119				0.12%
Ag 328.068†	15667.3	126.85	µg/L	1.038	126.85	ppb	1.038	0.82%
Al 396.153Radial†	147968.3	110620	µg/L	53.4	110620	ppb	53.4	0.05%
As 188.979†	17.2	37.468	µg/L	4.5032	37.468	ppb	4.5032	12.02%
B 249.677†	886.0	-32.572	µg/L	1.6867	-32.572	ppb	1.6867	5.18%
Ba 233.527†	60067.8	1472.4	µg/L	26.86	1472.4	ppb	26.86	1.82%
Be 313.107†	20601.4	10.546	µg/L	0.2623	10.546	ppb	0.2623	2.49%
Ca 317.933Radial†	22712.9	20834	µg/L	59.4	20834	ppb	59.4	0.29%
Cd 226.502†	479.2	-2.8098	µg/L	0.55903	-2.8098	ppb	0.55903	19.90%
Co 228.616†	1296.3	49.639	µg/L	2.5663	49.639	ppb	2.5663	5.17%
Cr 267.716†	4950.1	101.11	µg/L	2.655	101.11	ppb	2.655	2.63%
Cu 324.752†	9665.0	82.487	µg/L	1.0614	82.487	ppb	1.0614	1.29%
Fe 238.204 Radial†	15399.5	132190	µg/L	378.2	132190	ppb	378.2	0.29%
K 766.490 Radial†	26217.2	18027	µg/L	20.8	18027	ppb	20.8	0.12%
Mg 279.077 IEC†	2082.4	20127	µg/L	72.0	20127	ppb	72.0	0.36%
Mn 257.610†	930097.8	2977.4	µg/L	40.35	2977.4	ppb	40.35	1.36%
Mo 202.031†	-16.2	3.3958	µg/L	0.73776	3.3958	ppb	0.73776	21.73%
Na 589.592 Radial†	2663.6	870.80	µg/L	8.566	870.80	ppb	8.566	0.98%

Ni 231.604†	1369.5	70.862	µg/L	3.2887	70.862	ppb	3.2887	4.64%
P 214.914†	508.7	928.96	µg/L	56.271	928.96	ppb	56.271	6.06%
Pb 220.353†	1565.9	386.33	µg/L	12.742	386.33	ppb	12.742	3.30%
S 181.975 Axial†	195.0	808.36	µg/L	28.438	808.36	ppb	28.438	3.52%
Sb 206.836†	12.6	8.5301	µg/L	2.68215	8.5301	ppb	2.68215	31.44%
Se 196.026†	-67.0	245.68	µg/L	5.859	245.68	ppb	5.859	2.38%
SiO2†	191295.1	38307	µg/L	433.1	38307	ppb	433.1	1.13%
Si 251.611†	230289.4	17775	µg/L	209.0	17775	ppb	209.0	1.18%
Sn 189.927†	-24.5	-22.291	µg/L	1.0734	-22.291	ppb	1.0734	4.82%
Sr 421.552†	24956.2	245.45	µg/L	0.471	245.45	ppb	0.471	0.19%
Ti 334.940†	2187609.0	4974.2	µg/L	76.04	4974.2	ppb	76.04	1.53%
Tl 190.801†	-54.4	8.2914	µg/L	6.46208	8.2914	ppb	6.46208	77.94%
U 409.014†	-915.2	-97.311	µg/L	2.6581	-97.311	ppb	2.6581	2.73%
V 292.402†	25312.3	266.09	µg/L	5.440	266.09	ppb	5.440	2.04%
Zn 213.857†	12602.4	289.59	µg/L	5.874	289.59	ppb	5.874	2.03%

Sequence No.: 40
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 01:19:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57636.1	57636.1	97.6	%			01:20:30
1	Al 396.153Radial†	6955.2	7133.7	5322.3	µg/L	5322.3	ppb	01:20:30
1	Ca 317.933Radial†	5685.4	5631.3	5165.4	µg/L	5165.4	ppb	01:20:50
1	Fe 238.204 Radial†	615.3	615.0	5290.1	µg/L	5290.1	ppb	01:20:50
1	K 766.490 Radial†	7506.3	7491.2	5151.1	µg/L	5151.1	ppb	01:20:30
1	Mg 279.077 IEC†	551.1	552.5	5380.5	µg/L	5380.5	ppb	01:20:50
1	Na 589.592 Radial†	31863.0	32167.5	10516	µg/L	10516	ppb	01:20:30
1	Sr 421.552†	49924.1	51102.0	502.60	µg/L	502.60	ppb	01:20:30
1	Sc 361.383	2075657.0	2075657.0	98.858	%			01:21:54
1	Y 371.029	1434036.8	1434036.8	98.526	%			01:21:54
1	Ag 328.068†	66183.0	67410.6	506.56	µg/L	506.56	ppb	01:21:59
1	As 188.979†	286.3	289.9	520.90	µg/L	520.90	ppb	01:22:20
1	B 249.677†	12361.7	12179.0	496.30	µg/L	496.30	ppb	01:21:59
1	Ba 233.527†	20502.0	20757.1	509.58	µg/L	509.58	ppb	01:21:59
1	Be 313.107†	830255.8	843605.1	509.29	µg/L	509.29	ppb	01:21:54
1	Cd 226.502†	19831.6	20197.3	508.14	µg/L	508.14	ppb	01:21:59
1	Co 228.616†	10974.0	11098.2	513.30	µg/L	513.30	ppb	01:21:59
1	Cr 267.716†	24826.6	25160.8	513.45	µg/L	513.45	ppb	01:21:59
1	Cu 324.752†	78508.8	76546.0	508.50	µg/L	508.50	ppb	01:21:59
1	Mn 257.610†	159314.6	161457.4	514.43	µg/L	514.43	ppb	01:21:54
1	Mo 202.031†	5193.0	5256.3	526.87	µg/L	526.87	ppb	01:22:20
1	Ni 231.604†	10307.1	10117.5	510.79	µg/L	510.79	ppb	01:21:59
1	P 214.914†	1307.2	1306.0	2548.2	µg/L	2548.2	ppb	01:22:20
1	Pb 220.353†	2173.4	2103.7	517.85	µg/L	517.85	ppb	01:22:20
1	S 181.975 Axial†	261.2	246.9	1023.5	µg/L	1023.5	ppb	01:22:20
1	Sb 206.836†	583.8	568.4	521.31	µg/L	521.31	ppb	01:22:20
1	Se 196.026†	386.2	375.7	522.89	µg/L	522.89	ppb	01:22:20
1	SiO2†	28521.1	27366.1	5480.1	µg/L	5480.1	ppb	01:21:59
1	Si 251.611†	33186.5	33276.3	2568.4	µg/L	2568.4	ppb	01:21:59
1	Sn 189.927†	1222.7	1232.1	526.92	µg/L	526.92	ppb	01:22:20
1	Ti 334.940†	223276.9	225714.3	513.02	µg/L	513.02	ppb	01:21:54
1	Tl 190.801†	359.4	385.8	521.78	µg/L	521.78	ppb	01:22:20
1	U 409.014†	6011.0	6081.2	515.02	µg/L	515.02	ppb	01:21:59
1	V 292.402†	50817.6	51500.6	515.85	µg/L	515.85	ppb	01:21:59
1	Zn 213.857†	22006.4	21758.7	509.89	µg/L	509.89	ppb	01:21:59
2	Sc RADIAL	57890.5	57890.5	98.0	%			01:20:56
2	Al 396.153Radial†	6993.2	7141.2	5328.0	µg/L	5328.0	ppb	01:20:56
2	Ca 317.933Radial†	5738.6	5659.9	5191.6	µg/L	5191.6	ppb	01:21:16
2	Fe 238.204 Radial†	613.0	609.8	5246.0	µg/L	5246.0	ppb	01:21:16
2	K 766.490 Radial†	7519.6	7471.0	5137.2	µg/L	5137.2	ppb	01:20:56
2	Mg 279.077 IEC†	551.3	550.2	5358.8	µg/L	5358.8	ppb	01:21:16
2	Na 589.592 Radial†	31933.6	32096.1	10493	µg/L	10493	ppb	01:20:56
2	Sr 421.552†	50192.0	51150.5	503.08	µg/L	503.08	ppb	01:20:56
2	Sc 361.383	2072531.3	2072531.3	98.709	%			01:22:27
2	Y 371.029	1429823.2	1429823.2	98.237	%			01:22:27
2	Ag 328.068†	66103.9	67431.4	506.72	µg/L	506.72	ppb	01:22:33
2	As 188.979†	277.5	281.4	505.61	µg/L	505.61	ppb	01:22:53
2	B 249.677†	12413.4	12250.2	499.24	µg/L	499.24	ppb	01:22:33
2	Ba 233.527†	20489.7	20776.0	510.05	µg/L	510.05	ppb	01:22:33
2	Be 313.107†	828998.8	843598.2	509.29	µg/L	509.29	ppb	01:22:27
2	Cd 226.502†	19821.6	20217.4	508.65	µg/L	508.65	ppb	01:22:33
2	Co 228.616†	10976.1	11117.0	514.16	µg/L	514.16	ppb	01:22:33
2	Cr 267.716†	24910.7	25283.9	515.96	µg/L	515.96	ppb	01:22:33
2	Cu 324.752†	78735.1	76895.0	510.81	µg/L	510.81	ppb	01:22:33
2	Mn 257.610†	159177.7	161561.8	514.76	µg/L	514.76	ppb	01:22:27
2	Mo 202.031†	5127.8	5198.2	521.04	µg/L	521.04	ppb	01:22:53
2	Ni 231.604†	10379.5	10206.6	515.29	µg/L	515.29	ppb	01:22:33
2	P 214.914†	1289.7	1290.4	2516.8	µg/L	2516.8	ppb	01:22:53
2	Pb 220.353†	2157.1	2090.5	514.57	µg/L	514.57	ppb	01:22:53

2	S 181.975 Axial†	264.1	250.2	1037.3 µg/L	1037.3 ppb	01:22:53
2	Sb 206.836†	566.2	551.5	505.71 µg/L	505.71 ppb	01:22:53
2	Se 196.026†	387.9	378.0	525.91 µg/L	525.91 ppb	01:22:53
2	SiO2†	28684.0	27574.7	5521.9 µg/L	5521.9 ppb	01:22:33
2	Si 251.611†	33340.4	33482.8	2584.3 µg/L	2584.3 ppb	01:22:33
2	Sn 189.927†	1212.7	1223.9	523.41 µg/L	523.41 ppb	01:22:53
2	Ti 334.940†	223296.3	226074.6	513.84 µg/L	513.84 ppb	01:22:27
2	Tl 190.801†	354.0	380.9	515.26 µg/L	515.26 ppb	01:22:53
2	U 409.014†	6031.4	6111.0	517.55 µg/L	517.55 ppb	01:22:33
2	V 292.402†	50925.7	51687.6	517.65 µg/L	517.65 ppb	01:22:33
2	Zn 213.857†	22096.6	21883.6	512.82 µg/L	512.82 ppb	01:22:33
3	Sc RADIAL	57793.0	57793.0	97.9 %		01:21:22
3	Al 396.153Radial†	6955.2	7114.4	5309.8 µg/L	5309.8 ppb	01:21:22
3	Ca 317.933Radial†	5739.0	5670.2	5201.1 µg/L	5201.1 ppb	01:21:42
3	Fe 238.204 Radial†	613.9	611.8	5261.7 µg/L	5261.7 ppb	01:21:42
3	K 766.490 Radial†	7386.3	7347.8	5052.5 µg/L	5052.5 ppb	01:21:22
3	Mg 279.077 IEC†	556.3	556.2	5415.4 µg/L	5415.4 ppb	01:21:42
3	Na 589.592 Radial†	31872.6	32088.7	10491 µg/L	10491 ppb	01:21:22
3	Sr 421.552†	50014.9	51055.9	502.15 µg/L	502.15 ppb	01:21:22
3	Sc 361.383	2076428.2	2076428.2	98.895 %		01:23:00
3	Y 371.029	1433371.9	1433371.9	98.481 %		01:23:00
3	Ag 328.068†	62511.2	63673.0	478.32 µg/L	478.32 ppb	01:23:06
3	As 188.979†	238.5	241.4	433.77 µg/L	433.77 ppb	01:23:27
3	B 249.677†	11652.4	11457.1	466.68 µg/L	466.68 ppb	01:23:06
3	Ba 233.527†	18718.0	18945.5	465.09 µg/L	465.09 ppb	01:23:06
3	Be 313.107†	772345.2	784735.3	473.75 µg/L	473.75 ppb	01:23:00
3	Cd 226.502†	18085.5	18424.2	463.47 µg/L	463.47 ppb	01:23:06
3	Co 228.616†	9919.7	10028.0	463.73 µg/L	463.73 ppb	01:23:06
3	Cr 267.716†	21781.1	22071.9	450.42 µg/L	450.42 ppb	01:23:06
3	Cu 324.752†	71348.5	69276.2	460.27 µg/L	460.27 ppb	01:23:06
3	Mn 257.610†	148951.7	150918.9	480.88 µg/L	480.88 ppb	01:23:00
3	Mo 202.031†	4236.6	4287.2	429.77 µg/L	429.77 ppb	01:23:27
3	Ni 231.604†	9327.2	9122.8	460.57 µg/L	460.57 ppb	01:23:06
3	P 214.914†	1090.2	1086.2	2114.7 µg/L	2114.7 ppb	01:23:27
3	Pb 220.353†	1869.4	1795.6	441.88 µg/L	441.88 ppb	01:23:27
3	S 181.975 Axial†	227.0	212.2	879.58 µg/L	879.58 ppb	01:23:27
3	Sb 206.836†	485.3	468.6	429.29 µg/L	429.29 ppb	01:23:27
3	Se 196.026†	335.4	324.2	452.18 µg/L	452.18 ppb	01:23:27
3	SiO2†	26683.7	25497.5	5105.9 µg/L	5105.9 ppb	01:23:06
3	Si 251.611†	30858.0	30909.4	2385.7 µg/L	2385.7 ppb	01:23:06
3	Sn 189.927†	995.4	1001.8	428.44 µg/L	428.44 ppb	01:23:27
3	Ti 334.940†	207019.0	209190.9	475.44 µg/L	475.44 ppb	01:23:00
3	Tl 190.801†	310.6	336.3	455.30 µg/L	455.30 ppb	01:23:27
3	U 409.014†	5280.5	5340.3	452.14 µg/L	452.14 ppb	01:23:06
3	V 292.402†	45436.2	46040.0	460.87 µg/L	460.87 ppb	01:23:06
3	Zn 213.857†	19912.3	19632.9	460.02 µg/L	460.02 ppb	01:23:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2074872.2	98.821	%	0.0983				0.10%
Sc RADIAL	57773.2	97.8	%	0.22				0.22%
Y 371.029	1432410.6	98.415	%	0.1556				0.16%
Ag 328.068†	66171.7	497.20	µg/L	16.352	497.20	ppb	16.352	3.29%
QC value within limits for Ag 328.068 Recovery = 99.44%								
Al 396.153Radial†	7129.8	5320.0	µg/L	9.29	5320.0	ppb	9.29	0.17%
QC value within limits for Al 396.153Radial Recovery = 106.40%								
As 188.979†	270.9	486.76	µg/L	46.523	486.76	ppb	46.523	9.56%
QC value within limits for As 188.979 Recovery = 97.35%								
B 249.677†	11962.1	487.40	µg/L	18.010	487.40	ppb	18.010	3.69%
QC value within limits for B 249.677 Recovery = 97.48%								
Ba 233.527†	20159.5	494.91	µg/L	25.822	494.91	ppb	25.822	5.22%
QC value within limits for Ba 233.527 Recovery = 98.98%								
Be 313.107†	823979.5	497.44	µg/L	20.518	497.44	ppb	20.518	4.12%
QC value within limits for Be 313.107 Recovery = 99.49%								
Ca 317.933Radial†	5653.8	5186.0	µg/L	18.52	5186.0	ppb	18.52	0.36%
QC value within limits for Ca 317.933Radial Recovery = 103.72%								
Cd 226.502†	19613.0	493.42	µg/L	25.937	493.42	ppb	25.937	5.26%
QC value within limits for Cd 226.502 Recovery = 98.68%								
Co 228.616†	10747.8	497.07	µg/L	28.869	497.07	ppb	28.869	5.81%

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   QC value within limits for Co 228.616  Recovery = 99.41%
Cr 267.716†            24172.2      493.28 µg/L        37.135      493.28 ppb        37.135   7.53%
   QC value within limits for Cr 267.716  Recovery = 98.66%
Cu 324.752†            74239.0      493.19 µg/L        28.534      493.19 ppb        28.534   5.79%
   QC value within limits for Cu 324.752  Recovery = 98.64%
Fe 238.204 Radial†       612.2      5265.9 µg/L         22.35      5265.9 ppb         22.35   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.32%
K 766.490 Radial†       7436.7      5113.6 µg/L         53.38      5113.6 ppb         53.38   1.04%
   QC value within limits for K 766.490 Radial  Recovery = 102.27%
Mg 279.077 IEC†          553.0      5384.9 µg/L         28.57      5384.9 ppb         28.57   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.70%
Mn 257.610†           157979.4      503.36 µg/L        19.466      503.36 ppb        19.466   3.87%
   QC value within limits for Mn 257.610  Recovery = 100.67%
Mo 202.031†            4913.9      492.56 µg/L        54.457      492.56 ppb        54.457  11.06%
   QC value within limits for Mo 202.031  Recovery = 98.51%
Na 589.592 Radial†     32117.4       10500 µg/L          14.2       10500 ppb          14.2   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 105.00%
Ni 231.604†            9815.6      495.55 µg/L        30.373      495.55 ppb        30.373   6.13%
   QC value within limits for Ni 231.604  Recovery = 99.11%
P 214.914†             1227.5      2393.2 µg/L        241.73      2393.2 ppb        241.73  10.10%
   QC value within limits for P 214.914  Recovery = 95.73%
Pb 220.353†            1996.6      491.43 µg/L        42.943      491.43 ppb        42.943   8.74%
   QC value within limits for Pb 220.353  Recovery = 98.29%
S 181.975 Axial†        236.5      980.13 µg/L        87.356      980.13 ppb        87.356   8.91%
   QC value within limits for S 181.975 Axial  Recovery = 98.01%
Sb 206.836†             529.5      485.44 µg/L        49.251      485.44 ppb        49.251  10.15%
   QC value within limits for Sb 206.836  Recovery = 97.09%
Se 196.026†             359.3      500.33 µg/L        41.727      500.33 ppb        41.727   8.34%
   QC value within limits for Se 196.026  Recovery = 100.07%
SiO2†                  26812.8      5369.3 µg/L        229.06      5369.3 ppb        229.06   4.27%
   QC value within limits for SiO2  Recovery = 100.41%
Si 251.611†            32556.2      2512.8 µg/L        110.36      2512.8 ppb        110.36   4.39%
   QC value within limits for Si 251.611  Recovery = 100.51%
Sn 189.927†            1152.6      492.92 µg/L        55.871      492.92 ppb        55.871  11.33%
   QC value within limits for Sn 189.927  Recovery = 98.58%
Sr 421.552†            51102.8      502.61 µg/L         0.465      502.61 ppb         0.465   0.09%
   QC value within limits for Sr 421.552  Recovery = 100.52%
Ti 334.940†           220326.6      500.77 µg/L        21.940      500.77 ppb        21.940   4.38%
   QC value within limits for Ti 334.940  Recovery = 100.15%
Tl 190.801†             367.7      497.45 µg/L        36.643      497.45 ppb        36.643   7.37%
   QC value within limits for Tl 190.801  Recovery = 99.49%
U 409.014†             5844.2      494.91 µg/L        37.055      494.91 ppb        37.055   7.49%
   QC value within limits for U 409.014  Recovery = 98.98%
V 292.402†             49742.7      498.12 µg/L        32.277      498.12 ppb        32.277   6.48%
   QC value within limits for V 292.402  Recovery = 99.62%
Zn 213.857†            21091.7      494.24 µg/L        29.675      494.24 ppb        29.675   6.00%
   QC value within limits for Zn 213.857  Recovery = 98.85%
All analyte(s) passed QC.
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Sequence No.: 41
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 01:23:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57129.8	57129.8	96.8	%			01:24:09
1	Al 396.153Radial†	3.2	12.0	8.9366	µg/L	8.9366	ppb	01:24:09
1	Ca 317.933Radial†	192.3	5.7	5.2506	µg/L	5.2506	ppb	01:24:30
1	Fe 238.204 Radial†	17.3	2.5	21.504	µg/L	21.504	ppb	01:24:30
1	K 766.490 Radial†	212.2	21.0	14.420	µg/L	14.420	ppb	01:24:09
1	Mg 279.077 IEC†	9.8	-1.9	-18.972	µg/L	-18.972	ppb	01:24:30
1	Na 589.592 Radial†	489.8	32.5	10.633	µg/L	10.633	ppb	01:24:09
1	Sr 421.552†	6.3	-34.9	-0.3429	µg/L	-0.3429	ppb	01:24:09
1	Sc 361.383	2077058.7	2077058.7	98.925	%			01:25:32
1	Y 371.029	1438364.8	1438364.8	98.824	%			01:25:32
1	Ag 328.068†	-347.2	112.2	0.8415	µg/L	0.8415	ppb	01:25:37
1	As 188.979†	2.3	2.6	4.7000	µg/L	4.7000	ppb	01:25:58
1	B 249.677†	352.1	30.5	1.2354	µg/L	1.2354	ppb	01:25:58
1	Ba 233.527†	4.8	23.2	0.5684	µg/L	0.5684	ppb	01:25:58
1	Be 313.107†	-3477.9	243.1	0.1465	µg/L	0.1465	ppb	01:25:37
1	Cd 226.502†	-133.7	1.5	0.0354	µg/L	0.0354	ppb	01:25:58
1	Co 228.616†	5.5	3.0	0.1376	µg/L	0.1376	ppb	01:25:58
1	Cr 267.716†	-47.0	-0.2	-0.0030	µg/L	-0.0030	ppb	01:25:37
1	Cu 324.752†	2876.2	37.7	0.2534	µg/L	0.2534	ppb	01:25:37
1	Mn 257.610†	-147.7	153.3	0.4915	µg/L	0.4915	ppb	01:25:58
1	Mo 202.031†	-1.7	1.6	0.1627	µg/L	0.1627	ppb	01:25:58
1	Ni 231.604†	317.1	11.9	0.5999	µg/L	0.5999	ppb	01:25:58
1	P 214.914†	13.0	-3.1	-6.1302	µg/L	-6.1302	ppb	01:25:58
1	Pb 220.353†	88.2	-5.6	-1.3909	µg/L	-1.3909	ppb	01:25:58
1	S 181.975 Axial†	15.8	-1.3	-5.4652	µg/L	-5.4652	ppb	01:25:58
1	Sb 206.836†	21.9	0.0	0.0189	µg/L	0.0189	ppb	01:25:58
1	Se 196.026†	18.3	3.5	4.8552	µg/L	4.8552	ppb	01:25:58
1	SiO2†	1541.9	74.2	14.860	µg/L	14.860	ppb	01:25:37
1	Si 251.611†	473.0	184.6	14.252	µg/L	14.252	ppb	01:25:58
1	Sn 189.927†	5.2	0.5	0.2135	µg/L	0.2135	ppb	01:25:58
1	Ti 334.940†	513.3	377.2	0.8596	µg/L	0.8596	ppb	01:25:37
1	Tl 190.801†	-22.3	-0.3	-0.4006	µg/L	-0.4006	ppb	01:25:58
1	U 409.014†	31.3	32.4	2.7423	µg/L	2.7423	ppb	01:25:37
1	V 292.402†	-45.8	49.8	0.4988	µg/L	0.4988	ppb	01:25:37
1	Zn 213.857†	524.6	28.4	0.6672	µg/L	0.6672	ppb	01:25:58
2	Sc RADIAL	56868.8	56868.8	96.3	%			01:24:35
2	Al 396.153Radial†	4.8	13.7	10.252	µg/L	10.252	ppb	01:24:35
2	Ca 317.933Radial†	196.9	11.5	10.524	µg/L	10.524	ppb	01:24:56
2	Fe 238.204 Radial†	16.0	1.2	10.470	µg/L	10.470	ppb	01:24:56
2	K 766.490 Radial†	155.2	-37.2	-25.608	µg/L	-25.608	ppb	01:24:35
2	Mg 279.077 IEC†	10.3	-1.4	-13.855	µg/L	-13.855	ppb	01:24:56
2	Na 589.592 Radial†	436.5	-20.5	-6.6996	µg/L	-6.6996	ppb	01:24:35
2	Sr 421.552†	18.4	-22.3	-0.2189	µg/L	-0.2189	ppb	01:24:35
2	Sc 361.383	2075497.9	2075497.9	98.851	%			01:26:04
2	Y 371.029	1437390.5	1437390.5	98.757	%			01:26:04
2	Ag 328.068†	-446.0	11.9	0.0879	µg/L	0.0879	ppb	01:26:10
2	As 188.979†	-1.8	-1.6	-2.8461	µg/L	-2.8461	ppb	01:26:30
2	B 249.677†	362.2	40.9	1.6698	µg/L	1.6698	ppb	01:26:30
2	Ba 233.527†	1.7	20.1	0.4913	µg/L	0.4913	ppb	01:26:30
2	Be 313.107†	-3468.2	250.3	0.1509	µg/L	0.1509	ppb	01:26:10
2	Cd 226.502†	-148.9	-14.1	-0.3545	µg/L	-0.3545	ppb	01:26:30
2	Co 228.616†	8.2	5.7	0.2649	µg/L	0.2649	ppb	01:26:30
2	Cr 267.716†	-33.9	13.1	0.2673	µg/L	0.2673	ppb	01:26:10
2	Cu 324.752†	2841.3	4.6	0.0322	µg/L	0.0322	ppb	01:26:10
2	Mn 257.610†	-155.1	145.7	0.4657	µg/L	0.4657	ppb	01:26:30
2	Mo 202.031†	3.3	6.6	0.6658	µg/L	0.6658	ppb	01:26:30
2	Ni 231.604†	314.3	9.3	0.4718	µg/L	0.4718	ppb	01:26:30
2	P 214.914†	6.9	-9.3	-18.519	µg/L	-18.519	ppb	01:26:30
2	Pb 220.353†	82.7	-11.1	-2.7391	µg/L	-2.7391	ppb	01:26:30

2	S 181.975 Axial†	19.7	2.6	10.963 µg/L	10.963 ppb		01:26:30
2	Sb 206.836†	27.9	6.1	5.5563 µg/L	5.5563 ppb		01:26:30
2	Se 196.026†	13.3	-1.5	-2.0829 µg/L	-2.0829 ppb		01:26:30
2	SiO2†	1549.9	83.6	16.733 µg/L	16.733 ppb		01:26:10
2	Si 251.611†	476.7	188.7	14.566 µg/L	14.566 ppb		01:26:30
2	Sn 189.927†	2.0	-2.7	-1.1388 µg/L	-1.1388 ppb		01:26:30
2	Ti 334.940†	506.7	370.9	0.8449 µg/L	0.8449 ppb		01:26:10
2	Tl 190.801†	-21.4	0.6	0.7474 µg/L	0.7474 ppb		01:26:30
2	U 409.014†	-9.6	-8.9	-0.7605 µg/L	-0.7605 ppb		01:26:10
2	V 292.402†	-117.8	-23.2	-0.2234 µg/L	-0.2234 ppb		01:26:10
2	Zn 213.857†	523.8	27.9	0.6576 µg/L	0.6576 ppb		01:26:30
3	Sc RADIAL	57048.5	57048.5	96.6 %			01:25:01
3	Al 396.153Radial†	-7.7	0.8	0.5641 µg/L	0.5641 ppb		01:25:01
3	Ca 317.933Radial†	194.3	8.1	7.4721 µg/L	7.4721 ppb		01:25:22
3	Fe 238.204 Radial†	15.3	0.5	4.1055 µg/L	4.1055 ppb		01:25:22
3	K 766.490 Radial†	188.7	-3.1	-2.1461 µg/L	-2.1461 ppb		01:25:01
3	Mg 279.077 IEC†	10.3	-1.4	-13.342 µg/L	-13.342 ppb		01:25:22
3	Na 589.592 Radial†	464.0	6.5	2.1154 µg/L	2.1154 ppb		01:25:01
3	Sr 421.552†	36.7	-3.4	-0.0333 µg/L	-0.0333 ppb		01:25:01
3	Sc 361.383	2073475.7	2073475.7	98.754 %			01:26:36
3	Y 371.029	1437389.9	1437389.9	98.757 %			01:26:36
3	Ag 328.068†	-395.7	62.5	0.4707 µg/L	0.4707 ppb		01:26:42
3	As 188.979†	1.0	1.3	2.3836 µg/L	2.3836 ppb		01:27:02
3	B 249.677†	357.5	36.5	1.4904 µg/L	1.4904 ppb		01:27:02
3	Ba 233.527†	-7.1	11.1	0.2745 µg/L	0.2745 ppb		01:27:02
3	Be 313.107†	-3512.1	202.4	0.1219 µg/L	0.1219 ppb		01:26:42
3	Cd 226.502†	-130.9	4.1	0.1034 µg/L	0.1034 ppb		01:27:02
3	Co 228.616†	6.3	3.8	0.1738 µg/L	0.1738 ppb		01:27:02
3	Cr 267.716†	-68.5	-22.0	-0.4472 µg/L	-0.4472 ppb		01:26:42
3	Cu 324.752†	2820.3	-13.9	-0.0915 µg/L	-0.0915 ppb		01:26:42
3	Mn 257.610†	-178.7	121.6	0.3883 µg/L	0.3883 ppb		01:27:02
3	Mo 202.031†	4.1	7.5	0.7505 µg/L	0.7505 ppb		01:27:02
3	Ni 231.604†	318.8	14.2	0.7155 µg/L	0.7155 ppb		01:27:02
3	P 214.914†	5.9	-10.2	-20.374 µg/L	-20.374 ppb		01:27:02
3	Pb 220.353†	83.4	-10.4	-2.5468 µg/L	-2.5468 ppb		01:27:02
3	S 181.975 Axial†	15.1	-2.1	-8.5153 µg/L	-8.5153 ppb		01:27:02
3	Sb 206.836†	15.7	-6.2	-5.6783 µg/L	-5.6783 ppb		01:27:02
3	Se 196.026†	16.7	2.0	2.7080 µg/L	2.7080 ppb		01:27:02
3	SiO2†	1566.8	102.2	20.467 µg/L	20.467 ppb		01:26:42
3	Si 251.611†	490.6	203.2	15.685 µg/L	15.685 ppb		01:27:02
3	Sn 189.927†	4.2	-0.5	-0.2088 µg/L	-0.2088 ppb		01:27:02
3	Ti 334.940†	557.3	422.6	0.9624 µg/L	0.9624 ppb		01:26:42
3	Tl 190.801†	-19.3	2.7	3.5890 µg/L	3.5890 ppb		01:27:02
3	U 409.014†	-42.1	-41.8	-3.5508 µg/L	-3.5508 ppb		01:26:42
3	V 292.402†	-27.0	68.7	0.6809 µg/L	0.6809 ppb		01:26:42
3	Zn 213.857†	522.7	27.4	0.6431 µg/L	0.6431 ppb		01:27:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2075344.1	98.843	%	0.0856				0.09%
Sc RADIAL	57015.7	96.6	%	0.23				0.23%
Y 371.029	1437715.1	98.779	%	0.0387				0.04%
Ag 328.068†	62.2	0.4667	µg/L	0.37681	0.4667	ppb	0.37681	80.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.8	6.5842	µg/L	5.25483	6.5842	ppb	5.25483	79.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	1.4125	µg/L	3.86565	1.4125	ppb	3.86565	273.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	36.0	1.4652	µg/L	0.21830	1.4652	ppb	0.21830	14.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.1	0.4447	µg/L	0.15242	0.4447	ppb	0.15242	34.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	232.0	0.1398	µg/L	0.01562	0.1398	ppb	0.01562	11.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.4	7.7489	µg/L	2.64750	7.7489	ppb	2.64750	34.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-2.8	-0.0719	µg/L	0.24711	-0.0719	ppb	0.24711	343.83%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.2	0.1921	µg/L	0.06559	0.1921	ppb	0.06559	34.14%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.0     -0.0610 µg/L       0.36078     -0.0610 ppb        0.36078 591.77%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 9.5      0.0647 µg/L       0.17472      0.0647 ppb        0.17472 270.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4      12.026 µg/L        8.8029      12.026 ppb         8.8029  73.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -6.5     -4.4446 µg/L      20.11276     -4.4446 ppb       20.11276 452.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.6     -15.390 µg/L        3.1127     -15.390 ppb         3.1127  20.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               140.2      0.4485 µg/L       0.05370      0.4485 ppb        0.05370  11.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.2      0.5263 µg/L       0.31773      0.5263 ppb        0.31773  60.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          6.2      2.0162 µg/L       8.66669      2.0162 ppb        8.66669 429.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                11.8      0.5957 µg/L       0.12191      0.5957 ppb        0.12191  20.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.5     -15.008 µg/L        7.7439     -15.008 ppb         7.7439  51.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -9.1     -2.2256 µg/L       0.72927     -2.2256 ppb        0.72927  32.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.2     -1.0058 µg/L      10.47692     -1.0058 ppb       10.47692 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.0     -0.0344 µg/L       5.61753     -0.0344 ppb        5.61753 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.3      1.8267 µg/L       3.55200      1.8267 ppb        3.55200 194.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      86.7      17.354 µg/L        2.8546      17.354 ppb         2.8546  16.45%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               192.2      14.834 µg/L        0.7534      14.834 ppb         0.7534   5.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.9     -0.3780 µg/L       0.69187     -0.3780 ppb        0.69187 183.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -20.2     -0.1984 µg/L       0.15585     -0.1984 ppb        0.15585  78.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               390.3      0.8890 µg/L       0.06401      0.8890 ppb        0.06401   7.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.0      1.3120 µg/L       2.05385      1.3120 ppb        2.05385 156.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -6.1     -0.5230 µg/L       3.15324     -0.5230 ppb        3.15324 602.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 31.7      0.3188 µg/L       0.47826      0.3188 ppb        0.47826 150.02%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                27.9      0.6560 µg/L       0.01214      0.6560 ppb        0.01214   1.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 42
Sample ID: 246066004|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 2/21/2010 01:27:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066004|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58353.6	58353.6	98.8	%			01:27:50
1	Al 396.153Radial†	279069.5	282378.4	211100	µg/L	211100	ppb	01:27:50
1	Ca 317.933Radial†	36192.6	36427.7	33414	µg/L	33414	ppb	01:28:11
1	Fe 238.204 Radial†	19840.2	20059.5	172200	µg/L	172200	ppb	01:28:11
1	K 766.490 Radial†	30938.3	31105.8	21389	µg/L	21389	ppb	01:27:50
1	Mg 279.077 IEC†	3281.9	3308.6	32019	µg/L	32019	ppb	01:28:11
1	Na 589.592 Radial†	8364.0	7989.2	2611.9	µg/L	2611.9	ppb	01:28:11
1	Sr 421.552†	39797.7	40227.0	395.64	µg/L	395.64	ppb	01:27:50
1	Sc 361.383	2071920.0	2071920.0	98.680	%			01:29:16
1	Y 371.029	1489483.1	1489483.1	102.34	%			01:29:16
1	Ag 328.068†	-2311.3	-1879.1	-1.2904	µg/L	-1.2904	ppb	01:29:22
1	As 188.979†	21.0	21.5	46.992	µg/L	46.992	ppb	01:29:42
1	B 249.677†	1488.0	1182.4	-41.274	µg/L	-41.274	ppb	01:29:22
1	Ba 233.527†	94838.7	96125.6	2356.1	µg/L	2356.1	ppb	01:29:22
1	Be 313.107†	26865.4	30983.6	16.719	µg/L	16.719	ppb	01:29:22
1	Cd 226.502†	456.1	598.8	-4.2922	µg/L	-4.2922	ppb	01:29:22
1	Co 228.616†	1499.9	1517.4	59.338	µg/L	59.338	ppb	01:29:42
1	Cr 267.716†	6186.5	6316.7	129.00	µg/L	129.00	ppb	01:29:22
1	Cu 324.752†	13448.2	10758.4	95.301	µg/L	95.301	ppb	01:29:22
1	Mn 257.610†	1000186.0	1013866.7	3248.9	µg/L	3248.9	ppb	01:29:16
1	Mo 202.031†	-28.2	-25.2	4.0143	µg/L	4.0143	ppb	01:29:42
1	Ni 231.604†	2213.7	1934.6	99.930	µg/L	99.930	ppb	01:29:42
1	P 214.914†	509.7	500.3	907.94	µg/L	907.94	ppb	01:29:42
1	Pb 220.353†	707.4	622.1	158.17	µg/L	158.17	ppb	01:29:42
1	S 181.975 Axial†	165.8	150.7	624.71	µg/L	624.71	ppb	01:29:42
1	Sb 206.836†	35.8	14.1	8.5092	µg/L	8.5092	ppb	01:29:42
1	Se 196.026†	-53.0	-68.7	338.66	µg/L	338.66	ppb	01:29:42
1	SiO2†	226851.1	228400.9	45737	µg/L	45737	ppb	01:29:16
1	Si 251.611†	271715.9	275056.7	21230	µg/L	21230	ppb	01:29:16
1	Sn 189.927†	-35.2	-40.3	-31.991	µg/L	-31.991	ppb	01:29:42
1	Ti 334.940†	2270276.1	2300500.7	5230.2	µg/L	5230.2	ppb	01:29:16
1	Tl 190.801†	-76.2	-54.9	23.496	µg/L	23.496	ppb	01:29:42
1	U 409.014†	-1978.3	-2004.0	-196.04	µg/L	-196.04	ppb	01:29:16
1	V 292.402†	28308.3	28783.0	305.09	µg/L	305.09	ppb	01:29:22
1	Zn 213.857†	14242.0	13930.6	318.22	µg/L	318.22	ppb	01:29:22
2	Sc RADIAL	58934.4	58934.4	99.8	%			01:28:17
2	Al 396.153Radial†	281322.6	281852.8	210710	µg/L	210710	ppb	01:28:17
2	Ca 317.933Radial†	36137.1	36011.1	33032	µg/L	33032	ppb	01:28:37
2	Fe 238.204 Radial†	19800.3	19821.6	170150	µg/L	170150	ppb	01:28:37
2	K 766.490 Radial†	31215.8	31075.3	21368	µg/L	21368	ppb	01:28:17
2	Mg 279.077 IEC†	3276.8	3270.8	31652	µg/L	31652	ppb	01:28:37
2	Na 589.592 Radial†	8346.2	7888.0	2578.8	µg/L	2578.8	ppb	01:28:37
2	Sr 421.552†	40059.5	40092.4	394.32	µg/L	394.32	ppb	01:28:17
2	Sc 361.383	2074644.8	2074644.8	98.810	%			01:29:50
2	Y 371.029	1490127.1	1490127.1	102.38	%			01:29:50
2	Ag 328.068†	-2267.1	-1831.3	-1.0674	µg/L	-1.0674	ppb	01:29:56
2	As 188.979†	21.2	21.8	47.366	µg/L	47.366	ppb	01:30:16
2	B 249.677†	1455.5	1147.5	-41.634	µg/L	-41.634	ppb	01:29:56
2	Ba 233.527†	94974.1	96136.4	2356.4	µg/L	2356.4	ppb	01:29:56
2	Be 313.107†	26917.1	31000.2	16.734	µg/L	16.734	ppb	01:29:56
2	Cd 226.502†	480.1	622.5	-3.4667	µg/L	-3.4667	ppb	01:29:56
2	Co 228.616†	1502.9	1518.4	59.415	µg/L	59.415	ppb	01:30:16
2	Cr 267.716†	6256.0	6378.7	130.27	µg/L	130.27	ppb	01:29:56
2	Cu 324.752†	13419.0	10711.0	94.702	µg/L	94.702	ppb	01:29:56
2	Mn 257.610†	995477.1	1007769.9	3229.2	µg/L	3229.2	ppb	01:29:50
2	Mo 202.031†	-29.0	-26.0	3.8562	µg/L	3.8562	ppb	01:30:16
2	Ni 231.604†	2188.7	1906.4	98.477	µg/L	98.477	ppb	01:30:16
2	P 214.914†	530.0	520.2	949.08	µg/L	949.08	ppb	01:30:16
2	Pb 220.353†	704.9	618.6	157.36	µg/L	157.36	ppb	01:30:16

2	S 181.975 Axial†	162.3	147.0	609.29 µg/L	609.29 ppb	01:30:16
2	Sb 206.836†	34.7	13.0	7.5018 µg/L	7.5018 ppb	01:30:16
2	Se 196.026†	-55.0	-70.7	330.78 µg/L	330.78 ppb	01:30:16
2	SiO2†	226373.8	227616.0	45580 µg/L	45580 ppb	01:29:50
2	Si 251.611†	271439.6	274415.4	21180 µg/L	21180 ppb	01:29:50
2	Sn 189.927†	-24.4	-29.4	-27.157 µg/L	-27.157 ppb	01:30:16
2	Ti 334.940†	2267325.4	2294492.9	5216.6 µg/L	5216.6 ppb	01:29:50
2	Tl 190.801†	-75.6	-54.2	23.964 µg/L	23.964 ppb	01:30:16
2	U 409.014†	-1898.1	-1920.2	-188.62 µg/L	-188.62 ppb	01:29:50
2	V 292.402†	28275.2	28711.7	304.15 µg/L	304.15 ppb	01:29:56
2	Zn 213.857†	14254.1	13923.8	318.19 µg/L	318.19 ppb	01:29:56
3	Sc RADIAL	58886.6	58886.6	99.7 %		01:28:43
3	Al 396.153Radial†	282054.1	282815.0	211430 µg/L	211430 ppb	01:28:43
3	Ca 317.933Radial†	36183.4	36086.9	33101 µg/L	33101 ppb	01:29:03
3	Fe 238.204 Radial†	19892.4	19930.0	171080 µg/L	171080 ppb	01:29:03
3	K 766.490 Radial†	31190.6	31075.4	21368 µg/L	21368 ppb	01:28:43
3	Mg 279.077 IEC†	3301.7	3298.5	31921 µg/L	31921 ppb	01:29:03
3	Na 589.592 Radial†	8361.7	7910.3	2586.1 µg/L	2586.1 ppb	01:29:03
3	Sr 421.552†	40176.7	40242.5	395.79 µg/L	395.79 ppb	01:28:43
3	Sc 361.383	2063487.1	2063487.1	98.278 %		01:30:24
3	Y 371.029	1480344.4	1480344.4	101.71 %		01:30:24
3	Ag 328.068†	-2209.5	-1785.1	-0.7384 µg/L	-0.7384 ppb	01:30:30
3	As 188.979†	14.3	14.8	34.918 µg/L	34.918 ppb	01:30:50
3	B 249.677†	1413.2	1112.5	-43.563 µg/L	-43.563 ppb	01:30:30
3	Ba 233.527†	91314.1	92932.0	2277.8 µg/L	2277.8 ppb	01:30:30
3	Be 313.107†	25549.6	29756.0	16.029 µg/L	16.029 ppb	01:30:30
3	Cd 226.502†	418.9	562.8	-5.0802 µg/L	-5.0802 ppb	01:30:30
3	Co 228.616†	1392.9	1414.8	54.873 µg/L	54.873 ppb	01:30:50
3	Cr 267.716†	5903.1	6053.9	123.63 µg/L	123.63 ppb	01:30:30
3	Cu 324.752†	12965.7	10323.1	92.259 µg/L	92.259 ppb	01:30:30
3	Mn 257.610†	971291.3	988608.0	3168.4 µg/L	3168.4 ppb	01:30:24
3	Mo 202.031†	-27.2	-24.3	4.0625 µg/L	4.0625 ppb	01:30:50
3	Ni 231.604†	2060.7	1788.1	92.516 µg/L	92.516 ppb	01:30:50
3	P 214.914†	471.0	463.0	835.15 µg/L	835.15 ppb	01:30:50
3	Pb 220.353†	669.2	586.1	149.39 µg/L	149.39 ppb	01:30:50
3	S 181.975 Axial†	166.9	152.6	632.44 µg/L	632.44 ppb	01:30:50
3	Sb 206.836†	33.6	12.1	6.7363 µg/L	6.7363 ppb	01:30:50
3	Se 196.026†	-50.8	-66.7	338.49 µg/L	338.49 ppb	01:30:50
3	SiO2†	221645.3	224043.5	44865 µg/L	44865 ppb	01:30:24
3	Si 251.611†	265310.3	269664.2	20814 µg/L	20814 ppb	01:30:24
3	Sn 189.927†	-27.2	-32.4	-28.476 µg/L	-28.476 ppb	01:30:50
3	Ti 334.940†	2202020.5	2240451.5	5093.7 µg/L	5093.7 ppb	01:30:24
3	Tl 190.801†	-72.2	-51.2	26.898 µg/L	26.898 ppb	01:30:50
3	U 409.014†	-1858.1	-1889.9	-186.18 µg/L	-186.18 ppb	01:30:24
3	V 292.402†	26999.8	27568.8	292.95 µg/L	292.95 ppb	01:30:30
3	Zn 213.857†	13744.7	13483.5	307.77 µg/L	307.77 ppb	01:30:30

Mean Data: 246066004|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2070017.3	98.589	%	0.2771				0.28%
Sc RADIAL	58724.9	99.5	%	0.55				0.55%
Y 371.029	1486651.5	102.14	%	0.376				0.37%
Ag 328.068†	-1831.8	-1.0320	µg/L	0.27773	-1.0320	ppb	0.27773	26.91%
Al 396.153Radial†	282348.7	211080	µg/L	360.2	211080	ppb	360.2	0.17%
As 188.979†	19.4	43.092	µg/L	7.0816	43.092	ppb	7.0816	16.43%
B 249.677†	1147.5	-42.157	µg/L	1.2310	-42.157	ppb	1.2310	2.92%
Ba 233.527†	95064.7	2330.1	µg/L	45.27	2330.1	ppb	45.27	1.94%
Be 313.107†	30579.9	16.494	µg/L	0.4025	16.494	ppb	0.4025	2.44%
Ca 317.933Radial†	36175.2	33182	µg/L	203.5	33182	ppb	203.5	0.61%
Cd 226.502†	594.7	-4.2797	µg/L	0.80679	-4.2797	ppb	0.80679	18.85%
Co 228.616†	1483.5	57.875	µg/L	2.6004	57.875	ppb	2.6004	4.49%
Cr 267.716†	6249.7	127.63	µg/L	3.521	127.63	ppb	3.521	2.76%
Cu 324.752†	10597.5	94.087	µg/L	1.6114	94.087	ppb	1.6114	1.71%
Fe 238.204 Radial†	19937.0	171140	µg/L	1022.1	171140	ppb	1022.1	0.60%
K 766.490 Radial†	31085.5	21375	µg/L	12.1	21375	ppb	12.1	0.06%
Mg 279.077 IEC†	3292.6	31864	µg/L	189.6	31864	ppb	189.6	0.60%
Mn 257.610†	1003414.8	3215.5	µg/L	41.99	3215.5	ppb	41.99	1.31%
Mo 202.031†	-25.2	3.9777	µg/L	0.10791	3.9777	ppb	0.10791	2.71%
Na 589.592 Radial†	7929.1	2592.3	µg/L	17.39	2592.3	ppb	17.39	0.67%

Ni 231.604†	1876.4	96.974 µg/L	3.9290	96.974 ppb	3.9290	4.05%
P 214.914†	494.5	897.39 µg/L	57.694	897.39 ppb	57.694	6.43%
Pb 220.353†	608.9	154.97 µg/L	4.857	154.97 ppb	4.857	3.13%
S 181.975 Axial†	150.1	622.15 µg/L	11.783	622.15 ppb	11.783	1.89%
Sb 206.836†	13.1	7.5825 µg/L	0.88920	7.5825 ppb	0.88920	11.73%
Se 196.026†	-68.7	335.97 µg/L	4.500	335.97 ppb	4.500	1.34%
SiO2†	226686.8	45394 µg/L	465.1	45394 ppb	465.1	1.02%
Si 251.611†	273045.5	21075 µg/L	227.4	21075 ppb	227.4	1.08%
Sn 189.927†	-34.1	-29.208 µg/L	2.4986	-29.208 ppb	2.4986	8.55%
Sr 421.552†	40187.3	395.25 µg/L	0.812	395.25 ppb	0.812	0.21%
Ti 334.940†	2278481.7	5180.2 µg/L	75.22	5180.2 ppb	75.22	1.45%
Tl 190.801†	-53.5	24.786 µg/L	1.8442	24.786 ppb	1.8442	7.44%
U 409.014†	-1938.0	-190.28 µg/L	5.136	-190.28 ppb	5.136	2.70%
V 292.402†	28354.5	300.73 µg/L	6.757	300.73 ppb	6.757	2.25%
Zn 213.857†	13779.3	314.73 µg/L	6.027	314.73 ppb	6.027	1.91%

Sequence No.: 43
Sample ID: 246066005|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 2/21/2010 01:30:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066005|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57057.5	57057.5	96.6	%			01:31:32
1	Al 396.153Radial†	44104.1	45648.0	34126	µg/L	34126	ppb	01:31:32
1	Ca 317.933Radial†	28129.3	28915.5	26523	µg/L	26523	ppb	01:31:32
1	Fe 238.204 Radial†	8827.2	9119.0	78280	µg/L	78280	ppb	01:31:52
1	K 766.490 Radial†	10209.5	10366.5	7128.2	µg/L	7128.2	ppb	01:31:32
1	Mg 279.077 IEC†	1041.6	1065.8	10289	µg/L	10289	ppb	01:31:52
1	Na 589.592 Radial†	1791.8	1380.5	451.32	µg/L	451.32	ppb	01:31:32
1	Sr 421.552†	12464.4	12857.0	126.45	µg/L	126.45	ppb	01:31:32
1	Sc 361.383	2042329.5	2042329.5	97.271	%			01:32:56
1	Y 371.029	1440430.8	1440430.8	98.966	%			01:32:56
1	Ag 328.068†	-1259.6	-831.8	-0.3457	µg/L	-0.3457	ppb	01:33:01
1	As 188.979†	2.3	2.7	7.9643	µg/L	7.9643	ppb	01:33:22
1	B 249.677†	859.9	558.6	-17.876	µg/L	-17.876	ppb	01:33:01
1	Ba 233.527†	26329.2	27086.3	664.02	µg/L	664.02	ppb	01:33:01
1	Be 313.107†	4817.4	8711.4	4.1742	µg/L	4.1742	ppb	01:33:01
1	Cd 226.502†	146.3	287.0	-1.5744	µg/L	-1.5744	ppb	01:33:22
1	Co 228.616†	688.0	704.7	26.677	µg/L	26.677	ppb	01:33:22
1	Cr 267.716†	3556.5	3703.7	75.622	µg/L	75.622	ppb	01:33:01
1	Cu 324.752†	9449.5	6845.0	56.287	µg/L	56.287	ppb	01:33:01
1	Mn 257.610†	532690.8	547939.6	1754.2	µg/L	1754.2	ppb	01:32:56
1	Mo 202.031†	1.4	4.7	3.4471	µg/L	3.4471	ppb	01:33:22
1	Ni 231.604†	1270.6	997.6	51.399	µg/L	51.399	ppb	01:33:22
1	P 214.914†	822.9	829.8	1591.1	µg/L	1591.1	ppb	01:33:22
1	Pb 220.353†	382.8	298.7	72.403	µg/L	72.403	ppb	01:33:22
1	S 181.975 Axial†	129.8	116.1	481.44	µg/L	481.44	ppb	01:33:22
1	Sb 206.836†	30.7	9.4	5.4390	µg/L	5.4390	ppb	01:33:22
1	Se 196.026†	-30.6	-46.5	133.71	µg/L	133.71	ppb	01:33:22
1	SiO2†	130193.9	132362.5	26506	µg/L	26506	ppb	01:33:01
1	Si 251.611†	156861.7	160969.4	12424	µg/L	12424	ppb	01:32:56
1	Sn 189.927†	-20.5	-25.8	-18.285	µg/L	-18.285	ppb	01:33:22
1	Ti 334.940†	1220310.3	1254408.1	2852.6	µg/L	2852.6	ppb	01:32:56
1	Tl 190.801†	-50.2	-29.4	3.6860	µg/L	3.6860	ppb	01:33:22
1	U 409.014†	-766.6	-787.3	-79.315	µg/L	-79.315	ppb	01:33:01
1	V 292.402†	13734.4	14215.8	149.94	µg/L	149.94	ppb	01:33:01
1	Zn 213.857†	8967.9	8717.6	201.14	µg/L	201.14	ppb	01:33:01
2	Sc RADIAL	56564.4	56564.4	95.8	%			01:31:58
2	Al 396.153Radial†	44427.6	46383.6	34676	µg/L	34676	ppb	01:31:58
2	Ca 317.933Radial†	28162.5	29203.9	26788	µg/L	26788	ppb	01:31:58
2	Fe 238.204 Radial†	8858.6	9231.5	79246	µg/L	79246	ppb	01:32:18
2	K 766.490 Radial†	10177.7	10425.4	7168.7	µg/L	7168.7	ppb	01:31:58
2	Mg 279.077 IEC†	1045.7	1079.5	10422	µg/L	10422	ppb	01:32:18
2	Na 589.592 Radial†	1868.2	1476.4	482.67	µg/L	482.67	ppb	01:31:58
2	Sr 421.552†	12500.4	13007.0	127.93	µg/L	127.93	ppb	01:31:58
2	Sc 361.383	2047157.4	2047157.4	97.501	%			01:33:29
2	Y 371.029	1445964.7	1445964.7	99.346	%			01:33:29
2	Ag 328.068†	-1339.7	-911.0	-0.8730	µg/L	-0.8730	ppb	01:33:35
2	As 188.979†	11.6	12.2	25.214	µg/L	25.214	ppb	01:33:55
2	B 249.677†	858.1	554.6	-18.539	µg/L	-18.539	ppb	01:33:35
2	Ba 233.527†	26262.8	26954.4	660.79	µg/L	660.79	ppb	01:33:35
2	Be 313.107†	4908.2	8792.9	4.2190	µg/L	4.2190	ppb	01:33:35
2	Cd 226.502†	138.1	278.3	-1.9027	µg/L	-1.9027	ppb	01:33:55
2	Co 228.616†	687.3	702.4	26.546	µg/L	26.546	ppb	01:33:55
2	Cr 267.716†	3577.2	3716.3	75.878	µg/L	75.878	ppb	01:33:35
2	Cu 324.752†	9438.1	6810.3	56.191	µg/L	56.191	ppb	01:33:35
2	Mn 257.610†	536319.1	550369.4	1762.0	µg/L	1762.0	ppb	01:33:29
2	Mo 202.031†	7.4	10.9	4.1076	µg/L	4.1076	ppb	01:33:55
2	Ni 231.604†	1263.0	986.7	50.859	µg/L	50.859	ppb	01:33:55
2	P 214.914†	802.6	806.9	1545.1	µg/L	1545.1	ppb	01:33:55
2	Pb 220.353†	371.2	285.9	69.245	µg/L	69.245	ppb	01:33:55

2	S 181.975 Axial†	123.7	109.5	454.02 µg/L	454.02 ppb	01:33:55
2	Sb 206.836†	40.5	19.5	14.597 µg/L	14.597 ppb	01:33:55
2	Se 196.026†	-19.0	-34.5	152.53 µg/L	152.53 ppb	01:33:55
2	SiO2†	129943.1	131789.6	26391 µg/L	26391 ppb	01:33:35
2	Si 251.611†	157756.6	161506.9	12466 µg/L	12466 ppb	01:33:29
2	Sn 189.927†	-19.9	-25.1	-18.106 µg/L	-18.106 ppb	01:33:55
2	Ti 334.940†	1228179.0	1259519.9	2864.2 µg/L	2864.2 ppb	01:33:29
2	Tl 190.801†	-50.7	-29.7	3.5502 µg/L	3.5502 ppb	01:33:55
2	U 409.014†	-848.6	-869.6	-86.449 µg/L	-86.449 ppb	01:33:35
2	V 292.402†	13800.5	14250.3	150.40 µg/L	150.40 ppb	01:33:35
2	Zn 213.857†	8910.9	8637.4	199.20 µg/L	199.20 ppb	01:33:35
3	Sc RADIAL	56629.9	56629.9	95.9 %		01:32:24
3	Al 396.153Radial†	44299.8	46196.7	34536 µg/L	34536 ppb	01:32:24
3	Ca 317.933Radial†	28095.1	29099.7	26692 µg/L	26692 ppb	01:32:24
3	Fe 238.204 Radial†	8897.6	9261.4	79503 µg/L	79503 ppb	01:32:44
3	K 766.490 Radial†	10178.4	10413.8	7160.7 µg/L	7160.7 ppb	01:32:24
3	Mg 279.077 IEC†	1045.9	1078.4	10411 µg/L	10411 ppb	01:32:44
3	Na 589.592 Radial†	1852.9	1458.1	476.70 µg/L	476.70 ppb	01:32:24
3	Sr 421.552†	12461.5	12951.3	127.38 µg/L	127.38 ppb	01:32:24
3	Sc 361.383	2046657.7	2046657.7	97.477 %		01:34:02
3	Y 371.029	1444284.0	1444284.0	99.230 %		01:34:02
3	Ag 328.068†	-1270.5	-840.3	-0.3649 µg/L	-0.3649 ppb	01:34:08
3	As 188.979†	8.9	9.4	20.097 µg/L	20.097 ppb	01:34:28
3	B 249.677†	832.1	528.1	-19.762 µg/L	-19.762 ppb	01:34:08
3	Ba 233.527†	25581.1	26261.6	643.80 µg/L	643.80 ppb	01:34:08
3	Be 313.107†	4531.8	8408.0	4.0108 µg/L	4.0108 ppb	01:34:08
3	Cd 226.502†	114.9	254.4	-2.5348 µg/L	-2.5348 ppb	01:34:28
3	Co 228.616†	634.5	648.4	24.178 µg/L	24.178 ppb	01:34:28
3	Cr 267.716†	3434.1	3570.4	72.899 µg/L	72.899 ppb	01:34:08
3	Cu 324.752†	9242.4	6611.9	54.911 µg/L	54.911 ppb	01:34:08
3	Mn 257.610†	525498.3	539402.9	1727.2 µg/L	1727.2 ppb	01:34:02
3	Mo 202.031†	3.8	7.2	3.7399 µg/L	3.7399 ppb	01:34:28
3	Ni 231.604†	1202.7	925.2	47.757 µg/L	47.757 ppb	01:34:28
3	P 214.914†	768.9	772.5	1476.6 µg/L	1476.6 ppb	01:34:28
3	Pb 220.353†	366.4	281.1	68.045 µg/L	68.045 ppb	01:34:28
3	S 181.975 Axial†	119.6	105.4	436.70 µg/L	436.70 ppb	01:34:28
3	Sb 206.836†	26.3	4.8	1.2916 µg/L	1.2916 ppb	01:34:28
3	Se 196.026†	-19.4	-34.9	152.73 µg/L	152.73 ppb	01:34:28
3	SiO2†	126673.6	128468.0	25726 µg/L	25726 ppb	01:34:08
3	Si 251.611†	155482.4	159213.4	12289 µg/L	12289 ppb	01:34:02
3	Sn 189.927†	-14.2	-19.3	-15.628 µg/L	-15.628 ppb	01:34:28
3	Ti 334.940†	1200588.4	1231522.6	2800.6 µg/L	2800.6 ppb	01:34:02
3	Tl 190.801†	-48.0	-27.0	6.5139 µg/L	6.5139 ppb	01:34:28
3	U 409.014†	-916.0	-939.0	-92.363 µg/L	-92.363 ppb	01:34:08
3	V 292.402†	13266.8	13706.2	145.03 µg/L	145.03 ppb	01:34:08
3	Zn 213.857†	8696.3	8419.4	194.06 µg/L	194.06 ppb	01:34:08

Mean Data: 246066005|949358|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2045381.5	97.416	%	0.1264				0.13%
Sc RADIAL	56750.6	96.1	%	0.45				0.47%
Y 371.029	1443559.8	99.181	%	0.1949				0.20%
Ag 328.068†	-861.0	-0.5279	µg/L	0.29904	-0.5279	ppb	0.29904	56.65%
Al 396.153Radial†	46076.1	34446	µg/L	285.8	34446	ppb	285.8	0.83%
As 188.979†	8.1	17.758	µg/L	8.8593	17.758	ppb	8.8593	49.89%
B 249.677†	547.1	-18.725	µg/L	0.9570	-18.725	ppb	0.9570	5.11%
Ba 233.527†	26767.4	656.20	µg/L	10.862	656.20	ppb	10.862	1.66%
Be 313.107†	8637.4	4.1346	µg/L	0.10960	4.1346	ppb	0.10960	2.65%
Ca 317.933Radial†	29073.0	26668	µg/L	134.0	26668	ppb	134.0	0.50%
Cd 226.502†	273.2	-2.0040	µg/L	0.48814	-2.0040	ppb	0.48814	24.36%
Co 228.616†	685.2	25.800	µg/L	1.4064	25.800	ppb	1.4064	5.45%
Cr 267.716†	3663.5	74.800	µg/L	1.6508	74.800	ppb	1.6508	2.21%
Cu 324.752†	6755.7	55.796	µg/L	0.7682	55.796	ppb	0.7682	1.38%
Fe 238.204 Radial†	9204.0	79010	µg/L	644.4	79010	ppb	644.4	0.82%
K 766.490 Radial†	10401.9	7152.5	µg/L	21.44	7152.5	ppb	21.44	0.30%
Mg 279.077 IEC†	1074.6	10374	µg/L	73.5	10374	ppb	73.5	0.71%
Mn 257.610†	545903.9	1747.8	µg/L	18.29	1747.8	ppb	18.29	1.05%
Mo 202.031†	7.6	3.7648	µg/L	0.33095	3.7648	ppb	0.33095	8.79%
Na 589.592 Radial†	1438.3	470.23	µg/L	16.646	470.23	ppb	16.646	3.54%

Ni 231.604†	969.9	50.005	µg/L	1.9655	50.005	ppb	1.9655	3.93%
P 214.914†	803.1	1537.6	µg/L	57.61	1537.6	ppb	57.61	3.75%
Pb 220.353†	288.6	69.898	µg/L	2.2515	69.898	ppb	2.2515	3.22%
S 181.975 Axial†	110.3	457.38	µg/L	22.561	457.38	ppb	22.561	4.93%
Sb 206.836†	11.2	7.1093	µg/L	6.80824	7.1093	ppb	6.80824	95.77%
Se 196.026†	-38.6	146.33	µg/L	10.921	146.33	ppb	10.921	7.46%
SiO2†	130873.4	26207	µg/L	421.1	26207	ppb	421.1	1.61%
Si 251.611†	160563.2	12393	µg/L	92.6	12393	ppb	92.6	0.75%
Sn 189.927†	-23.4	-17.339	µg/L	1.4850	-17.339	ppb	1.4850	8.56%
Sr 421.552†	12938.4	127.25	µg/L	0.746	127.25	ppb	0.746	0.59%
Ti 334.940†	1248483.5	2839.1	µg/L	33.91	2839.1	ppb	33.91	1.19%
Tl 190.801†	-28.7	4.5833	µg/L	1.67325	4.5833	ppb	1.67325	36.51%
U 409.014†	-865.3	-86.042	µg/L	6.5336	-86.042	ppb	6.5336	7.59%
V 292.402†	14057.4	148.46	µg/L	2.977	148.46	ppb	2.977	2.01%
Zn 213.857†	8591.5	198.13	µg/L	3.660	198.13	ppb	3.660	1.85%

Sequence No.: 44
Sample ID: 246066006|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 336
Date Collected: 2/21/2010 01:34:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066006|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58515.6	58515.6	99.1	%			01:35:10
1	Al 396.153Radial†	169673.6	171213.7	128000	µg/L	128000	ppb	01:35:10
1	Ca 317.933Radial†	22998.3	23012.9	21109	µg/L	21109	ppb	01:35:31
1	Fe 238.204 Radial†	17087.8	17226.6	147880	µg/L	147880	ppb	01:35:31
1	K 766.490 Radial†	26632.3	26674.3	18342	µg/L	18342	ppb	01:35:10
1	Mg 279.077 IEC†	2394.7	2404.2	23242	µg/L	23242	ppb	01:35:31
1	Na 589.592 Radial†	3096.5	2650.7	866.59	µg/L	866.59	ppb	01:35:31
1	Sr 421.552†	28064.9	28276.8	278.11	µg/L	278.11	ppb	01:35:10
1	Sc 361.383	2068689.6	2068689.6	98.526	%			01:36:35
1	Y 371.029	1463056.2	1463056.2	100.52	%			01:36:35
1	Ag 328.068†	-2032.3	-1599.5	-0.7810	µg/L	-0.7810	ppb	01:36:41
1	As 188.979†	21.8	22.4	47.795	µg/L	47.795	ppb	01:37:01
1	B 249.677†	1256.9	950.2	-38.053	µg/L	-38.053	ppb	01:36:41
1	Ba 233.527†	65483.2	66481.1	1629.7	µg/L	1629.7	ppb	01:36:41
1	Be 313.107†	18374.6	22408.3	11.600	µg/L	11.600	ppb	01:36:41
1	Cd 226.502†	382.3	524.6	-3.4129	µg/L	-3.4129	ppb	01:36:41
1	Co 228.616†	1660.0	1682.3	67.306	µg/L	67.306	ppb	01:37:01
1	Cr 267.716†	7146.9	7301.2	149.07	µg/L	149.07	ppb	01:36:41
1	Cu 324.752†	10817.4	8109.4	74.349	µg/L	74.349	ppb	01:36:41
1	Mn 257.610†	1058266.7	1074398.9	3438.7	µg/L	3438.7	ppb	01:36:35
1	Mo 202.031†	-9.4	-6.2	5.0000	µg/L	5.0000	ppb	01:37:01
1	Ni 231.604†	2188.7	1912.8	98.500	µg/L	98.500	ppb	01:37:01
1	P 214.914†	479.2	470.1	845.47	µg/L	845.47	ppb	01:37:01
1	Pb 220.353†	647.9	562.8	139.92	µg/L	139.92	ppb	01:37:01
1	S 181.975 Axial†	199.9	185.5	769.13	µg/L	769.13	ppb	01:37:01
1	Sb 206.836†	33.1	11.5	6.9710	µg/L	6.9710	ppb	01:37:01
1	Se 196.026†	-54.5	-70.3	281.24	µg/L	281.24	ppb	01:37:01
1	SiO2†	222789.5	224637.6	44984	µg/L	44984	ppb	01:36:35
1	Si 251.611†	267078.3	270779.7	20900	µg/L	20900	ppb	01:36:35
1	Sn 189.927†	-42.1	-47.4	-33.400	µg/L	-33.400	ppb	01:37:01
1	Ti 334.940†	2198435.5	2231178.1	5073.1	µg/L	5073.1	ppb	01:36:35
1	Tl 190.801†	-73.1	-52.0	17.812	µg/L	17.812	ppb	01:37:01
1	U 409.014†	-1255.4	-1273.4	-129.91	µg/L	-129.91	ppb	01:36:35
1	V 292.402†	27605.2	28114.1	295.74	µg/L	295.74	ppb	01:36:41
1	Zn 213.857†	12083.3	11762.1	268.73	µg/L	268.73	ppb	01:36:41
2	Sc RADIAL	58134.8	58134.8	98.5	%			01:35:36
2	Al 396.153Radial†	171827.2	174522.1	130470	µg/L	130470	ppb	01:35:36
2	Ca 317.933Radial†	22976.7	23142.9	21228	µg/L	21228	ppb	01:35:56
2	Fe 238.204 Radial†	17051.5	17302.7	148530	µg/L	148530	ppb	01:35:56
2	K 766.490 Radial†	26869.1	27090.8	18628	µg/L	18628	ppb	01:35:36
2	Mg 279.077 IEC†	2393.6	2419.0	23385	µg/L	23385	ppb	01:35:56
2	Na 589.592 Radial†	3117.0	2692.1	880.11	µg/L	880.11	ppb	01:35:56
2	Sr 421.552†	28390.7	28793.1	283.19	µg/L	283.19	ppb	01:35:36
2	Sc 361.383	2071048.8	2071048.8	98.639	%			01:37:09
2	Y 371.029	1463563.2	1463563.2	100.55	%			01:37:09
2	Ag 328.068†	-2029.8	-1594.7	-0.7034	µg/L	-0.7034	ppb	01:37:15
2	As 188.979†	14.0	14.4	33.487	µg/L	33.487	ppb	01:37:35
2	B 249.677†	1312.1	1004.7	-36.163	µg/L	-36.163	ppb	01:37:15
2	Ba 233.527†	65633.6	66557.8	1631.5	µg/L	1631.5	ppb	01:37:15
2	Be 313.107†	18403.3	22416.2	11.592	µg/L	11.592	ppb	01:37:15
2	Cd 226.502†	398.8	540.9	-3.0743	µg/L	-3.0743	ppb	01:37:15
2	Co 228.616†	1651.9	1672.1	66.762	µg/L	66.762	ppb	01:37:35
2	Cr 267.716†	7153.6	7299.7	149.05	µg/L	149.05	ppb	01:37:15
2	Cu 324.752†	10853.5	8133.6	74.600	µg/L	74.600	ppb	01:37:15
2	Mn 257.610†	1068848.1	1083902.8	3469.0	µg/L	3469.0	ppb	01:37:09
2	Mo 202.031†	-14.8	-11.7	4.4689	µg/L	4.4689	ppb	01:37:35
2	Ni 231.604†	2216.4	1938.4	99.802	µg/L	99.802	ppb	01:37:35
2	P 214.914†	489.2	479.7	864.80	µg/L	864.80	ppb	01:37:35
2	Pb 220.353†	644.3	558.4	138.96	µg/L	138.96	ppb	01:37:35

2	S 181.975 Axial†	197.0	182.4	755.99 µg/L	755.99 ppb	01:37:35
2	Sb 206.836†	43.9	22.4	16.855 µg/L	16.855 ppb	01:37:35
2	Se 196.026†	-45.9	-61.5	294.90 µg/L	294.90 ppb	01:37:35
2	SiO2†	224597.7	226213.1	45299 µg/L	45299 ppb	01:37:09
2	Si 251.611†	268906.9	272324.8	21019 µg/L	21019 ppb	01:37:09
2	Sn 189.927†	-32.6	-37.7	-29.312 µg/L	-29.312 ppb	01:37:35
2	Ti 334.940†	2215901.7	2246343.7	5107.5 µg/L	5107.5 ppb	01:37:09
2	Tl 190.801†	-71.3	-50.0	21.108 µg/L	21.108 ppb	01:37:35
2	U 409.014†	-1305.2	-1322.5	-134.17 µg/L	-134.17 ppb	01:37:09
2	V 292.402†	27644.5	28122.0	295.88 µg/L	295.88 ppb	01:37:15
2	Zn 213.857†	12081.8	11746.6	268.32 µg/L	268.32 ppb	01:37:15
3	Sc RADIAL	58555.8	58555.8	99.2 %		01:36:02
3	Al 396.153Radial†	172231.7	173675.4	129840 µg/L	129840 ppb	01:36:02
3	Ca 317.933Radial†	22946.9	22945.1	21047 µg/L	21047 ppb	01:36:22
3	Fe 238.204 Radial†	17044.0	17170.7	147400 µg/L	147400 ppb	01:36:22
3	K 766.490 Radial†	26970.0	26996.3	18563 µg/L	18563 ppb	01:36:02
3	Mg 279.077 IEC†	2394.5	2402.4	23225 µg/L	23225 ppb	01:36:22
3	Na 589.592 Radial†	3094.4	2646.4	865.19 µg/L	865.19 ppb	01:36:22
3	Sr 421.552†	28471.7	28667.6	281.95 µg/L	281.95 ppb	01:36:02
3	Sc 361.383	2071005.0	2071005.0	98.637 %		01:37:43
3	Y 371.029	1463305.9	1463305.9	100.54 %		01:37:43
3	Ag 328.068†	-1979.1	-1543.3	-0.4713 µg/L	-0.4713 ppb	01:37:49
3	As 188.979†	21.6	22.1	47.327 µg/L	47.327 ppb	01:38:09
3	B 249.677†	1279.0	971.2	-36.955 µg/L	-36.955 ppb	01:37:49
3	Ba 233.527†	63074.0	63964.2	1568.0 µg/L	1568.0 ppb	01:37:49
3	Be 313.107†	17422.9	21422.6	11.049 µg/L	11.049 ppb	01:37:49
3	Cd 226.502†	358.2	499.7	-3.9924 µg/L	-3.9924 ppb	01:37:49
3	Co 228.616†	1520.6	1539.1	60.918 µg/L	60.918 ppb	01:38:09
3	Cr 267.716†	6797.4	6938.8	141.68 µg/L	141.68 ppb	01:37:49
3	Cu 324.752†	10460.3	7735.2	71.799 µg/L	71.799 ppb	01:37:49
3	Mn 257.610†	1042654.0	1057369.5	3384.4 µg/L	3384.4 ppb	01:37:43
3	Mo 202.031†	-25.0	-22.1	3.3900 µg/L	3.3900 ppb	01:38:09
3	Ni 231.604†	2047.3	1766.9	91.131 µg/L	91.131 ppb	01:38:09
3	P 214.914†	437.6	427.4	761.94 µg/L	761.94 ppb	01:38:09
3	Pb 220.353†	623.3	537.1	133.72 µg/L	133.72 ppb	01:38:09
3	S 181.975 Axial†	189.0	174.3	722.65 µg/L	722.65 ppb	01:38:09
3	Sb 206.836†	33.7	12.0	7.5220 µg/L	7.5220 ppb	01:38:09
3	Se 196.026†	-47.4	-63.1	289.82 µg/L	289.82 ppb	01:38:09
3	SiO2†	219972.3	221528.6	44361 µg/L	44361 ppb	01:37:43
3	Si 251.611†	263382.6	266729.9	20587 µg/L	20587 ppb	01:37:43
3	Sn 189.927†	-27.7	-32.8	-27.119 µg/L	-27.119 ppb	01:38:09
3	Ti 334.940†	2150180.2	2179761.2	4956.1 µg/L	4956.1 ppb	01:37:43
3	Tl 190.801†	-63.7	-42.4	29.495 µg/L	29.495 ppb	01:38:09
3	U 409.014†	-1183.0	-1198.6	-123.49 µg/L	-123.49 ppb	01:37:43
3	V 292.402†	26436.3	26897.8	283.62 µg/L	283.62 ppb	01:37:49
3	Zn 213.857†	11683.3	11342.8	258.90 µg/L	258.90 ppb	01:37:49

Mean Data: 246066006|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2070247.8	98.600	%	0.0643				0.07%
Sc RADIAL	58402.1	98.9	%	0.39				0.40%
Y 371.029	1463308.4	100.54	%	0.017				0.02%
Ag 328.068†	-1579.2	-0.6519	µg/L	0.16115	-0.6519	ppb	0.16115	24.72%
Al 396.153Radial†	173137.1	129440	µg/L	1284.9	129440	ppb	1284.9	0.99%
As 188.979†	19.7	42.870	µg/L	8.1292	42.870	ppb	8.1292	18.96%
B 249.677†	975.4	-37.057	µg/L	0.9494	-37.057	ppb	0.9494	2.56%
Ba 233.527†	65667.7	1609.7	µg/L	36.18	1609.7	ppb	36.18	2.25%
Be 313.107†	22082.4	11.414	µg/L	0.3156	11.414	ppb	0.3156	2.77%
Ca 317.933Radial†	23033.6	21128	µg/L	92.2	21128	ppb	92.2	0.44%
Cd 226.502†	521.8	-3.4932	µg/L	0.46430	-3.4932	ppb	0.46430	13.29%
Co 228.616†	1631.2	64.995	µg/L	3.5414	64.995	ppb	3.5414	5.45%
Cr 267.716†	7179.9	146.60	µg/L	4.263	146.60	ppb	4.263	2.91%
Cu 324.752†	7992.8	73.583	µg/L	1.5496	73.583	ppb	1.5496	2.11%
Fe 238.204 Radial†	17233.3	147940	µg/L	569.1	147940	ppb	569.1	0.38%
K 766.490 Radial†	26920.5	18511	µg/L	150.2	18511	ppb	150.2	0.81%
Mg 279.077 IEC†	2408.5	23284	µg/L	87.8	23284	ppb	87.8	0.38%
Mn 257.610†	1071890.4	3430.7	µg/L	42.86	3430.7	ppb	42.86	1.25%
Mo 202.031†	-13.3	4.2863	µg/L	0.82039	4.2863	ppb	0.82039	19.14%
Na 589.592 Radial†	2663.1	870.63	µg/L	8.240	870.63	ppb	8.240	0.95%

Ni 231.604†	1872.7	96.478	µg/L	4.6760	96.478	ppb	4.6760	4.85%
P 214.914†	459.1	824.07	µg/L	54.665	824.07	ppb	54.665	6.63%
Pb 220.353†	552.8	137.53	µg/L	3.337	137.53	ppb	3.337	2.43%
S 181.975 Axial†	180.8	749.26	µg/L	23.959	749.26	ppb	23.959	3.20%
Sb 206.836†	15.3	10.449	µg/L	5.5545	10.449	ppb	5.5545	53.16%
Se 196.026†	-65.0	288.66	µg/L	6.903	288.66	ppb	6.903	2.39%
SiO2†	224126.4	44881	µg/L	477.3	44881	ppb	477.3	1.06%
Si 251.611†	269944.8	20835	µg/L	223.0	20835	ppb	223.0	1.07%
Sn 189.927†	-39.3	-29.944	µg/L	3.1876	-29.944	ppb	3.1876	10.65%
Sr 421.552†	28579.2	281.08	µg/L	2.648	281.08	ppb	2.648	0.94%
Ti 334.940†	2219094.3	5045.6	µg/L	79.37	5045.6	ppb	79.37	1.57%
Tl 190.801†	-48.1	22.805	µg/L	6.0236	22.805	ppb	6.0236	26.41%
U 409.014†	-1264.9	-129.19	µg/L	5.375	-129.19	ppb	5.375	4.16%
V 292.402†	27711.3	291.75	µg/L	7.035	291.75	ppb	7.035	2.41%
Zn 213.857†	11617.2	265.32	µg/L	5.563	265.32	ppb	5.563	2.10%

Sequence No.: 45
Sample ID: 246066007|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 337
Date Collected: 2/21/2010 01:38:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066007|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57079.2	57079.2	96.7	%			01:38:51
1	Al 396.153Radial†	27744.9	28708.5	21462	µg/L	21462	ppb	01:38:51
1	Ca 317.933Radial†	47285.5	48719.9	44689	µg/L	44689	ppb	01:38:51
1	Fe 238.204 Radial†	7360.9	7598.8	65230	µg/L	65230	ppb	01:39:11
1	K 766.490 Radial†	6495.9	6521.1	4484.0	µg/L	4484.0	ppb	01:38:51
1	Mg 279.077 IEC†	749.2	762.9	7355.2	µg/L	7355.2	ppb	01:39:11
1	Na 589.592 Radial†	1610.9	1192.7	389.92	µg/L	389.92	ppb	01:38:51
1	Sr 421.552†	13617.5	14044.8	138.13	µg/L	138.13	ppb	01:38:51
1	Sc 361.383	2078506.2	2078506.2	98.994	%			01:40:15
1	Y 371.029	1458552.1	1458552.1	100.21	%			01:40:15
1	Ag 328.068†	-1136.2	-684.7	-0.2617	µg/L	-0.2617	ppb	01:40:20
1	As 188.979†	-1.2	-1.0	-0.2735	µg/L	-0.2735	ppb	01:40:41
1	B 249.677†	709.3	391.1	-17.843	µg/L	-17.843	ppb	01:40:20
1	Ba 233.527†	16868.2	17058.0	418.22	µg/L	418.22	ppb	01:40:20
1	Be 313.107†	2160.3	5941.1	2.7875	µg/L	2.7875	ppb	01:40:20
1	Cd 226.502†	85.4	222.9	-1.6977	µg/L	-1.6977	ppb	01:40:41
1	Co 228.616†	494.6	497.1	18.633	µg/L	18.633	ppb	01:40:41
1	Cr 267.716†	5906.5	6014.0	122.72	µg/L	122.72	ppb	01:40:20
1	Cu 324.752†	6955.1	4156.0	36.636	µg/L	36.636	ppb	01:40:20
1	Mn 257.610†	430229.9	434905.5	1392.7	µg/L	1392.7	ppb	01:40:15
1	Mo 202.031†	19.2	22.8	4.7595	µg/L	4.7595	ppb	01:40:41
1	Ni 231.604†	1564.2	1271.5	65.080	µg/L	65.080	ppb	01:40:41
1	P 214.914†	1057.1	1051.6	2041.0	µg/L	2041.0	ppb	01:40:41
1	Pb 220.353†	315.9	224.3	53.919	µg/L	53.919	ppb	01:40:41
1	S 181.975 Axial†	110.4	94.2	390.49	µg/L	390.49	ppb	01:40:41
1	Sb 206.836†	28.9	7.1	1.2222	µg/L	1.2222	ppb	01:40:41
1	Se 196.026†	-21.7	-36.9	108.69	µg/L	108.69	ppb	01:40:41
1	SiO2†	95516.4	95002.9	19024	µg/L	19024	ppb	01:40:20
1	Si 251.611†	114008.3	114873.6	8866.4	µg/L	8866.4	ppb	01:40:20
1	Sn 189.927†	-25.5	-30.5	-19.376	µg/L	-19.376	ppb	01:40:41
1	Ti 334.940†	914738.3	923894.4	2101.4	µg/L	2101.4	ppb	01:40:15
1	Tl 190.801†	-44.5	-22.7	-0.0550	µg/L	-0.0550	ppb	01:40:41
1	U 409.014†	-787.6	-794.9	-79.247	µg/L	-79.247	ppb	01:40:20
1	V 292.402†	11073.3	11281.8	119.51	µg/L	119.51	ppb	01:40:20
1	Zn 213.857†	7878.0	7456.2	172.12	µg/L	172.12	ppb	01:40:20
2	Sc RADIAL	56883.7	56883.7	96.3	%			01:39:17
2	Al 396.153Radial†	27573.6	28629.3	21403	µg/L	21403	ppb	01:39:17
2	Ca 317.933Radial†	46944.9	48534.5	44519	µg/L	44519	ppb	01:39:17
2	Fe 238.204 Radial†	7322.0	7584.7	65109	µg/L	65109	ppb	01:39:37
2	K 766.490 Radial†	6426.2	6471.9	4450.2	µg/L	4450.2	ppb	01:39:17
2	Mg 279.077 IEC†	749.2	765.6	7381.9	µg/L	7381.9	ppb	01:39:37
2	Na 589.592 Radial†	1658.6	1247.9	407.96	µg/L	407.96	ppb	01:39:17
2	Sr 421.552†	13521.4	13993.4	137.63	µg/L	137.63	ppb	01:39:17
2	Sc 361.383	2055294.5	2055294.5	97.888	%			01:40:48
2	Y 371.029	1443018.1	1443018.1	99.143	%			01:40:48
2	Ag 328.068†	-1136.4	-697.8	-0.3445	µg/L	-0.3445	ppb	01:40:53
2	As 188.979†	3.5	3.8	8.3308	µg/L	8.3308	ppb	01:41:14
2	B 249.677†	723.7	413.9	-16.840	µg/L	-16.840	ppb	01:40:53
2	Ba 233.527†	17209.2	17598.8	431.48	µg/L	431.48	ppb	01:40:53
2	Be 313.107†	2295.3	6103.6	2.8755	µg/L	2.8755	ppb	01:40:53
2	Cd 226.502†	72.6	210.8	-1.9880	µg/L	-1.9880	ppb	01:41:14
2	Co 228.616†	501.3	509.6	19.155	µg/L	19.155	ppb	01:41:14
2	Cr 267.716†	6023.4	6200.7	126.53	µg/L	126.53	ppb	01:40:53
2	Cu 324.752†	6989.9	4271.0	37.382	µg/L	37.382	ppb	01:40:53
2	Mn 257.610†	431101.1	440703.7	1411.2	µg/L	1411.2	ppb	01:40:48
2	Mo 202.031†	6.7	10.2	3.4921	µg/L	3.4921	ppb	01:41:14
2	Ni 231.604†	1558.3	1283.2	65.672	µg/L	65.672	ppb	01:41:14
2	P 214.914†	1045.6	1052.0	2041.8	µg/L	2041.8	ppb	01:41:14
2	Pb 220.353†	308.1	219.9	52.839	µg/L	52.839	ppb	01:41:14

2	S 181.975 Axial†	107.7	92.8	384.53 µg/L	384.53 ppb	01:41:14
2	Sb 206.836†	32.9	11.5	5.2437 µg/L	5.2437 ppb	01:41:14
2	Se 196.026†	-21.3	-36.7	108.65 µg/L	108.65 ppb	01:41:14
2	SiO2†	97276.9	97891.0	19603 µg/L	19603 ppb	01:40:53
2	Si 251.611†	116225.4	118439.2	9141.6 µg/L	9141.6 ppb	01:40:53
2	Sn 189.927†	-18.0	-23.1	-16.187 µg/L	-16.187 ppb	01:41:14
2	Ti 334.940†	916038.7	935658.7	2128.2 µg/L	2128.2 ppb	01:40:48
2	Tl 190.801†	-46.1	-24.9	-2.6851 µg/L	-2.6851 ppb	01:41:14
2	U 409.014†	-746.3	-761.7	-76.403 µg/L	-76.403 ppb	01:40:53
2	V 292.402†	11291.7	11631.3	122.95 µg/L	122.95 ppb	01:40:53
2	Zn 213.857†	8034.8	7706.2	178.03 µg/L	178.03 ppb	01:40:53
3	Sc RADIAL	56953.7	56953.7	96.5 %		01:39:43
3	Al 396.153Radial†	27646.1	28669.3	21433 µg/L	21433 ppb	01:39:43
3	Ca 317.933Radial†	47086.3	48621.1	44598 µg/L	44598 ppb	01:39:43
3	Fe 238.204 Radial†	7328.8	7582.4	65089 µg/L	65089 ppb	01:40:03
3	K 766.490 Radial†	6480.8	6520.3	4483.4 µg/L	4483.4 ppb	01:39:43
3	Mg 279.077 IEC†	745.1	760.4	7331.1 µg/L	7331.1 ppb	01:40:03
3	Na 589.592 Radial†	1645.9	1232.6	402.97 µg/L	402.97 ppb	01:39:43
3	Sr 421.552†	13548.9	14004.7	137.74 µg/L	137.74 ppb	01:39:43
3	Sc 361.383	2058376.8	2058376.8	98.035 %		01:41:21
3	Y 371.029	1444243.4	1444243.4	99.228 %		01:41:21
3	Ag 328.068†	-1082.9	-641.4	0.0351 µg/L	0.0351 ppb	01:41:26
3	As 188.979†	0.4	0.7	2.6953 µg/L	2.6953 ppb	01:41:47
3	B 249.677†	720.7	409.7	-17.012 µg/L	-17.012 ppb	01:41:26
3	Ba 233.527†	16542.8	16892.7	414.16 µg/L	414.16 ppb	01:41:26
3	Be 313.107†	1998.2	5797.1	2.7124 µg/L	2.7124 ppb	01:41:26
3	Cd 226.502†	52.6	190.2	-2.5085 µg/L	-2.5085 ppb	01:41:47
3	Co 228.616†	462.6	469.3	17.413 µg/L	17.413 ppb	01:41:47
3	Cr 267.716†	5722.0	5884.1	120.07 µg/L	120.07 ppb	01:41:26
3	Cu 324.752†	6800.7	4067.3	36.028 µg/L	36.028 ppb	01:41:26
3	Mn 257.610†	420650.0	429383.7	1375.2 µg/L	1375.2 ppb	01:41:21
3	Mo 202.031†	15.6	19.2	4.3982 µg/L	4.3982 ppb	01:41:47
3	Ni 231.604†	1468.6	1189.4	60.933 µg/L	60.933 ppb	01:41:47
3	P 214.914†	991.5	995.1	1928.8 µg/L	1928.8 ppb	01:41:47
3	Pb 220.353†	304.5	215.8	51.832 µg/L	51.832 ppb	01:41:47
3	S 181.975 Axial†	102.2	87.0	360.57 µg/L	360.57 ppb	01:41:47
3	Sb 206.836†	39.0	17.7	10.926 µg/L	10.926 ppb	01:41:47
3	Se 196.026†	-17.6	-32.9	113.79 µg/L	113.79 ppb	01:41:47
3	SiO2†	93820.0	94216.1	18867 µg/L	18867 ppb	01:41:26
3	Si 251.611†	111913.9	113863.5	8788.4 µg/L	8788.4 ppb	01:41:26
3	Sn 189.927†	-24.2	-29.4	-18.885 µg/L	-18.885 ppb	01:41:47
3	Ti 334.940†	892443.5	910189.2	2070.3 µg/L	2070.3 ppb	01:41:21
3	Tl 190.801†	-40.5	-19.1	4.4515 µg/L	4.4515 ppb	01:41:47
3	U 409.014†	-720.5	-734.2	-74.076 µg/L	-74.076 ppb	01:41:26
3	V 292.402†	10711.8	11022.5	116.92 µg/L	116.92 ppb	01:41:26
3	Zn 213.857†	7760.2	7413.8	171.15 µg/L	171.15 ppb	01:41:26

Mean Data: 246066007|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2064059.2	98.306	%	0.6004				0.61%
Sc RADIAL	56972.2	96.5	%	0.17				0.17%
Y 371.029	1448604.5	99.527	%	0.5934				0.60%
Ag 328.068†	-674.6	-0.1904	µg/L	0.19958	-0.1904	ppb	0.19958	104.84%
Al 396.153Radial†	28669.0	21433	µg/L	29.6	21433	ppb	29.6	0.14%
As 188.979†	1.2	3.5842	µg/L	4.37046	3.5842	ppb	4.37046	121.94%
B 249.677†	404.9	-17.232	µg/L	0.5363	-17.232	ppb	0.5363	3.11%
Ba 233.527†	17183.1	421.28	µg/L	9.056	421.28	ppb	9.056	2.15%
Be 313.107†	5947.3	2.7918	µg/L	0.08162	2.7918	ppb	0.08162	2.92%
Ca 317.933Radial†	48625.2	44602	µg/L	85.1	44602	ppb	85.1	0.19%
Cd 226.502†	208.0	-2.0648	µg/L	0.41081	-2.0648	ppb	0.41081	19.90%
Co 228.616†	492.0	18.400	µg/L	0.8941	18.400	ppb	0.8941	4.86%
Cr 267.716†	6032.9	123.11	µg/L	3.248	123.11	ppb	3.248	2.64%
Cu 324.752†	4164.8	36.682	µg/L	0.6781	36.682	ppb	0.6781	1.85%
Fe 238.204 Radial†	7588.6	65143	µg/L	76.6	65143	ppb	76.6	0.12%
K 766.490 Radial†	6504.4	4472.5	µg/L	19.38	4472.5	ppb	19.38	0.43%
Mg 279.077 IEC†	762.9	7356.1	µg/L	25.44	7356.1	ppb	25.44	0.35%
Mn 257.610†	434997.7	1393.0	µg/L	18.02	1393.0	ppb	18.02	1.29%
Mo 202.031†	17.4	4.2166	µg/L	0.65292	4.2166	ppb	0.65292	15.48%
Na 589.592 Radial†	1224.4	400.28	µg/L	9.318	400.28	ppb	9.318	2.33%

Ni 231.604†	1248.0	63.895	µg/L	2.5821	63.895	ppb	2.5821	4.04%
P 214.914†	1032.9	2003.8	µg/L	64.99	2003.8	ppb	64.99	3.24%
Pb 220.353†	220.0	52.863	µg/L	1.0438	52.863	ppb	1.0438	1.97%
S 181.975 Axial†	91.3	378.53	µg/L	15.837	378.53	ppb	15.837	4.18%
Sb 206.836†	12.1	5.7973	µg/L	4.87558	5.7973	ppb	4.87558	84.10%
Se 196.026†	-35.5	110.38	µg/L	2.952	110.38	ppb	2.952	2.67%
SiO2†	95703.3	19165	µg/L	387.5	19165	ppb	387.5	2.02%
Si 251.611†	115725.5	8932.1	µg/L	185.54	8932.1	ppb	185.54	2.08%
Sn 189.927†	-27.7	-18.149	µg/L	1.7172	-18.149	ppb	1.7172	9.46%
Sr 421.552†	14014.3	137.83	µg/L	0.265	137.83	ppb	0.265	0.19%
Ti 334.940†	923247.4	2100.0	µg/L	28.99	2100.0	ppb	28.99	1.38%
Tl 190.801†	-22.2	0.5705	µg/L	3.60915	0.5705	ppb	3.60915	632.66%
U 409.014†	-763.6	-76.575	µg/L	2.5895	-76.575	ppb	2.5895	3.38%
V 292.402†	11311.9	119.79	µg/L	3.025	119.79	ppb	3.025	2.53%
Zn 213.857†	7525.4	173.77	µg/L	3.719	173.77	ppb	3.719	2.14%

Sequence No.: 46
Sample ID: 246066008|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 338
Date Collected: 2/21/2010 01:41:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066008|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57864.2	57864.2	98.0	%			01:42:29
1	Al 396.153Radial†	78935.5	80553.2	60221	µg/L	60221	ppb	01:42:29
1	Ca 317.933Radial†	20355.9	20577.9	18875	µg/L	18875	ppb	01:42:29
1	Fe 238.204 Radial†	9412.3	9588.8	82313	µg/L	82313	ppb	01:42:49
1	K 766.490 Radial†	17064.4	17213.9	11837	µg/L	11837	ppb	01:42:29
1	Mg 279.077 IEC†	1236.9	1250.1	12079	µg/L	12079	ppb	01:42:49
1	Na 589.592 Radial†	1518.7	1075.9	351.75	µg/L	351.75	ppb	01:42:29
1	Sr 421.552†	18375.8	18709.0	184.01	µg/L	184.01	ppb	01:42:29
1	Sc 361.383	2081583.9	2081583.9	99.140	%			01:43:53
1	Y 371.029	1470975.9	1470975.9	101.06	%			01:43:53
1	Ag 328.068†	-1305.4	-853.6	-0.1829	µg/L	-0.1829	ppb	01:43:59
1	As 188.979†	11.8	12.2	25.784	µg/L	25.784	ppb	01:44:19
1	B 249.677†	1063.6	747.3	-12.283	µg/L	-12.283	ppb	01:43:59
1	Ba 233.527†	42526.0	42913.1	1051.9	µg/L	1051.9	ppb	01:43:59
1	Be 313.107†	9302.6	13142.1	6.7487	µg/L	6.7487	ppb	01:43:59
1	Cd 226.502†	165.1	303.1	-1.6300	µg/L	-1.6300	ppb	01:44:19
1	Co 228.616†	923.4	928.8	36.500	µg/L	36.500	ppb	01:44:19
1	Cr 267.716†	2857.9	2930.0	59.851	µg/L	59.851	ppb	01:44:19
1	Cu 324.752†	9340.2	6551.5	54.900	µg/L	54.900	ppb	01:43:59
1	Mn 257.610†	754134.5	760976.1	2432.8	µg/L	2432.8	ppb	01:43:53
1	Mo 202.031†	8.6	12.0	4.3323	µg/L	4.3323	ppb	01:44:19
1	Ni 231.604†	1171.5	873.0	45.141	µg/L	45.141	ppb	01:44:19
1	P 214.914†	477.7	465.6	871.76	µg/L	871.76	ppb	01:44:19
1	Pb 220.353†	4016.2	3956.3	973.65	µg/L	973.65	ppb	01:44:19
1	S 181.975 Axial†	218.7	203.3	842.53	µg/L	842.53	ppb	01:44:19
1	Sb 206.836†	34.9	13.1	9.6497	µg/L	9.6497	ppb	01:44:19
1	Se 196.026†	-28.4	-43.7	149.12	µg/L	149.12	ppb	01:44:19
1	SiO2†	154272.5	154125.8	30864	µg/L	30864	ppb	01:43:59
1	Si 251.611†	188167.6	189505.7	14627	µg/L	14627	ppb	01:43:53
1	Sn 189.927†	13.0	8.4	-3.8586	µg/L	-3.8586	ppb	01:44:19
1	Ti 334.940†	1359738.2	1371386.8	3118.4	µg/L	3118.4	ppb	01:43:53
1	Tl 190.801†	-54.1	-32.3	8.3481	µg/L	8.3481	ppb	01:44:19
1	U 409.014†	-1022.6	-1030.7	-100.06	µg/L	-100.06	ppb	01:43:59
1	V 292.402†	15084.9	15311.7	161.21	µg/L	161.21	ppb	01:43:59
1	Zn 213.857†	13868.3	13486.6	313.43	µg/L	313.43	ppb	01:43:59
2	Sc RADIAL	58441.3	58441.3	99.0	%			01:42:55
2	Al 396.153Radial†	78953.7	79776.3	59640	µg/L	59640	ppb	01:42:55
2	Ca 317.933Radial†	20300.0	20316.3	18635	µg/L	18635	ppb	01:42:55
2	Fe 238.204 Radial†	9472.2	9554.5	82018	µg/L	82018	ppb	01:43:15
2	K 766.490 Radial†	17135.8	17114.0	11768	µg/L	11768	ppb	01:42:55
2	Mg 279.077 IEC†	1246.6	1247.4	12053	µg/L	12053	ppb	01:43:15
2	Na 589.592 Radial†	1558.2	1100.6	359.81	µg/L	359.81	ppb	01:42:55
2	Sr 421.552†	18371.6	18519.6	182.14	µg/L	182.14	ppb	01:42:55
2	Sc 361.383	2094654.6	2094654.6	99.763	%			01:44:26
2	Y 371.029	1478980.3	1478980.3	101.61	%			01:44:26
2	Ag 328.068†	-1333.0	-873.1	-0.3589	µg/L	-0.3589	ppb	01:44:32
2	As 188.979†	10.3	10.6	22.910	µg/L	22.910	ppb	01:44:52
2	B 249.677†	1044.2	721.2	-13.197	µg/L	-13.197	ppb	01:44:32
2	Ba 233.527†	42622.5	42742.1	1047.7	µg/L	1047.7	ppb	01:44:32
2	Be 313.107†	9362.0	13143.1	6.7596	µg/L	6.7596	ppb	01:44:32
2	Cd 226.502†	171.8	308.8	-1.4536	µg/L	-1.4536	ppb	01:44:52
2	Co 228.616†	937.7	937.4	36.951	µg/L	36.951	ppb	01:44:52
2	Cr 267.716†	2856.0	2910.2	59.445	µg/L	59.445	ppb	01:44:52
2	Cu 324.752†	9470.2	6623.0	55.334	µg/L	55.334	ppb	01:44:32
2	Mn 257.610†	753594.8	755688.5	2415.9	µg/L	2415.9	ppb	01:44:26
2	Mo 202.031†	3.1	6.4	3.7592	µg/L	3.7592	ppb	01:44:52
2	Ni 231.604†	1174.3	868.4	44.904	µg/L	44.904	ppb	01:44:52
2	P 214.914†	478.3	463.2	866.92	µg/L	866.92	ppb	01:44:52
2	Pb 220.353†	4055.9	3970.7	977.19	µg/L	977.19	ppb	01:44:52

2	S 181.975 Axial†	228.2	211.5	876.56 µg/L	876.56 ppb	01:44:52
2	Sb 206.836†	28.8	6.8	3.8933 µg/L	3.8933 ppb	01:44:52
2	Se 196.026†	-25.1	-40.1	153.25 µg/L	153.25 ppb	01:44:52
2	SiO2†	154465.9	153348.6	30708 µg/L	30708 ppb	01:44:32
2	Si 251.611†	187835.7	187988.6	14510 µg/L	14510 ppb	01:44:26
2	Sn 189.927†	14.7	10.0	-3.1174 µg/L	-3.1174 ppb	01:44:52
2	Ti 334.940†	1356383.6	1359465.8	3091.3 µg/L	3091.3 ppb	01:44:26
2	Tl 190.801†	-47.1	-24.9	17.884 µg/L	17.884 ppb	01:44:52
2	U 409.014†	-979.9	-981.5	-95.829 µg/L	-95.829 ppb	01:44:32
2	V 292.402†	14989.7	15121.3	159.29 µg/L	159.29 ppb	01:44:32
2	Zn 213.857†	13867.5	13398.6	311.37 µg/L	311.37 ppb	01:44:32
3	Sc RADIAL	58340.2	58340.2	98.8 %		01:43:21
3	Al 396.153Radial†	79819.2	80790.3	60398 µg/L	60398 ppb	01:43:21
3	Ca 317.933Radial†	20568.5	20623.5	18917 µg/L	18917 ppb	01:43:21
3	Fe 238.204 Radial†	9569.4	9669.4	83005 µg/L	83005 ppb	01:43:41
3	K 766.490 Radial†	17251.4	17261.0	11869 µg/L	11869 ppb	01:43:21
3	Mg 279.077 IEC†	1253.8	1256.8	12144 µg/L	12144 ppb	01:43:41
3	Na 589.592 Radial†	1560.5	1105.6	361.45 µg/L	361.45 ppb	01:43:21
3	Sr 421.552†	18591.5	18774.3	184.65 µg/L	184.65 ppb	01:43:21
3	Sc 361.383	2068274.5	2068274.5	98.506 %		01:44:59
3	Y 371.029	1459751.2	1459751.2	100.29 %		01:44:59
3	Ag 328.068†	-1256.4	-812.4	0.1338 µg/L	0.1338 ppb	01:45:05
3	As 188.979†	11.8	12.3	25.961 µg/L	25.961 ppb	01:45:26
3	B 249.677†	1013.0	702.9	-14.470 µg/L	-14.470 ppb	01:45:05
3	Ba 233.527†	41375.6	42021.3	1030.0 µg/L	1030.0 ppb	01:45:05
3	Be 313.107†	8857.6	12750.8	6.5359 µg/L	6.5359 ppb	01:45:05
3	Cd 226.502†	136.4	275.0	-2.4179 µg/L	-2.4179 ppb	01:45:26
3	Co 228.616†	877.7	888.4	34.757 µg/L	34.757 ppb	01:45:26
3	Cr 267.716†	2596.5	2683.2	54.814 µg/L	54.814 ppb	01:45:26
3	Cu 324.752†	9176.9	6446.3	54.299 µg/L	54.299 ppb	01:45:05
3	Mn 257.610†	737130.1	748608.8	2393.5 µg/L	2393.5 ppb	01:44:59
3	Mo 202.031†	1.6	4.9	3.6500 µg/L	3.6500 ppb	01:45:26
3	Ni 231.604†	1103.6	811.7	42.054 µg/L	42.054 ppb	01:45:26
3	P 214.914†	447.7	438.3	816.93 µg/L	816.93 ppb	01:45:26
3	Pb 220.353†	3800.6	3763.5	926.20 µg/L	926.20 ppb	01:45:26
3	S 181.975 Axial†	213.3	199.3	825.95 µg/L	825.95 ppb	01:45:26
3	Sb 206.836†	33.9	12.3	8.9634 µg/L	8.9634 ppb	01:45:26
3	Se 196.026†	-25.1	-40.4	155.34 µg/L	155.34 ppb	01:45:26
3	SiO2†	150441.8	151238.3	30286 µg/L	30286 ppb	01:45:05
3	Si 251.611†	184576.6	187081.6	14440 µg/L	14440 ppb	01:44:59
3	Sn 189.927†	10.0	5.4	-5.1806 µg/L	-5.1806 ppb	01:45:26
3	Ti 334.940†	1324221.6	1344157.5	3056.5 µg/L	3056.5 ppb	01:44:59
3	Tl 190.801†	-45.1	-23.6	19.479 µg/L	19.479 ppb	01:45:26
3	U 409.014†	-1012.1	-1026.7	-99.820 µg/L	-99.820 ppb	01:45:05
3	V 292.402†	14460.7	14776.0	155.97 µg/L	155.97 ppb	01:45:05
3	Zn 213.857†	13448.9	13150.9	305.49 µg/L	305.49 ppb	01:45:05

Mean Data: 246066008|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2081504.3	99.137	%	0.6282				0.63%
Sc RADIAL	58215.2	98.6	%	0.52				0.53%
Y 371.029	1469902.5	100.99	%	0.664				0.66%
Ag 328.068†	-846.4	-0.1360	µg/L	0.24967	-0.1360	ppb	0.24967	183.56%
Al 396.153Radial†	80373.3	60086	µg/L	396.5	60086	ppb	396.5	0.66%
As 188.979†	11.7	24.885	µg/L	1.7130	24.885	ppb	1.7130	6.88%
B 249.677†	723.8	-13.317	µg/L	1.0988	-13.317	ppb	1.0988	8.25%
Ba 233.527†	42558.9	1043.2	µg/L	11.60	1043.2	ppb	11.60	1.11%
Be 313.107†	13012.0	6.6814	µg/L	0.12610	6.6814	ppb	0.12610	1.89%
Ca 317.933Radial†	20505.9	18809	µg/L	152.1	18809	ppb	152.1	0.81%
Cd 226.502†	295.6	-1.8338	µg/L	0.51349	-1.8338	ppb	0.51349	28.00%
Co 228.616†	918.2	36.069	µg/L	1.1588	36.069	ppb	1.1588	3.21%
Cr 267.716†	2841.2	58.037	µg/L	2.7982	58.037	ppb	2.7982	4.82%
Cu 324.752†	6540.3	54.845	µg/L	0.5198	54.845	ppb	0.5198	0.95%
Fe 238.204 Radial†	9604.2	82445	µg/L	506.3	82445	ppb	506.3	0.61%
K 766.490 Radial†	17196.3	11824	µg/L	51.6	11824	ppb	51.6	0.44%
Mg 279.077 IEC†	1251.4	12092	µg/L	46.7	12092	ppb	46.7	0.39%
Mn 257.610†	755091.1	2414.0	µg/L	19.70	2414.0	ppb	19.70	0.82%
Mo 202.031†	7.8	3.9138	µg/L	0.36644	3.9138	ppb	0.36644	9.36%
Na 589.592 Radial†	1094.0	357.67	µg/L	5.195	357.67	ppb	5.195	1.45%

Ni 231.604†	851.1	44.033	µg/L	1.7181	44.033	ppb	1.7181	3.90%
P 214.914†	455.7	851.87	µg/L	30.357	851.87	ppb	30.357	3.56%
Pb 220.353†	3896.8	959.01	µg/L	28.471	959.01	ppb	28.471	2.97%
S 181.975 Axial†	204.7	848.34	µg/L	25.800	848.34	ppb	25.800	3.04%
Sb 206.836†	10.7	7.5021	µg/L	3.14411	7.5021	ppb	3.14411	41.91%
Se 196.026†	-41.4	152.57	µg/L	3.163	152.57	ppb	3.163	2.07%
SiO2†	152904.2	30619	µg/L	299.2	30619	ppb	299.2	0.98%
Si 251.611†	188191.9	14525	µg/L	94.5	14525	ppb	94.5	0.65%
Sn 189.927†	8.0	-4.0522	µg/L	1.04514	-4.0522	ppb	1.04514	25.79%
Sr 421.552†	18667.7	183.60	µg/L	1.301	183.60	ppb	1.301	0.71%
Ti 334.940†	1358336.7	3088.7	µg/L	31.05	3088.7	ppb	31.05	1.01%
Tl 190.801†	-27.0	15.237	µg/L	6.0191	15.237	ppb	6.0191	39.50%
U 409.014†	-1012.9	-98.569	µg/L	2.3760	-98.569	ppb	2.3760	2.41%
V 292.402†	15069.7	158.82	µg/L	2.648	158.82	ppb	2.648	1.67%
Zn 213.857†	13345.4	310.10	µg/L	4.122	310.10	ppb	4.122	1.33%

Sequence No.: 47
Sample ID: 246066009|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 339
Date Collected: 2/21/2010 01:45:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066009|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58862.0	58862.0	99.7	%			01:46:08
1	Al 396.153Radial†	138747.8	139184.8	104050	µg/L	104050	ppb	01:46:08
1	Ca 317.933Radial†	19912.0	19780.5	18144	µg/L	18144	ppb	01:46:29
1	Fe 238.204 Radial†	14714.3	14744.4	126570	µg/L	126570	ppb	01:46:29
1	K 766.490 Radial†	25269.6	25149.2	17293	µg/L	17293	ppb	01:46:08
1	Mg 279.077 IEC†	2071.3	2065.6	19969	µg/L	19969	ppb	01:46:29
1	Na 589.592 Radial†	2543.6	2077.7	679.26	µg/L	679.26	ppb	01:46:29
1	Sr 421.552†	23218.1	23248.4	228.65	µg/L	228.65	ppb	01:46:08
1	Sc 361.383	2087500.6	2087500.6	99.422	%			01:47:33
1	Y 371.029	1470025.9	1470025.9	101.00	%			01:47:33
1	Ag 328.068†	-1854.3	-1401.9	-0.8478	µg/L	-0.8478	ppb	01:47:38
1	As 188.979†	19.1	19.5	41.531	µg/L	41.531	ppb	01:47:59
1	B 249.677†	1205.8	887.3	-29.592	µg/L	-29.592	ppb	01:47:38
1	Ba 233.527†	61241.6	61615.9	1510.4	µg/L	1510.4	ppb	01:47:38
1	Be 313.107†	16349.6	20203.5	10.182	µg/L	10.182	ppb	01:47:38
1	Cd 226.502†	308.7	447.1	-2.9827	µg/L	-2.9827	ppb	01:47:59
1	Co 228.616†	1387.8	1393.3	53.451	µg/L	53.451	ppb	01:47:59
1	Cr 267.716†	4599.0	4673.1	95.460	µg/L	95.460	ppb	01:47:38
1	Cu 324.752†	9681.1	6867.7	63.150	µg/L	63.150	ppb	01:47:38
1	Mn 257.610†	983090.2	989106.5	3164.5	µg/L	3164.5	ppb	01:47:33
1	Mo 202.031†	-27.3	-24.1	2.3915	µg/L	2.3915	ppb	01:47:59
1	Ni 231.604†	1684.7	1385.9	71.609	µg/L	71.609	ppb	01:47:59
1	P 214.914†	488.7	475.3	867.04	µg/L	867.04	ppb	01:47:59
1	Pb 220.353†	651.2	560.2	138.78	µg/L	138.78	ppb	01:47:59
1	S 181.975 Axial†	197.8	181.7	752.99	µg/L	752.99	ppb	01:47:59
1	Sb 206.836†	33.6	11.7	7.9410	µg/L	7.9410	ppb	01:47:59
1	Se 196.026†	-35.5	-50.7	253.57	µg/L	253.57	ppb	01:47:59
1	SiO2†	171607.4	171120.4	34267	µg/L	34267	ppb	01:47:38
1	Si 251.611†	209219.6	210142.1	16220	µg/L	16220	ppb	01:47:33
1	Sn 189.927†	-43.5	-48.4	-31.935	µg/L	-31.935	ppb	01:47:59
1	Ti 334.940†	2317391.5	2330718.5	5299.7	µg/L	5299.7	ppb	01:47:33
1	Tl 190.801†	-71.7	-49.9	16.789	µg/L	16.789	ppb	01:47:59
1	U 409.014†	-1140.8	-1146.7	-116.01	µg/L	-116.01	ppb	01:47:38
1	V 292.402†	24831.7	25072.0	263.01	µg/L	263.01	ppb	01:47:38
1	Zn 213.857†	10574.4	10133.9	231.64	µg/L	231.64	ppb	01:47:38
2	Sc RADIAL	57960.4	57960.4	98.2	%			01:46:34
2	Al 396.153Radial†	138813.3	141416.3	105720	µg/L	105720	ppb	01:46:34
2	Ca 317.933Radial†	19880.6	20059.2	18400	µg/L	18400	ppb	01:46:55
2	Fe 238.204 Radial†	14681.3	14940.3	128250	µg/L	128250	ppb	01:46:55
2	K 766.490 Radial†	25267.8	25541.6	17563	µg/L	17563	ppb	01:46:34
2	Mg 279.077 IEC†	2078.4	2105.2	20353	µg/L	20353	ppb	01:46:55
2	Na 589.592 Radial†	2528.2	2101.8	687.13	µg/L	687.13	ppb	01:46:55
2	Sr 421.552†	23128.5	23519.4	231.32	µg/L	231.32	ppb	01:46:34
2	Sc 361.383	2066808.1	2066808.1	98.437	%			01:48:06
2	Y 371.029	1456275.5	1456275.5	100.05	%			01:48:06
2	Ag 328.068†	-1839.8	-1405.9	-0.7400	µg/L	-0.7400	ppb	01:48:12
2	As 188.979†	17.5	18.1	39.078	µg/L	39.078	ppb	01:48:32
2	B 249.677†	1197.9	891.4	-30.299	µg/L	-30.299	ppb	01:48:12
2	Ba 233.527†	61758.7	62757.9	1538.4	µg/L	1538.4	ppb	01:48:12
2	Be 313.107†	16381.5	20400.5	10.284	µg/L	10.284	ppb	01:48:12
2	Cd 226.502†	316.8	458.4	-2.8859	µg/L	-2.8859	ppb	01:48:32
2	Co 228.616†	1374.5	1393.8	53.379	µg/L	53.379	ppb	01:48:32
2	Cr 267.716†	4650.8	4772.1	97.481	µg/L	97.481	ppb	01:48:12
2	Cu 324.752†	9711.3	6995.8	64.233	µg/L	64.233	ppb	01:48:12
2	Mn 257.610†	982820.9	998732.7	3195.4	µg/L	3195.4	ppb	01:48:06
2	Mo 202.031†	-10.1	-7.0	4.1755	µg/L	4.1755	ppb	01:48:32
2	Ni 231.604†	1682.7	1400.8	72.384	µg/L	72.384	ppb	01:48:32
2	P 214.914†	479.9	471.3	858.19	µg/L	858.19	ppb	01:48:32
2	Pb 220.353†	649.3	564.8	139.93	µg/L	139.93	ppb	01:48:32

2	S 181.975 Axial†	203.0	188.9	782.99	µg/L	782.99	ppb	01:48:32
2	Sb 206.836†	28.7	7.1	3.7506	µg/L	3.7506	ppb	01:48:32
2	Se 196.026†	-40.8	-56.5	249.85	µg/L	249.85	ppb	01:48:32
2	SiO2†	172590.9	173847.6	34813	µg/L	34813	ppb	01:48:12
2	Si 251.611†	208704.7	211725.8	16342	µg/L	16342	ppb	01:48:06
2	Sn 189.927†	-42.1	-47.5	-31.678	µg/L	-31.678	ppb	01:48:32
2	Ti 334.940†	2314185.7	2350798.0	5345.3	µg/L	5345.3	ppb	01:48:06
2	Tl 190.801†	-71.2	-50.1	17.304	µg/L	17.304	ppb	01:48:32
2	U 409.014†	-1105.7	-1122.5	-114.21	µg/L	-114.21	ppb	01:48:12
2	V 292.402†	25055.6	25549.6	267.95	µg/L	267.95	ppb	01:48:12
2	Zn 213.857†	10634.4	10301.3	235.48	µg/L	235.48	ppb	01:48:12
3	Sc RADIAL	59141.8	59141.8	100	%			01:47:00
3	Al 396.153Radial†	140498.6	140274.3	104870	µg/L	104870	ppb	01:47:00
3	Ca 317.933Radial†	19770.1	19544.3	17927	µg/L	17927	ppb	01:47:21
3	Fe 238.204 Radial†	14566.6	14527.1	124700	µg/L	124700	ppb	01:47:21
3	K 766.490 Radial†	25634.5	25393.6	17461	µg/L	17461	ppb	01:47:00
3	Mg 279.077 IEC†	2066.0	2050.5	19824	µg/L	19824	ppb	01:47:21
3	Na 589.592 Radial†	2539.5	2061.6	673.98	µg/L	673.98	ppb	01:47:21
3	Sr 421.552†	23462.2	23381.9	229.97	µg/L	229.97	ppb	01:47:00
3	Sc 361.383	2070706.3	2070706.3	98.622	%			01:48:39
3	Y 371.029	1456889.3	1456889.3	100.10	%			01:48:39
3	Ag 328.068†	-1745.4	-1306.6	-0.2999	µg/L	-0.2999	ppb	01:48:45
3	As 188.979†	14.3	14.7	32.822	µg/L	32.822	ppb	01:49:05
3	B 249.677†	1192.4	883.6	-28.775	µg/L	-28.775	ppb	01:48:45
3	Ba 233.527†	59360.4	60208.0	1475.9	µg/L	1475.9	ppb	01:48:45
3	Be 313.107†	15554.1	19530.2	9.8113	µg/L	9.8113	ppb	01:48:45
3	Cd 226.502†	278.6	419.1	-3.4810	µg/L	-3.4810	ppb	01:49:05
3	Co 228.616†	1278.5	1293.8	49.039	µg/L	49.039	ppb	01:49:05
3	Cr 267.716†	4425.2	4534.4	92.627	µg/L	92.627	ppb	01:48:45
3	Cu 324.752†	9496.4	6759.3	62.171	µg/L	62.171	ppb	01:48:45
3	Mn 257.610†	961446.3	975179.9	3119.9	µg/L	3119.9	ppb	01:48:39
3	Mo 202.031†	-5.4	-2.1	4.5235	µg/L	4.5235	ppb	01:49:05
3	Ni 231.604†	1567.9	1281.1	66.297	µg/L	66.297	ppb	01:49:05
3	P 214.914†	454.5	444.7	808.04	µg/L	808.04	ppb	01:49:05
3	Pb 220.353†	604.2	517.8	128.46	µg/L	128.46	ppb	01:49:05
3	S 181.975 Axial†	189.7	175.1	725.73	µg/L	725.73	ppb	01:49:05
3	Sb 206.836†	35.5	13.9	10.040	µg/L	10.040	ppb	01:49:05
3	Se 196.026†	-46.6	-62.2	232.90	µg/L	232.90	ppb	01:49:05
3	SiO2†	166640.3	167483.8	33539	µg/L	33539	ppb	01:48:45
3	Si 251.611†	204854.9	207423.1	16010	µg/L	16010	ppb	01:48:39
3	Sn 189.927†	-36.0	-41.2	-28.678	µg/L	-28.678	ppb	01:49:05
3	Ti 334.940†	2257987.0	2289388.5	5205.7	µg/L	5205.7	ppb	01:48:39
3	Tl 190.801†	-74.2	-53.0	11.479	µg/L	11.479	ppb	01:49:05
3	U 409.014†	-1069.5	-1083.6	-110.39	µg/L	-110.39	ppb	01:48:45
3	V 292.402†	23943.1	24373.6	255.90	µg/L	255.90	ppb	01:48:45
3	Zn 213.857†	10249.0	9890.3	226.01	µg/L	226.01	ppb	01:48:45

Mean Data: 246066009|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2075005.0	98.827	%	0.5237				0.53%
Sc RADIAL	58654.7	99.3	%	1.05				1.05%
Y 371.029	1461063.6	100.38	%	0.534				0.53%
Ag 328.068†	-1371.5	-0.6292	µg/L	0.29029	-0.6292	ppb	0.29029	46.13%
Al 396.153Radial†	140291.8	104880	µg/L	834.2	104880	ppb	834.2	0.80%
As 188.979†	17.5	37.811	µg/L	4.4910	37.811	ppb	4.4910	11.88%
B 249.677†	887.4	-29.555	µg/L	0.7624	-29.555	ppb	0.7624	2.58%
Ba 233.527†	61527.3	1508.2	µg/L	31.31	1508.2	ppb	31.31	2.08%
Be 313.107†	20044.7	10.092	µg/L	0.2487	10.092	ppb	0.2487	2.46%
Ca 317.933Radial†	19794.6	18157	µg/L	236.4	18157	ppb	236.4	1.30%
Cd 226.502†	441.5	-3.1165	µg/L	0.31933	-3.1165	ppb	0.31933	10.25%
Co 228.616†	1360.3	51.956	µg/L	2.5267	51.956	ppb	2.5267	4.86%
Cr 267.716†	4659.9	95.189	µg/L	2.4380	95.189	ppb	2.4380	2.56%
Cu 324.752†	6874.3	63.185	µg/L	1.0314	63.185	ppb	1.0314	1.63%
Fe 238.204 Radial†	14737.3	126510	µg/L	1774.6	126510	ppb	1774.6	1.40%
K 766.490 Radial†	25361.5	17439	µg/L	136.3	17439	ppb	136.3	0.78%
Mg 279.077 IEC†	2073.8	20049	µg/L	273.0	20049	ppb	273.0	1.36%
Mn 257.610†	987673.0	3159.9	µg/L	37.92	3159.9	ppb	37.92	1.20%
Mo 202.031†	-11.1	3.6969	µg/L	1.14379	3.6969	ppb	1.14379	30.94%
Na 589.592 Radial†	2080.3	680.12	µg/L	6.615	680.12	ppb	6.615	0.97%

Ni 231.604†	1355.9	70.096	µg/L	3.3135	70.096	ppb	3.3135	4.73%
P 214.914†	463.7	844.42	µg/L	31.817	844.42	ppb	31.817	3.77%
Pb 220.353†	547.6	135.72	µg/L	6.314	135.72	ppb	6.314	4.65%
S 181.975 Axial†	181.9	753.90	µg/L	28.642	753.90	ppb	28.642	3.80%
Sb 206.836†	10.9	7.2438	µg/L	3.20205	7.2438	ppb	3.20205	44.20%
Se 196.026†	-56.5	245.44	µg/L	11.017	245.44	ppb	11.017	4.49%
SiO2†	170817.3	34206	µg/L	639.3	34206	ppb	639.3	1.87%
Si 251.611†	209763.7	16190	µg/L	168.0	16190	ppb	168.0	1.04%
Sn 189.927†	-45.7	-30.764	µg/L	1.8109	-30.764	ppb	1.8109	5.89%
Sr 421.552†	23383.2	229.98	µg/L	1.333	229.98	ppb	1.333	0.58%
Ti 334.940†	2323635.0	5283.6	µg/L	71.20	5283.6	ppb	71.20	1.35%
Tl 190.801†	-51.0	15.191	µg/L	3.2252	15.191	ppb	3.2252	21.23%
U 409.014†	-1117.6	-113.53	µg/L	2.870	-113.53	ppb	2.870	2.53%
V 292.402†	24998.4	262.29	µg/L	6.060	262.29	ppb	6.060	2.31%
Zn 213.857†	10108.5	231.04	µg/L	4.764	231.04	ppb	4.764	2.06%

Sequence No.: 48
Sample ID: 246066010|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 340
Date Collected: 2/21/2010 01:49:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066010|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58599.4	58599.4	99.2	%			01:49:47
1	Al 396.153Radial†	136630.5	137675.0	102920	µg/L	102920	ppb	01:49:47
1	Ca 317.933Radial†	21996.1	21969.9	20152	µg/L	20152	ppb	01:50:08
1	Fe 238.204 Radial†	15325.7	15426.5	132430	µg/L	132430	ppb	01:50:08
1	K 766.490 Radial†	23182.4	23159.7	15925	µg/L	15925	ppb	01:49:47
1	Mg 279.077 IEC†	2021.4	2024.6	19564	µg/L	19564	ppb	01:50:08
1	Na 589.592 Radial†	2840.5	2388.3	780.80	µg/L	780.80	ppb	01:50:08
1	Sr 421.552†	23218.1	23352.7	229.68	µg/L	229.68	ppb	01:49:47
1	Sc 361.383	2074601.1	2074601.1	98.808	%			01:51:12
1	Y 371.029	1462160.7	1462160.7	100.46	%			01:51:12
1	Ag 328.068†	-1790.2	-1348.6	-0.1331	µg/L	-0.1331	ppb	01:51:17
1	As 188.979†	12.3	12.7	29.512	µg/L	29.512	ppb	01:51:38
1	B 249.677†	1165.3	853.8	-34.002	µg/L	-34.002	ppb	01:51:17
1	Ba 233.527†	56239.9	56936.9	1395.7	µg/L	1395.7	ppb	01:51:17
1	Be 313.107†	15788.1	19737.5	9.9600	µg/L	9.9600	ppb	01:51:17
1	Cd 226.502†	358.2	499.1	-2.3319	µg/L	-2.3319	ppb	01:51:38
1	Co 228.616†	1270.6	1283.4	48.689	µg/L	48.689	ppb	01:51:38
1	Cr 267.716†	5026.5	5134.5	104.86	µg/L	104.86	ppb	01:51:17
1	Cu 324.752†	12913.2	10199.2	86.063	µg/L	86.063	ppb	01:51:17
1	Mn 257.610†	896647.6	907769.1	2906.4	µg/L	2906.4	ppb	01:51:12
1	Mo 202.031†	-8.1	-4.9	4.5407	µg/L	4.5407	ppb	01:51:38
1	Ni 231.604†	1731.5	1443.8	74.617	µg/L	74.617	ppb	01:51:38
1	P 214.914†	531.4	521.6	951.77	µg/L	951.77	ppb	01:51:38
1	Pb 220.353†	7143.8	7135.2	1756.2	µg/L	1756.2	ppb	01:51:17
1	S 181.975 Axial†	190.9	175.9	729.00	µg/L	729.00	ppb	01:51:38
1	Sb 206.836†	38.2	16.5	12.128	µg/L	12.128	ppb	01:51:38
1	Se 196.026†	-51.8	-67.5	246.43	µg/L	246.43	ppb	01:51:38
1	SiO2†	172096.0	172688.1	34581	µg/L	34581	ppb	01:51:17
1	Si 251.611†	209615.6	211851.2	16351	µg/L	16351	ppb	01:51:12
1	Sn 189.927†	-23.9	-28.9	-24.246	µg/L	-24.246	ppb	01:51:38
1	Ti 334.940†	2235340.6	2262170.5	5143.8	µg/L	5143.8	ppb	01:51:12
1	Tl 190.801†	-77.5	-56.2	6.4301	µg/L	6.4301	ppb	01:51:38
1	U 409.014†	-920.7	-931.1	-98.650	µg/L	-98.650	ppb	01:51:17
1	V 292.402†	23893.9	24278.2	255.90	µg/L	255.90	ppb	01:51:17
1	Zn 213.857†	23064.9	22841.3	531.24	µg/L	531.24	ppb	01:51:17
2	Sc RADIAL	58514.9	58514.9	99.1	%			01:50:13
2	Al 396.153Radial†	136241.8	137481.6	102780	µg/L	102780	ppb	01:50:13
2	Ca 317.933Radial†	22039.6	22045.7	20222	µg/L	20222	ppb	01:50:34
2	Fe 238.204 Radial†	15409.3	15533.2	133340	µg/L	133340	ppb	01:50:34
2	K 766.490 Radial†	23182.4	23193.4	15948	µg/L	15948	ppb	01:50:13
2	Mg 279.077 IEC†	2023.2	2029.4	19609	µg/L	19609	ppb	01:50:34
2	Na 589.592 Radial†	2850.1	2402.2	785.34	µg/L	785.34	ppb	01:50:34
2	Sr 421.552†	23122.3	23289.8	229.06	µg/L	229.06	ppb	01:50:13
2	Sc 361.383	2060300.3	2060300.3	98.127	%			01:51:45
2	Y 371.029	1453649.6	1453649.6	99.874	%			01:51:45
2	Ag 328.068†	-1711.0	-1280.5	0.4442	µg/L	0.4442	ppb	01:51:51
2	As 188.979†	17.3	17.9	38.947	µg/L	38.947	ppb	01:52:11
2	B 249.677†	1193.9	891.2	-32.948	µg/L	-32.948	ppb	01:51:51
2	Ba 233.527†	56366.6	57461.0	1408.5	µg/L	1408.5	ppb	01:51:51
2	Be 313.107†	15751.3	19810.9	9.9757	µg/L	9.9757	ppb	01:51:51
2	Cd 226.502†	354.3	497.7	-2.4704	µg/L	-2.4704	ppb	01:52:11
2	Co 228.616†	1267.6	1289.3	48.803	µg/L	48.803	ppb	01:52:11
2	Cr 267.716†	5078.4	5222.7	106.66	µg/L	106.66	ppb	01:51:51
2	Cu 324.752†	12895.9	10272.4	86.676	µg/L	86.676	ppb	01:51:51
2	Mn 257.610†	902850.3	920389.1	2946.7	µg/L	2946.7	ppb	01:51:45
2	Mo 202.031†	-13.8	-10.7	3.9941	µg/L	3.9941	ppb	01:52:11
2	Ni 231.604†	1724.4	1448.7	74.877	µg/L	74.877	ppb	01:52:11
2	P 214.914†	515.6	509.2	926.35	µg/L	926.35	ppb	01:52:11
2	Pb 220.353†	7199.6	7242.3	1782.5	µg/L	1782.5	ppb	01:51:51

2	S 181.975 Axial†	183.9	170.1	705.12 µg/L	705.12 ppb	01:52:11
2	Sb 206.836†	36.5	15.1	10.796 µg/L	10.796 ppb	01:52:11
2	Se 196.026†	-50.9	-66.8	249.71 µg/L	249.71 ppb	01:52:11
2	SiO2†	172298.9	174103.9	34864 µg/L	34864 ppb	01:51:51
2	Si 251.611†	211021.1	214756.1	16576 µg/L	16576 ppb	01:51:45
2	Sn 189.927†	-26.2	-31.4	-25.428 µg/L	-25.428 ppb	01:52:11
2	Ti 334.940†	2252358.9	2295216.6	5219.0 µg/L	5219.0 ppb	01:51:45
2	Tl 190.801†	-69.4	-48.5	17.706 µg/L	17.706 ppb	01:52:11
2	U 409.014†	-941.1	-958.3	-101.09 µg/L	-101.09 ppb	01:51:51
2	V 292.402†	23902.2	24454.5	257.75 µg/L	257.75 ppb	01:51:51
2	Zn 213.857†	23087.3	23026.2	535.55 µg/L	535.55 ppb	01:51:51
3	Sc RADIAL	58145.0	58145.0	98.5 %		01:50:39
3	Al 396.153Radial†	135443.7	137545.8	102830 µg/L	102830 ppb	01:50:39
3	Ca 317.933Radial†	21946.6	22092.8	20265 µg/L	20265 ppb	01:51:00
3	Fe 238.204 Radial†	15286.6	15507.5	133120 µg/L	133120 ppb	01:51:00
3	K 766.490 Radial†	22984.5	23141.3	15912 µg/L	15912 ppb	01:50:39
3	Mg 279.077 IEC†	2014.3	2033.4	19648 µg/L	19648 ppb	01:51:00
3	Na 589.592 Radial†	2837.3	2407.4	787.05 µg/L	787.05 ppb	01:51:00
3	Sr 421.552†	22948.6	23261.9	228.79 µg/L	228.79 ppb	01:50:39
3	Sc 361.383	2073117.5	2073117.5	98.737 %		01:52:18
3	Y 371.029	1460922.3	1460922.3	100.37 %		01:52:18
3	Ag 328.068†	-1752.4	-1311.7	0.1405 µg/L	0.1405 ppb	01:52:24
3	As 188.979†	11.4	11.9	28.033 µg/L	28.033 ppb	01:52:44
3	B 249.677†	1138.4	827.4	-35.450 µg/L	-35.450 ppb	01:52:24
3	Ba 233.527†	55043.8	55766.2	1367.0 µg/L	1367.0 ppb	01:52:24
3	Be 313.107†	15139.9	19092.4	9.5957 µg/L	9.5957 ppb	01:52:24
3	Cd 226.502†	327.3	468.1	-3.1957 µg/L	-3.1957 ppb	01:52:44
3	Co 228.616†	1168.8	1181.2	44.096 µg/L	44.096 ppb	01:52:44
3	Cr 267.716†	4838.4	4947.7	101.05 µg/L	101.05 ppb	01:52:24
3	Cu 324.752†	12603.8	9895.3	84.144 µg/L	84.144 ppb	01:52:24
3	Mn 257.610†	888218.2	899881.3	2881.4 µg/L	2881.4 ppb	01:52:18
3	Mo 202.031†	-5.4	-2.1	4.8449 µg/L	4.8449 ppb	01:52:44
3	Ni 231.604†	1617.5	1329.5	68.860 µg/L	68.860 ppb	01:52:44
3	P 214.914†	477.6	467.4	843.79 µg/L	843.79 ppb	01:52:44
3	Pb 220.353†	7053.7	7049.1	1735.0 µg/L	1735.0 ppb	01:52:24
3	S 181.975 Axial†	176.4	161.4	669.02 µg/L	669.02 ppb	01:52:44
3	Sb 206.836†	36.9	15.3	11.029 µg/L	11.029 ppb	01:52:44
3	Se 196.026†	-40.5	-56.0	263.91 µg/L	263.91 ppb	01:52:44
3	SiO2†	168706.6	169380.0	33918 µg/L	33918 ppb	01:52:24
3	Si 251.611†	208286.0	210656.5	16259 µg/L	16259 ppb	01:52:18
3	Sn 189.927†	-24.0	-29.0	-24.370 µg/L	-24.370 ppb	01:52:44
3	Ti 334.940†	2204999.2	2233059.9	5077.6 µg/L	5077.6 ppb	01:52:18
3	Tl 190.801†	-62.5	-41.0	26.138 µg/L	26.138 ppb	01:52:44
3	U 409.014†	-951.3	-962.7	-101.44 µg/L	-101.44 ppb	01:52:24
3	V 292.402†	23184.2	23576.7	249.04 µg/L	249.04 ppb	01:52:24
3	Zn 213.857†	22593.3	22380.3	520.35 µg/L	520.35 ppb	01:52:24

Mean Data: 246066010|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2069339.6	98.557	%	0.3745				0.38%
Sc RADIAL	58419.8	98.9	%	0.41				0.41%
Y 371.029	1458910.9	100.24	%	0.316				0.32%
Ag 328.068†	-1313.6	0.1505	µg/L	0.28877	0.1505	ppb	0.28877	191.84%
Al 396.153Radial†	137567.5	102840	µg/L	73.6	102840	ppb	73.6	0.07%
As 188.979†	14.2	32.164	µg/L	5.9208	32.164	ppb	5.9208	18.41%
B 249.677†	857.5	-34.133	µg/L	1.2564	-34.133	ppb	1.2564	3.68%
Ba 233.527†	56721.3	1390.4	µg/L	21.27	1390.4	ppb	21.27	1.53%
Be 313.107†	19546.9	9.8438	µg/L	0.21502	9.8438	ppb	0.21502	2.18%
Ca 317.933Radial†	22036.1	20213	µg/L	56.9	20213	ppb	56.9	0.28%
Cd 226.502†	488.3	-2.6660	µg/L	0.46394	-2.6660	ppb	0.46394	17.40%
Co 228.616†	1251.3	47.196	µg/L	2.6854	47.196	ppb	2.6854	5.69%
Cr 267.716†	5101.6	104.19	µg/L	2.867	104.19	ppb	2.867	2.75%
Cu 324.752†	10122.3	85.628	µg/L	1.3212	85.628	ppb	1.3212	1.54%
Fe 238.204 Radial†	15489.1	132960	µg/L	478.1	132960	ppb	478.1	0.36%
K 766.490 Radial†	23164.8	15929	µg/L	18.2	15929	ppb	18.2	0.11%
Mg 279.077 IEC†	2029.1	19607	µg/L	42.2	19607	ppb	42.2	0.22%
Mn 257.610†	909346.5	2911.5	µg/L	32.95	2911.5	ppb	32.95	1.13%
Mo 202.031†	-5.9	4.4599	µg/L	0.43110	4.4599	ppb	0.43110	9.67%
Na 589.592 Radial†	2399.3	784.39	µg/L	3.228	784.39	ppb	3.228	0.41%

Ni 231.604†	1407.3	72.785	µg/L	3.4017	72.785	ppb	3.4017	4.67%
P 214.914†	499.4	907.30	µg/L	56.451	907.30	ppb	56.451	6.22%
Pb 220.353†	7142.2	1757.9	µg/L	23.80	1757.9	ppb	23.80	1.35%
S 181.975 Axial†	169.1	701.05	µg/L	30.194	701.05	ppb	30.194	4.31%
Sb 206.836†	15.6	11.318	µg/L	0.7116	11.318	ppb	0.7116	6.29%
Se 196.026†	-63.4	253.35	µg/L	9.292	253.35	ppb	9.292	3.67%
SiO2†	172057.3	34455	µg/L	485.5	34455	ppb	485.5	1.41%
Si 251.611†	212421.3	16395	µg/L	162.7	16395	ppb	162.7	0.99%
Sn 189.927†	-29.8	-24.681	µg/L	0.6499	-24.681	ppb	0.6499	2.63%
Sr 421.552†	23301.5	229.18	µg/L	0.457	229.18	ppb	0.457	0.20%
Ti 334.940†	2263482.3	5146.8	µg/L	70.73	5146.8	ppb	70.73	1.37%
Tl 190.801†	-48.6	16.758	µg/L	9.8879	16.758	ppb	9.8879	59.00%
U 409.014†	-950.7	-100.39	µg/L	1.521	-100.39	ppb	1.521	1.52%
V 292.402†	24103.1	254.23	µg/L	4.592	254.23	ppb	4.592	1.81%
Zn 213.857†	22749.3	529.04	µg/L	7.836	529.04	ppb	7.836	1.48%

Sequence No.: 49
Sample ID: 246066011|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 341
Date Collected: 2/21/2010 01:52:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066011|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57839.1	57839.1	98.0	%			01:53:26
1	Al 396.153Radial†	131203.6	133944.8	100140	µg/L	100140	ppb	01:53:26
1	Ca 317.933Radial†	25850.2	26195.6	24028	µg/L	24028	ppb	01:53:46
1	Fe 238.204 Radial†	16258.3	16581.5	142340	µg/L	142340	ppb	01:53:46
1	K 766.490 Radial†	22591.3	22863.4	15721	µg/L	15721	ppb	01:53:26
1	Mg 279.077 IEC†	1937.4	1965.7	18979	µg/L	18979	ppb	01:53:46
1	Na 589.592 Radial†	2328.4	1903.1	622.19	µg/L	622.19	ppb	01:53:46
1	Sr 421.552†	24599.8	25070.7	246.58	µg/L	246.58	ppb	01:53:26
1	Sc 361.383	2070731.4	2070731.4	98.623	%			01:54:51
1	Y 371.029	1466664.8	1466664.8	100.77	%			01:54:51
1	Ag 328.068†	-1982.6	-1547.1	-0.7944	µg/L	-0.7944	ppb	01:54:57
1	As 188.979†	10.4	10.9	26.555	µg/L	26.555	ppb	01:55:17
1	B 249.677†	1203.5	894.8	-37.295	µg/L	-37.295	ppb	01:54:57
1	Ba 233.527†	58607.5	59443.9	1457.2	µg/L	1457.2	ppb	01:54:57
1	Be 313.107†	16216.4	20201.6	10.127	µg/L	10.127	ppb	01:54:57
1	Cd 226.502†	380.0	521.9	-2.8205	µg/L	-2.8205	ppb	01:54:57
1	Co 228.616†	1515.1	1533.6	59.653	µg/L	59.653	ppb	01:55:17
1	Cr 267.716†	11149.9	11352.9	231.70	µg/L	231.70	ppb	01:54:57
1	Cu 324.752†	12530.0	9835.2	85.027	µg/L	85.027	ppb	01:54:57
1	Mn 257.610†	1082776.1	1098191.2	3513.9	µg/L	3513.9	ppb	01:54:51
1	Mo 202.031†	-11.5	-8.3	4.5747	µg/L	4.5747	ppb	01:55:17
1	Ni 231.604†	2884.2	2615.8	133.97	µg/L	133.97	ppb	01:55:17
1	P 214.914†	573.6	565.4	1031.3	µg/L	1031.3	ppb	01:55:17
1	Pb 220.353†	664.4	578.8	142.51	µg/L	142.51	ppb	01:55:17
1	S 181.975 Axial†	186.9	172.2	714.00	µg/L	714.00	ppb	01:55:17
1	Sb 206.836†	38.7	17.1	10.900	µg/L	10.900	ppb	01:55:17
1	Se 196.026†	-61.4	-77.2	259.57	µg/L	259.57	ppb	01:55:17
1	SiO2†	204861.0	206235.9	41299	µg/L	41299	ppb	01:54:51
1	Si 251.611†	245054.5	248181.3	19156	µg/L	19156	ppb	01:54:51
1	Sn 189.927†	132.7	129.9	42.481	µg/L	42.481	ppb	01:55:17
1	Ti 334.940†	2360467.9	2393271.9	5442.1	µg/L	5442.1	ppb	01:54:51
1	Tl 190.801†	-74.0	-52.8	16.819	µg/L	16.819	ppb	01:55:17
1	U 409.014†	-1086.9	-1101.3	-114.71	µg/L	-114.71	ppb	01:54:51
1	V 292.402†	26793.3	27263.3	286.87	µg/L	286.87	ppb	01:54:57
1	Zn 213.857†	12960.1	12639.0	289.76	µg/L	289.76	ppb	01:54:57
2	Sc RADIAL	58266.9	58266.9	98.7	%			01:53:52
2	Al 396.153Radial†	131682.5	133446.7	99764	µg/L	99764	ppb	01:53:52
2	Ca 317.933Radial†	25695.4	25844.9	23707	µg/L	23707	ppb	01:54:12
2	Fe 238.204 Radial†	16186.9	16387.3	140670	µg/L	140670	ppb	01:54:12
2	K 766.490 Radial†	22786.0	22891.4	15741	µg/L	15741	ppb	01:53:52
2	Mg 279.077 IEC†	1928.3	1941.9	18750	µg/L	18750	ppb	01:54:12
2	Na 589.592 Radial†	2347.4	1905.0	622.80	µg/L	622.80	ppb	01:54:12
2	Sr 421.552†	24640.4	24927.5	245.17	µg/L	245.17	ppb	01:53:52
2	Sc 361.383	2073764.6	2073764.6	98.768	%			01:55:25
2	Y 371.029	1469204.2	1469204.2	100.94	%			01:55:25
2	Ag 328.068†	-2011.8	-1573.7	-1.1018	µg/L	-1.1018	ppb	01:55:30
2	As 188.979†	21.4	21.9	46.374	µg/L	46.374	ppb	01:55:51
2	B 249.677†	1188.6	878.0	-37.117	µg/L	-37.117	ppb	01:55:30
2	Ba 233.527†	58528.2	59276.7	1453.1	µg/L	1453.1	ppb	01:55:30
2	Be 313.107†	16198.0	20158.9	10.087	µg/L	10.087	ppb	01:55:30
2	Cd 226.502†	352.9	493.9	-3.3361	µg/L	-3.3361	ppb	01:55:30
2	Co 228.616†	1514.0	1530.3	59.422	µg/L	59.422	ppb	01:55:51
2	Cr 267.716†	11133.8	11320.1	231.03	µg/L	231.03	ppb	01:55:30
2	Cu 324.752†	12529.3	9815.9	84.667	µg/L	84.667	ppb	01:55:30
2	Mn 257.610†	1092286.0	1106214.0	3539.2	µg/L	3539.2	ppb	01:55:25
2	Mo 202.031†	-15.4	-12.2	4.1189	µg/L	4.1189	ppb	01:55:51
2	Ni 231.604†	2892.8	2620.2	134.17	µg/L	134.17	ppb	01:55:51
2	P 214.914†	567.5	558.4	1018.6	µg/L	1018.6	ppb	01:55:51
2	Pb 220.353†	656.8	570.2	140.42	µg/L	140.42	ppb	01:55:51

2	S 181.975 Axial†	185.6	170.6	707.37 µg/L	707.37	ppb	01:55:51
2	Sb 206.836†	37.6	16.0	9.8920 µg/L	9.8920	ppb	01:55:51
2	Se 196.026†	-50.9	-66.6	269.93 µg/L	269.93	ppb	01:55:51
2	SiO2†	206443.0	207533.8	41559 µg/L	41559	ppb	01:55:25
2	Si 251.611†	247015.6	249803.4	19281 µg/L	19281	ppb	01:55:25
2	Sn 189.927†	131.6	128.5	42.046 µg/L	42.046	ppb	01:55:51
2	Ti 334.940†	2380015.2	2409562.3	5479.2 µg/L	5479.2	ppb	01:55:25
2	Tl 190.801†	-72.8	-51.4	18.836 µg/L	18.836	ppb	01:55:51
2	U 409.014†	-1019.5	-1031.5	-108.53 µg/L	-108.53	ppb	01:55:25
2	V 292.402†	26773.2	27203.2	286.08 µg/L	286.08	ppb	01:55:30
2	Zn 213.857†	12894.4	12553.3	287.83 µg/L	287.83	ppb	01:55:30
3	Sc RADIAL	58272.8	58272.8	98.7 %			01:54:18
3	Al 396.153Radial†	131568.4	133317.6	99667 µg/L	99667	ppb	01:54:18
3	Ca 317.933Radial†	25736.6	25884.1	23743 µg/L	23743	ppb	01:54:38
3	Fe 238.204 Radial†	16171.3	16369.9	140520 µg/L	140520	ppb	01:54:38
3	K 766.490 Radial†	22765.0	22867.8	15724 µg/L	15724	ppb	01:54:18
3	Mg 279.077 IEC†	1923.4	1936.7	18700 µg/L	18700	ppb	01:54:38
3	Na 589.592 Radial†	2344.0	1901.2	621.57 µg/L	621.57	ppb	01:54:38
3	Sr 421.552†	24669.1	24954.1	245.43 µg/L	245.43	ppb	01:54:18
3	Sc 361.383	2051615.3	2051615.3	97.713 %			01:55:59
3	Y 371.029	1452509.5	1452509.5	99.795 %			01:55:59
3	Ag 328.068†	-1967.6	-1550.5	-0.9840 µg/L	-0.9840	ppb	01:56:04
3	As 188.979†	8.9	9.4	23.765 µg/L	23.765	ppb	01:56:25
3	B 249.677†	1149.5	851.0	-38.154 µg/L	-38.154	ppb	01:56:04
3	Ba 233.527†	56771.8	58118.9	1424.7 µg/L	1424.7	ppb	01:56:04
3	Be 313.107†	15480.8	19602.0	9.7946 µg/L	9.7946	ppb	01:56:04
3	Cd 226.502†	363.0	508.1	-2.9698 µg/L	-2.9698	ppb	01:56:04
3	Co 228.616†	1400.7	1430.9	55.060 µg/L	55.060	ppb	01:56:25
3	Cr 267.716†	10718.1	11016.4	224.83 µg/L	224.83	ppb	01:56:04
3	Cu 324.752†	12194.9	9610.6	83.284 µg/L	83.284	ppb	01:56:04
3	Mn 257.610†	1061032.5	1086168.4	3475.4 µg/L	3475.4	ppb	01:55:59
3	Mo 202.031†	-14.4	-11.5	4.1911 µg/L	4.1911	ppb	01:56:25
3	Ni 231.604†	2711.1	2466.0	126.38 µg/L	126.38	ppb	01:56:25
3	P 214.914†	534.5	530.8	963.97 µg/L	963.97	ppb	01:56:25
3	Pb 220.353†	626.8	546.6	134.63 µg/L	134.63	ppb	01:56:25
3	S 181.975 Axial†	179.5	166.4	689.67 µg/L	689.67	ppb	01:56:25
3	Sb 206.836†	35.2	14.0	8.1106 µg/L	8.1106	ppb	01:56:25
3	Se 196.026†	-53.0	-69.2	265.89 µg/L	265.89	ppb	01:56:25
3	SiO2†	201475.7	204706.9	40993 µg/L	40993	ppb	01:55:59
3	Si 251.611†	241318.3	246672.8	19039 µg/L	19039	ppb	01:55:59
3	Sn 189.927†	127.8	126.1	41.045 µg/L	41.045	ppb	01:56:25
3	Ti 334.940†	2304832.4	2358635.1	5363.4 µg/L	5363.4	ppb	01:55:59
3	Tl 190.801†	-74.6	-54.1	13.942 µg/L	13.942	ppb	01:56:25
3	U 409.014†	-1041.7	-1065.4	-111.39 µg/L	-111.39	ppb	01:55:59
3	V 292.402†	25799.3	26499.2	279.08 µg/L	279.08	ppb	01:56:04
3	Zn 213.857†	12541.5	12333.1	282.68 µg/L	282.68	ppb	01:56:04

Mean Data: 246066011|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2065370.4	98.368	%	0.5719				0.58%
Sc RADIAL	58126.3	98.4	%	0.42				0.43%
Y 371.029	1462792.8	100.50	%	0.618				0.61%
Ag 328.068†	-1557.1	-0.9601	µg/L	0.15512	-0.9601	ppb	0.15512	16.16%
Al 396.153Radial†	133569.7	99856	µg/L	247.6	99856	ppb	247.6	0.25%
As 188.979†	14.0	32.232	µg/L	12.3272	32.232	ppb	12.3272	38.25%
B 249.677†	874.6	-37.522	µg/L	0.5543	-37.522	ppb	0.5543	1.48%
Ba 233.527†	58946.5	1445.0	µg/L	17.69	1445.0	ppb	17.69	1.22%
Be 313.107†	19987.5	10.003	µg/L	0.1813	10.003	ppb	0.1813	1.81%
Ca 317.933Radial†	25974.9	23826	µg/L	176.2	23826	ppb	176.2	0.74%
Cd 226.502†	507.9	-3.0421	µg/L	0.26529	-3.0421	ppb	0.26529	8.72%
Co 228.616†	1498.3	58.045	µg/L	2.5878	58.045	ppb	2.5878	4.46%
Cr 267.716†	11229.8	229.19	µg/L	3.787	229.19	ppb	3.787	1.65%
Cu 324.752†	9753.9	84.326	µg/L	0.9199	84.326	ppb	0.9199	1.09%
Fe 238.204 Radial†	16446.2	141180	µg/L	1008.2	141180	ppb	1008.2	0.71%
K 766.490 Radial†	22874.2	15729	µg/L	10.3	15729	ppb	10.3	0.07%
Mg 279.077 IEC†	1948.1	18810	µg/L	149.1	18810	ppb	149.1	0.79%
Mn 257.610†	1096857.9	3509.5	µg/L	32.14	3509.5	ppb	32.14	0.92%
Mo 202.031†	-10.7	4.2949	µg/L	0.24500	4.2949	ppb	0.24500	5.70%
Na 589.592 Radial†	1903.1	622.19	µg/L	0.616	622.19	ppb	0.616	0.10%

Ni 231.604†	2567.3	131.50 µg/L	4.442	131.50 ppb	4.442	3.38%
P 214.914†	551.5	1004.6 µg/L	35.78	1004.6 ppb	35.78	3.56%
Pb 220.353†	565.2	139.19 µg/L	4.083	139.19 ppb	4.083	2.93%
S 181.975 Axial†	169.8	703.68 µg/L	12.579	703.68 ppb	12.579	1.79%
Sb 206.836†	15.7	9.6344 µg/L	1.41265	9.6344 ppb	1.41265	14.66%
Se 196.026†	-71.0	265.13 µg/L	5.223	265.13 ppb	5.223	1.97%
SiO2†	206158.9	41283 µg/L	283.4	41283 ppb	283.4	0.69%
Si 251.611†	248219.2	19158 µg/L	120.8	19158 ppb	120.8	0.63%
Sn 189.927†	128.2	41.857 µg/L	0.7364	41.857 ppb	0.7364	1.76%
Sr 421.552†	24984.1	245.72 µg/L	0.749	245.72 ppb	0.749	0.30%
Ti 334.940†	2387156.4	5428.2 µg/L	59.15	5428.2 ppb	59.15	1.09%
Tl 190.801†	-52.8	16.532 µg/L	2.4597	16.532 ppb	2.4597	14.88%
U 409.014†	-1066.1	-111.55 µg/L	3.093	-111.55 ppb	3.093	2.77%
V 292.402†	26988.6	284.01 µg/L	4.287	284.01 ppb	4.287	1.51%
Zn 213.857†	12508.5	286.75 µg/L	3.660	286.75 ppb	3.660	1.28%

Sequence No.: 50
Sample ID: 246066012|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 342
Date Collected: 2/21/2010 01:56:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066012|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58513.1	58513.1	99.1	%			01:57:07
1	Al 396.153Radial†	163068.5	164555.7	123020	µg/L	123020	ppb	01:57:07
1	Ca 317.933Radial†	19975.5	19963.6	18312	µg/L	18312	ppb	01:57:27
1	Fe 238.204 Radial†	15488.0	15613.1	134030	µg/L	134030	ppb	01:57:27
1	K 766.490 Radial†	19443.6	19421.5	13355	µg/L	13355	ppb	01:57:07
1	Mg 279.077 IEC†	1961.4	1967.1	19002	µg/L	19002	ppb	01:57:27
1	Na 589.592 Radial†	3990.8	3553.3	1161.7	µg/L	1161.7	ppb	01:57:27
1	Sr 421.552†	22773.0	22938.1	225.60	µg/L	225.60	ppb	01:57:07
1	Sc 361.383	2076699.2	2076699.2	98.908	%			01:58:32
1	Y 371.029	1480964.1	1480964.1	101.75	%			01:58:32
1	Ag 328.068†	-1882.1	-1439.8	-0.9225	µg/L	-0.9225	ppb	01:58:38
1	As 188.979†	14.8	15.2	34.197	µg/L	34.197	ppb	01:58:58
1	B 249.677†	1097.4	784.1	-37.629	µg/L	-37.629	ppb	01:58:38
1	Ba 233.527†	56864.1	57510.4	1409.7	µg/L	1409.7	ppb	01:58:38
1	Be 313.107†	16264.4	20202.9	10.324	µg/L	10.324	ppb	01:58:38
1	Cd 226.502†	346.6	487.1	-2.8006	µg/L	-2.8006	ppb	01:58:58
1	Co 228.616†	1163.4	1173.6	44.064	µg/L	44.064	ppb	01:58:58
1	Cr 267.716†	6927.2	7051.1	143.93	µg/L	143.93	ppb	01:58:38
1	Cu 324.752†	9491.3	6726.4	63.249	µg/L	63.249	ppb	01:58:38
1	Mn 257.610†	997957.1	1009280.5	3229.8	µg/L	3229.8	ppb	01:58:32
1	Mo 202.031†	0.4	3.7	5.4668	µg/L	5.4668	ppb	01:58:58
1	Ni 231.604†	2033.0	1746.8	89.962	µg/L	89.962	ppb	01:58:58
1	P 214.914†	425.4	413.9	745.70	µg/L	745.70	ppb	01:58:58
1	Pb 220.353†	535.9	447.0	111.74	µg/L	111.74	ppb	01:58:58
1	S 181.975 Axial†	114.4	98.3	407.61	µg/L	407.61	ppb	01:58:58
1	Sb 206.836†	39.7	18.0	13.251	µg/L	13.251	ppb	01:58:58
1	Se 196.026†	-59.5	-75.2	241.25	µg/L	241.25	ppb	01:58:58
1	SiO2†	207966.1	208778.3	41808	µg/L	41808	ppb	01:58:32
1	Si 251.611†	248740.7	251194.1	19388	µg/L	19388	ppb	01:58:32
1	Sn 189.927†	154.2	151.2	52.515	µg/L	52.515	ppb	01:58:58
1	Ti 334.940†	2142514.2	2166033.2	4925.2	µg/L	4925.2	ppb	01:58:32
1	Tl 190.801†	-75.4	-54.0	10.881	µg/L	10.881	ppb	01:58:58
1	U 409.014†	-1620.1	-1637.2	-158.69	µg/L	-158.69	ppb	01:58:32
1	V 292.402†	20728.9	21053.8	224.23	µg/L	224.23	ppb	01:58:38
1	Zn 213.857†	14603.2	14262.5	328.69	µg/L	328.69	ppb	01:58:38
2	Sc RADIAL	58054.0	58054.0	98.3	%			01:57:33
2	Al 396.153Radial†	164300.8	167110.4	124930	µg/L	124930	ppb	01:57:33
2	Ca 317.933Radial†	20052.8	20201.7	18530	µg/L	18530	ppb	01:57:53
2	Fe 238.204 Radial†	15567.7	15817.7	135780	µg/L	135780	ppb	01:57:53
2	K 766.490 Radial†	19520.8	19655.1	13515	µg/L	13515	ppb	01:57:33
2	Mg 279.077 IEC†	1967.8	1989.2	19216	µg/L	19216	ppb	01:57:53
2	Na 589.592 Radial†	4029.4	3624.4	1184.9	µg/L	1184.9	ppb	01:57:53
2	Sr 421.552†	22872.5	23221.0	228.38	µg/L	228.38	ppb	01:57:33
2	Sc 361.383	2072453.0	2072453.0	98.705	%			01:59:06
2	Y 371.029	1478235.5	1478235.5	101.56	%			01:59:06
2	Ag 328.068†	-1832.2	-1393.1	-0.4678	µg/L	-0.4678	ppb	01:59:11
2	As 188.979†	13.8	14.2	32.555	µg/L	32.555	ppb	01:59:32
2	B 249.677†	1052.2	740.6	-40.327	µg/L	-40.327	ppb	01:59:11
2	Ba 233.527†	56398.0	57156.0	1401.0	µg/L	1401.0	ppb	01:59:11
2	Be 313.107†	16157.5	20128.3	10.293	µg/L	10.293	ppb	01:59:11
2	Cd 226.502†	330.9	471.9	-3.3808	µg/L	-3.3808	ppb	01:59:32
2	Co 228.616†	1155.5	1168.1	43.883	µg/L	43.883	ppb	01:59:32
2	Cr 267.716†	6893.0	7030.8	143.52	µg/L	143.52	ppb	01:59:11
2	Cu 324.752†	9526.1	6781.3	63.858	µg/L	63.858	ppb	01:59:11
2	Mn 257.610†	989357.4	1002635.4	3208.8	µg/L	3208.8	ppb	01:59:06
2	Mo 202.031†	11.4	14.9	6.6483	µg/L	6.6483	ppb	01:59:32
2	Ni 231.604†	2032.7	1750.7	90.179	µg/L	90.179	ppb	01:59:32
2	P 214.914†	422.3	411.6	740.34	µg/L	740.34	ppb	01:59:32
2	Pb 220.353†	541.6	453.9	113.45	µg/L	113.45	ppb	01:59:32

2	S 181.975 Axial†	119.7	104.0	431.13 µg/L	431.13 ppb	01:59:32
2	Sb 206.836†	35.0	13.3	8.9467 µg/L	8.9467 ppb	01:59:32
2	Se 196.026†	-56.6	-72.3	249.67 µg/L	249.67 ppb	01:59:32
2	SiO2†	206230.0	207450.4	41542 µg/L	41542 ppb	01:59:06
2	Si 251.611†	246653.6	249595.0	19265 µg/L	19265 ppb	01:59:06
2	Sn 189.927†	155.9	153.2	53.218 µg/L	53.218 ppb	01:59:32
2	Ti 334.940†	2122115.8	2149805.7	4888.3 µg/L	4888.3 ppb	01:59:06
2	Tl 190.801†	-66.9	-45.6	22.120 µg/L	22.120 ppb	01:59:32
2	U 409.014†	-1536.3	-1555.7	-152.03 µg/L	-152.03 ppb	01:59:06
2	V 292.402†	20620.8	20987.3	223.79 µg/L	223.79 ppb	01:59:11
2	Zn 213.857†	14496.4	14184.6	326.76 µg/L	326.76 ppb	01:59:11
3	Sc RADIAL	58549.0	58549.0	99.2 %		01:57:59
3	Al 396.153Radial†	165097.9	166501.6	124480 µg/L	124480 ppb	01:57:59
3	Ca 317.933Radial†	20010.6	19986.7	18333 µg/L	18333 ppb	01:58:19
3	Fe 238.204 Radial†	15560.4	15676.5	134570 µg/L	134570 ppb	01:58:19
3	K 766.490 Radial†	19601.8	19569.0	13456 µg/L	13456 ppb	01:57:59
3	Mg 279.077 IEC†	1978.5	1983.1	19158 µg/L	19158 ppb	01:58:19
3	Na 589.592 Radial†	4016.6	3576.8	1169.4 µg/L	1169.4 ppb	01:58:19
3	Sr 421.552†	23004.6	23157.6	227.76 µg/L	227.76 ppb	01:57:59
3	Sc 361.383	2051345.4	2051345.4	97.700 %		01:59:40
3	Y 371.029	1462408.7	1462408.7	100.48 %		01:59:40
3	Ag 328.068†	-1804.8	-1384.2	-0.5236 µg/L	-0.5236 ppb	01:59:45
3	As 188.979†	13.6	14.2	32.382 µg/L	32.382 ppb	02:00:06
3	B 249.677†	1041.0	740.0	-39.723 µg/L	-39.723 ppb	01:59:45
3	Ba 233.527†	54402.9	55701.9	1365.4 µg/L	1365.4 ppb	01:59:45
3	Be 313.107†	15223.8	19341.0	9.8439 µg/L	9.8439 ppb	01:59:45
3	Cd 226.502†	294.5	438.1	-4.1009 µg/L	-4.1009 ppb	02:00:06
3	Co 228.616†	1071.0	1093.6	40.577 µg/L	40.577 ppb	02:00:06
3	Cr 267.716†	6585.1	6787.5	138.55 µg/L	138.55 ppb	01:59:45
3	Cu 324.752†	9245.4	6593.3	62.442 µg/L	62.442 ppb	01:59:45
3	Mn 257.610†	967217.2	990287.6	3169.4 µg/L	3169.4 ppb	01:59:40
3	Mo 202.031†	7.6	11.1	6.2272 µg/L	6.2272 ppb	02:00:06
3	Ni 231.604†	1898.0	1634.0	84.270 µg/L	84.270 ppb	02:00:06
3	P 214.914†	392.1	385.0	688.39 µg/L	688.39 ppb	02:00:06
3	Pb 220.353†	524.8	442.4	110.64 µg/L	110.64 ppb	02:00:06
3	S 181.975 Axial†	116.7	102.1	423.42 µg/L	423.42 ppb	02:00:06
3	Sb 206.836†	36.5	15.2	10.733 µg/L	10.733 ppb	02:00:06
3	Se 196.026†	-48.8	-65.0	256.58 µg/L	256.58 ppb	02:00:06
3	SiO2†	202775.8	206064.7	41265 µg/L	41265 ppb	01:59:40
3	Si 251.611†	242652.8	248071.3	19147 µg/L	19147 ppb	01:59:40
3	Sn 189.927†	136.0	134.5	45.360 µg/L	45.360 ppb	02:00:06
3	Ti 334.940†	2071234.1	2119848.3	4820.1 µg/L	4820.1 ppb	01:59:40
3	Tl 190.801†	-64.7	-44.0	23.340 µg/L	23.340 ppb	02:00:06
3	U 409.014†	-1474.0	-1507.9	-147.79 µg/L	-147.79 ppb	01:59:40
3	V 292.402†	19729.3	20289.8	216.74 µg/L	216.74 ppb	01:59:45
3	Zn 213.857†	13997.0	13824.6	318.35 µg/L	318.35 ppb	01:59:45

Mean Data: 246066012|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2066832.5	98.438	%	0.6467				0.66%
Sc RADIAL	58372.0	98.9	%	0.47				0.47%
Y 371.029	1473869.4	101.26	%	0.688				0.68%
Ag 328.068†	-1405.7	-0.6380	µg/L	0.24799	-0.6380	ppb	0.24799	38.87%
Al 396.153Radial†	166055.9	124140	µg/L	997.6	124140	ppb	997.6	0.80%
As 188.979†	14.5	33.045	µg/L	1.0017	33.045	ppb	1.0017	3.03%
B 249.677†	754.9	-39.226	µg/L	1.4158	-39.226	ppb	1.4158	3.61%
Ba 233.527†	56789.4	1392.0	µg/L	23.49	1392.0	ppb	23.49	1.69%
Be 313.107†	19890.7	10.154	µg/L	0.2689	10.154	ppb	0.2689	2.65%
Ca 317.933Radial†	20050.7	18392	µg/L	120.4	18392	ppb	120.4	0.65%
Cd 226.502†	465.7	-3.4274	µg/L	0.65144	-3.4274	ppb	0.65144	19.01%
Co 228.616†	1145.1	42.841	µg/L	1.9632	42.841	ppb	1.9632	4.58%
Cr 267.716†	6956.5	142.00	µg/L	2.995	142.00	ppb	2.995	2.11%
Cu 324.752†	6700.3	63.183	µg/L	0.7101	63.183	ppb	0.7101	1.12%
Fe 238.204 Radial†	15702.4	134790	µg/L	899.1	134790	ppb	899.1	0.67%
K 766.490 Radial†	19548.6	13442	µg/L	81.2	13442	ppb	81.2	0.60%
Mg 279.077 IEC†	1979.8	19125	µg/L	110.7	19125	ppb	110.7	0.58%
Mn 257.610†	1000734.5	3202.6	µg/L	30.67	3202.6	ppb	30.67	0.96%
Mo 202.031†	9.9	6.1141	µg/L	0.59880	6.1141	ppb	0.59880	9.79%
Na 589.592 Radial†	3584.8	1172.0	µg/L	11.84	1172.0	ppb	11.84	1.01%

Ni 231.604†	1710.5	88.137	µg/L	3.3504	88.137	ppb	3.3504	3.80%
P 214.914†	403.5	724.81	µg/L	31.655	724.81	ppb	31.655	4.37%
Pb 220.353†	447.8	111.95	µg/L	1.418	111.95	ppb	1.418	1.27%
S 181.975 Axial†	101.5	420.72	µg/L	11.988	420.72	ppb	11.988	2.85%
Sb 206.836†	15.5	10.977	µg/L	2.1624	10.977	ppb	2.1624	19.70%
Se 196.026†	-70.8	249.16	µg/L	7.679	249.16	ppb	7.679	3.08%
SiO2†	207431.1	41538	µg/L	271.7	41538	ppb	271.7	0.65%
Si 251.611†	249620.1	19267	µg/L	120.5	19267	ppb	120.5	0.63%
Sn 189.927†	146.3	50.364	µg/L	4.3485	50.364	ppb	4.3485	8.63%
Sr 421.552†	23105.6	227.25	µg/L	1.460	227.25	ppb	1.460	0.64%
Ti 334.940†	2145229.1	4877.9	µg/L	53.29	4877.9	ppb	53.29	1.09%
Tl 190.801†	-47.9	18.780	µg/L	6.8684	18.780	ppb	6.8684	36.57%
U 409.014†	-1567.0	-152.83	µg/L	5.493	-152.83	ppb	5.493	3.59%
V 292.402†	20776.9	221.59	µg/L	4.203	221.59	ppb	4.203	1.90%
Zn 213.857†	14090.6	324.60	µg/L	5.499	324.60	ppb	5.499	1.69%

Sequence No.: 51
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 02:00:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	58016.3	58016.3	98.3	%			02:00:53
1	Al 396.153Radial†	6803.2	6932.4	5171.9	µg/L	5171.9	ppb	02:00:53
1	Ca 317.933Radial†	5589.6	5495.6	5040.9	µg/L	5040.9	ppb	02:01:13
1	Fe 238.204 Radial†	602.8	598.1	5144.9	µg/L	5144.9	ppb	02:01:13
1	K 766.490 Radial†	7436.0	7369.3	5067.3	µg/L	5067.3	ppb	02:00:53
1	Mg 279.077 IEC†	544.7	542.3	5281.5	µg/L	5281.5	ppb	02:01:13
1	Na 589.592 Radial†	31370.9	31452.7	10283	µg/L	10283	ppb	02:00:53
1	Sr 421.552†	49036.1	49863.0	490.41	µg/L	490.41	ppb	02:00:53
1	Sc 361.383	2078272.5	2078272.5	98.983	%			02:02:17
1	Y 371.029	1433440.7	1433440.7	98.485	%			02:02:17
1	Ag 328.068†	64786.8	65915.9	495.32	µg/L	495.32	ppb	02:02:23
1	As 188.979†	280.3	283.4	509.17	µg/L	509.17	ppb	02:02:43
1	B 249.677†	12026.2	11824.3	481.84	µg/L	481.84	ppb	02:02:23
1	Ba 233.527†	20064.6	20289.2	498.10	µg/L	498.10	ppb	02:02:23
1	Be 313.107†	813725.5	825847.9	498.57	µg/L	498.57	ppb	02:02:17
1	Cd 226.502†	19380.6	19716.4	496.05	µg/L	496.05	ppb	02:02:23
1	Co 228.616†	10781.0	10889.2	503.63	µg/L	503.63	ppb	02:02:23
1	Cr 267.716†	24292.9	24590.0	501.80	µg/L	501.80	ppb	02:02:23
1	Cu 324.752†	76665.5	74583.8	495.46	µg/L	495.46	ppb	02:02:23
1	Mn 257.610†	156372.6	158282.4	504.31	µg/L	504.31	ppb	02:02:17
1	Mo 202.031†	5113.1	5169.0	518.11	µg/L	518.11	ppb	02:02:43
1	Ni 231.604†	10116.6	9912.0	500.41	µg/L	500.41	ppb	02:02:23
1	P 214.914†	1294.4	1291.5	2520.6	µg/L	2520.6	ppb	02:02:43
1	Pb 220.353†	2152.3	2079.6	511.92	µg/L	511.92	ppb	02:02:43
1	S 181.975 Axial†	258.7	244.1	1011.7	µg/L	1011.7	ppb	02:02:43
1	Sb 206.836†	565.3	549.0	503.57	µg/L	503.57	ppb	02:02:43
1	Se 196.026†	369.3	358.1	498.48	µg/L	498.48	ppb	02:02:43
1	SiO2†	27924.0	26726.6	5352.0	µg/L	5352.0	ppb	02:02:23
1	Si 251.611†	32437.5	32477.3	2506.7	µg/L	2506.7	ppb	02:02:23
1	Sn 189.927†	1201.8	1209.4	517.23	µg/L	517.23	ppb	02:02:43
1	Ti 334.940†	219148.3	221259.1	502.89	µg/L	502.89	ppb	02:02:17
1	Tl 190.801†	350.0	375.8	508.35	µg/L	508.35	ppb	02:02:43
1	U 409.014†	5831.0	5891.7	498.96	µg/L	498.96	ppb	02:02:23
1	V 292.402†	49752.9	50360.3	504.44	µg/L	504.44	ppb	02:02:23
1	Zn 213.857†	21494.0	21213.0	497.09	µg/L	497.09	ppb	02:02:23
2	Sc RADIAL	57936.0	57936.0	98.1	%			02:01:19
2	Al 396.153Radial†	6835.4	6974.8	5203.8	µg/L	5203.8	ppb	02:01:19
2	Ca 317.933Radial†	5608.9	5523.1	5066.2	µg/L	5066.2	ppb	02:01:39
2	Fe 238.204 Radial†	606.6	602.8	5185.0	µg/L	5185.0	ppb	02:01:39
2	K 766.490 Radial†	7367.3	7309.7	5026.3	µg/L	5026.3	ppb	02:01:19
2	Mg 279.077 IEC†	548.9	547.3	5330.3	µg/L	5330.3	ppb	02:01:39
2	Na 589.592 Radial†	31392.3	31518.8	10304	µg/L	10304	ppb	02:01:19
2	Sr 421.552†	49150.2	50048.6	492.24	µg/L	492.24	ppb	02:01:19
2	Sc 361.383	2100300.4	2100300.4	100.03	%			02:02:50
2	Y 371.029	1448333.3	1448333.3	99.509	%			02:02:50
2	Ag 328.068†	65725.2	66167.5	497.21	µg/L	497.21	ppb	02:02:56
2	As 188.979†	280.5	280.7	504.24	µg/L	504.24	ppb	02:03:16
2	B 249.677†	12285.8	11956.4	487.23	µg/L	487.23	ppb	02:02:56
2	Ba 233.527†	20311.3	20323.2	498.93	µg/L	498.93	ppb	02:02:56
2	Be 313.107†	819773.3	823271.7	497.02	µg/L	497.02	ppb	02:02:50
2	Cd 226.502†	19666.7	19797.1	498.07	µg/L	498.07	ppb	02:02:56
2	Co 228.616†	10904.5	10898.5	504.06	µg/L	504.06	ppb	02:02:56
2	Cr 267.716†	24664.1	24703.7	504.12	µg/L	504.12	ppb	02:02:56
2	Cu 324.752†	77879.1	74984.7	498.13	µg/L	498.13	ppb	02:02:56
2	Mn 257.610†	157557.9	157810.4	502.81	µg/L	502.81	ppb	02:02:50
2	Mo 202.031†	5068.1	5069.8	508.18	µg/L	508.18	ppb	02:03:16
2	Ni 231.604†	10256.2	9944.3	502.05	µg/L	502.05	ppb	02:02:56
2	P 214.914†	1262.7	1246.1	2429.9	µg/L	2429.9	ppb	02:03:16
2	Pb 220.353†	2137.8	2042.3	502.71	µg/L	502.71	ppb	02:03:16

2	S 181.975 Axial†	254.1	236.7	981.19 µg/L	981.19 ppb	02:03:16
2	Sb 206.836†	565.3	543.1	497.96 µg/L	497.96 ppb	02:03:16
2	Se 196.026†	389.1	374.0	520.38 µg/L	520.38 ppb	02:03:16
2	SiO2†	28333.6	26840.2	5374.8 µg/L	5374.8 ppb	02:02:56
2	Si 251.611†	32968.1	32664.1	2521.1 µg/L	2521.1 ppb	02:02:56
2	Sn 189.927†	1191.0	1185.9	507.18 µg/L	507.18 ppb	02:03:16
2	Ti 334.940†	220546.4	220334.7	500.79 µg/L	500.79 ppb	02:02:50
2	Tl 190.801†	351.4	373.6	505.31 µg/L	505.31 ppb	02:03:16
2	U 409.014†	5875.4	5874.3	497.48 µg/L	497.48 ppb	02:02:56
2	V 292.402†	50411.1	50491.1	505.66 µg/L	505.66 ppb	02:02:56
2	Zn 213.857†	21824.0	21315.1	499.49 µg/L	499.49 ppb	02:02:56
3	Sc RADIAL	57472.6	57472.6	97.3 %		02:01:45
3	Al 396.153Radial†	6756.7	6950.1	5187.1 µg/L	5187.1 ppb	02:01:45
3	Ca 317.933Radial†	5572.1	5531.4	5073.8 µg/L	5073.8 ppb	02:02:05
3	Fe 238.204 Radial†	601.6	602.6	5182.7 µg/L	5182.7 ppb	02:02:05
3	K 766.490 Radial†	7219.7	7218.6	4963.7 µg/L	4963.7 ppb	02:01:45
3	Mg 279.077 IEC†	540.4	543.1	5287.9 µg/L	5287.9 ppb	02:02:05
3	Na 589.592 Radial†	31182.9	31561.5	10318 µg/L	10318 ppb	02:01:45
3	Sr 421.552†	48567.8	49854.1	490.33 µg/L	490.33 ppb	02:01:45
3	Sc 361.383	2097522.4	2097522.4	99.899 %		02:03:24
3	Y 371.029	1447759.9	1447759.9	99.469 %		02:03:24
3	Ag 328.068†	62305.7	62831.5	472.00 µg/L	472.00 ppb	02:03:29
3	As 188.979†	242.2	242.7	436.07 µg/L	436.07 ppb	02:03:50
3	B 249.677†	11525.4	11211.5	456.67 µg/L	456.67 ppb	02:03:29
3	Ba 233.527†	18622.1	18659.2	458.07 µg/L	458.07 ppb	02:03:29
3	Be 313.107†	768316.6	772848.6	466.58 µg/L	466.58 ppb	02:03:24
3	Cd 226.502†	17987.1	18141.8	456.37 µg/L	456.37 ppb	02:03:29
3	Co 228.616†	9836.6	9843.9	455.22 µg/L	455.22 ppb	02:03:29
3	Cr 267.716†	21805.7	21875.0	446.40 µg/L	446.40 ppb	02:03:29
3	Cu 324.752†	71131.3	68333.1	454.01 µg/L	454.01 ppb	02:03:29
3	Mn 257.610†	148169.2	148620.9	473.56 µg/L	473.56 ppb	02:03:24
3	Mo 202.031†	4240.4	4248.0	425.83 µg/L	425.83 ppb	02:03:50
3	Ni 231.604†	9332.7	9033.5	456.07 µg/L	456.07 ppb	02:03:29
3	P 214.914†	1086.1	1070.9	2084.9 µg/L	2084.9 ppb	02:03:50
3	Pb 220.353†	1870.1	1777.2	437.37 µg/L	437.37 ppb	02:03:50
3	S 181.975 Axial†	230.1	213.1	883.28 µg/L	883.28 ppb	02:03:50
3	Sb 206.836†	483.6	461.9	423.20 µg/L	423.20 ppb	02:03:50
3	Se 196.026†	336.4	321.7	448.75 µg/L	448.75 ppb	02:03:50
3	SiO2†	26495.3	25037.6	5013.8 µg/L	5013.8 ppb	02:03:29
3	Si 251.611†	30642.3	30379.6	2344.8 µg/L	2344.8 ppb	02:03:29
3	Sn 189.927†	982.2	978.4	418.46 µg/L	418.46 ppb	02:03:50
3	Ti 334.940†	205524.3	205589.5	467.25 µg/L	467.25 ppb	02:03:24
3	Tl 190.801†	316.3	338.8	458.58 µg/L	458.58 ppb	02:03:50
3	U 409.014†	5367.3	5373.5	454.98 µg/L	454.98 ppb	02:03:29
3	V 292.402†	45385.6	45527.3	455.75 µg/L	455.75 ppb	02:03:29
3	Zn 213.857†	19811.8	19329.8	452.91 µg/L	452.91 ppb	02:03:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2092031.7	99.638	%	0.5714				0.57%
Sc RADIAL	57808.3	97.9	%	0.50				0.51%
Y 371.029	1443177.9	99.154	%	0.5797				0.58%
Ag 328.068†	64971.6	488.18	µg/L	14.041	488.18	ppb	14.041	2.88%
QC value within limits for Ag 328.068 Recovery = 97.64%								
Al 396.153Radial†	6952.4	5187.6	µg/L	15.95	5187.6	ppb	15.95	0.31%
QC value within limits for Al 396.153Radial Recovery = 103.75%								
As 188.979†	268.9	483.16	µg/L	40.859	483.16	ppb	40.859	8.46%
QC value within limits for As 188.979 Recovery = 96.63%								
B 249.677†	11664.1	475.25	µg/L	16.314	475.25	ppb	16.314	3.43%
QC value within limits for B 249.677 Recovery = 95.05%								
Ba 233.527†	19757.2	485.03	µg/L	23.356	485.03	ppb	23.356	4.82%
QC value within limits for Ba 233.527 Recovery = 97.01%								
Be 313.107†	807322.8	487.39	µg/L	18.040	487.39	ppb	18.040	3.70%
QC value within limits for Be 313.107 Recovery = 97.48%								
Ca 317.933Radial†	5516.7	5060.3	µg/L	17.19	5060.3	ppb	17.19	0.34%
QC value within limits for Ca 317.933Radial Recovery = 101.21%								
Cd 226.502†	19218.4	483.50	µg/L	23.511	483.50	ppb	23.511	4.86%
QC value within limits for Cd 226.502 Recovery = 96.70%								
Co 228.616†	10543.9	487.64	µg/L	28.074	487.64	ppb	28.074	5.76%

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   QC value within limits for Co 228.616  Recovery = 97.53%
Cr 267.716†            23722.9      484.11 µg/L        32.674      484.11 ppb         32.674   6.75%
   QC value within limits for Cr 267.716  Recovery = 96.82%
Cu 324.752†            72633.9      482.53 µg/L        24.741      482.53 ppb         24.741   5.13%
   QC value within limits for Cu 324.752  Recovery = 96.51%
Fe 238.204 Radial†       601.2      5170.9 µg/L         22.55      5170.9 ppb          22.55   0.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.42%
K 766.490 Radial†       7299.2      5019.1 µg/L         52.18      5019.1 ppb          52.18   1.04%
   QC value within limits for K 766.490 Radial  Recovery = 100.38%
Mg 279.077 IEC†          544.3      5299.9 µg/L         26.51      5299.9 ppb          26.51   0.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.00%
Mn 257.610†           154904.6      493.56 µg/L        17.337      493.56 ppb         17.337   3.51%
   QC value within limits for Mn 257.610  Recovery = 98.71%
Mo 202.031†             4828.9      484.04 µg/L        50.653      484.04 ppb         50.653  10.46%
   QC value within limits for Mo 202.031  Recovery = 96.81%
Na 589.592 Radial†     31511.0       10302 µg/L          17.9       10302 ppb           17.9   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 103.02%
Ni 231.604†             9629.9      486.17 µg/L        26.086      486.17 ppb         26.086   5.37%
   QC value within limits for Ni 231.604  Recovery = 97.23%
P 214.914†              1202.9      2345.2 µg/L        229.87      2345.2 ppb         229.87   9.80%
   QC value within limits for P 214.914  Recovery = 93.81%
Pb 220.353†             1966.4      484.00 µg/L        40.648      484.00 ppb         40.648   8.40%
   QC value within limits for Pb 220.353  Recovery = 96.80%
S 181.975 Axial†         231.3      958.73 µg/L        67.105      958.73 ppb         67.105   7.00%
   QC value within limits for S 181.975 Axial  Recovery = 95.87%
Sb 206.836†              518.0      474.91 µg/L        44.871      474.91 ppb         44.871   9.45%
   QC value within limits for Sb 206.836  Recovery = 94.98%
Se 196.026†              351.3      489.20 µg/L        36.704      489.20 ppb         36.704   7.50%
   QC value within limits for Se 196.026  Recovery = 97.84%
SiO2†                  26201.4      5246.9 µg/L        202.16      5246.9 ppb         202.16   3.85%
   QC value within limits for SiO2  Recovery = 98.12%
Si 251.611†            31840.3      2457.5 µg/L         97.90      2457.5 ppb          97.90   3.98%
   QC value within limits for Si 251.611  Recovery = 98.30%
Sn 189.927†             1124.6      480.96 µg/L        54.359      480.96 ppb         54.359  11.30%
   QC value within limits for Sn 189.927  Recovery = 96.19%
Sr 421.552†            49921.9      490.99 µg/L         1.080      490.99 ppb          1.080   0.22%
   QC value within limits for Sr 421.552  Recovery = 98.20%
Ti 334.940†           215727.8      490.31 µg/L        19.996      490.31 ppb         19.996   4.08%
   QC value within limits for Ti 334.940  Recovery = 98.06%
Tl 190.801†              362.7      490.75 µg/L        27.898      490.75 ppb         27.898   5.68%
   QC value within limits for Tl 190.801  Recovery = 98.15%
U 409.014†              5713.2      483.81 µg/L        24.975      483.81 ppb         24.975   5.16%
   QC value within limits for U 409.014  Recovery = 96.76%
V 292.402†             48792.9      488.62 µg/L        28.471      488.62 ppb         28.471   5.83%
   QC value within limits for V 292.402  Recovery = 97.72%
Zn 213.857†            20619.3      483.16 µg/L        26.228      483.16 ppb         26.228   5.43%
   QC value within limits for Zn 213.857  Recovery = 96.63%
All analyte(s) passed QC.
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Sequence No.: 52
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 02:03:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57517.3	57517.3	97.4	%			02:04:32
1	Al 396.153Radial†	-10.6	-2.2	-1.6313	µg/L	-1.6313	ppb	02:04:32
1	Ca 317.933Radial†	181.1	-7.1	-6.4780	µg/L	-6.4780	ppb	02:04:53
1	Fe 238.204 Radial†	15.1	0.1	1.0423	µg/L	1.0423	ppb	02:04:53
1	K 766.490 Radial†	275.7	84.6	58.171	µg/L	58.171	ppb	02:04:32
1	Mg 279.077 IEC†	17.0	5.3	52.016	µg/L	52.016	ppb	02:04:53
1	Na 589.592 Radial†	432.6	-29.6	-9.6762	µg/L	-9.6762	ppb	02:04:32
1	Sr 421.552†	14.5	-26.5	-0.2608	µg/L	-0.2608	ppb	02:04:32
1	Sc 361.383	2097014.1	2097014.1	99.875	%			02:05:55
1	Y 371.029	1452757.0	1452757.0	99.812	%			02:05:55
1	Ag 328.068†	-422.9	39.7	0.2980	µg/L	0.2980	ppb	02:06:00
1	As 188.979†	4.4	4.7	8.5045	µg/L	8.5045	ppb	02:06:21
1	B 249.677†	356.9	31.9	1.3039	µg/L	1.3039	ppb	02:06:21
1	Ba 233.527†	-8.6	9.8	0.2399	µg/L	0.2399	ppb	02:06:21
1	Be 313.107†	-3581.4	173.0	0.1043	µg/L	0.1043	ppb	02:06:00
1	Cd 226.502†	-136.4	0.1	0.0015	µg/L	0.0015	ppb	02:06:21
1	Co 228.616†	2.8	0.2	0.0091	µg/L	0.0091	ppb	02:06:21
1	Cr 267.716†	-44.7	2.7	0.0543	µg/L	0.0543	ppb	02:06:00
1	Cu 324.752†	2817.5	-48.7	-0.3227	µg/L	-0.3227	ppb	02:06:00
1	Mn 257.610†	-246.1	56.2	0.1769	µg/L	0.1769	ppb	02:06:21
1	Mo 202.031†	4.9	8.2	0.8218	µg/L	0.8218	ppb	02:06:21
1	Ni 231.604†	301.7	-6.6	-0.3323	µg/L	-0.3323	ppb	02:06:21
1	P 214.914†	11.7	-4.5	-9.0031	µg/L	-9.0031	ppb	02:06:21
1	Pb 220.353†	88.8	-5.8	-1.4217	µg/L	-1.4217	ppb	02:06:21
1	S 181.975 Axial†	18.4	1.1	4.5996	µg/L	4.5996	ppb	02:06:21
1	Sb 206.836†	31.8	9.7	8.8827	µg/L	8.8827	ppb	02:06:21
1	Se 196.026†	19.0	4.0	5.4505	µg/L	5.4505	ppb	02:06:21
1	SiO2†	1533.5	51.0	10.220	µg/L	10.220	ppb	02:06:00
1	Si 251.611†	416.7	123.7	9.5476	µg/L	9.5476	ppb	02:06:21
1	Sn 189.927†	0.9	-3.8	-1.6263	µg/L	-1.6263	ppb	02:06:21
1	Ti 334.940†	344.8	203.6	0.4588	µg/L	0.4588	ppb	02:06:00
1	Tl 190.801†	-21.3	0.9	1.2407	µg/L	1.2407	ppb	02:06:21
1	U 409.014†	-110.5	-109.9	-9.3273	µg/L	-9.3273	ppb	02:06:00
1	V 292.402†	-70.9	25.0	0.2446	µg/L	0.2446	ppb	02:06:00
1	Zn 213.857†	516.1	14.8	0.3489	µg/L	0.3489	ppb	02:06:21
2	Sc RADIAL	58127.4	58127.4	98.4	%			02:04:58
2	Al 396.153Radial†	2.2	10.9	8.1529	µg/L	8.1529	ppb	02:04:58
2	Ca 317.933Radial†	186.9	-3.1	-2.8447	µg/L	-2.8447	ppb	02:05:19
2	Fe 238.204 Radial†	17.6	2.5	21.642	µg/L	21.642	ppb	02:05:19
2	K 766.490 Radial†	172.8	-22.9	-15.723	µg/L	-15.723	ppb	02:04:58
2	Mg 279.077 IEC†	7.3	-4.7	-45.425	µg/L	-45.425	ppb	02:05:19
2	Na 589.592 Radial†	455.4	-11.1	-3.6281	µg/L	-3.6281	ppb	02:04:58
2	Sr 421.552†	24.2	-16.8	-0.1647	µg/L	-0.1647	ppb	02:04:58
2	Sc 361.383	2094113.4	2094113.4	99.737	%			02:06:27
2	Y 371.029	1450930.3	1450930.3	99.687	%			02:06:27
2	Ag 328.068†	-415.6	46.4	0.3532	µg/L	0.3532	ppb	02:06:32
2	As 188.979†	-1.4	-1.1	-1.9523	µg/L	-1.9523	ppb	02:06:53
2	B 249.677†	343.9	19.4	0.7814	µg/L	0.7814	ppb	02:06:53
2	Ba 233.527†	-7.4	10.9	0.2685	µg/L	0.2685	ppb	02:06:53
2	Be 313.107†	-3506.3	243.4	0.1468	µg/L	0.1468	ppb	02:06:32
2	Cd 226.502†	-134.8	1.5	0.0349	µg/L	0.0349	ppb	02:06:53
2	Co 228.616†	12.8	10.2	0.4733	µg/L	0.4733	ppb	02:06:53
2	Cr 267.716†	-40.1	7.2	0.1469	µg/L	0.1469	ppb	02:06:32
2	Cu 324.752†	2839.1	-23.2	-0.1506	µg/L	-0.1506	ppb	02:06:32
2	Mn 257.610†	-242.3	59.6	0.1944	µg/L	0.1944	ppb	02:06:53
2	Mo 202.031†	5.5	8.8	0.8831	µg/L	0.8831	ppb	02:06:53
2	Ni 231.604†	311.1	3.3	0.1651	µg/L	0.1651	ppb	02:06:53
2	P 214.914†	6.1	-10.1	-20.066	µg/L	-20.066	ppb	02:06:53
2	Pb 220.353†	87.5	-7.1	-1.7360	µg/L	-1.7360	ppb	02:06:53

2	S 181.975 Axial†	13.8	-3.4	-14.185 µg/L	-14.185 ppb	02:06:53
2	Sb 206.836†	27.2	5.1	4.6888 µg/L	4.6888 ppb	02:06:53
2	Se 196.026†	17.0	2.1	2.9364 µg/L	2.9364 ppb	02:06:53
2	SiO2†	1558.7	78.4	15.702 µg/L	15.702 ppb	02:06:32
2	Si 251.611†	411.8	119.4	9.2140 µg/L	9.2140 ppb	02:06:53
2	Sn 189.927†	5.2	0.5	0.1899 µg/L	0.1899 ppb	02:06:53
2	Ti 334.940†	360.0	219.3	0.5023 µg/L	0.5023 ppb	02:06:32
2	Tl 190.801†	-22.2	-0.0	-0.0136 µg/L	-0.0136 ppb	02:06:53
2	U 409.014†	-74.9	-74.4	-6.3131 µg/L	-6.3131 ppb	02:06:32
2	V 292.402†	-8.2	87.8	0.8714 µg/L	0.8714 ppb	02:06:32
2	Zn 213.857†	504.7	4.1	0.0972 µg/L	0.0972 ppb	02:06:53
3	Sc RADIAL	57528.6	57528.6	97.4 %		02:05:24
3	Al 396.153Radial†	-12.0	-3.6	-2.7112 µg/L	-2.7112 ppb	02:05:24
3	Ca 317.933Radial†	190.4	2.4	2.2357 µg/L	2.2357 ppb	02:05:44
3	Fe 238.204 Radial†	16.0	1.1	9.2703 µg/L	9.2703 ppb	02:05:44
3	K 766.490 Radial†	235.2	43.0	29.565 µg/L	29.565 ppb	02:05:24
3	Mg 279.077 IEC†	10.5	-1.3	-12.298 µg/L	-12.298 ppb	02:05:44
3	Na 589.592 Radial†	465.3	3.8	1.2538 µg/L	1.2538 ppb	02:05:24
3	Sr 421.552†	22.5	-18.3	-0.1798 µg/L	-0.1798 ppb	02:05:24
3	Sc 361.383	2084159.3	2084159.3	99.263 %		02:06:59
3	Y 371.029	1442314.0	1442314.0	99.095 %		02:06:59
3	Ag 328.068†	-428.7	31.2	0.2375 µg/L	0.2375 ppb	02:07:04
3	As 188.979†	0.1	0.3	0.6305 µg/L	0.6305 ppb	02:07:25
3	B 249.677†	346.3	23.3	0.9497 µg/L	0.9497 ppb	02:07:25
3	Ba 233.527†	-10.8	7.4	0.1835 µg/L	0.1835 ppb	02:07:25
3	Be 313.107†	-3475.8	257.3	0.1552 µg/L	0.1552 ppb	02:07:04
3	Cd 226.502†	-147.3	-11.8	-0.2973 µg/L	-0.2973 ppb	02:07:25
3	Co 228.616†	4.5	2.0	0.0917 µg/L	0.0917 ppb	02:07:25
3	Cr 267.716†	-60.3	-13.3	-0.2713 µg/L	-0.2713 ppb	02:07:04
3	Cu 324.752†	2859.1	10.7	0.0720 µg/L	0.0720 ppb	02:07:04
3	Mn 257.610†	-235.8	65.0	0.2087 µg/L	0.2087 ppb	02:07:25
3	Mo 202.031†	-8.4	-5.2	-0.5199 µg/L	-0.5199 ppb	02:07:25
3	Ni 231.604†	310.5	4.2	0.2128 µg/L	0.2128 ppb	02:07:25
3	P 214.914†	15.8	-0.3	-0.5548 µg/L	-0.5548 ppb	02:07:25
3	Pb 220.353†	83.9	-10.3	-2.5204 µg/L	-2.5204 ppb	02:07:25
3	S 181.975 Axial†	14.0	-3.2	-13.304 µg/L	-13.304 ppb	02:07:25
3	Sb 206.836†	25.0	3.1	2.8200 µg/L	2.8200 ppb	02:07:25
3	Se 196.026†	16.0	1.1	1.5337 µg/L	1.5337 ppb	02:07:25
3	SiO2†	1532.7	59.6	11.941 µg/L	11.941 ppb	02:07:04
3	Si 251.611†	443.3	153.1	11.814 µg/L	11.814 ppb	02:07:25
3	Sn 189.927†	4.0	-0.7	-0.3131 µg/L	-0.3131 ppb	02:07:25
3	Ti 334.940†	327.5	188.3	0.4292 µg/L	0.4292 ppb	02:07:04
3	Tl 190.801†	-20.5	1.6	2.0986 µg/L	2.0986 ppb	02:07:25
3	U 409.014†	-45.9	-45.5	-3.8585 µg/L	-3.8585 ppb	02:07:04
3	V 292.402†	-37.5	58.2	0.5683 µg/L	0.5683 ppb	02:07:04
3	Zn 213.857†	515.9	17.7	0.4180 µg/L	0.4180 ppb	02:07:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2091762.3	99.625	%	0.3211				0.32%
Sc RADIAL	57724.5	97.8	%	0.59				0.60%
Y 371.029	1448667.1	99.531	%	0.3832				0.38%
Ag 328.068†	39.1	0.2962	µg/L	0.05791	0.2962	ppb	0.05791	19.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.7	1.2701	µg/L	5.98503	1.2701	ppb	5.98503	471.21%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	2.3942	µg/L	5.44692	2.3942	ppb	5.44692	227.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	24.9	1.0116	µg/L	0.26671	1.0116	ppb	0.26671	26.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.4	0.2306	µg/L	0.04322	0.2306	ppb	0.04322	18.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	224.5	0.1354	µg/L	0.02730	0.1354	ppb	0.02730	20.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.6	-2.3624	µg/L	4.37682	-2.3624	ppb	4.37682	185.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.4	-0.0870	µg/L	0.18292	-0.0870	ppb	0.18292	210.36%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.1	0.1914	µg/L	0.24766	0.1914	ppb	0.24766	129.41%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.2     -0.0234 µg/L       0.21961     -0.0234 ppb        0.21961 939.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -20.4     -0.1338 µg/L       0.19788     -0.1338 ppb        0.19788 147.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.2      10.651 µg/L       10.3689      10.651 ppb        10.3689  97.35%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        34.9      24.004 µg/L       37.2596      24.004 ppb        37.2596 155.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.2     -1.9023 µg/L      49.54493     -1.9023 ppb       49.54493 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              60.3      0.1933 µg/L       0.01592      0.1933 ppb        0.01592   8.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.9      0.3950 µg/L       0.79290      0.3950 ppb        0.79290 200.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -12.3     -4.0169 µg/L       5.47535     -4.0169 ppb        5.47535 136.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.3      0.0152 µg/L       0.30189      0.0152 ppb        0.30189 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -5.0     -9.8746 µg/L       9.78475     -9.8746 ppb        9.78475  99.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -7.7     -1.8927 µg/L       0.56585     -1.8927 ppb        0.56585  29.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.8     -7.6299 µg/L      10.60018     -7.6299 ppb       10.60018 138.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.0      5.4638 µg/L       3.10480      5.4638 ppb        3.10480  56.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.4      3.3069 µg/L       1.98452      3.3069 ppb        1.98452  60.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    63.0      12.621 µg/L        2.8032      12.621 ppb         2.8032  22.21%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             132.0      10.192 µg/L        1.4149      10.192 ppb         1.4149  13.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.4     -0.5831 µg/L       0.93774     -0.5831 ppb        0.93774 160.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -20.5     -0.2018 µg/L       0.05167     -0.2018 ppb        0.05167  25.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             203.7      0.4634 µg/L       0.03675      0.4634 ppb        0.03675   7.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.8      1.1086 µg/L       1.06227      1.1086 ppb        1.06227  95.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -76.6     -6.4996 µg/L       2.73915     -6.4996 ppb        2.73915  42.14%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               57.0      0.5614 µg/L       0.31343      0.5614 ppb        0.31343  55.83%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              12.2      0.2880 µg/L       0.16888      0.2880 ppb        0.16888  58.63%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 53
Sample ID: 246066013|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 343
Date Collected: 2/21/2010 02:07:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066013|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59779.2	59779.2	101	%			02:08:12
1	Al 396.153Radial†	140337.0	138618.9	103630	µg/L	103630	ppb	02:08:12
1	Ca 317.933Radial†	22400.6	21932.0	20117	µg/L	20117	ppb	02:08:33
1	Fe 238.204 Radial†	16235.3	16020.1	137520	µg/L	137520	ppb	02:08:33
1	K 766.490 Radial†	26685.0	26158.3	17987	µg/L	17987	ppb	02:08:12
1	Mg 279.077 IEC†	2075.2	2037.6	19685	µg/L	19685	ppb	02:08:33
1	Na 589.592 Radial†	2085.9	1586.5	518.67	µg/L	518.67	ppb	02:08:33
1	Sr 421.552†	25677.3	25320.0	249.03	µg/L	249.03	ppb	02:08:12
1	Sc 361.383	2099346.0	2099346.0	99.986	%			02:09:38
1	Y 371.029	1482882.4	1482882.4	101.88	%			02:09:38
1	Ag 328.068†	-1963.3	-1500.4	-0.7467	µg/L	-0.7467	ppb	02:09:43
1	As 188.979†	11.6	11.9	28.348	µg/L	28.348	ppb	02:10:04
1	B 249.677†	1292.2	966.9	-31.903	µg/L	-31.903	ppb	02:09:43
1	Ba 233.527†	61403.8	61430.6	1505.9	µg/L	1505.9	ppb	02:09:43
1	Be 313.107†	16880.4	20641.6	10.410	µg/L	10.410	ppb	02:09:43
1	Cd 226.502†	383.9	520.6	-2.3324	µg/L	-2.3324	ppb	02:09:43
1	Co 228.616†	1495.3	1492.9	57.867	µg/L	57.867	ppb	02:10:04
1	Cr 267.716†	9190.9	9239.5	188.60	µg/L	188.60	ppb	02:09:43
1	Cu 324.752†	11621.5	8753.4	77.181	µg/L	77.181	ppb	02:09:43
1	Mn 257.610†	1021058.5	1021500.7	3269.1	µg/L	3269.1	ppb	02:09:38
1	Mo 202.031†	-10.3	-7.0	4.5221	µg/L	4.5221	ppb	02:10:04
1	Ni 231.604†	2452.7	2144.4	110.08	µg/L	110.08	ppb	02:10:04
1	P 214.914†	640.9	624.8	1154.0	µg/L	1154.0	ppb	02:10:04
1	Pb 220.353†	709.6	614.9	151.73	µg/L	151.73	ppb	02:10:04
1	S 181.975 Axial†	297.2	280.0	1160.6	µg/L	1160.6	ppb	02:10:04
1	Sb 206.836†	35.4	13.3	8.2548	µg/L	8.2548	ppb	02:10:04
1	Se 196.026†	-46.4	-61.4	268.54	µg/L	268.54	ppb	02:10:04
1	SiO2†	209726.1	208270.4	41706	µg/L	41706	ppb	02:09:38
1	Si 251.611†	251062.0	250802.8	19358	µg/L	19358	ppb	02:09:38
1	Sn 189.927†	-36.2	-40.9	-29.918	µg/L	-29.918	ppb	02:10:04
1	Ti 334.940†	2372531.0	2372713.9	5395.2	µg/L	5395.2	ppb	02:09:38
1	Tl 190.801†	-77.1	-54.9	12.629	µg/L	12.629	ppb	02:10:04
1	U 409.014†	-633.5	-632.9	-74.049	µg/L	-74.049	ppb	02:09:38
1	V 292.402†	27205.8	27305.5	286.67	µg/L	286.67	ppb	02:09:43
1	Zn 213.857†	12460.8	11960.6	274.05	µg/L	274.05	ppb	02:09:43
2	Sc RADIAL	59346.9	59346.9	101	%			02:08:38
2	Al 396.153Radial†	139993.9	139287.3	104130	µg/L	104130	ppb	02:08:38
2	Ca 317.933Radial†	22347.0	22039.8	20216	µg/L	20216	ppb	02:08:59
2	Fe 238.204 Radial†	16194.3	16096.2	138170	µg/L	138170	ppb	02:08:59
2	K 766.490 Radial†	26538.2	26204.2	18018	µg/L	18018	ppb	02:08:38
2	Mg 279.077 IEC†	2084.7	2062.0	19921	µg/L	19921	ppb	02:08:59
2	Na 589.592 Radial†	2068.5	1584.3	517.94	µg/L	517.94	ppb	02:08:59
2	Sr 421.552†	25583.5	25411.4	249.93	µg/L	249.93	ppb	02:08:38
2	Sc 361.383	2104258.3	2104258.3	100.22	%			02:10:11
2	Y 371.029	1485513.7	1485513.7	102.06	%			02:10:11
2	Ag 328.068†	-1958.4	-1490.9	-0.6429	µg/L	-0.6429	ppb	02:10:17
2	As 188.979†	12.7	13.0	30.307	µg/L	30.307	ppb	02:10:37
2	B 249.677†	1289.3	961.0	-32.485	µg/L	-32.485	ppb	02:10:17
2	Ba 233.527†	61302.2	61185.8	1499.9	µg/L	1499.9	ppb	02:10:17
2	Be 313.107†	16745.0	20467.0	10.304	µg/L	10.304	ppb	02:10:17
2	Cd 226.502†	374.2	510.0	-2.6723	µg/L	-2.6723	ppb	02:10:17
2	Co 228.616†	1501.8	1495.9	58.000	µg/L	58.000	ppb	02:10:37
2	Cr 267.716†	9160.3	9187.5	187.54	µg/L	187.54	ppb	02:10:17
2	Cu 324.752†	11590.8	8695.6	76.888	µg/L	76.888	ppb	02:10:17
2	Mn 257.610†	1022716.8	1020771.5	3266.8	µg/L	3266.8	ppb	02:10:11
2	Mo 202.031†	-16.8	-13.4	3.9065	µg/L	3.9065	ppb	02:10:37
2	Ni 231.604†	2448.9	2134.9	109.61	µg/L	109.61	ppb	02:10:37
2	P 214.914†	632.8	615.2	1134.6	µg/L	1134.6	ppb	02:10:37
2	Pb 220.353†	722.7	626.4	154.55	µg/L	154.55	ppb	02:10:37

2	S 181.975 Axial†	299.0	281.1	1165.2 µg/L	1165.2 ppb	02:10:37
2	Sb 206.836†	35.8	13.6	8.5002 µg/L	8.5002 ppb	02:10:37
2	Se 196.026†	-60.6	-75.5	250.84 µg/L	250.84 ppb	02:10:37
2	SiO2†	209982.7	208036.8	41660 µg/L	41660 ppb	02:10:11
2	Si 251.611†	251422.9	250576.7	19340 µg/L	19340 ppb	02:10:11
2	Sn 189.927†	-31.4	-36.0	-27.872 µg/L	-27.872 ppb	02:10:37
2	Ti 334.940†	2378713.5	2373343.5	5396.7 µg/L	5396.7 ppb	02:10:11
2	Tl 190.801†	-76.8	-54.4	13.389 µg/L	13.389 ppb	02:10:37
2	U 409.014†	-709.2	-706.9	-80.430 µg/L	-80.430 ppb	02:10:11
2	V 292.402†	27146.4	27182.7	285.51 µg/L	285.51 ppb	02:10:17
2	Zn 213.857†	12415.2	11886.0	272.25 µg/L	272.25 ppb	02:10:17
3	Sc RADIAL	59472.1	59472.1	101 %		02:09:04
3	Al 396.153Radial†	140564.3	139560.5	104330 µg/L	104330 ppb	02:09:04
3	Ca 317.933Radial†	22369.8	22015.7	20194 µg/L	20194 ppb	02:09:25
3	Fe 238.204 Radial†	16180.5	16048.6	137770 µg/L	137770 ppb	02:09:25
3	K 766.490 Radial†	26601.3	26211.2	18023 µg/L	18023 ppb	02:09:04
3	Mg 279.077 IEC†	2073.2	2046.2	19768 µg/L	19768 ppb	02:09:25
3	Na 589.592 Radial†	2066.3	1577.7	515.79 µg/L	515.79 ppb	02:09:25
3	Sr 421.552†	25608.2	25382.3	249.64 µg/L	249.64 ppb	02:09:04
3	Sc 361.383	2097366.3	2097366.3	99.892 %		02:10:45
3	Y 371.029	1480765.1	1480765.1	101.74 %		02:10:45
3	Ag 328.068†	-1923.9	-1462.8	-0.5216 µg/L	-0.5216 ppb	02:10:51
3	As 188.979†	14.6	14.9	33.687 µg/L	33.687 ppb	02:11:11
3	B 249.677†	1311.4	987.4	-31.208 µg/L	-31.208 ppb	02:10:51
3	Ba 233.527†	59451.3	59533.9	1459.4 µg/L	1459.4 ppb	02:10:51
3	Be 313.107†	16054.4	19830.7	9.9704 µg/L	9.9704 ppb	02:10:51
3	Cd 226.502†	373.2	510.2	-2.6276 µg/L	-2.6276 ppb	02:10:51
3	Co 228.616†	1385.1	1384.0	53.095 µg/L	53.095 ppb	02:11:11
3	Cr 267.716†	8716.0	8772.8	179.08 µg/L	179.08 ppb	02:10:51
3	Cu 324.752†	11283.7	8426.2	75.044 µg/L	75.044 ppb	02:10:51
3	Mn 257.610†	998527.6	999909.4	3200.4 µg/L	3200.4 ppb	02:10:45
3	Mo 202.031†	-13.3	-10.0	4.2370 µg/L	4.2370 ppb	02:11:11
3	Ni 231.604†	2298.5	1992.4	102.41 µg/L	102.41 ppb	02:11:11
3	P 214.914†	580.1	564.5	1034.4 µg/L	1034.4 ppb	02:11:11
3	Pb 220.353†	664.2	570.1	140.75 µg/L	140.75 ppb	02:11:11
3	S 181.975 Axial†	279.2	262.2	1086.7 µg/L	1086.7 ppb	02:11:11
3	Sb 206.836†	38.1	16.0	10.800 µg/L	10.800 ppb	02:11:11
3	Se 196.026†	-51.5	-66.5	262.07 µg/L	262.07 ppb	02:11:11
3	SiO2†	206217.7	204956.1	41043 µg/L	41043 ppb	02:10:45
3	Si 251.611†	246661.9	246635.0	19036 µg/L	19036 ppb	02:10:45
3	Sn 189.927†	-31.2	-35.9	-27.816 µg/L	-27.816 ppb	02:11:11
3	Ti 334.940†	2312791.1	2315149.2	5264.3 µg/L	5264.3 ppb	02:10:45
3	Tl 190.801†	-73.8	-51.6	15.748 µg/L	15.748 ppb	02:11:11
3	U 409.014†	-679.5	-679.4	-78.039 µg/L	-78.039 ppb	02:10:45
3	V 292.402†	26098.3	26222.5	275.95 µg/L	275.95 ppb	02:10:51
3	Zn 213.857†	12032.2	11543.2	264.22 µg/L	264.22 ppb	02:10:51

Mean Data: 246066013|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2100323.5	100.03	%	0.169				0.17%
Sc RADIAL	59532.7	101	%	0.4				0.37%
Y 371.029	1483053.7	101.89	%	0.163				0.16%
Ag 328.068†	-1484.7	-0.6371	µg/L	0.11269	-0.6371	ppb	0.11269	17.69%
Al 396.153Radial†	139155.6	104030	µg/L	362.2	104030	ppb	362.2	0.35%
As 188.979†	13.2	30.781	µg/L	2.7010	30.781	ppb	2.7010	8.78%
B 249.677†	971.7	-31.865	µg/L	0.6394	-31.865	ppb	0.6394	2.01%
Ba 233.527†	60716.7	1488.4	µg/L	25.29	1488.4	ppb	25.29	1.70%
Be 313.107†	20313.1	10.228	µg/L	0.2296	10.228	ppb	0.2296	2.24%
Ca 317.933Radial†	21995.8	20176	µg/L	51.9	20176	ppb	51.9	0.26%
Cd 226.502†	513.6	-2.5441	µg/L	0.18471	-2.5441	ppb	0.18471	7.26%
Co 228.616†	1457.6	56.321	µg/L	2.7939	56.321	ppb	2.7939	4.96%
Cr 267.716†	9066.6	185.07	µg/L	5.220	185.07	ppb	5.220	2.82%
Cu 324.752†	8625.0	76.371	µg/L	1.1581	76.371	ppb	1.1581	1.52%
Fe 238.204 Radial†	16055.0	137820	µg/L	330.0	137820	ppb	330.0	0.24%
K 766.490 Radial†	26191.2	18010	µg/L	19.8	18010	ppb	19.8	0.11%
Mg 279.077 IEC†	2048.6	19791	µg/L	119.9	19791	ppb	119.9	0.61%
Mn 257.610†	1014060.5	3245.4	µg/L	39.03	3245.4	ppb	39.03	1.20%
Mo 202.031†	-10.1	4.2219	µg/L	0.30807	4.2219	ppb	0.30807	7.30%
Na 589.592 Radial†	1582.8	517.47	µg/L	1.499	517.47	ppb	1.499	0.29%

Ni 231.604†	2090.5	107.37	µg/L	4.301	107.37	ppb	4.301	4.01%
P 214.914†	601.5	1107.7	µg/L	64.22	1107.7	ppb	64.22	5.80%
Pb 220.353†	603.8	149.01	µg/L	7.294	149.01	ppb	7.294	4.90%
S 181.975 Axial†	274.4	1137.5	µg/L	44.02	1137.5	ppb	44.02	3.87%
Sb 206.836†	14.3	9.1851	µg/L	1.40405	9.1851	ppb	1.40405	15.29%
Se 196.026†	-67.8	260.48	µg/L	8.960	260.48	ppb	8.960	3.44%
SiO2†	207087.8	41469	µg/L	370.4	41469	ppb	370.4	0.89%
Si 251.611†	249338.2	19245	µg/L	180.9	19245	ppb	180.9	0.94%
Sn 189.927†	-37.6	-28.535	µg/L	1.1978	-28.535	ppb	1.1978	4.20%
Sr 421.552†	25371.2	249.53	µg/L	0.460	249.53	ppb	0.460	0.18%
Ti 334.940†	2353735.5	5352.1	µg/L	76.00	5352.1	ppb	76.00	1.42%
Tl 190.801†	-53.7	13.922	µg/L	1.6262	13.922	ppb	1.6262	11.68%
U 409.014†	-673.1	-77.506	µg/L	3.2234	-77.506	ppb	3.2234	4.16%
V 292.402†	26903.6	282.71	µg/L	5.881	282.71	ppb	5.881	2.08%
Zn 213.857†	11796.6	270.17	µg/L	5.233	270.17	ppb	5.233	1.94%

Sequence No.: 54
Sample ID: 246066014|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 344
Date Collected: 2/21/2010 02:11:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066014|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59625.9	59625.9	101	%			02:11:53
1	Al 396.153Radial†	179618.0	177872.9	132980	µg/L	132980	ppb	02:11:53
1	Ca 317.933Radial†	28208.9	27740.5	25445	µg/L	25445	ppb	02:12:13
1	Fe 238.204 Radial†	18119.1	17926.8	153890	µg/L	153890	ppb	02:12:13
1	K 766.490 Radial†	23646.8	23217.5	15965	µg/L	15965	ppb	02:11:53
1	Mg 279.077 IEC†	2565.1	2528.0	24441	µg/L	24441	ppb	02:12:13
1	Na 589.592 Radial†	3142.5	2638.1	862.47	µg/L	862.47	ppb	02:12:13
1	Sr 421.552†	27363.2	27054.7	266.09	µg/L	266.09	ppb	02:11:53
1	Sc 361.383	2102564.6	2102564.6	100.14	%			02:13:19
1	Y 371.029	1496828.3	1496828.3	102.84	%			02:13:19
1	Ag 328.068†	-2112.7	-1646.7	-0.8248	µg/L	-0.8248	ppb	02:13:24
1	As 188.979†	14.9	15.1	34.842	µg/L	34.842	ppb	02:13:45
1	B 249.677†	1177.6	850.5	-43.600	µg/L	-43.600	ppb	02:13:24
1	Ba 233.527†	67764.7	67688.6	1659.2	µg/L	1659.2	ppb	02:13:24
1	Be 313.107†	18329.2	22062.5	11.573	µg/L	11.573	ppb	02:13:24
1	Cd 226.502†	428.4	564.4	-2.5839	µg/L	-2.5839	ppb	02:13:24
1	Co 228.616†	1635.7	1630.9	65.924	µg/L	65.924	ppb	02:13:45
1	Cr 267.716†	58429.8	58395.8	1191.1	µg/L	1191.1	ppb	02:13:24
1	Cu 324.752†	13735.4	10846.6	93.341	µg/L	93.341	ppb	02:13:24
1	Mn 257.610†	1094486.8	1093263.4	3499.5	µg/L	3499.5	ppb	02:13:19
1	Mo 202.031†	32.0	35.3	9.3825	µg/L	9.3825	ppb	02:13:45
1	Ni 231.604†	12252.1	11926.4	604.66	µg/L	604.66	ppb	02:13:24
1	P 214.914†	680.4	663.3	1224.3	µg/L	1224.3	ppb	02:13:45
1	Pb 220.353†	645.4	549.7	136.73	µg/L	136.73	ppb	02:13:45
1	S 181.975 Axial†	167.2	149.7	620.38	µg/L	620.38	ppb	02:13:45
1	Sb 206.836†	60.7	38.5	19.536	µg/L	19.536	ppb	02:13:45
1	Se 196.026†	-71.0	-85.9	273.98	µg/L	273.98	ppb	02:13:45
1	SiO2†	196803.1	195044.3	39058	µg/L	39058	ppb	02:13:19
1	Si 251.611†	235726.8	235104.6	18146	µg/L	18146	ppb	02:13:19
1	Sn 189.927†	-29.5	-34.2	-28.253	µg/L	-28.253	ppb	02:13:45
1	Ti 334.940†	2024595.0	2021630.6	4596.4	µg/L	4596.4	ppb	02:13:19
1	Tl 190.801†	-61.1	-38.8	32.317	µg/L	32.317	ppb	02:13:45
1	U 409.014†	-1402.0	-1399.3	-141.69	µg/L	-141.69	ppb	02:13:19
1	V 292.402†	26966.5	27024.9	288.09	µg/L	288.09	ppb	02:13:24
1	Zn 213.857†	13389.3	12868.7	292.23	µg/L	292.23	ppb	02:13:24
2	Sc RADIAL	60042.3	60042.3	102	%			02:12:19
2	Al 396.153Radial†	181603.8	178592.1	133510	µg/L	133510	ppb	02:12:19
2	Ca 317.933Radial†	28151.7	27490.6	25216	µg/L	25216	ppb	02:12:39
2	Fe 238.204 Radial†	18092.2	17775.9	152590	µg/L	152590	ppb	02:12:39
2	K 766.490 Radial†	23941.7	23345.2	16053	µg/L	16053	ppb	02:12:19
2	Mg 279.077 IEC†	2560.3	2505.6	24224	µg/L	24224	ppb	02:12:39
2	Na 589.592 Radial†	3116.4	2590.8	847.02	µg/L	847.02	ppb	02:12:39
2	Sr 421.552†	27778.1	27274.7	268.25	µg/L	268.25	ppb	02:12:19
2	Sc 361.383	2093833.6	2093833.6	99.724	%			02:13:52
2	Y 371.029	1490755.1	1490755.1	102.42	%			02:13:52
2	Ag 328.068†	-2057.1	-1599.7	-0.5519	µg/L	-0.5519	ppb	02:13:58
2	As 188.979†	10.8	11.1	27.600	µg/L	27.600	ppb	02:14:18
2	B 249.677†	1083.0	760.6	-46.603	µg/L	-46.603	ppb	02:13:58
2	Ba 233.527†	67442.4	67647.5	1658.2	µg/L	1658.2	ppb	02:13:58
2	Be 313.107†	18320.6	22130.2	11.604	µg/L	11.604	ppb	02:13:58
2	Cd 226.502†	396.7	534.4	-3.1937	µg/L	-3.1937	ppb	02:13:58
2	Co 228.616†	1622.6	1624.5	65.577	µg/L	65.577	ppb	02:14:18
2	Cr 267.716†	58217.6	58426.2	1191.7	µg/L	1191.7	ppb	02:13:58
2	Cu 324.752†	13731.3	10899.6	93.513	µg/L	93.513	ppb	02:13:58
2	Mn 257.610†	1095003.2	1098338.8	3515.5	µg/L	3515.5	ppb	02:13:52
2	Mo 202.031†	27.8	31.2	8.9284	µg/L	8.9284	ppb	02:14:18
2	Ni 231.604†	12184.3	11909.4	603.79	µg/L	603.79	ppb	02:13:58
2	P 214.914†	667.0	652.7	1204.4	µg/L	1204.4	ppb	02:14:18
2	Pb 220.353†	641.4	548.4	136.49	µg/L	136.49	ppb	02:14:18

2	S 181.975 Axial†	171.1	154.3	639.66	µg/L	639.66	ppb	02:14:18
2	Sb 206.836†	54.2	32.2	13.796	µg/L	13.796	ppb	02:14:18
2	Se 196.026†	-58.1	-73.3	288.04	µg/L	288.04	ppb	02:14:18
2	SiO2†	197131.5	196193.1	39288	µg/L	39288	ppb	02:13:52
2	Si 251.611†	235826.8	236186.5	18230	µg/L	18230	ppb	02:13:52
2	Sn 189.927†	-26.2	-31.0	-26.773	µg/L	-26.773	ppb	02:14:18
2	Ti 334.940†	2027096.4	2032569.5	4621.3	µg/L	4621.3	ppb	02:13:52
2	Tl 190.801†	-70.3	-48.2	19.900	µg/L	19.900	ppb	02:14:18
2	U 409.014†	-1271.1	-1273.8	-130.85	µg/L	-130.85	ppb	02:13:52
2	V 292.402†	26916.7	27087.3	288.56	µg/L	288.56	ppb	02:13:58
2	Zn 213.857†	13370.7	12905.8	293.18	µg/L	293.18	ppb	02:13:58
3	Sc RADIAL	59397.0	59397.0	101	%			02:12:45
3	Al 396.153Radial†	179881.4	178820.2	133680	µg/L	133680	ppb	02:12:45
3	Ca 317.933Radial†	28190.6	27829.9	25527	µg/L	25527	ppb	02:13:06
3	Fe 238.204 Radial†	18143.3	18020.0	154690	µg/L	154690	ppb	02:13:06
3	K 766.490 Radial†	23598.6	23259.8	15994	µg/L	15994	ppb	02:12:45
3	Mg 279.077 IEC†	2562.5	2535.2	24509	µg/L	24509	ppb	02:13:06
3	Na 589.592 Radial†	3115.6	2623.3	857.64	µg/L	857.64	ppb	02:13:06
3	Sr 421.552†	27384.5	27180.3	267.32	µg/L	267.32	ppb	02:12:45
3	Sc 361.383	2090285.8	2090285.8	99.555	%			02:14:26
3	Y 371.029	1486992.0	1486992.0	102.16	%			02:14:26
3	Ag 328.068†	-2013.6	-1559.5	-0.1811	µg/L	-0.1811	ppb	02:14:32
3	As 188.979†	7.8	8.1	22.211	µg/L	22.211	ppb	02:14:52
3	B 249.677†	1099.9	779.3	-47.004	µg/L	-47.004	ppb	02:14:32
3	Ba 233.527†	65526.5	65837.8	1613.9	µg/L	1613.9	ppb	02:14:32
3	Be 313.107†	17559.1	21396.5	11.210	µg/L	11.210	ppb	02:14:32
3	Cd 226.502†	372.8	511.0	-4.0379	µg/L	-4.0379	ppb	02:14:32
3	Co 228.616†	1514.4	1518.6	60.939	µg/L	60.939	ppb	02:14:52
3	Cr 267.716†	55854.4	56151.6	1145.3	µg/L	1145.3	ppb	02:14:32
3	Cu 324.752†	13395.8	10585.9	91.723	µg/L	91.723	ppb	02:14:32
3	Mn 257.610†	1067174.0	1072248.8	3432.7	µg/L	3432.7	ppb	02:14:26
3	Mo 202.031†	28.0	31.4	9.0261	µg/L	9.0261	ppb	02:14:52
3	Ni 231.604†	11793.5	11537.6	585.03	µg/L	585.03	ppb	02:14:32
3	P 214.914†	634.8	621.4	1140.8	µg/L	1140.8	ppb	02:14:52
3	Pb 220.353†	610.3	518.3	129.00	µg/L	129.00	ppb	02:14:52
3	S 181.975 Axial†	159.6	143.0	592.94	µg/L	592.94	ppb	02:14:52
3	Sb 206.836†	57.2	35.4	17.161	µg/L	17.161	ppb	02:14:52
3	Se 196.026†	-46.0	-61.2	309.90	µg/L	309.90	ppb	02:14:52
3	SiO2†	192966.3	192344.8	38517	µg/L	38517	ppb	02:14:26
3	Si 251.611†	231070.8	231810.5	17892	µg/L	17892	ppb	02:14:26
3	Sn 189.927†	-20.1	-24.9	-24.363	µg/L	-24.363	ppb	02:14:52
3	Ti 334.940†	1967726.1	1976383.8	4493.5	µg/L	4493.5	ppb	02:14:26
3	Tl 190.801†	-69.9	-48.0	19.097	µg/L	19.097	ppb	02:14:52
3	U 409.014†	-1239.7	-1244.5	-128.67	µg/L	-128.67	ppb	02:14:26
3	V 292.402†	25936.8	26148.8	279.42	µg/L	279.42	ppb	02:14:32
3	Zn 213.857†	12958.6	12514.7	283.92	µg/L	283.92	ppb	02:14:32

Mean Data: 246066014|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2095561.3	99.806	%	0.3010				0.30%
Sc RADIAL	59688.4	101	%	0.6				0.55%
Y 371.029	1491525.1	102.48	%	0.341				0.33%
Ag 328.068†	-1601.9	-0.5193	µg/L	0.32310	-0.5193	ppb	0.32310	62.22%
Al 396.153Radial†	178428.4	133390	µg/L	369.6	133390	ppb	369.6	0.28%
As 188.979†	11.5	28.218	µg/L	6.3379	28.218	ppb	6.3379	22.46%
B 249.677†	796.8	-45.736	µg/L	1.8603	-45.736	ppb	1.8603	4.07%
Ba 233.527†	67058.0	1643.8	µg/L	25.91	1643.8	ppb	25.91	1.58%
Be 313.107†	21863.1	11.462	µg/L	0.2192	11.462	ppb	0.2192	1.91%
Ca 317.933Radial†	27687.0	25396	µg/L	161.3	25396	ppb	161.3	0.64%
Cd 226.502†	536.6	-3.2718	µg/L	0.73012	-3.2718	ppb	0.73012	22.32%
Co 228.616†	1591.3	64.146	µg/L	2.7831	64.146	ppb	2.7831	4.34%
Cr 267.716†	57657.9	1176.0	µg/L	26.61	1176.0	ppb	26.61	2.26%
Cu 324.752†	10777.4	92.859	µg/L	0.9873	92.859	ppb	0.9873	1.06%
Fe 238.204 Radial†	17907.6	153720	µg/L	1057.3	153720	ppb	1057.3	0.69%
K 766.490 Radial†	23274.2	16004	µg/L	44.7	16004	ppb	44.7	0.28%
Mg 279.077 IEC†	2522.9	24391	µg/L	148.9	24391	ppb	148.9	0.61%
Mn 257.610†	1087950.3	3482.6	µg/L	43.91	3482.6	ppb	43.91	1.26%
Mo 202.031†	32.6	9.1123	µg/L	0.23900	9.1123	ppb	0.23900	2.62%
Na 589.592 Radial†	2617.4	855.71	µg/L	7.904	855.71	ppb	7.904	0.92%

Ni 231.604†	11791.1	597.83	µg/L	11.092	597.83	ppb	11.092	1.86%
P 214.914†	645.8	1189.8	µg/L	43.58	1189.8	ppb	43.58	3.66%
Pb 220.353†	538.8	134.07	µg/L	4.393	134.07	ppb	4.393	3.28%
S 181.975 Axial†	149.0	617.66	µg/L	23.479	617.66	ppb	23.479	3.80%
Sb 206.836†	35.4	16.831	µg/L	2.8844	16.831	ppb	2.8844	17.14%
Se 196.026†	-73.5	290.64	µg/L	18.101	290.64	ppb	18.101	6.23%
SiO2†	194527.4	38954	µg/L	395.6	38954	ppb	395.6	1.02%
Si 251.611†	234367.2	18089	µg/L	175.9	18089	ppb	175.9	0.97%
Sn 189.927†	-30.0	-26.463	µg/L	1.9635	-26.463	ppb	1.9635	7.42%
Sr 421.552†	27169.9	267.22	µg/L	1.085	267.22	ppb	1.085	0.41%
Ti 334.940†	2010194.6	4570.4	µg/L	67.76	4570.4	ppb	67.76	1.48%
Tl 190.801†	-45.0	23.771	µg/L	7.4112	23.771	ppb	7.4112	31.18%
U 409.014†	-1305.9	-133.74	µg/L	6.974	-133.74	ppb	6.974	5.21%
V 292.402†	26753.6	285.36	µg/L	5.146	285.36	ppb	5.146	1.80%
Zn 213.857†	12763.0	289.78	µg/L	5.094	289.78	ppb	5.094	1.76%

Sequence No.: 55
Sample ID: 246066015|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 345
Date Collected: 2/21/2010 02:15:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066015|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58193.6	58193.6	98.6	%			02:15:35
1	Al 396.153Radial†	242619.4	246172.1	184040	µg/L	184040	ppb	02:15:35
1	Ca 317.933Radial†	26967.1	27168.0	24920	µg/L	24920	ppb	02:15:55
1	Fe 238.204 Radial†	19351.4	19618.7	168410	µg/L	168410	ppb	02:15:55
1	K 766.490 Radial†	30571.4	30819.6	21192	µg/L	21192	ppb	02:15:35
1	Mg 279.077 IEC†	2724.5	2752.2	26607	µg/L	26607	ppb	02:15:55
1	Na 589.592 Radial†	2922.3	2491.3	814.47	µg/L	814.47	ppb	02:15:55
1	Sr 421.552†	31300.3	31716.2	311.94	µg/L	311.94	ppb	02:15:35
1	Sc 361.383	2066197.5	2066197.5	98.408	%			02:17:00
1	Y 371.029	1471010.0	1471010.0	101.07	%			02:17:00
1	Ag 328.068†	-2101.4	-1672.3	0.0978	µg/L	0.0978	ppb	02:17:05
1	As 188.979†	18.4	19.0	42.694	µg/L	42.694	ppb	02:17:26
1	B 249.677†	1459.8	1157.9	-40.286	µg/L	-40.286	ppb	02:17:05
1	Ba 233.527†	84754.8	86144.7	2111.6	µg/L	2111.6	ppb	02:17:05
1	Be 313.107†	26154.2	30336.3	15.537	µg/L	15.537	ppb	02:17:05
1	Cd 226.502†	485.0	629.4	-3.0986	µg/L	-3.0986	ppb	02:17:05
1	Co 228.616†	1669.8	1694.2	63.195	µg/L	63.195	ppb	02:17:26
1	Cr 267.716†	6634.4	6789.1	138.64	µg/L	138.64	ppb	02:17:05
1	Cu 324.752†	10717.1	8020.8	76.615	µg/L	76.615	ppb	02:17:05
1	Mn 257.610†	988746.8	1005049.5	3220.6	µg/L	3220.6	ppb	02:17:00
1	Mo 202.031†	-19.2	-16.2	4.7803	µg/L	4.7803	ppb	02:17:26
1	Ni 231.604†	2127.2	1852.9	95.742	µg/L	95.742	ppb	02:17:26
1	P 214.914†	493.8	485.6	875.94	µg/L	875.94	ppb	02:17:26
1	Pb 220.353†	662.8	578.7	146.18	µg/L	146.18	ppb	02:17:26
1	S 181.975 Axial†	130.7	115.5	478.88	µg/L	478.88	ppb	02:17:26
1	Sb 206.836†	34.8	13.2	8.2930	µg/L	8.2930	ppb	02:17:26
1	Se 196.026†	-58.6	-74.5	327.53	µg/L	327.53	ppb	02:17:26
1	SiO2†	242250.2	244686.0	48999	µg/L	48999	ppb	02:17:00
1	Si 251.611†	290130.6	294532.1	22733	µg/L	22733	ppb	02:17:00
1	Sn 189.927†	-22.0	-27.1	-26.531	µg/L	-26.531	ppb	02:17:26
1	Ti 334.940†	3162222.3	3213252.5	7306.5	µg/L	7306.5	ppb	02:17:00
1	Tl 190.801†	-87.3	-66.5	24.078	µg/L	24.078	ppb	02:17:26
1	U 409.014†	-1641.1	-1666.9	-166.39	µg/L	-166.39	ppb	02:17:00
1	V 292.402†	29496.7	30070.0	317.43	µg/L	317.43	ppb	02:17:05
1	Zn 213.857†	13378.9	13093.5	299.00	µg/L	299.00	ppb	02:17:05
2	Sc RADIAL	58468.7	58468.7	99.0	%			02:16:01
2	Al 396.153Radial†	244909.5	247326.7	184900	µg/L	184900	ppb	02:16:01
2	Ca 317.933Radial†	27119.9	27193.7	24944	µg/L	24944	ppb	02:16:21
2	Fe 238.204 Radial†	19326.3	19501.0	167400	µg/L	167400	ppb	02:16:21
2	K 766.490 Radial†	30896.9	31002.3	21318	µg/L	21318	ppb	02:16:01
2	Mg 279.077 IEC†	2738.5	2753.3	26619	µg/L	26619	ppb	02:16:21
2	Na 589.592 Radial†	2953.1	2508.4	820.07	µg/L	820.07	ppb	02:16:21
2	Sr 421.552†	31548.1	31817.0	312.93	µg/L	312.93	ppb	02:16:01
2	Sc 361.383	2062838.5	2062838.5	98.248	%			02:17:34
2	Y 371.029	1468129.0	1468129.0	100.87	%			02:17:34
2	Ag 328.068†	-2105.7	-1680.2	-0.0046	µg/L	-0.0046	ppb	02:17:39
2	As 188.979†	12.2	12.7	31.293	µg/L	31.293	ppb	02:18:00
2	B 249.677†	1464.4	1165.0	-39.467	µg/L	-39.467	ppb	02:17:39
2	Ba 233.527†	85300.7	86840.5	2128.6	µg/L	2128.6	ppb	02:17:39
2	Be 313.107†	26419.1	30649.2	15.715	µg/L	15.715	ppb	02:17:39
2	Cd 226.502†	452.1	596.7	-3.8075	µg/L	-3.8075	ppb	02:17:39
2	Co 228.616†	1667.0	1694.1	63.129	µg/L	63.129	ppb	02:18:00
2	Cr 267.716†	6708.4	6875.5	140.41	µg/L	140.41	ppb	02:17:39
2	Cu 324.752†	10814.7	8137.9	77.251	µg/L	77.251	ppb	02:17:39
2	Mn 257.610†	991997.7	1009994.4	3236.2	µg/L	3236.2	ppb	02:17:34
2	Mo 202.031†	-30.6	-27.9	3.5684	µg/L	3.5684	ppb	02:18:00
2	Ni 231.604†	2121.6	1850.8	95.623	µg/L	95.623	ppb	02:18:00
2	P 214.914†	492.1	484.6	874.93	µg/L	874.93	ppb	02:18:00
2	Pb 220.353†	661.4	578.4	146.17	µg/L	146.17	ppb	02:18:00

2	S 181.975 Axial†	138.5	123.7	512.58 µg/L	512.58 ppb	02:18:00
2	Sb 206.836†	42.9	21.5	15.851 µg/L	15.851 ppb	02:18:00
2	Se 196.026†	-62.3	-78.4	319.35 µg/L	319.35 ppb	02:18:00
2	SiO2†	242930.7	245779.4	49218 µg/L	49218 ppb	02:17:34
2	Si 251.611†	290837.3	295731.4	22826 µg/L	22826 ppb	02:17:34
2	Sn 189.927†	-25.7	-30.9	-28.041 µg/L	-28.041 ppb	02:18:00
2	Ti 334.940†	3169879.3	3226278.4	7336.1 µg/L	7336.1 ppb	02:17:34
2	Tl 190.801†	-89.9	-69.3	20.580 µg/L	20.580 ppb	02:18:00
2	U 409.014†	-1711.6	-1741.4	-172.57 µg/L	-172.57 ppb	02:17:34
2	V 292.402†	29750.7	30377.4	320.34 µg/L	320.34 ppb	02:17:39
2	Zn 213.857†	13462.3	13200.5	301.57 µg/L	301.57 ppb	02:17:39
3	Sc RADIAL	58889.7	58889.7	99.7 %		02:16:27
3	Al 396.153Radial†	246553.9	247207.5	184810 µg/L	184810 ppb	02:16:27
3	Ca 317.933Radial†	26886.5	26763.9	24550 µg/L	24550 ppb	02:16:47
3	Fe 238.204 Radial†	19241.1	19276.0	165470 µg/L	165470 ppb	02:16:47
3	K 766.490 Radial†	31112.2	30995.2	21313 µg/L	21313 ppb	02:16:27
3	Mg 279.077 IEC†	2722.2	2717.2	26270 µg/L	26270 ppb	02:16:47
3	Na 589.592 Radial†	2922.1	2456.1	802.96 µg/L	802.96 ppb	02:16:47
3	Sr 421.552†	31724.4	31766.0	312.43 µg/L	312.43 ppb	02:16:27
3	Sc 361.383	2066962.1	2066962.1	98.444 %		02:18:08
3	Y 371.029	1470726.8	1470726.8	101.05 %		02:18:08
3	Ag 328.068†	-2060.4	-1629.9	0.1745 µg/L	0.1745 ppb	02:18:13
3	As 188.979†	13.3	13.8	33.182 µg/L	33.182 ppb	02:18:34
3	B 249.677†	1428.3	1125.4	-40.090 µg/L	-40.090 ppb	02:18:13
3	Ba 233.527†	82993.2	84323.4	2066.9 µg/L	2066.9 ppb	02:18:13
3	Be 313.107†	25410.9	29571.4	15.115 µg/L	15.115 ppb	02:18:13
3	Cd 226.502†	449.4	593.1	-3.6855 µg/L	-3.6855 ppb	02:18:13
3	Co 228.616†	1572.0	1594.3	58.787 µg/L	58.787 ppb	02:18:34
3	Cr 267.716†	6407.8	6556.5	133.89 µg/L	133.89 ppb	02:18:13
3	Cu 324.752†	10628.5	7926.8	75.582 µg/L	75.582 ppb	02:18:13
3	Mn 257.610†	977475.0	993227.9	3182.5 µg/L	3182.5 ppb	02:18:08
3	Mo 202.031†	-17.9	-14.8	4.8032 µg/L	4.8032 ppb	02:18:34
3	Ni 231.604†	2020.4	1743.7	90.187 µg/L	90.187 ppb	02:18:34
3	P 214.914†	472.5	463.7	835.17 µg/L	835.17 ppb	02:18:34
3	Pb 220.353†	653.4	569.0	143.93 µg/L	143.93 ppb	02:18:34
3	S 181.975 Axial†	138.3	123.2	510.83 µg/L	510.83 ppb	02:18:34
3	Sb 206.836†	31.5	9.9	5.3817 µg/L	5.3817 ppb	02:18:34
3	Se 196.026†	-55.5	-71.3	324.23 µg/L	324.23 ppb	02:18:34
3	SiO2†	240477.3	242794.0	48620 µg/L	48620 ppb	02:18:08
3	Si 251.611†	287929.0	292186.6	22552 µg/L	22552 ppb	02:18:08
3	Sn 189.927†	-19.2	-24.2	-25.002 µg/L	-25.002 ppb	02:18:34
3	Ti 334.940†	3118181.2	3167326.5	7202.0 µg/L	7202.0 ppb	02:18:08
3	Tl 190.801†	-87.2	-66.3	22.888 µg/L	22.888 ppb	02:18:34
3	U 409.014†	-1604.3	-1628.9	-162.73 µg/L	-162.73 ppb	02:18:08
3	V 292.402†	28685.9	29235.3	308.82 µg/L	308.82 ppb	02:18:13
3	Zn 213.857†	13244.4	12951.8	295.84 µg/L	295.84 ppb	02:18:13

Mean Data: 246066015|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2065332.7	98.366	%	0.1045				0.11%
Sc RADIAL	58517.3	99.1	%	0.59				0.60%
Y 371.029	1469955.3	100.99	%	0.109				0.11%
Ag 328.068†	-1660.8	0.0892	µg/L	0.08987	0.0892	ppb	0.08987	100.72%
Al 396.153Radial†	246902.1	184580	µg/L	474.7	184580	ppb	474.7	0.26%
As 188.979†	15.2	35.723	µg/L	6.1107	35.723	ppb	6.1107	17.11%
B 249.677†	1149.4	-39.947	µg/L	0.4278	-39.947	ppb	0.4278	1.07%
Ba 233.527†	85769.5	2102.4	µg/L	31.86	2102.4	ppb	31.86	1.52%
Be 313.107†	30185.7	15.455	µg/L	0.3081	15.455	ppb	0.3081	1.99%
Ca 317.933Radial†	27041.9	24805	µg/L	221.1	24805	ppb	221.1	0.89%
Cd 226.502†	606.4	-3.5305	µg/L	0.37899	-3.5305	ppb	0.37899	10.73%
Co 228.616†	1660.9	61.704	µg/L	2.5261	61.704	ppb	2.5261	4.09%
Cr 267.716†	6740.4	137.65	µg/L	3.369	137.65	ppb	3.369	2.45%
Cu 324.752†	8028.5	76.483	µg/L	0.8423	76.483	ppb	0.8423	1.10%
Fe 238.204 Radial†	19465.2	167100	µg/L	1494.9	167100	ppb	1494.9	0.89%
K 766.490 Radial†	30939.0	21274	µg/L	71.2	21274	ppb	71.2	0.33%
Mg 279.077 IEC†	2740.9	26499	µg/L	198.2	26499	ppb	198.2	0.75%
Mn 257.610†	1002757.3	3213.1	µg/L	27.58	3213.1	ppb	27.58	0.86%
Mo 202.031†	-19.6	4.3840	µg/L	0.70639	4.3840	ppb	0.70639	16.11%
Na 589.592 Radial†	2485.3	812.50	µg/L	8.725	812.50	ppb	8.725	1.07%

Ni 231.604†	1815.8	93.851 µg/L	3.1735	93.851 ppb	3.1735	3.38%
P 214.914†	478.0	862.02 µg/L	23.252	862.02 ppb	23.252	2.70%
Pb 220.353†	575.4	145.42 µg/L	1.297	145.42 ppb	1.297	0.89%
S 181.975 Axial†	120.8	500.76 µg/L	18.976	500.76 ppb	18.976	3.79%
Sb 206.836†	14.9	9.8419 µg/L	5.40366	9.8419 ppb	5.40366	54.90%
Se 196.026†	-74.8	323.70 µg/L	4.116	323.70 ppb	4.116	1.27%
SiO2†	244419.8	48945 µg/L	302.5	48945 ppb	302.5	0.62%
Si 251.611†	294150.0	22704 µg/L	139.2	22704 ppb	139.2	0.61%
Sn 189.927†	-27.4	-26.524 µg/L	1.5197	-26.524 ppb	1.5197	5.73%
Sr 421.552†	31766.4	312.43 µg/L	0.496	312.43 ppb	0.496	0.16%
Ti 334.940†	3202285.8	7281.5 µg/L	70.42	7281.5 ppb	70.42	0.97%
Tl 190.801†	-67.4	22.515 µg/L	1.7788	22.515 ppb	1.7788	7.90%
U 409.014†	-1679.1	-167.23 µg/L	4.973	-167.23 ppb	4.973	2.97%
V 292.402†	29894.3	315.53 µg/L	5.990	315.53 ppb	5.990	1.90%
Zn 213.857†	13081.9	298.80 µg/L	2.872	298.80 ppb	2.872	0.96%

Sequence No.: 56
Sample ID: 246066016|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 346
Date Collected: 2/21/2010 02:18:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066016|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56866.3	56866.3	96.3	%			02:19:16
1	Al 396.153Radial†	48883.1	50763.6	37950	µg/L	37950	ppb	02:19:16
1	Ca 317.933Radial†	51954.9	53751.3	49304	µg/L	49304	ppb	02:19:16
1	Fe 238.204 Radial†	11885.6	12325.3	105800	µg/L	105800	ppb	02:19:36
1	K 766.490 Radial†	7546.5	7637.0	5251.4	µg/L	5251.4	ppb	02:19:36
1	Mg 279.077 IEC†	1976.7	2040.3	19746	µg/L	19746	ppb	02:19:36
1	Na 589.592 Radial†	2513.7	2136.2	698.39	µg/L	698.39	ppb	02:19:36
1	Sr 421.552†	14946.9	15477.8	152.23	µg/L	152.23	ppb	02:19:36
1	Sc 361.383	2043057.3	2043057.3	97.305	%			02:20:40
1	Y 371.029	1444746.7	1444746.7	99.262	%			02:20:40
1	Ag 328.068†	-1482.7	-1060.6	0.0178	µg/L	0.0178	ppb	02:20:46
1	As 188.979†	-0.2	0.1	3.7242	µg/L	3.7242	ppb	02:21:06
1	B 249.677†	815.8	512.9	-34.047	µg/L	-34.047	ppb	02:20:46
1	Ba 233.527†	20599.6	21188.3	519.58	µg/L	519.58	ppb	02:20:46
1	Be 313.107†	6074.0	10001.1	4.6039	µg/L	4.6039	ppb	02:20:46
1	Cd 226.502†	232.7	375.8	-2.4365	µg/L	-2.4365	ppb	02:21:06
1	Co 228.616†	728.6	746.2	26.685	µg/L	26.685	ppb	02:21:06
1	Cr 267.716†	5316.4	5511.0	112.51	µg/L	112.51	ppb	02:20:46
1	Cu 324.752†	9428.0	6819.4	59.943	µg/L	59.943	ppb	02:20:46
1	Mn 257.610†	685560.7	704847.7	2256.9	µg/L	2256.9	ppb	02:20:40
1	Mo 202.031†	10.3	13.9	5.4159	µg/L	5.4159	ppb	02:21:06
1	Ni 231.604†	1515.8	1249.2	64.466	µg/L	64.466	ppb	02:21:06
1	P 214.914†	1783.8	1816.9	3532.5	µg/L	3532.5	ppb	02:21:06
1	Pb 220.353†	361.9	277.1	66.285	µg/L	66.285	ppb	02:21:06
1	S 181.975 Axial†	80.0	64.9	269.21	µg/L	269.21	ppb	02:21:06
1	Sb 206.836†	32.1	10.9	4.3995	µg/L	4.3995	ppb	02:21:06
1	Se 196.026†	-36.1	-52.1	186.49	µg/L	186.49	ppb	02:21:06
1	SiO2†	150108.7	152781.1	30595	µg/L	30595	ppb	02:20:46
1	Si 251.611†	181638.4	186374.8	14385	µg/L	14385	ppb	02:20:40
1	Sn 189.927†	-41.0	-46.9	-29.250	µg/L	-29.250	ppb	02:21:06
1	Ti 334.940†	1612855.4	1657376.5	3768.7	µg/L	3768.7	ppb	02:20:40
1	Tl 190.801†	-58.5	-37.9	4.1749	µg/L	4.1749	ppb	02:21:06
1	U 409.014†	-1117.9	-1148.1	-115.15	µg/L	-115.15	ppb	02:20:46
1	V 292.402†	18749.0	19364.2	204.17	µg/L	204.17	ppb	02:20:46
1	Zn 213.857†	13605.0	13479.8	311.63	µg/L	311.63	ppb	02:20:46
2	Sc RADIAL	57495.9	57495.9	97.4	%			02:19:42
2	Al 396.153Radial†	49460.6	50800.8	37978	µg/L	37978	ppb	02:19:42
2	Ca 317.933Radial†	52363.9	53580.5	49147	µg/L	49147	ppb	02:19:42
2	Fe 238.204 Radial†	11806.6	12109.0	103950	µg/L	103950	ppb	02:20:02
2	K 766.490 Radial†	7548.4	7553.2	5193.7	µg/L	5193.7	ppb	02:20:02
2	Mg 279.077 IEC†	1971.0	2011.9	19471	µg/L	19471	ppb	02:20:02
2	Na 589.592 Radial†	2529.2	2123.6	694.26	µg/L	694.26	ppb	02:20:02
2	Sr 421.552†	14921.9	15282.3	150.30	µg/L	150.30	ppb	02:20:02
2	Sc 361.383	2041752.6	2041752.6	97.243	%			02:21:13
2	Y 371.029	1445182.7	1445182.7	99.292	%			02:21:13
2	Ag 328.068†	-1418.8	-995.9	0.3884	µg/L	0.3884	ppb	02:21:19
2	As 188.979†	-3.6	-3.4	-2.6802	µg/L	-2.6802	ppb	02:21:39
2	B 249.677†	852.7	551.4	-31.502	µg/L	-31.502	ppb	02:21:19
2	Ba 233.527†	20617.4	21220.2	520.36	µg/L	520.36	ppb	02:21:19
2	Be 313.107†	5927.1	9853.9	4.5147	µg/L	4.5147	ppb	02:21:19
2	Cd 226.502†	213.7	356.3	-2.7165	µg/L	-2.7165	ppb	02:21:39
2	Co 228.616†	727.9	746.0	26.675	µg/L	26.675	ppb	02:21:39
2	Cr 267.716†	5283.0	5480.1	111.88	µg/L	111.88	ppb	02:21:19
2	Cu 324.752†	9408.5	6805.5	59.593	µg/L	59.593	ppb	02:21:19
2	Mn 257.610†	686265.7	706022.9	2260.4	µg/L	2260.4	ppb	02:21:13
2	Mo 202.031†	7.8	11.3	5.0861	µg/L	5.0861	ppb	02:21:39
2	Ni 231.604†	1516.8	1251.2	64.543	µg/L	64.543	ppb	02:21:39
2	P 214.914†	1794.0	1828.6	3557.2	µg/L	3557.2	ppb	02:21:39
2	Pb 220.353†	368.1	283.8	67.999	µg/L	67.999	ppb	02:21:39

2	S 181.975 Axial†	81.5	66.5	275.65 µg/L	275.65 ppb	02:21:39
2	Sb 206.836†	38.0	17.0	10.001 µg/L	10.001 ppb	02:21:39
2	Se 196.026†	-27.5	-43.3	193.72 µg/L	193.72 ppb	02:21:39
2	SiO2†	149632.1	152389.6	30516 µg/L	30516 ppb	02:21:19
2	Si 251.611†	181784.6	186644.4	14406 µg/L	14406 ppb	02:21:13
2	Sn 189.927†	-47.2	-53.2	-31.799 µg/L	-31.799 ppb	02:21:39
2	Ti 334.940†	1612189.3	1657750.7	3769.6 µg/L	3769.6 ppb	02:21:13
2	Tl 190.801†	-58.7	-38.1	3.6710 µg/L	3.6710 ppb	02:21:39
2	U 409.014†	-1168.7	-1201.1	-119.37 µg/L	-119.37 ppb	02:21:19
2	V 292.402†	18817.0	19446.4	204.76 µg/L	204.76 ppb	02:21:19
2	Zn 213.857†	13657.7	13542.9	313.23 µg/L	313.23 ppb	02:21:19
3	Sc RADIAL	57434.1	57434.1	97.3 %		02:20:07
3	Al 396.153Radial†	49640.0	51039.9	38157 µg/L	38157 ppb	02:20:07
3	Ca 317.933Radial†	52440.3	53717.0	49273 µg/L	49273 ppb	02:20:07
3	Fe 238.204 Radial†	11821.8	12137.7	104190 µg/L	104190 ppb	02:20:28
3	K 766.490 Radial†	7570.3	7584.0	5214.9 µg/L	5214.9 ppb	02:20:28
3	Mg 279.077 IEC†	1975.2	2018.5	19535 µg/L	19535 ppb	02:20:28
3	Na 589.592 Radial†	2541.0	2138.5	699.15 µg/L	699.15 ppb	02:20:28
3	Sr 421.552†	14961.7	15339.7	150.87 µg/L	150.87 ppb	02:20:28
3	Sc 361.383	2038180.6	2038180.6	97.073 %		02:21:46
3	Y 371.029	1439992.7	1439992.7	98.936 %		02:21:46
3	Ag 328.068†	-1412.0	-991.5	0.4075 µg/L	0.4075 ppb	02:21:52
3	As 188.979†	0.8	1.1	5.4168 µg/L	5.4168 ppb	02:22:12
3	B 249.677†	838.0	537.8	-32.193 µg/L	-32.193 ppb	02:21:52
3	Ba 233.527†	20283.1	20913.0	512.82 µg/L	512.82 ppb	02:21:52
3	Be 313.107†	5796.8	9730.4	4.4624 µg/L	4.4624 ppb	02:21:52
3	Cd 226.502†	189.6	331.9	-3.3628 µg/L	-3.3628 ppb	02:22:12
3	Co 228.616†	698.5	717.0	25.457 µg/L	25.457 ppb	02:22:12
3	Cr 267.716†	5163.7	5366.7	109.57 µg/L	109.57 ppb	02:21:52
3	Cu 324.752†	9269.8	6679.6	58.792 µg/L	58.792 ppb	02:21:52
3	Mn 257.610†	676308.3	697002.1	2231.7 µg/L	2231.7 ppb	02:21:46
3	Mo 202.031†	13.2	16.9	5.6502 µg/L	5.6502 ppb	02:22:12
3	Ni 231.604†	1450.4	1185.5	61.228 µg/L	61.228 ppb	02:22:12
3	P 214.914†	1709.8	1745.1	3391.2 µg/L	3391.2 ppb	02:22:12
3	Pb 220.353†	338.6	254.0	60.669 µg/L	60.669 ppb	02:22:12
3	S 181.975 Axial†	79.8	64.9	269.00 µg/L	269.00 ppb	02:22:12
3	Sb 206.836†	35.6	14.6	7.7973 µg/L	7.7973 ppb	02:22:12
3	Se 196.026†	-29.6	-45.5	191.27 µg/L	191.27 ppb	02:22:12
3	SiO2†	148000.8	150978.8	30234 µg/L	30234 ppb	02:21:52
3	Si 251.611†	179568.6	184689.2	14255 µg/L	14255 ppb	02:21:46
3	Sn 189.927†	-32.8	-38.5	-25.516 µg/L	-25.516 ppb	02:22:12
3	Ti 334.940†	1584446.8	1632077.3	3711.2 µg/L	3711.2 ppb	02:21:46
3	Tl 190.801†	-58.1	-37.6	3.8363 µg/L	3.8363 ppb	02:22:12
3	U 409.014†	-1064.2	-1095.5	-110.46 µg/L	-110.46 ppb	02:21:52
3	V 292.402†	18341.5	18990.5	200.29 µg/L	200.29 ppb	02:21:52
3	Zn 213.857†	13528.7	13434.7	310.67 µg/L	310.67 ppb	02:21:52

Mean Data: 246066016|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2040996.8	97.207	%	0.1202				0.12%
Sc RADIAL	57265.4	97.0	%	0.59				0.61%
Y 371.029	1443307.4	99.163	%	0.1978				0.20%
Ag 328.068†	-1016.0	0.2712	µg/L	0.21972	0.2712	ppb	0.21972	81.01%
Al 396.153Radial†	50868.1	38028	µg/L	112.1	38028	ppb	112.1	0.29%
As 188.979†	-0.8	2.1536	µg/L	4.27088	2.1536	ppb	4.27088	198.32%
B 249.677†	534.0	-32.581	µg/L	1.3161	-32.581	ppb	1.3161	4.04%
Ba 233.527†	21107.2	517.59	µg/L	4.144	517.59	ppb	4.144	0.80%
Be 313.107†	9861.8	4.5270	µg/L	0.07156	4.5270	ppb	0.07156	1.58%
Ca 317.933Radial†	53682.9	49241	µg/L	82.9	49241	ppb	82.9	0.17%
Cd 226.502†	354.7	-2.8386	µg/L	0.47504	-2.8386	ppb	0.47504	16.74%
Co 228.616†	736.4	26.272	µg/L	0.7063	26.272	ppb	0.7063	2.69%
Cr 267.716†	5452.6	111.32	µg/L	1.551	111.32	ppb	1.551	1.39%
Cu 324.752†	6768.2	59.442	µg/L	0.5902	59.442	ppb	0.5902	0.99%
Fe 238.204 Radial†	12190.7	104650	µg/L	1008.4	104650	ppb	1008.4	0.96%
K 766.490 Radial†	7591.4	5220.0	µg/L	29.16	5220.0	ppb	29.16	0.56%
Mg 279.077 IEC†	2023.6	19584	µg/L	143.7	19584	ppb	143.7	0.73%
Mn 257.610†	702624.2	2249.7	µg/L	15.65	2249.7	ppb	15.65	0.70%
Mo 202.031†	14.0	5.3841	µg/L	0.28343	5.3841	ppb	0.28343	5.26%
Na 589.592 Radial†	2132.8	697.27	µg/L	2.629	697.27	ppb	2.629	0.38%

Ni 231.604†	1228.6	63.412	µg/L	1.8919	63.412	ppb	1.8919	2.98%
P 214.914†	1796.9	3493.6	µg/L	89.58	3493.6	ppb	89.58	2.56%
Pb 220.353†	271.6	64.984	µg/L	3.8340	64.984	ppb	3.8340	5.90%
S 181.975 Axial†	65.4	271.29	µg/L	3.781	271.29	ppb	3.781	1.39%
Sb 206.836†	14.2	7.3994	µg/L	2.82209	7.3994	ppb	2.82209	38.14%
Se 196.026†	-47.0	190.49	µg/L	3.677	190.49	ppb	3.677	1.93%
SiO2†	152049.8	30448	µg/L	189.8	30448	ppb	189.8	0.62%
Si 251.611†	185902.8	14349	µg/L	81.8	14349	ppb	81.8	0.57%
Sn 189.927†	-46.2	-28.855	µg/L	3.1600	-28.855	ppb	3.1600	10.95%
Sr 421.552†	15366.6	151.13	µg/L	0.989	151.13	ppb	0.989	0.65%
Ti 334.940†	1649068.2	3749.9	µg/L	33.47	3749.9	ppb	33.47	0.89%
Tl 190.801†	-37.9	3.8941	µg/L	0.25689	3.8941	ppb	0.25689	6.60%
U 409.014†	-1148.2	-114.99	µg/L	4.461	-114.99	ppb	4.461	3.88%
V 292.402†	19267.0	203.07	µg/L	2.430	203.07	ppb	2.430	1.20%
Zn 213.857†	13485.8	311.84	µg/L	1.290	311.84	ppb	1.290	0.41%

Sequence No.: 57
Sample ID: 246066017|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 347
Date Collected: 2/21/2010 02:22:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066017|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57449.1	57449.1	97.3	%			02:22:54
1	Al 396.153Radial†	94184.8	96807.7	72373	µg/L	72373	ppb	02:22:54
1	Ca 317.933Radial†	14704.4	14919.6	13685	µg/L	13685	ppb	02:23:14
1	Fe 238.204 Radial†	14422.8	14807.7	127110	µg/L	127110	ppb	02:23:14
1	K 766.490 Radial†	19720.3	20069.2	13800	µg/L	13800	ppb	02:22:54
1	Mg 279.077 IEC†	1792.6	1830.3	17678	µg/L	17678	ppb	02:23:14
1	Na 589.592 Radial†	2242.3	1830.8	598.54	µg/L	598.54	ppb	02:23:14
1	Sr 421.552†	21147.1	21692.7	213.35	µg/L	213.35	ppb	02:22:54
1	Sc 361.383	2049450.2	2049450.2	97.610	%			02:24:19
1	Y 371.029	1438609.8	1438609.8	98.840	%			02:24:19
1	Ag 328.068†	-1685.2	-1263.3	0.0185	µg/L	0.0185	ppb	02:24:24
1	As 188.979†	14.6	15.2	34.063	µg/L	34.063	ppb	02:24:45
1	B 249.677†	1038.0	737.9	-35.987	µg/L	-35.987	ppb	02:24:24
1	Ba 233.527†	47444.2	48624.2	1192.0	µg/L	1192.0	ppb	02:24:24
1	Be 313.107†	13330.4	17415.7	8.8405	µg/L	8.8405	ppb	02:24:24
1	Cd 226.502†	295.7	439.5	-3.2400	µg/L	-3.2400	ppb	02:24:45
1	Co 228.616†	1400.3	1432.0	57.119	µg/L	57.119	ppb	02:24:45
1	Cr 267.716†	4501.0	4658.6	95.144	µg/L	95.144	ppb	02:24:24
1	Cu 324.752†	9436.8	6798.2	62.764	µg/L	62.764	ppb	02:24:24
1	Mn 257.610†	1065318.1	1091706.1	3491.3	µg/L	3491.3	ppb	02:24:19
1	Mo 202.031†	4.4	7.9	5.6169	µg/L	5.6169	ppb	02:24:45
1	Ni 231.604†	1535.5	1264.4	65.476	µg/L	65.476	ppb	02:24:45
1	P 214.914†	331.9	323.8	556.51	µg/L	556.51	ppb	02:24:45
1	Pb 220.353†	477.4	394.3	96.201	µg/L	96.201	ppb	02:24:45
1	S 181.975 Axial†	95.2	80.2	332.45	µg/L	332.45	ppb	02:24:45
1	Sb 206.836†	32.0	10.6	7.4498	µg/L	7.4498	ppb	02:24:45
1	Se 196.026†	-51.2	-67.4	235.42	µg/L	235.42	ppb	02:24:45
1	SiO2†	187623.8	190733.6	38195	µg/L	38195	ppb	02:24:19
1	Si 251.611†	224361.5	229561.7	17718	µg/L	17718	ppb	02:24:19
1	Sn 189.927†	-11.3	-16.3	-18.501	µg/L	-18.501	ppb	02:24:45
1	Ti 334.940†	1889822.5	1935955.2	4401.9	µg/L	4401.9	ppb	02:24:19
1	Tl 190.801†	-68.8	-48.2	10.400	µg/L	10.400	ppb	02:24:45
1	U 409.014†	-1277.6	-1308.2	-129.52	µg/L	-129.52	ppb	02:24:19
1	V 292.402†	21357.8	21976.8	232.46	µg/L	232.46	ppb	02:24:24
1	Zn 213.857†	12797.3	12608.8	290.17	µg/L	290.17	ppb	02:24:24
2	Sc RADIAL	57871.9	57871.9	98.0	%			02:23:20
2	Al 396.153Radial†	95299.8	97238.1	72694	µg/L	72694	ppb	02:23:20
2	Ca 317.933Radial†	14665.6	14769.6	13548	µg/L	13548	ppb	02:23:40
2	Fe 238.204 Radial†	14434.3	14711.2	126290	µg/L	126290	ppb	02:23:40
2	K 766.490 Radial†	19908.0	20112.7	13830	µg/L	13830	ppb	02:23:20
2	Mg 279.077 IEC†	1795.6	1819.9	17578	µg/L	17578	ppb	02:23:40
2	Na 589.592 Radial†	2234.8	1806.3	590.53	µg/L	590.53	ppb	02:23:40
2	Sr 421.552†	21344.0	21734.8	213.77	µg/L	213.77	ppb	02:23:20
2	Sc 361.383	2069326.4	2069326.4	98.557	%			02:24:53
2	Y 371.029	1452526.6	1452526.6	99.797	%			02:24:53
2	Ag 328.068†	-1720.0	-1282.1	-0.1759	µg/L	-0.1759	ppb	02:24:58
2	As 188.979†	7.4	7.8	20.613	µg/L	20.613	ppb	02:25:19
2	B 249.677†	1002.1	691.3	-37.466	µg/L	-37.466	ppb	02:24:58
2	Ba 233.527†	48019.5	48741.2	1194.8	µg/L	1194.8	ppb	02:24:58
2	Be 313.107†	13449.5	17405.3	8.8344	µg/L	8.8344	ppb	02:24:58
2	Cd 226.502†	311.0	452.2	-2.8292	µg/L	-2.8292	ppb	02:25:19
2	Co 228.616†	1396.8	1414.7	56.319	µg/L	56.319	ppb	02:25:19
2	Cr 267.716†	4502.9	4616.2	94.279	µg/L	94.279	ppb	02:24:58
2	Cu 324.752†	9563.1	6833.4	62.883	µg/L	62.883	ppb	02:24:58
2	Mn 257.610†	1077082.5	1093159.7	3495.8	µg/L	3495.8	ppb	02:24:53
2	Mo 202.031†	1.6	4.9	5.2904	µg/L	5.2904	ppb	02:25:19
2	Ni 231.604†	1540.4	1254.3	64.954	µg/L	64.954	ppb	02:25:19
2	P 214.914†	332.6	321.2	552.16	µg/L	552.16	ppb	02:25:19
2	Pb 220.353†	474.8	386.9	94.454	µg/L	94.454	ppb	02:25:19

2	S 181.975 Axial†	101.8	86.0	356.68 µg/L	356.68 ppb		02:25:19
2	Sb 206.836†	33.8	12.2	8.8927 µg/L	8.8927 ppb		02:25:19
2	Se 196.026†	-55.0	-70.8	228.67 µg/L	228.67 ppb		02:25:19
2	SiO2†	189523.0	190814.3	38211 µg/L	38211 ppb		02:24:53
2	Si 251.611†	226656.8	229682.8	17728 µg/L	17728 ppb		02:24:53
2	Sn 189.927†	-16.9	-21.8	-20.784 µg/L	-20.784 ppb		02:25:19
2	Ti 334.940†	1907967.9	1935769.8	4401.5 µg/L	4401.5 ppb		02:24:53
2	Tl 190.801†	-65.9	-44.6	15.169 µg/L	15.169 ppb		02:25:19
2	U 409.014†	-1391.6	-1411.2	-138.14 µg/L	-138.14 ppb		02:24:53
2	V 292.402†	21530.0	21941.3	232.00 µg/L	232.00 ppb		02:24:58
2	Zn 213.857†	12957.5	12645.3	291.09 µg/L	291.09 ppb		02:24:58
3	Sc RADIAL	57755.4	57755.4	97.8 %			02:23:46
3	Al 396.153Radial†	94816.8	96940.5	72472 µg/L	72472 ppb		02:23:46
3	Ca 317.933Radial†	14672.0	14806.3	13581 µg/L	13581 ppb		02:24:06
3	Fe 238.204 Radial†	14479.6	14787.2	126940 µg/L	126940 ppb		02:24:06
3	K 766.490 Radial†	19861.9	20106.5	13826 µg/L	13826 ppb		02:23:46
3	Mg 279.077 IEC†	1800.3	1828.3	17660 µg/L	17660 ppb		02:24:06
3	Na 589.592 Radial†	2250.9	1827.4	597.44 µg/L	597.44 ppb		02:24:06
3	Sr 421.552†	21250.2	21682.9	213.26 µg/L	213.26 ppb		02:23:46
3	Sc 361.383	2063129.4	2063129.4	98.261 %			02:25:26
3	Y 371.029	1448620.4	1448620.4	99.528 %			02:25:26
3	Ag 328.068†	-1676.2	-1242.8	0.1288 µg/L	0.1288 ppb		02:25:32
3	As 188.979†	18.3	18.9	40.668 µg/L	40.668 ppb		02:25:53
3	B 249.677†	1036.8	729.6	-36.241 µg/L	-36.241 ppb		02:25:32
3	Ba 233.527†	47087.5	47939.0	1175.2 µg/L	1175.2 ppb		02:25:32
3	Be 313.107†	13079.6	17069.8	8.6701 µg/L	8.6701 ppb		02:25:32
3	Cd 226.502†	270.3	411.7	-3.9250 µg/L	-3.9250 ppb		02:25:53
3	Co 228.616†	1313.5	1334.2	52.802 µg/L	52.802 ppb		02:25:53
3	Cr 267.716†	4366.6	4491.3	91.729 µg/L	91.729 ppb		02:25:32
3	Cu 324.752†	9351.2	6647.0	61.737 µg/L	61.737 ppb		02:25:32
3	Mn 257.610†	1050735.2	1069628.8	3421.0 µg/L	3421.0 ppb		02:25:26
3	Mo 202.031†	10.1	13.6	6.1900 µg/L	6.1900 ppb		02:25:53
3	Ni 231.604†	1478.3	1195.8	62.012 µg/L	62.012 ppb		02:25:53
3	P 214.914†	305.5	294.7	498.88 µg/L	498.88 ppb		02:25:53
3	Pb 220.353†	467.3	380.8	92.901 µg/L	92.901 ppb		02:25:53
3	S 181.975 Axial†	90.2	74.5	308.70 µg/L	308.70 ppb		02:25:53
3	Sb 206.836†	34.7	13.2	9.8676 µg/L	9.8676 ppb		02:25:53
3	Se 196.026†	-37.7	-53.4	254.28 µg/L	254.28 ppb		02:25:53
3	SiO2†	186020.7	187827.7	37613 µg/L	37613 ppb		02:25:26
3	Si 251.611†	222351.8	225992.4	17443 µg/L	17443 ppb		02:25:26
3	Sn 189.927†	-13.5	-18.4	-19.385 µg/L	-19.385 ppb		02:25:53
3	Ti 334.940†	1858756.8	1891502.9	4300.8 µg/L	4300.8 ppb		02:25:26
3	Tl 190.801†	-51.9	-30.6	32.764 µg/L	32.764 ppb		02:25:53
3	U 409.014†	-1314.2	-1336.7	-131.91 µg/L	-131.91 ppb		02:25:26
3	V 292.402†	21021.1	21489.0	227.61 µg/L	227.61 ppb		02:25:32
3	Zn 213.857†	12850.6	12576.0	289.43 µg/L	289.43 ppb		02:25:32

Mean Data: 246066017|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2060635.3	98.143	%	0.4844				0.49%
Sc RADIAL	57692.1	97.7	%	0.37				0.38%
Y 371.029	1446585.6	99.388	%	0.4932				0.50%
Ag 328.068†	-1262.7	-0.0095	µg/L	0.15425	-0.0095	ppb	0.15425	>999.9%
Al 396.153Radial†	96995.4	72513	µg/L	164.8	72513	ppb	164.8	0.23%
As 188.979†	14.0	31.782	µg/L	10.2205	31.782	ppb	10.2205	32.16%
B 249.677†	719.6	-36.564	µg/L	0.7906	-36.564	ppb	0.7906	2.16%
Ba 233.527†	48434.8	1187.3	µg/L	10.62	1187.3	ppb	10.62	0.89%
Be 313.107†	17296.9	8.7817	µg/L	0.09664	8.7817	ppb	0.09664	1.10%
Ca 317.933Radial†	14831.8	13605	µg/L	71.7	13605	ppb	71.7	0.53%
Cd 226.502†	434.4	-3.3314	µg/L	0.55355	-3.3314	ppb	0.55355	16.62%
Co 228.616†	1393.6	55.413	µg/L	2.2963	55.413	ppb	2.2963	4.14%
Cr 267.716†	4588.7	93.717	µg/L	1.7756	93.717	ppb	1.7756	1.89%
Cu 324.752†	6759.5	62.461	µg/L	0.6302	62.461	ppb	0.6302	1.01%
Fe 238.204 Radial†	14768.7	126780	µg/L	436.4	126780	ppb	436.4	0.34%
K 766.490 Radial†	20096.1	13818	µg/L	16.2	13818	ppb	16.2	0.12%
Mg 279.077 IEC†	1826.2	17639	µg/L	53.3	17639	ppb	53.3	0.30%
Mn 257.610†	1084831.5	3469.3	µg/L	41.95	3469.3	ppb	41.95	1.21%
Mo 202.031†	8.8	5.6991	µg/L	0.45536	5.6991	ppb	0.45536	7.99%
Na 589.592 Radial†	1821.5	595.51	µg/L	4.342	595.51	ppb	4.342	0.73%

Ni 231.604†	1238.2	64.147	µg/L	1.8673	64.147	ppb	1.8673	2.91%
P 214.914†	313.2	535.85	µg/L	32.094	535.85	ppb	32.094	5.99%
Pb 220.353†	387.3	94.519	µg/L	1.6512	94.519	ppb	1.6512	1.75%
S 181.975 Axial†	80.2	332.61	µg/L	23.987	332.61	ppb	23.987	7.21%
Sb 206.836†	12.0	8.7367	µg/L	1.21645	8.7367	ppb	1.21645	13.92%
Se 196.026†	-63.9	239.46	µg/L	13.271	239.46	ppb	13.271	5.54%
SiO2†	189791.9	38006	µg/L	340.7	38006	ppb	340.7	0.90%
Si 251.611†	228412.3	17630	µg/L	161.8	17630	ppb	161.8	0.92%
Sn 189.927†	-18.8	-19.557	µg/L	1.1511	-19.557	ppb	1.1511	5.89%
Sr 421.552†	21703.5	213.46	µg/L	0.271	213.46	ppb	0.271	0.13%
Ti 334.940†	1921076.0	4368.1	µg/L	58.25	4368.1	ppb	58.25	1.33%
Tl 190.801†	-41.1	19.444	µg/L	11.7789	19.444	ppb	11.7789	60.58%
U 409.014†	-1352.0	-133.19	µg/L	4.450	-133.19	ppb	4.450	3.34%
V 292.402†	21802.4	230.69	µg/L	2.678	230.69	ppb	2.678	1.16%
Zn 213.857†	12610.0	290.23	µg/L	0.829	290.23	ppb	0.829	0.29%

Sequence No.: 58
Sample ID: 246066018|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 348
Date Collected: 2/21/2010 02:26:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066018|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58917.8	58917.8	99.8	%			02:26:35
1	Al 396.153Radial†	125138.2	125414.2	93759	µg/L	93759	ppb	02:26:35
1	Ca 317.933Radial†	24901.8	24762.1	22713	µg/L	22713	ppb	02:26:56
1	Fe 238.204 Radial†	16160.0	16179.1	138890	µg/L	138890	ppb	02:26:56
1	K 766.490 Radial†	21150.7	20997.5	14438	µg/L	14438	ppb	02:26:35
1	Mg 279.077 IEC†	1870.7	1862.6	17980	µg/L	17980	ppb	02:26:56
1	Na 589.592 Radial†	3103.3	2636.2	861.84	µg/L	861.84	ppb	02:26:56
1	Sr 421.552†	27043.2	27059.6	266.14	µg/L	266.14	ppb	02:26:35
1	Sc 361.383	2101549.4	2101549.4	100.09	%			02:28:00
1	Y 371.029	1485257.2	1485257.2	102.05	%			02:28:00
1	Ag 328.068†	-1904.7	-1439.8	-0.1609	µg/L	-0.1609	ppb	02:28:06
1	As 188.979†	12.9	13.2	30.606	µg/L	30.606	ppb	02:28:26
1	B 249.677†	1128.2	801.7	-39.411	µg/L	-39.411	ppb	02:28:06
1	Ba 233.527†	57848.9	57814.5	1417.3	µg/L	1417.3	ppb	02:28:06
1	Be 313.107†	15917.0	19661.4	9.6925	µg/L	9.6925	ppb	02:28:06
1	Cd 226.502†	366.9	503.2	-2.9357	µg/L	-2.9357	ppb	02:28:26
1	Co 228.616†	1530.1	1526.2	58.715	µg/L	58.715	ppb	02:28:26
1	Cr 267.716†	8044.8	8084.9	165.06	µg/L	165.06	ppb	02:28:06
1	Cu 324.752†	8964.1	6086.2	59.678	µg/L	59.678	ppb	02:28:06
1	Mn 257.610†	1132487.0	1131757.0	3620.3	µg/L	3620.3	ppb	02:28:00
1	Mo 202.031†	-17.1	-13.7	3.9012	µg/L	3.9012	ppb	02:28:26
1	Ni 231.604†	2215.5	1904.9	97.993	µg/L	97.993	ppb	02:28:26
1	P 214.914†	480.0	463.4	830.98	µg/L	830.98	ppb	02:28:26
1	Pb 220.353†	580.9	485.5	119.38	µg/L	119.38	ppb	02:28:26
1	S 181.975 Axial†	165.4	147.9	613.15	µg/L	613.15	ppb	02:28:26
1	Sb 206.836†	29.3	7.1	2.6550	µg/L	2.6550	ppb	02:28:26
1	Se 196.026†	-52.4	-67.3	264.95	µg/L	264.95	ppb	02:28:26
1	SiO2†	194666.1	193004.2	38649	µg/L	38649	ppb	02:28:00
1	Si 251.611†	233044.8	232538.7	17948	µg/L	17948	ppb	02:28:00
1	Sn 189.927†	-37.2	-41.9	-30.696	µg/L	-30.696	ppb	02:28:26
1	Ti 334.940†	2520263.7	2517824.1	5725.4	µg/L	5725.4	ppb	02:28:00
1	Tl 190.801†	-75.4	-53.2	18.357	µg/L	18.357	ppb	02:28:26
1	U 409.014†	-1154.7	-1152.9	-118.53	µg/L	-118.53	ppb	02:28:06
1	V 292.402†	27968.1	28038.6	293.97	µg/L	293.97	ppb	02:28:06
1	Zn 213.857†	11649.9	11137.3	254.74	µg/L	254.74	ppb	02:28:06
2	Sc RADIAL	59057.5	59057.5	100	%			02:27:01
2	Al 396.153Radial†	125773.7	125753.0	94012	µg/L	94012	ppb	02:27:01
2	Ca 317.933Radial†	24944.4	24745.6	22698	µg/L	22698	ppb	02:27:22
2	Fe 238.204 Radial†	16214.8	16195.6	139030	µg/L	139030	ppb	02:27:22
2	K 766.490 Radial†	21240.8	21037.5	14466	µg/L	14466	ppb	02:27:01
2	Mg 279.077 IEC†	1874.6	1862.1	17975	µg/L	17975	ppb	02:27:22
2	Na 589.592 Radial†	3099.6	2625.1	858.23	µg/L	858.23	ppb	02:27:22
2	Sr 421.552†	27217.9	27170.2	267.22	µg/L	267.22	ppb	02:27:01
2	Sc 361.383	2086584.3	2086584.3	99.379	%			02:28:33
2	Y 371.029	1473729.9	1473729.9	101.25	%			02:28:33
2	Ag 328.068†	-2033.2	-1582.8	-1.1839	µg/L	-1.1839	ppb	02:28:39
2	As 188.979†	8.8	9.1	23.249	µg/L	23.249	ppb	02:28:59
2	B 249.677†	1121.7	803.3	-39.416	µg/L	-39.416	ppb	02:28:39
2	Ba 233.527†	58606.0	58990.8	1446.1	µg/L	1446.1	ppb	02:28:39
2	Be 313.107†	16171.7	20031.7	9.9162	µg/L	9.9162	ppb	02:28:39
2	Cd 226.502†	376.4	515.3	-2.6446	µg/L	-2.6446	ppb	02:28:59
2	Co 228.616†	1539.5	1546.6	59.660	µg/L	59.660	ppb	02:28:59
2	Cr 267.716†	8093.9	8191.9	167.24	µg/L	167.24	ppb	02:28:39
2	Cu 324.752†	9024.9	6211.7	60.530	µg/L	60.530	ppb	02:28:39
2	Mn 257.610†	1122754.1	1130078.1	3615.0	µg/L	3615.0	ppb	02:28:33
2	Mo 202.031†	-13.1	-9.8	4.2965	µg/L	4.2965	ppb	02:28:59
2	Ni 231.604†	2237.6	1943.0	99.917	µg/L	99.917	ppb	02:28:59
2	P 214.914†	478.4	465.1	834.33	µg/L	834.33	ppb	02:28:59
2	Pb 220.353†	582.5	491.4	120.82	µg/L	120.82	ppb	02:28:59

2	S 181.975 Axial†	160.8	144.5	599.10	µg/L	599.10 ppb	02:28:59
2	Sb 206.836†	36.2	14.3	9.2165	µg/L	9.2165 ppb	02:28:59
2	Se 196.026†	-51.9	-67.2	265.51	µg/L	265.51 ppb	02:28:59
2	SiO2†	193430.1	193155.4	38680	µg/L	38680 ppb	02:28:33
2	Si 251.611†	231491.6	232645.8	17956	µg/L	17956 ppb	02:28:33
2	Sn 189.927†	-42.9	-47.9	-33.298	µg/L	-33.298 ppb	02:28:59
2	Ti 334.940†	2502357.1	2517864.5	5725.5	µg/L	5725.5 ppb	02:28:33
2	Tl 190.801†	-76.5	-54.8	16.181	µg/L	16.181 ppb	02:28:59
2	U 409.014†	-1159.8	-1166.3	-119.68	µg/L	-119.68 ppb	02:28:39
2	V 292.402†	28293.4	28566.4	299.22	µg/L	299.22 ppb	02:28:39
2	Zn 213.857†	11761.8	11333.4	259.35	µg/L	259.35 ppb	02:28:39
3	Sc RADIAL	58989.3	58989.3	99.9	%		02:27:27
3	Al 396.153Radial†	124735.9	124859.7	93344	µg/L	93344 ppb	02:27:27
3	Ca 317.933Radial†	25033.0	24863.1	22806	µg/L	22806 ppb	02:27:48
3	Fe 238.204 Radial†	16306.4	16306.0	139980	µg/L	139980 ppb	02:27:48
3	K 766.490 Radial†	21001.6	20822.6	14318	µg/L	14318 ppb	02:27:27
3	Mg 279.077 IEC†	1884.3	1873.9	18089	µg/L	18089 ppb	02:27:48
3	Na 589.592 Radial†	3105.6	2634.8	861.39	µg/L	861.39 ppb	02:27:48
3	Sr 421.552†	27017.9	27001.4	265.56	µg/L	265.56 ppb	02:27:27
3	Sc 361.383	2088604.0	2088604.0	99.475	%		02:29:07
3	Y 371.029	1474906.4	1474906.4	101.33	%		02:29:07
3	Ag 328.068†	-1892.5	-1439.4	-0.1257	µg/L	-0.1257 ppb	02:29:12
3	As 188.979†	12.9	13.2	30.716	µg/L	30.716 ppb	02:29:33
3	B 249.677†	1108.1	788.5	-40.527	µg/L	-40.527 ppb	02:29:12
3	Ba 233.527†	56712.6	57030.4	1398.1	µg/L	1398.1 ppb	02:29:12
3	Be 313.107†	15425.2	19265.5	9.5047	µg/L	9.5047 ppb	02:29:12
3	Cd 226.502†	312.7	451.0	-4.3794	µg/L	-4.3794 ppb	02:29:33
3	Co 228.616†	1427.1	1432.1	54.641	µg/L	54.641 ppb	02:29:33
3	Cr 267.716†	7764.6	7853.0	160.32	µg/L	160.32 ppb	02:29:12
3	Cu 324.752†	8836.2	6013.1	59.345	µg/L	59.345 ppb	02:29:12
3	Mn 257.610†	1102608.4	1108733.4	3547.2	µg/L	3547.2 ppb	02:29:07
3	Mo 202.031†	-17.2	-13.9	3.9216	µg/L	3.9216 ppb	02:29:33
3	Ni 231.604†	2082.6	1784.9	91.949	µg/L	91.949 ppb	02:29:33
3	P 214.914†	449.3	435.4	774.47	µg/L	774.47 ppb	02:29:33
3	Pb 220.353†	535.6	443.7	109.01	µg/L	109.01 ppb	02:29:33
3	S 181.975 Axial†	153.4	136.9	567.46	µg/L	567.46 ppb	02:29:33
3	Sb 206.836†	35.7	13.7	8.7267	µg/L	8.7267 ppb	02:29:33
3	Se 196.026†	-45.7	-60.9	276.61	µg/L	276.61 ppb	02:29:33
3	SiO2†	190535.9	190057.7	38059	µg/L	38059 ppb	02:29:07
3	Si 251.611†	228068.6	228979.4	17673	µg/L	17673 ppb	02:29:07
3	Sn 189.927†	-43.0	-47.9	-33.386	µg/L	-33.386 ppb	02:29:33
3	Ti 334.940†	2445946.2	2458720.6	5591.0	µg/L	5591.0 ppb	02:29:07
3	Tl 190.801†	-72.7	-50.9	20.022	µg/L	20.022 ppb	02:29:33
3	U 409.014†	-1140.5	-1145.8	-118.08	µg/L	-118.08 ppb	02:29:12
3	V 292.402†	27240.0	27479.8	288.56	µg/L	288.56 ppb	02:29:12
3	Zn 213.857†	11386.9	10945.1	250.17	µg/L	250.17 ppb	02:29:12

Mean Data: 246066018|949358|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2092245.9	99.648	%	0.3867				0.39%
Sc RADIAL	58988.2	99.9	%	0.12				0.12%
Y 371.029	1477964.5	101.54	%	0.436				0.43%
Ag 328.068†	-1487.3	-0.4902	µg/L	0.60107	-0.4902	ppb	0.60107	122.62%
Al 396.153Radial†	125342.3	93705	µg/L	337.1	93705	ppb	337.1	0.36%
As 188.979†	11.8	28.190	µg/L	4.2799	28.190	ppb	4.2799	15.18%
B 249.677†	797.8	-39.785	µg/L	0.6425	-39.785	ppb	0.6425	1.61%
Ba 233.527†	57945.2	1420.5	µg/L	24.19	1420.5	ppb	24.19	1.70%
Be 313.107†	19652.9	9.7044	µg/L	0.20601	9.7044	ppb	0.20601	2.12%
Ca 317.933Radial†	24790.3	22739	µg/L	58.4	22739	ppb	58.4	0.26%
Cd 226.502†	489.8	-3.3199	µg/L	0.92901	-3.3199	ppb	0.92901	27.98%
Co 228.616†	1501.6	57.672	µg/L	2.6672	57.672	ppb	2.6672	4.62%
Cr 267.716†	8043.2	164.21	µg/L	3.536	164.21	ppb	3.536	2.15%
Cu 324.752†	6103.7	59.851	µg/L	0.6111	59.851	ppb	0.6111	1.02%
Fe 238.204 Radial†	16226.9	139300	µg/L	592.3	139300	ppb	592.3	0.43%
K 766.490 Radial†	20952.5	14407	µg/L	78.6	14407	ppb	78.6	0.55%
Mg 279.077 IEC†	1866.2	18015	µg/L	64.4	18015	ppb	64.4	0.36%
Mn 257.610†	1123522.8	3594.1	µg/L	40.78	3594.1	ppb	40.78	1.13%
Mo 202.031†	-12.5	4.0398	µg/L	0.22256	4.0398	ppb	0.22256	5.51%
Na 589.592 Radial†	2632.0	860.48	µg/L	1.969	860.48	ppb	1.969	0.23%

Ni 231.604†	1877.6	96.620	µg/L	4.1581	96.620	ppb	4.1581	4.30%
P 214.914†	454.6	813.26	µg/L	33.633	813.26	ppb	33.633	4.14%
Pb 220.353†	473.5	116.40	µg/L	6.444	116.40	ppb	6.444	5.54%
S 181.975 Axial†	143.1	593.24	µg/L	23.403	593.24	ppb	23.403	3.94%
Sb 206.836†	11.7	6.8661	µg/L	3.65513	6.8661	ppb	3.65513	53.23%
Se 196.026†	-65.1	269.02	µg/L	6.573	269.02	ppb	6.573	2.44%
SiO2†	192072.4	38463	µg/L	349.7	38463	ppb	349.7	0.91%
Si 251.611†	231388.0	17859	µg/L	161.0	17859	ppb	161.0	0.90%
Sn 189.927†	-45.9	-32.460	µg/L	1.5286	-32.460	ppb	1.5286	4.71%
Sr 421.552†	27077.1	266.31	µg/L	0.843	266.31	ppb	0.843	0.32%
Ti 334.940†	2498136.4	5680.7	µg/L	77.64	5680.7	ppb	77.64	1.37%
Tl 190.801†	-52.9	18.186	µg/L	1.9260	18.186	ppb	1.9260	10.59%
U 409.014†	-1155.0	-118.76	µg/L	0.827	-118.76	ppb	0.827	0.70%
V 292.402†	28028.3	293.92	µg/L	5.327	293.92	ppb	5.327	1.81%
Zn 213.857†	11138.6	254.75	µg/L	4.589	254.75	ppb	4.589	1.80%

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/21/2010 02:37:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57377.2	57377.2	97.2	%			02:37:36
1	Al 396.153Radial†	6735.9	6940.3	5177.9	µg/L	5177.9	ppb	02:37:36
1	Ca 317.933Radial†	5600.4	5570.1	5109.3	µg/L	5109.3	ppb	02:37:57
1	Fe 238.204 Radial†	602.7	604.8	5202.7	µg/L	5202.7	ppb	02:37:57
1	K 766.490 Radial†	7251.0	7263.2	4994.3	µg/L	4994.3	ppb	02:37:36
1	Mg 279.077 IEC†	540.0	543.6	5293.9	µg/L	5293.9	ppb	02:37:57
1	Na 589.592 Radial†	30929.5	31354.0	10251	µg/L	10251	ppb	02:37:36
1	Sr 421.552†	48431.7	49796.9	489.76	µg/L	489.76	ppb	02:37:36
1	Sc 361.383	2098021.8	2098021.8	99.923	%			02:39:01
1	Y 371.029	1446111.2	1446111.2	99.356	%			02:39:01
1	Ag 328.068†	65119.9	65633.1	493.20	µg/L	493.20	ppb	02:39:06
1	As 188.979†	280.3	280.8	504.54	µg/L	504.54	ppb	02:39:27
1	B 249.677†	12177.8	11861.7	483.34	µg/L	483.34	ppb	02:39:06
1	Ba 233.527†	20088.3	20122.1	494.00	µg/L	494.00	ppb	02:39:06
1	Be 313.107†	822706.5	827097.2	499.33	µg/L	499.33	ppb	02:39:01
1	Cd 226.502†	19540.4	19692.0	495.42	µg/L	495.42	ppb	02:39:06
1	Co 228.616†	10811.6	10817.3	500.30	µg/L	500.30	ppb	02:39:06
1	Cr 267.716†	24471.0	24537.2	500.72	µg/L	500.72	ppb	02:39:06
1	Cu 324.752†	77142.2	74331.7	493.80	µg/L	493.80	ppb	02:39:06
1	Mn 257.610†	158119.4	158543.4	505.15	µg/L	505.15	ppb	02:39:01
1	Mo 202.031†	5130.4	5137.7	514.97	µg/L	514.97	ppb	02:39:27
1	Ni 231.604†	10155.1	9854.3	497.50	µg/L	497.50	ppb	02:39:06
1	P 214.914†	1301.6	1286.3	2510.5	µg/L	2510.5	ppb	02:39:27
1	Pb 220.353†	2168.3	2075.2	510.83	µg/L	510.83	ppb	02:39:27
1	S 181.975 Axial†	263.7	246.6	1022.1	µg/L	1022.1	ppb	02:39:27
1	Sb 206.836†	577.4	555.8	509.70	µg/L	509.70	ppb	02:39:27
1	Se 196.026†	385.4	370.7	515.90	µg/L	515.90	ppb	02:39:27
1	SiO2†	27993.2	26530.3	5312.7	µg/L	5312.7	ppb	02:39:06
1	Si 251.611†	32511.5	32243.0	2488.6	µg/L	2488.6	ppb	02:39:06
1	Sn 189.927†	1219.0	1215.3	519.73	µg/L	519.73	ppb	02:39:27
1	Ti 334.940†	220795.3	220823.2	501.90	µg/L	501.90	ppb	02:39:01
1	Tl 190.801†	359.2	381.7	516.24	µg/L	516.24	ppb	02:39:27
1	U 409.014†	5872.9	5878.1	497.80	µg/L	497.80	ppb	02:39:06
1	V 292.402†	49956.8	50091.2	501.76	µg/L	501.76	ppb	02:39:06
1	Zn 213.857†	21636.6	21151.2	495.65	µg/L	495.65	ppb	02:39:06
2	Sc RADIAL	57493.2	57493.2	97.4	%			02:38:02
2	Al 396.153Radial†	6730.2	6920.4	5163.2	µg/L	5163.2	ppb	02:38:02
2	Ca 317.933Radial†	5607.5	5565.8	5105.3	µg/L	5105.3	ppb	02:38:23
2	Fe 238.204 Radial†	599.5	600.3	5163.4	µg/L	5163.4	ppb	02:38:23
2	K 766.490 Radial†	7235.0	7231.7	4972.7	µg/L	4972.7	ppb	02:38:02
2	Mg 279.077 IEC†	549.4	552.1	5376.7	µg/L	5376.7	ppb	02:38:23
2	Na 589.592 Radial†	30985.2	31347.1	10248	µg/L	10248	ppb	02:38:02
2	Sr 421.552†	48559.0	49827.1	490.06	µg/L	490.06	ppb	02:38:02
2	Sc 361.383	2099879.4	2099879.4	100.01	%			02:39:34
2	Y 371.029	1448354.5	1448354.5	99.510	%			02:39:34
2	Ag 328.068†	65212.4	65667.9	493.46	µg/L	493.46	ppb	02:39:39
2	As 188.979†	283.1	283.4	509.10	µg/L	509.10	ppb	02:40:00
2	B 249.677†	12220.4	11893.5	484.66	µg/L	484.66	ppb	02:39:39
2	Ba 233.527†	20211.9	20227.9	496.59	µg/L	496.59	ppb	02:39:39
2	Be 313.107†	825290.6	828952.6	500.45	µg/L	500.45	ppb	02:39:34
2	Cd 226.502†	19555.6	19690.0	495.38	µg/L	495.38	ppb	02:39:39
2	Co 228.616†	10842.5	10838.6	501.28	µg/L	501.28	ppb	02:39:39
2	Cr 267.716†	24495.5	24540.0	500.78	µg/L	500.78	ppb	02:39:39
2	Cu 324.752†	77358.5	74479.7	494.78	µg/L	494.78	ppb	02:39:39
2	Mn 257.610†	158360.4	158644.4	505.46	µg/L	505.46	ppb	02:39:34
2	Mo 202.031†	5060.8	5063.5	507.54	µg/L	507.54	ppb	02:40:00
2	Ni 231.604†	10224.6	9914.7	500.55	µg/L	500.55	ppb	02:39:39
2	P 214.914†	1283.3	1266.9	2471.6	µg/L	2471.6	ppb	02:40:00
2	Pb 220.353†	2127.5	2032.5	500.29	µg/L	500.29	ppb	02:40:00

2	S 181.975 Axial†	261.6	244.2	1012.4 µg/L	1012.4 ppb	02:40:00
2	Sb 206.836†	555.1	532.9	488.75 µg/L	488.75 ppb	02:40:00
2	Se 196.026†	388.5	373.4	519.45 µg/L	519.45 ppb	02:40:00
2	SiO2†	28163.3	26675.6	5341.8 µg/L	5341.8 ppb	02:39:39
2	Si 251.611†	32643.3	32345.9	2496.6 µg/L	2496.6 ppb	02:39:39
2	Sn 189.927†	1187.0	1182.2	505.59 µg/L	505.59 ppb	02:40:00
2	Ti 334.940†	220997.1	220829.5	501.91 µg/L	501.91 ppb	02:39:34
2	Tl 190.801†	348.7	370.9	501.71 µg/L	501.71 ppb	02:40:00
2	U 409.014†	5890.1	5890.1	498.83 µg/L	498.83 ppb	02:39:39
2	V 292.402†	50027.5	50117.6	501.96 µg/L	501.96 ppb	02:39:39
2	Zn 213.857†	21721.2	21216.7	497.18 µg/L	497.18 ppb	02:39:39
3	Sc RADIAL	58022.1	58022.1	98.3 %		02:38:28
3	Al 396.153Radial†	6797.6	6926.0	5169.1 µg/L	5169.1 ppb	02:38:28
3	Ca 317.933Radial†	5614.0	5519.8	5063.1 µg/L	5063.1 ppb	02:38:49
3	Fe 238.204 Radial†	603.3	598.5	5147.3 µg/L	5147.3 ppb	02:38:49
3	K 766.490 Radial†	7323.7	7254.2	4988.1 µg/L	4988.1 ppb	02:38:28
3	Mg 279.077 IEC†	545.0	542.6	5282.5 µg/L	5282.5 ppb	02:38:49
3	Na 589.592 Radial†	31197.4	31272.9	10224 µg/L	10224 ppb	02:38:28
3	Sr 421.552†	48893.6	49713.1	488.94 µg/L	488.94 ppb	02:38:28
3	Sc 361.383	2094918.7	2094918.7	99.775 %		02:40:07
3	Y 371.029	1445516.4	1445516.4	99.315 %		02:40:07
3	Ag 328.068†	61673.9	62275.8	467.83 µg/L	467.83 ppb	02:40:13
3	As 188.979†	239.7	240.5	432.13 µg/L	432.13 ppb	02:40:33
3	B 249.677†	11436.9	11137.2	453.63 µg/L	453.63 ppb	02:40:13
3	Ba 233.527†	18556.3	18616.4	457.01 µg/L	457.01 ppb	02:40:13
3	Be 313.107†	769146.1	774635.8	467.66 µg/L	467.66 ppb	02:40:07
3	Cd 226.502†	17900.9	18077.8	454.76 µg/L	454.76 ppb	02:40:13
3	Co 228.616†	9816.3	9835.9	454.85 µg/L	454.85 ppb	02:40:13
3	Cr 267.716†	21534.7	21630.5	441.41 µg/L	441.41 ppb	02:40:13
3	Cu 324.752†	70376.9	67665.6	449.57 µg/L	449.57 ppb	02:40:13
3	Mn 257.610†	148134.2	148770.2	474.03 µg/L	474.03 ppb	02:40:07
3	Mo 202.031†	4229.6	4242.4	425.27 µg/L	425.27 ppb	02:40:33
3	Ni 231.604†	9247.0	8959.1	452.31 µg/L	452.31 ppb	02:40:13
3	P 214.914†	1097.8	1084.0	2111.4 µg/L	2111.4 ppb	02:40:33
3	Pb 220.353†	1856.3	1765.7	434.55 µg/L	434.55 ppb	02:40:33
3	S 181.975 Axial†	226.4	209.6	869.04 µg/L	869.04 ppb	02:40:33
3	Sb 206.836†	484.5	463.5	424.65 µg/L	424.65 ppb	02:40:33
3	Se 196.026†	336.6	322.4	449.55 µg/L	449.55 ppb	02:40:33
3	SiO2†	26233.0	24807.6	4967.7 µg/L	4967.7 ppb	02:40:13
3	Si 251.611†	30318.9	30093.6	2322.7 µg/L	2322.7 ppb	02:40:13
3	Sn 189.927†	981.0	978.5	418.50 µg/L	418.50 ppb	02:40:33
3	Ti 334.940†	205030.8	205350.6	466.71 µg/L	466.71 ppb	02:40:07
3	Tl 190.801†	314.8	337.8	457.15 µg/L	457.15 ppb	02:40:33
3	U 409.014†	5205.9	5218.4	441.83 µg/L	441.83 ppb	02:40:13
3	V 292.402†	45040.0	45237.3	452.85 µg/L	452.85 ppb	02:40:13
3	Zn 213.857†	19757.6	19300.1	452.23 µg/L	452.23 ppb	02:40:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2097606.7	99.903	%	0.1194				0.12%
Sc RADIAL	57630.8	97.6	%	0.58				0.60%
Y 371.029	1446660.7	99.394	%	0.1028				0.10%
Ag 328.068†	64525.6	484.83	µg/L	14.720	484.83	ppb	14.720	3.04%
QC value within limits for Ag 328.068 Recovery = 96.97%								
Al 396.153Radial†	6928.9	5170.1	µg/L	7.40	5170.1	ppb	7.40	0.14%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	268.2	481.92	µg/L	43.181	481.92	ppb	43.181	8.96%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	11630.8	473.88	µg/L	17.545	473.88	ppb	17.545	3.70%
QC value within limits for B 249.677 Recovery = 94.78%								
Ba 233.527†	19655.5	482.53	µg/L	22.139	482.53	ppb	22.139	4.59%
QC value within limits for Ba 233.527 Recovery = 96.51%								
Be 313.107†	810228.6	489.14	µg/L	18.617	489.14	ppb	18.617	3.81%
QC value within limits for Be 313.107 Recovery = 97.83%								
Ca 317.933Radial†	5551.9	5092.6	µg/L	25.55	5092.6	ppb	25.55	0.50%
QC value within limits for Ca 317.933Radial Recovery = 101.85%								
Cd 226.502†	19153.3	481.85	µg/L	23.461	481.85	ppb	23.461	4.87%
QC value within limits for Cd 226.502 Recovery = 96.37%								
Co 228.616†	10497.3	485.48	µg/L	26.530	485.48	ppb	26.530	5.46%

```
   QC value within limits for Co 228.616  Recovery = 97.10%
Cr 267.716†            23569.3      480.97 µg/L        34.259      480.97 ppb         34.259   7.12%
   QC value within limits for Cr 267.716  Recovery = 96.19%
Cu 324.752†            72159.0      479.38 µg/L        25.821      479.38 ppb         25.821   5.39%
   QC value within limits for Cu 324.752  Recovery = 95.88%
Fe 238.204 Radial†       601.2      5171.2 µg/L         28.51      5171.2 ppb          28.51   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.42%
K 766.490 Radial†       7249.7      4985.0 µg/L         11.14      4985.0 ppb          11.14   0.22%
   QC value within limits for K 766.490 Radial  Recovery = 99.70%
Mg 279.077 IEC†          546.1      5317.7 µg/L         51.40      5317.7 ppb          51.40   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.35%
Mn 257.610†           155319.3      494.88 µg/L        18.056      494.88 ppb         18.056   3.65%
   QC value within limits for Mn 257.610  Recovery = 98.98%
Mo 202.031†             4814.5      482.60 µg/L        49.785      482.60 ppb         49.785  10.32%
   QC value within limits for Mo 202.031  Recovery = 96.52%
Na 589.592 Radial†     31324.7       10241 µg/L          14.7       10241 ppb           14.7   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 102.41%
Ni 231.604†             9576.0      483.45 µg/L        27.013      483.45 ppb         27.013   5.59%
   QC value within limits for Ni 231.604  Recovery = 96.69%
P 214.914†              1212.4      2364.5 µg/L        220.04      2364.5 ppb         220.04   9.31%
   QC value within limits for P 214.914  Recovery = 94.58%
Pb 220.353†             1957.8      481.89 µg/L        41.334      481.89 ppb         41.334   8.58%
   QC value within limits for Pb 220.353  Recovery = 96.38%
S 181.975 Axial†         233.5      967.86 µg/L        85.720      967.86 ppb         85.720   8.86%
   QC value within limits for S 181.975 Axial  Recovery = 96.79%
Sb 206.836†              517.4      474.37 µg/L        44.310      474.37 ppb         44.310   9.34%
   QC value within limits for Sb 206.836  Recovery = 94.87%
Se 196.026†              355.5      494.97 µg/L        39.374      494.97 ppb         39.374   7.95%
   QC value within limits for Se 196.026  Recovery = 98.99%
SiO2†                  26004.5      5207.4 µg/L        208.08      5207.4 ppb         208.08   4.00%
   QC value within limits for SiO2  Recovery = 97.38%
Si 251.611†            31560.8      2436.0 µg/L         98.15      2436.0 ppb          98.15   4.03%
   QC value within limits for Si 251.611  Recovery = 97.44%
Sn 189.927†             1125.3      481.27 µg/L        54.820      481.27 ppb         54.820  11.39%
   QC value within limits for Sn 189.927  Recovery = 96.25%
Sr 421.552†            49779.0      489.59 µg/L         0.581      489.59 ppb          0.581   0.12%
   QC value within limits for Sr 421.552  Recovery = 97.92%
Ti 334.940†           215667.7      490.17 µg/L        20.320      490.17 ppb         20.320   4.15%
   QC value within limits for Ti 334.940  Recovery = 98.03%
Tl 190.801†              363.4      491.70 µg/L        30.794      491.70 ppb         30.794   6.26%
   QC value within limits for Tl 190.801  Recovery = 98.34%
U 409.014†              5662.2      479.49 µg/L        32.617      479.49 ppb         32.617   6.80%
   QC value within limits for U 409.014  Recovery = 95.90%
V 292.402†             48482.0      485.52 µg/L        28.295      485.52 ppb         28.295   5.83%
   QC value within limits for V 292.402  Recovery = 97.10%
Zn 213.857†            20556.0      481.69 µg/L        25.518      481.69 ppb         25.518   5.30%
   QC value within limits for Zn 213.857  Recovery = 96.34%
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/21/2010 02:40:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57583.8	57583.8	97.5	%			02:41:18
1	Al 396.153Radial†	15.1	24.2	18.089	µg/L	18.089	ppb	02:41:18
1	Ca 317.933Radial†	186.5	-1.8	-1.6127	µg/L	-1.6127	ppb	02:41:38
1	Fe 238.204 Radial†	18.1	3.1	26.922	µg/L	26.922	ppb	02:41:38
1	K 766.490 Radial†	196.7	3.3	2.2687	µg/L	2.2687	ppb	02:41:18
1	Mg 279.077 IEC†	15.7	4.0	38.686	µg/L	38.686	ppb	02:41:38
1	Na 589.592 Radial†	471.3	9.6	3.1322	µg/L	3.1322	ppb	02:41:18
1	Sr 421.552†	71.4	31.9	0.3135	µg/L	0.3135	ppb	02:41:18
1	Sc 361.383	2107882.2	2107882.2	100.39	%			02:42:41
1	Y 371.029	1457472.0	1457472.0	100.14	%			02:42:41
1	Ag 328.068†	-355.8	108.7	0.8127	µg/L	0.8127	ppb	02:42:46
1	As 188.979†	-1.4	-1.1	-1.9225	µg/L	-1.9225	ppb	02:43:07
1	B 249.677†	341.3	14.5	0.5781	µg/L	0.5781	ppb	02:43:07
1	Ba 233.527†	-7.0	11.4	0.2789	µg/L	0.2789	ppb	02:43:07
1	Be 313.107†	-3675.1	98.1	0.0592	µg/L	0.0592	ppb	02:42:46
1	Cd 226.502†	-141.4	-4.2	-0.1088	µg/L	-0.1088	ppb	02:43:07
1	Co 228.616†	7.3	4.8	0.2195	µg/L	0.2195	ppb	02:43:07
1	Cr 267.716†	-51.9	-4.3	-0.0878	µg/L	-0.0878	ppb	02:42:46
1	Cu 324.752†	2891.5	10.5	0.0734	µg/L	0.0734	ppb	02:42:46
1	Mn 257.610†	-150.7	152.5	0.4873	µg/L	0.4873	ppb	02:43:07
1	Mo 202.031†	-2.8	0.5	0.0534	µg/L	0.0534	ppb	02:43:07
1	Ni 231.604†	310.9	1.0	0.0524	µg/L	0.0524	ppb	02:43:07
1	P 214.914†	13.8	-2.5	-4.9422	µg/L	-4.9422	ppb	02:43:07
1	Pb 220.353†	92.6	-2.5	-0.6217	µg/L	-0.6217	ppb	02:43:07
1	S 181.975 Axial†	16.0	-1.4	-5.8209	µg/L	-5.8209	ppb	02:43:07
1	Sb 206.836†	27.0	4.7	4.3295	µg/L	4.3295	ppb	02:43:07
1	Se 196.026†	15.2	0.1	0.2118	µg/L	0.2118	ppb	02:43:07
1	SiO2†	1525.3	34.9	6.9923	µg/L	6.9923	ppb	02:42:46
1	Si 251.611†	373.5	78.5	6.0589	µg/L	6.0589	ppb	02:43:07
1	Sn 189.927†	-0.7	-5.4	-2.3047	µg/L	-2.3047	ppb	02:43:07
1	Ti 334.940†	249.9	107.3	0.2409	µg/L	0.2409	ppb	02:42:46
1	Tl 190.801†	-25.0	-2.7	-3.5993	µg/L	-3.5993	ppb	02:43:07
1	U 409.014†	-40.8	-39.9	-3.3887	µg/L	-3.3887	ppb	02:42:46
1	V 292.402†	-95.0	1.3	0.0130	µg/L	0.0130	ppb	02:42:46
1	Zn 213.857†	509.7	5.7	0.1315	µg/L	0.1315	ppb	02:43:07
2	Sc RADIAL	57661.8	57661.8	97.7	%			02:41:44
2	Al 396.153Radial†	-5.1	3.5	2.5947	µg/L	2.5947	ppb	02:41:44
2	Ca 317.933Radial†	188.3	-0.1	-0.1298	µg/L	-0.1298	ppb	02:42:04
2	Fe 238.204 Radial†	16.1	1.1	9.0929	µg/L	9.0929	ppb	02:42:04
2	K 766.490 Radial†	221.1	28.0	19.262	µg/L	19.262	ppb	02:41:44
2	Mg 279.077 IEC†	9.8	-2.0	-19.680	µg/L	-19.680	ppb	02:42:04
2	Na 589.592 Radial†	438.6	-24.6	-8.0312	µg/L	-8.0312	ppb	02:41:44
2	Sr 421.552†	21.9	-18.9	-0.1861	µg/L	-0.1861	ppb	02:41:44
2	Sc 361.383	2088666.9	2088666.9	99.478	%			02:43:13
2	Y 371.029	1445652.0	1445652.0	99.324	%			02:43:13
2	Ag 328.068†	-442.1	18.7	0.1418	µg/L	0.1418	ppb	02:43:18
2	As 188.979†	-2.4	-2.2	-3.9040	µg/L	-3.9040	ppb	02:43:39
2	B 249.677†	352.6	29.0	1.1802	µg/L	1.1802	ppb	02:43:39
2	Ba 233.527†	-8.7	9.6	0.2348	µg/L	0.2348	ppb	02:43:39
2	Be 313.107†	-3617.3	122.5	0.0739	µg/L	0.0739	ppb	02:43:18
2	Cd 226.502†	-141.8	-6.0	-0.1516	µg/L	-0.1516	ppb	02:43:39
2	Co 228.616†	5.6	3.1	0.1443	µg/L	0.1443	ppb	02:43:39
2	Cr 267.716†	-45.8	1.3	0.0268	µg/L	0.0268	ppb	02:43:18
2	Cu 324.752†	2907.6	53.1	0.3536	µg/L	0.3536	ppb	02:43:18
2	Mn 257.610†	-145.0	156.8	0.5010	µg/L	0.5010	ppb	02:43:39
2	Mo 202.031†	5.2	8.5	0.8529	µg/L	0.8529	ppb	02:43:39
2	Ni 231.604†	309.8	2.8	0.1420	µg/L	0.1420	ppb	02:43:39
2	P 214.914†	12.5	-3.7	-7.4397	µg/L	-7.4397	ppb	02:43:39
2	Pb 220.353†	83.3	-11.0	-2.7169	µg/L	-2.7169	ppb	02:43:39

2	S 181.975 Axial†	14.7	-2.5	-10.513 µg/L	-10.513 ppb	02:43:39
2	Sb 206.836†	29.7	7.8	7.1143 µg/L	7.1143 ppb	02:43:39
2	Se 196.026†	12.0	-2.9	-3.9797 µg/L	-3.9797 ppb	02:43:39
2	SiO2†	1476.7	0.1	0.0198 µg/L	0.0198 ppb	02:43:18
2	Si 251.611†	368.7	77.1	5.9524 µg/L	5.9524 ppb	02:43:39
2	Sn 189.927†	3.2	-1.5	-0.6607 µg/L	-0.6607 ppb	02:43:39
2	Ti 334.940†	253.4	113.1	0.2588 µg/L	0.2588 ppb	02:43:18
2	Tl 190.801†	-22.9	-0.8	-1.0279 µg/L	-1.0279 ppb	02:43:39
2	U 409.014†	2.5	3.3	0.2780 µg/L	0.2780 ppb	02:43:18
2	V 292.402†	-69.9	25.8	0.2628 µg/L	0.2628 ppb	02:43:18
2	Zn 213.857†	522.2	23.0	0.5425 µg/L	0.5425 ppb	02:43:39
3	Sc RADIAL	57594.0	57594.0	97.5 %		02:42:10
3	Al 396.153Radial†	0.3	9.0	6.7301 µg/L	6.7301 ppb	02:42:10
3	Ca 317.933Radial†	197.0	9.0	8.2470 µg/L	8.2470 ppb	02:42:30
3	Fe 238.204 Radial†	12.9	-2.2	-18.514 µg/L	-18.514 ppb	02:42:30
3	K 766.490 Radial†	186.2	-7.5	-5.1374 µg/L	-5.1374 ppb	02:42:10
3	Mg 279.077 IEC†	11.0	-0.8	-7.3537 µg/L	-7.3537 ppb	02:42:30
3	Na 589.592 Radial†	465.0	3.0	0.9910 µg/L	0.9910 ppb	02:42:10
3	Sr 421.552†	49.2	9.0	0.0890 µg/L	0.0890 ppb	02:42:10
3	Sc 361.383	2091576.3	2091576.3	99.616 %		02:43:45
3	Y 371.029	1447072.2	1447072.2	99.422 %		02:43:45
3	Ag 328.068†	-443.6	17.8	0.1308 µg/L	0.1308 ppb	02:43:50
3	As 188.979†	1.1	1.4	2.5375 µg/L	2.5375 ppb	02:44:11
3	B 249.677†	359.1	35.0	1.4407 µg/L	1.4407 ppb	02:44:11
3	Ba 233.527†	-8.4	9.9	0.2431 µg/L	0.2431 ppb	02:44:11
3	Be 313.107†	-3647.7	97.1	0.0586 µg/L	0.0586 ppb	02:43:50
3	Cd 226.502†	-142.6	-6.5	-0.1625 µg/L	-0.1625 ppb	02:44:11
3	Co 228.616†	1.0	-1.5	-0.0717 µg/L	-0.0717 ppb	02:44:11
3	Cr 267.716†	-39.1	8.2	0.1667 µg/L	0.1667 ppb	02:43:50
3	Cu 324.752†	2871.8	13.1	0.0843 µg/L	0.0843 ppb	02:43:50
3	Mn 257.610†	-169.6	132.3	0.4189 µg/L	0.4189 ppb	02:44:11
3	Mo 202.031†	2.3	5.7	0.5669 µg/L	0.5669 ppb	02:44:11
3	Ni 231.604†	308.3	0.9	0.0450 µg/L	0.0450 ppb	02:44:11
3	P 214.914†	9.6	-6.6	-13.197 µg/L	-13.197 ppb	02:44:11
3	Pb 220.353†	95.4	1.0	0.2429 µg/L	0.2429 ppb	02:44:11
3	S 181.975 Axial†	14.7	-2.5	-10.332 µg/L	-10.332 ppb	02:44:11
3	Sb 206.836†	19.2	-2.8	-2.5403 µg/L	-2.5403 ppb	02:44:11
3	Se 196.026†	13.8	-1.2	-1.6582 µg/L	-1.6582 ppb	02:44:11
3	SiO2†	1518.9	40.3	8.0743 µg/L	8.0743 ppb	02:43:50
3	Si 251.611†	392.2	100.2	7.7354 µg/L	7.7354 ppb	02:44:11
3	Sn 189.927†	-0.8	-5.5	-2.3524 µg/L	-2.3524 ppb	02:44:11
3	Ti 334.940†	259.2	118.5	0.2702 µg/L	0.2702 ppb	02:43:50
3	Tl 190.801†	-25.5	-3.4	-4.4847 µg/L	-4.4847 ppb	02:44:11
3	U 409.014†	10.5	11.3	0.9632 µg/L	0.9632 ppb	02:43:50
3	V 292.402†	-112.5	-16.9	-0.1640 µg/L	-0.1640 ppb	02:43:50
3	Zn 213.857†	518.7	18.8	0.4446 µg/L	0.4446 ppb	02:44:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2096041.8	99.829	%	0.4933				0.49%
Sc RADIAL	57613.2	97.6	%	0.07				0.07%
Y 371.029	1450065.4	99.628	%	0.4434				0.45%
Ag 328.068†	48.4	0.3618	µg/L	0.39056	0.3618	ppb	0.39056	107.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.2	9.1381	µg/L	8.02305	9.1381	ppb	8.02305	87.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-1.0964	µg/L	3.29926	-1.0964	ppb	3.29926	300.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	26.1	1.0663	µg/L	0.44245	1.0663	ppb	0.44245	41.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.3	0.2523	µg/L	0.02346	0.2523	ppb	0.02346	9.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.9	0.0639	µg/L	0.00870	0.0639	ppb	0.00870	13.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.1682	µg/L	5.31639	2.1682	ppb	5.31639	245.20%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.6	-0.1410	µg/L	0.02838	-0.1410	ppb	0.02838	20.13%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.1	0.0974	µg/L	0.15115	0.0974	ppb	0.15115	155.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.7      0.0352 µg/L       0.12743      0.0352 ppb        0.12743 361.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                25.6      0.1704 µg/L       0.15874      0.1704 ppb        0.15874  93.14%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      5.8337 µg/L      22.89244      5.8337 ppb       22.89244 392.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           7.9      5.4645 µg/L      12.50980      5.4645 ppb       12.50980 228.93%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      3.8840 µg/L      30.76296      3.8840 ppb       30.76296 792.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               147.2      0.4691 µg/L       0.04398      0.4691 ppb        0.04398   9.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.9      0.4911 µg/L       0.40510      0.4911 ppb        0.40510  82.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -4.0     -1.3027 µg/L       5.92462     -1.3027 ppb        5.92462 454.80%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.6      0.0798 µg/L       0.05397      0.0798 ppb        0.05397  67.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.3     -8.5263 µg/L       4.23323     -8.5263 ppb        4.23323  49.65%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.2     -1.0319 µg/L       1.52191     -1.0319 ppb        1.52191 147.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -8.8886 µg/L       2.65825     -8.8886 ppb        2.65825  29.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.2      2.9678 µg/L       4.96928      2.9678 ppb        4.96928 167.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.3     -1.8087 µg/L       2.09982     -1.8087 ppb        2.09982 116.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      25.1      5.0288 µg/L       4.37154      5.0288 ppb        4.37154  86.93%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                85.3      6.5823 µg/L       1.00011      6.5823 ppb        1.00011  15.19%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.1     -1.7726 µg/L       0.96321     -1.7726 ppb        0.96321  54.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.3      0.0721 µg/L       0.25021      0.0721 ppb        0.25021 346.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               113.0      0.2566 µg/L       0.01476      0.2566 ppb        0.01476   5.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.3     -3.0373 µg/L       1.79562     -3.0373 ppb        1.79562  59.12%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -8.4     -0.7158 µg/L       2.33997     -0.7158 ppb        2.33997 326.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  3.4      0.0373 µg/L       0.21443      0.0373 ppb        0.21443 575.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.8      0.3729 µg/L       0.21469      0.3729 ppb        0.21469  57.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/21/2010 23:06:18
Plasma On Time: 2/8/2010 03:37:33
Logged In Analyst: optima
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022010B.SIF
Batch ID:
Results Data Set: 022110B
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 8
Sample ID: S0
Date Collected: 2/21/2010 23:06:18
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: S0

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	58082.8	58082.8	99.5	%	23:06:59
1	Al 396.153Radial†	2.9	2.9	[0.00]	µg/L	23:06:59
1	Ca 317.933Radial†	201.2	202.2	[0.00]	µg/L	23:07:19
1	Fe 238.204 Radial†	16.3	16.3	[0.00]	µg/L	23:07:19
1	K 766.490 Radial†	163.8	164.6	[0.00]	µg/L	23:06:59
1	Mg 279.077 IEC†	7.1	7.1	[0.00]	µg/L	23:07:19
1	Na 589.592 Radial†	411.9	413.8	[0.00]	µg/L	23:06:59
1	Sr 421.552†	31.2	31.4	[0.00]	µg/L	23:06:59
1	Sc 361.383	2041883.6	2041883.6	100.24	%	23:08:21
1	Y 371.029	1404208.4	1404208.4	100.25	%	23:08:21
1	Ag 328.068†	-447.6	-446.6	[0.00]	µg/L	23:08:26
1	As 188.979†	-0.2	-0.2	[0.00]	µg/L	23:08:47
1	B 249.677†	344.2	343.4	[0.00]	µg/L	23:08:47
1	Ba 233.527†	-19.6	-19.5	[0.00]	µg/L	23:08:47
1	Be 313.107†	-3429.5	-3421.5	[0.00]	µg/L	23:08:26
1	Cd 226.502†	-127.6	-127.3	[0.00]	µg/L	23:08:47
1	Co 228.616†	-2.7	-2.6	[0.00]	µg/L	23:08:47
1	Cr 267.716†	-40.3	-40.2	[0.00]	µg/L	23:08:26
1	Cu 324.752†	3246.2	3238.6	[0.00]	µg/L	23:08:26
1	Mn 257.610†	-282.9	-282.3	[0.00]	µg/L	23:08:47
1	Mo 202.031†	-7.5	-7.5	[0.00]	µg/L	23:08:47
1	Ni 231.604†	297.4	296.7	[0.00]	µg/L	23:08:47
1	P 214.914†	17.9	17.9	[0.00]	µg/L	23:08:47
1	Pb 220.353†	88.1	87.9	[0.00]	µg/L	23:08:47
1	S 181.975 Axial†	18.8	18.7	[0.00]	µg/L	23:08:47
1	Sb 206.836†	23.3	23.2	[0.00]	µg/L	23:08:47
1	Se 196.026†	12.2	12.1	[0.00]	µg/L	23:08:47
1	SiO2†	1620.0	1616.2	[0.00]	µg/L	23:08:26
1	Si 251.611†	312.9	312.2	[0.00]	µg/L	23:08:47
1	Sn 189.927†	-1.4	-1.4	[0.00]	µg/L	23:08:47
1	Ti 334.940†	144.1	143.8	[0.00]	µg/L	23:08:26
1	Tl 190.801†	-21.6	-21.5	[0.00]	µg/L	23:08:47
1	U 409.014†	219.5	218.9	[0.00]	µg/L	23:08:26
1	V 292.402†	-28.2	-28.1	[0.00]	µg/L	23:08:26
1	Zn 213.857†	485.1	483.9	[0.00]	µg/L	23:08:47
2	Sc RADIAL	58265.7	58265.7	99.8	%	23:07:25
2	Al 396.153Radial†	-27.2	-27.2	[0.00]	µg/L	23:07:25
2	Ca 317.933Radial†	197.0	197.3	[0.00]	µg/L	23:07:45
2	Fe 238.204 Radial†	17.3	17.3	[0.00]	µg/L	23:07:45
2	K 766.490 Radial†	94.2	94.4	[0.00]	µg/L	23:07:25
2	Mg 279.077 IEC†	10.7	10.8	[0.00]	µg/L	23:07:45
2	Na 589.592 Radial†	439.7	440.4	[0.00]	µg/L	23:07:25
2	Sr 421.552†	12.3	12.3	[0.00]	µg/L	23:07:25
2	Sc 361.383	2035498.0	2035498.0	99.922	%	23:08:53
2	Y 371.029	1400079.6	1400079.6	99.955	%	23:08:53
2	Ag 328.068†	-471.3	-471.6	[0.00]	µg/L	23:08:59
2	As 188.979†	-1.1	-1.1	[0.00]	µg/L	23:09:19

2	B 249.677†	323.1	323.4	[0.00]	µg/L	23:09:19
2	Ba 233.527†	-17.6	-17.6	[0.00]	µg/L	23:09:19
2	Be 313.107†	-3363.4	-3366.0	[0.00]	µg/L	23:08:59
2	Cd 226.502†	-137.3	-137.4	[0.00]	µg/L	23:09:19
2	Co 228.616†	-5.7	-5.7	[0.00]	µg/L	23:09:19
2	Cr 267.716†	-30.3	-30.4	[0.00]	µg/L	23:08:59
2	Cu 324.752†	3215.1	3217.6	[0.00]	µg/L	23:08:59
2	Mn 257.610†	-279.5	-279.7	[0.00]	µg/L	23:09:19
2	Mo 202.031†	0.7	0.7	[0.00]	µg/L	23:09:19
2	Ni 231.604†	294.2	294.5	[0.00]	µg/L	23:09:19
2	P 214.914†	24.5	24.5	[0.00]	µg/L	23:09:19
2	Pb 220.353†	87.5	87.6	[0.00]	µg/L	23:09:19
2	S 181.975 Axial†	13.0	13.0	[0.00]	µg/L	23:09:19
2	Sb 206.836†	20.5	20.5	[0.00]	µg/L	23:09:19
2	Se 196.026†	5.3	5.3	[0.00]	µg/L	23:09:19
2	SiO2†	1613.0	1614.3	[0.00]	µg/L	23:08:59
2	Si 251.611†	323.5	323.7	[0.00]	µg/L	23:09:19
2	Sn 189.927†	5.8	5.8	[0.00]	µg/L	23:09:19
2	Ti 334.940†	128.3	128.4	[0.00]	µg/L	23:08:59
2	Tl 190.801†	-19.3	-19.4	[0.00]	µg/L	23:09:19
2	U 409.014†	224.0	224.2	[0.00]	µg/L	23:08:59
2	V 292.402†	-89.5	-89.6	[0.00]	µg/L	23:08:59
2	Zn 213.857†	476.8	477.2	[0.00]	µg/L	23:09:19
3	Sc RADIAL	58729.1	58729.1	101	%	23:07:50
3	Al 396.153Radial†	-0.2	-0.2	[0.00]	µg/L	23:07:50
3	Ca 317.933Radial†	198.6	197.3	[0.00]	µg/L	23:08:11
3	Fe 238.204 Radial†	15.9	15.8	[0.00]	µg/L	23:08:11
3	K 766.490 Radial†	211.9	210.6	[0.00]	µg/L	23:07:50
3	Mg 279.077 IEC†	10.4	10.3	[0.00]	µg/L	23:08:11
3	Na 589.592 Radial†	453.2	450.3	[0.00]	µg/L	23:07:50
3	Sr 421.552†	16.8	16.7	[0.00]	µg/L	23:07:50
3	Sc 361.383	2033902.5	2033902.5	99.843	%	23:09:25
3	Y 371.029	1397860.4	1397860.4	99.796	%	23:09:25
3	Ag 328.068†	-534.0	-534.8	[0.00]	µg/L	23:09:31
3	As 188.979†	3.5	3.5	[0.00]	µg/L	23:09:51
3	B 249.677†	320.0	320.5	[0.00]	µg/L	23:09:51
3	Ba 233.527†	-20.3	-20.4	[0.00]	µg/L	23:09:51
3	Be 313.107†	-3452.0	-3457.4	[0.00]	µg/L	23:09:31
3	Cd 226.502†	-129.7	-129.9	[0.00]	µg/L	23:09:51
3	Co 228.616†	-3.6	-3.6	[0.00]	µg/L	23:09:51
3	Cr 267.716†	-57.2	-57.3	[0.00]	µg/L	23:09:31
3	Cu 324.752†	3294.4	3299.6	[0.00]	µg/L	23:09:31
3	Mn 257.610†	-279.4	-279.8	[0.00]	µg/L	23:09:51
3	Mo 202.031†	-5.5	-5.5	[0.00]	µg/L	23:09:51
3	Ni 231.604†	306.6	307.0	[0.00]	µg/L	23:09:51
3	P 214.914†	20.7	20.7	[0.00]	µg/L	23:09:51
3	Pb 220.353†	93.2	93.3	[0.00]	µg/L	23:09:51
3	S 181.975 Axial†	13.5	13.5	[0.00]	µg/L	23:09:51
3	Sb 206.836†	21.4	21.4	[0.00]	µg/L	23:09:51
3	Se 196.026†	21.0	21.1	[0.00]	µg/L	23:09:51
3	SiO2†	1593.0	1595.5	[0.00]	µg/L	23:09:31
3	Si 251.611†	316.9	317.4	[0.00]	µg/L	23:09:51
3	Sn 189.927†	3.3	3.3	[0.00]	µg/L	23:09:51
3	Ti 334.940†	178.8	179.1	[0.00]	µg/L	23:09:31
3	Tl 190.801†	-23.2	-23.3	[0.00]	µg/L	23:09:51
3	U 409.014†	167.3	167.6	[0.00]	µg/L	23:09:31
3	V 292.402†	-52.9	-53.0	[0.00]	µg/L	23:09:31
3	Zn 213.857†	479.5	480.3	[0.00]	µg/L	23:09:51

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2037094.7	4223.33	0.21%	100.00	%
Sc RADIAL	58359.2	333.13	0.57%	100	%
Y 371.029	1400716.1	3221.47	0.23%	100.00	%
Ag 328.068†	-484.4	45.48	9.39%	[0.00]	µg/L
Al 396.153Radial†	-8.2	16.57	202.86%	[0.00]	µg/L
As 188.979†	0.7	2.41	335.09%	[0.00]	µg/L
B 249.677†	329.1	12.44	3.78%	[0.00]	µg/L
Ba 233.527†	-19.2	1.39	7.27%	[0.00]	µg/L

Be 313.107†	-3414.9	46.03	1.35%	[0.00]	µg/L
Ca 317.933Radial†	198.9	2.82	1.42%	[0.00]	µg/L
Cd 226.502†	-131.5	5.23	3.98%	[0.00]	µg/L
Co 228.616†	-4.0	1.56	39.20%	[0.00]	µg/L
Cr 267.716†	-42.6	13.65	32.02%	[0.00]	µg/L
Cu 324.752†	3251.9	42.60	1.31%	[0.00]	µg/L
Fe 238.204 Radial†	16.5	0.80	4.87%	[0.00]	µg/L
K 766.490 Radial†	156.5	58.53	37.40%	[0.00]	µg/L
Mg 279.077 IEC†	9.4	2.00	21.33%	[0.00]	µg/L
Mn 257.610†	-280.6	1.47	0.52%	[0.00]	µg/L
Mo 202.031†	-4.1	4.26	103.70%	[0.00]	µg/L
Na 589.592 Radial†	434.8	18.87	4.34%	[0.00]	µg/L
Ni 231.604†	299.4	6.71	2.24%	[0.00]	µg/L
P 214.914†	21.0	3.34	15.88%	[0.00]	µg/L
Pb 220.353†	89.6	3.23	3.61%	[0.00]	µg/L
S 181.975 Axial†	15.1	3.18	21.11%	[0.00]	µg/L
Sb 206.836†	21.7	1.40	6.47%	[0.00]	µg/L
Se 196.026†	12.8	7.91	61.57%	[0.00]	µg/L
SiO2†	1608.7	11.41	0.71%	[0.00]	µg/L
Si 251.611†	317.8	5.77	1.82%	[0.00]	µg/L
Sn 189.927†	2.5	3.63	142.54%	[0.00]	µg/L
Sr 421.552†	20.1	9.97	49.52%	[0.00]	µg/L
Ti 334.940†	150.4	25.96	17.26%	[0.00]	µg/L
Tl 190.801†	-21.4	1.96	9.16%	[0.00]	µg/L
U 409.014†	203.6	31.29	15.37%	[0.00]	µg/L
V 292.402†	-56.9	30.94	54.38%	[0.00]	µg/L
Zn 213.857†	480.5	3.36	0.70%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/21/2010 23:10:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59735.8	59735.8	102	%	23:10:35
1	K 766.490 Radial†	1705.9	1510.1	[1000]	µg/L	23:10:35
1	Sr 421.552†	10424.5	10164.2	[100]	µg/L	23:10:35
1	Sc 361.383	2050695.0	2050695.0	100.67	%	23:10:57
1	Y 371.029	1411337.8	1411337.8	100.76	%	23:10:57
1	Ag 328.068†	12436.0	12837.8	[100]	µg/L	23:11:02
1	As 188.979†	54.6	53.5	[100]	µg/L	23:11:23
1	B 249.677†	2651.9	2305.3	[100]	µg/L	23:11:02
1	Ba 233.527†	4055.0	4047.3	[100]	µg/L	23:11:02
1	Be 313.107†	160751.1	163100.0	[100]	µg/L	23:10:57
1	Cd 226.502†	3845.2	3951.2	[100]	µg/L	23:11:02
1	Co 228.616†	2133.4	2123.2	[100]	µg/L	23:11:23
1	Cr 267.716†	4859.9	4870.3	[100]	µg/L	23:11:02
1	Cu 324.752†	18629.9	15254.5	[100]	µg/L	23:11:02
1	Mn 257.610†	31071.2	31145.7	[100]	µg/L	23:11:02
1	Mo 202.031†	992.6	990.1	[100]	µg/L	23:11:23
1	Ni 231.604†	2293.5	1978.9	[100]	µg/L	23:11:02
1	P 214.914†	265.0	242.2	[500]	µg/L	23:11:23
1	Pb 220.353†	501.7	408.7	[100]	µg/L	23:11:23
1	S 181.975 Axial†	57.0	41.6	[200]	µg/L	23:11:23
1	Sb 206.836†	128.3	105.8	[100]	µg/L	23:11:23
1	Se 196.026†	88.9	75.4	[100]	µg/L	23:11:23
1	SiO2†	6752.5	5099.0	[1069.5]	µg/L	23:11:02
1	Si 251.611†	6567.2	6205.9	[500]	µg/L	23:11:02
1	Sn 189.927†	233.8	229.7	[100]	µg/L	23:11:23
1	Ti 334.940†	42530.0	42097.5	[100]	µg/L	23:11:02
1	Tl 190.801†	46.6	67.6	[100]	µg/L	23:11:23
1	U 409.014†	1351.1	1138.6	[100]	µg/L	23:11:02
1	V 292.402†	9957.4	9948.3	[100]	µg/L	23:11:02
1	Zn 213.857†	4733.8	4222.0	[100]	µg/L	23:11:02
2	Sc RADIAL	59804.6	59804.6	102	%	23:10:41
2	K 766.490 Radial†	1665.1	1468.4	[1000]	µg/L	23:10:41
2	Sr 421.552†	10390.1	10118.8	[100]	µg/L	23:10:41
2	Sc 361.383	2049669.0	2049669.0	100.62	%	23:11:29
2	Y 371.029	1410968.0	1410968.0	100.73	%	23:11:29
2	Ag 328.068†	12518.8	12926.4	[100]	µg/L	23:11:35
2	As 188.979†	53.5	52.4	[100]	µg/L	23:11:55
2	B 249.677†	2622.4	2277.3	[100]	µg/L	23:11:35
2	Ba 233.527†	4038.6	4033.0	[100]	µg/L	23:11:35
2	Be 313.107†	159354.7	161792.0	[100]	µg/L	23:11:29
2	Cd 226.502†	3817.3	3925.4	[100]	µg/L	23:11:35
2	Co 228.616†	2131.2	2122.1	[100]	µg/L	23:11:55
2	Cr 267.716†	4856.8	4869.7	[100]	µg/L	23:11:35
2	Cu 324.752†	18685.0	15318.5	[100]	µg/L	23:11:35
2	Mn 257.610†	31057.7	31147.8	[100]	µg/L	23:11:35
2	Mo 202.031†	988.5	986.5	[100]	µg/L	23:11:55
2	Ni 231.604†	2321.9	2008.2	[100]	µg/L	23:11:35
2	P 214.914†	262.5	239.8	[500]	µg/L	23:11:55
2	Pb 220.353†	484.0	391.5	[100]	µg/L	23:11:55
2	S 181.975 Axial†	62.2	46.7	[200]	µg/L	23:11:55
2	Sb 206.836†	132.0	109.5	[100]	µg/L	23:11:55
2	Se 196.026†	81.3	68.0	[100]	µg/L	23:11:55
2	SiO2†	6786.2	5135.9	[1069.5]	µg/L	23:11:35
2	Si 251.611†	6624.6	6266.2	[500]	µg/L	23:11:35
2	Sn 189.927†	237.0	233.0	[100]	µg/L	23:11:55
2	Ti 334.940†	42574.1	42162.5	[100]	µg/L	23:11:35
2	Tl 190.801†	51.5	72.6	[100]	µg/L	23:11:55
2	U 409.014†	1495.9	1283.2	[100]	µg/L	23:11:35
2	V 292.402†	10023.7	10019.1	[100]	µg/L	23:11:35

2	Zn 213.857†	4703.2	4193.9	[100]	µg/L	23:11:35
3	Sc RADIAL	59378.0	59378.0	102	%	23:10:46
3	K 766.490 Radial†	1641.1	1456.5	[1000]	µg/L	23:10:46
3	Sr 421.552†	10338.6	10141.0	[100]	µg/L	23:10:46
3	Sc 361.383	2039457.8	2039457.8	100.12	%	23:12:01
3	Y 371.029	1403759.1	1403759.1	100.22	%	23:12:01
3	Ag 328.068†	12335.4	12805.5	[100]	µg/L	23:12:07
3	As 188.979†	52.7	51.9	[100]	µg/L	23:12:28
3	B 249.677†	2614.4	2282.3	[100]	µg/L	23:12:07
3	Ba 233.527†	3975.3	3989.8	[100]	µg/L	23:12:07
3	Be 313.107†	157941.4	161173.3	[100]	µg/L	23:12:01
3	Cd 226.502†	3756.5	3883.7	[100]	µg/L	23:12:07
3	Co 228.616†	2126.9	2128.4	[100]	µg/L	23:12:28
3	Cr 267.716†	4819.8	4856.9	[100]	µg/L	23:12:07
3	Cu 324.752†	18472.4	15199.0	[100]	µg/L	23:12:07
3	Mn 257.610†	30703.1	30948.1	[100]	µg/L	23:12:07
3	Mo 202.031†	988.2	991.2	[100]	µg/L	23:12:28
3	Ni 231.604†	2274.2	1972.1	[100]	µg/L	23:12:07
3	P 214.914†	271.2	249.8	[500]	µg/L	23:12:28
3	Pb 220.353†	497.9	407.8	[100]	µg/L	23:12:28
3	S 181.975 Axial†	58.6	43.5	[200]	µg/L	23:12:28
3	Sb 206.836†	127.7	105.8	[100]	µg/L	23:12:28
3	Se 196.026†	85.8	72.9	[100]	µg/L	23:12:28
3	SiO2†	6750.2	5133.7	[1069.5]	µg/L	23:12:07
3	Si 251.611†	6510.2	6184.9	[500]	µg/L	23:12:07
3	Sn 189.927†	238.1	235.2	[100]	µg/L	23:12:28
3	Ti 334.940†	42088.3	41889.1	[100]	µg/L	23:12:07
3	Tl 190.801†	51.5	72.8	[100]	µg/L	23:12:28
3	U 409.014†	1455.3	1250.1	[100]	µg/L	23:12:07
3	V 292.402†	9877.3	9922.8	[100]	µg/L	23:12:07
3	Zn 213.857†	4674.1	4188.2	[100]	µg/L	23:12:07

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2046607.3	6212.81	0.30%	100.47	%
Sc RADIAL	59639.5	229.04	0.38%	102	%
Y 371.029	1408688.3	4272.84	0.30%	100.57	%
Ag 328.068†	12856.6	62.57	0.49%	[100]	µg/L
As 188.979†	52.6	0.82	1.56%	[100]	µg/L
B 249.677†	2288.3	14.94	0.65%	[100]	µg/L
Ba 233.527†	4023.4	29.91	0.74%	[100]	µg/L
Be 313.107†	162021.8	983.68	0.61%	[100]	µg/L
Cd 226.502†	3920.1	34.09	0.87%	[100]	µg/L
Co 228.616†	2124.6	3.38	0.16%	[100]	µg/L
Cr 267.716†	4865.6	7.55	0.16%	[100]	µg/L
Cu 324.752†	15257.3	59.77	0.39%	[100]	µg/L
K 766.490 Radial†	1478.3	28.16	1.90%	[1000]	µg/L
Mn 257.610†	31080.5	114.70	0.37%	[100]	µg/L
Mo 202.031†	989.3	2.46	0.25%	[100]	µg/L
Ni 231.604†	1986.4	19.19	0.97%	[100]	µg/L
P 214.914†	244.0	5.22	2.14%	[500]	µg/L
Pb 220.353†	402.7	9.69	2.41%	[100]	µg/L
S 181.975 Axial†	43.9	2.62	5.97%	[200]	µg/L
Sb 206.836†	107.0	2.12	1.98%	[100]	µg/L
Se 196.026†	72.1	3.79	5.26%	[100]	µg/L
SiO2†	5122.9	20.68	0.40%	[1069.5]	µg/L
Si 251.611†	6219.0	42.19	0.68%	[500]	µg/L
Sn 189.927†	232.6	2.81	1.21%	[100]	µg/L
Sr 421.552†	10141.3	22.66	0.22%	[100]	µg/L
Ti 334.940†	42049.7	142.81	0.34%	[100]	µg/L
Tl 190.801†	71.0	2.93	4.13%	[100]	µg/L
U 409.014†	1223.9	75.76	6.19%	[100]	µg/L
V 292.402†	9963.4	49.88	0.50%	[100]	µg/L
Zn 213.857†	4201.4	18.06	0.43%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/21/2010 23:12:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59182.8	59182.8	101	%	23:13:09
1	Al 396.153Radial†	6920.9	6832.7	[5000]	µg/L	23:13:09
1	Ca 317.933Radial†	5730.0	5451.3	[5000]	µg/L	23:13:29
1	K 766.490 Radial†	7579.8	7317.8	[5000]	µg/L	23:13:09
1	Mg 279.077 IEC†	550.6	533.5	[5000]	µg/L	23:13:29
1	Sr 421.552†	51927.9	51185.1	[500]	µg/L	23:13:09
1	Sc 361.383	2047918.1	2047918.1	100.53	%	23:14:33
1	Y 371.029	1403333.2	1403333.2	100.19	%	23:14:33
1	Ag 328.068†	65646.8	65784.2	[500]	µg/L	23:14:38
1	As 188.979†	284.3	282.0	[500]	µg/L	23:14:59
1	B 249.677†	12305.9	11911.8	[500]	µg/L	23:14:38
1	Ba 233.527†	20350.4	20262.1	[500]	µg/L	23:14:38
1	Be 313.107†	815573.4	814678.0	[500]	µg/L	23:14:33
1	Cd 226.502†	19566.4	19594.5	[500]	µg/L	23:14:38
1	Co 228.616†	10908.5	10854.8	[500]	µg/L	23:14:38
1	Cr 267.716†	24633.3	24545.8	[500]	µg/L	23:14:38
1	Cu 324.752†	78878.1	75209.3	[500]	µg/L	23:14:38
1	Mn 257.610†	155607.9	155066.1	[500]	µg/L	23:14:33
1	Mo 202.031†	5122.2	5099.2	[500]	µg/L	23:14:59
1	Ni 231.604†	10212.6	9859.2	[500]	µg/L	23:14:38
1	P 214.914†	1282.2	1254.4	[2500]	µg/L	23:14:59
1	Pb 220.353†	2134.8	2033.9	[500]	µg/L	23:14:59
1	S 181.975 Axial†	256.0	239.6	[1000]	µg/L	23:14:59
1	Sb 206.836†	571.2	546.5	[500]	µg/L	23:14:59
1	Se 196.026†	373.6	358.8	[500]	µg/L	23:14:59
1	SiO2†	28250.9	26492.9	[5347.5]	µg/L	23:14:38
1	Si 251.611†	32601.2	32111.1	[2500]	µg/L	23:14:38
1	Sn 189.927†	1203.2	1194.3	[500]	µg/L	23:14:59
1	Ti 334.940†	220248.7	218934.2	[500]	µg/L	23:14:33
1	Tl 190.801†	352.5	372.0	[500]	µg/L	23:14:59
1	U 409.014†	6245.2	6008.6	[500]	µg/L	23:14:38
1	V 292.402†	50554.2	50343.9	[500]	µg/L	23:14:38
1	Zn 213.857†	21645.9	21051.1	[500]	µg/L	23:14:38
2	Sc RADIAL	59050.7	59050.7	101	%	23:13:35
2	Al 396.153Radial†	6940.1	6867.0	[5000]	µg/L	23:13:35
2	Ca 317.933Radial†	5772.3	5505.7	[5000]	µg/L	23:13:55
2	K 766.490 Radial†	7593.9	7348.5	[5000]	µg/L	23:13:35
2	Mg 279.077 IEC†	552.9	537.1	[5000]	µg/L	23:13:55
2	Sr 421.552†	51728.9	51103.0	[500]	µg/L	23:13:35
2	Sc 361.383	2041689.2	2041689.2	100.23	%	23:15:06
2	Y 371.029	1398616.1	1398616.1	99.850	%	23:15:06
2	Ag 328.068†	65755.8	66092.2	[500]	µg/L	23:15:12
2	As 188.979†	276.8	275.5	[500]	µg/L	23:15:32
2	B 249.677†	12299.5	11942.7	[500]	µg/L	23:15:12
2	Ba 233.527†	20319.6	20293.0	[500]	µg/L	23:15:12
2	Be 313.107†	821448.5	823014.9	[500]	µg/L	23:15:06
2	Cd 226.502†	19624.3	19711.7	[500]	µg/L	23:15:12
2	Co 228.616†	10903.5	10882.9	[500]	µg/L	23:15:12
2	Cr 267.716†	24625.8	24613.0	[500]	µg/L	23:15:12
2	Cu 324.752†	79267.0	75836.6	[500]	µg/L	23:15:12
2	Mn 257.610†	156826.7	156754.4	[500]	µg/L	23:15:06
2	Mo 202.031†	5000.0	4992.8	[500]	µg/L	23:15:32
2	Ni 231.604†	10272.6	9950.0	[500]	µg/L	23:15:12
2	P 214.914†	1261.2	1237.4	[2500]	µg/L	23:15:32
2	Pb 220.353†	2093.8	1999.5	[500]	µg/L	23:15:32
2	S 181.975 Axial†	250.2	234.5	[1000]	µg/L	23:15:32
2	Sb 206.836†	557.3	534.3	[500]	µg/L	23:15:32
2	Se 196.026†	374.1	360.4	[500]	µg/L	23:15:32
2	SiO2†	28416.3	26743.7	[5347.5]	µg/L	23:15:12

2	Si 251.611†	32745.3	32353.8	[2500]	µg/L	23:15:12
2	Sn 189.927†	1174.0	1168.8	[500]	µg/L	23:15:32
2	Ti 334.940†	221865.6	221215.9	[500]	µg/L	23:15:06
2	Tl 190.801†	350.0	370.7	[500]	µg/L	23:15:32
2	U 409.014†	6350.1	6132.2	[500]	µg/L	23:15:12
2	V 292.402†	50577.1	50520.2	[500]	µg/L	23:15:12
2	Zn 213.857†	21759.4	21229.9	[500]	µg/L	23:15:12
3	Sc RADIAL	59241.7	59241.7	102	%	23:14:01
3	Al 396.153Radial†	6978.9	6883.1	[5000]	µg/L	23:14:01
3	Ca 317.933Radial†	5775.8	5490.8	[5000]	µg/L	23:14:21
3	K 766.490 Radial†	7577.6	7308.2	[5000]	µg/L	23:14:01
3	Mg 279.077 IEC†	555.5	537.8	[5000]	µg/L	23:14:21
3	Sr 421.552†	52284.4	51485.4	[500]	µg/L	23:14:01
3	Sc 361.383	2052473.0	2052473.0	100.75	%	23:15:39
3	Y 371.029	1407460.3	1407460.3	100.48	%	23:15:39
3	Ag 328.068†	60145.9	60179.6	[500]	µg/L	23:15:45
3	As 188.979†	225.0	222.6	[500]	µg/L	23:16:05
3	B 249.677†	11155.7	10743.1	[500]	µg/L	23:15:45
3	Ba 233.527†	17863.3	17748.7	[500]	µg/L	23:15:45
3	Be 313.107†	739352.4	737227.7	[500]	µg/L	23:15:39
3	Cd 226.502†	17131.5	17134.6	[500]	µg/L	23:15:45
3	Co 228.616†	9432.7	9366.0	[500]	µg/L	23:15:45
3	Cr 267.716†	20593.2	20481.5	[500]	µg/L	23:15:45
3	Cu 324.752†	69190.2	65419.9	[500]	µg/L	23:15:45
3	Mn 257.610†	141672.2	140891.3	[500]	µg/L	23:15:39
3	Mo 202.031†	4059.7	4033.4	[500]	µg/L	23:16:05
3	Ni 231.604†	8899.7	8533.6	[500]	µg/L	23:15:45
3	P 214.914†	1053.6	1024.7	[2500]	µg/L	23:16:05
3	Pb 220.353†	1774.6	1671.7	[500]	µg/L	23:16:05
3	S 181.975 Axial†	218.3	201.6	[1000]	µg/L	23:16:05
3	Sb 206.836†	472.0	446.8	[500]	µg/L	23:16:05
3	Se 196.026†	318.2	303.0	[500]	µg/L	23:16:05
3	SiO2†	25503.5	23703.7	[5347.5]	µg/L	23:15:45
3	Si 251.611†	29258.7	28721.7	[2500]	µg/L	23:15:45
3	Sn 189.927†	931.5	921.9	[500]	µg/L	23:16:05
3	Ti 334.940†	198346.7	196710.1	[500]	µg/L	23:15:39
3	Tl 190.801†	305.5	324.6	[500]	µg/L	23:16:05
3	U 409.014†	5296.2	5052.9	[500]	µg/L	23:15:45
3	V 292.402†	43297.1	43029.6	[500]	µg/L	23:15:45
3	Zn 213.857†	18904.3	18282.2	[500]	µg/L	23:15:45

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2047360.1	5413.50	0.26%	100.50	%
Sc RADIAL	59158.4	97.79	0.17%	101	%
Y 371.029	1403136.6	4425.37	0.32%	100.17	%
Ag 328.068†	64018.7	3328.31	5.20%	[500]	µg/L
Al 396.153Radial†	6860.9	25.75	0.38%	[5000]	µg/L
As 188.979†	260.1	32.57	12.52%	[500]	µg/L
B 249.677†	11532.5	683.87	5.93%	[500]	µg/L
Ba 233.527†	19434.6	1460.13	7.51%	[500]	µg/L
Be 313.107†	791640.2	47306.61	5.98%	[500]	µg/L
Ca 317.933Radial†	5482.6	28.14	0.51%	[5000]	µg/L
Cd 226.502†	18813.6	1455.22	7.73%	[500]	µg/L
Co 228.616†	10367.9	867.80	8.37%	[500]	µg/L
Cr 267.716†	23213.4	2366.15	10.19%	[500]	µg/L
Cu 324.752†	72155.3	5841.45	8.10%	[500]	µg/L
K 766.490 Radial†	7324.9	21.03	0.29%	[5000]	µg/L
Mg 279.077 IEC†	536.1	2.30	0.43%	[5000]	µg/L
Mn 257.610†	150903.9	8712.20	5.77%	[500]	µg/L
Mo 202.031†	4708.5	587.05	12.47%	[500]	µg/L
Ni 231.604†	9447.6	792.87	8.39%	[500]	µg/L
P 214.914†	1172.2	127.97	10.92%	[2500]	µg/L
Pb 220.353†	1901.7	199.96	10.51%	[500]	µg/L
S 181.975 Axial†	225.2	20.65	9.17%	[1000]	µg/L
Sb 206.836†	509.2	54.41	10.69%	[500]	µg/L
Se 196.026†	340.7	32.70	9.60%	[500]	µg/L
SiO2†	25646.8	1687.43	6.58%	[5347.5]	µg/L
Si 251.611†	31062.2	2030.55	6.54%	[2500]	µg/L

Sn 189.927†	1095.0	150.43	13.74%	[500] µg/L
Sr 421.552†	51257.8	201.32	0.39%	[500] µg/L
Ti 334.940†	212286.8	13537.92	6.38%	[500] µg/L
Tl 190.801†	355.8	26.99	7.59%	[500] µg/L
U 409.014†	5731.3	590.71	10.31%	[500] µg/L
V 292.402†	47964.6	4274.73	8.91%	[500] µg/L
Zn 213.857†	20187.7	1652.68	8.19%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/21/2010 23:16:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59624.4	59624.4	102	%	23:16:48
1	Al 396.153Radial†	13930.1	13642.7	[10000]	µg/L	23:16:48
1	Ca 317.933Radial†	11363.1	10923.1	[10000]	µg/L	23:17:09
1	Fe 238.204 Radial†	1204.4	1162.4	[10000]	µg/L	23:17:09
1	K 766.490 Radial†	14880.2	14407.9	[10000]	µg/L	23:16:48
1	Mg 279.077 IEC†	1095.9	1063.3	[10000]	µg/L	23:17:09
1	Na 589.592 Radial†	32549.2	31423.7	[10000]	µg/L	23:16:48
1	Sr 421.552†	104074.1	101845.4	[1000]	µg/L	23:16:48
1	Sc 361.383	2045119.7	2045119.7	100.39	%	23:18:12
1	Y 371.029	1401843.5	1401843.5	100.08	%	23:18:12
1	Ag 328.068†	128556.7	128536.6	[1000]	µg/L	23:18:18
1	As 188.979†	565.9	562.9	[1000]	µg/L	23:18:39
1	B 249.677†	24273.8	23849.5	[1000]	µg/L	23:18:18
1	Ba 233.527†	40407.9	40268.6	[1000]	µg/L	23:18:18
1	Be 313.107†	1628095.0	1625121.4	[1000]	µg/L	23:18:12
1	Cd 226.502†	38813.6	38792.8	[1000]	µg/L	23:18:18
1	Co 228.616†	21501.5	21421.1	[1000]	µg/L	23:18:18
1	Cr 267.716†	48989.8	48840.2	[1000]	µg/L	23:18:18
1	Cu 324.752†	154412.0	150554.2	[1000]	µg/L	23:18:18
1	Mn 257.610†	308218.5	307289.6	[1000]	µg/L	23:18:18
1	Mo 202.031†	10075.1	10039.6	[1000]	µg/L	23:18:39
1	Ni 231.604†	19907.7	19530.1	[1000]	µg/L	23:18:18
1	P 214.914†	2583.5	2552.4	[5000]	µg/L	23:18:39
1	Pb 220.353†	4209.6	4103.4	[1000]	µg/L	23:18:39
1	S 181.975 Axial†	489.5	472.6	[2000]	µg/L	23:18:39
1	Sb 206.836†	1088.6	1062.6	[1000]	µg/L	23:18:39
1	Se 196.026†	747.0	731.2	[1000]	µg/L	23:18:39
1	SiO2†	54198.4	52377.1	[10695]	µg/L	23:18:18
1	Si 251.611†	63935.5	63366.9	[5000]	µg/L	23:18:18
1	Sn 189.927†	2366.1	2354.3	[1000]	µg/L	23:18:39
1	Ti 334.940†	430029.7	428191.9	[1000]	µg/L	23:18:12
1	Tl 190.801†	730.3	748.8	[1000]	µg/L	23:18:39
1	U 409.014†	12556.7	12303.8	[1000]	µg/L	23:18:18
1	V 292.402†	101070.7	100731.0	[1000]	µg/L	23:18:18
1	Zn 213.857†	42354.5	41707.8	[1000]	µg/L	23:18:18
2	Sc RADIAL	59405.7	59405.7	102	%	23:17:14
2	Al 396.153Radial†	13911.4	13674.5	[10000]	µg/L	23:17:14
2	Ca 317.933Radial†	11405.8	11005.9	[10000]	µg/L	23:17:35
2	Fe 238.204 Radial†	1207.9	1170.1	[10000]	µg/L	23:17:35
2	K 766.490 Radial†	14891.6	14472.7	[10000]	µg/L	23:17:14
2	Mg 279.077 IEC†	1094.2	1065.5	[10000]	µg/L	23:17:35
2	Na 589.592 Radial†	32390.6	31385.1	[10000]	µg/L	23:17:14
2	Sr 421.552†	103871.9	102021.9	[1000]	µg/L	23:17:14
2	Sc 361.383	2048249.3	2048249.3	100.55	%	23:18:45
2	Y 371.029	1402201.4	1402201.4	100.11	%	23:18:45
2	Ag 328.068†	128678.9	128462.5	[1000]	µg/L	23:18:51
2	As 188.979†	551.6	547.8	[1000]	µg/L	23:19:12
2	B 249.677†	24272.7	23811.4	[1000]	µg/L	23:18:51
2	Ba 233.527†	40544.5	40342.8	[1000]	µg/L	23:18:51
2	Be 313.107†	1625782.3	1620343.4	[1000]	µg/L	23:18:45
2	Cd 226.502†	38849.9	38769.9	[1000]	µg/L	23:18:51
2	Co 228.616†	21570.3	21456.8	[1000]	µg/L	23:18:51
2	Cr 267.716†	49024.5	48800.2	[1000]	µg/L	23:18:51
2	Cu 324.752†	154350.5	150258.0	[1000]	µg/L	23:18:51
2	Mn 257.610†	308585.6	307185.7	[1000]	µg/L	23:18:51
2	Mo 202.031†	9808.9	9759.6	[1000]	µg/L	23:19:12
2	Ni 231.604†	19891.4	19483.7	[1000]	µg/L	23:18:51
2	P 214.914†	2528.2	2493.5	[5000]	µg/L	23:19:12
2	Pb 220.353†	4138.7	4026.6	[1000]	µg/L	23:19:12

2	S 181.975 Axial†	486.5	468.8	[2000]	µg/L	23:19:12
2	Sb 206.836†	1075.2	1047.6	[1000]	µg/L	23:19:12
2	Se 196.026†	726.3	709.5	[1000]	µg/L	23:19:12
2	SiO2†	54340.6	52436.0	[10695]	µg/L	23:18:51
2	Si 251.611†	64108.1	63441.2	[5000]	µg/L	23:18:51
2	Sn 189.927†	2296.9	2281.8	[1000]	µg/L	23:19:12
2	Ti 334.940†	429405.1	426916.2	[1000]	µg/L	23:18:45
2	Tl 190.801†	720.5	738.0	[1000]	µg/L	23:19:12
2	U 409.014†	12511.2	12239.5	[1000]	µg/L	23:18:51
2	V 292.402†	101159.9	100665.9	[1000]	µg/L	23:18:51
2	Zn 213.857†	42401.8	41690.4	[1000]	µg/L	23:18:51
3	Sc RADIAL	59996.1	59996.1	103	%	23:17:40
3	Al 396.153Radial†	13977.9	13604.7	[10000]	µg/L	23:17:40
3	Ca 317.933Radial†	11372.5	10863.3	[10000]	µg/L	23:18:01
3	Fe 238.204 Radial†	1203.2	1153.9	[10000]	µg/L	23:18:01
3	K 766.490 Radial†	14930.5	14366.6	[10000]	µg/L	23:17:40
3	Mg 279.077 IEC†	1096.0	1056.7	[10000]	µg/L	23:18:01
3	Na 589.592 Radial†	32633.1	31307.9	[10000]	µg/L	23:17:40
3	Sr 421.552†	104577.0	101703.6	[1000]	µg/L	23:17:40
3	Sc 361.383	2050547.3	2050547.3	100.66	%	23:19:18
3	Y 371.029	1404073.1	1404073.1	100.24	%	23:19:18
3	Ag 328.068†	117871.1	117582.2	[1000]	µg/L	23:19:24
3	As 188.979†	457.5	453.8	[1000]	µg/L	23:19:45
3	B 249.677†	21965.1	21491.9	[1000]	µg/L	23:19:24
3	Ba 233.527†	35663.2	35448.4	[1000]	µg/L	23:19:24
3	Be 313.107†	1476341.7	1470071.1	[1000]	µg/L	23:19:18
3	Cd 226.502†	34012.3	33920.6	[1000]	µg/L	23:19:24
3	Co 228.616†	18718.7	18599.8	[1000]	µg/L	23:19:24
3	Cr 267.716†	41131.5	40904.3	[1000]	µg/L	23:19:24
3	Cu 324.752†	134930.6	130793.5	[1000]	µg/L	23:19:24
3	Mn 257.610†	267352.9	265879.5	[1000]	µg/L	23:19:24
3	Mo 202.031†	7932.2	7884.3	[1000]	µg/L	23:19:45
3	Ni 231.604†	17337.6	16924.4	[1000]	µg/L	23:19:24
3	P 214.914†	2072.9	2038.2	[5000]	µg/L	23:19:45
3	Pb 220.353†	3481.6	3369.1	[1000]	µg/L	23:19:45
3	S 181.975 Axial†	406.3	388.5	[2000]	µg/L	23:19:45
3	Sb 206.836†	892.2	864.6	[1000]	µg/L	23:19:45
3	Se 196.026†	618.3	601.4	[1000]	µg/L	23:19:45
3	SiO2†	48866.7	46937.4	[10695]	µg/L	23:19:24
3	Si 251.611†	57476.3	56781.5	[5000]	µg/L	23:19:24
3	Sn 189.927†	1837.0	1822.4	[1000]	µg/L	23:19:45
3	Ti 334.940†	386821.8	384133.6	[1000]	µg/L	23:19:18
3	Tl 190.801†	628.4	645.7	[1000]	µg/L	23:19:45
3	U 409.014†	10779.6	10505.3	[1000]	µg/L	23:19:24
3	V 292.402†	87401.7	86885.2	[1000]	µg/L	23:19:24
3	Zn 213.857†	36996.3	36273.1	[1000]	µg/L	23:19:24

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2047972.1	2724.38	0.13%	100.53	%
Sc RADIAL	59675.4	298.49	0.50%	102	%
Y 371.029	1402706.0	1197.36	0.09%	100.14	%
Ag 328.068†	124860.5	6303.26	5.05%	[1000]	µg/L
Al 396.153Radial†	13640.6	34.96	0.26%	[10000]	µg/L
As 188.979†	521.5	59.14	11.34%	[1000]	µg/L
B 249.677†	23050.9	1350.28	5.86%	[1000]	µg/L
Ba 233.527†	38686.6	2804.60	7.25%	[1000]	µg/L
Be 313.107†	1571845.3	88171.38	5.61%	[1000]	µg/L
Ca 317.933Radial†	10930.8	71.65	0.66%	[10000]	µg/L
Cd 226.502†	37161.1	2806.34	7.55%	[1000]	µg/L
Co 228.616†	20492.6	1639.26	8.00%	[1000]	µg/L
Cr 267.716†	46181.6	4570.28	9.90%	[1000]	µg/L
Cu 324.752†	143868.6	11324.32	7.87%	[1000]	µg/L
Fe 238.204 Radial†	1162.1	8.10	0.70%	[10000]	µg/L
K 766.490 Radial†	14415.8	53.49	0.37%	[10000]	µg/L
Mg 279.077 IEC†	1061.8	4.54	0.43%	[10000]	µg/L
Mn 257.610†	293451.6	23878.17	8.14%	[1000]	µg/L
Mo 202.031†	9227.8	1171.93	12.70%	[1000]	µg/L
Na 589.592 Radial†	31372.2	58.95	0.19%	[10000]	µg/L

Ni 231.604†	18646.1	1491.18	8.00%	[1000]	µg/L
P 214.914†	2361.4	281.38	11.92%	[5000]	µg/L
Pb 220.353†	3833.0	403.59	10.53%	[1000]	µg/L
S 181.975 Axial†	443.3	47.47	10.71%	[2000]	µg/L
Sb 206.836†	991.6	110.24	11.12%	[1000]	µg/L
Se 196.026†	680.7	69.52	10.21%	[1000]	µg/L
SiO2†	50583.5	3157.71	6.24%	[10695]	µg/L
Si 251.611†	61196.5	3823.71	6.25%	[5000]	µg/L
Sn 189.927†	2152.8	288.47	13.40%	[1000]	µg/L
Sr 421.552†	101857.0	159.44	0.16%	[1000]	µg/L
Ti 334.940†	413080.6	25076.91	6.07%	[1000]	µg/L
Tl 190.801†	710.8	56.68	7.97%	[1000]	µg/L
U 409.014†	11682.9	1020.33	8.73%	[1000]	µg/L
V 292.402†	96094.0	7975.12	8.30%	[1000]	µg/L
Zn 213.857†	39890.4	3132.70	7.85%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/21/2010 23:19:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	59859.7	59859.7	103	%	23:20:27
1	Al 396.153Radial†	70495.8	68736.8	[50000]	µg/L	23:20:27
1	Ca 317.933Radial†	57628.5	55984.9	[50000]	µg/L	23:20:27
1	Fe 238.204 Radial†	2420.2	2343.1	[20000]	µg/L	23:20:48
1	Mg 279.077 IEC†	5416.3	5271.2	[50000]	µg/L	23:20:48
1	Na 589.592 Radial†	65071.4	63005.4	[20000]	µg/L	23:20:27
1	Sc 361.383	2062232.9	2062232.9	101.23	%	23:21:51
1	Y 371.029	1403598.3	1403598.3	100.21	%	23:21:51
2	Sc RADIAL	59388.6	59388.6	102	%	23:20:53
2	Al 396.153Radial†	70481.7	69268.1	[50000]	µg/L	23:20:53
2	Ca 317.933Radial†	57503.1	56307.4	[50000]	µg/L	23:20:53
2	Fe 238.204 Radial†	2425.4	2366.9	[20000]	µg/L	23:21:14
2	Mg 279.077 IEC†	5419.7	5316.4	[50000]	µg/L	23:21:14
2	Na 589.592 Radial†	65181.6	63616.9	[20000]	µg/L	23:20:53
2	Sc 361.383	2058964.1	2058964.1	101.07	%	23:21:59
2	Y 371.029	1403083.4	1403083.4	100.17	%	23:21:59
3	Sc RADIAL	59527.2	59527.2	102	%	23:21:19
3	Al 396.153Radial†	70582.3	69205.6	[50000]	µg/L	23:21:19
3	Ca 317.933Radial†	57602.3	56273.1	[50000]	µg/L	23:21:19
3	Fe 238.204 Radial†	2421.7	2357.7	[20000]	µg/L	23:21:40
3	Mg 279.077 IEC†	5403.0	5287.6	[50000]	µg/L	23:21:40
3	Na 589.592 Radial†	65089.4	63377.4	[20000]	µg/L	23:21:19
3	Sc 361.383	2057460.5	2057460.5	101.00	%	23:22:07
3	Y 371.029	1401254.9	1401254.9	100.04	%	23:22:07

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	2059552.5	2439.99	0.12%	101.10	%
Sc RADIAL	59591.9	242.12	0.41%	102	%
Y 371.029	1402645.5	1231.55	0.09%	100.14	%
Al 396.153Radial†	69070.2	290.38	0.42%	[50000]	µg/L
Ca 317.933Radial†	56188.5	177.12	0.32%	[50000]	µg/L
Fe 238.204 Radial†	2355.9	12.03	0.51%	[20000]	µg/L
Mg 279.077 IEC†	5291.7	22.89	0.43%	[50000]	µg/L
Na 589.592 Radial†	63333.2	308.14	0.49%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	125.5	0.00000	0.999947	
Al 396.153Radial	3	Lin Thru 0	0.0	1.381	0.00000	0.999997	
As 188.979	3	Lin Thru 0	0.0	0.5213	0.00000	0.999999	
B 249.677	3	Lin Thru 0	0.0	23.05	0.00000	1.000000	
Ba 233.527	3	Lin Thru 0	0.0	38.74	0.00000	0.999992	
Be 313.107	3	Lin Thru 0	0.0	1574	0.00000	0.999992	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.122	0.00000	0.999984	
Cd 226.502	3	Lin Thru 0	0.0	37.27	0.00000	0.999977	
Co 228.616	3	Lin Thru 0	0.0	20.55	0.00000	0.999984	
Cr 267.716	3	Lin Thru 0	0.0	46.25	0.00000	0.999987	
Cu 324.752	3	Lin Thru 0	0.0	144.0	0.00000	0.999985	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1175	0.00000	0.999985	
K 766.490 Radial	3	Lin Thru 0	0.0	1.447	0.00000	0.999977	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1059	0.00000	0.999999	
Mn 257.610	3	Lin Thru 0	0.0	295.2	0.00000	0.999925	
Mo 202.031	3	Lin Thru 0	0.0	9.271	0.00000	0.999949	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.161	0.00000	0.999993	

Ni 231.604	3	Lin Thru 0	0.0	18.71	0.00000	0.999971
P 214.914	3	Lin Thru 0	0.0	0.4717	0.00000	0.999991
Pb 220.353	3	Lin Thru 0	0.0	3.829	0.00000	0.999985
S 181.975 Axial	3	Lin Thru 0	0.0	0.2223	0.00000	0.999979
Sb 206.836	3	Lin Thru 0	0.0	0.9976	0.00000	0.999922
Se 196.026	3	Lin Thru 0	0.0	0.6812	0.00000	0.999986
SiO2	3	Lin Thru 0	0.0	4.743	0.00000	0.999984
Si 251.611	3	Lin Thru 0	0.0	12.28	0.00000	0.999981
Sn 189.927	3	Lin Thru 0	0.0	2.162	0.00000	0.999953
Sr 421.552	3	Lin Thru 0	0.0	102.0	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	415.4	0.00000	0.999939
Tl 190.801	3	Lin Thru 0	0.0	0.7110	0.00000	1.000000
U 409.014	3	Lin Thru 0	0.0	11.64	0.00000	0.999961
V 292.402	3	Lin Thru 0	0.0	96.09	0.00000	0.999994
Zn 213.857	3	Lin Thru 0	0.0	40.00	0.00000	0.999978

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/21/2010 23:22:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59280.9	59280.9	102	%			23:22:50
1	Al 396.153Radial†	7064.6	6963.0	5031.4	µg/L	5031.4	ppb	23:22:50
1	Ca 317.933Radial†	5832.3	5542.7	4938.5	µg/L	4938.5	ppb	23:23:10
1	Fe 238.204 Radial†	618.5	592.4	5054.2	µg/L	5054.2	ppb	23:23:10
1	K 766.490 Radial†	3833.6	3617.5	2500.9	µg/L	2500.9	ppb	23:22:50
1	Mg 279.077 IEC†	559.3	541.2	5117.0	µg/L	5117.0	ppb	23:23:10
1	Na 589.592 Radial†	8433.0	7867.0	2488.9	µg/L	2488.9	ppb	23:22:50
1	Sr 421.552†	54809.3	53937.0	528.88	µg/L	528.88	ppb	23:22:50
1	Sc 361.383	2072151.5	2072151.5	101.72	%			23:24:14
1	Y 371.029	1420293.6	1420293.6	101.40	%			23:24:14
1	Ag 328.068†	33190.7	33113.6	267.59	µg/L	267.59	ppb	23:24:19
1	As 188.979†	273.2	267.9	512.81	µg/L	512.81	ppb	23:24:40
1	B 249.677†	12906.0	12358.5	534.30	µg/L	534.30	ppb	23:24:19
1	Ba 233.527†	20837.5	20504.2	530.29	µg/L	530.29	ppb	23:24:19
1	Be 313.107†	426337.3	422539.5	268.17	µg/L	268.17	ppb	23:24:14
1	Cd 226.502†	19754.7	19552.0	524.55	µg/L	524.55	ppb	23:24:19
1	Co 228.616†	11197.6	11012.1	535.40	µg/L	535.40	ppb	23:24:19
1	Cr 267.716†	24358.8	23989.3	519.02	µg/L	519.02	ppb	23:24:19
1	Cu 324.752†	80973.6	76351.7	530.83	µg/L	530.83	ppb	23:24:19
1	Mn 257.610†	158893.6	156486.0	530.48	µg/L	530.48	ppb	23:24:14
1	Mo 202.031†	5435.4	5347.5	577.02	µg/L	577.02	ppb	23:24:40
1	Ni 231.604†	10134.5	9663.6	516.05	µg/L	516.05	ppb	23:24:19
1	P 214.914†	1310.6	1267.4	2636.8	µg/L	2636.8	ppb	23:24:40
1	Pb 220.353†	2158.9	2032.8	531.28	µg/L	531.28	ppb	23:24:40
1	S 181.975 Axial†	607.2	581.8	2616.9	µg/L	2616.9	ppb	23:24:40
1	Sb 206.836†	574.6	543.2	547.64	µg/L	547.64	ppb	23:24:40
1	Se 196.026†	1846.6	1802.5	2654.0	µg/L	2654.0	ppb	23:24:40
1	SiO2†	53789.9	51271.2	10809	µg/L	10809	ppb	23:24:19
1	Si 251.611†	63211.2	61824.1	5035.5	µg/L	5035.5	ppb	23:24:19
1	Sn 189.927†	1286.1	1261.8	583.79	µg/L	583.79	ppb	23:24:40
1	Ti 334.940†	218208.6	214366.6	515.70	µg/L	515.70	ppb	23:24:14
1	Tl 190.801†	364.4	379.6	540.02	µg/L	540.02	ppb	23:24:40
1	U 409.014†	6045.1	5739.3	491.91	µg/L	491.91	ppb	23:24:19
1	V 292.402†	51191.9	50382.7	531.08	µg/L	531.08	ppb	23:24:19
1	Zn 213.857†	21934.5	21082.9	523.36	µg/L	523.36	ppb	23:24:19
2	Sc RADIAL	59531.3	59531.3	102	%			23:23:16
2	Al 396.153Radial†	7166.7	7033.8	5082.9	µg/L	5082.9	ppb	23:23:16
2	Ca 317.933Radial†	5864.3	5549.9	4944.9	µg/L	4944.9	ppb	23:23:36
2	Fe 238.204 Radial†	624.7	596.0	5084.4	µg/L	5084.4	ppb	23:23:36
2	K 766.490 Radial†	3951.2	3716.9	2569.5	µg/L	2569.5	ppb	23:23:16
2	Mg 279.077 IEC†	566.3	545.8	5159.7	µg/L	5159.7	ppb	23:23:36
2	Na 589.592 Radial†	8507.5	7905.1	2501.0	µg/L	2501.0	ppb	23:23:16
2	Sr 421.552†	55407.3	54296.2	532.40	µg/L	532.40	ppb	23:23:16
2	Sc 361.383	2052039.0	2052039.0	100.73	%			23:24:47
2	Y 371.029	1405869.4	1405869.4	100.37	%			23:24:47
2	Ag 328.068†	32950.2	33194.6	268.24	µg/L	268.24	ppb	23:24:52
2	As 188.979†	264.1	261.5	500.52	µg/L	500.52	ppb	23:25:13
2	B 249.677†	12853.8	12431.1	537.44	µg/L	537.44	ppb	23:24:52
2	Ba 233.527†	20731.9	20600.1	532.77	µg/L	532.77	ppb	23:24:52
2	Be 313.107†	423006.8	423341.2	268.68	µg/L	268.68	ppb	23:24:47
2	Cd 226.502†	19648.1	19636.5	526.82	µg/L	526.82	ppb	23:24:52
2	Co 228.616†	11123.0	11046.0	537.03	µg/L	537.03	ppb	23:24:52
2	Cr 267.716†	24254.9	24120.9	521.87	µg/L	521.87	ppb	23:24:52
2	Cu 324.752†	80631.7	76792.6	533.89	µg/L	533.89	ppb	23:24:52
2	Mn 257.610†	157673.1	156805.4	531.57	µg/L	531.57	ppb	23:24:47
2	Mo 202.031†	5286.3	5251.9	566.70	µg/L	566.70	ppb	23:25:13
2	Ni 231.604†	10134.7	9761.5	521.29	µg/L	521.29	ppb	23:24:52
2	P 214.914†	1291.8	1261.4	2623.6	µg/L	2623.6	ppb	23:25:13
2	Pb 220.353†	2118.8	2013.7	526.26	µg/L	526.26	ppb	23:25:13

2	S 181.975 Axial†	599.8	580.4	2610.2 µg/L	2610.2 ppb	23:25:13
2	Sb 206.836†	552.2	526.5	530.67 µg/L	530.67 ppb	23:25:13
2	Se 196.026†	1818.0	1791.9	2638.4 µg/L	2638.4 ppb	23:25:13
2	SiO2†	53674.0	51674.5	10894 µg/L	10894 ppb	23:24:52
2	Si 251.611†	62962.1	62185.8	5064.9 µg/L	5064.9 ppb	23:24:52
2	Sn 189.927†	1254.5	1242.9	575.02 µg/L	575.02 ppb	23:25:13
2	Ti 334.940†	216812.3	215082.9	517.42 µg/L	517.42 ppb	23:24:47
2	Tl 190.801†	367.3	386.0	549.07 µg/L	549.07 ppb	23:25:13
2	U 409.014†	6041.4	5793.8	496.59 µg/L	496.59 ppb	23:24:52
2	V 292.402†	50810.4	50497.3	532.21 µg/L	532.21 ppb	23:24:52
2	Zn 213.857†	21841.1	21201.6	526.30 µg/L	526.30 ppb	23:24:52
3	Sc RADIAL	59716.1	59716.1	102 %		23:23:41
3	Al 396.153Radial†	7116.9	6963.4	5034.1 µg/L	5034.1 ppb	23:23:41
3	Ca 317.933Radial†	5846.9	5515.1	4913.9 µg/L	4913.9 ppb	23:24:02
3	Fe 238.204 Radial†	622.5	591.9	5048.5 µg/L	5048.5 ppb	23:24:02
3	K 766.490 Radial†	3927.9	3682.1	2545.5 µg/L	2545.5 ppb	23:23:41
3	Mg 279.077 IEC†	558.8	536.7	5072.0 µg/L	5072.0 ppb	23:24:02
3	Na 589.592 Radial†	8500.2	7872.2	2490.6 µg/L	2490.6 ppb	23:23:41
3	Sr 421.552†	55243.7	53968.3	529.18 µg/L	529.18 ppb	23:23:41
3	Sc 361.383	2061809.2	2061809.2	101.21 %		23:25:20
3	Y 371.029	1413699.8	1413699.8	100.93 %		23:25:20
3	Ag 328.068†	30390.9	30511.0	246.40 µg/L	246.40 ppb	23:25:26
3	As 188.979†	218.8	215.4	412.40 µg/L	412.40 ppb	23:25:46
3	B 249.677†	11782.3	11312.0	488.78 µg/L	488.78 ppb	23:25:26
3	Ba 233.527†	18464.9	18262.8	472.30 µg/L	472.30 ppb	23:25:26
3	Be 313.107†	385348.0	384143.9	243.80 µg/L	243.80 ppb	23:25:20
3	Cd 226.502†	17377.9	17301.1	464.10 µg/L	464.10 ppb	23:25:26
3	Co 228.616†	9795.5	9682.0	470.66 µg/L	470.66 ppb	23:25:26
3	Cr 267.716†	20582.4	20378.3	440.90 µg/L	440.90 ppb	23:25:26
3	Cu 324.752†	71337.9	67230.8	467.50 µg/L	467.50 ppb	23:25:26
3	Mn 257.610†	144406.3	142955.9	484.66 µg/L	484.66 ppb	23:25:20
3	Mo 202.031†	4319.1	4271.4	460.94 µg/L	460.94 ppb	23:25:46
3	Ni 231.604†	8909.4	8503.2	454.10 µg/L	454.10 ppb	23:25:26
3	P 214.914†	1073.4	1039.5	2158.5 µg/L	2158.5 ppb	23:25:46
3	Pb 220.353†	1796.3	1685.2	440.33 µg/L	440.33 ppb	23:25:46
3	S 181.975 Axial†	516.7	495.4	2228.1 µg/L	2228.1 ppb	23:25:46
3	Sb 206.836†	465.4	438.1	441.31 µg/L	441.31 ppb	23:25:46
3	Se 196.026†	1554.4	1522.9	2243.6 µg/L	2243.6 ppb	23:25:46
3	SiO2†	48616.4	46425.0	9787.5 µg/L	9787.5 ppb	23:25:26
3	Si 251.611†	56982.9	55982.1	4559.7 µg/L	4559.7 ppb	23:25:26
3	Sn 189.927†	995.5	981.0	453.86 µg/L	453.86 ppb	23:25:46
3	Ti 334.940†	196085.1	193584.3	465.67 µg/L	465.67 ppb	23:25:20
3	Tl 190.801†	324.3	341.8	486.31 µg/L	486.31 ppb	23:25:46
3	U 409.014†	5247.3	4980.8	426.78 µg/L	426.78 ppb	23:25:26
3	V 292.402†	44325.1	43850.7	461.96 µg/L	461.96 ppb	23:25:26
3	Zn 213.857†	19269.2	18557.7	460.62 µg/L	460.62 ppb	23:25:26

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2061999.9	101.22	%	0.494				0.49%
Sc RADIAL	59509.4	102	%	0.4				0.37%
Y 371.029	1413287.6	100.90	%	0.516				0.51%
Ag 328.068†	32273.1	260.75	µg/L	12.423	260.75	ppb	12.423	4.76%
QC value within limits for Ag 328.068 Recovery = 104.30%								
Al 396.153Radial†	6986.7	5049.4	µg/L	28.99	5049.4	ppb	28.99	0.57%
QC value within limits for Al 396.153Radial Recovery = 100.99%								
As 188.979†	248.3	475.24	µg/L	54.768	475.24	ppb	54.768	11.52%
QC value within limits for As 188.979 Recovery = 95.05%								
B 249.677†	12033.9	520.18	µg/L	27.233	520.18	ppb	27.233	5.24%
QC value within limits for B 249.677 Recovery = 104.04%								
Ba 233.527†	19789.0	511.79	µg/L	34.217	511.79	ppb	34.217	6.69%
QC value within limits for Ba 233.527 Recovery = 102.36%								
Be 313.107†	410008.2	260.22	µg/L	14.217	260.22	ppb	14.217	5.46%
QC value within limits for Be 313.107 Recovery = 104.09%								
Ca 317.933Radial†	5535.9	4932.4	µg/L	16.37	4932.4	ppb	16.37	0.33%
QC value within limits for Ca 317.933Radial Recovery = 98.65%								
Cd 226.502†	18829.9	505.16	µg/L	35.577	505.16	ppb	35.577	7.04%
QC value within limits for Cd 226.502 Recovery = 101.03%								
Co 228.616†	10580.0	514.36	µg/L	37.856	514.36	ppb	37.856	7.36%

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   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            22829.5      493.93 µg/L        45.945      493.93 ppb        45.945   9.30%
   QC value within limits for Cr 267.716  Recovery = 98.79%
Cu 324.752†            73458.4      510.74 µg/L        37.479      510.74 ppb        37.479   7.34%
   QC value within limits for Cu 324.752  Recovery = 102.15%
Fe 238.204 Radial†       593.4      5062.4 µg/L         19.28      5062.4 ppb         19.28   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.25%
K 766.490 Radial†       3672.2      2538.6 µg/L         34.86      2538.6 ppb         34.86   1.37%
   QC value within limits for K 766.490 Radial  Recovery = 101.55%
Mg 279.077 IEC†          541.2      5116.3 µg/L         43.83      5116.3 ppb         43.83   0.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.33%
Mn 257.610†           152082.4      515.57 µg/L        26.776      515.57 ppb        26.776   5.19%
   QC value within limits for Mn 257.610  Recovery = 103.11%
Mo 202.031†             4957.0      534.89 µg/L        64.246      534.89 ppb        64.246  12.01%
   QC value within limits for Mo 202.031  Recovery = 106.98%
Na 589.592 Radial†      7881.4      2493.5 µg/L          6.54      2493.5 ppb          6.54   0.26%
   QC value within limits for Na 589.592 Radial  Recovery = 99.74%
Ni 231.604†             9309.4      497.15 µg/L        37.373      497.15 ppb        37.373   7.52%
   QC value within limits for Ni 231.604  Recovery = 99.43%
P 214.914†              1189.5      2473.0 µg/L        272.43      2473.0 ppb        272.43  11.02%
   QC value within limits for P 214.914  Recovery = 98.92%
Pb 220.353†             1910.6      499.29 µg/L        51.126      499.29 ppb        51.126  10.24%
   QC value within limits for Pb 220.353  Recovery = 99.86%
S 181.975 Axial†         552.5      2485.0 µg/L        222.58      2485.0 ppb        222.58   8.96%
   QC value within limits for S 181.975 Axial  Recovery = 99.40%
Sb 206.836†              502.6      506.54 µg/L        57.126      506.54 ppb        57.126  11.28%
   QC value within limits for Sb 206.836  Recovery = 101.31%
Se 196.026†             1705.8      2512.0 µg/L        232.61      2512.0 ppb        232.61   9.26%
   QC value within limits for Se 196.026  Recovery = 100.48%
SiO2†                  49790.2       10497 µg/L         615.9       10497 ppb         615.9   5.87%
   QC value within limits for SiO2  Recovery = 98.15%
Si 251.611†            59997.3      4886.7 µg/L        283.60      4886.7 ppb        283.60   5.80%
   QC value within limits for Si 251.611  Recovery = 97.73%
Sn 189.927†             1161.9      537.56 µg/L        72.615      537.56 ppb        72.615  13.51%
   QC value within limits for Sn 189.927  Recovery = 107.51%
Sr 421.552†            54067.2      530.15 µg/L         1.951      530.15 ppb         1.951   0.37%
   QC value within limits for Sr 421.552  Recovery = 106.03%
Ti 334.940†           207677.9      499.60 µg/L        29.391      499.60 ppb        29.391   5.88%
   QC value within limits for Ti 334.940  Recovery = 99.92%
Tl 190.801†              369.1      525.14 µg/L        33.927      525.14 ppb        33.927   6.46%
   QC value within limits for Tl 190.801  Recovery = 105.03%
U 409.014†              5504.7      471.76 µg/L        39.028      471.76 ppb        39.028   8.27%
   QC value within limits for U 409.014  Recovery = 94.35%
V 292.402†             48243.5      508.42 µg/L        40.237      508.42 ppb        40.237   7.91%
   QC value within limits for V 292.402  Recovery = 101.68%
Zn 213.857†            20280.7      503.42 µg/L        37.103      503.42 ppb        37.103   7.37%
   QC value within limits for Zn 213.857  Recovery = 100.68%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/21/2010 23:25:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58724.9	58724.9	101	%			23:26:28
1	Al 396.153Radial†	-7.1	1.1	0.7757	µg/L	0.7757	ppb	23:26:28
1	Ca 317.933Radial†	195.2	-4.9	-4.4081	µg/L	-4.4081	ppb	23:26:49
1	Fe 238.204 Radial†	13.4	-3.2	-26.922	µg/L	-26.922	ppb	23:26:49
1	K 766.490 Radial†	167.5	10.0	6.8857	µg/L	6.8857	ppb	23:26:28
1	Mg 279.077 IEC†	11.3	1.8	17.180	µg/L	17.180	ppb	23:26:49
1	Na 589.592 Radial†	418.1	-19.3	-6.1154	µg/L	-6.1154	ppb	23:26:28
1	Sr 421.552†	53.7	33.3	0.3263	µg/L	0.3263	ppb	23:26:28
1	Sc 361.383	2030841.4	2030841.4	99.693	%			23:27:51
1	Y 371.029	1394902.0	1394902.0	99.585	%			23:27:51
1	Ag 328.068†	-504.7	-21.9	-0.1743	µg/L	-0.1743	ppb	23:27:56
1	As 188.979†	-3.4	-4.1	-7.9611	µg/L	-7.9611	ppb	23:28:17
1	B 249.677†	377.1	49.1	2.1465	µg/L	2.1465	ppb	23:28:17
1	Ba 233.527†	-12.2	6.9	0.1791	µg/L	0.1791	ppb	23:28:17
1	Be 313.107†	-3283.7	121.1	0.0769	µg/L	0.0769	ppb	23:27:56
1	Cd 226.502†	-131.5	-0.4	-0.0079	µg/L	-0.0079	ppb	23:28:17
1	Co 228.616†	6.6	10.6	0.5141	µg/L	0.5141	ppb	23:28:17
1	Cr 267.716†	-26.6	16.0	0.3452	µg/L	0.3452	ppb	23:28:17
1	Cu 324.752†	3273.6	31.7	0.2165	µg/L	0.2165	ppb	23:27:56
1	Mn 257.610†	-240.6	39.3	0.1288	µg/L	0.1288	ppb	23:28:17
1	Mo 202.031†	-2.3	1.8	0.1958	µg/L	0.1958	ppb	23:28:17
1	Ni 231.604†	291.8	-6.7	-0.3606	µg/L	-0.3606	ppb	23:28:17
1	P 214.914†	23.8	2.9	6.0985	µg/L	6.0985	ppb	23:28:17
1	Pb 220.353†	88.1	-1.2	-0.3094	µg/L	-0.3094	ppb	23:28:17
1	S 181.975 Axial†	18.9	3.9	17.555	µg/L	17.555	ppb	23:28:17
1	Sb 206.836†	30.5	8.9	8.9423	µg/L	8.9423	ppb	23:28:17
1	Se 196.026†	17.7	4.9	7.1049	µg/L	7.1049	ppb	23:28:17
1	SiO2†	1623.9	20.2	4.2628	µg/L	4.2628	ppb	23:27:56
1	Si 251.611†	315.9	-0.9	-0.0723	µg/L	-0.0723	ppb	23:28:17
1	Sn 189.927†	-1.6	-4.2	-1.9202	µg/L	-1.9202	ppb	23:28:17
1	Ti 334.940†	184.3	34.5	0.0816	µg/L	0.0816	ppb	23:27:56
1	Tl 190.801†	-24.7	-3.4	-4.7897	µg/L	-4.7897	ppb	23:28:17
1	U 409.014†	219.9	17.0	1.4680	µg/L	1.4680	ppb	23:27:56
1	V 292.402†	-26.8	30.0	0.3129	µg/L	0.3129	ppb	23:27:56
1	Zn 213.857†	484.1	5.1	0.1299	µg/L	0.1299	ppb	23:28:17
2	Sc RADIAL	58898.6	58898.6	101	%			23:26:54
2	Al 396.153Radial†	-21.3	-12.9	-9.3869	µg/L	-9.3869	ppb	23:26:54
2	Ca 317.933Radial†	201.2	0.4	0.3739	µg/L	0.3739	ppb	23:27:15
2	Fe 238.204 Radial†	14.1	-2.5	-21.191	µg/L	-21.191	ppb	23:27:15
2	K 766.490 Radial†	179.6	21.5	14.836	µg/L	14.836	ppb	23:26:54
2	Mg 279.077 IEC†	13.0	3.5	33.094	µg/L	33.094	ppb	23:27:15
2	Na 589.592 Radial†	440.8	2.0	0.6212	µg/L	0.6212	ppb	23:26:54
2	Sr 421.552†	66.5	45.8	0.4492	µg/L	0.4492	ppb	23:26:54
2	Sc 361.383	2035503.4	2035503.4	99.922	%			23:28:22
2	Y 371.029	1400158.5	1400158.5	99.960	%			23:28:22
2	Ag 328.068†	-437.8	46.2	0.3686	µg/L	0.3686	ppb	23:28:28
2	As 188.979†	-4.8	-5.5	-10.603	µg/L	-10.603	ppb	23:28:49
2	B 249.677†	386.8	58.0	2.5283	µg/L	2.5283	ppb	23:28:49
2	Ba 233.527†	-17.5	1.7	0.0437	µg/L	0.0437	ppb	23:28:49
2	Be 313.107†	-3307.9	104.5	0.0663	µg/L	0.0663	ppb	23:28:28
2	Cd 226.502†	-131.1	0.3	0.0103	µg/L	0.0103	ppb	23:28:49
2	Co 228.616†	-1.4	2.5	0.1246	µg/L	0.1246	ppb	23:28:49
2	Cr 267.716†	-49.3	-6.7	-0.1450	µg/L	-0.1450	ppb	23:28:49
2	Cu 324.752†	3307.3	58.0	0.3994	µg/L	0.3994	ppb	23:28:28
2	Mn 257.610†	-244.2	36.2	0.1183	µg/L	0.1183	ppb	23:28:49
2	Mo 202.031†	5.0	9.1	0.9793	µg/L	0.9793	ppb	23:28:49
2	Ni 231.604†	297.2	-2.0	-0.1072	µg/L	-0.1072	ppb	23:28:49
2	P 214.914†	20.2	-0.8	-1.7292	µg/L	-1.7292	ppb	23:28:49
2	Pb 220.353†	89.6	0.1	0.0180	µg/L	0.0180	ppb	23:28:49

2	S 181.975 Axial†	15.2	0.1	0.5539 µg/L	0.5539 ppb	23:28:49
2	Sb 206.836†	26.7	5.0	5.0490 µg/L	5.0490 ppb	23:28:49
2	Se 196.026†	15.7	2.8	4.0801 µg/L	4.0801 ppb	23:28:49
2	SiO2†	1598.1	-9.4	-1.9713 µg/L	-1.9713 ppb	23:28:28
2	Si 251.611†	315.4	-2.1	-0.1703 µg/L	-0.1703 ppb	23:28:49
2	Sn 189.927†	6.9	4.4	2.0291 µg/L	2.0291 ppb	23:28:49
2	Ti 334.940†	188.0	37.7	0.0881 µg/L	0.0881 ppb	23:28:28
2	Tl 190.801†	-19.1	2.3	3.2676 µg/L	3.2676 ppb	23:28:49
2	U 409.014†	245.2	41.8	3.5938 µg/L	3.5938 ppb	23:28:28
2	V 292.402†	-32.4	24.5	0.2630 µg/L	0.2630 ppb	23:28:28
2	Zn 213.857†	480.8	0.7	0.0173 µg/L	0.0173 ppb	23:28:49
3	Sc RADIAL	57865.3	57865.3	99.2 %		23:27:20
3	Al 396.153Radial†	-9.8	-1.7	-1.2885 µg/L	-1.2885 ppb	23:27:20
3	Ca 317.933Radial†	196.2	-1.1	-0.9850 µg/L	-0.9850 ppb	23:27:40
3	Fe 238.204 Radial†	13.5	-2.9	-24.456 µg/L	-24.456 ppb	23:27:40
3	K 766.490 Radial†	155.7	0.6	0.3850 µg/L	0.3850 ppb	23:27:20
3	Mg 279.077 IEC†	12.0	2.7	25.517 µg/L	25.517 ppb	23:27:40
3	Na 589.592 Radial†	432.0	0.8	0.2588 µg/L	0.2588 ppb	23:27:20
3	Sr 421.552†	60.8	41.1	0.4034 µg/L	0.4034 ppb	23:27:20
3	Sc 361.383	2023295.6	2023295.6	99.323 %		23:28:55
3	Y 371.029	1390957.4	1390957.4	99.303 %		23:28:55
3	Ag 328.068†	-503.8	-22.9	-0.1838 µg/L	-0.1838 ppb	23:29:00
3	As 188.979†	1.3	0.5	1.0332 µg/L	1.0332 ppb	23:29:21
3	B 249.677†	356.0	29.3	1.2863 µg/L	1.2863 ppb	23:29:21
3	Ba 233.527†	-11.3	7.8	0.2022 µg/L	0.2022 ppb	23:29:21
3	Be 313.107†	-3335.3	56.9	0.0361 µg/L	0.0361 ppb	23:29:00
3	Cd 226.502†	-123.5	7.2	0.1949 µg/L	0.1949 ppb	23:29:21
3	Co 228.616†	-2.3	1.6	0.0804 µg/L	0.0804 ppb	23:29:21
3	Cr 267.716†	-25.4	17.0	0.3681 µg/L	0.3681 ppb	23:29:21
3	Cu 324.752†	3286.8	57.3	0.3947 µg/L	0.3947 ppb	23:29:00
3	Mn 257.610†	-246.1	32.8	0.1068 µg/L	0.1068 ppb	23:29:21
3	Mo 202.031†	7.0	11.2	1.2032 µg/L	1.2032 ppb	23:29:21
3	Ni 231.604†	287.2	-10.3	-0.5497 µg/L	-0.5497 ppb	23:29:21
3	P 214.914†	14.7	-6.3	-13.317 µg/L	-13.317 ppb	23:29:21
3	Pb 220.353†	93.0	4.1	1.0695 µg/L	1.0695 ppb	23:29:21
3	S 181.975 Axial†	16.2	1.3	5.8184 µg/L	5.8184 ppb	23:29:21
3	Sb 206.836†	24.3	2.8	2.8009 µg/L	2.8009 ppb	23:29:21
3	Se 196.026†	10.7	-2.0	-3.0560 µg/L	-3.0560 ppb	23:29:21
3	SiO2†	1600.5	2.7	0.5797 µg/L	0.5797 ppb	23:29:00
3	Si 251.611†	326.9	11.3	0.9235 µg/L	0.9235 ppb	23:29:21
3	Sn 189.927†	0.3	-2.3	-1.0497 µg/L	-1.0497 ppb	23:29:21
3	Ti 334.940†	145.6	-3.9	-0.0113 µg/L	-0.0113 ppb	23:29:00
3	Tl 190.801†	-28.6	-7.4	-10.393 µg/L	-10.393 ppb	23:29:21
3	U 409.014†	216.5	14.4	1.2383 µg/L	1.2383 ppb	23:29:00
3	V 292.402†	-51.8	4.7	0.0577 µg/L	0.0577 ppb	23:29:00
3	Zn 213.857†	475.9	-1.3	-0.0315 µg/L	-0.0315 ppb	23:29:21

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2029880.1	99.646	%	0.3024				0.30%
Sc RADIAL	58496.3	100	%	0.9				0.95%
Y 371.029	1395339.3	99.616	%	0.3296				0.33%
Ag 328.068†	0.5	0.0035	µg/L	0.31623	0.0035	ppb	0.31623	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.5	-3.2999	µg/L	5.37158	-3.2999	ppb	5.37158	162.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.0	-5.8436	µg/L	6.10020	-5.8436	ppb	6.10020	104.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	45.5	1.9870	µg/L	0.63616	1.9870	ppb	0.63616	32.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.5	0.1417	µg/L	0.08565	0.1417	ppb	0.08565	60.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	94.2	0.0598	µg/L	0.02116	0.0598	ppb	0.02116	35.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-1.6731	µg/L	2.46412	-1.6731	ppb	2.46412	147.28%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	2.4	0.0658	µg/L	0.11217	0.0658	ppb	0.11217	170.51%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.9	0.2397	µg/L	0.23868	0.2397	ppb	0.23868	99.57%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.8      0.1894 µg/L       0.28982      0.1894 ppb        0.28982 152.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                49.0      0.3368 µg/L       0.10429      0.3368 ppb        0.10429  30.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.8     -24.190 µg/L        2.8751     -24.190 ppb         2.8751  11.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          10.7      7.3691 µg/L       7.23784      7.3691 ppb        7.23784  98.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.7      25.264 µg/L        7.9597      25.264 ppb         7.9597  31.51%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                36.1      0.1180 µg/L       0.01099      0.1180 ppb        0.01099   9.31%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.4      0.7927 µg/L       0.52897      0.7927 ppb        0.52897  66.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -5.5     -1.7452 µg/L       3.78910     -1.7452 ppb        3.78910 217.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.3     -0.3392 µg/L       0.22199     -0.3392 ppb        0.22199  65.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.4     -2.9825 µg/L       9.76814     -2.9825 ppb        9.76814 327.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 1.0      0.2594 µg/L       0.72043      0.2594 ppb        0.72043 277.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.8      7.9758 µg/L       8.70352      7.9758 ppb        8.70352 109.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.6      5.5974 µg/L       3.10723      5.5974 ppb        3.10723  55.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.9      2.7097 µg/L       5.21723      2.7097 ppb        5.21723 192.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       4.5      0.9570 µg/L       3.13412      0.9570 ppb        3.13412 327.48%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 2.8      0.2270 µg/L       0.60524      0.2270 ppb        0.60524 266.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.7     -0.3136 µg/L       2.07502     -0.3136 ppb        2.07502 661.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                40.1      0.3930 µg/L       0.06209      0.3930 ppb        0.06209  15.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                22.8      0.0528 µg/L       0.05561      0.0528 ppb        0.05561 105.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.8     -3.9716 µg/L       6.86679     -3.9716 ppb        6.86679 172.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.4      2.1000 µg/L       1.29874      2.1000 ppb        1.29874  61.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 19.7      0.2112 µg/L       0.13525      0.2112 ppb        0.13525  64.03%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 1.5      0.0386 µg/L       0.08277      0.0386 ppb        0.08277 214.45%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/21/2010 23:29:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57812.2	57812.2	99.1	%			23:30:03
1	Al 396.153Radial†	274.7	285.4	206.50	µg/L	206.50	ppb	23:30:03
1	Ca 317.933Radial†	413.7	218.7	194.84	µg/L	194.84	ppb	23:30:23
1	Fe 238.204 Radial†	28.8	12.6	107.55	µg/L	107.55	ppb	23:30:23
1	K 766.490 Radial†	386.3	233.4	161.36	µg/L	161.36	ppb	23:30:03
1	Mg 279.077 IEC†	47.9	39.0	368.29	µg/L	368.29	ppb	23:30:23
1	Na 589.592 Radial†	1438.2	1017.0	321.74	µg/L	321.74	ppb	23:30:03
1	Sr 421.552†	605.9	591.5	5.7996	µg/L	5.7996	ppb	23:30:03
1	Sc 361.383	2027410.6	2027410.6	99.525	%			23:31:26
1	Y 371.029	1394948.7	1394948.7	99.588	%			23:31:26
1	Ag 328.068†	149.3	634.4	5.0995	µg/L	5.0995	ppb	23:31:31
1	As 188.979†	19.0	18.4	35.307	µg/L	35.307	ppb	23:31:52
1	B 249.677†	1535.3	1213.5	52.596	µg/L	52.596	ppb	23:31:31
1	Ba 233.527†	190.4	210.4	5.4435	µg/L	5.4435	ppb	23:31:52
1	Be 313.107†	4938.4	8376.9	5.3183	µg/L	5.3183	ppb	23:31:31
1	Cd 226.502†	66.8	198.6	5.3214	µg/L	5.3214	ppb	23:31:52
1	Co 228.616†	101.8	106.3	5.1699	µg/L	5.1699	ppb	23:31:52
1	Cr 267.716†	239.1	282.8	6.1190	µg/L	6.1190	ppb	23:31:31
1	Cu 324.752†	4855.0	1626.3	11.307	µg/L	11.307	ppb	23:31:31
1	Mn 257.610†	2951.6	3246.3	10.995	µg/L	10.995	ppb	23:31:31
1	Mo 202.031†	96.8	101.4	10.937	µg/L	10.937	ppb	23:31:52
1	Ni 231.604†	393.7	96.1	5.1348	µg/L	5.1348	ppb	23:31:52
1	P 214.914†	99.6	79.1	166.61	µg/L	166.61	ppb	23:31:52
1	Pb 220.353†	119.8	30.8	8.0015	µg/L	8.0015	ppb	23:31:52
1	S 181.975 Axial†	39.3	24.4	109.92	µg/L	109.92	ppb	23:31:52
1	Sb 206.836†	34.3	12.8	12.890	µg/L	12.890	ppb	23:31:52
1	Se 196.026†	32.8	20.1	29.472	µg/L	29.472	ppb	23:31:52
1	SiO2†	2650.0	1054.0	222.20	µg/L	222.20	ppb	23:31:31
1	Si 251.611†	1570.1	1259.8	102.61	µg/L	102.61	ppb	23:31:52
1	Sn 189.927†	28.4	26.0	12.061	µg/L	12.061	ppb	23:31:52
1	Ti 334.940†	2380.5	2241.5	5.3697	µg/L	5.3697	ppb	23:31:31
1	Tl 190.801†	-9.1	12.3	17.450	µg/L	17.450	ppb	23:31:52
1	U 409.014†	831.2	631.6	54.220	µg/L	54.220	ppb	23:31:31
1	V 292.402†	499.6	558.8	5.9834	µg/L	5.9834	ppb	23:31:31
1	Zn 213.857†	927.4	451.4	11.216	µg/L	11.216	ppb	23:31:52
2	Sc RADIAL	57790.6	57790.6	99.0	%			23:30:29
2	Al 396.153Radial†	275.1	286.0	206.93	µg/L	206.93	ppb	23:30:29
2	Ca 317.933Radial†	416.6	221.7	197.56	µg/L	197.56	ppb	23:30:49
2	Fe 238.204 Radial†	29.2	13.0	110.60	µg/L	110.60	ppb	23:30:49
2	K 766.490 Radial†	438.1	285.9	197.65	µg/L	197.65	ppb	23:30:29
2	Mg 279.077 IEC†	40.2	31.3	295.29	µg/L	295.29	ppb	23:30:49
2	Na 589.592 Radial†	1407.2	986.2	312.00	µg/L	312.00	ppb	23:30:29
2	Sr 421.552†	551.9	537.2	5.2678	µg/L	5.2678	ppb	23:30:29
2	Sc 361.383	2032403.9	2032403.9	99.770	%			23:31:58
2	Y 371.029	1398016.2	1398016.2	99.807	%			23:31:58
2	Ag 328.068†	232.5	717.4	5.7570	µg/L	5.7570	ppb	23:32:04
2	As 188.979†	18.4	17.8	34.046	µg/L	34.046	ppb	23:32:24
2	B 249.677†	1536.7	1211.2	52.492	µg/L	52.492	ppb	23:32:04
2	Ba 233.527†	192.1	211.7	5.4757	µg/L	5.4757	ppb	23:32:24
2	Be 313.107†	4982.3	8408.7	5.3385	µg/L	5.3385	ppb	23:32:04
2	Cd 226.502†	61.0	192.6	5.1621	µg/L	5.1621	ppb	23:32:24
2	Co 228.616†	99.6	103.8	5.0522	µg/L	5.0522	ppb	23:32:24
2	Cr 267.716†	236.6	279.7	6.0517	µg/L	6.0517	ppb	23:32:04
2	Cu 324.752†	4845.7	1604.9	11.159	µg/L	11.159	ppb	23:32:04
2	Mn 257.610†	2933.7	3221.0	10.912	µg/L	10.912	ppb	23:32:04
2	Mo 202.031†	99.3	103.6	11.184	µg/L	11.184	ppb	23:32:24
2	Ni 231.604†	402.2	103.7	5.5395	µg/L	5.5395	ppb	23:32:24
2	P 214.914†	94.2	73.4	154.52	µg/L	154.52	ppb	23:32:24
2	Pb 220.353†	127.5	38.2	9.9426	µg/L	9.9426	ppb	23:32:24

2	S 181.975 Axial†	41.5	26.6	119.43 µg/L	119.43 ppb	23:32:24
2	Sb 206.836†	34.7	13.1	13.228 µg/L	13.228 ppb	23:32:24
2	Se 196.026†	39.1	26.3	38.601 µg/L	38.601 ppb	23:32:24
2	SiO2†	2686.1	1083.7	228.46 µg/L	228.46 ppb	23:32:04
2	Si 251.611†	1567.3	1253.1	102.06 µg/L	102.06 ppb	23:32:24
2	Sn 189.927†	28.7	26.3	12.168 µg/L	12.168 ppb	23:32:24
2	Ti 334.940†	2400.1	2255.2	5.4086 µg/L	5.4086 ppb	23:32:04
2	Tl 190.801†	-4.8	16.6	23.507 µg/L	23.507 ppb	23:32:24
2	U 409.014†	841.2	639.5	54.898 µg/L	54.898 ppb	23:32:04
2	V 292.402†	444.1	502.0	5.3947 µg/L	5.3947 ppb	23:32:04
2	Zn 213.857†	915.9	437.5	10.873 µg/L	10.873 ppb	23:32:24
3	Sc RADIAL	58140.8	58140.8	99.6 %		23:30:55
3	Al 396.153Radial†	255.0	264.1	191.12 µg/L	191.12 ppb	23:30:55
3	Ca 317.933Radial†	418.6	221.3	197.15 µg/L	197.15 ppb	23:31:15
3	Fe 238.204 Radial†	28.5	12.2	103.55 µg/L	103.55 ppb	23:31:15
3	K 766.490 Radial†	353.5	198.3	137.10 µg/L	137.10 ppb	23:30:55
3	Mg 279.077 IEC†	41.0	31.8	300.05 µg/L	300.05 ppb	23:31:15
3	Na 589.592 Radial†	1433.3	1003.8	317.58 µg/L	317.58 ppb	23:30:55
3	Sr 421.552†	594.1	576.2	5.6501 µg/L	5.6501 ppb	23:30:55
3	Sc 361.383	2045389.3	2045389.3	100.41 %		23:32:30
3	Y 371.029	1407294.2	1407294.2	100.47 %		23:32:30
3	Ag 328.068†	172.6	656.2	5.2630 µg/L	5.2630 ppb	23:32:36
3	As 188.979†	11.4	10.7	20.446 µg/L	20.446 ppb	23:32:56
3	B 249.677†	1468.0	1132.9	49.100 µg/L	49.100 ppb	23:32:36
3	Ba 233.527†	158.8	177.4	4.5865 µg/L	4.5865 ppb	23:32:56
3	Be 313.107†	4076.8	7475.2	4.7459 µg/L	4.7459 ppb	23:32:36
3	Cd 226.502†	27.2	158.6	4.2469 µg/L	4.2469 ppb	23:32:56
3	Co 228.616†	79.4	83.0	4.0393 µg/L	4.0393 ppb	23:32:56
3	Cr 267.716†	166.0	207.9	4.4982 µg/L	4.4982 ppb	23:32:36
3	Cu 324.752†	4678.0	1407.1	9.7843 µg/L	9.7843 ppb	23:32:36
3	Mn 257.610†	2691.7	2961.4	10.032 µg/L	10.032 ppb	23:32:36
3	Mo 202.031†	87.5	91.3	9.8489 µg/L	9.8489 ppb	23:32:56
3	Ni 231.604†	368.1	67.2	3.5914 µg/L	3.5914 ppb	23:32:56
3	P 214.914†	81.8	60.4	127.07 µg/L	127.07 ppb	23:32:56
3	Pb 220.353†	119.6	29.5	7.6704 µg/L	7.6704 ppb	23:32:56
3	S 181.975 Axial†	32.7	17.5	78.564 µg/L	78.564 ppb	23:32:56
3	Sb 206.836†	28.8	7.0	7.1267 µg/L	7.1267 ppb	23:32:56
3	Se 196.026†	32.9	20.0	29.276 µg/L	29.276 ppb	23:32:56
3	SiO2†	2577.3	958.2	202.01 µg/L	202.01 ppb	23:32:36
3	Si 251.611†	1386.7	1063.4	86.609 µg/L	86.609 ppb	23:32:56
3	Sn 189.927†	16.1	13.5	6.2605 µg/L	6.2605 ppb	23:32:56
3	Ti 334.940†	2087.5	1928.6	4.6220 µg/L	4.6220 ppb	23:32:36
3	Tl 190.801†	-7.0	14.5	20.492 µg/L	20.492 ppb	23:32:56
3	U 409.014†	874.3	667.2	57.275 µg/L	57.275 ppb	23:32:36
3	V 292.402†	358.3	413.8	4.4642 µg/L	4.4642 ppb	23:32:36
3	Zn 213.857†	833.9	350.0	8.6969 µg/L	8.6969 ppb	23:32:56

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2035067.9	99.901	%	0.4556				0.46%
Sc RADIAL	57914.5	99.2	%	0.34				0.34%
Y 371.029	1400086.4	99.955	%	0.4589				0.46%
Ag 328.068†	669.4	5.3731	µg/L	0.34234	5.3731	ppb	0.34234	6.37%
QC value within limits for Ag 328.068 Recovery = 107.46%								
Al 396.153Radial†	278.5	201.52	µg/L	9.010	201.52	ppb	9.010	4.47%
QC value within limits for Al 396.153Radial Recovery = 100.76%								
As 188.979†	15.6	29.933	µg/L	8.2401	29.933	ppb	8.2401	27.53%
QC value within limits for As 188.979 Recovery = 99.78%								
B 249.677†	1185.9	51.396	µg/L	1.9893	51.396	ppb	1.9893	3.87%
QC value within limits for B 249.677 Recovery = 102.79%								
Ba 233.527†	199.8	5.1685	µg/L	0.50434	5.1685	ppb	0.50434	9.76%
QC value within limits for Ba 233.527 Recovery = 103.37%								
Be 313.107†	8087.0	5.1342	µg/L	0.33647	5.1342	ppb	0.33647	6.55%
QC value within limits for Be 313.107 Recovery = 102.68%								
Ca 317.933Radial†	220.6	196.52	µg/L	1.469	196.52	ppb	1.469	0.75%
QC value within limits for Ca 317.933Radial Recovery = 98.26%								
Cd 226.502†	183.3	4.9101	µg/L	0.57984	4.9101	ppb	0.57984	11.81%
QC value within limits for Cd 226.502 Recovery = 98.20%								
Co 228.616†	97.7	4.7538	µg/L	0.62153	4.7538	ppb	0.62153	13.07%

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   QC value within limits for Co 228.616  Recovery = 95.08%
Cr 267.716†              256.8      5.5563 µg/L       0.91694      5.5563 ppb        0.91694  16.50%
   QC value within limits for Cr 267.716  Recovery = 111.13%
Cu 324.752†             1546.1      10.750 µg/L        0.8395      10.750 ppb         0.8395   7.81%
   QC value within limits for Cu 324.752  Recovery = 107.50%
Fe 238.204 Radial†        12.6      107.23 µg/L         3.533      107.23 ppb          3.533   3.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.23%
K 766.490 Radial†        239.2      165.37 µg/L        30.473      165.37 ppb         30.473  18.43%
   QC value within limits for K 766.490 Radial  Recovery = 110.25%
Mg 279.077 IEC†           34.0      321.21 µg/L        40.839      321.21 ppb         40.839  12.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.07%
Mn 257.610†             3142.9      10.646 µg/L        0.5337      10.646 ppb         0.5337   5.01%
   QC value within limits for Mn 257.610  Recovery = 106.46%
Mo 202.031†               98.8      10.657 µg/L        0.7105      10.657 ppb         0.7105   6.67%
   QC value within limits for Mo 202.031  Recovery = 106.57%
Na 589.592 Radial†      1002.3      317.11 µg/L         4.890      317.11 ppb          4.890   1.54%
   QC value within limits for Na 589.592 Radial  Recovery = 105.70%
Ni 231.604†               89.0      4.7552 µg/L       1.02801      4.7552 ppb        1.02801  21.62%
   QC value within limits for Ni 231.604  Recovery = 95.10%
P 214.914†                71.0      149.40 µg/L        20.259      149.40 ppb         20.259  13.56%
   QC value within limits for P 214.914  Recovery = 99.60%
Pb 220.353†               32.8      8.5382 µg/L       1.22747      8.5382 ppb        1.22747  14.38%
   QC value within limits for Pb 220.353  Recovery = 85.38%
S 181.975 Axial†          22.8      102.64 µg/L        21.385      102.64 ppb         21.385  20.84%
   QC value within limits for S 181.975 Axial  Recovery = 102.64%
Sb 206.836†               11.0      11.082 µg/L        3.4294      11.082 ppb         3.4294  30.95%
   QC value within limits for Sb 206.836  Recovery = 110.82%
Se 196.026†               22.1      32.450 µg/L        5.3283      32.450 ppb         5.3283  16.42%
   QC value within limits for Se 196.026  Recovery = 108.17%
SiO2†                   1031.9      217.56 µg/L        13.823      217.56 ppb         13.823   6.35%
   QC value within limits for SiO2  Recovery = 102.14%
Si 251.611†             1192.1      97.094 µg/L        9.0840      97.094 ppb         9.0840   9.36%
   QC value within limits for Si 251.611  Recovery = 97.09%
Sn 189.927†               21.9      10.163 µg/L        3.3803      10.163 ppb         3.3803  33.26%
   QC value within limits for Sn 189.927  Recovery = 101.63%
Sr 421.552†              568.3      5.5725 µg/L       0.27428      5.5725 ppb        0.27428   4.92%
   QC value within limits for Sr 421.552  Recovery = 111.45%
Ti 334.940†             2141.8      5.1334 µg/L       0.44331      5.1334 ppb        0.44331   8.64%
   QC value within limits for Ti 334.940  Recovery = 102.67%
Tl 190.801†               14.5      20.483 µg/L        3.0286      20.483 ppb         3.0286  14.79%
   QC value within limits for Tl 190.801  Recovery = 102.42%
U 409.014†               646.1      55.464 µg/L        1.6045      55.464 ppb         1.6045   2.89%
   QC value within limits for U 409.014  Recovery = 110.93%
V 292.402†               491.5      5.2807 µg/L       0.76599      5.2807 ppb        0.76599  14.51%
   QC value within limits for V 292.402  Recovery = 105.61%
Zn 213.857†              413.0      10.262 µg/L        1.3661      10.262 ppb         1.3661  13.31%
   QC value within limits for Zn 213.857  Recovery = 102.62%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/21/2010 23:33:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57191.2	57191.2	98.0	%			23:33:46
1	Al 396.153Radial†	690266.7	704371.6	510170	µg/L	510170	ppb	23:33:41
1	Ca 317.933Radial†	529563.7	540179.6	481300	µg/L	481300	ppb	23:33:41
1	Fe 238.204 Radial†	21641.0	22066.5	187830	µg/L	187830	ppb	23:33:46
1	K 766.490 Radial†	160.6	7.4	5.1343	µg/L	5.1343	ppb	23:33:46
1	Mg 279.077 IEC†	50510.2	51532.4	486590	µg/L	486590	ppb	23:33:46
1	Na 589.592 Radial†	533.4	109.5	34.634	µg/L	34.634	ppb	23:33:46
1	Sr 421.552†	394.8	382.7	3.7529	µg/L	3.7529	ppb	23:33:46
1	Sc 361.383	1910174.5	1910174.5	93.770	%			23:34:19
1	Y 371.029	1304004.8	1304004.8	93.096	%			23:34:19
1	Ag 328.068†	-2747.0	-2445.1	-7.8109	µg/L	-7.8109	ppb	23:34:25
1	As 188.979†	-13.8	-15.4	-43.731	µg/L	-43.731	ppb	23:34:45
1	B 249.677†	855.7	583.5	-72.700	µg/L	-72.700	ppb	23:34:25
1	Ba 233.527†	272.2	309.4	7.9436	µg/L	7.9436	ppb	23:34:45
1	Be 313.107†	-3901.1	-745.4	-0.4844	µg/L	-0.4844	ppb	23:34:25
1	Cd 226.502†	404.4	562.8	-6.1317	µg/L	-6.1317	ppb	23:34:45
1	Co 228.616†	47.5	54.6	2.5870	µg/L	2.5870	ppb	23:34:45
1	Cr 267.716†	-55.6	-16.7	-0.3761	µg/L	-0.3761	ppb	23:34:45
1	Cu 324.752†	1345.0	-1817.5	13.489	µg/L	13.489	ppb	23:34:25
1	Mn 257.610†	534.1	850.2	8.3898	µg/L	8.3898	ppb	23:34:25
1	Mo 202.031†	-115.9	-119.4	-5.7463	µg/L	-5.7463	ppb	23:34:45
1	Ni 231.604†	140.9	-149.1	-5.5331	µg/L	-5.5331	ppb	23:34:45
1	P 214.914†	109.6	95.9	198.56	µg/L	198.56	ppb	23:34:45
1	Pb 220.353†	34.8	-52.5	7.0574	µg/L	7.0574	ppb	23:34:45
1	S 181.975 Axial†	25.7	12.3	55.409	µg/L	55.409	ppb	23:34:45
1	Sb 206.836†	51.1	32.8	-9.2119	µg/L	-9.2119	ppb	23:34:45
1	Se 196.026†	29.1	18.2	-27.200	µg/L	-27.200	ppb	23:34:45
1	SiO2†	1320.0	-201.0	-42.367	µg/L	-42.367	ppb	23:34:45
1	Si 251.611†	441.0	152.5	12.421	µg/L	12.421	ppb	23:34:45
1	Sn 189.927†	-57.4	-63.8	5.4851	µg/L	5.4851	ppb	23:34:45
1	Ti 334.940†	11390.8	11997.3	-1.8760	µg/L	-1.8760	ppb	23:34:25
1	Tl 190.801†	-29.4	-9.9	6.8995	µg/L	6.8995	ppb	23:34:45
1	U 409.014†	1528.0	1426.0	67.001	µg/L	67.001	ppb	23:34:25
1	V 292.402†	-2297.3	-2393.0	-2.7689	µg/L	-2.7689	ppb	23:34:25
1	Zn 213.857†	1497.9	1117.0	-8.5457	µg/L	-8.5457	ppb	23:34:45
2	Sc RADIAL	56799.8	56799.8	97.3	%			23:33:58
2	Al 396.153Radial†	696213.9	715336.0	518110	µg/L	518110	ppb	23:33:52
2	Ca 317.933Radial†	534672.2	549152.2	489290	µg/L	489290	ppb	23:33:52
2	Fe 238.204 Radial†	21380.0	21950.5	186850	µg/L	186850	ppb	23:33:58
2	K 766.490 Radial†	126.5	-26.5	-18.340	µg/L	-18.340	ppb	23:33:58
2	Mg 279.077 IEC†	50072.9	51438.3	485700	µg/L	485700	ppb	23:33:58
2	Na 589.592 Radial†	529.1	108.8	34.416	µg/L	34.416	ppb	23:33:58
2	Sr 421.552†	392.8	383.5	3.7600	µg/L	3.7600	ppb	23:33:58
2	Sc 361.383	1910102.7	1910102.7	93.766	%			23:34:51
2	Y 371.029	1304185.1	1304185.1	93.108	%			23:34:51
2	Ag 328.068†	-2757.5	-2456.5	-7.9616	µg/L	-7.9616	ppb	23:34:57
2	As 188.979†	-15.9	-17.7	-48.466	µg/L	-48.466	ppb	23:35:18
2	B 249.677†	828.6	554.6	-73.440	µg/L	-73.440	ppb	23:34:57
2	Ba 233.527†	264.0	300.7	7.7197	µg/L	7.7197	ppb	23:35:18
2	Be 313.107†	-3951.3	-799.0	-0.5184	µg/L	-0.5184	ppb	23:34:57
2	Cd 226.502†	399.4	557.5	-6.1651	µg/L	-6.1651	ppb	23:35:18
2	Co 228.616†	59.5	67.5	3.2131	µg/L	3.2131	ppb	23:35:18
2	Cr 267.716†	-68.5	-30.4	-0.6738	µg/L	-0.6738	ppb	23:35:18
2	Cu 324.752†	1315.5	-1849.0	13.134	µg/L	13.134	ppb	23:34:57
2	Mn 257.610†	501.7	815.7	8.1771	µg/L	8.1771	ppb	23:34:57
2	Mo 202.031†	-112.3	-115.6	-5.3735	µg/L	-5.3735	ppb	23:35:18
2	Ni 231.604†	127.5	-163.4	-6.3116	µg/L	-6.3116	ppb	23:35:18
2	P 214.914†	82.2	66.6	139.51	µg/L	139.51	ppb	23:35:18
2	Pb 220.353†	34.8	-52.5	7.5380	µg/L	7.5380	ppb	23:35:18

2	S 181.975 Axial†	26.5	13.1	59.131 µg/L	59.131 ppb	23:35:18
2	Sb 206.836†	55.5	37.5	-5.1755 µg/L	-5.1755 ppb	23:35:18
2	Se 196.026†	20.5	9.0	-44.842 µg/L	-44.842 ppb	23:35:18
2	SiO2†	1333.6	-186.5	-39.310 µg/L	-39.310 ppb	23:35:18
2	Si 251.611†	428.8	139.6	11.368 µg/L	11.368 ppb	23:35:18
2	Sn 189.927†	-69.7	-76.8	-0.5905 µg/L	-0.5905 ppb	23:35:18
2	Ti 334.940†	11323.9	11926.3	-1.8487 µg/L	-1.8487 ppb	23:34:57
2	Tl 190.801†	-33.3	-14.2	0.6832 µg/L	0.6832 ppb	23:35:18
2	U 409.014†	1582.4	1484.0	71.635 µg/L	71.635 ppb	23:34:57
2	V 292.402†	-2271.0	-2365.1	-2.5874 µg/L	-2.5874 ppb	23:34:57
2	Zn 213.857†	1498.9	1118.1	-8.4168 µg/L	-8.4168 ppb	23:35:18
3	Sc RADIAL	56656.1	56656.1	97.1 %		23:34:09
3	Al 396.153Radial†	695938.4	716866.1	519220 µg/L	519220 ppb	23:34:03
3	Ca 317.933Radial†	533823.9	549671.4	489750 µg/L	489750 ppb	23:34:03
3	Fe 238.204 Radial†	21639.9	22273.9	189600 µg/L	189600 ppb	23:34:09
3	K 766.490 Radial†	109.3	-44.0	-30.389 µg/L	-30.389 ppb	23:34:09
3	Mg 279.077 IEC†	50587.0	52098.2	491930 µg/L	491930 ppb	23:34:09
3	Na 589.592 Radial†	541.2	122.6	38.791 µg/L	38.791 ppb	23:34:09
3	Sr 421.552†	418.9	411.4	4.0340 µg/L	4.0340 ppb	23:34:09
3	Sc 361.383	1908050.4	1908050.4	93.665 %		23:35:24
3	Y 371.029	1303773.5	1303773.5	93.079 %		23:35:24
3	Ag 328.068†	-2799.5	-2504.5	-8.1672 µg/L	-8.1672 ppb	23:35:29
3	As 188.979†	-12.5	-14.0	-41.396 µg/L	-41.396 ppb	23:35:50
3	B 249.677†	837.2	564.8	-74.435 µg/L	-74.435 ppb	23:35:29
3	Ba 233.527†	285.1	323.5	8.3094 µg/L	8.3094 ppb	23:35:50
3	Be 313.107†	-3886.7	-734.6	-0.4777 µg/L	-0.4777 ppb	23:35:29
3	Cd 226.502†	390.8	548.8	-6.7086 µg/L	-6.7086 ppb	23:35:50
3	Co 228.616†	47.0	54.1	2.5617 µg/L	2.5617 ppb	23:35:50
3	Cr 267.716†	-66.9	-28.8	-0.6372 µg/L	-0.6372 ppb	23:35:50
3	Cu 324.752†	1356.9	-1803.3	13.834 µg/L	13.834 ppb	23:35:29
3	Mn 257.610†	438.0	748.3	8.0655 µg/L	8.0655 ppb	23:35:29
3	Mo 202.031†	-110.4	-113.8	-5.0659 µg/L	-5.0659 ppb	23:35:50
3	Ni 231.604†	138.7	-151.3	-5.6274 µg/L	-5.6274 ppb	23:35:50
3	P 214.914†	93.8	79.1	164.22 µg/L	164.22 ppb	23:35:50
3	Pb 220.353†	59.5	-26.1	14.396 µg/L	14.396 ppb	23:35:50
3	S 181.975 Axial†	40.2	27.9	125.34 µg/L	125.34 ppb	23:35:50
3	Sb 206.836†	46.2	27.6	-15.142 µg/L	-15.142 ppb	23:35:50
3	Se 196.026†	23.0	11.7	-39.019 µg/L	-39.019 ppb	23:35:50
3	SiO2†	1342.7	-175.1	-36.921 µg/L	-36.921 ppb	23:35:50
3	Si 251.611†	448.0	160.5	13.074 µg/L	13.074 ppb	23:35:50
3	Sn 189.927†	-56.2	-62.6	6.4493 µg/L	6.4493 ppb	23:35:50
3	Ti 334.940†	11522.6	12151.5	-1.7918 µg/L	-1.7918 ppb	23:35:29
3	Tl 190.801†	-29.4	-10.0	6.9879 µg/L	6.9879 ppb	23:35:50
3	U 409.014†	1470.9	1366.8	61.159 µg/L	61.159 ppb	23:35:29
3	V 292.402†	-2222.5	-2315.9	-1.7599 µg/L	-1.7599 ppb	23:35:29
3	Zn 213.857†	1484.9	1104.9	-9.2345 µg/L	-9.2345 ppb	23:35:50

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1909442.6	93.734	%	0.0592				0.06%
Sc RADIAL	56882.4	97.5	%	0.47				0.49%
Y 371.029	1303987.8	93.094	%	0.0147				0.02%
Ag 328.068†	-2468.7	-7.9799	µg/L	0.17885	-7.9799	ppb	0.17885	2.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	712191.2	515840	µg/L	4936.1	515840	ppb	4936.1	0.96%
QC value within limits for Al 396.153Radial Recovery = 103.17%								
As 188.979†	-15.7	-44.531	µg/L	3.6026	-44.531	ppb	3.6026	8.09%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	567.6	-73.525	µg/L	0.8706	-73.525	ppb	0.8706	1.18%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	311.2	7.9909	µg/L	0.29767	7.9909	ppb	0.29767	3.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-759.7	-0.4935	µg/L	0.02182	-0.4935	ppb	0.02182	4.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	546334.4	486780	µg/L	4754.8	486780	ppb	4754.8	0.98%
QC value within limits for Ca 317.933Radial Recovery = 97.36%								
Cd 226.502†	556.3	-6.3351	µg/L	0.32387	-6.3351	ppb	0.32387	5.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	58.7	2.7872	µg/L	0.36899	2.7872	ppb	0.36899	13.24%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -25.3     -0.5623 µg/L       0.16236     -0.5623 ppb        0.16236  28.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -1823.3      13.486 µg/L        0.3499      13.486 ppb         0.3499   2.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     22097.0      188090 µg/L        1394.4      188090 ppb         1394.4   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.05%
K 766.490 Radial†        -21.0     -14.531 µg/L       18.0653     -14.531 ppb        18.0653 124.32%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        51689.6      488080 µg/L        3370.5      488080 ppb         3370.5   0.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.62%
Mn 257.610†              804.7      8.2108 µg/L       0.16477      8.2108 ppb        0.16477   2.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -116.3     -5.3952 µg/L       0.34070     -5.3952 ppb        0.34070   6.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       113.6      35.947 µg/L        2.4655      35.947 ppb         2.4655   6.86%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†            -154.6     -5.8240 µg/L       0.42487     -5.8240 ppb        0.42487   7.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                80.5      167.43 µg/L        29.658      167.43 ppb         29.658  17.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -43.7      9.6639 µg/L       4.10538      9.6639 ppb        4.10538  42.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          17.8      79.961 µg/L       39.3456      79.961 ppb        39.3456  49.21%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               32.6     -9.8431 µg/L       5.01300     -9.8431 ppb        5.01300  50.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               13.0     -37.020 µg/L        8.9894     -37.020 ppb         8.9894  24.28%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -187.5     -39.533 µg/L        2.7296     -39.533 ppb         2.7296   6.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              150.9      12.287 µg/L        0.8611      12.287 ppb         0.8611   7.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -67.7      3.7813 µg/L       3.81668      3.7813 ppb        3.81668 100.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              392.5      3.8490 µg/L       0.16028      3.8490 ppb        0.16028   4.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            12025.0     -1.8388 µg/L       0.04297     -1.8388 ppb        0.04297   2.34%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -11.4      4.8569 µg/L       3.61481      4.8569 ppb        3.61481  74.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1425.6      66.598 µg/L        5.2498      66.598 ppb         5.2498   7.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2358.0     -2.3721 µg/L       0.53790     -2.3721 ppb        0.53790  22.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1113.3     -8.7323 µg/L       0.43967     -8.7323 ppb        0.43967   5.03%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/21/2010 23:35:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57355.9	57355.9	98.3	%			23:36:38
1	Al 396.153Radial†	698453.7	710679.7	514730	µg/L	514730	ppb	23:36:33
1	Ca 317.933Radial†	537285.4	546485.0	486920	µg/L	486920	ppb	23:36:33
1	Fe 238.204 Radial†	21946.8	22314.3	189950	µg/L	189950	ppb	23:36:38
1	K 766.490 Radial†	7569.4	7545.3	5216.2	µg/L	5216.2	ppb	23:36:38
1	Mg 279.077 IEC†	51203.6	52089.9	491870	µg/L	491870	ppb	23:36:38
1	Na 589.592 Radial†	16635.8	16491.9	5217.7	µg/L	5217.7	ppb	23:36:38
1	Sr 421.552†	52139.3	53031.2	519.99	µg/L	519.99	ppb	23:36:38
1	Sc 361.383	1884699.9	1884699.9	92.519	%			23:37:12
1	Y 371.029	1287942.1	1287942.1	91.949	%			23:37:12
1	Ag 328.068†	29112.5	31950.8	269.94	µg/L	269.94	ppb	23:37:18
1	As 188.979†	252.5	272.2	506.73	µg/L	506.73	ppb	23:37:38
1	B 249.677†	12482.1	13162.3	472.69	µg/L	472.69	ppb	23:37:18
1	Ba 233.527†	18911.6	20459.9	529.14	µg/L	529.14	ppb	23:37:18
1	Be 313.107†	364674.4	397576.6	252.29	µg/L	252.29	ppb	23:37:12
1	Cd 226.502†	17265.7	18793.3	483.24	µg/L	483.24	ppb	23:37:18
1	Co 228.616†	8777.3	9491.0	461.22	µg/L	461.22	ppb	23:37:38
1	Cr 267.716†	22053.0	23878.8	516.63	µg/L	516.63	ppb	23:37:18
1	Cu 324.752†	77059.0	80038.0	582.12	µg/L	582.12	ppb	23:37:18
1	Mn 257.610†	137451.5	148846.2	509.72	µg/L	509.72	ppb	23:37:18
1	Mo 202.031†	4603.5	4979.9	544.38	µg/L	544.38	ppb	23:37:38
1	Ni 231.604†	8174.8	8536.4	458.29	µg/L	458.29	ppb	23:37:38
1	P 214.914†	1305.8	1390.4	2890.4	µg/L	2890.4	ppb	23:37:38
1	Pb 220.353†	1826.3	1884.4	513.23	µg/L	513.23	ppb	23:37:38
1	S 181.975 Axial†	622.2	657.5	2957.0	µg/L	2957.0	ppb	23:37:38
1	Sb 206.836†	562.3	586.1	548.10	µg/L	548.10	ppb	23:37:38
1	Se 196.026†	1572.9	1687.2	2422.5	µg/L	2422.5	ppb	23:37:38
1	SiO2†	52042.6	54642.0	11520	µg/L	11520	ppb	23:37:18
1	Si 251.611†	61911.8	66600.1	5424.5	µg/L	5424.5	ppb	23:37:18
1	Sn 189.927†	1036.3	1117.6	552.38	µg/L	552.38	ppb	23:37:38
1	Ti 334.940†	218041.4	235521.6	535.87	µg/L	535.87	ppb	23:37:18
1	Tl 190.801†	296.6	342.0	507.81	µg/L	507.81	ppb	23:37:38
1	U 409.014†	6979.2	7339.9	574.28	µg/L	574.28	ppb	23:37:18
1	V 292.402†	46062.0	49843.4	547.06	µg/L	547.06	ppb	23:37:18
1	Zn 213.857†	20051.4	21192.2	489.93	µg/L	489.93	ppb	23:37:18
2	Sc RADIAL	57441.6	57441.6	98.4	%			23:36:50
2	Al 396.153Radial†	696425.7	707559.0	512470	µg/L	512470	ppb	23:36:44
2	Ca 317.933Radial†	535100.0	543449.1	484210	µg/L	484210	ppb	23:36:44
2	Fe 238.204 Radial†	21806.4	22138.2	188450	µg/L	188450	ppb	23:36:50
2	K 766.490 Radial†	7527.5	7491.3	5178.9	µg/L	5178.9	ppb	23:36:50
2	Mg 279.077 IEC†	51125.4	51932.7	490380	µg/L	490380	ppb	23:36:50
2	Na 589.592 Radial†	16580.3	16410.3	5191.9	µg/L	5191.9	ppb	23:36:50
2	Sr 421.552†	52182.4	52995.9	519.65	µg/L	519.65	ppb	23:36:50
2	Sc 361.383	1899761.4	1899761.4	93.258	%			23:37:45
2	Y 371.029	1299368.6	1299368.6	92.765	%			23:37:45
2	Ag 328.068†	29225.2	31822.2	268.79	µg/L	268.79	ppb	23:37:51
2	As 188.979†	252.3	269.8	502.33	µg/L	502.33	ppb	23:38:11
2	B 249.677†	12452.0	13023.0	467.42	µg/L	467.42	ppb	23:37:51
2	Ba 233.527†	18899.7	20285.1	524.62	µg/L	524.62	ppb	23:37:51
2	Be 313.107†	368267.3	398304.2	252.76	µg/L	252.76	ppb	23:37:45
2	Cd 226.502†	17201.4	18576.4	477.58	µg/L	477.58	ppb	23:37:51
2	Co 228.616†	8726.2	9361.0	454.90	µg/L	454.90	ppb	23:38:11
2	Cr 267.716†	22045.4	23681.7	512.36	µg/L	512.36	ppb	23:37:51
2	Cu 324.752†	77113.6	79436.2	577.74	µg/L	577.74	ppb	23:37:51
2	Mn 257.610†	137528.0	147750.5	505.87	µg/L	505.87	ppb	23:37:51
2	Mo 202.031†	4587.9	4923.6	538.26	µg/L	538.26	ppb	23:38:11
2	Ni 231.604†	8083.7	8368.7	449.31	µg/L	449.31	ppb	23:38:11
2	P 214.914†	1278.0	1349.4	2804.5	µg/L	2804.5	ppb	23:38:11
2	Pb 220.353†	1797.4	1837.7	500.96	µg/L	500.96	ppb	23:38:11

2	S 181.975 Axial†	615.7	645.2	2901.8 µg/L	2901.8 ppb		23:38:11
2	Sb 206.836†	555.5	573.9	536.08 µg/L	536.08 ppb		23:38:11
2	Se 196.026†	1569.2	1669.8	2394.9 µg/L	2394.9 ppb		23:38:11
2	SiO2†	52088.8	54245.6	11436 µg/L	11436 ppb		23:37:51
2	Si 251.611†	61953.0	66113.9	5384.9 µg/L	5384.9 ppb		23:37:51
2	Sn 189.927†	1030.2	1102.2	545.25 µg/L	545.25 ppb		23:38:11
2	Ti 334.940†	218015.9	233625.8	531.38 µg/L	531.38 ppb		23:37:51
2	Tl 190.801†	289.2	331.5	492.92 µg/L	492.92 ppb		23:38:11
2	U 409.014†	6989.8	7291.5	570.50 µg/L	570.50 ppb		23:37:51
2	V 292.402†	46040.2	49425.4	542.48 µg/L	542.48 ppb		23:37:51
2	Zn 213.857†	20037.7	21005.8	485.47 µg/L	485.47 ppb		23:37:51
3	Sc RADIAL	56995.1	56995.1	97.7 %			23:37:01
3	Al 396.153Radial†	694852.7	711490.6	515320 µg/L	515320 ppb		23:36:55
3	Ca 317.933Radial†	533256.7	545820.0	486320 µg/L	486320 ppb		23:36:55
3	Fe 238.204 Radial†	21695.4	22198.1	188960 µg/L	188960 ppb		23:37:01
3	K 766.490 Radial†	7533.8	7557.6	5224.7 µg/L	5224.7 ppb		23:37:01
3	Mg 279.077 IEC†	50821.1	52028.0	491280 µg/L	491280 ppb		23:37:01
3	Na 589.592 Radial†	16518.1	16478.5	5213.5 µg/L	5213.5 ppb		23:37:01
3	Sr 421.552†	51770.0	52988.8	519.58 µg/L	519.58 ppb		23:37:01
3	Sc 361.383	1899971.0	1899971.0	93.269 %			23:38:17
3	Y 371.029	1298678.0	1298678.0	92.715 %			23:38:17
3	Ag 328.068†	29323.5	31924.2	269.64 µg/L	269.64 ppb		23:38:23
3	As 188.979†	244.6	261.6	486.40 µg/L	486.40 ppb		23:38:44
3	B 249.677†	12531.9	13107.3	470.81 µg/L	470.81 ppb		23:38:23
3	Ba 233.527†	18976.5	20365.2	526.69 µg/L	526.69 ppb		23:38:23
3	Be 313.107†	369516.0	399599.5	253.58 µg/L	253.58 ppb		23:38:17
3	Cd 226.502†	17301.8	18682.0	480.37 µg/L	480.37 ppb		23:38:23
3	Co 228.616†	8807.7	9447.3	459.10 µg/L	459.10 ppb		23:38:44
3	Cr 267.716†	22124.1	23763.4	514.13 µg/L	514.13 ppb		23:38:23
3	Cu 324.752†	77442.0	79779.2	580.19 µg/L	580.19 ppb		23:38:23
3	Mn 257.610†	138332.7	148597.0	508.77 µg/L	508.77 ppb		23:38:23
3	Mo 202.031†	4617.1	4954.4	541.60 µg/L	541.60 ppb		23:38:44
3	Ni 231.604†	8164.6	8454.4	453.89 µg/L	453.89 ppb		23:38:44
3	P 214.914†	1297.7	1370.3	2849.1 µg/L	2849.1 ppb		23:38:44
3	Pb 220.353†	1825.3	1867.5	508.86 µg/L	508.86 ppb		23:38:44
3	S 181.975 Axial†	616.7	646.1	2906.1 µg/L	2906.1 ppb		23:38:44
3	Sb 206.836†	571.5	591.0	553.04 µg/L	553.04 ppb		23:38:44
3	Se 196.026†	1596.3	1698.6	2437.2 µg/L	2437.2 ppb		23:38:44
3	SiO2†	52267.5	54431.0	11475 µg/L	11475 ppb		23:38:23
3	Si 251.611†	62142.6	66309.8	5400.8 µg/L	5400.8 ppb		23:38:23
3	Sn 189.927†	1035.1	1107.2	547.64 µg/L	547.64 ppb		23:38:44
3	Ti 334.940†	218885.2	234532.0	533.52 µg/L	533.52 ppb		23:38:23
3	Tl 190.801†	293.7	336.3	499.78 µg/L	499.78 ppb		23:38:44
3	U 409.014†	7058.8	7364.6	576.57 µg/L	576.57 ppb		23:38:23
3	V 292.402†	46113.5	49498.5	543.33 µg/L	543.33 ppb		23:38:23
3	Zn 213.857†	20141.1	21114.2	488.08 µg/L	488.08 ppb		23:38:23

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1894810.8	93.015	%	0.4299				0.46%
Sc RADIAL	57264.2	98.1	%	0.41				0.41%
Y 371.029	1295329.6	92.476	%	0.4574				0.49%
Ag 328.068†	31899.1	269.45	µg/L	0.596	269.45	ppb	0.596	0.22%
QC value within limits for Ag 328.068 Recovery = 107.78%								
Al 396.153Radial†	709909.8	514170	µg/L	1503.5	514170	ppb	1503.5	0.29%
QC value within limits for Al 396.153Radial Recovery = 102.83%								
As 188.979†	267.8	498.49	µg/L	10.692	498.49	ppb	10.692	2.14%
QC value within limits for As 188.979 Recovery = 99.70%								
B 249.677†	13097.6	470.31	µg/L	2.670	470.31	ppb	2.670	0.57%
QC value within limits for B 249.677 Recovery = 94.06%								
Ba 233.527†	20370.1	526.81	µg/L	2.263	526.81	ppb	2.263	0.43%
QC value within limits for Ba 233.527 Recovery = 105.36%								
Be 313.107†	398493.4	252.88	µg/L	0.651	252.88	ppb	0.651	0.26%
QC value within limits for Be 313.107 Recovery = 101.15%								
Ca 317.933Radial†	545251.4	485820	µg/L	1421.9	485820	ppb	1421.9	0.29%
QC value within limits for Ca 317.933Radial Recovery = 97.16%								
Cd 226.502†	18683.9	480.40	µg/L	2.830	480.40	ppb	2.830	0.59%
QC value within limits for Cd 226.502 Recovery = 96.08%								
Co 228.616†	9433.1	458.41	µg/L	3.218	458.41	ppb	3.218	0.70%

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   QC value within limits for Co 228.616  Recovery = 91.68%
Cr 267.716†            23774.6      514.37 µg/L          2.143      514.37 ppb          2.143   0.42%
   QC value within limits for Cr 267.716  Recovery = 102.87%
Cu 324.752†            79751.1      580.02 µg/L          2.198      580.02 ppb          2.198   0.38%
   QC value within limits for Cu 324.752  Recovery = 116.00%
Fe 238.204 Radial†     22216.9      189120 µg/L          762.0      189120 ppb          762.0   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.56%
K 766.490 Radial†       7531.4      5206.6 µg/L          24.40      5206.6 ppb          24.40   0.47%
   QC value within limits for K 766.490 Radial  Recovery = 104.13%
Mg 279.077 IEC†        52016.9      491180 µg/L          747.4      491180 ppb          747.4   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.24%
Mn 257.610†           148397.9      508.12 µg/L          2.006      508.12 ppb          2.006   0.39%
   QC value within limits for Mn 257.610  Recovery = 101.62%
Mo 202.031†             4952.6      541.42 µg/L          3.066      541.42 ppb          3.066   0.57%
   QC value within limits for Mo 202.031  Recovery = 108.28%
Na 589.592 Radial†     16460.2      5207.7 µg/L          13.85      5207.7 ppb          13.85   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 104.15%
Ni 231.604†             8453.2      453.83 µg/L          4.490      453.83 ppb          4.490   0.99%
   QC value within limits for Ni 231.604  Recovery = 90.77%
P 214.914†              1370.0      2848.0 µg/L          42.98      2848.0 ppb          42.98   1.51%
   QC value within limits for P 214.914  Recovery = 113.92%
Pb 220.353†             1863.2      507.68 µg/L          6.215      507.68 ppb          6.215   1.22%
   QC value within limits for Pb 220.353  Recovery = 101.54%
S 181.975 Axial†         649.6      2921.6 µg/L          30.74      2921.6 ppb          30.74   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 116.87%
Sb 206.836†              583.7      545.74 µg/L          8.721      545.74 ppb          8.721   1.60%
   QC value within limits for Sb 206.836  Recovery = 109.15%
Se 196.026†             1685.2      2418.2 µg/L          21.47      2418.2 ppb          21.47   0.89%
   QC value within limits for Se 196.026  Recovery = 96.73%
SiO2†                  54439.5       11477 µg/L           41.8       11477 ppb           41.8   0.36%
   QC value within limits for SiO2  Recovery = 107.31%
Si 251.611†            66341.2      5403.4 µg/L          19.93      5403.4 ppb          19.93   0.37%
   QC value within limits for Si 251.611  Recovery = 108.07%
Sn 189.927†             1109.0      548.42 µg/L          3.627      548.42 ppb          3.627   0.66%
   QC value within limits for Sn 189.927  Recovery = 109.68%
Sr 421.552†            53005.3      519.74 µg/L          0.223      519.74 ppb          0.223   0.04%
   QC value within limits for Sr 421.552  Recovery = 103.95%
Ti 334.940†           234559.8      533.59 µg/L          2.246      533.59 ppb          2.246   0.42%
   QC value within limits for Ti 334.940  Recovery = 106.72%
Tl 190.801†              336.6      500.17 µg/L          7.450      500.17 ppb          7.450   1.49%
   QC value within limits for Tl 190.801  Recovery = 100.03%
U 409.014†              7332.0      573.78 µg/L          3.070      573.78 ppb          3.070   0.53%
   QC value within limits for U 409.014  Recovery = 114.76%
V 292.402†             49589.1      544.29 µg/L          2.439      544.29 ppb          2.439   0.45%
   QC value within limits for V 292.402  Recovery = 108.86%
Zn 213.857†            21104.1      487.82 µg/L          2.240      487.82 ppb          2.240   0.46%
   QC value within limits for Zn 213.857  Recovery = 97.56%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/21/2010 23:38:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56382.9	56382.9	96.6	%			23:39:33
1	Al 396.153Radial†	684466.3	708465.4	513140	µg/L	513140	ppb	23:39:28
1	Ca 317.933Radial†	530383.4	548774.6	488960	µg/L	488960	ppb	23:39:28
1	Fe 238.204 Radial†	52630.8	54459.1	463570	µg/L	463570	ppb	23:39:33
1	K 766.490 Radial†	96.6	-56.6	-39.096	µg/L	-39.096	ppb	23:39:33
1	Mg 279.077 IEC†	49832.8	51570.0	486650	µg/L	486650	ppb	23:39:33
1	Na 589.592 Radial†	1522974.9	1575921.1	498590	µg/L	498590	ppb	23:39:28
1	Sr 421.552†	595.8	596.6	5.8499	µg/L	5.8499	ppb	23:39:33
1	Sc 361.383	1904532.8	1904532.8	93.493	%			23:40:08
1	Y 371.029	1291959.4	1291959.4	92.236	%			23:40:08
1	Ag 328.068†	-4925.0	-4783.4	-9.3996	µg/L	-9.3996	ppb	23:40:14
1	As 188.979†	-17.8	-19.8	-36.394	µg/L	-36.394	ppb	23:40:34
1	B 249.677†	1537.1	1315.0	-184.84	µg/L	-184.84	ppb	23:40:14
1	Ba 233.527†	566.8	625.5	16.012	µg/L	16.012	ppb	23:40:34
1	Be 313.107†	-11398.0	-8776.4	-5.5896	µg/L	-5.5896	ppb	23:40:14
1	Cd 226.502†	1108.8	1317.4	-17.046	µg/L	-17.046	ppb	23:40:14
1	Co 228.616†	219.9	239.1	11.534	µg/L	11.534	ppb	23:40:34
1	Cr 267.716†	83.2	131.6	2.7981	µg/L	2.7981	ppb	23:40:34
1	Cu 324.752†	-2262.7	-5672.1	25.053	µg/L	25.053	ppb	23:40:14
1	Mn 257.610†	-6444.9	-6612.9	19.770	µg/L	19.770	ppb	23:40:08
1	Mo 202.031†	-190.7	-199.9	-3.9424	µg/L	-3.9424	ppb	23:40:34
1	Ni 231.604†	67.0	-227.8	-6.1655	µg/L	-6.1655	ppb	23:40:34
1	P 214.914†	297.1	296.8	404.26	µg/L	404.26	ppb	23:40:34
1	Pb 220.353†	159.4	80.9	17.473	µg/L	17.473	ppb	23:40:34
1	S 181.975 Axial†	30.1	17.2	77.144	µg/L	77.144	ppb	23:40:34
1	Sb 206.836†	46.7	28.3	-14.591	µg/L	-14.591	ppb	23:40:34
1	Se 196.026†	-136.0	-158.3	465.01	µg/L	465.01	ppb	23:40:34
1	SiO2†	1249.6	-272.1	-57.355	µg/L	-57.355	ppb	23:40:34
1	Si 251.611†	-292.2	-630.2	-51.333	µg/L	-51.333	ppb	23:40:34
1	Sn 189.927†	-47.9	-53.8	-19.314	µg/L	-19.314	ppb	23:40:34
1	Ti 334.940†	15962.6	16923.2	10.076	µg/L	10.076	ppb	23:40:14
1	Tl 190.801†	-43.6	-25.2	40.441	µg/L	40.441	ppb	23:40:34
1	U 409.014†	149465.2	159664.9	13618	µg/L	13618	ppb	23:40:14
1	V 292.402†	-6797.1	-7213.3	-6.4198	µg/L	-6.4198	ppb	23:40:14
1	Zn 213.857†	2876.1	2595.8	15.366	µg/L	15.366	ppb	23:40:34
2	Sc RADIAL	56447.3	56447.3	96.7	%			23:39:45
2	Al 396.153Radial†	680369.8	703421.7	509480	µg/L	509480	ppb	23:39:40
2	Ca 317.933Radial†	525742.8	543350.5	484120	µg/L	484120	ppb	23:39:40
2	Fe 238.204 Radial†	52435.4	54194.9	461320	µg/L	461320	ppb	23:39:45
2	K 766.490 Radial†	70.5	-83.6	-57.795	µg/L	-57.795	ppb	23:39:45
2	Mg 279.077 IEC†	49733.7	51408.7	485130	µg/L	485130	ppb	23:39:45
2	Na 589.592 Radial†	1514568.8	1565431.5	495270	µg/L	495270	ppb	23:39:40
2	Sr 421.552†	567.4	566.5	5.5549	µg/L	5.5549	ppb	23:39:45
2	Sc 361.383	1875532.0	1875532.0	92.069	%			23:40:41
2	Y 371.029	1271429.1	1271429.1	90.770	%			23:40:41
2	Ag 328.068†	-5023.6	-4972.0	-11.055	µg/L	-11.055	ppb	23:40:46
2	As 188.979†	-27.2	-30.3	-56.422	µg/L	-56.422	ppb	23:41:07
2	B 249.677†	1495.9	1295.7	-184.50	µg/L	-184.50	ppb	23:40:46
2	Ba 233.527†	583.7	653.2	16.725	µg/L	16.725	ppb	23:41:07
2	Be 313.107†	-11510.6	-9087.2	-5.7877	µg/L	-5.7877	ppb	23:40:46
2	Cd 226.502†	1105.1	1331.8	-16.407	µg/L	-16.407	ppb	23:40:46
2	Co 228.616†	209.0	231.0	11.131	µg/L	11.131	ppb	23:41:07
2	Cr 267.716†	51.0	98.0	2.0703	µg/L	2.0703	ppb	23:41:07
2	Cu 324.752†	-2366.0	-5821.7	23.701	µg/L	23.701	ppb	23:40:46
2	Mn 257.610†	-6346.5	-6612.7	19.533	µg/L	19.533	ppb	23:40:41
2	Mo 202.031†	-203.3	-216.7	-5.8469	µg/L	-5.8469	ppb	23:41:07
2	Ni 231.604†	64.7	-229.1	-6.2634	µg/L	-6.2634	ppb	23:41:07
2	P 214.914†	310.6	316.3	446.61	µg/L	446.61	ppb	23:41:07
2	Pb 220.353†	140.5	63.0	12.254	µg/L	12.254	ppb	23:41:07

2	S 181.975 Axial†	32.9	20.6	92.803 µg/L	92.803 ppb		23:41:07
2	Sb 206.836†	52.0	34.8	-7.6516 µg/L	-7.6516 ppb		23:41:07
2	Se 196.026†	-130.2	-154.3	467.47 µg/L	467.47 ppb		23:41:07
2	SiO2†	1270.2	-229.1	-48.293 µg/L	-48.293 ppb		23:41:07
2	Si 251.611†	-303.5	-647.4	-52.728 µg/L	-52.728 ppb		23:41:07
2	Sn 189.927†	-40.4	-46.4	-15.817 µg/L	-15.817 ppb		23:41:07
2	Ti 334.940†	16416.0	17679.7	11.940 µg/L	11.940 ppb		23:40:46
2	Tl 190.801†	-49.6	-32.5	30.570 µg/L	30.570 ppb		23:41:07
2	U 409.014†	151681.1	164543.7	14038 µg/L	14038 ppb		23:40:46
2	V 292.402†	-6847.5	-7380.5	-8.0041 µg/L	-8.0041 ppb		23:40:46
2	Zn 213.857†	2861.1	2627.1	16.343 µg/L	16.343 ppb		23:41:07
3	Sc RADIAL	57057.9	57057.9	97.8 %			23:39:57
3	Al 396.153Radial†	682819.9	698400.8	505850 µg/L	505850 ppb		23:39:52
3	Ca 317.933Radial†	527754.8	539592.1	480770 µg/L	480770 ppb		23:39:52
3	Fe 238.204 Radial†	52753.2	53939.9	459150 µg/L	459150 ppb		23:39:57
3	K 766.490 Radial†	54.4	-100.9	-69.751 µg/L	-69.751 ppb		23:39:57
3	Mg 279.077 IEC†	50070.4	51203.0	483190 µg/L	483190 ppb		23:39:57
3	Na 589.592 Radial†	1519969.0	1554199.2	491710 µg/L	491710 ppb		23:39:52
3	Sr 421.552†	603.7	597.4	5.8575 µg/L	5.8575 ppb		23:39:57
3	Sc 361.383	1891764.5	1891764.5	92.866 %			23:41:14
3	Y 371.029	1283946.6	1283946.6	91.664 %			23:41:14
3	Ag 328.068†	-5104.2	-5012.0	-11.494 µg/L	-11.494 ppb		23:41:19
3	As 188.979†	-20.9	-23.2	-42.790 µg/L	-42.790 ppb		23:41:40
3	B 249.677†	1517.8	1305.3	-182.95 µg/L	-182.95 ppb		23:41:19
3	Ba 233.527†	601.0	666.3	17.068 µg/L	17.068 ppb		23:41:40
3	Be 313.107†	-11557.7	-9030.6	-5.7514 µg/L	-5.7514 ppb		23:41:19
3	Cd 226.502†	1120.2	1337.8	-16.001 µg/L	-16.001 ppb		23:41:19
3	Co 228.616†	194.6	213.5	10.285 µg/L	10.285 ppb		23:41:40
3	Cr 267.716†	71.2	119.3	2.5322 µg/L	2.5322 ppb		23:41:40
3	Cu 324.752†	-2337.5	-5769.0	23.766 µg/L	23.766 ppb		23:41:19
3	Mn 257.610†	-6509.4	-6728.8	18.929 µg/L	18.929 ppb		23:41:14
3	Mo 202.031†	-193.6	-204.4	-4.5982 µg/L	-4.5982 ppb		23:41:40
3	Ni 231.604†	75.7	-217.9	-5.6936 µg/L	-5.6936 ppb		23:41:40
3	P 214.914†	301.1	303.2	419.52 µg/L	419.52 ppb		23:41:40
3	Pb 220.353†	160.1	82.8	17.476 µg/L	17.476 ppb		23:41:40
3	S 181.975 Axial†	33.2	20.7	92.904 µg/L	92.904 ppb		23:41:40
3	Sb 206.836†	46.2	28.0	-14.102 µg/L	-14.102 ppb		23:41:40
3	Se 196.026†	-134.1	-157.3	459.78 µg/L	459.78 ppb		23:41:40
3	SiO2†	1244.0	-269.1	-56.742 µg/L	-56.742 ppb		23:41:40
3	Si 251.611†	-294.6	-635.0	-51.718 µg/L	-51.718 ppb		23:41:40
3	Sn 189.927†	-34.9	-40.1	-12.866 µg/L	-12.866 ppb		23:41:40
3	Ti 334.940†	16195.9	17289.6	11.101 µg/L	11.101 ppb		23:41:19
3	Tl 190.801†	-47.3	-29.5	34.295 µg/L	34.295 ppb		23:41:40
3	U 409.014†	151140.9	162548.3	13867 µg/L	13867 ppb		23:41:19
3	V 292.402†	-6689.9	-7147.0	-5.9961 µg/L	-5.9961 ppb		23:41:19
3	Zn 213.857†	2851.1	2589.7	15.618 µg/L	15.618 ppb		23:41:40

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1890609.8	92.809	%	0.7135				0.77%
Sc RADIAL	56629.4	97.0	%	0.64				0.66%
Y 371.029	1282445.0	91.556	%	0.7387				0.81%
Ag 328.068†	-4922.5	-10.650	µg/L	1.1046	-10.650	ppb	1.1046	10.37%
Al 396.153Radial†	703429.3	509490	µg/L	3644.9	509490	ppb	3644.9	0.72%
QC value within limits for Al 396.153Radial Recovery = 101.90%								
As 188.979†	-24.4	-45.202	µg/L	10.2295	-45.202	ppb	10.2295	22.63%
B 249.677†	1305.4	-184.10	µg/L	1.006	-184.10	ppb	1.006	0.55%
Ba 233.527†	648.3	16.601	µg/L	0.5388	16.601	ppb	0.5388	3.25%
Be 313.107†	-8964.7	-5.7096	µg/L	0.10546	-5.7096	ppb	0.10546	1.85%
Ca 317.933Radial†	543905.7	484620	µg/L	4113.2	484620	ppb	4113.2	0.85%
QC value within limits for Ca 317.933Radial Recovery = 96.92%								
Cd 226.502†	1329.0	-16.485	µg/L	0.5271	-16.485	ppb	0.5271	3.20%
Co 228.616†	227.9	10.983	µg/L	0.6372	10.983	ppb	0.6372	5.80%
Cr 267.716†	116.3	2.4669	µg/L	0.36827	2.4669	ppb	0.36827	14.93%
Cu 324.752†	-5754.3	24.173	µg/L	0.7624	24.173	ppb	0.7624	3.15%
Fe 238.204 Radial†	54197.9	461340	µg/L	2209.9	461340	ppb	2209.9	0.48%
QC value within limits for Fe 238.204 Radial Recovery = 92.27%								
K 766.490 Radial†	-80.3	-55.547	µg/L	15.4504	-55.547	ppb	15.4504	27.81%
Mg 279.077 IEC†	51393.9	484990	µg/L	1735.6	484990	ppb	1735.6	0.36%

QC value within limits for Mg 279.077 IEC Recovery = 97.00%

Mn 257.610†	-6651.5	19.411 µg/L	0.4341	19.411 ppb	0.4341	2.24%
Mo 202.031†	-207.0	-4.7958 µg/L	0.96751	-4.7958 ppb	0.96751	20.17%
Na 589.592 Radial†	1565183.9	495190 µg/L	3436.8	495190 ppb	3436.8	0.69%

QC value within limits for Na 589.592 Radial Recovery = 99.04%

Ni 231.604†	-224.9	-6.0408 µg/L	0.30466	-6.0408 ppb	0.30466	5.04%
P 214.914†	305.4	423.47 µg/L	21.450	423.47 ppb	21.450	5.07%
Pb 220.353†	75.6	15.734 µg/L	3.0144	15.734 ppb	3.0144	19.16%
S 181.975 Axial†	19.5	87.617 µg/L	9.0701	87.617 ppb	9.0701	10.35%
Sb 206.836†	30.4	-12.115 µg/L	3.8731	-12.115 ppb	3.8731	31.97%
Se 196.026†	-156.6	464.09 µg/L	3.929	464.09 ppb	3.929	0.85%
SiO2†	-256.8	-54.130 µg/L	5.0643	-54.130 ppb	5.0643	9.36%
Si 251.611†	-637.5	-51.926 µg/L	0.7204	-51.926 ppb	0.7204	1.39%
Sn 189.927†	-46.8	-15.999 µg/L	3.2279	-15.999 ppb	3.2279	20.18%
Sr 421.552†	586.8	5.7541 µg/L	0.17256	5.7541 ppb	0.17256	3.00%
Ti 334.940†	17297.5	11.039 µg/L	0.9336	11.039 ppb	0.9336	8.46%
Tl 190.801†	-29.1	35.102 µg/L	4.9847	35.102 ppb	4.9847	14.20%
U 409.014†	162252.3	13841 µg/L	211.0	13841 ppb	211.0	1.52%

QC value within limits for U 409.014 Recovery = 92.27%

V 292.402†	-7246.9	-6.8066 µg/L	1.05846	-6.8066 ppb	1.05846	15.55%
Zn 213.857†	2604.2	15.776 µg/L	0.5072	15.776 ppb	0.5072	3.22%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/21/2010 23:41:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57854.7	57854.7	99.1	%			23:42:32
1	Al 396.153Radial†	366.4	377.8	50.856	µg/L	50.856	ppb	23:42:32
1	Ca 317.933Radial†	313.2	116.9	104.20	µg/L	104.20	ppb	23:42:52
1	Fe 238.204 Radial†	18.9	2.6	235.35	µg/L	235.35	ppb	23:42:52
1	K 766.490 Radial†	442964.1	446670.0	308790	µg/L	308790	ppb	23:42:26
1	Mg 279.077 IEC†	-0.3	-9.7	90.813	µg/L	90.813	ppb	23:42:52
1	Na 589.592 Radial†	1360.9	937.9	296.74	µg/L	296.74	ppb	23:42:32
1	Sr 421.552†	1030085.8	1039047.3	10188	µg/L	10188	ppb	23:42:26
1	Sc 361.383	2017012.3	2017012.3	99.014	%			23:44:23
1	Y 371.029	1374390.7	1374390.7	98.121	%			23:44:23
1	Ag 328.068†	-7689.4	-7281.6	12.276	µg/L	12.276	ppb	23:44:29
1	As 188.979†	5321.9	5374.1	10288	µg/L	10288	ppb	23:44:29
1	B 249.677†	118991.3	119846.9	5240.1	µg/L	5240.1	ppb	23:44:23
1	Ba 233.527†	589786.4	595677.8	15397	µg/L	15397	ppb	23:44:23
1	Be 313.107†	4742348.1	4792980.3	3040.1	µg/L	3040.1	ppb	23:44:13
1	Cd 226.502†	374668.0	378529.9	10167	µg/L	10167	ppb	23:44:23
1	Co 228.616†	204283.4	206321.3	10029	µg/L	10029	ppb	23:44:23
1	Cr 267.716†	1180551.5	1192348.3	25787	µg/L	25787	ppb	23:44:23
1	Cu 324.752†	3052969.4	3080114.4	21386	µg/L	21386	ppb	23:44:23
1	Mn 257.610†	2956851.4	2986572.0	10115	µg/L	10115	ppb	23:44:23
1	Mo 202.031†	99541.3	100536.5	10845	µg/L	10845	ppb	23:44:23
1	Ni 231.604†	189731.6	191321.2	10216	µg/L	10216	ppb	23:44:23
1	P 214.914†	7686.6	7742.1	14324	µg/L	14324	ppb	23:44:29
1	Pb 220.353†	100991.2	101907.1	26612	µg/L	26612	ppb	23:44:23
1	S 181.975 Axial†	12688.9	12800.2	57569	µg/L	57569	ppb	23:44:29
1	Sb 206.836†	11373.5	11465.0	11378	µg/L	11378	ppb	23:44:29
1	Se 196.026†	6883.9	6939.6	10188	µg/L	10188	ppb	23:44:29
1	SiO2†	496370.6	499704.0	105350	µg/L	105350	ppb	23:44:23
1	Si 251.611†	598262.0	603900.9	49187	µg/L	49187	ppb	23:44:23
1	Sn 189.927†	24463.0	24704.0	11429	µg/L	11429	ppb	23:44:29
1	Ti 334.940†	4370843.8	4414211.8	10626	µg/L	10626	ppb	23:44:13
1	Tl 190.801†	7147.6	7240.2	10284	µg/L	10284	ppb	23:44:29
1	U 409.014†	-1332.3	-1549.1	-133.06	µg/L	-133.06	ppb	23:44:23
1	V 292.402†	1013453.2	1023600.5	10796	µg/L	10796	ppb	23:44:23
1	Zn 213.857†	607317.3	612883.6	15241	µg/L	15241	ppb	23:44:23
2	Sc RADIAL	57929.1	57929.1	99.3	%			23:43:04
2	Al 396.153Radial†	350.7	361.5	45.814	µg/L	45.814	ppb	23:43:04
2	Ca 317.933Radial†	307.5	110.8	98.745	µg/L	98.745	ppb	23:43:24
2	Fe 238.204 Radial†	16.8	0.5	210.37	µg/L	210.37	ppb	23:43:24
2	K 766.490 Radial†	443979.9	447119.9	309100	µg/L	309100	ppb	23:42:58
2	Mg 279.077 IEC†	5.4	-4.0	139.29	µg/L	139.29	ppb	23:43:24
2	Na 589.592 Radial†	1150.0	723.7	228.97	µg/L	228.97	ppb	23:43:04
2	Sr 421.552†	1034506.7	1042167.5	10219	µg/L	10219	ppb	23:42:58
2	Sc 361.383	2014942.3	2014942.3	98.913	%			23:44:48
2	Y 371.029	1373644.9	1373644.9	98.067	%			23:44:48
2	Ag 328.068†	-7232.4	-6827.5	13.673	µg/L	13.673	ppb	23:44:54
2	As 188.979†	5122.4	5178.0	9912.7	µg/L	9912.7	ppb	23:44:54
2	B 249.677†	116850.6	117806.2	5149.9	µg/L	5149.9	ppb	23:44:48
2	Ba 233.527†	573043.1	579362.4	14976	µg/L	14976	ppb	23:44:48
2	Be 313.107†	4730908.0	4786334.9	3035.9	µg/L	3035.9	ppb	23:44:38
2	Cd 226.502†	363802.2	367933.4	9882.1	µg/L	9882.1	ppb	23:44:48
2	Co 228.616†	197591.8	199768.2	9709.9	µg/L	9709.9	ppb	23:44:48
2	Cr 267.716†	1132234.4	1144724.9	24757	µg/L	24757	ppb	23:44:48
2	Cu 324.752†	2956397.8	2985648.7	20730	µg/L	20730	ppb	23:44:48
2	Mn 257.610†	2865441.8	2897225.3	9812.9	µg/L	9812.9	ppb	23:44:48
2	Mo 202.031†	96417.3	97481.4	10515	µg/L	10515	ppb	23:44:48
2	Ni 231.604†	183477.8	185195.6	9889.2	µg/L	9889.2	ppb	23:44:48
2	P 214.914†	7253.1	7311.8	13470	µg/L	13470	ppb	23:44:54
2	Pb 220.353†	98540.0	99533.7	25992	µg/L	25992	ppb	23:44:48

2	S 181.975 Axial†	12174.1	12292.9	55288	µg/L	55288 ppb	23:44:54
2	Sb 206.836†	10840.9	10938.4	10857	µg/L	10857 ppb	23:44:54
2	Se 196.026†	6602.4	6662.2	9780.2	µg/L	9780.2 ppb	23:44:54
2	SiO2†	486477.8	490217.5	103350	µg/L	103350 ppb	23:44:48
2	Si 251.611†	586088.0	592213.8	48235	µg/L	48235 ppb	23:44:48
2	Sn 189.927†	22807.1	23055.3	10666	µg/L	10666 ppb	23:44:54
2	Ti 334.940†	4362035.8	4409841.9	10615	µg/L	10615 ppb	23:44:38
2	Tl 190.801†	6963.2	7061.1	10031	µg/L	10031 ppb	23:44:54
2	U 409.014†	-1221.8	-1438.8	-123.58	µg/L	-123.58 ppb	23:44:48
2	V 292.402†	980443.4	991279.4	10454	µg/L	10454 ppb	23:44:48
2	Zn 213.857†	588468.4	594457.6	14783	µg/L	14783 ppb	23:44:48
3	Sc RADIAL	58182.4	58182.4	99.7	%		23:43:36
3	Al 396.153Radial†	328.4	337.5	60.118	µg/L	60.118 ppb	23:43:36
3	Ca 317.933Radial†	299.9	101.9	90.752	µg/L	90.752 ppb	23:43:56
3	Fe 238.204 Radial†	17.3	0.9	183.27	µg/L	183.27 ppb	23:43:56
3	K 766.490 Radial†	442941.8	444131.0	307040	µg/L	307040 ppb	23:43:30
3	Mg 279.077 IEC†	-0.0	-9.4	62.128	µg/L	62.128 ppb	23:43:56
3	Na 589.592 Radial†	1071.7	640.2	202.53	µg/L	202.53 ppb	23:43:36
3	Sr 421.552†	1030975.0	1034087.1	10140	µg/L	10140 ppb	23:43:30
3	Sc 361.383	2034740.7	2034740.7	99.884	%		23:45:13
3	Y 371.029	1386678.9	1386678.9	98.998	%		23:45:13
3	Ag 328.068†	-6000.9	-5523.5	13.896	µg/L	13.896 ppb	23:45:18
3	As 188.979†	4343.3	4347.6	8322.7	µg/L	8322.7 ppb	23:45:18
3	B 249.677†	105080.3	104872.7	4582.3	µg/L	4582.3 ppb	23:45:13
3	Ba 233.527†	500239.1	500837.0	12946	µg/L	12946 ppb	23:45:13
3	Be 313.107†	4236418.6	4244734.6	2692.3	µg/L	2692.3 ppb	23:45:03
3	Cd 226.502†	316501.8	316999.5	8514.0	µg/L	8514.0 ppb	23:45:13
3	Co 228.616†	170057.9	170258.6	8274.9	µg/L	8274.9 ppb	23:45:13
3	Cr 267.716†	953241.1	954386.6	20641	µg/L	20641 ppb	23:45:13
3	Cu 324.752†	2551410.5	2551110.3	17713	µg/L	17713 ppb	23:45:13
3	Mn 257.610†	2469636.6	2472774.3	8375.3	µg/L	8375.3 ppb	23:45:13
3	Mo 202.031†	83098.7	83198.9	8974.5	µg/L	8974.5 ppb	23:45:13
3	Ni 231.604†	158063.0	157946.5	8434.1	µg/L	8434.1 ppb	23:45:13
3	P 214.914†	6044.6	6030.6	11043	µg/L	11043 ppb	23:45:18
3	Pb 220.353†	87081.3	87092.5	22743	µg/L	22743 ppb	23:45:13
3	S 181.975 Axial†	10315.2	10312.0	46379	µg/L	46379 ppb	23:45:18
3	Sb 206.836†	9125.1	9113.9	9049.1	µg/L	9049.1 ppb	23:45:18
3	Se 196.026†	5635.7	5629.4	8264.1	µg/L	8264.1 ppb	23:45:18
3	SiO2†	433608.6	432501.6	91182	µg/L	91182 ppb	23:45:13
3	Si 251.611†	522027.7	522313.8	42542	µg/L	42542 ppb	23:45:13
3	Sn 189.927†	18736.5	18755.6	8676.8	µg/L	8676.8 ppb	23:45:18
3	Ti 334.940†	3906487.4	3910856.4	9414.2	µg/L	9414.2 ppb	23:45:03
3	Tl 190.801†	6141.2	6169.7	8766.0	µg/L	8766.0 ppb	23:45:18
3	U 409.014†	-1054.1	-1258.9	-108.13	µg/L	-108.13 ppb	23:45:13
3	V 292.402†	842194.7	843226.0	8892.1	µg/L	8892.1 ppb	23:45:13
3	Zn 213.857†	510235.0	510344.8	12692	µg/L	12692 ppb	23:45:13

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2022231.8	99.270	%	0.5342				0.54%
Sc RADIAL	57988.7	99.4	%	0.29				0.30%
Y 371.029	1378238.2	98.395	%	0.5225				0.53%
Ag 328.068†	-6544.2	13.282	µg/L	0.8778	13.282	ppb	0.8778	6.61%
Al 396.153Radial†	358.9	52.263	µg/L	7.2550	52.263	ppb	7.2550	13.88%
As 188.979†	4966.6	9507.9	µg/L	1043.42	9507.9	ppb	1043.42	10.97%
QC value within limits for As 188.979 Recovery = 95.08%								
B 249.677†	114175.3	4990.8	µg/L	356.61	4990.8	ppb	356.61	7.15%
QC value within limits for B 249.677 Recovery = 99.82%								
Ba 233.527†	558625.7	14440	µg/L	1310.9	14440	ppb	1310.9	9.08%
QC value within limits for Ba 233.527 Recovery = 96.26%								
Be 313.107†	4608016.6	2922.8	µg/L	199.56	2922.8	ppb	199.56	6.83%
QC value within limits for Be 313.107 Recovery = 97.43%								
Ca 317.933Radial†	109.9	97.898	µg/L	6.7627	97.898	ppb	6.7627	6.91%
Cd 226.502†	354487.6	9520.9	µg/L	883.57	9520.9	ppb	883.57	9.28%
QC value within limits for Cd 226.502 Recovery = 95.21%								
Co 228.616†	192116.0	9338.0	µg/L	934.44	9338.0	ppb	934.44	10.01%
QC value within limits for Co 228.616 Recovery = 93.38%								
Cr 267.716†	1097153.2	23729	µg/L	2723.1	23729	ppb	2723.1	11.48%
QC value within limits for Cr 267.716 Recovery = 94.91%								

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Cu 324.752†          2872291.1       19943 µg/L        1958.9       19943 ppb        1958.9   9.82%
   QC value within limits for Cu 324.752  Recovery = 99.71%
Fe 238.204 Radial†         1.3      209.66 µg/L        26.049      209.66 ppb        26.049  12.42%
K 766.490 Radial†     445973.6      308310 µg/L        1114.1      308310 ppb        1114.1   0.36%
   QC value within limits for K 766.490 Radial  Recovery = 102.77%
Mg 279.077 IEC†           -7.7      97.411 µg/L       39.0023      97.411 ppb       39.0023  40.04%
Mn 257.610†          2785523.8      9434.5 µg/L        929.76      9434.5 ppb        929.76   9.85%
   QC value within limits for Mn 257.610  Recovery = 94.35%
Mo 202.031†            93738.9       10111 µg/L         998.3       10111 ppb         998.3   9.87%
   QC value within limits for Mo 202.031  Recovery = 101.11%
Na 589.592 Radial†       767.3      242.75 µg/L        48.591      242.75 ppb        48.591  20.02%
Ni 231.604†          178154.4      9513.2 µg/L        948.71      9513.2 ppb        948.71   9.97%
   QC value within limits for Ni 231.604  Recovery = 95.13%
P 214.914†             7028.2       12945 µg/L        1702.2       12945 ppb        1702.2  13.15%
   QC value less than the lower limit for P 214.914  Recovery = 86.30%
Pb 220.353†            96177.8       25116 µg/L        2077.9       25116 ppb        2077.9   8.27%
   QC value within limits for Pb 220.353  Recovery = 100.46%
S 181.975 Axial†       11801.7       53078 µg/L        5913.2       53078 ppb        5913.2  11.14%
   QC value within limits for S 181.975 Axial  Recovery = 106.16%
Sb 206.836†            10505.8       10428 µg/L        1222.3       10428 ppb        1222.3  11.72%
   QC value within limits for Sb 206.836  Recovery = 104.28%
Se 196.026†             6410.4      9410.6 µg/L       1013.60      9410.6 ppb       1013.60  10.77%
   QC value within limits for Se 196.026  Recovery = 94.11%
SiO2†                 474141.0       99960 µg/L        7668.0       99960 ppb        7668.0   7.67%
   QC value within limits for SiO2  Recovery = 93.42%
Si 251.611†           572809.5       46654 µg/L        3593.4       46654 ppb        3593.4   7.70%
   QC value within limits for Si 251.611  Recovery = 93.31%
Sn 189.927†            22171.6       10257 µg/L        1420.7       10257 ppb        1420.7  13.85%
   QC value within limits for Sn 189.927  Recovery = 102.57%
Sr 421.552†          1038434.0       10182 µg/L          40.0       10182 ppb          40.0   0.39%
   QC value within limits for Sr 421.552  Recovery = 101.82%
Ti 334.940†          4244970.0       10219 µg/L         696.5       10219 ppb         696.5   6.82%
   QC value within limits for Ti 334.940  Recovery = 102.19%
Tl 190.801†             6823.7      9693.7 µg/L        813.18      9693.7 ppb        813.18   8.39%
   QC value within limits for Tl 190.801  Recovery = 96.94%
U 409.014†             -1415.6     -121.59 µg/L        12.582     -121.59 ppb        12.582  10.35%
V 292.402†            952702.0       10047 µg/L        1014.9       10047 ppb        1014.9  10.10%
   QC value within limits for V 292.402  Recovery = 100.47%
Zn 213.857†           572562.0       14239 µg/L        1359.1       14239 ppb        1359.1   9.55%
   QC value within limits for Zn 213.857  Recovery = 94.92%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/21/2010 23:45:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58448.8	58448.8	100	%			23:46:05
1	Al 396.153Radial†	7035.3	7032.7	5082.2	µg/L	5082.2	ppb	23:46:05
1	Ca 317.933Radial†	5842.4	5634.5	5020.3	µg/L	5020.3	ppb	23:46:25
1	Fe 238.204 Radial†	617.8	600.4	5122.1	µg/L	5122.1	ppb	23:46:25
1	K 766.490 Radial†	7965.7	7797.0	5390.2	µg/L	5390.2	ppb	23:46:05
1	Mg 279.077 IEC†	563.5	553.3	5230.1	µg/L	5230.1	ppb	23:46:25
1	Na 589.592 Radial†	32980.4	32495.0	10281	µg/L	10281	ppb	23:46:05
1	Sr 421.552†	51957.6	51857.8	508.49	µg/L	508.49	ppb	23:46:05
1	Sc 361.383	2049179.7	2049179.7	100.59	%			23:47:29
1	Y 371.029	1404024.7	1404024.7	100.24	%			23:47:29
1	Ag 328.068†	65918.1	66013.7	529.72	µg/L	529.72	ppb	23:47:34
1	As 188.979†	283.0	280.6	537.16	µg/L	537.16	ppb	23:47:55
1	B 249.677†	12655.0	12251.2	529.64	µg/L	529.64	ppb	23:47:34
1	Ba 233.527†	20455.3	20353.8	526.41	µg/L	526.41	ppb	23:47:34
1	Be 313.107†	829624.1	828146.3	525.77	µg/L	525.77	ppb	23:47:29
1	Cd 226.502†	19733.0	19748.1	529.82	µg/L	529.82	ppb	23:47:34
1	Co 228.616†	10960.1	10899.4	529.85	µg/L	529.85	ppb	23:47:34
1	Cr 267.716†	24858.9	24755.0	535.58	µg/L	535.58	ppb	23:47:34
1	Cu 324.752†	79976.8	76253.2	530.15	µg/L	530.15	ppb	23:47:34
1	Mn 257.610†	158085.5	157433.8	533.70	µg/L	533.70	ppb	23:47:29
1	Mo 202.031†	5209.5	5182.9	559.26	µg/L	559.26	ppb	23:47:55
1	Ni 231.604†	10311.5	9951.3	531.44	µg/L	531.44	ppb	23:47:34
1	P 214.914†	1280.4	1251.8	2603.4	µg/L	2603.4	ppb	23:47:55
1	Pb 220.353†	2193.9	2091.4	546.49	µg/L	546.49	ppb	23:47:55
1	S 181.975 Axial†	261.3	244.7	1100.7	µg/L	1100.7	ppb	23:47:55
1	Sb 206.836†	588.8	563.6	567.64	µg/L	567.64	ppb	23:47:55
1	Se 196.026†	373.6	358.6	534.28	µg/L	534.28	ppb	23:47:55
1	SiO2†	28668.0	26890.3	5669.1	µg/L	5669.1	ppb	23:47:34
1	Si 251.611†	33091.2	32578.3	2653.4	µg/L	2653.4	ppb	23:47:34
1	Sn 189.927†	1210.9	1201.2	555.77	µg/L	555.77	ppb	23:47:55
1	Ti 334.940†	224994.8	223517.5	537.72	µg/L	537.72	ppb	23:47:29
1	Tl 190.801†	360.5	379.8	540.59	µg/L	540.59	ppb	23:47:55
1	U 409.014†	6335.7	6094.8	522.43	µg/L	522.43	ppb	23:47:34
1	V 292.402†	50932.4	50688.9	534.21	µg/L	534.21	ppb	23:47:34
1	Zn 213.857†	21997.5	21387.3	530.89	µg/L	530.89	ppb	23:47:34
2	Sc RADIAL	58410.5	58410.5	100	%			23:46:31
2	Al 396.153Radial†	7038.6	7040.6	5088.2	µg/L	5088.2	ppb	23:46:31
2	Ca 317.933Radial†	5843.2	5639.1	5024.4	µg/L	5024.4	ppb	23:46:51
2	Fe 238.204 Radial†	617.7	600.7	5124.5	µg/L	5124.5	ppb	23:46:51
2	K 766.490 Radial†	7856.8	7693.4	5318.6	µg/L	5318.6	ppb	23:46:31
2	Mg 279.077 IEC†	565.0	555.1	5247.2	µg/L	5247.2	ppb	23:46:51
2	Na 589.592 Radial†	33081.1	32617.2	10319	µg/L	10319	ppb	23:46:31
2	Sr 421.552†	52088.1	52022.2	510.10	µg/L	510.10	ppb	23:46:31
2	Sc 361.383	2043678.3	2043678.3	100.32	%			23:48:02
2	Y 371.029	1400295.0	1400295.0	99.970	%			23:48:02
2	Ag 328.068†	65543.3	65816.5	528.14	µg/L	528.14	ppb	23:48:08
2	As 188.979†	279.8	278.2	532.64	µg/L	532.64	ppb	23:48:28
2	B 249.677†	12585.4	12215.7	528.10	µg/L	528.10	ppb	23:48:08
2	Ba 233.527†	20360.2	20313.7	525.38	µg/L	525.38	ppb	23:48:08
2	Be 313.107†	825863.9	826618.4	524.80	µg/L	524.80	ppb	23:48:02
2	Cd 226.502†	19534.4	19603.0	525.92	µg/L	525.92	ppb	23:48:08
2	Co 228.616†	10896.0	10864.8	528.16	µg/L	528.16	ppb	23:48:08
2	Cr 267.716†	24670.9	24634.0	532.96	µg/L	532.96	ppb	23:48:08
2	Cu 324.752†	79526.2	76018.1	528.52	µg/L	528.52	ppb	23:48:08
2	Mn 257.610†	157478.8	157252.1	533.08	µg/L	533.08	ppb	23:48:02
2	Mo 202.031†	5092.1	5079.8	548.14	µg/L	548.14	ppb	23:48:28
2	Ni 231.604†	10215.9	9883.5	527.82	µg/L	527.82	ppb	23:48:08
2	P 214.914†	1278.6	1253.5	2607.0	µg/L	2607.0	ppb	23:48:28
2	Pb 220.353†	2159.4	2062.9	539.02	µg/L	539.02	ppb	23:48:28

2	S 181.975 Axial†	257.9	242.0	1088.5 µg/L	1088.5 ppb	23:48:28
2	Sb 206.836†	585.5	561.9	565.71 µg/L	565.71 ppb	23:48:28
2	Se 196.026†	375.4	361.4	538.44 µg/L	538.44 ppb	23:48:28
2	SiO2†	28546.8	26846.2	5659.8 µg/L	5659.8 ppb	23:48:08
2	Si 251.611†	32927.8	32504.0	2647.4 µg/L	2647.4 ppb	23:48:08
2	Sn 189.927†	1187.3	1180.9	546.37 µg/L	546.37 ppb	23:48:28
2	Ti 334.940†	223908.4	223036.6	536.56 µg/L	536.56 ppb	23:48:02
2	Tl 190.801†	352.7	373.0	530.92 µg/L	530.92 ppb	23:48:28
2	U 409.014†	6258.0	6034.3	517.23 µg/L	517.23 ppb	23:48:08
2	V 292.402†	50627.0	50520.8	532.36 µg/L	532.36 ppb	23:48:08
2	Zn 213.857†	21810.4	21259.7	527.72 µg/L	527.72 ppb	23:48:08
3	Sc RADIAL	58748.7	58748.7	101 %		23:46:57
3	Al 396.153Radial†	7075.3	7036.5	5087.3 µg/L	5087.3 ppb	23:46:57
3	Ca 317.933Radial†	5843.7	5606.0	4994.9 µg/L	4994.9 ppb	23:47:17
3	Fe 238.204 Radial†	615.9	595.3	5077.3 µg/L	5077.3 ppb	23:47:17
3	K 766.490 Radial†	7807.7	7599.5	5253.7 µg/L	5253.7 ppb	23:46:57
3	Mg 279.077 IEC†	566.9	553.7	5233.0 µg/L	5233.0 ppb	23:47:17
3	Na 589.592 Radial†	33086.3	32432.1	10261 µg/L	10261 ppb	23:46:57
3	Sr 421.552†	52186.3	51820.1	508.12 µg/L	508.12 ppb	23:46:57
3	Sc 361.383	2032131.5	2032131.5	99.756 %		23:48:35
3	Y 371.029	1393019.5	1393019.5	99.451 %		23:48:35
3	Ag 328.068†	60983.6	61616.9	494.25 µg/L	494.25 ppb	23:48:41
3	As 188.979†	232.7	232.5	445.17 µg/L	445.17 ppb	23:49:02
3	B 249.677†	11581.1	11280.3	487.42 µg/L	487.42 ppb	23:48:41
3	Ba 233.527†	18172.2	18235.8	471.61 µg/L	471.61 ppb	23:48:41
3	Be 313.107†	746172.5	751409.9	477.05 µg/L	477.05 ppb	23:48:35
3	Cd 226.502†	17371.7	17545.7	470.67 µg/L	470.67 ppb	23:48:41
3	Co 228.616†	9590.7	9618.0	467.50 µg/L	467.50 ppb	23:48:41
3	Cr 267.716†	21007.5	21101.5	456.54 µg/L	456.54 ppb	23:48:41
3	Cu 324.752†	70568.9	67489.3	469.30 µg/L	469.30 ppb	23:48:41
3	Mn 257.610†	142724.7	143353.9	486.00 µg/L	486.00 ppb	23:48:35
3	Mo 202.031†	4156.1	4170.4	450.04 µg/L	450.04 ppb	23:49:02
3	Ni 231.604†	9074.6	8797.4	469.82 µg/L	469.82 ppb	23:48:41
3	P 214.914†	1051.7	1033.3	2144.8 µg/L	2144.8 ppb	23:49:02
3	Pb 220.353†	1828.5	1743.4	455.48 µg/L	455.48 ppb	23:49:02
3	S 181.975 Axial†	224.6	210.1	944.83 µg/L	944.83 ppb	23:49:02
3	Sb 206.836†	481.7	461.2	464.03 µg/L	464.03 ppb	23:49:02
3	Se 196.026†	319.8	307.7	459.55 µg/L	459.55 ppb	23:49:02
3	SiO2†	26011.2	24466.0	5158.0 µg/L	5158.0 ppb	23:48:41
3	Si 251.611†	29908.8	29664.1	2416.1 µg/L	2416.1 ppb	23:48:41
3	Sn 189.927†	950.6	950.4	439.73 µg/L	439.73 ppb	23:49:02
3	Ti 334.940†	201040.2	201380.8	484.43 µg/L	484.43 ppb	23:48:35
3	Tl 190.801†	309.2	331.4	471.92 µg/L	471.92 ppb	23:49:02
3	U 409.014†	5453.1	5262.8	450.98 µg/L	450.98 ppb	23:48:41
3	V 292.402†	44100.9	44265.5	466.26 µg/L	466.26 ppb	23:48:41
3	Zn 213.857†	19337.1	18903.9	469.19 µg/L	469.19 ppb	23:48:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2041663.2	100.22	%	0.427				0.43%
Sc RADIAL	58536.0	100	%	0.3				0.32%
Y 371.029	1399113.1	99.886	%	0.3996				0.40%
Ag 328.068†	64482.4	517.37	µg/L	20.039	517.37	ppb	20.039	3.87%
QC value within limits for Ag 328.068 Recovery = 103.47%								
Al 396.153Radial†	7036.6	5085.9	µg/L	3.22	5085.9	ppb	3.22	0.06%
QC value within limits for Al 396.153Radial Recovery = 101.72%								
As 188.979†	263.8	504.99	µg/L	51.851	504.99	ppb	51.851	10.27%
QC value within limits for As 188.979 Recovery = 101.00%								
B 249.677†	11915.8	515.05	µg/L	23.944	515.05	ppb	23.944	4.65%
QC value within limits for B 249.677 Recovery = 103.01%								
Ba 233.527†	19634.4	507.80	µg/L	31.344	507.80	ppb	31.344	6.17%
QC value within limits for Ba 233.527 Recovery = 101.56%								
Be 313.107†	802058.2	509.21	µg/L	27.851	509.21	ppb	27.851	5.47%
QC value within limits for Be 313.107 Recovery = 101.84%								
Ca 317.933Radial†	5626.5	5013.2	µg/L	15.99	5013.2	ppb	15.99	0.32%
QC value within limits for Ca 317.933Radial Recovery = 100.26%								
Cd 226.502†	18965.6	508.81	µg/L	33.083	508.81	ppb	33.083	6.50%
QC value within limits for Cd 226.502 Recovery = 101.76%								
Co 228.616†	10460.8	508.50	µg/L	35.520	508.50	ppb	35.520	6.99%

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   QC value within limits for Co 228.616  Recovery = 101.70%
Cr 267.716†            23496.8      508.36 µg/L        44.896      508.36 ppb         44.896   8.83%
   QC value within limits for Cr 267.716  Recovery = 101.67%
Cu 324.752†            73253.5      509.32 µg/L        34.673      509.32 ppb         34.673   6.81%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†       598.8      5108.0 µg/L         26.60      5108.0 ppb          26.60   0.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.16%
K 766.490 Radial†       7696.6      5320.8 µg/L         68.31      5320.8 ppb          68.31   1.28%
   QC value within limits for K 766.490 Radial  Recovery = 106.42%
Mg 279.077 IEC†          554.0      5236.8 µg/L          9.14      5236.8 ppb           9.14   0.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.74%
Mn 257.610†           152679.9      517.59 µg/L        27.360      517.59 ppb         27.360   5.29%
   QC value within limits for Mn 257.610  Recovery = 103.52%
Mo 202.031†             4811.0      519.15 µg/L        60.106      519.15 ppb         60.106  11.58%
   QC value within limits for Mo 202.031  Recovery = 103.83%
Na 589.592 Radial†     32514.7       10287 µg/L          29.8       10287 ppb           29.8   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 102.87%
Ni 231.604†             9544.1      509.70 µg/L        34.577      509.70 ppb         34.577   6.78%
   QC value within limits for Ni 231.604  Recovery = 101.94%
P 214.914†              1179.5      2451.7 µg/L        265.78      2451.7 ppb         265.78  10.84%
   QC value within limits for P 214.914  Recovery = 98.07%
Pb 220.353†             1965.9      513.66 µg/L        50.530      513.66 ppb         50.530   9.84%
   QC value within limits for Pb 220.353  Recovery = 102.73%
S 181.975 Axial†         232.3      1044.7 µg/L         86.69      1044.7 ppb          86.69   8.30%
   QC value within limits for S 181.975 Axial  Recovery = 104.47%
Sb 206.836†              528.9      532.46 µg/L        59.271      532.46 ppb         59.271  11.13%
   QC value within limits for Sb 206.836  Recovery = 106.49%
Se 196.026†              342.6      510.76 µg/L        44.392      510.76 ppb         44.392   8.69%
   QC value within limits for Se 196.026  Recovery = 102.15%
SiO2†                   26067.5      5495.7 µg/L        292.43      5495.7 ppb         292.43   5.32%
   QC value within limits for SiO2  Recovery = 102.77%
Si 251.611†             31582.1      2572.3 µg/L        135.32      2572.3 ppb         135.32   5.26%
   QC value within limits for Si 251.611  Recovery = 102.89%
Sn 189.927†             1110.8      513.95 µg/L        64.454      513.95 ppb         64.454  12.54%
   QC value within limits for Sn 189.927  Recovery = 102.79%
Sr 421.552†             51900.0      508.90 µg/L         1.054      508.90 ppb          1.054   0.21%
   QC value within limits for Sr 421.552  Recovery = 101.78%
Ti 334.940†            215978.3      519.57 µg/L        30.437      519.57 ppb         30.437   5.86%
   QC value within limits for Ti 334.940  Recovery = 103.91%
Tl 190.801†              361.4      514.47 µg/L        37.172      514.47 ppb         37.172   7.23%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†              5797.3      496.88 µg/L        39.834      496.88 ppb         39.834   8.02%
   QC value within limits for U 409.014  Recovery = 99.38%
V 292.402†              48491.7      510.94 µg/L        38.710      510.94 ppb         38.710   7.58%
   QC value within limits for V 292.402  Recovery = 102.19%
Zn 213.857†             20517.0      509.27 µg/L        34.747      509.27 ppb         34.747   6.82%
   QC value within limits for Zn 213.857  Recovery = 101.85%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/21/2010 23:49:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58153.5	58153.5	99.6	%			23:49:44
1	Al 396.153Radial†	30.8	39.1	28.269	µg/L	28.269	ppb	23:49:44
1	Ca 317.933Radial†	230.9	32.8	29.215	µg/L	29.215	ppb	23:50:05
1	Fe 238.204 Radial†	20.4	4.0	34.319	µg/L	34.319	ppb	23:50:05
1	K 766.490 Radial†	249.3	93.7	64.762	µg/L	64.762	ppb	23:49:44
1	Mg 279.077 IEC†	13.1	3.8	35.757	µg/L	35.757	ppb	23:50:05
1	Na 589.592 Radial†	697.9	265.6	84.018	µg/L	84.018	ppb	23:49:44
1	Sr 421.552†	61.8	41.9	0.4110	µg/L	0.4110	ppb	23:49:44
1	Sc 361.383	2032104.3	2032104.3	99.755	%			23:51:07
1	Y 371.029	1397337.2	1397337.2	99.759	%			23:51:07
1	Ag 328.068†	-450.7	32.6	0.2655	µg/L	0.2655	ppb	23:51:13
1	As 188.979†	3.5	2.8	5.3872	µg/L	5.3872	ppb	23:51:33
1	B 249.677†	503.3	175.4	7.5929	µg/L	7.5929	ppb	23:51:33
1	Ba 233.527†	18.4	37.6	0.9713	µg/L	0.9713	ppb	23:51:33
1	Be 313.107†	-3044.1	363.3	0.2306	µg/L	0.2306	ppb	23:51:13
1	Cd 226.502†	-106.2	25.0	0.6669	µg/L	0.6669	ppb	23:51:33
1	Co 228.616†	10.1	14.1	0.6861	µg/L	0.6861	ppb	23:51:33
1	Cr 267.716†	-15.6	27.0	0.5835	µg/L	0.5835	ppb	23:51:13
1	Cu 324.752†	3544.2	301.0	2.0948	µg/L	2.0948	ppb	23:51:13
1	Mn 257.610†	-120.9	159.4	0.5430	µg/L	0.5430	ppb	23:51:33
1	Mo 202.031†	9.8	13.9	1.4999	µg/L	1.4999	ppb	23:51:33
1	Ni 231.604†	299.7	1.0	0.0544	µg/L	0.0544	ppb	23:51:33
1	P 214.914†	25.5	4.6	9.4867	µg/L	9.4867	ppb	23:51:33
1	Pb 220.353†	119.1	29.8	7.7674	µg/L	7.7674	ppb	23:51:33
1	S 181.975 Axial†	15.3	0.3	1.3579	µg/L	1.3579	ppb	23:51:33
1	Sb 206.836†	29.0	7.4	7.4113	µg/L	7.4113	ppb	23:51:33
1	Se 196.026†	19.8	7.0	10.359	µg/L	10.359	ppb	23:51:33
1	SiO2†	1665.0	60.4	12.743	µg/L	12.743	ppb	23:51:13
1	Si 251.611†	396.8	80.0	6.5169	µg/L	6.5169	ppb	23:51:33
1	Sn 189.927†	5.0	2.5	1.1351	µg/L	1.1351	ppb	23:51:33
1	Ti 334.940†	359.5	210.0	0.5031	µg/L	0.5031	ppb	23:51:13
1	Tl 190.801†	-20.8	0.5	0.7873	µg/L	0.7873	ppb	23:51:33
1	U 409.014†	260.1	57.2	4.9046	µg/L	4.9046	ppb	23:51:13
1	V 292.402†	0.7	57.6	0.6215	µg/L	0.6215	ppb	23:51:13
1	Zn 213.857†	574.4	95.3	2.3751	µg/L	2.3751	ppb	23:51:33
2	Sc RADIAL	57673.8	57673.8	98.8	%			23:50:10
2	Al 396.153Radial†	19.7	28.1	20.354	µg/L	20.354	ppb	23:50:10
2	Ca 317.933Radial†	236.8	40.7	36.221	µg/L	36.221	ppb	23:50:31
2	Fe 238.204 Radial†	18.2	2.0	16.692	µg/L	16.692	ppb	23:50:31
2	K 766.490 Radial†	213.9	59.9	41.428	µg/L	41.428	ppb	23:50:10
2	Mg 279.077 IEC†	14.6	5.4	50.627	µg/L	50.627	ppb	23:50:31
2	Na 589.592 Radial†	686.3	259.6	82.141	µg/L	82.141	ppb	23:50:10
2	Sr 421.552†	85.5	66.4	0.6514	µg/L	0.6514	ppb	23:50:10
2	Sc 361.383	2043832.7	2043832.7	100.33	%			23:51:39
2	Y 371.029	1405083.9	1405083.9	100.31	%			23:51:39
2	Ag 328.068†	-409.2	76.5	0.6138	µg/L	0.6138	ppb	23:51:45
2	As 188.979†	2.1	1.4	2.6230	µg/L	2.6230	ppb	23:52:05
2	B 249.677†	505.7	174.9	7.5818	µg/L	7.5818	ppb	23:52:05
2	Ba 233.527†	7.3	26.4	0.6829	µg/L	0.6829	ppb	23:52:05
2	Be 313.107†	-3288.9	136.9	0.0867	µg/L	0.0867	ppb	23:51:45
2	Cd 226.502†	-112.6	19.3	0.5172	µg/L	0.5172	ppb	23:52:05
2	Co 228.616†	-2.2	1.8	0.0875	µg/L	0.0875	ppb	23:52:05
2	Cr 267.716†	21.3	63.8	1.3802	µg/L	1.3802	ppb	23:51:45
2	Cu 324.752†	3555.7	292.0	2.0300	µg/L	2.0300	ppb	23:51:45
2	Mn 257.610†	-131.7	149.4	0.5060	µg/L	0.5060	ppb	23:52:05
2	Mo 202.031†	9.5	13.6	1.4686	µg/L	1.4686	ppb	23:52:05
2	Ni 231.604†	321.2	20.7	1.1089	µg/L	1.1089	ppb	23:52:05
2	P 214.914†	20.2	-0.9	-2.0597	µg/L	-2.0597	ppb	23:52:05
2	Pb 220.353†	122.3	32.3	8.4328	µg/L	8.4328	ppb	23:52:05

2	S 181.975 Axial†	18.1	2.9	13.202	µg/L	13.202 ppb	23:52:05
2	Sb 206.836†	26.9	5.1	5.1373	µg/L	5.1373 ppb	23:52:05
2	Se 196.026†	17.0	4.1	6.0010	µg/L	6.0010 ppb	23:52:05
2	SiO2†	1710.2	95.9	20.224	µg/L	20.224 ppb	23:51:45
2	Si 251.611†	403.3	84.2	6.8570	µg/L	6.8570 ppb	23:52:05
2	Sn 189.927†	1.8	-0.7	-0.3352	µg/L	-0.3352 ppb	23:52:05
2	Ti 334.940†	385.0	233.3	0.5581	µg/L	0.5581 ppb	23:51:45
2	Tl 190.801†	-25.8	-4.3	-6.0377	µg/L	-6.0377 ppb	23:52:05
2	U 409.014†	226.6	22.2	1.9057	µg/L	1.9057 ppb	23:51:45
2	V 292.402†	-5.2	51.7	0.5568	µg/L	0.5568 ppb	23:51:45
2	Zn 213.857†	555.5	73.1	1.8167	µg/L	1.8167 ppb	23:52:05
3	Sc RADIAL	57318.1	57318.1	98.2	%		23:50:36
3	Al 396.153Radial†	45.0	54.0	39.066	µg/L	39.066 ppb	23:50:36
3	Ca 317.933Radial†	232.0	37.2	33.187	µg/L	33.187 ppb	23:50:57
3	Fe 238.204 Radial†	17.2	1.0	8.8769	µg/L	8.8769 ppb	23:50:57
3	K 766.490 Radial†	265.5	113.8	78.684	µg/L	78.684 ppb	23:50:36
3	Mg 279.077 IEC†	15.0	5.8	55.175	µg/L	55.175 ppb	23:50:57
3	Na 589.592 Radial†	669.9	247.2	78.220	µg/L	78.220 ppb	23:50:36
3	Sr 421.552†	102.6	84.3	0.8269	µg/L	0.8269 ppb	23:50:36
3	Sc 361.383	2039403.2	2039403.2	100.11	%		23:52:11
3	Y 371.029	1402157.8	1402157.8	100.10	%		23:52:11
3	Ag 328.068†	-472.0	12.9	0.1063	µg/L	0.1063 ppb	23:52:17
3	As 188.979†	1.9	1.1	2.1739	µg/L	2.1739 ppb	23:52:37
3	B 249.677†	472.2	142.6	6.1832	µg/L	6.1832 ppb	23:52:37
3	Ba 233.527†	0.4	19.6	0.5067	µg/L	0.5067 ppb	23:52:37
3	Be 313.107†	-3351.4	67.4	0.0425	µg/L	0.0425 ppb	23:52:17
3	Cd 226.502†	-112.6	19.0	0.5084	µg/L	0.5084 ppb	23:52:37
3	Co 228.616†	-0.1	3.9	0.1890	µg/L	0.1890 ppb	23:52:37
3	Cr 267.716†	10.5	53.2	1.1495	µg/L	1.1495 ppb	23:52:17
3	Cu 324.752†	3574.3	318.3	2.2115	µg/L	2.2115 ppb	23:52:17
3	Mn 257.610†	-141.8	138.9	0.4696	µg/L	0.4696 ppb	23:52:37
3	Mo 202.031†	9.9	13.9	1.5050	µg/L	1.5050 ppb	23:52:37
3	Ni 231.604†	297.7	-2.0	-0.1079	µg/L	-0.1079 ppb	23:52:37
3	P 214.914†	17.8	-3.2	-6.9970	µg/L	-6.9970 ppb	23:52:37
3	Pb 220.353†	112.8	23.1	6.0381	µg/L	6.0381 ppb	23:52:37
3	S 181.975 Axial†	13.0	-2.1	-9.5409	µg/L	-9.5409 ppb	23:52:37
3	Sb 206.836†	27.6	5.8	5.8313	µg/L	5.8313 ppb	23:52:37
3	Se 196.026†	16.4	3.6	5.2090	µg/L	5.2090 ppb	23:52:37
3	SiO2†	1724.6	114.0	24.035	µg/L	24.035 ppb	23:52:17
3	Si 251.611†	393.5	75.3	6.1303	µg/L	6.1303 ppb	23:52:37
3	Sn 189.927†	6.0	3.4	1.5890	µg/L	1.5890 ppb	23:52:37
3	Ti 334.940†	415.5	264.6	0.6331	µg/L	0.6331 ppb	23:52:17
3	Tl 190.801†	-23.6	-2.2	-3.0189	µg/L	-3.0189 ppb	23:52:37
3	U 409.014†	226.7	22.8	1.9569	µg/L	1.9569 ppb	23:52:17
3	V 292.402†	-9.6	47.3	0.5099	µg/L	0.5099 ppb	23:52:17
3	Zn 213.857†	547.9	66.9	1.6645	µg/L	1.6645 ppb	23:52:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2038446.7	100.07	%	0.291				0.29%
Sc RADIAL	57715.1	98.9	%	0.72				0.73%
Y 371.029	1401526.3	100.06	%	0.279				0.28%
Ag 328.068†	40.6	0.3285	µg/L	0.25956	0.3285	ppb	0.25956	79.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	40.4	29.230	µg/L	9.3926	29.230	ppb	9.3926	32.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.8	3.3947	µg/L	1.74011	3.3947	ppb	1.74011	51.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	164.3	7.1193	µg/L	0.81069	7.1193	ppb	0.81069	11.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.7203	µg/L	0.23456	0.7203	ppb	0.23456	32.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.2	0.1200	µg/L	0.09831	0.1200	ppb	0.09831	81.96%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	36.9	32.874	µg/L	3.5134	32.874	ppb	3.5134	10.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.1	0.5642	µg/L	0.08905	0.5642	ppb	0.08905	15.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.6	0.3209	µg/L	0.32034	0.3209	ppb	0.32034	99.83%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                48.0      1.0378 µg/L       0.40993      1.0378 ppb        0.40993  39.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               303.8      2.1121 µg/L       0.09202      2.1121 ppb        0.09202   4.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.3      19.963 µg/L       13.0324      19.963 ppb        13.0324  65.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          89.1      61.624 µg/L       18.8251      61.624 ppb        18.8251  30.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             5.0      47.186 µg/L       10.1557      47.186 ppb        10.1557  21.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               149.2      0.5062 µg/L       0.03669      0.5062 ppb        0.03669   7.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.8      1.4912 µg/L       0.01973      1.4912 ppb        0.01973   1.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        257.5      81.460 µg/L        2.9587      81.460 ppb         2.9587   3.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.6      0.3518 µg/L       0.66066      0.3518 ppb        0.66066 187.79%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.2      0.1434 µg/L       8.45981      0.1434 ppb        8.45981 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                28.4      7.4128 µg/L       1.23613      7.4128 ppb        1.23613  16.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      1.6730 µg/L      11.37468      1.6730 ppb       11.37468 679.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.1      6.1266 µg/L       1.16540      6.1266 ppb        1.16540  19.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.9      7.1898 µg/L       2.77343      7.1898 ppb        2.77343  38.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      90.1      19.001 µg/L        5.7443      19.001 ppb         5.7443  30.23%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                79.8      6.5014 µg/L       0.36357      6.5014 ppb        0.36357   5.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.7      0.7963 µg/L       1.00583      0.7963 ppb        1.00583 126.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                64.2      0.6298 µg/L       0.20880      0.6298 ppb        0.20880  33.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               236.0      0.5648 µg/L       0.06521      0.5648 ppb        0.06521  11.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.0     -2.7564 µg/L       3.42005     -2.7564 ppb        3.42005 124.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 34.1      2.9224 µg/L       1.71680      2.9224 ppb        1.71680  58.75%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 52.2      0.5627 µg/L       0.05601      0.5627 ppb        0.05601   9.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                78.4      1.9521 µg/L       0.37416      1.9521 ppb        0.37416  19.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/22/2010 00:20:53 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022010B.SIF
Batch ID:
Results Data Set: 022110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/21/2010 22:25:32**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 00:20:55**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57723.0	57723.0	98.9	%			00:21:29
1	Al 396.153Radial†	7117.4	7204.1	5206.1	µg/L	5206.1	ppb	00:21:29
1	Ca 317.933Radial†	5914.2	5780.5	5150.4	µg/L	5150.4	ppb	00:21:49
1	Fe 238.204 Radial†	620.6	611.0	5212.6	µg/L	5212.6	ppb	00:21:49

1	K 766.490 Radial†	7799.0	7728.5	5342.9 µg/L	5342.9 ppb	00:21:29
1	Mg 279.077 IEC†	564.1	560.9	5302.4 µg/L	5302.4 ppb	00:21:49
1	Na 589.592 Radial†	33276.1	33208.0	10506 µg/L	10506 ppb	00:21:29
1	Sr 421.552†	52948.3	53511.7	524.71 µg/L	524.71 ppb	00:21:29
1	Sc 361.383	2032959.8	2032959.8	99.797 %		00:22:53
1	Y 371.029	1390476.6	1390476.6	99.269 %		00:22:53
1	Ag 328.068†	67589.9	68211.8	547.36 µg/L	547.36 ppb	00:22:58
1	As 188.979†	292.3	292.2	559.38 µg/L	559.38 ppb	00:23:19
1	B 249.677†	12692.7	12389.4	535.62 µg/L	535.62 ppb	00:22:58
1	Ba 233.527†	21043.6	21105.6	545.86 µg/L	545.86 ppb	00:22:58
1	Be 313.107†	848215.5	853355.6	541.78 µg/L	541.78 ppb	00:22:53
1	Cd 226.502†	20198.6	20371.1	546.55 µg/L	546.55 ppb	00:22:58
1	Co 228.616†	11327.3	11354.3	551.97 µg/L	551.97 ppb	00:22:58
1	Cr 267.716†	25533.1	25627.7	554.46 µg/L	554.46 ppb	00:22:58
1	Cu 324.752†	81656.1	78570.2	546.25 µg/L	546.25 ppb	00:22:58
1	Mn 257.610†	161063.7	161671.9	548.06 µg/L	548.06 ppb	00:22:53
1	Mo 202.031†	5298.0	5312.9	573.28 µg/L	573.28 ppb	00:23:19
1	Ni 231.604†	10591.7	10313.8	550.80 µg/L	550.80 ppb	00:22:58
1	P 214.914†	1340.2	1321.9	2750.6 µg/L	2750.6 ppb	00:23:19
1	Pb 220.353†	2214.9	2129.8	556.54 µg/L	556.54 ppb	00:23:19
1	S 181.975 Axial†	265.6	251.1	1129.4 µg/L	1129.4 ppb	00:23:19
1	Sb 206.836†	585.0	564.5	568.49 µg/L	568.49 ppb	00:23:19
1	Se 196.026†	383.8	371.7	553.77 µg/L	553.77 ppb	00:23:19
1	SiO2†	29242.3	27693.1	5838.4 µg/L	5838.4 ppb	00:22:58
1	Si 251.611†	33741.5	33492.4	2727.9 µg/L	2727.9 ppb	00:22:58
1	Sn 189.927†	1253.8	1253.8	580.08 µg/L	580.08 ppb	00:23:19
1	Ti 334.940†	229075.8	229391.2	551.86 µg/L	551.86 ppb	00:22:53
1	Tl 190.801†	364.9	387.0	550.84 µg/L	550.84 ppb	00:23:19
1	U 409.014†	6464.3	6273.8	537.79 µg/L	537.79 ppb	00:22:58
1	V 292.402†	52314.1	52477.4	553.00 µg/L	553.00 ppb	00:22:58
1	Zn 213.857†	22385.0	21950.1	544.84 µg/L	544.84 ppb	00:22:58
2	Sc RADIAL	57258.2	57258.2	98.1 %		00:21:55
2	Al 396.153Radial†	7086.6	7231.1	5225.8 µg/L	5225.8 ppb	00:21:55
2	Ca 317.933Radial†	5944.5	5859.8	5221.1 µg/L	5221.1 ppb	00:22:15
2	Fe 238.204 Radial†	626.6	622.1	5307.5 µg/L	5307.5 ppb	00:22:15
2	K 766.490 Radial†	7688.8	7680.2	5309.5 µg/L	5309.5 ppb	00:21:55
2	Mg 279.077 IEC†	572.0	573.6	5422.0 µg/L	5422.0 ppb	00:22:15
2	Na 589.592 Radial†	33106.0	33307.7	10538 µg/L	10538 ppb	00:21:55
2	Sr 421.552†	52757.2	53751.5	527.06 µg/L	527.06 ppb	00:21:55
2	Sc 361.383	2011294.9	2011294.9	98.734 %		00:23:26
2	Y 371.029	1375454.5	1375454.5	98.197 %		00:23:26
2	Ag 328.068†	67268.9	68616.1	550.61 µg/L	550.61 ppb	00:23:31
2	As 188.979†	285.7	288.6	552.58 µg/L	552.58 ppb	00:23:52
2	B 249.677†	12634.0	12467.0	538.94 µg/L	538.94 ppb	00:23:31
2	Ba 233.527†	20963.9	21252.0	549.64 µg/L	549.64 ppb	00:23:31
2	Be 313.107†	845031.7	859286.2	545.54 µg/L	545.54 ppb	00:23:26
2	Cd 226.502†	20123.4	20513.1	550.35 µg/L	550.35 ppb	00:23:31
2	Co 228.616†	11262.4	11410.9	554.71 µg/L	554.71 ppb	00:23:31
2	Cr 267.716†	25336.2	25703.9	556.11 µg/L	556.11 ppb	00:23:31
2	Cu 324.752†	81382.5	79174.5	550.46 µg/L	550.46 ppb	00:23:31
2	Mn 257.610†	160808.3	163151.6	553.08 µg/L	553.08 ppb	00:23:26
2	Mo 202.031†	5159.2	5229.5	564.29 µg/L	564.29 ppb	00:23:52
2	Ni 231.604†	10580.1	10416.4	556.28 µg/L	556.28 ppb	00:23:31
2	P 214.914†	1300.3	1296.0	2694.9 µg/L	2694.9 ppb	00:23:52
2	Pb 220.353†	2162.4	2100.5	548.84 µg/L	548.84 ppb	00:23:52
2	S 181.975 Axial†	260.8	249.1	1120.5 µg/L	1120.5 ppb	00:23:52
2	Sb 206.836†	572.2	557.8	561.65 µg/L	561.65 ppb	00:23:52
2	Se 196.026†	379.2	371.3	553.22 µg/L	553.22 ppb	00:23:52
2	SiO2†	29128.2	27893.2	5880.6 µg/L	5880.6 ppb	00:23:31
2	Si 251.611†	33669.1	33783.2	2751.6 µg/L	2751.6 ppb	00:23:31
2	Sn 189.927†	1211.6	1224.6	566.58 µg/L	566.58 ppb	00:23:52
2	Ti 334.940†	228294.4	231072.4	555.89 µg/L	555.89 ppb	00:23:26
2	Tl 190.801†	358.7	384.7	547.60 µg/L	547.60 ppb	00:23:52
2	U 409.014†	6443.8	6322.8	541.98 µg/L	541.98 ppb	00:23:31
2	V 292.402†	52023.6	52747.8	555.76 µg/L	555.76 ppb	00:23:31
2	Zn 213.857†	22335.2	22141.2	549.58 µg/L	549.58 ppb	00:23:31
3	Sc RADIAL	57801.5	57801.5	99.0 %		00:22:21
3	Al 396.153Radial†	7148.2	7225.3	5223.6 µg/L	5223.6 ppb	00:22:21
3	Ca 317.933Radial†	5925.6	5783.8	5153.3 µg/L	5153.3 ppb	00:22:41
3	Fe 238.204 Radial†	624.3	613.9	5235.7 µg/L	5235.7 ppb	00:22:41
3	K 766.490 Radial†	7776.3	7694.8	5319.6 µg/L	5319.6 ppb	00:22:21

3	Mg 279.077 IEC†	573.3	569.4	5381.0 µg/L	5381.0 ppb	00:22:41
3	Na 589.592 Radial†	33403.9	33291.3	10533 µg/L	10533 ppb	00:22:21
3	Sr 421.552†	53409.4	53904.5	528.56 µg/L	528.56 ppb	00:22:21
3	Sc 361.383	2014042.9	2014042.9	98.868 %		00:23:59
3	Y 371.029	1377613.5	1377613.5	98.351 %		00:23:59
3	Ag 328.068†	62683.2	63885.0	512.47 µg/L	512.47 ppb	00:24:05
3	As 188.979†	241.2	243.2	465.74 µg/L	465.74 ppb	00:24:25
3	B 249.677†	11664.1	11468.6	495.54 µg/L	495.54 ppb	00:24:05
3	Ba 233.527†	18800.3	19034.6	492.27 µg/L	492.27 ppb	00:24:05
3	Be 313.107†	774653.6	786934.9	499.61 µg/L	499.61 ppb	00:23:59
3	Cd 226.502†	17951.3	18288.3	490.60 µg/L	490.60 ppb	00:24:05
3	Co 228.616†	9917.1	10034.6	487.74 µg/L	487.74 ppb	00:24:05
3	Cr 267.716†	21760.2	22051.9	477.10 µg/L	477.10 ppb	00:24:05
3	Cu 324.752†	72679.7	70259.6	488.55 µg/L	488.55 ppb	00:24:05
3	Mn 257.610†	147737.6	149709.1	507.54 µg/L	507.54 ppb	00:23:59
3	Mo 202.031†	4288.0	4341.2	468.48 µg/L	468.48 ppb	00:24:25
3	Ni 231.604†	9379.1	9187.1	490.64 µg/L	490.64 ppb	00:24:05
3	P 214.914†	1097.4	1088.9	2261.0 µg/L	2261.0 ppb	00:24:25
3	Pb 220.353†	1888.8	1820.8	475.70 µg/L	475.70 ppb	00:24:25
3	S 181.975 Axial†	233.1	220.7	992.76 µg/L	992.76 ppb	00:24:25
3	Sb 206.836†	488.5	472.4	475.33 µg/L	475.33 ppb	00:24:25
3	Se 196.026†	321.8	312.6	467.01 µg/L	467.01 ppb	00:24:25
3	SiO2†	26717.1	25414.2	5357.9 µg/L	5357.9 ppb	00:24:05
3	Si 251.611†	30672.8	30706.1	2501.0 µg/L	2501.0 ppb	00:24:05
3	Sn 189.927†	988.8	997.6	461.56 µg/L	461.56 ppb	00:24:25
3	Ti 334.940†	207954.7	210184.4	505.61 µg/L	505.61 ppb	00:23:59
3	Tl 190.801†	319.9	344.9	491.21 µg/L	491.21 ppb	00:24:25
3	U 409.014†	5541.4	5401.2	462.84 µg/L	462.84 ppb	00:24:05
3	V 292.402†	45678.8	46258.6	487.22 µg/L	487.22 ppb	00:24:05
3	Zn 213.857†	19834.5	19581.1	485.98 µg/L	485.98 ppb	00:24:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2019432.6	99.133	%	0.5790				0.58%
Sc RADIAL	57594.3	98.7	%	0.50				0.51%
Y 371.029	1381181.5	98.605	%	0.5798				0.59%
Ag 328.068†	66904.3	536.81	µg/L	21.147	536.81	ppb	21.147	3.94%
QC value within limits for Ag 328.068 Recovery = 107.36%								
Al 396.153Radial†	7220.2	5218.5	µg/L	10.82	5218.5	ppb	10.82	0.21%
QC value within limits for Al 396.153Radial Recovery = 104.37%								
As 188.979†	274.7	525.90	µg/L	52.210	525.90	ppb	52.210	9.93%
QC value within limits for As 188.979 Recovery = 105.18%								
B 249.677†	12108.3	523.36	µg/L	24.157	523.36	ppb	24.157	4.62%
QC value within limits for B 249.677 Recovery = 104.67%								
Ba 233.527†	20464.1	529.26	µg/L	32.084	529.26	ppb	32.084	6.06%
QC value within limits for Ba 233.527 Recovery = 105.85%								
Be 313.107†	833192.2	528.97	µg/L	25.502	528.97	ppb	25.502	4.82%
QC value within limits for Be 313.107 Recovery = 105.79%								
Ca 317.933Radial†	5808.0	5174.9	µg/L	39.99	5174.9	ppb	39.99	0.77%
QC value within limits for Ca 317.933Radial Recovery = 103.50%								
Cd 226.502†	19724.2	529.17	µg/L	33.455	529.17	ppb	33.455	6.32%
QC value within limits for Cd 226.502 Recovery = 105.83%								
Co 228.616†	10933.3	531.48	µg/L	37.898	531.48	ppb	37.898	7.13%
QC value within limits for Co 228.616 Recovery = 106.30%								
Cr 267.716†	24461.1	529.22	µg/L	45.145	529.22	ppb	45.145	8.53%
QC value within limits for Cr 267.716 Recovery = 105.84%								
Cu 324.752†	76001.4	528.42	µg/L	34.592	528.42	ppb	34.592	6.55%
QC value within limits for Cu 324.752 Recovery = 105.68%								
Fe 238.204 Radial†	615.7	5252.0	µg/L	49.52	5252.0	ppb	49.52	0.94%
QC value within limits for Fe 238.204 Radial Recovery = 105.04%								
K 766.490 Radial†	7701.2	5324.0	µg/L	17.12	5324.0	ppb	17.12	0.32%
QC value within limits for K 766.490 Radial Recovery = 106.48%								
Mg 279.077 IEC†	568.0	5368.5	µg/L	60.76	5368.5	ppb	60.76	1.13%
QC value within limits for Mg 279.077 IEC Recovery = 107.37%								
Mn 257.610†	158177.5	536.23	µg/L	24.968	536.23	ppb	24.968	4.66%
QC value within limits for Mn 257.610 Recovery = 107.25%								
Mo 202.031†	4961.2	535.35	µg/L	58.089	535.35	ppb	58.089	10.85%
QC value within limits for Mo 202.031 Recovery = 107.07%								
Na 589.592 Radial†	33269.0	10526	µg/L	16.9	10526	ppb	16.9	0.16%

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   QC value within limits for Na 589.592 Radial  Recovery = 105.26%
Ni 231.604†            9972.4      532.57 µg/L        36.419      532.57 ppb        36.419   6.84%
   QC value within limits for Ni 231.604  Recovery = 106.51%
P 214.914†             1235.6      2568.8 µg/L       268.02      2568.8 ppb       268.02  10.43%
   QC value within limits for P 214.914  Recovery = 102.75%
Pb 220.353†            2017.1      527.03 µg/L        44.617      527.03 ppb        44.617   8.47%
   QC value within limits for Pb 220.353  Recovery = 105.41%
S 181.975 Axial†        240.3      1080.9 µg/L         76.44      1080.9 ppb         76.44   7.07%
   QC value within limits for S 181.975 Axial  Recovery = 108.09%
Sb 206.836†             531.6      535.16 µg/L        51.924      535.16 ppb        51.924   9.70%
   QC value within limits for Sb 206.836  Recovery = 107.03%
Se 196.026†             351.9      524.67 µg/L        49.930      524.67 ppb        49.930   9.52%
   QC value within limits for Se 196.026  Recovery = 104.93%
SiO2†                  27000.2      5692.3 µg/L       290.33      5692.3 ppb       290.33   5.10%
   QC value within limits for SiO2  Recovery = 106.45%
Si 251.611†            32660.6      2660.2 µg/L       138.37      2660.2 ppb       138.37   5.20%
   QC value within limits for Si 251.611  Recovery = 106.41%
Sn 189.927†            1158.7      536.08 µg/L        64.880      536.08 ppb        64.880  12.10%
   QC value within limits for Sn 189.927  Recovery = 107.22%
Sr 421.552†            53722.6      526.77 µg/L         1.941      526.77 ppb         1.941   0.37%
   QC value within limits for Sr 421.552  Recovery = 105.35%
Ti 334.940†           223549.4      537.79 µg/L        27.936      537.79 ppb        27.936   5.19%
   QC value within limits for Ti 334.940  Recovery = 107.56%
Tl 190.801†             372.2      529.89 µg/L        33.535      529.89 ppb        33.535   6.33%
   QC value within limits for Tl 190.801  Recovery = 105.98%
U 409.014†             5999.3      514.20 µg/L        44.531      514.20 ppb        44.531   8.66%
   QC value within limits for U 409.014  Recovery = 102.84%
V 292.402†             50494.6      531.99 µg/L        38.801      531.99 ppb        38.801   7.29%
   QC value within limits for V 292.402  Recovery = 106.40%
Zn 213.857†            21224.1      526.80 µg/L        35.433      526.80 ppb        35.433   6.73%
   QC value within limits for Zn 213.857  Recovery = 105.36%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/22/2010 00:24:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57292.7	57292.7	98.2	%			00:25:08
1	Al 396.153Radial†	-19.6	-11.8	-8.5683	µg/L	-8.5683	ppb	00:25:08
1	Ca 317.933Radial†	180.0	-15.6	-13.934	µg/L	-13.934	ppb	00:25:29
1	Fe 238.204 Radial†	15.8	-0.3	-2.9322	µg/L	-2.9322	ppb	00:25:29
1	K 766.490 Radial†	151.1	-2.6	-1.7980	µg/L	-1.7980	ppb	00:25:08
1	Mg 279.077 IEC†	14.1	5.0	47.165	µg/L	47.165	ppb	00:25:29
1	Na 589.592 Radial†	524.6	99.5	31.474	µg/L	31.474	ppb	00:25:08
1	Sr 421.552†	68.9	50.0	0.4906	µg/L	0.4906	ppb	00:25:08
1	Sc 361.383	2016033.4	2016033.4	98.966	%			00:26:31
1	Y 371.029	1383284.1	1383284.1	98.755	%			00:26:31
1	Ag 328.068†	-498.8	-19.7	-0.1565	µg/L	-0.1565	ppb	00:26:37
1	As 188.979†	2.9	2.2	4.1969	µg/L	4.1969	ppb	00:26:57
1	B 249.677†	360.8	35.5	1.5423	µg/L	1.5423	ppb	00:26:57
1	Ba 233.527†	-17.3	1.7	0.0434	µg/L	0.0434	ppb	00:26:57
1	Be 313.107†	-3567.5	-189.8	-0.1206	µg/L	-0.1206	ppb	00:26:37
1	Cd 226.502†	-131.1	-0.9	-0.0245	µg/L	-0.0245	ppb	00:26:57
1	Co 228.616†	-6.0	-2.1	-0.1017	µg/L	-0.1017	ppb	00:26:57
1	Cr 267.716†	-27.1	15.3	0.3305	µg/L	0.3305	ppb	00:26:37
1	Cu 324.752†	3411.8	195.5	1.3573	µg/L	1.3573	ppb	00:26:37
1	Mn 257.610†	-276.5	1.2	0.0018	µg/L	0.0018	ppb	00:26:57
1	Mo 202.031†	-0.2	3.9	0.4179	µg/L	0.4179	ppb	00:26:57
1	Ni 231.604†	299.4	3.2	0.1692	µg/L	0.1692	ppb	00:26:57
1	P 214.914†	15.4	-5.4	-11.690	µg/L	-11.690	ppb	00:26:57
1	Pb 220.353†	98.2	9.6	2.5132	µg/L	2.5132	ppb	00:26:57
1	S 181.975 Axial†	18.4	3.6	16.042	µg/L	16.042	ppb	00:26:57
1	Sb 206.836†	21.6	0.1	0.1120	µg/L	0.1120	ppb	00:26:57
1	Se 196.026†	13.9	1.2	1.7401	µg/L	1.7401	ppb	00:26:57
1	SiO2†	1613.4	21.5	4.5393	µg/L	4.5393	ppb	00:26:37
1	Si 251.611†	325.3	10.9	0.8907	µg/L	0.8907	ppb	00:26:57
1	Sn 189.927†	-0.8	-3.4	-1.5507	µg/L	-1.5507	ppb	00:26:57
1	Ti 334.940†	154.3	5.5	0.0093	µg/L	0.0093	ppb	00:26:37
1	Tl 190.801†	-19.4	1.8	2.5056	µg/L	2.5056	ppb	00:26:57
1	U 409.014†	131.8	-70.4	-6.0455	µg/L	-6.0455	ppb	00:26:37
1	V 292.402†	-52.2	4.1	0.0403	µg/L	0.0403	ppb	00:26:37
1	Zn 213.857†	485.6	10.2	0.2493	µg/L	0.2493	ppb	00:26:57
2	Sc RADIAL	57398.5	57398.5	98.4	%			00:25:34
2	Al 396.153Radial†	-11.4	-3.5	-2.5237	µg/L	-2.5237	ppb	00:25:34
2	Ca 317.933Radial†	193.6	-2.1	-1.8988	µg/L	-1.8988	ppb	00:25:55
2	Fe 238.204 Radial†	15.9	-0.4	-3.0265	µg/L	-3.0265	ppb	00:25:55
2	K 766.490 Radial†	160.7	6.9	4.7565	µg/L	4.7565	ppb	00:25:34
2	Mg 279.077 IEC†	11.3	2.1	20.054	µg/L	20.054	ppb	00:25:55
2	Na 589.592 Radial†	525.0	98.9	31.286	µg/L	31.286	ppb	00:25:34
2	Sr 421.552†	59.1	39.9	0.3916	µg/L	0.3916	ppb	00:25:34
2	Sc 361.383	2007226.3	2007226.3	98.534	%			00:27:03
2	Y 371.029	1378175.5	1378175.5	98.391	%			00:27:03
2	Ag 328.068†	-469.7	7.7	0.0625	µg/L	0.0625	ppb	00:27:09
2	As 188.979†	-1.8	-2.5	-4.8491	µg/L	-4.8491	ppb	00:27:29
2	B 249.677†	335.0	10.9	0.4751	µg/L	0.4751	ppb	00:27:29
2	Ba 233.527†	-7.9	11.2	0.2891	µg/L	0.2891	ppb	00:27:29
2	Be 313.107†	-3525.4	-162.9	-0.1035	µg/L	-0.1035	ppb	00:27:09
2	Cd 226.502†	-134.7	-5.2	-0.1400	µg/L	-0.1400	ppb	00:27:29
2	Co 228.616†	-2.5	1.4	0.0709	µg/L	0.0709	ppb	00:27:29
2	Cr 267.716†	-58.2	-16.4	-0.3543	µg/L	-0.3543	ppb	00:27:09
2	Cu 324.752†	3367.1	165.2	1.1468	µg/L	1.1468	ppb	00:27:09
2	Mn 257.610†	-258.7	18.0	0.0598	µg/L	0.0598	ppb	00:27:29
2	Mo 202.031†	5.2	9.4	1.0128	µg/L	1.0128	ppb	00:27:29
2	Ni 231.604†	296.4	1.4	0.0774	µg/L	0.0774	ppb	00:27:29
2	P 214.914†	11.3	-9.6	-20.445	µg/L	-20.445	ppb	00:27:29
2	Pb 220.353†	92.7	4.5	1.1725	µg/L	1.1725	ppb	00:27:29

2	S 181.975 Axial†	17.3	2.4	10.996 µg/L	10.996 ppb	00:27:29
2	Sb 206.836†	25.4	4.1	4.1205 µg/L	4.1205 ppb	00:27:29
2	Se 196.026†	18.2	5.6	8.2651 µg/L	8.2651 ppb	00:27:29
2	SiO2†	1624.6	40.1	8.4457 µg/L	8.4457 ppb	00:27:09
2	Si 251.611†	314.3	1.2	0.0987 µg/L	0.0987 ppb	00:27:29
2	Sn 189.927†	-1.1	-3.6	-1.6852 µg/L	-1.6852 ppb	00:27:29
2	Ti 334.940†	190.9	43.3	0.1027 µg/L	0.1027 ppb	00:27:09
2	Tl 190.801†	-27.4	-6.4	-9.0301 µg/L	-9.0301 ppb	00:27:29
2	U 409.014†	247.2	47.3	4.0588 µg/L	4.0588 ppb	00:27:09
2	V 292.402†	-33.6	22.8	0.2477 µg/L	0.2477 ppb	00:27:09
2	Zn 213.857†	486.9	13.7	0.3387 µg/L	0.3387 ppb	00:27:29
3	Sc RADIAL	57230.0	57230.0	98.1 %		00:26:00
3	Al 396.153Radial†	-11.8	-3.9	-2.8155 µg/L	-2.8155 ppb	00:26:00
3	Ca 317.933Radial†	184.8	-10.5	-9.3477 µg/L	-9.3477 ppb	00:26:21
3	Fe 238.204 Radial†	14.9	-1.2	-10.628 µg/L	-10.628 ppb	00:26:21
3	K 766.490 Radial†	166.0	12.8	8.8364 µg/L	8.8364 ppb	00:26:00
3	Mg 279.077 IEC†	13.0	3.9	36.922 µg/L	36.922 ppb	00:26:21
3	Na 589.592 Radial†	482.0	56.7	17.932 µg/L	17.932 ppb	00:26:00
3	Sr 421.552†	65.2	46.4	0.4550 µg/L	0.4550 ppb	00:26:00
3	Sc 361.383	2021588.8	2021588.8	99.239 %		00:27:35
3	Y 371.029	1387404.0	1387404.0	99.050 %		00:27:35
3	Ag 328.068†	-516.3	-35.9	-0.2873 µg/L	-0.2873 ppb	00:27:41
3	As 188.979†	1.3	0.5	1.0423 µg/L	1.0423 ppb	00:28:01
3	B 249.677†	337.6	11.2	0.4900 µg/L	0.4900 ppb	00:28:01
3	Ba 233.527†	-17.8	1.3	0.0324 µg/L	0.0324 ppb	00:28:01
3	Be 313.107†	-3533.1	-145.2	-0.0922 µg/L	-0.0922 ppb	00:27:41
3	Cd 226.502†	-128.6	1.9	0.0519 µg/L	0.0519 ppb	00:28:01
3	Co 228.616†	-6.6	-2.7	-0.1290 µg/L	-0.1290 ppb	00:28:01
3	Cr 267.716†	-28.8	13.6	0.2941 µg/L	0.2941 ppb	00:27:41
3	Cu 324.752†	3343.5	117.2	0.8122 µg/L	0.8122 ppb	00:27:41
3	Mn 257.610†	-274.1	4.4	0.0119 µg/L	0.0119 ppb	00:28:01
3	Mo 202.031†	2.5	6.7	0.7182 µg/L	0.7182 ppb	00:28:01
3	Ni 231.604†	286.6	-10.6	-0.5678 µg/L	-0.5678 ppb	00:28:01
3	P 214.914†	15.3	-5.6	-11.984 µg/L	-11.984 ppb	00:28:01
3	Pb 220.353†	87.2	-1.7	-0.4529 µg/L	-0.4529 ppb	00:28:01
3	S 181.975 Axial†	11.5	-3.4	-15.469 µg/L	-15.469 ppb	00:28:01
3	Sb 206.836†	24.6	3.1	3.0756 µg/L	3.0756 ppb	00:28:01
3	Se 196.026†	23.1	10.4	15.215 µg/L	15.215 ppb	00:28:01
3	SiO2†	1631.8	35.6	7.5034 µg/L	7.5034 ppb	00:27:41
3	Si 251.611†	315.4	0.1	0.0071 µg/L	0.0071 ppb	00:28:01
3	Sn 189.927†	8.8	6.3	2.9170 µg/L	2.9170 ppb	00:28:01
3	Ti 334.940†	139.5	-9.8	-0.0267 µg/L	-0.0267 ppb	00:27:41
3	Tl 190.801†	-29.0	-7.9	-11.068 µg/L	-11.068 ppb	00:28:01
3	U 409.014†	249.0	47.3	4.0657 µg/L	4.0657 ppb	00:27:41
3	V 292.402†	-62.0	-5.6	-0.0486 µg/L	-0.0486 ppb	00:27:41
3	Zn 213.857†	482.4	5.6	0.1404 µg/L	0.1404 ppb	00:28:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2014949.5	98.913	%	0.3555				0.36%
Sc RADIAL	57307.1	98.2	%	0.15				0.15%
Y 371.029	1382954.5	98.732	%	0.3300				0.33%
Ag 328.068†	-16.0	-0.1271	µg/L	0.17672	-0.1271	ppb	0.17672	139.06%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.4	-4.6358	µg/L	3.40874	-4.6358	ppb	3.40874	73.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.1300	µg/L	4.59146	0.1300	ppb	4.59146	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	19.2	0.8358	µg/L	0.61190	0.8358	ppb	0.61190	73.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.7	0.1216	µg/L	0.14513	0.1216	ppb	0.14513	119.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-166.0	-0.1054	µg/L	0.01426	-0.1054	ppb	0.01426	13.53%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-9.4	-8.3934	µg/L	6.07396	-8.3934	ppb	6.07396	72.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.4	-0.0375	µg/L	0.09664	-0.0375	ppb	0.09664	257.35%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.1	-0.0533	µg/L	0.10841	-0.0533	ppb	0.10841	203.50%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.2      0.0901 µg/L       0.38530      0.0901 ppb        0.38530 427.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               159.3      1.1054 µg/L       0.27486      1.1054 ppb        0.27486  24.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -5.5290 µg/L       4.41639     -5.5290 ppb        4.41639  79.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           5.7      3.9316 µg/L       5.36501      3.9316 ppb        5.36501 136.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.7     34.714 µg/L       13.6894      34.714 ppb        13.6894  39.44%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 7.9      0.0245 µg/L       0.03098      0.0245 ppb        0.03098 126.48%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.6      0.7163 µg/L       0.29744      0.7163 ppb        0.29744  41.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         85.0     26.898 µg/L        7.7647      26.898 ppb         7.7647  28.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.0     -0.1071 µg/L       0.40166     -0.1071 ppb        0.40166 375.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.9    -14.706 µg/L        4.9719     -14.706 ppb         4.9719  33.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.1      1.0776 µg/L       1.48537      1.0776 ppb        1.48537 137.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.9      3.8562 µg/L      16.92570      3.8562 ppb       16.92570 438.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.4      2.4360 µg/L       2.07939      2.4360 ppb        2.07939  85.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.8      8.4067 µg/L       6.73840      8.4067 ppb        6.73840  80.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      32.4      6.8295 µg/L       2.03856      6.8295 ppb        2.03856  29.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 4.1      0.3322 µg/L       0.48585      0.3322 ppb        0.48585 146.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.2     -0.1063 µg/L       2.61912     -0.1063 ppb        2.61912 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                45.5      0.4457 µg/L       0.05014      0.4457 ppb        0.05014  11.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                13.0      0.0284 µg/L       0.06679      0.0284 ppb        0.06679 234.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.2     -5.8640 µg/L       7.31957     -5.8640 ppb        7.31957 124.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  8.1      0.6930 µg/L       5.83571      0.6930 ppb        5.83571 842.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  7.1      0.0798 µg/L       0.15206      0.0798 ppb        0.15206 190.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 9.8      0.2428 µg/L       0.09932      0.2428 ppb        0.09932  40.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: 246066019|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 202
Date Collected: 2/22/2010 00:55:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066019|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	60604.7	60604.7	104	%			00:56:27
1	Al 396.153Radial†	138777.1	133643.4	96797	µg/L	96797	ppb	00:56:27
1	Ca 317.933Radial†	28034.7	26797.1	23876	µg/L	23876	ppb	00:56:48
1	Fe 238.204 Radial†	8801.2	8458.6	72002	µg/L	72002	ppb	00:56:48
1	K 766.490 Radial†	21202.7	20260.6	14007	µg/L	14007	ppb	00:56:27
1	Mg 279.077 IEC†	2162.8	2073.2	19507	µg/L	19507	ppb	00:56:48
1	Na 589.592 Radial†	3499.5	2935.0	928.58	µg/L	928.58	ppb	00:56:48
1	Sr 421.552†	29255.1	28151.0	276.03	µg/L	276.03	ppb	00:56:27
1	Sc 361.383	2077042.9	2077042.9	101.96	%			00:57:51
1	Y 371.029	1473624.6	1473624.6	105.21	%			00:57:51
1	Ag 328.068†	-1515.0	-1001.5	-2.7880	µg/L	-2.7880	ppb	00:57:57
1	As 188.979†	13.0	12.0	26.003	µg/L	26.003	ppb	00:58:17
1	B 249.677†	654.9	313.2	-23.881	µg/L	-23.881	ppb	00:57:57
1	Ba 233.527†	76684.9	75229.1	1942.3	µg/L	1942.3	ppb	00:57:57
1	Be 313.107†	15228.7	18350.8	11.582	µg/L	11.582	ppb	00:57:57
1	Cd 226.502†	103.7	233.2	-1.8111	µg/L	-1.8111	ppb	00:58:17
1	Co 228.616†	977.1	962.3	46.433	µg/L	46.433	ppb	00:58:17
1	Cr 267.716†	2963.6	2949.2	63.830	µg/L	63.830	ppb	00:58:17
1	Cu 324.752†	10940.0	7477.6	61.927	µg/L	61.927	ppb	00:57:57
1	Mn 257.610†	882826.4	866127.5	2942.4	µg/L	2942.4	ppb	00:57:51
1	Mo 202.031†	-36.3	-31.5	-0.6578	µg/L	-0.6578	ppb	00:58:17
1	Ni 231.604†	1596.7	1266.6	68.592	µg/L	68.592	ppb	00:58:17
1	P 214.914†	305.8	278.9	554.97	µg/L	554.97	ppb	00:58:17
1	Pb 220.353†	605.2	503.9	134.22	µg/L	134.22	ppb	00:58:17
1	S 181.975 Axial†	116.1	98.8	444.30	µg/L	444.30	ppb	00:58:17
1	Sb 206.836†	33.0	10.6	7.7999	µg/L	7.7999	ppb	00:58:17
1	Se 196.026†	-16.8	-29.3	129.67	µg/L	129.67	ppb	00:58:17
1	SiO2†	210822.1	205158.6	43252	µg/L	43252	ppb	00:57:51
1	Si 251.611†	252075.7	246909.7	20110	µg/L	20110	ppb	00:57:51
1	Sn 189.927†	-19.6	-21.8	-15.556	µg/L	-15.556	ppb	00:58:17
1	Ti 334.940†	80963.0	79255.4	189.62	µg/L	189.62	ppb	00:57:57
1	Tl 190.801†	-29.3	-7.3	19.006	µg/L	19.006	ppb	00:58:17
1	U 409.014†	-968.1	-1153.1	-110.50	µg/L	-110.50	ppb	00:57:51
1	V 292.402†	9667.9	9538.8	107.76	µg/L	107.76	ppb	00:57:57
1	Zn 213.857†	7483.1	6858.7	166.54	µg/L	166.54	ppb	00:57:57
2	Sc RADIAL	60575.4	60575.4	104	%			00:56:53
2	Al 396.153Radial†	139356.3	134266.0	97248	µg/L	97248	ppb	00:56:53
2	Ca 317.933Radial†	28056.4	26831.0	23906	µg/L	23906	ppb	00:57:13
2	Fe 238.204 Radial†	8809.0	8470.2	72101	µg/L	72101	ppb	00:57:13
2	K 766.490 Radial†	21278.0	20343.0	14063	µg/L	14063	ppb	00:56:53
2	Mg 279.077 IEC†	2165.3	2076.7	19540	µg/L	19540	ppb	00:57:13
2	Na 589.592 Radial†	3484.4	2922.1	924.50	µg/L	924.50	ppb	00:57:13
2	Sr 421.552†	29503.9	28404.3	278.52	µg/L	278.52	ppb	00:56:53
2	Sc 361.383	2061201.1	2061201.1	101.18	%			00:58:25
2	Y 371.029	1462082.9	1462082.9	104.38	%			00:58:25
2	Ag 328.068†	-1471.1	-969.6	-2.5179	µg/L	-2.5179	ppb	00:58:30
2	As 188.979†	3.5	2.8	8.2427	µg/L	8.2427	ppb	00:58:51
2	B 249.677†	653.8	317.1	-23.766	µg/L	-23.766	ppb	00:58:30
2	Ba 233.527†	77116.7	76233.9	1968.3	µg/L	1968.3	ppb	00:58:30
2	Be 313.107†	15108.6	18346.9	11.579	µg/L	11.579	ppb	00:58:30
2	Cd 226.502†	82.6	213.2	-2.3595	µg/L	-2.3595	ppb	00:58:51
2	Co 228.616†	970.8	963.4	46.482	µg/L	46.482	ppb	00:58:51
2	Cr 267.716†	2948.5	2956.7	63.992	µg/L	63.992	ppb	00:58:51
2	Cu 324.752†	10941.6	7561.7	62.525	µg/L	62.525	ppb	00:58:30
2	Mn 257.610†	879744.4	869736.2	2954.6	µg/L	2954.6	ppb	00:58:25
2	Mo 202.031†	-43.1	-38.5	-1.4099	µg/L	-1.4099	ppb	00:58:51
2	Ni 231.604†	1602.2	1284.1	69.531	µg/L	69.531	ppb	00:58:51
2	P 214.914†	296.6	272.1	540.58	µg/L	540.58	ppb	00:58:51
2	Pb 220.353†	614.0	517.3	137.71	µg/L	137.71	ppb	00:58:51

2	S 181.975 Axial†	119.6	103.2	464.05 µg/L	464.05 ppb	00:58:51
2	Sb 206.836†	27.2	5.1	2.2737 µg/L	2.2737 ppb	00:58:51
2	Se 196.026†	-3.7	-16.5	148.80 µg/L	148.80 ppb	00:58:51
2	SiO2†	210120.5	206054.4	43441 µg/L	43441 ppb	00:58:25
2	Si 251.611†	251092.8	247838.5	20186 µg/L	20186 ppb	00:58:25
2	Sn 189.927†	-14.8	-17.2	-13.445 µg/L	-13.445 ppb	00:58:51
2	Ti 334.940†	81563.3	80458.9	192.51 µg/L	192.51 ppb	00:58:30
2	Tl 190.801†	-40.5	-18.7	3.1695 µg/L	3.1695 ppb	00:58:51
2	U 409.014†	-946.0	-1138.5	-109.26 µg/L	-109.26 ppb	00:58:25
2	V 292.402†	9732.4	9675.5	109.19 µg/L	109.19 ppb	00:58:30
2	Zn 213.857†	7495.0	6926.8	168.23 µg/L	168.23 ppb	00:58:30
3	Sc RADIAL	60571.9	60571.9	104 %		00:57:19
3	Al 396.153Radial†	139501.7	134413.8	97355 µg/L	97355 ppb	00:57:19
3	Ca 317.933Radial†	28179.7	26951.4	24014 µg/L	24014 ppb	00:57:40
3	Fe 238.204 Radial†	8834.1	8494.9	72311 µg/L	72311 ppb	00:57:40
3	K 766.490 Radial†	21290.4	20356.2	14073 µg/L	14073 ppb	00:57:19
3	Mg 279.077 IEC†	2165.0	2076.6	19538 µg/L	19538 ppb	00:57:40
3	Na 589.592 Radial†	3496.5	2934.0	928.24 µg/L	928.24 ppb	00:57:40
3	Sr 421.552†	29544.4	28445.0	278.92 µg/L	278.92 ppb	00:57:19
3	Sc 361.383	2069253.7	2069253.7	101.58 %		00:58:58
3	Y 371.029	1464849.8	1464849.8	104.58 %		00:58:58
3	Ag 328.068†	-1465.6	-958.5	-2.4792 µg/L	-2.4792 ppb	00:59:04
3	As 188.979†	2.0	1.3	5.3818 µg/L	5.3818 ppb	00:59:24
3	B 249.677†	578.3	240.2	-27.227 µg/L	-27.227 ppb	00:59:04
3	Ba 233.527†	72006.7	70906.8	1830.7 µg/L	1830.7 ppb	00:59:04
3	Be 313.107†	13629.1	16832.3	10.624 µg/L	10.624 ppb	00:59:04
3	Cd 226.502†	35.2	166.1	-3.6548 µg/L	-3.6548 ppb	00:59:24
3	Co 228.616†	838.7	829.6	40.007 µg/L	40.007 ppb	00:59:24
3	Cr 267.716†	2432.4	2437.3	52.755 µg/L	52.755 ppb	00:59:24
3	Cu 324.752†	10418.1	7004.3	58.683 µg/L	58.683 ppb	00:59:04
3	Mn 257.610†	852074.4	839112.5	2850.9 µg/L	2850.9 ppb	00:58:58
3	Mo 202.031†	-34.9	-30.2	-0.5136 µg/L	-0.5136 ppb	00:59:24
3	Ni 231.604†	1412.4	1091.0	59.220 µg/L	59.220 ppb	00:59:24
3	P 214.914†	257.4	232.4	456.67 µg/L	456.67 ppb	00:59:24
3	Pb 220.353†	538.4	440.5	117.65 µg/L	117.65 ppb	00:59:24
3	S 181.975 Axial†	107.6	90.9	408.65 µg/L	408.65 ppb	00:59:24
3	Sb 206.836†	15.6	-6.4	-9.1160 µg/L	-9.1160 ppb	00:59:24
3	Se 196.026†	-10.0	-22.7	140.26 µg/L	140.26 ppb	00:59:24
3	SiO2†	202657.7	197899.4	41722 µg/L	41722 ppb	00:58:58
3	Si 251.611†	242258.6	238175.8	19399 µg/L	19399 ppb	00:58:58
3	Sn 189.927†	-18.7	-20.9	-15.194 µg/L	-15.194 ppb	00:59:24
3	Ti 334.940†	74079.8	72778.0	174.03 µg/L	174.03 ppb	00:59:04
3	Tl 190.801†	-29.6	-7.7	18.049 µg/L	18.049 ppb	00:59:24
3	U 409.014†	-879.9	-1069.8	-103.39 µg/L	-103.39 ppb	00:58:58
3	V 292.402†	8838.6	8758.1	99.657 µg/L	99.657 ppb	00:59:04
3	Zn 213.857†	6963.3	6374.6	154.47 µg/L	154.47 ppb	00:59:04

Mean Data: 246066019|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2069165.9	101.57	%	0.389				0.38%
Sc RADIAL	60584.0	104	%	0.0				0.03%
Y 371.029	1466852.4	104.72	%	0.430				0.41%
Ag 328.068†	-976.5	-2.5950	µg/L	0.16822	-2.5950	ppb	0.16822	6.48%
Al 396.153Radial†	134107.7	97133	µg/L	296.1	97133	ppb	296.1	0.30%
As 188.979†	5.3	13.209	µg/L	11.1718	13.209	ppb	11.1718	84.58%
B 249.677†	290.2	-24.958	µg/L	1.9656	-24.958	ppb	1.9656	7.88%
Ba 233.527†	74123.3	1913.8	µg/L	73.08	1913.8	ppb	73.08	3.82%
Be 313.107†	17843.3	11.262	µg/L	0.5524	11.262	ppb	0.5524	4.90%
Ca 317.933Radial†	26859.8	23932	µg/L	72.3	23932	ppb	72.3	0.30%
Cd 226.502†	204.2	-2.6084	µg/L	0.94676	-2.6084	ppb	0.94676	36.30%
Co 228.616†	918.4	44.307	µg/L	3.7240	44.307	ppb	3.7240	8.40%
Cr 267.716†	2781.1	60.192	µg/L	6.4411	60.192	ppb	6.4411	10.70%
Cu 324.752†	7347.9	61.045	µg/L	2.0669	61.045	ppb	2.0669	3.39%
Fe 238.204 Radial†	8474.6	72138	µg/L	157.4	72138	ppb	157.4	0.22%
K 766.490 Radial†	20319.9	14048	µg/L	35.8	14048	ppb	35.8	0.25%
Mg 279.077 IEC†	2075.5	19528	µg/L	18.4	19528	ppb	18.4	0.09%
Mn 257.610†	858325.4	2916.0	µg/L	56.67	2916.0	ppb	56.67	1.94%
Mo 202.031†	-33.4	-0.8604	µg/L	0.48130	-0.8604	ppb	0.48130	55.94%
Na 589.592 Radial†	2930.4	927.10	µg/L	2.265	927.10	ppb	2.265	0.24%

Ni 231.604†	1213.9	65.781 µg/L	5.7013	65.781 ppb	5.7013	8.67%
P 214.914†	261.1	517.40 µg/L	53.091	517.40 ppb	53.091	10.26%
Pb 220.353†	487.2	129.86 µg/L	10.716	129.86 ppb	10.716	8.25%
S 181.975 Axial†	97.6	439.00 µg/L	28.077	439.00 ppb	28.077	6.40%
Sb 206.836†	3.1	0.3192 µg/L	8.62564	0.3192 ppb	8.62564	>999.9%
Se 196.026†	-22.8	139.58 µg/L	9.580	139.58 ppb	9.580	6.86%
SiO2†	203037.5	42805 µg/L	942.8	42805 ppb	942.8	2.20%
Si 251.611†	244308.0	19899 µg/L	434.2	19899 ppb	434.2	2.18%
Sn 189.927†	-19.9	-14.732 µg/L	1.1291	-14.732 ppb	1.1291	7.66%
Sr 421.552†	28333.4	277.82 µg/L	1.562	277.82 ppb	1.562	0.56%
Ti 334.940†	77497.5	185.39 µg/L	9.944	185.39 ppb	9.944	5.36%
Tl 190.801†	-11.2	13.408 µg/L	8.8799	13.408 ppb	8.8799	66.23%
U 409.014†	-1120.5	-107.72 µg/L	3.797	-107.72 ppb	3.797	3.52%
V 292.402†	9324.2	105.54 µg/L	5.142	105.54 ppb	5.142	4.87%
Zn 213.857†	6720.0	163.08 µg/L	7.506	163.08 ppb	7.506	4.60%

Sequence No.: 3
Sample ID: 246066020|949358|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 203
Date Collected: 2/22/2010 00:59:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066020|949358|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59411.2	59411.2	102	%			01:00:07
1	Al 396.153Radial†	78323.2	76944.5	55730	µg/L	55730	ppb	01:00:07
1	Ca 317.933Radial†	22994.7	22388.6	19948	µg/L	19948	ppb	01:00:07
1	Fe 238.204 Radial†	5554.4	5439.6	46303	µg/L	46303	ppb	01:00:27
1	K 766.490 Radial†	19534.6	19032.2	13157	µg/L	13157	ppb	01:00:07
1	Mg 279.077 IEC†	1390.9	1356.9	12768	µg/L	12768	ppb	01:00:27
1	Na 589.592 Radial†	1286.2	828.6	262.15	µg/L	262.15	ppb	01:00:07
1	Sr 421.552†	20138.4	19761.7	193.77	µg/L	193.77	ppb	01:00:07
1	Sc 361.383	2023248.9	2023248.9	99.320	%			01:01:31
1	Y 371.029	1412607.0	1412607.0	100.85	%			01:01:31
1	Ag 328.068†	-1098.5	-621.7	-1.5269	µg/L	-1.5269	ppb	01:01:36
1	As 188.979†	13.1	12.4	25.497	µg/L	25.497	ppb	01:01:57
1	B 249.677†	604.3	279.4	-11.975	µg/L	-11.975	ppb	01:01:36
1	Ba 233.527†	47376.3	47719.7	1232.1	µg/L	1232.1	ppb	01:01:36
1	Be 313.107†	8551.3	12024.8	7.5790	µg/L	7.5790	ppb	01:01:36
1	Cd 226.502†	14.4	146.0	-1.2688	µg/L	-1.2688	ppb	01:01:57
1	Co 228.616†	788.7	798.0	38.521	µg/L	38.521	ppb	01:01:57
1	Cr 267.716†	1837.9	1893.1	40.981	µg/L	40.981	ppb	01:01:57
1	Cu 324.752†	9619.5	6433.4	51.105	µg/L	51.105	ppb	01:01:36
1	Mn 257.610†	764629.1	770142.4	2614.1	µg/L	2614.1	ppb	01:01:31
1	Mo 202.031†	-13.2	-9.2	0.7706	µg/L	0.7706	ppb	01:01:57
1	Ni 231.604†	1155.3	863.8	46.737	µg/L	46.737	ppb	01:01:57
1	P 214.914†	477.7	459.9	948.60	µg/L	948.60	ppb	01:01:57
1	Pb 220.353†	614.3	528.9	139.39	µg/L	139.39	ppb	01:01:57
1	S 181.975 Axial†	305.0	292.0	1313.3	µg/L	1313.3	ppb	01:01:57
1	Sb 206.836†	28.5	7.0	4.7840	µg/L	4.7840	ppb	01:01:57
1	Se 196.026†	-7.4	-20.3	79.843	µg/L	79.843	ppb	01:01:57
1	SiO2†	130224.3	129506.8	27303	µg/L	27303	ppb	01:01:36
1	Si 251.611†	155989.9	156739.7	12766	µg/L	12766	ppb	01:01:31
1	Sn 189.927†	-18.0	-20.7	-13.085	µg/L	-13.085	ppb	01:01:57
1	Ti 334.940†	63164.8	63446.7	152.04	µg/L	152.04	ppb	01:01:36
1	Tl 190.801†	-30.6	-9.4	7.8531	µg/L	7.8531	ppb	01:01:57
1	U 409.014†	-41.3	-245.2	-28.708	µg/L	-28.708	ppb	01:01:36
1	V 292.402†	7303.5	7410.4	82.634	µg/L	82.634	ppb	01:01:36
1	Zn 213.857†	5270.2	4825.8	117.43	µg/L	117.43	ppb	01:01:57
2	Sc RADIAL	58865.4	58865.4	101	%			01:00:33
2	Al 396.153Radial†	77585.0	76925.9	55717	µg/L	55717	ppb	01:00:33
2	Ca 317.933Radial†	22677.7	22283.7	19855	µg/L	19855	ppb	01:00:33
2	Fe 238.204 Radial†	5533.5	5469.4	46557	µg/L	46557	ppb	01:00:54
2	K 766.490 Radial†	19392.6	19069.3	13183	µg/L	13183	ppb	01:00:33
2	Mg 279.077 IEC†	1369.9	1348.7	12690	µg/L	12690	ppb	01:00:54
2	Na 589.592 Radial†	1243.9	798.4	252.58	µg/L	252.58	ppb	01:00:33
2	Sr 421.552†	19922.1	19730.6	193.47	µg/L	193.47	ppb	01:00:33
2	Sc 361.383	2029193.4	2029193.4	99.612	%			01:02:03
2	Y 371.029	1417021.6	1417021.6	101.16	%			01:02:03
2	Ag 328.068†	-1144.4	-664.5	-1.8548	µg/L	-1.8548	ppb	01:02:09
2	As 188.979†	8.8	8.1	17.266	µg/L	17.266	ppb	01:02:29
2	B 249.677†	580.2	253.4	-13.238	µg/L	-13.238	ppb	01:02:09
2	Ba 233.527†	47076.7	47279.2	1220.7	µg/L	1220.7	ppb	01:02:09
2	Be 313.107†	8462.6	11910.5	7.5068	µg/L	7.5068	ppb	01:02:09
2	Cd 226.502†	15.1	146.7	-1.2795	µg/L	-1.2795	ppb	01:02:29
2	Co 228.616†	796.3	803.3	38.780	µg/L	38.780	ppb	01:02:29
2	Cr 267.716†	1826.1	1875.8	40.606	µg/L	40.606	ppb	01:02:29
2	Cu 324.752†	9578.0	6363.3	50.653	µg/L	50.653	ppb	01:02:09
2	Mn 257.610†	767771.7	771041.8	2617.2	µg/L	2617.2	ppb	01:02:03
2	Mo 202.031†	-15.6	-11.6	0.5193	µg/L	0.5193	ppb	01:02:29
2	Ni 231.604†	1150.7	855.7	46.308	µg/L	46.308	ppb	01:02:29
2	P 214.914†	477.1	458.0	944.29	µg/L	944.29	ppb	01:02:29
2	Pb 220.353†	618.0	530.8	139.88	µg/L	139.88	ppb	01:02:29

2	S 181.975 Axial†	306.8	293.0	1317.7 µg/L	1317.7 ppb	01:02:29
2	Sb 206.836†	25.0	3.4	1.2156 µg/L	1.2156 ppb	01:02:29
2	Se 196.026†	-1.8	-14.7	88.820 µg/L	88.820 ppb	01:02:29
2	SiO2†	129336.4	128231.4	27034 µg/L	27034 ppb	01:02:09
2	Si 251.611†	156710.1	157002.5	12788 µg/L	12788 ppb	01:02:03
2	Sn 189.927†	-13.6	-16.2	-11.076 µg/L	-11.076 ppb	01:02:29
2	Ti 334.940†	62991.6	63086.5	151.17 µg/L	151.17 ppb	01:02:09
2	Tl 190.801†	-28.6	-7.4	10.790 µg/L	10.790 ppb	01:02:29
2	U 409.014†	-63.9	-267.8	-30.679 µg/L	-30.679 ppb	01:02:09
2	V 292.402†	7285.8	7371.1	82.251 µg/L	82.251 ppb	01:02:09
2	Zn 213.857†	5296.2	4836.3	117.69 µg/L	117.69 ppb	01:02:29
3	Sc RADIAL	58597.1	58597.1	100 %		01:00:59
3	Al 396.153Radial†	77447.4	77141.1	55873 µg/L	55873 ppb	01:00:59
3	Ca 317.933Radial†	22636.1	22345.2	19909 µg/L	19909 ppb	01:00:59
3	Fe 238.204 Radial†	5512.5	5473.6	46593 µg/L	46593 ppb	01:01:19
3	K 766.490 Radial†	19283.3	19048.5	13169 µg/L	13169 ppb	01:00:59
3	Mg 279.077 IEC†	1370.3	1355.4	12753 µg/L	12753 ppb	01:01:19
3	Na 589.592 Radial†	1238.5	798.7	252.68 µg/L	252.68 ppb	01:00:59
3	Sr 421.552†	19903.6	19802.7	194.17 µg/L	194.17 ppb	01:00:59
3	Sc 361.383	2041431.0	2041431.0	100.21 %		01:02:36
3	Y 371.029	1423931.5	1423931.5	101.66 %		01:02:36
3	Ag 328.068†	-1151.1	-664.3	-1.8872 µg/L	-1.8872 ppb	01:02:42
3	As 188.979†	5.4	4.6	10.549 µg/L	10.549 ppb	01:03:02
3	B 249.677†	574.9	244.6	-13.645 µg/L	-13.645 ppb	01:02:42
3	Ba 233.527†	45465.7	45388.3	1171.9 µg/L	1171.9 ppb	01:02:42
3	Be 313.107†	7832.6	11230.9	7.0790 µg/L	7.0790 ppb	01:02:42
3	Cd 226.502†	-17.3	114.3	-2.1588 µg/L	-2.1588 ppb	01:03:02
3	Co 228.616†	699.9	702.4	33.890 µg/L	33.890 ppb	01:03:02
3	Cr 267.716†	1581.2	1620.4	35.081 µg/L	35.081 ppb	01:03:02
3	Cu 324.752†	9208.3	5936.8	47.697 µg/L	47.697 ppb	01:02:42
3	Mn 257.610†	755398.8	754074.8	2559.7 µg/L	2559.7 ppb	01:02:36
3	Mo 202.031†	-17.6	-13.4	0.3211 µg/L	0.3211 ppb	01:03:02
3	Ni 231.604†	1058.5	756.8	41.025 µg/L	41.025 ppb	01:03:02
3	P 214.914†	409.5	387.6	795.48 µg/L	795.48 ppb	01:03:02
3	Pb 220.353†	558.9	468.1	123.51 µg/L	123.51 ppb	01:03:02
3	S 181.975 Axial†	261.1	245.5	1104.0 µg/L	1104.0 ppb	01:03:02
3	Sb 206.836†	26.8	5.0	2.8589 µg/L	2.8589 ppb	01:03:02
3	Se 196.026†	7.0	-5.8	101.88 µg/L	101.88 ppb	01:03:02
3	SiO2†	122398.4	120529.8	25411 µg/L	25411 ppb	01:02:42
3	Si 251.611†	152746.6	152104.4	12389 µg/L	12389 ppb	01:02:36
3	Sn 189.927†	-15.9	-18.4	-12.078 µg/L	-12.078 ppb	01:03:02
3	Ti 334.940†	59175.0	58898.9	141.09 µg/L	141.09 ppb	01:02:42
3	Tl 190.801†	-27.8	-6.3	11.957 µg/L	11.957 ppb	01:03:02
3	U 409.014†	-28.2	-231.8	-27.596 µg/L	-27.596 ppb	01:02:42
3	V 292.402†	6795.7	6838.2	76.698 µg/L	76.698 ppb	01:02:42
3	Zn 213.857†	4780.4	4289.7	104.05 µg/L	104.05 ppb	01:03:02

Mean Data: 246066020|949358|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2031291.1	99.715	%	0.4551				0.46%
Sc RADIAL	58957.9	101	%	0.7				0.70%
Y 371.029	1417853.4	101.22	%	0.407				0.40%
Ag 328.068†	-650.1	-1.7563	µg/L	0.19932	-1.7563	ppb	0.19932	11.35%
Al 396.153Radial†	77003.8	55773	µg/L	86.4	55773	ppb	86.4	0.15%
As 188.979†	8.4	17.771	µg/L	7.4868	17.771	ppb	7.4868	42.13%
B 249.677†	259.1	-12.953	µg/L	0.8707	-12.953	ppb	0.8707	6.72%
Ba 233.527†	46795.7	1208.2	µg/L	31.98	1208.2	ppb	31.98	2.65%
Be 313.107†	11722.1	7.3883	µg/L	0.27026	7.3883	ppb	0.27026	3.66%
Ca 317.933Radial†	22339.2	19904	µg/L	47.0	19904	ppb	47.0	0.24%
Cd 226.502†	135.6	-1.5690	µg/L	0.51081	-1.5690	ppb	0.51081	32.56%
Co 228.616†	767.9	37.063	µg/L	2.7517	37.063	ppb	2.7517	7.42%
Cr 267.716†	1796.4	38.889	µg/L	3.3032	38.889	ppb	3.3032	8.49%
Cu 324.752†	6244.5	49.818	µg/L	1.8509	49.818	ppb	1.8509	3.72%
Fe 238.204 Radial†	5460.9	46485	µg/L	158.0	46485	ppb	158.0	0.34%
K 766.490 Radial†	19050.0	13170	µg/L	12.9	13170	ppb	12.9	0.10%
Mg 279.077 IEC†	1353.7	12737	µg/L	41.2	12737	ppb	41.2	0.32%
Mn 257.610†	765086.3	2597.0	µg/L	32.32	2597.0	ppb	32.32	1.24%
Mo 202.031†	-11.4	0.5370	µg/L	0.22530	0.5370	ppb	0.22530	41.96%
Na 589.592 Radial†	808.5	255.80	µg/L	5.496	255.80	ppb	5.496	2.15%

Ni 231.604†	825.5	44.690	µg/L	3.1814	44.690	ppb	3.1814	7.12%
P 214.914†	435.2	896.12	µg/L	87.189	896.12	ppb	87.189	9.73%
Pb 220.353†	509.3	134.26	µg/L	9.315	134.26	ppb	9.315	6.94%
S 181.975 Axial†	276.8	1245.0	µg/L	122.16	1245.0	ppb	122.16	9.81%
Sb 206.836†	5.1	2.9528	µg/L	1.78604	2.9528	ppb	1.78604	60.49%
Se 196.026†	-13.6	90.182	µg/L	11.0838	90.182	ppb	11.0838	12.29%
SiO2†	126089.3	26583	µg/L	1023.9	26583	ppb	1023.9	3.85%
Si 251.611†	155282.2	12647	µg/L	224.4	12647	ppb	224.4	1.77%
Sn 189.927†	-18.4	-12.080	µg/L	1.0044	-12.080	ppb	1.0044	8.31%
Sr 421.552†	19765.0	193.80	µg/L	0.354	193.80	ppb	0.354	0.18%
Ti 334.940†	61810.7	148.10	µg/L	6.087	148.10	ppb	6.087	4.11%
Tl 190.801†	-7.7	10.200	µg/L	2.1146	10.200	ppb	2.1146	20.73%
U 409.014†	-248.2	-28.994	µg/L	1.5617	-28.994	ppb	1.5617	5.39%
V 292.402†	7206.6	80.528	µg/L	3.3223	80.528	ppb	3.3223	4.13%
Zn 213.857†	4650.6	113.06	µg/L	7.802	113.06	ppb	7.802	6.90%

Sequence No.: 5
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/22/2010 01:06:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	57885.4	57885.4	99.2	%			01:07:28
1	Al 396.153Radial†	7170.0	7236.8	5229.7	µg/L	5229.7	ppb	01:07:28
1	Ca 317.933Radial†	5932.1	5781.7	5151.4	µg/L	5151.4	ppb	01:07:48
1	Fe 238.204 Radial†	624.2	612.9	5228.5	µg/L	5228.5	ppb	01:07:48
1	K 766.490 Radial†	7737.1	7643.9	5284.4	µg/L	5284.4	ppb	01:07:28
1	Mg 279.077 IEC†	568.1	563.3	5325.7	µg/L	5325.7	ppb	01:07:48
1	Na 589.592 Radial†	33351.7	33189.8	10501	µg/L	10501	ppb	01:07:28
1	Sr 421.552†	52959.3	53372.7	523.34	µg/L	523.34	ppb	01:07:28
1	Sc 361.383	2003482.4	2003482.4	98.350	%			01:08:52
1	Y 371.029	1368528.9	1368528.9	97.702	%			01:08:52
1	Ag 328.068†	67021.9	68630.7	550.71	µg/L	550.71	ppb	01:08:58
1	As 188.979†	283.3	287.3	550.10	µg/L	550.10	ppb	01:09:18
1	B 249.677†	12507.9	12388.7	535.58	µg/L	535.58	ppb	01:08:58
1	Ba 233.527†	20777.5	21145.2	546.88	µg/L	546.88	ppb	01:08:58
1	Be 313.107†	837349.1	854812.2	542.70	µg/L	542.70	ppb	01:08:52
1	Cd 226.502†	19893.0	20358.3	546.20	µg/L	546.20	ppb	01:08:58
1	Co 228.616†	11177.3	11368.8	552.68	µg/L	552.68	ppb	01:08:58
1	Cr 267.716†	25108.6	25572.5	553.27	µg/L	553.27	ppb	01:08:58
1	Cu 324.752†	81183.9	79294.0	551.28	µg/L	551.28	ppb	01:08:58
1	Mn 257.610†	158686.9	161629.8	547.92	µg/L	547.92	ppb	01:08:52
1	Mo 202.031†	5286.4	5379.2	580.44	µg/L	580.44	ppb	01:09:18
1	Ni 231.604†	10460.2	10336.3	552.00	µg/L	552.00	ppb	01:08:58
1	P 214.914†	1329.9	1331.2	2769.8	µg/L	2769.8	ppb	01:09:18
1	Pb 220.353†	2192.4	2139.6	559.10	µg/L	559.10	ppb	01:09:18
1	S 181.975 Axial†	264.7	254.0	1142.5	µg/L	1142.5	ppb	01:09:18
1	Sb 206.836†	591.7	579.9	584.07	µg/L	584.07	ppb	01:09:18
1	Se 196.026†	383.4	377.0	561.54	µg/L	561.54	ppb	01:09:18
1	SiO2†	28898.6	27774.7	5855.6	µg/L	5855.6	ppb	01:08:58
1	Si 251.611†	33407.9	33650.6	2740.8	µg/L	2740.8	ppb	01:08:58
1	Sn 189.927†	1242.6	1260.9	583.39	µg/L	583.39	ppb	01:09:18
1	Ti 334.940†	226826.0	230481.0	554.48	µg/L	554.48	ppb	01:08:52
1	Tl 190.801†	363.8	391.3	556.86	µg/L	556.86	ppb	01:09:18
1	U 409.014†	6434.4	6338.8	543.37	µg/L	543.37	ppb	01:08:58
1	V 292.402†	51737.3	52662.2	554.98	µg/L	554.98	ppb	01:08:58
1	Zn 213.857†	22110.2	22000.6	546.09	µg/L	546.09	ppb	01:08:58
2	Sc RADIAL	57545.7	57545.7	98.6	%			01:07:54
2	Al 396.153Radial†	7094.5	7202.9	5205.5	µg/L	5205.5	ppb	01:07:54
2	Ca 317.933Radial†	5902.5	5786.9	5156.1	µg/L	5156.1	ppb	01:08:15
2	Fe 238.204 Radial†	618.8	611.1	5213.5	µg/L	5213.5	ppb	01:08:15
2	K 766.490 Radial†	7666.5	7618.4	5266.7	µg/L	5266.7	ppb	01:07:54
2	Mg 279.077 IEC†	569.0	567.6	5365.9	µg/L	5365.9	ppb	01:08:15
2	Na 589.592 Radial†	33217.9	33252.6	10520	µg/L	10520	ppb	01:07:54
2	Sr 421.552†	52717.5	53442.6	524.03	µg/L	524.03	ppb	01:07:54
2	Sc 361.383	2023701.6	2023701.6	99.343	%			01:09:25
2	Y 371.029	1382981.3	1382981.3	98.734	%			01:09:25
2	Ag 328.068†	67086.3	68014.7	545.78	µg/L	545.78	ppb	01:09:31
2	As 188.979†	281.0	282.2	540.25	µg/L	540.25	ppb	01:09:51
2	B 249.677†	12571.0	12325.2	532.82	µg/L	532.82	ppb	01:09:31
2	Ba 233.527†	20854.8	21011.9	543.43	µg/L	543.43	ppb	01:09:31
2	Be 313.107†	846672.8	855691.1	543.26	µg/L	543.26	ppb	01:09:25
2	Cd 226.502†	19962.8	20226.4	542.66	µg/L	542.66	ppb	01:09:31
2	Co 228.616†	11189.8	11267.9	547.75	µg/L	547.75	ppb	01:09:31
2	Cr 267.716†	25210.0	25419.5	549.96	µg/L	549.96	ppb	01:09:31
2	Cu 324.752†	81173.3	78458.6	545.48	µg/L	545.48	ppb	01:09:31
2	Mn 257.610†	160479.7	161822.4	548.57	µg/L	548.57	ppb	01:09:25
2	Mo 202.031†	5145.7	5183.9	559.37	µg/L	559.37	ppb	01:09:51
2	Ni 231.604†	10474.7	10244.6	547.10	µg/L	547.10	ppb	01:09:31
2	P 214.914†	1310.4	1298.1	2699.8	µg/L	2699.8	ppb	01:09:51
2	Pb 220.353†	2164.7	2089.5	545.96	µg/L	545.96	ppb	01:09:51

2	S 181.975 Axial†	258.8	245.5	1104.0 µg/L	1104.0 ppb	01:09:51
2	Sb 206.836†	576.5	558.6	562.39 µg/L	562.39 ppb	01:09:51
2	Se 196.026†	370.0	359.6	535.88 µg/L	535.88 ppb	01:09:51
2	SiO2†	29003.1	27586.4	5815.9 µg/L	5815.9 ppb	01:09:31
2	Si 251.611†	33543.4	33447.6	2724.3 µg/L	2724.3 ppb	01:09:31
2	Sn 189.927†	1210.6	1216.0	562.62 µg/L	562.62 ppb	01:09:51
2	Ti 334.940†	229273.1	230640.0	554.86 µg/L	554.86 ppb	01:09:25
2	Tl 190.801†	359.2	383.0	545.24 µg/L	545.24 ppb	01:09:51
2	U 409.014†	6427.4	6266.4	537.15 µg/L	537.15 ppb	01:09:31
2	V 292.402†	51847.9	52248.0	550.49 µg/L	550.49 ppb	01:09:31
2	Zn 213.857†	22169.0	21835.3	541.99 µg/L	541.99 ppb	01:09:31
3	Sc RADIAL	57798.5	57798.5	99.0 %		01:08:20
3	Al 396.153Radial†	7130.5	7207.8	5211.1 µg/L	5211.1 ppb	01:08:20
3	Ca 317.933Radial†	5917.9	5776.4	5146.7 µg/L	5146.7 ppb	01:08:40
3	Fe 238.204 Radial†	616.7	606.2	5170.7 µg/L	5170.7 ppb	01:08:40
3	K 766.490 Radial†	7815.3	7734.6	5347.1 µg/L	5347.1 ppb	01:08:20
3	Mg 279.077 IEC†	568.4	564.5	5334.7 µg/L	5334.7 ppb	01:08:40
3	Na 589.592 Radial†	33343.7	33232.3	10514 µg/L	10514 ppb	01:08:20
3	Sr 421.552†	53048.1	53542.6	525.01 µg/L	525.01 ppb	01:08:20
3	Sc 361.383	2019972.4	2019972.4	99.159 %		01:09:58
3	Y 371.029	1380779.0	1380779.0	98.577 %		01:09:58
3	Ag 328.068†	62813.8	63830.6	512.01 µg/L	512.01 ppb	01:10:04
3	As 188.979†	230.5	231.8	443.73 µg/L	443.73 ppb	01:10:24
3	B 249.677†	11660.8	11430.6	493.92 µg/L	493.92 ppb	01:10:04
3	Ba 233.527†	18737.6	18915.6	489.20 µg/L	489.20 ppb	01:10:04
3	Be 313.107†	774060.6	784036.9	497.77 µg/L	497.77 ppb	01:09:58
3	Cd 226.502†	17848.2	18131.0	486.38 µg/L	486.38 ppb	01:10:04
3	Co 228.616†	9889.1	9976.9	484.93 µg/L	484.93 ppb	01:10:04
3	Cr 267.716†	21658.9	21885.1	473.50 µg/L	473.50 ppb	01:10:04
3	Cu 324.752†	72810.7	70176.0	487.96 µg/L	487.96 ppb	01:10:04
3	Mn 257.610†	147383.6	148913.5	504.84 µg/L	504.84 ppb	01:09:58
3	Mo 202.031†	4228.2	4268.2	460.60 µg/L	460.60 ppb	01:10:24
3	Ni 231.604†	9314.9	9094.4	485.69 µg/L	485.69 ppb	01:10:04
3	P 214.914†	1095.3	1083.6	2249.7 µg/L	2249.7 ppb	01:10:24
3	Pb 220.353†	1837.0	1762.9	460.57 µg/L	460.57 ppb	01:10:24
3	S 181.975 Axial†	223.8	210.7	947.50 µg/L	947.50 ppb	01:10:24
3	Sb 206.836†	484.7	467.1	469.99 µg/L	469.99 ppb	01:10:24
3	Se 196.026†	317.6	307.5	459.33 µg/L	459.33 ppb	01:10:24
3	SiO2†	26667.1	25284.5	5330.6 µg/L	5330.6 ppb	01:10:04
3	Si 251.611†	30706.2	30648.7	2496.3 µg/L	2496.3 ppb	01:10:04
3	Sn 189.927†	983.7	989.5	457.83 µg/L	457.83 ppb	01:10:24
3	Ti 334.940†	208606.1	210223.9	505.71 µg/L	505.71 ppb	01:09:58
3	Tl 190.801†	314.8	338.9	482.73 µg/L	482.73 ppb	01:10:24
3	U 409.014†	5576.0	5419.7	464.44 µg/L	464.44 ppb	01:10:04
3	V 292.402†	45567.9	46011.1	484.57 µg/L	484.57 ppb	01:10:04
3	Zn 213.857†	19709.5	19396.1	481.38 µg/L	481.38 ppb	01:10:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2015718.8	98.951	%	0.5282				0.53%
Sc RADIAL	57743.2	98.9	%	0.30				0.31%
Y 371.029	1377429.7	98.338	%	0.5559				0.57%
Ag 328.068†	66825.3	536.17	µg/L	21.064	536.17	ppb	21.064	3.93%
QC value within limits for Ag 328.068 Recovery = 107.23%								
Al 396.153Radial†	7215.8	5215.4	µg/L	12.63	5215.4	ppb	12.63	0.24%
QC value within limits for Al 396.153Radial Recovery = 104.31%								
As 188.979†	267.1	511.36	µg/L	58.778	511.36	ppb	58.778	11.49%
QC value within limits for As 188.979 Recovery = 102.27%								
B 249.677†	12048.1	520.77	µg/L	23.298	520.77	ppb	23.298	4.47%
QC value within limits for B 249.677 Recovery = 104.15%								
Ba 233.527†	20357.6	526.50	µg/L	32.356	526.50	ppb	32.356	6.15%
QC value within limits for Ba 233.527 Recovery = 105.30%								
Be 313.107†	831513.4	527.91	µg/L	26.104	527.91	ppb	26.104	4.94%
QC value within limits for Be 313.107 Recovery = 105.58%								
Ca 317.933Radial†	5781.7	5151.4	µg/L	4.70	5151.4	ppb	4.70	0.09%
QC value within limits for Ca 317.933Radial Recovery = 103.03%								
Cd 226.502†	19571.9	525.08	µg/L	33.562	525.08	ppb	33.562	6.39%
QC value within limits for Cd 226.502 Recovery = 105.02%								
Co 228.616†	10871.2	528.45	µg/L	37.770	528.45	ppb	37.770	7.15%

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   QC value within limits for Co 228.616  Recovery = 105.69%
Cr 267.716†            24292.4      525.57 µg/L        45.130      525.57 ppb         45.130   8.59%
   QC value within limits for Cr 267.716  Recovery = 105.11%
Cu 324.752†            75976.2      528.24 µg/L        35.001      528.24 ppb         35.001   6.63%
   QC value within limits for Cu 324.752  Recovery = 105.65%
Fe 238.204 Radial†       610.1      5204.2 µg/L         30.00      5204.2 ppb          30.00   0.58%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.08%
K 766.490 Radial†       7665.6      5299.4 µg/L         42.22      5299.4 ppb          42.22   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 105.99%
Mg 279.077 IEC†          565.2      5342.1 µg/L         21.09      5342.1 ppb          21.09   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.84%
Mn 257.610†           157455.2      533.78 µg/L        25.060      533.78 ppb         25.060   4.69%
   QC value within limits for Mn 257.610  Recovery = 106.76%
Mo 202.031†             4943.8      533.47 µg/L        63.985      533.47 ppb         63.985  11.99%
   QC value within limits for Mo 202.031  Recovery = 106.69%
Na 589.592 Radial†     33224.9       10512 µg/L          10.1       10512 ppb           10.1   0.10%
   QC value within limits for Na 589.592 Radial  Recovery = 105.12%
Ni 231.604†             9891.8      528.26 µg/L        36.953      528.26 ppb         36.953   7.00%
   QC value within limits for Ni 231.604  Recovery = 105.65%
P 214.914†              1237.6      2573.1 µg/L        282.26      2573.1 ppb         282.26  10.97%
   QC value within limits for P 214.914  Recovery = 102.92%
Pb 220.353†             1997.3      521.87 µg/L        53.501      521.87 ppb         53.501  10.25%
   QC value within limits for Pb 220.353  Recovery = 104.37%
S 181.975 Axial†         236.7      1064.7 µg/L        103.28      1064.7 ppb         103.28   9.70%
   QC value within limits for S 181.975 Axial  Recovery = 106.47%
Sb 206.836†              535.2      538.82 µg/L        60.582      538.82 ppb         60.582  11.24%
   QC value within limits for Sb 206.836  Recovery = 107.76%
Se 196.026†              348.0      518.92 µg/L        53.173      518.92 ppb         53.173  10.25%
   QC value within limits for Se 196.026  Recovery = 103.78%
SiO2†                  26881.9      5667.3 µg/L        292.32      5667.3 ppb         292.32   5.16%
   QC value within limits for SiO2  Recovery = 105.98%
Si 251.611†            32582.3      2653.8 µg/L        136.64      2653.8 ppb         136.64   5.15%
   QC value within limits for Si 251.611  Recovery = 106.15%
Sn 189.927†             1155.5      534.61 µg/L        67.305      534.61 ppb         67.305  12.59%
   QC value within limits for Sn 189.927  Recovery = 106.92%
Sr 421.552†            53452.6      524.13 µg/L         0.838      524.13 ppb          0.838   0.16%
   QC value within limits for Sr 421.552  Recovery = 104.83%
Ti 334.940†           223781.6      538.35 µg/L        28.264      538.35 ppb         28.264   5.25%
   QC value within limits for Ti 334.940  Recovery = 107.67%
Tl 190.801†              371.1      528.28 µg/L        39.867      528.28 ppb         39.867   7.55%
   QC value within limits for Tl 190.801  Recovery = 105.66%
U 409.014†              6008.3      514.98 µg/L        43.884      514.98 ppb         43.884   8.52%
   QC value within limits for U 409.014  Recovery = 103.00%
V 292.402†             50307.1      530.02 µg/L        39.422      530.02 ppb         39.422   7.44%
   QC value within limits for V 292.402  Recovery = 106.00%
Zn 213.857†            21077.3      523.15 µg/L        36.234      523.15 ppb         36.234   6.93%
   QC value within limits for Zn 213.857  Recovery = 104.63%
All analyte(s) passed QC.
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Sequence No.: 6
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/22/2010 01:10:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57150.8	57150.8	97.9	%			01:11:07
1	Al 396.153Radial†	5.1	13.4	9.7000	µg/L	9.7000	ppb	01:11:07
1	Ca 317.933Radial†	185.5	-9.6	-8.5172	µg/L	-8.5172	ppb	01:11:27
1	Fe 238.204 Radial†	16.0	-0.2	-1.3532	µg/L	-1.3532	ppb	01:11:27
1	K 766.490 Radial†	210.0	58.0	40.071	µg/L	40.071	ppb	01:11:07
1	Mg 279.077 IEC†	17.6	8.6	81.308	µg/L	81.308	ppb	01:11:27
1	Na 589.592 Radial†	491.4	67.0	21.192	µg/L	21.192	ppb	01:11:07
1	Sr 421.552†	46.5	27.4	0.2682	µg/L	0.2682	ppb	01:11:07
1	Sc 361.383	2001090.7	2001090.7	98.233	%			01:12:29
1	Y 371.029	1371907.4	1371907.4	97.943	%			01:12:29
1	Ag 328.068†	-530.2	-55.3	-0.4405	µg/L	-0.4405	ppb	01:12:34
1	As 188.979†	-4.6	-5.4	-10.273	µg/L	-10.273	ppb	01:12:55
1	B 249.677†	313.5	-10.0	-0.4310	µg/L	-0.4310	ppb	01:12:55
1	Ba 233.527†	-17.2	1.6	0.0425	µg/L	0.0425	ppb	01:12:55
1	Be 313.107†	-3532.2	-180.8	-0.1148	µg/L	-0.1148	ppb	01:12:34
1	Cd 226.502†	-137.0	-7.9	-0.2130	µg/L	-0.2130	ppb	01:12:55
1	Co 228.616†	-2.2	1.7	0.0858	µg/L	0.0858	ppb	01:12:55
1	Cr 267.716†	-10.8	31.6	0.6836	µg/L	0.6836	ppb	01:12:34
1	Cu 324.752†	3361.6	170.1	1.1809	µg/L	1.1809	ppb	01:12:34
1	Mn 257.610†	-195.5	81.6	0.2729	µg/L	0.2729	ppb	01:12:55
1	Mo 202.031†	4.0	8.1	0.8790	µg/L	0.8790	ppb	01:12:55
1	Ni 231.604†	293.4	-0.7	-0.0387	µg/L	-0.0387	ppb	01:12:55
1	P 214.914†	25.5	4.9	10.320	µg/L	10.320	ppb	01:12:55
1	Pb 220.353†	91.6	3.7	0.9518	µg/L	0.9518	ppb	01:12:55
1	S 181.975 Axial†	15.3	0.5	2.1125	µg/L	2.1125	ppb	01:12:55
1	Sb 206.836†	20.1	-1.3	-1.2582	µg/L	-1.2582	ppb	01:12:55
1	Se 196.026†	13.2	0.6	0.7466	µg/L	0.7466	ppb	01:12:55
1	SiO2†	1596.3	16.3	3.4360	µg/L	3.4360	ppb	01:12:34
1	Si 251.611†	320.0	8.0	0.6536	µg/L	0.6536	ppb	01:12:55
1	Sn 189.927†	1.4	-1.2	-0.5290	µg/L	-0.5290	ppb	01:12:55
1	Ti 334.940†	144.6	-3.2	-0.0144	µg/L	-0.0144	ppb	01:12:34
1	Tl 190.801†	-25.3	-4.3	-6.0816	µg/L	-6.0816	ppb	01:12:55
1	U 409.014†	234.5	35.1	3.0146	µg/L	3.0146	ppb	01:12:34
1	V 292.402†	-48.4	7.7	0.0910	µg/L	0.0910	ppb	01:12:34
1	Zn 213.857†	479.0	7.2	0.1734	µg/L	0.1734	ppb	01:12:55
2	Sc RADIAL	57186.4	57186.4	98.0	%			01:11:33
2	Al 396.153Radial†	-8.4	-0.4	-0.3290	µg/L	-0.3290	ppb	01:11:33
2	Ca 317.933Radial†	190.6	-4.4	-3.9178	µg/L	-3.9178	ppb	01:11:53
2	Fe 238.204 Radial†	14.3	-1.8	-15.599	µg/L	-15.599	ppb	01:11:53
2	K 766.490 Radial†	198.1	45.7	31.563	µg/L	31.563	ppb	01:11:33
2	Mg 279.077 IEC†	11.7	2.5	23.808	µg/L	23.808	ppb	01:11:53
2	Na 589.592 Radial†	440.8	15.0	4.7396	µg/L	4.7396	ppb	01:11:33
2	Sr 421.552†	24.6	5.0	0.0487	µg/L	0.0487	ppb	01:11:33
2	Sc 361.383	1993023.5	1993023.5	97.837	%			01:13:01
2	Y 371.029	1367833.5	1367833.5	97.652	%			01:13:01
2	Ag 328.068†	-499.5	-26.2	-0.2097	µg/L	-0.2097	ppb	01:13:06
2	As 188.979†	-0.9	-1.7	-3.2245	µg/L	-3.2245	ppb	01:13:27
2	B 249.677†	323.2	1.3	0.0641	µg/L	0.0641	ppb	01:13:27
2	Ba 233.527†	-16.9	1.9	0.0499	µg/L	0.0499	ppb	01:13:27
2	Be 313.107†	-3498.4	-160.8	-0.1022	µg/L	-0.1022	ppb	01:13:06
2	Cd 226.502†	-145.6	-17.3	-0.4641	µg/L	-0.4641	ppb	01:13:27
2	Co 228.616†	-3.5	0.4	0.0203	µg/L	0.0203	ppb	01:13:27
2	Cr 267.716†	-43.5	-1.8	-0.0391	µg/L	-0.0391	ppb	01:13:06
2	Cu 324.752†	3319.3	140.8	0.9754	µg/L	0.9754	ppb	01:13:06
2	Mn 257.610†	-198.9	77.3	0.2588	µg/L	0.2588	ppb	01:13:27
2	Mo 202.031†	-0.2	3.9	0.4152	µg/L	0.4152	ppb	01:13:27
2	Ni 231.604†	283.4	-9.7	-0.5202	µg/L	-0.5202	ppb	01:13:27
2	P 214.914†	20.8	0.2	0.2912	µg/L	0.2912	ppb	01:13:27
2	Pb 220.353†	97.4	10.0	2.6053	µg/L	2.6053	ppb	01:13:27

2	S 181.975 Axial†	15.9	1.2	5.2426 µg/L	5.2426 ppb		01:13:27
2	Sb 206.836†	23.1	1.9	1.9562 µg/L	1.9562 ppb		01:13:27
2	Se 196.026†	11.7	-0.9	-1.3367 µg/L	-1.3367 ppb		01:13:27
2	SiO2†	1600.1	26.8	5.6555 µg/L	5.6555 ppb		01:13:06
2	Si 251.611†	314.7	3.9	0.3162 µg/L	0.3162 ppb		01:13:27
2	Sn 189.927†	-0.2	-2.8	-1.2691 µg/L	-1.2691 ppb		01:13:27
2	Ti 334.940†	222.1	76.6	0.1824 µg/L	0.1824 ppb		01:13:06
2	Tl 190.801†	-22.1	-1.2	-1.6638 µg/L	-1.6638 ppb		01:13:27
2	U 409.014†	249.2	51.2	4.3962 µg/L	4.3962 ppb		01:13:06
2	V 292.402†	-50.8	4.9	0.0573 µg/L	0.0573 ppb		01:13:06
2	Zn 213.857†	475.9	6.0	0.1490 µg/L	0.1490 ppb		01:13:27
3	Sc RADIAL	56744.5	56744.5	97.2 %			01:11:58
3	Al 396.153Radial†	-12.5	-4.7	-3.4264 µg/L	-3.4264 ppb		01:11:58
3	Ca 317.933Radial†	189.1	-4.5	-4.0022 µg/L	-4.0022 ppb		01:12:19
3	Fe 238.204 Radial†	15.4	-0.7	-5.5703 µg/L	-5.5703 ppb		01:12:19
3	K 766.490 Radial†	182.6	31.2	21.603 µg/L	21.603 ppb		01:11:58
3	Mg 279.077 IEC†	10.8	1.7	16.535 µg/L	16.535 ppb		01:12:19
3	Na 589.592 Radial†	448.9	26.8	8.4872 µg/L	8.4872 ppb		01:11:58
3	Sr 421.552†	45.5	26.7	0.2614 µg/L	0.2614 ppb		01:11:58
3	Sc 361.383	1998281.6	1998281.6	98.095 %			01:13:33
3	Y 371.029	1369798.7	1369798.7	97.793 %			01:13:33
3	Ag 328.068†	-501.0	-26.4	-0.2118 µg/L	-0.2118 ppb		01:13:38
3	As 188.979†	-0.8	-1.5	-2.8779 µg/L	-2.8779 ppb		01:13:59
3	B 249.677†	331.3	8.6	0.3770 µg/L	0.3770 ppb		01:13:59
3	Ba 233.527†	-16.1	2.7	0.0701 µg/L	0.0701 ppb		01:13:59
3	Be 313.107†	-3477.7	-130.3	-0.0828 µg/L	-0.0828 ppb		01:13:38
3	Cd 226.502†	-119.7	9.5	0.2556 µg/L	0.2556 ppb		01:13:59
3	Co 228.616†	-9.7	-5.9	-0.2868 µg/L	-0.2868 ppb		01:13:59
3	Cr 267.716†	-54.4	-12.8	-0.2773 µg/L	-0.2773 ppb		01:13:38
3	Cu 324.752†	3285.0	96.9	0.6719 µg/L	0.6719 ppb		01:13:38
3	Mn 257.610†	-210.0	66.5	0.2240 µg/L	0.2240 ppb		01:13:59
3	Mo 202.031†	4.8	9.0	0.9729 µg/L	0.9729 ppb		01:13:59
3	Ni 231.604†	295.5	1.9	0.1001 µg/L	0.1001 ppb		01:13:59
3	P 214.914†	20.3	-0.4	-0.8368 µg/L	-0.8368 ppb		01:13:59
3	Pb 220.353†	89.6	1.8	0.4703 µg/L	0.4703 ppb		01:13:59
3	S 181.975 Axial†	13.2	-1.6	-7.4122 µg/L	-7.4122 ppb		01:13:59
3	Sb 206.836†	24.3	3.1	3.1198 µg/L	3.1198 ppb		01:13:59
3	Se 196.026†	20.5	8.1	11.826 µg/L	11.826 ppb		01:13:59
3	SiO2†	1654.6	78.1	16.463 µg/L	16.463 ppb		01:13:38
3	Si 251.611†	341.2	30.1	2.4523 µg/L	2.4523 ppb		01:13:59
3	Sn 189.927†	7.1	4.6	2.1521 µg/L	2.1521 ppb		01:13:59
3	Ti 334.940†	225.8	79.7	0.1906 µg/L	0.1906 ppb		01:13:38
3	Tl 190.801†	-21.9	-1.0	-1.3647 µg/L	-1.3647 ppb		01:13:59
3	U 409.014†	155.9	-44.6	-3.8309 µg/L	-3.8309 ppb		01:13:38
3	V 292.402†	-74.8	-19.4	-0.1996 µg/L	-0.1996 ppb		01:13:38
3	Zn 213.857†	457.6	-14.0	-0.3531 µg/L	-0.3531 ppb		01:13:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1997465.3	98.055	%	0.2010				0.21%
Sc RADIAL	57027.2	97.7	%	0.42				0.43%
Y 371.029	1369846.5	97.796	%	0.1455				0.15%
Ag 328.068†	-36.0	-0.2873	µg/L	0.13267	-0.2873	ppb	0.13267	46.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.8	1.9815	µg/L	6.86147	1.9815	ppb	6.86147	346.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-5.4586	µg/L	4.17327	-5.4586	ppb	4.17327	76.45%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-0.0	0.0034	µg/L	0.40743	0.0034	ppb	0.40743	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0541	µg/L	0.01427	0.0541	ppb	0.01427	26.36%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-157.3	-0.1000	µg/L	0.01611	-0.1000	ppb	0.01611	16.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.1	-5.4790	µg/L	2.63142	-5.4790	ppb	2.63142	48.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.3	-0.1405	µg/L	0.36529	-0.1405	ppb	0.36529	260.03%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.2	-0.0602	µg/L	0.19895	-0.0602	ppb	0.19895	330.29%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.7      0.1224 µg/L       0.50043      0.1224 ppb        0.50043 408.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               135.9      0.9427 µg/L       0.25607      0.9427 ppb        0.25607  27.16%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.9     -7.5076 µg/L       7.31798     -7.5076 ppb        7.31798  97.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          45.0      31.079 µg/L        9.2434      31.079 ppb         9.2434  29.74%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.3      40.551 µg/L       35.4838      40.551 ppb        35.4838  87.51%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                75.1      0.2519 µg/L       0.02517      0.2519 ppb        0.02517   9.99%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.0      0.7557 µg/L       0.29863      0.7557 ppb        0.29863  39.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         36.3      11.473 µg/L        8.6229      11.473 ppb         8.6229  75.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.9     -0.1529 µg/L       0.32557     -0.1529 ppb        0.32557 212.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.6      3.2582 µg/L       6.14171      3.2582 ppb        6.14171 188.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.1      1.3425 µg/L       1.11981      1.3425 ppb        1.11981  83.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.0     -0.0191 µg/L       6.59117     -0.0191 ppb        6.59117 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.3      1.2726 µg/L       2.26763      1.2726 ppb        2.26763 178.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.6      3.7453 µg/L       7.07520      3.7453 ppb        7.07520 188.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      40.4      8.5181 µg/L       6.96921      8.5181 ppb        6.96921  81.82%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                14.0      1.1407 µg/L       1.14835      1.1407 ppb        1.14835 100.67%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.2      0.1180 µg/L       1.80003      0.1180 ppb        1.80003 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                19.7      0.1928 µg/L       0.12479      0.1928 ppb        0.12479  64.73%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                51.0      0.1195 µg/L       0.11605      0.1195 ppb        0.11605  97.08%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.2     -3.0367 µg/L       2.64121     -3.0367 ppb        2.64121  86.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 13.9      1.1933 µg/L       4.40559      1.1933 ppb        4.40559 369.19%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -2.3     -0.0171 µg/L       0.15895     -0.0171 ppb        0.15895 927.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -0.3     -0.0103 µg/L       0.29714     -0.0103 ppb        0.29714 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/23/2010 14:53:28 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optimal\Sample Information\022310A.SIF
Batch ID:
Results Data Set: 022310A
Results Library: c:\pe\optimal\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/23/2010 14:53:30**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55243.4	55243.4	99.7	%	14:54:05
1	Al 396.153Radial†	22.8	22.8	[0.00]	µg/L	14:54:05
1	Ca 317.933Radial†	215.0	215.5	[0.00]	µg/L	14:54:25
1	Fe 238.204 Radial†	18.4	18.5	[0.00]	µg/L	14:54:25
1	K 766.490 Radial†	194.2	194.7	[0.00]	µg/L	14:54:05
1	Mg 279.077 IEC†	13.3	13.3	[0.00]	µg/L	14:54:25
1	Na 589.592 Radial†	377.6	378.6	[0.00]	µg/L	14:54:05
1	Sr 421.552†	11.4	11.4	[0.00]	µg/L	14:54:05
1	Sc 361.383	1948188.6	1948188.6	100.02	%	14:55:23
1	Y 371.029	1337693.7	1337693.7	100.03	%	14:55:23
1	Ag 328.068†	-474.1	-474.0	[0.00]	µg/L	14:55:29
1	As 188.979†	0.4	0.4	[0.00]	µg/L	14:55:49
1	B 249.677†	308.5	308.4	[0.00]	µg/L	14:55:49
1	Ba 233.527†	-34.5	-34.5	[0.00]	µg/L	14:55:49
1	Be 313.107†	-3607.9	-3607.2	[0.00]	µg/L	14:55:29
1	Cd 226.502†	-123.4	-123.4	[0.00]	µg/L	14:55:49
1	Co 228.616†	-3.1	-3.1	[0.00]	µg/L	14:55:49
1	Cr 267.716†	-30.0	-30.0	[0.00]	µg/L	14:55:49
1	Cu 324.752†	3244.2	3243.5	[0.00]	µg/L	14:55:29
1	Mn 257.610†	-250.3	-250.3	[0.00]	µg/L	14:55:49
1	Mo 202.031†	0.3	0.3	[0.00]	µg/L	14:55:49
1	Ni 231.604†	284.2	284.2	[0.00]	µg/L	14:55:49
1	P 214.914†	31.2	31.2	[0.00]	µg/L	14:55:49
1	Pb 220.353†	81.7	81.7	[0.00]	µg/L	14:55:49
1	S 181.975 Axial†	14.3	14.3	[0.00]	µg/L	14:55:49
1	Sb 206.836†	21.5	21.5	[0.00]	µg/L	14:55:49
1	Se 196.026†	12.2	12.2	[0.00]	µg/L	14:55:49
1	SiO2†	1519.2	1518.9	[0.00]	µg/L	14:55:29
1	Si 251.611†	276.2	276.1	[0.00]	µg/L	14:55:49
1	Sn 189.927†	5.1	5.1	[0.00]	µg/L	14:55:49
1	Ti 334.940†	139.5	139.4	[0.00]	µg/L	14:55:29
1	Tl 190.801†	-20.0	-20.0	[0.00]	µg/L	14:55:49
1	U 409.014†	272.4	272.4	[0.00]	µg/L	14:55:29
1	V 292.402†	-49.4	-49.4	[0.00]	µg/L	14:55:29
1	Zn 213.857†	470.2	470.1	[0.00]	µg/L	14:55:49
2	Sc RADIAL	55449.5	55449.5	100	%	14:54:30
2	Al 396.153Radial†	3.3	3.3	[0.00]	µg/L	14:54:30
2	Ca 317.933Radial†	212.3	212.0	[0.00]	µg/L	14:54:50
2	Fe 238.204 Radial†	15.9	15.9	[0.00]	µg/L	14:54:50
2	K 766.490 Radial†	146.3	146.1	[0.00]	µg/L	14:54:30
2	Mg 279.077 IEC†	14.8	14.8	[0.00]	µg/L	14:54:50
2	Na 589.592 Radial†	341.5	341.2	[0.00]	µg/L	14:54:30
2	Sr 421.552†	24.8	24.7	[0.00]	µg/L	14:54:30
2	Sc 361.383	1947791.9	1947791.9	100.00	%	14:55:55
2	Y 371.029	1336341.1	1336341.1	99.926	%	14:55:55
2	Ag 328.068†	-512.3	-512.3	[0.00]	µg/L	14:56:00
2	As 188.979†	-0.1	-0.1	[0.00]	µg/L	14:56:20

2	B 249.677†	317.2	317.2	[0.00]	µg/L	14:56:20
2	Ba 233.527†	-20.8	-20.8	[0.00]	µg/L	14:56:20
2	Be 313.107†	-3663.5	-3663.5	[0.00]	µg/L	14:56:00
2	Cd 226.502†	-118.4	-118.4	[0.00]	µg/L	14:56:20
2	Co 228.616†	-10.0	-10.0	[0.00]	µg/L	14:56:20
2	Cr 267.716†	-37.7	-37.7	[0.00]	µg/L	14:56:20
2	Cu 324.752†	3204.2	3204.2	[0.00]	µg/L	14:56:00
2	Mn 257.610†	-244.0	-244.0	[0.00]	µg/L	14:56:20
2	Mo 202.031†	5.8	5.8	[0.00]	µg/L	14:56:20
2	Ni 231.604†	278.2	278.2	[0.00]	µg/L	14:56:20
2	P 214.914†	28.4	28.4	[0.00]	µg/L	14:56:20
2	Pb 220.353†	97.6	97.6	[0.00]	µg/L	14:56:20
2	S 181.975 Axial†	15.6	15.6	[0.00]	µg/L	14:56:20
2	Sb 206.836†	24.4	24.4	[0.00]	µg/L	14:56:20
2	Se 196.026†	12.8	12.8	[0.00]	µg/L	14:56:20
2	SiO2†	1515.9	1515.9	[0.00]	µg/L	14:56:00
2	Si 251.611†	290.0	290.0	[0.00]	µg/L	14:56:20
2	Sn 189.927†	-0.2	-0.2	[0.00]	µg/L	14:56:20
2	Ti 334.940†	136.8	136.8	[0.00]	µg/L	14:56:00
2	Tl 190.801†	-19.8	-19.8	[0.00]	µg/L	14:56:20
2	U 409.014†	179.3	179.3	[0.00]	µg/L	14:56:00
2	V 292.402†	-68.5	-68.5	[0.00]	µg/L	14:56:00
2	Zn 213.857†	460.6	460.6	[0.00]	µg/L	14:56:20
3	Sc RADIAL	55478.6	55478.6	100	%	14:54:55
3	Al 396.153Radial†	21.9	21.9	[0.00]	µg/L	14:54:55
3	Ca 317.933Radial†	218.3	217.9	[0.00]	µg/L	14:55:16
3	Fe 238.204 Radial†	19.0	19.0	[0.00]	µg/L	14:55:16
3	K 766.490 Radial†	192.2	191.9	[0.00]	µg/L	14:54:55
3	Mg 279.077 IEC†	13.1	13.1	[0.00]	µg/L	14:55:16
3	Na 589.592 Radial†	417.0	416.4	[0.00]	µg/L	14:54:55
3	Sr 421.552†	23.9	23.9	[0.00]	µg/L	14:54:55
3	Sc 361.383	1947343.8	1947343.8	99.978	%	14:56:26
3	Y 371.029	1337958.1	1337958.1	100.05	%	14:56:26
3	Ag 328.068†	-544.4	-544.5	[0.00]	µg/L	14:56:31
3	As 188.979†	2.1	2.1	[0.00]	µg/L	14:56:51
3	B 249.677†	313.6	313.6	[0.00]	µg/L	14:56:51
3	Ba 233.527†	-20.9	-20.9	[0.00]	µg/L	14:56:51
3	Be 313.107†	-3627.2	-3628.0	[0.00]	µg/L	14:56:31
3	Cd 226.502†	-127.8	-127.9	[0.00]	µg/L	14:56:51
3	Co 228.616†	-4.4	-4.4	[0.00]	µg/L	14:56:51
3	Cr 267.716†	-10.1	-10.1	[0.00]	µg/L	14:56:51
3	Cu 324.752†	3243.1	3243.8	[0.00]	µg/L	14:56:31
3	Mn 257.610†	-231.5	-231.6	[0.00]	µg/L	14:56:51
3	Mo 202.031†	-2.8	-2.8	[0.00]	µg/L	14:56:51
3	Ni 231.604†	279.7	279.8	[0.00]	µg/L	14:56:51
3	P 214.914†	23.0	23.0	[0.00]	µg/L	14:56:51
3	Pb 220.353†	91.8	91.8	[0.00]	µg/L	14:56:51
3	S 181.975 Axial†	15.3	15.3	[0.00]	µg/L	14:56:51
3	Sb 206.836†	17.3	17.3	[0.00]	µg/L	14:56:51
3	Se 196.026†	10.8	10.8	[0.00]	µg/L	14:56:51
3	SiO2†	1500.8	1501.1	[0.00]	µg/L	14:56:31
3	Si 251.611†	288.5	288.6	[0.00]	µg/L	14:56:51
3	Sn 189.927†	-2.4	-2.4	[0.00]	µg/L	14:56:51
3	Ti 334.940†	158.2	158.2	[0.00]	µg/L	14:56:31
3	Tl 190.801†	-22.0	-22.0	[0.00]	µg/L	14:56:51
3	U 409.014†	224.4	224.5	[0.00]	µg/L	14:56:31
3	V 292.402†	-24.0	-24.1	[0.00]	µg/L	14:56:31
3	Zn 213.857†	466.9	467.0	[0.00]	µg/L	14:56:51

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1947774.8	422.64	0.02%	100.00	%
Sc RADIAL	55390.5	128.18	0.23%	100	%
Y 371.029	1337331.0	867.40	0.06%	100.00	%
Ag 328.068†	-510.3	35.31	6.92%	[0.00]	µg/L
Al 396.153Radial†	16.0	11.02	68.75%	[0.00]	µg/L
As 188.979†	0.8	1.18	148.16%	[0.00]	µg/L
B 249.677†	313.1	4.40	1.41%	[0.00]	µg/L
Ba 233.527†	-25.4	7.88	31.03%	[0.00]	µg/L

Be 313.107†	-3632.9	28.49	0.78%	[0.00]	µg/L
Ca 317.933Radial†	215.2	2.97	1.38%	[0.00]	µg/L
Cd 226.502†	-123.2	4.72	3.83%	[0.00]	µg/L
Co 228.616†	-5.8	3.68	63.26%	[0.00]	µg/L
Cr 267.716†	-25.9	14.22	54.86%	[0.00]	µg/L
Cu 324.752†	3230.5	22.78	0.71%	[0.00]	µg/L
Fe 238.204 Radial†	17.8	1.63	9.18%	[0.00]	µg/L
K 766.490 Radial†	177.6	27.29	15.37%	[0.00]	µg/L
Mg 279.077 IEC†	13.7	0.93	6.80%	[0.00]	µg/L
Mn 257.610†	-242.0	9.52	3.94%	[0.00]	µg/L
Mo 202.031†	1.1	4.34	388.55%	[0.00]	µg/L
Na 589.592 Radial†	378.7	37.60	9.93%	[0.00]	µg/L
Ni 231.604†	280.7	3.10	1.10%	[0.00]	µg/L
P 214.914†	27.5	4.15	15.08%	[0.00]	µg/L
Pb 220.353†	90.4	8.06	8.92%	[0.00]	µg/L
S 181.975 Axial†	15.1	0.70	4.62%	[0.00]	µg/L
Sb 206.836†	21.1	3.59	17.06%	[0.00]	µg/L
Se 196.026†	11.9	1.06	8.85%	[0.00]	µg/L
SiO2†	1512.0	9.53	0.63%	[0.00]	µg/L
Si 251.611†	284.9	7.64	2.68%	[0.00]	µg/L
Sn 189.927†	0.8	3.83	450.80%	[0.00]	µg/L
Sr 421.552†	20.0	7.44	37.17%	[0.00]	µg/L
Ti 334.940†	144.8	11.68	8.06%	[0.00]	µg/L
Tl 190.801†	-20.6	1.24	6.02%	[0.00]	µg/L
U 409.014†	225.4	46.55	20.66%	[0.00]	µg/L
V 292.402†	-47.3	22.30	47.12%	[0.00]	µg/L
Zn 213.857†	465.9	4.87	1.05%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/23/2010 14:56:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56264.8	56264.8	102	%	14:57:33
1	K 766.490 Radial†	1703.6	1499.6	[1000]	µg/L	14:57:33
1	Sr 421.552†	10437.1	10254.9	[100]	µg/L	14:57:33
1	Sc 361.383	1932321.7	1932321.7	99.207	%	14:57:52
1	Y 371.029	1326334.6	1326334.6	99.178	%	14:57:52
1	Ag 328.068†	12771.5	13383.9	[100]	µg/L	14:57:57
1	As 188.979†	59.1	58.8	[100]	µg/L	14:58:18
1	B 249.677†	2606.4	2314.2	[100]	µg/L	14:57:57
1	Ba 233.527†	3945.1	4002.1	[100]	µg/L	14:57:57
1	Be 313.107†	158605.2	163506.5	[100]	µg/L	14:57:52
1	Cd 226.502†	3702.7	3855.6	[100]	µg/L	14:57:57
1	Co 228.616†	2142.8	2165.7	[100]	µg/L	14:58:18
1	Cr 267.716†	4782.4	4846.5	[100]	µg/L	14:57:57
1	Cu 324.752†	18765.4	15685.0	[100]	µg/L	14:57:57
1	Mn 257.610†	30613.9	31100.7	[100]	µg/L	14:57:57
1	Mo 202.031†	1010.5	1017.4	[100]	µg/L	14:58:18
1	Ni 231.604†	2241.3	1978.5	[100]	µg/L	14:57:57
1	P 214.914†	275.2	249.9	[500]	µg/L	14:58:18
1	Pb 220.353†	503.3	417.0	[100]	µg/L	14:58:18
1	S 181.975 Axial†	61.4	46.8	[200]	µg/L	14:58:18
1	Sb 206.836†	127.7	107.7	[100]	µg/L	14:58:18
1	Se 196.026†	82.5	71.3	[100]	µg/L	14:58:18
1	SiO2†	6704.4	5246.0	[1069.5]	µg/L	14:57:57
1	Si 251.611†	6552.6	6320.2	[500]	µg/L	14:57:57
1	Sn 189.927†	237.6	238.6	[100]	µg/L	14:58:18
1	Ti 334.940†	43337.5	43539.2	[100]	µg/L	14:57:57
1	Tl 190.801†	50.7	71.7	[100]	µg/L	14:58:18
1	U 409.014†	1380.6	1166.2	[100]	µg/L	14:57:57
1	V 292.402†	9921.5	10048.2	[100]	µg/L	14:57:57
1	Zn 213.857†	4689.4	4261.0	[100]	µg/L	14:57:57
2	Sc RADIAL	56604.0	56604.0	102	%	14:57:38
2	K 766.490 Radial†	1662.6	1449.4	[1000]	µg/L	14:57:38
2	Sr 421.552†	10465.5	10221.1	[100]	µg/L	14:57:38
2	Sc 361.383	1937926.9	1937926.9	99.494	%	14:58:24
2	Y 371.029	1329248.0	1329248.0	99.396	%	14:58:24
2	Ag 328.068†	12748.4	13323.4	[100]	µg/L	14:58:29
2	As 188.979†	58.6	58.1	[100]	µg/L	14:58:49
2	B 249.677†	2644.3	2344.6	[100]	µg/L	14:58:29
2	Ba 233.527†	3973.3	4018.9	[100]	µg/L	14:58:29
2	Be 313.107†	159217.7	163659.7	[100]	µg/L	14:58:24
2	Cd 226.502†	3739.4	3881.6	[100]	µg/L	14:58:29
2	Co 228.616†	2105.6	2122.1	[100]	µg/L	14:58:49
2	Cr 267.716†	4813.6	4864.0	[100]	µg/L	14:58:29
2	Cu 324.752†	18763.8	15628.7	[100]	µg/L	14:58:29
2	Mn 257.610†	30708.2	31106.2	[100]	µg/L	14:58:29
2	Mo 202.031†	1007.3	1011.3	[100]	µg/L	14:58:49
2	Ni 231.604†	2265.4	1996.2	[100]	µg/L	14:58:29
2	P 214.914†	277.2	251.1	[500]	µg/L	14:58:49
2	Pb 220.353†	503.7	415.9	[100]	µg/L	14:58:49
2	S 181.975 Axial†	62.5	47.7	[200]	µg/L	14:58:49
2	Sb 206.836†	131.1	110.7	[100]	µg/L	14:58:49
2	Se 196.026†	83.1	71.6	[100]	µg/L	14:58:49
2	SiO2†	6739.3	5261.6	[1069.5]	µg/L	14:58:29
2	Si 251.611†	6626.6	6375.4	[500]	µg/L	14:58:29
2	Sn 189.927†	230.7	231.1	[100]	µg/L	14:58:49
2	Ti 334.940†	43528.3	43604.7	[100]	µg/L	14:58:29
2	Tl 190.801†	48.8	69.6	[100]	µg/L	14:58:49
2	U 409.014†	1510.4	1292.7	[100]	µg/L	14:58:29
2	V 292.402†	10019.4	10117.7	[100]	µg/L	14:58:29

2	Zn 213.857†	4706.7	4264.7	[100]	µg/L	14:58:29
3	Sc RADIAL	55919.6	55919.6	101	%	14:57:44
3	K 766.490 Radial†	1668.5	1475.1	[1000]	µg/L	14:57:44
3	Sr 421.552†	10357.7	10239.6	[100]	µg/L	14:57:44
3	Sc 361.383	1942250.8	1942250.8	99.716	%	14:58:55
3	Y 371.029	1333403.4	1333403.4	99.706	%	14:58:55
3	Ag 328.068†	12851.8	13398.6	[100]	µg/L	14:59:01
3	As 188.979†	61.6	61.0	[100]	µg/L	14:59:21
3	B 249.677†	2650.5	2345.0	[100]	µg/L	14:59:01
3	Ba 233.527†	3990.5	4027.3	[100]	µg/L	14:59:01
3	Be 313.107†	159395.0	163481.2	[100]	µg/L	14:58:55
3	Cd 226.502†	3785.0	3919.0	[100]	µg/L	14:59:01
3	Co 228.616†	2120.6	2132.5	[100]	µg/L	14:59:21
3	Cr 267.716†	4860.2	4900.0	[100]	µg/L	14:59:01
3	Cu 324.752†	18825.1	15648.1	[100]	µg/L	14:59:01
3	Mn 257.610†	30845.2	31174.9	[100]	µg/L	14:59:01
3	Mo 202.031†	1002.2	1003.9	[100]	µg/L	14:59:21
3	Ni 231.604†	2274.1	1999.8	[100]	µg/L	14:59:01
3	P 214.914†	274.5	247.7	[500]	µg/L	14:59:21
3	Pb 220.353†	495.1	406.1	[100]	µg/L	14:59:21
3	S 181.975 Axial†	59.2	44.3	[200]	µg/L	14:59:21
3	Sb 206.836†	126.6	105.9	[100]	µg/L	14:59:21
3	Se 196.026†	86.5	74.8	[100]	µg/L	14:59:21
3	SiO2†	6793.9	5301.3	[1069.5]	µg/L	14:59:01
3	Si 251.611†	6664.1	6398.1	[500]	µg/L	14:59:01
3	Sn 189.927†	235.7	235.5	[100]	µg/L	14:59:21
3	Ti 334.940†	43837.9	43817.8	[100]	µg/L	14:59:01
3	Tl 190.801†	53.3	74.0	[100]	µg/L	14:59:21
3	U 409.014†	1527.3	1306.3	[100]	µg/L	14:59:01
3	V 292.402†	10053.0	10128.9	[100]	µg/L	14:59:01
3	Zn 213.857†	4723.7	4271.2	[100]	µg/L	14:59:01

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1937499.8	4978.30	0.26%	99.472	%
Sc RADIAL	56262.8	342.22	0.61%	102	%
Y 371.029	1329662.0	3552.58	0.27%	99.427	%
Ag 328.068†	13368.7	39.84	0.30%	[100]	µg/L
As 188.979†	59.3	1.51	2.55%	[100]	µg/L
B 249.677†	2334.6	17.68	0.76%	[100]	µg/L
Ba 233.527†	4016.1	12.82	0.32%	[100]	µg/L
Be 313.107†	163549.2	96.58	0.06%	[100]	µg/L
Cd 226.502†	3885.4	31.90	0.82%	[100]	µg/L
Co 228.616†	2140.1	22.77	1.06%	[100]	µg/L
Cr 267.716†	4870.2	27.25	0.56%	[100]	µg/L
Cu 324.752†	15653.9	28.59	0.18%	[100]	µg/L
K 766.490 Radial†	1474.7	25.11	1.70%	[1000]	µg/L
Mn 257.610†	31127.3	41.36	0.13%	[100]	µg/L
Mo 202.031†	1010.9	6.77	0.67%	[100]	µg/L
Ni 231.604†	1991.5	11.38	0.57%	[100]	µg/L
P 214.914†	249.6	1.72	0.69%	[500]	µg/L
Pb 220.353†	413.0	6.00	1.45%	[100]	µg/L
S 181.975 Axial†	46.3	1.78	3.84%	[200]	µg/L
Sb 206.836†	108.1	2.40	2.22%	[100]	µg/L
Se 196.026†	72.5	1.97	2.71%	[100]	µg/L
SiO2†	5269.6	28.50	0.54%	[1069.5]	µg/L
Si 251.611†	6364.6	40.10	0.63%	[500]	µg/L
Sn 189.927†	235.1	3.80	1.62%	[100]	µg/L
Sr 421.552†	10238.6	16.96	0.17%	[100]	µg/L
Ti 334.940†	43653.9	145.65	0.33%	[100]	µg/L
Tl 190.801†	71.8	2.19	3.05%	[100]	µg/L
U 409.014†	1255.1	77.23	6.15%	[100]	µg/L
V 292.402†	10098.3	43.71	0.43%	[100]	µg/L
Zn 213.857†	4265.6	5.18	0.12%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/23/2010 14:59:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56635.5	56635.5	102	%	15:00:01
1	Al 396.153Radial†	6955.0	6786.0	[5000]	µg/L	15:00:01
1	Ca 317.933Radial†	5513.7	5177.3	[5000]	µg/L	15:00:21
1	K 766.490 Radial†	7687.5	7341.0	[5000]	µg/L	15:00:01
1	Mg 279.077 IEC†	540.4	514.8	[5000]	µg/L	15:00:21
1	Sr 421.552†	51300.6	50152.9	[500]	µg/L	15:00:01
1	Sc 361.383	1930882.3	1930882.3	99.133	%	15:01:20
1	Y 371.029	1320366.6	1320366.6	98.731	%	15:01:20
1	Ag 328.068†	64489.0	65563.5	[500]	µg/L	15:01:26
1	As 188.979†	265.0	266.5	[500]	µg/L	15:01:46
1	B 249.677†	11826.8	11617.2	[500]	µg/L	15:01:26
1	Ba 233.527†	19379.2	19574.2	[500]	µg/L	15:01:26
1	Be 313.107†	781673.4	792144.8	[500]	µg/L	15:01:20
1	Cd 226.502†	18339.2	18622.9	[500]	µg/L	15:01:26
1	Co 228.616†	10380.3	10476.9	[500]	µg/L	15:01:26
1	Cr 267.716†	23413.2	23643.9	[500]	µg/L	15:01:26
1	Cu 324.752†	77675.0	75124.0	[500]	µg/L	15:01:26
1	Mn 257.610†	147806.4	149341.4	[500]	µg/L	15:01:20
1	Mo 202.031†	4954.8	4997.0	[500]	µg/L	15:01:46
1	Ni 231.604†	9739.7	9544.2	[500]	µg/L	15:01:26
1	P 214.914†	1228.9	1212.1	[2500]	µg/L	15:01:46
1	Pb 220.353†	2058.0	1985.6	[500]	µg/L	15:01:46
1	S 181.975 Axial†	245.4	232.5	[1000]	µg/L	15:01:46
1	Sb 206.836†	552.3	536.1	[500]	µg/L	15:01:46
1	Se 196.026†	360.9	352.1	[500]	µg/L	15:01:46
1	SiO2†	27117.1	25842.3	[5347.5]	µg/L	15:01:26
1	Si 251.611†	31236.3	31224.7	[2500]	µg/L	15:01:26
1	Sn 189.927†	1153.8	1163.1	[500]	µg/L	15:01:46
1	Ti 334.940†	214892.6	216627.8	[500]	µg/L	15:01:20
1	Tl 190.801†	342.5	366.0	[500]	µg/L	15:01:46
1	U 409.014†	6265.0	6094.5	[500]	µg/L	15:01:26
1	V 292.402†	48731.1	49204.7	[500]	µg/L	15:01:26
1	Zn 213.857†	20725.7	20441.1	[500]	µg/L	15:01:26
2	Sc RADIAL	55982.0	55982.0	101	%	15:00:26
2	Al 396.153Radial†	6879.4	6790.7	[5000]	µg/L	15:00:26
2	Ca 317.933Radial†	5555.3	5281.4	[5000]	µg/L	15:00:46
2	K 766.490 Radial†	7555.6	7298.2	[5000]	µg/L	15:00:26
2	Mg 279.077 IEC†	546.7	527.2	[5000]	µg/L	15:00:46
2	Sr 421.552†	50693.0	50137.4	[500]	µg/L	15:00:26
2	Sc 361.383	1929969.7	1929969.7	99.086	%	15:01:53
2	Y 371.029	1319692.1	1319692.1	98.681	%	15:01:53
2	Ag 328.068†	64260.6	65363.7	[500]	µg/L	15:01:58
2	As 188.979†	272.7	274.4	[500]	µg/L	15:02:18
2	B 249.677†	11765.2	11560.7	[500]	µg/L	15:01:58
2	Ba 233.527†	19291.9	19495.3	[500]	µg/L	15:01:58
2	Be 313.107†	782952.1	793808.2	[500]	µg/L	15:01:53
2	Cd 226.502†	18276.7	18568.6	[500]	µg/L	15:01:58
2	Co 228.616†	10321.4	10422.4	[500]	µg/L	15:01:58
2	Cr 267.716†	23313.1	23554.1	[500]	µg/L	15:01:58
2	Cu 324.752†	77412.6	74896.3	[500]	µg/L	15:01:58
2	Mn 257.610†	148267.8	149877.6	[500]	µg/L	15:01:53
2	Mo 202.031†	4897.9	4942.0	[500]	µg/L	15:02:18
2	Ni 231.604†	9686.2	9494.9	[500]	µg/L	15:01:58
2	P 214.914†	1216.1	1199.7	[2500]	µg/L	15:02:18
2	Pb 220.353†	2035.6	1964.0	[500]	µg/L	15:02:18
2	S 181.975 Axial†	247.9	235.1	[1000]	µg/L	15:02:18
2	Sb 206.836†	544.6	528.5	[500]	µg/L	15:02:18
2	Se 196.026†	347.7	338.9	[500]	µg/L	15:02:18
2	SiO2†	27042.8	25780.3	[5347.5]	µg/L	15:01:58

2	Si 251.611†	31131.5	31133.8	[2500]	µg/L	15:01:58
2	Sn 189.927†	1131.7	1141.2	[500]	µg/L	15:02:18
2	Ti 334.940†	215246.7	217087.7	[500]	µg/L	15:01:53
2	Tl 190.801†	337.5	361.2	[500]	µg/L	15:02:18
2	U 409.014†	6094.0	5924.8	[500]	µg/L	15:01:58
2	V 292.402†	48382.3	48876.0	[500]	µg/L	15:01:58
2	Zn 213.857†	20641.3	20365.8	[500]	µg/L	15:01:58
3	Sc RADIAL	56152.3	56152.3	101	%	15:00:51
3	Al 396.153Radial†	6931.4	6821.3	[5000]	µg/L	15:00:51
3	Ca 317.933Radial†	5542.5	5252.1	[5000]	µg/L	15:01:12
3	K 766.490 Radial†	7584.3	7303.8	[5000]	µg/L	15:00:51
3	Mg 279.077 IEC†	545.9	524.7	[5000]	µg/L	15:01:12
3	Sr 421.552†	50821.2	50111.7	[500]	µg/L	15:00:51
3	Sc 361.383	1950899.1	1950899.1	100.16	%	15:02:25
3	Y 371.029	1335376.7	1335376.7	99.854	%	15:02:25
3	Ag 328.068†	61132.9	61545.3	[500]	µg/L	15:02:31
3	As 188.979†	231.9	230.7	[500]	µg/L	15:02:51
3	B 249.677†	11159.7	10828.7	[500]	µg/L	15:02:31
3	Ba 233.527†	17944.3	17941.0	[500]	µg/L	15:02:31
3	Be 313.107†	750214.7	752646.1	[500]	µg/L	15:02:25
3	Cd 226.502†	16881.6	16977.8	[500]	µg/L	15:02:31
3	Co 228.616†	9532.9	9523.5	[500]	µg/L	15:02:31
3	Cr 267.716†	20901.4	20893.9	[500]	µg/L	15:02:31
3	Cu 324.752†	71473.2	68128.2	[500]	µg/L	15:02:31
3	Mn 257.610†	142080.4	142094.8	[500]	µg/L	15:02:25
3	Mo 202.031†	4153.6	4145.9	[500]	µg/L	15:02:51
3	Ni 231.604†	8908.0	8613.1	[500]	µg/L	15:02:31
3	P 214.914†	1060.2	1030.9	[2500]	µg/L	15:02:51
3	Pb 220.353†	1804.4	1711.2	[500]	µg/L	15:02:51
3	S 181.975 Axial†	220.4	205.0	[1000]	µg/L	15:02:51
3	Sb 206.836†	481.9	460.1	[500]	µg/L	15:02:51
3	Se 196.026†	320.2	307.8	[500]	µg/L	15:02:51
3	SiO2†	25429.8	23877.1	[5347.5]	µg/L	15:02:31
3	Si 251.611†	29251.5	28919.7	[2500]	µg/L	15:02:31
3	Sn 189.927†	957.0	954.6	[500]	µg/L	15:02:51
3	Ti 334.940†	205102.1	204628.8	[500]	µg/L	15:02:25
3	Tl 190.801†	306.2	326.3	[500]	µg/L	15:02:51
3	U 409.014†	5580.5	5346.2	[500]	µg/L	15:02:31
3	V 292.402†	44400.6	44376.8	[500]	µg/L	15:02:31
3	Zn 213.857†	19033.8	18537.4	[500]	µg/L	15:02:31

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1937250.4	11828.95	0.61%	99.460	%
Sc RADIAL	56256.6	338.98	0.60%	102	%
Y 371.029	1325145.1	8867.20	0.67%	99.089	%
Ag 328.068†	64157.5	2264.43	3.53%	[500]	µg/L
Al 396.153Radial†	6799.4	19.15	0.28%	[5000]	µg/L
As 188.979†	257.2	23.28	9.05%	[500]	µg/L
B 249.677†	11335.5	439.81	3.88%	[500]	µg/L
Ba 233.527†	19003.5	921.02	4.85%	[500]	µg/L
Be 313.107†	779533.0	23299.61	2.99%	[500]	µg/L
Ca 317.933Radial†	5236.9	53.68	1.03%	[5000]	µg/L
Cd 226.502†	18056.4	934.50	5.18%	[500]	µg/L
Co 228.616†	10140.9	535.42	5.28%	[500]	µg/L
Cr 267.716†	22697.3	1562.45	6.88%	[500]	µg/L
Cu 324.752†	72716.2	3974.92	5.47%	[500]	µg/L
K 766.490 Radial†	7314.3	23.24	0.32%	[5000]	µg/L
Mg 279.077 IEC†	522.2	6.56	1.26%	[5000]	µg/L
Mn 257.610†	147104.6	4346.90	2.95%	[500]	µg/L
Mo 202.031†	4694.9	476.32	10.15%	[500]	µg/L
Ni 231.604†	9217.4	523.95	5.68%	[500]	µg/L
P 214.914†	1147.6	101.21	8.82%	[2500]	µg/L
Pb 220.353†	1886.9	152.59	8.09%	[500]	µg/L
S 181.975 Axial†	224.2	16.69	7.44%	[1000]	µg/L
Sb 206.836†	508.2	41.86	8.24%	[500]	µg/L
Se 196.026†	332.9	22.78	6.84%	[500]	µg/L
SiO2†	25166.6	1117.16	4.44%	[5347.5]	µg/L
Si 251.611†	30426.1	1305.32	4.29%	[2500]	µg/L

Sn 189.927†	1086.3	114.58	10.55%	[500]	µg/L
Sr 421.552†	50134.0	20.80	0.04%	[500]	µg/L
Ti 334.940†	212781.4	7064.10	3.32%	[500]	µg/L
Tl 190.801†	351.2	21.70	6.18%	[500]	µg/L
U 409.014†	5788.5	392.32	6.78%	[500]	µg/L
V 292.402†	47485.9	2697.51	5.68%	[500]	µg/L
Zn 213.857†	19781.4	1078.02	5.45%	[500]	µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/23/2010 15:02:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56630.0	56630.0	102	%	15:03:31
1	Al 396.153Radial†	14399.5	14068.3	[10000]	µg/L	15:03:31
1	Ca 317.933Radial†	11338.4	10875.1	[10000]	µg/L	15:03:51
1	Fe 238.204 Radial†	1183.7	1140.0	[10000]	µg/L	15:03:51
1	K 766.490 Radial†	15426.7	14911.5	[10000]	µg/L	15:03:31
1	Mg 279.077 IEC†	1117.3	1079.1	[10000]	µg/L	15:03:51
1	Na 589.592 Radial†	33994.4	32871.7	[10000]	µg/L	15:03:31
1	Sr 421.552†	106075.1	103733.4	[1000]	µg/L	15:03:31
1	Sc 361.383	1940940.1	1940940.1	99.649	%	15:04:51
1	Y 371.029	1327183.9	1327183.9	99.241	%	15:04:51
1	Ag 328.068†	134554.9	135539.0	[1000]	µg/L	15:04:56
1	As 188.979†	559.4	560.6	[1000]	µg/L	15:05:17
1	B 249.677†	24687.6	24461.4	[1000]	µg/L	15:04:56
1	Ba 233.527†	40738.8	40907.7	[1000]	µg/L	15:04:56
1	Be 313.107†	1642599.5	1652016.5	[1000]	µg/L	15:04:51
1	Cd 226.502†	38578.8	38837.9	[1000]	µg/L	15:04:56
1	Co 228.616†	21610.9	21692.8	[1000]	µg/L	15:04:56
1	Cr 267.716†	49263.7	49463.1	[1000]	µg/L	15:04:56
1	Cu 324.752†	159585.9	156917.4	[1000]	µg/L	15:04:56
1	Mn 257.610†	309905.2	311238.5	[1000]	µg/L	15:04:56
1	Mo 202.031†	10231.5	10266.4	[1000]	µg/L	15:05:17
1	Ni 231.604†	19939.2	19728.6	[1000]	µg/L	15:04:56
1	P 214.914†	2571.3	2552.8	[5000]	µg/L	15:05:17
1	Pb 220.353†	4172.4	4096.7	[1000]	µg/L	15:05:17
1	S 181.975 Axial†	494.9	481.6	[2000]	µg/L	15:05:17
1	Sb 206.836†	1135.8	1118.8	[1000]	µg/L	15:05:17
1	Se 196.026†	729.8	720.4	[1000]	µg/L	15:05:17
1	SiO2†	55052.1	53734.0	[10695]	µg/L	15:04:56
1	Si 251.611†	64970.1	64914.0	[5000]	µg/L	15:04:56
1	Sn 189.927†	2392.6	2400.1	[1000]	µg/L	15:05:17
1	Ti 334.940†	446919.7	448348.7	[1000]	µg/L	15:04:51
1	Tl 190.801†	735.1	758.2	[1000]	µg/L	15:05:17
1	U 409.014†	12912.7	12732.8	[1000]	µg/L	15:04:56
1	V 292.402†	102715.1	103124.1	[1000]	µg/L	15:04:56
1	Zn 213.857†	42712.1	42396.6	[1000]	µg/L	15:04:56
2	Sc RADIAL	56469.6	56469.6	102	%	15:03:57
2	Al 396.153Radial†	14377.9	14087.1	[10000]	µg/L	15:03:57
2	Ca 317.933Radial†	11287.1	10856.2	[10000]	µg/L	15:04:17
2	Fe 238.204 Radial†	1179.6	1139.3	[10000]	µg/L	15:04:17
2	K 766.490 Radial†	15480.4	15007.1	[10000]	µg/L	15:03:57
2	Mg 279.077 IEC†	1112.8	1077.8	[10000]	µg/L	15:04:17
2	Na 589.592 Radial†	34004.3	32975.8	[10000]	µg/L	15:03:57
2	Sr 421.552†	106211.0	104161.5	[1000]	µg/L	15:03:57
2	Sc 361.383	1936164.6	1936164.6	99.404	%	15:05:23
2	Y 371.029	1323284.7	1323284.7	98.950	%	15:05:23
2	Ag 328.068†	134253.1	135568.4	[1000]	µg/L	15:05:29
2	As 188.979†	558.3	560.8	[1000]	µg/L	15:05:49
2	B 249.677†	24636.7	24471.4	[1000]	µg/L	15:05:29
2	Ba 233.527†	40624.6	40893.6	[1000]	µg/L	15:05:29
2	Be 313.107†	1638288.5	1651745.4	[1000]	µg/L	15:05:23
2	Cd 226.502†	38423.8	38777.4	[1000]	µg/L	15:05:29
2	Co 228.616†	21617.7	21753.1	[1000]	µg/L	15:05:29
2	Cr 267.716†	49130.1	49450.7	[1000]	µg/L	15:05:29
2	Cu 324.752†	159161.7	156885.6	[1000]	µg/L	15:05:29
2	Mn 257.610†	308417.4	310508.8	[1000]	µg/L	15:05:29
2	Mo 202.031†	10195.2	10255.2	[1000]	µg/L	15:05:49
2	Ni 231.604†	19924.4	19763.2	[1000]	µg/L	15:05:29
2	P 214.914†	2551.2	2538.9	[5000]	µg/L	15:05:49
2	Pb 220.353†	4169.5	4104.1	[1000]	µg/L	15:05:49

2	S 181.975 Axial†	496.8	484.8	[2000]	µg/L	15:05:49
2	Sb 206.836†	1138.2	1123.9	[1000]	µg/L	15:05:49
2	Se 196.026†	717.3	709.6	[1000]	µg/L	15:05:49
2	SiO2†	55034.3	53852.3	[10695]	µg/L	15:05:29
2	Si 251.611†	65046.8	65151.9	[5000]	µg/L	15:05:29
2	Sn 189.927†	2385.2	2398.7	[1000]	µg/L	15:05:49
2	Ti 334.940†	445897.9	448426.9	[1000]	µg/L	15:05:23
2	Tl 190.801†	725.1	750.0	[1000]	µg/L	15:05:49
2	U 409.014†	12965.4	12817.8	[1000]	µg/L	15:05:29
2	V 292.402†	102378.2	103039.4	[1000]	µg/L	15:05:29
2	Zn 213.857†	42533.3	42322.4	[1000]	µg/L	15:05:29
3	Sc RADIAL	56086.4	56086.4	101	%	15:04:22
3	Al 396.153Radial†	14366.7	14172.4	[10000]	µg/L	15:04:22
3	Ca 317.933Radial†	11367.8	11011.6	[10000]	µg/L	15:04:42
3	Fe 238.204 Radial†	1189.5	1157.0	[10000]	µg/L	15:04:42
3	K 766.490 Radial†	15449.3	15080.1	[10000]	µg/L	15:04:22
3	Mg 279.077 IEC†	1120.4	1092.7	[10000]	µg/L	15:04:42
3	Na 589.592 Radial†	33954.2	33154.2	[10000]	µg/L	15:04:22
3	Sr 421.552†	105614.0	104283.5	[1000]	µg/L	15:04:22
3	Sc 361.383	1955282.8	1955282.8	100.39	%	15:05:55
3	Y 371.029	1336805.7	1336805.7	99.961	%	15:05:55
3	Ag 328.068†	129310.3	129324.0	[1000]	µg/L	15:06:01
3	As 188.979†	483.5	480.9	[1000]	µg/L	15:06:21
3	B 249.677†	23626.2	23222.4	[1000]	µg/L	15:06:01
3	Ba 233.527†	38236.8	38115.4	[1000]	µg/L	15:06:01
3	Be 313.107†	1589294.2	1586824.4	[1000]	µg/L	15:05:55
3	Cd 226.502†	36069.1	36053.8	[1000]	µg/L	15:06:01
3	Co 228.616†	20128.6	20057.1	[1000]	µg/L	15:06:01
3	Cr 267.716†	44875.4	44729.1	[1000]	µg/L	15:06:01
3	Cu 324.752†	148518.4	144717.6	[1000]	µg/L	15:06:01
3	Mn 257.610†	287489.1	286627.2	[1000]	µg/L	15:06:01
3	Mo 202.031†	8687.2	8652.7	[1000]	µg/L	15:06:21
3	Ni 231.604†	18607.2	18255.0	[1000]	µg/L	15:06:01
3	P 214.914†	2220.3	2184.3	[5000]	µg/L	15:06:21
3	Pb 220.353†	3692.5	3587.9	[1000]	µg/L	15:06:21
3	S 181.975 Axial†	453.0	436.2	[2000]	µg/L	15:06:21
3	Sb 206.836†	987.8	962.9	[1000]	µg/L	15:06:21
3	Se 196.026†	655.4	641.0	[1000]	µg/L	15:06:21
3	SiO2†	52439.7	50726.4	[10695]	µg/L	15:06:01
3	Si 251.611†	61877.7	61355.2	[5000]	µg/L	15:06:01
3	Sn 189.927†	2002.0	1993.5	[1000]	µg/L	15:06:21
3	Ti 334.940†	430827.1	429028.0	[1000]	µg/L	15:05:55
3	Tl 190.801†	660.4	678.5	[1000]	µg/L	15:06:21
3	U 409.014†	11858.7	11587.8	[1000]	µg/L	15:06:01
3	V 292.402†	94650.4	94334.3	[1000]	µg/L	15:06:01
3	Zn 213.857†	39707.5	39089.1	[1000]	µg/L	15:06:01

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1944129.1	9950.08	0.51%	99.813	%
Sc RADIAL	56395.3	279.26	0.50%	102	%
Y 371.029	1329091.4	6959.40	0.52%	99.384	%
Ag 328.068†	133477.1	3596.74	2.69%	[1000]	µg/L
Al 396.153Radial†	14109.3	55.46	0.39%	[10000]	µg/L
As 188.979†	534.1	46.10	8.63%	[1000]	µg/L
B 249.677†	24051.7	718.25	2.99%	[1000]	µg/L
Ba 233.527†	39972.2	1608.08	4.02%	[1000]	µg/L
Be 313.107†	1630195.5	37560.64	2.30%	[1000]	µg/L
Ca 317.933Radial†	10914.3	84.79	0.78%	[10000]	µg/L
Cd 226.502†	37889.7	1590.23	4.20%	[1000]	µg/L
Co 228.616†	21167.7	962.26	4.55%	[1000]	µg/L
Cr 267.716†	47880.9	2729.62	5.70%	[1000]	µg/L
Cu 324.752†	152840.2	7034.41	4.60%	[1000]	µg/L
Fe 238.204 Radial†	1145.4	9.99	0.87%	[10000]	µg/L
K 766.490 Radial†	14999.5	84.54	0.56%	[10000]	µg/L
Mg 279.077 IEC†	1083.2	8.28	0.76%	[10000]	µg/L
Mn 257.610†	302791.5	14003.45	4.62%	[1000]	µg/L
Mo 202.031†	9724.8	928.45	9.55%	[1000]	µg/L
Na 589.592 Radial†	33000.6	142.86	0.43%	[10000]	µg/L

Ni 231.604†	19248.9	860.92	4.47%	[1000]	µg/L
P 214.914†	2425.3	208.91	8.61%	[5000]	µg/L
Pb 220.353†	3929.6	295.91	7.53%	[1000]	µg/L
S 181.975 Axial†	467.5	27.14	5.80%	[2000]	µg/L
Sb 206.836†	1068.6	91.49	8.56%	[1000]	µg/L
Se 196.026†	690.3	43.08	6.24%	[1000]	µg/L
SiO2†	52770.9	1771.58	3.36%	[10695]	µg/L
Si 251.611†	63807.0	2126.70	3.33%	[5000]	µg/L
Sn 189.927†	2264.1	234.35	10.35%	[1000]	µg/L
Sr 421.552†	104059.4	288.87	0.28%	[1000]	µg/L
Ti 334.940†	441934.5	11177.44	2.53%	[1000]	µg/L
Tl 190.801†	728.9	43.89	6.02%	[1000]	µg/L
U 409.014†	12379.4	686.94	5.55%	[1000]	µg/L
V 292.402†	100165.9	5050.52	5.04%	[1000]	µg/L
Zn 213.857†	41269.4	1888.53	4.58%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/23/2010 15:06:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55931.1	55931.1	101	%	15:07:01
1	Al 396.153Radial†	71252.3	70547.6	[50000]	µg/L	15:07:01
1	Ca 317.933Radial†	55961.8	55205.7	[50000]	µg/L	15:07:01
1	Fe 238.204 Radial†	2340.5	2300.1	[20000]	µg/L	15:07:21
1	Mg 279.077 IEC†	5454.4	5387.9	[50000]	µg/L	15:07:21
1	Na 589.592 Radial†	66932.9	65907.3	[20000]	µg/L	15:07:01
1	Sc 361.383	1953735.7	1953735.7	100.31	%	15:08:21
1	Y 371.029	1328356.6	1328356.6	99.329	%	15:08:21
2	Sc RADIAL	56519.5	56519.5	102	%	15:07:26
2	Al 396.153Radial†	71742.3	70293.2	[50000]	µg/L	15:07:26
2	Ca 317.933Radial†	56764.0	55415.0	[50000]	µg/L	15:07:26
2	Fe 238.204 Radial†	2337.4	2273.0	[20000]	µg/L	15:07:46
2	Mg 279.077 IEC†	5461.5	5338.7	[50000]	µg/L	15:07:46
2	Na 589.592 Radial†	67327.1	65603.5	[20000]	µg/L	15:07:26
2	Sc 361.383	1941633.7	1941633.7	99.685	%	15:08:29
2	Y 371.029	1320613.3	1320613.3	98.750	%	15:08:29
3	Sc RADIAL	56421.4	56421.4	102	%	15:07:52
3	Al 396.153Radial†	71654.9	70329.7	[50000]	µg/L	15:07:52
3	Ca 317.933Radial†	56643.1	55393.0	[50000]	µg/L	15:07:52
3	Fe 238.204 Radial†	2342.0	2281.4	[20000]	µg/L	15:08:12
3	Mg 279.077 IEC†	5447.6	5334.3	[50000]	µg/L	15:08:12
3	Na 589.592 Radial†	67320.8	65712.1	[20000]	µg/L	15:07:52
3	Sc 361.383	1950066.9	1950066.9	100.12	%	15:08:36
3	Y 371.029	1325136.4	1325136.4	99.088	%	15:08:36

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1948478.8	6205.35	0.32%	100.04	%
Sc RADIAL	56290.6	315.22	0.56%	102	%
Y 371.029	1324702.1	3889.89	0.29%	99.056	%
Al 396.153Radial†	70390.2	137.53	0.20%	[50000]	µg/L
Ca 317.933Radial†	55337.9	114.98	0.21%	[50000]	µg/L
Fe 238.204 Radial†	2284.8	13.87	0.61%	[20000]	µg/L
Mg 279.077 IEC†	5353.6	29.75	0.56%	[50000]	µg/L
Na 589.592 Radial†	65740.9	153.93	0.23%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	132.5	0.00000	0.999879	
Al 396.153Radial	3	Lin Thru 0	0.0	1.407	0.00000	0.999994	
As 188.979	3	Lin Thru 0	0.0	0.5307	0.00000	0.999837	
B 249.677	3	Lin Thru 0	0.0	23.77	0.00000	0.999731	
Ba 233.527	3	Lin Thru 0	0.0	39.58	0.00000	0.999804	
Be 313.107	3	Lin Thru 0	0.0	1616	0.00000	0.999846	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.106	0.00000	0.999983	
Cd 226.502	3	Lin Thru 0	0.0	37.54	0.00000	0.999817	
Co 228.616	3	Lin Thru 0	0.0	20.99	0.00000	0.999857	
Cr 267.716	3	Lin Thru 0	0.0	47.39	0.00000	0.999779	
Cu 324.752	3	Lin Thru 0	0.0	151.4	0.00000	0.999805	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1143	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	1.492	0.00000	0.999950	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1071	0.00000	0.999995	
Mn 257.610	3	Lin Thru 0	0.0	301.2	0.00000	0.999931	
Mo 202.031	3	Lin Thru 0	0.0	9.661	0.00000	0.999896	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.290	0.00000	0.999999	

Ni 231.604	3	Lin Thru 0	0.0	19.09	0.00000	0.999848
P 214.914	3	Lin Thru 0	0.0	0.4800	0.00000	0.999760
Pb 220.353	3	Lin Thru 0	0.0	3.900	0.00000	0.999860
S 181.975 Axial	3	Lin Thru 0	0.0	0.2318	0.00000	0.999865
Sb 206.836	3	Lin Thru 0	0.0	1.058	0.00000	0.999806
Se 196.026	3	Lin Thru 0	0.0	0.6858	0.00000	0.999886
SiO2	3	Lin Thru 0	0.0	4.889	0.00000	0.999827
Si 251.611	3	Lin Thru 0	0.0	12.64	0.00000	0.999826
Sn 189.927	3	Lin Thru 0	0.0	2.247	0.00000	0.999860
Sr 421.552	3	Lin Thru 0	0.0	103.3	0.00000	0.999893
Ti 334.940	3	Lin Thru 0	0.0	438.6	0.00000	0.999889
Tl 190.801	3	Lin Thru 0	0.0	0.7235	0.00000	0.999893
U 409.014	3	Lin Thru 0	0.0	12.22	0.00000	0.999655
V 292.402	3	Lin Thru 0	0.0	99.14	0.00000	0.999781
Zn 213.857	3	Lin Thru 0	0.0	40.94	0.00000	0.999855

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/23/2010 15:08:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56527.3	56527.3	102	%			15:09:17
1	Al 396.153Radial†	7213.2	7052.1	4998.8	µg/L	4998.8	ppb	15:09:37
1	Ca 317.933Radial†	5788.8	5457.2	4936.0	µg/L	4936.0	ppb	15:09:37
1	Fe 238.204 Radial†	603.1	573.2	5026.0	µg/L	5026.0	ppb	15:09:37
1	K 766.490 Radial†	4009.9	3751.7	2513.9	µg/L	2513.9	ppb	15:09:17
1	Mg 279.077 IEC†	579.8	554.4	5180.6	µg/L	5180.6	ppb	15:09:37
1	Na 589.592 Radial†	8720.4	8166.4	2482.4	µg/L	2482.4	ppb	15:09:17
1	Sr 421.552†	55628.8	54490.1	527.52	µg/L	527.52	ppb	15:09:17
1	Sc 361.383	1956836.2	1956836.2	100.47	%			15:10:37
1	Y 371.029	1339126.1	1339126.1	100.13	%			15:10:37
1	Ag 328.068†	34484.1	34834.7	266.76	µg/L	266.76	ppb	15:10:42
1	As 188.979†	267.6	265.6	499.39	µg/L	499.39	ppb	15:11:02
1	B 249.677†	12895.2	12522.4	524.96	µg/L	524.96	ppb	15:10:42
1	Ba 233.527†	20626.2	20556.1	520.25	µg/L	520.25	ppb	15:10:42
1	Be 313.107†	433020.8	434648.5	268.75	µg/L	268.75	ppb	15:10:37
1	Cd 226.502†	19386.9	19420.4	517.21	µg/L	517.21	ppb	15:10:42
1	Co 228.616†	11057.7	11012.3	524.01	µg/L	524.01	ppb	15:10:42
1	Cr 267.716†	24085.4	23999.8	506.72	µg/L	506.72	ppb	15:10:42
1	Cu 324.752†	81929.8	78319.9	518.00	µg/L	518.00	ppb	15:10:42
1	Mn 257.610†	160328.5	159828.0	531.17	µg/L	531.17	ppb	15:10:37
1	Mo 202.031†	5537.0	5510.3	570.53	µg/L	570.53	ppb	15:11:02
1	Ni 231.604†	10258.4	9930.2	519.54	µg/L	519.54	ppb	15:10:42
1	P 214.914†	1315.5	1281.9	2621.8	µg/L	2621.8	ppb	15:11:02
1	Pb 220.353†	2153.8	2053.4	526.83	µg/L	526.83	ppb	15:11:02
1	S 181.975 Axial†	629.1	611.1	2635.9	µg/L	2635.9	ppb	15:11:02
1	Sb 206.836†	579.2	555.5	528.01	µg/L	528.01	ppb	15:11:02
1	Se 196.026†	1839.6	1819.2	2660.5	µg/L	2660.5	ppb	15:11:02
1	SiO2†	52913.6	51156.6	10464	µg/L	10464	ppb	15:10:42
1	Si 251.611†	62222.3	61649.3	4875.8	µg/L	4875.8	ppb	15:10:42
1	Sn 189.927†	1294.9	1288.1	573.38	µg/L	573.38	ppb	15:11:02
1	Ti 334.940†	223621.8	222441.5	506.78	µg/L	506.78	ppb	15:10:37
1	Tl 190.801†	376.4	395.2	552.30	µg/L	552.30	ppb	15:11:02
1	U 409.014†	6241.4	5987.2	488.89	µg/L	488.89	ppb	15:10:42
1	V 292.402†	52077.0	51883.2	529.99	µg/L	529.99	ppb	15:10:42
1	Zn 213.857†	22337.4	21768.1	528.02	µg/L	528.02	ppb	15:10:42
2	Sc RADIAL	56258.1	56258.1	102	%			15:09:42
2	Al 396.153Radial†	7230.0	7102.5	5034.7	µg/L	5034.7	ppb	15:10:03
2	Ca 317.933Radial†	5800.3	5495.7	4970.7	µg/L	4970.7	ppb	15:10:03
2	Fe 238.204 Radial†	611.6	584.4	5123.6	µg/L	5123.6	ppb	15:10:03
2	K 766.490 Radial†	3978.1	3739.2	2505.5	µg/L	2505.5	ppb	15:09:42
2	Mg 279.077 IEC†	583.8	561.1	5243.2	µg/L	5243.2	ppb	15:10:03
2	Na 589.592 Radial†	8673.1	8160.7	2480.7	µg/L	2480.7	ppb	15:09:42
2	Sr 421.552†	55360.9	54487.1	527.50	µg/L	527.50	ppb	15:09:42
2	Sc 361.383	1971329.0	1971329.0	101.21	%			15:11:09
2	Y 371.029	1348158.1	1348158.1	100.81	%			15:11:09
2	Ag 328.068†	34660.8	34757.0	266.19	µg/L	266.19	ppb	15:11:15
2	As 188.979†	270.4	266.4	500.96	µg/L	500.96	ppb	15:11:35
2	B 249.677†	13057.6	12588.5	527.69	µg/L	527.69	ppb	15:11:15
2	Ba 233.527†	20849.0	20625.3	522.00	µg/L	522.00	ppb	15:11:15
2	Be 313.107†	436500.9	434918.3	268.92	µg/L	268.92	ppb	15:11:09
2	Cd 226.502†	19558.5	19448.1	517.94	µg/L	517.94	ppb	15:11:15
2	Co 228.616†	11137.2	11010.0	523.89	µg/L	523.89	ppb	15:11:15
2	Cr 267.716†	24333.3	24068.4	508.17	µg/L	508.17	ppb	15:11:15
2	Cu 324.752†	82689.8	78471.3	519.02	µg/L	519.02	ppb	15:11:15
2	Mn 257.610†	162040.5	160346.3	532.91	µg/L	532.91	ppb	15:11:09
2	Mo 202.031†	5503.4	5436.5	562.90	µg/L	562.90	ppb	15:11:35
2	Ni 231.604†	10338.9	9934.6	519.78	µg/L	519.78	ppb	15:11:15
2	P 214.914†	1314.6	1271.4	2599.7	µg/L	2599.7	ppb	15:11:35
2	Pb 220.353†	2136.1	2020.2	518.29	µg/L	518.29	ppb	15:11:35

2	S 181.975 Axial†	623.5	601.0	2592.4 µg/L	2592.4 ppb	15:11:35
2	Sb 206.836†	580.0	552.0	524.57 µg/L	524.57 ppb	15:11:35
2	Se 196.026†	1844.9	1810.9	2648.6 µg/L	2648.6 ppb	15:11:35
2	SiO2†	53531.6	51380.0	10510 µg/L	10510 ppb	15:11:15
2	Si 251.611†	62959.9	61922.7	4897.4 µg/L	4897.4 ppb	15:11:15
2	Sn 189.927†	1297.5	1281.2	570.32 µg/L	570.32 ppb	15:11:35
2	Ti 334.940†	225392.3	222554.4	507.04 µg/L	507.04 ppb	15:11:09
2	Tl 190.801†	376.3	392.4	548.39 µg/L	548.39 ppb	15:11:35
2	U 409.014†	6333.7	6032.7	492.59 µg/L	492.59 ppb	15:11:15
2	V 292.402†	52549.9	51969.3	530.82 µg/L	530.82 ppb	15:11:15
2	Zn 213.857†	22493.7	21759.0	527.79 µg/L	527.79 ppb	15:11:15
3	Sc RADIAL	56462.1	56462.1	102 %		15:10:08
3	Al 396.153Radial†	7199.7	7047.0	4997.0 µg/L	4997.0 ppb	15:10:28
3	Ca 317.933Radial†	5780.0	5455.1	4934.0 µg/L	4934.0 ppb	15:10:28
3	Fe 238.204 Radial†	604.2	574.9	5040.5 µg/L	5040.5 ppb	15:10:28
3	K 766.490 Radial†	3995.6	3742.2	2507.5 µg/L	2507.5 ppb	15:10:08
3	Mg 279.077 IEC†	579.8	555.1	5185.7 µg/L	5185.7 ppb	15:10:28
3	Na 589.592 Radial†	8681.0	8137.5	2473.7 µg/L	2473.7 ppb	15:10:08
3	Sr 421.552†	55586.5	54511.4	527.73 µg/L	527.73 ppb	15:10:08
3	Sc 361.383	1960031.4	1960031.4	100.63 %		15:11:42
3	Y 371.029	1342175.1	1342175.1	100.36 %		15:11:42
3	Ag 328.068†	32987.2	33291.2	254.86 µg/L	254.86 ppb	15:11:47
3	As 188.979†	238.0	235.7	443.31 µg/L	443.31 ppb	15:12:07
3	B 249.677†	12385.1	11994.5	502.68 µg/L	502.68 ppb	15:11:47
3	Ba 233.527†	19486.4	19389.9	490.72 µg/L	490.72 ppb	15:11:47
3	Be 313.107†	418231.7	419249.3	259.23 µg/L	259.23 ppb	15:11:42
3	Cd 226.502†	18126.6	18136.5	482.98 µg/L	482.98 ppb	15:11:47
3	Co 228.616†	10350.5	10291.6	489.64 µg/L	489.64 ppb	15:11:47
3	Cr 267.716†	22112.6	22000.2	464.50 µg/L	464.50 ppb	15:11:47
3	Cu 324.752†	77026.6	73314.4	484.94 µg/L	484.94 ppb	15:11:47
3	Mn 257.610†	155140.0	154411.8	513.19 µg/L	513.19 ppb	15:11:42
3	Mo 202.031†	4697.8	4667.3	483.27 µg/L	483.27 ppb	15:12:07
3	Ni 231.604†	9595.9	9255.2	484.23 µg/L	484.23 ppb	15:11:47
3	P 214.914†	1142.0	1107.3	2260.1 µg/L	2260.1 ppb	15:12:07
3	Pb 220.353†	1907.3	1805.0	462.98 µg/L	462.98 ppb	15:12:07
3	S 181.975 Axial†	560.5	541.9	2337.4 µg/L	2337.4 ppb	15:12:07
3	Sb 206.836†	510.3	486.0	461.44 µg/L	461.44 ppb	15:12:07
3	Se 196.026†	1632.9	1610.7	2356.5 µg/L	2356.5 ppb	15:12:07
3	SiO2†	50445.0	48617.6	9944.5 µg/L	9944.5 ppb	15:11:47
3	Si 251.611†	59301.8	58646.1	4638.3 µg/L	4638.3 ppb	15:11:47
3	Sn 189.927†	1089.8	1082.1	481.70 µg/L	481.70 ppb	15:12:07
3	Ti 334.940†	215632.4	214139.1	487.85 µg/L	487.85 ppb	15:11:42
3	Tl 190.801†	350.2	368.6	515.31 µg/L	515.31 ppb	15:12:07
3	U 409.014†	5844.4	5582.5	455.77 µg/L	455.77 ppb	15:11:47
3	V 292.402†	48346.3	48091.4	490.94 µg/L	490.94 ppb	15:11:47
3	Zn 213.857†	20955.1	20358.2	493.79 µg/L	493.79 ppb	15:11:47

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1962732.2	100.77	%	0.391				0.39%
Sc RADIAL	56415.8	102	%	0.3				0.25%
Y 371.029	1343153.1	100.44	%	0.344				0.34%
Ag 328.068†	34294.3	262.60	µg/L	6.713	262.60	ppb	6.713	2.56%
QC value within limits for Ag 328.068 Recovery = 105.04%								
Al 396.153Radial†	7067.2	5010.2	µg/L	21.31	5010.2	ppb	21.31	0.43%
QC value within limits for Al 396.153Radial Recovery = 100.20%								
As 188.979†	255.9	481.22	µg/L	32.838	481.22	ppb	32.838	6.82%
QC value within limits for As 188.979 Recovery = 96.24%								
B 249.677†	12368.5	518.44	µg/L	13.720	518.44	ppb	13.720	2.65%
QC value within limits for B 249.677 Recovery = 103.69%								
Ba 233.527†	20190.5	510.99	µg/L	17.577	510.99	ppb	17.577	3.44%
QC value within limits for Ba 233.527 Recovery = 102.20%								
Be 313.107†	429605.4	265.63	µg/L	5.546	265.63	ppb	5.546	2.09%
QC value within limits for Be 313.107 Recovery = 106.25%								
Ca 317.933Radial†	5469.3	4946.9	µg/L	20.66	4946.9	ppb	20.66	0.42%
QC value within limits for Ca 317.933Radial Recovery = 98.94%								
Cd 226.502†	19001.6	506.04	µg/L	19.978	506.04	ppb	19.978	3.95%
QC value within limits for Cd 226.502 Recovery = 101.21%								
Co 228.616†	10771.3	512.51	µg/L	19.810	512.51	ppb	19.810	3.87%

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   QC value within limits for Co 228.616  Recovery = 102.50%
Cr 267.716†            23356.1      493.13 µg/L        24.801      493.13 ppb         24.801   5.03%
   QC value within limits for Cr 267.716  Recovery = 98.63%
Cu 324.752†            76701.9      507.32 µg/L        19.386      507.32 ppb         19.386   3.82%
   QC value within limits for Cu 324.752  Recovery = 101.46%
Fe 238.204 Radial†       577.5      5063.4 µg/L         52.64      5063.4 ppb          52.64   1.04%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.27%
K 766.490 Radial†       3744.4      2509.0 µg/L          4.38      2509.0 ppb           4.38   0.17%
   QC value within limits for K 766.490 Radial  Recovery = 100.36%
Mg 279.077 IEC†          556.8      5203.2 µg/L         34.74      5203.2 ppb          34.74   0.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.06%
Mn 257.610†           158195.4      525.76 µg/L        10.917      525.76 ppb         10.917   2.08%
   QC value within limits for Mn 257.610  Recovery = 105.15%
Mo 202.031†             5204.7      538.90 µg/L        48.325      538.90 ppb         48.325   8.97%
   QC value within limits for Mo 202.031  Recovery = 107.78%
Na 589.592 Radial†      8154.9      2478.9 µg/L          4.64      2478.9 ppb           4.64   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 99.16%
Ni 231.604†             9706.6      507.85 µg/L        20.456      507.85 ppb         20.456   4.03%
   QC value within limits for Ni 231.604  Recovery = 101.57%
P 214.914†              1220.2      2493.8 µg/L        202.72      2493.8 ppb         202.72   8.13%
   QC value within limits for P 214.914  Recovery = 99.75%
Pb 220.353†             1959.6      502.70 µg/L        34.661      502.70 ppb         34.661   6.89%
   QC value within limits for Pb 220.353  Recovery = 100.54%
S 181.975 Axial†         584.7      2521.9 µg/L        161.24      2521.9 ppb         161.24   6.39%
   QC value within limits for S 181.975 Axial  Recovery = 100.87%
Sb 206.836†              531.2      504.67 µg/L        37.481      504.67 ppb         37.481   7.43%
   QC value within limits for Sb 206.836  Recovery = 100.93%
Se 196.026†             1746.9      2555.2 µg/L        172.17      2555.2 ppb         172.17   6.74%
   QC value within limits for Se 196.026  Recovery = 102.21%
SiO2†                  50384.7       10306 µg/L         313.9       10306 ppb          313.9   3.05%
   QC value within limits for SiO2  Recovery = 96.36%
Si 251.611†            60739.3      4803.8 µg/L        143.78      4803.8 ppb         143.78   2.99%
   QC value within limits for Si 251.611  Recovery = 96.08%
Sn 189.927†             1217.1      541.80 µg/L        52.069      541.80 ppb         52.069   9.61%
   QC value within limits for Sn 189.927  Recovery = 108.36%
Sr 421.552†            54496.2      527.58 µg/L         0.129      527.58 ppb          0.129   0.02%
   QC value within limits for Sr 421.552  Recovery = 105.52%
Ti 334.940†           219711.7      500.56 µg/L        11.002      500.56 ppb         11.002   2.20%
   QC value within limits for Ti 334.940  Recovery = 100.11%
Tl 190.801†              385.4      538.67 µg/L        20.320      538.67 ppb         20.320   3.77%
   QC value within limits for Tl 190.801  Recovery = 107.73%
U 409.014†              5867.4      479.08 µg/L        20.273      479.08 ppb         20.273   4.23%
   QC value within limits for U 409.014  Recovery = 95.82%
V 292.402†             50647.9      517.25 µg/L        22.788      517.25 ppb         22.788   4.41%
   QC value within limits for V 292.402  Recovery = 103.45%
Zn 213.857†            21295.1      516.53 µg/L        19.695      516.53 ppb         19.695   3.81%
   QC value within limits for Zn 213.857  Recovery = 103.31%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/23/2010 15:12:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55211.9	55211.9	99.7	%			15:12:47
1	Al 396.153Radial†	2.5	-13.5	-9.6140	µg/L	-9.6140	ppb	15:12:47
1	Ca 317.933Radial†	194.3	-20.2	-18.273	µg/L	-18.273	ppb	15:13:07
1	Fe 238.204 Radial†	16.4	-1.3	-11.722	µg/L	-11.722	ppb	15:13:07
1	K 766.490 Radial†	175.1	-1.9	-1.2453	µg/L	-1.2453	ppb	15:12:47
1	Mg 279.077 IEC†	11.2	-2.5	-23.488	µg/L	-23.488	ppb	15:13:07
1	Na 589.592 Radial†	383.8	6.4	1.9366	µg/L	1.9366	ppb	15:12:47
1	Sr 421.552†	73.8	54.1	0.5234	µg/L	0.5234	ppb	15:12:47
1	Sc 361.383	1945913.6	1945913.6	99.904	%			15:14:06
1	Y 371.029	1334496.0	1334496.0	99.788	%			15:14:06
1	Ag 328.068†	-531.7	-21.9	-0.1652	µg/L	-0.1652	ppb	15:14:11
1	As 188.979†	-1.6	-2.4	-4.4817	µg/L	-4.4817	ppb	15:14:31
1	B 249.677†	379.4	66.7	2.8109	µg/L	2.8109	ppb	15:14:31
1	Ba 233.527†	-18.4	6.9	0.1757	µg/L	0.1757	ppb	15:14:31
1	Be 313.107†	-3763.6	-134.3	-0.0831	µg/L	-0.0831	ppb	15:14:11
1	Cd 226.502†	-120.4	2.7	0.0734	µg/L	0.0734	ppb	15:14:31
1	Co 228.616†	-12.3	-6.5	-0.3083	µg/L	-0.3083	ppb	15:14:31
1	Cr 267.716†	-25.7	0.2	0.0034	µg/L	0.0034	ppb	15:14:31
1	Cu 324.752†	3212.5	-14.9	-0.1000	µg/L	-0.1000	ppb	15:14:11
1	Mn 257.610†	-218.3	23.5	0.0773	µg/L	0.0773	ppb	15:14:31
1	Mo 202.031†	1.1	-0.0	-0.0014	µg/L	-0.0014	ppb	15:14:31
1	Ni 231.604†	291.0	10.6	0.5536	µg/L	0.5536	ppb	15:14:31
1	P 214.914†	23.9	-3.6	-7.5555	µg/L	-7.5555	ppb	15:14:31
1	Pb 220.353†	94.3	4.0	1.0302	µg/L	1.0302	ppb	15:14:31
1	S 181.975 Axial†	14.9	-0.1	-0.5785	µg/L	-0.5785	ppb	15:14:31
1	Sb 206.836†	26.7	5.6	5.3317	µg/L	5.3317	ppb	15:14:31
1	Se 196.026†	22.5	10.5	15.367	µg/L	15.367	ppb	15:14:31
1	SiO2†	1562.9	52.4	10.720	µg/L	10.720	ppb	15:14:11
1	Si 251.611†	315.9	31.3	2.4783	µg/L	2.4783	ppb	15:14:31
1	Sn 189.927†	5.1	4.3	1.8919	µg/L	1.8919	ppb	15:14:31
1	Ti 334.940†	138.4	-6.3	-0.0127	µg/L	-0.0127	ppb	15:14:11
1	Tl 190.801†	-20.2	0.3	0.4518	µg/L	0.4518	ppb	15:14:31
1	U 409.014†	110.1	-115.2	-9.4218	µg/L	-9.4218	ppb	15:14:11
1	V 292.402†	-33.4	13.9	0.1289	µg/L	0.1289	ppb	15:14:11
1	Zn 213.857†	465.3	-0.2	-0.0055	µg/L	-0.0055	ppb	15:14:31
2	Sc RADIAL	55159.9	55159.9	99.6	%			15:13:13
2	Al 396.153Radial†	-22.2	-38.3	-27.223	µg/L	-27.223	ppb	15:13:13
2	Ca 317.933Radial†	191.5	-22.9	-20.688	µg/L	-20.688	ppb	15:13:33
2	Fe 238.204 Radial†	15.5	-2.3	-19.843	µg/L	-19.843	ppb	15:13:33
2	K 766.490 Radial†	121.2	-55.9	-37.433	µg/L	-37.433	ppb	15:13:13
2	Mg 279.077 IEC†	10.7	-3.0	-27.750	µg/L	-27.750	ppb	15:13:33
2	Na 589.592 Radial†	380.0	2.8	0.8651	µg/L	0.8651	ppb	15:13:13
2	Sr 421.552†	34.5	14.6	0.1412	µg/L	0.1412	ppb	15:13:13
2	Sc 361.383	1951427.9	1951427.9	100.19	%			15:14:37
2	Y 371.029	1339226.7	1339226.7	100.14	%			15:14:37
2	Ag 328.068†	-515.2	-3.9	-0.0294	µg/L	-0.0294	ppb	15:14:42
2	As 188.979†	-7.8	-8.6	-16.243	µg/L	-16.243	ppb	15:15:03
2	B 249.677†	352.7	38.9	1.6469	µg/L	1.6469	ppb	15:15:03
2	Ba 233.527†	-27.2	-1.8	-0.0439	µg/L	-0.0439	ppb	15:15:03
2	Be 313.107†	-3671.8	-32.0	-0.0198	µg/L	-0.0198	ppb	15:14:42
2	Cd 226.502†	-121.5	1.9	0.0539	µg/L	0.0539	ppb	15:15:03
2	Co 228.616†	-9.4	-3.6	-0.1697	µg/L	-0.1697	ppb	15:15:03
2	Cr 267.716†	-29.5	-3.5	-0.0737	µg/L	-0.0737	ppb	15:15:03
2	Cu 324.752†	3291.4	54.7	0.3587	µg/L	0.3587	ppb	15:14:42
2	Mn 257.610†	-222.6	19.8	0.0642	µg/L	0.0642	ppb	15:15:03
2	Mo 202.031†	7.8	6.7	0.6932	µg/L	0.6932	ppb	15:15:03
2	Ni 231.604†	288.9	7.6	0.3987	µg/L	0.3987	ppb	15:15:03
2	P 214.914†	20.6	-7.0	-14.546	µg/L	-14.546	ppb	15:15:03
2	Pb 220.353†	79.8	-10.7	-2.7491	µg/L	-2.7491	ppb	15:15:03

2	S 181.975 Axial†	11.3	-3.8	-16.529 µg/L	-16.529 ppb	15:15:03
2	Sb 206.836†	28.0	6.9	6.5258 µg/L	6.5258 ppb	15:15:03
2	Se 196.026†	13.7	1.7	2.4618 µg/L	2.4618 ppb	15:15:03
2	SiO2†	1564.1	49.2	10.057 µg/L	10.057 ppb	15:14:42
2	Si 251.611†	318.2	32.7	2.5896 µg/L	2.5896 ppb	15:15:03
2	Sn 189.927†	1.4	0.5	0.2238 µg/L	0.2238 ppb	15:15:03
2	Ti 334.940†	169.0	23.9	0.0563 µg/L	0.0563 ppb	15:14:42
2	Tl 190.801†	-23.9	-3.2	-4.4660 µg/L	-4.4660 ppb	15:15:03
2	U 409.014†	154.2	-71.4	-5.8419 µg/L	-5.8419 ppb	15:14:42
2	V 292.402†	-25.3	22.1	0.2192 µg/L	0.2192 ppb	15:14:42
2	Zn 213.857†	466.6	-0.2	-0.0046 µg/L	-0.0046 ppb	15:15:03
3	Sc RADIAL	55372.4	55372.4	100.0 %		15:13:38
3	Al 396.153Radial†	6.9	-9.2	-6.5016 µg/L	-6.5016 ppb	15:13:38
3	Ca 317.933Radial†	194.1	-21.0	-19.024 µg/L	-19.024 ppb	15:13:58
3	Fe 238.204 Radial†	16.2	-1.6	-13.635 µg/L	-13.635 ppb	15:13:58
3	K 766.490 Radial†	149.2	-28.3	-18.978 µg/L	-18.978 ppb	15:13:38
3	Mg 279.077 IEC†	12.7	-1.1	-9.8264 µg/L	-9.8264 ppb	15:13:58
3	Na 589.592 Radial†	383.1	4.6	1.3866 µg/L	1.3866 ppb	15:13:38
3	Sr 421.552†	28.6	8.6	0.0829 µg/L	0.0829 ppb	15:13:38
3	Sc 361.383	1930710.6	1930710.6	99.124 %		15:15:08
3	Y 371.029	1326313.9	1326313.9	99.176 %		15:15:08
3	Ag 328.068†	-476.8	29.2	0.2197 µg/L	0.2197 ppb	15:15:14
3	As 188.979†	-0.0	-0.8	-1.5500 µg/L	-1.5500 ppb	15:15:34
3	B 249.677†	368.8	58.9	2.4857 µg/L	2.4857 ppb	15:15:34
3	Ba 233.527†	-17.5	7.7	0.1952 µg/L	0.1952 ppb	15:15:34
3	Be 313.107†	-3595.2	5.9	0.0036 µg/L	0.0036 ppb	15:15:14
3	Cd 226.502†	-128.3	-6.2	-0.1636 µg/L	-0.1636 ppb	15:15:34
3	Co 228.616†	-9.0	-3.3	-0.1578 µg/L	-0.1578 ppb	15:15:34
3	Cr 267.716†	-31.1	-5.5	-0.1157 µg/L	-0.1157 ppb	15:15:34
3	Cu 324.752†	3230.1	28.1	0.1840 µg/L	0.1840 ppb	15:15:14
3	Mn 257.610†	-208.4	31.7	0.1039 µg/L	0.1039 ppb	15:15:34
3	Mo 202.031†	0.6	-0.5	-0.0567 µg/L	-0.0567 ppb	15:15:34
3	Ni 231.604†	282.7	4.5	0.2365 µg/L	0.2365 ppb	15:15:34
3	P 214.914†	18.6	-8.8	-18.247 µg/L	-18.247 ppb	15:15:34
3	Pb 220.353†	91.7	2.1	0.5334 µg/L	0.5334 ppb	15:15:34
3	S 181.975 Axial†	18.6	3.7	15.967 µg/L	15.967 ppb	15:15:34
3	Sb 206.836†	25.0	4.2	3.9678 µg/L	3.9678 ppb	15:15:34
3	Se 196.026†	13.0	1.1	1.6379 µg/L	1.6379 ppb	15:15:34
3	SiO2†	1606.9	109.1	22.318 µg/L	22.318 ppb	15:15:14
3	Si 251.611†	319.5	37.4	2.9583 µg/L	2.9583 ppb	15:15:34
3	Sn 189.927†	5.5	4.7	2.0807 µg/L	2.0807 ppb	15:15:34
3	Ti 334.940†	225.7	82.9	0.1894 µg/L	0.1894 ppb	15:15:14
3	Tl 190.801†	-19.8	0.6	0.7838 µg/L	0.7838 ppb	15:15:34
3	U 409.014†	225.7	2.3	0.1920 µg/L	0.1920 ppb	15:15:14
3	V 292.402†	-47.5	-0.6	-0.0080 µg/L	-0.0080 ppb	15:15:14
3	Zn 213.857†	461.6	-0.2	-0.0048 µg/L	-0.0048 ppb	15:15:34

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1942684.0	99.739	%	0.5509				0.55%
Sc RADIAL	55248.1	99.7	%	0.20				0.20%
Y 371.029	1333345.5	99.702	%	0.4885				0.49%
Ag 328.068†	1.1	0.0083	µg/L	0.19521	0.0083	ppb	0.19521	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-20.3	-14.446	µg/L	11.1742	-14.446	ppb	11.1742	77.35%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.9	-7.4250	µg/L	7.77628	-7.4250	ppb	7.77628	104.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	54.8	2.3145	µg/L	0.60058	2.3145	ppb	0.60058	25.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.3	0.1090	µg/L	0.13276	0.1090	ppb	0.13276	121.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-53.5	-0.0331	µg/L	0.04484	-0.0331	ppb	0.04484	135.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-21.4	-19.328	µg/L	1.2359	-19.328	ppb	1.2359	6.39%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-0.5	-0.0121	µg/L	0.13159	-0.0121	ppb	0.13159	>999.9%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.5	-0.2119	µg/L	0.08369	-0.2119	ppb	0.08369	39.49%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.9     -0.0620 µg/L       0.06040     -0.0620 ppb        0.06040  97.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                22.7      0.1476 µg/L       0.23150      0.1476 ppb        0.23150 156.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.7     -15.067 µg/L        4.2453     -15.067 ppb         4.2453  28.18%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -28.7     -19.219 µg/L       18.0952     -19.219 ppb        18.0952  94.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.2     -20.355 µg/L        9.3635     -20.355 ppb         9.3635  46.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                25.0      0.0818 µg/L       0.02021      0.0818 ppb        0.02021  24.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.1      0.2117 µg/L       0.41789      0.2117 ppb        0.41789 197.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          4.6      1.3961 µg/L       0.53581      1.3961 ppb        0.53581  38.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.6      0.3963 µg/L       0.15860      0.3963 ppb        0.15860  40.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.5     -13.450 µg/L        5.4294     -13.450 ppb         5.4294  40.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.6     -0.3952 µg/L       2.05359     -0.3952 ppb        2.05359 519.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.1     -0.3801 µg/L      16.24876     -0.3801 ppb       16.24876 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.6      5.2751 µg/L       1.27996      5.2751 ppb        1.27996  24.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.5      6.4888 µg/L       7.69960      6.4888 ppb        7.69960 118.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      70.2     14.365 µg/L        6.8952     14.365 ppb         6.8952  48.00%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                33.8      2.6754 µg/L       0.25121      2.6754 ppb        0.25121   9.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.1      1.3988 µg/L       1.02199      1.3988 ppb        1.02199  73.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                25.7      0.2492 µg/L       0.23930      0.2492 ppb        0.23930  96.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                33.5      0.0777 µg/L       0.10273      0.0777 ppb        0.10273 132.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.8     -1.0768 µg/L       2.93981     -1.0768 ppb        2.93981 273.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -61.4     -5.0239 µg/L       4.85886     -5.0239 ppb        4.85886  96.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 11.8      0.1134 µg/L       0.11439      0.1134 ppb        0.11439 100.88%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -0.2     -0.0050 µg/L       0.00047     -0.0050 ppb        0.00047   9.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/23/2010 15:15:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55488.7	55488.7	100	%			15:16:14
1	Al 396.153Radial†	295.5	279.0	198.00	µg/L	198.00	ppb	15:16:14
1	Ca 317.933Radial†	418.0	202.0	182.74	µg/L	182.74	ppb	15:16:34
1	Fe 238.204 Radial†	27.1	9.3	81.327	µg/L	81.327	ppb	15:16:34
1	K 766.490 Radial†	415.3	237.0	158.78	µg/L	158.78	ppb	15:16:14
1	Mg 279.077 IEC†	42.9	29.1	271.44	µg/L	271.44	ppb	15:16:34
1	Na 589.592 Radial†	1392.5	1011.3	307.42	µg/L	307.42	ppb	15:16:14
1	Sr 421.552†	576.0	555.0	5.3729	µg/L	5.3729	ppb	15:16:14
1	Sc 361.383	1925265.2	1925265.2	98.844	%			15:17:32
1	Y 371.029	1321815.7	1321815.7	98.840	%			15:17:32
1	Ag 328.068†	124.2	635.9	4.8393	µg/L	4.8393	ppb	15:17:38
1	As 188.979†	19.5	19.0	35.702	µg/L	35.702	ppb	15:17:58
1	B 249.677†	1477.3	1181.5	49.666	µg/L	49.666	ppb	15:17:38
1	Ba 233.527†	179.3	206.8	5.2331	µg/L	5.2331	ppb	15:17:58
1	Be 313.107†	4504.4	8190.0	5.0657	µg/L	5.0657	ppb	15:17:38
1	Cd 226.502†	64.1	188.1	5.0052	µg/L	5.0052	ppb	15:17:58
1	Co 228.616†	95.8	102.7	4.8922	µg/L	4.8922	ppb	15:17:58
1	Cr 267.716†	216.5	244.9	5.1711	µg/L	5.1711	ppb	15:17:58
1	Cu 324.752†	4762.2	1587.4	10.496	µg/L	10.496	ppb	15:17:38
1	Mn 257.610†	2910.9	3186.8	10.582	µg/L	10.582	ppb	15:17:38
1	Mo 202.031†	91.2	91.2	9.4407	µg/L	9.4407	ppb	15:17:58
1	Ni 231.604†	376.7	100.4	5.2536	µg/L	5.2536	ppb	15:17:58
1	P 214.914†	95.5	69.1	143.06	µg/L	143.06	ppb	15:17:58
1	Pb 220.353†	136.6	47.9	12.234	µg/L	12.234	ppb	15:17:58
1	S 181.975 Axial†	38.1	23.5	101.32	µg/L	101.32	ppb	15:17:58
1	Sb 206.836†	32.6	11.9	11.325	µg/L	11.325	ppb	15:17:58
1	Se 196.026†	40.8	29.3	42.713	µg/L	42.713	ppb	15:17:58
1	SiO2†	2568.7	1086.8	222.29	µg/L	222.29	ppb	15:17:38
1	Si 251.611†	1550.4	1283.6	101.52	µg/L	101.52	ppb	15:17:58
1	Sn 189.927†	28.5	28.0	12.481	µg/L	12.481	ppb	15:17:58
1	Ti 334.940†	2344.0	2226.6	5.0577	µg/L	5.0577	ppb	15:17:38
1	Tl 190.801†	-4.9	15.7	21.811	µg/L	21.811	ppb	15:17:58
1	U 409.014†	869.2	654.0	53.487	µg/L	53.487	ppb	15:17:38
1	V 292.402†	448.5	501.1	5.2041	µg/L	5.2041	ppb	15:17:38
1	Zn 213.857†	874.2	418.5	10.163	µg/L	10.163	ppb	15:17:58
2	Sc RADIAL	55272.8	55272.8	99.8	%			15:16:39
2	Al 396.153Radial†	283.5	268.1	190.25	µg/L	190.25	ppb	15:16:39
2	Ca 317.933Radial†	411.3	197.0	178.16	µg/L	178.16	ppb	15:16:59
2	Fe 238.204 Radial†	26.0	8.3	72.283	µg/L	72.283	ppb	15:16:59
2	K 766.490 Radial†	415.8	239.1	160.24	µg/L	160.24	ppb	15:16:39
2	Mg 279.077 IEC†	43.2	29.5	275.91	µg/L	275.91	ppb	15:16:59
2	Na 589.592 Radial†	1349.0	973.1	295.81	µg/L	295.81	ppb	15:16:39
2	Sr 421.552†	572.1	553.3	5.3563	µg/L	5.3563	ppb	15:16:39
2	Sc 361.383	1937905.7	1937905.7	99.493	%			15:18:04
2	Y 371.029	1330011.6	1330011.6	99.453	%			15:18:04
2	Ag 328.068†	144.0	655.0	4.9815	µg/L	4.9815	ppb	15:18:09
2	As 188.979†	16.7	15.9	30.018	µg/L	30.018	ppb	15:18:29
2	B 249.677†	1502.1	1196.7	50.309	µg/L	50.309	ppb	15:18:09
2	Ba 233.527†	181.6	208.0	5.2623	µg/L	5.2623	ppb	15:18:29
2	Be 313.107†	4560.5	8216.6	5.0823	µg/L	5.0823	ppb	15:18:09
2	Cd 226.502†	69.8	193.4	5.1485	µg/L	5.1485	ppb	15:18:29
2	Co 228.616†	84.4	90.7	4.3181	µg/L	4.3181	ppb	15:18:29
2	Cr 267.716†	214.3	241.3	5.0953	µg/L	5.0953	ppb	15:18:29
2	Cu 324.752†	4786.4	1580.2	10.448	µg/L	10.448	ppb	15:18:09
2	Mn 257.610†	2902.8	3159.5	10.490	µg/L	10.490	ppb	15:18:09
2	Mo 202.031†	96.8	96.2	9.9548	µg/L	9.9548	ppb	15:18:29
2	Ni 231.604†	373.8	95.0	4.9703	µg/L	4.9703	ppb	15:18:29
2	P 214.914†	95.6	68.5	141.79	µg/L	141.79	ppb	15:18:29
2	Pb 220.353†	133.5	43.8	11.185	µg/L	11.185	ppb	15:18:29

2	S 181.975 Axial†	40.8	25.9	111.76 µg/L	111.76 ppb	15:18:29
2	Sb 206.836†	36.5	15.6	14.799 µg/L	14.799 ppb	15:18:29
2	Se 196.026†	41.2	29.4	42.812 µg/L	42.812 ppb	15:18:29
2	SiO2†	2574.9	1076.0	220.10 µg/L	220.10 ppb	15:18:09
2	Si 251.611†	1553.8	1276.8	100.98 µg/L	100.98 ppb	15:18:29
2	Sn 189.927†	24.4	23.7	10.578 µg/L	10.578 ppb	15:18:29
2	Ti 334.940†	2327.5	2194.6	4.9842 µg/L	4.9842 ppb	15:18:09
2	Tl 190.801†	-5.8	14.7	20.490 µg/L	20.490 ppb	15:18:29
2	U 409.014†	854.2	633.2	51.787 µg/L	51.787 ppb	15:18:09
2	V 292.402†	424.1	473.6	4.9274 µg/L	4.9274 ppb	15:18:09
2	Zn 213.857†	884.1	422.7	10.266 µg/L	10.266 ppb	15:18:29
3	Sc RADIAL	54871.8	54871.8	99.1 %		15:17:05
3	Al 396.153Radial†	272.2	258.8	183.70 µg/L	183.70 ppb	15:17:05
3	Ca 317.933Radial†	425.1	213.9	193.51 µg/L	193.51 ppb	15:17:25
3	Fe 238.204 Radial†	27.9	10.3	90.478 µg/L	90.478 ppb	15:17:25
3	K 766.490 Radial†	383.0	209.0	140.05 µg/L	140.05 ppb	15:17:05
3	Mg 279.077 IEC†	43.7	30.4	283.58 µg/L	283.58 ppb	15:17:25
3	Na 589.592 Radial†	1379.7	1014.0	308.24 µg/L	308.24 ppb	15:17:05
3	Sr 421.552†	548.7	533.9	5.1686 µg/L	5.1686 ppb	15:17:05
3	Sc 361.383	1947464.8	1947464.8	99.984 %		15:18:35
3	Y 371.029	1337349.8	1337349.8	100.00 %		15:18:35
3	Ag 328.068†	100.7	611.0	4.6499 µg/L	4.6499 ppb	15:18:40
3	As 188.979†	16.8	16.1	30.233 µg/L	30.233 ppb	15:19:00
3	B 249.677†	1460.8	1148.0	48.251 µg/L	48.251 ppb	15:18:40
3	Ba 233.527†	159.7	185.1	4.6848 µg/L	4.6848 ppb	15:19:00
3	Be 313.107†	4039.7	7673.2	4.7460 µg/L	4.7460 ppb	15:18:40
3	Cd 226.502†	46.6	169.8	4.5166 µg/L	4.5166 ppb	15:19:00
3	Co 228.616†	83.8	89.6	4.2671 µg/L	4.2671 ppb	15:19:00
3	Cr 267.716†	181.6	207.6	4.3823 µg/L	4.3823 ppb	15:19:00
3	Cu 324.752†	4674.2	1444.4	9.5530 µg/L	9.5530 ppb	15:18:40
3	Mn 257.610†	2758.4	3000.8	9.9650 µg/L	9.9650 ppb	15:18:40
3	Mo 202.031†	83.2	82.1	8.4974 µg/L	8.4974 ppb	15:19:00
3	Ni 231.604†	371.0	90.3	4.7261 µg/L	4.7261 ppb	15:19:00
3	P 214.914†	103.7	76.2	157.80 µg/L	157.80 ppb	15:19:00
3	Pb 220.353†	134.3	44.0	11.238 µg/L	11.238 ppb	15:19:00
3	S 181.975 Axial†	33.6	18.6	80.130 µg/L	80.130 ppb	15:19:00
3	Sb 206.836†	27.0	5.9	5.6664 µg/L	5.6664 ppb	15:19:00
3	Se 196.026†	38.4	26.5	38.574 µg/L	38.574 ppb	15:19:00
3	SiO2†	2529.7	1018.2	208.26 µg/L	208.26 ppb	15:18:40
3	Si 251.611†	1425.9	1141.3	90.263 µg/L	90.263 ppb	15:19:00
3	Sn 189.927†	21.8	20.9	9.3422 µg/L	9.3422 ppb	15:19:00
3	Ti 334.940†	2305.9	2161.4	4.9082 µg/L	4.9082 ppb	15:18:40
3	Tl 190.801†	-7.4	13.2	18.360 µg/L	18.360 ppb	15:19:00
3	U 409.014†	772.4	547.2	44.748 µg/L	44.748 ppb	15:18:40
3	V 292.402†	420.7	468.0	4.8538 µg/L	4.8538 ppb	15:18:40
3	Zn 213.857†	831.6	365.8	8.8775 µg/L	8.8775 ppb	15:19:00

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1936878.6	99.441	%	0.5717				0.57%
Sc RADIAL	55211.1	99.7	%	0.57				0.57%
Y 371.029	1329725.7	99.431	%	0.5811				0.58%
Ag 328.068†	634.0	4.8235	µg/L	0.16636	4.8235	ppb	0.16636	3.45%
QC value within limits for Ag 328.068 Recovery = 96.47%								
Al 396.153Radial†	268.6	190.65	µg/L	7.162	190.65	ppb	7.162	3.76%
QC value within limits for Al 396.153Radial Recovery = 95.33%								
As 188.979†	17.0	31.984	µg/L	3.2214	31.984	ppb	3.2214	10.07%
QC value within limits for As 188.979 Recovery = 106.61%								
B 249.677†	1175.4	49.409	µg/L	1.0533	49.409	ppb	1.0533	2.13%
QC value within limits for B 249.677 Recovery = 98.82%								
Ba 233.527†	200.0	5.0601	µg/L	0.32530	5.0601	ppb	0.32530	6.43%
QC value within limits for Ba 233.527 Recovery = 101.20%								
Be 313.107†	8026.6	4.9647	µg/L	0.18952	4.9647	ppb	0.18952	3.82%
QC value within limits for Be 313.107 Recovery = 99.29%								
Ca 317.933Radial†	204.3	184.80	µg/L	7.876	184.80	ppb	7.876	4.26%
QC value within limits for Ca 317.933Radial Recovery = 92.40%								
Cd 226.502†	183.8	4.8901	µg/L	0.33126	4.8901	ppb	0.33126	6.77%
QC value within limits for Cd 226.502 Recovery = 97.80%								
Co 228.616†	94.4	4.4925	µg/L	0.34711	4.4925	ppb	0.34711	7.73%

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   QC value within limits for Co 228.616  Recovery = 89.85%
Cr 267.716†            231.3      4.8829 µg/L       0.43520      4.8829 ppb        0.43520   8.91%
   QC value within limits for Cr 267.716  Recovery = 97.66%
Cu 324.752†           1537.3      10.165 µg/L        0.5310      10.165 ppb         0.5310   5.22%
   QC value within limits for Cu 324.752  Recovery = 101.65%
Fe 238.204 Radial†      9.3       81.363 µg/L        9.0979      81.363 ppb         9.0979  11.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 81.36%
K 766.490 Radial†      228.4      153.02 µg/L        11.257      153.02 ppb         11.257   7.36%
   QC value within limits for K 766.490 Radial  Recovery = 102.01%
Mg 279.077 IEC†         29.7      276.98 µg/L         6.140      276.98 ppb          6.140   2.22%
   QC value within limits for Mg 279.077 IEC  Recovery = 92.33%
Mn 257.610†           3115.7      10.346 µg/L        0.3328      10.346 ppb         0.3328   3.22%
   QC value within limits for Mn 257.610  Recovery = 103.46%
Mo 202.031†             89.8      9.2977 µg/L       0.73916      9.2977 ppb        0.73916   7.95%
   QC value within limits for Mo 202.031  Recovery = 92.98%
Na 589.592 Radial†     999.5      303.83 µg/L         6.950      303.83 ppb          6.950   2.29%
   QC value within limits for Na 589.592 Radial  Recovery = 101.28%
Ni 231.604†             95.2      4.9833 µg/L       0.26398      4.9833 ppb        0.26398   5.30%
   QC value within limits for Ni 231.604  Recovery = 99.67%
P 214.914†              71.3      147.55 µg/L         8.896      147.55 ppb          8.896   6.03%
   QC value within limits for P 214.914  Recovery = 98.37%
Pb 220.353†             45.2      11.552 µg/L        0.5908      11.552 ppb         0.5908   5.11%
   QC value within limits for Pb 220.353  Recovery = 115.52%
S 181.975 Axial†        22.7      97.735 µg/L       16.1151      97.735 ppb        16.1151  16.49%
   QC value within limits for S 181.975 Axial  Recovery = 97.74%
Sb 206.836†             11.1      10.597 µg/L        4.6099      10.597 ppb         4.6099  43.50%
   QC value within limits for Sb 206.836  Recovery = 105.97%
Se 196.026†             28.4      41.366 µg/L        2.4185      41.366 ppb         2.4185   5.85%
   QC value greater than the upper limit for Se 196.026  Recovery = 137.89%
SiO2†                 1060.3      216.89 µg/L         7.547      216.89 ppb          7.547   3.48%
   QC value within limits for SiO2  Recovery = 101.82%
Si 251.611†           1233.9      97.589 µg/L        6.3506      97.589 ppb         6.3506   6.51%
   QC value within limits for Si 251.611  Recovery = 97.59%
Sn 189.927†             24.2      10.800 µg/L        1.5810      10.800 ppb         1.5810  14.64%
   QC value within limits for Sn 189.927  Recovery = 108.00%
Sr 421.552†            547.4      5.2993 µg/L       0.11347      5.2993 ppb        0.11347   2.14%
   QC value within limits for Sr 421.552  Recovery = 105.99%
Ti 334.940†           2194.2      4.9833 µg/L       0.07473      4.9833 ppb        0.07473   1.50%
   QC value within limits for Ti 334.940  Recovery = 99.67%
Tl 190.801†             14.5      20.220 µg/L        1.7409      20.220 ppb         1.7409   8.61%
   QC value within limits for Tl 190.801  Recovery = 101.10%
U 409.014†             611.4      50.007 µg/L        4.6333      50.007 ppb         4.6333   9.27%
   QC value within limits for U 409.014  Recovery = 100.01%
V 292.402†             480.9      4.9951 µg/L       0.18472      4.9951 ppb        0.18472   3.70%
   QC value within limits for V 292.402  Recovery = 99.90%
Zn 213.857†            402.3      9.7687 µg/L       0.77348      9.7687 ppb        0.77348   7.92%
   QC value within limits for Zn 213.857  Recovery = 97.69%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/23/2010 15:19:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53684.8	53684.8	96.9	%			15:19:48
1	Al 396.153Radial†	689234.4	711117.4	505250	µg/L	505250	ppb	15:19:42
1	Ca 317.933Radial†	517110.9	533325.8	482380	µg/L	482380	ppb	15:19:42
1	Fe 238.204 Radial†	20545.3	21180.3	185300	µg/L	185300	ppb	15:19:48
1	K 766.490 Radial†	104.0	-70.3	-47.077	µg/L	-47.077	ppb	15:19:48
1	Mg 279.077 IEC†	49791.6	51359.9	479370	µg/L	479370	ppb	15:19:48
1	Na 589.592 Radial†	481.6	118.2	35.923	µg/L	35.923	ppb	15:19:48
1	Sr 421.552†	389.7	382.1	3.6990	µg/L	3.6990	ppb	15:19:48
1	Sc 361.383	1796484.0	1796484.0	92.233	%			15:20:16
1	Y 371.029	1225556.4	1225556.4	91.642	%			15:20:16
1	Ag 328.068†	-2859.4	-2589.9	-8.0285	µg/L	-8.0285	ppb	15:20:22
1	As 188.979†	-17.6	-19.9	-51.843	µg/L	-51.843	ppb	15:20:42
1	B 249.677†	807.2	562.1	-73.045	µg/L	-73.045	ppb	15:20:22
1	Ba 233.527†	277.7	326.5	8.2076	µg/L	8.2076	ppb	15:20:42
1	Be 313.107†	-4357.6	-1091.7	-0.6862	µg/L	-0.6862	ppb	15:20:22
1	Cd 226.502†	389.3	545.3	-6.4209	µg/L	-6.4209	ppb	15:20:42
1	Co 228.616†	41.5	50.8	2.3498	µg/L	2.3498	ppb	15:20:42
1	Cr 267.716†	-39.8	-17.2	-0.3774	µg/L	-0.3774	ppb	15:20:42
1	Cu 324.752†	1296.4	-1824.9	13.704	µg/L	13.704	ppb	15:20:22
1	Mn 257.610†	236.9	498.8	7.1187	µg/L	7.1187	ppb	15:20:22
1	Mo 202.031†	-103.3	-113.1	-4.6657	µg/L	-4.6657	ppb	15:20:42
1	Ni 231.604†	139.4	-129.5	-4.3789	µg/L	-4.3789	ppb	15:20:42
1	P 214.914†	103.3	84.5	171.92	µg/L	171.92	ppb	15:20:42
1	Pb 220.353†	64.2	-20.7	15.290	µg/L	15.290	ppb	15:20:42
1	S 181.975 Axial†	25.1	12.1	52.226	µg/L	52.226	ppb	15:20:42
1	Sb 206.836†	55.1	38.7	-5.5758	µg/L	-5.5758	ppb	15:20:42
1	Se 196.026†	32.2	23.0	-21.176	µg/L	-21.176	ppb	15:20:42
1	SiO2†	1256.1	-150.1	-30.703	µg/L	-30.703	ppb	15:20:42
1	Si 251.611†	409.0	158.5	12.536	µg/L	12.536	ppb	15:20:42
1	Sn 189.927†	-62.1	-68.2	4.0438	µg/L	4.0438	ppb	15:20:42
1	Ti 334.940†	11504.7	12328.7	-2.0616	µg/L	-2.0616	ppb	15:20:22
1	Tl 190.801†	-34.7	-17.0	-3.5208	µg/L	-3.5208	ppb	15:20:42
1	U 409.014†	1562.0	1468.2	64.949	µg/L	64.949	ppb	15:20:22
1	V 292.402†	-2110.9	-2241.4	-0.7642	µg/L	-0.7642	ppb	15:20:22
1	Zn 213.857†	1460.7	1117.8	-8.6432	µg/L	-8.6432	ppb	15:20:42
2	Sc RADIAL	53438.8	53438.8	96.5	%			15:19:58
2	Al 396.153Radial†	686831.6	711899.4	505800	µg/L	505800	ppb	15:19:53
2	Ca 317.933Radial†	514285.6	532852.7	481950	µg/L	481950	ppb	15:19:53
2	Fe 238.204 Radial†	20404.9	21132.4	184880	µg/L	184880	ppb	15:19:58
2	K 766.490 Radial†	67.6	-107.5	-72.065	µg/L	-72.065	ppb	15:19:58
2	Mg 279.077 IEC†	49459.6	51252.2	478370	µg/L	478370	ppb	15:19:58
2	Na 589.592 Radial†	457.6	95.6	29.076	µg/L	29.076	ppb	15:19:58
2	Sr 421.552†	396.4	390.8	3.7835	µg/L	3.7835	ppb	15:19:58
2	Sc 361.383	1805776.4	1805776.4	92.710	%			15:20:48
2	Y 371.029	1230425.7	1230425.7	92.006	%			15:20:48
2	Ag 328.068†	-2870.5	-2586.0	-8.0234	µg/L	-8.0234	ppb	15:20:53
2	As 188.979†	-11.5	-13.2	-39.155	µg/L	-39.155	ppb	15:21:14
2	B 249.677†	874.8	630.5	-69.951	µg/L	-69.951	ppb	15:20:53
2	Ba 233.527†	277.5	324.8	8.1638	µg/L	8.1638	ppb	15:21:14
2	Be 313.107†	-4305.6	-1011.2	-0.6363	µg/L	-0.6363	ppb	15:20:53
2	Cd 226.502†	400.8	555.5	-6.1032	µg/L	-6.1032	ppb	15:21:14
2	Co 228.616†	41.6	50.7	2.3472	µg/L	2.3472	ppb	15:21:14
2	Cr 267.716†	-30.3	-6.7	-0.1558	µg/L	-0.1558	ppb	15:21:14
2	Cu 324.752†	1243.8	-1888.9	13.223	µg/L	13.223	ppb	15:20:53
2	Mn 257.610†	53.4	299.6	6.4415	µg/L	6.4415	ppb	15:20:53
2	Mo 202.031†	-108.7	-118.4	-5.2306	µg/L	-5.2306	ppb	15:21:14
2	Ni 231.604†	122.8	-148.3	-5.3664	µg/L	-5.3664	ppb	15:21:14
2	P 214.914†	83.0	62.0	125.71	µg/L	125.71	ppb	15:21:14
2	Pb 220.353†	49.9	-36.5	11.290	µg/L	11.290	ppb	15:21:14

2	S 181.975 Axial†	28.6	15.7	67.832 µg/L	67.832 ppb	15:21:14
2	Sb 206.836†	59.2	42.8	-1.7318 µg/L	-1.7318 ppb	15:21:14
2	Se 196.026†	22.4	12.2	-37.034 µg/L	-37.034 ppb	15:21:14
2	SiO2†	1275.8	-135.8	-27.777 µg/L	-27.777 ppb	15:21:14
2	Si 251.611†	429.5	178.4	14.108 µg/L	14.108 ppb	15:21:14
2	Sn 189.927†	-50.0	-54.8	9.9429 µg/L	9.9429 ppb	15:21:14
2	Ti 334.940†	11492.0	12250.8	-2.1666 µg/L	-2.1666 ppb	15:20:53
2	Tl 190.801†	-38.5	-21.0	-8.9743 µg/L	-8.9743 ppb	15:21:14
2	U 409.014†	1595.4	1495.5	67.270 µg/L	67.270 ppb	15:20:53
2	V 292.402†	-2098.6	-2216.3	-0.5619 µg/L	-0.5619 ppb	15:20:53
2	Zn 213.857†	1463.4	1112.5	-8.6892 µg/L	-8.6892 ppb	15:21:14
3	Sc RADIAL	53798.8	53798.8	97.1 %		15:20:09
3	Al 396.153Radial†	686222.2	706509.3	501970 µg/L	501970 ppb	15:20:04
3	Ca 317.933Radial†	513052.6	528017.0	477580 µg/L	477580 ppb	15:20:04
3	Fe 238.204 Radial†	20666.1	21259.8	186000 µg/L	186000 ppb	15:20:09
3	K 766.490 Radial†	107.5	-66.8	-44.794 µg/L	-44.794 ppb	15:20:09
3	Mg 279.077 IEC†	49867.9	51329.6	479090 µg/L	479090 ppb	15:20:09
3	Na 589.592 Radial†	489.0	124.8	37.939 µg/L	37.939 ppb	15:20:09
3	Sr 421.552†	371.1	362.0	3.5048 µg/L	3.5048 ppb	15:20:09
3	Sc 361.383	1822087.1	1822087.1	93.547 %		15:21:19
3	Y 371.029	1241523.2	1241523.2	92.836 %		15:21:19
3	Ag 328.068†	-2887.0	-2575.9	-7.8748 µg/L	-7.8748 ppb	15:21:25
3	As 188.979†	-19.1	-21.2	-53.915 µg/L	-53.915 ppb	15:21:45
3	B 249.677†	839.3	584.1	-72.482 µg/L	-72.482 ppb	15:21:25
3	Ba 233.527†	276.4	320.8	8.0656 µg/L	8.0656 ppb	15:21:45
3	Be 313.107†	-4429.5	-1102.2	-0.6926 µg/L	-0.6926 ppb	15:21:25
3	Cd 226.502†	383.1	532.7	-6.8355 µg/L	-6.8355 ppb	15:21:45
3	Co 228.616†	38.2	46.7	2.1543 µg/L	2.1543 ppb	15:21:45
3	Cr 267.716†	-47.3	-24.6	-0.5338 µg/L	-0.5338 ppb	15:21:45
3	Cu 324.752†	1227.0	-1918.9	13.179 µg/L	13.179 ppb	15:21:25
3	Mn 257.610†	111.9	361.5	6.7666 µg/L	6.7666 ppb	15:21:25
3	Mo 202.031†	-98.0	-105.9	-3.8949 µg/L	-3.8949 ppb	15:21:45
3	Ni 231.604†	140.3	-130.8	-4.4329 µg/L	-4.4329 ppb	15:21:45
3	P 214.914†	111.7	91.9	185.85 µg/L	185.85 ppb	15:21:45
3	Pb 220.353†	69.2	-16.4	16.189 µg/L	16.189 ppb	15:21:45
3	S 181.975 Axial†	34.0	21.3	91.914 µg/L	91.914 ppb	15:21:45
3	Sb 206.836†	43.1	25.0	-18.110 µg/L	-18.110 ppb	15:21:45
3	Se 196.026†	40.3	31.2	-5.7652 µg/L	-5.7652 ppb	15:21:45
3	SiO2†	1269.1	-155.3	-31.761 µg/L	-31.761 ppb	15:21:45
3	Si 251.611†	416.2	160.0	12.656 µg/L	12.656 ppb	15:21:45
3	Sn 189.927†	-62.3	-67.5	4.2989 µg/L	4.2989 ppb	15:21:45
3	Ti 334.940†	11571.7	12225.1	-2.3524 µg/L	-2.3524 ppb	15:21:25
3	Tl 190.801†	-29.5	-11.0	5.1323 µg/L	5.1323 ppb	15:21:45
3	U 409.014†	1590.4	1474.7	65.677 µg/L	65.677 ppb	15:21:25
3	V 292.402†	-2085.2	-2181.7	-0.0744 µg/L	-0.0744 ppb	15:21:25
3	Zn 213.857†	1437.8	1071.1	-9.7993 µg/L	-9.7993 ppb	15:21:45

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1808115.8	92.830	%	0.6654				0.72%
Sc RADIAL	53640.8	96.8	%	0.33				0.34%
Y 371.029	1232501.7	92.161	%	0.6119				0.66%
Ag 328.068†	-2583.9	-7.9756	µg/L	0.08727	-7.9756	ppb	0.08727	1.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	709842.0	504340	µg/L	2069.4	504340	ppb	2069.4	0.41%
QC value within limits for Al 396.153Radial Recovery = 100.87%								
As 188.979†	-18.1	-48.305	µg/L	7.9910	-48.305	ppb	7.9910	16.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	592.2	-71.826	µg/L	1.6480	-71.826	ppb	1.6480	2.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	324.0	8.1457	µg/L	0.07273	8.1457	ppb	0.07273	0.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1068.4	-0.6717	µg/L	0.03080	-0.6717	ppb	0.03080	4.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	531398.5	480640	µg/L	2657.4	480640	ppb	2657.4	0.55%
QC value within limits for Ca 317.933Radial Recovery = 96.13%								
Cd 226.502†	544.5	-6.4532	µg/L	0.36725	-6.4532	ppb	0.36725	5.69%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	49.4	2.2838	µg/L	0.11212	2.2838	ppb	0.11212	4.91%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -16.2     -0.3557 µg/L       0.18990     -0.3557 ppb        0.18990  53.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -1877.5      13.369 µg/L        0.2910      13.369 ppb         0.2910   2.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21190.8      185390 µg/L         563.0      185390 ppb          563.0   0.30%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.70%
K 766.490 Radial†        -81.6     -54.645 µg/L       15.1289     -54.645 ppb        15.1289  27.69%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        51313.9      478940 µg/L         518.5      478940 ppb          518.5   0.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.79%
Mn 257.610†              386.7      6.7756 µg/L       0.33871      6.7756 ppb        0.33871   5.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -112.5     -4.5971 µg/L       0.67047     -4.5971 ppb        0.67047  14.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       112.9      34.313 µg/L        4.6459      34.313 ppb         4.6459  13.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -136.2     -4.7260 µg/L       0.55520     -4.7260 ppb        0.55520  11.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                79.5      161.16 µg/L        31.479      161.16 ppb         31.479  19.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -24.6      14.256 µg/L        2.6081      14.256 ppb         2.6081  18.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          16.4      70.657 µg/L       19.9942      70.657 ppb        19.9942  28.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               35.5     -8.4725 µg/L       8.56474     -8.4725 ppb        8.56474 101.09%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               22.1     -21.325 µg/L       15.6349     -21.325 ppb        15.6349  73.32%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -147.1     -30.080 µg/L        2.0637     -30.080 ppb         2.0637   6.86%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              165.6      13.100 µg/L        0.8747      13.100 ppb         0.8747   6.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -63.5      6.0952 µg/L       3.33465      6.0952 ppb        3.33465  54.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              378.3      3.6624 µg/L       0.14293      3.6624 ppb        0.14293   3.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            12268.2     -2.1936 µg/L       0.14726     -2.1936 ppb        0.14726   6.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -16.3     -2.4543 µg/L       7.11347     -2.4543 ppb        7.11347 289.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1479.5      65.965 µg/L        1.1872      65.965 ppb         1.1872   1.80%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -2213.1     -0.4668 µg/L       0.35456     -0.4668 ppb        0.35456  75.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1100.4     -9.0439 µg/L       0.65462     -9.0439 ppb        0.65462   7.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/23/2010 15:21:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53684.5	53684.5	96.9	%			15:22:31
1	Al 396.153Radial†	690707.8	712640.7	506320	µg/L	506320	ppb	15:22:25
1	Ca 317.933Radial†	516255.6	532445.8	481590	µg/L	481590	ppb	15:22:25
1	Fe 238.204 Radial†	20858.0	21503.1	188140	µg/L	188140	ppb	15:22:31
1	K 766.490 Radial†	7568.5	7631.4	5113.5	µg/L	5113.5	ppb	15:22:31
1	Mg 279.077 IEC†	50481.8	52072.2	486030	µg/L	486030	ppb	15:22:31
1	Na 589.592 Radial†	16621.5	16771.0	5098.1	µg/L	5098.1	ppb	15:22:31
1	Sr 421.552†	51052.8	52655.1	509.76	µg/L	509.76	ppb	15:22:31
1	Sc 361.383	1791611.1	1791611.1	91.982	%			15:23:00
1	Y 371.029	1223239.4	1223239.4	91.469	%			15:23:00
1	Ag 328.068†	28938.2	31970.9	256.49	µg/L	256.49	ppb	15:23:06
1	As 188.979†	234.6	254.3	464.00	µg/L	464.00	ppb	15:23:26
1	B 249.677†	12274.6	13031.4	450.80	µg/L	450.80	ppb	15:23:06
1	Ba 233.527†	18335.8	19959.4	505.13	µg/L	505.13	ppb	15:23:06
1	Be 313.107†	359529.8	394500.7	243.90	µg/L	243.90	ppb	15:23:00
1	Cd 226.502†	16551.1	18116.9	461.72	µg/L	461.72	ppb	15:23:06
1	Co 228.616†	8489.4	9235.2	439.25	µg/L	439.25	ppb	15:23:26
1	Cr 267.716†	21307.1	23190.2	489.62	µg/L	489.62	ppb	15:23:06
1	Cu 324.752†	76819.9	80285.3	556.44	µg/L	556.44	ppb	15:23:06
1	Mn 257.610†	132654.0	144458.6	485.25	µg/L	485.25	ppb	15:23:06
1	Mo 202.031†	4444.0	4830.3	507.11	µg/L	507.11	ppb	15:23:26
1	Ni 231.604†	7858.5	8262.7	434.69	µg/L	434.69	ppb	15:23:26
1	P 214.914†	1257.9	1340.0	2735.9	µg/L	2735.9	ppb	15:23:26
1	Pb 220.353†	1761.3	1824.4	488.38	µg/L	488.38	ppb	15:23:26
1	S 181.975 Axial†	602.0	639.4	2757.9	µg/L	2757.9	ppb	15:23:26
1	Sb 206.836†	560.8	588.6	516.90	µg/L	516.90	ppb	15:23:26
1	Se 196.026†	1512.0	1631.8	2326.9	µg/L	2326.9	ppb	15:23:26
1	SiO2†	50964.6	53894.9	11024	µg/L	11024	ppb	15:23:06
1	Si 251.611†	60561.6	65555.4	5184.8	µg/L	5184.8	ppb	15:23:06
1	Sn 189.927†	1000.2	1086.5	518.53	µg/L	518.53	ppb	15:23:26
1	Ti 334.940†	214453.4	233001.2	500.48	µg/L	500.48	ppb	15:23:06
1	Tl 190.801†	283.7	329.0	480.67	µg/L	480.67	ppb	15:23:26
1	U 409.014†	6963.6	7345.2	545.48	µg/L	545.48	ppb	15:23:06
1	V 292.402†	45076.9	49053.3	522.53	µg/L	522.53	ppb	15:23:06
1	Zn 213.857†	19480.3	20712.4	466.63	µg/L	466.63	ppb	15:23:06
2	Sc RADIAL	54122.0	54122.0	97.7	%			15:22:41
2	Al 396.153Radial†	696499.1	712807.9	506440	µg/L	506440	ppb	15:22:36
2	Ca 317.933Radial†	520576.0	532562.3	481690	µg/L	481690	ppb	15:22:36
2	Fe 238.204 Radial†	21004.6	21479.1	187930	µg/L	187930	ppb	15:22:41
2	K 766.490 Radial†	7624.6	7625.7	5109.7	µg/L	5109.7	ppb	15:22:41
2	Mg 279.077 IEC†	50803.2	51980.2	485170	µg/L	485170	ppb	15:22:41
2	Na 589.592 Radial†	16783.9	16798.6	5106.5	µg/L	5106.5	ppb	15:22:41
2	Sr 421.552†	51503.7	52690.9	510.11	µg/L	510.11	ppb	15:22:41
2	Sc 361.383	1798403.5	1798403.5	92.331	%			15:23:32
2	Y 371.029	1227255.2	1227255.2	91.769	%			15:23:32
2	Ag 328.068†	29061.9	31986.0	256.59	µg/L	256.59	ppb	15:23:38
2	As 188.979†	243.0	262.4	479.25	µg/L	479.25	ppb	15:23:58
2	B 249.677†	12377.1	13092.0	453.46	µg/L	453.46	ppb	15:23:38
2	Ba 233.527†	18448.2	20005.9	506.30	µg/L	506.30	ppb	15:23:38
2	Be 313.107†	360538.2	394116.6	243.66	µg/L	243.66	ppb	15:23:32
2	Cd 226.502†	16624.9	18128.9	462.06	µg/L	462.06	ppb	15:23:38
2	Co 228.616†	8500.0	9211.8	438.13	µg/L	438.13	ppb	15:23:58
2	Cr 267.716†	21509.7	23322.2	492.40	µg/L	492.40	ppb	15:23:38
2	Cu 324.752†	76985.2	80149.0	555.51	µg/L	555.51	ppb	15:23:38
2	Mn 257.610†	133586.6	144924.0	486.80	µg/L	486.80	ppb	15:23:38
2	Mo 202.031†	4452.6	4821.3	506.16	µg/L	506.16	ppb	15:23:58
2	Ni 231.604†	7898.5	8273.9	435.27	µg/L	435.27	ppb	15:23:58
2	P 214.914†	1248.9	1325.1	2705.1	µg/L	2705.1	ppb	15:23:58
2	Pb 220.353†	1784.8	1842.7	493.09	µg/L	493.09	ppb	15:23:58

2	S 181.975 Axial†	616.8	652.9	2816.3 µg/L	2816.3 ppb	15:23:58
2	Sb 206.836†	563.3	589.0	517.18 µg/L	517.18 ppb	15:23:58
2	Se 196.026†	1523.3	1637.9	2335.8 µg/L	2335.8 ppb	15:23:58
2	SiO2†	51210.7	53952.2	11036 µg/L	11036 ppb	15:23:38
2	Si 251.611†	60881.2	65653.0	5192.5 µg/L	5192.5 ppb	15:23:38
2	Sn 189.927†	995.3	1077.1	514.23 µg/L	514.23 ppb	15:23:58
2	Ti 334.940†	215621.7	233385.9	501.43 µg/L	501.43 ppb	15:23:38
2	Tl 190.801†	282.3	326.3	477.02 µg/L	477.02 ppb	15:23:58
2	U 409.014†	6989.8	7345.0	545.48 µg/L	545.48 ppb	15:23:38
2	V 292.402†	45306.9	49117.3	523.15 µg/L	523.15 ppb	15:23:38
2	Zn 213.857†	19581.4	20741.8	467.40 µg/L	467.40 ppb	15:23:38
3	Sc RADIAL	53537.0	53537.0	96.7 %		15:22:52
3	Al 396.153Radial†	695904.7	719981.2	511530 µg/L	511530 ppb	15:22:47
3	Ca 317.933Radial†	519694.4	537471.2	486130 µg/L	486130 ppb	15:22:47
3	Fe 238.204 Radial†	20768.9	21470.1	187850 µg/L	187850 ppb	15:22:52
3	K 766.490 Radial†	7541.4	7624.9	5109.2 µg/L	5109.2 ppb	15:22:52
3	Mg 279.077 IEC†	50336.4	52065.3	485970 µg/L	485970 ppb	15:22:52
3	Na 589.592 Radial†	16680.2	16879.0	5130.9 µg/L	5130.9 ppb	15:22:52
3	Sr 421.552†	50979.5	52724.4	510.43 µg/L	510.43 ppb	15:22:52
3	Sc 361.383	1809107.5	1809107.5	92.881 %		15:24:04
3	Y 371.029	1234800.2	1234800.2	92.333 %		15:24:04
3	Ag 328.068†	29084.2	31823.8	255.34 µg/L	255.34 ppb	15:24:10
3	As 188.979†	241.3	259.0	472.66 µg/L	472.66 ppb	15:24:30
3	B 249.677†	12387.8	13024.3	450.64 µg/L	450.64 ppb	15:24:10
3	Ba 233.527†	18475.0	19916.5	504.04 µg/L	504.04 ppb	15:24:10
3	Be 313.107†	362627.7	394055.8	243.63 µg/L	243.63 ppb	15:24:04
3	Cd 226.502†	16640.0	18038.7	459.66 µg/L	459.66 ppb	15:24:10
3	Co 228.616†	8541.6	9202.2	437.68 µg/L	437.68 ppb	15:24:30
3	Cr 267.716†	21375.7	23040.0	486.45 µg/L	486.45 ppb	15:24:10
3	Cu 324.752†	77047.3	79722.4	552.68 µg/L	552.68 ppb	15:24:10
3	Mn 257.610†	133616.8	144100.4	484.03 µg/L	484.03 ppb	15:24:10
3	Mo 202.031†	4462.2	4803.1	504.28 µg/L	504.28 ppb	15:24:30
3	Ni 231.604†	7894.4	8218.8	432.39 µg/L	432.39 ppb	15:24:30
3	P 214.914†	1277.2	1347.6	2753.7 µg/L	2753.7 ppb	15:24:30
3	Pb 220.353†	1772.4	1817.9	487.02 µg/L	487.02 ppb	15:24:30
3	S 181.975 Axial†	613.9	645.9	2785.8 µg/L	2785.8 ppb	15:24:30
3	Sb 206.836†	570.9	593.5	521.16 µg/L	521.16 ppb	15:24:30
3	Se 196.026†	1513.1	1617.2	2303.5 µg/L	2303.5 ppb	15:24:30
3	SiO2†	51108.1	53513.5	10946 µg/L	10946 ppb	15:24:10
3	Si 251.611†	60915.6	65299.8	5164.5 µg/L	5164.5 ppb	15:24:10
3	Sn 189.927†	1009.5	1086.1	518.31 µg/L	518.31 ppb	15:24:30
3	Ti 334.940†	215418.4	231785.3	497.79 µg/L	497.79 ppb	15:24:10
3	Tl 190.801†	285.8	328.3	479.60 µg/L	479.60 ppb	15:24:30
3	U 409.014†	6957.6	7265.5	538.72 µg/L	538.72 ppb	15:24:10
3	V 292.402†	45227.1	48741.1	519.31 µg/L	519.31 ppb	15:24:10
3	Zn 213.857†	19504.0	20533.0	462.28 µg/L	462.28 ppb	15:24:10

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1799707.4	92.398	%	0.4529				0.49%
Sc RADIAL	53781.2	97.1	%	0.55				0.57%
Y 371.029	1228431.6	91.857	%	0.4389				0.48%
Ag 328.068†	31926.9	256.14	µg/L	0.696	256.14	ppb	0.696	0.27%
QC value within limits for Ag 328.068 Recovery = 102.46%								
Al 396.153Radial†	715143.3	508100	µg/L	2977.4	508100	ppb	2977.4	0.59%
QC value within limits for Al 396.153Radial Recovery = 101.62%								
As 188.979†	258.5	471.97	µg/L	7.648	471.97	ppb	7.648	1.62%
QC value within limits for As 188.979 Recovery = 94.39%								
B 249.677†	13049.2	451.63	µg/L	1.584	451.63	ppb	1.584	0.35%
QC value within limits for B 249.677 Recovery = 90.33%								
Ba 233.527†	19960.6	505.15	µg/L	1.133	505.15	ppb	1.133	0.22%
QC value within limits for Ba 233.527 Recovery = 101.03%								
Be 313.107†	394224.4	243.73	µg/L	0.149	243.73	ppb	0.149	0.06%
QC value within limits for Be 313.107 Recovery = 97.49%								
Ca 317.933Radial†	534159.8	483140	µg/L	2594.4	483140	ppb	2594.4	0.54%
QC value within limits for Ca 317.933Radial Recovery = 96.63%								
Cd 226.502†	18094.9	461.15	µg/L	1.297	461.15	ppb	1.297	0.28%
QC value within limits for Cd 226.502 Recovery = 92.23%								
Co 228.616†	9216.4	438.35	µg/L	0.808	438.35	ppb	0.808	0.18%

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   QC value within limits for Co 228.616  Recovery = 87.67%
Cr 267.716†          23184.1      489.49 µg/L        2.980      489.49 ppb          2.980   0.61%
   QC value within limits for Cr 267.716  Recovery = 97.90%
Cu 324.752†          80052.2      554.87 µg/L        1.957      554.87 ppb          1.957   0.35%
   QC value within limits for Cu 324.752  Recovery = 110.97%
Fe 238.204 Radial†   21484.1      187970 µg/L        149.1      187970 ppb          149.1   0.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.98%
K 766.490 Radial†     7627.3      5110.8 µg/L         2.39      5110.8 ppb           2.39   0.05%
   QC value within limits for K 766.490 Radial  Recovery = 102.22%
Mg 279.077 IEC†      52039.3      485720 µg/L        478.5      485720 ppb          478.5   0.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.14%
Mn 257.610†         144494.3      485.36 µg/L        1.392      485.36 ppb          1.392   0.29%
   QC value within limits for Mn 257.610  Recovery = 97.07%
Mo 202.031†           4818.2      505.85 µg/L        1.439      505.85 ppb          1.439   0.28%
   QC value within limits for Mo 202.031  Recovery = 101.17%
Na 589.592 Radial†   16816.2      5111.8 µg/L        17.06      5111.8 ppb          17.06   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 102.24%
Ni 231.604†           8251.8      434.12 µg/L        1.524      434.12 ppb          1.524   0.35%
   QC value within limits for Ni 231.604  Recovery = 86.82%
P 214.914†            1337.6      2731.5 µg/L        24.60      2731.5 ppb          24.60   0.90%
   QC value within limits for P 214.914  Recovery = 109.26%
Pb 220.353†           1828.3      489.50 µg/L        3.186      489.50 ppb          3.186   0.65%
   QC value within limits for Pb 220.353  Recovery = 97.90%
S 181.975 Axial†       646.1      2786.7 µg/L        29.23      2786.7 ppb          29.23   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 111.47%
Sb 206.836†            590.4      518.41 µg/L        2.381      518.41 ppb          2.381   0.46%
   QC value within limits for Sb 206.836  Recovery = 103.68%
Se 196.026†           1629.0      2322.1 µg/L        16.71      2322.1 ppb          16.71   0.72%
   QC value within limits for Se 196.026  Recovery = 92.88%
SiO2†                53786.8       11002 µg/L         48.8       11002 ppb           48.8   0.44%
   QC value within limits for SiO2  Recovery = 102.87%
Si 251.611†          65502.8      5180.6 µg/L        14.43      5180.6 ppb          14.43   0.28%
   QC value within limits for Si 251.611  Recovery = 103.61%
Sn 189.927†           1083.2      517.02 µg/L        2.422      517.02 ppb          2.422   0.47%
   QC value within limits for Sn 189.927  Recovery = 103.40%
Sr 421.552†          52690.1      510.10 µg/L        0.335      510.10 ppb          0.335   0.07%
   QC value within limits for Sr 421.552  Recovery = 102.02%
Ti 334.940†         232724.1      499.90 µg/L        1.889      499.90 ppb          1.889   0.38%
   QC value within limits for Ti 334.940  Recovery = 99.98%
Tl 190.801†            327.9      479.10 µg/L        1.872      479.10 ppb          1.872   0.39%
   QC value within limits for Tl 190.801  Recovery = 95.82%
U 409.014†            7318.6      543.23 µg/L        3.904      543.23 ppb          3.904   0.72%
   QC value within limits for U 409.014  Recovery = 108.65%
V 292.402†           48970.6      521.66 µg/L        2.061      521.66 ppb          2.061   0.40%
   QC value within limits for V 292.402  Recovery = 104.33%
Zn 213.857†          20662.4      465.44 µg/L        2.762      465.44 ppb          2.762   0.59%
   QC value within limits for Zn 213.857  Recovery = 93.09%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/23/2010 15:24:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53315.6	53315.6	96.3	%			15:25:16
1	Al 396.153Radial†	684539.4	711163.4	505280	µg/L	505280	ppb	15:25:11
1	Ca 317.933Radial†	514806.4	534625.8	483560	µg/L	483560	ppb	15:25:11
1	Fe 238.204 Radial†	50455.8	52401.6	458450	µg/L	458450	ppb	15:25:16
1	K 766.490 Radial†	26.7	-149.8	-100.38	µg/L	-100.38	ppb	15:25:16
1	Mg 279.077 IEC†	49735.5	51657.3	481860	µg/L	481860	ppb	15:25:16
1	Na 589.592 Radial†	1547120.5	1606950.6	488490	µg/L	488490	ppb	15:25:11
1	Sr 421.552†	584.9	587.7	5.6892	µg/L	5.6892	ppb	15:25:16
1	Sc 361.383	1764914.4	1764914.4	90.612	%			15:25:48
1	Y 371.029	1193526.9	1193526.9	89.247	%			15:25:48
1	Ag 328.068†	-5359.8	-5404.9	-12.373	µg/L	-12.373	ppb	15:25:48
1	As 188.979†	-23.6	-26.8	-48.999	µg/L	-48.999	ppb	15:26:08
1	B 249.677†	1584.3	1435.3	-178.84	µg/L	-178.84	ppb	15:25:48
1	Ba 233.527†	592.0	678.7	17.023	µg/L	17.023	ppb	15:26:08
1	Be 313.107†	-12048.2	-9663.6	-5.9933	µg/L	-5.9933	ppb	15:25:48
1	Cd 226.502†	1161.1	1404.6	-14.406	µg/L	-14.406	ppb	15:25:48
1	Co 228.616†	200.6	227.1	10.724	µg/L	10.724	ppb	15:26:08
1	Cr 267.716†	108.6	145.7	3.0322	µg/L	3.0322	ppb	15:26:08
1	Cu 324.752†	-2765.0	-6282.0	22.232	µg/L	22.232	ppb	15:25:48
1	Mn 257.610†	-7322.0	-7838.7	15.651	µg/L	15.651	ppb	15:25:48
1	Mo 202.031†	-193.8	-215.0	-4.8349	µg/L	-4.8349	ppb	15:26:08
1	Ni 231.604†	50.2	-225.3	-5.8544	µg/L	-5.8544	ppb	15:26:08
1	P 214.914†	300.2	303.8	410.09	µg/L	410.09	ppb	15:26:08
1	Pb 220.353†	174.5	102.1	22.260	µg/L	22.260	ppb	15:26:08
1	S 181.975 Axial†	27.0	14.7	63.556	µg/L	63.556	ppb	15:26:08
1	Sb 206.836†	62.1	47.5	2.4098	µg/L	2.4098	ppb	15:26:08
1	Se 196.026†	-131.8	-157.4	459.58	µg/L	459.58	ppb	15:26:08
1	SiO2†	1200.0	-187.6	-38.376	µg/L	-38.376	ppb	15:26:08
1	Si 251.611†	-308.9	-625.8	-49.497	µg/L	-49.497	ppb	15:26:08
1	Sn 189.927†	-48.3	-54.2	-18.547	µg/L	-18.547	ppb	15:26:08
1	Ti 334.940†	14518.4	15877.8	5.8288	µg/L	5.8288	ppb	15:25:48
1	Tl 190.801†	-48.7	-33.1	29.251	µg/L	29.251	ppb	15:26:08
1	U 409.014†	152515.5	168092.0	13660	µg/L	13660	ppb	15:25:48
1	V 292.402†	-6172.5	-6764.7	-0.1477	µg/L	-0.1477	ppb	15:25:48
1	Zn 213.857†	2824.3	2651.0	15.743	µg/L	15.743	ppb	15:26:08
2	Sc RADIAL	53042.9	53042.9	95.8	%			15:25:28
2	Al 396.153Radial†	686778.7	717158.6	509540	µg/L	509540	ppb	15:25:22
2	Ca 317.933Radial†	516326.8	538963.7	487480	µg/L	487480	ppb	15:25:22
2	Fe 238.204 Radial†	50038.0	52234.8	456990	µg/L	456990	ppb	15:25:28
2	K 766.490 Radial†	22.4	-154.2	-103.34	µg/L	-103.34	ppb	15:25:28
2	Mg 279.077 IEC†	49533.5	51712.0	482370	µg/L	482370	ppb	15:25:28
2	Na 589.592 Radial†	1554033.2	1622434.1	493190	µg/L	493190	ppb	15:25:22
2	Sr 421.552†	556.4	561.0	5.4309	µg/L	5.4309	ppb	15:25:28
2	Sc 361.383	1760430.9	1760430.9	90.382	%			15:26:14
2	Y 371.029	1189353.9	1189353.9	88.935	%			15:26:14
2	Ag 328.068†	-5193.5	-5235.9	-11.203	µg/L	-11.203	ppb	15:26:14
2	As 188.979†	-27.1	-30.8	-56.824	µg/L	-56.824	ppb	15:26:35
2	B 249.677†	1525.3	1374.6	-180.63	µg/L	-180.63	ppb	15:26:14
2	Ba 233.527†	608.0	698.1	17.508	µg/L	17.508	ppb	15:26:35
2	Be 313.107†	-11915.8	-9551.0	-5.9240	µg/L	-5.9240	ppb	15:26:14
2	Cd 226.502†	1155.3	1401.4	-14.323	µg/L	-14.323	ppb	15:26:14
2	Co 228.616†	195.6	222.2	10.487	µg/L	10.487	ppb	15:26:35
2	Cr 267.716†	78.0	112.2	2.3232	µg/L	2.3232	ppb	15:26:35
2	Cu 324.752†	-2684.6	-6200.8	22.566	µg/L	22.566	ppb	15:26:14
2	Mn 257.610†	-7054.0	-7562.8	16.353	µg/L	16.353	ppb	15:26:14
2	Mo 202.031†	-180.9	-201.3	-3.4657	µg/L	-3.4657	ppb	15:26:35
2	Ni 231.604†	72.0	-201.1	-4.6030	µg/L	-4.6030	ppb	15:26:35
2	P 214.914†	284.1	286.7	377.04	µg/L	377.04	ppb	15:26:35
2	Pb 220.353†	164.3	91.4	19.791	µg/L	19.791	ppb	15:26:35

2	S 181.975 Axial†	32.3	20.7	89.079 µg/L	89.079 ppb	15:26:35
2	Sb 206.836†	52.1	36.6	-8.2186 µg/L	-8.2186 ppb	15:26:35
2	Se 196.026†	-136.1	-162.6	446.56 µg/L	446.56 ppb	15:26:35
2	SiO2†	1198.6	-185.8	-38.003 µg/L	-38.003 ppb	15:26:35
2	Si 251.611†	-342.7	-664.1	-52.523 µg/L	-52.523 ppb	15:26:35
2	Sn 189.927†	-44.8	-50.4	-16.648 µg/L	-16.648 ppb	15:26:35
2	Ti 334.940†	14829.7	16263.0	6.7294 µg/L	6.7294 ppb	15:26:14
2	Tl 190.801†	-41.7	-25.6	39.439 µg/L	39.439 ppb	15:26:35
2	U 409.014†	152114.0	168076.5	13659 µg/L	13659 ppb	15:26:14
2	V 292.402†	-6344.5	-6972.4	-2.4057 µg/L	-2.4057 ppb	15:26:14
2	Zn 213.857†	2824.8	2659.5	15.985 µg/L	15.985 ppb	15:26:35
3	Sc RADIAL	53270.6	53270.6	96.2 %		15:25:39
3	Al 396.153Radial†	686224.4	713516.8	506950 µg/L	506950 ppb	15:25:34
3	Ca 317.933Radial†	515543.1	535844.1	484660 µg/L	484660 ppb	15:25:34
3	Fe 238.204 Radial†	50483.0	52474.2	459090 µg/L	459090 ppb	15:25:39
3	K 766.490 Radial†	76.7	-97.8	-65.530 µg/L	-65.530 ppb	15:25:39
3	Mg 279.077 IEC†	49807.3	51775.6	482960 µg/L	482960 ppb	15:25:39
3	Na 589.592 Radial†	1553304.6	1614739.9	490850 µg/L	490850 ppb	15:25:34
3	Sr 421.552†	564.0	566.4	5.4839 µg/L	5.4839 ppb	15:25:39
3	Sc 361.383	1755763.2	1755763.2	90.142 %		15:26:41
3	Y 371.029	1187688.6	1187688.6	88.810 %		15:26:41
3	Ag 328.068†	-5205.4	-5264.4	-11.291 µg/L	-11.291 ppb	15:26:41
3	As 188.979†	-29.1	-33.0	-60.778 µg/L	-60.778 ppb	15:27:02
3	B 249.677†	1526.7	1380.5	-181.47 µg/L	-181.47 ppb	15:26:41
3	Ba 233.527†	588.2	677.9	16.997 µg/L	16.997 ppb	15:27:02
3	Be 313.107†	-11862.3	-9526.6	-5.9087 µg/L	-5.9087 ppb	15:26:41
3	Cd 226.502†	1126.7	1373.1	-15.315 µg/L	-15.315 ppb	15:26:41
3	Co 228.616†	187.2	213.5	10.073 µg/L	10.073 ppb	15:27:02
3	Cr 267.716†	97.5	134.1	2.7837 µg/L	2.7837 ppb	15:27:02
3	Cu 324.752†	-2659.2	-6180.5	22.991 µg/L	22.991 ppb	15:26:41
3	Mn 257.610†	-7001.1	-7524.8	16.734 µg/L	16.734 ppb	15:26:41
3	Mo 202.031†	-193.4	-215.6	-4.8747 µg/L	-4.8747 ppb	15:27:02
3	Ni 231.604†	50.2	-225.1	-5.8328 µg/L	-5.8328 ppb	15:27:02
3	P 214.914†	282.6	285.9	372.83 µg/L	372.83 ppb	15:27:02
3	Pb 220.353†	184.0	113.8	25.280 µg/L	25.280 ppb	15:27:02
3	S 181.975 Axial†	22.2	9.6	41.298 µg/L	41.298 ppb	15:27:02
3	Sb 206.836†	54.3	39.1	-5.6047 µg/L	-5.6047 ppb	15:27:02
3	Se 196.026†	-123.1	-148.5	473.11 µg/L	473.11 ppb	15:27:02
3	SiO2†	1195.9	-185.2	-37.887 µg/L	-37.887 ppb	15:27:02
3	Si 251.611†	-283.8	-599.7	-47.431 µg/L	-47.431 ppb	15:27:02
3	Sn 189.927†	-45.7	-51.6	-17.309 µg/L	-17.309 ppb	15:27:02
3	Ti 334.940†	14658.3	16116.5	6.3033 µg/L	6.3033 ppb	15:26:41
3	Tl 190.801†	-46.9	-31.5	31.730 µg/L	31.730 ppb	15:27:02
3	U 409.014†	152022.9	168422.8	13687 µg/L	13687 ppb	15:26:41
3	V 292.402†	-6390.8	-7042.4	-2.8467 µg/L	-2.8467 ppb	15:26:41
3	Zn 213.857†	2805.3	2646.2	15.532 µg/L	15.532 ppb	15:27:02

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1760369.5	90.378	%	0.2349				0.26%
Sc RADIAL	53209.7	96.1	%	0.26				0.27%
Y 371.029	1190189.8	88.997	%	0.2249				0.25%
Ag 328.068†	-5301.7	-11.623	µg/L	0.6515	-11.623	ppb	0.6515	5.61%
Al 396.153Radial†	713946.3	507260	µg/L	2146.1	507260	ppb	2146.1	0.42%
QC value within limits for Al 396.153Radial Recovery = 101.45%								
As 188.979†	-30.2	-55.534	µg/L	5.9941	-55.534	ppb	5.9941	10.79%
B 249.677†	1396.8	-180.31	µg/L	1.347	-180.31	ppb	1.347	0.75%
Ba 233.527†	684.9	17.176	µg/L	0.2881	17.176	ppb	0.2881	1.68%
Be 313.107†	-9580.4	-5.9420	µg/L	0.04507	-5.9420	ppb	0.04507	0.76%
Ca 317.933Radial†	536477.8	485230	µg/L	2023.6	485230	ppb	2023.6	0.42%
QC value within limits for Ca 317.933Radial Recovery = 97.05%								
Cd 226.502†	1393.1	-14.682	µg/L	0.5505	-14.682	ppb	0.5505	3.75%
Co 228.616†	220.9	10.428	µg/L	0.3294	10.428	ppb	0.3294	3.16%
Cr 267.716†	130.7	2.7130	µg/L	0.35971	2.7130	ppb	0.35971	13.26%
Cu 324.752†	-6221.1	22.596	µg/L	0.3803	22.596	ppb	0.3803	1.68%
Fe 238.204 Radial†	52370.2	458180	µg/L	1074.1	458180	ppb	1074.1	0.23%
QC value within limits for Fe 238.204 Radial Recovery = 91.64%								
K 766.490 Radial†	-133.9	-89.750	µg/L	21.0267	-89.750	ppb	21.0267	23.43%
Mg 279.077 IEC†	51715.0	482400	µg/L	552.7	482400	ppb	552.7	0.11%

QC value within limits for Mg 279.077 IEC Recovery = 96.48%

Mn 257.610†	-7642.1	16.246	µg/L	0.5492	16.246	ppb	0.5492	3.38%
Mo 202.031†	-210.6	-4.3918	µg/L	0.80226	-4.3918	ppb	0.80226	18.27%
Na 589.592 Radial†	1614708.2	490850	µg/L	2353.4	490850	ppb	2353.4	0.48%

QC value within limits for Na 589.592 Radial Recovery = 98.17%

Ni 231.604†	-217.2	-5.4300	µg/L	0.71633	-5.4300	ppb	0.71633	13.19%
P 214.914†	292.1	386.65	µg/L	20.405	386.65	ppb	20.405	5.28%
Pb 220.353†	102.4	22.444	µg/L	2.7491	22.444	ppb	2.7491	12.25%
S 181.975 Axial†	15.0	64.645	µg/L	23.9091	64.645	ppb	23.9091	36.99%
Sb 206.836†	41.1	-3.8045	µg/L	5.53816	-3.8045	ppb	5.53816	145.57%
Se 196.026†	-156.2	459.75	µg/L	13.276	459.75	ppb	13.276	2.89%
SiO2†	-186.2	-38.088	µg/L	0.2557	-38.088	ppb	0.2557	0.67%
Si 251.611†	-629.9	-49.817	µg/L	2.5614	-49.817	ppb	2.5614	5.14%
Sn 189.927†	-52.0	-17.501	µg/L	0.9635	-17.501	ppb	0.9635	5.51%
Sr 421.552†	571.7	5.5347	µg/L	0.13641	5.5347	ppb	0.13641	2.46%
Ti 334.940†	16085.8	6.2872	µg/L	0.45052	6.2872	ppb	0.45052	7.17%
Tl 190.801†	-30.1	33.473	µg/L	5.3133	33.473	ppb	5.3133	15.87%
U 409.014†	168197.1	13669	µg/L	15.9	13669	ppb	15.9	0.12%

QC value within limits for U 409.014 Recovery = 91.13%

V 292.402†	-6926.5	-1.8000	µg/L	1.44788	-1.8000	ppb	1.44788	80.44%
Zn 213.857†	2652.2	15.753	µg/L	0.2265	15.753	ppb	0.2265	1.44%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/23/2010 15:27:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54746.4	54746.4	98.8	%			15:27:51
1	Al 396.153Radial†	390.3	378.9	58.376	µg/L	58.376	ppb	15:27:51
1	Ca 317.933Radial†	284.3	72.5	65.544	µg/L	65.544	ppb	15:28:11
1	Fe 238.204 Radial†	19.4	1.9	221.82	µg/L	221.82	ppb	15:28:11
1	K 766.490 Radial†	449428.6	454538.9	304570	µg/L	304570	ppb	15:27:46
1	Mg 279.077 IEC†	-3.7	-17.5	9.4570	µg/L	9.4570	ppb	15:28:11
1	Na 589.592 Radial†	1128.1	762.7	231.84	µg/L	231.84	ppb	15:27:51
1	Sr 421.552†	1027541.1	1039610.9	10065	µg/L	10065	ppb	15:27:46
1	Sc 361.383	1902813.9	1902813.9	97.692	%			15:29:35
1	Y 371.029	1294022.2	1294022.2	96.762	%			15:29:35
1	Ag 328.068†	-7375.9	-7039.9	14.776	µg/L	14.776	ppb	15:29:40
1	As 188.979†	5164.1	5285.3	9939.6	µg/L	9939.6	ppb	15:29:40
1	B 249.677†	117392.6	119853.4	5081.4	µg/L	5081.4	ppb	15:29:35
1	Ba 233.527†	566262.2	579667.6	14663	µg/L	14663	ppb	15:29:35
1	Be 313.107†	4635278.9	4748437.1	2934.3	µg/L	2934.3	ppb	15:29:25
1	Cd 226.502†	359613.0	368233.4	9817.7	µg/L	9817.7	ppb	15:29:35
1	Co 228.616†	198564.0	203261.6	9670.2	µg/L	9670.2	ppb	15:29:35
1	Cr 267.716†	1148533.2	1175697.4	24813	µg/L	24813	ppb	15:29:35
1	Cu 324.752†	3056073.9	3125054.2	20641	µg/L	20641	ppb	15:29:35
1	Mn 257.610†	2881269.9	2949592.3	9794.2	µg/L	9794.2	ppb	15:29:35
1	Mo 202.031†	96862.2	99149.8	10262	µg/L	10262	ppb	15:29:35
1	Ni 231.604†	183873.4	187937.3	9831.9	µg/L	9831.9	ppb	15:29:35
1	P 214.914†	7457.2	7605.8	13825	µg/L	13825	ppb	15:29:40
1	Pb 220.353†	97429.7	99641.4	25542	µg/L	25542	ppb	15:29:35
1	S 181.975 Axial†	12295.4	12570.8	54221	µg/L	54221	ppb	15:29:40
1	Sb 206.836†	11131.2	11373.2	10633	µg/L	10633	ppb	15:29:40
1	Se 196.026†	6632.8	6777.6	9883.4	µg/L	9883.4	ppb	15:29:40
1	SiO2†	486221.5	496198.3	101500	µg/L	101500	ppb	15:29:35
1	Si 251.611†	585179.9	598722.0	47353	µg/L	47353	ppb	15:29:35
1	Sn 189.927†	23627.4	24184.9	10765	µg/L	10765	ppb	15:29:40
1	Ti 334.940†	4324804.4	4426848.8	10092	µg/L	10092	ppb	15:29:25
1	Tl 190.801†	6933.0	7117.4	9932.2	µg/L	9932.2	ppb	15:29:40
1	U 409.014†	-1381.6	-1639.6	-134.16	µg/L	-134.16	ppb	15:29:35
1	V 292.402†	997032.2	1020638.0	10431	µg/L	10431	ppb	15:29:35
1	Zn 213.857†	591035.0	604534.4	14689	µg/L	14689	ppb	15:29:35
2	Sc RADIAL	55420.3	55420.3	100	%			15:28:22
2	Al 396.153Radial†	547.2	530.9	166.80	µg/L	166.80	ppb	15:28:22
2	Ca 317.933Radial†	390.1	174.8	158.07	µg/L	158.07	ppb	15:28:42
2	Fe 238.204 Radial†	24.1	6.3	260.00	µg/L	260.00	ppb	15:28:42
2	K 766.490 Radial†	455292.0	454870.0	304790	µg/L	304790	ppb	15:28:17
2	Mg 279.077 IEC†	6.0	-7.8	99.456	µg/L	99.456	ppb	15:28:42
2	Na 589.592 Radial†	1133.5	754.2	229.27	µg/L	229.27	ppb	15:28:22
2	Sr 421.552†	1043498.1	1042917.8	10097	µg/L	10097	ppb	15:28:17
2	Sc 361.383	1903063.1	1903063.1	97.704	%			15:29:59
2	Y 371.029	1295144.1	1295144.1	96.845	%			15:29:59
2	Ag 328.068†	-7359.6	-7022.2	14.831	µg/L	14.831	ppb	15:30:04
2	As 188.979†	5149.6	5269.8	9910.4	µg/L	9910.4	ppb	15:30:04
2	B 249.677†	117227.4	119668.5	5073.5	µg/L	5073.5	ppb	15:29:59
2	Ba 233.527†	565736.4	579053.6	14647	µg/L	14647	ppb	15:29:59
2	Be 313.107†	4680375.4	4793971.9	2962.5	µg/L	2962.5	ppb	15:29:49
2	Cd 226.502†	359283.7	367848.2	9807.4	µg/L	9807.4	ppb	15:29:59
2	Co 228.616†	198144.2	202805.3	9648.3	µg/L	9648.3	ppb	15:29:59
2	Cr 267.716†	1145750.4	1172695.3	24750	µg/L	24750	ppb	15:29:59
2	Cu 324.752†	3052906.9	3121403.3	20617	µg/L	20617	ppb	15:29:59
2	Mn 257.610†	2873674.8	2941432.6	9767.2	µg/L	9767.2	ppb	15:29:59
2	Mo 202.031†	96678.1	98948.4	10242	µg/L	10242	ppb	15:29:59
2	Ni 231.604†	183687.3	187722.2	9820.6	µg/L	9820.6	ppb	15:29:59
2	P 214.914†	7408.2	7554.7	13719	µg/L	13719	ppb	15:30:04
2	Pb 220.353†	97521.0	99721.8	25563	µg/L	25563	ppb	15:29:59

2	S 181.975 Axial†	12267.2	12540.4	54090	µg/L	54090 ppb	15:30:04
2	Sb 206.836†	11065.5	11304.4	10568	µg/L	10568 ppb	15:30:04
2	Se 196.026†	6616.8	6760.4	9858.3	µg/L	9858.3 ppb	15:30:04
2	SiO2†	487169.5	497103.4	101680	µg/L	101680 ppb	15:29:59
2	Si 251.611†	586469.5	599963.5	47451	µg/L	47451 ppb	15:29:59
2	Sn 189.927†	23385.1	23933.7	10653	µg/L	10653 ppb	15:30:04
2	Ti 334.940†	4367310.1	4469773.5	10190	µg/L	10190 ppb	15:29:49
2	Tl 190.801†	6944.6	7128.3	9948.1	µg/L	9948.1 ppb	15:30:04
2	U 409.014†	-1300.0	-1555.9	-127.33	µg/L	-127.33 ppb	15:29:59
2	V 292.402†	995977.7	1019425.1	10418	µg/L	10418 ppb	15:29:59
2	Zn 213.857†	590162.1	603561.8	14665	µg/L	14665 ppb	15:29:59
3	Sc RADIAL	54790.0	54790.0	98.9	%		15:28:53
3	Al 396.153Radial†	398.9	387.2	83.589	µg/L	83.589 ppb	15:28:53
3	Ca 317.933Radial†	298.6	86.7	78.427	µg/L	78.427 ppb	15:29:13
3	Fe 238.204 Radial†	17.1	-0.5	182.25	µg/L	182.25 ppb	15:29:13
3	K 766.490 Radial†	451715.0	456487.9	305880	µg/L	305880 ppb	15:28:48
3	Mg 279.077 IEC†	-2.2	-16.0	7.3791	µg/L	7.3791 ppb	15:29:13
3	Na 589.592 Radial†	884.1	515.1	156.57	µg/L	156.57 ppb	15:28:53
3	Sr 421.552†	1033976.9	1045288.7	10120	µg/L	10120 ppb	15:28:48
3	Sc 361.383	1911485.4	1911485.4	98.137	%		15:30:23
3	Y 371.029	1299703.7	1299703.7	97.186	%		15:30:23
3	Ag 328.068†	-6525.9	-6139.6	15.091	µg/L	15.091 ppb	15:30:28
3	As 188.979†	4658.8	4746.5	8926.0	µg/L	8926.0 ppb	15:30:28
3	B 249.677†	110914.0	112706.6	4776.3	µg/L	4776.3 ppb	15:30:23
3	Ba 233.527†	522185.1	532124.2	13460	µg/L	13460 ppb	15:30:23
3	Be 313.107†	4469780.6	4558272.0	2816.8	µg/L	2816.8 ppb	15:30:13
3	Cd 226.502†	330611.9	337011.8	8985.2	µg/L	8985.2 ppb	15:30:23
3	Co 228.616†	180738.3	184175.4	8761.1	µg/L	8761.1 ppb	15:30:23
3	Cr 267.716†	1022616.3	1042056.6	21993	µg/L	21993 ppb	15:30:23
3	Cu 324.752†	2785542.5	2835195.4	18727	µg/L	18727 ppb	15:30:23
3	Mn 257.610†	2622141.6	2672164.8	8873.0	µg/L	8873.0 ppb	15:30:23
3	Mo 202.031†	88403.6	90080.9	9323.8	µg/L	9323.8 ppb	15:30:23
3	Ni 231.604†	167515.4	170414.9	8915.2	µg/L	8915.2 ppb	15:30:23
3	P 214.914†	6556.4	6653.4	12020	µg/L	12020 ppb	15:30:28
3	Pb 220.353†	91091.7	92730.7	23771	µg/L	23771 ppb	15:30:23
3	S 181.975 Axial†	11102.2	11297.9	48731	µg/L	48731 ppb	15:30:28
3	Sb 206.836†	9891.1	10057.8	9406.8	µg/L	9406.8 ppb	15:30:28
3	Se 196.026†	5963.3	6064.6	8843.7	µg/L	8843.7 ppb	15:30:28
3	SiO2†	457333.3	464503.8	95012	µg/L	95012 ppb	15:30:23
3	Si 251.611†	550154.5	560314.3	44315	µg/L	44315 ppb	15:30:23
3	Sn 189.927†	20265.4	20649.2	9191.2	µg/L	9191.2 ppb	15:30:28
3	Ti 334.940†	4168092.5	4247078.6	9682.3	µg/L	9682.3 ppb	15:30:13
3	Tl 190.801†	6509.3	6653.4	9286.6	µg/L	9286.6 ppb	15:30:28
3	U 409.014†	-1130.6	-1377.4	-112.71	µg/L	-112.71 ppb	15:30:23
3	V 292.402†	906009.7	923257.6	9435.0	µg/L	9435.0 ppb	15:30:23
3	Zn 213.857†	540851.8	550653.9	13380	µg/L	13380 ppb	15:30:23

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1905787.5	97.844	%	0.2534				0.26%
Sc RADIAL	54985.5	99.3	%	0.68				0.69%
Y 371.029	1296290.0	96.931	%	0.2250				0.23%
Ag 328.068†	-6733.9	14.900	µg/L	0.1684	14.900	ppb	0.1684	1.13%
Al 396.153Radial†	432.3	102.92	µg/L	56.741	102.92	ppb	56.741	55.13%
As 188.979†	5100.5	9592.0	µg/L	576.93	9592.0	ppb	576.93	6.01%
QC value within limits for As 188.979 Recovery = 95.92%								
B 249.677†	117409.5	4977.1	µg/L	173.93	4977.1	ppb	173.93	3.49%
QC value within limits for B 249.677 Recovery = 99.54%								
Ba 233.527†	563615.1	14257	µg/L	690.0	14257	ppb	690.0	4.84%
QC value within limits for Ba 233.527 Recovery = 95.04%								
Be 313.107†	4700227.0	2904.5	µg/L	77.26	2904.5	ppb	77.26	2.66%
QC value within limits for Be 313.107 Recovery = 96.82%								
Ca 317.933Radial†	111.3	100.68	µg/L	50.119	100.68	ppb	50.119	49.78%
Cd 226.502†	357697.8	9536.7	µg/L	477.70	9536.7	ppb	477.70	5.01%
QC value within limits for Cd 226.502 Recovery = 95.37%								
Co 228.616†	196747.5	9359.9	µg/L	518.66	9359.9	ppb	518.66	5.54%
QC value within limits for Co 228.616 Recovery = 93.60%								
Cr 267.716†	1130149.8	23852	µg/L	1610.4	23852	ppb	1610.4	6.75%
QC value within limits for Cr 267.716 Recovery = 95.41%								

```
Cu 324.752†          3027217.6       19995 µg/L        1098.5       19995 ppb         1098.5   5.49%
   QC value within limits for Cu 324.752  Recovery = 99.97%
Fe 238.204 Radial†         2.6      221.36 µg/L        38.879      221.36 ppb         38.879  17.56%
K 766.490 Radial†     455299.0      305080 µg/L         698.8      305080 ppb          698.8   0.23%
   QC value within limits for K 766.490 Radial  Recovery = 101.69%
Mg 279.077 IEC†          -13.7      38.764 µg/L       52.5711      38.764 ppb        52.5711 135.62%
Mn 257.610†          2854396.6      9478.1 µg/L        524.22      9478.1 ppb         524.22   5.53%
   QC value within limits for Mn 257.610  Recovery = 94.78%
Mo 202.031†            96059.7      9942.6 µg/L        536.03      9942.6 ppb         536.03   5.39%
   QC value within limits for Mo 202.031  Recovery = 99.43%
Na 589.592 Radial†       677.3      205.90 µg/L        42.732      205.90 ppb         42.732  20.75%
Ni 231.604†           182024.8      9522.6 µg/L        526.03      9522.6 ppb         526.03   5.52%
   QC value within limits for Ni 231.604  Recovery = 95.23%
P 214.914†              7271.3      13188 µg/L        1013.2       13188 ppb         1013.2   7.68%
   QC value less than the lower limit for P 214.914  Recovery = 87.92%
Pb 220.353†            97364.6      24959 µg/L        1028.7       24959 ppb         1028.7   4.12%
   QC value within limits for Pb 220.353  Recovery = 99.83%
S 181.975 Axial†       12136.4      52347 µg/L        3132.7       52347 ppb         3132.7   5.98%
   QC value within limits for S 181.975 Axial  Recovery = 104.69%
Sb 206.836†            10911.8      10203 µg/L         690.1       10203 ppb          690.1   6.76%
   QC value within limits for Sb 206.836  Recovery = 102.03%
Se 196.026†             6534.2      9528.4 µg/L        593.18      9528.4 ppb         593.18   6.23%
   QC value within limits for Se 196.026  Recovery = 95.28%
SiO2†                  485935.2      99396 µg/L        3797.5       99396 ppb         3797.5   3.82%
   QC value within limits for SiO2  Recovery = 92.89%
Si 251.611†           586333.3      46373 µg/L        1782.8       46373 ppb         1782.8   3.84%
   QC value within limits for Si 251.611  Recovery = 92.75%
Sn 189.927†            22922.6      10203 µg/L         878.1       10203 ppb          878.1   8.61%
   QC value within limits for Sn 189.927  Recovery = 102.03%
Sr 421.552†          1042605.8      10094 µg/L          27.6       10094 ppb           27.6   0.27%
   QC value within limits for Sr 421.552  Recovery = 100.94%
Ti 334.940†          4381233.6      9988.2 µg/L        269.35      9988.2 ppb         269.35   2.70%
   QC value within limits for Ti 334.940  Recovery = 99.88%
Tl 190.801†             6966.4      9722.3 µg/L        377.39      9722.3 ppb         377.39   3.88%
   QC value within limits for Tl 190.801  Recovery = 97.22%
U 409.014†             -1524.3     -124.73 µg/L        10.959     -124.73 ppb         10.959   8.79%
V 292.402†            987773.6      10095 µg/L         571.4       10095 ppb          571.4   5.66%
   QC value within limits for V 292.402  Recovery = 100.95%
Zn 213.857†           586250.1      14245 µg/L         748.9       14245 ppb          748.9   5.26%
   QC value within limits for Zn 213.857  Recovery = 94.97%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 15:30:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55795.0	55795.0	101	%			15:31:13
1	Al 396.153Radial†	7070.4	7003.1	4964.7	µg/L	4964.7	ppb	15:31:13
1	Ca 317.933Radial†	5693.9	5437.4	4918.0	µg/L	4918.0	ppb	15:31:33
1	Fe 238.204 Radial†	592.1	570.0	4997.5	µg/L	4997.5	ppb	15:31:33
1	K 766.490 Radial†	8008.3	7772.7	5208.2	µg/L	5208.2	ppb	15:31:13
1	Mg 279.077 IEC†	561.7	543.8	5081.8	µg/L	5081.8	ppb	15:31:33
1	Na 589.592 Radial†	33799.4	33175.6	10085	µg/L	10085	ppb	15:31:13
1	Sr 421.552†	52157.5	51759.4	501.09	µg/L	501.09	ppb	15:31:13
1	Sc 361.383	1931085.5	1931085.5	99.143	%			15:32:33
1	Y 371.029	1319785.6	1319785.6	98.688	%			15:32:33
1	Ag 328.068†	65883.4	66963.1	509.22	µg/L	509.22	ppb	15:32:38
1	As 188.979†	276.2	277.8	522.54	µg/L	522.54	ppb	15:32:58
1	B 249.677†	12452.6	12247.1	513.40	µg/L	513.40	ppb	15:32:38
1	Ba 233.527†	19896.2	20093.6	508.54	µg/L	508.54	ppb	15:32:38
1	Be 313.107†	808512.8	819133.2	506.66	µg/L	506.66	ppb	15:32:33
1	Cd 226.502†	18837.1	19123.1	509.29	µg/L	509.29	ppb	15:32:38
1	Co 228.616†	10632.8	10730.5	510.55	µg/L	510.55	ppb	15:32:38
1	Cr 267.716†	24065.8	24299.8	513.04	µg/L	513.04	ppb	15:32:38
1	Cu 324.752†	79830.3	77289.7	511.19	µg/L	511.19	ppb	15:32:38
1	Mn 257.610†	153214.1	154780.2	514.41	µg/L	514.41	ppb	15:32:33
1	Mo 202.031†	5142.7	5186.0	536.96	µg/L	536.96	ppb	15:32:58
1	Ni 231.604†	9971.6	9777.0	511.54	µg/L	511.54	ppb	15:32:38
1	P 214.914†	1265.5	1248.9	2553.2	µg/L	2553.2	ppb	15:32:58
1	Pb 220.353†	2160.0	2088.2	535.66	µg/L	535.66	ppb	15:32:58
1	S 181.975 Axial†	261.0	248.2	1070.7	µg/L	1070.7	ppb	15:32:58
1	Sb 206.836†	572.7	556.6	528.44	µg/L	528.44	ppb	15:32:58
1	Se 196.026†	370.7	362.0	535.62	µg/L	535.62	ppb	15:32:58
1	SiO2†	27982.1	26712.0	5463.8	µg/L	5463.8	ppb	15:32:38
1	Si 251.611†	32321.7	32316.2	2555.9	µg/L	2555.9	ppb	15:32:38
1	Sn 189.927†	1197.8	1207.3	537.44	µg/L	537.44	ppb	15:32:58
1	Ti 334.940†	222743.5	224523.7	511.54	µg/L	511.54	ppb	15:32:33
1	Tl 190.801†	351.6	375.2	524.63	µg/L	524.63	ppb	15:32:58
1	U 409.014†	6285.6	6114.6	499.32	µg/L	499.32	ppb	15:32:38
1	V 292.402†	49926.1	50404.9	514.84	µg/L	514.84	ppb	15:32:38
1	Zn 213.857†	21439.4	21158.8	513.19	µg/L	513.19	ppb	15:32:38
2	Sc RADIAL	56014.1	56014.1	101	%			15:31:39
2	Al 396.153Radial†	7074.3	6979.5	4948.0	µg/L	4948.0	ppb	15:31:39
2	Ca 317.933Radial†	5715.9	5437.1	4917.7	µg/L	4917.7	ppb	15:31:59
2	Fe 238.204 Radial†	596.7	572.2	5017.2	µg/L	5017.2	ppb	15:31:59
2	K 766.490 Radial†	7973.5	7707.1	5164.3	µg/L	5164.3	ppb	15:31:39
2	Mg 279.077 IEC†	560.9	540.9	5054.4	µg/L	5054.4	ppb	15:31:59
2	Na 589.592 Radial†	33853.8	33098.2	10061	µg/L	10061	ppb	15:31:39
2	Sr 421.552†	52205.3	51604.1	499.59	µg/L	499.59	ppb	15:31:39
2	Sc 361.383	1934784.9	1934784.9	99.333	%			15:33:05
2	Y 371.029	1323371.1	1323371.1	98.956	%			15:33:05
2	Ag 328.068†	66162.8	67117.3	510.41	µg/L	510.41	ppb	15:33:11
2	As 188.979†	274.6	275.6	518.36	µg/L	518.36	ppb	15:33:31
2	B 249.677†	12506.9	12277.8	514.69	µg/L	514.69	ppb	15:33:11
2	Ba 233.527†	20097.6	20257.9	512.70	µg/L	512.70	ppb	15:33:11
2	Be 313.107†	815000.7	824105.4	509.73	µg/L	509.73	ppb	15:33:05
2	Cd 226.502†	19041.3	19292.4	513.80	µg/L	513.80	ppb	15:33:11
2	Co 228.616†	10720.0	10797.8	513.74	µg/L	513.74	ppb	15:33:11
2	Cr 267.716†	24413.7	24603.5	519.45	µg/L	519.45	ppb	15:33:11
2	Cu 324.752†	80401.3	77710.6	513.98	µg/L	513.98	ppb	15:33:11
2	Mn 257.610†	154153.4	155430.3	516.58	µg/L	516.58	ppb	15:33:05
2	Mo 202.031†	5111.2	5144.4	532.66	µg/L	532.66	ppb	15:33:31
2	Ni 231.604†	10033.4	9820.0	513.79	µg/L	513.79	ppb	15:33:11
2	P 214.914†	1268.7	1249.6	2554.3	µg/L	2554.3	ppb	15:33:31
2	Pb 220.353†	2147.8	2071.8	531.43	µg/L	531.43	ppb	15:33:31

2	S 181.975 Axial†	259.2	245.9	1060.7 µg/L	1060.7 ppb	15:33:31
2	Sb 206.836†	575.6	558.3	529.97 µg/L	529.97 ppb	15:33:31
2	Se 196.026†	367.8	358.3	530.36 µg/L	530.36 ppb	15:33:31
2	SiO2†	28274.8	26952.7	5513.0 µg/L	5513.0 ppb	15:33:11
2	Si 251.611†	32606.8	32540.8	2573.6 µg/L	2573.6 ppb	15:33:11
2	Sn 189.927†	1180.4	1187.4	528.57 µg/L	528.57 ppb	15:33:31
2	Ti 334.940†	224371.9	225733.4	514.30 µg/L	514.30 ppb	15:33:05
2	Tl 190.801†	349.1	372.0	520.28 µg/L	520.28 ppb	15:33:31
2	U 409.014†	6254.7	6071.3	495.77 µg/L	495.77 ppb	15:33:11
2	V 292.402†	50323.3	50708.5	517.88 µg/L	517.88 ppb	15:33:11
2	Zn 213.857†	21632.6	21311.9	516.92 µg/L	516.92 ppb	15:33:11
3	Sc RADIAL	55847.6	55847.6	101 %		15:32:04
3	Al 396.153Radial†	7118.7	7044.4	4995.6 µg/L	4995.6 ppb	15:32:04
3	Ca 317.933Radial†	5714.1	5452.1	4931.4 µg/L	4931.4 ppb	15:32:24
3	Fe 238.204 Radial†	592.3	569.7	4994.1 µg/L	4994.1 ppb	15:32:24
3	K 766.490 Radial†	7875.4	7633.3	5114.8 µg/L	5114.8 ppb	15:32:04
3	Mg 279.077 IEC†	559.8	541.4	5057.9 µg/L	5057.9 ppb	15:32:24
3	Na 589.592 Radial†	33844.5	33188.7	10089 µg/L	10089 ppb	15:32:04
3	Sr 421.552†	52308.6	51860.5	502.07 µg/L	502.07 ppb	15:32:04
3	Sc 361.383	1929450.0	1929450.0	99.059 %		15:33:38
3	Y 371.029	1319643.0	1319643.0	98.677 %		15:33:38
3	Ag 328.068†	62977.2	64085.6	487.25 µg/L	487.25 ppb	15:33:43
3	As 188.979†	243.5	245.0	460.87 µg/L	460.87 ppb	15:34:03
3	B 249.677†	11801.4	11600.4	486.13 µg/L	486.13 ppb	15:33:43
3	Ba 233.527†	18631.1	18833.5	476.64 µg/L	476.64 ppb	15:33:43
3	Be 313.107†	768817.4	779752.1	482.30 µg/L	482.30 ppb	15:33:38
3	Cd 226.502†	17575.6	17865.7	475.76 µg/L	475.76 ppb	15:33:43
3	Co 228.616†	9893.8	9993.6	475.42 µg/L	475.42 ppb	15:33:43
3	Cr 267.716†	21832.2	22065.5	465.87 µg/L	465.87 ppb	15:33:43
3	Cu 324.752†	74280.7	71755.7	474.64 µg/L	474.64 ppb	15:33:43
3	Mn 257.610†	145925.6	147553.5	490.42 µg/L	490.42 ppb	15:33:38
3	Mo 202.031†	4363.4	4403.7	456.00 µg/L	456.00 ppb	15:34:03
3	Ni 231.604†	9245.8	9052.9	473.65 µg/L	473.65 ppb	15:33:43
3	P 214.914†	1103.8	1086.7	2218.0 µg/L	2218.0 ppb	15:34:03
3	Pb 220.353†	1900.3	1827.9	468.79 µg/L	468.79 ppb	15:34:03
3	S 181.975 Axial†	230.2	217.3	937.42 µg/L	937.42 ppb	15:34:03
3	Sb 206.836†	508.8	492.6	467.20 µg/L	467.20 ppb	15:34:03
3	Se 196.026†	323.9	315.0	467.16 µg/L	467.16 ppb	15:34:03
3	SiO2†	26532.8	25272.9	5169.5 µg/L	5169.5 ppb	15:33:43
3	Si 251.611†	30573.2	30578.6	2418.5 µg/L	2418.5 ppb	15:33:43
3	Sn 189.927†	996.0	1004.6	447.21 µg/L	447.21 ppb	15:34:03
3	Ti 334.940†	211096.4	212956.5	485.17 µg/L	485.17 ppb	15:33:38
3	Tl 190.801†	320.0	343.7	480.77 µg/L	480.77 ppb	15:34:03
3	U 409.014†	5780.3	5609.8	458.01 µg/L	458.01 ppb	15:33:43
3	V 292.402†	46113.5	46598.8	475.67 µg/L	475.67 ppb	15:33:43
3	Zn 213.857†	19949.8	19673.4	477.14 µg/L	477.14 ppb	15:33:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1931773.5	99.178	%	0.1403				0.14%
Sc RADIAL	55885.6	101	%	0.2				0.20%
Y 371.029	1320933.2	98.774	%	0.1580				0.16%
Ag 328.068†	66055.3	502.29	µg/L	13.045	502.29	ppb	13.045	2.60%
QC value within limits for Ag 328.068 Recovery = 100.46%								
Al 396.153Radial†	7009.0	4969.4	µg/L	24.20	4969.4	ppb	24.20	0.49%
QC value within limits for Al 396.153Radial Recovery = 99.39%								
As 188.979†	266.2	500.59	µg/L	34.460	500.59	ppb	34.460	6.88%
QC value within limits for As 188.979 Recovery = 100.12%								
B 249.677†	12041.8	504.74	µg/L	16.134	504.74	ppb	16.134	3.20%
QC value within limits for B 249.677 Recovery = 100.95%								
Ba 233.527†	19728.3	499.29	µg/L	19.729	499.29	ppb	19.729	3.95%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	807663.6	499.56	µg/L	15.030	499.56	ppb	15.030	3.01%
QC value within limits for Be 313.107 Recovery = 99.91%								
Ca 317.933Radial†	5442.2	4922.4	µg/L	7.79	4922.4	ppb	7.79	0.16%
QC value within limits for Ca 317.933Radial Recovery = 98.45%								
Cd 226.502†	18760.4	499.62	µg/L	20.781	499.62	ppb	20.781	4.16%
QC value within limits for Cd 226.502 Recovery = 99.92%								
Co 228.616†	10507.3	499.90	µg/L	21.260	499.90	ppb	21.260	4.25%

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   QC value within limits for Co 228.616  Recovery = 99.98%
Cr 267.716†            23656.3      499.45 µg/L        29.259      499.45 ppb         29.259   5.86%
   QC value within limits for Cr 267.716  Recovery = 99.89%
Cu 324.752†            75585.3      499.94 µg/L        21.951      499.94 ppb         21.951   4.39%
   QC value within limits for Cu 324.752  Recovery = 99.99%
Fe 238.204 Radial†       570.6      5002.9 µg/L         12.46      5002.9 ppb          12.46   0.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.06%
K 766.490 Radial†       7704.4      5162.4 µg/L         46.72      5162.4 ppb          46.72   0.90%
   QC value within limits for K 766.490 Radial  Recovery = 103.25%
Mg 279.077 IEC†          542.1      5064.7 µg/L         14.92      5064.7 ppb          14.92   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.29%
Mn 257.610†           152588.0      507.14 µg/L        14.519      507.14 ppb         14.519   2.86%
   QC value within limits for Mn 257.610  Recovery = 101.43%
Mo 202.031†             4911.4      508.54 µg/L        45.553      508.54 ppb         45.553   8.96%
   QC value within limits for Mo 202.031  Recovery = 101.71%
Na 589.592 Radial†     33154.2       10078 µg/L          14.9       10078 ppb           14.9   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 100.78%
Ni 231.604†             9550.0      499.66 µg/L        22.550      499.66 ppb         22.550   4.51%
   QC value within limits for Ni 231.604  Recovery = 99.93%
P 214.914†              1195.1      2441.8 µg/L        193.89      2441.8 ppb         193.89   7.94%
   QC value within limits for P 214.914  Recovery = 97.67%
Pb 220.353†             1996.0      511.96 µg/L        37.447      511.96 ppb         37.447   7.31%
   QC value within limits for Pb 220.353  Recovery = 102.39%
S 181.975 Axial†         237.2      1022.9 µg/L         74.21      1022.9 ppb          74.21   7.25%
   QC value within limits for S 181.975 Axial  Recovery = 102.29%
Sb 206.836†              535.8      508.54 µg/L        35.810      508.54 ppb         35.810   7.04%
   QC value within limits for Sb 206.836  Recovery = 101.71%
Se 196.026†              345.1      511.05 µg/L        38.099      511.05 ppb         38.099   7.46%
   QC value within limits for Se 196.026  Recovery = 102.21%
SiO2†                  26312.5      5382.1 µg/L        185.80      5382.1 ppb         185.80   3.45%
   QC value within limits for SiO2  Recovery = 100.65%
Si 251.611†            31811.9      2516.0 µg/L         84.93      2516.0 ppb          84.93   3.38%
   QC value within limits for Si 251.611  Recovery = 100.64%
Sn 189.927†             1133.1      504.41 µg/L        49.733      504.41 ppb         49.733   9.86%
   QC value within limits for Sn 189.927  Recovery = 100.88%
Sr 421.552†            51741.3      500.91 µg/L         1.250      500.91 ppb          1.250   0.25%
   QC value within limits for Sr 421.552  Recovery = 100.18%
Ti 334.940†           221071.2      503.67 µg/L        16.080      503.67 ppb         16.080   3.19%
   QC value within limits for Ti 334.940  Recovery = 100.73%
Tl 190.801†              363.6      508.56 µg/L        24.160      508.56 ppb         24.160   4.75%
   QC value within limits for Tl 190.801  Recovery = 101.71%
U 409.014†              5931.9      484.37 µg/L        22.891      484.37 ppb         22.891   4.73%
   QC value within limits for U 409.014  Recovery = 96.87%
V 292.402†             49237.4      502.80 µg/L        23.540      502.80 ppb         23.540   4.68%
   QC value within limits for V 292.402  Recovery = 100.56%
Zn 213.857†            20714.7      502.42 µg/L        21.970      502.42 ppb         21.970   4.37%
   QC value within limits for Zn 213.857  Recovery = 100.48%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 15:34:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54836.2	54836.2	99.0	%			15:34:43
1	Al 396.153Radial†	86.6	71.4	50.728	µg/L	50.728	ppb	15:34:43
1	Ca 317.933Radial†	225.3	12.4	11.218	µg/L	11.218	ppb	15:35:03
1	Fe 238.204 Radial†	18.5	0.9	7.6321	µg/L	7.6321	ppb	15:35:03
1	K 766.490 Radial†	304.7	130.2	87.231	µg/L	87.231	ppb	15:34:43
1	Mg 279.077 IEC†	12.2	-1.4	-13.492	µg/L	-13.492	ppb	15:35:03
1	Na 589.592 Radial†	608.6	236.0	71.740	µg/L	71.740	ppb	15:34:43
1	Sr 421.552†	123.9	105.2	1.0182	µg/L	1.0182	ppb	15:34:43
1	Sc 361.383	1933715.1	1933715.1	99.278	%			15:36:02
1	Y 371.029	1327260.4	1327260.4	99.247	%			15:36:02
1	Ag 328.068†	-511.2	-4.6	-0.0313	µg/L	-0.0313	ppb	15:36:07
1	As 188.979†	5.7	4.9	9.2647	µg/L	9.2647	ppb	15:36:27
1	B 249.677†	475.9	166.3	6.9935	µg/L	6.9935	ppb	15:36:27
1	Ba 233.527†	5.0	30.4	0.7698	µg/L	0.7698	ppb	15:36:27
1	Be 313.107†	-3379.3	229.0	0.1414	µg/L	0.1414	ppb	15:36:07
1	Cd 226.502†	-114.0	8.4	0.2236	µg/L	0.2236	ppb	15:36:27
1	Co 228.616†	0.5	6.3	0.3006	µg/L	0.3006	ppb	15:36:27
1	Cr 267.716†	4.3	30.2	0.6385	µg/L	0.6385	ppb	15:36:27
1	Cu 324.752†	3552.0	347.3	2.2952	µg/L	2.2952	ppb	15:36:07
1	Mn 257.610†	-135.5	105.4	0.3516	µg/L	0.3516	ppb	15:36:27
1	Mo 202.031†	11.3	10.3	1.0632	µg/L	1.0632	ppb	15:36:27
1	Ni 231.604†	296.9	18.3	0.9597	µg/L	0.9597	ppb	15:36:27
1	P 214.914†	16.8	-10.6	-22.210	µg/L	-22.210	ppb	15:36:27
1	Pb 220.353†	124.9	35.4	9.0763	µg/L	9.0763	ppb	15:36:27
1	S 181.975 Axial†	20.4	5.5	23.747	µg/L	23.747	ppb	15:36:27
1	Sb 206.836†	23.9	3.0	2.8636	µg/L	2.8636	ppb	15:36:27
1	Se 196.026†	17.2	5.4	7.8579	µg/L	7.8579	ppb	15:36:27
1	SiO2†	1589.1	88.7	18.139	µg/L	18.139	ppb	15:36:07
1	Si 251.611†	378.6	96.5	7.6309	µg/L	7.6309	ppb	15:36:27
1	Sn 189.927†	10.5	9.7	4.3096	µg/L	4.3096	ppb	15:36:27
1	Ti 334.940†	499.6	358.4	0.8183	µg/L	0.8183	ppb	15:36:07
1	Tl 190.801†	-24.4	-4.0	-5.4466	µg/L	-5.4466	ppb	15:36:27
1	U 409.014†	323.1	100.1	8.1903	µg/L	8.1903	ppb	15:36:07
1	V 292.402†	-0.5	46.8	0.4916	µg/L	0.4916	ppb	15:36:07
1	Zn 213.857†	554.9	93.0	2.2635	µg/L	2.2635	ppb	15:36:27
2	Sc RADIAL	54789.8	54789.8	98.9	%			15:35:09
2	Al 396.153Radial†	30.6	14.9	10.586	µg/L	10.586	ppb	15:35:09
2	Ca 317.933Radial†	207.8	-5.0	-4.5585	µg/L	-4.5585	ppb	15:35:29
2	Fe 238.204 Radial†	19.7	2.1	18.588	µg/L	18.588	ppb	15:35:29
2	K 766.490 Radial†	258.8	84.1	56.339	µg/L	56.339	ppb	15:35:09
2	Mg 279.077 IEC†	15.3	1.7	15.768	µg/L	15.768	ppb	15:35:29
2	Na 589.592 Radial†	575.1	202.7	61.603	µg/L	61.603	ppb	15:35:09
2	Sr 421.552†	95.6	76.6	0.7420	µg/L	0.7420	ppb	15:35:09
2	Sc 361.383	1936046.1	1936046.1	99.398	%			15:36:33
2	Y 371.029	1328791.0	1328791.0	99.361	%			15:36:33
2	Ag 328.068†	-472.7	34.7	0.2656	µg/L	0.2656	ppb	15:36:38
2	As 188.979†	-0.4	-1.2	-2.1797	µg/L	-2.1797	ppb	15:36:59
2	B 249.677†	477.5	167.3	7.0310	µg/L	7.0310	ppb	15:36:59
2	Ba 233.527†	2.4	27.9	0.7044	µg/L	0.7044	ppb	15:36:59
2	Be 313.107†	-3456.1	155.9	0.0963	µg/L	0.0963	ppb	15:36:38
2	Cd 226.502†	-104.9	17.7	0.4696	µg/L	0.4696	ppb	15:36:59
2	Co 228.616†	7.5	13.4	0.6383	µg/L	0.6383	ppb	15:36:59
2	Cr 267.716†	12.2	38.2	0.8068	µg/L	0.8068	ppb	15:36:59
2	Cu 324.752†	3505.7	296.5	1.9608	µg/L	1.9608	ppb	15:36:38
2	Mn 257.610†	-138.5	102.6	0.3426	µg/L	0.3426	ppb	15:36:59
2	Mo 202.031†	9.7	8.6	0.8925	µg/L	0.8925	ppb	15:36:59
2	Ni 231.604†	295.4	16.4	0.8594	µg/L	0.8594	ppb	15:36:59
2	P 214.914†	31.6	4.3	8.7256	µg/L	8.7256	ppb	15:36:59
2	Pb 220.353†	115.3	25.6	6.5569	µg/L	6.5569	ppb	15:36:59

2	S 181.975 Axial†	14.4	-0.6	-2.7308 µg/L	-2.7308 ppb	15:36:59
2	Sb 206.836†	24.8	3.9	3.6988 µg/L	3.6988 ppb	15:36:59
2	Se 196.026†	13.5	1.7	2.4848 µg/L	2.4848 ppb	15:36:59
2	SiO2†	1609.9	107.7	22.022 µg/L	22.022 ppb	15:36:38
2	Si 251.611†	378.7	96.1	7.6030 µg/L	7.6030 ppb	15:36:59
2	Sn 189.927†	5.1	4.3	1.8939 µg/L	1.8939 ppb	15:36:59
2	Ti 334.940†	371.8	229.3	0.5214 µg/L	0.5214 ppb	15:36:38
2	Tl 190.801†	-28.7	-8.2	-11.377 µg/L	-11.377 ppb	15:36:59
2	U 409.014†	255.9	32.1	2.6217 µg/L	2.6217 ppb	15:36:38
2	V 292.402†	-8.7	38.6	0.4030 µg/L	0.4030 ppb	15:36:38
2	Zn 213.857†	529.0	66.3	1.6105 µg/L	1.6105 ppb	15:36:59
3	Sc RADIAL	54721.3	54721.3	98.8 %		15:35:34
3	Al 396.153Radial†	12.1	-3.7	-2.6715 µg/L	-2.6715 ppb	15:35:34
3	Ca 317.933Radial†	213.9	1.3	1.2016 µg/L	1.2016 ppb	15:35:54
3	Fe 238.204 Radial†	18.0	0.5	4.0231 µg/L	4.0231 ppb	15:35:54
3	K 766.490 Radial†	292.5	118.5	79.411 µg/L	79.411 ppb	15:35:34
3	Mg 279.077 IEC†	15.3	1.7	16.126 µg/L	16.126 ppb	15:35:54
3	Na 589.592 Radial†	585.1	213.5	64.904 µg/L	64.904 ppb	15:35:34
3	Sr 421.552†	63.5	44.2	0.4282 µg/L	0.4282 ppb	15:35:34
3	Sc 361.383	1923802.1	1923802.1	98.769 %		15:37:04
3	Y 371.029	1319498.1	1319498.1	98.667 %		15:37:04
3	Ag 328.068†	-501.7	2.3	0.0176 µg/L	0.0176 ppb	15:37:10
3	As 188.979†	1.2	0.4	0.7513 µg/L	0.7513 ppb	15:37:30
3	B 249.677†	475.7	168.5	7.0889 µg/L	7.0889 ppb	15:37:30
3	Ba 233.527†	-6.7	18.7	0.4714 µg/L	0.4714 ppb	15:37:30
3	Be 313.107†	-3580.7	7.6	0.0045 µg/L	0.0045 ppb	15:37:10
3	Cd 226.502†	-111.8	10.0	0.2678 µg/L	0.2678 ppb	15:37:30
3	Co 228.616†	4.4	10.2	0.4875 µg/L	0.4875 ppb	15:37:30
3	Cr 267.716†	14.3	40.4	0.8517 µg/L	0.8517 ppb	15:37:30
3	Cu 324.752†	3485.2	298.1	1.9695 µg/L	1.9695 ppb	15:37:10
3	Mn 257.610†	-143.4	96.8	0.3212 µg/L	0.3212 ppb	15:37:30
3	Mo 202.031†	12.2	11.2	1.1589 µg/L	1.1589 ppb	15:37:30
3	Ni 231.604†	299.4	22.4	1.1749 µg/L	1.1749 ppb	15:37:30
3	P 214.914†	31.3	4.2	8.4995 µg/L	8.4995 ppb	15:37:30
3	Pb 220.353†	113.6	24.6	6.3078 µg/L	6.3078 ppb	15:37:30
3	S 181.975 Axial†	16.5	1.6	7.0452 µg/L	7.0452 ppb	15:37:30
3	Sb 206.836†	22.6	1.8	1.7317 µg/L	1.7317 ppb	15:37:30
3	Se 196.026†	23.3	11.6	16.983 µg/L	16.983 ppb	15:37:30
3	SiO2†	1570.2	77.8	15.923 µg/L	15.923 ppb	15:37:10
3	Si 251.611†	380.3	100.1	7.9206 µg/L	7.9206 ppb	15:37:30
3	Sn 189.927†	4.0	3.2	1.4398 µg/L	1.4398 ppb	15:37:30
3	Ti 334.940†	345.5	205.0	0.4660 µg/L	0.4660 ppb	15:37:10
3	Tl 190.801†	-18.6	1.7	2.3654 µg/L	2.3654 ppb	15:37:30
3	U 409.014†	223.3	0.7	0.0573 µg/L	0.0573 ppb	15:37:10
3	V 292.402†	-47.7	-1.0	0.0018 µg/L	0.0018 ppb	15:37:10
3	Zn 213.857†	530.9	71.6	1.7397 µg/L	1.7397 ppb	15:37:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1931187.8	99.148	%	0.3338				0.34%
Sc RADIAL	54782.4	98.9	%	0.10				0.11%
Y 371.029	1325183.1	99.092	%	0.3726				0.38%
Ag 328.068†	10.8	0.0840	µg/L	0.15920	0.0840	ppb	0.15920	189.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	27.5	19.548	µg/L	27.8051	19.548	ppb	27.8051	142.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	2.6121	µg/L	5.94477	2.6121	ppb	5.94477	227.59%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	167.4	7.0378	µg/L	0.04805	7.0378	ppb	0.04805	0.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.7	0.6485	µg/L	0.15687	0.6485	ppb	0.15687	24.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.8	0.0807	µg/L	0.06975	0.0807	ppb	0.06975	86.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.9	2.6204	µg/L	7.98337	2.6204	ppb	7.98337	304.66%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	12.0	0.3203	µg/L	0.13111	0.3203	ppb	0.13111	40.93%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.0	0.4755	µg/L	0.16915	0.4755	ppb	0.16915	35.58%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                36.3      0.7657 µg/L       0.11237      0.7657 ppb        0.11237  14.68%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               314.0      2.0752 µg/L       0.19059      2.0752 ppb        0.19059   9.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      10.081 µg/L        7.5849      10.081 ppb         7.5849  75.24%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         110.9      74.327 µg/L       16.0614      74.327 ppb        16.0614  21.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      6.1340 µg/L      16.99773      6.1340 ppb       16.99773 277.11%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               101.6      0.3385 µg/L       0.01565      0.3385 ppb        0.01565   4.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.0      1.0382 µg/L       0.13498      1.0382 ppb        0.13498  13.00%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        217.4      66.082 µg/L        5.1703      66.082 ppb         5.1703   7.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                19.1      0.9980 µg/L       0.16119      0.9980 ppb        0.16119  16.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.7     -1.6617 µg/L      17.79594     -1.6617 ppb       17.79594 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                28.5      7.3136 µg/L       1.53155      7.3136 ppb        1.53155  20.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.2      9.3536 µg/L      13.38879      9.3536 ppb       13.38879 143.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.9      2.7647 µg/L       0.98724      2.7647 ppb        0.98724  35.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.2      9.1087 µg/L       7.32978      9.1087 ppb        7.32978  80.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      91.4      18.695 µg/L        3.0871      18.695 ppb         3.0871  16.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                97.6      7.7182 µg/L       0.17584      7.7182 ppb        0.17584   2.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.7      2.5478 µg/L       1.54260      2.5478 ppb        1.54260  60.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                75.3      0.7295 µg/L       0.29520      0.7295 ppb        0.29520  40.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               264.2      0.6019 µg/L       0.18942      0.6019 ppb        0.18942  31.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.5     -4.8194 µg/L       6.89270     -4.8194 ppb        6.89270 143.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 44.3      3.6231 µg/L       4.15798      3.6231 ppb        4.15798 114.76%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.2      0.2988 µg/L       0.26099      0.2988 ppb        0.26099  87.34%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                77.0      1.8712 µg/L       0.34580      1.8712 ppb        0.34580  18.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 16:12:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56549.7	56549.7	102	%			16:13:05
1	Al 396.153Radial†	6999.6	6840.1	4849.3	µg/L	4849.3	ppb	16:13:05
1	Ca 317.933Radial†	5640.1	5309.3	4802.2	µg/L	4802.2	ppb	16:13:25
1	Fe 238.204 Radial†	583.0	553.3	4851.3	µg/L	4851.3	ppb	16:13:25
1	K 766.490 Radial†	8269.3	7922.2	5308.4	µg/L	5308.4	ppb	16:13:05
1	Mg 279.077 IEC†	571.3	545.9	5100.7	µg/L	5100.7	ppb	16:13:25
1	Na 589.592 Radial†	33367.2	32304.5	9820.0	µg/L	9820.0	ppb	16:13:05
1	Sr 421.552†	51673.9	50594.7	489.81	µg/L	489.81	ppb	16:13:05
1	Sc 361.383	1946788.8	1946788.8	99.949	%			16:14:25
1	Y 371.029	1331744.9	1331744.9	99.582	%			16:14:25
1	Ag 328.068†	65341.5	65884.9	501.02	µg/L	501.02	ppb	16:14:30
1	As 188.979†	273.1	272.5	512.43	µg/L	512.43	ppb	16:14:50
1	B 249.677†	12070.1	11763.1	493.11	µg/L	493.11	ppb	16:14:30
1	Ba 233.527†	19808.8	19844.2	502.22	µg/L	502.22	ppb	16:14:30
1	Be 313.107†	796299.8	800336.0	495.03	µg/L	495.03	ppb	16:14:25
1	Cd 226.502†	18799.6	18932.3	504.22	µg/L	504.22	ppb	16:14:30
1	Co 228.616†	10558.9	10570.0	502.91	µg/L	502.91	ppb	16:14:30
1	Cr 267.716†	23911.4	23949.5	505.64	µg/L	505.64	ppb	16:14:30
1	Cu 324.752†	78813.2	75622.7	500.16	µg/L	500.16	ppb	16:14:30
1	Mn 257.610†	151314.3	151632.9	503.94	µg/L	503.94	ppb	16:14:25
1	Mo 202.031†	4997.2	4998.6	517.56	µg/L	517.56	ppb	16:14:50
1	Ni 231.604†	9919.1	9643.4	504.55	µg/L	504.55	ppb	16:14:30
1	P 214.914†	1240.3	1213.4	2480.3	µg/L	2480.3	ppb	16:14:50
1	Pb 220.353†	2076.0	1986.7	509.59	µg/L	509.59	ppb	16:14:50
1	S 181.975 Axial†	250.7	235.8	1017.0	µg/L	1017.0	ppb	16:14:50
1	Sb 206.836†	565.2	544.4	516.71	µg/L	516.71	ppb	16:14:50
1	Se 196.026†	361.7	349.9	517.62	µg/L	517.62	ppb	16:14:50
1	SiO2†	27626.8	26128.8	5344.5	µg/L	5344.5	ppb	16:14:30
1	Si 251.611†	31789.9	31521.1	2493.0	µg/L	2493.0	ppb	16:14:30
1	Sn 189.927†	1174.9	1174.7	522.92	µg/L	522.92	ppb	16:14:50
1	Ti 334.940†	218582.1	218548.0	497.91	µg/L	497.91	ppb	16:14:25
1	Tl 190.801†	342.2	363.0	507.60	µg/L	507.60	ppb	16:14:50
1	U 409.014†	6193.9	5971.7	487.65	µg/L	487.65	ppb	16:14:30
1	V 292.402†	49517.0	49589.4	506.42	µg/L	506.42	ppb	16:14:30
1	Zn 213.857†	21250.9	20795.7	504.38	µg/L	504.38	ppb	16:14:30
2	Sc RADIAL	56211.5	56211.5	101	%			16:13:30
2	Al 396.153Radial†	6933.0	6815.8	4832.0	µg/L	4832.0	ppb	16:13:30
2	Ca 317.933Radial†	5671.3	5373.3	4860.1	µg/L	4860.1	ppb	16:13:50
2	Fe 238.204 Radial†	583.8	557.5	4887.9	µg/L	4887.9	ppb	16:13:50
2	K 766.490 Radial†	8033.0	7738.1	5185.0	µg/L	5185.0	ppb	16:13:30
2	Mg 279.077 IEC†	575.6	553.5	5171.3	µg/L	5171.3	ppb	16:13:50
2	Na 589.592 Radial†	33057.1	32195.5	9786.9	µg/L	9786.9	ppb	16:13:30
2	Sr 421.552†	50984.6	50219.9	486.18	µg/L	486.18	ppb	16:13:30
2	Sc 361.383	1942375.6	1942375.6	99.723	%			16:14:57
2	Y 371.029	1328271.5	1328271.5	99.323	%			16:14:57
2	Ag 328.068†	65124.8	65816.1	500.50	µg/L	500.50	ppb	16:15:02
2	As 188.979†	271.1	271.0	509.74	µg/L	509.74	ppb	16:15:22
2	B 249.677†	12015.2	11735.5	491.92	µg/L	491.92	ppb	16:15:02
2	Ba 233.527†	19652.9	19732.9	499.41	µg/L	499.41	ppb	16:15:02
2	Be 313.107†	795694.4	801539.1	495.77	µg/L	495.77	ppb	16:14:57
2	Cd 226.502†	18633.9	18808.9	500.92	µg/L	500.92	ppb	16:15:02
2	Co 228.616†	10504.9	10539.9	501.47	µg/L	501.47	ppb	16:15:02
2	Cr 267.716†	23748.8	23840.7	503.35	µg/L	503.35	ppb	16:15:02
2	Cu 324.752†	78479.0	75466.6	499.14	µg/L	499.14	ppb	16:15:02
2	Mn 257.610†	151169.6	151831.7	504.61	µg/L	504.61	ppb	16:14:57
2	Mo 202.031†	4952.0	4964.6	514.05	µg/L	514.05	ppb	16:15:22
2	Ni 231.604†	9854.9	9601.6	502.36	µg/L	502.36	ppb	16:15:02
2	P 214.914†	1242.9	1218.8	2491.5	µg/L	2491.5	ppb	16:15:22
2	Pb 220.353†	2057.3	1972.7	505.98	µg/L	505.98	ppb	16:15:22

2	S 181.975 Axial†	255.7	241.3	1041.0 µg/L	1041.0 ppb	16:15:22
2	Sb 206.836†	549.7	530.2	503.26 µg/L	503.26 ppb	16:15:22
2	Se 196.026†	361.0	350.0	517.79 µg/L	517.79 ppb	16:15:22
2	SiO2†	27484.8	26049.2	5328.3 µg/L	5328.3 ppb	16:15:02
2	Si 251.611†	31693.6	31496.8	2491.1 µg/L	2491.1 ppb	16:15:02
2	Sn 189.927†	1160.8	1163.2	517.81 µg/L	517.81 ppb	16:15:22
2	Ti 334.940†	218382.9	218845.1	498.58 µg/L	498.58 ppb	16:14:57
2	Tl 190.801†	338.7	360.3	503.84 µg/L	503.84 ppb	16:15:22
2	U 409.014†	6259.8	6051.8	494.20 µg/L	494.20 ppb	16:15:02
2	V 292.402†	49368.0	49552.6	506.03 µg/L	506.03 ppb	16:15:02
2	Zn 213.857†	21116.1	20708.9	502.27 µg/L	502.27 ppb	16:15:02
3	Sc RADIAL	55940.8	55940.8	101 %		16:13:55
3	Al 396.153Radial†	6895.4	6811.5	4830.6 µg/L	4830.6 ppb	16:13:55
3	Ca 317.933Radial†	5615.1	5344.7	4834.1 µg/L	4834.1 ppb	16:14:16
3	Fe 238.204 Radial†	581.2	557.7	4889.3 µg/L	4889.3 ppb	16:14:16
3	K 766.490 Radial†	7986.6	7730.4	5179.9 µg/L	5179.9 ppb	16:13:55
3	Mg 279.077 IEC†	564.1	544.8	5088.9 µg/L	5088.9 ppb	16:14:16
3	Na 589.592 Radial†	33114.7	32410.2	9852.2 µg/L	9852.2 ppb	16:13:55
3	Sr 421.552†	51107.3	50584.5	489.71 µg/L	489.71 ppb	16:13:55
3	Sc 361.383	1953548.1	1953548.1	100.30 %		16:15:29
3	Y 371.029	1335625.6	1335625.6	99.872 %		16:15:29
3	Ag 328.068†	61978.8	62305.9	473.70 µg/L	473.70 ppb	16:15:35
3	As 188.979†	231.3	229.9	432.34 µg/L	432.34 ppb	16:15:55
3	B 249.677†	11349.3	11002.6	461.01 µg/L	461.01 ppb	16:15:35
3	Ba 233.527†	18296.6	18267.9	462.32 µg/L	462.32 ppb	16:15:35
3	Be 313.107†	753673.8	755079.4	467.04 µg/L	467.04 ppb	16:15:29
3	Cd 226.502†	17226.5	17298.8	460.66 µg/L	460.66 ppb	16:15:35
3	Co 228.616†	9656.4	9633.7	458.30 µg/L	458.30 ppb	16:15:35
3	Cr 267.716†	21240.2	21203.4	447.67 µg/L	447.67 ppb	16:15:35
3	Cu 324.752†	72518.4	69073.6	456.91 µg/L	456.91 ppb	16:15:35
3	Mn 257.610†	143912.7	143729.4	477.70 µg/L	477.70 ppb	16:15:29
3	Mo 202.031†	4219.2	4205.7	435.49 µg/L	435.49 ppb	16:15:55
3	Ni 231.604†	9107.1	8799.4	460.40 µg/L	460.40 ppb	16:15:35
3	P 214.914†	1086.0	1055.3	2154.0 µg/L	2154.0 ppb	16:15:55
3	Pb 220.353†	1847.6	1751.8	449.25 µg/L	449.25 ppb	16:15:55
3	S 181.975 Axial†	219.1	203.4	877.14 µg/L	877.14 ppb	16:15:55
3	Sb 206.836†	493.0	470.5	446.16 µg/L	446.16 ppb	16:15:55
3	Se 196.026†	319.6	306.7	454.74 µg/L	454.74 ppb	16:15:55
3	SiO2†	25946.6	24357.9	4982.3 µg/L	4982.3 ppb	16:15:35
3	Si 251.611†	29768.7	29395.9	2324.9 µg/L	2324.9 ppb	16:15:35
3	Sn 189.927†	965.6	961.9	428.22 µg/L	428.22 ppb	16:15:55
3	Ti 334.940†	206051.9	205298.2	467.71 µg/L	467.71 ppb	16:15:29
3	Tl 190.801†	312.1	331.7	464.12 µg/L	464.12 ppb	16:15:55
3	U 409.014†	5645.0	5402.9	441.11 µg/L	441.11 ppb	16:15:35
3	V 292.402†	45144.2	45058.1	459.90 µg/L	459.90 ppb	16:15:35
3	Zn 213.857†	19458.3	18934.8	459.19 µg/L	459.19 ppb	16:15:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1947570.8	99.990	%	0.2889				0.29%
Sc RADIAL	56234.0	102	%	0.6				0.54%
Y 371.029	1331880.6	99.592	%	0.2751				0.28%
Ag 328.068†	64669.0	491.74	µg/L	15.625	491.74	ppb	15.625	3.18%
QC value within limits for Ag 328.068 Recovery = 98.35%								
Al 396.153Radial†	6822.5	4837.3	µg/L	10.38	4837.3	ppb	10.38	0.21%
QC value within limits for Al 396.153Radial Recovery = 96.75%								
As 188.979†	257.8	484.84	µg/L	45.484	484.84	ppb	45.484	9.38%
QC value within limits for As 188.979 Recovery = 96.97%								
B 249.677†	11500.4	482.01	µg/L	18.202	482.01	ppb	18.202	3.78%
QC value within limits for B 249.677 Recovery = 96.40%								
Ba 233.527†	19281.7	487.98	µg/L	22.272	487.98	ppb	22.272	4.56%
QC value within limits for Ba 233.527 Recovery = 97.60%								
Be 313.107†	785651.5	485.95	µg/L	16.380	485.95	ppb	16.380	3.37%
QC value within limits for Be 313.107 Recovery = 97.19%								
Ca 317.933Radial†	5342.4	4832.1	µg/L	29.01	4832.1	ppb	29.01	0.60%
QC value within limits for Ca 317.933Radial Recovery = 96.64%								
Cd 226.502†	18346.7	488.60	µg/L	24.253	488.60	ppb	24.253	4.96%
QC value within limits for Cd 226.502 Recovery = 97.72%								
Co 228.616†	10247.9	487.56	µg/L	25.351	487.56	ppb	25.351	5.20%

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   QC value within limits for Co 228.616  Recovery = 97.51%
Cr 267.716†            22997.9      485.55 µg/L        32.827      485.55 ppb         32.827   6.76%
   QC value within limits for Cr 267.716  Recovery = 97.11%
Cu 324.752†            73387.6      485.40 µg/L        24.680      485.40 ppb         24.680   5.08%
   QC value within limits for Cu 324.752  Recovery = 97.08%
Fe 238.204 Radial†       556.2      4876.2 µg/L         21.52      4876.2 ppb          21.52   0.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.52%
K 766.490 Radial†       7796.9      5224.4 µg/L         72.75      5224.4 ppb          72.75   1.39%
   QC value within limits for K 766.490 Radial  Recovery = 104.49%
Mg 279.077 IEC†          548.0      5120.3 µg/L         44.57      5120.3 ppb          44.57   0.87%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.41%
Mn 257.610†           149064.7      495.42 µg/L        15.343      495.42 ppb         15.343   3.10%
   QC value within limits for Mn 257.610  Recovery = 99.08%
Mo 202.031†             4723.0      489.03 µg/L        46.402      489.03 ppb         46.402   9.49%
   QC value within limits for Mo 202.031  Recovery = 97.81%
Na 589.592 Radial†     32303.4      9819.7 µg/L         32.63      9819.7 ppb          32.63   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 98.20%
Ni 231.604†             9348.1      489.10 µg/L        24.883      489.10 ppb         24.883   5.09%
   QC value within limits for Ni 231.604  Recovery = 97.82%
P 214.914†              1162.5      2375.3 µg/L        191.71      2375.3 ppb         191.71   8.07%
   QC value within limits for P 214.914  Recovery = 95.01%
Pb 220.353†             1903.7      488.27 µg/L        33.845      488.27 ppb         33.845   6.93%
   QC value within limits for Pb 220.353  Recovery = 97.65%
S 181.975 Axial†         226.8      978.37 µg/L        88.479      978.37 ppb         88.479   9.04%
   QC value within limits for S 181.975 Axial  Recovery = 97.84%
Sb 206.836†              515.0      488.71 µg/L        37.462      488.71 ppb         37.462   7.67%
   QC value within limits for Sb 206.836  Recovery = 97.74%
Se 196.026†              335.6      496.71 µg/L        36.351      496.71 ppb         36.351   7.32%
   QC value within limits for Se 196.026  Recovery = 99.34%
SiO2†                  25512.0      5218.4 µg/L        204.59      5218.4 ppb         204.59   3.92%
   QC value within limits for SiO2  Recovery = 97.59%
Si 251.611†            30804.6      2436.3 µg/L         96.49      2436.3 ppb          96.49   3.96%
   QC value within limits for Si 251.611  Recovery = 97.45%
Sn 189.927†             1099.9      489.65 µg/L        53.259      489.65 ppb         53.259  10.88%
   QC value within limits for Sn 189.927  Recovery = 97.93%
Sr 421.552†            50466.4      488.57 µg/L         2.067      488.57 ppb          2.067   0.42%
   QC value within limits for Sr 421.552  Recovery = 97.71%
Ti 334.940†           214230.4      488.07 µg/L        17.636      488.07 ppb         17.636   3.61%
   QC value within limits for Ti 334.940  Recovery = 97.61%
Tl 190.801†              351.7      491.85 µg/L        24.094      491.85 ppb         24.094   4.90%
   QC value within limits for Tl 190.801  Recovery = 98.37%
U 409.014†              5808.8      474.32 µg/L        28.949      474.32 ppb         28.949   6.10%
   QC value within limits for U 409.014  Recovery = 94.86%
V 292.402†             48066.7      490.78 µg/L        26.743      490.78 ppb         26.743   5.45%
   QC value within limits for V 292.402  Recovery = 98.16%
Zn 213.857†            20146.5      488.61 µg/L        25.501      488.61 ppb         25.501   5.22%
   QC value within limits for Zn 213.857  Recovery = 97.72%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/23/2010 16:16:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55505.0	55505.0	100	%			16:16:37
1	Al 396.153Radial†	284.6	268.0	190.21	µg/L	190.21	ppb	16:16:37
1	Ca 317.933Radial†	405.2	189.2	171.10	µg/L	171.10	ppb	16:16:57
1	Fe 238.204 Radial†	28.9	11.1	96.908	µg/L	96.908	ppb	16:16:57
1	K 766.490 Radial†	823.1	643.8	431.42	µg/L	431.42	ppb	16:16:37
1	Mg 279.077 IEC†	57.9	44.0	411.15	µg/L	411.15	ppb	16:16:57
1	Na 589.592 Radial†	1559.6	1177.6	357.99	µg/L	357.99	ppb	16:16:37
1	Sr 421.552†	604.4	583.1	5.6454	µg/L	5.6454	ppb	16:16:37
1	Sc 361.383	1953301.9	1953301.9	100.28	%			16:17:56
1	Y 371.029	1341845.4	1341845.4	100.34	%			16:17:56
1	Ag 328.068†	200.1	709.8	5.3969	µg/L	5.3969	ppb	16:18:01
1	As 188.979†	14.8	14.0	26.367	µg/L	26.367	ppb	16:18:21
1	B 249.677†	1502.4	1185.0	49.806	µg/L	49.806	ppb	16:18:01
1	Ba 233.527†	188.5	213.4	5.3991	µg/L	5.3991	ppb	16:18:21
1	Be 313.107†	4466.0	8086.2	5.0016	µg/L	5.0016	ppb	16:18:01
1	Cd 226.502†	64.0	187.0	4.9768	µg/L	4.9768	ppb	16:18:21
1	Co 228.616†	95.5	101.0	4.8103	µg/L	4.8103	ppb	16:18:21
1	Cr 267.716†	207.7	233.1	4.9209	µg/L	4.9209	ppb	16:18:21
1	Cu 324.752†	4871.0	1626.7	10.758	µg/L	10.758	ppb	16:18:01
1	Mn 257.610†	3710.6	3942.1	13.086	µg/L	13.086	ppb	16:18:01
1	Mo 202.031†	101.1	99.7	10.324	µg/L	10.324	ppb	16:18:21
1	Ni 231.604†	394.0	112.2	5.8696	µg/L	5.8696	ppb	16:18:21
1	P 214.914†	98.4	70.6	146.01	µg/L	146.01	ppb	16:18:21
1	Pb 220.353†	136.0	45.2	11.557	µg/L	11.557	ppb	16:18:21
1	S 181.975 Axial†	39.1	23.9	102.98	µg/L	102.98	ppb	16:18:21
1	Sb 206.836†	34.3	13.1	12.506	µg/L	12.506	ppb	16:18:21
1	Se 196.026†	36.1	24.1	34.968	µg/L	34.968	ppb	16:18:21
1	SiO2†	2559.7	1040.5	212.83	µg/L	212.83	ppb	16:18:01
1	Si 251.611†	1532.8	1243.6	98.354	µg/L	98.354	ppb	16:18:21
1	Sn 189.927†	28.9	28.0	12.501	µg/L	12.501	ppb	16:18:21
1	Ti 334.940†	2333.2	2181.8	4.9442	µg/L	4.9442	ppb	16:18:01
1	Tl 190.801†	-13.2	7.4	10.383	µg/L	10.383	ppb	16:18:21
1	U 409.014†	857.0	629.2	51.458	µg/L	51.458	ppb	16:18:01
1	V 292.402†	433.4	479.5	4.9919	µg/L	4.9919	ppb	16:18:01
1	Zn 213.857†	965.6	497.0	12.067	µg/L	12.067	ppb	16:18:21
2	Sc RADIAL	55541.4	55541.4	100	%			16:17:02
2	Al 396.153Radial†	265.1	248.4	176.24	µg/L	176.24	ppb	16:17:02
2	Ca 317.933Radial†	414.3	198.0	179.07	µg/L	179.07	ppb	16:17:23
2	Fe 238.204 Radial†	29.7	11.9	103.97	µg/L	103.97	ppb	16:17:23
2	K 766.490 Radial†	732.0	552.4	370.15	µg/L	370.15	ppb	16:17:02
2	Mg 279.077 IEC†	55.1	41.2	384.97	µg/L	384.97	ppb	16:17:23
2	Na 589.592 Radial†	1555.6	1172.7	356.48	µg/L	356.48	ppb	16:17:02
2	Sr 421.552†	597.1	575.4	5.5710	µg/L	5.5710	ppb	16:17:02
2	Sc 361.383	1958004.8	1958004.8	100.53	%			16:18:27
2	Y 371.029	1343901.6	1343901.6	100.49	%			16:18:27
2	Ag 328.068†	151.4	660.9	5.0281	µg/L	5.0281	ppb	16:18:32
2	As 188.979†	13.2	12.3	23.193	µg/L	23.193	ppb	16:18:52
2	B 249.677†	1475.8	1155.0	48.539	µg/L	48.539	ppb	16:18:32
2	Ba 233.527†	192.0	216.4	5.4760	µg/L	5.4760	ppb	16:18:52
2	Be 313.107†	4359.7	7969.8	4.9296	µg/L	4.9296	ppb	16:18:32
2	Cd 226.502†	61.2	184.1	4.8956	µg/L	4.8956	ppb	16:18:52
2	Co 228.616†	90.1	95.5	4.5477	µg/L	4.5477	ppb	16:18:52
2	Cr 267.716†	213.0	237.8	5.0216	µg/L	5.0216	ppb	16:18:52
2	Cu 324.752†	4893.7	1637.7	10.831	µg/L	10.831	ppb	16:18:32
2	Mn 257.610†	3714.5	3937.0	13.071	µg/L	13.071	ppb	16:18:32
2	Mo 202.031†	102.2	100.5	10.409	µg/L	10.409	ppb	16:18:52
2	Ni 231.604†	368.3	85.6	4.4819	µg/L	4.4819	ppb	16:18:52
2	P 214.914†	94.1	66.1	136.59	µg/L	136.59	ppb	16:18:52
2	Pb 220.353†	143.5	52.3	13.376	µg/L	13.376	ppb	16:18:52

2	S 181.975 Axial†	37.9	22.7	97.732 µg/L	97.732 ppb	16:18:52
2	Sb 206.836†	30.2	9.0	8.5558 µg/L	8.5558 ppb	16:18:52
2	Se 196.026†	39.1	26.9	39.168 µg/L	39.168 ppb	16:18:52
2	SiO2†	2556.2	1030.9	210.87 µg/L	210.87 ppb	16:18:32
2	Si 251.611†	1543.2	1250.3	98.883 µg/L	98.883 ppb	16:18:52
2	Sn 189.927†	24.7	23.7	10.597 µg/L	10.597 ppb	16:18:52
2	Ti 334.940†	2328.7	2171.7	4.9235 µg/L	4.9235 ppb	16:18:32
2	Tl 190.801†	-4.7	15.9	22.181 µg/L	22.181 ppb	16:18:52
2	U 409.014†	901.1	671.0	54.881 µg/L	54.881 ppb	16:18:32
2	V 292.402†	438.5	483.6	5.0388 µg/L	5.0388 ppb	16:18:32
2	Zn 213.857†	968.9	497.9	12.098 µg/L	12.098 ppb	16:18:52
3	Sc RADIAL	56099.9	56099.9	101 %		16:17:28
3	Al 396.153Radial†	282.2	262.6	186.37 µg/L	186.37 ppb	16:17:28
3	Ca 317.933Radial†	412.7	192.3	173.91 µg/L	173.91 ppb	16:17:48
3	Fe 238.204 Radial†	25.5	7.4	65.126 µg/L	65.126 ppb	16:17:48
3	K 766.490 Radial†	805.8	618.0	414.11 µg/L	414.11 ppb	16:17:28
3	Mg 279.077 IEC†	58.4	43.9	410.26 µg/L	410.26 ppb	16:17:48
3	Na 589.592 Radial†	1533.9	1135.8	345.25 µg/L	345.25 ppb	16:17:28
3	Sr 421.552†	585.6	558.1	5.4034 µg/L	5.4034 ppb	16:17:28
3	Sc 361.383	1966182.1	1966182.1	100.95 %		16:18:58
3	Y 371.029	1351141.5	1351141.5	101.03 %		16:18:58
3	Ag 328.068†	106.1	615.4	4.6808 µg/L	4.6808 ppb	16:19:03
3	As 188.979†	14.4	13.5	25.371 µg/L	25.371 ppb	16:19:24
3	B 249.677†	1486.6	1159.6	48.754 µg/L	48.754 ppb	16:19:03
3	Ba 233.527†	175.1	198.8	5.0313 µg/L	5.0313 ppb	16:19:24
3	Be 313.107†	4312.6	7905.1	4.8896 µg/L	4.8896 ppb	16:19:03
3	Cd 226.502†	43.2	166.0	4.4181 µg/L	4.4181 ppb	16:19:24
3	Co 228.616†	80.4	85.5	4.0690 µg/L	4.0690 ppb	16:19:24
3	Cr 267.716†	186.9	211.1	4.4567 µg/L	4.4567 ppb	16:19:24
3	Cu 324.752†	4861.8	1585.8	10.483 µg/L	10.483 ppb	16:19:03
3	Mn 257.610†	3831.3	4037.4	13.399 µg/L	13.399 ppb	16:19:03
3	Mo 202.031†	88.0	86.0	8.9052 µg/L	8.9052 ppb	16:19:24
3	Ni 231.604†	374.2	90.0	4.7106 µg/L	4.7106 ppb	16:19:24
3	P 214.914†	94.6	66.2	136.93 µg/L	136.93 ppb	16:19:24
3	Pb 220.353†	134.3	42.6	10.895 µg/L	10.895 ppb	16:19:24
3	S 181.975 Axial†	34.7	19.3	83.361 µg/L	83.361 ppb	16:19:24
3	Sb 206.836†	30.3	9.0	8.5543 µg/L	8.5543 ppb	16:19:24
3	Se 196.026†	36.3	24.1	34.841 µg/L	34.841 ppb	16:19:24
3	SiO2†	2571.6	1035.6	211.82 µg/L	211.82 ppb	16:19:03
3	Si 251.611†	1437.8	1139.5	90.120 µg/L	90.120 ppb	16:19:24
3	Sn 189.927†	27.2	26.1	11.655 µg/L	11.655 ppb	16:19:24
3	Ti 334.940†	2234.2	2068.5	4.6860 µg/L	4.6860 ppb	16:19:03
3	Tl 190.801†	-5.7	15.0	20.817 µg/L	20.817 ppb	16:19:24
3	U 409.014†	802.4	569.5	46.577 µg/L	46.577 ppb	16:19:03
3	V 292.402†	421.5	464.9	4.8239 µg/L	4.8239 ppb	16:19:03
3	Zn 213.857†	929.3	454.7	11.041 µg/L	11.041 ppb	16:19:24

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1959163.0	100.58	%	0.335				0.33%
Sc RADIAL	55715.4	101	%	0.6				0.60%
Y 371.029	1345629.5	100.62	%	0.365				0.36%
Ag 328.068†	662.0	5.0353	µg/L	0.35811	5.0353	ppb	0.35811	7.11%
QC value within limits for Ag 328.068 Recovery = 100.71%								
Al 396.153Radial†	259.6	184.27	µg/L	7.217	184.27	ppb	7.217	3.92%
QC value within limits for Al 396.153Radial Recovery = 92.14%								
As 188.979†	13.3	24.977	µg/L	1.6235	24.977	ppb	1.6235	6.50%
QC value within limits for As 188.979 Recovery = 83.26%								
B 249.677†	1166.5	49.033	µg/L	0.6784	49.033	ppb	0.6784	1.38%
QC value within limits for B 249.677 Recovery = 98.07%								
Ba 233.527†	209.5	5.3021	µg/L	0.23766	5.3021	ppb	0.23766	4.48%
QC value within limits for Ba 233.527 Recovery = 106.04%								
Be 313.107†	7987.1	4.9403	µg/L	0.05674	4.9403	ppb	0.05674	1.15%
QC value within limits for Be 313.107 Recovery = 98.81%								
Ca 317.933Radial†	193.1	174.70	µg/L	4.043	174.70	ppb	4.043	2.31%
QC value within limits for Ca 317.933Radial Recovery = 87.35%								
Cd 226.502†	179.0	4.7635	µg/L	0.30186	4.7635	ppb	0.30186	6.34%
QC value within limits for Cd 226.502 Recovery = 95.27%								
Co 228.616†	94.0	4.4756	µg/L	0.37583	4.4756	ppb	0.37583	8.40%

```
   QC value within limits for Co 228.616  Recovery = 89.51%
Cr 267.716†            227.3      4.7997 µg/L      0.30130      4.7997 ppb       0.30130   6.28%
   QC value within limits for Cr 267.716  Recovery = 95.99%
Cu 324.752†           1616.7      10.691 µg/L       0.1835      10.691 ppb        0.1835   1.72%
   QC value within limits for Cu 324.752  Recovery = 106.91%
Fe 238.204 Radial†     10.1       88.668 µg/L      20.6910      88.668 ppb       20.6910  23.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 88.67%
K 766.490 Radial†      604.8      405.22 µg/L       31.583      405.22 ppb        31.583   7.79%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 270.15%
Mg 279.077 IEC†         43.1      402.13 µg/L       14.865      402.13 ppb        14.865   3.70%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 134.04%
Mn 257.610†           3972.2      13.185 µg/L       0.1848      13.185 ppb        0.1848   1.40%
   QC value greater than the upper limit for Mn 257.610  Recovery = 131.85%
Mo 202.031†            95.4       9.8795 µg/L      0.84486      9.8795 ppb       0.84486   8.55%
   QC value within limits for Mo 202.031  Recovery = 98.79%
Na 589.592 Radial†    1162.0      353.24 µg/L        6.958      353.24 ppb         6.958   1.97%
   QC value within limits for Na 589.592 Radial  Recovery = 117.75%
Ni 231.604†            95.9       5.0207 µg/L      0.74404      5.0207 ppb       0.74404  14.82%
   QC value within limits for Ni 231.604  Recovery = 100.41%
P 214.914†             67.6       139.84 µg/L        5.341      139.84 ppb         5.341   3.82%
   QC value within limits for P 214.914  Recovery = 93.23%
Pb 220.353†            46.7       11.943 µg/L       1.2847      11.943 ppb        1.2847  10.76%
   QC value within limits for Pb 220.353  Recovery = 119.43%
S 181.975 Axial†       22.0       94.691 µg/L      10.1563      94.691 ppb       10.1563  10.73%
   QC value within limits for S 181.975 Axial  Recovery = 94.69%
Sb 206.836†            10.4       9.8719 µg/L      2.28094      9.8719 ppb       2.28094  23.11%
   QC value within limits for Sb 206.836  Recovery = 98.72%
Se 196.026†            25.0       36.326 µg/L       2.4626      36.326 ppb        2.4626   6.78%
   QC value within limits for Se 196.026  Recovery = 121.09%
SiO2†                 1035.6      211.84 µg/L        0.980      211.84 ppb         0.980   0.46%
   QC value within limits for SiO2  Recovery = 99.45%
Si 251.611†           1211.1      95.785 µg/L       4.9139      95.785 ppb        4.9139   5.13%
   QC value within limits for Si 251.611  Recovery = 95.79%
Sn 189.927†            25.9       11.584 µg/L       0.9539      11.584 ppb        0.9539   8.23%
   QC value within limits for Sn 189.927  Recovery = 115.84%
Sr 421.552†            572.2      5.5399 µg/L      0.12394      5.5399 ppb       0.12394   2.24%
   QC value within limits for Sr 421.552  Recovery = 110.80%
Ti 334.940†           2140.7      4.8512 µg/L      0.14349      4.8512 ppb       0.14349   2.96%
   QC value within limits for Ti 334.940  Recovery = 97.02%
Tl 190.801†            12.8       17.794 µg/L       6.4538      17.794 ppb        6.4538  36.27%
   QC value within limits for Tl 190.801  Recovery = 88.97%
U 409.014†             623.2      50.972 µg/L       4.1736      50.972 ppb        4.1736   8.19%
   QC value within limits for U 409.014  Recovery = 101.94%
V 292.402†             476.0      4.9515 µg/L      0.11301      4.9515 ppb       0.11301   2.28%
   QC value within limits for V 292.402  Recovery = 99.03%
Zn 213.857†            483.2      11.736 µg/L       0.6017      11.736 ppb        0.6017   5.13%
   QC value within limits for Zn 213.857  Recovery = 117.36%
QC Failed.  Continue with analysis.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 16:19:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55773.8	55773.8	101	%			16:20:05
1	Al 396.153Radial†	-1.3	-17.3	-12.301	µg/L	-12.301	ppb	16:20:05
1	Ca 317.933Radial†	191.3	-25.2	-22.749	µg/L	-22.749	ppb	16:20:25
1	Fe 238.204 Radial†	15.6	-2.3	-20.059	µg/L	-20.059	ppb	16:20:25
1	K 766.490 Radial†	531.2	350.0	234.51	µg/L	234.51	ppb	16:20:05
1	Mg 279.077 IEC†	24.1	10.2	95.264	µg/L	95.264	ppb	16:20:25
1	Na 589.592 Radial†	567.5	184.9	56.215	µg/L	56.215	ppb	16:20:05
1	Sr 421.552†	85.1	64.5	0.6248	µg/L	0.6248	ppb	16:20:05
1	Sc 361.383	1927207.5	1927207.5	98.944	%			16:21:23
1	Y 371.029	1323700.9	1323700.9	98.981	%			16:21:23
1	Ag 328.068†	-493.9	11.2	0.0813	µg/L	0.0813	ppb	16:21:29
1	As 188.979†	-1.1	-1.9	-3.6643	µg/L	-3.6643	ppb	16:21:49
1	B 249.677†	327.2	17.6	0.7524	µg/L	0.7524	ppb	16:21:49
1	Ba 233.527†	-11.6	13.7	0.3463	µg/L	0.3463	ppb	16:21:49
1	Be 313.107†	-3582.6	12.0	0.0075	µg/L	0.0075	ppb	16:21:29
1	Cd 226.502†	-121.6	0.3	0.0106	µg/L	0.0106	ppb	16:21:49
1	Co 228.616†	-21.4	-15.8	-0.7556	µg/L	-0.7556	ppb	16:21:49
1	Cr 267.716†	-23.6	2.1	0.0436	µg/L	0.0436	ppb	16:21:49
1	Cu 324.752†	3275.0	79.4	0.5217	µg/L	0.5217	ppb	16:21:29
1	Mn 257.610†	707.6	957.1	3.1717	µg/L	3.1717	ppb	16:21:49
1	Mo 202.031†	-8.5	-9.7	-1.0066	µg/L	-1.0066	ppb	16:21:49
1	Ni 231.604†	286.8	9.1	0.4772	µg/L	0.4772	ppb	16:21:49
1	P 214.914†	28.1	0.8	1.6560	µg/L	1.6560	ppb	16:21:49
1	Pb 220.353†	106.5	17.3	4.4368	µg/L	4.4368	ppb	16:21:49
1	S 181.975 Axial†	15.7	0.8	3.5743	µg/L	3.5743	ppb	16:21:49
1	Sb 206.836†	27.0	6.2	5.8697	µg/L	5.8697	ppb	16:21:49
1	Se 196.026†	14.7	2.9	4.0880	µg/L	4.0880	ppb	16:21:49
1	SiO2†	1508.3	12.4	2.5443	µg/L	2.5443	ppb	16:21:29
1	Si 251.611†	287.2	5.4	0.4263	µg/L	0.4263	ppb	16:21:49
1	Sn 189.927†	3.1	2.3	1.0172	µg/L	1.0172	ppb	16:21:49
1	Ti 334.940†	93.1	-50.7	-0.1235	µg/L	-0.1235	ppb	16:21:29
1	Tl 190.801†	-22.6	-2.3	-3.1427	µg/L	-3.1427	ppb	16:21:49
1	U 409.014†	168.2	-55.4	-4.5275	µg/L	-4.5275	ppb	16:21:29
1	V 292.402†	-71.1	-24.5	-0.2620	µg/L	-0.2620	ppb	16:21:29
1	Zn 213.857†	547.3	87.3	2.1243	µg/L	2.1243	ppb	16:21:49
2	Sc RADIAL	56480.2	56480.2	102	%			16:20:30
2	Al 396.153Radial†	18.3	1.9	1.3515	µg/L	1.3515	ppb	16:20:30
2	Ca 317.933Radial†	194.2	-24.7	-22.347	µg/L	-22.347	ppb	16:20:50
2	Fe 238.204 Radial†	16.0	-2.1	-18.690	µg/L	-18.690	ppb	16:20:50
2	K 766.490 Radial†	447.3	261.1	174.96	µg/L	174.96	ppb	16:20:30
2	Mg 279.077 IEC†	25.9	11.6	108.48	µg/L	108.48	ppb	16:20:50
2	Na 589.592 Radial†	509.6	121.0	36.785	µg/L	36.785	ppb	16:20:30
2	Sr 421.552†	83.1	61.4	0.5948	µg/L	0.5948	ppb	16:20:30
2	Sc 361.383	1944678.6	1944678.6	99.841	%			16:21:55
2	Y 371.029	1334235.0	1334235.0	99.768	%			16:21:55
2	Ag 328.068†	-488.3	21.2	0.1551	µg/L	0.1551	ppb	16:22:00
2	As 188.979†	-1.8	-2.6	-4.8357	µg/L	-4.8357	ppb	16:22:20
2	B 249.677†	317.5	4.9	0.2152	µg/L	0.2152	ppb	16:22:20
2	Ba 233.527†	-9.5	15.8	0.3991	µg/L	0.3991	ppb	16:22:20
2	Be 313.107†	-3566.6	60.6	0.0375	µg/L	0.0375	ppb	16:22:00
2	Cd 226.502†	-131.5	-8.5	-0.2242	µg/L	-0.2242	ppb	16:22:20
2	Co 228.616†	-11.2	-5.4	-0.2555	µg/L	-0.2555	ppb	16:22:20
2	Cr 267.716†	-13.0	12.9	0.2710	µg/L	0.2710	ppb	16:22:20
2	Cu 324.752†	3261.4	36.0	0.2355	µg/L	0.2355	ppb	16:22:00
2	Mn 257.610†	408.7	651.3	2.1558	µg/L	2.1558	ppb	16:22:20
2	Mo 202.031†	-1.2	-2.4	-0.2450	µg/L	-0.2450	ppb	16:22:20
2	Ni 231.604†	286.9	6.6	0.3466	µg/L	0.3466	ppb	16:22:20
2	P 214.914†	16.7	-10.8	-22.465	µg/L	-22.465	ppb	16:22:20
2	Pb 220.353†	109.6	19.4	4.9790	µg/L	4.9790	ppb	16:22:20

2	S 181.975 Axial†	16.4	1.4	5.8908 µg/L	5.8908 ppb	16:22:20
2	Sb 206.836†	21.3	0.3	0.2864 µg/L	0.2864 ppb	16:22:20
2	Se 196.026†	17.3	5.3	7.6523 µg/L	7.6523 ppb	16:22:20
2	SiO2†	1539.8	30.3	6.1891 µg/L	6.1891 ppb	16:22:00
2	Si 251.611†	289.1	4.7	0.3697 µg/L	0.3697 ppb	16:22:20
2	Sn 189.927†	1.1	0.2	0.1112 µg/L	0.1112 ppb	16:22:20
2	Ti 334.940†	127.7	-16.9	-0.0475 µg/L	-0.0475 ppb	16:22:00
2	Tl 190.801†	-24.6	-4.0	-5.5353 µg/L	-5.5353 ppb	16:22:20
2	U 409.014†	214.0	-11.0	-0.8954 µg/L	-0.8954 ppb	16:22:00
2	V 292.402†	-105.5	-58.4	-0.5931 µg/L	-0.5931 ppb	16:22:00
2	Zn 213.857†	529.3	64.2	1.5606 µg/L	1.5606 ppb	16:22:20
3	Sc RADIAL	55649.4	55649.4	100 %		16:20:55
3	Al 396.153Radial†	-7.0	-23.0	-16.312 µg/L	-16.312 ppb	16:20:55
3	Ca 317.933Radial†	194.5	-21.6	-19.492 µg/L	-19.492 ppb	16:21:16
3	Fe 238.204 Radial†	17.1	-0.8	-6.8515 µg/L	-6.8515 ppb	16:21:16
3	K 766.490 Radial†	390.5	211.1	141.46 µg/L	141.46 ppb	16:20:55
3	Mg 279.077 IEC†	26.0	12.1	113.32 µg/L	113.32 ppb	16:21:16
3	Na 589.592 Radial†	515.6	134.5	40.882 µg/L	40.882 ppb	16:20:55
3	Sr 421.552†	93.4	72.9	0.7061 µg/L	0.7061 ppb	16:20:55
3	Sc 361.383	1955971.9	1955971.9	100.42 %		16:22:26
3	Y 371.029	1343030.1	1343030.1	100.43 %		16:22:26
3	Ag 328.068†	-482.1	30.2	0.2278 µg/L	0.2278 ppb	16:22:31
3	As 188.979†	-1.2	-2.0	-3.6855 µg/L	-3.6855 ppb	16:22:51
3	B 249.677†	320.4	6.0	0.2546 µg/L	0.2546 ppb	16:22:51
3	Ba 233.527†	-13.8	11.7	0.2952 µg/L	0.2952 ppb	16:22:51
3	Be 313.107†	-3571.5	76.4	0.0472 µg/L	0.0472 ppb	16:22:31
3	Cd 226.502†	-126.7	-3.0	-0.0781 µg/L	-0.0781 ppb	16:22:51
3	Co 228.616†	-9.9	-4.0	-0.1918 µg/L	-0.1918 ppb	16:22:51
3	Cr 267.716†	-23.0	3.0	0.0643 µg/L	0.0643 ppb	16:22:51
3	Cu 324.752†	3267.4	23.2	0.1520 µg/L	0.1520 ppb	16:22:31
3	Mn 257.610†	412.9	653.1	2.1633 µg/L	2.1633 ppb	16:22:51
3	Mo 202.031†	-4.5	-5.6	-0.5749 µg/L	-0.5749 ppb	16:22:51
3	Ni 231.604†	278.7	-3.2	-0.1676 µg/L	-0.1676 ppb	16:22:51
3	P 214.914†	20.2	-7.4	-15.411 µg/L	-15.411 ppb	16:22:51
3	Pb 220.353†	99.3	8.5	2.1759 µg/L	2.1759 ppb	16:22:51
3	S 181.975 Axial†	14.0	-1.1	-4.9051 µg/L	-4.9051 ppb	16:22:51
3	Sb 206.836†	21.4	0.2	0.1881 µg/L	0.1881 ppb	16:22:51
3	Se 196.026†	14.9	2.9	4.0424 µg/L	4.0424 ppb	16:22:51
3	SiO2†	1546.7	28.2	5.7774 µg/L	5.7774 ppb	16:22:31
3	Si 251.611†	298.6	12.5	0.9888 µg/L	0.9888 ppb	16:22:51
3	Sn 189.927†	-0.2	-1.1	-0.4689 µg/L	-0.4689 ppb	16:22:51
3	Ti 334.940†	171.1	25.6	0.0490 µg/L	0.0490 ppb	16:22:31
3	Tl 190.801†	-23.2	-2.5	-3.4253 µg/L	-3.4253 ppb	16:22:51
3	U 409.014†	234.5	8.2	0.6717 µg/L	0.6717 ppb	16:22:31
3	V 292.402†	-42.3	5.2	0.0483 µg/L	0.0483 ppb	16:22:31
3	Zn 213.857†	518.8	50.7	1.2320 µg/L	1.2320 ppb	16:22:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1942619.3	99.735	%	0.7440				0.75%
Sc RADIAL	55967.8	101	%	0.8				0.80%
Y 371.029	1333655.3	99.725	%	0.7237				0.73%
Ag 328.068†	20.8	0.1547	µg/L	0.07323	0.1547	ppb	0.07323	47.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.8	-9.0871	µg/L	9.25990	-9.0871	ppb	9.25990	101.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.2	-4.0618	µg/L	0.67030	-4.0618	ppb	0.67030	16.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	9.5	0.4074	µg/L	0.29943	0.4074	ppb	0.29943	73.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.8	0.3469	µg/L	0.05194	0.3469	ppb	0.05194	14.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	49.7	0.0307	µg/L	0.02072	0.0307	ppb	0.02072	67.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-23.8	-21.530	µg/L	1.7757	-21.530	ppb	1.7757	8.25%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.7	-0.0972	µg/L	0.11857	-0.0972	ppb	0.11857	121.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-8.4	-0.4010	µg/L	0.30876	-0.4010	ppb	0.30876	77.00%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.0      0.1263 µg/L       0.12573      0.1263 ppb        0.12573  99.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                46.2      0.3031 µg/L       0.19391      0.3031 ppb        0.19391  63.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.7     -15.200 µg/L        7.2627     -15.200 ppb         7.2627  47.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         274.1      183.64 µg/L        47.130      183.64 ppb         47.130  25.66%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            11.3      105.69 µg/L         9.348      105.69 ppb          9.348   8.85%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               753.9      2.4970 µg/L       0.58439      2.4970 ppb        0.58439  23.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -5.9     -0.6088 µg/L       0.38193     -0.6088 ppb        0.38193  62.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        146.8      44.627 µg/L       10.2419      44.627 ppb        10.2419  22.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.2      0.2187 µg/L       0.34090      0.2187 ppb        0.34090 155.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.8     -12.073 µg/L       12.4021     -12.073 ppb        12.4021 102.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                15.1      3.8639 µg/L       1.48681      3.8639 ppb        1.48681  38.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.4      1.5200 µg/L       5.68358      1.5200 ppb        5.68358 373.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.2      2.1147 µg/L       3.25232      2.1147 ppb        3.25232 153.79%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.7      5.2609 µg/L       2.07116      5.2609 ppb        2.07116  39.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      23.6      4.8369 µg/L       1.99615      4.8369 ppb        1.99615  41.27%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 7.5      0.5949 µg/L       0.34225      0.5949 ppb        0.34225  57.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.5      0.2198 µg/L       0.74899      0.2198 ppb        0.74899 340.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                66.3      0.6419 µg/L       0.05759      0.6419 ppb        0.05759   8.97%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -14.0     -0.0407 µg/L       0.08649     -0.0407 ppb        0.08649 212.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.9     -4.0345 µg/L       1.30745     -4.0345 ppb        1.30745  32.41%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -19.4     -1.5837 µg/L       2.66709     -1.5837 ppb        2.66709 168.40%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -25.9     -0.2690 µg/L       0.32075     -0.2690 ppb        0.32075 119.26%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                67.4      1.6389 µg/L       0.45129      1.6389 ppb        0.45129  27.54%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 16:26:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56027.9	56027.9	101	%			16:27:02
1	Al 396.153Radial†	6980.6	6885.1	4881.1	µg/L	4881.1	ppb	16:27:02
1	Ca 317.933Radial†	5612.0	5333.0	4823.6	µg/L	4823.6	ppb	16:27:22
1	Fe 238.204 Radial†	586.6	562.2	4929.0	µg/L	4929.0	ppb	16:27:22
1	K 766.490 Radial†	7796.6	7530.3	5045.8	µg/L	5045.8	ppb	16:27:02
1	Mg 279.077 IEC†	567.0	546.8	5109.6	µg/L	5109.6	ppb	16:27:22
1	Na 589.592 Radial†	33376.9	32618.5	9915.5	µg/L	9915.5	ppb	16:27:02
1	Sr 421.552†	51534.3	50928.0	493.04	µg/L	493.04	ppb	16:27:02
1	Sc 361.383	1949879.8	1949879.8	100.11	%			16:28:22
1	Y 371.029	1333154.5	1333154.5	99.688	%			16:28:22
1	Ag 328.068†	66146.9	66585.7	506.36	µg/L	506.36	ppb	16:28:27
1	As 188.979†	268.3	267.2	502.55	µg/L	502.55	ppb	16:28:47
1	B 249.677†	12194.4	11868.2	497.50	µg/L	497.50	ppb	16:28:27
1	Ba 233.527†	19982.9	19986.8	505.84	µg/L	505.84	ppb	16:28:27
1	Be 313.107†	807293.0	810054.3	501.04	µg/L	501.04	ppb	16:28:22
1	Cd 226.502†	18940.9	19043.7	507.18	µg/L	507.18	ppb	16:28:27
1	Co 228.616†	10694.5	10688.8	508.56	µg/L	508.56	ppb	16:28:27
1	Cr 267.716†	24192.2	24192.0	510.76	µg/L	510.76	ppb	16:28:27
1	Cu 324.752†	79701.0	76384.5	505.21	µg/L	505.21	ppb	16:28:27
1	Mn 257.610†	152840.8	152917.8	508.22	µg/L	508.22	ppb	16:28:22
1	Mo 202.031†	5043.5	5036.9	521.53	µg/L	521.53	ppb	16:28:47
1	Ni 231.604†	10018.0	9726.5	508.89	µg/L	508.89	ppb	16:28:27
1	P 214.914†	1254.4	1225.5	2505.0	µg/L	2505.0	ppb	16:28:47
1	Pb 220.353†	2098.2	2005.5	514.41	µg/L	514.41	ppb	16:28:47
1	S 181.975 Axial†	254.8	239.4	1032.8	µg/L	1032.8	ppb	16:28:47
1	Sb 206.836†	562.6	540.9	513.40	µg/L	513.40	ppb	16:28:47
1	Se 196.026†	355.1	342.7	507.34	µg/L	507.34	ppb	16:28:47
1	SiO2†	27921.4	26379.3	5395.8	µg/L	5395.8	ppb	16:28:27
1	Si 251.611†	32157.4	31837.8	2518.0	µg/L	2518.0	ppb	16:28:27
1	Sn 189.927†	1176.6	1174.5	522.83	µg/L	522.83	ppb	16:28:47
1	Ti 334.940†	221650.3	221266.2	504.11	µg/L	504.11	ppb	16:28:22
1	Tl 190.801†	352.5	372.7	521.09	µg/L	521.09	ppb	16:28:47
1	U 409.014†	6334.8	6102.6	498.35	µg/L	498.35	ppb	16:28:27
1	V 292.402†	50209.8	50202.9	512.67	µg/L	512.67	ppb	16:28:27
1	Zn 213.857†	21362.2	20873.2	506.24	µg/L	506.24	ppb	16:28:27
2	Sc RADIAL	56940.7	56940.7	103	%			16:27:28
2	Al 396.153Radial†	6996.1	6789.6	4813.5	µg/L	4813.5	ppb	16:27:28
2	Ca 317.933Radial†	5581.0	5213.9	4715.9	µg/L	4715.9	ppb	16:27:48
2	Fe 238.204 Radial†	578.4	544.9	4777.8	µg/L	4777.8	ppb	16:27:48
2	K 766.490 Radial†	7854.6	7463.2	5000.8	µg/L	5000.8	ppb	16:27:28
2	Mg 279.077 IEC†	557.0	528.1	4934.5	µg/L	4934.5	ppb	16:27:48
2	Na 589.592 Radial†	33531.5	32239.9	9800.4	µg/L	9800.4	ppb	16:27:28
2	Sr 421.552†	51847.1	50415.6	488.08	µg/L	488.08	ppb	16:27:28
2	Sc 361.383	1966381.9	1966381.9	100.96	%			16:28:54
2	Y 371.029	1343842.4	1343842.4	100.49	%			16:28:54
2	Ag 328.068†	65091.8	64986.1	494.18	µg/L	494.18	ppb	16:29:00
2	As 188.979†	272.1	268.7	505.46	µg/L	505.46	ppb	16:29:20
2	B 249.677†	11969.9	11543.6	483.90	µg/L	483.90	ppb	16:29:00
2	Ba 233.527†	19615.5	19455.3	492.39	µg/L	492.39	ppb	16:29:00
2	Be 313.107†	803458.6	799488.6	494.51	µg/L	494.51	ppb	16:28:54
2	Cd 226.502†	18561.9	18509.5	492.95	µg/L	492.95	ppb	16:29:00
2	Co 228.616†	10485.4	10392.0	494.43	µg/L	494.43	ppb	16:29:00
2	Cr 267.716†	23724.3	23525.7	496.69	µg/L	496.69	ppb	16:29:00
2	Cu 324.752†	78495.6	74522.3	492.88	µg/L	492.88	ppb	16:29:00
2	Mn 257.610†	152504.1	151303.0	502.84	µg/L	502.84	ppb	16:28:54
2	Mo 202.031†	4997.8	4949.4	512.46	µg/L	512.46	ppb	16:29:20
2	Ni 231.604†	9834.1	9460.4	494.97	µg/L	494.97	ppb	16:29:00
2	P 214.914†	1256.7	1217.3	2489.1	µg/L	2489.1	ppb	16:29:20
2	Pb 220.353†	2087.7	1977.6	507.27	µg/L	507.27	ppb	16:29:20

2	S 181.975 Axial†	258.2	240.7	1038.1 µg/L	1038.1 ppb	16:29:20
2	Sb 206.836†	557.1	530.7	503.83 µg/L	503.83 ppb	16:29:20
2	Se 196.026†	357.6	342.2	506.38 µg/L	506.38 ppb	16:29:20
2	SiO2†	27444.0	25672.3	5251.2 µg/L	5251.2 ppb	16:29:00
2	Si 251.611†	31601.2	31017.3	2453.1 µg/L	2453.1 ppb	16:29:00
2	Sn 189.927†	1166.4	1154.5	513.94 µg/L	513.94 ppb	16:29:20
2	Ti 334.940†	220588.7	218356.5	497.49 µg/L	497.49 ppb	16:28:54
2	Tl 190.801†	346.5	363.8	508.72 µg/L	508.72 ppb	16:29:20
2	U 409.014†	6089.9	5806.9	474.18 µg/L	474.18 ppb	16:29:00
2	V 292.402†	49205.9	48787.6	498.25 µg/L	498.25 ppb	16:29:00
2	Zn 213.857†	20991.2	20326.6	492.99 µg/L	492.99 ppb	16:29:00
3	Sc RADIAL	56528.6	56528.6	102 %		16:27:53
3	Al 396.153Radial†	7037.5	6879.7	4879.0 µg/L	4879.0 ppb	16:27:53
3	Ca 317.933Radial†	5594.1	5266.3	4763.3 µg/L	4763.3 ppb	16:28:13
3	Fe 238.204 Radial†	582.4	552.8	4846.5 µg/L	4846.5 ppb	16:28:13
3	K 766.490 Radial†	7908.2	7571.4	5073.3 µg/L	5073.3 ppb	16:27:53
3	Mg 279.077 IEC†	560.6	535.6	5003.3 µg/L	5003.3 ppb	16:28:13
3	Na 589.592 Radial†	33653.3	32597.0	9909.0 µg/L	9909.0 ppb	16:27:53
3	Sr 421.552†	52001.7	50934.7	493.10 µg/L	493.10 ppb	16:27:53
3	Sc 361.383	1953673.2	1953673.2	100.30 %		16:29:27
3	Y 371.029	1336615.5	1336615.5	99.946 %		16:29:27
3	Ag 328.068†	62442.3	62764.1	477.18 µg/L	477.18 ppb	16:29:32
3	As 188.979†	231.4	229.9	432.36 µg/L	432.36 ppb	16:29:52
3	B 249.677†	11415.0	11067.5	463.76 µg/L	463.76 ppb	16:29:32
3	Ba 233.527†	18332.3	18302.4	463.20 µg/L	463.20 ppb	16:29:32
3	Be 313.107†	762439.8	763770.8	472.41 µg/L	472.41 ppb	16:29:27
3	Cd 226.502†	17316.7	17387.6	463.03 µg/L	463.03 ppb	16:29:32
3	Co 228.616†	9712.4	9688.9	460.92 µg/L	460.92 ppb	16:29:32
3	Cr 267.716†	21456.5	21417.7	452.19 µg/L	452.19 ppb	16:29:32
3	Cu 324.752†	73112.9	69661.7	460.79 µg/L	460.79 ppb	16:29:32
3	Mn 257.610†	144769.9	144574.8	480.51 µg/L	480.51 ppb	16:29:27
3	Mo 202.031†	4249.5	4235.5	438.58 µg/L	438.58 ppb	16:29:52
3	Ni 231.604†	9116.4	8808.2	460.85 µg/L	460.85 ppb	16:29:32
3	P 214.914†	1085.7	1054.8	2152.9 µg/L	2152.9 ppb	16:29:52
3	Pb 220.353†	1841.2	1745.2	447.57 µg/L	447.57 ppb	16:29:52
3	S 181.975 Axial†	224.0	208.2	898.09 µg/L	898.09 ppb	16:29:52
3	Sb 206.836†	491.6	469.0	444.78 µg/L	444.78 ppb	16:29:52
3	Se 196.026†	319.9	307.0	455.17 µg/L	455.17 ppb	16:29:52
3	SiO2†	25957.9	24367.5	4984.3 µg/L	4984.3 ppb	16:29:32
3	Si 251.611†	29906.3	29531.1	2335.6 µg/L	2335.6 ppb	16:29:32
3	Sn 189.927†	980.0	976.2	434.57 µg/L	434.57 ppb	16:29:52
3	Ti 334.940†	208490.5	207716.2	473.22 µg/L	473.22 ppb	16:29:27
3	Tl 190.801†	317.0	336.6	470.94 µg/L	470.94 ppb	16:29:52
3	U 409.014†	5693.2	5450.6	445.02 µg/L	445.02 ppb	16:29:32
3	V 292.402†	45459.5	45369.6	463.08 µg/L	463.08 ppb	16:29:32
3	Zn 213.857†	19525.7	19000.8	460.80 µg/L	460.80 ppb	16:29:32

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1956645.0	100.46	%	0.444				0.44%
Sc RADIAL	56499.1	102	%	0.8				0.81%
Y 371.029	1337870.8	100.04	%	0.408				0.41%
Ag 328.068†	64778.6	492.57	µg/L	14.656	492.57	ppb	14.656	2.98%
QC value within limits for Ag 328.068 Recovery = 98.51%								
Al 396.153Radial†	6851.5	4857.9	µg/L	38.49	4857.9	ppb	38.49	0.79%
QC value within limits for Al 396.153Radial Recovery = 97.16%								
As 188.979†	255.3	480.12	µg/L	41.392	480.12	ppb	41.392	8.62%
QC value within limits for As 188.979 Recovery = 96.02%								
B 249.677†	11493.1	481.72	µg/L	16.972	481.72	ppb	16.972	3.52%
QC value within limits for B 249.677 Recovery = 96.34%								
Ba 233.527†	19248.2	487.14	µg/L	21.799	487.14	ppb	21.799	4.47%
QC value within limits for Ba 233.527 Recovery = 97.43%								
Be 313.107†	791104.6	489.32	µg/L	15.001	489.32	ppb	15.001	3.07%
QC value within limits for Be 313.107 Recovery = 97.86%								
Ca 317.933Radial†	5271.1	4767.6	µg/L	53.97	4767.6	ppb	53.97	1.13%
QC value within limits for Ca 317.933Radial Recovery = 95.35%								
Cd 226.502†	18313.6	487.72	µg/L	22.534	487.72	ppb	22.534	4.62%
QC value within limits for Cd 226.502 Recovery = 97.54%								
Co 228.616†	10256.5	487.97	µg/L	24.468	487.97	ppb	24.468	5.01%

```
   QC value within limits for Co 228.616  Recovery = 97.59%
Cr 267.716†            23045.1      486.55 µg/L        30.573      486.55 ppb         30.573   6.28%
   QC value within limits for Cr 267.716  Recovery = 97.31%
Cu 324.752†            73522.8      486.29 µg/L        22.930      486.29 ppb         22.930   4.72%
   QC value within limits for Cu 324.752  Recovery = 97.26%
Fe 238.204 Radial†       553.3      4851.1 µg/L         75.69      4851.1 ppb          75.69   1.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.02%
K 766.490 Radial†       7521.7      5040.0 µg/L         36.59      5040.0 ppb          36.59   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 100.80%
Mg 279.077 IEC†          536.8      5015.8 µg/L         88.18      5015.8 ppb          88.18   1.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.32%
Mn 257.610†           149598.5      497.19 µg/L        14.694      497.19 ppb         14.694   2.96%
   QC value within limits for Mn 257.610  Recovery = 99.44%
Mo 202.031†             4740.6      490.86 µg/L        45.502      490.86 ppb         45.502   9.27%
   QC value within limits for Mo 202.031  Recovery = 98.17%
Na 589.592 Radial†     32485.1      9875.0 µg/L         64.65      9875.0 ppb          64.65   0.65%
   QC value within limits for Na 589.592 Radial  Recovery = 98.75%
Ni 231.604†             9331.7      488.24 µg/L        24.718      488.24 ppb         24.718   5.06%
   QC value within limits for Ni 231.604  Recovery = 97.65%
P 214.914†              1165.9      2382.3 µg/L        198.88      2382.3 ppb         198.88   8.35%
   QC value within limits for P 214.914  Recovery = 95.29%
Pb 220.353†             1909.4      489.75 µg/L        36.702      489.75 ppb         36.702   7.49%
   QC value within limits for Pb 220.353  Recovery = 97.95%
S 181.975 Axial†         229.4      989.67 µg/L        79.350      989.67 ppb         79.350   8.02%
   QC value within limits for S 181.975 Axial  Recovery = 98.97%
Sb 206.836†              513.5      487.33 µg/L        37.164      487.33 ppb         37.164   7.63%
   QC value within limits for Sb 206.836  Recovery = 97.47%
Se 196.026†              330.7      489.63 µg/L        29.846      489.63 ppb         29.846   6.10%
   QC value within limits for Se 196.026  Recovery = 97.93%
SiO2†                   25473.1      5210.4 µg/L        208.76      5210.4 ppb         208.76   4.01%
   QC value within limits for SiO2  Recovery = 97.44%
Si 251.611†             30795.4      2435.6 µg/L         92.47      2435.6 ppb          92.47   3.80%
   QC value within limits for Si 251.611  Recovery = 97.42%
Sn 189.927†             1101.7      490.45 µg/L        48.592      490.45 ppb         48.592   9.91%
   QC value within limits for Sn 189.927  Recovery = 98.09%
Sr 421.552†            50759.4      491.41 µg/L         2.883      491.41 ppb          2.883   0.59%
   QC value within limits for Sr 421.552  Recovery = 98.28%
Ti 334.940†           215779.7      491.61 µg/L        16.260      491.61 ppb         16.260   3.31%
   QC value within limits for Ti 334.940  Recovery = 98.32%
Tl 190.801†              357.7      500.25 µg/L        26.127      500.25 ppb         26.127   5.22%
   QC value within limits for Tl 190.801  Recovery = 100.05%
U 409.014†              5786.7      472.52 µg/L        26.704      472.52 ppb         26.704   5.65%
   QC value within limits for U 409.014  Recovery = 94.50%
V 292.402†             48120.0      491.33 µg/L        25.509      491.33 ppb         25.509   5.19%
   QC value within limits for V 292.402  Recovery = 98.27%
Zn 213.857†            20066.9      486.68 µg/L        23.368      486.68 ppb         23.368   4.80%
   QC value within limits for Zn 213.857  Recovery = 97.34%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 16:30:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	56292.3	56292.3	102	%			16:30:32
1	Al 396.153Radial†	213.2	193.8	137.39	µg/L	137.39	ppb	16:30:32
1	Ca 317.933Radial†	345.9	125.2	113.25	µg/L	113.25	ppb	16:30:52
1	Fe 238.204 Radial†	35.2	16.8	147.52	µg/L	147.52	ppb	16:30:52
1	K 766.490 Radial†	632.3	444.6	297.94	µg/L	297.94	ppb	16:30:32
1	Mg 279.077 IEC†	39.4	25.0	233.35	µg/L	233.35	ppb	16:30:52
1	Na 589.592 Radial†	1510.2	1107.3	336.61	µg/L	336.61	ppb	16:30:32
1	Sr 421.552†	1619.2	1573.2	15.231	µg/L	15.231	ppb	16:30:32
1	Sc 361.383	1981179.6	1981179.6	101.72	%			16:31:51
1	Y 371.029	1361040.7	1361040.7	101.77	%			16:31:51
1	Ag 328.068†	1428.3	1914.5	14.558	µg/L	14.558	ppb	16:31:56
1	As 188.979†	8.7	7.8	14.640	µg/L	14.640	ppb	16:32:16
1	B 249.677†	681.5	356.9	14.959	µg/L	14.959	ppb	16:31:56
1	Ba 233.527†	542.2	558.5	14.134	µg/L	14.134	ppb	16:32:16
1	Be 313.107†	19119.1	22429.6	13.873	µg/L	13.873	ppb	16:31:56
1	Cd 226.502†	400.9	517.4	13.778	µg/L	13.778	ppb	16:32:16
1	Co 228.616†	297.0	297.9	14.171	µg/L	14.171	ppb	16:32:16
1	Cr 267.716†	666.7	681.4	14.386	µg/L	14.386	ppb	16:31:56
1	Cu 324.752†	5487.7	2164.7	14.318	µg/L	14.318	ppb	16:31:56
1	Mn 257.610†	4458.5	4625.3	15.369	µg/L	15.369	ppb	16:31:56
1	Mo 202.031†	143.5	139.9	14.490	µg/L	14.490	ppb	16:32:16
1	Ni 231.604†	569.3	279.0	14.596	µg/L	14.596	ppb	16:32:16
1	P 214.914†	59.2	30.6	62.459	µg/L	62.459	ppb	16:32:16
1	Pb 220.353†	151.2	58.3	14.955	µg/L	14.955	ppb	16:32:16
1	S 181.975 Axial†	22.0	6.6	28.468	µg/L	28.468	ppb	16:32:16
1	Sb 206.836†	41.2	19.5	18.445	µg/L	18.445	ppb	16:32:16
1	Se 196.026†	23.1	10.8	15.903	µg/L	15.903	ppb	16:32:16
1	SiO2†	2262.3	712.2	145.68	µg/L	145.68	ppb	16:31:56
1	Si 251.611†	1181.1	876.3	69.308	µg/L	69.308	ppb	16:32:16
1	Sn 189.927†	36.8	35.3	15.724	µg/L	15.724	ppb	16:32:16
1	Ti 334.940†	6457.8	6204.1	14.127	µg/L	14.127	ppb	16:31:56
1	Tl 190.801†	-11.7	9.1	12.794	µg/L	12.794	ppb	16:32:16
1	U 409.014†	402.0	169.8	13.867	µg/L	13.867	ppb	16:31:56
1	V 292.402†	1398.8	1422.5	14.525	µg/L	14.525	ppb	16:31:56
1	Zn 213.857†	1090.6	606.3	14.701	µg/L	14.701	ppb	16:32:16
2	Sc RADIAL	56009.6	56009.6	101	%			16:30:58
2	Al 396.153Radial†	194.7	176.5	125.07	µg/L	125.07	ppb	16:30:58
2	Ca 317.933Radial†	346.5	127.5	115.34	µg/L	115.34	ppb	16:31:18
2	Fe 238.204 Radial†	32.6	14.4	126.66	µg/L	126.66	ppb	16:31:18
2	K 766.490 Radial†	581.7	397.7	266.48	µg/L	266.48	ppb	16:30:58
2	Mg 279.077 IEC†	32.2	18.1	169.32	µg/L	169.32	ppb	16:31:18
2	Na 589.592 Radial†	1453.0	1058.2	321.69	µg/L	321.69	ppb	16:30:58
2	Sr 421.552†	1534.5	1497.6	14.498	µg/L	14.498	ppb	16:30:58
2	Sc 361.383	1963241.7	1963241.7	100.79	%			16:32:22
2	Y 371.029	1348477.3	1348477.3	100.83	%			16:32:22
2	Ag 328.068†	1425.5	1924.5	14.633	µg/L	14.633	ppb	16:32:27
2	As 188.979†	8.6	7.8	14.634	µg/L	14.634	ppb	16:32:47
2	B 249.677†	670.6	352.2	14.775	µg/L	14.775	ppb	16:32:27
2	Ba 233.527†	544.3	565.4	14.309	µg/L	14.309	ppb	16:32:47
2	Be 313.107†	19220.5	22702.0	14.042	µg/L	14.042	ppb	16:32:27
2	Cd 226.502†	411.6	531.6	14.158	µg/L	14.158	ppb	16:32:47
2	Co 228.616†	289.9	293.4	13.961	µg/L	13.961	ppb	16:32:47
2	Cr 267.716†	661.3	682.0	14.399	µg/L	14.399	ppb	16:32:27
2	Cu 324.752†	5563.8	2289.5	15.140	µg/L	15.140	ppb	16:32:27
2	Mn 257.610†	4806.5	5010.5	16.648	µg/L	16.648	ppb	16:32:27
2	Mo 202.031†	155.4	153.1	15.847	µg/L	15.847	ppb	16:32:47
2	Ni 231.604†	556.3	271.1	14.187	µg/L	14.187	ppb	16:32:47
2	P 214.914†	60.7	32.7	66.621	µg/L	66.621	ppb	16:32:47
2	Pb 220.353†	152.5	60.9	15.619	µg/L	15.619	ppb	16:32:47

2	S 181.975 Axial†	24.0	8.7	37.531 µg/L	37.531 ppb	16:32:47
2	Sb 206.836†	37.2	15.8	15.015 µg/L	15.015 ppb	16:32:47
2	Se 196.026†	20.4	8.3	12.267 µg/L	12.267 ppb	16:32:47
2	SiO2†	2308.2	778.1	159.15 µg/L	159.15 ppb	16:32:27
2	Si 251.611†	1168.9	874.8	69.187 µg/L	69.187 ppb	16:32:47
2	Sn 189.927†	33.7	32.6	14.503 µg/L	14.503 ppb	16:32:47
2	Ti 334.940†	6373.8	6178.8	14.075 µg/L	14.075 ppb	16:32:27
2	Tl 190.801†	-16.6	4.1	5.9019 µg/L	5.9019 ppb	16:32:47
2	U 409.014†	504.1	274.7	22.453 µg/L	22.453 ppb	16:32:27
2	V 292.402†	1398.8	1435.1	14.668 µg/L	14.668 ppb	16:32:27
2	Zn 213.857†	1084.3	609.8	14.793 µg/L	14.793 ppb	16:32:47
3	Sc RADIAL	55670.7	55670.7	101 %		16:31:23
3	Al 396.153Radial†	195.1	178.1	126.27 µg/L	126.27 ppb	16:31:23
3	Ca 317.933Radial†	341.3	124.4	112.50 µg/L	112.50 ppb	16:31:43
3	Fe 238.204 Radial†	33.8	15.9	139.24 µg/L	139.24 ppb	16:31:43
3	K 766.490 Radial†	557.0	376.6	252.35 µg/L	252.35 ppb	16:31:23
3	Mg 279.077 IEC†	34.8	20.9	195.28 µg/L	195.28 ppb	16:31:43
3	Na 589.592 Radial†	1466.0	1079.9	328.27 µg/L	328.27 ppb	16:31:23
3	Sr 421.552†	1562.0	1534.1	14.852 µg/L	14.852 ppb	16:31:23
3	Sc 361.383	1968841.2	1968841.2	101.08 %		16:32:53
3	Y 371.029	1352034.3	1352034.3	101.10 %		16:32:53
3	Ag 328.068†	1399.7	1895.0	14.400 µg/L	14.400 ppb	16:32:59
3	As 188.979†	-1.6	-2.4	-4.4884 µg/L	-4.4884 ppb	16:33:19
3	B 249.677†	614.3	294.7	12.343 µg/L	12.343 ppb	16:32:59
3	Ba 233.527†	477.2	497.5	12.592 µg/L	12.592 ppb	16:33:19
3	Be 313.107†	17516.7	20962.2	12.966 µg/L	12.966 ppb	16:32:59
3	Cd 226.502†	351.7	471.2	12.546 µg/L	12.546 ppb	16:33:19
3	Co 228.616†	258.6	261.7	12.449 µg/L	12.449 ppb	16:33:19
3	Cr 267.716†	580.3	600.0	12.668 µg/L	12.668 ppb	16:32:59
3	Cu 324.752†	5349.2	2061.5	13.636 µg/L	13.636 ppb	16:32:59
3	Mn 257.610†	4111.3	4309.3	14.320 µg/L	14.320 ppb	16:32:59
3	Mo 202.031†	126.4	123.9	12.832 µg/L	12.832 ppb	16:33:19
3	Ni 231.604†	504.1	218.0	11.403 µg/L	11.403 ppb	16:33:19
3	P 214.914†	64.3	36.1	73.838 µg/L	73.838 ppb	16:33:19
3	Pb 220.353†	157.8	65.7	16.845 µg/L	16.845 ppb	16:33:19
3	S 181.975 Axial†	17.8	2.5	10.793 µg/L	10.793 ppb	16:33:19
3	Sb 206.836†	37.9	16.4	15.587 µg/L	15.587 ppb	16:33:19
3	Se 196.026†	20.7	8.5	12.588 µg/L	12.588 ppb	16:33:19
3	SiO2†	2233.0	697.1	142.60 µg/L	142.60 ppb	16:32:59
3	Si 251.611†	1075.7	779.3	61.632 µg/L	61.632 ppb	16:33:19
3	Sn 189.927†	27.2	26.0	11.597 µg/L	11.597 ppb	16:33:19
3	Ti 334.940†	5925.2	5717.0	13.020 µg/L	13.020 ppb	16:32:59
3	Tl 190.801†	-13.1	7.6	10.733 µg/L	10.733 ppb	16:33:19
3	U 409.014†	399.3	169.7	13.855 µg/L	13.855 ppb	16:32:59
3	V 292.402†	1244.8	1278.9	13.058 µg/L	13.058 ppb	16:32:59
3	Zn 213.857†	1007.3	530.6	12.869 µg/L	12.869 ppb	16:33:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1971087.5	101.20	%	0.471				0.47%
Sc RADIAL	55990.8	101	%	0.6				0.56%
Y 371.029	1353850.8	101.24	%	0.484				0.48%
Ag 328.068†	1911.3	14.530	µg/L	0.1187	14.530	ppb	0.1187	0.82%
QC value greater than the upper limit for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	182.8	129.58	µg/L	6.790	129.58	ppb	6.790	5.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.4	8.2617	µg/L	11.04193	8.2617	ppb	11.04193	133.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	334.6	14.026	µg/L	1.4600	14.026	ppb	1.4600	10.41%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	540.5	13.679	µg/L	0.9451	13.679	ppb	0.9451	6.91%
QC value greater than the upper limit for Ba 233.527 Recovery = Not calculated								
Be 313.107†	22031.3	13.627	µg/L	0.5788	13.627	ppb	0.5788	4.25%
QC value greater than the upper limit for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	125.7	113.70	µg/L	1.471	113.70	ppb	1.471	1.29%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	506.7	13.494	µg/L	0.8428	13.494	ppb	0.8428	6.25%
QC value greater than the upper limit for Cd 226.502 Recovery = Not calculated								
Co 228.616†	284.3	13.527	µg/L	0.9397	13.527	ppb	0.9397	6.95%

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   QC value greater than the upper limit for Co 228.616  Recovery = Not calculated
Cr 267.716†              654.5      13.818 µg/L        0.9958      13.818 ppb         0.9958   7.21%
   QC value greater than the upper limit for Cr 267.716  Recovery = Not calculated
Cu 324.752†             2171.9      14.364 µg/L        0.7530      14.364 ppb         0.7530   5.24%
   QC value greater than the upper limit for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        15.7      137.81 µg/L        10.500      137.81 ppb         10.500   7.62%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        406.3      272.26 µg/L        23.336      272.26 ppb         23.336   8.57%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           21.3      199.32 µg/L        32.208      199.32 ppb         32.208  16.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             4648.4      15.445 µg/L        1.1659      15.445 ppb         1.1659   7.55%
   QC value greater than the upper limit for Mn 257.610  Recovery = Not calculated
Mo 202.031†              139.0      14.390 µg/L        1.5103      14.390 ppb         1.5103  10.50%
   QC value greater than the upper limit for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      1081.8      328.86 µg/L         7.475      328.86 ppb          7.475   2.27%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              256.0      13.395 µg/L        1.7372      13.395 ppb         1.7372  12.97%
   QC value greater than the upper limit for Ni 231.604  Recovery = Not calculated
P 214.914†                33.1      67.639 µg/L        5.7576      67.639 ppb         5.7576   8.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               61.6      15.806 µg/L        0.9588      15.806 ppb         0.9588   6.07%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.9      25.597 µg/L       13.5982      25.597 ppb        13.5982  53.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               17.2      16.349 µg/L        1.8378      16.349 ppb         1.8378  11.24%
   QC value greater than the upper limit for Sb 206.836  Recovery = Not calculated
Se 196.026†                9.2      13.586 µg/L        2.0129      13.586 ppb         2.0129  14.82%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    729.1      149.14 µg/L         8.800      149.14 ppb          8.800   5.90%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              843.5      66.709 µg/L        4.3972      66.709 ppb         4.3972   6.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               31.3      13.942 µg/L        2.1200      13.942 ppb         2.1200  15.21%
   QC value greater than the upper limit for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1535.0      14.860 µg/L        0.3663      14.860 ppb         0.3663   2.47%
   QC value greater than the upper limit for Sr 421.552  Recovery = Not calculated
Ti 334.940†             6033.3      13.740 µg/L        0.6247      13.740 ppb         0.6247   4.55%
   QC value greater than the upper limit for Ti 334.940  Recovery = Not calculated
Tl 190.801†                7.0      9.8097 µg/L       3.53765      9.8097 ppb        3.53765  36.06%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               204.7      16.725 µg/L        4.9605      16.725 ppb         4.9605  29.66%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              1378.8      14.084 µg/L        0.8911      14.084 ppb         0.8911   6.33%
   QC value greater than the upper limit for V 292.402  Recovery = Not calculated
Zn 213.857†              582.2      14.121 µg/L        1.0849      14.121 ppb         1.0849   7.68%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
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Analysis Begun

Start Time: 2/23/2010 16:39:58
Plasma On Time: 2/8/2010 03:37:33
Logged In Analyst: optima
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022310C.SIF
Batch ID:
Results Data Set: 022310A
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1
Autosampler Location: 7
Sample ID: CCV
Date Collected: 2/23/2010 16:39:59
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56985.2	56985.2	103	%			16:40:32
1	Al 396.153Radial†	7026.3	6813.7	4830.3	µg/L	4830.3	ppb	16:40:32
1	Ca 317.933Radial†	5622.7	5250.2	4748.7	µg/L	4748.7	ppb	16:40:52
1	Fe 238.204 Radial†	584.3	550.2	4824.1	µg/L	4824.1	ppb	16:40:52
1	K 766.490 Radial†	7829.8	7433.1	4980.7	µg/L	4980.7	ppb	16:40:32
1	Mg 279.077 IEC†	553.3	524.1	4897.2	µg/L	4897.2	ppb	16:40:52
1	Na 589.592 Radial†	33626.1	32306.4	9820.6	µg/L	9820.6	ppb	16:40:32
1	Sr 421.552†	52106.1	50628.0	490.14	µg/L	490.14	ppb	16:40:32
1	Sc 361.383	1949136.1	1949136.1	100.07	%			16:41:52
1	Y 371.029	1332895.3	1332895.3	99.668	%			16:41:52
1	Ag 328.068†	65686.5	66150.9	503.04	µg/L	503.04	ppb	16:41:57
1	As 188.979†	270.0	269.1	506.01	µg/L	506.01	ppb	16:42:18
1	B 249.677†	12101.7	11780.1	493.84	µg/L	493.84	ppb	16:41:57
1	Ba 233.527†	19866.9	19878.4	503.09	µg/L	503.09	ppb	16:41:57
1	Be 313.107†	803048.5	806120.5	498.61	µg/L	498.61	ppb	16:41:52
1	Cd 226.502†	18809.8	18919.8	503.89	µg/L	503.89	ppb	16:41:57
1	Co 228.616†	10628.5	10626.9	505.62	µg/L	505.62	ppb	16:41:57
1	Cr 267.716†	24008.6	24017.7	507.08	µg/L	507.08	ppb	16:41:57
1	Cu 324.752†	79202.6	75916.8	502.10	µg/L	502.10	ppb	16:41:57
1	Mn 257.610†	151818.2	151954.1	505.01	µg/L	505.01	ppb	16:41:52
1	Mo 202.031†	5069.0	5064.3	524.36	µg/L	524.36	ppb	16:42:18
1	Ni 231.604†	9959.9	9672.2	506.05	µg/L	506.05	ppb	16:41:57
1	P 214.914†	1281.0	1252.5	2561.8	µg/L	2561.8	ppb	16:42:18
1	Pb 220.353†	2104.5	2012.6	516.25	µg/L	516.25	ppb	16:42:18
1	S 181.975 Axial†	254.6	239.4	1032.4	µg/L	1032.4	ppb	16:42:18
1	Sb 206.836†	566.2	544.7	517.12	µg/L	517.12	ppb	16:42:18
1	Se 196.026†	357.7	345.5	511.25	µg/L	511.25	ppb	16:42:18
1	SiO2†	27667.8	26136.5	5346.1	µg/L	5346.1	ppb	16:41:57
1	Si 251.611†	31951.4	31644.2	2502.7	µg/L	2502.7	ppb	16:41:57
1	Sn 189.927†	1188.9	1187.2	528.48	µg/L	528.48	ppb	16:42:18
1	Ti 334.940†	220273.8	219975.1	501.18	µg/L	501.18	ppb	16:41:52
1	Tl 190.801†	343.7	364.0	509.07	µg/L	509.07	ppb	16:42:18
1	U 409.014†	6280.2	6050.5	494.10	µg/L	494.10	ppb	16:41:57
1	V 292.402†	49811.9	49824.5	508.85	µg/L	508.85	ppb	16:41:57
1	Zn 213.857†	21215.4	20734.7	502.89	µg/L	502.89	ppb	16:41:57
2	Sc RADIAL	56155.8	56155.8	101	%			16:40:58
2	Al 396.153Radial†	7004.9	6893.4	4887.3	µg/L	4887.3	ppb	16:40:58
2	Ca 317.933Radial†	5604.9	5313.4	4805.8	µg/L	4805.8	ppb	16:41:18
2	Fe 238.204 Radial†	584.2	558.4	4896.0	µg/L	4896.0	ppb	16:41:18
2	K 766.490 Radial†	7800.2	7516.4	5036.4	µg/L	5036.4	ppb	16:40:58
2	Mg 279.077 IEC†	557.5	536.2	5009.7	µg/L	5009.7	ppb	16:41:18
2	Na 589.592 Radial†	33508.7	32673.3	9932.2	µg/L	9932.2	ppb	16:40:58
2	Sr 421.552†	51859.3	51132.5	495.02	µg/L	495.02	ppb	16:40:58
2	Sc 361.383	1970057.0	1970057.0	101.14	%			16:42:24
2	Y 371.029	1346628.2	1346628.2	100.70	%			16:42:24
2	Ag 328.068†	65056.4	64830.9	493.00	µg/L	493.00	ppb	16:42:30
2	As 188.979†	272.5	268.6	505.23	µg/L	505.23	ppb	16:42:50

2	B 249.677†	11937.6	11489.5	481.56 µg/L	481.56 ppb	16:42:30
2	Ba 233.527†	19634.5	19437.8	491.94 µg/L	491.94 ppb	16:42:30
2	Be 313.107†	803142.6	797691.6	493.39 µg/L	493.39 ppb	16:42:24
2	Cd 226.502†	18569.0	18482.2	492.21 µg/L	492.21 ppb	16:42:30
2	Co 228.616†	10519.2	10406.1	495.10 µg/L	495.10 ppb	16:42:30
2	Cr 267.716†	23718.1	23475.8	495.64 µg/L	495.64 ppb	16:42:30
2	Cu 324.752†	78421.1	74303.6	491.46 µg/L	491.46 ppb	16:42:30
2	Mn 257.610†	152116.9	150638.4	500.65 µg/L	500.65 ppb	16:42:24
2	Mo 202.031†	5001.7	4944.0	511.91 µg/L	511.91 ppb	16:42:50
2	Ni 231.604†	9853.1	9460.9	495.00 µg/L	495.00 ppb	16:42:30
2	P 214.914†	1255.2	1213.5	2481.1 µg/L	2481.1 ppb	16:42:50
2	Pb 220.353†	2079.7	1965.8	504.26 µg/L	504.26 ppb	16:42:50
2	S 181.975 Axial†	253.7	235.7	1016.8 µg/L	1016.8 ppb	16:42:50
2	Sb 206.836†	553.1	525.8	499.17 µg/L	499.17 ppb	16:42:50
2	Se 196.026†	356.8	340.9	504.61 µg/L	504.61 ppb	16:42:50
2	SiO2†	27425.2	25603.0	5237.0 µg/L	5237.0 ppb	16:42:30
2	Si 251.611†	31600.2	30957.9	2448.4 µg/L	2448.4 ppb	16:42:30
2	Sn 189.927†	1160.9	1146.9	510.54 µg/L	510.54 ppb	16:42:50
2	Ti 334.940†	220274.1	217637.9	495.84 µg/L	495.84 ppb	16:42:24
2	Tl 190.801†	350.5	367.1	513.30 µg/L	513.30 ppb	16:42:50
2	U 409.014†	6143.1	5848.2	477.54 µg/L	477.54 ppb	16:42:30
2	V 292.402†	49157.9	48649.2	496.86 µg/L	496.86 ppb	16:42:30
2	Zn 213.857†	21025.0	20321.3	492.85 µg/L	492.85 ppb	16:42:30
3	Sc RADIAL	56437.8	56437.8	102 %		16:41:23
3	Al 396.153Radial†	6944.7	6799.8	4822.2 µg/L	4822.2 ppb	16:41:23
3	Ca 317.933Radial†	5619.9	5300.5	4794.2 µg/L	4794.2 ppb	16:41:43
3	Fe 238.204 Radial†	585.2	556.6	4879.2 µg/L	4879.2 ppb	16:41:43
3	K 766.490 Radial†	7771.5	7449.7	4991.8 µg/L	4991.8 ppb	16:41:23
3	Mg 279.077 IEC†	557.5	533.4	4982.9 µg/L	4982.9 ppb	16:41:43
3	Na 589.592 Radial†	33340.1	32342.7	9831.7 µg/L	9831.7 ppb	16:41:23
3	Sr 421.552†	51594.1	50616.7	490.03 µg/L	490.03 ppb	16:41:23
3	Sc 361.383	1962786.3	1962786.3	100.77 %		16:42:57
3	Y 371.029	1341884.7	1341884.7	100.34 %		16:42:57
3	Ag 328.068†	62862.1	62891.6	478.15 µg/L	478.15 ppb	16:43:02
3	As 188.979†	234.5	231.9	436.25 µg/L	436.25 ppb	16:43:22
3	B 249.677†	11512.2	11111.1	465.58 µg/L	465.58 ppb	16:43:02
3	Ba 233.527†	18533.3	18417.0	466.09 µg/L	466.09 ppb	16:43:02
3	Be 313.107†	767523.7	765286.5	473.35 µg/L	473.35 ppb	16:42:57
3	Cd 226.502†	17447.5	17437.2	464.35 µg/L	464.35 ppb	16:43:02
3	Co 228.616†	9819.3	9750.0	463.83 µg/L	463.83 ppb	16:43:02
3	Cr 267.716†	21644.8	21505.2	454.04 µg/L	454.04 ppb	16:43:02
3	Cu 324.752†	73558.3	69765.2	461.48 µg/L	461.48 ppb	16:43:02
3	Mn 257.610†	145745.4	144872.6	481.50 µg/L	481.50 ppb	16:42:57
3	Mo 202.031†	4284.1	4250.2	440.10 µg/L	440.10 ppb	16:43:22
3	Ni 231.604†	9243.6	8892.2	465.25 µg/L	465.25 ppb	16:43:02
3	P 214.914†	1092.9	1057.0	2157.1 µg/L	2157.1 ppb	16:43:22
3	Pb 220.353†	1852.6	1748.0	448.29 µg/L	448.29 ppb	16:43:22
3	S 181.975 Axial†	226.7	209.9	905.20 µg/L	905.20 ppb	16:43:22
3	Sb 206.836†	489.3	464.5	440.53 µg/L	440.53 ppb	16:43:22
3	Se 196.026†	329.1	314.6	466.30 µg/L	466.30 ppb	16:43:22
3	SiO2†	26222.0	24509.5	5013.3 µg/L	5013.3 ppb	16:43:02
3	Si 251.611†	30222.0	29706.0	2349.4 µg/L	2349.4 ppb	16:43:02
3	Sn 189.927†	982.3	974.0	433.57 µg/L	433.57 ppb	16:43:22
3	Ti 334.940†	209749.4	208000.5	473.87 µg/L	473.87 ppb	16:42:57
3	Tl 190.801†	314.5	332.7	465.54 µg/L	465.54 ppb	16:43:22
3	U 409.014†	5705.1	5436.1	443.83 µg/L	443.83 ppb	16:43:02
3	V 292.402†	45720.3	45417.9	463.58 µg/L	463.58 ppb	16:43:02
3	Zn 213.857†	19657.8	19041.5	461.78 µg/L	461.78 ppb	16:43:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1960659.8	100.66	%	0.545				0.54%
Sc RADIAL	56526.3	102	%	0.8				0.75%
Y 371.029	1340469.4	100.23	%	0.522				0.52%
Ag 328.068†	64624.5	491.40	µg/L	12.526	491.40	ppb	12.526	2.55%
QC value within limits for Ag 328.068 Recovery = 98.28%								
Al 396.153Radial†	6835.6	4846.6	µg/L	35.44	4846.6	ppb	35.44	0.73%
QC value within limits for Al 396.153Radial Recovery = 96.93%								
As 188.979†	256.5	482.50	µg/L	40.051	482.50	ppb	40.051	8.30%

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   QC value within limits for As 188.979  Recovery = 96.50%
B 249.677†            11460.2      480.33 µg/L        14.169      480.33 ppb        14.169   2.95%
   QC value within limits for B 249.677  Recovery = 96.07%
Ba 233.527†           19244.4      487.04 µg/L        18.980      487.04 ppb        18.980   3.90%
   QC value within limits for Ba 233.527  Recovery = 97.41%
Be 313.107†          789699.5      488.45 µg/L        13.334      488.45 ppb        13.334   2.73%
   QC value within limits for Be 313.107  Recovery = 97.69%
Ca 317.933Radial†      5288.0      4782.9 µg/L         30.19      4782.9 ppb         30.19   0.63%
   QC value within limits for Ca 317.933Radial  Recovery = 95.66%
Cd 226.502†           18279.8      486.82 µg/L        20.313      486.82 ppb        20.313   4.17%
   QC value within limits for Cd 226.502  Recovery = 97.36%
Co 228.616†           10261.0      488.19 µg/L        21.737      488.19 ppb        21.737   4.45%
   QC value within limits for Co 228.616  Recovery = 97.64%
Cr 267.716†           22999.6      485.59 µg/L        27.913      485.59 ppb        27.913   5.75%
   QC value within limits for Cr 267.716  Recovery = 97.12%
Cu 324.752†           73328.5      485.01 µg/L        21.065      485.01 ppb        21.065   4.34%
   QC value within limits for Cu 324.752  Recovery = 97.00%
Fe 238.204 Radial†      555.1      4866.4 µg/L         37.59      4866.4 ppb         37.59   0.77%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.33%
K 766.490 Radial†      7466.4      5003.0 µg/L         29.52      5003.0 ppb         29.52   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 100.06%
Mg 279.077 IEC†         531.2      4963.3 µg/L         58.75      4963.3 ppb         58.75   1.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.27%
Mn 257.610†          149155.1      495.72 µg/L        12.506      495.72 ppb        12.506   2.52%
   QC value within limits for Mn 257.610  Recovery = 99.14%
Mo 202.031†            4752.8      492.12 µg/L        45.483      492.12 ppb        45.483   9.24%
   QC value within limits for Mo 202.031  Recovery = 98.42%
Na 589.592 Radial†    32440.8      9861.5 µg/L         61.46      9861.5 ppb         61.46   0.62%
   QC value within limits for Na 589.592 Radial  Recovery = 98.61%
Ni 231.604†            9341.8      488.77 µg/L        21.103      488.77 ppb        21.103   4.32%
   QC value within limits for Ni 231.604  Recovery = 97.75%
P 214.914†             1174.3      2400.0 µg/L        214.17      2400.0 ppb        214.17   8.92%
   QC value within limits for P 214.914  Recovery = 96.00%
Pb 220.353†            1908.8      489.60 µg/L        36.276      489.60 ppb        36.276   7.41%
   QC value within limits for Pb 220.353  Recovery = 97.92%
S 181.975 Axial†        228.3      984.82 µg/L        69.393      984.82 ppb        69.393   7.05%
   QC value within limits for S 181.975 Axial  Recovery = 98.48%
Sb 206.836†             511.7      485.61 µg/L        40.054      485.61 ppb        40.054   8.25%
   QC value within limits for Sb 206.836  Recovery = 97.12%
Se 196.026†             333.6      494.05 µg/L        24.266      494.05 ppb        24.266   4.91%
   QC value within limits for Se 196.026  Recovery = 98.81%
SiO2†                 25416.4      5198.8 µg/L        169.65      5198.8 ppb        169.65   3.26%
   QC value within limits for SiO2  Recovery = 97.22%
Si 251.611†           30769.4      2433.5 µg/L         77.73      2433.5 ppb         77.73   3.19%
   QC value within limits for Si 251.611  Recovery = 97.34%
Sn 189.927†            1102.7      490.86 µg/L        50.422      490.86 ppb        50.422  10.27%
   QC value within limits for Sn 189.927  Recovery = 98.17%
Sr 421.552†           50792.4      491.73 µg/L         2.852      491.73 ppb         2.852   0.58%
   QC value within limits for Sr 421.552  Recovery = 98.35%
Ti 334.940†          215204.5      490.30 µg/L        14.472      490.30 ppb        14.472   2.95%
   QC value within limits for Ti 334.940  Recovery = 98.06%
Tl 190.801†             354.6      495.97 µg/L        26.439      495.97 ppb        26.439   5.33%
   QC value within limits for Tl 190.801  Recovery = 99.19%
U 409.014†             5778.3      471.83 µg/L        25.621      471.83 ppb        25.621   5.43%
   QC value within limits for U 409.014  Recovery = 94.37%
V 292.402†            47963.9      489.77 µg/L        23.452      489.77 ppb        23.452   4.79%
   QC value within limits for V 292.402  Recovery = 97.95%
Zn 213.857†           20032.5      485.84 µg/L        21.437      485.84 ppb        21.437   4.41%
   QC value within limits for Zn 213.857  Recovery = 97.17%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 16:43:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55529.6	55529.6	100	%			16:44:02
1	Al 396.153Radial†	156.1	139.7	98.998	µg/L	98.998	ppb	16:44:02
1	Ca 317.933Radial†	305.4	89.5	80.956	µg/L	80.956	ppb	16:44:22
1	Fe 238.204 Radial†	27.1	9.2	80.992	µg/L	80.992	ppb	16:44:22
1	K 766.490 Radial†	485.2	306.4	205.31	µg/L	205.31	ppb	16:44:02
1	Mg 279.077 IEC†	21.7	7.9	73.731	µg/L	73.731	ppb	16:44:22
1	Na 589.592 Radial†	1210.7	828.9	251.99	µg/L	251.99	ppb	16:44:02
1	Sr 421.552†	1199.0	1176.0	11.385	µg/L	11.385	ppb	16:44:02
1	Sc 361.383	1968483.5	1968483.5	101.06	%			16:45:21
1	Y 371.029	1350918.3	1350918.3	101.02	%			16:45:21
1	Ag 328.068†	959.5	1459.7	11.096	µg/L	11.096	ppb	16:45:26
1	As 188.979†	3.5	2.7	5.0553	µg/L	5.0553	ppb	16:45:46
1	B 249.677†	582.3	263.1	11.043	µg/L	11.043	ppb	16:45:26
1	Ba 233.527†	420.9	441.9	11.184	µg/L	11.184	ppb	16:45:46
1	Be 313.107†	14054.2	17539.2	10.849	µg/L	10.849	ppb	16:45:26
1	Cd 226.502†	298.7	418.8	11.156	µg/L	11.156	ppb	16:45:46
1	Co 228.616†	228.7	232.1	11.045	µg/L	11.045	ppb	16:45:46
1	Cr 267.716†	505.0	525.6	11.098	µg/L	11.098	ppb	16:45:26
1	Cu 324.752†	5009.1	1725.9	11.411	µg/L	11.411	ppb	16:45:26
1	Mn 257.610†	3233.8	3441.7	11.436	µg/L	11.436	ppb	16:45:26
1	Mo 202.031†	111.5	109.2	11.310	µg/L	11.310	ppb	16:45:46
1	Ni 231.604†	506.1	220.1	11.514	µg/L	11.514	ppb	16:45:46
1	P 214.914†	54.2	26.1	53.361	µg/L	53.361	ppb	16:45:46
1	Pb 220.353†	144.2	52.3	13.409	µg/L	13.409	ppb	16:45:46
1	S 181.975 Axial†	20.5	5.2	22.604	µg/L	22.604	ppb	16:45:46
1	Sb 206.836†	36.3	14.8	14.056	µg/L	14.056	ppb	16:45:46
1	Se 196.026†	20.2	8.0	11.849	µg/L	11.849	ppb	16:45:46
1	SiO2†	2081.0	547.1	111.91	µg/L	111.91	ppb	16:45:26
1	Si 251.611†	960.4	665.4	52.624	µg/L	52.624	ppb	16:45:46
1	Sn 189.927†	28.7	27.5	12.257	µg/L	12.257	ppb	16:45:46
1	Ti 334.940†	4943.9	4747.1	10.818	µg/L	10.818	ppb	16:45:26
1	Tl 190.801†	-11.1	9.6	13.441	µg/L	13.441	ppb	16:45:46
1	U 409.014†	396.3	166.8	13.628	µg/L	13.628	ppb	16:45:26
1	V 292.402†	1034.4	1070.8	10.937	µg/L	10.937	ppb	16:45:26
1	Zn 213.857†	947.5	471.6	11.442	µg/L	11.442	ppb	16:45:46
2	Sc RADIAL	55608.7	55608.7	100	%			16:44:28
2	Al 396.153Radial†	154.0	137.4	97.369	µg/L	97.369	ppb	16:44:28
2	Ca 317.933Radial†	290.2	73.9	66.844	µg/L	66.844	ppb	16:44:48
2	Fe 238.204 Radial†	27.3	9.4	82.811	µg/L	82.811	ppb	16:44:48
2	K 766.490 Radial†	461.0	281.6	188.72	µg/L	188.72	ppb	16:44:28
2	Mg 279.077 IEC†	24.2	10.4	97.221	µg/L	97.221	ppb	16:44:48
2	Na 589.592 Radial†	1220.5	837.0	254.44	µg/L	254.44	ppb	16:44:28
2	Sr 421.552†	1193.7	1169.0	11.317	µg/L	11.317	ppb	16:44:28
2	Sc 361.383	1965689.4	1965689.4	100.92	%			16:45:52
2	Y 371.029	1348701.3	1348701.3	100.85	%			16:45:52
2	Ag 328.068†	1012.3	1513.4	11.501	µg/L	11.501	ppb	16:45:57
2	As 188.979†	4.6	3.7	7.0103	µg/L	7.0103	ppb	16:46:18
2	B 249.677†	582.2	263.8	11.073	µg/L	11.073	ppb	16:45:57
2	Ba 233.527†	408.3	430.0	10.881	µg/L	10.881	ppb	16:46:18
2	Be 313.107†	14191.7	17695.3	10.945	µg/L	10.945	ppb	16:45:57
2	Cd 226.502†	291.4	412.0	10.975	µg/L	10.975	ppb	16:46:18
2	Co 228.616†	229.2	232.9	11.081	µg/L	11.081	ppb	16:46:18
2	Cr 267.716†	484.8	506.3	10.690	µg/L	10.690	ppb	16:45:57
2	Cu 324.752†	5014.2	1738.0	11.491	µg/L	11.491	ppb	16:45:57
2	Mn 257.610†	3331.4	3543.0	11.772	µg/L	11.772	ppb	16:45:57
2	Mo 202.031†	112.8	110.6	11.453	µg/L	11.453	ppb	16:46:18
2	Ni 231.604†	505.3	220.0	11.511	µg/L	11.511	ppb	16:46:18
2	P 214.914†	49.5	21.5	43.796	µg/L	43.796	ppb	16:46:18
2	Pb 220.353†	131.2	39.6	10.149	µg/L	10.149	ppb	16:46:18

2	S 181.975 Axial†	20.8	5.6	23.941 µg/L	23.941 ppb	16:46:18
2	Sb 206.836†	34.6	13.2	12.571 µg/L	12.571 ppb	16:46:18
2	Se 196.026†	19.5	7.4	10.906 µg/L	10.906 ppb	16:46:18
2	SiO2†	2093.1	562.1	114.96 µg/L	114.96 ppb	16:45:57
2	Si 251.611†	974.5	680.8	53.841 µg/L	53.841 ppb	16:46:18
2	Sn 189.927†	25.7	24.7	10.978 µg/L	10.978 ppb	16:46:18
2	Ti 334.940†	5084.1	4892.9	11.148 µg/L	11.148 ppb	16:45:57
2	Tl 190.801†	-16.9	3.9	5.4702 µg/L	5.4702 ppb	16:46:18
2	U 409.014†	424.1	194.8	15.925 µg/L	15.925 ppb	16:45:57
2	V 292.402†	1022.5	1060.5	10.836 µg/L	10.836 ppb	16:45:57
2	Zn 213.857†	936.9	462.4	11.216 µg/L	11.216 ppb	16:46:18
3	Sc RADIAL	54966.9	54966.9	99.2 %		16:44:53
3	Al 396.153Radial†	148.0	133.1	94.353 µg/L	94.353 ppb	16:44:53
3	Ca 317.933Radial†	302.8	90.0	81.387 µg/L	81.387 ppb	16:45:13
3	Fe 238.204 Radial†	26.7	9.1	79.973 µg/L	79.973 ppb	16:45:13
3	K 766.490 Radial†	534.1	360.7	241.66 µg/L	241.66 ppb	16:44:53
3	Mg 279.077 IEC†	26.7	13.2	123.22 µg/L	123.22 ppb	16:45:13
3	Na 589.592 Radial†	1251.6	882.5	268.27 µg/L	268.27 ppb	16:44:53
3	Sr 421.552†	1177.0	1166.1	11.289 µg/L	11.289 ppb	16:44:53
3	Sc 361.383	1963602.9	1963602.9	100.81 %		16:46:23
3	Y 371.029	1347781.6	1347781.6	100.78 %		16:46:23
3	Ag 328.068†	900.6	1403.6	10.671 µg/L	10.671 ppb	16:46:29
3	As 188.979†	4.3	3.5	6.4832 µg/L	6.4832 ppb	16:46:49
3	B 249.677†	597.3	279.4	11.728 µg/L	11.728 ppb	16:46:29
3	Ba 233.527†	366.2	388.6	9.8365 µg/L	9.8365 ppb	16:46:49
3	Be 313.107†	13073.2	16600.7	10.268 µg/L	10.268 ppb	16:46:29
3	Cd 226.502†	252.8	374.0	9.9617 µg/L	9.9617 ppb	16:46:49
3	Co 228.616†	198.5	202.7	9.6418 µg/L	9.6418 ppb	16:46:49
3	Cr 267.716†	467.7	489.8	10.341 µg/L	10.341 ppb	16:46:29
3	Cu 324.752†	4889.4	1619.5	10.708 µg/L	10.708 ppb	16:46:29
3	Mn 257.610†	3133.6	3350.2	11.130 µg/L	11.130 ppb	16:46:29
3	Mo 202.031†	98.6	96.7	10.014 µg/L	10.014 ppb	16:46:49
3	Ni 231.604†	471.5	187.0	9.7839 µg/L	9.7839 ppb	16:46:49
3	P 214.914†	48.7	20.8	42.202 µg/L	42.202 ppb	16:46:49
3	Pb 220.353†	147.4	55.8	14.308 µg/L	14.308 ppb	16:46:49
3	S 181.975 Axial†	18.6	3.4	14.453 µg/L	14.453 ppb	16:46:49
3	Sb 206.836†	35.5	14.2	13.414 µg/L	13.414 ppb	16:46:49
3	Se 196.026†	9.2	-2.8	-3.9731 µg/L	-3.9731 ppb	16:46:49
3	SiO2†	2080.2	551.5	112.81 µg/L	112.81 ppb	16:46:29
3	Si 251.611†	898.7	606.5	47.969 µg/L	47.969 ppb	16:46:49
3	Sn 189.927†	20.1	19.1	8.4854 µg/L	8.4854 ppb	16:46:49
3	Ti 334.940†	4776.4	4593.1	10.463 µg/L	10.463 ppb	16:46:29
3	Tl 190.801†	-15.7	5.0	7.0902 µg/L	7.0902 ppb	16:46:49
3	U 409.014†	368.0	139.6	11.408 µg/L	11.408 ppb	16:46:29
3	V 292.402†	988.3	1027.6	10.487 µg/L	10.487 ppb	16:46:29
3	Zn 213.857†	884.2	411.1	9.9704 µg/L	9.9704 ppb	16:46:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1965925.3	100.93	%	0.126				0.12%
Sc RADIAL	55368.4	100.0	%	0.63				0.63%
Y 371.029	1349133.7	100.88	%	0.121				0.12%
Ag 328.068†	1458.9	11.089	µg/L	0.4154	11.089	ppb	0.4154	3.75%
QC value greater than the upper limit for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	136.7	96.907	µg/L	2.3569	96.907	ppb	2.3569	2.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.3	6.1830	µg/L	1.01148	6.1830	ppb	1.01148	16.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	268.8	11.281	µg/L	0.3872	11.281	ppb	0.3872	3.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	420.2	10.634	µg/L	0.7069	10.634	ppb	0.7069	6.65%
QC value greater than the upper limit for Ba 233.527 Recovery = Not calculated								
Be 313.107†	17278.4	10.687	µg/L	0.3662	10.687	ppb	0.3662	3.43%
QC value greater than the upper limit for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	84.5	76.395	µg/L	8.2748	76.395	ppb	8.2748	10.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	401.6	10.698	µg/L	0.6437	10.698	ppb	0.6437	6.02%
QC value greater than the upper limit for Cd 226.502 Recovery = Not calculated								
Co 228.616†	222.6	10.589	µg/L	0.8208	10.589	ppb	0.8208	7.75%

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   QC value greater than the upper limit for Co 228.616  Recovery = Not calculated
Cr 267.716†              507.3      10.710 µg/L        0.3785      10.710 ppb         0.3785   3.53%
   QC value greater than the upper limit for Cr 267.716  Recovery = Not calculated
Cu 324.752†             1694.5      11.203 µg/L        0.4307      11.203 ppb         0.4307   3.84%
   QC value greater than the upper limit for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         9.3      81.258 µg/L        1.4378      81.258 ppb         1.4378   1.77%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        316.2      211.90 µg/L        27.082      211.90 ppb         27.082  12.78%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           10.5      98.057 µg/L       24.7540      98.057 ppb        24.7540  25.24%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             3445.0      11.446 µg/L        0.3208      11.446 ppb         0.3208   2.80%
   QC value greater than the upper limit for Mn 257.610  Recovery = Not calculated
Mo 202.031†              105.5      10.926 µg/L        0.7932      10.926 ppb         0.7932   7.26%
   QC value greater than the upper limit for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       849.5      258.23 µg/L         8.779      258.23 ppb          8.779   3.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              209.0      10.936 µg/L        0.9978      10.936 ppb         0.9978   9.12%
   QC value greater than the upper limit for Ni 231.604  Recovery = Not calculated
P 214.914†                22.8      46.453 µg/L        6.0354      46.453 ppb         6.0354  12.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               49.2      12.622 µg/L        2.1883      12.622 ppb         2.1883  17.34%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.7      20.333 µg/L        5.1355      20.333 ppb         5.1355  25.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               14.1      13.347 µg/L        0.7447      13.347 ppb         0.7447   5.58%
   QC value greater than the upper limit for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.2      6.2604 µg/L       8.87497      6.2604 ppb        8.87497 141.76%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     553.6      113.23 µg/L         1.569      113.23 ppb          1.569   1.39%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               650.9      51.478 µg/L        3.0993      51.478 ppb         3.0993   6.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               23.7      10.573 µg/L        1.9178      10.573 ppb         1.9178  18.14%
   QC value greater than the upper limit for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1170.4      11.330 µg/L        0.0493      11.330 ppb         0.0493   0.44%
   QC value greater than the upper limit for Sr 421.552  Recovery = Not calculated
Ti 334.940†             4744.4      10.809 µg/L        0.3427      10.809 ppb         0.3427   3.17%
   QC value greater than the upper limit for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.2      8.6670 µg/L       4.21275      8.6670 ppb        4.21275  48.61%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                167.1      13.654 µg/L        2.2584      13.654 ppb         2.2584  16.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               1053.0      10.753 µg/L        0.2359      10.753 ppb         0.2359   2.19%
   QC value greater than the upper limit for V 292.402  Recovery = Not calculated
Zn 213.857†               448.4      10.876 µg/L        0.7925      10.876 ppb         0.7925   7.29%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Analysis Begun

Start Time: 2/23/2010 16:52:37
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502

Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022310C.SIF
Batch ID:
Results Data Set: 022310A
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 16:52:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55479.6	55479.6	100	%			16:53:13
1	Al 396.153Radial†	6917.4	6890.3	4884.9	µg/L	4884.9	ppb	16:53:13
1	Ca 317.933Radial†	5563.9	5339.8	4829.8	µg/L	4829.8	ppb	16:53:33
1	Fe 238.204 Radial†	581.1	562.4	4930.9	µg/L	4930.9	ppb	16:53:33
1	K 766.490 Radial†	7661.4	7471.5	5006.4	µg/L	5006.4	ppb	16:53:13
1	Mg 279.077 IEC†	553.8	539.1	5037.6	µg/L	5037.6	ppb	16:53:33
1	Na 589.592 Radial†	33167.4	32735.4	9951.0	µg/L	9951.0	ppb	16:53:13
1	Sr 421.552†	50916.1	50814.3	491.94	µg/L	491.94	ppb	16:53:13
1	Sc 361.383	1947053.8	1947053.8	99.963	%			16:54:33
1	Y 371.029	1330304.1	1330304.1	99.475	%			16:54:33
1	Ag 328.068†	65360.1	65894.6	501.10	µg/L	501.10	ppb	16:54:38
1	As 188.979†	265.4	264.7	497.79	µg/L	497.79	ppb	16:54:59
1	B 249.677†	11945.8	11637.1	487.76	µg/L	487.76	ppb	16:54:38
1	Ba 233.527†	19699.7	19732.4	499.40	µg/L	499.40	ppb	16:54:38
1	Be 313.107†	798822.7	802751.4	496.52	µg/L	496.52	ppb	16:54:33
1	Cd 226.502†	18631.8	18762.0	499.67	µg/L	499.67	ppb	16:54:38
1	Co 228.616†	10566.4	10576.2	503.20	µg/L	503.20	ppb	16:54:38
1	Cr 267.716†	23835.2	23870.0	503.96	µg/L	503.96	ppb	16:54:38
1	Cu 324.752†	78906.8	75705.5	500.72	µg/L	500.72	ppb	16:54:38
1	Mn 257.610†	150980.4	151278.3	502.78	µg/L	502.78	ppb	16:54:33
1	Mo 202.031†	4982.8	4983.5	516.00	µg/L	516.00	ppb	16:54:59
1	Ni 231.604†	9849.8	9572.7	500.85	µg/L	500.85	ppb	16:54:38
1	P 214.914†	1239.5	1212.4	2478.1	µg/L	2478.1	ppb	16:54:59
1	Pb 220.353†	2073.7	1984.1	508.91	µg/L	508.91	ppb	16:54:59
1	S 181.975 Axial†	253.7	238.8	1029.8	µg/L	1029.8	ppb	16:54:59
1	Sb 206.836†	558.5	537.6	510.32	µg/L	510.32	ppb	16:54:59
1	Se 196.026†	357.7	345.9	512.01	µg/L	512.01	ppb	16:54:59
1	SiO2†	27519.0	26017.2	5321.7	µg/L	5321.7	ppb	16:54:38
1	Si 251.611†	31763.0	31489.9	2490.5	µg/L	2490.5	ppb	16:54:38
1	Sn 189.927†	1163.6	1163.1	517.77	µg/L	517.77	ppb	16:54:59
1	Ti 334.940†	219773.8	219710.4	500.57	µg/L	500.57	ppb	16:54:33
1	Tl 190.801†	344.5	365.2	510.75	µg/L	510.75	ppb	16:54:59
1	U 409.014†	6239.8	6016.7	491.33	µg/L	491.33	ppb	16:54:38
1	V 292.402†	49539.8	49605.5	506.58	µg/L	506.58	ppb	16:54:38
1	Zn 213.857†	21061.8	20603.7	499.70	µg/L	499.70	ppb	16:54:38
2	Sc RADIAL	56021.6	56021.6	101	%			16:53:39
2	Al 396.153Radial†	6913.4	6819.5	4834.8	µg/L	4834.8	ppb	16:53:39
2	Ca 317.933Radial†	5539.8	5262.2	4759.6	µg/L	4759.6	ppb	16:53:59
2	Fe 238.204 Radial†	577.6	553.3	4851.3	µg/L	4851.3	ppb	16:53:59
2	K 766.490 Radial†	7722.3	7457.7	4997.1	µg/L	4997.1	ppb	16:53:39
2	Mg 279.077 IEC†	547.0	527.1	4925.2	µg/L	4925.2	ppb	16:53:59
2	Na 589.592 Radial†	33132.8	32380.8	9843.2	µg/L	9843.2	ppb	16:53:39
2	Sr 421.552†	50955.5	50361.4	487.55	µg/L	487.55	ppb	16:53:39
2	Sc 361.383	1958587.7	1958587.7	100.56	%			16:55:05
2	Y 371.029	1338010.7	1338010.7	100.05	%			16:55:05
2	Ag 328.068†	65047.2	65198.3	495.79	µg/L	495.79	ppb	16:55:11
2	As 188.979†	266.1	263.9	496.24	µg/L	496.24	ppb	16:55:31

2	B 249.677†	11941.7	11562.7	484.66 µg/L	484.66 ppb	16:55:11
2	Ba 233.527†	19597.9	19515.1	493.90 µg/L	493.90 ppb	16:55:11
2	Be 313.107†	796441.0	795677.0	492.15 µg/L	492.15 ppb	16:55:05
2	Cd 226.502†	18494.0	18515.1	493.10 µg/L	493.10 ppb	16:55:11
2	Co 228.616†	10450.4	10398.5	494.74 µg/L	494.74 ppb	16:55:11
2	Cr 267.716†	23601.8	23497.4	496.10 µg/L	496.10 ppb	16:55:11
2	Cu 324.752†	78404.7	74741.4	494.34 µg/L	494.34 ppb	16:55:11
2	Mn 257.610†	150550.6	149961.4	498.40 µg/L	498.40 ppb	16:55:05
2	Mo 202.031†	4954.0	4925.5	510.00 µg/L	510.00 ppb	16:55:31
2	Ni 231.604†	9816.8	9481.9	496.10 µg/L	496.10 ppb	16:55:11
2	P 214.914†	1237.9	1203.6	2460.2 µg/L	2460.2 ppb	16:55:31
2	Pb 220.353†	2062.2	1960.4	502.85 µg/L	502.85 ppb	16:55:31
2	S 181.975 Axial†	251.5	235.0	1013.6 µg/L	1013.6 ppb	16:55:31
2	Sb 206.836†	549.7	525.6	498.97 µg/L	498.97 ppb	16:55:31
2	Se 196.026†	350.6	336.7	498.58 µg/L	498.58 ppb	16:55:31
2	SiO2†	27358.0	25695.0	5255.8 µg/L	5255.8 ppb	16:55:11
2	Si 251.611†	31582.6	31123.4	2461.5 µg/L	2461.5 ppb	16:55:11
2	Sn 189.927†	1150.5	1143.3	508.93 µg/L	508.93 ppb	16:55:31
2	Ti 334.940†	219362.6	218006.7	496.69 µg/L	496.69 ppb	16:55:05
2	Tl 190.801†	345.1	363.8	508.71 µg/L	508.71 ppb	16:55:31
2	U 409.014†	6218.1	5958.4	486.57 µg/L	486.57 ppb	16:55:11
2	V 292.402†	49111.9	48888.1	499.26 µg/L	499.26 ppb	16:55:11
2	Zn 213.857†	20973.6	20391.9	494.57 µg/L	494.57 ppb	16:55:11
3	Sc RADIAL	55862.6	55862.6	101 %		16:54:04
3	Al 396.153Radial†	6892.2	6817.9	4835.0 µg/L	4835.0 ppb	16:54:04
3	Ca 317.933Radial†	5536.3	5274.4	4770.6 µg/L	4770.6 ppb	16:54:24
3	Fe 238.204 Radial†	575.4	552.8	4845.9 µg/L	4845.9 ppb	16:54:24
3	K 766.490 Radial†	7707.0	7464.3	5001.5 µg/L	5001.5 ppb	16:54:04
3	Mg 279.077 IEC†	550.6	532.2	4971.6 µg/L	4971.6 ppb	16:54:24
3	Na 589.592 Radial†	33145.9	32487.1	9875.5 µg/L	9875.5 ppb	16:54:04
3	Sr 421.552†	51068.7	50617.1	490.03 µg/L	490.03 ppb	16:54:04
3	Sc 361.383	1947564.6	1947564.6	99.989 %		16:55:38
3	Y 371.029	1332059.5	1332059.5	99.606 %		16:55:38
3	Ag 328.068†	62237.4	62754.4	477.10 µg/L	477.10 ppb	16:55:43
3	As 188.979†	234.7	234.0	440.06 µg/L	440.06 ppb	16:56:03
3	B 249.677†	11327.8	11015.9	461.59 µg/L	461.59 ppb	16:55:43
3	Ba 233.527†	18289.5	18316.9	463.56 µg/L	463.56 ppb	16:55:43
3	Be 313.107†	758150.3	761865.0	471.23 µg/L	471.23 ppb	16:55:38
3	Cd 226.502†	17287.2	17412.3	463.69 µg/L	463.69 ppb	16:55:43
3	Co 228.616†	9674.8	9681.6	460.58 µg/L	460.58 ppb	16:55:43
3	Cr 267.716†	21356.2	21384.4	451.49 µg/L	451.49 ppb	16:55:43
3	Cu 324.752†	72792.2	69569.6	460.18 µg/L	460.18 ppb	16:55:43
3	Mn 257.610†	143582.0	143839.4	478.07 µg/L	478.07 ppb	16:55:38
3	Mo 202.031†	4251.6	4250.9	440.17 µg/L	440.17 ppb	16:56:03
3	Ni 231.604†	9048.4	8768.6	458.78 µg/L	458.78 ppb	16:55:43
3	P 214.914†	1087.7	1060.2	2164.1 µg/L	2164.1 ppb	16:56:03
3	Pb 220.353†	1835.4	1745.3	447.58 µg/L	447.58 ppb	16:56:03
3	S 181.975 Axial†	224.4	209.4	903.03 µg/L	903.03 ppb	16:56:03
3	Sb 206.836†	489.4	468.4	444.27 µg/L	444.27 ppb	16:56:03
3	Se 196.026†	314.5	302.6	448.66 µg/L	448.66 ppb	16:56:03
3	SiO2†	25989.6	24480.5	5007.4 µg/L	5007.4 ppb	16:55:43
3	Si 251.611†	29813.7	29532.0	2335.7 µg/L	2335.7 ppb	16:55:43
3	Sn 189.927†	973.5	972.8	433.03 µg/L	433.03 ppb	16:56:03
3	Ti 334.940†	207712.6	207590.2	472.94 µg/L	472.94 ppb	16:55:38
3	Tl 190.801†	315.2	335.8	469.80 µg/L	469.80 ppb	16:56:03
3	U 409.014†	5721.0	5496.2	448.75 µg/L	448.75 ppb	16:55:43
3	V 292.402†	45270.8	45323.0	462.62 µg/L	462.62 ppb	16:55:43
3	Zn 213.857†	19429.8	18966.0	459.96 µg/L	459.96 ppb	16:55:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1951068.7	100.17	%	0.335				0.33%
Sc RADIAL	55787.9	101	%	0.5				0.50%
Y 371.029	1333458.1	99.710	%	0.3020				0.30%
Ag 328.068†	64615.8	491.33	µg/L	12.605	491.33	ppb	12.605	2.57%
QC value within limits for Ag 328.068 Recovery = 98.27%								
Al 396.153Radial†	6842.6	4851.6	µg/L	28.89	4851.6	ppb	28.89	0.60%
QC value within limits for Al 396.153Radial Recovery = 97.03%								
As 188.979†	254.2	478.03	µg/L	32.891	478.03	ppb	32.891	6.88%

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   QC value within limits for As 188.979  Recovery = 95.61%
B 249.677†            11405.2      478.01 µg/L        14.298      478.01 ppb        14.298   2.99%
   QC value within limits for B 249.677  Recovery = 95.60%
Ba 233.527†           19188.1      485.62 µg/L        19.299      485.62 ppb        19.299   3.97%
   QC value within limits for Ba 233.527  Recovery = 97.12%
Be 313.107†          786764.5      486.63 µg/L        13.515      486.63 ppb        13.515   2.78%
   QC value within limits for Be 313.107  Recovery = 97.33%
Ca 317.933Radial†      5292.2      4786.6 µg/L         37.75      4786.6 ppb         37.75   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 95.73%
Cd 226.502†           18229.8      485.48 µg/L        19.161      485.48 ppb        19.161   3.95%
   QC value within limits for Cd 226.502  Recovery = 97.10%
Co 228.616†           10218.8      486.17 µg/L        22.565      486.17 ppb        22.565   4.64%
   QC value within limits for Co 228.616  Recovery = 97.23%
Cr 267.716†           22917.3      483.85 µg/L        28.299      483.85 ppb        28.299   5.85%
   QC value within limits for Cr 267.716  Recovery = 96.77%
Cu 324.752†           73338.8      485.08 µg/L        21.799      485.08 ppb        21.799   4.49%
   QC value within limits for Cu 324.752  Recovery = 97.02%
Fe 238.204 Radial†      556.2      4876.0 µg/L         47.57      4876.0 ppb         47.57   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.52%
K 766.490 Radial†      7464.5      5001.7 µg/L          4.62      5001.7 ppb          4.62   0.09%
   QC value within limits for K 766.490 Radial  Recovery = 100.03%
Mg 279.077 IEC†         532.8      4978.1 µg/L         56.49      4978.1 ppb         56.49   1.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.56%
Mn 257.610†          148359.7      493.08 µg/L        13.185      493.08 ppb        13.185   2.67%
   QC value within limits for Mn 257.610  Recovery = 98.62%
Mo 202.031†            4720.0      488.72 µg/L        42.153      488.72 ppb        42.153   8.63%
   QC value within limits for Mo 202.031  Recovery = 97.74%
Na 589.592 Radial†    32534.4      9889.9 µg/L         55.32      9889.9 ppb         55.32   0.56%
   QC value within limits for Na 589.592 Radial  Recovery = 98.90%
Ni 231.604†            9274.4      485.24 µg/L        23.038      485.24 ppb        23.038   4.75%
   QC value within limits for Ni 231.604  Recovery = 97.05%
P 214.914†             1158.7      2367.5 µg/L        176.36      2367.5 ppb        176.36   7.45%
   QC value within limits for P 214.914  Recovery = 94.70%
Pb 220.353†            1896.6      486.45 µg/L        33.799      486.45 ppb        33.799   6.95%
   QC value within limits for Pb 220.353  Recovery = 97.29%
S 181.975 Axial†        227.7      982.14 µg/L        68.998      982.14 ppb        68.998   7.03%
   QC value within limits for S 181.975 Axial  Recovery = 98.21%
Sb 206.836†             510.6      484.52 µg/L        35.318      484.52 ppb        35.318   7.29%
   QC value within limits for Sb 206.836  Recovery = 96.90%
Se 196.026†             328.4      486.42 µg/L        33.377      486.42 ppb        33.377   6.86%
   QC value within limits for Se 196.026  Recovery = 97.28%
SiO2†                 25397.6      5195.0 µg/L        165.76      5195.0 ppb        165.76   3.19%
   QC value within limits for SiO2  Recovery = 97.15%
Si 251.611†           30715.1      2429.2 µg/L         82.32      2429.2 ppb         82.32   3.39%
   QC value within limits for Si 251.611  Recovery = 97.17%
Sn 189.927†            1093.1      486.58 µg/L        46.579      486.58 ppb        46.579   9.57%
   QC value within limits for Sn 189.927  Recovery = 97.32%
Sr 421.552†           50597.6      489.84 µg/L         2.199      489.84 ppb         2.199   0.45%
   QC value within limits for Sr 421.552  Recovery = 97.97%
Ti 334.940†          215102.4      490.06 µg/L        14.958      490.06 ppb        14.958   3.05%
   QC value within limits for Ti 334.940  Recovery = 98.01%
Tl 190.801†             355.0      496.42 µg/L        23.073      496.42 ppb        23.073   4.65%
   QC value within limits for Tl 190.801  Recovery = 99.28%
U 409.014†             5823.8      475.55 µg/L        23.329      475.55 ppb        23.329   4.91%
   QC value within limits for U 409.014  Recovery = 95.11%
V 292.402†            47938.9      489.49 µg/L        23.552      489.49 ppb        23.552   4.81%
   QC value within limits for V 292.402  Recovery = 97.90%
Zn 213.857†           19987.2      484.75 µg/L        21.616      484.75 ppb        21.616   4.46%
   QC value within limits for Zn 213.857  Recovery = 96.95%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 16:56:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55150.6	55150.6	99.6	%			16:56:43
1	Al 396.153Radial†	-15.0	-31.1	-22.112	µg/L	-22.112	ppb	16:56:43
1	Ca 317.933Radial†	176.2	-38.2	-34.568	µg/L	-34.568	ppb	16:57:03
1	Fe 238.204 Radial†	14.4	-3.3	-28.731	µg/L	-28.731	ppb	16:57:03
1	K 766.490 Radial†	199.1	22.4	14.979	µg/L	14.979	ppb	16:56:43
1	Mg 279.077 IEC†	9.1	-4.6	-43.289	µg/L	-43.289	ppb	16:57:03
1	Na 589.592 Radial†	455.4	78.7	23.917	µg/L	23.917	ppb	16:56:43
1	Sr 421.552†	9.9	-10.1	-0.0978	µg/L	-0.0978	ppb	16:56:43
1	Sc 361.383	1951368.3	1951368.3	100.18	%			16:58:02
1	Y 371.029	1339963.9	1339963.9	100.20	%			16:58:02
1	Ag 328.068†	-504.2	7.0	0.0540	µg/L	0.0540	ppb	16:58:07
1	As 188.979†	-2.2	-3.0	-5.6752	µg/L	-5.6752	ppb	16:58:27
1	B 249.677†	325.5	11.8	0.5122	µg/L	0.5122	ppb	16:58:27
1	Ba 233.527†	-12.5	12.9	0.3275	µg/L	0.3275	ppb	16:58:27
1	Be 313.107†	-3528.4	111.0	0.0687	µg/L	0.0687	ppb	16:58:07
1	Cd 226.502†	-128.7	-5.3	-0.1370	µg/L	-0.1370	ppb	16:58:27
1	Co 228.616†	-12.7	-6.8	-0.3256	µg/L	-0.3256	ppb	16:58:27
1	Cr 267.716†	-26.1	-0.1	-0.0019	µg/L	-0.0019	ppb	16:58:27
1	Cu 324.752†	3233.0	-3.4	-0.0266	µg/L	-0.0266	ppb	16:58:07
1	Mn 257.610†	-152.4	89.9	0.2963	µg/L	0.2963	ppb	16:58:27
1	Mo 202.031†	-1.6	-2.8	-0.2863	µg/L	-0.2863	ppb	16:58:27
1	Ni 231.604†	281.3	0.1	0.0042	µg/L	0.0042	ppb	16:58:27
1	P 214.914†	30.4	2.8	5.7923	µg/L	5.7923	ppb	16:58:27
1	Pb 220.353†	100.1	9.5	2.4353	µg/L	2.4353	ppb	16:58:27
1	S 181.975 Axial†	12.0	-3.1	-13.478	µg/L	-13.478	ppb	16:58:27
1	Sb 206.836†	25.9	4.8	4.5273	µg/L	4.5273	ppb	16:58:27
1	Se 196.026†	10.8	-1.2	-1.7944	µg/L	-1.7944	ppb	16:58:27
1	SiO2†	1478.6	-36.1	-7.3793	µg/L	-7.3793	ppb	16:58:07
1	Si 251.611†	281.4	-4.0	-0.3148	µg/L	-0.3148	ppb	16:58:27
1	Sn 189.927†	4.3	3.5	1.5509	µg/L	1.5509	ppb	16:58:27
1	Ti 334.940†	141.7	-3.4	-0.0048	µg/L	-0.0048	ppb	16:58:07
1	Tl 190.801†	-19.7	0.9	1.3031	µg/L	1.3031	ppb	16:58:27
1	U 409.014†	213.3	-12.4	-1.0106	µg/L	-1.0106	ppb	16:58:07
1	V 292.402†	-0.6	46.7	0.4645	µg/L	0.4645	ppb	16:58:07
1	Zn 213.857†	465.4	-1.4	-0.0298	µg/L	-0.0298	ppb	16:58:27
2	Sc RADIAL	54847.8	54847.8	99.0	%			16:57:08
2	Al 396.153Radial†	-16.7	-32.9	-23.362	µg/L	-23.362	ppb	16:57:08
2	Ca 317.933Radial†	179.8	-33.6	-30.392	µg/L	-30.392	ppb	16:57:28
2	Fe 238.204 Radial†	15.7	-1.9	-16.559	µg/L	-16.559	ppb	16:57:28
2	K 766.490 Radial†	292.8	118.2	79.170	µg/L	79.170	ppb	16:57:08
2	Mg 279.077 IEC†	11.0	-2.7	-24.872	µg/L	-24.872	ppb	16:57:28
2	Na 589.592 Radial†	462.5	88.4	26.876	µg/L	26.876	ppb	16:57:08
2	Sr 421.552†	51.2	31.7	0.3069	µg/L	0.3069	ppb	16:57:08
2	Sc 361.383	1946820.4	1946820.4	99.951	%			16:58:33
2	Y 371.029	1337958.4	1337958.4	100.05	%			16:58:33
2	Ag 328.068†	-529.2	-19.2	-0.1465	µg/L	-0.1465	ppb	16:58:38
2	As 188.979†	-1.2	-2.0	-3.7562	µg/L	-3.7562	ppb	16:58:58
2	B 249.677†	322.9	10.0	0.4273	µg/L	0.4273	ppb	16:58:58
2	Ba 233.527†	-18.2	7.2	0.1823	µg/L	0.1823	ppb	16:58:58
2	Be 313.107†	-3492.1	139.1	0.0861	µg/L	0.0861	ppb	16:58:38
2	Cd 226.502†	-133.1	-9.9	-0.2615	µg/L	-0.2615	ppb	16:58:58
2	Co 228.616†	-9.2	-3.4	-0.1605	µg/L	-0.1605	ppb	16:58:58
2	Cr 267.716†	-28.3	-2.4	-0.0509	µg/L	-0.0509	ppb	16:58:58
2	Cu 324.752†	3166.8	-62.2	-0.4130	µg/L	-0.4130	ppb	16:58:38
2	Mn 257.610†	-162.3	79.6	0.2629	µg/L	0.2629	ppb	16:58:58
2	Mo 202.031†	-0.3	-1.5	-0.1516	µg/L	-0.1516	ppb	16:58:58
2	Ni 231.604†	288.6	8.1	0.4226	µg/L	0.4226	ppb	16:58:58
2	P 214.914†	20.9	-6.6	-13.728	µg/L	-13.728	ppb	16:58:58
2	Pb 220.353†	94.4	4.1	1.0503	µg/L	1.0503	ppb	16:58:58

2	S 181.975 Axial†	16.7	1.6	6.9052 µg/L	6.9052 ppb		16:58:58
2	Sb 206.836†	29.2	8.2	7.7267 µg/L	7.7267 ppb		16:58:58
2	Se 196.026†	15.3	3.4	4.8965 µg/L	4.8965 ppb		16:58:58
2	SiO2†	1472.3	-38.9	-7.9643 µg/L	-7.9643 ppb		16:58:38
2	Si 251.611†	298.8	14.0	1.1095 µg/L	1.1095 ppb		16:58:58
2	Sn 189.927†	2.8	1.9	0.8495 µg/L	0.8495 ppb		16:58:58
2	Ti 334.940†	156.5	11.8	0.0283 µg/L	0.0283 ppb		16:58:38
2	Tl 190.801†	-22.7	-2.1	-2.8952 µg/L	-2.8952 ppb		16:58:58
2	U 409.014†	193.5	-31.8	-2.5986 µg/L	-2.5986 ppb		16:58:38
2	V 292.402†	-56.5	-9.2	-0.0984 µg/L	-0.0984 ppb		16:58:38
2	Zn 213.857†	465.0	-0.7	-0.0162 µg/L	-0.0162 ppb		16:58:58
3	Sc RADIAL	54910.4	54910.4	99.1 %			16:57:34
3	Al 396.153Radial†	-8.1	-24.2	-17.222 µg/L	-17.222 ppb		16:57:34
3	Ca 317.933Radial†	171.4	-42.2	-38.211 µg/L	-38.211 ppb		16:57:54
3	Fe 238.204 Radial†	13.7	-3.9	-34.527 µg/L	-34.527 ppb		16:57:54
3	K 766.490 Radial†	231.3	55.7	37.350 µg/L	37.350 ppb		16:57:34
3	Mg 279.077 IEC†	12.4	-1.2	-11.634 µg/L	-11.634 ppb		16:57:54
3	Na 589.592 Radial†	445.4	70.6	21.459 µg/L	21.459 ppb		16:57:34
3	Sr 421.552†	65.6	46.1	0.4467 µg/L	0.4467 ppb		16:57:34
3	Sc 361.383	1941203.7	1941203.7	99.663 %			16:59:04
3	Y 371.029	1332598.5	1332598.5	99.646 %			16:59:04
3	Ag 328.068†	-515.7	-7.2	-0.0541 µg/L	-0.0541 ppb		16:59:09
3	As 188.979†	-6.4	-7.2	-13.522 µg/L	-13.522 ppb		16:59:30
3	B 249.677†	315.6	3.6	0.1703 µg/L	0.1703 ppb		16:59:30
3	Ba 233.527†	-16.0	9.4	0.2376 µg/L	0.2376 ppb		16:59:30
3	Be 313.107†	-3484.9	136.2	0.0843 µg/L	0.0843 ppb		16:59:09
3	Cd 226.502†	-119.3	3.5	0.0982 µg/L	0.0982 ppb		16:59:30
3	Co 228.616†	-7.0	-1.2	-0.0590 µg/L	-0.0590 ppb		16:59:30
3	Cr 267.716†	-11.4	14.5	0.3059 µg/L	0.3059 ppb		16:59:30
3	Cu 324.752†	3173.3	-46.4	-0.3114 µg/L	-0.3114 ppb		16:59:09
3	Mn 257.610†	-92.4	149.2	0.4913 µg/L	0.4913 ppb		16:59:30
3	Mo 202.031†	1.4	0.3	0.0267 µg/L	0.0267 ppb		16:59:30
3	Ni 231.604†	287.8	8.1	0.4235 µg/L	0.4235 ppb		16:59:30
3	P 214.914†	33.6	6.2	12.988 µg/L	12.988 ppb		16:59:30
3	Pb 220.353†	93.2	3.1	0.7909 µg/L	0.7909 ppb		16:59:30
3	S 181.975 Axial†	13.5	-1.5	-6.5205 µg/L	-6.5205 ppb		16:59:30
3	Sb 206.836†	20.3	-0.7	-0.6937 µg/L	-0.6937 ppb		16:59:30
3	Se 196.026†	14.7	2.8	4.0168 µg/L	4.0168 ppb		16:59:30
3	SiO2†	1510.7	3.8	0.7802 µg/L	0.7802 ppb		16:59:09
3	Si 251.611†	293.9	10.0	0.7884 µg/L	0.7884 ppb		16:59:30
3	Sn 189.927†	-2.6	-3.5	-1.5400 µg/L	-1.5400 ppb		16:59:30
3	Ti 334.940†	158.6	14.3	0.0330 µg/L	0.0330 ppb		16:59:09
3	Tl 190.801†	-19.7	0.8	1.0861 µg/L	1.0861 ppb		16:59:30
3	U 409.014†	249.3	24.8	2.0346 µg/L	2.0346 ppb		16:59:09
3	V 292.402†	-14.6	32.7	0.3286 µg/L	0.3286 ppb		16:59:09
3	Zn 213.857†	471.9	7.6	0.1854 µg/L	0.1854 ppb		16:59:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1946464.1	99.933	%	0.2614				0.26%
Sc RADIAL	54969.6	99.2	%	0.29				0.29%
Y 371.029	1336840.3	99.963	%	0.2847				0.28%
Ag 328.068†	-6.5	-0.0489	µg/L	0.10038	-0.0489	ppb	0.10038	205.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-29.4	-20.898	µg/L	3.2446	-20.898	ppb	3.2446	15.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-7.6512	µg/L	5.17419	-7.6512	ppb	5.17419	67.63%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.5	0.3699	µg/L	0.17807	0.3699	ppb	0.17807	48.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.8	0.2491	µg/L	0.07327	0.2491	ppb	0.07327	29.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	128.8	0.0797	µg/L	0.00957	0.0797	ppb	0.00957	12.02%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-38.0	-34.390	µg/L	3.9125	-34.390	ppb	3.9125	11.38%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.9	-0.1001	µg/L	0.18266	-0.1001	ppb	0.18266	182.51%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.8	-0.1817	µg/L	0.13459	-0.1817	ppb	0.13459	74.07%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.0      0.0844 µg/L       0.19339      0.0844 ppb        0.19339 229.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -37.3     -0.2503 µg/L       0.20029     -0.2503 ppb        0.20029  80.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -3.0     -26.606 µg/L        9.1706     -26.606 ppb         9.1706  34.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          65.4      43.833 µg/L       32.5824      43.833 ppb        32.5824  74.33%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.9     -26.598 µg/L       15.8979     -26.598 ppb        15.8979  59.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               106.2      0.3502 µg/L       0.12335      0.3502 ppb        0.12335  35.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.3     -0.1371 µg/L       0.15698     -0.1371 ppb        0.15698 114.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         79.2      24.084 µg/L        2.7126      24.084 ppb         2.7126  11.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.4      0.2834 µg/L       0.24186      0.2834 ppb        0.24186  85.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.8      1.6840 µg/L      13.82360      1.6840 ppb       13.82360 820.89%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.6      1.4255 µg/L       0.88411      1.4255 ppb        0.88411  62.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.0     -4.3643 µg/L      10.36101     -4.3643 ppb       10.36101 237.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.1      3.8534 µg/L       4.25042      3.8534 ppb        4.25042 110.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7      2.3730 µg/L       3.63573      2.3730 ppb        3.63573 153.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -23.7     -4.8545 µg/L       4.88854     -4.8545 ppb        4.88854 100.70%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 6.7      0.5277 µg/L       0.74708      0.5277 ppb        0.74708 141.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.6      0.2868 µg/L       1.62048      0.2868 ppb        1.62048 565.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.6      0.2186 µg/L       0.28279      0.2186 ppb        0.28279 129.38%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 7.6      0.0188 µg/L       0.02059      0.0188 ppb        0.02059 109.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.1     -0.1687 µg/L       2.36374     -0.1687 ppb        2.36374 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -6.5     -0.5249 µg/L       2.35447     -0.5249 ppb        2.35447 448.58%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 23.4      0.2316 µg/L       0.29374      0.2316 ppb        0.29374 126.85%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 1.8      0.0465 µg/L       0.12051      0.0465 ppb        0.12051 259.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 17:17:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55871.7	55871.7	101	%			17:17:38
1	Al 396.153Radial†	6944.7	6868.8	4869.6	µg/L	4869.6	ppb	17:17:38
1	Ca 317.933Radial†	5580.2	5317.0	4809.1	µg/L	4809.1	ppb	17:17:58
1	Fe 238.204 Radial†	580.3	557.5	4888.4	µg/L	4888.4	ppb	17:17:58
1	K 766.490 Radial†	7644.0	7400.6	4958.9	µg/L	4958.9	ppb	17:17:38
1	Mg 279.077 IEC†	546.6	528.1	4935.0	µg/L	4935.0	ppb	17:17:58
1	Na 589.592 Radial†	33385.2	32719.0	9946.0	µg/L	9946.0	ppb	17:17:38
1	Sr 421.552†	51474.6	51011.3	493.85	µg/L	493.85	ppb	17:17:38
1	Sc 361.383	1949498.9	1949498.9	100.09	%			17:18:58
1	Y 371.029	1331642.4	1331642.4	99.575	%			17:18:58
1	Ag 328.068†	65290.3	65742.8	499.94	µg/L	499.94	ppb	17:19:03
1	As 188.979†	276.1	275.0	517.31	µg/L	517.31	ppb	17:19:23
1	B 249.677†	12004.3	11680.6	489.62	µg/L	489.62	ppb	17:19:03
1	Ba 233.527†	19725.0	19733.0	499.41	µg/L	499.41	ppb	17:19:03
1	Be 313.107†	802002.9	804926.5	497.87	µg/L	497.87	ppb	17:18:58
1	Cd 226.502†	18709.6	18816.2	501.12	µg/L	501.12	ppb	17:19:03
1	Co 228.616†	10583.2	10579.7	503.37	µg/L	503.37	ppb	17:19:03
1	Cr 267.716†	23832.7	23837.5	503.28	µg/L	503.28	ppb	17:19:03
1	Cu 324.752†	78876.1	75575.9	499.86	µg/L	499.86	ppb	17:19:03
1	Mn 257.610†	151490.6	151598.6	503.84	µg/L	503.84	ppb	17:18:58
1	Mo 202.031†	5026.4	5020.8	519.86	µg/L	519.86	ppb	17:19:23
1	Ni 231.604†	9899.0	9609.6	502.77	µg/L	502.77	ppb	17:19:03
1	P 214.914†	1250.9	1222.3	2498.7	µg/L	2498.7	ppb	17:19:23
1	Pb 220.353†	2082.5	1990.3	510.51	µg/L	510.51	ppb	17:19:23
1	S 181.975 Axial†	253.6	238.3	1027.8	µg/L	1027.8	ppb	17:19:23
1	Sb 206.836†	559.2	537.6	510.38	µg/L	510.38	ppb	17:19:23
1	Se 196.026†	352.3	340.0	503.40	µg/L	503.40	ppb	17:19:23
1	SiO2†	27480.0	25943.8	5306.7	µg/L	5306.7	ppb	17:19:03
1	Si 251.611†	31776.1	31463.1	2488.4	µg/L	2488.4	ppb	17:19:03
1	Sn 189.927†	1170.8	1168.9	520.33	µg/L	520.33	ppb	17:19:23
1	Ti 334.940†	220470.7	220130.9	501.53	µg/L	501.53	ppb	17:18:58
1	Tl 190.801†	341.0	361.3	505.25	µg/L	505.25	ppb	17:19:23
1	U 409.014†	6260.2	6029.3	492.36	µg/L	492.36	ppb	17:19:03
1	V 292.402†	49461.1	49464.6	505.18	µg/L	505.18	ppb	17:19:03
1	Zn 213.857†	21079.9	20595.3	499.50	µg/L	499.50	ppb	17:19:03
2	Sc RADIAL	55642.5	55642.5	100	%			17:18:04
2	Al 396.153Radial†	6942.2	6894.8	4888.1	µg/L	4888.1	ppb	17:18:04
2	Ca 317.933Radial†	5562.4	5322.1	4813.7	µg/L	4813.7	ppb	17:18:24
2	Fe 238.204 Radial†	584.7	564.3	4947.7	µg/L	4947.7	ppb	17:18:24
2	K 766.490 Radial†	7670.7	7458.4	4997.6	µg/L	4997.6	ppb	17:18:04
2	Mg 279.077 IEC†	551.9	535.6	5004.8	µg/L	5004.8	ppb	17:18:24
2	Na 589.592 Radial†	33228.1	32699.0	9940.0	µg/L	9940.0	ppb	17:18:04
2	Sr 421.552†	51236.2	50984.2	493.58	µg/L	493.58	ppb	17:18:04
2	Sc 361.383	1942262.5	1942262.5	99.717	%			17:19:30
2	Y 371.029	1326664.7	1326664.7	99.202	%			17:19:30
2	Ag 328.068†	65379.7	66075.6	502.47	µg/L	502.47	ppb	17:19:36
2	As 188.979†	279.0	279.0	524.73	µg/L	524.73	ppb	17:19:56
2	B 249.677†	11959.5	11680.3	489.58	µg/L	489.58	ppb	17:19:36
2	Ba 233.527†	19767.7	19849.2	502.35	µg/L	502.35	ppb	17:19:36
2	Be 313.107†	800609.3	806514.4	498.85	µg/L	498.85	ppb	17:19:30
2	Cd 226.502†	18668.5	18844.7	501.87	µg/L	501.87	ppb	17:19:36
2	Co 228.616†	10594.1	10630.0	505.76	µg/L	505.76	ppb	17:19:36
2	Cr 267.716†	23825.3	23918.8	504.99	µg/L	504.99	ppb	17:19:36
2	Cu 324.752†	78777.7	75770.8	501.15	µg/L	501.15	ppb	17:19:36
2	Mn 257.610†	151300.0	151971.3	505.08	µg/L	505.08	ppb	17:19:30
2	Mo 202.031†	4957.9	4970.9	514.70	µg/L	514.70	ppb	17:19:56
2	Ni 231.604†	9874.4	9621.7	503.41	µg/L	503.41	ppb	17:19:36
2	P 214.914†	1251.6	1227.6	2509.7	µg/L	2509.7	ppb	17:19:56
2	Pb 220.353†	2067.4	1982.9	508.59	µg/L	508.59	ppb	17:19:56

2	S 181.975 Axial†	248.7	234.3	1010.7 µg/L	1010.7 ppb	17:19:56
2	Sb 206.836†	554.3	534.8	507.58 µg/L	507.58 ppb	17:19:56
2	Se 196.026†	359.0	348.1	515.34 µg/L	515.34 ppb	17:19:56
2	SiO2†	27549.6	26115.8	5341.9 µg/L	5341.9 ppb	17:19:36
2	Si 251.611†	31774.8	31580.1	2497.7 µg/L	2497.7 ppb	17:19:36
2	Sn 189.927†	1164.5	1167.0	519.47 µg/L	519.47 ppb	17:19:56
2	Ti 334.940†	219953.7	220433.2	502.22 µg/L	502.22 ppb	17:19:30
2	Tl 190.801†	349.8	371.4	519.24 µg/L	519.24 ppb	17:19:56
2	U 409.014†	6332.9	6125.5	500.23 µg/L	500.23 ppb	17:19:36
2	V 292.402†	49522.8	49710.7	507.64 µg/L	507.64 ppb	17:19:36
2	Zn 213.857†	21132.2	20726.2	502.69 µg/L	502.69 ppb	17:19:36
3	Sc RADIAL	55710.0	55710.0	101 %		17:18:29
3	Al 396.153Radial†	6887.4	6831.9	4845.1 µg/L	4845.1 ppb	17:18:29
3	Ca 317.933Radial†	5554.9	5307.8	4800.8 µg/L	4800.8 ppb	17:18:49
3	Fe 238.204 Radial†	578.1	557.0	4882.8 µg/L	4882.8 ppb	17:18:49
3	K 766.490 Radial†	7568.9	7347.9	4923.6 µg/L	4923.6 ppb	17:18:29
3	Mg 279.077 IEC†	547.8	530.9	4959.0 µg/L	4959.0 ppb	17:18:49
3	Na 589.592 Radial†	33011.0	32442.9	9862.1 µg/L	9862.1 ppb	17:18:29
3	Sr 421.552†	50843.8	50532.2	489.21 µg/L	489.21 ppb	17:18:29
3	Sc 361.383	1947222.2	1947222.2	99.972 %		17:20:03
3	Y 371.029	1330992.4	1330992.4	99.526 %		17:20:03
3	Ag 328.068†	61815.5	62343.3	473.98 µg/L	473.98 ppb	17:20:08
3	As 188.979†	232.9	232.1	436.60 µg/L	436.60 ppb	17:20:28
3	B 249.677†	11319.8	11009.9	461.32 µg/L	461.32 ppb	17:20:08
3	Ba 233.527†	18229.3	18259.9	462.12 µg/L	462.12 ppb	17:20:08
3	Be 313.107†	753522.8	757369.5	468.45 µg/L	468.45 ppb	17:20:03
3	Cd 226.502†	17186.5	17314.6	461.08 µg/L	461.08 ppb	17:20:08
3	Co 228.616†	9665.9	9674.5	460.24 µg/L	460.24 ppb	17:20:08
3	Cr 267.716†	21286.2	21318.2	450.09 µg/L	450.09 ppb	17:20:08
3	Cu 324.752†	72367.4	69157.4	457.46 µg/L	457.46 ppb	17:20:08
3	Mn 257.610†	142711.8	142994.2	475.27 µg/L	475.27 ppb	17:20:03
3	Mo 202.031†	4191.7	4191.8	434.05 µg/L	434.05 ppb	17:20:28
3	Ni 231.604†	9031.3	8753.1	457.97 µg/L	457.97 ppb	17:20:08
3	P 214.914†	1076.3	1049.1	2141.1 µg/L	2141.1 ppb	17:20:28
3	Pb 220.353†	1818.3	1728.4	443.25 µg/L	443.25 ppb	17:20:28
3	S 181.975 Axial†	224.4	209.4	903.06 µg/L	903.06 ppb	17:20:28
3	Sb 206.836†	486.3	465.4	441.29 µg/L	441.29 ppb	17:20:28
3	Se 196.026†	323.0	311.1	461.22 µg/L	461.22 ppb	17:20:28
3	SiO2†	25826.5	24321.9	4974.9 µg/L	4974.9 ppb	17:20:08
3	Si 251.611†	29676.3	29399.9	2325.2 µg/L	2325.2 ppb	17:20:08
3	Sn 189.927†	976.0	975.4	434.21 µg/L	434.21 ppb	17:20:28
3	Ti 334.940†	206656.2	206570.1	470.61 µg/L	470.61 ppb	17:20:03
3	Tl 190.801†	310.0	330.6	462.62 µg/L	462.62 ppb	17:20:28
3	U 409.014†	5662.3	5438.6	444.03 µg/L	444.03 ppb	17:20:08
3	V 292.402†	44999.8	45059.9	459.92 µg/L	459.92 ppb	17:20:08
3	Zn 213.857†	19360.2	18899.8	458.35 µg/L	458.35 ppb	17:20:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1946327.9	99.926	%	0.1900				0.19%
Sc RADIAL	55741.4	101	%	0.2				0.21%
Y 371.029	1329766.5	99.434	%	0.2023				0.20%
Ag 328.068†	64720.6	492.13	µg/L	15.769	492.13	ppb	15.769	3.20%
QC value within limits for Ag 328.068 Recovery = 98.43%								
Al 396.153Radial†	6865.2	4867.6	µg/L	21.57	4867.6	ppb	21.57	0.44%
QC value within limits for Al 396.153Radial Recovery = 97.35%								
As 188.979†	262.0	492.88	µg/L	48.878	492.88	ppb	48.878	9.92%
QC value within limits for As 188.979 Recovery = 98.58%								
B 249.677†	11457.0	480.17	µg/L	16.325	480.17	ppb	16.325	3.40%
QC value within limits for B 249.677 Recovery = 96.03%								
Ba 233.527†	19280.7	487.96	µg/L	22.429	487.96	ppb	22.429	4.60%
QC value within limits for Ba 233.527 Recovery = 97.59%								
Be 313.107†	789603.5	488.39	µg/L	17.273	488.39	ppb	17.273	3.54%
QC value within limits for Be 313.107 Recovery = 97.68%								
Ca 317.933Radial†	5315.6	4807.9	µg/L	6.52	4807.9	ppb	6.52	0.14%
QC value within limits for Ca 317.933Radial Recovery = 96.16%								
Cd 226.502†	18325.2	488.02	µg/L	23.337	488.02	ppb	23.337	4.78%
QC value within limits for Cd 226.502 Recovery = 97.60%								
Co 228.616†	10294.7	489.79	µg/L	25.619	489.79	ppb	25.619	5.23%

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   QC value within limits for Co 228.616  Recovery = 97.96%
Cr 267.716†            23024.8      486.12 µg/L        31.214      486.12 ppb         31.214   6.42%
   QC value within limits for Cr 267.716  Recovery = 97.22%
Cu 324.752†            73501.3      486.16 µg/L        24.859      486.16 ppb         24.859   5.11%
   QC value within limits for Cu 324.752  Recovery = 97.23%
Fe 238.204 Radial†       559.6      4906.3 µg/L         35.97      4906.3 ppb          35.97   0.73%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.13%
K 766.490 Radial†       7402.3      4960.0 µg/L         37.02      4960.0 ppb          37.02   0.75%
   QC value within limits for K 766.490 Radial  Recovery = 99.20%
Mg 279.077 IEC†          531.5      4966.3 µg/L         35.43      4966.3 ppb          35.43   0.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.33%
Mn 257.610†           148854.7      494.73 µg/L        16.867      494.73 ppb         16.867   3.41%
   QC value within limits for Mn 257.610  Recovery = 98.95%
Mo 202.031†             4727.8      489.54 µg/L        48.120      489.54 ppb         48.120   9.83%
   QC value within limits for Mo 202.031  Recovery = 97.91%
Na 589.592 Radial†     32620.3      9916.0 µg/L         46.79      9916.0 ppb          46.79   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 99.16%
Ni 231.604†             9328.1      488.05 µg/L        26.054      488.05 ppb         26.054   5.34%
   QC value within limits for Ni 231.604  Recovery = 97.61%
P 214.914†              1166.3      2383.2 µg/L        209.71      2383.2 ppb         209.71   8.80%
   QC value within limits for P 214.914  Recovery = 95.33%
Pb 220.353†             1900.5      487.45 µg/L        38.289      487.45 ppb         38.289   7.85%
   QC value within limits for Pb 220.353  Recovery = 97.49%
S 181.975 Axial†         227.3      980.53 µg/L        67.633      980.53 ppb         67.633   6.90%
   QC value within limits for S 181.975 Axial  Recovery = 98.05%
Sb 206.836†              512.6      486.42 µg/L        39.105      486.42 ppb         39.105   8.04%
   QC value within limits for Sb 206.836  Recovery = 97.28%
Se 196.026†              333.1      493.32 µg/L        28.433      493.32 ppb         28.433   5.76%
   QC value within limits for Se 196.026  Recovery = 98.66%
SiO2†                  25460.5      5207.8 µg/L        202.46      5207.8 ppb         202.46   3.89%
   QC value within limits for SiO2  Recovery = 97.39%
Si 251.611†            30814.3      2437.1 µg/L         96.99      2437.1 ppb          96.99   3.98%
   QC value within limits for Si 251.611  Recovery = 97.48%
Sn 189.927†             1103.8      491.34 µg/L        49.477      491.34 ppb         49.477  10.07%
   QC value within limits for Sn 189.927  Recovery = 98.27%
Sr 421.552†            50842.6      492.21 µg/L         2.605      492.21 ppb          2.605   0.53%
   QC value within limits for Sr 421.552  Recovery = 98.44%
Ti 334.940†           215711.4      491.45 µg/L        18.051      491.45 ppb         18.051   3.67%
   QC value within limits for Ti 334.940  Recovery = 98.29%
Tl 190.801†              354.4      495.70 µg/L        29.491      495.70 ppb         29.491   5.95%
   QC value within limits for Tl 190.801  Recovery = 99.14%
U 409.014†              5864.5      478.87 µg/L        30.432      478.87 ppb         30.432   6.35%
   QC value within limits for U 409.014  Recovery = 95.77%
V 292.402†             48078.4      490.91 µg/L        26.872      490.91 ppb         26.872   5.47%
   QC value within limits for V 292.402  Recovery = 98.18%
Zn 213.857†            20073.8      486.85 µg/L        24.728      486.85 ppb         24.728   5.08%
   QC value within limits for Zn 213.857  Recovery = 97.37%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 17:20:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55190.7	55190.7	99.6	%			17:21:08
1	Al 396.153Radial†	-10.3	-26.3	-18.712	µg/L	-18.712	ppb	17:21:08
1	Ca 317.933Radial†	178.1	-36.4	-32.904	µg/L	-32.904	ppb	17:21:28
1	Fe 238.204 Radial†	16.5	-1.2	-10.635	µg/L	-10.635	ppb	17:21:28
1	K 766.490 Radial†	194.6	17.7	11.861	µg/L	11.861	ppb	17:21:08
1	Mg 279.077 IEC†	13.7	0.0	0.4852	µg/L	0.4852	ppb	17:21:28
1	Na 589.592 Radial†	458.4	81.4	24.729	µg/L	24.729	ppb	17:21:08
1	Sr 421.552†	59.6	39.8	0.3856	µg/L	0.3856	ppb	17:21:08
1	Sc 361.383	1926616.9	1926616.9	98.914	%			17:22:27
1	Y 371.029	1320673.7	1320673.7	98.754	%			17:22:27
1	Ag 328.068†	-495.0	9.9	0.0740	µg/L	0.0740	ppb	17:22:32
1	As 188.979†	-3.7	-4.6	-8.6118	µg/L	-8.6118	ppb	17:22:52
1	B 249.677†	308.1	-1.6	-0.0628	µg/L	-0.0628	ppb	17:22:52
1	Ba 233.527†	-19.2	6.0	0.1516	µg/L	0.1516	ppb	17:22:52
1	Be 313.107†	-3865.5	-275.1	-0.1703	µg/L	-0.1703	ppb	17:22:32
1	Cd 226.502†	-128.1	-6.3	-0.1658	µg/L	-0.1658	ppb	17:22:52
1	Co 228.616†	-17.6	-12.0	-0.5700	µg/L	-0.5700	ppb	17:22:52
1	Cr 267.716†	-19.1	6.6	0.1396	µg/L	0.1396	ppb	17:22:52
1	Cu 324.752†	3251.7	57.0	0.3747	µg/L	0.3747	ppb	17:22:32
1	Mn 257.610†	-216.7	22.9	0.0745	µg/L	0.0745	ppb	17:22:52
1	Mo 202.031†	6.8	5.8	0.5973	µg/L	0.5973	ppb	17:22:52
1	Ni 231.604†	285.0	7.4	0.3906	µg/L	0.3906	ppb	17:22:52
1	P 214.914†	24.6	-2.7	-5.6909	µg/L	-5.6909	ppb	17:22:52
1	Pb 220.353†	98.0	8.6	2.2155	µg/L	2.2155	ppb	17:22:52
1	S 181.975 Axial†	13.9	-1.0	-4.4343	µg/L	-4.4343	ppb	17:22:52
1	Sb 206.836†	23.6	2.8	2.6329	µg/L	2.6329	ppb	17:22:52
1	Se 196.026†	9.9	-1.9	-2.8603	µg/L	-2.8603	ppb	17:22:52
1	SiO2†	1514.0	18.7	3.8217	µg/L	3.8217	ppb	17:22:32
1	Si 251.611†	267.7	-14.2	-1.1243	µg/L	-1.1243	ppb	17:22:52
1	Sn 189.927†	1.6	0.7	0.3281	µg/L	0.3281	ppb	17:22:52
1	Ti 334.940†	195.4	52.8	0.1197	µg/L	0.1197	ppb	17:22:32
1	Tl 190.801†	-23.1	-2.8	-3.8117	µg/L	-3.8117	ppb	17:22:52
1	U 409.014†	240.3	17.6	1.4450	µg/L	1.4450	ppb	17:22:32
1	V 292.402†	-47.4	-0.6	-0.0011	µg/L	-0.0011	ppb	17:22:32
1	Zn 213.857†	453.8	-7.2	-0.1768	µg/L	-0.1768	ppb	17:22:52
2	Sc RADIAL	55400.6	55400.6	100	%			17:21:33
2	Al 396.153Radial†	-24.8	-40.8	-28.994	µg/L	-28.994	ppb	17:21:33
2	Ca 317.933Radial†	173.7	-41.5	-37.507	µg/L	-37.507	ppb	17:21:53
2	Fe 238.204 Radial†	14.9	-2.9	-25.694	µg/L	-25.694	ppb	17:21:53
2	K 766.490 Radial†	223.1	45.5	30.476	µg/L	30.476	ppb	17:21:33
2	Mg 279.077 IEC†	10.6	-3.1	-29.040	µg/L	-29.040	ppb	17:21:53
2	Na 589.592 Radial†	420.2	41.5	12.603	µg/L	12.603	ppb	17:21:33
2	Sr 421.552†	44.2	24.1	0.2337	µg/L	0.2337	ppb	17:21:33
2	Sc 361.383	1933237.7	1933237.7	99.254	%			17:22:58
2	Y 371.029	1326353.0	1326353.0	99.179	%			17:22:58
2	Ag 328.068†	-540.7	-34.5	-0.2639	µg/L	-0.2639	ppb	17:23:03
2	As 188.979†	-2.2	-3.0	-5.6762	µg/L	-5.6762	ppb	17:23:23
2	B 249.677†	311.5	0.8	0.0473	µg/L	0.0473	ppb	17:23:23
2	Ba 233.527†	-20.5	4.8	0.1199	µg/L	0.1199	ppb	17:23:23
2	Be 313.107†	-3860.0	-256.2	-0.1585	µg/L	-0.1585	ppb	17:23:03
2	Cd 226.502†	-126.4	-4.1	-0.1063	µg/L	-0.1063	ppb	17:23:23
2	Co 228.616†	-22.4	-16.7	-0.7972	µg/L	-0.7972	ppb	17:23:23
2	Cr 267.716†	-15.5	10.3	0.2169	µg/L	0.2169	ppb	17:23:23
2	Cu 324.752†	3292.3	86.6	0.5682	µg/L	0.5682	ppb	17:23:03
2	Mn 257.610†	-209.9	30.5	0.0990	µg/L	0.0990	ppb	17:23:23
2	Mo 202.031†	1.2	0.0	0.0036	µg/L	0.0036	ppb	17:23:23
2	Ni 231.604†	282.4	3.8	0.1972	µg/L	0.1972	ppb	17:23:23
2	P 214.914†	30.9	3.6	7.4850	µg/L	7.4850	ppb	17:23:23
2	Pb 220.353†	98.8	9.2	2.3425	µg/L	2.3425	ppb	17:23:23

2	S 181.975 Axial†	18.0	3.1	13.224 µg/L	13.224 ppb	17:23:23
2	Sb 206.836†	19.6	-1.3	-1.2633 µg/L	-1.2633 ppb	17:23:23
2	Se 196.026†	7.7	-4.2	-6.1512 µg/L	-6.1512 ppb	17:23:23
2	SiO2†	1498.7	-2.0	-0.4039 µg/L	-0.4039 ppb	17:23:03
2	Si 251.611†	282.4	-0.4	-0.0298 µg/L	-0.0298 ppb	17:23:23
2	Sn 189.927†	-3.6	-4.4	-1.9709 µg/L	-1.9709 ppb	17:23:23
2	Ti 334.940†	147.2	3.5	0.0096 µg/L	0.0096 ppb	17:23:03
2	Tl 190.801†	-18.3	2.2	3.0317 µg/L	3.0317 ppb	17:23:23
2	U 409.014†	273.8	50.5	4.1341 µg/L	4.1341 ppb	17:23:03
2	V 292.402†	-71.5	-24.7	-0.2477 µg/L	-0.2477 ppb	17:23:03
2	Zn 213.857†	458.8	-3.6	-0.0875 µg/L	-0.0875 ppb	17:23:23
3	Sc RADIAL	54927.3	54927.3	99.2 %		17:21:59
3	Al 396.153Radial†	-26.0	-42.2	-29.977 µg/L	-29.977 ppb	17:21:59
3	Ca 317.933Radial†	173.6	-40.1	-36.257 µg/L	-36.257 ppb	17:22:19
3	Fe 238.204 Radial†	16.0	-1.7	-14.841 µg/L	-14.841 ppb	17:22:19
3	K 766.490 Radial†	231.0	55.3	37.085 µg/L	37.085 ppb	17:21:59
3	Mg 279.077 IEC†	7.8	-5.9	-55.017 µg/L	-55.017 ppb	17:22:19
3	Na 589.592 Radial†	428.9	53.8	16.342 µg/L	16.342 ppb	17:21:59
3	Sr 421.552†	39.8	20.1	0.1944 µg/L	0.1944 ppb	17:21:59
3	Sc 361.383	1912734.3	1912734.3	98.201 %		17:23:29
3	Y 371.029	1312201.5	1312201.5	98.121 %		17:23:29
3	Ag 328.068†	-500.9	0.2	-0.0010 µg/L	-0.0010 ppb	17:23:34
3	As 188.979†	-6.8	-7.7	-14.535 µg/L	-14.535 ppb	17:23:55
3	B 249.677†	311.8	4.5	0.1954 µg/L	0.1954 ppb	17:23:55
3	Ba 233.527†	-20.5	4.5	0.1129 µg/L	0.1129 ppb	17:23:55
3	Be 313.107†	-3564.8	2.8	0.0017 µg/L	0.0017 ppb	17:23:34
3	Cd 226.502†	-135.0	-14.2	-0.3770 µg/L	-0.3770 ppb	17:23:55
3	Co 228.616†	-13.2	-7.6	-0.3625 µg/L	-0.3625 ppb	17:23:55
3	Cr 267.716†	-15.6	10.0	0.2107 µg/L	0.2107 ppb	17:23:55
3	Cu 324.752†	3281.7	111.3	0.7333 µg/L	0.7333 ppb	17:23:34
3	Mn 257.610†	-201.8	36.5	0.1214 µg/L	0.1214 ppb	17:23:55
3	Mo 202.031†	-1.2	-2.4	-0.2459 µg/L	-0.2459 ppb	17:23:55
3	Ni 231.604†	285.0	9.5	0.4964 µg/L	0.4964 ppb	17:23:55
3	P 214.914†	24.9	-2.2	-4.7087 µg/L	-4.7087 ppb	17:23:55
3	Pb 220.353†	93.1	4.4	1.1198 µg/L	1.1198 ppb	17:23:55
3	S 181.975 Axial†	10.3	-4.6	-19.746 µg/L	-19.746 ppb	17:23:55
3	Sb 206.836†	24.7	4.1	3.8923 µg/L	3.8923 ppb	17:23:55
3	Se 196.026†	11.3	-0.4	-0.5681 µg/L	-0.5681 ppb	17:23:55
3	SiO2†	1507.8	23.5	4.8044 µg/L	4.8044 ppb	17:23:34
3	Si 251.611†	286.7	7.1	0.5587 µg/L	0.5587 ppb	17:23:55
3	Sn 189.927†	-0.7	-1.6	-0.7067 µg/L	-0.7067 ppb	17:23:55
3	Ti 334.940†	191.1	49.8	0.1172 µg/L	0.1172 ppb	17:23:34
3	Tl 190.801†	-20.4	-0.1	-0.1950 µg/L	-0.1950 ppb	17:23:55
3	U 409.014†	246.7	25.9	2.1209 µg/L	2.1209 ppb	17:23:34
3	V 292.402†	-68.7	-22.6	-0.2294 µg/L	-0.2294 ppb	17:23:34
3	Zn 213.857†	459.1	1.6	0.0394 µg/L	0.0394 ppb	17:23:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1924196.3	98.789	%	0.5372				0.54%
Sc RADIAL	55172.8	99.6	%	0.43				0.43%
Y 371.029	1319742.7	98.685	%	0.5325				0.54%
Ag 328.068†	-8.1	-0.0636	µg/L	0.17742	-0.0636	ppb	0.17742	278.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-36.4	-25.894	µg/L	6.2396	-25.894	ppb	6.2396	24.10%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.1	-9.6076	µg/L	4.51250	-9.6076	ppb	4.51250	46.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1.2	0.0600	µg/L	0.12958	0.0600	ppb	0.12958	216.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.1	0.1281	µg/L	0.02065	0.1281	ppb	0.02065	16.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-176.2	-0.1090	µg/L	0.09606	-0.1090	ppb	0.09606	88.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-39.3	-35.556	µg/L	2.3799	-35.556	ppb	2.3799	6.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-8.2	-0.2163	µg/L	0.14226	-0.2163	ppb	0.14226	65.76%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-12.1	-0.5765	µg/L	0.21746	-0.5765	ppb	0.21746	37.72%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.1891 µg/L       0.04292      0.1891 ppb        0.04292  22.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                84.9      0.5587 µg/L       0.17945      0.5587 ppb        0.17945  32.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.9     -17.057 µg/L        7.7699     -17.057 ppb         7.7699  45.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         39.5      26.474 µg/L       13.0798      26.474 ppb        13.0798  49.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.0     -27.857 µg/L       27.7701     -27.857 ppb        27.7701  99.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               29.9      0.0983 µg/L       0.02347      0.0983 ppb        0.02347  23.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.1      0.1184 µg/L       0.43316      0.1184 ppb        0.43316 365.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        58.9      17.891 µg/L        6.2098      17.891 ppb         6.2098  34.71%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                6.9      0.3614 µg/L       0.15173      0.3614 ppb        0.15173  41.98%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.4     -0.9716 µg/L       7.34005     -0.9716 ppb        7.34005 755.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                7.4      1.8926 µg/L       0.67227      1.8926 ppb        0.67227  35.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.8     -3.6521 µg/L      16.49872     -3.6521 ppb       16.49872 451.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.9      1.7540 µg/L       2.68781      1.7540 ppb        2.68781 153.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.2     -3.1932 µg/L       2.80641     -3.1932 ppb        2.80641  87.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     13.4      2.7407 µg/L       2.76733      2.7407 ppb        2.76733 100.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -2.5     -0.1984 µg/L       0.85411     -0.1984 ppb        0.85411 430.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.8     -0.7832 µg/L       1.15141     -0.7832 ppb        1.15141 147.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               28.0      0.2713 µg/L       0.10099      0.2713 ppb        0.10099  37.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               35.3      0.0822 µg/L       0.06285      0.0822 ppb        0.06285  76.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.2     -0.3250 µg/L       3.42359     -0.3250 ppb        3.42359 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                31.3      2.5667 µg/L       1.39887      2.5667 ppb        1.39887  54.50%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -16.0     -0.1594 µg/L       0.13738     -0.1594 ppb        0.13738  86.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -3.1     -0.0750 µg/L       0.10863     -0.0750 ppb        0.10863 144.92%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 17:45:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54731.1	54731.1	98.8	%			17:45:44
1	Al 396.153Radial†	7118.5	7188.2	5096.1	µg/L	5096.1	ppb	17:45:44
1	Ca 317.933Radial†	5616.5	5469.0	4946.6	µg/L	4946.6	ppb	17:46:05
1	Fe 238.204 Radial†	591.2	580.6	5090.4	µg/L	5090.4	ppb	17:46:05
1	K 766.490 Radial†	7747.5	7663.3	5134.9	µg/L	5134.9	ppb	17:45:44
1	Mg 279.077 IEC†	559.9	552.9	5166.7	µg/L	5166.7	ppb	17:46:05
1	Na 589.592 Radial†	33904.4	33934.2	10315	µg/L	10315	ppb	17:45:44
1	Sr 421.552†	52070.7	52678.0	509.98	µg/L	509.98	ppb	17:45:44
1	Sc 361.383	1901853.1	1901853.1	97.642	%			17:47:09
1	Y 371.029	1299463.7	1299463.7	97.168	%			17:47:09
1	Ag 328.068†	66197.4	68306.0	519.44	µg/L	519.44	ppb	17:47:14
1	As 188.979†	276.2	282.1	530.56	µg/L	530.56	ppb	17:47:35
1	B 249.677†	12134.6	12114.6	507.80	µg/L	507.80	ppb	17:47:14
1	Ba 233.527†	19948.6	20455.7	517.71	µg/L	517.71	ppb	17:47:14
1	Be 313.107†	807762.9	830899.9	513.93	µg/L	513.93	ppb	17:47:09
1	Cd 226.502†	18824.4	19402.1	516.72	µg/L	516.72	ppb	17:47:14
1	Co 228.616†	10677.0	10940.6	520.54	µg/L	520.54	ppb	17:47:14
1	Cr 267.716†	24182.8	24792.6	523.44	µg/L	523.44	ppb	17:47:14
1	Cu 324.752†	79985.1	78685.9	520.43	µg/L	520.43	ppb	17:47:14
1	Mn 257.610†	152703.7	156632.8	520.57	µg/L	520.57	ppb	17:47:09
1	Mo 202.031†	5087.7	5209.5	539.40	µg/L	539.40	ppb	17:47:35
1	Ni 231.604†	10003.2	9964.0	521.32	µg/L	521.32	ppb	17:47:14
1	P 214.914†	1263.3	1266.3	2588.4	µg/L	2588.4	ppb	17:47:35
1	Pb 220.353†	2132.2	2093.3	536.93	µg/L	536.93	ppb	17:47:35
1	S 181.975 Axial†	256.2	247.3	1066.7	µg/L	1066.7	ppb	17:47:35
1	Sb 206.836†	562.8	555.3	527.16	µg/L	527.16	ppb	17:47:35
1	Se 196.026†	365.7	362.6	536.69	µg/L	536.69	ppb	17:47:35
1	SiO2†	27890.1	27051.6	5533.3	µg/L	5533.3	ppb	17:47:14
1	Si 251.611†	32149.9	32641.3	2581.6	µg/L	2581.6	ppb	17:47:14
1	Sn 189.927†	1186.6	1214.4	540.57	µg/L	540.57	ppb	17:47:35
1	Ti 334.940†	222264.8	227486.7	518.29	µg/L	518.29	ppb	17:47:09
1	Tl 190.801†	348.3	377.3	527.67	µg/L	527.67	ppb	17:47:35
1	U 409.014†	6309.3	6236.2	509.26	µg/L	509.26	ppb	17:47:14
1	V 292.402†	50182.9	51441.9	525.36	µg/L	525.36	ppb	17:47:14
1	Zn 213.857†	21302.4	21350.9	517.82	µg/L	517.82	ppb	17:47:14
2	Sc RADIAL	54885.2	54885.2	99.1	%			17:46:10
2	Al 396.153Radial†	7144.7	7194.5	5100.9	µg/L	5100.9	ppb	17:46:10
2	Ca 317.933Radial†	5627.5	5464.1	4942.2	µg/L	4942.2	ppb	17:46:31
2	Fe 238.204 Radial†	587.7	575.3	5044.6	µg/L	5044.6	ppb	17:46:31
2	K 766.490 Radial†	7815.9	7710.3	5166.4	µg/L	5166.4	ppb	17:46:10
2	Mg 279.077 IEC†	553.2	544.6	5088.2	µg/L	5088.2	ppb	17:46:31
2	Na 589.592 Radial†	34121.1	34056.5	10353	µg/L	10353	ppb	17:46:10
2	Sr 421.552†	52506.4	52969.8	512.81	µg/L	512.81	ppb	17:46:10
2	Sc 361.383	1911679.4	1911679.4	98.147	%			17:47:42
2	Y 371.029	1307007.8	1307007.8	97.733	%			17:47:42
2	Ag 328.068†	66312.4	68074.8	517.68	µg/L	517.68	ppb	17:47:47
2	As 188.979†	274.8	279.2	525.07	µg/L	525.07	ppb	17:48:08
2	B 249.677†	12185.6	12102.6	507.31	µg/L	507.31	ppb	17:47:47
2	Ba 233.527†	20036.8	20440.5	517.32	µg/L	517.32	ppb	17:47:47
2	Be 313.107†	815092.4	834115.4	515.92	µg/L	515.92	ppb	17:47:42
2	Cd 226.502†	18888.4	19368.3	515.82	µg/L	515.82	ppb	17:47:47
2	Co 228.616†	10708.2	10916.2	519.36	µg/L	519.36	ppb	17:47:47
2	Cr 267.716†	24213.8	24696.9	521.42	µg/L	521.42	ppb	17:47:47
2	Cu 324.752†	80112.8	78394.9	518.50	µg/L	518.50	ppb	17:47:47
2	Mn 257.610†	153769.6	156914.9	521.51	µg/L	521.51	ppb	17:47:42
2	Mo 202.031†	4975.1	5067.9	524.74	µg/L	524.74	ppb	17:48:08
2	Ni 231.604†	10050.0	9959.1	521.06	µg/L	521.06	ppb	17:47:47
2	P 214.914†	1251.4	1247.5	2549.4	µg/L	2549.4	ppb	17:48:08
2	Pb 220.353†	2107.3	2056.7	527.52	µg/L	527.52	ppb	17:48:08

2	S 181.975 Axial†	251.2	240.9	1038.9 µg/L	1038.9 ppb	17:48:08
2	Sb 206.836†	550.1	539.4	511.91 µg/L	511.91 ppb	17:48:08
2	Se 196.026†	356.5	351.3	520.16 µg/L	520.16 ppb	17:48:08
2	SiO2†	27958.3	26974.2	5517.5 µg/L	5517.5 ppb	17:47:47
2	Si 251.611†	32250.1	32574.2	2576.3 µg/L	2576.3 ppb	17:47:47
2	Sn 189.927†	1153.2	1174.2	522.67 µg/L	522.67 ppb	17:48:08
2	Ti 334.940†	224177.5	228265.5	520.07 µg/L	520.07 ppb	17:47:42
2	Tl 190.801†	347.3	374.4	523.67 µg/L	523.67 ppb	17:48:08
2	U 409.014†	6356.1	6250.8	510.45 µg/L	510.45 ppb	17:47:47
2	V 292.402†	50296.2	51293.2	523.74 µg/L	523.74 ppb	17:47:47
2	Zn 213.857†	21369.1	21306.6	516.75 µg/L	516.75 ppb	17:47:47
3	Sc RADIAL	55111.9	55111.9	99.5 %		17:46:36
3	Al 396.153Radial†	7055.6	7075.2	5018.2 µg/L	5018.2 ppb	17:46:36
3	Ca 317.933Radial†	5627.7	5441.0	4921.2 µg/L	4921.2 ppb	17:46:57
3	Fe 238.204 Radial†	582.6	567.8	4977.1 µg/L	4977.1 ppb	17:46:57
3	K 766.490 Radial†	7720.3	7581.7	5080.2 µg/L	5080.2 ppb	17:46:36
3	Mg 279.077 IEC†	564.8	553.9	5173.8 µg/L	5173.8 ppb	17:46:57
3	Na 589.592 Radial†	33693.8	33485.4	10179 µg/L	10179 ppb	17:46:36
3	Sr 421.552†	51803.2	52045.0	503.85 µg/L	503.85 ppb	17:46:36
3	Sc 361.383	1931682.7	1931682.7	99.174 %		17:48:15
3	Y 371.029	1322015.7	1322015.7	98.855 %		17:48:15
3	Ag 328.068†	61854.7	62880.3	478.03 µg/L	478.03 ppb	17:48:21
3	As 188.979†	223.1	224.1	421.52 µg/L	421.52 ppb	17:48:41
3	B 249.677†	11245.1	11025.7	461.93 µg/L	461.93 ppb	17:48:21
3	Ba 233.527†	18029.6	18205.2	460.73 µg/L	460.73 ppb	17:48:21
3	Be 313.107†	740298.0	750098.1	463.96 µg/L	463.96 ppb	17:48:15
3	Cd 226.502†	16930.7	17195.0	457.88 µg/L	457.88 ppb	17:48:21
3	Co 228.616†	9537.2	9622.5	457.77 µg/L	457.77 ppb	17:48:21
3	Cr 267.716†	20876.6	21076.4	444.99 µg/L	444.99 ppb	17:48:21
3	Cu 324.752†	71713.0	69079.9	456.97 µg/L	456.97 ppb	17:48:21
3	Mn 257.610†	140299.8	141710.5	471.01 µg/L	471.01 ppb	17:48:15
3	Mo 202.031†	4094.2	4127.2	427.37 µg/L	427.37 ppb	17:48:41
3	Ni 231.604†	8915.6	8709.2	455.67 µg/L	455.67 ppb	17:48:21
3	P 214.914†	1044.4	1025.6	2091.9 µg/L	2091.9 ppb	17:48:41
3	Pb 220.353†	1807.3	1731.9	444.14 µg/L	444.14 ppb	17:48:41
3	S 181.975 Axial†	217.6	204.3	881.37 µg/L	881.37 ppb	17:48:41
3	Sb 206.836†	471.0	453.9	430.38 µg/L	430.38 ppb	17:48:41
3	Se 196.026†	306.1	296.7	440.22 µg/L	440.22 ppb	17:48:41
3	SiO2†	25635.6	24337.2	4978.1 µg/L	4978.1 ppb	17:48:21
3	Si 251.611†	29503.7	29464.6	2330.3 µg/L	2330.3 ppb	17:48:21
3	Sn 189.927†	934.0	940.9	418.87 µg/L	418.87 ppb	17:48:41
3	Ti 334.940†	202131.0	203670.1	463.99 µg/L	463.99 ppb	17:48:15
3	Tl 190.801†	307.5	330.7	462.60 µg/L	462.60 ppb	17:48:41
3	U 409.014†	5648.4	5470.1	446.59 µg/L	446.59 ppb	17:48:21
3	V 292.402†	44408.2	44825.5	457.50 µg/L	457.50 ppb	17:48:21
3	Zn 213.857†	19027.8	18720.4	453.96 µg/L	453.96 ppb	17:48:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1915071.7	98.321	%	0.7804				0.79%
Sc RADIAL	54909.4	99.1	%	0.35				0.35%
Y 371.029	1309495.7	97.919	%	0.8584				0.88%
Ag 328.068†	66420.4	505.05	µg/L	23.417	505.05	ppb	23.417	4.64%
QC value within limits for Ag 328.068 Recovery = 101.01%								
Al 396.153Radial†	7152.6	5071.7	µg/L	46.45	5071.7	ppb	46.45	0.92%
QC value within limits for Al 396.153Radial Recovery = 101.43%								
As 188.979†	261.8	492.38	µg/L	61.431	492.38	ppb	61.431	12.48%
QC value within limits for As 188.979 Recovery = 98.48%								
B 249.677†	11747.6	492.35	µg/L	26.346	492.35	ppb	26.346	5.35%
QC value within limits for B 249.677 Recovery = 98.47%								
Ba 233.527†	19700.4	498.59	µg/L	32.783	498.59	ppb	32.783	6.58%
QC value within limits for Ba 233.527 Recovery = 99.72%								
Be 313.107†	805037.8	497.94	µg/L	29.445	497.94	ppb	29.445	5.91%
QC value within limits for Be 313.107 Recovery = 99.59%								
Ca 317.933Radial†	5458.0	4936.7	µg/L	13.53	4936.7	ppb	13.53	0.27%
QC value within limits for Ca 317.933Radial Recovery = 98.73%								
Cd 226.502†	18655.1	496.81	µg/L	33.716	496.81	ppb	33.716	6.79%
QC value within limits for Cd 226.502 Recovery = 99.36%								
Co 228.616†	10493.1	499.22	µg/L	35.907	499.22	ppb	35.907	7.19%

```
   QC value within limits for Co 228.616  Recovery = 99.84%
Cr 267.716†            23522.0      496.62 µg/L        44.722      496.62 ppb         44.722   9.01%
   QC value within limits for Cr 267.716  Recovery = 99.32%
Cu 324.752†            75386.9      498.63 µg/L        36.097      498.63 ppb         36.097   7.24%
   QC value within limits for Cu 324.752  Recovery = 99.73%
Fe 238.204 Radial†       574.6      5037.4 µg/L         57.01      5037.4 ppb          57.01   1.13%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.75%
K 766.490 Radial†       7651.8      5127.2 µg/L         43.58      5127.2 ppb          43.58   0.85%
   QC value within limits for K 766.490 Radial  Recovery = 102.54%
Mg 279.077 IEC†          550.5      5142.9 µg/L         47.47      5142.9 ppb          47.47   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.86%
Mn 257.610†           151752.8      504.36 µg/L        28.890      504.36 ppb         28.890   5.73%
   QC value within limits for Mn 257.610  Recovery = 100.87%
Mo 202.031†             4801.5      497.17 µg/L        60.889      497.17 ppb         60.889  12.25%
   QC value within limits for Mo 202.031  Recovery = 99.43%
Na 589.592 Radial†     33825.4       10282 µg/L          91.4       10282 ppb           91.4   0.89%
   QC value within limits for Na 589.592 Radial  Recovery = 102.82%
Ni 231.604†             9544.1      499.35 µg/L        37.829      499.35 ppb         37.829   7.58%
   QC value within limits for Ni 231.604  Recovery = 99.87%
P 214.914†              1179.8      2409.9 µg/L        276.07      2409.9 ppb         276.07  11.46%
   QC value within limits for P 214.914  Recovery = 96.40%
Pb 220.353†             1960.6      502.86 µg/L        51.078      502.86 ppb         51.078  10.16%
   QC value within limits for Pb 220.353  Recovery = 100.57%
S 181.975 Axial†         230.8      995.66 µg/L        99.943      995.66 ppb         99.943  10.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.57%
Sb 206.836†              516.2      489.82 µg/L        52.036      489.82 ppb         52.036  10.62%
   QC value within limits for Sb 206.836  Recovery = 97.96%
Se 196.026†              336.9      499.02 µg/L        51.593      499.02 ppb         51.593  10.34%
   QC value within limits for Se 196.026  Recovery = 99.80%
SiO2†                  26121.0      5342.9 µg/L        316.08      5342.9 ppb         316.08   5.92%
   QC value within limits for SiO2  Recovery = 99.91%
Si 251.611†            31560.0      2496.1 µg/L        143.55      2496.1 ppb         143.55   5.75%
   QC value within limits for Si 251.611  Recovery = 99.84%
Sn 189.927†             1109.8      494.04 µg/L        65.711      494.04 ppb         65.711  13.30%
   QC value within limits for Sn 189.927  Recovery = 98.81%
Sr 421.552†            52564.3      508.88 µg/L         4.577      508.88 ppb          4.577   0.90%
   QC value within limits for Sr 421.552  Recovery = 101.78%
Ti 334.940†           219807.4      500.78 µg/L        31.875      500.78 ppb         31.875   6.37%
   QC value within limits for Ti 334.940  Recovery = 100.16%
Tl 190.801†              360.8      504.65 µg/L        36.466      504.65 ppb         36.466   7.23%
   QC value within limits for Tl 190.801  Recovery = 100.93%
U 409.014†              5985.7      488.76 µg/L        36.533      488.76 ppb         36.533   7.47%
   QC value within limits for U 409.014  Recovery = 97.75%
V 292.402†             49186.9      502.20 µg/L        38.719      502.20 ppb         38.719   7.71%
   QC value within limits for V 292.402  Recovery = 100.44%
Zn 213.857†            20459.3      496.18 µg/L        36.560      496.18 ppb         36.560   7.37%
   QC value within limits for Zn 213.857  Recovery = 99.24%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 17:48:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54434.8	54434.8	98.3	%			17:49:24
1	Al 396.153Radial†	-19.9	-36.2	-25.750	µg/L	-25.750	ppb	17:49:24
1	Ca 317.933Radial†	180.7	-31.3	-28.340	µg/L	-28.340	ppb	17:49:44
1	Fe 238.204 Radial†	13.7	-3.8	-33.617	µg/L	-33.617	ppb	17:49:44
1	K 766.490 Radial†	221.3	47.6	31.873	µg/L	31.873	ppb	17:49:24
1	Mg 279.077 IEC†	10.3	-3.3	-30.421	µg/L	-30.421	ppb	17:49:44
1	Na 589.592 Radial†	445.4	74.5	22.662	µg/L	22.662	ppb	17:49:24
1	Sr 421.552†	21.2	1.5	0.0147	µg/L	0.0147	ppb	17:49:24
1	Sc 361.383	1906144.1	1906144.1	97.863	%			17:50:46
1	Y 371.029	1309094.2	1309094.2	97.889	%			17:50:46
1	Ag 328.068†	-531.6	-33.0	-0.2515	µg/L	-0.2515	ppb	17:50:51
1	As 188.979†	-2.4	-3.2	-6.0297	µg/L	-6.0297	ppb	17:51:12
1	B 249.677†	322.5	16.4	0.7096	µg/L	0.7096	ppb	17:51:12
1	Ba 233.527†	-27.1	-2.3	-0.0590	µg/L	-0.0590	ppb	17:51:12
1	Be 313.107†	-3614.4	-60.5	-0.0374	µg/L	-0.0374	ppb	17:50:51
1	Cd 226.502†	-132.6	-12.3	-0.3237	µg/L	-0.3237	ppb	17:51:12
1	Co 228.616†	-0.4	5.4	0.2597	µg/L	0.2597	ppb	17:51:12
1	Cr 267.716†	-7.6	18.1	0.3825	µg/L	0.3825	ppb	17:51:12
1	Cu 324.752†	3228.9	68.9	0.4507	µg/L	0.4507	ppb	17:50:51
1	Mn 257.610†	-217.2	20.0	0.0633	µg/L	0.0633	ppb	17:51:12
1	Mo 202.031†	2.7	1.7	0.1712	µg/L	0.1712	ppb	17:51:12
1	Ni 231.604†	277.4	2.8	0.1441	µg/L	0.1441	ppb	17:51:12
1	P 214.914†	21.0	-6.1	-12.671	µg/L	-12.671	ppb	17:51:12
1	Pb 220.353†	108.9	20.9	5.3571	µg/L	5.3571	ppb	17:51:12
1	S 181.975 Axial†	14.4	-0.4	-1.6882	µg/L	-1.6882	ppb	17:51:12
1	Sb 206.836†	25.7	5.2	4.9333	µg/L	4.9333	ppb	17:51:12
1	Se 196.026†	12.1	0.4	0.4803	µg/L	0.4803	ppb	17:51:12
1	SiO2†	1519.6	40.8	8.3479	µg/L	8.3479	ppb	17:50:51
1	Si 251.611†	287.8	9.2	0.7293	µg/L	0.7293	ppb	17:51:12
1	Sn 189.927†	-3.9	-4.9	-2.1722	µg/L	-2.1722	ppb	17:51:12
1	Ti 334.940†	94.0	-48.8	-0.1093	µg/L	-0.1093	ppb	17:50:51
1	Tl 190.801†	-22.2	-2.1	-2.9086	µg/L	-2.9086	ppb	17:51:12
1	U 409.014†	160.9	-60.9	-4.9773	µg/L	-4.9773	ppb	17:50:51
1	V 292.402†	-55.1	-9.0	-0.0980	µg/L	-0.0980	ppb	17:50:51
1	Zn 213.857†	452.2	-3.9	-0.0928	µg/L	-0.0928	ppb	17:51:12
2	Sc RADIAL	54678.8	54678.8	98.7	%			17:49:49
2	Al 396.153Radial†	-30.6	-47.0	-33.398	µg/L	-33.398	ppb	17:49:49
2	Ca 317.933Radial†	171.0	-42.0	-37.952	µg/L	-37.952	ppb	17:50:10
2	Fe 238.204 Radial†	16.4	-1.2	-10.524	µg/L	-10.524	ppb	17:50:10
2	K 766.490 Radial†	231.7	57.2	38.295	µg/L	38.295	ppb	17:49:49
2	Mg 279.077 IEC†	11.8	-1.8	-16.668	µg/L	-16.668	ppb	17:50:10
2	Na 589.592 Radial†	449.6	76.8	23.334	µg/L	23.334	ppb	17:49:49
2	Sr 421.552†	77.2	58.2	0.5632	µg/L	0.5632	ppb	17:49:49
2	Sc 361.383	1932177.0	1932177.0	99.199	%			17:51:18
2	Y 371.029	1325893.6	1325893.6	99.145	%			17:51:18
2	Ag 328.068†	-516.9	-10.8	-0.0805	µg/L	-0.0805	ppb	17:51:23
2	As 188.979†	1.2	0.4	0.8064	µg/L	0.8064	ppb	17:51:44
2	B 249.677†	326.6	16.2	0.6870	µg/L	0.6870	ppb	17:51:44
2	Ba 233.527†	-18.7	6.5	0.1658	µg/L	0.1658	ppb	17:51:44
2	Be 313.107†	-3604.0	-0.2	-0.0002	µg/L	-0.0002	ppb	17:51:23
2	Cd 226.502†	-127.1	-4.9	-0.1292	µg/L	-0.1292	ppb	17:51:44
2	Co 228.616†	-0.4	5.4	0.2590	µg/L	0.2590	ppb	17:51:44
2	Cr 267.716†	-25.4	0.3	0.0070	µg/L	0.0070	ppb	17:51:44
2	Cu 324.752†	3252.4	48.2	0.3167	µg/L	0.3167	ppb	17:51:23
2	Mn 257.610†	-212.5	27.8	0.0914	µg/L	0.0914	ppb	17:51:44
2	Mo 202.031†	-0.5	-1.6	-0.1633	µg/L	-0.1633	ppb	17:51:44
2	Ni 231.604†	294.7	16.4	0.8582	µg/L	0.8582	ppb	17:51:44
2	P 214.914†	29.9	2.6	5.5100	µg/L	5.5100	ppb	17:51:44
2	Pb 220.353†	107.7	18.2	4.6658	µg/L	4.6658	ppb	17:51:44

2	S 181.975 Axial†	19.6	4.7	20.096 µg/L	20.096 ppb	17:51:44
2	Sb 206.836†	28.0	7.1	6.7336 µg/L	6.7336 ppb	17:51:44
2	Se 196.026†	9.7	-2.2	-3.1714 µg/L	-3.1714 ppb	17:51:44
2	SiO2†	1508.3	8.6	1.7515 µg/L	1.7515 ppb	17:51:23
2	Si 251.611†	306.7	24.3	1.9221 µg/L	1.9221 ppb	17:51:44
2	Sn 189.927†	5.4	4.6	2.0578 µg/L	2.0578 ppb	17:51:44
2	Ti 334.940†	193.8	50.5	0.1159 µg/L	0.1159 ppb	17:51:23
2	Tl 190.801†	-18.4	2.0	2.8208 µg/L	2.8208 ppb	17:51:44
2	U 409.014†	222.2	-1.4	-0.1107 µg/L	-0.1107 ppb	17:51:23
2	V 292.402†	-19.6	27.6	0.2759 µg/L	0.2759 ppb	17:51:23
2	Zn 213.857†	459.7	-2.5	-0.0646 µg/L	-0.0646 ppb	17:51:44
3	Sc RADIAL	54036.1	54036.1	97.6 %		17:50:15
3	Al 396.153Radial†	-31.9	-48.7	-34.618 µg/L	-34.618 ppb	17:50:15
3	Ca 317.933Radial†	169.8	-41.1	-37.175 µg/L	-37.175 ppb	17:50:36
3	Fe 238.204 Radial†	15.1	-2.3	-19.874 µg/L	-19.874 ppb	17:50:36
3	K 766.490 Radial†	253.3	82.1	54.995 µg/L	54.995 ppb	17:50:15
3	Mg 279.077 IEC†	11.8	-1.7	-15.779 µg/L	-15.779 ppb	17:50:36
3	Na 589.592 Radial†	403.5	34.9	10.616 µg/L	10.616 ppb	17:50:15
3	Sr 421.552†	45.8	26.9	0.2607 µg/L	0.2607 ppb	17:50:15
3	Sc 361.383	1899097.4	1899097.4	97.501 %		17:51:50
3	Y 371.029	1302225.9	1302225.9	97.375 %		17:51:50
3	Ag 328.068†	-441.8	57.1	0.4323 µg/L	0.4323 ppb	17:51:55
3	As 188.979†	2.3	1.5	2.8699 µg/L	2.8699 ppb	17:52:16
3	B 249.677†	336.0	31.5	1.3392 µg/L	1.3392 ppb	17:52:16
3	Ba 233.527†	6.2	31.7	0.8023 µg/L	0.8023 ppb	17:52:16
3	Be 313.107†	-2717.2	846.1	0.5231 µg/L	0.5231 ppb	17:51:55
3	Cd 226.502†	-107.7	12.8	0.3443 µg/L	0.3443 ppb	17:52:16
3	Co 228.616†	-1.5	4.3	0.2008 µg/L	0.2008 ppb	17:52:16
3	Cr 267.716†	110.4	139.2	2.9373 µg/L	2.9373 ppb	17:52:16
3	Cu 324.752†	3383.5	239.7	1.5808 µg/L	1.5808 ppb	17:51:55
3	Mn 257.610†	56.4	299.8	0.9934 µg/L	0.9934 ppb	17:52:16
3	Mo 202.031†	5.1	4.1	0.4264 µg/L	0.4264 ppb	17:52:16
3	Ni 231.604†	294.9	21.8	1.1391 µg/L	1.1391 ppb	17:52:16
3	P 214.914†	18.5	-8.5	-17.959 µg/L	-17.959 ppb	17:52:16
3	Pb 220.353†	148.4	61.8	15.838 µg/L	15.838 ppb	17:52:16
3	S 181.975 Axial†	17.8	3.2	13.873 µg/L	13.873 ppb	17:52:16
3	Sb 206.836†	31.4	11.1	10.451 µg/L	10.451 ppb	17:52:16
3	Se 196.026†	14.2	2.7	3.8498 µg/L	3.8498 ppb	17:52:16
3	SiO2†	1577.9	106.4	21.759 µg/L	21.759 ppb	17:51:55
3	Si 251.611†	363.1	87.5	6.9178 µg/L	6.9178 ppb	17:52:16
3	Sn 189.927†	-0.7	-1.6	-0.7090 µg/L	-0.7090 ppb	17:52:16
3	Ti 334.940†	569.7	439.5	1.0027 µg/L	1.0027 ppb	17:51:55
3	Tl 190.801†	-22.9	-2.9	-4.0186 µg/L	-4.0186 ppb	17:52:16
3	U 409.014†	205.5	-14.6	-1.1857 µg/L	-1.1857 ppb	17:51:55
3	V 292.402†	-14.6	32.4	0.3329 µg/L	0.3329 ppb	17:51:55
3	Zn 213.857†	508.7	55.8	1.3575 µg/L	1.3575 ppb	17:52:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1912472.9	98.188	%	0.8946				0.91%
Sc RADIAL	54383.2	98.2	%	0.59				0.60%
Y 371.029	1312404.6	98.136	%	0.9105				0.93%
Ag 328.068†	4.5	0.0334	µg/L	0.35585	0.0334	ppb	0.35585	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-44.0	-31.255	µg/L	4.8063	-31.255	ppb	4.8063	15.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.4	-0.7845	µg/L	4.65821	-0.7845	ppb	4.65821	593.81%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	21.4	0.9119	µg/L	0.37023	0.9119	ppb	0.37023	40.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.0	0.3030	µg/L	0.44678	0.3030	ppb	0.44678	147.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	261.8	0.1619	µg/L	0.31343	0.1619	ppb	0.31343	193.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-38.1	-34.489	µg/L	5.3396	-34.489	ppb	5.3396	15.48%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.5	-0.0362	µg/L	0.34358	-0.0362	ppb	0.34358	949.47%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.0	0.2399	µg/L	0.03378	0.2399	ppb	0.03378	14.08%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                52.6      1.1089 µg/L       1.59452      1.1089 ppb        1.59452 143.79%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               119.0      0.7827 µg/L       0.69438      0.7827 ppb        0.69438  88.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.4     -21.339 µg/L       11.6161     -21.339 ppb        11.6161  54.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          62.3      41.721 µg/L       11.9355      41.721 ppb        11.9355  28.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.2     -20.956 µg/L        8.2095     -20.956 ppb         8.2095  39.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               115.9      0.3827 µg/L       0.52907      0.3827 ppb        0.52907 138.24%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.4      0.1447 µg/L       0.29576      0.1447 ppb        0.29576 204.33%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         62.1      18.871 µg/L        7.1567      18.871 ppb         7.1567  37.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.6      0.7138 µg/L       0.51296      0.7138 ppb        0.51296  71.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.0     -8.3733 µg/L      12.31055     -8.3733 ppb       12.31055 147.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                33.6      8.6203 µg/L       6.26023      8.6203 ppb        6.26023  72.62%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.5      10.760 µg/L       11.2206      10.760 ppb        11.2206 104.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.8      7.3726 µg/L       2.81385      7.3726 ppb        2.81385  38.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.3862 µg/L       3.51154      0.3862 ppb        3.51154 909.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      51.9      10.619 µg/L       10.1951      10.619 ppb        10.1951  96.01%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                40.3      3.1897 µg/L       3.28326      3.1897 ppb        3.28326 102.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.2745 µg/L       2.14822     -0.2745 ppb        2.14822 782.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                28.9      0.2795 µg/L       0.27478      0.2795 ppb        0.27478  98.30%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               147.1      0.3364 µg/L       0.58786      0.3364 ppb        0.58786 174.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.0     -1.3688 µg/L       3.67048     -1.3688 ppb        3.67048 268.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -25.6     -2.0912 µg/L       2.55656     -2.0912 ppb        2.55656 122.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 17.0      0.1703 µg/L       0.23405      0.1703 ppb        0.23405 137.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                16.5      0.4000 µg/L       0.82928      0.4000 ppb        0.82928 207.29%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 18:20:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	55450.5	55450.5	100	%			18:21:05
1	Al 396.153Radial†	7137.8	7114.0	5043.5	µg/L	5043.5	ppb	18:21:05
1	Ca 317.933Radial†	5643.0	5421.7	4903.8	µg/L	4903.8	ppb	18:21:25
1	Fe 238.204 Radial†	590.7	572.3	5017.9	µg/L	5017.9	ppb	18:21:25
1	K 766.490 Radial†	7910.1	7724.0	5175.6	µg/L	5175.6	ppb	18:21:05
1	Mg 279.077 IEC†	561.4	547.0	5111.6	µg/L	5111.6	ppb	18:21:25
1	Na 589.592 Radial†	34125.5	33709.9	10247	µg/L	10247	ppb	18:21:05
1	Sr 421.552†	52546.6	52469.7	507.96	µg/L	507.96	ppb	18:21:05
1	Sc 361.383	1912289.0	1912289.0	98.178	%			18:22:29
1	Y 371.029	1308929.0	1308929.0	97.876	%			18:22:29
1	Ag 328.068†	66658.4	68405.7	520.17	µg/L	520.17	ppb	18:22:34
1	As 188.979†	271.9	276.2	519.40	µg/L	519.40	ppb	18:22:55
1	B 249.677†	12192.8	12105.9	507.47	µg/L	507.47	ppb	18:22:34
1	Ba 233.527†	20063.0	20460.7	517.83	µg/L	517.83	ppb	18:22:34
1	Be 313.107†	815449.8	834214.7	515.98	µg/L	515.98	ppb	18:22:29
1	Cd 226.502†	18950.9	19425.8	517.36	µg/L	517.36	ppb	18:22:34
1	Co 228.616†	10695.7	10900.0	518.60	µg/L	518.60	ppb	18:22:34
1	Cr 267.716†	24233.9	24709.5	521.69	µg/L	521.69	ppb	18:22:34
1	Cu 324.752†	80131.6	78388.0	518.45	µg/L	518.45	ppb	18:22:34
1	Mn 257.610†	154188.5	157291.7	522.75	µg/L	522.75	ppb	18:22:29
1	Mo 202.031†	5065.8	5158.7	534.14	µg/L	534.14	ppb	18:22:55
1	Ni 231.604†	10043.7	9949.3	520.55	µg/L	520.55	ppb	18:22:34
1	P 214.914†	1260.2	1256.0	2567.2	µg/L	2567.2	ppb	18:22:55
1	Pb 220.353†	2098.0	2046.5	524.93	µg/L	524.93	ppb	18:22:55
1	S 181.975 Axial†	256.4	246.1	1061.5	µg/L	1061.5	ppb	18:22:55
1	Sb 206.836†	564.7	554.1	525.94	µg/L	525.94	ppb	18:22:55
1	Se 196.026†	363.3	358.1	529.98	µg/L	529.98	ppb	18:22:55
1	SiO2†	28221.0	27232.7	5570.3	µg/L	5570.3	ppb	18:22:34
1	Si 251.611†	32553.0	32872.2	2599.8	µg/L	2599.8	ppb	18:22:34
1	Sn 189.927†	1178.8	1199.8	534.09	µg/L	534.09	ppb	18:22:55
1	Ti 334.940†	224488.2	228509.2	520.62	µg/L	520.62	ppb	18:22:29
1	Tl 190.801†	347.5	374.5	523.84	µg/L	523.84	ppb	18:22:55
1	U 409.014†	6308.3	6200.0	506.31	µg/L	506.31	ppb	18:22:34
1	V 292.402†	50271.7	51251.9	523.39	µg/L	523.39	ppb	18:22:34
1	Zn 213.857†	21449.4	21381.5	518.58	µg/L	518.58	ppb	18:22:34
2	Sc RADIAL	55522.2	55522.2	100	%			18:21:31
2	Al 396.153Radial†	7173.7	7140.6	5062.6	µg/L	5062.6	ppb	18:21:31
2	Ca 317.933Radial†	5655.4	5426.8	4908.4	µg/L	4908.4	ppb	18:21:51
2	Fe 238.204 Radial†	593.5	574.3	5035.2	µg/L	5035.2	ppb	18:21:51
2	K 766.490 Radial†	7867.8	7671.6	5140.4	µg/L	5140.4	ppb	18:21:31
2	Mg 279.077 IEC†	562.7	547.6	5116.5	µg/L	5116.5	ppb	18:21:51
2	Na 589.592 Radial†	34154.4	33694.7	10243	µg/L	10243	ppb	18:21:31
2	Sr 421.552†	52735.8	52590.7	509.14	µg/L	509.14	ppb	18:21:31
2	Sc 361.383	1915353.2	1915353.2	98.335	%			18:23:02
2	Y 371.029	1311154.2	1311154.2	98.043	%			18:23:02
2	Ag 328.068†	66226.0	67857.3	516.01	µg/L	516.01	ppb	18:23:08
2	As 188.979†	271.4	275.2	517.54	µg/L	517.54	ppb	18:23:28
2	B 249.677†	12162.6	12055.3	505.32	µg/L	505.32	ppb	18:23:08
2	Ba 233.527†	19929.0	20291.8	513.55	µg/L	513.55	ppb	18:23:08
2	Be 313.107†	816318.4	833769.3	515.71	µg/L	515.71	ppb	18:23:02
2	Cd 226.502†	18826.9	19268.8	513.17	µg/L	513.17	ppb	18:23:08
2	Co 228.616†	10665.9	10852.2	516.31	µg/L	516.31	ppb	18:23:08
2	Cr 267.716†	24052.7	24485.8	516.96	µg/L	516.96	ppb	18:23:08
2	Cu 324.752†	79686.2	77804.6	514.60	µg/L	514.60	ppb	18:23:08
2	Mn 257.610†	154696.8	157557.3	523.64	µg/L	523.64	ppb	18:23:02
2	Mo 202.031†	4984.1	5067.3	524.68	µg/L	524.68	ppb	18:23:28
2	Ni 231.604†	9972.0	9860.1	515.88	µg/L	515.88	ppb	18:23:08
2	P 214.914†	1245.3	1238.8	2531.7	µg/L	2531.7	ppb	18:23:28
2	Pb 220.353†	2081.8	2026.7	519.83	µg/L	519.83	ppb	18:23:28

2	S 181.975 Axial†	247.9	237.0	1022.2 µg/L	1022.2 ppb	18:23:28
2	Sb 206.836†	559.1	547.5	519.62 µg/L	519.62 ppb	18:23:28
2	Se 196.026†	357.2	351.3	520.03 µg/L	520.03 ppb	18:23:28
2	SiO2†	28086.0	27049.5	5532.9 µg/L	5532.9 ppb	18:23:08
2	Si 251.611†	32429.8	32693.8	2585.7 µg/L	2585.7 ppb	18:23:08
2	Sn 189.927†	1158.4	1177.1	523.99 µg/L	523.99 ppb	18:23:28
2	Ti 334.940†	224800.1	228460.5	520.51 µg/L	520.51 ppb	18:23:02
2	Tl 190.801†	344.5	370.9	518.84 µg/L	518.84 ppb	18:23:28
2	U 409.014†	6279.0	6160.0	503.02 µg/L	503.02 ppb	18:23:08
2	V 292.402†	49985.7	50879.2	519.55 µg/L	519.55 ppb	18:23:08
2	Zn 213.857†	21298.6	21193.2	514.00 µg/L	514.00 ppb	18:23:08
3	Sc RADIAL	55608.5	55608.5	100 %		18:21:57
3	Al 396.153Radial†	7162.7	7118.6	5048.7 µg/L	5048.7 ppb	18:21:57
3	Ca 317.933Radial†	5641.3	5404.1	4887.9 µg/L	4887.9 ppb	18:22:17
3	Fe 238.204 Radial†	588.8	568.7	4985.1 µg/L	4985.1 ppb	18:22:17
3	K 766.490 Radial†	7856.8	7648.4	5124.9 µg/L	5124.9 ppb	18:21:57
3	Mg 279.077 IEC†	561.8	545.9	5098.9 µg/L	5098.9 ppb	18:22:17
3	Na 589.592 Radial†	34304.4	33791.2	10272 µg/L	10272 ppb	18:21:57
3	Sr 421.552†	53038.8	52810.8	511.27 µg/L	511.27 ppb	18:21:57
3	Sc 361.383	1896159.5	1896159.5	97.350 %		18:23:35
3	Y 371.029	1299602.3	1299602.3	97.179 %		18:23:35
3	Ag 328.068†	61594.4	63781.4	484.87 µg/L	484.87 ppb	18:23:41
3	As 188.979†	223.6	228.9	430.55 µg/L	430.55 ppb	18:24:01
3	B 249.677†	11225.2	11217.6	470.00 µg/L	470.00 ppb	18:23:41
3	Ba 233.527†	17853.5	18364.9	464.78 µg/L	464.78 ppb	18:23:41
3	Be 313.107†	743865.2	767746.9	474.87 µg/L	474.87 ppb	18:23:35
3	Cd 226.502†	16811.8	17392.7	463.15 µg/L	463.15 ppb	18:23:41
3	Co 228.616†	9417.3	9679.5	460.47 µg/L	460.47 ppb	18:23:41
3	Cr 267.716†	20713.0	21302.7	449.77 µg/L	449.77 ppb	18:23:41
3	Cu 324.752†	71360.4	70072.4	463.52 µg/L	463.52 ppb	18:23:41
3	Mn 257.610†	141622.6	145719.6	484.33 µg/L	484.33 ppb	18:23:35
3	Mo 202.031†	4118.4	4229.4	437.95 µg/L	437.95 ppb	18:24:01
3	Ni 231.604†	8844.4	8804.5	460.66 µg/L	460.66 ppb	18:23:41
3	P 214.914†	1060.7	1062.0	2167.4 µg/L	2167.4 ppb	18:24:01
3	Pb 220.353†	1791.3	1749.7	448.72 µg/L	448.72 ppb	18:24:01
3	S 181.975 Axial†	221.9	212.9	918.13 µg/L	918.13 ppb	18:24:01
3	Sb 206.836†	467.0	458.7	435.05 µg/L	435.05 ppb	18:24:01
3	Se 196.026†	311.5	308.0	456.90 µg/L	456.90 ppb	18:24:01
3	SiO2†	25760.4	24949.6	5103.3 µg/L	5103.3 ppb	18:23:41
3	Si 251.611†	29615.6	30136.8	2383.5 µg/L	2383.5 ppb	18:23:41
3	Sn 189.927†	946.9	971.8	432.62 µg/L	432.62 ppb	18:24:01
3	Ti 334.940†	203740.7	209141.9	476.47 µg/L	476.47 ppb	18:23:35
3	Tl 190.801†	301.2	330.0	461.90 µg/L	461.90 ppb	18:24:01
3	U 409.014†	5576.1	5502.5	449.24 µg/L	449.24 ppb	18:23:41
3	V 292.402†	44128.2	45376.7	463.16 µg/L	463.16 ppb	18:23:41
3	Zn 213.857†	18997.5	19048.7	461.96 µg/L	461.96 ppb	18:23:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1907933.9	97.955	%	0.5294				0.54%
Sc RADIAL	55527.1	100	%	0.1				0.14%
Y 371.029	1306561.9	97.699	%	0.4583				0.47%
Ag 328.068†	66681.4	507.02	µg/L	19.294	507.02	ppb	19.294	3.81%
QC value within limits for Ag 328.068 Recovery = 101.40%								
Al 396.153Radial†	7124.4	5051.6	µg/L	9.87	5051.6	ppb	9.87	0.20%
QC value within limits for Al 396.153Radial Recovery = 101.03%								
As 188.979†	260.1	489.16	µg/L	50.768	489.16	ppb	50.768	10.38%
QC value within limits for As 188.979 Recovery = 97.83%								
B 249.677†	11793.0	494.27	µg/L	21.039	494.27	ppb	21.039	4.26%
QC value within limits for B 249.677 Recovery = 98.85%								
Ba 233.527†	19705.8	498.72	µg/L	29.474	498.72	ppb	29.474	5.91%
QC value within limits for Ba 233.527 Recovery = 99.74%								
Be 313.107†	811910.3	502.19	µg/L	23.656	502.19	ppb	23.656	4.71%
QC value within limits for Be 313.107 Recovery = 100.44%								
Ca 317.933Radial†	5417.5	4900.0	µg/L	10.80	4900.0	ppb	10.80	0.22%
QC value within limits for Ca 317.933Radial Recovery = 98.00%								
Cd 226.502†	18695.8	497.89	µg/L	30.161	497.89	ppb	30.161	6.06%
QC value within limits for Cd 226.502 Recovery = 99.58%								
Co 228.616†	10477.2	498.46	µg/L	32.923	498.46	ppb	32.923	6.60%

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   QC value within limits for Co 228.616  Recovery = 99.69%
Cr 267.716†            23499.3      496.14 µg/L        40.228      496.14 ppb         40.228   8.11%
   QC value within limits for Cr 267.716  Recovery = 99.23%
Cu 324.752†            75421.7      498.86 µg/L        30.662      498.86 ppb         30.662   6.15%
   QC value within limits for Cu 324.752  Recovery = 99.77%
Fe 238.204 Radial†       571.8      5012.7 µg/L         25.42      5012.7 ppb          25.42   0.51%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.25%
K 766.490 Radial†       7681.3      5147.0 µg/L         25.94      5147.0 ppb          25.94   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 102.94%
Mg 279.077 IEC†          546.8      5109.0 µg/L          9.07      5109.0 ppb           9.07   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.18%
Mn 257.610†           153522.9      510.24 µg/L        22.447      510.24 ppb         22.447   4.40%
   QC value within limits for Mn 257.610  Recovery = 102.05%
Mo 202.031†             4818.5      498.93 µg/L        53.017      498.93 ppb         53.017  10.63%
   QC value within limits for Mo 202.031  Recovery = 99.79%
Na 589.592 Radial†     33731.9       10254 µg/L         15.8       10254 ppb           15.8   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 102.54%
Ni 231.604†             9538.0      499.03 µg/L        33.314      499.03 ppb         33.314   6.68%
   QC value within limits for Ni 231.604  Recovery = 99.81%
P 214.914†              1185.6      2422.1 µg/L       221.32      2422.1 ppb         221.32   9.14%
   QC value within limits for P 214.914  Recovery = 96.88%
Pb 220.353†             1941.0      497.83 µg/L        42.606      497.83 ppb         42.606   8.56%
   QC value within limits for Pb 220.353  Recovery = 99.57%
S 181.975 Axial†         232.0      1000.6 µg/L         74.07      1000.6 ppb          74.07   7.40%
   QC value within limits for S 181.975 Axial  Recovery = 100.06%
Sb 206.836†              520.1      493.54 µg/L        50.749      493.54 ppb         50.749  10.28%
   QC value within limits for Sb 206.836  Recovery = 98.71%
Se 196.026†              339.1      502.30 µg/L        39.633      502.30 ppb         39.633   7.89%
   QC value within limits for Se 196.026  Recovery = 100.46%
SiO2†                   26410.6      5402.2 µg/L       259.48      5402.2 ppb         259.48   4.80%
   QC value within limits for SiO2  Recovery = 101.02%
Si 251.611†            31901.0      2523.0 µg/L       121.04      2523.0 ppb         121.04   4.80%
   QC value within limits for Si 251.611  Recovery = 100.92%
Sn 189.927†             1116.3      496.90 µg/L        55.897      496.90 ppb         55.897  11.25%
   QC value within limits for Sn 189.927  Recovery = 99.38%
Sr 421.552†            52623.7      509.46 µg/L         1.675      509.46 ppb          1.675   0.33%
   QC value within limits for Sr 421.552  Recovery = 101.89%
Ti 334.940†           222037.2      505.87 µg/L        25.459      505.87 ppb         25.459   5.03%
   QC value within limits for Ti 334.940  Recovery = 101.17%
Tl 190.801†              358.5      501.53 µg/L        34.406      501.53 ppb         34.406   6.86%
   QC value within limits for Tl 190.801  Recovery = 100.31%
U 409.014†              5954.2      486.19 µg/L        32.043      486.19 ppb         32.043   6.59%
   QC value within limits for U 409.014  Recovery = 97.24%
V 292.402†             49169.3      502.03 µg/L        33.719      502.03 ppb         33.719   6.72%
   QC value within limits for V 292.402  Recovery = 100.41%
Zn 213.857†            20541.1      498.18 µg/L        31.454      498.18 ppb         31.454   6.31%
   QC value within limits for Zn 213.857  Recovery = 99.64%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 18:24:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54361.9	54361.9	98.1	%			18:24:43
1	Al 396.153Radial†	15.0	-0.7	-0.4916	µg/L	-0.4916	ppb	18:24:43
1	Ca 317.933Radial†	183.9	-27.8	-25.179	µg/L	-25.179	ppb	18:25:04
1	Fe 238.204 Radial†	17.0	-0.4	-3.8700	µg/L	-3.8700	ppb	18:25:04
1	K 766.490 Radial†	254.1	81.4	54.526	µg/L	54.526	ppb	18:24:43
1	Mg 279.077 IEC†	9.7	-3.9	-36.308	µg/L	-36.308	ppb	18:25:04
1	Na 589.592 Radial†	406.5	35.5	10.797	µg/L	10.797	ppb	18:24:43
1	Sr 421.552†	38.9	19.6	0.1902	µg/L	0.1902	ppb	18:24:43
1	Sc 361.383	1925746.1	1925746.1	98.869	%			18:26:06
1	Y 371.029	1324638.0	1324638.0	99.051	%			18:26:06
1	Ag 328.068†	-460.8	44.2	0.3333	µg/L	0.3333	ppb	18:26:11
1	As 188.979†	-1.2	-2.0	-3.8512	µg/L	-3.8512	ppb	18:26:32
1	B 249.677†	339.0	29.8	1.2571	µg/L	1.2571	ppb	18:26:32
1	Ba 233.527†	-14.3	10.9	0.2753	µg/L	0.2753	ppb	18:26:32
1	Be 313.107†	-3444.8	148.7	0.0918	µg/L	0.0918	ppb	18:26:11
1	Cd 226.502†	-127.2	-5.4	-0.1432	µg/L	-0.1432	ppb	18:26:32
1	Co 228.616†	-0.3	5.5	0.2624	µg/L	0.2624	ppb	18:26:32
1	Cr 267.716†	-29.3	-3.7	-0.0790	µg/L	-0.0790	ppb	18:26:32
1	Cu 324.752†	3215.3	21.6	0.1419	µg/L	0.1419	ppb	18:26:11
1	Mn 257.610†	-86.2	154.7	0.5148	µg/L	0.5148	ppb	18:26:11
1	Mo 202.031†	0.2	-0.9	-0.0928	µg/L	-0.0928	ppb	18:26:32
1	Ni 231.604†	292.4	15.1	0.7889	µg/L	0.7889	ppb	18:26:32
1	P 214.914†	25.4	-1.9	-3.9656	µg/L	-3.9656	ppb	18:26:32
1	Pb 220.353†	87.9	-1.5	-0.3821	µg/L	-0.3821	ppb	18:26:32
1	S 181.975 Axial†	15.7	0.8	3.4608	µg/L	3.4608	ppb	18:26:32
1	Sb 206.836†	21.8	1.0	0.9689	µg/L	0.9689	ppb	18:26:32
1	Se 196.026†	10.5	-1.3	-1.8513	µg/L	-1.8513	ppb	18:26:32
1	SiO2†	1574.9	81.0	16.566	µg/L	16.566	ppb	18:26:11
1	Si 251.611†	403.1	122.8	9.7115	µg/L	9.7115	ppb	18:26:32
1	Sn 189.927†	1.4	0.5	0.2310	µg/L	0.2310	ppb	18:26:32
1	Ti 334.940†	353.8	213.1	0.4882	µg/L	0.4882	ppb	18:26:11
1	Tl 190.801†	-24.3	-4.0	-5.5725	µg/L	-5.5725	ppb	18:26:32
1	U 409.014†	248.1	25.5	2.0914	µg/L	2.0914	ppb	18:26:11
1	V 292.402†	-47.0	-0.2	-0.0011	µg/L	-0.0011	ppb	18:26:11
1	Zn 213.857†	458.4	-2.3	-0.0572	µg/L	-0.0572	ppb	18:26:32
2	Sc RADIAL	54688.9	54688.9	98.7	%			18:25:09
2	Al 396.153Radial†	2.2	-13.8	-9.7939	µg/L	-9.7939	ppb	18:25:09
2	Ca 317.933Radial†	182.6	-30.2	-27.333	µg/L	-27.333	ppb	18:25:30
2	Fe 238.204 Radial†	17.9	0.3	2.8690	µg/L	2.8690	ppb	18:25:30
2	K 766.490 Radial†	190.6	15.5	10.374	µg/L	10.374	ppb	18:25:09
2	Mg 279.077 IEC†	7.0	-6.6	-61.891	µg/L	-61.891	ppb	18:25:30
2	Na 589.592 Radial†	415.9	42.5	12.919	µg/L	12.919	ppb	18:25:09
2	Sr 421.552†	45.4	26.0	0.2518	µg/L	0.2518	ppb	18:25:09
2	Sc 361.383	1909785.5	1909785.5	98.050	%			18:26:38
2	Y 371.029	1314752.1	1314752.1	98.312	%			18:26:38
2	Ag 328.068†	-509.2	-9.1	-0.0685	µg/L	-0.0685	ppb	18:26:43
2	As 188.979†	-1.6	-2.4	-4.5802	µg/L	-4.5802	ppb	18:27:04
2	B 249.677†	339.3	32.9	1.3829	µg/L	1.3829	ppb	18:27:04
2	Ba 233.527†	-12.9	12.3	0.3101	µg/L	0.3101	ppb	18:27:04
2	Be 313.107†	-3463.2	100.8	0.0622	µg/L	0.0622	ppb	18:26:43
2	Cd 226.502†	-134.1	-13.5	-0.3592	µg/L	-0.3592	ppb	18:27:04
2	Co 228.616†	-7.2	-1.5	-0.0737	µg/L	-0.0737	ppb	18:27:04
2	Cr 267.716†	-34.3	-9.1	-0.1916	µg/L	-0.1916	ppb	18:27:04
2	Cu 324.752†	3175.7	8.3	0.0555	µg/L	0.0555	ppb	18:26:43
2	Mn 257.610†	-78.2	162.2	0.5414	µg/L	0.5414	ppb	18:26:43
2	Mo 202.031†	7.2	6.3	0.6487	µg/L	0.6487	ppb	18:27:04
2	Ni 231.604†	291.5	16.5	0.8660	µg/L	0.8660	ppb	18:27:04
2	P 214.914†	23.2	-3.8	-8.0163	µg/L	-8.0163	ppb	18:27:04
2	Pb 220.353†	78.8	-10.0	-2.5591	µg/L	-2.5591	ppb	18:27:04

2	S 181.975 Axial†	14.6	-0.1	-0.5962 µg/L	-0.5962 ppb	18:27:04
2	Sb 206.836†	25.4	4.9	4.6215 µg/L	4.6215 ppb	18:27:04
2	Se 196.026†	20.6	9.0	13.233 µg/L	13.233 ppb	18:27:04
2	SiO2†	1635.4	155.9	31.897 µg/L	31.897 ppb	18:26:43
2	Si 251.611†	422.4	145.9	11.537 µg/L	11.537 ppb	18:27:04
2	Sn 189.927†	2.1	1.3	0.5509 µg/L	0.5509 ppb	18:27:04
2	Ti 334.940†	399.4	262.6	0.6030 µg/L	0.6030 ppb	18:26:43
2	Tl 190.801†	-23.7	-3.6	-4.9980 µg/L	-4.9980 ppb	18:27:04
2	U 409.014†	197.4	-24.1	-1.9676 µg/L	-1.9676 ppb	18:26:43
2	V 292.402†	-50.5	-4.2	-0.0394 µg/L	-0.0394 ppb	18:26:43
2	Zn 213.857†	455.9	-1.0	-0.0239 µg/L	-0.0239 ppb	18:27:04
3	Sc RADIAL	54441.6	54441.6	98.3 %		18:25:35
3	Al 396.153Radial†	21.7	6.0	4.3035 µg/L	4.3035 ppb	18:25:35
3	Ca 317.933Radial†	177.1	-34.9	-31.606 µg/L	-31.606 ppb	18:25:55
3	Fe 238.204 Radial†	19.0	1.5	13.298 µg/L	13.298 ppb	18:25:55
3	K 766.490 Radial†	231.6	58.1	38.917 µg/L	38.917 ppb	18:25:35
3	Mg 279.077 IEC†	11.1	-2.4	-22.674 µg/L	-22.674 ppb	18:25:55
3	Na 589.592 Radial†	436.7	65.6	19.936 µg/L	19.936 ppb	18:25:35
3	Sr 421.552†	14.3	-5.5	-0.0531 µg/L	-0.0531 ppb	18:25:35
3	Sc 361.383	1927903.2	1927903.2	98.980 %		18:27:10
3	Y 371.029	1324431.1	1324431.1	99.035 %		18:27:10
3	Ag 328.068†	-472.4	33.0	0.2461 µg/L	0.2461 ppb	18:27:15
3	As 188.979†	-0.5	-1.3	-2.4701 µg/L	-2.4701 ppb	18:27:36
3	B 249.677†	333.6	23.9	1.0005 µg/L	1.0005 ppb	18:27:36
3	Ba 233.527†	-19.0	6.2	0.1553 µg/L	0.1553 ppb	18:27:36
3	Be 313.107†	-3565.4	30.8	0.0188 µg/L	0.0188 ppb	18:27:15
3	Cd 226.502†	-133.4	-11.5	-0.3079 µg/L	-0.3079 ppb	18:27:36
3	Co 228.616†	-8.6	-2.8	-0.1370 µg/L	-0.1370 ppb	18:27:36
3	Cr 267.716†	-19.6	6.2	0.1295 µg/L	0.1295 ppb	18:27:36
3	Cu 324.752†	3222.8	25.5	0.1704 µg/L	0.1704 ppb	18:27:15
3	Mn 257.610†	-106.3	134.6	0.4496 µg/L	0.4496 ppb	18:27:15
3	Mo 202.031†	-2.2	-3.3	-0.3436 µg/L	-0.3436 ppb	18:27:36
3	Ni 231.604†	281.7	3.9	0.2048 µg/L	0.2048 ppb	18:27:36
3	P 214.914†	26.5	-0.7	-1.5501 µg/L	-1.5501 ppb	18:27:36
3	Pb 220.353†	93.7	4.3	1.0969 µg/L	1.0969 ppb	18:27:36
3	S 181.975 Axial†	18.6	3.7	16.168 µg/L	16.168 ppb	18:27:36
3	Sb 206.836†	25.7	4.9	4.6303 µg/L	4.6303 ppb	18:27:36
3	Se 196.026†	15.3	3.5	5.2025 µg/L	5.2025 ppb	18:27:36
3	SiO2†	1622.1	126.9	25.948 µg/L	25.948 ppb	18:27:15
3	Si 251.611†	427.2	146.7	11.600 µg/L	11.600 ppb	18:27:36
3	Sn 189.927†	4.5	3.7	1.6628 µg/L	1.6628 ppb	18:27:36
3	Ti 334.940†	367.7	226.6	0.5179 µg/L	0.5179 ppb	18:27:15
3	Tl 190.801†	-15.7	4.7	6.5293 µg/L	6.5293 ppb	18:27:36
3	U 409.014†	204.8	-18.5	-1.5139 µg/L	-1.5139 ppb	18:27:15
3	V 292.402†	-108.5	-62.3	-0.6303 µg/L	-0.6303 ppb	18:27:15
3	Zn 213.857†	459.6	-1.6	-0.0395 µg/L	-0.0395 ppb	18:27:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1921145.0	98.633	%	0.5081				0.52%
Sc RADIAL	54497.5	98.4	%	0.31				0.31%
Y 371.029	1321273.7	98.799	%	0.4224				0.43%
Ag 328.068†	22.7	0.1703	µg/L	0.21131	0.1703	ppb	0.21131	124.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-1.9940	µg/L	7.16775	-1.9940	ppb	7.16775	359.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-3.6338	µg/L	1.07171	-3.6338	ppb	1.07171	29.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	28.9	1.2135	µg/L	0.19490	1.2135	ppb	0.19490	16.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.8	0.2469	µg/L	0.08121	0.2469	ppb	0.08121	32.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	93.4	0.0576	µg/L	0.03670	0.0576	ppb	0.03670	63.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-31.0	-28.039	µg/L	3.2714	-28.039	ppb	3.2714	11.67%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-10.1	-0.2701	µg/L	0.11285	-0.2701	ppb	0.11285	41.79%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0172	µg/L	0.21468	0.0172	ppb	0.21468	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.2     -0.0470 µg/L       0.16290     -0.0470 ppb        0.16290 346.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                18.5      0.1226 µg/L       0.05985      0.1226 ppb        0.05985  48.83%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      4.0991 µg/L       8.65001      4.0991 ppb        8.65001 211.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          51.6      34.606 µg/L       22.3897      34.606 ppb        22.3897  64.70%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.3     -40.291 µg/L       19.9098     -40.291 ppb        19.9098  49.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               150.5      0.5019 µg/L       0.04723      0.5019 ppb        0.04723   9.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.7      0.0707 µg/L       0.51600      0.0707 ppb        0.51600 729.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         47.9      14.551 µg/L        4.7827      14.551 ppb         4.7827  32.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                11.8      0.6199 µg/L       0.36154      0.6199 ppb        0.36154  58.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.2     -4.5107 µg/L       3.26737     -4.5107 ppb        3.26737  72.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.4     -0.6147 µg/L       1.83911     -0.6147 ppb        1.83911 299.16%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      6.3442 µg/L       8.74615      6.3442 ppb        8.74615 137.86%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.6      3.4069 µg/L       2.11139      3.4069 ppb        2.11139  61.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.8      5.5282 µg/L       7.54765      5.5282 ppb        7.54765 136.53%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     121.3      24.804 µg/L        7.7295      24.804 ppb         7.7295  31.16%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               138.4      10.949 µg/L        1.0725      10.949 ppb         1.0725   9.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.8149 µg/L       0.75152      0.8149 ppb        0.75152  92.22%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                13.4      0.1296 µg/L       0.16121      0.1296 ppb        0.16121 124.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               234.1      0.5364 µg/L       0.05961      0.5364 ppb        0.05961  11.11%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.0     -1.3471 µg/L       6.82717     -1.3471 ppb        6.82717 506.82%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -5.7     -0.4634 µg/L       2.22407     -0.4634 ppb        2.22407 479.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -22.2     -0.2236 µg/L       0.35278     -0.2236 ppb        0.35278 157.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -1.6     -0.0402 µg/L       0.01667     -0.0402 ppb        0.01667  41.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 19:00:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54704.8	54704.8	98.8	%			19:01:32
1	Al 396.153Radial†	7084.7	7157.5	5074.3	µg/L	5074.3	ppb	19:01:32
1	Ca 317.933Radial†	5608.8	5464.0	4942.1	µg/L	4942.1	ppb	19:01:52
1	Fe 238.204 Radial†	591.0	580.6	5090.8	µg/L	5090.8	ppb	19:01:52
1	K 766.490 Radial†	7765.2	7684.9	5149.4	µg/L	5149.4	ppb	19:01:32
1	Mg 279.077 IEC†	558.5	551.8	5155.7	µg/L	5155.7	ppb	19:01:52
1	Na 589.592 Radial†	33670.9	33714.3	10249	µg/L	10249	ppb	19:01:32
1	Sr 421.552†	51764.3	52393.2	507.22	µg/L	507.22	ppb	19:01:32
1	Sc 361.383	1895899.7	1895899.7	97.337	%			19:02:55
1	Y 371.029	1299354.5	1299354.5	97.160	%			19:02:55
1	Ag 328.068†	66137.7	68457.7	520.59	µg/L	520.59	ppb	19:03:01
1	As 188.979†	275.9	282.6	531.61	µg/L	531.61	ppb	19:03:22
1	B 249.677†	12094.1	12111.9	507.68	µg/L	507.68	ppb	19:03:01
1	Ba 233.527†	19916.1	20486.4	518.48	µg/L	518.48	ppb	19:03:01
1	Be 313.107†	811497.0	837333.8	517.91	µg/L	517.91	ppb	19:02:55
1	Cd 226.502†	18760.4	19396.9	516.58	µg/L	516.58	ppb	19:03:01
1	Co 228.616†	10659.7	10957.2	521.32	µg/L	521.32	ppb	19:03:01
1	Cr 267.716†	24065.9	24750.3	522.55	µg/L	522.55	ppb	19:03:01
1	Cu 324.752†	79657.4	78606.4	519.90	µg/L	519.90	ppb	19:03:01
1	Mn 257.610†	153777.8	158227.4	525.87	µg/L	525.87	ppb	19:02:55
1	Mo 202.031†	5067.0	5204.6	538.89	µg/L	538.89	ppb	19:03:22
1	Ni 231.604†	9959.4	9951.2	520.65	µg/L	520.65	ppb	19:03:01
1	P 214.914†	1272.4	1279.7	2616.5	µg/L	2616.5	ppb	19:03:22
1	Pb 220.353†	2089.5	2056.3	527.44	µg/L	527.44	ppb	19:03:22
1	S 181.975 Axial†	252.0	243.8	1051.6	µg/L	1051.6	ppb	19:03:22
1	Sb 206.836†	563.4	557.7	529.45	µg/L	529.45	ppb	19:03:22
1	Se 196.026†	367.5	365.6	541.09	µg/L	541.09	ppb	19:03:22
1	SiO2†	28094.3	27351.0	5594.5	µg/L	5594.5	ppb	19:03:01
1	Si 251.611†	32436.6	33039.2	2613.1	µg/L	2613.1	ppb	19:03:01
1	Sn 189.927†	1176.7	1208.1	537.77	µg/L	537.77	ppb	19:03:22
1	Ti 334.940†	223208.0	229170.5	522.12	µg/L	522.12	ppb	19:02:55
1	Tl 190.801†	347.4	377.5	528.01	µg/L	528.01	ppb	19:03:22
1	U 409.014†	6318.1	6265.6	511.66	µg/L	511.66	ppb	19:03:01
1	V 292.402†	50066.5	51483.8	525.78	µg/L	525.78	ppb	19:03:01
1	Zn 213.857†	21282.7	21399.1	519.00	µg/L	519.00	ppb	19:03:01
2	Sc RADIAL	53962.7	53962.7	97.4	%			19:01:57
2	Al 396.153Radial†	7061.3	7232.1	5127.5	µg/L	5127.5	ppb	19:01:57
2	Ca 317.933Radial†	5605.9	5539.1	5010.0	µg/L	5010.0	ppb	19:02:18
2	Fe 238.204 Radial†	596.5	594.5	5212.1	µg/L	5212.1	ppb	19:02:18
2	K 766.490 Radial†	7761.9	7789.7	5219.6	µg/L	5219.6	ppb	19:01:57
2	Mg 279.077 IEC†	557.3	558.3	5216.4	µg/L	5216.4	ppb	19:02:18
2	Na 589.592 Radial†	33757.9	34272.4	10418	µg/L	10418	ppb	19:01:57
2	Sr 421.552†	51696.1	53043.9	513.52	µg/L	513.52	ppb	19:01:57
2	Sc 361.383	1896103.2	1896103.2	97.347	%			19:03:29
2	Y 371.029	1299342.7	1299342.7	97.159	%			19:03:29
2	Ag 328.068†	65896.0	68202.0	518.65	µg/L	518.65	ppb	19:03:34
2	As 188.979†	268.0	274.5	516.26	µg/L	516.26	ppb	19:03:55
2	B 249.677†	12018.2	12032.6	504.28	µg/L	504.28	ppb	19:03:34
2	Ba 233.527†	19794.1	20358.9	515.26	µg/L	515.26	ppb	19:03:34
2	Be 313.107†	803562.0	829093.1	512.82	µg/L	512.82	ppb	19:03:29
2	Cd 226.502†	18719.7	19353.1	515.40	µg/L	515.40	ppb	19:03:34
2	Co 228.616†	10567.4	10861.2	516.75	µg/L	516.75	ppb	19:03:34
2	Cr 267.716†	23929.6	24607.6	519.54	µg/L	519.54	ppb	19:03:34
2	Cu 324.752†	79137.6	78063.7	516.34	µg/L	516.34	ppb	19:03:34
2	Mn 257.610†	152591.4	156991.7	521.78	µg/L	521.78	ppb	19:03:29
2	Mo 202.031†	4973.1	5107.5	528.85	µg/L	528.85	ppb	19:03:55
2	Ni 231.604†	9927.5	9917.4	518.88	µg/L	518.88	ppb	19:03:34
2	P 214.914†	1242.5	1248.8	2552.3	µg/L	2552.3	ppb	19:03:55
2	Pb 220.353†	2072.2	2038.3	522.80	µg/L	522.80	ppb	19:03:55

2	S 181.975 Axial†	246.0	237.6	1025.0 µg/L	1025.0 ppb	19:03:55
2	Sb 206.836†	550.7	544.6	516.95 µg/L	516.95 ppb	19:03:55
2	Se 196.026†	363.2	361.1	534.75 µg/L	534.75 ppb	19:03:55
2	SiO2†	28075.9	27329.1	5590.0 µg/L	5590.0 ppb	19:03:34
2	Si 251.611†	32414.5	33012.9	2611.0 µg/L	2611.0 ppb	19:03:34
2	Sn 189.927†	1151.3	1181.9	526.10 µg/L	526.10 ppb	19:03:55
2	Ti 334.940†	221191.1	227074.0	517.34 µg/L	517.34 ppb	19:03:29
2	Tl 190.801†	340.2	370.1	517.70 µg/L	517.70 ppb	19:03:55
2	U 409.014†	6347.6	6295.2	514.06 µg/L	514.06 ppb	19:03:34
2	V 292.402†	49837.7	51243.2	523.29 µg/L	523.29 ppb	19:03:34
2	Zn 213.857†	21152.3	21262.8	515.68 µg/L	515.68 ppb	19:03:34
3	Sc RADIAL	54173.4	54173.4	97.8 %		19:02:23
3	Al 396.153Radial†	7057.6	7200.2	5106.8 µg/L	5106.8 ppb	19:02:23
3	Ca 317.933Radial†	5603.7	5514.4	4987.7 µg/L	4987.7 ppb	19:02:44
3	Fe 238.204 Radial†	588.9	584.3	5122.2 µg/L	5122.2 ppb	19:02:44
3	K 766.490 Radial†	7754.7	7751.4	5193.9 µg/L	5193.9 ppb	19:02:23
3	Mg 279.077 IEC†	557.9	556.7	5199.9 µg/L	5199.9 ppb	19:02:44
3	Na 589.592 Radial†	33764.1	34144.0	10379 µg/L	10379 ppb	19:02:23
3	Sr 421.552†	51864.7	53010.0	513.20 µg/L	513.20 ppb	19:02:23
3	Sc 361.383	1907353.9	1907353.9	97.925 %		19:04:02
3	Y 371.029	1306572.2	1306572.2	97.700 %		19:04:02
3	Ag 328.068†	62085.2	63911.2	485.87 µg/L	485.87 ppb	19:04:08
3	As 188.979†	224.5	228.5	429.77 µg/L	429.77 ppb	19:04:28
3	B 249.677†	11272.0	11197.8	469.10 µg/L	469.10 ppb	19:04:08
3	Ba 233.527†	18064.7	18472.9	467.51 µg/L	467.51 ppb	19:04:08
3	Be 313.107†	750683.5	770225.0	476.41 µg/L	476.41 ppb	19:04:02
3	Cd 226.502†	16981.3	17464.4	465.05 µg/L	465.05 ppb	19:04:08
3	Co 228.616†	9525.1	9732.7	463.00 µg/L	463.00 ppb	19:04:08
3	Cr 267.716†	20873.1	21341.3	450.58 µg/L	450.58 ppb	19:04:08
3	Cu 324.752†	71789.0	70079.8	463.59 µg/L	463.59 ppb	19:04:08
3	Mn 257.610†	143021.0	146293.9	486.25 µg/L	486.25 ppb	19:04:02
3	Mo 202.031†	4107.4	4193.3	434.22 µg/L	434.22 ppb	19:04:28
3	Ni 231.604†	8962.8	8872.1	464.20 µg/L	464.20 ppb	19:04:08
3	P 214.914†	1040.8	1035.3	2111.5 µg/L	2111.5 ppb	19:04:28
3	Pb 220.353†	1778.3	1725.6	442.53 µg/L	442.53 ppb	19:04:28
3	S 181.975 Axial†	221.7	211.4	911.70 µg/L	911.70 ppb	19:04:28
3	Sb 206.836†	477.5	466.6	442.44 µg/L	442.44 ppb	19:04:28
3	Se 196.026†	315.3	310.0	460.02 µg/L	460.02 ppb	19:04:28
3	SiO2†	26054.7	25094.9	5133.1 µg/L	5133.1 ppb	19:04:08
3	Si 251.611†	29951.5	30301.4	2396.5 µg/L	2396.5 ppb	19:04:08
3	Sn 189.927†	932.8	951.7	423.66 µg/L	423.66 ppb	19:04:28
3	Ti 334.940†	205449.5	209658.6	477.64 µg/L	477.64 ppb	19:04:02
3	Tl 190.801†	305.0	332.0	464.69 µg/L	464.69 ppb	19:04:28
3	U 409.014†	5538.9	5430.9	443.36 µg/L	443.36 ppb	19:04:08
3	V 292.402†	44560.4	45552.1	464.91 µg/L	464.91 ppb	19:04:08
3	Zn 213.857†	19117.2	19056.4	462.12 µg/L	462.12 ppb	19:04:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1899785.6	97.536	%	0.3365				0.35%
Sc RADIAL	54280.3	98.0	%	0.69				0.70%
Y 371.029	1301756.5	97.340	%	0.3119				0.32%
Ag 328.068†	66856.9	508.37	µg/L	19.509	508.37	ppb	19.509	3.84%
QC value within limits for Ag 328.068 Recovery = 101.67%								
Al 396.153Radial†	7196.6	5102.9	µg/L	26.81	5102.9	ppb	26.81	0.53%
QC value within limits for Al 396.153Radial Recovery = 102.06%								
As 188.979†	261.9	492.54	µg/L	54.906	492.54	ppb	54.906	11.15%
QC value within limits for As 188.979 Recovery = 98.51%								
B 249.677†	11780.8	493.69	µg/L	21.361	493.69	ppb	21.361	4.33%
QC value within limits for B 249.677 Recovery = 98.74%								
Ba 233.527†	19772.7	500.42	µg/L	28.545	500.42	ppb	28.545	5.70%
QC value within limits for Ba 233.527 Recovery = 100.08%								
Be 313.107†	812217.3	502.38	µg/L	22.637	502.38	ppb	22.637	4.51%
QC value within limits for Be 313.107 Recovery = 100.48%								
Ca 317.933Radial†	5505.8	4979.9	µg/L	34.61	4979.9	ppb	34.61	0.70%
QC value within limits for Ca 317.933Radial Recovery = 99.60%								
Cd 226.502†	18738.1	499.01	µg/L	29.417	499.01	ppb	29.417	5.90%
QC value within limits for Cd 226.502 Recovery = 99.80%								
Co 228.616†	10517.0	500.36	µg/L	32.436	500.36	ppb	32.436	6.48%

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   QC value within limits for Co 228.616  Recovery = 100.07%
Cr 267.716†            23566.4      497.56 µg/L        40.708      497.56 ppb         40.708   8.18%
   QC value within limits for Cr 267.716  Recovery = 99.51%
Cu 324.752†            75583.3      499.94 µg/L        31.533      499.94 ppb         31.533   6.31%
   QC value within limits for Cu 324.752  Recovery = 99.99%
Fe 238.204 Radial†       586.5      5141.7 µg/L         63.00      5141.7 ppb          63.00   1.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.83%
K 766.490 Radial†       7742.0      5187.6 µg/L         35.54      5187.6 ppb          35.54   0.69%
   QC value within limits for K 766.490 Radial  Recovery = 103.75%
Mg 279.077 IEC†          555.6      5190.7 µg/L         31.41      5190.7 ppb          31.41   0.61%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.81%
Mn 257.610†           153837.7      511.30 µg/L        21.792      511.30 ppb         21.792   4.26%
   QC value within limits for Mn 257.610  Recovery = 102.26%
Mo 202.031†             4835.1      500.65 µg/L        57.751      500.65 ppb         57.751  11.54%
   QC value within limits for Mo 202.031  Recovery = 100.13%
Na 589.592 Radial†     34043.6       10349 µg/L          88.9       10349 ppb           88.9   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 103.49%
Ni 231.604†             9580.2      501.24 µg/L        32.094      501.24 ppb         32.094   6.40%
   QC value within limits for Ni 231.604  Recovery = 100.25%
P 214.914†              1187.9      2426.8 µg/L        274.86      2426.8 ppb         274.86  11.33%
   QC value within limits for P 214.914  Recovery = 97.07%
Pb 220.353†             1940.1      497.59 µg/L        47.740      497.59 ppb         47.740   9.59%
   QC value within limits for Pb 220.353  Recovery = 99.52%
S 181.975 Axial†         230.9      996.09 µg/L        74.293      996.09 ppb         74.293   7.46%
   QC value within limits for S 181.975 Axial  Recovery = 99.61%
Sb 206.836†              523.0      496.28 µg/L        47.044      496.28 ppb         47.044   9.48%
   QC value within limits for Sb 206.836  Recovery = 99.26%
Se 196.026†              345.6      511.96 µg/L        45.087      511.96 ppb         45.087   8.81%
   QC value within limits for Se 196.026  Recovery = 102.39%
SiO2†                  26591.7      5439.2 µg/L        265.15      5439.2 ppb         265.15   4.87%
   QC value within limits for SiO2  Recovery = 101.72%
Si 251.611†            32117.8      2540.2 µg/L        124.42      2540.2 ppb         124.42   4.90%
   QC value within limits for Si 251.611  Recovery = 101.61%
Sn 189.927†             1113.9      495.84 µg/L        62.782      495.84 ppb         62.782  12.66%
   QC value within limits for Sn 189.927  Recovery = 99.17%
Sr 421.552†            52815.7      511.31 µg/L         3.546      511.31 ppb          3.546   0.69%
   QC value within limits for Sr 421.552  Recovery = 102.26%
Ti 334.940†           221967.7      505.70 µg/L        24.420      505.70 ppb         24.420   4.83%
   QC value within limits for Ti 334.940  Recovery = 101.14%
Tl 190.801†              359.9      503.47 µg/L        33.974      503.47 ppb         33.974   6.75%
   QC value within limits for Tl 190.801  Recovery = 100.69%
U 409.014†              5997.3      489.69 µg/L        40.145      489.69 ppb         40.145   8.20%
   QC value within limits for U 409.014  Recovery = 97.94%
V 292.402†             49426.4      504.66 µg/L        34.446      504.66 ppb         34.446   6.83%
   QC value within limits for V 292.402  Recovery = 100.93%
Zn 213.857†            20572.8      498.93 µg/L        31.925      498.93 ppb         31.925   6.40%
   QC value within limits for Zn 213.857  Recovery = 99.79%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 19:04:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54095.0	54095.0	97.7	%			19:05:10
1	Al 396.153Radial†	-18.5	-34.9	-24.820	µg/L	-24.820	ppb	19:05:10
1	Ca 317.933Radial†	177.8	-33.1	-29.926	µg/L	-29.926	ppb	19:05:30
1	Fe 238.204 Radial†	15.2	-2.2	-19.267	µg/L	-19.267	ppb	19:05:30
1	K 766.490 Radial†	231.6	59.6	39.914	µg/L	39.914	ppb	19:05:10
1	Mg 279.077 IEC†	7.2	-6.4	-59.556	µg/L	-59.556	ppb	19:05:30
1	Na 589.592 Radial†	429.3	60.9	18.498	µg/L	18.498	ppb	19:05:10
1	Sr 421.552†	8.4	-11.4	-0.1105	µg/L	-0.1105	ppb	19:05:10
1	Sc 361.383	1911758.5	1911758.5	98.151	%			19:06:33
1	Y 371.029	1314714.0	1314714.0	98.309	%			19:06:33
1	Ag 328.068†	-475.3	26.1	0.1939	µg/L	0.1939	ppb	19:06:38
1	As 188.979†	-0.8	-1.6	-3.0386	µg/L	-3.0386	ppb	19:06:59
1	B 249.677†	324.5	17.5	0.7476	µg/L	0.7476	ppb	19:06:59
1	Ba 233.527†	-23.4	1.6	0.0393	µg/L	0.0393	ppb	19:06:59
1	Be 313.107†	-3588.4	-23.1	-0.0143	µg/L	-0.0143	ppb	19:06:38
1	Cd 226.502†	-135.2	-14.5	-0.3831	µg/L	-0.3831	ppb	19:06:59
1	Co 228.616†	-7.0	-1.3	-0.0638	µg/L	-0.0638	ppb	19:06:59
1	Cr 267.716†	-25.6	-0.2	-0.0038	µg/L	-0.0038	ppb	19:06:59
1	Cu 324.752†	3179.9	9.3	0.0585	µg/L	0.0585	ppb	19:06:38
1	Mn 257.610†	-149.0	90.1	0.2992	µg/L	0.2992	ppb	19:06:59
1	Mo 202.031†	5.1	4.1	0.4268	µg/L	0.4268	ppb	19:06:59
1	Ni 231.604†	289.1	13.8	0.7228	µg/L	0.7228	ppb	19:06:59
1	P 214.914†	35.5	8.6	17.946	µg/L	17.946	ppb	19:06:59
1	Pb 220.353†	87.2	-1.6	-0.4038	µg/L	-0.4038	ppb	19:06:59
1	S 181.975 Axial†	14.1	-0.7	-2.8488	µg/L	-2.8488	ppb	19:06:59
1	Sb 206.836†	27.9	7.3	6.9487	µg/L	6.9487	ppb	19:06:59
1	Se 196.026†	22.0	10.5	15.336	µg/L	15.336	ppb	19:06:59
1	SiO2†	1586.3	104.2	21.317	µg/L	21.317	ppb	19:06:38
1	Si 251.611†	406.7	129.5	10.241	µg/L	10.241	ppb	19:06:59
1	Sn 189.927†	2.9	2.1	0.9150	µg/L	0.9150	ppb	19:06:59
1	Ti 334.940†	146.4	4.3	0.0140	µg/L	0.0140	ppb	19:06:38
1	Tl 190.801†	-17.5	2.8	3.8258	µg/L	3.8258	ppb	19:06:59
1	U 409.014†	284.7	64.7	5.2991	µg/L	5.2991	ppb	19:06:38
1	V 292.402†	-71.3	-25.3	-0.2488	µg/L	-0.2488	ppb	19:06:38
1	Zn 213.857†	453.4	-4.0	-0.0968	µg/L	-0.0968	ppb	19:06:59
2	Sc RADIAL	54437.8	54437.8	98.3	%			19:05:36
2	Al 396.153Radial†	-0.5	-16.6	-11.759	µg/L	-11.759	ppb	19:05:36
2	Ca 317.933Radial†	180.7	-31.3	-28.287	µg/L	-28.287	ppb	19:05:56
2	Fe 238.204 Radial†	16.5	-1.0	-9.1671	µg/L	-9.1671	ppb	19:05:56
2	K 766.490 Radial†	200.4	26.3	17.635	µg/L	17.635	ppb	19:05:36
2	Mg 279.077 IEC†	10.8	-2.8	-26.021	µg/L	-26.021	ppb	19:05:56
2	Na 589.592 Radial†	407.3	35.7	10.843	µg/L	10.843	ppb	19:05:36
2	Sr 421.552†	54.5	35.4	0.3429	µg/L	0.3429	ppb	19:05:36
2	Sc 361.383	1904193.5	1904193.5	97.763	%			19:07:05
2	Y 371.029	1310493.8	1310493.8	97.993	%			19:07:05
2	Ag 328.068†	-519.7	-21.3	-0.1629	µg/L	-0.1629	ppb	19:07:10
2	As 188.979†	-5.1	-6.0	-11.373	µg/L	-11.373	ppb	19:07:31
2	B 249.677†	289.2	-17.3	-0.7219	µg/L	-0.7219	ppb	19:07:31
2	Ba 233.527†	-12.9	12.2	0.3078	µg/L	0.3078	ppb	19:07:31
2	Be 313.107†	-3547.9	3.8	0.0023	µg/L	0.0023	ppb	19:07:10
2	Cd 226.502†	-133.6	-13.4	-0.3548	µg/L	-0.3548	ppb	19:07:31
2	Co 228.616†	-7.5	-1.9	-0.0908	µg/L	-0.0908	ppb	19:07:31
2	Cr 267.716†	-24.1	1.3	0.0275	µg/L	0.0275	ppb	19:07:31
2	Cu 324.752†	3185.8	28.3	0.1854	µg/L	0.1854	ppb	19:07:10
2	Mn 257.610†	-159.2	79.1	0.2625	µg/L	0.2625	ppb	19:07:31
2	Mo 202.031†	-0.8	-1.9	-0.1969	µg/L	-0.1969	ppb	19:07:31
2	Ni 231.604†	290.5	16.4	0.8613	µg/L	0.8613	ppb	19:07:31
2	P 214.914†	22.3	-4.7	-9.8024	µg/L	-9.8024	ppb	19:07:31
2	Pb 220.353†	84.2	-4.3	-1.1010	µg/L	-1.1010	ppb	19:07:31

2	S 181.975 Axial†	10.4	-4.4	-19.187 µg/L	-19.187 ppb		19:07:31
2	Sb 206.836†	19.6	-1.0	-0.9518 µg/L	-0.9518 ppb		19:07:31
2	Se 196.026†	21.2	9.7	14.201 µg/L	14.201 ppb		19:07:31
2	SiO2†	1637.0	162.5	33.236 µg/L	33.236 ppb		19:07:10
2	Si 251.611†	445.9	171.2	13.541 µg/L	13.541 ppb		19:07:31
2	Sn 189.927†	1.5	0.7	0.2969 µg/L	0.2969 ppb		19:07:31
2	Ti 334.940†	216.3	76.4	0.1758 µg/L	0.1758 ppb		19:07:10
2	Tl 190.801†	-22.0	-1.9	-2.6345 µg/L	-2.6345 ppb		19:07:31
2	U 409.014†	209.8	-10.7	-0.8757 µg/L	-0.8757 ppb		19:07:10
2	V 292.402†	-66.0	-20.1	-0.2066 µg/L	-0.2066 ppb		19:07:10
2	Zn 213.857†	446.4	-9.3	-0.2288 µg/L	-0.2288 ppb		19:07:31
3	Sc RADIAL	53918.6	53918.6	97.3 %			19:06:02
3	Al 396.153Radial†	-17.6	-34.1	-24.225 µg/L	-24.225 ppb		19:06:02
3	Ca 317.933Radial†	174.3	-36.1	-32.661 µg/L	-32.661 ppb		19:06:22
3	Fe 238.204 Radial†	15.2	-2.2	-19.019 µg/L	-19.019 ppb		19:06:22
3	K 766.490 Radial†	155.4	-17.9	-11.977 µg/L	-11.977 ppb		19:06:02
3	Mg 279.077 IEC†	4.6	-9.0	-84.254 µg/L	-84.254 ppb		19:06:22
3	Na 589.592 Radial†	420.5	53.3	16.189 µg/L	16.189 ppb		19:06:02
3	Sr 421.552†	43.7	24.9	0.2407 µg/L	0.2407 ppb		19:06:02
3	Sc 361.383	1949138.6	1949138.6	100.07 %			19:07:37
3	Y 371.029	1340353.6	1340353.6	100.23 %			19:07:37
3	Ag 328.068†	-462.0	48.6	0.3622 µg/L	0.3622 ppb		19:07:42
3	As 188.979†	-0.9	-1.7	-3.1111 µg/L	-3.1111 ppb		19:08:03
3	B 249.677†	300.3	-13.0	-0.5354 µg/L	-0.5354 ppb		19:08:03
3	Ba 233.527†	-12.6	12.8	0.3234 µg/L	0.3234 ppb		19:08:03
3	Be 313.107†	-3583.3	52.1	0.0322 µg/L	0.0322 ppb		19:07:42
3	Cd 226.502†	-124.1	-0.7	-0.0175 µg/L	-0.0175 ppb		19:08:03
3	Co 228.616†	-11.8	-5.9	-0.2827 µg/L	-0.2827 ppb		19:08:03
3	Cr 267.716†	-38.4	-12.4	-0.2624 µg/L	-0.2624 ppb		19:08:03
3	Cu 324.752†	3218.0	-14.7	-0.0998 µg/L	-0.0998 ppb		19:07:42
3	Mn 257.610†	-152.1	89.9	0.2995 µg/L	0.2995 ppb		19:08:03
3	Mo 202.031†	1.8	0.7	0.0695 µg/L	0.0695 ppb		19:08:03
3	Ni 231.604†	283.9	3.0	0.1553 µg/L	0.1553 ppb		19:08:03
3	P 214.914†	21.9	-5.7	-11.848 µg/L	-11.848 ppb		19:08:03
3	Pb 220.353†	88.3	-2.2	-0.5589 µg/L	-0.5589 ppb		19:08:03
3	S 181.975 Axial†	15.8	0.7	3.0373 µg/L	3.0373 ppb		19:08:03
3	Sb 206.836†	21.9	0.8	0.7580 µg/L	0.7580 ppb		19:08:03
3	Se 196.026†	10.6	-1.4	-1.9827 µg/L	-1.9827 ppb		19:08:03
3	SiO2†	1724.6	211.4	43.250 µg/L	43.250 ppb		19:07:42
3	Si 251.611†	444.7	159.5	12.616 µg/L	12.616 ppb		19:08:03
3	Sn 189.927†	3.5	2.7	1.1821 µg/L	1.1821 ppb		19:08:03
3	Ti 334.940†	224.9	79.9	0.1882 µg/L	0.1882 ppb		19:07:42
3	Tl 190.801†	-23.4	-2.8	-3.8711 µg/L	-3.8711 ppb		19:08:03
3	U 409.014†	232.9	7.4	0.6114 µg/L	0.6114 ppb		19:07:42
3	V 292.402†	-94.4	-47.0	-0.4758 µg/L	-0.4758 ppb		19:07:42
3	Zn 213.857†	455.0	-11.2	-0.2692 µg/L	-0.2692 ppb		19:08:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1921696.9	98.661	%	1.2355				1.25%
Sc RADIAL	54150.5	97.8	%	0.48				0.49%
Y 371.029	1321853.8	98.843	%	1.2084				1.22%
Ag 328.068†	17.8	0.1311	µg/L	0.26816	0.1311	ppb	0.26816	204.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-28.5	-20.268	µg/L	7.3751	-20.268	ppb	7.3751	36.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-5.8409	µg/L	4.79117	-5.8409	ppb	4.79117	82.03%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-4.2	-0.1699	µg/L	0.79999	-0.1699	ppb	0.79999	470.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.9	0.2235	µg/L	0.15974	0.2235	ppb	0.15974	71.47%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	10.9	0.0067	µg/L	0.02355	0.0067	ppb	0.02355	349.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-33.5	-30.291	µg/L	2.2099	-30.291	ppb	2.2099	7.30%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-9.5	-0.2518	µg/L	0.20339	-0.2518	ppb	0.20339	80.76%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.1	-0.1458	µg/L	0.11935	-0.1458	ppb	0.11935	81.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -3.8     -0.0796 µg/L       0.15910     -0.0796 ppb        0.15910 199.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 7.6      0.0480 µg/L       0.14288      0.0480 ppb        0.14288 297.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.8     -15.818 µg/L        5.7609     -15.818 ppb         5.7609  36.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          22.7      15.191 µg/L       26.0321      15.191 ppb        26.0321 171.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -6.1     -56.610 µg/L       29.2283     -56.610 ppb        29.2283  51.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                86.4      0.2870 µg/L       0.02125      0.2870 ppb        0.02125   7.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.0      0.0998 µg/L       0.31298      0.0998 ppb        0.31298 313.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         49.9      15.177 µg/L        3.9270      15.177 ppb         3.9270  25.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                11.1      0.5798 µg/L       0.37410      0.5798 ppb        0.37410  64.52%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.6     -1.2348 µg/L      16.64293     -1.2348 ppb       16.64293 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.7     -0.6879 µg/L       0.36609     -0.6879 ppb        0.36609  53.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.5     -6.3329 µg/L      11.51467     -6.3329 ppb       11.51467 181.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.4      2.2516 µg/L       4.15663      2.2516 ppb        4.15663 184.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.3      9.1846 µg/L       9.68780      9.1846 ppb        9.68780 105.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     159.4      32.601 µg/L       10.9802      32.601 ppb        10.9802  33.68%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               153.4      12.133 µg/L        1.7019      12.133 ppb         1.7019  14.03%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.8      0.7980 µg/L       0.45407      0.7980 ppb        0.45407  56.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.3      0.1577 µg/L       0.23783      0.1577 ppb        0.23783 150.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                53.5      0.1260 µg/L       0.09718      0.1260 ppb        0.09718  77.11%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.8932 µg/L       4.13330     -0.8932 ppb        4.13330 462.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 20.5      1.6783 µg/L       3.22267      1.6783 ppb        3.22267 192.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -30.8     -0.3104 µg/L       0.14480     -0.3104 ppb        0.14480  46.65%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -8.2     -0.1983 µg/L       0.09012     -0.1983 ppb        0.09012  45.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 19:44:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54653.6	54653.6	98.7	%			19:45:32
1	Al 396.153Radial†	7248.2	7329.9	5196.6	µg/L	5196.6	ppb	19:45:32
1	Ca 317.933Radial†	5722.0	5584.0	5050.6	µg/L	5050.6	ppb	19:45:53
1	Fe 238.204 Radial†	606.9	597.3	5237.0	µg/L	5237.0	ppb	19:45:53
1	K 766.490 Radial†	7931.2	7860.6	5267.1	µg/L	5267.1	ppb	19:45:32
1	Mg 279.077 IEC†	569.0	562.9	5260.1	µg/L	5260.1	ppb	19:45:53
1	Na 589.592 Radial†	34413.3	34498.5	10487	µg/L	10487	ppb	19:45:32
1	Sr 421.552†	53143.1	53839.6	521.23	µg/L	521.23	ppb	19:45:32
1	Sc 361.383	1912349.2	1912349.2	98.181	%			19:46:56
1	Y 371.029	1308708.2	1308708.2	97.860	%			19:46:56
1	Ag 328.068†	67672.6	69436.5	528.04	µg/L	528.04	ppb	19:47:02
1	As 188.979†	286.0	290.5	546.41	µg/L	546.41	ppb	19:47:23
1	B 249.677†	12380.6	12296.8	515.40	µg/L	515.40	ppb	19:47:02
1	Ba 233.527†	20509.7	20915.0	529.33	µg/L	529.33	ppb	19:47:02
1	Be 313.107†	829345.9	848342.2	524.72	µg/L	524.72	ppb	19:46:56
1	Cd 226.502†	19385.6	19868.0	529.12	µg/L	529.12	ppb	19:47:02
1	Co 228.616†	10927.2	11135.4	529.81	µg/L	529.81	ppb	19:47:02
1	Cr 267.716†	24788.9	25274.1	533.61	µg/L	533.61	ppb	19:47:02
1	Cu 324.752†	81364.0	79640.7	526.76	µg/L	526.76	ppb	19:47:02
1	Mn 257.610†	157329.2	160485.6	533.38	µg/L	533.38	ppb	19:46:56
1	Mo 202.031†	5228.4	5324.2	551.27	µg/L	551.27	ppb	19:47:23
1	Ni 231.604†	10261.6	10171.0	532.15	µg/L	532.15	ppb	19:47:02
1	P 214.914†	1305.1	1301.7	2661.7	µg/L	2661.7	ppb	19:47:23
1	Pb 220.353†	2157.4	2107.0	540.46	µg/L	540.46	ppb	19:47:23
1	S 181.975 Axial†	262.3	252.1	1087.5	µg/L	1087.5	ppb	19:47:23
1	Sb 206.836†	574.6	564.2	535.62	µg/L	535.62	ppb	19:47:23
1	Se 196.026†	372.3	367.2	543.67	µg/L	543.67	ppb	19:47:23
1	SiO2†	28841.1	27863.4	5699.3	µg/L	5699.3	ppb	19:47:02
1	Si 251.611†	33319.0	33651.3	2661.5	µg/L	2661.5	ppb	19:47:02
1	Sn 189.927†	1221.9	1243.6	553.60	µg/L	553.60	ppb	19:47:23
1	Ti 334.940†	227891.4	231968.2	528.50	µg/L	528.50	ppb	19:46:56
1	Tl 190.801†	358.4	385.6	539.30	µg/L	539.30	ppb	19:47:23
1	U 409.014†	6452.7	6346.8	518.28	µg/L	518.28	ppb	19:47:02
1	V 292.402†	51371.7	52370.7	534.87	µg/L	534.87	ppb	19:47:02
1	Zn 213.857†	21881.8	21821.3	529.24	µg/L	529.24	ppb	19:47:02
2	Sc RADIAL	54903.4	54903.4	99.1	%			19:45:58
2	Al 396.153Radial†	7273.6	7322.2	5191.4	µg/L	5191.4	ppb	19:45:58
2	Ca 317.933Radial†	5758.3	5594.2	5059.8	µg/L	5059.8	ppb	19:46:19
2	Fe 238.204 Radial†	609.6	597.2	5236.1	µg/L	5236.1	ppb	19:46:19
2	K 766.490 Radial†	7922.9	7815.6	5236.9	µg/L	5236.9	ppb	19:45:58
2	Mg 279.077 IEC†	571.3	562.7	5257.3	µg/L	5257.3	ppb	19:46:19
2	Na 589.592 Radial†	34482.2	34409.4	10460	µg/L	10460	ppb	19:45:58
2	Sr 421.552†	53304.3	53757.1	520.43	µg/L	520.43	ppb	19:45:58
2	Sc 361.383	1920944.4	1920944.4	98.623	%			19:47:30
2	Y 371.029	1315678.8	1315678.8	98.381	%			19:47:30
2	Ag 328.068†	67616.5	69071.2	525.27	µg/L	525.27	ppb	19:47:35
2	As 188.979†	275.7	278.8	524.31	µg/L	524.31	ppb	19:47:56
2	B 249.677†	12366.3	12225.9	512.42	µg/L	512.42	ppb	19:47:35
2	Ba 233.527†	20516.7	20828.7	527.14	µg/L	527.14	ppb	19:47:35
2	Be 313.107†	839788.5	855151.0	528.93	µg/L	528.93	ppb	19:47:30
2	Cd 226.502†	19432.2	19826.8	528.03	µg/L	528.03	ppb	19:47:35
2	Co 228.616†	10963.9	11122.9	529.19	µg/L	529.19	ppb	19:47:35
2	Cr 267.716†	24849.4	25222.4	532.51	µg/L	532.51	ppb	19:47:35
2	Cu 324.752†	81376.6	79282.7	524.39	µg/L	524.39	ppb	19:47:35
2	Mn 257.610†	159281.8	161748.5	537.58	µg/L	537.58	ppb	19:47:30
2	Mo 202.031†	5095.2	5165.3	534.83	µg/L	534.83	ppb	19:47:56
2	Ni 231.604†	10287.8	10150.8	531.09	µg/L	531.09	ppb	19:47:35
2	P 214.914†	1276.0	1266.3	2587.9	µg/L	2587.9	ppb	19:47:56
2	Pb 220.353†	2129.3	2068.7	530.60	µg/L	530.60	ppb	19:47:56

2	S 181.975 Axial†	258.2	246.8	1064.3 µg/L	1064.3 ppb	19:47:56
2	Sb 206.836†	557.5	544.3	516.54 µg/L	516.54 ppb	19:47:56
2	Se 196.026†	370.6	363.9	538.80 µg/L	538.80 ppb	19:47:56
2	SiO2†	28988.8	27881.8	5703.1 µg/L	5703.1 ppb	19:47:35
2	Si 251.611†	33457.1	33639.5	2660.5 µg/L	2660.5 ppb	19:47:35
2	Sn 189.927†	1180.2	1195.8	532.31 µg/L	532.31 ppb	19:47:56
2	Ti 334.940†	230634.4	233710.9	532.47 µg/L	532.47 ppb	19:47:30
2	Tl 190.801†	354.3	379.9	531.39 µg/L	531.39 ppb	19:47:56
2	U 409.014†	6456.2	6321.0	516.16 µg/L	516.16 ppb	19:47:35
2	V 292.402†	51370.6	52135.4	532.37 µg/L	532.37 ppb	19:47:35
2	Zn 213.857†	21924.4	21764.7	527.86 µg/L	527.86 ppb	19:47:35
3	Sc RADIAL	54602.2	54602.2	98.6 %		19:46:24
3	Al 396.153Radial†	7201.2	7289.2	5169.9 µg/L	5169.9 ppb	19:46:24
3	Ca 317.933Radial†	5742.7	5610.4	5074.5 µg/L	5074.5 ppb	19:46:45
3	Fe 238.204 Radial†	602.9	593.8	5205.5 µg/L	5205.5 ppb	19:46:45
3	K 766.490 Radial†	7888.4	7824.7	5243.1 µg/L	5243.1 ppb	19:46:24
3	Mg 279.077 IEC†	566.9	561.3	5243.2 µg/L	5243.2 ppb	19:46:45
3	Na 589.592 Radial†	34165.2	34279.7	10420 µg/L	10420 ppb	19:46:24
3	Sr 421.552†	52664.7	53405.0	517.02 µg/L	517.02 ppb	19:46:24
3	Sc 361.383	1914239.0	1914239.0	98.278 %		19:48:03
3	Y 371.029	1312091.3	1312091.3	98.113 %		19:48:03
3	Ag 328.068†	63331.5	64951.3	493.77 µg/L	493.77 ppb	19:48:09
3	As 188.979†	236.3	239.7	450.85 µg/L	450.85 ppb	19:48:29
3	B 249.677†	11508.0	11396.5	477.43 µg/L	477.43 ppb	19:48:09
3	Ba 233.527†	18520.8	18870.7	477.57 µg/L	477.57 ppb	19:48:09
3	Be 313.107†	765119.4	782156.6	483.79 µg/L	483.79 ppb	19:48:03
3	Cd 226.502†	17501.4	17931.3	477.48 µg/L	477.48 ppb	19:48:09
3	Co 228.616†	9785.5	9962.8	473.95 µg/L	473.95 ppb	19:48:09
3	Cr 267.716†	21434.8	21836.2	461.03 µg/L	461.03 ppb	19:48:09
3	Cu 324.752†	73006.9	71055.5	470.05 µg/L	470.05 ppb	19:48:09
3	Mn 257.610†	145654.1	148447.7	493.41 µg/L	493.41 ppb	19:48:03
3	Mo 202.031†	4191.9	4264.3	441.57 µg/L	441.57 ppb	19:48:29
3	Ni 231.604†	9174.2	9054.2	473.73 µg/L	473.73 ppb	19:48:09
3	P 214.914†	1072.9	1064.2	2171.1 µg/L	2171.1 ppb	19:48:29
3	Pb 220.353†	1813.4	1754.8	450.00 µg/L	450.00 ppb	19:48:29
3	S 181.975 Axial†	224.1	213.0	918.73 µg/L	918.73 ppb	19:48:29
3	Sb 206.836†	486.4	473.9	449.33 µg/L	449.33 ppb	19:48:29
3	Se 196.026†	322.7	316.4	469.44 µg/L	469.44 ppb	19:48:29
3	SiO2†	26701.1	25656.9	5248.0 µg/L	5248.0 ppb	19:48:09
3	Si 251.611†	30682.2	30934.8	2446.6 µg/L	2446.6 ppb	19:48:09
3	Sn 189.927†	960.6	976.6	434.71 µg/L	434.71 ppb	19:48:29
3	Ti 334.940†	208735.0	212247.1	483.54 µg/L	483.54 ppb	19:48:03
3	Tl 190.801†	312.9	339.0	474.35 µg/L	474.35 ppb	19:48:29
3	U 409.014†	5707.4	5582.0	455.70 µg/L	455.70 ppb	19:48:09
3	V 292.402†	45414.1	46257.0	472.13 µg/L	472.13 ppb	19:48:09
3	Zn 213.857†	19575.7	19452.8	471.74 µg/L	471.74 ppb	19:48:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1915844.2	98.361	%	0.2319				0.24%
Sc RADIAL	54719.7	98.8	%	0.29				0.29%
Y 371.029	1312159.5	98.118	%	0.2607				0.27%
Ag 328.068†	67819.7	515.70	µg/L	19.036	515.70	ppb	19.036	3.69%
QC value within limits for Ag 328.068 Recovery = 103.14%								
Al 396.153Radial†	7313.8	5185.9	µg/L	14.16	5185.9	ppb	14.16	0.27%
QC value within limits for Al 396.153Radial Recovery = 103.72%								
As 188.979†	269.7	507.19	µg/L	50.028	507.19	ppb	50.028	9.86%
QC value within limits for As 188.979 Recovery = 101.44%								
B 249.677†	11973.1	501.75	µg/L	21.115	501.75	ppb	21.115	4.21%
QC value within limits for B 249.677 Recovery = 100.35%								
Ba 233.527†	20204.8	511.35	µg/L	29.271	511.35	ppb	29.271	5.72%
QC value within limits for Ba 233.527 Recovery = 102.27%								
Be 313.107†	828549.9	512.48	µg/L	24.939	512.48	ppb	24.939	4.87%
QC value within limits for Be 313.107 Recovery = 102.50%								
Ca 317.933Radial†	5596.2	5061.7	µg/L	12.05	5061.7	ppb	12.05	0.24%
QC value within limits for Ca 317.933Radial Recovery = 101.23%								
Cd 226.502†	19208.7	511.54	µg/L	29.502	511.54	ppb	29.502	5.77%
QC value within limits for Cd 226.502 Recovery = 102.31%								
Co 228.616†	10740.4	510.98	µg/L	32.074	510.98	ppb	32.074	6.28%

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   QC value within limits for Co 228.616  Recovery = 102.20%
Cr 267.716†            24110.9      509.05 µg/L        41.590      509.05 ppb         41.590   8.17%
   QC value within limits for Cr 267.716  Recovery = 101.81%
Cu 324.752†            76659.6      507.06 µg/L        32.081      507.06 ppb         32.081   6.33%
   QC value within limits for Cu 324.752  Recovery = 101.41%
Fe 238.204 Radial†       596.1      5226.2 µg/L         17.93      5226.2 ppb          17.93   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.52%
K 766.490 Radial†       7833.6      5249.0 µg/L         15.93      5249.0 ppb          15.93   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 104.98%
Mg 279.077 IEC†          562.3      5253.5 µg/L          9.04      5253.5 ppb           9.04   0.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.07%
Mn 257.610†           156894.0      521.46 µg/L        24.381      521.46 ppb         24.381   4.68%
   QC value within limits for Mn 257.610  Recovery = 104.29%
Mo 202.031†             4917.9      509.22 µg/L        59.165      509.22 ppb         59.165  11.62%
   QC value within limits for Mo 202.031  Recovery = 101.84%
Na 589.592 Radial†     34395.9       10456 µg/L          33.4       10456 ppb           33.4   0.32%
   QC value within limits for Na 589.592 Radial  Recovery = 104.56%
Ni 231.604†             9792.0      512.32 µg/L        33.432      512.32 ppb         33.432   6.53%
   QC value within limits for Ni 231.604  Recovery = 102.46%
P 214.914†              1210.7      2473.6 µg/L        264.52      2473.6 ppb         264.52  10.69%
   QC value within limits for P 214.914  Recovery = 98.94%
Pb 220.353†             1976.8      507.02 µg/L        49.625      507.02 ppb         49.625   9.79%
   QC value within limits for Pb 220.353  Recovery = 101.40%
S 181.975 Axial†         237.3      1023.5 µg/L         91.47      1023.5 ppb          91.47   8.94%
   QC value within limits for S 181.975 Axial  Recovery = 102.35%
Sb 206.836†              527.5      500.50 µg/L        45.326      500.50 ppb         45.326   9.06%
   QC value within limits for Sb 206.836  Recovery = 100.10%
Se 196.026†              349.1      517.30 µg/L        41.522      517.30 ppb         41.522   8.03%
   QC value within limits for Se 196.026  Recovery = 103.46%
SiO2†                  27134.0      5550.1 µg/L        261.67      5550.1 ppb         261.67   4.71%
   QC value within limits for SiO2  Recovery = 103.79%
Si 251.611†            32741.9      2589.5 µg/L        123.77      2589.5 ppb         123.77   4.78%
   QC value within limits for Si 251.611  Recovery = 103.58%
Sn 189.927†             1138.7      506.87 µg/L        63.392      506.87 ppb         63.392  12.51%
   QC value within limits for Sn 189.927  Recovery = 101.37%
Sr 421.552†            53667.3      519.56 µg/L         2.235      519.56 ppb          2.235   0.43%
   QC value within limits for Sr 421.552  Recovery = 103.91%
Ti 334.940†           225975.4      514.84 µg/L        27.176      514.84 ppb         27.176   5.28%
   QC value within limits for Ti 334.940  Recovery = 102.97%
Tl 190.801†              368.2      515.01 µg/L        35.432      515.01 ppb         35.432   6.88%
   QC value within limits for Tl 190.801  Recovery = 103.00%
U 409.014†              6083.3      496.71 µg/L        35.536      496.71 ppb         35.536   7.15%
   QC value within limits for U 409.014  Recovery = 99.34%
V 292.402†             50254.4      513.12 µg/L        35.527      513.12 ppb         35.527   6.92%
   QC value within limits for V 292.402  Recovery = 102.62%
Zn 213.857†            21012.9      509.61 µg/L        32.808      509.61 ppb         32.808   6.44%
   QC value within limits for Zn 213.857  Recovery = 101.92%
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 19:48:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54484.8	54484.8	98.4	%			19:49:11
1	Al 396.153Radial†	-11.8	-28.0	-19.888	µg/L	-19.888	ppb	19:49:11
1	Ca 317.933Radial†	176.3	-36.0	-32.525	µg/L	-32.525	ppb	19:49:32
1	Fe 238.204 Radial†	17.6	0.1	0.9670	µg/L	0.9670	ppb	19:49:32
1	K 766.490 Radial†	219.5	45.6	30.554	µg/L	30.554	ppb	19:49:11
1	Mg 279.077 IEC†	11.0	-2.6	-23.818	µg/L	-23.818	ppb	19:49:32
1	Na 589.592 Radial†	418.1	46.3	14.079	µg/L	14.079	ppb	19:49:11
1	Sr 421.552†	28.4	8.9	0.0858	µg/L	0.0858	ppb	19:49:11
1	Sc 361.383	1906764.0	1906764.0	97.894	%			19:50:34
1	Y 371.029	1309369.6	1309369.6	97.909	%			19:50:34
1	Ag 328.068†	-465.2	35.1	0.2634	µg/L	0.2634	ppb	19:50:39
1	As 188.979†	1.5	0.8	1.4671	µg/L	1.4671	ppb	19:51:00
1	B 249.677†	312.5	6.1	0.2573	µg/L	0.2573	ppb	19:51:00
1	Ba 233.527†	-14.3	10.8	0.2718	µg/L	0.2718	ppb	19:51:00
1	Be 313.107†	-3642.5	-87.9	-0.0546	µg/L	-0.0546	ppb	19:50:39
1	Cd 226.502†	-133.5	-13.2	-0.3502	µg/L	-0.3502	ppb	19:51:00
1	Co 228.616†	0.5	6.4	0.3019	µg/L	0.3019	ppb	19:51:00
1	Cr 267.716†	-39.9	-14.8	-0.3128	µg/L	-0.3128	ppb	19:51:00
1	Cu 324.752†	3285.4	125.5	0.8294	µg/L	0.8294	ppb	19:50:39
1	Mn 257.610†	-104.1	135.6	0.4512	µg/L	0.4512	ppb	19:51:00
1	Mo 202.031†	-1.5	-2.6	-0.2731	µg/L	-0.2731	ppb	19:51:00
1	Ni 231.604†	294.4	20.0	1.0464	µg/L	1.0464	ppb	19:51:00
1	P 214.914†	9.4	-18.0	-37.479	µg/L	-37.479	ppb	19:51:00
1	Pb 220.353†	84.7	-3.8	-0.9812	µg/L	-0.9812	ppb	19:51:00
1	S 181.975 Axial†	14.0	-0.7	-3.1372	µg/L	-3.1372	ppb	19:51:00
1	Sb 206.836†	24.4	3.9	3.6823	µg/L	3.6823	ppb	19:51:00
1	Se 196.026†	14.1	2.4	3.5896	µg/L	3.5896	ppb	19:51:00
1	SiO2†	1659.0	182.7	37.368	µg/L	37.368	ppb	19:50:39
1	Si 251.611†	435.2	159.7	12.629	µg/L	12.629	ppb	19:51:00
1	Sn 189.927†	3.8	3.0	1.3418	µg/L	1.3418	ppb	19:51:00
1	Ti 334.940†	393.3	256.9	0.5871	µg/L	0.5871	ppb	19:50:39
1	Tl 190.801†	-15.8	4.5	6.1567	µg/L	6.1567	ppb	19:51:00
1	U 409.014†	196.3	-24.9	-2.0321	µg/L	-2.0321	ppb	19:50:39
1	V 292.402†	-67.4	-21.5	-0.2218	µg/L	-0.2218	ppb	19:50:39
1	Zn 213.857†	462.8	6.9	0.1636	µg/L	0.1636	ppb	19:51:00
2	Sc RADIAL	54475.5	54475.5	98.3	%			19:49:37
2	Al 396.153Radial†	-16.2	-32.5	-23.057	µg/L	-23.057	ppb	19:49:37
2	Ca 317.933Radial†	183.2	-28.9	-26.136	µg/L	-26.136	ppb	19:49:57
2	Fe 238.204 Radial†	16.6	-0.9	-7.8734	µg/L	-7.8734	ppb	19:49:57
2	K 766.490 Radial†	228.2	54.4	36.477	µg/L	36.477	ppb	19:49:37
2	Mg 279.077 IEC†	11.1	-2.4	-22.558	µg/L	-22.558	ppb	19:49:57
2	Na 589.592 Radial†	394.8	22.7	6.9099	µg/L	6.9099	ppb	19:49:37
2	Sr 421.552†	39.8	20.4	0.1976	µg/L	0.1976	ppb	19:49:37
2	Sc 361.383	1917996.3	1917996.3	98.471	%			19:51:06
2	Y 371.029	1317038.9	1317038.9	98.483	%			19:51:06
2	Ag 328.068†	-543.4	-41.5	-0.3157	µg/L	-0.3157	ppb	19:51:11
2	As 188.979†	-4.4	-5.3	-9.9784	µg/L	-9.9784	ppb	19:51:32
2	B 249.677†	310.7	2.5	0.1073	µg/L	0.1073	ppb	19:51:32
2	Ba 233.527†	-12.7	12.5	0.3156	µg/L	0.3156	ppb	19:51:32
2	Be 313.107†	-3631.1	-54.6	-0.0340	µg/L	-0.0340	ppb	19:51:11
2	Cd 226.502†	-131.6	-10.5	-0.2765	µg/L	-0.2765	ppb	19:51:32
2	Co 228.616†	-0.8	5.0	0.2384	µg/L	0.2384	ppb	19:51:32
2	Cr 267.716†	-36.5	-11.2	-0.2361	µg/L	-0.2361	ppb	19:51:32
2	Cu 324.752†	3245.1	65.0	0.4283	µg/L	0.4283	ppb	19:51:11
2	Mn 257.610†	-116.7	123.5	0.4099	µg/L	0.4099	ppb	19:51:32
2	Mo 202.031†	-5.8	-7.0	-0.7290	µg/L	-0.7290	ppb	19:51:32
2	Ni 231.604†	295.1	19.0	0.9949	µg/L	0.9949	ppb	19:51:32
2	P 214.914†	19.3	-7.9	-16.463	µg/L	-16.463	ppb	19:51:32
2	Pb 220.353†	86.5	-2.5	-0.6495	µg/L	-0.6495	ppb	19:51:32

2	S 181.975 Axial†	13.5	-1.4	-5.8598 µg/L	-5.8598 ppb	19:51:32
2	Sb 206.836†	19.6	-1.2	-1.1307 µg/L	-1.1307 ppb	19:51:32
2	Se 196.026†	19.7	8.0	11.693 µg/L	11.693 ppb	19:51:32
2	SiO2†	1679.7	193.8	39.645 µg/L	39.645 ppb	19:51:11
2	Si 251.611†	467.2	189.6	14.994 µg/L	14.994 ppb	19:51:32
2	Sn 189.927†	6.0	5.2	2.3118 µg/L	2.3118 ppb	19:51:32
2	Ti 334.940†	405.1	266.6	0.6092 µg/L	0.6092 ppb	19:51:11
2	Tl 190.801†	-21.0	-0.8	-1.0861 µg/L	-1.0861 ppb	19:51:32
2	U 409.014†	189.0	-33.4	-2.7295 µg/L	-2.7295 ppb	19:51:11
2	V 292.402†	-73.5	-27.3	-0.2858 µg/L	-0.2858 ppb	19:51:11
2	Zn 213.857†	461.0	2.2	0.0513 µg/L	0.0513 ppb	19:51:32
3	Sc RADIAL	54230.7	54230.7	97.9 %		19:50:03
3	Al 396.153Radial†	-0.5	-16.5	-11.735 µg/L	-11.735 ppb	19:50:03
3	Ca 317.933Radial†	178.0	-33.4	-30.170 µg/L	-30.170 ppb	19:50:23
3	Fe 238.204 Radial†	15.7	-1.7	-14.939 µg/L	-14.939 ppb	19:50:23
3	K 766.490 Radial†	130.9	-43.9	-29.390 µg/L	-29.390 ppb	19:50:03
3	Mg 279.077 IEC†	10.4	-3.1	-29.273 µg/L	-29.273 ppb	19:50:23
3	Na 589.592 Radial†	392.4	22.1	6.7084 µg/L	6.7084 ppb	19:50:03
3	Sr 421.552†	20.0	0.4	0.0041 µg/L	0.0041 ppb	19:50:03
3	Sc 361.383	1929254.8	1929254.8	99.049 %		19:51:38
3	Y 371.029	1325669.5	1325669.5	99.128 %		19:51:38
3	Ag 328.068†	-486.2	19.4	0.1465 µg/L	0.1465 ppb	19:51:43
3	As 188.979†	2.4	1.6	3.0450 µg/L	3.0450 ppb	19:52:04
3	B 249.677†	303.7	-6.5	-0.2650 µg/L	-0.2650 ppb	19:52:04
3	Ba 233.527†	-5.3	20.0	0.5065 µg/L	0.5065 ppb	19:52:04
3	Be 313.107†	-3711.1	-113.8	-0.0706 µg/L	-0.0706 ppb	19:51:43
3	Cd 226.502†	-135.6	-13.7	-0.3613 µg/L	-0.3613 ppb	19:52:04
3	Co 228.616†	-15.3	-9.6	-0.4604 µg/L	-0.4604 ppb	19:52:04
3	Cr 267.716†	-25.8	-0.1	-0.0014 µg/L	-0.0014 ppb	19:52:04
3	Cu 324.752†	3217.4	17.7	0.1151 µg/L	0.1151 ppb	19:51:43
3	Mn 257.610†	-116.0	124.9	0.4138 µg/L	0.4138 ppb	19:52:04
3	Mo 202.031†	0.2	-0.9	-0.0929 µg/L	-0.0929 ppb	19:52:04
3	Ni 231.604†	297.2	19.4	1.0147 µg/L	1.0147 ppb	19:52:04
3	P 214.914†	20.6	-6.7	-14.008 µg/L	-14.008 ppb	19:52:04
3	Pb 220.353†	94.2	4.7	1.2045 µg/L	1.2045 ppb	19:52:04
3	S 181.975 Axial†	13.0	-1.9	-8.3565 µg/L	-8.3565 ppb	19:52:04
3	Sb 206.836†	30.7	9.9	9.3584 µg/L	9.3584 ppb	19:52:04
3	Se 196.026†	13.1	1.3	1.8205 µg/L	1.8205 ppb	19:52:04
3	SiO2†	1725.0	229.6	46.972 µg/L	46.972 ppb	19:51:43
3	Si 251.611†	483.1	202.8	16.039 µg/L	16.039 ppb	19:52:04
3	Sn 189.927†	-5.5	-6.4	-2.8672 µg/L	-2.8672 ppb	19:52:04
3	Ti 334.940†	356.2	214.8	0.4916 µg/L	0.4916 ppb	19:51:43
3	Tl 190.801†	-21.3	-1.0	-1.3169 µg/L	-1.3169 ppb	19:52:04
3	U 409.014†	247.5	24.5	2.0093 µg/L	2.0093 ppb	19:51:43
3	V 292.402†	-28.0	19.0	0.1915 µg/L	0.1915 ppb	19:51:43
3	Zn 213.857†	468.1	6.7	0.1617 µg/L	0.1617 ppb	19:52:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1918005.0	98.472	%	0.5773				0.59%
Sc RADIAL	54397.0	98.2	%	0.26				0.26%
Y 371.029	1317359.3	98.507	%	0.6098				0.62%
Ag 328.068†	4.3	0.0314	µg/L	0.30623	0.0314	ppb	0.30623	974.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-25.7	-18.227	µg/L	5.8409	-18.227	ppb	5.8409	32.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.8221	µg/L	7.10745	-1.8221	ppb	7.10745	390.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	0.7	0.0332	µg/L	0.26892	0.0332	ppb	0.26892	809.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.4	0.3647	µg/L	0.12479	0.3647	ppb	0.12479	34.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-85.4	-0.0531	µg/L	0.01835	-0.0531	ppb	0.01835	34.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-32.7	-29.610	µg/L	3.2312	-29.610	ppb	3.2312	10.91%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-12.4	-0.3293	µg/L	0.04609	-0.3293	ppb	0.04609	14.00%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.6	0.0266	µg/L	0.42294	0.0266	ppb	0.42294	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -8.7     -0.1834 µg/L       0.16223     -0.1834 ppb        0.16223  88.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                69.4      0.4576 µg/L       0.35804      0.4576 ppb        0.35804  78.24%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -7.2818 µg/L       7.96953     -7.2818 ppb        7.96953 109.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          18.7      12.547 µg/L       36.4387      12.547 ppb        36.4387 290.42%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.7     -25.216 µg/L        3.5690     -25.216 ppb         3.5690  14.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               128.0      0.4249 µg/L       0.02284      0.4249 ppb        0.02284   5.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.5     -0.3650 µg/L       0.32784     -0.3650 ppb        0.32784  89.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         30.4      9.2324 µg/L       4.19845      9.2324 ppb        4.19845  45.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                19.5      1.0186 µg/L       0.02601      1.0186 ppb        0.02601   2.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.9     -22.650 µg/L       12.9009     -22.650 ppb        12.9009  56.96%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.5     -0.1421 µg/L       1.17788     -0.1421 ppb        1.17788 828.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.3     -5.7845 µg/L       2.61049     -5.7845 ppb        2.61049  45.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.2      3.9700 µg/L       5.25044      3.9700 ppb        5.25044 132.25%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.9      5.7010 µg/L       5.26386      5.7010 ppb        5.26386  92.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     202.0      41.328 µg/L        5.0182      41.328 ppb         5.0182  12.14%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               184.0      14.554 µg/L        1.7472      14.554 ppb         1.7472  12.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.6      0.2621 µg/L       2.75313      0.2621 ppb        2.75313 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.9      0.0959 µg/L       0.09715      0.0959 ppb        0.09715 101.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               246.1      0.5626 µg/L       0.06251      0.5626 ppb        0.06251  11.11%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      1.2512 µg/L       4.24983      1.2512 ppb        4.24983 339.65%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -11.2     -0.9174 µg/L       2.55849     -0.9174 ppb        2.55849 278.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -9.9     -0.1054 µg/L       0.25905     -0.1054 ppb        0.25905 245.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 5.3      0.1255 µg/L       0.06428      0.1255 ppb        0.06428  51.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 20:13:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55497.6	55497.6	100	%			20:14:35
1	Al 396.153Radial†	7052.8	7023.2	4979.1	µg/L	4979.1	ppb	20:14:35
1	Ca 317.933Radial†	5726.8	5500.6	4975.2	µg/L	4975.2	ppb	20:14:56
1	Fe 238.204 Radial†	597.7	578.7	5074.0	µg/L	5074.0	ppb	20:14:56
1	K 766.490 Radial†	7724.7	7532.2	5047.1	µg/L	5047.1	ppb	20:14:35
1	Mg 279.077 IEC†	558.4	543.6	5079.4	µg/L	5079.4	ppb	20:14:56
1	Na 589.592 Radial†	33486.4	33043.1	10045	µg/L	10045	ppb	20:14:35
1	Sr 421.552†	52121.4	52000.9	503.43	µg/L	503.43	ppb	20:14:35
1	Sc 361.383	1968745.4	1968745.4	101.08	%			20:15:59
1	Y 371.029	1349185.2	1349185.2	100.89	%			20:15:59
1	Ag 328.068†	66843.7	66642.0	506.82	µg/L	506.82	ppb	20:16:04
1	As 188.979†	276.8	273.1	513.65	µg/L	513.65	ppb	20:16:25
1	B 249.677†	12370.5	11925.6	499.85	µg/L	499.85	ppb	20:16:04
1	Ba 233.527†	20416.5	20224.4	511.85	µg/L	511.85	ppb	20:16:04
1	Be 313.107†	832290.9	827058.4	511.56	µg/L	511.56	ppb	20:15:59
1	Cd 226.502†	19600.0	19514.4	519.71	µg/L	519.71	ppb	20:16:04
1	Co 228.616†	10965.7	10854.7	516.46	µg/L	516.46	ppb	20:16:04
1	Cr 267.716†	24841.1	24602.4	519.42	µg/L	519.42	ppb	20:16:04
1	Cu 324.752†	80365.4	76278.9	504.53	µg/L	504.53	ppb	20:16:04
1	Mn 257.610†	156887.0	155457.8	516.67	µg/L	516.67	ppb	20:15:59
1	Mo 202.031†	5134.4	5078.6	525.85	µg/L	525.85	ppb	20:16:25
1	Ni 231.604†	10290.3	9899.9	517.97	µg/L	517.97	ppb	20:16:04
1	P 214.914†	1299.3	1257.9	2572.5	µg/L	2572.5	ppb	20:16:25
1	Pb 220.353†	2138.8	2025.6	519.58	µg/L	519.58	ppb	20:16:25
1	S 181.975 Axial†	262.0	244.2	1053.1	µg/L	1053.1	ppb	20:16:25
1	Sb 206.836†	578.0	550.8	522.68	µg/L	522.68	ppb	20:16:25
1	Se 196.026†	376.5	360.5	533.66	µg/L	533.66	ppb	20:16:25
1	SiO2†	28498.4	26682.9	5457.9	µg/L	5457.9	ppb	20:16:04
1	Si 251.611†	32817.5	32183.0	2545.3	µg/L	2545.3	ppb	20:16:04
1	Sn 189.927†	1207.2	1193.5	531.28	µg/L	531.28	ppb	20:16:25
1	Ti 334.940†	225969.7	223418.0	509.02	µg/L	509.02	ppb	20:15:59
1	Tl 190.801†	350.2	367.0	513.31	µg/L	513.31	ppb	20:16:25
1	U 409.014†	6397.3	6103.8	498.42	µg/L	498.42	ppb	20:16:04
1	V 292.402†	51088.6	50591.7	516.66	µg/L	516.66	ppb	20:16:04
1	Zn 213.857†	21882.2	21183.2	513.77	µg/L	513.77	ppb	20:16:04
2	Sc RADIAL	54196.2	54196.2	97.8	%			20:15:01
2	Al 396.153Radial†	6949.8	7086.9	5024.5	µg/L	5024.5	ppb	20:15:01
2	Ca 317.933Radial†	5721.2	5632.1	5094.1	µg/L	5094.1	ppb	20:15:22
2	Fe 238.204 Radial†	599.0	594.4	5210.9	µg/L	5210.9	ppb	20:15:22
2	K 766.490 Radial†	7617.7	7608.0	5097.8	µg/L	5097.8	ppb	20:15:01
2	Mg 279.077 IEC†	560.2	558.8	5220.7	µg/L	5220.7	ppb	20:15:22
2	Na 589.592 Radial†	33209.3	33562.3	10202	µg/L	10202	ppb	20:15:01
2	Sr 421.552†	51487.6	52602.2	509.25	µg/L	509.25	ppb	20:15:01
2	Sc 361.383	1964099.1	1964099.1	100.84	%			20:16:32
2	Y 371.029	1346010.5	1346010.5	100.65	%			20:16:32
2	Ag 328.068†	66545.6	66502.8	505.77	µg/L	505.77	ppb	20:16:37
2	As 188.979†	279.0	275.9	518.98	µg/L	518.98	ppb	20:16:58
2	B 249.677†	12315.8	11900.3	498.71	µg/L	498.71	ppb	20:16:37
2	Ba 233.527†	20342.3	20198.6	511.19	µg/L	511.19	ppb	20:16:37
2	Be 313.107†	832561.0	829274.1	512.93	µg/L	512.93	ppb	20:16:32
2	Cd 226.502†	19422.0	19383.8	516.21	µg/L	516.21	ppb	20:16:37
2	Co 228.616†	10848.0	10763.7	512.11	µg/L	512.11	ppb	20:16:37
2	Cr 267.716†	24663.1	24484.0	516.92	µg/L	516.92	ppb	20:16:37
2	Cu 324.752†	79870.6	75976.3	502.55	µg/L	502.55	ppb	20:16:37
2	Mn 257.610†	156942.5	155880.1	518.09	µg/L	518.09	ppb	20:16:32
2	Mo 202.031†	5083.1	5039.7	521.83	µg/L	521.83	ppb	20:16:58
2	Ni 231.604†	10239.6	9873.8	516.61	µg/L	516.61	ppb	20:16:37
2	P 214.914†	1284.1	1245.9	2547.6	µg/L	2547.6	ppb	20:16:58
2	Pb 220.353†	2120.5	2012.5	516.22	µg/L	516.22	ppb	20:16:58

2	S 181.975 Axial†	260.7	243.4	1050.0 µg/L	1050.0 ppb	20:16:58
2	Sb 206.836†	568.6	542.8	515.10 µg/L	515.10 ppb	20:16:58
2	Se 196.026†	371.2	356.1	527.47 µg/L	527.47 ppb	20:16:58
2	SiO2†	28566.7	26817.3	5485.4 µg/L	5485.4 ppb	20:16:37
2	Si 251.611†	32880.0	32321.8	2556.3 µg/L	2556.3 ppb	20:16:37
2	Sn 189.927†	1188.2	1177.5	524.15 µg/L	524.15 ppb	20:16:58
2	Ti 334.940†	226319.2	224293.4	511.00 µg/L	511.00 ppb	20:16:32
2	Tl 190.801†	349.4	367.1	513.51 µg/L	513.51 ppb	20:16:58
2	U 409.014†	6364.9	6086.6	496.99 µg/L	496.99 ppb	20:16:37
2	V 292.402†	50829.0	50453.8	515.25 µg/L	515.25 ppb	20:16:37
2	Zn 213.857†	21744.3	21097.7	511.67 µg/L	511.67 ppb	20:16:37
3	Sc RADIAL	54924.4	54924.4	99.2 %		20:15:27
3	Al 396.153Radial†	7045.7	7089.4	5028.2 µg/L	5028.2 ppb	20:15:27
3	Ca 317.933Radial†	5693.8	5527.0	4999.1 µg/L	4999.1 ppb	20:15:47
3	Fe 238.204 Radial†	595.2	582.4	5105.3 µg/L	5105.3 ppb	20:15:47
3	K 766.490 Radial†	7717.2	7605.1	5095.9 µg/L	5095.9 ppb	20:15:27
3	Mg 279.077 IEC†	556.3	547.3	5112.0 µg/L	5112.0 ppb	20:15:47
3	Na 589.592 Radial†	33614.0	33520.6	10190 µg/L	10190 ppb	20:15:27
3	Sr 421.552†	52169.5	52592.2	509.15 µg/L	509.15 ppb	20:15:27
3	Sc 361.383	1951285.6	1951285.6	100.18 %		20:17:05
3	Y 371.029	1338073.7	1338073.7	100.06 %		20:17:05
3	Ag 328.068†	62061.3	62459.9	474.86 µg/L	474.86 ppb	20:17:11
3	As 188.979†	230.7	229.5	431.66 µg/L	431.66 ppb	20:17:31
3	B 249.677†	11396.8	11063.2	463.44 µg/L	463.44 ppb	20:17:11
3	Ba 233.527†	18272.5	18265.0	462.24 µg/L	462.24 ppb	20:17:11
3	Be 313.107†	769739.2	771987.1	477.50 µg/L	477.50 ppb	20:17:05
3	Cd 226.502†	17433.1	17524.9	466.66 µg/L	466.66 ppb	20:17:11
3	Co 228.616†	9638.4	9626.8	457.96 µg/L	457.96 ppb	20:17:11
3	Cr 267.716†	21249.7	21237.4	448.39 µg/L	448.39 ppb	20:17:11
3	Cu 324.752†	71769.5	68409.9	452.56 µg/L	452.56 ppb	20:17:11
3	Mn 257.610†	145821.1	145800.6	484.61 µg/L	484.61 ppb	20:17:05
3	Mo 202.031†	4169.4	4160.8	430.86 µg/L	430.86 ppb	20:17:31
3	Ni 231.604†	9098.0	8800.9	460.48 µg/L	460.48 ppb	20:17:11
3	P 214.914†	1073.3	1043.8	2130.4 µg/L	2130.4 ppb	20:17:31
3	Pb 220.353†	1812.1	1718.4	440.70 µg/L	440.70 ppb	20:17:31
3	S 181.975 Axial†	230.2	214.7	926.21 µg/L	926.21 ppb	20:17:31
3	Sb 206.836†	483.7	461.8	437.84 µg/L	437.84 ppb	20:17:31
3	Se 196.026†	323.3	310.8	461.19 µg/L	461.19 ppb	20:17:31
3	SiO2†	26067.0	24508.1	5013.0 µg/L	5013.0 ppb	20:17:11
3	Si 251.611†	29935.2	29596.5	2340.8 µg/L	2340.8 ppb	20:17:11
3	Sn 189.927†	961.6	959.0	426.91 µg/L	426.91 ppb	20:17:31
3	Ti 334.940†	208054.6	207535.4	472.81 µg/L	472.81 ppb	20:17:05
3	Tl 190.801†	305.8	325.8	456.04 µg/L	456.04 ppb	20:17:31
3	U 409.014†	5618.2	5382.8	439.42 µg/L	439.42 ppb	20:17:11
3	V 292.402†	44887.7	44854.3	457.84 µg/L	457.84 ppb	20:17:11
3	Zn 213.857†	19458.4	18957.5	459.74 µg/L	459.74 ppb	20:17:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1961376.7	100.70	%	0.464				0.46%
Sc RADIAL	54872.7	99.1	%	1.18				1.19%
Y 371.029	1344423.1	100.53	%	0.428				0.43%
Ag 328.068†	65201.6	495.82	µg/L	18.152	495.82	ppb	18.152	3.66%
QC value within limits for Ag 328.068 Recovery = 99.16%								
Al 396.153Radial†	7066.5	5010.6	µg/L	27.30	5010.6	ppb	27.30	0.54%
QC value within limits for Al 396.153Radial Recovery = 100.21%								
As 188.979†	259.5	488.09	µg/L	48.949	488.09	ppb	48.949	10.03%
QC value within limits for As 188.979 Recovery = 97.62%								
B 249.677†	11629.7	487.34	µg/L	20.700	487.34	ppb	20.700	4.25%
QC value within limits for B 249.677 Recovery = 97.47%								
Ba 233.527†	19562.7	495.09	µg/L	28.452	495.09	ppb	28.452	5.75%
QC value within limits for Ba 233.527 Recovery = 99.02%								
Be 313.107†	809439.9	500.66	µg/L	20.073	500.66	ppb	20.073	4.01%
QC value within limits for Be 313.107 Recovery = 100.13%								
Ca 317.933Radial†	5553.2	5022.8	µg/L	62.92	5022.8	ppb	62.92	1.25%
QC value within limits for Ca 317.933Radial Recovery = 100.46%								
Cd 226.502†	18807.7	500.86	µg/L	29.671	500.86	ppb	29.671	5.92%
QC value within limits for Cd 226.502 Recovery = 100.17%								
Co 228.616†	10415.1	495.51	µg/L	32.593	495.51	ppb	32.593	6.58%

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   QC value within limits for Co 228.616  Recovery = 99.10%
Cr 267.716†            23441.3      494.91 µg/L        40.312      494.91 ppb         40.312   8.15%
   QC value within limits for Cr 267.716  Recovery = 98.98%
Cu 324.752†            73555.0      486.54 µg/L        29.450      486.54 ppb         29.450   6.05%
   QC value within limits for Cu 324.752  Recovery = 97.31%
Fe 238.204 Radial†       585.2      5130.1 µg/L         71.74      5130.1 ppb          71.74   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.60%
K 766.490 Radial†       7581.8      5080.3 µg/L         28.77      5080.3 ppb          28.77   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 101.61%
Mg 279.077 IEC†          549.9      5137.4 µg/L         74.03      5137.4 ppb          74.03   1.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.75%
Mn 257.610†           152379.5      506.46 µg/L        18.934      506.46 ppb         18.934   3.74%
   QC value within limits for Mn 257.610  Recovery = 101.29%
Mo 202.031†             4759.7      492.85 µg/L        53.723      492.85 ppb         53.723  10.90%
   QC value within limits for Mo 202.031  Recovery = 98.57%
Na 589.592 Radial†     33375.3       10146 µg/L          87.7       10146 ppb           87.7   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 101.46%
Ni 231.604†             9524.9      498.35 µg/L        32.806      498.35 ppb         32.806   6.58%
   QC value within limits for Ni 231.604  Recovery = 99.67%
P 214.914†              1182.5      2416.8 µg/L        248.34      2416.8 ppb         248.34  10.28%
   QC value within limits for P 214.914  Recovery = 96.67%
Pb 220.353†             1918.9      492.17 µg/L        44.603      492.17 ppb         44.603   9.06%
   QC value within limits for Pb 220.353  Recovery = 98.43%
S 181.975 Axial†         234.1      1009.8 µg/L         72.38      1009.8 ppb          72.38   7.17%
   QC value within limits for S 181.975 Axial  Recovery = 100.98%
Sb 206.836†              518.4      491.87 µg/L        46.949      491.87 ppb         46.949   9.55%
   QC value within limits for Sb 206.836  Recovery = 98.37%
Se 196.026†              342.5      507.44 µg/L        40.175      507.44 ppb         40.175   7.92%
   QC value within limits for Se 196.026  Recovery = 101.49%
SiO2†                  26002.8      5318.8 µg/L        265.12      5318.8 ppb         265.12   4.98%
   QC value within limits for SiO2  Recovery = 99.46%
Si 251.611†            31367.1      2480.8 µg/L        121.40      2480.8 ppb         121.40   4.89%
   QC value within limits for Si 251.611  Recovery = 99.23%
Sn 189.927†             1110.0      494.11 µg/L        58.307      494.11 ppb         58.307  11.80%
   QC value within limits for Sn 189.927  Recovery = 98.82%
Sr 421.552†            52398.4      507.28 µg/L         3.333      507.28 ppb          3.333   0.66%
   QC value within limits for Sr 421.552  Recovery = 101.46%
Ti 334.940†           218415.6      497.61 µg/L        21.503      497.61 ppb         21.503   4.32%
   QC value within limits for Ti 334.940  Recovery = 99.52%
Tl 190.801†              353.3      494.29 µg/L        33.123      494.29 ppb         33.123   6.70%
   QC value within limits for Tl 190.801  Recovery = 98.86%
U 409.014†              5857.7      478.28 µg/L        33.661      478.28 ppb         33.661   7.04%
   QC value within limits for U 409.014  Recovery = 95.66%
V 292.402†             48633.3      496.58 µg/L        33.562      496.58 ppb         33.562   6.76%
   QC value within limits for V 292.402  Recovery = 99.32%
Zn 213.857†            20412.8      495.06 µg/L        30.607      495.06 ppb         30.607   6.18%
   QC value within limits for Zn 213.857  Recovery = 99.01%
All analyte(s) passed QC.
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Sequence No.: 40
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 20:17:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53917.2	53917.2	97.3	%			20:18:13
1	Al 396.153Radial†	-16.3	-32.7	-23.273	µg/L	-23.273	ppb	20:18:13
1	Ca 317.933Radial†	213.9	4.6	4.1186	µg/L	4.1186	ppb	20:18:33
1	Fe 238.204 Radial†	16.1	-1.2	-10.889	µg/L	-10.889	ppb	20:18:33
1	K 766.490 Radial†	188.2	15.8	10.593	µg/L	10.593	ppb	20:18:13
1	Mg 279.077 IEC†	11.2	-2.2	-20.904	µg/L	-20.904	ppb	20:18:33
1	Na 589.592 Radial†	478.3	112.7	34.253	µg/L	34.253	ppb	20:18:13
1	Sr 421.552†	57.6	39.1	0.3789	µg/L	0.3789	ppb	20:18:13
1	Sc 361.383	1986020.8	1986020.8	101.96	%			20:19:35
1	Y 371.029	1366607.3	1366607.3	102.19	%			20:19:35
1	Ag 328.068†	-592.9	-71.2	-0.5398	µg/L	-0.5398	ppb	20:19:41
1	As 188.979†	-1.6	-2.4	-4.4968	µg/L	-4.4968	ppb	20:20:01
1	B 249.677†	350.4	30.6	1.2915	µg/L	1.2915	ppb	20:20:01
1	Ba 233.527†	-22.9	3.0	0.0752	µg/L	0.0752	ppb	20:20:01
1	Be 313.107†	-3645.8	57.3	0.0354	µg/L	0.0354	ppb	20:19:41
1	Cd 226.502†	-130.9	-5.2	-0.1369	µg/L	-0.1369	ppb	20:20:01
1	Co 228.616†	-2.9	2.9	0.1399	µg/L	0.1399	ppb	20:20:01
1	Cr 267.716†	-13.7	12.5	0.2629	µg/L	0.2629	ppb	20:19:41
1	Cu 324.752†	3301.0	6.9	0.0441	µg/L	0.0441	ppb	20:19:41
1	Mn 257.610†	-191.2	54.5	0.1802	µg/L	0.1802	ppb	20:20:01
1	Mo 202.031†	7.2	5.9	0.6134	µg/L	0.6134	ppb	20:20:01
1	Ni 231.604†	287.2	1.0	0.0507	µg/L	0.0507	ppb	20:20:01
1	P 214.914†	12.2	-15.5	-32.383	µg/L	-32.383	ppb	20:20:01
1	Pb 220.353†	98.2	5.9	1.5261	µg/L	1.5261	ppb	20:20:01
1	S 181.975 Axial†	14.1	-1.3	-5.4919	µg/L	-5.4919	ppb	20:20:01
1	Sb 206.836†	30.2	8.6	8.1043	µg/L	8.1043	ppb	20:20:01
1	Se 196.026†	15.1	2.8	4.1051	µg/L	4.1051	ppb	20:20:01
1	SiO2†	1597.0	54.3	11.106	µg/L	11.106	ppb	20:19:41
1	Si 251.611†	340.7	49.2	3.8926	µg/L	3.8926	ppb	20:20:01
1	Sn 189.927†	1.1	0.2	0.0938	µg/L	0.0938	ppb	20:20:01
1	Ti 334.940†	183.8	35.4	0.0825	µg/L	0.0825	ppb	20:19:41
1	Tl 190.801†	-20.7	0.3	0.4068	µg/L	0.4068	ppb	20:20:01
1	U 409.014†	195.8	-33.4	-2.7278	µg/L	-2.7278	ppb	20:19:41
1	V 292.402†	-70.0	-21.3	-0.2135	µg/L	-0.2135	ppb	20:19:41
1	Zn 213.857†	465.8	-9.0	-0.2195	µg/L	-0.2195	ppb	20:20:01
2	Sc RADIAL	55070.1	55070.1	99.4	%			20:18:39
2	Al 396.153Radial†	-7.9	-24.0	-17.040	µg/L	-17.040	ppb	20:18:39
2	Ca 317.933Radial†	203.9	-10.1	-9.1168	µg/L	-9.1168	ppb	20:18:59
2	Fe 238.204 Radial†	15.3	-2.4	-21.265	µg/L	-21.265	ppb	20:18:59
2	K 766.490 Radial†	171.9	-4.7	-3.1414	µg/L	-3.1414	ppb	20:18:39
2	Mg 279.077 IEC†	11.2	-2.5	-23.337	µg/L	-23.337	ppb	20:18:59
2	Na 589.592 Radial†	425.6	49.4	15.013	µg/L	15.013	ppb	20:18:39
2	Sr 421.552†	57.0	37.3	0.3615	µg/L	0.3615	ppb	20:18:39
2	Sc 361.383	1963720.1	1963720.1	100.82	%			20:20:07
2	Y 371.029	1352964.2	1352964.2	101.17	%			20:20:07
2	Ag 328.068†	-508.2	6.2	0.0464	µg/L	0.0464	ppb	20:20:13
2	As 188.979†	-1.2	-2.0	-3.7895	µg/L	-3.7895	ppb	20:20:33
2	B 249.677†	341.6	25.7	1.0935	µg/L	1.0935	ppb	20:20:33
2	Ba 233.527†	-17.8	7.8	0.1972	µg/L	0.1972	ppb	20:20:33
2	Be 313.107†	-3548.5	113.3	0.0700	µg/L	0.0700	ppb	20:20:13
2	Cd 226.502†	-142.0	-17.6	-0.4672	µg/L	-0.4672	ppb	20:20:33
2	Co 228.616†	-4.7	1.2	0.0565	µg/L	0.0565	ppb	20:20:33
2	Cr 267.716†	-16.8	9.2	0.1947	µg/L	0.1947	ppb	20:20:13
2	Cu 324.752†	3320.1	62.7	0.4110	µg/L	0.4110	ppb	20:20:13
2	Mn 257.610†	-208.8	34.9	0.1139	µg/L	0.1139	ppb	20:20:33
2	Mo 202.031†	-0.5	-1.6	-0.1645	µg/L	-0.1645	ppb	20:20:33
2	Ni 231.604†	282.6	-0.4	-0.0237	µg/L	-0.0237	ppb	20:20:33
2	P 214.914†	29.9	2.1	4.2690	µg/L	4.2690	ppb	20:20:33
2	Pb 220.353†	93.7	2.5	0.6514	µg/L	0.6514	ppb	20:20:33

2	S 181.975 Axial†	14.0	-1.1	-4.9250 µg/L	-4.9250 ppb		20:20:33
2	Sb 206.836†	32.3	10.9	10.333 µg/L	10.333 ppb		20:20:33
2	Se 196.026†	14.9	2.8	4.1031 µg/L	4.1031 ppb		20:20:33
2	SiO2†	1647.0	121.6	24.881 µg/L	24.881 ppb		20:20:13
2	Si 251.611†	330.8	43.2	3.4153 µg/L	3.4153 ppb		20:20:33
2	Sn 189.927†	-0.8	-1.7	-0.7366 µg/L	-0.7366 ppb		20:20:33
2	Ti 334.940†	213.9	67.3	0.1552 µg/L	0.1552 ppb		20:20:13
2	Tl 190.801†	-20.2	0.6	0.7897 µg/L	0.7897 ppb		20:20:33
2	U 409.014†	175.5	-51.3	-4.1934 µg/L	-4.1934 ppb		20:20:13
2	V 292.402†	-29.6	18.0	0.1736 µg/L	0.1736 ppb		20:20:13
2	Zn 213.857†	463.1	-6.6	-0.1584 µg/L	-0.1584 ppb		20:20:33
3	Sc RADIAL	54774.7	54774.7	98.9 %			20:19:04
3	Al 396.153Radial†	-34.2	-50.6	-35.968 µg/L	-35.968 ppb		20:19:04
3	Ca 317.933Radial†	211.6	-1.2	-1.0450 µg/L	-1.0450 ppb		20:19:25
3	Fe 238.204 Radial†	13.9	-3.7	-32.752 µg/L	-32.752 ppb		20:19:25
3	K 766.490 Radial†	207.9	32.6	21.870 µg/L	21.870 ppb		20:19:04
3	Mg 279.077 IEC†	10.6	-3.1	-28.651 µg/L	-28.651 ppb		20:19:25
3	Na 589.592 Radial†	437.4	63.6	19.327 µg/L	19.327 ppb		20:19:04
3	Sr 421.552†	58.8	39.5	0.3823 µg/L	0.3823 ppb		20:19:04
3	Sc 361.383	1974927.5	1974927.5	101.39 %			20:20:39
3	Y 371.029	1360136.5	1360136.5	101.71 %			20:20:39
3	Ag 328.068†	-540.7	-23.0	-0.1769 µg/L	-0.1769 ppb		20:20:45
3	As 188.979†	-3.8	-4.6	-8.6005 µg/L	-8.6005 ppb		20:21:05
3	B 249.677†	349.9	32.0	1.3620 µg/L	1.3620 ppb		20:21:05
3	Ba 233.527†	-15.8	9.8	0.2481 µg/L	0.2481 ppb		20:21:05
3	Be 313.107†	-3579.7	102.4	0.0634 µg/L	0.0634 ppb		20:20:45
3	Cd 226.502†	-129.9	-4.9	-0.1255 µg/L	-0.1255 ppb		20:21:05
3	Co 228.616†	-2.5	3.4	0.1604 µg/L	0.1604 ppb		20:21:05
3	Cr 267.716†	-26.9	-0.6	-0.0131 µg/L	-0.0131 ppb		20:20:45
3	Cu 324.752†	3251.7	-23.5	-0.1597 µg/L	-0.1597 ppb		20:20:45
3	Mn 257.610†	-231.2	13.9	0.0430 µg/L	0.0430 ppb		20:21:05
3	Mo 202.031†	1.0	-0.1	-0.0113 µg/L	-0.0113 ppb		20:21:05
3	Ni 231.604†	287.2	2.6	0.1331 µg/L	0.1331 ppb		20:21:05
3	P 214.914†	28.1	0.2	0.3437 µg/L	0.3437 ppb		20:21:05
3	Pb 220.353†	84.0	-7.5	-1.9311 µg/L	-1.9311 ppb		20:21:05
3	S 181.975 Axial†	16.7	1.4	6.2167 µg/L	6.2167 ppb		20:21:05
3	Sb 206.836†	19.9	-1.4	-1.3418 µg/L	-1.3418 ppb		20:21:05
3	Se 196.026†	10.2	-1.8	-2.7576 µg/L	-2.7576 ppb		20:21:05
3	SiO2†	1611.3	77.2	15.782 µg/L	15.782 ppb		20:20:45
3	Si 251.611†	309.0	19.8	1.5689 µg/L	1.5689 ppb		20:21:05
3	Sn 189.927†	-1.2	-2.1	-0.9254 µg/L	-0.9254 ppb		20:21:05
3	Ti 334.940†	100.9	-45.3	-0.1009 µg/L	-0.1009 ppb		20:20:45
3	Tl 190.801†	-22.7	-1.8	-2.4430 µg/L	-2.4430 ppb		20:21:05
3	U 409.014†	183.7	-44.2	-3.6146 µg/L	-3.6146 ppb		20:20:45
3	V 292.402†	-66.3	-18.0	-0.1898 µg/L	-0.1898 ppb		20:20:45
3	Zn 213.857†	464.2	-8.1	-0.1947 µg/L	-0.1947 ppb		20:21:05

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1974889.5	101.39	%	0.572				0.56%
Sc RADIAL	54587.3	98.5	%	1.08				1.10%
Y 371.029	1359902.7	101.69	%	0.510				0.50%
Ag 328.068†	-29.4	-0.2234	µg/L	0.29582	-0.2234	ppb	0.29582	132.40%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-35.8	-25.427	µg/L	9.6462	-25.427	ppb	9.6462	37.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.0	-5.6289	µg/L	2.59764	-5.6289	ppb	2.59764	46.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	29.4	1.2490	µg/L	0.13920	1.2490	ppb	0.13920	11.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.9	0.1735	µg/L	0.08884	0.1735	ppb	0.08884	51.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	91.0	0.0563	µg/L	0.01837	0.0563	ppb	0.01837	32.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.2	-2.0144	µg/L	6.67075	-2.0144	ppb	6.67075	331.15%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-9.2	-0.2432	µg/L	0.19406	-0.2432	ppb	0.19406	79.80%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	2.5	0.1189	µg/L	0.05501	0.1189	ppb	0.05501	46.26%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.0      0.1482 µg/L       0.14374      0.1482 ppb        0.14374  97.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                15.4      0.0985 µg/L       0.28921      0.0985 ppb        0.28921 293.65%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.5     -21.635 µg/L       10.9365     -21.635 ppb        10.9365  50.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          14.6      9.7739 µg/L      12.52592      9.7739 ppb       12.52592 128.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.6     -24.297 µg/L        3.9618     -24.297 ppb         3.9618  16.31%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                34.4      0.1124 µg/L       0.06865      0.1124 ppb        0.06865  61.10%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.4      0.1459 µg/L       0.41203      0.1459 ppb        0.41203 282.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         75.2      22.864 µg/L       10.0958      22.864 ppb        10.0958  44.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.0      0.0534 µg/L       0.07843      0.0534 ppb        0.07843 146.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.4     -9.2568 µg/L      20.12387     -9.2568 ppb       20.12387 217.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.3      0.0822 µg/L       1.79751      0.0822 ppb        1.79751 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.3     -1.4000 µg/L       6.60240     -1.4000 ppb        6.60240 471.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.0      5.6986 µg/L       6.19822      5.6986 ppb        6.19822 108.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.3      1.8168 µg/L       3.96161      1.8168 ppb        3.96161 218.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      84.4      17.256 µg/L        7.0047      17.256 ppb         7.0047  40.59%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                37.4      2.9589 µg/L       1.22721      2.9589 ppb        1.22721  41.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.2     -0.5228 µg/L       0.54224     -0.5228 ppb        0.54224 103.73%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                38.7      0.3742 µg/L       0.01113      0.3742 ppb        0.01113   2.97%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                19.2      0.0456 µg/L       0.13198      0.0456 ppb        0.13198 289.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.4155 µg/L       1.76624     -0.4155 ppb        1.76624 425.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -43.0     -3.5119 µg/L       0.73821     -3.5119 ppb        0.73821  21.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -7.1     -0.0766 µg/L       0.21694     -0.0766 ppb        0.21694 283.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -7.9     -0.1909 µg/L       0.03071     -0.1909 ppb        0.03071  16.09%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 20:57:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56966.9	56966.9	103	%			20:58:04
1	Al 396.153Radial†	6826.6	6621.7	4694.3	µg/L	4694.3	ppb	20:58:25
1	Ca 317.933Radial†	5548.5	5179.8	4685.0	µg/L	4685.0	ppb	20:58:25
1	Fe 238.204 Radial†	575.7	542.0	4752.4	µg/L	4752.4	ppb	20:58:25
1	K 766.490 Radial†	7629.8	7241.1	4852.0	µg/L	4852.0	ppb	20:58:04
1	Mg 279.077 IEC†	538.6	510.0	4765.3	µg/L	4765.3	ppb	20:58:25
1	Na 589.592 Radial†	32963.4	31672.5	9627.9	µg/L	9627.9	ppb	20:58:04
1	Sr 421.552†	50488.8	49071.7	475.07	µg/L	475.07	ppb	20:58:04
1	Sc 361.383	1990563.8	1990563.8	102.20	%			20:59:28
1	Y 371.029	1366372.0	1366372.0	102.17	%			20:59:28
1	Ag 328.068†	65166.8	64276.3	488.79	µg/L	488.79	ppb	20:59:34
1	As 188.979†	270.3	263.7	495.94	µg/L	495.94	ppb	20:59:54
1	B 249.677†	11989.4	11418.6	478.65	µg/L	478.65	ppb	20:59:34
1	Ba 233.527†	19687.5	19289.7	488.19	µg/L	488.19	ppb	20:59:34
1	Be 313.107†	796634.9	783143.4	484.40	µg/L	484.40	ppb	20:59:28
1	Cd 226.502†	18739.8	18460.1	491.64	µg/L	491.64	ppb	20:59:34
1	Co 228.616†	10548.8	10327.9	491.40	µg/L	491.40	ppb	20:59:34
1	Cr 267.716†	23841.3	23354.8	493.09	µg/L	493.09	ppb	20:59:34
1	Cu 324.752†	78121.1	73211.3	484.22	µg/L	484.22	ppb	20:59:34
1	Mn 257.610†	150789.8	147790.4	491.18	µg/L	491.18	ppb	20:59:28
1	Mo 202.031†	4989.5	4881.1	505.40	µg/L	505.40	ppb	20:59:54
1	Ni 231.604†	9924.3	9430.3	493.40	µg/L	493.40	ppb	20:59:34
1	P 214.914†	1252.1	1197.6	2448.9	µg/L	2448.9	ppb	20:59:54
1	Pb 220.353†	2076.5	1941.4	497.99	µg/L	497.99	ppb	20:59:54
1	S 181.975 Axial†	255.1	234.6	1011.7	µg/L	1011.7	ppb	20:59:54
1	Sb 206.836†	557.4	524.4	497.74	µg/L	497.74	ppb	20:59:54
1	Se 196.026†	362.5	342.8	507.29	µg/L	507.29	ppb	20:59:54
1	SiO2†	27574.6	25469.9	5209.8	µg/L	5209.8	ppb	20:59:34
1	Si 251.611†	31706.8	30740.3	2431.2	µg/L	2431.2	ppb	20:59:34
1	Sn 189.927†	1171.0	1145.0	509.67	µg/L	509.67	ppb	20:59:54
1	Ti 334.940†	217366.3	212549.0	484.26	µg/L	484.26	ppb	20:59:28
1	Tl 190.801†	343.7	356.9	499.05	µg/L	499.05	ppb	20:59:54
1	U 409.014†	6200.5	5841.8	477.05	µg/L	477.05	ppb	20:59:34
1	V 292.402†	49419.2	48404.2	494.32	µg/L	494.32	ppb	20:59:34
1	Zn 213.857†	21056.3	20137.8	488.41	µg/L	488.41	ppb	20:59:34
2	Sc RADIAL	56493.7	56493.7	102	%			20:58:30
2	Al 396.153Radial†	6828.4	6679.0	4735.3	µg/L	4735.3	ppb	20:58:51
2	Ca 317.933Radial†	5551.4	5227.8	4728.4	µg/L	4728.4	ppb	20:58:51
2	Fe 238.204 Radial†	570.8	541.9	4750.9	µg/L	4750.9	ppb	20:58:51
2	K 766.490 Radial†	7608.4	7282.2	4879.5	µg/L	4879.5	ppb	20:58:30
2	Mg 279.077 IEC†	538.9	514.7	4808.8	µg/L	4808.8	ppb	20:58:51
2	Na 589.592 Radial†	32748.6	31730.4	9645.5	µg/L	9645.5	ppb	20:58:30
2	Sr 421.552†	50293.4	49291.2	477.19	µg/L	477.19	ppb	20:58:30
2	Sc 361.383	1998106.0	1998106.0	102.58	%			21:00:01
2	Y 371.029	1369955.9	1369955.9	102.44	%			21:00:01
2	Ag 328.068†	64713.6	63593.8	483.60	µg/L	483.60	ppb	21:00:07
2	As 188.979†	270.8	263.2	494.98	µg/L	494.98	ppb	21:00:28
2	B 249.677†	11878.3	11266.0	472.22	µg/L	472.22	ppb	21:00:07
2	Ba 233.527†	19462.2	18997.4	480.80	µg/L	480.80	ppb	21:00:07
2	Be 313.107†	801789.9	785226.1	485.68	µg/L	485.68	ppb	21:00:01
2	Cd 226.502†	18581.6	18236.8	485.68	µg/L	485.68	ppb	21:00:07
2	Co 228.616†	10440.9	10183.7	484.52	µg/L	484.52	ppb	21:00:07
2	Cr 267.716†	23583.2	23015.1	485.91	µg/L	485.91	ppb	21:00:07
2	Cu 324.752†	77665.3	72478.5	479.38	µg/L	479.38	ppb	21:00:07
2	Mn 257.610†	152006.1	148419.1	493.27	µg/L	493.27	ppb	21:00:01
2	Mo 202.031†	4892.1	4767.7	493.66	µg/L	493.66	ppb	21:00:28
2	Ni 231.604†	9764.5	9237.8	483.33	µg/L	483.33	ppb	21:00:07
2	P 214.914†	1227.3	1168.9	2389.3	µg/L	2389.3	ppb	21:00:28
2	Pb 220.353†	2057.4	1915.2	491.25	µg/L	491.25	ppb	21:00:28

2	S 181.975 Axial†	250.8	229.4	989.50 µg/L	989.50 ppb	21:00:28
2	Sb 206.836†	540.3	505.7	479.93 µg/L	479.93 ppb	21:00:28
2	Se 196.026†	363.8	342.7	507.09 µg/L	507.09 ppb	21:00:28
2	SiO2†	27388.2	25186.3	5151.7 µg/L	5151.7 ppb	21:00:07
2	Si 251.611†	31510.8	30432.1	2406.9 µg/L	2406.9 ppb	21:00:07
2	Sn 189.927†	1136.5	1107.0	492.77 µg/L	492.77 ppb	21:00:28
2	Ti 334.940†	218826.0	213169.1	485.67 µg/L	485.67 ppb	21:00:01
2	Tl 190.801†	338.5	350.6	490.30 µg/L	490.30 ppb	21:00:28
2	U 409.014†	6177.9	5797.0	473.37 µg/L	473.37 ppb	21:00:07
2	V 292.402†	49041.8	47853.8	488.66 µg/L	488.66 ppb	21:00:07
2	Zn 213.857†	20842.1	19851.2	481.46 µg/L	481.46 ppb	21:00:07
3	Sc RADIAL	56710.8	56710.8	102 %		20:58:56
3	Al 396.153Radial†	6837.1	6661.9	4725.0 µg/L	4725.0 ppb	20:59:16
3	Ca 317.933Radial†	5565.2	5220.5	4721.8 µg/L	4721.8 ppb	20:59:16
3	Fe 238.204 Radial†	577.1	545.8	4784.5 µg/L	4784.5 ppb	20:59:16
3	K 766.490 Radial†	7575.4	7221.4	4838.8 µg/L	4838.8 ppb	20:58:56
3	Mg 279.077 IEC†	540.8	514.5	4805.3 µg/L	4805.3 ppb	20:59:16
3	Na 589.592 Radial†	32847.3	31703.9	9637.5 µg/L	9637.5 ppb	20:58:56
3	Sr 421.552†	50367.6	49175.0	476.07 µg/L	476.07 ppb	20:58:56
3	Sc 361.383	2009750.8	2009750.8	103.18 %		21:00:35
3	Y 371.029	1377341.1	1377341.1	102.99 %		21:00:35
3	Ag 328.068†	60499.9	59144.5	449.63 µg/L	449.63 ppb	21:00:41
3	As 188.979†	216.8	209.3	393.61 µg/L	393.61 ppb	21:01:01
3	B 249.677†	11030.8	10377.5	434.72 µg/L	434.72 ppb	21:00:41
3	Ba 233.527†	17639.7	17121.1	433.29 µg/L	433.29 ppb	21:00:41
3	Be 313.107†	734989.3	715956.8	442.84 µg/L	442.84 ppb	21:00:35
3	Cd 226.502†	16763.8	16370.1	435.91 µg/L	435.91 ppb	21:00:41
3	Co 228.616†	9276.1	8995.8	427.94 µg/L	427.94 ppb	21:00:41
3	Cr 267.716†	20398.7	19795.6	417.95 µg/L	417.95 ppb	21:00:41
3	Cu 324.752†	69770.5	64388.4	425.95 µg/L	425.95 ppb	21:00:41
3	Mn 257.610†	139794.7	135725.7	451.13 µg/L	451.13 ppb	21:00:35
3	Mo 202.031†	4008.5	3883.8	402.17 µg/L	402.17 ppb	21:01:01
3	Ni 231.604†	8777.7	8226.3	430.41 µg/L	430.41 ppb	21:00:41
3	P 214.914†	1031.7	972.4	1984.2 µg/L	1984.2 ppb	21:01:01
3	Pb 220.353†	1751.9	1607.5	412.23 µg/L	412.23 ppb	21:01:01
3	S 181.975 Axial†	217.1	195.4	842.64 µg/L	842.64 ppb	21:01:01
3	Sb 206.836†	464.9	429.5	407.29 µg/L	407.29 ppb	21:01:01
3	Se 196.026†	309.7	288.2	427.75 µg/L	427.75 ppb	21:01:01
3	SiO2†	25249.0	22958.4	4696.0 µg/L	4696.0 ppb	21:00:41
3	Si 251.611†	28904.7	27728.4	2193.0 µg/L	2193.0 ppb	21:00:41
3	Sn 189.927†	920.1	890.9	396.58 µg/L	396.58 ppb	21:01:01
3	Ti 334.940†	199505.4	193208.3	440.16 µg/L	440.16 ppb	21:00:35
3	Tl 190.801†	296.1	307.5	430.37 µg/L	430.37 ppb	21:01:01
3	U 409.014†	5517.6	5122.1	418.15 µg/L	418.15 ppb	21:00:41
3	V 292.402†	43340.2	42051.0	429.21 µg/L	429.21 ppb	21:00:41
3	Zn 213.857†	18721.4	17678.2	428.70 µg/L	428.70 ppb	21:00:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1999473.5	102.65	%	0.496				0.48%
Sc RADIAL	56723.8	102	%	0.4				0.42%
Y 371.029	1371223.0	102.53	%	0.418				0.41%
Ag 328.068†	62338.2	474.01	µg/L	21.272	474.01	ppb	21.272	4.49%
QC value within limits for Ag 328.068 Recovery = 94.80%								
Al 396.153Radial†	6654.2	4718.2	µg/L	21.31	4718.2	ppb	21.31	0.45%
QC value within limits for Al 396.153Radial Recovery = 94.36%								
As 188.979†	245.4	461.51	µg/L	58.802	461.51	ppb	58.802	12.74%
QC value within limits for As 188.979 Recovery = 92.30%								
B 249.677†	11020.7	461.86	µg/L	23.727	461.86	ppb	23.727	5.14%
QC value within limits for B 249.677 Recovery = 92.37%								
Ba 233.527†	18469.4	467.43	µg/L	29.792	467.43	ppb	29.792	6.37%
QC value within limits for Ba 233.527 Recovery = 93.49%								
Be 313.107†	761442.1	470.97	µg/L	24.373	470.97	ppb	24.373	5.17%
QC value within limits for Be 313.107 Recovery = 94.19%								
Ca 317.933Radial†	5209.4	4711.8	µg/L	23.39	4711.8	ppb	23.39	0.50%
QC value within limits for Ca 317.933Radial Recovery = 94.24%								
Cd 226.502†	17689.0	471.08	µg/L	30.604	471.08	ppb	30.604	6.50%
QC value within limits for Cd 226.502 Recovery = 94.22%								
Co 228.616†	9835.8	467.95	µg/L	34.818	467.95	ppb	34.818	7.44%

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   QC value within limits for Co 228.616  Recovery = 93.59%
Cr 267.716†          22055.1      465.65 µg/L       41.467      465.65 ppb        41.467   8.91%
   QC value within limits for Cr 267.716  Recovery = 93.13%
Cu 324.752†          70026.1      463.19 µg/L       32.336      463.19 ppb        32.336   6.98%
   QC value within limits for Cu 324.752  Recovery = 92.64%
Fe 238.204 Radial†     543.2      4762.6 µg/L        19.00      4762.6 ppb         19.00   0.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.25%
K 766.490 Radial†     7248.2      4856.8 µg/L        20.79      4856.8 ppb         20.79   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 97.14%
Mg 279.077 IEC†        513.0      4793.1 µg/L        24.19      4793.1 ppb         24.19   0.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 95.86%
Mn 257.610†         143978.4      478.53 µg/L       23.753      478.53 ppb        23.753   4.96%
   QC value within limits for Mn 257.610  Recovery = 95.71%
Mo 202.031†          4510.9      467.08 µg/L       56.517      467.08 ppb        56.517  12.10%
   QC value within limits for Mo 202.031  Recovery = 93.42%
Na 589.592 Radial†   31702.3      9637.0 µg/L        8.80      9637.0 ppb         8.80   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 96.37%
Ni 231.604†          8964.8      469.04 µg/L       33.833      469.04 ppb        33.833   7.21%
   QC value within limits for Ni 231.604  Recovery = 93.81%
P 214.914†           1112.9      2274.1 µg/L       252.89      2274.1 ppb        252.89  11.12%
   QC value within limits for P 214.914  Recovery = 90.97%
Pb 220.353†          1821.4      467.16 µg/L       47.686      467.16 ppb        47.686  10.21%
   QC value within limits for Pb 220.353  Recovery = 93.43%
S 181.975 Axial†      219.8      947.95 µg/L       91.873      947.95 ppb        91.873   9.69%
   QC value within limits for S 181.975 Axial  Recovery = 94.79%
Sb 206.836†           486.5      461.65 µg/L       47.919      461.65 ppb        47.919  10.38%
   QC value within limits for Sb 206.836  Recovery = 92.33%
Se 196.026†           324.6      480.71 µg/L       45.870      480.71 ppb        45.870   9.54%
   QC value within limits for Se 196.026  Recovery = 96.14%
SiO2†               24538.2      5019.2 µg/L       281.35      5019.2 ppb        281.35   5.61%
   QC value within limits for SiO2  Recovery = 93.86%
Si 251.611†         29633.6      2343.7 µg/L       131.06      2343.7 ppb        131.06   5.59%
   QC value within limits for Si 251.611  Recovery = 93.75%
Sn 189.927†          1047.6      466.34 µg/L       61.003      466.34 ppb        61.003  13.08%
   QC value within limits for Sn 189.927  Recovery = 93.27%
Sr 421.552†         49179.3      476.11 µg/L        1.063      476.11 ppb         1.063   0.22%
   QC value within limits for Sr 421.552  Recovery = 95.22%
Ti 334.940†        206308.8      470.03 µg/L       25.875      470.03 ppb        25.875   5.50%
   QC value within limits for Ti 334.940  Recovery = 94.01%
Tl 190.801†           338.3      473.24 µg/L       37.385      473.24 ppb        37.385   7.90%
   QC value within limits for Tl 190.801  Recovery = 94.65%
U 409.014†           5586.9      456.19 µg/L       32.997      456.19 ppb        32.997   7.23%
   QC value within limits for U 409.014  Recovery = 91.24%
V 292.402†          46103.0      470.73 µg/L       36.067      470.73 ppb        36.067   7.66%
   QC value within limits for V 292.402  Recovery = 94.15%
Zn 213.857†         19222.4      466.19 µg/L       32.651      466.19 ppb        32.651   7.00%
   QC value within limits for Zn 213.857  Recovery = 93.24%
All analyte(s) passed QC.
```

Sequence No.: 52
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 21:01:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55934.3	55934.3	101	%			21:01:43
1	Al 396.153Radial†	-9.3	-25.2	-17.925	µg/L	-17.925	ppb	21:01:43
1	Ca 317.933Radial†	208.5	-8.7	-7.8960	µg/L	-7.8960	ppb	21:02:03
1	Fe 238.204 Radial†	17.6	-0.4	-3.5492	µg/L	-3.5492	ppb	21:02:03
1	K 766.490 Radial†	194.7	15.2	10.218	µg/L	10.218	ppb	21:01:43
1	Mg 279.077 IEC†	12.6	-1.2	-11.460	µg/L	-11.460	ppb	21:02:03
1	Na 589.592 Radial†	456.1	72.9	22.168	µg/L	22.168	ppb	21:01:43
1	Sr 421.552†	59.7	39.1	0.3783	µg/L	0.3783	ppb	21:01:43
1	Sc 361.383	1994942.0	1994942.0	102.42	%			21:03:05
1	Y 371.029	1372827.8	1372827.8	102.65	%			21:03:05
1	Ag 328.068†	-427.3	93.1	0.7037	µg/L	0.7037	ppb	21:03:11
1	As 188.979†	1.8	1.0	1.8833	µg/L	1.8833	ppb	21:03:31
1	B 249.677†	330.6	9.7	0.4075	µg/L	0.4075	ppb	21:03:31
1	Ba 233.527†	-16.9	8.9	0.2259	µg/L	0.2259	ppb	21:03:31
1	Be 313.107†	-3566.6	150.6	0.0932	µg/L	0.0932	ppb	21:03:11
1	Cd 226.502†	-127.1	-0.9	-0.0228	µg/L	-0.0228	ppb	21:03:31
1	Co 228.616†	4.7	10.4	0.4931	µg/L	0.4931	ppb	21:03:31
1	Cr 267.716†	-38.5	-11.6	-0.2452	µg/L	-0.2452	ppb	21:03:31
1	Cu 324.752†	3286.8	-21.4	-0.1418	µg/L	-0.1418	ppb	21:03:11
1	Mn 257.610†	-208.7	38.1	0.1266	µg/L	0.1266	ppb	21:03:31
1	Mo 202.031†	-1.6	-2.7	-0.2799	µg/L	-0.2799	ppb	21:03:31
1	Ni 231.604†	287.7	0.2	0.0098	µg/L	0.0098	ppb	21:03:31
1	P 214.914†	22.0	-6.0	-12.543	µg/L	-12.543	ppb	21:03:31
1	Pb 220.353†	90.3	-2.3	-0.5797	µg/L	-0.5797	ppb	21:03:31
1	S 181.975 Axial†	12.5	-2.9	-12.568	µg/L	-12.568	ppb	21:03:31
1	Sb 206.836†	24.5	2.9	2.6994	µg/L	2.6994	ppb	21:03:31
1	Se 196.026†	13.5	1.2	1.8119	µg/L	1.8119	ppb	21:03:31
1	SiO2†	1595.7	46.0	9.4179	µg/L	9.4179	ppb	21:03:11
1	Si 251.611†	330.8	38.1	3.0152	µg/L	3.0152	ppb	21:03:31
1	Sn 189.927†	5.1	4.1	1.8411	µg/L	1.8411	ppb	21:03:31
1	Ti 334.940†	137.4	-10.7	-0.0236	µg/L	-0.0236	ppb	21:03:11
1	Tl 190.801†	-25.7	-4.5	-6.2277	µg/L	-6.2277	ppb	21:03:31
1	U 409.014†	239.1	8.1	0.6602	µg/L	0.6602	ppb	21:03:11
1	V 292.402†	-30.1	17.9	0.1784	µg/L	0.1784	ppb	21:03:11
1	Zn 213.857†	463.6	-13.3	-0.3244	µg/L	-0.3244	ppb	21:03:31
2	Sc RADIAL	55865.0	55865.0	101	%			21:02:09
2	Al 396.153Radial†	-32.9	-48.6	-34.557	µg/L	-34.557	ppb	21:02:09
2	Ca 317.933Radial†	197.3	-19.6	-17.718	µg/L	-17.718	ppb	21:02:29
2	Fe 238.204 Radial†	12.9	-5.0	-43.328	µg/L	-43.328	ppb	21:02:29
2	K 766.490 Radial†	182.0	2.9	1.9175	µg/L	1.9175	ppb	21:02:09
2	Mg 279.077 IEC†	7.8	-6.0	-56.169	µg/L	-56.169	ppb	21:02:29
2	Na 589.592 Radial†	458.2	75.6	22.995	µg/L	22.995	ppb	21:02:09
2	Sr 421.552†	28.1	7.9	0.0761	µg/L	0.0761	ppb	21:02:09
2	Sc 361.383	1989580.8	1989580.8	102.15	%			21:03:37
2	Y 371.029	1370153.3	1370153.3	102.45	%			21:03:37
2	Ag 328.068†	-489.0	31.6	0.2356	µg/L	0.2356	ppb	21:03:43
2	As 188.979†	0.1	-0.7	-1.2960	µg/L	-1.2960	ppb	21:04:03
2	B 249.677†	338.3	18.1	0.7849	µg/L	0.7849	ppb	21:04:03
2	Ba 233.527†	-12.0	13.6	0.3440	µg/L	0.3440	ppb	21:04:03
2	Be 313.107†	-3559.3	148.3	0.0918	µg/L	0.0918	ppb	21:03:43
2	Cd 226.502†	-122.8	3.0	0.0838	µg/L	0.0838	ppb	21:04:03
2	Co 228.616†	-5.6	0.3	0.0149	µg/L	0.0149	ppb	21:04:03
2	Cr 267.716†	-28.0	-1.5	-0.0306	µg/L	-0.0306	ppb	21:04:03
2	Cu 324.752†	3212.7	-85.3	-0.5692	µg/L	-0.5692	ppb	21:03:43
2	Mn 257.610†	-211.0	35.4	0.1141	µg/L	0.1141	ppb	21:04:03
2	Mo 202.031†	3.0	1.8	0.1844	µg/L	0.1844	ppb	21:04:03
2	Ni 231.604†	281.3	-5.3	-0.2799	µg/L	-0.2799	ppb	21:04:03
2	P 214.914†	19.9	-8.1	-16.772	µg/L	-16.772	ppb	21:04:03
2	Pb 220.353†	85.4	-6.8	-1.7360	µg/L	-1.7360	ppb	21:04:03

2	S 181.975 Axial†	16.3	0.9	3.8782 µg/L	3.8782 ppb	21:04:03
2	Sb 206.836†	18.9	-2.6	-2.4441 µg/L	-2.4441 ppb	21:04:03
2	Se 196.026†	13.5	1.3	1.8435 µg/L	1.8435 ppb	21:04:03
2	SiO2†	1601.5	55.9	11.440 µg/L	11.440 ppb	21:03:43
2	Si 251.611†	312.5	21.0	1.6638 µg/L	1.6638 ppb	21:04:03
2	Sn 189.927†	1.9	1.0	0.4415 µg/L	0.4415 ppb	21:04:03
2	Ti 334.940†	171.7	23.3	0.0572 µg/L	0.0572 ppb	21:03:43
2	Tl 190.801†	-24.6	-3.5	-4.8801 µg/L	-4.8801 ppb	21:04:03
2	U 409.014†	228.8	-1.3	-0.1025 µg/L	-0.1025 ppb	21:03:43
2	V 292.402†	-47.1	1.2	0.0081 µg/L	0.0081 ppb	21:03:43
2	Zn 213.857†	458.1	-17.5	-0.4193 µg/L	-0.4193 ppb	21:04:03
3	Sc RADIAL	55692.0	55692.0	101 %		21:02:34
3	Al 396.153Radial†	-18.8	-34.7	-24.670 µg/L	-24.670 ppb	21:02:34
3	Ca 317.933Radial†	194.9	-21.3	-19.277 µg/L	-19.277 ppb	21:02:55
3	Fe 238.204 Radial†	18.7	0.8	7.0748 µg/L	7.0748 ppb	21:02:55
3	K 766.490 Radial†	188.7	10.2	6.8064 µg/L	6.8064 ppb	21:02:34
3	Mg 279.077 IEC†	8.5	-5.2	-49.021 µg/L	-49.021 ppb	21:02:55
3	Na 589.592 Radial†	423.0	42.0	12.766 µg/L	12.766 ppb	21:02:34
3	Sr 421.552†	48.4	28.1	0.2720 µg/L	0.2720 ppb	21:02:34
3	Sc 361.383	1992748.7	1992748.7	102.31 %		21:04:09
3	Y 371.029	1371999.0	1371999.0	102.59 %		21:04:09
3	Ag 328.068†	-458.2	62.4	0.4702 µg/L	0.4702 ppb	21:04:15
3	As 188.979†	-2.3	-3.1	-5.7669 µg/L	-5.7669 ppb	21:04:35
3	B 249.677†	318.7	-1.6	-0.0704 µg/L	-0.0704 ppb	21:04:35
3	Ba 233.527†	-19.6	6.3	0.1578 µg/L	0.1578 ppb	21:04:35
3	Be 313.107†	-3497.8	214.0	0.1324 µg/L	0.1324 ppb	21:04:15
3	Cd 226.502†	-131.6	-5.4	-0.1455 µg/L	-0.1455 ppb	21:04:35
3	Co 228.616†	-2.1	3.8	0.1810 µg/L	0.1810 ppb	21:04:35
3	Cr 267.716†	-21.3	5.1	0.1080 µg/L	0.1080 ppb	21:04:35
3	Cu 324.752†	3277.6	-26.9	-0.1764 µg/L	-0.1764 ppb	21:04:15
3	Mn 257.610†	-218.6	28.3	0.0968 µg/L	0.0968 ppb	21:04:35
3	Mo 202.031†	-2.4	-3.4	-0.3563 µg/L	-0.3563 ppb	21:04:35
3	Ni 231.604†	288.0	0.8	0.0423 µg/L	0.0423 ppb	21:04:35
3	P 214.914†	16.7	-11.2	-23.360 µg/L	-23.360 ppb	21:04:35
3	Pb 220.353†	86.1	-6.2	-1.5968 µg/L	-1.5968 ppb	21:04:35
3	S 181.975 Axial†	15.4	-0.0	-0.1986 µg/L	-0.1986 ppb	21:04:35
3	Sb 206.836†	20.0	-1.5	-1.4339 µg/L	-1.4339 ppb	21:04:35
3	Se 196.026†	15.3	3.0	4.4447 µg/L	4.4447 ppb	21:04:35
3	SiO2†	1571.1	23.6	4.8345 µg/L	4.8345 ppb	21:04:15
3	Si 251.611†	321.1	28.9	2.2876 µg/L	2.2876 ppb	21:04:35
3	Sn 189.927†	-1.2	-2.0	-0.9056 µg/L	-0.9056 ppb	21:04:35
3	Ti 334.940†	160.1	11.7	0.0302 µg/L	0.0302 ppb	21:04:15
3	Tl 190.801†	-15.3	5.7	7.8165 µg/L	7.8165 ppb	21:04:35
3	U 409.014†	188.9	-40.8	-3.3366 µg/L	-3.3366 ppb	21:04:15
3	V 292.402†	-72.9	-24.0	-0.2468 µg/L	-0.2468 ppb	21:04:15
3	Zn 213.857†	455.0	-21.2	-0.5158 µg/L	-0.5158 ppb	21:04:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992423.9	102.29	%	0.138				0.14%
Sc RADIAL	55830.5	101	%	0.2				0.22%
Y 371.029	1371660.1	102.57	%	0.102				0.10%
Ag 328.068†	62.4	0.4698	µg/L	0.23405	0.4698	ppb	0.23405	49.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-36.2	-25.717	µg/L	8.3652	-25.717	ppb	8.3652	32.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-1.7265	µg/L	3.84322	-1.7265	ppb	3.84322	222.60%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.7	0.3740	µg/L	0.42863	0.3740	ppb	0.42863	114.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.2426	µg/L	0.09423	0.2426	ppb	0.09423	38.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.0	0.1058	µg/L	0.02306	0.1058	ppb	0.02306	21.80%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-16.5	-14.964	µg/L	6.1703	-14.964	ppb	6.1703	41.23%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-1.1	-0.0282	µg/L	0.11478	-0.0282	ppb	0.11478	407.48%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.8	0.2297	µg/L	0.24280	0.2297	ppb	0.24280	105.71%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.7     -0.0559 µg/L       0.17793     -0.0559 ppb        0.17793 318.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -44.5     -0.2958 µg/L       0.23740     -0.2958 ppb        0.23740  80.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.5     -13.267 µg/L       26.5694     -13.267 ppb        26.5694 200.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           9.4      6.3138 µg/L       4.17193      6.3138 ppb        4.17193  66.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.2     -38.883 µg/L       24.0169     -38.883 ppb        24.0169  61.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                33.9      0.1125 µg/L       0.01500      0.1125 ppb        0.01500  13.33%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.5     -0.1506 µg/L       0.29263     -0.1506 ppb        0.29263 194.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         63.5      19.310 µg/L        5.6816      19.310 ppb         5.6816  29.42%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.4     -0.0760 µg/L       0.17735     -0.0760 ppb        0.17735 233.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.4     -17.558 µg/L        5.4513     -17.558 ppb         5.4513  31.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.1     -1.3041 µg/L       0.63124     -1.3041 ppb        0.63124  48.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.7     -2.9628 µg/L       8.56452     -2.9628 ppb        8.56452 289.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.4     -0.3929 µg/L       2.72523     -0.3929 ppb        2.72523 693.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.8      2.7000 µg/L       1.51097      2.7000 ppb        1.51097  55.96%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      41.9      8.5641 µg/L       3.38446      8.5641 ppb        3.38446  39.52%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                29.4      2.3222 µg/L       0.67635      2.3222 ppb        0.67635  29.13%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.0      0.4590 µg/L       1.37342      0.4590 ppb        1.37342 299.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                25.0      0.2421 µg/L       0.15331      0.2421 ppb        0.15331  63.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 8.1      0.0213 µg/L       0.04113      0.0213 ppb        0.04113 193.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.8     -1.0971 µg/L       7.74876     -1.0971 ppb        7.74876 706.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -11.4     -0.9263 µg/L       2.12197     -0.9263 ppb        2.12197 229.08%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -1.6     -0.0201 µg/L       0.21400     -0.0201 ppb        0.21400 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -17.3     -0.4198 µg/L       0.09574     -0.4198 ppb        0.09574  22.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 21:36:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56733.1	56733.1	102	%			21:37:06
1	Al 396.153Radial†	6940.8	6760.5	4792.7	µg/L	4792.7	ppb	21:37:27
1	Ca 317.933Radial†	5719.4	5368.9	4856.0	µg/L	4856.0	ppb	21:37:27
1	Fe 238.204 Radial†	592.8	561.0	4918.8	µg/L	4918.8	ppb	21:37:27
1	K 766.490 Radial†	7637.9	7279.5	4877.8	µg/L	4877.8	ppb	21:37:06
1	Mg 279.077 IEC†	549.9	523.1	4888.0	µg/L	4888.0	ppb	21:37:27
1	Na 589.592 Radial†	33102.4	31940.3	9709.3	µg/L	9709.3	ppb	21:37:06
1	Sr 421.552†	51120.2	49890.4	482.99	µg/L	482.99	ppb	21:37:06
1	Sc 361.383	1985282.1	1985282.1	101.93	%			21:38:30
1	Y 371.029	1362382.5	1362382.5	101.87	%			21:38:30
1	Ag 328.068†	65534.5	64806.7	492.83	µg/L	492.83	ppb	21:38:36
1	As 188.979†	276.4	270.3	508.46	µg/L	508.46	ppb	21:38:56
1	B 249.677†	12048.4	11507.7	482.32	µg/L	482.32	ppb	21:38:36
1	Ba 233.527†	19825.0	19475.8	492.90	µg/L	492.90	ppb	21:38:36
1	Be 313.107†	810652.9	798970.3	494.19	µg/L	494.19	ppb	21:38:30
1	Cd 226.502†	18949.4	18714.6	498.40	µg/L	498.40	ppb	21:38:36
1	Co 228.616†	10619.3	10424.5	495.99	µg/L	495.99	ppb	21:38:36
1	Cr 267.716†	23985.0	23557.8	497.37	µg/L	497.37	ppb	21:38:36
1	Cu 324.752†	78359.0	73648.1	487.13	µg/L	487.13	ppb	21:38:36
1	Mn 257.610†	153527.5	150868.9	501.42	µg/L	501.42	ppb	21:38:30
1	Mo 202.031†	5065.9	4969.1	514.51	µg/L	514.51	ppb	21:38:56
1	Ni 231.604†	9973.8	9504.7	497.29	µg/L	497.29	ppb	21:38:36
1	P 214.914†	1265.3	1213.8	2482.4	µg/L	2482.4	ppb	21:38:56
1	Pb 220.353†	2109.2	1979.0	507.63	µg/L	507.63	ppb	21:38:56
1	S 181.975 Axial†	259.5	239.5	1033.2	µg/L	1033.2	ppb	21:38:56
1	Sb 206.836†	563.3	531.6	504.66	µg/L	504.66	ppb	21:38:56
1	Se 196.026†	364.8	346.0	512.26	µg/L	512.26	ppb	21:38:56
1	SiO2†	27735.4	25699.5	5256.7	µg/L	5256.7	ppb	21:38:36
1	Si 251.611†	31915.3	31027.5	2453.9	µg/L	2453.9	ppb	21:38:36
1	Sn 189.927†	1180.8	1157.6	515.29	µg/L	515.29	ppb	21:38:56
1	Ti 334.940†	220303.5	215996.5	492.11	µg/L	492.11	ppb	21:38:30
1	Tl 190.801†	344.3	358.3	501.13	µg/L	501.13	ppb	21:38:56
1	U 409.014†	6218.8	5876.0	479.81	µg/L	479.81	ppb	21:38:36
1	V 292.402†	49633.4	48743.0	497.84	µg/L	497.84	ppb	21:38:36
1	Zn 213.857†	21317.5	20448.8	495.97	µg/L	495.97	ppb	21:38:36
2	Sc RADIAL	56179.8	56179.8	101	%			21:37:32
2	Al 396.153Radial†	6898.7	6785.8	4810.9	µg/L	4810.9	ppb	21:37:53
2	Ca 317.933Radial†	5669.7	5374.8	4861.4	µg/L	4861.4	ppb	21:37:53
2	Fe 238.204 Radial†	588.9	562.8	4934.3	µg/L	4934.3	ppb	21:37:53
2	K 766.490 Radial†	7615.3	7330.7	4912.0	µg/L	4912.0	ppb	21:37:32
2	Mg 279.077 IEC†	550.8	529.3	4945.6	µg/L	4945.6	ppb	21:37:53
2	Na 589.592 Radial†	32955.2	32113.5	9762.0	µg/L	9762.0	ppb	21:37:32
2	Sr 421.552†	50607.7	49876.7	482.86	µg/L	482.86	ppb	21:37:32
2	Sc 361.383	1988306.0	1988306.0	102.08	%			21:39:03
2	Y 371.029	1364804.7	1364804.7	102.05	%			21:39:03
2	Ag 328.068†	65515.3	64690.1	491.94	µg/L	491.94	ppb	21:39:09
2	As 188.979†	266.6	260.3	489.61	µg/L	489.61	ppb	21:39:29
2	B 249.677†	12077.9	11518.6	482.77	µg/L	482.77	ppb	21:39:09
2	Ba 233.527†	19813.4	19434.9	491.87	µg/L	491.87	ppb	21:39:09
2	Be 313.107†	813253.4	800308.3	495.01	µg/L	495.01	ppb	21:39:03
2	Cd 226.502†	18970.1	18706.6	498.19	µg/L	498.19	ppb	21:39:09
2	Co 228.616†	10589.8	10379.8	493.85	µg/L	493.85	ppb	21:39:09
2	Cr 267.716†	24009.7	23546.2	497.13	µg/L	497.13	ppb	21:39:09
2	Cu 324.752†	78397.6	73569.0	486.61	µg/L	486.61	ppb	21:39:09
2	Mn 257.610†	154117.5	151217.8	502.58	µg/L	502.58	ppb	21:39:03
2	Mo 202.031†	4958.9	4856.7	502.88	µg/L	502.88	ppb	21:39:29
2	Ni 231.604†	10004.6	9519.9	498.09	µg/L	498.09	ppb	21:39:09
2	P 214.914†	1254.8	1201.7	2457.0	µg/L	2457.0	ppb	21:39:29
2	Pb 220.353†	2082.9	1950.0	500.18	µg/L	500.18	ppb	21:39:29

2	S 181.975 Axial†	258.7	238.4	1028.1 µg/L	1028.1 ppb	21:39:29
2	Sb 206.836†	555.8	523.4	496.73 µg/L	496.73 ppb	21:39:29
2	Se 196.026†	372.5	353.0	522.42 µg/L	522.42 ppb	21:39:29
2	SiO2†	27696.2	25619.7	5240.4 µg/L	5240.4 ppb	21:39:09
2	Si 251.611†	31829.4	30895.7	2443.5 µg/L	2443.5 ppb	21:39:09
2	Sn 189.927†	1160.3	1135.8	505.59 µg/L	505.59 ppb	21:39:29
2	Ti 334.940†	221024.1	216373.7	492.97 µg/L	492.97 ppb	21:39:03
2	Tl 190.801†	339.1	352.7	493.40 µg/L	493.40 ppb	21:39:29
2	U 409.014†	6201.1	5849.4	477.63 µg/L	477.63 ppb	21:39:09
2	V 292.402†	49608.2	48644.3	496.75 µg/L	496.75 ppb	21:39:09
2	Zn 213.857†	21238.5	20339.7	493.30 µg/L	493.30 ppb	21:39:09
3	Sc RADIAL	56654.8	56654.8	102 %		21:37:58
3	Al 396.153Radial†	6860.0	6690.9	4745.3 µg/L	4745.3 ppb	21:38:19
3	Ca 317.933Radial†	5630.2	5289.4	4784.2 µg/L	4784.2 ppb	21:38:19
3	Fe 238.204 Radial†	583.6	552.8	4846.0 µg/L	4846.0 ppb	21:38:19
3	K 766.490 Radial†	7632.7	7284.8	4881.3 µg/L	4881.3 ppb	21:37:58
3	Mg 279.077 IEC†	544.1	518.2	4840.9 µg/L	4840.9 ppb	21:38:19
3	Na 589.592 Radial†	33069.1	31952.4	9713.0 µg/L	9713.0 ppb	21:37:58
3	Sr 421.552†	51062.5	49903.0	483.12 µg/L	483.12 ppb	21:37:58
3	Sc 361.383	1987338.4	1987338.4	102.03 %		21:39:37
3	Y 371.029	1363056.4	1363056.4	101.92 %		21:39:37
3	Ag 328.068†	61648.2	60931.2	463.22 µg/L	463.22 ppb	21:39:42
3	As 188.979†	232.0	226.6	426.27 µg/L	426.27 ppb	21:40:03
3	B 249.677†	11316.3	10777.9	451.55 µg/L	451.55 ppb	21:39:42
3	Ba 233.527†	18075.5	17741.0	448.98 µg/L	448.98 ppb	21:39:42
3	Be 313.107†	746938.1	735701.1	455.05 µg/L	455.05 ppb	21:39:37
3	Cd 226.502†	17186.0	16967.1	451.82 µg/L	451.82 ppb	21:39:42
3	Co 228.616†	9518.7	9335.0	444.09 µg/L	444.09 ppb	21:39:42
3	Cr 267.716†	20930.0	20539.3	433.65 µg/L	433.65 ppb	21:39:42
3	Cu 324.752†	70925.4	66282.9	438.47 µg/L	438.47 ppb	21:39:42
3	Mn 257.610†	141981.4	139396.8	463.32 µg/L	463.32 ppb	21:39:37
3	Mo 202.031†	4115.0	4032.0	417.51 µg/L	417.51 ppb	21:40:03
3	Ni 231.604†	8994.3	8534.5	446.54 µg/L	446.54 ppb	21:39:42
3	P 214.914†	1066.2	1017.5	2076.9 µg/L	2076.9 ppb	21:40:03
3	Pb 220.353†	1793.9	1667.8	427.72 µg/L	427.72 ppb	21:40:03
3	S 181.975 Axial†	223.4	203.8	879.21 µg/L	879.21 ppb	21:40:03
3	Sb 206.836†	477.5	446.9	423.75 µg/L	423.75 ppb	21:40:03
3	Se 196.026†	320.5	302.1	448.16 µg/L	448.16 ppb	21:40:03
3	SiO2†	25767.6	23742.7	4856.5 µg/L	4856.5 ppb	21:39:42
3	Si 251.611†	29494.9	28622.8	2263.8 µg/L	2263.8 ppb	21:39:42
3	Sn 189.927†	940.9	921.3	410.10 µg/L	410.10 ppb	21:40:03
3	Ti 334.940†	201868.4	197704.8	450.41 µg/L	450.41 ppb	21:39:37
3	Tl 190.801†	301.1	315.7	441.71 µg/L	441.71 ppb	21:40:03
3	U 409.014†	5518.3	5183.1	423.13 µg/L	423.13 ppb	21:39:42
3	V 292.402†	44392.5	43556.0	444.56 µg/L	444.56 ppb	21:39:42
3	Zn 213.857†	19227.5	18378.8	445.72 µg/L	445.72 ppb	21:39:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1986975.5	102.01	%	0.079				0.08%
Sc RADIAL	56522.6	102	%	0.5				0.53%
Y 371.029	1363414.5	101.95	%	0.093				0.09%
Ag 328.068†	63476.0	482.66	µg/L	16.845	482.66	ppb	16.845	3.49%
QC value within limits for Ag 328.068 Recovery = 96.53%								
Al 396.153Radial†	6745.7	4783.0	µg/L	33.90	4783.0	ppb	33.90	0.71%
QC value within limits for Al 396.153Radial Recovery = 95.66%								
As 188.979†	252.4	474.78	µg/L	43.058	474.78	ppb	43.058	9.07%
QC value within limits for As 188.979 Recovery = 94.96%								
B 249.677†	11268.1	472.21	µg/L	17.893	472.21	ppb	17.893	3.79%
QC value within limits for B 249.677 Recovery = 94.44%								
Ba 233.527†	18883.9	477.92	µg/L	25.064	477.92	ppb	25.064	5.24%
QC value within limits for Ba 233.527 Recovery = 95.58%								
Be 313.107†	778326.6	481.42	µg/L	22.836	481.42	ppb	22.836	4.74%
QC value within limits for Be 313.107 Recovery = 96.28%								
Ca 317.933Radial†	5344.4	4833.9	µg/L	43.13	4833.9	ppb	43.13	0.89%
QC value within limits for Ca 317.933Radial Recovery = 96.68%								
Cd 226.502†	18129.4	482.80	µg/L	26.836	482.80	ppb	26.836	5.56%
QC value within limits for Cd 226.502 Recovery = 96.56%								
Co 228.616†	10046.4	477.98	µg/L	29.363	477.98	ppb	29.363	6.14%

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   QC value within limits for Co 228.616  Recovery = 95.60%
Cr 267.716†            22547.8      476.05 µg/L        36.720      476.05 ppb        36.720   7.71%
   QC value within limits for Cr 267.716  Recovery = 95.21%
Cu 324.752†            71166.7      470.74 µg/L        27.943      470.74 ppb        27.943   5.94%
   QC value within limits for Cu 324.752  Recovery = 94.15%
Fe 238.204 Radial†       558.9      4899.7 µg/L         47.17      4899.7 ppb         47.17   0.96%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.99%
K 766.490 Radial†       7298.3      4890.4 µg/L         18.86      4890.4 ppb         18.86   0.39%
   QC value within limits for K 766.490 Radial  Recovery = 97.81%
Mg 279.077 IEC†          523.6      4891.5 µg/L         52.46      4891.5 ppb         52.46   1.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.83%
Mn 257.610†           147161.2      489.11 µg/L        22.340      489.11 ppb        22.340   4.57%
   QC value within limits for Mn 257.610  Recovery = 97.82%
Mo 202.031†             4619.3      478.30 µg/L        52.967      478.30 ppb        52.967  11.07%
   QC value within limits for Mo 202.031  Recovery = 95.66%
Na 589.592 Radial†     32002.1      9728.1 µg/L         29.38      9728.1 ppb         29.38   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 97.28%
Ni 231.604†             9186.3      480.64 µg/L        29.535      480.64 ppb        29.535   6.15%
   QC value within limits for Ni 231.604  Recovery = 96.13%
P 214.914†              1144.3      2338.8 µg/L        227.12      2338.8 ppb        227.12   9.71%
   QC value within limits for P 214.914  Recovery = 93.55%
Pb 220.353†             1865.6      478.51 µg/L        44.140      478.51 ppb        44.140   9.22%
   QC value within limits for Pb 220.353  Recovery = 95.70%
S 181.975 Axial†         227.2      980.16 µg/L        87.469      980.16 ppb        87.469   8.92%
   QC value within limits for S 181.975 Axial  Recovery = 98.02%
Sb 206.836†              500.6      475.04 µg/L        44.602      475.04 ppb        44.602   9.39%
   QC value within limits for Sb 206.836  Recovery = 95.01%
Se 196.026†              333.7      494.28 µg/L        40.264      494.28 ppb        40.264   8.15%
   QC value within limits for Se 196.026  Recovery = 98.86%
SiO2†                  25020.6      5117.9 µg/L        226.53      5117.9 ppb        226.53   4.43%
   QC value within limits for SiO2  Recovery = 95.71%
Si 251.611†            30182.0      2387.1 µg/L        106.92      2387.1 ppb        106.92   4.48%
   QC value within limits for Si 251.611  Recovery = 95.48%
Sn 189.927†             1071.6      477.00 µg/L        58.135      477.00 ppb        58.135  12.19%
   QC value within limits for Sn 189.927  Recovery = 95.40%
Sr 421.552†            49890.0      482.99 µg/L         0.128      482.99 ppb         0.128   0.03%
   QC value within limits for Sr 421.552  Recovery = 96.60%
Ti 334.940†           210025.0      478.50 µg/L        24.325      478.50 ppb        24.325   5.08%
   QC value within limits for Ti 334.940  Recovery = 95.70%
Tl 190.801†              342.2      478.74 µg/L        32.308      478.74 ppb        32.308   6.75%
   QC value within limits for Tl 190.801  Recovery = 95.75%
U 409.014†              5636.1      460.19 µg/L        32.112      460.19 ppb        32.112   6.98%
   QC value within limits for U 409.014  Recovery = 92.04%
V 292.402†             46981.1      479.72 µg/L        30.453      479.72 ppb        30.453   6.35%
   QC value within limits for V 292.402  Recovery = 95.94%
Zn 213.857†            19722.4      478.33 µg/L        28.273      478.33 ppb        28.273   5.91%
   QC value within limits for Zn 213.857  Recovery = 95.67%
All analyte(s) passed QC.
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Sequence No.: 63
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 21:40:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55649.2	55649.2	100	%			21:40:45
1	Al 396.153Radial†	-10.6	-26.6	-18.912	µg/L	-18.912	ppb	21:40:45
1	Ca 317.933Radial†	189.4	-26.6	-24.069	µg/L	-24.069	ppb	21:41:05
1	Fe 238.204 Radial†	15.0	-2.9	-24.968	µg/L	-24.968	ppb	21:41:05
1	K 766.490 Radial†	171.3	-7.1	-4.7533	µg/L	-4.7533	ppb	21:40:45
1	Mg 279.077 IEC†	10.7	-3.1	-29.159	µg/L	-29.159	ppb	21:41:05
1	Na 589.592 Radial†	444.7	63.9	19.432	µg/L	19.432	ppb	21:40:45
1	Sr 421.552†	42.6	22.4	0.2171	µg/L	0.2171	ppb	21:40:45
1	Sc 361.383	1989085.1	1989085.1	102.12	%			21:42:08
1	Y 371.029	1370543.4	1370543.4	102.48	%			21:42:08
1	Ag 328.068†	-426.9	92.3	0.6929	µg/L	0.6929	ppb	21:42:13
1	As 188.979†	-1.7	-2.4	-4.5510	µg/L	-4.5510	ppb	21:42:34
1	B 249.677†	342.0	21.8	0.9302	µg/L	0.9302	ppb	21:42:34
1	Ba 233.527†	-17.8	7.9	0.2002	µg/L	0.2002	ppb	21:42:34
1	Be 313.107†	-3708.6	1.3	0.0008	µg/L	0.0008	ppb	21:42:13
1	Cd 226.502†	-127.0	-1.1	-0.0271	µg/L	-0.0271	ppb	21:42:34
1	Co 228.616†	-5.3	0.6	0.0280	µg/L	0.0280	ppb	21:42:34
1	Cr 267.716†	-42.1	-15.3	-0.3233	µg/L	-0.3233	ppb	21:42:34
1	Cu 324.752†	3341.0	41.1	0.2678	µg/L	0.2678	ppb	21:42:13
1	Mn 257.610†	-197.7	48.4	0.1585	µg/L	0.1585	ppb	21:42:34
1	Mo 202.031†	0.6	-0.5	-0.0564	µg/L	-0.0564	ppb	21:42:34
1	Ni 231.604†	281.7	-4.9	-0.2575	µg/L	-0.2575	ppb	21:42:34
1	P 214.914†	20.0	-8.0	-16.654	µg/L	-16.654	ppb	21:42:34
1	Pb 220.353†	87.2	-4.9	-1.2673	µg/L	-1.2673	ppb	21:42:34
1	S 181.975 Axial†	23.5	7.9	34.287	µg/L	34.287	ppb	21:42:34
1	Sb 206.836†	24.4	2.8	2.6580	µg/L	2.6580	ppb	21:42:34
1	Se 196.026†	9.8	-2.4	-3.5234	µg/L	-3.5234	ppb	21:42:34
1	SiO2†	1633.3	87.4	17.873	µg/L	17.873	ppb	21:42:13
1	Si 251.611†	306.6	15.3	1.2091	µg/L	1.2091	ppb	21:42:34
1	Sn 189.927†	0.5	-0.3	-0.1453	µg/L	-0.1453	ppb	21:42:34
1	Ti 334.940†	174.5	26.1	0.0614	µg/L	0.0614	ppb	21:42:13
1	Tl 190.801†	-18.2	2.8	3.8264	µg/L	3.8264	ppb	21:42:34
1	U 409.014†	199.8	-29.7	-2.4253	µg/L	-2.4253	ppb	21:42:13
1	V 292.402†	-79.9	-30.9	-0.3181	µg/L	-0.3181	ppb	21:42:13
1	Zn 213.857†	465.7	-9.9	-0.2390	µg/L	-0.2390	ppb	21:42:34
2	Sc RADIAL	55985.9	55985.9	101	%			21:41:11
2	Al 396.153Radial†	-30.4	-46.1	-32.744	µg/L	-32.744	ppb	21:41:11
2	Ca 317.933Radial†	194.3	-22.9	-20.719	µg/L	-20.719	ppb	21:41:31
2	Fe 238.204 Radial†	15.7	-2.3	-20.106	µg/L	-20.106	ppb	21:41:31
2	K 766.490 Radial†	251.7	71.4	47.850	µg/L	47.850	ppb	21:41:11
2	Mg 279.077 IEC†	5.6	-8.2	-76.283	µg/L	-76.283	ppb	21:41:31
2	Na 589.592 Radial†	455.5	71.9	21.870	µg/L	21.870	ppb	21:41:11
2	Sr 421.552†	-0.3	-20.3	-0.1968	µg/L	-0.1968	ppb	21:41:11
2	Sc 361.383	1983691.0	1983691.0	101.84	%			21:42:40
2	Y 371.029	1366703.7	1366703.7	102.20	%			21:42:40
2	Ag 328.068†	-509.4	10.1	0.0742	µg/L	0.0742	ppb	21:42:45
2	As 188.979†	5.3	4.4	8.2258	µg/L	8.2258	ppb	21:43:06
2	B 249.677†	350.7	31.2	1.3239	µg/L	1.3239	ppb	21:43:06
2	Ba 233.527†	-17.1	8.6	0.2165	µg/L	0.2165	ppb	21:43:06
2	Be 313.107†	-3698.3	1.6	0.0009	µg/L	0.0009	ppb	21:42:45
2	Cd 226.502†	-131.5	-5.9	-0.1539	µg/L	-0.1539	ppb	21:43:06
2	Co 228.616†	-3.9	2.0	0.0939	µg/L	0.0939	ppb	21:43:06
2	Cr 267.716†	-32.3	-5.8	-0.1215	µg/L	-0.1215	ppb	21:43:06
2	Cu 324.752†	3385.3	93.5	0.6149	µg/L	0.6149	ppb	21:42:45
2	Mn 257.610†	-202.6	43.0	0.1432	µg/L	0.1432	ppb	21:43:06
2	Mo 202.031†	-2.8	-3.9	-0.4055	µg/L	-0.4055	ppb	21:43:06
2	Ni 231.604†	286.6	0.7	0.0374	µg/L	0.0374	ppb	21:43:06
2	P 214.914†	25.1	-2.9	-6.0418	µg/L	-6.0418	ppb	21:43:06
2	Pb 220.353†	89.7	-2.3	-0.5856	µg/L	-0.5856	ppb	21:43:06

2	S 181.975 Axial†	18.3	2.9	12.469 µg/L	12.469 ppb	21:43:06
2	Sb 206.836†	20.7	-0.8	-0.7262 µg/L	-0.7262 ppb	21:43:06
2	Se 196.026†	12.0	-0.2	-0.2072 µg/L	-0.2072 ppb	21:43:06
2	SiO2†	1630.7	89.2	18.251 µg/L	18.251 ppb	21:42:45
2	Si 251.611†	313.2	22.6	1.7872 µg/L	1.7872 ppb	21:43:06
2	Sn 189.927†	-0.3	-1.1	-0.5000 µg/L	-0.5000 ppb	21:43:06
2	Ti 334.940†	210.1	61.5	0.1459 µg/L	0.1459 ppb	21:42:45
2	Tl 190.801†	-26.3	-5.3	-7.2711 µg/L	-7.2711 ppb	21:43:06
2	U 409.014†	216.5	-12.8	-1.0441 µg/L	-1.0441 ppb	21:42:45
2	V 292.402†	-63.7	-15.2	-0.1605 µg/L	-0.1605 ppb	21:42:45
2	Zn 213.857†	464.2	-10.1	-0.2436 µg/L	-0.2436 ppb	21:43:06
3	Sc RADIAL	56115.9	56115.9	101 %		21:41:37
3	Al 396.153Radial†	-22.1	-37.8	-26.863 µg/L	-26.863 ppb	21:41:37
3	Ca 317.933Radial†	193.3	-24.4	-22.064 µg/L	-22.064 ppb	21:41:57
3	Fe 238.204 Radial†	14.4	-3.6	-31.335 µg/L	-31.335 ppb	21:41:57
3	K 766.490 Radial†	176.5	-3.3	-2.2434 µg/L	-2.2434 ppb	21:41:37
3	Mg 279.077 IEC†	13.9	-0.0	-0.3598 µg/L	-0.3598 ppb	21:41:57
3	Na 589.592 Radial†	486.5	101.5	30.840 µg/L	30.840 ppb	21:41:37
3	Sr 421.552†	51.3	30.6	0.2962 µg/L	0.2962 ppb	21:41:37
3	Sc 361.383	1982224.9	1982224.9	101.77 %		21:43:12
3	Y 371.029	1365772.6	1365772.6	102.13 %		21:43:12
3	Ag 328.068†	-418.0	99.5	0.7483 µg/L	0.7483 ppb	21:43:17
3	As 188.979†	-1.5	-2.3	-4.2526 µg/L	-4.2526 ppb	21:43:38
3	B 249.677†	329.1	10.3	0.4504 µg/L	0.4504 ppb	21:43:38
3	Ba 233.527†	-16.3	9.4	0.2368 µg/L	0.2368 ppb	21:43:38
3	Be 313.107†	-3629.7	66.3	0.0410 µg/L	0.0410 ppb	21:43:17
3	Cd 226.502†	-125.7	-0.3	-0.0037 µg/L	-0.0037 ppb	21:43:38
3	Co 228.616†	1.5	7.3	0.3473 µg/L	0.3473 ppb	21:43:38
3	Cr 267.716†	-27.5	-1.1	-0.0230 µg/L	-0.0230 ppb	21:43:38
3	Cu 324.752†	3313.9	25.8	0.1663 µg/L	0.1663 ppb	21:43:17
3	Mn 257.610†	-195.8	49.5	0.1603 µg/L	0.1603 ppb	21:43:38
3	Mo 202.031†	1.8	0.6	0.0631 µg/L	0.0631 ppb	21:43:38
3	Ni 231.604†	288.7	3.0	0.1563 µg/L	0.1563 ppb	21:43:38
3	P 214.914†	12.4	-15.3	-31.910 µg/L	-31.910 ppb	21:43:38
3	Pb 220.353†	90.3	-1.7	-0.4325 µg/L	-0.4325 ppb	21:43:38
3	S 181.975 Axial†	23.7	8.3	35.625 µg/L	35.625 ppb	21:43:38
3	Sb 206.836†	20.3	-1.1	-1.0177 µg/L	-1.0177 ppb	21:43:38
3	Se 196.026†	10.2	-1.9	-2.8526 µg/L	-2.8526 ppb	21:43:38
3	SiO2†	1608.9	69.0	14.109 µg/L	14.109 ppb	21:43:17
3	Si 251.611†	309.6	19.4	1.5321 µg/L	1.5321 ppb	21:43:38
3	Sn 189.927†	3.6	2.7	1.2194 µg/L	1.2194 ppb	21:43:38
3	Ti 334.940†	241.2	92.2	0.2100 µg/L	0.2100 ppb	21:43:17
3	Tl 190.801†	-20.1	0.9	1.1834 µg/L	1.1834 ppb	21:43:38
3	U 409.014†	204.3	-24.6	-2.0076 µg/L	-2.0076 ppb	21:43:17
3	V 292.402†	-62.1	-13.7	-0.1433 µg/L	-0.1433 ppb	21:43:17
3	Zn 213.857†	464.2	-9.8	-0.2384 µg/L	-0.2384 ppb	21:43:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1985000.3	101.91	%	0.185				0.18%
Sc RADIAL	55917.0	101	%	0.4				0.43%
Y 371.029	1367673.2	102.27	%	0.189				0.18%
Ag 328.068†	67.3	0.5052	µg/L	0.37423	0.5052	ppb	0.37423	74.08%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-36.8	-26.173	µg/L	6.9417	-26.173	ppb	6.9417	26.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1926	µg/L	7.29211	-0.1926	ppb	7.29211	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	21.1	0.9015	µg/L	0.43747	0.9015	ppb	0.43747	48.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.6	0.2178	µg/L	0.01833	0.2178	ppb	0.01833	8.42%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	23.1	0.0142	µg/L	0.02315	0.0142	ppb	0.02315	162.70%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-24.6	-22.284	µg/L	1.6859	-22.284	ppb	1.6859	7.57%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-2.4	-0.0615	µg/L	0.08081	-0.0615	ppb	0.08081	131.32%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.3	0.1564	µg/L	0.16859	0.1564	ppb	0.16859	107.79%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.4     -0.1559 µg/L       0.15308     -0.1559 ppb        0.15308  98.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                53.5      0.3497 µg/L       0.23526      0.3497 ppb        0.23526  67.28%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.9     -25.469 µg/L        5.6314     -25.469 ppb         5.6314  22.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          20.3      13.618 µg/L       29.6728      13.618 ppb        29.6728 217.90%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -3.8     -35.267 µg/L       38.3285     -35.267 ppb        38.3285 108.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                47.0      0.1540 µg/L       0.00938      0.1540 ppb        0.00938   6.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.3     -0.1330 µg/L       0.24349     -0.1330 ppb        0.24349 183.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         79.1      24.047 µg/L        6.0076      24.047 ppb         6.0076  24.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.4     -0.0213 µg/L       0.21305     -0.0213 ppb        0.21305 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.7     -18.202 µg/L       13.0031     -18.202 ppb        13.0031  71.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.0     -0.7618 µg/L       0.44442     -0.7618 ppb        0.44442  58.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.4      27.461 µg/L       13.0001      27.461 ppb        13.0001  47.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.3      0.3047 µg/L       2.04323      0.3047 ppb        2.04323 670.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.5     -2.1944 µg/L       1.75336     -2.1944 ppb        1.75336  79.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      81.9      16.744 µg/L        2.2902      16.744 ppb         2.2902  13.68%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                19.1      1.5095 µg/L       0.28967      1.5095 ppb        0.28967  19.19%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.4      0.1914 µg/L       0.90777      0.1914 ppb        0.90777 474.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.9      0.1055 µg/L       0.26479      0.1055 ppb        0.26479 251.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.9      0.1391 µg/L       0.07452      0.1391 ppb        0.07452  53.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.5     -0.7538 µg/L       5.79679     -0.7538 ppb        5.79679 769.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -22.4     -1.8257 µg/L       0.70836     -1.8257 ppb        0.70836  38.80%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -19.9     -0.2073 µg/L       0.09630     -0.2073 ppb        0.09630  46.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -10.0     -0.2403 µg/L       0.00282     -0.2403 ppb        0.00282   1.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 22:15:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56104.6	56104.6	101	%			22:16:32
1	Al 396.153Radial†	7166.8	7059.6	5004.9	µg/L	5004.9	ppb	22:16:32
1	Ca 317.933Radial†	5705.2	5417.5	4900.0	µg/L	4900.0	ppb	22:16:53
1	Fe 238.204 Radial†	600.4	575.0	5041.5	µg/L	5041.5	ppb	22:16:53
1	K 766.490 Radial†	7874.8	7597.0	5090.5	µg/L	5090.5	ppb	22:16:32
1	Mg 279.077 IEC†	562.4	541.5	5059.9	µg/L	5059.9	ppb	22:16:53
1	Na 589.592 Radial†	34156.3	33342.9	10136	µg/L	10136	ppb	22:16:32
1	Sr 421.552†	52594.0	51904.6	502.49	µg/L	502.49	ppb	22:16:32
1	Sc 361.383	1961239.3	1961239.3	100.69	%			22:17:56
1	Y 371.029	1348261.4	1348261.4	100.82	%			22:17:56
1	Ag 328.068†	67431.3	67478.6	513.15	µg/L	513.15	ppb	22:18:02
1	As 188.979†	275.6	272.9	513.22	µg/L	513.22	ppb	22:18:22
1	B 249.677†	12345.8	11948.0	500.80	µg/L	500.80	ppb	22:18:02
1	Ba 233.527†	20247.1	20133.5	509.56	µg/L	509.56	ppb	22:18:02
1	Be 313.107†	825655.1	823619.6	509.43	µg/L	509.43	ppb	22:17:56
1	Cd 226.502†	19392.6	19382.7	516.20	µg/L	516.20	ppb	22:18:02
1	Co 228.616†	10848.1	10779.4	512.87	µg/L	512.87	ppb	22:18:02
1	Cr 267.716†	24632.2	24489.0	517.03	µg/L	517.03	ppb	22:18:02
1	Cu 324.752†	80655.6	76871.3	508.44	µg/L	508.44	ppb	22:18:02
1	Mn 257.610†	156781.5	155947.1	518.30	µg/L	518.30	ppb	22:17:56
1	Mo 202.031†	5158.5	5121.9	530.34	µg/L	530.34	ppb	22:18:22
1	Ni 231.604†	10186.3	9835.7	514.61	µg/L	514.61	ppb	22:18:02
1	P 214.914†	1279.0	1242.7	2540.4	µg/L	2540.4	ppb	22:18:22
1	Pb 220.353†	2133.4	2028.3	520.29	µg/L	520.29	ppb	22:18:22
1	S 181.975 Axial†	260.3	243.5	1050.1	µg/L	1050.1	ppb	22:18:22
1	Sb 206.836†	572.8	547.8	520.03	µg/L	520.03	ppb	22:18:22
1	Se 196.026†	367.8	353.3	523.04	µg/L	523.04	ppb	22:18:22
1	SiO2†	28393.2	26686.3	5458.6	µg/L	5458.6	ppb	22:18:02
1	Si 251.611†	32641.3	32132.3	2541.3	µg/L	2541.3	ppb	22:18:02
1	Sn 189.927†	1199.9	1190.8	530.09	µg/L	530.09	ppb	22:18:22
1	Ti 334.940†	225578.5	223885.0	510.08	µg/L	510.08	ppb	22:17:56
1	Tl 190.801†	354.8	373.0	521.59	µg/L	521.59	ppb	22:18:22
1	U 409.014†	6377.7	6108.6	498.82	µg/L	498.82	ppb	22:18:02
1	V 292.402†	51105.4	50801.9	518.81	µg/L	518.81	ppb	22:18:02
1	Zn 213.857†	21731.0	21115.9	512.14	µg/L	512.14	ppb	22:18:02
2	Sc RADIAL	55949.9	55949.9	101	%			22:16:58
2	Al 396.153Radial†	7178.9	7091.1	5027.6	µg/L	5027.6	ppb	22:16:58
2	Ca 317.933Radial†	5724.3	5451.9	4931.1	µg/L	4931.1	ppb	22:17:18
2	Fe 238.204 Radial†	604.6	580.7	5091.5	µg/L	5091.5	ppb	22:17:18
2	K 766.490 Radial†	7862.8	7606.6	5096.9	µg/L	5096.9	ppb	22:16:58
2	Mg 279.077 IEC†	562.5	543.1	5074.7	µg/L	5074.7	ppb	22:17:18
2	Na 589.592 Radial†	34223.4	33502.5	10184	µg/L	10184	ppb	22:16:58
2	Sr 421.552†	52790.7	52242.9	505.77	µg/L	505.77	ppb	22:16:58
2	Sc 361.383	1972891.1	1972891.1	101.29	%			22:18:29
2	Y 371.029	1356154.9	1356154.9	101.41	%			22:18:29
2	Ag 328.068†	67616.0	67265.5	511.53	µg/L	511.53	ppb	22:18:35
2	As 188.979†	267.9	263.7	495.99	µg/L	495.99	ppb	22:18:56
2	B 249.677†	12417.9	11946.8	500.73	µg/L	500.73	ppb	22:18:35
2	Ba 233.527†	20349.6	20115.9	509.11	µg/L	509.11	ppb	22:18:35
2	Be 313.107†	834512.8	827521.7	511.85	µg/L	511.85	ppb	22:18:29
2	Cd 226.502†	19445.7	19321.3	514.56	µg/L	514.56	ppb	22:18:35
2	Co 228.616†	10880.5	10747.8	511.35	µg/L	511.35	ppb	22:18:35
2	Cr 267.716†	24795.4	24505.7	517.38	µg/L	517.38	ppb	22:18:35
2	Cu 324.752†	80862.1	76602.2	506.67	µg/L	506.67	ppb	22:18:35
2	Mn 257.610†	158397.7	156623.1	520.55	µg/L	520.55	ppb	22:18:29
2	Mo 202.031†	5048.4	4983.0	515.96	µg/L	515.96	ppb	22:18:56
2	Ni 231.604†	10231.0	9820.0	513.79	µg/L	513.79	ppb	22:18:35
2	P 214.914†	1263.3	1219.7	2492.5	µg/L	2492.5	ppb	22:18:56
2	Pb 220.353†	2100.4	1983.3	508.70	µg/L	508.70	ppb	22:18:56

2	S 181.975 Axial†	255.9	237.6	1024.6 µg/L	1024.6 ppb	22:18:56
2	Sb 206.836†	565.1	536.9	509.41 µg/L	509.41 ppb	22:18:56
2	Se 196.026†	369.7	353.0	522.83 µg/L	522.83 ppb	22:18:56
2	SiO2†	28593.8	26717.9	5465.0 µg/L	5465.0 ppb	22:18:35
2	Si 251.611†	32922.6	32218.5	2548.2 µg/L	2548.2 ppb	22:18:35
2	Sn 189.927†	1168.2	1152.5	513.01 µg/L	513.01 ppb	22:18:56
2	Ti 334.940†	227857.7	224812.1	512.20 µg/L	512.20 ppb	22:18:29
2	Tl 190.801†	341.8	358.1	500.98 µg/L	500.98 ppb	22:18:56
2	U 409.014†	6355.3	6049.0	493.94 µg/L	493.94 ppb	22:18:35
2	V 292.402†	51286.0	50680.5	517.47 µg/L	517.47 ppb	22:18:35
2	Zn 213.857†	21832.3	21088.4	511.47 µg/L	511.47 ppb	22:18:35
3	Sc RADIAL	55818.8	55818.8	101 %		22:17:24
3	Al 396.153Radial†	7159.8	7088.8	5027.8 µg/L	5027.8 ppb	22:17:24
3	Ca 317.933Radial†	5671.7	5413.0	4896.0 µg/L	4896.0 ppb	22:17:44
3	Fe 238.204 Radial†	595.4	573.0	5023.1 µg/L	5023.1 ppb	22:17:44
3	K 766.490 Radial†	7819.9	7582.4	5080.7 µg/L	5080.7 ppb	22:17:24
3	Mg 279.077 IEC†	561.8	543.7	5078.8 µg/L	5078.8 ppb	22:17:44
3	Na 589.592 Radial†	34096.4	33456.1	10170 µg/L	10170 ppb	22:17:24
3	Sr 421.552†	52488.7	52066.0	504.06 µg/L	504.06 ppb	22:17:24
3	Sc 361.383	1960919.6	1960919.6	100.67 %		22:19:03
3	Y 371.029	1348624.5	1348624.5	100.84 %		22:19:03
3	Ag 328.068†	63006.5	63094.4	479.66 µg/L	479.66 ppb	22:19:08
3	As 188.979†	238.3	235.9	443.72 µg/L	443.72 ppb	22:19:29
3	B 249.677†	11455.7	11065.9	463.60 µg/L	463.60 ppb	22:19:08
3	Ba 233.527†	18350.0	18252.4	461.93 µg/L	461.93 ppb	22:19:08
3	Be 313.107†	764387.5	762896.4	471.87 µg/L	471.87 ppb	22:19:03
3	Cd 226.502†	17453.0	17459.2	464.91 µg/L	464.91 ppb	22:19:08
3	Co 228.616†	9686.1	9627.0	457.97 µg/L	457.97 ppb	22:19:08
3	Cr 267.716†	21319.9	21202.9	447.66 µg/L	447.66 ppb	22:19:08
3	Cu 324.752†	72501.9	68785.3	455.03 µg/L	455.03 ppb	22:19:08
3	Mn 257.610†	145637.5	144903.2	481.62 µg/L	481.62 ppb	22:19:03
3	Mo 202.031†	4182.8	4153.7	430.12 µg/L	430.12 ppb	22:19:29
3	Ni 231.604†	9101.8	8760.1	458.34 µg/L	458.34 ppb	22:19:08
3	P 214.914†	1060.6	1025.9	2092.9 µg/L	2092.9 ppb	22:19:29
3	Pb 220.353†	1822.4	1719.8	441.05 µg/L	441.05 ppb	22:19:29
3	S 181.975 Axial†	225.5	208.9	901.10 µg/L	901.10 ppb	22:19:29
3	Sb 206.836†	484.7	460.4	436.52 µg/L	436.52 ppb	22:19:29
3	Se 196.026†	322.3	308.2	457.29 µg/L	457.29 ppb	22:19:29
3	SiO2†	26327.9	24639.4	5039.9 µg/L	5039.9 ppb	22:19:08
3	Si 251.611†	30202.2	29714.8	2350.1 µg/L	2350.1 ppb	22:19:08
3	Sn 189.927†	953.3	946.1	421.15 µg/L	421.15 ppb	22:19:29
3	Ti 334.940†	207683.5	206146.5	469.64 µg/L	469.64 ppb	22:19:03
3	Tl 190.801†	307.6	326.1	456.43 µg/L	456.43 ppb	22:19:29
3	U 409.014†	5725.6	5461.9	445.91 µg/L	445.91 ppb	22:19:08
3	V 292.402†	45269.6	45013.5	459.43 µg/L	459.43 ppb	22:19:08
3	Zn 213.857†	19471.3	18874.9	457.73 µg/L	457.73 ppb	22:19:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1965016.7	100.89	%	0.350				0.35%
Sc RADIAL	55957.7	101	%	0.3				0.26%
Y 371.029	1351013.6	101.02	%	0.333				0.33%
Ag 328.068†	65946.2	501.45	µg/L	18.884	501.45	ppb	18.884	3.77%
QC value within limits for Ag 328.068 Recovery = 100.29%								
Al 396.153Radial†	7079.9	5020.1	µg/L	13.14	5020.1	ppb	13.14	0.26%
QC value within limits for Al 396.153Radial Recovery = 100.40%								
As 188.979†	257.5	484.31	µg/L	36.193	484.31	ppb	36.193	7.47%
QC value within limits for As 188.979 Recovery = 96.86%								
B 249.677†	11653.5	488.38	µg/L	21.461	488.38	ppb	21.461	4.39%
QC value within limits for B 249.677 Recovery = 97.68%								
Ba 233.527†	19500.6	493.53	µg/L	27.369	493.53	ppb	27.369	5.55%
QC value within limits for Ba 233.527 Recovery = 98.71%								
Be 313.107†	804679.2	497.72	µg/L	22.413	497.72	ppb	22.413	4.50%
QC value within limits for Be 313.107 Recovery = 99.54%								
Ca 317.933Radial†	5427.5	4909.0	µg/L	19.25	4909.0	ppb	19.25	0.39%
QC value within limits for Ca 317.933Radial Recovery = 98.18%								
Cd 226.502†	18721.1	498.56	µg/L	29.148	498.56	ppb	29.148	5.85%
QC value within limits for Cd 226.502 Recovery = 99.71%								
Co 228.616†	10384.7	494.07	µg/L	31.266	494.07	ppb	31.266	6.33%

```
   QC value within limits for Co 228.616  Recovery = 98.81%
Cr 267.716†            23399.2      494.03 µg/L        40.153      494.03 ppb         40.153   8.13%
   QC value within limits for Cr 267.716  Recovery = 98.81%
Cu 324.752†            74086.3      490.04 µg/L        30.338      490.04 ppb         30.338   6.19%
   QC value within limits for Cu 324.752  Recovery = 98.01%
Fe 238.204 Radial†       576.3      5052.0 µg/L         35.37      5052.0 ppb          35.37   0.70%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.04%
K 766.490 Radial†       7595.3      5089.4 µg/L          8.17      5089.4 ppb           8.17   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 101.79%
Mg 279.077 IEC†          542.8      5071.1 µg/L          9.97      5071.1 ppb           9.97   0.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.42%
Mn 257.610†           152491.2      506.82 µg/L        21.853      506.82 ppb         21.853   4.31%
   QC value within limits for Mn 257.610  Recovery = 101.36%
Mo 202.031†             4752.9      492.14 µg/L        54.190      492.14 ppb         54.190  11.01%
   QC value within limits for Mo 202.031  Recovery = 98.43%
Na 589.592 Radial†     33433.8       10163 µg/L          25.0       10163 ppb           25.0   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 101.63%
Ni 231.604†             9471.9      495.58 µg/L        32.254      495.58 ppb         32.254   6.51%
   QC value within limits for Ni 231.604  Recovery = 99.12%
P 214.914†              1162.8      2375.3 µg/L        245.70      2375.3 ppb         245.70  10.34%
   QC value within limits for P 214.914  Recovery = 95.01%
Pb 220.353†             1910.5      490.01 µg/L        42.799      490.01 ppb         42.799   8.73%
   QC value within limits for Pb 220.353  Recovery = 98.00%
S 181.975 Axial†         230.0      991.95 µg/L        79.706      991.95 ppb         79.706   8.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.20%
Sb 206.836†              515.0      488.65 µg/L        45.463      488.65 ppb         45.463   9.30%
   QC value within limits for Sb 206.836  Recovery = 97.73%
Se 196.026†              338.2      501.05 µg/L        37.903      501.05 ppb         37.903   7.56%
   QC value within limits for Se 196.026  Recovery = 100.21%
SiO2†                  26014.5      5321.2 µg/L        243.61      5321.2 ppb         243.61   4.58%
   QC value within limits for SiO2  Recovery = 99.51%
Si 251.611†            31355.2      2479.9 µg/L        112.41      2479.9 ppb         112.41   4.53%
   QC value within limits for Si 251.611  Recovery = 99.19%
Sn 189.927†             1096.5      488.08 µg/L        58.590      488.08 ppb         58.590  12.00%
   QC value within limits for Sn 189.927  Recovery = 97.62%
Sr 421.552†            52071.2      504.11 µg/L         1.638      504.11 ppb          1.638   0.32%
   QC value within limits for Sr 421.552  Recovery = 100.82%
Ti 334.940†           218281.2      497.31 µg/L        23.982      497.31 ppb         23.982   4.82%
   QC value within limits for Ti 334.940  Recovery = 99.46%
Tl 190.801†              352.4      493.00 µg/L        33.304      493.00 ppb         33.304   6.76%
   QC value within limits for Tl 190.801  Recovery = 98.60%
U 409.014†              5873.2      479.56 µg/L        29.241      479.56 ppb         29.241   6.10%
   QC value within limits for U 409.014  Recovery = 95.91%
V 292.402†             48831.9      498.57 µg/L        33.902      498.57 ppb         33.902   6.80%
   QC value within limits for V 292.402  Recovery = 99.71%
Zn 213.857†            20359.7      493.78 µg/L        31.219      493.78 ppb         31.219   6.32%
   QC value within limits for Zn 213.857  Recovery = 98.76%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 22:19:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54829.6	54829.6	99.0	%			22:20:11
1	Al 396.153Radial†	-16.6	-32.8	-23.308	µg/L	-23.308	ppb	22:20:11
1	Ca 317.933Radial†	177.7	-35.7	-32.247	µg/L	-32.247	ppb	22:20:31
1	Fe 238.204 Radial†	18.1	0.5	4.2148	µg/L	4.2148	ppb	22:20:31
1	K 766.490 Radial†	186.0	10.3	6.9341	µg/L	6.9341	ppb	22:20:11
1	Mg 279.077 IEC†	11.6	-2.1	-19.153	µg/L	-19.153	ppb	22:20:31
1	Na 589.592 Radial†	407.3	32.8	9.9615	µg/L	9.9615	ppb	22:20:11
1	Sr 421.552†	53.7	34.3	0.3316	µg/L	0.3316	ppb	22:20:11
1	Sc 361.383	1934202.1	1934202.1	99.303	%			22:21:33
1	Y 371.029	1335707.9	1335707.9	99.879	%			22:21:33
1	Ag 328.068†	-478.5	28.5	0.2152	µg/L	0.2152	ppb	22:21:39
1	As 188.979†	-0.0	-0.8	-1.5521	µg/L	-1.5521	ppb	22:21:59
1	B 249.677†	347.3	36.6	1.5384	µg/L	1.5384	ppb	22:21:59
1	Ba 233.527†	-12.0	13.3	0.3361	µg/L	0.3361	ppb	22:21:59
1	Be 313.107†	-3665.6	-58.4	-0.0363	µg/L	-0.0363	ppb	22:21:39
1	Cd 226.502†	-125.9	-3.6	-0.0945	µg/L	-0.0945	ppb	22:21:59
1	Co 228.616†	7.8	13.6	0.6483	µg/L	0.6483	ppb	22:21:59
1	Cr 267.716†	-37.8	-12.1	-0.2557	µg/L	-0.2557	ppb	22:21:59
1	Cu 324.752†	3367.5	160.6	1.0612	µg/L	1.0612	ppb	22:21:39
1	Mn 257.610†	-166.7	74.1	0.2475	µg/L	0.2475	ppb	22:21:59
1	Mo 202.031†	1.4	0.3	0.0267	µg/L	0.0267	ppb	22:21:59
1	Ni 231.604†	292.0	13.4	0.6997	µg/L	0.6997	ppb	22:21:59
1	P 214.914†	23.5	-3.8	-8.1043	µg/L	-8.1043	ppb	22:21:59
1	Pb 220.353†	88.1	-1.6	-0.4229	µg/L	-0.4229	ppb	22:21:59
1	S 181.975 Axial†	15.6	0.6	2.6279	µg/L	2.6279	ppb	22:21:59
1	Sb 206.836†	25.3	4.4	4.1658	µg/L	4.1658	ppb	22:21:59
1	Se 196.026†	16.2	4.4	6.4672	µg/L	6.4672	ppb	22:21:59
1	SiO2†	1681.1	181.0	37.013	µg/L	37.013	ppb	22:21:39
1	Si 251.611†	381.8	99.6	7.8800	µg/L	7.8800	ppb	22:21:59
1	Sn 189.927†	2.8	2.0	0.8752	µg/L	0.8752	ppb	22:21:59
1	Ti 334.940†	253.6	110.6	0.2531	µg/L	0.2531	ppb	22:21:39
1	Tl 190.801†	-25.4	-5.0	-6.8946	µg/L	-6.8946	ppb	22:21:59
1	U 409.014†	236.2	12.5	1.0267	µg/L	1.0267	ppb	22:21:39
1	V 292.402†	-45.6	1.4	0.0149	µg/L	0.0149	ppb	22:21:39
1	Zn 213.857†	464.2	1.6	0.0348	µg/L	0.0348	ppb	22:21:59
2	Sc RADIAL	54731.5	54731.5	98.8	%			22:20:37
2	Al 396.153Radial†	-32.1	-48.5	-34.483	µg/L	-34.483	ppb	22:20:37
2	Ca 317.933Radial†	177.9	-35.2	-31.809	µg/L	-31.809	ppb	22:20:57
2	Fe 238.204 Radial†	15.6	-2.0	-17.552	µg/L	-17.552	ppb	22:20:57
2	K 766.490 Radial†	221.8	46.9	31.450	µg/L	31.450	ppb	22:20:37
2	Mg 279.077 IEC†	8.1	-5.5	-51.497	µg/L	-51.497	ppb	22:20:57
2	Na 589.592 Radial†	407.0	33.2	10.092	µg/L	10.092	ppb	22:20:37
2	Sr 421.552†	37.5	18.0	0.1738	µg/L	0.1738	ppb	22:20:37
2	Sc 361.383	1928427.6	1928427.6	99.007	%			22:22:05
2	Y 371.029	1330117.9	1330117.9	99.461	%			22:22:05
2	Ag 328.068†	-457.3	48.4	0.3660	µg/L	0.3660	ppb	22:22:11
2	As 188.979†	-2.2	-3.0	-5.7066	µg/L	-5.7066	ppb	22:22:31
2	B 249.677†	337.7	28.0	1.1859	µg/L	1.1859	ppb	22:22:31
2	Ba 233.527†	-16.1	9.2	0.2319	µg/L	0.2319	ppb	22:22:31
2	Be 313.107†	-3629.5	-33.0	-0.0205	µg/L	-0.0205	ppb	22:22:11
2	Cd 226.502†	-132.5	-10.6	-0.2789	µg/L	-0.2789	ppb	22:22:31
2	Co 228.616†	-1.6	4.2	0.2017	µg/L	0.2017	ppb	22:22:31
2	Cr 267.716†	-24.5	1.2	0.0251	µg/L	0.0251	ppb	22:22:31
2	Cu 324.752†	3308.6	111.3	0.7324	µg/L	0.7324	ppb	22:22:11
2	Mn 257.610†	-167.3	73.0	0.2420	µg/L	0.2420	ppb	22:22:31
2	Mo 202.031†	5.5	4.4	0.4599	µg/L	0.4599	ppb	22:22:31
2	Ni 231.604†	290.8	13.0	0.6817	µg/L	0.6817	ppb	22:22:31
2	P 214.914†	24.0	-3.4	-7.0427	µg/L	-7.0427	ppb	22:22:31
2	Pb 220.353†	83.3	-6.2	-1.5878	µg/L	-1.5878	ppb	22:22:31

2	S 181.975 Axial†	14.9	-0.0	-0.0754 µg/L	-0.0754 ppb	22:22:31
2	Sb 206.836†	18.0	-2.9	-2.7276 µg/L	-2.7276 ppb	22:22:31
2	Se 196.026†	21.0	9.2	13.495 µg/L	13.495 ppb	22:22:31
2	SiO2†	1652.2	156.8	32.068 µg/L	32.068 ppb	22:22:11
2	Si 251.611†	403.5	122.6	9.6995 µg/L	9.6995 ppb	22:22:31
2	Sn 189.927†	3.7	2.8	1.2616 µg/L	1.2616 ppb	22:22:31
2	Ti 334.940†	242.4	100.0	0.2315 µg/L	0.2315 ppb	22:22:11
2	Tl 190.801†	-19.6	0.8	1.0367 µg/L	1.0367 ppb	22:22:31
2	U 409.014†	178.3	-45.3	-3.6993 µg/L	-3.6993 ppb	22:22:11
2	V 292.402†	-17.5	29.6	0.2965 µg/L	0.2965 ppb	22:22:11
2	Zn 213.857†	463.8	2.5	0.0612 µg/L	0.0612 ppb	22:22:31
3	Sc RADIAL	54957.9	54957.9	99.2 %		22:21:03
3	Al 396.153Radial†	-6.6	-22.7	-16.126 µg/L	-16.126 ppb	22:21:03
3	Ca 317.933Radial†	183.8	-29.9	-27.032 µg/L	-27.032 ppb	22:21:23
3	Fe 238.204 Radial†	16.6	-1.0	-8.8223 µg/L	-8.8223 ppb	22:21:23
3	K 766.490 Radial†	192.4	16.3	10.924 µg/L	10.924 ppb	22:21:03
3	Mg 279.077 IEC†	9.4	-4.3	-39.790 µg/L	-39.790 ppb	22:21:23
3	Na 589.592 Radial†	457.5	82.4	25.052 µg/L	25.052 ppb	22:21:03
3	Sr 421.552†	61.9	42.4	0.4103 µg/L	0.4103 ppb	22:21:03
3	Sc 361.383	1941770.3	1941770.3	99.692 %		22:22:37
3	Y 371.029	1341105.4	1341105.4	100.28 %		22:22:37
3	Ag 328.068†	-456.3	52.5	0.3968 µg/L	0.3968 ppb	22:22:43
3	As 188.979†	3.9	3.2	5.9671 µg/L	5.9671 ppb	22:23:03
3	B 249.677†	331.8	19.7	0.8332 µg/L	0.8332 ppb	22:23:03
3	Ba 233.527†	-14.1	11.2	0.2835 µg/L	0.2835 ppb	22:23:03
3	Be 313.107†	-3583.7	38.1	0.0235 µg/L	0.0235 ppb	22:22:43
3	Cd 226.502†	-130.2	-7.4	-0.1959 µg/L	-0.1959 ppb	22:23:03
3	Co 228.616†	1.9	7.8	0.3699 µg/L	0.3699 ppb	22:23:03
3	Cr 267.716†	-26.3	-0.5	-0.0105 µg/L	-0.0105 ppb	22:23:03
3	Cu 324.752†	3329.8	109.6	0.7229 µg/L	0.7229 ppb	22:22:43
3	Mn 257.610†	-178.0	63.4	0.2109 µg/L	0.2109 ppb	22:23:03
3	Mo 202.031†	4.1	3.0	0.3070 µg/L	0.3070 ppb	22:23:03
3	Ni 231.604†	298.0	18.2	0.9544 µg/L	0.9544 ppb	22:23:03
3	P 214.914†	24.4	-3.1	-6.5493 µg/L	-6.5493 ppb	22:23:03
3	Pb 220.353†	96.6	6.5	1.6766 µg/L	1.6766 ppb	22:23:03
3	S 181.975 Axial†	16.0	1.0	4.3946 µg/L	4.3946 ppb	22:23:03
3	Sb 206.836†	18.5	-2.5	-2.3282 µg/L	-2.3282 ppb	22:23:03
3	Se 196.026†	10.2	-1.7	-2.5008 µg/L	-2.5008 ppb	22:23:03
3	SiO2†	1599.5	92.5	18.926 µg/L	18.926 ppb	22:22:43
3	Si 251.611†	363.3	79.6	6.2938 µg/L	6.2938 ppb	22:23:03
3	Sn 189.927†	0.2	-0.7	-0.3083 µg/L	-0.3083 ppb	22:23:03
3	Ti 334.940†	201.2	57.1	0.1328 µg/L	0.1328 ppb	22:22:43
3	Tl 190.801†	-16.3	4.2	5.8557 µg/L	5.8557 ppb	22:23:03
3	U 409.014†	238.3	13.7	1.1205 µg/L	1.1205 ppb	22:22:43
3	V 292.402†	-37.8	9.5	0.0979 µg/L	0.0979 ppb	22:22:43
3	Zn 213.857†	464.6	0.1	0.0006 µg/L	0.0006 ppb	22:23:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1934800.0	99.334	%	0.3435				0.35%
Sc RADIAL	54839.7	99.0	%	0.20				0.21%
Y 371.029	1335643.7	99.874	%	0.4108				0.41%
Ag 328.068†	43.1	0.3260	µg/L	0.09719	0.3260	ppb	0.09719	29.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-34.7	-24.639	µg/L	9.2505	-24.639	ppb	9.2505	37.54%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.4306	µg/L	5.91709	-0.4306	ppb	5.91709	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	28.1	1.1858	µg/L	0.35261	1.1858	ppb	0.35261	29.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.2	0.2838	µg/L	0.05214	0.2838	ppb	0.05214	18.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-17.8	-0.0111	µg/L	0.03099	-0.0111	ppb	0.03099	279.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-33.6	-30.363	µg/L	2.8927	-30.363	ppb	2.8927	9.53%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-7.2	-0.1898	µg/L	0.09236	-0.1898	ppb	0.09236	48.67%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.5	0.4066	µg/L	0.22557	0.4066	ppb	0.22557	55.47%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.8     -0.0804 µg/L       0.15289     -0.0804 ppb        0.15289 190.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             127.2      0.8388 µg/L       0.19264      0.8388 ppb        0.19264  22.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -7.3864 µg/L      10.95403     -7.3864 ppb       10.95403 148.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        24.5      16.436 µg/L       13.1547      16.436 ppb        13.1547  80.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.9     -36.813 µg/L       16.3764     -36.813 ppb        16.3764  44.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              70.2      0.2335 µg/L       0.01970      0.2335 ppb        0.01970   8.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.6      0.2645 µg/L       0.21972      0.2645 ppb        0.21972  83.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       49.5      15.035 µg/L        8.6751      15.035 ppb         8.6751  57.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.9      0.7786 µg/L       0.15250      0.7786 ppb        0.15250  19.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.4     -7.2321 µg/L       0.79464     -7.2321 ppb        0.79464  10.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -0.4     -0.1114 µg/L       1.65436     -0.1114 ppb        1.65436 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.5      2.3157 µg/L       2.25129      2.3157 ppb        2.25129  97.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.3     -0.2967 µg/L       3.86973     -0.2967 ppb        3.86973 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.0      5.8205 µg/L       8.01757      5.8205 ppb        8.01757 137.75%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   143.4      29.336 µg/L        9.3479      29.336 ppb         9.3479  31.87%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             100.6      7.9577 µg/L       1.70420      7.9577 ppb        1.70420  21.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.6095 µg/L       0.81797      0.6095 ppb        0.81797 134.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              31.5      0.3052 µg/L       0.12045      0.3052 ppb        0.12045  39.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              89.2      0.2058 µg/L       0.06415      0.2058 ppb        0.06415  31.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.0     -0.0007 µg/L       6.43819     -0.0007 ppb        6.43819 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -6.4     -0.5174 µg/L       2.75606     -0.5174 ppb        2.75606 532.70%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               13.5      0.1364 µg/L       0.14471      0.1364 ppb        0.14471 106.07%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               1.4      0.0322 µg/L       0.03038      0.0322 ppb        0.03038  94.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/23/2010 22:56:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56456.5	56456.5	102	%			22:56:41
1	Al 396.153Radial†	6946.7	6799.5	4820.5	µg/L	4820.5	ppb	22:56:41
1	Ca 317.933Radial†	5575.5	5255.0	4753.1	µg/L	4753.1	ppb	22:57:01
1	Fe 238.204 Radial†	589.5	560.6	4915.3	µg/L	4915.3	ppb	22:57:01
1	K 766.490 Radial†	7700.3	7377.3	4943.3	µg/L	4943.3	ppb	22:56:41
1	Mg 279.077 IEC†	554.6	530.4	4955.8	µg/L	4955.8	ppb	22:57:01
1	Na 589.592 Radial†	33185.4	32180.1	9782.2	µg/L	9782.2	ppb	22:56:41
1	Sr 421.552†	51114.1	50128.9	485.30	µg/L	485.30	ppb	22:56:41
1	Sc 361.383	1978394.3	1978394.3	101.57	%			22:58:04
1	Y 371.029	1361140.4	1361140.4	101.78	%			22:58:04
1	Ag 328.068†	65806.2	65298.0	496.57	µg/L	496.57	ppb	22:58:10
1	As 188.979†	270.5	265.5	499.39	µg/L	499.39	ppb	22:58:30
1	B 249.677†	12083.1	11583.0	485.49	µg/L	485.49	ppb	22:58:10
1	Ba 233.527†	19827.6	19546.2	494.69	µg/L	494.69	ppb	22:58:10
1	Be 313.107†	810901.4	801984.0	496.05	µg/L	496.05	ppb	22:58:04
1	Cd 226.502†	18908.8	18739.4	499.07	µg/L	499.07	ppb	22:58:10
1	Co 228.616†	10582.8	10424.8	495.99	µg/L	495.99	ppb	22:58:10
1	Cr 267.716†	24109.6	23762.4	501.69	µg/L	501.69	ppb	22:58:10
1	Cu 324.752†	78961.4	74508.8	492.81	µg/L	492.81	ppb	22:58:10
1	Mn 257.610†	153732.4	151595.0	503.83	µg/L	503.83	ppb	22:58:04
1	Mo 202.031†	5006.0	4927.4	510.20	µg/L	510.20	ppb	22:58:30
1	Ni 231.604†	9965.6	9530.6	498.65	µg/L	498.65	ppb	22:58:10
1	P 214.914†	1254.5	1207.5	2468.7	µg/L	2468.7	ppb	22:58:30
1	Pb 220.353†	2081.3	1958.7	502.42	µg/L	502.42	ppb	22:58:30
1	S 181.975 Axial†	255.6	236.6	1020.3	µg/L	1020.3	ppb	22:58:30
1	Sb 206.836†	560.5	530.8	503.76	µg/L	503.76	ppb	22:58:30
1	Se 196.026†	359.5	342.0	506.35	µg/L	506.35	ppb	22:58:30
1	SiO2†	27860.7	25917.5	5301.3	µg/L	5301.3	ppb	22:58:10
1	Si 251.611†	32018.6	31238.2	2470.6	µg/L	2470.6	ppb	22:58:10
1	Sn 189.927†	1177.7	1158.6	515.73	µg/L	515.73	ppb	22:58:30
1	Ti 334.940†	221233.1	217664.2	495.91	µg/L	495.91	ppb	22:58:04
1	Tl 190.801†	344.7	359.9	503.40	µg/L	503.40	ppb	22:58:30
1	U 409.014†	6265.2	5942.9	485.29	µg/L	485.29	ppb	22:58:10
1	V 292.402†	49902.0	49177.0	502.20	µg/L	502.20	ppb	22:58:10
1	Zn 213.857†	21279.4	20484.1	496.81	µg/L	496.81	ppb	22:58:10
2	Sc RADIAL	56169.0	56169.0	101	%			22:57:06
2	Al 396.153Radial†	6923.2	6811.2	4829.1	µg/L	4829.1	ppb	22:57:06
2	Ca 317.933Radial†	5547.4	5255.3	4753.3	µg/L	4753.3	ppb	22:57:27
2	Fe 238.204 Radial†	585.9	560.0	4909.8	µg/L	4909.8	ppb	22:57:27
2	K 766.490 Radial†	7693.3	7409.1	4964.6	µg/L	4964.6	ppb	22:57:06
2	Mg 279.077 IEC†	546.0	524.7	4902.4	µg/L	4902.4	ppb	22:57:27
2	Na 589.592 Radial†	33078.8	32241.7	9800.9	µg/L	9800.9	ppb	22:57:06
2	Sr 421.552†	50835.9	50111.3	485.13	µg/L	485.13	ppb	22:57:06
2	Sc 361.383	1992002.8	1992002.8	102.27	%			22:58:38
2	Y 371.029	1369289.8	1369289.8	102.39	%			22:58:38
2	Ag 328.068†	65350.6	64409.9	489.81	µg/L	489.81	ppb	22:58:43
2	As 188.979†	268.3	261.6	491.96	µg/L	491.96	ppb	22:59:04
2	B 249.677†	11948.7	11370.3	476.54	µg/L	476.54	ppb	22:58:43
2	Ba 233.527†	19637.3	19226.7	486.60	µg/L	486.60	ppb	22:58:43
2	Be 313.107†	810928.8	796556.9	492.69	µg/L	492.69	ppb	22:58:38
2	Cd 226.502†	18754.4	18461.2	491.65	µg/L	491.65	ppb	22:58:43
2	Co 228.616†	10497.0	10269.8	488.60	µg/L	488.60	ppb	22:58:43
2	Cr 267.716†	23890.6	23386.0	493.75	µg/L	493.75	ppb	22:58:43
2	Cu 324.752†	78213.2	73246.2	484.47	µg/L	484.47	ppb	22:58:43
2	Mn 257.610†	153974.9	150798.2	501.19	µg/L	501.19	ppb	22:58:38
2	Mo 202.031†	4930.3	4819.8	499.05	µg/L	499.05	ppb	22:59:04
2	Ni 231.604†	9883.7	9383.5	490.95	µg/L	490.95	ppb	22:58:43
2	P 214.914†	1232.5	1177.5	2406.8	µg/L	2406.8	ppb	22:59:04
2	Pb 220.353†	2061.2	1925.0	493.76	µg/L	493.76	ppb	22:59:04

2	S 181.975 Axial†	250.1	229.5	989.91 µg/L	989.91 ppb	22:59:04
2	Sb 206.836†	552.6	519.2	492.78 µg/L	492.78 ppb	22:59:04
2	Se 196.026†	364.5	344.4	509.94 µg/L	509.94 ppb	22:59:04
2	SiO2†	27724.8	25597.3	5235.8 µg/L	5235.8 ppb	22:58:43
2	Si 251.611†	31909.5	30916.1	2445.1 µg/L	2445.1 ppb	22:58:43
2	Sn 189.927†	1139.8	1113.7	495.73 µg/L	495.73 ppb	22:59:04
2	Ti 334.940†	221471.0	216408.9	493.05 µg/L	493.05 ppb	22:58:38
2	Tl 190.801†	342.0	355.0	496.56 µg/L	496.56 ppb	22:59:04
2	U 409.014†	6317.0	5951.4	485.99 µg/L	485.99 ppb	22:58:43
2	V 292.402†	49470.2	48419.1	494.45 µg/L	494.45 ppb	22:58:43
2	Zn 213.857†	21072.9	20139.1	488.44 µg/L	488.44 ppb	22:58:43
3	Sc RADIAL	56245.2	56245.2	102 %		22:57:32
3	Al 396.153Radial†	6952.2	6830.5	4844.4 µg/L	4844.4 ppb	22:57:32
3	Ca 317.933Radial†	5528.3	5229.1	4729.6 µg/L	4729.6 ppb	22:57:53
3	Fe 238.204 Radial†	589.0	562.2	4928.2 µg/L	4928.2 ppb	22:57:53
3	K 766.490 Radial†	7665.9	7371.8	4939.6 µg/L	4939.6 ppb	22:57:32
3	Mg 279.077 IEC†	547.1	525.1	4904.6 µg/L	4904.6 ppb	22:57:53
3	Na 589.592 Radial†	33174.3	32291.4	9816.1 µg/L	9816.1 ppb	22:57:32
3	Sr 421.552†	50989.4	50194.6	485.94 µg/L	485.94 ppb	22:57:32
3	Sc 361.383	1978275.8	1978275.8	101.57 %		22:59:11
3	Y 371.029	1361560.4	1361560.4	101.81 %		22:59:11
3	Ag 328.068†	62190.8	61742.2	469.38 µg/L	469.38 ppb	22:59:17
3	As 188.979†	227.0	222.7	418.87 µg/L	418.87 ppb	22:59:37
3	B 249.677†	11315.3	10827.8	453.62 µg/L	453.62 ppb	22:59:17
3	Ba 233.527†	18162.4	17907.8	453.20 µg/L	453.20 ppb	22:59:17
3	Be 313.107†	745186.9	737330.5	456.06 µg/L	456.06 ppb	22:59:11
3	Cd 226.502†	17326.2	17182.2	457.54 µg/L	457.54 ppb	22:59:17
3	Co 228.616†	9574.7	9432.9	448.75 µg/L	448.75 ppb	22:59:17
3	Cr 267.716†	21139.6	20839.6	439.99 µg/L	439.99 ppb	22:59:17
3	Cu 324.752†	71711.1	67375.0	445.70 µg/L	445.70 ppb	22:59:17
3	Mn 257.610†	141835.3	139890.4	464.97 µg/L	464.97 ppb	22:59:11
3	Mo 202.031†	4118.2	4053.5	419.75 µg/L	419.75 ppb	22:59:37
3	Ni 231.604†	9024.5	8604.7	450.21 µg/L	450.21 ppb	22:59:17
3	P 214.914†	1052.2	1008.5	2057.4 µg/L	2057.4 ppb	22:59:37
3	Pb 220.353†	1793.8	1675.8	429.73 µg/L	429.73 ppb	22:59:37
3	S 181.975 Axial†	223.4	204.9	883.64 µg/L	883.64 ppb	22:59:37
3	Sb 206.836†	477.4	448.9	425.64 µg/L	425.64 ppb	22:59:37
3	Se 196.026†	321.6	304.7	452.09 µg/L	452.09 ppb	22:59:37
3	SiO2†	25978.9	24066.4	4922.7 µg/L	4922.7 ppb	22:59:17
3	Si 251.611†	29815.6	29071.0	2299.2 µg/L	2299.2 ppb	22:59:17
3	Sn 189.927†	944.1	928.7	413.42 µg/L	413.42 ppb	22:59:37
3	Ti 334.940†	202383.3	199118.1	453.63 µg/L	453.63 ppb	22:59:11
3	Tl 190.801†	307.0	322.9	451.74 µg/L	451.74 ppb	22:59:37
3	U 409.014†	5661.3	5348.6	436.67 µg/L	436.67 ppb	22:59:17
3	V 292.402†	44717.6	44075.5	449.85 µg/L	449.85 ppb	22:59:17
3	Zn 213.857†	19322.9	18559.0	450.08 µg/L	450.08 ppb	22:59:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1982891.0	101.80	%	0.405				0.40%
Sc RADIAL	56290.3	102	%	0.3				0.26%
Y 371.029	1363996.9	101.99	%	0.343				0.34%
Ag 328.068†	63816.7	485.25	µg/L	14.154	485.25	ppb	14.154	2.92%
QC value within limits for Ag 328.068 Recovery = 97.05%								
Al 396.153Radial†	6813.7	4831.4	µg/L	12.09	4831.4	ppb	12.09	0.25%
QC value within limits for Al 396.153Radial Recovery = 96.63%								
As 188.979†	249.9	470.07	µg/L	44.499	470.07	ppb	44.499	9.47%
QC value within limits for As 188.979 Recovery = 94.01%								
B 249.677†	11260.4	471.88	µg/L	16.440	471.88	ppb	16.440	3.48%
QC value within limits for B 249.677 Recovery = 94.38%								
Ba 233.527†	18893.5	478.16	µg/L	21.991	478.16	ppb	21.991	4.60%
QC value within limits for Ba 233.527 Recovery = 95.63%								
Be 313.107†	778623.8	481.60	µg/L	22.182	481.60	ppb	22.182	4.61%
QC value within limits for Be 313.107 Recovery = 96.32%								
Ca 317.933Radial†	5246.5	4745.3	µg/L	13.63	4745.3	ppb	13.63	0.29%
QC value within limits for Ca 317.933Radial Recovery = 94.91%								
Cd 226.502†	18127.6	482.75	µg/L	22.146	482.75	ppb	22.146	4.59%
QC value within limits for Cd 226.502 Recovery = 96.55%								
Co 228.616†	10042.5	477.78	µg/L	25.414	477.78	ppb	25.414	5.32%

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   QC value within limits for Co 228.616  Recovery = 95.56%
Cr 267.716†            22662.7      478.48 µg/L        33.566      478.48 ppb         33.566   7.02%
   QC value within limits for Cr 267.716  Recovery = 95.70%
Cu 324.752†            71710.0      474.33 µg/L        25.144      474.33 ppb         25.144   5.30%
   QC value within limits for Cu 324.752  Recovery = 94.87%
Fe 238.204 Radial†       560.9      4917.8 µg/L          9.49      4917.8 ppb           9.49   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.36%
K 766.490 Radial†       7386.1      4949.2 µg/L         13.50      4949.2 ppb          13.50   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 98.98%
Mg 279.077 IEC†          526.7      4920.9 µg/L         30.20      4920.9 ppb          30.20   0.61%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.42%
Mn 257.610†           147427.9      490.00 µg/L        21.714      490.00 ppb         21.714   4.43%
   QC value within limits for Mn 257.610  Recovery = 98.00%
Mo 202.031†             4600.3      476.33 µg/L        49.321      476.33 ppb         49.321  10.35%
   QC value within limits for Mo 202.031  Recovery = 95.27%
Na 589.592 Radial†     32237.7      9799.7 µg/L         16.96      9799.7 ppb          16.96   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 98.00%
Ni 231.604†             9172.9      479.94 µg/L        26.032      479.94 ppb         26.032   5.42%
   QC value within limits for Ni 231.604  Recovery = 95.99%
P 214.914†              1131.2      2311.0 µg/L        221.75      2311.0 ppb         221.75   9.60%
   QC value within limits for P 214.914  Recovery = 92.44%
Pb 220.353†             1853.2      475.30 µg/L        39.700      475.30 ppb         39.700   8.35%
   QC value within limits for Pb 220.353  Recovery = 95.06%
S 181.975 Axial†         223.6      964.63 µg/L        71.772      964.63 ppb         71.772   7.44%
   QC value within limits for S 181.975 Axial  Recovery = 96.46%
Sb 206.836†              499.6      474.06 µg/L        42.288      474.06 ppb         42.288   8.92%
   QC value within limits for Sb 206.836  Recovery = 94.81%
Se 196.026†              330.4      489.46 µg/L        32.415      489.46 ppb         32.415   6.62%
   QC value within limits for Se 196.026  Recovery = 97.89%
SiO2†                  25193.7      5153.3 µg/L        202.36      5153.3 ppb         202.36   3.93%
   QC value within limits for SiO2  Recovery = 96.37%
Si 251.611†            30408.4      2405.0 µg/L         92.49      2405.0 ppb          92.49   3.85%
   QC value within limits for Si 251.611  Recovery = 96.20%
Sn 189.927†             1067.0      474.96 µg/L        54.227      474.96 ppb         54.227  11.42%
   QC value within limits for Sn 189.927  Recovery = 94.99%
Sr 421.552†            50144.9      485.46 µg/L         0.425      485.46 ppb          0.425   0.09%
   QC value within limits for Sr 421.552  Recovery = 97.09%
Ti 334.940†           211063.8      480.86 µg/L        23.627      480.86 ppb         23.627   4.91%
   QC value within limits for Ti 334.940  Recovery = 96.17%
Tl 190.801†              345.9      483.90 µg/L        28.062      483.90 ppb         28.062   5.80%
   QC value within limits for Tl 190.801  Recovery = 96.78%
U 409.014†              5747.6      469.31 µg/L        28.275      469.31 ppb         28.275   6.02%
   QC value within limits for U 409.014  Recovery = 93.86%
V 292.402†             47223.9      482.17 µg/L        28.252      482.17 ppb         28.252   5.86%
   QC value within limits for V 292.402  Recovery = 96.43%
Zn 213.857†            19727.4      478.44 µg/L        24.915      478.44 ppb         24.915   5.21%
   QC value within limits for Zn 213.857  Recovery = 95.69%
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 22:59:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55998.7	55998.7	101	%			23:00:20
1	Al 396.153Radial†	6.1	-10.0	-7.0759	µg/L	-7.0759	ppb	23:00:20
1	Ca 317.933Radial†	186.7	-30.5	-27.570	µg/L	-27.570	ppb	23:00:40
1	Fe 238.204 Radial†	17.7	-0.3	-2.5766	µg/L	-2.5766	ppb	23:00:40
1	K 766.490 Radial†	193.2	13.5	9.0731	µg/L	9.0731	ppb	23:00:20
1	Mg 279.077 IEC†	9.3	-4.6	-42.801	µg/L	-42.801	ppb	23:00:40
1	Na 589.592 Radial†	432.4	49.0	14.886	µg/L	14.886	ppb	23:00:20
1	Sr 421.552†	65.1	44.4	0.4301	µg/L	0.4301	ppb	23:00:20
1	Sc 361.383	1986063.0	1986063.0	101.97	%			23:01:42
1	Y 371.029	1371176.6	1371176.6	102.53	%			23:01:42
1	Ag 328.068†	-461.5	57.7	0.4361	µg/L	0.4361	ppb	23:01:48
1	As 188.979†	-0.1	-0.9	-1.6458	µg/L	-1.6458	ppb	23:02:08
1	B 249.677†	316.7	-2.5	-0.1023	µg/L	-0.1023	ppb	23:02:08
1	Ba 233.527†	-13.1	12.6	0.3174	µg/L	0.3174	ppb	23:02:08
1	Be 313.107†	-3657.3	46.1	0.0285	µg/L	0.0285	ppb	23:01:48
1	Cd 226.502†	-124.6	1.1	0.0287	µg/L	0.0287	ppb	23:02:08
1	Co 228.616†	5.1	10.8	0.5156	µg/L	0.5156	ppb	23:02:08
1	Cr 267.716†	-14.4	11.8	0.2484	µg/L	0.2484	ppb	23:02:08
1	Cu 324.752†	3257.6	-35.7	-0.2359	µg/L	-0.2359	ppb	23:01:48
1	Mn 257.610†	-175.1	70.3	0.2347	µg/L	0.2347	ppb	23:02:08
1	Mo 202.031†	-0.8	-1.9	-0.1935	µg/L	-0.1935	ppb	23:02:08
1	Ni 231.604†	289.1	2.8	0.1462	µg/L	0.1462	ppb	23:02:08
1	P 214.914†	16.5	-11.4	-23.613	µg/L	-23.613	ppb	23:02:08
1	Pb 220.353†	79.8	-12.1	-3.1012	µg/L	-3.1012	ppb	23:02:08
1	S 181.975 Axial†	18.3	2.9	12.473	µg/L	12.473	ppb	23:02:08
1	Sb 206.836†	22.3	0.8	0.7322	µg/L	0.7322	ppb	23:02:08
1	Se 196.026†	17.4	5.1	7.4561	µg/L	7.4561	ppb	23:02:08
1	SiO2†	1651.3	107.5	21.985	µg/L	21.985	ppb	23:01:48
1	Si 251.611†	422.6	129.6	10.249	µg/L	10.249	ppb	23:02:08
1	Sn 189.927†	7.4	6.5	2.8668	µg/L	2.8668	ppb	23:02:08
1	Ti 334.940†	239.7	90.3	0.2088	µg/L	0.2088	ppb	23:01:48
1	Tl 190.801†	-24.5	-3.4	-4.7218	µg/L	-4.7218	ppb	23:02:08
1	U 409.014†	233.9	4.0	0.3280	µg/L	0.3280	ppb	23:01:48
1	V 292.402†	-35.1	12.9	0.1295	µg/L	0.1295	ppb	23:01:48
1	Zn 213.857†	470.3	-4.6	-0.1109	µg/L	-0.1109	ppb	23:02:08
2	Sc RADIAL	55702.0	55702.0	101	%			23:00:46
2	Al 396.153Radial†	-18.9	-34.8	-24.703	µg/L	-24.703	ppb	23:00:46
2	Ca 317.933Radial†	188.8	-27.4	-24.763	µg/L	-24.763	ppb	23:01:06
2	Fe 238.204 Radial†	15.3	-2.6	-22.814	µg/L	-22.814	ppb	23:01:06
2	K 766.490 Radial†	207.5	28.7	19.263	µg/L	19.263	ppb	23:00:46
2	Mg 279.077 IEC†	14.2	0.4	3.8697	µg/L	3.8697	ppb	23:01:06
2	Na 589.592 Radial†	435.4	54.3	16.507	µg/L	16.507	ppb	23:00:46
2	Sr 421.552†	41.8	21.5	0.2084	µg/L	0.2084	ppb	23:00:46
2	Sc 361.383	1997217.2	1997217.2	102.54	%			23:02:14
2	Y 371.029	1379160.2	1379160.2	103.13	%			23:02:14
2	Ag 328.068†	-410.6	109.9	0.8295	µg/L	0.8295	ppb	23:02:20
2	As 188.979†	-2.1	-2.8	-5.3371	µg/L	-5.3371	ppb	23:02:41
2	B 249.677†	311.0	-9.8	-0.3995	µg/L	-0.3995	ppb	23:02:41
2	Ba 233.527†	-5.1	20.4	0.5158	µg/L	0.5158	ppb	23:02:41
2	Be 313.107†	-3659.5	64.0	0.0395	µg/L	0.0395	ppb	23:02:20
2	Cd 226.502†	-114.6	11.4	0.3071	µg/L	0.3071	ppb	23:02:41
2	Co 228.616†	-3.2	2.7	0.1290	µg/L	0.1290	ppb	23:02:41
2	Cr 267.716†	-29.5	-2.9	-0.0609	µg/L	-0.0609	ppb	23:02:41
2	Cu 324.752†	3333.0	20.0	0.1289	µg/L	0.1289	ppb	23:02:20
2	Mn 257.610†	-162.6	83.3	0.2735	µg/L	0.2735	ppb	23:02:41
2	Mo 202.031†	-4.8	-5.8	-0.5992	µg/L	-0.5992	ppb	23:02:41
2	Ni 231.604†	283.4	-4.4	-0.2298	µg/L	-0.2298	ppb	23:02:41
2	P 214.914†	16.5	-11.4	-23.817	µg/L	-23.817	ppb	23:02:41
2	Pb 220.353†	88.6	-4.0	-1.0249	µg/L	-1.0249	ppb	23:02:41

2	S 181.975 Axial†	15.5	0.0	0.1841 µg/L	0.1841 ppb	23:02:41
2	Sb 206.836†	25.0	3.4	3.1639 µg/L	3.1639 ppb	23:02:41
2	Se 196.026†	20.4	8.0	11.556 µg/L	11.556 ppb	23:02:41
2	SiO2†	1641.6	89.0	18.204 µg/L	18.204 ppb	23:02:20
2	Si 251.611†	385.9	91.5	7.2334 µg/L	7.2334 ppb	23:02:41
2	Sn 189.927†	2.4	1.4	0.6460 µg/L	0.6460 ppb	23:02:41
2	Ti 334.940†	224.6	74.2	0.1685 µg/L	0.1685 ppb	23:02:20
2	Tl 190.801†	-17.8	3.3	4.4925 µg/L	4.4925 ppb	23:02:41
2	U 409.014†	200.4	-29.9	-2.4455 µg/L	-2.4455 ppb	23:02:20
2	V 292.402†	-25.8	22.2	0.2137 µg/L	0.2137 ppb	23:02:20
2	Zn 213.857†	466.4	-11.1	-0.2693 µg/L	-0.2693 ppb	23:02:41
3	Sc RADIAL	55583.7	55583.7	100 %		23:01:11
3	Al 396.153Radial†	-8.7	-24.7	-17.560 µg/L	-17.560 ppb	23:01:11
3	Ca 317.933Radial†	185.3	-30.5	-27.565 µg/L	-27.565 ppb	23:01:32
3	Fe 238.204 Radial†	15.8	-2.0	-17.550 µg/L	-17.550 ppb	23:01:32
3	K 766.490 Radial†	211.9	33.6	22.507 µg/L	22.507 ppb	23:01:11
3	Mg 279.077 IEC†	6.0	-7.7	-72.101 µg/L	-72.101 ppb	23:01:32
3	Na 589.592 Radial†	438.8	58.6	17.814 µg/L	17.814 ppb	23:01:11
3	Sr 421.552†	51.3	31.1	0.3010 µg/L	0.3010 ppb	23:01:11
3	Sc 361.383	1995630.1	1995630.1	102.46 %		23:02:47
3	Y 371.029	1378442.7	1378442.7	103.07 %		23:02:47
3	Ag 328.068†	-434.1	86.6	0.6529 µg/L	0.6529 ppb	23:02:52
3	As 188.979†	0.1	-0.7	-1.3609 µg/L	-1.3609 ppb	23:03:13
3	B 249.677†	317.8	-2.9	-0.1137 µg/L	-0.1137 ppb	23:03:13
3	Ba 233.527†	-11.3	14.4	0.3636 µg/L	0.3636 ppb	23:03:13
3	Be 313.107†	-3517.4	199.8	0.1235 µg/L	0.1235 ppb	23:02:52
3	Cd 226.502†	-129.7	-3.4	-0.0886 µg/L	-0.0886 ppb	23:03:13
3	Co 228.616†	8.5	14.1	0.6726 µg/L	0.6726 ppb	23:03:13
3	Cr 267.716†	-21.4	5.0	0.1063 µg/L	0.1063 ppb	23:03:13
3	Cu 324.752†	3287.6	-21.8	-0.1462 µg/L	-0.1462 ppb	23:02:52
3	Mn 257.610†	-160.9	84.9	0.2825 µg/L	0.2825 ppb	23:03:13
3	Mo 202.031†	-4.7	-5.7	-0.5951 µg/L	-0.5951 ppb	23:03:13
3	Ni 231.604†	286.5	-1.1	-0.0584 µg/L	-0.0584 ppb	23:03:13
3	P 214.914†	24.1	-4.0	-8.2368 µg/L	-8.2368 ppb	23:03:13
3	Pb 220.353†	85.4	-7.1	-1.8127 µg/L	-1.8127 ppb	23:03:13
3	S 181.975 Axial†	16.4	1.0	4.2056 µg/L	4.2056 ppb	23:03:13
3	Sb 206.836†	21.1	-0.5	-0.4521 µg/L	-0.4521 ppb	23:03:13
3	Se 196.026†	16.1	3.8	5.5846 µg/L	5.5846 ppb	23:03:13
3	SiO2†	1675.7	123.6	25.273 µg/L	25.273 ppb	23:02:52
3	Si 251.611†	374.3	80.5	6.3631 µg/L	6.3631 ppb	23:03:13
3	Sn 189.927†	4.3	3.4	1.5014 µg/L	1.5014 ppb	23:03:13
3	Ti 334.940†	296.9	145.0	0.3358 µg/L	0.3358 ppb	23:02:52
3	Tl 190.801†	-16.6	4.4	6.0746 µg/L	6.0746 ppb	23:03:13
3	U 409.014†	203.1	-27.1	-2.2167 µg/L	-2.2167 ppb	23:02:52
3	V 292.402†	-39.7	8.6	0.0781 µg/L	0.0781 ppb	23:02:52
3	Zn 213.857†	464.8	-12.2	-0.2934 µg/L	-0.2934 ppb	23:03:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992970.1	102.32	%	0.310				0.30%
Sc RADIAL	55761.5	101	%	0.4				0.38%
Y 371.029	1376259.9	102.91	%	0.330				0.32%
Ag 328.068†	84.7	0.6395	µg/L	0.19704	0.6395	ppb	0.19704	30.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-23.2	-16.446	µg/L	8.8661	-16.446	ppb	8.8661	53.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.5	-2.7813	µg/L	2.21800	-2.7813	ppb	2.21800	79.75%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-5.1	-0.2052	µg/L	0.16835	-0.2052	ppb	0.16835	82.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.8	0.3989	µg/L	0.10384	0.3989	ppb	0.10384	26.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	103.3	0.0638	µg/L	0.05198	0.0638	ppb	0.05198	81.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-29.4	-26.633	µg/L	1.6193	-26.633	ppb	1.6193	6.08%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	3.0	0.0824	µg/L	0.20326	0.0824	ppb	0.20326	246.62%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	9.2	0.4391	µg/L	0.27974	0.4391	ppb	0.27974	63.71%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.6      0.0979 µg/L       0.15481      0.0979 ppb        0.15481 158.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -12.5     -0.0844 µg/L       0.19010     -0.0844 ppb        0.19010 225.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.6     -14.313 µg/L       10.4995     -14.313 ppb        10.4995  73.35%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          25.3      16.948 µg/L        7.0097      16.948 ppb         7.0097  41.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -4.0     -37.011 µg/L       38.3148     -37.011 ppb        38.3148 103.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                79.5      0.2636 µg/L       0.02545      0.2636 ppb        0.02545   9.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.5     -0.4626 µg/L       0.23303     -0.4626 ppb        0.23303  50.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         54.0      16.402 µg/L        1.4669      16.402 ppb         1.4669   8.94%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -0.9     -0.0474 µg/L       0.18826     -0.0474 ppb        0.18826 397.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.9     -18.555 µg/L        8.9367     -18.555 ppb         8.9367  48.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.7     -1.9796 µg/L       1.04812     -1.9796 ppb        1.04812  52.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.3      5.6208 µg/L       6.26532      5.6208 ppb        6.26532 111.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.2      1.1480 µg/L       1.84351      1.1480 ppb        1.84351 160.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.6      8.1989 µg/L       3.05422      8.1989 ppb        3.05422  37.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     106.7      21.821 µg/L        3.5373      21.821 ppb         3.5373  16.21%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               100.5      7.9484 µg/L       2.03907      7.9484 ppb        2.03907  25.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.8      1.6714 µg/L       1.12008      1.6714 ppb        1.12008  67.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                32.3      0.3132 µg/L       0.11134      0.3132 ppb        0.11134  35.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               103.2      0.2377 µg/L       0.08729      0.2377 ppb        0.08729  36.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.4      1.9484 µg/L       5.83051      1.9484 ppb        5.83051 299.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -17.7     -1.4447 µg/L       1.53951     -1.4447 ppb        1.53951 106.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 14.6      0.1405 µg/L       0.06846      0.1405 ppb        0.06846  48.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -9.3     -0.2245 µg/L       0.09917     -0.2245 ppb        0.09917  44.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/23/2010 23:51:03 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022310E.SIF
Batch ID:
Results Data Set: 022310A
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/23/2010 23:51:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55920.4	55920.4	101	%			23:51:39
1	Al 396.153Radial†	6862.8	6781.8	4807.8	µg/L	4807.8	ppb	23:51:59
1	Ca 317.933Radial†	5587.7	5319.6	4811.4	µg/L	4811.4	ppb	23:51:59
1	Fe 238.204 Radial†	584.6	561.3	4921.0	µg/L	4921.0	ppb	23:51:59
1	K 766.490 Radial†	7561.0	7311.8	4899.4	µg/L	4899.4	ppb	23:51:39
1	Mg 279.077 IEC†	539.6	520.8	4866.1	µg/L	4866.1	ppb	23:51:59
1	Na 589.592 Radial†	32680.3	31991.9	9725.0	µg/L	9725.0	ppb	23:51:39
1	Sr 421.552†	50480.0	49981.6	483.88	µg/L	483.88	ppb	23:51:39
1	Sc 361.383	1977004.2	1977004.2	101.50	%			23:53:03
1	Y 371.029	1361168.9	1361168.9	101.78	%			23:53:03
1	Ag 328.068†	65669.8	65209.1	495.89	µg/L	495.89	ppb	23:53:08
1	As 188.979†	278.0	273.1	513.74	µg/L	513.74	ppb	23:53:29
1	B 249.677†	12016.2	11525.5	483.07	µg/L	483.07	ppb	23:53:08
1	Ba 233.527†	19863.6	19595.3	495.93	µg/L	495.93	ppb	23:53:08
1	Be 313.107†	809289.9	800957.7	495.42	µg/L	495.42	ppb	23:53:03
1	Cd 226.502†	19093.8	18934.7	504.27	µg/L	504.27	ppb	23:53:08
1	Co 228.616†	10610.6	10459.6	497.66	µg/L	497.66	ppb	23:53:08
1	Cr 267.716†	24126.3	23795.5	502.39	µg/L	502.39	ppb	23:53:08
1	Cu 324.752†	78381.8	73992.5	489.41	µg/L	489.41	ppb	23:53:08
1	Mn 257.610†	153517.1	151489.3	503.48	µg/L	503.48	ppb	23:53:03
1	Mo 202.031†	5067.4	4991.3	516.81	µg/L	516.81	ppb	23:53:29
1	Ni 231.604†	10020.7	9591.8	501.85	µg/L	501.85	ppb	23:53:08
1	P 214.914†	1255.1	1209.0	2472.1	µg/L	2472.1	ppb	23:53:29
1	Pb 220.353†	2103.5	1982.0	508.41	µg/L	508.41	ppb	23:53:29
1	S 181.975 Axial†	257.6	238.7	1029.6	µg/L	1029.6	ppb	23:53:29
1	Sb 206.836†	562.3	532.9	505.90	µg/L	505.90	ppb	23:53:29
1	Se 196.026†	377.9	360.4	533.27	µg/L	533.27	ppb	23:53:29
1	SiO2†	27797.3	25874.3	5292.5	µg/L	5292.5	ppb	23:53:08
1	Si 251.611†	31869.8	31113.7	2460.8	µg/L	2460.8	ppb	23:53:08
1	Sn 189.927†	1190.1	1171.6	521.54	µg/L	521.54	ppb	23:53:29
1	Ti 334.940†	219669.0	216276.5	492.75	µg/L	492.75	ppb	23:53:03
1	Tl 190.801†	354.6	370.0	517.21	µg/L	517.21	ppb	23:53:29
1	U 409.014†	6225.5	5908.1	482.44	µg/L	482.44	ppb	23:53:08
1	V 292.402†	49779.6	49090.9	501.38	µg/L	501.38	ppb	23:53:08
1	Zn 213.857†	21344.0	20562.5	498.72	µg/L	498.72	ppb	23:53:08
2	Sc RADIAL	55987.4	55987.4	101	%			23:52:05
2	Al 396.153Radial†	6853.6	6764.5	4795.8	µg/L	4795.8	ppb	23:52:25
2	Ca 317.933Radial†	5606.1	5331.2	4822.0	µg/L	4822.0	ppb	23:52:25
2	Fe 238.204 Radial†	586.3	562.2	4929.4	µg/L	4929.4	ppb	23:52:25
2	K 766.490 Radial†	7565.5	7307.3	4896.4	µg/L	4896.4	ppb	23:52:05
2	Mg 279.077 IEC†	547.6	528.0	4933.3	µg/L	4933.3	ppb	23:52:25
2	Na 589.592 Radial†	32656.4	31929.6	9706.1	µg/L	9706.1	ppb	23:52:05
2	Sr 421.552†	50362.5	49805.5	482.17	µg/L	482.17	ppb	23:52:05
2	Sc 361.383	1977483.1	1977483.1	101.53	%			23:53:36
2	Y 371.029	1361569.8	1361569.8	101.81	%			23:53:36
2	Ag 328.068†	65293.1	64822.5	492.95	µg/L	492.95	ppb	23:53:42
2	As 188.979†	274.9	270.0	507.87	µg/L	507.87	ppb	23:54:02

2	B 249.677†	11944.9	11452.3	479.99 µg/L	479.99 ppb	23:53:42
2	Ba 233.527†	19733.5	19462.4	492.57 µg/L	492.57 ppb	23:53:42
2	Be 313.107†	809144.3	800621.2	495.21 µg/L	495.21 ppb	23:53:36
2	Cd 226.502†	18923.0	18761.9	499.66 µg/L	499.66 ppb	23:53:42
2	Co 228.616†	10522.8	10370.5	493.41 µg/L	493.41 ppb	23:53:42
2	Cr 267.716†	24033.3	23698.2	500.33 µg/L	500.33 ppb	23:53:42
2	Cu 324.752†	77814.0	73414.4	485.59 µg/L	485.59 ppb	23:53:42
2	Mn 257.610†	153500.8	151436.7	503.31 µg/L	503.31 ppb	23:53:36
2	Mo 202.031†	4957.8	4882.2	505.51 µg/L	505.51 ppb	23:54:02
2	Ni 231.604†	9954.2	9523.9	498.30 µg/L	498.30 ppb	23:53:42
2	P 214.914†	1235.4	1189.3	2431.2 µg/L	2431.2 ppb	23:54:02
2	Pb 220.353†	2067.7	1946.3	499.22 µg/L	499.22 ppb	23:54:02
2	S 181.975 Axial†	256.7	237.7	1025.4 µg/L	1025.4 ppb	23:54:02
2	Sb 206.836†	557.9	528.5	501.50 µg/L	501.50 ppb	23:54:02
2	Se 196.026†	372.4	354.9	525.24 µg/L	525.24 ppb	23:54:02
2	SiO2†	27601.8	25675.2	5251.7 µg/L	5251.7 ppb	23:53:42
2	Si 251.611†	31707.9	30946.7	2447.6 µg/L	2447.6 ppb	23:53:42
2	Sn 189.927†	1150.4	1132.3	504.03 µg/L	504.03 ppb	23:54:02
2	Ti 334.940†	219507.5	216064.9	492.26 µg/L	492.26 ppb	23:53:36
2	Tl 190.801†	342.9	358.3	501.12 µg/L	501.12 ppb	23:54:02
2	U 409.014†	6184.6	5866.3	479.02 µg/L	479.02 ppb	23:53:42
2	V 292.402†	49525.6	48828.9	498.64 µg/L	498.64 ppb	23:53:42
2	Zn 213.857†	21216.6	20432.0	495.55 µg/L	495.55 ppb	23:53:42
3	Sc RADIAL	56205.6	56205.6	101 %		23:52:31
3	Al 396.153Radial†	6845.2	6729.9	4772.9 µg/L	4772.9 ppb	23:52:51
3	Ca 317.933Radial†	5576.7	5280.7	4776.3 µg/L	4776.3 ppb	23:52:51
3	Fe 238.204 Radial†	584.4	558.2	4892.6 µg/L	4892.6 ppb	23:52:51
3	K 766.490 Radial†	7599.8	7312.0	4899.5 µg/L	4899.5 ppb	23:52:31
3	Mg 279.077 IEC†	542.9	521.3	4869.5 µg/L	4869.5 ppb	23:52:51
3	Na 589.592 Radial†	32863.7	32008.4	9730.0 µg/L	9730.0 ppb	23:52:31
3	Sr 421.552†	50825.2	50068.1	484.72 µg/L	484.72 ppb	23:52:31
3	Sc 361.383	1981801.2	1981801.2	101.75 %		23:54:09
3	Y 371.029	1364676.8	1364676.8	102.04 %		23:54:09
3	Ag 328.068†	61284.8	60742.9	461.78 µg/L	461.78 ppb	23:54:15
3	As 188.979†	225.8	221.2	415.95 µg/L	415.95 ppb	23:54:35
3	B 249.677†	11157.5	10652.9	446.27 µg/L	446.27 ppb	23:54:15
3	Ba 233.527†	17840.5	17559.6	444.39 µg/L	444.39 ppb	23:54:15
3	Be 313.107†	753767.6	744458.7	460.47 µg/L	460.47 ppb	23:54:09
3	Cd 226.502†	17137.0	16966.0	451.78 µg/L	451.78 ppb	23:54:15
3	Co 228.616†	9439.1	9282.9	441.60 µg/L	441.60 ppb	23:54:15
3	Cr 267.716†	20781.5	20450.6	431.78 µg/L	431.78 ppb	23:54:15
3	Cu 324.752†	70392.9	65953.8	436.31 µg/L	436.31 ppb	23:54:15
3	Mn 257.610†	143828.2	141600.7	470.65 µg/L	470.65 ppb	23:54:09
3	Mo 202.031†	4132.9	4060.8	420.50 µg/L	420.50 ppb	23:54:35
3	Ni 231.604†	8949.3	8514.9	445.51 µg/L	445.51 ppb	23:54:15
3	P 214.914†	1055.0	1009.3	2060.2 µg/L	2060.2 ppb	23:54:35
3	Pb 220.353†	1800.9	1679.6	430.74 µg/L	430.74 ppb	23:54:35
3	S 181.975 Axial†	219.3	200.5	864.71 µg/L	864.71 ppb	23:54:35
3	Sb 206.836†	480.9	451.6	428.27 µg/L	428.27 ppb	23:54:35
3	Se 196.026†	316.6	299.2	443.96 µg/L	443.96 ppb	23:54:35
3	SiO2†	25563.6	23612.8	4829.9 µg/L	4829.9 ppb	23:54:15
3	Si 251.611†	29206.3	28420.0	2247.7 µg/L	2247.7 ppb	23:54:15
3	Sn 189.927†	946.1	929.1	413.56 µg/L	413.56 ppb	23:54:35
3	Ti 334.940†	203306.0	199670.5	454.89 µg/L	454.89 ppb	23:54:09
3	Tl 190.801†	305.4	320.7	448.82 µg/L	448.82 ppb	23:54:35
3	U 409.014†	5524.4	5204.2	424.85 µg/L	424.85 ppb	23:54:15
3	V 292.402†	43883.0	43176.9	440.76 µg/L	440.76 ppb	23:54:15
3	Zn 213.857†	19024.8	18232.2	442.14 µg/L	442.14 ppb	23:54:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1978762.8	101.59	%	0.136				0.13%
Sc RADIAL	56037.8	101	%	0.3				0.27%
Y 371.029	1362471.8	101.88	%	0.144				0.14%
Ag 328.068†	63591.5	483.54	µg/L	18.906	483.54	ppb	18.906	3.91%
QC value within limits for Ag 328.068 Recovery = 96.71%								
Al 396.153Radial†	6758.7	4792.2	µg/L	17.73	4792.2	ppb	17.73	0.37%
QC value within limits for Al 396.153Radial Recovery = 95.84%								
As 188.979†	254.8	479.19	µg/L	54.840	479.19	ppb	54.840	11.44%

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   QC value within limits for As 188.979  Recovery = 95.84%
B 249.677†            11210.2      469.77 µg/L        20.417      469.77 ppb        20.417   4.35%
   QC value within limits for B 249.677  Recovery = 93.95%
Ba 233.527†           18872.4      477.63 µg/L        28.833      477.63 ppb        28.833   6.04%
   QC value within limits for Ba 233.527  Recovery = 95.53%
Be 313.107†          782012.5      483.70 µg/L        20.116      483.70 ppb        20.116   4.16%
   QC value within limits for Be 313.107  Recovery = 96.74%
Ca 317.933Radial†      5310.5      4803.2 µg/L         23.91      4803.2 ppb         23.91   0.50%
   QC value within limits for Ca 317.933Radial  Recovery = 96.06%
Cd 226.502†           18220.9      485.24 µg/L        29.066      485.24 ppb        29.066   5.99%
   QC value within limits for Cd 226.502  Recovery = 97.05%
Co 228.616†           10037.7      477.56 µg/L        31.209      477.56 ppb        31.209   6.54%
   QC value within limits for Co 228.616  Recovery = 95.51%
Cr 267.716†           22648.1      478.17 µg/L        40.189      478.17 ppb        40.189   8.40%
   QC value within limits for Cr 267.716  Recovery = 95.63%
Cu 324.752†           71120.2      470.43 µg/L        29.617      470.43 ppb        29.617   6.30%
   QC value within limits for Cu 324.752  Recovery = 94.09%
Fe 238.204 Radial†      560.6      4914.3 µg/L         19.33      4914.3 ppb         19.33   0.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.29%
K 766.490 Radial†      7310.4      4898.4 µg/L          1.78      4898.4 ppb          1.78   0.04%
   QC value within limits for K 766.490 Radial  Recovery = 97.97%
Mg 279.077 IEC†         523.4      4889.7 µg/L         37.86      4889.7 ppb         37.86   0.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.79%
Mn 257.610†          148175.6      492.48 µg/L        18.909      492.48 ppb        18.909   3.84%
   QC value within limits for Mn 257.610  Recovery = 98.50%
Mo 202.031†            4644.8      480.94 µg/L        52.649      480.94 ppb        52.649  10.95%
   QC value within limits for Mo 202.031  Recovery = 96.19%
Na 589.592 Radial†    31976.6      9720.4 µg/L         12.63      9720.4 ppb         12.63   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 97.20%
Ni 231.604†            9210.2      481.89 µg/L        31.552      481.89 ppb        31.552   6.55%
   QC value within limits for Ni 231.604  Recovery = 96.38%
P 214.914†             1135.8      2321.2 µg/L        226.93      2321.2 ppb        226.93   9.78%
   QC value within limits for P 214.914  Recovery = 92.85%
Pb 220.353†            1869.3      479.46 µg/L        42.439      479.46 ppb        42.439   8.85%
   QC value within limits for Pb 220.353  Recovery = 95.89%
S 181.975 Axial†        225.6      973.24 µg/L        94.009      973.24 ppb        94.009   9.66%
   QC value within limits for S 181.975 Axial  Recovery = 97.32%
Sb 206.836†             504.3      478.56 µg/L        43.606      478.56 ppb        43.606   9.11%
   QC value within limits for Sb 206.836  Recovery = 95.71%
Se 196.026†             338.2      500.82 µg/L        49.405      500.82 ppb        49.405   9.86%
   QC value within limits for Se 196.026  Recovery = 100.16%
SiO2†                  25054.1      5124.7 µg/L        256.13      5124.7 ppb        256.13   5.00%
   QC value within limits for SiO2  Recovery = 95.83%
Si 251.611†            30160.1      2385.4 µg/L        119.37      2385.4 ppb        119.37   5.00%
   QC value within limits for Si 251.611  Recovery = 95.41%
Sn 189.927†            1077.7      479.71 µg/L        57.951      479.71 ppb        57.951  12.08%
   QC value within limits for Sn 189.927  Recovery = 95.94%
Sr 421.552†           49951.7      483.59 µg/L         1.296      483.59 ppb         1.296   0.27%
   QC value within limits for Sr 421.552  Recovery = 96.72%
Ti 334.940†          210670.6      479.97 µg/L        21.718      479.97 ppb        21.718   4.52%
   QC value within limits for Ti 334.940  Recovery = 95.99%
Tl 190.801†             349.7      489.05 µg/L        35.756      489.05 ppb        35.756   7.31%
   QC value within limits for Tl 190.801  Recovery = 97.81%
U 409.014†             5659.5      462.10 µg/L        32.306      462.10 ppb        32.306   6.99%
   QC value within limits for U 409.014  Recovery = 92.42%
V 292.402†            47032.2      480.26 µg/L        34.236      480.26 ppb        34.236   7.13%
   QC value within limits for V 292.402  Recovery = 96.05%
Zn 213.857†           19742.2      478.81 µg/L        31.792      478.81 ppb        31.792   6.64%
   QC value within limits for Zn 213.857  Recovery = 95.76%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/23/2010 23:54:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc RADIAL	55083.7	55083.7	99.4	%			23:55:18
1	Al 396.153Radial†	-9.0	-25.0	-17.774	µg/L	-17.774	ppb	23:55:18
1	Ca 317.933Radial†	185.0	-29.1	-26.329	µg/L	-26.329	ppb	23:55:38
1	Fe 238.204 Radial†	13.8	-3.9	-34.096	µg/L	-34.096	ppb	23:55:38
1	K 766.490 Radial†	240.6	64.4	43.133	µg/L	43.133	ppb	23:55:18
1	Mg 279.077 IEC†	10.9	-2.8	-26.401	µg/L	-26.401	ppb	23:55:38
1	Na 589.592 Radial†	401.6	25.1	7.6343	µg/L	7.6343	ppb	23:55:18
1	Sr 421.552†	14.8	-5.2	-0.0500	µg/L	-0.0500	ppb	23:55:18
1	Sc 361.383	1989023.3	1989023.3	102.12	%			23:56:40
1	Y 371.029	1374888.7	1374888.7	102.81	%			23:56:40
1	Ag 328.068†	-435.9	83.5	0.6286	µg/L	0.6286	ppb	23:56:46
1	As 188.979†	-2.5	-3.3	-6.1661	µg/L	-6.1661	ppb	23:57:06
1	B 249.677†	334.0	14.0	0.6061	µg/L	0.6061	ppb	23:57:06
1	Ba 233.527†	-21.0	4.8	0.1223	µg/L	0.1223	ppb	23:57:06
1	Be 313.107†	-3519.5	186.4	0.1152	µg/L	0.1152	ppb	23:56:46
1	Cd 226.502†	-124.5	1.3	0.0382	µg/L	0.0382	ppb	23:57:06
1	Co 228.616†	5.7	11.4	0.5432	µg/L	0.5432	ppb	23:57:06
1	Cr 267.716†	-33.4	-6.8	-0.1431	µg/L	-0.1431	ppb	23:57:06
1	Cu 324.752†	3348.3	48.3	0.3144	µg/L	0.3144	ppb	23:56:46
1	Mn 257.610†	-226.1	20.6	0.0648	µg/L	0.0648	ppb	23:57:06
1	Mo 202.031†	-7.5	-8.5	-0.8782	µg/L	-0.8782	ppb	23:57:06
1	Ni 231.604†	291.3	4.5	0.2351	µg/L	0.2351	ppb	23:57:06
1	P 214.914†	17.4	-10.5	-21.774	µg/L	-21.774	ppb	23:57:06
1	Pb 220.353†	89.0	-3.2	-0.8135	µg/L	-0.8135	ppb	23:57:06
1	S 181.975 Axial†	16.2	0.8	3.2766	µg/L	3.2766	ppb	23:57:06
1	Sb 206.836†	18.1	-3.3	-3.1378	µg/L	-3.1378	ppb	23:57:06
1	Se 196.026†	12.4	0.2	0.1841	µg/L	0.1841	ppb	23:57:06
1	SiO2†	1639.1	93.1	19.049	µg/L	19.049	ppb	23:56:46
1	Si 251.611†	328.6	36.9	2.9181	µg/L	2.9181	ppb	23:57:06
1	Sn 189.927†	5.5	4.5	2.0193	µg/L	2.0193	ppb	23:57:06
1	Ti 334.940†	250.3	100.3	0.2303	µg/L	0.2303	ppb	23:56:46
1	Tl 190.801†	-21.1	-0.0	-0.0588	µg/L	-0.0588	ppb	23:57:06
1	U 409.014†	161.8	-67.0	-5.4724	µg/L	-5.4724	ppb	23:56:46
1	V 292.402†	-38.0	10.1	0.0847	µg/L	0.0847	ppb	23:56:46
1	Zn 213.857†	475.7	-0.1	-0.0009	µg/L	-0.0009	ppb	23:57:06
2	Sc RADIAL	55898.3	55898.3	101	%			23:55:44
2	Al 396.153Radial†	-28.9	-44.7	-31.757	µg/L	-31.757	ppb	23:55:44
2	Ca 317.933Radial†	186.3	-30.5	-27.600	µg/L	-27.600	ppb	23:56:04
2	Fe 238.204 Radial†	17.2	-0.7	-6.1137	µg/L	-6.1137	ppb	23:56:04
2	K 766.490 Radial†	203.0	23.6	15.802	µg/L	15.802	ppb	23:55:44
2	Mg 279.077 IEC†	11.4	-2.4	-22.781	µg/L	-22.781	ppb	23:56:04
2	Na 589.592 Radial†	361.3	-20.7	-6.2858	µg/L	-6.2858	ppb	23:55:44
2	Sr 421.552†	15.3	-4.8	-0.0469	µg/L	-0.0469	ppb	23:55:44
2	Sc 361.383	1977498.8	1977498.8	101.53	%			23:57:12
2	Y 371.029	1366262.0	1366262.0	102.16	%			23:57:12
2	Ag 328.068†	-491.5	26.2	0.1961	µg/L	0.1961	ppb	23:57:18
2	As 188.979†	-3.3	-4.1	-7.6975	µg/L	-7.6975	ppb	23:57:38
2	B 249.677†	299.1	-18.5	-0.7766	µg/L	-0.7766	ppb	23:57:38
2	Ba 233.527†	-14.3	11.3	0.2859	µg/L	0.2859	ppb	23:57:38
2	Be 313.107†	-3630.1	57.4	0.0355	µg/L	0.0355	ppb	23:57:18
2	Cd 226.502†	-123.2	1.9	0.0519	µg/L	0.0519	ppb	23:57:38
2	Co 228.616†	-5.5	0.4	0.0209	µg/L	0.0209	ppb	23:57:38
2	Cr 267.716†	-48.0	-21.4	-0.4517	µg/L	-0.4517	ppb	23:57:38
2	Cu 324.752†	3357.2	76.2	0.5025	µg/L	0.5025	ppb	23:57:18
2	Mn 257.610†	-231.3	14.1	0.0470	µg/L	0.0470	ppb	23:57:38
2	Mo 202.031†	-2.1	-3.2	-0.3318	µg/L	-0.3318	ppb	23:57:38
2	Ni 231.604†	292.3	7.2	0.3759	µg/L	0.3759	ppb	23:57:38
2	P 214.914†	20.7	-7.2	-15.000	µg/L	-15.000	ppb	23:57:38
2	Pb 220.353†	84.3	-7.4	-1.8985	µg/L	-1.8985	ppb	23:57:38

2	S 181.975 Axial†	12.5	-2.7	-11.789 µg/L	-11.789 ppb	23:57:38
2	Sb 206.836†	17.4	-3.9	-3.7098 µg/L	-3.7098 ppb	23:57:38
2	Se 196.026†	17.0	4.8	7.0139 µg/L	7.0139 ppb	23:57:38
2	SiO2†	1590.2	54.4	11.118 µg/L	11.118 ppb	23:57:18
2	Si 251.611†	324.0	34.2	2.7079 µg/L	2.7079 ppb	23:57:38
2	Sn 189.927†	0.2	-0.6	-0.2775 µg/L	-0.2775 ppb	23:57:38
2	Ti 334.940†	150.9	3.8	0.0101 µg/L	0.0101 ppb	23:57:18
2	Tl 190.801†	-21.1	-0.2	-0.3168 µg/L	-0.3168 ppb	23:57:38
2	U 409.014†	228.2	-0.6	-0.0481 µg/L	-0.0481 ppb	23:57:18
2	V 292.402†	-65.2	-16.9	-0.1747 µg/L	-0.1747 ppb	23:57:18
2	Zn 213.857†	465.3	-7.6	-0.1874 µg/L	-0.1874 ppb	23:57:38
3	Sc RADIAL	55270.6	55270.6	99.8 %		23:56:09
3	Al 396.153Radial†	-29.2	-45.3	-32.200 µg/L	-32.200 ppb	23:56:09
3	Ca 317.933Radial†	182.3	-32.5	-29.400 µg/L	-29.400 ppb	23:56:30
3	Fe 238.204 Radial†	14.5	-3.2	-28.150 µg/L	-28.150 ppb	23:56:30
3	K 766.490 Radial†	173.8	-3.4	-2.2616 µg/L	-2.2616 ppb	23:56:09
3	Mg 279.077 IEC†	10.6	-3.1	-28.915 µg/L	-28.915 ppb	23:56:30
3	Na 589.592 Radial†	436.2	58.4	17.750 µg/L	17.750 ppb	23:56:09
3	Sr 421.552†	61.0	41.2	0.3985 µg/L	0.3985 ppb	23:56:09
3	Sc 361.383	1981970.8	1981970.8	101.76 %		23:57:44
3	Y 371.029	1369375.6	1369375.6	102.40 %		23:57:44
3	Ag 328.068†	-421.6	96.0	0.7223 µg/L	0.7223 ppb	23:57:50
3	As 188.979†	0.2	-0.6	-1.1618 µg/L	-1.1618 ppb	23:58:10
3	B 249.677†	322.1	3.5	0.1614 µg/L	0.1614 ppb	23:58:10
3	Ba 233.527†	-14.4	11.3	0.2842 µg/L	0.2842 ppb	23:58:10
3	Be 313.107†	-3526.3	167.5	0.1036 µg/L	0.1036 ppb	23:57:50
3	Cd 226.502†	-124.2	1.1	0.0337 µg/L	0.0337 ppb	23:58:10
3	Co 228.616†	0.2	6.0	0.2878 µg/L	0.2878 ppb	23:58:10
3	Cr 267.716†	-45.0	-18.3	-0.3852 µg/L	-0.3852 ppb	23:58:10
3	Cu 324.752†	3306.8	19.3	0.1234 µg/L	0.1234 ppb	23:57:50
3	Mn 257.610†	-222.4	23.4	0.0750 µg/L	0.0750 ppb	23:58:10
3	Mo 202.031†	0.7	-0.4	-0.0457 µg/L	-0.0457 ppb	23:58:10
3	Ni 231.604†	296.6	10.7	0.5616 µg/L	0.5616 ppb	23:58:10
3	P 214.914†	14.0	-13.8	-28.741 µg/L	-28.741 ppb	23:58:10
3	Pb 220.353†	82.3	-9.5	-2.4229 µg/L	-2.4229 ppb	23:58:10
3	S 181.975 Axial†	14.1	-1.2	-5.2080 µg/L	-5.2080 ppb	23:58:10
3	Sb 206.836†	23.9	2.5	2.3227 µg/L	2.3227 ppb	23:58:10
3	Se 196.026†	13.6	1.4	1.9811 µg/L	1.9811 ppb	23:58:10
3	SiO2†	1640.5	100.2	20.505 µg/L	20.505 ppb	23:57:50
3	Si 251.611†	336.8	46.0	3.6421 µg/L	3.6421 ppb	23:58:10
3	Sn 189.927†	2.5	1.7	0.7357 µg/L	0.7357 ppb	23:58:10
3	Ti 334.940†	133.0	-14.1	-0.0304 µg/L	-0.0304 ppb	23:57:50
3	Tl 190.801†	-23.5	-2.5	-3.4551 µg/L	-3.4551 ppb	23:58:10
3	U 409.014†	173.7	-54.7	-4.4671 µg/L	-4.4671 ppb	23:57:50
3	V 292.402†	-58.9	-10.6	-0.1158 µg/L	-0.1158 ppb	23:57:50
3	Zn 213.857†	471.9	-2.1	-0.0520 µg/L	-0.0520 ppb	23:58:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1982831.0	101.80	%	0.298				0.29%
Sc RADIAL	55417.5	100	%	0.8				0.77%
Y 371.029	1370175.4	102.46	%	0.327				0.32%
Ag 328.068†	68.5	0.5157	µg/L	0.28069	0.5157	ppb	0.28069	54.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-38.4	-27.244	µg/L	8.2042	-27.244	ppb	8.2042	30.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.7	-5.0085	µg/L	3.41818	-5.0085	ppb	3.41818	68.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-0.3	-0.0030	µg/L	0.70584	-0.0030	ppb	0.70584	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.1	0.2308	µg/L	0.09394	0.2308	ppb	0.09394	40.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	137.1	0.0848	µg/L	0.04308	0.0848	ppb	0.04308	50.81%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-30.7	-27.776	µg/L	1.5431	-27.776	ppb	1.5431	5.56%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.4	0.0412	µg/L	0.00949	0.0412	ppb	0.00949	23.01%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.0	0.2840	µg/L	0.26118	0.2840	ppb	0.26118	91.97%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.5     -0.3267 µg/L       0.16239     -0.3267 ppb        0.16239  49.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               47.9      0.3135 µg/L       0.18957      0.3135 ppb        0.18957  60.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.6     -22.787 µg/L      14.7422     -22.787 ppb       14.7422  64.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         28.2      18.891 µg/L      22.8545      18.891 ppb       22.8545 120.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.8     -26.032 µg/L       3.0835     -26.032 ppb        3.0835  11.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               19.4      0.0623 µg/L       0.01415      0.0623 ppb        0.01415  22.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -4.0     -0.4185 µg/L       0.42300     -0.4185 ppb        0.42300 101.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.9      6.3662 µg/L      12.06810      6.3662 ppb       12.06810 189.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.5      0.3909 µg/L       0.16376      0.3909 ppb        0.16376  41.89%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.5     -21.838 µg/L       6.8706     -21.838 ppb        6.8706  31.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -6.7     -1.7116 µg/L       0.82080     -1.7116 ppb        0.82080  47.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.1     -4.5736 µg/L       7.55297     -4.5736 ppb        7.55297 165.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.6     -1.5083 µg/L       3.33005     -1.5083 ppb        3.33005 220.78%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.1      3.0597 µg/L       3.54038      3.0597 ppb        3.54038 115.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     82.6      16.891 µg/L       5.0515      16.891 ppb        5.0515  29.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               39.1      3.0894 µg/L       0.49005      3.0894 ppb        0.49005  15.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.9      0.8258 µg/L       1.15101      0.8258 ppb        1.15101 139.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.4      0.1005 µg/L       0.25809      0.1005 ppb        0.25809 256.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               30.0      0.0700 µg/L       0.14030      0.0700 ppb        0.14030 200.44%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.9     -1.2769 µg/L       1.89080     -1.2769 ppb        1.89080 148.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -40.7     -3.3292 µg/L       2.88562     -3.3292 ppb        2.88562  86.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -5.8     -0.0686 µg/L       0.13600     -0.0686 ppb        0.13600 198.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -3.3     -0.0801 µg/L       0.09637     -0.0801 ppb        0.09637 120.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/24/2010 00:25:09 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022310E.SIF
Batch ID:
Results Data Set: 022310A
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/24/2010 00:25:11**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55284.1	55284.1	99.8	%			00:25:45
1	Al 396.153Radial†	6933.0	6930.3	4913.2	µg/L	4913.2	ppb	00:26:06
1	Ca 317.933Radial†	5667.5	5463.2	4941.3	µg/L	4941.3	ppb	00:26:06
1	Fe 238.204 Radial†	595.4	578.8	5074.3	µg/L	5074.3	ppb	00:26:06
1	K 766.490 Radial†	7583.3	7420.4	4972.1	µg/L	4972.1	ppb	00:25:45
1	Mg 279.077 IEC†	548.8	536.1	5009.2	µg/L	5009.2	ppb	00:26:06
1	Na 589.592 Radial†	32915.5	32600.2	9909.9	µg/L	9909.9	ppb	00:25:45
1	Sr 421.552†	50852.4	50930.2	493.06	µg/L	493.06	ppb	00:25:45
1	Sc 361.383	1975964.0	1975964.0	101.45	%			00:27:10
1	Y 371.029	1360220.3	1360220.3	101.71	%			00:27:10
1	Ag 328.068†	66481.0	66042.8	502.24	µg/L	502.24	ppb	00:27:15
1	As 188.979†	277.4	272.6	512.77	µg/L	512.77	ppb	00:27:36
1	B 249.677†	12193.9	11706.9	490.63	µg/L	490.63	ppb	00:27:15
1	Ba 233.527†	20137.6	19875.7	503.02	µg/L	503.02	ppb	00:27:15
1	Be 313.107†	819655.8	811595.5	502.00	µg/L	502.00	ppb	00:27:10
1	Cd 226.502†	19349.4	19196.6	511.23	µg/L	511.23	ppb	00:27:15
1	Co 228.616†	10800.7	10652.4	506.84	µg/L	506.84	ppb	00:27:15
1	Cr 267.716†	24476.3	24153.0	509.94	µg/L	509.94	ppb	00:27:15
1	Cu 324.752†	79315.2	74953.2	495.77	µg/L	495.77	ppb	00:27:15
1	Mn 257.610†	155464.9	153489.0	510.14	µg/L	510.14	ppb	00:27:10
1	Mo 202.031†	5119.4	5045.2	522.40	µg/L	522.40	ppb	00:27:36
1	Ni 231.604†	10135.4	9710.1	508.04	µg/L	508.04	ppb	00:27:15
1	P 214.914†	1275.7	1229.9	2515.0	µg/L	2515.0	ppb	00:27:36
1	Pb 220.353†	2134.8	2014.0	516.61	µg/L	516.61	ppb	00:27:36
1	S 181.975 Axial†	261.4	242.6	1046.5	µg/L	1046.5	ppb	00:27:36
1	Sb 206.836†	574.4	545.2	517.44	µg/L	517.44	ppb	00:27:36
1	Se 196.026†	368.4	351.2	520.20	µg/L	520.20	ppb	00:27:36
1	SiO2†	28109.1	26196.1	5358.3	µg/L	5358.3	ppb	00:27:15
1	Si 251.611†	32258.0	31512.9	2492.3	µg/L	2492.3	ppb	00:27:15
1	Sn 189.927†	1192.3	1174.4	522.76	µg/L	522.76	ppb	00:27:36
1	Ti 334.940†	222346.4	219029.6	499.02	µg/L	499.02	ppb	00:27:10
1	Tl 190.801†	348.4	364.0	509.10	µg/L	509.10	ppb	00:27:36
1	U 409.014†	6271.9	5957.1	486.42	µg/L	486.42	ppb	00:27:15
1	V 292.402†	50467.5	49794.9	508.56	µg/L	508.56	ppb	00:27:15
1	Zn 213.857†	21609.5	20835.3	505.33	µg/L	505.33	ppb	00:27:15
2	Sc RADIAL	55311.0	55311.0	99.9	%			00:26:12
2	Al 396.153Radial†	6937.9	6931.8	4914.5	µg/L	4914.5	ppb	00:26:32
2	Ca 317.933Radial†	5658.1	5451.0	4930.3	µg/L	4930.3	ppb	00:26:32
2	Fe 238.204 Radial†	594.2	577.3	5061.2	µg/L	5061.2	ppb	00:26:32
2	K 766.490 Radial†	7595.5	7428.8	4977.8	µg/L	4977.8	ppb	00:26:12
2	Mg 279.077 IEC†	550.8	537.9	5025.4	µg/L	5025.4	ppb	00:26:32
2	Na 589.592 Radial†	32899.6	32568.2	9900.2	µg/L	9900.2	ppb	00:26:12
2	Sr 421.552†	50868.2	50921.3	492.98	µg/L	492.98	ppb	00:26:12
2	Sc 361.383	1977887.0	1977887.0	101.55	%			00:27:43
2	Y 371.029	1362469.8	1362469.8	101.88	%			00:27:43
2	Ag 328.068†	66771.3	66265.0	503.93	µg/L	503.93	ppb	00:27:49
2	As 188.979†	274.6	269.7	507.20	µg/L	507.20	ppb	00:28:09

2	B 249.677†	12247.4	11747.9	492.37 µg/L	492.37 ppb	00:27:49
2	Ba 233.527†	20278.0	19994.7	506.03 µg/L	506.03 ppb	00:27:49
2	Be 313.107†	823610.0	814703.9	503.92 µg/L	503.92 ppb	00:27:43
2	Cd 226.502†	19379.1	19207.3	511.52 µg/L	511.52 ppb	00:27:49
2	Co 228.616†	10790.1	10631.6	505.83 µg/L	505.83 ppb	00:27:49
2	Cr 267.716†	24502.4	24155.2	509.99 µg/L	509.99 ppb	00:27:49
2	Cu 324.752†	79654.6	75211.4	497.48 µg/L	497.48 ppb	00:27:49
2	Mn 257.610†	155999.2	153866.1	511.39 µg/L	511.39 ppb	00:27:43
2	Mo 202.031†	5032.6	4954.9	513.04 µg/L	513.04 ppb	00:28:09
2	Ni 231.604†	10157.7	9722.3	508.68 µg/L	508.68 ppb	00:27:49
2	P 214.914†	1256.7	1210.0	2473.3 µg/L	2473.3 ppb	00:28:09
2	Pb 220.353†	2105.0	1982.5	508.51 µg/L	508.51 ppb	00:28:09
2	S 181.975 Axial†	259.3	240.3	1036.4 µg/L	1036.4 ppb	00:28:09
2	Sb 206.836†	558.9	529.4	502.37 µg/L	502.37 ppb	00:28:09
2	Se 196.026†	366.7	349.2	517.12 µg/L	517.12 ppb	00:28:09
2	SiO2†	28276.4	26334.0	5386.5 µg/L	5386.5 ppb	00:27:49
2	Si 251.611†	32440.2	31661.4	2504.1 µg/L	2504.1 ppb	00:27:49
2	Sn 189.927†	1171.9	1153.2	513.31 µg/L	513.31 ppb	00:28:09
2	Ti 334.940†	223524.6	219976.8	501.18 µg/L	501.18 ppb	00:27:43
2	Tl 190.801†	350.9	366.2	512.08 µg/L	512.08 ppb	00:28:09
2	U 409.014†	6322.7	6001.1	490.02 µg/L	490.02 ppb	00:27:49
2	V 292.402†	50732.2	50007.2	510.64 µg/L	510.64 ppb	00:27:49
2	Zn 213.857†	21663.0	20867.3	506.11 µg/L	506.11 ppb	00:27:49
3	Sc RADIAL	56076.4	56076.4	101 %		00:26:38
3	Al 396.153Radial†	6938.3	6837.4	4849.3 µg/L	4849.3 ppb	00:26:58
3	Ca 317.933Radial†	5659.0	5374.6	4861.2 µg/L	4861.2 ppb	00:26:58
3	Fe 238.204 Radial†	592.6	567.5	4974.9 µg/L	4974.9 ppb	00:26:58
3	K 766.490 Radial†	7674.0	7402.6	4960.2 µg/L	4960.2 ppb	00:26:38
3	Mg 279.077 IEC†	545.8	525.4	4907.9 µg/L	4907.9 ppb	00:26:58
3	Na 589.592 Radial†	33380.4	32593.4	9907.9 µg/L	9907.9 ppb	00:26:38
3	Sr 421.552†	51728.3	51075.6	494.47 µg/L	494.47 ppb	00:26:38
3	Sc 361.383	1978723.4	1978723.4	101.59 %		00:28:16
3	Y 371.029	1363738.6	1363738.6	101.97 %		00:28:16
3	Ag 328.068†	61969.3	61510.3	467.62 µg/L	467.62 ppb	00:28:22
3	As 188.979†	228.0	223.7	420.68 µg/L	420.68 ppb	00:28:42
3	B 249.677†	11330.1	10839.8	454.10 µg/L	454.10 ppb	00:28:22
3	Ba 233.527†	18101.2	17843.5	451.58 µg/L	451.58 ppb	00:28:22
3	Be 313.107†	760129.7	751873.6	465.06 µg/L	465.06 ppb	00:28:16
3	Cd 226.502†	17295.5	17148.2	456.63 µg/L	456.63 ppb	00:28:22
3	Co 228.616†	9554.5	9410.9	447.69 µg/L	447.69 ppb	00:28:22
3	Cr 267.716†	21053.4	20750.0	438.10 µg/L	438.10 ppb	00:28:22
3	Cu 324.752†	70981.8	66641.0	440.86 µg/L	440.86 ppb	00:28:22
3	Mn 257.610†	144677.5	142656.6	474.16 µg/L	474.16 ppb	00:28:16
3	Mo 202.031†	4139.7	4073.8	421.85 µg/L	421.85 ppb	00:28:42
3	Ni 231.604†	9038.7	8616.6	450.84 µg/L	450.84 ppb	00:28:22
3	P 214.914†	1058.0	1014.0	2069.4 µg/L	2069.4 ppb	00:28:42
3	Pb 220.353†	1807.9	1689.3	433.22 µg/L	433.22 ppb	00:28:42
3	S 181.975 Axial†	225.3	206.7	891.41 µg/L	891.41 ppb	00:28:42
3	Sb 206.836†	475.1	446.6	423.51 µg/L	423.51 ppb	00:28:42
3	Se 196.026†	318.4	301.5	447.53 µg/L	447.53 ppb	00:28:42
3	SiO2†	25832.2	23916.2	4891.9 µg/L	4891.9 ppb	00:28:22
3	Si 251.611†	29498.2	28752.0	2274.0 µg/L	2274.0 ppb	00:28:22
3	Sn 189.927†	947.6	931.9	414.84 µg/L	414.84 ppb	00:28:42
3	Ti 334.940†	204856.4	201507.5	459.08 µg/L	459.08 ppb	00:28:16
3	Tl 190.801†	311.2	326.9	457.39 µg/L	457.39 ppb	00:28:42
3	U 409.014†	5579.2	5266.5	429.93 µg/L	429.93 ppb	00:28:22
3	V 292.402†	44495.3	43846.7	447.56 µg/L	447.56 ppb	00:28:22
3	Zn 213.857†	19269.8	18502.5	448.70 µg/L	448.70 ppb	00:28:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1977524.8	101.53	%	0.073				0.07%
Sc RADIAL	55557.2	100	%	0.8				0.81%
Y 371.029	1362142.9	101.86	%	0.133				0.13%
Ag 328.068†	64606.1	491.26	µg/L	20.494	491.26	ppb	20.494	4.17%
QC value within limits for Ag 328.068 Recovery = 98.25%								
Al 396.153Radial†	6899.8	4892.3	µg/L	37.27	4892.3	ppb	37.27	0.76%
QC value within limits for Al 396.153Radial Recovery = 97.85%								
As 188.979†	255.3	480.22	µg/L	51.638	480.22	ppb	51.638	10.75%

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   QC value within limits for As 188.979  Recovery = 96.04%
B 249.677†            11431.5      479.03 µg/L        21.612      479.03 ppb         21.612   4.51%
   QC value within limits for B 249.677  Recovery = 95.81%
Ba 233.527†           19238.0      486.88 µg/L        30.610      486.88 ppb         30.610   6.29%
   QC value within limits for Ba 233.527  Recovery = 97.38%
Be 313.107†          792724.3      490.32 µg/L        21.903      490.32 ppb         21.903   4.47%
   QC value within limits for Be 313.107  Recovery = 98.06%
Ca 317.933Radial†      5429.6      4911.0 µg/L         43.43      4911.0 ppb          43.43   0.88%
   QC value within limits for Ca 317.933Radial  Recovery = 98.22%
Cd 226.502†           18517.4      493.13 µg/L        31.609      493.13 ppb         31.609   6.41%
   QC value within limits for Cd 226.502  Recovery = 98.63%
Co 228.616†           10231.6      486.79 µg/L        33.861      486.79 ppb         33.861   6.96%
   QC value within limits for Co 228.616  Recovery = 97.36%
Cr 267.716†           23019.4      486.01 µg/L        41.491      486.01 ppb         41.491   8.54%
   QC value within limits for Cr 267.716  Recovery = 97.20%
Cu 324.752†           72268.5      478.03 µg/L        32.209      478.03 ppb         32.209   6.74%
   QC value within limits for Cu 324.752  Recovery = 95.61%
Fe 238.204 Radial†      574.5      5036.8 µg/L         54.00      5036.8 ppb          54.00   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.74%
K 766.490 Radial†      7417.3      4970.0 µg/L          8.97      4970.0 ppb           8.97   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 99.40%
Mg 279.077 IEC†         533.1      4980.8 µg/L         63.70      4980.8 ppb          63.70   1.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.62%
Mn 257.610†          150003.9      498.56 µg/L        21.142      498.56 ppb         21.142   4.24%
   QC value within limits for Mn 257.610  Recovery = 99.71%
Mo 202.031†            4691.3      485.76 µg/L        55.549      485.76 ppb         55.549  11.44%
   QC value within limits for Mo 202.031  Recovery = 97.15%
Na 589.592 Radial†    32587.2      9906.0 µg/L          5.12      9906.0 ppb           5.12   0.05%
   QC value within limits for Na 589.592 Radial  Recovery = 99.06%
Ni 231.604†            9349.7      489.18 µg/L        33.213      489.18 ppb         33.213   6.79%
   QC value within limits for Ni 231.604  Recovery = 97.84%
P 214.914†             1151.3      2352.6 µg/L        246.13      2352.6 ppb         246.13  10.46%
   QC value within limits for P 214.914  Recovery = 94.10%
Pb 220.353†            1895.3      486.11 µg/L        45.989      486.11 ppb         45.989   9.46%
   QC value within limits for Pb 220.353  Recovery = 97.22%
S 181.975 Axial†        229.9      991.43 µg/L        86.765      991.43 ppb         86.765   8.75%
   QC value within limits for S 181.975 Axial  Recovery = 99.14%
Sb 206.836†             507.0      481.10 µg/L        50.448      481.10 ppb         50.448  10.49%
   QC value within limits for Sb 206.836  Recovery = 96.22%
Se 196.026†             334.0      494.95 µg/L        41.093      494.95 ppb         41.093   8.30%
   QC value within limits for Se 196.026  Recovery = 98.99%
SiO2†                 25482.1      5212.3 µg/L        277.75      5212.3 ppb         277.75   5.33%
   QC value within limits for SiO2  Recovery = 97.47%
Si 251.611†           30642.1      2423.5 µg/L        129.59      2423.5 ppb         129.59   5.35%
   QC value within limits for Si 251.611  Recovery = 96.94%
Sn 189.927†            1086.5      483.64 µg/L        59.771      483.64 ppb         59.771  12.36%
   QC value within limits for Sn 189.927  Recovery = 96.73%
Sr 421.552†           50975.7      493.50 µg/L         0.838      493.50 ppb          0.838   0.17%
   QC value within limits for Sr 421.552  Recovery = 98.70%
Ti 334.940†          213504.6      486.42 µg/L        23.707      486.42 ppb         23.707   4.87%
   QC value within limits for Ti 334.940  Recovery = 97.28%
Tl 190.801†             352.4      492.86 µg/L        30.750      492.86 ppb         30.750   6.24%
   QC value within limits for Tl 190.801  Recovery = 98.57%
U 409.014†             5741.6      468.79 µg/L        33.699      468.79 ppb         33.699   7.19%
   QC value within limits for U 409.014  Recovery = 93.76%
V 292.402†            47882.9      488.92 µg/L        35.836      488.92 ppb         35.836   7.33%
   QC value within limits for V 292.402  Recovery = 97.78%
Zn 213.857†           20068.4      486.72 µg/L        32.921      486.72 ppb         32.921   6.76%
   QC value within limits for Zn 213.857  Recovery = 97.34%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 00:28:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54750.0	54750.0	98.8	%			00:29:25
1	Al 396.153Radial†	-9.4	-25.6	-18.164	µg/L	-18.164	ppb	00:29:25
1	Ca 317.933Radial†	182.3	-30.8	-27.819	µg/L	-27.819	ppb	00:29:45
1	Fe 238.204 Radial†	13.1	-4.5	-39.567	µg/L	-39.567	ppb	00:29:45
1	K 766.490 Radial†	233.5	58.7	39.328	µg/L	39.328	ppb	00:29:25
1	Mg 279.077 IEC†	8.8	-4.8	-45.006	µg/L	-45.006	ppb	00:29:45
1	Na 589.592 Radial†	427.3	53.6	16.285	µg/L	16.285	ppb	00:29:25
1	Sr 421.552†	57.9	38.6	0.3734	µg/L	0.3734	ppb	00:29:25
1	Sc 361.383	1957252.8	1957252.8	100.49	%			00:30:47
1	Y 371.029	1354103.7	1354103.7	101.25	%			00:30:47
1	Ag 328.068†	-454.3	58.2	0.4354	µg/L	0.4354	ppb	00:30:53
1	As 188.979†	1.0	0.2	0.4320	µg/L	0.4320	ppb	00:31:13
1	B 249.677†	317.0	2.4	0.1213	µg/L	0.1213	ppb	00:31:13
1	Ba 233.527†	-10.8	14.6	0.3689	µg/L	0.3689	ppb	00:31:13
1	Be 313.107†	-3544.9	105.1	0.0651	µg/L	0.0651	ppb	00:30:53
1	Cd 226.502†	-136.2	-12.3	-0.3231	µg/L	-0.3231	ppb	00:31:13
1	Co 228.616†	-8.4	-2.6	-0.1222	µg/L	-0.1222	ppb	00:31:13
1	Cr 267.716†	-38.9	-12.8	-0.2694	µg/L	-0.2694	ppb	00:31:13
1	Cu 324.752†	3304.3	57.8	0.3760	µg/L	0.3760	ppb	00:30:53
1	Mn 257.610†	-240.0	3.1	0.0068	µg/L	0.0068	ppb	00:31:13
1	Mo 202.031†	1.3	0.1	0.0134	µg/L	0.0134	ppb	00:31:13
1	Ni 231.604†	293.0	10.8	0.5669	µg/L	0.5669	ppb	00:31:13
1	P 214.914†	20.4	-7.3	-15.115	µg/L	-15.115	ppb	00:31:13
1	Pb 220.353†	85.6	-5.2	-1.3419	µg/L	-1.3419	ppb	00:31:13
1	S 181.975 Axial†	17.3	2.1	9.2104	µg/L	9.2104	ppb	00:31:13
1	Sb 206.836†	27.8	6.6	6.2607	µg/L	6.2607	ppb	00:31:13
1	Se 196.026†	12.2	0.2	0.1749	µg/L	0.1749	ppb	00:31:13
1	SiO2†	1586.7	67.1	13.724	µg/L	13.724	ppb	00:30:53
1	Si 251.611†	334.0	47.5	3.7567	µg/L	3.7567	ppb	00:31:13
1	Sn 189.927†	4.6	3.7	1.6498	µg/L	1.6498	ppb	00:31:13
1	Ti 334.940†	114.6	-30.8	-0.0670	µg/L	-0.0670	ppb	00:30:53
1	Tl 190.801†	-18.4	2.2	3.0824	µg/L	3.0824	ppb	00:31:13
1	U 409.014†	256.4	29.8	2.4468	µg/L	2.4468	ppb	00:30:53
1	V 292.402†	-64.9	-17.3	-0.1766	µg/L	-0.1766	ppb	00:30:53
1	Zn 213.857†	466.0	-2.2	-0.0516	µg/L	-0.0516	ppb	00:31:13
2	Sc RADIAL	55067.6	55067.6	99.4	%			00:29:51
2	Al 396.153Radial†	-9.2	-25.3	-17.962	µg/L	-17.962	ppb	00:29:51
2	Ca 317.933Radial†	185.3	-28.8	-26.035	µg/L	-26.035	ppb	00:30:11
2	Fe 238.204 Radial†	16.6	-1.1	-9.8619	µg/L	-9.8619	ppb	00:30:11
2	K 766.490 Radial†	201.4	25.0	16.729	µg/L	16.729	ppb	00:29:51
2	Mg 279.077 IEC†	11.7	-2.0	-18.724	µg/L	-18.724	ppb	00:30:11
2	Na 589.592 Radial†	367.6	-8.9	-2.7200	µg/L	-2.7200	ppb	00:29:51
2	Sr 421.552†	62.0	42.3	0.4098	µg/L	0.4098	ppb	00:29:51
2	Sc 361.383	1955964.7	1955964.7	100.42	%			00:31:19
2	Y 371.029	1352919.8	1352919.8	101.17	%			00:31:19
2	Ag 328.068†	-441.3	70.9	0.5340	µg/L	0.5340	ppb	00:31:25
2	As 188.979†	-1.9	-2.6	-4.9864	µg/L	-4.9864	ppb	00:31:45
2	B 249.677†	324.5	10.0	0.4275	µg/L	0.4275	ppb	00:31:45
2	Ba 233.527†	-18.8	6.7	0.1688	µg/L	0.1688	ppb	00:31:45
2	Be 313.107†	-3652.9	-4.7	-0.0029	µg/L	-0.0029	ppb	00:31:25
2	Cd 226.502†	-121.2	2.6	0.0697	µg/L	0.0697	ppb	00:31:45
2	Co 228.616†	-2.9	2.9	0.1396	µg/L	0.1396	ppb	00:31:45
2	Cr 267.716†	-18.5	7.5	0.1584	µg/L	0.1584	ppb	00:31:45
2	Cu 324.752†	3342.8	98.3	0.6482	µg/L	0.6482	ppb	00:31:25
2	Mn 257.610†	-230.9	12.0	0.0394	µg/L	0.0394	ppb	00:31:45
2	Mo 202.031†	2.9	1.7	0.1795	µg/L	0.1795	ppb	00:31:45
2	Ni 231.604†	282.6	0.7	0.0364	µg/L	0.0364	ppb	00:31:45
2	P 214.914†	26.9	-0.8	-1.6541	µg/L	-1.6541	ppb	00:31:45
2	Pb 220.353†	90.4	-0.4	-0.0929	µg/L	-0.0929	ppb	00:31:45

2	S 181.975 Axial†	16.2	1.0	4.4034 µg/L	4.4034 ppb	00:31:45
2	Sb 206.836†	26.0	4.8	4.5336 µg/L	4.5336 ppb	00:31:45
2	Se 196.026†	15.4	3.3	4.8659 µg/L	4.8659 ppb	00:31:45
2	SiO2†	1597.6	79.0	16.154 µg/L	16.154 ppb	00:31:25
2	Si 251.611†	340.2	53.9	4.2649 µg/L	4.2649 ppb	00:31:45
2	Sn 189.927†	3.9	3.0	1.3451 µg/L	1.3451 ppb	00:31:45
2	Ti 334.940†	159.3	13.8	0.0325 µg/L	0.0325 ppb	00:31:25
2	Tl 190.801†	-21.0	-0.4	-0.5209 µg/L	-0.5209 ppb	00:31:45
2	U 409.014†	181.6	-44.6	-3.6433 µg/L	-3.6433 ppb	00:31:25
2	V 292.402†	-53.9	-6.4	-0.0675 µg/L	-0.0675 ppb	00:31:25
2	Zn 213.857†	465.1	-2.8	-0.0672 µg/L	-0.0672 ppb	00:31:45
3	Sc RADIAL	55225.1	55225.1	99.7 %		00:30:17
3	Al 396.153Radial†	-27.5	-43.6	-31.002 µg/L	-31.002 ppb	00:30:17
3	Ca 317.933Radial†	181.3	-33.4	-30.171 µg/L	-30.171 ppb	00:30:37
3	Fe 238.204 Radial†	15.5	-2.2	-19.221 µg/L	-19.221 ppb	00:30:37
3	K 766.490 Radial†	176.1	-1.0	-0.6455 µg/L	-0.6455 ppb	00:30:17
3	Mg 279.077 IEC†	9.9	-3.9	-35.972 µg/L	-35.972 ppb	00:30:37
3	Na 589.592 Radial†	365.4	-12.3	-3.7274 µg/L	-3.7274 ppb	00:30:17
3	Sr 421.552†	38.3	18.4	0.1778 µg/L	0.1778 ppb	00:30:17
3	Sc 361.383	1950582.3	1950582.3	100.14 %		00:31:51
3	Y 371.029	1349554.1	1349554.1	100.91 %		00:31:51
3	Ag 328.068†	-461.3	49.6	0.3723 µg/L	0.3723 ppb	00:31:57
3	As 188.979†	-5.1	-5.9	-11.066 µg/L	-11.066 ppb	00:32:18
3	B 249.677†	311.7	-1.9	-0.0685 µg/L	-0.0685 ppb	00:32:18
3	Ba 233.527†	-13.5	11.9	0.3012 µg/L	0.3012 ppb	00:32:18
3	Be 313.107†	-3513.4	124.5	0.0770 µg/L	0.0770 ppb	00:31:57
3	Cd 226.502†	-139.0	-15.5	-0.4118 µg/L	-0.4118 ppb	00:32:18
3	Co 228.616†	-2.3	3.5	0.1670 µg/L	0.1670 ppb	00:32:18
3	Cr 267.716†	-30.3	-4.3	-0.0916 µg/L	-0.0916 ppb	00:32:18
3	Cu 324.752†	3288.5	53.2	0.3488 µg/L	0.3488 ppb	00:31:57
3	Mn 257.610†	-250.1	-7.8	-0.0270 µg/L	-0.0270 ppb	00:32:18
3	Mo 202.031†	12.3	11.2	1.1577 µg/L	1.1577 ppb	00:32:18
3	Ni 231.604†	284.0	2.9	0.1510 µg/L	0.1510 ppb	00:32:18
3	P 214.914†	18.4	-9.1	-19.066 µg/L	-19.066 ppb	00:32:18
3	Pb 220.353†	78.2	-12.3	-3.1513 µg/L	-3.1513 ppb	00:32:18
3	S 181.975 Axial†	16.4	1.3	5.6517 µg/L	5.6517 ppb	00:32:18
3	Sb 206.836†	22.6	1.5	1.4361 µg/L	1.4361 ppb	00:32:18
3	Se 196.026†	7.5	-4.4	-6.4830 µg/L	-6.4830 ppb	00:32:18
3	SiO2†	1616.0	101.7	20.807 µg/L	20.807 ppb	00:31:57
3	Si 251.611†	318.3	32.9	2.6022 µg/L	2.6022 ppb	00:32:18
3	Sn 189.927†	1.8	0.9	0.4141 µg/L	0.4141 ppb	00:32:18
3	Ti 334.940†	215.2	70.1	0.1621 µg/L	0.1621 ppb	00:31:57
3	Tl 190.801†	-24.1	-3.4	-4.7393 µg/L	-4.7393 ppb	00:32:18
3	U 409.014†	229.2	3.5	0.2888 µg/L	0.2888 ppb	00:31:57
3	V 292.402†	-62.1	-14.7	-0.1418 µg/L	-0.1418 ppb	00:31:57
3	Zn 213.857†	459.4	-7.2	-0.1739 µg/L	-0.1739 ppb	00:32:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1954600.0	100.35	%	0.182				0.18%
Sc RADIAL	55014.3	99.3	%	0.44				0.44%
Y 371.029	1352192.5	101.11	%	0.176				0.17%
Ag 328.068†	59.5	0.4473	µg/L	0.08149	0.4473	ppb	0.08149	18.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-31.5	-22.376	µg/L	7.4710	-22.376	ppb	7.4710	33.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-5.2069	µg/L	5.75235	-5.2069	ppb	5.75235	110.48%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.5	0.1601	µg/L	0.25024	0.1601	ppb	0.25024	156.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.1	0.2796	µg/L	0.10173	0.2796	ppb	0.10173	36.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	75.0	0.0464	µg/L	0.04310	0.0464	ppb	0.04310	92.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-31.0	-28.008	µg/L	2.0747	-28.008	ppb	2.0747	7.41%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-8.4	-0.2217	µg/L	0.25627	-0.2217	ppb	0.25627	115.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.3	0.0615	µg/L	0.15965	0.0615	ppb	0.15965	259.70%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.2     -0.0675 µg/L      0.21492     -0.0675 ppb       0.21492 318.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              69.8      0.4577 µg/L      0.16557      0.4577 ppb       0.16557  36.18%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -2.6     -22.884 µg/L      15.1876     -22.884 ppb       15.1876  66.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        27.6      18.470 µg/L      20.0436      18.470 ppb       20.0436 108.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.6     -33.234 µg/L      13.3531     -33.234 ppb       13.3531  40.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               2.4      0.0064 µg/L      0.03321      0.0064 ppb       0.03321 517.33%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.4      0.4502 µg/L      0.61831      0.4502 ppb       0.61831 137.34%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       10.8      3.2793 µg/L     11.27469      3.2793 ppb      11.27469 343.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               4.8      0.2515 µg/L      0.27915      0.2515 ppb       0.27915 111.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -5.7     -11.945 µg/L       9.1286     -11.945 ppb        9.1286  76.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.0      -1.5287 µg/L      1.53773      -1.5287 ppb       1.53773 100.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      6.4219 µg/L      2.49434      6.4219 ppb       2.49434  38.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.3      4.0768 µg/L      2.44454      4.0768 ppb       2.44454  59.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.3      -0.4808 µg/L     5.70276      -0.4808 ppb       5.70276 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    82.6      16.895 µg/L       3.5991      16.895 ppb        3.5991  21.30%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              44.8      3.5412 µg/L      0.85203      3.5412 ppb       0.85203  24.06%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.6      1.1363 µg/L      0.64377      1.1363 ppb       0.64377  56.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              33.1      0.3203 µg/L      0.12476      0.3203 ppb       0.12476  38.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              17.7      0.0425 µg/L      0.11488      0.0425 ppb       0.11488 270.06%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.5      -0.7259 µg/L     3.91488      -0.7259 ppb       3.91488 539.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -3.8     -0.3026 µg/L      3.08778     -0.3026 ppb       3.08778 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -12.8     -0.1286 µg/L      0.05577     -0.1286 ppb       0.05577  43.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -4.0     -0.0976 µg/L      0.06656     -0.0976 ppb       0.06656  68.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/24/2010 01:13:07
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502
Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022310E.SIF
Batch ID:
Results Data Set: 022310A
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 2/24/2010 01:13:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54943.1	54943.1	99.2	%			01:13:43
1	Al 396.153Radial†	7049.2	7090.5	5026.8	µg/L	5026.8	ppb	01:13:43
1	Ca 317.933Radial†	5735.8	5567.4	5035.6	µg/L	5035.6	ppb	01:14:03
1	Fe 238.204 Radial†	597.2	584.2	5122.5	µg/L	5122.5	ppb	01:14:03
1	K 766.490 Radial†	7695.6	7580.7	5079.5	µg/L	5079.5	ppb	01:13:43
1	Mg 279.077 IEC†	556.5	547.3	5114.0	µg/L	5114.0	ppb	01:14:03
1	Na 589.592 Radial†	33313.4	33205.9	10094	µg/L	10094	ppb	01:13:43
1	Sr 421.552†	51910.5	52313.2	506.45	µg/L	506.45	ppb	01:13:43
1	Sc 361.383	1968089.6	1968089.6	101.04	%			01:15:06
1	Y 371.029	1356012.7	1356012.7	101.40	%			01:15:06
1	Ag 328.068†	67682.8	67494.5	513.29	µg/L	513.29	ppb	01:15:12
1	As 188.979†	282.3	278.6	523.95	µg/L	523.95	ppb	01:15:32
1	B 249.677†	12473.0	12031.2	504.28	µg/L	504.28	ppb	01:15:12
1	Ba 233.527†	20607.6	20420.3	516.81	µg/L	516.81	ppb	01:15:12
1	Be 313.107†	842610.2	837545.6	518.05	µg/L	518.05	ppb	01:15:06
1	Cd 226.502†	19852.5	19770.8	526.54	µg/L	526.54	ppb	01:15:12
1	Co 228.616†	11027.6	10919.6	519.55	µg/L	519.55	ppb	01:15:12
1	Cr 267.716†	25083.7	24850.7	524.67	µg/L	524.67	ppb	01:15:12
1	Cu 324.752†	80746.8	76682.8	507.20	µg/L	507.20	ppb	01:15:12
1	Mn 257.610†	159881.8	158473.4	526.69	µg/L	526.69	ppb	01:15:06
1	Mo 202.031†	5219.9	5164.9	534.78	µg/L	534.78	ppb	01:15:32
1	Ni 231.604†	10408.5	10020.3	524.27	µg/L	524.27	ppb	01:15:12
1	P 214.914†	1309.3	1268.3	2594.0	µg/L	2594.0	ppb	01:15:32
1	Pb 220.353†	2173.8	2061.0	528.68	µg/L	528.68	ppb	01:15:32
1	S 181.975 Axial†	265.8	248.0	1069.7	µg/L	1069.7	ppb	01:15:32
1	Sb 206.836†	572.9	545.9	518.17	µg/L	518.17	ppb	01:15:32
1	Se 196.026†	385.7	369.8	547.27	µg/L	547.27	ppb	01:15:32
1	SiO2†	28704.0	26895.8	5501.4	µg/L	5501.4	ppb	01:15:12
1	Si 251.611†	32914.3	32289.7	2553.8	µg/L	2553.8	ppb	01:15:12
1	Sn 189.927†	1234.2	1220.7	543.36	µg/L	543.36	ppb	01:15:32
1	Ti 334.940†	227845.4	225348.7	513.42	µg/L	513.42	ppb	01:15:06
1	Tl 190.801†	360.1	377.0	527.18	µg/L	527.18	ppb	01:15:32
1	U 409.014†	6417.0	6125.4	500.17	µg/L	500.17	ppb	01:15:12
1	V 292.402†	51607.4	51122.0	522.10	µg/L	522.10	ppb	01:15:12
1	Zn 213.857†	22140.2	21445.8	520.14	µg/L	520.14	ppb	01:15:12
2	Sc RADIAL	55771.2	55771.2	101	%			01:14:09
2	Al 396.153Radial†	6970.9	6907.3	4896.8	µg/L	4896.8	ppb	01:14:09
2	Ca 317.933Radial†	5774.7	5520.1	4992.9	µg/L	4992.9	ppb	01:14:29
2	Fe 238.204 Radial†	602.1	580.2	5086.8	µg/L	5086.8	ppb	01:14:29
2	K 766.490 Radial†	7608.4	7378.9	4944.3	µg/L	4944.3	ppb	01:14:09
2	Mg 279.077 IEC†	555.3	537.8	5024.9	µg/L	5024.9	ppb	01:14:29
2	Na 589.592 Radial†	33085.6	32481.0	9873.7	µg/L	9873.7	ppb	01:14:09
2	Sr 421.552†	51374.1	51003.4	493.77	µg/L	493.77	ppb	01:14:09
2	Sc 361.383	1962376.2	1962376.2	100.75	%			01:15:40
2	Y 371.029	1351676.1	1351676.1	101.07	%			01:15:40
2	Ag 328.068†	67949.3	67954.0	516.79	µg/L	516.79	ppb	01:15:45
2	As 188.979†	283.7	280.8	528.06	µg/L	528.06	ppb	01:16:06

2	B 249.677†	12509.0	12102.8	507.31 µg/L	507.31 ppb	01:15:45
2	Ba 233.527†	20707.8	20579.1	520.83 µg/L	520.83 ppb	01:15:45
2	Be 313.107†	833676.7	831106.5	514.06 µg/L	514.06 ppb	01:15:40
2	Cd 226.502†	20005.5	19979.8	532.11 µg/L	532.11 ppb	01:15:45
2	Co 228.616†	11101.2	11024.4	524.54 µg/L	524.54 ppb	01:15:45
2	Cr 267.716†	25199.2	25037.6	528.61 µg/L	528.61 ppb	01:15:45
2	Cu 324.752†	81085.5	77251.6	510.95 µg/L	510.95 ppb	01:15:45
2	Mn 257.610†	158274.1	157338.3	522.92 µg/L	522.92 ppb	01:15:40
2	Mo 202.031†	5126.8	5087.5	526.77 µg/L	526.77 ppb	01:16:06
2	Ni 231.604†	10410.1	10052.0	525.92 µg/L	525.92 ppb	01:15:45
2	P 214.914†	1290.0	1252.9	2561.5 µg/L	2561.5 ppb	01:16:06
2	Pb 220.353†	2151.0	2044.6	524.42 µg/L	524.42 ppb	01:16:06
2	S 181.975 Axial†	259.7	242.7	1046.9 µg/L	1046.9 ppb	01:16:06
2	Sb 206.836†	568.6	543.3	515.51 µg/L	515.51 ppb	01:16:06
2	Se 196.026†	373.2	358.4	530.71 µg/L	530.71 ppb	01:16:06
2	SiO2†	28793.7	27067.5	5536.5 µg/L	5536.5 ppb	01:15:45
2	Si 251.611†	33118.9	32587.6	2577.3 µg/L	2577.3 ppb	01:15:45
2	Sn 189.927†	1209.3	1199.4	533.90 µg/L	533.90 ppb	01:16:06
2	Ti 334.940†	225402.0	223580.1	509.39 µg/L	509.39 ppb	01:15:40
2	Tl 190.801†	353.6	371.6	519.63 µg/L	519.63 ppb	01:16:06
2	U 409.014†	6485.2	6211.6	507.24 µg/L	507.24 ppb	01:15:45
2	V 292.402†	51904.9	51566.0	526.53 µg/L	526.53 ppb	01:15:45
2	Zn 213.857†	22169.1	21538.3	522.40 µg/L	522.40 ppb	01:15:45
3	Sc RADIAL	55360.1	55360.1	99.9 %		01:14:34
3	Al 396.153Radial†	7159.1	7147.0	5068.9 µg/L	5068.9 ppb	01:14:34
3	Ca 317.933Radial†	5778.6	5566.6	5034.9 µg/L	5034.9 ppb	01:14:55
3	Fe 238.204 Radial†	603.9	586.5	5141.0 µg/L	5141.0 ppb	01:14:55
3	K 766.490 Radial†	7814.1	7640.9	5119.9 µg/L	5119.9 ppb	01:14:34
3	Mg 279.077 IEC†	552.2	538.7	5032.5 µg/L	5032.5 ppb	01:14:55
3	Na 589.592 Radial†	33853.0	33492.9	10181 µg/L	10181 ppb	01:14:34
3	Sr 421.552†	52669.8	52678.7	509.99 µg/L	509.99 ppb	01:14:34
3	Sc 361.383	1944757.0	1944757.0	99.845 %		01:16:13
3	Y 371.029	1340806.9	1340806.9	100.26 %		01:16:13
3	Ag 328.068†	63564.7	64173.6	487.89 µg/L	487.89 ppb	01:16:19
3	As 188.979†	240.1	239.6	450.77 µg/L	450.77 ppb	01:16:39
3	B 249.677†	11661.9	11366.9	476.22 µg/L	476.22 ppb	01:16:19
3	Ba 233.527†	18796.4	18850.9	477.07 µg/L	477.07 ppb	01:16:19
3	Be 313.107†	777173.4	782012.3	483.70 µg/L	483.70 ppb	01:16:13
3	Cd 226.502†	18044.0	18195.2	484.53 µg/L	484.53 ppb	01:16:19
3	Co 228.616†	9916.6	9937.8	472.77 µg/L	472.77 ppb	01:16:19
3	Cr 267.716†	21844.6	21904.4	462.47 µg/L	462.47 ppb	01:16:19
3	Cu 324.752†	72963.6	69846.3	462.05 µg/L	462.05 ppb	01:16:19
3	Mn 257.610†	147694.4	148165.6	492.47 µg/L	492.47 ppb	01:16:13
3	Mo 202.031†	4251.2	4256.7	440.78 µg/L	440.78 ppb	01:16:39
3	Ni 231.604†	9407.1	9141.0	478.27 µg/L	478.27 ppb	01:16:19
3	P 214.914†	1095.5	1069.6	2183.4 µg/L	2183.4 ppb	01:16:39
3	Pb 220.353†	1865.4	1778.0	455.96 µg/L	455.96 ppb	01:16:39
3	S 181.975 Axial†	231.6	216.9	935.62 µg/L	935.62 ppb	01:16:39
3	Sb 206.836†	490.8	470.4	446.05 µg/L	446.05 ppb	01:16:39
3	Se 196.026†	337.9	326.5	484.24 µg/L	484.24 ppb	01:16:39
3	SiO2†	26563.5	25092.7	5132.6 µg/L	5132.6 ppb	01:16:19
3	Si 251.611†	30387.3	30149.6	2384.5 µg/L	2384.5 ppb	01:16:19
3	Sn 189.927†	982.4	983.1	437.60 µg/L	437.60 ppb	01:16:39
3	Ti 334.940†	209070.7	209250.3	476.72 µg/L	476.72 ppb	01:16:13
3	Tl 190.801†	316.3	337.4	472.04 µg/L	472.04 ppb	01:16:39
3	U 409.014†	5734.2	5517.7	450.45 µg/L	450.45 ppb	01:16:19
3	V 292.402†	46018.4	46137.2	470.90 µg/L	470.90 ppb	01:16:19
3	Zn 213.857†	19982.9	19548.0	474.07 µg/L	474.07 ppb	01:16:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1958407.6	100.55	%	0.624				0.62%
Sc RADIAL	55358.1	99.9	%	0.75				0.75%
Y 371.029	1349498.5	100.91	%	0.586				0.58%
Ag 328.068†	66540.7	505.99	µg/L	15.772	505.99	ppb	15.772	3.12%
QC value within limits for Ag 328.068 Recovery = 101.20%								
Al 396.153Radial†	7048.3	4997.5	µg/L	89.73	4997.5	ppb	89.73	1.80%
QC value within limits for Al 396.153Radial Recovery = 99.95%								
As 188.979†	266.3	500.93	µg/L	43.490	500.93	ppb	43.490	8.68%

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   QC value within limits for As 188.979  Recovery = 100.19%
B 249.677†            11833.6      495.94 µg/L        17.142      495.94 ppb         17.142   3.46%
   QC value within limits for B 249.677  Recovery = 99.19%
Ba 233.527†           19950.1      504.90 µg/L        24.187      504.90 ppb         24.187   4.79%
   QC value within limits for Ba 233.527  Recovery = 100.98%
Be 313.107†          816888.1      505.27 µg/L        18.787      505.27 ppb         18.787   3.72%
   QC value within limits for Be 313.107  Recovery = 101.05%
Ca 317.933Radial†      5551.4      5021.1 µg/L         24.46      5021.1 ppb          24.46   0.49%
   QC value within limits for Ca 317.933Radial  Recovery = 100.42%
Cd 226.502†           19315.3      514.39 µg/L        26.015      514.39 ppb         26.015   5.06%
   QC value within limits for Cd 226.502  Recovery = 102.88%
Co 228.616†           10627.3      505.62 µg/L        28.555      505.62 ppb         28.555   5.65%
   QC value within limits for Co 228.616  Recovery = 101.12%
Cr 267.716†           23930.9      505.25 µg/L        37.101      505.25 ppb         37.101   7.34%
   QC value within limits for Cr 267.716  Recovery = 101.05%
Cu 324.752†           74593.6      493.40 µg/L        27.217      493.40 ppb         27.217   5.52%
   QC value within limits for Cu 324.752  Recovery = 98.68%
Fe 238.204 Radial†      583.6      5116.8 µg/L         27.55      5116.8 ppb          27.55   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.34%
K 766.490 Radial†      7533.5      5047.9 µg/L         91.93      5047.9 ppb          91.93   1.82%
   QC value within limits for K 766.490 Radial  Recovery = 100.96%
Mg 279.077 IEC†         541.3      5057.1 µg/L         49.40      5057.1 ppb          49.40   0.98%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.14%
Mn 257.610†          154659.1      514.03 µg/L        18.765      514.03 ppb         18.765   3.65%
   QC value within limits for Mn 257.610  Recovery = 102.81%
Mo 202.031†            4836.3      500.78 µg/L        52.115      500.78 ppb         52.115  10.41%
   QC value within limits for Mo 202.031  Recovery = 100.16%
Na 589.592 Radial†    33059.9       10050 µg/L         158.5       10050 ppb          158.5   1.58%
   QC value within limits for Na 589.592 Radial  Recovery = 100.50%
Ni 231.604†            9737.8      509.49 µg/L        27.046      509.49 ppb         27.046   5.31%
   QC value within limits for Ni 231.604  Recovery = 101.90%
P 214.914†             1196.9      2446.3 µg/L        228.27      2446.3 ppb         228.27   9.33%
   QC value within limits for P 214.914  Recovery = 97.85%
Pb 220.353†            1961.2      503.02 µg/L        40.809      503.02 ppb         40.809   8.11%
   QC value within limits for Pb 220.353  Recovery = 100.60%
S 181.975 Axial†        235.9      1017.4 µg/L         71.75      1017.4 ppb          71.75   7.05%
   QC value within limits for S 181.975 Axial  Recovery = 101.74%
Sb 206.836†             519.9      493.24 µg/L        40.895      493.24 ppb         40.895   8.29%
   QC value within limits for Sb 206.836  Recovery = 98.65%
Se 196.026†             351.6      520.74 µg/L        32.675      520.74 ppb         32.675   6.27%
   QC value within limits for Se 196.026  Recovery = 104.15%
SiO2†                  26352.0      5390.2 µg/L        223.76      5390.2 ppb         223.76   4.15%
   QC value within limits for SiO2  Recovery = 100.80%
Si 251.611†            31675.6      2505.2 µg/L        105.19      2505.2 ppb         105.19   4.20%
   QC value within limits for Si 251.611  Recovery = 100.21%
Sn 189.927†            1134.4      504.95 µg/L        58.519      504.95 ppb         58.519  11.59%
   QC value within limits for Sn 189.927  Recovery = 100.99%
Sr 421.552†            51998.4      503.40 µg/L         8.528      503.40 ppb          8.528   1.69%
   QC value within limits for Sr 421.552  Recovery = 100.68%
Ti 334.940†           219393.0      499.84 µg/L        20.124      499.84 ppb         20.124   4.03%
   QC value within limits for Ti 334.940  Recovery = 99.97%
Tl 190.801†             362.0      506.28 µg/L        29.897      506.28 ppb         29.897   5.91%
   QC value within limits for Tl 190.801  Recovery = 101.26%
U 409.014†             5951.5      485.95 µg/L        30.948      485.95 ppb         30.948   6.37%
   QC value within limits for U 409.014  Recovery = 97.19%
V 292.402†             49608.4      506.51 µg/L        30.917      506.51 ppb         30.917   6.10%
   QC value within limits for V 292.402  Recovery = 101.30%
Zn 213.857†            20844.0      505.54 µg/L        27.274      505.54 ppb         27.274   5.40%
   QC value within limits for Zn 213.857  Recovery = 101.11%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 01:16:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54953.3	54953.3	99.2	%			01:17:21
1	Al 396.153Radial†	-9.4	-25.5	-18.121	µg/L	-18.121	ppb	01:17:21
1	Ca 317.933Radial†	184.9	-28.8	-26.036	µg/L	-26.036	ppb	01:17:41
1	Fe 238.204 Radial†	16.4	-1.2	-10.688	µg/L	-10.688	ppb	01:17:41
1	K 766.490 Radial†	217.2	41.3	27.705	µg/L	27.705	ppb	01:17:21
1	Mg 279.077 IEC†	13.3	-0.3	-2.7861	µg/L	-2.7861	ppb	01:17:41
1	Na 589.592 Radial†	388.5	12.9	3.9252	µg/L	3.9252	ppb	01:17:21
1	Sr 421.552†	57.6	38.1	0.3686	µg/L	0.3686	ppb	01:17:21
1	Sc 361.383	1964389.9	1964389.9	100.85	%			01:18:43
1	Y 371.029	1358576.2	1358576.2	101.59	%			01:18:43
1	Ag 328.068†	-465.6	48.7	0.3664	µg/L	0.3664	ppb	01:18:48
1	As 188.979†	-1.3	-2.1	-3.9060	µg/L	-3.9060	ppb	01:19:09
1	B 249.677†	311.1	-4.6	-0.1870	µg/L	-0.1870	ppb	01:19:09
1	Ba 233.527†	-14.6	10.9	0.2763	µg/L	0.2763	ppb	01:19:09
1	Be 313.107†	-3526.6	136.1	0.0842	µg/L	0.0842	ppb	01:18:48
1	Cd 226.502†	-136.0	-11.6	-0.3076	µg/L	-0.3076	ppb	01:19:09
1	Co 228.616†	-6.4	-0.6	-0.0263	µg/L	-0.0263	ppb	01:19:09
1	Cr 267.716†	-37.9	-11.7	-0.2464	µg/L	-0.2464	ppb	01:19:09
1	Cu 324.752†	3294.5	36.2	0.2373	µg/L	0.2373	ppb	01:18:48
1	Mn 257.610†	-248.9	-4.8	-0.0173	µg/L	-0.0173	ppb	01:19:09
1	Mo 202.031†	8.1	6.9	0.7180	µg/L	0.7180	ppb	01:19:09
1	Ni 231.604†	292.9	9.7	0.5101	µg/L	0.5101	ppb	01:19:09
1	P 214.914†	16.6	-11.1	-23.039	µg/L	-23.039	ppb	01:19:09
1	Pb 220.353†	91.4	0.3	0.0754	µg/L	0.0754	ppb	01:19:09
1	S 181.975 Axial†	14.3	-0.9	-4.0019	µg/L	-4.0019	ppb	01:19:09
1	Sb 206.836†	27.9	6.6	6.2933	µg/L	6.2933	ppb	01:19:09
1	Se 196.026†	20.6	8.5	12.394	µg/L	12.394	ppb	01:19:09
1	SiO2†	1594.0	68.6	14.029	µg/L	14.029	ppb	01:18:48
1	Si 251.611†	310.0	22.4	1.7751	µg/L	1.7751	ppb	01:19:09
1	Sn 189.927†	7.2	6.3	2.8162	µg/L	2.8162	ppb	01:19:09
1	Ti 334.940†	198.9	52.4	0.1193	µg/L	0.1193	ppb	01:18:48
1	Tl 190.801†	-23.8	-3.0	-4.1261	µg/L	-4.1261	ppb	01:19:09
1	U 409.014†	204.0	-23.1	-1.8857	µg/L	-1.8857	ppb	01:18:48
1	V 292.402†	-52.6	-4.8	-0.0470	µg/L	-0.0470	ppb	01:18:48
1	Zn 213.857†	467.7	-2.2	-0.0548	µg/L	-0.0548	ppb	01:19:09
2	Sc RADIAL	54089.5	54089.5	97.7	%			01:17:47
2	Al 396.153Radial†	-38.0	-55.0	-39.073	µg/L	-39.073	ppb	01:17:47
2	Ca 317.933Radial†	183.3	-27.4	-24.813	µg/L	-24.813	ppb	01:18:07
2	Fe 238.204 Radial†	16.7	-0.6	-5.6090	µg/L	-5.6090	ppb	01:18:07
2	K 766.490 Radial†	175.4	2.1	1.3869	µg/L	1.3869	ppb	01:17:47
2	Mg 279.077 IEC†	9.3	-4.2	-39.208	µg/L	-39.208	ppb	01:18:07
2	Na 589.592 Radial†	399.0	29.9	9.0894	µg/L	9.0894	ppb	01:17:47
2	Sr 421.552†	24.8	5.4	0.0526	µg/L	0.0526	ppb	01:17:47
2	Sc 361.383	1929441.5	1929441.5	99.059	%			01:19:15
2	Y 371.029	1333315.3	1333315.3	99.700	%			01:19:15
2	Ag 328.068†	-482.1	23.6	0.1768	µg/L	0.1768	ppb	01:19:21
2	As 188.979†	-3.1	-3.9	-7.3983	µg/L	-7.3983	ppb	01:19:41
2	B 249.677†	308.3	-1.8	-0.0749	µg/L	-0.0749	ppb	01:19:41
2	Ba 233.527†	-13.4	11.9	0.2995	µg/L	0.2995	ppb	01:19:41
2	Be 313.107†	-3592.4	6.4	0.0039	µg/L	0.0039	ppb	01:19:21
2	Cd 226.502†	-137.0	-15.0	-0.3990	µg/L	-0.3990	ppb	01:19:41
2	Co 228.616†	-11.9	-6.2	-0.2954	µg/L	-0.2954	ppb	01:19:41
2	Cr 267.716†	-50.2	-24.7	-0.5223	µg/L	-0.5223	ppb	01:19:41
2	Cu 324.752†	3359.7	161.1	1.0632	µg/L	1.0632	ppb	01:19:21
2	Mn 257.610†	-232.7	7.1	0.0243	µg/L	0.0243	ppb	01:19:41
2	Mo 202.031†	4.3	3.2	0.3322	µg/L	0.3322	ppb	01:19:41
2	Ni 231.604†	300.6	22.7	1.1890	µg/L	1.1890	ppb	01:19:41
2	P 214.914†	11.8	-15.7	-32.777	µg/L	-32.777	ppb	01:19:41
2	Pb 220.353†	84.9	-4.6	-1.1946	µg/L	-1.1946	ppb	01:19:41

2	S 181.975 Axial†	11.7	-3.3	-14.205 µg/L	-14.205 ppb	01:19:41
2	Sb 206.836†	21.1	0.2	0.2043 µg/L	0.2043 ppb	01:19:41
2	Se 196.026†	8.4	-3.5	-5.0566 µg/L	-5.0566 ppb	01:19:41
2	SiO2†	1607.0	110.3	22.563 µg/L	22.563 ppb	01:19:21
2	Si 251.611†	328.3	46.5	3.6795 µg/L	3.6795 ppb	01:19:41
2	Sn 189.927†	-0.9	-1.8	-0.8006 µg/L	-0.8006 ppb	01:19:41
2	Ti 334.940†	252.2	109.7	0.2529 µg/L	0.2529 ppb	01:19:21
2	Tl 190.801†	-23.8	-3.4	-4.7558 µg/L	-4.7558 ppb	01:19:41
2	U 409.014†	235.2	12.0	0.9856 µg/L	0.9856 ppb	01:19:21
2	V 292.402†	-58.4	-11.7	-0.1158 µg/L	-0.1158 ppb	01:19:21
2	Zn 213.857†	470.1	8.6	0.2060 µg/L	0.2060 ppb	01:19:41
3	Sc RADIAL	54395.7	54395.7	98.2 %		01:18:12
3	Al 396.153Radial†	-28.6	-45.2	-32.094 µg/L	-32.094 ppb	01:18:12
3	Ca 317.933Radial†	174.6	-37.4	-33.788 µg/L	-33.788 ppb	01:18:33
3	Fe 238.204 Radial†	15.6	-1.9	-16.469 µg/L	-16.469 ppb	01:18:33
3	K 766.490 Radial†	184.9	10.7	7.1848 µg/L	7.1848 ppb	01:18:12
3	Mg 279.077 IEC†	10.2	-3.4	-31.781 µg/L	-31.781 ppb	01:18:33
3	Na 589.592 Radial†	411.6	40.4	12.293 µg/L	12.293 ppb	01:18:12
3	Sr 421.552†	37.7	18.4	0.1782 µg/L	0.1782 ppb	01:18:12
3	Sc 361.383	1951986.6	1951986.6	100.22 %		01:19:47
3	Y 371.029	1348986.9	1348986.9	100.87 %		01:19:47
3	Ag 328.068†	-453.0	58.3	0.4378 µg/L	0.4378 ppb	01:19:53
3	As 188.979†	7.3	6.5	12.192 µg/L	12.192 ppb	01:20:13
3	B 249.677†	315.2	1.4	0.0696 µg/L	0.0696 ppb	01:20:13
3	Ba 233.527†	-17.7	7.7	0.1951 µg/L	0.1951 ppb	01:20:13
3	Be 313.107†	-3546.9	93.7	0.0579 µg/L	0.0579 ppb	01:19:53
3	Cd 226.502†	-133.3	-9.7	-0.2576 µg/L	-0.2576 ppb	01:20:13
3	Co 228.616†	1.9	7.7	0.3657 µg/L	0.3657 ppb	01:20:13
3	Cr 267.716†	-24.8	1.2	0.0243 µg/L	0.0243 ppb	01:20:13
3	Cu 324.752†	3344.1	106.4	0.7004 µg/L	0.7004 ppb	01:19:53
3	Mn 257.610†	-234.7	7.8	0.0249 µg/L	0.0249 ppb	01:20:13
3	Mo 202.031†	1.1	-0.0	-0.0022 µg/L	-0.0022 ppb	01:20:13
3	Ni 231.604†	285.6	4.2	0.2207 µg/L	0.2207 ppb	01:20:13
3	P 214.914†	22.0	-5.6	-11.687 µg/L	-11.687 ppb	01:20:13
3	Pb 220.353†	81.9	-8.7	-2.2344 µg/L	-2.2344 ppb	01:20:13
3	S 181.975 Axial†	16.5	1.4	5.8694 µg/L	5.8694 ppb	01:20:13
3	Sb 206.836†	21.6	0.5	0.4730 µg/L	0.4730 ppb	01:20:13
3	Se 196.026†	23.3	11.3	16.503 µg/L	16.503 ppb	01:20:13
3	SiO2†	1586.2	70.9	14.495 µg/L	14.495 ppb	01:19:53
3	Si 251.611†	315.9	30.3	2.3952 µg/L	2.3952 ppb	01:20:13
3	Sn 189.927†	-4.0	-4.8	-2.1524 µg/L	-2.1524 ppb	01:20:13
3	Ti 334.940†	204.9	59.6	0.1379 µg/L	0.1379 ppb	01:19:53
3	Tl 190.801†	-23.7	-3.1	-4.2799 µg/L	-4.2799 ppb	01:20:13
3	U 409.014†	251.4	25.5	2.0910 µg/L	2.0910 ppb	01:19:53
3	V 292.402†	-66.0	-18.5	-0.1861 µg/L	-0.1861 ppb	01:19:53
3	Zn 213.857†	470.9	4.0	0.0980 µg/L	0.0980 ppb	01:20:13

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1948606.0	100.04	%	0.910				0.91%
Sc RADIAL	54479.5	98.4	%	0.79				0.80%
Y 371.029	1346959.5	100.72	%	0.954				0.95%
Ag 328.068†	43.5	0.3270	µg/L	0.13488	0.3270	ppb	0.13488	41.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-41.9	-29.763	µg/L	10.6690	-29.763	ppb	10.6690	35.85%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.2	0.2958	µg/L	10.44918	0.2958	ppb	10.44918	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-1.7	-0.0641	µg/L	0.12863	-0.0641	ppb	0.12863	200.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.2	0.2570	µg/L	0.05480	0.2570	ppb	0.05480	21.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	78.8	0.0487	µg/L	0.04095	0.0487	ppb	0.04095	84.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-31.2	-28.213	µg/L	4.8673	-28.213	ppb	4.8673	17.25%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-12.1	-0.3214	µg/L	0.07168	-0.3214	ppb	0.07168	22.30%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.3	0.0147	µg/L	0.33247	0.0147	ppb	0.33247	>999.9%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -11.8     -0.2481 µg/L       0.27329     -0.2481 ppb        0.27329 110.14%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              101.2      0.6670 µg/L       0.41394      0.6670 ppb        0.41394  62.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.2     -10.922 µg/L        5.4339     -10.922 ppb         5.4339  49.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         18.0      12.092 µg/L       13.8280      12.092 ppb        13.8280 114.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.6     -24.592 µg/L       19.2458     -24.592 ppb        19.2458  78.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                3.3      0.0106 µg/L       0.02418      0.0106 ppb        0.02418 227.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.4      0.3493 µg/L       0.36040      0.3493 ppb        0.36040 103.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        27.8      8.4357 µg/L       4.22180      8.4357 ppb        4.22180  50.05%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               12.2      0.6399 µg/L       0.49706      0.6399 ppb        0.49706  77.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.8     -22.501 µg/L       10.5552     -22.501 ppb        10.5552  46.91%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.4     -1.1178 µg/L       1.15685     -1.1178 ppb        1.15685 103.49%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.0     -4.1124 µg/L      10.03746     -4.1124 ppb       10.03746 244.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.4      2.3236 µg/L       3.44055      2.3236 ppb        3.44055 148.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.4      7.9467 µg/L      11.44705      7.9467 ppb       11.44705 144.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     83.3      17.029 µg/L        4.7981      17.029 ppb         4.7981  28.18%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               33.1      2.6166 µg/L       0.97133      2.6166 ppb        0.97133  37.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.1     -0.0456 µg/L       2.56888     -0.0456 ppb        2.56888 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               20.6      0.1998 µg/L       0.15910      0.1998 ppb        0.15910  79.64%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               73.9      0.1700 µg/L       0.07236      0.1700 ppb        0.07236  42.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -3.2     -4.3873 µg/L       0.32835     -4.3873 ppb        0.32835   7.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 4.8      0.3970 µg/L       2.05265      0.3970 ppb        2.05265 517.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -11.7     -0.1163 µg/L       0.06956     -0.1163 ppb        0.06956  59.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                3.5      0.0831 µg/L       0.13106      0.0831 ppb        0.13106 157.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 01:52:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55925.8	55925.8	101	%			01:53:29
1	Al 396.153Radial†	7048.3	6964.9	4937.8	µg/L	4937.8	ppb	01:53:29
1	Ca 317.933Radial†	5671.9	5402.4	4886.4	µg/L	4886.4	ppb	01:53:49
1	Fe 238.204 Radial†	600.6	577.1	5059.4	µg/L	5059.4	ppb	01:53:49
1	K 766.490 Radial†	7769.6	7517.6	5037.3	µg/L	5037.3	ppb	01:53:29
1	Mg 279.077 IEC†	554.0	534.9	4998.4	µg/L	4998.4	ppb	01:53:49
1	Na 589.592 Radial†	33411.6	32713.1	9944.3	µg/L	9944.3	ppb	01:53:29
1	Sr 421.552†	51883.5	51366.9	497.29	µg/L	497.29	ppb	01:53:29
1	Sc 361.383	1997208.3	1997208.3	102.54	%			01:54:53
1	Y 371.029	1374158.4	1374158.4	102.75	%			01:54:53
1	Ag 328.068†	66897.6	65752.1	500.04	µg/L	500.04	ppb	01:54:58
1	As 188.979†	284.2	276.3	519.76	µg/L	519.76	ppb	01:55:19
1	B 249.677†	12317.2	11699.3	490.32	µg/L	490.32	ppb	01:54:58
1	Ba 233.527†	20315.0	19837.6	502.06	µg/L	502.06	ppb	01:54:58
1	Be 313.107†	835517.4	818470.2	506.25	µg/L	506.25	ppb	01:54:53
1	Cd 226.502†	19511.7	19152.0	510.05	µg/L	510.05	ppb	01:54:58
1	Co 228.616†	10881.3	10617.8	505.18	µg/L	505.18	ppb	01:54:58
1	Cr 267.716†	24636.4	24052.6	507.82	µg/L	507.82	ppb	01:54:58
1	Cu 324.752†	79728.9	74525.0	492.94	µg/L	492.94	ppb	01:54:58
1	Mn 257.610†	158384.9	154706.7	514.18	µg/L	514.18	ppb	01:54:53
1	Mo 202.031†	5182.2	5052.8	523.18	µg/L	523.18	ppb	01:55:19
1	Ni 231.604†	10276.2	9741.1	509.67	µg/L	509.67	ppb	01:54:58
1	P 214.914†	1297.0	1237.4	2530.9	µg/L	2530.9	ppb	01:55:19
1	Pb 220.353†	2155.7	2012.0	516.11	µg/L	516.11	ppb	01:55:19
1	S 181.975 Axial†	265.5	243.9	1051.9	µg/L	1051.9	ppb	01:55:19
1	Sb 206.836†	586.8	551.2	523.19	µg/L	523.19	ppb	01:55:19
1	Se 196.026†	381.2	359.8	532.67	µg/L	532.67	ppb	01:55:19
1	SiO2†	28251.9	26040.7	5326.5	µg/L	5326.5	ppb	01:54:58
1	Si 251.611†	32510.8	31421.2	2485.1	µg/L	2485.1	ppb	01:54:58
1	Sn 189.927†	1211.9	1181.0	525.72	µg/L	525.72	ppb	01:55:19
1	Ti 334.940†	226399.9	220651.4	502.72	µg/L	502.72	ppb	01:54:53
1	Tl 190.801†	359.3	371.0	518.80	µg/L	518.80	ppb	01:55:19
1	U 409.014†	6335.0	5952.8	486.08	µg/L	486.08	ppb	01:54:58
1	V 292.402†	50978.9	49764.5	508.26	µg/L	508.26	ppb	01:54:58
1	Zn 213.857†	21967.4	20957.8	508.32	µg/L	508.32	ppb	01:54:58
2	Sc RADIAL	56103.2	56103.2	101	%			01:53:55
2	Al 396.153Radial†	7057.3	6951.6	4928.6	µg/L	4928.6	ppb	01:53:55
2	Ca 317.933Radial†	5654.2	5367.2	4854.6	µg/L	4854.6	ppb	01:54:15
2	Fe 238.204 Radial†	599.6	574.2	5034.4	µg/L	5034.4	ppb	01:54:15
2	K 766.490 Radial†	7680.4	7405.2	4962.0	µg/L	4962.0	ppb	01:53:55
2	Mg 279.077 IEC†	554.3	533.5	4985.2	µg/L	4985.2	ppb	01:54:15
2	Na 589.592 Radial†	33447.3	32643.7	9923.2	µg/L	9923.2	ppb	01:53:55
2	Sr 421.552†	51885.7	51206.5	495.74	µg/L	495.74	ppb	01:53:55
2	Sc 361.383	2001697.7	2001697.7	102.77	%			01:55:26
2	Y 371.029	1378206.7	1378206.7	103.06	%			01:55:26
2	Ag 328.068†	66870.5	65579.4	498.74	µg/L	498.74	ppb	01:55:32
2	As 188.979†	279.5	271.2	510.09	µg/L	510.09	ppb	01:55:52
2	B 249.677†	12234.0	11591.4	485.79	µg/L	485.79	ppb	01:55:32
2	Ba 233.527†	20359.8	19836.8	502.04	µg/L	502.04	ppb	01:55:32
2	Be 313.107†	839269.9	820294.1	507.38	µg/L	507.38	ppb	01:55:26
2	Cd 226.502†	19545.0	19141.7	509.77	µg/L	509.77	ppb	01:55:32
2	Co 228.616†	10900.7	10612.9	504.94	µg/L	504.94	ppb	01:55:32
2	Cr 267.716†	24741.0	24100.4	508.83	µg/L	508.83	ppb	01:55:32
2	Cu 324.752†	79788.1	74408.2	492.17	µg/L	492.17	ppb	01:55:32
2	Mn 257.610†	158917.1	154878.0	514.75	µg/L	514.75	ppb	01:55:26
2	Mo 202.031†	5081.1	4943.1	511.83	µg/L	511.83	ppb	01:55:52
2	Ni 231.604†	10244.4	9687.7	506.87	µg/L	506.87	ppb	01:55:32
2	P 214.914†	1288.9	1226.6	2508.5	µg/L	2508.5	ppb	01:55:52
2	Pb 220.353†	2136.4	1988.5	510.04	µg/L	510.04	ppb	01:55:52

2	S 181.975 Axial†	255.0	233.0	1005.0 µg/L	1005.0 ppb	01:55:52
2	Sb 206.836†	576.6	540.0	512.41 µg/L	512.41 ppb	01:55:52
2	Se 196.026†	374.5	352.4	521.88 µg/L	521.88 ppb	01:55:52
2	SiO2†	28313.1	26038.4	5326.0 µg/L	5326.0 ppb	01:55:32
2	Si 251.611†	32590.8	31428.0	2485.6 µg/L	2485.6 ppb	01:55:32
2	Sn 189.927†	1189.9	1157.0	515.00 µg/L	515.00 ppb	01:55:52
2	Ti 334.940†	227159.9	220895.7	503.27 µg/L	503.27 ppb	01:55:26
2	Tl 190.801†	351.3	362.4	506.89 µg/L	506.89 ppb	01:55:52
2	U 409.014†	6389.5	5992.0	489.29 µg/L	489.29 ppb	01:55:32
2	V 292.402†	51110.8	49781.2	508.34 µg/L	508.34 ppb	01:55:32
2	Zn 213.857†	21997.5	20939.0	507.88 µg/L	507.88 ppb	01:55:32
3	Sc RADIAL	56225.1	56225.1	102 %		01:54:21
3	Al 396.153Radial†	7064.7	6943.8	4924.8 µg/L	4924.8 ppb	01:54:21
3	Ca 317.933Radial†	5705.5	5405.6	4889.2 µg/L	4889.2 ppb	01:54:41
3	Fe 238.204 Radial†	605.3	578.5	5071.2 µg/L	5071.2 ppb	01:54:41
3	K 766.490 Radial†	7722.3	7430.1	4978.6 µg/L	4978.6 ppb	01:54:21
3	Mg 279.077 IEC†	554.6	532.6	4974.9 µg/L	4974.9 ppb	01:54:41
3	Na 589.592 Radial†	33538.6	32662.0	9928.7 µg/L	9928.7 ppb	01:54:21
3	Sr 421.552†	52161.4	51367.1	497.29 µg/L	497.29 ppb	01:54:21
3	Sc 361.383	1998414.5	1998414.5	102.60 %		01:55:59
3	Y 371.029	1376588.1	1376588.1	102.94 %		01:55:59
3	Ag 328.068†	62809.0	61727.7	469.29 µg/L	469.29 ppb	01:56:05
3	As 188.979†	237.0	230.2	433.04 µg/L	433.04 ppb	01:56:25
3	B 249.677†	11489.9	10885.7	455.99 µg/L	455.99 ppb	01:56:05
3	Ba 233.527†	18448.2	18006.1	455.69 µg/L	455.69 ppb	01:56:05
3	Be 313.107†	773803.1	757827.9	468.74 µg/L	468.74 ppb	01:55:59
3	Cd 226.502†	17689.0	17364.0	462.37 µg/L	462.37 ppb	01:56:05
3	Co 228.616†	9750.3	9509.0	452.37 µg/L	452.37 ppb	01:56:05
3	Cr 267.716†	21554.5	21034.2	444.10 µg/L	444.10 ppb	01:56:05
3	Cu 324.752†	72011.7	66956.4	442.95 µg/L	442.95 ppb	01:56:05
3	Mn 257.610†	146817.4	143339.0	476.44 µg/L	476.44 ppb	01:55:59
3	Mo 202.031†	4237.4	4128.9	427.56 µg/L	427.56 ppb	01:56:25
3	Ni 231.604†	9231.4	8716.8	456.08 µg/L	456.08 ppb	01:56:05
3	P 214.914†	1092.7	1037.5	2118.2 µg/L	2118.2 ppb	01:56:25
3	Pb 220.353†	1851.3	1714.0	439.58 µg/L	439.58 ppb	01:56:25
3	S 181.975 Axial†	225.9	205.1	884.76 µg/L	884.76 ppb	01:56:25
3	Sb 206.836†	483.6	450.2	426.96 µg/L	426.96 ppb	01:56:25
3	Se 196.026†	329.3	309.0	458.70 µg/L	458.70 ppb	01:56:25
3	SiO2†	26213.1	24036.9	4916.6 µg/L	4916.6 ppb	01:56:05
3	Si 251.611†	30039.3	28993.2	2293.1 µg/L	2293.1 ppb	01:56:05
3	Sn 189.927†	976.1	950.5	423.12 µg/L	423.12 ppb	01:56:25
3	Ti 334.940†	208005.7	202590.1	461.54 µg/L	461.54 ppb	01:55:59
3	Tl 190.801†	312.2	324.9	454.68 µg/L	454.68 ppb	01:56:25
3	U 409.014†	5603.5	5236.2	427.43 µg/L	427.43 ppb	01:56:05
3	V 292.402†	45339.2	44237.6	451.57 µg/L	451.57 ppb	01:56:05
3	Zn 213.857†	19788.1	18820.8	456.45 µg/L	456.45 ppb	01:56:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1999106.8	102.64	%	0.119				0.12%
Sc RADIAL	56084.7	101	%	0.3				0.27%
Y 371.029	1376317.8	102.92	%	0.152				0.15%
Ag 328.068†	64353.1	489.36	µg/L	17.389	489.36	ppb	17.389	3.55%
QC value within limits for Ag 328.068 Recovery = 97.87%								
Al 396.153Radial†	6953.4	4930.4	µg/L	6.68	4930.4	ppb	6.68	0.14%
QC value within limits for Al 396.153Radial Recovery = 98.61%								
As 188.979†	259.3	487.63	µg/L	47.524	487.63	ppb	47.524	9.75%
QC value within limits for As 188.979 Recovery = 97.53%								
B 249.677†	11392.1	477.37	µg/L	18.653	477.37	ppb	18.653	3.91%
QC value within limits for B 249.677 Recovery = 95.47%								
Ba 233.527†	19226.8	486.60	µg/L	26.766	486.60	ppb	26.766	5.50%
QC value within limits for Ba 233.527 Recovery = 97.32%								
Be 313.107†	798864.0	494.12	µg/L	21.988	494.12	ppb	21.988	4.45%
QC value within limits for Be 313.107 Recovery = 98.82%								
Ca 317.933Radial†	5391.7	4876.7	µg/L	19.24	4876.7	ppb	19.24	0.39%
QC value within limits for Ca 317.933Radial Recovery = 97.53%								
Cd 226.502†	18552.6	494.07	µg/L	27.448	494.07	ppb	27.448	5.56%
QC value within limits for Cd 226.502 Recovery = 98.81%								
Co 228.616†	10246.6	487.50	µg/L	30.423	487.50	ppb	30.423	6.24%

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   QC value within limits for Co 228.616  Recovery = 97.50%
Cr 267.716†            23062.4      486.91 µg/L        37.084      486.91 ppb         37.084   7.62%
   QC value within limits for Cr 267.716  Recovery = 97.38%
Cu 324.752†            71963.2      476.02 µg/L        28.640      476.02 ppb         28.640   6.02%
   QC value within limits for Cu 324.752  Recovery = 95.20%
Fe 238.204 Radial†       576.6      5055.0 µg/L         18.79      5055.0 ppb          18.79   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.10%
K 766.490 Radial†       7451.0      4992.6 µg/L         39.57      4992.6 ppb          39.57   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 99.85%
Mg 279.077 IEC†          533.7      4986.2 µg/L         11.82      4986.2 ppb          11.82   0.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.72%
Mn 257.610†           150974.6      501.79 µg/L        21.957      501.79 ppb         21.957   4.38%
   QC value within limits for Mn 257.610  Recovery = 100.36%
Mo 202.031†             4708.3      487.52 µg/L        52.240      487.52 ppb         52.240  10.72%
   QC value within limits for Mo 202.031  Recovery = 97.50%
Na 589.592 Radial†     32673.0      9932.0 µg/L         10.94      9932.0 ppb          10.94   0.11%
   QC value within limits for Na 589.592 Radial  Recovery = 99.32%
Ni 231.604†             9381.9      490.87 µg/L        30.164      490.87 ppb         30.164   6.14%
   QC value within limits for Ni 231.604  Recovery = 98.17%
P 214.914†              1167.2      2385.9 µg/L        232.05      2385.9 ppb         232.05   9.73%
   QC value within limits for P 214.914  Recovery = 95.43%
Pb 220.353†             1904.8      488.58 µg/L        42.541      488.58 ppb         42.541   8.71%
   QC value within limits for Pb 220.353  Recovery = 97.72%
S 181.975 Axial†         227.3      980.57 µg/L        86.226      980.57 ppb         86.226   8.79%
   QC value within limits for S 181.975 Axial  Recovery = 98.06%
Sb 206.836†              513.8      487.52 µg/L        52.724      487.52 ppb         52.724  10.81%
   QC value within limits for Sb 206.836  Recovery = 97.50%
Se 196.026†              340.4      504.42 µg/L        39.958      504.42 ppb         39.958   7.92%
   QC value within limits for Se 196.026  Recovery = 100.88%
SiO2†                  25372.0      5189.7 µg/L        236.50      5189.7 ppb         236.50   4.56%
   QC value within limits for SiO2  Recovery = 97.05%
Si 251.611†            30614.1      2421.3 µg/L        111.02      2421.3 ppb         111.02   4.59%
   QC value within limits for Si 251.611  Recovery = 96.85%
Sn 189.927†             1096.2      487.94 µg/L        56.398      487.94 ppb         56.398  11.56%
   QC value within limits for Sn 189.927  Recovery = 97.59%
Sr 421.552†            51313.5      496.77 µg/L         0.897      496.77 ppb          0.897   0.18%
   QC value within limits for Sr 421.552  Recovery = 99.35%
Ti 334.940†           214712.4      489.18 µg/L        23.934      489.18 ppb         23.934   4.89%
   QC value within limits for Ti 334.940  Recovery = 97.84%
Tl 190.801†              352.8      493.46 µg/L        34.108      493.46 ppb         34.108   6.91%
   QC value within limits for Tl 190.801  Recovery = 98.69%
U 409.014†              5727.0      467.60 µg/L        34.822      467.60 ppb         34.822   7.45%
   QC value within limits for U 409.014  Recovery = 93.52%
V 292.402†             47927.8      489.39 µg/L        32.755      489.39 ppb         32.755   6.69%
   QC value within limits for V 292.402  Recovery = 97.88%
Zn 213.857†            20239.2      490.88 µg/L        29.825      490.88 ppb         29.825   6.08%
   QC value within limits for Zn 213.857  Recovery = 98.18%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 01:56:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55228.8	55228.8	99.7	%			01:57:08
1	Al 396.153Radial†	-32.8	-48.9	-34.769	µg/L	-34.769	ppb	01:57:08
1	Ca 317.933Radial†	177.6	-37.1	-33.513	µg/L	-33.513	ppb	01:57:28
1	Fe 238.204 Radial†	17.5	-0.3	-2.2816	µg/L	-2.2816	ppb	01:57:28
1	K 766.490 Radial†	181.6	4.6	3.0890	µg/L	3.0890	ppb	01:57:08
1	Mg 279.077 IEC†	9.7	-4.1	-37.912	µg/L	-37.912	ppb	01:57:28
1	Na 589.592 Radial†	388.0	10.4	3.1698	µg/L	3.1698	ppb	01:57:08
1	Sr 421.552†	52.5	32.6	0.3157	µg/L	0.3157	ppb	01:57:08
1	Sc 361.383	1995438.6	1995438.6	102.45	%			01:58:30
1	Y 371.029	1378034.2	1378034.2	103.04	%			01:58:30
1	Ag 328.068†	-447.1	73.8	0.5569	µg/L	0.5569	ppb	01:58:36
1	As 188.979†	-3.9	-4.6	-8.6326	µg/L	-8.6326	ppb	01:58:57
1	B 249.677†	325.9	5.0	0.2113	µg/L	0.2113	ppb	01:58:57
1	Ba 233.527†	-20.1	5.8	0.1460	µg/L	0.1460	ppb	01:58:57
1	Be 313.107†	-3712.6	9.0	0.0056	µg/L	0.0056	ppb	01:58:36
1	Cd 226.502†	-138.1	-11.6	-0.3081	µg/L	-0.3081	ppb	01:58:57
1	Co 228.616†	-1.0	4.8	0.2313	µg/L	0.2313	ppb	01:58:57
1	Cr 267.716†	-45.0	-18.0	-0.3795	µg/L	-0.3795	ppb	01:58:36
1	Cu 324.752†	3322.8	12.9	0.0851	µg/L	0.0851	ppb	01:58:36
1	Mn 257.610†	-239.2	8.4	0.0293	µg/L	0.0293	ppb	01:58:57
1	Mo 202.031†	3.3	2.1	0.2134	µg/L	0.2134	ppb	01:58:57
1	Ni 231.604†	294.0	6.3	0.3282	µg/L	0.3282	ppb	01:58:57
1	P 214.914†	13.7	-14.2	-29.597	µg/L	-29.597	ppb	01:58:57
1	Pb 220.353†	94.1	1.5	0.3817	µg/L	0.3817	ppb	01:58:57
1	S 181.975 Axial†	13.3	-2.1	-9.0920	µg/L	-9.0920	ppb	01:58:57
1	Sb 206.836†	21.0	-0.6	-0.5657	µg/L	-0.5657	ppb	01:58:57
1	Se 196.026†	12.8	0.6	0.8622	µg/L	0.8622	ppb	01:58:57
1	SiO2†	1593.7	43.7	8.9397	µg/L	8.9397	ppb	01:58:36
1	Si 251.611†	307.6	15.3	1.2125	µg/L	1.2125	ppb	01:58:57
1	Sn 189.927†	-3.7	-4.5	-1.9851	µg/L	-1.9851	ppb	01:58:57
1	Ti 334.940†	130.1	-17.9	-0.0383	µg/L	-0.0383	ppb	01:58:36
1	Tl 190.801†	-18.3	2.7	3.7884	µg/L	3.7884	ppb	01:58:57
1	U 409.014†	233.4	2.5	0.2040	µg/L	0.2040	ppb	01:58:36
1	V 292.402†	-55.6	-6.9	-0.0694	µg/L	-0.0694	ppb	01:58:36
1	Zn 213.857†	556.8	77.6	1.8966	µg/L	1.8966	ppb	01:58:57
2	Sc RADIAL	55208.5	55208.5	99.7	%			01:57:34
2	Al 396.153Radial†	-2.8	-18.8	-13.367	µg/L	-13.367	ppb	01:57:34
2	Ca 317.933Radial†	182.8	-31.8	-28.735	µg/L	-28.735	ppb	01:57:54
2	Fe 238.204 Radial†	17.4	-0.3	-2.4906	µg/L	-2.4906	ppb	01:57:54
2	K 766.490 Radial†	145.5	-31.6	-21.179	µg/L	-21.179	ppb	01:57:34
2	Mg 279.077 IEC†	12.4	-1.3	-11.837	µg/L	-11.837	ppb	01:57:54
2	Na 589.592 Radial†	367.9	-9.6	-2.9122	µg/L	-2.9122	ppb	01:57:34
2	Sr 421.552†	39.1	19.2	0.1859	µg/L	0.1859	ppb	01:57:34
2	Sc 361.383	1984790.4	1984790.4	101.90	%			01:59:03
2	Y 371.029	1371063.4	1371063.4	102.52	%			01:59:03
2	Ag 328.068†	-456.0	62.8	0.4760	µg/L	0.4760	ppb	01:59:08
2	As 188.979†	0.4	-0.4	-0.6880	µg/L	-0.6880	ppb	01:59:29
2	B 249.677†	320.3	1.2	0.0516	µg/L	0.0516	ppb	01:59:29
2	Ba 233.527†	-10.8	14.8	0.3736	µg/L	0.3736	ppb	01:59:29
2	Be 313.107†	-3688.8	12.9	0.0080	µg/L	0.0080	ppb	01:59:08
2	Cd 226.502†	-137.9	-12.2	-0.3232	µg/L	-0.3232	ppb	01:59:29
2	Co 228.616†	7.3	13.0	0.6175	µg/L	0.6175	ppb	01:59:29
2	Cr 267.716†	-28.2	-1.7	-0.0360	µg/L	-0.0360	ppb	01:59:08
2	Cu 324.752†	3355.1	62.0	0.4091	µg/L	0.4091	ppb	01:59:08
2	Mn 257.610†	-240.0	6.4	0.0215	µg/L	0.0215	ppb	01:59:29
2	Mo 202.031†	5.4	4.2	0.4333	µg/L	0.4333	ppb	01:59:29
2	Ni 231.604†	290.8	4.6	0.2410	µg/L	0.2410	ppb	01:59:29
2	P 214.914†	19.8	-8.1	-16.997	µg/L	-16.997	ppb	01:59:29
2	Pb 220.353†	84.7	-7.3	-1.8697	µg/L	-1.8697	ppb	01:59:29

2	S 181.975 Axial†	17.9	2.5	10.827 µg/L	10.827 ppb	01:59:29
2	Sb 206.836†	22.7	1.2	1.1111 µg/L	1.1111 ppb	01:59:29
2	Se 196.026†	14.1	1.9	2.7487 µg/L	2.7487 ppb	01:59:29
2	SiO2†	1626.1	83.8	17.135 µg/L	17.135 ppb	01:59:08
2	Si 251.611†	316.4	25.6	2.0276 µg/L	2.0276 ppb	01:59:29
2	Sn 189.927†	0.6	-0.3	-0.1175 µg/L	-0.1175 ppb	01:59:29
2	Ti 334.940†	113.8	-33.1	-0.0751 µg/L	-0.0751 ppb	01:59:08
2	Tl 190.801†	-25.6	-4.6	-6.2941 µg/L	-6.2941 ppb	01:59:29
2	U 409.014†	270.2	39.8	3.2616 µg/L	3.2616 ppb	01:59:08
2	V 292.402†	-15.8	31.8	0.3271 µg/L	0.3271 ppb	01:59:08
2	Zn 213.857†	550.9	74.7	1.8245 µg/L	1.8245 ppb	01:59:29
3	Sc RADIAL	55830.9	55830.9	101 %		01:58:00
3	Al 396.153Radial†	-0.2	-16.2	-11.535 µg/L	-11.535 ppb	01:58:00
3	Ca 317.933Radial†	189.6	-27.1	-24.496 µg/L	-24.496 ppb	01:58:20
3	Fe 238.204 Radial†	17.9	0.0	0.1702 µg/L	0.1702 ppb	01:58:20
3	K 766.490 Radial†	180.9	1.9	1.3064 µg/L	1.3064 ppb	01:58:00
3	Mg 279.077 IEC†	10.7	-3.1	-28.884 µg/L	-28.884 ppb	01:58:20
3	Na 589.592 Radial†	389.2	7.4	2.2453 µg/L	2.2453 ppb	01:58:00
3	Sr 421.552†	64.0	43.5	0.4207 µg/L	0.4207 ppb	01:58:00
3	Sc 361.383	1982800.4	1982800.4	101.80 %		01:59:35
3	Y 371.029	1369823.9	1369823.9	102.43 %		01:59:35
3	Ag 328.068†	-418.9	98.7	0.7428 µg/L	0.7428 ppb	01:59:40
3	As 188.979†	-5.0	-5.7	-10.719 µg/L	-10.719 ppb	02:00:01
3	B 249.677†	307.3	-11.3	-0.4736 µg/L	-0.4736 ppb	02:00:01
3	Ba 233.527†	-17.3	8.4	0.2114 µg/L	0.2114 ppb	02:00:01
3	Be 313.107†	-3700.1	-1.9	-0.0012 µg/L	-0.0012 ppb	01:59:40
3	Cd 226.502†	-130.4	-4.9	-0.1307 µg/L	-0.1307 ppb	02:00:01
3	Co 228.616†	0.4	6.2	0.2941 µg/L	0.2941 ppb	02:00:01
3	Cr 267.716†	-30.4	-3.9	-0.0829 µg/L	-0.0829 ppb	01:59:40
3	Cu 324.752†	3371.0	81.0	0.5349 µg/L	0.5349 ppb	01:59:40
3	Mn 257.610†	-236.3	9.8	0.0337 µg/L	0.0337 ppb	02:00:01
3	Mo 202.031†	-0.1	-1.2	-0.1234 µg/L	-0.1234 ppb	02:00:01
3	Ni 231.604†	289.6	3.7	0.1957 µg/L	0.1957 ppb	02:00:01
3	P 214.914†	20.4	-7.5	-15.785 µg/L	-15.785 ppb	02:00:01
3	Pb 220.353†	98.3	6.2	1.5868 µg/L	1.5868 ppb	02:00:01
3	S 181.975 Axial†	16.4	1.0	4.2965 µg/L	4.2965 ppb	02:00:01
3	Sb 206.836†	25.1	3.6	3.3634 µg/L	3.3634 ppb	02:00:01
3	Se 196.026†	19.5	7.2	10.485 µg/L	10.485 ppb	02:00:01
3	SiO2†	1592.8	52.7	10.776 µg/L	10.776 ppb	01:59:40
3	Si 251.611†	326.0	35.3	2.7954 µg/L	2.7954 ppb	02:00:01
3	Sn 189.927†	1.3	0.4	0.1743 µg/L	0.1743 ppb	02:00:01
3	Ti 334.940†	206.4	58.0	0.1340 µg/L	0.1340 ppb	01:59:40
3	Tl 190.801†	-24.0	-3.0	-4.1356 µg/L	-4.1356 ppb	02:00:01
3	U 409.014†	290.8	60.3	4.9381 µg/L	4.9381 ppb	01:59:40
3	V 292.402†	-89.8	-40.9	-0.4089 µg/L	-0.4089 ppb	01:59:40
3	Zn 213.857†	538.4	62.9	1.5371 µg/L	1.5371 ppb	02:00:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1987676.5	102.05	%	0.349				0.34%
Sc RADIAL	55422.8	100	%	0.6				0.64%
Y 371.029	1372973.8	102.67	%	0.331				0.32%
Ag 328.068†	78.5	0.5919	µg/L	0.13682	0.5919	ppb	0.13682	23.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-28.0	-19.890	µg/L	12.9180	-19.890	ppb	12.9180	64.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.5	-6.6798	µg/L	5.29291	-6.6798	ppb	5.29291	79.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-1.7	-0.0702	µg/L	0.35836	-0.0702	ppb	0.35836	510.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.6	0.2437	µg/L	0.11719	0.2437	ppb	0.11719	48.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	6.7	0.0041	µg/L	0.00478	0.0041	ppb	0.00478	115.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-32.0	-28.915	µg/L	4.5111	-28.915	ppb	4.5111	15.60%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-9.6	-0.2540	µg/L	0.10706	-0.2540	ppb	0.10706	42.15%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.3810	µg/L	0.20723	0.3810	ppb	0.20723	54.40%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.9     -0.1661 µg/L       0.18629     -0.1661 ppb        0.18629 112.14%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                52.0      0.3430 µg/L       0.23205      0.3430 ppb        0.23205  67.65%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.2     -1.5340 µg/L       1.47954     -1.5340 ppb        1.47954  96.45%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -8.3     -5.5946 µg/L      13.52608     -5.5946 ppb       13.52608 241.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8     -26.211 µg/L       13.2411     -26.211 ppb        13.2411  50.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 8.2      0.0281 µg/L       0.00621      0.0281 ppb        0.00621  22.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.7      0.1744 µg/L       0.28035      0.1744 ppb        0.28035 160.73%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          2.7      0.8343 µg/L       3.27735      0.8343 ppb        3.27735 392.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.9      0.2550 µg/L       0.06736      0.2550 ppb        0.06736  26.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -10.0     -20.793 µg/L        7.6485     -20.793 ppb         7.6485  36.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.1      0.0330 µg/L       1.75444      0.0330 ppb        1.75444 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.5      2.0105 µg/L      10.15429      2.0105 ppb       10.15429 505.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      1.3029 µg/L       1.97158      1.3029 ppb        1.97158 151.32%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.2      4.6987 µg/L       5.09922      4.6987 ppb        5.09922 108.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      60.1      12.284 µg/L        4.3009      12.284 ppb         4.3009  35.01%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                25.4      2.0118 µg/L       0.79155      2.0118 ppb        0.79155  39.35%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.4     -0.6428 µg/L       1.17159     -0.6428 ppb        1.17159 182.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.8      0.3074 µg/L       0.11758      0.3074 ppb        0.11758  38.25%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 2.3      0.0069 µg/L       0.11163      0.0069 ppb        0.11163 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.6     -2.2138 µg/L       5.30888     -2.2138 ppb        5.30888 239.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 34.2      2.8012 µg/L       2.40039      2.8012 ppb        2.40039  85.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -5.4     -0.0504 µg/L       0.36835     -0.0504 ppb        0.36835 731.01%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                71.8      1.7527 µg/L       0.19022      1.7527 ppb        0.19022  10.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 02:32:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55242.9	55242.9	99.7	%			02:33:29
1	Al 396.153Radial†	7005.1	7007.8	4968.2	µg/L	4968.2	ppb	02:33:29
1	Ca 317.933Radial†	5616.7	5416.6	4899.2	µg/L	4899.2	ppb	02:33:49
1	Fe 238.204 Radial†	597.7	581.5	5098.7	µg/L	5098.7	ppb	02:33:49
1	K 766.490 Radial†	7713.8	7556.8	5063.5	µg/L	5063.5	ppb	02:33:29
1	Mg 279.077 IEC†	556.0	543.7	5080.7	µg/L	5080.7	ppb	02:33:49
1	Na 589.592 Radial†	33169.2	32879.1	9994.7	µg/L	9994.7	ppb	02:33:29
1	Sr 421.552†	51494.0	51611.6	499.66	µg/L	499.66	ppb	02:33:29
1	Sc 361.383	1979557.0	1979557.0	101.63	%			02:34:53
1	Y 371.029	1360714.3	1360714.3	101.75	%			02:34:53
1	Ag 328.068†	67465.6	66892.7	508.72	µg/L	508.72	ppb	02:34:59
1	As 188.979†	278.8	273.6	514.52	µg/L	514.52	ppb	02:35:19
1	B 249.677†	12435.0	11922.3	499.70	µg/L	499.70	ppb	02:34:59
1	Ba 233.527†	20629.9	20324.0	514.37	µg/L	514.37	ppb	02:34:59
1	Be 313.107†	837176.3	827368.2	511.75	µg/L	511.75	ppb	02:34:53
1	Cd 226.502†	19784.2	19589.7	521.71	µg/L	521.71	ppb	02:34:59
1	Co 228.616†	11036.2	10864.9	516.94	µg/L	516.94	ppb	02:34:59
1	Cr 267.716†	24901.8	24527.9	517.85	µg/L	517.85	ppb	02:34:59
1	Cu 324.752†	80532.3	76008.9	502.75	µg/L	502.75	ppb	02:34:59
1	Mn 257.610†	158726.7	156420.3	519.87	µg/L	519.87	ppb	02:34:53
1	Mo 202.031†	5178.3	5094.1	527.45	µg/L	527.45	ppb	02:35:19
1	Ni 231.604†	10365.5	9918.4	518.94	µg/L	518.94	ppb	02:34:59
1	P 214.914†	1299.5	1251.1	2558.5	µg/L	2558.5	ppb	02:35:19
1	Pb 220.353†	2162.8	2037.7	522.67	µg/L	522.67	ppb	02:35:19
1	S 181.975 Axial†	258.4	239.2	1031.7	µg/L	1031.7	ppb	02:35:19
1	Sb 206.836†	577.9	547.6	519.71	µg/L	519.71	ppb	02:35:19
1	Se 196.026†	377.7	359.7	532.51	µg/L	532.51	ppb	02:35:19
1	SiO2†	28549.4	26579.0	5436.6	µg/L	5436.6	ppb	02:34:59
1	Si 251.611†	32863.2	32050.6	2534.9	µg/L	2534.9	ppb	02:34:59
1	Sn 189.927†	1207.0	1186.8	528.29	µg/L	528.29	ppb	02:35:19
1	Ti 334.940†	226787.1	223001.2	508.07	µg/L	508.07	ppb	02:34:53
1	Tl 190.801†	354.6	369.5	516.74	µg/L	516.74	ppb	02:35:19
1	U 409.014†	6460.1	6131.0	500.65	µg/L	500.65	ppb	02:34:59
1	V 292.402†	51431.6	50653.2	517.30	µg/L	517.30	ppb	02:34:59
1	Zn 213.857†	22301.8	21477.8	520.96	µg/L	520.96	ppb	02:34:59
2	Sc RADIAL	55451.1	55451.1	100	%			02:33:55
2	Al 396.153Radial†	7033.4	7009.7	4969.6	µg/L	4969.6	ppb	02:33:55
2	Ca 317.933Radial†	5628.1	5406.8	4890.4	µg/L	4890.4	ppb	02:34:15
2	Fe 238.204 Radial†	596.8	578.3	5070.7	µg/L	5070.7	ppb	02:34:15
2	K 766.490 Radial†	7709.9	7523.9	5041.5	µg/L	5041.5	ppb	02:33:55
2	Mg 279.077 IEC†	553.1	538.7	5033.6	µg/L	5033.6	ppb	02:34:15
2	Na 589.592 Radial†	33297.7	32882.6	9995.8	µg/L	9995.8	ppb	02:33:55
2	Sr 421.552†	51689.4	51612.9	499.67	µg/L	499.67	ppb	02:33:55
2	Sc 361.383	1969970.4	1969970.4	101.14	%			02:35:26
2	Y 371.029	1354821.0	1354821.0	101.31	%			02:35:26
2	Ag 328.068†	67269.4	67021.8	509.70	µg/L	509.70	ppb	02:35:32
2	As 188.979†	276.2	272.3	512.10	µg/L	512.10	ppb	02:35:52
2	B 249.677†	12396.0	11943.3	500.60	µg/L	500.60	ppb	02:35:32
2	Ba 233.527†	20538.1	20332.1	514.57	µg/L	514.57	ppb	02:35:32
2	Be 313.107†	832917.2	827165.7	511.63	µg/L	511.63	ppb	02:35:26
2	Cd 226.502†	19707.0	19608.2	522.21	µg/L	522.21	ppb	02:35:32
2	Co 228.616†	10988.9	10870.9	517.23	µg/L	517.23	ppb	02:35:32
2	Cr 267.716†	24881.8	24627.4	519.95	µg/L	519.95	ppb	02:35:32
2	Cu 324.752†	80130.5	75997.2	502.67	µg/L	502.67	ppb	02:35:32
2	Mn 257.610†	157683.3	156148.6	518.97	µg/L	518.97	ppb	02:35:26
2	Mo 202.031†	5096.8	5038.3	521.68	µg/L	521.68	ppb	02:35:52
2	Ni 231.604†	10323.4	9926.3	519.35	µg/L	519.35	ppb	02:35:32
2	P 214.914†	1282.6	1240.6	2536.7	µg/L	2536.7	ppb	02:35:52
2	Pb 220.353†	2147.6	2033.0	521.47	µg/L	521.47	ppb	02:35:52

2	S 181.975 Axial†	257.4	239.4	1032.6 µg/L	1032.6 ppb	02:35:52
2	Sb 206.836†	571.9	544.4	516.62 µg/L	516.62 ppb	02:35:52
2	Se 196.026†	372.3	356.1	527.33 µg/L	527.33 ppb	02:35:52
2	SiO2†	28544.3	26710.7	5463.6 µg/L	5463.6 ppb	02:35:32
2	Si 251.611†	32769.7	32115.6	2540.0 µg/L	2540.0 ppb	02:35:32
2	Sn 189.927†	1196.1	1181.8	526.07 µg/L	526.07 ppb	02:35:52
2	Ti 334.940†	225486.8	222801.4	507.61 µg/L	507.61 ppb	02:35:26
2	Tl 190.801†	352.2	368.8	515.74 µg/L	515.74 ppb	02:35:52
2	U 409.014†	6318.4	6021.9	491.72 µg/L	491.72 ppb	02:35:32
2	V 292.402†	51324.5	50793.6	518.66 µg/L	518.66 ppb	02:35:32
2	Zn 213.857†	22259.9	21543.2	522.56 µg/L	522.56 ppb	02:35:32
3	Sc RADIAL	55281.6	55281.6	99.8 %		02:34:21
3	Al 396.153Radial†	6994.7	6992.5	4959.2 µg/L	4959.2 ppb	02:34:21
3	Ca 317.933Radial†	5638.6	5434.5	4915.4 µg/L	4915.4 ppb	02:34:41
3	Fe 238.204 Radial†	599.9	583.3	5113.1 µg/L	5113.1 ppb	02:34:41
3	K 766.490 Radial†	7717.6	7555.3	5062.5 µg/L	5062.5 ppb	02:34:21
3	Mg 279.077 IEC†	550.9	538.3	5027.9 µg/L	5027.9 ppb	02:34:41
3	Na 589.592 Radial†	33294.3	32981.2	10026 µg/L	10026 ppb	02:34:21
3	Sr 421.552†	51545.4	51626.9	499.81 µg/L	499.81 ppb	02:34:21
3	Sc 361.383	1972815.5	1972815.5	101.29 %		02:36:00
3	Y 371.029	1355942.9	1355942.9	101.39 %		02:36:00
3	Ag 328.068†	62849.0	62561.5	475.63 µg/L	475.63 ppb	02:36:05
3	As 188.979†	235.6	231.8	436.04 µg/L	436.04 ppb	02:36:26
3	B 249.677†	11461.6	11003.0	460.91 µg/L	460.91 ppb	02:36:05
3	Ba 233.527†	18532.5	18322.7	463.70 µg/L	463.70 ppb	02:36:05
3	Be 313.107†	770057.0	763915.7	472.51 µg/L	472.51 ppb	02:36:00
3	Cd 226.502†	17726.8	17625.0	469.32 µg/L	469.32 ppb	02:36:05
3	Co 228.616†	9771.8	9653.6	459.25 µg/L	459.25 ppb	02:36:05
3	Cr 267.716†	21544.6	21297.0	449.65 µg/L	449.65 ppb	02:36:05
3	Cu 324.752†	72227.5	68080.3	450.38 µg/L	450.38 ppb	02:36:05
3	Mn 257.610†	146303.6	144688.5	480.92 µg/L	480.92 ppb	02:36:00
3	Mo 202.031†	4245.8	4190.8	433.96 µg/L	433.96 ppb	02:36:26
3	Ni 231.604†	9224.1	8826.3	461.80 µg/L	461.80 ppb	02:36:05
3	P 214.914†	1099.6	1058.1	2160.4 µg/L	2160.4 ppb	02:36:26
3	Pb 220.353†	1856.5	1742.6	446.90 µg/L	446.90 ppb	02:36:26
3	S 181.975 Axial†	232.7	214.7	925.92 µg/L	925.92 ppb	02:36:26
3	Sb 206.836†	491.9	464.6	440.54 µg/L	440.54 ppb	02:36:26
3	Se 196.026†	330.4	314.3	466.37 µg/L	466.37 ppb	02:36:26
3	SiO2†	26172.2	24328.1	4976.2 µg/L	4976.2 ppb	02:36:05
3	Si 251.611†	30051.8	29385.5	2324.1 µg/L	2324.1 ppb	02:36:05
3	Sn 189.927†	978.6	965.3	429.69 µg/L	429.69 ppb	02:36:26
3	Ti 334.940†	207476.9	204698.6	466.34 µg/L	466.34 ppb	02:36:00
3	Tl 190.801†	313.6	330.2	461.97 µg/L	461.97 ppb	02:36:26
3	U 409.014†	5597.2	5300.8	432.71 µg/L	432.71 ppb	02:36:05
3	V 292.402†	45391.7	44862.9	457.94 µg/L	457.94 ppb	02:36:05
3	Zn 213.857†	19929.7	19210.8	465.93 µg/L	465.93 ppb	02:36:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1974114.3	101.35	%	0.253				0.25%
Sc RADIAL	55325.2	99.9	%	0.20				0.20%
Y 371.029	1357159.4	101.48	%	0.234				0.23%
Ag 328.068†	65492.0	498.01	µg/L	19.391	498.01	ppb	19.391	3.89%
QC value within limits for Ag 328.068 Recovery = 99.60%								
Al 396.153Radial†	7003.3	4965.7	µg/L	5.64	4965.7	ppb	5.64	0.11%
QC value within limits for Al 396.153Radial Recovery = 99.31%								
As 188.979†	259.2	487.55	µg/L	44.627	487.55	ppb	44.627	9.15%
QC value within limits for As 188.979 Recovery = 97.51%								
B 249.677†	11622.9	487.07	µg/L	22.659	487.07	ppb	22.659	4.65%
QC value within limits for B 249.677 Recovery = 97.41%								
Ba 233.527†	19659.6	497.55	µg/L	29.311	497.55	ppb	29.311	5.89%
QC value within limits for Ba 233.527 Recovery = 99.51%								
Be 313.107†	806149.8	498.63	µg/L	22.623	498.63	ppb	22.623	4.54%
QC value within limits for Be 313.107 Recovery = 99.73%								
Ca 317.933Radial†	5419.3	4901.7	µg/L	12.72	4901.7	ppb	12.72	0.26%
QC value within limits for Ca 317.933Radial Recovery = 98.03%								
Cd 226.502†	18941.0	504.42	µg/L	30.391	504.42	ppb	30.391	6.03%
QC value within limits for Cd 226.502 Recovery = 100.88%								
Co 228.616†	10463.1	497.81	µg/L	33.393	497.81	ppb	33.393	6.71%

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   QC value within limits for Co 228.616  Recovery = 99.56%
Cr 267.716†            23484.1      495.82 µg/L        39.999      495.82 ppb         39.999   8.07%
   QC value within limits for Cr 267.716  Recovery = 99.16%
Cu 324.752†            73362.1      485.27 µg/L        30.211      485.27 ppb         30.211   6.23%
   QC value within limits for Cu 324.752  Recovery = 97.05%
Fe 238.204 Radial†       581.1      5094.2 µg/L         21.57      5094.2 ppb          21.57   0.42%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.88%
K 766.490 Radial†       7545.3      5055.8 µg/L         12.44      5055.8 ppb          12.44   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 101.12%
Mg 279.077 IEC†          540.2      5047.4 µg/L         28.97      5047.4 ppb          28.97   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.95%
Mn 257.610†           152419.1      506.59 µg/L        22.232      506.59 ppb         22.232   4.39%
   QC value within limits for Mn 257.610  Recovery = 101.32%
Mo 202.031†             4774.4      494.36 µg/L        52.393      494.36 ppb         52.393  10.60%
   QC value within limits for Mo 202.031  Recovery = 98.87%
Na 589.592 Radial†     32914.3       10005 µg/L          17.6       10005 ppb           17.6   0.18%
   QC value within limits for Na 589.592 Radial  Recovery = 100.05%
Ni 231.604†             9557.0      500.03 µg/L        33.105      500.03 ppb         33.105   6.62%
   QC value within limits for Ni 231.604  Recovery = 100.01%
P 214.914†              1183.3      2418.5 µg/L        223.82      2418.5 ppb         223.82   9.25%
   QC value within limits for P 214.914  Recovery = 96.74%
Pb 220.353†             1937.7      497.01 µg/L        43.405      497.01 ppb         43.405   8.73%
   QC value within limits for Pb 220.353  Recovery = 99.40%
S 181.975 Axial†         231.1      996.74 µg/L        61.335      996.74 ppb         61.335   6.15%
   QC value within limits for S 181.975 Axial  Recovery = 99.67%
Sb 206.836†              518.8      492.29 µg/L        44.844      492.29 ppb         44.844   9.11%
   QC value within limits for Sb 206.836  Recovery = 98.46%
Se 196.026†              343.4      508.74 µg/L        36.779      508.74 ppb         36.779   7.23%
   QC value within limits for Se 196.026  Recovery = 101.75%
SiO2†                  25872.6      5292.1 µg/L        273.93      5292.1 ppb         273.93   5.18%
   QC value within limits for SiO2  Recovery = 98.96%
Si 251.611†            31183.9      2466.3 µg/L        123.21      2466.3 ppb         123.21   5.00%
   QC value within limits for Si 251.611  Recovery = 98.65%
Sn 189.927†             1111.3      494.68 µg/L        56.297      494.68 ppb         56.297  11.38%
   QC value within limits for Sn 189.927  Recovery = 98.94%
Sr 421.552†            51617.1      499.71 µg/L         0.082      499.71 ppb          0.082   0.02%
   QC value within limits for Sr 421.552  Recovery = 99.94%
Ti 334.940†           216833.7      494.01 µg/L        23.958      494.01 ppb         23.958   4.85%
   QC value within limits for Ti 334.940  Recovery = 98.80%
Tl 190.801†              356.1      498.15 µg/L        31.339      498.15 ppb         31.339   6.29%
   QC value within limits for Tl 190.801  Recovery = 99.63%
U 409.014†              5817.9      475.03 µg/L        36.917      475.03 ppb         36.917   7.77%
   QC value within limits for U 409.014  Recovery = 95.01%
V 292.402†             48769.9      497.97 µg/L        34.667      497.97 ppb         34.667   6.96%
   QC value within limits for V 292.402  Recovery = 99.59%
Zn 213.857†            20743.9      503.15 µg/L        32.245      503.15 ppb         32.245   6.41%
   QC value within limits for Zn 213.857  Recovery = 100.63%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 02:36:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54910.2	54910.2	99.1	%			02:37:08
1	Al 396.153Radial†	-20.2	-36.4	-25.861	µg/L	-25.861	ppb	02:37:08
1	Ca 317.933Radial†	186.9	-26.6	-24.051	µg/L	-24.051	ppb	02:37:28
1	Fe 238.204 Radial†	15.6	-2.0	-17.838	µg/L	-17.838	ppb	02:37:28
1	K 766.490 Radial†	163.1	-13.0	-8.7204	µg/L	-8.7204	ppb	02:37:08
1	Mg 279.077 IEC†	13.2	-0.5	-4.3763	µg/L	-4.3763	ppb	02:37:28
1	Na 589.592 Radial†	424.5	49.5	15.044	µg/L	15.044	ppb	02:37:08
1	Sr 421.552†	53.5	33.9	0.3283	µg/L	0.3283	ppb	02:37:08
1	Sc 361.383	1974291.2	1974291.2	101.36	%			02:38:30
1	Y 371.029	1362116.1	1362116.1	101.85	%			02:38:30
1	Ag 328.068†	-479.7	37.0	0.2773	µg/L	0.2773	ppb	02:38:36
1	As 188.979†	1.7	0.9	1.6720	µg/L	1.6720	ppb	02:38:56
1	B 249.677†	326.9	9.4	0.4055	µg/L	0.4055	ppb	02:38:56
1	Ba 233.527†	-33.2	-7.4	-0.1861	µg/L	-0.1861	ppb	02:38:56
1	Be 313.107†	-3688.2	-5.7	-0.0036	µg/L	-0.0036	ppb	02:38:36
1	Cd 226.502†	-134.6	-9.6	-0.2532	µg/L	-0.2532	ppb	02:38:56
1	Co 228.616†	-2.1	3.8	0.1783	µg/L	0.1783	ppb	02:38:56
1	Cr 267.716†	-35.4	-9.0	-0.1904	µg/L	-0.1904	ppb	02:38:36
1	Cu 324.752†	3302.0	27.1	0.1766	µg/L	0.1766	ppb	02:38:36
1	Mn 257.610†	-248.3	-3.0	-0.0121	µg/L	-0.0121	ppb	02:38:56
1	Mo 202.031†	-4.1	-5.1	-0.5311	µg/L	-0.5311	ppb	02:38:56
1	Ni 231.604†	298.1	13.4	0.6993	µg/L	0.6993	ppb	02:38:56
1	P 214.914†	20.4	-7.4	-15.521	µg/L	-15.521	ppb	02:38:56
1	Pb 220.353†	89.6	-2.0	-0.5056	µg/L	-0.5056	ppb	02:38:56
1	S 181.975 Axial†	16.3	1.0	4.4144	µg/L	4.4144	ppb	02:38:56
1	Sb 206.836†	23.9	2.5	2.3370	µg/L	2.3370	ppb	02:38:56
1	Se 196.026†	13.6	1.5	2.1662	µg/L	2.1662	ppb	02:38:56
1	SiO2†	1630.2	96.4	19.716	µg/L	19.716	ppb	02:38:36
1	Si 251.611†	310.3	21.2	1.6767	µg/L	1.6767	ppb	02:38:56
1	Sn 189.927†	-1.3	-2.2	-0.9604	µg/L	-0.9604	ppb	02:38:56
1	Ti 334.940†	172.1	25.0	0.0569	µg/L	0.0569	ppb	02:38:36
1	Tl 190.801†	-20.8	0.1	0.1505	µg/L	0.1505	ppb	02:38:56
1	U 409.014†	264.4	35.5	2.9063	µg/L	2.9063	ppb	02:38:36
1	V 292.402†	-59.5	-11.4	-0.1185	µg/L	-0.1185	ppb	02:38:36
1	Zn 213.857†	524.0	51.1	1.2449	µg/L	1.2449	ppb	02:38:56
2	Sc RADIAL	55588.4	55588.4	100	%			02:37:34
2	Al 396.153Radial†	-26.2	-42.2	-29.951	µg/L	-29.951	ppb	02:37:34
2	Ca 317.933Radial†	181.2	-34.7	-31.349	µg/L	-31.349	ppb	02:37:54
2	Fe 238.204 Radial†	17.6	-0.2	-2.1391	µg/L	-2.1391	ppb	02:37:54
2	K 766.490 Radial†	211.4	33.1	22.153	µg/L	22.153	ppb	02:37:34
2	Mg 279.077 IEC†	14.0	0.2	2.2777	µg/L	2.2777	ppb	02:37:54
2	Na 589.592 Radial†	417.8	37.6	11.423	µg/L	11.423	ppb	02:37:34
2	Sr 421.552†	37.7	17.6	0.1702	µg/L	0.1702	ppb	02:37:34
2	Sc 361.383	1982223.6	1982223.6	101.77	%			02:39:02
2	Y 371.029	1367748.1	1367748.1	102.27	%			02:39:02
2	Ag 328.068†	-502.5	16.5	0.1223	µg/L	0.1223	ppb	02:39:08
2	As 188.979†	2.0	1.2	2.2190	µg/L	2.2190	ppb	02:39:29
2	B 249.677†	325.3	6.5	0.2749	µg/L	0.2749	ppb	02:39:29
2	Ba 233.527†	-21.0	4.8	0.1201	µg/L	0.1201	ppb	02:39:29
2	Be 313.107†	-3720.2	-22.6	-0.0140	µg/L	-0.0140	ppb	02:39:08
2	Cd 226.502†	-131.4	-5.9	-0.1572	µg/L	-0.1572	ppb	02:39:29
2	Co 228.616†	-4.0	1.9	0.0900	µg/L	0.0900	ppb	02:39:29
2	Cr 267.716†	-60.8	-33.8	-0.7140	µg/L	-0.7140	ppb	02:39:08
2	Cu 324.752†	3303.9	16.0	0.1053	µg/L	0.1053	ppb	02:39:08
2	Mn 257.610†	-249.6	-3.3	-0.0115	µg/L	-0.0115	ppb	02:39:29
2	Mo 202.031†	-4.9	-5.9	-0.6128	µg/L	-0.6128	ppb	02:39:29
2	Ni 231.604†	292.9	7.1	0.3718	µg/L	0.3718	ppb	02:39:29
2	P 214.914†	20.2	-7.7	-16.133	µg/L	-16.133	ppb	02:39:29
2	Pb 220.353†	99.7	7.6	1.9443	µg/L	1.9443	ppb	02:39:29

2	S 181.975 Axial†	15.9	0.6	2.5018	µg/L	2.5018 ppb	02:39:29
2	Sb 206.836†	23.6	2.1	1.9746	µg/L	1.9746 ppb	02:39:29
2	Se 196.026†	21.0	8.7	12.624	µg/L	12.624 ppb	02:39:29
2	SiO2†	1618.5	78.4	16.029	µg/L	16.029 ppb	02:39:08
2	Si 251.611†	315.6	25.2	1.9968	µg/L	1.9968 ppb	02:39:29
2	Sn 189.927†	-0.7	-1.5	-0.6690	µg/L	-0.6690 ppb	02:39:29
2	Ti 334.940†	144.8	-2.5	-0.0065	µg/L	-0.0065 ppb	02:39:08
2	Tl 190.801†	-22.8	-1.8	-2.5059	µg/L	-2.5059 ppb	02:39:29
2	U 409.014†	179.0	-49.5	-4.0470	µg/L	-4.0470 ppb	02:39:08
2	V 292.402†	-77.8	-29.1	-0.3043	µg/L	-0.3043 ppb	02:39:08
2	Zn 213.857†	509.0	34.3	0.8353	µg/L	0.8353 ppb	02:39:29
3	Sc RADIAL	54811.0	54811.0	99.0	%		02:38:00
3	Al 396.153Radial†	-50.4	-66.9	-47.572	µg/L	-47.572 ppb	02:38:00
3	Ca 317.933Radial†	181.6	-31.7	-28.648	µg/L	-28.648 ppb	02:38:20
3	Fe 238.204 Radial†	16.6	-1.0	-8.6925	µg/L	-8.6925 ppb	02:38:20
3	K 766.490 Radial†	141.8	-34.3	-22.952	µg/L	-22.952 ppb	02:38:00
3	Mg 279.077 IEC†	9.6	-4.0	-37.467	µg/L	-37.467 ppb	02:38:20
3	Na 589.592 Radial†	393.8	19.3	5.8657	µg/L	5.8657 ppb	02:38:00
3	Sr 421.552†	47.7	28.2	0.2733	µg/L	0.2733 ppb	02:38:00
3	Sc 361.383	1972730.7	1972730.7	101.28	%		02:39:35
3	Y 371.029	1362246.8	1362246.8	101.86	%		02:39:35
3	Ag 328.068†	-481.8	34.6	0.2588	µg/L	0.2588 ppb	02:39:40
3	As 188.979†	-2.8	-3.6	-6.7578	µg/L	-6.7578 ppb	02:40:01
3	B 249.677†	311.6	-5.5	-0.2260	µg/L	-0.2260 ppb	02:40:01
3	Ba 233.527†	-23.9	1.8	0.0452	µg/L	0.0452 ppb	02:40:01
3	Be 313.107†	-3703.5	-23.7	-0.0147	µg/L	-0.0147 ppb	02:39:40
3	Cd 226.502†	-136.4	-11.5	-0.3041	µg/L	-0.3041 ppb	02:40:01
3	Co 228.616†	9.9	15.6	0.7418	µg/L	0.7418 ppb	02:40:01
3	Cr 267.716†	-55.7	-29.1	-0.6134	µg/L	-0.6134 ppb	02:39:40
3	Cu 324.752†	3314.5	42.0	0.2763	µg/L	0.2763 ppb	02:39:40
3	Mn 257.610†	-252.0	-6.8	-0.0223	µg/L	-0.0223 ppb	02:40:01
3	Mo 202.031†	7.7	6.5	0.6720	µg/L	0.6720 ppb	02:40:01
3	Ni 231.604†	303.4	18.9	0.9878	µg/L	0.9878 ppb	02:40:01
3	P 214.914†	23.1	-4.8	-9.9398	µg/L	-9.9398 ppb	02:40:01
3	Pb 220.353†	87.3	-4.2	-1.0822	µg/L	-1.0822 ppb	02:40:01
3	S 181.975 Axial†	16.4	1.1	4.8285	µg/L	4.8285 ppb	02:40:01
3	Sb 206.836†	21.1	-0.2	-0.1798	µg/L	-0.1798 ppb	02:40:01
3	Se 196.026†	23.3	11.0	16.076	µg/L	16.076 ppb	02:40:01
3	SiO2†	1606.7	74.4	15.225	µg/L	15.225 ppb	02:39:40
3	Si 251.611†	293.5	4.9	0.3898	µg/L	0.3898 ppb	02:40:01
3	Sn 189.927†	-0.1	-1.0	-0.4291	µg/L	-0.4291 ppb	02:40:01
3	Ti 334.940†	155.8	9.1	0.0231	µg/L	0.0231 ppb	02:39:40
3	Tl 190.801†	-16.8	4.0	5.5540	µg/L	5.5540 ppb	02:40:01
3	U 409.014†	251.3	22.7	1.8621	µg/L	1.8621 ppb	02:39:40
3	V 292.402†	-70.3	-22.1	-0.2178	µg/L	-0.2178 ppb	02:39:40
3	Zn 213.857†	501.8	29.5	0.7181	µg/L	0.7181 ppb	02:40:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1976415.2	101.47	%	0.261				0.26%
Sc RADIAL	55103.2	99.5	%	0.76				0.77%
Y 371.029	1364037.0	102.00	%	0.240				0.24%
Ag 328.068†	29.3	0.2195	µg/L	0.08470	0.2195	ppb	0.08470	38.59%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-48.5	-34.462	µg/L	11.5369	-34.462	ppb	11.5369	33.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.9556	µg/L	5.03229	-0.9556	ppb	5.03229	526.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.5	0.1515	µg/L	0.33335	0.1515	ppb	0.33335	220.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.3	-0.0069	µg/L	0.15960	-0.0069	ppb	0.15960	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-17.4	-0.0108	µg/L	0.00623	-0.0108	ppb	0.00623	57.91%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-31.0	-28.016	µg/L	3.6899	-28.016	ppb	3.6899	13.17%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-9.0	-0.2382	µg/L	0.07457	-0.2382	ppb	0.07457	31.31%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.3367	µg/L	0.35358	0.3367	ppb	0.35358	105.02%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -24.0     -0.5059 µg/L       0.27787     -0.5059 ppb        0.27787  54.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               28.4      0.1861 µg/L       0.08590      0.1861 ppb        0.08590  46.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.1     -9.5564 µg/L       7.88480     -9.5564 ppb        7.88480  82.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -4.7     -3.1733 µg/L      23.05867     -3.1733 ppb       23.05867 726.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.4     -13.188 µg/L       21.2873     -13.188 ppb        21.2873 161.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -4.4     -0.0153 µg/L       0.00610     -0.0153 ppb        0.00610  39.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.5     -0.1573 µg/L       0.71938     -0.1573 ppb        0.71938 457.34%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        35.5      10.778 µg/L        4.6232      10.778 ppb         4.6232  42.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               13.1      0.6863 µg/L       0.30824      0.6863 ppb        0.30824  44.91%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.6     -13.864 µg/L        3.4126     -13.864 ppb         3.4126  24.61%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                0.5      0.1188 µg/L       1.60694      0.1188 ppb        1.60694 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.9      3.9149 µg/L       1.24117      3.9149 ppb        1.24117  31.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.5      1.3773 µg/L       1.36060      1.3773 ppb        1.36060  98.79%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.1      10.289 µg/L        7.2430      10.289 ppb         7.2430  70.40%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     83.1      16.990 µg/L        2.3946      16.990 ppb         2.3946  14.09%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               17.1      1.3544 µg/L       0.85057      1.3544 ppb        0.85057  62.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.5     -0.6862 µg/L       0.26609     -0.6862 ppb        0.26609  38.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               26.6      0.2573 µg/L       0.08024      0.2573 ppb        0.08024  31.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               10.5      0.0245 µg/L       0.03172      0.0245 ppb        0.03172 129.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.8      1.0662 µg/L       4.10723      1.0662 ppb        4.10723 385.23%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 2.9      0.2405 µg/L       3.74957      0.2405 ppb        3.74957 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -20.8     -0.2135 µg/L       0.09300     -0.2135 ppb        0.09300  43.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               38.3      0.9328 µg/L       0.27661      0.9328 ppb        0.27661  29.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 02:58:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55117.7	55117.7	99.5	%			02:58:49
1	Al 396.153Radial†	7050.1	7068.9	5011.5	µg/L	5011.5	ppb	02:58:49
1	Ca 317.933Radial†	5676.8	5489.8	4965.4	µg/L	4965.4	ppb	02:59:10
1	Fe 238.204 Radial†	593.2	578.4	5071.1	µg/L	5071.1	ppb	02:59:10
1	K 766.490 Radial†	7681.7	7542.1	5053.7	µg/L	5053.7	ppb	02:58:49
1	Mg 279.077 IEC†	559.7	548.8	5127.5	µg/L	5127.5	ppb	02:59:10
1	Na 589.592 Radial†	33422.0	33208.7	10095	µg/L	10095	ppb	02:58:49
1	Sr 421.552†	52021.9	52259.4	505.93	µg/L	505.93	ppb	02:58:49
1	Sc 361.383	1969072.6	1969072.6	101.09	%			03:00:13
1	Y 371.029	1353456.9	1353456.9	101.21	%			03:00:13
1	Ag 328.068†	66838.1	66625.5	506.70	µg/L	506.70	ppb	03:00:19
1	As 188.979†	286.4	282.5	531.32	µg/L	531.32	ppb	03:00:39
1	B 249.677†	12298.5	11852.4	496.77	µg/L	496.77	ppb	03:00:19
1	Ba 233.527†	20394.3	20199.1	511.21	µg/L	511.21	ppb	03:00:19
1	Be 313.107†	840381.7	834924.9	516.43	µg/L	516.43	ppb	03:00:13
1	Cd 226.502†	19605.3	19516.5	519.76	µg/L	519.76	ppb	03:00:19
1	Co 228.616†	10971.5	10858.7	516.65	µg/L	516.65	ppb	03:00:19
1	Cr 267.716†	24827.5	24584.9	519.06	µg/L	519.06	ppb	03:00:19
1	Cu 324.752†	80178.1	76080.4	503.22	µg/L	503.22	ppb	03:00:19
1	Mn 257.610†	159054.3	157575.9	523.70	µg/L	523.70	ppb	03:00:13
1	Mo 202.031†	5209.3	5151.9	533.44	µg/L	533.44	ppb	03:00:39
1	Ni 231.604†	10275.0	9883.1	517.09	µg/L	517.09	ppb	03:00:19
1	P 214.914†	1309.1	1267.4	2592.5	µg/L	2592.5	ppb	03:00:39
1	Pb 220.353†	2173.2	2059.4	528.25	µg/L	528.25	ppb	03:00:39
1	S 181.975 Axial†	267.2	249.3	1075.1	µg/L	1075.1	ppb	03:00:39
1	Sb 206.836†	582.1	554.8	526.60	µg/L	526.60	ppb	03:00:39
1	Se 196.026†	388.5	372.3	550.80	µg/L	550.80	ppb	03:00:39
1	SiO2†	28306.4	26488.3	5418.1	µg/L	5418.1	ppb	03:00:19
1	Si 251.611†	32609.8	31972.2	2528.7	µg/L	2528.7	ppb	03:00:19
1	Sn 189.927†	1222.5	1208.4	537.93	µg/L	537.93	ppb	03:00:39
1	Ti 334.940†	227319.3	224715.7	511.97	µg/L	511.97	ppb	03:00:13
1	Tl 190.801†	360.0	376.7	526.69	µg/L	526.69	ppb	03:00:39
1	U 409.014†	6407.7	6113.0	499.18	µg/L	499.18	ppb	03:00:19
1	V 292.402†	51142.1	50636.3	517.17	µg/L	517.17	ppb	03:00:19
1	Zn 213.857†	22112.9	21407.8	519.26	µg/L	519.26	ppb	03:00:19
2	Sc RADIAL	55709.5	55709.5	101	%			02:59:15
2	Al 396.153Radial†	7032.5	6976.2	4945.8	µg/L	4945.8	ppb	02:59:15
2	Ca 317.933Radial†	5684.6	5436.9	4917.6	µg/L	4917.6	ppb	02:59:35
2	Fe 238.204 Radial†	597.0	575.8	5048.2	µg/L	5048.2	ppb	02:59:35
2	K 766.490 Radial†	7621.2	7400.0	4958.5	µg/L	4958.5	ppb	02:59:15
2	Mg 279.077 IEC†	555.8	538.8	5034.8	µg/L	5034.8	ppb	02:59:35
2	Na 589.592 Radial†	33093.3	32525.1	9887.1	µg/L	9887.1	ppb	02:59:15
2	Sr 421.552†	51472.9	51158.2	495.27	µg/L	495.27	ppb	02:59:15
2	Sc 361.383	1972871.8	1972871.8	101.29	%			03:00:46
2	Y 371.029	1355993.8	1355993.8	101.40	%			03:00:46
2	Ag 328.068†	67314.8	66968.8	509.30	µg/L	509.30	ppb	03:00:52
2	As 188.979†	283.4	279.0	524.82	µg/L	524.82	ppb	03:01:12
2	B 249.677†	12430.7	11959.5	501.29	µg/L	501.29	ppb	03:00:52
2	Ba 233.527†	20519.2	20283.6	513.35	µg/L	513.35	ppb	03:00:52
2	Be 313.107†	837215.3	830198.0	513.50	µg/L	513.50	ppb	03:00:46
2	Cd 226.502†	19745.3	19617.4	522.46	µg/L	522.46	ppb	03:00:52
2	Co 228.616†	11016.6	10882.2	517.77	µg/L	517.77	ppb	03:00:52
2	Cr 267.716†	24987.1	24695.2	521.38	µg/L	521.38	ppb	03:00:52
2	Cu 324.752†	80433.8	76180.1	503.87	µg/L	503.87	ppb	03:00:52
2	Mn 257.610†	158729.7	156952.5	521.64	µg/L	521.64	ppb	03:00:46
2	Mo 202.031†	5143.2	5076.6	525.65	µg/L	525.65	ppb	03:01:12
2	Ni 231.604†	10367.1	9954.5	520.82	µg/L	520.82	ppb	03:00:52
2	P 214.914†	1298.6	1254.5	2565.5	µg/L	2565.5	ppb	03:01:12
2	Pb 220.353†	2153.3	2035.5	522.12	µg/L	522.12	ppb	03:01:12

2	S 181.975 Axial†	267.6	249.1	1074.6 µg/L	1074.6 ppb	03:01:12
2	Sb 206.836†	575.1	546.7	518.80 µg/L	518.80 ppb	03:01:12
2	Se 196.026†	371.1	354.4	524.78 µg/L	524.78 ppb	03:01:12
2	SiO2†	28492.6	26618.2	5444.6 µg/L	5444.6 ppb	03:00:52
2	Si 251.611†	32900.0	32196.5	2546.4 µg/L	2546.4 ppb	03:00:52
2	Sn 189.927†	1202.3	1186.1	527.99 µg/L	527.99 ppb	03:01:12
2	Ti 334.940†	226748.3	223719.0	509.71 µg/L	509.71 ppb	03:00:46
2	Tl 190.801†	359.6	375.6	525.26 µg/L	525.26 ppb	03:01:12
2	U 409.014†	6483.7	6175.9	504.33 µg/L	504.33 ppb	03:00:52
2	V 292.402†	51474.3	50866.8	519.44 µg/L	519.44 ppb	03:00:52
2	Zn 213.857†	22262.8	21513.7	521.83 µg/L	521.83 ppb	03:00:52
3	Sc RADIAL	56120.7	56120.7	101 %		02:59:41
3	Al 396.153Radial†	7027.2	6919.8	4907.4 µg/L	4907.4 ppb	02:59:41
3	Ca 317.933Radial†	5698.6	5409.3	4892.6 µg/L	4892.6 ppb	03:00:01
3	Fe 238.204 Radial†	597.0	571.4	5009.5 µg/L	5009.5 ppb	03:00:01
3	K 766.490 Radial†	7758.5	7480.0	5012.0 µg/L	5012.0 ppb	02:59:41
3	Mg 279.077 IEC†	558.8	537.8	5023.6 µg/L	5023.6 ppb	03:00:01
3	Na 589.592 Radial†	33408.8	32595.4	9908.5 µg/L	9908.5 ppb	02:59:41
3	Sr 421.552†	52169.4	51470.6	498.29 µg/L	498.29 ppb	02:59:41
3	Sc 361.383	1958286.9	1958286.9	100.54 %		03:01:19
3	Y 371.029	1345770.1	1345770.1	100.63 %		03:01:19
3	Ag 328.068†	63847.6	64015.1	486.68 µg/L	486.68 ppb	03:01:25
3	As 188.979†	238.0	235.9	443.78 µg/L	443.78 ppb	03:01:46
3	B 249.677†	11722.4	11346.4	475.43 µg/L	475.43 ppb	03:01:25
3	Ba 233.527†	18905.0	18828.9	476.51 µg/L	476.51 ppb	03:01:25
3	Be 313.107†	779296.9	778746.5	481.68 µg/L	481.68 ppb	03:01:19
3	Cd 226.502†	18164.6	18190.3	484.41 µg/L	484.41 ppb	03:01:25
3	Co 228.616†	10003.8	9955.9	473.64 µg/L	473.64 ppb	03:01:25
3	Cr 267.716†	22003.1	21910.9	462.61 µg/L	462.61 ppb	03:01:25
3	Cu 324.752†	73683.8	70057.8	463.43 µg/L	463.43 ppb	03:01:25
3	Mn 257.610†	147867.4	147315.6	489.63 µg/L	489.63 ppb	03:01:19
3	Mo 202.031†	4287.7	4263.5	441.48 µg/L	441.48 ppb	03:01:46
3	Ni 231.604†	9414.1	9082.9	475.22 µg/L	475.22 ppb	03:01:25
3	P 214.914†	1103.7	1070.2	2184.5 µg/L	2184.5 ppb	03:01:46
3	Pb 220.353†	1854.2	1753.9	449.78 µg/L	449.78 ppb	03:01:46
3	S 181.975 Axial†	233.0	216.7	934.74 µg/L	934.74 ppb	03:01:46
3	Sb 206.836†	498.7	474.9	450.30 µg/L	450.30 ppb	03:01:46
3	Se 196.026†	332.4	318.7	472.56 µg/L	472.56 ppb	03:01:46
3	SiO2†	26703.5	25048.1	5123.5 µg/L	5123.5 ppb	03:01:25
3	Si 251.611†	30616.8	30167.5	2385.9 µg/L	2385.9 ppb	03:01:25
3	Sn 189.927†	985.1	978.9	435.77 µg/L	435.77 ppb	03:01:46
3	Ti 334.940†	209730.5	208459.8	474.92 µg/L	474.92 ppb	03:01:19
3	Tl 190.801†	318.0	336.9	471.32 µg/L	471.32 ppb	03:01:46
3	U 409.014†	5846.6	5589.8	456.38 µg/L	456.38 ppb	03:01:25
3	V 292.402†	46336.9	46135.5	470.88 µg/L	470.88 ppb	03:01:25
3	Zn 213.857†	20312.3	19737.4	478.72 µg/L	478.72 ppb	03:01:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1966743.8	100.97	%	0.388				0.38%
Sc RADIAL	55649.3	100	%	0.9				0.91%
Y 371.029	1351740.3	101.08	%	0.398				0.39%
Ag 328.068†	65869.8	500.89	µg/L	12.374	500.89	ppb	12.374	2.47%
QC value within limits for Ag 328.068 Recovery = 100.18%								
Al 396.153Radial†	6988.3	4954.9	µg/L	52.65	4954.9	ppb	52.65	1.06%
QC value within limits for Al 396.153Radial Recovery = 99.10%								
As 188.979†	265.8	499.97	µg/L	48.772	499.97	ppb	48.772	9.75%
QC value within limits for As 188.979 Recovery = 99.99%								
B 249.677†	11719.4	491.16	µg/L	13.814	491.16	ppb	13.814	2.81%
QC value within limits for B 249.677 Recovery = 98.23%								
Ba 233.527†	19770.5	500.36	µg/L	20.678	500.36	ppb	20.678	4.13%
QC value within limits for Ba 233.527 Recovery = 100.07%								
Be 313.107†	814623.1	503.87	µg/L	19.273	503.87	ppb	19.273	3.82%
QC value within limits for Be 313.107 Recovery = 100.77%								
Ca 317.933Radial†	5445.3	4925.2	µg/L	36.98	4925.2	ppb	36.98	0.75%
QC value within limits for Ca 317.933Radial Recovery = 98.50%								
Cd 226.502†	19108.1	508.88	µg/L	21.234	508.88	ppb	21.234	4.17%
QC value within limits for Cd 226.502 Recovery = 101.78%								
Co 228.616†	10565.6	502.68	µg/L	25.161	502.68	ppb	25.161	5.01%

```
   QC value within limits for Co 228.616  Recovery = 100.54%
Cr 267.716†            23730.3      501.01 µg/L        33.283      501.01 ppb         33.283   6.64%
   QC value within limits for Cr 267.716  Recovery = 100.20%
Cu 324.752†            74106.1      490.17 µg/L        23.163      490.17 ppb         23.163   4.73%
   QC value within limits for Cu 324.752  Recovery = 98.03%
Fe 238.204 Radial†       575.2      5042.9 µg/L         31.12      5042.9 ppb          31.12   0.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.86%
K 766.490 Radial†       7474.0      5008.1 µg/L         47.74      5008.1 ppb          47.74   0.95%
   QC value within limits for K 766.490 Radial  Recovery = 100.16%
Mg 279.077 IEC†          541.8      5062.0 µg/L         57.06      5062.0 ppb          57.06   1.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.24%
Mn 257.610†           153948.0      511.66 µg/L        19.103      511.66 ppb         19.103   3.73%
   QC value within limits for Mn 257.610  Recovery = 102.33%
Mo 202.031†             4830.7      500.19 µg/L        50.989      500.19 ppb         50.989  10.19%
   QC value within limits for Mo 202.031  Recovery = 100.04%
Na 589.592 Radial†     32776.4      9963.5 µg/L        114.31      9963.5 ppb         114.31   1.15%
   QC value within limits for Na 589.592 Radial  Recovery = 99.63%
Ni 231.604†             9640.1      504.38 µg/L        25.318      504.38 ppb         25.318   5.02%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†              1197.4      2447.5 µg/L        228.14      2447.5 ppb         228.14   9.32%
   QC value within limits for P 214.914  Recovery = 97.90%
Pb 220.353†             1949.6      500.05 µg/L        43.641      500.05 ppb         43.641   8.73%
   QC value within limits for Pb 220.353  Recovery = 100.01%
S 181.975 Axial†         238.4      1028.2 µg/L         80.91      1028.2 ppb          80.91   7.87%
   QC value within limits for S 181.975 Axial  Recovery = 102.82%
Sb 206.836†              525.5      498.57 µg/L        41.982      498.57 ppb         41.982   8.42%
   QC value within limits for Sb 206.836  Recovery = 99.71%
Se 196.026†              348.5      516.05 µg/L        39.842      516.05 ppb         39.842   7.72%
   QC value within limits for Se 196.026  Recovery = 103.21%
SiO2†                  26051.5      5328.7 µg/L        178.24      5328.7 ppb         178.24   3.34%
   QC value within limits for SiO2  Recovery = 99.65%
Si 251.611†            31445.4      2487.0 µg/L         87.98      2487.0 ppb          87.98   3.54%
   QC value within limits for Si 251.611  Recovery = 99.48%
Sn 189.927†             1124.5      500.56 µg/L        56.330      500.56 ppb         56.330  11.25%
   QC value within limits for Sn 189.927  Recovery = 100.11%
Sr 421.552†            51629.4      499.83 µg/L         5.494      499.83 ppb          5.494   1.10%
   QC value within limits for Sr 421.552  Recovery = 99.97%
Ti 334.940†           218964.8      498.87 µg/L        20.769      498.87 ppb         20.769   4.16%
   QC value within limits for Ti 334.940  Recovery = 99.77%
Tl 190.801†              363.1      507.75 µg/L        31.564      507.75 ppb         31.564   6.22%
   QC value within limits for Tl 190.801  Recovery = 101.55%
U 409.014†              5959.6      486.63 µg/L        26.322      486.63 ppb         26.322   5.41%
   QC value within limits for U 409.014  Recovery = 97.33%
V 292.402†             49212.9      502.50 µg/L        27.405      502.50 ppb         27.405   5.45%
   QC value within limits for V 292.402  Recovery = 100.50%
Zn 213.857†            20886.3      506.60 µg/L        24.185      506.60 ppb         24.185   4.77%
   QC value within limits for Zn 213.857  Recovery = 101.32%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 03:01:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54645.9	54645.9	98.7	%			03:02:28
1	Al 396.153Radial†	-23.7	-40.0	-28.457	µg/L	-28.457	ppb	03:02:28
1	Ca 317.933Radial†	193.9	-18.6	-16.833	µg/L	-16.833	ppb	03:02:49
1	Fe 238.204 Radial†	15.6	-2.0	-17.652	µg/L	-17.652	ppb	03:02:49
1	K 766.490 Radial†	182.8	7.8	5.2075	µg/L	5.2075	ppb	03:02:28
1	Mg 279.077 IEC†	11.2	-2.4	-22.483	µg/L	-22.483	ppb	03:02:49
1	Na 589.592 Radial†	434.7	62.0	18.834	µg/L	18.834	ppb	03:02:28
1	Sr 421.552†	42.2	22.8	0.2208	µg/L	0.2208	ppb	03:02:28
1	Sc 361.383	1953832.3	1953832.3	100.31	%			03:03:51
1	Y 371.029	1347326.6	1347326.6	100.75	%			03:03:51
1	Ag 328.068†	-526.7	-14.8	-0.1147	µg/L	-0.1147	ppb	03:03:56
1	As 188.979†	-0.9	-1.7	-3.2760	µg/L	-3.2760	ppb	03:04:17
1	B 249.677†	325.4	11.3	0.4863	µg/L	0.4863	ppb	03:04:17
1	Ba 233.527†	-24.2	1.2	0.0308	µg/L	0.0308	ppb	03:04:17
1	Be 313.107†	-3680.3	-36.0	-0.0223	µg/L	-0.0223	ppb	03:03:56
1	Cd 226.502†	-132.1	-8.5	-0.2242	µg/L	-0.2242	ppb	03:04:17
1	Co 228.616†	0.3	6.1	0.2901	µg/L	0.2901	ppb	03:04:17
1	Cr 267.716†	-27.4	-1.4	-0.0302	µg/L	-0.0302	ppb	03:04:17
1	Cu 324.752†	3237.0	-3.5	-0.0257	µg/L	-0.0257	ppb	03:03:56
1	Mn 257.610†	-249.0	-6.2	-0.0222	µg/L	-0.0222	ppb	03:04:17
1	Mo 202.031†	4.5	3.4	0.3482	µg/L	0.3482	ppb	03:04:17
1	Ni 231.604†	294.3	12.7	0.6652	µg/L	0.6652	ppb	03:04:17
1	P 214.914†	19.2	-8.4	-17.498	µg/L	-17.498	ppb	03:04:17
1	Pb 220.353†	87.0	-3.6	-0.9357	µg/L	-0.9357	ppb	03:04:17
1	S 181.975 Axial†	14.5	-0.6	-2.7077	µg/L	-2.7077	ppb	03:04:17
1	Sb 206.836†	26.0	4.8	4.5430	µg/L	4.5430	ppb	03:04:17
1	Se 196.026†	20.0	8.0	11.654	µg/L	11.654	ppb	03:04:17
1	SiO2†	1608.2	91.3	18.665	µg/L	18.665	ppb	03:03:56
1	Si 251.611†	316.9	31.0	2.4548	µg/L	2.4548	ppb	03:04:17
1	Sn 189.927†	1.9	1.0	0.4607	µg/L	0.4607	ppb	03:04:17
1	Ti 334.940†	241.8	96.2	0.2208	µg/L	0.2208	ppb	03:03:56
1	Tl 190.801†	-23.2	-2.5	-3.4481	µg/L	-3.4481	ppb	03:04:17
1	U 409.014†	322.8	96.4	7.8929	µg/L	7.8929	ppb	03:03:56
1	V 292.402†	-77.5	-30.0	-0.2936	µg/L	-0.2936	ppb	03:03:56
1	Zn 213.857†	487.7	20.3	0.4951	µg/L	0.4951	ppb	03:04:17
2	Sc RADIAL	55546.3	55546.3	100	%			03:02:54
2	Al 396.153Radial†	-26.2	-42.2	-29.963	µg/L	-29.963	ppb	03:02:54
2	Ca 317.933Radial†	187.4	-28.3	-25.623	µg/L	-25.623	ppb	03:03:15
2	Fe 238.204 Radial†	16.1	-1.7	-14.980	µg/L	-14.980	ppb	03:03:15
2	K 766.490 Radial†	208.3	30.2	20.212	µg/L	20.212	ppb	03:02:54
2	Mg 279.077 IEC†	7.2	-6.6	-61.524	µg/L	-61.524	ppb	03:03:15
2	Na 589.592 Radial†	440.8	60.8	18.489	µg/L	18.489	ppb	03:02:54
2	Sr 421.552†	34.4	14.3	0.1385	µg/L	0.1385	ppb	03:02:54
2	Sc 361.383	1949030.4	1949030.4	100.06	%			03:04:23
2	Y 371.029	1345828.9	1345828.9	100.64	%			03:04:23
2	Ag 328.068†	-438.4	72.1	0.5391	µg/L	0.5391	ppb	03:04:28
2	As 188.979†	0.0	-0.8	-1.4219	µg/L	-1.4219	ppb	03:04:49
2	B 249.677†	319.0	5.7	0.2484	µg/L	0.2484	ppb	03:04:49
2	Ba 233.527†	-22.2	3.2	0.0796	µg/L	0.0796	ppb	03:04:49
2	Be 313.107†	-3700.5	-65.3	-0.0404	µg/L	-0.0404	ppb	03:04:28
2	Cd 226.502†	-135.0	-11.7	-0.3074	µg/L	-0.3074	ppb	03:04:49
2	Co 228.616†	7.4	13.2	0.6295	µg/L	0.6295	ppb	03:04:49
2	Cr 267.716†	-39.8	-13.9	-0.2935	µg/L	-0.2935	ppb	03:04:49
2	Cu 324.752†	3327.2	94.6	0.6226	µg/L	0.6226	ppb	03:04:28
2	Mn 257.610†	-250.0	-7.9	-0.0257	µg/L	-0.0257	ppb	03:04:49
2	Mo 202.031†	0.6	-0.5	-0.0514	µg/L	-0.0514	ppb	03:04:49
2	Ni 231.604†	306.9	26.0	1.3590	µg/L	1.3590	ppb	03:04:49
2	P 214.914†	25.7	-1.8	-3.8943	µg/L	-3.8943	ppb	03:04:49
2	Pb 220.353†	92.7	2.3	0.5865	µg/L	0.5865	ppb	03:04:49

2	S 181.975 Axial†	13.8	-1.3	-5.5678 µg/L	-5.5678 ppb	03:04:49
2	Sb 206.836†	21.3	0.2	0.2145 µg/L	0.2145 ppb	03:04:49
2	Se 196.026†	22.0	10.0	14.590 µg/L	14.590 ppb	03:04:49
2	SiO2†	1596.3	83.3	17.046 µg/L	17.046 ppb	03:04:28
2	Si 251.611†	312.8	27.7	2.1926 µg/L	2.1926 ppb	03:04:49
2	Sn 189.927†	1.4	0.6	0.2501 µg/L	0.2501 ppb	03:04:49
2	Ti 334.940†	170.3	25.4	0.0623 µg/L	0.0623 ppb	03:04:28
2	Tl 190.801†	-22.1	-1.5	-2.0169 µg/L	-2.0169 ppb	03:04:49
2	U 409.014†	213.7	-11.8	-0.9639 µg/L	-0.9639 ppb	03:04:28
2	V 292.402†	-114.1	-66.7	-0.6765 µg/L	-0.6765 ppb	03:04:28
2	Zn 213.857†	471.9	5.7	0.1366 µg/L	0.1366 ppb	03:04:49
3	Sc RADIAL	54333.5	54333.5	98.1 %		03:03:20
3	Al 396.153Radial†	-15.4	-31.8	-22.559 µg/L	-22.559 ppb	03:03:20
3	Ca 317.933Radial†	185.8	-25.7	-23.264 µg/L	-23.264 ppb	03:03:41
3	Fe 238.204 Radial†	15.2	-2.3	-19.922 µg/L	-19.922 ppb	03:03:41
3	K 766.490 Radial†	145.6	-29.1	-19.522 µg/L	-19.522 ppb	03:03:20
3	Mg 279.077 IEC†	10.6	-3.0	-27.764 µg/L	-27.764 ppb	03:03:41
3	Na 589.592 Radial†	423.3	52.8	16.051 µg/L	16.051 ppb	03:03:20
3	Sr 421.552†	40.0	20.8	0.2010 µg/L	0.2010 ppb	03:03:20
3	Sc 361.383	1966202.2	1966202.2	100.95 %		03:04:55
3	Y 371.029	1356203.1	1356203.1	101.41 %		03:04:55
3	Ag 328.068†	-468.1	46.6	0.3494 µg/L	0.3494 ppb	03:05:01
3	As 188.979†	-4.6	-5.4	-10.162 µg/L	-10.162 ppb	03:05:21
3	B 249.677†	325.7	9.6	0.4123 µg/L	0.4123 ppb	03:05:21
3	Ba 233.527†	-18.8	6.8	0.1709 µg/L	0.1709 ppb	03:05:21
3	Be 313.107†	-3626.0	40.9	0.0253 µg/L	0.0253 ppb	03:05:01
3	Cd 226.502†	-137.2	-12.7	-0.3345 µg/L	-0.3345 ppb	03:05:21
3	Co 228.616†	0.1	5.9	0.2819 µg/L	0.2819 ppb	03:05:21
3	Cr 267.716†	-44.5	-18.1	-0.3824 µg/L	-0.3824 ppb	03:05:21
3	Cu 324.752†	3342.6	80.7	0.5304 µg/L	0.5304 ppb	03:05:01
3	Mn 257.610†	-243.3	0.9	0.0015 µg/L	0.0015 ppb	03:05:21
3	Mo 202.031†	0.1	-1.1	-0.1108 µg/L	-0.1108 ppb	03:05:21
3	Ni 231.604†	295.6	12.1	0.6348 µg/L	0.6348 ppb	03:05:21
3	P 214.914†	14.8	-12.9	-26.848 µg/L	-26.848 ppb	03:05:21
3	Pb 220.353†	90.8	-0.5	-0.1171 µg/L	-0.1171 ppb	03:05:21
3	S 181.975 Axial†	11.6	-3.6	-15.655 µg/L	-15.655 ppb	03:05:21
3	Sb 206.836†	21.2	-0.1	-0.0439 µg/L	-0.0439 ppb	03:05:21
3	Se 196.026†	10.0	-2.1	-3.0402 µg/L	-3.0402 ppb	03:05:21
3	SiO2†	1617.0	89.9	18.390 µg/L	18.390 ppb	03:05:01
3	Si 251.611†	308.4	20.6	1.6311 µg/L	1.6311 ppb	03:05:21
3	Sn 189.927†	3.1	2.2	0.9895 µg/L	0.9895 ppb	03:05:21
3	Ti 334.940†	157.6	11.3	0.0275 µg/L	0.0275 ppb	03:05:01
3	Tl 190.801†	-20.2	0.6	0.7934 µg/L	0.7934 ppb	03:05:21
3	U 409.014†	228.0	0.5	0.0450 µg/L	0.0450 ppb	03:05:01
3	V 292.402†	-66.6	-18.7	-0.1925 µg/L	-0.1925 ppb	03:05:01
3	Zn 213.857†	475.4	5.0	0.1208 µg/L	0.1208 ppb	03:05:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1956355.0	100.44	%	0.455				0.45%
Sc RADIAL	54841.9	99.0	%	1.14				1.15%
Y 371.029	1349786.2	100.93	%	0.419				0.42%
Ag 328.068†	34.7	0.2580	µg/L	0.33636	0.2580	ppb	0.33636	130.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-38.0	-26.993	µg/L	3.9132	-26.993	ppb	3.9132	14.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-4.9532	µg/L	4.60504	-4.9532	ppb	4.60504	92.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.9	0.3823	µg/L	0.12176	0.3823	ppb	0.12176	31.85%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.7	0.0938	µg/L	0.07112	0.0938	ppb	0.07112	75.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-20.1	-0.0125	µg/L	0.03393	-0.0125	ppb	0.03393	271.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-24.2	-21.907	µg/L	4.5499	-21.907	ppb	4.5499	20.77%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-10.9	-0.2887	µg/L	0.05747	-0.2887	ppb	0.05747	19.91%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.4	0.4005	µg/L	0.19837	0.4005	ppb	0.19837	49.53%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -11.1     -0.2354 µg/L       0.18319     -0.2354 ppb        0.18319  77.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               57.3      0.3758 µg/L       0.35074      0.3758 ppb        0.35074  93.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.0     -17.518 µg/L        2.4737     -17.518 ppb         2.4737  14.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          2.9      1.9657 µg/L      20.06438      1.9657 ppb       20.06438 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.0     -37.257 µg/L       21.1807     -37.257 ppb        21.1807  56.85%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -4.4     -0.0155 µg/L       0.01477     -0.0155 ppb        0.01477  95.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.6      0.0620 µg/L       0.24961      0.0620 ppb        0.24961 402.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        58.5      17.791 µg/L        1.5170      17.791 ppb         1.5170   8.53%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               16.9      0.8863 µg/L       0.40962      0.8863 ppb        0.40962  46.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -7.7     -16.080 µg/L       11.5425     -16.080 ppb        11.5425  71.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -0.6     -0.1554 µg/L       0.76184     -0.1554 ppb        0.76184 490.10%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.8     -7.9767 µg/L       6.80132     -7.9767 ppb        6.80132  85.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.7      1.5712 µg/L       2.57691      1.5712 ppb        2.57691 164.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.3      7.7346 µg/L       9.44598      7.7346 ppb        9.44598 122.13%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     88.2      18.034 µg/L        0.8662      18.034 ppb         0.8662   4.80%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               26.5      2.0928 µg/L       0.42079      2.0928 ppb        0.42079  20.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.3      0.5667 µg/L       0.38093      0.5667 ppb        0.38093  67.22%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               19.3      0.1868 µg/L       0.04297      0.1868 ppb        0.04297  23.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               44.3      0.1035 µg/L       0.10302      0.1035 ppb        0.10302  99.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.1     -1.5572 µg/L       2.15782     -1.5572 ppb        2.15782 138.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                28.4      2.3247 µg/L       4.84852      2.3247 ppb        4.84852 208.57%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -38.4     -0.3875 µg/L       0.25533     -0.3875 ppb        0.25533  65.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               10.3      0.2508 µg/L       0.21167      0.2508 ppb        0.21167  84.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 2/24/2010 03:42:44 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022310E.SIF
Batch ID:
Results Data Set: 022310A
Results Library: c:\pe\optima1\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/24/2010 03:42:46**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55557.9	55557.9	100	%			03:43:20
1	Al 396.153Radial†	7057.4	7020.1	4976.7	µg/L	4976.7	ppb	03:43:20
1	Ca 317.933Radial†	5651.4	5419.2	4901.6	µg/L	4901.6	ppb	03:43:40
1	Fe 238.204 Radial†	597.4	577.8	5065.8	µg/L	5065.8	ppb	03:43:40
1	K 766.490 Radial†	7738.7	7537.9	5050.8	µg/L	5050.8	ppb	03:43:20
1	Mg 279.077 IEC†	559.1	543.6	5079.6	µg/L	5079.6	ppb	03:43:40
1	Na 589.592 Radial†	33331.2	32852.1	9986.5	µg/L	9986.5	ppb	03:43:20
1	Sr 421.552†	51920.5	51744.1	500.94	µg/L	500.94	ppb	03:43:20
1	Sc 361.383	1947683.2	1947683.2	99.995	%			03:44:43
1	Y 371.029	1337422.0	1337422.0	100.01	%			03:44:43
1	Ag 328.068†	67091.1	67604.5	514.12	µg/L	514.12	ppb	03:44:49
1	As 188.979†	279.8	279.0	524.73	µg/L	524.73	ppb	03:45:09
1	B 249.677†	12344.6	12032.1	504.34	µg/L	504.34	ppb	03:44:49
1	Ba 233.527†	20362.1	20388.5	516.00	µg/L	516.00	ppb	03:44:49
1	Be 313.107†	826912.4	830584.2	513.74	µg/L	513.74	ppb	03:44:43
1	Cd 226.502†	19556.2	19680.4	524.13	µg/L	524.13	ppb	03:44:49
1	Co 228.616†	10910.2	10916.6	519.41	µg/L	519.41	ppb	03:44:49
1	Cr 267.716†	24796.0	24823.1	524.08	µg/L	524.08	ppb	03:44:49
1	Cu 324.752†	80294.2	77067.5	509.74	µg/L	509.74	ppb	03:44:49
1	Mn 257.610†	156931.4	157180.8	522.39	µg/L	522.39	ppb	03:44:43
1	Mo 202.031†	5172.8	5171.9	535.51	µg/L	535.51	ppb	03:45:09
1	Ni 231.604†	10264.5	9984.3	522.38	µg/L	522.38	ppb	03:44:49
1	P 214.914†	1294.7	1267.2	2591.6	µg/L	2591.6	ppb	03:45:09
1	Pb 220.353†	2152.0	2061.7	528.85	µg/L	528.85	ppb	03:45:09
1	S 181.975 Axial†	260.3	245.2	1057.7	µg/L	1057.7	ppb	03:45:09
1	Sb 206.836†	579.0	558.0	529.63	µg/L	529.63	ppb	03:45:09
1	Se 196.026†	374.7	362.7	536.90	µg/L	536.90	ppb	03:45:09
1	SiO2†	28362.1	26851.5	5492.4	µg/L	5492.4	ppb	03:44:49
1	Si 251.611†	32588.8	32305.4	2555.0	µg/L	2555.0	ppb	03:44:49
1	Sn 189.927†	1215.9	1215.1	540.91	µg/L	540.91	ppb	03:45:09
1	Ti 334.940†	224550.7	224416.5	511.29	µg/L	511.29	ppb	03:44:43
1	Tl 190.801†	351.6	372.2	520.58	µg/L	520.58	ppb	03:45:09
1	U 409.014†	6399.9	6174.8	504.24	µg/L	504.24	ppb	03:44:49
1	V 292.402†	51150.0	51199.7	522.88	µg/L	522.88	ppb	03:44:49
1	Zn 213.857†	22052.7	21587.8	523.62	µg/L	523.62	ppb	03:44:49
2	Sc RADIAL	55082.1	55082.1	99.4	%			03:43:45
2	Al 396.153Radial†	7032.0	7055.3	5002.0	µg/L	5002.0	ppb	03:43:45
2	Ca 317.933Radial†	5582.8	5398.9	4883.2	µg/L	4883.2	ppb	03:44:06
2	Fe 238.204 Radial†	591.3	576.9	5057.7	µg/L	5057.7	ppb	03:44:06
2	K 766.490 Radial†	7681.2	7546.7	5056.8	µg/L	5056.8	ppb	03:43:45
2	Mg 279.077 IEC†	547.1	536.4	5012.1	µg/L	5012.1	ppb	03:44:06
2	Na 589.592 Radial†	33239.5	33046.9	10046	µg/L	10046	ppb	03:43:45
2	Sr 421.552†	51560.2	51828.8	501.76	µg/L	501.76	ppb	03:43:45
2	Sc 361.383	1959138.4	1959138.4	100.58	%			03:45:17
2	Y 371.029	1344516.0	1344516.0	100.54	%			03:45:17
2	Ag 328.068†	66925.6	67047.6	509.89	µg/L	509.89	ppb	03:45:22
2	As 188.979†	271.7	269.3	506.51	µg/L	506.51	ppb	03:45:43

2	B 249.677†	12334.8	11950.2	500.89 µg/L	500.89 ppb	03:45:22
2	Ba 233.527†	20354.4	20261.7	512.79 µg/L	512.79 ppb	03:45:22
2	Be 313.107†	825753.7	824597.0	510.04 µg/L	510.04 ppb	03:45:17
2	Cd 226.502†	19490.0	19500.2	519.33 µg/L	519.33 ppb	03:45:22
2	Co 228.616†	10880.9	10823.6	514.97 µg/L	514.97 ppb	03:45:22
2	Cr 267.716†	24733.4	24615.8	519.71 µg/L	519.71 ppb	03:45:22
2	Cu 324.752†	80104.4	76409.3	505.39 µg/L	505.39 ppb	03:45:22
2	Mn 257.610†	156698.0	156031.0	518.58 µg/L	518.58 ppb	03:45:17
2	Mo 202.031†	5081.3	5050.8	522.97 µg/L	522.97 ppb	03:45:43
2	Ni 231.604†	10233.2	9893.2	517.62 µg/L	517.62 ppb	03:45:22
2	P 214.914†	1279.2	1244.2	2543.9 µg/L	2543.9 ppb	03:45:43
2	Pb 220.353†	2114.3	2011.7	516.00 µg/L	516.00 ppb	03:45:43
2	S 181.975 Axial†	256.2	239.6	1033.6 µg/L	1033.6 ppb	03:45:43
2	Sb 206.836†	571.8	547.4	519.50 µg/L	519.50 ppb	03:45:43
2	Se 196.026†	374.0	359.9	532.76 µg/L	532.76 ppb	03:45:43
2	SiO2†	28349.3	26672.9	5455.8 µg/L	5455.8 ppb	03:45:22
2	Si 251.611†	32533.4	32059.8	2535.6 µg/L	2535.6 ppb	03:45:22
2	Sn 189.927†	1191.6	1183.9	526.98 µg/L	526.98 ppb	03:45:43
2	Ti 334.940†	224322.4	222876.5	507.79 µg/L	507.79 ppb	03:45:17
2	Tl 190.801†	347.5	366.1	512.07 µg/L	512.07 ppb	03:45:43
2	U 409.014†	6387.5	6125.1	500.17 µg/L	500.17 ppb	03:45:22
2	V 292.402†	51044.8	50796.1	518.70 µg/L	518.70 ppb	03:45:22
2	Zn 213.857†	22062.6	21468.7	520.75 µg/L	520.75 ppb	03:45:22
3	Sc RADIAL	54914.5	54914.5	99.1 %		03:44:11
3	Al 396.153Radial†	7025.4	7070.3	5014.4 µg/L	5014.4 ppb	03:44:11
3	Ca 317.933Radial†	5645.4	5479.2	4955.8 µg/L	4955.8 ppb	03:44:32
3	Fe 238.204 Radial†	597.0	584.4	5122.9 µg/L	5122.9 ppb	03:44:32
3	K 766.490 Radial†	7634.1	7522.7	5040.7 µg/L	5040.7 ppb	03:44:11
3	Mg 279.077 IEC†	555.1	546.2	5101.7 µg/L	5101.7 ppb	03:44:32
3	Na 589.592 Radial†	33030.4	32938.1	10013 µg/L	10013 ppb	03:44:11
3	Sr 421.552†	51196.6	51620.4	499.74 µg/L	499.74 ppb	03:44:11
3	Sc 361.383	1956464.4	1956464.4	100.45 %		03:45:50
3	Y 371.029	1343839.9	1343839.9	100.49 %		03:45:50
3	Ag 328.068†	62950.9	63181.5	480.34 µg/L	480.34 ppb	03:45:55
3	As 188.979†	233.3	231.5	435.36 µg/L	435.36 ppb	03:46:16
3	B 249.677†	11475.3	11111.2	465.46 µg/L	465.46 ppb	03:45:55
3	Ba 233.527†	18536.0	18479.1	467.66 µg/L	467.66 ppb	03:45:55
3	Be 313.107†	771714.3	771919.6	477.46 µg/L	477.46 ppb	03:45:50
3	Cd 226.502†	17625.1	17670.0	470.53 µg/L	470.53 ppb	03:45:55
3	Co 228.616†	9813.4	9775.6	465.05 µg/L	465.05 ppb	03:45:55
3	Cr 267.716†	21523.5	21453.8	452.96 µg/L	452.96 ppb	03:45:55
3	Cu 324.752†	72385.1	68833.1	455.36 µg/L	455.36 ppb	03:45:55
3	Mn 257.610†	146836.2	146425.9	486.69 µg/L	486.69 ppb	03:45:50
3	Mo 202.031†	4244.0	4224.1	437.41 µg/L	437.41 ppb	03:46:16
3	Ni 231.604†	9208.4	8886.8	464.97 µg/L	464.97 ppb	03:45:55
3	P 214.914†	1089.9	1057.6	2158.9 µg/L	2158.9 ppb	03:46:16
3	Pb 220.353†	1846.7	1748.1	448.32 µg/L	448.32 ppb	03:46:16
3	S 181.975 Axial†	229.1	213.0	918.79 µg/L	918.79 ppb	03:46:16
3	Sb 206.836†	492.9	469.6	445.31 µg/L	445.31 ppb	03:46:16
3	Se 196.026†	329.1	315.7	468.39 µg/L	468.39 ppb	03:46:16
3	SiO2†	26232.5	24604.0	5032.6 µg/L	5032.6 ppb	03:45:55
3	Si 251.611†	30100.9	29682.3	2347.6 µg/L	2347.6 ppb	03:45:55
3	Sn 189.927†	981.6	976.4	434.62 µg/L	434.62 ppb	03:46:16
3	Ti 334.940†	208511.7	207440.8	472.59 µg/L	472.59 ppb	03:45:50
3	Tl 190.801†	313.0	332.2	464.81 µg/L	464.81 ppb	03:46:16
3	U 409.014†	5663.8	5413.3	441.92 µg/L	441.92 ppb	03:45:55
3	V 292.402†	45453.1	45298.6	462.38 µg/L	462.38 ppb	03:45:55
3	Zn 213.857†	19880.7	19326.5	468.73 µg/L	468.73 ppb	03:45:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1954428.7	100.34	%	0.308				0.31%
Sc RADIAL	55184.8	99.6	%	0.60				0.60%
Y 371.029	1341926.0	100.34	%	0.293				0.29%
Ag 328.068†	65944.6	501.45	µg/L	18.404	501.45	ppb	18.404	3.67%
QC value within limits for Ag 328.068 Recovery = 100.29%								
Al 396.153Radial†	7048.6	4997.7	µg/L	19.22	4997.7	ppb	19.22	0.38%
QC value within limits for Al 396.153Radial Recovery = 99.95%								
As 188.979†	259.9	488.87	µg/L	47.226	488.87	ppb	47.226	9.66%

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   QC value within limits for As 188.979  Recovery = 97.77%
B 249.677†            11697.9      490.23 µg/L        21.523      490.23 ppb        21.523   4.39%
   QC value within limits for B 249.677  Recovery = 98.05%
Ba 233.527†           19709.8      498.82 µg/L        27.033      498.82 ppb        27.033   5.42%
   QC value within limits for Ba 233.527  Recovery = 99.76%
Be 313.107†          809033.6      500.41 µg/L        19.966      500.41 ppb        19.966   3.99%
   QC value within limits for Be 313.107  Recovery = 100.08%
Ca 317.933Radial†      5432.4      4913.5 µg/L         37.76      4913.5 ppb         37.76   0.77%
   QC value within limits for Ca 317.933Radial  Recovery = 98.27%
Cd 226.502†           18950.2      504.66 µg/L        29.662      504.66 ppb        29.662   5.88%
   QC value within limits for Cd 226.502  Recovery = 100.93%
Co 228.616†           10505.3      499.81 µg/L        30.182      499.81 ppb        30.182   6.04%
   QC value within limits for Co 228.616  Recovery = 99.96%
Cr 267.716†           23630.9      498.92 µg/L        39.862      498.92 ppb        39.862   7.99%
   QC value within limits for Cr 267.716  Recovery = 99.78%
Cu 324.752†           74103.3      490.16 µg/L        30.220      490.16 ppb        30.220   6.17%
   QC value within limits for Cu 324.752  Recovery = 98.03%
Fe 238.204 Radial†      579.7      5082.1 µg/L         35.52      5082.1 ppb         35.52   0.70%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.64%
K 766.490 Radial†      7535.8      5049.4 µg/L          8.11      5049.4 ppb          8.11   0.16%
   QC value within limits for K 766.490 Radial  Recovery = 100.99%
Mg 279.077 IEC†         542.1      5064.5 µg/L         46.65      5064.5 ppb         46.65   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.29%
Mn 257.610†          153212.6      509.22 µg/L        19.606      509.22 ppb        19.606   3.85%
   QC value within limits for Mn 257.610  Recovery = 101.84%
Mo 202.031†            4815.6      498.63 µg/L        53.391      498.63 ppb        53.391  10.71%
   QC value within limits for Mo 202.031  Recovery = 99.73%
Na 589.592 Radial†    32945.7       10015 µg/L          29.7       10015 ppb          29.7   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 100.15%
Ni 231.604†            9588.1      501.66 µg/L        31.862      501.66 ppb        31.862   6.35%
   QC value within limits for Ni 231.604  Recovery = 100.33%
P 214.914†             1189.7      2431.5 µg/L        237.25      2431.5 ppb        237.25   9.76%
   QC value within limits for P 214.914  Recovery = 97.26%
Pb 220.353†            1940.5      497.72 µg/L        43.261      497.72 ppb        43.261   8.69%
   QC value within limits for Pb 220.353  Recovery = 99.54%
S 181.975 Axial†        232.6      1003.4 µg/L         74.24      1003.4 ppb         74.24   7.40%
   QC value within limits for S 181.975 Axial  Recovery = 100.34%
Sb 206.836†             525.0      498.15 µg/L        46.036      498.15 ppb        46.036   9.24%
   QC value within limits for Sb 206.836  Recovery = 99.63%
Se 196.026†             346.1      512.68 µg/L        38.413      512.68 ppb        38.413   7.49%
   QC value within limits for Se 196.026  Recovery = 102.54%
SiO2†                 26042.8      5326.9 µg/L        255.52      5326.9 ppb        255.52   4.80%
   QC value within limits for SiO2  Recovery = 99.62%
Si 251.611†           31349.2      2479.4 µg/L        114.58      2479.4 ppb        114.58   4.62%
   QC value within limits for Si 251.611  Recovery = 99.18%
Sn 189.927†            1125.1      500.84 µg/L        57.766      500.84 ppb        57.766  11.53%
   QC value within limits for Sn 189.927  Recovery = 100.17%
Sr 421.552†           51731.1      500.81 µg/L         1.015      500.81 ppb         1.015   0.20%
   QC value within limits for Sr 421.552  Recovery = 100.16%
Ti 334.940†          218244.6      497.22 µg/L        21.404      497.22 ppb        21.404   4.30%
   QC value within limits for Ti 334.940  Recovery = 99.44%
Tl 190.801†             356.8      499.15 µg/L        30.047      499.15 ppb        30.047   6.02%
   QC value within limits for Tl 190.801  Recovery = 99.83%
U 409.014†             5904.4      482.11 µg/L        34.866      482.11 ppb        34.866   7.23%
   QC value within limits for U 409.014  Recovery = 96.42%
V 292.402†            49098.1      501.32 µg/L        33.787      501.32 ppb        33.787   6.74%
   QC value within limits for V 292.402  Recovery = 100.26%
Zn 213.857†           20794.3      504.37 µg/L        30.896      504.37 ppb        30.896   6.13%
   QC value within limits for Zn 213.857  Recovery = 100.87%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 03:46:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55260.7	55260.7	99.8	%			03:46:59
1	Al 396.153Radial†	-17.9	-34.0	-24.149	µg/L	-24.149	ppb	03:46:59
1	Ca 317.933Radial†	185.2	-29.5	-26.667	µg/L	-26.667	ppb	03:47:19
1	Fe 238.204 Radial†	17.1	-0.7	-6.0123	µg/L	-6.0123	ppb	03:47:19
1	K 766.490 Radial†	232.6	55.6	37.254	µg/L	37.254	ppb	03:46:59
1	Mg 279.077 IEC†	9.4	-4.3	-40.319	µg/L	-40.319	ppb	03:47:19
1	Na 589.592 Radial†	392.2	14.4	4.3839	µg/L	4.3839	ppb	03:46:59
1	Sr 421.552†	50.3	30.4	0.2945	µg/L	0.2945	ppb	03:46:59
1	Sc 361.383	1966467.6	1966467.6	100.96	%			03:48:21
1	Y 371.029	1357685.2	1357685.2	101.52	%			03:48:21
1	Ag 328.068†	-419.1	95.2	0.7159	µg/L	0.7159	ppb	03:48:27
1	As 188.979†	-1.8	-2.5	-4.8023	µg/L	-4.8023	ppb	03:48:47
1	B 249.677†	347.0	30.7	1.2925	µg/L	1.2925	ppb	03:48:47
1	Ba 233.527†	-9.6	15.9	0.4011	µg/L	0.4011	ppb	03:48:47
1	Be 313.107†	-3426.9	238.6	0.1477	µg/L	0.1477	ppb	03:48:27
1	Cd 226.502†	-143.1	-18.6	-0.4929	µg/L	-0.4929	ppb	03:48:47
1	Co 228.616†	-5.9	-0.1	-0.0019	µg/L	-0.0019	ppb	03:48:47
1	Cr 267.716†	-41.2	-14.9	-0.3153	µg/L	-0.3153	ppb	03:48:47
1	Cu 324.752†	3282.8	21.1	0.1385	µg/L	0.1385	ppb	03:48:27
1	Mn 257.610†	-259.1	-14.7	-0.0480	µg/L	-0.0480	ppb	03:48:47
1	Mo 202.031†	7.5	6.3	0.6543	µg/L	0.6543	ppb	03:48:47
1	Ni 231.604†	295.9	12.4	0.6483	µg/L	0.6483	ppb	03:48:47
1	P 214.914†	16.9	-10.9	-22.630	µg/L	-22.630	ppb	03:48:47
1	Pb 220.353†	80.2	-10.9	-2.8084	µg/L	-2.8084	ppb	03:48:47
1	S 181.975 Axial†	19.0	3.7	16.163	µg/L	16.163	ppb	03:48:47
1	Sb 206.836†	26.7	5.4	5.1154	µg/L	5.1154	ppb	03:48:47
1	Se 196.026†	25.5	13.3	19.379	µg/L	19.379	ppb	03:48:47
1	SiO2†	1560.8	34.0	6.9535	µg/L	6.9535	ppb	03:48:27
1	Si 251.611†	306.0	18.2	1.4393	µg/L	1.4393	ppb	03:48:47
1	Sn 189.927†	-0.1	-0.9	-0.4182	µg/L	-0.4182	ppb	03:48:47
1	Ti 334.940†	136.7	-9.4	-0.0187	µg/L	-0.0187	ppb	03:48:27
1	Tl 190.801†	-23.7	-2.9	-3.9534	µg/L	-3.9534	ppb	03:48:47
1	U 409.014†	274.8	46.8	3.8337	µg/L	3.8337	ppb	03:48:27
1	V 292.402†	-84.2	-36.1	-0.3565	µg/L	-0.3565	ppb	03:48:27
1	Zn 213.857†	479.3	8.8	0.2154	µg/L	0.2154	ppb	03:48:47
2	Sc RADIAL	54887.9	54887.9	99.1	%			03:47:25
2	Al 396.153Radial†	-34.4	-50.7	-36.031	µg/L	-36.031	ppb	03:47:25
2	Ca 317.933Radial†	184.0	-29.5	-26.649	µg/L	-26.649	ppb	03:47:45
2	Fe 238.204 Radial†	16.1	-1.6	-13.570	µg/L	-13.570	ppb	03:47:45
2	K 766.490 Radial†	186.2	10.3	6.9302	µg/L	6.9302	ppb	03:47:25
2	Mg 279.077 IEC†	10.3	-3.3	-31.010	µg/L	-31.010	ppb	03:47:45
2	Na 589.592 Radial†	404.1	29.1	8.8479	µg/L	8.8479	ppb	03:47:25
2	Sr 421.552†	47.1	27.6	0.2668	µg/L	0.2668	ppb	03:47:25
2	Sc 361.383	1976440.2	1976440.2	101.47	%			03:48:53
2	Y 371.029	1364708.5	1364708.5	102.05	%			03:48:53
2	Ag 328.068†	-426.9	89.6	0.6756	µg/L	0.6756	ppb	03:48:59
2	As 188.979†	-2.3	-3.1	-5.8500	µg/L	-5.8500	ppb	03:49:20
2	B 249.677†	311.4	-6.2	-0.2522	µg/L	-0.2522	ppb	03:49:20
2	Ba 233.527†	-20.6	5.1	0.1292	µg/L	0.1292	ppb	03:49:20
2	Be 313.107†	-3312.3	368.6	0.2281	µg/L	0.2281	ppb	03:48:59
2	Cd 226.502†	-130.2	-5.1	-0.1349	µg/L	-0.1349	ppb	03:49:20
2	Co 228.616†	8.0	13.7	0.6525	µg/L	0.6525	ppb	03:49:20
2	Cr 267.716†	-35.1	-8.7	-0.1834	µg/L	-0.1834	ppb	03:49:20
2	Cu 324.752†	3166.3	-110.1	-0.7294	µg/L	-0.7294	ppb	03:48:59
2	Mn 257.610†	-250.8	-5.2	-0.0180	µg/L	-0.0180	ppb	03:49:20
2	Mo 202.031†	3.6	2.4	0.2500	µg/L	0.2500	ppb	03:49:20
2	Ni 231.604†	291.1	6.2	0.3218	µg/L	0.3218	ppb	03:49:20
2	P 214.914†	17.4	-10.4	-21.676	µg/L	-21.676	ppb	03:49:20
2	Pb 220.353†	102.4	10.6	2.7095	µg/L	2.7095	ppb	03:49:20

2	S 181.975 Axial†	16.8	1.5	6.3059 µg/L	6.3059 ppb	03:49:20
2	Sb 206.836†	22.2	0.8	0.7556 µg/L	0.7556 ppb	03:49:20
2	Se 196.026†	11.0	-1.1	-1.6758 µg/L	-1.6758 ppb	03:49:20
2	SiO2†	1598.8	63.7	13.027 µg/L	13.027 ppb	03:48:59
2	Si 251.611†	305.5	16.1	1.2773 µg/L	1.2773 ppb	03:49:20
2	Sn 189.927†	1.9	1.0	0.4635 µg/L	0.4635 ppb	03:49:20
2	Ti 334.940†	154.4	7.4	0.0188 µg/L	0.0188 ppb	03:48:59
2	Tl 190.801†	-17.5	3.3	4.6194 µg/L	4.6194 ppb	03:49:20
2	U 409.014†	183.0	-45.0	-3.6806 µg/L	-3.6806 ppb	03:48:59
2	V 292.402†	-44.6	3.3	0.0297 µg/L	0.0297 ppb	03:48:59
2	Zn 213.857†	475.6	2.8	0.0711 µg/L	0.0711 ppb	03:49:20
3	Sc RADIAL	54679.5	54679.5	98.7 %		03:47:50
3	Al 396.153Radial†	-23.4	-39.8	-28.239 µg/L	-28.239 ppb	03:47:50
3	Ca 317.933Radial†	188.4	-24.3	-21.952 µg/L	-21.952 ppb	03:48:11
3	Fe 238.204 Radial†	14.8	-2.8	-24.376 µg/L	-24.376 ppb	03:48:11
3	K 766.490 Radial†	174.2	-1.1	-0.7178 µg/L	-0.7178 ppb	03:47:50
3	Mg 279.077 IEC†	7.6	-6.0	-56.247 µg/L	-56.247 ppb	03:48:11
3	Na 589.592 Radial†	387.9	14.2	4.3209 µg/L	4.3209 ppb	03:47:50
3	Sr 421.552†	29.3	9.7	0.0938 µg/L	0.0938 ppb	03:47:50
3	Sc 361.383	1968426.0	1968426.0	101.06 %		03:49:26
3	Y 371.029	1359276.2	1359276.2	101.64 %		03:49:26
3	Ag 328.068†	-434.5	80.3	0.6058 µg/L	0.6058 ppb	03:49:31
3	As 188.979†	1.7	0.9	1.6385 µg/L	1.6385 ppb	03:49:52
3	B 249.677†	317.6	1.2	0.0612 µg/L	0.0612 ppb	03:49:52
3	Ba 233.527†	-11.5	14.0	0.3549 µg/L	0.3549 ppb	03:49:52
3	Be 313.107†	-3401.4	267.2	0.1653 µg/L	0.1653 ppb	03:49:31
3	Cd 226.502†	-144.0	-19.3	-0.5092 µg/L	-0.5092 ppb	03:49:52
3	Co 228.616†	1.9	7.7	0.3658 µg/L	0.3658 ppb	03:49:52
3	Cr 267.716†	-36.7	-10.3	-0.2183 µg/L	-0.2183 ppb	03:49:52
3	Cu 324.752†	3216.2	-48.0	-0.3204 µg/L	-0.3204 ppb	03:49:31
3	Mn 257.610†	-247.4	-2.8	-0.0104 µg/L	-0.0104 ppb	03:49:52
3	Mo 202.031†	-3.9	-5.0	-0.5206 µg/L	-0.5206 ppb	03:49:52
3	Ni 231.604†	308.6	24.6	1.2893 µg/L	1.2893 ppb	03:49:52
3	P 214.914†	9.1	-18.5	-38.474 µg/L	-38.474 ppb	03:49:52
3	Pb 220.353†	86.7	-4.6	-1.1747 µg/L	-1.1747 ppb	03:49:52
3	S 181.975 Axial†	13.1	-2.1	-9.0166 µg/L	-9.0166 ppb	03:49:52
3	Sb 206.836†	23.4	2.1	1.9775 µg/L	1.9775 ppb	03:49:52
3	Se 196.026†	7.9	-4.1	-5.9893 µg/L	-5.9893 ppb	03:49:52
3	SiO2†	1627.7	98.6	20.174 µg/L	20.174 ppb	03:49:31
3	Si 251.611†	290.7	2.7	0.2172 µg/L	0.2172 ppb	03:49:52
3	Sn 189.927†	1.4	0.6	0.2412 µg/L	0.2412 ppb	03:49:52
3	Ti 334.940†	200.4	53.5	0.1260 µg/L	0.1260 ppb	03:49:31
3	Tl 190.801†	-22.6	-1.7	-2.4241 µg/L	-2.4241 ppb	03:49:52
3	U 409.014†	190.2	-37.2	-3.0363 µg/L	-3.0363 ppb	03:49:31
3	V 292.402†	-33.3	14.4	0.1348 µg/L	0.1348 ppb	03:49:31
3	Zn 213.857†	473.0	2.1	0.0505 µg/L	0.0505 ppb	03:49:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1970444.6	101.16	%	0.271				0.27%
Sc RADIAL	54942.7	99.2	%	0.53				0.54%
Y 371.029	1360556.7	101.74	%	0.275				0.27%
Ag 328.068†	88.4	0.6658	µg/L	0.05567	0.6658	ppb	0.05567	8.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-41.5	-29.473	µg/L	6.0367	-29.473	ppb	6.0367	20.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-3.0046	µg/L	4.05506	-3.0046	ppb	4.05506	134.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.6	0.3672	µg/L	0.81658	0.3672	ppb	0.81658	222.40%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.7	0.2950	µg/L	0.14550	0.2950	ppb	0.14550	49.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	291.5	0.1803	µg/L	0.04226	0.1803	ppb	0.04226	23.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-27.7	-25.089	µg/L	2.7168	-25.089	ppb	2.7168	10.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-14.3	-0.3790	µg/L	0.21155	-0.3790	ppb	0.21155	55.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.1	0.3388	µg/L	0.32805	0.3388	ppb	0.32805	96.82%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -11.3     -0.2390 µg/L       0.06832     -0.2390 ppb        0.06832  28.59%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -45.7     -0.3038 µg/L       0.43416     -0.3038 ppb        0.43416 142.92%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.7     -14.653 µg/L        9.2298     -14.653 ppb         9.2298  62.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         21.6      14.489 µg/L       20.0827      14.489 ppb        20.0827 138.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.6     -42.525 µg/L       12.7623     -42.525 ppb        12.7623  30.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -7.6     -0.0254 µg/L       0.01988     -0.0254 ppb        0.01988  78.16%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.2      0.1279 µg/L       0.59687      0.1279 ppb        0.59687 466.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        19.2      5.8509 µg/L       2.59566      5.8509 ppb        2.59566  44.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               14.4      0.7531 µg/L       0.49219      0.7531 ppb        0.49219  65.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.3     -27.593 µg/L        9.4351     -27.593 ppb         9.4351  34.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.7     -0.4245 µg/L       2.83440     -0.4245 ppb        2.83440 667.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.0      4.4840 µg/L      12.68813      4.4840 ppb       12.68813 282.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.8      2.6162 µg/L       2.24894      2.6162 ppb        2.24894  85.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.7      3.9045 µg/L      13.57350      3.9045 ppb       13.57350 347.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     65.4      13.385 µg/L        6.6173      13.385 ppb         6.6173  49.44%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               12.4      0.9779 µg/L       0.66378      0.9779 ppb        0.66378  67.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.2      0.0955 µg/L       0.45855      0.0955 ppb        0.45855 480.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               22.6      0.2184 µg/L       0.10875      0.2184 ppb        0.10875  49.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               17.2      0.0421 µg/L       0.07510      0.0421 ppb        0.07510 178.54%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.4     -0.5860 µg/L       4.57244     -0.5860 ppb        4.57244 780.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -11.8     -0.9611 µg/L       4.16484     -0.9611 ppb        4.16484 433.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -6.1     -0.0640 µg/L       0.25867     -0.0640 ppb        0.25867 404.17%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                4.6      0.1123 µg/L       0.08984      0.1123 ppb        0.08984  79.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/24/2010 04:04:24
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502
Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\022410.SIF
Batch ID:
Results Data Set: 022310A
Results Library: c:\pe\optimal\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 2/24/2010 04:04:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55744.4	55744.4	101	%			04:05:00
1	Al 396.153Radial†	6984.9	6924.5	4909.0	µg/L	4909.0	ppb	04:05:00
1	Ca 317.933Radial†	5686.3	5435.0	4915.9	µg/L	4915.9	ppb	04:05:20
1	Fe 238.204 Radial†	598.7	577.1	5059.7	µg/L	5059.7	ppb	04:05:20
1	K 766.490 Radial†	7663.8	7437.5	4983.6	µg/L	4983.6	ppb	04:05:00
1	Mg 279.077 IEC†	551.1	533.9	4988.7	µg/L	4988.7	ppb	04:05:20
1	Na 589.592 Radial†	32977.5	32389.5	9845.9	µg/L	9845.9	ppb	04:05:00
1	Sr 421.552†	51238.0	50892.7	492.70	µg/L	492.70	ppb	04:05:00
1	Sc 361.383	1977867.3	1977867.3	101.54	%			04:06:24
1	Y 371.029	1358813.3	1358813.3	101.61	%			04:06:24
1	Ag 328.068†	67010.4	66501.1	505.75	µg/L	505.75	ppb	04:06:30
1	As 188.979†	283.4	278.3	523.38	µg/L	523.38	ppb	04:06:50
1	B 249.677†	12401.1	11899.4	498.75	µg/L	498.75	ppb	04:06:30
1	Ba 233.527†	20420.8	20135.5	509.60	µg/L	509.60	ppb	04:06:30
1	Be 313.107†	837173.3	828069.0	512.19	µg/L	512.19	ppb	04:06:24
1	Cd 226.502†	19630.3	19454.9	518.12	µg/L	518.12	ppb	04:06:30
1	Co 228.616†	10949.6	10788.8	513.32	µg/L	513.32	ppb	04:06:30
1	Cr 267.716†	24847.7	24495.6	517.17	µg/L	517.17	ppb	04:06:30
1	Cu 324.752†	79991.9	75544.4	499.67	µg/L	499.67	ppb	04:06:30
1	Mn 257.610†	158712.1	156539.3	520.27	µg/L	520.27	ppb	04:06:24
1	Mo 202.031†	5184.9	5104.9	528.57	µg/L	528.57	ppb	04:06:50
1	Ni 231.604†	10343.2	9905.1	518.24	µg/L	518.24	ppb	04:06:30
1	P 214.914†	1298.1	1250.8	2558.2	µg/L	2558.2	ppb	04:06:50
1	Pb 220.353†	2162.9	2039.6	523.18	µg/L	523.18	ppb	04:06:50
1	S 181.975 Axial†	260.6	241.6	1042.1	µg/L	1042.1	ppb	04:06:50
1	Sb 206.836†	578.6	548.7	520.80	µg/L	520.80	ppb	04:06:50
1	Se 196.026†	381.6	363.8	538.49	µg/L	538.49	ppb	04:06:50
1	SiO2†	28419.4	26475.0	5415.4	µg/L	5415.4	ppb	04:06:30
1	Si 251.611†	32619.0	31837.9	2518.0	µg/L	2518.0	ppb	04:06:30
1	Sn 189.927†	1205.6	1186.4	528.10	µg/L	528.10	ppb	04:06:50
1	Ti 334.940†	226364.4	222775.6	507.56	µg/L	507.56	ppb	04:06:24
1	Tl 190.801†	351.5	366.7	512.88	µg/L	512.88	ppb	04:06:50
1	U 409.014†	6312.0	5990.6	489.16	µg/L	489.16	ppb	04:06:30
1	V 292.402†	51253.0	50520.5	515.95	µg/L	515.95	ppb	04:06:30
1	Zn 213.857†	22122.5	21320.0	517.12	µg/L	517.12	ppb	04:06:30
2	Sc RADIAL	56243.9	56243.9	102	%			04:05:26
2	Al 396.153Radial†	7077.8	6954.4	4930.4	µg/L	4930.4	ppb	04:05:26
2	Ca 317.933Radial†	5670.7	5369.4	4856.6	µg/L	4856.6	ppb	04:05:46
2	Fe 238.204 Radial†	596.9	570.0	4998.0	µg/L	4998.0	ppb	04:05:46
2	K 766.490 Radial†	7775.2	7479.7	5011.9	µg/L	5011.9	ppb	04:05:26
2	Mg 279.077 IEC†	549.2	527.1	4925.3	µg/L	4925.3	ppb	04:05:46
2	Na 589.592 Radial†	33480.0	32593.2	9907.8	µg/L	9907.8	ppb	04:05:26
2	Sr 421.552†	52206.3	51394.1	497.55	µg/L	497.55	ppb	04:05:26
2	Sc 361.383	1985464.5	1985464.5	101.94	%			04:06:57
2	Y 371.029	1365102.2	1365102.2	102.08	%			04:06:57
2	Ag 328.068†	67335.6	66567.7	506.25	µg/L	506.25	ppb	04:07:03
2	As 188.979†	277.1	271.0	509.74	µg/L	509.74	ppb	04:07:23

2	B 249.677†	12444.9	11895.5	498.62 µg/L	498.62 ppb	04:07:03
2	Ba 233.527†	20623.0	20256.9	512.67 µg/L	512.67 ppb	04:07:03
2	Be 313.107†	836368.3	824124.6	509.75 µg/L	509.75 ppb	04:06:57
2	Cd 226.502†	19864.0	19610.1	522.27 µg/L	522.27 ppb	04:07:03
2	Co 228.616†	11058.4	10854.3	516.44 µg/L	516.44 ppb	04:07:03
2	Cr 267.716†	25033.2	24583.9	519.03 µg/L	519.03 ppb	04:07:03
2	Cu 324.752†	80328.9	75573.5	499.86 µg/L	499.86 ppb	04:07:03
2	Mn 257.610†	158876.3	156102.3	518.81 µg/L	518.81 ppb	04:06:57
2	Mo 202.031†	5135.8	5037.2	521.56 µg/L	521.56 ppb	04:07:23
2	Ni 231.604†	10382.1	9904.3	518.20 µg/L	518.20 ppb	04:07:03
2	P 214.914†	1292.1	1240.1	2535.8 µg/L	2535.8 ppb	04:07:23
2	Pb 220.353†	2144.3	2013.2	516.38 µg/L	516.38 ppb	04:07:23
2	S 181.975 Axial†	262.3	242.2	1044.7 µg/L	1044.7 ppb	04:07:23
2	Sb 206.836†	574.4	542.4	514.74 µg/L	514.74 ppb	04:07:23
2	Se 196.026†	384.6	365.3	540.61 µg/L	540.61 ppb	04:07:23
2	SiO2†	28633.0	26577.6	5436.3 µg/L	5436.3 ppb	04:07:03
2	Si 251.611†	32848.7	31940.3	2526.1 µg/L	2526.1 ppb	04:07:03
2	Sn 189.927†	1200.3	1176.7	523.78 µg/L	523.78 ppb	04:07:23
2	Ti 334.940†	226236.4	221797.0	505.33 µg/L	505.33 ppb	04:06:57
2	Tl 190.801†	356.9	370.7	518.38 µg/L	518.38 ppb	04:07:23
2	U 409.014†	6465.4	6117.3	499.54 µg/L	499.54 ppb	04:07:03
2	V 292.402†	51507.3	50576.9	516.47 µg/L	516.47 ppb	04:07:03
2	Zn 213.857†	22271.5	21382.8	518.66 µg/L	518.66 ppb	04:07:03
3	Sc RADIAL	56147.3	56147.3	101 %		04:05:52
3	Al 396.153Radial†	7045.5	6934.5	4918.1 µg/L	4918.1 ppb	04:05:52
3	Ca 317.933Radial†	5725.0	5432.6	4913.7 µg/L	4913.7 ppb	04:06:12
3	Fe 238.204 Radial†	601.3	575.4	5043.9 µg/L	5043.9 ppb	04:06:12
3	K 766.490 Radial†	7739.0	7457.1	4996.8 µg/L	4996.8 ppb	04:05:52
3	Mg 279.077 IEC†	555.8	534.5	4993.2 µg/L	4993.2 ppb	04:06:12
3	Na 589.592 Radial†	33230.8	32404.2	9850.3 µg/L	9850.3 ppb	04:05:52
3	Sr 421.552†	51828.2	51109.7	494.80 µg/L	494.80 ppb	04:05:52
3	Sc 361.383	1989325.1	1989325.1	102.13 %		04:07:30
3	Y 371.029	1368343.1	1368343.1	102.32 %		04:07:30
3	Ag 328.068†	63218.9	62408.7	474.47 µg/L	474.47 ppb	04:07:36
3	As 188.979†	242.4	236.5	444.88 µg/L	444.88 ppb	04:07:56
3	B 249.677†	11576.4	11021.5	461.73 µg/L	461.73 ppb	04:07:36
3	Ba 233.527†	18692.9	18327.9	463.83 µg/L	463.83 ppb	04:07:36
3	Be 313.107†	775756.1	763186.1	472.06 µg/L	472.06 ppb	04:07:30
3	Cd 226.502†	18001.6	17748.8	472.63 µg/L	472.63 ppb	04:07:36
3	Co 228.616†	9892.0	9691.2	461.04 µg/L	461.04 ppb	04:07:36
3	Cr 267.716†	21805.1	21375.5	451.30 µg/L	451.30 ppb	04:07:36
3	Cu 324.752†	72532.6	67787.2	448.44 µg/L	448.44 ppb	04:07:36
3	Mn 257.610†	147742.1	144898.3	481.61 µg/L	481.61 ppb	04:07:30
3	Mo 202.031†	4266.4	4176.2	432.44 µg/L	432.44 ppb	04:07:56
3	Ni 231.604†	9326.0	8850.4	463.07 µg/L	463.07 ppb	04:07:36
3	P 214.914†	1089.2	1038.9	2120.7 µg/L	2120.7 ppb	04:07:56
3	Pb 220.353†	1870.9	1741.4	446.60 µg/L	446.60 ppb	04:07:56
3	S 181.975 Axial†	230.0	210.1	906.13 µg/L	906.13 ppb	04:07:56
3	Sb 206.836†	492.0	460.7	436.79 µg/L	436.79 ppb	04:07:56
3	Se 196.026†	336.3	317.3	470.64 µg/L	470.64 ppb	04:07:56
3	SiO2†	26454.3	24389.8	4988.8 µg/L	4988.8 ppb	04:07:36
3	Si 251.611†	30237.9	29321.5	2319.0 µg/L	2319.0 ppb	04:07:36
3	Sn 189.927†	986.9	965.4	429.75 µg/L	429.75 ppb	04:07:56
3	Ti 334.940†	208402.7	203905.0	464.54 µg/L	464.54 ppb	04:07:30
3	Tl 190.801†	311.1	325.2	455.13 µg/L	455.13 ppb	04:07:56
3	U 409.014†	5714.4	5369.7	438.36 µg/L	438.36 ppb	04:07:36
3	V 292.402†	45785.6	44876.6	458.07 µg/L	458.07 ppb	04:07:36
3	Zn 213.857†	20074.2	19189.0	465.40 µg/L	465.40 ppb	04:07:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984219.0	101.87	%	0.299				0.29%
Sc RADIAL	56045.2	101	%	0.5				0.47%
Y 371.029	1364086.2	102.00	%	0.362				0.36%
Ag 328.068†	65159.2	495.49	µg/L	18.202	495.49	ppb	18.202	3.67%
QC value within limits for Ag 328.068 Recovery = 99.10%								
Al 396.153Radial†	6937.8	4919.1	µg/L	10.74	4919.1	ppb	10.74	0.22%
QC value within limits for Al 396.153Radial Recovery = 98.38%								
As 188.979†	261.9	492.67	µg/L	41.945	492.67	ppb	41.945	8.51%

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   QC value within limits for As 188.979  Recovery = 98.53%
B 249.677†            11605.5      486.37 µg/L        21.340      486.37 ppb         21.340   4.39%
   QC value within limits for B 249.677  Recovery = 97.27%
Ba 233.527†           19573.4      495.37 µg/L        27.353      495.37 ppb         27.353   5.52%
   QC value within limits for Ba 233.527  Recovery = 99.07%
Be 313.107†          805126.6      498.00 µg/L        22.498      498.00 ppb         22.498   4.52%
   QC value within limits for Be 313.107  Recovery = 99.60%
Ca 317.933Radial†      5412.4      4895.4 µg/L         33.63      4895.4 ppb          33.63   0.69%
   QC value within limits for Ca 317.933Radial  Recovery = 97.91%
Cd 226.502†           18937.9      504.34 µg/L        27.540      504.34 ppb         27.540   5.46%
   QC value within limits for Cd 226.502  Recovery = 100.87%
Co 228.616†           10444.8      496.94 µg/L        31.123      496.94 ppb         31.123   6.26%
   QC value within limits for Co 228.616  Recovery = 99.39%
Cr 267.716†           23485.0      495.83 µg/L        38.578      495.83 ppb         38.578   7.78%
   QC value within limits for Cr 267.716  Recovery = 99.17%
Cu 324.752†           72968.4      482.66 µg/L        29.636      482.66 ppb         29.636   6.14%
   QC value within limits for Cu 324.752  Recovery = 96.53%
Fe 238.204 Radial†      574.2      5033.9 µg/L         32.07      5033.9 ppb          32.07   0.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.68%
K 766.490 Radial†      7458.1      4997.4 µg/L         14.14      4997.4 ppb          14.14   0.28%
   QC value within limits for K 766.490 Radial  Recovery = 99.95%
Mg 279.077 IEC†         531.9      4969.1 µg/L         37.95      4969.1 ppb          37.95   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.38%
Mn 257.610†          152513.3      506.90 µg/L        21.910      506.90 ppb         21.910   4.32%
   QC value within limits for Mn 257.610  Recovery = 101.38%
Mo 202.031†            4772.7      494.19 µg/L        53.590      494.19 ppb         53.590  10.84%
   QC value within limits for Mo 202.031  Recovery = 98.84%
Na 589.592 Radial†    32462.3      9868.0 µg/L         34.55      9868.0 ppb          34.55   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 98.68%
Ni 231.604†            9553.3      499.84 µg/L        31.842      499.84 ppb         31.842   6.37%
   QC value within limits for Ni 231.604  Recovery = 99.97%
P 214.914†             1176.6      2404.9 µg/L        246.40      2404.9 ppb         246.40  10.25%
   QC value within limits for P 214.914  Recovery = 96.20%
Pb 220.353†            1931.4      495.39 µg/L        42.390      495.39 ppb         42.390   8.56%
   QC value within limits for Pb 220.353  Recovery = 99.08%
S 181.975 Axial†        231.3      997.67 µg/L        79.287      997.67 ppb         79.287   7.95%
   QC value within limits for S 181.975 Axial  Recovery = 99.77%
Sb 206.836†             517.3      490.78 µg/L        46.852      490.78 ppb         46.852   9.55%
   QC value within limits for Sb 206.836  Recovery = 98.16%
Se 196.026†             348.8      516.58 µg/L        39.801      516.58 ppb         39.801   7.70%
   QC value within limits for Se 196.026  Recovery = 103.32%
SiO2†                  25814.1      5280.2 µg/L        252.53      5280.2 ppb         252.53   4.78%
   QC value within limits for SiO2  Recovery = 98.74%
Si 251.611†            31033.2      2454.4 µg/L        117.31      2454.4 ppb         117.31   4.78%
   QC value within limits for Si 251.611  Recovery = 98.18%
Sn 189.927†            1109.5      493.88 µg/L        55.576      493.88 ppb         55.576  11.25%
   QC value within limits for Sn 189.927  Recovery = 98.78%
Sr 421.552†            51132.2      495.02 µg/L         2.434      495.02 ppb          2.434   0.49%
   QC value within limits for Sr 421.552  Recovery = 99.00%
Ti 334.940†           216159.2      492.48 µg/L        24.221      492.48 ppb         24.221   4.92%
   QC value within limits for Ti 334.940  Recovery = 98.50%
Tl 190.801†             354.2      495.46 µg/L        35.035      495.46 ppb         35.035   7.07%
   QC value within limits for Tl 190.801  Recovery = 99.09%
U 409.014†             5825.9      475.69 µg/L        32.739      475.69 ppb         32.739   6.88%
   QC value within limits for U 409.014  Recovery = 95.14%
V 292.402†             48658.0      496.83 µg/L        33.566      496.83 ppb         33.566   6.76%
   QC value within limits for V 292.402  Recovery = 99.37%
Zn 213.857†            20630.6      500.39 µg/L        30.316      500.39 ppb         30.316   6.06%
   QC value within limits for Zn 213.857  Recovery = 100.08%
All analyte(s) passed QC.
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Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 04:08:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55413.4	55413.4	100	%			04:08:39
1	Al 396.153Radial†	-16.7	-32.7	-23.262	µg/L	-23.262	ppb	04:08:39
1	Ca 317.933Radial†	187.5	-27.7	-25.094	µg/L	-25.094	ppb	04:09:00
1	Fe 238.204 Radial†	17.2	-0.6	-5.1856	µg/L	-5.1856	ppb	04:09:00
1	K 766.490 Radial†	214.7	37.1	24.833	µg/L	24.833	ppb	04:08:39
1	Mg 279.077 IEC†	11.2	-2.5	-23.546	µg/L	-23.546	ppb	04:09:00
1	Na 589.592 Radial†	415.6	36.7	11.161	µg/L	11.161	ppb	04:08:39
1	Sr 421.552†	36.9	16.9	0.1632	µg/L	0.1632	ppb	04:08:39
1	Sc 361.383	1980626.9	1980626.9	101.69	%			04:10:01
1	Y 371.029	1367449.4	1367449.4	102.25	%			04:10:01
1	Ag 328.068†	-431.6	85.8	0.6461	µg/L	0.6461	ppb	04:10:07
1	As 188.979†	-0.5	-1.3	-2.4838	µg/L	-2.4838	ppb	04:10:27
1	B 249.677†	333.5	14.9	0.6290	µg/L	0.6290	ppb	04:10:27
1	Ba 233.527†	-22.1	3.6	0.0916	µg/L	0.0916	ppb	04:10:27
1	Be 313.107†	-3577.2	115.1	0.0712	µg/L	0.0712	ppb	04:10:07
1	Cd 226.502†	-141.5	-15.9	-0.4234	µg/L	-0.4234	ppb	04:10:27
1	Co 228.616†	3.5	9.2	0.4399	µg/L	0.4399	ppb	04:10:27
1	Cr 267.716†	-49.0	-22.3	-0.4702	µg/L	-0.4702	ppb	04:10:07
1	Cu 324.752†	3329.4	43.7	0.2876	µg/L	0.2876	ppb	04:10:07
1	Mn 257.610†	-245.1	0.9	0.0032	µg/L	0.0032	ppb	04:10:27
1	Mo 202.031†	4.5	3.4	0.3473	µg/L	0.3473	ppb	04:10:27
1	Ni 231.604†	295.1	9.5	0.4980	µg/L	0.4980	ppb	04:10:27
1	P 214.914†	25.0	-3.0	-6.2814	µg/L	-6.2814	ppb	04:10:27
1	Pb 220.353†	86.1	-5.8	-1.4749	µg/L	-1.4749	ppb	04:10:27
1	S 181.975 Axial†	17.3	1.9	8.2269	µg/L	8.2269	ppb	04:10:27
1	Sb 206.836†	27.2	5.7	5.4098	µg/L	5.4098	ppb	04:10:27
1	Se 196.026†	10.3	-1.8	-2.6046	µg/L	-2.6046	ppb	04:10:27
1	SiO2†	1615.3	76.6	15.659	µg/L	15.659	ppb	04:10:07
1	Si 251.611†	306.0	16.1	1.2711	µg/L	1.2711	ppb	04:10:27
1	Sn 189.927†	2.7	1.8	0.8062	µg/L	0.8062	ppb	04:10:27
1	Ti 334.940†	160.6	13.1	0.0314	µg/L	0.0314	ppb	04:10:07
1	Tl 190.801†	-18.5	2.4	3.3320	µg/L	3.3320	ppb	04:10:27
1	U 409.014†	219.6	-9.4	-0.7696	µg/L	-0.7696	ppb	04:10:07
1	V 292.402†	-70.1	-21.6	-0.2177	µg/L	-0.2177	ppb	04:10:07
1	Zn 213.857†	479.2	5.4	0.1303	µg/L	0.1303	ppb	04:10:27
2	Sc RADIAL	54819.5	54819.5	99.0	%			04:09:05
2	Al 396.153Radial†	-31.5	-47.8	-33.967	µg/L	-33.967	ppb	04:09:05
2	Ca 317.933Radial†	185.3	-27.9	-25.270	µg/L	-25.270	ppb	04:09:25
2	Fe 238.204 Radial†	15.9	-1.7	-14.759	µg/L	-14.759	ppb	04:09:25
2	K 766.490 Radial†	228.1	52.9	35.434	µg/L	35.434	ppb	04:09:05
2	Mg 279.077 IEC†	6.0	-7.7	-72.123	µg/L	-72.123	ppb	04:09:25
2	Na 589.592 Radial†	393.6	18.9	5.7573	µg/L	5.7573	ppb	04:09:05
2	Sr 421.552†	17.7	-2.1	-0.0204	µg/L	-0.0204	ppb	04:09:05
2	Sc 361.383	1990727.5	1990727.5	102.21	%			04:10:33
2	Y 371.029	1372510.5	1372510.5	102.63	%			04:10:33
2	Ag 328.068†	-454.8	65.3	0.4919	µg/L	0.4919	ppb	04:10:39
2	As 188.979†	-3.7	-4.5	-8.4015	µg/L	-8.4015	ppb	04:10:59
2	B 249.677†	327.4	7.2	0.3097	µg/L	0.3097	ppb	04:10:59
2	Ba 233.527†	-13.5	12.2	0.3091	µg/L	0.3091	ppb	04:10:59
2	Be 313.107†	-3509.9	198.7	0.1229	µg/L	0.1229	ppb	04:10:39
2	Cd 226.502†	-136.1	-10.0	-0.2636	µg/L	-0.2636	ppb	04:10:59
2	Co 228.616†	-2.9	2.9	0.1397	µg/L	0.1397	ppb	04:10:59
2	Cr 267.716†	-75.6	-48.0	-1.0136	µg/L	-1.0136	ppb	04:10:39
2	Cu 324.752†	3337.9	35.4	0.2317	µg/L	0.2317	ppb	04:10:39
2	Mn 257.610†	-252.3	-4.9	-0.0154	µg/L	-0.0154	ppb	04:10:59
2	Mo 202.031†	2.0	0.8	0.0839	µg/L	0.0839	ppb	04:10:59
2	Ni 231.604†	302.2	15.0	0.7843	µg/L	0.7843	ppb	04:10:59
2	P 214.914†	22.7	-5.3	-11.115	µg/L	-11.115	ppb	04:10:59
2	Pb 220.353†	90.3	-2.0	-0.5145	µg/L	-0.5145	ppb	04:10:59

2	S 181.975 Axial†	14.9	-0.5	-2.0315 µg/L	-2.0315 ppb	04:10:59
2	Sb 206.836†	24.9	3.3	3.1100 µg/L	3.1100 ppb	04:10:59
2	Se 196.026†	23.9	11.4	16.668 µg/L	16.668 ppb	04:10:59
2	SiO2†	1635.8	88.6	18.118 µg/L	18.118 ppb	04:10:39
2	Si 251.611†	303.3	11.9	0.9407 µg/L	0.9407 ppb	04:10:59
2	Sn 189.927†	4.1	3.2	1.4065 µg/L	1.4065 ppb	04:10:59
2	Ti 334.940†	195.5	46.4	0.1112 µg/L	0.1112 ppb	04:10:39
2	Tl 190.801†	-18.8	2.2	2.9892 µg/L	2.9892 ppb	04:10:59
2	U 409.014†	255.1	24.2	1.9834 µg/L	1.9834 ppb	04:10:39
2	V 292.402†	-51.5	-3.1	-0.0325 µg/L	-0.0325 ppb	04:10:39
2	Zn 213.857†	475.9	-0.3	-0.0053 µg/L	-0.0053 ppb	04:10:59
3	Sc RADIAL	55875.5	55875.5	101 %		04:09:31
3	Al 396.153Radial†	-22.8	-38.6	-27.426 µg/L	-27.426 ppb	04:09:31
3	Ca 317.933Radial†	188.7	-28.1	-25.383 µg/L	-25.383 ppb	04:09:51
3	Fe 238.204 Radial†	16.6	-1.3	-11.341 µg/L	-11.341 ppb	04:09:51
3	K 766.490 Radial†	145.3	-33.5	-22.440 µg/L	-22.440 ppb	04:09:31
3	Mg 279.077 IEC†	11.1	-2.7	-25.122 µg/L	-25.122 ppb	04:09:51
3	Na 589.592 Radial†	401.4	19.2	5.8378 µg/L	5.8378 ppb	04:09:31
3	Sr 421.552†	11.6	-8.5	-0.0820 µg/L	-0.0820 ppb	04:09:31
3	Sc 361.383	1984031.7	1984031.7	101.86 %		04:11:05
3	Y 371.029	1368722.5	1368722.5	102.35 %		04:11:05
3	Ag 328.068†	-436.7	81.6	0.6148 µg/L	0.6148 ppb	04:11:11
3	As 188.979†	-0.6	-1.3	-2.5410 µg/L	-2.5410 ppb	04:11:31
3	B 249.677†	323.4	4.4	0.1914 µg/L	0.1914 ppb	04:11:31
3	Ba 233.527†	-17.1	8.6	0.2169 µg/L	0.2169 ppb	04:11:31
3	Be 313.107†	-3614.1	84.8	0.0525 µg/L	0.0525 ppb	04:11:11
3	Cd 226.502†	-138.7	-12.9	-0.3419 µg/L	-0.3419 ppb	04:11:31
3	Co 228.616†	-1.9	3.9	0.1872 µg/L	0.1872 ppb	04:11:31
3	Cr 267.716†	-62.2	-35.1	-0.7415 µg/L	-0.7415 ppb	04:11:11
3	Cu 324.752†	3314.4	23.3	0.1523 µg/L	0.1523 ppb	04:11:11
3	Mn 257.610†	-237.8	8.5	0.0276 µg/L	0.0276 ppb	04:11:31
3	Mo 202.031†	7.4	6.1	0.6310 µg/L	0.6310 ppb	04:11:31
3	Ni 231.604†	292.9	6.8	0.3582 µg/L	0.3582 ppb	04:11:31
3	P 214.914†	14.7	-13.2	-27.436 µg/L	-27.436 ppb	04:11:31
3	Pb 220.353†	82.8	-9.1	-2.3484 µg/L	-2.3484 ppb	04:11:31
3	S 181.975 Axial†	13.2	-2.1	-9.2212 µg/L	-9.2212 ppb	04:11:31
3	Sb 206.836†	22.5	1.0	0.9938 µg/L	0.9938 ppb	04:11:31
3	Se 196.026†	21.0	8.6	12.583 µg/L	12.583 ppb	04:11:31
3	SiO2†	1616.6	75.1	15.352 µg/L	15.352 ppb	04:11:11
3	Si 251.611†	300.2	9.8	0.7784 µg/L	0.7784 ppb	04:11:31
3	Sn 189.927†	0.7	-0.1	-0.0573 µg/L	-0.0573 ppb	04:11:31
3	Ti 334.940†	89.0	-57.4	-0.1293 µg/L	-0.1293 ppb	04:11:11
3	Tl 190.801†	-20.8	0.2	0.2728 µg/L	0.2728 ppb	04:11:31
3	U 409.014†	313.1	82.0	6.7117 µg/L	6.7117 ppb	04:11:11
3	V 292.402†	-51.8	-3.6	-0.0272 µg/L	-0.0272 ppb	04:11:11
3	Zn 213.857†	477.0	2.4	0.0586 µg/L	0.0586 ppb	04:11:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1985128.7	101.92	%	0.264				0.26%
Sc RADIAL	55369.5	100.0	%	0.96				0.96%
Y 371.029	1369560.8	102.41	%	0.197				0.19%
Ag 328.068†	77.6	0.5842	µg/L	0.08148	0.5842	ppb	0.08148	13.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-39.7	-28.218	µg/L	5.3962	-28.218	ppb	5.3962	19.12%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.4754	µg/L	3.40022	-4.4754	ppb	3.40022	75.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	8.9	0.3767	µg/L	0.22637	0.3767	ppb	0.22637	60.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.2	0.2058	µg/L	0.10917	0.2058	ppb	0.10917	53.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	132.9	0.0822	µg/L	0.03647	0.0822	ppb	0.03647	44.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-27.9	-25.249	µg/L	0.1453	-25.249	ppb	0.1453	0.58%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-12.9	-0.3430	µg/L	0.07989	-0.3430	ppb	0.07989	23.29%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	5.4	0.2556	µg/L	0.16139	0.2556	ppb	0.16139	63.14%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -35.2     -0.7417 µg/L       0.27170     -0.7417 ppb        0.27170  36.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               34.1      0.2239 µg/L       0.06799      0.2239 ppb        0.06799  30.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.2     -10.428 µg/L        4.8514     -10.428 ppb         4.8514  46.52%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         18.8      12.609 µg/L       30.8126      12.609 ppb        30.8126 244.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.3     -40.264 µg/L       27.6025     -40.264 ppb        27.6025  68.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                1.5      0.0051 µg/L       0.02154      0.0051 ppb        0.02154 420.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.4      0.3540 µg/L       0.27364      0.3540 ppb        0.27364  77.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        25.0      7.5853 µg/L       3.09676      7.5853 ppb        3.09676  40.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               10.4      0.5468 µg/L       0.21724      0.5468 ppb        0.21724  39.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -7.2     -14.944 µg/L       11.0849     -14.944 ppb        11.0849  74.18%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.6     -1.4460 µg/L       0.91730     -1.4460 ppb        0.91730  63.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.2     -1.0086 µg/L       8.76892     -1.0086 ppb        8.76892 869.42%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.3      3.1712 µg/L       2.20867      3.1712 ppb        2.20867  69.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                6.1      8.8824 µg/L      10.15550      8.8824 ppb       10.15550 114.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     80.1      16.376 µg/L        1.5162      16.376 ppb         1.5162   9.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               12.6      0.9967 µg/L       0.25109      0.9967 ppb        0.25109  25.19%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.6      0.7185 µg/L       0.73581      0.7185 ppb        0.73581 102.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                2.1      0.0203 µg/L       0.12753      0.0203 ppb        0.12753 629.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                0.7      0.0044 µg/L       0.12249      0.0044 ppb        0.12249 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.6      2.1980 µg/L       1.67608      2.1980 ppb        1.67608  76.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                32.3      2.6418 µg/L       3.78387      2.6418 ppb        3.78387 143.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -9.4     -0.0925 µg/L       0.10848     -0.0925 ppb        0.10848 117.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                2.5      0.0612 µg/L       0.06782      0.0612 ppb        0.06782 110.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 04:36:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56423.0	56423.0	102	%			04:37:12
1	Al 396.153Radial†	6968.7	6825.2	4838.6	µg/L	4838.6	ppb	04:37:12
1	Ca 317.933Radial†	5634.7	5316.4	4808.6	µg/L	4808.6	ppb	04:37:32
1	Fe 238.204 Radial†	596.8	568.1	4981.1	µg/L	4981.1	ppb	04:37:32
1	K 766.490 Radial†	7617.8	7300.8	4892.0	µg/L	4892.0	ppb	04:37:12
1	Mg 279.077 IEC†	553.8	529.9	4951.8	µg/L	4951.8	ppb	04:37:32
1	Na 589.592 Radial†	33147.5	32162.2	9776.8	µg/L	9776.8	ppb	04:37:12
1	Sr 421.552†	51313.9	50354.9	487.49	µg/L	487.49	ppb	04:37:12
1	Sc 361.383	1995413.6	1995413.6	102.45	%			04:38:35
1	Y 371.029	1371816.7	1371816.7	102.58	%			04:38:35
1	Ag 328.068†	66942.0	65854.1	500.81	µg/L	500.81	ppb	04:38:41
1	As 188.979†	282.1	274.6	516.40	µg/L	516.40	ppb	04:39:02
1	B 249.677†	12364.9	11756.6	492.78	µg/L	492.78	ppb	04:38:41
1	Ba 233.527†	20330.1	19870.2	502.88	µg/L	502.88	ppb	04:38:41
1	Be 313.107†	830432.9	814239.9	503.63	µg/L	503.63	ppb	04:38:35
1	Cd 226.502†	19603.5	19258.7	512.90	µg/L	512.90	ppb	04:38:41
1	Co 228.616†	10907.2	10652.6	506.85	µg/L	506.85	ppb	04:38:41
1	Cr 267.716†	24700.9	24137.2	509.60	µg/L	509.60	ppb	04:38:41
1	Cu 324.752†	79749.8	74615.3	493.53	µg/L	493.53	ppb	04:38:41
1	Mn 257.610†	157327.5	153813.4	511.21	µg/L	511.21	ppb	04:38:35
1	Mo 202.031†	5157.9	5033.7	521.20	µg/L	521.20	ppb	04:39:02
1	Ni 231.604†	10264.0	9738.2	509.51	µg/L	509.51	ppb	04:38:41
1	P 214.914†	1292.9	1234.5	2524.9	µg/L	2524.9	ppb	04:39:02
1	Pb 220.353†	2136.4	1995.0	511.75	µg/L	511.75	ppb	04:39:02
1	S 181.975 Axial†	259.4	238.1	1026.9	µg/L	1026.9	ppb	04:39:02
1	Sb 206.836†	566.9	532.3	505.27	µg/L	505.27	ppb	04:39:02
1	Se 196.026†	377.6	356.6	527.83	µg/L	527.83	ppb	04:39:02
1	SiO2†	28394.4	26204.6	5360.0	µg/L	5360.0	ppb	04:38:41
1	Si 251.611†	32638.2	31574.1	2497.2	µg/L	2497.2	ppb	04:38:41
1	Sn 189.927†	1206.2	1176.6	523.74	µg/L	523.74	ppb	04:39:02
1	Ti 334.940†	224670.1	219161.4	499.32	µg/L	499.32	ppb	04:38:35
1	Tl 190.801†	362.6	374.5	523.61	µg/L	523.61	ppb	04:39:02
1	U 409.014†	6322.7	5946.4	485.56	µg/L	485.56	ppb	04:38:41
1	V 292.402†	50935.1	49766.4	508.25	µg/L	508.25	ppb	04:38:41
1	Zn 213.857†	21934.7	20945.1	508.02	µg/L	508.02	ppb	04:38:41
2	Sc RADIAL	56179.0	56179.0	101	%			04:37:37
2	Al 396.153Radial†	6970.0	6856.2	4860.8	µg/L	4860.8	ppb	04:37:37
2	Ca 317.933Radial†	5628.1	5334.0	4824.5	µg/L	4824.5	ppb	04:37:58
2	Fe 238.204 Radial†	596.1	569.9	4996.6	µg/L	4996.6	ppb	04:37:58
2	K 766.490 Radial†	7681.7	7396.3	4956.0	µg/L	4956.0	ppb	04:37:37
2	Mg 279.077 IEC†	546.1	524.7	4902.7	µg/L	4902.7	ppb	04:37:58
2	Na 589.592 Radial†	33165.9	32321.7	9825.3	µg/L	9825.3	ppb	04:37:37
2	Sr 421.552†	51417.6	50675.9	490.60	µg/L	490.60	ppb	04:37:37
2	Sc 361.383	2009279.7	2009279.7	103.16	%			04:39:09
2	Y 371.029	1381989.9	1381989.9	103.34	%			04:39:09
2	Ag 328.068†	66718.2	65186.2	495.74	µg/L	495.74	ppb	04:39:14
2	As 188.979†	274.7	265.5	499.35	µg/L	499.35	ppb	04:39:35
2	B 249.677†	12337.3	11646.5	488.13	µg/L	488.13	ppb	04:39:14
2	Ba 233.527†	20332.7	19735.7	499.48	µg/L	499.48	ppb	04:39:14
2	Be 313.107†	834031.5	812134.4	502.33	µg/L	502.33	ppb	04:39:09
2	Cd 226.502†	19586.8	19110.5	508.95	µg/L	508.95	ppb	04:39:14
2	Co 228.616†	10874.8	10547.7	501.84	µg/L	501.84	ppb	04:39:14
2	Cr 267.716†	24649.9	23921.3	505.04	µg/L	505.04	ppb	04:39:14
2	Cu 324.752†	79497.3	73833.3	488.36	µg/L	488.36	ppb	04:39:14
2	Mn 257.610†	157887.7	153296.6	509.49	µg/L	509.49	ppb	04:39:09
2	Mo 202.031†	5072.3	4916.0	509.01	µg/L	509.01	ppb	04:39:35
2	Ni 231.604†	10228.1	9634.3	504.07	µg/L	504.07	ppb	04:39:14
2	P 214.914†	1274.0	1207.4	2468.9	µg/L	2468.9	ppb	04:39:35
2	Pb 220.353†	2124.4	1969.0	505.05	µg/L	505.05	ppb	04:39:35

2	S 181.975 Axial†	253.6	230.8	995.31 µg/L	995.31 ppb	04:39:35
2	Sb 206.836†	565.3	527.0	500.10 µg/L	500.10 ppb	04:39:35
2	Se 196.026†	381.3	357.7	529.54 µg/L	529.54 ppb	04:39:35
2	SiO2†	28358.2	25978.2	5313.7 µg/L	5313.7 ppb	04:39:14
2	Si 251.611†	32590.5	31308.0	2476.1 µg/L	2476.1 ppb	04:39:14
2	Sn 189.927†	1183.4	1146.4	510.27 µg/L	510.27 ppb	04:39:35
2	Ti 334.940†	225637.6	218585.9	498.01 µg/L	498.01 ppb	04:39:09
2	Tl 190.801†	349.7	359.6	502.96 µg/L	502.96 ppb	04:39:35
2	U 409.014†	6291.4	5873.4	479.59 µg/L	479.59 ppb	04:39:14
2	V 292.402†	50802.4	49294.6	503.39 µg/L	503.39 ppb	04:39:14
2	Zn 213.857†	21875.4	20739.9	503.04 µg/L	503.04 ppb	04:39:14
3	Sc RADIAL	56520.8	56520.8	102 %		04:38:03
3	Al 396.153Radial†	6969.8	6814.4	4832.8 µg/L	4832.8 ppb	04:38:03
3	Ca 317.933Radial†	5608.5	5281.2	4776.7 µg/L	4776.7 ppb	04:38:24
3	Fe 238.204 Radial†	595.0	565.3	4955.9 µg/L	4955.9 ppb	04:38:24
3	K 766.490 Radial†	7699.8	7368.2	4937.2 µg/L	4937.2 ppb	04:38:03
3	Mg 279.077 IEC†	545.3	520.6	4863.4 µg/L	4863.4 ppb	04:38:24
3	Na 589.592 Radial†	33088.2	32047.8	9742.0 µg/L	9742.0 ppb	04:38:03
3	Sr 421.552†	51395.1	50347.3	487.42 µg/L	487.42 ppb	04:38:03
3	Sc 361.383	1984419.7	1984419.7	101.88 %		04:39:42
3	Y 371.029	1365311.4	1365311.4	102.09 %		04:39:42
3	Ag 328.068†	63059.9	62405.7	474.44 µg/L	474.44 ppb	04:39:47
3	As 188.979†	238.6	233.4	438.96 µg/L	438.96 ppb	04:40:08
3	B 249.677†	11595.6	11068.4	463.74 µg/L	463.74 ppb	04:39:47
3	Ba 233.527†	18600.5	18282.4	462.68 µg/L	462.68 ppb	04:39:47
3	Be 313.107†	765602.2	755097.2	467.05 µg/L	467.05 ppb	04:39:42
3	Cd 226.502†	17794.6	17589.2	468.39 µg/L	468.39 ppb	04:39:47
3	Co 228.616†	9854.9	9678.8	460.46 µg/L	460.46 ppb	04:39:47
3	Cr 267.716†	21648.2	21274.3	449.17 µg/L	449.17 ppb	04:39:47
3	Cu 324.752†	72347.9	67781.4	448.39 µg/L	448.39 ppb	04:39:47
3	Mn 257.610†	145560.5	143114.5	475.68 µg/L	475.68 ppb	04:39:42
3	Mo 202.031†	4220.4	4141.3	428.84 µg/L	428.84 ppb	04:40:08
3	Ni 231.604†	9285.7	8833.5	462.18 µg/L	462.18 ppb	04:39:47
3	P 214.914†	1077.2	1029.8	2101.7 µg/L	2101.7 ppb	04:40:08
3	Pb 220.353†	1851.7	1727.1	442.92 µg/L	442.92 ppb	04:40:08
3	S 181.975 Axial†	229.3	210.0	905.97 µg/L	905.97 ppb	04:40:08
3	Sb 206.836†	493.8	463.6	439.53 µg/L	439.53 ppb	04:40:08
3	Se 196.026†	328.3	310.2	460.26 µg/L	460.26 ppb	04:40:08
3	SiO2†	26332.7	24334.5	4977.5 µg/L	4977.5 ppb	04:39:47
3	Si 251.611†	30278.4	29434.4	2328.0 µg/L	2328.0 ppb	04:39:47
3	Sn 189.927†	978.6	959.7	427.18 µg/L	427.18 ppb	04:40:08
3	Ti 334.940†	205976.4	202028.0	460.27 µg/L	460.27 ppb	04:39:42
3	Tl 190.801†	317.5	332.3	464.78 µg/L	464.78 ppb	04:40:08
3	U 409.014†	5605.5	5276.7	430.77 µg/L	430.77 ppb	04:39:47
3	V 292.402†	45513.0	44719.9	456.44 µg/L	456.44 ppb	04:39:47
3	Zn 213.857†	19869.2	19036.3	461.69 µg/L	461.69 ppb	04:39:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1996371.0	102.49	%	0.640				0.62%
Sc RADIAL	56374.3	102	%	0.3				0.31%
Y 371.029	1373039.3	102.67	%	0.629				0.61%
Ag 328.068†	64482.0	490.33	µg/L	13.993	490.33	ppb	13.993	2.85%
QC value within limits for Ag 328.068 Recovery = 98.07%								
Al 396.153Radial†	6831.9	4844.1	µg/L	14.79	4844.1	ppb	14.79	0.31%
QC value within limits for Al 396.153Radial Recovery = 96.88%								
As 188.979†	257.8	484.90	µg/L	40.692	484.90	ppb	40.692	8.39%
QC value within limits for As 188.979 Recovery = 96.98%								
B 249.677†	11490.5	481.55	µg/L	15.597	481.55	ppb	15.597	3.24%
QC value within limits for B 249.677 Recovery = 96.31%								
Ba 233.527†	19296.1	488.35	µg/L	22.293	488.35	ppb	22.293	4.57%
QC value within limits for Ba 233.527 Recovery = 97.67%								
Be 313.107†	793823.8	491.00	µg/L	20.754	491.00	ppb	20.754	4.23%
QC value within limits for Be 313.107 Recovery = 98.20%								
Ca 317.933Radial†	5310.5	4803.3	µg/L	24.33	4803.3	ppb	24.33	0.51%
QC value within limits for Ca 317.933Radial Recovery = 96.07%								
Cd 226.502†	18652.8	496.74	µg/L	24.635	496.74	ppb	24.635	4.96%
QC value within limits for Cd 226.502 Recovery = 99.35%								
Co 228.616†	10293.0	489.72	µg/L	25.462	489.72	ppb	25.462	5.20%

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   QC value within limits for Co 228.616  Recovery = 97.94%
Cr 267.716†            23110.9      487.94 µg/L        33.655      487.94 ppb         33.655   6.90%
   QC value within limits for Cr 267.716  Recovery = 97.59%
Cu 324.752†            72076.7      476.76 µg/L        24.707      476.76 ppb         24.707   5.18%
   QC value within limits for Cu 324.752  Recovery = 95.35%
Fe 238.204 Radial†       567.8      4977.9 µg/L         20.54      4977.9 ppb          20.54   0.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.56%
K 766.490 Radial†       7355.1      4928.4 µg/L         32.87      4928.4 ppb          32.87   0.67%
   QC value within limits for K 766.490 Radial  Recovery = 98.57%
Mg 279.077 IEC†          525.1      4906.0 µg/L         44.31      4906.0 ppb          44.31   0.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.12%
Mn 257.610†           150074.8      498.79 µg/L        20.035      498.79 ppb         20.035   4.02%
   QC value within limits for Mn 257.610  Recovery = 99.76%
Mo 202.031†             4697.0      486.35 µg/L        50.179      486.35 ppb         50.179  10.32%
   QC value within limits for Mo 202.031  Recovery = 97.27%
Na 589.592 Radial†     32177.3      9781.4 µg/L         41.81      9781.4 ppb          41.81   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 97.81%
Ni 231.604†             9402.0      491.92 µg/L        25.899      491.92 ppb         25.899   5.26%
   QC value within limits for Ni 231.604  Recovery = 98.38%
P 214.914†              1157.2      2365.2 µg/L        229.84      2365.2 ppb         229.84   9.72%
   QC value within limits for P 214.914  Recovery = 94.61%
Pb 220.353†             1897.0      486.57 µg/L        37.953      486.57 ppb         37.953   7.80%
   QC value within limits for Pb 220.353  Recovery = 97.31%
S 181.975 Axial†         226.3      976.07 µg/L        62.737      976.07 ppb         62.737   6.43%
   QC value within limits for S 181.975 Axial  Recovery = 97.61%
Sb 206.836†              507.6      481.63 µg/L        36.555      481.63 ppb         36.555   7.59%
   QC value within limits for Sb 206.836  Recovery = 96.33%
Se 196.026†              341.5      505.88 µg/L        39.513      505.88 ppb         39.513   7.81%
   QC value within limits for Se 196.026  Recovery = 101.18%
SiO2†                  25505.7      5217.1 µg/L        208.77      5217.1 ppb         208.77   4.00%
   QC value within limits for SiO2  Recovery = 97.56%
Si 251.611†            30772.2      2433.8 µg/L         92.23      2433.8 ppb          92.23   3.79%
   QC value within limits for Si 251.611  Recovery = 97.35%
Sn 189.927†             1094.2      487.07 µg/L        52.297      487.07 ppb         52.297  10.74%
   QC value within limits for Sn 189.927  Recovery = 97.41%
Sr 421.552†            50459.4      488.50 µg/L         1.816      488.50 ppb          1.816   0.37%
   QC value within limits for Sr 421.552  Recovery = 97.70%
Ti 334.940†           213258.4      485.87 µg/L        22.180      485.87 ppb         22.180   4.56%
   QC value within limits for Ti 334.940  Recovery = 97.17%
Tl 190.801†              355.5      497.12 µg/L        29.845      497.12 ppb         29.845   6.00%
   QC value within limits for Tl 190.801  Recovery = 99.42%
U 409.014†              5698.8      465.31 µg/L        30.059      465.31 ppb         30.059   6.46%
   QC value within limits for U 409.014  Recovery = 93.06%
V 292.402†             47927.0      489.36 µg/L        28.613      489.36 ppb         28.613   5.85%
   QC value within limits for V 292.402  Recovery = 97.87%
Zn 213.857†            20240.4      490.92 µg/L        25.435      490.92 ppb         25.435   5.18%
   QC value within limits for Zn 213.857  Recovery = 98.18%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 04:40:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55521.2	55521.2	100	%			04:40:50
1	Al 396.153Radial†	-11.8	-27.8	-19.758	µg/L	-19.758	ppb	04:40:50
1	Ca 317.933Radial†	183.3	-32.3	-29.233	µg/L	-29.233	ppb	04:41:10
1	Fe 238.204 Radial†	17.7	-0.1	-1.0091	µg/L	-1.0091	ppb	04:41:10
1	K 766.490 Radial†	203.0	25.0	16.753	µg/L	16.753	ppb	04:40:50
1	Mg 279.077 IEC†	7.0	-6.7	-62.956	µg/L	-62.956	ppb	04:41:10
1	Na 589.592 Radial†	385.2	5.6	1.7069	µg/L	1.7069	ppb	04:40:50
1	Sr 421.552†	31.8	11.7	0.1131	µg/L	0.1131	ppb	04:40:50
1	Sc 361.383	1987277.1	1987277.1	102.03	%			04:42:12
1	Y 371.029	1370412.0	1370412.0	102.47	%			04:42:12
1	Ag 328.068†	-455.1	64.2	0.4820	µg/L	0.4820	ppb	04:42:18
1	As 188.979†	-1.7	-2.5	-4.7245	µg/L	-4.7245	ppb	04:42:38
1	B 249.677†	374.8	54.3	2.2848	µg/L	2.2848	ppb	04:42:38
1	Ba 233.527†	-12.3	13.4	0.3374	µg/L	0.3374	ppb	04:42:38
1	Be 313.107†	-3516.6	186.2	0.1152	µg/L	0.1152	ppb	04:42:18
1	Cd 226.502†	-126.1	-0.3	-0.0091	µg/L	-0.0091	ppb	04:42:38
1	Co 228.616†	2.0	7.7	0.3677	µg/L	0.3677	ppb	04:42:38
1	Cr 267.716†	-40.1	-13.3	-0.2817	µg/L	-0.2817	ppb	04:42:18
1	Cu 324.752†	3287.1	-8.8	-0.0582	µg/L	-0.0582	ppb	04:42:18
1	Mn 257.610†	-225.8	20.6	0.0708	µg/L	0.0708	ppb	04:42:38
1	Mo 202.031†	-0.0	-1.2	-0.1192	µg/L	-0.1192	ppb	04:42:38
1	Ni 231.604†	283.5	-2.9	-0.1520	µg/L	-0.1520	ppb	04:42:38
1	P 214.914†	19.2	-8.7	-18.075	µg/L	-18.075	ppb	04:42:38
1	Pb 220.353†	81.9	-10.1	-2.5846	µg/L	-2.5846	ppb	04:42:38
1	S 181.975 Axial†	14.5	-0.9	-3.7151	µg/L	-3.7151	ppb	04:42:38
1	Sb 206.836†	30.5	8.8	8.3036	µg/L	8.3036	ppb	04:42:38
1	Se 196.026†	18.9	6.6	9.6868	µg/L	9.6868	ppb	04:42:38
1	SiO2†	1599.5	55.7	11.394	µg/L	11.394	ppb	04:42:18
1	Si 251.611†	319.8	28.5	2.2566	µg/L	2.2566	ppb	04:42:38
1	Sn 189.927†	3.1	2.2	0.9665	µg/L	0.9665	ppb	04:42:38
1	Ti 334.940†	209.3	60.3	0.1421	µg/L	0.1421	ppb	04:42:18
1	Tl 190.801†	-24.0	-2.9	-3.9931	µg/L	-3.9931	ppb	04:42:38
1	U 409.014†	203.4	-26.0	-2.1277	µg/L	-2.1277	ppb	04:42:18
1	V 292.402†	-88.8	-39.8	-0.4049	µg/L	-0.4049	ppb	04:42:18
1	Zn 213.857†	474.0	-1.3	-0.0284	µg/L	-0.0284	ppb	04:42:38
2	Sc RADIAL	55472.2	55472.2	100	%			04:41:16
2	Al 396.153Radial†	-27.3	-43.3	-30.743	µg/L	-30.743	ppb	04:41:16
2	Ca 317.933Radial†	182.3	-33.1	-29.945	µg/L	-29.945	ppb	04:41:36
2	Fe 238.204 Radial†	16.8	-1.0	-8.4367	µg/L	-8.4367	ppb	04:41:36
2	K 766.490 Radial†	139.9	-37.9	-25.388	µg/L	-25.388	ppb	04:41:16
2	Mg 279.077 IEC†	11.7	-2.0	-18.800	µg/L	-18.800	ppb	04:41:36
2	Na 589.592 Radial†	404.6	25.3	7.6987	µg/L	7.6987	ppb	04:41:16
2	Sr 421.552†	20.7	0.7	0.0067	µg/L	0.0067	ppb	04:41:16
2	Sc 361.383	1997682.9	1997682.9	102.56	%			04:42:44
2	Y 371.029	1377927.2	1377927.2	103.04	%			04:42:44
2	Ag 328.068†	-530.3	-6.7	-0.0551	µg/L	-0.0551	ppb	04:42:50
2	As 188.979†	-2.8	-3.5	-6.6298	µg/L	-6.6298	ppb	04:43:11
2	B 249.677†	360.9	38.8	1.6377	µg/L	1.6377	ppb	04:43:11
2	Ba 233.527†	-17.7	8.1	0.2040	µg/L	0.2040	ppb	04:43:11
2	Be 313.107†	-3532.8	188.4	0.1166	µg/L	0.1166	ppb	04:42:50
2	Cd 226.502†	-126.3	0.1	0.0039	µg/L	0.0039	ppb	04:43:11
2	Co 228.616†	-3.9	2.0	0.0955	µg/L	0.0955	ppb	04:43:11
2	Cr 267.716†	-39.3	-12.4	-0.2622	µg/L	-0.2622	ppb	04:42:50
2	Cu 324.752†	3295.6	-17.2	-0.1150	µg/L	-0.1150	ppb	04:42:50
2	Mn 257.610†	-210.4	36.8	0.1219	µg/L	0.1219	ppb	04:43:11
2	Mo 202.031†	5.4	4.1	0.4259	µg/L	0.4259	ppb	04:43:11
2	Ni 231.604†	298.0	9.9	0.5168	µg/L	0.5168	ppb	04:43:11
2	P 214.914†	22.4	-5.7	-11.921	µg/L	-11.921	ppb	04:43:11
2	Pb 220.353†	85.9	-6.7	-1.7124	µg/L	-1.7124	ppb	04:43:11

2	S 181.975 Axial†	15.9	0.4	1.9257 µg/L	1.9257 ppb	04:43:11
2	Sb 206.836†	19.6	-2.0	-1.8849 µg/L	-1.8849 ppb	04:43:11
2	Se 196.026†	14.6	2.3	3.4054 µg/L	3.4054 ppb	04:43:11
2	SiO2†	1612.3	60.0	12.281 µg/L	12.281 ppb	04:42:50
2	Si 251.611†	316.7	23.9	1.8906 µg/L	1.8906 ppb	04:43:11
2	Sn 189.927†	2.5	1.6	0.7161 µg/L	0.7161 ppb	04:43:11
2	Ti 334.940†	140.6	-7.8	-0.0167 µg/L	-0.0167 ppb	04:42:50
2	Tl 190.801†	-22.8	-1.6	-2.2550 µg/L	-2.2550 ppb	04:43:11
2	U 409.014†	249.0	17.4	1.4251 µg/L	1.4251 ppb	04:42:50
2	V 292.402†	-107.1	-57.1	-0.5731 µg/L	-0.5731 ppb	04:42:50
2	Zn 213.857†	482.7	4.7	0.1154 µg/L	0.1154 ppb	04:43:11
3	Sc RADIAL	55264.9	55264.9	99.8 %		04:41:42
3	Al 396.153Radial†	-20.3	-36.4	-25.866 µg/L	-25.866 ppb	04:41:42
3	Ca 317.933Radial†	188.8	-26.0	-23.499 µg/L	-23.499 ppb	04:42:02
3	Fe 238.204 Radial†	15.4	-2.4	-20.757 µg/L	-20.757 ppb	04:42:02
3	K 766.490 Radial†	212.0	34.9	23.370 µg/L	23.370 ppb	04:41:42
3	Mg 279.077 IEC†	8.1	-5.6	-52.379 µg/L	-52.379 ppb	04:42:02
3	Na 589.592 Radial†	369.8	-8.1	-2.4480 µg/L	-2.4480 ppb	04:41:42
3	Sr 421.552†	2.9	-17.1	-0.1657 µg/L	-0.1657 ppb	04:41:42
3	Sc 361.383	1996358.9	1996358.9	102.49 %		04:43:17
3	Y 371.029	1378056.5	1378056.5	103.05 %		04:43:17
3	Ag 328.068†	-478.2	43.7	0.3297 µg/L	0.3297 ppb	04:43:22
3	As 188.979†	-0.2	-1.0	-1.9129 µg/L	-1.9129 ppb	04:43:43
3	B 249.677†	361.5	39.7	1.6782 µg/L	1.6782 ppb	04:43:43
3	Ba 233.527†	-18.7	7.1	0.1800 µg/L	0.1800 ppb	04:43:43
3	Be 313.107†	-3646.8	74.9	0.0463 µg/L	0.0463 ppb	04:43:22
3	Cd 226.502†	-139.3	-12.7	-0.3345 µg/L	-0.3345 ppb	04:43:43
3	Co 228.616†	-2.6	3.3	0.1545 µg/L	0.1545 ppb	04:43:43
3	Cr 267.716†	-54.7	-27.4	-0.5785 µg/L	-0.5785 ppb	04:43:22
3	Cu 324.752†	3316.6	5.4	0.0325 µg/L	0.0325 ppb	04:43:22
3	Mn 257.610†	-223.4	24.0	0.0790 µg/L	0.0790 ppb	04:43:43
3	Mo 202.031†	-1.3	-2.3	-0.2440 µg/L	-0.2440 ppb	04:43:43
3	Ni 231.604†	291.4	3.6	0.1871 µg/L	0.1871 ppb	04:43:43
3	P 214.914†	11.1	-16.8	-34.902 µg/L	-34.902 ppb	04:43:43
3	Pb 220.353†	85.4	-7.1	-1.8241 µg/L	-1.8241 ppb	04:43:43
3	S 181.975 Axial†	18.6	3.1	13.402 µg/L	13.402 ppb	04:43:43
3	Sb 206.836†	14.7	-6.7	-6.3460 µg/L	-6.3460 ppb	04:43:43
3	Se 196.026†	15.6	3.3	4.8261 µg/L	4.8261 ppb	04:43:43
3	SiO2†	1633.9	82.2	16.807 µg/L	16.807 ppb	04:43:22
3	Si 251.611†	320.5	27.8	2.2015 µg/L	2.2015 ppb	04:43:43
3	Sn 189.927†	0.8	-0.0	-0.0256 µg/L	-0.0256 ppb	04:43:43
3	Ti 334.940†	211.2	61.3	0.1435 µg/L	0.1435 ppb	04:43:22
3	Tl 190.801†	-27.4	-6.1	-8.4811 µg/L	-8.4811 ppb	04:43:43
3	U 409.014†	241.2	10.0	0.8221 µg/L	0.8221 ppb	04:43:22
3	V 292.402†	-35.7	12.5	0.1211 µg/L	0.1211 ppb	04:43:22
3	Zn 213.857†	477.7	0.1	0.0060 µg/L	0.0060 ppb	04:43:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1993773.0	102.36	%	0.291				0.28%
Sc RADIAL	55419.4	100	%	0.2				0.25%
Y 371.029	1375465.2	102.85	%	0.327				0.32%
Ag 328.068†	33.7	0.2522	µg/L	0.27681	0.2522	ppb	0.27681	109.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-35.8	-25.456	µg/L	5.5044	-25.456	ppb	5.5044	21.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4224	µg/L	2.37294	-4.4224	ppb	2.37294	53.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	44.3	1.8669	µg/L	0.36246	1.8669	ppb	0.36246	19.42%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.2404	µg/L	0.08482	0.2404	ppb	0.08482	35.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	149.8	0.0927	µg/L	0.04019	0.0927	ppb	0.04019	43.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-30.5	-27.559	µg/L	3.5345	-27.559	ppb	3.5345	12.83%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.3	-0.1132	µg/L	0.19171	-0.1132	ppb	0.19171	169.31%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.3	0.2059	µg/L	0.14319	0.2059	ppb	0.14319	69.55%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.7     -0.3742 µg/L       0.17723     -0.3742 ppb        0.17723  47.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -6.9     -0.0469 µg/L       0.07436     -0.0469 ppb        0.07436 158.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.2     -10.068 µg/L        9.9743     -10.068 ppb         9.9743  99.07%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          7.3      4.9116 µg/L      26.44795      4.9116 ppb       26.44795 538.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -4.8     -44.712 µg/L       23.0548     -44.712 ppb        23.0548  51.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               27.1      0.0905 µg/L       0.02742      0.0905 ppb        0.02742  30.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.2      0.0209 µg/L       0.35625      0.0209 ppb        0.35625 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         7.6      2.3192 µg/L       5.10099      2.3192 ppb        5.10099 219.94%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                3.5      0.1840 µg/L       0.33440      0.1840 ppb        0.33440 181.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.4     -21.633 µg/L       11.8965     -21.633 ppb        11.8965  54.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.0     -2.0404 µg/L       0.47463     -2.0404 ppb        0.47463  23.26%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.9      3.8708 µg/L       8.72272      3.8708 ppb        8.72272 225.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.0      0.0242 µg/L       7.50904      0.0242 ppb        7.50904 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.1      5.9728 µg/L       3.29397      5.9728 ppb        3.29397  55.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     66.0      13.494 µg/L        2.9036      13.494 ppb         2.9036  21.52%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               26.8      2.1162 µg/L       0.19729      2.1162 ppb        0.19729   9.32%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.3      0.5524 µg/L       0.51592      0.5524 ppb        0.51592  93.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -1.6     -0.0153 µg/L       0.14069     -0.0153 ppb        0.14069 917.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               38.0      0.0896 µg/L       0.09208      0.0896 ppb        0.09208 102.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -3.6     -4.9098 µg/L       3.21269     -4.9098 ppb        3.21269  65.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 0.4      0.0398 µg/L       1.90119      0.0398 ppb        1.90119 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -28.1     -0.2856 µg/L       0.36214     -0.2856 ppb        0.36214 126.79%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                1.2      0.0310 µg/L       0.07506      0.0310 ppb        0.07506 242.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 05:02:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56093.3	56093.3	101	%			05:02:50
1	Al 396.153Radial†	7041.3	6937.0	4918.0	µg/L	4918.0	ppb	05:02:50
1	Ca 317.933Radial†	5648.8	5362.9	4850.6	µg/L	4850.6	ppb	05:03:10
1	Fe 238.204 Radial†	597.6	572.3	5018.0	µg/L	5018.0	ppb	05:03:10
1	K 766.490 Radial†	7642.1	7368.8	4937.6	µg/L	4937.6	ppb	05:02:50
1	Mg 279.077 IEC†	555.7	535.0	4998.8	µg/L	4998.8	ppb	05:03:10
1	Na 589.592 Radial†	33366.1	32569.3	9900.5	µg/L	9900.5	ppb	05:02:50
1	Sr 421.552†	51459.8	50795.0	491.75	µg/L	491.75	ppb	05:02:50
1	Sc 361.383	1981271.0	1981271.0	101.72	%			05:04:14
1	Y 371.029	1360801.2	1360801.2	101.76	%			05:04:14
1	Ag 328.068†	66830.3	66210.8	503.52	µg/L	503.52	ppb	05:04:20
1	As 188.979†	281.9	276.3	519.76	µg/L	519.76	ppb	05:04:40
1	B 249.677†	12302.1	11781.0	493.78	µg/L	493.78	ppb	05:04:20
1	Ba 233.527†	20263.1	19945.9	504.80	µg/L	504.80	ppb	05:04:20
1	Be 313.107†	821015.9	810768.3	501.48	µg/L	501.48	ppb	05:04:14
1	Cd 226.502†	19504.2	19297.7	513.93	µg/L	513.93	ppb	05:04:20
1	Co 228.616†	10827.6	10650.3	506.74	µg/L	506.74	ppb	05:04:20
1	Cr 267.716†	24567.8	24178.4	510.47	µg/L	510.47	ppb	05:04:20
1	Cu 324.752†	79627.7	75051.0	496.41	µg/L	496.41	ppb	05:04:20
1	Mn 257.610†	155666.2	153276.4	509.43	µg/L	509.43	ppb	05:04:14
1	Mo 202.031†	5144.3	5056.2	523.53	µg/L	523.53	ppb	05:04:40
1	Ni 231.604†	10211.9	9758.6	510.58	µg/L	510.58	ppb	05:04:20
1	P 214.914†	1279.4	1230.2	2515.6	µg/L	2515.6	ppb	05:04:40
1	Pb 220.353†	2136.5	2010.0	515.60	µg/L	515.60	ppb	05:04:40
1	S 181.975 Axial†	260.5	241.0	1039.5	µg/L	1039.5	ppb	05:04:40
1	Sb 206.836†	575.6	544.8	517.09	µg/L	517.09	ppb	05:04:40
1	Se 196.026†	373.2	355.0	525.50	µg/L	525.50	ppb	05:04:40
1	SiO2†	28294.8	26304.4	5380.5	µg/L	5380.5	ppb	05:04:20
1	Si 251.611†	32522.9	31688.1	2506.2	µg/L	2506.2	ppb	05:04:20
1	Sn 189.927†	1196.3	1175.2	523.12	µg/L	523.12	ppb	05:04:40
1	Ti 334.940†	223072.3	219156.1	499.31	µg/L	499.31	ppb	05:04:14
1	Tl 190.801†	360.1	374.6	523.75	µg/L	523.75	ppb	05:04:40
1	U 409.014†	6344.5	6011.9	490.92	µg/L	490.92	ppb	05:04:20
1	V 292.402†	50763.8	49952.9	510.17	µg/L	510.17	ppb	05:04:20
1	Zn 213.857†	21795.6	20961.2	508.40	µg/L	508.40	ppb	05:04:20
2	Sc RADIAL	56364.1	56364.1	102	%			05:03:16
2	Al 396.153Radial†	7021.1	6883.8	4880.4	µg/L	4880.4	ppb	05:03:16
2	Ca 317.933Radial†	5631.8	5319.3	4811.2	µg/L	4811.2	ppb	05:03:36
2	Fe 238.204 Radial†	594.2	566.1	4963.6	µg/L	4963.6	ppb	05:03:36
2	K 766.490 Radial†	7779.6	7467.7	5003.8	µg/L	5003.8	ppb	05:03:16
2	Mg 279.077 IEC†	551.9	528.6	4939.6	µg/L	4939.6	ppb	05:03:36
2	Na 589.592 Radial†	33352.1	32397.3	9848.3	µg/L	9848.3	ppb	05:03:16
2	Sr 421.552†	51522.9	50612.9	489.99	µg/L	489.99	ppb	05:03:16
2	Sc 361.383	1979761.0	1979761.0	101.64	%			05:04:47
2	Y 371.029	1361458.1	1361458.1	101.80	%			05:04:47
2	Ag 328.068†	66384.0	65821.8	500.56	µg/L	500.56	ppb	05:04:53
2	As 188.979†	278.2	272.9	513.32	µg/L	513.32	ppb	05:05:13
2	B 249.677†	12198.2	11688.1	489.90	µg/L	489.90	ppb	05:04:53
2	Ba 233.527†	20097.9	19798.6	501.07	µg/L	501.07	ppb	05:04:53
2	Be 313.107†	823119.8	813453.9	503.15	µg/L	503.15	ppb	05:04:47
2	Cd 226.502†	19364.2	19174.5	510.66	µg/L	510.66	ppb	05:04:53
2	Co 228.616†	10765.0	10596.9	504.19	µg/L	504.19	ppb	05:04:53
2	Cr 267.716†	24402.0	24033.6	507.42	µg/L	507.42	ppb	05:04:53
2	Cu 324.752†	79077.2	74569.1	493.22	µg/L	493.22	ppb	05:04:53
2	Mn 257.610†	156165.8	153884.6	511.44	µg/L	511.44	ppb	05:04:47
2	Mo 202.031†	5049.9	4967.2	514.32	µg/L	514.32	ppb	05:05:13
2	Ni 231.604†	10144.0	9699.4	507.48	µg/L	507.48	ppb	05:04:53
2	P 214.914†	1283.8	1235.5	2526.9	µg/L	2526.9	ppb	05:05:13
2	Pb 220.353†	2119.1	1994.5	511.59	µg/L	511.59	ppb	05:05:13

2	S 181.975 Axial†	258.6	239.3	1032.3 µg/L	1032.3 ppb	05:05:13
2	Sb 206.836†	564.9	534.7	507.44 µg/L	507.44 ppb	05:05:13
2	Se 196.026†	379.9	361.8	535.46 µg/L	535.46 ppb	05:05:13
2	SiO2†	28115.1	26148.9	5348.6 µg/L	5348.6 ppb	05:04:53
2	Si 251.611†	32254.2	31448.2	2487.2 µg/L	2487.2 ppb	05:04:53
2	Sn 189.927†	1176.9	1157.0	515.04 µg/L	515.04 ppb	05:05:13
2	Ti 334.940†	223216.4	219465.2	500.01 µg/L	500.01 ppb	05:04:47
2	Tl 190.801†	350.5	365.4	510.95 µg/L	510.95 ppb	05:05:13
2	U 409.014†	6290.0	5963.0	486.92 µg/L	486.92 ppb	05:04:53
2	V 292.402†	50458.1	49690.2	507.43 µg/L	507.43 ppb	05:04:53
2	Zn 213.857†	21653.9	20838.1	505.42 µg/L	505.42 ppb	05:04:53
3	Sc RADIAL	55682.8	55682.8	101 %		05:03:42
3	Al 396.153Radial†	6956.8	6904.3	4896.7 µg/L	4896.7 ppb	05:03:42
3	Ca 317.933Radial†	5573.1	5328.7	4819.7 µg/L	4819.7 ppb	05:04:02
3	Fe 238.204 Radial†	594.7	573.7	5029.1 µg/L	5029.1 ppb	05:04:02
3	K 766.490 Radial†	7667.2	7449.4	4991.6 µg/L	4991.6 ppb	05:03:42
3	Mg 279.077 IEC†	550.3	533.7	4984.9 µg/L	4984.9 ppb	05:04:02
3	Na 589.592 Radial†	33154.1	32601.3	9910.3 µg/L	9910.3 ppb	05:03:42
3	Sr 421.552†	51101.6	50813.4	491.93 µg/L	491.93 ppb	05:03:42
3	Sc 361.383	1996295.5	1996295.5	102.49 %		05:05:20
3	Y 371.029	1373737.5	1373737.5	102.72 %		05:05:20
3	Ag 328.068†	62496.9	61488.1	467.47 µg/L	467.47 ppb	05:05:26
3	As 188.979†	229.0	222.6	418.70 µg/L	418.70 ppb	05:05:46
3	B 249.677†	11448.2	10856.8	454.79 µg/L	454.79 ppb	05:05:26
3	Ba 233.527†	18355.7	17935.0	453.89 µg/L	453.89 ppb	05:05:26
3	Be 313.107†	772841.2	757689.9	468.66 µg/L	468.66 ppb	05:05:20
3	Cd 226.502†	17554.5	17251.1	459.37 µg/L	459.37 ppb	05:05:26
3	Co 228.616†	9709.9	9479.7	450.97 µg/L	450.97 ppb	05:05:26
3	Cr 267.716†	21387.1	20893.2	441.12 µg/L	441.12 ppb	05:05:26
3	Cu 324.752†	71760.2	66785.6	441.82 µg/L	441.82 ppb	05:05:26
3	Mn 257.610†	147113.4	143779.7	477.89 µg/L	477.89 ppb	05:05:20
3	Mo 202.031†	4229.7	4125.8	427.23 µg/L	427.23 ppb	05:05:46
3	Ni 231.604†	9173.1	8669.4	453.60 µg/L	453.60 ppb	05:05:26
3	P 214.914†	1087.6	1033.6	2110.2 µg/L	2110.2 ppb	05:05:46
3	Pb 220.353†	1849.4	1714.1	439.59 µg/L	439.59 ppb	05:05:46
3	S 181.975 Axial†	229.7	209.0	901.52 µg/L	901.52 ppb	05:05:46
3	Sb 206.836†	488.1	455.2	431.69 µg/L	431.69 ppb	05:05:46
3	Se 196.026†	327.1	307.2	455.86 µg/L	455.86 ppb	05:05:46
3	SiO2†	26136.6	23989.4	4906.9 µg/L	4906.9 ppb	05:05:26
3	Si 251.611†	29883.3	28872.1	2283.5 µg/L	2283.5 ppb	05:05:26
3	Sn 189.927†	972.2	947.7	421.87 µg/L	421.87 ppb	05:05:46
3	Ti 334.940†	208164.9	202960.5	462.38 µg/L	462.38 ppb	05:05:20
3	Tl 190.801†	314.1	327.1	457.69 µg/L	457.69 ppb	05:05:46
3	U 409.014†	5627.7	5265.6	429.85 µg/L	429.85 ppb	05:05:26
3	V 292.402†	45065.3	44017.3	449.33 µg/L	449.33 ppb	05:05:26
3	Zn 213.857†	19606.2	18663.8	452.62 µg/L	452.62 ppb	05:05:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1985775.9	101.95	%	0.469				0.46%
Sc RADIAL	56046.7	101	%	0.6				0.61%
Y 371.029	1365332.3	102.09	%	0.545				0.53%
Ag 328.068†	64506.9	490.51	µg/L	20.014	490.51	ppb	20.014	4.08%
QC value within limits for Ag 328.068 Recovery = 98.10%								
Al 396.153Radial†	6908.4	4898.4	µg/L	18.85	4898.4	ppb	18.85	0.38%
QC value within limits for Al 396.153Radial Recovery = 97.97%								
As 188.979†	257.3	483.93	µg/L	56.582	483.93	ppb	56.582	11.69%
QC value within limits for As 188.979 Recovery = 96.79%								
B 249.677†	11442.0	479.49	µg/L	21.480	479.49	ppb	21.480	4.48%
QC value within limits for B 249.677 Recovery = 95.90%								
Ba 233.527†	19226.5	486.59	µg/L	28.378	486.59	ppb	28.378	5.83%
QC value within limits for Ba 233.527 Recovery = 97.32%								
Be 313.107†	793970.7	491.09	µg/L	19.451	491.09	ppb	19.451	3.96%
QC value within limits for Be 313.107 Recovery = 98.22%								
Ca 317.933Radial†	5337.0	4827.2	µg/L	20.75	4827.2	ppb	20.75	0.43%
QC value within limits for Ca 317.933Radial Recovery = 96.54%								
Cd 226.502†	18574.4	494.65	µg/L	30.603	494.65	ppb	30.603	6.19%
QC value within limits for Cd 226.502 Recovery = 98.93%								
Co 228.616†	10242.3	487.30	µg/L	31.489	487.30	ppb	31.489	6.46%

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   QC value within limits for Co 228.616  Recovery = 97.46%
Cr 267.716†            23035.1      486.34 µg/L        39.189      486.34 ppb         39.189   8.06%
   QC value within limits for Cr 267.716  Recovery = 97.27%
Cu 324.752†            72135.2      477.15 µg/L        30.639      477.15 ppb         30.639   6.42%
   QC value within limits for Cu 324.752  Recovery = 95.43%
Fe 238.204 Radial†       570.7      5003.6 µg/L         35.07      5003.6 ppb          35.07   0.70%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.07%
K 766.490 Radial†       7428.6      4977.7 µg/L         35.25      4977.7 ppb          35.25   0.71%
   QC value within limits for K 766.490 Radial  Recovery = 99.55%
Mg 279.077 IEC†          532.4      4974.4 µg/L         30.97      4974.4 ppb          30.97   0.62%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.49%
Mn 257.610†           150313.6      499.59 µg/L        18.814      499.59 ppb         18.814   3.77%
   QC value within limits for Mn 257.610  Recovery = 99.92%
Mo 202.031†             4716.4      488.36 µg/L        53.142      488.36 ppb         53.142  10.88%
   QC value within limits for Mo 202.031  Recovery = 97.67%
Na 589.592 Radial†     32522.7      9886.4 µg/L         33.36      9886.4 ppb          33.36   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 98.86%
Ni 231.604†             9375.8      490.55 µg/L        32.041      490.55 ppb         32.041   6.53%
   QC value within limits for Ni 231.604  Recovery = 98.11%
P 214.914†              1166.4      2384.2 µg/L        237.36      2384.2 ppb         237.36   9.96%
   QC value within limits for P 214.914  Recovery = 95.37%
Pb 220.353†             1906.2      488.92 µg/L        42.774      488.92 ppb         42.774   8.75%
   QC value within limits for Pb 220.353  Recovery = 97.78%
S 181.975 Axial†         229.8      991.10 µg/L        77.658      991.10 ppb         77.658   7.84%
   QC value within limits for S 181.975 Axial  Recovery = 99.11%
Sb 206.836†              511.5      485.41 µg/L        46.770      485.41 ppb         46.770   9.64%
   QC value within limits for Sb 206.836  Recovery = 97.08%
Se 196.026†              341.3      505.61 µg/L        43.367      505.61 ppb         43.367   8.58%
   QC value within limits for Se 196.026  Recovery = 101.12%
SiO2†                  25480.9      5212.0 µg/L        264.69      5212.0 ppb         264.69   5.08%
   QC value within limits for SiO2  Recovery = 97.47%
Si 251.611†            30669.5      2425.6 µg/L        123.47      2425.6 ppb         123.47   5.09%
   QC value within limits for Si 251.611  Recovery = 97.03%
Sn 189.927†             1093.3      486.68 µg/L        56.271      486.68 ppb         56.271  11.56%
   QC value within limits for Sn 189.927  Recovery = 97.34%
Sr 421.552†            50740.4      491.22 µg/L         1.073      491.22 ppb          1.073   0.22%
   QC value within limits for Sr 421.552  Recovery = 98.24%
Ti 334.940†           213860.6      487.23 µg/L        21.524      487.23 ppb         21.524   4.42%
   QC value within limits for Ti 334.940  Recovery = 97.45%
Tl 190.801†              355.7      497.46 µg/L        35.036      497.46 ppb         35.036   7.04%
   QC value within limits for Tl 190.801  Recovery = 99.49%
U 409.014†              5746.8      469.23 µg/L        34.163      469.23 ppb         34.163   7.28%
   QC value within limits for U 409.014  Recovery = 93.85%
V 292.402†             47886.8      488.97 µg/L        34.360      488.97 ppb         34.360   7.03%
   QC value within limits for V 292.402  Recovery = 97.79%
Zn 213.857†            20154.4      488.81 µg/L        31.376      488.81 ppb         31.376   6.42%
   QC value within limits for Zn 213.857  Recovery = 97.76%
All analyte(s) passed QC.
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Sequence No.: 18
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 05:05:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55120.7	55120.7	99.5	%			05:06:29
1	Al 396.153Radial†	-25.8	-41.9	-29.793	µg/L	-29.793	ppb	05:06:29
1	Ca 317.933Radial†	190.2	-24.0	-21.705	µg/L	-21.705	ppb	05:06:50
1	Fe 238.204 Radial†	16.7	-1.0	-8.8369	µg/L	-8.8369	ppb	05:06:50
1	K 766.490 Radial†	183.6	6.9	4.6251	µg/L	4.6251	ppb	05:06:29
1	Mg 279.077 IEC†	8.6	-5.1	-47.833	µg/L	-47.833	ppb	05:06:50
1	Na 589.592 Radial†	390.7	13.9	4.2238	µg/L	4.2238	ppb	05:06:29
1	Sr 421.552†	27.2	7.3	0.0707	µg/L	0.0707	ppb	05:06:29
1	Sc 361.383	1983801.3	1983801.3	101.85	%			05:07:52
1	Y 371.029	1369479.7	1369479.7	102.40	%			05:07:52
1	Ag 328.068†	-414.9	103.0	0.7749	µg/L	0.7749	ppb	05:07:57
1	As 188.979†	0.3	-0.5	-0.9546	µg/L	-0.9546	ppb	05:08:18
1	B 249.677†	328.8	9.8	0.4160	µg/L	0.4160	ppb	05:08:18
1	Ba 233.527†	-13.1	12.6	0.3171	µg/L	0.3171	ppb	05:08:18
1	Be 313.107†	-3540.7	156.5	0.0968	µg/L	0.0968	ppb	05:07:57
1	Cd 226.502†	-128.2	-2.7	-0.0706	µg/L	-0.0706	ppb	05:08:18
1	Co 228.616†	-2.4	3.5	0.1674	µg/L	0.1674	ppb	05:08:18
1	Cr 267.716†	-31.2	-4.7	-0.0991	µg/L	-0.0991	ppb	05:07:57
1	Cu 324.752†	3306.5	15.9	0.1038	µg/L	0.1038	ppb	05:07:57
1	Mn 257.610†	-228.3	17.8	0.0599	µg/L	0.0599	ppb	05:08:18
1	Mo 202.031†	5.5	4.2	0.4381	µg/L	0.4381	ppb	05:08:18
1	Ni 231.604†	292.2	6.2	0.3248	µg/L	0.3248	ppb	05:08:18
1	P 214.914†	20.5	-7.4	-15.442	µg/L	-15.442	ppb	05:08:18
1	Pb 220.353†	91.5	-0.5	-0.1445	µg/L	-0.1445	ppb	05:08:18
1	S 181.975 Axial†	13.5	-1.8	-7.6365	µg/L	-7.6365	ppb	05:08:18
1	Sb 206.836†	21.1	-0.3	-0.3091	µg/L	-0.3091	ppb	05:08:18
1	Se 196.026†	13.9	1.7	2.4629	µg/L	2.4629	ppb	05:08:18
1	SiO2†	1585.8	45.0	9.2080	µg/L	9.2080	ppb	05:07:57
1	Si 251.611†	299.7	9.4	0.7412	µg/L	0.7412	ppb	05:08:18
1	Sn 189.927†	2.9	2.0	0.8797	µg/L	0.8797	ppb	05:08:18
1	Ti 334.940†	133.2	-14.0	-0.0286	µg/L	-0.0286	ppb	05:07:57
1	Tl 190.801†	-19.1	1.8	2.4808	µg/L	2.4808	ppb	05:08:18
1	U 409.014†	281.0	50.6	4.1397	µg/L	4.1397	ppb	05:07:57
1	V 292.402†	-75.6	-26.9	-0.2647	µg/L	-0.2647	ppb	05:07:57
1	Zn 213.857†	480.8	6.2	0.1524	µg/L	0.1524	ppb	05:08:18
2	Sc RADIAL	55608.2	55608.2	100	%			05:06:55
2	Al 396.153Radial†	-30.8	-46.7	-33.168	µg/L	-33.168	ppb	05:06:55
2	Ca 317.933Radial†	182.3	-33.6	-30.390	µg/L	-30.390	ppb	05:07:16
2	Fe 238.204 Radial†	14.0	-3.9	-33.763	µg/L	-33.763	ppb	05:07:16
2	K 766.490 Radial†	232.5	54.0	36.210	µg/L	36.210	ppb	05:06:55
2	Mg 279.077 IEC†	12.8	-1.0	-9.5775	µg/L	-9.5775	ppb	05:07:16
2	Na 589.592 Radial†	388.7	8.5	2.5811	µg/L	2.5811	ppb	05:06:55
2	Sr 421.552†	51.8	31.6	0.3058	µg/L	0.3058	ppb	05:06:55
2	Sc 361.383	1978033.8	1978033.8	101.55	%			05:08:24
2	Y 371.029	1364674.1	1364674.1	102.04	%			05:08:24
2	Ag 328.068†	-496.4	21.5	0.1589	µg/L	0.1589	ppb	05:08:30
2	As 188.979†	-0.2	-1.0	-1.9200	µg/L	-1.9200	ppb	05:08:50
2	B 249.677†	323.5	5.5	0.2474	µg/L	0.2474	ppb	05:08:50
2	Ba 233.527†	-18.0	7.6	0.1928	µg/L	0.1928	ppb	05:08:50
2	Be 313.107†	-3519.2	167.5	0.1037	µg/L	0.1037	ppb	05:08:30
2	Cd 226.502†	-129.9	-4.7	-0.1213	µg/L	-0.1213	ppb	05:08:50
2	Co 228.616†	-3.9	2.0	0.0960	µg/L	0.0960	ppb	05:08:50
2	Cr 267.716†	-40.9	-14.4	-0.3030	µg/L	-0.3030	ppb	05:08:30
2	Cu 324.752†	3304.8	23.7	0.1521	µg/L	0.1521	ppb	05:08:30
2	Mn 257.610†	-226.7	18.7	0.0580	µg/L	0.0580	ppb	05:08:50
2	Mo 202.031†	-2.7	-3.8	-0.3949	µg/L	-0.3949	ppb	05:08:50
2	Ni 231.604†	299.9	14.6	0.7652	µg/L	0.7652	ppb	05:08:50
2	P 214.914†	17.7	-10.1	-21.069	µg/L	-21.069	ppb	05:08:50
2	Pb 220.353†	86.8	-4.9	-1.2621	µg/L	-1.2621	ppb	05:08:50

2	S 181.975 Axial†	18.6	3.3	14.132 µg/L	14.132 ppb	05:08:50
2	Sb 206.836†	19.9	-1.5	-1.4301 µg/L	-1.4301 ppb	05:08:50
2	Se 196.026†	11.5	-0.7	-1.0418 µg/L	-1.0418 ppb	05:08:50
2	SiO2†	1586.0	49.8	10.177 µg/L	10.177 ppb	05:08:30
2	Si 251.611†	315.7	26.0	2.0557 µg/L	2.0557 ppb	05:08:50
2	Sn 189.927†	2.0	1.2	0.5178 µg/L	0.5178 ppb	05:08:50
2	Ti 334.940†	131.4	-15.5	-0.0350 µg/L	-0.0350 ppb	05:08:30
2	Tl 190.801†	-24.9	-3.9	-5.3950 µg/L	-5.3950 ppb	05:08:50
2	U 409.014†	201.3	-27.1	-2.2130 µg/L	-2.2130 ppb	05:08:30
2	V 292.402†	-66.4	-18.1	-0.1926 µg/L	-0.1926 ppb	05:08:30
2	Zn 213.857†	475.8	2.6	0.0623 µg/L	0.0623 ppb	05:08:50
3	Sc RADIAL	55122.2	55122.2	99.5 %		05:07:21
3	Al 396.153Radial†	-23.6	-39.7	-28.219 µg/L	-28.219 ppb	05:07:21
3	Ca 317.933Radial†	187.8	-26.4	-23.889 µg/L	-23.889 ppb	05:07:42
3	Fe 238.204 Radial†	18.1	0.4	3.5292 µg/L	3.5292 ppb	05:07:42
3	K 766.490 Radial†	220.9	44.4	29.771 µg/L	29.771 ppb	05:07:21
3	Mg 279.077 IEC†	12.0	-1.7	-16.117 µg/L	-16.117 ppb	05:07:42
3	Na 589.592 Radial†	399.7	23.0	6.9841 µg/L	6.9841 ppb	05:07:21
3	Sr 421.552†	29.4	9.6	0.0925 µg/L	0.0925 ppb	05:07:21
3	Sc 361.383	1988283.8	1988283.8	102.08 %		05:08:56
3	Y 371.029	1371430.3	1371430.3	102.55 %		05:08:56
3	Ag 328.068†	-431.2	87.9	0.6612 µg/L	0.6612 ppb	05:09:02
3	As 188.979†	-2.5	-3.2	-6.0585 µg/L	-6.0585 ppb	05:09:22
3	B 249.677†	342.4	22.3	0.9357 µg/L	0.9357 ppb	05:09:22
3	Ba 233.527†	-24.1	1.8	0.0438 µg/L	0.0438 ppb	05:09:22
3	Be 313.107†	-3554.9	150.5	0.0931 µg/L	0.0931 ppb	05:09:02
3	Cd 226.502†	-138.1	-12.1	-0.3217 µg/L	-0.3217 ppb	05:09:22
3	Co 228.616†	0.3	6.1	0.2891 µg/L	0.2891 ppb	05:09:22
3	Cr 267.716†	-61.0	-33.9	-0.7147 µg/L	-0.7147 ppb	05:09:02
3	Cu 324.752†	3294.5	-3.1	-0.0201 µg/L	-0.0201 ppb	05:09:02
3	Mn 257.610†	-210.0	36.2	0.1214 µg/L	0.1214 ppb	05:09:22
3	Mo 202.031†	-0.9	-2.0	-0.2054 µg/L	-0.2054 ppb	05:09:22
3	Ni 231.604†	280.8	-5.6	-0.2947 µg/L	-0.2947 ppb	05:09:22
3	P 214.914†	25.8	-2.2	-4.6915 µg/L	-4.6915 ppb	05:09:22
3	Pb 220.353†	82.6	-9.4	-2.4197 µg/L	-2.4197 ppb	05:09:22
3	S 181.975 Axial†	15.3	-0.1	-0.3846 µg/L	-0.3846 ppb	05:09:22
3	Sb 206.836†	28.0	6.4	6.0542 µg/L	6.0542 ppb	05:09:22
3	Se 196.026†	13.3	1.1	1.6739 µg/L	1.6739 ppb	05:09:22
3	SiO2†	1610.1	65.4	13.368 µg/L	13.368 ppb	05:09:02
3	Si 251.611†	315.5	24.2	1.9119 µg/L	1.9119 ppb	05:09:22
3	Sn 189.927†	0.2	-0.6	-0.2786 µg/L	-0.2786 ppb	05:09:22
3	Ti 334.940†	140.8	-6.9	-0.0148 µg/L	-0.0148 ppb	05:09:02
3	Tl 190.801†	-21.1	-0.1	-0.0843 µg/L	-0.0843 ppb	05:09:22
3	U 409.014†	189.2	-40.0	-3.2733 µg/L	-3.2733 ppb	05:09:02
3	V 292.402†	-83.9	-34.9	-0.3583 µg/L	-0.3583 ppb	05:09:02
3	Zn 213.857†	484.2	8.4	0.2081 µg/L	0.2081 ppb	05:09:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1983373.0	101.83	%	0.264				0.26%
Sc RADIAL	55283.7	99.8	%	0.51				0.51%
Y 371.029	1368528.1	102.33	%	0.260				0.25%
Ag 328.068†	70.8	0.5317	µg/L	0.32782	0.5317	ppb	0.32782	61.66%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-42.8	-30.393	µg/L	2.5286	-30.393	ppb	2.5286	8.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-2.9777	µg/L	2.71138	-2.9777	ppb	2.71138	91.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	12.5	0.5330	µg/L	0.35879	0.5330	ppb	0.35879	67.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.1846	µg/L	0.13685	0.1846	ppb	0.13685	74.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	158.1	0.0979	µg/L	0.00535	0.0979	ppb	0.00535	5.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-28.0	-25.328	µg/L	4.5177	-25.328	ppb	4.5177	17.84%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-6.5	-0.1712	µg/L	0.13280	-0.1712	ppb	0.13280	77.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	3.9	0.1841	µg/L	0.09766	0.1841	ppb	0.09766	53.03%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.6     -0.3722 µg/L       0.31360     -0.3722 ppb        0.31360  84.25%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               12.2      0.0786 µg/L       0.08881      0.0786 ppb        0.08881 112.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.5     -13.024 µg/L      18.9954     -13.024 ppb       18.9954 145.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         35.1      23.535 µg/L      16.6902      23.535 ppb       16.6902  70.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.6     -24.509 µg/L      20.4619     -24.509 ppb       20.4619  83.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               24.3      0.0798 µg/L       0.03608      0.0798 ppb        0.03608  45.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.5     -0.0541 µg/L       0.43665     -0.0541 ppb        0.43665 807.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        15.1      4.5963 µg/L       2.22502      4.5963 ppb        2.22502  48.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                5.1      0.2651 µg/L       0.53243      0.2651 ppb        0.53243 200.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.6     -13.734 µg/L        8.3211     -13.734 ppb         8.3211  60.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.0     -1.2754 µg/L       1.13766     -1.2754 ppb        1.13766  89.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.5      2.0370 µg/L      11.08448      2.0370 ppb       11.08448 544.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.5      1.4383 µg/L       4.03653      1.4383 ppb        4.03653 280.64%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.7      1.0316 µg/L       1.83851      1.0316 ppb        1.83851 178.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     53.4      10.918 µg/L        2.1766      10.918 ppb         2.1766  19.94%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               19.8      1.5696 µg/L       0.72102      1.5696 ppb        0.72102  45.94%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.8      0.3730 µg/L       0.59258      0.3730 ppb        0.59258 158.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               16.1      0.1563 µg/L       0.12988      0.1563 ppb        0.12988  83.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -12.1     -0.0261 µg/L       0.01029     -0.0261 ppb        0.01029  39.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.7     -0.9995 µg/L       4.01687     -0.9995 ppb        4.01687 401.88%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -5.5     -0.4489 µg/L       4.00903     -0.4489 ppb        4.00903 893.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -26.6     -0.2718 µg/L       0.08308     -0.2718 ppb        0.08308  30.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                5.7      0.1409 µg/L       0.07357      0.1409 ppb        0.07357  52.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 28
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 05:41:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55756.3	55756.3	101	%			05:42:22
1	Al 396.153Radial†	7157.2	7094.3	5029.5	µg/L	5029.5	ppb	05:42:22
1	Ca 317.933Radial†	5725.6	5472.9	4950.1	µg/L	4950.1	ppb	05:42:42
1	Fe 238.204 Radial†	603.1	581.3	5096.8	µg/L	5096.8	ppb	05:42:42
1	K 766.490 Radial†	7802.8	7574.0	5075.1	µg/L	5075.1	ppb	05:42:22
1	Mg 279.077 IEC†	558.4	541.0	5054.8	µg/L	5054.8	ppb	05:42:42
1	Na 589.592 Radial†	33763.5	33163.3	10081	µg/L	10081	ppb	05:42:22
1	Sr 421.552†	52043.7	51682.2	500.34	µg/L	500.34	ppb	05:42:22
1	Sc 361.383	1977776.5	1977776.5	101.54	%			05:43:46
1	Y 371.029	1359992.4	1359992.4	101.69	%			05:43:46
1	Ag 328.068†	67621.1	67105.6	510.33	µg/L	510.33	ppb	05:43:51
1	As 188.979†	284.7	279.6	525.92	µg/L	525.92	ppb	05:44:12
1	B 249.677†	12430.7	11929.1	499.98	µg/L	499.98	ppb	05:43:51
1	Ba 233.527†	20523.1	20237.2	512.17	µg/L	512.17	ppb	05:43:51
1	Be 313.107†	835550.8	826508.9	511.22	µg/L	511.22	ppb	05:43:46
1	Cd 226.502†	19707.8	19532.1	520.18	µg/L	520.18	ppb	05:43:51
1	Co 228.616†	11023.7	10862.3	516.83	µg/L	516.83	ppb	05:43:51
1	Cr 267.716†	24938.2	24585.8	519.07	µg/L	519.07	ppb	05:43:51
1	Cu 324.752†	80541.2	76089.0	503.28	µg/L	503.28	ppb	05:43:51
1	Mn 257.610†	158684.4	156519.2	520.20	µg/L	520.20	ppb	05:43:46
1	Mo 202.031†	5208.2	5128.1	530.98	µg/L	530.98	ppb	05:44:12
1	Ni 231.604†	10390.1	9951.8	520.68	µg/L	520.68	ppb	05:43:51
1	P 214.914†	1305.5	1258.1	2573.2	µg/L	2573.2	ppb	05:44:12
1	Pb 220.353†	2161.5	2038.4	522.87	µg/L	522.87	ppb	05:44:12
1	S 181.975 Axial†	265.1	246.0	1061.2	µg/L	1061.2	ppb	05:44:12
1	Sb 206.836†	581.8	551.9	523.81	µg/L	523.81	ppb	05:44:12
1	Se 196.026†	379.8	362.1	536.03	µg/L	536.03	ppb	05:44:12
1	SiO2†	28633.0	26686.7	5458.7	µg/L	5458.7	ppb	05:43:51
1	Si 251.611†	32960.5	32175.6	2544.8	µg/L	2544.8	ppb	05:43:51
1	Sn 189.927†	1223.1	1203.7	535.83	µg/L	535.83	ppb	05:44:12
1	Ti 334.940†	226491.0	222910.4	507.86	µg/L	507.86	ppb	05:43:46
1	Tl 190.801†	360.6	375.7	525.35	µg/L	525.35	ppb	05:44:12
1	U 409.014†	6419.1	6096.4	497.81	µg/L	497.81	ppb	05:43:51
1	V 292.402†	51431.7	50698.8	517.78	µg/L	517.78	ppb	05:43:51
1	Zn 213.857†	22150.4	21348.5	517.80	µg/L	517.80	ppb	05:43:51
2	Sc RADIAL	55778.1	55778.1	101	%			05:42:48
2	Al 396.153Radial†	7117.4	7051.9	4999.6	µg/L	4999.6	ppb	05:42:48
2	Ca 317.933Radial†	5767.1	5511.8	4985.3	µg/L	4985.3	ppb	05:43:08
2	Fe 238.204 Radial†	608.9	586.9	5145.7	µg/L	5145.7	ppb	05:43:08
2	K 766.490 Radial†	7796.6	7564.9	5068.9	µg/L	5068.9	ppb	05:42:48
2	Mg 279.077 IEC†	563.6	545.9	5101.1	µg/L	5101.1	ppb	05:43:08
2	Na 589.592 Radial†	33670.0	33057.2	10049	µg/L	10049	ppb	05:42:48
2	Sr 421.552†	52053.6	51671.8	500.24	µg/L	500.24	ppb	05:42:48
2	Sc 361.383	1987048.2	1987048.2	102.02	%			05:44:19
2	Y 371.029	1366909.7	1366909.7	102.21	%			05:44:19
2	Ag 328.068†	67377.0	66555.6	506.16	µg/L	506.16	ppb	05:44:25
2	As 188.979†	278.5	272.2	512.00	µg/L	512.00	ppb	05:44:45
2	B 249.677†	12445.5	11886.5	498.16	µg/L	498.16	ppb	05:44:25
2	Ba 233.527†	20567.2	20186.1	510.88	µg/L	510.88	ppb	05:44:25
2	Be 313.107†	844972.5	831904.7	514.56	µg/L	514.56	ppb	05:44:19
2	Cd 226.502†	19727.7	19461.0	518.27	µg/L	518.27	ppb	05:44:25
2	Co 228.616†	10977.4	10766.3	512.24	µg/L	512.24	ppb	05:44:25
2	Cr 267.716†	24946.0	24478.9	516.82	µg/L	516.82	ppb	05:44:25
2	Cu 324.752†	80210.3	75394.4	498.70	µg/L	498.70	ppb	05:44:25
2	Mn 257.610†	160338.1	157411.0	523.17	µg/L	523.17	ppb	05:44:19
2	Mo 202.031†	5142.5	5039.8	521.84	µg/L	521.84	ppb	05:44:45
2	Ni 231.604†	10312.7	9828.2	514.22	µg/L	514.22	ppb	05:44:25
2	P 214.914†	1284.6	1231.6	2518.3	µg/L	2518.3	ppb	05:44:45
2	Pb 220.353†	2163.2	2030.1	520.72	µg/L	520.72	ppb	05:44:45

2	S 181.975 Axial†	259.2	239.0	1030.8 µg/L	1030.8 ppb	05:44:45
2	Sb 206.836†	576.2	543.8	516.05 µg/L	516.05 ppb	05:44:45
2	Se 196.026†	372.9	353.6	523.72 µg/L	523.72 ppb	05:44:45
2	SiO2†	28646.0	26567.9	5434.3 µg/L	5434.3 ppb	05:44:25
2	Si 251.611†	32985.6	32048.8	2534.7 µg/L	2534.7 ppb	05:44:25
2	Sn 189.927†	1208.0	1183.3	526.71 µg/L	526.71 ppb	05:44:45
2	Ti 334.940†	229001.1	224330.1	511.10 µg/L	511.10 ppb	05:44:19
2	Tl 190.801†	359.1	372.6	521.10 µg/L	521.10 ppb	05:44:45
2	U 409.014†	6393.7	6041.9	493.35 µg/L	493.35 ppb	05:44:25
2	V 292.402†	51418.1	50449.2	515.19 µg/L	515.19 ppb	05:44:25
2	Zn 213.857†	22093.4	21190.8	513.98 µg/L	513.98 ppb	05:44:25
3	Sc RADIAL	55548.1	55548.1	100 %		05:43:13
3	Al 396.153Radial†	7086.9	7050.8	5000.5 µg/L	5000.5 ppb	05:43:13
3	Ca 317.933Radial†	5716.3	5484.9	4961.0 µg/L	4961.0 ppb	05:43:34
3	Fe 238.204 Radial†	609.5	589.9	5171.3 µg/L	5171.3 ppb	05:43:34
3	K 766.490 Radial†	7794.4	7594.8	5089.0 µg/L	5089.0 ppb	05:43:13
3	Mg 279.077 IEC†	554.1	538.8	5032.7 µg/L	5032.7 ppb	05:43:34
3	Na 589.592 Radial†	33566.4	33092.4	10060 µg/L	10060 ppb	05:43:13
3	Sr 421.552†	51964.0	51796.6	501.45 µg/L	501.45 ppb	05:43:13
3	Sc 361.383	1962331.0	1962331.0	100.75 %		05:44:52
3	Y 371.029	1350018.6	1350018.6	100.95 %		05:44:52
3	Ag 328.068†	63405.2	63445.2	482.36 µg/L	482.36 ppb	05:44:58
3	As 188.979†	238.7	236.2	444.25 µg/L	444.25 ppb	05:45:18
3	B 249.677†	11640.1	11240.7	470.89 µg/L	470.89 ppb	05:44:58
3	Ba 233.527†	18719.0	18605.6	470.86 µg/L	470.86 ppb	05:44:58
3	Be 313.107†	773669.3	771563.2	477.24 µg/L	477.24 ppb	05:44:52
3	Cd 226.502†	17875.7	17866.3	475.75 µg/L	475.75 ppb	05:44:58
3	Co 228.616†	9952.6	9884.6	470.25 µg/L	470.25 ppb	05:44:58
3	Cr 267.716†	21852.9	21716.8	458.51 µg/L	458.51 ppb	05:44:58
3	Cu 324.752†	72897.7	69126.5	457.30 µg/L	457.30 ppb	05:44:58
3	Mn 257.610†	147227.2	146377.0	486.54 µg/L	486.54 ppb	05:44:52
3	Mo 202.031†	4291.8	4258.9	441.01 µg/L	441.01 ppb	05:45:18
3	Ni 231.604†	9329.6	8979.6	469.82 µg/L	469.82 ppb	05:44:58
3	P 214.914†	1103.1	1067.3	2179.1 µg/L	2179.1 ppb	05:45:18
3	Pb 220.353†	1874.8	1770.5	454.06 µg/L	454.06 ppb	05:45:18
3	S 181.975 Axial†	235.2	218.4	941.89 µg/L	941.89 ppb	05:45:18
3	Sb 206.836†	492.7	468.0	443.77 µg/L	443.77 ppb	05:45:18
3	Se 196.026†	334.6	320.2	475.11 µg/L	475.11 ppb	05:45:18
3	SiO2†	26544.4	24835.6	5080.0 µg/L	5080.0 ppb	05:44:58
3	Si 251.611†	30470.4	29959.4	2369.5 µg/L	2369.5 ppb	05:44:58
3	Sn 189.927†	986.3	978.2	435.40 µg/L	435.40 ppb	05:45:18
3	Ti 334.940†	208575.1	206883.2	471.33 µg/L	471.33 ppb	05:44:52
3	Tl 190.801†	316.0	334.2	467.63 µg/L	467.63 ppb	05:45:18
3	U 409.014†	5688.8	5421.2	442.56 µg/L	442.56 ppb	05:44:58
3	V 292.402†	45955.1	45661.5	466.09 µg/L	466.09 ppb	05:44:58
3	Zn 213.857†	19964.4	19350.4	469.29 µg/L	469.29 ppb	05:44:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1975718.6	101.43	%	0.641				0.63%
Sc RADIAL	55694.2	101	%	0.2				0.23%
Y 371.029	1358973.6	101.62	%	0.635				0.62%
Ag 328.068†	65702.1	499.62	µg/L	15.088	499.62	ppb	15.088	3.02%
QC value within limits for Ag 328.068 Recovery = 99.92%								
Al 396.153Radial†	7065.7	5009.9	µg/L	17.01	5009.9	ppb	17.01	0.34%
QC value within limits for Al 396.153Radial Recovery = 100.20%								
As 188.979†	262.7	494.05	µg/L	43.694	494.05	ppb	43.694	8.84%
QC value within limits for As 188.979 Recovery = 98.81%								
B 249.677†	11685.4	489.68	µg/L	16.298	489.68	ppb	16.298	3.33%
QC value within limits for B 249.677 Recovery = 97.94%								
Ba 233.527†	19676.3	497.97	µg/L	23.485	497.97	ppb	23.485	4.72%
QC value within limits for Ba 233.527 Recovery = 99.59%								
Be 313.107†	809992.3	501.00	µg/L	20.652	501.00	ppb	20.652	4.12%
QC value within limits for Be 313.107 Recovery = 100.20%								
Ca 317.933Radial†	5489.9	4965.5	µg/L	18.04	4965.5	ppb	18.04	0.36%
QC value within limits for Ca 317.933Radial Recovery = 99.31%								
Cd 226.502†	18953.1	504.74	µg/L	25.117	504.74	ppb	25.117	4.98%
QC value within limits for Cd 226.502 Recovery = 100.95%								
Co 228.616†	10504.4	499.77	µg/L	25.668	499.77	ppb	25.668	5.14%

```
   QC value within limits for Co 228.616  Recovery = 99.95%
Cr 267.716†            23593.8      498.13 µg/L        34.336      498.13 ppb        34.336   6.89%
   QC value within limits for Cr 267.716  Recovery = 99.63%
Cu 324.752†            73536.6      486.42 µg/L        25.326      486.42 ppb        25.326   5.21%
   QC value within limits for Cu 324.752  Recovery = 97.28%
Fe 238.204 Radial†       586.1      5137.9 µg/L         37.88      5137.9 ppb         37.88   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.76%
K 766.490 Radial†       7577.9      5077.7 µg/L         10.27      5077.7 ppb         10.27   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 101.55%
Mg 279.077 IEC†          541.9      5062.8 µg/L         34.89      5062.8 ppb         34.89   0.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.26%
Mn 257.610†           153435.7      509.97 µg/L        20.348      509.97 ppb        20.348   3.99%
   QC value within limits for Mn 257.610  Recovery = 101.99%
Mo 202.031†             4808.9      497.94 µg/L        49.514      497.94 ppb        49.514   9.94%
   QC value within limits for Mo 202.031  Recovery = 99.59%
Na 589.592 Radial†     33104.3       10063 µg/L          16.4       10063 ppb          16.4   0.16%
   QC value within limits for Na 589.592 Radial  Recovery = 100.63%
Ni 231.604†             9586.5      501.58 µg/L        27.687      501.58 ppb        27.687   5.52%
   QC value within limits for Ni 231.604  Recovery = 100.32%
P 214.914†              1185.7      2423.5 µg/L        213.47      2423.5 ppb        213.47   8.81%
   QC value within limits for P 214.914  Recovery = 96.94%
Pb 220.353†             1946.3      499.22 µg/L        39.118      499.22 ppb        39.118   7.84%
   QC value within limits for Pb 220.353  Recovery = 99.84%
S 181.975 Axial†         234.5      1011.3 µg/L         62.01      1011.3 ppb         62.01   6.13%
   QC value within limits for S 181.975 Axial  Recovery = 101.13%
Sb 206.836†              521.2      494.54 µg/L        44.142      494.54 ppb        44.142   8.93%
   QC value within limits for Sb 206.836  Recovery = 98.91%
Se 196.026†              345.3      511.62 µg/L        32.214      511.62 ppb        32.214   6.30%
   QC value within limits for Se 196.026  Recovery = 102.32%
SiO2†                  26030.1      5324.3 µg/L        211.94      5324.3 ppb        211.94   3.98%
   QC value within limits for SiO2  Recovery = 99.57%
Si 251.611†            31394.6      2483.0 µg/L         98.43      2483.0 ppb         98.43   3.96%
   QC value within limits for Si 251.611  Recovery = 99.32%
Sn 189.927†             1121.7      499.31 µg/L        55.535      499.31 ppb        55.535  11.12%
   QC value within limits for Sn 189.927  Recovery = 99.86%
Sr 421.552†            51716.9      500.68 µg/L         0.670      500.68 ppb         0.670   0.13%
   QC value within limits for Sr 421.552  Recovery = 100.14%
Ti 334.940†           218041.2      496.76 µg/L        22.087      496.76 ppb        22.087   4.45%
   QC value within limits for Ti 334.940  Recovery = 99.35%
Tl 190.801†              360.9      504.69 µg/L        32.171      504.69 ppb        32.171   6.37%
   QC value within limits for Tl 190.801  Recovery = 100.94%
U 409.014†              5853.2      477.91 µg/L        30.693      477.91 ppb        30.693   6.42%
   QC value within limits for U 409.014  Recovery = 95.58%
V 292.402†             48936.5      499.69 µg/L        29.124      499.69 ppb        29.124   5.83%
   QC value within limits for V 292.402  Recovery = 99.94%
Zn 213.857†            20629.9      500.35 µg/L        26.970      500.35 ppb        26.970   5.39%
   QC value within limits for Zn 213.857  Recovery = 100.07%
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 05:45:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54961.7	54961.7	99.2	%			05:46:00
1	Al 396.153Radial†	-34.4	-50.7	-36.052	µg/L	-36.052	ppb	05:46:00
1	Ca 317.933Radial†	184.6	-29.1	-26.355	µg/L	-26.355	ppb	05:46:20
1	Fe 238.204 Radial†	15.7	-2.0	-17.093	µg/L	-17.093	ppb	05:46:20
1	K 766.490 Radial†	128.0	-48.5	-32.523	µg/L	-32.523	ppb	05:46:00
1	Mg 279.077 IEC†	9.4	-4.3	-40.079	µg/L	-40.079	ppb	05:46:20
1	Na 589.592 Radial†	388.9	13.2	4.0066	µg/L	4.0066	ppb	05:46:00
1	Sr 421.552†	67.0	47.5	0.4600	µg/L	0.4600	ppb	05:46:00
1	Sc 361.383	1968487.4	1968487.4	101.06	%			05:47:22
1	Y 371.029	1358704.4	1358704.4	101.60	%			05:47:22
1	Ag 328.068†	-473.2	42.0	0.3141	µg/L	0.3141	ppb	05:47:28
1	As 188.979†	-3.3	-4.0	-7.5629	µg/L	-7.5629	ppb	05:47:48
1	B 249.677†	381.0	63.9	2.6978	µg/L	2.6978	ppb	05:47:48
1	Ba 233.527†	-21.5	4.1	0.1027	µg/L	0.1027	ppb	05:47:48
1	Be 313.107†	-3653.9	17.4	0.0107	µg/L	0.0107	ppb	05:47:28
1	Cd 226.502†	-123.0	1.5	0.0436	µg/L	0.0436	ppb	05:47:48
1	Co 228.616†	-3.0	2.8	0.1331	µg/L	0.1331	ppb	05:47:48
1	Cr 267.716†	-53.2	-26.7	-0.5639	µg/L	-0.5639	ppb	05:47:28
1	Cu 324.752†	3303.2	38.0	0.2483	µg/L	0.2483	ppb	05:47:28
1	Mn 257.610†	-189.4	54.6	0.1805	µg/L	0.1805	ppb	05:47:48
1	Mo 202.031†	3.7	2.5	0.2581	µg/L	0.2581	ppb	05:47:48
1	Ni 231.604†	302.5	18.6	0.9756	µg/L	0.9756	ppb	05:47:48
1	P 214.914†	22.7	-5.1	-10.665	µg/L	-10.665	ppb	05:47:48
1	Pb 220.353†	94.0	2.6	0.6666	µg/L	0.6666	ppb	05:47:48
1	S 181.975 Axial†	16.6	1.3	5.7539	µg/L	5.7539	ppb	05:47:48
1	Sb 206.836†	29.5	8.1	7.6869	µg/L	7.6869	ppb	05:47:48
1	Se 196.026†	11.5	-0.5	-0.8006	µg/L	-0.8006	ppb	05:47:48
1	SiO2†	1595.9	67.1	13.730	µg/L	13.730	ppb	05:47:28
1	Si 251.611†	337.2	48.8	3.8575	µg/L	3.8575	ppb	05:47:48
1	Sn 189.927†	2.4	1.5	0.6795	µg/L	0.6795	ppb	05:47:48
1	Ti 334.940†	241.3	93.9	0.2169	µg/L	0.2169	ppb	05:47:28
1	Tl 190.801†	-23.8	-2.9	-4.0640	µg/L	-4.0640	ppb	05:47:48
1	U 409.014†	246.5	18.6	1.5231	µg/L	1.5231	ppb	05:47:28
1	V 292.402†	-78.6	-30.4	-0.3066	µg/L	-0.3066	ppb	05:47:28
1	Zn 213.857†	482.5	11.5	0.2791	µg/L	0.2791	ppb	05:47:48
2	Sc RADIAL	54842.0	54842.0	99.0	%			05:46:26
2	Al 396.153Radial†	-38.6	-55.0	-39.079	µg/L	-39.079	ppb	05:46:26
2	Ca 317.933Radial†	188.4	-24.9	-22.518	µg/L	-22.518	ppb	05:46:46
2	Fe 238.204 Radial†	17.9	0.3	2.9302	µg/L	2.9302	ppb	05:46:46
2	K 766.490 Radial†	239.3	64.1	42.970	µg/L	42.970	ppb	05:46:26
2	Mg 279.077 IEC†	8.6	-5.0	-47.035	µg/L	-47.035	ppb	05:46:46
2	Na 589.592 Radial†	399.1	24.4	7.4101	µg/L	7.4101	ppb	05:46:26
2	Sr 421.552†	52.1	32.6	0.3153	µg/L	0.3153	ppb	05:46:26
2	Sc 361.383	1965347.8	1965347.8	100.90	%			05:47:54
2	Y 371.029	1357763.2	1357763.2	101.53	%			05:47:54
2	Ag 328.068†	-419.0	95.0	0.7174	µg/L	0.7174	ppb	05:48:00
2	As 188.979†	0.7	-0.1	-0.2366	µg/L	-0.2366	ppb	05:48:20
2	B 249.677†	353.6	37.3	1.5683	µg/L	1.5683	ppb	05:48:20
2	Ba 233.527†	-15.2	10.3	0.2613	µg/L	0.2613	ppb	05:48:20
2	Be 313.107†	-3481.6	182.4	0.1128	µg/L	0.1128	ppb	05:48:00
2	Cd 226.502†	-122.9	1.4	0.0368	µg/L	0.0368	ppb	05:48:20
2	Co 228.616†	-0.4	5.5	0.2597	µg/L	0.2597	ppb	05:48:20
2	Cr 267.716†	-51.8	-25.4	-0.5361	µg/L	-0.5361	ppb	05:48:00
2	Cu 324.752†	3308.4	48.3	0.3195	µg/L	0.3195	ppb	05:48:00
2	Mn 257.610†	-186.8	56.8	0.1909	µg/L	0.1909	ppb	05:48:20
2	Mo 202.031†	3.3	2.1	0.2187	µg/L	0.2187	ppb	05:48:20
2	Ni 231.604†	289.4	6.1	0.3200	µg/L	0.3200	ppb	05:48:20
2	P 214.914†	24.8	-2.9	-6.1152	µg/L	-6.1152	ppb	05:48:20
2	Pb 220.353†	88.7	-2.4	-0.6250	µg/L	-0.6250	ppb	05:48:20

2	S 181.975 Axial†	16.0	0.8	3.3904 µg/L	3.3904 ppb	05:48:20
2	Sb 206.836†	26.3	5.0	4.7563 µg/L	4.7563 ppb	05:48:20
2	Se 196.026†	14.4	2.3	3.3851 µg/L	3.3851 ppb	05:48:20
2	SiO2†	1640.2	113.6	23.236 µg/L	23.236 ppb	05:48:00
2	Si 251.611†	321.9	34.2	2.7025 µg/L	2.7025 ppb	05:48:20
2	Sn 189.927†	2.3	1.4	0.6323 µg/L	0.6323 ppb	05:48:20
2	Ti 334.940†	212.1	65.4	0.1525 µg/L	0.1525 ppb	05:48:00
2	Tl 190.801†	-22.9	-2.1	-2.8708 µg/L	-2.8708 ppb	05:48:20
2	U 409.014†	211.2	-16.0	-1.3123 µg/L	-1.3123 ppb	05:48:00
2	V 292.402†	-50.6	-2.8	-0.0288 µg/L	-0.0288 ppb	05:48:00
2	Zn 213.857†	482.9	12.6	0.3095 µg/L	0.3095 ppb	05:48:20
3	Sc RADIAL	54924.3	54924.3	99.2 %		05:46:52
3	Al 396.153Radial†	11.8	-4.1	-2.9433 µg/L	-2.9433 ppb	05:46:52
3	Ca 317.933Radial†	181.6	-32.1	-28.999 µg/L	-28.999 ppb	05:47:12
3	Fe 238.204 Radial†	14.7	-3.0	-26.190 µg/L	-26.190 ppb	05:47:12
3	K 766.490 Radial†	186.4	10.4	6.9770 µg/L	6.9770 ppb	05:46:52
3	Mg 279.077 IEC†	14.0	0.4	3.3605 µg/L	3.3605 ppb	05:47:12
3	Na 589.592 Radial†	395.2	19.9	6.0393 µg/L	6.0393 ppb	05:46:52
3	Sr 421.552†	40.3	20.7	0.2002 µg/L	0.2002 ppb	05:46:52
3	Sc 361.383	1962914.9	1962914.9	100.78 %		05:48:26
3	Y 371.029	1355461.6	1355461.6	101.36 %		05:48:26
3	Ag 328.068†	-469.8	44.1	0.3294 µg/L	0.3294 ppb	05:48:32
3	As 188.979†	3.3	2.5	4.6973 µg/L	4.6973 ppb	05:48:52
3	B 249.677†	347.3	31.5	1.3401 µg/L	1.3401 ppb	05:48:52
3	Ba 233.527†	-8.6	16.9	0.4266 µg/L	0.4266 ppb	05:48:52
3	Be 313.107†	-3527.1	133.0	0.0822 µg/L	0.0822 ppb	05:48:32
3	Cd 226.502†	-124.9	-0.7	-0.0156 µg/L	-0.0156 ppb	05:48:52
3	Co 228.616†	-1.4	4.4	0.2089 µg/L	0.2089 ppb	05:48:52
3	Cr 267.716†	-18.9	7.2	0.1513 µg/L	0.1513 ppb	05:48:32
3	Cu 324.752†	3274.2	18.5	0.1182 µg/L	0.1182 ppb	05:48:32
3	Mn 257.610†	-175.2	68.1	0.2225 µg/L	0.2225 ppb	05:48:52
3	Mo 202.031†	-0.8	-1.9	-0.1966 µg/L	-0.1966 ppb	05:48:52
3	Ni 231.604†	288.7	5.7	0.2993 µg/L	0.2993 ppb	05:48:52
3	P 214.914†	17.8	-9.8	-20.481 µg/L	-20.481 ppb	05:48:52
3	Pb 220.353†	88.2	-2.8	-0.7211 µg/L	-0.7211 ppb	05:48:52
3	S 181.975 Axial†	15.3	0.1	0.3736 µg/L	0.3736 ppb	05:48:52
3	Sb 206.836†	23.3	2.0	1.9276 µg/L	1.9276 ppb	05:48:52
3	Se 196.026†	10.2	-1.9	-2.7833 µg/L	-2.7833 ppb	05:48:52
3	SiO2†	1602.7	78.4	16.032 µg/L	16.032 ppb	05:48:32
3	Si 251.611†	317.6	30.2	2.3921 µg/L	2.3921 ppb	05:48:52
3	Sn 189.927†	5.3	4.4	1.9803 µg/L	1.9803 ppb	05:48:52
3	Ti 334.940†	294.6	147.5	0.3356 µg/L	0.3356 ppb	05:48:32
3	Tl 190.801†	-18.1	2.7	3.6787 µg/L	3.6787 ppb	05:48:52
3	U 409.014†	212.4	-14.6	-1.1890 µg/L	-1.1890 ppb	05:48:32
3	V 292.402†	-73.4	-25.5	-0.2627 µg/L	-0.2627 ppb	05:48:32
3	Zn 213.857†	469.3	-0.2	-0.0061 µg/L	-0.0061 ppb	05:48:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1965583.4	100.91	%	0.143				0.14%
Sc RADIAL	54909.4	99.1	%	0.11				0.11%
Y 371.029	1357309.7	101.49	%	0.125				0.12%
Ag 328.068†	60.4	0.4536	µg/L	0.22854	0.4536	ppb	0.22854	50.38%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-36.6	-26.025	µg/L	20.0465	-26.025	ppb	20.0465	77.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-1.0340	µg/L	6.16888	-1.0340	ppb	6.16888	596.59%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	44.3	1.8687	µg/L	0.72704	1.8687	ppb	0.72704	38.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.4	0.2635	µg/L	0.16196	0.2635	ppb	0.16196	61.46%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.9	0.0686	µg/L	0.05240	0.0686	ppb	0.05240	76.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-28.7	-25.957	µg/L	3.2589	-25.957	ppb	3.2589	12.55%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	0.7	0.0216	µg/L	0.03240	0.0216	ppb	0.03240	150.23%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.2	0.2005	µg/L	0.06369	0.2005	ppb	0.06369	31.76%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.0     -0.3162 µg/L       0.40515     -0.3162 ppb        0.40515 128.13%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               34.9      0.2287 µg/L       0.10204      0.2287 ppb        0.10204  44.62%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.5     -13.451 µg/L       14.8978     -13.451 ppb        14.8978 110.76%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          8.7      5.8079 µg/L      37.75993      5.8079 ppb       37.75993 650.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.0     -27.918 µg/L       27.3103     -27.918 ppb        27.3103  97.82%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               59.8      0.1980 µg/L       0.02190      0.1980 ppb        0.02190  11.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                0.9      0.0934 µg/L       0.25188      0.0934 ppb        0.25188 269.74%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        19.1      5.8187 µg/L       1.71241      5.8187 ppb        1.71241  29.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               10.2      0.5316 µg/L       0.38461      0.5316 ppb        0.38461  72.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.0     -12.420 µg/L        7.3418     -12.420 ppb         7.3418  59.11%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -0.9     -0.2265 µg/L       0.77490     -0.2265 ppb        0.77490 342.14%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.7      3.1727 µg/L       2.69677      3.1727 ppb        2.69677  85.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.1      4.7902 µg/L       2.87983      4.7902 ppb        2.87983  60.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.0     -0.0662 µg/L       3.14910     -0.0662 ppb        3.14910 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     86.4      17.666 µg/L        4.9589      17.666 ppb         4.9589  28.07%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               37.7      2.9840 µg/L       0.77221      2.9840 ppb        0.77221  25.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.5      1.0974 µg/L       0.76503      1.0974 ppb        0.76503  69.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               33.6      0.3252 µg/L       0.13020      0.3252 ppb        0.13020  40.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              102.3      0.2350 µg/L       0.09288      0.2350 ppb        0.09288  39.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.8     -1.0854 µg/L       4.16869     -1.0854 ppb        4.16869 384.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -4.0     -0.3260 µg/L       1.60263     -0.3260 ppb        1.60263 491.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -19.6     -0.1994 µg/L       0.14935     -0.1994 ppb        0.14935  74.92%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.0      0.1941 µg/L       0.17408      0.1941 ppb        0.17408  89.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: 1202050830|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 322
Date Collected: 2/24/2010 05:49:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202050830|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54066.3	54066.3	97.6	%			05:49:40
1	Al 396.153Radial†	-15.1	-31.5	-22.333	µg/L	-22.333	ppb	05:49:40
1	Ca 317.933Radial†	202.7	-7.5	-6.7573	µg/L	-6.7573	ppb	05:50:00
1	Fe 238.204 Radial†	23.6	6.4	55.777	µg/L	55.777	ppb	05:50:00
1	K 766.490 Radial†	221.0	48.9	32.735	µg/L	32.735	ppb	05:49:40
1	Mg 279.077 IEC†	12.2	-1.2	-11.552	µg/L	-11.552	ppb	05:50:00
1	Na 589.592 Radial†	420.0	51.6	15.684	µg/L	15.684	ppb	05:49:40
1	Sr 421.552†	44.8	25.8	0.2502	µg/L	0.2502	ppb	05:49:40
1	Sc 361.383	1946422.8	1946422.8	99.931	%			05:51:02
1	Y 371.029	1342885.0	1342885.0	100.42	%			05:51:02
1	Ag 328.068†	-443.6	66.4	0.5016	µg/L	0.5016	ppb	05:51:08
1	As 188.979†	-3.9	-4.7	-8.7818	µg/L	-8.7818	ppb	05:51:28
1	B 249.677†	355.1	42.3	1.7509	µg/L	1.7509	ppb	05:51:28
1	Ba 233.527†	-7.3	18.1	0.4557	µg/L	0.4557	ppb	05:51:28
1	Be 313.107†	-3671.2	-40.9	-0.0254	µg/L	-0.0254	ppb	05:51:08
1	Cd 226.502†	-136.4	-13.3	-0.3596	µg/L	-0.3596	ppb	05:51:28
1	Co 228.616†	-1.3	4.5	0.2152	µg/L	0.2152	ppb	05:51:28
1	Cr 267.716†	-17.1	8.8	0.1853	µg/L	0.1853	ppb	05:51:28
1	Cu 324.752†	3381.8	153.6	1.0226	µg/L	1.0226	ppb	05:51:08
1	Mn 257.610†	96.0	338.0	1.1304	µg/L	1.1304	ppb	05:51:28
1	Mo 202.031†	-4.7	-5.8	-0.5962	µg/L	-0.5962	ppb	05:51:28
1	Ni 231.604†	304.5	23.9	1.2548	µg/L	1.2548	ppb	05:51:28
1	P 214.914†	9.3	-18.2	-38.111	µg/L	-38.111	ppb	05:51:28
1	Pb 220.353†	85.8	-4.5	-1.1769	µg/L	-1.1769	ppb	05:51:28
1	S 181.975 Axial†	16.6	1.6	6.7958	µg/L	6.7958	ppb	05:51:28
1	Sb 206.836†	22.8	1.7	1.6380	µg/L	1.6380	ppb	05:51:28
1	Se 196.026†	22.0	10.1	14.908	µg/L	14.908	ppb	05:51:28
1	SiO2†	1815.9	305.2	62.434	µg/L	62.434	ppb	05:51:08
1	Si 251.611†	532.7	248.2	19.630	µg/L	19.630	ppb	05:51:28
1	Sn 189.927†	3.0	2.2	0.9712	µg/L	0.9712	ppb	05:51:28
1	Ti 334.940†	290.6	146.0	0.3337	µg/L	0.3337	ppb	05:51:08
1	Tl 190.801†	-23.7	-3.2	-4.3576	µg/L	-4.3576	ppb	05:51:28
1	U 409.014†	280.0	54.9	4.4821	µg/L	4.4821	ppb	05:51:08
1	V 292.402†	-95.6	-48.4	-0.4809	µg/L	-0.4809	ppb	05:51:08
1	Zn 213.857†	521.5	55.9	1.3569	µg/L	1.3569	ppb	05:51:28
2	Sc RADIAL	53775.5	53775.5	97.1	%			05:50:06
2	Al 396.153Radial†	-23.6	-40.3	-28.634	µg/L	-28.634	ppb	05:50:06
2	Ca 317.933Radial†	210.4	1.6	1.4342	µg/L	1.4342	ppb	05:50:26
2	Fe 238.204 Radial†	23.1	6.0	52.298	µg/L	52.298	ppb	05:50:26
2	K 766.490 Radial†	170.1	-2.3	-1.5671	µg/L	-1.5671	ppb	05:50:06
2	Mg 279.077 IEC†	12.7	-0.7	-6.2419	µg/L	-6.2419	ppb	05:50:26
2	Na 589.592 Radial†	402.9	36.3	11.029	µg/L	11.029	ppb	05:50:06
2	Sr 421.552†	56.0	37.7	0.3648	µg/L	0.3648	ppb	05:50:06
2	Sc 361.383	1948344.7	1948344.7	100.03	%			05:51:34
2	Y 371.029	1344139.6	1344139.6	100.51	%			05:51:34
2	Ag 328.068†	-471.8	38.6	0.2911	µg/L	0.2911	ppb	05:51:40
2	As 188.979†	1.1	0.3	0.5036	µg/L	0.5036	ppb	05:52:00
2	B 249.677†	348.1	34.9	1.4392	µg/L	1.4392	ppb	05:52:00
2	Ba 233.527†	-11.7	13.7	0.3459	µg/L	0.3459	ppb	05:52:00
2	Be 313.107†	-3543.6	90.3	0.0557	µg/L	0.0557	ppb	05:51:40
2	Cd 226.502†	-135.5	-12.2	-0.3298	µg/L	-0.3298	ppb	05:52:00
2	Co 228.616†	-0.9	4.9	0.2315	µg/L	0.2315	ppb	05:52:00
2	Cr 267.716†	-30.0	-4.1	-0.0858	µg/L	-0.0858	ppb	05:52:00
2	Cu 324.752†	3394.7	163.2	1.0852	µg/L	1.0852	ppb	05:51:40
2	Mn 257.610†	83.4	325.3	1.0873	µg/L	1.0873	ppb	05:52:00
2	Mo 202.031†	0.7	-0.4	-0.0415	µg/L	-0.0415	ppb	05:52:00
2	Ni 231.604†	298.1	17.3	0.9042	µg/L	0.9042	ppb	05:52:00
2	P 214.914†	15.5	-12.0	-25.153	µg/L	-25.153	ppb	05:52:00
2	Pb 220.353†	82.0	-8.4	-2.1518	µg/L	-2.1518	ppb	05:52:00

2	S 181.975 Axial†	17.9	2.8	12.254 µg/L	12.254 ppb	05:52:00
2	Sb 206.836†	16.6	-4.4	-4.1837 µg/L	-4.1837 ppb	05:52:00
2	Se 196.026†	13.7	1.7	2.6229 µg/L	2.6229 ppb	05:52:00
2	SiO2†	1786.2	273.8	55.997 µg/L	55.997 ppb	05:51:40
2	Si 251.611†	543.6	258.5	20.447 µg/L	20.447 ppb	05:52:00
2	Sn 189.927†	6.7	5.8	2.5764 µg/L	2.5764 ppb	05:52:00
2	Ti 334.940†	296.7	151.8	0.3465 µg/L	0.3465 ppb	05:51:40
2	Tl 190.801†	-22.0	-1.4	-1.9872 µg/L	-1.9872 ppb	05:52:00
2	U 409.014†	246.1	20.7	1.6828 µg/L	1.6828 ppb	05:51:40
2	V 292.402†	-102.4	-55.0	-0.5477 µg/L	-0.5477 ppb	05:51:40
2	Zn 213.857†	525.6	59.5	1.4453 µg/L	1.4453 ppb	05:52:00
3	Sc RADIAL	54334.0	54334.0	98.1 %		05:50:32
3	Al 396.153Radial†	-20.8	-37.2	-26.415 µg/L	-26.415 ppb	05:50:32
3	Ca 317.933Radial†	210.5	-0.5	-0.4800 µg/L	-0.4800 ppb	05:50:52
3	Fe 238.204 Radial†	23.3	6.0	52.183 µg/L	52.183 ppb	05:50:52
3	K 766.490 Radial†	191.6	17.7	11.875 µg/L	11.875 ppb	05:50:32
3	Mg 279.077 IEC†	12.3	-1.2	-11.271 µg/L	-11.271 ppb	05:50:52
3	Na 589.592 Radial†	439.4	69.3	21.056 µg/L	21.056 ppb	05:50:32
3	Sr 421.552†	37.9	18.6	0.1801 µg/L	0.1801 ppb	05:50:32
3	Sc 361.383	1944619.8	1944619.8	99.838 %		05:52:06
3	Y 371.029	1341557.2	1341557.2	100.32 %		05:52:06
3	Ag 328.068†	-437.9	71.7	0.5448 µg/L	0.5448 ppb	05:52:12
3	As 188.979†	-2.7	-3.5	-6.6658 µg/L	-6.6658 ppb	05:52:32
3	B 249.677†	363.0	50.5	2.0971 µg/L	2.0971 ppb	05:52:32
3	Ba 233.527†	-12.8	12.6	0.3180 µg/L	0.3180 ppb	05:52:32
3	Be 313.107†	-3599.1	28.0	0.0171 µg/L	0.0171 ppb	05:52:12
3	Cd 226.502†	-140.9	-17.9	-0.4811 µg/L	-0.4811 ppb	05:52:32
3	Co 228.616†	2.2	8.0	0.3804 µg/L	0.3804 ppb	05:52:32
3	Cr 267.716†	-27.5	-1.6	-0.0345 µg/L	-0.0345 ppb	05:52:32
3	Cu 324.752†	3376.3	151.3	1.0063 µg/L	1.0063 ppb	05:52:12
3	Mn 257.610†	76.7	318.8	1.0661 µg/L	1.0661 ppb	05:52:32
3	Mo 202.031†	-2.2	-3.4	-0.3457 µg/L	-0.3457 ppb	05:52:32
3	Ni 231.604†	296.7	16.4	0.8612 µg/L	0.8612 ppb	05:52:32
3	P 214.914†	13.9	-13.6	-28.493 µg/L	-28.493 ppb	05:52:32
3	Pb 220.353†	91.1	0.9	0.2178 µg/L	0.2178 ppb	05:52:32
3	S 181.975 Axial†	15.3	0.2	1.0383 µg/L	1.0383 ppb	05:52:32
3	Sb 206.836†	16.8	-4.3	-4.0511 µg/L	-4.0511 ppb	05:52:32
3	Se 196.026†	10.1	-1.8	-2.5424 µg/L	-2.5424 ppb	05:52:32
3	SiO2†	1801.0	292.0	59.723 µg/L	59.723 ppb	05:52:12
3	Si 251.611†	546.7	262.6	20.772 µg/L	20.772 ppb	05:52:32
3	Sn 189.927†	1.5	0.7	0.2912 µg/L	0.2912 ppb	05:52:32
3	Ti 334.940†	367.8	223.6	0.5106 µg/L	0.5106 ppb	05:52:12
3	Tl 190.801†	-20.4	0.1	0.1700 µg/L	0.1700 ppb	05:52:32
3	U 409.014†	242.8	17.8	1.4509 µg/L	1.4509 ppb	05:52:12
3	V 292.402†	-41.4	5.8	0.0636 µg/L	0.0636 ppb	05:52:12
3	Zn 213.857†	519.3	54.3	1.3185 µg/L	1.3185 ppb	05:52:32

Mean Data: 1202050830|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1946462.5	99.933	%	0.0956				0.10%
Sc RADIAL	54058.6	97.6	%	0.50				0.52%
Y 371.029	1342860.6	100.41	%	0.097				0.10%
Ag 328.068†	58.9	0.4459	µg/L	0.13572	0.4459	ppb	0.13572	30.44%
Al 396.153Radial†	-36.3	-25.794	µg/L	3.1962	-25.794	ppb	3.1962	12.39%
As 188.979†	-2.6	-4.9814	µg/L	4.86648	-4.9814	ppb	4.86648	97.69%
B 249.677†	42.6	1.7624	µg/L	0.32908	1.7624	ppb	0.32908	18.67%
Ba 233.527†	14.8	0.3732	µg/L	0.07279	0.3732	ppb	0.07279	19.50%
Be 313.107†	25.8	0.0158	µg/L	0.04060	0.0158	ppb	0.04060	256.79%
Ca 317.933Radial†	-2.1	-1.9343	µg/L	4.28504	-1.9343	ppb	4.28504	221.53%
Cd 226.502†	-14.5	-0.3902	µg/L	0.08019	-0.3902	ppb	0.08019	20.55%
Co 228.616†	5.8	0.2757	µg/L	0.09107	0.2757	ppb	0.09107	33.03%
Cr 267.716†	1.0	0.0216	µg/L	0.14403	0.0216	ppb	0.14403	665.48%
Cu 324.752†	156.0	1.0380	µg/L	0.04168	1.0380	ppb	0.04168	4.02%
Fe 238.204 Radial†	6.1	53.419	µg/L	2.0427	53.419	ppb	2.0427	3.82%
K 766.490 Radial†	21.4	14.348	µg/L	17.2844	14.348	ppb	17.2844	120.47%
Mg 279.077 IEC†	-1.0	-9.6883	µg/L	2.98796	-9.6883	ppb	2.98796	30.84%
Mn 257.610†	327.4	1.0946	µg/L	0.03276	1.0946	ppb	0.03276	2.99%
Mo 202.031†	-3.2	-0.3278	µg/L	0.27775	-0.3278	ppb	0.27775	84.73%
Na 589.592 Radial†	52.4	15.923	µg/L	5.0174	15.923	ppb	5.0174	31.51%

Ni 231.604†	19.2	1.0067	µg/L	0.21586	1.0067	ppb	0.21586 21.44%
P 214.914†	-14.6	-30.586	µg/L	6.7281	-30.586	ppb	6.7281 22.00%
Pb 220.353†	-4.0	-1.0370	µg/L	1.19098	-1.0370	ppb	1.19098 114.85%
S 181.975 Axial†	1.6	6.6961	µg/L	5.60864	6.6961	ppb	5.60864 83.76%
Sb 206.836†	-2.3	-2.1989	µg/L	3.32355	-2.1989	ppb	3.32355 151.14%
Se 196.026†	3.3	4.9962	µg/L	8.96401	4.9962	ppb	8.96401 179.42%
SiO2†	290.3	59.385	µg/L	3.2318	59.385	ppb	3.2318 5.44%
Si 251.611†	256.5	20.283	µg/L	0.5885	20.283	ppb	0.5885 2.90%
Sn 189.927†	2.9	1.2796	µg/L	1.17341	1.2796	ppb	1.17341 91.70%
Sr 421.552†	27.4	0.2650	µg/L	0.09325	0.2650	ppb	0.09325 35.19%
Ti 334.940†	173.8	0.3969	µg/L	0.09868	0.3969	ppb	0.09868 24.86%
Tl 190.801†	-1.5	-2.0583	µg/L	2.26460	-2.0583	ppb	2.26460 110.02%
U 409.014†	31.1	2.5386	µg/L	1.68712	2.5386	ppb	1.68712 66.46%
V 292.402†	-32.5	-0.3217	µg/L	0.33531	-0.3217	ppb	0.33531 104.24%
Zn 213.857†	56.6	1.3736	µg/L	0.06505	1.3736	ppb	0.06505 4.74%

Sequence No.: 31
Sample ID: 1202050831|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 323
Date Collected: 2/24/2010 05:52:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202050831|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55658.2	55658.2	100	%			05:53:20
1	Al 396.153Radial†	129883.8	129243.0	91815	µg/L	91815	ppb	05:53:14
1	Ca 317.933Radial†	117608.8	116827.9	105670	µg/L	105670	ppb	05:53:14
1	Fe 238.204 Radial†	22704.2	22577.2	197540	µg/L	197540	ppb	05:53:20
1	K 766.490 Radial†	62361.9	61884.3	41466	µg/L	41466	ppb	05:53:14
1	Mg 279.077 IEC†	4218.4	4184.4	38869	µg/L	38869	ppb	05:53:20
1	Na 589.592 Radial†	34667.1	34121.7	10372	µg/L	10372	ppb	05:53:14
1	Sr 421.552†	250188.7	248965.2	2410.3	µg/L	2410.3	ppb	05:53:14
1	Sc 361.383	1955334.9	1955334.9	100.39	%			05:53:54
1	Y 371.029	1378587.5	1378587.5	103.08	%			05:53:54
1	Ag 328.068†	38569.5	38930.6	314.68	µg/L	314.68	ppb	05:54:00
1	As 188.979†	601.1	598.0	1131.7	µg/L	1131.7	ppb	05:54:21
1	B 249.677†	38072.7	37612.4	1483.3	µg/L	1483.3	ppb	05:54:00
1	Ba 233.527†	78809.8	78530.5	1986.2	µg/L	1986.2	ppb	05:54:00
1	Be 313.107†	1363137.0	1361499.5	840.28	µg/L	840.28	ppb	05:53:54
1	Cd 226.502†	24933.9	24960.7	643.96	µg/L	643.96	ppb	05:54:00
1	Co 228.616†	20918.9	20843.8	981.52	µg/L	981.52	ppb	05:54:00
1	Cr 267.716†	124728.4	124272.0	2622.9	µg/L	2622.9	ppb	05:54:00
1	Cu 324.752†	289863.5	285512.2	1913.3	µg/L	1913.3	ppb	05:54:00
1	Mn 257.610†	1741597.9	1735106.1	5786.2	µg/L	5786.2	ppb	05:53:54
1	Mo 202.031†	5598.3	5575.6	584.61	µg/L	584.61	ppb	05:54:21
1	Ni 231.604†	28195.3	27805.6	1457.7	µg/L	1457.7	ppb	05:54:00
1	P 214.914†	4597.5	4552.2	9167.7	µg/L	9167.7	ppb	05:54:21
1	Pb 220.353†	3656.4	3551.9	906.71	µg/L	906.71	ppb	05:54:21
1	S 181.975 Axial†	971.1	952.3	4107.5	µg/L	4107.5	ppb	05:54:21
1	Sb 206.836†	2203.9	2174.3	2025.0	µg/L	2025.0	ppb	05:54:21
1	Se 196.026†	2105.4	2085.3	3516.6	µg/L	3516.6	ppb	05:54:21
1	SiO2†	88594.4	86739.9	17742	µg/L	17742	ppb	05:54:00
1	Si 251.611†	104951.5	104260.8	8245.9	µg/L	8245.9	ppb	05:54:00
1	Sn 189.927†	2639.5	2628.4	1152.9	µg/L	1152.9	ppb	05:54:21
1	Ti 334.940†	2502549.7	2492728.9	5681.4	µg/L	5681.4	ppb	05:53:54
1	Tl 190.801†	904.1	921.1	1367.7	µg/L	1367.7	ppb	05:54:21
1	U 409.014†	250.3	24.0	-31.938	µg/L	-31.938	ppb	05:54:00
1	V 292.402†	125470.2	125032.4	1294.9	µg/L	1294.9	ppb	05:54:00
1	Zn 213.857†	255239.8	253787.0	6177.7	µg/L	6177.7	ppb	05:54:00
2	Sc RADIAL	55474.7	55474.7	100	%			05:53:31
2	Al 396.153Radial†	129378.0	129165.6	91760	µg/L	91760	ppb	05:53:25
2	Ca 317.933Radial†	116828.5	116436.0	105310	µg/L	105310	ppb	05:53:25
2	Fe 238.204 Radial†	22581.5	22529.4	197130	µg/L	197130	ppb	05:53:31
2	K 766.490 Radial†	62137.4	61865.6	41454	µg/L	41454	ppb	05:53:25
2	Mg 279.077 IEC†	4211.4	4191.2	38934	µg/L	38934	ppb	05:53:31
2	Na 589.592 Radial†	34635.7	34204.5	10398	µg/L	10398	ppb	05:53:25
2	Sr 421.552†	248833.4	248435.7	2405.1	µg/L	2405.1	ppb	05:53:25
2	Sc 361.383	1957865.6	1957865.6	100.52	%			05:54:28
2	Y 371.029	1380699.6	1380699.6	103.24	%			05:54:28
2	Ag 328.068†	38598.9	38910.2	314.50	µg/L	314.50	ppb	05:54:34
2	As 188.979†	602.6	598.7	1133.0	µg/L	1133.0	ppb	05:54:54
2	B 249.677†	38206.5	37696.5	1487.1	µg/L	1487.1	ppb	05:54:34
2	Ba 233.527†	78958.3	78576.7	1987.3	µg/L	1987.3	ppb	05:54:34
2	Be 313.107†	1369768.1	1366341.2	843.27	µg/L	843.27	ppb	05:54:28
2	Cd 226.502†	24910.2	24905.1	642.53	µg/L	642.53	ppb	05:54:34
2	Co 228.616†	20983.5	20881.1	983.26	µg/L	983.26	ppb	05:54:34
2	Cr 267.716†	125052.0	124433.4	2626.3	µg/L	2626.3	ppb	05:54:34
2	Cu 324.752†	290201.8	285475.6	1913.0	µg/L	1913.0	ppb	05:54:34
2	Mn 257.610†	1751275.0	1742490.9	5810.7	µg/L	5810.7	ppb	05:54:28
2	Mo 202.031†	5578.9	5549.0	581.84	µg/L	581.84	ppb	05:54:54
2	Ni 231.604†	28297.1	27870.5	1461.1	µg/L	1461.1	ppb	05:54:34
2	P 214.914†	4578.6	4527.4	9116.4	µg/L	9116.4	ppb	05:54:54
2	Pb 220.353†	3657.2	3548.0	905.71	µg/L	905.71	ppb	05:54:54

2	S 181.975 Axial†	966.6	946.5	4082.7 µg/L	4082.7 ppb	05:54:54
2	Sb 206.836†	2187.3	2155.0	2006.7 µg/L	2006.7 ppb	05:54:54
2	Se 196.026†	2089.5	2066.8	3488.4 µg/L	3488.4 ppb	05:54:54
2	SiO2†	88281.3	86314.3	17655 µg/L	17655 ppb	05:54:34
2	Si 251.611†	104548.7	103725.0	8203.6 µg/L	8203.6 ppb	05:54:34
2	Sn 189.927†	2638.9	2624.5	1151.2 µg/L	1151.2 ppb	05:54:54
2	Ti 334.940†	2514074.5	2500972.1	5700.2 µg/L	5700.2 ppb	05:54:28
2	Tl 190.801†	896.3	912.3	1355.8 µg/L	1355.8 ppb	05:54:54
2	U 409.014†	274.6	47.9	-29.906 µg/L	-29.906 ppb	05:54:34
2	V 292.402†	125664.5	125064.2	1295.2 µg/L	1295.2 ppb	05:54:34
2	Zn 213.857†	255834.1	254049.6	6184.1 µg/L	6184.1 ppb	05:54:34
3	Sc RADIAL	55759.9	55759.9	101 %		05:53:42
3	Al 396.153Radial†	129177.6	128305.7	91149 µg/L	91149 ppb	05:53:36
3	Ca 317.933Radial†	116508.3	115521.2	104490 µg/L	104490 ppb	05:53:36
3	Fe 238.204 Radial†	22703.2	22535.0	197180 µg/L	197180 ppb	05:53:42
3	K 766.490 Radial†	62069.5	61480.7	41196 µg/L	41196 ppb	05:53:36
3	Mg 279.077 IEC†	4258.2	4216.3	39167 µg/L	39167 ppb	05:53:42
3	Na 589.592 Radial†	34619.4	34011.4	10339 µg/L	10339 ppb	05:53:36
3	Sr 421.552†	248574.0	246907.1	2390.3 µg/L	2390.3 ppb	05:53:36
3	Sc 361.383	1970348.9	1970348.9	101.16 %		05:55:01
3	Y 371.029	1389379.0	1389379.0	103.89 %		05:55:01
3	Ag 328.068†	38527.3	38596.1	312.06 µg/L	312.06 ppb	05:55:07
3	As 188.979†	594.9	587.3	1111.6 µg/L	1111.6 ppb	05:55:28
3	B 249.677†	38162.5	37412.2	1475.1 µg/L	1475.1 ppb	05:55:07
3	Ba 233.527†	78747.5	77870.7	1969.5 µg/L	1969.5 ppb	05:55:07
3	Be 313.107†	1374765.1	1362647.4	840.99 µg/L	840.99 ppb	05:55:01
3	Cd 226.502†	24897.7	24735.6	638.00 µg/L	638.00 ppb	05:55:07
3	Co 228.616†	20883.8	20650.4	972.31 µg/L	972.31 ppb	05:55:07
3	Cr 267.716†	124648.8	123246.6	2601.2 µg/L	2601.2 ppb	05:55:07
3	Cu 324.752†	289495.2	282948.0	1896.3 µg/L	1896.3 ppb	05:55:07
3	Mn 257.610†	1755540.3	1735669.2	5788.0 µg/L	5788.0 ppb	05:55:01
3	Mo 202.031†	5572.9	5507.9	577.59 µg/L	577.59 ppb	05:55:28
3	Ni 231.604†	28203.6	27599.7	1447.0 µg/L	1447.0 ppb	05:55:07
3	P 214.914†	4586.6	4506.5	9074.3 µg/L	9074.3 ppb	05:55:28
3	Pb 220.353†	3655.3	3523.1	899.30 µg/L	899.30 ppb	05:55:28
3	S 181.975 Axial†	964.4	938.2	4046.9 µg/L	4046.9 ppb	05:55:28
3	Sb 206.836†	2181.8	2135.7	1988.8 µg/L	1988.8 ppb	05:55:28
3	Se 196.026†	2099.5	2063.5	3483.9 µg/L	3483.9 ppb	05:55:28
3	SiO2†	87282.7	84770.8	17339 µg/L	17339 ppb	05:55:07
3	Si 251.611†	103515.6	102044.7	8070.7 µg/L	8070.7 ppb	05:55:07
3	Sn 189.927†	2630.0	2599.0	1139.9 µg/L	1139.9 ppb	05:55:28
3	Ti 334.940†	2520228.1	2491209.2	5677.9 µg/L	5677.9 ppb	05:55:01
3	Tl 190.801†	905.1	915.4	1359.8 µg/L	1359.8 ppb	05:55:28
3	U 409.014†	195.6	-32.0	-36.398 µg/L	-36.398 ppb	05:55:07
3	V 292.402†	125340.3	123951.6	1283.8 µg/L	1283.8 ppb	05:55:07
3	Zn 213.857†	255089.8	251701.3	6126.8 µg/L	6126.8 ppb	05:55:07

Mean Data: 1202050831|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1961183.2	100.69	%	0.413				0.41%
Sc RADIAL	55631.0	100	%	0.3				0.26%
Y 371.029	1382888.7	103.41	%	0.428				0.41%
Ag 328.068†	38812.3	313.75	µg/L	1.464	313.75	ppb	1.464	0.47%
Al 396.153Radial†	128904.8	91575	µg/L	369.6	91575	ppb	369.6	0.40%
As 188.979†	594.7	1125.4	µg/L	12.01	1125.4	ppb	12.01	1.07%
B 249.677†	37573.7	1481.8	µg/L	6.15	1481.8	ppb	6.15	0.42%
Ba 233.527†	78326.0	1981.0	µg/L	9.99	1981.0	ppb	9.99	0.50%
Be 313.107†	1363496.0	841.52	µg/L	1.561	841.52	ppb	1.561	0.19%
Ca 317.933Radial†	116261.7	105160	µg/L	606.5	105160	ppb	606.5	0.58%
Cd 226.502†	24867.1	641.49	µg/L	3.114	641.49	ppb	3.114	0.49%
Co 228.616†	20791.8	979.03	µg/L	5.885	979.03	ppb	5.885	0.60%
Cr 267.716†	123984.0	2616.8	µg/L	13.59	2616.8	ppb	13.59	0.52%
Cu 324.752†	284645.3	1907.5	µg/L	9.72	1907.5	ppb	9.72	0.51%
Fe 238.204 Radial†	22547.2	197280	µg/L	228.5	197280	ppb	228.5	0.12%
K 766.490 Radial†	61743.5	41372	µg/L	152.7	41372	ppb	152.7	0.37%
Mg 279.077 IEC†	4197.3	38990	µg/L	156.8	38990	ppb	156.8	0.40%
Mn 257.610†	1737755.4	5795.0	µg/L	13.63	5795.0	ppb	13.63	0.24%
Mo 202.031†	5544.2	581.34	µg/L	3.536	581.34	ppb	3.536	0.61%
Na 589.592 Radial†	34112.5	10370	µg/L	29.4	10370	ppb	29.4	0.28%

Ni 231.604†	27758.6	1455.3	µg/L	7.40	1455.3	ppb	7.40	0.51%
P 214.914†	4528.7	9119.5	µg/L	46.77	9119.5	ppb	46.77	0.51%
Pb 220.353†	3541.0	903.91	µg/L	4.018	903.91	ppb	4.018	0.44%
S 181.975 Axial†	945.7	4079.0	µg/L	30.48	4079.0	ppb	30.48	0.75%
Sb 206.836†	2155.0	2006.8	µg/L	18.12	2006.8	ppb	18.12	0.90%
Se 196.026†	2071.9	3496.3	µg/L	17.71	3496.3	ppb	17.71	0.51%
SiO2†	85941.7	17579	µg/L	211.9	17579	ppb	211.9	1.21%
Si 251.611†	103343.5	8173.4	µg/L	91.45	8173.4	ppb	91.45	1.12%
Sn 189.927†	2617.3	1148.0	µg/L	7.08	1148.0	ppb	7.08	0.62%
Sr 421.552†	248102.6	2401.9	µg/L	10.35	2401.9	ppb	10.35	0.43%
Ti 334.940†	2494970.1	5686.5	µg/L	11.98	5686.5	ppb	11.98	0.21%
Tl 190.801†	916.3	1361.1	µg/L	6.09	1361.1	ppb	6.09	0.45%
U 409.014†	13.3	-32.747	µg/L	3.3207	-32.747	ppb	3.3207	10.14%
V 292.402†	124682.7	1291.3	µg/L	6.46	1291.3	ppb	6.46	0.50%
Zn 213.857†	253179.3	6162.8	µg/L	31.38	6162.8	ppb	31.38	0.51%

Sequence No.: 32
Sample ID: 246066001|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 324
Date Collected: 2/24/2010 05:55:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066001|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56231.5	56231.5	102	%			05:56:10
1	Al 396.153Radial†	149874.6	147617.1	104880	µg/L	104880	ppb	05:56:10
1	Ca 317.933Radial†	25437.1	24841.5	22469	µg/L	22469	ppb	05:56:31
1	Fe 238.204 Radial†	16088.9	15830.5	138500	µg/L	138500	ppb	05:56:31
1	K 766.490 Radial†	22033.5	21526.4	14424	µg/L	14424	ppb	05:56:10
1	Mg 279.077 IEC†	2098.1	2053.0	19021	µg/L	19021	ppb	05:56:31
1	Na 589.592 Radial†	2676.2	2257.4	686.23	µg/L	686.23	ppb	05:56:31
1	Sr 421.552†	27571.1	27138.7	262.73	µg/L	262.73	ppb	05:56:10
1	Sc 361.383	1978888.9	1978888.9	101.60	%			05:57:34
1	Y 371.029	1397095.4	1397095.4	104.47	%			05:57:34
1	Ag 328.068†	-2007.2	-1465.4	-0.5215	µg/L	-0.5215	ppb	05:57:40
1	As 188.979†	15.4	14.4	33.932	µg/L	33.932	ppb	05:58:01
1	B 249.677†	1196.5	864.6	-35.700	µg/L	-35.700	ppb	05:57:40
1	Ba 233.527†	64407.5	63420.2	1602.7	µg/L	1602.7	ppb	05:57:40
1	Be 313.107†	17142.2	20505.6	10.580	µg/L	10.580	ppb	05:57:40
1	Cd 226.502†	365.4	482.8	-2.7044	µg/L	-2.7044	ppb	05:58:01
1	Co 228.616†	1607.0	1587.5	64.071	µg/L	64.071	ppb	05:58:01
1	Cr 267.716†	5867.5	5801.1	122.58	µg/L	122.58	ppb	05:57:40
1	Cu 324.752†	12574.8	9146.6	79.665	µg/L	79.665	ppb	05:57:40
1	Mn 257.610†	1153971.7	1136069.7	3790.0	µg/L	3790.0	ppb	05:57:34
1	Mo 202.031†	-1.3	-2.4	5.0135	µg/L	5.0135	ppb	05:58:01
1	Ni 231.604†	1939.7	1628.5	87.006	µg/L	87.006	ppb	05:58:01
1	P 214.914†	488.3	453.0	854.79	µg/L	854.79	ppb	05:58:01
1	Pb 220.353†	612.8	512.8	131.92	µg/L	131.92	ppb	05:58:01
1	S 181.975 Axial†	169.2	151.4	653.19	µg/L	653.19	ppb	05:58:01
1	Sb 206.836†	45.3	23.5	18.876	µg/L	18.876	ppb	05:58:01
1	Se 196.026†	-68.6	-79.5	239.34	µg/L	239.34	ppb	05:58:01
1	SiO2†	50371.1	48067.2	9831.9	µg/L	9831.9	ppb	05:57:40
1	Si 251.611†	58776.9	57567.9	4553.0	µg/L	4553.0	ppb	05:57:40
1	Sn 189.927†	-55.1	-55.1	-37.141	µg/L	-37.141	ppb	05:58:01
1	Ti 334.940†	2466010.7	2427092.6	5532.0	µg/L	5532.0	ppb	05:57:34
1	Tl 190.801†	-78.1	-56.3	11.595	µg/L	11.595	ppb	05:58:01
1	U 409.014†	-214.3	-436.3	-56.322	µg/L	-56.322	ppb	05:57:40
1	V 292.402†	27678.1	27290.2	291.81	µg/L	291.81	ppb	05:57:40
1	Zn 213.857†	12067.1	11411.5	270.59	µg/L	270.59	ppb	05:57:40
2	Sc RADIAL	55741.9	55741.9	101	%			05:56:36
2	Al 396.153Radial†	149173.5	148217.1	105310	µg/L	105310	ppb	05:56:36
2	Ca 317.933Radial†	25368.3	24993.2	22606	µg/L	22606	ppb	05:56:57
2	Fe 238.204 Radial†	16028.5	15909.7	139190	µg/L	139190	ppb	05:56:57
2	K 766.490 Radial†	21856.3	21540.9	14434	µg/L	14434	ppb	05:56:36
2	Mg 279.077 IEC†	2103.4	2076.4	19239	µg/L	19239	ppb	05:56:57
2	Na 589.592 Radial†	2681.1	2285.5	694.76	µg/L	694.76	ppb	05:56:57
2	Sr 421.552†	27371.3	27178.7	263.12	µg/L	263.12	ppb	05:56:36
2	Sc 361.383	1979133.4	1979133.4	101.61	%			05:58:07
2	Y 371.029	1397103.2	1397103.2	104.47	%			05:58:07
2	Ag 328.068†	-2030.3	-1487.8	-0.6553	µg/L	-0.6553	ppb	05:58:13
2	As 188.979†	11.0	10.0	25.719	µg/L	25.719	ppb	05:58:34
2	B 249.677†	1168.3	836.7	-37.237	µg/L	-37.237	ppb	05:58:13
2	Ba 233.527†	64210.8	63218.8	1597.6	µg/L	1597.6	ppb	05:58:13
2	Be 313.107†	17154.5	20515.6	10.587	µg/L	10.587	ppb	05:58:13
2	Cd 226.502†	371.8	489.1	-2.6154	µg/L	-2.6154	ppb	05:58:34
2	Co 228.616†	1606.0	1586.4	64.021	µg/L	64.021	ppb	05:58:34
2	Cr 267.716†	5893.3	5825.9	123.10	µg/L	123.10	ppb	05:58:13
2	Cu 324.752†	12532.5	9103.5	79.476	µg/L	79.476	ppb	05:58:13
2	Mn 257.610†	1154226.5	1136180.2	3790.5	µg/L	3790.5	ppb	05:58:07
2	Mo 202.031†	-6.2	-7.2	4.5425	µg/L	4.5425	ppb	05:58:34
2	Ni 231.604†	1950.3	1638.7	87.547	µg/L	87.547	ppb	05:58:34
2	P 214.914†	485.9	450.6	849.40	µg/L	849.40	ppb	05:58:34
2	Pb 220.353†	606.3	506.3	130.24	µg/L	130.24	ppb	05:58:34

2	S 181.975 Axial†	167.2	149.4	644.54	µg/L	644.54 ppb	05:58:34
2	Sb 206.836†	31.2	9.6	5.7286	µg/L	5.7286 ppb	05:58:34
2	Se 196.026†	-44.5	-55.7	275.68	µg/L	275.68 ppb	05:58:34
2	SiO2†	50110.7	47804.7	9778.2	µg/L	9778.2 ppb	05:58:13
2	Si 251.611†	58527.7	57315.4	4533.1	µg/L	4533.1 ppb	05:58:13
2	Sn 189.927†	-47.4	-47.5	-33.803	µg/L	-33.803 ppb	05:58:34
2	Ti 334.940†	2465432.2	2426223.6	5530.0	µg/L	5530.0 ppb	05:58:07
2	Tl 190.801†	-67.9	-46.3	25.569	µg/L	25.569 ppb	05:58:34
2	U 409.014†	-202.5	-424.7	-55.475	µg/L	-55.475 ppb	05:58:13
2	V 292.402†	27563.2	27173.8	290.71	µg/L	290.71 ppb	05:58:13
2	Zn 213.857†	12005.1	11349.0	269.01	µg/L	269.01 ppb	05:58:13
3	Sc RADIAL	56661.3	56661.3	102	%		05:57:02
3	Al 396.153Radial†	149955.7	146576.4	104140	µg/L	104140 ppb	05:57:02
3	Ca 317.933Radial†	25383.6	24599.1	22249	µg/L	22249 ppb	05:57:23
3	Fe 238.204 Radial†	16035.6	15658.2	136990	µg/L	136990 ppb	05:57:23
3	K 766.490 Radial†	22047.6	21375.5	14323	µg/L	14323 ppb	05:57:02
3	Mg 279.077 IEC†	2096.5	2035.7	18862	µg/L	18862 ppb	05:57:23
3	Na 589.592 Radial†	2685.9	2246.9	683.03	µg/L	683.03 ppb	05:57:23
3	Sr 421.552†	27610.7	26971.5	261.11	µg/L	261.11 ppb	05:57:02
3	Sc 361.383	1961046.1	1961046.1	100.68	%		05:58:40
3	Y 371.029	1382757.6	1382757.6	103.40	%		05:58:40
3	Ag 328.068†	-1910.7	-1387.5	-0.1048	µg/L	-0.1048 ppb	05:58:46
3	As 188.979†	10.8	10.0	25.598	µg/L	25.598 ppb	05:59:06
3	B 249.677†	1160.5	839.5	-35.978	µg/L	-35.978 ppb	05:58:46
3	Ba 233.527†	61883.2	61489.8	1553.9	µg/L	1553.9 ppb	05:58:46
3	Be 313.107†	16139.6	19663.3	10.110	µg/L	10.110 ppb	05:58:46
3	Cd 226.502†	345.3	466.1	-2.9853	µg/L	-2.9853 ppb	05:59:06
3	Co 228.616†	1478.4	1474.2	58.953	µg/L	58.953 ppb	05:59:06
3	Cr 267.716†	5595.5	5583.6	117.98	µg/L	117.98 ppb	05:58:46
3	Cu 324.752†	12239.7	8926.3	78.000	µg/L	78.000 ppb	05:58:46
3	Mn 257.610†	1120871.7	1113528.2	3715.0	µg/L	3715.0 ppb	05:58:40
3	Mo 202.031†	-9.0	-10.0	4.1660	µg/L	4.1660 ppb	05:59:06
3	Ni 231.604†	1804.5	1511.6	80.869	µg/L	80.869 ppb	05:59:06
3	P 214.914†	453.6	422.9	793.34	µg/L	793.34 ppb	05:59:06
3	Pb 220.353†	592.6	498.2	128.19	µg/L	128.19 ppb	05:59:06
3	S 181.975 Axial†	169.6	153.3	661.43	µg/L	661.43 ppb	05:59:06
3	Sb 206.836†	38.4	17.0	12.817	µg/L	12.817 ppb	05:59:06
3	Se 196.026†	-47.4	-59.0	265.27	µg/L	265.27 ppb	05:59:06
3	SiO2†	47866.1	46030.2	9415.3	µg/L	9415.3 ppb	05:58:46
3	Si 251.611†	55836.0	55173.2	4363.6	µg/L	4363.6 ppb	05:58:46
3	Sn 189.927†	-41.9	-42.4	-31.371	µg/L	-31.371 ppb	05:59:06
3	Ti 334.940†	2384117.3	2367838.1	5396.9	µg/L	5396.9 ppb	05:58:40
3	Tl 190.801†	-68.0	-46.9	22.805	µg/L	22.805 ppb	05:59:06
3	U 409.014†	-182.9	-407.0	-53.703	µg/L	-53.703 ppb	05:58:46
3	V 292.402†	26277.2	26146.7	280.08	µg/L	280.08 ppb	05:58:46
3	Zn 213.857†	11588.7	11044.4	261.73	µg/L	261.73 ppb	05:58:46

Mean Data: 246066001|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1973022.8	101.30	%	0.533				0.53%
Sc RADIAL	56211.6	101	%	0.8				0.82%
Y 371.029	1392318.8	104.11	%	0.619				0.59%
Ag 328.068†	-1446.9	-0.4272	µg/L	0.28711	-0.4272	ppb	0.28711	67.20%
Al 396.153Radial†	147470.2	104780	µg/L	589.8	104780	ppb	589.8	0.56%
As 188.979†	11.4	28.416	µg/L	4.7773	28.416	ppb	4.7773	16.81%
B 249.677†	847.0	-36.305	µg/L	0.8191	-36.305	ppb	0.8191	2.26%
Ba 233.527†	62709.6	1584.7	µg/L	26.82	1584.7	ppb	26.82	1.69%
Be 313.107†	20228.1	10.426	µg/L	0.2732	10.426	ppb	0.2732	2.62%
Ca 317.933Radial†	24811.3	22441	µg/L	179.8	22441	ppb	179.8	0.80%
Cd 226.502†	479.4	-2.7684	µg/L	0.19306	-2.7684	ppb	0.19306	6.97%
Co 228.616†	1549.4	62.348	µg/L	2.9402	62.348	ppb	2.9402	4.72%
Cr 267.716†	5736.9	121.22	µg/L	2.817	121.22	ppb	2.817	2.32%
Cu 324.752†	9058.8	79.047	µg/L	0.9113	79.047	ppb	0.9113	1.15%
Fe 238.204 Radial†	15799.5	138230	µg/L	1125.0	138230	ppb	1125.0	0.81%
K 766.490 Radial†	21480.9	14394	µg/L	61.4	14394	ppb	61.4	0.43%
Mg 279.077 IEC†	2055.0	19041	µg/L	189.5	19041	ppb	189.5	1.00%
Mn 257.610†	1128592.7	3765.2	µg/L	43.46	3765.2	ppb	43.46	1.15%
Mo 202.031†	-6.6	4.5740	µg/L	0.42465	4.5740	ppb	0.42465	9.28%
Na 589.592 Radial†	2263.3	688.01	µg/L	6.066	688.01	ppb	6.066	0.88%

Ni 231.604†	1592.9	85.141	µg/L	3.7089	85.141	ppb	3.7089	4.36%
P 214.914†	442.2	832.51	µg/L	34.026	832.51	ppb	34.026	4.09%
Pb 220.353†	505.8	130.12	µg/L	1.868	130.12	ppb	1.868	1.44%
S 181.975 Axial†	151.4	653.05	µg/L	8.449	653.05	ppb	8.449	1.29%
Sb 206.836†	16.7	12.474	µg/L	6.5802	12.474	ppb	6.5802	52.75%
Se 196.026†	-64.8	260.10	µg/L	18.711	260.10	ppb	18.711	7.19%
SiO2†	47300.7	9675.1	µg/L	226.65	9675.1	ppb	226.65	2.34%
Si 251.611†	56685.5	4483.2	µg/L	104.06	4483.2	ppb	104.06	2.32%
Sn 189.927†	-48.3	-34.105	µg/L	2.8966	-34.105	ppb	2.8966	8.49%
Sr 421.552†	27096.3	262.32	µg/L	1.064	262.32	ppb	1.064	0.41%
Ti 334.940†	2407051.4	5486.3	µg/L	77.42	5486.3	ppb	77.42	1.41%
Tl 190.801†	-49.8	19.990	µg/L	7.4005	19.990	ppb	7.4005	37.02%
U 409.014†	-422.7	-55.167	µg/L	1.3364	-55.167	ppb	1.3364	2.42%
V 292.402†	26870.2	287.54	µg/L	6.477	287.54	ppb	6.477	2.25%
Zn 213.857†	11268.3	267.11	µg/L	4.725	267.11	ppb	4.725	1.77%

Sequence No.: 33
Sample ID: 1202050832|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 325
Date Collected: 2/24/2010 05:59:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202050832|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56152.4	56152.4	101	%			05:59:48
1	Al 396.153Radial†	189513.2	186925.7	132810	µg/L	132810	ppb	05:59:48
1	Ca 317.933Radial†	30365.3	29738.2	26898	µg/L	26898	ppb	06:00:09
1	Fe 238.204 Radial†	18480.2	18211.6	159330	µg/L	159330	ppb	06:00:09
1	K 766.490 Radial†	26012.8	25482.2	17075	µg/L	17075	ppb	05:59:48
1	Mg 279.077 IEC†	2425.2	2378.6	22039	µg/L	22039	ppb	06:00:09
1	Na 589.592 Radial†	2992.6	2573.2	782.23	µg/L	782.23	ppb	06:00:09
1	Sr 421.552†	32594.5	32132.2	311.08	µg/L	311.08	ppb	05:59:48
1	Sc 361.383	1966280.8	1966280.8	100.95	%			06:01:13
1	Y 371.029	1394234.4	1394234.4	104.26	%			06:01:13
1	Ag 328.068†	-2207.4	-1676.3	-0.5799	µg/L	-0.5799	ppb	06:01:19
1	As 188.979†	14.7	13.8	33.797	µg/L	33.797	ppb	06:01:39
1	B 249.677†	1342.9	1017.2	-40.127	µg/L	-40.127	ppb	06:01:19
1	Ba 233.527†	74147.5	73475.0	1856.7	µg/L	1856.7	ppb	06:01:19
1	Be 313.107†	20630.2	24068.9	12.632	µg/L	12.632	ppb	06:01:19
1	Cd 226.502†	411.8	531.2	-3.7587	µg/L	-3.7587	ppb	06:01:19
1	Co 228.616†	1727.6	1717.1	69.409	µg/L	69.409	ppb	06:01:39
1	Cr 267.716†	6655.2	6618.5	139.84	µg/L	139.84	ppb	06:01:19
1	Cu 324.752†	15193.9	11820.4	100.22	µg/L	100.22	ppb	06:01:19
1	Mn 257.610†	1226535.7	1215233.9	4055.5	µg/L	4055.5	ppb	06:01:13
1	Mo 202.031†	-13.3	-14.3	4.5727	µg/L	4.5727	ppb	06:01:39
1	Ni 231.604†	2172.7	1871.5	99.995	µg/L	99.995	ppb	06:01:39
1	P 214.914†	525.5	493.0	927.34	µg/L	927.34	ppb	06:01:39
1	Pb 220.353†	693.9	597.0	154.24	µg/L	154.24	ppb	06:01:39
1	S 181.975 Axial†	205.6	188.6	813.56	µg/L	813.56	ppb	06:01:39
1	Sb 206.836†	30.7	9.4	4.9124	µg/L	4.9124	ppb	06:01:39
1	Se 196.026†	-63.1	-74.5	299.70	µg/L	299.70	ppb	06:01:39
1	SiO2†	90427.8	88064.8	18013	µg/L	18013	ppb	06:01:19
1	Si 251.611†	107084.8	105792.1	8367.1	µg/L	8367.1	ppb	06:01:19
1	Sn 189.927†	-51.5	-51.9	-37.598	µg/L	-37.598	ppb	06:01:39
1	Ti 334.940†	2627380.7	2602507.9	5931.8	µg/L	5931.8	ppb	06:01:13
1	Tl 190.801†	-74.3	-53.0	25.415	µg/L	25.415	ppb	06:01:39
1	U 409.014†	-451.9	-673.0	-78.853	µg/L	-78.853	ppb	06:01:13
1	V 292.402†	30869.4	30626.2	327.92	µg/L	327.92	ppb	06:01:19
1	Zn 213.857†	13151.7	12562.0	297.44	µg/L	297.44	ppb	06:01:19
2	Sc RADIAL	56546.2	56546.2	102	%			06:00:14
2	Al 396.153Radial†	190932.4	187014.1	132870	µg/L	132870	ppb	06:00:14
2	Ca 317.933Radial†	30278.1	29444.1	26632	µg/L	26632	ppb	06:00:35
2	Fe 238.204 Radial†	18449.9	18055.0	157960	µg/L	157960	ppb	06:00:35
2	K 766.490 Radial†	26199.0	25486.0	17077	µg/L	17077	ppb	06:00:14
2	Mg 279.077 IEC†	2425.0	2361.7	21882	µg/L	21882	ppb	06:00:35
2	Na 589.592 Radial†	2967.5	2528.1	768.51	µg/L	768.51	ppb	06:00:35
2	Sr 421.552†	32790.2	32100.0	310.76	µg/L	310.76	ppb	06:00:14
2	Sc 361.383	1966320.3	1966320.3	100.95	%			06:01:47
2	Y 371.029	1393279.5	1393279.5	104.18	%			06:01:47
2	Ag 328.068†	-2274.6	-1742.8	-1.1676	µg/L	-1.1676	ppb	06:01:52
2	As 188.979†	17.5	16.6	39.037	µg/L	39.037	ppb	06:02:13
2	B 249.677†	1283.8	958.6	-41.874	µg/L	-41.874	ppb	06:01:52
2	Ba 233.527†	74018.0	73345.3	1853.5	µg/L	1853.5	ppb	06:01:52
2	Be 313.107†	20671.8	24109.7	12.657	µg/L	12.657	ppb	06:01:52
2	Cd 226.502†	445.4	564.4	-2.7190	µg/L	-2.7190	ppb	06:01:52
2	Co 228.616†	1717.2	1706.8	68.916	µg/L	68.916	ppb	06:02:13
2	Cr 267.716†	6690.8	6653.6	140.58	µg/L	140.58	ppb	06:01:52
2	Cu 324.752†	15249.8	11875.5	100.39	µg/L	100.39	ppb	06:01:52
2	Mn 257.610†	1222378.9	1211091.8	4041.6	µg/L	4041.6	ppb	06:01:47
2	Mo 202.031†	4.2	3.0	6.3179	µg/L	6.3179	ppb	06:02:13
2	Ni 231.604†	2173.5	1872.3	100.02	µg/L	100.02	ppb	06:02:13
2	P 214.914†	513.1	480.7	902.79	µg/L	902.79	ppb	06:02:13
2	Pb 220.353†	694.0	597.1	154.32	µg/L	154.32	ppb	06:02:13

2	S 181.975 Axial†	197.4	180.5	778.43 µg/L	778.43 ppb	06:02:13
2	Sb 206.836†	41.0	19.5	14.519 µg/L	14.519 ppb	06:02:13
2	Se 196.026†	-56.4	-67.8	305.82 µg/L	305.82 ppb	06:02:13
2	SiO2†	89834.5	87475.3	17893 µg/L	17893 ppb	06:01:52
2	Si 251.611†	106635.4	105344.8	8331.7 µg/L	8331.7 ppb	06:01:52
2	Sn 189.927†	-47.0	-47.4	-35.502 µg/L	-35.502 ppb	06:02:13
2	Ti 334.940†	2627887.8	2602957.7	5932.8 µg/L	5932.8 ppb	06:01:47
2	Tl 190.801†	-80.0	-58.6	17.472 µg/L	17.472 ppb	06:02:13
2	U 409.014†	-430.3	-651.6	-76.899 µg/L	-76.899 ppb	06:01:47
2	V 292.402†	30879.9	30636.0	327.87 µg/L	327.87 ppb	06:01:52
2	Zn 213.857†	13131.4	12541.6	297.01 µg/L	297.01 ppb	06:01:52
3	Sc RADIAL	56712.5	56712.5	102 %		06:00:40
3	Al 396.153Radial†	191584.5	187102.5	132940 µg/L	132940 ppb	06:00:40
3	Ca 317.933Radial†	30186.7	29267.9	26472 µg/L	26472 ppb	06:01:00
3	Fe 238.204 Radial†	18433.5	17986.0	157360 µg/L	157360 ppb	06:01:00
3	K 766.490 Radial†	26185.4	25397.5	17018 µg/L	17018 ppb	06:00:40
3	Mg 279.077 IEC†	2412.5	2342.5	21704 µg/L	21704 ppb	06:01:00
3	Na 589.592 Radial†	2981.7	2533.5	770.13 µg/L	770.13 ppb	06:01:00
3	Sr 421.552†	32950.0	32161.9	311.36 µg/L	311.36 ppb	06:00:40
3	Sc 361.383	1974585.1	1974585.1	101.38 %		06:02:20
3	Y 371.029	1399354.9	1399354.9	104.64 %		06:02:20
3	Ag 328.068†	-2180.9	-1641.0	-0.5537 µg/L	-0.5537 ppb	06:02:26
3	As 188.979†	14.0	13.0	32.312 µg/L	32.312 ppb	06:02:47
3	B 249.677†	1230.8	901.0	-43.992 µg/L	-43.992 ppb	06:02:26
3	Ba 233.527†	70788.5	69852.8	1765.2 µg/L	1765.2 ppb	06:02:26
3	Be 313.107†	19376.2	22746.0	11.881 µg/L	11.881 ppb	06:02:26
3	Cd 226.502†	400.9	518.7	-3.8772 µg/L	-3.8772 ppb	06:02:26
3	Co 228.616†	1590.9	1575.1	63.011 µg/L	63.011 ppb	06:02:47
3	Cr 267.716†	6374.3	6313.6	133.40 µg/L	133.40 ppb	06:02:26
3	Cu 324.752†	14680.0	11250.2	96.180 µg/L	96.180 ppb	06:02:26
3	Mn 257.610†	1197617.1	1181598.2	3943.6 µg/L	3943.6 ppb	06:02:20
3	Mo 202.031†	-9.6	-10.5	4.8878 µg/L	4.8878 ppb	06:02:47
3	Ni 231.604†	2011.7	1703.7	91.188 µg/L	91.188 ppb	06:02:47
3	P 214.914†	468.5	434.5	807.65 µg/L	807.65 ppb	06:02:47
3	Pb 220.353†	655.0	555.7	143.74 µg/L	143.74 ppb	06:02:47
3	S 181.975 Axial†	193.0	175.3	756.27 µg/L	756.27 ppb	06:02:47
3	Sb 206.836†	35.8	14.2	9.6186 µg/L	9.6186 ppb	06:02:47
3	Se 196.026†	-57.7	-68.8	302.94 µg/L	302.94 ppb	06:02:47
3	SiO2†	85191.2	82522.6	16880 µg/L	16880 ppb	06:02:26
3	Si 251.611†	100876.0	99221.4	7847.4 µg/L	7847.4 ppb	06:02:26
3	Sn 189.927†	-43.9	-44.1	-33.989 µg/L	-33.989 ppb	06:02:47
3	Ti 334.940†	2560685.9	2525772.9	5756.8 µg/L	5756.8 ppb	06:02:20
3	Tl 190.801†	-73.5	-51.9	24.849 µg/L	24.849 ppb	06:02:47
3	U 409.014†	-517.8	-736.1	-83.721 µg/L	-83.721 ppb	06:02:20
3	V 292.402†	29230.8	28881.3	310.07 µg/L	310.07 ppb	06:02:26
3	Zn 213.857†	12579.3	11942.5	282.47 µg/L	282.47 ppb	06:02:26

Mean Data: 1202050832|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1969062.1	101.09	%	0.246				0.24%
Sc RADIAL	56470.4	102	%	0.5				0.51%
Y 371.029	1395622.9	104.36	%	0.244				0.23%
Ag 328.068†	-1686.7	-0.7671	µg/L	0.34713	-0.7671	ppb	0.34713	45.26%
Al 396.153Radial†	187014.1	132870	µg/L	62.8	132870	ppb	62.8	0.05%
As 188.979†	14.5	35.049	µg/L	3.5326	35.049	ppb	3.5326	10.08%
B 249.677†	958.9	-41.998	µg/L	1.9355	-41.998	ppb	1.9355	4.61%
Ba 233.527†	72224.4	1825.1	µg/L	51.93	1825.1	ppb	51.93	2.85%
Be 313.107†	23641.5	12.390	µg/L	0.4415	12.390	ppb	0.4415	3.56%
Ca 317.933Radial†	29483.4	26667	µg/L	214.9	26667	ppb	214.9	0.81%
Cd 226.502†	538.1	-3.4516	µg/L	0.63722	-3.4516	ppb	0.63722	18.46%
Co 228.616†	1666.4	67.112	µg/L	3.5602	67.112	ppb	3.5602	5.30%
Cr 267.716†	6528.6	137.94	µg/L	3.952	137.94	ppb	3.952	2.86%
Cu 324.752†	11648.7	98.932	µg/L	2.3846	98.932	ppb	2.3846	2.41%
Fe 238.204 Radial†	18084.2	158220	µg/L	1011.5	158220	ppb	1011.5	0.64%
K 766.490 Radial†	25455.2	17057	µg/L	33.5	17057	ppb	33.5	0.20%
Mg 279.077 IEC†	2360.9	21875	µg/L	167.5	21875	ppb	167.5	0.77%
Mn 257.610†	1202641.3	4013.6	µg/L	61.01	4013.6	ppb	61.01	1.52%
Mo 202.031†	-7.3	5.2594	µg/L	0.93006	5.2594	ppb	0.93006	17.68%
Na 589.592 Radial†	2544.9	773.62	µg/L	7.494	773.62	ppb	7.494	0.97%

Ni 231.604†	1815.8	97.068	µg/L	5.0924	97.068	ppb	5.0924	5.25%
P 214.914†	469.4	879.26	µg/L	63.219	879.26	ppb	63.219	7.19%
Pb 220.353†	583.3	150.77	µg/L	6.084	150.77	ppb	6.084	4.04%
S 181.975 Axial†	181.5	782.75	µg/L	28.889	782.75	ppb	28.889	3.69%
Sb 206.836†	14.4	9.6835	µg/L	4.80383	9.6835	ppb	4.80383	49.61%
Se 196.026†	-70.4	302.82	µg/L	3.060	302.82	ppb	3.060	1.01%
SiO2†	86020.9	17595	µg/L	622.6	17595	ppb	622.6	3.54%
Si 251.611†	103452.8	8182.0	µg/L	290.36	8182.0	ppb	290.36	3.55%
Sn 189.927†	-47.8	-35.696	µg/L	1.8123	-35.696	ppb	1.8123	5.08%
Sr 421.552†	32131.4	311.07	µg/L	0.299	311.07	ppb	0.299	0.10%
Ti 334.940†	2577079.5	5873.8	µg/L	101.29	5873.8	ppb	101.29	1.72%
Tl 190.801†	-54.5	22.579	µg/L	4.4314	22.579	ppb	4.4314	19.63%
U 409.014†	-686.9	-79.824	µg/L	3.5131	-79.824	ppb	3.5131	4.40%
V 292.402†	30047.8	321.95	µg/L	10.293	321.95	ppb	10.293	3.20%
Zn 213.857†	12348.7	292.31	µg/L	8.524	292.31	ppb	8.524	2.92%

Sequence No.: 34
Sample ID: 1202050833|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 326
Date Collected: 2/24/2010 06:02:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202050833|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56212.4	56212.4	101	%			06:03:30
1	Al 396.153Radial†	262225.0	258375.0	183560	µg/L	183560	ppb	06:03:30
1	Ca 317.933Radial†	32396.0	31707.2	28679	µg/L	28679	ppb	06:03:50
1	Fe 238.204 Radial†	18664.1	18373.4	160760	µg/L	160760	ppb	06:03:50
1	K 766.490 Radial†	35832.4	35130.9	23540	µg/L	23540	ppb	06:03:30
1	Mg 279.077 IEC†	3080.3	3021.5	28050	µg/L	28050	ppb	06:03:50
1	Na 589.592 Radial†	19651.5	18985.5	5771.3	µg/L	5771.3	ppb	06:03:30
1	Sr 421.552†	85160.1	83895.0	812.20	µg/L	812.20	ppb	06:03:30
1	Sc 361.383	1949435.8	1949435.8	100.09	%			06:04:55
1	Y 371.029	1375310.1	1375310.1	102.84	%			06:04:55
1	Ag 328.068†	66967.9	67421.1	524.54	µg/L	524.54	ppb	06:05:01
1	As 188.979†	308.4	307.4	586.01	µg/L	586.01	ppb	06:05:21
1	B 249.677†	13133.0	12808.7	456.01	µg/L	456.01	ppb	06:05:01
1	Ba 233.527†	93416.6	93362.4	2360.1	µg/L	2360.1	ppb	06:05:01
1	Be 313.107†	886433.1	889310.8	547.58	µg/L	547.58	ppb	06:04:55
1	Cd 226.502†	20300.6	20406.5	525.98	µg/L	525.98	ppb	06:05:01
1	Co 228.616†	12250.2	12245.6	569.03	µg/L	569.03	ppb	06:05:21
1	Cr 267.716†	31764.4	31763.2	670.71	µg/L	670.71	ppb	06:05:01
1	Cu 324.752†	95921.2	92609.0	634.03	µg/L	634.03	ppb	06:05:01
1	Mn 257.610†	1321598.2	1320714.1	4405.7	µg/L	4405.7	ppb	06:04:55
1	Mo 202.031†	4989.9	4984.6	522.04	µg/L	522.04	ppb	06:05:21
1	Ni 231.604†	12072.2	11781.2	618.45	µg/L	618.45	ppb	06:05:01
1	P 214.914†	787.5	759.3	1447.2	µg/L	1447.2	ppb	06:05:21
1	Pb 220.353†	2706.6	2614.0	674.12	µg/L	674.12	ppb	06:05:21
1	S 181.975 Axial†	1447.8	1431.5	6174.6	µg/L	6174.6	ppb	06:05:21
1	Sb 206.836†	564.3	542.7	511.16	µg/L	511.16	ppb	06:05:21
1	Se 196.026†	300.4	288.2	826.58	µg/L	826.58	ppb	06:05:21
1	SiO2†	97521.0	95925.9	19621	µg/L	19621	ppb	06:05:01
1	Si 251.611†	115461.5	115078.2	9101.5	µg/L	9101.5	ppb	06:05:01
1	Sn 189.927†	1163.3	1161.4	503.00	µg/L	503.00	ppb	06:05:21
1	Ti 334.940†	3098412.2	3095627.4	7055.5	µg/L	7055.5	ppb	06:04:55
1	Tl 190.801†	289.7	310.1	541.75	µg/L	541.75	ppb	06:05:21
1	U 409.014†	6306.6	6075.8	473.05	µg/L	473.05	ppb	06:05:01
1	V 292.402†	81204.1	81182.3	843.81	µg/L	843.81	ppb	06:05:01
1	Zn 213.857†	34898.3	34402.6	827.34	µg/L	827.34	ppb	06:05:01
2	Sc RADIAL	56733.6	56733.6	102	%			06:03:56
2	Al 396.153Radial†	264472.9	258195.9	183440	µg/L	183440	ppb	06:03:56
2	Ca 317.933Radial†	32363.4	31382.0	28384	µg/L	28384	ppb	06:04:16
2	Fe 238.204 Radial†	18656.2	18196.8	159210	µg/L	159210	ppb	06:04:16
2	K 766.490 Radial†	36191.5	35157.1	23558	µg/L	23558	ppb	06:03:56
2	Mg 279.077 IEC†	3079.0	2992.3	27779	µg/L	27779	ppb	06:04:16
2	Na 589.592 Radial†	19882.3	19032.9	5785.7	µg/L	5785.7	ppb	06:03:56
2	Sr 421.552†	86032.3	83975.6	812.98	µg/L	812.98	ppb	06:03:56
2	Sc 361.383	1961005.8	1961005.8	100.68	%			06:05:28
2	Y 371.029	1383680.0	1383680.0	103.47	%			06:05:28
2	Ag 328.068†	66648.9	66709.5	519.00	µg/L	519.00	ppb	06:05:34
2	As 188.979†	299.3	296.4	565.38	µg/L	565.38	ppb	06:05:55
2	B 249.677†	13073.7	12672.4	451.07	µg/L	451.07	ppb	06:05:34
2	Ba 233.527†	92850.0	92248.9	2331.9	µg/L	2331.9	ppb	06:05:34
2	Be 313.107†	887568.9	885213.4	545.06	µg/L	545.06	ppb	06:05:28
2	Cd 226.502†	20125.0	20112.4	518.31	µg/L	518.31	ppb	06:05:34
2	Co 228.616†	12190.5	12114.0	562.84	µg/L	562.84	ppb	06:05:55
2	Cr 267.716†	31510.7	31324.1	661.44	µg/L	661.44	ppb	06:05:34
2	Cu 324.752†	95237.7	91364.6	625.59	µg/L	625.59	ppb	06:05:34
2	Mn 257.610†	1323725.1	1315035.8	4386.7	µg/L	4386.7	ppb	06:05:28
2	Mo 202.031†	4981.2	4946.5	518.04	µg/L	518.04	ppb	06:05:55
2	Ni 231.604†	11977.1	11615.6	609.76	µg/L	609.76	ppb	06:05:34
2	P 214.914†	785.1	752.3	1434.4	µg/L	1434.4	ppb	06:05:55
2	Pb 220.353†	2680.8	2572.3	663.50	µg/L	663.50	ppb	06:05:55

2	S 181.975 Axial†	1442.4	1417.6	6114.3 µg/L	6114.3 ppb	06:05:55
2	Sb 206.836†	566.5	541.6	510.19 µg/L	510.19 ppb	06:05:55
2	Se 196.026†	297.2	283.3	815.50 µg/L	815.50 ppb	06:05:55
2	SiO2†	95592.3	93435.3	19112 µg/L	19112 ppb	06:05:34
2	Si 251.611†	113174.1	112125.6	8868.0 µg/L	8868.0 ppb	06:05:34
2	Sn 189.927†	1139.2	1130.7	489.44 µg/L	489.44 ppb	06:05:55
2	Ti 334.940†	3100554.7	3079490.2	7018.7 µg/L	7018.7 ppb	06:05:28
2	Tl 190.801†	292.1	310.8	542.13 µg/L	542.13 ppb	06:05:55
2	U 409.014†	6312.9	6044.9	470.75 µg/L	470.75 ppb	06:05:34
2	V 292.402†	80579.5	80083.1	832.49 µg/L	832.49 ppb	06:05:34
2	Zn 213.857†	34638.3	33938.7	816.14 µg/L	816.14 ppb	06:05:34
3	Sc RADIAL	56677.9	56677.9	102 %		06:04:22
3	Al 396.153Radial†	264796.1	258765.1	183840 µg/L	183840 ppb	06:04:22
3	Ca 317.933Radial†	32233.0	31285.7	28297 µg/L	28297 ppb	06:04:42
3	Fe 238.204 Radial†	18606.3	18165.9	158940 µg/L	158940 ppb	06:04:42
3	K 766.490 Radial†	36271.1	35269.6	23633 µg/L	23633 ppb	06:04:22
3	Mg 279.077 IEC†	3079.2	2995.5	27808 µg/L	27808 ppb	06:04:42
3	Na 589.592 Radial†	19939.4	19107.7	5808.4 µg/L	5808.4 ppb	06:04:22
3	Sr 421.552†	85950.0	83977.6	813.00 µg/L	813.00 ppb	06:04:22
3	Sc 361.383	1970055.3	1970055.3	101.14 %		06:06:02
3	Y 371.029	1388558.4	1388558.4	103.83 %		06:06:02
3	Ag 328.068†	65476.2	65246.0	507.71 µg/L	507.71 ppb	06:06:08
3	As 188.979†	283.8	279.8	534.02 µg/L	534.02 ppb	06:06:28
3	B 249.677†	12761.5	12304.0	435.66 µg/L	435.66 ppb	06:06:08
3	Ba 233.527†	89963.5	88971.5	2249.1 µg/L	2249.1 ppb	06:06:08
3	Be 313.107†	870050.0	863843.0	531.91 µg/L	531.91 ppb	06:06:02
3	Cd 226.502†	19580.3	19482.1	501.53 µg/L	501.53 ppb	06:06:08
3	Co 228.616†	11242.4	11121.0	515.89 µg/L	515.89 ppb	06:06:28
3	Cr 267.716†	30203.9	29888.2	631.12 µg/L	631.12 ppb	06:06:08
3	Cu 324.752†	91990.3	87719.4	601.48 µg/L	601.48 ppb	06:06:08
3	Mn 257.610†	1298694.7	1284249.0	4284.4 µg/L	4284.4 ppb	06:06:02
3	Mo 202.031†	4601.5	4548.4	476.82 µg/L	476.82 ppb	06:06:28
3	Ni 231.604†	11555.8	11144.4	585.13 µg/L	585.13 ppb	06:06:08
3	P 214.914†	732.4	696.6	1320.8 µg/L	1320.8 ppb	06:06:28
3	Pb 220.353†	2548.3	2429.1	626.78 µg/L	626.78 ppb	06:06:28
3	S 181.975 Axial†	1369.0	1338.4	5772.9 µg/L	5772.9 ppb	06:06:28
3	Sb 206.836†	519.9	493.0	463.89 µg/L	463.89 ppb	06:06:28
3	Se 196.026†	281.4	266.3	789.93 µg/L	789.93 ppb	06:06:28
3	SiO2†	86635.1	84143.3	17211 µg/L	17211 ppb	06:06:08
3	Si 251.611†	102470.5	101026.7	7990.2 µg/L	7990.2 ppb	06:06:08
3	Sn 189.927†	1062.3	1049.4	453.31 µg/L	453.31 ppb	06:06:28
3	Ti 334.940†	3032525.5	2998084.1	6833.1 µg/L	6833.1 ppb	06:06:02
3	Tl 190.801†	259.8	277.5	494.23 µg/L	494.23 ppb	06:06:28
3	U 409.014†	5917.2	5624.9	436.43 µg/L	436.43 ppb	06:06:08
3	V 292.402†	77532.0	76702.5	797.93 µg/L	797.93 ppb	06:06:08
3	Zn 213.857†	33595.3	32749.4	787.26 µg/L	787.26 ppb	06:06:08

Mean Data: 1202050833|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1960165.6	100.64	%	0.531				0.53%
Sc RADIAL	56541.3	102	%	0.5				0.51%
Y 371.029	1382516.2	103.38	%	0.501				0.48%
Ag 328.068†	66458.9	517.08	µg/L	8.579	517.08	ppb	8.579	1.66%
Al 396.153Radial†	258445.3	183610	µg/L	207.3	183610	ppb	207.3	0.11%
As 188.979†	294.5	561.80	µg/L	26.177	561.80	ppb	26.177	4.66%
B 249.677†	12595.1	447.58	µg/L	10.612	447.58	ppb	10.612	2.37%
Ba 233.527†	91527.6	2313.7	µg/L	57.71	2313.7	ppb	57.71	2.49%
Be 313.107†	879455.7	541.52	µg/L	8.416	541.52	ppb	8.416	1.55%
Ca 317.933Radial†	31458.3	28453	µg/L	199.8	28453	ppb	199.8	0.70%
Cd 226.502†	20000.3	515.27	µg/L	12.505	515.27	ppb	12.505	2.43%
Co 228.616†	11826.9	549.26	µg/L	29.060	549.26	ppb	29.060	5.29%
Cr 267.716†	30991.8	654.42	µg/L	20.707	654.42	ppb	20.707	3.16%
Cu 324.752†	90564.3	620.37	µg/L	16.892	620.37	ppb	16.892	2.72%
Fe 238.204 Radial†	18245.4	159640	µg/L	980.0	159640	ppb	980.0	0.61%
K 766.490 Radial†	35185.9	23577	µg/L	49.4	23577	ppb	49.4	0.21%
Mg 279.077 IEC†	3003.1	27879	µg/L	148.8	27879	ppb	148.8	0.53%
Mn 257.610†	1306666.3	4358.9	µg/L	65.24	4358.9	ppb	65.24	1.50%
Mo 202.031†	4826.5	505.63	µg/L	25.033	505.63	ppb	25.033	4.95%
Na 589.592 Radial†	19042.1	5788.5	µg/L	18.73	5788.5	ppb	18.73	0.32%

Ni 231.604†	11513.7	604.45 µg/L	17.283	604.45 ppb	17.283	2.86%
P 214.914†	736.0	1400.8 µg/L	69.60	1400.8 ppb	69.60	4.97%
Pb 220.353†	2538.4	654.80 µg/L	24.844	654.80 ppb	24.844	3.79%
S 181.975 Axial†	1395.8	6020.6 µg/L	216.65	6020.6 ppb	216.65	3.60%
Sb 206.836†	525.8	495.08 µg/L	27.011	495.08 ppb	27.011	5.46%
Se 196.026†	279.2	810.67 µg/L	18.799	810.67 ppb	18.799	2.32%
SiO2†	91168.2	18648 µg/L	1270.2	18648 ppb	1270.2	6.81%
Si 251.611†	109410.2	8653.2 µg/L	585.96	8653.2 ppb	585.96	6.77%
Sn 189.927†	1113.8	481.92 µg/L	25.684	481.92 ppb	25.684	5.33%
Sr 421.552†	83949.4	812.72 µg/L	0.456	812.72 ppb	0.456	0.06%
Ti 334.940†	3057733.9	6969.1 µg/L	119.19	6969.1 ppb	119.19	1.71%
Tl 190.801†	299.4	526.03 µg/L	27.546	526.03 ppb	27.546	5.24%
U 409.014†	5915.2	460.07 µg/L	20.512	460.07 ppb	20.512	4.46%
V 292.402†	79322.6	824.74 µg/L	23.899	824.74 ppb	23.899	2.90%
Zn 213.857†	33696.9	810.25 µg/L	20.681	810.25 ppb	20.681	2.55%

Sequence No.: 35
Sample ID: 1202050835|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 327
Date Collected: 2/24/2010 06:06:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202050835|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56125.0	56125.0	101	%			06:07:11
1	Al 396.153Radial†	318655.8	314469.3	223420	µg/L	223420	ppb	06:07:11
1	Ca 317.933Radial†	35046.1	34372.3	31089	µg/L	31089	ppb	06:07:31
1	Fe 238.204 Radial†	21181.5	20886.5	182740	µg/L	182740	ppb	06:07:31
1	K 766.490 Radial†	39137.1	38447.3	25762	µg/L	25762	ppb	06:07:11
1	Mg 279.077 IEC†	3467.4	3408.3	31637	µg/L	31637	ppb	06:07:31
1	Na 589.592 Radial†	19887.5	19248.5	5851.2	µg/L	5851.2	ppb	06:07:11
1	Sr 421.552†	87346.7	86183.5	834.35	µg/L	834.35	ppb	06:07:11
1	Sc 361.383	1982008.5	1982008.5	101.76	%			06:08:38
1	Y 371.029	1396875.8	1396875.8	104.45	%			06:08:38
1	Ag 328.068†	65193.6	64577.8	504.54	µg/L	504.54	ppb	06:08:43
1	As 188.979†	293.9	288.1	550.82	µg/L	550.82	ppb	06:09:04
1	B 249.677†	12610.6	12079.7	413.84	µg/L	413.84	ppb	06:08:43
1	Ba 233.527†	99673.2	97977.0	2476.7	µg/L	2476.7	ppb	06:08:43
1	Be 313.107†	876763.5	865252.7	532.45	µg/L	532.45	ppb	06:08:38
1	Cd 226.502†	19720.3	19502.9	499.40	µg/L	499.40	ppb	06:08:43
1	Co 228.616†	12100.6	11897.4	551.09	µg/L	551.09	ppb	06:09:04
1	Cr 267.716†	31563.5	31044.3	655.55	µg/L	655.55	ppb	06:08:43
1	Cu 324.752†	95955.3	91067.4	626.90	µg/L	626.90	ppb	06:08:43
1	Mn 257.610†	1305047.8	1282748.6	4282.4	µg/L	4282.4	ppb	06:08:38
1	Mo 202.031†	4925.6	4839.4	507.85	µg/L	507.85	ppb	06:09:04
1	Ni 231.604†	11878.6	11392.7	598.40	µg/L	598.40	ppb	06:08:43
1	P 214.914†	794.9	753.7	1429.9	µg/L	1429.9	ppb	06:09:04
1	Pb 220.353†	2715.4	2578.1	666.28	µg/L	666.28	ppb	06:09:04
1	S 181.975 Axial†	1419.5	1379.9	5951.9	µg/L	5951.9	ppb	06:09:04
1	Sb 206.836†	558.8	528.1	497.06	µg/L	497.06	ppb	06:09:04
1	Se 196.026†	284.1	267.3	852.30	µg/L	852.30	ppb	06:09:04
1	SiO2†	75996.8	73172.2	14967	µg/L	14967	ppb	06:08:43
1	Si 251.611†	89739.5	87904.6	6952.3	µg/L	6952.3	ppb	06:08:43
1	Sn 189.927†	1132.7	1112.3	479.21	µg/L	479.21	ppb	06:09:04
1	Ti 334.940†	3438515.4	3378979.7	7701.2	µg/L	7701.2	ppb	06:08:38
1	Tl 190.801†	284.5	300.1	539.35	µg/L	539.35	ppb	06:09:04
1	U 409.014†	6166.5	5834.6	450.10	µg/L	450.10	ppb	06:08:43
1	V 292.402†	83760.4	82360.9	858.12	µg/L	858.12	ppb	06:08:43
1	Zn 213.857†	35585.8	34505.2	828.70	µg/L	828.70	ppb	06:08:43
2	Sc RADIAL	56437.6	56437.6	102	%			06:07:37
2	Al 396.153Radial†	321102.8	315129.3	223890	µg/L	223890	ppb	06:07:37
2	Ca 317.933Radial†	35181.9	34314.0	31036	µg/L	31036	ppb	06:07:57
2	Fe 238.204 Radial†	21250.0	20837.9	182320	µg/L	182320	ppb	06:07:57
2	K 766.490 Radial†	39340.9	38433.4	25753	µg/L	25753	ppb	06:07:37
2	Mg 279.077 IEC†	3486.3	3407.9	31634	µg/L	31634	ppb	06:07:57
2	Na 589.592 Radial†	20009.1	19259.2	5854.5	µg/L	5854.5	ppb	06:07:37
2	Sr 421.552†	88055.7	86402.0	836.47	µg/L	836.47	ppb	06:07:37
2	Sc 361.383	1971583.6	1971583.6	101.22	%			06:09:13
2	Y 371.029	1388836.7	1388836.7	103.85	%			06:09:13
2	Ag 328.068†	65505.1	65224.4	509.46	µg/L	509.46	ppb	06:09:19
2	As 188.979†	299.3	294.9	563.72	µg/L	563.72	ppb	06:09:39
2	B 249.677†	12699.0	12232.6	420.51	µg/L	420.51	ppb	06:09:19
2	Ba 233.527†	100351.0	99164.6	2506.7	µg/L	2506.7	ppb	06:09:19
2	Be 313.107†	874452.9	867525.9	533.85	µg/L	533.85	ppb	06:09:13
2	Cd 226.502†	19892.9	19775.9	506.73	µg/L	506.73	ppb	06:09:19
2	Co 228.616†	12005.4	11866.3	549.54	µg/L	549.54	ppb	06:09:39
2	Cr 267.716†	31888.5	31529.4	665.79	µg/L	665.79	ppb	06:09:19
2	Cu 324.752†	96297.3	91903.9	632.37	µg/L	632.37	ppb	06:09:19
2	Mn 257.610†	1301073.7	1285603.9	4291.9	µg/L	4291.9	ppb	06:09:13
2	Mo 202.031†	4902.6	4842.2	508.12	µg/L	508.12	ppb	06:09:39
2	Ni 231.604†	12005.1	11579.4	608.18	µg/L	608.18	ppb	06:09:19
2	P 214.914†	792.5	755.4	1433.3	µg/L	1433.3	ppb	06:09:39
2	Pb 220.353†	2694.5	2571.6	664.64	µg/L	664.64	ppb	06:09:39

2	S 181.975 Axial†	1421.3	1389.0	5991.3 µg/L	5991.3 ppb	06:09:39
2	Sb 206.836†	551.8	524.1	493.12 µg/L	493.12 ppb	06:09:39
2	Se 196.026†	264.5	249.3	824.97 µg/L	824.97 ppb	06:09:39
2	SiO2†	75410.4	72987.8	14929 µg/L	14929 ppb	06:09:19
2	Si 251.611†	89003.1	87643.4	6931.7 µg/L	6931.7 ppb	06:09:19
2	Sn 189.927†	1120.5	1106.1	476.47 µg/L	476.47 ppb	06:09:39
2	Ti 334.940†	3435166.8	3393538.9	7734.4 µg/L	7734.4 ppb	06:09:13
2	Tl 190.801†	273.5	290.8	526.78 µg/L	526.78 ppb	06:09:39
2	U 409.014†	6245.6	5944.8	459.18 µg/L	459.18 ppb	06:09:19
2	V 292.402†	84324.0	83353.0	868.11 µg/L	868.11 ppb	06:09:19
2	Zn 213.857†	35817.1	34918.7	838.77 µg/L	838.77 ppb	06:09:19
3	Sc RADIAL	56695.8	56695.8	102 %		06:08:03
3	Al 396.153Radial†	320988.1	313582.0	222790 µg/L	222790 ppb	06:08:03
3	Ca 317.933Radial†	35029.5	34007.9	30759 µg/L	30759 ppb	06:08:23
3	Fe 238.204 Radial†	21125.4	20621.2	180420 µg/L	180420 ppb	06:08:23
3	K 766.490 Radial†	39408.5	38323.6	25679 µg/L	25679 ppb	06:08:03
3	Mg 279.077 IEC†	3460.6	3367.2	31255 µg/L	31255 ppb	06:08:23
3	Na 589.592 Radial†	20028.2	19188.4	5833.0 µg/L	5833.0 ppb	06:08:03
3	Sr 421.552†	88124.5	86075.6	833.31 µg/L	833.31 ppb	06:08:03
3	Sc 361.383	1971606.3	1971606.3	101.22 %		06:09:48
3	Y 371.029	1388159.4	1388159.4	103.80 %		06:09:48
3	Ag 328.068†	63653.2	63394.1	495.19 µg/L	495.19 ppb	06:09:54
3	As 188.979†	272.1	268.0	513.07 µg/L	513.07 ppb	06:10:14
3	B 249.677†	12240.5	11779.5	402.37 µg/L	402.37 ppb	06:09:54
3	Ba 233.527†	95218.4	94092.8	2378.5 µg/L	2378.5 ppb	06:09:54
3	Be 313.107†	843064.5	836507.0	514.77 µg/L	514.77 ppb	06:09:48
3	Cd 226.502†	19029.6	18922.8	484.19 µg/L	484.19 ppb	06:09:54
3	Co 228.616†	10859.6	10734.2	496.21 µg/L	496.21 ppb	06:10:14
3	Cr 267.716†	29886.8	29551.5	624.02 µg/L	624.02 ppb	06:09:54
3	Cu 324.752†	91306.3	86972.2	599.53 µg/L	599.53 ppb	06:09:54
3	Mn 257.610†	1257719.6	1242759.0	4149.4 µg/L	4149.4 ppb	06:09:48
3	Mo 202.031†	4458.9	4403.9	462.68 µg/L	462.68 ppb	06:10:14
3	Ni 231.604†	11358.5	10940.5	574.76 µg/L	574.76 ppb	06:09:54
3	P 214.914†	711.6	675.4	1270.6 µg/L	1270.6 ppb	06:10:14
3	Pb 220.353†	2517.1	2396.3	619.66 µg/L	619.66 ppb	06:10:14
3	S 181.975 Axial†	1326.8	1295.7	5588.8 µg/L	5588.8 ppb	06:10:14
3	Sb 206.836†	512.1	484.9	455.87 µg/L	455.87 ppb	06:10:14
3	Se 196.026†	255.4	240.4	807.14 µg/L	807.14 ppb	06:10:14
3	SiO2†	65108.1	62809.2	12847 µg/L	12847 ppb	06:09:54
3	Si 251.611†	76645.4	75434.0	5966.0 µg/L	5966.0 ppb	06:09:54
3	Sn 189.927†	1008.5	995.4	427.39 µg/L	427.39 ppb	06:10:14
3	Ti 334.940†	3298474.9	3258460.2	7426.5 µg/L	7426.5 ppb	06:09:48
3	Tl 190.801†	258.7	276.1	503.05 µg/L	503.05 ppb	06:10:14
3	U 409.014†	5911.0	5614.2	432.42 µg/L	432.42 ppb	06:09:54
3	V 292.402†	79258.4	78347.7	816.92 µg/L	816.92 ppb	06:09:54
3	Zn 213.857†	34037.6	33160.2	796.13 µg/L	796.13 ppb	06:09:54

Mean Data: 1202050835|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1975066.1	101.40	%	0.309				0.30%
Sc RADIAL	56419.5	102	%	0.5				0.51%
Y 371.029	1391290.6	104.03	%	0.363				0.35%
Ag 328.068†	64398.7	503.06	µg/L	7.249	503.06	ppb	7.249	1.44%
Al 396.153Radial†	314393.5	223370	µg/L	551.2	223370	ppb	551.2	0.25%
As 188.979†	283.7	542.54	µg/L	26.320	542.54	ppb	26.320	4.85%
B 249.677†	12030.6	412.24	µg/L	9.175	412.24	ppb	9.175	2.23%
Ba 233.527†	97078.2	2454.0	µg/L	67.06	2454.0	ppb	67.06	2.73%
Be 313.107†	856428.5	527.02	µg/L	10.634	527.02	ppb	10.634	2.02%
Ca 317.933Radial†	34231.4	30962	µg/L	177.1	30962	ppb	177.1	0.57%
Cd 226.502†	19400.5	496.78	µg/L	11.497	496.78	ppb	11.497	2.31%
Co 228.616†	11499.3	532.28	µg/L	31.245	532.28	ppb	31.245	5.87%
Cr 267.716†	30708.4	648.45	µg/L	21.767	648.45	ppb	21.767	3.36%
Cu 324.752†	89981.2	619.60	µg/L	17.595	619.60	ppb	17.595	2.84%
Fe 238.204 Radial†	20781.9	181830	µg/L	1236.5	181830	ppb	1236.5	0.68%
K 766.490 Radial†	38401.5	25731	µg/L	45.4	25731	ppb	45.4	0.18%
Mg 279.077 IEC†	3394.5	31509	µg/L	219.7	31509	ppb	219.7	0.70%
Mn 257.610†	1270370.5	4241.2	µg/L	79.69	4241.2	ppb	79.69	1.88%
Mo 202.031†	4695.2	492.88	µg/L	26.160	492.88	ppb	26.160	5.31%
Na 589.592 Radial†	19232.0	5846.2	µg/L	11.61	5846.2	ppb	11.61	0.20%

Ni 231.604†	11304.2	593.78 µg/L	17.186	593.78 ppb	17.186	2.89%
P 214.914†	728.2	1378.0 µg/L	92.95	1378.0 ppb	92.95	6.75%
Pb 220.353†	2515.3	650.19 µg/L	26.451	650.19 ppb	26.451	4.07%
S 181.975 Axial†	1354.9	5844.0 µg/L	221.87	5844.0 ppb	221.87	3.80%
Sb 206.836†	512.3	482.02 µg/L	22.729	482.02 ppb	22.729	4.72%
Se 196.026†	252.3	828.14 µg/L	22.746	828.14 ppb	22.746	2.75%
SiO2†	69656.4	14248 µg/L	1213.1	14248 ppb	1213.1	8.51%
Si 251.611†	83660.7	6616.7 µg/L	563.57	6616.7 ppb	563.57	8.52%
Sn 189.927†	1071.3	461.03 µg/L	29.162	461.03 ppb	29.162	6.33%
Sr 421.552†	86220.4	834.71 µg/L	1.610	834.71 ppb	1.610	0.19%
Ti 334.940†	3343659.6	7620.7 µg/L	169.01	7620.7 ppb	169.01	2.22%
Tl 190.801†	289.0	523.06 µg/L	18.437	523.06 ppb	18.437	3.52%
U 409.014†	5797.9	447.24 µg/L	13.613	447.24 ppb	13.613	3.04%
V 292.402†	81353.9	847.72 µg/L	27.130	847.72 ppb	27.130	3.20%
Zn 213.857†	34194.7	821.20 µg/L	22.287	821.20 ppb	22.287	2.71%

Sequence No.: 36
Sample ID: 1202050834|956437|5
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 328
Date Collected: 2/24/2010 06:10:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202050834|956437|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54975.0	54975.0	99.2	%			06:10:56
1	Al 396.153Radial†	30599.0	30814.2	21893	µg/L	21893	ppb	06:10:56
1	Ca 317.933Radial†	5342.7	5167.9	4674.2	µg/L	4674.2	ppb	06:11:16
1	Fe 238.204 Radial†	3353.8	3361.4	29409	µg/L	29409	ppb	06:11:16
1	K 766.490 Radial†	4672.6	4530.3	3035.6	µg/L	3035.6	ppb	06:10:56
1	Mg 279.077 IEC†	441.9	431.5	3997.8	µg/L	3997.8	ppb	06:11:16
1	Na 589.592 Radial†	918.1	546.3	166.08	µg/L	166.08	ppb	06:10:56
1	Sr 421.552†	5621.6	5644.0	54.641	µg/L	54.641	ppb	06:10:56
1	Sc 361.383	1973419.7	1973419.7	101.32	%			06:12:19
1	Y 371.029	1365671.0	1365671.0	102.12	%			06:12:19
1	Ag 328.068†	-791.8	-271.2	0.1774	µg/L	0.1774	ppb	06:12:25
1	As 188.979†	3.9	3.1	7.2944	µg/L	7.2944	ppb	06:12:45
1	B 249.677†	531.6	211.6	-6.4018	µg/L	-6.4018	ppb	06:12:25
1	Ba 233.527†	13498.0	13348.0	337.31	µg/L	337.31	ppb	06:12:25
1	Be 313.107†	683.8	4307.8	2.2275	µg/L	2.2275	ppb	06:12:25
1	Cd 226.502†	-30.1	93.5	-0.8139	µg/L	-0.8139	ppb	06:12:45
1	Co 228.616†	344.2	345.5	14.059	µg/L	14.059	ppb	06:12:45
1	Cr 267.716†	1196.6	1207.0	25.503	µg/L	25.503	ppb	06:12:25
1	Cu 324.752†	5191.9	1893.9	16.597	µg/L	16.597	ppb	06:12:25
1	Mn 257.610†	241753.2	238853.5	796.87	µg/L	796.87	ppb	06:12:19
1	Mo 202.031†	-0.7	-1.8	0.9331	µg/L	0.9331	ppb	06:12:45
1	Ni 231.604†	640.6	351.6	18.778	µg/L	18.778	ppb	06:12:45
1	P 214.914†	122.3	93.2	175.19	µg/L	175.19	ppb	06:12:45
1	Pb 220.353†	196.5	103.6	26.618	µg/L	26.618	ppb	06:12:45
1	S 181.975 Axial†	48.4	32.7	140.91	µg/L	140.91	ppb	06:12:45
1	Sb 206.836†	28.7	7.3	6.1574	µg/L	6.1574	ppb	06:12:45
1	Se 196.026†	6.0	-6.0	66.709	µg/L	66.709	ppb	06:12:45
1	SiO2†	11725.4	10061.1	2058.0	µg/L	2058.0	ppb	06:12:25
1	Si 251.611†	12409.8	11963.6	946.20	µg/L	946.20	ppb	06:12:25
1	Sn 189.927†	-10.6	-11.3	-7.7138	µg/L	-7.7138	ppb	06:12:45
1	Ti 334.940†	511017.0	504231.5	1149.3	µg/L	1149.3	ppb	06:12:19
1	Tl 190.801†	-40.6	-19.4	-8.1556	µg/L	-8.1556	ppb	06:12:45
1	U 409.014†	224.2	-4.1	-4.7080	µg/L	-4.7080	ppb	06:12:25
1	V 292.402†	5620.7	5594.9	59.952	µg/L	59.952	ppb	06:12:25
1	Zn 213.857†	2890.0	2386.5	56.564	µg/L	56.564	ppb	06:12:25
2	Sc RADIAL	55763.4	55763.4	101	%			06:11:22
2	Al 396.153Radial†	30928.4	30705.5	21816	µg/L	21816	ppb	06:11:22
2	Ca 317.933Radial†	5330.6	5079.7	4594.5	µg/L	4594.5	ppb	06:11:42
2	Fe 238.204 Radial†	3344.6	3304.4	28910	µg/L	28910	ppb	06:11:42
2	K 766.490 Radial†	4728.1	4518.9	3028.0	µg/L	3028.0	ppb	06:11:22
2	Mg 279.077 IEC†	437.8	421.1	3901.4	µg/L	3901.4	ppb	06:11:42
2	Na 589.592 Radial†	872.6	488.0	148.35	µg/L	148.35	ppb	06:11:22
2	Sr 421.552†	5723.8	5665.5	54.848	µg/L	54.848	ppb	06:11:22
2	Sc 361.383	1974968.7	1974968.7	101.40	%			06:12:52
2	Y 371.029	1366909.9	1366909.9	102.21	%			06:12:52
2	Ag 328.068†	-835.5	-313.8	-0.1746	µg/L	-0.1746	ppb	06:12:58
2	As 188.979†	-1.0	-1.7	-1.8512	µg/L	-1.8512	ppb	06:13:18
2	B 249.677†	522.7	202.4	-6.5312	µg/L	-6.5312	ppb	06:12:58
2	Ba 233.527†	13401.7	13242.6	334.65	µg/L	334.65	ppb	06:12:58
2	Be 313.107†	703.7	4326.9	2.2389	µg/L	2.2389	ppb	06:12:58
2	Cd 226.502†	-34.2	89.5	-0.8640	µg/L	-0.8640	ppb	06:13:18
2	Co 228.616†	331.5	332.8	13.449	µg/L	13.449	ppb	06:13:18
2	Cr 267.716†	1179.9	1189.6	25.135	µg/L	25.135	ppb	06:12:58
2	Cu 324.752†	5181.1	1879.3	16.431	µg/L	16.431	ppb	06:12:58
2	Mn 257.610†	241749.8	238663.1	796.18	µg/L	796.18	ppb	06:12:52
2	Mo 202.031†	4.7	3.5	1.4584	µg/L	1.4584	ppb	06:13:18
2	Ni 231.604†	648.3	358.7	19.144	µg/L	19.144	ppb	06:13:18
2	P 214.914†	118.3	89.2	167.25	µg/L	167.25	ppb	06:13:18
2	Pb 220.353†	192.0	99.0	25.461	µg/L	25.461	ppb	06:13:18

2	S 181.975 Axial†	54.4	38.6	166.52 µg/L	166.52 ppb	06:13:18
2	Sb 206.836†	19.3	-2.0	-2.5804 µg/L	-2.5804 ppb	06:13:18
2	Se 196.026†	3.9	-8.1	62.477 µg/L	62.477 ppb	06:13:18
2	SiO2†	11738.9	10065.3	2058.8 µg/L	2058.8 ppb	06:12:58
2	Si 251.611†	12461.8	12005.4	949.50 µg/L	949.50 ppb	06:12:58
2	Sn 189.927†	-2.6	-3.4	-4.1674 µg/L	-4.1674 ppb	06:13:18
2	Ti 334.940†	511963.4	504769.2	1150.5 µg/L	1150.5 ppb	06:12:52
2	Tl 190.801†	-34.1	-13.0	0.6791 µg/L	0.6791 ppb	06:13:18
2	U 409.014†	234.4	5.8	-3.8224 µg/L	-3.8224 ppb	06:12:58
2	V 292.402†	5633.5	5603.2	59.981 µg/L	59.981 ppb	06:12:58
2	Zn 213.857†	2842.6	2337.5	55.394 µg/L	55.394 ppb	06:12:58
3	Sc RADIAL	54885.1	54885.1	99.1 %		06:11:47
3	Al 396.153Radial†	30576.2	30841.8	21913 µg/L	21913 ppb	06:11:47
3	Ca 317.933Radial†	5340.5	5174.5	4680.3 µg/L	4680.3 ppb	06:12:08
3	Fe 238.204 Radial†	3350.2	3363.3	29425 µg/L	29425 ppb	06:12:08
3	K 766.490 Radial†	4698.9	4564.6	3058.6 µg/L	3058.6 ppb	06:11:47
3	Mg 279.077 IEC†	439.6	429.9	3983.0 µg/L	3983.0 ppb	06:12:08
3	Na 589.592 Radial†	868.7	498.0	151.37 µg/L	151.37 ppb	06:11:47
3	Sr 421.552†	5626.9	5658.7	54.782 µg/L	54.782 ppb	06:11:47
3	Sc 361.383	1985305.3	1985305.3	101.93 %		06:13:25
3	Y 371.029	1374019.6	1374019.6	102.74 %		06:13:25
3	Ag 328.068†	-735.3	-211.1	0.5948 µg/L	0.5948 ppb	06:13:31
3	As 188.979†	0.8	-0.0	1.4131 µg/L	1.4131 ppb	06:13:51
3	B 249.677†	531.7	208.6	-6.5446 µg/L	-6.5446 ppb	06:13:31
3	Ba 233.527†	12428.6	12219.0	308.78 µg/L	308.78 ppb	06:13:31
3	Be 313.107†	405.3	4030.5	2.0834 µg/L	2.0834 ppb	06:13:31
3	Cd 226.502†	-42.7	81.3	-1.1428 µg/L	-1.1428 ppb	06:13:51
3	Co 228.616†	272.8	273.4	10.774 µg/L	10.774 ppb	06:13:51
3	Cr 267.716†	1048.1	1054.2	22.276 µg/L	22.276 ppb	06:13:31
3	Cu 324.752†	5010.9	1685.7	15.224 µg/L	15.224 ppb	06:13:31
3	Mn 257.610†	230569.4	226452.6	755.70 µg/L	755.70 ppb	06:13:25
3	Mo 202.031†	-1.2	-2.3	0.8842 µg/L	0.8842 ppb	06:13:51
3	Ni 231.604†	590.6	298.7	16.014 µg/L	16.014 ppb	06:13:51
3	P 214.914†	95.8	66.5	119.65 µg/L	119.65 ppb	06:13:51
3	Pb 220.353†	190.0	96.0	24.691 µg/L	24.691 ppb	06:13:51
3	S 181.975 Axial†	42.1	26.2	113.17 µg/L	113.17 ppb	06:13:51
3	Sb 206.836†	27.4	5.8	4.8251 µg/L	4.8251 ppb	06:13:51
3	Se 196.026†	2.8	-9.2	62.092 µg/L	62.092 ppb	06:13:51
3	SiO2†	10765.9	9050.4	1851.2 µg/L	1851.2 ppb	06:13:31
3	Si 251.611†	11253.9	10756.2	850.70 µg/L	850.70 ppb	06:13:31
3	Sn 189.927†	-7.2	-7.9	-6.2199 µg/L	-6.2199 ppb	06:13:51
3	Ti 334.940†	481918.4	472663.4	1077.3 µg/L	1077.3 ppb	06:13:25
3	Tl 190.801†	-29.6	-8.5	6.2100 µg/L	6.2100 ppb	06:13:51
3	U 409.014†	76.4	-150.4	-16.685 µg/L	-16.685 ppb	06:13:31
3	V 292.402†	5082.2	5033.5	54.271 µg/L	54.271 ppb	06:13:31
3	Zn 213.857†	2654.4	2138.3	50.515 µg/L	50.515 ppb	06:13:31

Mean Data: 1202050834|956437|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1977897.9	101.55	%	0.332				0.33%
Sc RADIAL	55207.8	99.7	%	0.87				0.88%
Y 371.029	1368866.8	102.36	%	0.337				0.33%
Ag 328.068†	-265.4	0.1992	µg/L	0.38521	0.1992	ppb	0.38521	193.39%
Al 396.153Radial†	30787.2	21874	µg/L	51.2	21874	ppb	51.2	0.23%
As 188.979†	0.4	2.2855	µg/L	4.63478	2.2855	ppb	4.63478	202.79%
B 249.677†	207.5	-6.4925	µg/L	0.07886	-6.4925	ppb	0.07886	1.21%
Ba 233.527†	12936.5	326.91	µg/L	15.760	326.91	ppb	15.760	4.82%
Be 313.107†	4221.8	2.1833	µg/L	0.08668	2.1833	ppb	0.08668	3.97%
Ca 317.933Radial†	5140.7	4649.7	µg/L	47.85	4649.7	ppb	47.85	1.03%
Cd 226.502†	88.1	-0.9402	µg/L	0.17719	-0.9402	ppb	0.17719	18.85%
Co 228.616†	317.2	12.761	µg/L	1.7470	12.761	ppb	1.7470	13.69%
Cr 267.716†	1150.3	24.304	µg/L	1.7664	24.304	ppb	1.7664	7.27%
Cu 324.752†	1819.6	16.084	µg/L	0.7495	16.084	ppb	0.7495	4.66%
Fe 238.204 Radial†	3343.0	29248	µg/L	292.6	29248	ppb	292.6	1.00%
K 766.490 Radial†	4537.9	3040.7	µg/L	15.94	3040.7	ppb	15.94	0.52%
Mg 279.077 IEC†	427.5	3960.8	µg/L	51.89	3960.8	ppb	51.89	1.31%
Mn 257.610†	234656.4	782.92	µg/L	23.574	782.92	ppb	23.574	3.01%
Mo 202.031†	-0.2	1.0919	µg/L	0.31836	1.0919	ppb	0.31836	29.16%
Na 589.592 Radial†	510.8	155.26	µg/L	9.484	155.26	ppb	9.484	6.11%

Ni 231.604†	336.3	17.978	µg/L	1.7113	17.978	ppb	1.7113	9.52%
P 214.914†	82.9	154.03	µg/L	30.040	154.03	ppb	30.040	19.50%
Pb 220.353†	99.5	25.590	µg/L	0.9701	25.590	ppb	0.9701	3.79%
S 181.975 Axial†	32.5	140.20	µg/L	26.682	140.20	ppb	26.682	19.03%
Sb 206.836†	3.7	2.8007	µg/L	4.70751	2.8007	ppb	4.70751	168.08%
Se 196.026†	-7.8	63.759	µg/L	2.5618	63.759	ppb	2.5618	4.02%
SiO2†	9725.6	1989.3	µg/L	119.61	1989.3	ppb	119.61	6.01%
Si 251.611†	11575.1	915.47	µg/L	56.109	915.47	ppb	56.109	6.13%
Sn 189.927†	-7.5	-6.0337	µg/L	1.78054	-6.0337	ppb	1.78054	29.51%
Sr 421.552†	5656.1	54.757	µg/L	0.1061	54.757	ppb	0.1061	0.19%
Ti 334.940†	493888.0	1125.7	µg/L	41.91	1125.7	ppb	41.91	3.72%
Tl 190.801†	-13.6	-0.4222	µg/L	7.24584	-0.4222	ppb	7.24584	>999.9%
U 409.014†	-49.6	-8.4052	µg/L	7.18434	-8.4052	ppb	7.18434	85.48%
V 292.402†	5410.6	58.068	µg/L	3.2886	58.068	ppb	3.2886	5.66%
Zn 213.857†	2287.4	54.158	µg/L	3.2083	54.158	ppb	3.2083	5.92%

Sequence No.: 37
Sample ID: 246066002|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 329
Date Collected: 2/24/2010 06:14:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066002|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55938.1	55938.1	101	%			06:14:33
1	Al 396.153Radial†	178521.6	176757.8	125590	µg/L	125590	ppb	06:14:33
1	Ca 317.933Radial†	38383.7	37792.7	34183	µg/L	34183	ppb	06:14:54
1	Fe 238.204 Radial†	17030.6	16846.1	147390	µg/L	147390	ppb	06:14:54
1	K 766.490 Radial†	28296.7	27842.1	18656	µg/L	18656	ppb	06:14:33
1	Mg 279.077 IEC†	2465.9	2428.0	22514	µg/L	22514	ppb	06:14:54
1	Na 589.592 Radial†	7969.2	7512.5	2283.7	µg/L	2283.7	ppb	06:14:54
1	Sr 421.552†	31419.7	31092.1	301.01	µg/L	301.01	ppb	06:14:33
1	Sc 361.383	1961550.3	1961550.3	100.71	%			06:15:58
1	Y 371.029	1385324.8	1385324.8	103.59	%			06:15:58
1	Ag 328.068†	-2070.4	-1545.6	-0.5553	µg/L	-0.5553	ppb	06:16:04
1	As 188.979†	10.4	9.5	24.697	µg/L	24.697	ppb	06:16:24
1	B 249.677†	1252.2	930.4	-37.585	µg/L	-37.585	ppb	06:16:04
1	Ba 233.527†	79145.9	78615.4	1986.6	µg/L	1986.6	ppb	06:16:04
1	Be 313.107†	19510.1	23006.0	12.385	µg/L	12.385	ppb	06:16:04
1	Cd 226.502†	382.2	502.7	-3.1756	µg/L	-3.1756	ppb	06:16:24
1	Co 228.616†	2078.7	2069.9	88.457	µg/L	88.457	ppb	06:16:24
1	Cr 267.716†	5423.9	5411.7	114.36	µg/L	114.36	ppb	06:16:04
1	Cu 324.752†	13086.7	9764.3	84.980	µg/L	84.980	ppb	06:16:04
1	Mn 257.610†	1684759.4	1673169.6	5574.5	µg/L	5574.5	ppb	06:15:58
1	Mo 202.031†	-4.8	-5.9	4.9884	µg/L	4.9884	ppb	06:16:24
1	Ni 231.604†	1999.0	1704.2	91.059	µg/L	91.059	ppb	06:16:24
1	P 214.914†	472.8	441.9	830.08	µg/L	830.08	ppb	06:16:24
1	Pb 220.353†	857.4	761.0	196.41	µg/L	196.41	ppb	06:16:24
1	S 181.975 Axial†	150.5	134.4	579.74	µg/L	579.74	ppb	06:16:24
1	Sb 206.836†	38.6	17.3	12.064	µg/L	12.064	ppb	06:16:24
1	Se 196.026†	-61.3	-72.8	266.99	µg/L	266.99	ppb	06:16:24
1	SiO2†	54735.7	52839.3	10808	µg/L	10808	ppb	06:16:04
1	Si 251.611†	63985.3	63251.0	5002.5	µg/L	5002.5	ppb	06:16:04
1	Sn 189.927†	-40.3	-40.9	-31.412	µg/L	-31.412	ppb	06:16:24
1	Ti 334.940†	2145877.7	2130662.8	4856.1	µg/L	4856.1	ppb	06:15:58
1	Tl 190.801†	-77.0	-55.8	15.349	µg/L	15.349	ppb	06:16:24
1	U 409.014†	-1004.1	-1222.4	-122.59	µg/L	-122.59	ppb	06:15:58
1	V 292.402†	27620.8	27474.2	294.62	µg/L	294.62	ppb	06:16:04
1	Zn 213.857†	13713.0	13150.8	312.42	µg/L	312.42	ppb	06:16:04
2	Sc RADIAL	56375.4	56375.4	102	%			06:14:59
2	Al 396.153Radial†	180146.8	176983.5	125750	µg/L	125750	ppb	06:14:59
2	Ca 317.933Radial†	38193.0	37310.6	33747	µg/L	33747	ppb	06:15:20
2	Fe 238.204 Radial†	16971.1	16656.8	145730	µg/L	145730	ppb	06:15:20
2	K 766.490 Radial†	28466.9	27792.0	18622	µg/L	18622	ppb	06:14:59
2	Mg 279.077 IEC†	2463.4	2406.7	22316	µg/L	22316	ppb	06:15:20
2	Na 589.592 Radial†	7954.0	7436.3	2260.5	µg/L	2260.5	ppb	06:15:20
2	Sr 421.552†	31643.3	31070.4	300.80	µg/L	300.80	ppb	06:14:59
2	Sc 361.383	1969972.7	1969972.7	101.14	%			06:16:32
2	Y 371.029	1389971.3	1389971.3	103.94	%			06:16:32
2	Ag 328.068†	-2086.1	-1552.4	-0.7257	µg/L	-0.7257	ppb	06:16:37
2	As 188.979†	10.5	9.6	24.698	µg/L	24.698	ppb	06:16:58
2	B 249.677†	1238.9	911.8	-37.501	µg/L	-37.501	ppb	06:16:37
2	Ba 233.527†	79025.8	78160.7	1975.1	µg/L	1975.1	ppb	06:16:37
2	Be 313.107†	19474.8	22888.2	12.306	µg/L	12.306	ppb	06:16:37
2	Cd 226.502†	391.4	510.2	-2.7886	µg/L	-2.7886	ppb	06:16:58
2	Co 228.616†	2066.9	2049.4	87.450	µg/L	87.450	ppb	06:16:58
2	Cr 267.716†	5465.3	5429.7	114.74	µg/L	114.74	ppb	06:16:37
2	Cu 324.752†	13132.5	9754.1	84.682	µg/L	84.682	ppb	06:16:37
2	Mn 257.610†	1701694.3	1682761.4	5606.2	µg/L	5606.2	ppb	06:16:32
2	Mo 202.031†	-7.1	-8.2	4.6931	µg/L	4.6931	ppb	06:16:58
2	Ni 231.604†	1989.8	1686.6	90.118	µg/L	90.118	ppb	06:16:58
2	P 214.914†	471.9	439.1	825.54	µg/L	825.54	ppb	06:16:58
2	Pb 220.353†	856.6	756.6	195.35	µg/L	195.35	ppb	06:16:58

2	S 181.975 Axial†	142.5	125.8	542.66 µg/L	542.66 ppb	06:16:58
2	Sb 206.836†	33.8	12.3	7.3855 µg/L	7.3855 ppb	06:16:58
2	Se 196.026†	-59.9	-71.2	265.20 µg/L	265.20 ppb	06:16:58
2	SiO2†	54606.8	52479.5	10734 µg/L	10734 ppb	06:16:37
2	Si 251.611†	63793.3	62789.6	4966.0 µg/L	4966.0 ppb	06:16:37
2	Sn 189.927†	-35.2	-35.7	-28.942 µg/L	-28.942 ppb	06:16:58
2	Ti 334.940†	2161778.2	2137274.2	4871.2 µg/L	4871.2 ppb	06:16:32
2	Tl 190.801†	-69.8	-48.4	25.710 µg/L	25.710 ppb	06:16:58
2	U 409.014†	-1033.1	-1246.8	-124.33 µg/L	-124.33 ppb	06:16:32
2	V 292.402†	27510.7	27248.1	292.14 µg/L	292.14 ppb	06:16:37
2	Zn 213.857†	13706.8	13086.5	310.95 µg/L	310.95 ppb	06:16:37
3	Sc RADIAL	56383.9	56383.9	102 %		06:15:25
3	Al 396.153Radial†	179748.5	176565.5	125450 µg/L	125450 ppb	06:15:25
3	Ca 317.933Radial†	38298.2	37408.2	33835 µg/L	33835 ppb	06:15:46
3	Fe 238.204 Radial†	16919.5	16603.6	145260 µg/L	145260 ppb	06:15:46
3	K 766.490 Radial†	28456.1	27777.2	18612 µg/L	18612 ppb	06:15:25
3	Mg 279.077 IEC†	2470.5	2413.3	22378 µg/L	22378 ppb	06:15:46
3	Na 589.592 Radial†	7995.1	7475.5	2272.4 µg/L	2272.4 ppb	06:15:46
3	Sr 421.552†	31644.7	31067.1	300.76 µg/L	300.76 ppb	06:15:25
3	Sc 361.383	1973824.5	1973824.5	101.34 %		06:17:05
3	Y 371.029	1391397.6	1391397.6	104.04 %		06:17:05
3	Ag 328.068†	-1963.4	-1427.2	0.0903 µg/L	0.0903 ppb	06:17:11
3	As 188.979†	14.3	13.4	31.832 µg/L	31.832 ppb	06:17:31
3	B 249.677†	1197.7	868.8	-39.079 µg/L	-39.079 ppb	06:17:11
3	Ba 233.527†	75559.4	74587.6	1884.8 µg/L	1884.8 ppb	06:17:11
3	Be 313.107†	18385.1	21775.4	11.691 µg/L	11.691 ppb	06:17:11
3	Cd 226.502†	333.4	452.2	-4.2891 µg/L	-4.2891 ppb	06:17:31
3	Co 228.616†	1869.9	1851.1	78.409 µg/L	78.409 ppb	06:17:31
3	Cr 267.716†	5110.5	5069.0	107.12 µg/L	107.12 ppb	06:17:11
3	Cu 324.752†	12658.9	9261.3	81.363 µg/L	81.363 ppb	06:17:11
3	Mn 257.610†	1646699.2	1625208.7	5415.0 µg/L	5415.0 ppb	06:17:05
3	Mo 202.031†	-7.6	-8.6	4.6262 µg/L	4.6262 ppb	06:17:31
3	Ni 231.604†	1841.0	1536.0	82.233 µg/L	82.233 ppb	06:17:31
3	P 214.914†	412.5	379.5	702.03 µg/L	702.03 ppb	06:17:31
3	Pb 220.353†	797.8	696.9	180.05 µg/L	180.05 ppb	06:17:31
3	S 181.975 Axial†	142.7	125.7	542.16 µg/L	542.16 ppb	06:17:31
3	Sb 206.836†	31.2	9.7	5.0254 µg/L	5.0254 ppb	06:17:31
3	Se 196.026†	-43.1	-54.5	288.19 µg/L	288.19 ppb	06:17:31
3	SiO2†	51221.4	49033.5	10030 µg/L	10030 ppb	06:17:11
3	Si 251.611†	59805.7	58731.5	4645.1 µg/L	4645.1 ppb	06:17:11
3	Sn 189.927†	-43.7	-44.0	-32.601 µg/L	-32.601 ppb	06:17:31
3	Ti 334.940†	2079602.6	2052012.1	4676.8 µg/L	4676.8 ppb	06:17:05
3	Tl 190.801†	-62.7	-41.3	33.014 µg/L	33.014 ppb	06:17:31
3	U 409.014†	-903.1	-1116.5	-113.61 µg/L	-113.61 ppb	06:17:05
3	V 292.402†	26051.2	25754.7	277.02 µg/L	277.02 ppb	06:17:11
3	Zn 213.857†	13130.8	12491.6	296.47 µg/L	296.47 ppb	06:17:11

Mean Data: 246066002|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1968449.2	101.06	%	0.322				0.32%
Sc RADIAL	56232.5	102	%	0.5				0.45%
Y 371.029	1388897.9	103.86	%	0.237				0.23%
Ag 328.068†	-1508.4	-0.3969	µg/L	0.43046	-0.3969	ppb	0.43046	108.46%
Al 396.153Radial†	176768.9	125590	µg/L	148.7	125590	ppb	148.7	0.12%
As 188.979†	10.8	27.076	µg/L	4.1187	27.076	ppb	4.1187	15.21%
B 249.677†	903.7	-38.055	µg/L	0.8879	-38.055	ppb	0.8879	2.33%
Ba 233.527†	77121.3	1948.8	µg/L	55.75	1948.8	ppb	55.75	2.86%
Be 313.107†	22556.5	12.127	µg/L	0.3795	12.127	ppb	0.3795	3.13%
Ca 317.933Radial†	37503.9	33921	µg/L	230.5	33921	ppb	230.5	0.68%
Cd 226.502†	488.4	-3.4178	µg/L	0.77901	-3.4178	ppb	0.77901	22.79%
Co 228.616†	1990.1	84.772	µg/L	5.5337	84.772	ppb	5.5337	6.53%
Cr 267.716†	5303.4	112.07	µg/L	4.295	112.07	ppb	4.295	3.83%
Cu 324.752†	9593.2	83.675	µg/L	2.0079	83.675	ppb	2.0079	2.40%
Fe 238.204 Radial†	16702.2	146130	µg/L	1115.1	146130	ppb	1115.1	0.76%
K 766.490 Radial†	27803.8	18630	µg/L	22.8	18630	ppb	22.8	0.12%
Mg 279.077 IEC†	2416.0	22402	µg/L	101.2	22402	ppb	101.2	0.45%
Mn 257.610†	1660379.9	5531.9	µg/L	102.47	5531.9	ppb	102.47	1.85%
Mo 202.031†	-7.6	4.7692	µg/L	0.19270	4.7692	ppb	0.19270	4.04%
Na 589.592 Radial†	7474.8	2272.2	µg/L	11.58	2272.2	ppb	11.58	0.51%

Ni 231.604†	1642.3	87.803	µg/L	4.8467	87.803	ppb	4.8467	5.52%
P 214.914†	420.2	785.89	µg/L	72.655	785.89	ppb	72.655	9.25%
Pb 220.353†	738.2	190.61	µg/L	9.156	190.61	ppb	9.156	4.80%
S 181.975 Axial†	128.6	554.85	µg/L	21.551	554.85	ppb	21.551	3.88%
Sb 206.836†	13.1	8.1584	µg/L	3.58254	8.1584	ppb	3.58254	43.91%
Se 196.026†	-66.1	273.46	µg/L	12.787	273.46	ppb	12.787	4.68%
SiO2†	51450.8	10524	µg/L	429.8	10524	ppb	429.8	4.08%
Si 251.611†	61590.7	4871.2	µg/L	196.68	4871.2	ppb	196.68	4.04%
Sn 189.927†	-40.2	-30.985	µg/L	1.8666	-30.985	ppb	1.8666	6.02%
Sr 421.552†	31076.6	300.86	µg/L	0.132	300.86	ppb	0.132	0.04%
Ti 334.940†	2106649.7	4801.4	µg/L	108.14	4801.4	ppb	108.14	2.25%
Tl 190.801†	-48.5	24.691	µg/L	8.8763	24.691	ppb	8.8763	35.95%
U 409.014†	-1195.2	-120.18	µg/L	5.752	-120.18	ppb	5.752	4.79%
V 292.402†	26825.6	287.93	µg/L	9.529	287.93	ppb	9.529	3.31%
Zn 213.857†	12909.6	306.61	µg/L	8.813	306.61	ppb	8.813	2.87%

Sequence No.: 38
Sample ID: 246066003|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 330
Date Collected: 2/24/2010 06:17:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066003|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56392.0	56392.0	102	%			06:18:13
1	Al 396.153Radial†	171582.3	168519.0	119730	µg/L	119730	ppb	06:18:13
1	Ca 317.933Radial†	24299.2	23652.5	21393	µg/L	21393	ppb	06:18:33
1	Fe 238.204 Radial†	15471.1	15178.5	132800	µg/L	132800	ppb	06:18:33
1	K 766.490 Radial†	29383.1	28683.7	19220	µg/L	19220	ppb	06:18:13
1	Mg 279.077 IEC†	2259.6	2205.8	20454	µg/L	20454	ppb	06:18:33
1	Na 589.592 Radial†	3460.3	3020.2	918.08	µg/L	918.08	ppb	06:18:33
1	Sr 421.552†	27321.4	26816.2	259.61	µg/L	259.61	ppb	06:18:13
1	Sc 361.383	1975359.0	1975359.0	101.42	%			06:19:38
1	Y 371.029	1404207.0	1404207.0	105.00	%			06:19:38
1	Ag 328.068†	-1860.7	-1324.4	0.0142	µg/L	0.0142	ppb	06:19:44
1	As 188.979†	17.5	16.5	37.613	µg/L	37.613	ppb	06:20:04
1	B 249.677†	1265.9	935.1	-29.782	µg/L	-29.782	ppb	06:19:44
1	Ba 233.527†	64560.7	63684.6	1609.3	µg/L	1609.3	ppb	06:19:44
1	Be 313.107†	18825.7	22195.7	11.783	µg/L	11.783	ppb	06:19:44
1	Cd 226.502†	338.0	456.5	-2.7708	µg/L	-2.7708	ppb	06:20:04
1	Co 228.616†	1466.4	1451.8	58.467	µg/L	58.467	ppb	06:20:04
1	Cr 267.716†	5211.3	5164.5	109.13	µg/L	109.13	ppb	06:19:44
1	Cu 324.752†	15821.1	12369.6	100.16	µg/L	100.16	ppb	06:19:44
1	Mn 257.610†	956688.6	943571.2	3150.0	µg/L	3150.0	ppb	06:19:38
1	Mo 202.031†	-0.2	-1.3	4.9122	µg/L	4.9122	ppb	06:20:04
1	Ni 231.604†	1737.7	1432.7	76.683	µg/L	76.683	ppb	06:20:04
1	P 214.914†	514.3	479.5	916.79	µg/L	916.79	ppb	06:20:04
1	Pb 220.353†	1116.2	1010.2	260.46	µg/L	260.46	ppb	06:20:04
1	S 181.975 Axial†	210.1	192.1	828.43	µg/L	828.43	ppb	06:20:04
1	Sb 206.836†	44.7	23.0	18.604	µg/L	18.604	ppb	06:20:04
1	Se 196.026†	-46.4	-57.7	254.50	µg/L	254.50	ppb	06:20:04
1	SiO2†	86649.4	83927.5	17167	µg/L	17167	ppb	06:19:44
1	Si 251.611†	102726.9	101007.5	7988.6	µg/L	7988.6	ppb	06:19:44
1	Sn 189.927†	-40.7	-41.0	-30.084	µg/L	-30.084	ppb	06:20:04
1	Ti 334.940†	2277719.1	2245767.8	5118.5	µg/L	5118.5	ppb	06:19:38
1	Tl 190.801†	-79.5	-57.8	3.8857	µg/L	3.8857	ppb	06:20:04
1	U 409.014†	-341.7	-562.3	-65.770	µg/L	-65.770	ppb	06:19:38
1	V 292.402†	25053.8	24751.3	265.49	µg/L	265.49	ppb	06:19:44
1	Zn 213.857†	13156.7	12507.1	297.55	µg/L	297.55	ppb	06:19:44
2	Sc RADIAL	55776.6	55776.6	101	%			06:18:39
2	Al 396.153Radial†	171037.5	169837.5	120670	µg/L	120670	ppb	06:18:39
2	Ca 317.933Radial†	24199.0	23816.3	21541	µg/L	21541	ppb	06:19:00
2	Fe 238.204 Radial†	15428.4	15303.8	133890	µg/L	133890	ppb	06:19:00
2	K 766.490 Radial†	29254.7	28874.6	19348	µg/L	19348	ppb	06:18:39
2	Mg 279.077 IEC†	2249.4	2220.1	20586	µg/L	20586	ppb	06:19:00
2	Na 589.592 Radial†	3466.7	3064.0	931.41	µg/L	931.41	ppb	06:19:00
2	Sr 421.552†	27050.2	26843.0	259.87	µg/L	259.87	ppb	06:18:39
2	Sc 361.383	1964943.0	1964943.0	100.88	%			06:20:12
2	Y 371.029	1396552.4	1396552.4	104.43	%			06:20:12
2	Ag 328.068†	-1887.2	-1360.4	-0.1802	µg/L	-0.1802	ppb	06:20:17
2	As 188.979†	9.8	8.9	23.397	µg/L	23.397	ppb	06:20:38
2	B 249.677†	1257.5	933.4	-30.425	µg/L	-30.425	ppb	06:20:17
2	Ba 233.527†	64646.9	64107.4	1620.0	µg/L	1620.0	ppb	06:20:17
2	Be 313.107†	18776.7	22245.5	11.807	µg/L	11.807	ppb	06:20:17
2	Cd 226.502†	340.5	460.8	-2.7813	µg/L	-2.7813	ppb	06:20:38
2	Co 228.616†	1450.2	1443.4	58.031	µg/L	58.031	ppb	06:20:38
2	Cr 267.716†	5201.3	5181.8	109.49	µg/L	109.49	ppb	06:20:17
2	Cu 324.752†	15706.4	12338.7	100.11	µg/L	100.11	ppb	06:20:17
2	Mn 257.610†	954385.6	946288.8	3159.2	µg/L	3159.2	ppb	06:20:12
2	Mo 202.031†	-4.4	-5.5	4.5219	µg/L	4.5219	ppb	06:20:38
2	Ni 231.604†	1751.0	1455.0	77.867	µg/L	77.867	ppb	06:20:38
2	P 214.914†	518.8	486.7	931.14	µg/L	931.14	ppb	06:20:38
2	Pb 220.353†	1121.3	1021.1	263.26	µg/L	263.26	ppb	06:20:38

2	S 181.975 Axial†	214.5	197.6	852.28	µg/L	852.28 ppb	06:20:38
2	Sb 206.836†	32.4	11.0	7.2849	µg/L	7.2849 ppb	06:20:38
2	Se 196.026†	-45.8	-57.4	257.87	µg/L	257.87 ppb	06:20:38
2	SiO2†	86223.7	83958.4	17173	µg/L	17173 ppb	06:20:17
2	Si 251.611†	102112.9	100935.8	7983.0	µg/L	7983.0 ppb	06:20:17
2	Sn 189.927†	-39.8	-40.3	-29.892	µg/L	-29.892 ppb	06:20:38
2	Ti 334.940†	2273466.2	2253457.6	5136.0	µg/L	5136.0 ppb	06:20:12
2	Tl 190.801†	-71.1	-49.8	15.232	µg/L	15.232 ppb	06:20:38
2	U 409.014†	-369.0	-591.2	-68.295	µg/L	-68.295 ppb	06:20:12
2	V 292.402†	25051.2	24879.6	266.91	µg/L	266.91 ppb	06:20:17
2	Zn 213.857†	13107.7	12527.2	297.97	µg/L	297.97 ppb	06:20:17
3	Sc RADIAL	56537.9	56537.9	102	%		06:19:05
3	Al 396.153Radial†	173013.0	169485.8	120420	µg/L	120420 ppb	06:19:05
3	Ca 317.933Radial†	24231.0	23524.1	21277	µg/L	21277 ppb	06:19:26
3	Fe 238.204 Radial†	15428.7	15097.8	132090	µg/L	132090 ppb	06:19:26
3	K 766.490 Radial†	29678.1	28898.2	19364	µg/L	19364 ppb	06:19:05
3	Mg 279.077 IEC†	2248.7	2189.4	20301	µg/L	20301 ppb	06:19:26
3	Na 589.592 Radial†	3458.0	3009.1	914.71	µg/L	914.71 ppb	06:19:26
3	Sr 421.552†	27492.0	26914.0	260.56	µg/L	260.56 ppb	06:19:05
3	Sc 361.383	1962980.5	1962980.5	100.78	%		06:20:45
3	Y 371.029	1392057.9	1392057.9	104.09	%		06:20:45
3	Ag 328.068†	-1782.7	-1258.6	0.3904	µg/L	0.3904 ppb	06:20:51
3	As 188.979†	14.1	13.2	31.510	µg/L	31.510 ppb	06:21:12
3	B 249.677†	1207.7	885.2	-31.521	µg/L	-31.521 ppb	06:20:51
3	Ba 233.527†	61852.9	61399.2	1551.5	µg/L	1551.5 ppb	06:20:51
3	Be 313.107†	17511.1	21008.4	11.098	µg/L	11.098 ppb	06:20:51
3	Cd 226.502†	301.3	422.2	-3.6131	µg/L	-3.6131 ppb	06:21:12
3	Co 228.616†	1334.2	1329.7	52.920	µg/L	52.920 ppb	06:21:12
3	Cr 267.716†	4875.8	4864.0	102.78	µg/L	102.78 ppb	06:20:51
3	Cu 324.752†	15117.1	11769.5	96.098	µg/L	96.098 ppb	06:20:51
3	Mn 257.610†	930163.2	923199.9	3082.3	µg/L	3082.3 ppb	06:20:45
3	Mo 202.031†	-10.3	-11.3	3.8452	µg/L	3.8452 ppb	06:21:12
3	Ni 231.604†	1608.3	1315.1	70.523	µg/L	70.523 ppb	06:21:12
3	P 214.914†	478.9	447.7	851.58	µg/L	851.58 ppb	06:21:12
3	Pb 220.353†	1052.9	954.4	246.22	µg/L	246.22 ppb	06:21:12
3	S 181.975 Axial†	193.7	177.1	763.82	µg/L	763.82 ppb	06:21:12
3	Sb 206.836†	40.7	19.4	15.261	µg/L	15.261 ppb	06:21:12
3	Se 196.026†	-39.5	-51.1	262.39	µg/L	262.39 ppb	06:21:12
3	SiO2†	80941.7	78802.8	16119	µg/L	16119 ppb	06:20:51
3	Si 251.611†	95651.9	94626.0	7483.9	µg/L	7483.9 ppb	06:20:51
3	Sn 189.927†	-41.9	-42.4	-30.668	µg/L	-30.668 ppb	06:21:12
3	Ti 334.940†	2206219.5	2188984.8	4989.1	µg/L	4989.1 ppb	06:20:45
3	Tl 190.801†	-63.0	-42.0	24.323	µg/L	24.323 ppb	06:21:12
3	U 409.014†	-329.6	-552.4	-64.859	µg/L	-64.859 ppb	06:20:45
3	V 292.402†	23738.7	23602.1	253.79	µg/L	253.79 ppb	06:20:51
3	Zn 213.857†	12577.1	12013.7	285.57	µg/L	285.57 ppb	06:20:51

Mean Data: 246066003|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1967760.8	101.03	%	0.342				0.34%
Sc RADIAL	56235.5	102	%	0.7				0.72%
Y 371.029	1397605.8	104.51	%	0.459				0.44%
Ag 328.068†	-1314.5	0.0748	µg/L	0.29009	0.0748	ppb	0.29009	387.76%
Al 396.153Radial†	169280.7	120270	µg/L	485.1	120270	ppb	485.1	0.40%
As 188.979†	12.9	30.840	µg/L	7.1316	30.840	ppb	7.1316	23.12%
B 249.677†	917.9	-30.576	µg/L	0.8794	-30.576	ppb	0.8794	2.88%
Ba 233.527†	63063.7	1593.6	µg/L	36.82	1593.6	ppb	36.82	2.31%
Be 313.107†	21816.5	11.563	µg/L	0.4028	11.563	ppb	0.4028	3.48%
Ca 317.933Radial†	23664.3	21404	µg/L	132.5	21404	ppb	132.5	0.62%
Cd 226.502†	446.5	-3.0551	µg/L	0.48329	-3.0551	ppb	0.48329	15.82%
Co 228.616†	1408.3	56.473	µg/L	3.0848	56.473	ppb	3.0848	5.46%
Cr 267.716†	5070.1	107.13	µg/L	3.775	107.13	ppb	3.775	3.52%
Cu 324.752†	12159.3	98.789	µg/L	2.3305	98.789	ppb	2.3305	2.36%
Fe 238.204 Radial†	15193.4	132930	µg/L	908.3	132930	ppb	908.3	0.68%
K 766.490 Radial†	28818.8	19310	µg/L	78.8	19310	ppb	78.8	0.41%
Mg 279.077 IEC†	2205.1	20447	µg/L	142.4	20447	ppb	142.4	0.70%
Mn 257.610†	937686.6	3130.5	µg/L	42.00	3130.5	ppb	42.00	1.34%
Mo 202.031†	-6.0	4.4264	µg/L	0.53988	4.4264	ppb	0.53988	12.20%
Na 589.592 Radial†	3031.1	921.40	µg/L	8.833	921.40	ppb	8.833	0.96%

Ni 231.604†	1401.0	75.024	µg/L	3.9432	75.024	ppb	3.9432	5.26%
P 214.914†	471.3	899.83	µg/L	42.404	899.83	ppb	42.404	4.71%
Pb 220.353†	995.2	256.65	µg/L	9.137	256.65	ppb	9.137	3.56%
S 181.975 Axial†	188.9	814.84	µg/L	45.770	814.84	ppb	45.770	5.62%
Sb 206.836†	17.8	13.717	µg/L	5.8155	13.717	ppb	5.8155	42.40%
Se 196.026†	-55.4	258.25	µg/L	3.958	258.25	ppb	3.958	1.53%
SiO2†	82229.5	16820	µg/L	607.0	16820	ppb	607.0	3.61%
Si 251.611†	98856.5	7818.5	µg/L	289.77	7818.5	ppb	289.77	3.71%
Sn 189.927†	-41.2	-30.215	µg/L	0.4042	-30.215	ppb	0.4042	1.34%
Sr 421.552†	26857.7	260.01	µg/L	0.490	260.01	ppb	0.490	0.19%
Ti 334.940†	2229403.4	5081.2	µg/L	80.27	5081.2	ppb	80.27	1.58%
Tl 190.801†	-49.9	14.480	µg/L	10.2393	14.480	ppb	10.2393	70.71%
U 409.014†	-568.6	-66.308	µg/L	1.7798	-66.308	ppb	1.7798	2.68%
V 292.402†	24411.0	262.06	µg/L	7.197	262.06	ppb	7.197	2.75%
Zn 213.857†	12349.3	293.70	µg/L	7.040	293.70	ppb	7.040	2.40%

Sequence No.: 39
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 06:21:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55475.4	55475.4	100	%			06:21:59
1	Al 396.153Radial†	7169.0	7142.0	5063.4	µg/L	5063.4	ppb	06:21:59
1	Ca 317.933Radial†	5717.5	5493.6	4968.8	µg/L	4968.8	ppb	06:22:20
1	Fe 238.204 Radial†	608.6	589.9	5172.0	µg/L	5172.0	ppb	06:22:20
1	K 766.490 Radial†	7791.7	7602.3	5094.0	µg/L	5094.0	ppb	06:21:59
1	Mg 279.077 IEC†	555.9	541.3	5057.9	µg/L	5057.9	ppb	06:22:20
1	Na 589.592 Radial†	33657.4	33227.1	10101	µg/L	10101	ppb	06:21:59
1	Sr 421.552†	52338.2	52238.1	505.72	µg/L	505.72	ppb	06:21:59
1	Sc 361.383	1986475.1	1986475.1	101.99	%			06:23:23
1	Y 371.029	1366504.0	1366504.0	102.18	%			06:23:23
1	Ag 328.068†	68446.0	67622.8	514.27	µg/L	514.27	ppb	06:23:29
1	As 188.979†	290.4	283.9	534.01	µg/L	534.01	ppb	06:23:49
1	B 249.677†	12616.3	12057.4	505.35	µg/L	505.35	ppb	06:23:29
1	Ba 233.527†	20899.6	20517.8	519.27	µg/L	519.27	ppb	06:23:29
1	Be 313.107†	855395.2	842363.4	521.03	µg/L	521.03	ppb	06:23:23
1	Cd 226.502†	20137.1	19868.1	529.13	µg/L	529.13	ppb	06:23:29
1	Co 228.616†	11172.8	10961.0	521.51	µg/L	521.51	ppb	06:23:29
1	Cr 267.716†	25338.8	24871.0	525.10	µg/L	525.10	ppb	06:23:29
1	Cu 324.752†	81324.1	76509.2	506.06	µg/L	506.06	ppb	06:23:29
1	Mn 257.610†	162622.2	159696.0	530.76	µg/L	530.76	ppb	06:23:23
1	Mo 202.031†	5283.4	5179.3	536.28	µg/L	536.28	ppb	06:23:49
1	Ni 231.604†	10540.9	10054.8	526.08	µg/L	526.08	ppb	06:23:29
1	P 214.914†	1319.9	1266.6	2590.6	µg/L	2590.6	ppb	06:23:49
1	Pb 220.353†	2206.2	2072.9	531.71	µg/L	531.71	ppb	06:23:49
1	S 181.975 Axial†	266.9	246.7	1064.0	µg/L	1064.0	ppb	06:23:49
1	Sb 206.836†	574.9	542.6	515.12	µg/L	515.12	ppb	06:23:49
1	Se 196.026†	387.9	368.4	545.48	µg/L	545.48	ppb	06:23:49
1	SiO2†	29094.1	27015.4	5525.9	µg/L	5525.9	ppb	06:23:29
1	Si 251.611†	33532.0	32593.8	2577.8	µg/L	2577.8	ppb	06:23:29
1	Sn 189.927†	1233.2	1208.3	537.84	µg/L	537.84	ppb	06:23:49
1	Ti 334.940†	231594.0	226937.3	517.04	µg/L	517.04	ppb	06:23:23
1	Tl 190.801†	362.0	375.6	525.26	µg/L	525.26	ppb	06:23:49
1	U 409.014†	6520.1	6167.7	503.63	µg/L	503.63	ppb	06:23:29
1	V 292.402†	52252.0	51281.4	523.73	µg/L	523.73	ppb	06:23:29
1	Zn 213.857†	22489.9	21585.8	523.56	µg/L	523.56	ppb	06:23:29
2	Sc RADIAL	54975.9	54975.9	99.3	%			06:22:25
2	Al 396.153Radial†	7120.4	7158.0	5074.9	µg/L	5074.9	ppb	06:22:25
2	Ca 317.933Radial†	5753.8	5582.0	5048.8	µg/L	5048.8	ppb	06:22:46
2	Fe 238.204 Radial†	608.0	594.7	5214.5	µg/L	5214.5	ppb	06:22:46
2	K 766.490 Radial†	7781.2	7662.3	5134.2	µg/L	5134.2	ppb	06:22:25
2	Mg 279.077 IEC†	555.3	545.8	5099.5	µg/L	5099.5	ppb	06:22:46
2	Na 589.592 Radial†	33508.6	33382.6	10148	µg/L	10148	ppb	06:22:25
2	Sr 421.552†	52043.6	52416.1	507.45	µg/L	507.45	ppb	06:22:25
2	Sc 361.383	1969422.2	1969422.2	101.11	%			06:23:56
2	Y 371.029	1356289.8	1356289.8	101.42	%			06:23:56
2	Ag 328.068†	68237.3	67997.5	517.12	µg/L	517.12	ppb	06:24:02
2	As 188.979†	282.4	278.5	523.73	µg/L	523.73	ppb	06:24:22
2	B 249.677†	12633.8	12181.9	510.57	µg/L	510.57	ppb	06:24:02
2	Ba 233.527†	20829.3	20625.7	522.00	µg/L	522.00	ppb	06:24:02
2	Be 313.107†	848988.7	843289.7	521.60	µg/L	521.60	ppb	06:23:56
2	Cd 226.502†	20066.0	19968.7	531.80	µg/L	531.80	ppb	06:24:02
2	Co 228.616†	11162.9	11046.0	525.55	µg/L	525.55	ppb	06:24:02
2	Cr 267.716†	25315.6	25063.3	529.15	µg/L	529.15	ppb	06:24:02
2	Cu 324.752†	81154.5	77032.0	509.52	µg/L	509.52	ppb	06:24:02
2	Mn 257.610†	161468.5	159935.7	531.56	µg/L	531.56	ppb	06:23:56
2	Mo 202.031†	5186.9	5128.8	531.05	µg/L	531.05	ppb	06:24:22
2	Ni 231.604†	10490.9	10094.9	528.17	µg/L	528.17	ppb	06:24:02
2	P 214.914†	1303.4	1261.5	2579.5	µg/L	2579.5	ppb	06:24:22
2	Pb 220.353†	2162.7	2048.5	525.45	µg/L	525.45	ppb	06:24:22

2	S 181.975 Axial†	268.0	250.0	1078.2 µg/L	1078.2 ppb	06:24:22
2	Sb 206.836†	579.1	551.7	523.52 µg/L	523.52 ppb	06:24:22
2	Se 196.026†	388.9	372.7	551.79 µg/L	551.79 ppb	06:24:22
2	SiO2†	29170.2	27337.6	5591.8 µg/L	5591.8 ppb	06:24:02
2	Si 251.611†	33556.2	32902.5	2602.2 µg/L	2602.2 ppb	06:24:02
2	Sn 189.927†	1214.2	1200.0	534.16 µg/L	534.16 ppb	06:24:22
2	Ti 334.940†	230057.7	227384.1	518.06 µg/L	518.06 ppb	06:23:56
2	Tl 190.801†	367.7	384.2	537.21 µg/L	537.21 ppb	06:24:22
2	U 409.014†	6449.3	6153.0	502.42 µg/L	502.42 ppb	06:24:02
2	V 292.402†	51955.1	51431.4	525.21 µg/L	525.21 ppb	06:24:02
2	Zn 213.857†	22355.6	21643.9	524.96 µg/L	524.96 ppb	06:24:02
3	Sc RADIAL	54896.5	54896.5	99.1 %		06:22:51
3	Al 396.153Radial†	7134.0	7182.2	5093.8 µg/L	5093.8 ppb	06:22:51
3	Ca 317.933Radial†	5734.0	5570.4	5038.4 µg/L	5038.4 ppb	06:23:11
3	Fe 238.204 Radial†	606.6	594.3	5209.1 µg/L	5209.1 ppb	06:23:11
3	K 766.490 Radial†	7772.5	7664.8	5135.9 µg/L	5135.9 ppb	06:22:51
3	Mg 279.077 IEC†	558.4	549.7	5134.7 µg/L	5134.7 ppb	06:23:11
3	Na 589.592 Radial†	33615.5	33539.2	10195 µg/L	10195 ppb	06:22:51
3	Sr 421.552†	52118.6	52567.5	508.91 µg/L	508.91 ppb	06:22:51
3	Sc 361.383	1975243.7	1975243.7	101.41 %		06:24:29
3	Y 371.029	1360445.4	1360445.4	101.73 %		06:24:29
3	Ag 328.068†	64235.6	63852.6	485.46 µg/L	485.46 ppb	06:24:35
3	As 188.979†	245.7	241.5	454.33 µg/L	454.33 ppb	06:24:56
3	B 249.677†	11796.7	11319.6	474.19 µg/L	474.19 ppb	06:24:35
3	Ba 233.527†	19027.8	18788.6	475.49 µg/L	475.49 ppb	06:24:35
3	Be 313.107†	793219.4	785821.3	486.05 µg/L	486.05 ppb	06:24:29
3	Cd 226.502†	18196.8	18066.9	481.10 µg/L	481.10 ppb	06:24:35
3	Co 228.616†	10002.4	9869.2	469.50 µg/L	469.50 ppb	06:24:35
3	Cr 267.716†	22148.4	21866.3	461.66 µg/L	461.66 ppb	06:24:35
3	Cu 324.752†	73710.7	69455.2	459.48 µg/L	459.48 ppb	06:24:35
3	Mn 257.610†	151347.9	149485.1	496.86 µg/L	496.86 ppb	06:24:29
3	Mo 202.031†	4345.8	4284.2	443.63 µg/L	443.63 ppb	06:24:56
3	Ni 231.604†	9490.8	9078.1	474.98 µg/L	474.98 ppb	06:24:35
3	P 214.914†	1111.3	1068.3	2181.0 µg/L	2181.0 ppb	06:24:56
3	Pb 220.353†	1899.2	1782.5	457.13 µg/L	457.13 ppb	06:24:56
3	S 181.975 Axial†	233.9	215.6	929.83 µg/L	929.83 ppb	06:24:56
3	Sb 206.836†	491.4	463.5	439.57 µg/L	439.57 ppb	06:24:56
3	Se 196.026†	347.6	330.9	490.71 µg/L	490.71 ppb	06:24:56
3	SiO2†	27070.6	25182.2	5150.9 µg/L	5150.9 ppb	06:24:35
3	Si 251.611†	30987.7	30271.8	2394.2 µg/L	2394.2 ppb	06:24:35
3	Sn 189.927†	1004.3	989.5	440.48 µg/L	440.48 ppb	06:24:56
3	Ti 334.940†	213948.0	210827.9	480.31 µg/L	480.31 ppb	06:24:29
3	Tl 190.801†	327.1	343.1	480.05 µg/L	480.05 ppb	06:24:56
3	U 409.014†	5746.3	5441.0	444.17 µg/L	444.17 ppb	06:24:35
3	V 292.402†	46540.1	45940.2	468.94 µg/L	468.94 ppb	06:24:35
3	Zn 213.857†	20320.4	19571.9	474.66 µg/L	474.66 ppb	06:24:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1977047.0	101.50	%	0.445				0.44%
Sc RADIAL	55115.9	99.5	%	0.57				0.57%
Y 371.029	1361079.7	101.78	%	0.384				0.38%
Ag 328.068†	66491.0	505.62	µg/L	17.516	505.62	ppb	17.516	3.46%
QC value within limits for Ag 328.068 Recovery = 101.12%								
Al 396.153Radial†	7160.8	5077.3	µg/L	15.36	5077.3	ppb	15.36	0.30%
QC value within limits for Al 396.153Radial Recovery = 101.55%								
As 188.979†	268.0	504.02	µg/L	43.342	504.02	ppb	43.342	8.60%
QC value within limits for As 188.979 Recovery = 100.80%								
B 249.677†	11853.0	496.71	µg/L	19.670	496.71	ppb	19.670	3.96%
QC value within limits for B 249.677 Recovery = 99.34%								
Ba 233.527†	19977.4	505.59	µg/L	26.102	505.59	ppb	26.102	5.16%
QC value within limits for Ba 233.527 Recovery = 101.12%								
Be 313.107†	823824.8	509.56	µg/L	20.359	509.56	ppb	20.359	4.00%
QC value within limits for Be 313.107 Recovery = 101.91%								
Ca 317.933Radial†	5548.7	5018.7	µg/L	43.46	5018.7	ppb	43.46	0.87%
QC value within limits for Ca 317.933Radial Recovery = 100.37%								
Cd 226.502†	19301.2	514.01	µg/L	28.533	514.01	ppb	28.533	5.55%
QC value within limits for Cd 226.502 Recovery = 102.80%								
Co 228.616†	10625.4	505.52	µg/L	31.262	505.52	ppb	31.262	6.18%

```
   QC value within limits for Co 228.616  Recovery = 101.10%
Cr 267.716†            23933.5      505.30 µg/L        37.849      505.30 ppb         37.849   7.49%
   QC value within limits for Cr 267.716  Recovery = 101.06%
Cu 324.752†            74332.1      491.69 µg/L        27.949      491.69 ppb         27.949   5.68%
   QC value within limits for Cu 324.752  Recovery = 98.34%
Fe 238.204 Radial†       593.0      5198.5 µg/L         23.15      5198.5 ppb          23.15   0.45%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.97%
K 766.490 Radial†       7643.1      5121.4 µg/L         23.74      5121.4 ppb          23.74   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 102.43%
Mg 279.077 IEC†          545.6      5097.4 µg/L         38.44      5097.4 ppb          38.44   0.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.95%
Mn 257.610†           156372.3      519.73 µg/L        19.809      519.73 ppb         19.809   3.81%
   QC value within limits for Mn 257.610  Recovery = 103.95%
Mo 202.031†             4864.1      503.65 µg/L        52.046      503.65 ppb         52.046  10.33%
   QC value within limits for Mo 202.031  Recovery = 100.73%
Na 589.592 Radial†     33383.0       10148 µg/L          47.4       10148 ppb           47.4   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 101.48%
Ni 231.604†             9742.6      509.74 µg/L        30.120      509.74 ppb         30.120   5.91%
   QC value within limits for Ni 231.604  Recovery = 101.95%
P 214.914†              1198.8      2450.4 µg/L        233.37      2450.4 ppb         233.37   9.52%
   QC value within limits for P 214.914  Recovery = 98.01%
Pb 220.353†             1967.9      504.76 µg/L        41.372      504.76 ppb         41.372   8.20%
   QC value within limits for Pb 220.353  Recovery = 100.95%
S 181.975 Axial†         237.4      1024.0 µg/L         81.86      1024.0 ppb          81.86   7.99%
   QC value within limits for S 181.975 Axial  Recovery = 102.40%
Sb 206.836†              519.3      492.73 µg/L        46.236      492.73 ppb         46.236   9.38%
   QC value within limits for Sb 206.836  Recovery = 98.55%
Se 196.026†              357.3      529.33 µg/L        33.592      529.33 ppb         33.592   6.35%
   QC value within limits for Se 196.026  Recovery = 105.87%
SiO2†                  26511.7      5422.9 µg/L        237.81      5422.9 ppb         237.81   4.39%
   QC value within limits for SiO2  Recovery = 101.41%
Si 251.611†            31922.7      2524.8 µg/L        113.73      2524.8 ppb         113.73   4.50%
   QC value within limits for Si 251.611  Recovery = 100.99%
Sn 189.927†             1132.6      504.16 µg/L        55.183      504.16 ppb         55.183  10.95%
   QC value within limits for Sn 189.927  Recovery = 100.83%
Sr 421.552†            52407.2      507.36 µg/L         1.596      507.36 ppb          1.596   0.31%
   QC value within limits for Sr 421.552  Recovery = 101.47%
Ti 334.940†           221716.4      505.14 µg/L        21.506      505.14 ppb         21.506   4.26%
   QC value within limits for Ti 334.940  Recovery = 101.03%
Tl 190.801†              367.6      514.17 µg/L        30.149      514.17 ppb         30.149   5.86%
   QC value within limits for Tl 190.801  Recovery = 102.83%
U 409.014†              5920.6      483.41 µg/L        33.989      483.41 ppb         33.989   7.03%
   QC value within limits for U 409.014  Recovery = 96.68%
V 292.402†             49551.0      505.96 µg/L        32.072      505.96 ppb         32.072   6.34%
   QC value within limits for V 292.402  Recovery = 101.19%
Zn 213.857†            20933.9      507.73 µg/L        28.642      507.73 ppb         28.642   5.64%
   QC value within limits for Zn 213.857  Recovery = 101.55%
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 06:25:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55360.7	55360.7	99.9	%			06:25:38
1	Al 396.153Radial†	-21.9	-38.0	-26.965	µg/L	-26.965	ppb	06:25:38
1	Ca 317.933Radial†	194.7	-20.3	-18.381	µg/L	-18.381	ppb	06:25:58
1	Fe 238.204 Radial†	16.9	-0.9	-7.5022	µg/L	-7.5022	ppb	06:25:58
1	K 766.490 Radial†	183.7	6.3	4.2002	µg/L	4.2002	ppb	06:25:38
1	Mg 279.077 IEC†	10.6	-3.1	-29.326	µg/L	-29.326	ppb	06:25:58
1	Na 589.592 Radial†	405.5	27.0	8.1961	µg/L	8.1961	ppb	06:25:38
1	Sr 421.552†	33.7	13.7	0.1324	µg/L	0.1324	ppb	06:25:38
1	Sc 361.383	1972849.1	1972849.1	101.29	%			06:27:00
1	Y 371.029	1362526.7	1362526.7	101.88	%			06:27:00
1	Ag 328.068†	-409.9	105.5	0.7940	µg/L	0.7940	ppb	06:27:06
1	As 188.979†	-3.4	-4.1	-7.7907	µg/L	-7.7907	ppb	06:27:26
1	B 249.677†	358.2	40.6	1.7098	µg/L	1.7098	ppb	06:27:26
1	Ba 233.527†	-9.2	16.3	0.4114	µg/L	0.4114	ppb	06:27:26
1	Be 313.107†	-3596.6	82.0	0.0507	µg/L	0.0507	ppb	06:27:06
1	Cd 226.502†	-124.7	0.1	0.0054	µg/L	0.0054	ppb	06:27:26
1	Co 228.616†	-3.0	2.9	0.1355	µg/L	0.1355	ppb	06:27:26
1	Cr 267.716†	-42.6	-16.2	-0.3411	µg/L	-0.3411	ppb	06:27:06
1	Cu 324.752†	3347.2	74.1	0.4886	µg/L	0.4886	ppb	06:27:06
1	Mn 257.610†	-172.3	71.8	0.2386	µg/L	0.2386	ppb	06:27:26
1	Mo 202.031†	0.4	-0.7	-0.0756	µg/L	-0.0756	ppb	06:27:26
1	Ni 231.604†	294.6	10.1	0.5308	µg/L	0.5308	ppb	06:27:26
1	P 214.914†	14.4	-13.3	-27.784	µg/L	-27.784	ppb	06:27:26
1	Pb 220.353†	90.5	-1.1	-0.2707	µg/L	-0.2707	ppb	06:27:26
1	S 181.975 Axial†	16.2	0.9	3.9406	µg/L	3.9406	ppb	06:27:26
1	Sb 206.836†	22.8	1.4	1.3231	µg/L	1.3231	ppb	06:27:26
1	Se 196.026†	21.6	9.3	13.636	µg/L	13.636	ppb	06:27:26
1	SiO2†	1689.3	155.9	31.881	µg/L	31.881	ppb	06:27:06
1	Si 251.611†	386.7	96.9	7.6662	µg/L	7.6662	ppb	06:27:26
1	Sn 189.927†	2.4	1.5	0.6612	µg/L	0.6612	ppb	06:27:26
1	Ti 334.940†	245.4	97.5	0.2243	µg/L	0.2243	ppb	06:27:06
1	Tl 190.801†	-20.2	0.6	0.8675	µg/L	0.8675	ppb	06:27:26
1	U 409.014†	156.9	-70.5	-5.7648	µg/L	-5.7648	ppb	06:27:06
1	V 292.402†	-83.1	-34.7	-0.3586	µg/L	-0.3586	ppb	06:27:06
1	Zn 213.857†	483.7	11.6	0.2819	µg/L	0.2819	ppb	06:27:26
2	Sc RADIAL	54856.9	54856.9	99.0	%			06:26:04
2	Al 396.153Radial†	-18.8	-35.0	-24.854	µg/L	-24.854	ppb	06:26:04
2	Ca 317.933Radial†	193.1	-20.2	-18.260	µg/L	-18.260	ppb	06:26:24
2	Fe 238.204 Radial†	15.0	-2.7	-23.193	µg/L	-23.193	ppb	06:26:24
2	K 766.490 Radial†	237.2	61.9	41.482	µg/L	41.482	ppb	06:26:04
2	Mg 279.077 IEC†	9.1	-4.6	-42.907	µg/L	-42.907	ppb	06:26:24
2	Na 589.592 Radial†	414.8	40.2	12.209	µg/L	12.209	ppb	06:26:04
2	Sr 421.552†	41.4	21.8	0.2108	µg/L	0.2108	ppb	06:26:04
2	Sc 361.383	1973576.4	1973576.4	101.32	%			06:27:32
2	Y 371.029	1362362.0	1362362.0	101.87	%			06:27:32
2	Ag 328.068†	-420.9	94.9	0.7122	µg/L	0.7122	ppb	06:27:38
2	As 188.979†	0.7	-0.1	-0.1486	µg/L	-0.1486	ppb	06:27:58
2	B 249.677†	350.2	32.5	1.3785	µg/L	1.3785	ppb	06:27:58
2	Ba 233.527†	-5.0	20.4	0.5156	µg/L	0.5156	ppb	06:27:58
2	Be 313.107†	-3458.6	219.5	0.1357	µg/L	0.1357	ppb	06:27:38
2	Cd 226.502†	-133.0	-8.0	-0.2098	µg/L	-0.2098	ppb	06:27:58
2	Co 228.616†	4.2	10.0	0.4762	µg/L	0.4762	ppb	06:27:58
2	Cr 267.716†	-58.1	-31.5	-0.6641	µg/L	-0.6641	ppb	06:27:38
2	Cu 324.752†	3339.1	64.9	0.4256	µg/L	0.4256	ppb	06:27:38
2	Mn 257.610†	-168.5	75.7	0.2500	µg/L	0.2500	ppb	06:27:58
2	Mo 202.031†	5.7	4.5	0.4678	µg/L	0.4678	ppb	06:27:58
2	Ni 231.604†	300.2	15.6	0.8156	µg/L	0.8156	ppb	06:27:58
2	P 214.914†	20.8	-7.1	-14.747	µg/L	-14.747	ppb	06:27:58
2	Pb 220.353†	95.4	3.7	0.9629	µg/L	0.9629	ppb	06:27:58

2	S 181.975 Axial†	13.0	-2.3	-9.7235 µg/L	-9.7235 ppb	06:27:58
2	Sb 206.836†	23.9	2.5	2.3780 µg/L	2.3780 ppb	06:27:58
2	Se 196.026†	16.5	4.3	6.2817 µg/L	6.2817 ppb	06:27:58
2	SiO2†	1708.0	173.7	35.529 µg/L	35.529 ppb	06:27:38
2	Si 251.611†	391.5	101.5	8.0287 µg/L	8.0287 ppb	06:27:58
2	Sn 189.927†	-0.7	-1.5	-0.6800 µg/L	-0.6800 ppb	06:27:58
2	Ti 334.940†	298.1	149.4	0.3437 µg/L	0.3437 ppb	06:27:38
2	Tl 190.801†	-22.2	-1.3	-1.8493 µg/L	-1.8493 ppb	06:27:58
2	U 409.014†	193.4	-34.5	-2.8147 µg/L	-2.8147 ppb	06:27:38
2	V 292.402†	-85.7	-37.2	-0.3790 µg/L	-0.3790 ppb	06:27:38
2	Zn 213.857†	498.1	25.7	0.6261 µg/L	0.6261 ppb	06:27:58
3	Sc RADIAL	55175.7	55175.7	99.6 %		06:26:30
3	Al 396.153Radial†	-29.1	-45.2	-32.105 µg/L	-32.105 ppb	06:26:30
3	Ca 317.933Radial†	184.5	-30.0	-27.102 µg/L	-27.102 ppb	06:26:50
3	Fe 238.204 Radial†	16.1	-1.6	-14.160 µg/L	-14.160 ppb	06:26:50
3	K 766.490 Radial†	206.3	29.5	19.775 µg/L	19.775 ppb	06:26:30
3	Mg 279.077 IEC†	11.8	-1.9	-18.007 µg/L	-18.007 ppb	06:26:50
3	Na 589.592 Radial†	376.4	-0.8	-0.2478 µg/L	-0.2478 ppb	06:26:30
3	Sr 421.552†	62.2	42.4	0.4106 µg/L	0.4106 ppb	06:26:30
3	Sc 361.383	1972601.3	1972601.3	101.27 %		06:28:04
3	Y 371.029	1362903.9	1362903.9	101.91 %		06:28:04
3	Ag 328.068†	-393.5	121.8	0.9194 µg/L	0.9194 ppb	06:28:10
3	As 188.979†	-2.8	-3.6	-6.7302 µg/L	-6.7302 ppb	06:28:30
3	B 249.677†	353.5	36.0	1.5206 µg/L	1.5206 ppb	06:28:30
3	Ba 233.527†	-0.9	24.6	0.6208 µg/L	0.6208 ppb	06:28:30
3	Be 313.107†	-3381.1	294.4	0.1820 µg/L	0.1820 ppb	06:28:10
3	Cd 226.502†	-132.5	-7.6	-0.2002 µg/L	-0.2002 ppb	06:28:30
3	Co 228.616†	5.4	11.2	0.5311 µg/L	0.5311 ppb	06:28:30
3	Cr 267.716†	-55.5	-28.9	-0.6094 µg/L	-0.6094 ppb	06:28:10
3	Cu 324.752†	3349.3	76.7	0.5043 µg/L	0.5043 ppb	06:28:10
3	Mn 257.610†	-173.4	70.7	0.2336 µg/L	0.2336 ppb	06:28:30
3	Mo 202.031†	-4.8	-5.9	-0.6087 µg/L	-0.6087 ppb	06:28:30
3	Ni 231.604†	294.5	10.1	0.5283 µg/L	0.5283 ppb	06:28:30
3	P 214.914†	11.4	-16.3	-33.929 µg/L	-33.929 ppb	06:28:30
3	Pb 220.353†	90.8	-0.8	-0.2024 µg/L	-0.2024 ppb	06:28:30
3	S 181.975 Axial†	14.6	-0.6	-2.7360 µg/L	-2.7360 ppb	06:28:30
3	Sb 206.836†	19.0	-2.3	-2.2123 µg/L	-2.2123 ppb	06:28:30
3	Se 196.026†	18.2	6.0	8.7606 µg/L	8.7606 ppb	06:28:30
3	SiO2†	1726.4	192.8	39.427 µg/L	39.427 ppb	06:28:10
3	Si 251.611†	416.2	126.0	9.9672 µg/L	9.9672 ppb	06:28:30
3	Sn 189.927†	3.8	2.9	1.3111 µg/L	1.3111 ppb	06:28:30
3	Ti 334.940†	353.1	203.9	0.4658 µg/L	0.4658 ppb	06:28:10
3	Tl 190.801†	-21.6	-0.7	-0.9744 µg/L	-0.9744 ppb	06:28:30
3	U 409.014†	263.3	34.6	2.8355 µg/L	2.8355 ppb	06:28:10
3	V 292.402†	-32.1	15.7	0.1530 µg/L	0.1530 ppb	06:28:10
3	Zn 213.857†	492.6	20.5	0.4985 µg/L	0.4985 ppb	06:28:30

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1973009.0	101.30	%	0.026				0.03%
Sc RADIAL	55131.1	99.5	%	0.46				0.46%
Y 371.029	1362597.5	101.89	%	0.021				0.02%
Ag 328.068†	107.4	0.8086	µg/L	0.10436	0.8086	ppb	0.10436	12.91%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-39.4	-27.975	µg/L	3.7297	-27.975	ppb	3.7297	13.33%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-4.8898	µg/L	4.14015	-4.8898	ppb	4.14015	84.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	36.4	1.5363	µg/L	0.16617	1.5363	ppb	0.16617	10.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.4	0.5159	µg/L	0.10470	0.5159	ppb	0.10470	20.29%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	198.6	0.1228	µg/L	0.06659	0.1228	ppb	0.06659	54.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-23.5	-21.248	µg/L	5.0701	-21.248	ppb	5.0701	23.86%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.2	-0.1349	µg/L	0.12155	-0.1349	ppb	0.12155	90.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	8.0	0.3809	µg/L	0.21429	0.3809	ppb	0.21429	56.25%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -25.5     -0.5382 µg/L       0.17287     -0.5382 ppb        0.17287  32.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               71.9      0.4728 µg/L       0.04163      0.4728 ppb        0.04163   8.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.7     -14.952 µg/L        7.8752     -14.952 ppb         7.8752  52.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         32.6      21.819 µg/L       18.7248      21.819 ppb        18.7248  85.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.2     -30.080 µg/L       12.4669     -30.080 ppb        12.4669  41.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               72.7      0.2407 µg/L       0.00840      0.2407 ppb        0.00840   3.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.7     -0.0722 µg/L       0.53824     -0.0722 ppb        0.53824 745.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        22.1      6.7192 µg/L       6.35847      6.7192 ppb        6.35847  94.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               11.9      0.6249 µg/L       0.16517      0.6249 ppb        0.16517  26.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.2     -25.487 µg/L        9.7954     -25.487 ppb         9.7954  38.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                0.6      0.1633 µg/L       0.69335      0.1633 ppb        0.69335 424.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.7     -2.8396 µg/L       6.83263     -2.8396 ppb        6.83263 240.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.5      0.4962 µg/L       2.40425      0.4962 ppb        2.40425 484.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                6.6      9.5595 µg/L       3.74184      9.5595 ppb        3.74184  39.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    174.1     35.612 µg/L        3.7733     35.612 ppb         3.7733  10.60%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              108.2      8.5540 µg/L       1.23717      8.5540 ppb        1.23717  14.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.0      0.4308 µg/L       1.01533      0.4308 ppb        1.01533 235.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               26.0      0.2513 µg/L       0.14344      0.2513 ppb        0.14344  57.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              150.2      0.3446 µg/L       0.12076      0.3446 ppb        0.12076  35.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.5     -0.6521 µg/L       1.38677     -0.6521 ppb        1.38677 212.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -23.4     -1.9147 µg/L       4.37018     -1.9147 ppb        4.37018 228.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -18.8     -0.1948 µg/L       0.30144     -0.1948 ppb        0.30144 154.72%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               19.2      0.4689 µg/L       0.17399      0.4689 ppb        0.17399  37.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 41
Sample ID: 246066004|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 331
Date Collected: 2/24/2010 06:28:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066004|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55843.9	55843.9	101	%			06:29:24
1	Al 396.153Radial†	443510.1	439892.9	312540	µg/L	312540	ppb	06:29:19
1	Ca 317.933Radial†	54145.6	53490.8	48381	µg/L	48381	ppb	06:29:24
1	Fe 238.204 Radial†	29965.1	29704.0	259880	µg/L	259880	ppb	06:29:24
1	K 766.490 Radial†	47306.4	46744.7	31322	µg/L	31322	ppb	06:29:19
1	Mg 279.077 IEC†	4838.0	4784.9	44400	µg/L	44400	ppb	06:29:24
1	Na 589.592 Radial†	13029.4	12544.9	3813.5	µg/L	3813.5	ppb	06:29:24
1	Sr 421.552†	62661.3	62132.5	601.51	µg/L	601.51	ppb	06:29:19
1	Sc 361.383	2003773.9	2003773.9	102.88	%			06:30:00
1	Y 371.029	1479102.4	1479102.4	110.60	%			06:30:00
1	Ag 328.068†	-3504.0	-2895.8	-2.5956	µg/L	-2.5956	ppb	06:30:06
1	As 188.979†	36.9	35.0	78.591	µg/L	78.591	ppb	06:30:26
1	B 249.677†	1843.7	1479.1	-73.053	µg/L	-73.053	ppb	06:30:06
1	Ba 233.527†	147331.3	143239.2	3619.4	µg/L	3619.4	ppb	06:30:06
1	Be 313.107†	43420.3	45839.7	25.433	µg/L	25.433	ppb	06:30:06
1	Cd 226.502†	757.1	859.2	-6.3287	µg/L	-6.3287	ppb	06:30:26
1	Co 228.616†	2265.3	2207.8	89.108	µg/L	89.108	ppb	06:30:26
1	Cr 267.716†	10066.8	9811.4	207.29	µg/L	207.29	ppb	06:30:06
1	Cu 324.752†	22403.3	18546.7	158.62	µg/L	158.62	ppb	06:30:06
1	Mn 257.610†	1600768.2	1556273.7	5200.4	µg/L	5200.4	ppb	06:30:00
1	Mo 202.031†	-27.7	-28.0	6.9742	µg/L	6.9742	ppb	06:30:26
1	Ni 231.604†	3303.2	2930.2	156.72	µg/L	156.72	ppb	06:30:26
1	P 214.914†	797.7	747.9	1423.7	µg/L	1423.7	ppb	06:30:26
1	Pb 220.353†	1065.1	945.0	249.46	µg/L	249.46	ppb	06:30:26
1	S 181.975 Axial†	246.0	224.1	966.49	µg/L	966.49	ppb	06:30:26
1	Sb 206.836†	41.9	19.7	11.982	µg/L	11.982	ppb	06:30:26
1	Se 196.026†	-107.2	-116.2	487.77	µg/L	487.77	ppb	06:30:26
1	SiO2†	56931.1	53828.1	11010	µg/L	11010	ppb	06:30:06
1	Si 251.611†	66847.6	64694.5	5116.7	µg/L	5116.7	ppb	06:30:06
1	Sn 189.927†	-50.0	-49.5	-44.715	µg/L	-44.715	ppb	06:30:26
1	Ti 334.940†	3471175.8	3374022.6	7689.2	µg/L	7689.2	ppb	06:30:00
1	Tl 190.801†	-105.6	-82.1	32.218	µg/L	32.218	ppb	06:30:26
1	U 409.014†	-665.1	-871.9	-110.42	µg/L	-110.42	ppb	06:30:06
1	V 292.402†	44704.5	43502.5	469.76	µg/L	469.76	ppb	06:30:06
1	Zn 213.857†	21449.3	20383.9	482.12	µg/L	482.12	ppb	06:30:06
2	Sc RADIAL	55895.5	55895.5	101	%			06:29:35
2	Al 396.153Radial†	443420.7	439398.7	312190	µg/L	312190	ppb	06:29:30
2	Ca 317.933Radial†	54052.1	53348.6	48253	µg/L	48253	ppb	06:29:35
2	Fe 238.204 Radial†	29854.1	29566.6	258670	µg/L	258670	ppb	06:29:35
2	K 766.490 Radial†	47400.3	46794.5	31355	µg/L	31355	ppb	06:29:30
2	Mg 279.077 IEC†	4806.1	4748.9	44065	µg/L	44065	ppb	06:29:35
2	Na 589.592 Radial†	13010.5	12514.3	3804.1	µg/L	3804.1	ppb	06:29:35
2	Sr 421.552†	62786.6	62199.3	602.16	µg/L	602.16	ppb	06:29:30
2	Sc 361.383	1982880.6	1982880.6	101.80	%			06:30:34
2	Y 371.029	1463002.9	1463002.9	109.40	%			06:30:34
2	Ag 328.068†	-3498.4	-2926.2	-2.8778	µg/L	-2.8778	ppb	06:30:40
2	As 188.979†	30.5	29.2	67.451	µg/L	67.451	ppb	06:31:01
2	B 249.677†	1849.4	1503.6	-71.391	µg/L	-71.391	ppb	06:30:40
2	Ba 233.527†	147242.4	144661.0	3655.3	µg/L	3655.3	ppb	06:30:40
2	Be 313.107†	43215.6	46083.4	25.582	µg/L	25.582	ppb	06:30:40
2	Cd 226.502†	773.8	883.3	-5.5485	µg/L	-5.5485	ppb	06:31:01
2	Co 228.616†	2278.6	2244.1	90.827	µg/L	90.827	ppb	06:31:01
2	Cr 267.716†	10028.6	9877.0	208.68	µg/L	208.68	ppb	06:30:40
2	Cu 324.752†	22454.9	18826.8	160.31	µg/L	160.31	ppb	06:30:40
2	Mn 257.610†	1584720.9	1556906.2	5202.4	µg/L	5202.4	ppb	06:30:34
2	Mo 202.031†	-21.6	-22.4	7.5154	µg/L	7.5154	ppb	06:31:01
2	Ni 231.604†	3309.3	2970.0	158.79	µg/L	158.79	ppb	06:31:01
2	P 214.914†	803.7	761.9	1453.6	µg/L	1453.6	ppb	06:31:01
2	Pb 220.353†	1059.1	950.0	250.77	µg/L	250.77	ppb	06:31:01

2	S 181.975 Axial†	247.7	228.3	984.53 µg/L	984.53 ppb	06:31:01
2	Sb 206.836†	38.2	16.5	8.9937 µg/L	8.9937 ppb	06:31:01
2	Se 196.026†	-100.8	-110.9	492.41 µg/L	492.41 ppb	06:31:01
2	SiO2†	56555.9	54042.6	11054 µg/L	11054 ppb	06:30:40
2	Si 251.611†	66290.6	64832.1	5127.5 µg/L	5127.5 ppb	06:30:40
2	Sn 189.927†	-58.6	-58.4	-48.593 µg/L	-48.593 ppb	06:31:01
2	Ti 334.940†	3437167.6	3376169.5	7694.1 µg/L	7694.1 ppb	06:30:34
2	Tl 190.801†	-100.5	-78.1	37.610 µg/L	37.610 ppb	06:31:01
2	U 409.014†	-596.3	-811.1	-105.27 µg/L	-105.27 ppb	06:30:40
2	V 292.402†	44590.7	43848.6	473.12 µg/L	473.12 ppb	06:30:40
2	Zn 213.857†	21393.6	20548.9	486.22 µg/L	486.22 ppb	06:30:40
3	Sc RADIAL	55791.8	55791.8	101 %		06:29:46
3	Al 396.153Radial†	442569.4	439369.8	312170 µg/L	312170 ppb	06:29:41
3	Ca 317.933Radial†	53975.9	53372.5	48274 µg/L	48274 ppb	06:29:46
3	Fe 238.204 Radial†	29829.4	29597.0	258940 µg/L	258940 ppb	06:29:46
3	K 766.490 Radial†	47358.2	46839.9	31386 µg/L	31386 ppb	06:29:41
3	Mg 279.077 IEC†	4818.1	4769.7	44259 µg/L	44259 ppb	06:29:46
3	Na 589.592 Radial†	13036.9	12564.4	3819.4 µg/L	3819.4 ppb	06:29:46
3	Sr 421.552†	62599.0	62128.7	601.48 µg/L	601.48 ppb	06:29:41
3	Sc 361.383	1989667.6	1989667.6	102.15 %		06:31:09
3	Y 371.029	1469455.1	1469455.1	109.88 %		06:31:09
3	Ag 328.068†	-3521.9	-2937.5	-2.9246 µg/L	-2.9246 ppb	06:31:15
3	As 188.979†	40.0	38.4	84.846 µg/L	84.846 ppb	06:31:36
3	B 249.677†	1823.6	1472.1	-72.851 µg/L	-72.851 ppb	06:31:15
3	Ba 233.527†	148548.6	145446.3	3675.2 µg/L	3675.2 ppb	06:31:15
3	Be 313.107†	43721.0	46433.4	25.792 µg/L	25.792 ppb	06:31:15
3	Cd 226.502†	771.7	878.7	-5.7015 µg/L	-5.7015 ppb	06:31:36
3	Co 228.616†	2305.6	2262.9	91.683 µg/L	91.683 ppb	06:31:36
3	Cr 267.716†	10177.5	9989.1	211.05 µg/L	211.05 ppb	06:31:15
3	Cu 324.752†	22622.5	18915.7	160.93 µg/L	160.93 ppb	06:31:15
3	Mn 257.610†	1595012.6	1561671.3	5218.2 µg/L	5218.2 ppb	06:31:09
3	Mo 202.031†	-16.2	-16.9	8.0875 µg/L	8.0875 ppb	06:31:36
3	Ni 231.604†	3318.1	2967.5	158.67 µg/L	158.67 ppb	06:31:36
3	P 214.914†	804.9	760.4	1450.3 µg/L	1450.3 ppb	06:31:36
3	Pb 220.353†	1076.2	963.1	254.13 µg/L	254.13 ppb	06:31:36
3	S 181.975 Axial†	251.2	230.9	995.83 µg/L	995.83 ppb	06:31:36
3	Sb 206.836†	51.2	29.1	20.863 µg/L	20.863 ppb	06:31:36
3	Se 196.026†	-96.8	-106.7	499.10 µg/L	499.10 ppb	06:31:36
3	SiO2†	56950.9	54239.8	11095 µg/L	11095 ppb	06:31:15
3	Si 251.611†	66697.1	65007.8	5141.4 µg/L	5141.4 ppb	06:31:15
3	Sn 189.927†	-45.1	-45.0	-42.645 µg/L	-42.645 ppb	06:31:36
3	Ti 334.940†	3457420.4	3384479.0	7713.0 µg/L	7713.0 ppb	06:31:09
3	Tl 190.801†	-97.2	-74.5	42.774 µg/L	42.774 ppb	06:31:36
3	U 409.014†	-640.0	-851.9	-108.64 µg/L	-108.64 ppb	06:31:15
3	V 292.402†	45068.8	44167.2	476.37 µg/L	476.37 ppb	06:31:15
3	Zn 213.857†	21585.1	20664.7	489.02 µg/L	489.02 ppb	06:31:15

Mean Data: 246066004|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992107.4	102.28	%	0.547				0.54%
Sc RADIAL	55843.7	101	%	0.1				0.09%
Y 371.029	1470520.2	109.96	%	0.606				0.55%
Ag 328.068†	-2919.8	-2.7993	µg/L	0.17798	-2.7993	ppb	0.17798	6.36%
Al 396.153Radial†	439553.8	312300	µg/L	208.9	312300	ppb	208.9	0.07%
As 188.979†	34.2	76.962	µg/L	8.8111	76.962	ppb	8.8111	11.45%
B 249.677†	1484.9	-72.432	µg/L	0.9067	-72.432	ppb	0.9067	1.25%
Ba 233.527†	144448.9	3650.0	µg/L	28.27	3650.0	ppb	28.27	0.77%
Be 313.107†	46118.8	25.602	µg/L	0.1800	25.602	ppb	0.1800	0.70%
Ca 317.933Radial†	53404.0	48303	µg/L	68.9	48303	ppb	68.9	0.14%
Cd 226.502†	873.7	-5.8596	µg/L	0.41345	-5.8596	ppb	0.41345	7.06%
Co 228.616†	2238.2	90.540	µg/L	1.3114	90.540	ppb	1.3114	1.45%
Cr 267.716†	9892.5	209.01	µg/L	1.899	209.01	ppb	1.899	0.91%
Cu 324.752†	18763.0	159.95	µg/L	1.194	159.95	ppb	1.194	0.75%
Fe 238.204 Radial†	29622.5	259160	µg/L	631.4	259160	ppb	631.4	0.24%
K 766.490 Radial†	46793.1	31354	µg/L	31.9	31354	ppb	31.9	0.10%
Mg 279.077 IEC†	4767.8	44242	µg/L	168.3	44242	ppb	168.3	0.38%
Mn 257.610†	1558283.7	5207.0	µg/L	9.76	5207.0	ppb	9.76	0.19%
Mo 202.031†	-22.4	7.5257	µg/L	0.55671	7.5257	ppb	0.55671	7.40%
Na 589.592 Radial†	12541.2	3812.3	µg/L	7.68	3812.3	ppb	7.68	0.20%

Ni 231.604†	2955.9	158.06 µg/L	1.160	158.06 ppb	1.160	0.73%
P 214.914†	756.7	1442.6 µg/L	16.37	1442.6 ppb	16.37	1.14%
Pb 220.353†	952.7	251.45 µg/L	2.410	251.45 ppb	2.410	0.96%
S 181.975 Axial†	227.7	982.28 µg/L	14.797	982.28 ppb	14.797	1.51%
Sb 206.836†	21.7	13.946 µg/L	6.1739	13.946 ppb	6.1739	44.27%
Se 196.026†	-111.3	493.09 µg/L	5.695	493.09 ppb	5.695	1.16%
SiO2†	54036.8	11053 µg/L	42.1	11053 ppb	42.1	0.38%
Si 251.611†	64844.8	5128.5 µg/L	12.42	5128.5 ppb	12.42	0.24%
Sn 189.927†	-50.9	-45.318 µg/L	3.0192	-45.318 ppb	3.0192	6.66%
Sr 421.552†	62153.5	601.72 µg/L	0.385	601.72 ppb	0.385	0.06%
Ti 334.940†	3378223.7	7698.8 µg/L	12.59	7698.8 ppb	12.59	0.16%
Tl 190.801†	-78.2	37.534 µg/L	5.2783	37.534 ppb	5.2783	14.06%
U 409.014†	-845.0	-108.11 µg/L	2.616	-108.11 ppb	2.616	2.42%
V 292.402†	43839.4	473.08 µg/L	3.307	473.08 ppb	3.307	0.70%
Zn 213.857†	20532.5	485.79 µg/L	3.469	485.79 ppb	3.469	0.71%

Sequence No.: 42
Sample ID: 246066005|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 332
Date Collected: 2/24/2010 06:31:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066005|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55426.5	55426.5	100	%			06:32:18
1	Al 396.153Radial†	48961.1	48913.3	34753	µg/L	34753	ppb	06:32:18
1	Ca 317.933Radial†	35467.7	35229.5	31864	µg/L	31864	ppb	06:32:18
1	Fe 238.204 Radial†	9475.8	9451.9	82693	µg/L	82693	ppb	06:32:38
1	K 766.490 Radial†	12200.1	12014.6	8050.6	µg/L	8050.6	ppb	06:32:18
1	Mg 279.077 IEC†	1050.6	1036.2	9586.6	µg/L	9586.6	ppb	06:32:38
1	Na 589.592 Radial†	1764.8	1385.0	421.01	µg/L	421.01	ppb	06:32:18
1	Sr 421.552†	15911.8	15881.4	153.75	µg/L	153.75	ppb	06:32:18
1	Sc 361.383	1937816.9	1937816.9	99.489	%			06:33:42
1	Y 371.029	1369814.3	1369814.3	102.43	%			06:33:42
1	Ag 328.068†	-1396.8	-893.7	-0.5595	µg/L	-0.5595	ppb	06:33:48
1	As 188.979†	6.2	5.4	13.340	µg/L	13.340	ppb	06:34:08
1	B 249.677†	922.5	614.1	-17.190	µg/L	-17.190	ppb	06:33:48
1	Ba 233.527†	30436.1	30617.9	773.76	µg/L	773.76	ppb	06:33:48
1	Be 313.107†	6145.0	9809.5	4.8887	µg/L	4.8887	ppb	06:33:48
1	Cd 226.502†	157.9	281.9	-1.7860	µg/L	-1.7860	ppb	06:34:08
1	Co 228.616†	757.5	767.2	30.076	µg/L	30.076	ppb	06:34:08
1	Cr 267.716†	3658.5	3703.2	78.230	µg/L	78.230	ppb	06:33:48
1	Cu 324.752†	10607.9	7431.9	60.582	µg/L	60.582	ppb	06:33:48
1	Mn 257.610†	729128.0	733116.8	2445.0	µg/L	2445.0	ppb	06:33:42
1	Mo 202.031†	9.9	8.9	4.0585	µg/L	4.0585	ppb	06:34:08
1	Ni 231.604†	1213.8	939.4	50.231	µg/L	50.231	ppb	06:34:08
1	P 214.914†	878.6	855.6	1719.9	µg/L	1719.9	ppb	06:34:08
1	Pb 220.353†	462.6	374.6	94.736	µg/L	94.736	ppb	06:34:08
1	S 181.975 Axial†	142.8	128.4	553.91	µg/L	553.91	ppb	06:34:08
1	Sb 206.836†	27.9	7.0	2.9814	µg/L	2.9814	ppb	06:34:08
1	Se 196.026†	-35.1	-47.2	139.74	µg/L	139.74	ppb	06:34:08
1	SiO2†	59977.5	58773.7	12022	µg/L	12022	ppb	06:33:48
1	Si 251.611†	70292.9	70369.2	5565.5	µg/L	5565.5	ppb	06:33:48
1	Sn 189.927†	-23.4	-24.4	-18.711	µg/L	-18.711	ppb	06:34:08
1	Ti 334.940†	1352889.5	1359696.7	3099.5	µg/L	3099.5	ppb	06:33:42
1	Tl 190.801†	-48.5	-28.1	9.3226	µg/L	9.3226	ppb	06:34:08
1	U 409.014†	207.2	-17.1	-14.840	µg/L	-14.840	ppb	06:33:48
1	V 292.402†	14575.1	14697.3	158.16	µg/L	158.16	ppb	06:33:48
1	Zn 213.857†	10249.8	9836.6	235.48	µg/L	235.48	ppb	06:33:48
2	Sc RADIAL	56081.9	56081.9	101	%			06:32:44
2	Al 396.153Radial†	49564.1	48937.0	34770	µg/L	34770	ppb	06:32:44
2	Ca 317.933Radial†	35877.5	35220.0	31856	µg/L	31856	ppb	06:32:44
2	Fe 238.204 Radial†	9560.2	9424.6	82455	µg/L	82455	ppb	06:33:04
2	K 766.490 Radial†	12266.4	11937.6	7999.0	µg/L	7999.0	ppb	06:32:44
2	Mg 279.077 IEC†	1054.1	1027.4	9504.5	µg/L	9504.5	ppb	06:33:04
2	Na 589.592 Radial†	1791.3	1390.5	422.69	µg/L	422.69	ppb	06:32:44
2	Sr 421.552†	16125.5	15906.6	153.99	µg/L	153.99	ppb	06:32:44
2	Sc 361.383	1953092.0	1953092.0	100.27	%			06:34:15
2	Y 371.029	1380335.0	1380335.0	103.22	%			06:34:15
2	Ag 328.068†	-1403.0	-888.9	-0.5435	µg/L	-0.5435	ppb	06:34:21
2	As 188.979†	8.1	7.3	16.894	µg/L	16.894	ppb	06:34:41
2	B 249.677†	935.7	620.1	-16.814	µg/L	-16.814	ppb	06:34:21
2	Ba 233.527†	30567.9	30510.1	771.04	µg/L	771.04	ppb	06:34:21
2	Be 313.107†	6184.4	9800.4	4.8896	µg/L	4.8896	ppb	06:34:21
2	Cd 226.502†	174.2	296.9	-1.3599	µg/L	-1.3599	ppb	06:34:41
2	Co 228.616†	750.1	753.8	29.475	µg/L	29.475	ppb	06:34:41
2	Cr 267.716†	3675.5	3691.4	77.981	µg/L	77.981	ppb	06:34:21
2	Cu 324.752†	10536.5	7277.3	59.528	µg/L	59.528	ppb	06:34:21
2	Mn 257.610†	730590.5	728843.5	2430.7	µg/L	2430.7	ppb	06:34:15
2	Mo 202.031†	15.8	14.7	4.6500	µg/L	4.6500	ppb	06:34:41
2	Ni 231.604†	1211.0	927.0	49.582	µg/L	49.582	ppb	06:34:41
2	P 214.914†	863.7	833.8	1674.8	µg/L	1674.8	ppb	06:34:41
2	Pb 220.353†	457.5	365.9	92.517	µg/L	92.517	ppb	06:34:41

2	S 181.975 Axial†	147.2	131.7	568.00 µg/L	568.00 ppb	06:34:41
2	Sb 206.836†	37.9	16.7	12.197 µg/L	12.197 ppb	06:34:41
2	Se 196.026†	-30.3	-42.2	146.44 µg/L	146.44 ppb	06:34:41
2	SiO2†	59907.9	58232.8	11911 µg/L	11911 ppb	06:34:21
2	Si 251.611†	70249.7	69773.6	5518.4 µg/L	5518.4 ppb	06:34:21
2	Sn 189.927†	-28.0	-28.8	-20.661 µg/L	-20.661 ppb	06:34:41
2	Ti 334.940†	1356148.4	1352311.5	3082.7 µg/L	3082.7 ppb	06:34:15
2	Tl 190.801†	-51.0	-30.3	6.0474 µg/L	6.0474 ppb	06:34:41
2	U 409.014†	157.5	-68.3	-18.991 µg/L	-18.991 ppb	06:34:21
2	V 292.402†	14606.2	14613.7	157.29 µg/L	157.29 ppb	06:34:21
2	Zn 213.857†	10289.1	9795.2	234.49 µg/L	234.49 ppb	06:34:21
3	Sc RADIAL	55439.9	55439.9	100 %		06:33:10
3	Al 396.153Radial†	49122.5	49062.7	34859 µg/L	34859 ppb	06:33:10
3	Ca 317.933Radial†	35375.8	35129.2	31774 µg/L	31774 ppb	06:33:10
3	Fe 238.204 Radial†	9574.4	9548.1	83535 µg/L	83535 ppb	06:33:30
3	K 766.490 Radial†	12232.9	12044.4	8070.5 µg/L	8070.5 ppb	06:33:10
3	Mg 279.077 IEC†	1055.0	1040.3	9624.1 µg/L	9624.1 ppb	06:33:30
3	Na 589.592 Radial†	1806.0	1425.6	433.37 µg/L	433.37 ppb	06:33:10
3	Sr 421.552†	15983.9	15949.6	154.41 µg/L	154.41 ppb	06:33:10
3	Sc 361.383	1965224.5	1965224.5	100.90 %		06:34:48
3	Y 371.029	1387542.1	1387542.1	103.75 %		06:34:48
3	Ag 328.068†	-1356.0	-833.7	-0.1081 µg/L	-0.1081 ppb	06:34:53
3	As 188.979†	11.9	11.0	23.905 µg/L	23.905 ppb	06:35:14
3	B 249.677†	892.6	571.6	-19.426 µg/L	-19.426 ppb	06:34:53
3	Ba 233.527†	29185.7	28952.0	731.66 µg/L	731.66 ppb	06:34:53
3	Be 313.107†	5694.8	9277.2	4.5961 µg/L	4.5961 ppb	06:34:53
3	Cd 226.502†	135.5	257.5	-2.5373 µg/L	-2.5373 ppb	06:35:14
3	Co 228.616†	698.0	697.6	26.962 µg/L	26.962 ppb	06:35:14
3	Cr 267.716†	3477.3	3472.3	73.353 µg/L	73.353 ppb	06:34:53
3	Cu 324.752†	10252.0	6930.5	57.387 µg/L	57.387 ppb	06:34:53
3	Mn 257.610†	719360.9	713215.5	2379.0 µg/L	2379.0 ppb	06:34:48
3	Mo 202.031†	15.5	14.2	4.6491 µg/L	4.6491 ppb	06:35:14
3	Ni 231.604†	1137.1	846.3	45.373 µg/L	45.373 ppb	06:35:14
3	P 214.914†	805.3	770.6	1542.6 µg/L	1542.6 ppb	06:35:14
3	Pb 220.353†	435.0	340.7	86.030 µg/L	86.030 ppb	06:35:14
3	S 181.975 Axial†	131.3	115.1	496.46 µg/L	496.46 ppb	06:35:14
3	Sb 206.836†	26.1	4.8	0.9453 µg/L	0.9453 ppb	06:35:14
3	Se 196.026†	-27.9	-39.6	153.14 µg/L	153.14 ppb	06:35:14
3	SiO2†	57145.5	55126.1	11276 µg/L	11276 ppb	06:34:53
3	Si 251.611†	67004.1	66124.3	5229.7 µg/L	5229.7 ppb	06:34:53
3	Sn 189.927†	-24.6	-25.2	-19.171 µg/L	-19.171 ppb	06:35:14
3	Ti 334.940†	1329385.7	1317436.9	3003.2 µg/L	3003.2 ppb	06:34:48
3	Tl 190.801†	-48.2	-27.2	9.6084 µg/L	9.6084 ppb	06:35:14
3	U 409.014†	231.5	4.1	-13.214 µg/L	-13.214 ppb	06:34:53
3	V 292.402†	13953.9	13877.3	149.99 µg/L	149.99 ppb	06:34:53
3	Zn 213.857†	9861.3	9307.9	222.56 µg/L	222.56 ppb	06:34:53

Mean Data: 246066005|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952044.5	100.22	%	0.705				0.70%
Sc RADIAL	55649.4	100	%	0.7				0.67%
Y 371.029	1379230.5	103.13	%	0.667				0.65%
Ag 328.068†	-872.1	-0.4037	µg/L	0.25612	-0.4037	ppb	0.25612	63.44%
Al 396.153Radial†	48971.0	34794	µg/L	57.0	34794	ppb	57.0	0.16%
As 188.979†	7.9	18.047	µg/L	5.3759	18.047	ppb	5.3759	29.79%
B 249.677†	601.9	-17.810	µg/L	1.4122	-17.810	ppb	1.4122	7.93%
Ba 233.527†	30026.6	758.82	µg/L	23.559	758.82	ppb	23.559	3.10%
Be 313.107†	9629.0	4.7915	µg/L	0.16921	4.7915	ppb	0.16921	3.53%
Ca 317.933Radial†	35192.9	31831	µg/L	50.1	31831	ppb	50.1	0.16%
Cd 226.502†	278.8	-1.8944	µg/L	0.59613	-1.8944	ppb	0.59613	31.47%
Co 228.616†	739.5	28.838	µg/L	1.6522	28.838	ppb	1.6522	5.73%
Cr 267.716†	3622.3	76.521	µg/L	2.7467	76.521	ppb	2.7467	3.59%
Cu 324.752†	7213.2	59.166	µg/L	1.6279	59.166	ppb	1.6279	2.75%
Fe 238.204 Radial†	9474.9	82894	µg/L	567.6	82894	ppb	567.6	0.68%
K 766.490 Radial†	11998.9	8040.0	µg/L	36.93	8040.0	ppb	36.93	0.46%
Mg 279.077 IEC†	1034.6	9571.7	µg/L	61.18	9571.7	ppb	61.18	0.64%
Mn 257.610†	725058.6	2418.2	µg/L	34.72	2418.2	ppb	34.72	1.44%
Mo 202.031†	12.6	4.4525	µg/L	0.34120	4.4525	ppb	0.34120	7.66%
Na 589.592 Radial†	1400.4	425.69	µg/L	6.703	425.69	ppb	6.703	1.57%

Ni 231.604†	904.2	48.395	µg/L	2.6378	48.395	ppb	2.6378	5.45%
P 214.914†	820.0	1645.7	µg/L	92.17	1645.7	ppb	92.17	5.60%
Pb 220.353†	360.4	91.094	µg/L	4.5239	91.094	ppb	4.5239	4.97%
S 181.975 Axial†	125.1	539.46	µg/L	37.897	539.46	ppb	37.897	7.02%
Sb 206.836†	9.5	5.3746	µg/L	5.99558	5.3746	ppb	5.99558	111.55%
Se 196.026†	-43.0	146.44	µg/L	6.695	146.44	ppb	6.695	4.57%
SiO2†	57377.6	11736	µg/L	402.6	11736	ppb	402.6	3.43%
Si 251.611†	68755.7	5437.9	µg/L	181.77	5437.9	ppb	181.77	3.34%
Sn 189.927†	-26.2	-19.515	µg/L	1.0195	-19.515	ppb	1.0195	5.22%
Sr 421.552†	15912.6	154.05	µg/L	0.334	154.05	ppb	0.334	0.22%
Ti 334.940†	1343148.4	3061.8	µg/L	51.46	3061.8	ppb	51.46	1.68%
Tl 190.801†	-28.6	8.3262	µg/L	1.97859	8.3262	ppb	1.97859	23.76%
U 409.014†	-27.1	-15.681	µg/L	2.9789	-15.681	ppb	2.9789	19.00%
V 292.402†	14396.1	155.15	µg/L	4.491	155.15	ppb	4.491	2.89%
Zn 213.857†	9646.5	230.84	µg/L	7.196	230.84	ppb	7.196	3.12%

Sequence No.: 43
Sample ID: 246066006|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 333
Date Collected: 2/24/2010 06:35:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066006|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56013.5	56013.5	101	%			06:35:56
1	Al 396.153Radial†	195064.0	192878.5	137040	µg/L	137040	ppb	06:35:56
1	Ca 317.933Radial†	25665.1	25164.5	22761	µg/L	22761	ppb	06:36:17
1	Fe 238.204 Radial†	18376.7	18154.5	158830	µg/L	158830	ppb	06:36:17
1	K 766.490 Radial†	30626.3	30108.1	20174	µg/L	20174	ppb	06:35:56
1	Mg 279.077 IEC†	2630.8	2587.8	23993	µg/L	23993	ppb	06:36:17
1	Na 589.592 Radial†	3581.7	3163.2	961.55	µg/L	961.55	ppb	06:36:17
1	Sr 421.552†	32109.6	31732.5	307.21	µg/L	307.21	ppb	06:35:56
1	Sc 361.383	1956897.6	1956897.6	100.47	%			06:37:21
1	Y 371.029	1388360.8	1388360.8	103.82	%			06:37:21
1	Ag 328.068†	-2314.2	-1793.2	-1.4709	µg/L	-1.4709	ppb	06:37:27
1	As 188.979†	28.2	27.2	59.341	µg/L	59.341	ppb	06:37:47
1	B 249.677†	1418.1	1098.4	-36.431	µg/L	-36.431	ppb	06:37:27
1	Ba 233.527†	72140.3	71829.4	1815.2	µg/L	1815.2	ppb	06:37:27
1	Be 313.107†	20874.6	24410.2	12.792	µg/L	12.792	ppb	06:37:27
1	Cd 226.502†	429.1	550.3	-3.1885	µg/L	-3.1885	ppb	06:37:27
1	Co 228.616†	1672.8	1670.8	66.920	µg/L	66.920	ppb	06:37:47
1	Cr 267.716†	7116.5	7109.3	150.20	µg/L	150.20	ppb	06:37:27
1	Cu 324.752†	13863.7	10568.5	91.883	µg/L	91.883	ppb	06:37:27
1	Mn 257.610†	1221439.1	1215986.9	4057.9	µg/L	4057.9	ppb	06:37:21
1	Mo 202.031†	-16.1	-17.1	4.2665	µg/L	4.2665	ppb	06:37:47
1	Ni 231.604†	2232.9	1941.7	103.67	µg/L	103.67	ppb	06:37:47
1	P 214.914†	551.7	521.6	989.37	µg/L	989.37	ppb	06:37:47
1	Pb 220.353†	706.0	612.3	158.44	µg/L	158.44	ppb	06:37:47
1	S 181.975 Axial†	230.2	214.1	923.37	µg/L	923.37	ppb	06:37:47
1	Sb 206.836†	37.4	16.2	11.585	µg/L	11.585	ppb	06:37:47
1	Se 196.026†	-63.6	-75.2	296.61	µg/L	296.61	ppb	06:37:47
1	SiO2†	102384.0	100394.8	20535	µg/L	20535	ppb	06:37:27
1	Si 251.611†	121881.5	121028.4	9572.1	µg/L	9572.1	ppb	06:37:27
1	Sn 189.927†	-57.7	-58.3	-40.149	µg/L	-40.149	ppb	06:37:47
1	Ti 334.940†	2674791.0	2662176.6	6067.6	µg/L	6067.6	ppb	06:37:21
1	Tl 190.801†	-79.3	-58.3	20.040	µg/L	20.040	ppb	06:37:47
1	U 409.014†	-746.3	-968.1	-102.68	µg/L	-102.68	ppb	06:37:21
1	V 292.402†	31061.5	30964.0	331.26	µg/L	331.26	ppb	06:37:27
1	Zn 213.857†	13237.0	12709.4	300.95	µg/L	300.95	ppb	06:37:27
2	Sc RADIAL	56227.2	56227.2	102	%			06:36:22
2	Al 396.153Radial†	196920.8	193974.3	137820	µg/L	137820	ppb	06:36:22
2	Ca 317.933Radial†	25590.6	24994.6	22607	µg/L	22607	ppb	06:36:43
2	Fe 238.204 Radial†	18275.0	17985.2	157350	µg/L	157350	ppb	06:36:43
2	K 766.490 Radial†	30819.2	30183.0	20225	µg/L	20225	ppb	06:36:22
2	Mg 279.077 IEC†	2636.9	2583.9	23958	µg/L	23958	ppb	06:36:43
2	Na 589.592 Radial†	3589.3	3157.2	959.73	µg/L	959.73	ppb	06:36:43
2	Sr 421.552†	32433.5	31930.8	309.13	µg/L	309.13	ppb	06:36:22
2	Sc 361.383	1958690.3	1958690.3	100.56	%			06:37:55
2	Y 371.029	1389569.5	1389569.5	103.91	%			06:37:55
2	Ag 328.068†	-2275.7	-1752.8	-1.2474	µg/L	-1.2474	ppb	06:38:00
2	As 188.979†	15.4	14.5	35.347	µg/L	35.347	ppb	06:38:21
2	B 249.677†	1393.1	1072.2	-36.760	µg/L	-36.760	ppb	06:38:00
2	Ba 233.527†	72615.8	72236.5	1825.5	µg/L	1825.5	ppb	06:38:00
2	Be 313.107†	21047.1	24562.7	12.881	µg/L	12.881	ppb	06:38:00
2	Cd 226.502†	468.2	588.9	-1.9957	µg/L	-1.9957	ppb	06:38:00
2	Co 228.616†	1670.5	1667.0	66.708	µg/L	66.708	ppb	06:38:21
2	Cr 267.716†	7123.8	7110.0	150.22	µg/L	150.22	ppb	06:38:00
2	Cu 324.752†	13840.2	10532.6	91.440	µg/L	91.440	ppb	06:38:00
2	Mn 257.610†	1227822.4	1221221.9	4075.1	µg/L	4075.1	ppb	06:37:55
2	Mo 202.031†	-22.6	-23.6	3.5394	µg/L	3.5394	ppb	06:38:21
2	Ni 231.604†	2215.0	1921.9	102.62	µg/L	102.62	ppb	06:38:21
2	P 214.914†	551.1	520.5	988.56	µg/L	988.56	ppb	06:38:21
2	Pb 220.353†	708.5	614.2	159.02	µg/L	159.02	ppb	06:38:21

2	S 181.975 Axial†	231.1	214.7	926.04 µg/L	926.04 ppb	06:38:21
2	Sb 206.836†	33.6	12.3	7.9156 µg/L	7.9156 ppb	06:38:21
2	Se 196.026†	-53.7	-65.4	307.06 µg/L	307.06 ppb	06:38:21
2	SiO2†	102786.2	100701.5	20598 µg/L	20598 ppb	06:38:00
2	Si 251.611†	122138.1	121172.5	9583.5 µg/L	9583.5 ppb	06:38:00
2	Sn 189.927†	-54.5	-55.0	-38.552 µg/L	-38.552 ppb	06:38:21
2	Ti 334.940†	2683617.3	2668517.1	6082.0 µg/L	6082.0 ppb	06:37:55
2	Tl 190.801†	-76.7	-55.6	23.797 µg/L	23.797 ppb	06:38:21
2	U 409.014†	-587.8	-809.9	-89.522 µg/L	-89.522 ppb	06:37:55
2	V 292.402†	31267.5	31140.6	332.88 µg/L	332.88 ppb	06:38:00
2	Zn 213.857†	13334.2	12794.0	303.09 µg/L	303.09 ppb	06:38:00
3	Sc RADIAL	56065.2	56065.2	101 %		06:36:48
3	Al 396.153Radial†	195244.6	192879.0	137040 µg/L	137040 ppb	06:36:48
3	Ca 317.933Radial†	25660.8	25136.8	22736 µg/L	22736 ppb	06:37:08
3	Fe 238.204 Radial†	18337.5	18099.1	158350 µg/L	158350 ppb	06:37:08
3	K 766.490 Radial†	30633.0	30086.8	20160 µg/L	20160 ppb	06:36:48
3	Mg 279.077 IEC†	2635.5	2590.0	24015 µg/L	24015 ppb	06:37:08
3	Na 589.592 Radial†	3591.7	3169.8	963.56 µg/L	963.56 ppb	06:37:08
3	Sr 421.552†	32197.9	31790.4	307.77 µg/L	307.77 ppb	06:36:48
3	Sc 361.383	1963442.5	1963442.5	100.80 %		06:38:28
3	Y 371.029	1391389.5	1391389.5	104.04 %		06:38:28
3	Ag 328.068†	-2200.8	-1672.9	-0.6776 µg/L	-0.6776 ppb	06:38:34
3	As 188.979†	8.1	7.2	21.596 µg/L	21.596 ppb	06:38:54
3	B 249.677†	1392.5	1068.3	-37.456 µg/L	-37.456 ppb	06:38:34
3	Ba 233.527†	70119.3	69585.1	1758.5 µg/L	1758.5 ppb	06:38:34
3	Be 313.107†	20051.3	23524.2	12.302 µg/L	12.302 ppb	06:38:34
3	Cd 226.502†	440.1	559.8	-2.8906 µg/L	-2.8906 ppb	06:38:34
3	Co 228.616†	1537.2	1530.8	60.566 µg/L	60.566 ppb	06:38:54
3	Cr 267.716†	6823.2	6794.7	143.55 µg/L	143.55 ppb	06:38:34
3	Cu 324.752†	13531.8	10193.4	89.337 µg/L	89.337 ppb	06:38:34
3	Mn 257.610†	1203558.4	1194196.3	3985.5 µg/L	3985.5 ppb	06:38:28
3	Mo 202.031†	-17.9	-18.9	4.0648 µg/L	4.0648 ppb	06:38:54
3	Ni 231.604†	2069.8	1772.6	94.811 µg/L	94.811 ppb	06:38:54
3	P 214.914†	497.5	466.0	874.18 µg/L	874.18 ppb	06:38:54
3	Pb 220.353†	674.2	578.4	149.77 µg/L	149.77 ppb	06:38:54
3	S 181.975 Axial†	210.5	193.8	835.83 µg/L	835.83 ppb	06:38:54
3	Sb 206.836†	38.6	17.2	12.664 µg/L	12.664 ppb	06:38:54
3	Se 196.026†	-54.0	-65.5	309.45 µg/L	309.45 ppb	06:38:54
3	SiO2†	97740.7	95448.8	19524 µg/L	19524 ppb	06:38:34
3	Si 251.611†	116019.9	114809.2	9080.2 µg/L	9080.2 ppb	06:38:34
3	Sn 189.927†	-51.0	-51.5	-37.073 µg/L	-37.073 ppb	06:38:54
3	Ti 334.940†	2616503.9	2595480.2	5915.5 µg/L	5915.5 ppb	06:38:28
3	Tl 190.801†	-76.8	-55.6	22.058 µg/L	22.058 ppb	06:38:54
3	U 409.014†	-559.9	-780.8	-87.287 µg/L	-87.287 ppb	06:38:28
3	V 292.402†	29896.8	29705.6	318.51 µg/L	318.51 ppb	06:38:34
3	Zn 213.857†	12861.6	12293.0	290.85 µg/L	290.85 ppb	06:38:34

Mean Data: 246066006|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1959676.8	100.61	%	0.174				0.17%
Sc RADIAL	56102.0	101	%	0.2				0.20%
Y 371.029	1389773.3	103.92	%	0.114				0.11%
Ag 328.068†	-1739.6	-1.1320	µg/L	0.40905	-1.1320	ppb	0.40905	36.14%
Al 396.153Radial†	193243.9	137300	µg/L	449.4	137300	ppb	449.4	0.33%
As 188.979†	16.3	38.761	µg/L	19.1028	38.761	ppb	19.1028	49.28%
B 249.677†	1079.7	-36.882	µg/L	0.5230	-36.882	ppb	0.5230	1.42%
Ba 233.527†	71217.0	1799.7	µg/L	36.09	1799.7	ppb	36.09	2.01%
Be 313.107†	24165.7	12.658	µg/L	0.3119	12.658	ppb	0.3119	2.46%
Ca 317.933Radial†	25098.6	22701	µg/L	82.4	22701	ppb	82.4	0.36%
Cd 226.502†	566.3	-2.6916	µg/L	0.62082	-2.6916	ppb	0.62082	23.07%
Co 228.616†	1622.9	64.731	µg/L	3.6087	64.731	ppb	3.6087	5.57%
Cr 267.716†	7004.6	147.99	µg/L	3.842	147.99	ppb	3.842	2.60%
Cu 324.752†	10431.5	90.887	µg/L	1.3599	90.887	ppb	1.3599	1.50%
Fe 238.204 Radial†	18079.6	158180	µg/L	755.0	158180	ppb	755.0	0.48%
K 766.490 Radial†	30126.0	20186	µg/L	33.9	20186	ppb	33.9	0.17%
Mg 279.077 IEC†	2587.2	23989	µg/L	28.4	23989	ppb	28.4	0.12%
Mn 257.610†	1210468.4	4039.5	µg/L	47.56	4039.5	ppb	47.56	1.18%
Mo 202.031†	-19.8	3.9569	µg/L	0.37537	3.9569	ppb	0.37537	9.49%
Na 589.592 Radial†	3163.4	961.61	µg/L	1.917	961.61	ppb	1.917	0.20%

Ni 231.604†	1878.7	100.37 µg/L	4.839	100.37 ppb	4.839	4.82%
P 214.914†	502.7	950.70 µg/L	66.269	950.70 ppb	66.269	6.97%
Pb 220.353†	601.6	155.74 µg/L	5.184	155.74 ppb	5.184	3.33%
S 181.975 Axial†	207.5	895.08 µg/L	51.328	895.08 ppb	51.328	5.73%
Sb 206.836†	15.2	10.721 µg/L	2.4892	10.721 ppb	2.4892	23.22%
Se 196.026†	-68.7	304.37 µg/L	6.830	304.37 ppb	6.830	2.24%
SiO2†	98848.3	20219 µg/L	603.0	20219 ppb	603.0	2.98%
Si 251.611†	119003.4	9411.9 µg/L	287.33	9411.9 ppb	287.33	3.05%
Sn 189.927†	-54.9	-38.591 µg/L	1.5388	-38.591 ppb	1.5388	3.99%
Sr 421.552†	31817.9	308.03 µg/L	0.987	308.03 ppb	0.987	0.32%
Ti 334.940†	2642058.0	6021.7 µg/L	92.24	6021.7 ppb	92.24	1.53%
Tl 190.801†	-56.5	21.965 µg/L	1.8802	21.965 ppb	1.8802	8.56%
U 409.014†	-853.0	-93.164 µg/L	8.3187	-93.164 ppb	8.3187	8.93%
V 292.402†	30603.4	327.55 µg/L	7.870	327.55 ppb	7.870	2.40%
Zn 213.857†	12598.8	298.30 µg/L	6.541	298.30 ppb	6.541	2.19%

Sequence No.: 44
Sample ID: 246066007|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 334
Date Collected: 2/24/2010 06:39:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066007|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54977.0	54977.0	99.3	%			06:39:36
1	Al 396.153Radial†	31355.6	31575.4	22434	µg/L	22434	ppb	06:39:36
1	Ca 317.933Radial†	47252.3	47392.6	42866	µg/L	42866	ppb	06:39:36
1	Fe 238.204 Radial†	9173.9	9225.1	80710	µg/L	80710	ppb	06:39:56
1	K 766.490 Radial†	7475.4	7354.0	4927.7	µg/L	4927.7	ppb	06:39:36
1	Mg 279.077 IEC†	880.3	873.1	8066.4	µg/L	8066.4	ppb	06:39:56
1	Na 589.592 Radial†	2027.3	1663.9	505.79	µg/L	505.79	ppb	06:39:36
1	Sr 421.552†	18065.6	18181.5	176.02	µg/L	176.02	ppb	06:39:36
1	Sc 361.383	1931299.3	1931299.3	99.154	%			06:41:00
1	Y 371.029	1364574.1	1364574.1	102.04	%			06:41:00
1	Ag 328.068†	-1364.3	-865.6	-0.5277	µg/L	-0.5277	ppb	06:41:06
1	As 188.979†	2.3	1.5	5.2678	µg/L	5.2678	ppb	06:41:26
1	B 249.677†	800.8	494.6	-20.981	µg/L	-20.981	ppb	06:41:06
1	Ba 233.527†	21043.0	21247.9	537.03	µg/L	537.03	ppb	06:41:06
1	Be 313.107†	3345.6	7007.1	3.3683	µg/L	3.3683	ppb	06:41:06
1	Cd 226.502†	141.8	266.2	-1.9265	µg/L	-1.9265	ppb	06:41:26
1	Co 228.616†	612.6	623.7	24.408	µg/L	24.408	ppb	06:41:26
1	Cr 267.716†	9625.3	9733.4	205.46	µg/L	205.46	ppb	06:41:06
1	Cu 324.752†	8493.2	5335.1	46.457	µg/L	46.457	ppb	06:41:06
1	Mn 257.610†	603726.9	609119.1	2033.0	µg/L	2033.0	ppb	06:41:00
1	Mo 202.031†	12.4	11.4	4.2467	µg/L	4.2467	ppb	06:41:26
1	Ni 231.604†	2239.7	1978.1	104.62	µg/L	104.62	ppb	06:41:26
1	P 214.914†	1307.8	1291.4	2627.3	µg/L	2627.3	ppb	06:41:26
1	Pb 220.353†	352.1	264.7	65.994	µg/L	65.994	ppb	06:41:26
1	S 181.975 Axial†	90.9	76.6	330.41	µg/L	330.41	ppb	06:41:26
1	Sb 206.836†	38.4	17.6	10.617	µg/L	10.617	ppb	06:41:26
1	Se 196.026†	-28.2	-40.4	142.55	µg/L	142.55	ppb	06:41:26
1	SiO2†	63897.9	62931.0	12872	µg/L	12872	ppb	06:41:06
1	Si 251.611†	74932.7	75287.1	5954.4	µg/L	5954.4	ppb	06:41:06
1	Sn 189.927†	-28.2	-29.2	-20.894	µg/L	-20.894	ppb	06:41:26
1	Ti 334.940†	1104527.9	1113805.5	2539.2	µg/L	2539.2	ppb	06:41:00
1	Tl 190.801†	-55.0	-34.9	-8.9783	µg/L	-8.9783	ppb	06:41:26
1	U 409.014†	115.1	-109.3	-22.776	µg/L	-22.776	ppb	06:41:06
1	V 292.402†	13703.1	13867.3	149.85	µg/L	149.85	ppb	06:41:06
1	Zn 213.857†	9552.2	9167.8	219.11	µg/L	219.11	ppb	06:41:06
2	Sc RADIAL	54764.1	54764.1	98.9	%			06:40:02
2	Al 396.153Radial†	31411.2	31754.5	22561	µg/L	22561	ppb	06:40:02
2	Ca 317.933Radial†	47304.1	47630.0	43080	µg/L	43080	ppb	06:40:02
2	Fe 238.204 Radial†	9142.4	9229.2	80745	µg/L	80745	ppb	06:40:22
2	K 766.490 Radial†	7525.4	7433.9	4981.2	µg/L	4981.2	ppb	06:40:02
2	Mg 279.077 IEC†	887.5	883.9	8166.5	µg/L	8166.5	ppb	06:40:22
2	Na 589.592 Radial†	2079.5	1724.6	524.25	µg/L	524.25	ppb	06:40:02
2	Sr 421.552†	18055.9	18242.4	176.61	µg/L	176.61	ppb	06:40:02
2	Sc 361.383	1939617.3	1939617.3	99.581	%			06:41:33
2	Y 371.029	1371142.6	1371142.6	102.53	%			06:41:33
2	Ag 328.068†	-1393.8	-889.3	-0.6955	µg/L	-0.6955	ppb	06:41:39
2	As 188.979†	4.3	3.6	9.1414	µg/L	9.1414	ppb	06:41:59
2	B 249.677†	763.5	453.6	-22.720	µg/L	-22.720	ppb	06:41:39
2	Ba 233.527†	21354.0	21469.2	542.63	µg/L	542.63	ppb	06:41:39
2	Be 313.107†	3353.5	7000.5	3.3616	µg/L	3.3616	ppb	06:41:39
2	Cd 226.502†	139.4	263.2	-2.0115	µg/L	-2.0115	ppb	06:41:59
2	Co 228.616†	617.2	625.6	24.487	µg/L	24.487	ppb	06:41:59
2	Cr 267.716†	9746.4	9813.4	207.15	µg/L	207.15	ppb	06:41:39
2	Cu 324.752†	8604.4	5410.1	46.957	µg/L	46.957	ppb	06:41:39
2	Mn 257.610†	606519.8	609312.6	2033.7	µg/L	2033.7	ppb	06:41:33
2	Mo 202.031†	10.7	9.6	4.0599	µg/L	4.0599	ppb	06:41:59
2	Ni 231.604†	2235.3	1964.0	103.88	µg/L	103.88	ppb	06:41:59
2	P 214.914†	1309.9	1287.8	2619.9	µg/L	2619.9	ppb	06:41:59
2	Pb 220.353†	360.5	271.6	67.779	µg/L	67.779	ppb	06:41:59

2	S 181.975 Axial†	87.1	72.4	312.09 µg/L	312.09 ppb	06:41:59
2	Sb 206.836†	34.2	13.3	6.4597 µg/L	6.4597 ppb	06:41:59
2	Se 196.026†	-31.4	-43.4	138.04 µg/L	138.04 ppb	06:41:59
2	SiO2†	65143.4	63905.4	13072 µg/L	13072 ppb	06:41:39
2	Si 251.611†	76431.7	76468.2	6047.8 µg/L	6047.8 ppb	06:41:39
2	Sn 189.927†	-28.1	-29.0	-20.800 µg/L	-20.800 ppb	06:41:59
2	Ti 334.940†	1112223.0	1116755.9	2546.0 µg/L	2546.0 ppb	06:41:33
2	Tl 190.801†	-48.8	-28.5	-0.0747 µg/L	-0.0747 ppb	06:41:59
2	U 409.014†	37.4	-187.8	-29.221 µg/L	-29.221 ppb	06:41:39
2	V 292.402†	13896.6	14002.3	151.21 µg/L	151.21 ppb	06:41:39
2	Zn 213.857†	9646.2	9220.9	220.40 µg/L	220.40 ppb	06:41:39
3	Sc RADIAL	54450.4	54450.4	98.3 %		06:40:28
3	Al 396.153Radial†	31266.2	31790.0	22587 µg/L	22587 ppb	06:40:28
3	Ca 317.933Radial†	47148.4	47747.2	43186 µg/L	43186 ppb	06:40:28
3	Fe 238.204 Radial†	9178.6	9319.3	81533 µg/L	81533 ppb	06:40:48
3	K 766.490 Radial†	7415.3	7365.8	4935.5 µg/L	4935.5 ppb	06:40:28
3	Mg 279.077 IEC†	897.5	899.2	8309.1 µg/L	8309.1 ppb	06:40:48
3	Na 589.592 Radial†	2051.0	1707.7	519.10 µg/L	519.10 ppb	06:40:28
3	Sr 421.552†	18022.7	18313.8	177.30 µg/L	177.30 ppb	06:40:28
3	Sc 361.383	1957802.2	1957802.2	100.51 %		06:42:06
3	Y 371.029	1382028.7	1382028.7	103.34 %		06:42:06
3	Ag 328.068†	-1337.9	-820.8	-0.1844 µg/L	-0.1844 ppb	06:42:12
3	As 188.979†	2.4	1.6	5.4558 µg/L	5.4558 ppb	06:42:32
3	B 249.677†	777.9	460.9	-22.845 µg/L	-22.845 ppb	06:42:12
3	Ba 233.527†	20481.5	20402.0	515.65 µg/L	515.65 ppb	06:42:12
3	Be 313.107†	2941.5	6559.4	3.1246 µg/L	3.1246 ppb	06:42:12
3	Cd 226.502†	110.3	232.9	-2.9154 µg/L	-2.9154 ppb	06:42:32
3	Co 228.616†	553.5	556.5	21.392 µg/L	21.392 ppb	06:42:32
3	Cr 267.716†	9257.9	9236.4	194.97 µg/L	194.97 ppb	06:42:12
3	Cu 324.752†	8356.3	5083.0	44.906 µg/L	44.906 ppb	06:42:12
3	Mn 257.610†	593090.9	590295.1	1970.6 µg/L	1970.6 ppb	06:42:06
3	Mo 202.031†	18.0	16.8	4.8379 µg/L	4.8379 ppb	06:42:32
3	Ni 231.604†	2077.2	1785.9	94.566 µg/L	94.566 ppb	06:42:32
3	P 214.914†	1190.8	1157.2	2347.4 µg/L	2347.4 ppb	06:42:32
3	Pb 220.353†	333.4	241.3	59.961 µg/L	59.961 ppb	06:42:32
3	S 181.975 Axial†	88.0	72.5	312.75 µg/L	312.75 ppb	06:42:32
3	Sb 206.836†	38.5	17.2	10.331 µg/L	10.331 ppb	06:42:32
3	Se 196.026†	-23.0	-34.9	152.53 µg/L	152.53 ppb	06:42:32
3	SiO2†	60761.8	58938.6	12056 µg/L	12056 ppb	06:42:12
3	Si 251.611†	71317.2	70667.0	5589.0 µg/L	5589.0 ppb	06:42:12
3	Sn 189.927†	-17.6	-18.4	-16.123 µg/L	-16.123 ppb	06:42:32
3	Ti 334.940†	1081151.4	1075469.2	2451.8 µg/L	2451.8 ppb	06:42:06
3	Tl 190.801†	-40.0	-19.2	11.813 µg/L	11.813 ppb	06:42:32
3	U 409.014†	108.9	-117.1	-23.546 µg/L	-23.546 ppb	06:42:12
3	V 292.402†	13178.0	13157.8	142.77 µg/L	142.77 ppb	06:42:12
3	Zn 213.857†	9270.4	8757.0	209.07 µg/L	209.07 ppb	06:42:12

Mean Data: 246066007|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1942906.3	99.750	%	0.6959				0.70%
Sc RADIAL	54730.5	98.8	%	0.48				0.48%
Y 371.029	1372581.8	102.64	%	0.659				0.64%
Ag 328.068†	-858.6	-0.4692	µg/L	0.26056	-0.4692	ppb	0.26056	55.53%
Al 396.153Radial†	31706.6	22527	µg/L	81.7	22527	ppb	81.7	0.36%
As 188.979†	2.2	6.6217	µg/L	2.18417	6.6217	ppb	2.18417	32.99%
B 249.677†	469.7	-22.182	µg/L	1.0418	-22.182	ppb	1.0418	4.70%
Ba 233.527†	21039.7	531.77	µg/L	14.237	531.77	ppb	14.237	2.68%
Be 313.107†	6855.6	3.2848	µg/L	0.13884	3.2848	ppb	0.13884	4.23%
Ca 317.933Radial†	47589.9	43044	µg/L	163.4	43044	ppb	163.4	0.38%
Cd 226.502†	254.1	-2.2845	µg/L	0.54804	-2.2845	ppb	0.54804	23.99%
Co 228.616†	601.9	23.429	µg/L	1.7645	23.429	ppb	1.7645	7.53%
Cr 267.716†	9594.4	202.52	µg/L	6.599	202.52	ppb	6.599	3.26%
Cu 324.752†	5276.1	46.107	µg/L	1.0695	46.107	ppb	1.0695	2.32%
Fe 238.204 Radial†	9257.9	80996	µg/L	465.5	80996	ppb	465.5	0.57%
K 766.490 Radial†	7384.6	4948.1	µg/L	28.90	4948.1	ppb	28.90	0.58%
Mg 279.077 IEC†	885.4	8180.6	µg/L	121.97	8180.6	ppb	121.97	1.49%
Mn 257.610†	602909.0	2012.4	µg/L	36.22	2012.4	ppb	36.22	1.80%
Mo 202.031†	12.6	4.3815	µg/L	0.40613	4.3815	ppb	0.40613	9.27%
Na 589.592 Radial†	1698.7	516.38	µg/L	9.525	516.38	ppb	9.525	1.84%

Ni 231.604†	1909.3	101.02	µg/L	5.604	101.02	ppb	5.604	5.55%
P 214.914†	1245.5	2531.5	µg/L	159.54	2531.5	ppb	159.54	6.30%
Pb 220.353†	259.2	64.578	µg/L	4.0968	64.578	ppb	4.0968	6.34%
S 181.975 Axial†	73.8	318.42	µg/L	10.388	318.42	ppb	10.388	3.26%
Sb 206.836†	16.0	9.1358	µg/L	2.32199	9.1358	ppb	2.32199	25.42%
Se 196.026†	-39.6	144.37	µg/L	7.418	144.37	ppb	7.418	5.14%
SiO2†	61925.0	12666	µg/L	538.3	12666	ppb	538.3	4.25%
Si 251.611†	74140.8	5863.8	µg/L	242.47	5863.8	ppb	242.47	4.14%
Sn 189.927†	-25.6	-19.272	µg/L	2.7278	-19.272	ppb	2.7278	14.15%
Sr 421.552†	18245.9	176.64	µg/L	0.641	176.64	ppb	0.641	0.36%
Ti 334.940†	1102010.2	2512.4	µg/L	52.52	2512.4	ppb	52.52	2.09%
Tl 190.801†	-27.5	0.9199	µg/L	10.43114	0.9199	ppb	10.43114	>999.9%
U 409.014†	-138.1	-25.181	µg/L	3.5198	-25.181	ppb	3.5198	13.98%
V 292.402†	13675.8	147.94	µg/L	4.532	147.94	ppb	4.532	3.06%
Zn 213.857†	9048.6	216.20	µg/L	6.202	216.20	ppb	6.202	2.87%

Sequence No.: 45
Sample ID: 246066008|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 335
Date Collected: 2/24/2010 06:42:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066008|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56511.4	56511.4	102	%			06:43:14
1	Al 396.153Radial†	187631.0	183893.2	130660	µg/L	130660	ppb	06:43:14
1	Ca 317.933Radial†	40443.7	39426.3	35660	µg/L	35660	ppb	06:43:14
1	Fe 238.204 Radial†	21353.7	20912.3	182960	µg/L	182960	ppb	06:43:35
1	K 766.490 Radial†	38221.5	37285.8	24984	µg/L	24984	ppb	06:43:14
1	Mg 279.077 IEC†	2767.0	2698.4	25000	µg/L	25000	ppb	06:43:35
1	Na 589.592 Radial†	2906.0	2469.7	750.74	µg/L	750.74	ppb	06:43:35
1	Sr 421.552†	39976.4	39163.5	379.15	µg/L	379.15	ppb	06:43:14
1	Sc 361.383	1962588.8	1962588.8	100.76	%			06:44:39
1	Y 371.029	1411795.9	1411795.9	105.57	%			06:44:39
1	Ag 328.068†	-2567.4	-2037.7	-1.6989	µg/L	-1.6989	ppb	06:44:45
1	As 188.979†	21.7	20.7	47.857	µg/L	47.857	ppb	06:45:05
1	B 249.677†	1702.6	1376.6	-37.312	µg/L	-37.312	ppb	06:44:45
1	Ba 233.527†	85746.3	85124.4	2151.1	µg/L	2151.1	ppb	06:44:45
1	Be 313.107†	23835.5	27288.5	14.362	µg/L	14.362	ppb	06:44:45
1	Cd 226.502†	542.1	661.2	-2.9598	µg/L	-2.9598	ppb	06:44:45
1	Co 228.616†	1709.4	1702.3	67.263	µg/L	67.263	ppb	06:45:05
1	Cr 267.716†	7324.1	7294.7	154.12	µg/L	154.12	ppb	06:44:45
1	Cu 324.752†	18629.2	15258.1	126.21	µg/L	126.21	ppb	06:44:45
1	Mn 257.610†	1514789.9	1503598.0	5016.1	µg/L	5016.1	ppb	06:44:39
1	Mo 202.031†	0.7	-0.4	6.9098	µg/L	6.9098	ppb	06:45:05
1	Ni 231.604†	2265.7	1967.9	105.35	µg/L	105.35	ppb	06:45:05
1	P 214.914†	865.4	831.3	1609.9	µg/L	1609.9	ppb	06:45:05
1	Pb 220.353†	8038.0	7886.9	2022.3	µg/L	2022.3	ppb	06:44:45
1	S 181.975 Axial†	356.5	338.8	1461.2	µg/L	1461.2	ppb	06:45:05
1	Sb 206.836†	42.8	21.4	15.402	µg/L	15.402	ppb	06:45:05
1	Se 196.026†	-77.4	-88.8	338.33	µg/L	338.33	ppb	06:45:05
1	SiO2†	71755.1	69701.5	14257	µg/L	14257	ppb	06:44:45
1	Si 251.611†	84523.9	83601.0	6612.0	µg/L	6612.0	ppb	06:44:45
1	Sn 189.927†	-50.1	-50.5	-39.227	µg/L	-39.227	ppb	06:45:05
1	Ti 334.940†	2927124.9	2904885.6	6621.0	µg/L	6621.0	ppb	06:44:39
1	Tl 190.801†	-91.3	-70.0	14.132	µg/L	14.132	ppb	06:45:05
1	U 409.014†	-798.3	-1017.7	-110.87	µg/L	-110.87	ppb	06:44:39
1	V 292.402†	32641.6	32442.6	349.04	µg/L	349.04	ppb	06:44:45
1	Zn 213.857†	30359.0	29663.9	713.80	µg/L	713.80	ppb	06:44:45
2	Sc RADIAL	56177.9	56177.9	101	%			06:43:40
2	Al 396.153Radial†	187676.0	185029.6	131460	µg/L	131460	ppb	06:43:40
2	Ca 317.933Radial†	40284.6	39504.8	35731	µg/L	35731	ppb	06:43:40
2	Fe 238.204 Radial†	21281.7	20965.6	183430	µg/L	183430	ppb	06:44:01
2	K 766.490 Radial†	38241.0	37527.4	25146	µg/L	25146	ppb	06:43:40
2	Mg 279.077 IEC†	2763.1	2710.6	25114	µg/L	25114	ppb	06:44:01
2	Na 589.592 Radial†	2876.2	2457.2	746.96	µg/L	746.96	ppb	06:44:01
2	Sr 421.552†	39946.4	39366.5	381.11	µg/L	381.11	ppb	06:43:40
2	Sc 361.383	1945788.0	1945788.0	99.898	%			06:45:13
2	Y 371.029	1399050.1	1399050.1	104.62	%			06:45:13
2	Ag 328.068†	-2619.7	-2112.1	-2.2174	µg/L	-2.2174	ppb	06:45:18
2	As 188.979†	18.5	17.7	42.130	µg/L	42.130	ppb	06:45:39
2	B 249.677†	1676.8	1365.4	-38.025	µg/L	-38.025	ppb	06:45:18
2	Ba 233.527†	85392.2	85504.8	2160.7	µg/L	2160.7	ppb	06:45:18
2	Be 313.107†	23620.1	27277.1	14.351	µg/L	14.351	ppb	06:45:18
2	Cd 226.502†	572.7	696.5	-2.0731	µg/L	-2.0731	ppb	06:45:18
2	Co 228.616†	1686.9	1694.4	66.869	µg/L	66.869	ppb	06:45:39
2	Cr 267.716†	7289.9	7323.3	154.73	µg/L	154.73	ppb	06:45:18
2	Cu 324.752†	18534.1	15322.5	126.70	µg/L	126.70	ppb	06:45:18
2	Mn 257.610†	1500251.2	1502025.0	5010.9	µg/L	5010.9	ppb	06:45:13
2	Mo 202.031†	11.3	10.1	8.0205	µg/L	8.0205	ppb	06:45:39
2	Ni 231.604†	2252.0	1973.6	105.66	µg/L	105.66	ppb	06:45:39
2	P 214.914†	857.5	830.8	1608.7	µg/L	1608.7	ppb	06:45:39
2	Pb 220.353†	8027.5	7945.4	2037.3	µg/L	2037.3	ppb	06:45:18

2	S 181.975 Axial†	356.6	341.9	1474.6	µg/L	1474.6 ppb	06:45:39
2	Sb 206.836†	41.0	19.9	13.987	µg/L	13.987 ppb	06:45:39
2	Se 196.026†	-68.0	-80.0	352.23	µg/L	352.23 ppb	06:45:39
2	SiO2†	71371.1	69932.0	14304	µg/L	14304 ppb	06:45:18
2	Si 251.611†	83968.7	83769.5	6625.3	µg/L	6625.3 ppb	06:45:18
2	Sn 189.927†	-44.3	-45.2	-36.892	µg/L	-36.892 ppb	06:45:39
2	Ti 334.940†	2906786.5	2909609.8	6631.8	µg/L	6631.8 ppb	06:45:13
2	Tl 190.801†	-87.8	-67.3	18.047	µg/L	18.047 ppb	06:45:39
2	U 409.014†	-729.4	-955.6	-105.86	µg/L	-105.86 ppb	06:45:13
2	V 292.402†	32571.3	32651.9	351.22	µg/L	351.22 ppb	06:45:18
2	Zn 213.857†	30262.4	29827.4	717.76	µg/L	717.76 ppb	06:45:18
3	Sc RADIAL	56236.1	56236.1	102	%		06:44:06
3	Al 396.153Radial†	188148.9	185303.7	131660	µg/L	131660 ppb	06:44:06
3	Ca 317.933Radial†	40415.7	39592.8	35811	µg/L	35811 ppb	06:44:06
3	Fe 238.204 Radial†	21300.2	20962.1	183400	µg/L	183400 ppb	06:44:27
3	K 766.490 Radial†	38231.8	37479.3	25114	µg/L	25114 ppb	06:44:06
3	Mg 279.077 IEC†	2750.4	2695.3	24970	µg/L	24970 ppb	06:44:27
3	Na 589.592 Radial†	2917.8	2495.3	758.52	µg/L	758.52 ppb	06:44:27
3	Sr 421.552†	39978.8	39357.6	381.03	µg/L	381.03 ppb	06:44:06
3	Sc 361.383	1950736.0	1950736.0	100.15	%		06:45:46
3	Y 371.029	1402116.5	1402116.5	104.84	%		06:45:46
3	Ag 328.068†	-2553.7	-2039.6	-1.7641	µg/L	-1.7641 ppb	06:45:52
3	As 188.979†	20.6	19.7	45.969	µg/L	45.969 ppb	06:46:12
3	B 249.677†	1632.1	1316.5	-40.078	µg/L	-40.078 ppb	06:45:52
3	Ba 233.527†	82744.0	82643.8	2088.4	µg/L	2088.4 ppb	06:45:52
3	Be 313.107†	22669.3	26267.8	13.787	µg/L	13.787 ppb	06:45:52
3	Cd 226.502†	540.3	662.7	-2.9774	µg/L	-2.9774 ppb	06:45:52
3	Co 228.616†	1566.9	1570.4	61.291	µg/L	61.291 ppb	06:46:12
3	Cr 267.716†	7030.6	7045.9	148.86	µg/L	148.86 ppb	06:45:52
3	Cu 324.752†	18032.3	14774.4	123.08	µg/L	123.08 ppb	06:45:52
3	Mn 257.610†	1472834.1	1470840.2	4907.4	µg/L	4907.4 ppb	06:45:46
3	Mo 202.031†	6.8	5.6	7.5521	µg/L	7.5521 ppb	06:46:12
3	Ni 231.604†	2110.8	1826.8	97.977	µg/L	97.977 ppb	06:46:12
3	P 214.914†	802.1	773.4	1489.5	µg/L	1489.5 ppb	06:46:12
3	Pb 220.353†	7828.1	7725.9	1981.0	µg/L	1981.0 ppb	06:45:52
3	S 181.975 Axial†	338.0	322.4	1390.8	µg/L	1390.8 ppb	06:46:12
3	Sb 206.836†	46.3	25.2	18.996	µg/L	18.996 ppb	06:46:12
3	Se 196.026†	-64.9	-76.7	357.07	µg/L	357.07 ppb	06:46:12
3	SiO2†	67076.8	65463.0	13390	µg/L	13390 ppb	06:45:52
3	Si 251.611†	78892.9	78488.2	6207.6	µg/L	6207.6 ppb	06:45:52
3	Sn 189.927†	-48.7	-49.5	-38.796	µg/L	-38.796 ppb	06:46:12
3	Ti 334.940†	2844334.9	2839872.4	6472.8	µg/L	6472.8 ppb	06:45:46
3	Tl 190.801†	-80.8	-60.1	26.256	µg/L	26.256 ppb	06:46:12
3	U 409.014†	-766.9	-991.1	-108.77	µg/L	-108.77 ppb	06:45:46
3	V 292.402†	31260.4	31260.3	337.16	µg/L	337.16 ppb	06:45:52
3	Zn 213.857†	29306.2	28795.8	692.62	µg/L	692.62 ppb	06:45:52

Mean Data: 246066008|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1953037.6	100.27	%	0.443				0.44%
Sc RADIAL	56308.5	102	%	0.3				0.32%
Y 371.029	1404320.8	105.01	%	0.497				0.47%
Ag 328.068†	-2063.1	-1.8934	µg/L	0.28245	-1.8934	ppb	0.28245	14.92%
Al 396.153Radial†	184742.1	131260	µg/L	531.4	131260	ppb	531.4	0.40%
As 188.979†	19.4	45.319	µg/L	2.9185	45.319	ppb	2.9185	6.44%
B 249.677†	1352.9	-38.471	µg/L	1.4360	-38.471	ppb	1.4360	3.73%
Ba 233.527†	84424.3	2133.4	µg/L	39.26	2133.4	ppb	39.26	1.84%
Be 313.107†	26944.5	14.167	µg/L	0.3289	14.167	ppb	0.3289	2.32%
Ca 317.933Radial†	39508.0	35734	µg/L	75.3	35734	ppb	75.3	0.21%
Cd 226.502†	673.5	-2.6701	µg/L	0.51711	-2.6701	ppb	0.51711	19.37%
Co 228.616†	1655.7	65.141	µg/L	3.3401	65.141	ppb	3.3401	5.13%
Cr 267.716†	7221.3	152.57	µg/L	3.224	152.57	ppb	3.224	2.11%
Cu 324.752†	15118.3	125.33	µg/L	1.966	125.33	ppb	1.966	1.57%
Fe 238.204 Radial†	20946.7	183260	µg/L	260.8	183260	ppb	260.8	0.14%
K 766.490 Radial†	37430.9	25081	µg/L	85.7	25081	ppb	85.7	0.34%
Mg 279.077 IEC†	2701.4	25028	µg/L	75.7	25028	ppb	75.7	0.30%
Mn 257.610†	1492154.4	4978.1	µg/L	61.33	4978.1	ppb	61.33	1.23%
Mo 202.031†	5.1	7.4941	µg/L	0.55759	7.4941	ppb	0.55759	7.44%
Na 589.592 Radial†	2474.1	752.07	µg/L	5.893	752.07	ppb	5.893	0.78%

Ni 231.604†	1922.8	103.00	µg/L	4.348	103.00	ppb	4.348	4.22%
P 214.914†	811.8	1569.4	µg/L	69.15	1569.4	ppb	69.15	4.41%
Pb 220.353†	7852.7	2013.5	µg/L	29.13	2013.5	ppb	29.13	1.45%
S 181.975 Axial†	334.4	1442.2	µg/L	45.01	1442.2	ppb	45.01	3.12%
Sb 206.836†	22.2	16.128	µg/L	2.5823	16.128	ppb	2.5823	16.01%
Se 196.026†	-81.8	349.21	µg/L	9.730	349.21	ppb	9.730	2.79%
SiO2†	68365.5	13984	µg/L	514.7	13984	ppb	514.7	3.68%
Si 251.611†	81952.9	6481.6	µg/L	237.40	6481.6	ppb	237.40	3.66%
Sn 189.927†	-48.4	-38.305	µg/L	1.2426	-38.305	ppb	1.2426	3.24%
Sr 421.552†	39295.9	380.43	µg/L	1.111	380.43	ppb	1.111	0.29%
Ti 334.940†	2884789.3	6575.2	µg/L	88.84	6575.2	ppb	88.84	1.35%
Tl 190.801†	-65.8	19.478	µg/L	6.1873	19.478	ppb	6.1873	31.76%
U 409.014†	-988.1	-108.50	µg/L	2.517	-108.50	ppb	2.517	2.32%
V 292.402†	32118.3	345.80	µg/L	7.567	345.80	ppb	7.567	2.19%
Zn 213.857†	29429.1	708.06	µg/L	13.521	708.06	ppb	13.521	1.91%

Sequence No.: 46
Sample ID: 246066009|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 336
Date Collected: 2/24/2010 06:46:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066009|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55814.0	55814.0	101	%			06:46:54
1	Al 396.153Radial†	138934.6	137864.3	97952	µg/L	97952	ppb	06:46:54
1	Ca 317.933Radial†	19749.5	19384.4	17533	µg/L	17533	ppb	06:47:15
1	Fe 238.204 Radial†	14724.4	14594.9	127690	µg/L	127690	ppb	06:47:15
1	K 766.490 Radial†	24636.2	24271.7	16264	µg/L	16264	ppb	06:46:54
1	Mg 279.077 IEC†	1958.7	1930.1	17886	µg/L	17886	ppb	06:47:15
1	Na 589.592 Radial†	1786.0	1393.7	423.68	µg/L	423.68	ppb	06:47:15
1	Sr 421.552†	23672.3	23472.6	227.24	µg/L	227.24	ppb	06:46:54
1	Sc 361.383	1942113.4	1942113.4	99.709	%			06:48:18
1	Y 371.029	1369915.4	1369915.4	102.44	%			06:48:18
1	Ag 328.068†	-1878.3	-1373.5	-0.5709	µg/L	-0.5709	ppb	06:48:24
1	As 188.979†	16.4	15.6	35.965	µg/L	35.965	ppb	06:48:45
1	B 249.677†	1211.5	901.9	-28.513	µg/L	-28.513	ppb	06:48:24
1	Ba 233.527†	63662.1	63873.1	1614.1	µg/L	1614.1	ppb	06:48:24
1	Be 313.107†	16906.7	20588.9	10.769	µg/L	10.769	ppb	06:48:24
1	Cd 226.502†	323.3	447.4	-2.4326	µg/L	-2.4326	ppb	06:48:45
1	Co 228.616†	1558.3	1568.7	63.928	µg/L	63.928	ppb	06:48:45
1	Cr 267.716†	5083.0	5123.8	108.28	µg/L	108.28	ppb	06:48:24
1	Cu 324.752†	11323.0	8125.5	71.418	µg/L	71.418	ppb	06:48:24
1	Mn 257.610†	1237058.6	1240906.7	4136.7	µg/L	4136.7	ppb	06:48:18
1	Mo 202.031†	-13.3	-14.5	3.3559	µg/L	3.3559	ppb	06:48:45
1	Ni 231.604†	1775.1	1499.6	80.113	µg/L	80.113	ppb	06:48:45
1	P 214.914†	512.4	486.4	931.87	µg/L	931.87	ppb	06:48:45
1	Pb 220.353†	670.1	581.6	149.63	µg/L	149.63	ppb	06:48:45
1	S 181.975 Axial†	209.2	194.7	839.95	µg/L	839.95	ppb	06:48:45
1	Sb 206.836†	30.7	9.7	6.4380	µg/L	6.4380	ppb	06:48:45
1	Se 196.026†	-50.0	-62.1	237.54	µg/L	237.54	ppb	06:48:45
1	SiO2†	84363.3	83097.3	16997	µg/L	16997	ppb	06:48:24
1	Si 251.611†	99717.1	99722.9	7887.0	µg/L	7887.0	ppb	06:48:24
1	Sn 189.927†	-39.1	-40.1	-29.431	µg/L	-29.431	ppb	06:48:45
1	Ti 334.940†	2262057.3	2268506.5	5170.5	µg/L	5170.5	ppb	06:48:18
1	Tl 190.801†	-75.1	-54.7	10.423	µg/L	10.423	ppb	06:48:45
1	U 409.014†	-454.7	-681.4	-74.575	µg/L	-74.575	ppb	06:48:24
1	V 292.402†	26240.8	26364.6	281.14	µg/L	281.14	ppb	06:48:24
1	Zn 213.857†	10459.1	10023.7	237.31	µg/L	237.31	ppb	06:48:24
2	Sc RADIAL	55821.7	55821.7	101	%			06:47:20
2	Al 396.153Radial†	138932.8	137843.6	97937	µg/L	97937	ppb	06:47:20
2	Ca 317.933Radial†	19773.2	19405.4	17552	µg/L	17552	ppb	06:47:41
2	Fe 238.204 Radial†	14712.4	14580.9	127570	µg/L	127570	ppb	06:47:41
2	K 766.490 Radial†	24740.9	24372.3	16331	µg/L	16331	ppb	06:47:20
2	Mg 279.077 IEC†	1966.1	1937.2	17952	µg/L	17952	ppb	06:47:41
2	Na 589.592 Radial†	1762.5	1370.2	416.51	µg/L	416.51	ppb	06:47:41
2	Sr 421.552†	23624.3	23421.8	226.75	µg/L	226.75	ppb	06:47:20
2	Sc 361.383	1940434.8	1940434.8	99.623	%			06:48:51
2	Y 371.029	1366470.8	1366470.8	102.18	%			06:48:51
2	Ag 328.068†	-1927.8	-1424.8	-0.9677	µg/L	-0.9677	ppb	06:48:57
2	As 188.979†	11.7	11.0	27.170	µg/L	27.170	ppb	06:49:17
2	B 249.677†	1191.8	883.2	-29.236	µg/L	-29.236	ppb	06:48:57
2	Ba 233.527†	63652.9	63919.1	1615.3	µg/L	1615.3	ppb	06:48:57
2	Be 313.107†	16781.0	20477.4	10.694	µg/L	10.694	ppb	06:48:57
2	Cd 226.502†	332.0	456.5	-2.1787	µg/L	-2.1787	ppb	06:49:17
2	Co 228.616†	1563.4	1575.1	64.200	µg/L	64.200	ppb	06:49:17
2	Cr 267.716†	5143.1	5188.5	109.64	µg/L	109.64	ppb	06:48:57
2	Cu 324.752†	11341.2	8153.6	71.587	µg/L	71.587	ppb	06:48:57
2	Mn 257.610†	1237799.2	1242723.4	4142.8	µg/L	4142.8	ppb	06:48:51
2	Mo 202.031†	-12.9	-14.1	3.3925	µg/L	3.3925	ppb	06:49:17
2	Ni 231.604†	1770.4	1496.3	79.942	µg/L	79.942	ppb	06:49:17
2	P 214.914†	500.3	474.6	907.35	µg/L	907.35	ppb	06:49:17
2	Pb 220.353†	671.6	583.8	150.17	µg/L	150.17	ppb	06:49:17

2	S 181.975 Axial†	207.9	193.6	835.24 µg/L	835.24 ppb	06:49:17
2	Sb 206.836†	36.7	15.8	12.142 µg/L	12.142 ppb	06:49:17
2	Se 196.026†	-45.3	-57.4	243.96 µg/L	243.96 ppb	06:49:17
2	SiO2†	84196.3	83002.9	16978 µg/L	16978 ppb	06:48:57
2	Si 251.611†	99497.9	99589.4	7876.5 µg/L	7876.5 ppb	06:48:57
2	Sn 189.927†	-45.7	-46.7	-32.339 µg/L	-32.339 ppb	06:49:17
2	Ti 334.940†	2266976.7	2275407.1	5186.2 µg/L	5186.2 ppb	06:48:51
2	Tl 190.801†	-70.0	-49.7	17.506 µg/L	17.506 ppb	06:49:17
2	U 409.014†	-487.0	-714.2	-77.238 µg/L	-77.238 ppb	06:48:57
2	V 292.402†	26191.4	26337.8	280.85 µg/L	280.85 ppb	06:48:57
2	Zn 213.857†	10441.0	10014.6	237.09 µg/L	237.09 ppb	06:48:57
3	Sc RADIAL	55829.8	55829.8	101 %		06:47:46
3	Al 396.153Radial†	139387.5	138274.7	98244 µg/L	98244 ppb	06:47:46
3	Ca 317.933Radial†	19820.2	19449.1	17591 µg/L	17591 ppb	06:48:07
3	Fe 238.204 Radial†	14732.5	14598.7	127720 µg/L	127720 ppb	06:48:07
3	K 766.490 Radial†	24813.0	24440.2	16376 µg/L	16376 ppb	06:47:46
3	Mg 279.077 IEC†	1968.9	1939.6	17974 µg/L	17974 ppb	06:48:07
3	Na 589.592 Radial†	1794.5	1401.7	426.09 µg/L	426.09 ppb	06:48:07
3	Sr 421.552†	23761.9	23554.9	228.04 µg/L	228.04 ppb	06:47:46
3	Sc 361.383	1921512.4	1921512.4	98.652 %		06:49:24
3	Y 371.029	1354472.1	1354472.1	101.28 %		06:49:24
3	Ag 328.068†	-1802.7	-1317.0	-0.2075 µg/L	-0.2075 ppb	06:49:30
3	As 188.979†	17.0	16.5	37.553 µg/L	37.553 ppb	06:49:50
3	B 249.677†	1137.7	840.2	-31.136 µg/L	-31.136 ppb	06:49:30
3	Ba 233.527†	61151.7	62012.9	1567.1 µg/L	1567.1 ppb	06:49:30
3	Be 313.107†	15801.4	19650.3	10.232 µg/L	10.232 ppb	06:49:30
3	Cd 226.502†	293.0	420.2	-3.1682 µg/L	-3.1682 ppb	06:49:50
3	Co 228.616†	1427.8	1453.2	58.660 µg/L	58.660 ppb	06:49:50
3	Cr 267.716†	4826.0	4917.8	103.93 µg/L	103.93 ppb	06:49:30
3	Cu 324.752†	11019.4	7939.6	70.194 µg/L	70.194 ppb	06:49:30
3	Mn 257.610†	1200048.3	1216692.0	4056.3 µg/L	4056.3 ppb	06:49:24
3	Mo 202.031†	-16.9	-18.2	2.9682 µg/L	2.9682 ppb	06:49:50
3	Ni 231.604†	1630.5	1372.1	73.441 µg/L	73.441 ppb	06:49:50
3	P 214.914†	462.2	441.0	837.49 µg/L	837.49 ppb	06:49:50
3	Pb 220.353†	636.3	554.6	142.70 µg/L	142.70 ppb	06:49:50
3	S 181.975 Axial†	201.6	189.2	816.21 µg/L	816.21 ppb	06:49:50
3	Sb 206.836†	36.7	16.2	12.543 µg/L	12.543 ppb	06:49:50
3	Se 196.026†	-51.1	-63.7	235.16 µg/L	235.16 ppb	06:49:50
3	SiO2†	79674.7	79251.7	16211 µg/L	16211 ppb	06:49:30
3	Si 251.611†	94163.7	95165.7	7526.6 µg/L	7526.6 ppb	06:49:30
3	Sn 189.927†	-44.4	-45.9	-32.001 µg/L	-32.001 ppb	06:49:50
3	Ti 334.940†	2189059.4	2218833.7	5057.3 µg/L	5057.3 ppb	06:49:24
3	Tl 190.801†	-69.3	-49.7	16.150 µg/L	16.150 ppb	06:49:50
3	U 409.014†	-323.2	-552.9	-64.069 µg/L	-64.069 ppb	06:49:30
3	V 292.402†	24991.6	25380.5	271.21 µg/L	271.21 ppb	06:49:30
3	Zn 213.857†	10027.0	9698.2	229.38 µg/L	229.38 ppb	06:49:30

Mean Data: 246066009|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1934686.9	99.328	%	0.5873				0.59%
Sc RADIAL	55821.8	101	%	0.0				0.01%
Y 371.029	1363619.4	101.97	%	0.606				0.59%
Ag 328.068†	-1371.8	-0.5820	µg/L	0.38020	-0.5820	ppb	0.38020	65.32%
Al 396.153Radial†	137994.2	98044	µg/L	172.8	98044	ppb	172.8	0.18%
As 188.979†	14.4	33.562	µg/L	5.5928	33.562	ppb	5.5928	16.66%
B 249.677†	875.1	-29.628	µg/L	1.3549	-29.628	ppb	1.3549	4.57%
Ba 233.527†	63268.4	1598.8	µg/L	27.48	1598.8	ppb	27.48	1.72%
Be 313.107†	20238.9	10.565	µg/L	0.2912	10.565	ppb	0.2912	2.76%
Ca 317.933Radial†	19413.0	17559	µg/L	29.9	17559	ppb	29.9	0.17%
Cd 226.502†	441.4	-2.5932	µg/L	0.51395	-2.5932	ppb	0.51395	19.82%
Co 228.616†	1532.3	62.263	µg/L	3.1232	62.263	ppb	3.1232	5.02%
Cr 267.716†	5076.7	107.28	µg/L	2.986	107.28	ppb	2.986	2.78%
Cu 324.752†	8072.9	71.066	µg/L	0.7599	71.066	ppb	0.7599	1.07%
Fe 238.204 Radial†	14591.5	127660	µg/L	82.0	127660	ppb	82.0	0.06%
K 766.490 Radial†	24361.4	16324	µg/L	56.8	16324	ppb	56.8	0.35%
Mg 279.077 IEC†	1935.7	17937	µg/L	46.1	17937	ppb	46.1	0.26%
Mn 257.610†	1233440.7	4111.9	µg/L	48.25	4111.9	ppb	48.25	1.17%
Mo 202.031†	-15.6	3.2389	µg/L	0.23509	3.2389	ppb	0.23509	7.26%
Na 589.592 Radial†	1388.5	422.09	µg/L	4.983	422.09	ppb	4.983	1.18%

Ni 231.604†	1456.0	77.832	µg/L	3.8032	77.832	ppb	3.8032	4.89%
P 214.914†	467.3	892.24	µg/L	48.972	892.24	ppb	48.972	5.49%
Pb 220.353†	573.3	147.50	µg/L	4.165	147.50	ppb	4.165	2.82%
S 181.975 Axial†	192.5	830.47	µg/L	12.565	830.47	ppb	12.565	1.51%
Sb 206.836†	13.9	10.374	µg/L	3.4148	10.374	ppb	3.4148	32.92%
Se 196.026†	-61.1	238.89	µg/L	4.552	238.89	ppb	4.552	1.91%
SiO2†	81783.9	16729	µg/L	448.7	16729	ppb	448.7	2.68%
Si 251.611†	98159.3	7763.4	µg/L	205.11	7763.4	ppb	205.11	2.64%
Sn 189.927†	-44.2	-31.257	µg/L	1.5905	-31.257	ppb	1.5905	5.09%
Sr 421.552†	23483.1	227.34	µg/L	0.650	227.34	ppb	0.650	0.29%
Ti 334.940†	2254249.1	5138.0	µg/L	70.36	5138.0	ppb	70.36	1.37%
Tl 190.801†	-51.4	14.693	µg/L	3.7592	14.693	ppb	3.7592	25.59%
U 409.014†	-649.5	-71.961	µg/L	6.9627	-71.961	ppb	6.9627	9.68%
V 292.402†	26027.6	277.73	µg/L	5.650	277.73	ppb	5.650	2.03%
Zn 213.857†	9912.1	234.59	µg/L	4.514	234.59	ppb	4.514	1.92%

Sequence No.: 47
Sample ID: 246066010|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 337
Date Collected: 2/24/2010 06:49:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066010|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55712.4	55712.4	101	%			06:50:32
1	Al 396.153Radial†	134920.2	134124.5	95295	µg/L	95295	ppb	06:50:32
1	Ca 317.933Radial†	22580.1	22234.4	20111	µg/L	20111	ppb	06:50:53
1	Fe 238.204 Radial†	15067.0	14962.1	130900	µg/L	130900	ppb	06:50:53
1	K 766.490 Radial†	24129.7	23812.7	15956	µg/L	15956	ppb	06:50:32
1	Mg 279.077 IEC†	1923.4	1898.5	17587	µg/L	17587	ppb	06:50:53
1	Na 589.592 Radial†	2743.0	2348.5	713.90	µg/L	713.90	ppb	06:50:53
1	Sr 421.552†	24122.1	23962.7	231.99	µg/L	231.99	ppb	06:50:32
1	Sc 361.383	1931768.5	1931768.5	99.178	%			06:51:57
1	Y 371.029	1369043.4	1369043.4	102.37	%			06:51:57
1	Ag 328.068†	-1935.7	-1441.5	-1.0113	µg/L	-1.0113	ppb	06:52:03
1	As 188.979†	16.5	15.8	36.347	µg/L	36.347	ppb	06:52:23
1	B 249.677†	1227.6	924.7	-29.236	µg/L	-29.236	ppb	06:52:03
1	Ba 233.527†	54294.0	54769.3	1384.1	µg/L	1384.1	ppb	06:52:03
1	Be 313.107†	16355.1	20123.5	10.431	µg/L	10.431	ppb	06:52:03
1	Cd 226.502†	379.7	506.1	-1.2431	µg/L	-1.2431	ppb	06:52:23
1	Co 228.616†	1242.8	1258.9	48.896	µg/L	48.896	ppb	06:52:23
1	Cr 267.716†	4990.1	5057.4	106.86	µg/L	106.86	ppb	06:52:03
1	Cu 324.752†	14662.6	11553.6	94.507	µg/L	94.507	ppb	06:52:03
1	Mn 257.610†	910355.6	918140.5	3065.4	µg/L	3065.4	ppb	06:51:57
1	Mo 202.031†	-4.3	-5.4	4.4120	µg/L	4.4120	ppb	06:52:23
1	Ni 231.604†	1600.5	1333.0	71.449	µg/L	71.449	ppb	06:52:23
1	P 214.914†	548.6	525.6	1007.8	µg/L	1007.8	ppb	06:52:23
1	Pb 220.353†	11405.2	11409.3	2925.4	µg/L	2925.4	ppb	06:52:03
1	S 181.975 Axial†	205.1	191.7	827.02	µg/L	827.02	ppb	06:52:23
1	Sb 206.836†	46.1	25.4	21.034	µg/L	21.034	ppb	06:52:23
1	Se 196.026†	-55.2	-67.6	237.89	µg/L	237.89	ppb	06:52:23
1	SiO2†	97540.5	96836.8	19808	µg/L	19808	ppb	06:52:03
1	Si 251.611†	115849.4	116524.4	9215.9	µg/L	9215.9	ppb	06:52:03
1	Sn 189.927†	-27.5	-28.5	-24.682	µg/L	-24.682	ppb	06:52:23
1	Ti 334.940†	2307408.2	2326382.2	5302.5	µg/L	5302.5	ppb	06:51:57
1	Tl 190.801†	-70.3	-50.3	13.324	µg/L	13.324	ppb	06:52:23
1	U 409.014†	-202.9	-430.0	-54.604	µg/L	-54.604	ppb	06:51:57
1	V 292.402†	24164.8	24412.3	261.85	µg/L	261.85	ppb	06:52:03
1	Zn 213.857†	28736.3	28508.5	688.66	µg/L	688.66	ppb	06:52:03
2	Sc RADIAL	55381.2	55381.2	100.0	%			06:50:58
2	Al 396.153Radial†	134675.8	134682.4	95691	µg/L	95691	ppb	06:50:58
2	Ca 317.933Radial†	22514.4	22303.0	20173	µg/L	20173	ppb	06:51:19
2	Fe 238.204 Radial†	15027.5	15012.3	131340	µg/L	131340	ppb	06:51:19
2	K 766.490 Radial†	24016.6	23843.1	15976	µg/L	15976	ppb	06:50:58
2	Mg 279.077 IEC†	1917.8	1904.3	17641	µg/L	17641	ppb	06:51:19
2	Na 589.592 Radial†	2767.4	2389.2	726.27	µg/L	726.27	ppb	06:51:19
2	Sr 421.552†	24003.7	23987.7	232.23	µg/L	232.23	ppb	06:50:58
2	Sc 361.383	1911673.0	1911673.0	98.147	%			06:52:31
2	Y 371.029	1355347.3	1355347.3	101.35	%			06:52:31
2	Ag 328.068†	-1912.9	-1438.8	-0.9573	µg/L	-0.9573	ppb	06:52:36
2	As 188.979†	18.8	18.3	41.102	µg/L	41.102	ppb	06:52:57
2	B 249.677†	1204.6	914.2	-29.904	µg/L	-29.904	ppb	06:52:36
2	Ba 233.527†	54003.6	55048.8	1391.1	µg/L	1391.1	ppb	06:52:36
2	Be 313.107†	16306.7	20247.5	10.516	µg/L	10.516	ppb	06:52:36
2	Cd 226.502†	382.6	513.0	-1.1046	µg/L	-1.1046	ppb	06:52:57
2	Co 228.616†	1261.4	1291.0	50.473	µg/L	50.473	ppb	06:52:57
2	Cr 267.716†	4971.1	5090.9	107.57	µg/L	107.57	ppb	06:52:36
2	Cu 324.752†	14552.0	11596.3	94.850	µg/L	94.850	ppb	06:52:36
2	Mn 257.610†	896859.1	914038.2	3051.9	µg/L	3051.9	ppb	06:52:31
2	Mo 202.031†	-2.4	-3.5	4.6235	µg/L	4.6235	ppb	06:52:57
2	Ni 231.604†	1632.1	1382.2	74.030	µg/L	74.030	ppb	06:52:57
2	P 214.914†	554.1	537.0	1031.4	µg/L	1031.4	ppb	06:52:57
2	Pb 220.353†	11353.5	11477.5	2942.9	µg/L	2942.9	ppb	06:52:36

2	S 181.975 Axial†	210.4	199.3	859.84	µg/L	859.84 ppb	06:52:57
2	Sb 206.836†	40.6	20.3	16.199	µg/L	16.199 ppb	06:52:57
2	Se 196.026†	-51.6	-64.5	243.56	µg/L	243.56 ppb	06:52:57
2	SiO2†	96785.9	97101.7	19862	µg/L	19862 ppb	06:52:36
2	Si 251.611†	114896.9	116781.8	9236.2	µg/L	9236.2 ppb	06:52:36
2	Sn 189.927†	-31.6	-33.1	-26.746	µg/L	-26.746 ppb	06:52:57
2	Ti 334.940†	2273614.5	2316406.7	5279.8	µg/L	5279.8 ppb	06:52:31
2	Tl 190.801†	-76.4	-57.3	3.4729	µg/L	3.4729 ppb	06:52:57
2	U 409.014†	-138.7	-366.7	-49.491	µg/L	-49.491 ppb	06:52:31
2	V 292.402†	24002.0	24502.6	262.82	µg/L	262.82 ppb	06:52:36
2	Zn 213.857†	28538.7	28611.8	691.15	µg/L	691.15 ppb	06:52:36
3	Sc RADIAL	55428.3	55428.3	100	%		06:51:24
3	Al 396.153Radial†	134851.6	134743.7	95735	µg/L	95735 ppb	06:51:24
3	Ca 317.933Radial†	22494.1	22263.6	20137	µg/L	20137 ppb	06:51:44
3	Fe 238.204 Radial†	15065.7	15037.7	131560	µg/L	131560 ppb	06:51:44
3	K 766.490 Radial†	24115.6	23921.6	16029	µg/L	16029 ppb	06:51:24
3	Mg 279.077 IEC†	1914.7	1899.7	17597	µg/L	17597 ppb	06:51:44
3	Na 589.592 Radial†	2764.4	2383.8	724.63	µg/L	724.63 ppb	06:51:44
3	Sr 421.552†	24006.8	23970.4	232.06	µg/L	232.06 ppb	06:51:24
3	Sc 361.383	1922299.7	1922299.7	98.692	%		06:53:04
3	Y 371.029	1361843.1	1361843.1	101.83	%		06:53:04
3	Ag 328.068†	-1811.1	-1324.8	-0.1709	µg/L	-0.1709 ppb	06:53:10
3	As 188.979†	11.7	11.0	27.336	µg/L	27.336 ppb	06:53:30
3	B 249.677†	1150.0	852.2	-32.640	µg/L	-32.640 ppb	06:53:10
3	Ba 233.527†	51817.3	52529.4	1327.5	µg/L	1327.5 ppb	06:53:10
3	Be 313.107†	15339.6	19175.8	9.9093	µg/L	9.9093 ppb	06:53:10
3	Cd 226.502†	323.5	451.0	-2.7877	µg/L	-2.7877 ppb	06:53:30
3	Co 228.616†	1144.3	1165.3	44.794	µg/L	44.794 ppb	06:53:30
3	Cr 267.716†	4685.3	4773.3	100.86	µg/L	100.86 ppb	06:53:10
3	Cu 324.752†	14136.2	11093.0	91.557	µg/L	91.557 ppb	06:53:10
3	Mn 257.610†	882539.5	894477.2	2986.9	µg/L	2986.9 ppb	06:53:04
3	Mo 202.031†	4.6	3.5	5.3664	µg/L	5.3664 ppb	06:53:30
3	Ni 231.604†	1521.7	1261.1	67.697	µg/L	67.697 ppb	06:53:30
3	P 214.914†	508.8	488.0	929.49	µg/L	929.49 ppb	06:53:30
3	Pb 220.353†	10994.6	11049.9	2833.3	µg/L	2833.3 ppb	06:53:10
3	S 181.975 Axial†	192.3	179.8	775.43	µg/L	775.43 ppb	06:53:30
3	Sb 206.836†	50.0	29.6	25.092	µg/L	25.092 ppb	06:53:30
3	Se 196.026†	-45.7	-58.3	253.22	µg/L	253.22 ppb	06:53:30
3	SiO2†	92068.7	91776.9	18773	µg/L	18773 ppb	06:53:10
3	Si 251.611†	109144.7	110306.3	8724.1	µg/L	8724.1 ppb	06:53:10
3	Sn 189.927†	-28.1	-29.4	-25.117	µg/L	-25.117 ppb	06:53:30
3	Ti 334.940†	2222609.9	2251920.0	5132.7	µg/L	5132.7 ppb	06:53:04
3	Tl 190.801†	-70.8	-51.2	10.479	µg/L	10.479 ppb	06:53:30
3	U 409.014†	-187.4	-415.3	-53.495	µg/L	-53.495 ppb	06:53:04
3	V 292.402†	22827.7	23177.5	249.47	µg/L	249.47 ppb	06:53:10
3	Zn 213.857†	27407.0	27304.3	659.24	µg/L	659.24 ppb	06:53:10

Mean Data: 246066010|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1921913.7	98.672	%	0.5161				0.52%
Sc RADIAL	55507.3	100	%	0.3				0.32%
Y 371.029	1362077.9	101.85	%	0.512				0.50%
Ag 328.068†	-1401.7	-0.7132	µg/L	0.47038	-0.7132	ppb	0.47038	65.96%
Al 396.153Radial†	134516.9	95574	µg/L	242.4	95574	ppb	242.4	0.25%
As 188.979†	15.1	34.928	µg/L	6.9919	34.928	ppb	6.9919	20.02%
B 249.677†	897.0	-30.593	µg/L	1.8036	-30.593	ppb	1.8036	5.90%
Ba 233.527†	54115.9	1367.6	µg/L	34.90	1367.6	ppb	34.90	2.55%
Be 313.107†	19849.0	10.286	µg/L	0.3286	10.286	ppb	0.3286	3.20%
Ca 317.933Radial†	22267.0	20140	µg/L	31.1	20140	ppb	31.1	0.15%
Cd 226.502†	490.0	-1.7118	µg/L	0.93434	-1.7118	ppb	0.93434	54.58%
Co 228.616†	1238.4	48.054	µg/L	2.9315	48.054	ppb	2.9315	6.10%
Cr 267.716†	4973.9	105.10	µg/L	3.687	105.10	ppb	3.687	3.51%
Cu 324.752†	11414.3	93.638	µg/L	1.8107	93.638	ppb	1.8107	1.93%
Fe 238.204 Radial†	15004.0	131270	µg/L	336.2	131270	ppb	336.2	0.26%
K 766.490 Radial†	23859.1	15987	µg/L	37.7	15987	ppb	37.7	0.24%
Mg 279.077 IEC†	1900.8	17608	µg/L	28.6	17608	ppb	28.6	0.16%
Mn 257.610†	908885.3	3034.7	µg/L	41.95	3034.7	ppb	41.95	1.38%
Mo 202.031†	-1.8	4.8006	µg/L	0.50126	4.8006	ppb	0.50126	10.44%
Na 589.592 Radial†	2373.8	721.60	µg/L	6.720	721.60	ppb	6.720	0.93%

Ni 231.604†	1325.5	71.059 µg/L	3.1846	71.059 ppb	3.1846	4.48%
P 214.914†	516.9	989.55 µg/L	53.340	989.55 ppb	53.340	5.39%
Pb 220.353†	11312.3	2900.6 µg/L	58.90	2900.6 ppb	58.90	2.03%
S 181.975 Axial†	190.3	820.76 µg/L	42.552	820.76 ppb	42.552	5.18%
Sb 206.836†	25.1	20.775 µg/L	4.4521	20.775 ppb	4.4521	21.43%
Se 196.026†	-63.5	244.89 µg/L	7.748	244.89 ppb	7.748	3.16%
SiO2†	95238.5	19481 µg/L	613.8	19481 ppb	613.8	3.15%
Si 251.611†	114537.5	9058.7 µg/L	289.99	9058.7 ppb	289.99	3.20%
Sn 189.927†	-30.3	-25.515 µg/L	1.0878	-25.515 ppb	1.0878	4.26%
Sr 421.552†	23973.6	232.09 µg/L	0.124	232.09 ppb	0.124	0.05%
Ti 334.940†	2298236.3	5238.3 µg/L	92.15	5238.3 ppb	92.15	1.76%
Tl 190.801†	-52.9	9.0919 µg/L	5.06998	9.0919 ppb	5.06998	55.76%
U 409.014†	-404.0	-52.530 µg/L	2.6896	-52.530 ppb	2.6896	5.12%
V 292.402†	24030.8	258.04 µg/L	7.445	258.04 ppb	7.445	2.89%
Zn 213.857†	28141.5	679.68 µg/L	17.749	679.68 ppb	17.749	2.61%

Sequence No.: 48
Sample ID: 246066011|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 338
Date Collected: 2/24/2010 06:53:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066011|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55288.4	55288.4	99.8	%			06:54:12
1	Al 396.153Radial†	119085.3	119289.2	84755	µg/L	84755	ppb	06:54:12
1	Ca 317.933Radial†	26087.2	25920.2	23444	µg/L	23444	ppb	06:54:33
1	Fe 238.204 Radial†	14833.6	14843.2	129860	µg/L	129860	ppb	06:54:33
1	K 766.490 Radial†	21715.6	21578.1	14459	µg/L	14459	ppb	06:54:12
1	Mg 279.077 IEC†	1772.8	1762.4	16317	µg/L	16317	ppb	06:54:33
1	Na 589.592 Radial†	2229.3	1854.7	563.80	µg/L	563.80	ppb	06:54:33
1	Sr 421.552†	24054.3	24078.7	233.11	µg/L	233.11	ppb	06:54:12
1	Sc 361.383	1917933.6	1917933.6	98.468	%			06:55:37
1	Y 371.029	1359876.2	1359876.2	101.69	%			06:55:37
1	Ag 328.068†	-1919.9	-1439.5	-0.9597	µg/L	-0.9597	ppb	06:55:43
1	As 188.979†	16.1	15.6	35.641	µg/L	35.641	ppb	06:56:03
1	B 249.677†	1114.9	819.2	-33.025	µg/L	-33.025	ppb	06:55:43
1	Ba 233.527†	54542.7	55416.8	1400.5	µg/L	1400.5	ppb	06:55:43
1	Be 313.107†	15306.5	19177.5	9.8611	µg/L	9.8611	ppb	06:55:43
1	Cd 226.502†	339.0	467.5	-2.1176	µg/L	-2.1176	ppb	06:56:03
1	Co 228.616†	1479.3	1508.1	60.852	µg/L	60.852	ppb	06:56:03
1	Cr 267.716†	7996.3	8146.6	172.06	µg/L	172.06	ppb	06:55:43
1	Cu 324.752†	13216.6	10191.7	85.367	µg/L	85.367	ppb	06:55:43
1	Mn 257.610†	1082394.2	1099477.1	3667.5	µg/L	3667.5	ppb	06:55:37
1	Mo 202.031†	-12.1	-13.4	3.5454	µg/L	3.5454	ppb	06:56:03
1	Ni 231.604†	2261.0	2015.5	107.17	µg/L	107.17	ppb	06:56:03
1	P 214.914†	595.9	577.6	1114.8	µg/L	1114.8	ppb	06:56:03
1	Pb 220.353†	625.7	545.0	139.40	µg/L	139.40	ppb	06:56:03
1	S 181.975 Axial†	181.6	169.3	730.41	µg/L	730.41	ppb	06:56:03
1	Sb 206.836†	30.7	10.1	5.5157	µg/L	5.5157	ppb	06:56:03
1	Se 196.026†	-54.2	-67.0	236.08	µg/L	236.08	ppb	06:56:03
1	SiO2†	95863.5	95843.1	19604	µg/L	19604	ppb	06:55:43
1	Si 251.611†	113682.7	115166.5	9108.5	µg/L	9108.5	ppb	06:55:43
1	Sn 189.927†	-44.9	-46.5	-32.730	µg/L	-32.730	ppb	06:56:03
1	Ti 334.940†	2273452.7	2308680.6	5262.3	µg/L	5262.3	ppb	06:55:37
1	Tl 190.801†	-69.8	-50.3	14.054	µg/L	14.054	ppb	06:56:03
1	U 409.014†	-363.7	-594.7	-68.143	µg/L	-68.143	ppb	06:55:37
1	V 292.402†	25506.5	25950.7	277.37	µg/L	277.37	ppb	06:55:43
1	Zn 213.857†	12091.8	11814.0	280.88	µg/L	280.88	ppb	06:55:43
2	Sc RADIAL	54857.6	54857.6	99.0	%			06:54:38
2	Al 396.153Radial†	118787.2	119925.0	85206	µg/L	85206	ppb	06:54:38
2	Ca 317.933Radial†	26085.4	26123.7	23628	µg/L	23628	ppb	06:54:59
2	Fe 238.204 Radial†	14832.7	14959.0	130870	µg/L	130870	ppb	06:54:59
2	K 766.490 Radial†	21626.4	21658.9	14513	µg/L	14513	ppb	06:54:38
2	Mg 279.077 IEC†	1781.2	1784.7	16524	µg/L	16524	ppb	06:54:59
2	Na 589.592 Radial†	2250.2	1893.3	575.53	µg/L	575.53	ppb	06:54:59
2	Sr 421.552†	23989.7	24202.7	234.31	µg/L	234.31	ppb	06:54:38
2	Sc 361.383	1939063.0	1939063.0	99.553	%			06:56:10
2	Y 371.029	1375266.1	1375266.1	102.84	%			06:56:10
2	Ag 328.068†	-1933.0	-1431.4	-0.8203	µg/L	-0.8203	ppb	06:56:16
2	As 188.979†	16.6	15.9	36.367	µg/L	36.367	ppb	06:56:36
2	B 249.677†	1083.5	775.2	-35.402	µg/L	-35.402	ppb	06:56:16
2	Ba 233.527†	55396.0	55670.3	1406.9	µg/L	1406.9	ppb	06:56:16
2	Be 313.107†	15457.4	19159.7	9.8465	µg/L	9.8465	ppb	06:56:16
2	Cd 226.502†	353.0	477.8	-1.9577	µg/L	-1.9577	ppb	06:56:36
2	Co 228.616†	1486.1	1498.6	60.379	µg/L	60.379	ppb	06:56:36
2	Cr 267.716†	8144.4	8206.9	173.33	µg/L	173.33	ppb	06:56:16
2	Cu 324.752†	13389.9	10219.5	85.692	µg/L	85.692	ppb	06:56:16
2	Mn 257.610†	1098559.8	1103737.3	3681.7	µg/L	3681.7	ppb	06:56:10
2	Mo 202.031†	-9.3	-10.5	3.8906	µg/L	3.8906	ppb	06:56:36
2	Ni 231.604†	2271.2	2000.7	106.40	µg/L	106.40	ppb	06:56:36
2	P 214.914†	589.4	564.5	1086.8	µg/L	1086.8	ppb	06:56:36
2	Pb 220.353†	621.7	534.1	136.62	µg/L	136.62	ppb	06:56:36

2	S 181.975 Axial†	172.8	158.5	683.77 µg/L	683.77 ppb	06:56:36
2	Sb 206.836†	36.0	15.1	10.232 µg/L	10.232 ppb	06:56:36
2	Se 196.026†	-45.5	-57.7	252.26 µg/L	252.26 ppb	06:56:36
2	SiO2†	96913.3	95836.7	19603 µg/L	19603 ppb	06:56:16
2	Si 251.611†	115063.0	115295.1	9118.6 µg/L	9118.6 ppb	06:56:16
2	Sn 189.927†	-45.3	-46.4	-32.753 µg/L	-32.753 ppb	06:56:36
2	Ti 334.940†	2302631.9	2312832.3	5271.8 µg/L	5271.8 ppb	06:56:10
2	Tl 190.801†	-72.1	-51.9	12.102 µg/L	12.102 ppb	06:56:36
2	U 409.014†	-617.8	-846.0	-88.852 µg/L	-88.852 ppb	06:56:10
2	V 292.402†	26001.3	26165.5	279.64 µg/L	279.64 ppb	06:56:16
2	Zn 213.857†	12279.5	11868.7	282.16 µg/L	282.16 ppb	06:56:16
3	Sc RADIAL	55087.2	55087.2	99.5 %		06:55:04
3	Al 396.153Radial†	119110.4	119750.1	85082 µg/L	85082 ppb	06:55:04
3	Ca 317.933Radial†	26063.8	25992.1	23509 µg/L	23509 ppb	06:55:25
3	Fe 238.204 Radial†	14826.9	14890.7	130280 µg/L	130280 ppb	06:55:25
3	K 766.490 Radial†	21746.7	21688.8	14533 µg/L	14533 ppb	06:55:04
3	Mg 279.077 IEC†	1771.7	1767.7	16367 µg/L	16367 ppb	06:55:25
3	Na 589.592 Radial†	2221.9	1855.5	564.03 µg/L	564.03 ppb	06:55:25
3	Sr 421.552†	23982.4	24094.4	233.26 µg/L	233.26 ppb	06:55:04
3	Sc 361.383	1929357.1	1929357.1	99.054 %		06:56:44
3	Y 371.029	1368016.5	1368016.5	102.29 %		06:56:44
3	Ag 328.068†	-1873.3	-1380.9	-0.5596 µg/L	-0.5596 ppb	06:56:49
3	As 188.979†	12.9	12.2	29.345 µg/L	29.345 ppb	06:57:10
3	B 249.677†	1091.4	788.7	-34.538 µg/L	-34.538 ppb	06:56:49
3	Ba 233.527†	53150.8	53683.5	1356.7 µg/L	1356.7 ppb	06:56:49
3	Be 313.107†	14465.7	18236.7	9.3302 µg/L	9.3302 ppb	06:56:49
3	Cd 226.502†	290.2	416.2	-3.5410 µg/L	-3.5410 ppb	06:57:10
3	Co 228.616†	1353.1	1371.8	54.639 µg/L	54.639 ppb	06:57:10
3	Cr 267.716†	7703.1	7802.6	164.79 µg/L	164.79 ppb	06:56:49
3	Cu 324.752†	13023.7	9917.5	83.614 µg/L	83.614 ppb	06:56:49
3	Mn 257.610†	1066833.8	1077259.8	3593.7 µg/L	3593.7 ppb	06:56:44
3	Mo 202.031†	-6.9	-8.0	4.1174 µg/L	4.1174 ppb	06:57:10
3	Ni 231.604†	2085.4	1824.5	97.178 µg/L	97.178 ppb	06:57:10
3	P 214.914†	545.6	523.3	1001.7 µg/L	1001.7 ppb	06:57:10
3	Pb 220.353†	589.8	505.0	129.15 µg/L	129.15 ppb	06:57:10
3	S 181.975 Axial†	165.6	152.1	656.20 µg/L	656.20 ppb	06:57:10
3	Sb 206.836†	37.4	16.7	11.821 µg/L	11.821 ppb	06:57:10
3	Se 196.026†	-39.5	-51.8	259.35 µg/L	259.35 ppb	06:57:10
3	SiO2†	92219.7	91588.1	18734 µg/L	18734 ppb	06:56:49
3	Si 251.611†	109160.9	109918.1	8693.4 µg/L	8693.4 ppb	06:56:49
3	Sn 189.927†	-37.7	-39.0	-29.414 µg/L	-29.414 ppb	06:57:10
3	Ti 334.940†	2228558.0	2249687.0	5127.8 µg/L	5127.8 ppb	06:56:44
3	Tl 190.801†	-74.0	-54.1	7.3377 µg/L	7.3377 ppb	06:57:10
3	U 409.014†	-349.6	-578.3	-66.864 µg/L	-66.864 ppb	06:56:44
3	V 292.402†	24641.4	24924.0	267.05 µg/L	267.05 ppb	06:56:49
3	Zn 213.857†	11806.1	11452.9	272.09 µg/L	272.09 ppb	06:56:49

Mean Data: 246066011|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1928784.6	99.025	%	0.5430				0.55%
Sc RADIAL	55077.7	99.4	%	0.39				0.39%
Y 371.029	1367719.6	102.27	%	0.576				0.56%
Ag 328.068†	-1417.3	-0.7799	µg/L	0.20307	-0.7799	ppb	0.20307	26.04%
Al 396.153Radial†	119654.8	85014	µg/L	233.3	85014	ppb	233.3	0.27%
As 188.979†	14.6	33.784	µg/L	3.8619	33.784	ppb	3.8619	11.43%
B 249.677†	794.4	-34.322	µg/L	1.2028	-34.322	ppb	1.2028	3.50%
Ba 233.527†	54923.5	1388.0	µg/L	27.33	1388.0	ppb	27.33	1.97%
Be 313.107†	18858.0	9.6792	µg/L	0.30239	9.6792	ppb	0.30239	3.12%
Ca 317.933Radial†	26012.0	23527	µg/L	93.3	23527	ppb	93.3	0.40%
Cd 226.502†	453.8	-2.5388	µg/L	0.87163	-2.5388	ppb	0.87163	34.33%
Co 228.616†	1459.5	58.623	µg/L	3.4588	58.623	ppb	3.4588	5.90%
Cr 267.716†	8052.0	170.06	µg/L	4.606	170.06	ppb	4.606	2.71%
Cu 324.752†	10109.6	84.891	µg/L	1.1176	84.891	ppb	1.1176	1.32%
Fe 238.204 Radial†	14897.6	130340	µg/L	509.3	130340	ppb	509.3	0.39%
K 766.490 Radial†	21642.0	14501	µg/L	38.4	14501	ppb	38.4	0.26%
Mg 279.077 IEC†	1771.6	16403	µg/L	108.4	16403	ppb	108.4	0.66%
Mn 257.610†	1093491.4	3647.7	µg/L	47.22	3647.7	ppb	47.22	1.29%
Mo 202.031†	-10.6	3.8511	µg/L	0.28803	3.8511	ppb	0.28803	7.48%
Na 589.592 Radial†	1867.8	567.79	µg/L	6.711	567.79	ppb	6.711	1.18%

Ni 231.604†	1946.9	103.58 µg/L	5.560	103.58 ppb	5.560	5.37%
P 214.914†	555.1	1067.8 µg/L	58.91	1067.8 ppb	58.91	5.52%
Pb 220.353†	528.1	135.06 µg/L	5.299	135.06 ppb	5.299	3.92%
S 181.975 Axial†	160.0	690.13 µg/L	37.511	690.13 ppb	37.511	5.44%
Sb 206.836†	13.9	9.1896 µg/L	3.27924	9.1896 ppb	3.27924	35.68%
Se 196.026†	-58.8	249.23 µg/L	11.928	249.23 ppb	11.928	4.79%
SiO2†	94422.6	19314 µg/L	502.1	19314 ppb	502.1	2.60%
Si 251.611†	113459.9	8973.5 µg/L	242.65	8973.5 ppb	242.65	2.70%
Sn 189.927†	-43.9	-31.632 µg/L	1.9211	-31.632 ppb	1.9211	6.07%
Sr 421.552†	24125.3	233.56 µg/L	0.654	233.56 ppb	0.654	0.28%
Ti 334.940†	2290400.0	5220.6 µg/L	80.52	5220.6 ppb	80.52	1.54%
Tl 190.801†	-52.1	11.165 µg/L	3.4550	11.165 ppb	3.4550	30.95%
U 409.014†	-673.0	-74.620 µg/L	12.3422	-74.620 ppb	12.3422	16.54%
V 292.402†	25680.0	274.69 µg/L	6.709	274.69 ppb	6.709	2.44%
Zn 213.857†	11711.9	278.38 µg/L	5.485	278.38 ppb	5.485	1.97%

Sequence No.: 49
Sample ID: 246066012|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 339
Date Collected: 2/24/2010 06:57:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066012|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54445.4	54445.4	98.3	%			06:57:52
1	Al 396.153Radial†	124570.4	126716.7	90032	µg/L	90032	ppb	06:57:52
1	Ca 317.933Radial†	16893.7	16971.8	15351	µg/L	15351	ppb	06:58:13
1	Fe 238.204 Radial†	13956.4	14180.9	124070	µg/L	124070	ppb	06:58:13
1	K 766.490 Radial†	17092.0	17211.1	11533	µg/L	11533	ppb	06:57:52
1	Mg 279.077 IEC†	1671.6	1686.9	15618	µg/L	15618	ppb	06:58:13
1	Na 589.592 Radial†	3463.2	3144.6	955.89	µg/L	955.89	ppb	06:58:13
1	Sr 421.552†	20477.4	20812.9	201.49	µg/L	201.49	ppb	06:57:52
1	Sc 361.383	1977129.7	1977129.7	101.51	%			06:59:17
1	Y 371.029	1418398.2	1418398.2	106.06	%			06:59:17
1	Ag 328.068†	-1884.3	-1346.0	-1.1526	µg/L	-1.1526	ppb	06:59:23
1	As 188.979†	6.9	6.0	17.679	µg/L	17.679	ppb	06:59:43
1	B 249.677†	957.4	630.1	-38.011	µg/L	-38.011	ppb	06:59:23
1	Ba 233.527†	47138.7	46464.2	1174.1	µg/L	1174.1	ppb	06:59:23
1	Be 313.107†	14582.0	17998.4	9.4185	µg/L	9.4185	ppb	06:59:23
1	Cd 226.502†	307.3	426.0	-2.5902	µg/L	-2.5902	ppb	06:59:43
1	Co 228.616†	1085.9	1075.6	41.823	µg/L	41.823	ppb	06:59:43
1	Cr 267.716†	6649.4	6576.6	138.88	µg/L	138.88	ppb	06:59:23
1	Cu 324.752†	10382.0	6997.4	63.463	µg/L	63.463	ppb	06:59:23
1	Mn 257.610†	929587.1	916027.3	3057.6	µg/L	3057.6	ppb	06:59:17
1	Mo 202.031†	19.8	18.4	6.6219	µg/L	6.6219	ppb	06:59:43
1	Ni 231.604†	1897.7	1588.8	84.765	µg/L	84.765	ppb	06:59:43
1	P 214.914†	385.9	352.6	654.70	µg/L	654.70	ppb	06:59:43
1	Pb 220.353†	466.0	368.7	94.797	µg/L	94.797	ppb	06:59:43
1	S 181.975 Axial†	95.7	79.2	341.60	µg/L	341.60	ppb	06:59:43
1	Sb 206.836†	33.8	12.2	8.6985	µg/L	8.6985	ppb	06:59:43
1	Se 196.026†	-45.8	-57.1	237.60	µg/L	237.60	ppb	06:59:43
1	SiO2†	84503.6	81737.0	16719	µg/L	16719	ppb	06:59:23
1	Si 251.611†	99966.3	98197.2	7766.4	µg/L	7766.4	ppb	06:59:23
1	Sn 189.927†	-26.8	-27.3	-23.602	µg/L	-23.602	ppb	06:59:43
1	Ti 334.940†	2008143.6	1978183.5	4508.8	µg/L	4508.8	ppb	06:59:17
1	Tl 190.801†	-64.5	-43.0	15.509	µg/L	15.509	ppb	06:59:43
1	U 409.014†	-925.5	-1137.1	-111.22	µg/L	-111.22	ppb	06:59:17
1	V 292.402†	18153.4	17931.2	195.70	µg/L	195.70	ppb	06:59:23
1	Zn 213.857†	14595.2	13912.6	332.58	µg/L	332.58	ppb	06:59:23
2	Sc RADIAL	56081.0	56081.0	101	%			06:58:18
2	Al 396.153Radial†	123175.8	121643.1	86427	µg/L	86427	ppb	06:58:18
2	Ca 317.933Radial†	16805.2	16383.1	14818	µg/L	14818	ppb	06:58:39
2	Fe 238.204 Radial†	13810.6	13622.7	119180	µg/L	119180	ppb	06:58:39
2	K 766.490 Radial†	16956.4	16570.0	11103	µg/L	11103	ppb	06:58:18
2	Mg 279.077 IEC†	1662.1	1627.9	15073	µg/L	15073	ppb	06:58:39
2	Na 589.592 Radial†	3433.4	3012.4	915.71	µg/L	915.71	ppb	06:58:39
2	Sr 421.552†	20250.4	19981.0	193.44	µg/L	193.44	ppb	06:58:18
2	Sc 361.383	1984515.5	1984515.5	101.89	%			06:59:51
2	Y 371.029	1424209.4	1424209.4	106.50	%			06:59:51
2	Ag 328.068†	-1857.3	-1312.6	-1.2174	µg/L	-1.2174	ppb	06:59:56
2	As 188.979†	4.8	3.9	13.533	µg/L	13.533	ppb	07:00:17
2	B 249.677†	976.4	645.3	-34.828	µg/L	-34.828	ppb	06:59:56
2	Ba 233.527†	47009.9	46165.0	1166.6	µg/L	1166.6	ppb	06:59:56
2	Be 313.107†	14509.3	17873.6	9.3507	µg/L	9.3507	ppb	06:59:56
2	Cd 226.502†	300.4	418.1	-2.2485	µg/L	-2.2485	ppb	07:00:17
2	Co 228.616†	1076.4	1062.3	41.243	µg/L	41.243	ppb	07:00:17
2	Cr 267.716†	6572.8	6477.0	136.78	µg/L	136.78	ppb	06:59:56
2	Cu 324.752†	10312.7	6891.3	62.084	µg/L	62.084	ppb	06:59:56
2	Mn 257.610†	926168.7	909263.8	3034.5	µg/L	3034.5	ppb	06:59:51
2	Mo 202.031†	20.2	18.7	6.4625	µg/L	6.4625	ppb	07:00:17
2	Ni 231.604†	1907.2	1591.2	84.828	µg/L	84.828	ppb	07:00:17
2	P 214.914†	385.9	351.2	654.78	µg/L	654.78	ppb	07:00:17
2	Pb 220.353†	461.8	362.9	93.284	µg/L	93.284	ppb	07:00:17

2	S 181.975 Axial†	100.1	83.2	358.73 µg/L	358.73 ppb	07:00:17
2	Sb 206.836†	31.2	9.6	6.2185 µg/L	6.2185 ppb	07:00:17
2	Se 196.026†	-56.8	-67.7	209.37 µg/L	209.37 ppb	07:00:17
2	SiO2†	84483.5	81407.5	16652 µg/L	16652 ppb	06:59:56
2	Si 251.611†	99888.0	97753.8	7731.3 µg/L	7731.3 ppb	06:59:56
2	Sn 189.927†	-28.7	-29.0	-23.916 µg/L	-23.916 ppb	07:00:17
2	Ti 334.940†	2004589.9	1967332.7	4484.1 µg/L	4484.1 ppb	06:59:51
2	Tl 190.801†	-64.9	-43.1	14.060 µg/L	14.060 ppb	07:00:17
2	U 409.014†	-909.3	-1117.8	-108.93 µg/L	-108.93 ppb	06:59:51
2	V 292.402†	18081.7	17794.2	193.75 µg/L	193.75 ppb	06:59:56
2	Zn 213.857†	14504.1	13769.6	329.36 µg/L	329.36 ppb	06:59:56
3	Sc RADIAL	56470.6	56470.6	102 %		06:58:44
3	Al 396.153Radial†	122915.5	120548.5	85649 µg/L	85649 ppb	06:58:44
3	Ca 317.933Radial†	16734.5	16199.2	14652 µg/L	14652 ppb	06:59:04
3	Fe 238.204 Radial†	13795.8	13514.1	118230 µg/L	118230 ppb	06:59:04
3	K 766.490 Radial†	16832.1	16332.5	10944 µg/L	10944 ppb	06:58:44
3	Mg 279.077 IEC†	1650.0	1604.7	14857 µg/L	14857 ppb	06:59:04
3	Na 589.592 Radial†	3444.6	3000.0	911.94 µg/L	911.94 ppb	06:59:04
3	Sr 421.552†	20146.9	19741.6	191.12 µg/L	191.12 ppb	06:58:44
3	Sc 361.383	1980390.6	1980390.6	101.67 %		07:00:24
3	Y 371.029	1419921.3	1419921.3	106.18 %		07:00:24
3	Ag 328.068†	-1781.1	-1241.5	-0.8048 µg/L	-0.8048 ppb	07:00:30
3	As 188.979†	15.5	14.4	33.278 µg/L	33.278 ppb	07:00:51
3	B 249.677†	900.4	572.5	-37.403 µg/L	-37.403 ppb	07:00:30
3	Ba 233.527†	44705.6	43994.7	1111.7 µg/L	1111.7 ppb	07:00:30
3	Be 313.107†	13580.9	16990.2	8.8626 µg/L	8.8626 ppb	07:00:30
3	Cd 226.502†	261.5	380.4	-3.1526 µg/L	-3.1526 ppb	07:00:51
3	Co 228.616†	982.0	971.6	37.243 µg/L	37.243 ppb	07:00:51
3	Cr 267.716†	6206.8	6130.5	129.46 µg/L	129.46 ppb	07:00:30
3	Cu 324.752†	10070.1	6673.8	60.515 µg/L	60.515 ppb	07:00:30
3	Mn 257.610†	898821.3	884260.2	2951.3 µg/L	2951.3 ppb	07:00:24
3	Mo 202.031†	17.0	15.6	6.1109 µg/L	6.1109 ppb	07:00:51
3	Ni 231.604†	1760.8	1451.1	77.486 µg/L	77.486 ppb	07:00:51
3	P 214.914†	367.0	333.4	618.35 µg/L	618.35 ppb	07:00:51
3	Pb 220.353†	435.5	337.9	86.881 µg/L	86.881 ppb	07:00:51
3	S 181.975 Axial†	91.3	74.7	322.18 µg/L	322.18 ppb	07:00:51
3	Sb 206.836†	28.5	7.0	3.8742 µg/L	3.8742 ppb	07:00:51
3	Se 196.026†	-34.5	-45.9	238.88 µg/L	238.88 ppb	07:00:51
3	SiO2†	80144.1	77312.2	15814 µg/L	15814 ppb	07:00:30
3	Si 251.611†	94723.9	92878.9	7345.8 µg/L	7345.8 ppb	07:00:30
3	Sn 189.927†	-22.5	-23.0	-21.170 µg/L	-21.170 ppb	07:00:51
3	Ti 334.940†	1931937.4	1899974.7	4330.5 µg/L	4330.5 ppb	07:00:24
3	Tl 190.801†	-66.5	-44.8	9.9451 µg/L	9.9451 ppb	07:00:51
3	U 409.014†	-858.8	-1070.1	-104.88 µg/L	-104.88 ppb	07:00:24
3	V 292.402†	17054.3	16820.7	183.80 µg/L	183.80 ppb	07:00:30
3	Zn 213.857†	13879.3	13184.8	315.17 µg/L	315.17 ppb	07:00:30

Mean Data: 246066012|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1980678.6	101.69	%	0.190				0.19%
Sc RADIAL	55665.7	100	%	1.9				1.93%
Y 371.029	1420843.0	106.24	%	0.225				0.21%
Ag 328.068†	-1300.0	-1.0582	µg/L	0.22189	-1.0582	ppb	0.22189	20.97%
Al 396.153Radial†	122969.4	87369	µg/L	2338.3	87369	ppb	2338.3	2.68%
As 188.979†	8.1	21.497	µg/L	10.4114	21.497	ppb	10.4114	48.43%
B 249.677†	615.9	-36.747	µg/L	1.6900	-36.747	ppb	1.6900	4.60%
Ba 233.527†	45541.3	1150.8	µg/L	34.06	1150.8	ppb	34.06	2.96%
Be 313.107†	17620.7	9.2106	µg/L	0.30329	9.2106	ppb	0.30329	3.29%
Ca 317.933Radial†	16518.0	14940	µg/L	365.0	14940	ppb	365.0	2.44%
Cd 226.502†	408.2	-2.6638	µg/L	0.45651	-2.6638	ppb	0.45651	17.14%
Co 228.616†	1036.5	40.103	µg/L	2.4942	40.103	ppb	2.4942	6.22%
Cr 267.716†	6394.7	135.04	µg/L	4.945	135.04	ppb	4.945	3.66%
Cu 324.752†	6854.1	62.020	µg/L	1.4753	62.020	ppb	1.4753	2.38%
Fe 238.204 Radial†	13772.6	120490	µg/L	3130.1	120490	ppb	3130.1	2.60%
K 766.490 Radial†	16704.6	11193	µg/L	304.5	11193	ppb	304.5	2.72%
Mg 279.077 IEC†	1639.8	15183	µg/L	392.4	15183	ppb	392.4	2.58%
Mn 257.610†	903183.8	3014.5	µg/L	55.87	3014.5	ppb	55.87	1.85%
Mo 202.031†	17.6	6.3984	µg/L	0.26143	6.3984	ppb	0.26143	4.09%
Na 589.592 Radial†	3052.3	927.85	µg/L	24.362	927.85	ppb	24.362	2.63%

Ni 231.604†	1543.7	82.360 µg/L	4.2208	82.360 ppb	4.2208	5.12%
P 214.914†	345.7	642.61 µg/L	21.008	642.61 ppb	21.008	3.27%
Pb 220.353†	356.5	91.654 µg/L	4.2021	91.654 ppb	4.2021	4.58%
S 181.975 Axial†	79.0	340.84 µg/L	18.287	340.84 ppb	18.287	5.37%
Sb 206.836†	9.6	6.2638 µg/L	2.41247	6.2638 ppb	2.41247	38.51%
Se 196.026†	-56.9	228.62 µg/L	16.679	228.62 ppb	16.679	7.30%
SiO2†	80152.2	16395 µg/L	504.2	16395 ppb	504.2	3.08%
Si 251.611†	96276.6	7614.5 µg/L	233.38	7614.5 ppb	233.38	3.06%
Sn 189.927†	-26.4	-22.896 µg/L	1.5028	-22.896 ppb	1.5028	6.56%
Sr 421.552†	20178.5	195.35 µg/L	5.444	195.35 ppb	5.444	2.79%
Ti 334.940†	1948497.0	4441.1 µg/L	96.57	4441.1 ppb	96.57	2.17%
Tl 190.801†	-43.6	13.171 µg/L	2.8863	13.171 ppb	2.8863	21.91%
U 409.014†	-1108.3	-108.35 µg/L	3.209	-108.35 ppb	3.209	2.96%
V 292.402†	17515.4	191.08 µg/L	6.384	191.08 ppb	6.384	3.34%
Zn 213.857†	13622.3	325.70 µg/L	9.266	325.70 ppb	9.266	2.85%

Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 07:01:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55575.6	55575.6	100	%			07:01:37
1	Al 396.153Radial†	7038.6	6999.1	4962.1	µg/L	4962.1	ppb	07:01:37
1	Ca 317.933Radial†	5635.2	5401.2	4885.3	µg/L	4885.3	ppb	07:01:57
1	Fe 238.204 Radial†	598.5	578.7	5074.0	µg/L	5074.0	ppb	07:01:57
1	K 766.490 Radial†	7694.9	7491.7	5019.9	µg/L	5019.9	ppb	07:01:37
1	Mg 279.077 IEC†	555.9	540.3	5048.4	µg/L	5048.4	ppb	07:01:57
1	Na 589.592 Radial†	33159.7	32670.5	9931.3	µg/L	9931.3	ppb	07:01:37
1	Sr 421.552†	51102.7	50912.5	492.89	µg/L	492.89	ppb	07:01:37
1	Sc 361.383	1964767.0	1964767.0	100.87	%			07:03:01
1	Y 371.029	1355705.7	1355705.7	101.37	%			07:03:01
1	Ag 328.068†	66102.8	66041.4	502.22	µg/L	502.22	ppb	07:03:06
1	As 188.979†	274.4	271.3	510.17	µg/L	510.17	ppb	07:03:27
1	B 249.677†	12049.7	11632.4	487.50	µg/L	487.50	ppb	07:03:06
1	Ba 233.527†	19880.0	19733.5	499.43	µg/L	499.43	ppb	07:03:06
1	Be 313.107†	815736.8	812314.8	502.44	µg/L	502.44	ppb	07:03:01
1	Cd 226.502†	19101.3	19059.4	507.58	µg/L	507.58	ppb	07:03:06
1	Co 228.616†	10639.0	10552.8	502.09	µg/L	502.09	ppb	07:03:06
1	Cr 267.716†	24247.9	24064.1	508.06	µg/L	508.06	ppb	07:03:06
1	Cu 324.752†	78716.8	74805.5	494.80	µg/L	494.80	ppb	07:03:06
1	Mn 257.610†	155373.7	154272.0	512.74	µg/L	512.74	ppb	07:03:01
1	Mo 202.031†	5109.5	5064.2	524.36	µg/L	524.36	ppb	07:03:27
1	Ni 231.604†	10008.4	9641.1	504.43	µg/L	504.43	ppb	07:03:06
1	P 214.914†	1276.0	1237.4	2530.8	µg/L	2530.8	ppb	07:03:27
1	Pb 220.353†	2115.7	2007.0	514.82	µg/L	514.82	ppb	07:03:27
1	S 181.975 Axial†	257.9	240.6	1037.7	µg/L	1037.7	ppb	07:03:27
1	Sb 206.836†	567.8	541.8	514.32	µg/L	514.32	ppb	07:03:27
1	Se 196.026†	379.6	364.3	539.26	µg/L	539.26	ppb	07:03:27
1	SiO2†	28069.0	26314.3	5382.5	µg/L	5382.5	ppb	07:03:06
1	Si 251.611†	32239.5	31675.8	2505.2	µg/L	2505.2	ppb	07:03:06
1	Sn 189.927†	1196.2	1185.0	527.50	µg/L	527.50	ppb	07:03:27
1	Ti 334.940†	222266.5	220199.4	501.68	µg/L	501.68	ppb	07:03:01
1	Tl 190.801†	352.7	370.2	517.70	µg/L	517.70	ppb	07:03:27
1	U 409.014†	6297.5	6017.7	491.38	µg/L	491.38	ppb	07:03:06
1	V 292.402†	50033.3	49647.9	507.10	µg/L	507.10	ppb	07:03:06
1	Zn 213.857†	21351.9	20701.3	502.08	µg/L	502.08	ppb	07:03:06
2	Sc RADIAL	55622.3	55622.3	100	%			07:02:03
2	Al 396.153Radial†	7022.2	6976.9	4946.6	µg/L	4946.6	ppb	07:02:03
2	Ca 317.933Radial†	5626.9	5388.3	4873.6	µg/L	4873.6	ppb	07:02:23
2	Fe 238.204 Radial†	596.2	575.9	5049.4	µg/L	5049.4	ppb	07:02:23
2	K 766.490 Radial†	7714.1	7504.4	5028.4	µg/L	5028.4	ppb	07:02:03
2	Mg 279.077 IEC†	548.5	532.5	4975.2	µg/L	4975.2	ppb	07:02:23
2	Na 589.592 Radial†	33150.0	32633.2	9919.9	µg/L	9919.9	ppb	07:02:03
2	Sr 421.552†	51162.3	50929.0	493.05	µg/L	493.05	ppb	07:02:03
2	Sc 361.383	1984784.9	1984784.9	101.90	%			07:03:34
2	Y 371.029	1369538.6	1369538.6	102.41	%			07:03:34
2	Ag 328.068†	67095.3	66354.5	504.61	µg/L	504.61	ppb	07:03:40
2	As 188.979†	278.0	272.0	511.62	µg/L	511.62	ppb	07:04:00
2	B 249.677†	12288.9	11746.6	492.32	µg/L	492.32	ppb	07:03:40
2	Ba 233.527†	20236.0	19884.1	503.24	µg/L	503.24	ppb	07:03:40
2	Be 313.107†	825381.0	813623.1	503.25	µg/L	503.25	ppb	07:03:34
2	Cd 226.502†	19509.4	19268.8	513.16	µg/L	513.16	ppb	07:03:40
2	Co 228.616†	10830.9	10634.7	505.98	µg/L	505.98	ppb	07:03:40
2	Cr 267.716†	24736.0	24300.7	513.05	µg/L	513.05	ppb	07:03:40
2	Cu 324.752†	79981.5	75259.6	497.79	µg/L	497.79	ppb	07:03:40
2	Mn 257.610†	156909.4	154225.5	512.58	µg/L	512.58	ppb	07:03:34
2	Mo 202.031†	5031.7	4936.7	511.17	µg/L	511.17	ppb	07:04:00
2	Ni 231.604†	10200.1	9729.2	509.04	µg/L	509.04	ppb	07:03:40
2	P 214.914†	1252.1	1201.2	2454.8	µg/L	2454.8	ppb	07:04:00
2	Pb 220.353†	2111.8	1982.0	508.38	µg/L	508.38	ppb	07:04:00

2	S 181.975 Axial†	256.7	236.9	1021.7 µg/L	1021.7 ppb	07:04:00
2	Sb 206.836†	559.0	527.5	500.52 µg/L	500.52 ppb	07:04:00
2	Se 196.026†	373.9	354.9	525.58 µg/L	525.58 ppb	07:04:00
2	SiO2†	28580.3	26535.5	5427.7 µg/L	5427.7 ppb	07:03:40
2	Si 251.611†	32865.7	31968.0	2528.3 µg/L	2528.3 ppb	07:03:40
2	Sn 189.927†	1164.1	1141.6	508.16 µg/L	508.16 ppb	07:04:00
2	Ti 334.940†	224942.8	220603.5	502.61 µg/L	502.61 ppb	07:03:34
2	Tl 190.801†	350.6	364.6	509.98 µg/L	509.98 ppb	07:04:00
2	U 409.014†	6286.7	5944.1	485.36 µg/L	485.36 ppb	07:03:40
2	V 292.402†	50964.7	50061.7	511.17 µg/L	511.17 ppb	07:03:40
2	Zn 213.857†	21746.7	20875.3	506.31 µg/L	506.31 ppb	07:03:40
3	Sc RADIAL	55325.0	55325.0	99.9 %		07:02:29
3	Al 396.153Radial†	6979.6	6971.9	4944.7 µg/L	4944.7 ppb	07:02:29
3	Ca 317.933Radial†	5634.3	5425.8	4907.5 µg/L	4907.5 ppb	07:02:49
3	Fe 238.204 Radial†	594.3	577.2	5059.2 µg/L	5059.2 ppb	07:02:49
3	K 766.490 Radial†	7643.3	7474.8	5008.6 µg/L	5008.6 ppb	07:02:29
3	Mg 279.077 IEC†	550.9	537.8	5023.3 µg/L	5023.3 ppb	07:02:49
3	Na 589.592 Radial†	32922.2	32582.5	9904.5 µg/L	9904.5 ppb	07:02:29
3	Sr 421.552†	50739.1	50779.1	491.60 µg/L	491.60 ppb	07:02:29
3	Sc 361.383	1981033.2	1981033.2	101.71 %		07:04:07
3	Y 371.029	1366471.1	1366471.1	102.18 %		07:04:07
3	Ag 328.068†	62863.5	62318.4	473.77 µg/L	473.77 ppb	07:04:13
3	As 188.979†	232.0	227.3	427.55 µg/L	427.55 ppb	07:04:33
3	B 249.677†	11380.4	10876.3	455.60 µg/L	455.60 ppb	07:04:13
3	Ba 233.527†	18421.5	18137.7	459.02 µg/L	459.02 ppb	07:04:13
3	Be 313.107†	766220.7	756990.0	468.22 µg/L	468.22 ppb	07:04:07
3	Cd 226.502†	17541.8	17370.5	462.55 µg/L	462.55 ppb	07:04:13
3	Co 228.616†	9684.3	9527.5	453.24 µg/L	453.24 ppb	07:04:13
3	Cr 267.716†	21424.9	21091.2	445.30 µg/L	445.30 ppb	07:04:13
3	Cu 324.752†	72086.6	67645.9	447.51 µg/L	447.51 ppb	07:04:13
3	Mn 257.610†	146502.0	144284.5	479.57 µg/L	479.57 ppb	07:04:07
3	Mo 202.031†	4224.2	4152.2	429.96 µg/L	429.96 ppb	07:04:33
3	Ni 231.604†	9141.8	8707.6	455.59 µg/L	455.59 ppb	07:04:13
3	P 214.914†	1078.5	1032.9	2108.1 µg/L	2108.1 ppb	07:04:33
3	Pb 220.353†	1838.7	1717.5	440.46 µg/L	440.46 ppb	07:04:33
3	S 181.975 Axial†	229.3	210.4	907.57 µg/L	907.57 ppb	07:04:33
3	Sb 206.836†	483.6	454.4	430.93 µg/L	430.93 ppb	07:04:33
3	Se 196.026†	332.8	315.3	467.67 µg/L	467.67 ppb	07:04:33
3	SiO2†	26353.5	24399.1	4990.7 µg/L	4990.7 ppb	07:04:13
3	Si 251.611†	30228.5	29436.1	2328.1 µg/L	2328.1 ppb	07:04:13
3	Sn 189.927†	964.6	947.6	421.81 µg/L	421.81 ppb	07:04:33
3	Ti 334.940†	207990.9	204354.3	465.56 µg/L	465.56 ppb	07:04:07
3	Tl 190.801†	314.6	329.9	461.67 µg/L	461.67 ppb	07:04:33
3	U 409.014†	5621.2	5301.5	432.78 µg/L	432.78 ppb	07:04:13
3	V 292.402†	45198.3	44486.8	454.10 µg/L	454.10 ppb	07:04:13
3	Zn 213.857†	19544.4	18750.3	454.72 µg/L	454.72 ppb	07:04:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1976861.7	101.49	%	0.546				0.54%
Sc RADIAL	55507.6	100	%	0.3				0.29%
Y 371.029	1363905.1	101.99	%	0.543				0.53%
Ag 328.068†	64904.8	493.53	µg/L	17.158	493.53	ppb	17.158	3.48%
QC value within limits for Ag 328.068 Recovery = 98.71%								
Al 396.153Radial†	6982.6	4951.1	µg/L	9.54	4951.1	ppb	9.54	0.19%
QC value within limits for Al 396.153Radial Recovery = 99.02%								
As 188.979†	256.9	483.11	µg/L	48.125	483.11	ppb	48.125	9.96%
QC value within limits for As 188.979 Recovery = 96.62%								
B 249.677†	11418.4	478.47	µg/L	19.958	478.47	ppb	19.958	4.17%
QC value within limits for B 249.677 Recovery = 95.69%								
Ba 233.527†	19251.7	487.23	µg/L	24.505	487.23	ppb	24.505	5.03%
QC value within limits for Ba 233.527 Recovery = 97.45%								
Be 313.107†	794309.3	491.30	µg/L	19.994	491.30	ppb	19.994	4.07%
QC value within limits for Be 313.107 Recovery = 98.26%								
Ca 317.933Radial†	5405.1	4888.8	µg/L	17.24	4888.8	ppb	17.24	0.35%
QC value within limits for Ca 317.933Radial Recovery = 97.78%								
Cd 226.502†	18566.2	494.43	µg/L	27.751	494.43	ppb	27.751	5.61%
QC value within limits for Cd 226.502 Recovery = 98.89%								
Co 228.616†	10238.4	487.10	µg/L	29.389	487.10	ppb	29.389	6.03%

```
   QC value within limits for Co 228.616  Recovery = 97.42%
Cr 267.716†            23152.0      488.80 µg/L        37.759      488.80 ppb         37.759   7.72%
   QC value within limits for Cr 267.716  Recovery = 97.76%
Cu 324.752†            72570.3      480.03 µg/L        28.208      480.03 ppb         28.208   5.88%
   QC value within limits for Cu 324.752  Recovery = 96.01%
Fe 238.204 Radial†       577.3      5060.9 µg/L         12.39      5060.9 ppb          12.39   0.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.22%
K 766.490 Radial†       7490.3      5019.0 µg/L          9.93      5019.0 ppb           9.93   0.20%
   QC value within limits for K 766.490 Radial  Recovery = 100.38%
Mg 279.077 IEC†          536.9      5015.6 µg/L         37.22      5015.6 ppb          37.22   0.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.31%
Mn 257.610†           150927.3      501.63 µg/L        19.103      501.63 ppb         19.103   3.81%
   QC value within limits for Mn 257.610  Recovery = 100.33%
Mo 202.031†             4717.7      488.50 µg/L        51.118      488.50 ppb         51.118  10.46%
   QC value within limits for Mo 202.031  Recovery = 97.70%
Na 589.592 Radial†     32628.7      9918.6 µg/L         13.44      9918.6 ppb          13.44   0.14%
   QC value within limits for Na 589.592 Radial  Recovery = 99.19%
Ni 231.604†             9359.3      489.69 µg/L        29.615      489.69 ppb         29.615   6.05%
   QC value within limits for Ni 231.604  Recovery = 97.94%
P 214.914†              1157.1      2364.6 µg/L        225.30      2364.6 ppb         225.30   9.53%
   QC value within limits for P 214.914  Recovery = 94.58%
Pb 220.353†             1902.2      487.89 µg/L        41.196      487.89 ppb         41.196   8.44%
   QC value within limits for Pb 220.353  Recovery = 97.58%
S 181.975 Axial†         229.3      988.99 µg/L        70.967      988.99 ppb         70.967   7.18%
   QC value within limits for S 181.975 Axial  Recovery = 98.90%
Sb 206.836†              507.9      481.92 µg/L        44.694      481.92 ppb         44.694   9.27%
   QC value within limits for Sb 206.836  Recovery = 96.38%
Se 196.026†              344.8      510.84 µg/L        37.999      510.84 ppb         37.999   7.44%
   QC value within limits for Se 196.026  Recovery = 102.17%
SiO2†                  25749.6      5267.0 µg/L        240.30      5267.0 ppb         240.30   4.56%
   QC value within limits for SiO2  Recovery = 98.49%
Si 251.611†            31026.6      2453.9 µg/L        109.55      2453.9 ppb         109.55   4.46%
   QC value within limits for Si 251.611  Recovery = 98.16%
Sn 189.927†             1091.4      485.82 µg/L        56.271      485.82 ppb         56.271  11.58%
   QC value within limits for Sn 189.927  Recovery = 97.16%
Sr 421.552†            50873.6      492.51 µg/L         0.796      492.51 ppb          0.796   0.16%
   QC value within limits for Sr 421.552  Recovery = 98.50%
Ti 334.940†           215052.4      489.95 µg/L        21.127      489.95 ppb         21.127   4.31%
   QC value within limits for Ti 334.940  Recovery = 97.99%
Tl 190.801†              354.9      496.45 µg/L        30.368      496.45 ppb         30.368   6.12%
   QC value within limits for Tl 190.801  Recovery = 99.29%
U 409.014†              5754.4      469.84 µg/L        32.239      469.84 ppb         32.239   6.86%
   QC value within limits for U 409.014  Recovery = 93.97%
V 292.402†             48065.5      490.79 µg/L        31.837      490.79 ppb         31.837   6.49%
   QC value within limits for V 292.402  Recovery = 98.16%
Zn 213.857†            20109.0      487.70 µg/L        28.642      487.70 ppb         28.642   5.87%
   QC value within limits for Zn 213.857  Recovery = 97.54%
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 07:04:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55150.1	55150.1	99.6	%			07:05:18
1	Al 396.153Radial†	12.9	-3.1	-2.1946	µg/L	-2.1946	ppb	07:05:18
1	Ca 317.933Radial†	188.5	-25.8	-23.346	µg/L	-23.346	ppb	07:05:39
1	Fe 238.204 Radial†	17.7	-0.0	-0.1347	µg/L	-0.1347	ppb	07:05:39
1	K 766.490 Radial†	186.8	10.0	6.7235	µg/L	6.7235	ppb	07:05:18
1	Mg 279.077 IEC†	7.0	-6.7	-62.435	µg/L	-62.435	ppb	07:05:39
1	Na 589.592 Radial†	425.4	48.5	14.756	µg/L	14.756	ppb	07:05:18
1	Sr 421.552†	33.8	14.0	0.1354	µg/L	0.1354	ppb	07:05:18
1	Sc 361.383	1971702.1	1971702.1	101.23	%			07:06:41
1	Y 371.029	1367077.3	1367077.3	102.22	%			07:06:41
1	Ag 328.068†	-395.0	120.1	0.9030	µg/L	0.9030	ppb	07:06:47
1	As 188.979†	0.1	-0.7	-1.2635	µg/L	-1.2635	ppb	07:07:07
1	B 249.677†	333.0	15.9	0.6684	µg/L	0.6684	ppb	07:07:07
1	Ba 233.527†	-14.2	11.4	0.2874	µg/L	0.2874	ppb	07:07:07
1	Be 313.107†	-3263.2	409.3	0.2531	µg/L	0.2531	ppb	07:06:47
1	Cd 226.502†	-136.8	-11.9	-0.3176	µg/L	-0.3176	ppb	07:07:07
1	Co 228.616†	3.5	9.3	0.4416	µg/L	0.4416	ppb	07:07:07
1	Cr 267.716†	-27.5	-1.3	-0.0269	µg/L	-0.0269	ppb	07:07:07
1	Cu 324.752†	3250.6	-19.4	-0.1278	µg/L	-0.1278	ppb	07:06:47
1	Mn 257.610†	-178.3	65.8	0.2210	µg/L	0.2210	ppb	07:07:07
1	Mo 202.031†	2.2	1.0	0.1086	µg/L	0.1086	ppb	07:07:07
1	Ni 231.604†	298.0	13.7	0.7168	µg/L	0.7168	ppb	07:07:07
1	P 214.914†	12.2	-15.5	-32.360	µg/L	-32.360	ppb	07:07:07
1	Pb 220.353†	81.8	-9.5	-2.4397	µg/L	-2.4397	ppb	07:07:07
1	S 181.975 Axial†	17.0	1.7	7.5251	µg/L	7.5251	ppb	07:07:07
1	Sb 206.836†	24.1	2.8	2.6358	µg/L	2.6358	ppb	07:07:07
1	Se 196.026†	11.0	-1.1	-1.4914	µg/L	-1.4914	ppb	07:07:07
1	SiO2†	1671.3	139.0	28.438	µg/L	28.438	ppb	07:06:47
1	Si 251.611†	416.8	126.8	10.029	µg/L	10.029	ppb	07:07:07
1	Sn 189.927†	1.5	0.7	0.2934	µg/L	0.2934	ppb	07:07:07
1	Ti 334.940†	318.8	170.1	0.3923	µg/L	0.3923	ppb	07:06:47
1	Tl 190.801†	-20.0	0.9	1.2014	µg/L	1.2014	ppb	07:07:07
1	U 409.014†	190.6	-37.1	-3.0305	µg/L	-3.0305	ppb	07:06:47
1	V 292.402†	-106.9	-58.2	-0.5898	µg/L	-0.5898	ppb	07:06:47
1	Zn 213.857†	492.5	20.6	0.5040	µg/L	0.5040	ppb	07:07:07
2	Sc RADIAL	54914.6	54914.6	99.1	%			07:05:44
2	Al 396.153Radial†	-4.6	-20.7	-14.689	µg/L	-14.689	ppb	07:05:44
2	Ca 317.933Radial†	195.4	-18.1	-16.353	µg/L	-16.353	ppb	07:06:05
2	Fe 238.204 Radial†	17.9	0.3	2.4064	µg/L	2.4064	ppb	07:06:05
2	K 766.490 Radial†	243.7	68.3	45.732	µg/L	45.732	ppb	07:05:44
2	Mg 279.077 IEC†	8.2	-5.5	-51.352	µg/L	-51.352	ppb	07:06:05
2	Na 589.592 Radial†	407.1	31.9	9.6891	µg/L	9.6891	ppb	07:05:44
2	Sr 421.552†	39.5	19.9	0.1924	µg/L	0.1924	ppb	07:05:44
2	Sc 361.383	1973136.9	1973136.9	101.30	%			07:07:13
2	Y 371.029	1366715.7	1366715.7	102.20	%			07:07:13
2	Ag 328.068†	-385.6	129.7	0.9778	µg/L	0.9778	ppb	07:07:19
2	As 188.979†	-3.8	-4.6	-8.6037	µg/L	-8.6037	ppb	07:07:39
2	B 249.677†	319.6	2.5	0.1018	µg/L	0.1018	ppb	07:07:39
2	Ba 233.527†	-6.7	18.8	0.4753	µg/L	0.4753	ppb	07:07:39
2	Be 313.107†	-3310.1	365.3	0.2259	µg/L	0.2259	ppb	07:07:19
2	Cd 226.502†	-123.3	1.5	0.0394	µg/L	0.0394	ppb	07:07:39
2	Co 228.616†	9.0	14.7	0.6991	µg/L	0.6991	ppb	07:07:39
2	Cr 267.716†	-28.3	-2.0	-0.0421	µg/L	-0.0421	ppb	07:07:39
2	Cu 324.752†	3277.1	4.4	0.0296	µg/L	0.0296	ppb	07:07:19
2	Mn 257.610†	-169.5	74.6	0.2500	µg/L	0.2500	ppb	07:07:39
2	Mo 202.031†	-0.3	-1.4	-0.1455	µg/L	-0.1455	ppb	07:07:39
2	Ni 231.604†	299.1	14.5	0.7579	µg/L	0.7579	ppb	07:07:39
2	P 214.914†	8.0	-19.7	-40.971	µg/L	-40.971	ppb	07:07:39
2	Pb 220.353†	89.2	-2.3	-0.5858	µg/L	-0.5858	ppb	07:07:39

2	S 181.975 Axial†	12.5	-2.8	-11.966 µg/L	-11.966 ppb		07:07:39
2	Sb 206.836†	22.6	1.3	1.2078 µg/L	1.2078 ppb		07:07:39
2	Se 196.026†	18.1	5.9	8.6655 µg/L	8.6655 ppb		07:07:39
2	SiO2†	1746.8	212.4	43.438 µg/L	43.438 ppb		07:07:19
2	Si 251.611†	439.2	148.6	11.755 µg/L	11.755 ppb		07:07:39
2	Sn 189.927†	4.1	3.2	1.4107 µg/L	1.4107 ppb		07:07:39
2	Ti 334.940†	327.4	178.4	0.4104 µg/L	0.4104 ppb		07:07:19
2	Tl 190.801†	-18.2	2.6	3.5981 µg/L	3.5981 ppb		07:07:39
2	U 409.014†	185.1	-42.6	-3.4874 µg/L	-3.4874 ppb		07:07:19
2	V 292.402†	-65.9	-17.7	-0.1835 µg/L	-0.1835 ppb		07:07:19
2	Zn 213.857†	498.6	26.3	0.6408 µg/L	0.6408 ppb		07:07:39
3	Sc RADIAL	54667.9	54667.9	98.7 %			07:06:10
3	Al 396.153Radial†	-18.7	-35.0	-24.850 µg/L	-24.850 ppb		07:06:10
3	Ca 317.933Radial†	181.0	-31.8	-28.753 µg/L	-28.753 ppb		07:06:31
3	Fe 238.204 Radial†	14.9	-2.7	-23.378 µg/L	-23.378 ppb		07:06:31
3	K 766.490 Radial†	222.8	48.2	32.302 µg/L	32.302 ppb		07:06:10
3	Mg 279.077 IEC†	8.7	-5.0	-46.229 µg/L	-46.229 ppb		07:06:31
3	Na 589.592 Radial†	373.4	-0.4	-0.1104 µg/L	-0.1104 ppb		07:06:10
3	Sr 421.552†	38.1	18.6	0.1798 µg/L	0.1798 ppb		07:06:10
3	Sc 361.383	1969549.4	1969549.4	101.12 %			07:07:45
3	Y 371.029	1364821.2	1364821.2	102.06 %			07:07:45
3	Ag 328.068†	-418.6	96.3	0.7269 µg/L	0.7269 ppb		07:07:51
3	As 188.979†	-1.0	-1.8	-3.3546 µg/L	-3.3546 ppb		07:08:12
3	B 249.677†	315.4	-1.1	-0.0354 µg/L	-0.0354 ppb		07:08:12
3	Ba 233.527†	-10.4	15.1	0.3816 µg/L	0.3816 ppb		07:08:12
3	Be 313.107†	-3282.0	387.2	0.2394 µg/L	0.2394 ppb		07:07:51
3	Cd 226.502†	-129.5	-4.8	-0.1255 µg/L	-0.1255 ppb		07:08:12
3	Co 228.616†	-7.1	-1.2	-0.0575 µg/L	-0.0575 ppb		07:08:12
3	Cr 267.716†	-34.9	-8.6	-0.1817 µg/L	-0.1817 ppb		07:08:12
3	Cu 324.752†	3275.7	9.0	0.0559 µg/L	0.0559 ppb		07:07:51
3	Mn 257.610†	-145.4	98.1	0.3245 µg/L	0.3245 ppb		07:08:12
3	Mo 202.031†	1.3	0.1	0.0125 µg/L	0.0125 ppb		07:08:12
3	Ni 231.604†	294.6	10.6	0.5574 µg/L	0.5574 ppb		07:08:12
3	P 214.914†	18.3	-9.5	-19.704 µg/L	-19.704 ppb		07:08:12
3	Pb 220.353†	94.8	3.4	0.8710 µg/L	0.8710 ppb		07:08:12
3	S 181.975 Axial†	19.8	4.5	19.390 µg/L	19.390 ppb		07:08:12
3	Sb 206.836†	24.0	2.7	2.5661 µg/L	2.5661 ppb		07:08:12
3	Se 196.026†	14.4	2.3	3.3375 µg/L	3.3375 ppb		07:08:12
3	SiO2†	1667.0	136.6	27.940 µg/L	27.940 ppb		07:07:51
3	Si 251.611†	403.3	113.9	9.0103 µg/L	9.0103 ppb		07:08:12
3	Sn 189.927†	-2.1	-3.0	-1.3216 µg/L	-1.3216 ppb		07:08:12
3	Ti 334.940†	346.2	197.5	0.4535 µg/L	0.4535 ppb		07:07:51
3	Tl 190.801†	-21.6	-0.8	-1.1174 µg/L	-1.1174 ppb		07:08:12
3	U 409.014†	251.6	23.5	1.9242 µg/L	1.9242 ppb		07:07:51
3	V 292.402†	-25.2	22.4	0.2252 µg/L	0.2252 ppb		07:07:51
3	Zn 213.857†	500.5	29.1	0.7108 µg/L	0.7108 ppb		07:08:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1971462.8	101.22	%	0.093				0.09%
Sc RADIAL	54910.9	99.1	%	0.44				0.44%
Y 371.029	1366204.7	102.16	%	0.091				0.09%
Ag 328.068†	115.4	0.8692	µg/L	0.12881	0.8692	ppb	0.12881	14.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-19.6	-13.911	µg/L	11.3476	-13.911	ppb	11.3476	81.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4073	µg/L	3.78164	-4.4073	ppb	3.78164	85.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	5.7	0.2449	µg/L	0.37313	0.2449	ppb	0.37313	152.34%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.1	0.3814	µg/L	0.09395	0.3814	ppb	0.09395	24.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	387.3	0.2395	µg/L	0.01360	0.2395	ppb	0.01360	5.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-25.2	-22.817	µg/L	6.2168	-22.817	ppb	6.2168	27.25%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-5.1	-0.1346	µg/L	0.17864	-0.1346	ppb	0.17864	132.76%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	7.6	0.3611	µg/L	0.38467	0.3611	ppb	0.38467	106.54%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.0     -0.0836 µg/L       0.08532     -0.0836 ppb        0.08532 102.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -2.0     -0.0141 µg/L       0.09935     -0.0141 ppb        0.09935 703.46%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -7.0353 µg/L      14.20982     -7.0353 ppb       14.20982 201.98%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          42.2      28.252 µg/L       19.8170      28.252 ppb        19.8170  70.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -5.7     -53.338 µg/L        8.2837     -53.338 ppb         8.2837  15.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                79.5      0.2652 µg/L       0.05340      0.2652 ppb        0.05340  20.14%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.1     -0.0081 µg/L       0.12828     -0.0081 ppb        0.12828 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         26.7      8.1116 µg/L       7.55767      8.1116 ppb        7.55767  93.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.9      0.6774 µg/L       0.10591      0.6774 ppb        0.10591  15.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -14.9     -31.012 µg/L       10.6973     -31.012 ppb        10.6973  34.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.8     -0.7182 µg/L       1.65935     -0.7182 ppb        1.65935 231.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.2      4.9831 µg/L      15.83139      4.9831 ppb       15.83139 317.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.3      2.1366 µg/L       0.80508      2.1366 ppb        0.80508  37.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.4      3.5039 µg/L       5.08054      3.5039 ppb        5.08054 145.00%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     162.7      33.272 µg/L        8.8079      33.272 ppb         8.8079  26.47%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               129.8      10.265 µg/L        1.3873      10.265 ppb         1.3873  13.52%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.3      0.1275 µg/L       1.37369      0.1275 ppb        1.37369 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                17.5      0.1692 µg/L       0.02995      0.1692 ppb        0.02995  17.70%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               182.0      0.4187 µg/L       0.03143      0.4187 ppb        0.03143   7.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      1.2274 µg/L       2.35789      1.2274 ppb        2.35789 192.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -18.7     -1.5312 µg/L       3.00121     -1.5312 ppb        3.00121 196.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -17.8     -0.1827 µg/L       0.40752     -0.1827 ppb        0.40752 223.06%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                25.3      0.6185 µg/L       0.10521      0.6185 ppb        0.10521  17.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 52
Sample ID: 246066013|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 340
Date Collected: 2/24/2010 07:08:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066013|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56904.5	56904.5	103	%			07:08:58
1	Al 396.153Radial†	176673.3	171956.6	122170	µg/L	122170	ppb	07:08:58
1	Ca 317.933Radial†	24607.5	23737.6	21470	µg/L	21470	ppb	07:09:18
1	Fe 238.204 Radial†	17546.5	17061.9	149270	µg/L	149270	ppb	07:09:18
1	K 766.490 Radial†	31002.8	30000.3	20102	µg/L	20102	ppb	07:08:58
1	Mg 279.077 IEC†	2405.8	2328.0	21577	µg/L	21577	ppb	07:09:18
1	Na 589.592 Radial†	2448.9	2005.1	609.51	µg/L	609.51	ppb	07:09:18
1	Sr 421.552†	30067.8	29247.8	283.15	µg/L	283.15	ppb	07:08:58
1	Sc 361.383	1968098.7	1968098.7	101.04	%			07:10:23
1	Y 371.029	1393943.8	1393943.8	104.23	%			07:10:23
1	Ag 328.068†	-2190.8	-1657.9	-1.1342	µg/L	-1.1342	ppb	07:10:28
1	As 188.979†	15.4	14.4	34.686	µg/L	34.686	ppb	07:10:49
1	B 249.677†	1315.4	988.7	-36.036	µg/L	-36.036	ppb	07:10:28
1	Ba 233.527†	69803.2	69107.8	1746.4	µg/L	1746.4	ppb	07:10:28
1	Be 313.107†	20111.5	23536.8	12.308	µg/L	12.308	ppb	07:10:28
1	Cd 226.502†	436.6	555.3	-1.9727	µg/L	-1.9727	ppb	07:10:28
1	Co 228.616†	1782.3	1769.7	71.937	µg/L	71.937	ppb	07:10:49
1	Cr 267.716†	7861.0	7805.8	164.89	µg/L	164.89	ppb	07:10:28
1	Cu 324.752†	14078.3	10702.4	91.438	µg/L	91.438	ppb	07:10:28
1	Mn 257.610†	1214814.4	1202511.4	4012.0	µg/L	4012.0	ppb	07:10:23
1	Mo 202.031†	-13.0	-14.0	4.2250	µg/L	4.2250	ppb	07:10:49
1	Ni 231.604†	2321.2	2016.5	107.46	µg/L	107.46	ppb	07:10:49
1	P 214.914†	617.7	583.8	1122.3	µg/L	1122.3	ppb	07:10:49
1	Pb 220.353†	735.4	637.4	164.40	µg/L	164.40	ppb	07:10:49
1	S 181.975 Axial†	277.6	259.6	1119.9	µg/L	1119.9	ppb	07:10:49
1	Sb 206.836†	33.8	12.3	7.9070	µg/L	7.9070	ppb	07:10:49
1	Se 196.026†	-59.7	-71.0	279.17	µg/L	279.17	ppb	07:10:49
1	SiO2†	63341.5	61175.4	12513	µg/L	12513	ppb	07:10:28
1	Si 251.611†	74326.4	73273.9	5795.2	µg/L	5795.2	ppb	07:10:28
1	Sn 189.927†	-47.4	-47.8	-34.741	µg/L	-34.741	ppb	07:10:49
1	Ti 334.940†	2624417.4	2597171.0	5919.5	µg/L	5919.5	ppb	07:10:23
1	Tl 190.801†	-79.9	-58.5	15.852	µg/L	15.852	ppb	07:10:49
1	U 409.014†	-449.2	-669.9	-76.874	µg/L	-76.874	ppb	07:10:23
1	V 292.402†	29985.6	29723.3	317.69	µg/L	317.69	ppb	07:10:28
1	Zn 213.857†	13175.3	12573.3	298.20	µg/L	298.20	ppb	07:10:28
2	Sc RADIAL	56560.1	56560.1	102	%			07:09:24
2	Al 396.153Radial†	176691.8	173022.0	122930	µg/L	122930	ppb	07:09:24
2	Ca 317.933Radial†	24752.7	24025.7	21731	µg/L	21731	ppb	07:09:44
2	Fe 238.204 Radial†	17665.3	17282.2	151200	µg/L	151200	ppb	07:09:44
2	K 766.490 Radial†	30985.0	30166.7	20214	µg/L	20214	ppb	07:09:24
2	Mg 279.077 IEC†	2412.2	2348.6	21768	µg/L	21768	ppb	07:09:44
2	Na 589.592 Radial†	2482.6	2052.5	623.93	µg/L	623.93	ppb	07:09:44
2	Sr 421.552†	29984.7	29344.7	284.09	µg/L	284.09	ppb	07:09:24
2	Sc 361.383	2003144.0	2003144.0	102.84	%			07:10:56
2	Y 371.029	1418794.7	1418794.7	106.09	%			07:10:56
2	Ag 328.068†	-2195.9	-1624.9	-0.7952	µg/L	-0.7952	ppb	07:11:02
2	As 188.979†	17.1	15.9	37.514	µg/L	37.514	ppb	07:11:22
2	B 249.677†	1288.1	939.4	-39.119	µg/L	-39.119	ppb	07:11:02
2	Ba 233.527†	70228.3	68312.5	1726.3	µg/L	1726.3	ppb	07:11:02
2	Be 313.107†	20122.9	23199.6	12.104	µg/L	12.104	ppb	07:11:02
2	Cd 226.502†	436.9	548.0	-2.3863	µg/L	-2.3863	ppb	07:11:02
2	Co 228.616†	1764.0	1721.1	69.652	µg/L	69.652	ppb	07:11:22
2	Cr 267.716†	7911.7	7718.9	163.05	µg/L	163.05	ppb	07:11:02
2	Cu 324.752†	14005.4	10387.8	89.628	µg/L	89.628	ppb	07:11:02
2	Mn 257.610†	1236581.6	1202643.1	4012.7	µg/L	4012.7	ppb	07:10:56
2	Mo 202.031†	-11.9	-12.7	4.4282	µg/L	4.4282	ppb	07:11:22
2	Ni 231.604†	2301.1	1956.8	104.36	µg/L	104.36	ppb	07:11:22
2	P 214.914†	619.5	574.8	1102.6	µg/L	1102.6	ppb	07:11:22
2	Pb 220.353†	720.4	610.1	157.39	µg/L	157.39	ppb	07:11:22

2	S 181.975 Axial†	282.9	260.0	1121.5	µg/L	1121.5 ppb	07:11:22
2	Sb 206.836†	36.4	14.3	9.7331	µg/L	9.7331 ppb	07:11:22
2	Se 196.026†	-53.4	-63.8	294.67	µg/L	294.67 ppb	07:11:22
2	SiO2†	63354.8	60091.6	12291	µg/L	12291 ppb	07:11:02
2	Si 251.611†	74250.9	71913.6	5687.6	µg/L	5687.6 ppb	07:11:02
2	Sn 189.927†	-43.7	-43.3	-32.939	µg/L	-32.939 ppb	07:11:22
2	Ti 334.940†	2665014.3	2591205.5	5905.9	µg/L	5905.9 ppb	07:10:56
2	Tl 190.801†	-75.8	-53.1	23.490	µg/L	23.490 ppb	07:11:22
2	U 409.014†	-617.7	-826.0	-89.931	µg/L	-89.931 ppb	07:10:56
2	V 292.402†	30042.6	29259.6	313.22	µg/L	313.22 ppb	07:11:02
2	Zn 213.857†	13244.5	12412.5	294.19	µg/L	294.19 ppb	07:11:02
3	Sc RADIAL	56827.6	56827.6	103	%		07:09:50
3	Al 396.153Radial†	177573.2	173066.6	122960	µg/L	122960 ppb	07:09:50
3	Ca 317.933Radial†	24697.5	23857.8	21579	µg/L	21579 ppb	07:10:10
3	Fe 238.204 Radial†	17637.2	17173.4	150250	µg/L	150250 ppb	07:10:10
3	K 766.490 Radial†	31160.2	30194.6	20232	µg/L	20232 ppb	07:09:50
3	Mg 279.077 IEC†	2417.9	2343.0	21716	µg/L	21716 ppb	07:10:10
3	Na 589.592 Radial†	2480.6	2039.1	619.86	µg/L	619.86 ppb	07:10:10
3	Sr 421.552†	30174.8	29391.7	284.54	µg/L	284.54 ppb	07:09:50
3	Sc 361.383	1990909.3	1990909.3	102.21	%		07:11:30
3	Y 371.029	1409819.4	1409819.4	105.42	%		07:11:30
3	Ag 328.068†	-2160.4	-1603.3	-0.7566	µg/L	-0.7566 ppb	07:11:35
3	As 188.979†	16.9	15.7	37.202	µg/L	37.202 ppb	07:11:56
3	B 249.677†	1292.1	951.0	-38.147	µg/L	-38.147 ppb	07:11:35
3	Ba 233.527†	67904.7	66458.9	1679.5	µg/L	1679.5 ppb	07:11:35
3	Be 313.107†	19317.6	22532.0	11.747	µg/L	11.747 ppb	07:11:35
3	Cd 226.502†	388.1	502.9	-3.4886	µg/L	-3.4886 ppb	07:11:35
3	Co 228.616†	1622.8	1593.4	63.876	µg/L	63.876 ppb	07:11:56
3	Cr 267.716†	7495.1	7358.6	155.44	µg/L	155.44 ppb	07:11:35
3	Cu 324.752†	13610.3	10084.9	87.496	µg/L	87.496 ppb	07:11:35
3	Mn 257.610†	1200427.0	1174660.8	3919.6	µg/L	3919.6 ppb	07:11:30
3	Mo 202.031†	0.5	-0.6	5.6449	µg/L	5.6449 ppb	07:11:56
3	Ni 231.604†	2130.7	1803.8	96.341	µg/L	96.341 ppb	07:11:56
3	P 214.914†	574.8	534.8	1020.3	µg/L	1020.3 ppb	07:11:56
3	Pb 220.353†	683.0	577.9	149.16	µg/L	149.16 ppb	07:11:56
3	S 181.975 Axial†	260.8	240.1	1035.6	µg/L	1035.6 ppb	07:11:56
3	Sb 206.836†	32.5	10.7	6.4529	µg/L	6.4529 ppb	07:11:56
3	Se 196.026†	-55.4	-66.1	288.84	µg/L	288.84 ppb	07:11:56
3	SiO2†	60080.7	57267.0	11714	µg/L	11714 ppb	07:11:35
3	Si 251.611†	70374.9	68565.3	5422.8	µg/L	5422.8 ppb	07:11:35
3	Sn 189.927†	-39.3	-39.3	-31.052	µg/L	-31.052 ppb	07:11:56
3	Ti 334.940†	2583380.3	2527264.6	5760.2	µg/L	5760.2 ppb	07:11:30
3	Tl 190.801†	-72.6	-50.5	25.361	µg/L	25.361 ppb	07:11:56
3	U 409.014†	-497.8	-712.4	-80.492	µg/L	-80.492 ppb	07:11:30
3	V 292.402†	28859.5	28281.5	303.24	µg/L	303.24 ppb	07:11:35
3	Zn 213.857†	12818.2	12074.6	286.02	µg/L	286.02 ppb	07:11:35

Mean Data: 246066013|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1987384.0	102.03	%	0.913				0.89%
Sc RADIAL	56764.1	102	%	0.3				0.32%
Y 371.029	1407519.3	105.25	%	0.941				0.89%
Ag 328.068†	-1628.7	-0.8953	µg/L	0.20775	-0.8953	ppb	0.20775	23.20%
Al 396.153Radial†	172681.7	122690	µg/L	446.5	122690	ppb	446.5	0.36%
As 188.979†	15.3	36.468	µg/L	1.5507	36.468	ppb	1.5507	4.25%
B 249.677†	959.7	-37.767	µg/L	1.5761	-37.767	ppb	1.5761	4.17%
Ba 233.527†	67959.7	1717.4	µg/L	34.35	1717.4	ppb	34.35	2.00%
Be 313.107†	23089.4	12.053	µg/L	0.2840	12.053	ppb	0.2840	2.36%
Ca 317.933Radial†	23873.7	21593	µg/L	130.9	21593	ppb	130.9	0.61%
Cd 226.502†	535.4	-2.6159	µg/L	0.78359	-2.6159	ppb	0.78359	29.96%
Co 228.616†	1694.7	68.488	µg/L	4.1549	68.488	ppb	4.1549	6.07%
Cr 267.716†	7627.8	161.13	µg/L	5.007	161.13	ppb	5.007	3.11%
Cu 324.752†	10391.7	89.521	µg/L	1.9736	89.521	ppb	1.9736	2.20%
Fe 238.204 Radial†	17172.5	150240	µg/L	963.9	150240	ppb	963.9	0.64%
K 766.490 Radial†	30120.5	20183	µg/L	70.4	20183	ppb	70.4	0.35%
Mg 279.077 IEC†	2339.9	21687	µg/L	98.5	21687	ppb	98.5	0.45%
Mn 257.610†	1193271.7	3981.4	µg/L	53.52	3981.4	ppb	53.52	1.34%
Mo 202.031†	-9.1	4.7661	µg/L	0.76788	4.7661	ppb	0.76788	16.11%
Na 589.592 Radial†	2032.2	617.77	µg/L	7.434	617.77	ppb	7.434	1.20%

Ni 231.604†	1925.7	102.72 µg/L	5.737	102.72 ppb	5.737	5.58%
P 214.914†	564.5	1081.7 µg/L	54.13	1081.7 ppb	54.13	5.00%
Pb 220.353†	608.4	156.98 µg/L	7.628	156.98 ppb	7.628	4.86%
S 181.975 Axial†	253.3	1092.3 µg/L	49.18	1092.3 ppb	49.18	4.50%
Sb 206.836†	12.4	8.0310 µg/L	1.64362	8.0310 ppb	1.64362	20.47%
Se 196.026†	-67.0	287.56 µg/L	7.827	287.56 ppb	7.827	2.72%
SiO2†	59511.4	12173 µg/L	412.7	12173 ppb	412.7	3.39%
Si 251.611†	71250.9	5635.2 µg/L	191.66	5635.2 ppb	191.66	3.40%
Sn 189.927†	-43.5	-32.911 µg/L	1.8449	-32.911 ppb	1.8449	5.61%
Sr 421.552†	29328.1	283.93 µg/L	0.711	283.93 ppb	0.711	0.25%
Ti 334.940†	2571880.4	5861.9 µg/L	88.35	5861.9 ppb	88.35	1.51%
Tl 190.801†	-54.0	21.568 µg/L	5.0376	21.568 ppb	5.0376	23.36%
U 409.014†	-736.1	-82.432 µg/L	6.7415	-82.432 ppb	6.7415	8.18%
V 292.402†	29088.1	311.38 µg/L	7.394	311.38 ppb	7.394	2.37%
Zn 213.857†	12353.5	292.80 µg/L	6.207	292.80 ppb	6.207	2.12%

Sequence No.: 53
Sample ID: 246066014|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 341
Date Collected: 2/24/2010 07:12:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066014|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55871.3	55871.3	101	%			07:12:44
1	Al 396.153Radial†	327013.8	324183.7	230330	µg/L	230330	ppb	07:12:38
1	Ca 317.933Radial†	45974.4	45363.6	41030	µg/L	41030	ppb	07:12:44
1	Fe 238.204 Radial†	27793.1	27536.1	240910	µg/L	240910	ppb	07:12:44
1	K 766.490 Radial†	41284.3	40751.5	27306	µg/L	27306	ppb	07:12:38
1	Mg 279.077 IEC†	3955.8	3908.0	36232	µg/L	36232	ppb	07:12:44
1	Na 589.592 Radial†	5215.7	4792.1	1456.7	µg/L	1456.7	ppb	07:12:44
1	Sr 421.552†	48121.4	47687.3	461.67	µg/L	461.67	ppb	07:12:38
1	Sc 361.383	1975509.5	1975509.5	101.42	%			07:13:18
1	Y 371.029	1443186.4	1443186.4	107.92	%			07:13:18
1	Ag 328.068†	-3173.5	-2618.7	-1.8089	µg/L	-1.8089	ppb	07:13:23
1	As 188.979†	23.6	22.5	54.144	µg/L	54.144	ppb	07:13:44
1	B 249.677†	1501.6	1167.5	-74.532	µg/L	-74.532	ppb	07:13:23
1	Ba 233.527†	109899.4	108381.9	2738.8	µg/L	2738.8	ppb	07:13:23
1	Be 313.107†	33467.9	36631.0	19.819	µg/L	19.819	ppb	07:13:23
1	Cd 226.502†	751.6	864.3	-3.5694	µg/L	-3.5694	ppb	07:13:44
1	Co 228.616†	2505.0	2475.7	102.34	µg/L	102.34	ppb	07:13:44
1	Cr 267.716†	61981.3	61137.0	1290.2	µg/L	1290.2	ppb	07:13:23
1	Cu 324.752†	22588.9	19041.3	159.25	µg/L	159.25	ppb	07:13:23
1	Mn 257.610†	1623380.5	1600831.4	5346.2	µg/L	5346.2	ppb	07:13:18
1	Mo 202.031†	60.4	58.4	15.204	µg/L	15.204	ppb	07:13:44
1	Ni 231.604†	12566.3	12109.2	637.22	µg/L	637.22	ppb	07:13:23
1	P 214.914†	829.7	790.5	1503.9	µg/L	1503.9	ppb	07:13:44
1	Pb 220.353†	988.7	884.4	230.11	µg/L	230.11	ppb	07:13:44
1	S 181.975 Axial†	260.6	241.9	1043.4	µg/L	1043.4	ppb	07:13:44
1	Sb 206.836†	56.6	34.7	14.711	µg/L	14.711	ppb	07:13:44
1	Se 196.026†	-103.4	-113.9	448.54	µg/L	448.54	ppb	07:13:44
1	SiO2†	50631.0	48408.2	9901.7	µg/L	9901.7	ppb	07:13:23
1	Si 251.611†	59245.5	58128.8	4597.4	µg/L	4597.4	ppb	07:13:23
1	Sn 189.927†	-52.6	-52.7	-45.059	µg/L	-45.059	ppb	07:13:44
1	Ti 334.940†	3324370.8	3277554.2	7469.8	µg/L	7469.8	ppb	07:13:18
1	Tl 190.801†	-102.8	-80.8	23.872	µg/L	23.872	ppb	07:13:44
1	U 409.014†	-258.9	-480.7	-75.318	µg/L	-75.318	ppb	07:13:23
1	V 292.402†	42382.0	41834.3	453.30	µg/L	453.30	ppb	07:13:23
1	Zn 213.857†	20426.4	19673.7	464.01	µg/L	464.01	ppb	07:13:23
2	Sc RADIAL	56166.6	56166.6	101	%			07:12:55
2	Al 396.153Radial†	327735.9	323191.2	229630	µg/L	229630	ppb	07:12:50
2	Ca 317.933Radial†	46374.5	45518.6	41171	µg/L	41171	ppb	07:12:55
2	Fe 238.204 Radial†	27899.2	27495.9	240560	µg/L	240560	ppb	07:12:55
2	K 766.490 Radial†	41395.3	40645.7	27235	µg/L	27235	ppb	07:12:50
2	Mg 279.077 IEC†	3981.4	3912.7	36277	µg/L	36277	ppb	07:12:55
2	Na 589.592 Radial†	5283.8	4832.1	1468.9	µg/L	1468.9	ppb	07:12:55
2	Sr 421.552†	48298.1	47610.7	460.92	µg/L	460.92	ppb	07:12:50
2	Sc 361.383	1977856.6	1977856.6	101.54	%			07:13:51
2	Y 371.029	1445426.7	1445426.7	108.08	%			07:13:51
2	Ag 328.068†	-3193.3	-2634.4	-1.9326	µg/L	-1.9326	ppb	07:13:57
2	As 188.979†	28.9	27.7	63.959	µg/L	63.959	ppb	07:14:17
2	B 249.677†	1550.9	1214.2	-72.375	µg/L	-72.375	ppb	07:13:57
2	Ba 233.527†	110464.5	108809.8	2749.6	µg/L	2749.6	ppb	07:13:57
2	Be 313.107†	33781.3	36900.4	19.970	µg/L	19.970	ppb	07:13:57
2	Cd 226.502†	719.8	832.1	-4.3811	µg/L	-4.3811	ppb	07:14:17
2	Co 228.616†	2494.1	2462.0	101.60	µg/L	101.60	ppb	07:14:17
2	Cr 267.716†	62327.9	61405.8	1295.9	µg/L	1295.9	ppb	07:13:57
2	Cu 324.752†	22804.2	19226.8	160.43	µg/L	160.43	ppb	07:13:57
2	Mn 257.610†	1631823.3	1607246.3	5367.5	µg/L	5367.5	ppb	07:13:51
2	Mo 202.031†	57.3	55.3	14.866	µg/L	14.866	ppb	07:14:17
2	Ni 231.604†	12687.7	12214.0	642.71	µg/L	642.71	ppb	07:13:57
2	P 214.914†	830.7	790.5	1504.0	µg/L	1504.0	ppb	07:14:17
2	Pb 220.353†	974.1	868.9	226.11	µg/L	226.11	ppb	07:14:17

2	S 181.975 Axial†	260.2	241.2	1040.3 µg/L	1040.3 ppb	07:14:17
2	Sb 206.836†	66.2	44.2	23.556 µg/L	23.556 ppb	07:14:17
2	Se 196.026†	-98.9	-109.3	454.19 µg/L	454.19 ppb	07:14:17
2	SiO2†	50230.4	47954.5	9808.9 µg/L	9808.9 ppb	07:13:57
2	Si 251.611†	58686.5	57509.0	4548.4 µg/L	4548.4 ppb	07:13:57
2	Sn 189.927†	-49.6	-49.7	-43.676 µg/L	-43.676 ppb	07:14:17
2	Ti 334.940†	3346720.0	3295673.9	7511.1 µg/L	7511.1 ppb	07:13:51
2	Tl 190.801†	-93.7	-71.7	36.741 µg/L	36.741 ppb	07:14:17
2	U 409.014†	-217.1	-439.2	-71.881 µg/L	-71.881 ppb	07:13:57
2	V 292.402†	42701.3	42099.2	455.94 µg/L	455.94 ppb	07:13:57
2	Zn 213.857†	20552.0	19773.5	466.44 µg/L	466.44 ppb	07:13:57
3	Sc RADIAL	56319.8	56319.8	102 %		07:13:06
3	Al 396.153Radial†	325722.6	320331.8	227590 µg/L	227590 ppb	07:13:01
3	Ca 317.933Radial†	46557.1	45573.7	41220 µg/L	41220 ppb	07:13:06
3	Fe 238.204 Radial†	27970.5	27491.2	240520 µg/L	240520 ppb	07:13:06
3	K 766.490 Radial†	41177.1	40320.0	27017 µg/L	27017 ppb	07:13:01
3	Mg 279.077 IEC†	4019.0	3939.0	36522 µg/L	36522 ppb	07:13:06
3	Na 589.592 Radial†	5284.3	4818.4	1464.7 µg/L	1464.7 ppb	07:13:06
3	Sr 421.552†	47941.2	47130.2	456.27 µg/L	456.27 ppb	07:13:01
3	Sc 361.383	1972368.2	1972368.2	101.26 %		07:14:24
3	Y 371.029	1440884.3	1440884.3	107.74 %		07:14:24
3	Ag 328.068†	-3238.0	-2687.3	-2.3102 µg/L	-2.3102 ppb	07:14:30
3	As 188.979†	16.3	15.3	40.715 µg/L	40.715 ppb	07:14:51
3	B 249.677†	1583.7	1250.9	-70.786 µg/L	-70.786 ppb	07:14:30
3	Ba 233.527†	111535.4	110170.1	2784.0 µg/L	2784.0 ppb	07:14:30
3	Be 313.107†	34072.0	37280.0	20.199 µg/L	20.199 ppb	07:14:30
3	Cd 226.502†	744.2	858.2	-3.6765 µg/L	-3.6765 ppb	07:14:51
3	Co 228.616†	2510.9	2485.4	102.68 µg/L	102.68 ppb	07:14:51
3	Cr 267.716†	62872.6	62114.6	1310.9 µg/L	1310.9 ppb	07:14:30
3	Cu 324.752†	22898.1	19382.1	161.45 µg/L	161.45 ppb	07:14:30
3	Mn 257.610†	1632527.6	1612413.6	5384.6 µg/L	5384.6 ppb	07:14:24
3	Mo 202.031†	53.4	51.6	14.481 µg/L	14.481 ppb	07:14:51
3	Ni 231.604†	12748.6	12308.9	647.68 µg/L	647.68 ppb	07:14:30
3	P 214.914†	836.9	799.0	1520.8 µg/L	1520.8 ppb	07:14:51
3	Pb 220.353†	985.7	883.1	229.63 µg/L	229.63 ppb	07:14:51
3	S 181.975 Axial†	266.7	248.3	1071.1 µg/L	1071.1 ppb	07:14:51
3	Sb 206.836†	66.1	44.2	23.419 µg/L	23.419 ppb	07:14:51
3	Se 196.026†	-104.2	-114.9	445.72 µg/L	445.72 ppb	07:14:51
3	SiO2†	50900.6	48753.9	9972.4 µg/L	9972.4 ppb	07:14:30
3	Si 251.611†	59474.5	58448.0	4622.6 µg/L	4622.6 ppb	07:14:30
3	Sn 189.927†	-65.2	-65.2	-50.560 µg/L	-50.560 ppb	07:14:51
3	Ti 334.940†	3344335.7	3302490.4	7526.6 µg/L	7526.6 ppb	07:14:24
3	Tl 190.801†	-103.0	-81.1	23.811 µg/L	23.811 ppb	07:14:51
3	U 409.014†	-286.8	-508.6	-77.563 µg/L	-77.563 ppb	07:14:30
3	V 292.402†	42949.1	42460.9	459.61 µg/L	459.61 ppb	07:14:30
3	Zn 213.857†	20758.7	20033.9	472.76 µg/L	472.76 ppb	07:14:30

Mean Data: 246066014|956437|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1975244.8	101.41	%	0.141				0.14%
Sc RADIAL	56119.2	101	%	0.4				0.41%
Y 371.029	1443165.8	107.91	%	0.170				0.16%
Ag 328.068†	-2646.8	-2.0173	µg/L	0.26117	-2.0173	ppb	0.26117	12.95%
Al 396.153Radial†	322568.9	229180	µg/L	1420.9	229180	ppb	1420.9	0.62%
As 188.979†	21.8	52.940	µg/L	11.6688	52.940	ppb	11.6688	22.04%
B 249.677†	1210.8	-72.564	µg/L	1.8802	-72.564	ppb	1.8802	2.59%
Ba 233.527†	109120.6	2757.5	µg/L	23.59	2757.5	ppb	23.59	0.86%
Be 313.107†	36937.1	19.996	µg/L	0.1913	19.996	ppb	0.1913	0.96%
Ca 317.933Radial†	45485.3	41141	µg/L	98.5	41141	ppb	98.5	0.24%
Cd 226.502†	851.5	-3.8756	µg/L	0.44097	-3.8756	ppb	0.44097	11.38%
Co 228.616†	2474.4	102.20	µg/L	0.552	102.20	ppb	0.552	0.54%
Cr 267.716†	61552.5	1299.0	µg/L	10.66	1299.0	ppb	10.66	0.82%
Cu 324.752†	19216.7	160.38	µg/L	1.099	160.38	ppb	1.099	0.69%
Fe 238.204 Radial†	27507.7	240660	µg/L	215.9	240660	ppb	215.9	0.09%
K 766.490 Radial†	40572.4	27186	µg/L	150.7	27186	ppb	150.7	0.55%
Mg 279.077 IEC†	3919.9	36344	µg/L	156.0	36344	ppb	156.0	0.43%
Mn 257.610†	1606830.4	5366.1	µg/L	19.23	5366.1	ppb	19.23	0.36%
Mo 202.031†	55.1	14.850	µg/L	0.3621	14.850	ppb	0.3621	2.44%
Na 589.592 Radial†	4814.2	1463.4	µg/L	6.17	1463.4	ppb	6.17	0.42%

Ni 231.604†	12210.7	642.54	µg/L	5.229	642.54	ppb	5.229	0.81%
P 214.914†	793.3	1509.5	µg/L	9.73	1509.5	ppb	9.73	0.64%
Pb 220.353†	878.8	228.62	µg/L	2.184	228.62	ppb	2.184	0.96%
S 181.975 Axial†	243.8	1051.6	µg/L	16.96	1051.6	ppb	16.96	1.61%
Sb 206.836†	41.0	20.562	µg/L	5.0673	20.562	ppb	5.0673	24.64%
Se 196.026†	-112.7	449.48	µg/L	4.317	449.48	ppb	4.317	0.96%
SiO2†	48372.2	9894.3	µg/L	82.01	9894.3	ppb	82.01	0.83%
Si 251.611†	58028.6	4589.5	µg/L	37.76	4589.5	ppb	37.76	0.82%
Sn 189.927†	-55.9	-46.431	µg/L	3.6417	-46.431	ppb	3.6417	7.84%
Sr 421.552†	47476.1	459.62	µg/L	2.924	459.62	ppb	2.924	0.64%
Ti 334.940†	3291906.2	7502.5	µg/L	29.37	7502.5	ppb	29.37	0.39%
Tl 190.801†	-77.9	28.142	µg/L	7.4474	28.142	ppb	7.4474	26.46%
U 409.014†	-476.1	-74.921	µg/L	2.8614	-74.921	ppb	2.8614	3.82%
V 292.402†	42131.4	456.28	µg/L	3.171	456.28	ppb	3.171	0.69%
Zn 213.857†	19827.1	467.74	µg/L	4.518	467.74	ppb	4.518	0.97%

Sequence No.: 54
Sample ID: 246066015|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 342
Date Collected: 2/24/2010 07:15:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066015|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56955.9	56955.9	103	%			07:15:34
1	Al 396.153Radial†	244638.4	237898.7	169030	µg/L	169030	ppb	07:15:34
1	Ca 317.933Radial†	28580.7	27580.1	24946	µg/L	24946	ppb	07:15:54
1	Fe 238.204 Radial†	19256.4	18709.3	163690	µg/L	163690	ppb	07:15:54
1	K 766.490 Radial†	35415.7	34264.7	22960	µg/L	22960	ppb	07:15:34
1	Mg 279.077 IEC†	3084.5	2985.9	27706	µg/L	27706	ppb	07:15:54
1	Na 589.592 Radial†	3281.4	2812.5	854.94	µg/L	854.94	ppb	07:15:54
1	Sr 421.552†	34354.1	33389.9	323.25	µg/L	323.25	ppb	07:15:34
1	Sc 361.383	1972030.4	1972030.4	101.25	%			07:16:59
1	Y 371.029	1412015.3	1412015.3	105.58	%			07:16:59
1	Ag 328.068†	-2275.8	-1737.5	-0.7996	µg/L	-0.7996	ppb	07:17:04
1	As 188.979†	17.3	16.3	38.961	µg/L	38.961	ppb	07:17:25
1	B 249.677†	1311.1	981.9	-43.893	µg/L	-43.893	ppb	07:17:04
1	Ba 233.527†	89128.0	88057.2	2225.1	µg/L	2225.1	ppb	07:17:04
1	Be 313.107†	26385.0	29693.4	15.835	µg/L	15.835	ppb	07:17:04
1	Cd 226.502†	476.8	594.1	-2.5721	µg/L	-2.5721	ppb	07:17:04
1	Co 228.616†	1674.1	1659.3	65.132	µg/L	65.132	ppb	07:17:25
1	Cr 267.716†	6390.7	6338.0	133.92	µg/L	133.92	ppb	07:17:04
1	Cu 324.752†	13250.3	9856.9	87.857	µg/L	87.857	ppb	07:17:04
1	Mn 257.610†	1053161.5	1040449.7	3475.5	µg/L	3475.5	ppb	07:16:59
1	Mo 202.031†	-27.5	-28.3	3.2893	µg/L	3.2893	ppb	07:17:25
1	Ni 231.604†	2209.5	1901.7	101.63	µg/L	101.63	ppb	07:17:25
1	P 214.914†	481.3	447.9	841.69	µg/L	841.69	ppb	07:17:25
1	Pb 220.353†	681.6	582.9	152.51	µg/L	152.51	ppb	07:17:25
1	S 181.975 Axial†	130.3	113.6	490.02	µg/L	490.02	ppb	07:17:25
1	Sb 206.836†	30.1	8.7	4.4494	µg/L	4.4494	ppb	07:17:25
1	Se 196.026†	-46.5	-57.8	331.34	µg/L	331.34	ppb	07:17:25
1	SiO2†	94788.3	92110.4	18841	µg/L	18841	ppb	07:17:04
1	Si 251.611†	112474.7	110806.4	8763.6	µg/L	8763.6	ppb	07:17:04
1	Sn 189.927†	-39.1	-39.5	-31.876	µg/L	-31.876	ppb	07:17:25
1	Ti 334.940†	2958840.7	2922302.6	6660.3	µg/L	6660.3	ppb	07:16:59
1	Tl 190.801†	-84.4	-62.8	19.695	µg/L	19.695	ppb	07:17:25
1	U 409.014†	-972.9	-1186.3	-121.34	µg/L	-121.34	ppb	07:16:59
1	V 292.402†	30470.3	30142.8	323.49	µg/L	323.49	ppb	07:17:04
1	Zn 213.857†	13708.1	13073.6	309.42	µg/L	309.42	ppb	07:17:04
2	Sc RADIAL	56510.2	56510.2	102	%			07:16:00
2	Al 396.153Radial†	244088.0	239235.6	169980	µg/L	169980	ppb	07:16:00
2	Ca 317.933Radial†	28773.6	27988.3	25315	µg/L	25315	ppb	07:16:20
2	Fe 238.204 Radial†	19383.8	18981.9	166070	µg/L	166070	ppb	07:16:20
2	K 766.490 Radial†	35244.1	34368.2	23029	µg/L	23029	ppb	07:16:00
2	Mg 279.077 IEC†	3110.5	3035.2	28163	µg/L	28163	ppb	07:16:20
2	Na 589.592 Radial†	3320.7	2876.2	874.31	µg/L	874.31	ppb	07:16:20
2	Sr 421.552†	34182.0	33484.7	324.17	µg/L	324.17	ppb	07:16:00
2	Sc 361.383	1964117.0	1964117.0	100.84	%			07:17:32
2	Y 371.029	1407044.7	1407044.7	105.21	%			07:17:32
2	Ag 328.068†	-2317.4	-1787.9	-1.0315	µg/L	-1.0315	ppb	07:17:38
2	As 188.979†	21.4	20.5	46.889	µg/L	46.889	ppb	07:17:58
2	B 249.677†	1333.5	1009.3	-43.986	µg/L	-43.986	ppb	07:17:38
2	Ba 233.527†	88718.3	88005.5	2223.8	µg/L	2223.8	ppb	07:17:38
2	Be 313.107†	26244.7	29659.2	15.802	µg/L	15.802	ppb	07:17:38
2	Cd 226.502†	495.5	614.6	-2.2967	µg/L	-2.2967	ppb	07:17:38
2	Co 228.616†	1677.5	1669.4	65.549	µg/L	65.549	ppb	07:17:58
2	Cr 267.716†	6308.3	6281.7	132.73	µg/L	132.73	ppb	07:17:38
2	Cu 324.752†	13203.1	9862.7	88.227	µg/L	88.227	ppb	07:17:38
2	Mn 257.610†	1054203.7	1045674.2	3493.2	µg/L	3493.2	ppb	07:17:32
2	Mo 202.031†	-26.9	-27.8	3.4378	µg/L	3.4378	ppb	07:17:58
2	Ni 231.604†	2211.6	1912.5	102.23	µg/L	102.23	ppb	07:17:58
2	P 214.914†	499.6	467.9	881.72	µg/L	881.72	ppb	07:17:58
2	Pb 220.353†	668.0	572.1	149.69	µg/L	149.69	ppb	07:17:58

2	S 181.975 Axial†	126.6	110.5	476.64 µg/L	476.64 ppb	07:17:58
2	Sb 206.836†	41.6	20.2	15.338 µg/L	15.338 ppb	07:17:58
2	Se 196.026†	-57.8	-69.2	320.71 µg/L	320.71 ppb	07:17:58
2	SiO2†	94662.7	92363.1	18892 µg/L	18892 ppb	07:17:38
2	Si 251.611†	112321.4	111102.0	8787.0 µg/L	8787.0 ppb	07:17:38
2	Sn 189.927†	-39.4	-39.9	-32.253 µg/L	-32.253 ppb	07:17:58
2	Ti 334.940†	2960178.7	2935404.1	6690.2 µg/L	6690.2 ppb	07:17:32
2	Tl 190.801†	-75.2	-54.0	32.547 µg/L	32.547 ppb	07:17:58
2	U 409.014†	-974.8	-1192.1	-122.16 µg/L	-122.16 ppb	07:17:32
2	V 292.402†	30319.4	30114.5	323.48 µg/L	323.48 ppb	07:17:38
2	Zn 213.857†	13638.1	13058.7	308.92 µg/L	308.92 ppb	07:17:38
3	Sc RADIAL	56882.4	56882.4	103 %		07:16:26
3	Al 396.153Radial†	246300.2	239824.2	170390 µg/L	170390 ppb	07:16:26
3	Ca 317.933Radial†	28568.6	27604.1	24967 µg/L	24967 ppb	07:16:46
3	Fe 238.204 Radial†	19256.3	18733.5	163900 µg/L	163900 ppb	07:16:46
3	K 766.490 Radial†	35619.2	34507.4	23122 µg/L	23122 ppb	07:16:26
3	Mg 279.077 IEC†	3097.6	3002.6	27861 µg/L	27861 ppb	07:16:46
3	Na 589.592 Radial†	3283.0	2818.1	856.67 µg/L	856.67 ppb	07:16:46
3	Sr 421.552†	34486.8	33562.3	324.92 µg/L	324.92 ppb	07:16:26
3	Sc 361.383	1963077.0	1963077.0	100.79 %		07:18:06
3	Y 371.029	1404079.9	1404079.9	104.99 %		07:18:06
3	Ag 328.068†	-2273.2	-1745.2	-0.9159 µg/L	-0.9159 ppb	07:18:11
3	As 188.979†	13.8	12.9	32.527 µg/L	32.527 ppb	07:18:32
3	B 249.677†	1322.2	998.8	-43.299 µg/L	-43.299 ppb	07:18:11
3	Ba 233.527†	86571.9	85922.5	2171.2 µg/L	2171.2 ppb	07:18:11
3	Be 313.107†	25238.7	28674.9	15.279 µg/L	15.279 ppb	07:18:11
3	Cd 226.502†	462.1	581.7	-2.9351 µg/L	-2.9351 ppb	07:18:11
3	Co 228.616†	1526.4	1520.4	58.918 µg/L	58.918 ppb	07:18:32
3	Cr 267.716†	6135.7	6113.8	129.18 µg/L	129.18 ppb	07:18:11
3	Cu 324.752†	12969.1	9637.5	86.438 µg/L	86.438 ppb	07:18:11
3	Mn 257.610†	1019287.0	1011583.6	3379.7 µg/L	3379.7 ppb	07:18:06
3	Mo 202.031†	-28.2	-29.1	3.2134 µg/L	3.2134 ppb	07:18:32
3	Ni 231.604†	2047.6	1750.9	93.750 µg/L	93.750 ppb	07:18:32
3	P 214.914†	457.9	426.8	798.05 µg/L	798.05 ppb	07:18:32
3	Pb 220.353†	642.4	547.0	143.36 µg/L	143.36 ppb	07:18:32
3	S 181.975 Axial†	128.4	112.3	484.43 µg/L	484.43 ppb	07:18:32
3	Sb 206.836†	32.2	10.8	6.5619 µg/L	6.5619 ppb	07:18:32
3	Se 196.026†	-63.0	-74.5	307.49 µg/L	307.49 ppb	07:18:32
3	SiO2†	91634.7	89408.4	18288 µg/L	18288 ppb	07:18:11
3	Si 251.611†	108628.4	107496.8	8501.9 µg/L	8501.9 ppb	07:18:11
3	Sn 189.927†	-39.3	-39.9	-32.044 µg/L	-32.044 ppb	07:18:32
3	Ti 334.940†	2859614.7	2837179.1	6466.3 µg/L	6466.3 ppb	07:18:06
3	Tl 190.801†	-81.2	-60.0	21.723 µg/L	21.723 ppb	07:18:32
3	U 409.014†	-817.4	-1036.4	-109.10 µg/L	-109.10 ppb	07:18:06
3	V 292.402†	29243.2	29062.6	312.62 µg/L	312.62 ppb	07:18:11
3	Zn 213.857†	13275.3	12705.9	300.46 µg/L	300.46 ppb	07:18:11

Mean Data: 246066015|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1966408.2	100.96	%	0.251				0.25%
Sc RADIAL	56782.8	103	%	0.4				0.42%
Y 371.029	1407713.3	105.26	%	0.300				0.28%
Ag 328.068†	-1756.8	-0.9157	µg/L	0.11594	-0.9157	ppb	0.11594	12.66%
Al 396.153Radial†	238986.2	169800	µg/L	701.0	169800	ppb	701.0	0.41%
As 188.979†	16.6	39.459	µg/L	7.1939	39.459	ppb	7.1939	18.23%
B 249.677†	996.7	-43.726	µg/L	0.3728	-43.726	ppb	0.3728	0.85%
Ba 233.527†	87328.4	2206.7	µg/L	30.78	2206.7	ppb	30.78	1.39%
Be 313.107†	29342.5	15.639	µg/L	0.3122	15.639	ppb	0.3122	2.00%
Ca 317.933Radial†	27724.2	25076	µg/L	207.2	25076	ppb	207.2	0.83%
Cd 226.502†	596.8	-2.6013	µg/L	0.32020	-2.6013	ppb	0.32020	12.31%
Co 228.616†	1616.4	63.200	µg/L	3.7140	63.200	ppb	3.7140	5.88%
Cr 267.716†	6244.5	131.95	µg/L	2.465	131.95	ppb	2.465	1.87%
Cu 324.752†	9785.7	87.507	µg/L	0.9447	87.507	ppb	0.9447	1.08%
Fe 238.204 Radial†	18808.2	164550	µg/L	1320.1	164550	ppb	1320.1	0.80%
K 766.490 Radial†	34380.1	23037	µg/L	81.6	23037	ppb	81.6	0.35%
Mg 279.077 IEC†	3007.9	27910	µg/L	232.4	27910	ppb	232.4	0.83%
Mn 257.610†	1032569.2	3449.4	µg/L	61.06	3449.4	ppb	61.06	1.77%
Mo 202.031†	-28.4	3.3135	µg/L	0.11412	3.3135	ppb	0.11412	3.44%
Na 589.592 Radial†	2835.6	861.97	µg/L	10.718	861.97	ppb	10.718	1.24%

Ni 231.604†	1855.0	99.206	µg/L	4.7347	99.206	ppb	4.7347	4.77%
P 214.914†	447.5	840.49	µg/L	41.848	840.49	ppb	41.848	4.98%
Pb 220.353†	567.3	148.52	µg/L	4.682	148.52	ppb	4.682	3.15%
S 181.975 Axial†	112.1	483.70	µg/L	6.720	483.70	ppb	6.720	1.39%
Sb 206.836†	13.2	8.7831	µg/L	5.77407	8.7831	ppb	5.77407	65.74%
Se 196.026†	-67.2	319.85	µg/L	11.946	319.85	ppb	11.946	3.74%
SiO2†	91294.0	18674	µg/L	335.0	18674	ppb	335.0	1.79%
Si 251.611†	109801.7	8684.2	µg/L	158.31	8684.2	ppb	158.31	1.82%
Sn 189.927†	-39.7	-32.058	µg/L	0.1890	-32.058	ppb	0.1890	0.59%
Sr 421.552†	33479.0	324.11	µg/L	0.836	324.11	ppb	0.836	0.26%
Ti 334.940†	2898295.3	6605.6	µg/L	121.58	6605.6	ppb	121.58	1.84%
Tl 190.801†	-58.9	24.655	µg/L	6.9098	24.655	ppb	6.9098	28.03%
U 409.014†	-1138.2	-117.54	µg/L	7.314	-117.54	ppb	7.314	6.22%
V 292.402†	29773.3	319.86	µg/L	6.273	319.86	ppb	6.273	1.96%
Zn 213.857†	12946.0	306.26	µg/L	5.035	306.26	ppb	5.035	1.64%

Sequence No.: 55
Sample ID: 246066016|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 343
Date Collected: 2/24/2010 07:18:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066016|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55577.5	55577.5	100	%			07:19:14
1	Al 396.153Radial†	46381.8	46209.7	32832	µg/L	32832	ppb	07:19:14
1	Ca 317.933Radial†	59942.5	59525.6	53840	µg/L	53840	ppb	07:19:14
1	Fe 238.204 Radial†	11291.1	11235.3	98296	µg/L	98296	ppb	07:19:34
1	K 766.490 Radial†	8622.5	8415.9	5639.2	µg/L	5639.2	ppb	07:19:14
1	Mg 279.077 IEC†	1395.0	1376.5	12748	µg/L	12748	ppb	07:19:34
1	Na 589.592 Radial†	2676.9	2289.2	695.87	µg/L	695.87	ppb	07:19:14
1	Sr 421.552†	16921.7	16844.8	163.08	µg/L	163.08	ppb	07:19:14
1	Sc 361.383	1952245.1	1952245.1	100.23	%			07:20:38
1	Y 371.029	1386491.1	1386491.1	103.68	%			07:20:38
1	Ag 328.068†	-1575.8	-1061.9	-0.5035	µg/L	-0.5035	ppb	07:20:44
1	As 188.979†	3.4	2.6	7.8477	µg/L	7.8477	ppb	07:21:04
1	B 249.677†	796.3	481.4	-30.878	µg/L	-30.878	ppb	07:20:44
1	Ba 233.527†	22800.3	22773.5	575.69	µg/L	575.69	ppb	07:20:44
1	Be 313.107†	5955.2	9574.4	4.5515	µg/L	4.5515	ppb	07:20:44
1	Cd 226.502†	208.1	330.9	-2.2283	µg/L	-2.2283	ppb	07:21:04
1	Co 228.616†	761.8	765.9	28.965	µg/L	28.965	ppb	07:21:04
1	Cr 267.716†	4817.6	4832.5	102.09	µg/L	102.09	ppb	07:20:44
1	Cu 324.752†	11287.8	8031.4	66.711	µg/L	66.711	ppb	07:20:44
1	Mn 257.610†	600239.2	599106.7	2001.9	µg/L	2001.9	ppb	07:20:38
1	Mo 202.031†	18.0	16.8	5.4763	µg/L	5.4763	ppb	07:21:04
1	Ni 231.604†	1559.7	1275.4	68.036	µg/L	68.036	ppb	07:21:04
1	P 214.914†	1597.7	1566.5	3187.1	µg/L	3187.1	ppb	07:21:04
1	Pb 220.353†	348.6	257.5	64.020	µg/L	64.020	ppb	07:21:04
1	S 181.975 Axial†	88.5	73.3	315.95	µg/L	315.95	ppb	07:21:04
1	Sb 206.836†	32.0	10.9	4.4590	µg/L	4.4590	ppb	07:21:04
1	Se 196.026†	-32.2	-44.1	177.98	µg/L	177.98	ppb	07:21:04
1	SiO2†	82204.8	80504.6	16467	µg/L	16467	ppb	07:20:44
1	Si 251.611†	97128.7	96621.4	7641.7	µg/L	7641.7	ppb	07:20:44
1	Sn 189.927†	-41.6	-42.4	-28.129	µg/L	-28.129	ppb	07:21:04
1	Ti 334.940†	1584233.2	1580460.7	3602.9	µg/L	3602.9	ppb	07:20:38
1	Tl 190.801†	-57.4	-36.7	-0.2442	µg/L	-0.2442	ppb	07:21:04
1	U 409.014†	-57.4	-282.6	-40.074	µg/L	-40.074	ppb	07:20:44
1	V 292.402†	19845.6	19847.5	211.99	µg/L	211.99	ppb	07:20:44
1	Zn 213.857†	11441.1	10949.0	261.65	µg/L	261.65	ppb	07:20:44
2	Sc RADIAL	55631.7	55631.7	100	%			07:19:40
2	Al 396.153Radial†	46488.5	46270.9	32875	µg/L	32875	ppb	07:19:40
2	Ca 317.933Radial†	59969.6	59494.4	53811	µg/L	53811	ppb	07:19:40
2	Fe 238.204 Radial†	11309.2	11242.3	98358	µg/L	98358	ppb	07:20:00
2	K 766.490 Radial†	8593.6	8378.7	5614.3	µg/L	5614.3	ppb	07:19:40
2	Mg 279.077 IEC†	1399.2	1379.4	12774	µg/L	12774	ppb	07:20:00
2	Na 589.592 Radial†	2638.5	2248.4	683.47	µg/L	683.47	ppb	07:19:40
2	Sr 421.552†	16894.4	16801.2	162.65	µg/L	162.65	ppb	07:19:40
2	Sc 361.383	1949588.5	1949588.5	100.09	%			07:21:11
2	Y 371.029	1385099.5	1385099.5	103.57	%			07:21:11
2	Ag 328.068†	-1625.5	-1113.7	-0.8836	µg/L	-0.8836	ppb	07:21:16
2	As 188.979†	0.7	-0.1	2.8025	µg/L	2.8025	ppb	07:21:37
2	B 249.677†	790.3	476.4	-31.117	µg/L	-31.117	ppb	07:21:16
2	Ba 233.527†	22964.3	22968.3	580.61	µg/L	580.61	ppb	07:21:16
2	Be 313.107†	5989.1	9616.4	4.5766	µg/L	4.5766	ppb	07:21:16
2	Cd 226.502†	213.8	336.8	-2.0773	µg/L	-2.0773	ppb	07:21:37
2	Co 228.616†	769.0	774.1	29.348	µg/L	29.348	ppb	07:21:37
2	Cr 267.716†	4843.9	4865.3	102.78	µg/L	102.78	ppb	07:21:16
2	Cu 324.752†	11308.2	8067.2	66.956	µg/L	66.956	ppb	07:21:16
2	Mn 257.610†	600410.0	600093.4	2005.2	µg/L	2005.2	ppb	07:21:11
2	Mo 202.031†	9.9	8.8	4.6455	µg/L	4.6455	ppb	07:21:37
2	Ni 231.604†	1540.0	1257.8	67.116	µg/L	67.116	ppb	07:21:37
2	P 214.914†	1600.6	1571.6	3197.8	µg/L	3197.8	ppb	07:21:37
2	Pb 220.353†	345.3	254.6	63.275	µg/L	63.275	ppb	07:21:37

2	S 181.975 Axial†	82.2	67.1	289.36 µg/L	289.36 ppb	07:21:37
2	Sb 206.836†	32.6	11.5	5.0124 µg/L	5.0124 ppb	07:21:37
2	Se 196.026†	-39.4	-51.3	167.55 µg/L	167.55 ppb	07:21:37
2	SiO2†	82079.7	80491.4	16464 µg/L	16464 ppb	07:21:16
2	Si 251.611†	97075.6	96700.4	7648.0 µg/L	7648.0 ppb	07:21:16
2	Sn 189.927†	-41.1	-42.0	-27.937 µg/L	-27.937 ppb	07:21:37
2	Ti 334.940†	1583171.8	1581554.1	3605.4 µg/L	3605.4 ppb	07:21:11
2	Tl 190.801†	-56.8	-36.2	0.5971 µg/L	0.5971 ppb	07:21:37
2	U 409.014†	-36.9	-262.3	-38.413 µg/L	-38.413 ppb	07:21:16
2	V 292.402†	19932.4	19961.2	213.14 µg/L	213.14 ppb	07:21:16
2	Zn 213.857†	11493.5	11016.9	263.31 µg/L	263.31 ppb	07:21:16
3	Sc RADIAL	55654.2	55654.2	100 %		07:20:06
3	Al 396.153Radial†	46454.4	46218.3	32838 µg/L	32838 ppb	07:20:06
3	Ca 317.933Radial†	59921.6	59422.5	53746 µg/L	53746 ppb	07:20:06
3	Fe 238.204 Radial†	11319.4	11248.0	98407 µg/L	98407 ppb	07:20:26
3	K 766.490 Radial†	8686.4	8467.7	5673.9 µg/L	5673.9 ppb	07:20:06
3	Mg 279.077 IEC†	1409.2	1388.7	12862 µg/L	12862 ppb	07:20:26
3	Na 589.592 Radial†	2651.2	2260.0	686.99 µg/L	686.99 ppb	07:20:06
3	Sr 421.552†	16902.1	16802.0	162.66 µg/L	162.66 ppb	07:20:06
3	Sc 361.383	1946182.2	1946182.2	99.918 %		07:21:44
3	Y 371.029	1381902.9	1381902.9	103.33 %		07:21:44
3	Ag 328.068†	-1585.0	-1076.0	-0.6511 µg/L	-0.6511 ppb	07:21:49
3	As 188.979†	3.8	3.0	8.5029 µg/L	8.5029 ppb	07:22:10
3	B 249.677†	767.5	455.0	-32.051 µg/L	-32.051 ppb	07:21:49
3	Ba 233.527†	22084.3	22127.8	559.36 µg/L	559.36 ppb	07:21:49
3	Be 313.107†	5644.7	9282.2	4.4034 µg/L	4.4034 ppb	07:21:49
3	Cd 226.502†	182.8	306.2	-2.9041 µg/L	-2.9041 ppb	07:22:10
3	Co 228.616†	695.3	701.7	26.084 µg/L	26.084 ppb	07:22:10
3	Cr 267.716†	4627.9	4657.6	98.396 µg/L	98.396 ppb	07:21:49
3	Cu 324.752†	11003.8	7782.3	65.081 µg/L	65.081 ppb	07:21:49
3	Mn 257.610†	586616.2	587338.2	1962.8 µg/L	1962.8 ppb	07:21:44
3	Mo 202.031†	17.7	16.6	5.4552 µg/L	5.4552 ppb	07:22:10
3	Ni 231.604†	1452.2	1172.7	62.660 µg/L	62.660 ppb	07:22:10
3	P 214.914†	1487.3	1461.0	2967.6 µg/L	2967.6 ppb	07:22:10
3	Pb 220.353†	335.2	245.1	60.845 µg/L	60.845 ppb	07:22:10
3	S 181.975 Axial†	85.9	70.9	305.95 µg/L	305.95 ppb	07:22:10
3	Sb 206.836†	32.4	11.3	4.9425 µg/L	4.9425 ppb	07:22:10
3	Se 196.026†	-26.2	-38.2	186.80 µg/L	186.80 ppb	07:22:10
3	SiO2†	78847.7	77400.3	15832 µg/L	15832 ppb	07:21:49
3	Si 251.611†	93070.7	92862.0	7344.4 µg/L	7344.4 ppb	07:21:49
3	Sn 189.927†	-36.8	-37.7	-26.040 µg/L	-26.040 ppb	07:22:10
3	Ti 334.940†	1541669.8	1542786.6	3517.0 µg/L	3517.0 ppb	07:21:44
3	Tl 190.801†	-53.0	-32.4	4.8581 µg/L	4.8581 ppb	07:22:10
3	U 409.014†	48.6	-176.7	-31.418 µg/L	-31.418 ppb	07:21:49
3	V 292.402†	19061.2	19124.1	204.70 µg/L	204.70 ppb	07:21:49
3	Zn 213.857†	11123.0	10666.2	254.76 µg/L	254.76 ppb	07:21:49

Mean Data: 246066016|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1949338.6	100.08	%	0.156				0.16%
Sc RADIAL	55621.2	100	%	0.1				0.07%
Y 371.029	1384497.8	103.53	%	0.176				0.17%
Ag 328.068†	-1083.9	-0.6794	µg/L	0.19160	-0.6794	ppb	0.19160	28.20%
Al 396.153Radial†	46233.0	32848	µg/L	23.5	32848	ppb	23.5	0.07%
As 188.979†	1.8	6.3844	µg/L	3.11923	6.3844	ppb	3.11923	48.86%
B 249.677†	470.9	-31.349	µg/L	0.6201	-31.349	ppb	0.6201	1.98%
Ba 233.527†	22623.2	571.88	µg/L	11.123	571.88	ppb	11.123	1.95%
Be 313.107†	9491.0	4.5105	µg/L	0.09357	4.5105	ppb	0.09357	2.07%
Ca 317.933Radial†	59480.8	53799	µg/L	47.8	53799	ppb	47.8	0.09%
Cd 226.502†	324.6	-2.4032	µg/L	0.44031	-2.4032	ppb	0.44031	18.32%
Co 228.616†	747.2	28.132	µg/L	1.7840	28.132	ppb	1.7840	6.34%
Cr 267.716†	4785.1	101.09	µg/L	2.358	101.09	ppb	2.358	2.33%
Cu 324.752†	7960.3	66.249	µg/L	1.0194	66.249	ppb	1.0194	1.54%
Fe 238.204 Radial†	11241.9	98354	µg/L	55.7	98354	ppb	55.7	0.06%
K 766.490 Radial†	8420.7	5642.4	µg/L	29.93	5642.4	ppb	29.93	0.53%
Mg 279.077 IEC†	1381.5	12795	µg/L	59.6	12795	ppb	59.6	0.47%
Mn 257.610†	595512.7	1990.0	µg/L	23.56	1990.0	ppb	23.56	1.18%
Mo 202.031†	14.1	5.1924	µg/L	0.47370	5.1924	ppb	0.47370	9.12%
Na 589.592 Radial†	2265.8	688.78	µg/L	6.391	688.78	ppb	6.391	0.93%

Ni 231.604†	1235.3	65.937	µg/L	2.8754	65.937	ppb	2.8754	4.36%
P 214.914†	1533.0	3117.5	µg/L	129.93	3117.5	ppb	129.93	4.17%
Pb 220.353†	252.4	62.713	µg/L	1.6604	62.713	ppb	1.6604	2.65%
S 181.975 Axial†	70.4	303.75	µg/L	13.432	303.75	ppb	13.432	4.42%
Sb 206.836†	11.2	4.8046	µg/L	0.30136	4.8046	ppb	0.30136	6.27%
Se 196.026†	-44.5	177.44	µg/L	9.636	177.44	ppb	9.636	5.43%
SiO2†	79465.4	16254	µg/L	365.8	16254	ppb	365.8	2.25%
Si 251.611†	95394.6	7544.7	µg/L	173.50	7544.7	ppb	173.50	2.30%
Sn 189.927†	-40.7	-27.369	µg/L	1.1544	-27.369	ppb	1.1544	4.22%
Sr 421.552†	16816.0	162.80	µg/L	0.241	162.80	ppb	0.241	0.15%
Ti 334.940†	1568267.1	3575.1	µg/L	50.33	3575.1	ppb	50.33	1.41%
Tl 190.801†	-35.1	1.7370	µg/L	2.73553	1.7370	ppb	2.73553	157.49%
U 409.014†	-240.5	-36.635	µg/L	4.5934	-36.635	ppb	4.5934	12.54%
V 292.402†	19644.3	209.94	µg/L	4.574	209.94	ppb	4.574	2.18%
Zn 213.857†	10877.4	259.91	µg/L	4.534	259.91	ppb	4.534	1.74%

Sequence No.: 56
Sample ID: 246066017|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 344
Date Collected: 2/24/2010 07:22:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066017|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55812.4	55812.4	101	%			07:22:52
1	Al 396.153Radial†	96550.4	95804.5	68069	µg/L	68069	ppb	07:22:52
1	Ca 317.933Radial†	15337.9	15006.7	13573	µg/L	13573	ppb	07:23:13
1	Fe 238.204 Radial†	14913.0	14782.4	129330	µg/L	129330	ppb	07:23:13
1	K 766.490 Radial†	21222.5	20884.5	13994	µg/L	13994	ppb	07:22:52
1	Mg 279.077 IEC†	1859.6	1831.8	16965	µg/L	16965	ppb	07:23:13
1	Na 589.592 Radial†	2358.3	1961.8	596.35	µg/L	596.35	ppb	07:23:13
1	Sr 421.552†	22399.3	22209.9	215.02	µg/L	215.02	ppb	07:22:52
1	Sc 361.383	1945410.6	1945410.6	99.879	%			07:24:17
1	Y 371.029	1365545.6	1365545.6	102.11	%			07:24:17
1	Ag 328.068†	-1874.5	-1366.5	-0.6778	µg/L	-0.6778	ppb	07:24:23
1	As 188.979†	13.1	12.3	29.975	µg/L	29.975	ppb	07:24:43
1	B 249.677†	974.2	662.3	-39.468	µg/L	-39.468	ppb	07:24:23
1	Ba 233.527†	50416.0	50502.6	1276.2	µg/L	1276.2	ppb	07:24:23
1	Be 313.107†	13305.5	16954.6	9.0545	µg/L	9.0545	ppb	07:24:23
1	Cd 226.502†	340.2	463.9	-2.1856	µg/L	-2.1856	ppb	07:24:43
1	Co 228.616†	1879.2	1887.3	82.030	µg/L	82.030	ppb	07:24:43
1	Cr 267.716†	4568.4	4599.8	97.197	µg/L	97.197	ppb	07:24:23
1	Cu 324.752†	11189.7	7972.8	70.637	µg/L	70.637	ppb	07:24:23
1	Mn 257.610†	1235919.2	1237663.1	4126.2	µg/L	4126.2	ppb	07:24:17
1	Mo 202.031†	9.9	8.8	5.8249	µg/L	5.8249	ppb	07:24:43
1	Ni 231.604†	1690.1	1411.4	75.498	µg/L	75.498	ppb	07:24:43
1	P 214.914†	323.7	296.6	526.68	µg/L	526.68	ppb	07:24:43
1	Pb 220.353†	521.9	432.2	109.64	µg/L	109.64	ppb	07:24:43
1	S 181.975 Axial†	95.1	80.1	345.66	µg/L	345.66	ppb	07:24:43
1	Sb 206.836†	27.2	6.2	3.6000	µg/L	3.6000	ppb	07:24:43
1	Se 196.026†	-50.2	-62.2	243.85	µg/L	243.85	ppb	07:24:43
1	SiO2†	92231.4	90831.5	18579	µg/L	18579	ppb	07:24:23
1	Si 251.611†	109204.2	109052.0	8624.9	µg/L	8624.9	ppb	07:24:23
1	Sn 189.927†	-29.0	-29.9	-25.149	µg/L	-25.149	ppb	07:24:43
1	Ti 334.940†	1651863.3	1653725.9	3769.0	µg/L	3769.0	ppb	07:24:17
1	Tl 190.801†	-55.6	-35.1	23.323	µg/L	23.323	ppb	07:24:43
1	U 409.014†	-884.4	-1110.9	-109.70	µg/L	-109.70	ppb	07:24:17
1	V 292.402†	22327.3	22401.8	241.31	µg/L	241.31	ppb	07:24:23
1	Zn 213.857†	13703.3	13254.0	316.20	µg/L	316.20	ppb	07:24:23
2	Sc RADIAL	55832.2	55832.2	101	%			07:23:18
2	Al 396.153Radial†	96309.8	95531.8	67875	µg/L	67875	ppb	07:23:18
2	Ca 317.933Radial†	15445.8	15108.4	13665	µg/L	13665	ppb	07:23:38
2	Fe 238.204 Radial†	15009.4	14872.9	130120	µg/L	130120	ppb	07:23:38
2	K 766.490 Radial†	21184.9	20839.7	13964	µg/L	13964	ppb	07:23:18
2	Mg 279.077 IEC†	1860.4	1832.0	16967	µg/L	16967	ppb	07:23:38
2	Na 589.592 Radial†	2374.4	1976.9	600.96	µg/L	600.96	ppb	07:23:38
2	Sr 421.552†	22400.6	22203.4	214.95	µg/L	214.95	ppb	07:23:18
2	Sc 361.383	1949015.7	1949015.7	100.06	%			07:24:51
2	Y 371.029	1368259.1	1368259.1	102.31	%			07:24:51
2	Ag 328.068†	-1930.7	-1419.2	-1.0346	µg/L	-1.0346	ppb	07:24:56
2	As 188.979†	16.4	15.6	36.200	µg/L	36.200	ppb	07:25:17
2	B 249.677†	1009.0	695.3	-38.495	µg/L	-38.495	ppb	07:24:56
2	Ba 233.527†	50310.1	50303.5	1271.2	µg/L	1271.2	ppb	07:24:56
2	Be 313.107†	13290.8	16915.3	9.0296	µg/L	9.0296	ppb	07:24:56
2	Cd 226.502†	350.0	473.0	-2.0313	µg/L	-2.0313	ppb	07:25:17
2	Co 228.616†	1850.3	1854.9	80.486	µg/L	80.486	ppb	07:25:17
2	Cr 267.716†	4557.5	4580.5	96.789	µg/L	96.789	ppb	07:24:56
2	Cu 324.752†	11081.8	7844.2	69.898	µg/L	69.898	ppb	07:24:56
2	Mn 257.610†	1238906.0	1238359.2	4128.6	µg/L	4128.6	ppb	07:24:51
2	Mo 202.031†	7.0	5.9	5.5579	µg/L	5.5579	ppb	07:25:17
2	Ni 231.604†	1672.9	1391.2	74.450	µg/L	74.450	ppb	07:25:17
2	P 214.914†	329.0	301.2	535.69	µg/L	535.69	ppb	07:25:17
2	Pb 220.353†	511.3	420.6	106.65	µg/L	106.65	ppb	07:25:17

2	S 181.975 Axial†	99.4	84.3	363.59 µg/L	363.59 ppb	07:25:17
2	Sb 206.836†	33.8	12.7	9.7193 µg/L	9.7193 ppb	07:25:17
2	Se 196.026†	-56.8	-68.7	236.50 µg/L	236.50 ppb	07:25:17
2	SiO2†	90181.0	88611.6	18125 µg/L	18125 ppb	07:24:56
2	Si 251.611†	106765.8	106412.9	8416.2 µg/L	8416.2 ppb	07:24:56
2	Sn 189.927†	-37.7	-38.6	-29.092 µg/L	-29.092 ppb	07:25:17
2	Ti 334.940†	1655590.9	1654392.0	3770.5 µg/L	3770.5 ppb	07:24:51
2	Tl 190.801†	-59.5	-38.9	18.247 µg/L	18.247 ppb	07:25:17
2	U 409.014†	-924.6	-1149.4	-112.96 µg/L	-112.96 ppb	07:24:51
2	V 292.402†	22240.6	22273.8	240.11 µg/L	240.11 ppb	07:24:56
2	Zn 213.857†	13639.3	13164.7	313.99 µg/L	313.99 ppb	07:24:56
3	Sc RADIAL	55277.3	55277.3	99.8 %		07:23:44
3	Al 396.153Radial†	96053.0	96233.7	68374 µg/L	68374 ppb	07:23:44
3	Ca 317.933Radial†	15470.1	15286.7	13826 µg/L	13826 ppb	07:24:04
3	Fe 238.204 Radial†	15046.3	15059.3	131750 µg/L	131750 ppb	07:24:04
3	K 766.490 Radial†	21166.2	21032.0	14093 µg/L	14093 ppb	07:23:44
3	Mg 279.077 IEC†	1870.1	1860.2	17228 µg/L	17228 ppb	07:24:04
3	Na 589.592 Radial†	2391.2	2017.4	613.24 µg/L	613.24 ppb	07:24:04
3	Sr 421.552†	22209.9	22235.4	215.26 µg/L	215.26 ppb	07:23:44
3	Sc 361.383	1951815.3	1951815.3	100.21 %		07:25:24
3	Y 371.029	1369868.6	1369868.6	102.43 %		07:25:24
3	Ag 328.068†	-1772.8	-1258.8	0.2140 µg/L	0.2140 ppb	07:25:30
3	As 188.979†	14.7	13.9	33.066 µg/L	33.066 ppb	07:25:50
3	B 249.677†	942.5	627.5	-42.205 µg/L	-42.205 ppb	07:25:30
3	Ba 233.527†	48375.0	48300.3	1220.6 µg/L	1220.6 ppb	07:25:30
3	Be 313.107†	12471.4	16078.5	8.5586 µg/L	8.5586 ppb	07:25:30
3	Cd 226.502†	304.4	427.0	-3.4477 µg/L	-3.4477 ppb	07:25:50
3	Co 228.616†	1707.7	1710.0	73.837 µg/L	73.837 ppb	07:25:50
3	Cr 267.716†	4370.7	4387.5	92.711 µg/L	92.711 ppb	07:25:30
3	Cu 324.752†	10732.2	7479.5	67.716 µg/L	67.716 ppb	07:25:30
3	Mn 257.610†	1206608.9	1204353.0	4015.9 µg/L	4015.9 ppb	07:25:24
3	Mo 202.031†	14.0	12.8	6.3339 µg/L	6.3339 ppb	07:25:50
3	Ni 231.604†	1583.2	1299.2	69.664 µg/L	69.664 ppb	07:25:50
3	P 214.914†	300.8	272.6	475.21 µg/L	475.21 ppb	07:25:50
3	Pb 220.353†	492.9	401.5	101.72 µg/L	101.72 ppb	07:25:50
3	S 181.975 Axial†	91.7	76.5	329.79 µg/L	329.79 ppb	07:25:50
3	Sb 206.836†	32.3	11.2	8.3443 µg/L	8.3443 ppb	07:25:50
3	Se 196.026†	-37.2	-49.1	269.27 µg/L	269.27 ppb	07:25:50
3	SiO2†	86014.4	84324.4	17248 µg/L	17248 ppb	07:25:30
3	Si 251.611†	101871.2	101375.4	8017.7 µg/L	8017.7 ppb	07:25:30
3	Sn 189.927†	-23.5	-24.3	-22.874 µg/L	-22.874 ppb	07:25:50
3	Ti 334.940†	1604004.3	1600539.0	3647.7 µg/L	3647.7 ppb	07:25:24
3	Tl 190.801†	-61.1	-40.4	14.925 µg/L	14.925 ppb	07:25:50
3	U 409.014†	-868.4	-1091.9	-108.50 µg/L	-108.50 ppb	07:25:24
3	V 292.402†	21294.5	21297.8	230.46 µg/L	230.46 ppb	07:25:30
3	Zn 213.857†	13118.9	12625.8	300.76 µg/L	300.76 ppb	07:25:30

Mean Data: 246066017|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1948747.2	100.05	%	0.165				0.16%
Sc RADIAL	55640.6	100	%	0.6				0.57%
Y 371.029	1367891.1	102.29	%	0.163				0.16%
Ag 328.068†	-1348.1	-0.4995	µg/L	0.64314	-0.4995	ppb	0.64314	128.76%
Al 396.153Radial†	95856.7	68106	µg/L	251.4	68106	ppb	251.4	0.37%
As 188.979†	13.9	33.080	µg/L	3.1125	33.080	ppb	3.1125	9.41%
B 249.677†	661.7	-40.056	µg/L	1.9238	-40.056	ppb	1.9238	4.80%
Ba 233.527†	49702.1	1256.0	µg/L	30.78	1256.0	ppb	30.78	2.45%
Be 313.107†	16649.5	8.8809	µg/L	0.27940	8.8809	ppb	0.27940	3.15%
Ca 317.933Radial†	15133.9	13688	µg/L	128.2	13688	ppb	128.2	0.94%
Cd 226.502†	454.6	-2.5548	µg/L	0.77707	-2.5548	ppb	0.77707	30.42%
Co 228.616†	1817.4	78.784	µg/L	4.3534	78.784	ppb	4.3534	5.53%
Cr 267.716†	4522.6	95.566	µg/L	2.4806	95.566	ppb	2.4806	2.60%
Cu 324.752†	7765.5	69.417	µg/L	1.5190	69.417	ppb	1.5190	2.19%
Fe 238.204 Radial†	14904.9	130400	µg/L	1235.1	130400	ppb	1235.1	0.95%
K 766.490 Radial†	20918.7	14017	µg/L	67.4	14017	ppb	67.4	0.48%
Mg 279.077 IEC†	1841.3	17053	µg/L	151.4	17053	ppb	151.4	0.89%
Mn 257.610†	1226791.8	4090.3	µg/L	64.39	4090.3	ppb	64.39	1.57%
Mo 202.031†	9.2	5.9056	µg/L	0.39424	5.9056	ppb	0.39424	6.68%
Na 589.592 Radial†	1985.4	603.52	µg/L	8.732	603.52	ppb	8.732	1.45%

Ni 231.604†	1367.3	73.204	µg/L	3.1101	73.204	ppb	3.1101	4.25%
P 214.914†	290.1	512.53	µg/L	32.633	512.53	ppb	32.633	6.37%
Pb 220.353†	418.1	106.00	µg/L	4.000	106.00	ppb	4.000	3.77%
S 181.975 Axial†	80.3	346.35	µg/L	16.912	346.35	ppb	16.912	4.88%
Sb 206.836†	10.0	7.2212	µg/L	3.21049	7.2212	ppb	3.21049	44.46%
Se 196.026†	-60.0	249.87	µg/L	17.193	249.87	ppb	17.193	6.88%
SiO2†	87922.5	17984	µg/L	676.6	17984	ppb	676.6	3.76%
Si 251.611†	105613.5	8352.9	µg/L	308.47	8352.9	ppb	308.47	3.69%
Sn 189.927†	-30.9	-25.705	µg/L	3.1465	-25.705	ppb	3.1465	12.24%
Sr 421.552†	22216.2	215.08	µg/L	0.164	215.08	ppb	0.164	0.08%
Ti 334.940†	1636218.9	3729.0	µg/L	70.46	3729.0	ppb	70.46	1.89%
Tl 190.801†	-38.1	18.832	µg/L	4.2290	18.832	ppb	4.2290	22.46%
U 409.014†	-1117.4	-110.39	µg/L	2.310	-110.39	ppb	2.310	2.09%
V 292.402†	21991.1	237.29	µg/L	5.950	237.29	ppb	5.950	2.51%
Zn 213.857†	13014.9	310.32	µg/L	8.351	310.32	ppb	8.351	2.69%

Sequence No.: 57
Sample ID: 246066018|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 345
Date Collected: 2/24/2010 07:26:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066018|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56209.9	56209.9	101	%			07:26:33
1	Al 396.153Radial†	130046.4	128134.7	91039	µg/L	91039	ppb	07:26:33
1	Ca 317.933Radial†	34677.7	33957.0	30713	µg/L	30713	ppb	07:26:54
1	Fe 238.204 Radial†	16285.3	16030.1	140250	µg/L	140250	ppb	07:26:54
1	K 766.490 Radial†	21560.9	21069.0	14118	µg/L	14118	ppb	07:26:33
1	Mg 279.077 IEC†	1923.9	1882.1	17423	µg/L	17423	ppb	07:26:54
1	Na 589.592 Radial†	3118.3	2694.2	818.99	µg/L	818.99	ppb	07:26:54
1	Sr 421.552†	29364.6	28916.5	279.94	µg/L	279.94	ppb	07:26:33
1	Sc 361.383	1953439.1	1953439.1	100.29	%			07:27:57
1	Y 371.029	1383521.4	1383521.4	103.45	%			07:27:57
1	Ag 328.068†	-2040.6	-1524.4	-0.7271	µg/L	-0.7271	ppb	07:28:03
1	As 188.979†	12.5	11.7	28.593	µg/L	28.593	ppb	07:28:23
1	B 249.677†	1140.6	824.2	-38.243	µg/L	-38.243	ppb	07:28:03
1	Ba 233.527†	58751.4	58606.4	1481.1	µg/L	1481.1	ppb	07:28:03
1	Be 313.107†	16607.2	20192.0	10.274	µg/L	10.274	ppb	07:28:03
1	Cd 226.502†	374.4	496.5	-2.5231	µg/L	-2.5231	ppb	07:28:23
1	Co 228.616†	1592.2	1593.4	63.737	µg/L	63.737	ppb	07:28:23
1	Cr 267.716†	7889.1	7892.1	166.71	µg/L	166.71	ppb	07:28:03
1	Cu 324.752†	11620.4	8356.2	74.687	µg/L	74.687	ppb	07:28:03
1	Mn 257.610†	1127982.2	1124953.4	3753.4	µg/L	3753.4	ppb	07:27:57
1	Mo 202.031†	-5.2	-6.3	4.6753	µg/L	4.6753	ppb	07:28:23
1	Ni 231.604†	2187.0	1899.9	101.24	µg/L	101.24	ppb	07:28:23
1	P 214.914†	545.3	516.2	981.46	µg/L	981.46	ppb	07:28:23
1	Pb 220.353†	605.4	513.2	131.22	µg/L	131.22	ppb	07:28:23
1	S 181.975 Axial†	153.0	137.5	593.16	µg/L	593.16	ppb	07:28:23
1	Sb 206.836†	39.9	18.7	13.098	µg/L	13.098	ppb	07:28:23
1	Se 196.026†	-56.4	-68.2	259.75	µg/L	259.75	ppb	07:28:23
1	SiO2†	90853.7	89078.3	18221	µg/L	18221	ppb	07:28:03
1	Si 251.611†	107370.4	106774.1	8444.7	µg/L	8444.7	ppb	07:28:03
1	Sn 189.927†	-51.4	-52.1	-36.249	µg/L	-36.249	ppb	07:28:23
1	Ti 334.940†	2563980.8	2556401.4	5827.1	µg/L	5827.1	ppb	07:27:57
1	Tl 190.801†	-80.2	-59.3	8.0230	µg/L	8.0230	ppb	07:28:23
1	U 409.014†	-389.3	-613.6	-71.571	µg/L	-71.571	ppb	07:28:03
1	V 292.402†	29288.1	29250.5	311.87	µg/L	311.87	ppb	07:28:03
1	Zn 213.857†	11881.4	11381.0	269.79	µg/L	269.79	ppb	07:28:03
2	Sc RADIAL	56229.0	56229.0	102	%			07:26:59
2	Al 396.153Radial†	130442.5	128481.2	91285	µg/L	91285	ppb	07:26:59
2	Ca 317.933Radial†	34631.3	33899.7	30662	µg/L	30662	ppb	07:27:20
2	Fe 238.204 Radial†	16262.1	16001.8	140000	µg/L	140000	ppb	07:27:20
2	K 766.490 Radial†	21674.9	21174.1	14188	µg/L	14188	ppb	07:26:59
2	Mg 279.077 IEC†	1924.9	1882.5	17427	µg/L	17427	ppb	07:27:20
2	Na 589.592 Radial†	3132.1	2706.7	822.79	µg/L	822.79	ppb	07:27:20
2	Sr 421.552†	29347.7	28890.1	279.69	µg/L	279.69	ppb	07:26:59
2	Sc 361.383	1941865.0	1941865.0	99.697	%			07:28:30
2	Y 371.029	1376803.1	1376803.1	102.95	%			07:28:30
2	Ag 328.068†	-2058.1	-1554.1	-0.9566	µg/L	-0.9566	ppb	07:28:36
2	As 188.979†	12.1	11.3	27.841	µg/L	27.841	ppb	07:28:56
2	B 249.677†	1151.6	842.0	-37.362	µg/L	-37.362	ppb	07:28:36
2	Ba 233.527†	58749.6	58953.8	1489.9	µg/L	1489.9	ppb	07:28:36
2	Be 313.107†	16498.5	20181.6	10.264	µg/L	10.264	ppb	07:28:36
2	Cd 226.502†	376.8	501.1	-2.3708	µg/L	-2.3708	ppb	07:28:56
2	Co 228.616†	1578.9	1589.5	63.531	µg/L	63.531	ppb	07:28:56
2	Cr 267.716†	7883.2	7933.1	167.57	µg/L	167.57	ppb	07:28:36
2	Cu 324.752†	11624.4	8429.3	75.135	µg/L	75.135	ppb	07:28:36
2	Mn 257.610†	1122429.1	1126087.0	3757.1	µg/L	3757.1	ppb	07:28:30
2	Mo 202.031†	-4.2	-5.3	4.7725	µg/L	4.7725	ppb	07:28:56
2	Ni 231.604†	2200.4	1926.4	102.62	µg/L	102.62	ppb	07:28:56
2	P 214.914†	543.7	517.8	985.13	µg/L	985.13	ppb	07:28:56
2	Pb 220.353†	613.9	525.4	134.36	µg/L	134.36	ppb	07:28:56

2	S 181.975 Axial†	154.4	139.8	603.19	µg/L	603.19 ppb	07:28:56
2	Sb 206.836†	39.6	18.6	13.038	µg/L	13.038 ppb	07:28:56
2	Se 196.026†	-56.6	-68.7	258.26	µg/L	258.26 ppb	07:28:56
2	SiO2†	90799.4	89563.8	18320	µg/L	18320 ppb	07:28:36
2	Si 251.611†	107666.6	107709.3	8518.7	µg/L	8518.7 ppb	07:28:36
2	Sn 189.927†	-48.9	-49.9	-35.240	µg/L	-35.240 ppb	07:28:56
2	Ti 334.940†	2553022.0	2560646.9	5836.8	µg/L	5836.8 ppb	07:28:30
2	Tl 190.801†	-82.7	-62.4	3.9134	µg/L	3.9134 ppb	07:28:56
2	U 409.014†	-293.0	-519.3	-63.819	µg/L	-63.819 ppb	07:28:36
2	V 292.402†	29265.7	29402.1	313.38	µg/L	313.38 ppb	07:28:36
2	Zn 213.857†	11866.5	11436.7	271.16	µg/L	271.16 ppb	07:28:36
3	Sc RADIAL	55590.1	55590.1	100	%		07:27:25
3	Al 396.153Radial†	129262.3	128782.2	91499	µg/L	91499 ppb	07:27:25
3	Ca 317.933Radial†	34329.8	33991.4	30744	µg/L	30744 ppb	07:27:45
3	Fe 238.204 Radial†	16069.1	15993.6	139930	µg/L	139930 ppb	07:27:45
3	K 766.490 Radial†	21486.0	21231.3	14226	µg/L	14226 ppb	07:27:25
3	Mg 279.077 IEC†	1915.0	1894.4	17539	µg/L	17539 ppb	07:27:45
3	Na 589.592 Radial†	3096.1	2706.3	822.66	µg/L	822.66 ppb	07:27:45
3	Sr 421.552†	29046.6	28922.4	280.00	µg/L	280.00 ppb	07:27:25
3	Sc 361.383	1946387.8	1946387.8	99.929	%		07:29:03
3	Y 371.029	1378142.4	1378142.4	103.05	%		07:29:03
3	Ag 328.068†	-1912.5	-1403.6	0.0962	µg/L	0.0962 ppb	07:29:09
3	As 188.979†	11.9	11.1	27.479	µg/L	27.479 ppb	07:29:29
3	B 249.677†	1114.4	802.1	-39.016	µg/L	-39.016 ppb	07:29:09
3	Ba 233.527†	56751.9	56817.8	1435.9	µg/L	1435.9 ppb	07:29:09
3	Be 313.107†	15745.6	19389.7	9.8241	µg/L	9.8241 ppb	07:29:09
3	Cd 226.502†	323.9	447.3	-3.8052	µg/L	-3.8052 ppb	07:29:29
3	Co 228.616†	1464.2	1471.0	58.163	µg/L	58.163 ppb	07:29:29
3	Cr 267.716†	7531.6	7562.9	159.75	µg/L	159.75 ppb	07:29:09
3	Cu 324.752†	11358.5	8136.1	73.189	µg/L	73.189 ppb	07:29:09
3	Mn 257.610†	1102180.6	1103208.0	3681.1	µg/L	3681.1 ppb	07:29:03
3	Mo 202.031†	-6.6	-7.8	4.5143	µg/L	4.5143 ppb	07:29:29
3	Ni 231.604†	2036.7	1757.5	93.784	µg/L	93.784 ppb	07:29:29
3	P 214.914†	517.9	490.7	929.08	µg/L	929.08 ppb	07:29:29
3	Pb 220.353†	575.7	485.7	124.19	µg/L	124.19 ppb	07:29:29
3	S 181.975 Axial†	151.1	136.1	587.17	µg/L	587.17 ppb	07:29:29
3	Sb 206.836†	33.7	12.6	7.4565	µg/L	7.4565 ppb	07:29:29
3	Se 196.026†	-64.8	-76.8	246.19	µg/L	246.19 ppb	07:29:29
3	SiO2†	87308.7	85858.9	17562	µg/L	17562 ppb	07:29:09
3	Si 251.611†	103303.6	103092.3	8153.5	µg/L	8153.5 ppb	07:29:09
3	Sn 189.927†	-48.6	-49.5	-35.024	µg/L	-35.024 ppb	07:29:29
3	Ti 334.940†	2500806.1	2502443.3	5704.1	µg/L	5704.1 ppb	07:29:03
3	Tl 190.801†	-75.9	-55.4	12.100	µg/L	12.100 ppb	07:29:29
3	U 409.014†	-221.0	-446.6	-57.863	µg/L	-57.863 ppb	07:29:09
3	V 292.402†	28150.4	28217.8	301.41	µg/L	301.41 ppb	07:29:09
3	Zn 213.857†	11479.5	11021.7	261.06	µg/L	261.06 ppb	07:29:09

Mean Data: 246066018|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1947230.6	99.972	%	0.2995				0.30%
Sc RADIAL	56009.7	101	%	0.7				0.65%
Y 371.029	1379489.0	103.15	%	0.266				0.26%
Ag 328.068†	-1494.1	-0.5292	µg/L	0.55359	-0.5292	ppb	0.55359	104.61%
Al 396.153Radial†	128466.0	91275	µg/L	230.2	91275	ppb	230.2	0.25%
As 188.979†	11.4	27.971	µg/L	0.5681	27.971	ppb	0.5681	2.03%
B 249.677†	822.8	-38.207	µg/L	0.8274	-38.207	ppb	0.8274	2.17%
Ba 233.527†	58126.0	1469.0	µg/L	28.97	1469.0	ppb	28.97	1.97%
Be 313.107†	19921.1	10.120	µg/L	0.2567	10.120	ppb	0.2567	2.54%
Ca 317.933Radial†	33949.3	30706	µg/L	41.9	30706	ppb	41.9	0.14%
Cd 226.502†	481.7	-2.8997	µg/L	0.78789	-2.8997	ppb	0.78789	27.17%
Co 228.616†	1551.3	61.811	µg/L	3.1607	61.811	ppb	3.1607	5.11%
Cr 267.716†	7796.0	164.68	µg/L	4.287	164.68	ppb	4.287	2.60%
Cu 324.752†	8307.2	74.337	µg/L	1.0195	74.337	ppb	1.0195	1.37%
Fe 238.204 Radial†	16008.5	140060	µg/L	167.7	140060	ppb	167.7	0.12%
K 766.490 Radial†	21158.1	14177	µg/L	55.2	14177	ppb	55.2	0.39%
Mg 279.077 IEC†	1886.3	17463	µg/L	65.5	17463	ppb	65.5	0.38%
Mn 257.610†	1118082.8	3730.6	µg/L	42.83	3730.6	ppb	42.83	1.15%
Mo 202.031†	-6.5	4.6541	µg/L	0.13040	4.6541	ppb	0.13040	2.80%
Na 589.592 Radial†	2702.4	821.48	µg/L	2.159	821.48	ppb	2.159	0.26%

Ni 231.604†	1861.2	99.217	µg/L	4.7553	99.217	ppb	4.7553	4.79%
P 214.914†	508.2	965.22	µg/L	31.353	965.22	ppb	31.353	3.25%
Pb 220.353†	508.1	129.92	µg/L	5.209	129.92	ppb	5.209	4.01%
S 181.975 Axial†	137.8	594.50	µg/L	8.095	594.50	ppb	8.095	1.36%
Sb 206.836†	16.7	11.197	µg/L	3.2399	11.197	ppb	3.2399	28.93%
Se 196.026†	-71.2	254.73	µg/L	7.435	254.73	ppb	7.435	2.92%
SiO2†	88167.0	18034	µg/L	411.9	18034	ppb	411.9	2.28%
Si 251.611†	105858.6	8372.3	µg/L	193.05	8372.3	ppb	193.05	2.31%
Sn 189.927†	-50.5	-35.505	µg/L	0.6541	-35.505	ppb	0.6541	1.84%
Sr 421.552†	28909.6	279.88	µg/L	0.167	279.88	ppb	0.167	0.06%
Ti 334.940†	2539830.5	5789.3	µg/L	73.98	5789.3	ppb	73.98	1.28%
Tl 190.801†	-59.0	8.0121	µg/L	4.09335	8.0121	ppb	4.09335	51.09%
U 409.014†	-526.5	-64.418	µg/L	6.8733	-64.418	ppb	6.8733	10.67%
V 292.402†	28956.8	308.89	µg/L	6.517	308.89	ppb	6.517	2.11%
Zn 213.857†	11279.8	267.34	µg/L	5.478	267.34	ppb	5.478	2.05%

Sequence No.: 58
Sample ID: 246066019|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 346
Date Collected: 2/24/2010 07:29:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066019|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55408.0	55408.0	100	%			07:30:11
1	Al 396.153Radial†	242645.2	242552.7	172330	µg/L	172330	ppb	07:30:11
1	Ca 317.933Radial†	29485.1	29260.6	26466	µg/L	26466	ppb	07:30:32
1	Fe 238.204 Radial†	19584.7	19560.7	171130	µg/L	171130	ppb	07:30:32
1	K 766.490 Radial†	31774.4	31586.8	21165	µg/L	21165	ppb	07:30:11
1	Mg 279.077 IEC†	3054.5	3039.8	28200	µg/L	28200	ppb	07:30:32
1	Na 589.592 Radial†	4471.3	4091.2	1243.7	µg/L	1243.7	ppb	07:30:32
1	Sr 421.552†	36300.8	36269.3	351.13	µg/L	351.13	ppb	07:30:11
1	Sc 361.383	1933218.9	1933218.9	99.253	%			07:31:36
1	Y 371.029	1385429.4	1385429.4	103.60	%			07:31:36
1	Ag 328.068†	-2416.2	-1924.1	-1.6312	µg/L	-1.6312	ppb	07:31:42
1	As 188.979†	17.3	16.6	39.847	µg/L	39.847	ppb	07:32:02
1	B 249.677†	1359.9	1057.1	-44.571	µg/L	-44.571	ppb	07:31:42
1	Ba 233.527†	86239.1	86913.8	2196.3	µg/L	2196.3	ppb	07:31:42
1	Be 313.107†	25460.9	29285.5	15.743	µg/L	15.743	ppb	07:31:42
1	Cd 226.502†	509.6	636.7	-2.2696	µg/L	-2.2696	ppb	07:31:42
1	Co 228.616†	1659.1	1677.4	66.871	µg/L	66.871	ppb	07:32:02
1	Cr 267.716†	7607.0	7690.2	162.46	µg/L	162.46	ppb	07:31:42
1	Cu 324.752†	15254.9	12139.2	103.97	µg/L	103.97	ppb	07:31:42
1	Mn 257.610†	1086625.4	1095048.9	3657.8	µg/L	3657.8	ppb	07:31:36
1	Mo 202.031†	-15.4	-16.6	4.7850	µg/L	4.7850	ppb	07:32:02
1	Ni 231.604†	2377.0	2114.2	112.86	µg/L	112.86	ppb	07:32:02
1	P 214.914†	524.9	501.3	946.29	µg/L	946.29	ppb	07:32:02
1	Pb 220.353†	688.9	603.7	157.71	µg/L	157.71	ppb	07:32:02
1	S 181.975 Axial†	173.7	160.0	689.96	µg/L	689.96	ppb	07:32:02
1	Sb 206.836†	46.5	25.8	20.176	µg/L	20.176	ppb	07:32:02
1	Se 196.026†	-64.4	-76.8	323.14	µg/L	323.14	ppb	07:32:02
1	SiO2†	95923.7	95134.0	19459	µg/L	19459	ppb	07:31:42
1	Si 251.611†	113785.5	114357.4	9044.5	µg/L	9044.5	ppb	07:31:42
1	Sn 189.927†	-50.8	-52.0	-38.184	µg/L	-38.184	ppb	07:32:02
1	Ti 334.940†	2717722.2	2738040.1	6240.2	µg/L	6240.2	ppb	07:31:36
1	Tl 190.801†	-79.7	-59.7	22.195	µg/L	22.195	ppb	07:32:02
1	U 409.014†	-837.4	-1069.1	-112.88	µg/L	-112.88	ppb	07:31:36
1	V 292.402†	31483.4	31767.8	340.84	µg/L	340.84	ppb	07:31:42
1	Zn 213.857†	14108.5	13748.9	325.46	µg/L	325.46	ppb	07:31:42
2	Sc RADIAL	55576.1	55576.1	100	%			07:30:37
2	Al 396.153Radial†	243401.2	242572.2	172350	µg/L	172350	ppb	07:30:37
2	Ca 317.933Radial†	29555.8	29241.9	26449	µg/L	26449	ppb	07:30:58
2	Fe 238.204 Radial†	19642.3	19558.9	171120	µg/L	171120	ppb	07:30:58
2	K 766.490 Radial†	31840.8	31556.9	21145	µg/L	21145	ppb	07:30:37
2	Mg 279.077 IEC†	3051.9	3028.0	28090	µg/L	28090	ppb	07:30:58
2	Na 589.592 Radial†	4504.1	4110.3	1249.5	µg/L	1249.5	ppb	07:30:58
2	Sr 421.552†	36337.3	36195.9	350.42	µg/L	350.42	ppb	07:30:37
2	Sc 361.383	1939453.8	1939453.8	99.573	%			07:32:10
2	Y 371.029	1391482.1	1391482.1	104.05	%			07:32:10
2	Ag 328.068†	-2398.0	-1898.0	-1.4329	µg/L	-1.4329	ppb	07:32:15
2	As 188.979†	15.5	14.8	36.431	µg/L	36.431	ppb	07:32:36
2	B 249.677†	1326.6	1019.2	-46.153	µg/L	-46.153	ppb	07:32:15
2	Ba 233.527†	86980.1	87378.7	2208.0	µg/L	2208.0	ppb	07:32:15
2	Be 313.107†	25684.5	29427.6	15.823	µg/L	15.823	ppb	07:32:15
2	Cd 226.502†	511.2	636.6	-2.2706	µg/L	-2.2706	ppb	07:32:15
2	Co 228.616†	1644.6	1657.5	65.879	µg/L	65.879	ppb	07:32:36
2	Cr 267.716†	7686.0	7744.9	163.62	µg/L	163.62	ppb	07:32:15
2	Cu 324.752†	15416.5	12252.1	104.71	µg/L	104.71	ppb	07:32:15
2	Mn 257.610†	1096283.3	1101228.7	3678.3	µg/L	3678.3	ppb	07:32:10
2	Mo 202.031†	-8.2	-9.3	5.5392	µg/L	5.5392	ppb	07:32:36
2	Ni 231.604†	2380.7	2110.2	112.66	µg/L	112.66	ppb	07:32:36
2	P 214.914†	524.0	498.8	940.85	µg/L	940.85	ppb	07:32:36
2	Pb 220.353†	681.9	594.4	155.35	µg/L	155.35	ppb	07:32:36

2	S 181.975 Axial†	168.0	153.6	662.59 µg/L	662.59 ppb	07:32:36
2	Sb 206.836†	41.0	20.1	14.858 µg/L	14.858 ppb	07:32:36
2	Se 196.026†	-46.2	-58.3	350.21 µg/L	350.21 ppb	07:32:36
2	SiO2†	96555.3	95457.6	19525 µg/L	19525 ppb	07:32:15
2	Si 251.611†	114581.7	114788.4	9078.6 µg/L	9078.6 ppb	07:32:15
2	Sn 189.927†	-48.7	-49.8	-37.219 µg/L	-37.219 ppb	07:32:36
2	Ti 334.940†	2735379.8	2746970.8	6260.6 µg/L	6260.6 ppb	07:32:10
2	Tl 190.801†	-78.5	-58.3	24.488 µg/L	24.488 ppb	07:32:36
2	U 409.014†	-914.0	-1143.3	-118.95 µg/L	-118.95 ppb	07:32:10
2	V 292.402†	31611.4	31794.4	341.11 µg/L	341.11 ppb	07:32:15
2	Zn 213.857†	14301.6	13897.1	329.08 µg/L	329.08 ppb	07:32:15
3	Sc RADIAL	55421.8	55421.8	100 %		07:31:03
3	Al 396.153Radial†	243061.6	242908.5	172590 µg/L	172590 ppb	07:31:03
3	Ca 317.933Radial†	29707.4	29475.5	26660 µg/L	26660 ppb	07:31:23
3	Fe 238.204 Radial†	19732.6	19703.6	172380 µg/L	172380 ppb	07:31:23
3	K 766.490 Radial†	31778.9	31583.4	21163 µg/L	21163 ppb	07:31:03
3	Mg 279.077 IEC†	3075.3	3059.8	28386 µg/L	28386 ppb	07:31:23
3	Na 589.592 Radial†	4516.2	4135.0	1257.0 µg/L	1257.0 ppb	07:31:23
3	Sr 421.552†	36312.6	36272.1	351.15 µg/L	351.15 ppb	07:31:03
3	Sc 361.383	1936542.9	1936542.9	99.423 %		07:32:43
3	Y 371.029	1388350.8	1388350.8	103.82 %		07:32:43
3	Ag 328.068†	-2308.1	-1811.3	-0.7917 µg/L	-0.7917 ppb	07:32:49
3	As 188.979†	17.3	16.6	39.850 µg/L	39.850 ppb	07:33:09
3	B 249.677†	1262.8	957.1	-49.441 µg/L	-49.441 ppb	07:32:49
3	Ba 233.527†	83564.3	84074.4	2124.5 µg/L	2124.5 ppb	07:32:49
3	Be 313.107†	24336.7	28110.8	15.081 µg/L	15.081 ppb	07:32:49
3	Cd 226.502†	477.1	603.1	-3.3154 µg/L	-3.3154 ppb	07:32:49
3	Co 228.616†	1522.0	1536.6	60.521 µg/L	60.521 ppb	07:33:09
3	Cr 267.716†	7287.3	7355.5	155.39 µg/L	155.39 ppb	07:32:49
3	Cu 324.752†	14899.6	11755.6	101.61 µg/L	101.61 ppb	07:32:49
3	Mn 257.610†	1065452.9	1071874.4	3581.0 µg/L	3581.0 ppb	07:32:43
3	Mo 202.031†	-18.9	-20.1	4.4720 µg/L	4.4720 ppb	07:33:09
3	Ni 231.604†	2199.0	1931.1	103.30 µg/L	103.30 ppb	07:33:09
3	P 214.914†	472.5	447.7	833.97 µg/L	833.97 ppb	07:33:09
3	Pb 220.353†	652.9	566.3	148.10 µg/L	148.10 ppb	07:33:09
3	S 181.975 Axial†	158.1	143.9	620.78 µg/L	620.78 ppb	07:33:09
3	Sb 206.836†	31.1	10.2	5.5394 µg/L	5.5394 ppb	07:33:09
3	Se 196.026†	-60.5	-72.8	332.14 µg/L	332.14 ppb	07:33:09
3	SiO2†	91925.5	90946.7	18603 µg/L	18603 ppb	07:32:49
3	Si 251.611†	108930.2	109277.1	8642.7 µg/L	8642.7 ppb	07:32:49
3	Sn 189.927†	-42.1	-43.2	-34.402 µg/L	-34.402 ppb	07:33:09
3	Ti 334.940†	2647889.8	2663102.7	6069.4 µg/L	6069.4 ppb	07:32:43
3	Tl 190.801†	-74.2	-54.0	28.533 µg/L	28.533 ppb	07:33:09
3	U 409.014†	-887.5	-1118.1	-117.07 µg/L	-117.07 ppb	07:32:43
3	V 292.402†	30171.6	30393.9	327.11 µg/L	327.11 ppb	07:32:49
3	Zn 213.857†	13683.6	13297.0	314.40 µg/L	314.40 ppb	07:32:49

Mean Data: 246066019|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1936405.2	99.416	%	0.1602				0.16%
Sc RADIAL	55468.6	100	%	0.2				0.17%
Y 371.029	1388420.8	103.82	%	0.226				0.22%
Ag 328.068†	-1877.8	-1.2852	µg/L	0.43881	-1.2852	ppb	0.43881	34.14%
Al 396.153Radial†	242677.8	172420	µg/L	142.1	172420	ppb	142.1	0.08%
As 188.979†	16.0	38.709	µg/L	1.9731	38.709	ppb	1.9731	5.10%
B 249.677†	1011.1	-46.722	µg/L	2.4843	-46.722	ppb	2.4843	5.32%
Ba 233.527†	86122.3	2176.3	µg/L	45.20	2176.3	ppb	45.20	2.08%
Be 313.107†	28941.3	15.549	µg/L	0.4072	15.549	ppb	0.4072	2.62%
Ca 317.933Radial†	29326.0	26525	µg/L	117.4	26525	ppb	117.4	0.44%
Cd 226.502†	625.4	-2.6186	µg/L	0.60350	-2.6186	ppb	0.60350	23.05%
Co 228.616†	1623.8	64.424	µg/L	3.4162	64.424	ppb	3.4162	5.30%
Cr 267.716†	7596.9	160.49	µg/L	4.453	160.49	ppb	4.453	2.77%
Cu 324.752†	12049.0	103.43	µg/L	1.621	103.43	ppb	1.621	1.57%
Fe 238.204 Radial†	19607.7	171550	µg/L	726.5	171550	ppb	726.5	0.42%
K 766.490 Radial†	31575.7	21158	µg/L	11.0	21158	ppb	11.0	0.05%
Mg 279.077 IEC†	3042.5	28226	µg/L	149.4	28226	ppb	149.4	0.53%
Mn 257.610†	1089384.0	3639.0	µg/L	51.30	3639.0	ppb	51.30	1.41%
Mo 202.031†	-15.3	4.9320	µg/L	0.54857	4.9320	ppb	0.54857	11.12%
Na 589.592 Radial†	4112.2	1250.0	µg/L	6.67	1250.0	ppb	6.67	0.53%

Ni 231.604†	2051.8	109.60	µg/L	5.464	109.60	ppb	5.464	4.99%
P 214.914†	482.6	907.04	µg/L	63.333	907.04	ppb	63.333	6.98%
Pb 220.353†	588.2	153.72	µg/L	5.012	153.72	ppb	5.012	3.26%
S 181.975 Axial†	152.5	657.78	µg/L	34.838	657.78	ppb	34.838	5.30%
Sb 206.836†	18.7	13.524	µg/L	7.4087	13.524	ppb	7.4087	54.78%
Se 196.026†	-69.3	335.16	µg/L	13.788	335.16	ppb	13.788	4.11%
SiO2†	93846.1	19196	µg/L	514.7	19196	ppb	514.7	2.68%
Si 251.611†	112807.6	8921.9	µg/L	242.42	8921.9	ppb	242.42	2.72%
Sn 189.927†	-48.3	-36.601	µg/L	1.9650	-36.601	ppb	1.9650	5.37%
Sr 421.552†	36245.8	350.90	µg/L	0.418	350.90	ppb	0.418	0.12%
Ti 334.940†	2716037.9	6190.1	µg/L	105.02	6190.1	ppb	105.02	1.70%
Tl 190.801†	-57.3	25.072	µg/L	3.2091	25.072	ppb	3.2091	12.80%
U 409.014†	-1110.2	-116.30	µg/L	3.106	-116.30	ppb	3.106	2.67%
V 292.402†	31318.7	336.35	µg/L	8.008	336.35	ppb	8.008	2.38%
Zn 213.857†	13647.7	322.98	µg/L	7.650	322.98	ppb	7.650	2.37%

Sequence No.: 59
Sample ID: 246066020|956437|1
Analyst: JWJ
Initial Sample Wt:
Dilution:

Autosampler Location: 347
Date Collected: 2/24/2010 07:33:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246066020|956437|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56039.6	56039.6	101	%			07:33:51
1	Al 396.153Radial†	131232.4	129696.4	92149	µg/L	92149	ppb	07:33:51
1	Ca 317.933Radial†	20631.4	20177.3	18250	µg/L	18250	ppb	07:34:12
1	Fe 238.204 Radial†	11905.6	11749.9	102800	µg/L	102800	ppb	07:34:12
1	K 766.490 Radial†	23843.2	23389.5	15672	µg/L	15672	ppb	07:33:51
1	Mg 279.077 IEC†	1661.7	1628.7	15097	µg/L	15097	ppb	07:34:12
1	Na 589.592 Radial†	1393.2	998.3	303.48	µg/L	303.48	ppb	07:34:12
1	Sr 421.552†	21118.4	20853.8	201.89	µg/L	201.89	ppb	07:33:51
1	Sc 361.383	1943077.6	1943077.6	99.759	%			07:35:16
1	Y 371.029	1369648.4	1369648.4	102.42	%			07:35:16
1	Ag 328.068†	-1592.0	-1085.6	-0.3309	µg/L	-0.3309	ppb	07:35:22
1	As 188.979†	12.9	12.1	27.818	µg/L	27.818	ppb	07:35:42
1	B 249.677†	1079.7	769.3	-21.134	µg/L	-21.134	ppb	07:35:22
1	Ba 233.527†	49240.4	49384.8	1248.0	µg/L	1248.0	ppb	07:35:22
1	Be 313.107†	14720.8	18389.2	9.6634	µg/L	9.6634	ppb	07:35:22
1	Cd 226.502†	250.4	374.2	-1.5876	µg/L	-1.5876	ppb	07:35:42
1	Co 228.616†	1056.7	1065.1	41.339	µg/L	41.339	ppb	07:35:42
1	Cr 267.716†	4268.0	4304.3	90.951	µg/L	90.951	ppb	07:35:22
1	Cu 324.752†	11432.3	8229.4	68.644	µg/L	68.644	ppb	07:35:22
1	Mn 257.610†	677095.7	678974.5	2267.6	µg/L	2267.6	ppb	07:35:16
1	Mo 202.031†	-2.0	-3.1	3.5848	µg/L	3.5848	ppb	07:35:42
1	Ni 231.604†	1454.1	1176.9	62.919	µg/L	62.919	ppb	07:35:42
1	P 214.914†	548.3	522.1	1024.8	µg/L	1024.8	ppb	07:35:42
1	Pb 220.353†	569.7	480.7	124.35	µg/L	124.35	ppb	07:35:42
1	S 181.975 Axial†	253.9	239.4	1032.7	µg/L	1032.7	ppb	07:35:42
1	Sb 206.836†	33.1	12.1	8.8124	µg/L	8.8124	ppb	07:35:42
1	Se 196.026†	-33.2	-45.3	196.39	µg/L	196.39	ppb	07:35:42
1	SiO2†	75051.6	73721.1	15079	µg/L	15079	ppb	07:35:22
1	Si 251.611†	88376.7	88305.4	6984.0	µg/L	6984.0	ppb	07:35:22
1	Sn 189.927†	-31.4	-32.3	-23.639	µg/L	-23.639	ppb	07:35:42
1	Ti 334.940†	1970036.8	1974654.4	4500.8	µg/L	4500.8	ppb	07:35:16
1	Tl 190.801†	-62.3	-41.9	10.673	µg/L	10.673	ppb	07:35:42
1	U 409.014†	-44.9	-270.3	-37.522	µg/L	-37.522	ppb	07:35:22
1	V 292.402†	20772.3	20869.9	222.79	µg/L	222.79	ppb	07:35:22
1	Zn 213.857†	9256.7	8813.1	209.15	µg/L	209.15	ppb	07:35:22
2	Sc RADIAL	55552.7	55552.7	100	%			07:34:18
2	Al 396.153Radial†	130971.6	130573.0	92772	µg/L	92772	ppb	07:34:18
2	Ca 317.933Radial†	20823.6	20547.6	18585	µg/L	18585	ppb	07:34:38
2	Fe 238.204 Radial†	12024.0	11971.1	104730	µg/L	104730	ppb	07:34:38
2	K 766.490 Radial†	23768.5	23521.6	15761	µg/L	15761	ppb	07:34:18
2	Mg 279.077 IEC†	1673.6	1655.0	15341	µg/L	15341	ppb	07:34:38
2	Na 589.592 Radial†	1412.0	1029.2	312.86	µg/L	312.86	ppb	07:34:38
2	Sr 421.552†	21026.9	20945.4	202.78	µg/L	202.78	ppb	07:34:18
2	Sc 361.383	1935159.7	1935159.7	99.352	%			07:35:49
2	Y 371.029	1362718.0	1362718.0	101.90	%			07:35:49
2	Ag 328.068†	-1581.6	-1081.6	-0.1725	µg/L	-0.1725	ppb	07:35:54
2	As 188.979†	14.7	14.0	31.586	µg/L	31.586	ppb	07:36:15
2	B 249.677†	1092.3	786.3	-21.427	µg/L	-21.427	ppb	07:35:54
2	Ba 233.527†	49408.1	49755.6	1257.3	µg/L	1257.3	ppb	07:35:54
2	Be 313.107†	14792.1	18521.4	9.7540	µg/L	9.7540	ppb	07:35:54
2	Cd 226.502†	264.9	389.9	-1.3896	µg/L	-1.3896	ppb	07:36:15
2	Co 228.616†	1049.2	1061.8	41.231	µg/L	41.231	ppb	07:36:15
2	Cr 267.716†	4259.9	4313.6	91.149	µg/L	91.149	ppb	07:35:54
2	Cu 324.752†	11443.6	8287.7	69.298	µg/L	69.298	ppb	07:35:54
2	Mn 257.610†	670685.4	675299.5	2255.7	µg/L	2255.7	ppb	07:35:49
2	Mo 202.031†	-10.1	-11.3	2.8075	µg/L	2.8075	ppb	07:36:15
2	Ni 231.604†	1428.6	1157.2	61.908	µg/L	61.908	ppb	07:36:15
2	P 214.914†	545.1	521.1	1021.3	µg/L	1021.3	ppb	07:36:15
2	Pb 220.353†	561.6	474.9	122.80	µg/L	122.80	ppb	07:36:15

2	S 181.975 Axial†	262.6	249.2	1075.0 µg/L	1075.0 ppb	07:36:15
2	Sb 206.836†	31.0	10.2	6.9447 µg/L	6.9447 ppb	07:36:15
2	Se 196.026†	-33.7	-45.9	200.42 µg/L	200.42 ppb	07:36:15
2	SiO2†	74754.6	73729.9	15081 µg/L	15081 ppb	07:35:54
2	Si 251.611†	88102.3	88391.7	6990.9 µg/L	6990.9 ppb	07:35:54
2	Sn 189.927†	-38.7	-39.8	-27.169 µg/L	-27.169 ppb	07:36:15
2	Ti 334.940†	1951946.2	1964525.9	4477.7 µg/L	4477.7 ppb	07:35:49
2	Tl 190.801†	-60.6	-40.4	12.808 µg/L	12.808 ppb	07:36:15
2	U 409.014†	22.4	-202.8	-32.285 µg/L	-32.285 ppb	07:35:54
2	V 292.402†	20784.0	20966.9	223.99 µg/L	223.99 ppb	07:35:54
2	Zn 213.857†	9278.3	8872.9	210.51 µg/L	210.51 ppb	07:35:54
3	Sc RADIAL	56350.7	56350.7	102 %		07:34:44
3	Al 396.153Radial†	132464.8	130191.6	92501 µg/L	92501 ppb	07:34:44
3	Ca 317.933Radial†	21034.9	20461.3	18507 µg/L	18507 ppb	07:35:04
3	Fe 238.204 Radial†	12146.5	11921.7	104300 µg/L	104300 ppb	07:35:04
3	K 766.490 Radial†	24118.7	23530.2	15767 µg/L	15767 ppb	07:34:44
3	Mg 279.077 IEC†	1691.4	1648.8	15284 µg/L	15284 ppb	07:35:04
3	Na 589.592 Radial†	1410.5	1007.7	306.34 µg/L	306.34 ppb	07:35:04
3	Sr 421.552†	21397.6	21013.0	203.43 µg/L	203.43 ppb	07:34:44
3	Sc 361.383	1941897.2	1941897.2	99.698 %		07:36:22
3	Y 371.029	1368494.8	1368494.8	102.33 %		07:36:22
3	Ag 328.068†	-1510.7	-1005.0	0.3139 µg/L	0.3139 ppb	07:36:27
3	As 188.979†	6.6	5.8	15.975 µg/L	15.975 ppb	07:36:48
3	B 249.677†	1070.7	760.9	-22.279 µg/L	-22.279 ppb	07:36:27
3	Ba 233.527†	47375.3	47544.1	1201.5 µg/L	1201.5 ppb	07:36:27
3	Be 313.107†	14002.8	17678.1	9.2678 µg/L	9.2678 ppb	07:36:27
3	Cd 226.502†	216.4	340.3	-2.6647 µg/L	-2.6647 ppb	07:36:48
3	Co 228.616†	963.4	972.2	37.155 µg/L	37.155 ppb	07:36:48
3	Cr 267.716†	4084.7	4123.0	87.120 µg/L	87.120 ppb	07:36:27
3	Cu 324.752†	11154.2	7957.5	67.057 µg/L	67.057 ppb	07:36:27
3	Mn 257.610†	660010.2	662249.8	2212.3 µg/L	2212.3 ppb	07:36:22
3	Mo 202.031†	-6.5	-7.6	3.1755 µg/L	3.1755 ppb	07:36:48
3	Ni 231.604†	1367.6	1091.0	58.443 µg/L	58.443 ppb	07:36:48
3	P 214.914†	511.1	485.1	946.83 µg/L	946.83 ppb	07:36:48
3	Pb 220.353†	551.1	462.4	119.61 µg/L	119.61 ppb	07:36:48
3	S 181.975 Axial†	240.4	226.0	974.84 µg/L	974.84 ppb	07:36:48
3	Sb 206.836†	36.3	15.3	11.843 µg/L	11.843 ppb	07:36:48
3	Se 196.026†	-18.2	-30.2	222.25 µg/L	222.25 ppb	07:36:48
3	SiO2†	70348.4	69049.4	14124 µg/L	14124 ppb	07:36:27
3	Si 251.611†	82734.7	82700.2	6540.7 µg/L	6540.7 ppb	07:36:27
3	Sn 189.927†	-38.8	-39.8	-27.108 µg/L	-27.108 ppb	07:36:48
3	Ti 334.940†	1917831.8	1923491.7	4384.2 µg/L	4384.2 ppb	07:36:22
3	Tl 190.801†	-58.6	-38.2	14.737 µg/L	14.737 ppb	07:36:48
3	U 409.014†	-9.1	-234.5	-34.816 µg/L	-34.816 ppb	07:36:27
3	V 292.402†	19879.1	19986.6	214.05 µg/L	214.05 ppb	07:36:27
3	Zn 213.857†	8932.1	8493.3	201.28 µg/L	201.28 ppb	07:36:27

Mean Data: 246066020|956437|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1940044.8	99.603	%	0.2193				0.22%
Sc RADIAL	55981.0	101	%	0.7				0.72%
Y 371.029	1366953.7	102.22	%	0.278				0.27%
Ag 328.068†	-1057.4	-0.0632	µg/L	0.33604	-0.0632	ppb	0.33604	531.73%
Al 396.153Radial†	130153.7	92474	µg/L	312.3	92474	ppb	312.3	0.34%
As 188.979†	10.6	25.126	µg/L	8.1460	25.126	ppb	8.1460	32.42%
B 249.677†	772.1	-21.614	µg/L	0.5948	-21.614	ppb	0.5948	2.75%
Ba 233.527†	48894.8	1235.6	µg/L	29.93	1235.6	ppb	29.93	2.42%
Be 313.107†	18196.2	9.5618	µg/L	0.25856	9.5618	ppb	0.25856	2.70%
Ca 317.933Radial†	20395.4	18447	µg/L	175.2	18447	ppb	175.2	0.95%
Cd 226.502†	368.1	-1.8806	µg/L	0.68623	-1.8806	ppb	0.68623	36.49%
Co 228.616†	1033.0	39.908	µg/L	2.3854	39.908	ppb	2.3854	5.98%
Cr 267.716†	4247.0	89.740	µg/L	2.2714	89.740	ppb	2.2714	2.53%
Cu 324.752†	8158.2	68.333	µg/L	1.1525	68.333	ppb	1.1525	1.69%
Fe 238.204 Radial†	11880.9	103940	µg/L	1015.8	103940	ppb	1015.8	0.98%
K 766.490 Radial†	23480.4	15733	µg/L	52.8	15733	ppb	52.8	0.34%
Mg 279.077 IEC†	1644.1	15241	µg/L	127.4	15241	ppb	127.4	0.84%
Mn 257.610†	672174.6	2245.2	µg/L	29.12	2245.2	ppb	29.12	1.30%
Mo 202.031†	-7.3	3.1893	µg/L	0.38883	3.1893	ppb	0.38883	12.19%
Na 589.592 Radial†	1011.8	307.56	µg/L	4.808	307.56	ppb	4.808	1.56%

Ni 231.604†	1141.7	61.090	µg/L	2.3475	61.090	ppb	2.3475	3.84%
P 214.914†	509.5	997.65	µg/L	44.046	997.65	ppb	44.046	4.41%
Pb 220.353†	472.7	122.25	µg/L	2.418	122.25	ppb	2.418	1.98%
S 181.975 Axial†	238.2	1027.5	µg/L	50.26	1027.5	ppb	50.26	4.89%
Sb 206.836†	12.5	9.1999	µg/L	2.47181	9.1999	ppb	2.47181	26.87%
Se 196.026†	-40.4	206.35	µg/L	13.910	206.35	ppb	13.910	6.74%
SiO2†	72166.8	14761	µg/L	552.2	14761	ppb	552.2	3.74%
Si 251.611†	86465.8	6838.5	µg/L	257.94	6838.5	ppb	257.94	3.77%
Sn 189.927†	-37.3	-25.972	µg/L	2.0207	-25.972	ppb	2.0207	7.78%
Sr 421.552†	20937.4	202.70	µg/L	0.774	202.70	ppb	0.774	0.38%
Ti 334.940†	1954224.0	4454.2	µg/L	61.77	4454.2	ppb	61.77	1.39%
Tl 190.801†	-40.2	12.739	µg/L	2.0329	12.739	ppb	2.0329	15.96%
U 409.014†	-235.9	-34.874	µg/L	2.6190	-34.874	ppb	2.6190	7.51%
V 292.402†	20607.8	220.28	µg/L	5.429	220.28	ppb	5.429	2.46%
Zn 213.857†	8726.4	206.98	µg/L	4.983	206.98	ppb	4.983	2.41%

Sequence No.: 60
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 07:36:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54712.6	54712.6	98.8	%			07:37:36
1	Al 396.153Radial†	7057.4	7128.9	5054.0	µg/L	5054.0	ppb	07:37:36
1	Ca 317.933Radial†	5650.7	5505.5	4979.6	µg/L	4979.6	ppb	07:37:56
1	Fe 238.204 Radial†	599.9	589.5	5168.8	µg/L	5168.8	ppb	07:37:56
1	K 766.490 Radial†	7714.9	7632.9	5114.5	µg/L	5114.5	ppb	07:37:36
1	Mg 279.077 IEC†	558.4	551.6	5153.9	µg/L	5153.9	ppb	07:37:56
1	Na 589.592 Radial†	33335.8	33370.1	10144	µg/L	10144	ppb	07:37:36
1	Sr 421.552†	51313.2	51929.0	502.73	µg/L	502.73	ppb	07:37:36
1	Sc 361.383	1946827.9	1946827.9	99.951	%			07:39:00
1	Y 371.029	1345222.2	1345222.2	100.59	%			07:39:00
1	Ag 328.068†	67243.6	67786.6	515.49	µg/L	515.49	ppb	07:39:06
1	As 188.979†	274.8	274.2	515.63	µg/L	515.63	ppb	07:39:26
1	B 249.677†	12266.0	11958.9	501.21	µg/L	501.21	ppb	07:39:06
1	Ba 233.527†	20247.5	20282.8	513.33	µg/L	513.33	ppb	07:39:06
1	Be 313.107†	827890.3	831925.9	514.57	µg/L	514.57	ppb	07:39:00
1	Cd 226.502†	19396.6	19529.2	520.10	µg/L	520.10	ppb	07:39:06
1	Co 228.616†	10793.7	10804.7	514.08	µg/L	514.08	ppb	07:39:06
1	Cr 267.716†	24696.8	24734.8	522.22	µg/L	522.22	ppb	07:39:06
1	Cu 324.752†	79925.0	76733.4	507.54	µg/L	507.54	ppb	07:39:06
1	Mn 257.610†	157716.9	158035.6	525.24	µg/L	525.24	ppb	07:39:00
1	Mo 202.031†	5168.7	5170.1	535.33	µg/L	535.33	ppb	07:39:26
1	Ni 231.604†	10225.6	9949.8	520.59	µg/L	520.59	ppb	07:39:06
1	P 214.914†	1281.4	1254.5	2565.2	µg/L	2565.2	ppb	07:39:26
1	Pb 220.353†	2137.5	2048.2	525.38	µg/L	525.38	ppb	07:39:26
1	S 181.975 Axial†	259.5	244.5	1054.7	µg/L	1054.7	ppb	07:39:26
1	Sb 206.836†	580.2	559.4	530.95	µg/L	530.95	ppb	07:39:26
1	Se 196.026†	377.0	365.2	540.68	µg/L	540.68	ppb	07:39:26
1	SiO2†	28536.1	27038.0	5530.5	µg/L	5530.5	ppb	07:39:06
1	Si 251.611†	32770.4	32501.4	2570.5	µg/L	2570.5	ppb	07:39:06
1	Sn 189.927†	1204.6	1204.4	536.11	µg/L	536.11	ppb	07:39:26
1	Ti 334.940†	225723.6	225688.5	514.19	µg/L	514.19	ppb	07:39:00
1	Tl 190.801†	362.2	383.0	535.45	µg/L	535.45	ppb	07:39:26
1	U 409.014†	6406.7	6184.5	505.01	µg/L	505.01	ppb	07:39:06
1	V 292.402†	50972.6	51044.7	521.33	µg/L	521.33	ppb	07:39:06
1	Zn 213.857†	21704.7	21249.3	515.36	µg/L	515.36	ppb	07:39:06
2	Sc RADIAL	55201.5	55201.5	99.7	%			07:38:02
2	Al 396.153Radial†	7098.2	7106.5	5038.4	µg/L	5038.4	ppb	07:38:02
2	Ca 317.933Radial†	5657.5	5461.7	4940.0	µg/L	4940.0	ppb	07:38:22
2	Fe 238.204 Radial†	602.9	587.2	5148.1	µg/L	5148.1	ppb	07:38:22
2	K 766.490 Radial†	7731.5	7580.4	5079.4	µg/L	5079.4	ppb	07:38:02
2	Mg 279.077 IEC†	551.8	540.0	5045.4	µg/L	5045.4	ppb	07:38:22
2	Na 589.592 Radial†	33465.7	33201.6	10093	µg/L	10093	ppb	07:38:02
2	Sr 421.552†	51613.9	51770.7	501.20	µg/L	501.20	ppb	07:38:02
2	Sc 361.383	1953013.0	1953013.0	100.27	%			07:39:33
2	Y 371.029	1349338.6	1349338.6	100.90	%			07:39:33
2	Ag 328.068†	67095.0	67425.4	512.75	µg/L	512.75	ppb	07:39:39
2	As 188.979†	272.9	271.4	510.46	µg/L	510.46	ppb	07:39:59
2	B 249.677†	12207.0	11861.2	497.10	µg/L	497.10	ppb	07:39:39
2	Ba 233.527†	20200.1	20171.3	510.51	µg/L	510.51	ppb	07:39:39
2	Be 313.107†	830788.2	832192.8	514.74	µg/L	514.74	ppb	07:39:33
2	Cd 226.502†	19422.8	19493.9	519.15	µg/L	519.15	ppb	07:39:39
2	Co 228.616†	10767.8	10744.8	511.21	µg/L	511.21	ppb	07:39:39
2	Cr 267.716†	24689.2	24648.9	520.40	µg/L	520.40	ppb	07:39:39
2	Cu 324.752†	79743.9	76299.5	504.67	µg/L	504.67	ppb	07:39:39
2	Mn 257.610†	158300.1	158117.5	525.52	µg/L	525.52	ppb	07:39:33
2	Mo 202.031†	5075.2	5060.4	523.97	µg/L	523.97	ppb	07:39:59
2	Ni 231.604†	10149.3	9841.4	514.91	µg/L	514.91	ppb	07:39:39
2	P 214.914†	1254.7	1223.8	2501.3	µg/L	2501.3	ppb	07:39:59
2	Pb 220.353†	2102.4	2006.4	514.65	µg/L	514.65	ppb	07:39:59

2	S 181.975 Axial†	258.8	243.0	1048.1 µg/L	1048.1 ppb	07:39:59
2	Sb 206.836†	566.6	544.0	516.23 µg/L	516.23 ppb	07:39:59
2	Se 196.026†	377.8	364.9	540.23 µg/L	540.23 ppb	07:39:59
2	SiO2†	28582.6	26994.0	5521.5 µg/L	5521.5 ppb	07:39:39
2	Si 251.611†	32811.8	32438.9	2565.6 µg/L	2565.6 ppb	07:39:39
2	Sn 189.927†	1181.4	1177.4	524.10 µg/L	524.10 ppb	07:39:59
2	Ti 334.940†	226517.0	225764.6	514.37 µg/L	514.37 ppb	07:39:33
2	Tl 190.801†	353.2	372.8	521.44 µg/L	521.44 ppb	07:39:59
2	U 409.014†	6362.5	6120.0	499.74 µg/L	499.74 ppb	07:39:39
2	V 292.402†	50834.2	50745.2	518.21 µg/L	518.21 ppb	07:39:39
2	Zn 213.857†	21663.9	21139.9	512.72 µg/L	512.72 ppb	07:39:39
3	Sc RADIAL	54414.5	54414.5	98.2 %		07:38:28
3	Al 396.153Radial†	7033.6	7143.7	5066.6 µg/L	5066.6 ppb	07:38:28
3	Ca 317.933Radial†	5681.6	5568.4	5036.5 µg/L	5036.5 ppb	07:38:48
3	Fe 238.204 Radial†	604.3	597.3	5235.9 µg/L	5235.9 ppb	07:38:48
3	K 766.490 Radial†	7649.9	7609.5	5098.9 µg/L	5098.9 ppb	07:38:28
3	Mg 279.077 IEC†	551.2	547.4	5112.9 µg/L	5112.9 ppb	07:38:48
3	Na 589.592 Radial†	33201.5	33418.3	10159 µg/L	10159 ppb	07:38:28
3	Sr 421.552†	51026.4	51921.7	502.66 µg/L	502.66 ppb	07:38:28
3	Sc 361.383	1953598.9	1953598.9	100.30 %		07:40:06
3	Y 371.029	1349238.2	1349238.2	100.89 %		07:40:06
3	Ag 328.068†	63172.6	63494.5	482.72 µg/L	482.72 ppb	07:40:12
3	As 188.979†	233.1	231.6	435.63 µg/L	435.63 ppb	07:40:33
3	B 249.677†	11478.7	11131.3	466.25 µg/L	466.25 ppb	07:40:12
3	Ba 233.527†	18447.9	18418.3	466.13 µg/L	466.13 ppb	07:40:12
3	Be 313.107†	765552.8	766903.4	474.35 µg/L	474.35 ppb	07:40:06
3	Cd 226.502†	17621.7	17692.4	471.11 µg/L	471.11 ppb	07:40:12
3	Co 228.616†	9729.0	9705.8	461.73 µg/L	461.73 ppb	07:40:12
3	Cr 267.716†	21560.1	21521.8	454.39 µg/L	454.39 ppb	07:40:12
3	Cu 324.752†	72357.1	68910.9	455.88 µg/L	455.88 ppb	07:40:12
3	Mn 257.610†	146597.2	146402.1	486.62 µg/L	486.62 ppb	07:40:06
3	Mo 202.031†	4240.5	4226.8	437.69 µg/L	437.69 ppb	07:40:33
3	Ni 231.604†	9171.0	8863.0	463.72 µg/L	463.72 ppb	07:40:12
3	P 214.914†	1076.5	1045.7	2134.1 µg/L	2134.1 ppb	07:40:33
3	Pb 220.353†	1835.5	1739.6	446.13 µg/L	446.13 ppb	07:40:33
3	S 181.975 Axial†	229.9	214.1	923.47 µg/L	923.47 ppb	07:40:33
3	Sb 206.836†	486.2	463.6	439.66 µg/L	439.66 ppb	07:40:33
3	Se 196.026†	328.9	316.0	469.09 µg/L	469.09 ppb	07:40:33
3	SiO2†	26577.5	24986.3	5110.8 µg/L	5110.8 ppb	07:40:12
3	Si 251.611†	30318.5	29943.2	2368.2 µg/L	2368.2 ppb	07:40:12
3	Sn 189.927†	969.8	966.0	430.01 µg/L	430.01 ppb	07:40:33
3	Ti 334.940†	207888.4	207123.8	471.87 µg/L	471.87 ppb	07:40:06
3	Tl 190.801†	315.2	334.8	468.52 µg/L	468.52 ppb	07:40:33
3	U 409.014†	5685.1	5442.8	444.31 µg/L	444.31 ppb	07:40:12
3	V 292.402†	45457.4	45369.2	463.12 µg/L	463.12 ppb	07:40:12
3	Zn 213.857†	19604.1	19079.8	462.70 µg/L	462.70 ppb	07:40:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1951146.6	100.17	%	0.193				0.19%
Sc RADIAL	54776.2	98.9	%	0.72				0.73%
Y 371.029	1347933.0	100.79	%	0.176				0.17%
Ag 328.068†	66235.5	503.65	µg/L	18.183	503.65	ppb	18.183	3.61%
QC value within limits for Ag 328.068 Recovery = 100.73%								
Al 396.153Radial†	7126.4	5053.0	µg/L	14.13	5053.0	ppb	14.13	0.28%
QC value within limits for Al 396.153Radial Recovery = 101.06%								
As 188.979†	259.1	487.24	µg/L	44.767	487.24	ppb	44.767	9.19%
QC value within limits for As 188.979 Recovery = 97.45%								
B 249.677†	11650.5	488.19	µg/L	19.108	488.19	ppb	19.108	3.91%
QC value within limits for B 249.677 Recovery = 97.64%								
Ba 233.527†	19624.1	496.65	µg/L	26.477	496.65	ppb	26.477	5.33%
QC value within limits for Ba 233.527 Recovery = 99.33%								
Be 313.107†	810340.7	501.22	µg/L	23.267	501.22	ppb	23.267	4.64%
QC value within limits for Be 313.107 Recovery = 100.24%								
Ca 317.933Radial†	5511.9	4985.4	µg/L	48.51	4985.4	ppb	48.51	0.97%
QC value within limits for Ca 317.933Radial Recovery = 99.71%								
Cd 226.502†	18905.2	503.45	µg/L	28.015	503.45	ppb	28.015	5.56%
QC value within limits for Cd 226.502 Recovery = 100.69%								
Co 228.616†	10418.4	495.67	µg/L	29.429	495.67	ppb	29.429	5.94%

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   QC value within limits for Co 228.616  Recovery = 99.13%
Cr 267.716†            23635.1      499.00 µg/L        38.648      499.00 ppb         38.648   7.74%
   QC value within limits for Cr 267.716  Recovery = 99.80%
Cu 324.752†            73981.2      489.37 µg/L        29.032      489.37 ppb         29.032   5.93%
   QC value within limits for Cu 324.752  Recovery = 97.87%
Fe 238.204 Radial†       591.4      5184.2 µg/L         45.90      5184.2 ppb          45.90   0.89%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.68%
K 766.490 Radial†       7607.6      5097.6 µg/L         17.61      5097.6 ppb          17.61   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 101.95%
Mg 279.077 IEC†          546.3      5104.1 µg/L         54.75      5104.1 ppb          54.75   1.07%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.08%
Mn 257.610†           154185.1      512.46 µg/L        22.376      512.46 ppb         22.376   4.37%
   QC value within limits for Mn 257.610  Recovery = 102.49%
Mo 202.031†             4819.1      499.00 µg/L        53.398      499.00 ppb         53.398  10.70%
   QC value within limits for Mo 202.031  Recovery = 99.80%
Na 589.592 Radial†     33330.0       10132 µg/L          34.6       10132 ppb           34.6   0.34%
   QC value within limits for Na 589.592 Radial  Recovery = 101.32%
Ni 231.604†             9551.4      499.74 µg/L        31.319      499.74 ppb         31.319   6.27%
   QC value within limits for Ni 231.604  Recovery = 99.95%
P 214.914†              1174.7      2400.2 µg/L        232.63      2400.2 ppb         232.63   9.69%
   QC value within limits for P 214.914  Recovery = 96.01%
Pb 220.353†             1931.4      495.39 µg/L        42.993      495.39 ppb         42.993   8.68%
   QC value within limits for Pb 220.353  Recovery = 99.08%
S 181.975 Axial†         233.9      1008.7 µg/L         73.93      1008.7 ppb          73.93   7.33%
   QC value within limits for S 181.975 Axial  Recovery = 100.87%
Sb 206.836†              522.3      495.62 µg/L        49.011      495.62 ppb         49.011   9.89%
   QC value within limits for Sb 206.836  Recovery = 99.12%
Se 196.026†              348.7      516.67 µg/L        41.204      516.67 ppb         41.204   7.97%
   QC value within limits for Se 196.026  Recovery = 103.33%
SiO2†                  26339.4      5387.6 µg/L        239.73      5387.6 ppb         239.73   4.45%
   QC value within limits for SiO2  Recovery = 100.75%
Si 251.611†            31627.8      2501.4 µg/L        115.41      2501.4 ppb         115.41   4.61%
   QC value within limits for Si 251.611  Recovery = 100.06%
Sn 189.927†             1115.9      496.74 µg/L        58.103      496.74 ppb         58.103  11.70%
   QC value within limits for Sn 189.927  Recovery = 99.35%
Sr 421.552†            51873.8      502.20 µg/L         0.865      502.20 ppb          0.865   0.17%
   QC value within limits for Sr 421.552  Recovery = 100.44%
Ti 334.940†           219525.6      500.14 µg/L        24.485      500.14 ppb         24.485   4.90%
   QC value within limits for Ti 334.940  Recovery = 100.03%
Tl 190.801†              363.5      508.47 µg/L        35.300      508.47 ppb         35.300   6.94%
   QC value within limits for Tl 190.801  Recovery = 101.69%
U 409.014†              5915.8      483.02 µg/L        33.627      483.02 ppb         33.627   6.96%
   QC value within limits for U 409.014  Recovery = 96.60%
V 292.402†             49053.0      500.88 µg/L        32.744      500.88 ppb         32.744   6.54%
   QC value within limits for V 292.402  Recovery = 100.18%
Zn 213.857†            20489.7      496.93 µg/L        29.670      496.93 ppb         29.670   5.97%
   QC value within limits for Zn 213.857  Recovery = 99.39%
All analyte(s) passed QC.
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Sequence No.: 61
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 07:40:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54685.1	54685.1	98.7	%			07:41:17
1	Al 396.153Radial†	5.4	-10.6	-7.5327	µg/L	-7.5327	ppb	07:41:17
1	Ca 317.933Radial†	190.8	-21.9	-19.770	µg/L	-19.770	ppb	07:41:38
1	Fe 238.204 Radial†	16.0	-1.6	-13.603	µg/L	-13.603	ppb	07:41:38
1	K 766.490 Radial†	182.9	7.7	5.1577	µg/L	5.1577	ppb	07:41:17
1	Mg 279.077 IEC†	13.4	-0.1	-1.2566	µg/L	-1.2566	ppb	07:41:38
1	Na 589.592 Radial†	386.0	12.3	3.7393	µg/L	3.7393	ppb	07:41:17
1	Sr 421.552†	52.6	33.3	0.3222	µg/L	0.3222	ppb	07:41:17
1	Sc 361.383	1940295.6	1940295.6	99.616	%			07:42:40
1	Y 371.029	1344114.9	1344114.9	100.51	%			07:42:40
1	Ag 328.068†	-439.2	69.4	0.5227	µg/L	0.5227	ppb	07:42:45
1	As 188.979†	0.5	-0.3	-0.6359	µg/L	-0.6359	ppb	07:43:06
1	B 249.677†	342.0	30.2	1.2767	µg/L	1.2767	ppb	07:43:06
1	Ba 233.527†	-15.4	9.9	0.2509	µg/L	0.2509	ppb	07:43:06
1	Be 313.107†	-3318.5	301.6	0.1866	µg/L	0.1866	ppb	07:42:45
1	Cd 226.502†	-128.8	-6.1	-0.1595	µg/L	-0.1595	ppb	07:43:06
1	Co 228.616†	13.5	19.4	0.9235	µg/L	0.9235	ppb	07:43:06
1	Cr 267.716†	-47.4	-21.6	-0.4567	µg/L	-0.4567	ppb	07:43:06
1	Cu 324.752†	3319.1	101.4	0.6680	µg/L	0.6680	ppb	07:42:45
1	Mn 257.610†	-188.4	52.9	0.1737	µg/L	0.1737	ppb	07:43:06
1	Mo 202.031†	3.1	2.0	0.2044	µg/L	0.2044	ppb	07:43:06
1	Ni 231.604†	301.4	21.8	1.1426	µg/L	1.1426	ppb	07:43:06
1	P 214.914†	10.0	-17.6	-36.617	µg/L	-36.617	ppb	07:43:06
1	Pb 220.353†	82.1	-7.9	-2.0236	µg/L	-2.0236	ppb	07:43:06
1	S 181.975 Axial†	11.9	-3.1	-13.475	µg/L	-13.475	ppb	07:43:06
1	Sb 206.836†	17.8	-3.2	-2.9870	µg/L	-2.9870	ppb	07:43:06
1	Se 196.026†	19.7	7.8	11.372	µg/L	11.372	ppb	07:43:06
1	SiO2†	1695.8	190.4	38.938	µg/L	38.938	ppb	07:42:45
1	Si 251.611†	478.8	195.8	15.482	µg/L	15.482	ppb	07:43:06
1	Sn 189.927†	2.8	1.9	0.8525	µg/L	0.8525	ppb	07:43:06
1	Ti 334.940†	211.0	67.0	0.1526	µg/L	0.1526	ppb	07:42:45
1	Tl 190.801†	-18.5	2.0	2.7539	µg/L	2.7539	ppb	07:43:06
1	U 409.014†	134.9	-89.9	-7.3542	µg/L	-7.3542	ppb	07:42:45
1	V 292.402†	-50.8	-3.6	-0.0452	µg/L	-0.0452	ppb	07:42:45
1	Zn 213.857†	499.4	35.4	0.8587	µg/L	0.8587	ppb	07:43:06
2	Sc RADIAL	54162.1	54162.1	97.8	%			07:41:43
2	Al 396.153Radial†	-4.5	-20.6	-14.639	µg/L	-14.639	ppb	07:41:43
2	Ca 317.933Radial†	192.2	-18.6	-16.848	µg/L	-16.848	ppb	07:42:04
2	Fe 238.204 Radial†	15.7	-1.7	-14.855	µg/L	-14.855	ppb	07:42:04
2	K 766.490 Radial†	139.3	-35.1	-23.494	µg/L	-23.494	ppb	07:41:43
2	Mg 279.077 IEC†	14.2	0.8	7.6417	µg/L	7.6417	ppb	07:42:04
2	Na 589.592 Radial†	371.2	0.9	0.2745	µg/L	0.2745	ppb	07:41:43
2	Sr 421.552†	40.2	21.1	0.2045	µg/L	0.2045	ppb	07:41:43
2	Sc 361.383	1930678.1	1930678.1	99.122	%			07:43:11
2	Y 371.029	1336164.3	1336164.3	99.913	%			07:43:11
2	Ag 328.068†	-418.6	88.0	0.6602	µg/L	0.6602	ppb	07:43:17
2	As 188.979†	-3.0	-3.8	-7.1818	µg/L	-7.1818	ppb	07:43:37
2	B 249.677†	326.3	16.1	0.6841	µg/L	0.6841	ppb	07:43:37
2	Ba 233.527†	-11.0	14.3	0.3616	µg/L	0.3616	ppb	07:43:37
2	Be 313.107†	-3299.4	304.3	0.1881	µg/L	0.1881	ppb	07:43:17
2	Cd 226.502†	-133.8	-11.7	-0.3098	µg/L	-0.3098	ppb	07:43:37
2	Co 228.616†	-1.8	4.0	0.1913	µg/L	0.1913	ppb	07:43:37
2	Cr 267.716†	-54.4	-28.9	-0.6109	µg/L	-0.6109	ppb	07:43:37
2	Cu 324.752†	3284.9	83.5	0.5492	µg/L	0.5492	ppb	07:43:17
2	Mn 257.610†	-171.3	69.2	0.2274	µg/L	0.2274	ppb	07:43:37
2	Mo 202.031†	4.5	3.5	0.3582	µg/L	0.3582	ppb	07:43:37
2	Ni 231.604†	294.5	16.4	0.8565	µg/L	0.8565	ppb	07:43:37
2	P 214.914†	13.9	-13.5	-28.092	µg/L	-28.092	ppb	07:43:37
2	Pb 220.353†	83.6	-6.1	-1.5393	µg/L	-1.5393	ppb	07:43:37

2	S 181.975 Axial†	18.4	3.5	14.941 µg/L	14.941 ppb		07:43:37
2	Sb 206.836†	23.7	2.9	2.7099 µg/L	2.7099 ppb		07:43:37
2	Se 196.026†	6.7	-5.2	-7.6120 µg/L	-7.6120 ppb		07:43:37
2	SiO2†	1712.4	215.6	44.100 µg/L	44.100 ppb		07:43:17
2	Si 251.611†	493.2	212.7	16.823 µg/L	16.823 ppb		07:43:37
2	Sn 189.927†	5.1	4.3	1.9140 µg/L	1.9140 ppb		07:43:37
2	Ti 334.940†	336.9	195.0	0.4437 µg/L	0.4437 ppb		07:43:17
2	Tl 190.801†	-21.4	-1.0	-1.3717 µg/L	-1.3717 ppb		07:43:37
2	U 409.014†	68.4	-156.4	-12.794 µg/L	-12.794 ppb		07:43:17
2	V 292.402†	-90.4	-43.8	-0.4557 µg/L	-0.4557 ppb		07:43:17
2	Zn 213.857†	489.7	28.1	0.6831 µg/L	0.6831 ppb		07:43:37
3	Sc RADIAL	54052.4	54052.4	97.6 %			07:42:09
3	Al 396.153Radial†	-14.8	-31.2	-22.198 µg/L	-22.198 ppb		07:42:09
3	Ca 317.933Radial†	186.2	-24.4	-22.043 µg/L	-22.043 ppb		07:42:30
3	Fe 238.204 Radial†	15.2	-2.2	-19.497 µg/L	-19.497 ppb		07:42:30
3	K 766.490 Radial†	228.3	56.4	37.797 µg/L	37.797 ppb		07:42:09
3	Mg 279.077 IEC†	13.0	-0.4	-3.9198 µg/L	-3.9198 ppb		07:42:30
3	Na 589.592 Radial†	375.7	6.3	1.9174 µg/L	1.9174 ppb		07:42:09
3	Sr 421.552†	35.6	16.5	0.1593 µg/L	0.1593 ppb		07:42:09
3	Sc 361.383	1932142.3	1932142.3	99.197 %			07:43:43
3	Y 371.029	1336570.6	1336570.6	99.943 %			07:43:43
3	Ag 328.068†	-375.9	131.3	0.9905 µg/L	0.9905 ppb		07:43:48
3	As 188.979†	-0.8	-1.6	-3.0741 µg/L	-3.0741 ppb		07:44:09
3	B 249.677†	340.0	29.7	1.2595 µg/L	1.2595 ppb		07:44:09
3	Ba 233.527†	-4.2	21.2	0.5346 µg/L	0.5346 ppb		07:44:09
3	Be 313.107†	-3311.0	295.1	0.1824 µg/L	0.1824 ppb		07:43:48
3	Cd 226.502†	-131.4	-9.3	-0.2437 µg/L	-0.2437 ppb		07:44:09
3	Co 228.616†	6.4	12.3	0.5840 µg/L	0.5840 ppb		07:44:09
3	Cr 267.716†	-25.3	0.5	0.0096 µg/L	0.0096 ppb		07:44:09
3	Cu 324.752†	3264.2	60.1	0.3940 µg/L	0.3940 ppb		07:43:48
3	Mn 257.610†	-189.1	51.3	0.1681 µg/L	0.1681 ppb		07:44:09
3	Mo 202.031†	4.1	3.0	0.3074 µg/L	0.3074 ppb		07:44:09
3	Ni 231.604†	300.7	22.4	1.1703 µg/L	1.1703 ppb		07:44:09
3	P 214.914†	16.6	-10.8	-22.547 µg/L	-22.547 ppb		07:44:09
3	Pb 220.353†	89.4	-0.2	-0.0487 µg/L	-0.0487 ppb		07:44:09
3	S 181.975 Axial†	13.1	-1.8	-7.9432 µg/L	-7.9432 ppb		07:44:09
3	Sb 206.836†	29.0	8.2	7.7556 µg/L	7.7556 ppb		07:44:09
3	Se 196.026†	16.7	4.9	7.0794 µg/L	7.0794 ppb		07:44:09
3	SiO2†	1696.1	197.9	40.470 µg/L	40.470 ppb		07:43:48
3	Si 251.611†	468.9	187.8	14.857 µg/L	14.857 ppb		07:44:09
3	Sn 189.927†	-0.4	-1.3	-0.5647 µg/L	-0.5647 ppb		07:44:09
3	Ti 334.940†	403.4	261.8	0.5969 µg/L	0.5969 ppb		07:43:48
3	Tl 190.801†	-23.2	-2.8	-3.9303 µg/L	-3.9303 ppb		07:44:09
3	U 409.014†	50.4	-174.5	-14.278 µg/L	-14.278 ppb		07:43:48
3	V 292.402†	-43.5	3.5	0.0201 µg/L	0.0201 ppb		07:43:48
3	Zn 213.857†	498.8	36.9	0.8966 µg/L	0.8966 ppb		07:44:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1934372.0	99.312	%	0.2660				0.27%
Sc RADIAL	54299.9	98.0	%	0.61				0.62%
Y 371.029	1338949.9	100.12	%	0.335				0.33%
Ag 328.068†	96.2	0.7245	µg/L	0.24042	0.7245	ppb	0.24042	33.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-20.8	-14.790	µg/L	7.3341	-14.790	ppb	7.3341	49.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-3.6306	µg/L	3.30821	-3.6306	ppb	3.30821	91.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	25.3	1.0734	µg/L	0.33730	1.0734	ppb	0.33730	31.42%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.1	0.3824	µg/L	0.14296	0.3824	ppb	0.14296	37.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	300.3	0.1857	µg/L	0.00297	0.1857	ppb	0.00297	1.60%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-21.6	-19.554	µg/L	2.6042	-19.554	ppb	2.6042	13.32%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-9.0	-0.2377	µg/L	0.07532	-0.2377	ppb	0.07532	31.69%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.9	0.5663	µg/L	0.36640	0.5663	ppb	0.36640	64.70%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -16.7     -0.3527 µg/L       0.32307     -0.3527 ppb        0.32307  91.61%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               81.7      0.5371 µg/L       0.13740      0.5371 ppb        0.13740  25.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.8     -15.985 µg/L        3.1054     -15.985 ppb         3.1054  19.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          9.7      6.4870 µg/L      30.66685      6.4870 ppb       30.66685 472.74%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.1      0.8218 µg/L       6.05448      0.8218 ppb        6.05448 736.77%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               57.8      0.1897 µg/L       0.03272      0.1897 ppb        0.03272  17.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.8      0.2900 µg/L       0.07837      0.2900 ppb        0.07837  27.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         6.5      1.9770 µg/L       1.73318      1.9770 ppb        1.73318  87.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               20.2      1.0565 µg/L       0.17375      1.0565 ppb        0.17375  16.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.9     -29.085 µg/L        7.0874     -29.085 ppb         7.0874  24.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.7     -1.2039 µg/L       1.02927     -1.2039 ppb        1.02927  85.50%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.5     -2.1593 µg/L      15.06521     -2.1593 ppb       15.06521 697.69%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.6      2.4928 µg/L       5.37458      2.4928 ppb        5.37458 215.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.5      3.6130 µg/L       9.95526      3.6130 ppb        9.95526 275.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    201.3     41.169 µg/L        2.6511     41.169 ppb         2.6511   6.44%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              198.8     15.721 µg/L        1.0045     15.721 ppb         1.0045   6.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.6      0.7339 µg/L       1.24355      0.7339 ppb        1.24355 169.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               23.6      0.2287 µg/L       0.08410      0.2287 ppb        0.08410  36.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              174.6      0.3977 µg/L       0.22568      0.3977 ppb        0.22568  56.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.6     -0.8493 µg/L       3.37255     -0.8493 ppb        3.37255 397.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -140.3    -11.475 µg/L        3.6453     -11.475 ppb         3.6453  31.77%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -14.7     -0.1603 µg/L       0.25794     -0.1603 ppb        0.25794 160.91%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               33.5      0.8128 µg/L       0.11388      0.8128 ppb        0.11388  14.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, March 02, 2010 18:52:01
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\100125\Sample.338
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2156.8	2156.763	44.434	2.1
	Mg	24.0	33628.7	33628.736	187.932	0.6
	Co	58.9	86749.2	86749.200	528.879	0.6
	Rh	102.9	143738.5	143738.527	849.778	0.6
	In	114.9	193336.7	193336.686	663.209	0.3
	Pb	208.0	85968.9	85968.903	486.724	0.6
⌈>	Ba	137.9	146042.2	146042.183	940.127	0.6
⌊	Ba++	69.0	2590.9	0.018	0.000	1.5
⌈>	Ce	139.9	177844.0	177843.979	1044.825	0.6
⌊	CeO	155.9	3060.3	0.017	0.000	1.0
	Bkgd	220.0	4.9	4.900	2.275	46.4

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
4.50	Lens Voltage
1000.00	ICP RF Power
-2000.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-2.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.3	2022.5
Co	59	17	7.0	75983.5
In	115	17	7.8	162157.5

ICPMS #4 TUNING REPORT

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	579	2060	0.792
Be	9.0	9.1	2016	2045	0.839
Mg	24.0	24.1	5651	2075	0.780
Mg	25.0	25.0	5889	2080	0.703
Mg	26.0	26.0	6149	2085	0.746
Co	58.9	58.9	14159	2140	0.737
Rh	102.9	102.9	24859	2230	0.751
In	114.9	114.9	27759	2255	0.771
Ce	139.9	139.9	33845	2310	0.756
Pb	206.0	206.0	49912	2465	0.715
Pb	207.0	206.9	50113	2365	0.765
Pb	208.0	208.0	50400	2550	0.732
U	238.1	238.1	57685	2490	0.793

ICPMS#4 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, March 02, 2010 21:26:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\Blank.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		5	
>	Sc	45		ug/L		1694548	
>	Lu	175		ug/L		231954	
	Tl	205		ug/L		823	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, March 02, 2010 21:30:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\Standard 1.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	0.475	2144	0.001
>	Sc	45		ug/L		1699490	1699489.992
>	Lu	175		ug/L		236352	236352.182
	Tl	205	10.000	ug/L	0.961	93401	0.392

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, March 02, 2010 21:33:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\Standard 2.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.956**	**ug/L**	0.408	20950	0.012
>	Sc	45		**ug/L**		1738549	1738548.981
>	Lu	175		**ug/L**		237257	237257.317
	Tl	205	**99.978**	**ug/L**	0.808	909584	3.830

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, March 02, 2010 21:37:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 1.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.638**	**ug/L**	1.364	10895	0.006
>	Sc	45		**ug/L**		1749927	1749927.479
>	Lu	175		**ug/L**		238617	238616.801
	Tl	205	**49.866**	**ug/L**	0.982	456690	1.910

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	103.277				
>	Sc	45		103.3			
>	Lu	175		102.9			
	Tl	205	99.732				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, March 02, 2010 21:41:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 2.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.017**	**ug/L**	80.035	8	0.000
>	Sc	45		**ug/L**		1684820	1684820.027
>	Lu	175		**ug/L**		234374	234374.344
	Tl	205	**0.047**	**ug/L**	7.498	1254	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		99.4			
>	Lu	175		101.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, March 02, 2010 21:44:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 3.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.626**	**ug/L**	10.118	129	0.000
>	Sc	45		**ug/L**		1654131	1654131.344
>	Lu	175		**ug/L**		233942	233941.632
	Tl	205	**1.112**	**ug/L**	0.392	10793	0.043

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	125.249				
>	Sc	45		97.6			
>	Lu	175		100.9			
	Tl	205	111.158				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, March 02, 2010 21:48:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 4.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.090**	**ug/L**	14.738	22	0.000
>	Sc	45		**ug/L**		1613281	1613281.330
>	Lu	175		**ug/L**		225486	225486.218
	Tl	205	**-0.019**	**ug/L**	5.470	634	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		95.2			
>	Lu	175		97.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, March 02, 2010 21:52:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 5.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.374**	**ug/L**	1.701	3632	0.002
>	Sc	45		**ug/L**		1477540	1477539.831
>	Lu	175		**ug/L**		224071	224071.172
	Tl	205	**18.444**	**ug/L**	1.285	159125	0.707

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	101.870				
>	Sc	45		87.2			
>	Lu	175		96.6			
	Tl	205	92.220				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 21:55:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**56.218**	**ug/L**	1.667	10359	0.007
⌊>	Sc	45		**ug/L**		1528204	1528203.937
⌈>	Lu	175		**ug/L**		230286	230286.248
⌊	Tl	205	**49.941**	**ug/L**	1.503	441402	1.913

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	112.437				
⌊>	Sc	45			90.2		
⌈>	Lu	175			99.3		
⌊	Tl	205	99.882				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 21:59:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.008**	**ug/L**	38.331	6	0.000
>	Sc	45		**ug/L**		1513558	1513557.731
>	Lu	175		**ug/L**		231439	231438.657
	Tl	205	**0.045**	**ug/L**	21.497	1222	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.3			
>	Lu	175		99.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202033978
Sample Date/Time: Tuesday, March 02, 2010 22:03:25
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\1202033978.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	404.936	4	-0.000
>	Sc	45		ug/L		1523787	1523786.682
>	Lu	175		ug/L		232168	232167.668
	Tl	205	-0.011	ug/L	0.898	730	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.9			
>	Lu	175		100.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202033983
Sample Date/Time: Tuesday, March 02, 2010 22:07:10
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 959912|40|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\1202033983.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.638**	**ug/L**	1.467	4659	0.003
>	Sc	45		**ug/L**		1506326	1506326.006
>	Lu	175		**ug/L**		231364	231363.864
	Tl	205	**36.388**	**ug/L**	0.436	323346	1.394

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.9			
>	Lu	175		99.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 22:10:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**57.401**	**ug/L**	0.603	10279	0.007
>	Sc	45		**ug/L**		1485128	1485127.933
>	Lu	175		**ug/L**		230421	230421.489
	Tl	205	**49.861**	**ug/L**	0.345	440960	1.910

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	114.803				
>	Sc	45		87.6			
>	Lu	175		99.3			
	Tl	205	99.721				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 22:14:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	1606.986	4	0.000
>	Sc	45		**ug/L**		1513733	1513733.017
>	Lu	175		**ug/L**		233596	233595.730
	Tl	205	**0.054**	**ug/L**	9.105	1312	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.3			
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066001
Sample Date/Time: Tuesday, March 02, 2010 22:18:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066001.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	5.902	ug/L	2.742	1075	0.001
>	Sc	45		ug/L		1505213	1505212.554
>	Lu	175		ug/L		236914	236913.788
	Tl	205	1.064	ug/L	0.810	10494	0.041

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.8			
>	Lu	175		102.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202033979
Sample Date/Time: Tuesday, March 02, 2010 22:22:11
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\1202033979.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.405**	**ug/L**	3.613	999	0.001
>	Sc	45		**ug/L**		1527144	1527143.796
>	Lu	175		**ug/L**		238167	238167.334
	Tl	205	**0.939**	**ug/L**	1.724	9413	0.036

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		90.1			
>	Lu	175		102.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202033981
Sample Date/Time: Tuesday, March 02, 2010 22:25:58
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\1202033981.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**33.313**	**ug/L**	1.782	6061	0.004
>	Sc	45		**ug/L**		1508590	1508589.809
>	Lu	175		**ug/L**		235062	235062.153
	Tl	205	**48.964**	**ug/L**	0.743	441773	1.876

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.0			
>	Lu	175		101.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202033982
Sample Date/Time: Tuesday, March 02, 2010 22:29:45
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\1202033982.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**31.806**	**ug/L**	0.754	5843	0.004
>	Sc	45		**ug/L**		1523030	1523029.987
>	Lu	175		**ug/L**		237747	237747.428
	Tl	205	**47.368**	**ug/L**	1.411	432276	1.815

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		89.9			
>	Lu	175		102.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 1202033980
Sample Date/Time: Tuesday, March 02, 2010 22:33:32
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 959912|10|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\1202033980.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.264**	**ug/L**	11.501	228	0.000
>	Sc	45		**ug/L**		1470718	1470718.172
>	Lu	175		**ug/L**		231160	231159.501
	Tl	205	**0.243**	**ug/L**	1.586	2973	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		86.8			
>	Lu	175		99.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 22:37:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**57.938**	**ug/L**	1.324	10298	0.007
>	Sc	45		**ug/L**		1474191	1474191.040
>	Lu	175		**ug/L**		227962	227962.232
	Tl	205	**49.880**	**ug/L**	1.023	436426	1.911

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	115.877				
>	Sc	45		87.0			
>	Lu	175		98.3			
	Tl	205	99.761				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 22:41:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.009	ug/L	132.441	6	0.000
>	Sc	45		ug/L		1476340	1476339.555
>	Lu	175		ug/L		226816	226815.741
	Tl	205	0.048	ug/L	10.883	1222	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		87.1			
>	Lu	175		97.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066002
Sample Date/Time: Tuesday, March 02, 2010 22:44:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066002.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.399**	**ug/L**	3.417	790	0.001
>	Sc	45		**ug/L**		1482539	1482538.689
>	Lu	175		**ug/L**		233641	233640.734
	Tl	205	**0.867**	**ug/L**	2.201	8593	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		87.5			
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066003
Sample Date/Time: Tuesday, March 02, 2010 22:48:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066003.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.825**	**ug/L**	5.857	870	0.001
>	Sc	45		**ug/L**		1488674	1488673.895
>	Lu	175		**ug/L**		234365	234364.949
	Tl	205	**0.791**	**ug/L**	2.233	7935	0.030

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		87.9			
>	Lu	175		101.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066004
Sample Date/Time: Tuesday, March 02, 2010 22:52:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066004.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**8.296**	**ug/L**	4.578	1533	0.001
>	Sc	45		**ug/L**		1529587	1529587.450
>	Lu	175		**ug/L**		238754	238754.401
	Tl	205	**1.149**	**ug/L**	1.184	11359	0.044

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		90.3			
>	Lu	175		102.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066005
Sample Date/Time: Tuesday, March 02, 2010 22:56:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|sk|
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066005.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**2.015**	**ug/L**	4.657	361	0.000
⌊>	Sc	45		**ug/L**		1468658	1468658.247
⌈>	Lu	175		**ug/L**		236554	236554.186
⌊	Tl	205	**0.279**	**ug/L**	1.285	3368	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		86.7			
⌈>	Lu	175		102.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066006
Sample Date/Time: Tuesday, March 02, 2010 22:59:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066006.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**6.350**	**ug/L**	6.288	1152	0.001
>	Sc	45		**ug/L**		1499834	1499834.270
>	Lu	175		**ug/L**		238340	238340.036
	Tl	205	**1.002**	**ug/L**	0.899	9998	0.038

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		88.5			
>	Lu	175		102.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 23:03:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	59.165	ug/L	1.462	10281	0.007
>	Sc	45		ug/L		1441355	1441354.799
>	Lu	175		ug/L		223912	223912.354
	Tl	205	49.626	ug/L	0.773	426467	1.901

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	118.330				
>	Sc	45		85.1			
>	Lu	175		96.5			
	Tl	205	99.252				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 23:07:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.021	ug/L	95.245	8	0.000
>	Sc	45		ug/L		1454057	1454056.543
>	Lu	175		ug/L		225802	225802.137
	Tl	205	0.026	ug/L	13.503	1024	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.8			
>	Lu	175		97.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066007
Sample Date/Time: Tuesday, March 02, 2010 23:11:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066007.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.974	ug/L	8.579	174	0.000
>	Sc	45		ug/L		1447624	1447623.562
>	Lu	175		ug/L		230436	230436.288
	Tl	205	0.111	ug/L	2.757	1795	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.4			
>	Lu	175		99.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066008
Sample Date/Time: Tuesday, March 02, 2010 23:14:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066008.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.487**	**ug/L**	3.968	623	0.000
>	Sc	45		**ug/L**		1472112	1472112.414
>	Lu	175		**ug/L**		232358	232357.865
	Tl	205	**0.525**	**ug/L**	3.227	5493	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		86.9			
>	Lu	175		100.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066009
Sample Date/Time: Tuesday, March 02, 2010 23:18:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066009.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.673**	**ug/L**	4.038	839	0.001
>	Sc	45		**ug/L**		1482045	1482044.518
>	Lu	175		**ug/L**		231790	231789.791
	Tl	205	**0.796**	**ug/L**	1.264	7896	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		87.5			
>	Lu	175		99.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066010
Sample Date/Time: Tuesday, March 02, 2010 23:22:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066010.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**4.417**	**ug/L**	5.220	786	0.001
⌊>	Sc	45		**ug/L**		1468243	1468243.177
⌈>	Lu	175		**ug/L**		233126	233125.897
⌊	Tl	205	**0.721**	**ug/L**	1.308	7270	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		86.6			
⌈>	Lu	175		100.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066011
Sample Date/Time: Tuesday, March 02, 2010 23:26:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066011.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.168**	**ug/L**	2.273	735	0.001
>	Sc	45		**ug/L**		1454757	1454756.593
>	Lu	175		**ug/L**		233529	233529.207
	Tl	205	**0.683**	**ug/L**	0.845	6937	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.8			
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 23:30:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.102

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**58.499**	**ug/L**	1.500	10211	0.007
⌊>	Sc	45		**ug/L**		1447821	1447820.705
⌈>	Lu	175		**ug/L**		225851	225851.283
⌊	Tl	205	**49.485**	**ug/L**	1.515	428940	1.896

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9	116.998				
⌊>	Sc	45		85.4			
⌈>	Lu	175		97.4			
⌊	Tl	205	98.970				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 23:33:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.016**	**ug/L**	73.069	7	0.000
>	Sc	45		**ug/L**		1430881	1430880.810
>	Lu	175		**ug/L**		224284	224283.640
	Tl	205	**0.020**	**ug/L**	19.988	970	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		84.4			
>	Lu	175		96.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066012
Sample Date/Time: Tuesday, March 02, 2010 23:37:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066012.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**4.877**	**ug/L**	2.257	848	0.001
⌊>	Sc	45		**ug/L**		1435801	1435801.020
⌈>	Lu	175		**ug/L**		236419	236418.778
⌊	Tl	205	**0.627**	**ug/L**	0.594	6516	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		84.7			
⌈>	Lu	175		101.9			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066013
Sample Date/Time: Tuesday, March 02, 2010 23:41:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066013.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.148**	**ug/L**	2.555	910	0.001
>	Sc	45		**ug/L**		1460213	1460213.461
>	Lu	175		**ug/L**		230040	230040.100
	Tl	205	**0.847**	**ug/L**	1.109	8279	0.032

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		86.2			
>	Lu	175		99.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066014
Sample Date/Time: Tuesday, March 02, 2010 23:45:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066014.106

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	6.561	ug/L	3.540	1167	0.001
>	Sc	45		ug/L		1470351	1470350.814
>	Lu	175		ug/L		234766	234766.048
	Tl	205	0.881	ug/L	0.594	8753	0.034

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		86.8			
>	Lu	175		101.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066015
Sample Date/Time: Tuesday, March 02, 2010 23:48:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066015.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**6.230**	**ug/L**	2.780	1110	0.001
>	Sc	45		**ug/L**		1472495	1472494.555
>	Lu	175		**ug/L**		233249	233249.495
	Tl	205	**0.866**	**ug/L**	2.064	8564	0.033

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		86.9			
>	Lu	175		100.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: 246066016
Sample Date/Time: Tuesday, March 02, 2010 23:52:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|skj
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\246066016.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.360**	**ug/L**	6.678	240	0.000
>	Sc	45		**ug/L**		1442515	1442514.772
>	Lu	175		**ug/L**		230761	230761.262
	Tl	205	**0.133**	**ug/L**	4.518	1997	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9					
>	Sc	45		85.1			
>	Lu	175		99.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#4 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 23:56:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**59.246**	**ug/L**	2.442	10241	0.007
>	Sc	45		**ug/L**		1433944	1433944.149
>	Lu	175		**ug/L**		224936	224936.041
	Tl	205	**49.271**	**ug/L**	0.332	425382	1.888

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Be	9	118.491				
>	Sc	45		84.6			
>	Lu	175		97.0			
	Tl	205	98.541				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#4 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, March 03, 2010 00:00:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and tl.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.009**	**ug/L**	211.965	5	0.000
⌊>	Sc	45		**ug/L**		1411874	1411873.587
⌈>	Lu	175		**ug/L**		221846	221845.887
⌊	Tl	205	**0.022**	**ug/L**	19.311	977	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈	Be	9					
⌊>	Sc	45		83.3			
⌈>	Lu	175		95.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, March 02, 2010 11:15:38
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.626
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6043.5	6043.478	112.154	1.9
	Mg	24.0	55349.8	55349.826	496.922	0.9
	Co	58.9	107506.4	107506.404	354.671	0.3
	Rh	102.9	184565.4	184565.442	1216.741	0.7
	In	114.9	281395.4	281395.368	2571.286	0.9
	Pb	208.0	268120.4	268120.434	2149.792	0.8
⌈>	Ba	137.9	256763.7	256763.684	1775.683	0.7
⌊	Ba++	69.0	3257.2	0.013	0.000	2.5
⌈>	Ce	139.9	308647.7	308647.682	1893.189	0.6
⌊	CeO	155.9	8124.6	0.026	0.000	1.5
	Bkgd	220.0	14.8	14.800	1.095	7.4

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.3	6684.2
Co	59	17	5.8	108800.1
In	115	17	6.5	282507.0

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2050	0.648
Be	9.0	9.0	2056	2075	0.597
Mg	24.0	24.0	5697	2080	0.583
Mg	25.0	25.0	5949	2080	0.603
Mg	26.0	26.0	6164	2080	0.603
Co	58.9	58.9	14191	2110	0.592
Rh	102.9	102.9	24873	2160	0.611
In	114.9	114.9	27799	2180	0.623
Ce	139.9	139.9	33871	2200	0.620
Pb	206.0	206.0	49948	2295	0.558
Pb	207.0	207.0	50171	2240	0.623
Pb	208.0	208.0	50439	2265	0.682
U	238.1	238.1	57733	2275	0.698

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, March 02, 2010 13:42:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\Blank.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		11	
>	Sc	45		ug/L		1426121	
	Ni	60		ug/L		123	
>	Ge	74		ug/L		436776	
	As	75		ug/L		-208	
	Se	77		ug/L		3914	
	Se	82		ug/L		16	
	Kr	83		ug/L		113	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, March 02, 2010 13:44:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\Standard 1.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	1.283	5818	0.004
>	Sc	45		ug/L		1414241	1414240.565
	Ni	60	10.000	ug/L	2.911	18039	0.013
>	Ge	74		ug/L		441914	441914.243
	As	75	10.000	ug/L	0.604	12800	0.029
	Se	77		ug/L		4972	0.002
	Se	82	10.000	ug/L	4.517	1415	0.003
	Kr	83		ug/L		108	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, March 02, 2010 13:46:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\Standard 2.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**99.989**	**ug/L**	1.356	57276	0.041
|>	Sc	45		**ug/L**		1410234	1410234.379
⌊	Ni	60	**99.963**	**ug/L**	2.863	172349	0.122
⌈>	Ge	74		**ug/L**		434096	434096.372
|	As	75	**99.971**	**ug/L**	1.023	123930	0.286
|	Se	77		**ug/L**		14654	0.025
|	Se	82	**100.003**	**ug/L**	1.920	13792	0.032
⌊	Kr	83		**ug/L**		130	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌊	Ni	60					
⌈>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, March 02, 2010 13:48:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 1.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.346**	**ug/L**	1.328	30138	0.020
>	Sc	45		**ug/L**		1473398	1473397.776
	Ni	60	**50.858**	**ug/L**	2.119	91683	0.062
>	Ge	74		**ug/L**		441626	441626.350
	As	75	**49.745**	**ug/L**	0.736	62636	0.142
	Se	77		**ug/L**		9697	0.013
	Se	82	**51.600**	**ug/L**	1.673	7248	0.016
	Kr	83		**ug/L**		110	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	100.692				
>	Sc	45		103.3			
	Ni	60	101.715				
>	Ge	74		101.1			
	As	75	99.490				
	Se	77					
	Se	82	103.199				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, March 02, 2010 13:50:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 2.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	188.579	14	0.000
>	Sc	45		**ug/L**		1440131	1440130.841
	Ni	60	**0.003**	**ug/L**	112.422	130	0.000
>	Ge	74		**ug/L**		440993	440993.357
	As	75	**0.180**	**ug/L**	162.980	19	0.001
	Se	77		**ug/L**		4297	0.001
	Se	82	**0.153**	**ug/L**	161.159	38	0.000
	Kr	83		**ug/L**		100	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.0			
	Ni	60					
>	Ge	74		101.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, March 02, 2010 13:52:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 3.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.573**	**ug/L**	7.403	346	0.000
>	Sc	45		**ug/L**		1438551	1438550.556
	Ni	60	**2.258**	**ug/L**	3.157	4094	0.003
>	Ge	74		**ug/L**		443273	443272.868
	As	75	**5.994**	**ug/L**	8.569	7392	0.017
	Se	77		**ug/L**		4774	0.002
	Se	82	**5.717**	**ug/L**	11.531	820	0.002
	Kr	83		**ug/L**		102	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	114.550				
>	Sc	45		100.9			
	Ni	60	112.916				
>	Ge	74		101.5			
	As	75	119.877				
	Se	77					
	Se	82	114.335				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, March 02, 2010 13:54:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 4.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.102**	**ug/L**	23.162	62	0.000
>	Sc	45		**ug/L**		1259505	1259504.637
	Ni	60	**3.753**	**ug/L**	1.709	5885	0.005
>	Ge	74		**ug/L**		378783	378783.219
	As	75	**0.021**	**ug/L**	4850.317	-149	0.000
	Se	77		**ug/L**		6590	0.008
	Se	82	**-1.230**	**ug/L**	4.369	-134	-0.000
	Kr	83		**ug/L**		309	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.3			
	Ni	60	113.396				
>	Ge	74		86.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, March 02, 2010 13:56:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 5.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.694**	**ug/L**	1.932	10036	0.008
>	Sc	45		**ug/L**		1253780	1253780.229
	Ni	60	**23.197**	**ug/L**	0.656	35647	0.028
>	Ge	74		**ug/L**		380771	380771.136
	As	75	**21.815**	**ug/L**	2.400	23582	0.062
	Se	77		**ug/L**		8038	0.012
	Se	82	**19.152**	**ug/L**	3.870	2328	0.006
	Kr	83		**ug/L**		387	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.469				
>	Sc	45		87.9			
	Ni	60	99.515				
>	Ge	74		87.2			
	As	75	109.077				
	Se	77					
	Se	82	95.760				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 13:58:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.917**	**ug/L**	3.071	29788	0.021
>	Sc	45		**ug/L**		1440707	1440706.580
	Ni	60	**50.627**	**ug/L**	4.481	89176	0.062
>	Ge	74		**ug/L**		436361	436361.002
	As	75	**50.341**	**ug/L**	1.840	62620	0.144
	Se	77		**ug/L**		9866	0.014
	Se	82	**51.610**	**ug/L**	1.315	7163	0.016
	Kr	83		**ug/L**		100	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	101.835				
>	Sc	45		101.0			
	Ni	60	101.254				
>	Ge	74		99.9			
	As	75	100.682				
	Se	77					
	Se	82	103.220				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 14:00:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	191.876	13	0.000
>	Sc	45		**ug/L**		1460947	1460947.414
	Ni	60	**0.005**	**ug/L**	159.839	134	0.000
>	Ge	74		**ug/L**		437979	437979.005
	As	75	**0.010**	**ug/L**	2823.834	-199	0.000
	Se	77		**ug/L**		4811	0.002
	Se	82	**0.128**	**ug/L**	112.296	34	0.000
	Kr	83		**ug/L**		113	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.4			
	Ni	60					
>	Ge	74		100.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, March 02, 2010 14:13:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 8.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.882**	**ug/L**	4.507	29876	0.020
>	Sc	45		**ug/L**		1475686	1475685.740
	Ni	60	**50.146**	**ug/L**	3.188	90498	0.061
>	Ge	74		**ug/L**		441700	441700.251
	As	75	**50.914**	**ug/L**	1.948	64124	0.146
	Se	77		**ug/L**		9554	0.013
	Se	82	**51.784**	**ug/L**	3.143	7275	0.016
	Kr	83		**ug/L**		91	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.765				
>	Sc	45		103.5			
	Ni	60	100.293				
>	Ge	74		101.1			
	As	75	101.828				
	Se	77					
	Se	82	103.568				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, March 02, 2010 14:15:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 9.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.002	ug/L	90.924	13	0.000
>	Sc	45		ug/L		1478238	1478237.584
	Ni	60	0.002	ug/L	216.933	130	0.000
>	Ge	74		ug/L		444750	444750.151
	As	75	0.098	ug/L	428.117	-80	0.000
	Se	77		ug/L		4160	0.000
	Se	82	0.054	ug/L	251.022	24	0.000
	Kr	83		ug/L		104	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.7			
	Ni	60					
>	Ge	74		101.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, March 02, 2010 14:29:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 8.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.099**	**ug/L**	3.627	29409	0.021
>	Sc	45		**ug/L**		1417563	1417563.060
	Ni	60	**50.686**	**ug/L**	1.960	87892	0.062
>	Ge	74		**ug/L**		430082	430082.421
	As	75	**50.191**	**ug/L**	0.627	61546	0.144
	Se	77		**ug/L**		8934	0.012
	Se	82	**50.839**	**ug/L**	0.363	6955	0.016
	Kr	83		**ug/L**		105	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	102.198				
>	Sc	45		99.4			
	Ni	60	101.372				
>	Ge	74		98.5			
	As	75	100.382				
	Se	77					
	Se	82	101.678				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, March 02, 2010 14:31:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 9.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	161.394	13	0.000
>	Sc	45		**ug/L**		1425024	1425023.682
	Ni	60	**0.002**	**ug/L**	203.333	126	0.000
>	Ge	74		**ug/L**		432104	432103.624
	As	75	**0.211**	**ug/L**	242.016	63	0.001
	Se	77		**ug/L**		3811	-0.000
	Se	82	**0.110**	**ug/L**	122.136	31	0.000
	Kr	83		**ug/L**		95	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.9			
	Ni	60					
>	Ge	74		98.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 14:47:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.074**	**ug/L**	2.434	28986	0.020
>	Sc	45		**ug/L**		1453877	1453876.616
	Ni	60	**50.355**	**ug/L**	1.786	89585	0.062
>	Ge	74		**ug/L**		432252	432251.647
	As	75	**50.285**	**ug/L**	2.678	61968	0.144
	Se	77		**ug/L**		8918	0.012
	Se	82	**50.930**	**ug/L**	1.012	7002	0.016
	Kr	83		**ug/L**		130	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.147				
>	Sc	45		101.9			
	Ni	60	100.710				
>	Ge	74		99.0			
	As	75	100.571				
	Se	77					
	Se	82	101.860				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 14:49:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	545.529	12	0.000
>	Sc	45		**ug/L**		1458677	1458677.442
	Ni	60	**0.000**	**ug/L**	691.142	126	0.000
>	Ge	74		**ug/L**		428407	428406.511
	As	75	**0.080**	**ug/L**	299.261	-106	0.000
	Se	77		**ug/L**		3616	-0.001
	Se	82	**-0.055**	**ug/L**	80.749	9	-0.000
	Kr	83		**ug/L**		121	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		98.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033978
Sample Date/Time: Tuesday, March 02, 2010 14:52:41
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033978.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.741**	**ug/L**	4.057	451	0.000
>	Sc	45		**ug/L**		1459721	1459720.969
	Ni	60	**1.498**	**ug/L**	1.768	2799	0.002
>	Ge	74		**ug/L**		430286	430286.090
	As	75	**1.251**	**ug/L**	19.063	1336	0.004
	Se	77		**ug/L**		2894	-0.002
	Se	82	**2.233**	**ug/L**	7.014	321	0.001
	Kr	83		**ug/L**		131	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.4			
	Ni	60					
>	Ge	74		98.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033983
Sample Date/Time: Tuesday, March 02, 2010 14:54:42
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949361|40|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033983.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.777**	**ug/L**	2.901	11707	0.008
>	Sc	45		**ug/L**		1456404	1456404.471
	Ni	60	**34.812**	**ug/L**	0.830	62086	0.043
>	Ge	74		**ug/L**		426198	426198.359
	As	75	**28.290**	**ug/L**	2.205	34288	0.081
	Se	77		**ug/L**		11188	0.017
	Se	82	**75.930**	**ug/L**	1.821	10286	0.024
	Kr	83		**ug/L**		120	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.1			
	Ni	60					
>	Ge	74		97.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066001
Sample Date/Time: Tuesday, March 02, 2010 14:56:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066001.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.569**	**ug/L**	4.084	3286	0.002
>	Sc	45		**ug/L**		1447951	1447951.299
	Ni	60	**50.540**	**ug/L**	0.578	89549	0.062
>	Ge	74		**ug/L**		393056	393055.518
	As	75	**14.913**	**ug/L**	2.545	16577	0.043
	Se	77		**ug/L**		2811	-0.002
	Se	82	**-2.166**	**ug/L**	8.477	-256	-0.001
	Kr	83		**ug/L**		575	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.5			
	Ni	60					
>	Ge	74		90.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033979
Sample Date/Time: Tuesday, March 02, 2010 14:58:47
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033979.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.128**	**ug/L**	4.618	3054	0.002
>	Sc	45		**ug/L**		1460965	1460965.406
	Ni	60	**47.602**	**ug/L**	0.451	85112	0.058
>	Ge	74		**ug/L**		391594	391594.489
	As	75	**13.360**	**ug/L**	3.904	14778	0.038
	Se	77		**ug/L**		2765	-0.002
	Se	82	**-2.576**	**ug/L**	1.708	-306	-0.001
	Kr	83		**ug/L**		593	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.4			
	Ni	60					
>	Ge	74		89.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033981
Sample Date/Time: Tuesday, March 02, 2010 15:00:51
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033981.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**23.648**	**ug/L**	1.292	13995	0.010
>	Sc	45		**ug/L**		1456033	1456032.640
	Ni	60	**68.410**	**ug/L**	0.380	121850	0.084
>	Ge	74		**ug/L**		391847	391847.283
	As	75	**44.119**	**ug/L**	0.872	49267	0.126
	Se	77		**ug/L**		3417	-0.000
	Se	82	**3.284**	**ug/L**	12.218	423	0.001
	Kr	83		**ug/L**		668	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.1			
	Ni	60					
>	Ge	74		89.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033982
Sample Date/Time: Tuesday, March 02, 2010 15:02:55
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033982.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.543**	**ug/L**	2.731	13459	0.009
>	Sc	45		**ug/L**		1468969	1468968.782
	Ni	60	**66.243**	**ug/L**	1.847	119036	0.081
>	Ge	74		**ug/L**		392911	392911.111
	As	75	**42.410**	**ug/L**	1.914	47475	0.121
	Se	77		**ug/L**		3265	-0.001
	Se	82	**2.953**	**ug/L**	2.139	383	0.001
	Kr	83		**ug/L**		669	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.0			
	Ni	60					
>	Ge	74		90.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033980
Sample Date/Time: Tuesday, March 02, 2010 15:04:59
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949361|10|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033980.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.209**	**ug/L**	3.865	736	0.000
>	Sc	45		**ug/L**		1476393	1476393.419
	Ni	60	**11.055**	**ug/L**	0.966	20071	0.014
>	Ge	74		**ug/L**		423879	423879.481
	As	75	**3.294**	**ug/L**	12.743	3793	0.009
	Se	77		**ug/L**		3375	-0.001
	Se	82	**-0.474**	**ug/L**	41.223	-48	-0.000
	Kr	83		**ug/L**		239	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.5			
	Ni	60					
>	Ge	74		97.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066002
Sample Date/Time: Tuesday, March 02, 2010 15:07:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066002.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.658**	**ug/L**	5.367	2760	0.002
>	Sc	45		**ug/L**		1454302	1454302.423
	Ni	60	**43.555**	**ug/L**	3.281	77494	0.053
>	Ge	74		**ug/L**		394099	394098.632
	As	75	**14.403**	**ug/L**	0.923	16048	0.041
	Se	77		**ug/L**		2773	-0.002
	Se	82	**-1.676**	**ug/L**	3.711	-195	-0.001
	Kr	83		**ug/L**		448	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.0			
	Ni	60					
>	Ge	74		90.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066003
Sample Date/Time: Tuesday, March 02, 2010 15:09:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066003.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.983**	**ug/L**	2.765	2340	0.002
>	Sc	45		**ug/L**		1440236	1440235.793
	Ni	60	**42.040**	**ug/L**	1.324	74099	0.051
>	Ge	74		**ug/L**		394849	394849.265
	As	75	**11.015**	**ug/L**	1.647	12255	0.032
	Se	77		**ug/L**		2657	-0.002
	Se	82	**-1.884**	**ug/L**	15.538	-222	-0.001
	Kr	83		**ug/L**		485	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.0			
	Ni	60					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066004
Sample Date/Time: Tuesday, March 02, 2010 15:11:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066004.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**6.957**	**ug/L**	4.305	4147	0.003
>	Sc	45		**ug/L**		1464868	1464867.815
	Ni	60	**58.335**	**ug/L**	2.425	104507	0.071
>	Ge	74		**ug/L**		387242	387242.321
	As	75	**14.761**	**ug/L**	1.569	16170	0.042
	Se	77		**ug/L**		2793	-0.002
	Se	82	**-4.289**	**ug/L**	13.059	-512	-0.001
	Kr	83		**ug/L**		824	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.7			
	Ni	60					
>	Ge	74		88.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 15:13:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.383**	**ug/L**	1.312	28032	0.020
>	Sc	45		**ug/L**		1426211	1426211.144
	Ni	60	**49.834**	**ug/L**	0.868	86970	0.061
>	Ge	74		**ug/L**		413959	413959.300
	As	75	**49.865**	**ug/L**	2.426	58851	0.143
	Se	77		**ug/L**		8738	0.012
	Se	82	**49.871**	**ug/L**	2.560	6565	0.016
	Kr	83		**ug/L**		187	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.766				
>	Sc	45		100.0			
	Ni	60	99.668				
>	Ge	74		94.8			
	As	75	99.730				
	Se	77					
	Se	82	99.742				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 15:15:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.003**	**ug/L**	88.176	13	0.000
>	Sc	45		**ug/L**		1453670	1453669.710
	Ni	60	**0.003**	**ug/L**	105.535	130	0.000
>	Ge	74		**ug/L**		418087	418086.616
	As	75	**0.307**	**ug/L**	109.056	165	0.001
	Se	77		**ug/L**		3684	-0.000
	Se	82	**-0.213**	**ug/L**	2.819	-13	-0.000
	Kr	83		**ug/L**		143	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.9			
	Ni	60					
>	Ge	74		95.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066005
Sample Date/Time: Tuesday, March 02, 2010 15:17:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066005.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.642**	**ug/L**	4.655	954	0.001
>	Sc	45		**ug/L**		1414411	1414411.488
	Ni	60	**21.324**	**ug/L**	2.785	36960	0.026
>	Ge	74		**ug/L**		401175	401174.899
	As	75	**6.968**	**ug/L**	5.065	7810	0.020
	Se	77		**ug/L**		2750	-0.002
	Se	82	**-0.370**	**ug/L**	34.726	-32	-0.000
	Kr	83		**ug/L**		248	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.2			
	Ni	60					
>	Ge	74		91.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066006
Sample Date/Time: Tuesday, March 02, 2010 15:19:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066006.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.721**	**ug/L**	2.487	3308	0.002
>	Sc	45		**ug/L**		1418658	1418657.565
	Ni	60	**57.653**	**ug/L**	2.842	100028	0.070
>	Ge	74		**ug/L**		373377	373376.579
	As	75	**15.809**	**ug/L**	3.811	16705	0.045
	Se	77		**ug/L**		2670	-0.002
	Se	82	**-2.894**	**ug/L**	7.757	-329	-0.001
	Kr	83		**ug/L**		645	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.5			
	Ni	60					
>	Ge	74		85.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066007
Sample Date/Time: Tuesday, March 02, 2010 15:21:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066007.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.110**	**ug/L**	7.160	645	0.000
>	Sc	45		**ug/L**		1406081	1406081.260
	Ni	60	**20.701**	**ug/L**	0.259	35691	0.025
>	Ge	74		**ug/L**		399425	399425.210
	As	75	**5.338**	**ug/L**	6.605	5909	0.015
	Se	77		**ug/L**		2694	-0.002
	Se	82	**-0.296**	**ug/L**	50.199	-23	-0.000
	Kr	83		**ug/L**		217	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.6			
	Ni	60					
>	Ge	74		91.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066008
Sample Date/Time: Tuesday, March 02, 2010 15:23:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066008.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.311**	**ug/L**	6.910	194	0.000
>	Sc	45		**ug/L**		1444614	1444613.811
	Ni	60	**2.901**	**ug/L**	2.563	5243	0.004
>	Ge	74		**ug/L**		424052	424052.104
	As	75	**1.159**	**ug/L**	11.266	1204	0.003
	Se	77		**ug/L**		2370	-0.003
	Se	82	**-0.207**	**ug/L**	18.236	-12	-0.000
	Kr	83		**ug/L**		149	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.3			
	Ni	60					
>	Ge	74		97.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066009
Sample Date/Time: Tuesday, March 02, 2010 15:25:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066009.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.725**	**ug/L**	1.163	446	0.000
>	Sc	45		**ug/L**		1473884	1473883.702
	Ni	60	**6.287**	**ug/L**	1.452	11447	0.008
>	Ge	74		**ug/L**		416013	416012.846
	As	75	**2.365**	**ug/L**	5.066	2616	0.007
	Se	77		**ug/L**		2278	-0.003
	Se	82	**-0.502**	**ug/L**	27.864	-51	-0.000
	Kr	83		**ug/L**		202	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.3			
	Ni	60					
>	Ge	74		95.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066010
Sample Date/Time: Tuesday, March 02, 2010 15:27:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066010.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.599	ug/L	4.721	358	0.000
>	Sc	45		ug/L		1425914	1425914.279
	Ni	60	5.784	ug/L	2.395	10201	0.007
>	Ge	74		ug/L		415121	415120.802
	As	75	0.428	ug/L	29.923	312	0.001
	Se	77		ug/L		2162	-0.004
	Se	82	-0.109	ug/L	112.284	1	-0.000
	Kr	83		ug/L		135	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.0			
	Ni	60					
>	Ge	74		95.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066011
Sample Date/Time: Tuesday, March 02, 2010 15:29:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066011.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.852**	**ug/L**	3.276	2224	0.002
>	Sc	45		**ug/L**		1414787	1414786.518
	Ni	60	**40.645**	**ug/L**	2.509	70364	0.050
>	Ge	74		**ug/L**		383983	383983.438
	As	75	**11.896**	**ug/L**	1.577	12886	0.034
	Se	77		**ug/L**		2572	-0.002
	Se	82	**-1.761**	**ug/L**	14.347	-200	-0.001
	Kr	83		**ug/L**		461	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.2			
	Ni	60					
>	Ge	74		87.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066012
Sample Date/Time: Tuesday, March 02, 2010 15:31:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066012.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.600**	**ug/L**	3.286	2615	0.002
>	Sc	45		**ug/L**		1393733	1393732.852
	Ni	60	**39.536**	**ug/L**	0.795	67459	0.048
>	Ge	74		**ug/L**		382688	382688.063
	As	75	**12.529**	**ug/L**	3.783	13532	0.036
	Se	77		**ug/L**		2621	-0.002
	Se	82	**-1.673**	**ug/L**	3.724	-189	-0.001
	Kr	83		**ug/L**		486	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.7			
	Ni	60					
>	Ge	74		87.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 15:33:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.158**	**ug/L**	1.265	28108	0.020
>	Sc	45		**ug/L**		1407659	1407658.546
	Ni	60	**49.819**	**ug/L**	2.977	85779	0.061
>	Ge	74		**ug/L**		411816	411815.925
	As	75	**50.075**	**ug/L**	0.939	58788	0.143
	Se	77		**ug/L**		8318	0.011
	Se	82	**50.433**	**ug/L**	2.198	6607	0.016
	Kr	83		**ug/L**		170	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.316				
>	Sc	45		98.7			
	Ni	60	99.639				
>	Ge	74		94.3			
	As	75	100.150				
	Se	77					
	Se	82	100.867				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 15:35:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	90.260	14	0.000
>	Sc	45		**ug/L**		1389319	1389318.851
	Ni	60	**0.003**	**ug/L**	228.375	125	0.000
>	Ge	74		**ug/L**		412715	412715.400
	As	75	**0.220**	**ug/L**	97.103	65	0.001
	Se	77		**ug/L**		3389	-0.001
	Se	82	**-0.090**	**ug/L**	101.252	4	-0.000
	Kr	83		**ug/L**		125	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.4			
	Ni	60					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066013
Sample Date/Time: Tuesday, March 02, 2010 15:37:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066013.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.483**	ug/L	4.695	2555	0.002
>	Sc	45		ug/L		1397718	1397717.644
	Ni	60	**45.907**	ug/L	4.264	78449	0.056
>	Ge	74		ug/L		372676	372676.142
	As	75	**12.486**	ug/L	1.867	13133	0.036
	Se	77		ug/L		2616	-0.002
	Se	82	**-2.122**	ug/L	8.594	-237	-0.001
	Kr	83		ug/L		518	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.0			
	Ni	60					
>	Ge	74		85.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066014
Sample Date/Time: Tuesday, March 02, 2010 15:40:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066014.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.646**	**ug/L**	2.275	2728	0.002
>	Sc	45		**ug/L**		1440301	1440301.118
	Ni	60	**73.270**	**ug/L**	3.994	128972	0.090
>	Ge	74		**ug/L**		377894	377894.252
	As	75	**11.988**	**ug/L**	0.588	12779	0.034
	Se	77		**ug/L**		2589	-0.002
	Se	82	**-2.187**	**ug/L**	16.891	-248	-0.001
	Kr	83		**ug/L**		514	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.0			
	Ni	60					
>	Ge	74		86.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066015
Sample Date/Time: Tuesday, March 02, 2010 15:42:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066015.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.883**	**ug/L**	3.025	3468	0.002
>	Sc	45		**ug/L**		1446959	1446958.749
	Ni	60	**46.711**	**ug/L**	1.792	82707	0.057
>	Ge	74		**ug/L**		385054	385054.028
	As	75	**11.908**	**ug/L**	0.716	12932	0.034
	Se	77		**ug/L**		2538	-0.002
	Se	82	**-3.051**	**ug/L**	8.053	-358	-0.001
	Kr	83		**ug/L**		627	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.5			
	Ni	60					
>	Ge	74		88.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066016
Sample Date/Time: Tuesday, March 02, 2010 15:44:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066016.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.369**	**ug/L**	5.712	816	0.001
>	Sc	45		**ug/L**		1447794	1447794.077
	Ni	60	**22.023**	**ug/L**	1.248	39085	0.027
>	Ge	74		**ug/L**		393786	393786.052
	As	75	**5.893**	**ug/L**	4.274	6449	0.017
	Se	77		**ug/L**		2933	-0.002
	Se	82	**-0.066**	**ug/L**	303.080	6	-0.000
	Kr	83		**ug/L**		224	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.5			
	Ni	60					
>	Ge	74		90.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066017
Sample Date/Time: Tuesday, March 02, 2010 15:46:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066017.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	3.321	ug/L	5.060	1957	0.001
>	Sc	45		ug/L		1443547	1443547.215
	Ni	60	33.429	ug/L	1.828	59074	0.041
>	Ge	74		ug/L		383480	383479.630
	As	75	11.861	ug/L	2.352	12828	0.034
	Se	77		ug/L		2496	-0.002
	Se	82	-1.234	ug/L	12.829	-136	-0.000
	Kr	83		ug/L		360	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.2			
	Ni	60					
>	Ge	74		87.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066018
Sample Date/Time: Tuesday, March 02, 2010 15:48:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066018.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.858**	**ug/L**	3.432	2304	0.002
>	Sc	45		**ug/L**		1463864	1463863.802
	Ni	60	**42.572**	**ug/L**	3.256	76232	0.052
>	Ge	74		**ug/L**		382196	382196.434
	As	75	**10.744**	**ug/L**	1.613	11563	0.031
	Se	77		**ug/L**		2519	-0.002
	Se	82	**-1.716**	**ug/L**	19.598	-194	-0.001
	Kr	83		**ug/L**		457	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.6			
	Ni	60					
>	Ge	74		87.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066019
Sample Date/Time: Tuesday, March 02, 2010 15:50:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066019.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**6.113**	**ug/L**	2.067	3504	0.002
>	Sc	45		**ug/L**		1407179	1407178.763
	Ni	60	**47.421**	**ug/L**	1.160	81668	0.058
>	Ge	74		**ug/L**		387845	387845.155
	As	75	**8.302**	**ug/L**	3.896	9027	0.024
	Se	77		**ug/L**		2480	-0.003
	Se	82	**-2.711**	**ug/L**	3.300	-319	-0.001
	Kr	83		**ug/L**		591	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.7			
	Ni	60					
>	Ge	74		88.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066020
Sample Date/Time: Tuesday, March 02, 2010 15:52:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949361|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246066020.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.884**	**ug/L**	0.900	2280	0.002
>	Sc	45		**ug/L**		1438232	1438231.880
	Ni	60	**35.120**	**ug/L**	0.163	61850	0.043
>	Ge	74		**ug/L**		375874	375873.830
	As	75	**11.210**	**ug/L**	2.744	11878	0.032
	Se	77		**ug/L**		2555	-0.002
	Se	82	**-2.151**	**ug/L**	15.916	-242	-0.001
	Kr	83		**ug/L**		491	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.8			
	Ni	60					
>	Ge	74		86.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 15:54:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.860**	**ug/L**	0.830	27381	0.020
>	Sc	45		**ug/L**		1379261	1379261.405
	Ni	60	**49.595**	**ug/L**	2.303	83697	0.061
>	Ge	74		**ug/L**		400664	400663.690
	As	75	**50.549**	**ug/L**	1.097	57747	0.145
	Se	77		**ug/L**		8342	0.012
	Se	82	**50.210**	**ug/L**	1.701	6399	0.016
	Kr	83		**ug/L**		174	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	97.720				
>	Sc	45		96.7			
	Ni	60	99.189				
>	Ge	74		91.7			
	As	75	101.098				
	Se	77					
	Se	82	100.419				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 15:56:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	318.359	14	0.000
>	Sc	45		**ug/L**		1438940	1438940.134
	Ni	60	**-0.001**	**ug/L**	1092.012	123	-0.000
>	Ge	74		**ug/L**		404533	404532.641
	As	75	**0.272**	**ug/L**	92.839	125	0.001
	Se	77		**ug/L**		3385	-0.001
	Se	82	**-0.096**	**ug/L**	110.088	3	-0.000
	Kr	83		**ug/L**		123	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.9			
	Ni	60					
>	Ge	74		92.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, March 04, 2010 12:13:51
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.644
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4917.0	4917.046	76.152	1.5
	Mg	24.0	49556.4	49556.410	421.182	0.8
	Co	58.9	95296.0	95295.993	345.969	0.4
	Rh	102.9	182253.3	182253.293	1838.164	1.0
	In	114.9	271126.6	271126.619	2475.836	0.9
	Pb	208.0	255677.7	255677.709	715.154	0.3
⌈>	Ba	137.9	248095.1	248095.056	1759.513	0.7
⌊	Ba++	69.0	3224.4	0.013	0.000	1.4
⌈>	Ce	139.9	304302.3	304302.268	1006.509	0.3
⌊	CeO	155.9	7653.1	0.025	0.000	1.9
	Bkgd	220.0	21.3	21.300	2.225	10.4

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	5.5	5457.7
Co	59	13	6.0	98878.3
In	115	13	6.8	264010.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2050	0.665
Be	9.0	9.0	2056	2075	0.621
Mg	24.0	24.0	5695	2080	0.628
Mg	25.0	25.0	5923	2080	0.592
Mg	26.0	26.0	6178	2080	0.633
Co	58.9	58.9	14189	2110	0.620
Rh	102.9	102.9	24872	2160	0.621
In	114.9	114.9	27799	2180	0.636
Ce	139.9	139.9	33870	2200	0.640
Pb	206.0	206.0	49948	2295	0.605
Pb	207.0	207.0	50159	2240	0.631
Pb	208.0	208.0	50451	2265	0.694
U	238.1	238.0	57724	2275	0.708

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, March 04, 2010 16:19:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\Blank.095

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9		ug/L		18	
Sc	45		ug/L		1747297	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, March 04, 2010 16:20:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\Standard 1.096

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**10.000**	**ug/L**	0.540	4884	0.003
>	Sc	45		**ug/L**		1774213	1774212.639

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, March 04, 2010 16:22:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\Standard 2.097

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	99.997	ug/L	0.654	48309	0.027
Sc	45		ug/L		1765521	1765521.334

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, March 04, 2010 16:24:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 1.098

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	53.477	ug/L	0.621	25602	0.015
Sc	45		ug/L		1749056	1749056.384

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	106.954				
Sc	45		100.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, March 04, 2010 16:25:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 2.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.004	ug/L	294.412	20	0.000
⌊>	Sc	45		ug/L		1728681	1728681.166

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		98.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, March 04, 2010 16:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 3.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.614	ug/L	6.336	308	0.000
⌊>	Sc	45		ug/L		1728081	1728081.221

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	122.839				
⌊>	Sc	45		98.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, March 04, 2010 16:28:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 4.101

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.100	ug/L	13.057	61	0.000
⌊>	Sc	45		ug/L		1621953	1621953.063

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		92.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, March 04, 2010 16:30:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 5.102

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	19.384	ug/L	1.318	8268	0.005
Sc	45		ug/L		1556526	1556525.999

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	96.921				
Sc	45		89.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, March 04, 2010 16:32:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 6.103

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	53.267	ug/L	1.735	23797	0.015
⌊>	Sc	45		ug/L		1632070	1632069.864

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	106.534				
⌊>	Sc	45		93.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, March 04, 2010 16:33:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 7.104

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.015	ug/L	61.897	24	0.000
>	Sc	45		ug/L		1637556	1637556.467

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033978
Sample Date/Time: Thursday, March 04, 2010 16:35:39
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\1202033978.105

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.002	ug/L	558.090	17	0.000
⌊>	Sc	45		ug/L		1604268	1604267.758

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		91.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033983
Sample Date/Time: Thursday, March 04, 2010 16:37:18
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 959912|40|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\1202033983.106

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**24.019**	**ug/L**	2.189	11307	0.007
⌊>	Sc	45		**ug/L**		1718725	1718724.989

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		98.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066001
Sample Date/Time: Thursday, March 04, 2010 16:38:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066001.107

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	5.536	ug/L	0.825	2497	0.002
>	Sc	45		ug/L		1637502	1637501.984

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033979
Sample Date/Time: Thursday, March 04, 2010 16:40:37
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959912|2|ba|
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\1202033979.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**5.349**	**ug/L**	3.066	2375	0.001
⌊>	Sc	45		**ug/L**		1612035	1612034.596

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		92.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033981
Sample Date/Time: Thursday, March 04, 2010 16:42:18
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\1202033981.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	32.119	ug/L	0.990	14242	0.009
>	Sc	45		ug/L		1619121	1619121.171

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033982
Sample Date/Time: Thursday, March 04, 2010 16:43:59
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\1202033982.110

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	31.707	ug/L	4.197	13940	0.009
⌊>	Sc	45		ug/L		1607479	1607478.710

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		92.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033980
Sample Date/Time: Thursday, March 04, 2010 16:45:40
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 959912|10|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\1202033980.111

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	1.114	ug/L	4.441	520	0.000
>	Sc	45		ug/L		1649541	1649541.191

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066002
Sample Date/Time: Thursday, March 04, 2010 16:47:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066002.112

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	4.489	ug/L	5.912	1982	0.001
⌊>	Sc	45		ug/L		1603706	1603706.396

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		91.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066003
Sample Date/Time: Thursday, March 04, 2010 16:49:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066003.113

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.611**	**ug/L**	4.307	2087	0.001
>	Sc	45		**ug/L**		1641626	1641625.728

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066004
Sample Date/Time: Thursday, March 04, 2010 16:50:40
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066004.114

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	7.882	ug/L	1.478	3612	0.002
⌊>	Sc	45		ug/L		1667760	1667759.637

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		95.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, March 04, 2010 16:52:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 6.115

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.334**	**ug/L**	1.227	24484	0.015
⌊>	Sc	45		**ug/L**		1677200	1677200.035

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	106.669				
⌊>	Sc	45		96.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, March 04, 2010 16:54:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 7.116

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.012	ug/L	133.323	23	0.000
⌊>	Sc	45		ug/L		1695467	1695466.904

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		97.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, March 04, 2010 17:07:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 6.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.507**	**ug/L**	5.400	24476	0.015
⌊>	Sc	45		**ug/L**		1674292	1674291.509

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	107.013				
⌊>	Sc	45		95.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, March 04, 2010 17:09:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 7.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.004	ug/L	443.595	19	0.000
⌊>	Sc	45		ug/L		1712525	1712525.352

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		98.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066005
Sample Date/Time: Thursday, March 04, 2010 17:11:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066005.120

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**1.850**	**ug/L**	2.056	850	0.001
⌊>	Sc	45		**ug/L**		1645283	1645283.126

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		94.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066006
Sample Date/Time: Thursday, March 04, 2010 17:13:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066006.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	5.964	ug/L	1.446	2675	0.002
⌊>	Sc	45		ug/L		1629557	1629556.580

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		93.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066007
Sample Date/Time: Thursday, March 04, 2010 17:14:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066007.122

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.866	ug/L	1.965	411	0.000
Sc	45		ug/L		1661962	1661961.911

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		95.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066008
Sample Date/Time: Thursday, March 04, 2010 17:16:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066008.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	3.267	ug/L	3.325	1495	0.001
⌊>	Sc	45		ug/L		1654481	1654481.338

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		94.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066009
Sample Date/Time: Thursday, March 04, 2010 17:18:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066009.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	4.415	ug/L	2.032	2020	0.001
>	Sc	45		ug/L		1658448	1658448.082

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066010
Sample Date/Time: Thursday, March 04, 2010 17:19:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066010.125

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**4.283**	**ug/L**	4.591	1952	0.001
Sc	45		**ug/L**		1652695	1652694.595

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		94.6			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066011
Sample Date/Time: Thursday, March 04, 2010 17:21:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066011.126

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.714**	**ug/L**	3.584	1722	0.001
>	Sc	45		**ug/L**		1678750	1678750.325

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066012
Sample Date/Time: Thursday, March 04, 2010 17:23:17
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066012.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	4.531	ug/L	3.161	2071	0.001
⌊>	Sc	45		ug/L		1657505	1657505.223

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		94.9			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066013
Sample Date/Time: Thursday, March 04, 2010 17:24:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|ba|
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066013.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	4.769	ug/L	2.671	2175	0.001
>	Sc	45		ug/L		1654362	1654361.527

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, March 04, 2010 17:26:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 6.129

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	**52.038**	**ug/L**	2.015	24682	0.014
Sc	45		**ug/L**		1732798	1732797.778

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9	104.077				
Sc	45		99.2			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, March 04, 2010 17:28:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 7.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	0.004	ug/L	91.185	20	0.000
⌊>	Sc	45		ug/L		1760137	1760137.180

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		100.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066014
Sample Date/Time: Thursday, March 04, 2010 17:30:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066014.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	5.869	ug/L	3.355	2718	0.002
⌊>	Sc	45		ug/L		1682121	1682120.972

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		96.3			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066015
Sample Date/Time: Thursday, March 04, 2010 17:31:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066015.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	5.939	ug/L	1.486	2757	0.002
>	Sc	45		ug/L		1686280	1686279.722

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066016
Sample Date/Time: Thursday, March 04, 2010 17:33:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066016.133

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	1.208	ug/L	2.605	568	0.000
Sc	45		ug/L		1667848	1667848.330

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		95.5			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066017
Sample Date/Time: Thursday, March 04, 2010 17:35:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066017.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	3.972	ug/L	6.898	1779	0.001
⌊>	Sc	45		ug/L		1625184	1625184.067

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		93.0			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066018
Sample Date/Time: Thursday, March 04, 2010 17:36:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066018.135

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**4.163**	**ug/L**	4.324	1914	0.001
⌊>	Sc	45		**ug/L**		1666062	1666062.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		95.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066019
Sample Date/Time: Thursday, March 04, 2010 17:38:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066019.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	6.572	ug/L	3.185	3065	0.002
⌊>	Sc	45		ug/L		1695963	1695962.805

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		97.1			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246066020
Sample Date/Time: Thursday, March 04, 2010 17:40:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959912|2|baj
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\246066020.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	4.014	ug/L	0.168	1867	0.001
⌊>	Sc	45		ug/L		1684869	1684869.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		96.4			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, March 04, 2010 17:41:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 6.138

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.479**	**ug/L**	1.871	24773	0.014
>	Sc	45		**ug/L**		1724837	1724837.441

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	104.958				
>	Sc	45		98.7			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, March 04, 2010 17:43:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be only.mth
Dataset File: C:\elandata\Dataset\100304\QC Std 7.139

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.004	ug/L	197.584	20	0.000
Sc	45		ug/L		1761760	1761760.468

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Be	9					
Sc	45		100.8			

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\022210S1.SIF
Batch ID:
Results Data Set: 022210S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Method Loaded
Method Name: SOIL **Method Last Saved: 1/4/2010 13:53:20**
Method Description: 7471A, ILM04 ANALYST JXL

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/22/2010 09:10:53**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0004	0.0039	0.0004	09:11:45	Yes
2		[0.00]	0.0002	0.0015	0.0002	09:12:15	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0002				
%RSD:		0.00	53.64				

Auto-zero performed.

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/22/2010 09:12:34**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0130	0.0028	09:13:24	Yes
2		[0.2]	0.0024	0.0118	0.0027	09:13:54	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0001				
%RSD:		0.0	2.95				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01227 Intercept: 0.00000

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/22/2010 09:14:13**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0296	0.0067	09:15:04	Yes
2		[0.5]	0.0064	0.0296	0.0067	09:15:34	Yes
Mean:		[0.5]	0.0064				
SD:		0.0	0.0000				
%RSD:		0.0	0.76				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999833 Slope: 0.01281 Intercept: -0.00004

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/22/2010 09:15:53**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0266	0.1214	0.0270	09:16:44	Yes
2		[2.0]	0.0268	0.1221	0.0271	09:17:14	Yes
Mean:		[2.0]	0.0267				
SD:		0.0	0.0001				
%RSD:		0.0	0.39				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999935 Slope: 0.01342 Intercept: -0.00017

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/22/2010 09:17:34**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0658	0.2999	0.0661	09:18:25	Yes
2		[5.0]	0.0654	0.2990	0.0657	09:18:55	Yes
Mean:		[5.0]	0.0656				
SD:		0.0	0.0003				
%RSD:		0.0	0.39				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999956 Slope: 0.01315 Intercept: -0.00003

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/22/2010 09:19:16**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1267	0.5827	0.1270	09:20:06	Yes
2		[10.0]	0.1264	0.5788	0.1267	09:20:36	Yes
Mean:		[10.0]	0.1266				
SD:		0.0	0.0002				
%RSD:		0.0	0.18				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999803 Slope: 0.01270 Intercept: 0.00049

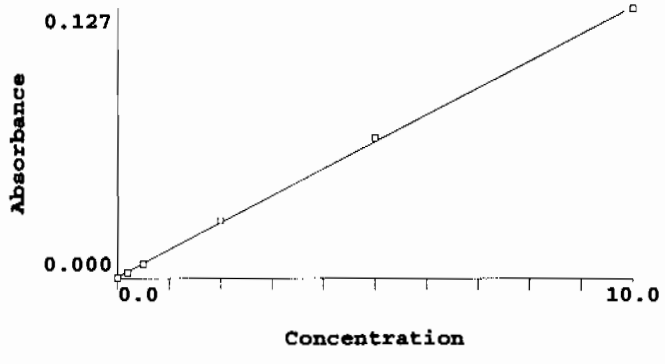

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.038	0.00	53.6
S0.2	0.0025	0.2	0.155	0.00	2.9
S0.5	0.0064	0.5	0.465	0.00	0.8
S2.0	0.0267	2.0	2.066	0.00	0.4

S5.0	0.0656	5.0	5.126	0.00	0.4
S10.0	0.1266	10.0	9.926	0.00	0.2

Correlation Coef.: 0.999803 Slope: 0.01270 Intercept: 0.00049

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/22/2010 09:20:55**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.163	5.163	0.0661	0.3028	0.0664	09:21:46	Yes
2	5.137	5.137	0.0657	0.3006	0.0660	09:22:15	Yes
Mean:	5.150	5.150	0.0659				
SD:	0.019	0.019	0.0002				
%RSD:	0.366	0.366	0.36				

QC value within limits for Hg 253.7 Recovery = 103.00%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/22/2010 09:22:35**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0003	-0.0018	0.0001	09:23:26	Yes
2	-0.054	-0.054	-0.0002	-0.0015	0.0001	09:23:56	Yes
Mean:	-0.056	-0.056	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	6.211	6.211	19.49				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/22/2010 09:24:16**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.155	0.155	0.0025	0.0117	0.0028	09:25:07	Yes
2	0.147	0.147	0.0024	0.0106	0.0027	09:25:37	Yes
Mean:	0.151	0.151	0.0024				
SD:	0.006	0.006	0.0001				
%RSD:	3.846	3.846	3.07				

QC value within limits for Hg 253.7 Recovery = 75.56%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 09:25:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.065	5.065	0.0648	0.2977	0.0651	09:26:47	Yes
2	5.044	5.044	0.0645	0.2946	0.0649	09:27:17	Yes
Mean:	5.055	5.055	0.0647				
SD:	0.015	0.015	0.0002				
%RSD:	0.296	0.296	0.29				

QC value within limits for Hg 253.7 Recovery = 101.09%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/22/2010 09:27:36
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.057	-0.057	-0.0002	-0.0011	0.0001	09:28:26	Yes
2	-0.063	-0.063	-0.0003	-0.0019	0.0000	09:28:56	Yes
Mean:	-0.060	-0.060	-0.0003				
SD:	0.004	0.004	0.0000				
%RSD:	6.512	6.512	17.97				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202039119|951482|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 2/22/2010 09:29:16
Data Type: Original

Replicate Data: 1202039119|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.060	-0.060	-0.0003	-0.0016	0.0000	09:30:08	Yes
2	-0.057	-0.057	-0.0002	-0.0007	0.0001	09:30:37	Yes
Mean:	-0.058	-0.058	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	4.517	4.517	13.10				

Sequence No.: 13
Sample ID: 1202039120|951482|10
Analyst: JXL
Autosampler Location: 13
Date Collected: 2/22/2010 09:30:58
Data Type: Original

Replicate Data: 1202039120|951482|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.981	3.981	0.0510	0.2348	0.0514	09:31:50	Yes
2	3.964	3.964	0.0508	0.2328	0.0511	09:32:20	Yes
Mean:	3.972	3.972	0.0509				
SD:	0.012	0.012	0.0002				
%RSD:	0.302	0.302	0.30				

Sequence No.: 14
Sample ID: 246354001|951482|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 2/22/2010 09:32:40
Data Type: Original

Replicate Data: 246354001|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0032	0.0151	0.0035	09:33:31	Yes
2	0.210	0.210	0.0031	0.0144	0.0035	09:34:01	Yes
Mean:	0.211	0.211	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.960	0.960	0.81				

Sequence No.: 15
Sample ID: 246354002|951482|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 2/22/2010 09:34:20
Data Type: Original

Replicate Data: 246354002|951482|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 246354007|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.215	0.215	0.0032	0.0155	0.0035	09:43:28	Yes
2	0.217	0.217	0.0032	0.0156	0.0036	09:43:58	Yes
Mean:	0.216	0.216	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.955	0.955	0.81				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 246354008|951482|1 **Date Collected: 2/22/2010 09:44:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 246354008|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.193	0.193	0.0029	0.0149	0.0032	09:45:08	Yes
2	0.196	0.196	0.0030	0.0157	0.0033	09:45:38	Yes
Mean:	0.195	0.195	0.0030				
SD:	0.003	0.003	0.0000				
%RSD:	1.377	1.377	1.15				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 09:45:58**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.013	5.013	0.0641	0.2931	0.0645	09:46:48	Yes
2	4.982	4.982	0.0638	0.2911	0.0641	09:47:18	Yes
Mean:	4.997	4.997	0.0639				
SD:	0.022	0.022	0.0003				
%RSD:	0.441	0.441	0.44				

QC value within limits for Hg 253.7 Recovery = 99.94%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/22/2010 09:47:37**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0001	0.0008	0.0002	09:48:28	Yes
2	-0.048	-0.048	-0.0001	0.0011	0.0002	09:48:58	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.111	2.111	9.57				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 246354009|951482|1 **Date Collected: 2/22/2010 09:49:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 246354009|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.192	0.192	0.0029	0.0145	0.0032	09:50:09	Yes
2	0.189	0.189	0.0029	0.0142	0.0032	09:50:39	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0283	0.1317	0.0286	09:58:34	Yes
2	2.176	2.176	0.0281	0.1305	0.0284	09:59:04	Yes
Mean:	2.181	2.181	0.0282				
SD:	0.008	0.008	0.0001				
%RSD:	0.344	0.344	0.34				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202039129|951482|1 **Date Collected: 2/22/2010 09:59:23**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039129|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.225	2.225	0.0287	0.1337	0.0291	10:00:14	Yes
2	2.228	2.228	0.0288	0.1333	0.0291	10:00:44	Yes
Mean:	2.227	2.227	0.0288				
SD:	0.002	0.002	0.0000				
%RSD:	0.072	0.072	0.07				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202039128|951482|5 **Date Collected: 2/22/2010 10:01:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039128|951482|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0003	0.0020	0.0006	10:01:54	Yes
2	-0.008	-0.008	0.0004	0.0029	0.0007	10:02:23	Yes
Mean:	-0.011	-0.011	0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	30.67	30.67	12.01				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 246452002|951482|1 **Date Collected: 2/22/2010 10:02:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 246452002|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.266	0.266	0.0039	0.0191	0.0042	10:03:33	Yes
2	0.265	0.265	0.0038	0.0189	0.0042	10:04:03	Yes
Mean:	0.266	0.266	0.0039				
SD:	0.001	0.001	0.0000				
%RSD:	0.492	0.492	0.43				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246452003|951482|1 **Date Collected: 2/22/2010 10:04:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 246452003|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.614	0.614	0.0083	0.0391	0.0086	10:05:13	Yes
2	0.615	0.615	0.0083	0.0390	0.0086	10:05:43	Yes
Mean:	0.615	0.615	0.0083				
SD:	0.001	0.001	0.0000				
%RSD:	0.120	0.120	0.11				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 10:06:02**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.056	5.056	0.0647	0.2940	0.0650	10:06:53	Yes
2	5.026	5.026	0.0643	0.2919	0.0646	10:07:23	Yes
Mean:	5.041	5.041	0.0645				
SD:	0.021	0.021	0.0003				
%RSD:	0.413	0.413	0.41				

QC value within limits for Hg 253.7 Recovery = 100.82%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/22/2010 10:07:42
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	-0.0001	0.0014	0.0002	10:08:32	Yes
2	-0.052	-0.052	-0.0002	0.0004	0.0001	10:09:02	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	10.34	10.34	49.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246452004|951482|1 Date Collected: 2/22/2010 10:09:21
Analyst: JXL Data Type: Original

Replicate Data: 246452004|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.312	0.312	0.0044	0.0217	0.0048	10:10:13	Yes
2	0.306	0.306	0.0044	0.0208	0.0047	10:10:43	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.188	1.188	1.06				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246452005|951482|1 Date Collected: 2/22/2010 10:11:02
Analyst: JXL Data Type: Original

Replicate Data: 246452005|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.291	0.291	0.0042	0.0201	0.0045	10:11:53	Yes
2	0.292	0.292	0.0042	0.0201	0.0045	10:12:23	Yes
Mean:	0.291	0.291	0.0042				
SD:	0.001	0.001	0.0000				
%RSD:	0.301	0.301	0.27				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 246452006|951482|1 Date Collected: 2/22/2010 10:12:43
Analyst: JXL Data Type: Original

Replicate Data: 246452006|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.195	0.195	0.0030	0.0152	0.0033	10:13:34	Yes

Replicate Data: 1202039279|951546|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.679	3.679	0.0472	0.2153	0.0475	10:21:59	Yes
2	3.681	3.681	0.0472	0.2140	0.0476	10:22:29	Yes
Mean:	3.680	3.680	0.0472				
SD:	0.002	0.002	0.0000				
%RSD:	0.043	0.043	0.04				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 246055001|951546|1 **Date Collected: 2/22/2010 10:22:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055001|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0035	0.0168	0.0038	10:23:39	Yes
2	0.234	0.234	0.0035	0.0169	0.0038	10:24:09	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.000	0.000	0.0000				
%RSD:	0.079	0.079	0.07				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202039280|951546|1 **Date Collected: 2/22/2010 10:24:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039280|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.078	0.078	0.0015	0.0080	0.0018	10:25:20	Yes
2	0.078	0.078	0.0015	0.0078	0.0018	10:25:50	Yes
Mean:	0.078	0.078	0.0015				
SD:	0.000	0.000	0.0000				
%RSD:	0.484	0.484	0.33				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 10:26:09**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.123	5.123	0.0656	0.2977	0.0659	10:27:00	Yes
2	5.104	5.104	0.0653	0.2968	0.0656	10:27:30	Yes
Mean:	5.114	5.114	0.0654				
SD:	0.014	0.014	0.0002				
%RSD:	0.275	0.275	0.27				

QC value within limits for Hg 253.7 Recovery = 102.27%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/22/2010 10:27:49**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0002	0.0007	0.0002	10:28:39	Yes
2	-0.052	-0.052	-0.0002	0.0004	0.0001	10:29:09	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.698	1.698	6.85				

QC value within limits for Hg 253.7 Recovery = Not calculated

Replicate Data: 246055008|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.143	0.143	0.0023	0.0118	0.0026	10:45:29	Yes
2	0.146	0.146	0.0023	0.0124	0.0027	10:45:59	Yes
Mean:	0.144	0.144	0.0023				
SD:	0.002	0.002	0.0000				
%RSD:	1.723	1.723	1.36				

Sequence No.: 58 Autosampler Location: 7
Sample ID: CCV Date Collected: 2/22/2010 10:46:18
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.173	5.173	0.0662	0.2986	0.0665	10:47:08	Yes
2	5.219	5.219	0.0668	0.2990	0.0671	10:47:38	Yes
Mean:	5.196	5.196	0.0665				
SD:	0.033	0.033	0.0004				
%RSD:	0.630	0.630	0.63				

QC value within limits for Hg 253.7 Recovery = 103.92%
All analyte(s) passed QC.

Sequence No.: 59 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/22/2010 10:47:57
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0001	0.0014	0.0002	10:48:48	Yes
2	-0.049	-0.049	-0.0001	0.0010	0.0002	10:49:18	Yes
Mean:	-0.048	-0.048	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.335	3.335	16.87				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 Autosampler Location: 52
Sample ID: 246055009|951546|1 Date Collected: 2/22/2010 10:49:37
Analyst: JXL Data Type: Original

Replicate Data: 246055009|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.293	0.293	0.0042	0.0202	0.0045	10:50:28	Yes
2	0.291	0.291	0.0042	0.0196	0.0045	10:50:58	Yes
Mean:	0.292	0.292	0.0042				
SD:	0.002	0.002	0.0000				
%RSD:	0.666	0.666	0.59				

Sequence No.: 61 Autosampler Location: 53
Sample ID: 1202039295|951551|1 Date Collected: 2/22/2010 10:51:17
Analyst: JXL Data Type: Original

Replicate Data: 1202039295|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0001	0.0009	0.0002	10:52:08	Yes
2	-0.047	-0.047	-0.0001	0.0014	0.0002	10:52:38	Yes
Mean:	-0.049	-0.049	-0.0001				

SD:	0.002	0.002	0.0000
%RSD:	3.962	3.962	18.66

==========

Sequence No.: 62 **Autosampler Location: 54**
Sample ID: 1202039296|951551|10 **Date Collected: 2/22/2010 10:52:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039296|951551|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.968	3.968	0.0509	0.2259	0.0512	10:53:49	Yes
2	3.913	3.913	0.0502	0.2212	0.0505	10:54:19	Yes
Mean:	3.940	3.940	0.0505				
SD:	0.039	0.039	0.0005				
%RSD:	0.981	0.981	0.97				

==========

Sequence No.: 63 **Autosampler Location: 55**
Sample ID: 246066001|951551|1 **Date Collected: 2/22/2010 10:54:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066001|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.205	0.205	0.0031	0.0155	0.0034	10:55:30	Yes
2	0.203	0.203	0.0031	0.0148	0.0034	10:56:00	Yes
Mean:	0.204	0.204	0.0031				
SD:	0.001	0.001	0.0000				
%RSD:	0.479	0.479	0.40				

==========

Sequence No.: 64 **Autosampler Location: 56**
Sample ID: 1202039297|951551|1 **Date Collected: 2/22/2010 10:56:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039297|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.226	0.226	0.0034	0.0165	0.0037	10:57:10	Yes
2	0.221	0.221	0.0033	0.0160	0.0036	10:57:40	Yes
Mean:	0.223	0.223	0.0033				
SD:	0.004	0.004	0.0000				
%RSD:	1.650	1.650	1.41				

==========

Sequence No.: 65 **Autosampler Location: 57**
Sample ID: 1202039298|951551|1 **Date Collected: 2/22/2010 10:58:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039298|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.377	2.377	0.0307	0.1384	0.0310	10:58:51	Yes
2	2.376	2.376	0.0307	0.1377	0.0310	10:59:21	Yes
Mean:	2.376	2.376	0.0307				
SD:	0.001	0.001	0.0000				
%RSD:	0.023	0.023	0.02				

==========

Sequence No.: 66 **Autosampler Location: 58**
Sample ID: 1202039300|951551|1 **Date Collected: 2/22/2010 10:59:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039300|951551|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.421	2.421	0.0312	0.1398	0.0315	11:00:33	Yes
2	2.409	2.409	0.0311	0.1392	0.0314	11:01:03	Yes
Mean:	2.415	2.415	0.0312				
SD:	0.008	0.008	0.0001				
%RSD:	0.333	0.333	0.33				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 1202039299|951551|5 **Date Collected: 2/22/2010 11:01:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039299|951551|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0005	0.0034	0.0008	11:02:14	Yes
2	0.003	0.003	0.0005	0.0034	0.0008	11:02:44	Yes
Mean:	0.001	0.001	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	149.8	149.8	5.53				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 246066002|951551|1 **Date Collected: 2/22/2010 11:03:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066002|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.208	0.208	0.0031	0.0155	0.0034	11:03:56	Yes
2	0.208	0.208	0.0031	0.0152	0.0034	11:04:26	Yes
Mean:	0.208	0.208	0.0031				
SD:	0.000	0.000	0.0000				
%RSD:	0.196	0.196	0.17				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 246066003|951551|1 **Date Collected: 2/22/2010 11:04:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066003|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0030	0.0147	0.0033	11:05:38	Yes
2	0.189	0.189	0.0029	0.0144	0.0032	11:06:08	Yes
Mean:	0.193	0.193	0.0029				
SD:	0.005	0.005	0.0001				
%RSD:	2.670	2.670	2.23				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 11:06:28**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.198	5.198	0.0665	0.2949	0.0668	11:07:18	Yes
2	5.157	5.157	0.0660	0.2914	0.0663	11:07:48	Yes
Mean:	5.177	5.177	0.0662				
SD:	0.029	0.029	0.0004				
%RSD:	0.555	0.555	0.55				

QC value within limits for Hg 253.7 Recovery = 103.54%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB
Analyst:
Date Collected: 2/22/2010 11:08:07
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0002	0.0008	0.0002	11:08:58	Yes
2	-0.059	-0.059	-0.0003	-0.0005	0.0001	11:09:28	Yes
Mean:	-0.055	-0.055	-0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	10.73	10.73	35.82				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72
Sample ID: 246066004|951551|1
Analyst: JXL
Autosampler Location: 62
Date Collected: 2/22/2010 11:09:47
Data Type: Original

Replicate Data: 246066004|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.397	0.397	0.0055	0.0260	0.0058	11:10:38	Yes
2	0.396	0.396	0.0055	0.0259	0.0058	11:11:08	Yes
Mean:	0.397	0.397	0.0055				
SD:	0.001	0.001	0.0000				
%RSD:	0.217	0.217	0.20				

Sequence No.: 73
Sample ID: 246066005|951551|1
Analyst: JXL
Autosampler Location: 63
Date Collected: 2/22/2010 11:11:28
Data Type: Original

Replicate Data: 246066005|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.055	0.055	0.0012	0.0065	0.0015	11:12:19	Yes
2	0.058	0.058	0.0012	0.0067	0.0015	11:12:49	Yes
Mean:	0.056	0.056	0.0012				
SD:	0.002	0.002	0.0000				
%RSD:	3.337	3.337	1.99				

Sequence No.: 74
Sample ID: 246066006|951551|1
Analyst: JXL
Autosampler Location: 64
Date Collected: 2/22/2010 11:13:09
Data Type: Original

Replicate Data: 246066006|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.544	0.544	0.0074	0.0341	0.0077	11:14:00	Yes
2	0.536	0.536	0.0073	0.0334	0.0076	11:14:29	Yes
Mean:	0.540	0.540	0.0073				
SD:	0.005	0.005	0.0001				
%RSD:	0.997	0.997	0.93				

Sequence No.: 75
Sample ID: 246066007|951551|1
Analyst: JXL
Autosampler Location: 65
Date Collected: 2/22/2010 11:14:49
Data Type: Original

Replicate Data: 246066007|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0005	0.0037	0.0008	11:15:40	Yes
2	-0.006	-0.006	0.0004	0.0030	0.0007	11:16:10	Yes

Mean:	-0.004	-0.004	0.0004
SD:	0.003	0.003	0.0000
%RSD:	73.53	73.53	7.94

==========

Sequence No.: 76 **Autosampler Location: 66**
Sample ID: 246066008|951551|1 **Date Collected: 2/22/2010 11:16:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066008|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.098	0.098	0.0017	0.0087	0.0020	11:17:22	Yes
2	0.100	0.100	0.0018	0.0094	0.0021	11:17:51	Yes
Mean:	0.099	0.099	0.0017				
SD:	0.002	0.002	0.0000				
%RSD:	1.821	1.821	1.31				

==========

Sequence No.: 77 **Autosampler Location: 67**
Sample ID: 246066009|951551|1 **Date Collected: 2/22/2010 11:18:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066009|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.198	0.198	0.0030	0.0152	0.0033	11:19:02	Yes
2	0.196	0.196	0.0030	0.0146	0.0033	11:19:32	Yes
Mean:	0.197	0.197	0.0030				
SD:	0.002	0.002	0.0000				
%RSD:	1.006	1.006	0.84				

==========

Sequence No.: 78 **Autosampler Location: 68**
Sample ID: 246066010|951551|1 **Date Collected: 2/22/2010 11:19:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066010|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.229	0.229	0.0034	0.0167	0.0037	11:20:43	Yes
2	0.226	0.226	0.0034	0.0163	0.0037	11:21:13	Yes
Mean:	0.227	0.227	0.0034				
SD:	0.002	0.002	0.0000				
%RSD:	1.026	1.026	0.88				

==========

Sequence No.: 79 **Autosampler Location: 69**
Sample ID: 246066011|951551|1 **Date Collected: 2/22/2010 11:21:33**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066011|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.168	0.168	0.0026	0.0133	0.0029	11:22:24	Yes
2	0.169	0.169	0.0026	0.0137	0.0029	11:22:54	Yes
Mean:	0.168	0.168	0.0026				
SD:	0.001	0.001	0.0000				
%RSD:	0.299	0.299	0.24				

==========

Sequence No.: 80 **Autosampler Location: 70**
Sample ID: 246066012|951551|1 **Date Collected: 2/22/2010 11:23:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066012|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.221	0.221	0.0033	0.0163	0.0036	11:24:05	Yes
2	0.222	0.222	0.0033	0.0160	0.0036	11:24:35	Yes
Mean:	0.222	0.222	0.0033				
SD:	0.001	0.001	0.0000				
%RSD:	0.315	0.315	0.27				

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 246066013|951551|1 **Date Collected: 2/22/2010 11:24:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066013|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.231	0.231	0.0034	0.0169	0.0037	11:25:46	Yes
2	0.231	0.231	0.0034	0.0169	0.0037	11:26:16	Yes
Mean:	0.231	0.231	0.0034				
SD:	0.000	0.000	0.0000				
%RSD:	0.178	0.178	0.15				

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 11:26:36**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.134	5.134	0.0657	0.2970	0.0660	11:27:26	Yes
2	5.183	5.183	0.0663	0.2978	0.0666	11:27:56	Yes
Mean:	5.158	5.158	0.0660				
SD:	0.035	0.035	0.0004				
%RSD:	0.675	0.675	0.67				

QC value within limits for Hg 253.7 Recovery = 103.17%
All analyte(s) passed QC.

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/22/2010 11:28:15**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0002	0.0004	0.0002	11:29:06	Yes
2	-0.051	-0.051	-0.0002	0.0006	0.0001	11:29:36	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	0.992	0.992	3.97				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 246066014|951551|1 **Date Collected: 2/22/2010 11:29:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066014|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.276	0.276	0.0040	0.0192	0.0043	11:30:47	Yes
2	0.275	0.275	0.0040	0.0193	0.0043	11:31:17	Yes
Mean:	0.275	0.275	0.0040				
SD:	0.001	0.001	0.0000				
%RSD:	0.223	0.223	0.20				

Sequence No.: 85 Autosampler Location: 73
Sample ID: 246066015|951551|1 Date Collected: 2/22/2010 11:31:37
Analyst: JXL Data Type: Original

Replicate Data: 246066015|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.411	0.411	0.0057	0.0272	0.0060	11:32:29	Yes
2	0.409	0.409	0.0057	0.0266	0.0060	11:32:59	Yes
Mean:	0.410	0.410	0.0057				
SD:	0.001	0.001	0.0000				
%RSD:	0.309	0.309	0.28				

Sequence No.: 86 Autosampler Location: 74
Sample ID: 246066016|951551|1 Date Collected: 2/22/2010 11:33:19
Analyst: JXL Data Type: Original

Replicate Data: 246066016|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.014	0.014	0.0007	0.0041	0.0010	11:34:11	Yes
2	0.014	0.014	0.0007	0.0043	0.0010	11:34:41	Yes
Mean:	0.014	0.014	0.0007				
SD:	0.000	0.000	0.0000				
%RSD:	1.893	1.893	0.51				

Sequence No.: 87 Autosampler Location: 75
Sample ID: 246066017|951551|1 Date Collected: 2/22/2010 11:35:01
Analyst: JXL Data Type: Original

Replicate Data: 246066017|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.228	0.228	0.0034	0.0167	0.0037	11:35:52	Yes
2	0.226	0.226	0.0034	0.0164	0.0037	11:36:22	Yes
Mean:	0.227	0.227	0.0034				
SD:	0.001	0.001	0.0000				
%RSD:	0.643	0.643	0.55				

Sequence No.: 88 Autosampler Location: 76
Sample ID: 246066018|951551|1 Date Collected: 2/22/2010 11:36:42
Analyst: JXL Data Type: Original

Replicate Data: 246066018|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.117	0.117	0.0020	0.0104	0.0023	11:37:33	Yes
2	0.113	0.113	0.0019	0.0102	0.0022	11:38:03	Yes
Mean:	0.115	0.115	0.0019				
SD:	0.003	0.003	0.0000				
%RSD:	2.792	2.792	2.09				

Sequence No.: 89 Autosampler Location: 77
Sample ID: 246066019|951551|1 Date Collected: 2/22/2010 11:38:23
Analyst: JXL Data Type: Original

Replicate Data: 246066019|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.357	0.357	0.0050	0.0243	0.0053	11:39:14	Yes

2	0.359	0.359	0.0050	0.0246	0.0054	11:39:44	Yes
Mean:	0.358	0.358	0.0050				
SD:	0.001	0.001	0.0000				
%RSD:	0.399	0.399	0.36				

Sequence No.: 90 **Autosampler Location: 78**
Sample ID: 246066020|951551|1 **Date Collected: 2/22/2010 11:40:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066020|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.204	0.204	0.0031	0.0155	0.0034	11:40:56	Yes
2	0.203	0.203	0.0031	0.0153	0.0034	11:41:26	Yes
Mean:	0.203	0.203	0.0031				
SD:	0.001	0.001	0.0000				
%RSD:	0.295	0.295	0.25				

Sequence No.: 91 **Autosampler Location: 79**
Sample ID: 1202039372|951590|1 **Date Collected: 2/22/2010 11:41:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039372|951590|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	-0.0001	0.0008	0.0002	11:42:37	Yes
2	-0.050	-0.050	-0.0001	0.0008	0.0002	11:43:07	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	1.906	1.906	8.54				

Sequence No.: 92 **Autosampler Location: 80**
Sample ID: 1202039373|951590|10 **Date Collected: 2/22/2010 11:43:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039373|951590|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.482	3.482	0.0447	0.2028	0.0450	11:44:18	Yes
2	3.463	3.463	0.0445	0.2014	0.0448	11:44:48	Yes
Mean:	3.472	3.472	0.0446				
SD:	0.013	0.013	0.0002				
%RSD:	0.380	0.380	0.38				

Sequence No.: 93 **Autosampler Location: 81**
Sample ID: 246315001|951590|1 **Date Collected: 2/22/2010 11:45:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 246315001|951590|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.268	0.268	0.0039	0.0189	0.0042	11:45:59	Yes
2	0.268	0.268	0.0039	0.0192	0.0042	11:46:29	Yes
Mean:	0.268	0.268	0.0039				
SD:	0.000	0.000	0.0000				
%RSD:	0.025	0.025	0.02				

Sequence No.: 94 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 11:46:49**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.179	5.179	0.0663	0.2999	0.0666	11:47:39	Yes
2	5.174	5.174	0.0662	0.2995	0.0665	11:48:09	Yes
Mean:	5.176	5.176	0.0662				
SD:	0.004	0.004	0.0000				
%RSD:	0.068	0.068	0.07				

QC value within limits for Hg 253.7 Recovery = 103.53%
All analyte(s) passed QC.

Sequence No.: 95 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/22/2010 11:48:28**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0001	0.0010	0.0002	11:49:18	Yes
2	-0.050	-0.050	-0.0001	0.0011	0.0002	11:49:48	Yes
Mean:	-0.048	-0.048	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.622	4.622	22.49				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 96 **Autosampler Location: 82**
Sample ID: 246315002|951590|1 **Date Collected: 2/22/2010 11:50:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 246315002|951590|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.392	0.392	0.0055	0.0259	0.0058	11:50:59	Yes
2	0.393	0.393	0.0055	0.0259	0.0058	11:51:29	Yes
Mean:	0.392	0.392	0.0055				
SD:	0.000	0.000	0.0000				
%RSD:	0.024	0.024	0.02				

Sequence No.: 97 **Autosampler Location: 83**
Sample ID: 246315003|951590|1 **Date Collected: 2/22/2010 11:51:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246315003|951590|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.153	1.153	0.0151	0.0705	0.0154	11:52:41	Yes
2	1.142	1.142	0.0150	0.0688	0.0153	11:53:11	Yes
Mean:	1.147	1.147	0.0151				
SD:	0.008	0.008	0.0001				
%RSD:	0.668	0.668	0.65				

Sequence No.: 98 **Autosampler Location: 84**
Sample ID: 246322001|951590|1 **Date Collected: 2/22/2010 11:53:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 246322001|951590|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.027	-0.027	0.0001	0.0018	0.0005	11:54:23	Yes
2	-0.027	-0.027	0.0001	0.0018	0.0005	11:54:52	Yes
Mean:	-0.027	-0.027	0.0001				
SD:	0.001	0.001	0.0000				

Miscellaneous

Prep LogBook

Analyst: LYH1 Verified by:_____

Batch: 949355

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033973	UI062540-I	.508	g
MS	1202033971	UI100120-01	.25	mL
MS	1202033971	UI100120-06	.25	mL
MSD	1202033972	UI100120-01	.25	mL
MSD	1202033972	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033968		SW846 3050B	17-FEB-2010 10:50	<2	0.52 g	50 mL	96.15385	SOIL
LCS	1202033973		SW846 3050B	17-FEB-2010 10:50	<2	0.506 g	50 mL	98.81423	SOIL
SAMPLE	246066001		SW846 3050B	17-FEB-2010 10:50	<2	0.504 g	50 mL	99.20635	SOIL
DUP	1202033969	246066001	SW846 3050B	17-FEB-2010 10:50	<2	0.515 g	50 mL	97.08738	SOIL
SDILT	1202033970	246066001	SW846 3050B	17-FEB-2010 10:50	<2	0.504 g	50 mL	99.20635	SOIL
MS	1202033971	246066001	SW846 3050B	17-FEB-2010 10:50	<2	0.515 g	50 mL	97.08738	SOIL
MSD	1202033972	246066001	SW846 3050B	17-FEB-2010 10:50	<2	0.516 g	50 mL	96.89922	SOIL
SAMPLE	246066002		SW846 3050B	17-FEB-2010 10:50	<2	0.512 g	50 mL	97.65625	SOIL
SAMPLE	246066003		SW846 3050B	17-FEB-2010 10:50	<2	0.559 g	50 mL	89.44544	SOIL
SAMPLE	246066004		SW846 3050B	17-FEB-2010 10:50	<2	0.528 g	50 mL	94.69697	SOIL
SAMPLE	246066005		SW846 3050B	17-FEB-2010 10:50	<2	0.516 g	50 mL	96.89922	SOIL
SAMPLE	246066006		SW846 3050B	17-FEB-2010 10:50	<2	0.514 g	50 mL	97.27626	SOIL
SAMPLE	246066007		SW846 3050B	17-FEB-2010 10:50	<2	0.517 g	50 mL	96.7118	SOIL
SAMPLE	246066008		SW846 3050B	17-FEB-2010 10:50	<2	0.503 g	50 mL	99.40358	SOIL
SAMPLE	246066009		SW846 3050B	17-FEB-2010 10:50	<2	0.507 g	50 mL	98.61933	SOIL
SAMPLE	246066010		SW846 3050B	17-FEB-2010 10:50	<2	0.531 g	50 mL	94.16196	SOIL
SAMPLE	246066011		SW846 3050B	17-FEB-2010 10:50	<2	0.535 g	50 mL	93.45794	SOIL
SAMPLE	246066012		SW846 3050B	17-FEB-2010 10:50	<2	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246066013		SW846 3050B	17-FEB-2010 10:50	<2	0.538 g	50 mL	92.9368	SOIL
SAMPLE	246066014		SW846 3050B	17-FEB-2010 10:50	<2	0.543 g	50 mL	92.08103	SOIL
SAMPLE	246066015		SW846 3050B	17-FEB-2010 10:50	<2	0.507 g	50 mL	98.61933	SOIL
SAMPLE	246066016		SW846 3050B	17-FEB-2010 10:50	<2	0.526 g	50 mL	95.05703	SOIL
SAMPLE	246066017		SW846 3050B	17-FEB-2010 10:50	<2	0.506 g	50 mL	98.81423	SOIL
SAMPLE	246066018		SW846 3050B	17-FEB-2010 10:50	<2	0.532 g	50 mL	93.98496	SOIL
SAMPLE	246066019		SW846 3050B	17-FEB-2010 10:50	<2	0.502 g	50 mL	99.60159	SOIL
SAMPLE	246066020		SW846 3050B	17-FEB-2010 10:50	<2	0.51 g	50 mL	98.03922	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

1265209	10 mL	HYDROCHLORIC ACID	Comments
1234886	1.25 mL	Nitric Acid CONC.	

Prep LogBook

Analyst: LYH1 Verified by:_____

Batch: 949360

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033983	UI062540-MS	.508	g
MS	1202033981	UI042709-A	.5	mL
MS	1202033981	UI042709-B	.5	mL
MSD	1202033982	UI042709-A	.5	mL
MSD	1202033982	UI042709-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033978		SW846 3050B	17-FEB-2010 10:50	<2	0.511 g	50 mL	97.84736	SOIL
LCS	1202033983		SW846 3050B	17-FEB-2010 10:50	<2	0.503 g	50 mL	99.40358	SOIL
SAMPLE	246066001		SW846 3050B	17-FEB-2010 10:50	<2	0.537 g	50 mL	93.10987	SOIL
DUP	1202033979	246066001	SW846 3050B	17-FEB-2010 10:50	<2	0.529 g	50 mL	94.51796	SOIL
SDILT	1202033980	246066001	SW846 3050B	17-FEB-2010 10:50	<2	0.537 g	50 mL	93.10987	SOIL
MS	1202033981	246066001	SW846 3050B	17-FEB-2010 10:50	<2	0.511 g	50 mL	97.84736	SOIL
MSD	1202033982	246066001	SW846 3050B	17-FEB-2010 10:50	<2	0.52 g	50 mL	96.15385	SOIL
SAMPLE	246066002		SW846 3050B	17-FEB-2010 10:50	<2	0.544 g	50 mL	91.91176	SOIL
SAMPLE	246066003		SW846 3050B	17-FEB-2010 10:50	<2	0.513 g	50 mL	97.46589	SOIL
SAMPLE	246066004		SW846 3050B	17-FEB-2010 10:50	<2	0.532 g	50 mL	93.98496	SOIL
SAMPLE	246066005		SW846 3050B	17-FEB-2010 10:50	<2	0.505 g	50 mL	99.0099	SOIL
SAMPLE	246066006		SW846 3050B	17-FEB-2010 10:50	<2	0.548 g	50 mL	91.24088	SOIL
SAMPLE	246066007		SW846 3050B	17-FEB-2010 10:50	<2	0.513 g	50 mL	97.46589	SOIL
SAMPLE	246066008		SW846 3050B	17-FEB-2010 10:50	<2	0.536 g	50 mL	93.28358	SOIL
SAMPLE	246066009		SW846 3050B	17-FEB-2010 10:50	<2	0.531 g	50 mL	94.16196	SOIL
SAMPLE	246066010		SW846 3050B	17-FEB-2010 10:50	<2	0.537 g	50 mL	93.10987	SOIL
SAMPLE	246066011		SW846 3050B	17-FEB-2010 10:50	<2	0.529 g	50 mL	94.51796	SOIL
SAMPLE	246066012		SW846 3050B	17-FEB-2010 10:50	<2	0.53 g	50 mL	94.33962	SOIL
SAMPLE	246066013		SW846 3050B	17-FEB-2010 10:50	<2	0.511 g	50 mL	97.84736	SOIL
SAMPLE	246066014		SW846 3050B	17-FEB-2010 10:50	<2	0.522 g	50 mL	95.78544	SOIL
SAMPLE	246066015		SW846 3050B	17-FEB-2010 10:50	<2	0.53 g	50 mL	94.33962	SOIL
SAMPLE	246066016		SW846 3050B	17-FEB-2010 10:50	<2	0.508 g	50 mL	98.4252	SOIL
SAMPLE	246066017		SW846 3050B	17-FEB-2010 10:50	<2	0.514 g	50 mL	97.27626	SOIL
SAMPLE	246066018		SW846 3050B	17-FEB-2010 10:50	<2	0.532 g	50 mL	93.98496	SOIL
SAMPLE	246066019		SW846 3050B	17-FEB-2010 10:50	<2	0.508 g	50 mL	98.4252	SOIL
SAMPLE	246066020		SW846 3050B	17-FEB-2010 10:50	<2	0.562 g	50 mL	88.96797	SOIL

Reagent/Solvent Lot ID _____ Amount _____ Description _____

Prep LogBook

1250038-02	1.5 mL	Hydrogen Peroxide 30%	Comments
1230937	5 mL	Nitric Acid CONC.	

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 959910

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033983	UI062540-MS	.558	g
MS	1202033981	UI091015-A	.5	mL
MS	1202033981	UI091015-B	.5	mL
MSD	1202033982	UI091015-A	.5	mL
MSD	1202033982	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033978		SW846 3050B	02-MAR-2010 13:30	0.519 g	50 mL	96.33911	SOIL
LCS	1202033983		SW846 3050B	02-MAR-2010 13:30	0.558 g	50 mL	89.60573	SOIL
SAMPLE	246066001		SW846 3050B	02-MAR-2010 13:30	0.551 g	50 mL	90.7441	SOIL
DUP	1202033979	246066001	SW846 3050B	02-MAR-2010 13:30	0.548 g	50 mL	91.24088	SOIL
SDILT	1202033980	246066001	SW846 3050B	02-MAR-2010 13:30	0.551 g	50 mL	90.7441	SOIL
MS	1202033981	246066001	SW846 3050B	02-MAR-2010 13:30	0.528 g	50 mL	94.69697	SOIL
MSD	1202033982	246066001	SW846 3050B	02-MAR-2010 13:30	0.534 g	50 mL	93.63296	SOIL
SAMPLE	246066002		SW846 3050B	02-MAR-2010 13:30	0.578 g	50 mL	86.50519	SOIL
SAMPLE	246066003		SW846 3050B	02-MAR-2010 13:30	0.534 g	50 mL	93.63296	SOIL
SAMPLE	246066004		SW846 3050B	02-MAR-2010 13:30	0.573 g	50 mL	87.26003	SOIL
SAMPLE	246066005		SW846 3050B	02-MAR-2010 13:30	0.542 g	50 mL	92.25092	SOIL
SAMPLE	246066006		SW846 3050B	02-MAR-2010 13:30	0.564 g	50 mL	88.65248	SOIL
SAMPLE	246066007		SW846 3050B	02-MAR-2010 13:30	0.505 g	50 mL	99.0099	SOIL
SAMPLE	246066008		SW846 3050B	02-MAR-2010 13:30	0.546 g	50 mL	91.57509	SOIL
SAMPLE	246066009		SW846 3050B	02-MAR-2010 13:30	0.561 g	50 mL	89.12656	SOIL
SAMPLE	246066010		SW846 3050B	02-MAR-2010 13:30	0.588 g	50 mL	85.03401	SOIL
SAMPLE	246066011		SW846 3050B	02-MAR-2010 13:30	0.564 g	50 mL	88.65248	SOIL
SAMPLE	246066012		SW846 3050B	02-MAR-2010 13:30	0.597 g	50 mL	83.75209	SOIL
SAMPLE	246066013		SW846 3050B	02-MAR-2010 13:30	0.563 g	50 mL	88.80995	SOIL
SAMPLE	246066014		SW846 3050B	02-MAR-2010 13:30	0.592 g	50 mL	84.45946	SOIL
SAMPLE	246066015		SW846 3050B	02-MAR-2010 13:30	0.504 g	50 mL	99.20635	SOIL
SAMPLE	246066016		SW846 3050B	02-MAR-2010 13:30	0.561 g	50 mL	89.12656	SOIL
SAMPLE	246066017		SW846 3050B	02-MAR-2010 13:30	0.531 g	50 mL	94.16196	SOIL
SAMPLE	246066018		SW846 3050B	02-MAR-2010 13:30	0.592 g	50 mL	84.45946	SOIL
SAMPLE	246066019		SW846 3050B	02-MAR-2010 13:30	0.556 g	50 mL	89.92806	SOIL
SAMPLE	246066020		SW846 3050B	02-MAR-2010 13:30	0.553 g	50 mL	90.41591	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

1250038-02	1.5 mL	Hydrogen Peroxide 30%
1274969	5 mL	Nitric Acid CONC.

Comments The QC sample is a brown, clumpy soil with rocks.

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 956436

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202050831	UI062540-I	.505	g
MS	1202050833	UI100205-01	.25	mL
MS	1202050833	UI100205-06	.25	mL
MSD	1202050835	UI100205-01	.25	mL
MSD	1202050835	UI100205-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202050830		SW846 3050B	23-FEB-2010 10:00	0.505 g	50 mL	99.0099	SOIL
LCS	1202050831		SW846 3050B	23-FEB-2010 10:00	0.505 g	50 mL	99.0099	SOIL
SAMPLE	246066001		SW846 3050B	23-FEB-2010 10:00	0.504 g	50 mL	99.20635	SOIL
DUP	1202050832	246066001	SW846 3050B	23-FEB-2010 10:00	0.517 g	50 mL	96.7118	SOIL
MS	1202050833	246066001	SW846 3050B	23-FEB-2010 10:00	0.506 g	50 mL	98.81423	SOIL
MSD	1202050835	246066001	SW846 3050B	23-FEB-2010 10:00	0.506 g	50 mL	98.81423	SOIL
SDILT	1202050834	246066001	SW846 3050B	23-FEB-2010 10:00	0.504 g	50 mL	99.20635	SOIL
SAMPLE	246066002		SW846 3050B	23-FEB-2010 10:00	0.519 g	50 mL	96.33911	SOIL
SAMPLE	246066003		SW846 3050B	23-FEB-2010 10:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	246066004		SW846 3050B	23-FEB-2010 10:00	0.511 g	50 mL	97.84736	SOIL
SAMPLE	246066005		SW846 3050B	23-FEB-2010 10:00	0.5 g	50 mL	100	SOIL
SAMPLE	246066006		SW846 3050B	23-FEB-2010 10:00	0.505 g	50 mL	99.0099	SOIL
SAMPLE	246066007		SW846 3050B	23-FEB-2010 10:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	246066008		SW846 3050B	23-FEB-2010 10:00	0.516 g	50 mL	96.89922	SOIL
SAMPLE	246066009		SW846 3050B	23-FEB-2010 10:00	0.5 g	50 mL	100	SOIL
SAMPLE	246066010		SW846 3050B	23-FEB-2010 10:00	0.529 g	50 mL	94.51796	SOIL
SAMPLE	246066011		SW846 3050B	23-FEB-2010 10:00	0.5 g	50 mL	100	SOIL
SAMPLE	246066012		SW846 3050B	23-FEB-2010 10:00	0.507 g	50 mL	98.61933	SOIL
SAMPLE	246066013		SW846 3050B	23-FEB-2010 10:00	0.53 g	50 mL	94.33962	SOIL
SAMPLE	246066014		SW846 3050B	23-FEB-2010 10:00	0.514 g	50 mL	97.27626	SOIL
SAMPLE	246066015		SW846 3050B	23-FEB-2010 10:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246066016		SW846 3050B	23-FEB-2010 10:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	246066017		SW846 3050B	23-FEB-2010 10:00	0.506 g	50 mL	98.81423	SOIL
SAMPLE	246066018		SW846 3050B	23-FEB-2010 10:00	0.511 g	50 mL	97.84736	SOIL
SAMPLE	246066019		SW846 3050B	23-FEB-2010 10:00	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246066020		SW846 3050B	23-FEB-2010 10:00	0.508 g	50 mL	98.4252	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

1265209	10 mL	HYDROCHLORIC ACID
1268732	1.25 mL	Nitric Acid CONC.

Comments Sample 246066001 consist of brown, clumpy soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 951550

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202039296	UI031809A	.208	g
MS	1202039298	WHG100219-14	.3	mL
MSD	1202039300	WHG100219-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202039295		SW846 7471A Prep	19-FEB-2010 12:25	0.514 g	30 mL	58.36576	SOIL
LCS	1202039296		SW846 7471A Prep	19-FEB-2010 12:25	0.208 g	30 mL	144.23077	SOIL
SAMPLE	246066001		SW846 7471A Prep	19-FEB-2010 12:25	0.554 g	30 mL	54.15162	SOIL
DUP	1202039297	246066001	SW846 7471A Prep	19-FEB-2010 12:25	0.556 g	30 mL	53.95683	SOIL
MS	1202039298	246066001	SW846 7471A Prep	19-FEB-2010 12:25	0.531 g	30 mL	56.49718	SOIL
MSD	1202039300	246066001	SW846 7471A Prep	19-FEB-2010 12:25	0.59 g	30 mL	50.84746	SOIL
SDILT	1202039299	246066001	SW846 7471A Prep	19-FEB-2010 12:25	0.554 g	30 mL	54.15162	SOIL
SAMPLE	246066002		SW846 7471A Prep	19-FEB-2010 12:25	0.537 g	30 mL	55.86592	SOIL
SAMPLE	246066003		SW846 7471A Prep	19-FEB-2010 12:25	0.507 g	30 mL	59.1716	SOIL
SAMPLE	246066004		SW846 7471A Prep	19-FEB-2010 12:25	0.571 g	30 mL	52.5394	SOIL
SAMPLE	246066005		SW846 7471A Prep	19-FEB-2010 12:25	0.576 g	30 mL	52.08333	SOIL
SAMPLE	246066006		SW846 7471A Prep	19-FEB-2010 12:25	0.534 g	30 mL	56.17978	SOIL
SAMPLE	246066007		SW846 7471A Prep	19-FEB-2010 12:25	0.56 g	30 mL	53.57143	SOIL
SAMPLE	246066008		SW846 7471A Prep	19-FEB-2010 12:25	0.514 g	30 mL	58.36576	SOIL
SAMPLE	246066009		SW846 7471A Prep	19-FEB-2010 12:25	0.534 g	30 mL	56.17978	SOIL
SAMPLE	246066010		SW846 7471A Prep	19-FEB-2010 12:25	0.558 g	30 mL	53.76344	SOIL
SAMPLE	246066011		SW846 7471A Prep	19-FEB-2010 12:25	0.554 g	30 mL	54.15162	SOIL
SAMPLE	246066012		SW846 7471A Prep	19-FEB-2010 12:25	0.529 g	30 mL	56.71078	SOIL
SAMPLE	246066013		SW846 7471A Prep	19-FEB-2010 12:25	0.516 g	30 mL	58.13953	SOIL
SAMPLE	246066014		SW846 7471A Prep	19-FEB-2010 12:25	0.507 g	30 mL	59.1716	SOIL
SAMPLE	246066015		SW846 7471A Prep	19-FEB-2010 12:25	0.535 g	30 mL	56.07477	SOIL
SAMPLE	246066016		SW846 7471A Prep	19-FEB-2010 12:25	0.5 g	30 mL	60	SOIL
SAMPLE	246066017		SW846 7471A Prep	19-FEB-2010 12:25	0.521 g	30 mL	57.58157	SOIL
SAMPLE	246066018		SW846 7471A Prep	19-FEB-2010 12:25	0.521 g	30 mL	57.58157	SOIL
SAMPLE	246066019		SW846 7471A Prep	19-FEB-2010 12:25	0.518 g	30 mL	57.91506	SOIL
SAMPLE	246066020		SW846 7471A Prep	19-FEB-2010 12:25	0.531 g	30 mL	56.49718	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution

Comments. Sample 246066001 is a clumpy brown soil.
Digestion Start Date: 19-FEB-10 12:25
Digestion End Date: 19-FEB-10 12:55

Prep LogBook

1255532-C	2 mL	Hg reducing agent
WHG100219-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100219-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100219-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100219-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100219-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100219-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
949358	See Below		

Potentially affected work order(s)(SDG): 246066(10-1543)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Method Blank contamination

Failed Recovery for MSD/PSD

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202033971MS	1. The matrix spike recovery failed outside of the control limits for antimony, cobalt and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
2. Failed RPD for DUP: QC 1202033969DUP	2. The sample and sample duplicate % RPD failed outside the control limits for manganese due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
3. Failed RPD for MS/MSD, or PS/PSD: QC 1202033972MSD	3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for manganese due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
4. Failed Recovery for MSD/PSD: QC 1202033972MSD	4. The matrix spike duplicate recovery failed outside of the control limits for antimony, barium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
5. Method Blank contamination QC 1202033968MB	5. The MB failed high for aluminum,Manganese, and iron, however those analytes were present at concentrations more than ten times the amount in the MB.

Originator's Name:
Jerry Wigfall 23-FEB-10

Data Validator/Group Leader:
Eric Lawson 02-MAR-10

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 795492
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
956437	See Below		

Potentially affected work order(s)(SDG): 246066(10-1543)

Application Issues:

Failed Recovery for MS/PS

Container scanning event for custody missed

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:

1. Container scanning event for custody missed:

246066 001,002,003,004,005,006,007,008,009,

010,011,012,013,014,015,016,017,018,

019,020

DER Disposition:

1. The samples were in the custody of the analyst at the time of analysis. The samples were inadvertently not scanned in the LIMS system. Data reported as is.

Originator's Name:

Jerry Wigfall 24-FEB-10

Data Validator/Group Leader:

Louise Smith 26-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
02-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
949361	See Below		

Potentially affected work order(s)(SDG): 246066(10-1543)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:

1. Failed Recovery for MS/PS:

   QC 1202033981MS

2. Failed Recovery for MSD/PSD:

   QC 1202033982MSD

DER Disposition:

The matrix spike recovery failed outside of the control limits for As and Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

The matrix spike duplicate recovery failed outside of the control limits for As, Ni and Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 02-MAR-10

Data Validator/Group Leader:

Paul Boyd 02-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI042709-A **Opened:** 27-APR-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-APR-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-APR-10
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI042709-B **Opened:** 27-APR-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 27-APR-09 **Lot Number :** 1015749
Type: Source Material **Expires:** 27-APR-10
Employee: Bryan Davis
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Standard Logbook

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Standard Logbook

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID:	UI090828-42	**Opened:**	16-SEP-09	**Amount :**	500 mL
Name:	TRACE ICP Na-1000SOUR	**Received:**	27-AUG-09	**Catalog Number :**	060011-02-03
Type:	Source Material	**Expires:**	01-MAR-10	**Lot Number :**	1017098
Employee:	Helen Camello			**Solvent :**	1%HNO3
Supplier:	02SI				
Description:	Sodium 1000 +/- 3 ug/mL in 1% HNO3				

Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6

Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Standard Logbook

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L

Analyte	Concentration	Analyte	Concentration
Zirconium	20 mg/L		

Serial ID: UI091217-12
Name: ICP-MS ICSAB Master B
Type: Source Material
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Opened: 17-DEC-09
Received: 17-DEC-09
Expires: 17-DEC-10

Amount : 250 mL
Catalog Number : 160033-02
Lot Number : 1018212
Solvent : +/- 0.5% in 2% HNO3

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13
Name: ICP-MS ICSAB Master C
Type: Source Material
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Opened: 17-DEC-09
Received: 17-DEC-09
Expires: 17-DEC-10

Amount : 250 mL
Catalog Number : 160033-03
Lot Number : 1016926
Solvent : +/- 0.5% in 2% HNO3

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01
Name: METALSPIKE-1
Type: Source Material
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Opened: 20-JAN-10
Received: 20-JAN-10
Expires: 20-JAN-11

Lot Number : 1018095

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-MAR-10 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L

Analyte	Concentration	Analyte	Concentration
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100217-49.3 **Opened:** 20-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 15-AUG-10 **Lot Number :** 1018879
Employee: Louise Smith **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100217-49.5 **Opened:** 23-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 17-FEB-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 24-FEB-10 **Lot Number :** 1018879
Employee: Helen Carnello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Standard Logbook

Serial ID: IHG100219-01 **Opened:** 19-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 19-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 20-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100219-02 **Opened:** 19-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 20-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100219-07 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100219-08 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Standard Logbook

Serial ID: WHG100219-09 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100219-10 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100219-11 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100219-12 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100219-14 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100220-42 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100220-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100220-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100220-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100220-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100220-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100220-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100220-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100220-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100220-43 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100220-44 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1270010
Employee: Louise Smith
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100220-45 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1270010
Employee: Louise Smith
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100220-46 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1270010
Employee: Louise Smith
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100220-47 **Opened:** 20-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-10 **Pipet Id :** 3581809
Type: Working **Expires:** 21-FEB-10 **Solvent :** 3%HCL &1%HNO3-1270010
Employee: Louise Smith
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100223-42 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100223-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100223-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100223-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100223-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100223-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100223-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100223-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100223-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100223-43 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100223-44 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1272839
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100223-45 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100223-46 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1272839
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100223-47 **Opened:** 23-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 24-FEB-10 **Solvent :** 3%HCL &1%HNO3-1272839
Employee: Helen Carnello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100302-04 **Opened:** 02-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 02-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 03-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100302-04A **Opened:** 02-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 02-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100302-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100302-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100302-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100302-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100302-05 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 02-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100302-06
Name: ICPMS CRDL
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Opened: 02-MAR-10
Received: 02-MAR-10
Expires: 03-MAR-10

Balance Id : 40245216
Pipet Id : 3820544
Solvent : 2%HNO3/1%HCl - 1276824

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100302-07 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 02-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 03-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100302-08 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 02-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100303-04B **Opened:** 03-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 03-MAR-10 **Balance Id :** 40245216
Type: Working **Expires:** 04-MAR-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100304-04 **Opened:** 04-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 04-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 05-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100304-04A **Opened:** 04-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 04-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 05-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100303-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100303-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100303-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100303-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100303-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100303-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100304-05 **Opened:** 04-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 04-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 05-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100304-06 **Opened:** 04-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 04-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 05-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100304-07 **Opened:** 04-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 04-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 05-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100304-08 **Opened:** 04-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 04-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 05-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.

Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1230937 **Opened:** 18-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 18-NOV-09
Type: Reagent/Solvent **Expires:** 18-NOV-10
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Comments: None

Serial ID: 1268732 **Opened:** 11-FEB-10 **Lot Number :** H12022 L
Name: I-HNO3 **Received:** 11-FEB-10
Type: Reagent/Solvent **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1270010 **Opened:** 15-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1272839 **Opened:** 22-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1274969 **Opened:** 24-FEB-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1276824 **Opened:** 01-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 08-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1543

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948330, 948946 and 948949	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948329, 948945 and 948948	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246066001	RE15-10-8129
246066002	RE15-10-8131
246066003	RE15-10-8130
246066004	RE15-10-8127
246066005	RE15-10-8128
246066006	RE15-10-8126
246066007	RE15-10-8140
246066008	RE15-10-8147
246066009	RE15-10-8142
246066010	RE15-10-8146
246066011	RE15-10-8136
246066012	RE15-10-8139
246066013	RE15-10-8134
246066014	RE15-10-8137
246066015	RE15-10-8143
246066016	RE15-10-8138
246066017	RE15-10-8145
246066018	RE15-10-8141
246066019	RE15-10-8135
246066020	RE15-10-8144
1202031536	Method Blank (MB)
1202031540	Laboratory Control Sample (LCS)
1202033017	Method Blank (MB)
1202033018	246012007(RE46-10-12028) Sample Duplicate (DUP)
1202033019	246012008(RE46-10-12029) Sample Duplicate (DUP)
1202033020	246012007(RE46-10-12028) Matrix Spike (MS)
1202033021	246012008(RE46-10-12029) Matrix Spike (MS)
1202033022	246012007(RE46-10-12028) Matrix Spike Duplicate (MSD)
1202033023	246012008(RE46-10-12029) Matrix Spike Duplicate (MSD)
1202033024	Laboratory Control Sample (LCS)
1202033025	246058001(RE46-10-12041) Sample Duplicate (DUP)
1202033026	246058001(RE46-10-12041) Matrix Spike (MS)
1202033027	246058001(RE46-10-12041) Matrix Spike Duplicate (MSD)
1202033028	Method Blank (MB)
1202033029	246066014(RE15-10-8137) Sample Duplicate (DUP)
1202033030	246066015(RE15-10-8143) Sample Duplicate (DUP)
1202033031	246066014(RE15-10-8137) Matrix Spike (MS)
1202033032	246066015(RE15-10-8143) Matrix Spike (MS)
1202033033	246066014(RE15-10-8137) Matrix Spike Duplicate (MSD)
1202033034	246066015(RE15-10-8143) Matrix Spike Duplicate (MSD)
1202033035	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 246058001 (RE46-10-12041)- Batch 948330, 246012007 (RE46-10-12028), 246012008 (RE46-10-12029)- Batch 948946, 246066014 (RE15-10-8137) and 246066015 (RE15-10-8143)- Batch 948949.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202033020 (RE46-10-12028)- Batch 948946. The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202033031 (RE15-10-8137)- Batch 948949.

Matrix Spike Duplicate (MSD) Recovery Statement

The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202033033 (RE15-10-8137)- Batch 948949.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033029 (RE15-10-8137), 1202033030 (RE15-10-8143), 246066014 (RE15-10-8137) and 246066015 (RE15-10-8143)- Batch 948949.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202031540 (LCS)- Batch 948330, 1202033024 (LCS)- Batch 948946 and 1202033035 (LCS)- Batch 948949.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DERs were generated for this SDG: 791229 791230 1202033020 (RE46-10-12028)- Batch 948946.
The following DER was generated for this SDG: 791246 1202033031 (RE15-10-8137) and 1202033033 (RE15-10-8137)- Batch 948949.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ **Date:** **02March10**

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1543 GEL Work Order: 246066

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8129
Sample ID: 246066001
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 13.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	71.4	262	ug/kg	1	AXC2	02/12/10	1308	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8131
Sample ID: 246066002
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 17.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	70.9	261	ug/kg	1	AXC2	02/12/10	1309	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8130	Project:	LANL01004
Sample ID:	246066003	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	22.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.8	279	ug/kg	1	AXC2 02/12/10	1310	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8127	Project:	LANL01004
Sample ID:	246066004	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	74.9	275	ug/kg	1	AXC2 02/12/10	1311	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8128
Sample ID: 246066005
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 16.3%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.5	267	ug/kg	1	AXC2 02/12/10	1312	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8126	Project:	LANL01004
Sample ID:	246066006	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	18.2%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.0	283	ug/kg	1	AXC2 02/12/10	1312	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8140
Sample ID: 246066007
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 13.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	73.9	272	ug/kg	1	AXC2	02/12/10	1506	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8147
Sample ID: 246066008
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 36.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	91.9	338	ug/kg	1	AXC2 02/12/10	1507	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8142	Project:	LANL01004
Sample ID:	246066009	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	20.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	85.9	316	ug/kg	1	AXC2	02/12/10	1511	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8146	Project:	LANL01004
Sample ID:	246066010	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.0	302	ug/kg	1	AXC2 02/12/10	1512	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8136	Project:	LANL01004
Sample ID:	246066011	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.7	282	ug/kg	1	AXC2 02/12/10	1513	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8139	Project:	LANL01004
Sample ID:	246066012	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	7.44%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	73.5	270	ug/kg	1	AXC2	02/12/10	1514	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8134	Project:	LANL01004
Sample ID:	246066013	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	77.7	286	ug/kg	1	AXC2	02/12/10	1515	948330	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1241	948329

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8137
Sample ID: 246066014
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 16.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	81.2	298	ug/kg	1	AXC2 02/12/10	1519	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8143
Sample ID: 246066015
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 10.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	76.1	280	ug/kg	1	AXC2	02/12/10	1526	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8138
Sample ID: 246066016
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 10.2%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	75.7	278	ug/kg	1	AXC2 02/12/10	1529	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8145
Sample ID: 246066017
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 6.07%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	72.4	266	ug/kg	1	AXC2	02/12/10	1530	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8141
Sample ID: 246066018
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 12.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	77.8	286	ug/kg	1	AXC2	02/12/10	1531	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID: RE15-10-8135
Sample ID: 246066019
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 10.9%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.3	281	ug/kg	1	AXC2 02/12/10	1532	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1543

Client Sample ID:	RE15-10-8144	Project:	LANL01004
Sample ID:	246066020	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	32.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	J	136	101	371	ug/kg	1	AXC2	02/12/10	1537	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

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QC Summary

Report Date: February 24, 2010
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Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 246066

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948330										
QC1202033025 246058001 DUP										
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/12/10 14:54
QC1202031540 LCS										
Cyanide, Total	67900				78000	ug/kg		115	(32%-157%)	02/12/10 14:41
QC1202031536 MB										
Cyanide, Total				U	250	ug/kg				02/12/10 14:40
QC1202033026 246058001 MS										
Cyanide, Total	5720	U	ND		5890	ug/kg		103	(26%-158%)	02/12/10 14:59
QC1202033027 246058001 MSD										
Cyanide, Total	5400	U	ND		5070	ug/kg	14.9	94	(0%-30%)	02/12/10 15:00
Batch 948946										
QC1202033018 246012007 DUP										
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/12/10 12:44
QC1202033019 246012008 DUP										
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/12/10 12:48
QC1202033024 LCS										
Cyanide, Total	67900				39300	ug/kg		57.8	(32%-157%)	02/12/10 12:42
QC1202033017 MB										
Cyanide, Total				U	250	ug/kg				02/12/10 12:41
QC1202033020 246012007 MS										
Cyanide, Total	4940	U	ND		3350	ug/kg		67.8	(26%-158%)	02/12/10 12:45
QC1202033021 246012008 MS										
Cyanide, Total	4830	U	ND		4230	ug/kg		87.6	(26%-158%)	02/12/10 12:49
QC1202033022 246012007 MSD										
Cyanide, Total	5030	U	ND		4170	ug/kg	21.9	82.9	(0%-30%)	02/12/10 12:46
QC1202033023 246012008 MSD										
Cyanide, Total	5220	U	ND		4410	ug/kg	4.09	84.5	(0%-30%)	02/12/10 12:49
Batch 948949										
QC1202033029 246066014 DUP										
Cyanide, Total		U	ND	U	ND	ug/kg	N/A		AXC2	02/12/10 15:20
QC1202033030 246066015 DUP										
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			02/12/10 15:27
QC1202033035 LCS										
Cyanide, Total	67900				43300	ug/kg		63.7	(32%-157%)	02/12/10 15:18
QC1202033028 MB										
Cyanide, Total				U	250	ug/kg				02/12/10 15:17
QC1202033031 246066014 MS										
Cyanide, Total	5970	U	ND		3030	ug/kg		50.7	(26%-158%)	02/12/10 15:24
QC1202033032 246066015 MS										
Cyanide, Total	5590	U	ND		4970	ug/kg		88.8	(26%-158%)	02/12/10 15:28
QC1202033033 246066014 MSD										
Cyanide, Total	5970	U	ND		3470	ug/kg	13.8	58.2	(0%-30%)	02/12/10 15:25
QC1202033034 246066015 MSD										

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 246066

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Flow Injection Analysis											
Batch 948949											
Cyanide, Total	5590	U	ND	5100	ug/kg	2.44	91	(0%-30%)		02/12/10	15:29

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- h Preparation or preservation holding time was exceeded

QC Summary

Workorder: **246066**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-FEB-2010 12:27

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1543

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**12-FEB-2010 12:36:27**	**OM_2-12-2010_12-28-33**	**138**	**150**	**92**	**(90%-110%)**	**Yes**
CCV	12-FEB-2010 12:50:44	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 13:03:08	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 13:15:31	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 14:30:33	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 14:43:10	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 14:55:44	OM_2-12-2010_12-28-33	103	100	103	(90%-110%)	Yes
CCV	12-FEB-2010 15:08:19	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 15:21:00	OM_2-12-2010_12-28-33	101	100	101	(90%-110%)	Yes
CCV	12-FEB-2010 15:33:36	OM_2-12-2010_12-28-33	101	100	101	(90%-110%)	Yes
CCV	12-FEB-2010 15:46:16	OM_2-12-2010_12-28-33	101	100	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**12-FEB-2010 12:38:17**	**OM_2-12-2010_12-28-33**	**-1.76**	**10**	**Yes**
CCB	12-FEB-2010 12:52:34	OM_2-12-2010_12-28-33	-1.77	10	Yes
CCB	12-FEB-2010 13:04:59	OM_2-12-2010_12-28-33	-1.83	10	Yes
CCB	12-FEB-2010 13:17:22	OM_2-12-2010_12-28-33	-1.94	10	Yes
CCB	12-FEB-2010 14:32:23	OM_2-12-2010_12-28-33	-1.9	10	Yes
CCB	12-FEB-2010 14:45:00	OM_2-12-2010_12-28-33	-1.81	10	Yes
CCB	12-FEB-2010 14:57:35	OM_2-12-2010_12-28-33	1.33	10	Yes
CCB	12-FEB-2010 15:10:09	OM_2-12-2010_12-28-33	1.87	10	Yes
CCB	12-FEB-2010 15:22:50	OM_2-12-2010_12-28-33	0.945	10	Yes
CCB	12-FEB-2010 15:35:27	OM_2-12-2010_12-28-33	1.5	10	Yes
CCB	12-FEB-2010 15:48:06	OM_2-12-2010_12-28-33	1.5	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948329

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202031540	URF1200957-01	.25	g
MS	1202031538	URF1184831-02	.025	mL
MS	1202033026	URF1184831-02	.025	mL
MSD	1202031539	URF1184831-02	.025	mL
MSD	1202033027	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202031536		SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOLID
LCS	1202031540		SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.25 g	25 mL	100	SOLID
SAMPLE	245957001		SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.54 g	25 mL	46.2963	SOLID
DUP	1202031537	245957001	SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.56 g	25 mL	44.64286	SOLID
MS	1202031538	245957001	SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.53 g	25 mL	47.16981	SOLID
MSD	1202031539	245957001	SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.55 g	25 mL	45.45455	SOLID
SAMPLE	245957002		SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.51 g	25 mL	49.01961	SOLID
SAMPLE	245957003		SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.52 g	25 mL	48.07692	SOLID
SAMPLE	245957004		SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOLID
SAMPLE	245957005		SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOLID
SAMPLE	245957006		SW846 9010C Distillation	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOLID
SAMPLE	246058001		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOIL
DUP	1202033025	246058001	SW846 9010B Prep	12-FEB-2010 12:41	>12	0.51 g	25 mL	49.01961	SOIL
MS	1202033026	246058001	SW846 9010B Prep	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOIL
MSD	1202033027	246058001	SW846 9010B Prep	12-FEB-2010 12:41	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246058002		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246058003		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246060001		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246060002		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246062001		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246062002		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246066007		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246066008		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246066009		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066010		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066011		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066012		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066013		SW846 9010B Prep	12-FEB-2010 12:41	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
I00210-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100212-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948948

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033035	URF1200957-01	.25	g
MS	1202033031	URF1184831-02	.025	mL
MS	1202033032	URF1184831-02	.025	mL
MSD	1202033033	URF1184831-02	.025	mL
MSD	1202033034	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033028		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
LCS	1202033035		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.25 g	25 mL	100	SOIL
SAMPLE	246066014		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
DUP	1202033029	246066014	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
MS	1202033031	246066014	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
MSD	1202033033	246066014	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066015		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
DUP	1202033030	246066015	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
MS	1202033032	246066015	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
MSD	1202033034	246066015	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066016		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066017		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066018		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066019		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066020		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070001		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070002		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070003		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070004		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070005		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070006		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070007		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070008		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070009		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070010		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070011		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070012		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070013		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
100210-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100212-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948945

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033024	URF1200957-01	.25	g
MS	1202033020	URF1184831-02	.025	mL
MS	1202033021	URF1184831-02	.025	mL
MSD	1202033022	URF1184831-02	.025	mL
MSD	1202033023	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033017		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.5 g	25 mL	50	SOIL
LCS	1202033024		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.25 g	25 mL	100	SOIL
SAMPLE	246012007		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202033018	246012007	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202033020	246012007	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202033022	246012007	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246012008		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL
DUP	1202033019	246012008	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.55 g	25 mL	45.45455	SOIL
MS	1202033021	246012008	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202033023	246012008	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246012009		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246012010		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246012011		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246055001		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.59 g	25 mL	42.37288	SOIL
SAMPLE	246055002		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246055003		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246055004		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246055005		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246055006		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246055007		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246055008		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246055009		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246066001		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246066002		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246066003		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246066004		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246066005		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	246066006		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
100210-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100211-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/12/2010 12:29:18	OM_2-12-2010_12-28-33
150 ppb		1	axc2	2/12/2010 12:30:11	OM_2-12-2010_12-28-33
100 ppb		1	axc2	2/12/2010 12:31:03	OM_2-12-2010_12-28-33
50 ppb		1	axc2	2/12/2010 12:31:56	OM_2-12-2010_12-28-33
10 ppb		1	axc2	2/12/2010 12:32:49	OM_2-12-2010_12-28-33
CRDL 5.0 ppb		1	axc2	2/12/2010 12:33:43	OM_2-12-2010_12-28-33
ICAL-00		1	axc2	2/12/2010 12:34:37	OM_2-12-2010_12-28-33
ICV		1	axc2	2/12/2010 12:36:27	OM_2-12-2010_12-28-33
ICB		1	axc2	2/12/2010 12:38:17	OM_2-12-2010_12-28-33
		1	axc2	2/12/2010 12:40:07	OM_2-12-2010_12-28-33
1202033017	948946	1	axc2	2/12/2010 12:41:56	OM_2-12-2010_12-28-33
1202033024	948946	25	axc2	2/12/2010 12:42:50	OM_2-12-2010_12-28-33
246012007	948946	1	axc2	2/12/2010 12:43:43	OM_2-12-2010_12-28-33
1202033018	948946	1	axc2	2/12/2010 12:44:36	OM_2-12-2010_12-28-33
1202033020	948946	1	axc2	2/12/2010 12:45:29	OM_2-12-2010_12-28-33
1202033022	948946	1	axc2	2/12/2010 12:46:22	OM_2-12-2010_12-28-33
246012008	948946	1	axc2	2/12/2010 12:47:15	OM_2-12-2010_12-28-33
1202033019	948946	1	axc2	2/12/2010 12:48:07	OM_2-12-2010_12-28-33
1202033021	948946	1	axc2	2/12/2010 12:49:00	OM_2-12-2010_12-28-33
1202033023	948946	1	axc2	2/12/2010 12:49:52	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 12:50:44	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 12:52:34	OM_2-12-2010_12-28-33
246012009	948946	1	axc2	2/12/2010 12:54:22	OM_2-12-2010_12-28-33
246012010	948946	1	axc2	2/12/2010 12:55:14	OM_2-12-2010_12-28-33
246012011	948946	1	axc2	2/12/2010 12:56:06	OM_2-12-2010_12-28-33
246055001	948946	1	axc2	2/12/2010 12:56:58	OM_2-12-2010_12-28-33
246055002	948946	1	axc2	2/12/2010 12:57:50	OM_2-12-2010_12-28-33
246055003	948946	1	axc2	2/12/2010 12:58:43	OM_2-12-2010_12-28-33
246055004	948946	1	axc2	2/12/2010 12:59:37	OM_2-12-2010_12-28-33
246055005	948946	1	axc2	2/12/2010 13:00:30	OM_2-12-2010_12-28-33
246055006	948946	1	axc2	2/12/2010 13:01:23	OM_2-12-2010_12-28-33
246055007	948946	1	axc2	2/12/2010 13:02:16	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:03:08	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:04:59	OM_2-12-2010_12-28-33
246055008	948946	1	axc2	2/12/2010 13:06:48	OM_2-12-2010_12-28-33
246055009*	948946	1	axc2	2/12/2010 13:07:41	OM_2-12-2010_12-28-33
246066001	948946	1	axc2	2/12/2010 13:08:34	OM_2-12-2010_12-28-33
246066002	948946	1	axc2	2/12/2010 13:09:27	OM_2-12-2010_12-28-33
246066003	948946	1	axc2	2/12/2010 13:10:18	OM_2-12-2010_12-28-33
246066004	948946	1	axc2	2/12/2010 13:11:11	OM_2-12-2010_12-28-33
246066005	948946	1	axc2	2/12/2010 13:12:03	OM_2-12-2010_12-28-33
246066006	948946	1	axc2	2/12/2010 13:12:55	OM_2-12-2010_12-28-33
1202036012	950194	1	axc2	2/12/2010 13:13:47	OM_2-12-2010_12-28-33
1202036019	950194	25	axc2	2/12/2010 13:14:39	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:15:31	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:17:22	OM_2-12-2010_12-28-33
246055009	948946	1	axc2	2/12/2010 13:19:11	OM_2-12-2010_12-28-33
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246280005	950194	1	axc2	2/12/2010 13:20:59	OM_2-12-2010_12-28-33
246280006	950194	1	axc2	2/12/2010 13:21:52	OM_2-12-2010_12-28-33
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1202036015	950194	1	axc2	2/12/2010 13:23:39	OM_2-12-2010_12-28-33
1202036017	950194	1	axc2	2/12/2010 13:24:32	OM_2-12-2010_12-28-33
246280007	950194	1	axc2	2/12/2010 13:25:25	OM_2-12-2010_12-28-33
1202036014	950194	1	axc2	2/12/2010 13:26:18	OM_2-12-2010_12-28-33
1202036016	950194	1	axc2	2/12/2010 13:27:11	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:28:04	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:29:53	OM_2-12-2010_12-28-33

1202036018	950194	1	axc2	2/12/2010	13:31:43	OM_2-12-2010_12-28-33
246280008	950194	1	axc2	2/12/2010	13:32:35	OM_2-12-2010_12-28-33
246280009	950194	1	axc2	2/12/2010	13:33:28	OM_2-12-2010_12-28-33
246280010	950194	1	axc2	2/12/2010	13:34:20	OM_2-12-2010_12-28-33
246291001	950194	1	axc2	2/12/2010	13:35:12	OM_2-12-2010_12-28-33
246291002	950194	1	axc2	2/12/2010	13:36:04	OM_2-12-2010_12-28-33
246291003	950194	1	axc2	2/12/2010	13:36:58	OM_2-12-2010_12-28-33
246291004	950194	1	axc2	2/12/2010	13:37:52	OM_2-12-2010_12-28-33
246291005	950194	1	axc2	2/12/2010	13:38:46	OM_2-12-2010_12-28-33
246291006	950194	1	axc2	2/12/2010	13:39:40	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	13:40:32	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	13:42:22	OM_2-12-2010_12-28-33
246291007	950194	1	axc2	2/12/2010	13:44:12	OM_2-12-2010_12-28-33
246291008	950194	1	axc2	2/12/2010	13:45:05	OM_2-12-2010_12-28-33
246305001	950194	1	axc2	2/12/2010	13:45:59	OM_2-12-2010_12-28-33
246305002	950194	1	axc2	2/12/2010	13:46:51	OM_2-12-2010_12-28-33
246305003	950194	1	axc2	2/12/2010	13:47:43	OM_2-12-2010_12-28-33
246305004	950194	1	axc2	2/12/2010	13:48:36	OM_2-12-2010_12-28-33
246312001	950194	1	axc2	2/12/2010	13:49:30	OM_2-12-2010_12-28-33
1202036056	950207	1	axc2	2/12/2010	13:50:21	OM_2-12-2010_12-28-33
1202036069	950207	1	axc2	2/12/2010	13:51:14	OM_2-12-2010_12-28-33
246191004	950207	1	axc2	2/12/2010	13:52:06	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	13:52:58	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	13:54:48	OM_2-12-2010_12-28-33
1202036058	950207	1	axc2	2/12/2010	13:56:36	OM_2-12-2010_12-28-33
1202036062	950207	1	axc2	2/12/2010	13:57:30	OM_2-12-2010_12-28-33
1202036066	950207	1	axc2	2/12/2010	13:58:25	OM_2-12-2010_12-28-33
246304002	950207	1	axc2	2/12/2010	13:59:20	OM_2-12-2010_12-28-33
1202036059	950207	1	axc2	2/12/2010	14:00:12	OM_2-12-2010_12-28-33
1202036063	950207	1	axc2	2/12/2010	14:01:07	OM_2-12-2010_12-28-33
1202036067*	950207	1	axc2	2/12/2010	14:01:59	OM_2-12-2010_12-28-33
246304003	950207	1	axc2	2/12/2010	14:02:53	OM_2-12-2010_12-28-33
246352001	950207	1	axc2	2/12/2010	14:03:46	OM_2-12-2010_12-28-33
246352003	950207	1	axc2	2/12/2010	14:04:39	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:05:32	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:07:23	OM_2-12-2010_12-28-33
246364002	950207	1	axc2	2/12/2010	14:09:11	OM_2-12-2010_12-28-33
246364003	950207	1	axc2	2/12/2010	14:10:04	OM_2-12-2010_12-28-33
246419002	950207	1	axc2	2/12/2010	14:10:57	OM_2-12-2010_12-28-33
1202036057	950207	1	axc2	2/12/2010	14:11:49	OM_2-12-2010_12-28-33
1202036061	950207	1	axc2	2/12/2010	14:12:42	OM_2-12-2010_12-28-33
1202036065	950207	1	axc2	2/12/2010	14:13:34	OM_2-12-2010_12-28-33
246431001	950207	1	axc2	2/12/2010	14:14:29	OM_2-12-2010_12-28-33
246431002	950207	1	axc2	2/12/2010	14:15:22	OM_2-12-2010_12-28-33
246431003	950207	1	axc2	2/12/2010	14:16:17	OM_2-12-2010_12-28-33
246431004	950207	1	axc2	2/12/2010	14:17:10	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:18:03	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:19:53	OM_2-12-2010_12-28-33
246472002	950207	1	axc2	2/12/2010	14:21:43	OM_2-12-2010_12-28-33
1202036060	950207	1	axc2	2/12/2010	14:22:36	OM_2-12-2010_12-28-33
1202036064	950207	1	axc2	2/12/2010	14:23:30	OM_2-12-2010_12-28-33
1202036068	950207	1	axc2	2/12/2010	14:24:23	OM_2-12-2010_12-28-33
246474001	950207	1	axc2	2/12/2010	14:25:16	OM_2-12-2010_12-28-33
246476001	950207	1	axc2	2/12/2010	14:26:09	OM_2-12-2010_12-28-33
246480001	950207	1	axc2	2/12/2010	14:27:02	OM_2-12-2010_12-28-33
1202033014	948944	1	axc2	2/12/2010	14:27:55	OM_2-12-2010_12-28-33
1202033015	948944	1	axc2	2/12/2010	14:28:48	OM_2-12-2010_12-28-33
1202033016	948944	1	axc2	2/12/2010	14:29:40	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:30:33	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:32:23	OM_2-12-2010_12-28-33

246114001	948944	1	axc2	2/12/2010	14:34:11	OM_2-12-2010_12-28-33
246114002	948944	1	axc2	2/12/2010	14:35:05	OM_2-12-2010_12-28-33
246114003	948944	1	axc2	2/12/2010	14:36:00	OM_2-12-2010_12-28-33
246114004	948944	1	axc2	2/12/2010	14:36:54	OM_2-12-2010_12-28-33
246114005	948944	1	axc2	2/12/2010	14:37:48	OM_2-12-2010_12-28-33
246114006	948944	1	axc2	2/12/2010	14:38:42	OM_2-12-2010_12-28-33
246114007	948944	1	axc2	2/12/2010	14:39:37	OM_2-12-2010_12-28-33
1202031536	948330	1	axc2	2/12/2010	14:40:30	OM_2-12-2010_12-28-33
1202031540	948330	25	axc2	2/12/2010	14:41:24	OM_2-12-2010_12-28-33
245957001	948330	1	axc2	2/12/2010	14:42:18	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:43:10	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:45:00	OM_2-12-2010_12-28-33
1202031537	948330	1	axc2	2/12/2010	14:46:50	OM_2-12-2010_12-28-33
1202031538	948330	1	axc2	2/12/2010	14:47:43	OM_2-12-2010_12-28-33
1202031539	948330	1	axc2	2/12/2010	14:48:36	OM_2-12-2010_12-28-33
245957002	948330	1	axc2	2/12/2010	14:49:28	OM_2-12-2010_12-28-33
245957003	948330	1	axc2	2/12/2010	14:50:22	OM_2-12-2010_12-28-33
245957004	948330	1	axc2	2/12/2010	14:51:14	OM_2-12-2010_12-28-33
245957005	948330	1	axc2	2/12/2010	14:52:09	OM_2-12-2010_12-28-33
245957006	948330	1	axc2	2/12/2010	14:53:03	OM_2-12-2010_12-28-33
246058001	948330	1	axc2	2/12/2010	14:53:58	OM_2-12-2010_12-28-33
1202033025	948330	1	axc2	2/12/2010	14:54:52	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:55:44	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:57:35	OM_2-12-2010_12-28-33
1202033026	948330	1	axc2	2/12/2010	14:59:25	OM_2-12-2010_12-28-33
1202033027	948330	1	axc2	2/12/2010	15:00:20	OM_2-12-2010_12-28-33
246058002	948330	1	axc2	2/12/2010	15:01:13	OM_2-12-2010_12-28-33
246058003	948330	1	axc2	2/12/2010	15:02:07	OM_2-12-2010_12-28-33
246060001	948330	1	axc2	2/12/2010	15:03:01	OM_2-12-2010_12-28-33
246060002	948330	1	axc2	2/12/2010	15:03:54	OM_2-12-2010_12-28-33
246062001	948330	1	axc2	2/12/2010	15:04:48	OM_2-12-2010_12-28-33
246062002	948330	1	axc2	2/12/2010	15:05:41	OM_2-12-2010_12-28-33
246066007	948330	1	axc2	2/12/2010	15:06:34	OM_2-12-2010_12-28-33
246066008	948330	1	axc2	2/12/2010	15:07:27	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:08:19	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:10:09	OM_2-12-2010_12-28-33
246066009	948330	1	axc2	2/12/2010	15:11:58	OM_2-12-2010_12-28-33
246066010	948330	1	axc2	2/12/2010	15:12:53	OM_2-12-2010_12-28-33
246066011	948330	1	axc2	2/12/2010	15:13:48	OM_2-12-2010_12-28-33
246066012	948330	1	axc2	2/12/2010	15:14:43	OM_2-12-2010_12-28-33
246066013	948330	1	axc2	2/12/2010	15:15:37	OM_2-12-2010_12-28-33
246114007	948944	5	axc2	2/12/2010	15:16:31	OM_2-12-2010_12-28-33
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246066014	948949	1	axc2	2/12/2010	15:19:14	OM_2-12-2010_12-28-33
1202033029	948949	1	axc2	2/12/2010	15:20:08	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:21:00	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:22:50	OM_2-12-2010_12-28-33
1202033031	948949	1	axc2	2/12/2010	15:24:40	OM_2-12-2010_12-28-33
1202033033	948949	1	axc2	2/12/2010	15:25:34	OM_2-12-2010_12-28-33
246066015	948949	1	axc2	2/12/2010	15:26:27	OM_2-12-2010_12-28-33
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246066016	948949	1	axc2	2/12/2010	15:29:59	OM_2-12-2010_12-28-33
246066017	948949	1	axc2	2/12/2010	15:30:54	OM_2-12-2010_12-28-33
246066018	948949	1	axc2	2/12/2010	15:31:49	OM_2-12-2010_12-28-33
246066019	948949	1	axc2	2/12/2010	15:32:44	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:33:36	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:35:27	OM_2-12-2010_12-28-33

246066020	948949	1	axc2	2/12/2010	15:37:18	OM_2-12-2010_12-28-33
246070001	948949	1	axc2	2/12/2010	15:38:12	OM_2-12-2010_12-28-33
246070002	948949	1	axc2	2/12/2010	15:39:06	OM_2-12-2010_12-28-33
246070003	948949	1	axc2	2/12/2010	15:40:01	OM_2-12-2010_12-28-33
246070004	948949	1	axc2	2/12/2010	15:40:55	OM_2-12-2010_12-28-33
246070005	948949	1	axc2	2/12/2010	15:41:49	OM_2-12-2010_12-28-33
246070006	948949	1	axc2	2/12/2010	15:42:43	OM_2-12-2010_12-28-33
246070007	948949	1	axc2	2/12/2010	15:43:36	OM_2-12-2010_12-28-33
246070008	948949	1	axc2	2/12/2010	15:44:30	OM_2-12-2010_12-28-33
246070009	948949	1	axc2	2/12/2010	15:45:23	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:46:16	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:48:06	OM_2-12-2010_12-28-33
246070010	948949	1	axc2	2/12/2010	15:49:56	OM_2-12-2010_12-28-33
246070011	948949	1	axc2	2/12/2010	15:50:49	OM_2-12-2010_12-28-33
246070012	948949	1	axc2	2/12/2010	15:51:44	OM_2-12-2010_12-28-33
246070013	948949	1	axc2	2/12/2010	15:52:39	OM_2-12-2010_12-28-33
1202036067	950207	1	axc2	2/12/2010	15:53:33	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:54:25	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:56:16	OM_2-12-2010_12-28-33

Author: axc2 Date : 2/15/2010

Original Run Filename: OM_2-12-2010_12-28-33.OMN created 2/12/2010 12:28:33
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-12-2010_12-28-33.OMN last modified 2/12/2010 15:57:21
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100212-01	1	S1	200	9.01	2/12/2010@12:29:18			200 ppb
WCN100212-02	1	S2	150	7.03	2/12/2010@12:30:11			150 ppb
WCN100212-03	1	S3	100	4.55	2/12/2010@12:31:03			100 ppb
WCN100212-04	1	S4	50.0	2.30	2/12/2010@12:31:56			50 ppb
WCN100212-05	1	S5	10.0	0.695	2/12/2010@12:32:49			10 ppb
WCN100212-06	1	S6	5.00	0.468	2/12/2010@12:33:43			CRDL 5.0 ppb
WCN100212-08	1	S7	0.00	0.0810	2/12/2010@12:34:37			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99951 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100212-07	1	S8	138	6.34	2/12/2010@12:36:27			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-7.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-7.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.76	0.0866	2/12/2010@12:38:17			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.76 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.76 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100212-06	1	S6	6.96	0.476	2/12/2010@12:40:07			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.96 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.96 > 2.50					
		Message	Pass					
		Action	None					
1202033017|948946|MB	1	1	-3.58	0.00565	2/12/2010@12:41:56			
1202033024||LCS	1	2	15.7	0.864	2/12/2010@12:42:50		25.00	
246012007	1	3	-2.00	0.0759	2/12/2010@12:43:43			
1202033018||DUP	1	4	-2.22	0.0662	2/12/2010@12:44:36			
1202033020||MS	1	5	67.8	3.19	2/12/2010@12:45:29			
1202033022||MSD	1	6	82.9	3.86	2/12/2010@12:46:22			
246012008	1	7	-2.80	0.0402	2/12/2010@12:47:15			
1202033019||DUP	1	8	-3.66	0.00214	2/12/2010@12:48:07			
1202033021||MS	1	9	87.6	4.08	2/12/2010@12:49:00			
1202033023||MSD	1	10	84.5	3.94	2/12/2010@12:49:52			
WCN100212-03	1	S3	102	4.71	2/12/2010@12:50:44			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.8 < 10.0					
		Message	CCV Passed					

		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.77	0.0863	2/12/2010@12:52:34			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.77 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.77 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246012009	1	11	-2.54	0.0522	2/12/2010@12:54:22			
246012010	1	12	-2.33	0.0614	2/12/2010@12:55:14			
246012011	1	13	-0.520	0.142	2/12/2010@12:56:06			
246055001	1	14	-1.07	0.118	2/12/2010@12:56:58			
246055002	1	15	-2.20	0.0671	2/12/2010@12:57:50			
246055003	1	16	-0.671	0.135	2/12/2010@12:58:43			
246055004	1	17	-2.40	0.0584	2/12/2010@12:59:37			
246055005	1	18	-0.466	0.145	2/12/2010@13:00:30			
246055006	1	19	-2.01	0.0756	2/12/2010@13:01:23			
246055007	1	20	-2.73	0.0433	2/12/2010@13:02:16			
WCN100212-03	1	S3	102	4.71	2/12/2010@13:03:08			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.83	0.0834	2/12/2010@13:04:59			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246055008	1	21	0.133	0.171	2/12/2010@13:06:48			
246055009	1	22	5.24	0.399	2/12/2010@13:07:41			
246066001	1	23	-1.42	0.102	2/12/2010@13:08:34			
246066002	1	24	-2.08	0.0726	2/12/2010@13:09:27			
246066003	1	25	-1.22	0.111	2/12/2010@13:10:18			
246066004	1	26	-2.10	0.0716	2/12/2010@13:11:11			
246066005	1	27	-2.39	0.0588	2/12/2010@13:12:03			
246066006	1	28	-1.91	0.0800	2/12/2010@13:12:55			
1202036012|950194|MB	1	29	-3.70	2.81e-4	2/12/2010@13:13:47			
1202036019||LCS	1	30	16.1	0.885	2/12/2010@13:14:39		25.00	
WCN100212-03	1	S3	102	4.70	2/12/2010@13:15:31			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.94	0.0787	2/12/2010@13:17:22			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						

		Result:	-1.94 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.94 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246055009|948946	1	22	-1.69	0.0901	2/12/2010@13:19:11			
246262001|950194|	1	31	-3.04	0.0298	2/12/2010@13:20:05			
246280005	1	32	-3.07	0.0283	2/12/2010@13:20:59			
246280006	1	33	-2.76	0.0423	2/12/2010@13:21:52			
1202036013||DUP	1	34	-2.82	0.0394	2/12/2010@13:22:46			
1202036015||MS	1	35	84.6	3.94	2/12/2010@13:23:39			
1202036017||MSD	1	36	82.4	3.84	2/12/2010@13:24:32			
246280007	1	37	-2.99	0.0317	2/12/2010@13:25:25			
1202036014||DUP	1	38	-2.89	0.0363	2/12/2010@13:26:18			
1202036016||MS	1	39	86.8	4.04	2/12/2010@13:27:11			
WCN100212-03	1	S3	102	4.71	2/12/2010@13:28:04			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.75	0.0870	2/12/2010@13:29:53			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202036018||MSD	1	40	81.5	3.80	2/12/2010@13:31:43			
246280008	1	41	-2.69	0.0453	2/12/2010@13:32:35			
246280009	1	42	-2.56	0.0510	2/12/2010@13:33:28			
246280010	1	43	-2.69	0.0454	2/12/2010@13:34:20			
246291001	1	44	-2.74	0.0432	2/12/2010@13:35:12			
246291002	1	45	-3.65	0.00256	2/12/2010@13:36:04			
246291003	1	46	-4.03	-0.0144	2/12/2010@13:36:58			
246291004	1	47	-2.33	0.0612	2/12/2010@13:37:52			
246291005	1	48	-2.37	0.0594	2/12/2010@13:38:46			
246291006	1	49	-3.71	-1.56e-4	2/12/2010@13:39:40			
WCN100212-03	1	S3	102	4.73	2/12/2010@13:40:32			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.78	0.0858	2/12/2010@13:42:22			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246291007	1	50	-3.12	0.0260	2/12/2010@13:44:12			

246291008	1	51	-2.58	0.0501	2/12/2010@13:45:05			
246305001	1	52	-3.71	-1.63e-4	2/12/2010@13:45:59			
246305002	1	53	-3.09	0.0274	2/12/2010@13:46:51			
246305003	1	54	-3.16	0.0243	2/12/2010@13:47:43			
246305004	1	55	-2.73	0.0437	2/12/2010@13:48:36			
246312001	1	56	-3.71	-1.36e-4	2/12/2010@13:49:30			
1202036056|950207|MB	1	57	-3.11	0.0266	2/12/2010@13:50:21			
1202036069||LCS	1	58	49.7	2.38	2/12/2010@13:51:14			
246191004	1	59	20.8	1.10	2/12/2010@13:52:06			
WCN100212-03	1	S3	103	4.74	2/12/2010@13:52:58			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.83	0.0834	2/12/2010@13:54:48			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202036058||DUP	1	60	19.2	1.02	2/12/2010@13:56:36			
1202036062||MS	1	61	114	5.25	2/12/2010@13:57:30			
1202036066||MSD	1	62	108	4.96	2/12/2010@13:58:25			
246304002	1	63	-2.90	0.0358	2/12/2010@13:59:20			
1202036059||DUP	1	64	-3.87	-0.00751	2/12/2010@14:00:12			
1202036063||MS	1	65	94.0	4.36	2/12/2010@14:01:07			
1202036067||MSD	1	66	61.7	2.92	2/12/2010@14:01:59			
246304003	1	67	-3.22	0.0214	2/12/2010@14:02:53			
246352001	1	68	2.39	0.272	2/12/2010@14:03:46			
246352003	1	69	-3.35	0.0156	2/12/2010@14:04:39			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:05:32			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.78	0.0858	2/12/2010@14:07:23			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246364002	1	70	-2.64	0.0473	2/12/2010@14:09:11			
246364003	1	71	-2.89	0.0362	2/12/2010@14:10:04			
246419002	1	72	-2.96	0.0332	2/12/2010@14:10:57			
1202036057||DUP	1	73	-2.54	0.0519	2/12/2010@14:11:49			
1202036061||MS	1	74	92.0	4.27	2/12/2010@14:12:42			
1202036065||MSD	1	75	95.0	4.40	2/12/2010@14:13:34			
246431001	1	76	-2.82	0.0393	2/12/2010@14:14:29			
246431002	1	77	-3.11	0.0264	2/12/2010@14:15:22			
246431003	1	78	-3.11	0.0264	2/12/2010@14:16:17			

246431004	1	79	-3.68	0.00125	2/12/2010@14:17:10			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:18:03			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:	2.2 < 10.0						
	Message	CCV Passed						
	Action	Continue						
DQM Test: < - Percent Relative Difference								
	Result:	2.2 < 10.0						
	Message	CCV Passed						
	Action	Continue						
WCN100212-08	1	S7	-2.11	0.0711	2/12/2010@14:19:53			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:	-2.11 < 5.00						
	Message	CCB Passed						
	Action	Continue						
DQM Test: < - Concentration Limit								
	Result:	-2.11 > -5.00						
	Message	CCB Passed						
	Action	Continue						
246472002	1	80	-2.85	0.0382	2/12/2010@14:21:43			
1202036060||DUP	1	81	-2.81	0.0398	2/12/2010@14:22:36			
1202036064||MS	1	82	87.2	4.06	2/12/2010@14:23:30			
1202036068||MSD	1	83	91.2	4.23	2/12/2010@14:24:23			
246474001	1	84	-3.13	0.0258	2/12/2010@14:25:16			
246476001	1	85	-3.29	0.0185	2/12/2010@14:26:09			
246480001	1	86	-3.74	-0.00167	2/12/2010@14:27:02			
1202033014|948944|MB	1	87	-3.05	0.0294	2/12/2010@14:27:55			
1202033015||LCS	1	88	49.2	2.36	2/12/2010@14:28:48			
1202033016||LCSD	1	89	49.0	2.35	2/12/2010@14:29:40			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:30:33			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:	2.3 < 10.0						
	Message	CCV Passed						
	Action	Continue						
DQM Test: < - Percent Relative Difference								
	Result:	2.3 < 10.0						
	Message	CCV Passed						
	Action	Continue						
WCN100212-08	1	S7	-1.90	0.0803	2/12/2010@14:32:23			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:	-1.90 < 5.00						
	Message	CCB Passed						
	Action	Continue						
DQM Test: < - Concentration Limit								
	Result:	-1.90 > -5.00						
	Message	CCB Passed						
	Action	Continue						
246114001	1	90	175	7.95	2/12/2010@14:34:11			
246114002	1	91	73.9	3.46	2/12/2010@14:35:05			
246114003	1	92	145	6.63	2/12/2010@14:36:00			
246114004	1	93	175	7.96	2/12/2010@14:36:54			
246114005	1	94	110	5.09	2/12/2010@14:37:48			
246114006	1	95	89.4	4.16	2/12/2010@14:38:42			
246114007	1	96	216	9.79	2/12/2010@14:39:37			
1202031536|948330|MB	1	97	-3.71	-1.72e-4	2/12/2010@14:40:30			
1202031540||LCS	1	98	31.2	1.56	2/12/2010@14:41:24		25.00	
245957001	1	99	-1.60	0.0940	2/12/2010@14:42:18			
WCN100212-03	1	S3	102	4.71	2/12/2010@14:43:10			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:	2.0 < 10.0						
	Message	CCV Passed						
	Action	Continue						
DQM Test: < - Percent Relative Difference								

		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.81	0.0845	2/12/2010@14:45:00			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202031537||DUP	1	100	-2.50	0.0538	2/12/2010@14:46:50			
1202031538||MS	1	101	92.9	4.31	2/12/2010@14:47:43			
1202031539||MSD	1	102	91.8	4.26	2/12/2010@14:48:36			
245957002	1	103	-3.12	0.0261	2/12/2010@14:49:28			
245957003	1	104	-3.70	2.38e-4	2/12/2010@14:50:22			
245957004	1	105	-2.36	0.0601	2/12/2010@14:51:14			
245957005	1	106	0.227	0.175	2/12/2010@14:52:09			
245957006	1	107	-1.85	0.0829	2/12/2010@14:53:03			
246058001	1	108	-3.71	-1.37e-4	2/12/2010@14:53:58			
1202033025||DUP	1	109	-3.08	0.0280	2/12/2010@14:54:52			
WCN100212-03	1	S3	103	4.76	2/12/2010@14:55:44			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.33	0.225	2/12/2010@14:57:35			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	1.33 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	1.33 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202033026||MS	1	110	103	4.76	2/12/2010@14:59:25			
1202033027||MSD	1	111	94.0	4.36	2/12/2010@15:00:20			
246058002	1	112	1.53	0.234	2/12/2010@15:01:13			
246058003	1	113	-2.59	0.0499	2/12/2010@15:02:07			
246060001	1	114	-2.71	0.0443	2/12/2010@15:03:01			
246060002	1	115	-2.22	0.0664	2/12/2010@15:03:54			
246062001	1	116	-2.63	0.0479	2/12/2010@15:04:48			
246062002	1	117	-2.48	0.0548	2/12/2010@15:05:41			
246066007	1	118	-2.71	0.0443	2/12/2010@15:06:34			
246066008	1	119	-1.12	0.115	2/12/2010@15:07:27			
WCN100212-03	1	S3	102	4.73	2/12/2010@15:08:19			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.87	0.249	2/12/2010@15:10:09			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	1.87 < 5.00					

		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	1.87 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246066009	1	120	-0.539	0.141	2/12/2010@15:11:58			
246066010	1	121	-0.313	0.151	2/12/2010@15:12:53			
246066011	1	122	-1.20	0.112	2/12/2010@15:13:48			
246066012	1	123	-2.18	0.0678	2/12/2010@15:14:43			
246066013	1	124	-0.449	0.145	2/12/2010@15:15:37			
246114007|948944|	1	96	34.1	1.69	2/12/2010@15:16:31		5.00	
1202033028|948949|MB	1	125	-1.73	0.0881	2/12/2010@15:17:25			
1202033035||LCS	1	126	17.3	0.937	2/12/2010@15:18:19		25.00	
246066014	1	127	-0.746	0.132	2/12/2010@15:19:14			
1202033029||DUP	1	128	-1.77	0.0862	2/12/2010@15:20:08			
WCN100212-03	1	S3	101	4.69	2/12/2010@15:21:00			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	0.945	0.207	2/12/2010@15:22:50			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	0.945 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	0.945 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202033031||MS	1	129	50.7	2.43	2/12/2010@15:24:40			
1202033033||MSD	1	130	58.2	2.76	2/12/2010@15:25:34			
246066015	1	131	0.134	0.171	2/12/2010@15:26:27			
1202033030||DUP	1	132	-1.80	0.0851	2/12/2010@15:27:21			
1202033032||MS	1	133	88.9	4.13	2/12/2010@15:28:14			
1202033034||MSD	1	134	91.1	4.23	2/12/2010@15:29:07			
246066016	1	135	0.247	0.176	2/12/2010@15:29:59			
246066017	1	136	-1.83	0.0837	2/12/2010@15:30:54			
246066018	1	137	-2.44	0.0563	2/12/2010@15:31:49			
246066019	1	138	-2.25	0.0648	2/12/2010@15:32:44			
WCN100212-03	1	S3	101	4.67	2/12/2010@15:33:36			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.50	0.232	2/12/2010@15:35:27			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	1.50 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	1.50 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246066020	1	139	1.84	0.247	2/12/2010@15:37:18			
246070001	1	140	-0.620	0.138	2/12/2010@15:38:12			

246070002	1	141	-1.35	0.105	2/12/2010@15:39:06			
246070003	1	142	1.64	0.238	2/12/2010@15:40:01			
246070004	1	143	-1.26	0.109	2/12/2010@15:40:55			
246070005	1	144	-2.53	0.0525	2/12/2010@15:41:49			
246070006	1	145	-1.81	0.0845	2/12/2010@15:42:43			
246070007	1	146	-3.06	0.0285	2/12/2010@15:43:36			
246070008	1	147	-1.95	0.0782	2/12/2010@15:44:30			
246070009	1	148	-2.76	0.0423	2/12/2010@15:45:23			
WCN100212-03	1	S3	101	4.68	2/12/2010@15:46:16			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:	1.2 < 10.0							
Message	CCV Passed							
Action	Continue							
DQM Test: < - Percent Relative Difference								
Result:	1.2 < 10.0							
Message	CCV Passed							
Action	Continue							
WCN100212-08	1	S7	1.50	0.232	2/12/2010@15:48:06			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:	1.50 < 5.00							
Message	CCB Passed							
Action	Continue							
DQM Test: < - Concentration Limit								
Result:	1.50 > -5.00							
Message	CCB Passed							
Action	Continue							
246070010	1	149	-2.40	0.0582	2/12/2010@15:49:56			
246070011	1	150	-2.53	0.0525	2/12/2010@15:50:49			
246070012	1	151	-2.54	0.0520	2/12/2010@15:51:44			
246070013	1	152	-2.83	0.0390	2/12/2010@15:52:39			
1202036067|950207|MSD	1	66	86.4	4.02	2/12/2010@15:53:33			
WCN100212-03	1	S3	105	4.84	2/12/2010@15:54:25			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:	4.8 < 10.0							
Message	CCV Passed							
Action	Continue							
DQM Test: < - Percent Relative Difference								
Result:	4.8 < 10.0							
Message	CCV Passed							
Action	Continue							
WCN100212-08	1	S7	1.28	0.222	2/12/2010@15:56:16			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:	1.28 < 5.00							
Message	CCB Passed							
Action	Continue							
DQM Test: < - Concentration Limit								
Result:	1.28 > -5.00							
Message	CCB Passed							
Action	Continue							

Analyte Properties Table for OM_2-12-2010_12-28-33.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False

Author: axc2

Date : 2/15/2010

Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

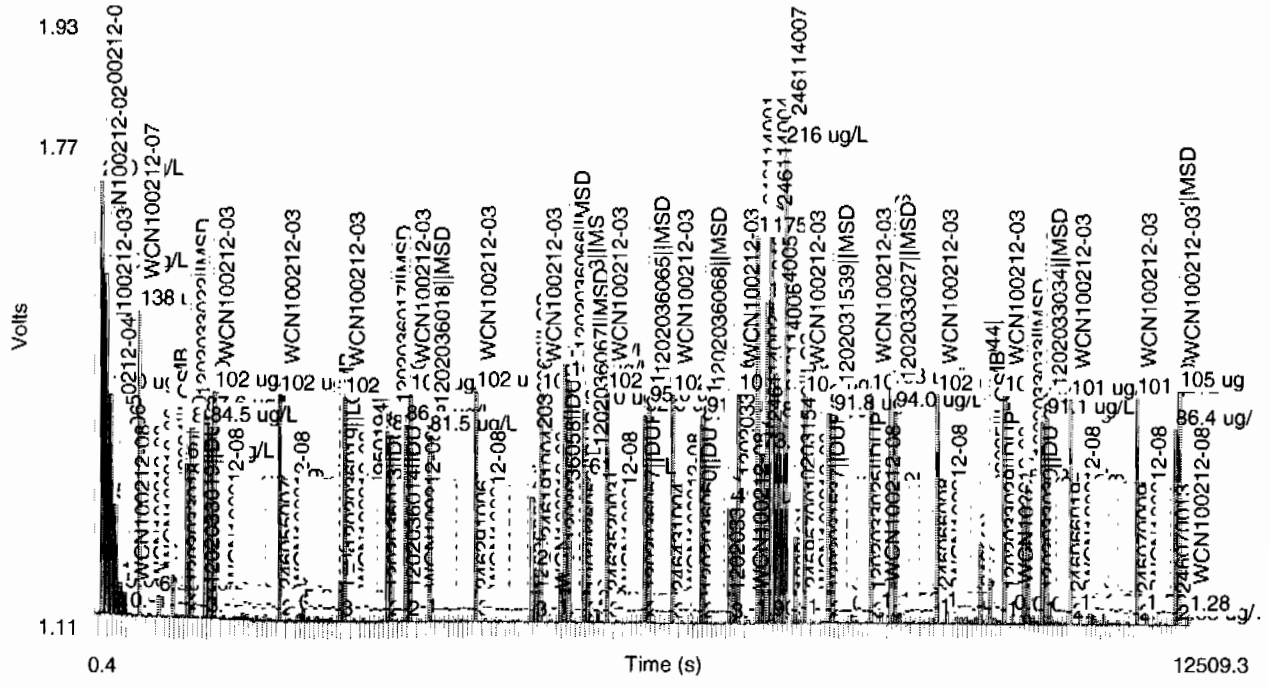

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.01	0.594	0.9	2/12/2010	12:30:21
2	150	1	7.03	0.467	-2.6	2/12/2010	12:31:13
3	100	1	4.55	0.301	1.6	2/12/2010	12:32:06
4	50.0	1	2.30	0.151	4.0	2/12/2010	12:32:59
5	10.0	1	0.695	0.0440	-13.2	2/12/2010	12:33:52
6	5.00	1	0.468	0.0313	-19.5	2/12/2010	12:34:46
7	0.00	1	0.0810	0.00430		2/12/2010	12:35:40

Figure 1: TCYANIDE

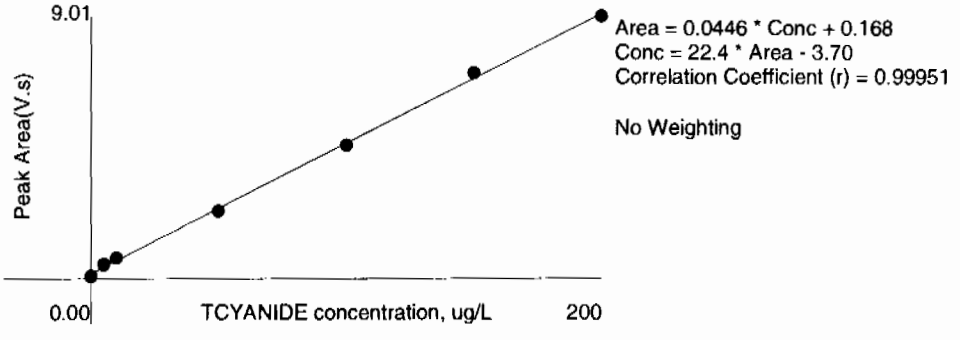

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10			
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
948946	See Below		

Potentially affected work order(s)(SDG): 246012(10-1523),246055(10-1545),246066(10-1543)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS: QC 1202033020MS	1. The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.

Originator's Name:

Ashley Earl 16-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 22-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10	Federal		
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
948949	See Below		

Potentially affected work order(s)(SDG): 246066(10-1543),246070(10-1544)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed recovery for MS/MSD: QC 1202033031MS 1202033033MSD	1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:		Data Validator/Group Leader:	
Ashley Earl	16-FEB-10	Elzbieta Szulc	23-FEB-10

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number: 10-1544

Per Agreement Number: 126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/2/2010

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	
		1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	
		1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	
		1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	
		1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	

Final Page of REQUEST NUMBER 10-1544

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1544C

REQUEST NUMBER: 10-1544

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8164	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8164	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8162	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8162	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8151	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8151	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8163	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8163	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8148	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8148	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8166	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8166	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8161	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8161	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8154	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8154	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8156	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8156	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8159	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8159	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8157	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8157	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8158	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8158	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8160	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8160	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8149	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8149	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8167	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8167	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8152	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8152	1	AMBER GLASS	NMED Explosives list	Ice	R

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1544C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8150	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8150	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8153	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8153	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8165	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8165	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8155	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8155	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
	2/2/10	5:00			

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Printed Name Signature Printed Name Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8148 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/~~2008~~ 2010 TM 1/29/10	MEDIA:	OBT3	AIR
TIME COLLECTED (HH:MM)		1124	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610803	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand, rocks, grass

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-25

FIELD SCREENING/MEASUREMENT RESULTS: HE neg

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1515 dpm

PID Ambient 0.0 / Reading 0.3 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** A. Gowmas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowmas (Signature)	1/29/10 1546	(Printed Name) S. MARCIAL (Signature)	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8149 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1129	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610803	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.1	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt

FD RE 15-10-8221

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-25

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 11 dpm
Beta/Gamma = 1748 dpm

PID Ambient Reading 0.0 / 0.2 ppm

COLLECTED BY (PRINT) T. McFarland

REVIEWED BY (PRINT) A. Gouma

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gouma	1/29/10 1545	(Printed Name) C. NARCIAY	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8150 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alln
TIME COLLECTED (HH:MM)		1138	SUB-MEDIA:	TUFF I	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610804	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

7c-26

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1672 dpm

PID Ambient 0.0 / Reading 0.6 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas	1/29/10 1540	(Printed Name) S. MARCZAK	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8151 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1132	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610804	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-26

FIELD SCREENING/MEASUREMENT RESULTS: HE neg

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1796 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARCZAK (Signature) [signature]	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8152 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1140	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610805	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown moist sandy silt

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-23

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1527 dpm

PID Ambient 0.4 / Reading 1.1 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gonzales

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gonzales (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARCZAK (Signature) [signature]	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8153 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alln
TIME COLLECTED (HH:MM)		1136	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610805	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-23

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 0 dpm
Beta/Gamma ≤ 1755 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARCLAY (Signature) [signature]	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8154 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alth
TIME COLLECTED (HH:MM)		1154	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610806	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice		
1		NMED Explosives list	250 ML AMBER GLASS	Ice		
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None		

SAMPLE DESC:

Brown moist silty clay, roots

SAMPLE COMMENTS:

NA

LOCATION DESC:

7c-20

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 **dpm**
Beta/Gamma ≤ 1610 **dpm**

PID Ambient 0.0 / Reading 0.2 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) A. Gomez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature)	1/29/10 1540	(Printed Name) S. MARTINEZ (Signature)	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8155 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alh
TIME COLLECTED (HH:MM)		1208	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610806	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light brown silt and weathered tuff

FR: ~~RE10-~~RE15-10-8231
TJM
1/29/10

SAMPLE COMMENTS:

NA

LOCATION DESC:

7c-20

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 27 dpm
Beta/Gamma ≤ 1589 dpm

PID Ambient Reading 0.0 / 0.5 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gorman (Signature)	1/29/10 1540	(Printed Name) S. MARCZAK (Signature)	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8156 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		1316	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610807	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:
Brown moist silty sand

SAMPLE COMMENTS:
NA

LOCATION DESC: 7c - 9

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1555 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) Th McFarland

REVIEWED BY (PRINT) Lorey A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gounas (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARCRAY (Signature) [signature]	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8157 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1322	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610807	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown weathered tuff and silty sand

SAMPLE COMMENTS: NA

LOCATION DESC: 7c - 9

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1561 dpm

PID Ambient Reading 0.0 ppm

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) Larry A. López

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gonzales	1/29/10 1540	(Printed Name) S. MARCZAK	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8158 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1318	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610808	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, moist

SAMPLE COMMENTS:

LOCATION DESC: 7c-10

FIELD SCREENING/MEASUREMENT RESULTS: HE neg

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1589 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) THMcFarland

REVIEWED BY (PRINT) Lanny A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature)	1/29/10 1540	(Printed Name) S. MARCRAY (Signature)	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8159 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		1325	SUB-MEDIA:	TUFF 1	
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	
LOCATION ID:	15-610808		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Light brown weathered tuff and silty sand

SAMPLE COMMENTS:
NA

LOCATION DESC: 7c - 10

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1651 dpm

PID Ambient Reading 0.0 / 0.2 ppm

COLLECTED BY (PRINT) T. McFarland

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez	1/29/10	(Printed Name) S. MARCIAN	1/29/10
(Signature)	1540	(Signature)	1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8160 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		1329	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610809	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sand, cobbles

SAMPLE COMMENTS:

LOCATION DESC: 7c - 11

FIELD SCREENING/MEASUREMENT RESULTS: HE neg

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 1548 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarlang

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature)	1/29/10 1540	(Printed Name) S. MARCYAN (Signature)	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8161 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Auh
TIME COLLECTED (HH:MM)		1336	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610809	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sand and cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c - 11

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1845 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gonmas	1/29/10 1540	(Printed Name) S. MARRAY	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8162 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Allh
TIME COLLECTED (HH:MM)		1331	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610810	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand, moist, roots

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-15

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1799 dpm

PID Ambient/Reading 0.0/0.0 ppm

COLLECTED BY (PRINT) ThMcFarlana

REVIEWED BY (PRINT) Lonny A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas (Signature) [signature]	1/29/10 1546	(Printed Name) S. MARCIAT (Signature) [signature]	1/29/10 1590
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8163 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1340	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610810	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand, minor clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c - 15

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1527 dpm

PID Ambient 0.0 / Reading 0.3 ppm

COLLECTED BY (PRINT) Larry A. Lopez REVIEWED BY (PRINT) A. Gomez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature) [signature]	1/29/10 1546	(Printed Name) S. MARCZAY (Signature) [signature]	1/29/10 1546
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8164 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1348	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610811	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown silty sand, some rocks moist

FD RE15-10-8223

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-24

FIELD SCREENING/MEASUREMENT RESULTS: HE negative.

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1783 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarlang

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gouma s	1/29/10 1540	(Printed Name) S. MARCZAK	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8165 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	All h
TIME COLLECTED (HH:MM)		72m 1/28/10 ~~1592~~ 1352	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610811	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c - 24

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1748 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarlana

REVIEWED BY (PRINT) Lonny A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARCHAN (Signature) [signature]	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8166 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1350	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610812	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown sand and cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-16

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 27 **dpm**
Beta/Gamma ≤ 1720 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) TLM cFarland

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gouma	1/29/10 1540	(Printed Name) S. MARCZAK	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8167 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1357	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610812	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	1.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt, some clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-16

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 33 dpm
Beta/Gamma ≤ 1561 dpm

PID Ambient 0.0 / Reading 1.9 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Lacey A. Cyos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez	1/29/10 1540	(Printed Name) S. MARTEZ	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-8126
8127
8128
8129
8130
8131
8132
8133
8134
8135
8136
8137
8138
8139
RE15-10

RE15-10-8140
8141
8142
8143
8144
8145 LAL 1/29/10
8146
8147
8148
RE15-10

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

NONE

LAL 1/29/10

Reason:

Print Last Name Lopez Signature Lanny A. Lopez Date 01/29/2010

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE - 15 - 10 - 8149
8150
8151
8152
8155 - 8171
8220 - 8224

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15 - 10 - 8230
8231
8232
8233

Reason:

QC

Print Last Name Goumas Signature [signature] Date 1/29/2010

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8148
Sample Collection Date: 01/29/10 11:24
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-003
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:50

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.46	25.16	28.72	25.42		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	30.22	15.05	19.14	15.50		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	18.80	6.47	1.27	6.49		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	0.33	0.08	0.33		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.16	0.14	0.06	0.15		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.18	0.16	0.05	0.16		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.45	0.41	0.11	0.41		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.29	0.45	0.15	0.45		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	1.58	0.69	0.22	0.69		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.97	0.57	0.13	0.57		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	4.79	3.31	1.14	3.49		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.28	0.27	0.10	0.27		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 3.03

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00036	Request or PO Number:	
Client Sample ID:	RE15-10-8149	ARS Sample ID:	ARS2-10-00036-004
Sample Collection Date:	01/29/10 11:29	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 22:50

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	6.99	18.43	37.10	18.45		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	24.75	13.27	18.29	13.61		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	17.22	7.93	2.01	7.95		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	13.13	0.13	13.13		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.47	0.42	0.10	0.42		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.04	0.10	0.08	0.10		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.21	0.35	0.15	0.35		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.60	0.58	0.17	0.59		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	2.29	0.98	0.35	0.99		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	-0.08	148.25	0.33	148.25		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.56	3.33	1.40	3.43		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.77	0.32	0.05	0.32		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.21

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8150
Sample Collection Date: 01/29/10 11:38
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-005
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:50

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	24.56	28.99	37.46	26.16		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	32.78	14.58	18.46	15.12		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.23	0.26	0.12	0.26		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	9.26	7.46	2.81	7.47		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.07	0.18	0.13	0.18		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.04	0.10	0.08	0.10		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.82	0.62	0.15	0.62		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.10	0.51	0.17	0.51		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	2.30	1.04	0.34	1.04		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	2.07	1.14	0.50	1.15		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	1.80	3.15	1.58	3.18		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.28	0.33	0.12	0.33		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 0.98

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8151
Sample Collection Date: 01/29/10 11:32
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-006
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:50

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	53.37	32.76	31.36	33.40		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	47.80	16.06	16.49	17.09		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	18.32	5.67	1.01	5.70		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	6.64	0.07	6.64		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	21.78	0.05	21.78		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.20	0.14	0.04	0.14		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.37	0.28	0.08	0.28		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.97	0.33	0.10	0.34		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	1.43	0.67	0.18	0.67		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	-0.04	59.19	0.13	59.19		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	2.04	2.61	1.09	2.65		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.22	0.29	0.12	0.29		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 3.32

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00036	Request or PO Number:	
Client Sample ID:	RE1S-10-8152	ARS Sample ID:	ARS2-10-00036-007
Sample Collection Date:	01/29/10 11:40	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	34.29	26.89	28.72	27.21		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	32.54	15.43	19.14	15.94		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.08	0.16	0.13	0.16		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-1.82	1098.00	2.46	1098.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.09	13.32	0.14	13.32		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.64	0.40	0.10	0.40		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.19	0.20	0.08	0.20		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.88	0.67	0.15	0.67		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.96	0.60	0.11	0.61		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	2.46	0.94	0.38	0.95		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	3.06	1.33	0.42	1.33		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	4.50	3.88	1.65	4.01		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	-0.01	27.78	0.06	27.78		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.01

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8153
Sample Collection Date: 01/29/10 11:36
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-008
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.95	27.30	37.10	27.54		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	34.84	14.91	18.29	15.51		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	11.36	4.39	0.96	4.40		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	6.26	0.06	6.26		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.06	0.08	0.05	0.08		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.47	0.21	0.04	0.22		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.13	0.21	0.11	0.21		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.92	0.30	0.08	0.31		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	1.99	0.63	0.17	0.69		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.38	0.56	0.18	0.57		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	4.44	2.71	1.03	2.89		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.06	0.13	0.06	0.13		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.91

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ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE19-10-0154
Sample Collection Date: 01/29/10 11:54
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-009
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	49.25	33.88	37.46	34.42		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	62.57	17.97	18.46	19.54		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	19.97	7.32	1.52	7.34		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	9.96	0.10	9.96		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.09	0.29	0.07	0.29		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.34	0.23	0.06	0.23		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	10.36	0.12	10.36		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.15	0.49	0.18	0.49		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	1.10	0.64	0.27	0.64		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.36	1.22	0.31	1.23		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	5.03	3.39	1.43	3.58		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.44	0.35	0.11	0.36		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.53

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ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8155
Sample Collection Date: 01/29/10 12:08
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-010
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	34.90	27.51	31.30	27.65		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	63.06	17.27	16.49	18.92		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.18	0.25	0.19	0.25		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-0.01	-7.41	4.45	-7.41		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	15.17	0.15	15.17		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	19.84	0.10	19.84		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	1.07	0.76	0.18	0.76		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.58	0.61	0.17	0.61		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	2.14	1.19	0.40	1.19		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	2.57	1.60	0.48	1.60		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.55	3.98	1.76	4.06		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.04	0.16	0.09	0.16		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.52

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ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8156
Sample Collection Date: 01/29/10 13:16
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-011
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	63.20	36.80	28.72	36.34		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	61.37	19.00	19.14	20.43		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	18.53	6.68	1.37	6.70		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.05	0.11	0.09	0.11		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.23	0.18	0.06	0.18		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.25	0.25	0.10	0.25		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.92	0.37	0.11	0.37		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	1.91	0.70	0.24	0.71		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.13	0.70	0.32	0.70		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	5.66	2.74	0.96	3.83		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.14	0.19	0.08	0.19		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.77

Quality Assurance Review

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ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8157
Sample Collection Date: 01/29/10 13:22
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-012
Date Received: 02/01/10 00:00
Report Date: 02/02/10 23:51

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	80.47	40.46	37.10	41.65		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	46.02	16.97	18.29	17.88		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	18.42	7.71	1.80	7.73		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	11.70	0.12	11.70		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.32	0.26	0.09	0.26		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	15.42	0.07	15.42		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.62	0.51	0.14	0.51		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.29	0.52	0.17	0.53		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	0.00	0.74	0.31	0.74		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	2.51	1.05	0.36	1.06		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	1.70	2.46	1.28	2.49		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.14	0.28	0.12	0.28		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.35

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ARS Sample Delivery Group:	ARS2-10-00036	Request or PO Number:	
Client Sample ID:	RE15-10-8158	ARS Sample ID:	ARS2-10-00036-013
Sample Collection Date:	01/29/10 13:18	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	59.20	36.55	37.46	37.26		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	42.98	16.23	18.46	17.06		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	11.70	4.36	0.92	4.37		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO 60	0.00	0.03	0.06	0.03		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.07	0.08	0.04	0.08		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.13	0.11	0.04	0.11		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.43	0.27	0.07	0.27		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.95	0.31	0.09	0.31		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	0.77	0.42	0.16	0.43		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.66	0.42	0.12	0.42		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.40	2.11	0.77	2.25		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.00	0.02	0.02	0.02		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.78

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ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8159
Sample Collection Date: 01/29/10 13:25
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-014
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	94.89	42.54	31.30	44.10		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	57.30	17.66	16.49	19.00		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.13	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-1.56	-27.07	4.13	-27.07		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	13.42	0.14	13.42		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.18	0.21	0.10	0.21		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.04	0.18	0.09	0.18		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.47	0.47	0.16	0.46		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.89	0.61	0.13	0.61		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA 226	3.26	1.04	0.36	1.04		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.40	1.03	0.40	1.03		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.28	4.88	2.07	4.93		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.50	0.49	0.19	0.49		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.38

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87556

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ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8160
Sample Collection Date: 01/29/10 13:29
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-015
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	58.43	34.33	28.72	34.96		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	49.74	17.76	19.14	18.80		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-0.58	-12.80	2.46	-12.80		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	7.82	0.08	7.82		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.13	0.13	0.06	0.14		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.00	0.02	0.05	0.02		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.18	0.25	0.09	0.25		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.55	0.29	0.10	0.29		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	0.48	0.33	0.40	0.33		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.18	0.83	0.24	0.83		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.48	1.96	0.72	2.11		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.07	0.14	0.07	0.14		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.77

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ARS AMERICAN RADIATION SERVICES, INC.

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ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-5161
Sample Collection Date: 01/29/10 13:36
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-016
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	66.59	37.34	37.10	38.22		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	42.03	16.34	18.29	17.13		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	0.13	3.96	2.31	3.96		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	6.26	0.06	6.26		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.17	0.14	0.05	0.14		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.04	0.07	0.04	0.07		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	6.51	0.07	6.51		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.88	0.31	0.10	0.31		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	1.11	0.48	0.17	0.48		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.66	0.40	0.10	0.40		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.27	2.32	0.90	2.43		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.34	0.29	0.10	0.29		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.62

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8162
Sample Collection Date: 01/29/10 13:31
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-017
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Cham Recovery
GROSS ALPHA	54.25	35.23	37.46	35.85		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	38.22	15.66	18.46	16.35		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.16	0.16	0.06	0.16		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-0.50	-11.66	2.21	-11.66		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.02	0.06	0.07	0.06		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.24	0.17	0.05	0.17		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.25	0.16	0.04	0.16		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	35.42	0.08	35.42		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.19	0.35	0.09	0.35		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	1.54	0.59	0.18	0.59		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.46	0.50	0.20	0.50		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	2.93	2.04	0.83	2.15		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.55	0.27	0.08	0.27		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.59

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00036	Request or PO Number:	
Client Sample ID:	RE15-10-9163	ARS Sample ID:	ARS2-10-00036-018
Sample Collection Date:	01/29/10 13:40	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	48.75	31.48	31.30	32.04		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	47.31	15.93	16.49	16.95		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	22.25	8.60	1.87	8.62		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	12.26	0.12	12.26		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.10	0.13	0.09	0.13		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.08	0.13	0.08	0.13		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.55	0.42	0.14	0.42		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.67	0.58	0.16	0.58		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
BA-133	-0.14	123.08	0.33	123.08		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.86	0.94	0.22	0.94		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	5.70	3.79	1.39	4.01		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.21	0.22	0.09	0.22		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.16

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00036	Request or PO Number:	
Client Sample ID:	RE15-10-8164	ARS Sample ID:	ARS2-10-00036-019
Sample Collection Date:	01/29/10 13:48	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	14.97	19.09	28.72	19.18		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	44.64	16.37	19.14	17.26		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	18.49	7.02	1.50	7.04		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	0.08	0.10	0.08		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.10	0.10	0.07	0.10		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.02	0.12	0.07	0.12		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	52.06	0.12	52.06		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.28	0.52	0.19	0.52		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	-0.11	153.33	0.34	153.33		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.81	0.83	0.25	0.83		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	2.70	2.64	1.27	2.71		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.14	0.31	0.13	0.31		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.22

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00036
Client Sample ID: RE15-10-8165
Sample Collection Date: 01/29/10 13:52
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00036-020
Date Received: 02/01/10 00:00
Report Date: 02/02/10 22:51

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	52.91	33.92	37.10	34.54		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	43.21	16.22	18.29	17.06		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-1.81	-14.52	3.16	-14.52		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO 60	0.09	0.19	0.16	0.19		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.21	0.24	0.11	0.24		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	20.39	0.10	20.39		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.47	0.42	0.18	0.42		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.41	0.57	0.14	0.57		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	1.67	0.96	0.67	0.96		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.67	0.85	0.33	0.85		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.02	3.70	1.73	3.76		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.43	0.36	0.13	0.36		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.27

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00037	Request or PO Number:	
Client Sample ID:	RE15-10-8166	ARS Sample ID:	ARS2-10-00037-001
Sample Collection Date:	01/29/10 13:50	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 08:23

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	-0.18	14.18	37.21	14.18		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	23.90	12.87	18.09	13.20		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	11.66	5.00	1.19	5.01		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	7.78	0.08	7.78		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	0.00	0.05	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	10.19	0.05	10.19		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.80	0.41	0.09	0.41		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.89	0.31	0.07	0.32		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	0.12	0.52	0.21	0.52		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.56	0.58	0.21	0.58		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	1.24	1.84	0.93	1.86		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.15	0.20	0.08	0.26		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.78

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00037	Request or PO Number:	
Client Sample ID:	RE15-10-8167	ARS Sample ID:	ARS2-10-00037-002
Sample Collection Date:	01/29/10 13:57	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis TAM Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	11.82	18.28	31.19	18.34		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	24.34	12.49	16.36	12.84		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.15	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-2.08	2837.90	4.49	2837.90		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	15.17	0.15	15.17		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.16	0.15	0.11	0.15		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	19.84	0.10	19.84		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.35	0.49	0.18	0.50		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.55	0.66	0.22	0.66		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	-0.17	236.13	0.53	236.13		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	3.49	1.28	0.50	1.28		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	-0.25	-3.13	1.49	-3.13		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.03	0.20	0.11	0.20		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.25

Quality Assurance Review

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LELAP Certificate # 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1544 VALIDATION DATE: 3/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 3/19/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8164

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.606	2.43	0.606	ug/kg	U	1	26-FEB-10 17:23	per0226025a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:23	per0226025a
14797-73-0	Perchlorate-101	.606	2.43	0.606	ug/kg	U	1	26-FEB-10 17:23	per0226025a
	Perchlorate-O(18)			5.52	ug/kg		1	26-FEB-10 17:23	per0226025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8162

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.65	2.6	0.650	ug/kg	U	1	26-FEB-10 17:46	per0226028a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:46	per0226028a
14797-73-0	Perchlorate-101	.65	2.6	0.650	ug/kg	U	1	26-FEB-10 17:46	per0226028a
	Perchlorate-O(18)			5.89	ug/kg		1	26-FEB-10 17:46	per0226028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8151

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.683	2.73	0.683	ug/kg	U	1	26-FEB-10 17:53	per0226029a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:53	per0226029a
14797-73-0	Perchlorate-101	.683	2.73	0.683	ug/kg	U	1	26-FEB-10 17:53	per0226029a
	Perchlorate-O(18)			6.66	ug/kg		1	26-FEB-10 17:53	per0226029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8163

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.589	2.36	0.589	ug/kg	U	1	26-FEB-10 18:01	per0226030a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:01	per0226030a
14797-73-0	Perchlorate-101	.589	2.36	0.589	ug/kg	U	1	26-FEB-10 18:01	per0226030a
	Perchlorate-O(18)			5.44	ug/kg		1	26-FEB-10 18:01	per0226030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8148

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.779	3.11	0.779	ug/kg	U	1	26-FEB-10 18:31	per0226034a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:31	per0226034a
14797-73-0	Perchlorate-101	.779	3.11	0.779	ug/kg	U	1	26-FEB-10 18:31	per0226034a
	Perchlorate-O(18)			7.15	ug/kg		1	26-FEB-10 18:31	per0226034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8166

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.609	2.44	0.609	ug/kg	U	1	26-FEB-10 18:39	per0226035a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:39	per0226035a
14797-73-0	Perchlorate-101	.609	2.44	0.609	ug/kg	U	1	26-FEB-10 18:39	per0226035a
	Perchlorate-O(18)			5.79	ug/kg		1	26-FEB-10 18:39	per0226035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8161

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 18:46	per0226036a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:46	per0226036a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 18:46	per0226036a
	Perchlorate-O(18)			5.30	ug/kg		1	26-FEB-10 18:46	per0226036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8154

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	26-FEB-10 18:54	per0226037a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:54	per0226037a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	26-FEB-10 18:54	per0226037a
	Perchlorate-O(18)			5.98	ug/kg		1	26-FEB-10 18:54	per0226037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8156

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.646	2.58	0.646	ug/kg	U	1	26-FEB-10 19:01	per0226038a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:01	per0226038a
14797-73-0	Perchlorate-101	.646	2.58	0.646	ug/kg	U	1	26-FEB-10 19:01	per0226038a
	Perchlorate-O(18)			5.95	ug/kg		1	26-FEB-10 19:01	per0226038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8159

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	26-FEB-10 19:09	per0226039a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:09	per0226039a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	26-FEB-10 19:09	per0226039a
	Perchlorate-O(18)			5.25	ug/kg		1	26-FEB-10 19:09	per0226039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8157

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.579	ug/kg	J	1	26-FEB-10 19:16	per0226040a
	Perchlorate Isotope Ratio			3.24			1	26-FEB-10 19:16	per0226040a
14797-73-0	Perchlorate-101	.566	2.26	0.572	ug/kg	J	1	26-FEB-10 19:16	per0226040a
	Perchlorate-O(18)			5.20	ug/kg		1	26-FEB-10 19:16	per0226040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8158

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.592	2.37	0.592	ug/kg	U	1	26-FEB-10 19:24	per0226041a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:24	per0226041a
14797-73-0	Perchlorate-101	.592	2.37	0.592	ug/kg	U	1	26-FEB-10 19:24	per0226041a
	Perchlorate-O(18)			5.73	ug/kg		1	26-FEB-10 19:24	per0226041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8160

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.589	2.35	0.589	ug/kg	U	1	26-FEB-10 19:54	per0226045a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:54	per0226045a
14797-73-0	Perchlorate-101	.589	2.35	0.589	ug/kg	U	1	26-FEB-10 19:54	per0226045a
	Perchlorate-O(18)			5.53	ug/kg		1	26-FEB-10 19:54	per0226045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8149

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.566	ug/kg	U	1	26-FEB-10 20:02	per0226046a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:02	per0226046a
14797-73-0	Perchlorate-101	.566	2.26	0.566	ug/kg	U	1	26-FEB-10 20:02	per0226046a
	Perchlorate-O(18)			5.45	ug/kg		1	26-FEB-10 20:02	per0226046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8167

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	26-FEB-10 20:09	per0226047a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:09	per0226047a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	26-FEB-10 20:09	per0226047a
	Perchlorate-O(18)			5.82	ug/kg		1	26-FEB-10 20:09	per0226047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

ETM
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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8152

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070016

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.618	2.47	0.618	ug/kg	U	1	26-FEB-10 20:17	per0226048a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:17	per0226048a
14797-73-0	Perchlorate-101	.618	2.47	0.618	ug/kg	U	1	26-FEB-10 20:17	per0226048a
	Perchlorate-O(18)			6.18	ug/kg		1	26-FEB-10 20:17	per0226048a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8150

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070017

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.23	0.619	ug/kg	J	1	26-FEB-10 20:24	per0226049a
	Perchlorate Isotope Ratio			3.07			1	26-FEB-10 20:24	per0226049a
14797-73-0	Perchlorate-101	.556	2.23	0.646	ug/kg	J	1	26-FEB-10 20:24	per0226049a
	Perchlorate-O(18)			6.03	ug/kg		1	26-FEB-10 20:24	per0226049a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8153

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070018

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.661	2.65	0.661	ug/kg	U	1	26-FEB-10 20:32	per0226050a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:32	per0226050a
14797-73-0	Perchlorate-101	.661	2.65	0.661	ug/kg	U	1	26-FEB-10 20:32	per0226050a
	Perchlorate-O(18)			6.30	ug/kg		1	26-FEB-10 20:32	per0226050a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8165

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070019

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 20:40	per0226051a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:40	per0226051a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 20:40	per0226051a
	Perchlorate-O(18)			5.88	ug/kg		1	26-FEB-10 20:40	per0226051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8155

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070020

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.584	2.34	0.584	ug/kg	U	1	26-FEB-10 20:47	per0226052a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:47	per0226052a
14797-73-0	Perchlorate-101	.584	2.34	0.584	ug/kg	U	1	26-FEB-10 20:47	per0226052a
	Perchlorate-O(18)			5.45	ug/kg		1	26-FEB-10 20:47	per0226052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1544 VALIDATION DATE: 3/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the CCV associated with all the sample except RE15-10-8150, -8153, -8165 and -8155, the %Ds were >20% with a positive bias for 2-amino-4,6-dinitrotoluene; 4-amino-2,6-dinitrotoluene and RDX. The associated sample results were NDs and, thus, were not qualified.
2. The LCS %R was < the laboratory's LAL but ≥10% for tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12a.
3. The MSD %R was > the laboratory's UAL for PETN. The associated sample results were NDs and, thus, were not qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 3/19/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☒	☐	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☒	☐	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070001

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304118a

Date Analyzed: 07-MAR-10 00:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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3/19/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070001

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260095.wiff

Date Analyzed: 27-FEB-10 15:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8162

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070002

Sample Amount 2

Moisture: 23.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304121a

Date Analyzed: 07-MAR-10 02:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8162

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070002

Sample Amount 2

Moisture: 23.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260098.wiff

Date Analyzed: 27-FEB-10 16:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ETM
3/19/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8151

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070003

Sample Amount 2

Moisture: 26.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304122a

Date Analyzed: 07-MAR-10 02:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8151

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070003

Sample Amount 2

Moisture: 26.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260102.wiff

Date Analyzed: 27-FEB-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8163

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070004

Sample Amount 2

Moisture: 15.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304123a

Date Analyzed: 07-MAR-10 03:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8163

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070004

Sample Amount 2

Moisture: 15.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260103.wiff

Date Analyzed: 27-FEB-10 17:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8148

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070005

Sample Amount 2

Moisture: 35.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304124a

Date Analyzed: 07-MAR-10 03:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8148

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070005

Sample Amount 2

Moisture: 35.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260104.wiff

Date Analyzed: 27-FEB-10 17:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8166

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070006

Sample Amount 2

Moisture: 17.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304125a

Date Analyzed: 07-MAR-10 04:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8166

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070006

Sample Amount 2

Moisture: 17.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260105.wiff

Date Analyzed: 27-FEB-10 18:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	443	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8161

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070007

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304129a

Date Analyzed: 07-MAR-10 06:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8161

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070007

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260106.wiff

Date Analyzed: 27-FEB-10 18:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8154

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070008

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304130a

Date Analyzed: 07-MAR-10 06:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8154

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070008

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260107.wiff

Date Analyzed: 27-FEB-10 18:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8156

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070009

Sample Amount 2

Moisture: 22.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304131a

Date Analyzed: 07-MAR-10 07:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8156

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070009

Sample Amount 2

Moisture: 22.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260108.wiff

Date Analyzed: 27-FEB-10 18:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8159

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070010

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304132a

Date Analyzed: 07-MAR-10 07:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8159

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070010

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260109.wiff

Date Analyzed: 27-FEB-10 19:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8157

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070011

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304133a

Date Analyzed: 07-MAR-10 08:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8157

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070011

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260110.wiff

Date Analyzed: 27-FEB-10 19:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8158

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070012

Sample Amount 2

Moisture: 15.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304134a

Date Analyzed: 07-MAR-10 08:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8158

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070012

Sample Amount 2

Moisture: 15.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260111.wiff

Date Analyzed: 27-FEB-10 19:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8160

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070013

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304135a

Date Analyzed: 07-MAR-10 09:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8160

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070013

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260115.wiff

Date Analyzed: 27-FEB-10 20:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8149

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070014

Sample Amount 2

Moisture: 11.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304136a

Date Analyzed: 07-MAR-10 09:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8149

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070014

Sample Amount 2

Moisture: 11.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260116.wiff

Date Analyzed: 27-FEB-10 21:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8167

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070015

Sample Amount 2

Moisture: 13.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304137a

Date Analyzed: 07-MAR-10 10:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8167

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070015

Sample Amount 2

Moisture: 13.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260117.wiff

Date Analyzed: 27-FEB-10 21:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8152

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070016

Sample Amount 2

Moisture: 19.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304138a

Date Analyzed: 07-MAR-10 10:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8152

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070016

Sample Amount 2

Moisture: 19.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260118.wiff

Date Analyzed: 27-FEB-10 21:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8150

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070017

Sample Amount 2

Moisture: 10.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304142a

Date Analyzed: 07-MAR-10 12:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8150

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070017

Sample Amount 2

Moisture: 10.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260119.wiff

Date Analyzed: 27-FEB-10 21:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8153

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070018

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304143a

Date Analyzed: 07-MAR-10 13:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8153

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070018

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260120.wiff

Date Analyzed: 27-FEB-10 22:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8165

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070019

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304144a

Date Analyzed: 07-MAR-10 13:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8165

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070019

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260121.wiff

Date Analyzed: 27-FEB-10 22:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8155

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070020

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304145a

Date Analyzed: 07-MAR-10 14:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8155

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070020

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260122.wiff

Date Analyzed: 27-FEB-10 22:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1544 VALIDATION DATE: 3/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, Pb and Na were detected. The Pb results for samples RE15-10-8162, -8163, -8148, -8154, -8156 through -8158, -8167, -8152 and -8153 were detects >50X the blank concentrations and, thus, were not qualified, based on professional judgment. The Na results for samples -8162, -8151, -8163, -8148, -8154, -8156, -8149 and -8152 were qualified ND due to FR blank contamination were not further qualified J,I4a. All the other associated sample results were detects >5X but ≤50X the blank concentration and, thus, were qualified J,I4a.
2. In the ICB/CCB, Sb and Pb were detected. All the associated sample results were either NDs or detects >5X the blank concentration and, thus, were not qualified.
3. In the FR blanks, samples -8230 through -8233 (from RN 10-1545), associated with all the samples, Al, Ba, Ca, Fr, Fe, Pb, Mn, K and Na were detected. The Na results for samples -8162, -8151, -8163, -8148, -8154, -8156, -8149 and -8152 were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4d. All the other

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

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associated sample results were detects >5X the blank concentrations and, thus, were not qualified.

4. The MS %Rs were > the laboratory's UAL for Ba, Pb, Mg, K and Na. The Na results for samples -8162, -8151, -8163, -8148, -8154, -8156, -8149 and -8152 were qualified ND and, thus, were qualified UJ,I6b. All other associated sample results were detects and, thus, were qualified J+,I6b. The MS %Rs were also > the laboratory's UAL for Al, Ca, Fe and Mn. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.
5. The duplicate RPDs were >35% for Co, Cu and Mn, and both the parent sample and duplicate results for Co, Cu, and Mn were ≥5X the PQLs. The associated sample results were detects and, thus, were qualified J,I10a.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: Eric T. Mik DATE: 3/19/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070001 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8164 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		9170000	ug/kg	E	8210	24200	24200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-36-0	Antimony		1210	ug/kg	U	399	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-38-2	Arsenic		2370	ug/kg	*	233	1160	1160	2	MS	BAJ	03/02/10 16:39	100302-2	949366
7440-39-3	Barium	J+,I6b	118000	ug/kg	*N	121	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-41-7	Beryllium		814	ug/kg		23.3	116	116	2	MS	BAJ	03/02/10 16:39	100302-2	949366
7440-43-9	Cadmium		210	ug/kg	J	121	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-70-2	Calcium		2690000	ug/kg	E	9660	30200	30200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-47-3	Chromium		10500	ug/kg		181	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-48-4	Cobalt	J,I10a	4370	ug/kg	*	181	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-50-8	Copper	J,I10a	9140	ug/kg	*	362	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-89-6	Iron		11900000	ug/kg	E	9660	30200	30200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-92-1	Lead	J,I4a	12300	ug/kg	*N	302	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	1820000	ug/kg	EN	10300	36200	36200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-96-5	Manganese	J,I10a	279000	ug/kg	*	242	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-97-6	Mercury		4.73	ug/kg	J	4.38	12.9	12.9	1	AV	JXL1	02/18/10 15:55	021810S1-4	951555
7440-02-0	Nickel		7500	ug/kg	*N	116	466	466	2	MS	BAJ	03/02/10 16:39	100302-2	949366
7440-09-7	Potassium	J+,I6b	1620000	ug/kg	EN	7730	30200	30200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7782-49-2	Selenium		1160	ug/kg	U	582	1160	1160	2	MS	BAJ	03/02/10 16:39	100302-2	949366
7440-22-4	Silver		338	ug/kg	J	121	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-23-5	Sodium	J,I4a	121000	ug/kg	*N	8460	30200	30200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-28-0	Thallium		168	ug/kg	J	69.8	233	233	2	MS	RMJ	02/28/10 15:24	100227-3	949366
7440-62-2	Vanadium		23500	ug/kg		121	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-66-6	Zinc		29800	ug/kg		399	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.502	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.521	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.565	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070002 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8162 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		6630000	ug/kg	E	8810	25900	25900	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-36-0	Antimony		1300	ug/kg	U	428	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-38-2	Arsenic		2010	ug/kg	*	248	1240	1240	2	MS	BAJ	03/02/10 16:49	100302-2	949366
7440-39-3	Barium	J+,I6b	83000	ug/kg	*N	130	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-41-7	Beryllium		575	ug/kg		24.8	124	124	2	MS	BAJ	03/02/10 16:49	100302-2	949366
7440-43-9	Cadmium		196	ug/kg	J	130	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-70-2	Calcium		1930000	ug/kg	E	10400	32400	32400	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-47-3	Chromium		11500	ug/kg		194	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-48-4	Cobalt	J,I10a	3310	ug/kg	*	194	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-50-8	Copper	J,I10a	6300	ug/kg	*	389	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-89-6	Iron		10800000	ug/kg	E	10400	32400	32400	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-92-1	Lead	J+,I6b	28300	ug/kg	*N	324	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	1210000	ug/kg	EN	11000	38900	38900	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-96-5	Manganese	J,I10a	246000	ug/kg	*	259	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-97-6	Mercury		15	ug/kg	U	5.09	15	15	1	AV	JXL1	02/18/10 16:09	021810S1-4	951555
7440-02-0	Nickel		6320	ug/kg	*N	124	496	496	2	MS	BAJ	03/02/10 16:49	100302-2	949366
7440-09-7	Potassium	J+,I6b	1190000	ug/kg	EN	8290	32400	32400	1	P	HSC	03/01/10 22:55	030110A-1	949364
7782-49-2	Selenium		1240	ug/kg	U	619	1240	1240	2	MS	BAJ	03/02/10 16:49	100302-2	949366
7440-22-4	Silver		265	ug/kg	J	130	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-23-5	Sodium	U,I4d	76800	ug/kg	*N	9070	32400	32400	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-28-0	Thallium		143	ug/kg	J	74.3	248	248	2	MS	RMJ	02/28/10 15:53	100227-3	949366
7440-62-2	Vanadium		18900	ug/kg		130	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-66-6	Zinc		42300	ug/kg		428	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.502	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.521	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070003 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8151 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3980000	ug/kg	E	8990	26400	26400	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-36-0	Antimony	1320	ug/kg	U	436	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-38-2	Arsenic	1340	ug/kg	J*	269	1350	1350	2	MS	BAJ	03/02/10 16:51	100302-2	949366
7440-39-3	Barium J+,I6b	52300	ug/kg	*N	132	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-41-7	Beryllium	831	ug/kg		26.9	135	135	2	MS	BAJ	03/02/10 16:51	100302-2	949366
7440-43-9	Cadmium	183	ug/kg	J	132	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-70-2	Calcium	822000	ug/kg	E	10600	33000	33000	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-47-3	Chromium	41400	ug/kg		198	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-48-4	Cobalt J,I10a	4310	ug/kg	*	198	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-50-8	Copper J,I10a	6600	ug/kg	*	396	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-89-6	Iron	8160000	ug/kg	E	10600	33000	33000	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-92-1	Lead J,I4a	12400	ug/kg	*N	330	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-95-4	Magnesium J+,I6b	637000	ug/kg	EN	11200	39600	39600	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-96-5	Manganese J,I10a	281000	ug/kg	*	264	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-97-6	Mercury	17	ug/kg		4.79	14.1	14.1	1	AV	JXL1	02/18/10 16:11	021810S1-4	951555
7440-02-0	Nickel	4850	ug/kg	*N	135	539	539	2	MS	BAJ	03/02/10 16:51	100302-2	949366
7440-09-7	Potassium J+,I6b	714000	ug/kg	EN	8460	33000	33000	1	P	HSC	03/01/10 23:02	030110A-1	949364
7782-49-2	Selenium	1350	ug/kg	U	674	1350	1350	2	MS	BAJ	03/02/10 16:51	100302-2	949366
7440-22-4	Silver	188	ug/kg	J	132	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-23-5	Sodium U,I4d	84800	ug/kg	*N	9250	33000	33000	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-28-0	Thallium	144	ug/kg	J	80.8	269	269	2	MS	RMJ	02/28/10 15:59	100227-3	949366
7440-62-2	Vanadium	8990	ug/kg		132	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-66-6	Zinc	39500	ug/kg		436	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.517	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.507	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.582	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070004 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8163 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		15800000	ug/kg	E	7770	22900	22900	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-36-0	Antimony		1140	ug/kg	U	377	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-38-2	Arsenic		3180	ug/kg	*	236	1180	1180	2	MS	BAJ	03/02/10 16:53	100302-2	949366
7440-39-3	Barium	J+,I6b	170000	ug/kg	*N	114	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-41-7	Beryllium		1090	ug/kg		23.6	118	118	2	MS	BAJ	03/02/10 16:53	100302-2	949366
7440-43-9	Cadmium		186	ug/kg	J	114	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-70-2	Calcium		2440000	ug/kg	E	9150	28600	28600	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-47-3	Chromium		13600	ug/kg		172	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-48-4	Cobalt	J,I10a	6210	ug/kg	*	172	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-50-8	Copper	J,I10a	7710	ug/kg	*	343	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-89-6	Iron		16600000	ug/kg	E	9150	28600	28600	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-92-1	Lead	J+,I6b	17400	ug/kg	*N	286	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	2460000	ug/kg	EN	9720	34300	34300	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-96-5	Manganese	J,I10a	358000	ug/kg	*	229	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-97-6	Mercury		16.3	ug/kg		4.3	12.6	12.6	1	AV	JXL1	02/18/10 16:13	021810S1-4	951555
7440-02-0	Nickel		10200	ug/kg	*N	118	471	471	2	MS	BAJ	03/02/10 16:53	100302-2	949366
7440-09-7	Potassium	J+,I6b	2170000	ug/kg	EN	7320	28600	28600	1	P	HSC	03/01/10 23:23	030110A-1	949364
7782-49-2	Selenium		1180	ug/kg	U	589	1180	1180	2	MS	BAJ	03/02/10 16:53	100302-2	949366
7440-22-4	Silver		663	ug/kg		114	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-23-5	Sodium	U,I4d	89400	ug/kg	*N	8000	28600	28600	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-28-0	Thallium		256	ug/kg		70.7	236	236	2	MS	RMJ	02/28/10 16:05	100227-3	949366
7440-62-2	Vanadium		30600	ug/kg		114	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-66-6	Zinc		35800	ug/kg		377	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.515	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.559	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070005 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8148 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11500000	ug/kg	E	10300	30300	30300	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-36-0	Antimony	1510	ug/kg	U	500	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-38-2	Arsenic	1950	ug/kg	*	297	1480	1480	2	MS	BAJ	03/02/10 17:00	100302-2	949366
7440-39-3	Barium J+,I6b	135000	ug/kg	*N	151	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-41-7	Beryllium	912	ug/kg		29.7	148	148	2	MS	BAJ	03/02/10 17:00	100302-2	949366
7440-43-9	Cadmium	309	ug/kg	J	151	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-70-2	Calcium	1660000	ug/kg	E	12100	37900	37900	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-47-3	Chromium	21700	ug/kg		227	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-48-4	Cobalt J,I10a	4890	ug/kg	*	227	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-50-8	Copper J,I10a	7170	ug/kg	*	454	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-89-6	Iron	12300000	ug/kg	E	12100	37900	37900	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-92-1	Lead J+,I6b	16400	ug/kg	*N	379	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-95-4	Magnesium J+,I6b	1700000	ug/kg	EN	12900	45400	45400	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-96-5	Manganese J,I10a	315000	ug/kg	*	303	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-97-6	Mercury	14.4	ug/kg	J	5.29	15.6	15.6	1	AV	JXL1	02/18/10 16:15	021810S1-4	951555
7440-02-0	Nickel	6800	ug/kg	*N	148	593	593	2	MS	BAJ	03/02/10 17:00	100302-2	949366
7440-09-7	Potassium J+,I6b	1690000	ug/kg	EN	9690	37900	37900	1	P	HSC	03/01/10 23:30	030110A-1	949364
7782-49-2	Selenium	1480	ug/kg	U	742	1480	1480	2	MS	BAJ	03/02/10 17:00	100302-2	949366
7440-22-4	Silver	203	ug/kg	J	151	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-23-5	Sodium U,I4d	77000	ug/kg	*N	10600	37900	37900	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-28-0	Thallium	214	ug/kg	J	89	297	297	2	MS	RMJ	02/28/10 16:23	100227-3	949366
7440-62-2	Vanadium	23400	ug/kg		151	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-66-6	Zinc	29200	ug/kg		500	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.514	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070006 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8166 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		4420000	ug/kg	E	8290	24400	24400	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-36-0	Antimony		1220	ug/kg	U	402	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-38-2	Arsenic		1560	ug/kg	*	242	1210	1210	2	MS	BAJ	03/02/10 17:02	100302-2	949366
7440-39-3	Barium	J+,I6b	71900	ug/kg	*N	122	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-41-7	Beryllium		364	ug/kg		24.2	121	121	2	MS	BAJ	03/02/10 17:02	100302-2	949366
7440-43-9	Cadmium		609	ug/kg	U	122	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-70-2	Calcium		2950000	ug/kg	E	9750	30500	30500	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-47-3	Chromium		13200	ug/kg		183	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-48-4	Cobalt	J,I10a	2360	ug/kg	*	183	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-50-8	Copper	J,I10a	8450	ug/kg	*	366	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-89-6	Iron		8980000	ug/kg	E	9750	30500	30500	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-92-1	Lead	J,I4a	15300	ug/kg	*N	305	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	1430000	ug/kg	EN	10400	36600	36600	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-96-5	Manganese	J,I10a	241000	ug/kg	*	244	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-97-6	Mercury		13.3	ug/kg	U	4.52	13.3	13.3	1	AV	JXL1	02/18/10 16:17	021810S1-4	951555
7440-02-0	Nickel		7200	ug/kg	*N	121	484	484	2	MS	BAJ	03/02/10 17:02	100302-2	949366
7440-09-7	Potassium	J+,I6b	834000	ug/kg	EN	7800	30500	30500	1	P	HSC	03/01/10 23:37	030110A-1	949364
7782-49-2	Selenium		1210	ug/kg	U	605	1210	1210	2	MS	BAJ	03/02/10 17:02	100302-2	949366
7440-22-4	Silver		506	ug/kg	J	122	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-23-5	Sodium	J,I4a	134000	ug/kg	*N	8530	30500	30500	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-28-0	Thallium		116	ug/kg	J	72.5	242	242	2	MS	RMJ	02/28/10 16:29	100227-3	949366
7440-62-2	Vanadium		12600	ug/kg		122	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-66-6	Zinc		27000	ug/kg		402	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.504	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.55	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070007 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8161 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3830000	ug/kg	E	7320	21500	21500	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-36-0	Antimony	1080	ug/kg	U	355	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-38-2	Arsenic	1420	ug/kg	*	225	1130	1130	2	MS	BAJ	03/02/10 17:04	100302-2	949366
7440-39-3	Barium J+,I6b	106000	ug/kg	*N	108	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-41-7	Beryllium	312	ug/kg		22.5	113	113	2	MS	BAJ	03/02/10 17:04	100302-2	949366
7440-43-9	Cadmium	538	ug/kg	U	108	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-70-2	Calcium	3390000	ug/kg	E	8610	26900	26900	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-47-3	Chromium	11100	ug/kg		162	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-48-4	Cobalt J,I10a	4610	ug/kg	*	162	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-50-8	Copper J,I10a	7780	ug/kg	*	323	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-89-6	Iron	10100000	ug/kg	E	8610	26900	26900	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-92-1	Lead J,I4a	8440	ug/kg	*N	269	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-95-4	Magnesium J+,I6b	1830000	ug/kg	EN	9150	32300	32300	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-96-5	Manganese J,I10a	240000	ug/kg	*	215	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-97-6	Mercury	13.6	ug/kg	U	4.61	13.6	13.6	1	AV	JXL1	02/18/10 16:19	021810S1-4	951555
7440-02-0	Nickel	3750	ug/kg	*N	113	450	450	2	MS	BAJ	03/02/10 17:04	100302-2	949366
7440-09-7	Potassium J+,I6b	608000	ug/kg	EN	6890	26900	26900	1	P	HSC	03/01/10 23:44	030110A-1	949364
7782-49-2	Selenium	1130	ug/kg	U	563	1130	1130	2	MS	BAJ	03/02/10 17:04	100302-2	949366
7440-22-4	Silver	229	ug/kg	J	108	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-23-5	Sodium J,I4a	113000	ug/kg	*N	7540	26900	26900	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-28-0	Thallium	225	ug/kg	U	67.6	225	225	2	MS	RMJ	02/28/10 16:35	100227-3	949366
7440-62-2	Vanadium	15700	ug/kg		108	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-66-6	Zinc	32200	ug/kg		355	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.502	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.5	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070008 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8154 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		12000000	ug/kg	E	8800	25900	25900	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-36-0	Antimony		1290	ug/kg	U	427	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-38-2	Arsenic		2130	ug/kg	*	249	1240	1240	2	MS	BAJ	03/02/10 17:06	100302-2	949366
7440-39-3	Barium	J+,I6b	181000	ug/kg	*N	129	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-41-7	Beryllium		679	ug/kg		24.9	124	124	2	MS	BAJ	03/02/10 17:06	100302-2	949366
7440-43-9	Cadmium		635	ug/kg	J	129	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-70-2	Calcium		2300000	ug/kg	E	10400	32400	32400	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-47-3	Chromium		12100	ug/kg		194	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-48-4	Cobalt	J,I10a	7860	ug/kg	*	194	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-50-8	Copper	J,I10a	10800	ug/kg	*	388	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-89-6	Iron		14700000	ug/kg	E	10400	32400	32400	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-92-1	Lead	J+,I6b	35700	ug/kg	*N	324	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	2120000	ug/kg	EN	11000	38800	38800	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-96-5	Manganese	J,I10a	525000	ug/kg	*	259	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-97-6	Mercury		10.4	ug/kg	J	4.76	14	14	1	AV	JXL1	02/18/10 16:21	021810S1-4	951555
7440-02-0	Nickel		6260	ug/kg	*N	124	498	498	2	MS	BAJ	03/02/10 17:06	100302-2	949366
7440-09-7	Potassium	J+,I6b	2310000	ug/kg	EN	8290	32400	32400	1	P	HSC	03/01/10 23:51	030110A-1	949364
7782-49-2	Selenium		1240	ug/kg	U	622	1240	1240	2	MS	BAJ	03/02/10 17:06	100302-2	949366
7440-22-4	Silver		528	ug/kg	J	129	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-23-5	Sodium	U,I4d	77000	ug/kg	*N	9060	32400	32400	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-28-0	Thallium		145	ug/kg	J	74.7	249	249	2	MS	RMJ	02/28/10 16:40	100227-3	949366
7440-62-2	Vanadium		31300	ug/kg		129	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-66-6	Zinc		41000	ug/kg		427	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.52	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.555	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070009 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8156 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7560000	ug/kg	E	8430	24800	24800	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-36-0	Antimony	1240	ug/kg	U	409	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-38-2	Arsenic	1990	ug/kg	*	258	1290	1290	2	MS	BAJ	03/02/10 17:08	100302-2	949366
7440-39-3	Barium J+,I6b	117000	ug/kg	*N	124	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-41-7	Beryllium	599	ug/kg		25.8	129	129	2	MS	BAJ	03/02/10 17:08	100302-2	949366
7440-43-9	Cadmium	178	ug/kg	J	124	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-70-2	Calcium	1700000	ug/kg	E	9920	31000	31000	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-47-3	Chromium	12900	ug/kg		186	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-48-4	Cobalt J,I10a	3660	ug/kg	*	186	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-50-8	Copper J,I10a	7650	ug/kg	*	372	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-89-6	Iron	10300000	ug/kg	E	9920	31000	31000	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-92-1	Lead J+,I6b	18200	ug/kg	*N	310	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-95-4	Magnesium J+,I6b	1380000	ug/kg	EN	10500	37200	37200	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-96-5	Manganese J,I10a	271000	ug/kg	*	248	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-97-6	Mercury	5.31	ug/kg	J	5.18	15.2	15.2	1	AV	JXL1	02/18/10 16:27	021810S1-4	951555
7440-02-0	Nickel	6110	ug/kg	*N	129	517	517	2	MS	BAJ	03/02/10 17:08	100302-2	949366
7440-09-7	Potassium J+,I6b	1310000	ug/kg	EN	7940	31000	31000	1	P	HSC	03/01/10 23:58	030110A-1	949364
7782-49-2	Selenium	1290	ug/kg	U	646	1290	1290	2	MS	BAJ	03/02/10 17:08	100302-2	949366
7440-22-4	Silver	244	ug/kg	J	124	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-23-5	Sodium U,I4d	80000	ug/kg	*N	8680	31000	31000	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-28-0	Thallium	137	ug/kg	J	77.5	258	258	2	MS	RMJ	02/28/10 16:46	100227-3	949366
7440-62-2	Vanadium	17900	ug/kg		124	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-66-6	Zinc	32000	ug/kg		409	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.521	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.509	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070010 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8159 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		16600000	ug/kg	E	7370	21700	21700	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-36-0	Antimony		1080	ug/kg	U	357	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-38-2	Arsenic		3010	ug/kg	*	219	1100	1100	2	MS	BAJ	03/02/10 17:10	100302-2	949366
7440-39-3	Barium	J+,I6b	174000	ug/kg	*N	108	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-41-7	Beryllium		1020	ug/kg		21.9	110	110	2	MS	BAJ	03/02/10 17:10	100302-2	949366
7440-43-9	Cadmium		162	ug/kg	J	108	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-70-2	Calcium		2710000	ug/kg	E	8670	27100	27100	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-47-3	Chromium		13600	ug/kg		162	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-48-4	Cobalt	J,I10a	5640	ug/kg	*	162	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-50-8	Copper	J,I10a	8260	ug/kg	*	325	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-89-6	Iron		15900000	ug/kg	E	8670	27100	27100	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-92-1	Lead	J,I4a	13300	ug/kg	*N	271	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	2660000	ug/kg	EN	9210	32500	32500	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-96-5	Manganese	J,I10a	303000	ug/kg	*	217	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-97-6	Mercury		15.4	ug/kg		3.84	11.3	11.3	1	AV	JXL1	02/18/10 16:29	021810S1-4	951555
7440-02-0	Nickel		9310	ug/kg	*N	110	438	438	2	MS	BAJ	03/02/10 17:10	100302-2	949366
7440-09-7	Potassium	J+,I6b	1990000	ug/kg	EN	6930	27100	27100	1	P	HSC	03/02/10 00:05	030110A-1	949364
7782-49-2	Selenium		1100	ug/kg	U	548	1100	1100	2	MS	BAJ	03/02/10 17:10	100302-2	949366
7440-22-4	Silver		354	ug/kg	J	108	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-23-5	Sodium	J,I4a	121000	ug/kg	*N	7580	27100	27100	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-28-0	Thallium		321	ug/kg		65.8	219	219	2	MS	RMJ	02/28/10 16:52	100227-3	949366
7440-62-2	Vanadium		30100	ug/kg		108	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-66-6	Zinc		29300	ug/kg		357	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.521	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.515	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070011 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8157 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		20800000	ug/kg	E	7470	22000	22000	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-36-0	Antimony		1100	ug/kg	U	362	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-38-2	Arsenic		2730	ug/kg	*	215	1080	1080	2	MS	BAJ	03/02/10 17:12	100302-2	949366
7440-39-3	Barium	J+,I6b	223000	ug/kg	*N	110	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-41-7	Beryllium		1170	ug/kg		21.5	108	108	2	MS	BAJ	03/02/10 17:12	100302-2	949366
7440-43-9	Cadmium		256	ug/kg	J	110	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-70-2	Calcium		2790000	ug/kg	E	8790	27500	27500	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-47-3	Chromium		14000	ug/kg		165	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-48-4	Cobalt	J,I10a	7480	ug/kg	*	165	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-50-8	Copper	J,I10a	10200	ug/kg	*	329	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-89-6	Iron		17300000	ug/kg	E	8790	27500	27500	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-92-1	Lead	J+,I6b	15700	ug/kg	*N	275	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	3080000	ug/kg	EN	9340	32900	32900	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-96-5	Manganese	J,I10a	408000	ug/kg	*	220	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-97-6	Mercury		24.4	ug/kg		4.45	13.1	13.1	1	AV	JXL1	02/18/10 16:31	021810S1-4	951555
7440-02-0	Nickel		9820	ug/kg	*N	108	431	431	2	MS	BAJ	03/02/10 17:12	100302-2	949366
7440-09-7	Potassium	J+,I6b	2490000	ug/kg	EN	7030	27500	27500	1	P	HSC	03/02/10 00:13	030110A-1	949364
7782-49-2	Selenium		1080	ug/kg	U	539	1080	1080	2	MS	BAJ	03/02/10 17:12	100302-2	949366
7440-22-4	Silver		246	ug/kg	J	110	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-23-5	Sodium	J,I4a	136000	ug/kg	*N	7690	27500	27500	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-28-0	Thallium		228	ug/kg		64.6	215	215	2	MS	RMJ	02/28/10 16:58	100227-3	949366
7440-62-2	Vanadium		33100	ug/kg		110	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-66-6	Zinc		34100	ug/kg		362	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.515	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.518	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070012 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8158 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	21100000	ug/kg	E	7860	23100	23100	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-36-0	Antimony	1160	ug/kg	U	381	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-38-2	Arsenic	3080	ug/kg	*	234	1170	1170	2	MS	BAJ	03/02/10 17:14	100302-2	949366
7440-39-3	Barium J+,I6b	226000	ug/kg	*N	116	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-41-7	Beryllium	1330	ug/kg		23.4	117	117	2	MS	BAJ	03/02/10 17:14	100302-2	949366
7440-43-9	Cadmium	278	ug/kg	J	116	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-70-2	Calcium	2780000	ug/kg	E	9240	28900	28900	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-47-3	Chromium	15600	ug/kg		173	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-48-4	Cobalt J,I10a	7270	ug/kg	*	173	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-50-8	Copper J,I10a	10000	ug/kg	*	347	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-89-6	Iron	17900000	ug/kg	E	9240	28900	28900	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-92-1	Lead J+,I6b	16500	ug/kg	*N	289	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-95-4	Magnesium J+,I6b	3190000	ug/kg	EN	9820	34700	34700	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-96-5	Manganese J,I10a	445000	ug/kg	*	231	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-97-6	Mercury	13.3	ug/kg	U	4.54	13.3	13.3	1	AV	JXL1	02/18/10 16:33	021810S1-4	951555
7440-02-0	Nickel	11100	ug/kg	*N	117	468	468	2	MS	BAJ	03/02/10 17:14	100302-2	949366
7440-09-7	Potassium J+,I6b	2540000	ug/kg	EN	7400	28900	28900	1	P	HSC	03/02/10 00:20	030110A-1	949364
7782-49-2	Selenium	1170	ug/kg	U	585	1170	1170	2	MS	BAJ	03/02/10 17:14	100302-2	949366
7440-22-4	Silver	196	ug/kg	J	116	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-23-5	Sodium J,I4a	136000	ug/kg	*N	8090	28900	28900	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-28-0	Thallium	254	ug/kg		70.2	234	234	2	MS	RMJ	02/28/10 17:04	100227-3	949366
7440-62-2	Vanadium	34600	ug/kg		116	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-66-6	Zinc	36200	ug/kg		381	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.512	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.506	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.532	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070013 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8160 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	19200000	ug/kg	E	7880	23200	23200	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-36-0	Antimony	1160	ug/kg	U	382	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-38-2	Arsenic	1080	ug/kg	J*	224	1120	1120	2	MS	BAJ	03/02/10 17:16	100302-2	949366
7440-39-3	Barium J+,I6b	189000	ug/kg	*N	116	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-41-7	Beryllium	355	ug/kg		22.4	112	112	2	MS	BAJ	03/02/10 17:16	100302-2	949366
7440-43-9	Cadmium	212	ug/kg	J	116	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-70-2	Calcium	2440000	ug/kg	E	9270	29000	29000	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-47-3	Chromium	14500	ug/kg		174	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-48-4	Cobalt J,I10a	6090	ug/kg	*	174	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-50-8	Copper J,I10a	7560	ug/kg	*	348	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-89-6	Iron	16000000	ug/kg	E	9270	29000	29000	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-92-1	Lead J,I4a	14600	ug/kg	*N	290	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-95-4	Magnesium J+,I6b	2610000	ug/kg	EN	9850	34800	34800	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-96-5	Manganese J,I10a	317000	ug/kg	*	232	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-97-6	Mercury	11.9	ug/kg	U	4.05	11.9	11.9	1	AV	JXL1	02/18/10 16:35	021810S1-4	951555
7440-02-0	Nickel	3560	ug/kg	*N	112	448	448	2	MS	BAJ	03/02/10 17:16	100302-2	949366
7440-09-7	Potassium J+,I6b	2400000	ug/kg	EN	7420	29000	29000	1	P	HSC	03/02/10 00:41	030110A-1	949364
7782-49-2	Selenium	1120	ug/kg	U	561	1120	1120	2	MS	BAJ	03/02/10 17:16	100302-2	949366
7440-22-4	Silver	287	ug/kg	J	116	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-23-5	Sodium J,I4a	128000	ug/kg	*N	8110	29000	29000	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-28-0	Thallium	69.1	ug/kg	J	67.3	224	224	2	MS	RMJ	02/28/10 17:22	100227-3	949366
7440-62-2	Vanadium	29400	ug/kg		116	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-66-6	Zinc	30200	ug/kg		382	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.508	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.593	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070014 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8149 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		17600000	ug/kg	E	7330	21600	21600	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-36-0	Antimony		1080	ug/kg	U	356	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-38-2	Arsenic		2730	ug/kg	*	222	1110	1110	2	MS	BAJ	03/02/10 17:22	100302-2	949366
7440-39-3	Barium	J+,I6b	190000	ug/kg	*N	108	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-41-7	Beryllium		1300	ug/kg		22.2	111	111	2	MS	BAJ	03/02/10 17:22	100302-2	949366
7440-43-9	Cadmium		264	ug/kg	J	108	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-70-2	Calcium		3110000	ug/kg	E	8620	26900	26900	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-47-3	Chromium		42500	ug/kg		162	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-48-4	Cobalt	J,I10a	6760	ug/kg	*	162	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-50-8	Copper	J,I10a	8850	ug/kg	*	323	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-89-6	Iron		16500000	ug/kg	E	8620	26900	26900	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-92-1	Lead	J,I4a	15000	ug/kg	*N	269	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	2480000	ug/kg	EN	9160	32300	32300	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-96-5	Manganese	J,I10a	365000	ug/kg	*	216	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-97-6	Mercury		21.3	ug/kg		4.49	13.2	13.2	1	AV	JXL1	02/18/10 16:37	021810S1-4	951555
7440-02-0	Nickel		9280	ug/kg	*N	111	445	445	2	MS	BAJ	03/02/10 17:22	100302-2	949366
7440-09-7	Potassium	J+,I6b	2110000	ug/kg	EN	6900	26900	26900	1	P	HSC	03/02/10 00:48	030110A-1	949364
7782-49-2	Selenium		1110	ug/kg	U	556	1110	1110	2	MS	BAJ	03/02/10 17:22	100302-2	949366
7440-22-4	Silver		286	ug/kg	J	108	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-23-5	Sodium	U,I4d	99900	ug/kg	*N	7550	26900	26900	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-28-0	Thallium		291	ug/kg		66.7	222	222	2	MS	RMJ	02/28/10 17:28	100227-3	949366
7440-62-2	Vanadium		33200	ug/kg		108	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-66-6	Zinc		30600	ug/kg		356	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.509	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.514	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070015 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8167 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3660000	ug/kg	E	7670	22600	22600	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-36-0	Antimony	1130	ug/kg	U	372	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-38-2	Arsenic	2910	ug/kg	*	232	1160	1160	2	MS	BAJ	03/02/10 17:24	100302-2	949366
7440-39-3	Barium J+,I6b	74900	ug/kg	*N	113	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-41-7	Beryllium	1040	ug/kg		23.2	116	116	2	MS	BAJ	03/02/10 17:24	100302-2	949366
7440-43-9	Cadmium	121	ug/kg	J	113	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-70-2	Calcium	4220000	ug/kg	E	9020	28200	28200	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-47-3	Chromium	10800	ug/kg		169	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-48-4	Cobalt J,I10a	2380	ug/kg	*	169	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-50-8	Copper J,I10a	5350	ug/kg	*	338	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-89-6	Iron	8490000	ug/kg	E	9020	28200	28200	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-92-1	Lead J+,I6b	19600	ug/kg	*N	282	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-95-4	Magnesium J+,I6b	1070000	ug/kg	EN	9590	33800	33800	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-96-5	Manganese J,I10a	195000	ug/kg	*	226	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-97-6	Mercury	11.4	ug/kg	J	4.62	13.6	13.6	1	AV	JXL1	02/18/10 16:39	021810S1-4	951555
7440-02-0	Nickel	13200	ug/kg	*N	116	465	465	2	MS	BAJ	03/02/10 17:24	100302-2	949366
7440-09-7	Potassium J+,I6b	635000	ug/kg	EN	7220	28200	28200	1	P	HSC	03/02/10 00:55	030110A-1	949364
7782-49-2	Selenium	1160	ug/kg	U	581	1160	1160	2	MS	BAJ	03/02/10 17:24	100302-2	949366
7440-22-4	Silver	153	ug/kg	J	113	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-23-5	Sodium J,I4a	119000	ug/kg	*N	7900	28200	28200	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-28-0	Thallium	332	ug/kg		69.7	232	232	2	MS	RMJ	02/28/10 17:34	100227-3	949366
7440-62-2	Vanadium	14600	ug/kg		113	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-66-6	Zinc	33400	ug/kg		372	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.515	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.513	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070016 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8152 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		21200000	ug/kg	E	8410	24700	24700	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-36-0	Antimony		1240	ug/kg	U	408	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-38-2	Arsenic		3150	ug/kg	*	244	1220	1220	2	MS	BAJ	03/02/10 17:26	100302-2	949366
7440-39-3	Barium	J+,I6b	186000	ug/kg	*N	124	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-41-7	Beryllium		1180	ug/kg		24.4	122	122	2	MS	BAJ	03/02/10 17:26	100302-2	949366
7440-43-9	Cadmium		257	ug/kg	J	124	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-70-2	Calcium		2680000	ug/kg	E	9890	30900	30900	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-47-3	Chromium		13500	ug/kg		185	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-48-4	Cobalt	J,I10a	5520	ug/kg	*	185	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-50-8	Copper	J,I10a	9810	ug/kg	*	371	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-89-6	Iron		16900000	ug/kg	E	9890	30900	30900	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-92-1	Lead	J+,I6b	16000	ug/kg	*N	309	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	2730000	ug/kg	EN	10500	37100	37100	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-96-5	Manganese	J,I10a	296000	ug/kg	*	247	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-97-6	Mercury		18.6	ug/kg		4.82	14.2	14.2	1	AV	JXL1	02/18/10 16:41	02181051-4	951555
7440-02-0	Nickel		9300	ug/kg	*N	122	489	489	2	MS	BAJ	03/02/10 17:26	100302-2	949366
7440-09-7	Potassium	J+,I6b	2380000	ug/kg	EN	7910	30900	30900	1	P	HSC	03/02/10 01:02	030110A-1	949364
7782-49-2	Selenium		1220	ug/kg	U	611	1220	1220	2	MS	BAJ	03/02/10 17:26	100302-2	949366
7440-22-4	Silver		491	ug/kg	J	124	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-23-5	Sodium	U,I4d	105000	ug/kg	*N	8650	30900	30900	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-28-0	Thallium		216	ug/kg	J	73.3	244	244	2	MS	RMJ	02/28/10 17:39	100227-3	949366
7440-62-2	Vanadium		32100	ug/kg		124	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-66-6	Zinc		31300	ug/kg		408	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.506	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.523	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070017 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8150 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		19800000	ug/kg	E	7570	22300	22300	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-36-0	Antimony		1110	ug/kg	U	367	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-38-2	Arsenic		2850	ug/kg	*	222	1110	1110	2	MS	BAJ	03/02/10 17:29	100302-2	949366
7440-39-3	Barium	J+,I6b	183000	ug/kg	*N	111	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-41-7	Beryllium		1240	ug/kg		22.2	111	111	2	MS	BAJ	03/02/10 17:29	100302-2	949366
7440-43-9	Cadmium		214	ug/kg	J	111	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-70-2	Calcium		2290000	ug/kg	E	8900	27800	27800	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-47-3	Chromium		22700	ug/kg		167	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-48-4	Cobalt	J,I10a	6550	ug/kg	*	167	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-50-8	Copper	J,I10a	8500	ug/kg	*	334	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-89-6	Iron		16700000	ug/kg	E	8900	27800	27800	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-92-1	Lead	J,I4a	14200	ug/kg	*N	278	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	2610000	ug/kg	EN	9460	33400	33400	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-96-5	Manganese	J,I10a	329000	ug/kg	*	223	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-97-6	Mercury		17.2	ug/kg		4.24	12.5	12.5	1	AV	JXL1	02/18/10 16:43	021810S1-4	951555
7440-02-0	Nickel		12000	ug/kg	*N	111	443	443	2	MS	BAJ	03/02/10 17:29	100302-2	949366
7440-09-7	Potassium	J+,I6b	2300000	ug/kg	EN	7120	27800	27800	1	P	HSC	03/02/10 01:09	030110A-1	949364
7782-49-2	Selenium		1110	ug/kg	U	554	1110	1110	2	MS	BAJ	03/02/10 17:29	100302-2	949366
7440-22-4	Silver		308	ug/kg	J	111	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-23-5	Sodium	J,I4a	273000	ug/kg	*N	7790	27800	27800	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-28-0	Thallium		293	ug/kg		66.5	222	222	2	MS	RMJ	02/28/10 17:45	100227-3	949366
7440-62-2	Vanadium		31800	ug/kg		111	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-66-6	Zinc		32900	ug/kg		367	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.502	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.535	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070018 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8153 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	20000000	ug/kg	E	8620	25300	25300	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-36-0	Antimony	1270	ug/kg	U	418	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-38-2	Arsenic	2960	ug/kg	*	263	1310	1310	2	MS	BAJ	03/02/10 17:31	100302-2	949366
7440-39-3	Barium J+,I6b	176000	ug/kg	*N	127	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-41-7	Beryllium	1270	ug/kg		26.3	131	131	2	MS	BAJ	03/02/10 17:31	100302-2	949366
7440-43-9	Cadmium	180	ug/kg	J	127	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-70-2	Calcium	2320000	ug/kg	E	10100	31700	31700	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-47-3	Chromium	23200	ug/kg		190	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-48-4	Cobalt J,I10a	6340	ug/kg	*	190	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-50-8	Copper J,I10a	8760	ug/kg	*	380	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-89-6	Iron	18000000	ug/kg	E	10100	31700	31700	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-92-1	Lead J+,I6b	16100	ug/kg	*N	317	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-95-4	Magnesium J+,I6b	2610000	ug/kg	EN	10800	38000	38000	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-96-5	Manganese J,I10a	345000	ug/kg	*	253	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-97-6	Mercury	12.3	ug/kg	J	5.24	15.4	15.4	1	AV	JXL1	02/18/10 16:45	021810S1-4	951555
7440-02-0	Nickel	10500	ug/kg	*N	131	526	526	2	MS	BAJ	03/02/10 17:31	100302-2	949366
7440-09-7	Potassium J+,I6b	2320000	ug/kg	EN	8110	31700	31700	1	P	HSC	03/02/10 01:16	030110A-1	949364
7782-49-2	Selenium	1310	ug/kg	U	657	1310	1310	2	MS	BAJ	03/02/10 17:31	100302-2	949366
7440-22-4	Silver	416	ug/kg	J	127	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-23-5	Sodium J,I4a	277000	ug/kg	*N	8870	31700	31700	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-28-0	Thallium	284	ug/kg		78.9	263	263	2	MS	RMJ	02/28/10 17:51	100227-3	949366
7440-62-2	Vanadium	34600	ug/kg		127	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-66-6	Zinc	32900	ug/kg		418	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.522	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.503	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.515	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070019 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8165 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		18500000	ug/kg	E	7320	21500	21500	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-36-0	Antimony		1080	ug/kg	U	355	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-38-2	Arsenic		2770	ug/kg	*	221	1100	1100	2	MS	BAJ	03/02/10 17:33	100302-2	949366
7440-39-3	Barium	J+,I6b	163000	ug/kg	*N	108	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-41-7	Beryllium		1210	ug/kg		22.1	110	110	2	MS	BAJ	03/02/10 17:33	100302-2	949366
7440-43-9	Cadmium		180	ug/kg	J	108	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-70-2	Calcium		2190000	ug/kg	E	8610	26900	26900	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-47-3	Chromium		18700	ug/kg		162	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-48-4	Cobalt	J,I10a	5630	ug/kg	*	162	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-50-8	Copper	J,I10a	8140	ug/kg	*	323	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-89-6	Iron		16200000	ug/kg	E	8610	26900	26900	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-92-1	Lead	J,I4a	13800	ug/kg	*N	269	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-95-4	Magnesium	J+,I6b	2390000	ug/kg	EN	9150	32300	32300	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-96-5	Manganese	J,I10a	287000	ug/kg	*	215	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-97-6	Mercury		20.9	ug/kg		4.17	12.3	12.3	1	AV	JXL1	02/18/10 17:26	021810S1-4	951555
7440-02-0	Nickel		10100	ug/kg	*N	110	442	442	2	MS	BAJ	03/02/10 17:33	100302-2	949366
7440-09-7	Potassium	J+,I6b	2180000	ug/kg	EN	6890	26900	26900	1	P	HSC	03/02/10 01:23	030110A-1	949364
7782-49-2	Selenium		1100	ug/kg	U	552	1100	1100	2	MS	BAJ	03/02/10 17:33	100302-2	949366
7440-22-4	Silver		480	ug/kg	J	108	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-23-5	Sodium	J,I4a	266000	ug/kg	*N	7540	26900	26900	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-28-0	Thallium		297	ug/kg		66.2	221	221	2	MS	RMJ	02/28/10 17:57	100227-3	949366
7440-62-2	Vanadium		30700	ug/kg		108	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-66-6	Zinc		29300	ug/kg		355	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.512	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.553	g	30	mL	02/17/10	TXB3

ETM
3/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070020 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8155 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	18900000	ug/kg	E	7800	22900	22900	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-36-0	Antimony	1150	ug/kg	U	379	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-38-2	Arsenic	2900	ug/kg	*	225	1130	1130	2	MS	BAJ	03/02/10 17:35	100302-2	949366
7440-39-3	Barium J+,I6b	183000	ug/kg	*N	115	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-41-7	Beryllium	1340	ug/kg		22.5	113	113	2	MS	BAJ	03/02/10 17:35	100302-2	949366
7440-43-9	Cadmium	203	ug/kg	J	115	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-70-2	Calcium	2360000	ug/kg	E	9180	28700	28700	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-47-3	Chromium	12700	ug/kg		172	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-48-4	Cobalt J,I10a	5440	ug/kg	*	172	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-50-8	Copper J,I10a	7990	ug/kg	*	344	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-89-6	Iron	15800000	ug/kg	E	9180	28700	28700	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-92-1	Lead J,I4a	14400	ug/kg	*N	287	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-95-4	Magnesium J+,I6b	2700000	ug/kg	EN	9750	34400	34400	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-96-5	Manganese J,I10a	312000	ug/kg	*	229	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-97-6	Mercury	19.8	ug/kg		4.34	12.8	12.8	1	AV	JXL1	02/18/10 17:28	021810S1-4	951555
7440-02-0	Nickel	10300	ug/kg	*N	113	450	450	2	MS	BAJ	03/02/10 17:35	100302-2	949366
7440-09-7	Potassium J+,I6b	2230000	ug/kg	EN	7340	28700	28700	1	P	HSC	03/02/10 01:30	030110A-1	949364
7782-49-2	Selenium	1130	ug/kg	U	563	1130	1130	2	MS	BAJ	03/02/10 17:35	100302-2	949366
7440-22-4	Silver	240	ug/kg	J	115	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-23-5	Sodium J,I4a	229000	ug/kg	*N	8030	28700	28700	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-28-0	Thallium	289	ug/kg		67.5	225	225	2	MS	RMJ	02/28/10 18:03	100227-3	949366
7440-62-2	Vanadium	29700	ug/kg		115	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-66-6	Zinc	30800	ug/kg		379	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.509	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.519	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.549	g	30	mL	02/17/10	TXB3

ETM
3/19/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1544 VALIDATION DATE: 3/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eric T. Mink ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses associated with batch 948949 were performed on LANL samples from different RNs. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 03/19/10

VALIDATOR'S SIGNATURE: Eric T. Mink DATE: 3/19/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8164	Project:	LANL01004
Sample ID:	246070001	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.5	303	ug/kg	1	AXC2 02/12/10	1538	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
3/19/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8162	Project:	LANL01004
Sample ID:	246070002	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	23.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	88.5	325	ug/kg	1	AXC2 02/12/10	1539	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

ETM
3/19/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8151	Project:	LANL01004
Sample ID:	246070003	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	26.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	112	92.9	342	ug/kg	1	AXC2 02/12/10	1540	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8163	Project:	LANL01004
Sample ID:	246070004	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	15.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.1	294	ug/kg	1	AXC2 02/12/10	1540	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8148	Project:	LANL01004
Sample ID:	246070005	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	35.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	106	389	ug/kg	1	AXC2 02/12/10	1541	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8166	Project:	LANL01004
Sample ID:	246070006	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.9	305	ug/kg	1	AXC2 02/12/10	1542	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8161	Project:	LANL01004
Sample ID:	246070007	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	76.9	283	ug/kg	1	AXC2	02/12/10	1543	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8154	Project:	LANL01004
Sample ID:	246070008	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	22.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	88.0	324	ug/kg	1	AXC2 02/12/10	1544	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8156	Project:	LANL01004
Sample ID:	246070009	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	22.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	87.9	323	ug/kg	1	AXC2	02/12/10	1545	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8159	Project:	LANL01004
Sample ID:	246070010	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	76.8	282	ug/kg	1	AXC2	02/12/10	1549	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8157	Project:	LANL01004
Sample ID:	246070011	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.9	283	ug/kg	1	AXC2 02/12/10	1550	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8158	Project:	LANL01004
Sample ID:	246070012	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	15.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.5	296	ug/kg	1	AXC2 02/12/10	1551	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8160	Project:	LANL01004
Sample ID:	246070013	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	15%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.0	294	ug/kg	1	AXC2 02/12/10	1552	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8149	Project:	LANL01004
Sample ID:	246070014	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.6	267	ug/kg	1	AXC2 02/09/10	1108	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8167	Project:	LANL01004
Sample ID:	246070015	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2	02/09/10	1111	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8152	Project:	LANL01004
Sample ID:	246070016	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	19.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	79.3	292	ug/kg	1	AXC2	02/09/10	1112	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8150	Project:	LANL01004
Sample ID:	246070017	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	10.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	65.2	240	ug/kg	1	AXC2	02/09/10	1113	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8153	Project:	LANL01004
Sample ID:	246070018	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	24.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	86.5	318	ug/kg	1	AXC2 02/09/10	1114	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8165	Project:	LANL01004
Sample ID:	246070019	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.5	267	ug/kg	1	AXC2 02/09/10	1224	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8155	Project:	LANL01004
Sample ID:	246070020	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	14.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.5	270	ug/kg	1	AXC2 02/09/10	1225	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1544C

REQUEST NUMBER: 10-1544

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 246070%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8164	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8164	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8162	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8162	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8151	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8151	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8163	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8163	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8148	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8148	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8166	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8166	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8161	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8161	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8154	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8154	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8156	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8156	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8159	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8159	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8157	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8157	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8158	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8158	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8160	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8160	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8149	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8149	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8167	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8167	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8152	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8152	1	AMBER GLASS	NMED Explosives list	Ice	R

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1544C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8150	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8150	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8153	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8153	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8165	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8165	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8155	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8155	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/2/10	3:00	Greg Tyler		2-3-10	0855
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1544
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/2/2010
TURNAROUND/REPORT DUE: 3/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	
		1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	
		1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	
		1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	
		1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	

Final Page of REQUEST NUMBER 10-1544

GEL Laboratories

a member of The GEL Group

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 09, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 246070
SDG: 10-1544

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 03, 2010, and analyzed for Explosives by LCMSMS, General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1544
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 246070
SDG: 10-1544

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 5

Data Review Qualifier Flag Definition Sheet..... 14

LC/MS/MS Perchlorate Analysis..... 16
- Sample Data Summary.....22
- Quality Control Summary.....43
- Sample Data..... 70
- Standards Data..... 111
- Quality Control 130
- Miscellaneous Data.....139

LC/MS/MS Explosives Analysis.....145
- Sample Data Summary.....152
- Quality Control Summary.....193
- Sample Data..... 321
- Standards Data.....462
- Quality Control Data.....667
- Miscellaneous Data.....698

Metals Analysis..... 714
- Case Narrative..... 715
- Sample Data Summary.....721
- Quality Control Summary.....742
- Standards.....811
- Raw Data..... 824
- Miscellaneous..... 1251

General Chemistry Analysis..... 1295
- Case Narrative..... 1296

Sample Data Summary.....1302
Quality Control Summary.....1324
Instrument QC Data Summary.....1327
Cyanide, Total.....1329
Miscellaneous.....1358

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246070
SDG # : 10-1544

February 09, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 03, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
246070001	RE15-10-8164
246070002	RE15-10-8162
246070003	RE15-10-8151
246070004	RE15-10-8163
246070005	RE15-10-8148
246070006	RE15-10-8166
246070007	RE15-10-8161
246070008	RE15-10-8154
246070009	RE15-10-8156
246070010	RE15-10-8159
246070011	RE15-10-8157
246070012	RE15-10-8158
246070013	RE15-10-8160
246070014	RE15-10-8149
246070015	RE15-10-8167
246070016	RE15-10-8152
246070017	RE15-10-8150
246070018	RE15-10-8153
246070019	RE15-10-8165
246070020	RE15-10-8155

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 09 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1544C

REQUEST NUMBER: 10-1544

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 246070%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8164	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8164	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8162	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8162	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8151	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8151	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8163	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8163	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8148	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8148	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8166	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8166	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8161	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8161	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8154	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8154	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8156	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8156	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8159	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8159	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8157	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8157	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8158	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8158	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8160	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8160	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8149	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8149	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8167	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8167	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8152	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8152	1	AMBER GLASS	NMED Explosives list	Ice	R

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1544C

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8150	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8150	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8153	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8153	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8165	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8165	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8155	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8155	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/2/10	5:00	Greg Tyler		2-3-10	0855
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1544
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/2/2010
TURNAROUND/REPORT DUE: 3/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	
		1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	
		1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1544

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8148	R	1/29/2010	
		1	RE15-10-8149	R	1/29/2010	
		1	RE15-10-8150	R	1/29/2010	
		1	RE15-10-8151	R	1/29/2010	
		1	RE15-10-8152	R	1/29/2010	
		1	RE15-10-8153	R	1/29/2010	
		1	RE15-10-8154	R	1/29/2010	
		1	RE15-10-8155	R	1/29/2010	
		1	RE15-10-8156	R	1/29/2010	
		1	RE15-10-8157	R	1/29/2010	
		1	RE15-10-8158	R	1/29/2010	
		1	RE15-10-8159	R	1/29/2010	
		1	RE15-10-8160	R	1/29/2010	
		1	RE15-10-8161	R	1/29/2010	
		1	RE15-10-8162	R	1/29/2010	
		1	RE15-10-8163	R	1/29/2010	
		1	RE15-10-8164	R	1/29/2010	
		1	RE15-10-8165	R	1/29/2010	
		1	RE15-10-8166	R	1/29/2010	
		1	RE15-10-8167	R	1/29/2010	

Final Page of REQUEST NUMBER 10-1544

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1544**
Received By: Greg Tyler	**Date Received: 2/03/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-3, 6C** **11,12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7849 8139 1C
7209 7849 8117 2C
7209 7849 8128 3C
7209 7849 8150 6C
7209 7849 8161 6C
7209 7849 8140 11C
7209 7849 8106 12C

BM (or PM) review: Initials BM Date 2/4/10

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

1°

FedEx Express

2 of 2
MPS# 0203 7209 7849 8139
Mstr# 7209 7849 8128 0201

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
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2°

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3 of 3
MPS# 0203 7209 7849 8117
Mstr# 7209 7849 8091 0201

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 08-09

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449

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1 of 2
TRK# 0201 7209 7849 8128
MASTER

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

6°

FedEx Express

1 of 2
TRK# 0201 7209 7849 8150
MASTER

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 0B010AMR2A05150YD0

6°

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2 of 2
MPS# 0263 7209 7849 8161
Mstr# 7209 7849 8150 0201

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 0B010AMR3A05529E00

11°

FedEx Express

TRK# 0201 7209 7849 8140

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 23.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 0B010AMR1A015ACWL0

12°

FedEx Express

2 of 3
MPS# 0263 7209 7849 8106
Mstr# 7209 7849 8091 0201

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1544

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950075
Prep Batch Number:	950073

Sample Analysis

Sample ID	Client ID
246070001	RE15-10-8164
246070002	RE15-10-8162
246070003	RE15-10-8151
246070004	RE15-10-8163
246070005	RE15-10-8148
246070006	RE15-10-8166
246070007	RE15-10-8161
246070008	RE15-10-8154
246070009	RE15-10-8156
246070010	RE15-10-8159
246070011	RE15-10-8157
246070012	RE15-10-8158
246070013	RE15-10-8160
246070014	RE15-10-8149

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246070015	RE15-10-8167
246070016	RE15-10-8152
246070017	RE15-10-8150
246070018	RE15-10-8153
246070019	RE15-10-8165
246070020	RE15-10-8155
1202035669	Interference Check Sample (ICS)
1202035665	Method Blank (MB)
1202035666	Laboratory Control Sample (LCS)
1202035667	246070001(RE15-10-8164) Matrix Spike (MS)
1202035668	246070001(RE15-10-8164) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

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Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 246070001 (RE15-10-8164) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

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Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

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Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert N Meier **Date:** 03/02/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8164

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.606	2.43	0.606	ug/kg	U	1	26-FEB-10 17:23	per0226025a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:23	per0226025a
14797-73-0	Perchlorate-101	.606	2.43	0.606	ug/kg	U	1	26-FEB-10 17:23	per0226025a
	Perchlorate-O(18)			5.52	ug/kg		1	26-FEB-10 17:23	per0226025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8162

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.65	2.6	0.650	ug/kg	U	1	26-FEB-10 17:46	per0226028a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:46	per0226028a
14797-73-0	Perchlorate-101	.65	2.6	0.650	ug/kg	U	1	26-FEB-10 17:46	per0226028a
	Perchlorate-O(18)			5.89	ug/kg		1	26-FEB-10 17:46	per0226028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8151

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.683	2.73	0.683	ug/kg	U	1	26-FEB-10 17:53	per0226029a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:53	per0226029a
14797-73-0	Perchlorate-101	.683	2.73	0.683	ug/kg	U	1	26-FEB-10 17:53	per0226029a
	Perchlorate-O(18)			6.66	ug/kg		1	26-FEB-10 17:53	per0226029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8163

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.589	2.36	0.589	ug/kg	U	1	26-FEB-10 18:01	per0226030a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:01	per0226030a
14797-73-0	Perchlorate-101	.589	2.36	0.589	ug/kg	U	1	26-FEB-10 18:01	per0226030a
	Perchlorate-O(18)			5.44	ug/kg		1	26-FEB-10 18:01	per0226030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8148

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.779	3.11	0.779	ug/kg	U	1	26-FEB-10 18:31	per0226034a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:31	per0226034a
14797-73-0	Perchlorate-101	.779	3.11	0.779	ug/kg	U	1	26-FEB-10 18:31	per0226034a
	Perchlorate-O(18)			7.15	ug/kg		1	26-FEB-10 18:31	per0226034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8166

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.609	2.44	0.609	ug/kg	U	1	26-FEB-10 18:39	per0226035a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:39	per0226035a
14797-73-0	Perchlorate-101	.609	2.44	0.609	ug/kg	U	1	26-FEB-10 18:39	per0226035a
	Perchlorate-O(18)			5.79	ug/kg		1	26-FEB-10 18:39	per0226035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8161

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 18:46	per0226036a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:46	per0226036a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 18:46	per0226036a
	Perchlorate-O(18)			5.30	ug/kg		1	26-FEB-10 18:46	per0226036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8154

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	26-FEB-10 18:54	per0226037a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:54	per0226037a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	26-FEB-10 18:54	per0226037a
	Perchlorate-O(18)			5.98	ug/kg		1	26-FEB-10 18:54	per0226037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8156

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.646	2.58	0.646	ug/kg	U	1	26-FEB-10 19:01	per0226038a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:01	per0226038a
14797-73-0	Perchlorate-101	.646	2.58	0.646	ug/kg	U	1	26-FEB-10 19:01	per0226038a
	Perchlorate-O(18)			5.95	ug/kg		1	26-FEB-10 19:01	per0226038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8159

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	26-FEB-10 19:09	per0226039a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:09	per0226039a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	26-FEB-10 19:09	per0226039a
	Perchlorate-O(18)			5.25	ug/kg		1	26-FEB-10 19:09	per0226039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8157

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.579	ug/kg	J	1	26-FEB-10 19:16	per0226040a
	Perchlorate Isotope Ratio			3.24			1	26-FEB-10 19:16	per0226040a
14797-73-0	Perchlorate-101	.566	2.26	0.572	ug/kg	J	1	26-FEB-10 19:16	per0226040a
	Perchlorate-O(18)			5.20	ug/kg		1	26-FEB-10 19:16	per0226040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8158

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.592	2.37	0.592	ug/kg	U	1	26-FEB-10 19:24	per0226041a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:24	per0226041a
14797-73-0	Perchlorate-101	.592	2.37	0.592	ug/kg	U	1	26-FEB-10 19:24	per0226041a
	Perchlorate-O(18)			5.73	ug/kg		1	26-FEB-10 19:24	per0226041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8160

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.589	2.35	0.589	ug/kg	U	1	26-FEB-10 19:54	per0226045a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:54	per0226045a
14797-73-0	Perchlorate-101	.589	2.35	0.589	ug/kg	U	1	26-FEB-10 19:54	per0226045a
	Perchlorate-O(18)			5.53	ug/kg		1	26-FEB-10 19:54	per0226045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8149

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.566	ug/kg	U	1	26-FEB-10 20:02	per0226046a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:02	per0226046a
14797-73-0	Perchlorate-101	.566	2.26	0.566	ug/kg	U	1	26-FEB-10 20:02	per0226046a
	Perchlorate-O(18)			5.45	ug/kg		1	26-FEB-10 20:02	per0226046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8167

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	26-FEB-10 20:09	per0226047a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:09	per0226047a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	26-FEB-10 20:09	per0226047a
	Perchlorate-O(18)			5.82	ug/kg		1	26-FEB-10 20:09	per0226047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8152

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070016

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.618	2.47	0.618	ug/kg	U	1	26-FEB-10 20:17	per0226048a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:17	per0226048a
14797-73-0	Perchlorate-101	.618	2.47	0.618	ug/kg	U	1	26-FEB-10 20:17	per0226048a
	Perchlorate-O(18)			6.18	ug/kg		1	26-FEB-10 20:17	per0226048a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8150

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070017

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.23	0.619	ug/kg	J	1	26-FEB-10 20:24	per0226049a
	Perchlorate Isotope Ratio			3.07			1	26-FEB-10 20:24	per0226049a
14797-73-0	Perchlorate-101	.556	2.23	0.646	ug/kg	J	1	26-FEB-10 20:24	per0226049a
	Perchlorate-O(18)			6.03	ug/kg		1	26-FEB-10 20:24	per0226049a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8153

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070018

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.661	2.65	0.661	ug/kg	U	1	26-FEB-10 20:32	per0226050a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:32	per0226050a
14797-73-0	Perchlorate-101	.661	2.65	0.661	ug/kg	U	1	26-FEB-10 20:32	per0226050a
	Perchlorate-O(18)			6.30	ug/kg		1	26-FEB-10 20:32	per0226050a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8165

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070019

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 20:40	per0226051a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:40	per0226051a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 20:40	per0226051a
	Perchlorate-O(18)			5.88	ug/kg		1	26-FEB-10 20:40	per0226051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8155

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070020

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.584	2.34	0.584	ug/kg	U	1	26-FEB-10 20:47	per0226052a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:47	per0226052a
14797-73-0	Perchlorate-101	.584	2.34	0.584	ug/kg	U	1	26-FEB-10 20:47	per0226052a
	Perchlorate-O(18)			5.45	ug/kg		1	26-FEB-10 20:47	per0226052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1544

Extract Batch Code: 950073

Date Filtered: 18-FEB-10

Matrix: SOIL

Sample ID: 1202035666

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.97	ug/kg	98.3		70 – 130
Perchlorate Isotope Ratio		3.07				–
Perchlorate-101	2.00	2.05	ug/kg	103		70 – 130
Perchlorate-O(18)		4.71	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1544

Extract Batch Code: 950073

Date Filtered: 18-FEB-10

Matrix: SOIL

Sample ID: 1202035669

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.14	ug/kg	107		70 – 130
Perchlorate Isotope Ratio		3.12				
Perchlorate-101	2.00	2.2	ug/kg	110		70 – 130
Perchlorate-O(18)		4.8	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226024a
Date: 26-Feb-2010
Time: 17:16:12
ID: 1202035669 |LANL|950075|5020|ICS|1|
Vial: 1:4,E

CWJ 02.27.10

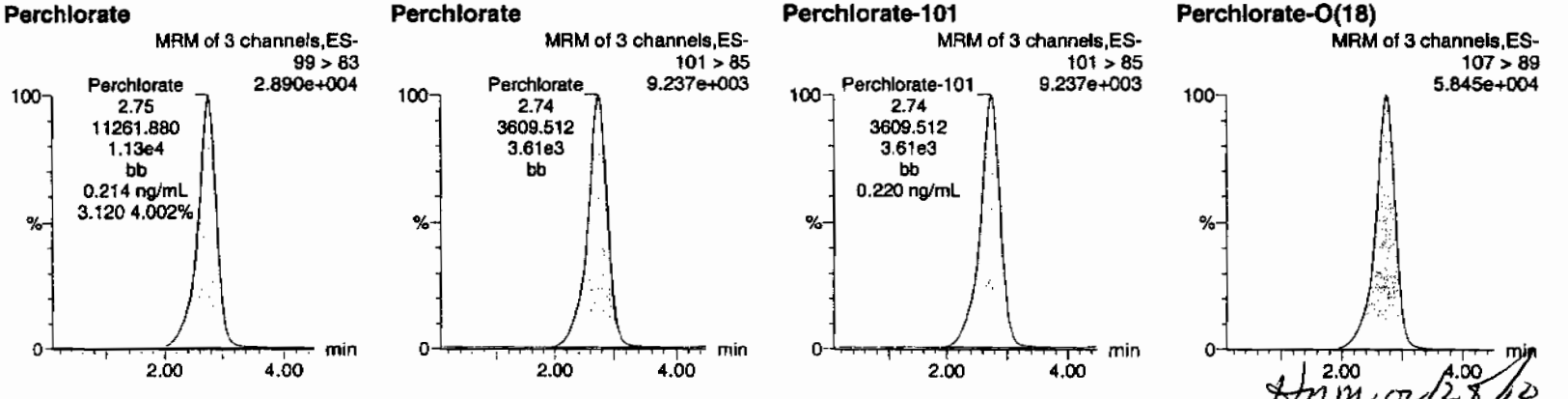

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035669	Perchlorate	99 > 83	2.75	11261.880	11261.880	bb			0.2141	107.05	7.05	3683.1...	3.12
1202035669	Perchlorate-101	101 > 85	2.74	3609.512	3609.512	bb			0.2198	109.91	9.91	1017.0...	
1202035669	Perchlorate-O(18)	107 > 89	2.74	22750.129	22750.129	bb			0.4804	96.07	-3.93	4029.2...	

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1544

Extract Batch Code: 950073

Date Extracted: 18-FEB-10

GEL MS/PS ID: 1202035667

Client ID: RE15-10-8164

GEL MSD/PSD ID: 1202035668

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.43	0.0918	ug/kg	2.37	94.1	2.62	104	9.73	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.25		3.05		0		–
Perchlorate–101	2.43	0.0746	ug/kg	2.34	93.3	2.75	110	16.3	30	75 – 125
Perchlorate–O(18)	0	5.52	ug/kg	5.51		5.8		5.14		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1544

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	26-FEB-10	per0226001a	IPB001
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226001a	IPB001
Perchlorate	0.00	0	NA	26-FEB-10	per0226002a	IPB001
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charters W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022610a.mdb 27 Feb 2010 11:35:41
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022610a.cdb 27 Feb 2010 11:36:46

Name: per0226001a
Date: 26-Feb-2010
Time: 14:22:44
ID: IPB001
Vial: 1:1,A

02-27-10

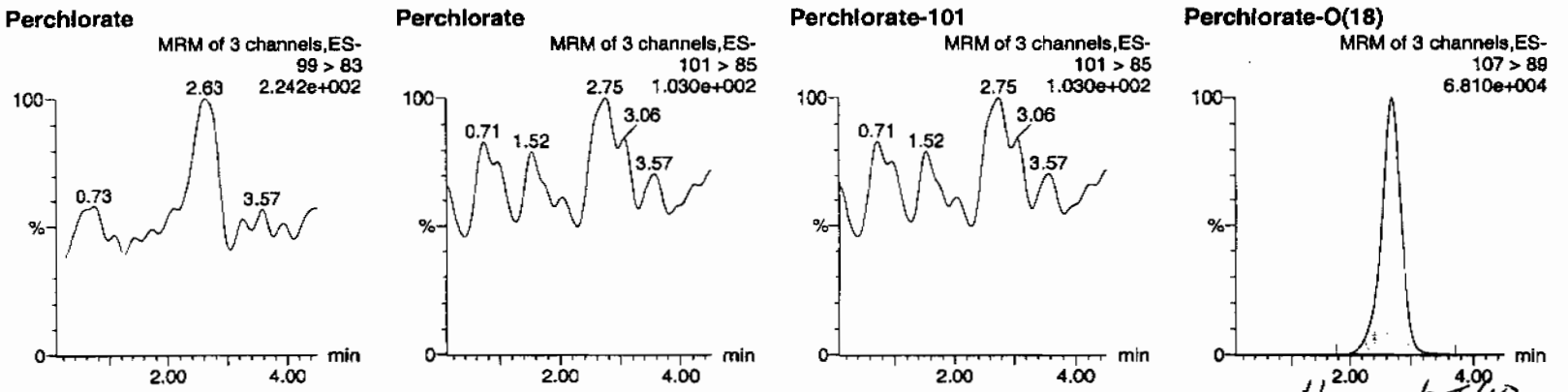

HM 02/27/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.70	25656.617	25656.617	bb			0.5417	108.35	8.35	8398.2...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226002a
Date: 26-Feb-2010
Time: 14:30:16
ID: IPB001
Vial: 1:1,A

CWW 02-27-10

Perchlorate

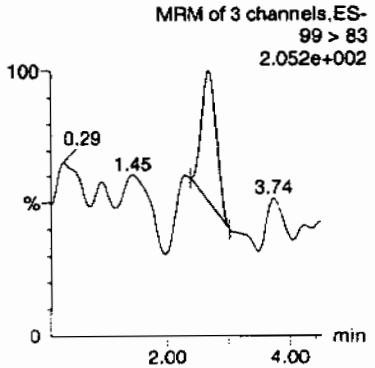

Perchlorate

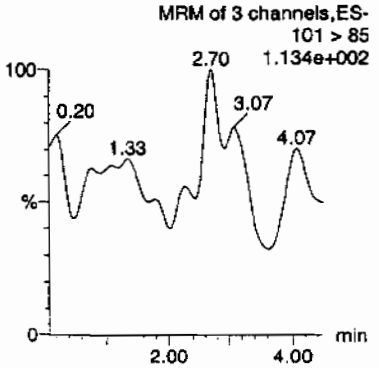

Perchlorate-101

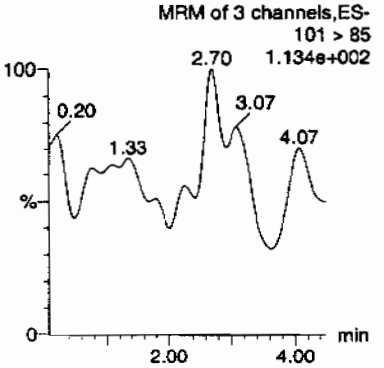

Perchlorate-O(18)

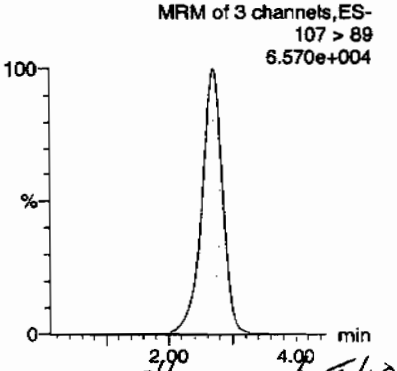

dmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	2.68	29.927	29.927	bb			0.0006			14.731	0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.69	24881.035	24881.035	bb			0.5254	105.07	5.07	8017.4...	

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1544

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	26-FEB-10	per0226008a	IPB002
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226008a	IPB002
Perchlorate	0.00	0	NA	26-FEB-10	per0226010a	IPB003
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226010a	IPB003
Perchlorate	0.00	0	NA	26-FEB-10	per0226020a	IPB004
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226020a	IPB004
Perchlorate	0.00	0	NA	26-FEB-10	per0226032a	IPB005
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226032a	IPB005
Perchlorate	0.00	0	NA	26-FEB-10	per0226043a	IPB006
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226043a	IPB006
Perchlorate	0.00	0	NA	26-FEB-10	per0226054a	IPB007
Perchlorate-101	0.00	0	NA	26-FEB-10	per0226054a	IPB007

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226008a
Date: 26-Feb-2010
Time: 15:15:36
ID: IPB002
Vial: 1:1,A

WO 02-27-10

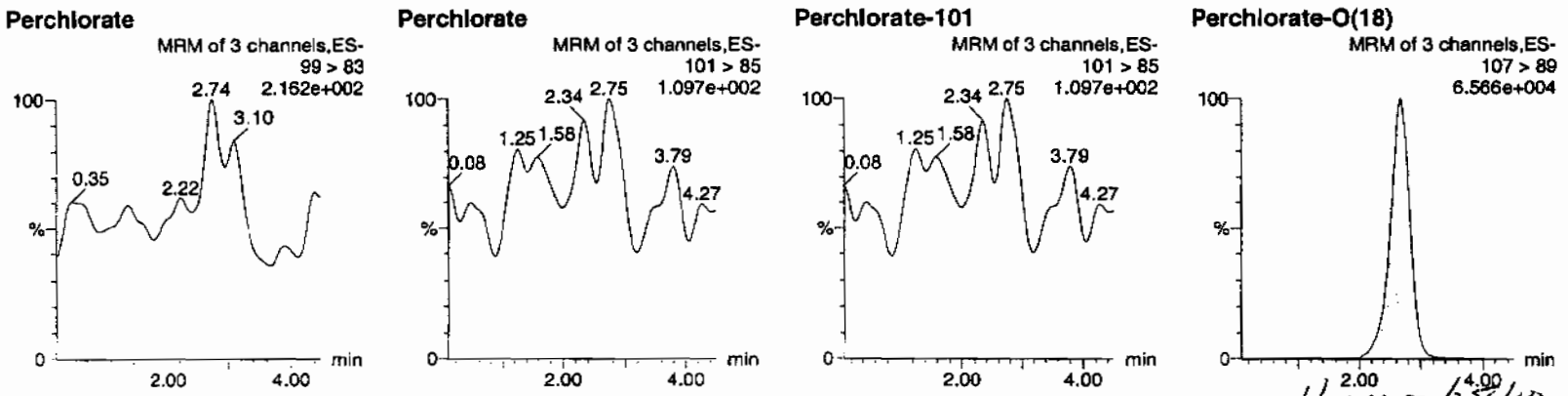

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.69	24805.863	24805.863	bb			0.5238	104.75	4.75	14221....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226010a
Date: 26-Feb-2010
Time: 15:30:41
ID: IPB003
Vial: 1:1,A

CWW
02-27-10

Perchlorate

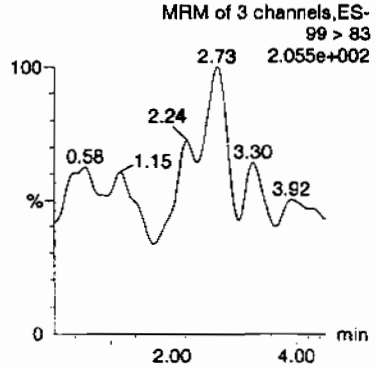

Perchlorate

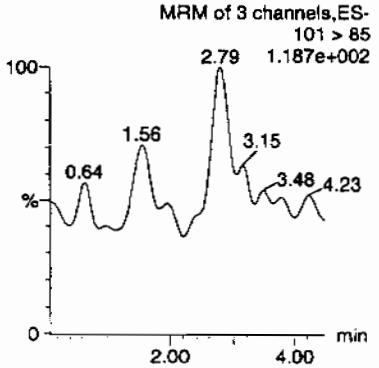

Perchlorate-101

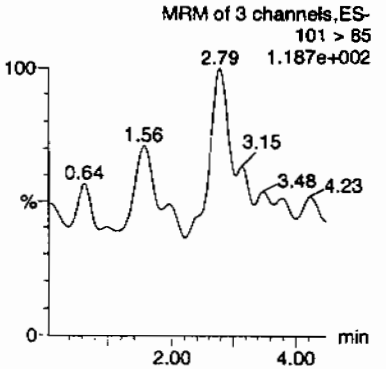

Perchlorate-O(18)

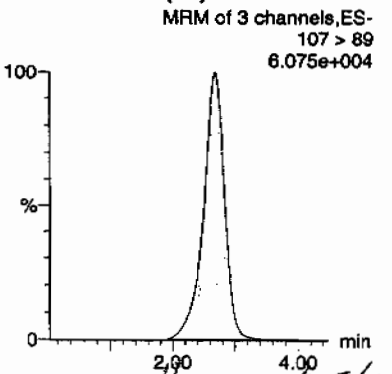

HMK 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	2.69	23705.783	23705.783	bb			0.5005	100.11	0.11	4190.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226020a
Date: 26-Feb-2010
Time: 16:46:04
ID: IPB004
Vial: 1:1,A

CWW
02-27-10

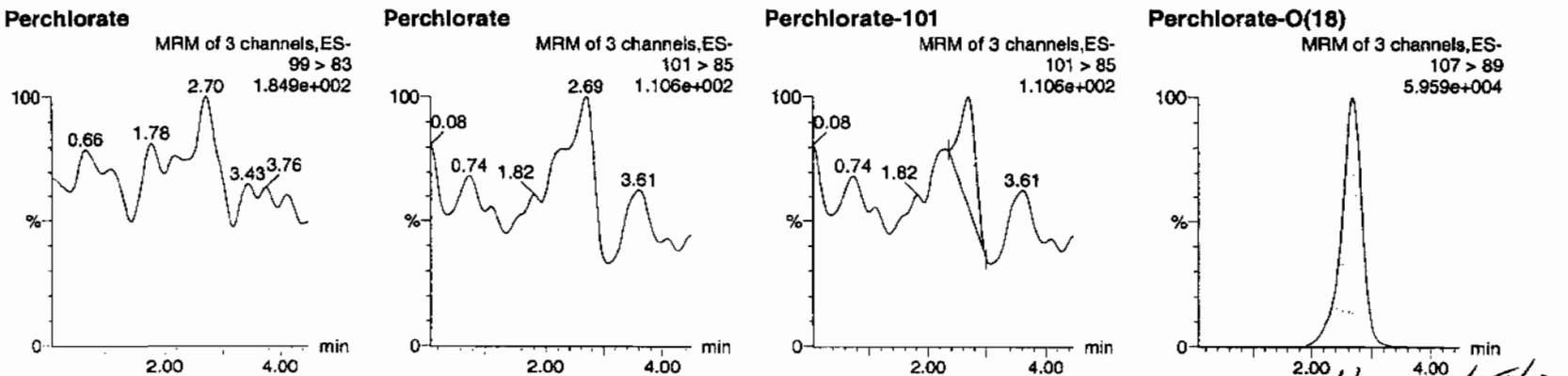

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85	2.69	15.220	15.220	bb			0.0009			9.775	
IPB004	Perchlorate-O(18)	107 > 89	2.68	23481.873	23481.873	bb			0.4958	99.16	-0.84	3900.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226032a
Date: 26-Feb-2010
Time: 18:16:34
ID: IPB005
Vial: 1:1,A

CWD
02-27-10

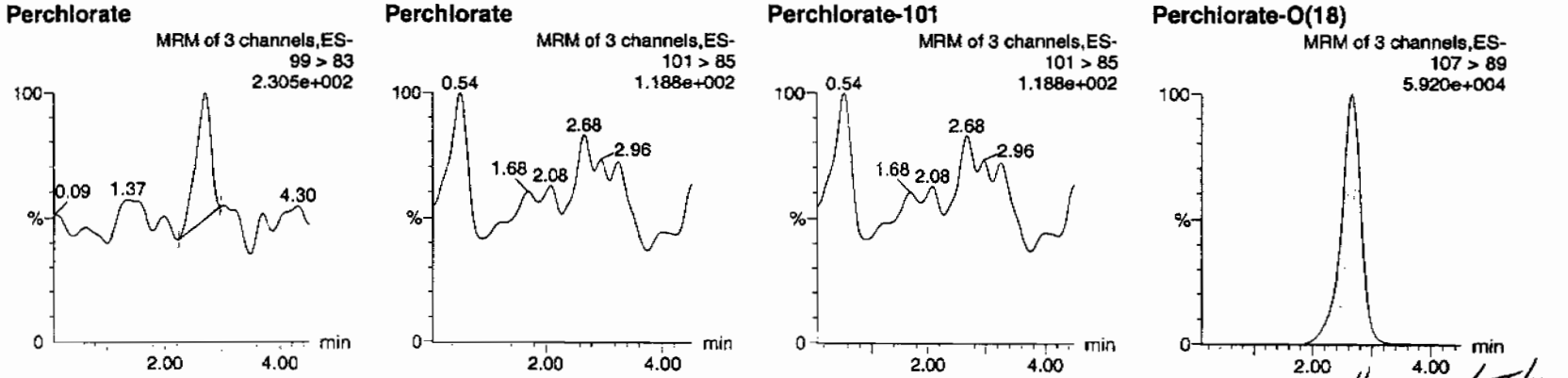

HMC 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	2.70	37.144	37.144	bb			0.0007			8.354	0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.66	23208.525	23208.525	bb			0.4900	98.01	-1.99	20809....	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226043a
Date: 26-Feb-2010
Time: 19:39:38
ID: IPB006
Vial: 1:1,A

CWW 02-27-10

Perchlorate

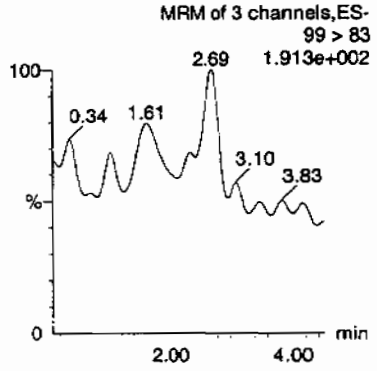

Perchlorate

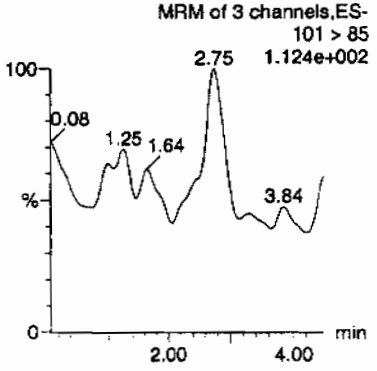

Perchlorate-101

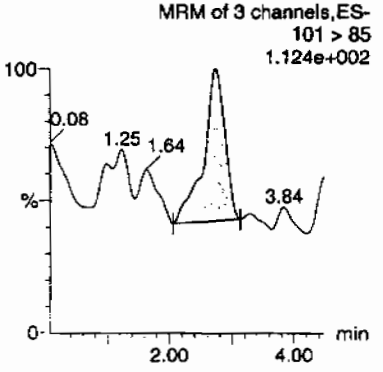

Perchlorate-O(18)

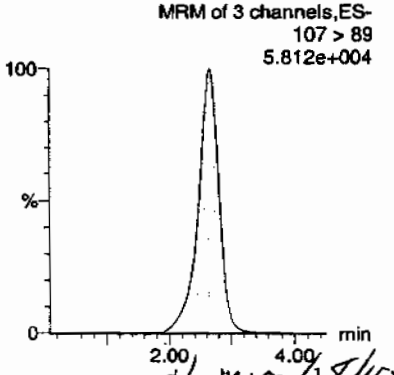

Hmw 2/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85	2.75	25.414	25.414	bb			0.0015			37.670	
IPB006	Perchlorate-O(18)	107 > 89	2.65	22821.285	22821.285	bb			0.4819	96.37 ✓	-3.63	2729.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226054a
Date: 26-Feb-2010
Time: 21:02:48
ID: IPB007
Vial: 1:1,A

Amo
02-27-10

Perchlorate

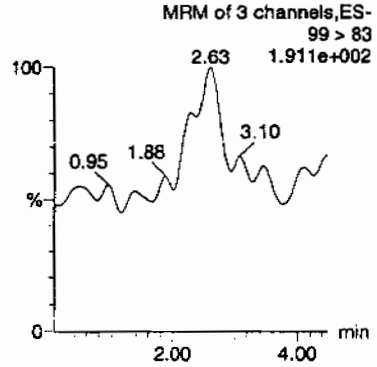

Perchlorate

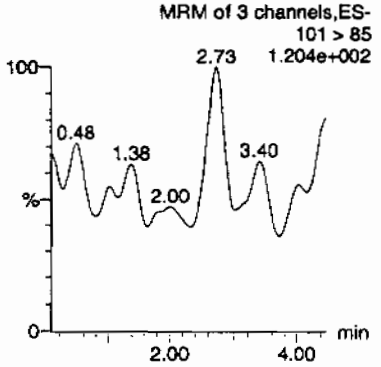

Perchlorate-101

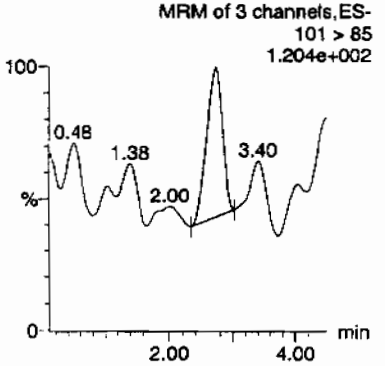

Perchlorate-O(18)

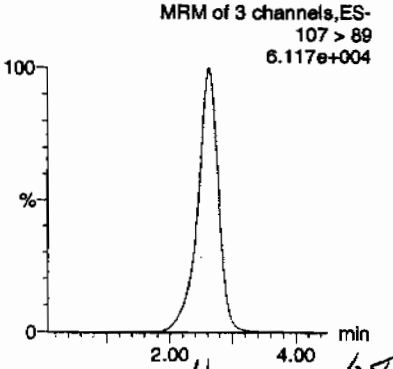

Hmc 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85	2.73	20.344	20.344	bb			0.0012			7.239	
IPB007	Perchlorate-O(18)	107 > 89	2.63	23721.002	23721.002	bb			0.5009	100.17	0.17	14247....	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CURSOR 01-08-08

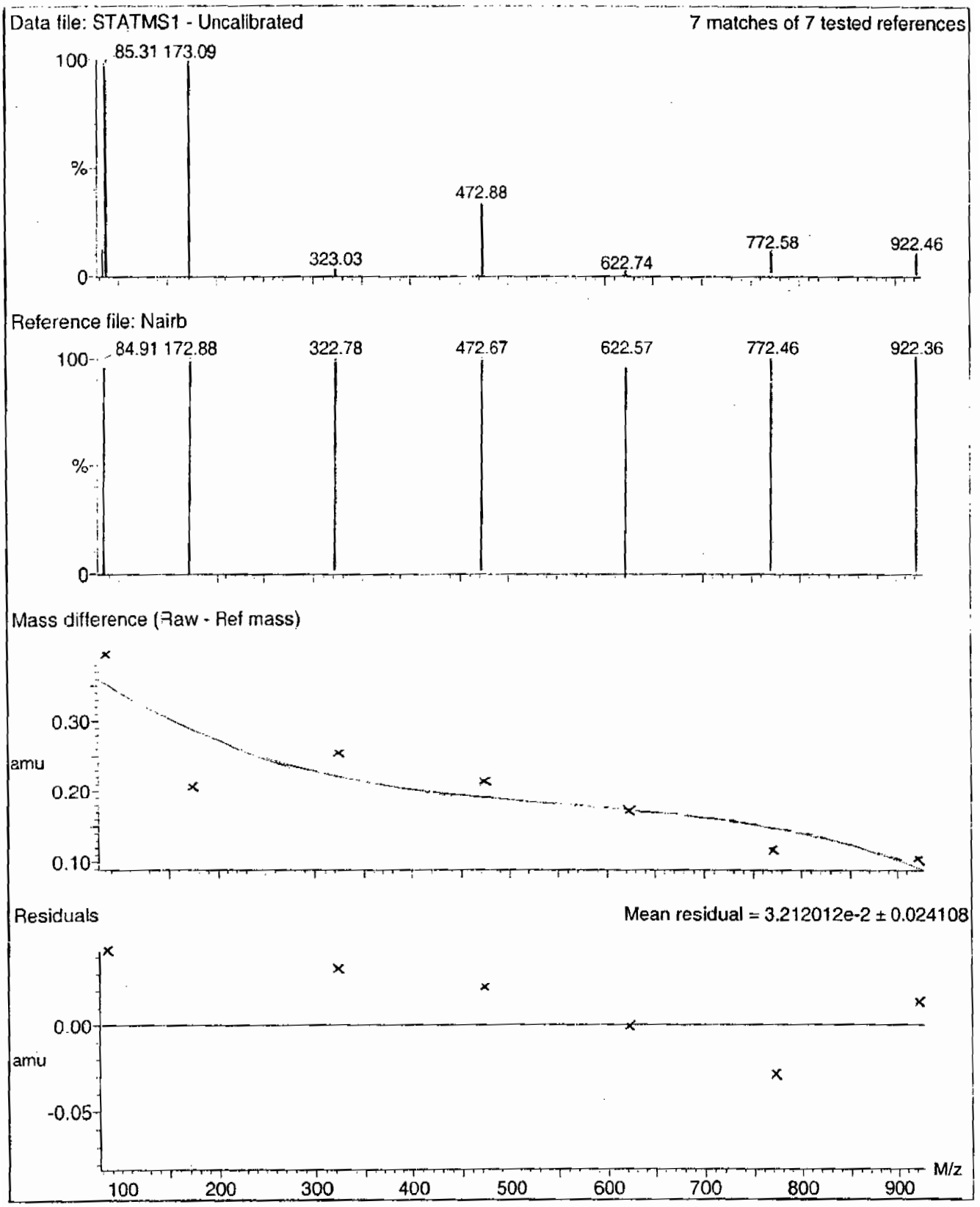

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

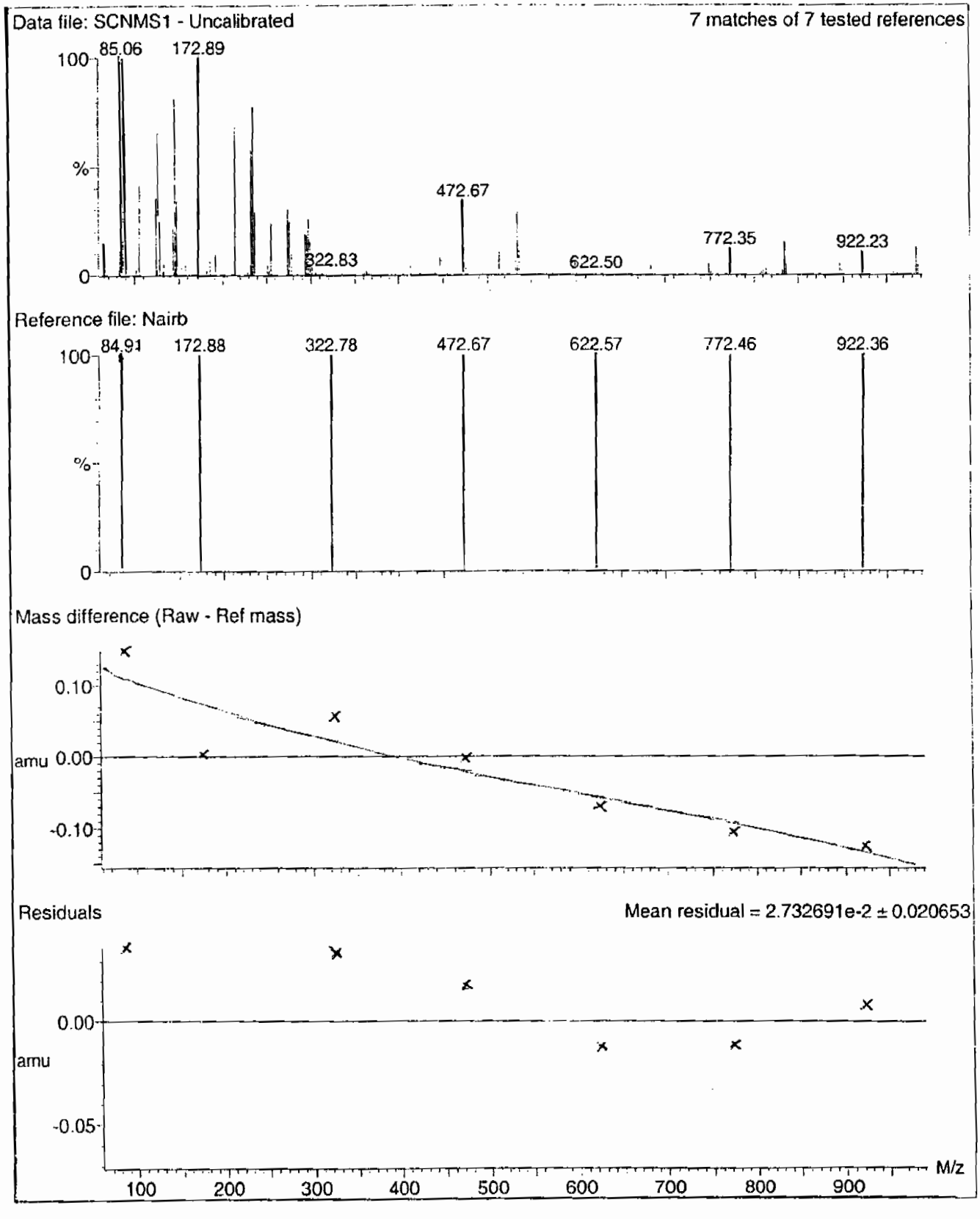

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

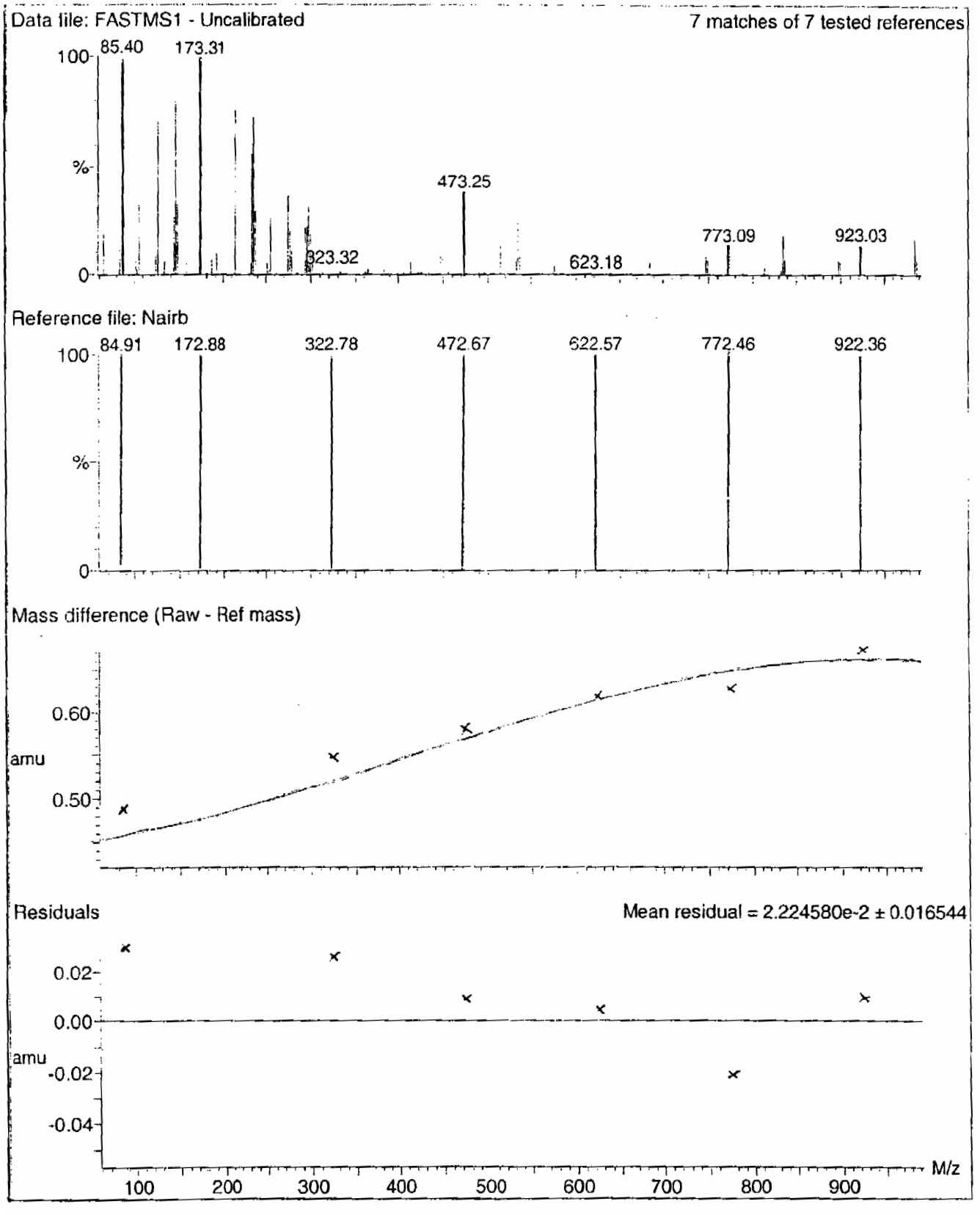

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

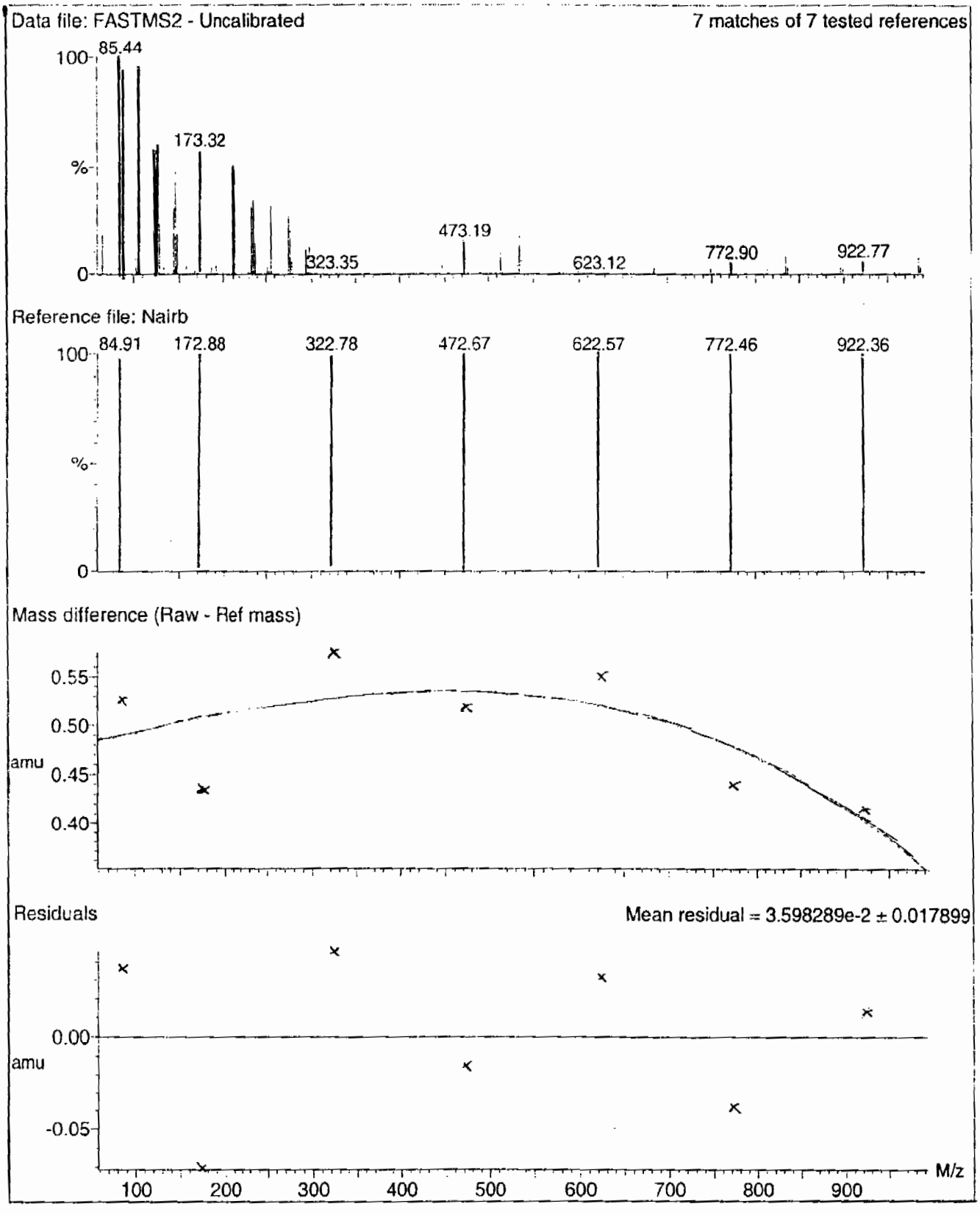

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

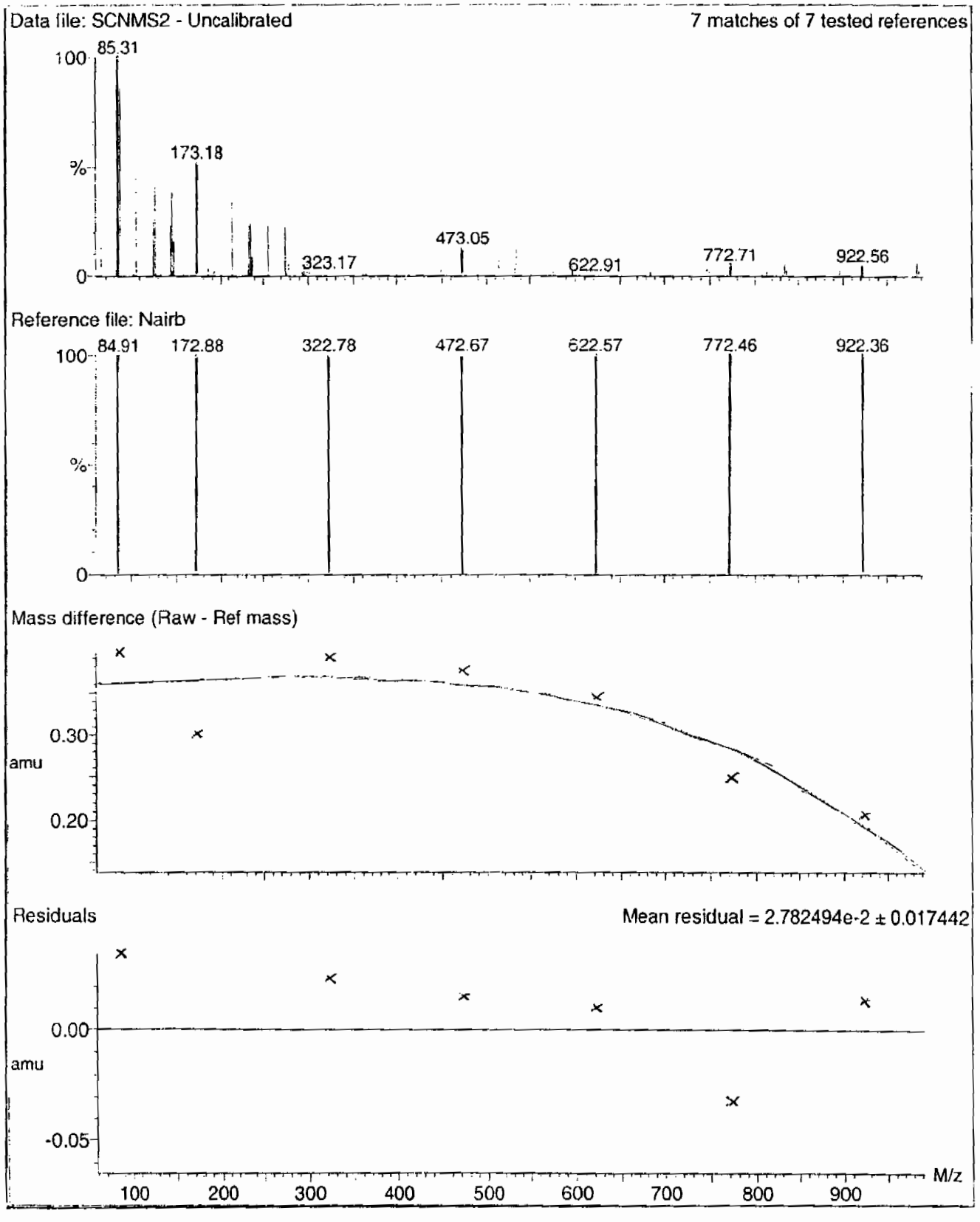

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

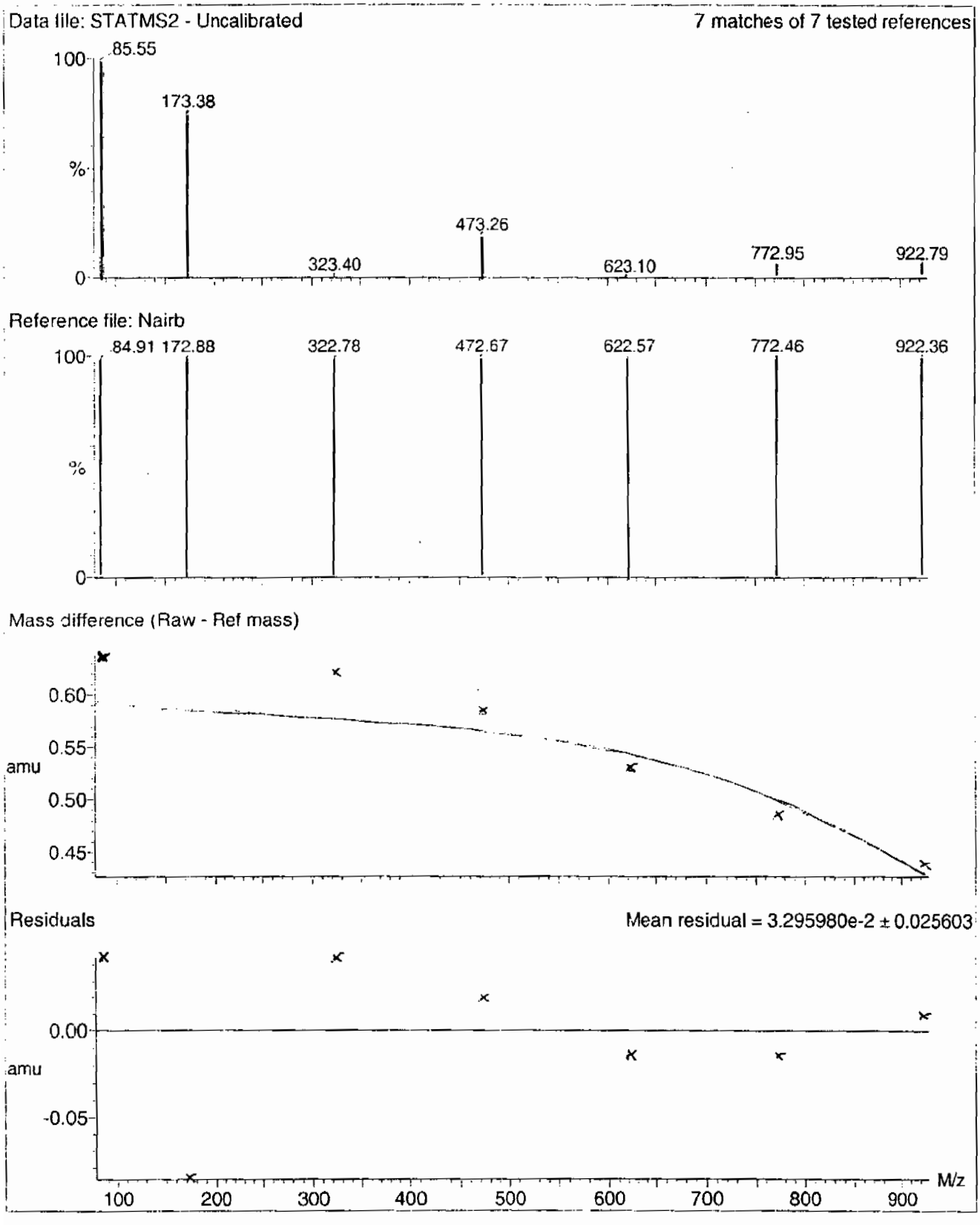

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Friday, February 26, 2010 09:58:57 Eastern Standard Time

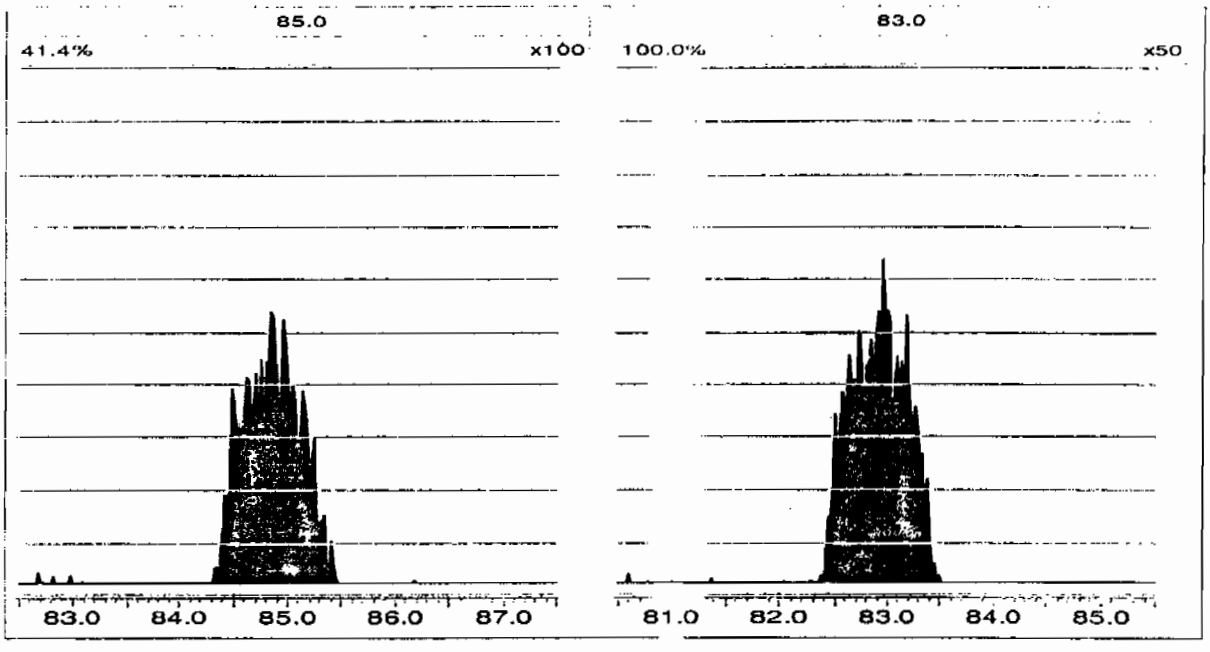

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1544

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0226006a**	**26–FEB–10**	**23518.4**				
Lower Area Limit			**11759.2**				
Upper Area Limit			**47036.8**				
1202035665	per0226022a	26–FEB–10 17:01	22600.3	2.69	2.6878	.999	
1202035666	per0226023a	26–FEB–10 17:08	22292.3	2.68	2.6878	1.003	
1202035669	per0226024a	26–FEB–10 17:16	22750.1	2.74	2.74987	1.004	
246070001	per0226025a	26–FEB–10 17:23	21561	2.68	2.67533	.998	
1202035667	per0226026a	26–FEB–10 17:31	21527.8	2.68	2.6878	1.003	
1202035668	per0226027a	26–FEB–10 17:38	22663.1	2.66	2.68782	1.01	
246070002	per0226028a	26–FEB–10 17:46	21441.2	2.68	2.68782	1.003	
246070003	per0226029a	26–FEB–10 17:53	23072.2	2.68	2.68782	1.003	

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Perchlorate RT And Area Summary

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1544

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0226006a**	**26-FEB-10**	**23518.4**				
Lower Area Limit			**11759.2**				
Upper Area Limit			**47036.8**				
246070004	per0226030a	26-FEB-10 18:01	21894.3	2.66	2.68783	1.01	
246070005	per0226034a	26-FEB-10 18:31	21755.3	2.66	2.66287	1.001	
246070006	per0226035a	26-FEB-10 18:39	22482.2	2.66	2.67535	1.006	
246070007	per0226036a	26-FEB-10 18:46	22194.8	2.66	2.66288	1.001	
246070008	per0226037a	26-FEB-10 18:54	21880.8	2.66	2.67533	1.006	
246070009	per0226038a	26-FEB-10 19:01	21821.5	2.65	2.65053	1	
246070010	per0226039a	26-FEB-10 19:09	22040.8	2.65	2.67533	1.01	
246070011	per0226040a	26-FEB-10 19:16	21779.8	2.66	2.66288	1.001	

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1544

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0226006a**	**26–FEB–10**	**23518.4**				
Lower Area Limit			**11759.2**				
Upper Area Limit			**47036.8**				
246070012	per0226041a	26–FEB–10 19:24	22916	2.64	2.65057	1.004	
246070013	per0226045a	26–FEB–10 19:54	22244.4	2.64	2.66288	1.009	
246070014	per0226046a	26–FEB–10 20:02	22798.1	2.64	2.65057	1.004	
246070015	per0226047a	26–FEB–10 20:09	23712.5	2.64	2.65053	1.004	
246070016	per0226048a	26–FEB–10 20:17	23691	2.63	2.62563	.998	
246070017	per0226049a	26–FEB–10 20:24	25645.4	2.61	2.6256	1.006	
246070018	per0226050a	26–FEB–10 20:32	22550.9	2.63	2.62563	.998	
246070019	per0226051a	26–FEB–10 20:40	24649.3	2.63	2.65053	1.008	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1544

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0226006a**	**26–FEB–10**	**23518.4**				
Lower Area Limit			**11759.2**				
Upper Area Limit			**47036.8**				
246070020	per0226052a	26–FEB–10 20:47	22085.2	2.63	2.65055	1.008	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8164

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.606	2.43	0.606	ug/kg	U	1	26-FEB-10 17:23	per0226025a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:23	per0226025a
14797-73-0	Perchlorate-101	.606	2.43	0.606	ug/kg	U	1	26-FEB-10 17:23	per0226025a
	Perchlorate-O(18)			5.52	ug/kg		1	26-FEB-10 17:23	per0226025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226025a
Date: 26-Feb-2010
Time: 17:23:44
ID: 246070001
Vial: 1:4,F

|LANL|950075|50120|1|

02-27-10

Perchlorate

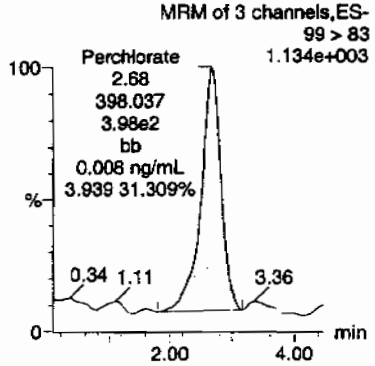

Perchlorate

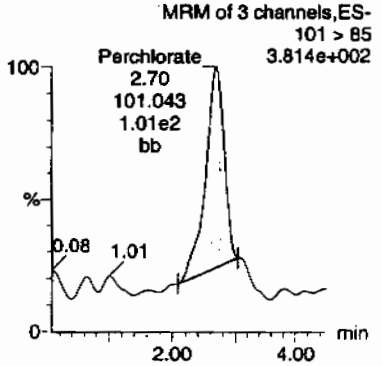

Perchlorate-101

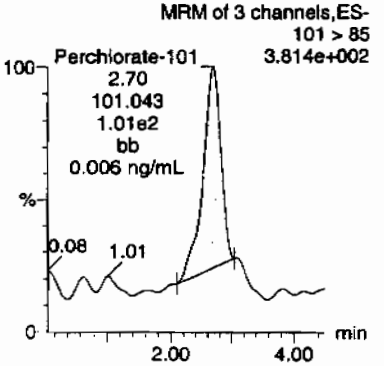

Perchlorate-O(18)

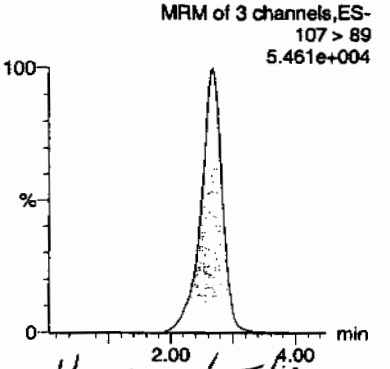

HMW 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070001	Perchlorate	99 > 83	2.68	398.037	398.037	bb			0.0076			192.890	3.94
246070001	Perchlorate-101	101 > 85	2.70	101.043	101.043	bb			0.0062			75.111	
246070001	Perchlorate-O(18)	107 > 89	2.68	21561.018	21561.018	bb			0.4553	91.05	-8.95	9528.2...	

OKAY
LAOSOO

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8162

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.65	2.6	0.650	ug/kg	U	1	26-FEB-10 17:46	per0226028a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:46	per0226028a
14797-73-0	Perchlorate-101	.65	2.6	0.650	ug/kg	U	1	26-FEB-10 17:46	per0226028a
	Perchlorate-O(18)			5.89	ug/kg		1	26-FEB-10 17:46	per0226028a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Page 740 of 559

Name: per0226028a
Date: 26-Feb-2010
Time: 17:46:24
ID: 246070002
Vial: 1:5,C

|LANL|950075|50120|1|

CWD 02-27-10

Perchlorate

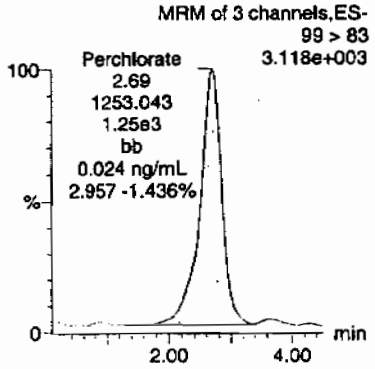

Perchlorate

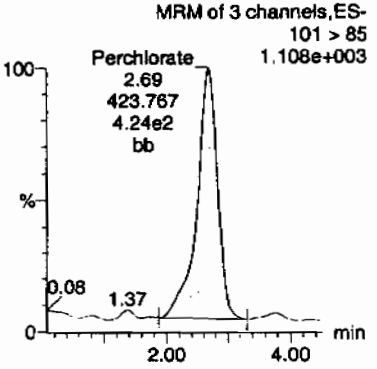

Perchlorate-101

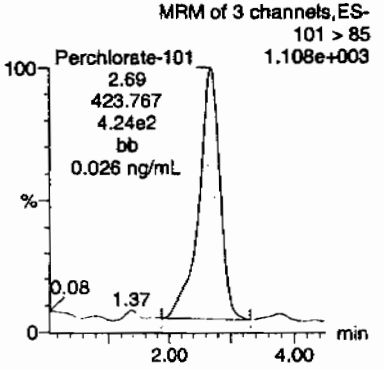

Perchlorate-O(18)

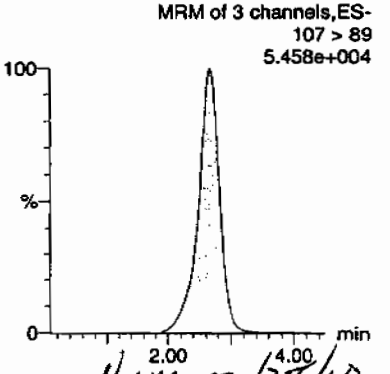

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070002	Perchlorate	99 > 83	2.69	1253.043	1253.043	bb			0.0238			57.407	2.96
246070002	Perchlorate-101	101 > 85	2.69	423.767	423.767	bb			0.0258			10.811	
246070002	Perchlorate-O(18)	107 > 89	2.68	21441.188	21441.188	bb			0.4527	90.55	-9.45	4651.4...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8151

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 73

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.683	2.73	0.683	ug/kg	U	1	26-FEB-10 17:53	per0226029a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:53	per0226029a
14797-73-0	Perchlorate-101	.683	2.73	0.683	ug/kg	U	1	26-FEB-10 17:53	per0226029a
	Perchlorate-O(18)			6.66	ug/kg		1	26-FEB-10 17:53	per0226029a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226029a
Date: 26-Feb-2010
Time: 17:53:56
ID: 246070003
Vial: 1:5,D

|LANL|950075|50120|1|

CWW 02.27.10

Perchlorate

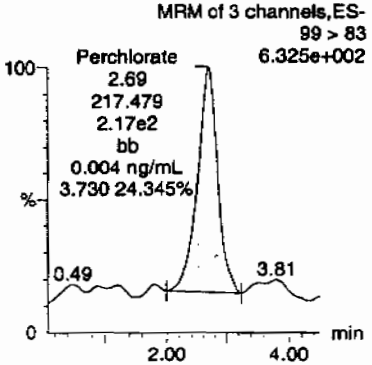

Perchlorate

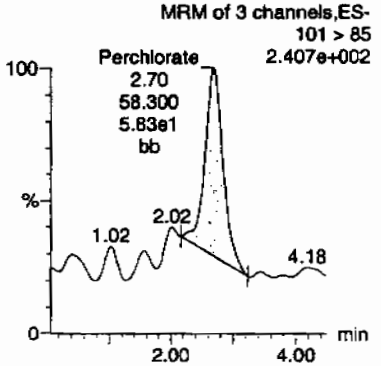

Perchlorate-101

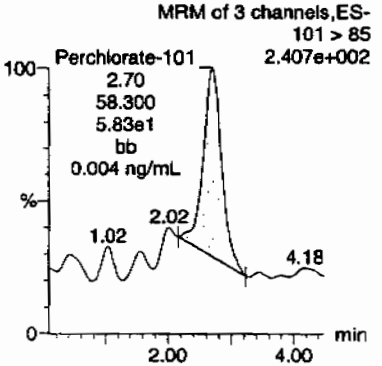

Perchlorate-O(18)

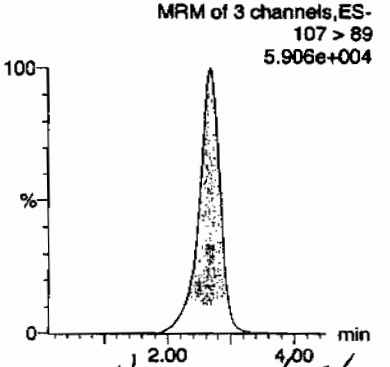

HJM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070003	Perchlorate	99 > 83	2.69	217.479	217.479	bb			0.0041			48.874	3.73
246070003	Perchlorate-101	101 > 85	2.70	58.300	58.300	bb			0.0036			47.503	
246070003	Perchlorate-O(18)	107 > 89	2.68	23072.217	23072.217	bb			0.4872	97.43	-2.57	19291....	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8163

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.589	2.36	0.589	ug/kg	U	1	26-FEB-10 18:01	per0226030a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:01	per0226030a
14797-73-0	Perchlorate-101	.589	2.36	0.589	ug/kg	U	1	26-FEB-10 18:01	per0226030a
	Perchlorate-O(18)			5.44	ug/kg		1	26-FEB-10 18:01	per0226030a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226030a
Date: 26-Feb-2010
Time: 18:01:29
ID: 246070004
Vial: 1:5,E

|LANL|950375|30120|1|

GWO 02.27.10

Perchlorate

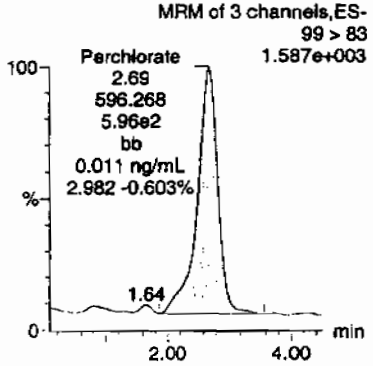

Perchlorate

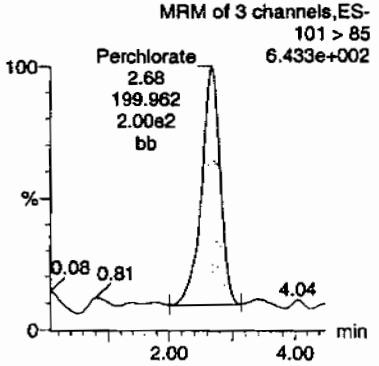

Perchlorate-101

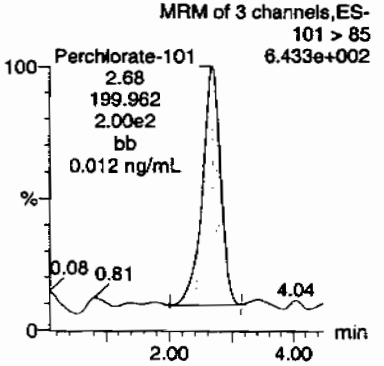

Perchlorate-O(18)

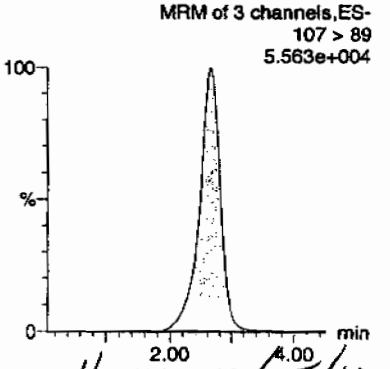

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070004	Perchlorate	99 > 83	2.69	596.268	596.268	bb			0.0113			68.270	2.98
246070004	Perchlorate-101	101 > 85	2.68	199.962	199.962	bb			0.0122			88.964	
246070004	Perchlorate-O(18)	107 > 89	2.66	21894.254	21894.254	bb			0.4623	92.46	-7.54	5886.3...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8148

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 64

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.779	3.11	0.779	ug/kg	U	1	26-FEB-10 18:31	per0226034a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:31	per0226034a
14797-73-0	Perchlorate-101	.779	3.11	0.779	ug/kg	U	1	26-FEB-10 18:31	per0226034a
	Perchlorate-O(18)			7.15	ug/kg		1	26-FEB-10 18:31	per0226034a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226034a
Date: 26-Feb-2010
Time: 18:31:39
ID: 246070005
Vial: 1:5,F

|LANL|950073|SO120|1|

GW 02.27.10

Perchlorate

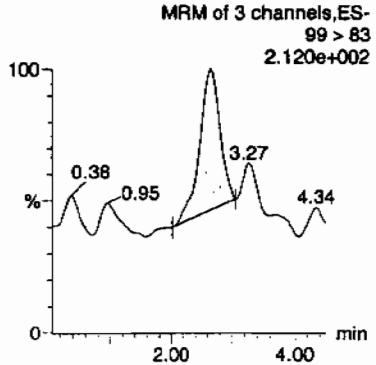

Perchlorate

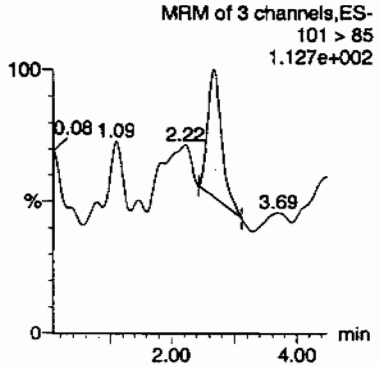

Perchlorate-101

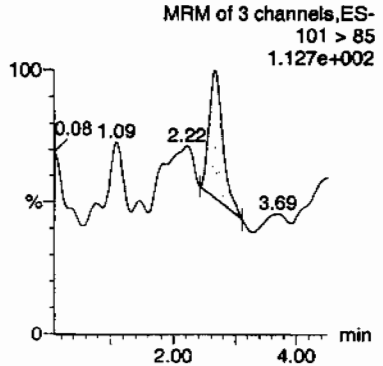

Perchlorate-O(18)

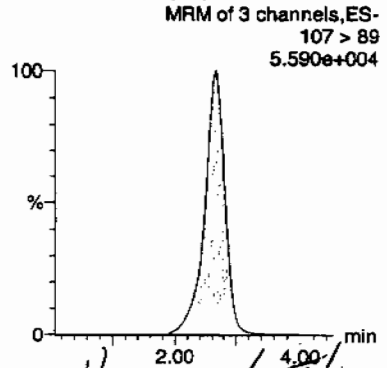

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070005	Perchlorate	99 > 83	2.66	44.704	44.704	bb			0.0008			22.883	3.12
246070005	Perchlorate-101	101 > 85	2.66	14.307	14.307	bb			0.0009			15.430	
246070005	Perchlorate-O(18)	107 > 89	2.66	21755.340	21755.340	bb			0.4594	91.87	-8.13	4608.6...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8166

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.609	2.44	0.609	ug/kg	U	1	26-FEB-10 18:39	per0226035a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:39	per0226035a
14797-73-0	Perchlorate-101	.609	2.44	0.609	ug/kg	U	1	26-FEB-10 18:39	per0226035a
	Perchlorate-O(18)			5.79	ug/kg		1	26-FEB-10 18:39	per0226035a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226035a
Date: 26-Feb-2010
Time: 18:39:10
ID: 246070006
Vial: 1:6,A

|LANL|950075|30120|1|

GWO 02-27-10

Perchlorate

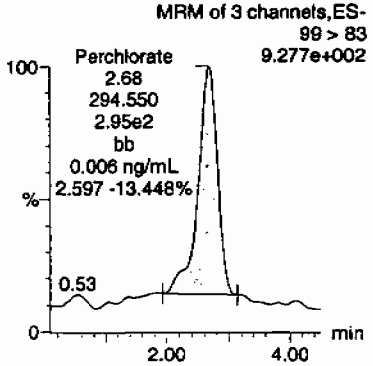

Perchlorate

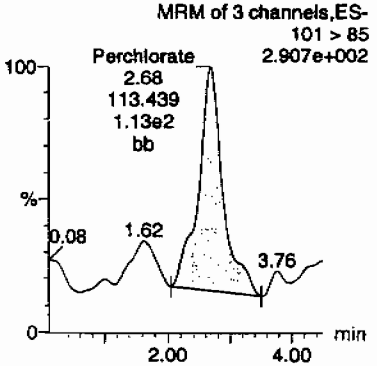

Perchlorate-101

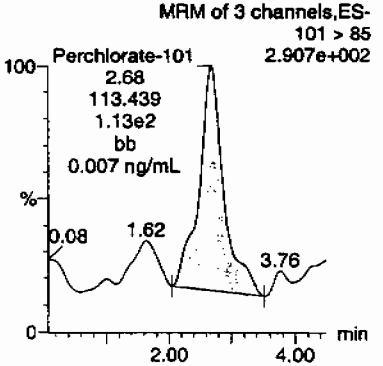

Perchlorate-O(18)

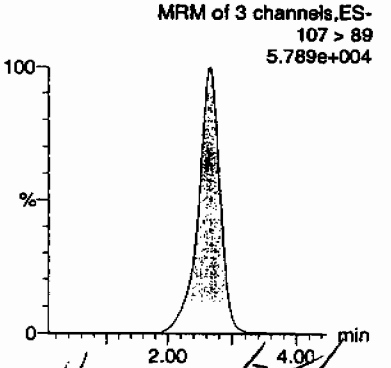

HNM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070006	Perchlorate	99 > 83	2.68	294.550	294.550	bb			0.0056			27.144	2.60
246070006	Perchlorate-101	101 > 85	2.68	113.439	113.439	bb			0.0069			40.334	
246070006	Perchlorate-O(18)	107 > 89	2.66	22482.166	22482.166	bb			0.4747	94.94	-5.06	4792.3...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8161

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 18:46	per0226036a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:46	per0226036a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 18:46	per0226036a
	Perchlorate-O(18)			5.30	ug/kg		1	26-FEB-10 18:46	per0226036a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226036a
Date: 26-Feb-2010
Time: 18:46:45
ID: 246070007
Vial: 1:6,B

|LANL|950075|50120|1|

CWW 02-27-10

Perchlorate

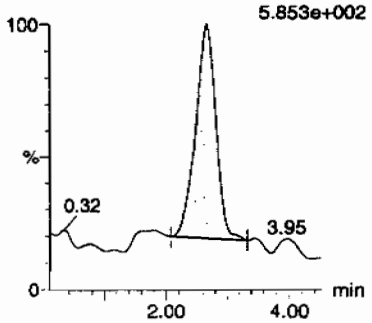

Perchlorate

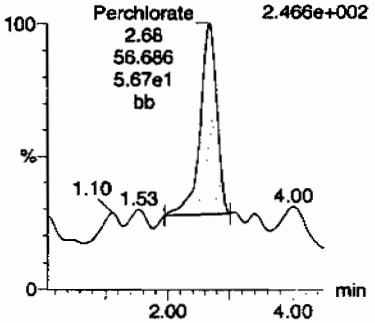

Perchlorate-101

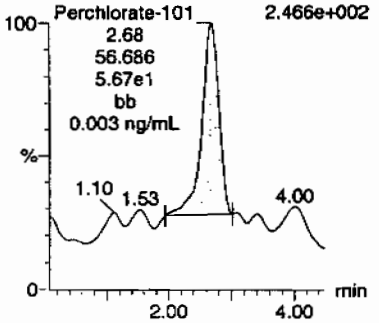

Perchlorate-O(18)

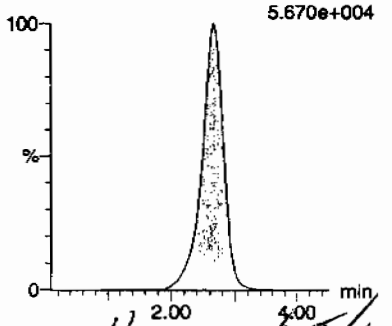

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070007	Perchlorate	99 > 83	2.66	185.379	185.379	bb			0.0035			18.781	3.27
246070007	Perchlorate-101	101 > 85	2.68	56.686	56.686	bb			0.0035			46.933	
246070007	Perchlorate-O(18)	107 > 89	2.66	22194.771	22194.771	bb			0.4686	93.73	-6.27	3346.5...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8154

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.647	2.59	0.647	ug/kg	U	1	26-FEB-10 18:54	per0226037a
	Perchlorate Isotope Ratio						1	26-FEB-10 18:54	per0226037a
14797-73-0	Perchlorate-101	.647	2.59	0.647	ug/kg	U	1	26-FEB-10 18:54	per0226037a
	Perchlorate-O(18)			5.98	ug/kg		1	26-FEB-10 18:54	per0226037a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226037a
Date: 26-Feb-2010
Time: 18:54:19
ID: 246070008
Vial: 1:6,C

LANL | 950075 | 5020 | 1 |

GWO 02-27-10

Perchlorate

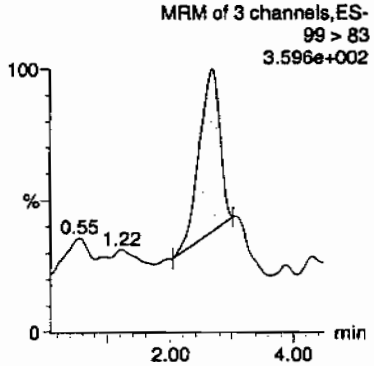

Perchlorate

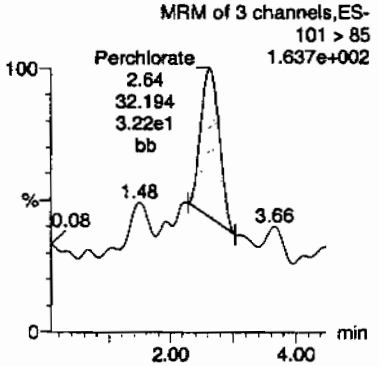

Perchlorate-101

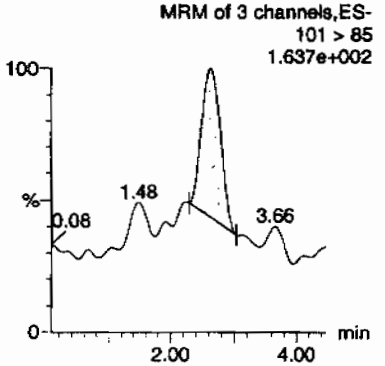

Perchlorate-O(18)

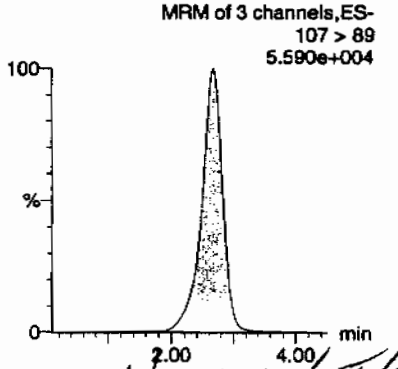

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070008	Perchlorate	99 > 83	2.68	90.335	90.335	bb			0.0017			40.432	2.81
246070008	Perchlorate-101	101 > 85	2.64	32.194	32.194	bb			0.0020			21.850	
246070008	Perchlorate-O(18)	107 > 89	2.66	21880.838	21880.838	bb			0.4620	92.40	-7.60	32284....	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8156

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 77

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.646	2.58	0.646	ug/kg	U	1	26-FEB-10 19:01	per0226038a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:01	per0226038a
14797-73-0	Perchlorate-101	.646	2.58	0.646	ug/kg	U	1	26-FEB-10 19:01	per0226038a
	Perchlorate-O(18)			5.95	ug/kg		1	26-FEB-10 19:01	per0226038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226038a
Date: 26-Feb-2010
Time: 19:01:53
ID: 246070009
Vial: 1:6,D

|LZNL|950075|5070|1|

02-27-D

Perchlorate

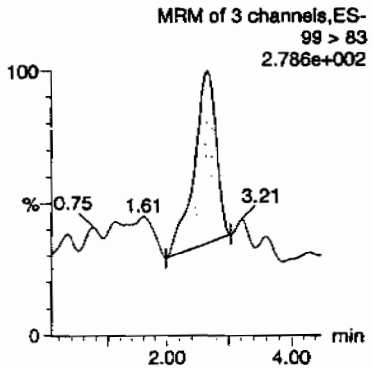

Perchlorate

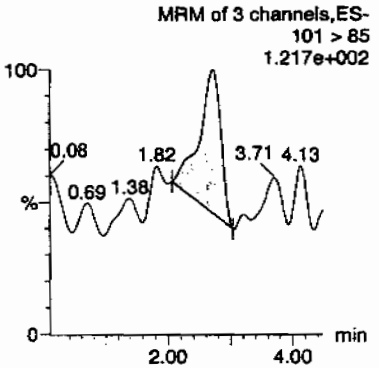

Perchlorate-101

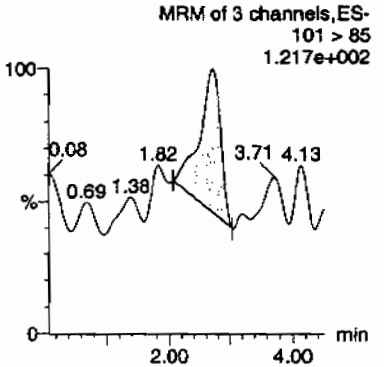

Perchlorate-O(18)

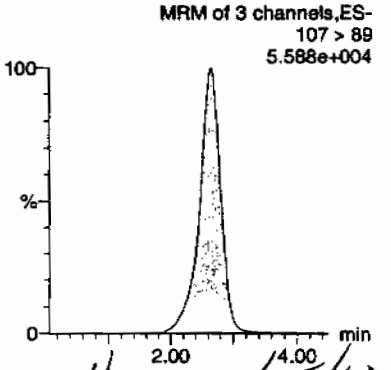

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070009	Perchlorate	99 > 83	2.65	77.212	77.212	bb			0.0015			52.885	2.88
246070009	Perchlorate-101	101 > 85	2.71	26.809	26.809	bb			0.0016			5.695	
246070009	Perchlorate-O(18)	107 > 89	2.65	21821.467	21821.467	bb			0.4608	92.15	-7.85	7251.5...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8159

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070010

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 89

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.564	2.26	0.564	ug/kg	U	1	26-FEB-10 19:09	per0226039a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:09	per0226039a
14797-73-0	Perchlorate-101	.564	2.26	0.564	ug/kg	U	1	26-FEB-10 19:09	per0226039a
	Perchlorate-O(18)			5.25	ug/kg		1	26-FEB-10 19:09	per0226039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226039a
Date: 26-Feb-2010
Time: 19:09:26
ID: 246070010
Vial: 1:6,E

|LANL|950075|30620|1|

CWO
02-27-10

Perchlorate

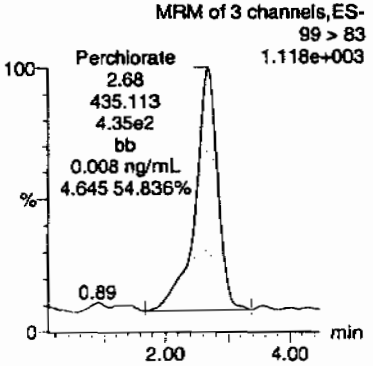

Perchlorate

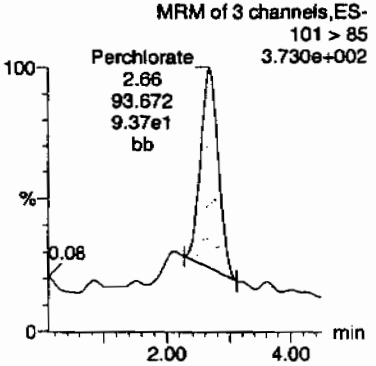

Perchlorate-101

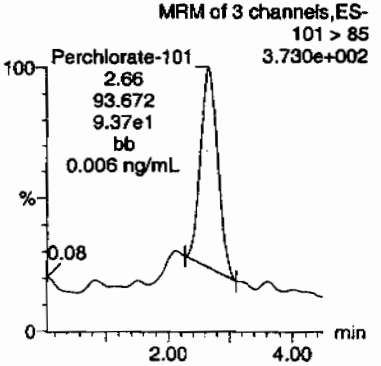

Perchlorate-O(18)

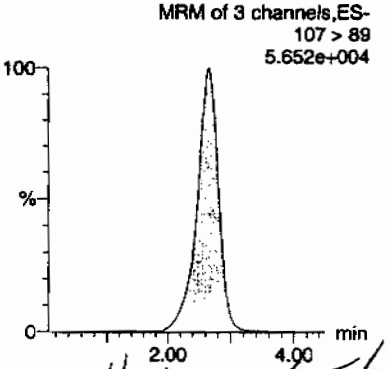

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070010	Perchlorate	99 > 83	2.68	435.113	435.113	bb			0.0083			86.088	4.65
246070010	Perchlorate-101	101 > 85	2.66	93.672	93.672	bb			0.0057			51.064	
246070010	Perchlorate-O(18)	107 > 89	2.65	22040.805	22040.805	bb			0.4654	93.08	-6.92	4777.1...	

OKAY
<0.050

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8157

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070011

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.579	ug/kg	J	1	26-FEB-10 19:16	per0226040a
	Perchlorate Isotope Ratio			3.24			1	26-FEB-10 19:16	per0226040a
14797-73-0	Perchlorate-101	.566	2.26	0.572	ug/kg	J	1	26-FEB-10 19:16	per0226040a
	Perchlorate-O(18)			5.20	ug/kg		1	26-FEB-10 19:16	per0226040a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226040a
Date: 26-Feb-2010
Time: 19:16:58
ID: 246070011
Vial: 1:6,F

|LANL|950275|50120|1|

CW 02-27-10

Perchlorate

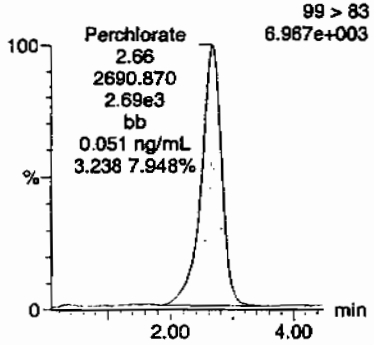

Perchlorate

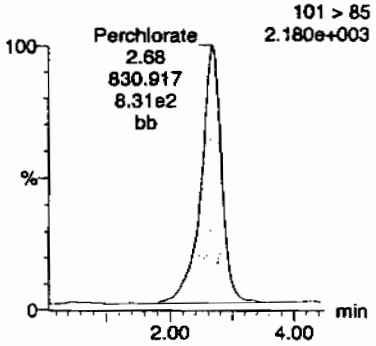

Perchlorate-101

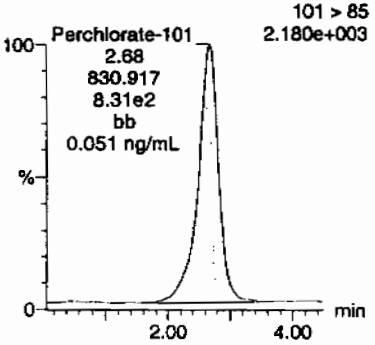

Perchlorate-O(18)

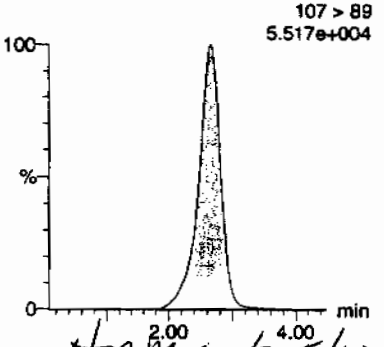

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070011	Perchlorate	99 > 83	2.66	2690.870	2690.870	bb			0.0512			536.776	3.24
246070011	Perchlorate-101	101 > 85	2.68	830.917	830.917	bb			0.0506			74.920	
246070011	Perchlorate-O(18)	107 > 89	2.66	21779.789	21779.789	bb			0.4599	91.98	-8.02	12910....	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8158

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070012

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.592	2.37	0.592	ug/kg	U	1	26-FEB-10 19:24	per0226041a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:24	per0226041a
14797-73-0	Perchlorate-101	.592	2.37	0.592	ug/kg	U	1	26-FEB-10 19:24	per0226041a
	Perchlorate-O(18)			5.73	ug/kg		1	26-FEB-10 19:24	per0226041a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226041a
Date: 26-Feb-2010
Time: 19:24:31
ID: 246070012
Vial: 1:7,A

|LANL|950075|50120|11|

CWO 02.27.10

Perchlorate

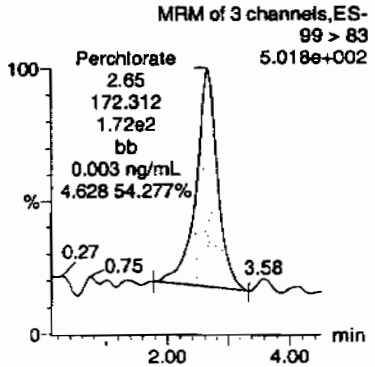

Perchlorate

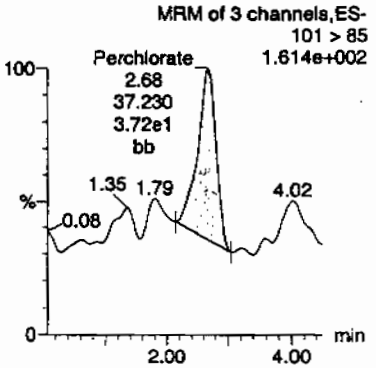

Perchlorate-101

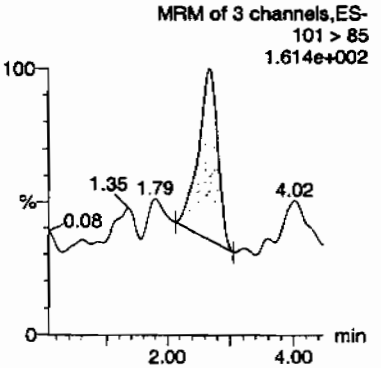

Perchlorate-O(18)

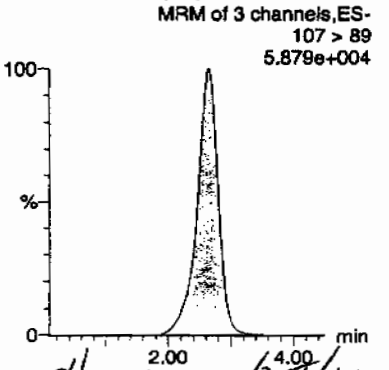

HMW 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070012	Perchlorate	99 > 83	2.65	172.312	172.312	bb			0.0033			22.865	4.63
246070012	Perchlorate-101	101 > 85	2.68	37.230	37.230	bb			0.0023			29.952	
246070012	Perchlorate-O(18)	107 > 89	2.64	22915.982	22915.982	bb			0.4839	96.77	-3.23	6558.3...	

OKAY
LA0500

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8160

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070013

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.589	2.35	0.589	ug/kg	U	1	26-FEB-10 19:54	per0226045a
	Perchlorate Isotope Ratio						1	26-FEB-10 19:54	per0226045a
14797-73-0	Perchlorate-101	.589	2.35	0.589	ug/kg	U	1	26-FEB-10 19:54	per0226045a
	Perchlorate-O(18)			5.53	ug/kg		1	26-FEB-10 19:54	per0226045a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226045a
Date: 26-Feb-2010
Time: 19:54:44
ID: 246070013
Vial: 1:7,B

|LANL|950075|30120|11|

CW 02.27.10

Perchlorate

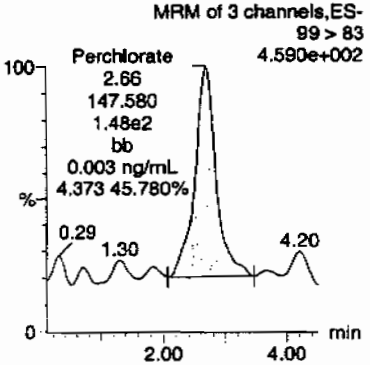

Perchlorate

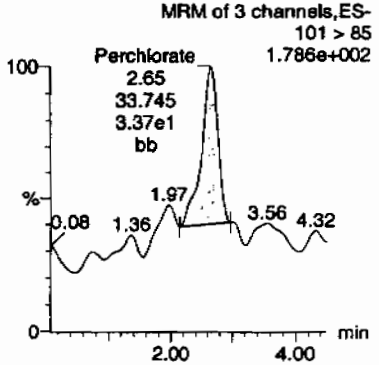

Perchlorate-101

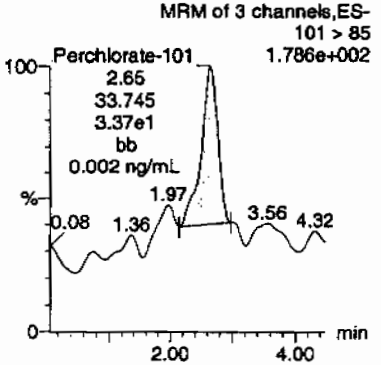

Perchlorate-O(18)

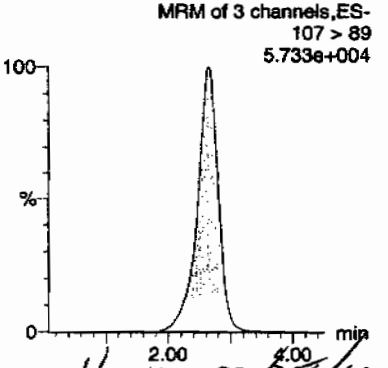

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070013	Perchlorate	99 > 83	2.66	147.580	147.580	bb			0.0028			18.346	4.37
246070013	Perchlorate-101	101 > 85	2.65	33.745	33.745	bb			0.0021			6.071	
246070013	Perchlorate-O(18)	107 > 89	2.64	22244.367	22244.367	bb			0.4697	93.94	-6.06	11566....	

OKAY 20030

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8149

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070014

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.566	2.26	0.566	ug/kg	U	1	26-FEB-10 20:02	per0226046a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:02	per0226046a
14797-73-0	Perchlorate-101	.566	2.26	0.566	ug/kg	U	1	26-FEB-10 20:02	per0226046a
	Perchlorate-O(18)			5.45	ug/kg		1	26-FEB-10 20:02	per0226046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226046a
Date: 26-Feb-2010
Time: 20:02:19
ID: 246070014
Vial: 1:7,C

|LANL|950075|50120|1|

CWO
02-27-10

Perchlorate

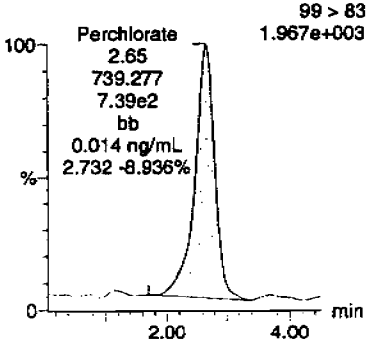

Perchlorate

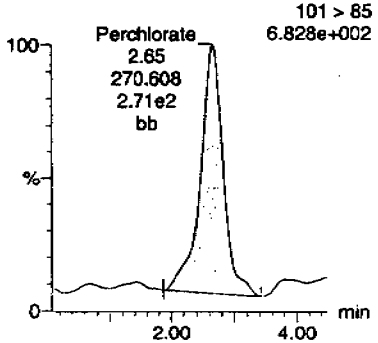

Perchlorate-101

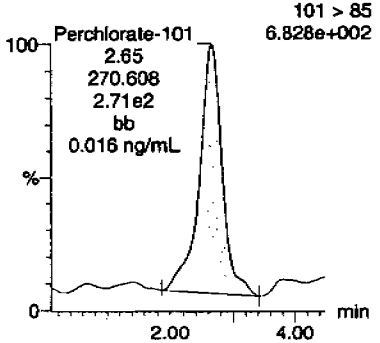

Perchlorate-O(18)

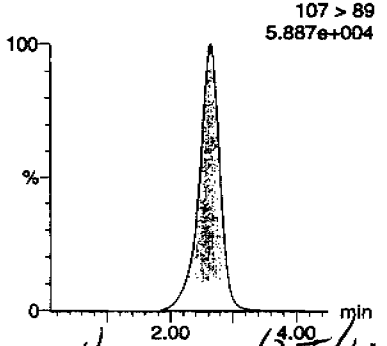

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070014	Perchlorate	99 > 83	2.65	739.277	739.277	bb			0.0141			131.581	2.73
246070014	Perchlorate-101	101 > 85	2.65	270.608	270.608	bb			0.0165			185.694	
246070014	Perchlorate-O(18)	107 > 89	2.64	22798.074	22798.074	bb			0.4814	96.28	-3.72	756.264	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8167

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070015

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.581	2.32	0.581	ug/kg	U	1	26-FEB-10 20:09	per0226047a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:09	per0226047a
14797-73-0	Perchlorate-101	.581	2.32	0.581	ug/kg	U	1	26-FEB-10 20:09	per0226047a
	Perchlorate-O(18)			5.82	ug/kg		1	26-FEB-10 20:09	per0226047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226047a
Date: 26-Feb-2010
Time: 20:09:52
ID: 246070015
Vial: 1:7,D

|LANL|950075|50120|1|

CWW 02-27-10

Perchlorate

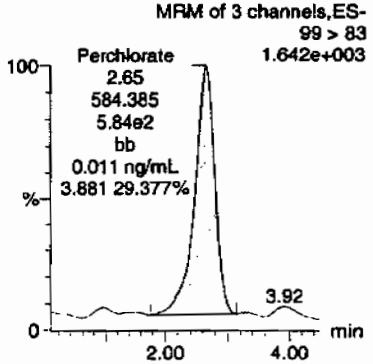

Perchlorate

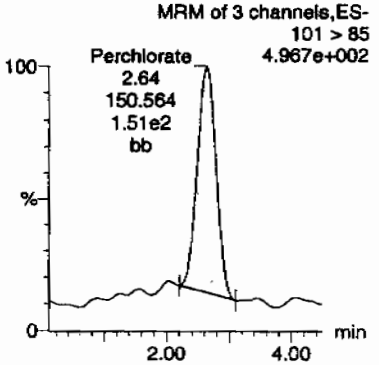

Perchlorate-101

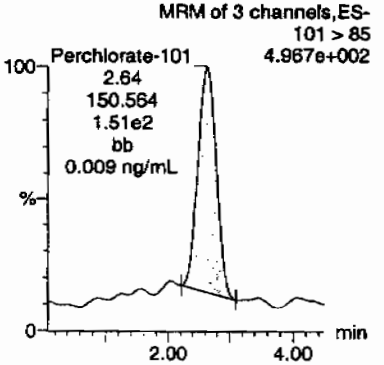

Perchlorate-O(18)

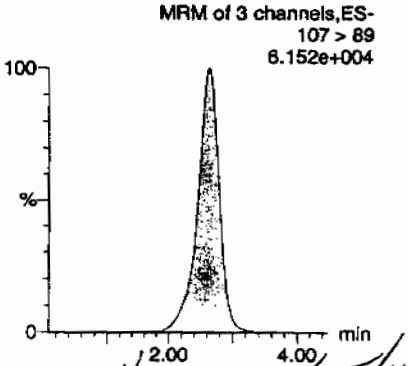

HNM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070015	Perchlorate	99 > 83	2.65	584.385	584.385	bb			0.0111			234.518	3.88
246070015	Perchlorate-101	101 > 85	2.64	150.564	150.564	bb			0.0092			35.488	
246070015	Perchlorate-O(18)	107 > 89	2.64	23712.477	23712.477	bb			0.5007	100.14	0.14	2805.5...	

GKA 4 LQ0500

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8152

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070016

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.618	2.47	0.618	ug/kg	U	1	26-FEB-10 20:17	per0226048a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:17	per0226048a
14797-73-0	Perchlorate-101	.618	2.47	0.618	ug/kg	U	1	26-FEB-10 20:17	per0226048a
	Perchlorate-O(18)			6.18	ug/kg		1	26-FEB-10 20:17	per0226048a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226048a
Date: 26-Feb-2010
Time: 20:17:26
ID: 246070016
Vial: 1:7,E

|LANL|950075|50120|1|

CWW 02-27-10

Perchlorate

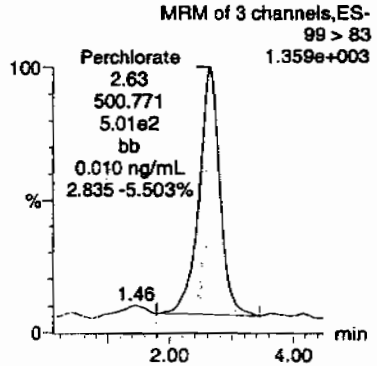

Perchlorate

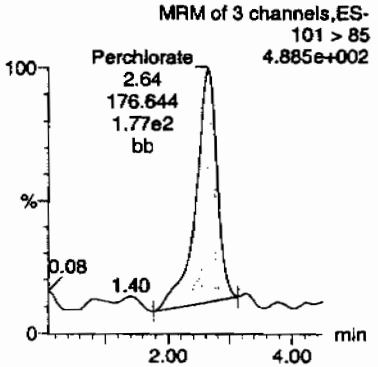

Perchlorate-101

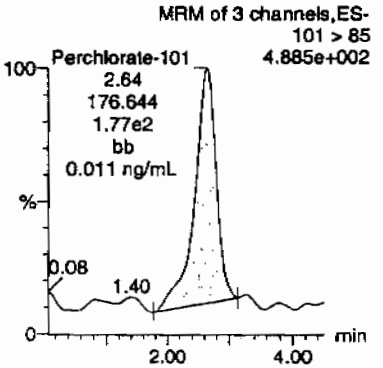

Perchlorate-O(18)

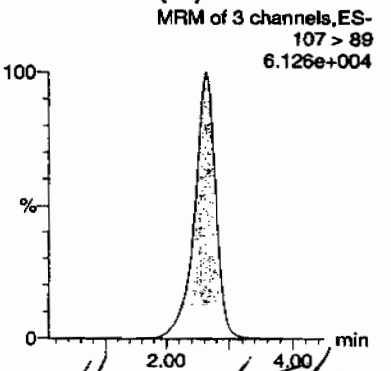

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070016	Perchlorate	99 > 83	2.63	500.771	500.771	bb			0.0095			229.844	2.83
246070016	Perchlorate-101	101 > 85	2.64	176.644	176.644	bb			0.0108			91.460	
246070016	Perchlorate-O(18)	107 > 89	2.63	23691.039	23691.039	bb			0.5002	100.05	0.05	6225.7...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8150

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070017

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 90

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.556	2.23	0.619	ug/kg	J	1	26-FEB-10 20:24	per0226049a
	Perchlorate Isotope Ratio			3.07			1	26-FEB-10 20:24	per0226049a
14797-73-0	Perchlorate-101	.556	2.23	0.646	ug/kg	J	1	26-FEB-10 20:24	per0226049a
	Perchlorate-O(18)			6.03	ug/kg		1	26-FEB-10 20:24	per0226049a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226049a
Date: 26-Feb-2010
Time: 20:24:59
ID: 246070017
Vial: 1:7,F

Perchlorate

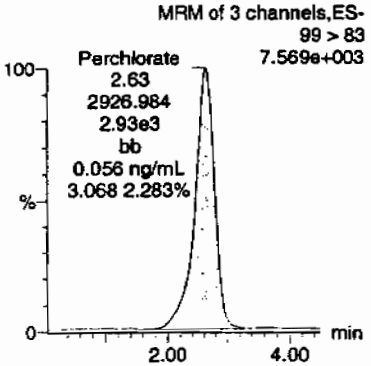

Perchlorate

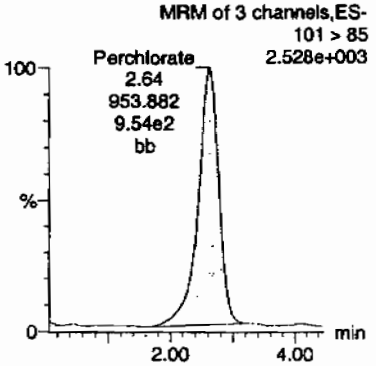

Perchlorate-101

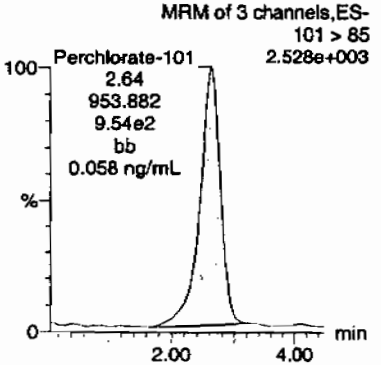

Perchlorate-O(18)

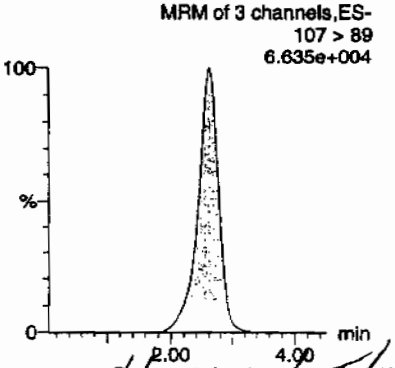

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070017	Perchlorate	99 > 83	2.63	2926.984	2926.984	bb			0.0556			277.543	3.07
246070017	Perchlorate-101	101 > 85	2.64	953.882	953.882	bb			0.0581			340.333	
246070017	Perchlorate-O(18)	107 > 89	2.61	25645.436	25645.436	bb			0.5415	108.30	8.30	4982.7...	

$$\frac{2926.984}{52599.3} \Big| \frac{10}{} \Big| \frac{100}{89.9} = 0.619$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8153

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070018

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 76

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.661	2.65	0.661	ug/kg	U	1	26-FEB-10 20:32	per0226050a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:32	per0226050a
14797-73-0	Perchlorate-101	.661	2.65	0.661	ug/kg	U	1	26-FEB-10 20:32	per0226050a
	Perchlorate-O(18)			6.30	ug/kg		1	26-FEB-10 20:32	per0226050a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Page 96 of 1359

Name: per0226050a
Date: 26-Feb-2010
Time: 20:32:32
ID: 246070018 1LANL 950075 50120 11
Vial: 1:8,A

WO 02.27.10

Perchlorate

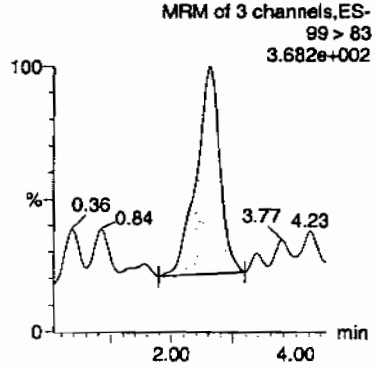

Perchlorate

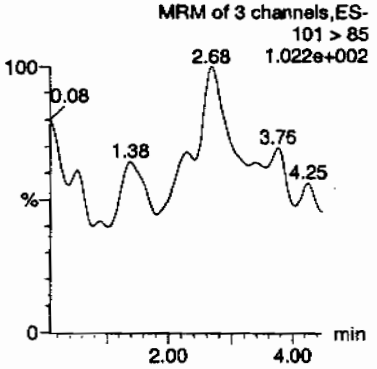

Perchlorate-101

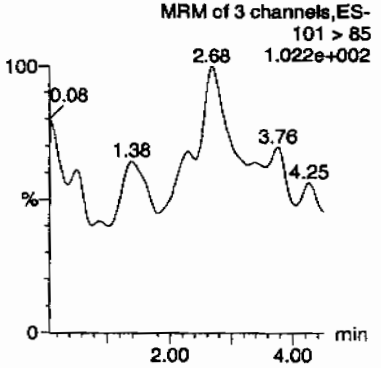

Perchlorate-O(18)

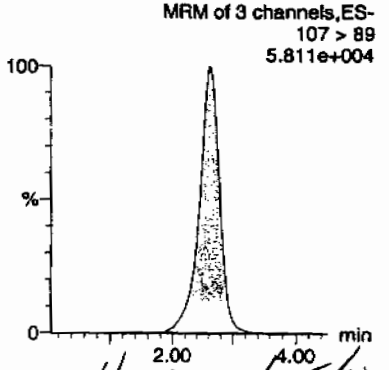

HMM 2/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070018	Perchlorate	99 > 83	2.63	128.176	128.176	bb			0.0024			19.167	0.00
246070018	Perchlorate-101	101 > 85											
246070018	Perchlorate-O(18)	107 > 89	2.63	22550.914	22550.914	bb			0.4762	95.23	-4.77	3960.8...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8165

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070019

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 20:40	per0226051a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:40	per0226051a
14797-73-0	Perchlorate-101	.565	2.26	0.565	ug/kg	U	1	26-FEB-10 20:40	per0226051a
	Perchlorate-O(18)			5.88	ug/kg		1	26-FEB-10 20:40	per0226051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226051a
Date: 26-Feb-2010
Time: 20:40:07
ID: 246070019
Vial: 1:8,B

LANL | 950075 | 50120 | 1 |

aw 02-27-10

Perchlorate

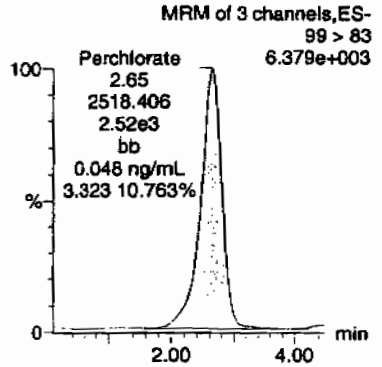

Perchlorate

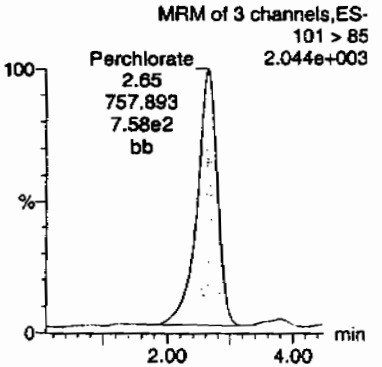

Perchlorate-101

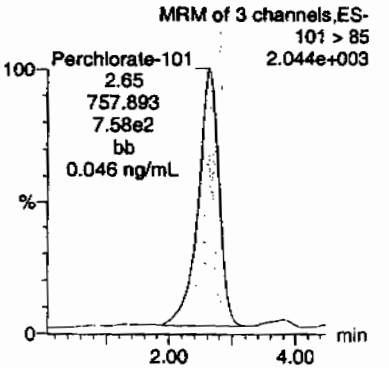

Perchlorate-O(18)

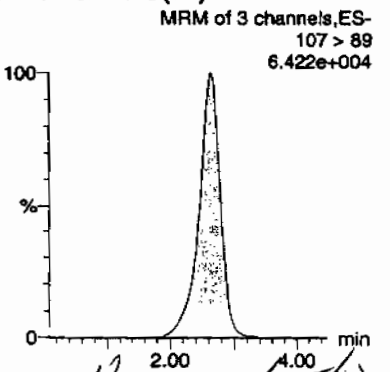

Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070019	Perchlorate	99 > 83	2.65	2518.406	2518.406	bb			0.0479			722.476	3.32
246070019	Perchlorate-101	101 > 85	2.65	757.893	757.893	bb			0.0462			108.784	
246070019	Perchlorate-O(18)	107 > 89	2.63	24649.279	24649.279	bb			0.5205	104.09	4.09	5376.4...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8155

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 246070020

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 86

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.584	2.34	0.584	ug/kg	U	1	26-FEB-10 20:47	per0226052a
	Perchlorate Isotope Ratio						1	26-FEB-10 20:47	per0226052a
14797-73-0	Perchlorate-101	.584	2.34	0.584	ug/kg	U	1	26-FEB-10 20:47	per0226052a
	Perchlorate-O(18)			5.45	ug/kg		1	26-FEB-10 20:47	per0226052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226052a
Date: 26-Feb-2010
Time: 20:47:42
ID: 246070020
Vial: 1:8,C

|LFNL|750075|50120|1|

02-27-10

Perchlorate

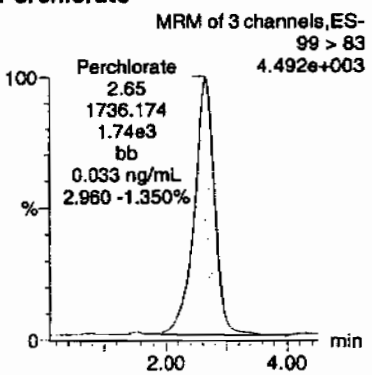

Perchlorate

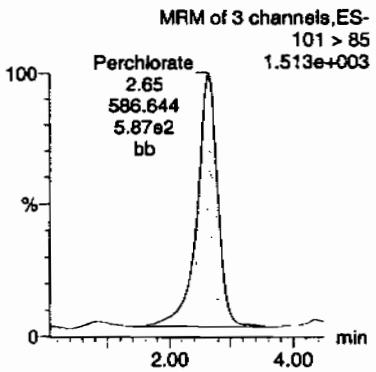

Perchlorate-101

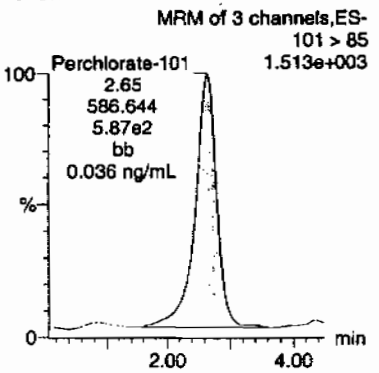

Perchlorate-O(18)

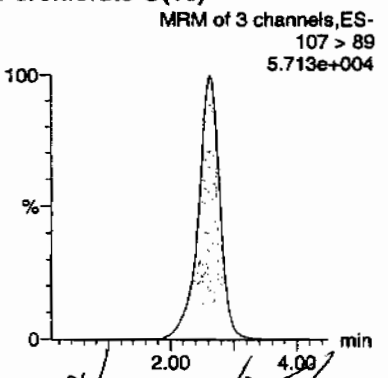

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246070020	Perchlorate	99 > 83	2.65	1736.174	1736.174	bb			0.0330			148.241	2.96
246070020	Perchlorate-101	101 > 85	2.65	586.644	586.644	bb			0.0357			452.202	
246070020	Perchlorate-O(18)	107 > 89	2.63	22085.209	22085.209	bb			0.4663	93.27	-6.73	3992.1...	

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1544

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 26-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 52599.32

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1544

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 26-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 16420.74

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022610a.mdb 27 Feb 2010 11:35:41
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022610a.cdb 27 Feb 2010 11:36:46

Compound name: Perchlorate
Response Factor: 52599.3
RRF SD: 919.658, % Relative SD: 1.74842
Response type: External Std, Area
Curve type: RF

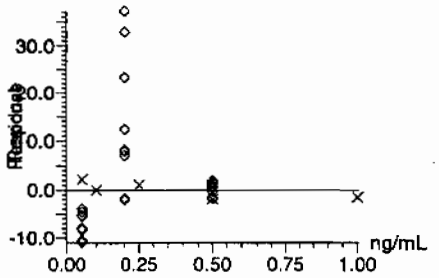

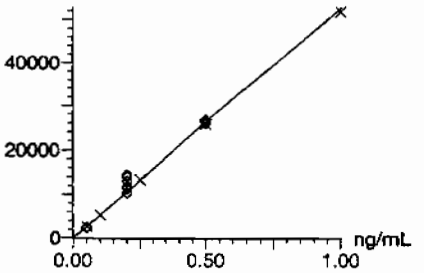

cw 02.27.10

Compound name: Perchlorate-101
Response Factor: 16420.7
RRF SD: 339.892, % Relative SD: 2.0699
Response type: External Std, Area
Curve type: RF

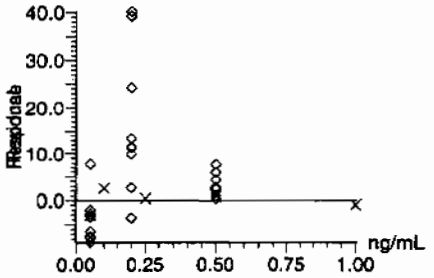

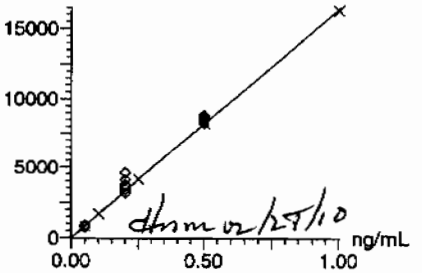

dhm 02/27/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 47359.9
RRF SD: 553.088, % Relative SD: 1.16784
Response type: External Std, Area
Curve type: RF

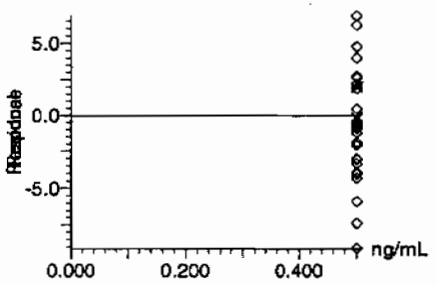

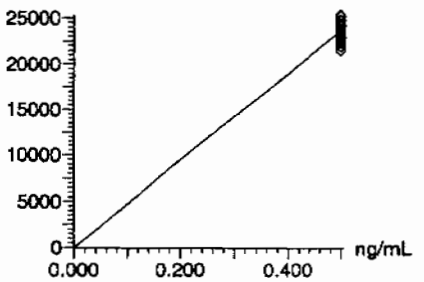

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1544

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.4	26–FEB–10 15:23	per0226009a
Perchlorate Isotope Ratio		3.02		26–FEB–10 15:23	per0226009a
Perchlorate–101	.5	.54	107.6	26–FEB–10 15:23	per0226009a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226009a
Date: 26-Feb-2010
Time: 15:23:09
ID: WCL100219-06ICV
Vial: 1:2,A

Pam
aw
0227-10

Perchlorate

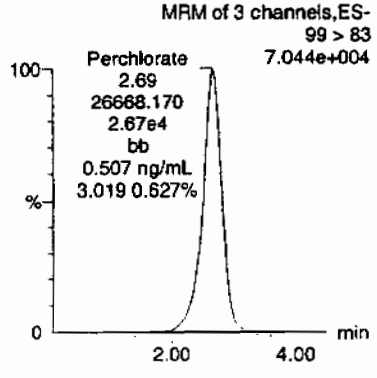

Perchlorate

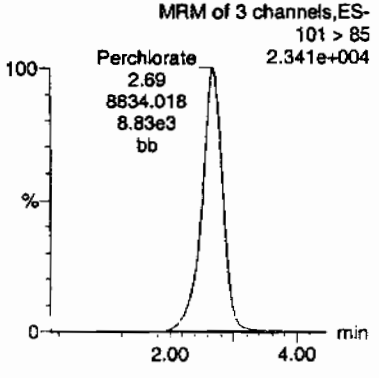

Perchlorate-101

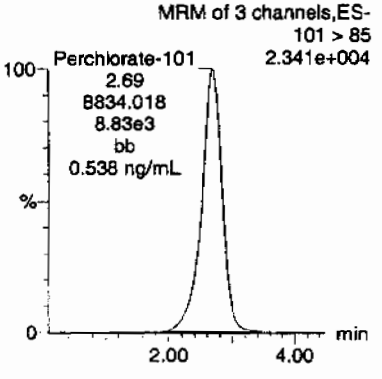

Perchlorate-O(18)

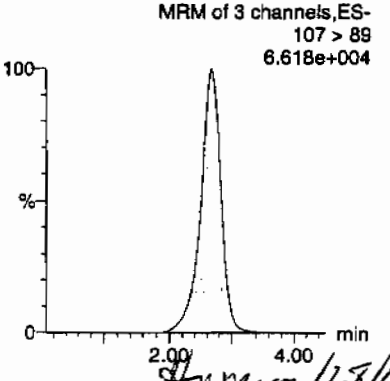

Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06ICV	Perchlorate	99 > 83	2.69	26668.170	26668.170	bb			0.5070	101.40	1.40	11585....	3.02
WCL100219-06ICV	Perchlorate-101	101 > 85	2.69	8834.018	8834.018	bb			0.5380	107.60	7.60	3568.1...	
WCL100219-06ICV	Perchlorate-O(18)	107 > 89	2.68	25304.945	25304.945	bb			0.5343	106.86	6.86	4030.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1544

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	100.42	26-FEB-10 16:38	per0226019a
Perchlorate Isotope Ratio		3.18		26-FEB-10 16:38	per0226019a
Perchlorate-101	.5	.51	101.06	26-FEB-10 16:38	per0226019a
Perchlorate	.5	.51	101.86	26-FEB-10 18:09	per0226031a
Perchlorate Isotope Ratio		3.08		26-FEB-10 18:09	per0226031a
Perchlorate-101	.5	.53	105.9	26-FEB-10 18:09	per0226031a
Perchlorate	.5	.5	99.79	26-FEB-10 19:32	per0226042a
Perchlorate Isotope Ratio		3.12		26-FEB-10 19:32	per0226042a
Perchlorate-101	.5	.51	102.56	26-FEB-10 19:32	per0226042a
Perchlorate	.5	.5	100.95	26-FEB-10 20:55	per0226053a
Perchlorate Isotope Ratio		3.15		26-FEB-10 20:55	per0226053a
Perchlorate-101	.5	.51	102.71	26-FEB-10 20:55	per0226053a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226019a
Date: 26-Feb-2010
Time: 16:38:32
ID: WCL100219-06CCV
Vial: 1:2,A

Pwo
02-27-10

Perchlorate

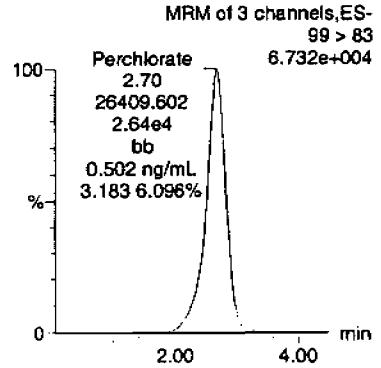

Perchlorate

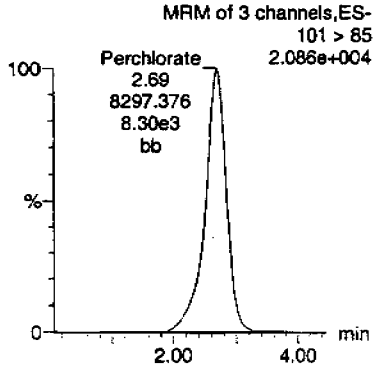

Perchlorate-101

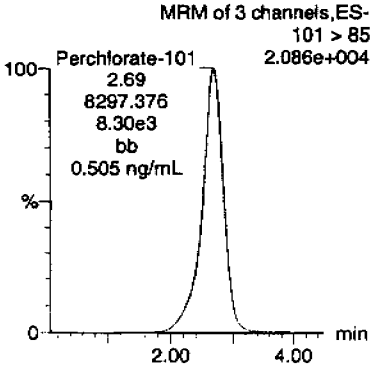

Perchlorate-O(18)

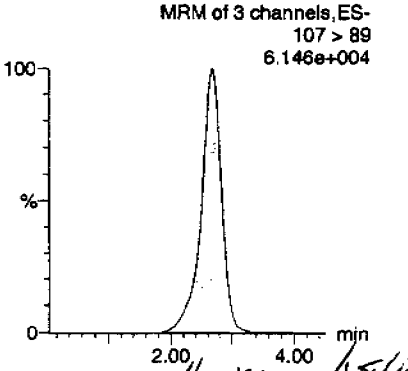

HM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.70	26409.602	26409.602	bb			0.5021	100.42	0.42	5639.1...	3.18
WCL100219-06CCV	Perchlorate-101	101 > 85	2.69	8297.376	8297.376	bb			0.5053	101.06	1.06	2570.1...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.69	24131.871	24131.871	bb			0.5095	101.91	1.91	2270.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226031a
Date: 26-Feb-2010
Time: 18:09:02
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
02-27-10

Perchlorate

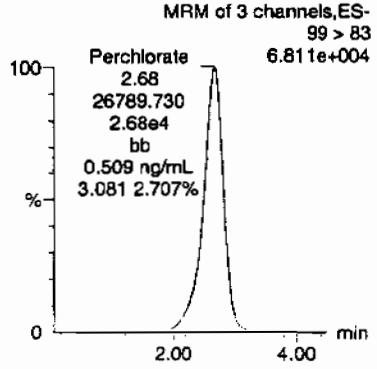

Perchlorate

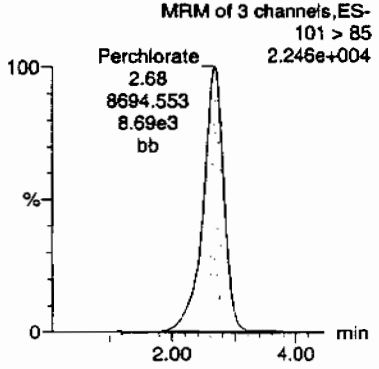

Perchlorate-101

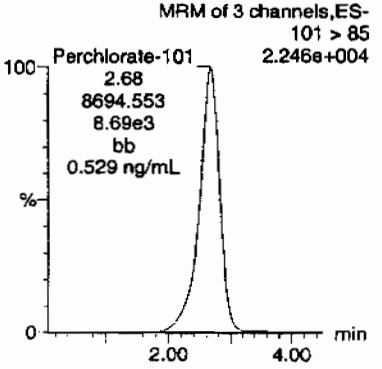

Perchlorate-O(18)

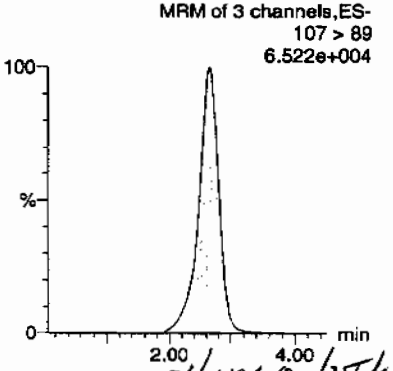

Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.68	26789.730	26789.730	bb			0.5093	101.86	1.86	3634.3...	3.08
WCL100219-06CCV	Perchlorate-101	101 > 85	2.68	8694.553	8694.553	bb			0.5295	105.90	5.90	2186.1...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.66	25152.475	25152.475	bb			0.5311	106.22	6.22	7683.9...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226042a
Date: 26-Feb-2010
Time: 19:32:06
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
CW
02.27.10

Perchlorate

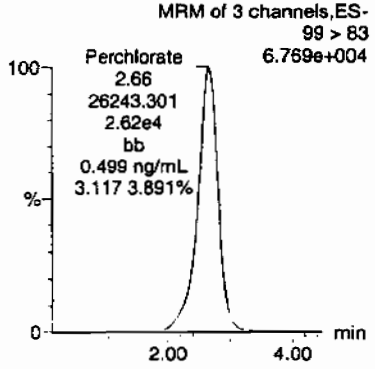

Perchlorate

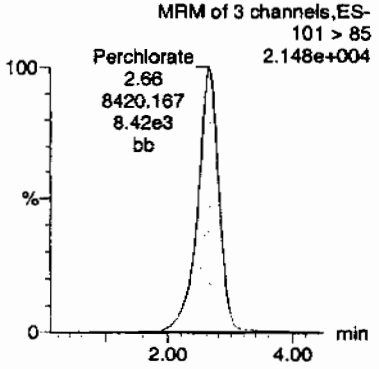

Perchlorate-101

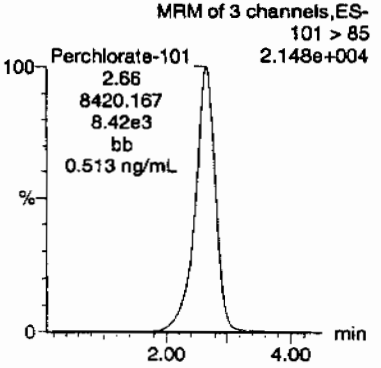

Perchlorate-O(18)

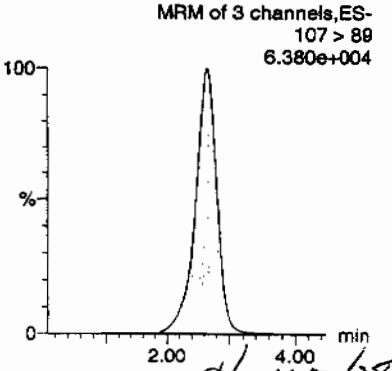

Hmccal28ko

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.66	26243.301	26243.301	bb			0.4989	99.79	-0.21	5367.2...	3.12
WCL100219-06CCV	Perchlorate-101	101 > 85	2.66	8420.167	8420.167	bb			0.5128	102.56	2.56	2423.6...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.65	24808.570	24808.570	bb			0.5238	104.77	4.77	6134.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226053a
Date: 26-Feb-2010
Time: 20:55:15
ID: WCL100219-06CCV
Vial: 1:2,A

Pass 02-27-10

Perchlorate

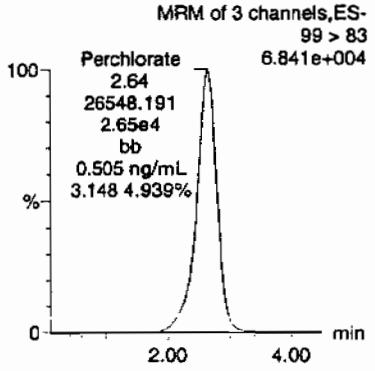

Perchlorate

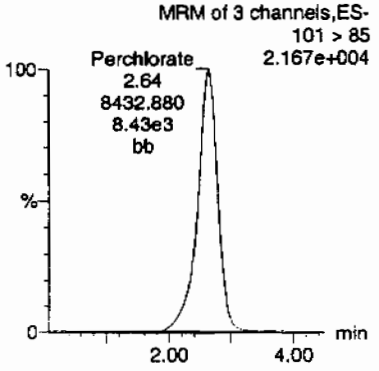

Perchlorate-101

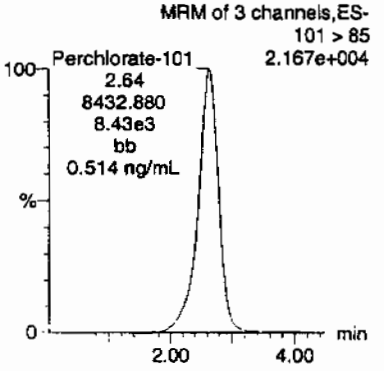

Perchlorate-O(18)

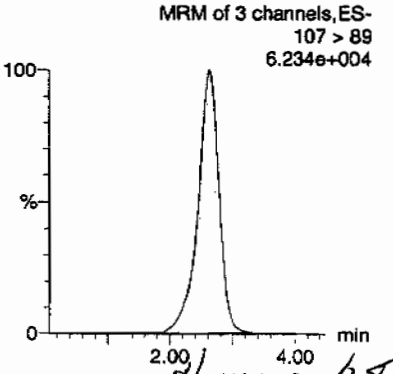

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	2.64	26548.191	26548.191	bb			0.5047	100.95	0.95	4714.2...	3.15
WCL100219-06CCV	Perchlorate-101	101 > 85	2.64	8432.880	8432.880	bb			0.5136	102.71	2.71	4892.6...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	2.63	24303.779	24303.779	bb			0.5132	102.63	2.63	20820....	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1544

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	95.4	26-FEB-10 15:38	per0226011a
Perchlorate Isotope Ratio		3.14		26-FEB-10 15:38	per0226011a
Perchlorate-101	.05	.05	97.25	26-FEB-10 15:38	per0226011a
Perchlorate	.05	.05	91.74	26-FEB-10 16:53	per0226021a
Perchlorate Isotope Ratio		3.18		26-FEB-10 16:53	per0226021a
Perchlorate-101	.05	.05	92.35	26-FEB-10 16:53	per0226021a
Perchlorate	.05	.04	89.49	26-FEB-10 18:24	per0226033a
Perchlorate Isotope Ratio		2.92		26-FEB-10 18:24	per0226033a
Perchlorate-101	.05	.05	98.05	26-FEB-10 18:24	per0226033a
Perchlorate	.05	.05	94.76	26-FEB-10 19:47	per0226044a
Perchlorate Isotope Ratio		2.82		26-FEB-10 19:47	per0226044a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1544

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate-101	.05	.05	107.82	26-FEB-10 19:47	per0226044a
Perchlorate	.05	.05	92.09	26-FEB-10 21:10	per0226055a
Perchlorate Isotope Ratio		3.15		26-FEB-10 21:10	per0226055a
Perchlorate-101	.05	.05	93.6	26-FEB-10 21:10	per0226055a

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226011a
Date: 26-Feb-2010
Time: 15:38:14
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
03
02-27-10

Perchlorate

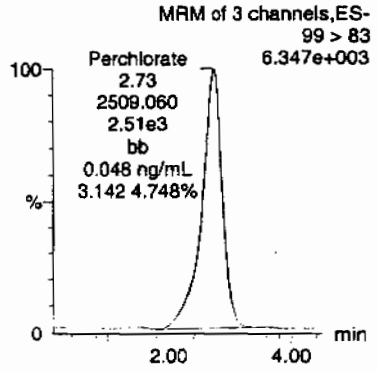

Perchlorate

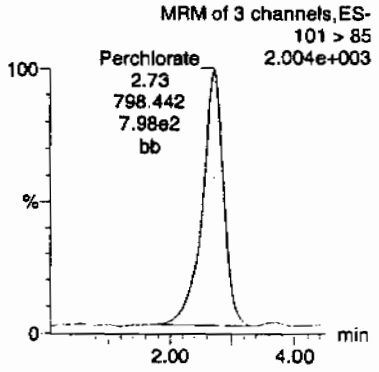

Perchlorate-101

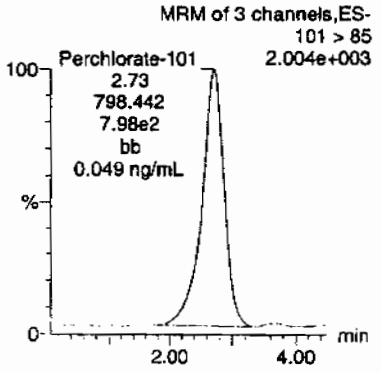

Perchlorate-O(18)

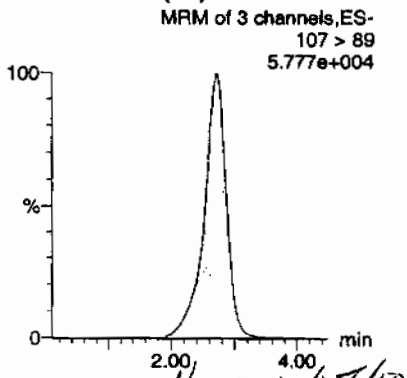

HMW 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.73	2509.060	2509.060	bb			0.0477	95.40	-4.60	855.323	3.14
WCL100219-07CRI	Perchlorate-101	101 > 85	2.73	798.442	798.442	bb			0.0486	97.25	-2.75	152.708	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.71	23231.760	23231.760	bb			0.4905	98.11	-1.89	4322.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226021a
Date: 26-Feb-2010
Time: 16:53:35
ID: WCL100219-07CRI
Vial: 1:2,B

Per 02.27.10

Perchlorate

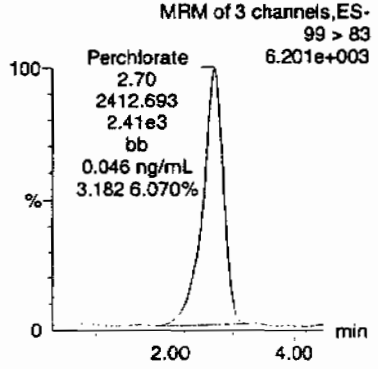

Perchlorate

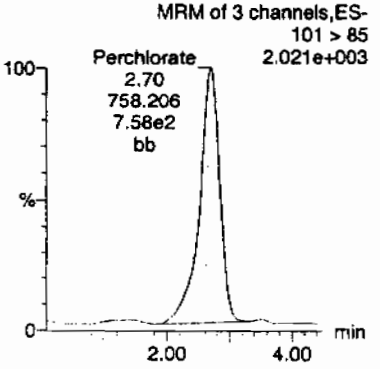

Perchlorate-101

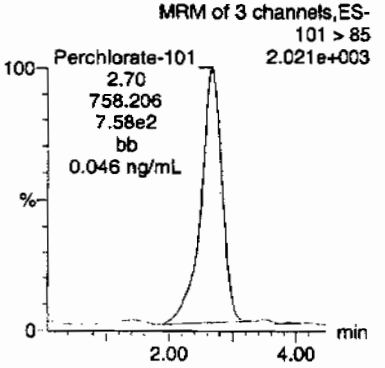

Perchlorate-O(18)

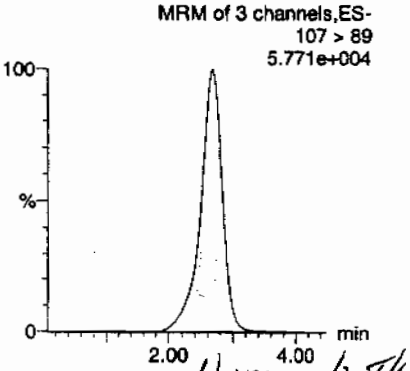

Hm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.70	2412.693	2412.693	bb			0.0459	91.74	-8.26	451.207	3.18
WCL100219-07CRI	Perchlorate-101	101 > 85	2.70	758.206	758.206	bb			0.0462	92.35	-7.65	575.590	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.68	22659.063	22659.063	bb			0.4784	95.69	-4.31	2251.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226033a
Date: 26-Feb-2010
Time: 18:24:07
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-27-10

Perchlorate

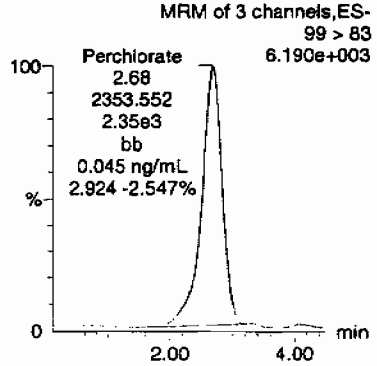

Perchlorate

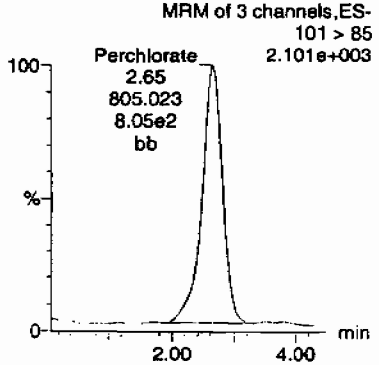

Perchlorate-101

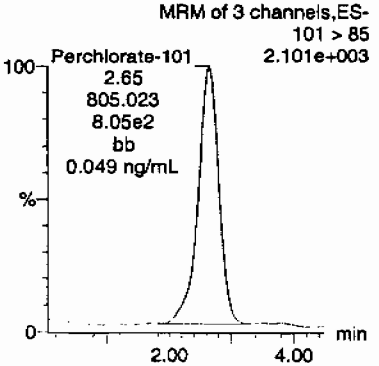

Perchlorate-O(18)

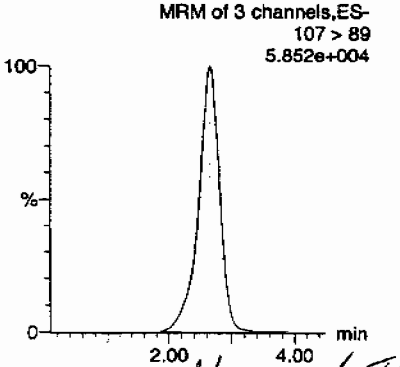

Hmwood 2/8/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.68	2353.552	2353.552	bb			0.0447	89.49	-10.51	91.516	2.92
WCL100219-07CRI	Perchlorate-101	101 > 85	2.65	805.023	805.023	bb			0.0490	98.05	-1.95	200.406	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.66	22891.160	22891.160	bb			0.4833	96.67	-3.33	11433....	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226044a
Date: 26-Feb-2010
Time: 19:47:11
ID: WCL100219-07CRI
Vial: 1:2,B

Pm
3/3
02-27-10

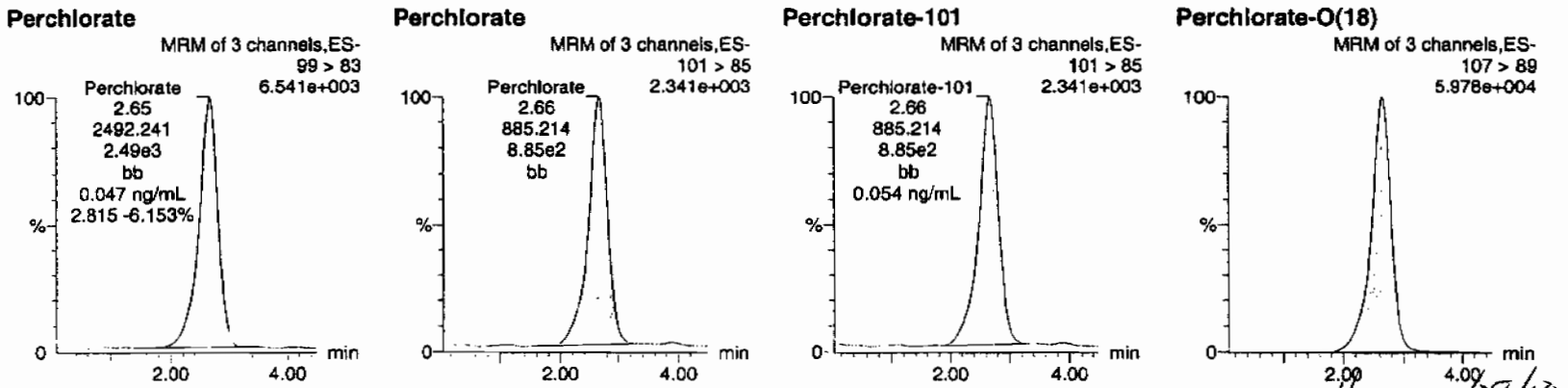

Hmm 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.65	2492.241	2492.241	bb			0.0474	94.76	-5.24	2033.8...	2.82
WCL100219-07CRI	Perchlorate-101	101 > 85	2.66	885.214	885.214	bb			0.0539	107.82	7.82	29.888	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.64	23189.469	23189.469	bb			0.4896	97.93	-2.07	1704.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226055a
Date: 26-Feb-2010
Time: 21:10:19
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-27-10

Perchlorate

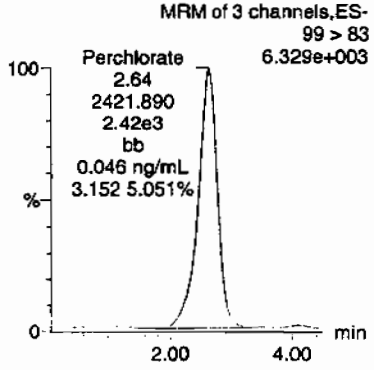

Perchlorate

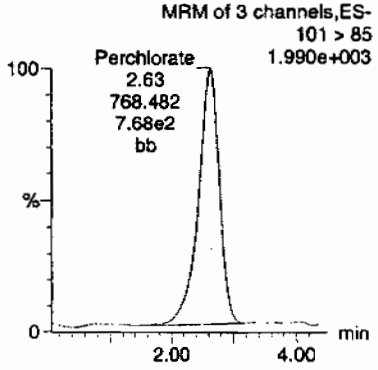

Perchlorate-101

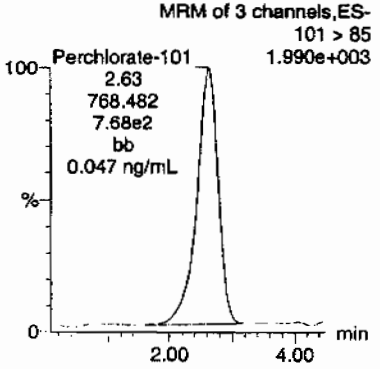

Perchlorate-O(18)

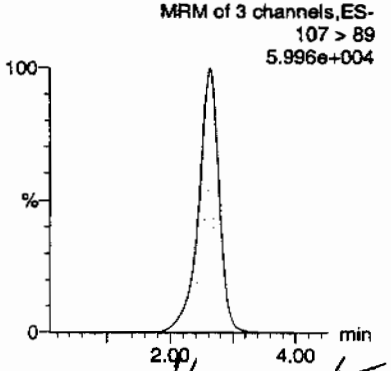

Hum 02.28.10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	2.64	2421.890	2421.890	bb			0.0460	92.09	-7.91	967.310	3.15
WCL100219-07CRI	Perchlorate-101	101 > 85	2.63	768.482	768.482	bb			0.0468	93.60	-6.40	185.563	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	2.63	22967.527	22967.527	bb			0.4850	96.99	-3.01	2298.0...	

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 1202035665

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	26-FEB-10 17:01	per0226022a
	Perchlorate Isotope Ratio						1	26-FEB-10 17:01	per0226022a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	26-FEB-10 17:01	per0226022a
	Perchlorate-O(18)			4.77	ug/kg		1	26-FEB-10 17:01	per0226022a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226022a
Date: 26-Feb-2010
Time: 17:01:08
ID: 1202035665
Vial: 1:4,C

|LANL|950075|50120|MB|1|

02-27-10

Perchlorate

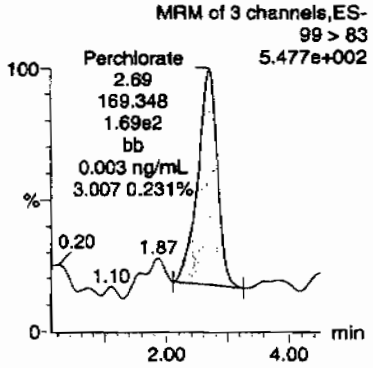

Perchlorate

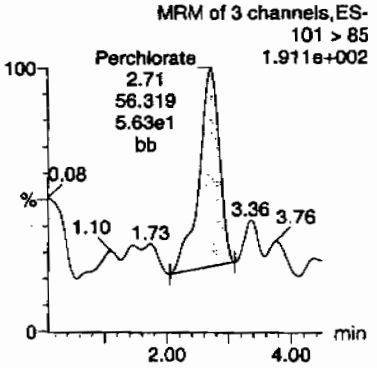

Perchlorate-101

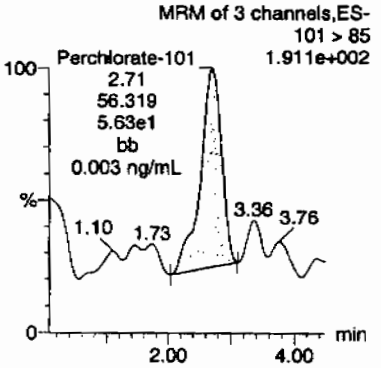

Perchlorate-O(18)

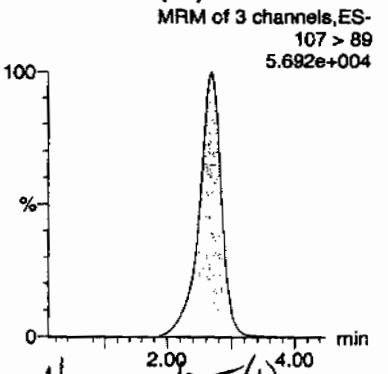

Hmc 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035665	Perchlorate	99 > 83	2.69	169.348	169.348	bb			0.0032			55.678	3.01
1202035665	Perchlorate-101	101 > 85	2.71	56.319	56.319	bb			0.0034			49.389	
1202035665	Perchlorate-O(18)	107 > 89	2.69	22600.311	22600.311	bb			0.4772	95.44	-4.56	26810....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 1202035666

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.97	ug/kg	J	1	26-FEB-10 17:08	per0226023a
	Perchlorate Isotope Ratio			3.07			1	26-FEB-10 17:08	per0226023a
14797-73-0	Perchlorate-101	.5	2	2.05	ug/kg		1	26-FEB-10 17:08	per0226023a
	Perchlorate-O(18)			4.71	ug/kg		1	26-FEB-10 17:08	per0226023a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226023a
Date: 26-Feb-2010
Time: 17:08:40
ID: 1202035666 |LANL|950075|SD20|LCS|1|
Vial: 1:4,D

CW 02-27-10

Perchlorate

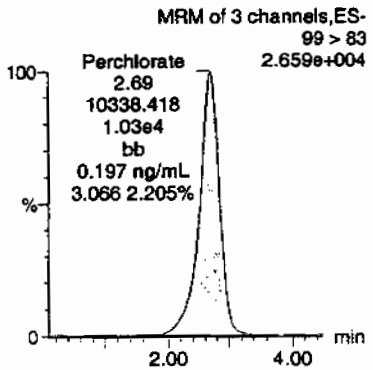

Perchlorate

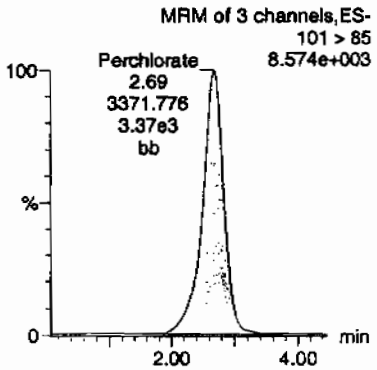

Perchlorate-101

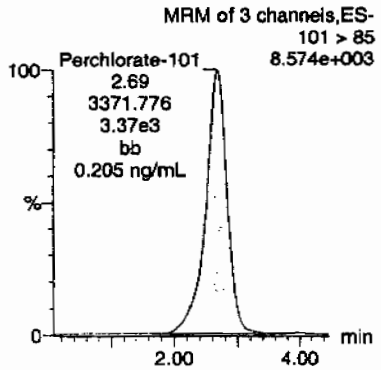

Perchlorate-O(18)

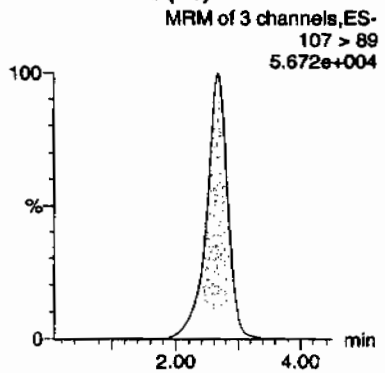

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035666	Perchlorate	99 > 83	2.69	10338.418	10338.418	bb			0.1966	98.28	-1.72	1723.2...	3.07
1202035666	Perchlorate-101	101 > 85	2.69	3371.776	3371.776	bb			0.2053	102.67	2.67	452.551	
1202035666	Perchlorate-O(18)	107 > 89	2.68	22292.344	22292.344	bb			0.4707	94.14	-5.86	2426.6...	

$\frac{10338.418}{52599.3} = 0.1966$

HMM 02/28/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8164MS

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 1202035667

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.606	2.43	2.37	ug/kg	J	1	26-FEB-10 17:31	per0226026a
	Perchlorate Isotope Ratio			3.25			1	26-FEB-10 17:31	per0226026a
14797-73-0	Perchlorate-101	.606	2.43	2.34	ug/kg	J	1	26-FEB-10 17:31	per0226026a
	Perchlorate-O(18)			5.51	ug/kg		1	26-FEB-10 17:31	per0226026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226026a
Date: 26-Feb-2010
Time: 17:31:16
ID: 1202035667
Vial: 1:5,A

|LANL|950075|50120|MS|1|

CWJ 27 02-~~28~~-10

Perchlorate

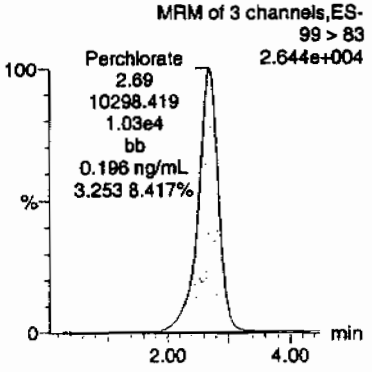

Perchlorate

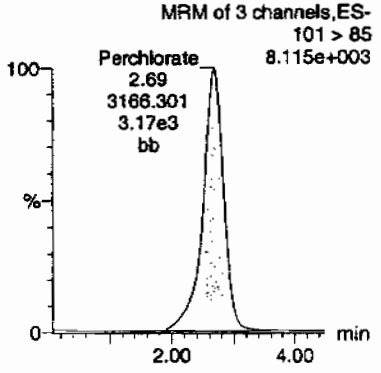

Perchlorate-101

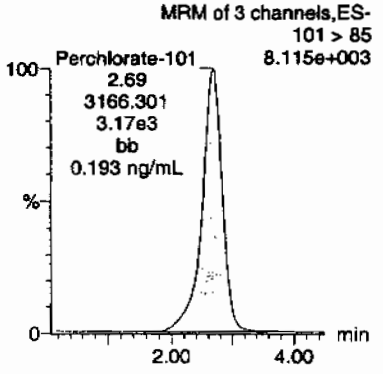

Perchlorate-O(18)

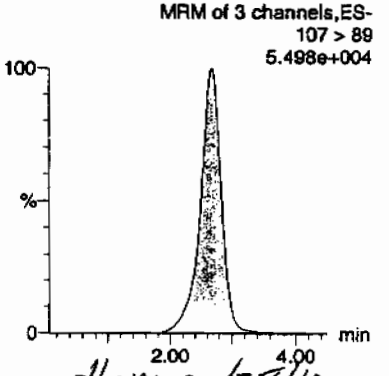

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035667	Perchlorate	99 > 83	2.69	10298.419	10298.419	bb			0.1958	97.90	-2.10	294.014	3.25
1202035667	Perchlorate-101	101 > 85	2.69	3166.301	3166.301	bb			0.1928	96.41	-3.59	2452.1...	
1202035667	Perchlorate-O(18)	107 > 89	2.68	21527.850	21527.850	bb			0.4546	90.91	-9.09	1001.8...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950073

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8164MSD

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1544

GEL Sample ID: 1202035668

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.606	2.43	2.62	ug/kg		1	26-FEB-10 17:38	per0226027a
	Perchlorate Isotope Ratio			3.05			1	26-FEB-10 17:38	per0226027a
14797-73-0	Perchlorate-101	.606	2.43	2.75	ug/kg		1	26-FEB-10 17:38	per0226027a
	Perchlorate-O(18)			5.80	ug/kg		1	26-FEB-10 17:38	per0226027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022610a.qld

Last Altered: Saturday, February 27, 2010 11:36:47 AM Eastern Standard Time
Printed: Saturday, February 27, 2010 11:49:41 AM Eastern Standard Time

Name: per0226027a
Date: 26-Feb-2010
Time: 17:38:50
ID: 1202035668
Vial: 1:5,B

|LANL|950075|SOLID|MSD|1|

CW 02-27-10

Perchlorate

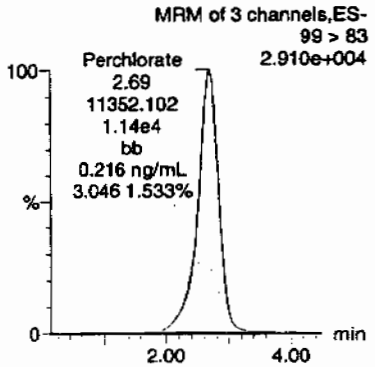

Perchlorate

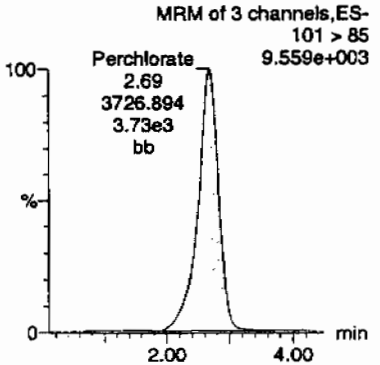

Perchlorate-101

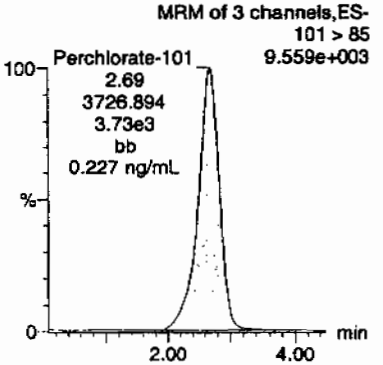

Perchlorate-O(18)

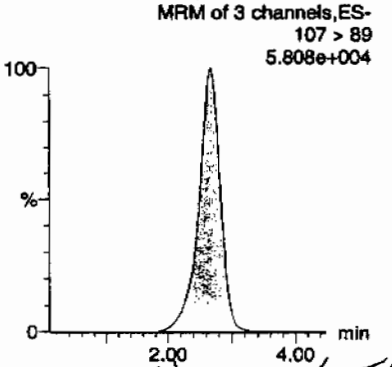

HMM 02/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035668	Perchlorate	99 > 83	2.69	11352.102	11352.102	bb			0.2158	107.91	7.91	1909.4...	3.05
1202035668	Perchlorate-101	101 > 85	2.69	3726.894	3726.894	bb			0.2270	113.48	13.48	1319.2...	
1202035668	Perchlorate-O(18)	107 > 89	2.66	22663.078	22663.078	bb			0.4785	95.71	-4.29	568.866	

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950073 Verified by:
Analyst: Jareth Shirley
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035665 MB	18-FEB-2010 17:04:00	2	20	10
1202035666 LCS	18-FEB-2010 17:04:00	2	20	10
246070001	18-FEB-2010 17:04:00	2	20	10
1202035667 MS (246070001)	18-FEB-2010 17:04:00	2	20	10
1202035668 MSD (246070001)	18-FEB-2010 17:04:00	2	20	10
246070002	18-FEB-2010 17:04:00	2	20	10
246070003	18-FEB-2010 17:04:00	2	20	10
246070004	18-FEB-2010 17:04:00	2	20	10
246070005	18-FEB-2010 17:04:00	2	20	10
246070006	18-FEB-2010 17:04:00	2	20	10
246070007	18-FEB-2010 17:04:00	2	20	10
246070008	18-FEB-2010 17:04:00	2	20	10
246070009	18-FEB-2010 17:04:00	2	20	10
246070010	18-FEB-2010 17:04:00	2	20	10
246070011	18-FEB-2010 17:04:00	2	20	10
246070012	18-FEB-2010 17:04:00	2	20	10
246070013	18-FEB-2010 17:04:00	2	20	10
246070014	18-FEB-2010 17:04:00	2	20	10
246070015	18-FEB-2010 17:04:00	2	20	10
246070016	18-FEB-2010 17:04:00	2	20	10
246070017	18-FEB-2010 17:04:00	2	20	10
246070018	18-FEB-2010 17:04:00	2	20	10
246070019	18-FEB-2010 17:04:00	2	20	10
246070020	18-FEB-2010 17:04:00	2	20	10
1202035669 ICS	18-FEB-2010 17:04:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035669	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.4	mL
LCS	1202035666	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.4	mL
MS	1202035667	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.4	mL
MSD	1202035668	10 ug/L ICV/CCV Second Source	UCL100210-02.2	.4	mL

Comments: Desalting cartridges used: 091120-1-Ba & 100114-1-H

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 02/26/10
Extr. Injection Volume: 20uL
Sequence Number: per022610a
Initial Calibration Date: 02/26/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: [illegible]
Date: 02/28/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0226001a	IPB001	CWW	2/26/2010 14:22			1		USE	B
per0226002a	IPB001	CWW	2/26/2010 14:30			1		USE	B
per0226003a	WCLICAL-01	CWW	2/26/2010 14:37			1		USE	I
per0226004a	WCLICAL-02	CWW	2/26/2010 14:45			1		USE	I
per0226005a	WCLICAL-03	CWW	2/26/2010 14:52			1		USE	I
per0226006a	WCLICAL-04	CWW	2/26/2010 15:00			1		USE	I
per0226007a	WCLICAL-05	CWW	2/26/2010 15:08			1		USE	I
per0226008a	IPB002	CWW	2/26/2010 15:15			1		USE	B
per0226009a	WCLICV	CWW	2/26/2010 15:23			1		USE	C
per0226010a	IPB003	CWW	2/26/2010 15:30			1		USE	B
per0226011a	WCLCRI	CWW	2/26/2010 15:38			1		USE	C
per0226012a	246837006	CWW	2/26/2010 15:45	952999	10-1747	1	LANL	USE	S
per0226013a	246841001	CWW	2/26/2010 15:53	952999	10-1748	1	LANL	USE	S
per0226014a	246841002	CWW	2/26/2010 16:00	952999	10-1748	1	LANL	USE	S
per0226015a	246841003	CWW	2/26/2010 16:08	952999	10-1748	1	LANL	USE	S
per0226016a	246843002	CWW	2/26/2010 16:15	952999	10-1749	1	LANL	USE	S
per0226017a	246843003	CWW	2/26/2010 16:23	952999	10-1749	1	LANL	USE	S
per0226018a	246843004	CWW	2/26/2010 16:30	952999	10-1749	1	LANL	USE	S
per0226019a	WCLCCV	CWW	2/26/2010 16:38			1		USE	C
per0226020a	IPB004	CWW	2/26/2010 16:46			1		USE	B
per0226021a	WCLCRI	CWW	2/26/2010 16:53			1		USE	C
per0226022a	1202035665	CWW	2/26/2010 17:01	950075	10-1544	1	LANL	USE	S
per0226023a	1202035666	CWW	2/26/2010 17:08	950075	10-1544	1	LANL	USE	S
per0226024a	1202035669	CWW	2/26/2010 17:16	950075	10-1544	1	LANL	USE	S
per0226025a	246070001	CWW	2/26/2010 17:23	950075	10-1544	1	LANL	USE	S
per0226026a	1202035667	CWW	2/26/2010 17:31	950075	10-1544	1	LANL	USE	S
per0226027a	1202035668	CWW	2/26/2010 17:38	950075	10-1544	1	LANL	USE	S
per0226028a	246070002	CWW	2/26/2010 17:46	950075	10-1544	1	LANL	USE	S
per0226029a	246070003	CWW	2/26/2010 17:53	950075	10-1544	1	LANL	USE	S

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per0226030a	246070004	CWW	2/26/2010 18:01	950075	10-1544	1	LANL	USE	S
per0226031a	WCLCCV	CWW	2/26/2010 18:09			1		USE	C
per0226032a	IPB005	CWW	2/26/2010 18:16			1		USE	B
per0226033a	WCLCRI	CWW	2/26/2010 18:24			1		USE	C
per0226034a	246070005	CWW	2/26/2010 18:31	950075	10-1544	1	LANL	USE	S
per0226035a	246070006	CWW	2/26/2010 18:39	950075	10-1544	1	LANL	USE	S
per0226036a	246070007	CWW	2/26/2010 18:46	950075	10-1544	1	LANL	USE	S
per0226037a	246070008	CWW	2/26/2010 18:54	950075	10-1544	1	LANL	USE	S
per0226038a	246070009	CWW	2/26/2010 19:01	950075	10-1544	1	LANL	USE	S
per0226039a	246070010	CWW	2/26/2010 19:09	950075	10-1544	1	LANL	USE	S
per0226040a	246070011	CWW	2/26/2010 19:16	950075	10-1544	1	LANL	USE	S
per0226041a	246070012	CWW	2/26/2010 19:24	950075	10-1544	1	LANL	USE	S
per0226042a	WCLCCV	CWW	2/26/2010 19:32			1		USE	C
per0226043a	IPB006	CWW	2/26/2010 19:39			1		USE	B
per0226044a	WCLCRI	CWW	2/26/2010 19:47			1		USE	C
per0226045a	246070013	CWW	2/26/2010 19:54	950075	10-1544	1	LANL	USE	S
per0226046a	246070014	CWW	2/26/2010 20:02	950075	10-1544	1	LANL	USE	S
per0226047a	246070015	CWW	2/26/2010 20:09	950075	10-1544	1	LANL	USE	S
per0226048a	246070016	CWW	2/26/2010 20:17	950075	10-1544	1	LANL	USE	S
per0226049a	246070017	CWW	2/26/2010 20:24	950075	10-1544	1	LANL	USE	S
per0226050a	246070018	CWW	2/26/2010 20:32	950075	10-1544	1	LANL	USE	S
per0226051a	246070019	CWW	2/26/2010 20:40	950075	10-1544	1	LANL	USE	S
per0226052a	246070020	CWW	2/26/2010 20:47	950075	10-1544	1	LANL	USE	S
per0226053a	WCLCCV	CWW	2/26/2010 20:55			1		USE	C
per0226054a	IPB007	CWW	2/26/2010 21:02			1		USE	B
per0226055a	WCLCRI	CWW	2/26/2010 21:10			1		USE	C
per0226056a	1202054192	CWW	2/26/2010 21:17	957926	WP10-1	1	LANL	DUSE-RE	S
per0226057a	1202054194	CWW	2/26/2010 21:25	957926	WP10-1	1	LANL	DUSE-RE	S
per0226058a	247883002	CWW	2/26/2010 21:33	957926	WP10-1	50	LANL	DUSE-RE	S
per0226059a	1202054193	CWW	2/26/2010 21:40	957926	WP10-1	50	LANL	DUSE-RE	S
per0226060a	WCLCCV	CWW	2/26/2010 21:48			1		USE	C
per0226061a	IPB008	CWW	2/26/2010 21:55			1		USE	B
per0226062a	WCLCRI	CWW	2/26/2010 22:03			1		USE	C
per0226063a	1202042691	CWW	2/26/2010 22:11	953002	VARIOUS	1	LANL	USE	S
per0226064a	1202042692	CWW	2/26/2010 22:18	953002	VARIOUS	1	LANL	USE	S
per0226065a	1202042695	CWW	2/26/2010 22:26	953002	VARIOUS	1	LANL	USE	S
per0226066a	246846001	CWW	2/26/2010 22:33	953002	10-1750	1	LANL	USE	S

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per0226067a	246846002	CWW	2/26/2010 22:41	953002	10-1750	1	LANL	USE	S
per0226068a	246847001	CWW	2/26/2010 22:48	953002	10-1751	1	LANL	USE	S
per0226069a	246847002	CWW	2/26/2010 22:56	953002	10-1751	1	LANL	USE	S
per0226070a	246854001	CWW	2/26/2010 23:03	953002	10-1753-1	1	LANL	USE	S
per0226071a	1202042693	CWW	2/26/2010 23:11	953002	10-1753-1	1	LANL	USE	S
per0226072a	1202042694	CWW	2/26/2010 23:19	953002	10-1753-1	1	LANL	USE	S
per0226073a	WCLCCV	CWW	2/26/2010 23:26			1		USE	C
per0226074a	IPB009	CWW	2/26/2010 23:34			1		USE	B
per0226075a	WCLCRI	CWW	2/26/2010 23:41			1		USE	C
per0226076a	246854002	CWW	2/26/2010 23:49	953002	10-1753-1	1	LANL	USE	S
per0226077a	246854003	CWW	2/26/2010 23:57	953002	10-1753-1	1	LANL	USE	S
per0226078a	246854004	CWW	2/27/2010 0:04	953002	10-1753-1	1	LANL	USE	S
per0226079a	246854005	CWW	2/27/2010 0:12	953002	10-1753-1	1	LANL	USE	S
per0226080a	246854006	CWW	2/27/2010 0:19	953002	10-1753-1	1	LANL	USE	S
per0226081a	246854007	CWW	2/27/2010 0:27	953002	10-1753-1	1	LANL	USE	S
per0226082a	246854008	CWW	2/27/2010 0:34	953002	10-1753-1	1	LANL	USE	S
per0226083a	246854009	CWW	2/27/2010 0:42	953002	10-1753-1	1	LANL	USE	S
per0226084a	246854010	CWW	2/27/2010 0:49	953002	10-1753-1	1	LANL	USE	S
per0226085a	246854011	CWW	2/27/2010 0:57	953002	10-1753-1	1	LANL	USE	S
per0226086a	WCLCCV	CWW	2/27/2010 1:05			1		USE	C
per0226087a	IPB010	CWW	2/27/2010 1:12			1		USE	B
per0226088a	WCLCRI	CWW	2/27/2010 1:20			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1544

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	948890
Prep Batch Number:	948889

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
246070001	RE15-10-8164
246070002	RE15-10-8162
246070003	RE15-10-8151
246070004	RE15-10-8163
246070005	RE15-10-8148
246070006	RE15-10-8166
246070007	RE15-10-8161
246070008	RE15-10-8154
246070009	RE15-10-8156
246070010	RE15-10-8159
246070011	RE15-10-8157
246070012	RE15-10-8158
246070013	RE15-10-8160

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246070014	RE15-10-8149
246070015	RE15-10-8167
246070016	RE15-10-8152
246070017	RE15-10-8150
246070018	RE15-10-8153
246070019	RE15-10-8165
246070020	RE15-10-8155
1202032878	Method Blank (MB)
1202032879	Laboratory Control Sample (LCS)
1202032880	246070001(RE15-10-8164) Matrix Spike (MS)
1202032881	246070001(RE15-10-8164) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

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Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered Tetryl at 47.5%. The recovery limits are 51-112%. Since both the MS and MSD met acceptance limits for Tetryl, method control was achieved. The data are reported. Please see data exception report 800798.

QC Sample Designation
Sample 246070001 (RE15-10-8164) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovered PETN at 142%. The recovery limits are 60-140%. Since both the LCS and MS met acceptance limits for PETN, method control was achieved. The data are reported. Please see data exception report 800798.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for HMX was 30.4%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported. Please see data exception report 800798.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

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Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 246070001 (RE15-10-8164) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 800798 was generated for this SDG.

The LCS recovered Tetryl at 47.5%. The recovery limits are 51-112%. Since both the MS and MSD met acceptance limits for Tetryl, method control was achieved. The data are reported.

The MSD recovered PETN at 142%. The recovery limits are 60-140%. Since both the LCS and MS met acceptance limits for PETN, method control was achieved..The data are reported.

The MS/MSD RPD for HMX was 30.4%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

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Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert N. Maier **Date:** 03/09/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070001

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304118a

Date Analyzed: 07-MAR-10 00:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070001

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260095.wiff

Date Analyzed: 27-FEB-10 15:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8162

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070002

Sample Amount 2

Moisture: 23.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304121a

Date Analyzed: 07-MAR-10 02:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8162

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070002

Sample Amount 2

Moisture: 23.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260098.wiff

Date Analyzed: 27-FEB-10 16:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8151

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070003

Sample Amount 2

Moisture: 26.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304122a

Date Analyzed: 07-MAR-10 02:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8151

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070003

Sample Amount 2

Moisture: 26.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260102.wiff

Date Analyzed: 27-FEB-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8163

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070004

Sample Amount 2

Moisture: 15.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304123a

Date Analyzed: 07-MAR-10 03:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8163

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070004

Sample Amount 2

Moisture: 15.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260103.wiff

Date Analyzed: 27-FEB-10 17:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8148

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070005

Sample Amount 2

Moisture: 35.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304124a

Date Analyzed: 07-MAR-10 03:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8148

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070005

Sample Amount 2

Moisture: 35.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260104.wiff

Date Analyzed: 27-FEB-10 17:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8166

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070006

Sample Amount 2

Moisture: 17.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304125a

Date Analyzed: 07-MAR-10 04:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8166

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070006

Sample Amount 2

Moisture: 17.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260105.wiff

Date Analyzed: 27-FEB-10 18:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	443	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8161

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070007

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304129a

Date Analyzed: 07-MAR-10 06:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8161

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070007

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260106.wiff

Date Analyzed: 27-FEB-10 18:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8154

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070008

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304130a

Date Analyzed: 07-MAR-10 06:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8154

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070008

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260107.wiff

Date Analyzed: 27-FEB-10 18:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8156

Lab Code: GEI

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070009

Sample Amount 2

Moisture: 22.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304131a

Date Analyzed: 07-MAR-10 07:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8156

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070009

Sample Amount 2

Moisture: 22.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260108.wiff

Date Analyzed: 27-FEB-10 18:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8159

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070010

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304132a

Date Analyzed: 07-MAR-10 07:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8159

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070010

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260109.wiff

Date Analyzed: 27-FEB-10 19:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8157

Lab Code: GEI

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070011

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304133a

Date Analyzed: 07-MAR-10 08:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8157

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070011

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260110.wiff

Date Analyzed: 27-FEB-10 19:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8158

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070012

Sample Amount 2

Moisture: 15.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304134a

Date Analyzed: 07-MAR-10 08:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8158

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070012

Sample Amount 2

Moisture: 15.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260111.wiff

Date Analyzed: 27-FEB-10 19:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8160

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070013

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304135a

Date Analyzed: 07-MAR-10 09:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8160

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070013

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260115.wiff

Date Analyzed: 27-FEB-10 20:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8149

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070014

Sample Amount 2

Moisture: 11.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304136a

Date Analyzed: 07-MAR-10 09:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8149

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070014

Sample Amount 2

Moisture: 11.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260116.wiff

Date Analyzed: 27-FEB-10 21:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8167

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070015

Sample Amount 2

Moisture: 13.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304137a

Date Analyzed: 07-MAR-10 10:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8167

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070015

Sample Amount 2

Moisture: 13.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260117.wiff

Date Analyzed: 27-FEB-10 21:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8152

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070016

Sample Amount 2

Moisture: 19.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304138a

Date Analyzed: 07-MAR-10 10:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8152

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070016

Sample Amount 2

Moisture: 19.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260118.wiff

Date Analyzed: 27-FEB-10 21:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8150

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070017

Sample Amount 2

Moisture: 10.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304142a

Date Analyzed: 07-MAR-10 12:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8150

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070017

Sample Amount 2

Moisture: 10.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260119.wiff

Date Analyzed: 27-FEB-10 21:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8153

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070018

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304143a

Date Analyzed: 07-MAR-10 13:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8153

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070018

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260120.wiff

Date Analyzed: 27-FEB-10 22:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8165

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070019

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304144a

Date Analyzed: 07-MAR-10 13:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8165

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070019

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260121.wiff

Date Analyzed: 27-FEB-10 22:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8155

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070020

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304145a

Date Analyzed: 07-MAR-10 14:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8155

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070020

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260122.wiff

Date Analyzed: 27-FEB-10 22:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1544

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
246070001	RE15–10–8164	102	70 – 144	
246070001	RE15–10–8164	96	70 – 144	
246070002	RE15–10–8162	112	70 – 144	
246070002	RE15–10–8162	96	70 – 144	
246070003	RE15–10–8151	104	70 – 144	
246070003	RE15–10–8151	96.8	70 – 144	
246070004	RE15–10–8163	114	70 – 144	
246070004	RE15–10–8163	89.6	70 – 144	
246070005	RE15–10–8148	112	70 – 144	
246070005	RE15–10–8148	94.8	70 – 144	
246070006	RE15–10–8166	113	70 – 144	
246070006	RE15–10–8166	93.6	70 – 144	
246070007	RE15–10–8161	111	70 – 144	
246070007	RE15–10–8161	96.4	70 – 144	
246070008	RE15–10–8154	97.4	70 – 144	
246070008	RE15–10–8154	91.2	70 – 144	
246070009	RE15–10–8156	110	70 – 144	
246070009	RE15–10–8156	89.2	70 – 144	
246070010	RE15–10–8159	106	70 – 144	
246070010	RE15–10–8159	89.2	70 – 144	
246070011	RE15–10–8157	115	70 – 144	
246070011	RE15–10–8157	90.4	70 – 144	
246070012	RE15–10–8158	103	70 – 144	
246070012	RE15–10–8158	93.2	70 – 144	
246070013	RE15–10–8160	116	70 – 144	
246070013	RE15–10–8160	95.6	70 – 144	
246070014	RE15–10–8149	108	70 – 144	
246070014	RE15–10–8149	98	70 – 144	
246070015	RE15–10–8167	112	70 – 144	
246070015	RE15–10–8167	96.8	70 – 144	
246070016	RE15–10–8152	114	70 – 144	
246070016	RE15–10–8152	94	70 – 144	
246070017	RE15–10–8150	109	70 – 144	
246070017	RE15–10–8150	94.8	70 – 144	
246070018	RE15–10–8153	111	70 – 144	
246070018	RE15–10–8153	91.2	70 – 144	
246070019	RE15–10–8165	119	70 – 144	

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1544

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5µ ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
246070019	RE15–10–8165	91.6	70 – 144	
246070020	RE15–10–8155	102	70 – 144	
246070020	RE15–10–8155	94.4	70 – 144	
1202032878	MB for batch 948889	105	70 – 144	
1202032878	MB for batch 948889	98.8	70 – 144	
1202032879	LCS for batch 948889	110	70 – 144	
1202032879	LCS for batch 948889	90.4	70 – 144	
1202032880	RE15–10–8164(246070001MS)	113	70 – 144	
1202032880	RE15–10–8164(246070001MS)	92.4	70 – 144	
1202032881	RE15–10–8164(246070001MSD)	109	70 – 144	
1202032881	RE15–10–8164(246070001MSD)	93.6	70 – 144	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1544

Extract Batch Code: 948889

Date Extracted: 10–FEB–10

GEL LCS ID: 1202032879

GEL LCSDUP ID:

Analysis Date/Time: 07–MAR–10 00:18

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
1,3,5–Trinitrobenzene	5000	3850	76.9								69 – 126
2,4,6–Trinitrotoluene	5000	5050	101								73 – 149
2,4–Dinitrotoluene	5000	4570	91.3								87 – 137
2,6–Dinitrotoluene	5000	4800	96.1								89 – 120
2–Amino–4,6–dinitrotoluene	5000	5720	114								90 – 130
4–Amino–2,6–dinitrotoluene	5000	5110	102								84 – 130
HMX	5000	4120	82.4								58 – 138
Nitrobenzene	5000	5130	103								71 – 122
PETN	5000	5500	110								64 – 137
RDX	5000	4380	87.6								81 – 137
Tetryl	5000	2370	47.5	*							51 – 112
m–Dinitrobenzene	5000	4860	97.3								83 – 122
m–Nitrotoluene	5000	3880	77.6								73 – 118
o–Nitrotoluene	5000	4240	84.8								72 – 119
p–Nitrotoluene	5000	4220	84.4								67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1544

Extract Batch Code: 948889

Date Extracted: 10–FEB–10

GEL LCS ID: 1202032879

GEL LCSDUP ID:

Analysis Date/Time: 27–FEB–10 15:14

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4–Diamino–6–nitrotoluene	5000	4420	88.4					52 – 114
2,6–Diamino–4–nitrotoluene	5000	4660	93.2					64 – 122
3,5–Dinitroaniline	5000	4500	90					70 – 127
tris(o–cresyl) phosphate	5000	4850	97					84 – 119
TATB	5000	6050	121					28 – 162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8164

Lab Code: GEL

GEL Job No (SDG) 10-1544

Extract Batch Code: 948889

Date Extracted: 10-FEB-10

GEL Spike ID: 1202032880

GEL SpikeDup ID: 1202032881

Analysis Date/Time: 07-MAR-10 01:17

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,6-Dinitrotoluene	5000	0	4940	98.7	4940	98.7	.025	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	6020	120	5810	116	3.54	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5830	117	5580	112	4.41	30	72 – 143
HMX	5000	0	3630	72.5	4930	98.5	30.4 *	30	51 – 144
Nitrobenzene	5000	0	5150	103	4760	95.3	7.73	30	70 – 122
2,4-Dinitrotoluene	5000	0	4520	90.4	4690	93.7	3.69	30	86 – 135
2,4,6-Trinitrotoluene	5000	0	5430	109	5070	101	6.75	30	76 – 144
1,3,5-Trinitrobenzene	5000	0	4410	88.2	4520	90.4	2.43	30	50 – 140
PETN	5000	0	5960	119	7100	142 *	17.4	30	60 – 140
RDX	5000	0	4610	92.1	5220	104	12.5	30	59 – 152
Tetryl	5000	0	3200	64	3260	65.1	1.82	30	36 – 124
m-Dinitrobenzene	5000	0	4510	90.2	4810	96.2	6.45	30	85 – 118
m-Nitrotoluene	5000	0	5340	107	4780	95.6	11	30	70 – 120
o-Nitrotoluene	5000	0	5210	104	4870	97.4	6.79	30	69 – 123
p-Nitrotoluene	5000	0	5980	120	5040	101	17.1	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8164

Lab Code: GEL

GEL Job No (SDG) 10-1544

Extract Batch Code: 948889

Date Extracted: 10-FEB-10

GEL Spike ID: 1202032880

GEL SpikeDup ID: 1202032881

Analysis Date/Time: 27-FEB-10 15:46

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	4330	86.6	4340	86.8	.231	26	34 – 135
2,6-Diamino-4-nitrotoluene	5000	0	4410	88.2	4400	88	.227	30	55 – 130
TATB	5000	0	6190	124	5200	104	17.4	30	29 – 155
tris(o-cresyl) phosphate	5000	0	4900	98	4910	98.2	.204	30	72 – 127
3,5-Dinitroaniline	5000	0	4440	88.8	4540	90.8	2.23	30	73 – 129

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04–MAR–10 15:16

GEL Data File: EXP0304001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	607.958
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	536.234
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

ıtify Sample Report
Laboratories, LLC / Analyst : Michael A. Penny

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: 04-Mar-2010
: 15:16:39
IBLK01
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MTP 3/6/10

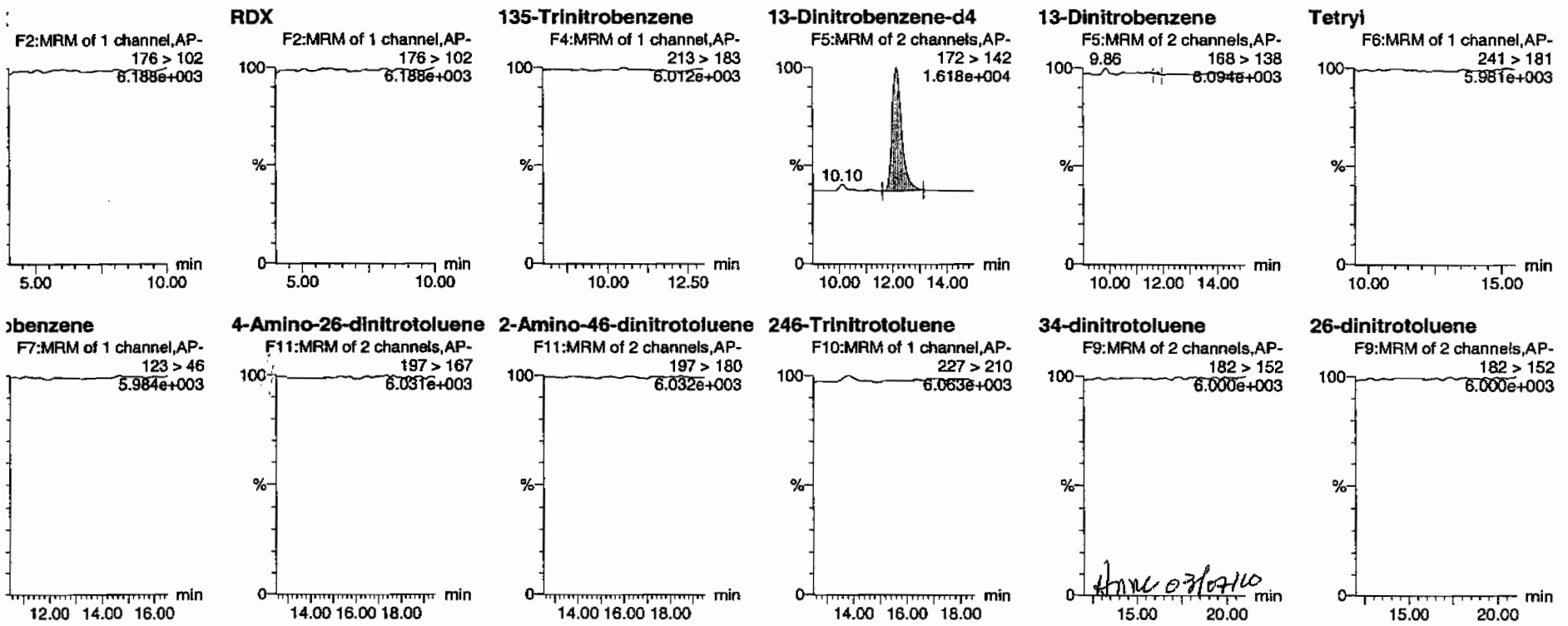

Hmc 03/07/10

. SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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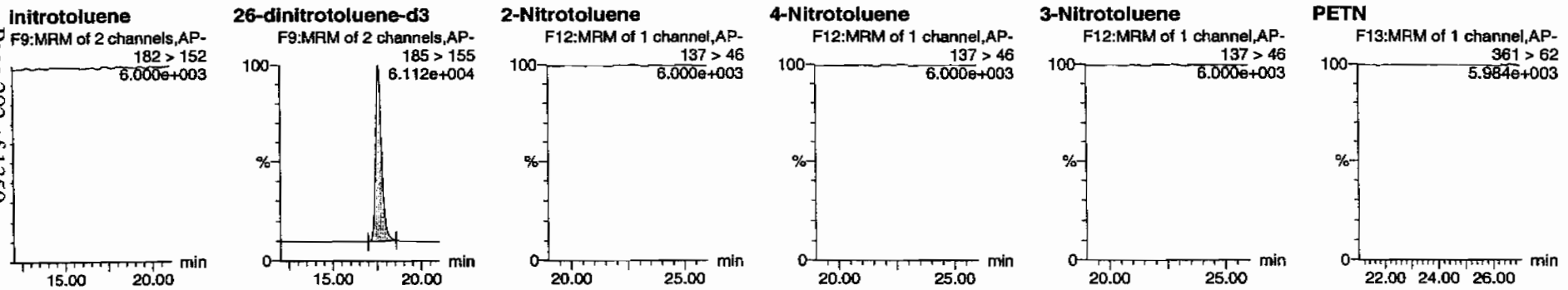

	Name	Trace	RT	Area	ISArea	AbsResp	Response	Flags	ModDate	ModTime	ng/mL	%Rec	%Dev	S/N
.K01	HMX	176 > 102			4270.042									
.K01	RDX	176 > 102			4270.042									
.K01	135-Trinitrobenzene	213 > 183			4270.042									
.K01	13-Dinitrobenzene-d4	172 > 142	12.14	4270.042		4270.042	4270.042	bb			607.9583	121.6	21.6	332.0
.K01	13-Dinitrobenzene	168 > 138			4270.042			MM-	05-Mar-10	10:02:47				
.K01	Tetryl	241 > 181			4270.042									
.K01	Nitrobenzene	123 > 46			4270.042									
.K01	4-Amino-26-dinitrotoluene	197 > 167			22050.561									
.K01	2-Amino-46-dinitrotoluene	197 > 180			22050.561									
.K01	246-Trinitrotoluene	227 > 210			22050.561									
.K01	34-dinitrotoluene	182 > 152			22050.561									
.K01	26-dinitrotoluene	182 > 152			22050.561									
.K01	24-dinitrotoluene	182 > 152			22050.561									
.K01	26-dinitrotoluene-d3	185 > 155	17.60	22050.561		22050.561	22050.561	bb			536.2338	107.2	7.2	2058.0
.K01	2-Nitrotoluene	137 > 46			22050.561									
.K01	4-Nitrotoluene	137 > 46			22050.561									
.K01	3-Nitrotoluene	137 > 46			22050.561									
.K01	PETN	361 > 62			22050.561									

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-MAR-10 15:46

GEL Data File: EXP0304002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3-Dinitrobenzene-d4	500	579.131
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	573.881
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0

set: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

ie: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304002a
: 04-Mar-2010
e: 15:46:08
(IBLK01
1:1,A

MMT 3/4/10

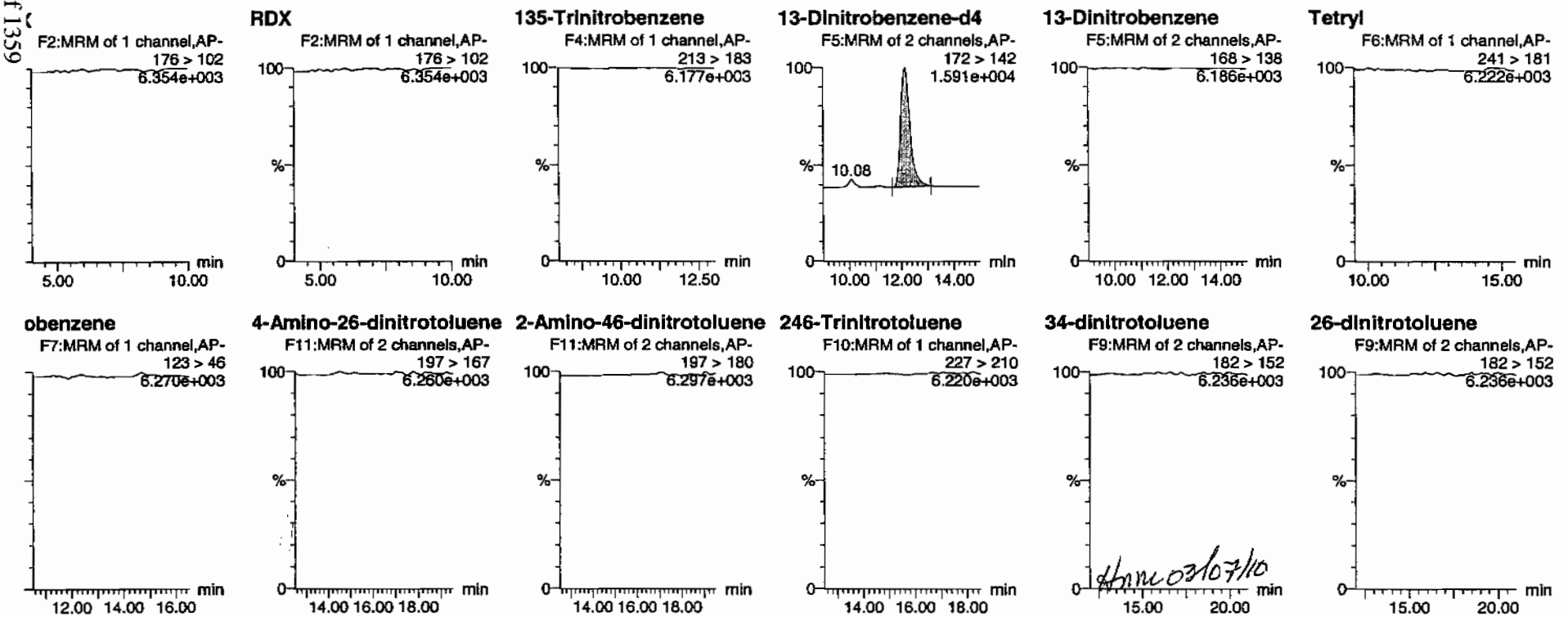

Hmc 03/07/10

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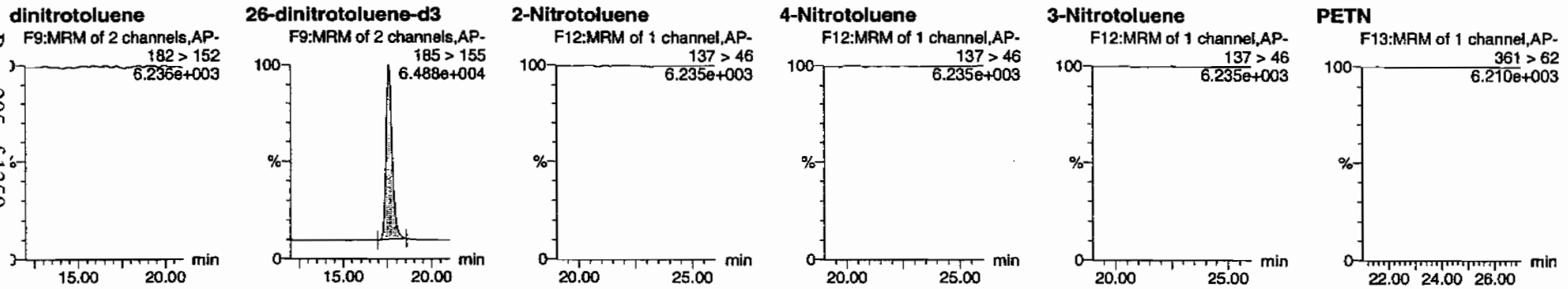

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
ILK01	HMX	176 > 102			4067.572									
ILK01	RDX	176 > 102			4067.572									
ILK01	135-Trinitrobenzene	213 > 183			4067.572									
ILK01	13-Dinitrobenzene-d4	172 > 142	12.14	4067.572		4067.572	4067.572	bb			579.1311	115.8	15.8	625.2
ILK01	13-Dinitrobenzene	168 > 138			4067.572									
ILK01	Tetryl	241 > 181			4067.572									
ILK01	Nitrobenzene	123 > 46			4067.572									
ILK01	4-Amino-26-dinitrotoluene	197 > 167			23598.654									
ILK01	2-Amino-46-dinitrotoluene	197 > 180			23598.654									
ILK01	246-Trinitrotoluene	227 > 210			23598.654									
ILK01	34-dinitrotoluene	182 > 152			23598.654									
ILK01	26-dinitrotoluene	182 > 152			23598.654									
ILK01	24-dinitrotoluene	182 > 152			23598.654									
ILK01	26-dinitrotoluene-d3	185 > 155	17.60	23598.654		23598.654	23598.654	bb			573.8809	114.8	14.8	787.1
ILK01	2-Nitrotoluene	137 > 46			23598.654									
ILK01	4-Nitrotoluene	137 > 46			23598.654									
ILK01	3-Nitrotoluene	137 > 46			23598.654									
ILK01	PETN	361 > 62			23598.654									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26-FEB-10 14:53

GEL Data File: EXS02260001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lar 3/1/10

Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 2:53:58 PM
d: No

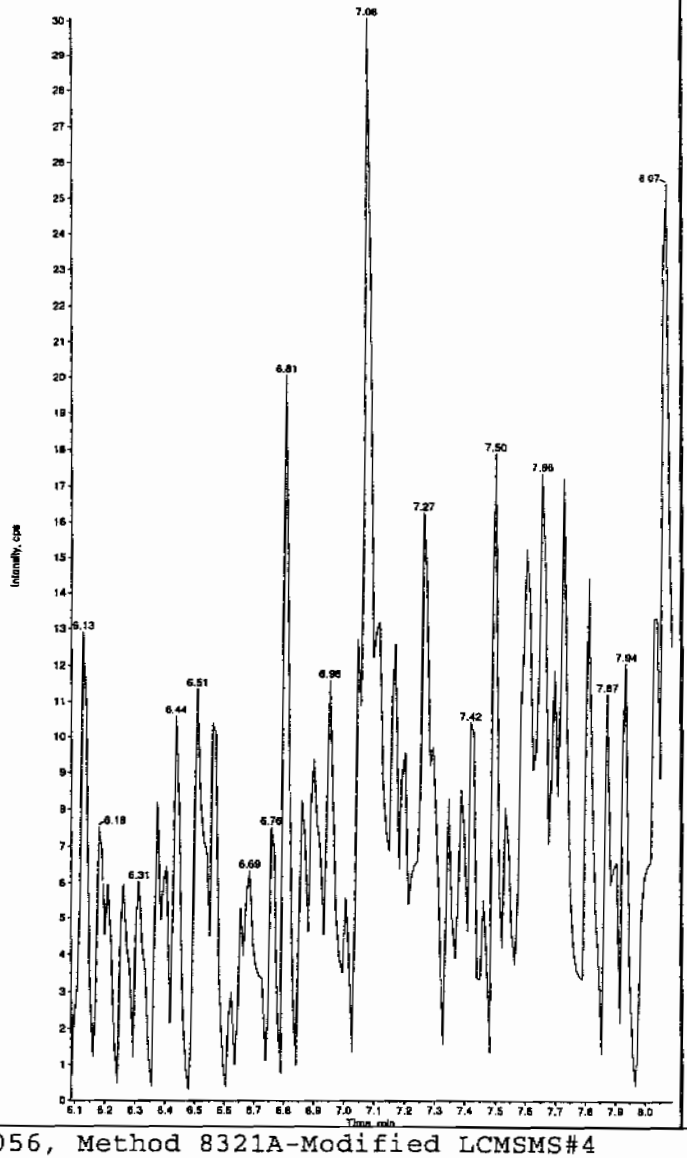

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

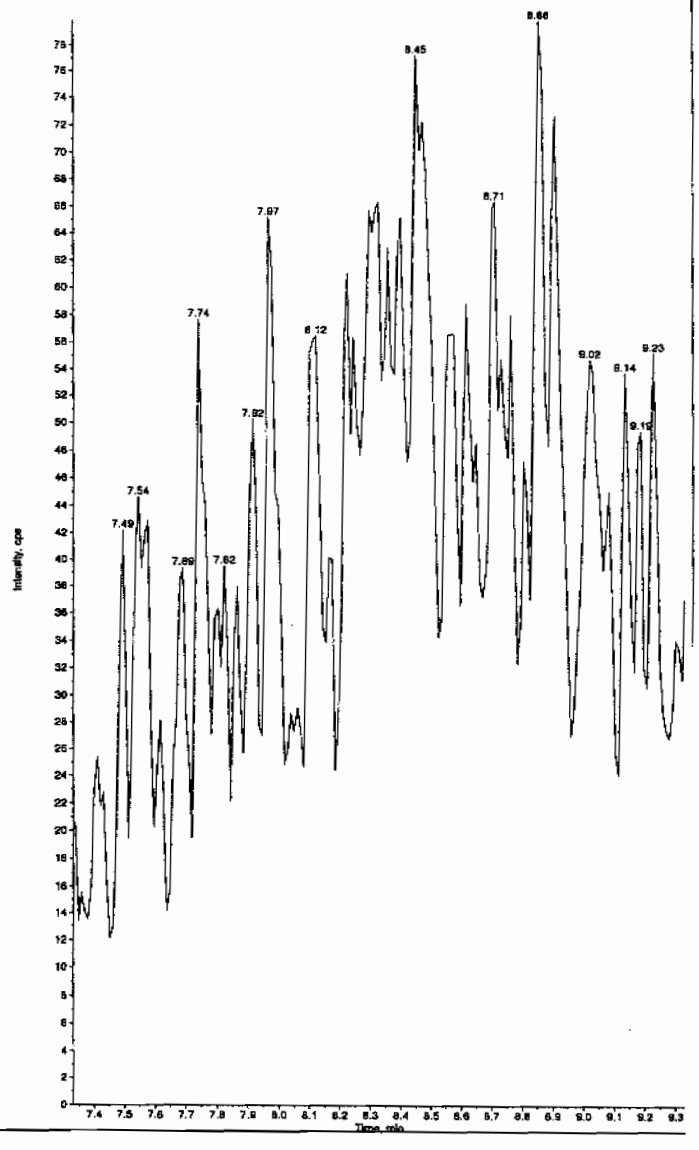

Hmm 03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
t: "LCMSEXP_B" Annotation: ""
:index: 1
:ype: Unknown
:ation: N/A
:ed Conc: 0.00 ng/mL
:e: 2/26/2010
me: 2:53:58 PM
i: No

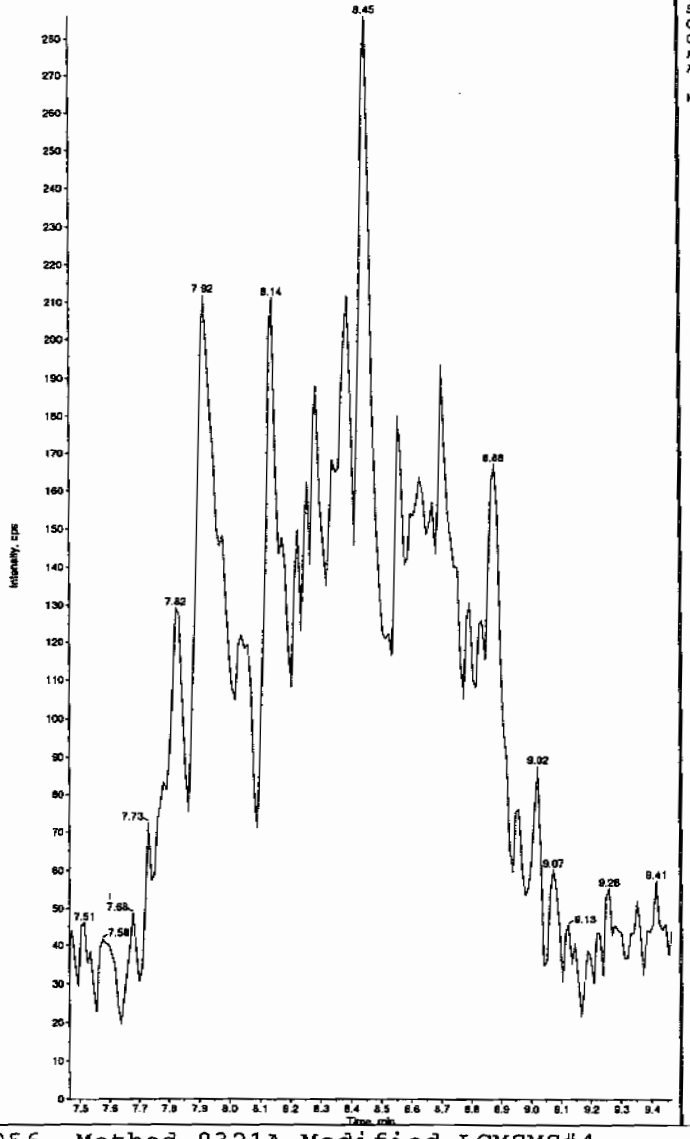

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

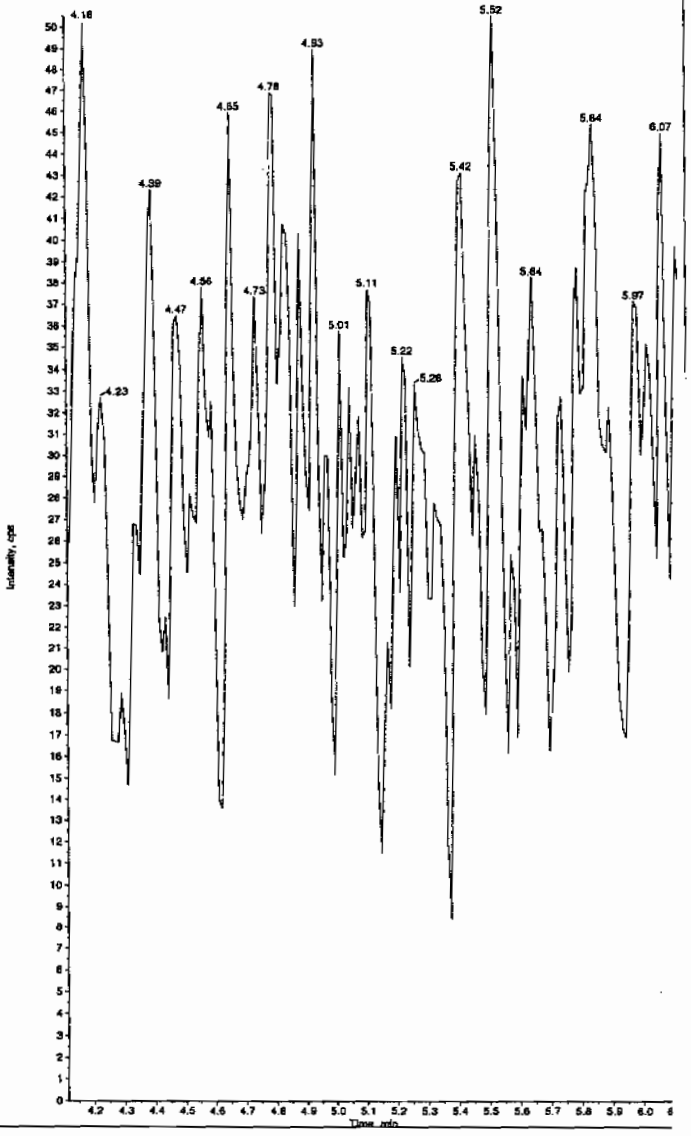

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260001.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
t: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ed Conc: 0.00 ng/mL
e: 2/26/2010
me: 2:53:58 PM
d: No

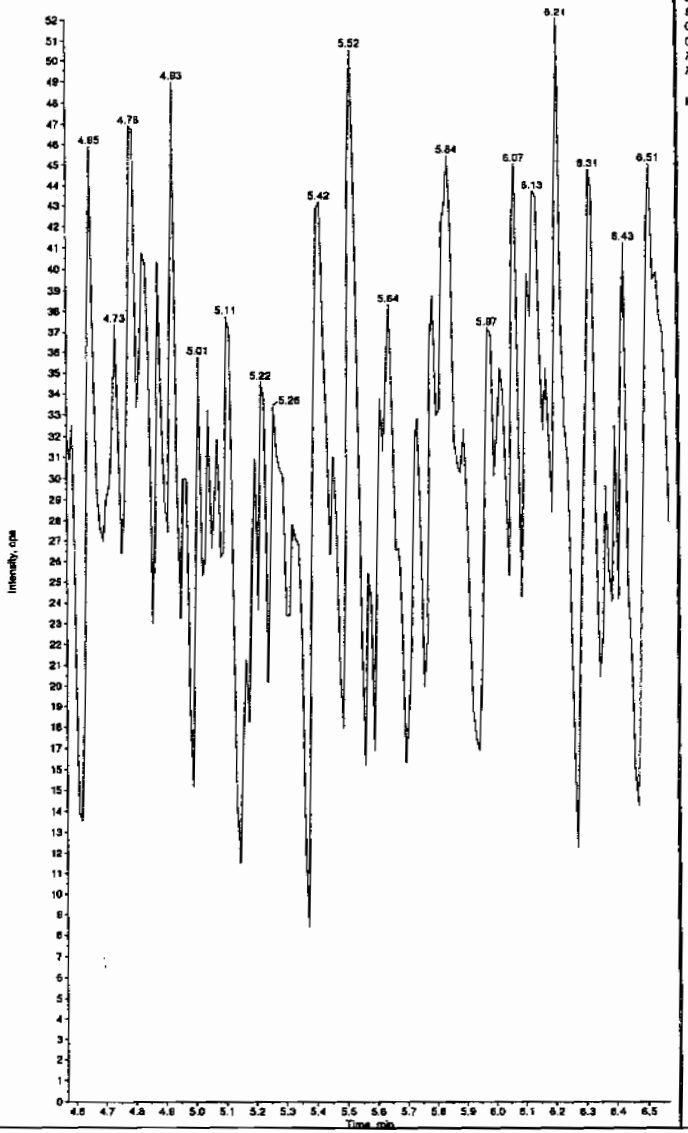

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

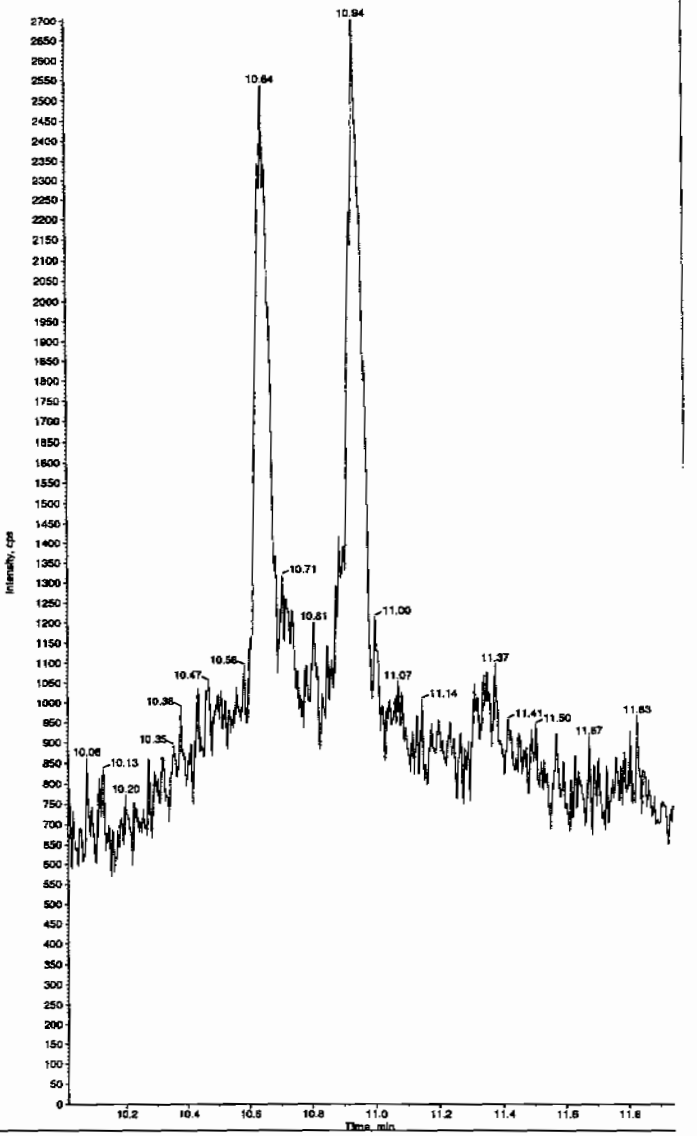

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26-FEB-10 15:09

GEL Data File: EXS02260002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jan 3/1/10

Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_B" Annotation: ""
:ndex: 1
Type: Unknown
:ation: N/A
:ed Conc: 0.00 ng/mL
:e: 2/26/2010
me: 3:09:45 PM
i: No

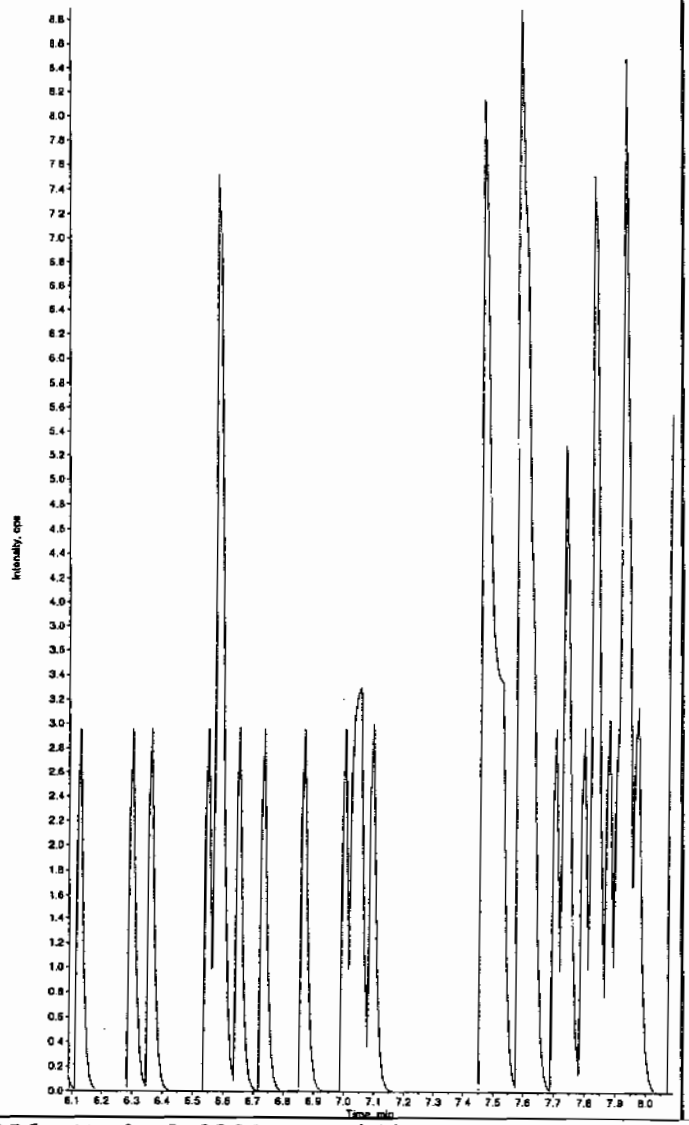

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

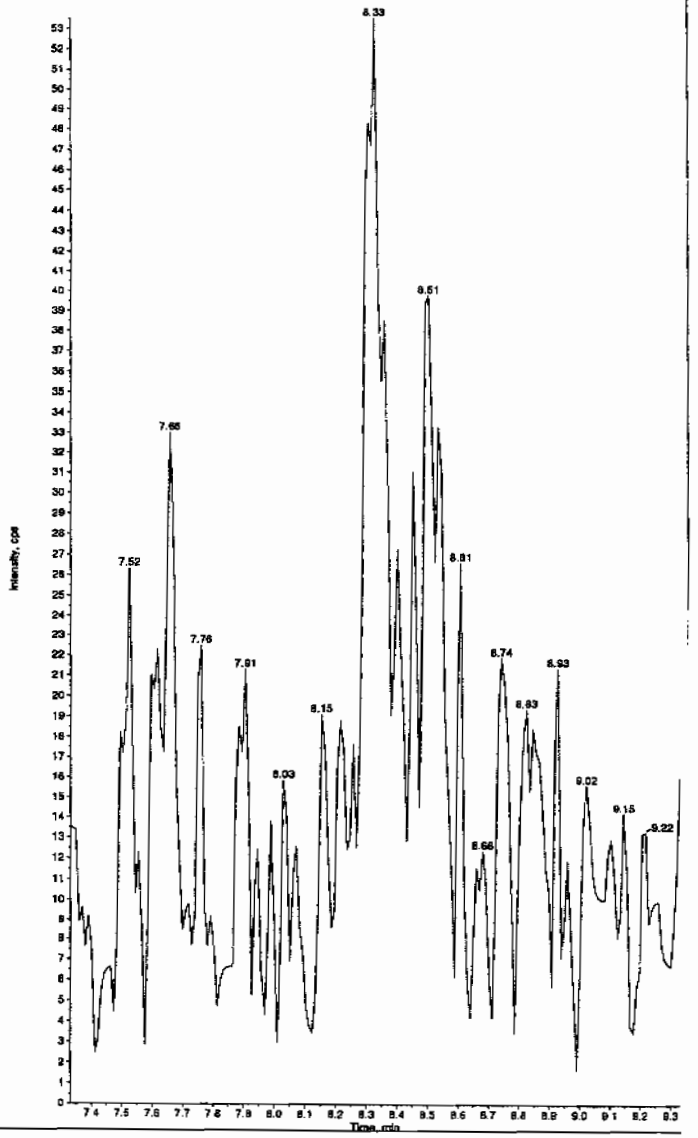

Hmm 03/01/10

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Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ation: N/A
ed Conc: 0.00 ng/mL
e: 2/26/2010
e: 3:09:45 PM
: No

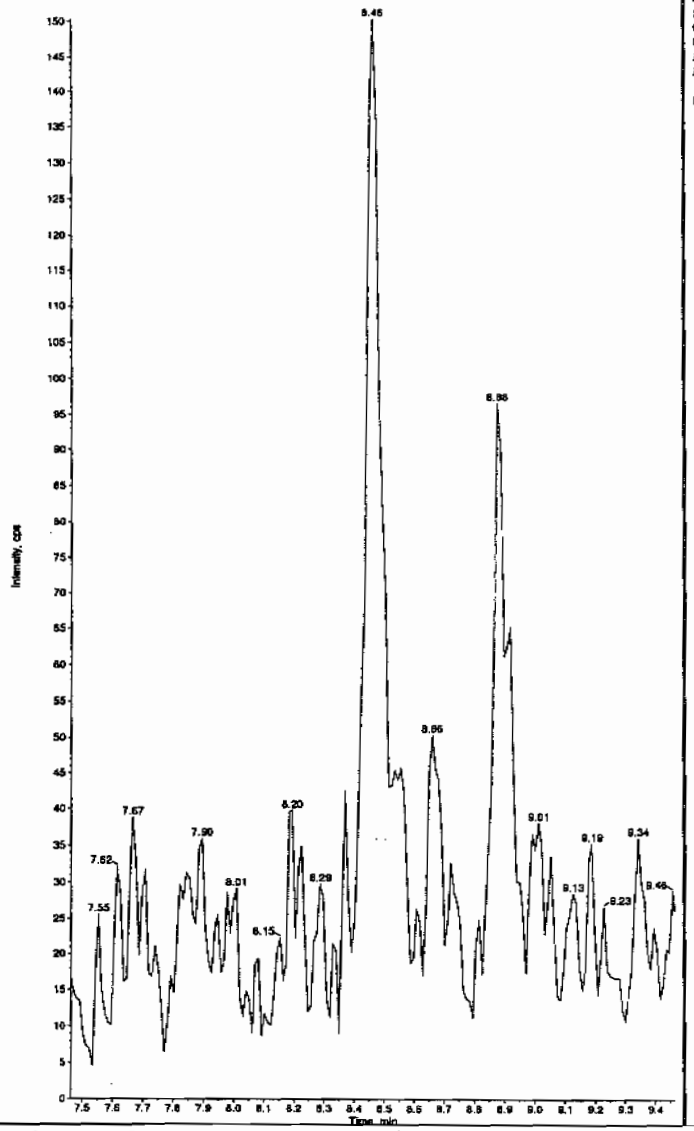

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

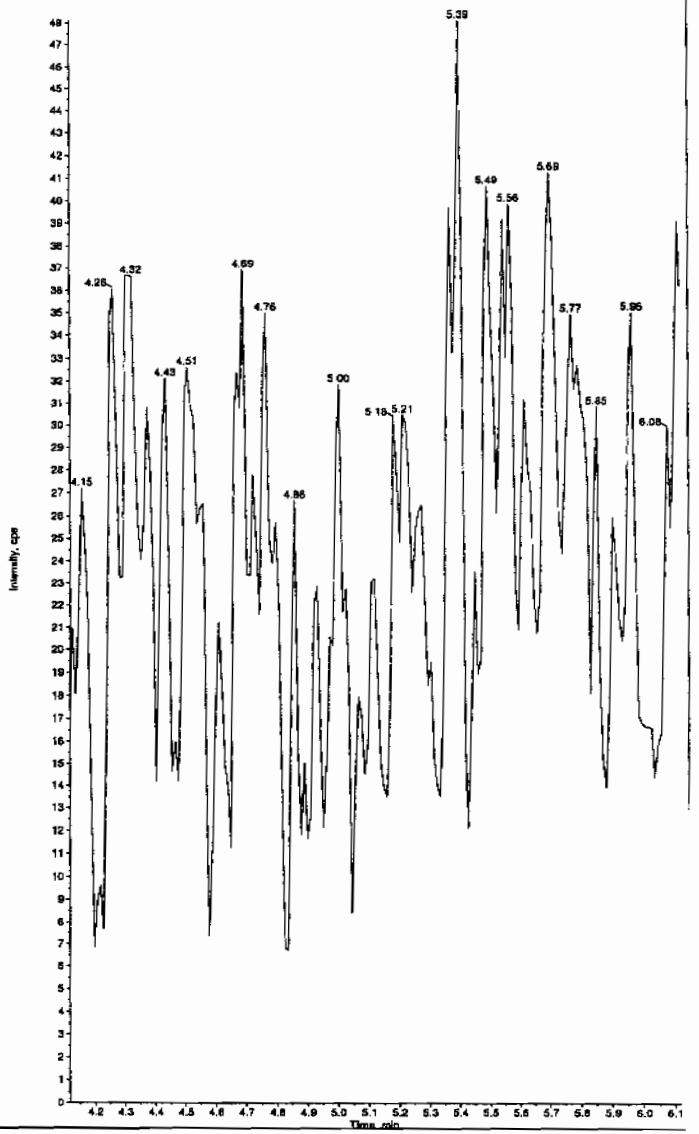

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
t: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ation: N/A
ed Conc: 0.00 ng/mL
e: 2/26/2010
me: 3:09:45 PM
: No

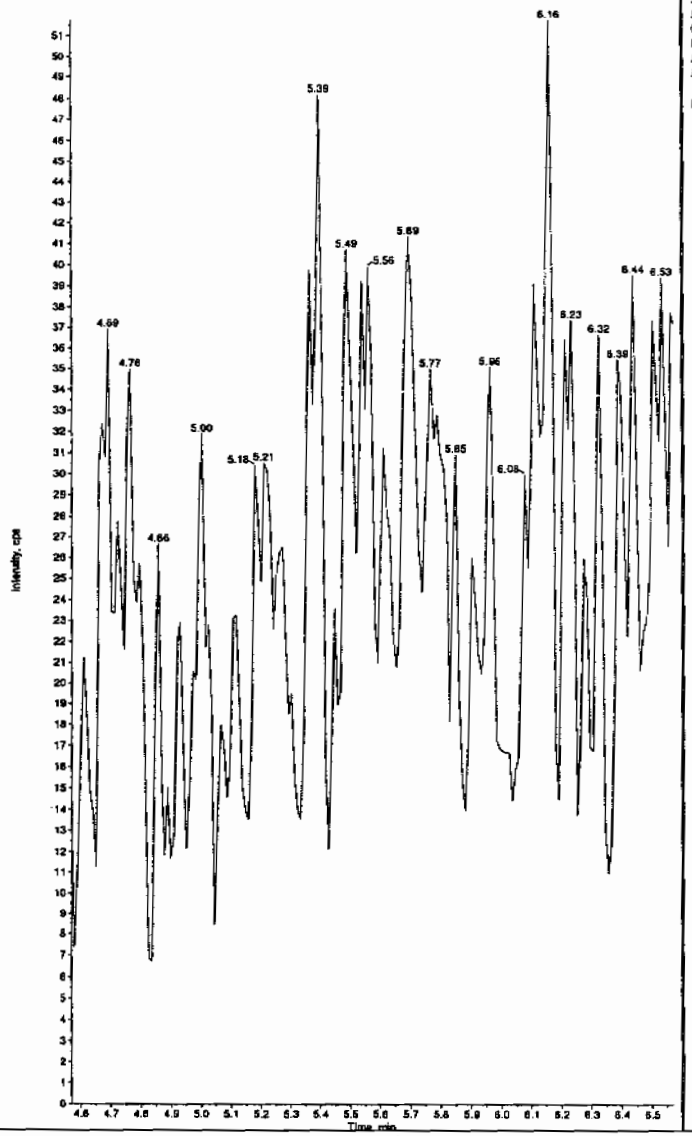

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

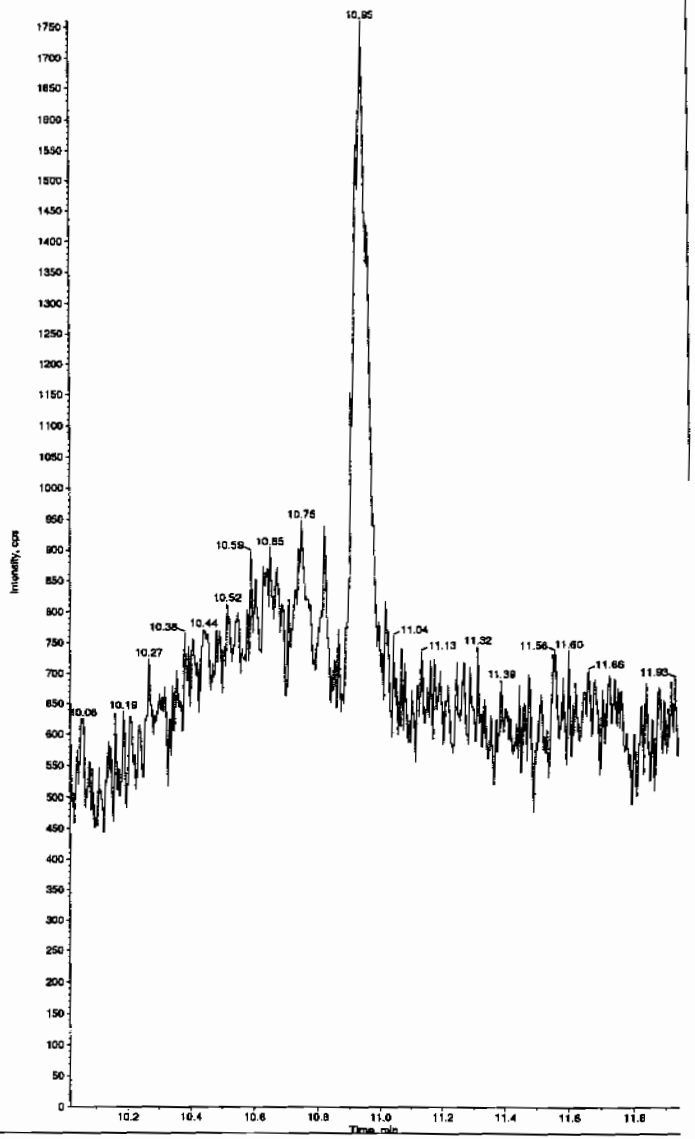

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 04-MAR-10 19:12

GEL Data File: EXP0304009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	522.148
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.283
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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e: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304009a
: 04-Mar-2010
: 19:12:28
IBLK02
1:1,A

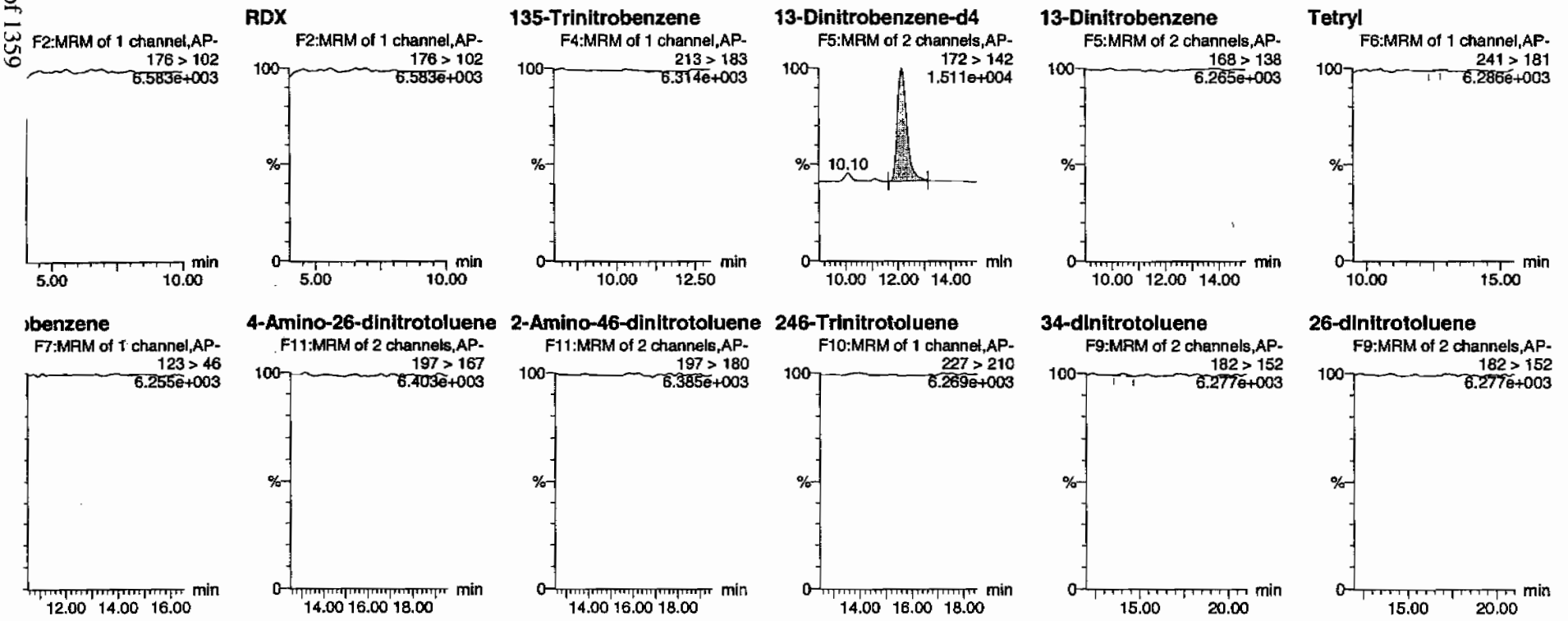

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.et: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

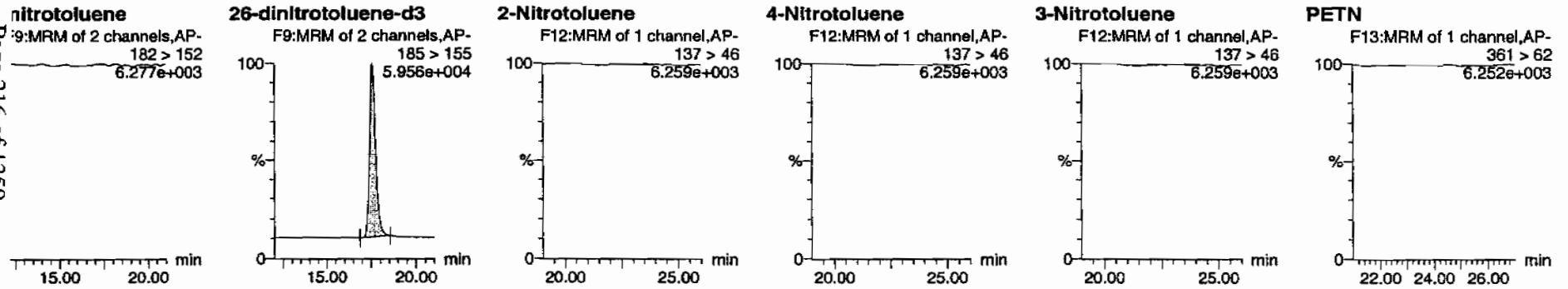

	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
02	HMX	176 > 102			3667.345									
02	RDX	176 > 102			3667.345									
02	135-Trinitrobenzene	213 > 183			3667.345									
02	13-Dinitrobenzene-d4	172 > 142	12.14	3667.345		3667.345	3667.345	bb			522.1477	104.4	4.4	148.9
02	13-Dinitrobenzene	168 > 138			3667.345									
02	Tetryl	241 > 181			3667.345			MM-	05-Mar-10	10:04:00				
02	Nitrobenzene	123 > 46			3667.345									
02	4-Amino-26-dinitrotoluene	197 > 167			21353.541									
02	2-Amino-46-dinitrotoluene	197 > 180			21353.541									
02	246-Trinitrotoluene	227 > 210			21353.541									
02	34-dinitrotoluene	182 > 152			21353.541			MM-	05-Mar-10	10:08:28				
02	26-dinitrotoluene	182 > 152			21353.541									
K02	24-dinitrotoluene	182 > 152			21353.541									
K02	26-dinitrotoluene-d3	185 > 155	17.58	21353.541		21353.541	21353.541	bb			519.2834	103.9	3.9	1891.3
K02	2-Nitrotoluene	137 > 46			21353.541									
K02	4-Nitrotoluene	137 > 46			21353.541									
K02	3-Nitrotoluene	137 > 46			21353.541									
K02	PETN	361 > 62			21353.541									

. SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 04-MAR-10 20:11

GEL Data File: EXP0304011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	542.741
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	569.446
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

set: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

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: 04-Mar-2010
: 20:11:24
IBLK03
1:1,A

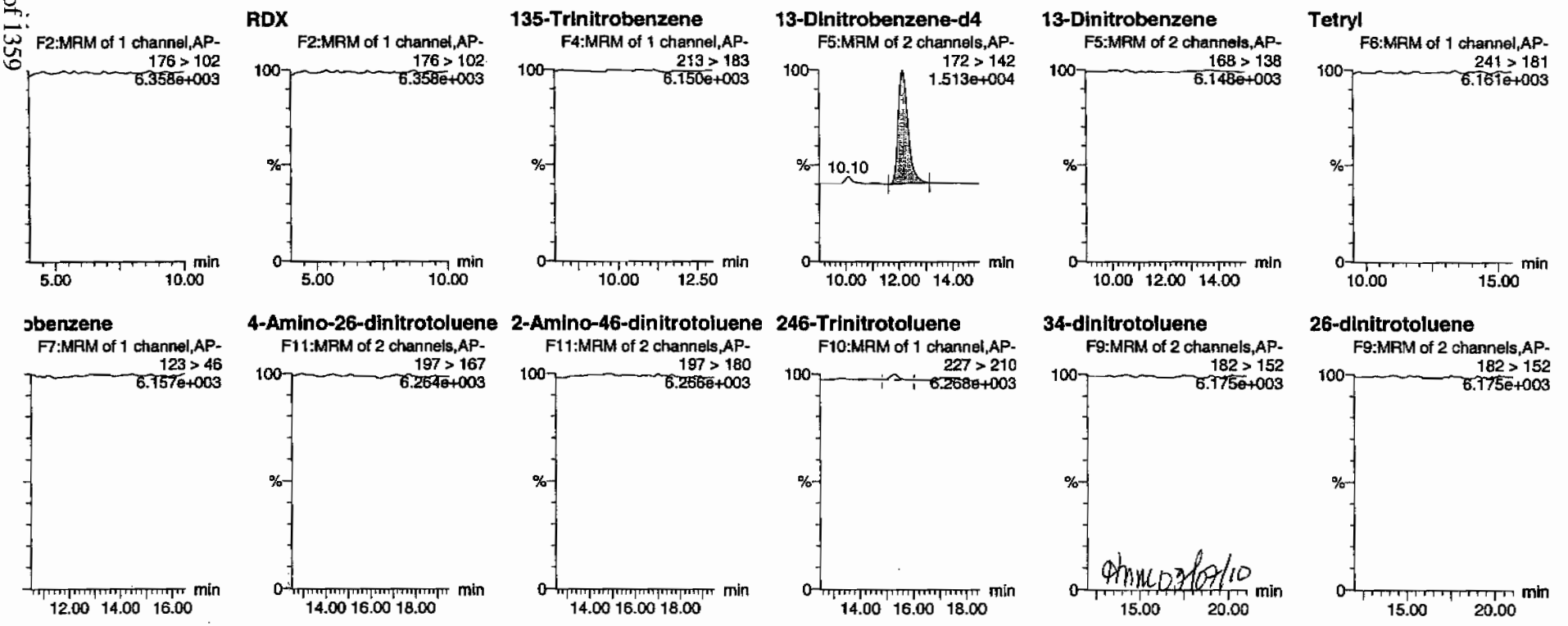

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tify Sample Report
.aboratories, LLC / Analyst : Michael A. Penny

:et: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

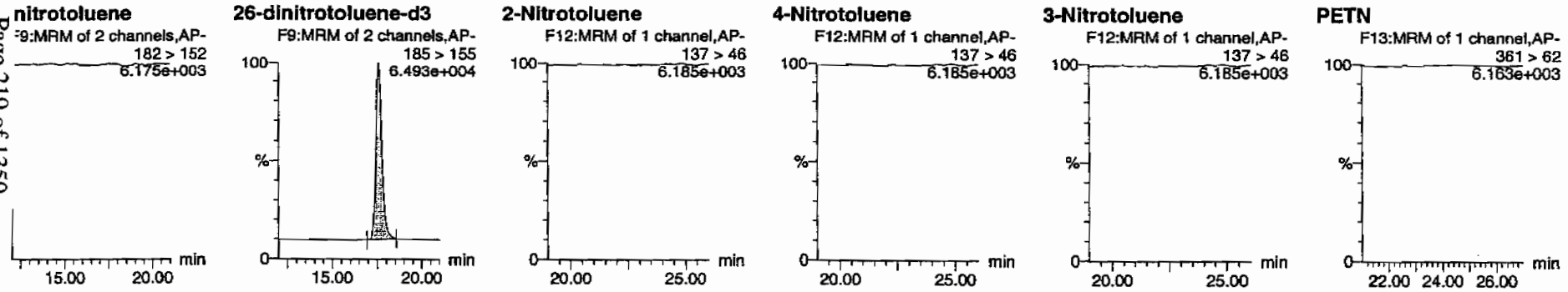

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	mg/mL	%Rec	%Dev	S/N
K03	HMX	176 > 102			3811.982									
K03	RDX	176 > 102			3811.982									
K03	135-Trinitrobenzene	213 > 183			3811.982									
K03	13-Dinitrobenzene-d4	172 > 142	12.14	3811.982		3811.982	3811.982	bb			542.7408	108.5	8.5	563.6
K03	13-Dinitrobenzene	168 > 138			3811.982									
K03	Tetryl	241 > 181			3811.982									
K03	Nitrobenzene	123 > 46			3811.982									
K03	4-Amino-26-dinitrotoluene	197 > 167			23416.273									
K03	2-Amino-46-dinitrotoluene	197 > 180			23416.273									
K03	246-Trinitrotoluene	227 > 210			23416.273			MM-	05-Mar-10	10:08:06				
K03	34-dinitrotoluene	182 > 152			23416.273									
K03	26-dinitrotoluene	182 > 152			23416.273									
K03	24-dinitrotoluene	182 > 152			23416.273									
K03	26-dinitrotoluene-d3	185 > 155	17.57	23416.273		23416.273	23416.273	bb			569.4457	113.9	13.9	2213.1
K03	2-Nitrotoluene	137 > 46			23416.273									
K03	4-Nitrotoluene	137 > 46			23416.273									
K03	3-Nitrotoluene	137 > 46			23416.273									
K03	PETN	361 > 62			23416.273									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 05-MAR-10 02:34

GEL Data File: EXP0304024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	521.731
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	509.028
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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1:1,A

MMT 3/6/10

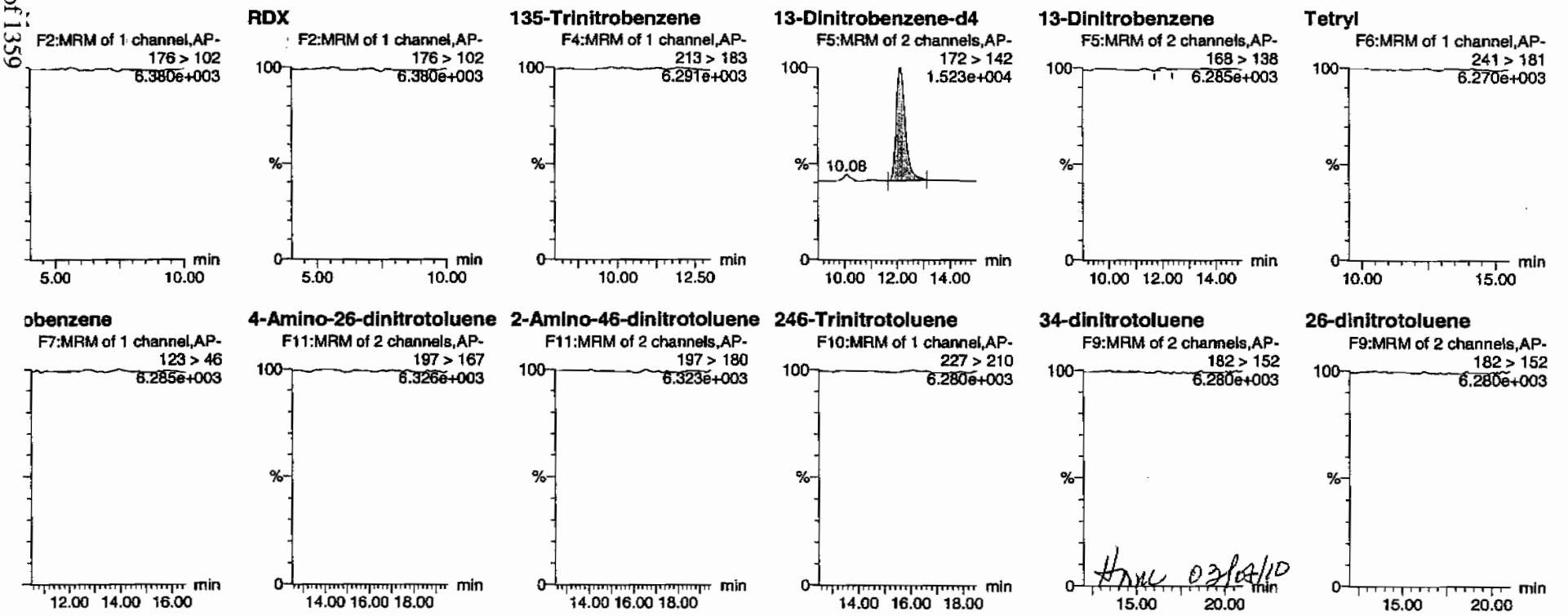

HMC 03/04/10

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iset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

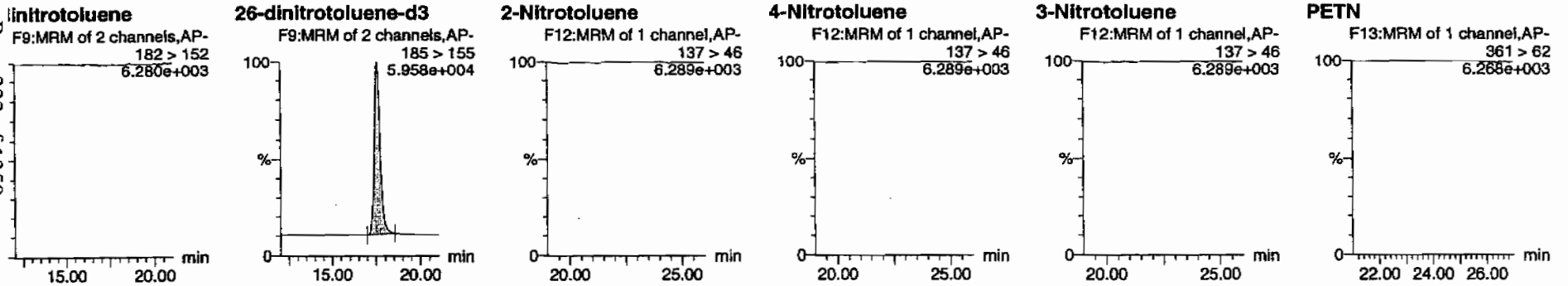

Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
HMX	176 > 102			3664.416									
RDX	176 > 102			3664.416									
135-Trinitrobenzene	213 > 183			3664.416									
13-Dinitrobenzene-d4	172 > 142	12.14	3664.416		3664.416	3664.416	bb			521.7307	104.3	4.3	406.8
13-Dinitrobenzene	168 > 138			3664.416			MM-	05-Mar-10	10:02:41				
Tetryl	241 > 181			3664.416									
Nitrobenzene	123 > 46			3664.416									
4-Amino-26-dinitrotoluene	197 > 167			20931.807									
2-Amino-46-dinitrotoluene	197 > 180			20931.807									
246-Trinitrotoluene	227 > 210			20931.807									
34-dinitrotoluene	182 > 152			20931.807									
26-dinitrotoluene	182 > 152			20931.807									
24-dinitrotoluene	182 > 152			20931.807									
26-dinitrotoluene-d3	185 > 155	17.57	20931.807		20931.807	20931.807	bb			509.0276	101.8	1.8	1779.3
2-Nitrotoluene	137 > 46			20931.807									
4-Nitrotoluene	137 > 46			20931.807									
3-Nitrotoluene	137 > 46			20931.807									
PETN	361 > 62			20931.807									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 05-MAR-10 08:58

GEL Data File: EXP0304037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	520.666
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	533.265
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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MMT 3/6/10

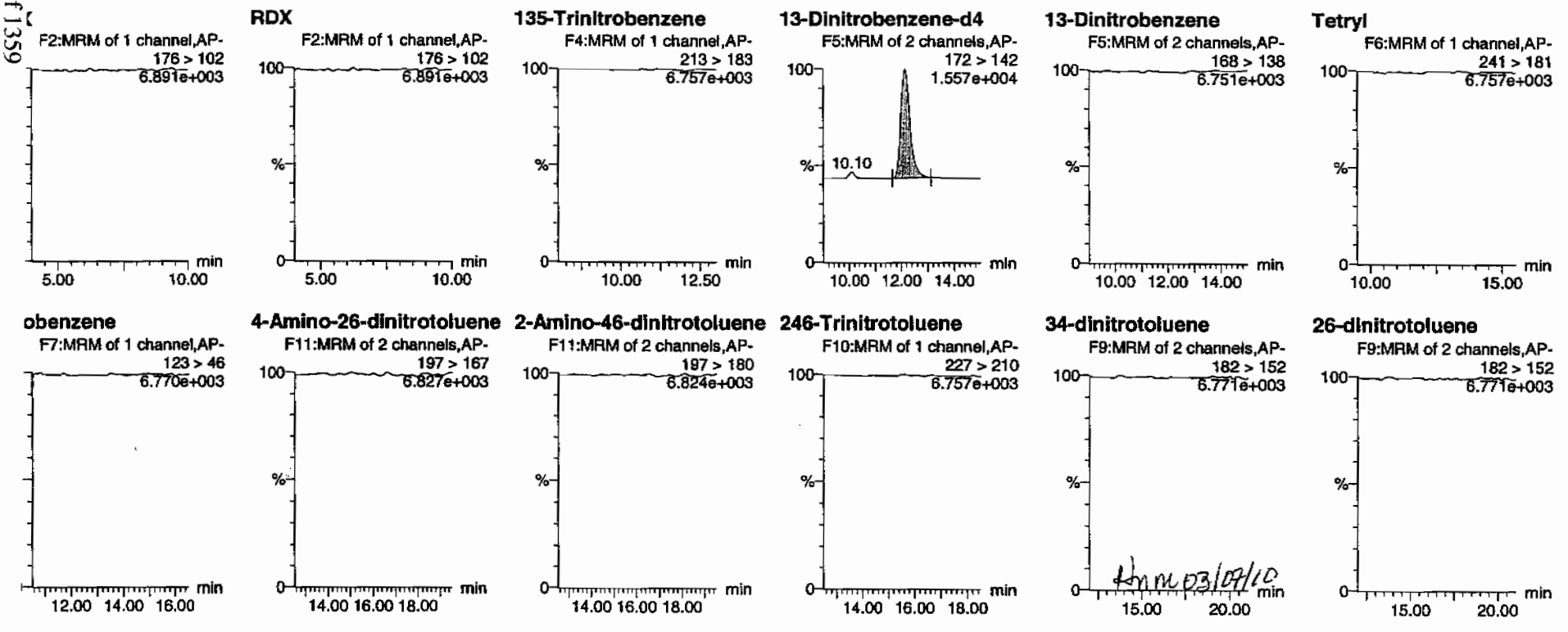

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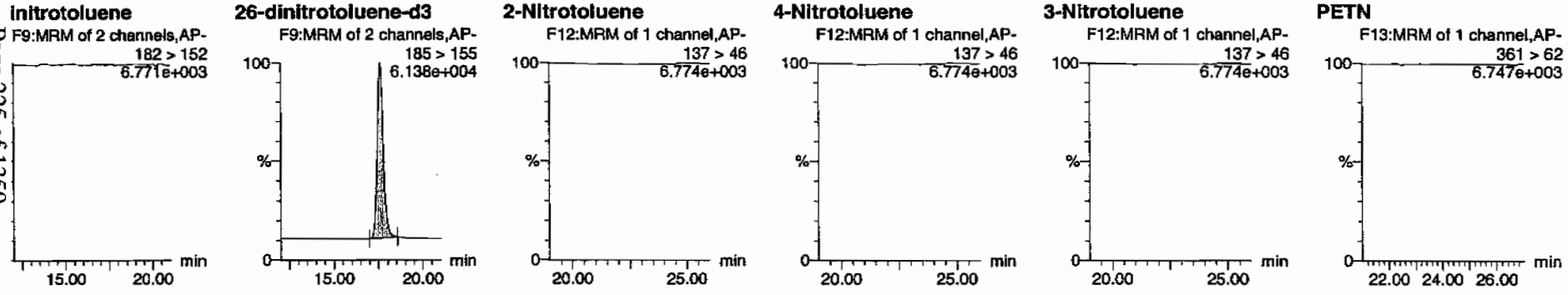

[illegible]	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
K05	HMX	176 > 102			3656.936									
K05	RDX	176 > 102			3656.936									
K05	135-Trinitrobenzene	213 > 183			3656.936									
K05	13-Dinitrobenzene-d4	172 > 142	12.14	3656.936		3656.936	3656.936	bb			520.6657	104.1	4.1	660.6
K05	13-Dinitrobenzene	168 > 138			3656.936									
K05	Tetryl	241 > 181			3656.936									
K05	Nitrobenzene	123 > 46			3656.936									
K05	4-Amino-26-dinitrotoluene	197 > 167			21928.471									
K05	2-Amino-46-dinitrotoluene	197 > 180			21928.471									
K05	246-Trinitrotoluene	227 > 210			21928.471									
K05	34-dinitrotoluene	182 > 152			21928.471									
K05	26-dinitrotoluene	182 > 152			21928.471									
K05	24-dinitrotoluene	182 > 152			21928.471									
K05	26-dinitrotoluene-d3	185 > 155	17.60	21928.471		21928.471	21928.471	bb			533.2648	106.7	6.7	2452.1
K05	2-Nitrotoluene	137 > 46			21928.471									
K05	4-Nitrotoluene	137 > 46			21928.471									
K05	3-Nitrotoluene	137 > 46			21928.471									
K05	PETN	361 > 62			21928.471									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1544
Lab Code: GEL
Lab Sample ID: XIBLK06
Analysis Date: 05-MAR-10 15:21
GEL Data File: EXP0304050a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	566.455
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	585.17
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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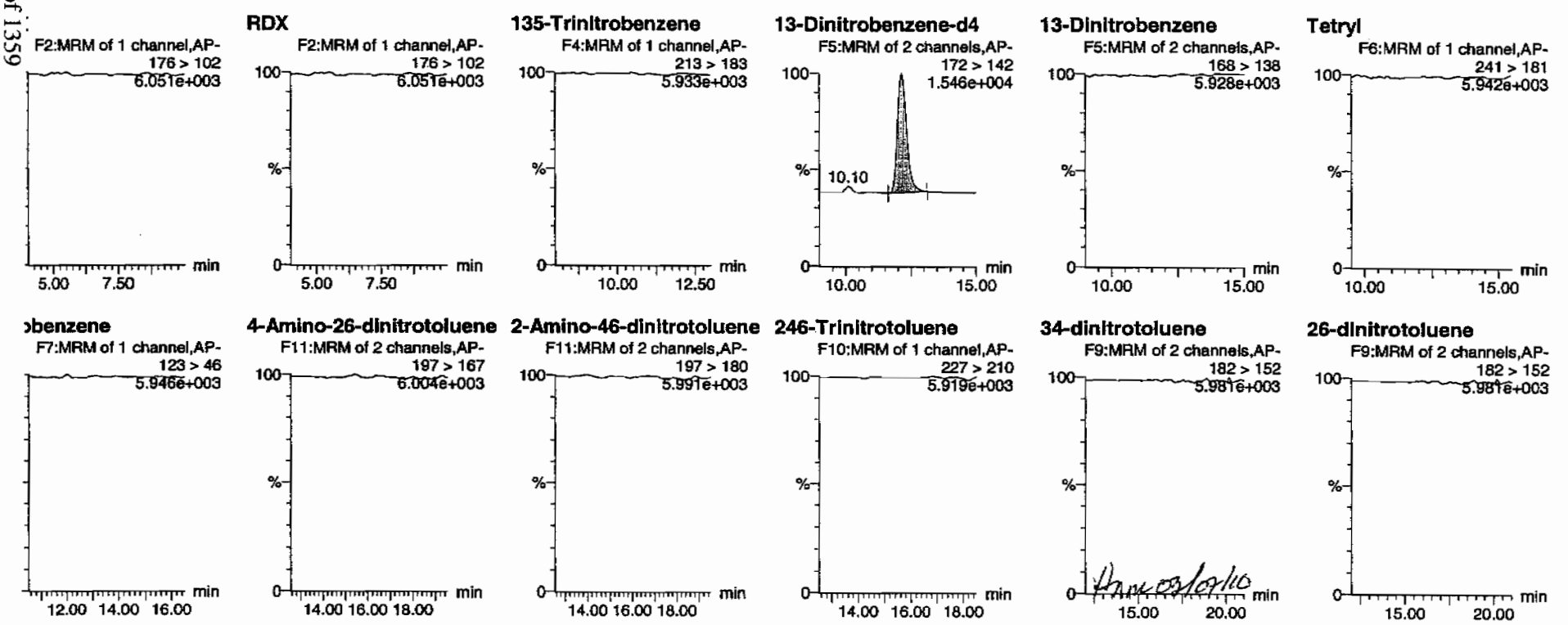

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Page 228 of 1359

initrotoluene

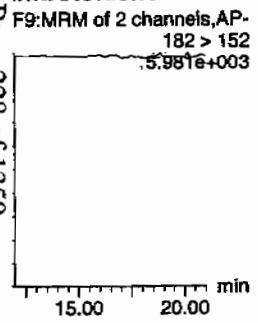

26-dinitrotoluene-d3

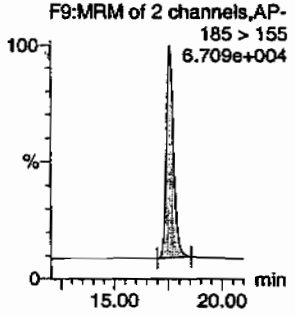

2-Nitrotoluene

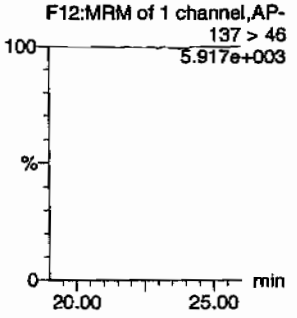

4-Nitrotoluene

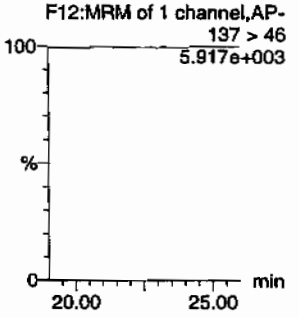

3-Nitrotoluene

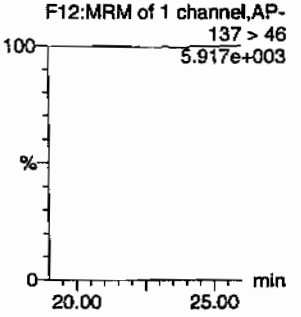

PETN

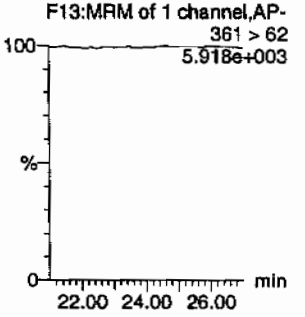

[illegible]	Name	Trace	RT	[illegible] Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
K06	HMX	176 > 102			3978.542									
K06	RDX	176 > 102			3978.542									
K06	135-Trinitrobenzene	213 > 183			3978.542									
K06	13-Dinitrobenzene-d4	172 > 142	12.13	3978.542		3978.542	3978.542	bb			566.4552	113.3	13.3	507.0
K06	13-Dinitrobenzene	168 > 138			3978.542									
K06	Tetryl	241 > 181			3978.542									
K06	Nitrobenzene	123 > 46			3978.542									
K06	4-Amino-26-dinitrotoluene	197 > 167			24062.877									
K06	2-Amino-46-dinitrotoluene	197 > 180			24062.877									
K06	246-Trinitrotoluene	227 > 210			24062.877									
K06	34-dinitrotoluene	182 > 152			24062.877									
K06	26-dinitrotoluene	182 > 152			24062.877									
K06	24-dinitrotoluene	182 > 152			24062.877			MM-	06-Mar-10	12:15:04				
K06	26-dinitrotoluene-d3	185 > 155	17.59	24062.877		24062.877	24062.877	bb			585.1701	117.0	17.0	2396.3
K06	2-Nitrotoluene	137 > 46			24062.877									
K06	4-Nitrotoluene	137 > 46			24062.877									
K06	3-Nitrotoluene	137 > 46			24062.877									
K06	PETN	361 > 62			24062.877									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 05–MAR–10 17:19

GEL Data File: EXP0304054a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	550.421
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	589.463
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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: 05-Mar-2010
: 17:19:56
:IBLK07
1:1,A

MATT 3/6/10

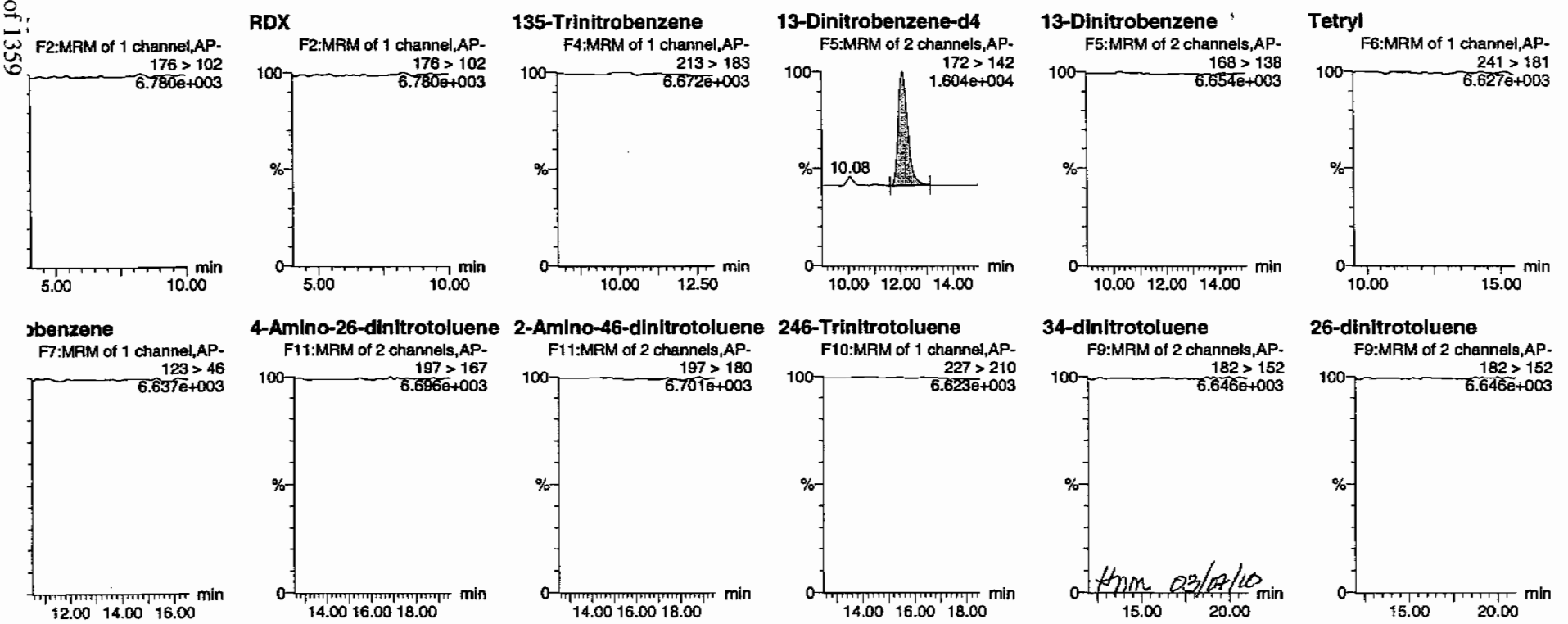

HMM 03/07/10

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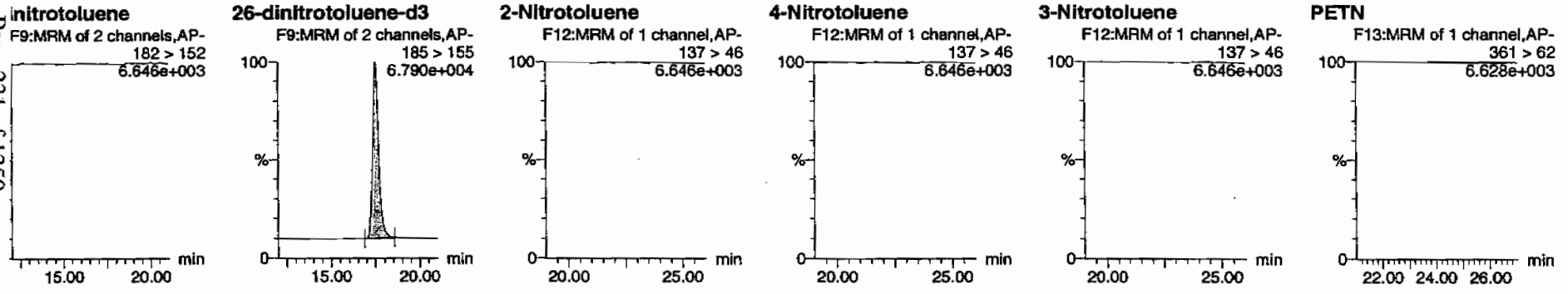

	Name	Trace	RT	Area	ISTArea	AbstResp	Response	Flags	Mod:Date	Mod:Time	ng/mL	%Rec	%Dev	S/N
K07	HMX	176 > 102			3865.926									
K07	RDX	176 > 102			3865.926									
K07	135-Trinitrobenzene	213 > 183			3865.926									
K07	13-Dinitrobenzene-d4	172 > 142	12.10	3865.926		3865.926	3865.926	bb			550.4212	110.1	10.1	286.5
K07	13-Dinitrobenzene	168 > 138			3865.926									
K07	Tetryl	241 > 181			3865.926									
K07	Nitrobenzene	123 > 46			3865.926									
K07	4-Amino-26-dinitrotoluene	197 > 167			24239.424									
K07	2-Amino-46-dinitrotoluene	197 > 180			24239.424									
K07	246-Trinitrotoluene	227 > 210			24239.424									
K07	34-dinitrotoluene	182 > 152			24239.424									
K07	26-dinitrotoluene	182 > 152			24239.424									
K07	24-dinitrotoluene	182 > 152			24239.424									
K07	26-dinitrotoluene-d3	185 > 155	17.49	24239.424		24239.424	24239.424	bb			589.4634	117.9	17.9	2856.4
K07	2-Nitrotoluene	137 > 46			24239.424									
K07	4-Nitrotoluene	137 > 46			24239.424									
K07	3-Nitrotoluene	137 > 46			24239.424									
LK07	PETN	361 > 62			24239.424									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 05-MAR-10 22:44

GEL Data File: EXP0304065a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	526.538
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	517.577
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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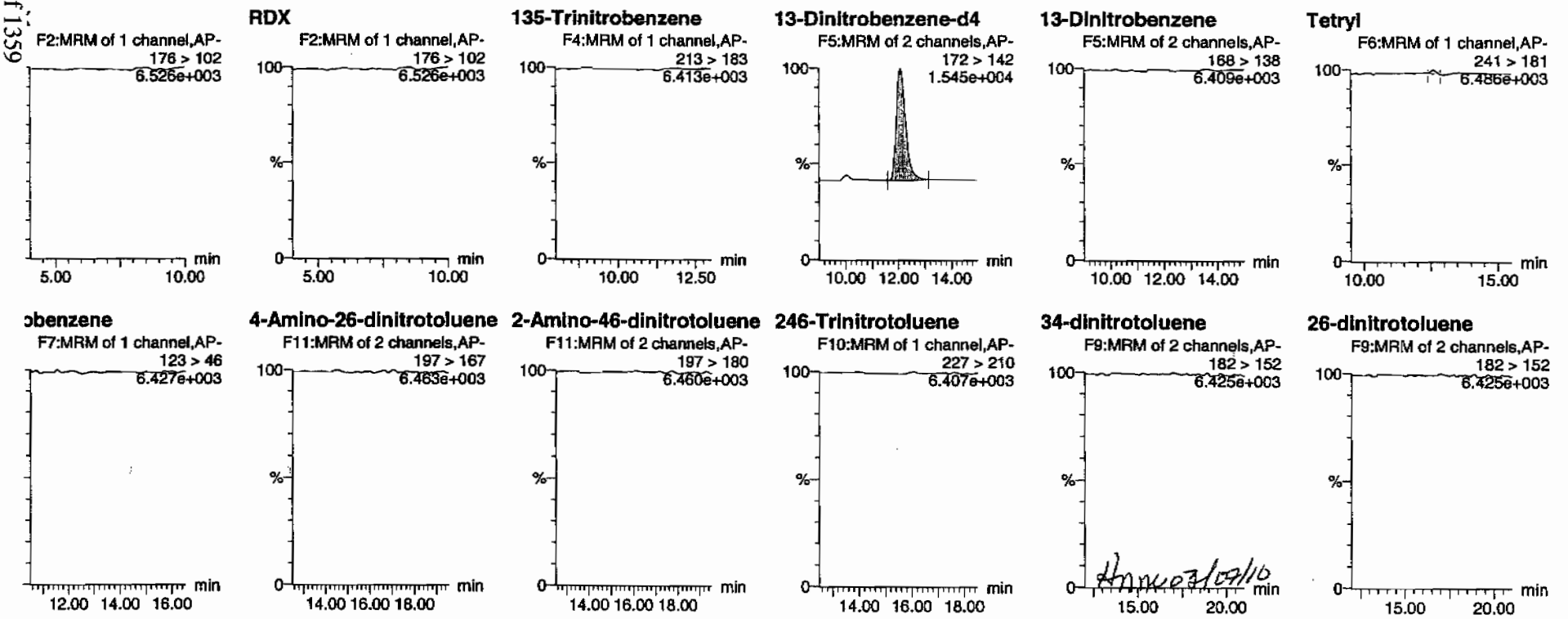

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ntify Sample Report
Laboratories, LLC / Analyst : Michael A. Penny

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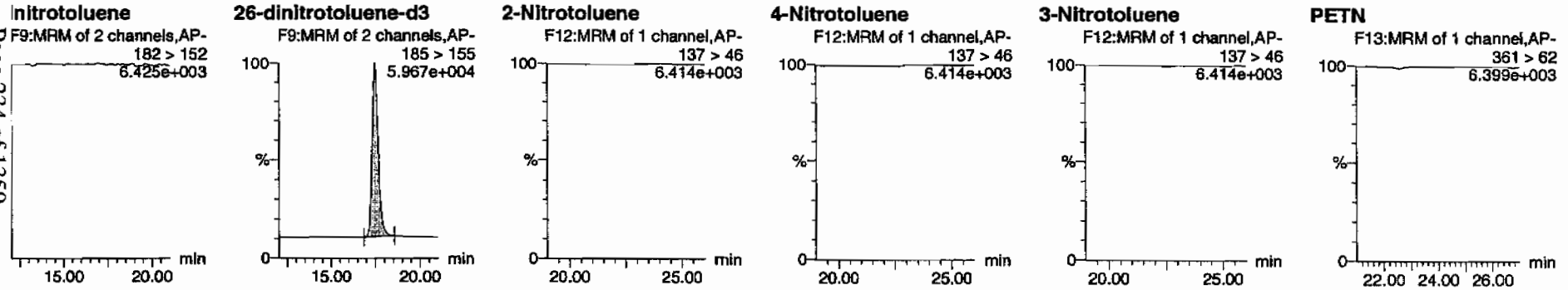

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
K08	HMX	176 > 102			3698.178									
K08	RDX	176 > 102			3698.178									
K08	135-Trinitrobenzene	213 > 183			3698.178									
K08	13-Dinitrobenzene-d4	172 > 142	12.07	3698.178		3698.178	3698.178	bb			526.5377	105.3	5.3	528.8
K08	13-Dinitrobenzene	168 > 138			3698.178									
K08	Tetryl	241 > 181			3698.178			MM-	06-Mar-10	12:07:04				
K08	Nitrobenzene	123 > 46			3698.178									
K08	4-Amino-26-dinitrotoluene	197 > 167			21283.357									
K08	2-Amino-46-dinitrotoluene	197 > 180			21283.357									
K08	246-Trinitrotoluene	227 > 210			21283.357									
K08	34-dinitrotoluene	182 > 152			21283.357									
K08	26-dinitrotoluene	182 > 152			21283.357									
K08	24-dinitrotoluene	182 > 152			21283.357									
K08	26-dinitrotoluene-d3	185 > 155	17.49	21283.357		21283.357	21283.357	bb			517.5767	103.5	3.5	1698.2
K08	2-Nitrotoluene	137 > 46			21283.357									
K08	4-Nitrotoluene	137 > 46			21283.357									
K08	3-Nitrotoluene	137 > 46			21283.357									
K08	PETN	361 > 62			21283.357									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06–MAR–10 04:38

GEL Data File: EXP0304077a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	566.283
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	540.156
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

ıset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

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: 06-Mar-2010
: 04:38:34
IBLK09
1:1,A

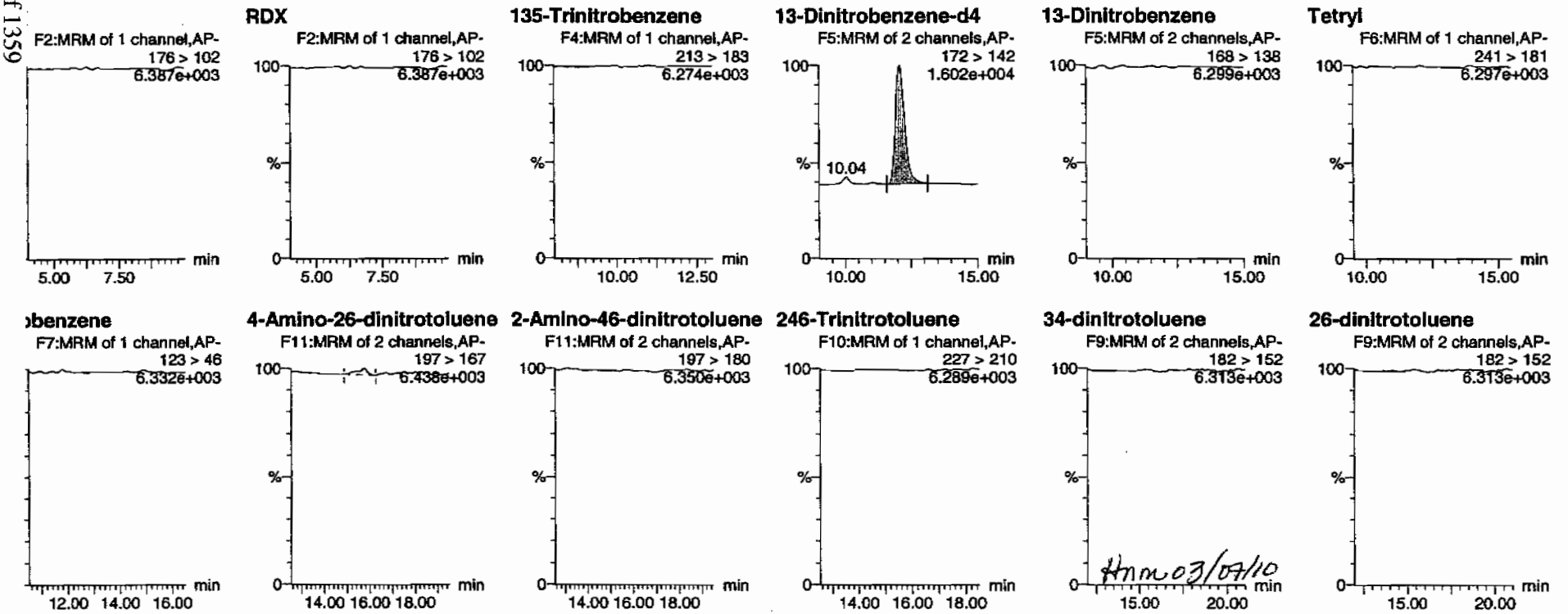

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ıtify Sample Report Printed: Sat Mar 06 12:20:52 2010, Page 78 of 107
Laboratories, LLC / Analyst : Michael A. Penny

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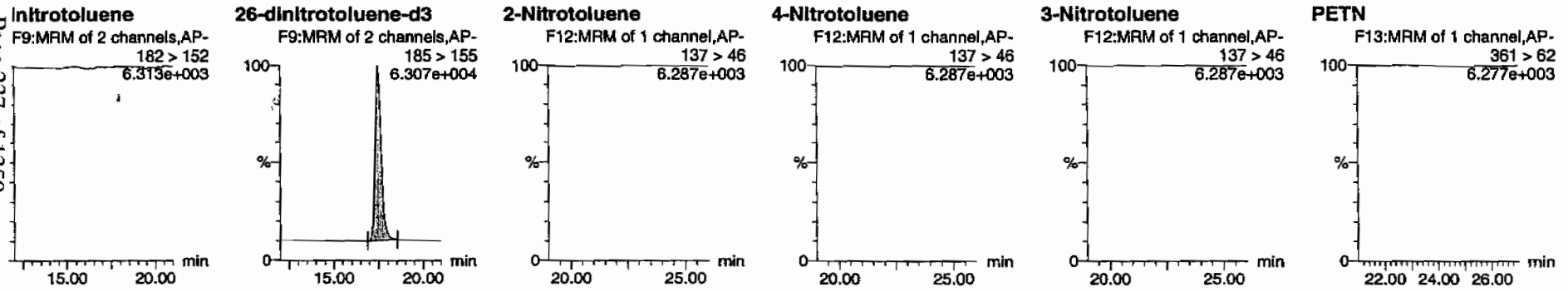

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
.K09	HMX	176 > 102			3977.332									
.K09	RDX	176 > 102			3977.332									
.K09	135-Trinitrobenzene	213 > 183			3977.332									
.K09	13-Dinitrobenzene-d4	172 > 142	12.06	3977.332		3977.332	3977.332	bb			566.2829	113.3	13.3	313.5
.K09	13-Dinitrobenzene	168 > 138			3977.332									
.K09	Tetryl	241 > 181			3977.332									
LK09	Nitrobenzene	123 > 46			3977.332									
LK09	4-Amino-26-dinitrotoluene	197 > 167			22211.859			MM-	06-Mar-10	12:09:02				
LK09	2-Amino-46-dinitrotoluene	197 > 180			22211.859									
LK09	246-Trinitrotoluene	227 > 210			22211.859									
LK09	34-dinitrotoluene	182 > 152			22211.859									
LK09	26-dinitrotoluene	182 > 152			22211.859									
LK09	24-dinitrotoluene	182 > 152			22211.859									
LK09	26-dinitrotoluene-d3	185 > 155	17.48	22211.859		22211.859	22211.859	bb			540.1563	108.0	8.0	2088.0
LK09	2-Nitrotoluene	137 > 46			22211.859									
LK09	4-Nitrotoluene	137 > 46			22211.859									
LK09	3-Nitrotoluene	137 > 46			22211.859									
LK09	PETN	361 > 62			22211.859									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06-MAR-10 07:35

GEL Data File: EXP0304083a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	560.254
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	557.283
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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: 06-Mar-2010
: 07:35:40
:IBLK10
1:1,A

MATT 3/4/10

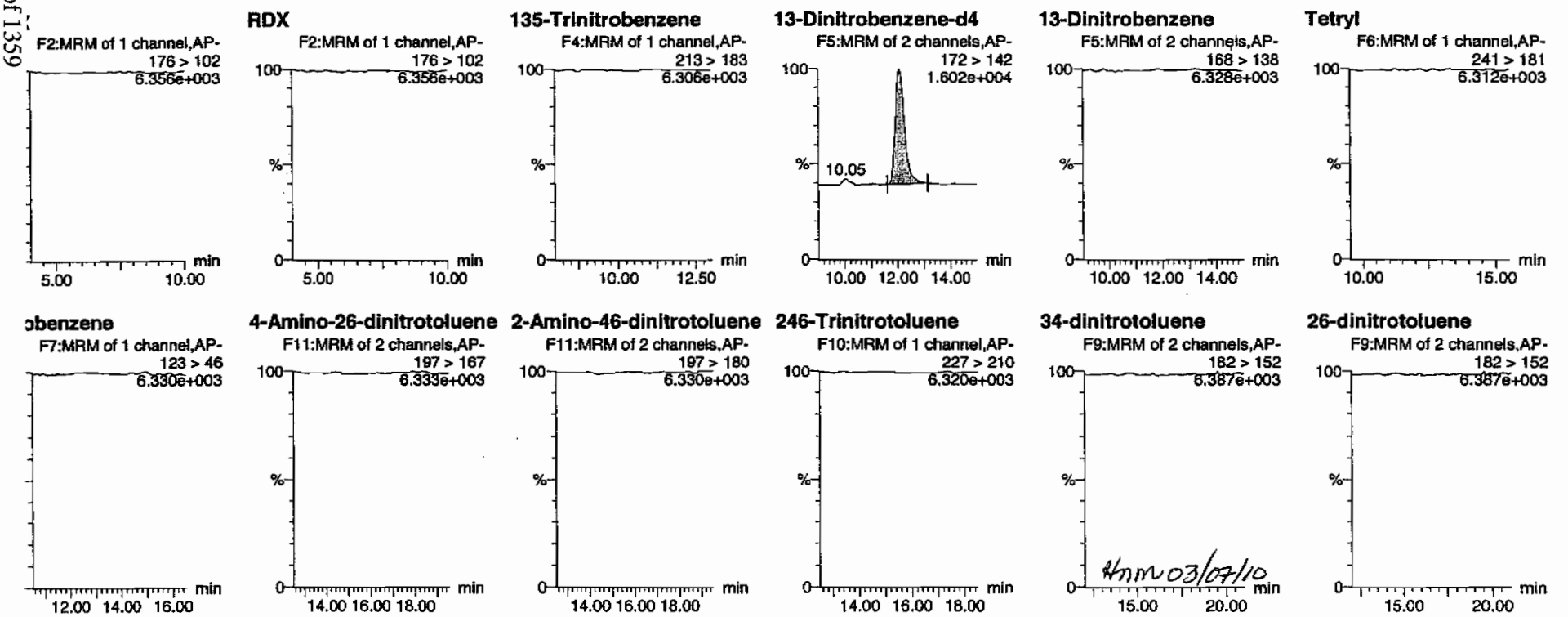

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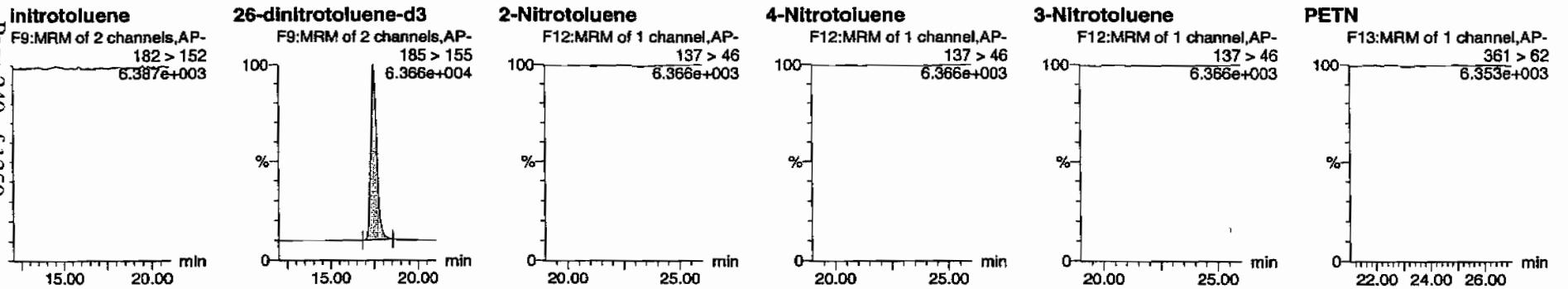

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
.K10	HMX	176 > 102			3934.990									
.K10	RDX	176 > 102			3934.990									
.K10	135-Trinitrobenzene	213 > 183			3934.990									
.K10	13-Dinitrobenzene-d4	172 > 142	12.07	3934.990		3934.990	3934.990	bb			560.2544	112.1	12.1	500.1
.K10	13-Dinitrobenzene	168 > 138			3934.990									
.K10	Tetryl	241 > 181			3934.990									
.K10	Nitrobenzene	123 > 46			3934.990									
.K10	4-Amino-26-dinitrotoluene	197 > 167			22916.141									
.K10	2-Amino-46-dinitrotoluene	197 > 180			22916.141									
.K10	246-Trinitrotoluene	227 > 210			22916.141									
LK10	34-dinitrotoluene	182 > 152			22916.141									
LK10	26-dinitrotoluene	182 > 152			22916.141									
LK10	24-dinitrotoluene	182 > 152			22916.141									
LK10	26-dinitrotoluene-d3	185 > 155	17.49	22916.141		22916.141	22916.141	bb			557.2833	111.5	11.5	1454.1
LK10	2-Nitrotoluene	137 > 46			22916.141									
LK10	4-Nitrotoluene	137 > 46			22916.141									
LK10	3-Nitrotoluene	137 > 46			22916.141									
LK10	PETN	361 > 62			22916.141									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 06-MAR-10 11:02

GEL Data File: EXP0304090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	529.903
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	527.941
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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: 06-Mar-2010
: 11:02:17
IBLK11
1:1,A

HMM 3/6/10

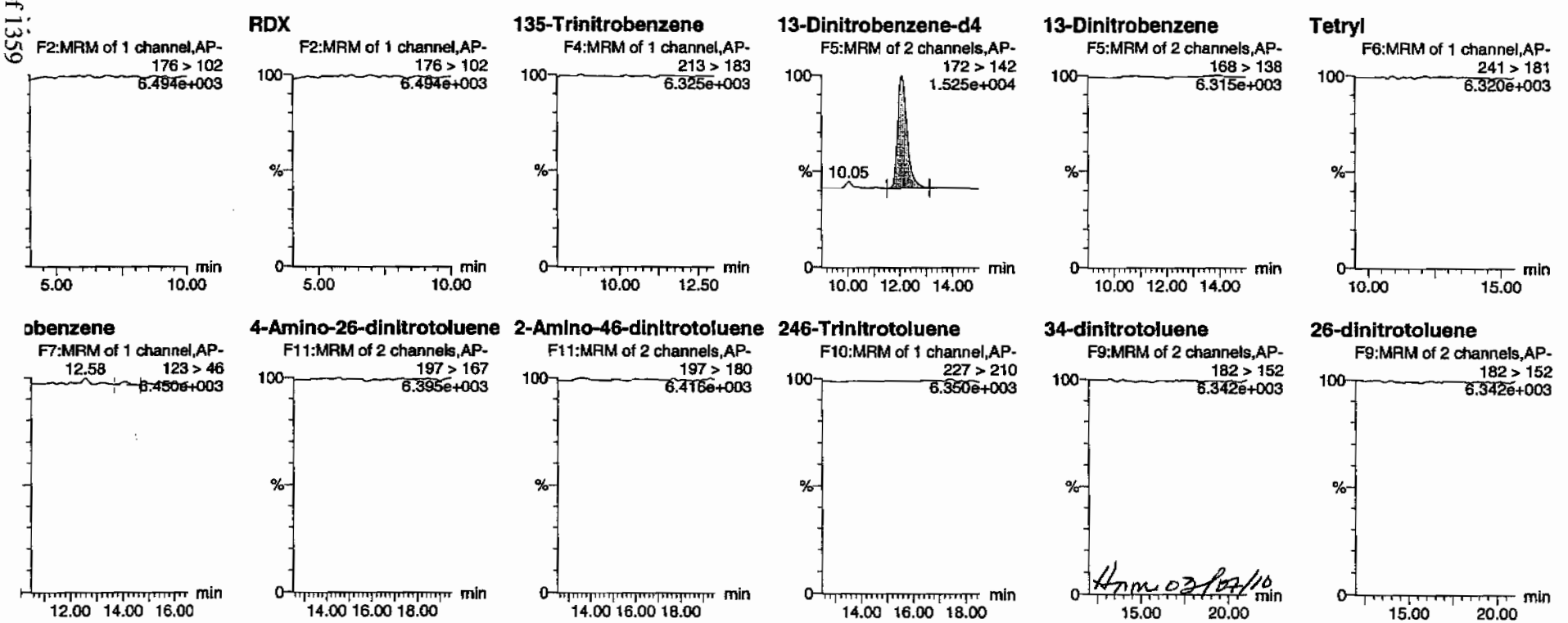

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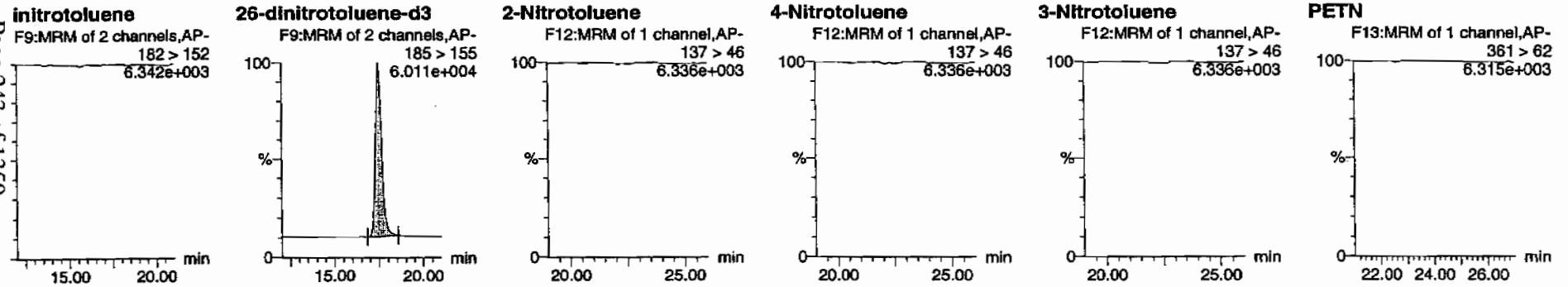

[illegible]	Name	Trace	RT	[illegible]	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	[illegible]	%Rec	%Dev	S/N
LK11	HMX	176 > 102			3721.816									
LK11	RDX	176 > 102			3721.816									
LK11	135-Trinitrobenzene	213 > 183			3721.816									
LK11	13-Dinitrobenzene-d4	172 > 142	12.07	3721.816		3721.816	3721.816	bb			529.9032	106.0	6.0	363.9
LK11	13-Dinitrobenzene	168 > 138			3721.816									
LK11	Tetryl	241 > 181			3721.816									
LK11	Nitrobenzene	123 > 46			3721.816			MM-	06-Mar-10	12:08:01				
LK11	4-Amino-26-dinitrotoluene	197 > 167			21709.531									
LK11	2-Amino-46-dinitrotoluene	197 > 180			21709.531									
LK11	246-Trinitrotoluene	227 > 210			21709.531									
LK11	34-dinitrotoluene	182 > 152			21709.531									
LK11	26-dinitrotoluene	182 > 152			21709.531									
LK11	24-dinitrotoluene	182 > 152			21709.531									
LK11	26-dinitrotoluene-d3	185 > 155	17.49	21709.531		21709.531	21709.531	bb			527.9405	105.6	5.6	1605.8
LK11	2-Nitrotoluene	137 > 46			21709.531									
LK11	4-Nitrotoluene	137 > 46			21709.531									
LK11	3-Nitrotoluene	137 > 46			21709.531									
LK11	PETN	361 > 62			21709.531									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 06-MAR-10 16:56

GEL Data File: EXP0304102a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	576.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	562.132
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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: 06-Mar-2010
: 16:56:16
IBLK12
1:1,A

MM 3/7/10

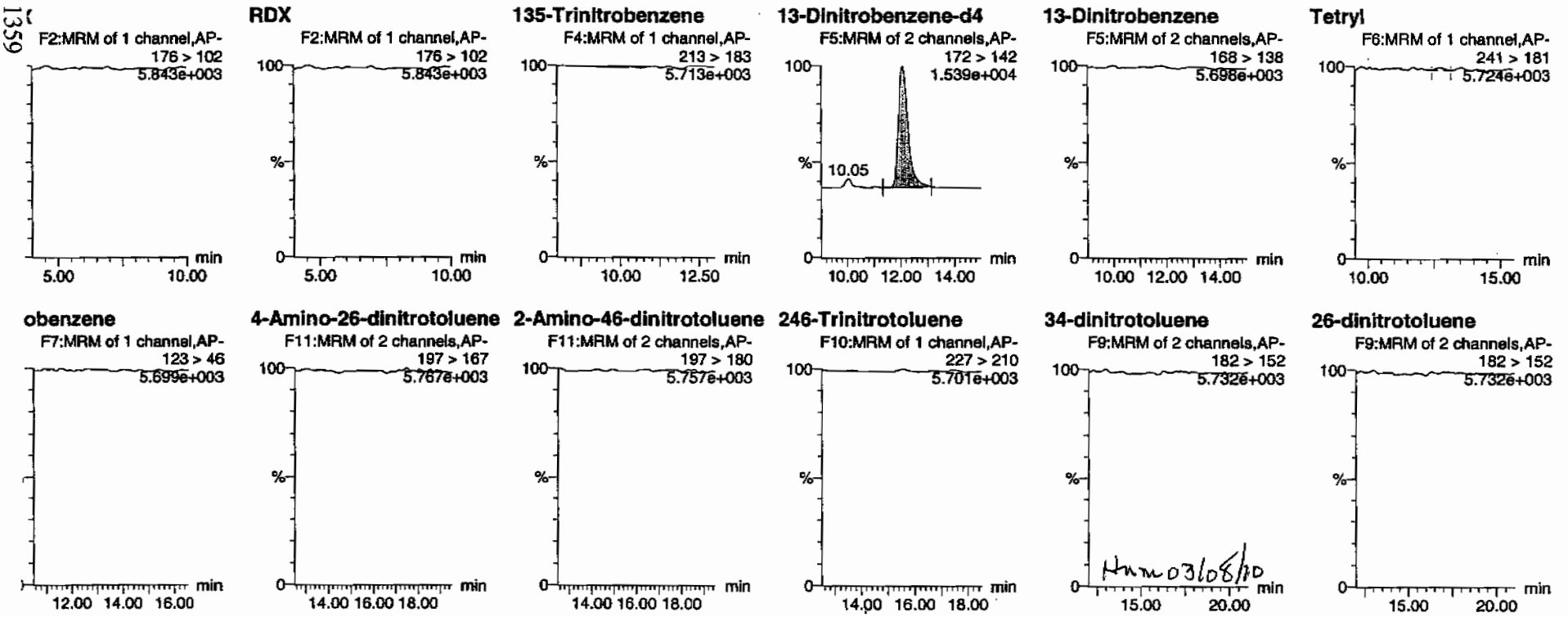

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set: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

initrotoluene

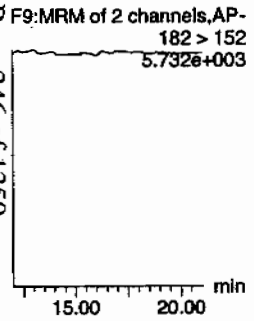

26-dinitrotoluene-d3

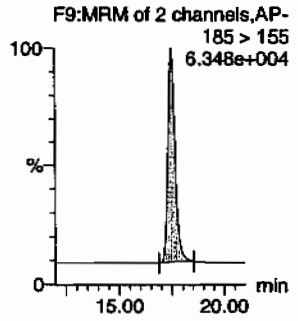

2-Nitrotoluene

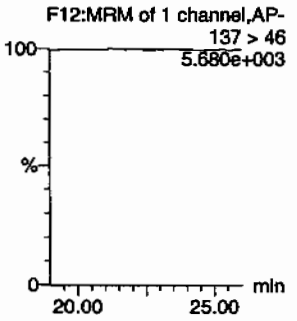

4-Nitrotoluene

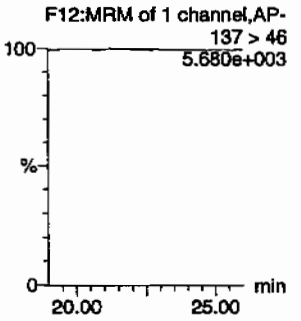

3-Nitrotoluene

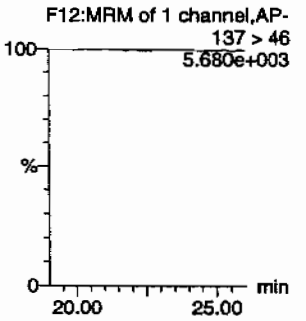

PETN

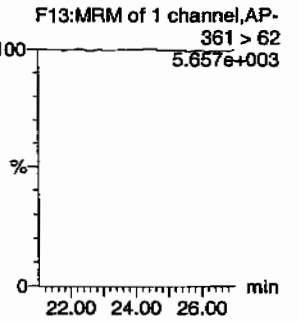

[illegible]	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	[illegible]	[illegible]	[illegible]	[illegible]
K12	HMX	176 > 102			4047.082									
K12	RDX	176 > 102			4047.082									
K12	135-Trinitrobenzene	213 > 183			4047.082									
K12	13-Dinitrobenzene-d4	172 > 142	12.07	4047.082		4047.082	4047.082	bb			576.2138	115.2	15.2	319.2
K12	13-Dinitrobenzene	168 > 138			4047.082									
K12	Tetryl	241 > 181			4047.082			MM-	07-Mar-10	13:21:33				
K12	Nitrobenzene	123 > 46			4047.082									
K12	4-Amino-26-dinitrotoluene	197 > 167			23115.531									
K12	2-Amino-46-dinitrotoluene	197 > 180			23115.531									
K12	246-Trinitrotoluene	227 > 210			23115.531									
K12	34-dinitrotoluene	182 > 152			23115.531									
K12	26-dinitrotoluene	182 > 152			23115.531									
K12	24-dinitrotoluene	182 > 152			23115.531									
K12	26-dinitrotoluene-d3	185 > 155	17.47	23115.531		23115.531	23115.531	bb			562.1322	112.4	12.4	2059.7
K12	2-Nitrotoluene	137 > 46			23115.531									
K12	4-Nitrotoluene	137 > 46			23115.531									
K12	3-Nitrotoluene	137 > 46			23115.531									
K12	PETN	361 > 62			23115.531									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 06–MAR–10 22:50

GEL Data File: EXP0304114a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	537.14
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	529.515
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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06-Mar-2010
: 22:50:11
BLK13
1:1,A

MAP 3/7/10

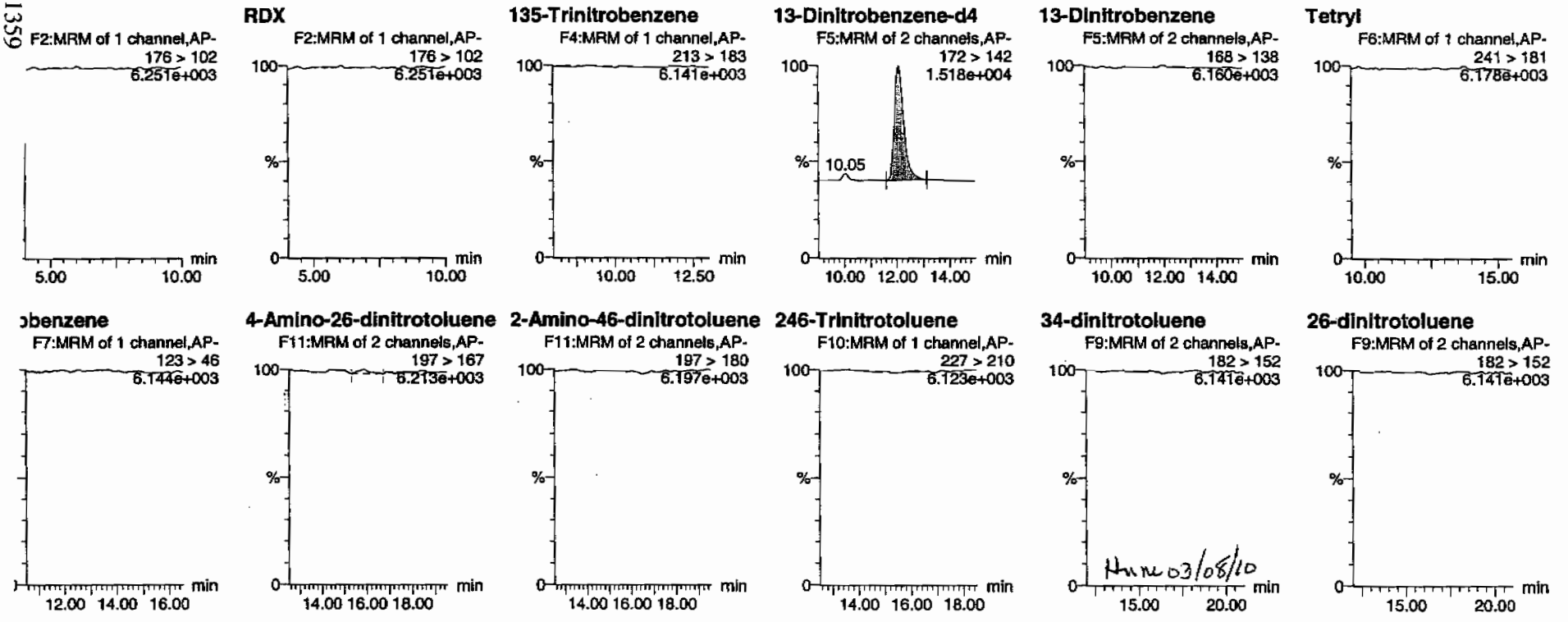

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ıtify Sample Report
Laboratories, LLC / Analyst : Michael A. Penny

ɜet: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

nitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.141e+003

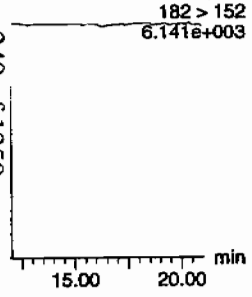

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.035e+004

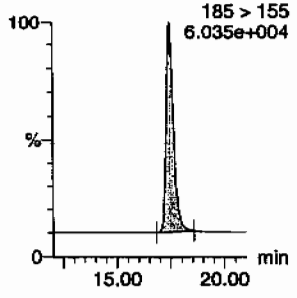

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.139e+003

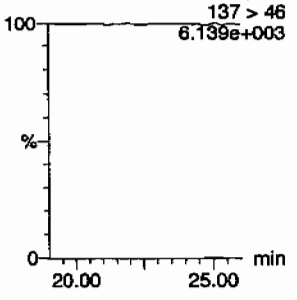

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.139e+003

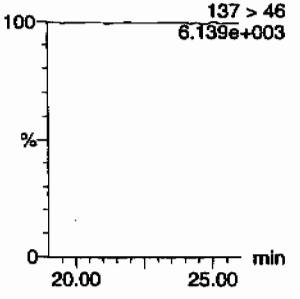

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.139e+003

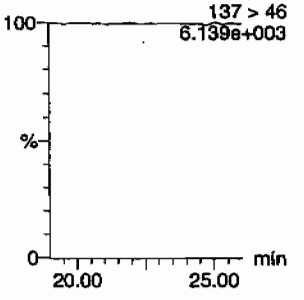

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.112e+003

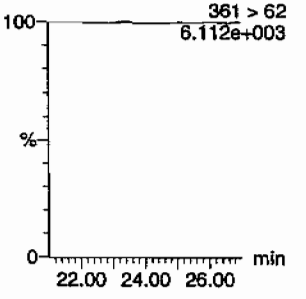

	Name	Trace	RT	Area	ISTArea	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
K13	HMX	176 > 102			3772.644									
K13	RDX	176 > 102			3772.644									
K13	135-Trinitrobenzene	213 > 183			3772.644									
K13	13-Dinitrobenzene-d4	172 > 142	12.07	3772.644		3772.644	3772.644	bb			537.1400	107.4	7.4	520.5
K13	13-Dinitrobenzene	168 > 138			3772.644									
K13	Tetryl	241 > 181			3772.644									
K13	Nitrobenzene	123 > 46			3772.644									
K13	4-Amino-26-dinitrotoluene	197 > 167			21774.285			MM-	07-Mar-10	13:25:28				
K13	2-Amino-46-dinitrotoluene	197 > 180			21774.285									
K13	246-Trinitrotoluene	227 > 210			21774.285									
K13	34-dinitrotoluene	182 > 152			21774.285									
K13	26-dinitrotoluene	182 > 152			21774.285									
K13	24-dinitrotoluene	182 > 152			21774.285									
K13	26-dinitrotoluene-d3	185 > 155	17.47	21774.285		21774.285	21774.285	bb			529.5153	105.9	5.9	2496.7
K13	2-Nitrotoluene	137 > 46			21774.285									
K13	4-Nitrotoluene	137 > 46			21774.285									
K13	3-Nitrotoluene	137 > 46			21774.285									
K13	PETN	361 > 62			21774.285									

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 07–MAR–10 05:13

GEL Data File: EXP0304127a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	644.848
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	590.438
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

et: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304127a
07-Mar-2010
05:13:46
BLK14
l:1,A

MM 3/7/10

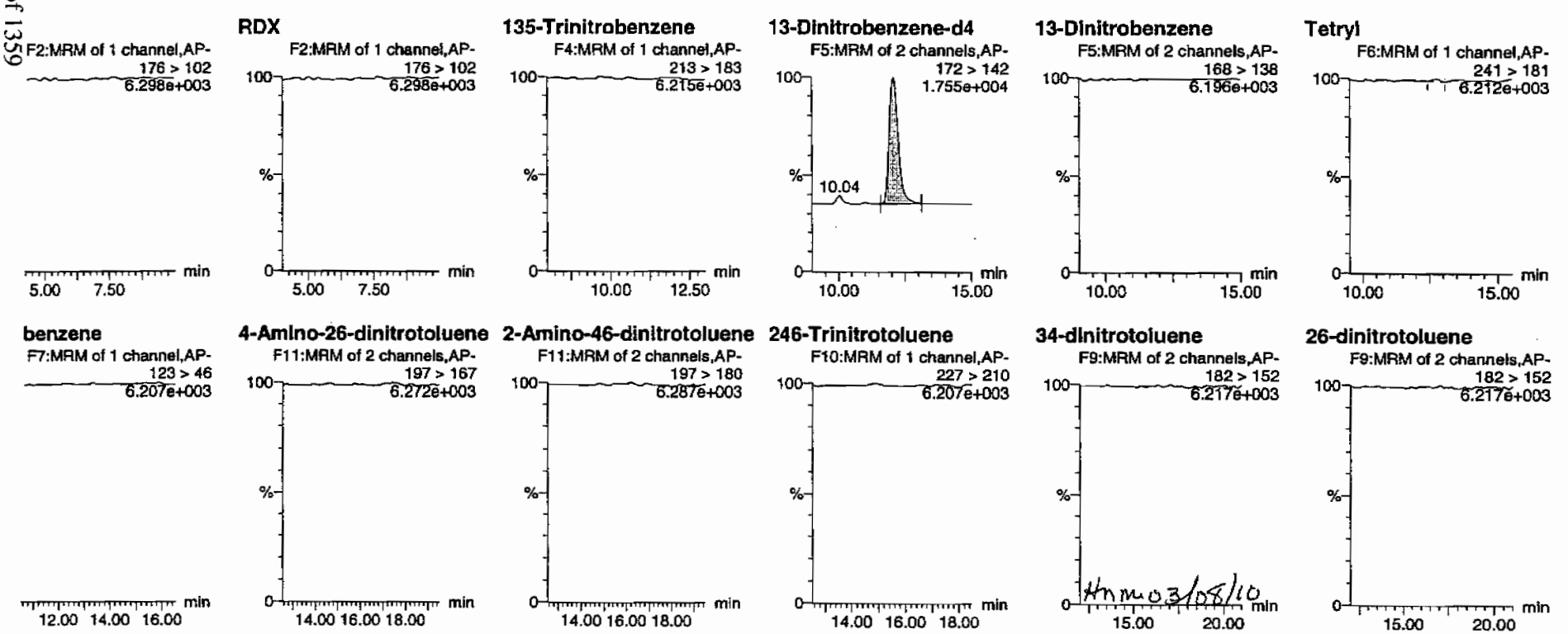

HMM 03/08/10

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set: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

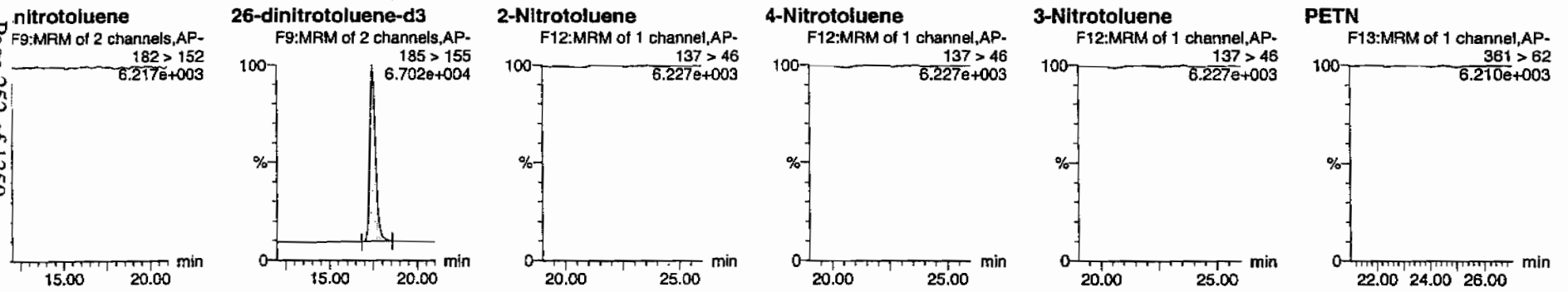

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
K14	HMX	176 > 102			4529.140									
K14	RDX	176 > 102			4529.140									
K14	135-Trinitrobenzene	213 > 183			4529.140									
K14	13-Dinitrobenzene-d4	172 > 142	12.06	4529.140		4529.140	4529.140	bb			644.8480	129.0	29.0	454.4
K14	13-Dinitrobenzene	168 > 138			4529.140									
K14	Tetryl	241 > 181			4529.140			MM-	07-Mar-10	13:21:14				
K14	Nitrobenzene	123 > 46			4529.140									
K14	4-Amino-26-dinitrotoluene	197 > 167			24279.488									
K14	2-Amino-46-dinitrotoluene	197 > 180			24279.488									
K14	246-Trinitrotoluene	227 > 210			24279.488									
K14	34-dinitrotoluene	182 > 152			24279.488									
K14	26-dinitrotoluene	182 > 152			24279.488									
K14	24-dinitrotoluene	182 > 152			24279.488									
K14	26-dinitrotoluene-d3	185 > 155	17.45	24279.488		24279.488	24279.488	bb			590.4377	118.1	18.1	3202.9
K14	2-Nitrotoluene	137 > 46			24279.488									
K14	4-Nitrotoluene	137 > 46			24279.488									
LK14	3-Nitrotoluene	137 > 46			24279.488									
LK14	PETN	361 > 62			24279.488									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 07–MAR–10 11:37

GEL Data File: EXP0304140a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	606.883
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	475.497
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0

set: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

e: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304140a
07-Mar-2010
: 11:37:25
iBLK15
1:1,A

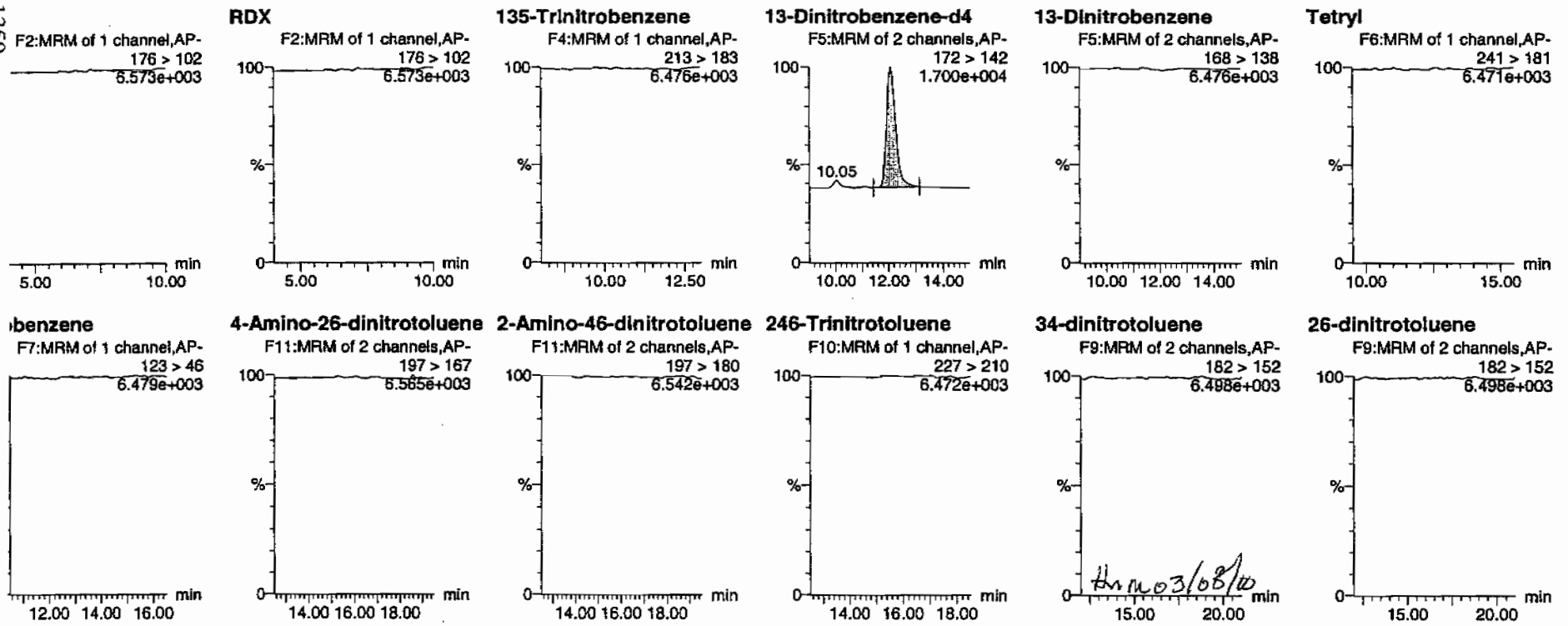

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set: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

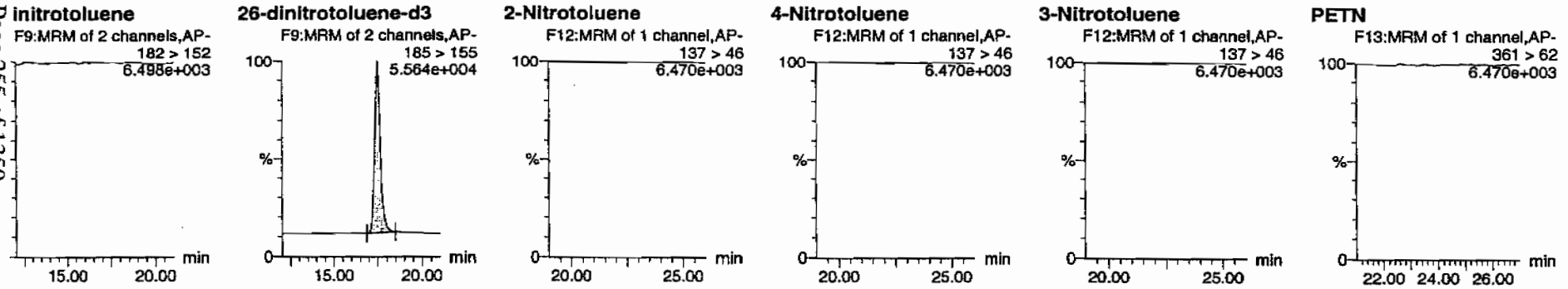

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
LK15	HMX	176 > 102			4262.488									
LK15	RDX	176 > 102			4262.488									
LK15	135-Trinitrobenzene	213 > 183			4262.488									
LK15	13-Dinitrobenzene-d4	172 > 142	12.07	4262.488		4262.488	4262.488	bb			606.8828	121.4	21.4	472.5
LK15	13-Dinitrobenzene	168 > 138			4262.488									
LK15	Tetryl	241 > 181			4262.488									
LK15	Nitrobenzene	123 > 46			4262.488									
LK15	4-Amino-26-dinitrotoluene	197 > 167			19553.002									
LK15	2-Amino-46-dinitrotoluene	197 > 180			19553.002									
LK15	246-Trinitrotoluene	227 > 210			19553.002									
LK15	34-dinitrotoluene	182 > 152			19553.002									
LK15	26-dinitrotoluene	182 > 152			19553.002									
LK15	24-dinitrotoluene	182 > 152			19553.002									
LK15	26-dinitrotoluene-d3	185 > 155	17.47	19553.002		19553.002	19553.002	bb			475.4973	95.1	-4.9	1968.1
LK15	2-Nitrotoluene	137 > 46			19553.002									
LK15	4-Nitrotoluene	137 > 46			19553.002									
LK15	3-Nitrotoluene	137 > 46			19553.002									
LK15	PETN	361 > 62			19553.002									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1544
Lab Code: GEL
Lab Sample ID: XIBLK16
Analysis Date: 07-MAR-10 15:04
GEL Data File: EXP0304147a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	546.85
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.472
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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: 07-Mar-2010
: 15:04:12
IBLK16
1:1,A

MATT 3/8/10

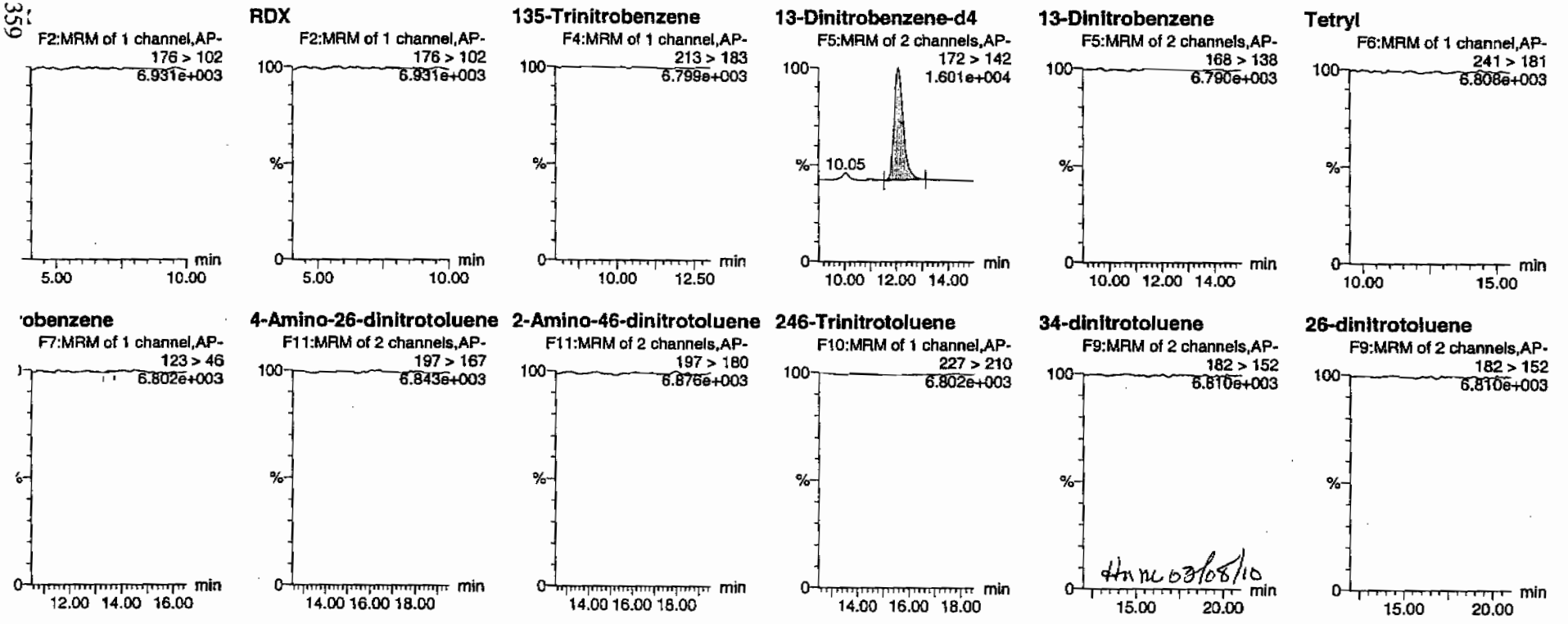

HM 03/08/10

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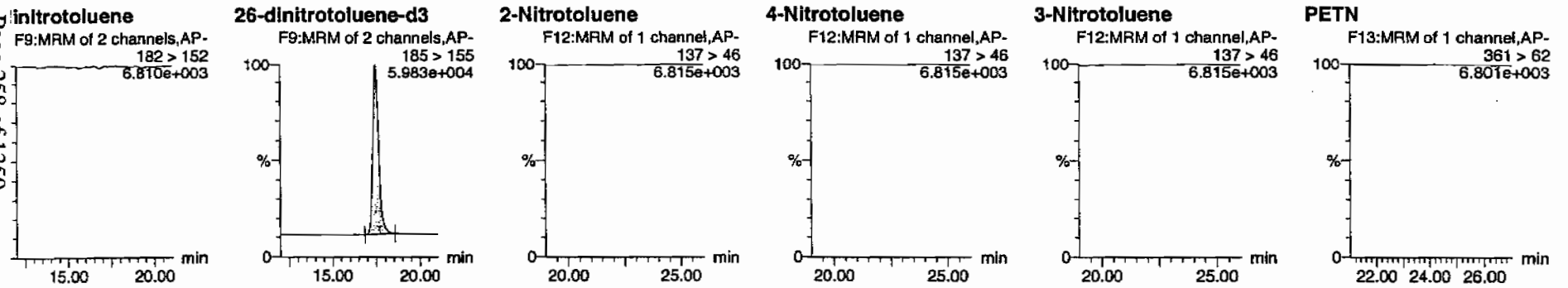

	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
.K16	HMX	176 > 102			3840.846									
.K16	RDX	176 > 102			3840.846									
.K16	135-Trinitrobenzene	213 > 183			3840.846									
.K16	13-Dinitrobenzene-d4	172 > 142	12.07	3840.846		3840.846	3840.846	bb			546.8504	109.4	9.4	224.3
.K16	13-Dinitrobenzene	168 > 138			3840.846									
.K16	Tetryl	241 > 181			3840.846									
.K16	Nitrobenzene	123 > 46			3840.846			MM-	08-Mar-10	11:33:27				
.K16	4-Amino-26-dinitrotoluene	197 > 167			21361.277									
.K16	2-Amino-46-dinitrotoluene	197 > 180			21361.277									
.K16	246-Trinitrotoluene	227 > 210			21361.277									
.K16	34-dinitrotoluene	182 > 152			21361.277									
.K16	26-dinitrotoluene	182 > 152			21361.277									
.K16	24-dinitrotoluene	182 > 152			21361.277									
LK16	26-dinitrotoluene-d3	185 > 155	17.47	21361.277		21361.277	21361.277	bb			519.4716	103.9	3.9	2944.1
.K16	2-Nitrotoluene	137 > 46			21361.277									
LK16	4-Nitrotoluene	137 > 46			21361.277									
LK16	3-Nitrotoluene	137 > 46			21361.277									
LK16	PETN	361 > 62			21361.277									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 26-FEB-10 17:15

GEL Data File: EXS02260010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rcn 3/1/10

Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
int: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 5:15:22 PM

d: No

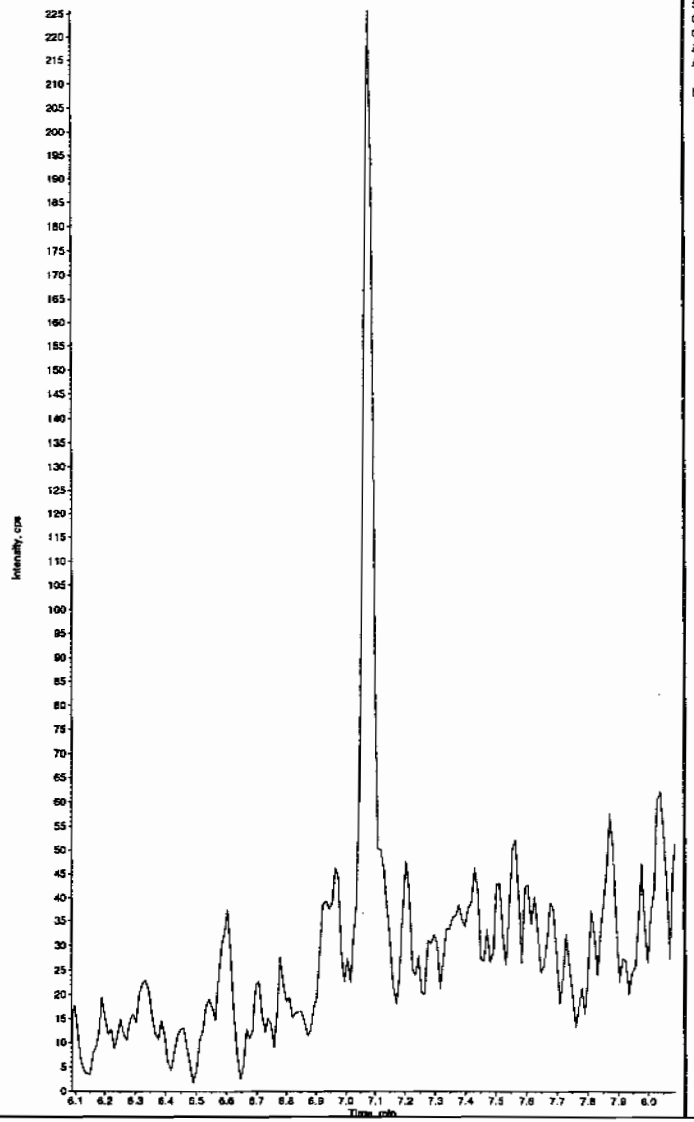

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

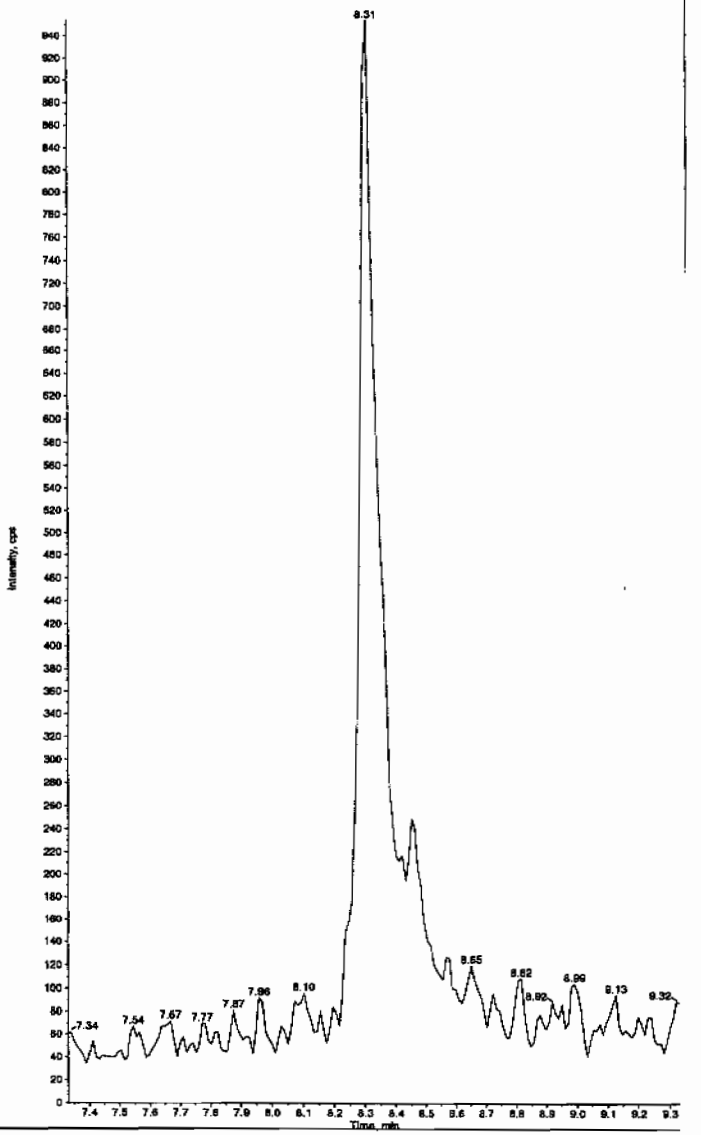

Hnm 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 5:15:22 PM
d: No

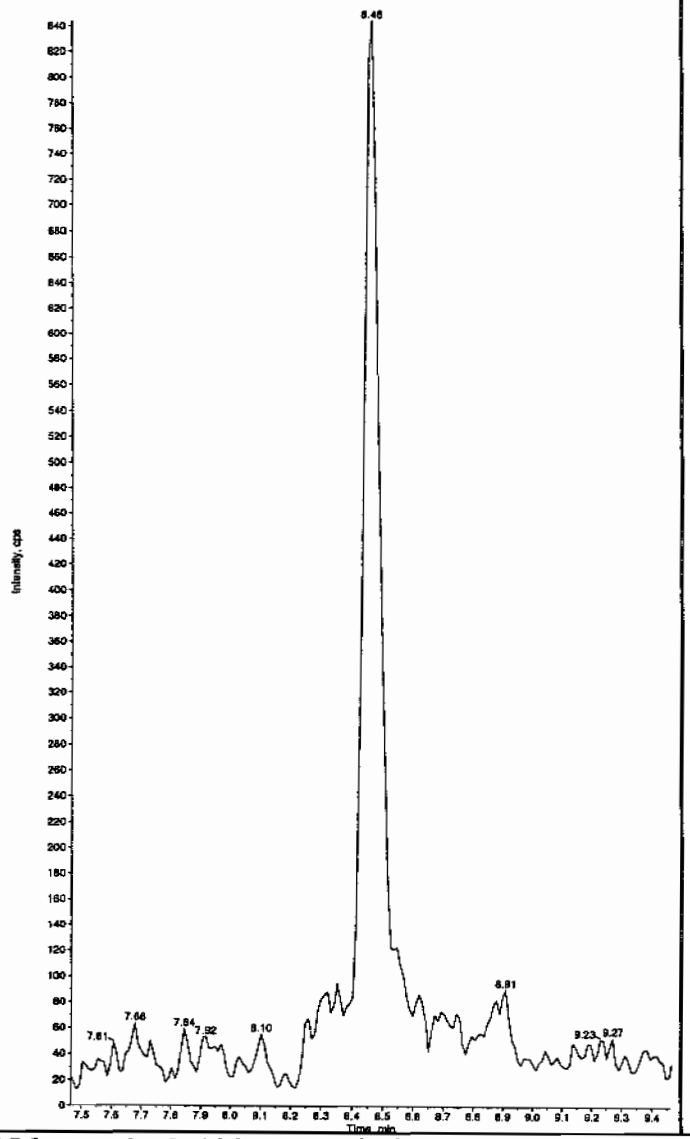

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

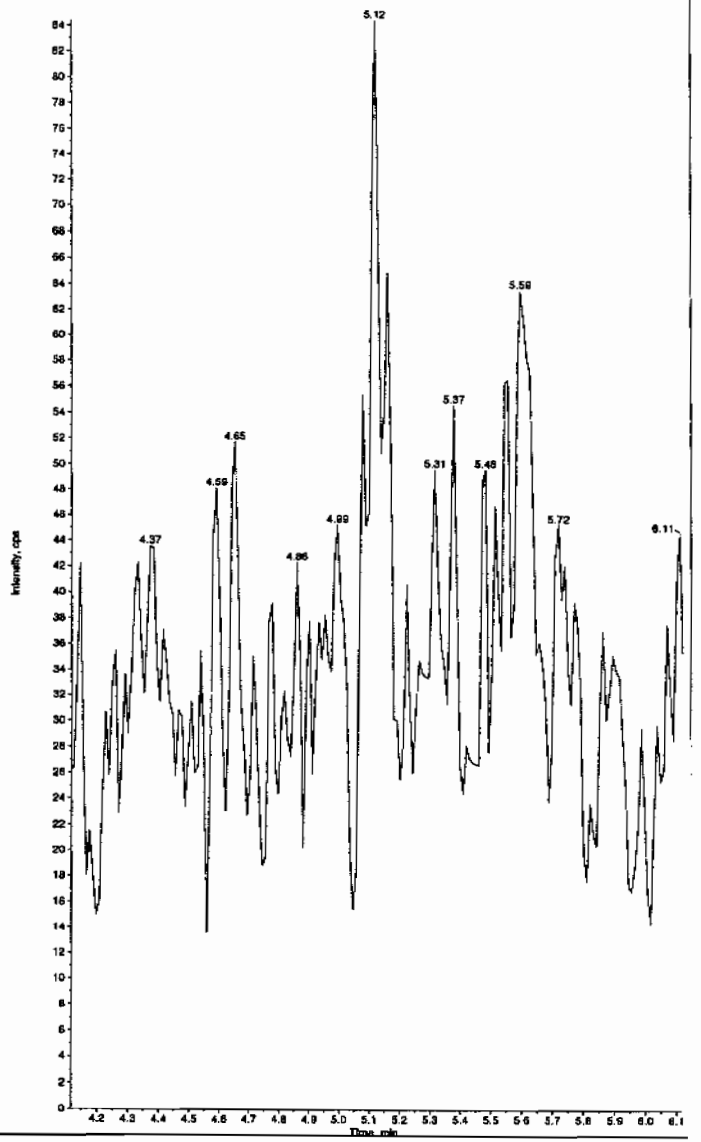

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Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/45.0 amu"
nt: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 5:15:22 PM

d: No

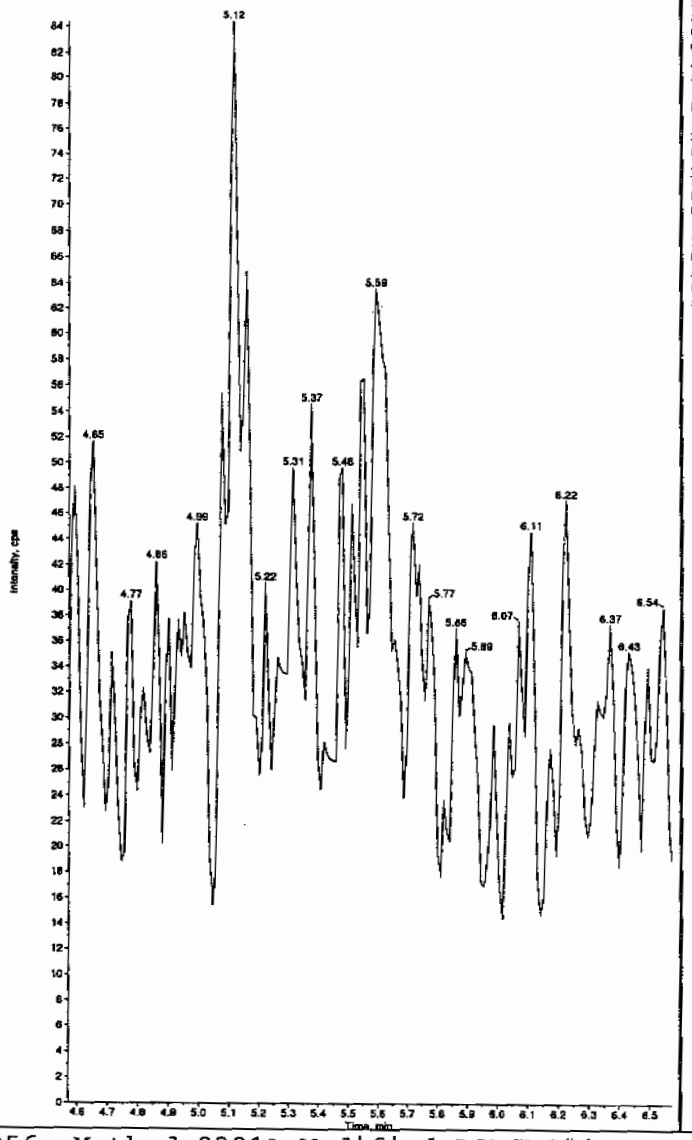

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.88e+004 counts
Height: 23771.599 cps
Start Time: 10.9 min
End Time: 11.1 min

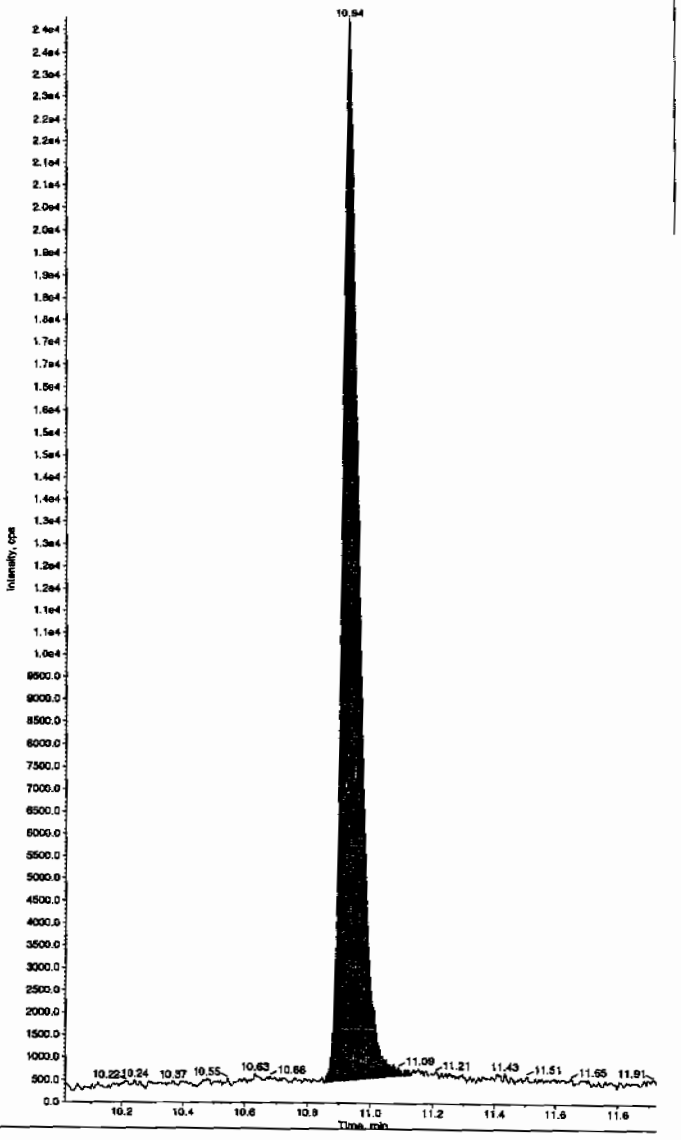

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 26–FEB–10 17:46

GEL Data File: EXS02260012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lxm 3/1/10

Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 5:46:47 PM

d: No

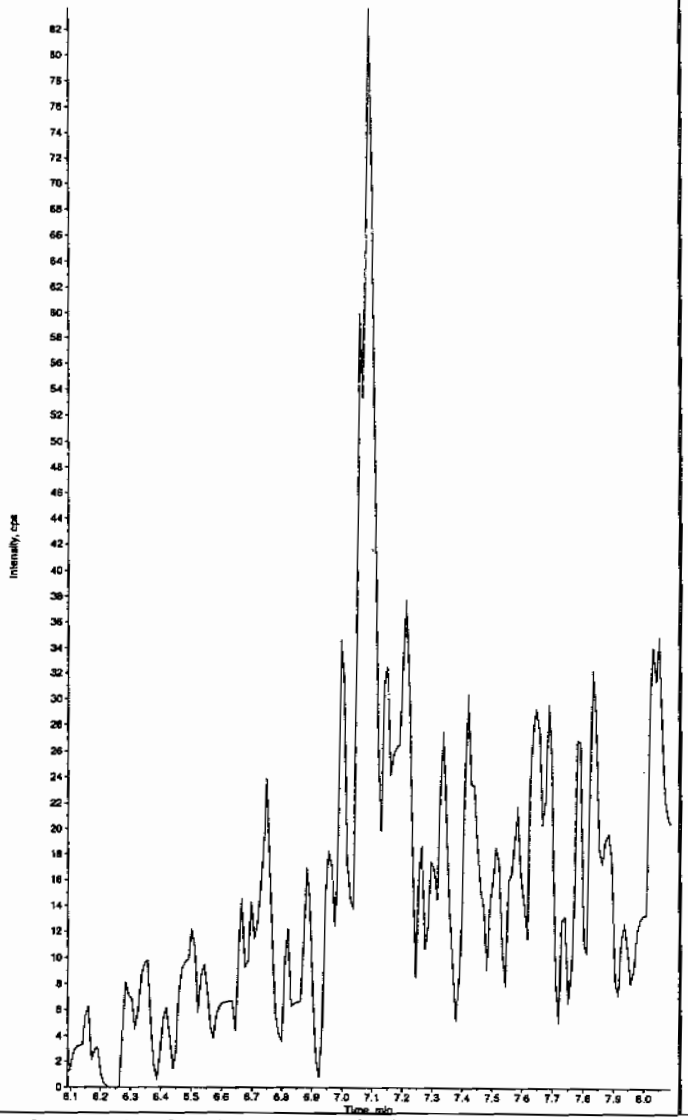

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

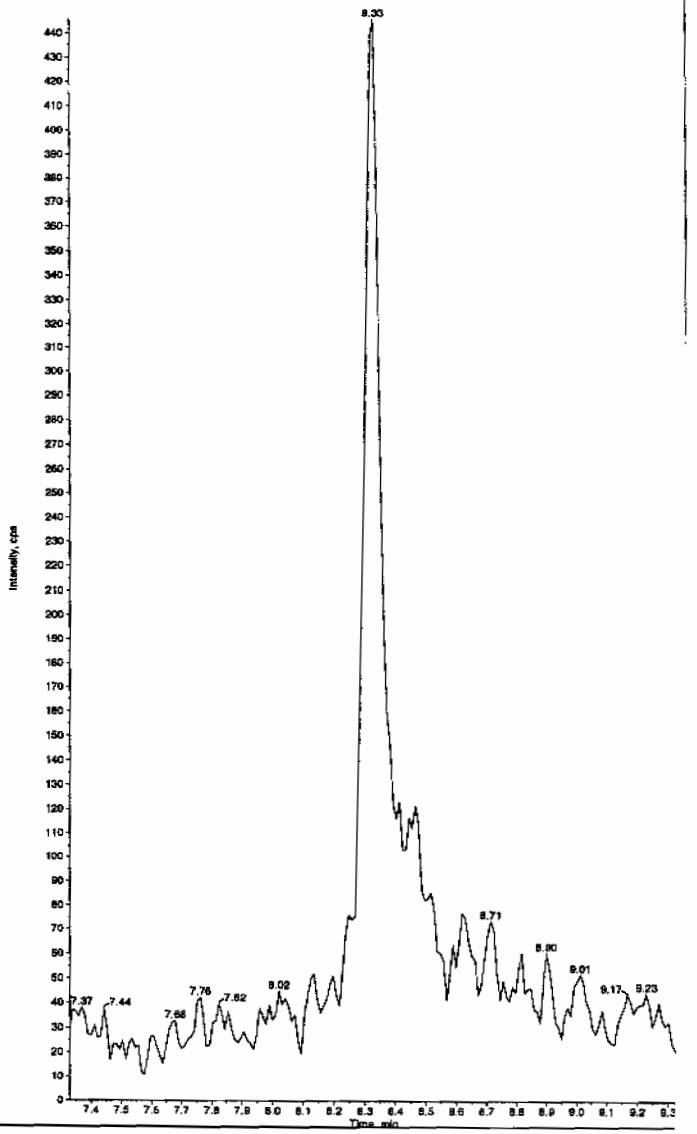

Hnm 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
ume: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 5:46:47 PM
d: No

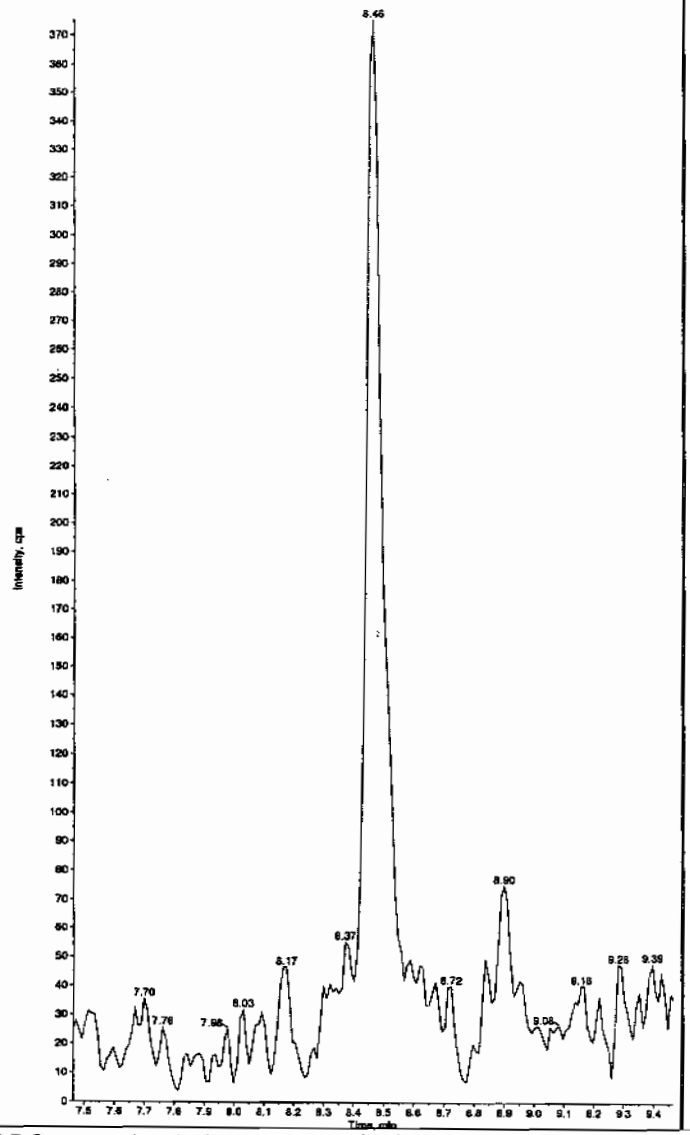

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

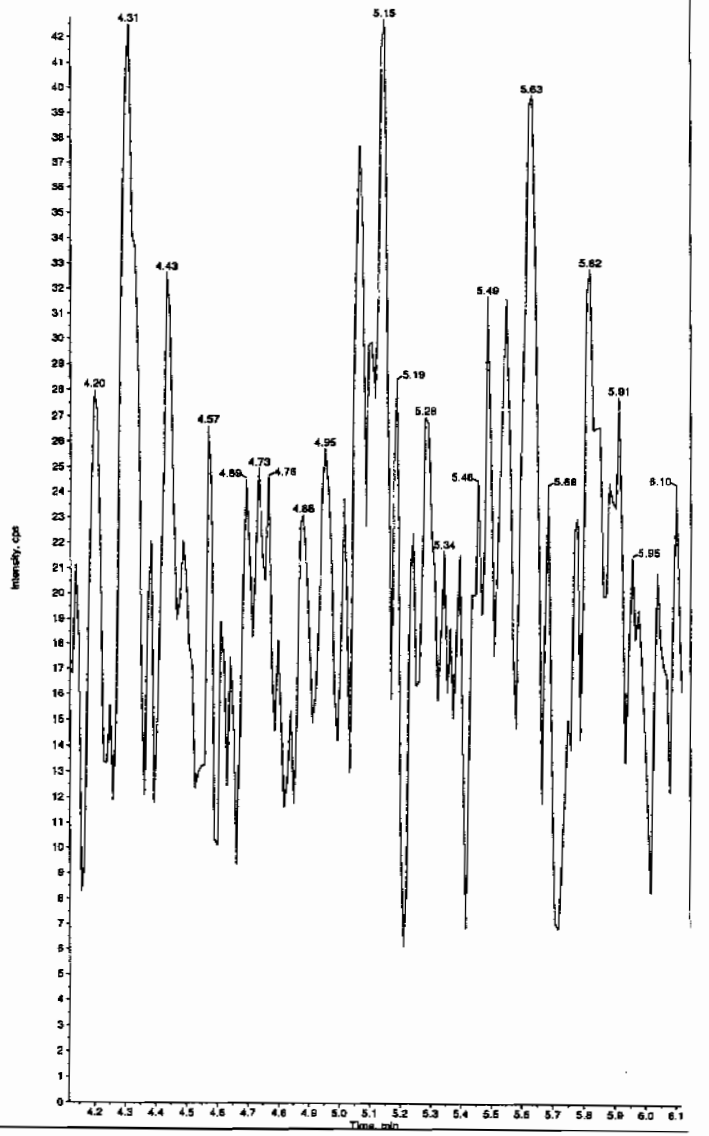

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
ame: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 5:46:47 PM
d: No

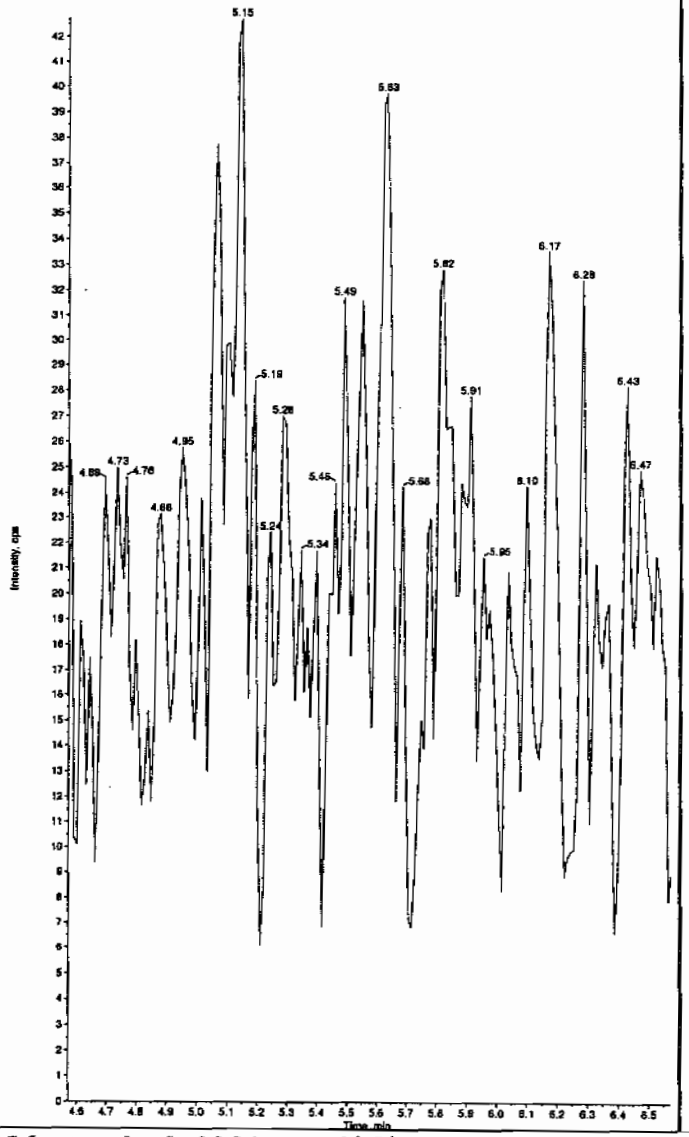

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	2/26/2010	
Acq. Time:	5:46:47 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	4.68e+004	counts
Height:	12137.585	cps
Start Time:	10.9	min
End Time:	11.1	min

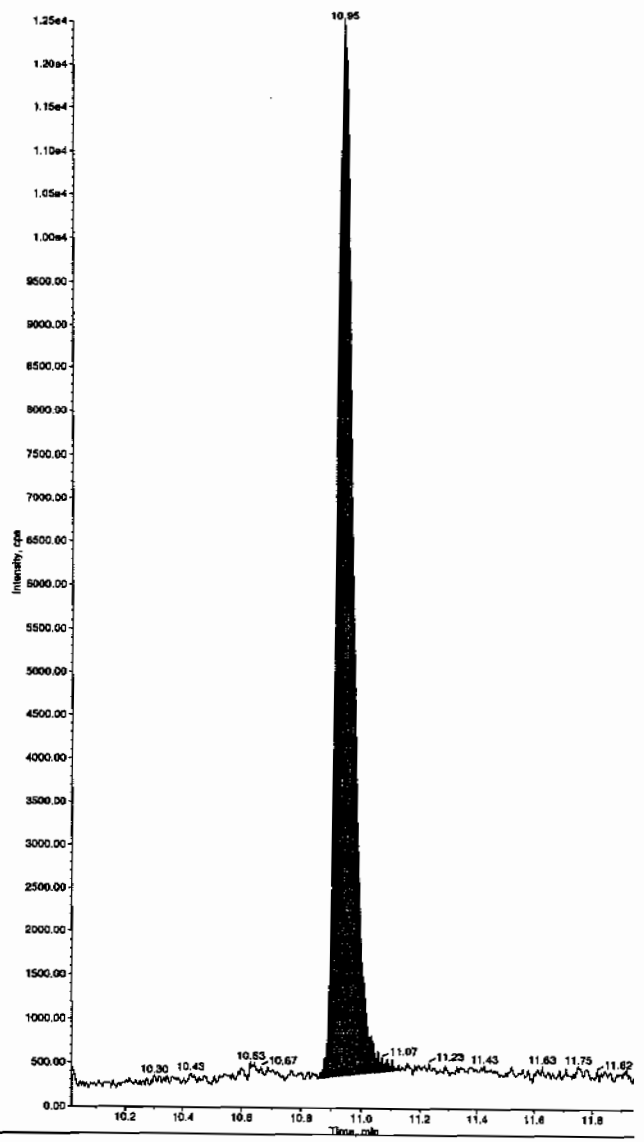

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 26-FEB-10 21:10

GEL Data File: EXS02260025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ker 3/1/10

Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 9:10:59 PM

d: No

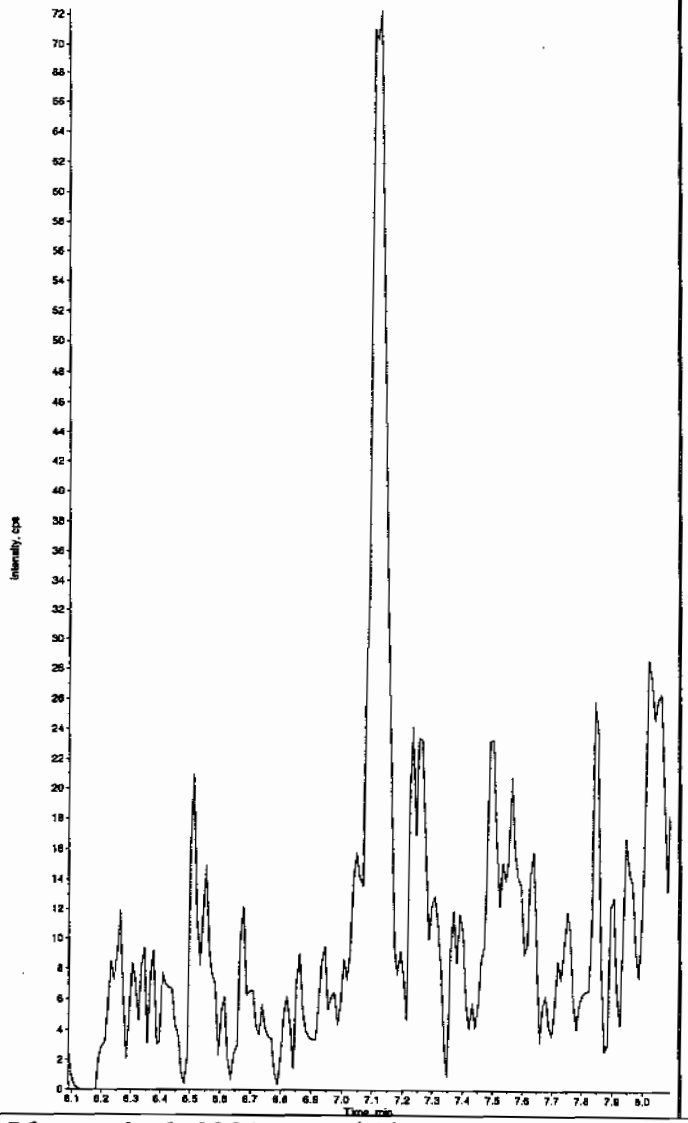

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

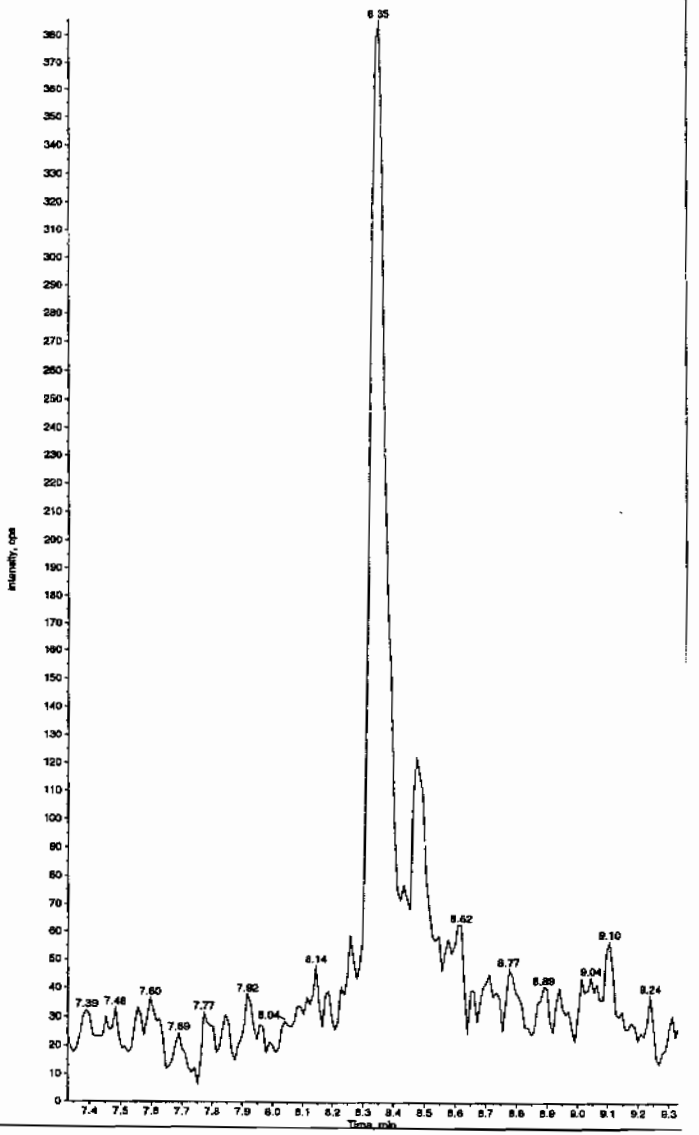

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 9:10:59 PM
d: No

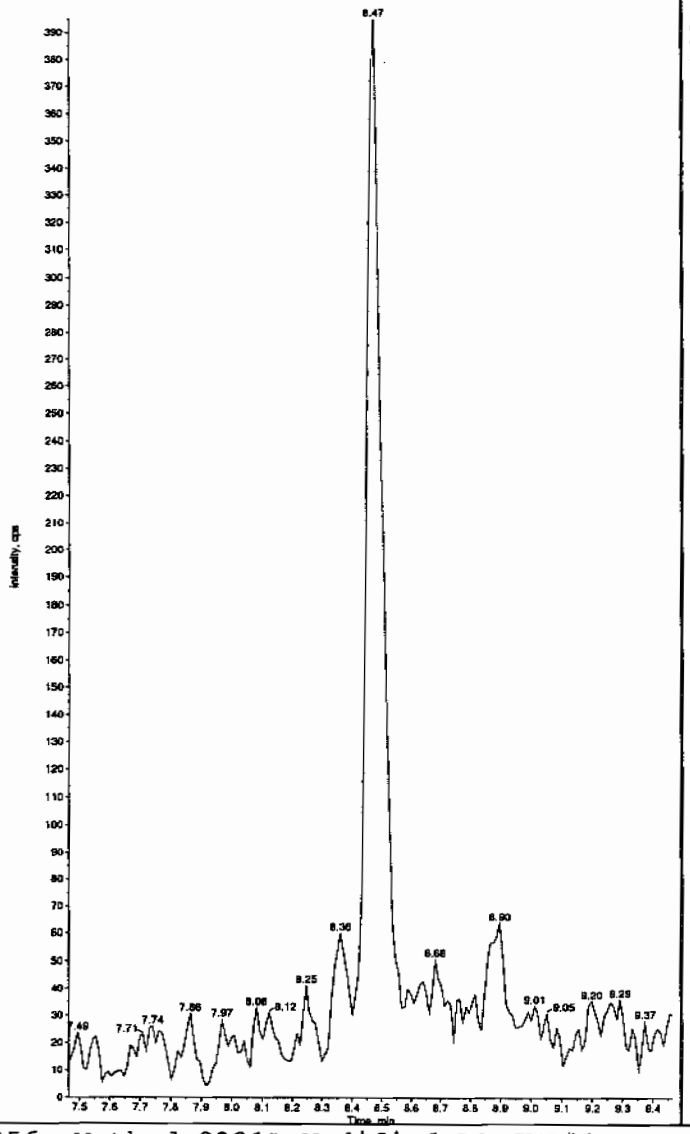

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

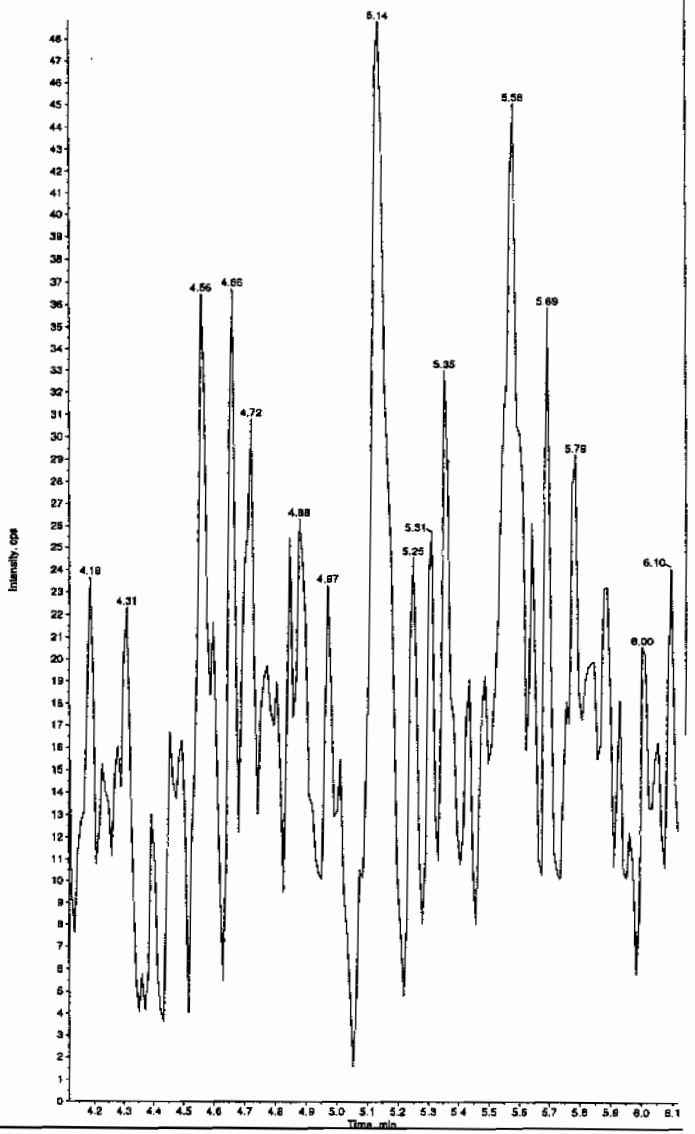

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Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
m: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 9:10:59 PM
d: No

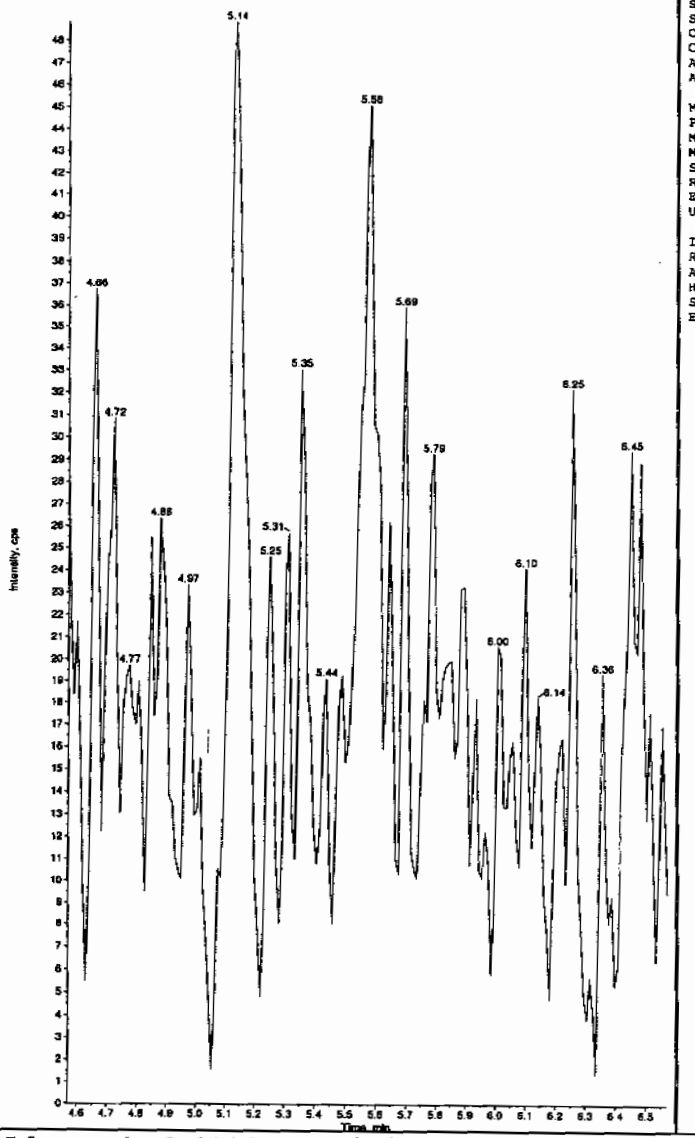

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 3.47e+004 counts
Height: 8966.046 cps
Start Time: 10.8 min
End Time: 11.1 min

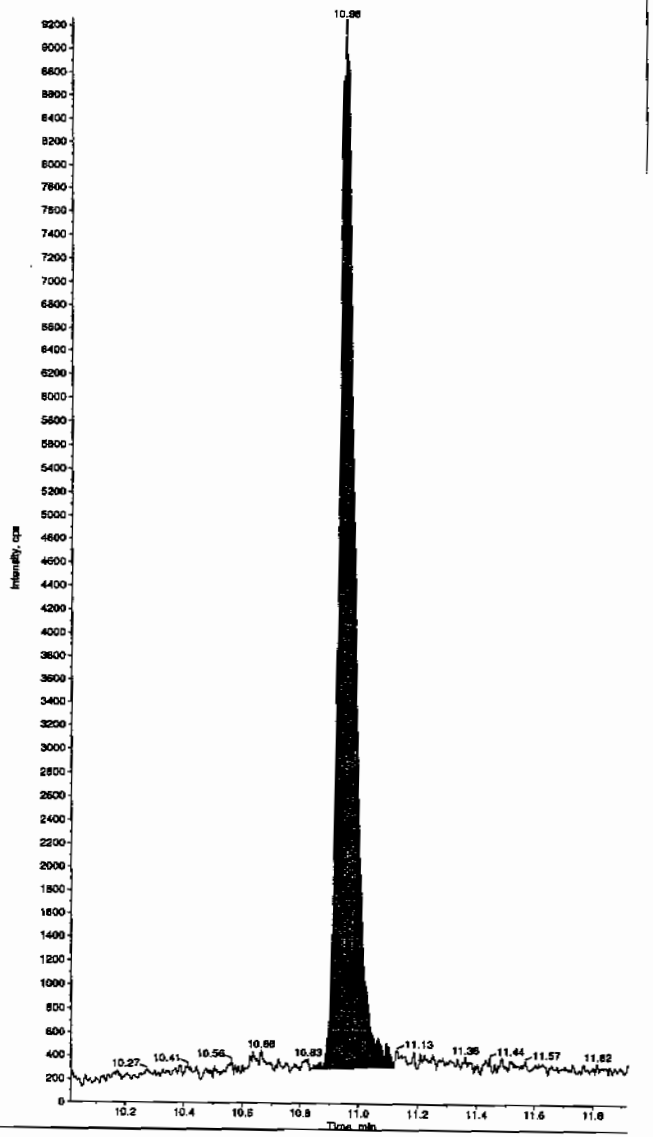

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 26–FEB–10 22:13

GEL Data File: EXS02260029.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 3/1/10

Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02260029.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 10:13:52 PM
d: No

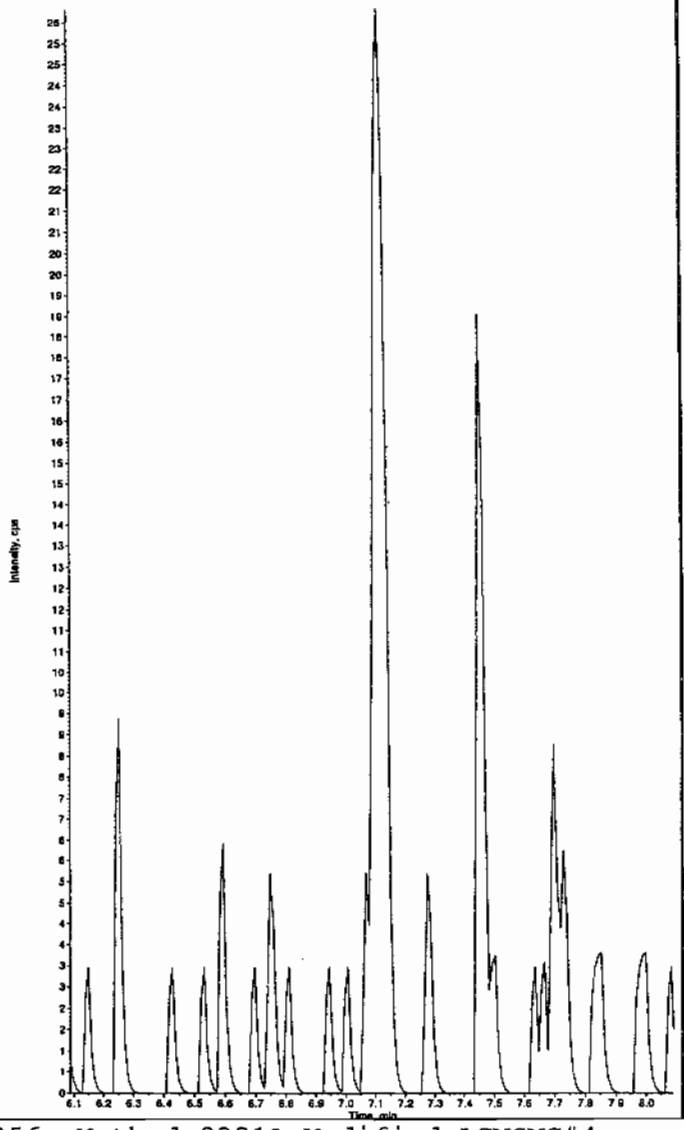

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02260029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

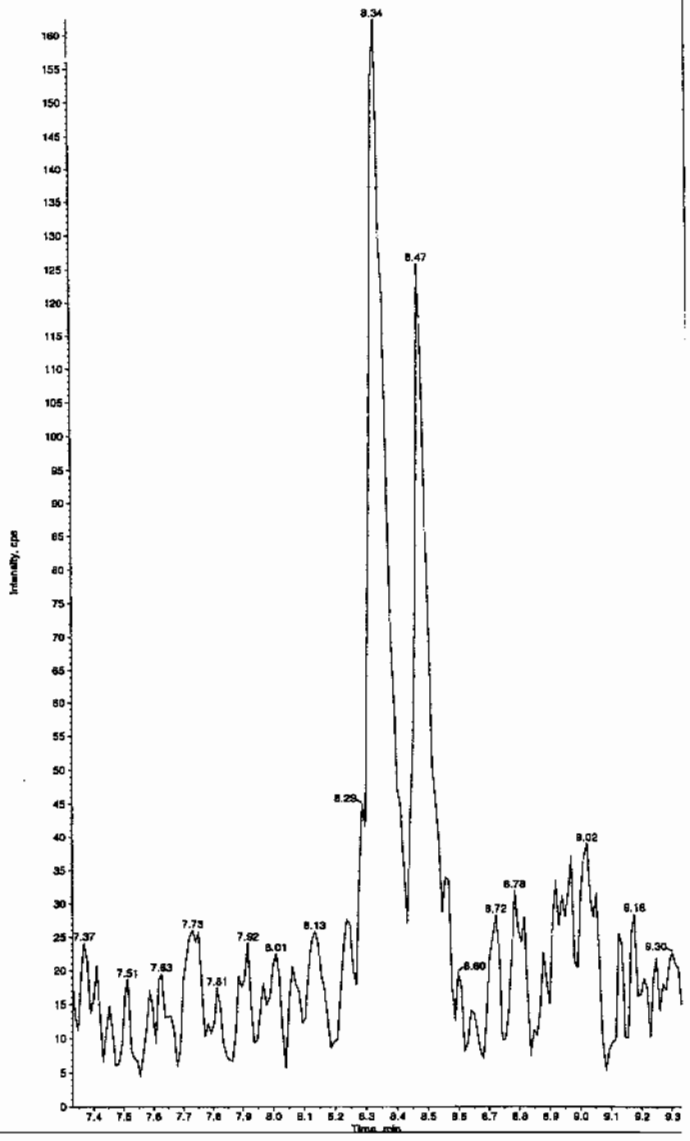

Hmm 03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02260029.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 10:13:52 PM
d: No

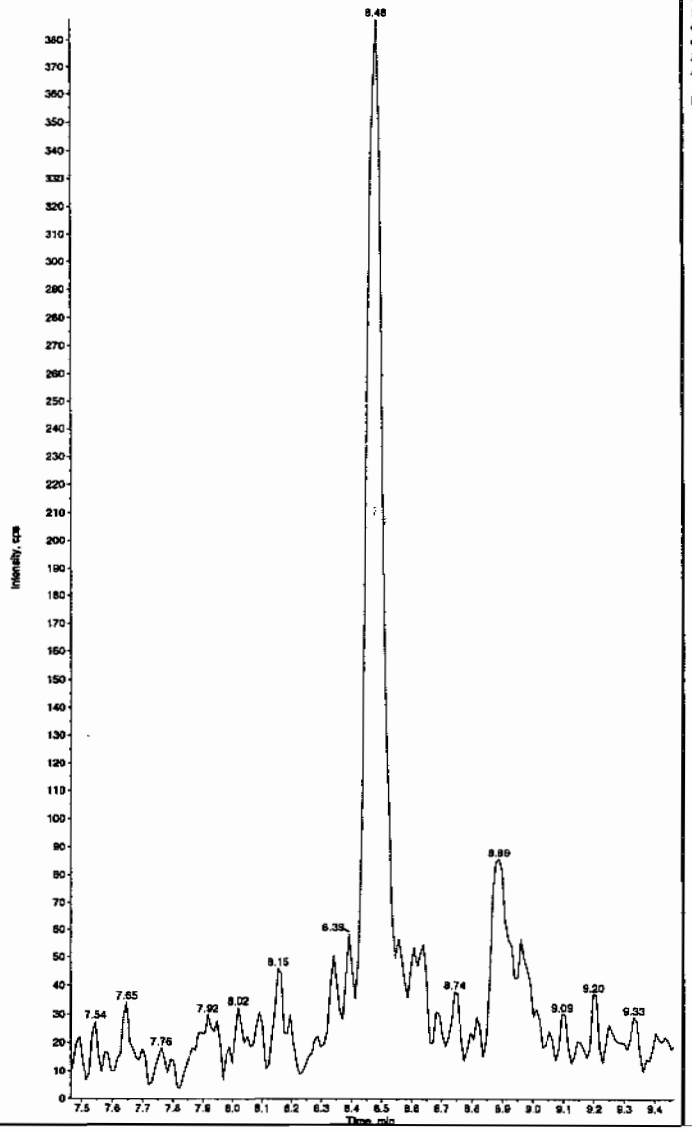

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02260029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

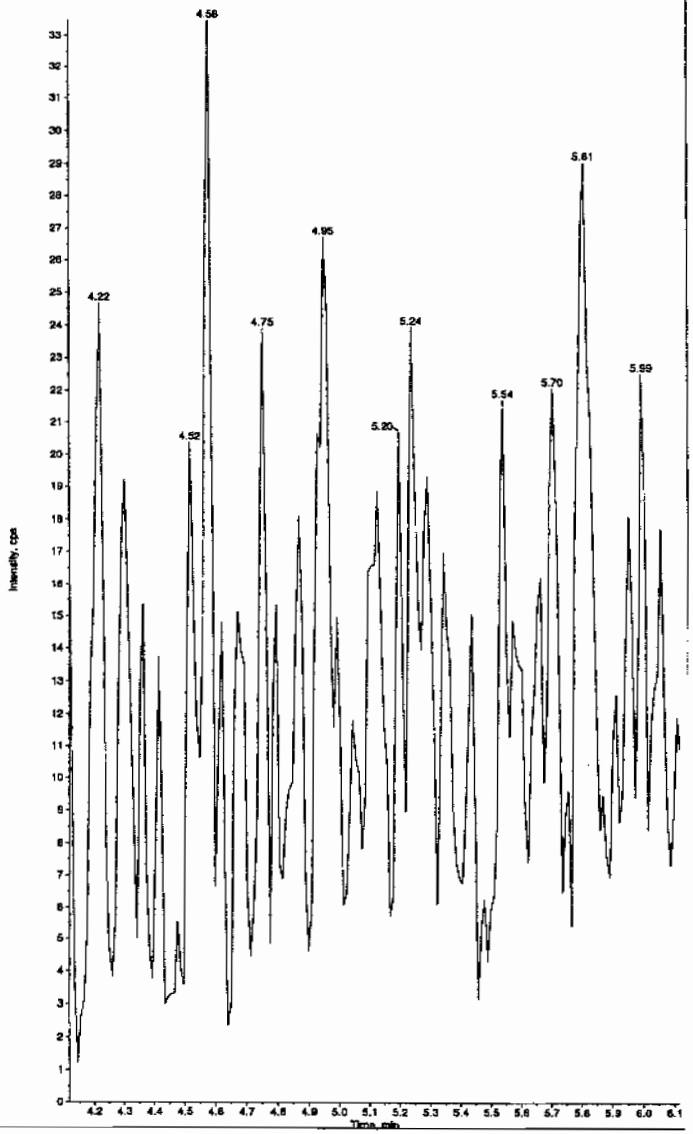

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK05" Sample ID: "1|LER" File: "EXS02260029.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: "
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/26/2010
me: 10:13:52 PM
d: No

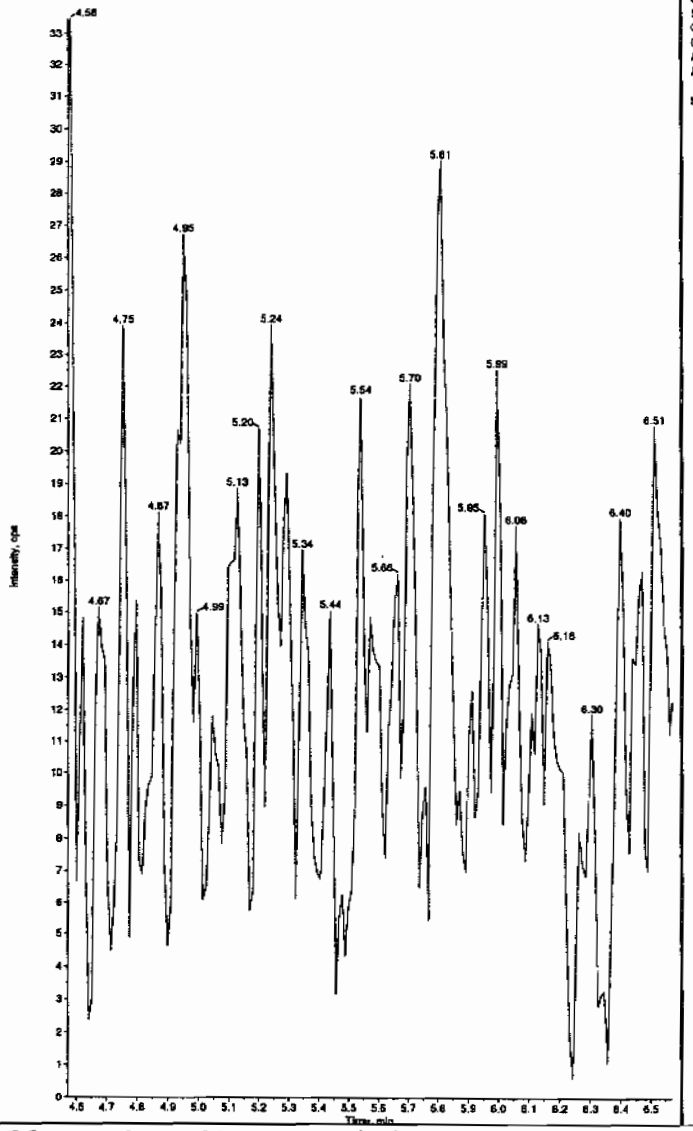

Sample Name: "XIBLK05" Sample ID: "1|LER" File: "EXS02260029.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

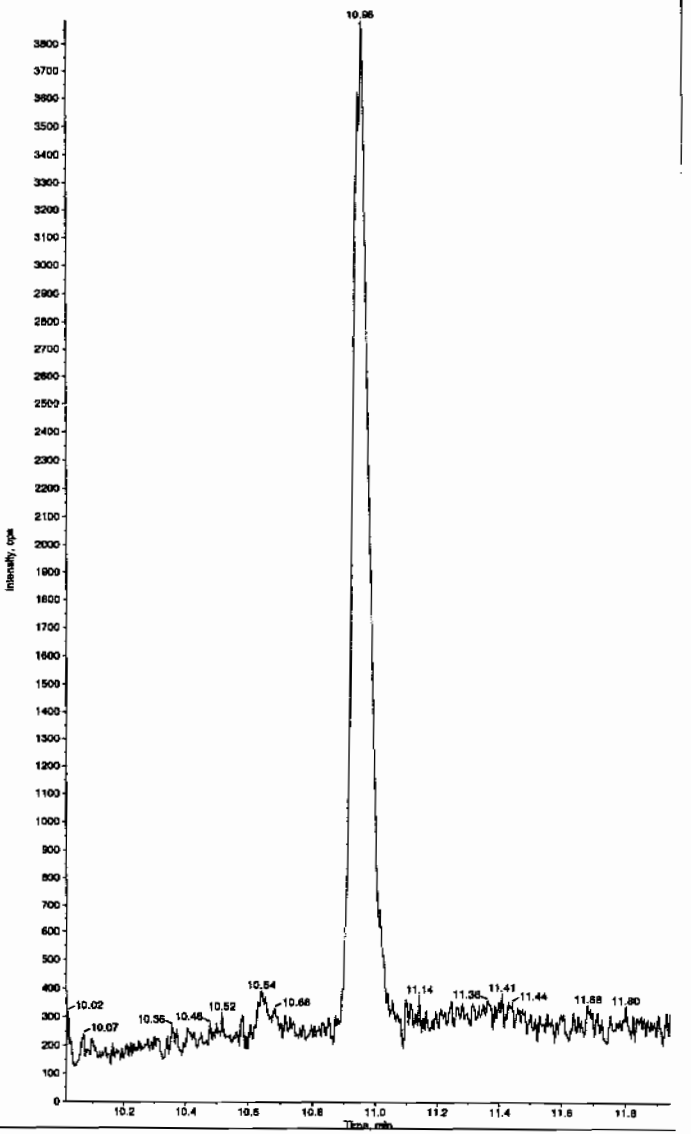

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 27-FEB-10 00:35

GEL Data File: EXS02260038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rcu 3/1/10

Name: "X1BLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/27/2010
me: 12:35:18 AM
d: No

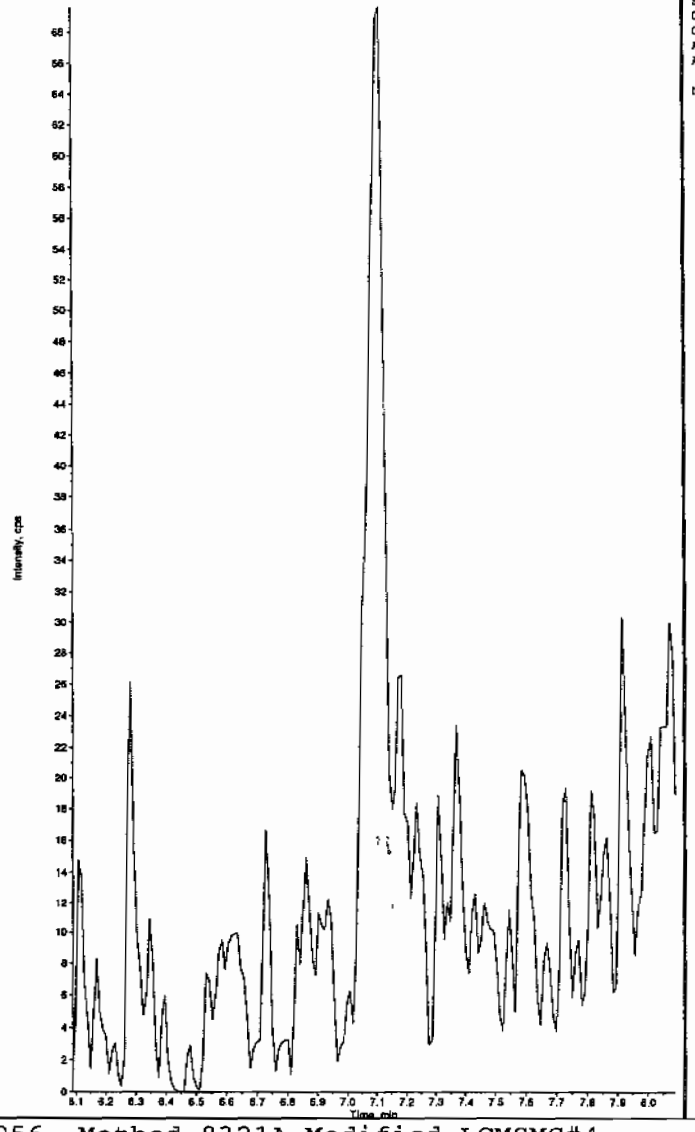

Sample Name: "X1BLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

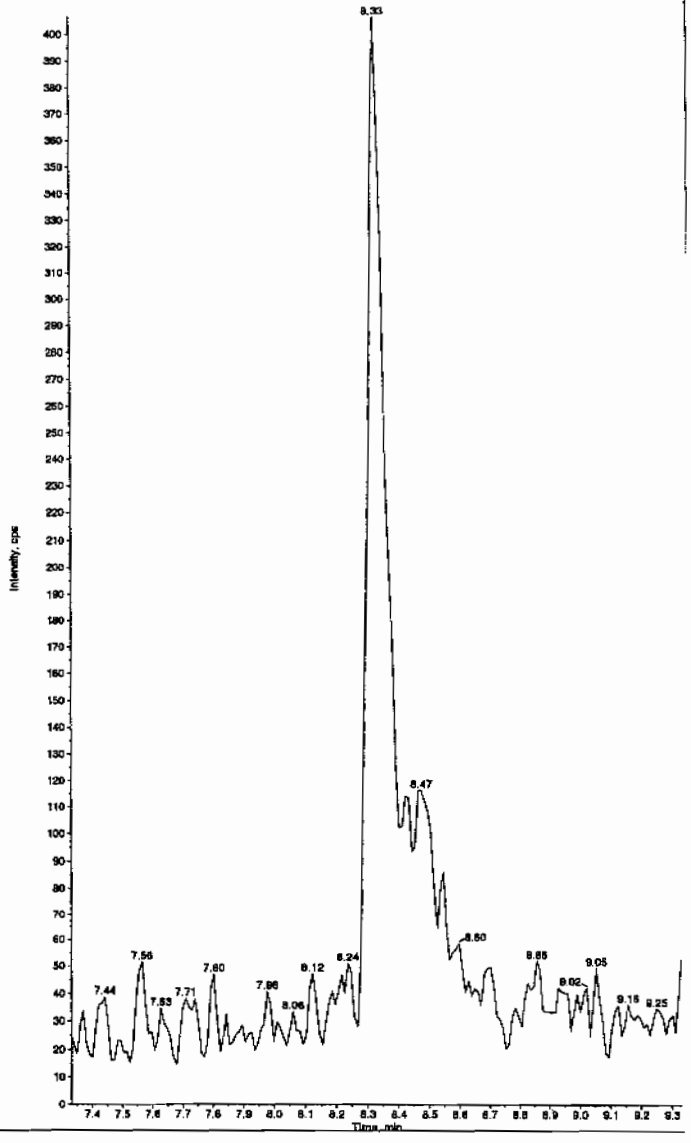

HMM 03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/27/2010
me: 12:35:18 AM
d: No

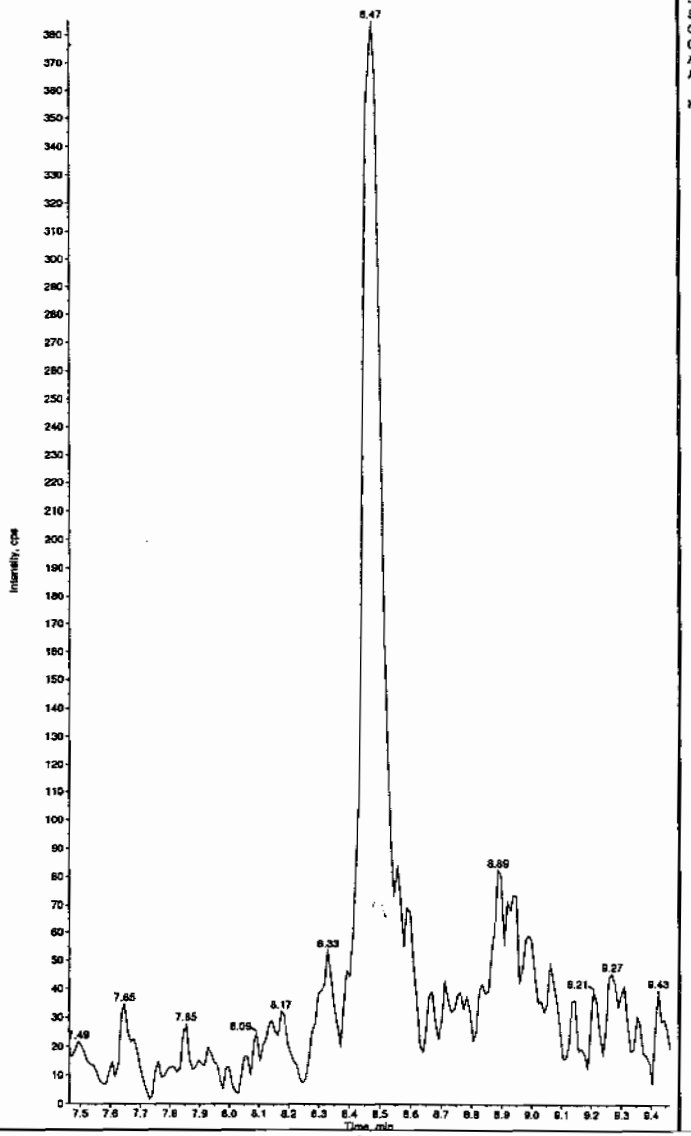

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

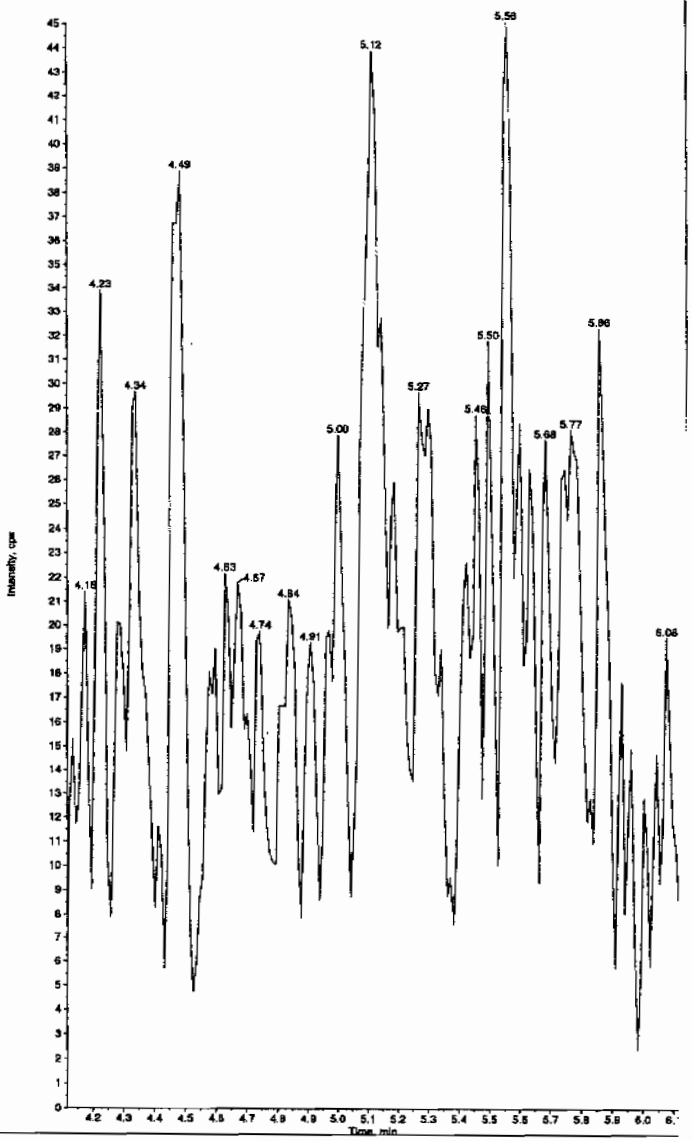

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/27/2010
me: 12:35:18 AM
d: No

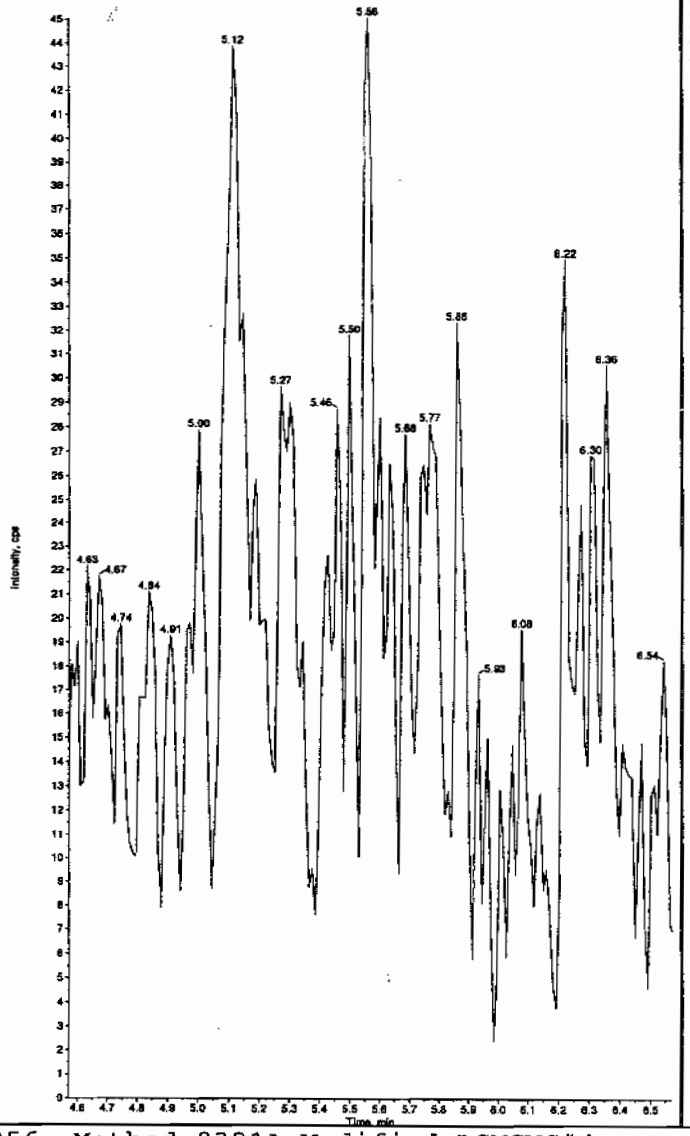

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	2/27/2010
Acq. Time:	12:35:16 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	4.01e+004 counts
Height:	11519.382 cps
Start Time:	10.9 min
End Time:	11.1 min

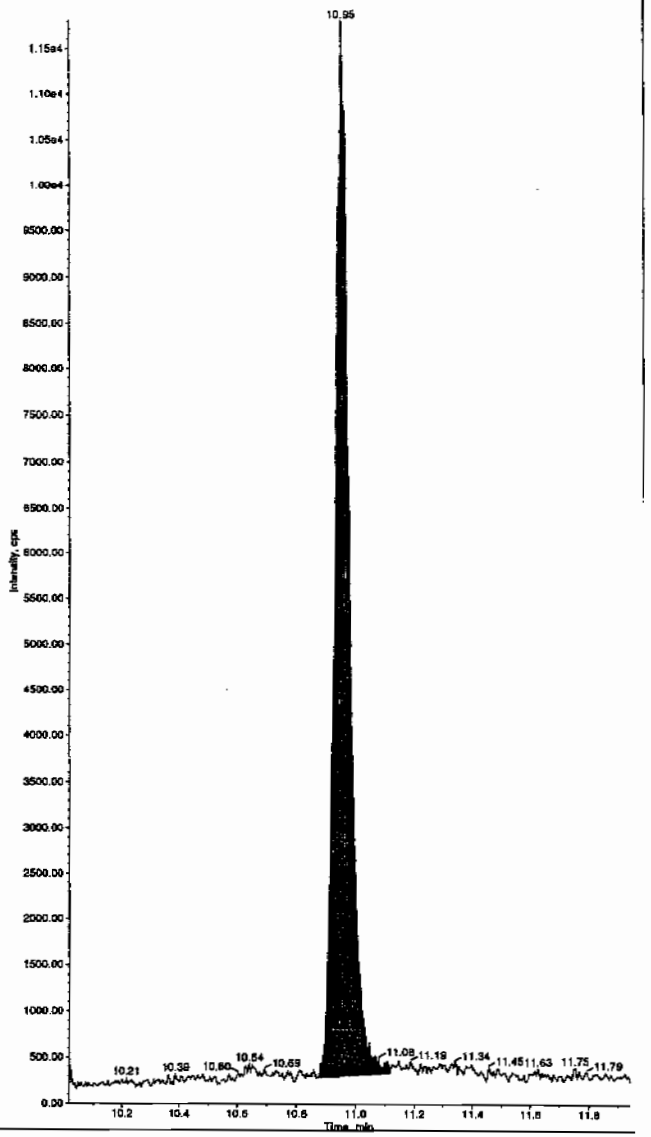

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 27-FEB-10 03:59

GEL Data File: EXS02260051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0

Lan 3/1/10

Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_8" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 3:59:27 AM
ed: No

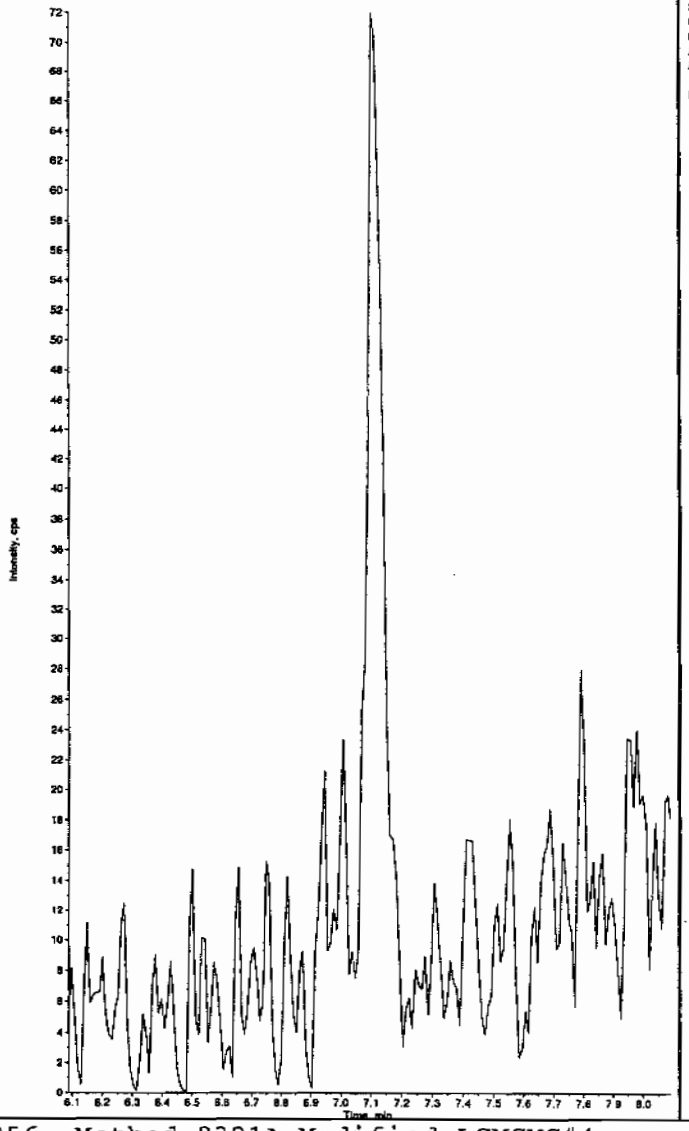

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

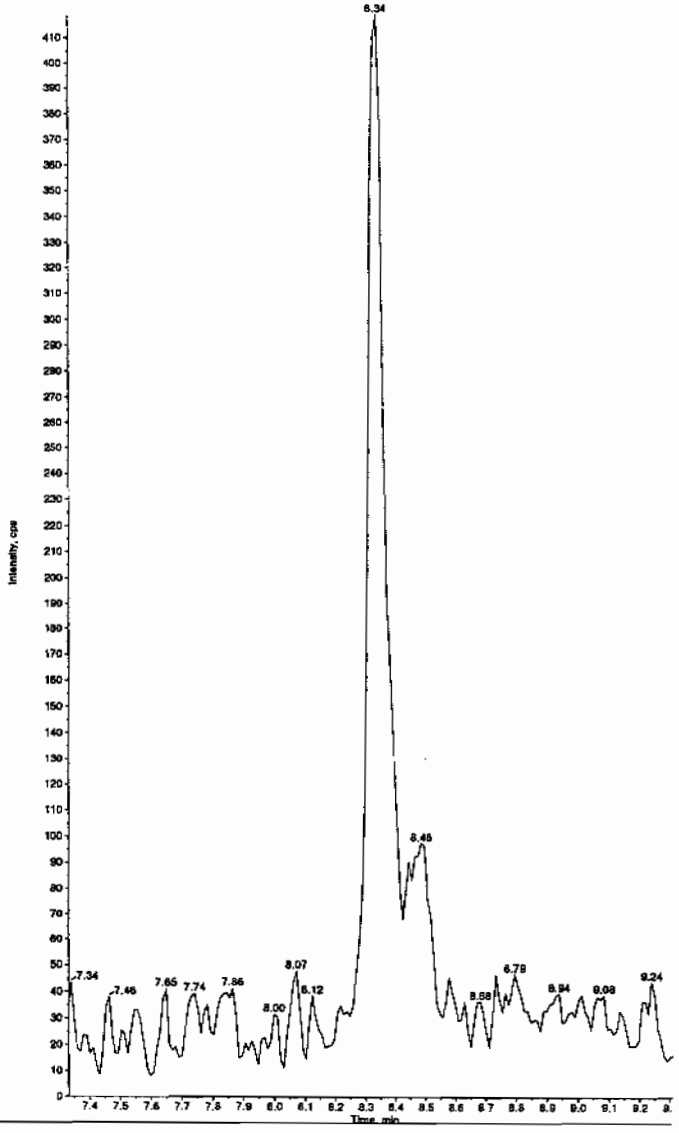

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02260051.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
ice: 2/27/2010
me: 3:59:27 AM

ed: No

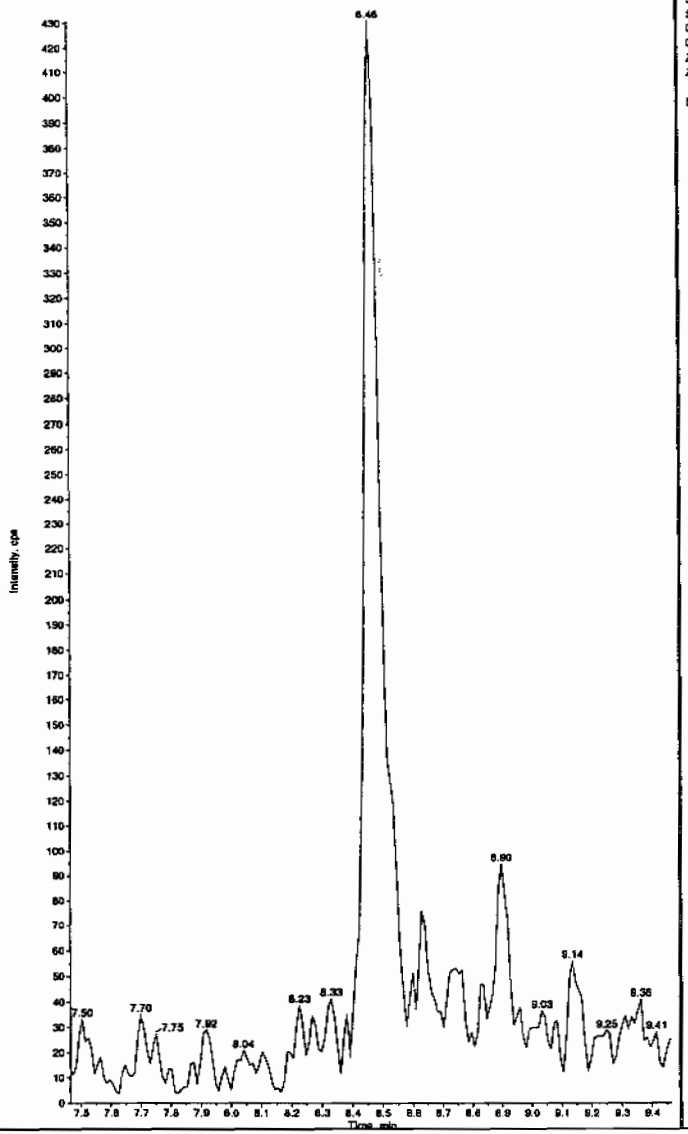

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02260051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

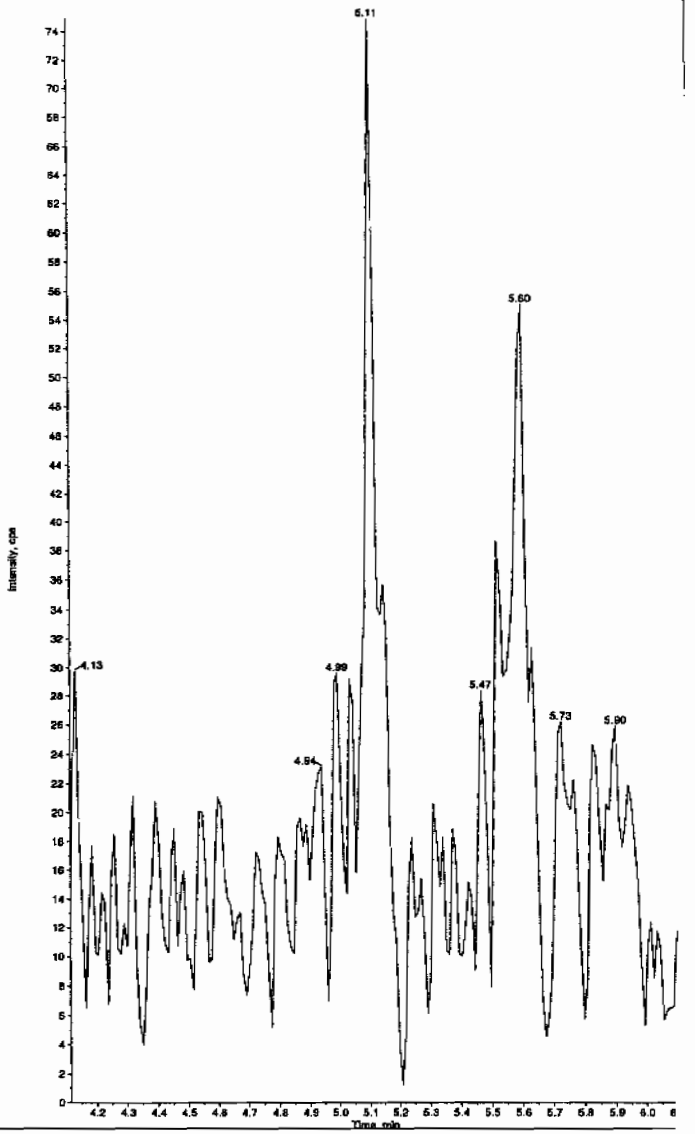

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

e Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02250051.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 3:59:27 AM

ed: No

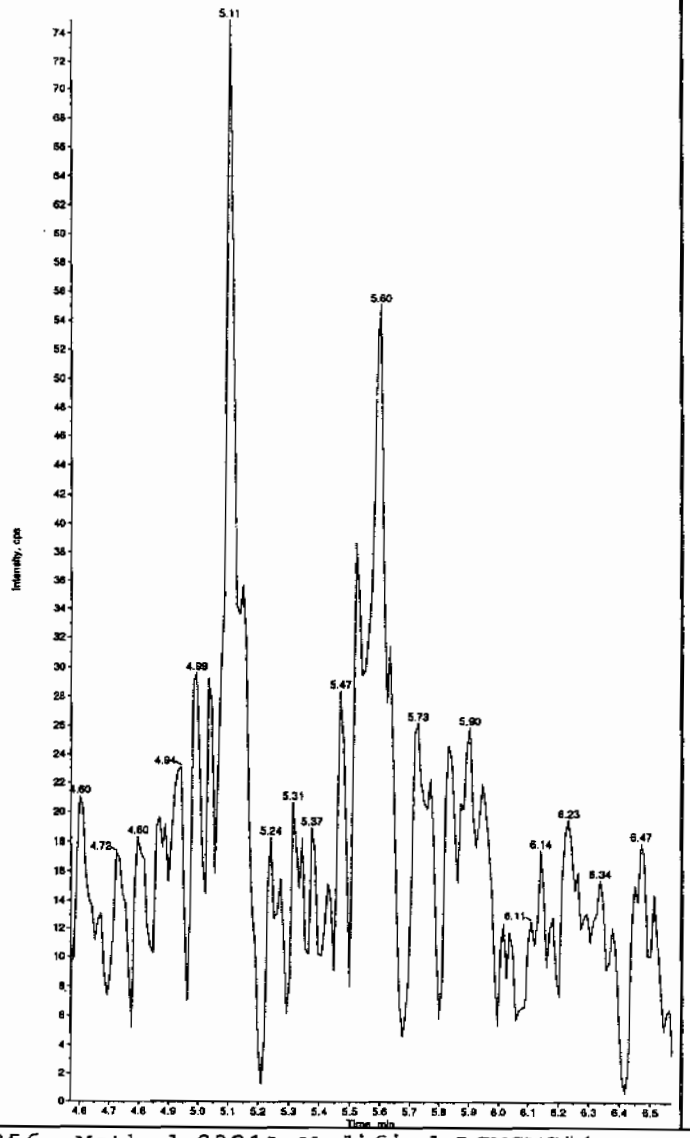

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02250051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.38e+004 counts
Height: 11821.117 cps
Start Time: 10.9 min
End Time: 11.1 min

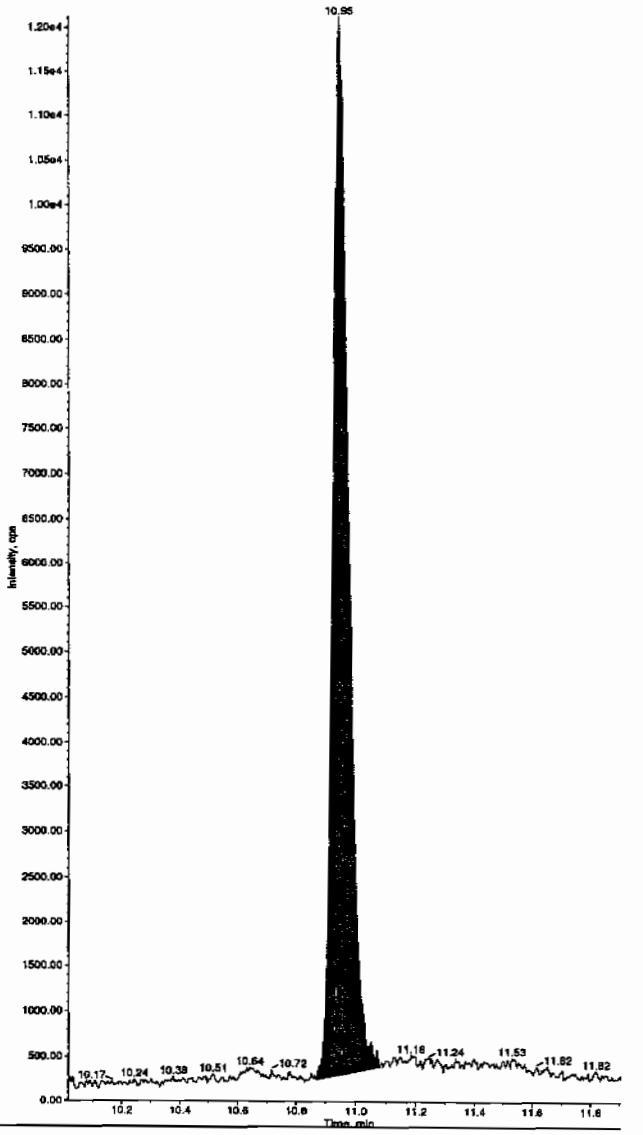

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 27-FEB-10 06:36

GEL Data File: EXS02260061.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ken 3/1/10

Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 6:36:30 AM
ed: No

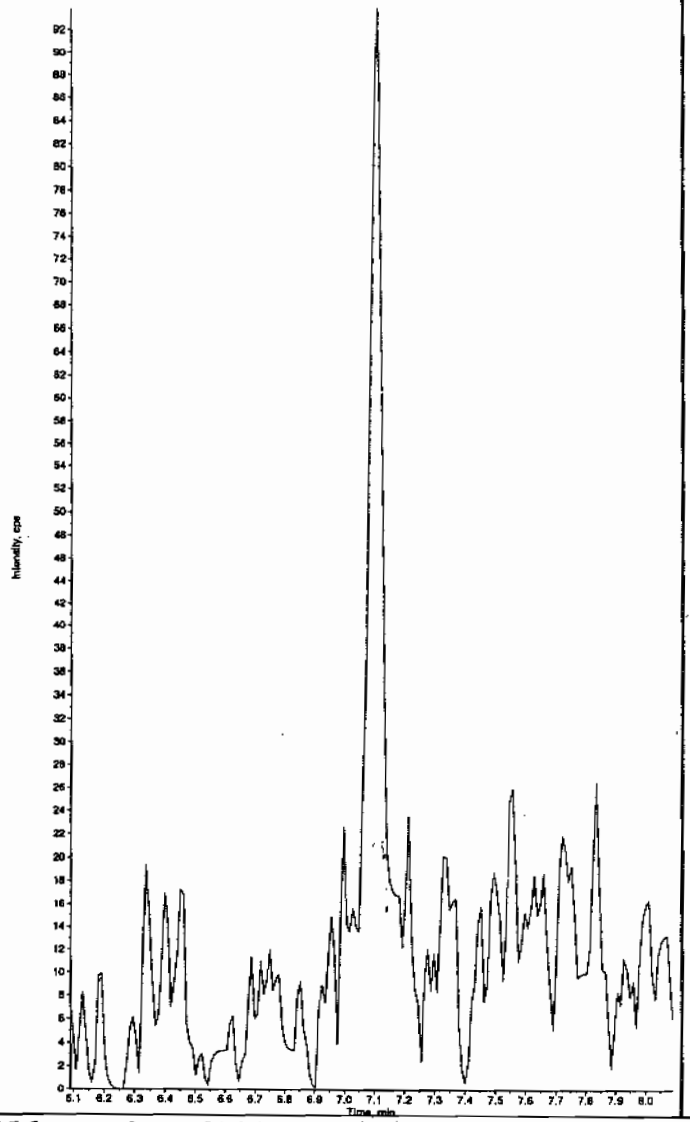

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

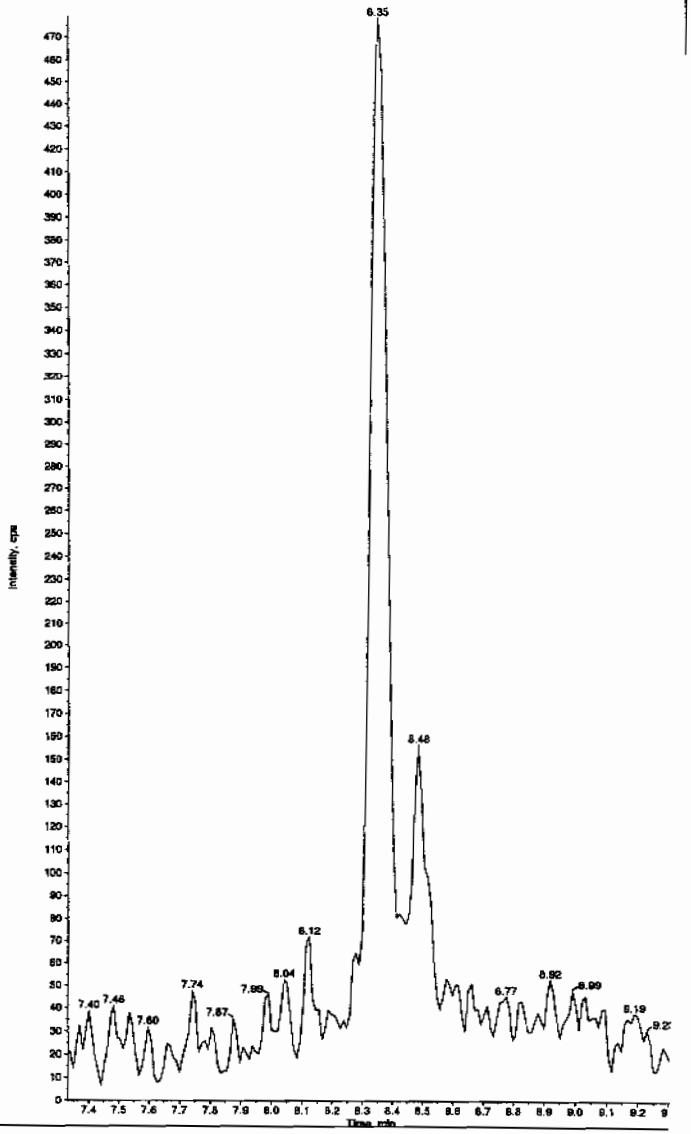

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wift"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 6:36:30 AM
ed: No

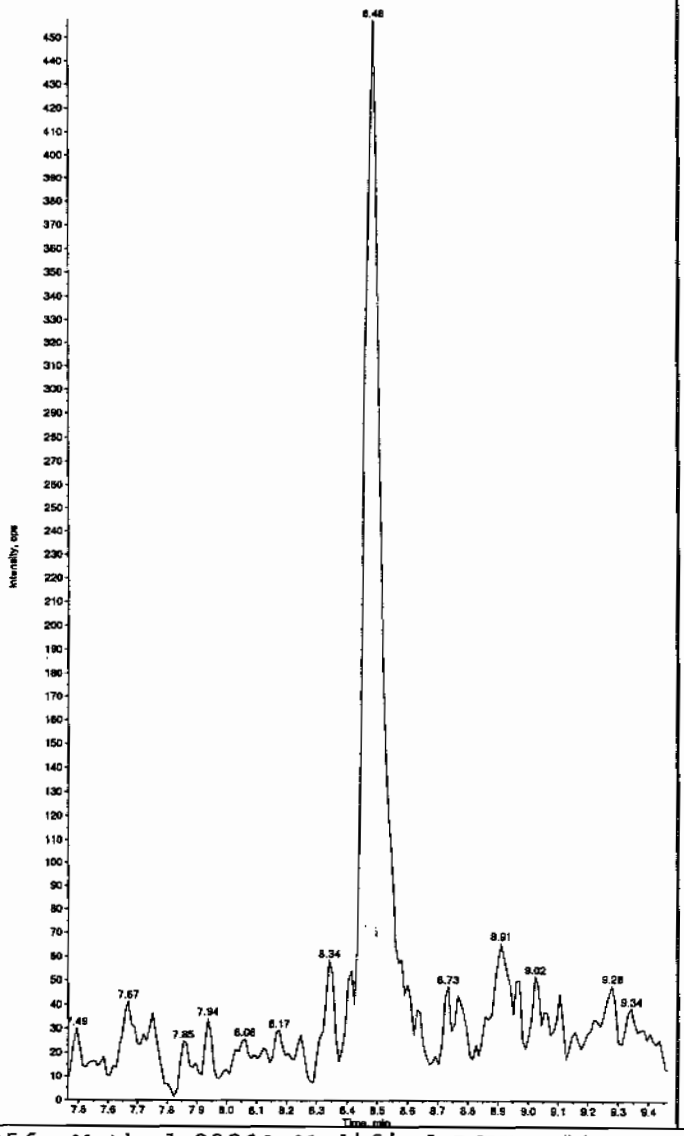

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wift"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

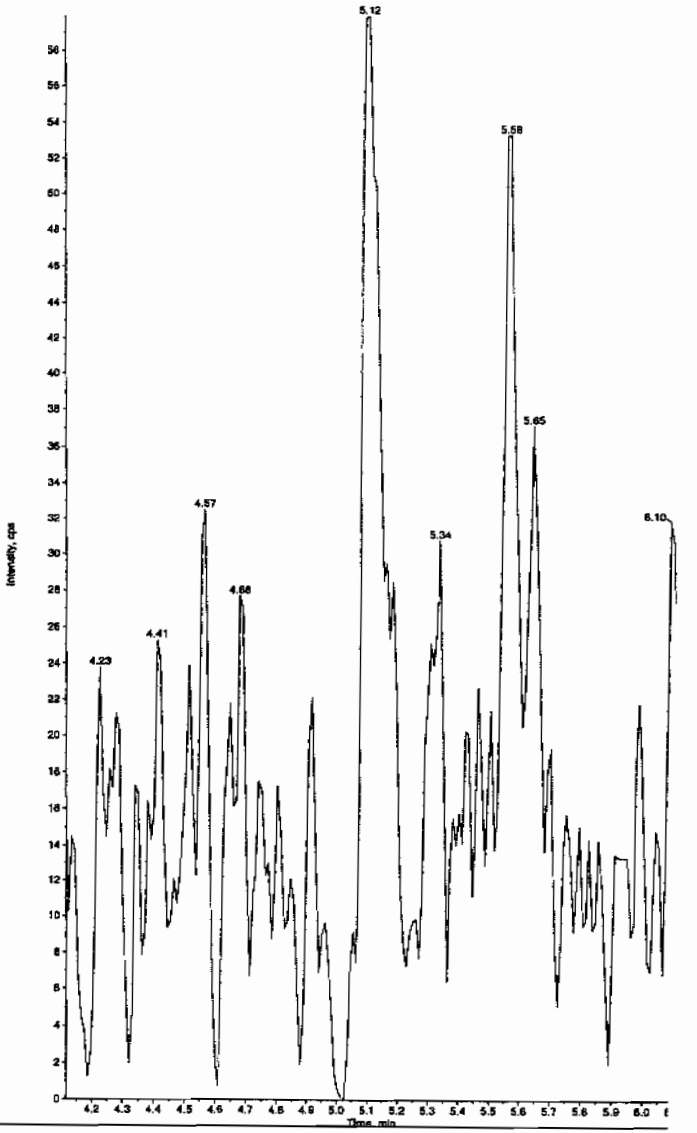

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02260061.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 6:36:30 AM

ed: No

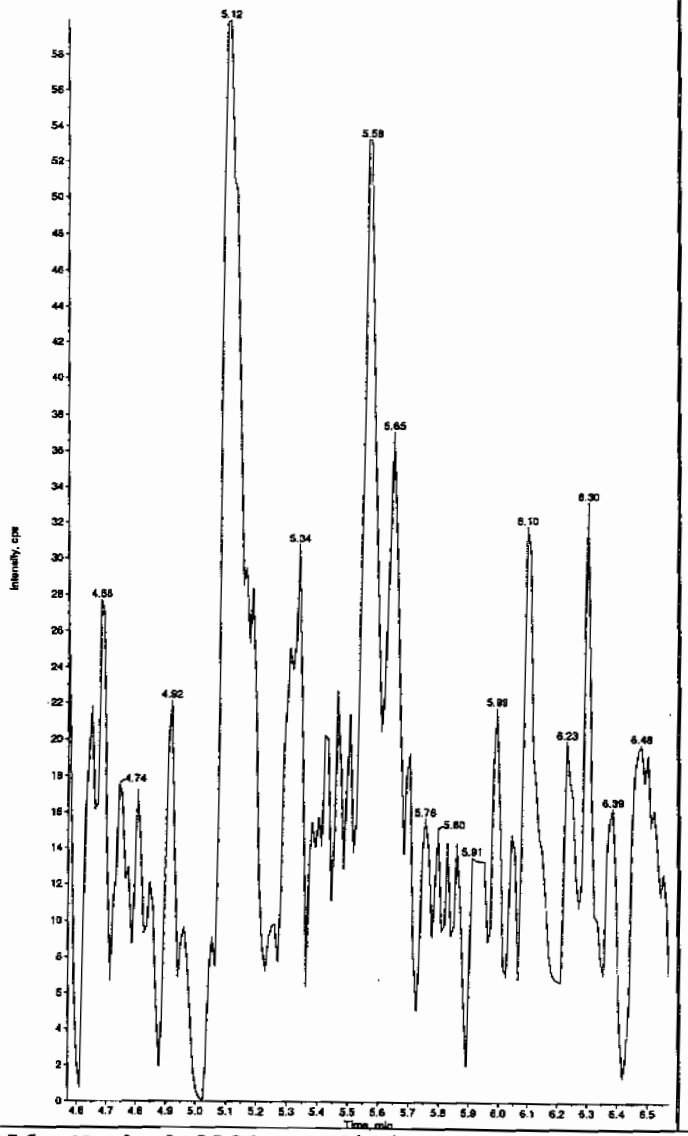

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS02260061.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 4.34e+004 counts
Height: 11941.468 cps
Start Time: 10.9 min
End Time: 11.2 min

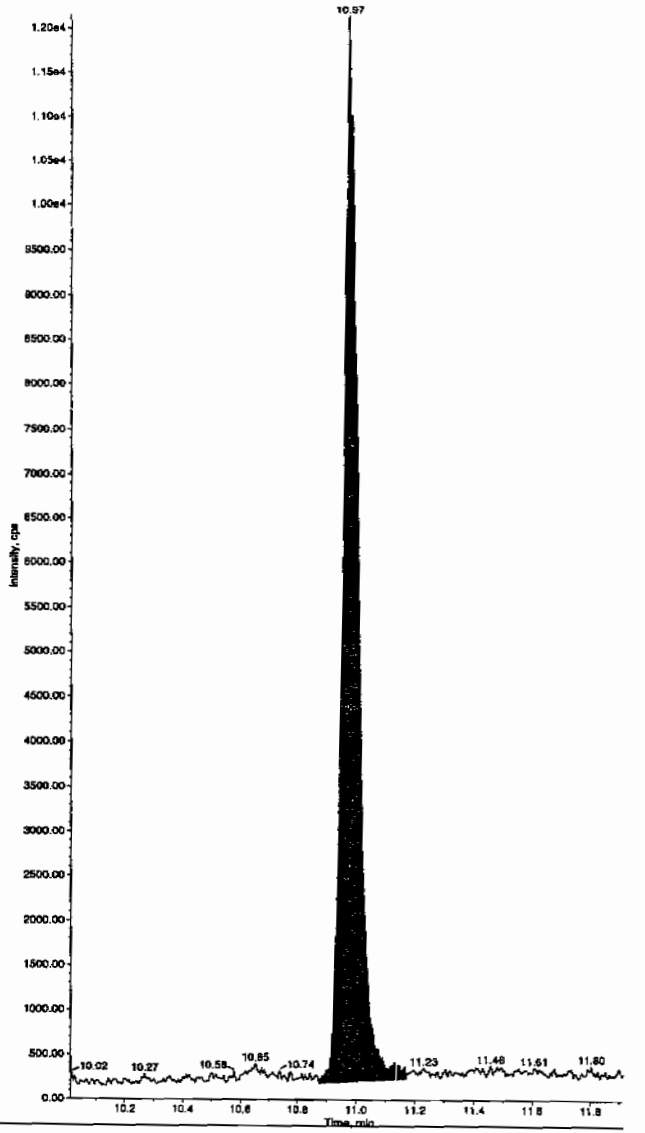

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1544

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 27-FEB-10 10:00

GEL Data File: EXS02260074.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0

Ken 3/1/10

e Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 10:00:38 AM
ed: No

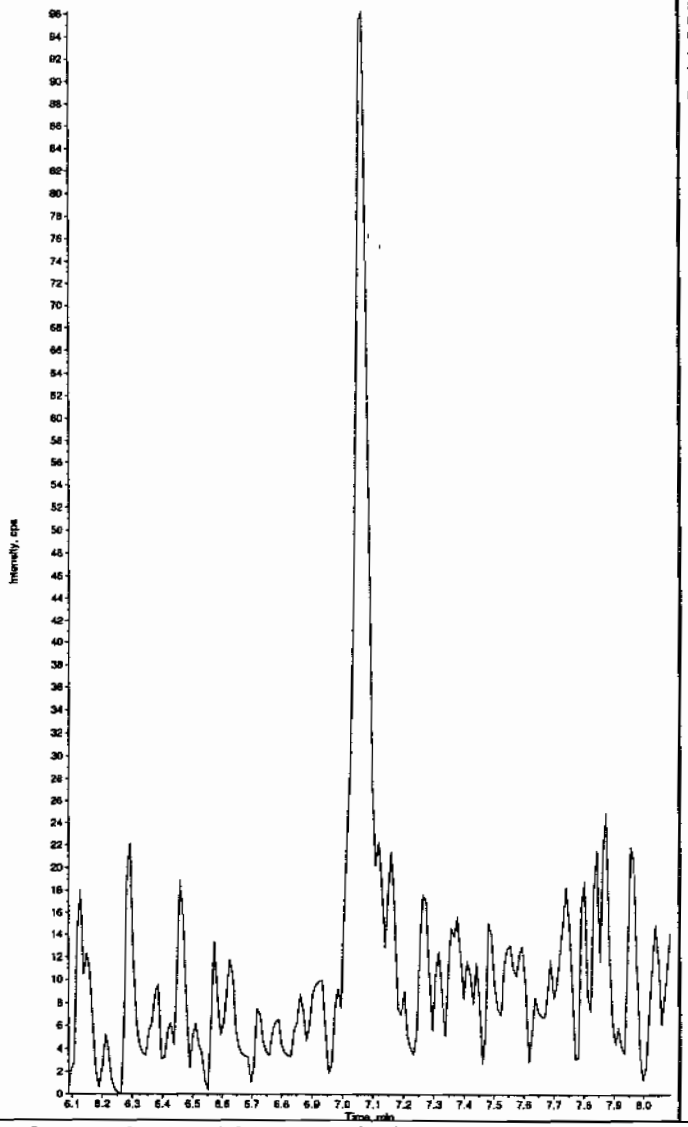

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:00:38 AM
Modified: No

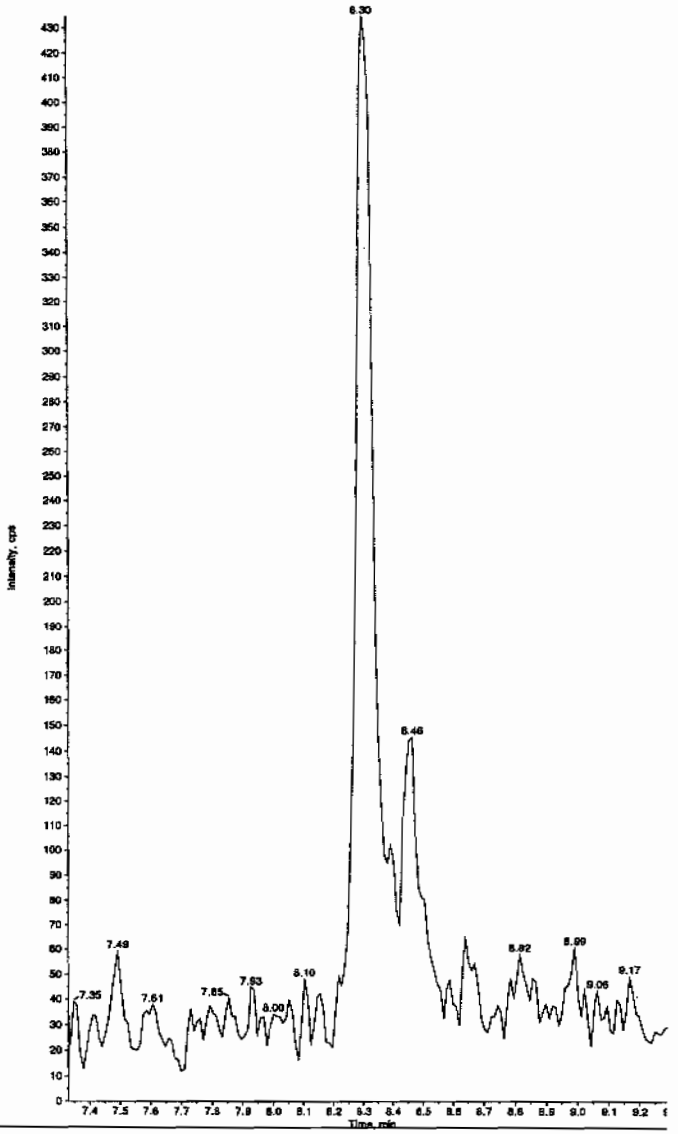

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 10:00:38 AM

ed: No

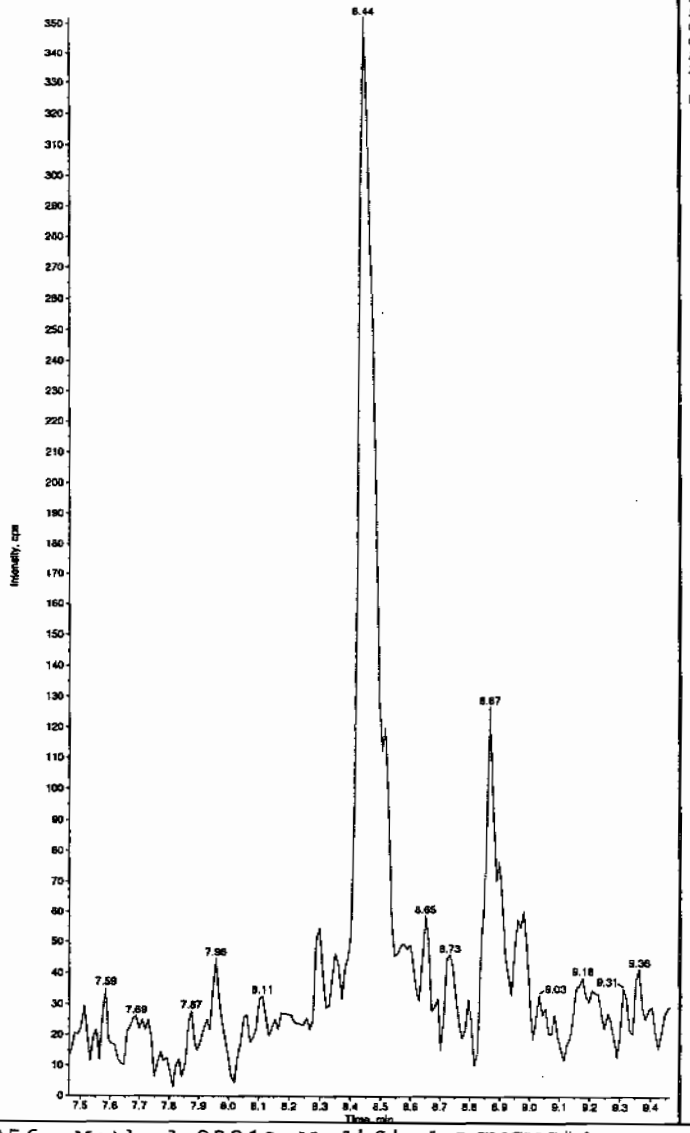

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:00:38 AM

Modified: No

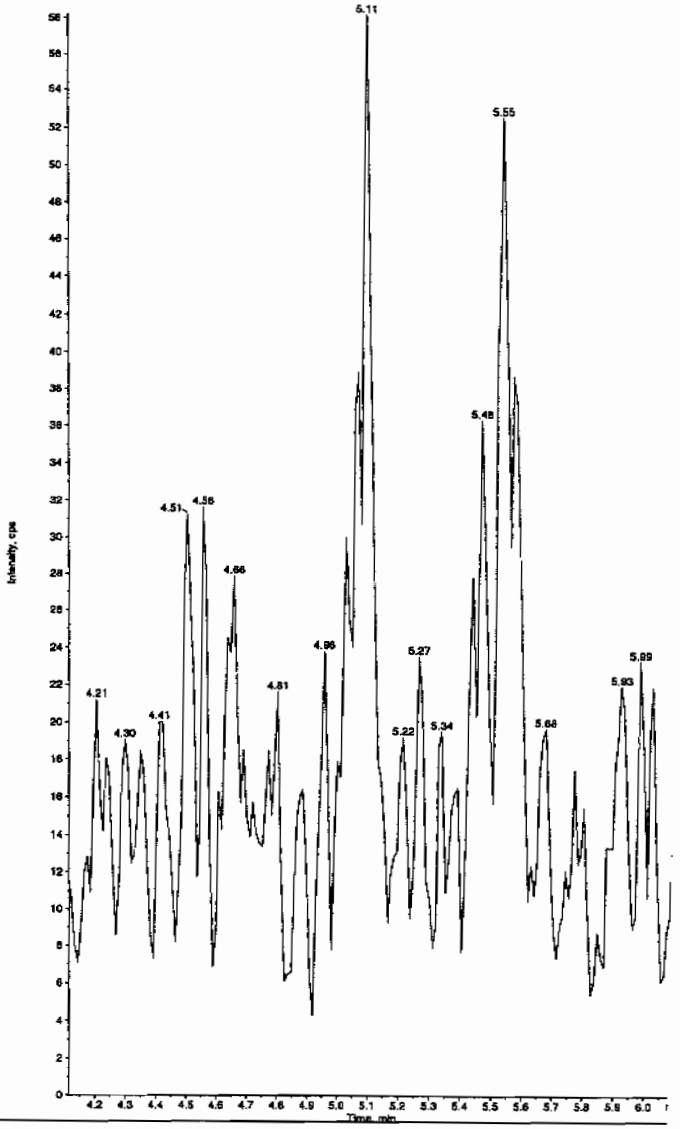

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02260074.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 10:00:38 AM

ed: No

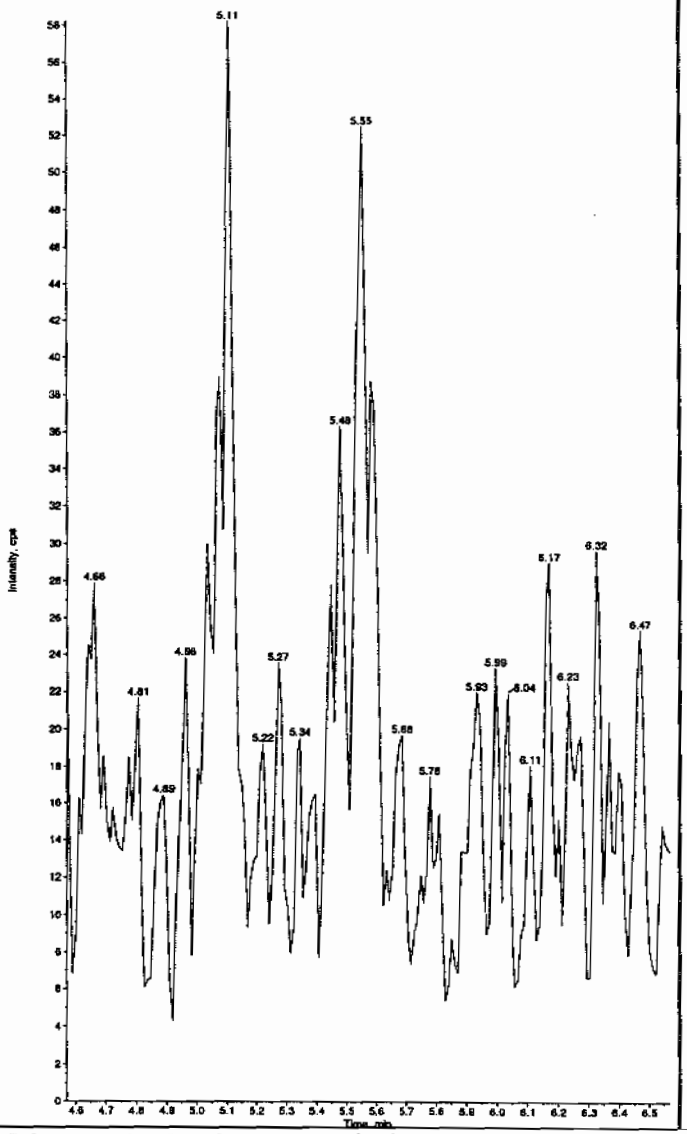

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS02260074.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 10:00:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.92e+004 counts
Height: 10472.759 cps
Start Time: 10.8 min
End Time: 11.2 min

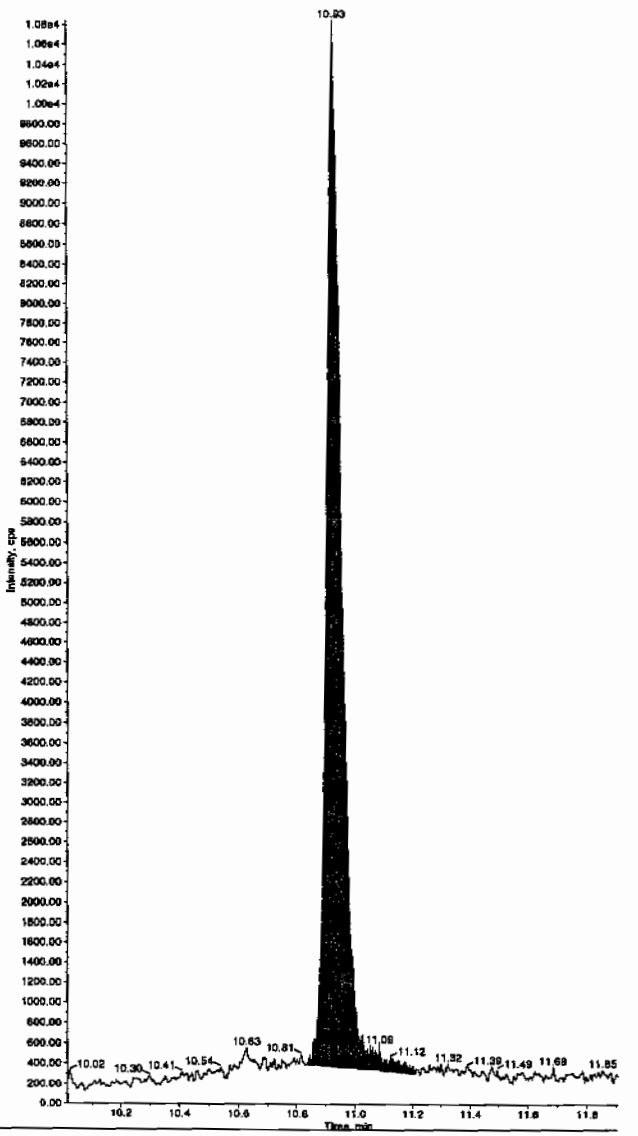

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 27–FEB–10 13:24

GEL Data File: EXS02260087.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 3/1/10

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le Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02260087.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_B" Annotation: ""
: Index: 1
: Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 1:24:47 PM

ied: No

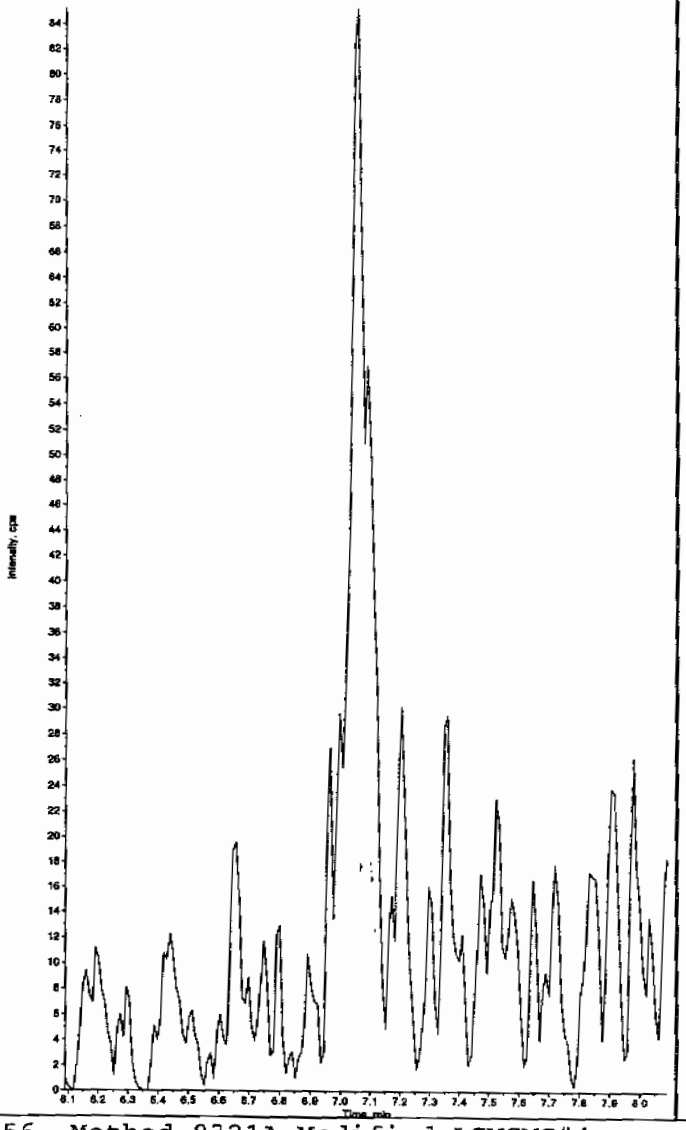

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02260087.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:24:47 PM

Modified: No

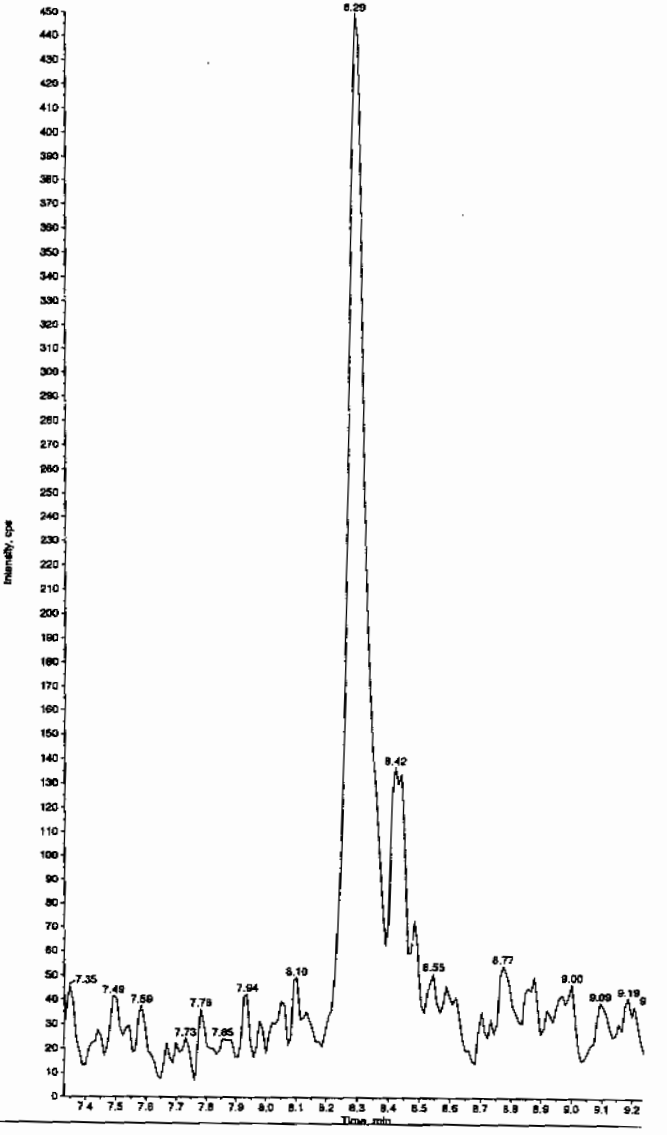

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e Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS02260087.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 1:24:47 PM

ed: No

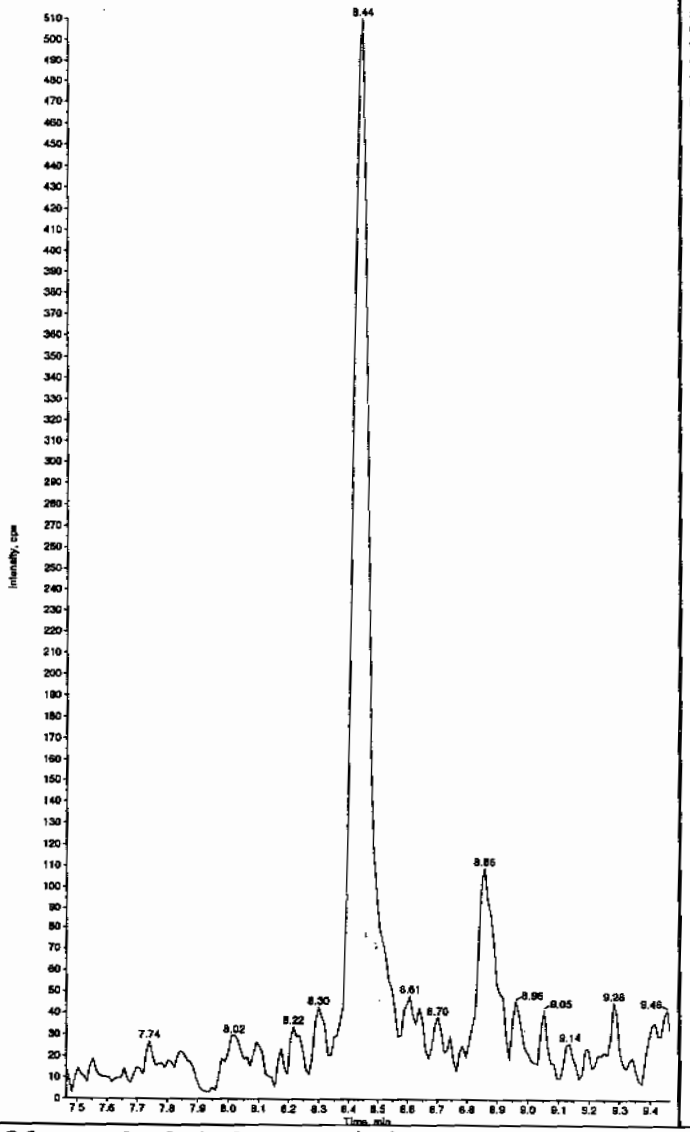

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS02260087.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:24:47 PM

Modified: No

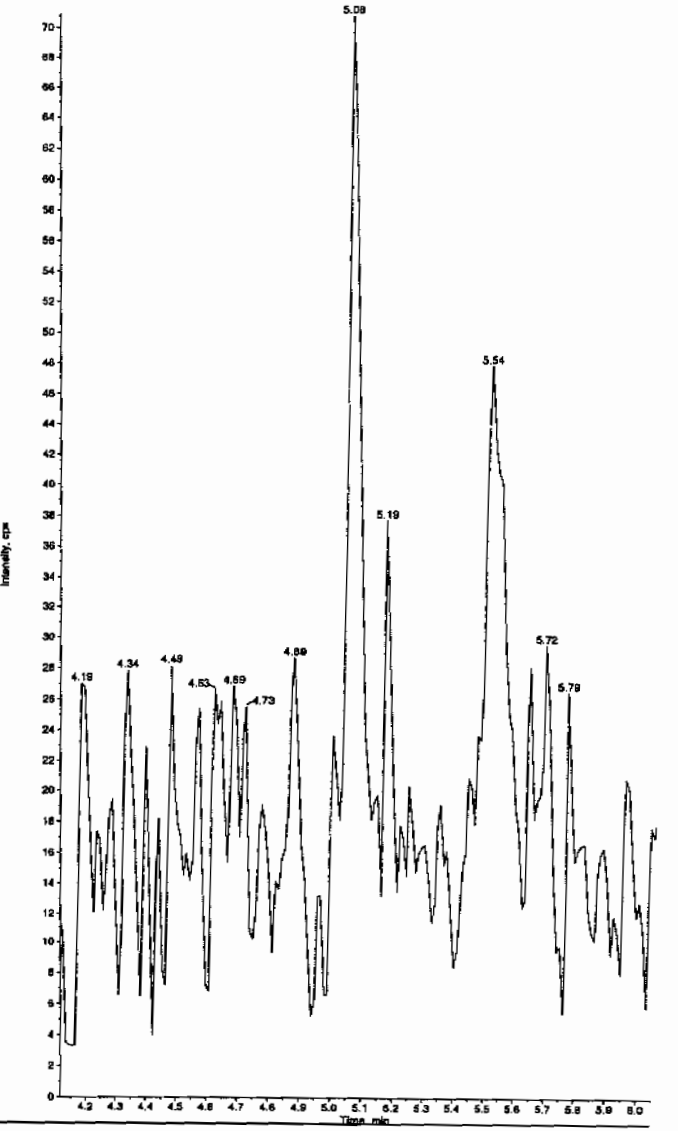

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le Name: "XIBLK10" Sample ID: "1|LER" File: "EXS02260087.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_B" Annotation: ""

: Index: 1
: Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 1:24:47 PM

ied: No

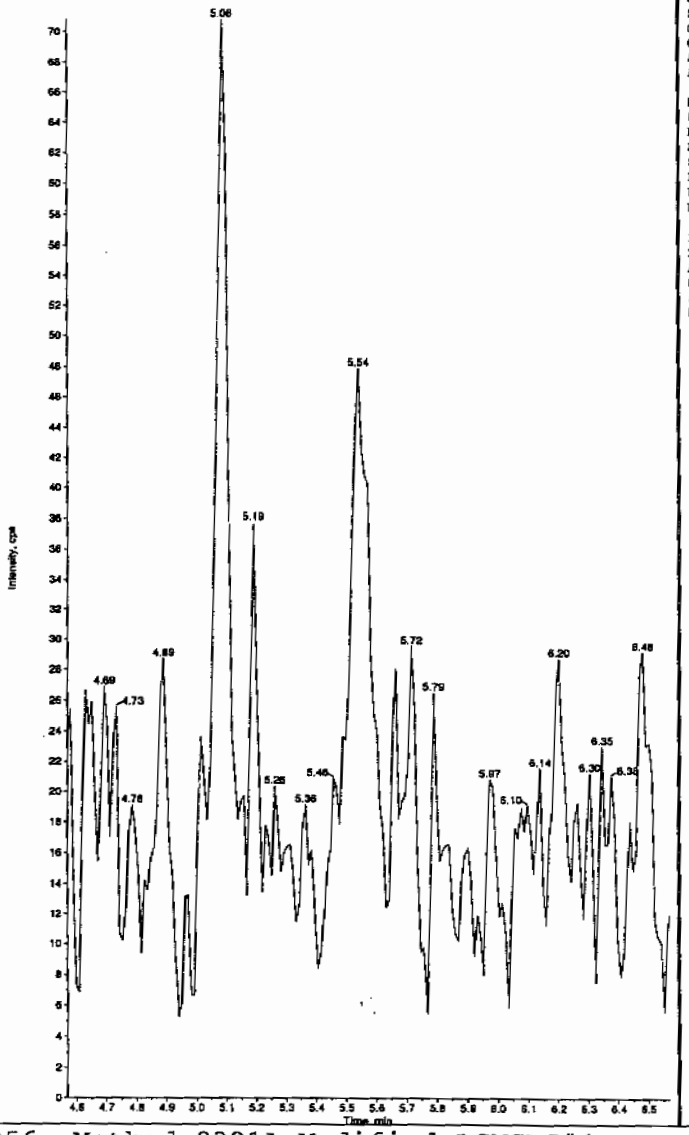

Sample Name: "XIBLK10" Sample ID: "1|LER" File: "EXS02260087.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 1:24:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.23e+004 counts
Height: 11775.695 cps
Start Time: 10.8 min
End Time: 11.1 min

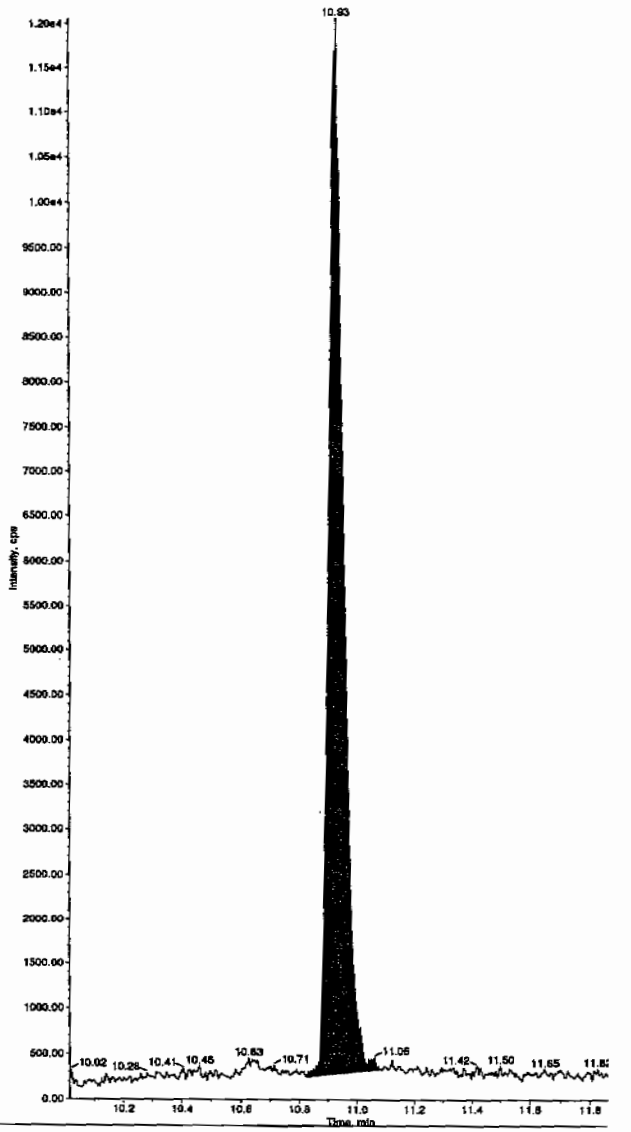

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 27–FEB–10 14:43

GEL Data File: EXS02260092.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Ken 3/1/10

Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02260092.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_B" Annotation: "
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/27/2010
me: 2:43:18 PM
d: No

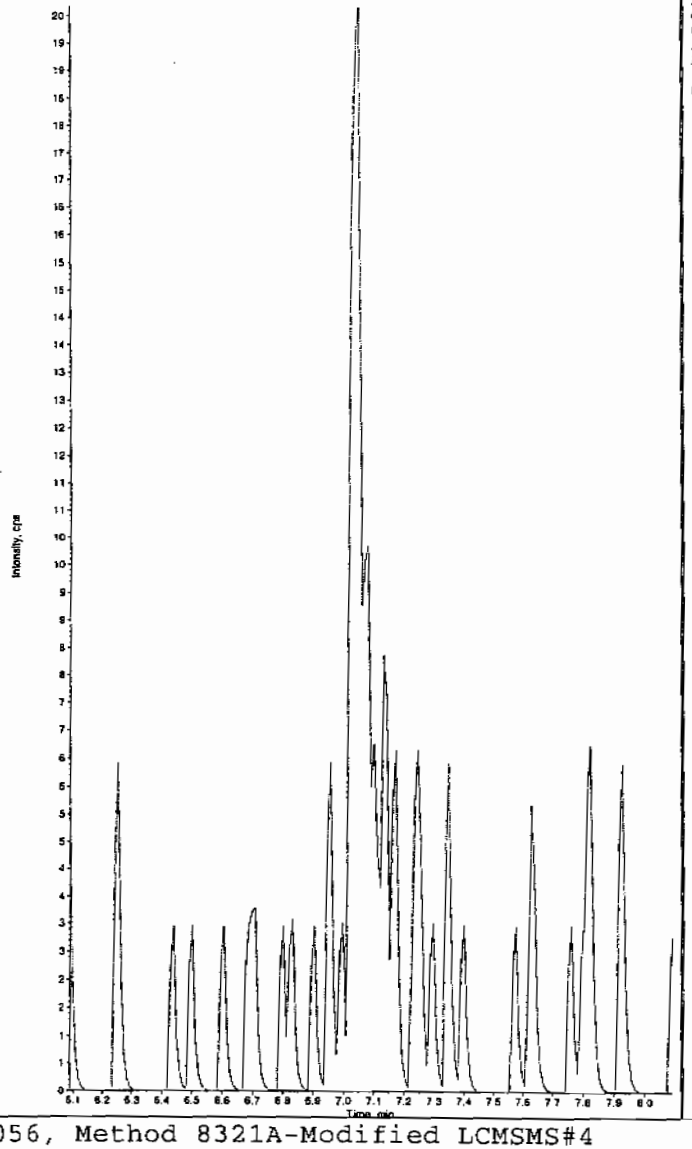

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02260092.wiff"
Peak Name: "35-Dinitroanline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:43:18 PM

Modified: No

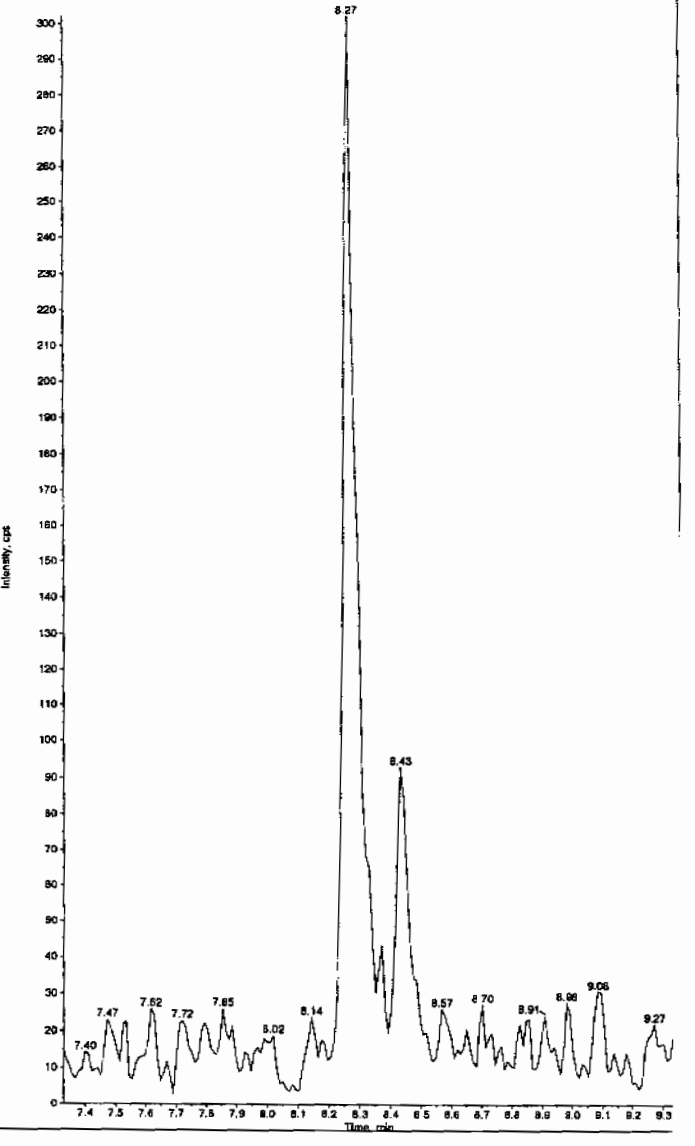

HMM 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02260092.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/27/2010
me: 2:43:18 PM
d: No

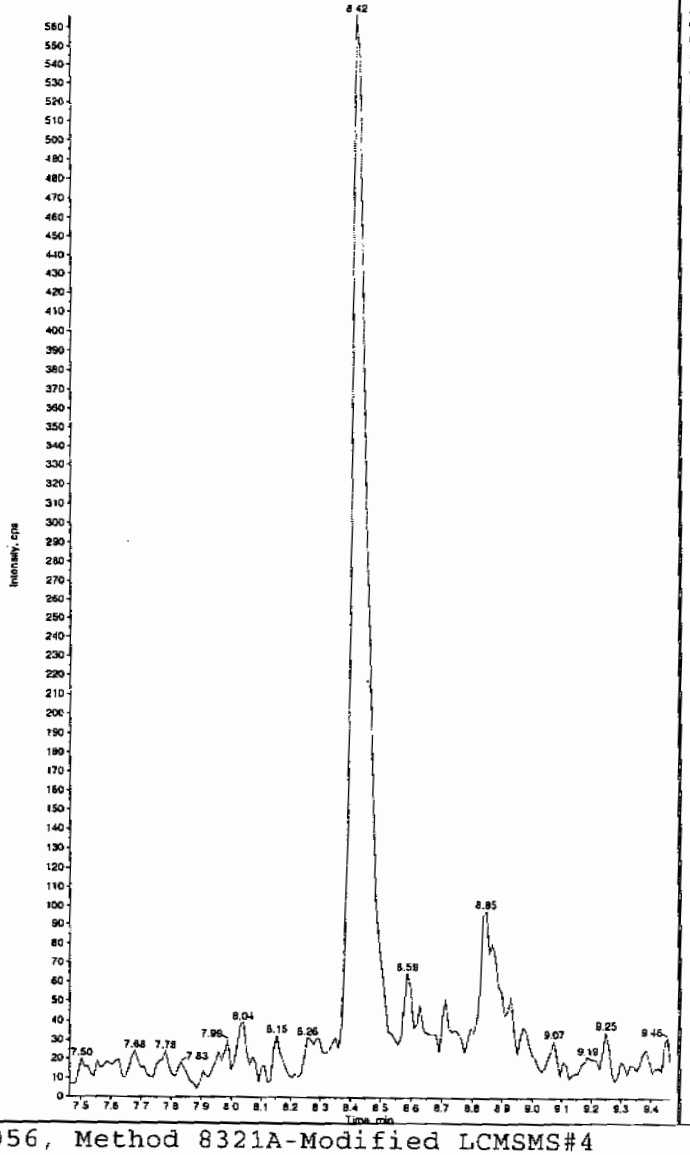

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02260092.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:43:18 PM

Modified: No

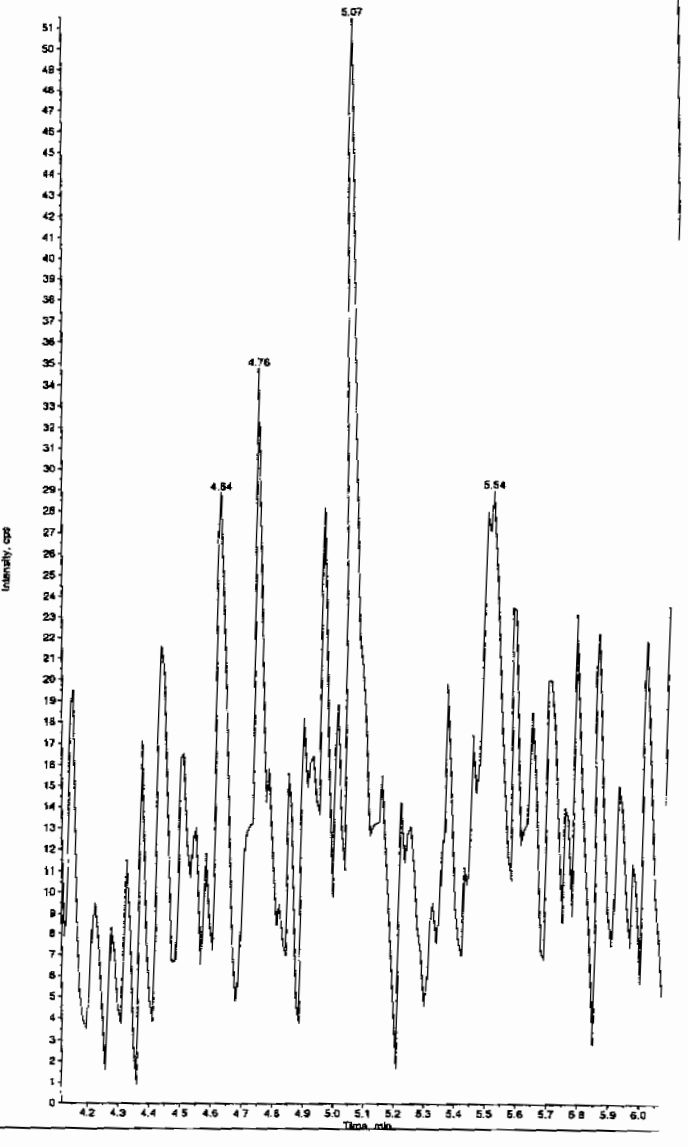

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02260092.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/27/2010
me: 2:43:18 PM
d: No

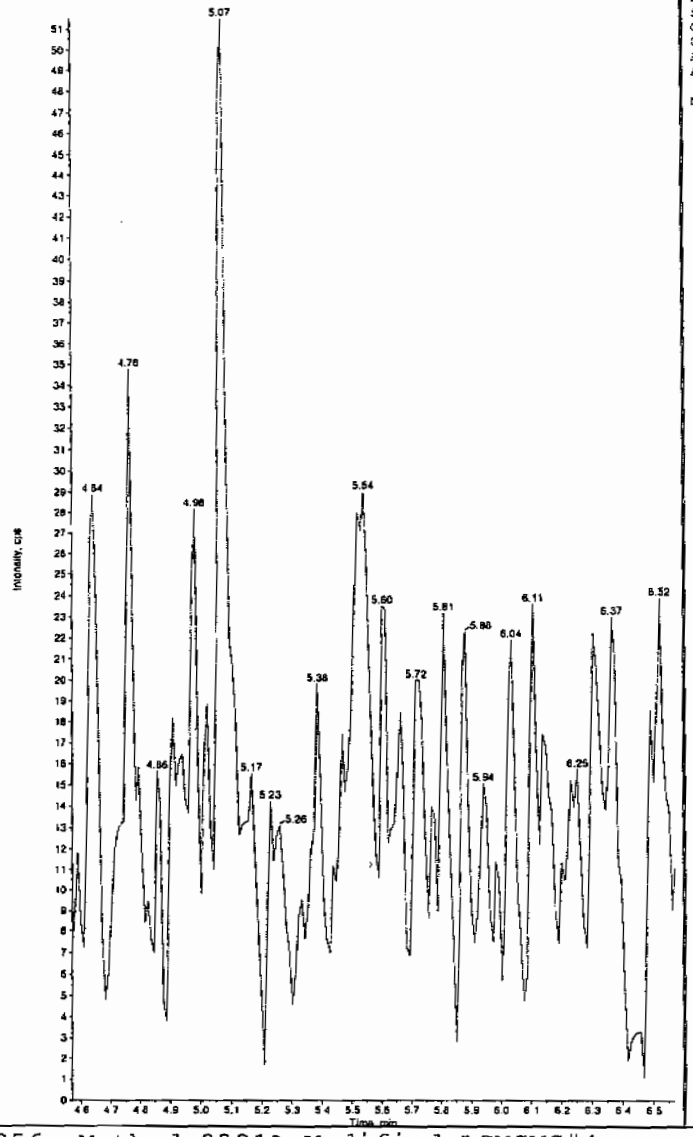

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02260092.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:43:18 PM

Modified: No

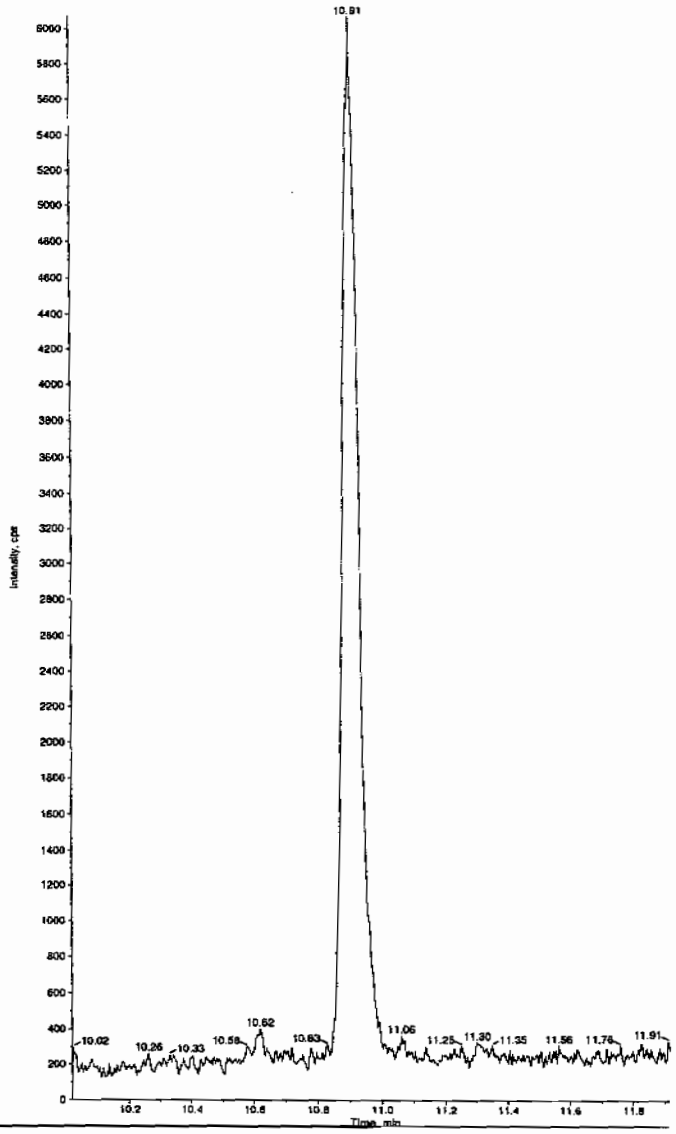

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 27–FEB–10 16:48

GEL Data File: EXS02260100.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ran 3/1/10

e Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS02260100.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 4:48:50 PM

ed: No

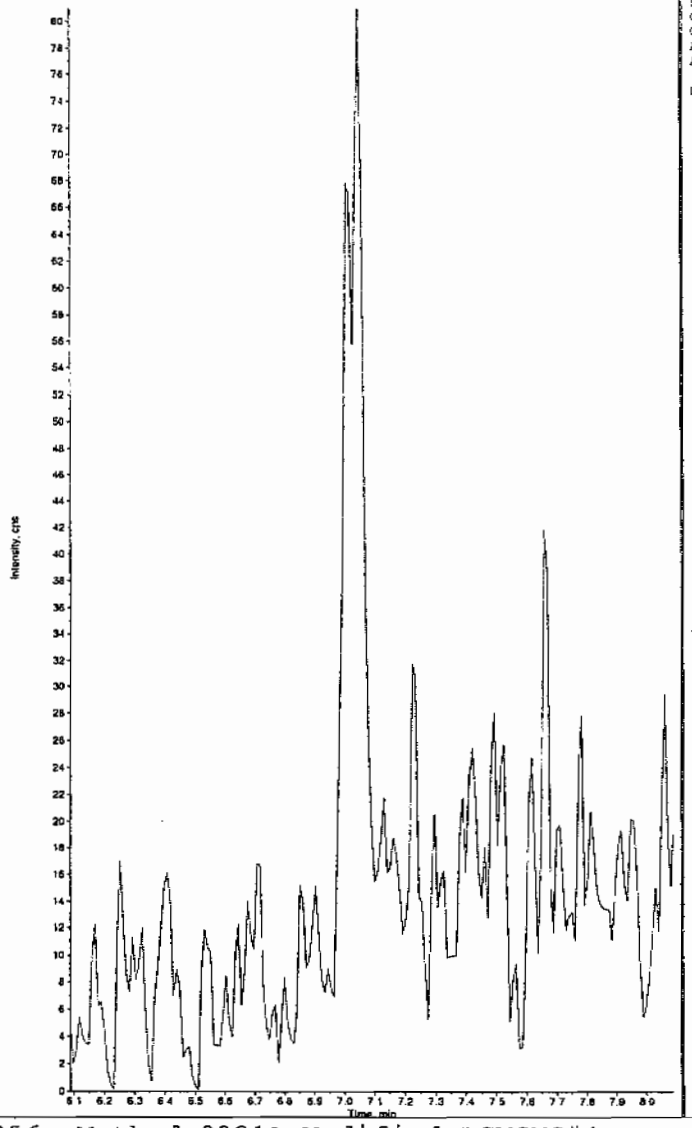

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS02260100.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:48:50 PM

Modified: No

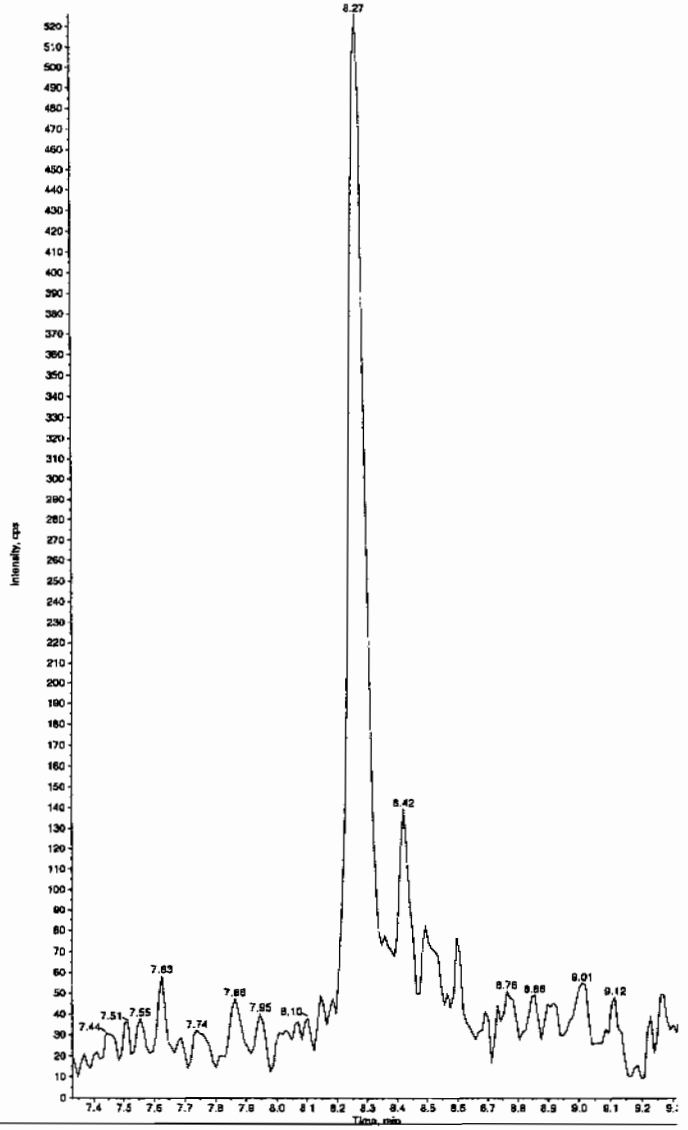

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02260100.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 4:48:50 PM
ed: No

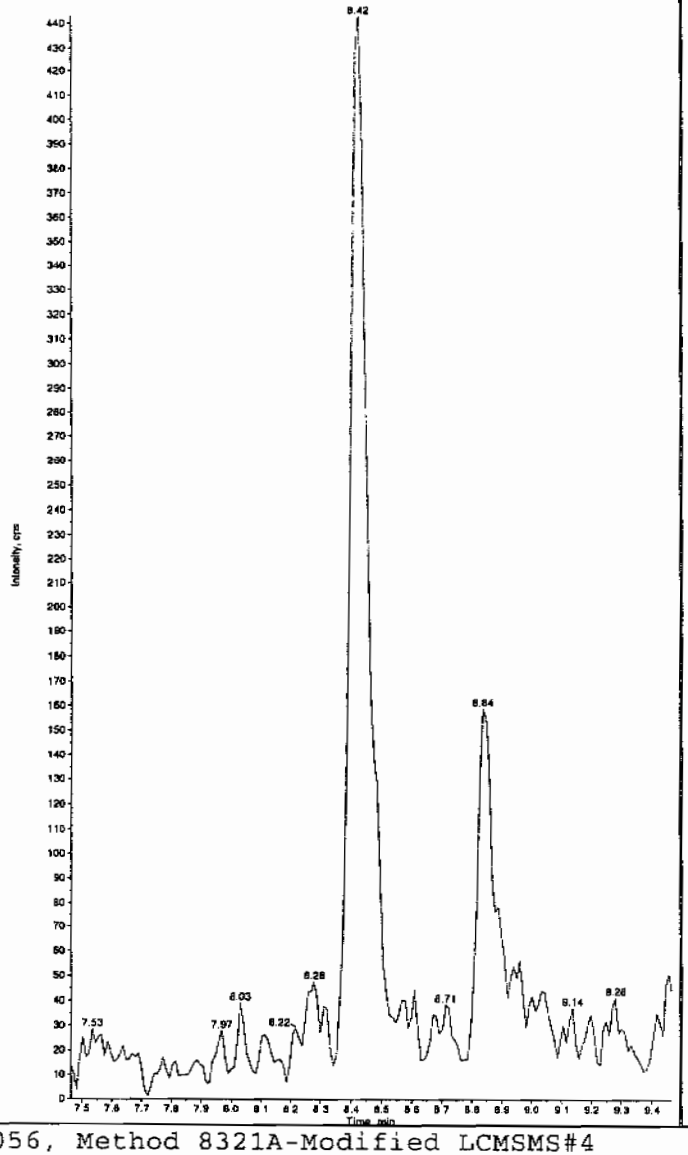

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02260100.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:48:50 PM

Modified: No

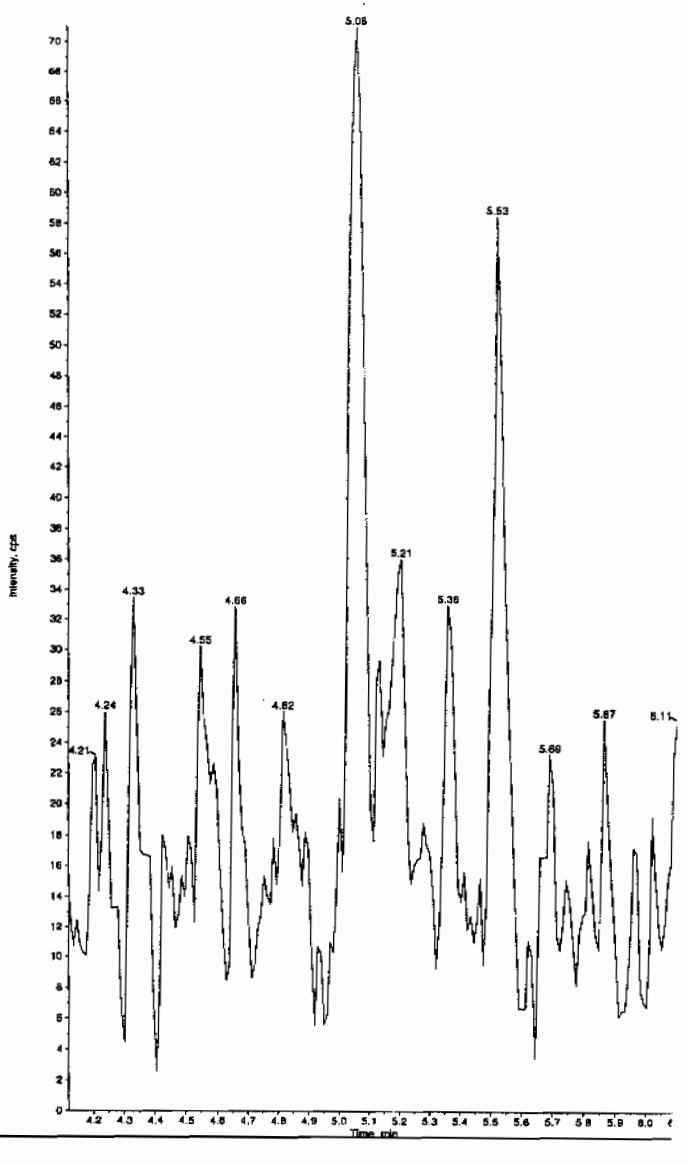

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: Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02260100.wiff"
lame: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 4:48:50 PM
ed: No

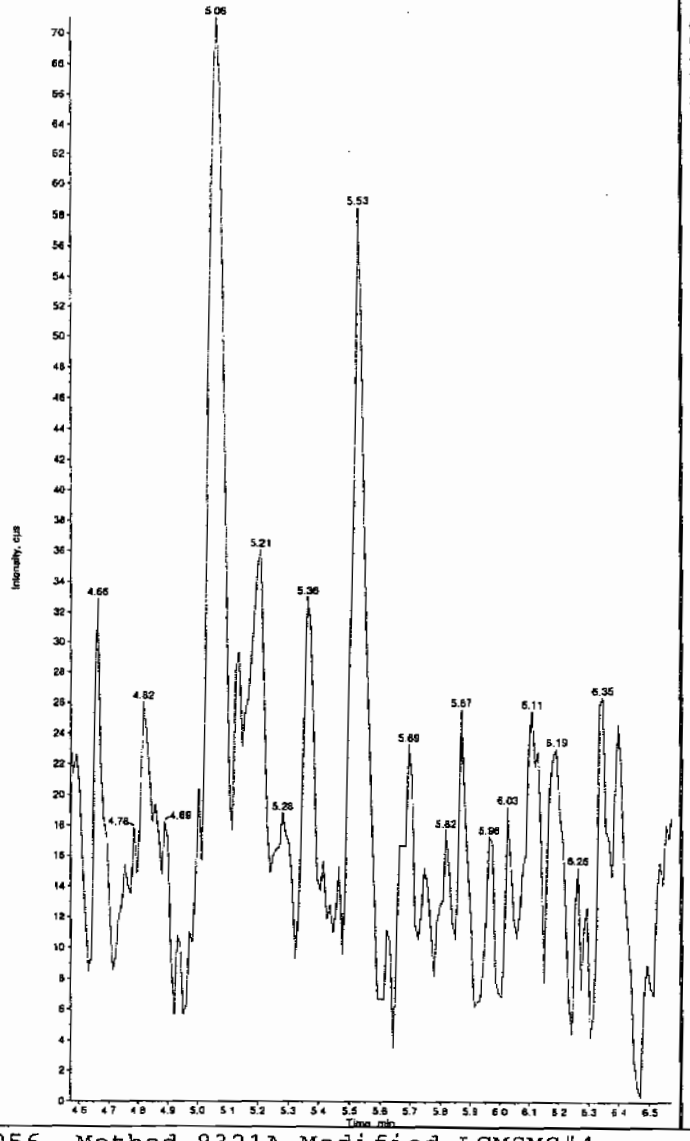

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02260100.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	2/27/2010	
Acq. Time:	4:48:50 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	4.91e+004	counts
Height:	13420.494	cps
Start Time:	10.8	min
End Time:	11.1	min

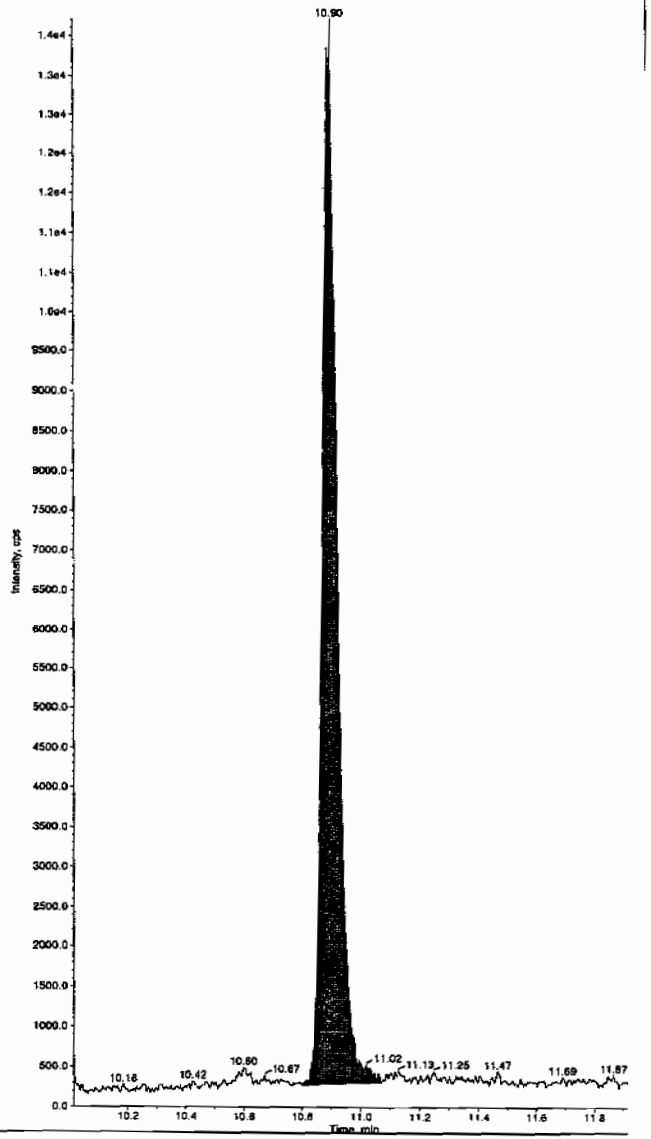

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 27–FEB–10 20:12

GEL Data File: EXS02260113.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0

Scan 3/1/10

e Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02260113.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 8:12:54 PM

ed: No

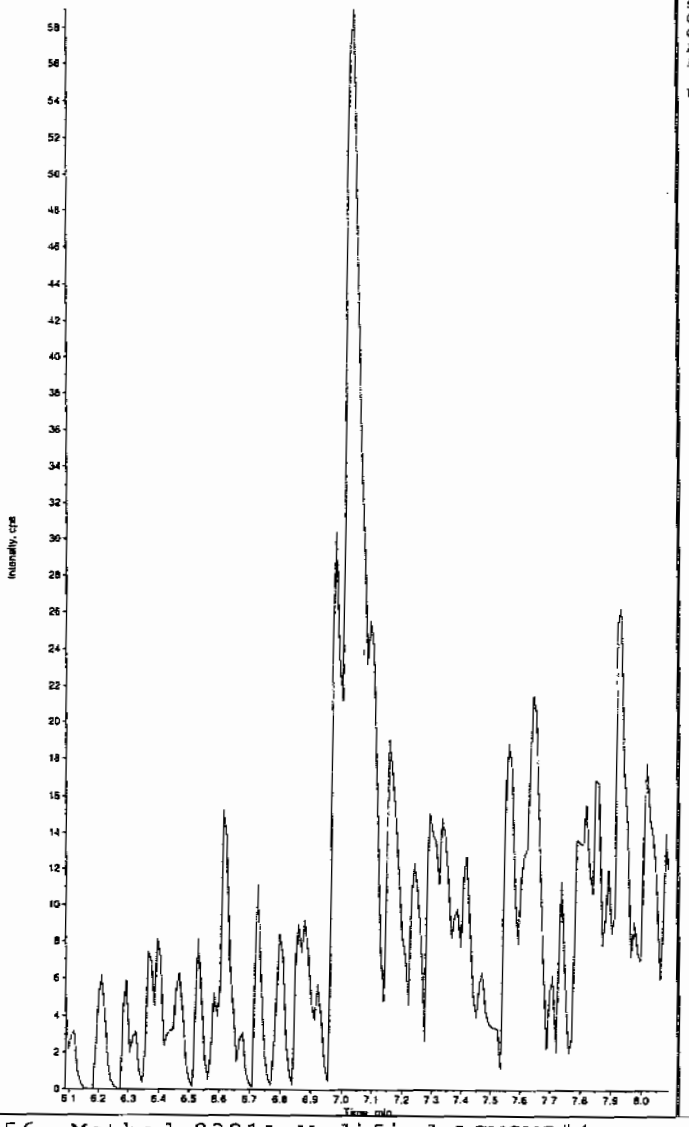

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02260113.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:12:54 PM

Modified: No

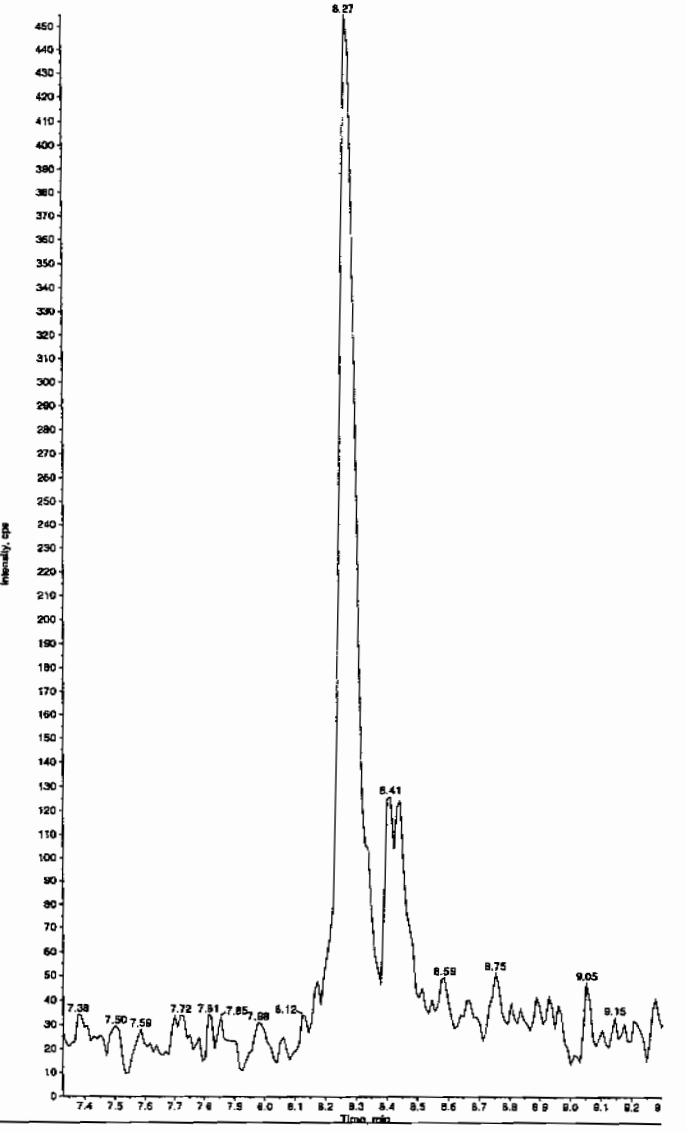

Hum 03/01/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02260113.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
int: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 2/27/2010
me: 8:12:54 PM
d: No

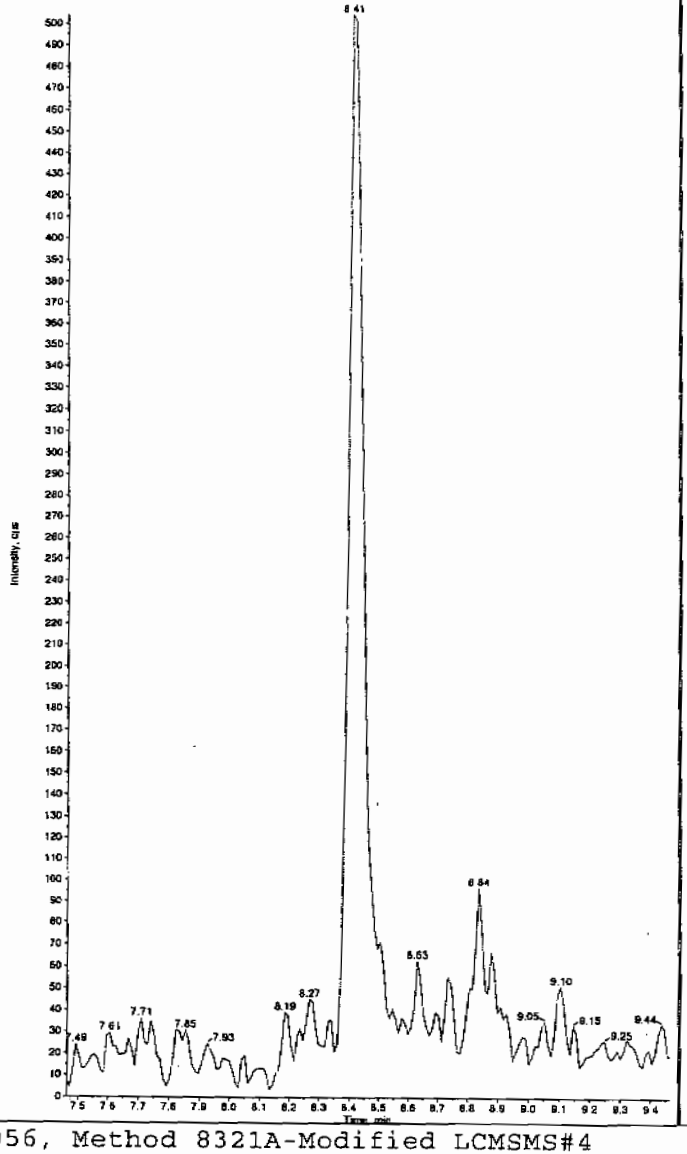

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02260113.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:12:54 PM

Modified: No

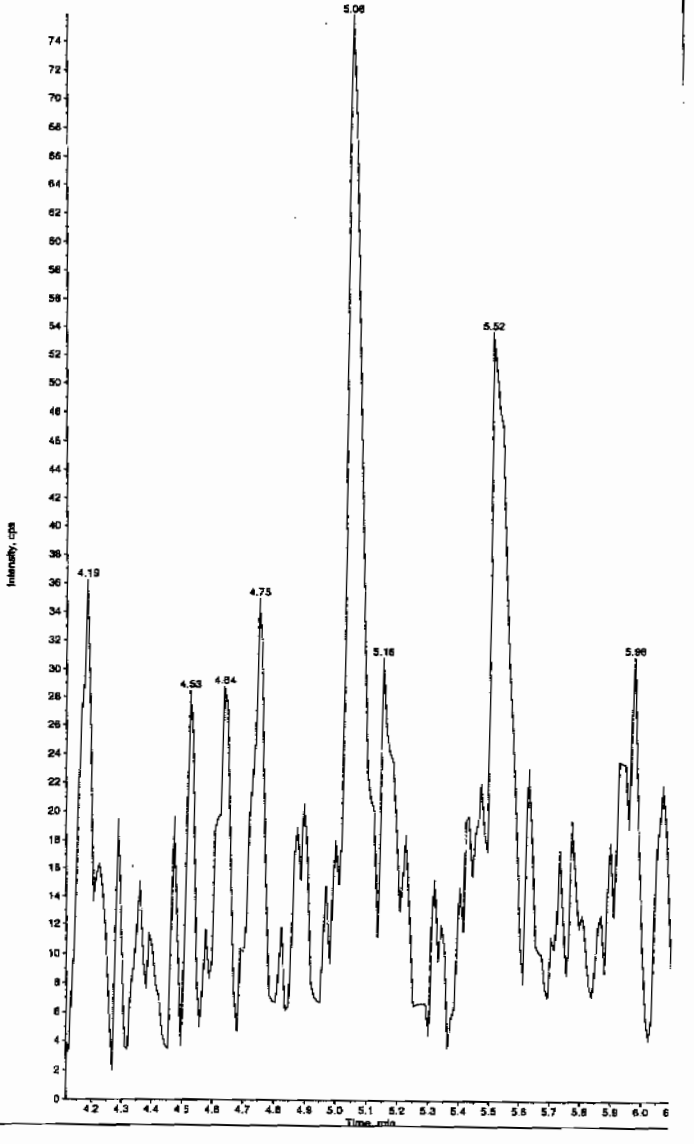

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e Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02260113.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ant: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
aced Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 8:12:54 PM
ed: No

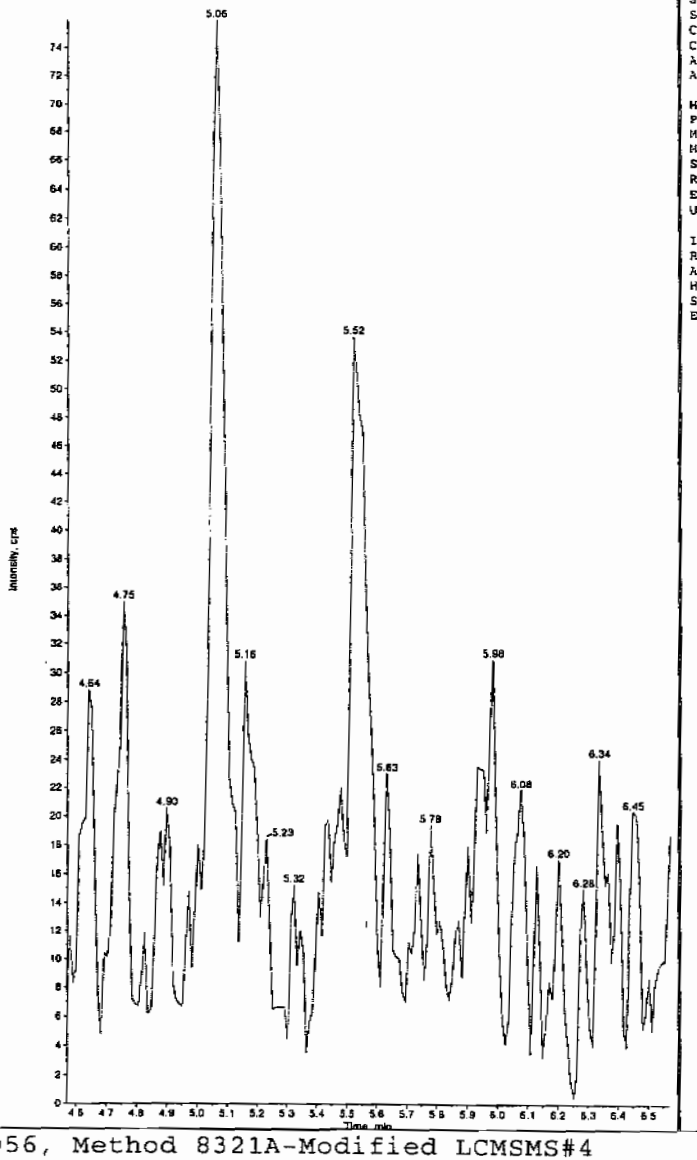

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02260113.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 8:12:54 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.52e+004 counts
Height: 13067.869 cps
Start Time: 10.8 min
End Time: 11.1 min

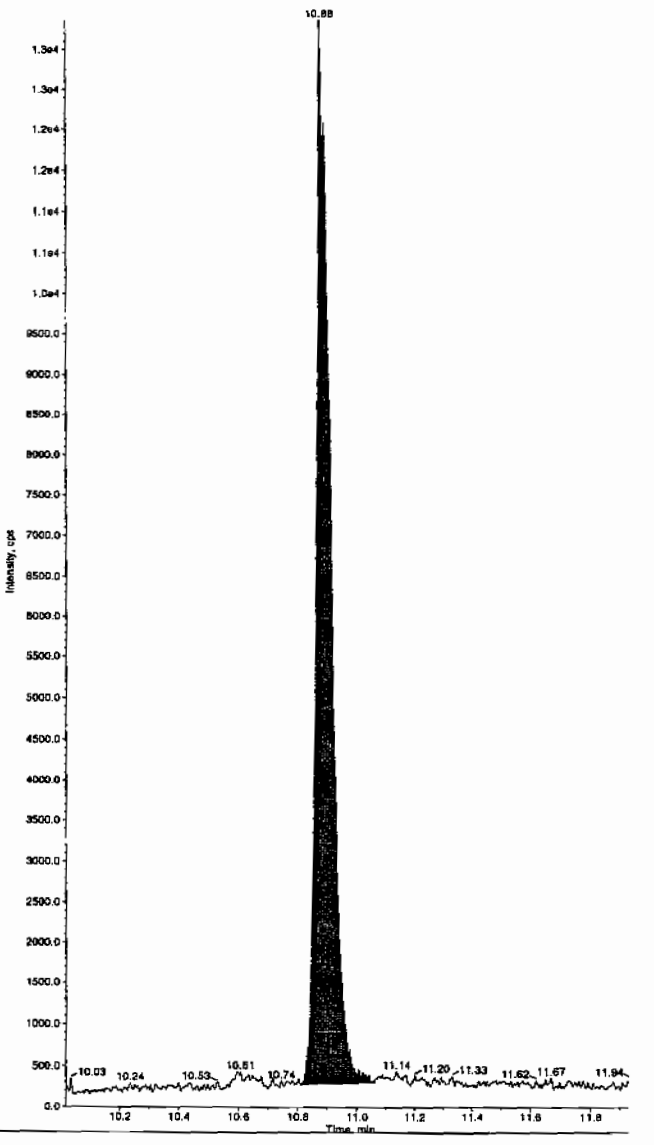

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1544

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 27–FEB–10 23:05

GEL Data File: EXS02260124.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 3/1/10

le Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02260124.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 11:05:34 PM
ed: No

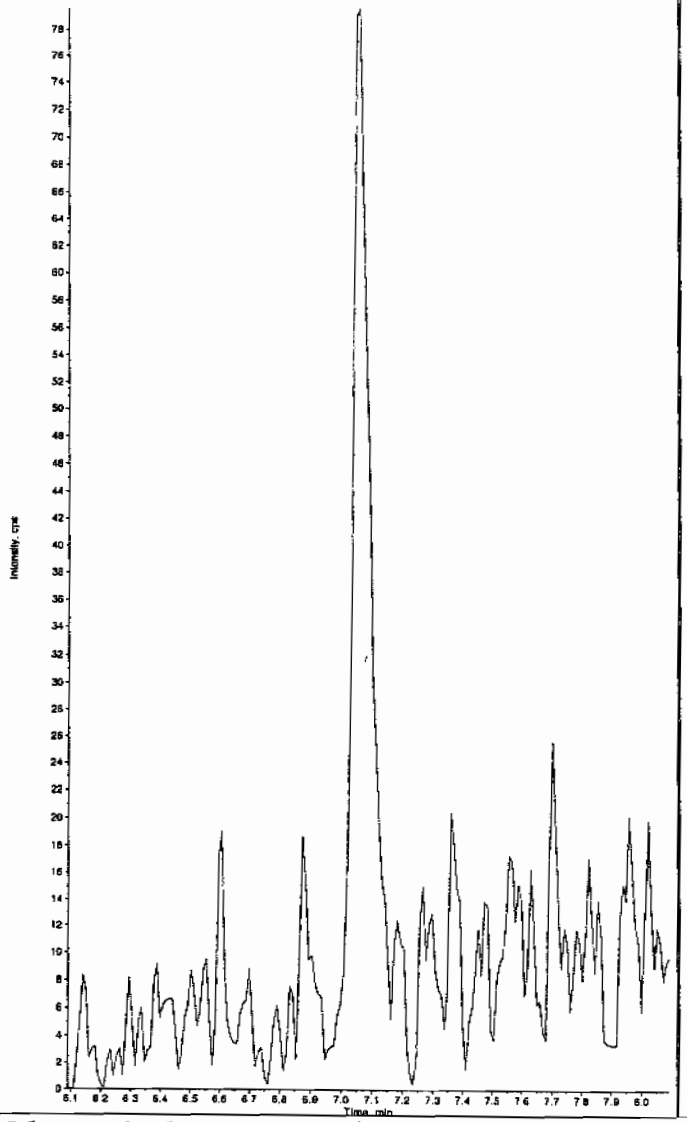

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02260124.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:05:34 PM
Modified: No

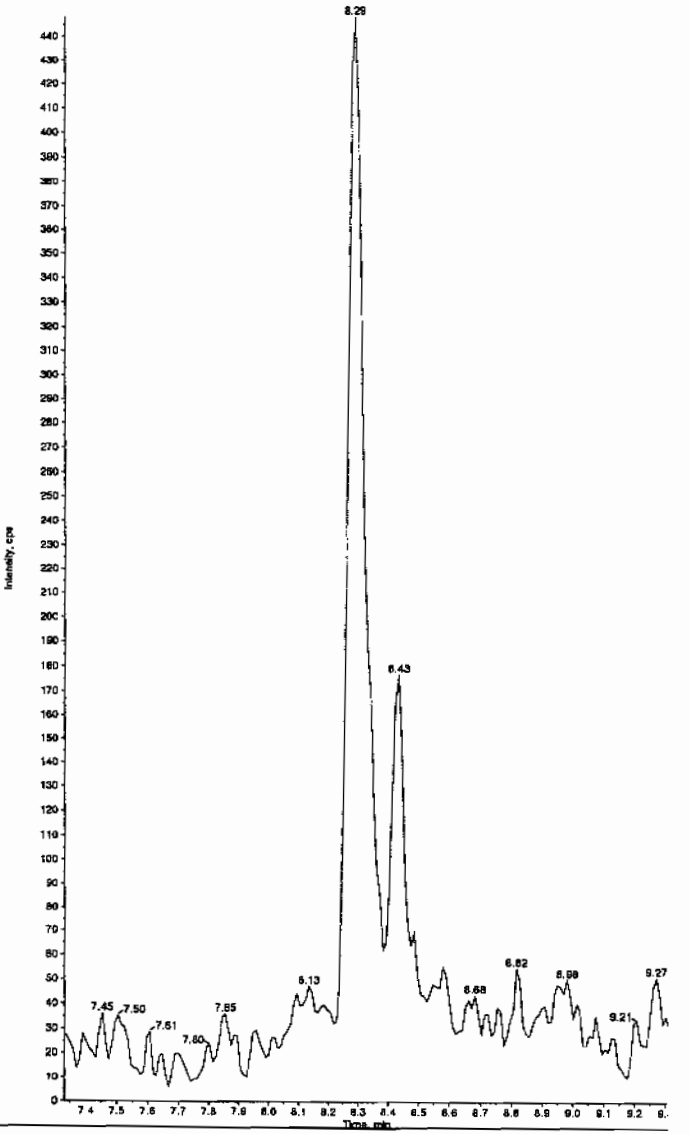

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02260124.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 2/27/2010
ime: 11:05:34 PM

ed: No

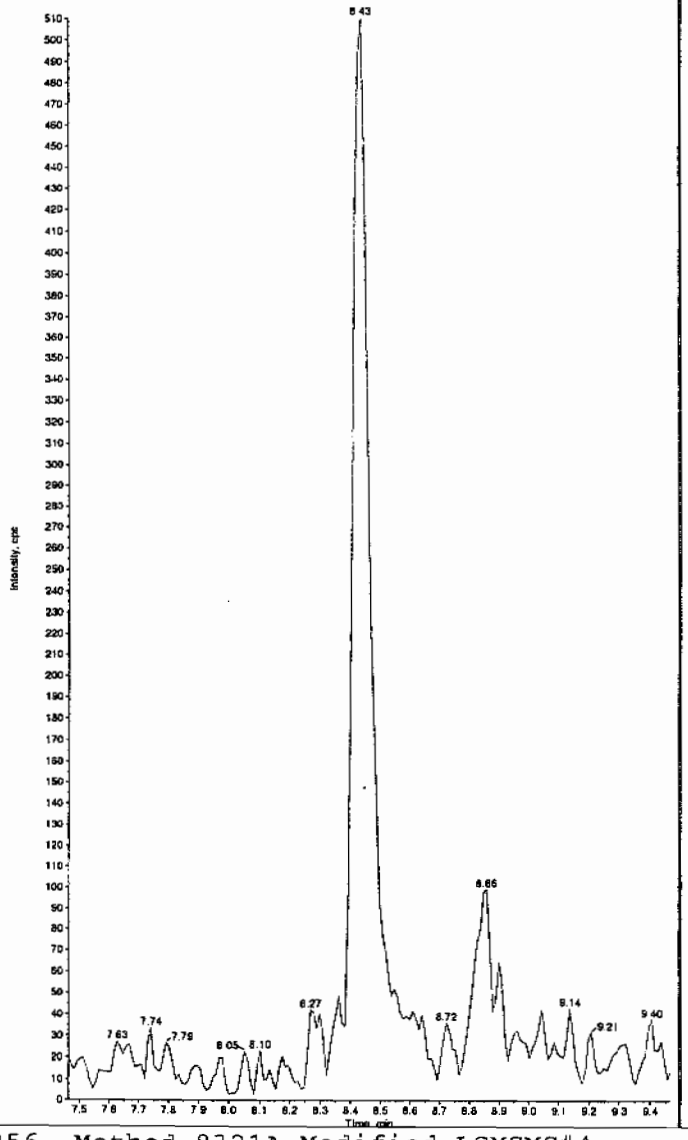

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02260124.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:05:34 PM

Modified: No

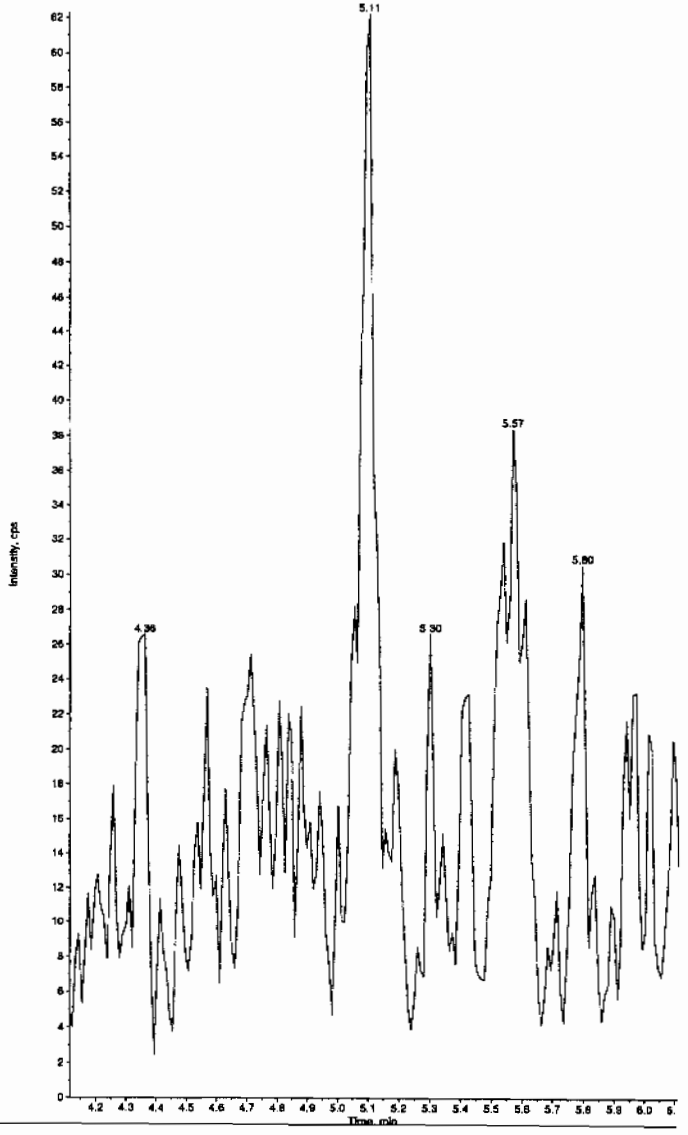

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02260124.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
ment: "LCMSEXP_B" Annotation: ""

e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 11:05:34 PM
ied: No

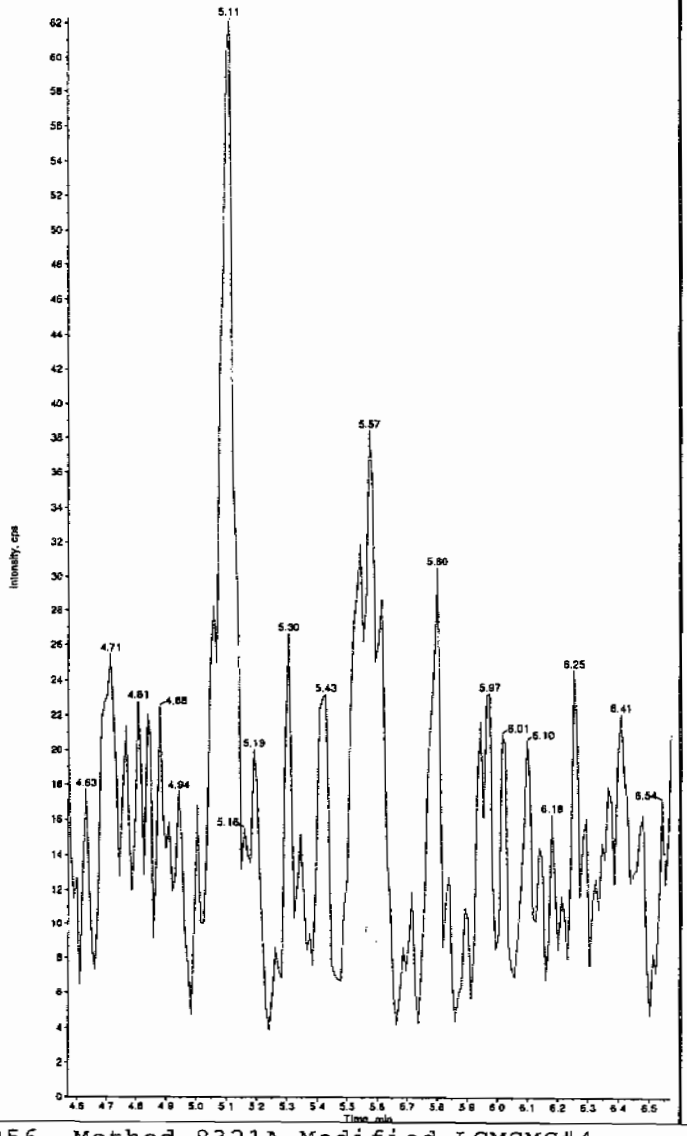

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02260124.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 11:05:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.08e+004 counts
Height: 14733.544 cps
Start Time: 10.8 min
End Time: 11.0 min

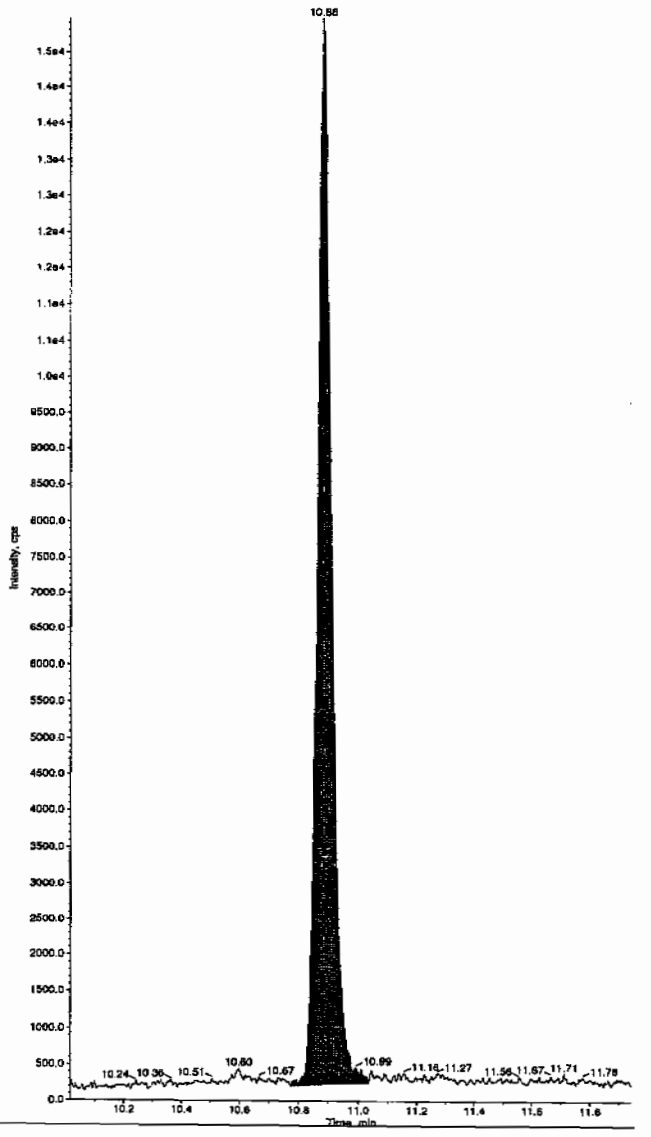

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

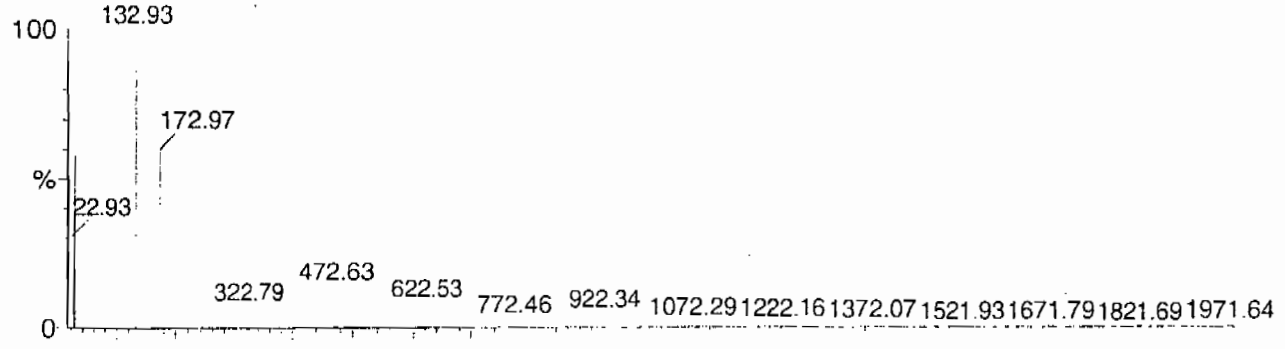

Reference file: Naics2

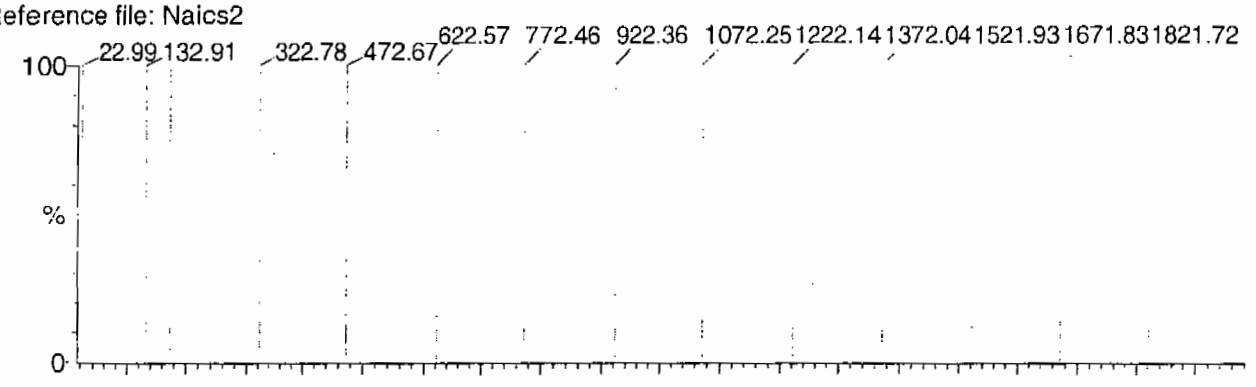

Mass difference (Raw - Ref mass)

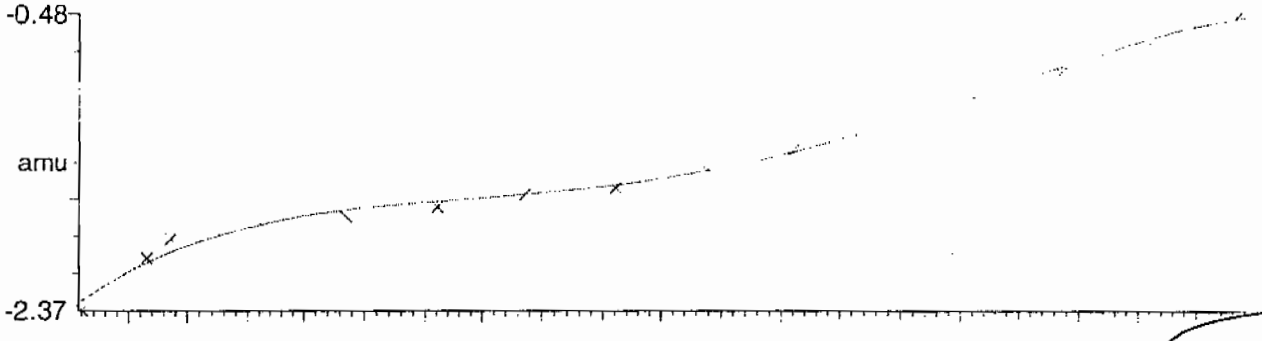

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

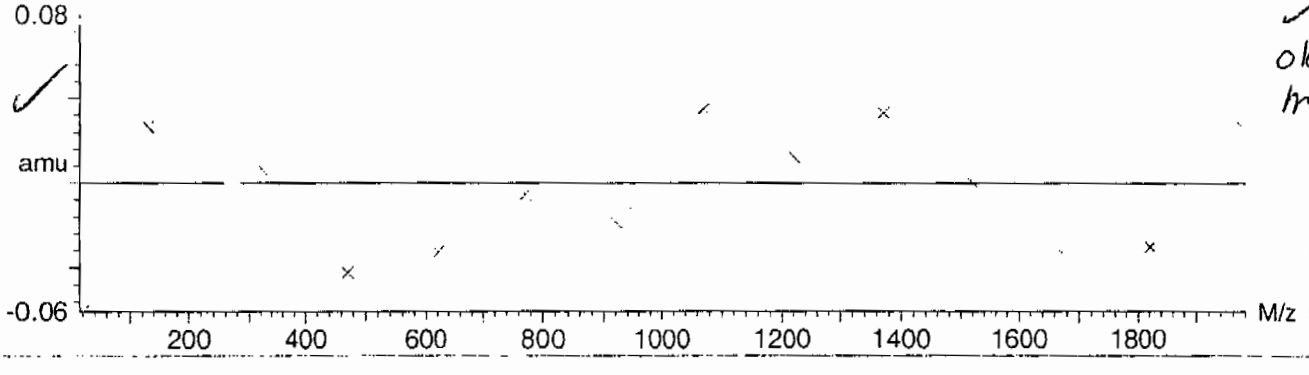

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

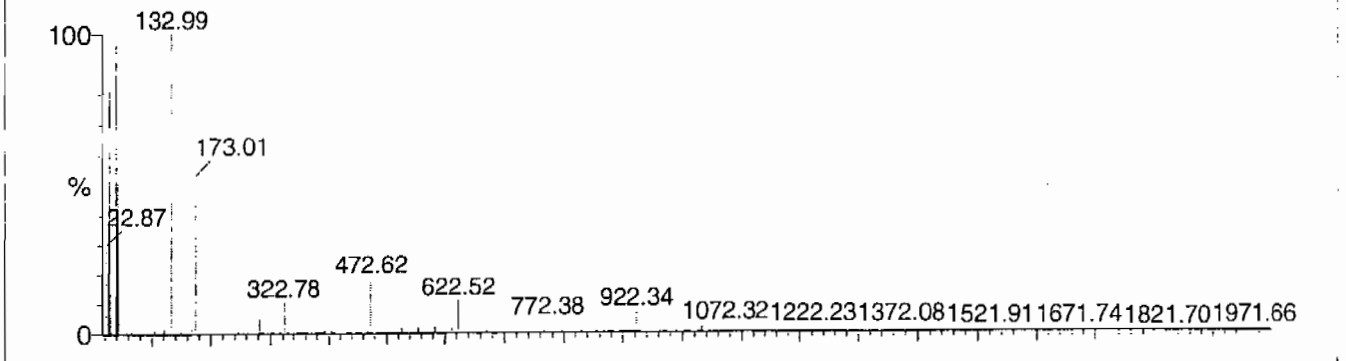

Reference file: Naics2

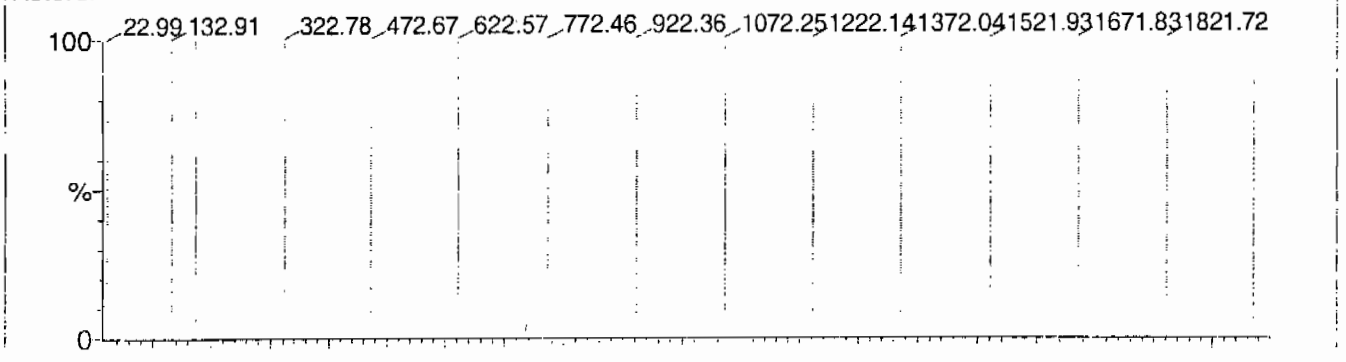

Mass difference (Raw - Ref mass)

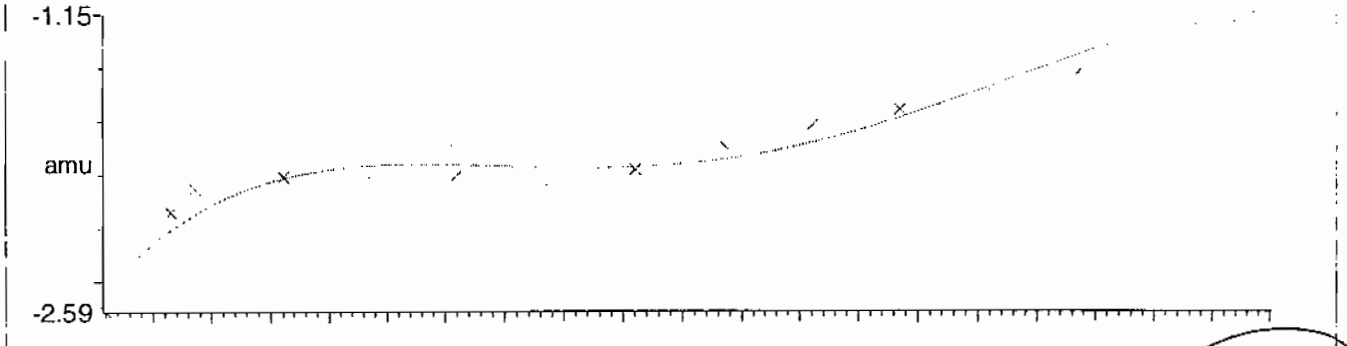

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

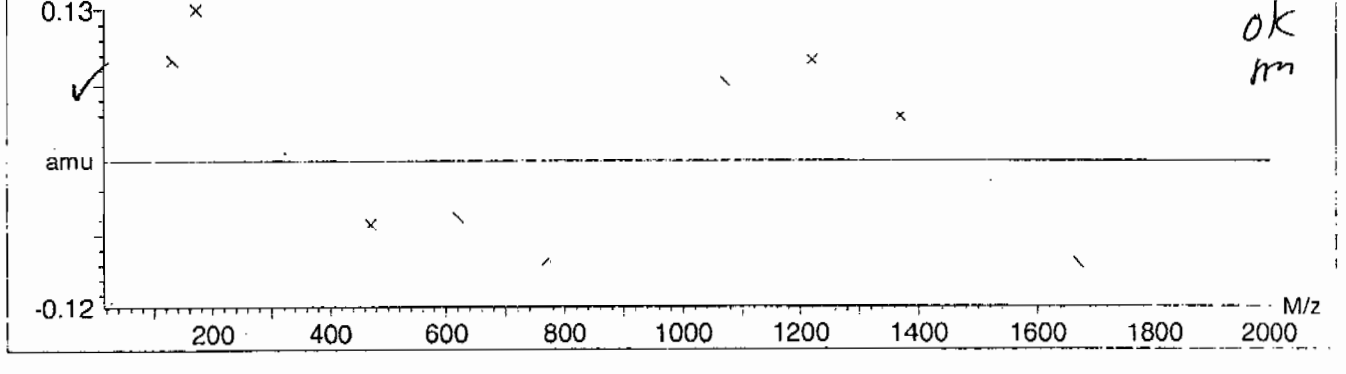

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

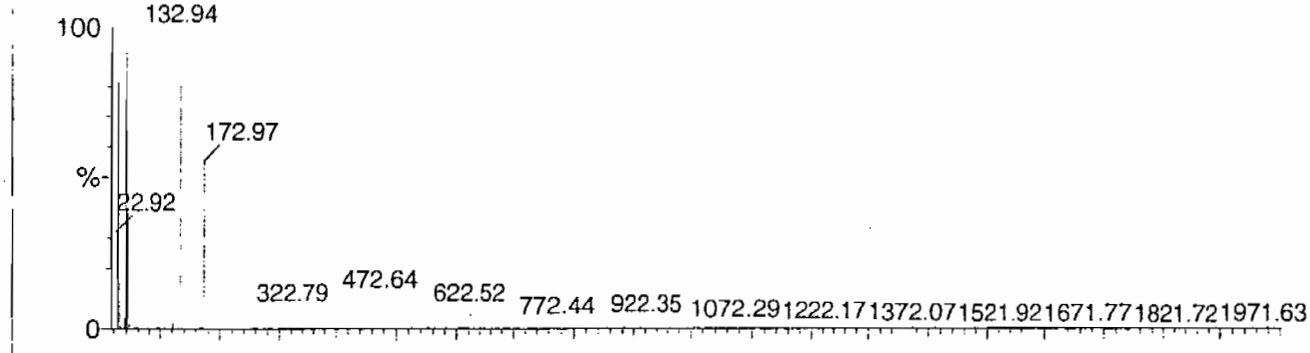

Reference file: Naics2

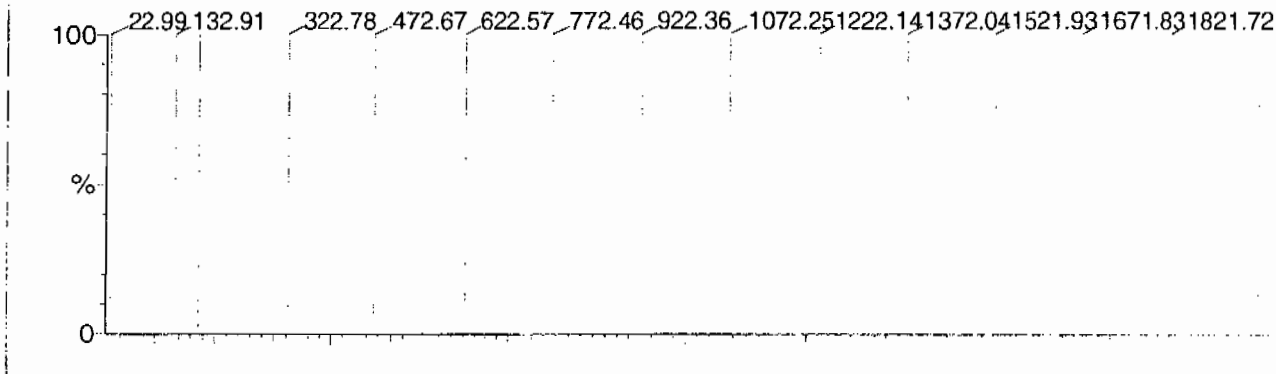

Mass difference (Raw - Ref mass)

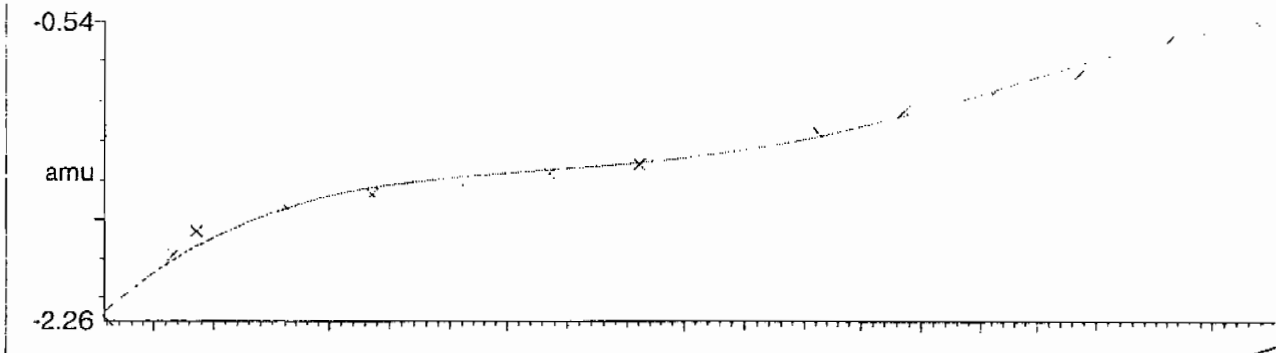

Residuals

Mean residual = 3.486639e-9 ± 0.040487

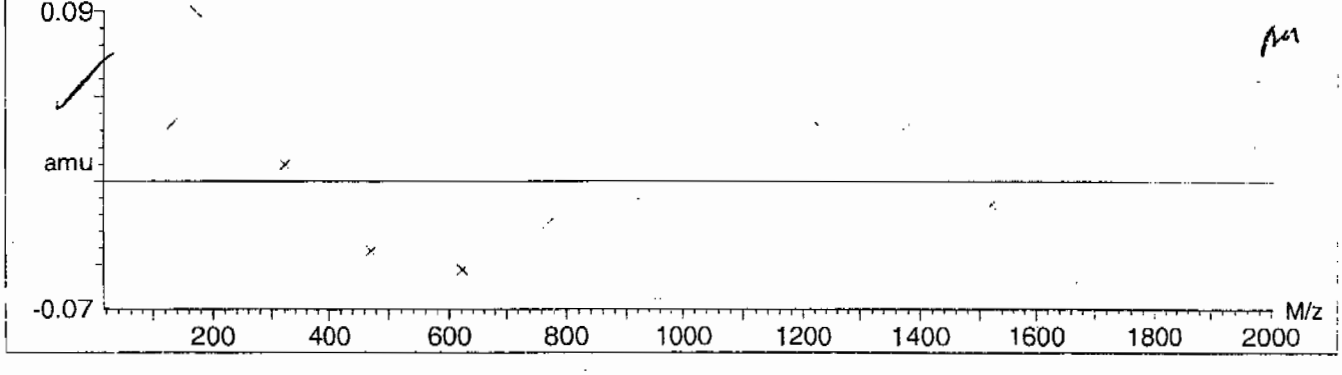

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

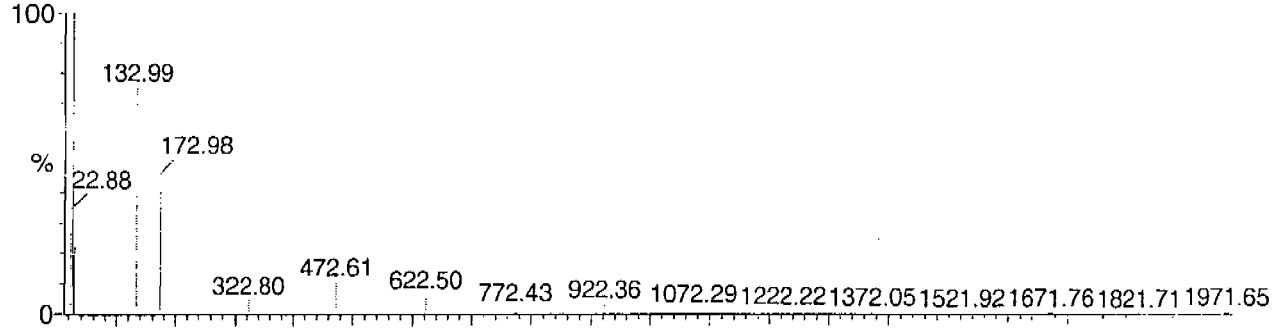

Reference file: Naics2

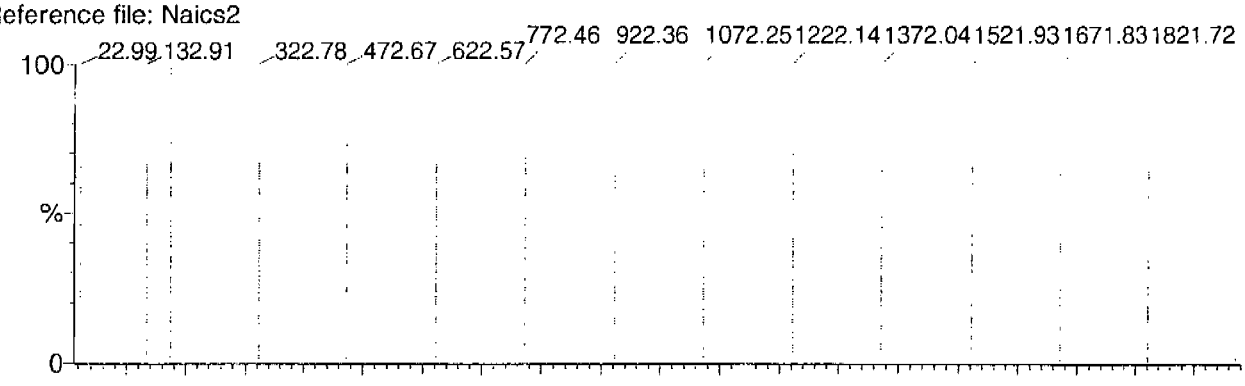

Mass difference (Raw - Ref mass)

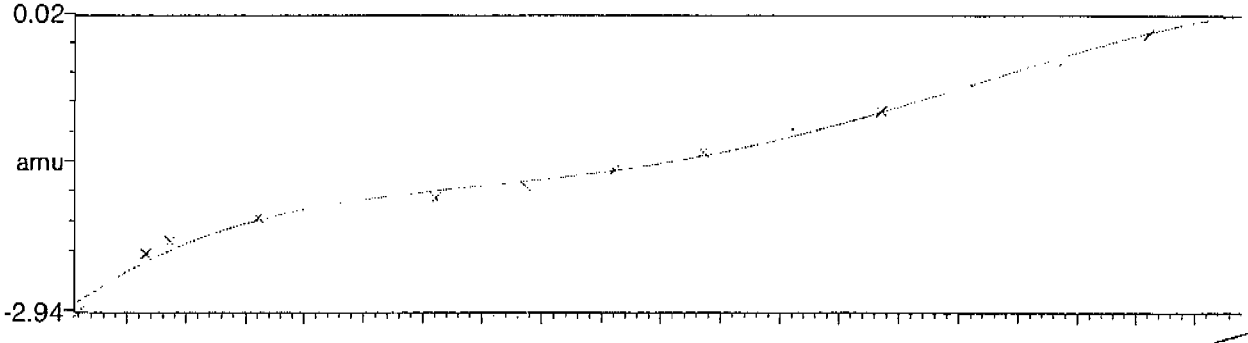

Residuals

Mean residual = 2.048910e-9 ± 0.057803

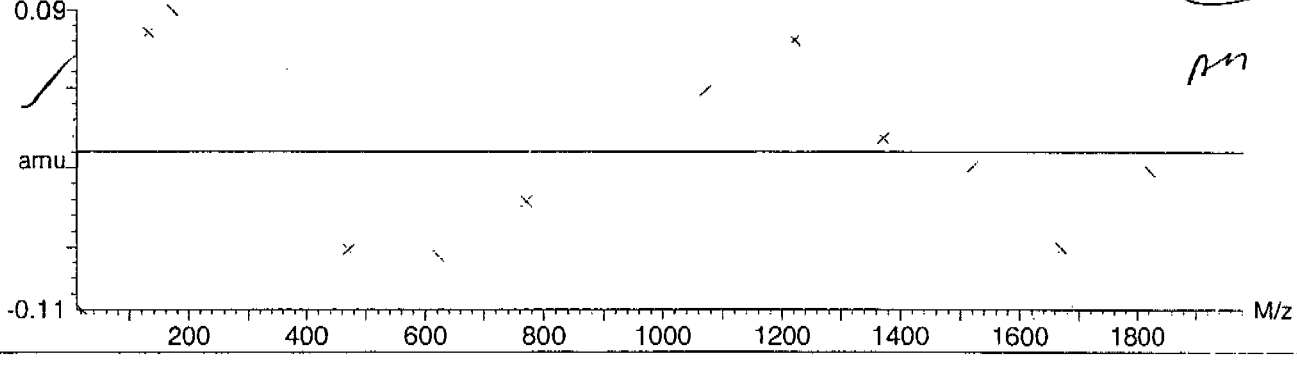

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated 14 matches of 15 tested references

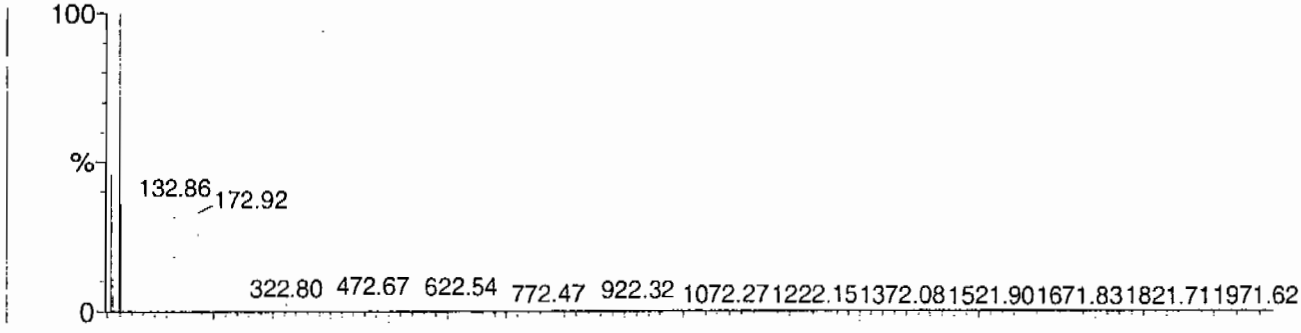

Reference file: Naics2

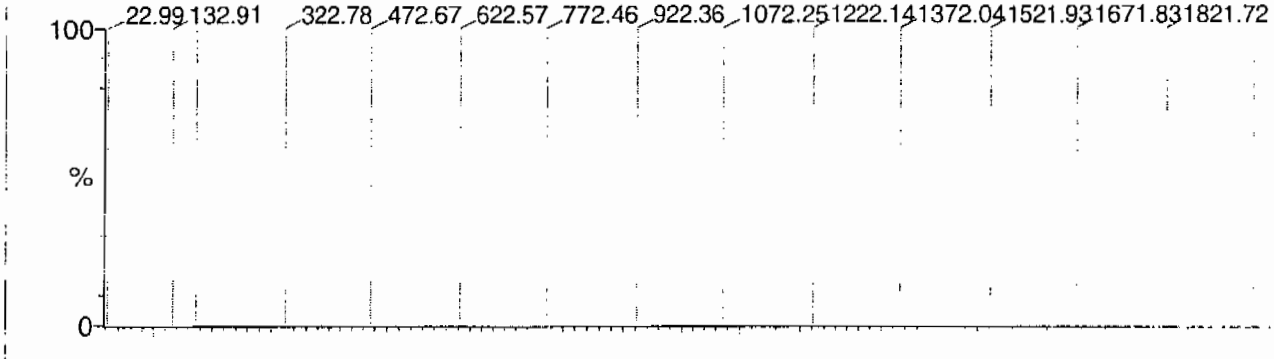

Mass difference (Raw - Ref mass)

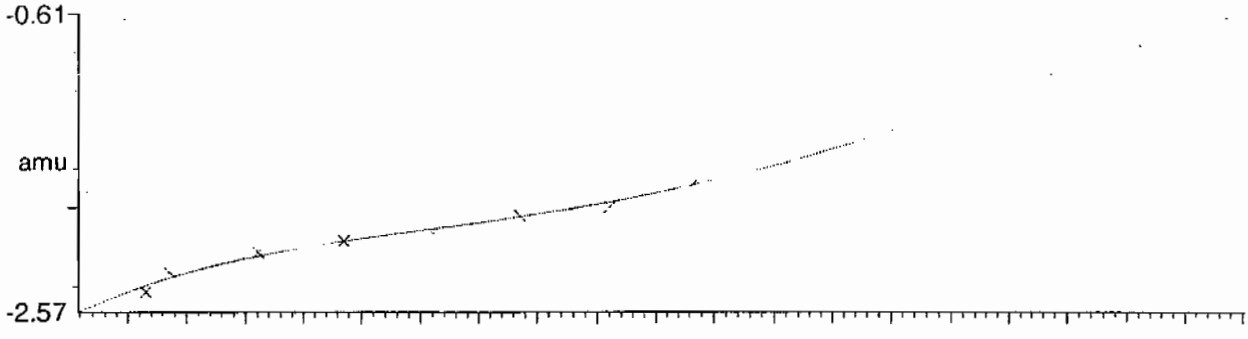

Residuals Mean residual = -2.623502e-9 ± 0.025622

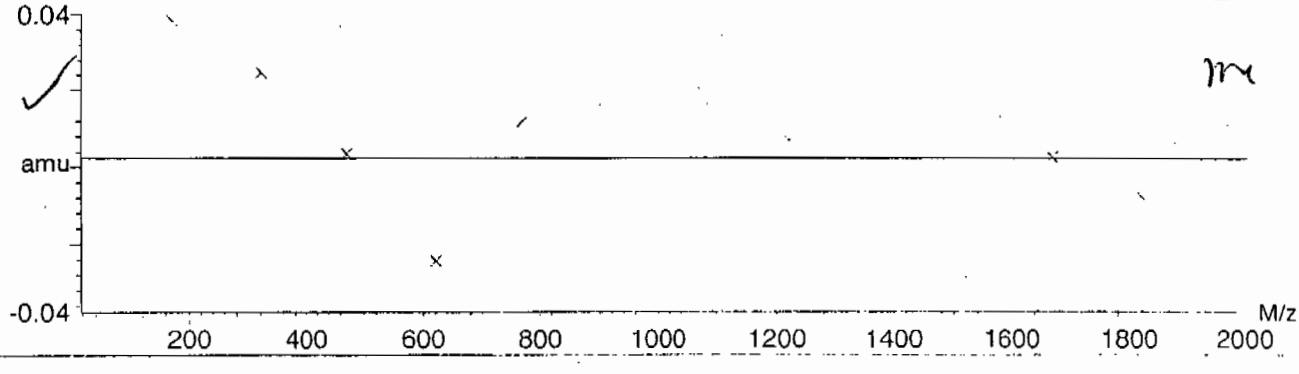

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

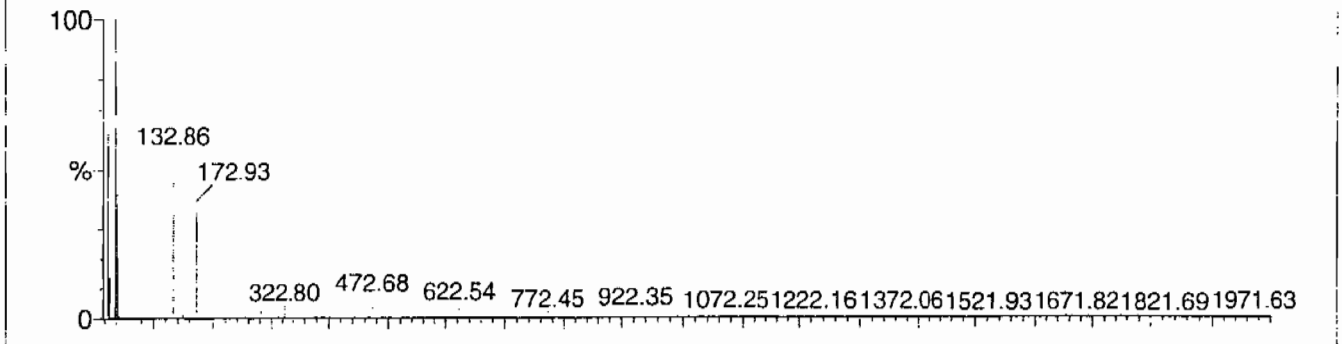

Reference file: Naics2

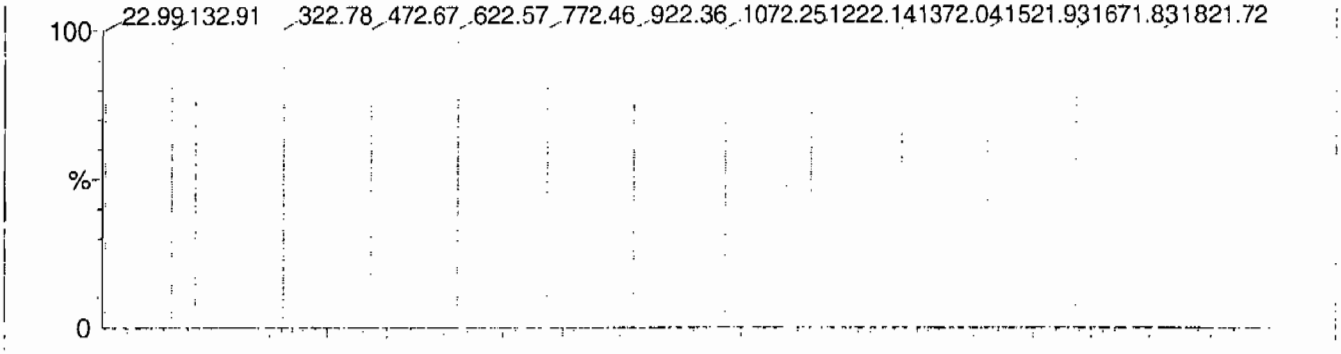

Mass difference (Raw - Ref mass)

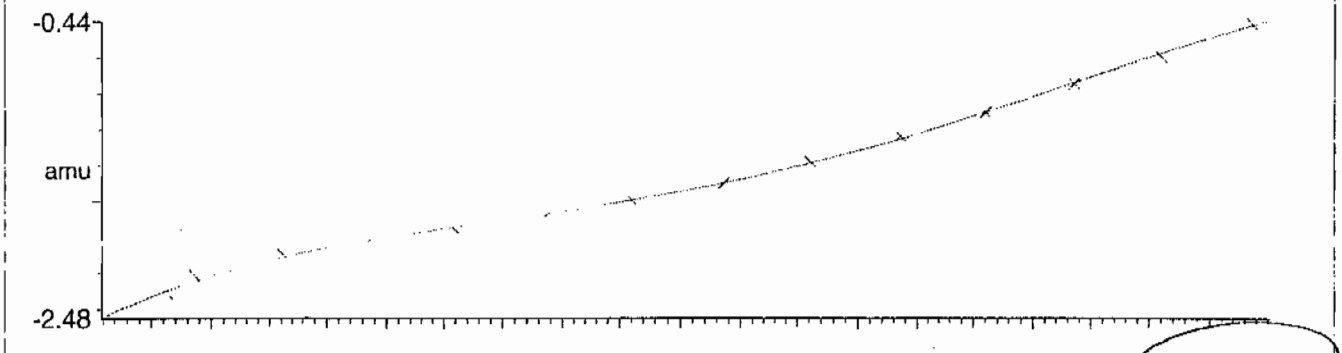

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

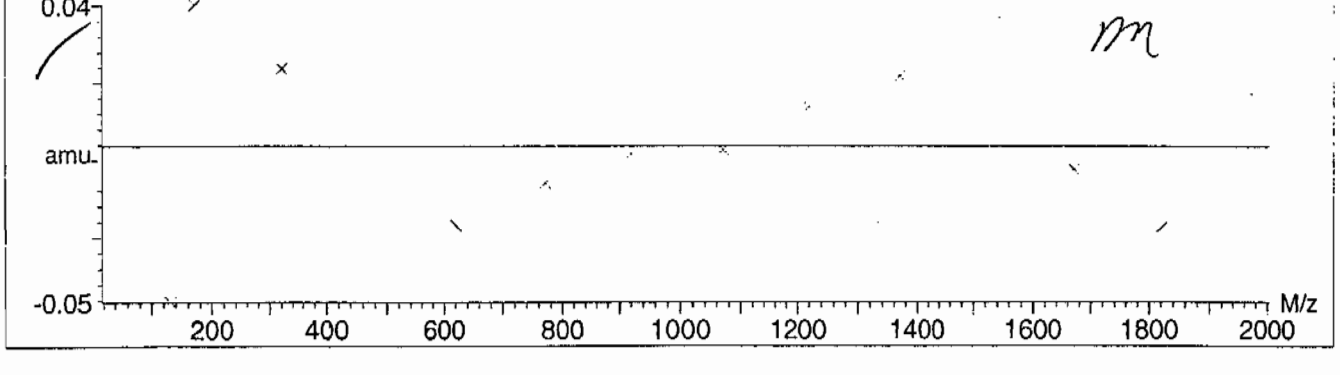

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Thu Mar 04 09:08:29 2010

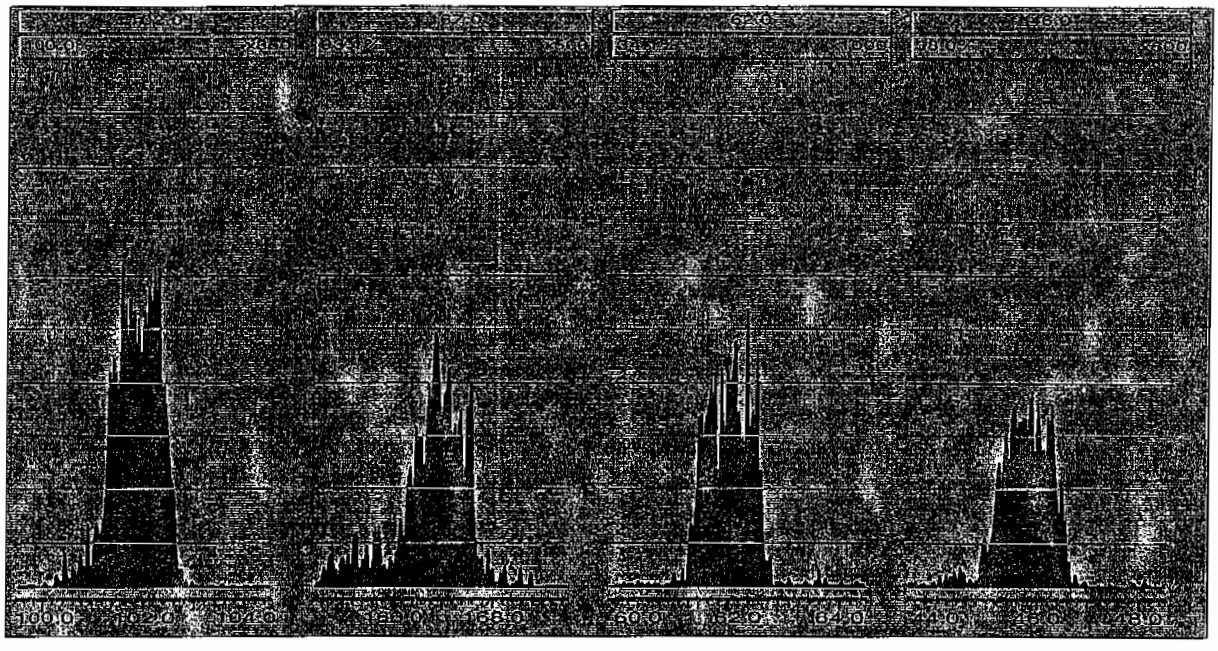

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1544

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3511.79	12.136	20560.6	17.579
Upper Limit			4565.327	12.636	26728.78	18.079
Lower Limit			2458.253	11.636	14392.42	17.079
MB for batch 948889	06–mar–10 23:49	EXP0304116a	3470.09	12.067	20104	17.465
LCS for batch 948889	07–mar–10 00:18	EXP0304117a	3801.68	12.067	23170.2	17.465
RE15–10–8164	07–mar–10 00:48	EXP0304118a	4004.41	12.067	22975.5	17.465
RE15–10–8164(246070001MS)	07–mar–10 01:17	EXP0304119a	4263.82	12.067	23002.1	17.465
RE15–10–8164(246070001MSD)	07–mar–10 01:47	EXP0304120a	3667.47	12.067	21644	17.465
RE15–10–8162	07–mar–10 02:16	EXP0304121a	3666.2	12.067	24098.4	17.465
RE15–10–8151	07–mar–10 02:46	EXP0304122a	3649.8	12.064	20821.4	17.477
RE15–10–8163	07–mar–10 03:15	EXP0304123a	3668.77	12.067	20905.3	17.465
RE15–10–8148	07–mar–10 03:45	EXP0304124a	3710.48	12.067	21028.8	17.465
RE15–10–8166	07–mar–10 04:14	EXP0304125a	3764.83	12.064	22485.9	17.454
RE15–10–8161	07–mar–10 06:12	EXP0304129a	3810.76	12.067	22078.3	17.465
RE15–10–8154	07–mar–10 06:42	EXP0304130a	3802.69	12.067	20958.3	17.465
RE15–10–8156	07–mar–10 07:11	EXP0304131a	4286.84	12.067	22273.2	17.465
RE15–10–8159	07–mar–10 07:41	EXP0304132a	3962.7	12.064	21192.4	17.477
RE15–10–8157	07–mar–10 08:10	EXP0304133a	3691.88	12.067	21893	17.466
RE15–10–8158	07–mar–10 08:40	EXP0304134a	3705.98	12.067	21423.7	17.466
RE15–10–8160	07–mar–10 09:09	EXP0304135a	3515.34	12.067	20440	17.465
RE15–10–8149	07–mar–10 09:39	EXP0304136a	3663.49	12.064	21594.8	17.454
RE15–10–8167	07–mar–10 10:08	EXP0304137a	3683.13	12.067	22365.4	17.466
RE15–10–8152	07–mar–10 10:38	EXP0304138a	3628.51	12.067	20851.7	17.465
RE15–10–8150	07–mar–10 12:36	EXP0304142a	3848.78	12.067	21898.9	17.465
RE15–10–8153	07–mar–10 13:05	EXP0304143a	3042.61	12.067	20877.5	17.465
RE15–10–8165	07–mar–10 13:35	EXP0304144a	3884.08	12.067	21971.1	17.466
RE15–10–8155	07–mar–10 14:05	EXP0304145a	3788.5	12.065	22696.7	17.477

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

IS1 (DNB) = 1,3-Dinitrobenzene-d4
IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = -0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE DATA

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070001

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304118a

Date Analyzed: 07-MAR-10 00:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304118a
Date: 07-Mar-2010
Time: 00:48:16
ID: 246070001 | LANL | 948890 | Soils | 2 |
Vial: 3:5,C

MAP 3/7/10

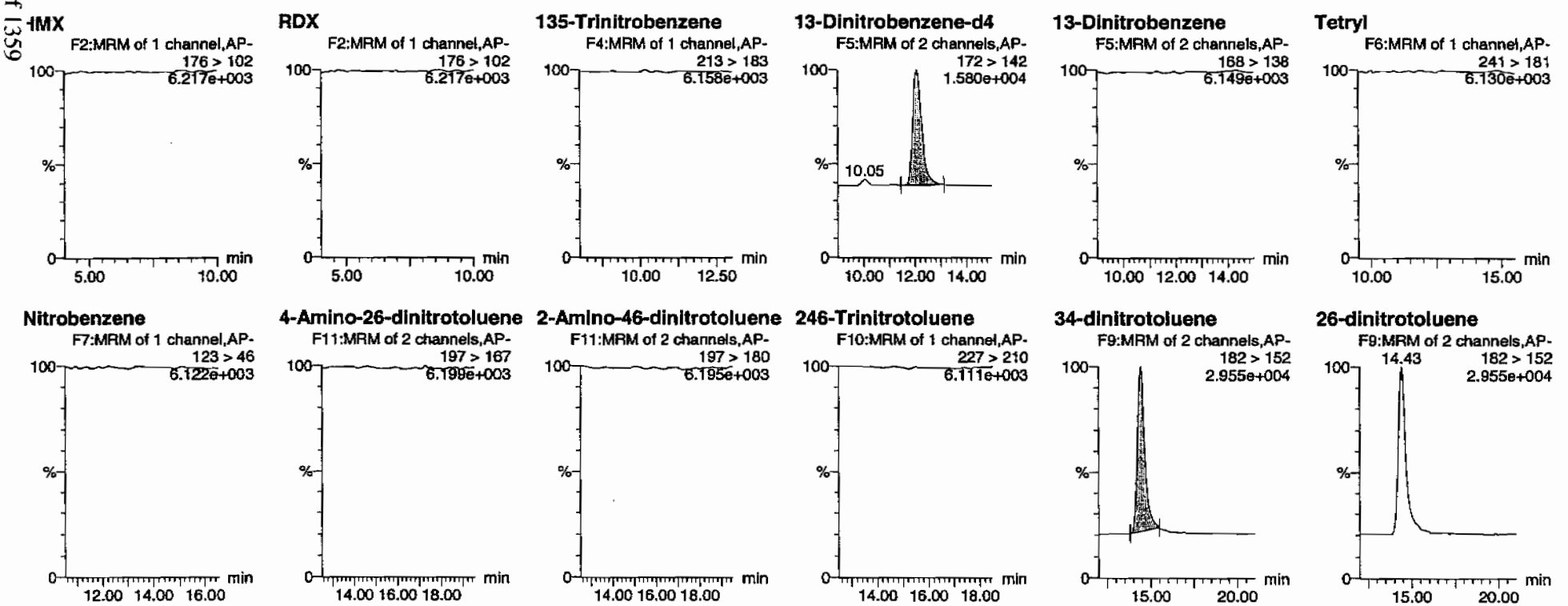

HMM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

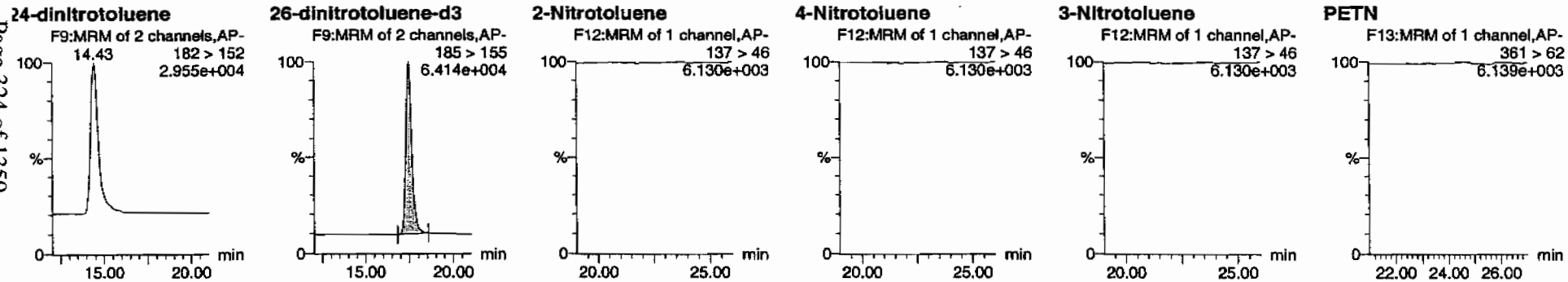

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246070001	HMX	176 > 102			4004.408									
246070001	RDX	176 > 102			4004.408									
246070001	135-Trinitrobenzene	213 > 183			4004.408									
246070001	13-Dinitrobenzene-d4	172 > 142	12.07	4004.408		4004.408	4004.408	bb			570.1380	114.0	14.0	753.8
246070001	13-Dinitrobenzene	168 > 138			4004.408									
246070001	Tetryl	241 > 181			4004.408									
246070001	Nitrobenzene	123 > 46			4004.408									
246070001	4-Amino-26-dinitrotoluene	197 > 167			22975.471									
246070001	2-Amino-46-dinitrotoluene	197 > 180			22975.471									
246070001	246-Trinitrotoluene	227 > 210			22975.471									
246070001	34-dinitrotoluene	182 > 152	14.43	11280.809	22975.471	11280.809	245.497	bb			254.0147	101.6	1.6	306.8
246070001	26-dinitrotoluene	182 > 152			22975.471									
246070001	24-dinitrotoluene	182 > 152			22975.471									
246070001	26-dinitrotoluene-d3	185 > 155	17.47	22975.471		22975.471	22975.471	bb			558.7262	111.7	11.7	2143.8
246070001	2-Nitrotoluene	137 > 46			22975.471									
246070001	4-Nitrotoluene	137 > 46			22975.471									
246070001	3-Nitrotoluene	137 > 46			22975.471									
246070001	PETN	361 > 62			22975.471									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070001

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260095.wiff

Date Analyzed: 27-FEB-10 15:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/1/10

ample Name: "246070001" Sample ID: "948890|2|LER" File: "EXS02260095.wiff"
sak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/27/2010
. Time: 3:30:22 PM

ified: No

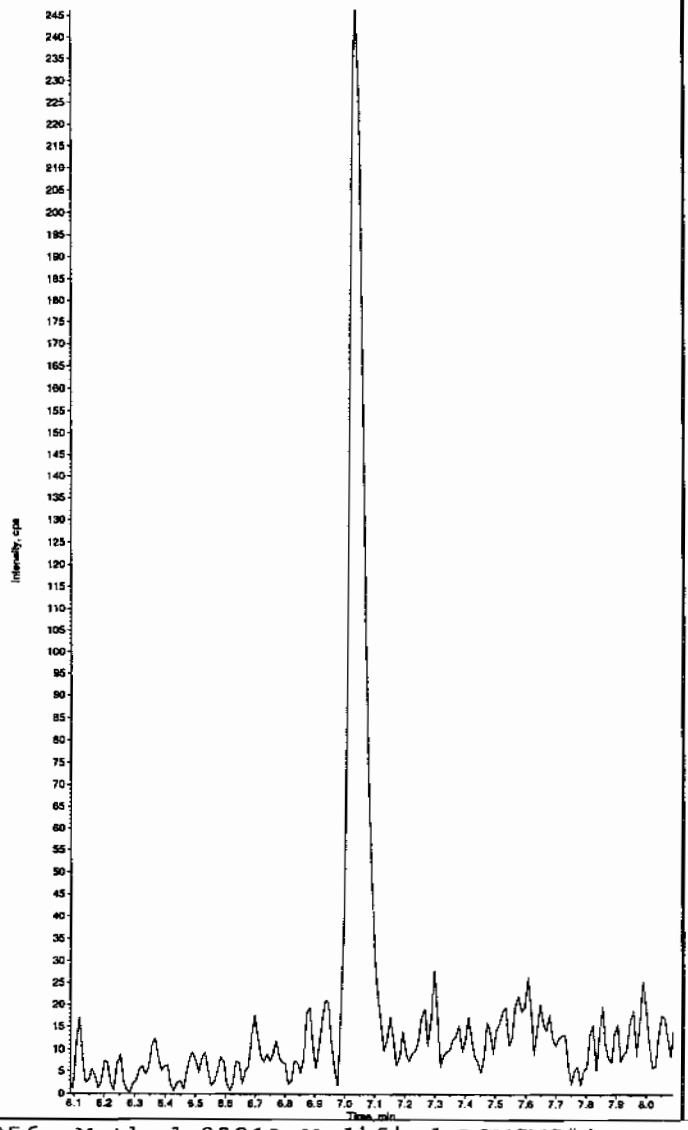

Sample Name: "246070001" Sample ID: "948890|2|LER" File: "EXS02260095.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:30:22 PM

Modified: Yes

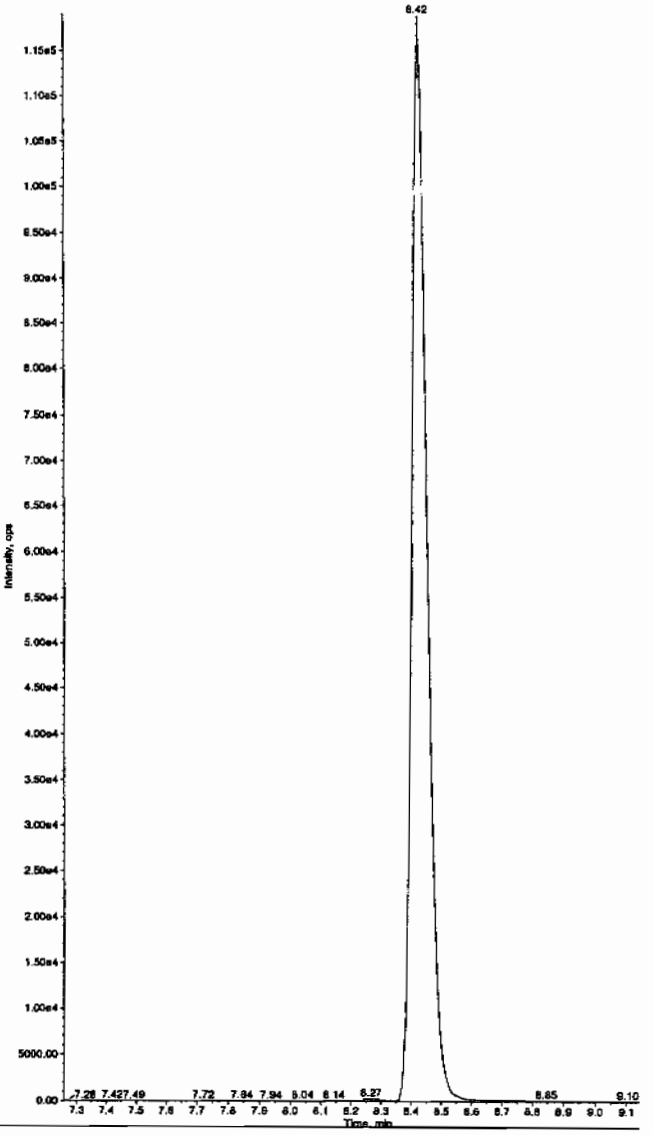

Hmw 03/01/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "246070001" Sample ID: "948890[2]LER" File: "EXS02260095.wiff"
'eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ple Index: 1
ple Type: Unknown
icentration: N/A
iculated Conc: 240. ng/mL
I. Date: 2/27/2010
I. Time: 3:30:22 PM

ified: No
oc. Algorithm: IntelliQuan - IQA
I. Peak Height: 1460.00 cps
I. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.46 min
e Relative RT: No

t. Type: Valley
tention Time: 8.42 min
ea: 3.30e+006 counts
ight: 940963.623 cps
srt Time: 8.29 min
d Time: 8.77 min

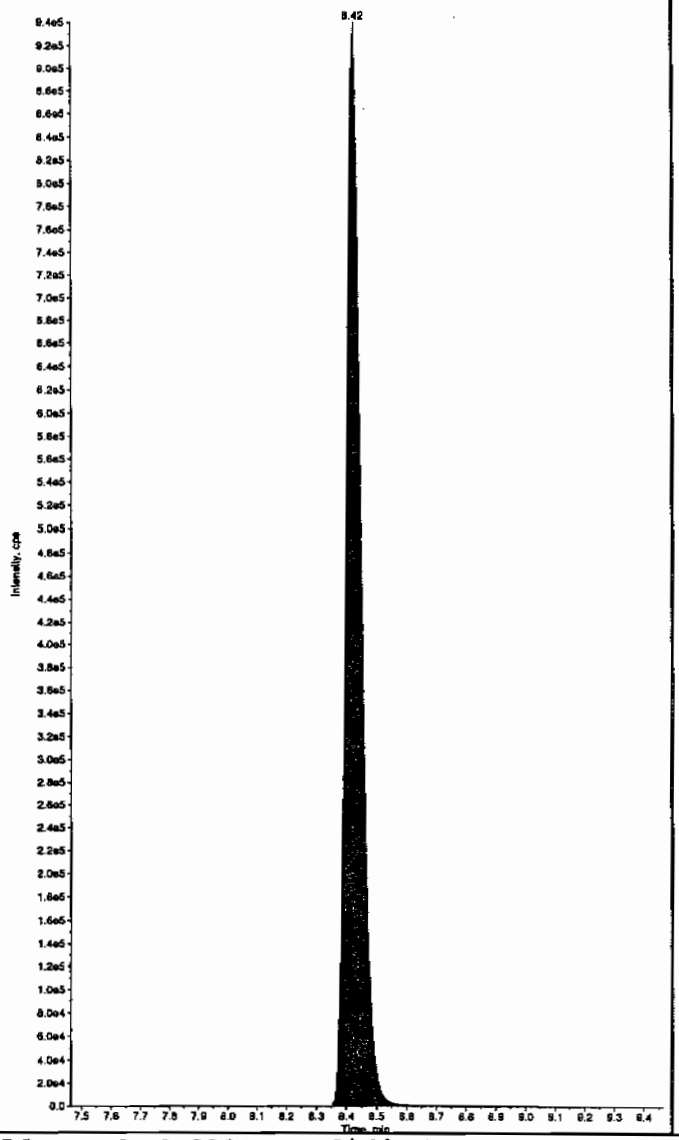

Sample Name: "246070001" Sample ID: "948890[2]LER" File: "EXS02260095.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:30:22 PM

Modified: No

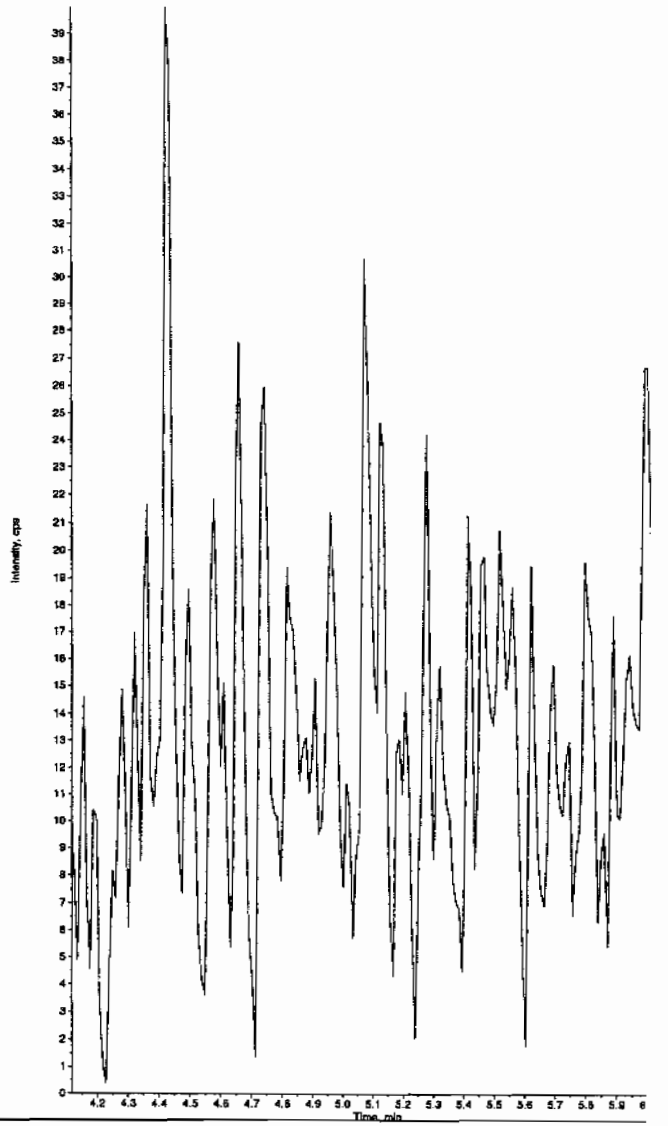

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mple Name: "246070001" Sample ID: "948890|2|LER" File: "EXS02260095.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""

ple Index:	1	
ple Type:	Unknown	
centration:	N/A	
culated Conc:	0.00	ng/mL
. Date:	2/27/2010	
. Time:	3:30:22 PM	
ified:	No	

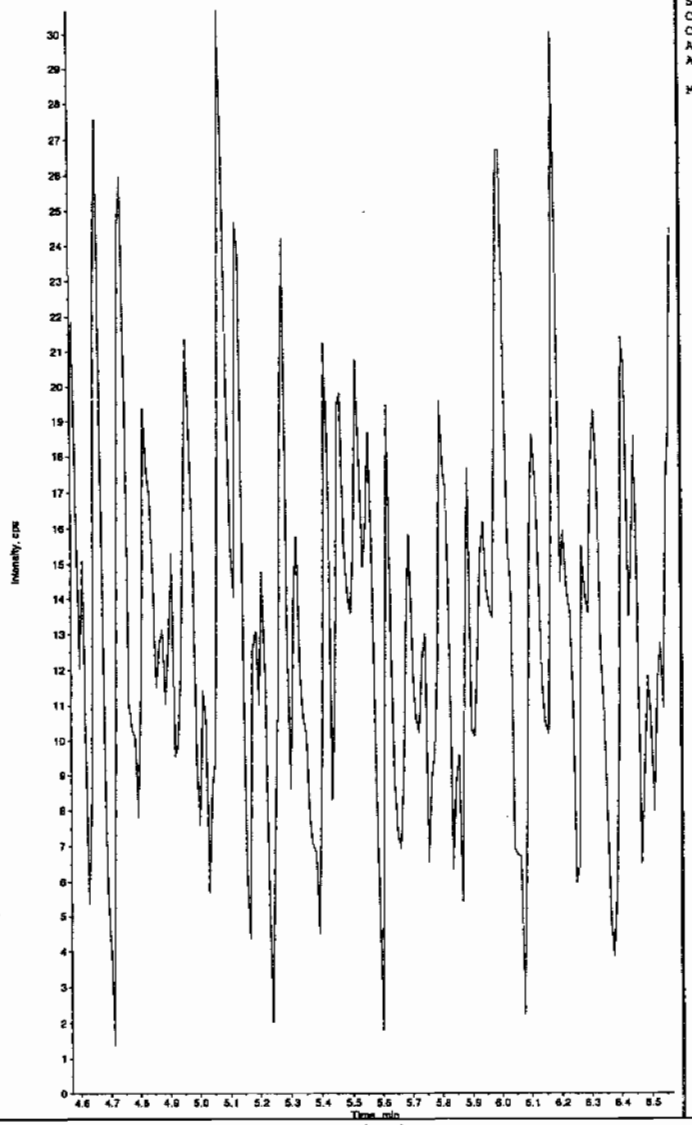

Sample Name: "246070001" Sample ID: "948890|2|LER" File: "EXS02260095.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	0.00	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	3:30:22 PM	
Modified:	No	

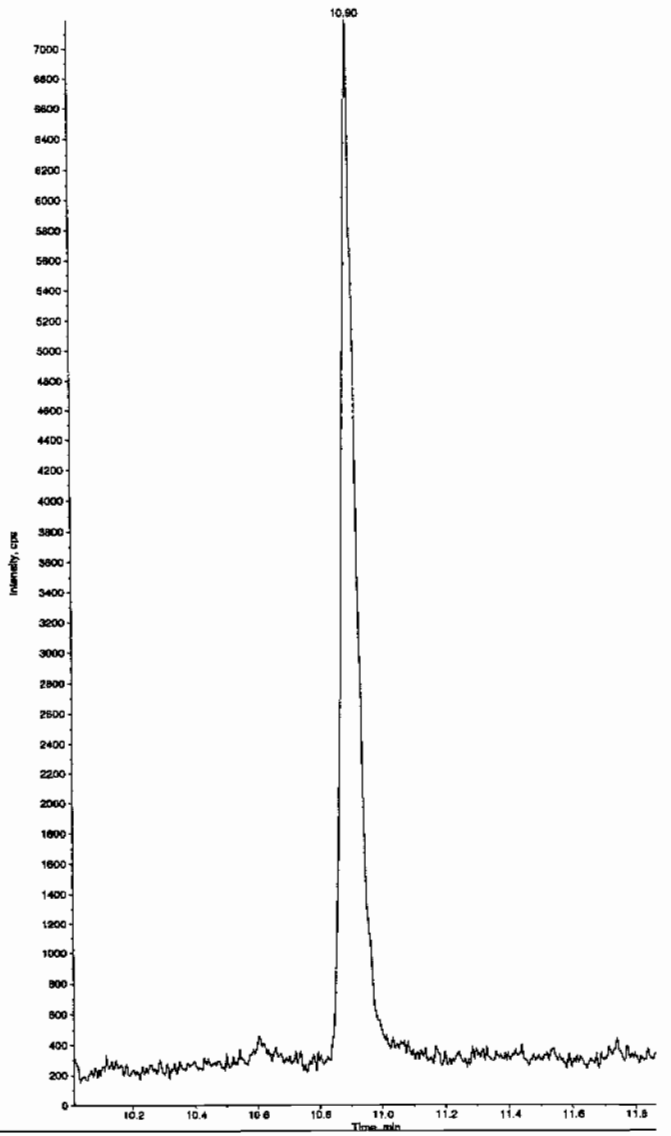

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8162

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070002

Sample Amount 2

Moisture: 23.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304121a

Date Analyzed: 07-MAR-10 02:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030410expa.cdb, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304121a
Date: 07-Mar-2010
Time: 02:16:44
ID: 246070002 / LANL/948820 / Soils / 2
Vial: 3:5,F

MM 3/8/10

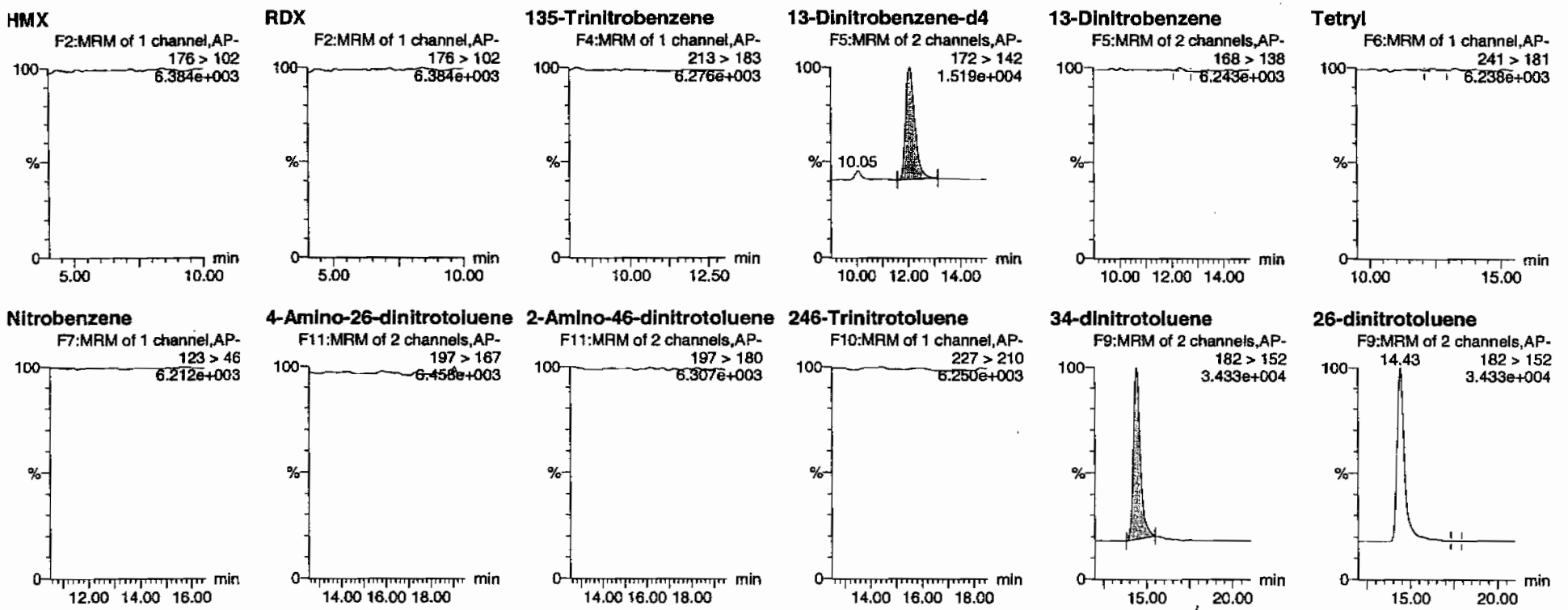

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

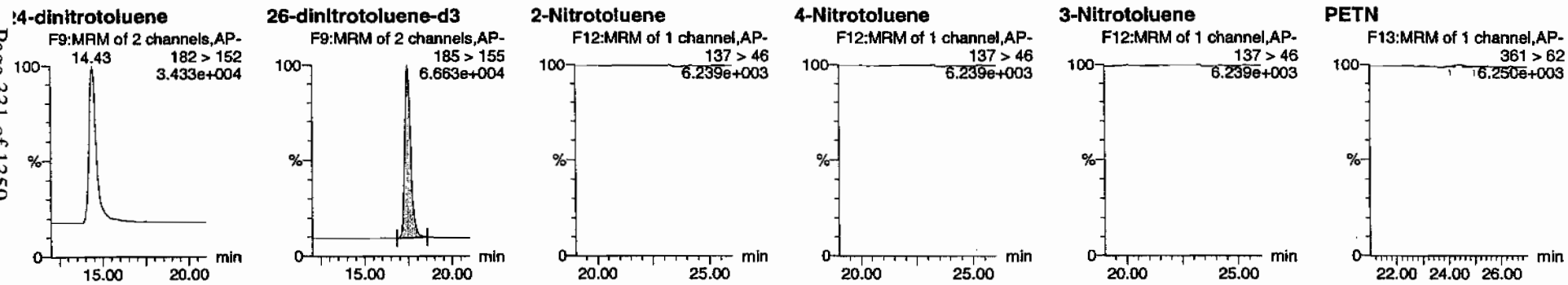

ID	Name	Trace	RT	Area	IS Area	IS Abs.Resp	Response	Flags	Mod.Date	Mod.Time	Conc/mL	%Rec	%Dev	S/N
246070002	HMX	176 > 102			3666.202									
246070002	RDX	176 > 102			3666.202									
246070002	135-Trinitrobenzene	213 > 183			3666.202									
246070002	13-Dinitrobenzene-d4	172 > 142	12.07	3666.202		3666.202	3666.202	bb			521.9850	104.4	4.4	357.1
246070002	13-Dinitrobenzene	168 > 138			3666.202			MM-	07-Mar-10	13:20:53				
246070002	Tetryl	241 > 181			3666.202			MM-	07-Mar-10	13:21:21				
246070002	Nitrobenzene	123 > 46			3666.202									
246070002	4-Amino-26-dinitrotoluene	197 > 167			24098.426									
246070002	2-Amino-46-dinitrotoluene	197 > 180			24098.426									
246070002	246-Trinitrotoluene	227 > 210			24098.426									
246070002	34-dinitrotoluene	182 > 152	14.43	13049.957	24098.426	13049.957	270.764	bb			280.1583	112.1	12.1	672.8
246070002	26-dinitrotoluene	182 > 152			24098.426			MM-	07-Mar-10	13:28:59				
246070002	24-dinitrotoluene	182 > 152			24098.426									
246070002	26-dinitrotoluene-d3	185 > 155	17.47	24098.426		24098.426	24098.426	bb			586.0346	117.2	17.2	1911.4
246070002	2-Nitrotoluene	137 > 46			24098.426									
246070002	4-Nitrotoluene	137 > 46			24098.426									
246070002	3-Nitrotoluene	137 > 46			24098.426									
246070002	PETN	361 > 62			24098.426			MM-	07-Mar-10	13:32:46				

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8162

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070002

Sample Amount 2

Moisture: 23.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260098.wiff

Date Analyzed: 27-FEB-10 16:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 3/1/10

ample Name: "246070002" Sample ID: "948890|2|LER" File: "EXS02260096.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/27/2010
. Time: 4:17:25 PM
ified: No

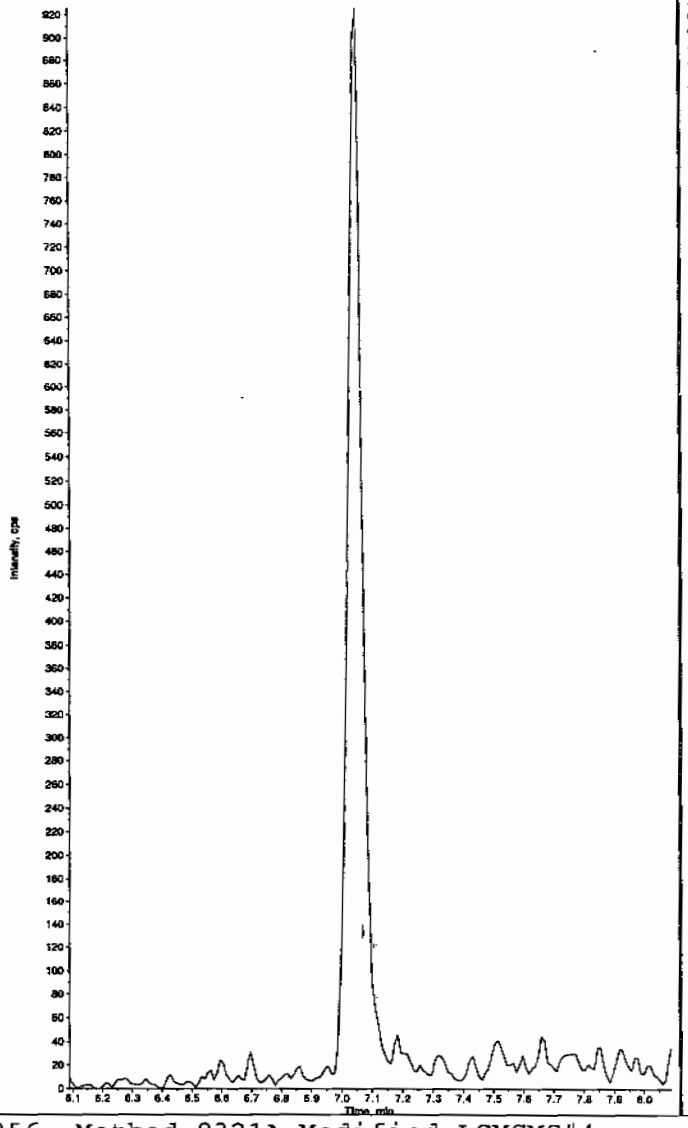

Sample Name: "246070002" Sample ID: "948890|2|LER" File: "EXS02260096.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:17:25 PM

Modified: Yes

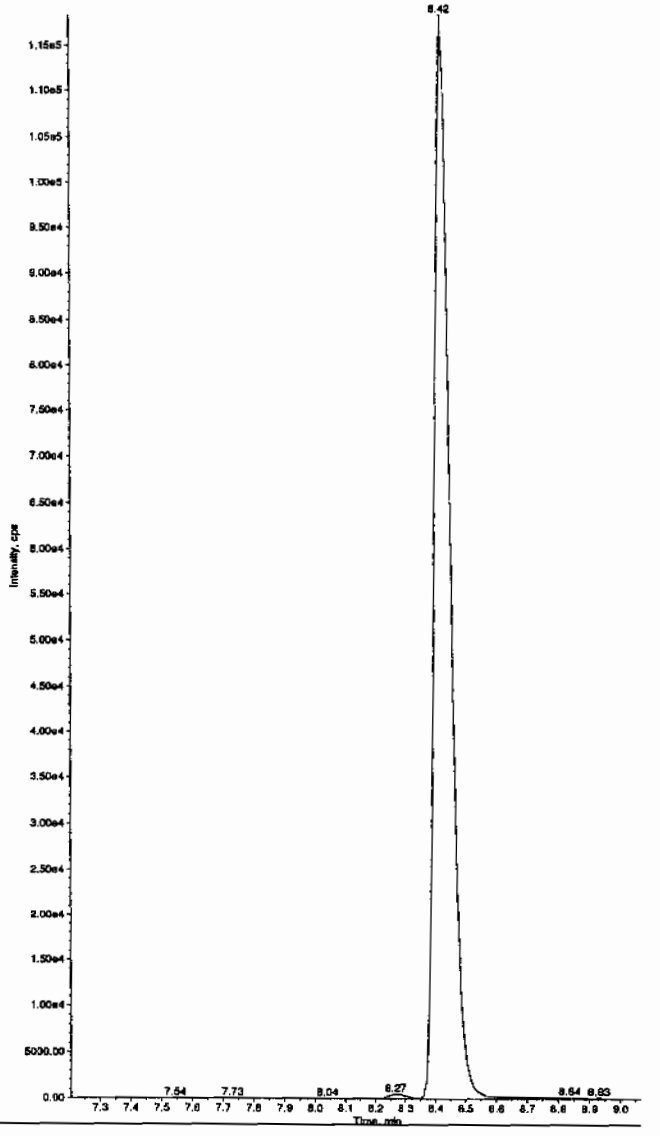

HMM 03/01/10

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ample Name: "246070002" Sample ID: "948890|2|LER" File: "EXS02260098.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 240. ng/mL
. Date: 2/27/2010
. Time: 4:17:25 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.46 min
: Relative RT: No

.. Type: Valley
ention Time: 8.42 min
a: 3.30e+006 counts
ght: 948722.168 cps
rt Time: 8.30 min
Time: 8.75 min

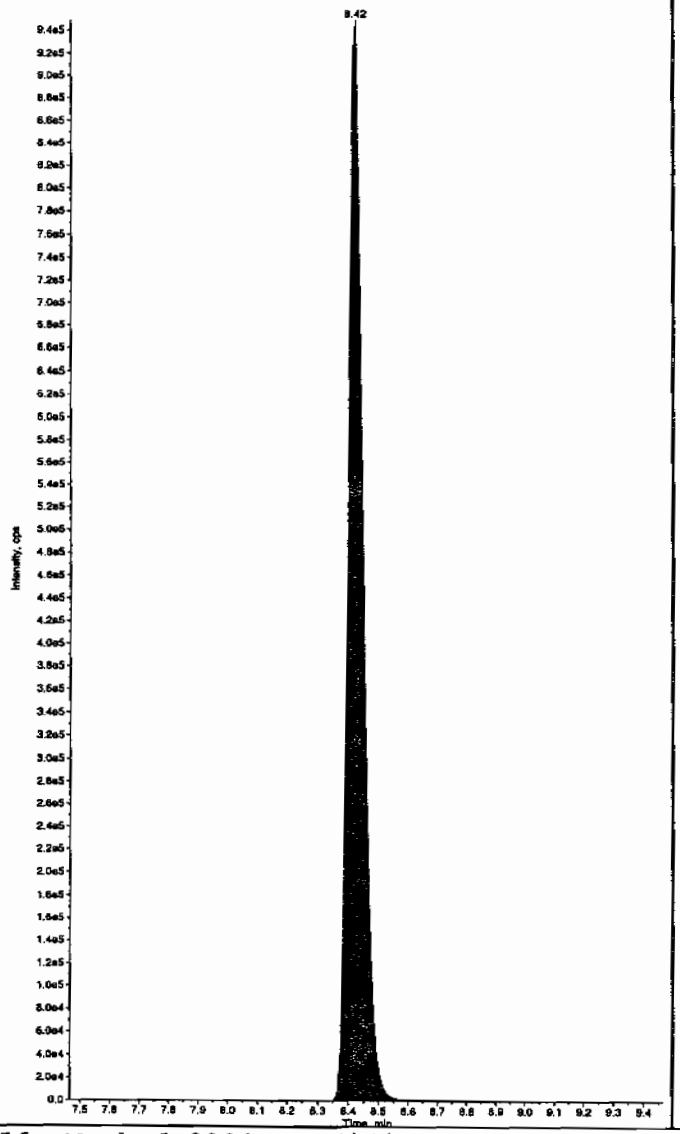

Sample Name: "246070002" Sample ID: "948890|2|LER" File: "EXS02260098.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:17:25 PM

Modified: No

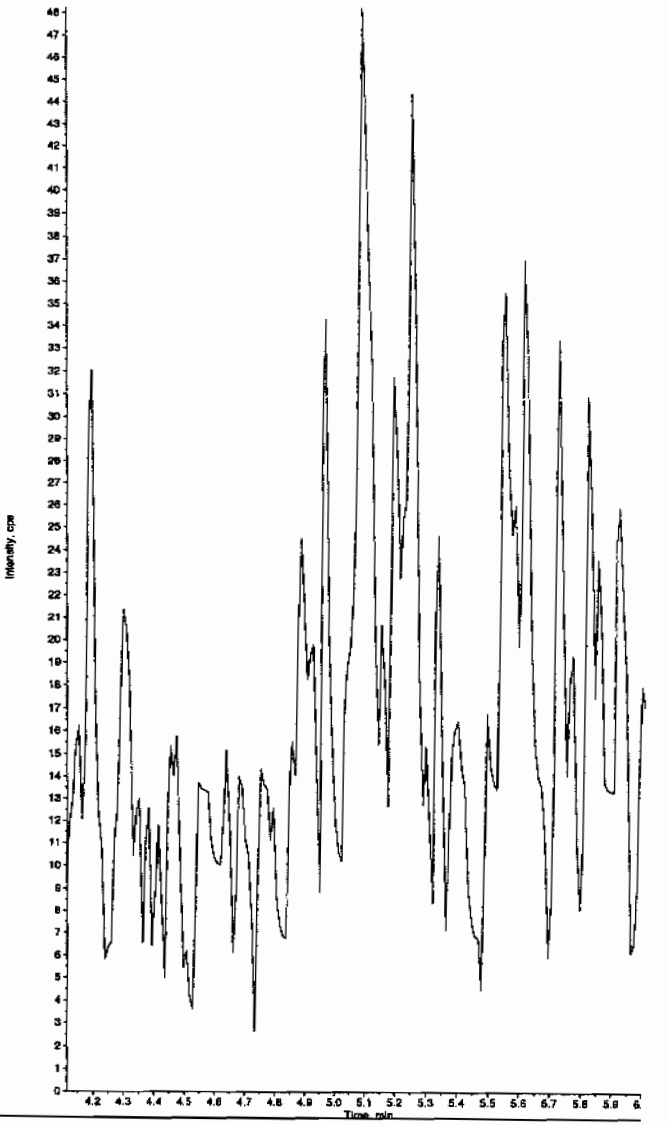

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "246070002" Sample ID: "948890|2|LER" File: "EXS02260098.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
icentration:      N/A
culated Conc:     0.00     ng/mL
. Date:         2/27/2010
. Time:         4:17:25 PM

lified:           No
```

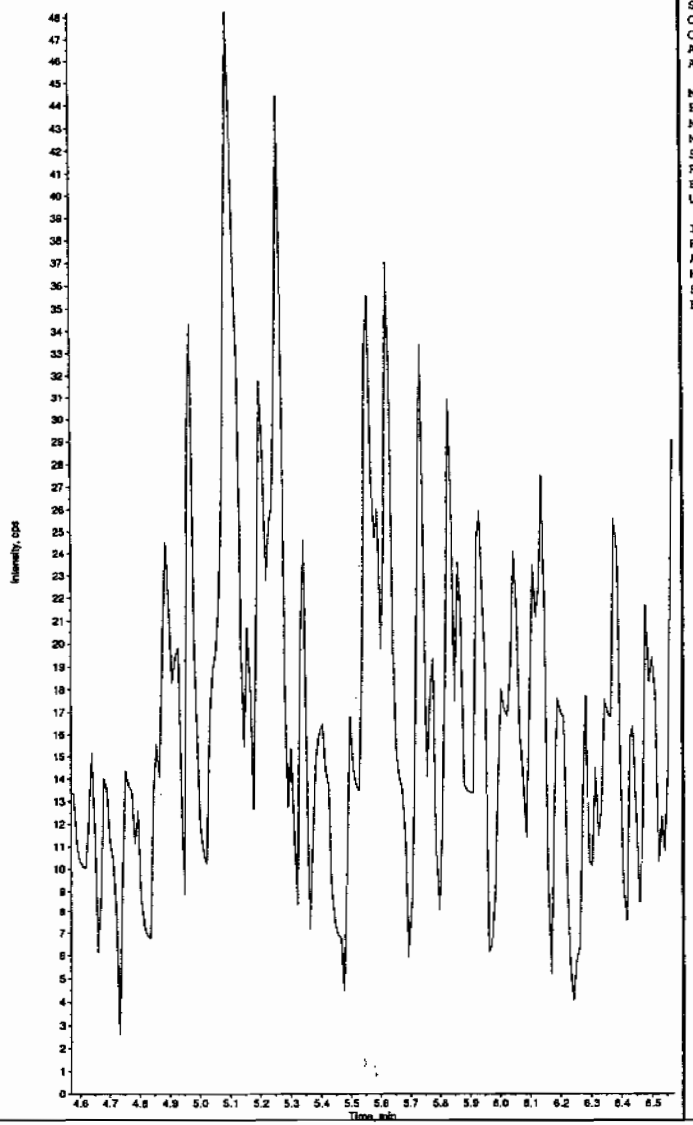

Sample Name: "246070002" Sample ID: "948890|2|LER" File: "EXS02260098.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:  No Intercept
Acq. Date:         2/27/2010
Acq. Time:         4:17:25 PM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.9   min
Area:          4.22e+004   counts
Height:          11460.356 cps
Start Time:          10.8   min
End Time:            11.1   min
```

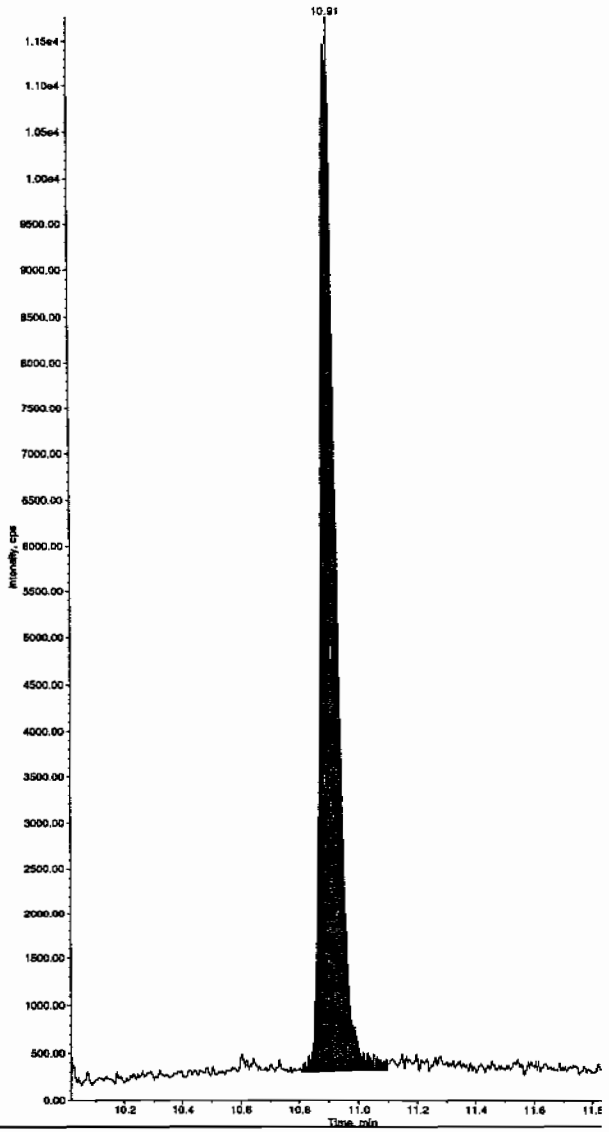

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8151

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070003

Sample Amount 2

Moisture: 26.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304122a

Date Analyzed: 07-MAR-10 02:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304122a
Date: 07-Mar-2010
Time: 02:46:12
ID: 246070003
Vial: 3:6,A

LANL | 948890 | Soil | 2 |

MPP 3/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.598e+003

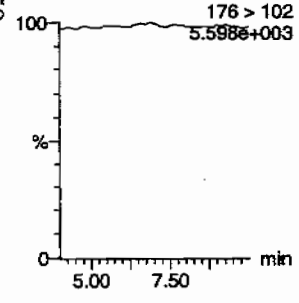

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.598e+003

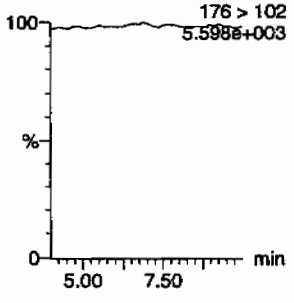

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.451e+003

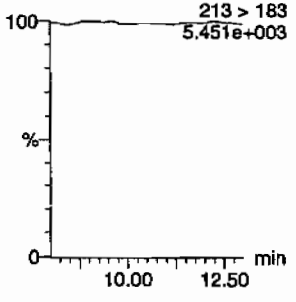

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.431e+004

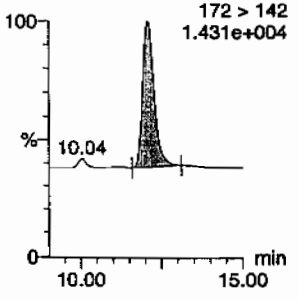

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.450e+003

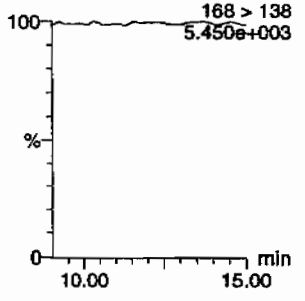

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.478e+003

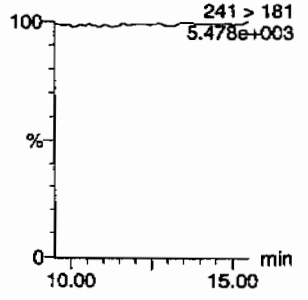

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.453e+003

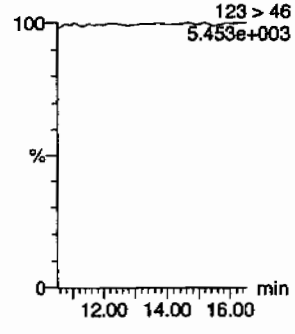

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.565e+003

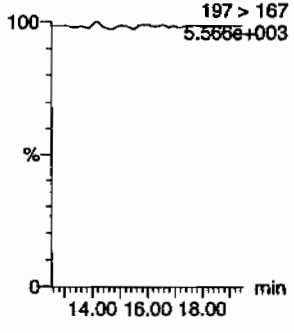

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.527e+003

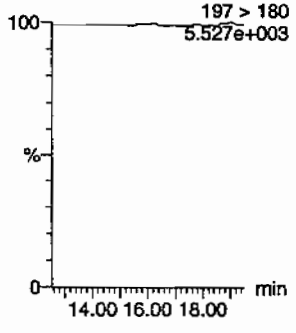

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.475e+003

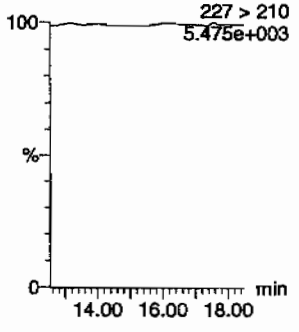

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.794e+004

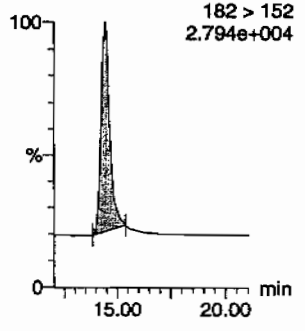

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.41
182 > 152
2.794e+004

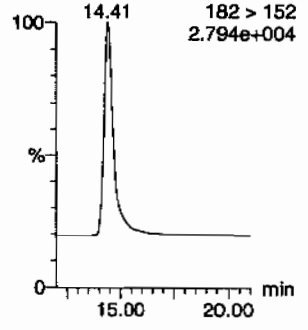

HMM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

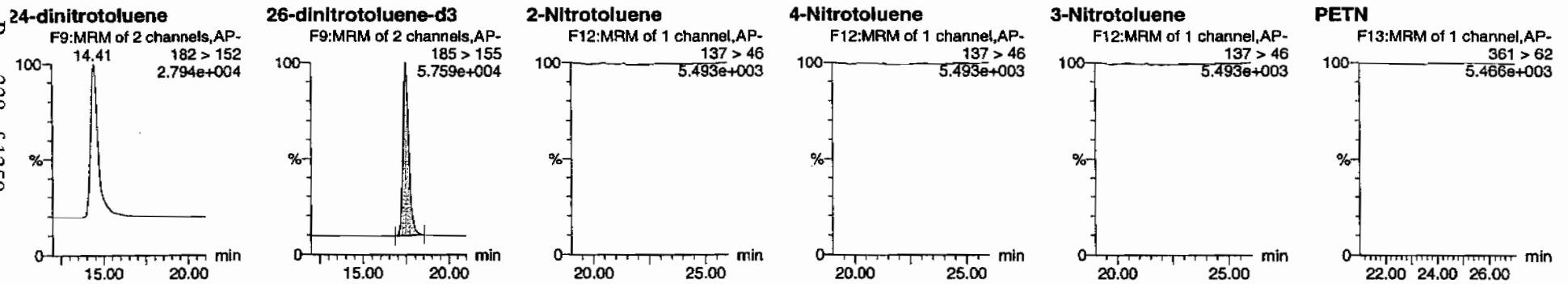

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246070003	HMX	176 > 102			3649.797									
246070003	RDX	176 > 102			3649.797									
246070003	135-Trinitrobenzene	213 > 183			3649.797									
246070003	13-Dinitrobenzene-d4	172 > 142	12.06	3649.797		3649.797	3649.797	bb			519.6493	103.9	3.9	500.6
246070003	13-Dinitrobenzene	168 > 138			3649.797									
246070003	Tetryl	241 > 181			3649.797									
246070003	Nitrobenzene	123 > 46			3649.797									
246070003	4-Amino-26-dinitrotoluene	197 > 167			20821.395									
246070003	2-Amino-46-dinitrotoluene	197 > 180			20821.395									
246070003	246-Trinitrotoluene	227 > 210			20821.395									
246070003	34-dinitrotoluene	182 > 152	14.41	10478.463	20821.395	10478.463	251.627	bb			260.3580	104.1	4.1	575.4
246070003	26-dinitrotoluene	182 > 152			20821.395									
246070003	24-dinitrotoluene	182 > 152			20821.395									
246070003	26-dinitrotoluene-d3	185 > 155	17.48	20821.395		20821.395	20821.395	bb			506.3425	101.3	1.3	1399.0
246070003	2-Nitrotoluene	137 > 46			20821.395									
246070003	4-Nitrotoluene	137 > 46			20821.395									
246070003	3-Nitrotoluene	137 > 46			20821.395									
246070003	PETN	361 > 62			20821.395									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8151

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070003

Sample Amount 2

Moisture: 26.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260102.wiff

Date Analyzed: 27-FEB-10 17:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ker 3/1/10

ample Name: "246070003" Sample ID: "948890[2]LER" File: "EXS02260102.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: "
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/27/2010
. Time: 5:20:14 PM
ified: No

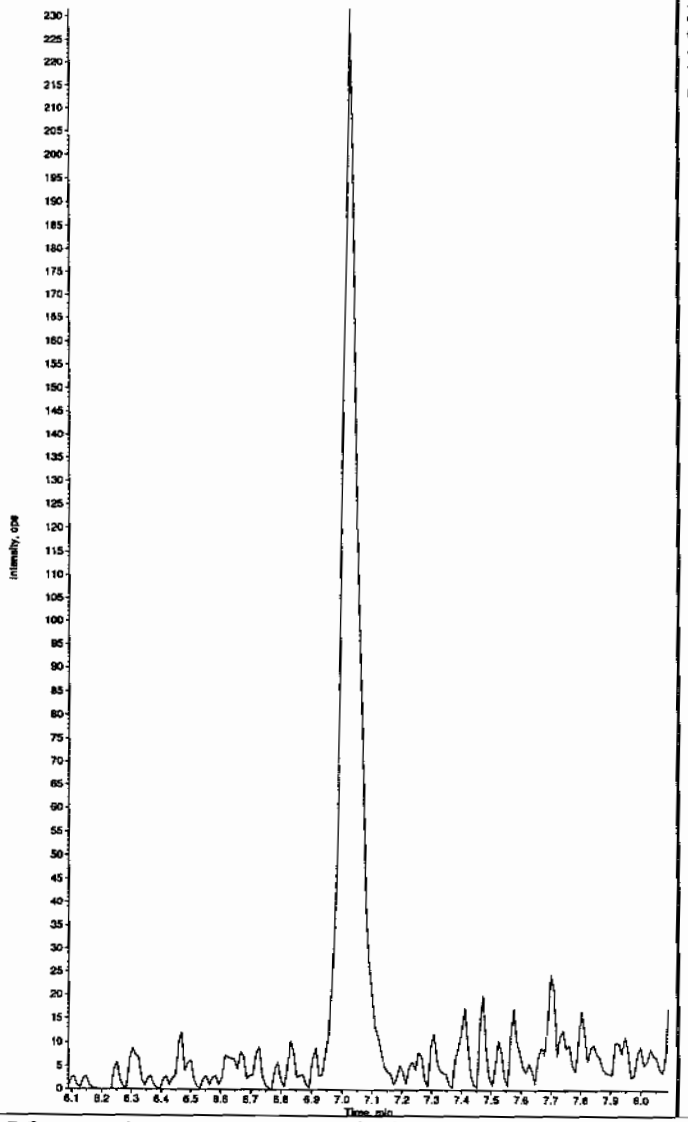

Sample Name: "246070003" Sample ID: "948890[2]LER" File: "EXS02260102.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:20:14 PM

Modified: Yes

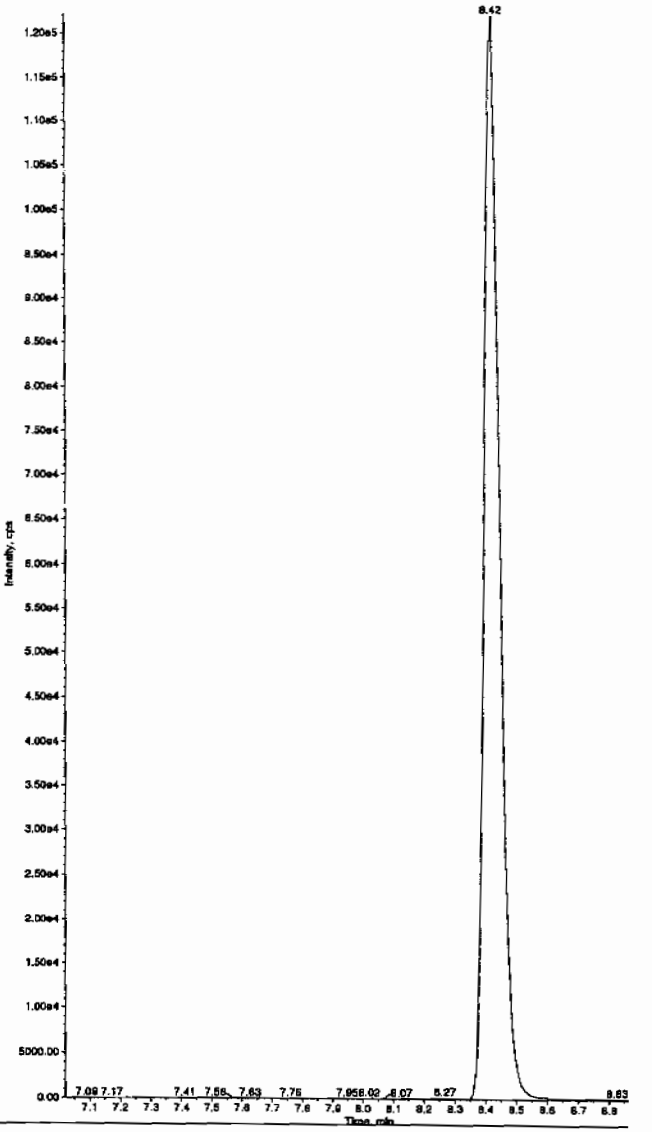

Hum 03/01/10

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ample Name: "246070003" Sample ID: "946890[2]LER" File: "EXS02260102.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 242. ng/mL
. Date: 2/27/2010
. Time: 5:20:14 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.46 min
: Relative RT: No

. Type: Valley
tention Time: 8.41 min
a: 3.34e+006 counts
ght: 1001944.031 cps
rt Time: 8.31 min
1 Time: 8.74 min

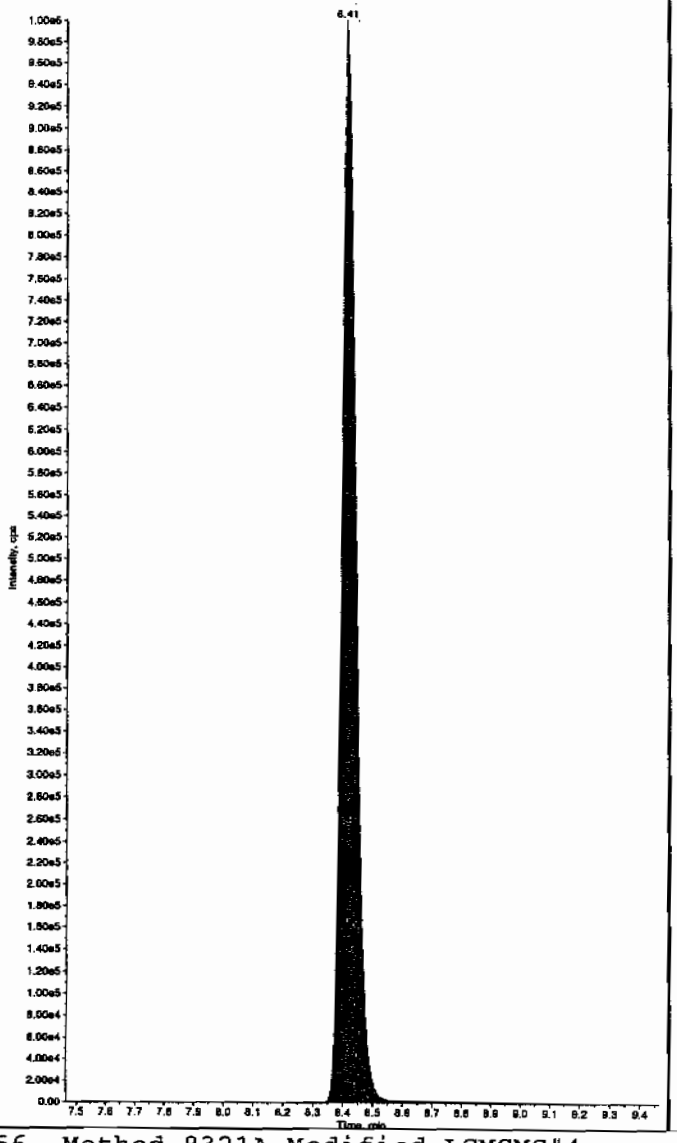

Sample Name: "246070003" Sample ID: "946890[2]LER" File: "EXS02260102.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:20:14 PM

Modified: No

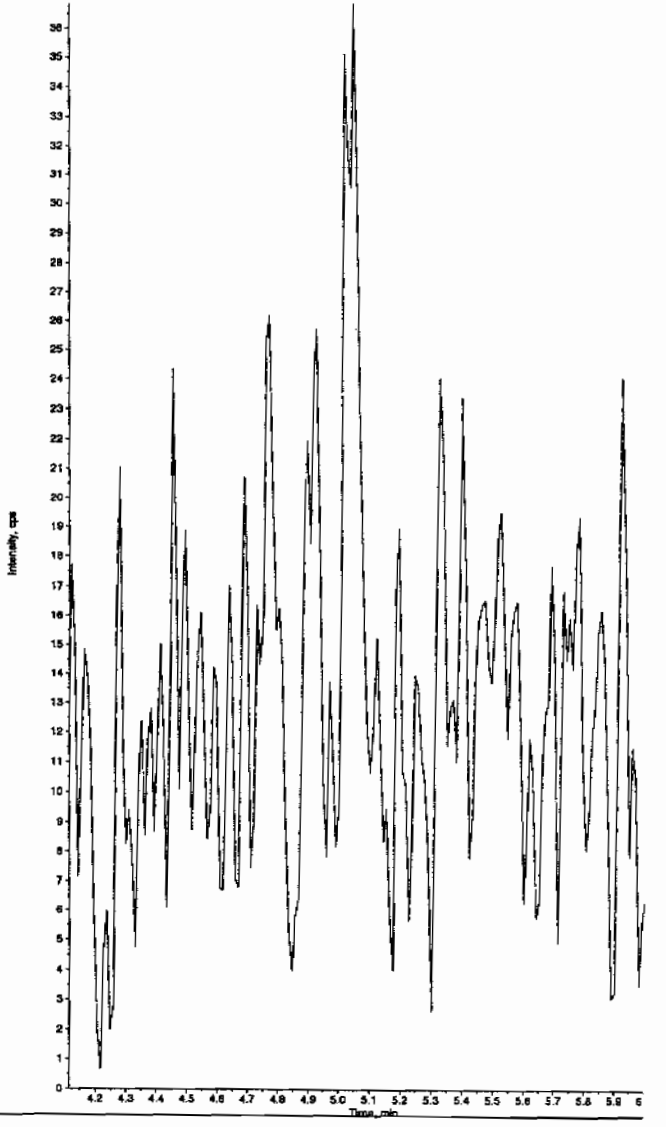

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ample Name: "246070003" Sample ID: "948890[2]LER" File: "EXS02260102.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/27/2010
. Time: 5:20:14 PM
lified: No

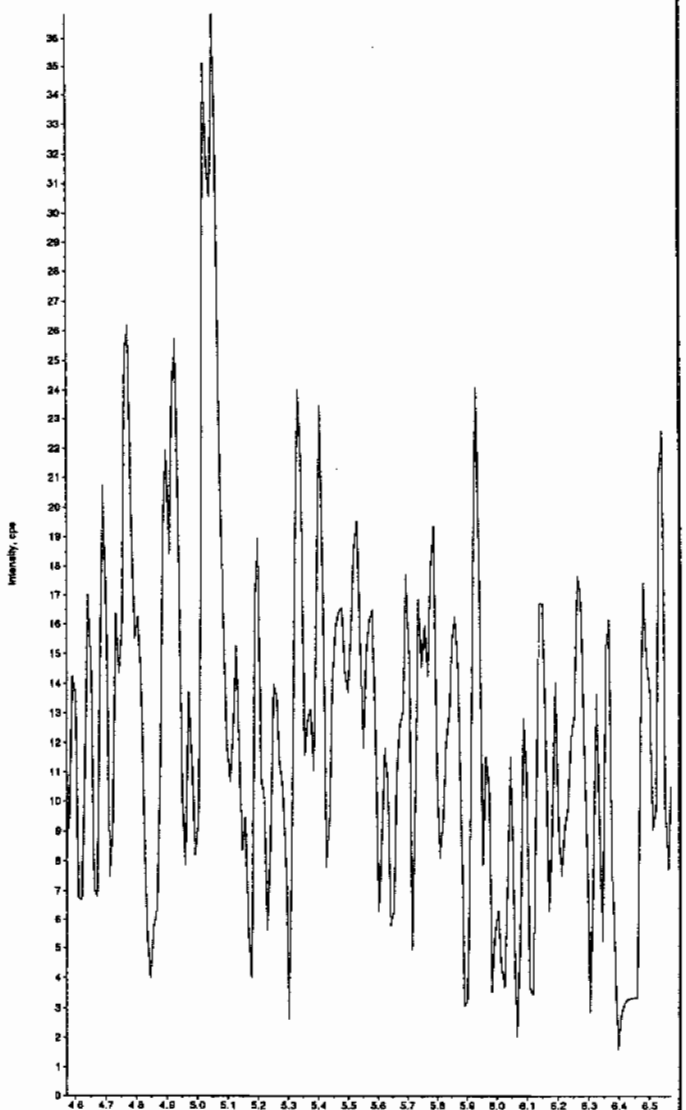

Sample Name: "246070003" Sample ID: "948890[2]LER" File: "EXS02260102.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:20:14 PM
Modified: No

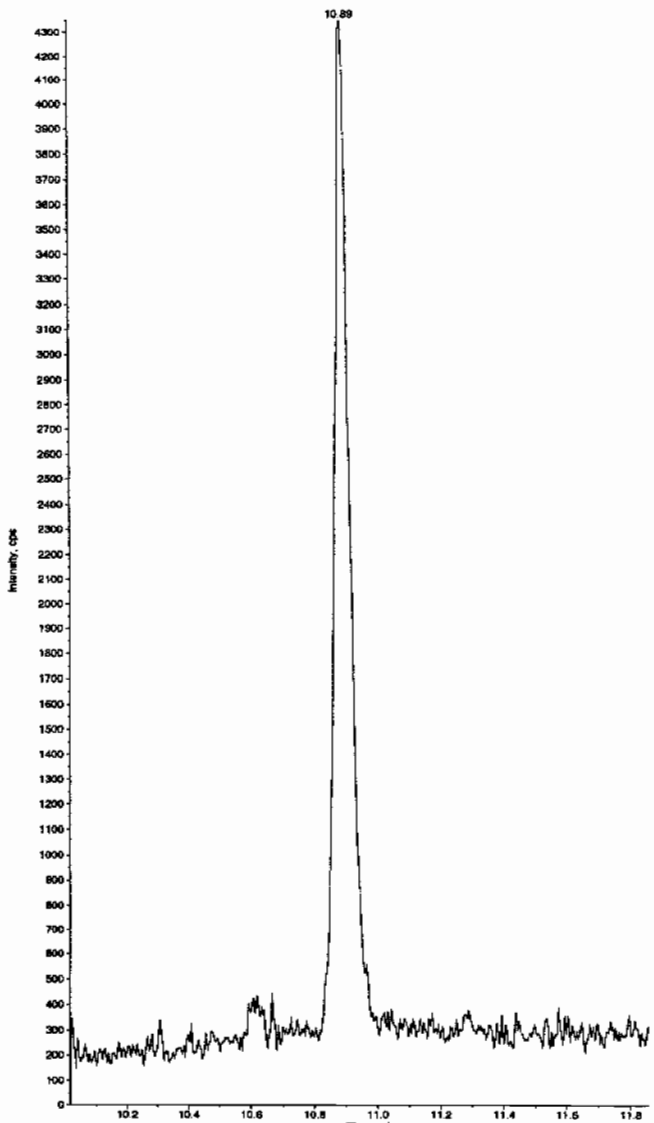

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8163

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070004

Sample Amount 2

Moisture: 15.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304123a

Date Analyzed: 07-MAR-10 03:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304123a
Date: 07-Mar-2010
Time: 03:15:43
ID: 246070004 | LANL | 948890 | Solids | 2 |
Vial: 3:6,B

MAP 3/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.450e+003

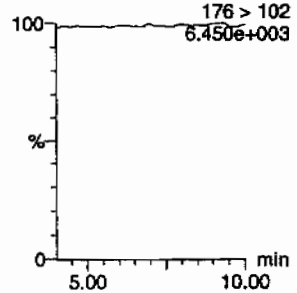

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.450e+003

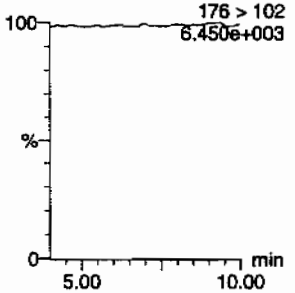

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.363e+003

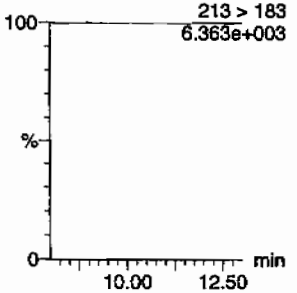

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.516e+004

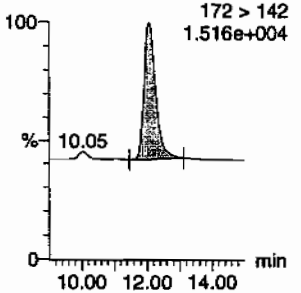

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.381e+003

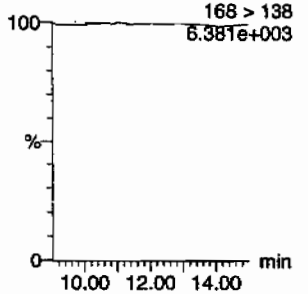

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.426e+003

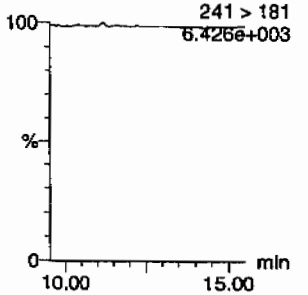

Nitrobenzene
F7:MRM of 1 channel,AP-
10.64
123 > 46
6.419e+003

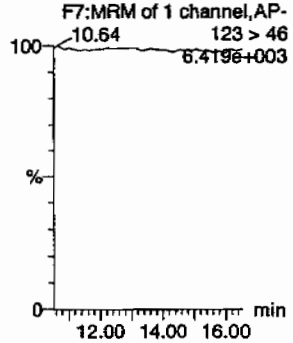

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.405e+003

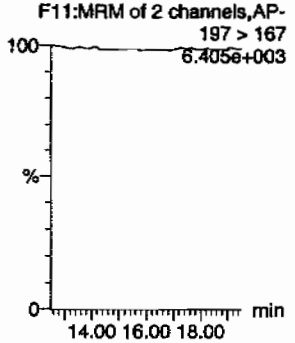

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.418e+003

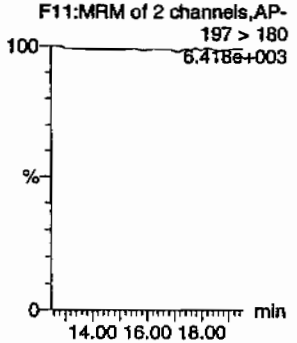

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.342e+003

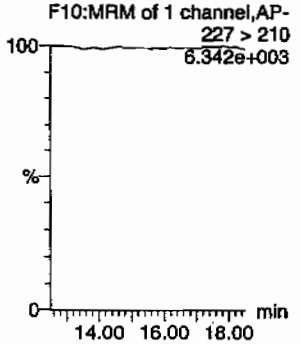

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.040e+004

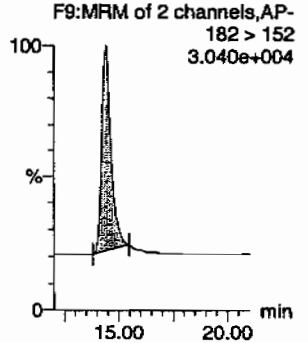

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
3.040e+004

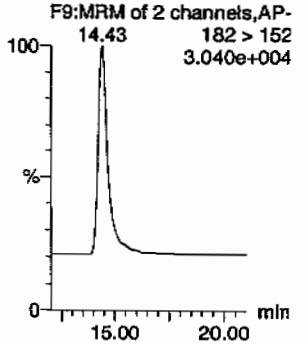

HNM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

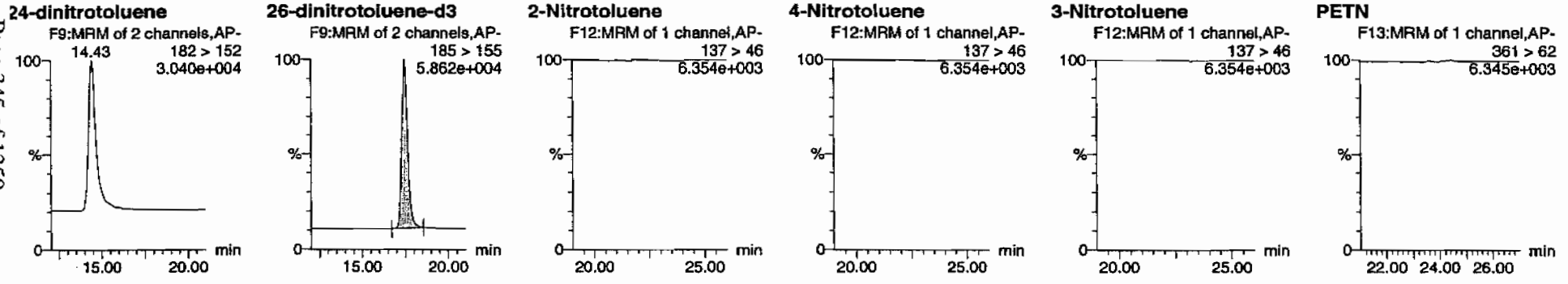

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246070004	HMX	176 > 102			3668.772									
246070004	RDX	176 > 102			3668.772									
246070004	135-Trinitrobenzene	213 > 183			3668.772									
246070004	13-Dinitrobenzene-d4	172 > 142	12.07	3668.772		3668.772	3668.772	bb			522.3509	104.5	4.5	130.2
246070004	13-Dinitrobenzene	168 > 138			3668.772									
246070004	Tetryl	241 > 181			3668.772									
246070004	Nitrobenzene	123 > 46			3668.772									
246070004	4-Amino-26-dinitrotoluene	197 > 167			20905.320									
246070004	2-Amino-46-dinitrotoluene	197 > 180			20905.320									
246070004	246-Trinitrotoluene	227 > 210			20905.320									
246070004	34-dinitrotoluene	182 > 152	14.43	11548.553	20905.320	11548.553	276.211	bb			285.7945	114.3	14.3	640.7
246070004	26-dinitrotoluene	182 > 152			20905.320									
246070004	24-dinitrotoluene	182 > 152			20905.320									
246070004	26-dinitrotoluene-d3	185 > 155	17.47	20905.320		20905.320	20905.320	bb			508.3834	101.7	1.7	2522.8
246070004	2-Nitrotoluene	137 > 46			20905.320									
246070004	4-Nitrotoluene	137 > 46			20905.320									
246070004	3-Nitrotoluene	137 > 46			20905.320									
246070004	PETN	361 > 62			20905.320									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8163

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070004

Sample Amount 2

Moisture: 15.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260103.wiff

Date Analyzed: 27-FEB-10 17:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Kar 3/1/10

Sample Name: "246070004" Sample ID: "948890[2]LER" File: "EXS02260103.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/27/2010
cq. Time: 5:35:57 PM
odified: No

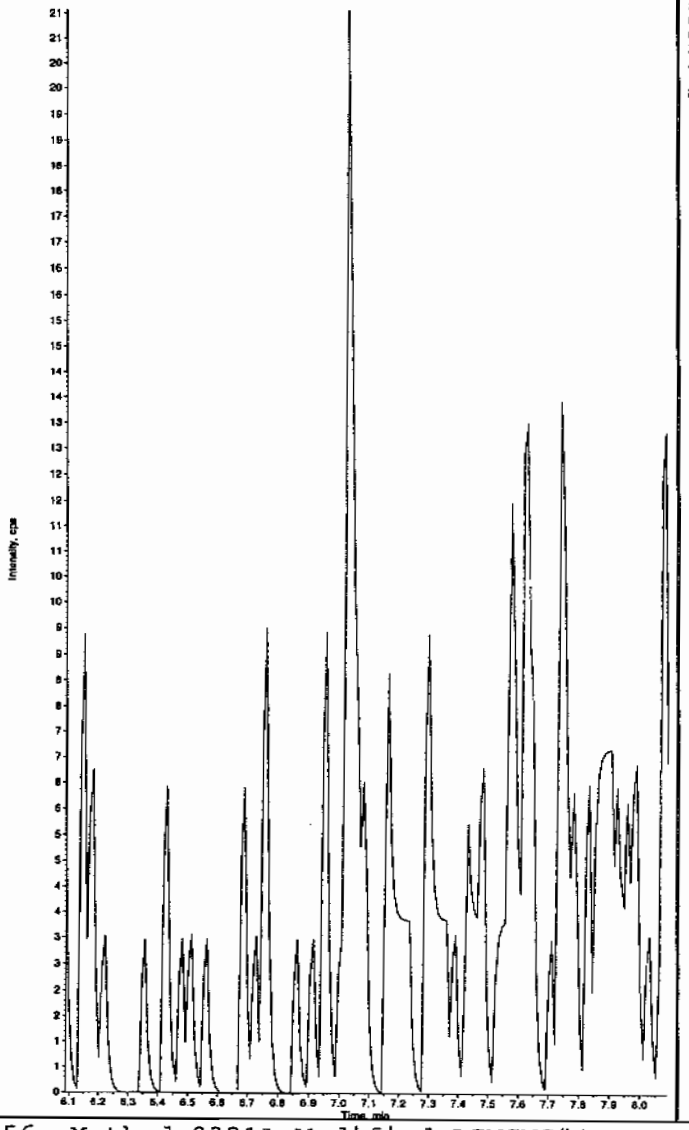

Sample Name: "246070004" Sample ID: "948890[2]LER" File: "EXS02260103.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:35:57 PM

Modified: Yes

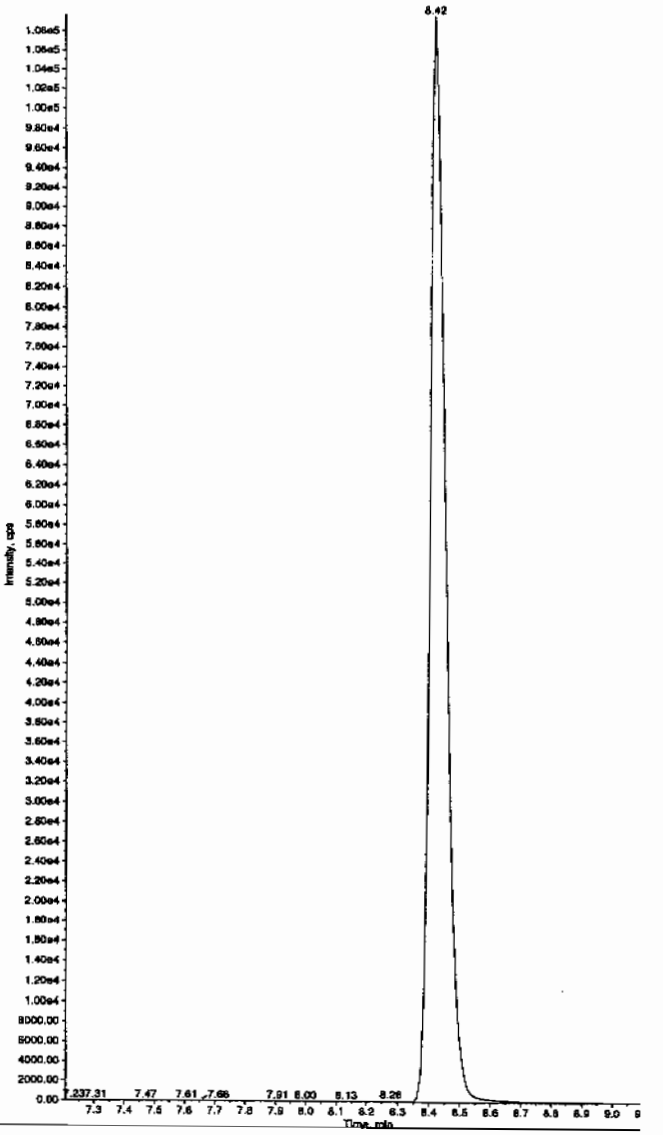

HMM 03/01/10

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Sample Name: "246070004" Sample ID: "948890|2|LER" File: "EXS02260103.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

xmple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 224. ng/mL
q. Date: 2/27/2010
q. Time: 5:35:57 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.46 min
e Relative RT: No

t. Type: Valley
tention Time: 8.42 min
ea: 3.10e+006 counts
ight: 867161.133 cps
art Time: 8.33 min
d Time: 8.77 min

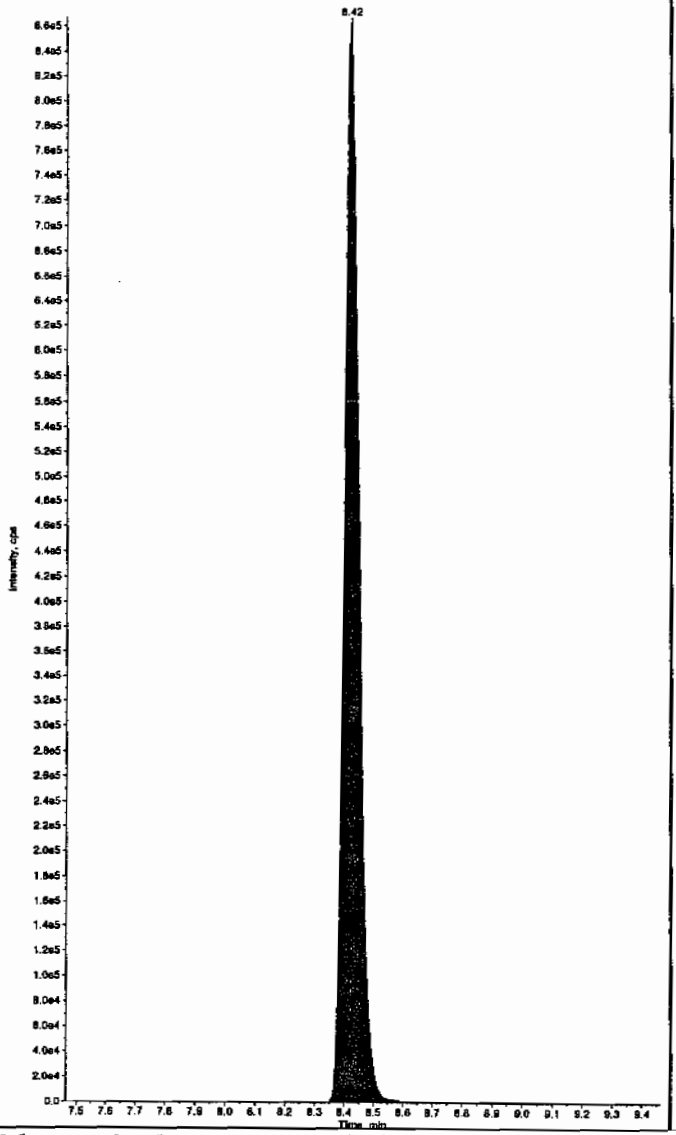

Sample Name: "246070004" Sample ID: "948890|2|LER" File: "EXS02260103.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:35:57 PM

Modified: No

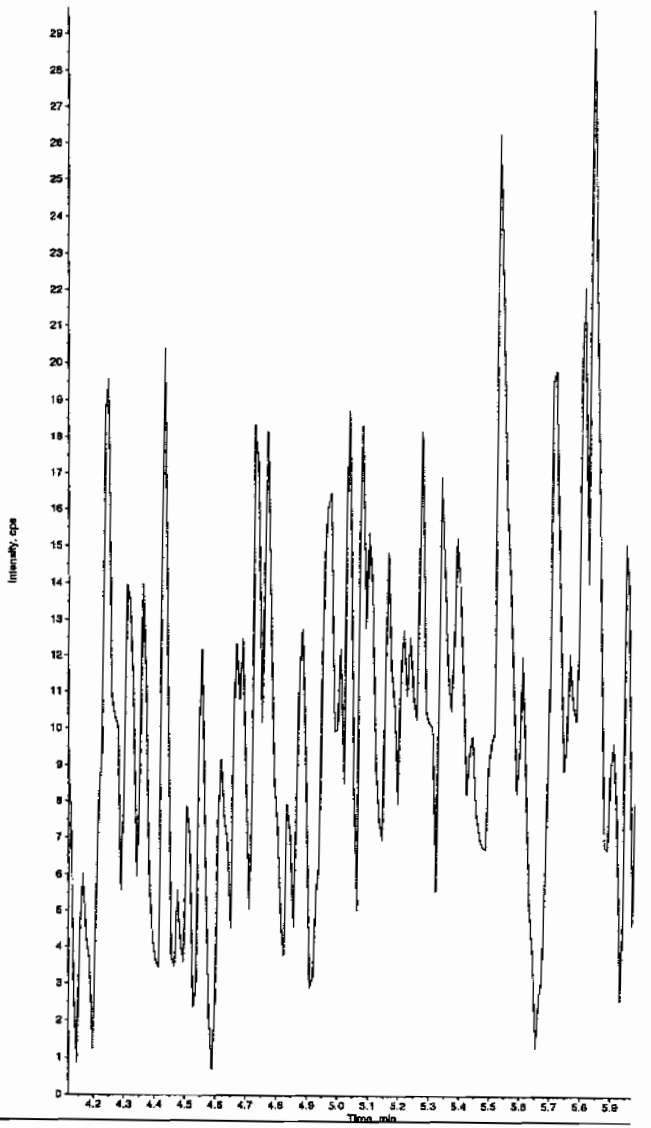

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Sample Name: "246070004" Sample ID: "948890|2|LER" File: "EXS02260103.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/27/2010
q. Time: 5:35:57 PM
dified: No

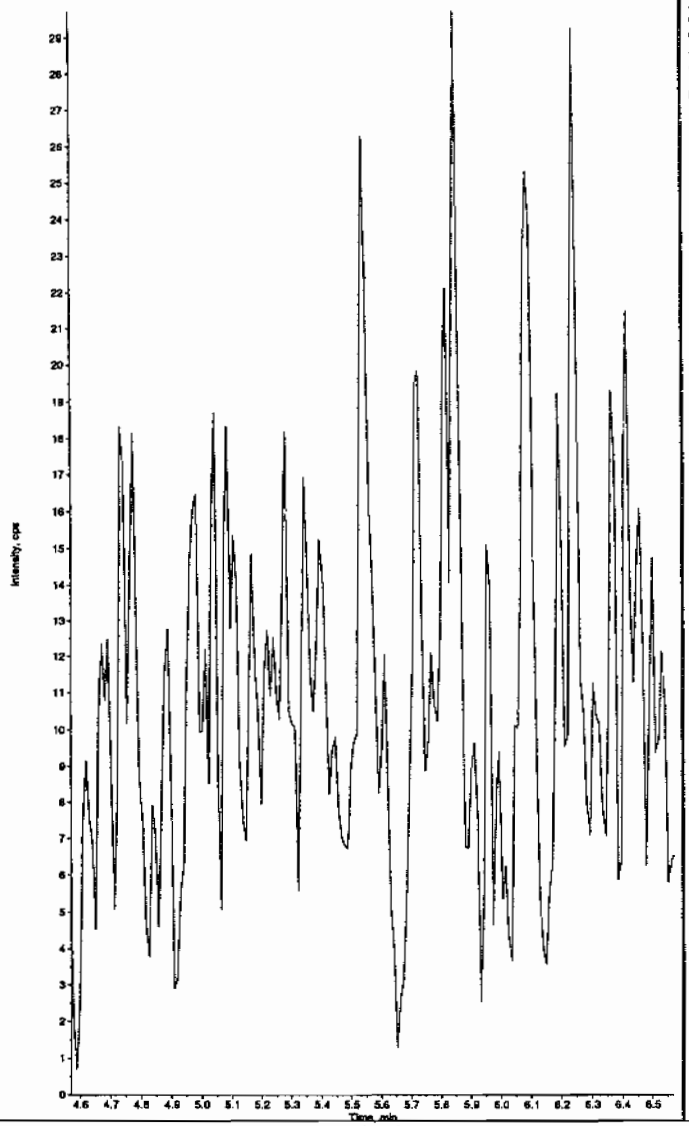

Sample Name: "246070004" Sample ID: "948890|2|LER" File: "EXS02260103.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:35:57 PM

Modified: No

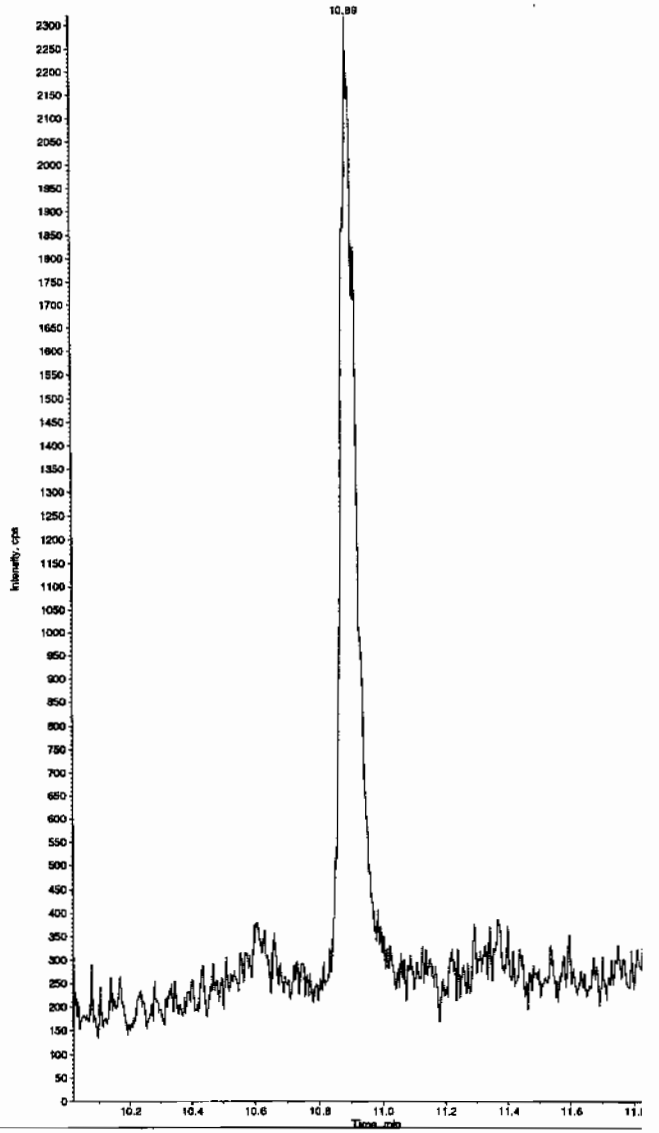

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8148

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070005

Sample Amount 2

Moisture: 35.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304124a

Date Analyzed: 07-MAR-10 03:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304124a
Date: 07-Mar-2010
Time: 03:45:13
ID: 246070005
Vial: 3:6,C

| LANU | 948890 | Solid | 2 |

MAP 3/7/10

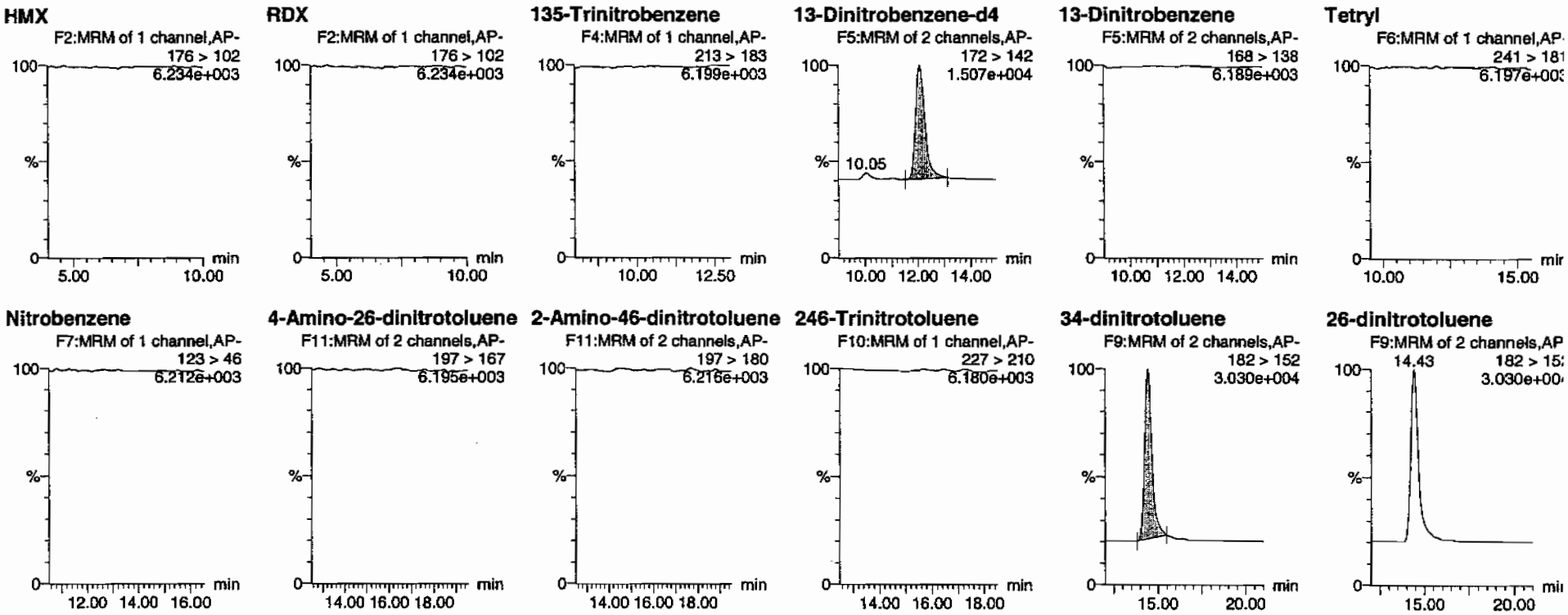

Hmc 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

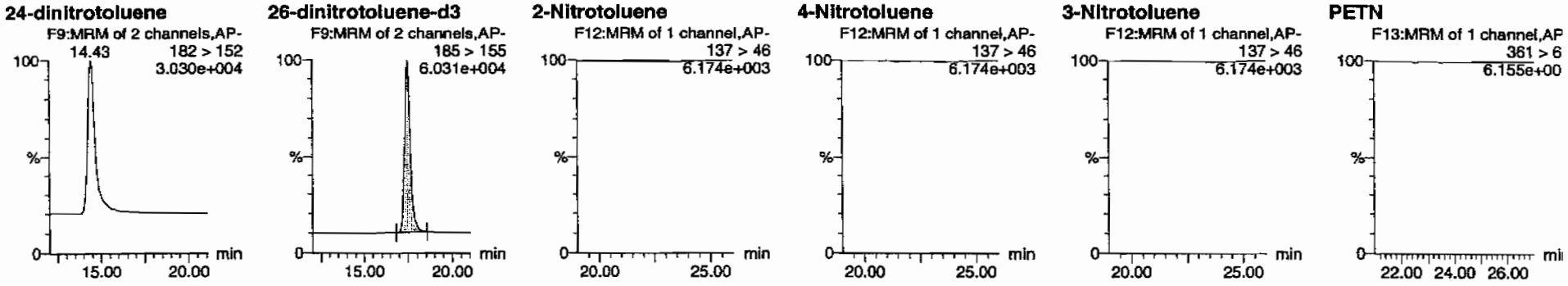

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246070005	HMX	176 > 102			3710.480									
246070005	RDX	176 > 102			3710.480									
246070005	135-Trinitrobenzene	213 > 183			3710.480									
246070005	13-Dinitrobenzene-d4	172 > 142	12.07	3710.480		3710.480	3710.480	bb			528.2892	105.7	5.7	142.7
246070005	13-Dinitrobenzene	168 > 138			3710.480									
246070005	Tetryl	241 > 181			3710.480									
246070005	Nitrobenzene	123 > 46			3710.480									
246070005	4-Amino-26-dinitrotoluene	197 > 167			21028.826									
246070005	2-Amino-46-dinitrotoluene	197 > 180			21028.826									
246070005	246-Trinitrotoluene	227 > 210			21028.826									
246070005	34-dinitrotoluene	182 > 152	14.43	11338.721	21028.826	11338.721	269.599	bb			278.9537	111.6	11.6	752.2
246070005	26-dinitrotoluene	182 > 152			21028.826									
246070005	24-dinitrotoluene	182 > 152			21028.826									
246070005	26-dinitrotoluene-d3	185 > 155	17.47	21028.826		21028.826	21028.826	bb			511.3869	102.3	2.3	1669.7
246070005	2-Nitrotoluene	137 > 46			21028.826									
246070005	4-Nitrotoluene	137 > 46			21028.826									
246070005	3-Nitrotoluene	137 > 46			21028.826									
246070005	PETN	361 > 62			21028.826									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8148

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070005

Sample Amount 2

Moisture: 35.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260104.wiff

Date Analyzed: 27-FEB-10 17:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/1/10

Sample Name: "246070005" Sample ID: "948890|2|LER" File: "EXS02260104.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/27/2010
cq. Time: 5:51:38 PM

odified: No

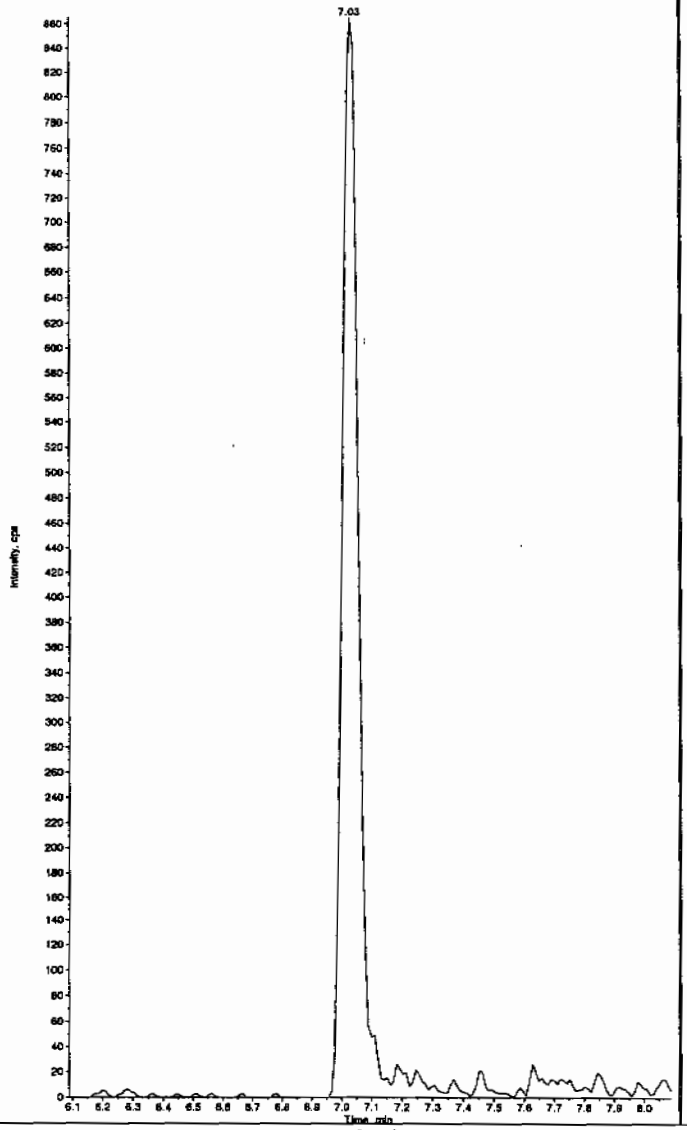

Sample Name: "246070005" Sample ID: "948890|2|LER" File: "EXS02260104.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:51:38 PM

Modified: Yes

Hmm 03/01/10

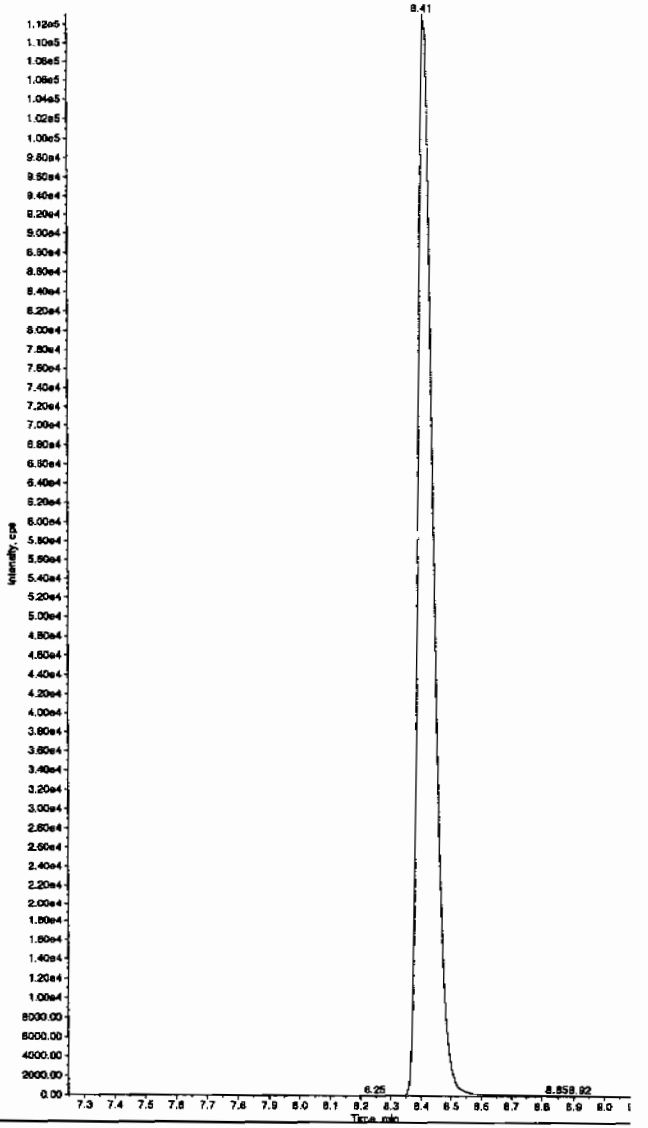

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246070005" Sample ID: "948890|2|LER" File: "EXS02260104.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 237. ng/mL
q. Date: 2/27/2010
q. Time: 5:51:38 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.46 min
e Relative RT: No

t. Type: Valley
tention Time: 8.41 min
ea: 3.26e+006 counts
ight: 965519.836 cps
art Time: 8.31 min
d Time: 8.77 min

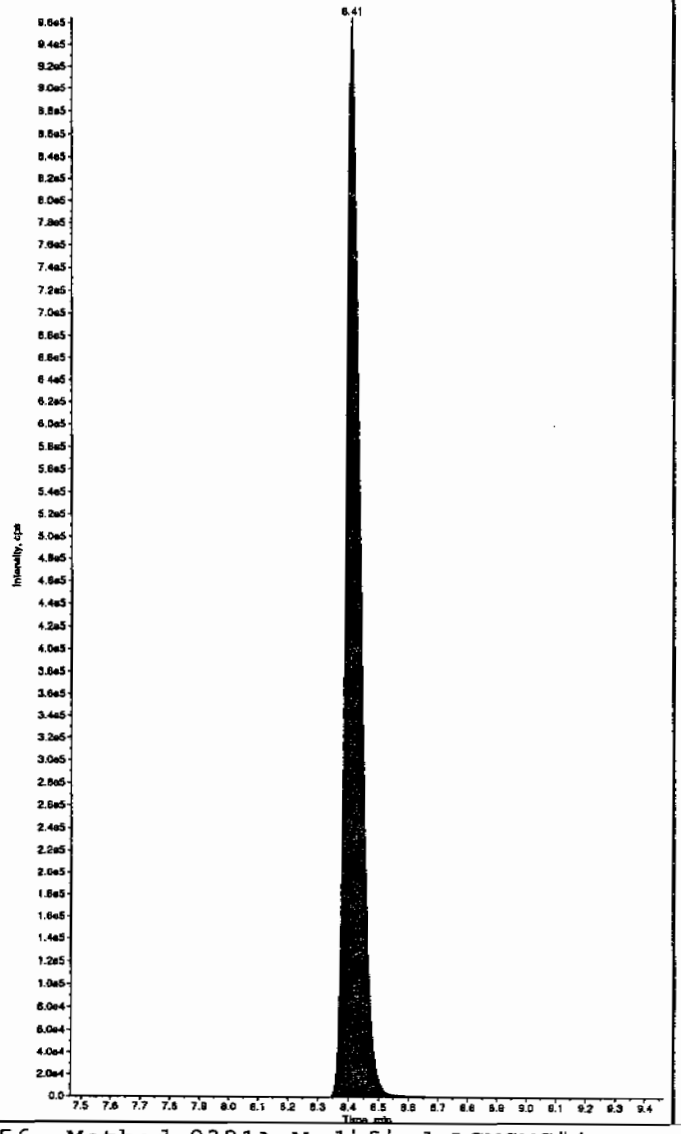

Sample Name: "246070005" Sample ID: "948890|2|LER" File: "EXS02260104.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:51:38 PM

Modified: No

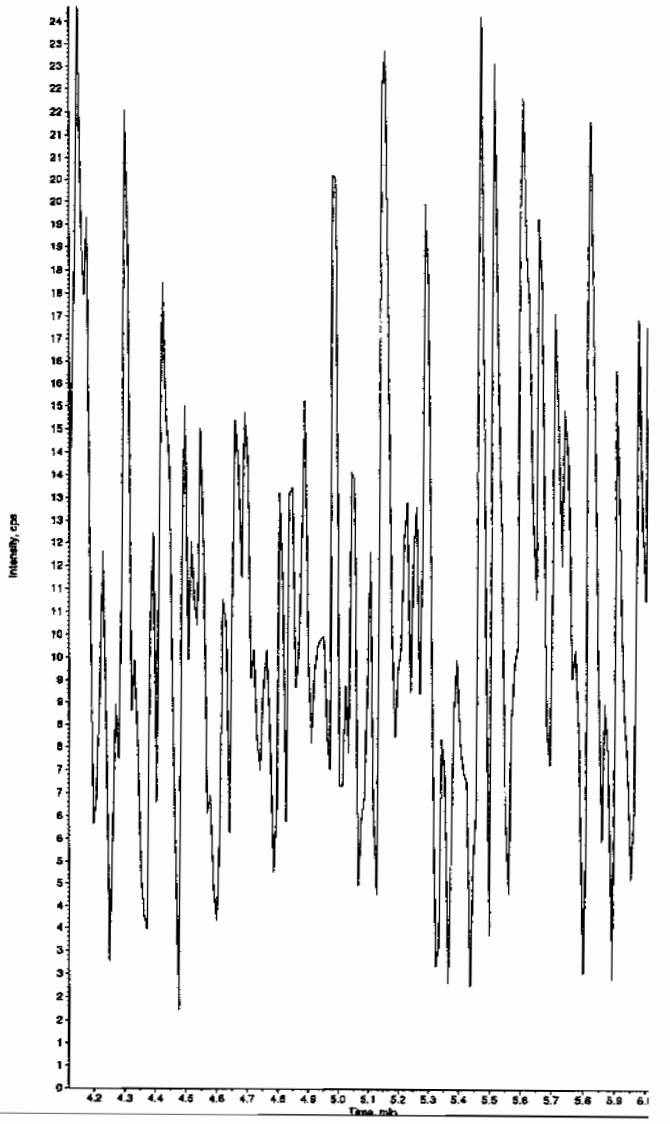

Sample Name: "246070005" Sample ID: "948890|2|LER" File: "EXS02260104.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX63212S" Annotation: ""
mple Index: 1
mple Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 2/27/2010
cq. Time: 5:51:38 PM

odified: No

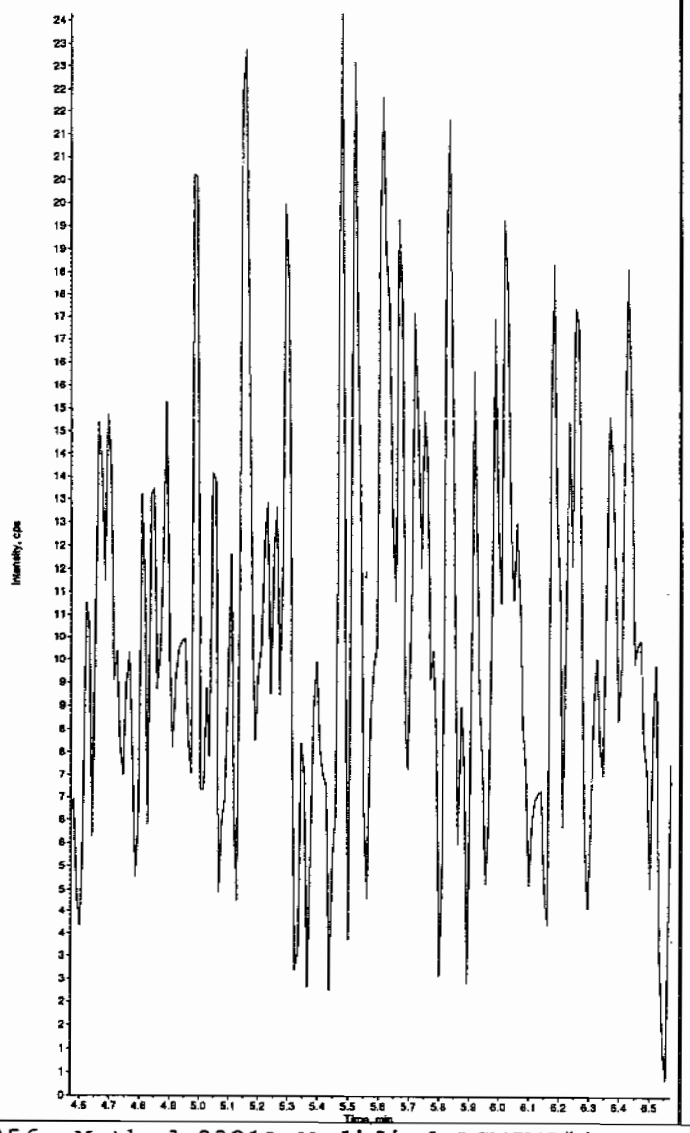

Sample Name: "246070005" Sample ID: "948890|2|LER" File: "EXS02260104.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX63212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:51:38 PM

Modified: No

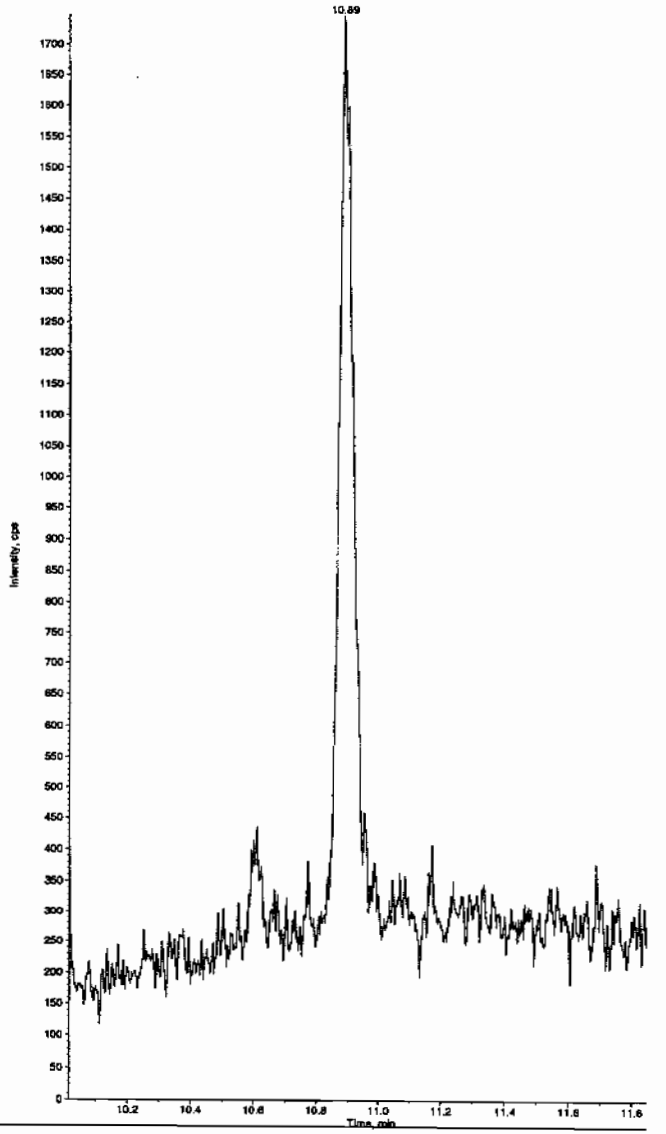

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8166

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070006

Sample Amount 2

Moisture: 17.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304125a

Date Analyzed: 07-MAR-10 04:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304125a
Date: 07-Mar-2010
Time: 04:14:43
ID: 246070006
Vial: 3:6,D

| LANL | 948890 | Solids | 2 |

MMT 3/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.301e+003

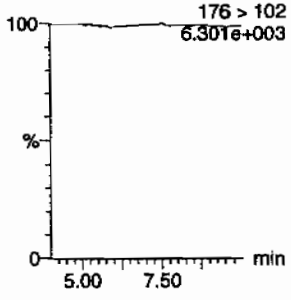

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.301e+003

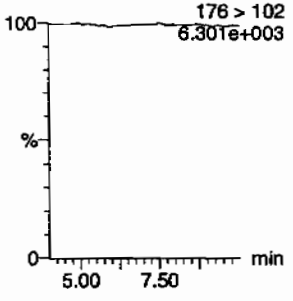

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.251e+003

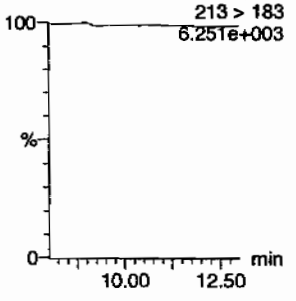

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.555e+004

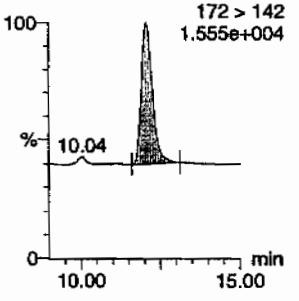

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.219e+003

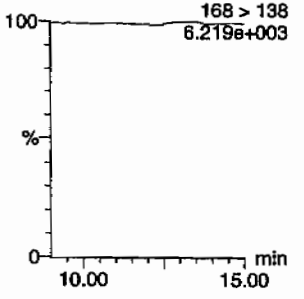

Tetryl
F6:MRM of 1 channel,AP
241 > 18
6.221e+00

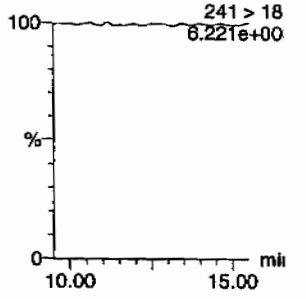

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.241e+003

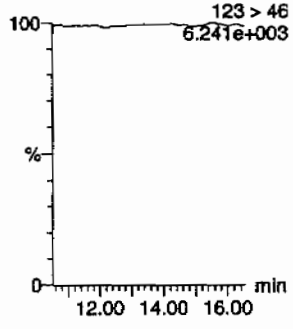

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.242e+003

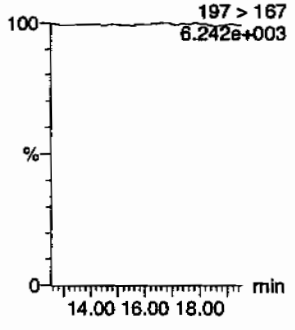

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.271e+003

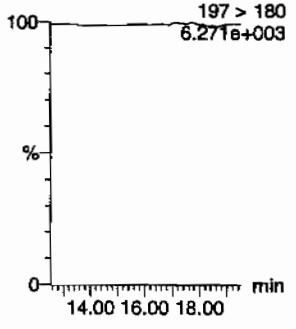

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.223e+003

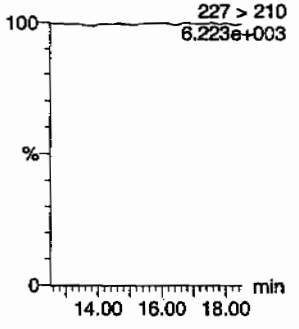

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.334e+004

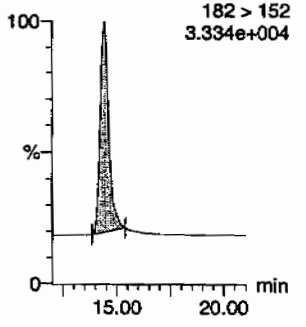

26-dinitrotoluene
F9:MRM of 2 channels,AP
14.41
182 > 15
3.334e+00

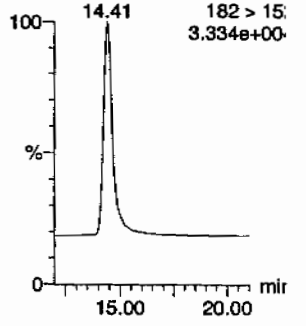

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

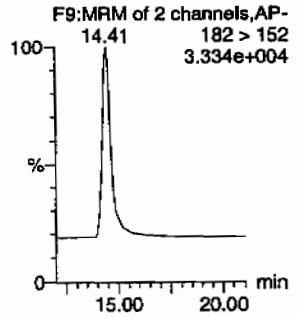

26-dinitrotoluene-d3

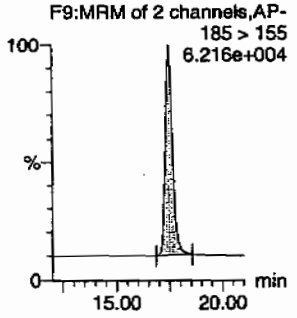

2-Nitrotoluene

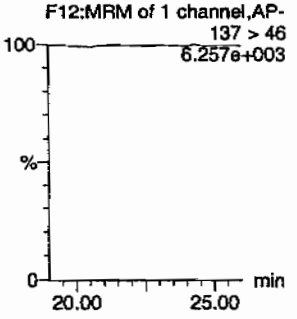

4-Nitrotoluene

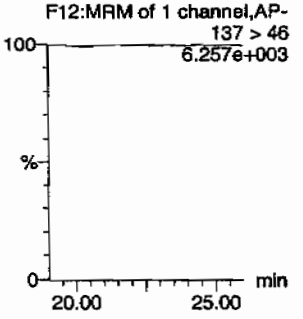

3-Nitrotoluene

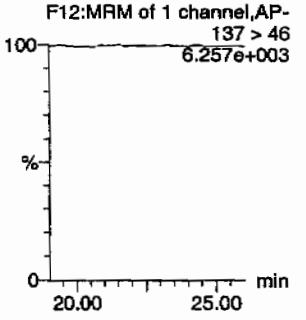

PETN

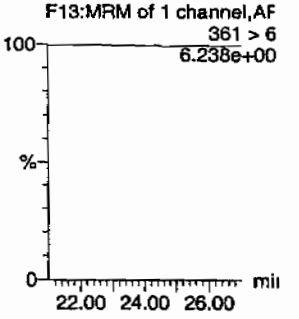

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
246070006	HMX	176 > 102			3764.827									
246070006	RDX	176 > 102			3764.827									
246070006	135-Trinitrobenzene	213 > 183			3764.827									
246070006	13-Dinitrobenzene-d4	172 > 142	12.06	3764.827		3764.827	3764.827	bb			536.0270	107.2	7.2	249.1
246070006	13-Dinitrobenzene	168 > 138			3764.827									
246070006	Tetryl	241 > 181			3764.827									
246070006	Nitrobenzene	123 > 46			3764.827									
246070006	4-Amino-26-dinitrotoluene	197 > 167			22485.945									
246070006	2-Amino-46-dinitrotoluene	197 > 180			22485.945									
246070006	246-Trinitrotoluene	227 > 210			22485.945									
246070006	34-dinitrotoluene	182 > 152	14.41	12308.983	22485.945	12308.983	273.704	bb			283.2006	113.3	13.3	842.0
246070006	26-dinitrotoluene	182 > 152			22485.945									
246070006	24-dinitrotoluene	182 > 152			22485.945									
246070006	26-dinitrotoluene-d3	185 > 155	17.45	22485.945		22485.945	22485.945	bb			546.8217	109.4	9.4	2844.4
246070006	2-Nitrotoluene	137 > 46			22485.945									
246070006	4-Nitrotoluene	137 > 46			22485.945									
246070006	3-Nitrotoluene	137 > 46			22485.945									
246070006	PETN	361 > 62			22485.945									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8166

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070006

Sample Amount 2

Moisture: 17.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260105.wiff

Date Analyzed: 27-FEB-10 18:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	443	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lum 3/1/10

Sample Name: "246070006" Sample ID: "948890|2|LER" File: "EXS02260105.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 44.3 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:07:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.03 min
Area: 3.50e+004 counts
Height: 9269.658 cps
Start Time: 6.94 min
End Time: 7.36 min

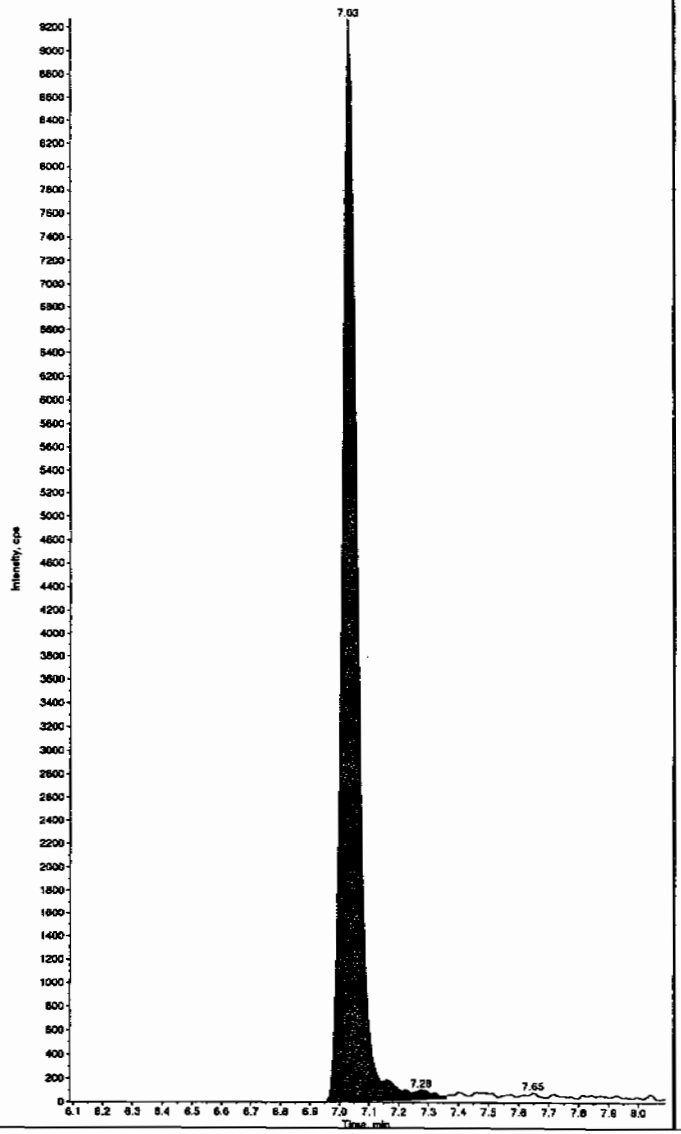

Sample Name: "246070006" Sample ID: "948890|2|LER" File: "EXS02260105.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:07:21 PM

Modified: Yes

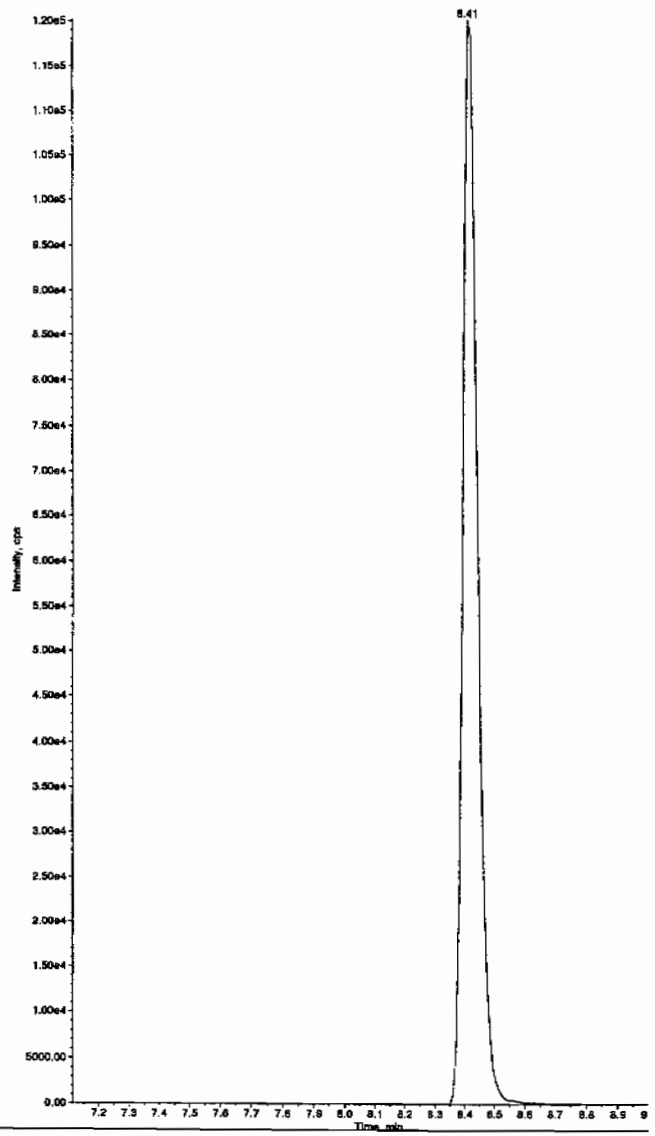

HMM 03/01/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246070006" Sample ID: "948890|2|LER" File: "EXS02260105.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 234. ng/mL
cq. Date: 2/27/2010
cq. Time: 6:07:21 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.46 min
se Relative RT: No

it. Type: Valley
etention Time: 8.41 min
rea: 3.24e+006 counts
eight: 957031.677 cps
tart Time: 8.30 min
nd Time: 8.77 min

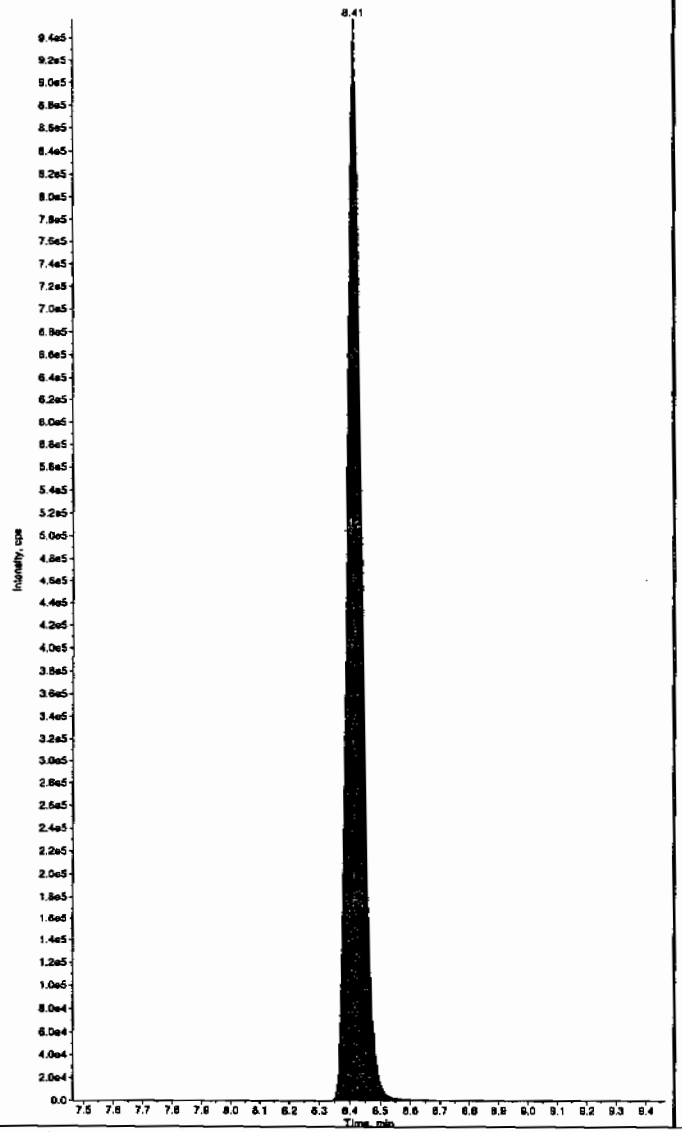

Sample Name: "246070006" Sample ID: "948890|2|LER" File: "EXS02260105.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:07:21 PM

Modified: No

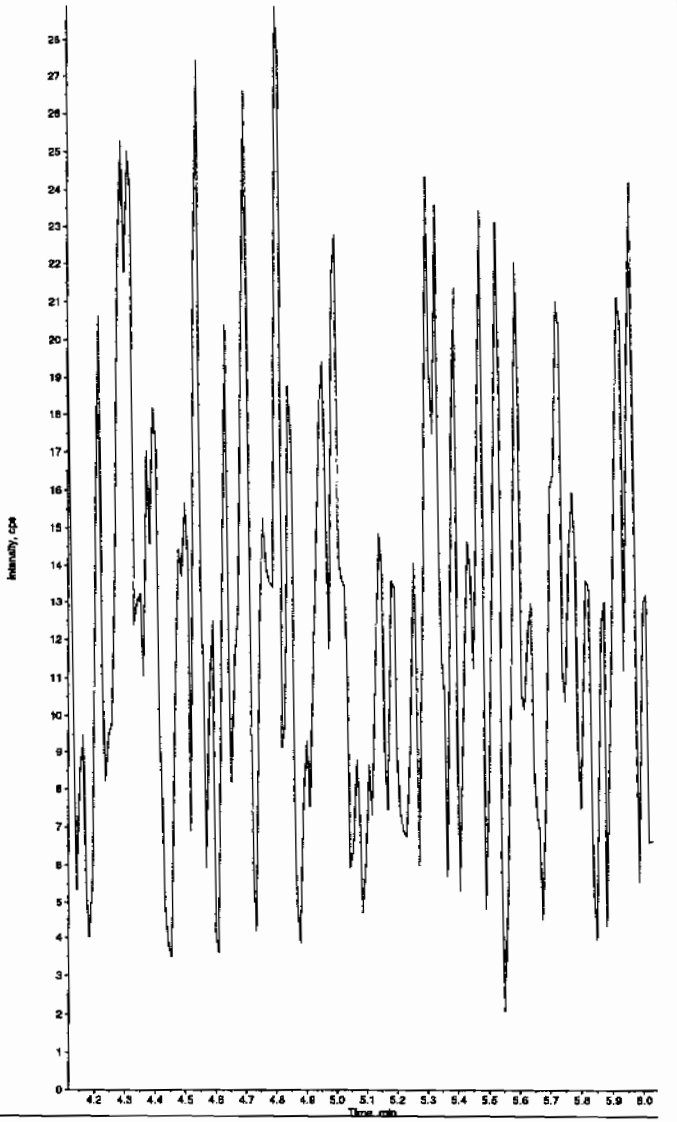

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "246070006" Sample ID: "948890|2|LER" File: "EXS02260105.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:07:21 PM

Modified: No

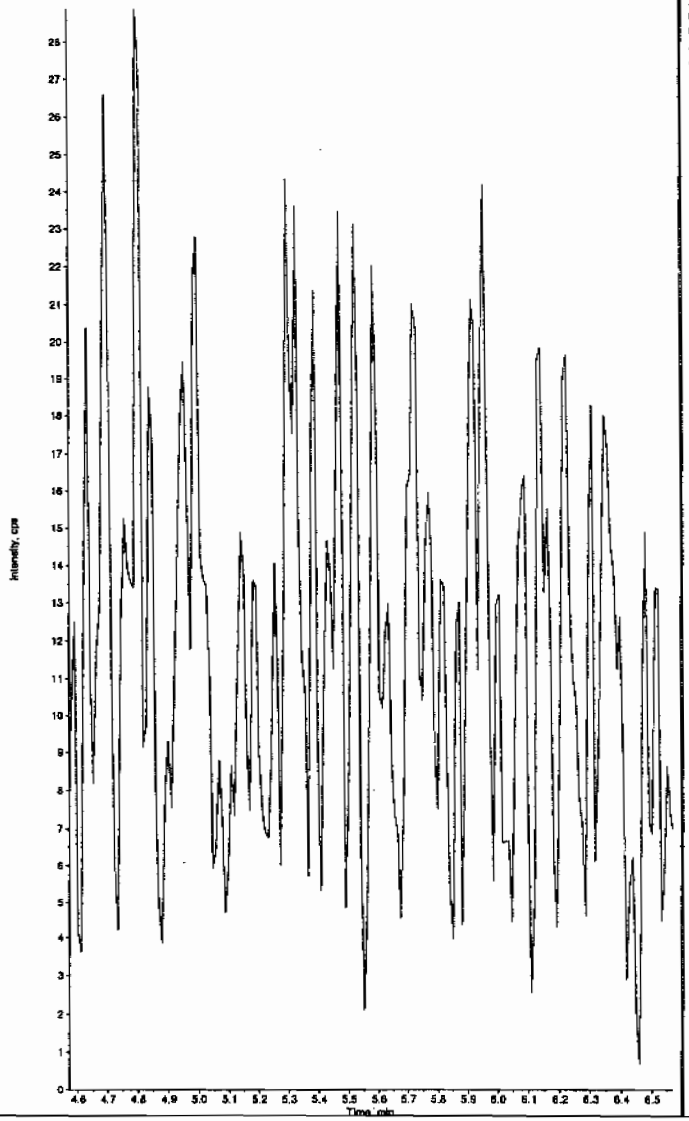

Sample Name: "246070006" Sample ID: "948890|2|LER" File: "EXS02260105.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:07:21 PM

Modified: No

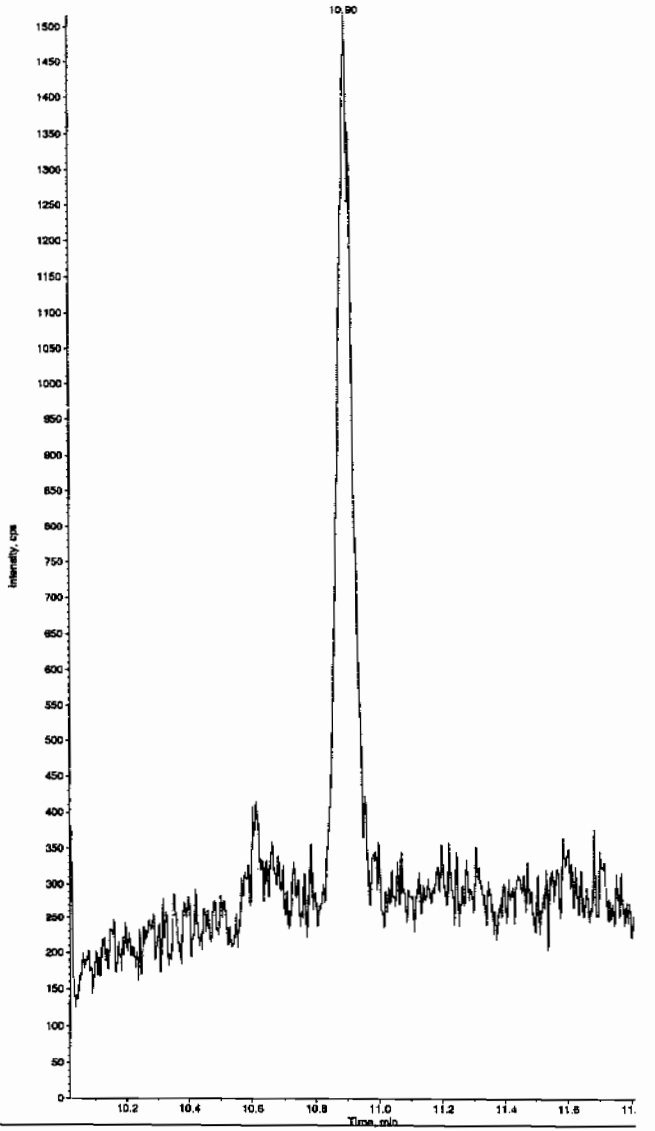

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8161

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070007

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304129a

Date Analyzed: 07-MAR-10 06:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304129a
Date: 07-Mar-2010
Time: 06:12:44
ID: 246070007
Vial: 3:6,E

| LANX | 948890 | Solid | 2 |

MM 3/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.313e+003

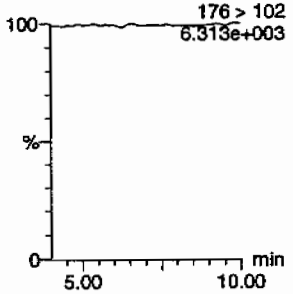

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.313e+003

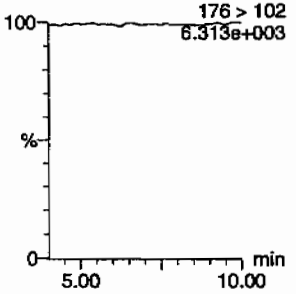

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.286e+003

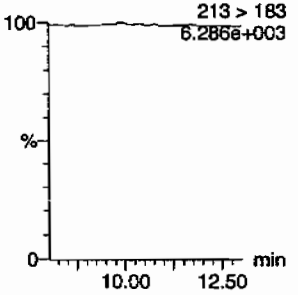

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.545e+004

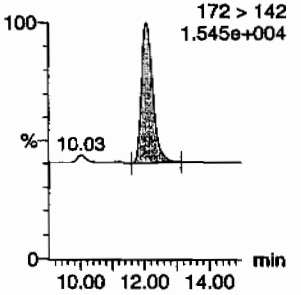

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.257e+003

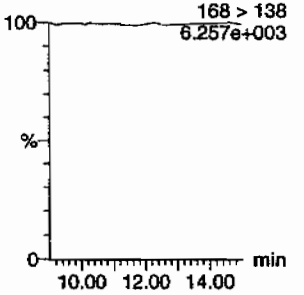

Tetryl
F6:MRM of 1 channel,A
241 > 1
6.268e+0

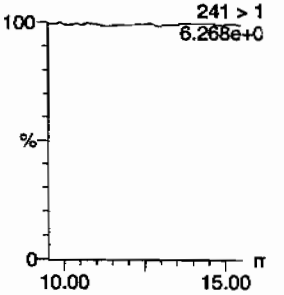

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.304e+003

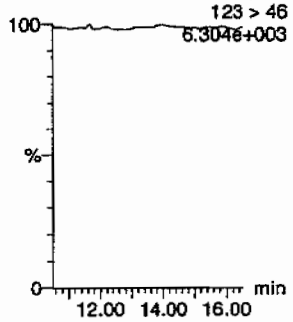

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.298e+003

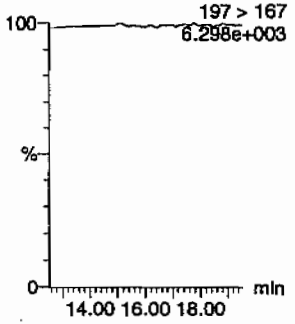

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.292e+003

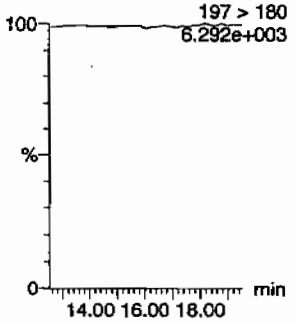

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.285e+003

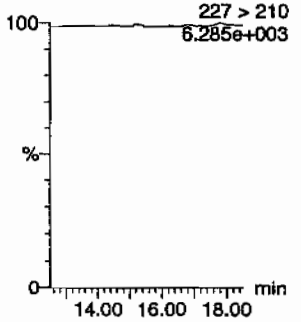

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.085e+004

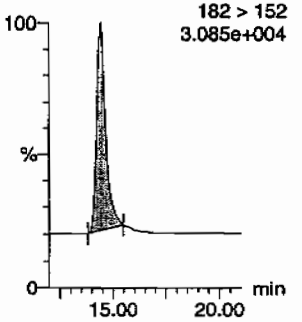

26-dinitrotoluene
F9:MRM of 2 channels,A
14.43
182 > 1
3.085e+0

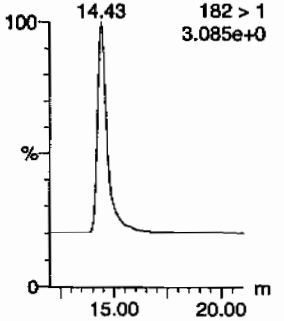

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

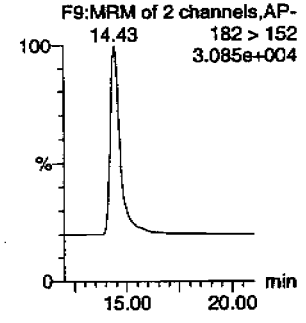

26-dinitrotoluene-d3

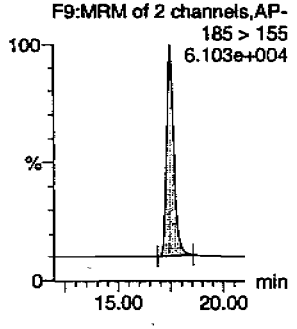

2-Nitrotoluene

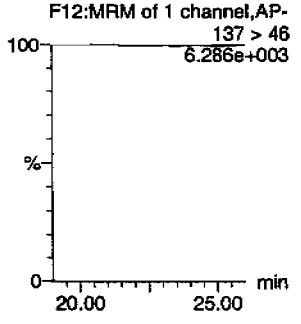

4-Nitrotoluene

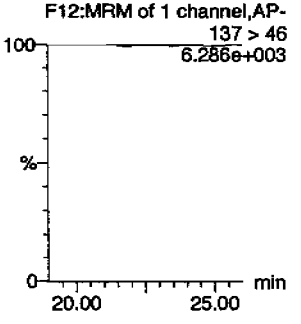

3-Nitrotoluene

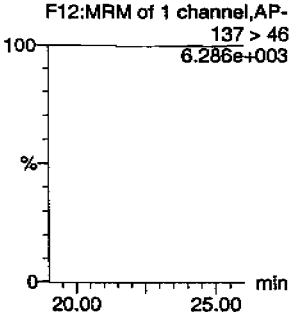

PETN

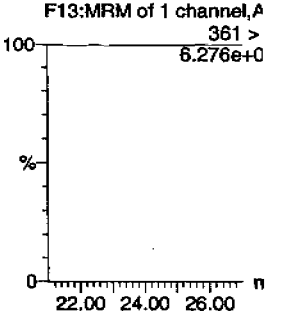

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246070007	HMX	176 > 102			3810.764									
246070007	RDX	176 > 102			3810.764									
246070007	135-Trinitrobenzene	213 > 183			3810.764									
246070007	13-Dinitrobenzene-d4	172 > 142	12.07	3810.764		3810.764	3810.764	bb			542.5674	108.5	8.5	207.8
246070007	13-Dinitrobenzene	168 > 138			3810.764									
246070007	Tetryl	241 > 181			3810.764									
246070007	Nitrobenzene	123 > 46			3810.764									
246070007	4-Amino-26-dinitrotoluene	197 > 167			22078.279									
246070007	2-Amino-46-dinitrotoluene	197 > 180			22078.279									
246070007	246-Trinitrotoluene	227 > 210			22078.279									
246070007	34-dinitrotoluene	182 > 152	14.43	11879.928	22078.279	11879.928	269.041	bb			278.3759	111.4	11.4	702.1
246070007	26-dinitrotoluene	182 > 152			22078.279									
246070007	24-dinitrotoluene	182 > 152			22078.279									
246070007	26-dinitrotoluene-d3	185 > 155	17.47	22078.279		22078.279	22078.279	bb			536.9079	107.4	7.4	1446.1
246070007	2-Nitrotoluene	137 > 46			22078.279									
246070007	4-Nitrotoluene	137 > 46			22078.279									
246070007	3-Nitrotoluene	137 > 46			22078.279									
246070007	PETN	361 > 62			22078.279									

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8161

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070007

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260106.wiff

Date Analyzed: 27-FEB-10 18:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sum 3/1/10

Sample Name: "246070007" Sample ID: "948890|2|LER" File: "EXS02260106.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:23:03 PM

Modified: No

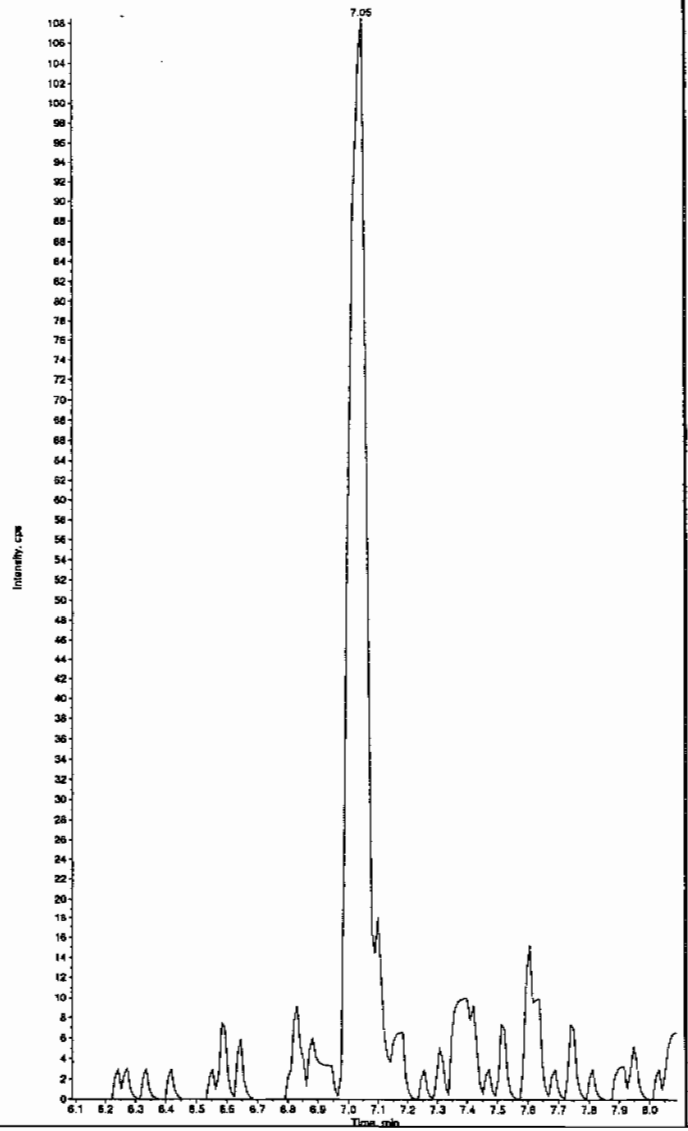

Sample Name: "246070007" Sample ID: "948890|2|LER" File: "EXS02260106.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:23:03 PM

Modified: Yes

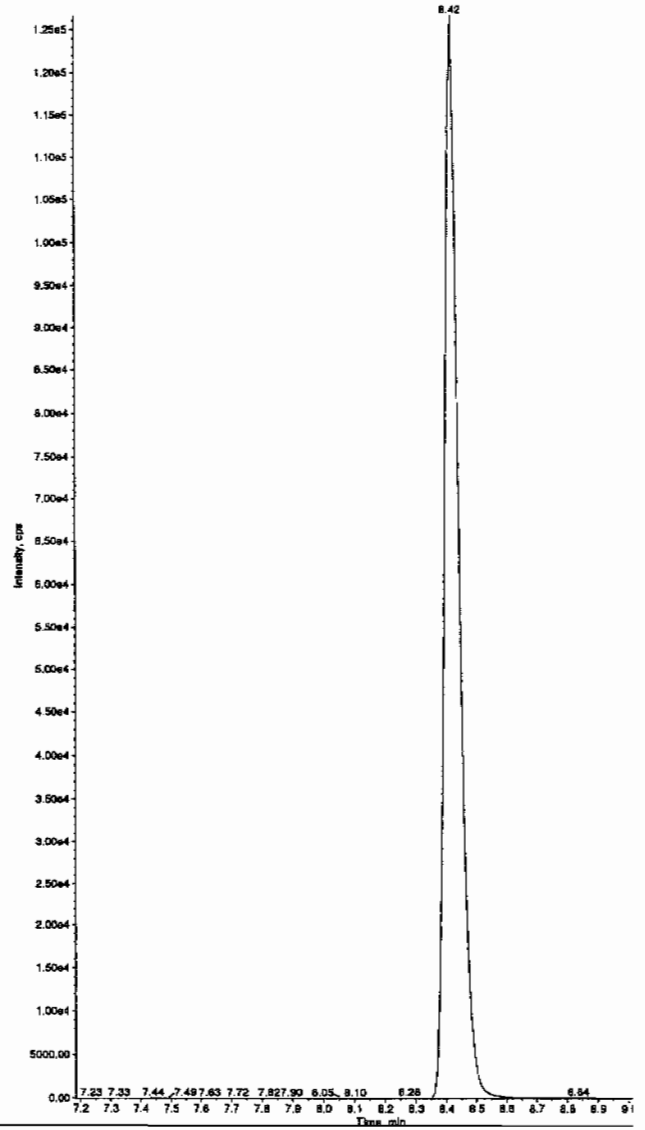

HMM 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246070007" Sample ID: "948890|2|LER" File: "EXS02260106.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 241. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:23:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 3.32e+006 counts
Height: 995796.875 cps
Start Time: 8.31 min
End Time: 8.77 min

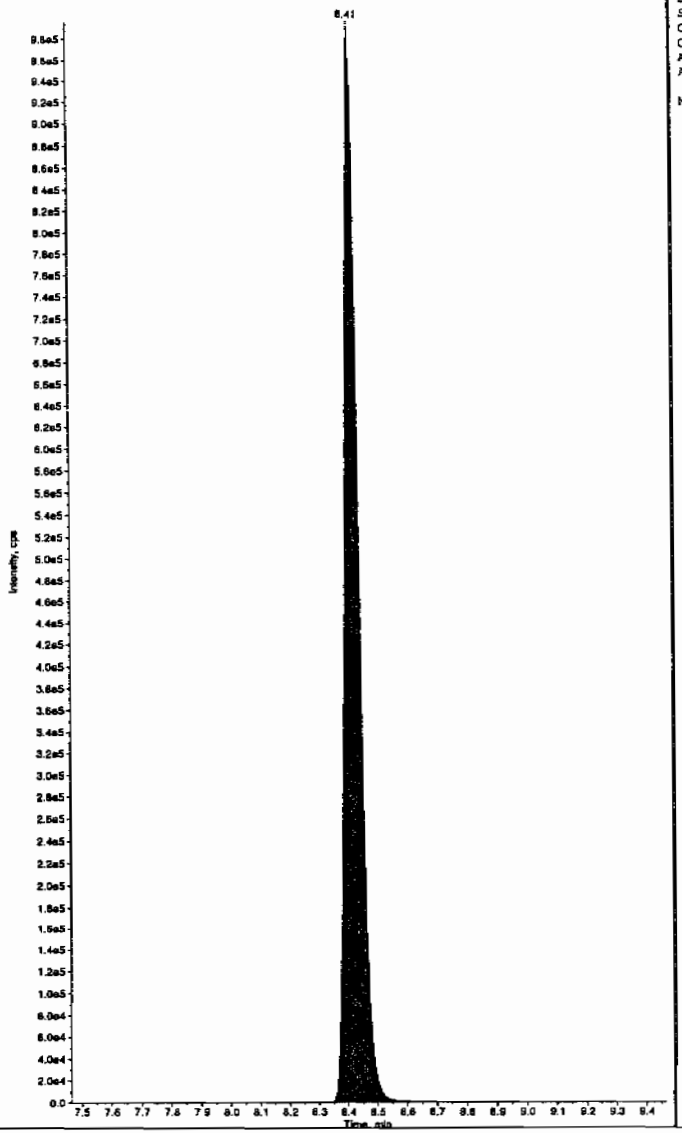

Sample Name: "246070007" Sample ID: "948890|2|LER" File: "EXS02260106.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:23:03 PM

Modified: No

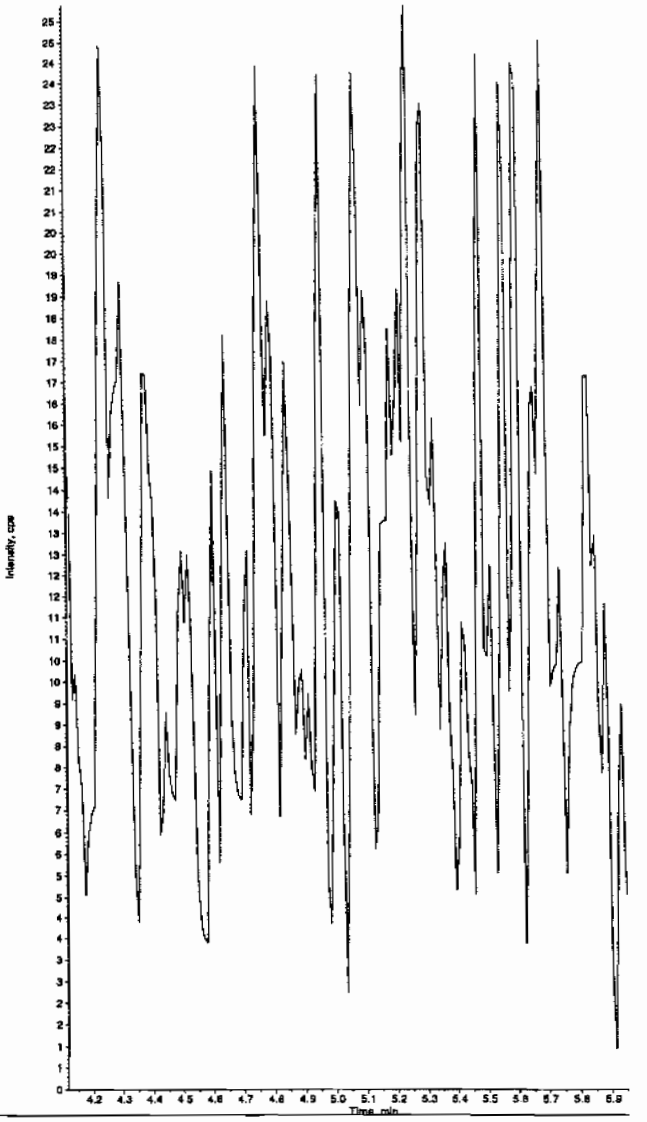

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "246070007" Sample ID: "948890|2|LER" File: "EXS02260106.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:23:03 PM

Modified: No

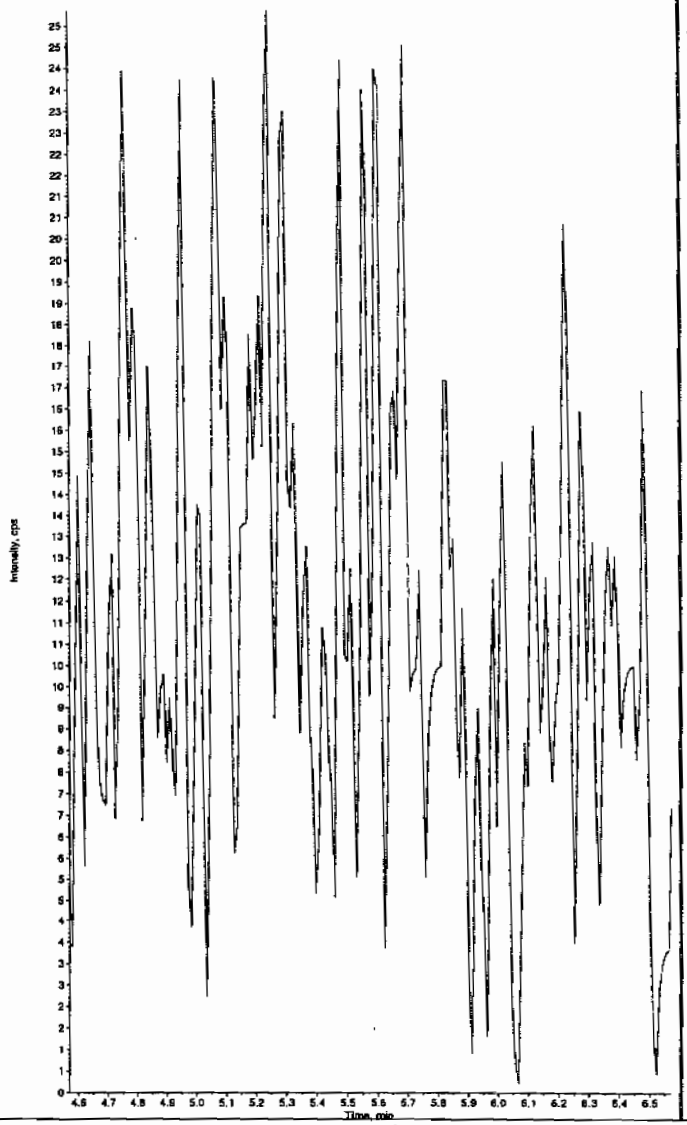

Sample Name: "246070007" Sample ID: "948890|2|LER" File: "EXS02260106.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:23:03 PM

Modified: No

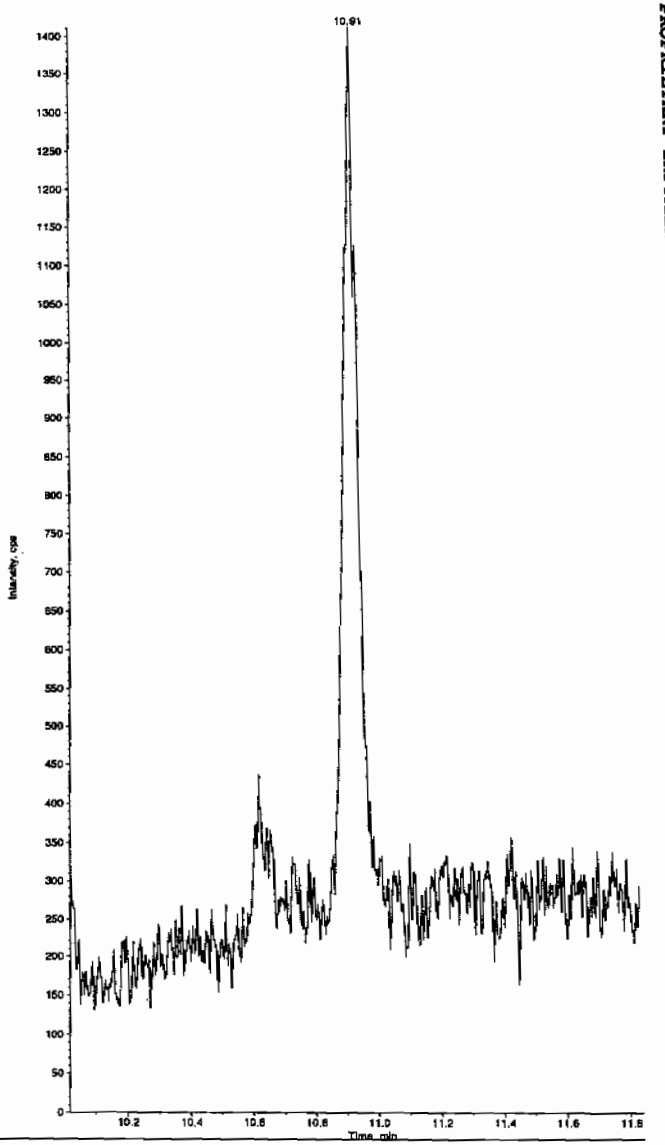

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8154

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070008

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304130a

Date Analyzed: 07-MAR-10 06:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304130a
Date: 07-Mar-2010
Time: 06:42:18
ID: 246070008
Vial: 3:6,F

| LANL | 948890 | Solid | 2 |

MMP 3/7/10

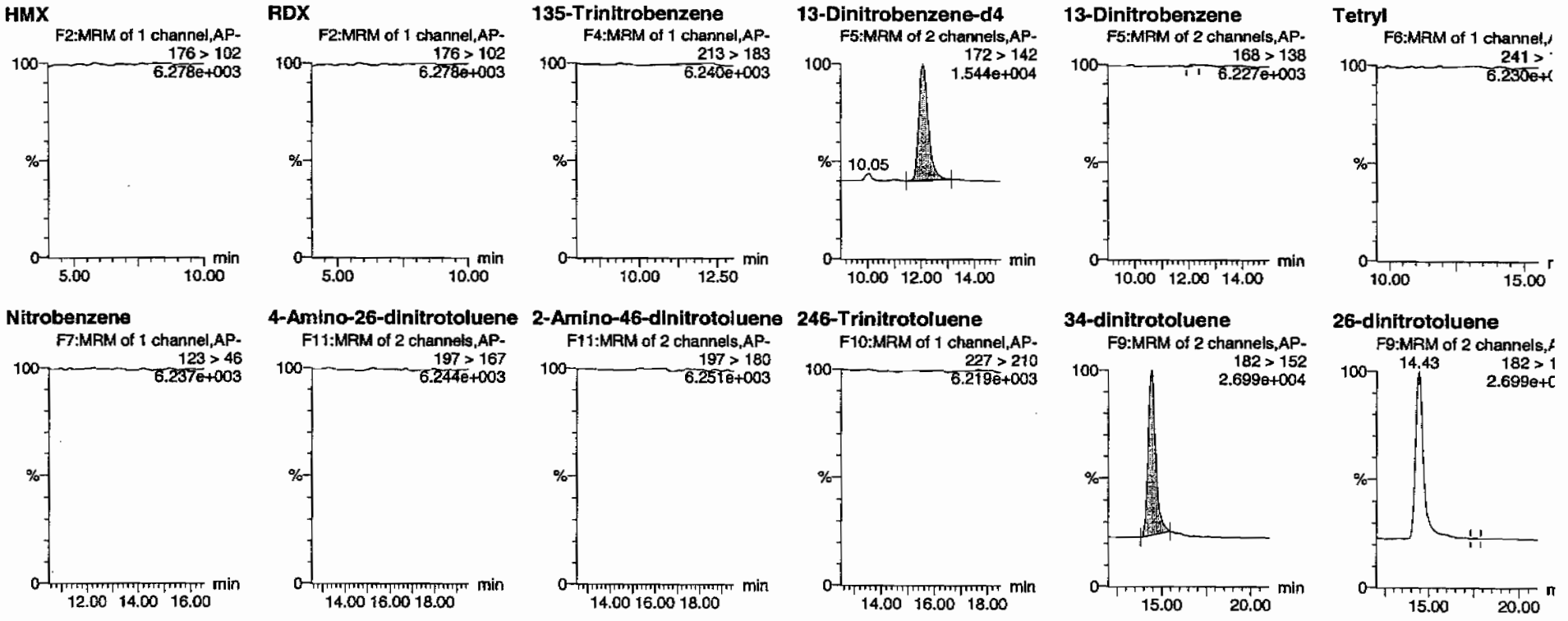

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

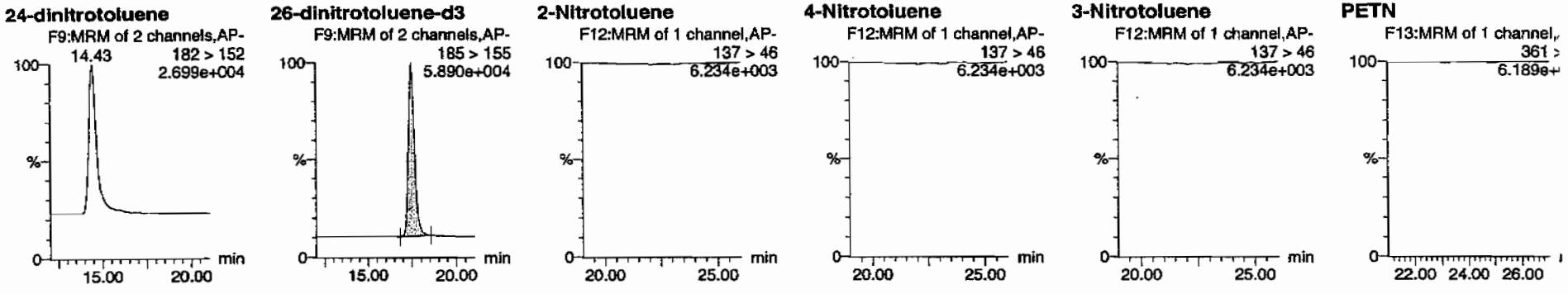

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246070008	HMX	176 > 102			3802.693									
246070008	RDX	176 > 102			3802.693									
246070008	135-Trinitrobenzene	213 > 183			3802.693									
246070008	13-Dinitrobenzene-d4	172 > 142	12.07	3802.693		3802.693	3802.693	bb			541.4183	108.3	8.3	424.5
246070008	13-Dinitrobenzene	168 > 138			3802.693			MM-	07-Mar-10	13:21:03				
246070008	Tetryl	241 > 181			3802.693									
246070008	Nitrobenzene	123 > 46			3802.693									
246070008	4-Amino-26-dinitrotoluene	197 > 167			20958.256									
246070008	2-Amino-46-dinitrotoluene	197 > 180			20958.256									
246070008	246-Trinitrotoluene	227 > 210			20958.256									
246070008	34-dinitrotoluene	182 > 152	14.43	9868.979	20958.256	9868.979	235.444	bb			243.6128	97.4	-2.6	263.0
246070008	26-dinitrotoluene	182 > 152			20958.256			MM-	07-Mar-10	13:29:26				
246070008	24-dinitrotoluene	182 > 152			20958.256									
246070008	26-dinitrotoluene-d3	185 > 155	17.47	20958.256		20958.256	20958.256	bb			509.6708	101.9	1.9	1717.7
246070008	2-Nitrotoluene	137 > 46			20958.256									
246070008	4-Nitrotoluene	137 > 46			20958.256									
246070008	3-Nitrotoluene	137 > 46			20958.256									
246070008	PETN	361 > 62			20958.256									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8154

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070008

Sample Amount 2

Moisture: 22.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260107.wiff

Date Analyzed: 27-FEB-10 18:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sam 3/1/10

Sample Name: "246070008" Sample ID: "948890|2|LER" File: "EXS02260107.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:38:43 PM

Modified: No

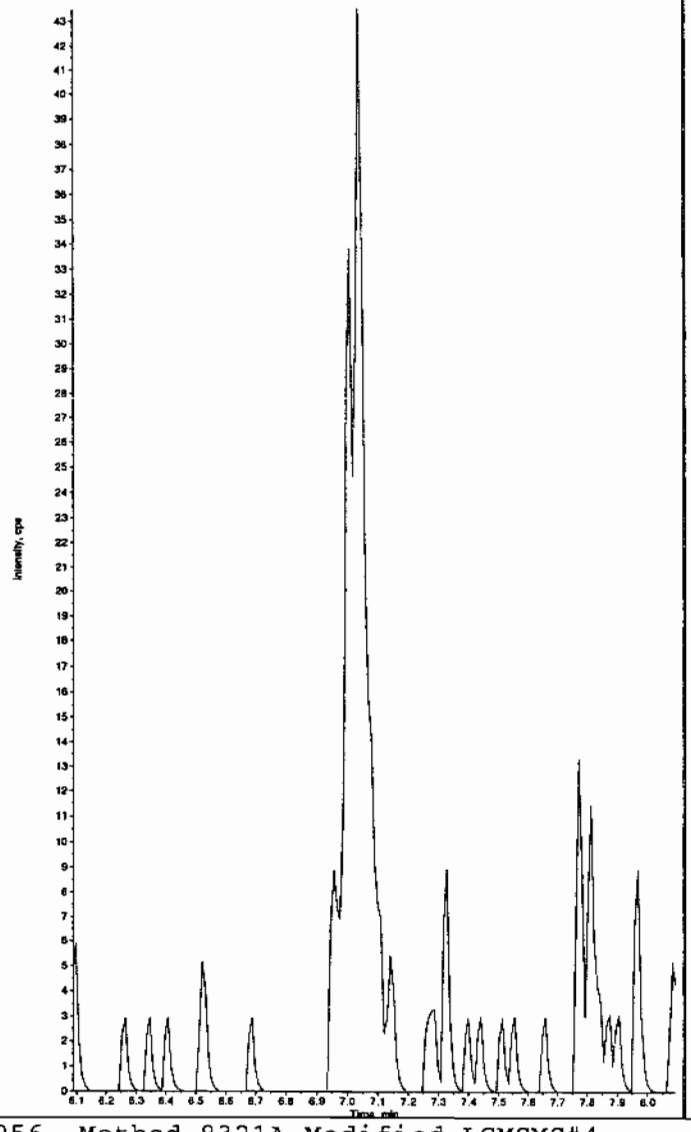

Sample Name: "246070008" Sample ID: "948890|2|LER" File: "EXS02260107.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:38:43 PM

Modified: Yes

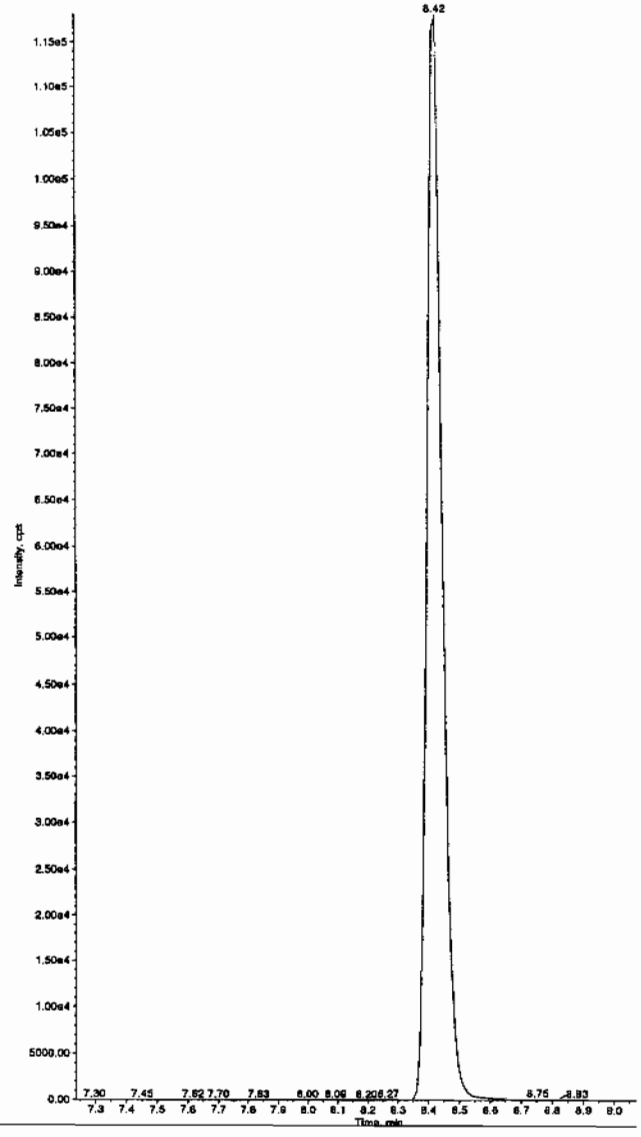

Hmc 03/01/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246070008" Sample ID: "948890|2|LER" File: "EXS02260107.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 228. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:38:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 3.15e+006 counts
Height: 927203.308 cps
Start Time: 8.31 min
End Time: 8.75 min

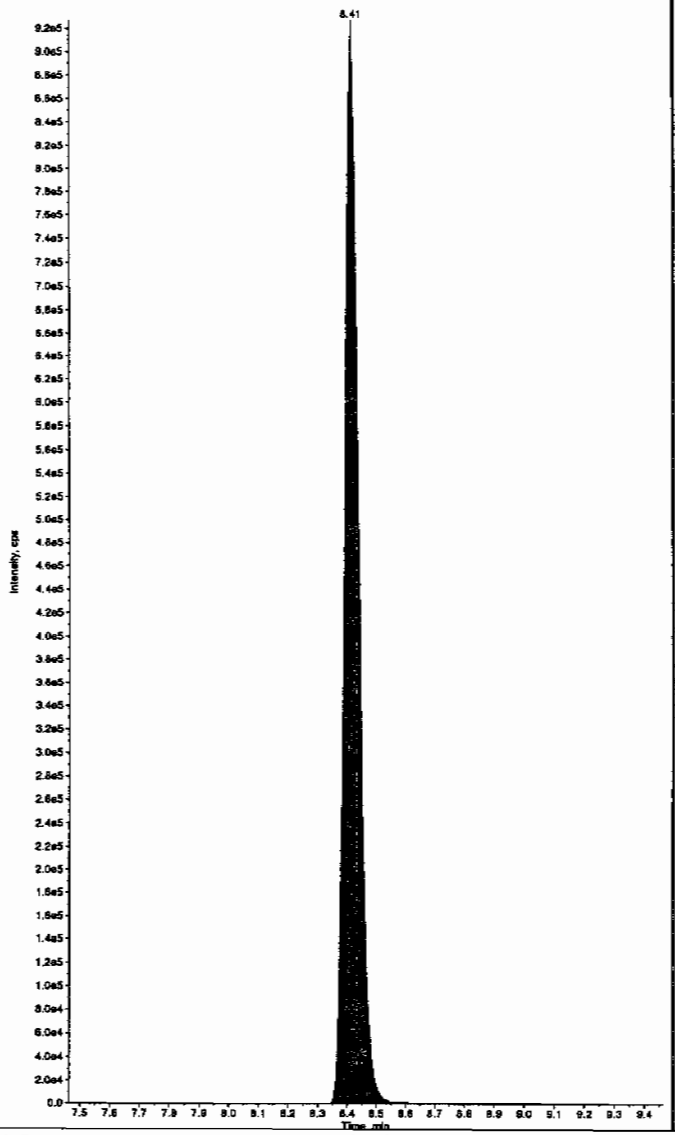

Sample Name: "246070008" Sample ID: "948890|2|LER" File: "EXS02260107.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:38:43 PM

Modified: No

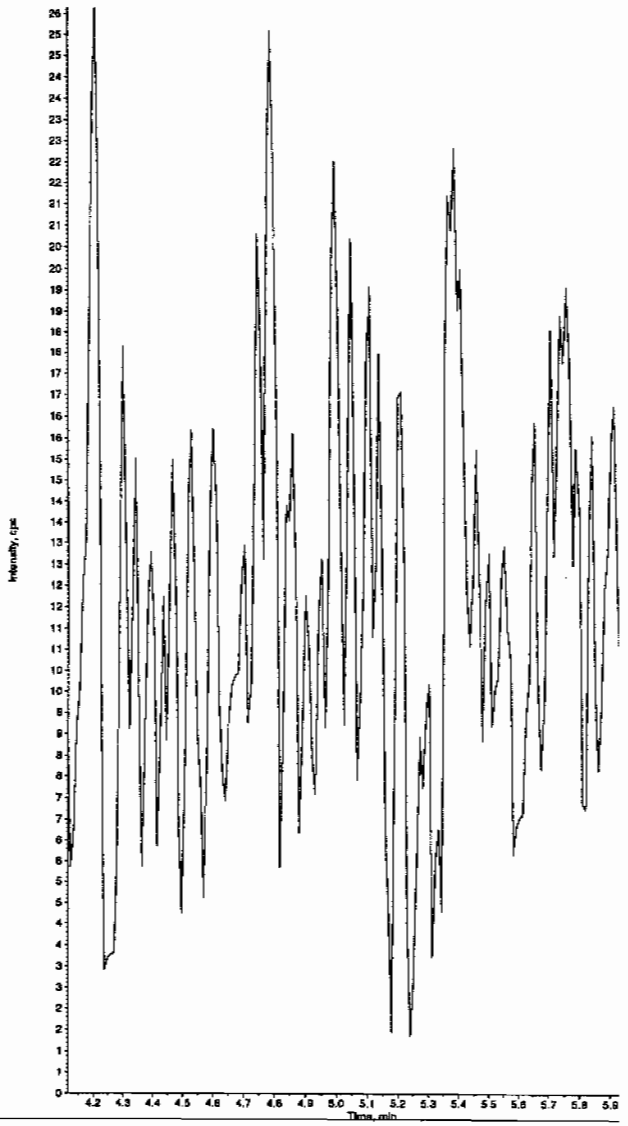

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246070008" Sample ID: "948890[2]LER" File: "EXS02260107.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:38:43 PM

Modified: No

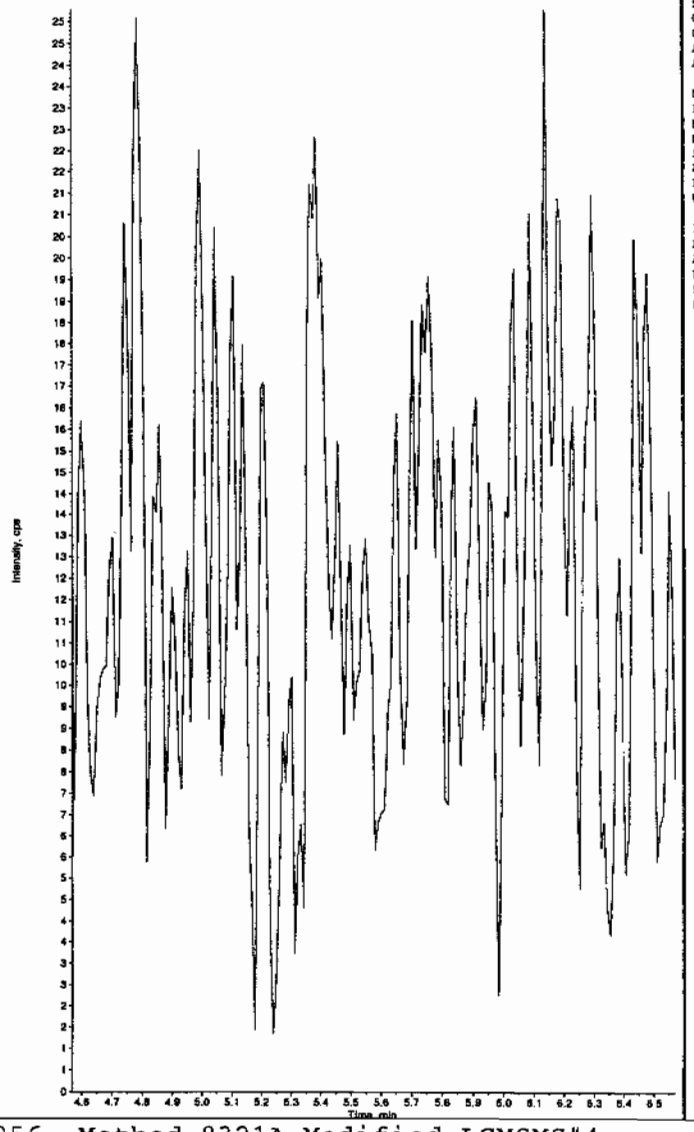

Sample Name: "246070008" Sample ID: "948890[2]LER" File: "EXS02260107.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.73 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:38:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.86e+005 counts
Height: 48699.425 cps
Start Time: 10.7 min
End Time: 11.0 min

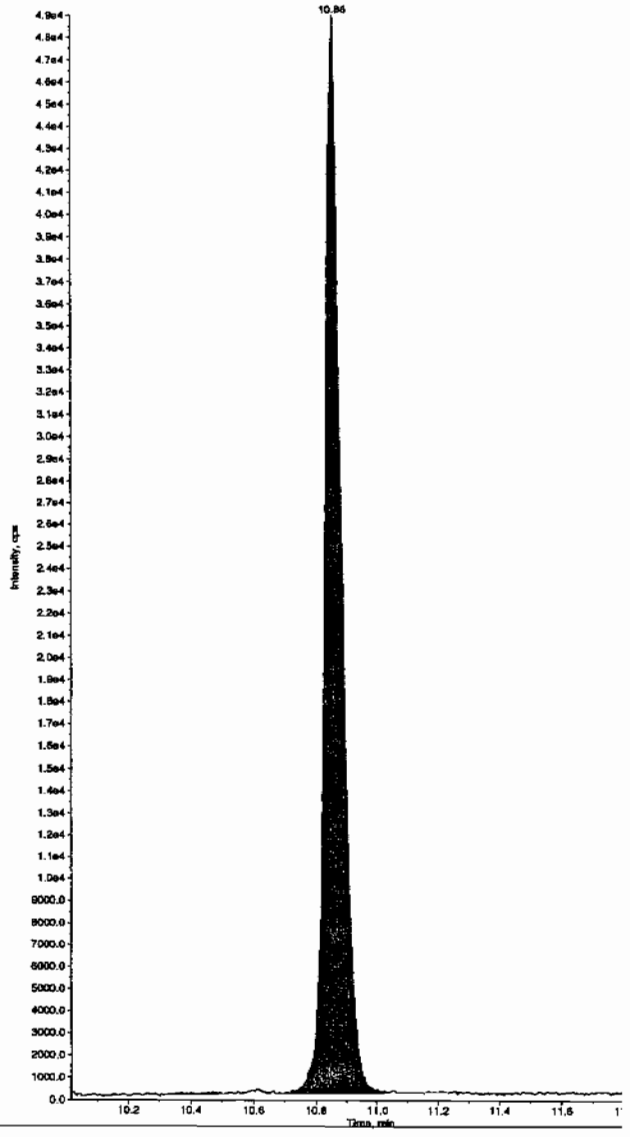

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8156

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070009

Sample Amount 2

Moisture: 22.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304131a

Date Analyzed: 07-MAR-10 07:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304131a
Date: 07-Mar-2010
Time: 07:11:48
ID: 246070009
Vial: 3:7,A

LAW | 948890 | Solids | 2 |

MAP 3/7/10

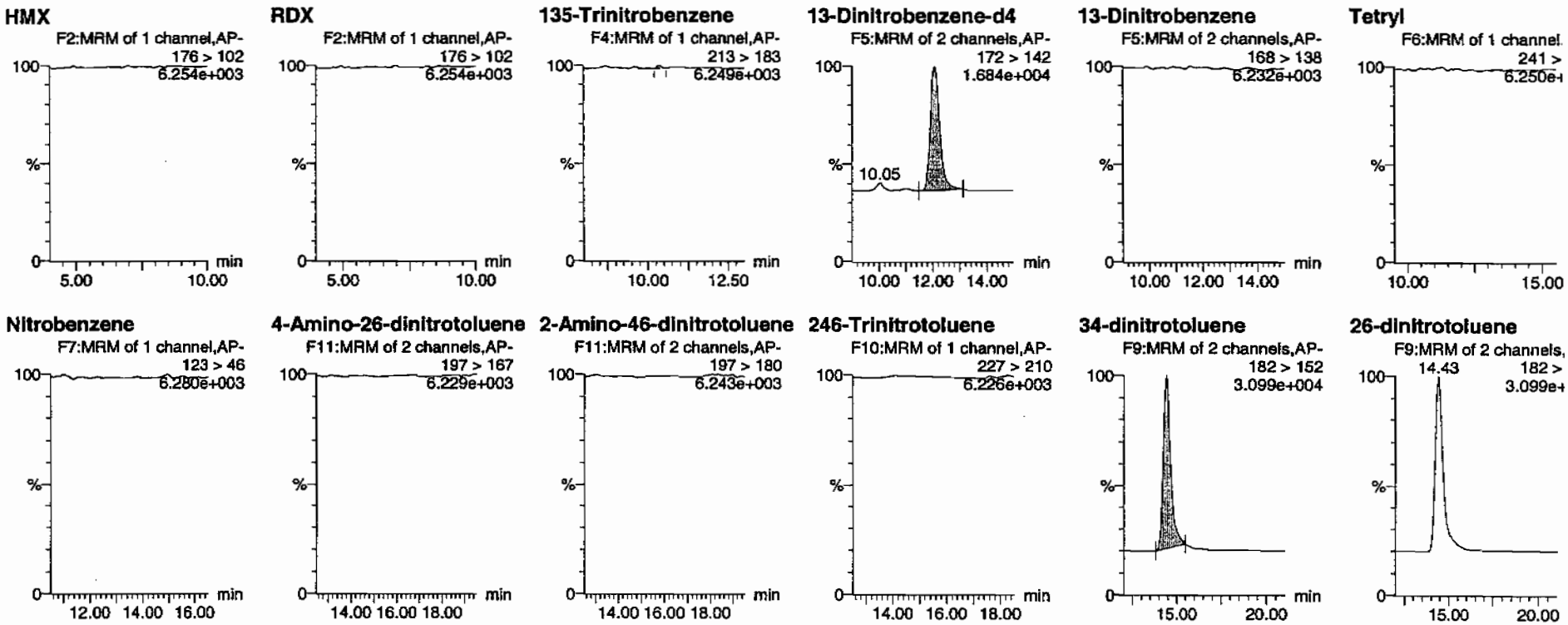

HMM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

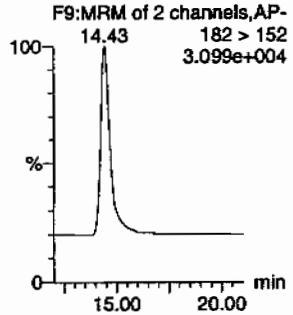

26-dinitrotoluene-d3

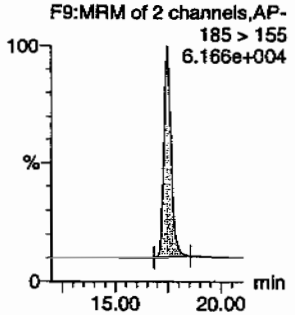

2-Nitrotoluene

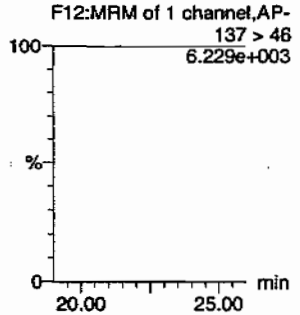

4-Nitrotoluene

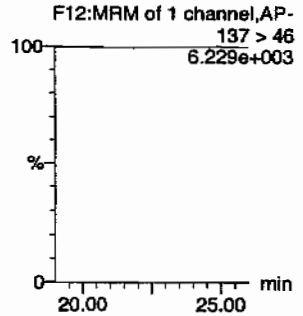

3-Nitrotoluene

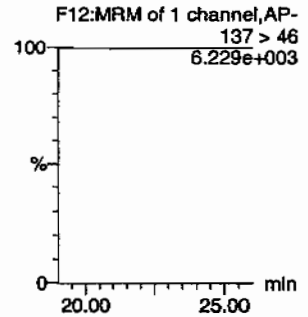

PETN

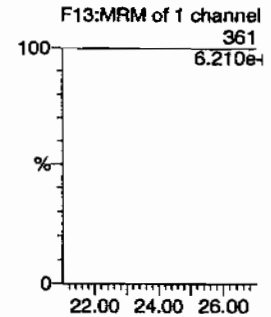

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246070009	HMX	176 > 102			4286.842									
246070009	RDX	176 > 102			4286.842									
246070009	135-Trinitrobenzene	213 > 183			4286.842			MM-	07-Mar-10	13:20:25				
246070009	13-Dinitrobenzene-d4	172 > 142	12.07	4286.842		4286.842	4286.842	bb			610.3502	122.1	22.1	786.4
246070009	13-Dinitrobenzene	168 > 138			4286.842									
246070009	Tetryl	241 > 181			4286.842									
246070009	Nitrobenzene	123 > 46			4286.842									
246070009	4-Amino-26-dinitrotoluene	197 > 167			22273.154									
246070009	2-Amino-46-dinitrotoluene	197 > 180			22273.154									
246070009	246-Trinitrotoluene	227 > 210			22273.154									
246070009	34-dinitrotoluene	182 > 152	14.43	11839.332	22273.154	11839.332	265.776	bb			274.9974	110.0	10.0	886.1
246070009	26-dinitrotoluene	182 > 152			22273.154									
246070009	24-dinitrotoluene	182 > 152			22273.154									
246070009	26-dinitrotoluene-d3	185 > 155	17.47	22273.154		22273.154	22273.154	bb			541.6469	108.3	8.3	2747.2
246070009	2-Nitrotoluene	137 > 46			22273.154									
246070009	4-Nitrotoluene	137 > 46			22273.154									
246070009	3-Nitrotoluene	137 > 46			22273.154									
246070009	PETN	361 > 62			22273.154									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8156

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070009

Sample Amount 2

Moisture: 22.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260108.wiff

Date Analyzed: 27-FEB-10 18:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sun 3/1/10

Sample Name: "246070009" Sample ID: "948890[2]LER" File: "EXS02260108.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:54:25 PM

Modified: No

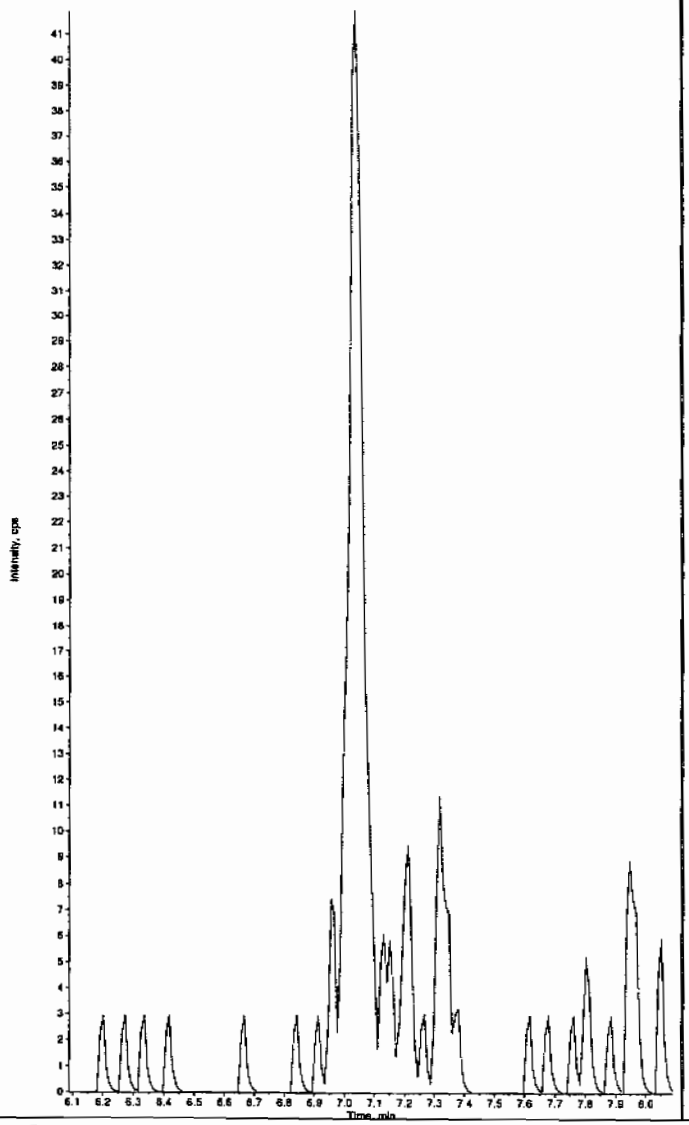

Sample Name: "246070009" Sample ID: "948890[2]LER" File: "EXS02260108.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:54:25 PM

Modified: Yes

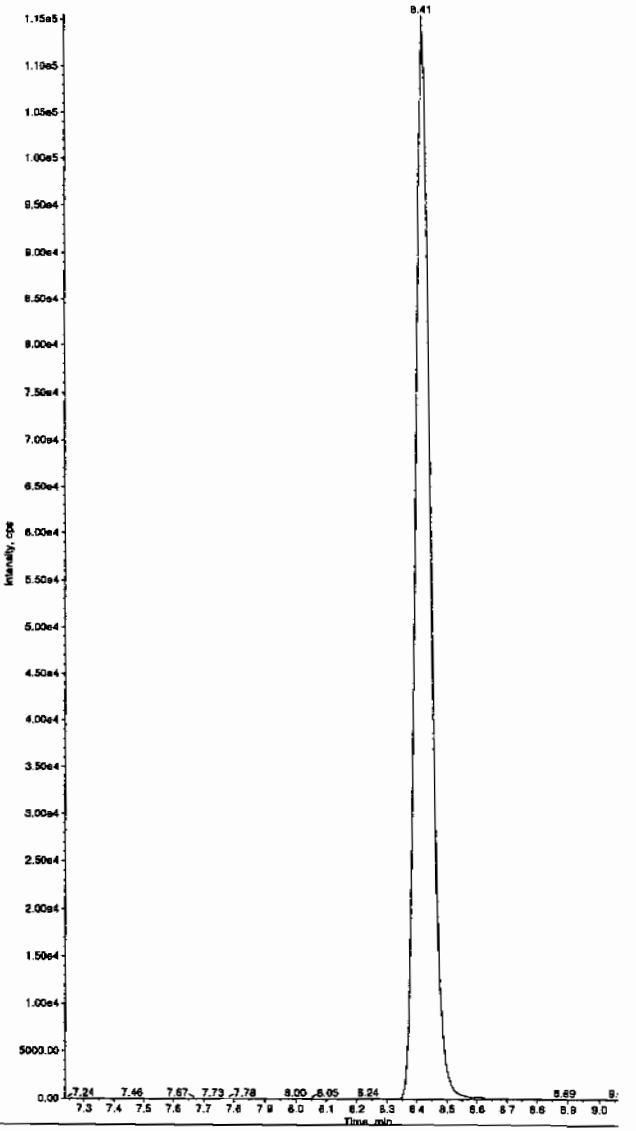

HMM 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246070009" Sample ID: "948890|2|LER" File: "EXS02260108.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 223. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:54:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 1.09e+006 counts
Height: 904607.605 cps
Start Time: 8.30 min
End Time: 8.75 min

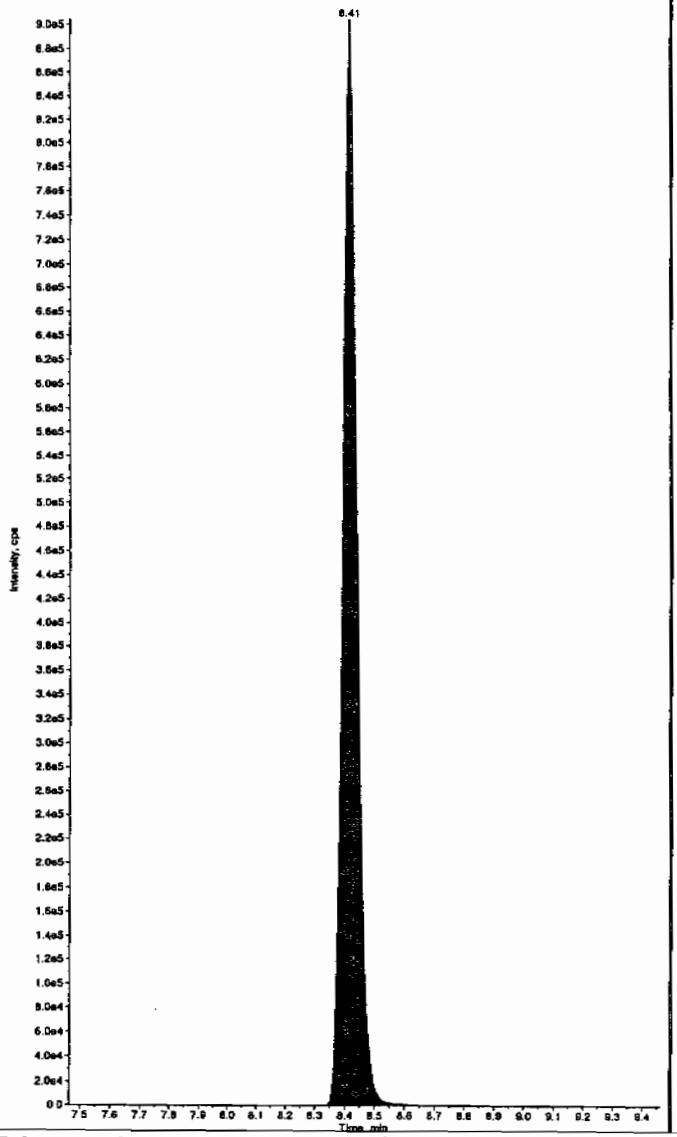

Sample Name: "246070009" Sample ID: "948890|2|LER" File: "EXS02260108.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:54:25 PM

Modified: No

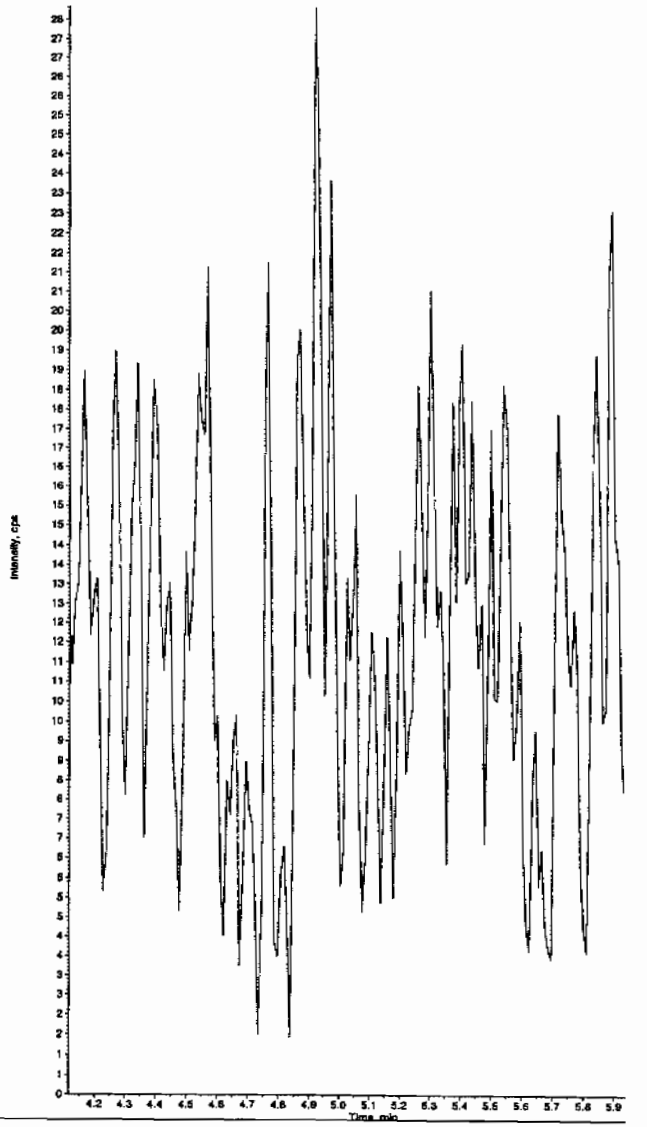

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246070009" Sample ID: "948890|2|LER" File: "EXS02260108.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:54:25 PM

Modified: No

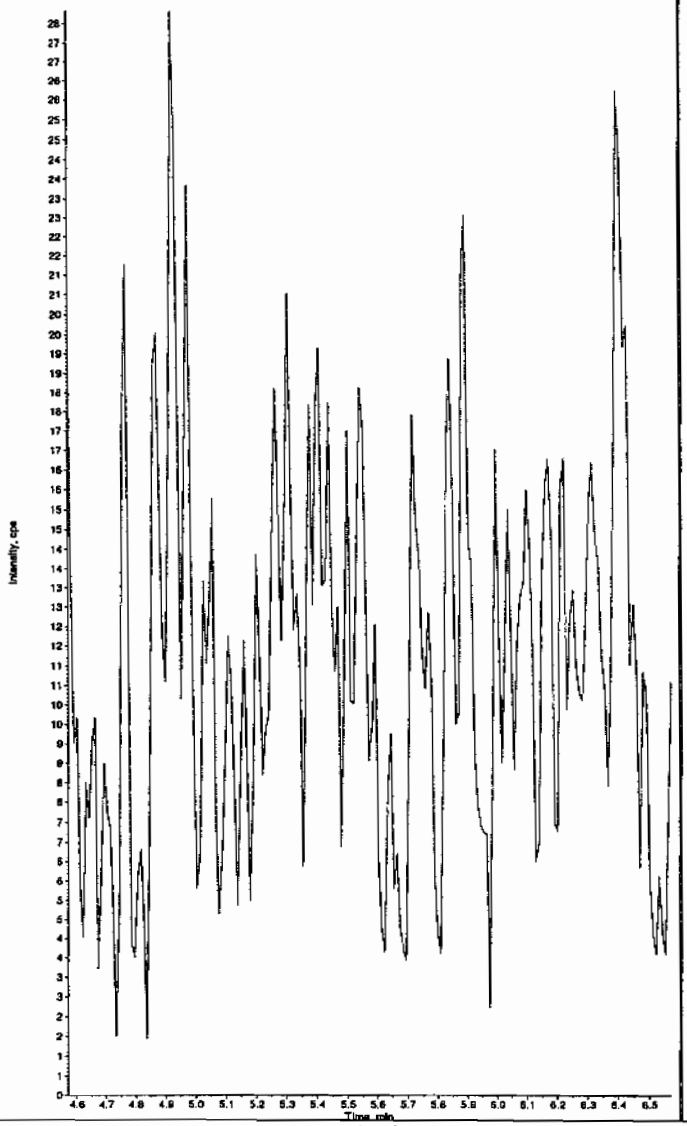

Sample Name: "246070009" Sample ID: "948890|2|LER" File: "EXS02250108.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:54:25 PM

Modified: No

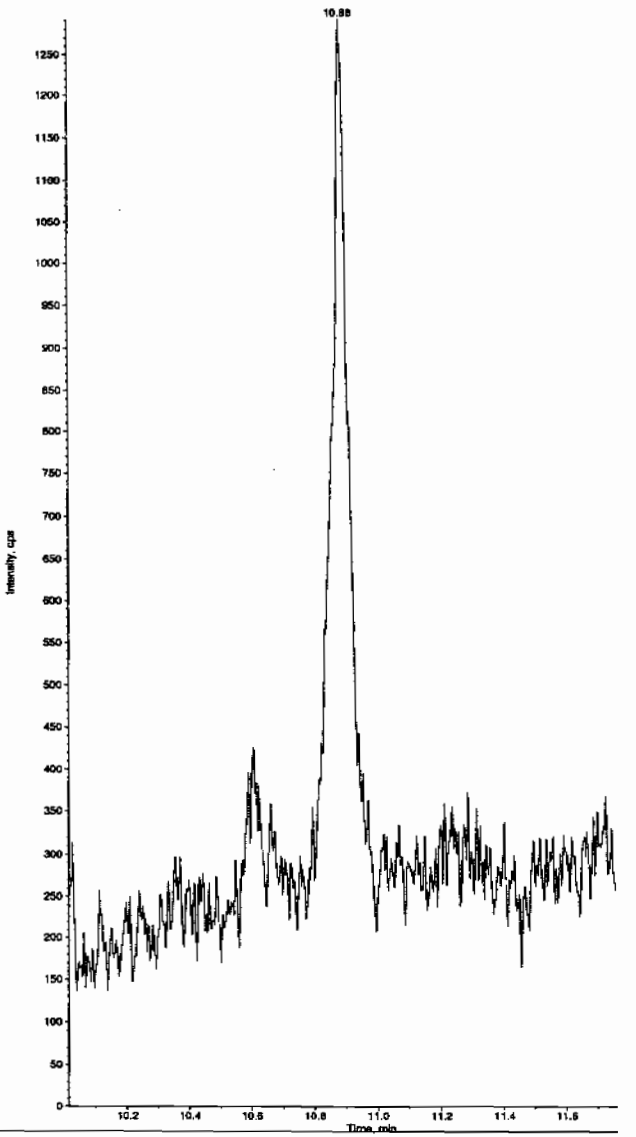

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8159

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070010

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304132a

Date Analyzed: 07-MAR-10 07:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304132a
Date: 07-Mar-2010
Time: 07:41:19
ID: 246070010 | LAWL | 948890 | Soils | 2 |
Vial: 3:7,B

MAP 3/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.356e+003

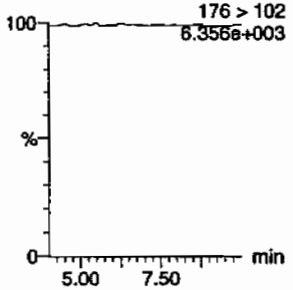

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.356e+003

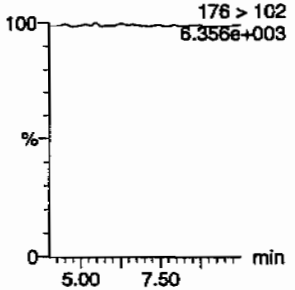

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.277e+003

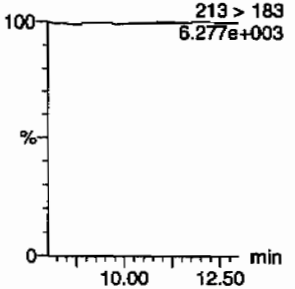

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.594e+004

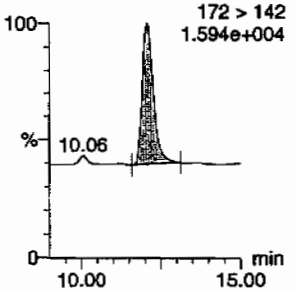

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.279e+003

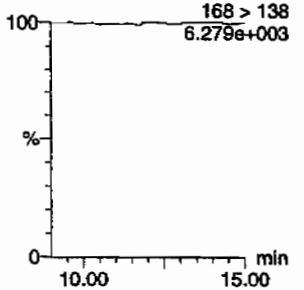

Tetryl
F6:MRM of 1 channe
241
6.302e

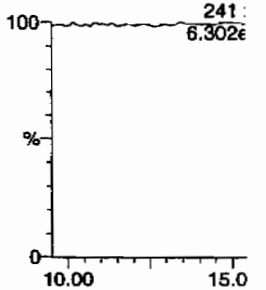

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.303e+003

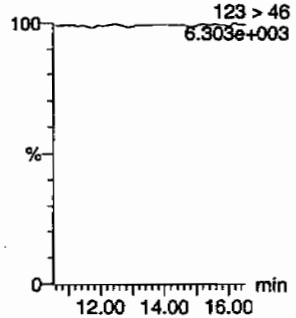

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.316e+003

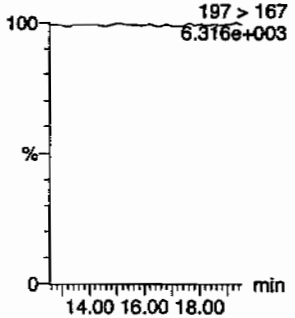

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.393e+003

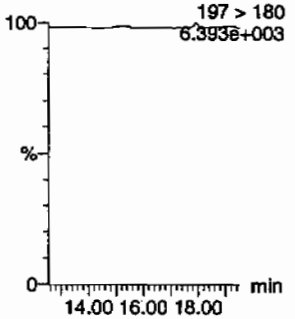

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.309e+003

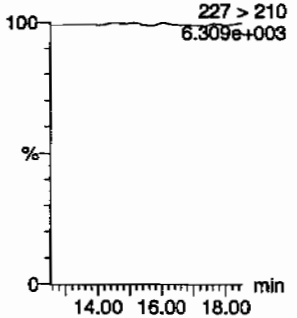

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.001e+004

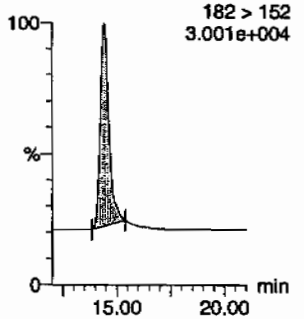

26-dinitrotoluene
F9:MRM of 2 channels
14.41
182
3.001e

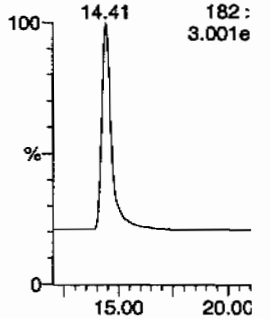

HMW 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

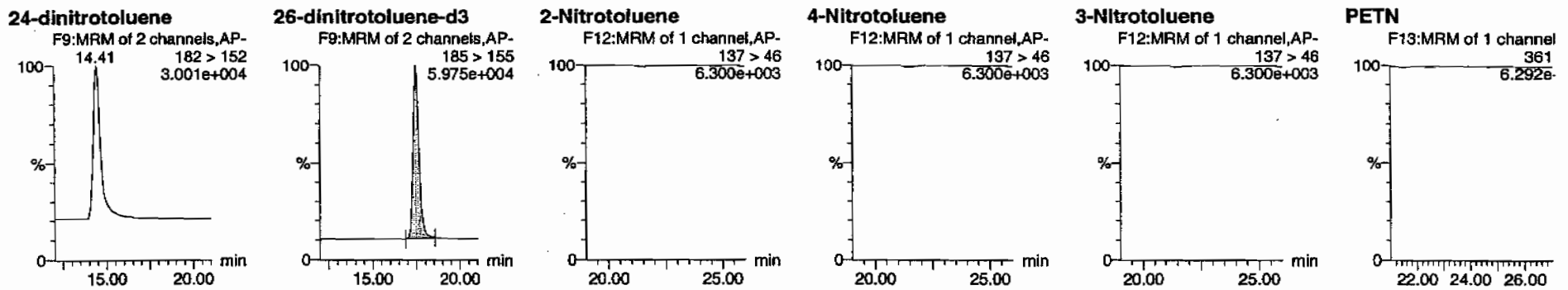

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246070010	HMX	176 > 102			3962.703									
246070010	RDX	176 > 102			3962.703									
246070010	135-Trinitrobenzene	213 > 183			3962.703									
246070010	13-Dinitrobenzene-d4	172 > 142	12.06	3962.703		3962.703	3962.703	bb			564.2001	112.8	12.8	191.1
246070010	13-Dinitrobenzene	168 > 138			3962.703									
246070010	Tetryl	241 > 181			3962.703									
246070010	Nitrobenzene	123 > 46			3962.703									
246070010	4-Amino-26-dinitrotoluene	197 > 167			21192.367									
246070010	2-Amino-46-dinitrotoluene	197 > 180			21192.367									
246070010	246-Trinitrotoluene	227 > 210			21192.367									
246070010	34-dinitrotoluene	182 > 152	14.41	10875.637	21192.367	10875.637	256.593	bb			265.4962	106.2	6.2	799.0
246070010	26-dinitrotoluene	182 > 152			21192.367									
246070010	24-dinitrotoluene	182 > 152			21192.367									
246070010	26-dinitrotoluene-d3	185 > 155	17.48	21192.367		21192.367	21192.367	bb			515.3640	103.1	3.1	1896.0
246070010	2-Nitrotoluene	137 > 46			21192.367									
246070010	4-Nitrotoluene	137 > 46			21192.367									
246070010	3-Nitrotoluene	137 > 46			21192.367									
246070010	PETN	361 > 62			21192.367									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8159

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070010

Sample Amount 2

Moisture: 11.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260109.wiff

Date Analyzed: 27-FEB-10 19:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lun 3/1/10

Sample Name: "246070010" Sample ID: "948890|2|LER" File: "EXS02260109.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:10:07 PM

Modified: No

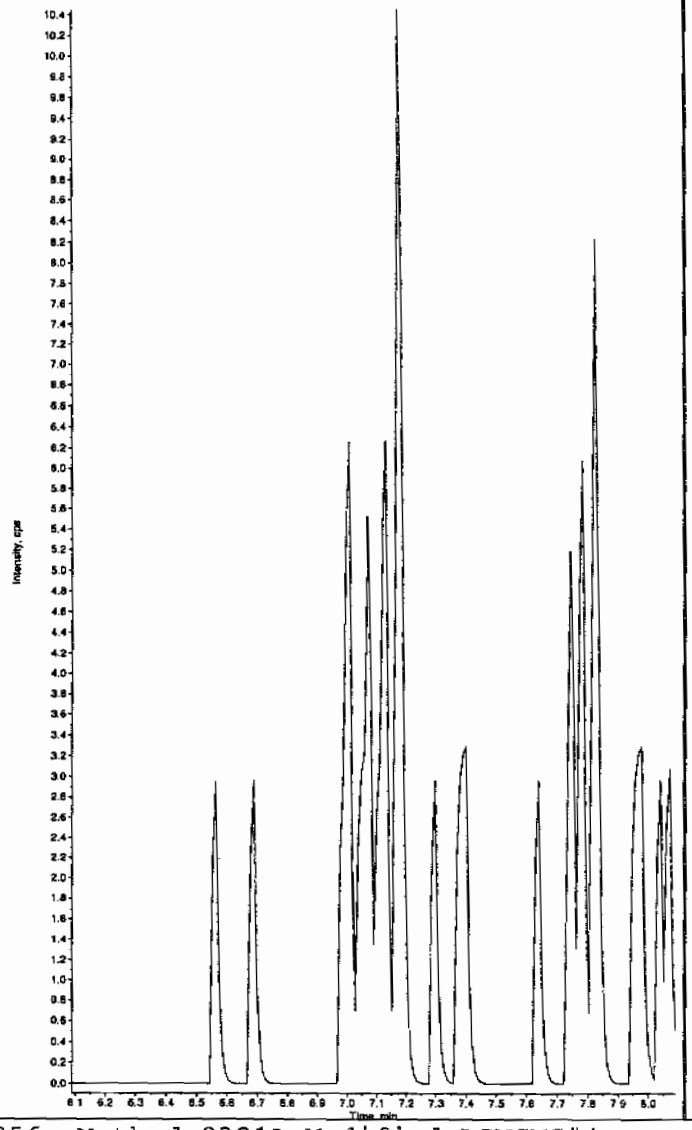

Sample Name: "246070010" Sample ID: "948890|2|LER" File: "EXS02260109.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:10:07 PM

Modified: Yes

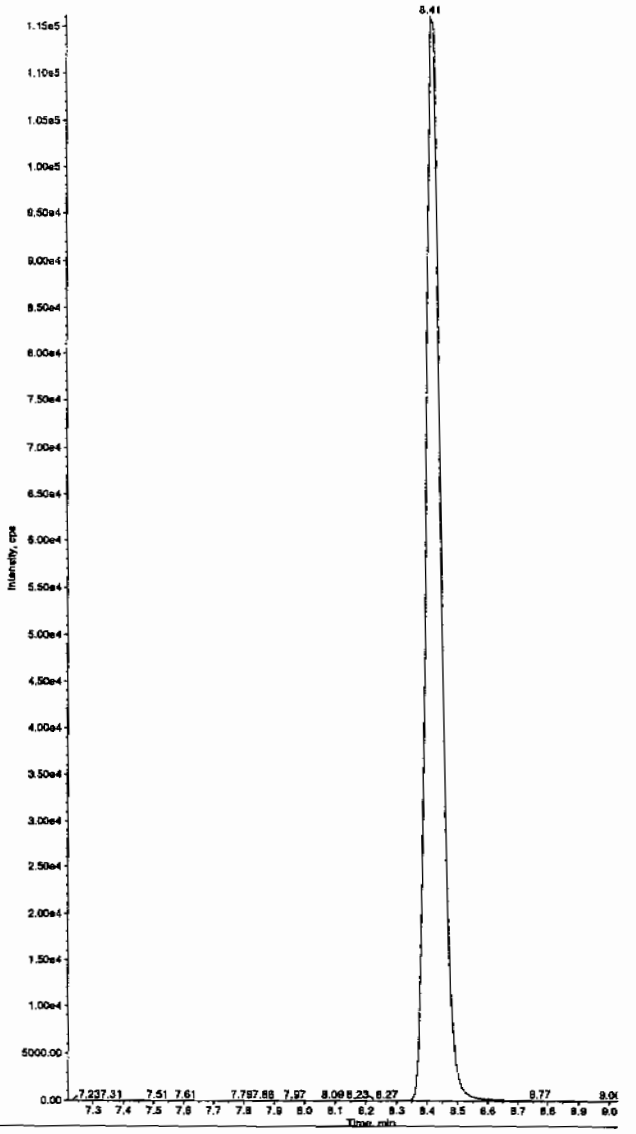

Hmm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "246070010" Sample ID: "948890|2|LER" File: "EXS02260109.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 223. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:10:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 3.08e+006 counts
Height: 923254.700 cps
Start Time: 8.31 min
End Time: 8.73 min

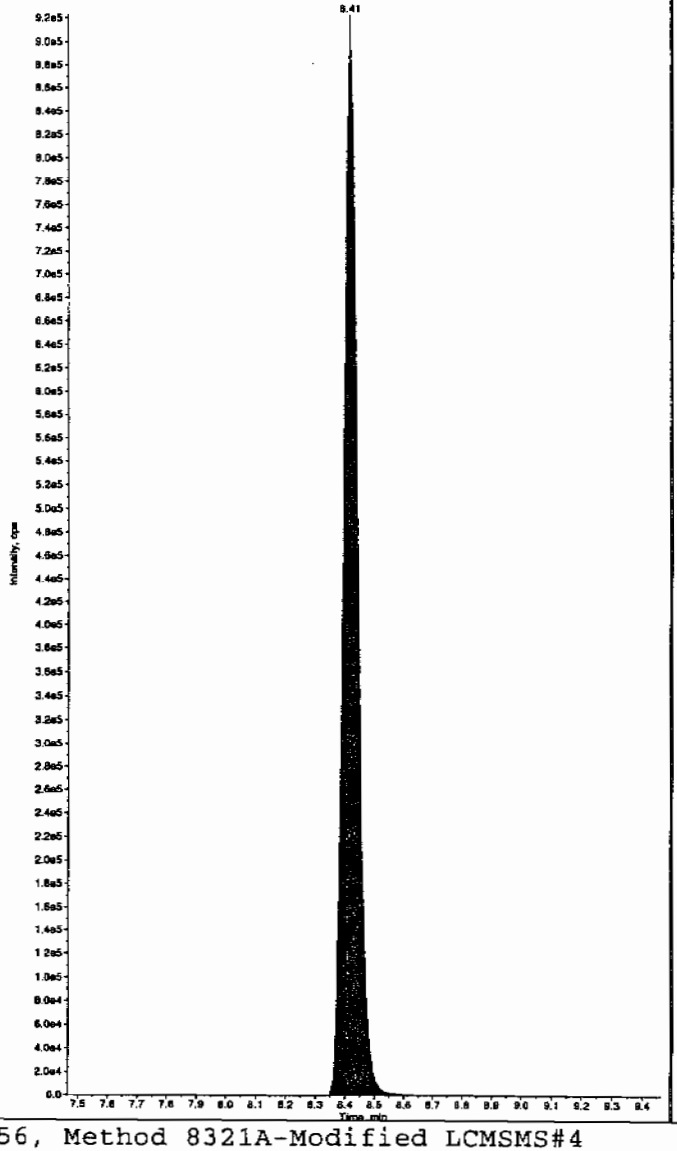

Sample Name: "246070010" Sample ID: "948890|2|LER" File: "EXS02260109.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:10:07 PM

Modified: No

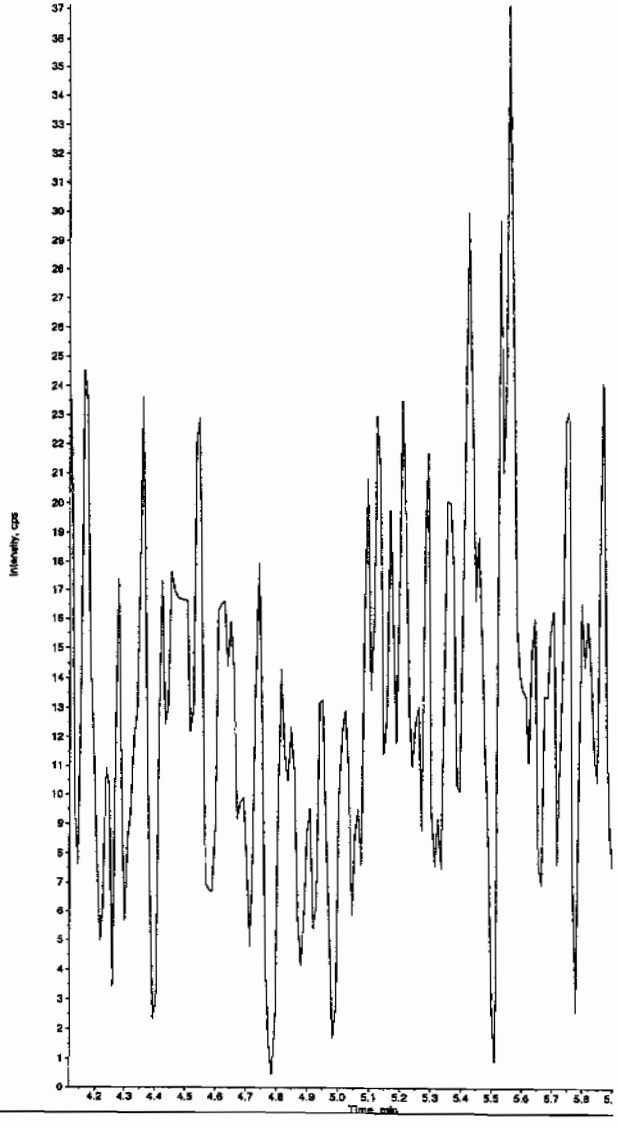

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "245070010" Sample ID: "948890|2|LER" File: "EXS02260109.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:10:07 PM

Modified: No

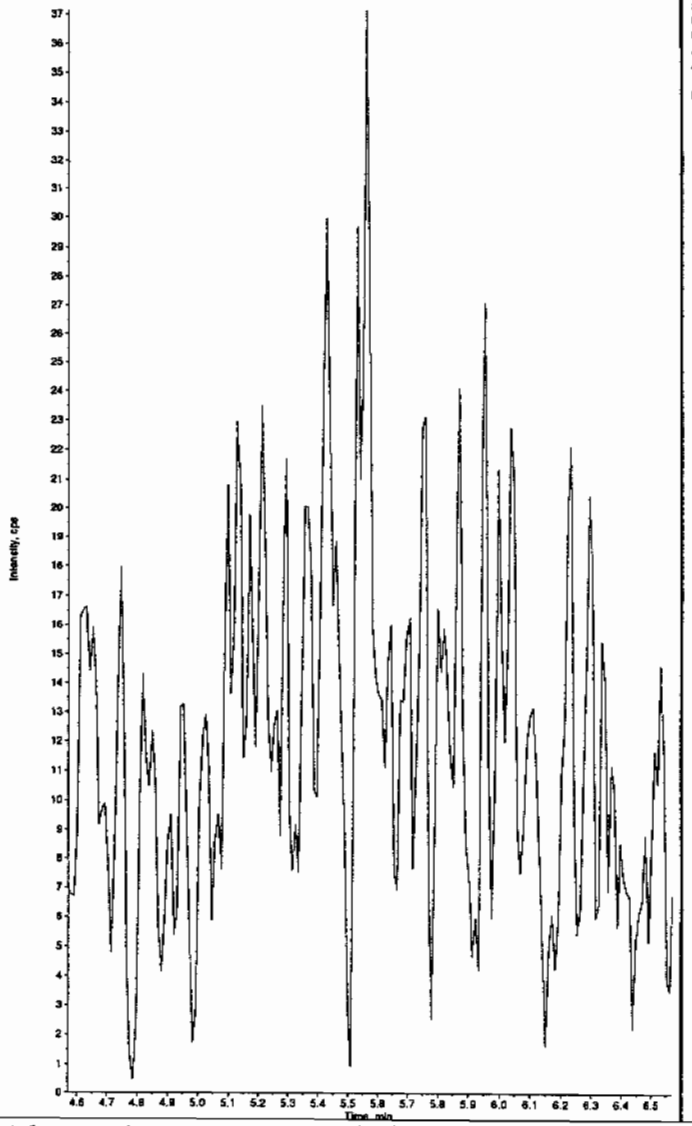

Sample Name: "246070010" Sample ID: "948890|2|LER" File: "EXS02260109.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:10:07 PM

Modified: No

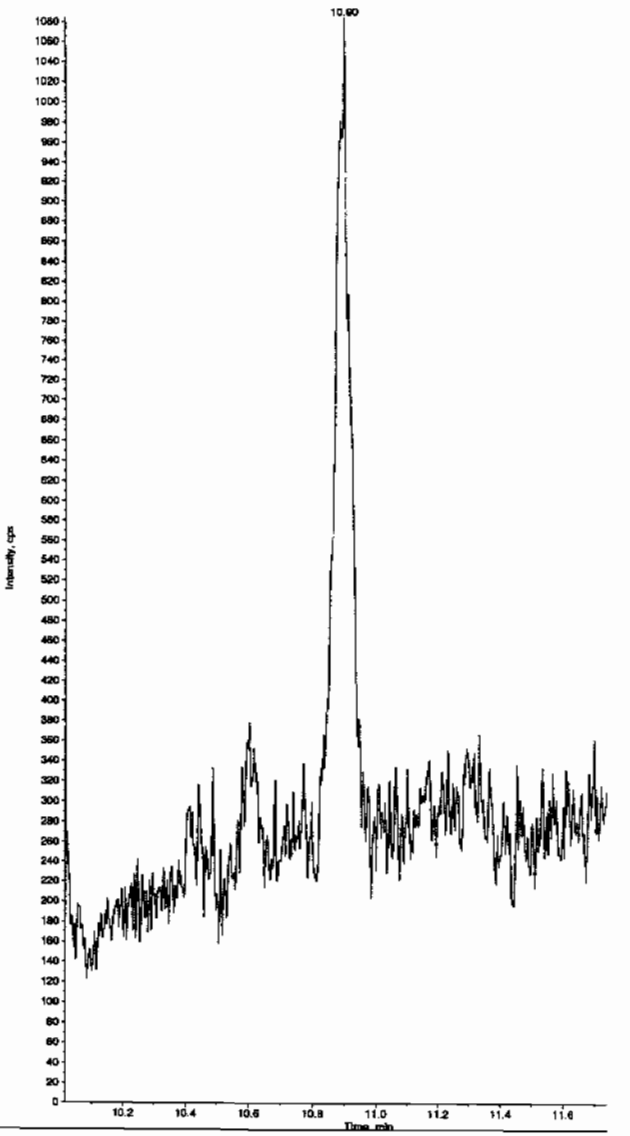

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8157

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070011

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304133a

Date Analyzed: 07-MAR-10 08:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304133a
Date: 07-Mar-2010
Time: 08:10:50
ID: 246070011
Vial: 3:7,C

| LANL | 948890 | Soil | 2 |

MJP 3/7/10

HMX

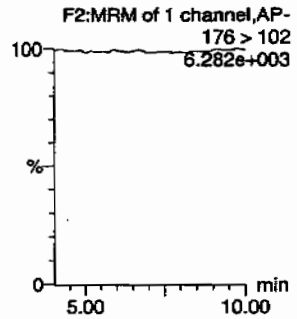

RDX

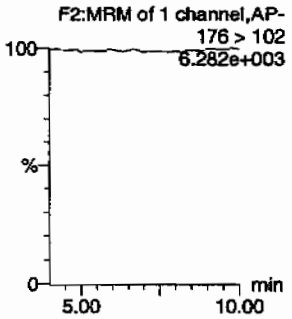

135-Trinitrobenzene

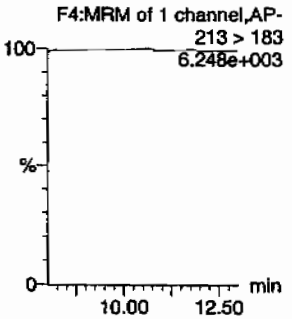

13-Dinitrobenzene-d4

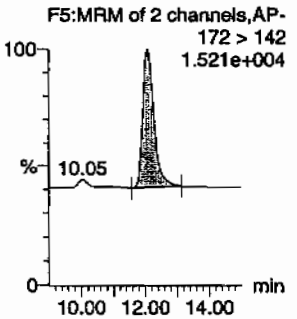

13-Dinitrobenzene

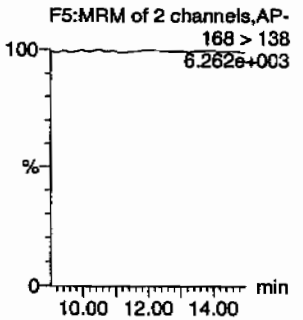

Tetryl

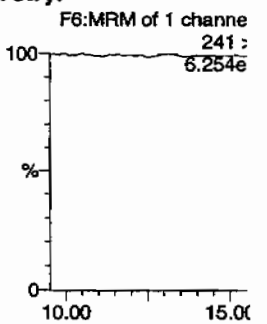

Nitrobenzene

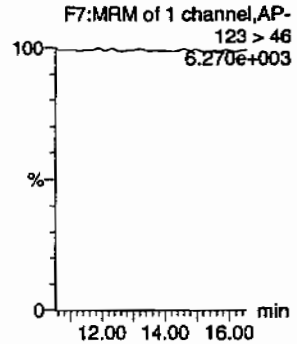

4-Amino-26-dinitrotoluene

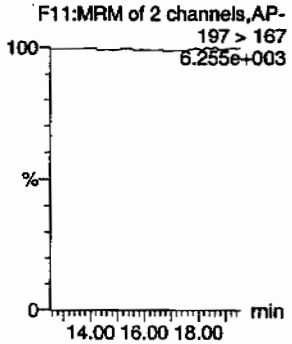

2-Amino-46-dinitrotoluene

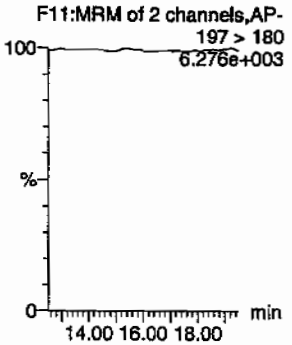

246-Trinitrotoluene

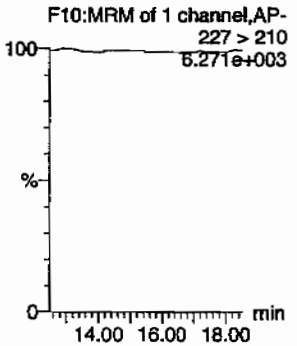

34-dinitrotoluene

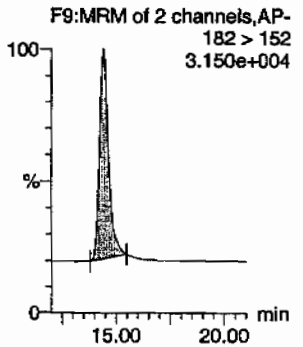

26-dinitrotoluene

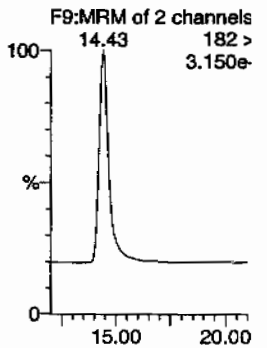

Hmm 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

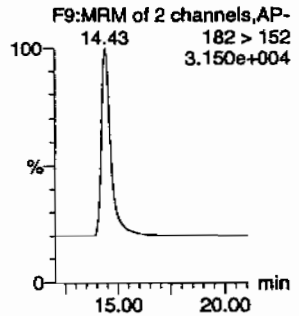

26-dinitrotoluene-d3

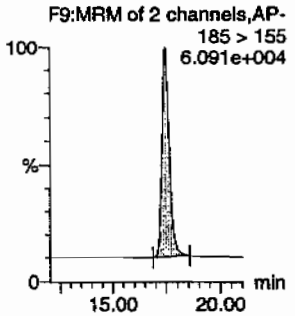

2-Nitrotoluene

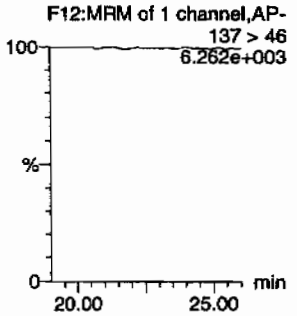

4-Nitrotoluene

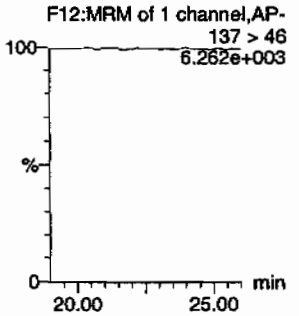

3-Nitrotoluene

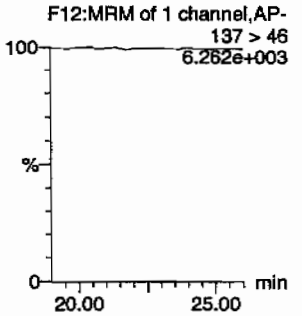

PETN

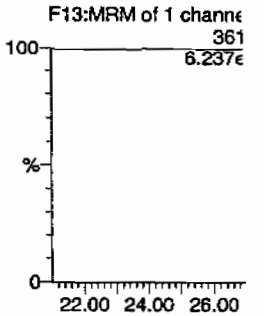

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246070011	HMX	176 > 102			3691.878									
246070011	RDX	176 > 102			3691.878									
246070011	135-Trinitrobenzene	213 > 183			3691.878									
246070011	13-Dinitrobenzene-d4	172 > 142	12.07	3691.878		3691.878	3691.878	bb			525.6407	105.1	5.1	320.8
246070011	13-Dinitrobenzene	168 > 138			3691.878									
246070011	Tetryl	241 > 181			3691.878									
246070011	Nitrobenzene	123 > 46			3691.878									
246070011	4-Amino-26-dinitrotoluene	197 > 167			21892.963									
246070011	2-Amino-46-dinitrotoluene	197 > 180			21892.963									
246070011	246-Trinitrotoluene	227 > 210			21892.963									
246070011	34-dinitrotoluene	182 > 152	14.43	12126.667	21892.963	12126.667	276.954	bb			286.5629	114.6	14.6	643.3
246070011	26-dinitrotoluene	182 > 152			21892.963									
246070011	24-dinitrotoluene	182 > 152			21892.963									
246070011	26-dinitrotoluene-d3	185 > 155	17.47	21892.963		21892.963	21892.963	bb			532.4013	106.5	6.5	821.0
246070011	2-Nitrotoluene	137 > 46			21892.963									
246070011	4-Nitrotoluene	137 > 46			21892.963									
246070011	3-Nitrotoluene	137 > 46			21892.963									
246070011	PETN	361 > 62			21892.963									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8157

Lab Code: GEI

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070011

Sample Amount 2

Moisture: 11.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260110.wiff

Date Analyzed: 27-FEB-10 19:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "246070011" Sample ID: "948890|2|LER" File: "EXS02260110.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:25:49 PM

Modified: No

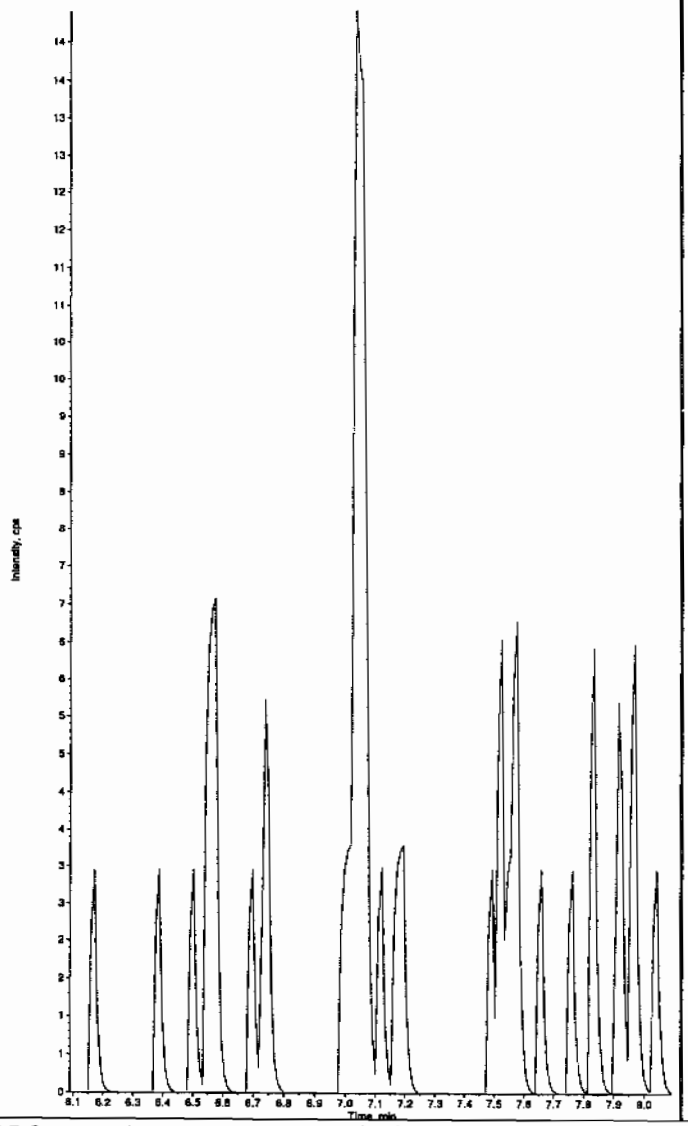

Sample Name: "246070011" Sample ID: "948890|2|LER" File: "EXS02260110.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:25:49 PM

Modified: Yes

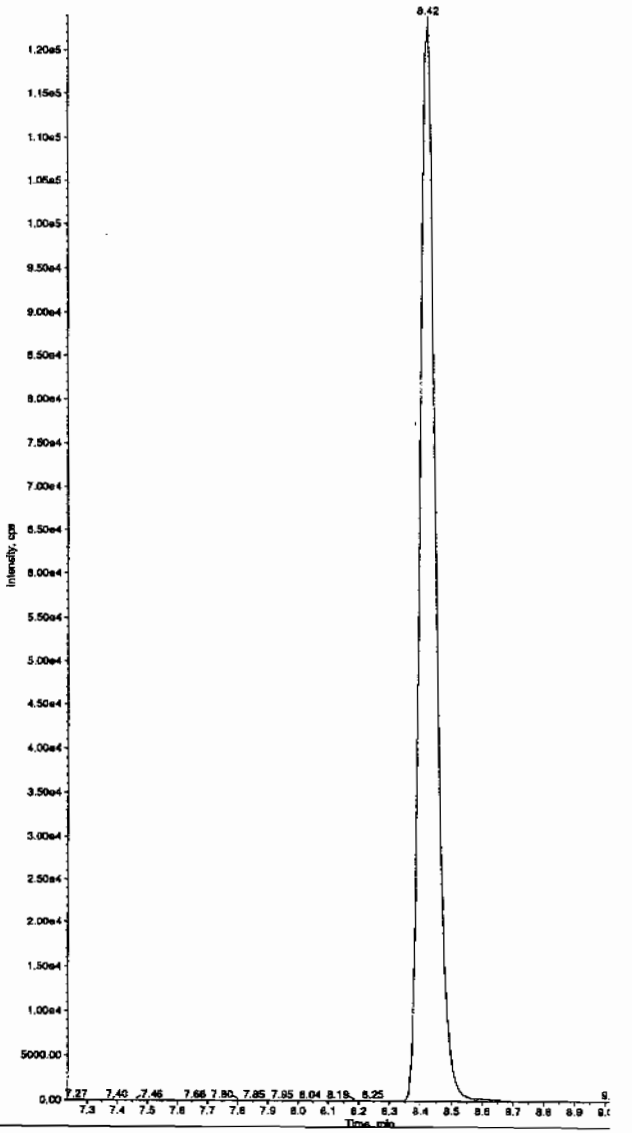

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246070011" Sample ID: "948890|2|LER" File: "EXS02260110.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 226. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:25:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 3.13e+006 counts
Height: 908384.094 cps
Start Time: 8.31 min
End Time: 8.75 min

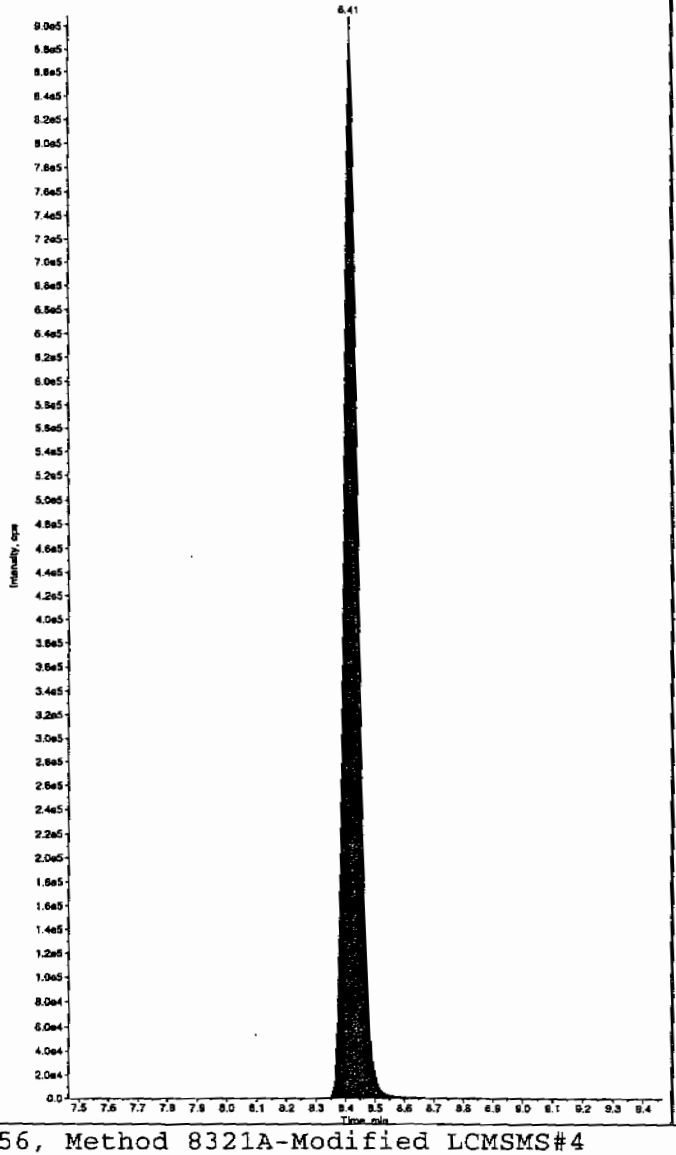

Sample Name: "246070011" Sample ID: "948890|2|LER" File: "EXS02260110.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:25:49 PM

Modified: No

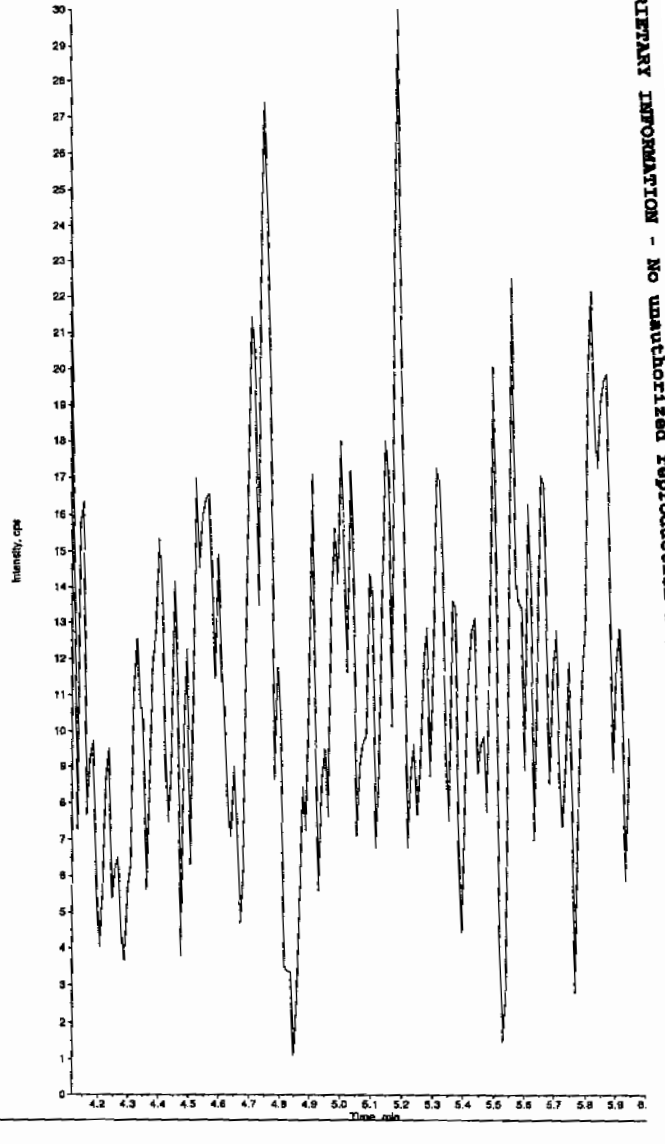

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Sample Name: "246070011" Sample ID: "948890|2|LER" File: "EXS02260110.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:25:49 PM

Modified: No

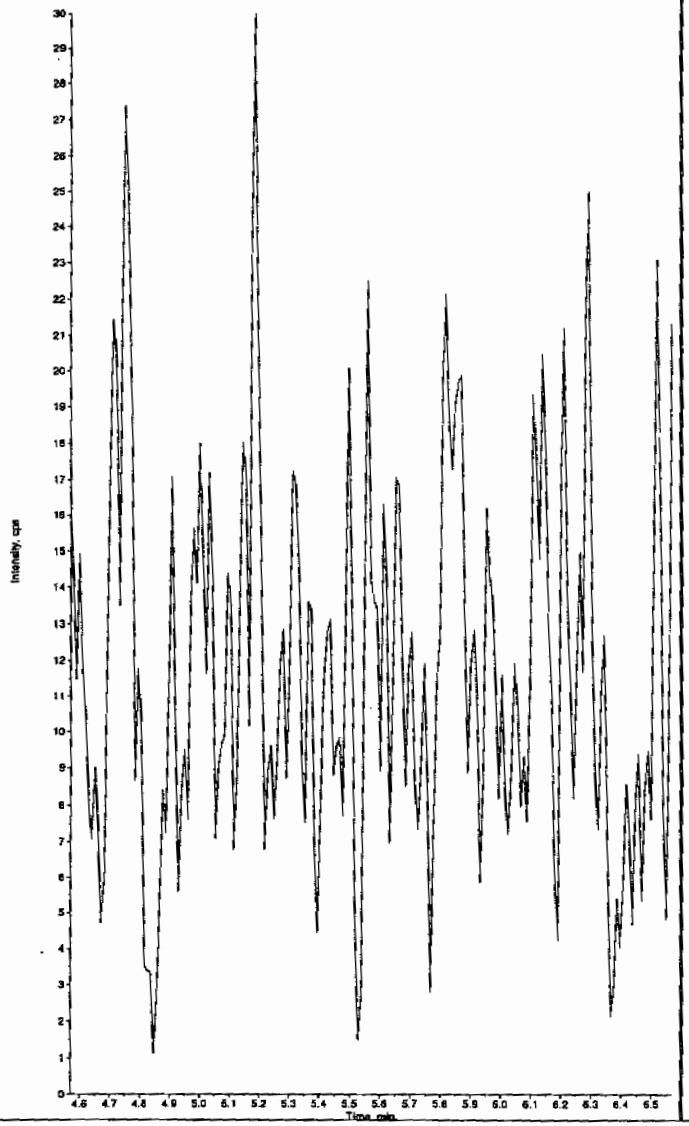

Sample Name: "246070011" Sample ID: "948890|2|LER" File: "EXS02260110.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:25:49 PM

Modified: No

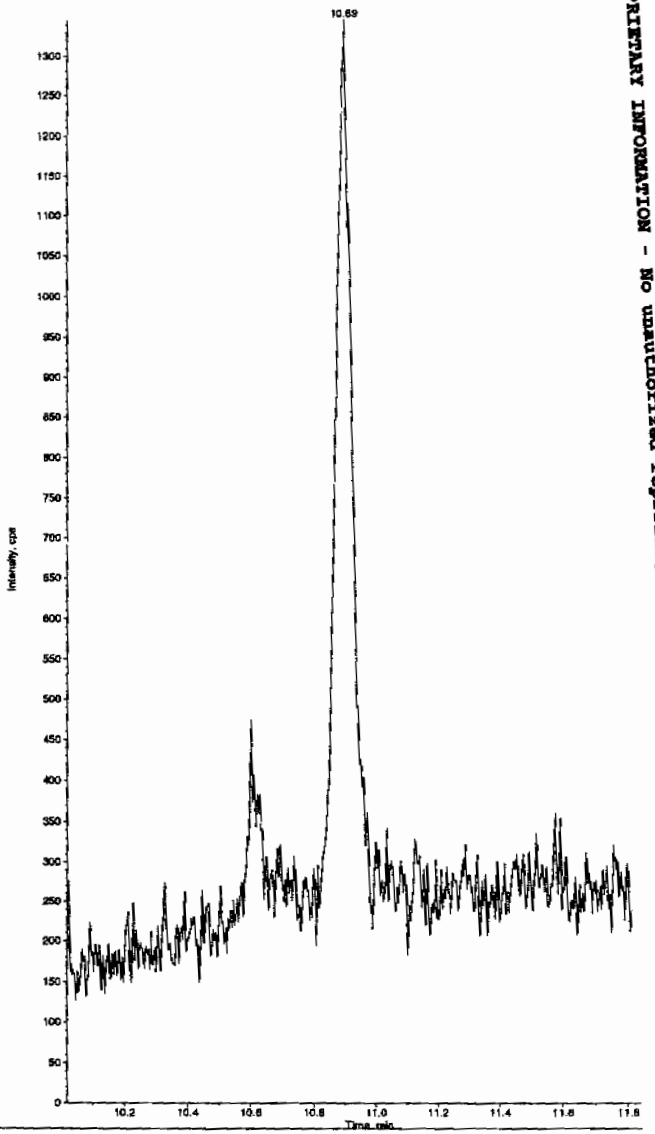

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8158

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070012

Sample Amount 2

Moisture: 15.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304134a

Date Analyzed: 07-MAR-10 08:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304134a
Date: 07-Mar-2010
Time: 08:40:20
ID: 246070012 | LANL | 948890 | Soils | 2 |
Vial: 3:7,D

MMP 3/7/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.172e+003

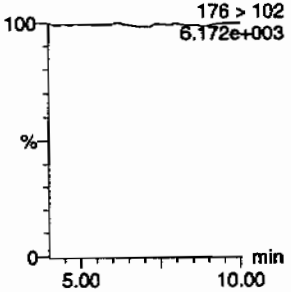

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.172e+003

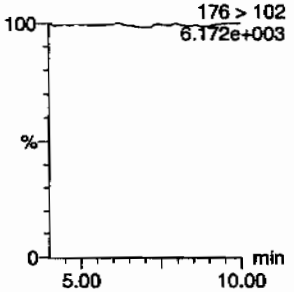

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.190e+003

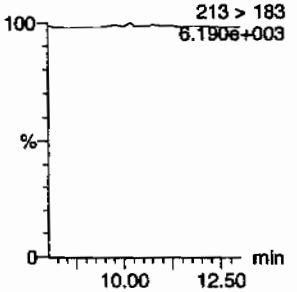

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.506e+004

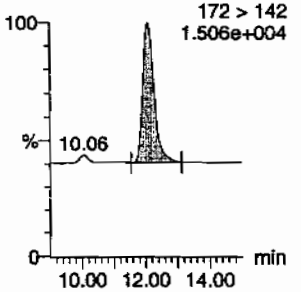

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.149e+003

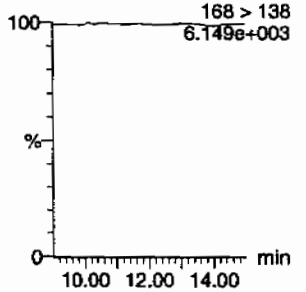

Tetryl
F6:MRM of 1 chann
241
6.179

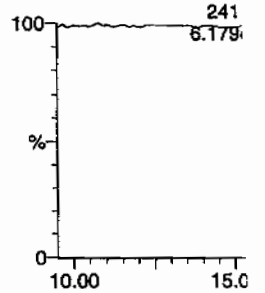

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.149e+003

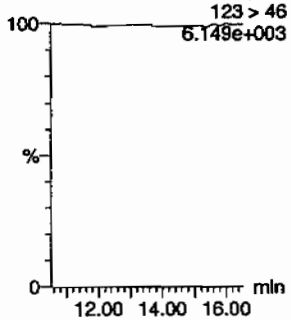

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.137e+003

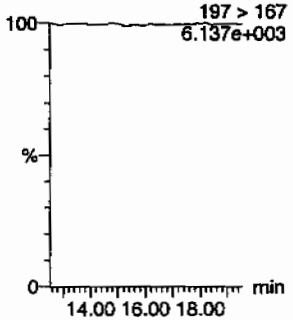

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.185e+003

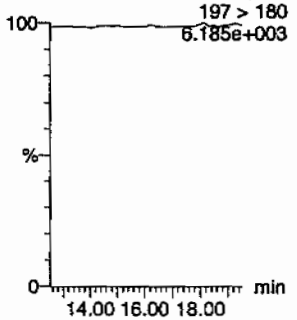

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.154e+003

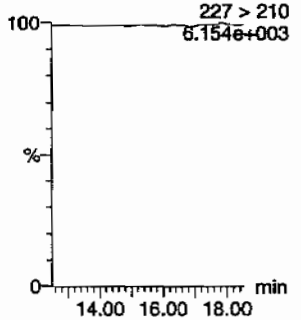

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.851e+004

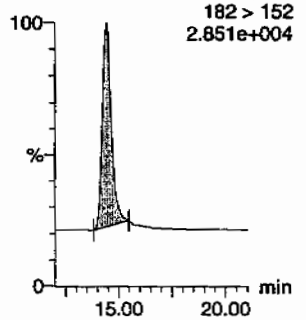

26-dinitrotoluene
F9:MRM of 2 channel
14.43
182
2.851e

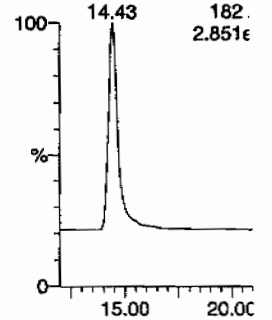

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43 182 > 152
2.851e+004

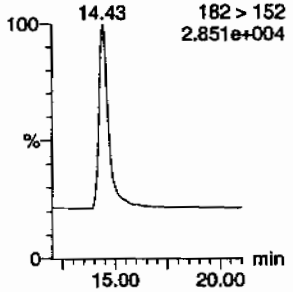

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.975e+004

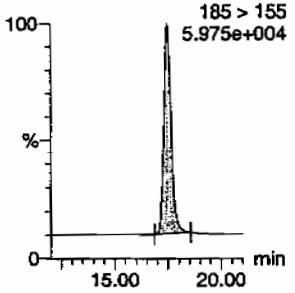

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.152e+003

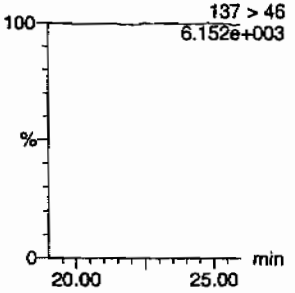

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.152e+003

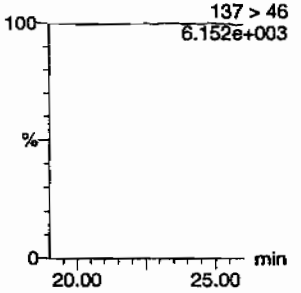

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.152e+003

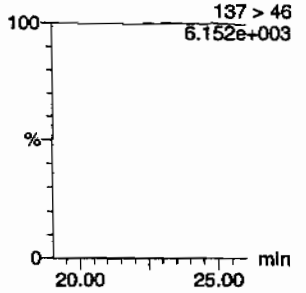

PETN
F13:MRM of 1 chann
36
6.137

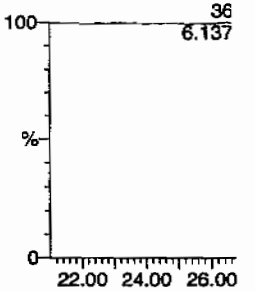

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246070012	HMX	176 > 102			3705.983									
246070012	RDX	176 > 102			3705.983									
246070012	135-Trinitrobenzene	213 > 183			3705.983									
246070012	13-Dinitrobenzene-d4	172 > 142	12.07	3705.983		3705.983	3705.983	bb			527.6489	105.5	5.5	304.9
246070012	13-Dinitrobenzene	168 > 138			3705.983									
246070012	Tetryl	241 > 181			3705.983									
246070012	Nitrobenzene	123 > 46			3705.983									
246070012	4-Amino-26-dinitrotoluene	197 > 167			21423.746									
246070012	2-Amino-46-dinitrotoluene	197 > 180			21423.746									
246070012	246-Trinitrotoluene	227 > 210			21423.746									
246070012	34-dinitrotoluene	182 > 152	14.43	10638.432	21423.746	10638.432	248.286	bb			256.9007	102.8	2.8	943.3
246070012	26-dinitrotoluene	182 > 152			21423.746									
246070012	24-dinitrotoluene	182 > 152			21423.746									
246070012	26-dinitrotoluene-d3	185 > 155	17.47	21423.746		21423.746	21423.746	bb			520.9907	104.2	4.2	2129.9
246070012	2-Nitrotoluene	137 > 46			21423.746									
246070012	4-Nitrotoluene	137 > 46			21423.746									
246070012	3-Nitrotoluene	137 > 46			21423.746									
246070012	PETN	361 > 62			21423.746									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8158

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070012

Sample Amount 2

Moisture: 15.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260111.wiff

Date Analyzed: 27-FEB-10 19:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LER 3/1/10

Sample Name: "246070012" Sample ID: "948890|2|LER" File: "EXS02260111.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:41:32 PM

Modified: No

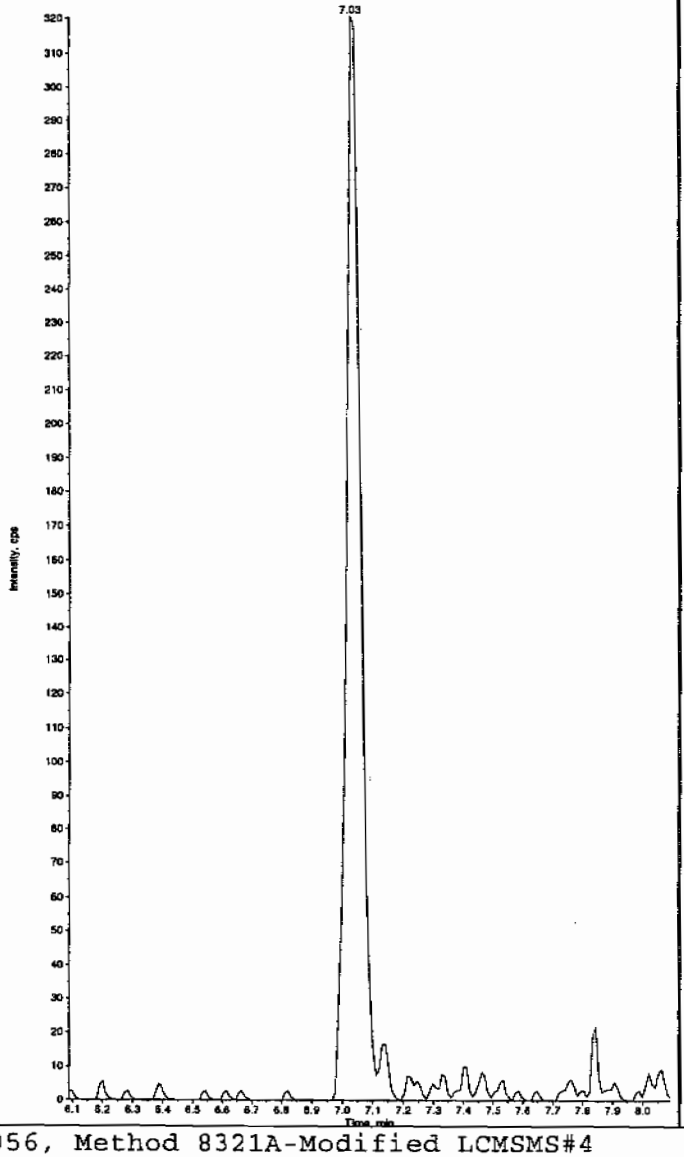

Sample Name: "246070012" Sample ID: "948890|2|LER" File: "EXS02260111.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:41:32 PM

Modified: Yes

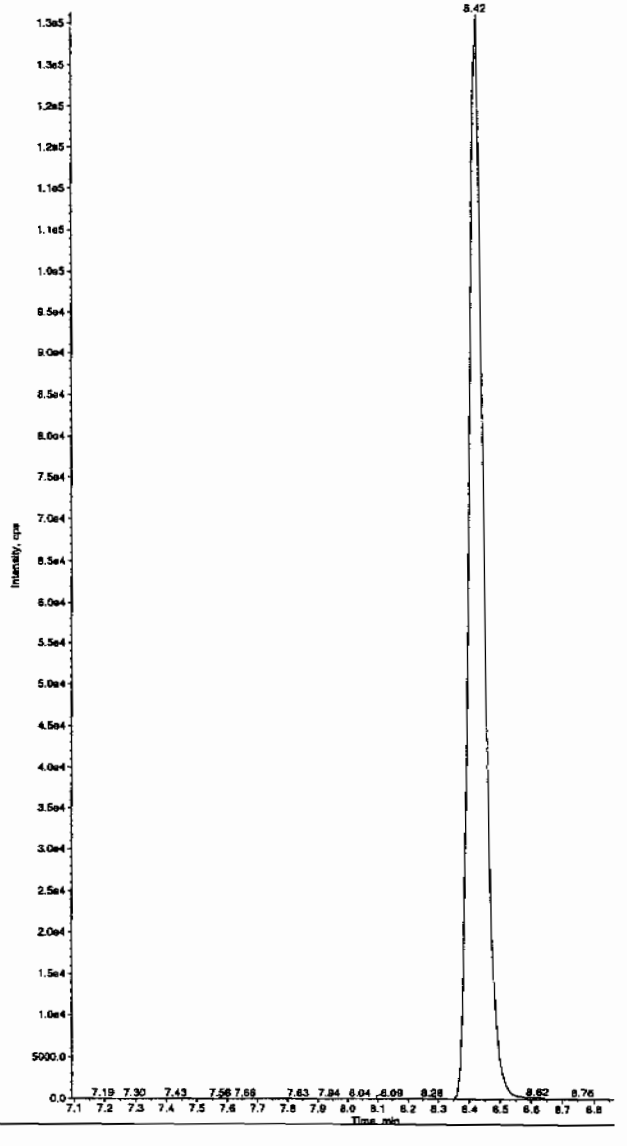

Hm 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246070012" Sample ID: "948890|2|LER" File: "EXS02260111.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 233. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:41:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.41 min
Area: 3.22e+006 counts
Height: 952119.995 cps
Start Time: 8.30 min
End Time: 8.75 min

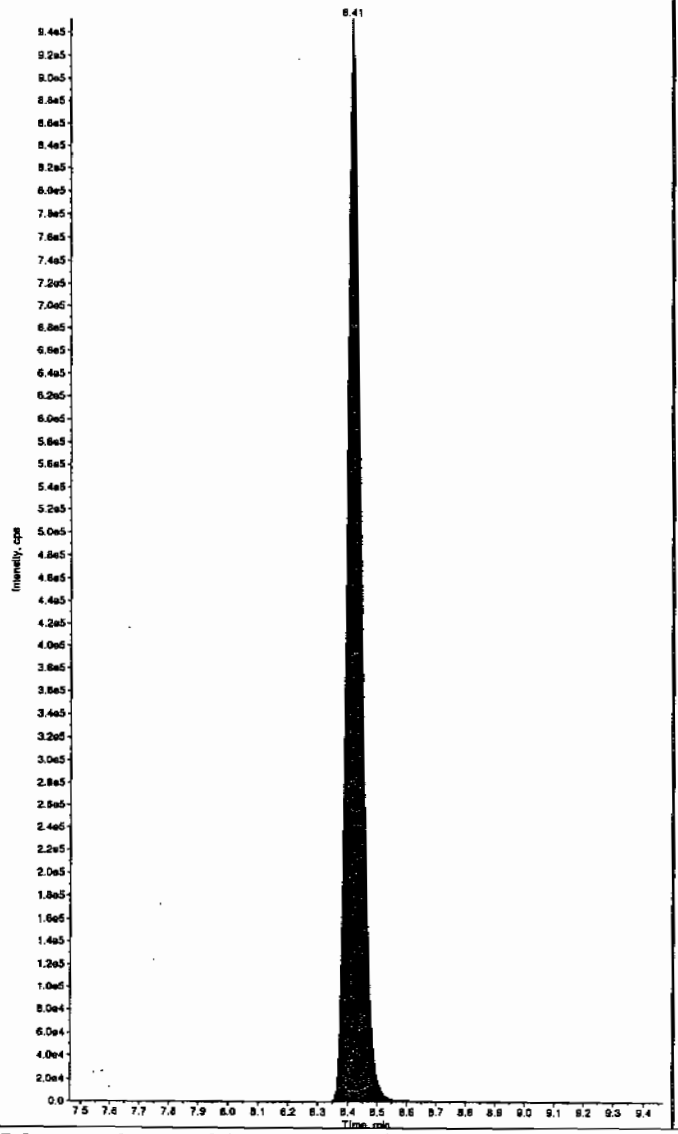

Sample Name: "246070012" Sample ID: "948890|2|LER" File: "EXS02260111.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX63212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:41:32 PM

Modified: No

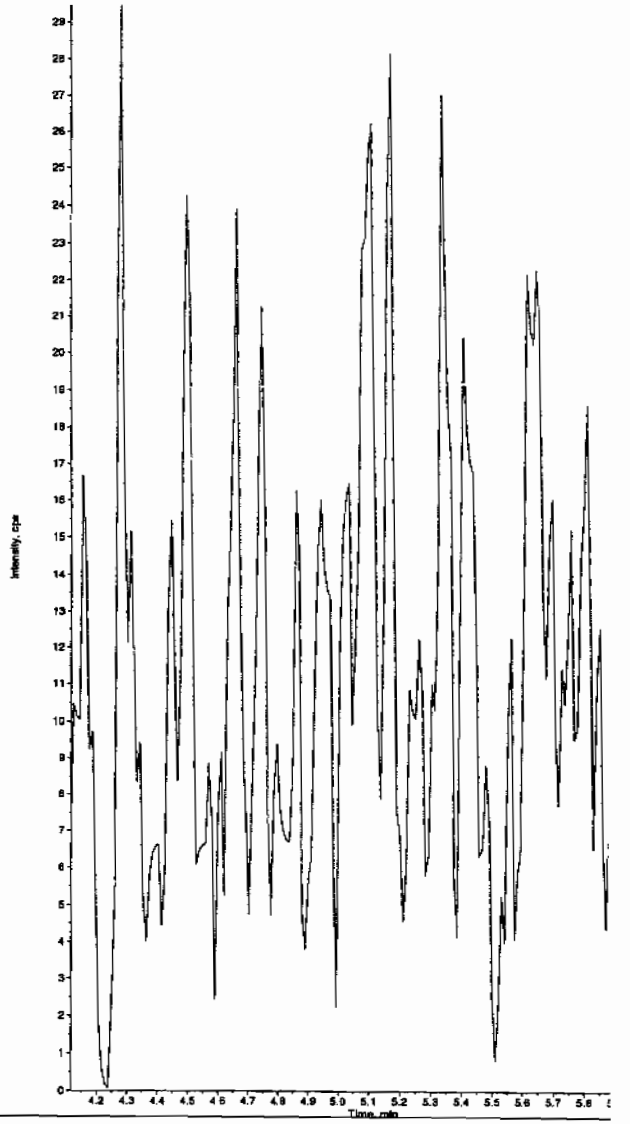

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "246070012" Sample ID: "948890[2]LER" File: "EXS02260111.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:41:32 PM

Modified: No

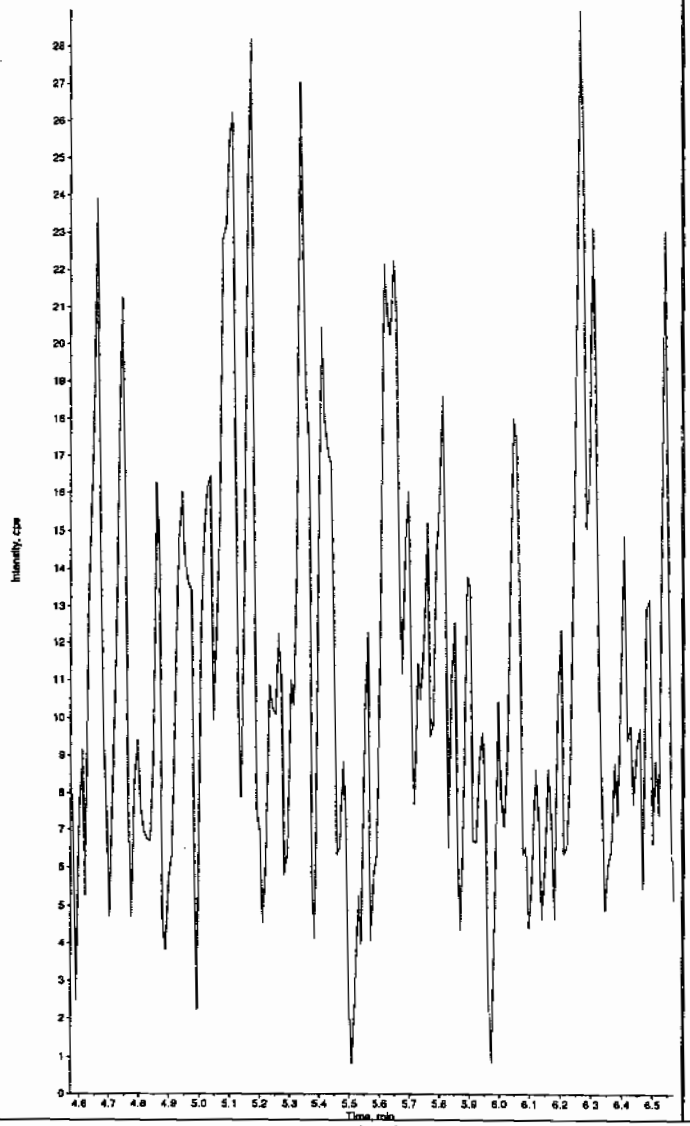

Sample Name: "246070012" Sample ID: "948890[2]LER" File: "EXS02260111.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:41:32 PM

Modified: No

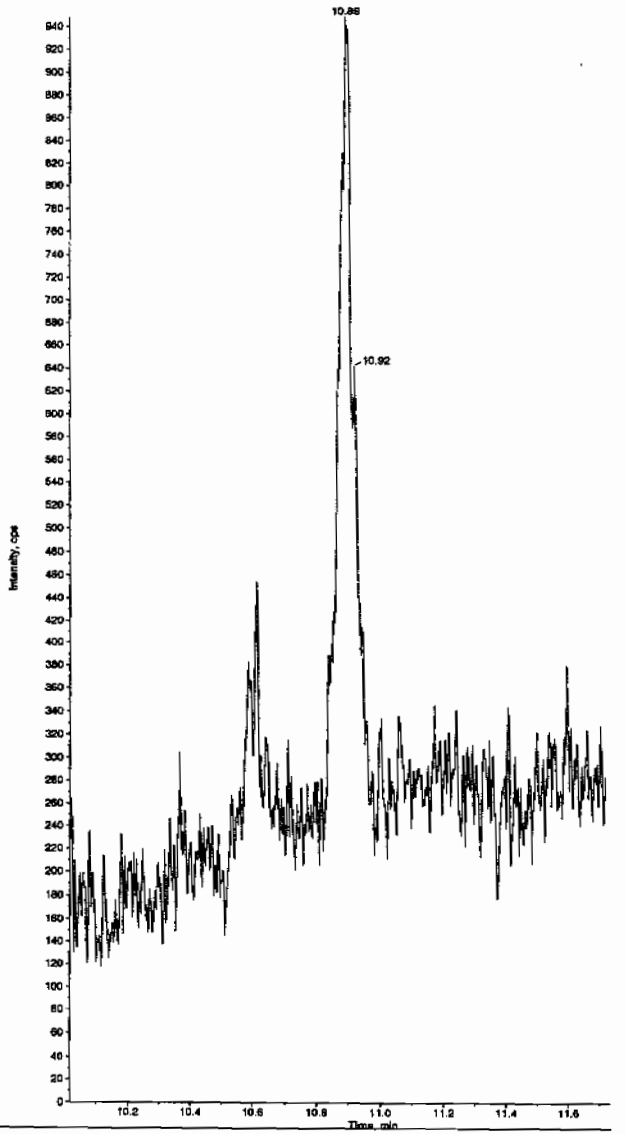

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8160

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070013

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304135a

Date Analyzed: 07-MAR-10 09:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304135a
Date: 07-Mar-2010
Time: 09:09:50
ID: 246070013
Vial: 3:7,E

LANC | 948890 | Solid | 2 |

MAP 3/7/10

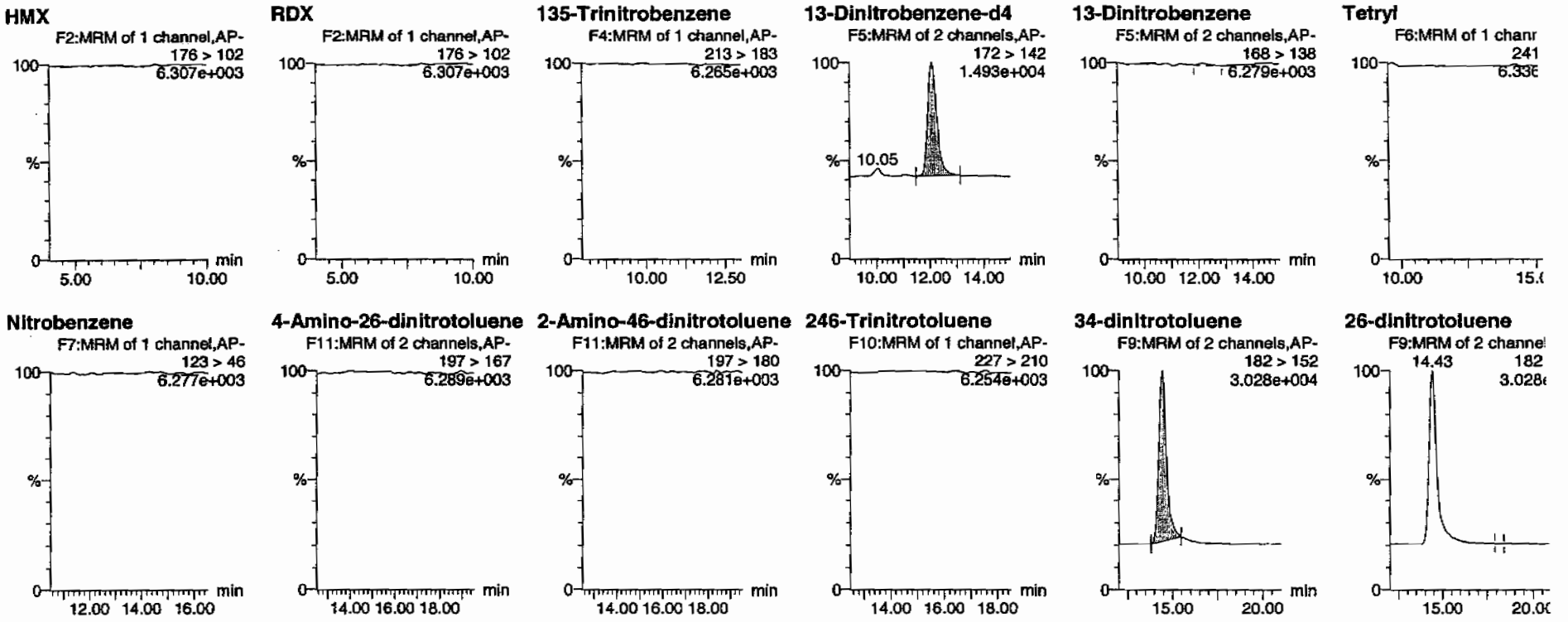

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

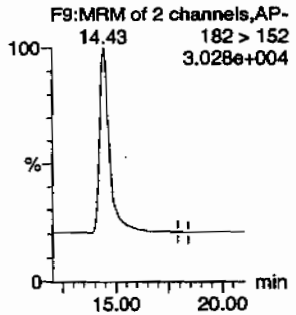

26-dinitrotoluene-d3

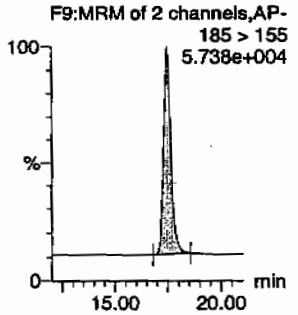

2-Nitrotoluene

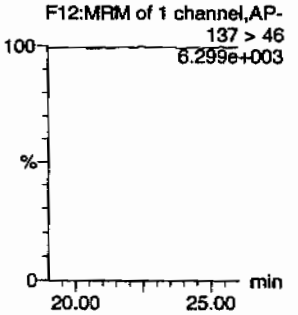

4-Nitrotoluene

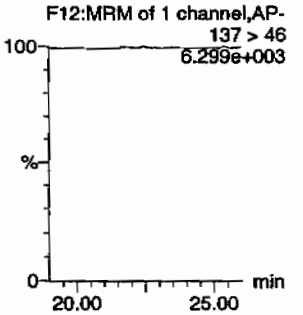

3-Nitrotoluene

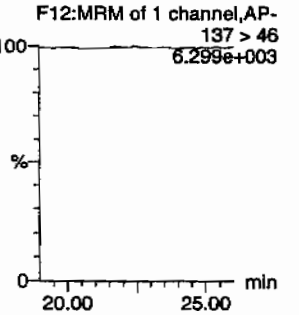

PETN

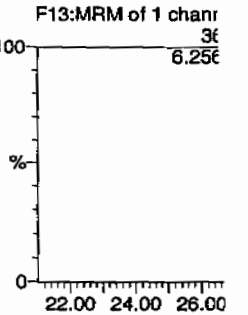

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246070013	HMX	176 > 102			3515.337									
246070013	RDX	176 > 102			3515.337									
246070013	135-Trinitrobenzene	213 > 183			3515.337									
246070013	13-Dinitrobenzene-d4	172 > 142	12.07	3515.337		3515.337	3515.337	bb			500.5052	100.1	0.1	142.6
246070013	13-Dinitrobenzene	168 > 138			3515.337			MM-	07-Mar-10	13:21:06				
246070013	Tetryl	241 > 181			3515.337									
246070013	Nitrobenzene	123 > 46			3515.337									
246070013	4-Amino-26-dinitrotoluene	197 > 167			20440.041									
246070013	2-Amino-46-dinitrotoluene	197 > 180			20440.041									
246070013	246-Trinitrotoluene	227 > 210			20440.041									
246070013	34-dinitrotoluene	182 > 152	14.43	11486.008	20440.041	11486.008	280.968	bb			290.7170	116.3	16.3	793.4
246070013	26-dinitrotoluene	182 > 152			20440.041			MM-	07-Mar-10	13:29:32				
246070013	24-dinitrotoluene	182 > 152			20440.041			MM-	07-Mar-10	13:30:15				
246070013	26-dinitrotoluene-d3	185 > 155	17.47	20440.041		20440.041	20440.041	bb			497.0686	99.4	-0.6	1997.4
246070013	2-Nitrotoluene	137 > 46			20440.041									
246070013	4-Nitrotoluene	137 > 46			20440.041									
246070013	3-Nitrotoluene	137 > 46			20440.041									
246070013	PETN	361 > 62			20440.041									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8160

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070013

Sample Amount 2

Moisture: 15.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260115.wiff

Date Analyzed: 27-FEB-10 20:44

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 3/1/10

ne: "246070013" Sample ID: "948890[2]LER" File: "EXS02260115.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
LCX83212S" Annotation: "
ex: 1
e: Unknown
ion: N/A
Conc: 0.00 ng/mL
2/27/2010
8:44:19 PM

No

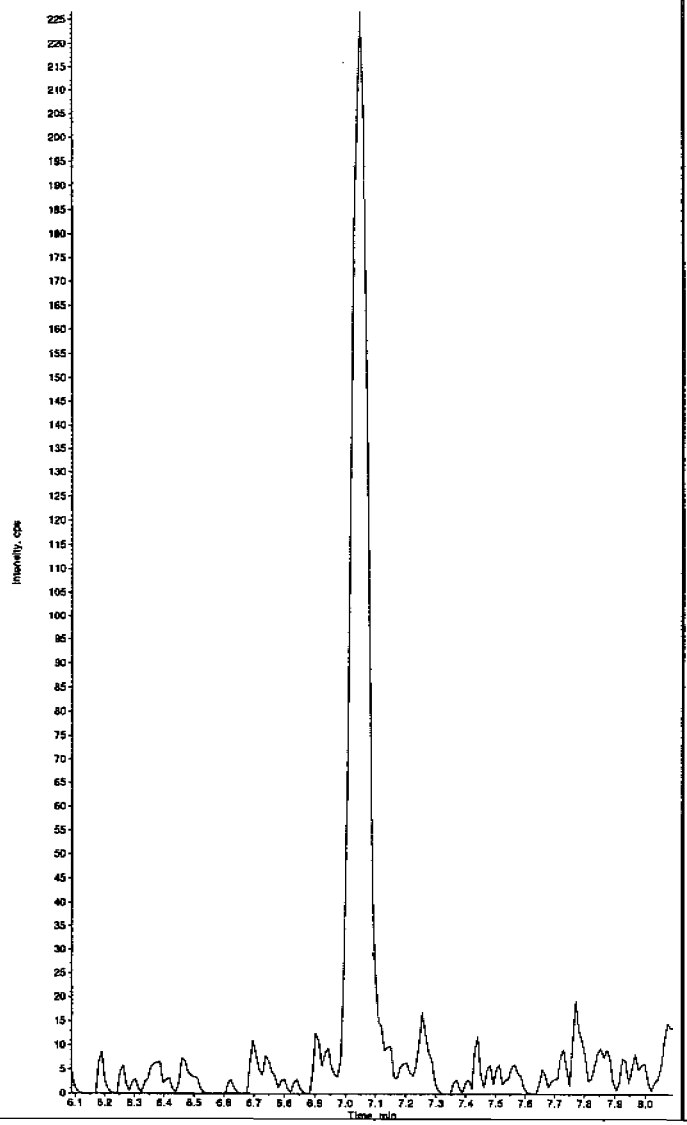

Sample Name: "246070013" Sample ID: "948890[2]LER" File: "EXS02260115.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:44:19 PM

Modified: Yes

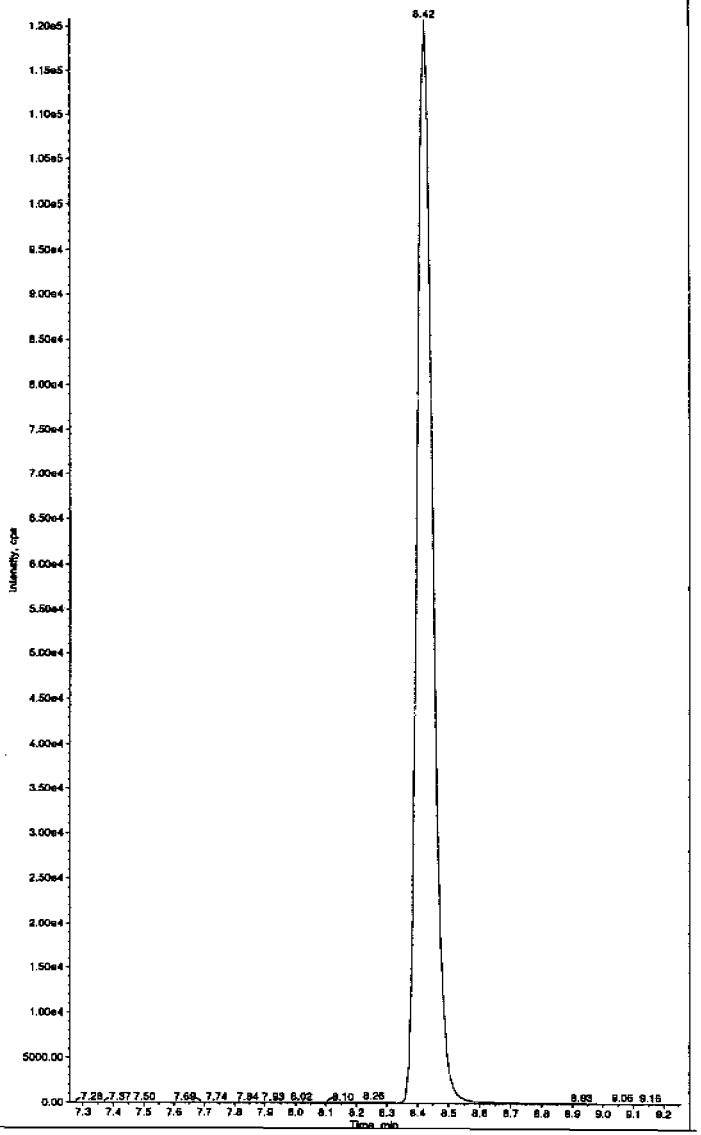

HMM 03/01/10

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ne: "246070013" Sample ID: "948890|2|LER" File: "EXS02260115.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
LCX83212S" Annotation: ""
ex: 1
e: Unknown
ion: N/A
Conc: 239. ng/mL
2/27/2010
8:44:19 PM

No
rithm: IntelliQuan - IQA
Height: 1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
T: 8.46 min
ve RT: No

Valley
Time: 8.41 min
3.30e+006 counts
974714.539 cps
: 8.32 min
8.76 min

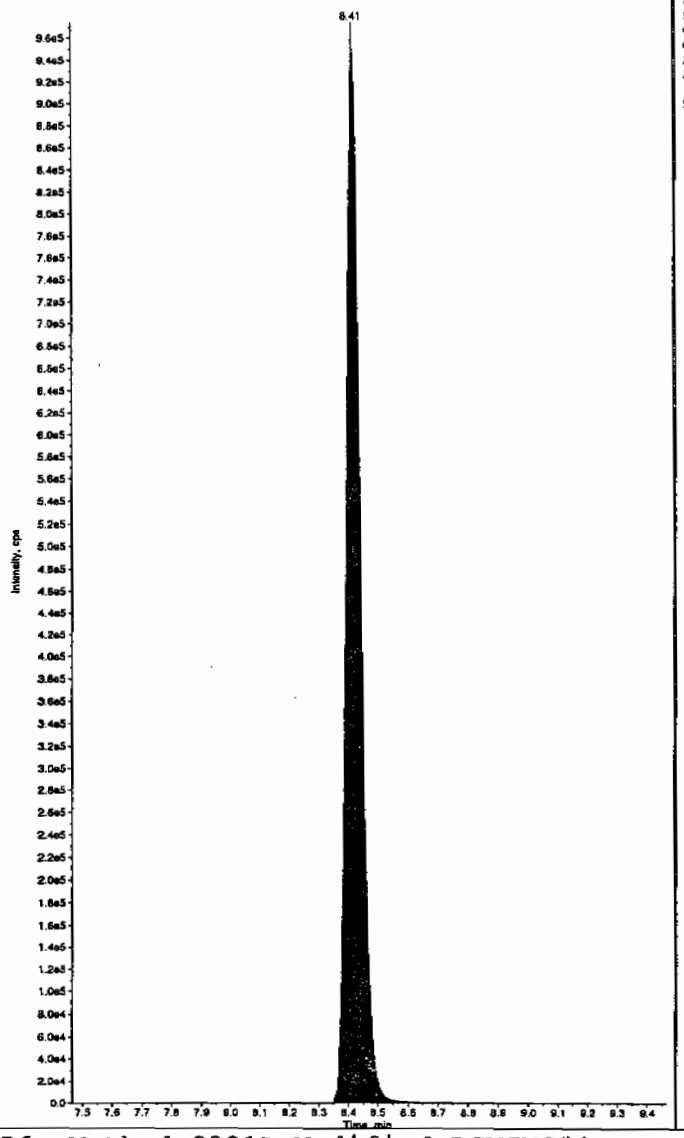

Sample Name: "246070013" Sample ID: "948890|2|LER" File: "EXS02260115.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:44:19 PM

Modified: No

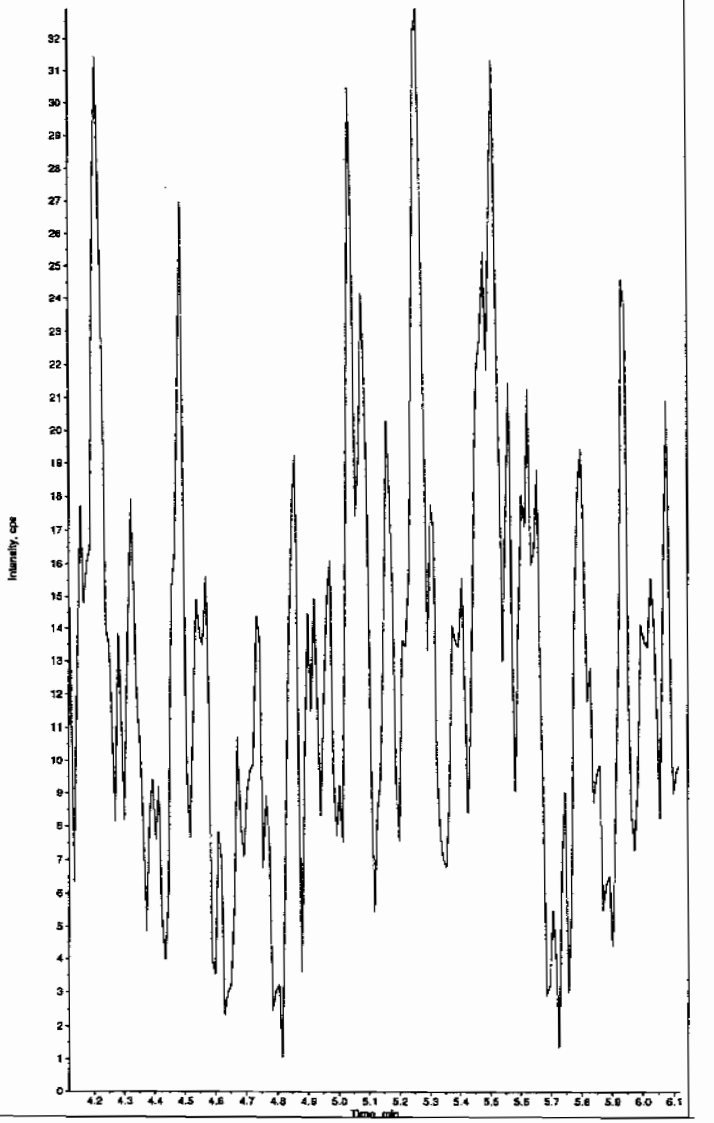

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: "246070013" Sample ID: "948890|2|LER" File: "EXS02260115.wiff"
'24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
CX83212S" Annotation: ""
x: 1
: Unknown
on: N/A
Conc: 0.00 ng/mL
2/27/2010
8:44:19 PM

No

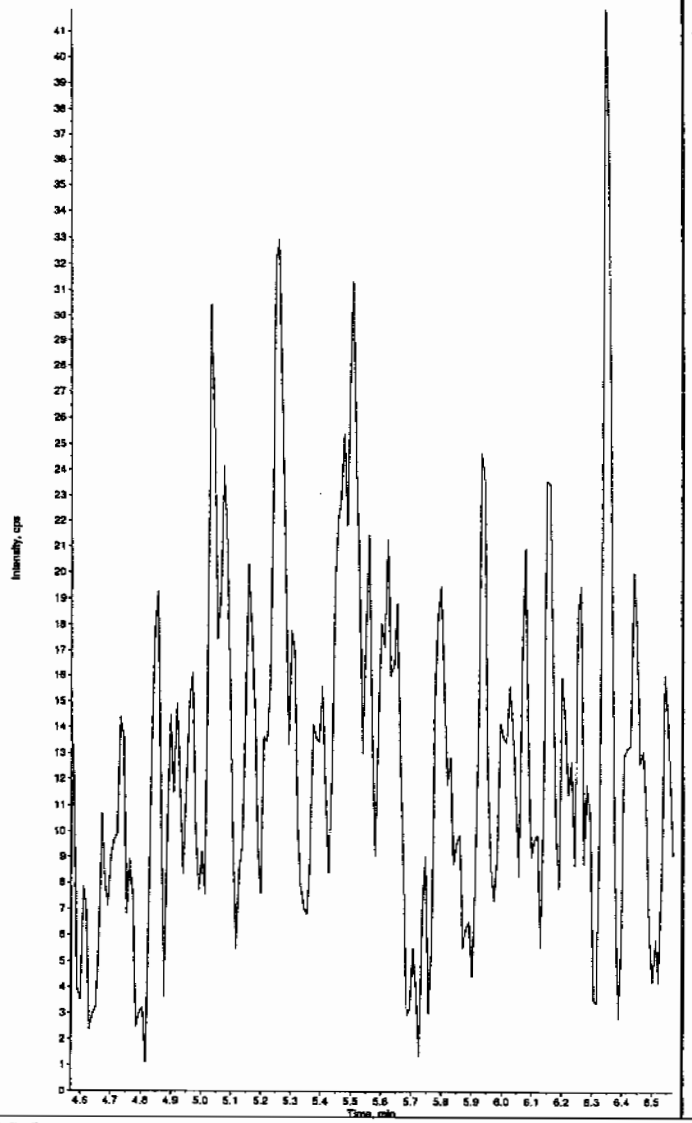

Sample Name: "246070013" Sample ID: "948890|2|LER" File: "EXS02260115.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:44:19 PM

Modified: No

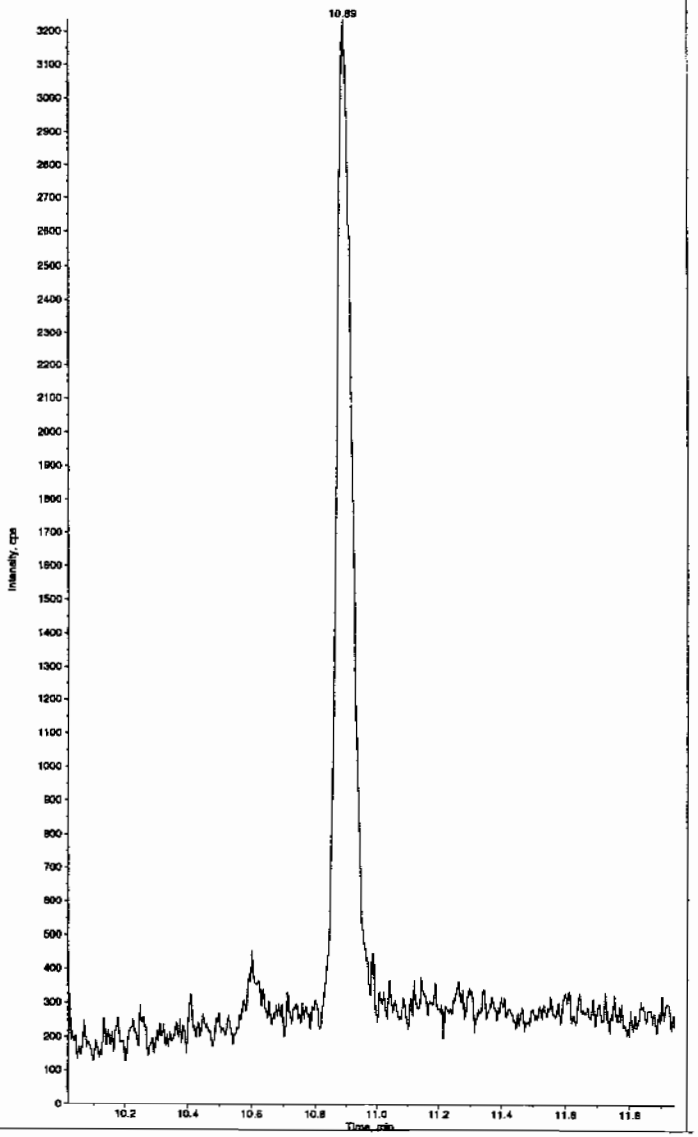

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8149

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070014

Sample Amount 2

Moisture: 11.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304136a

Date Analyzed: 07-MAR-10 09:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304136a
07-Mar-2010
09:39:20
6070014
3:7,F

| LANL | 948890 | Solid | 21

mat 3/17/10

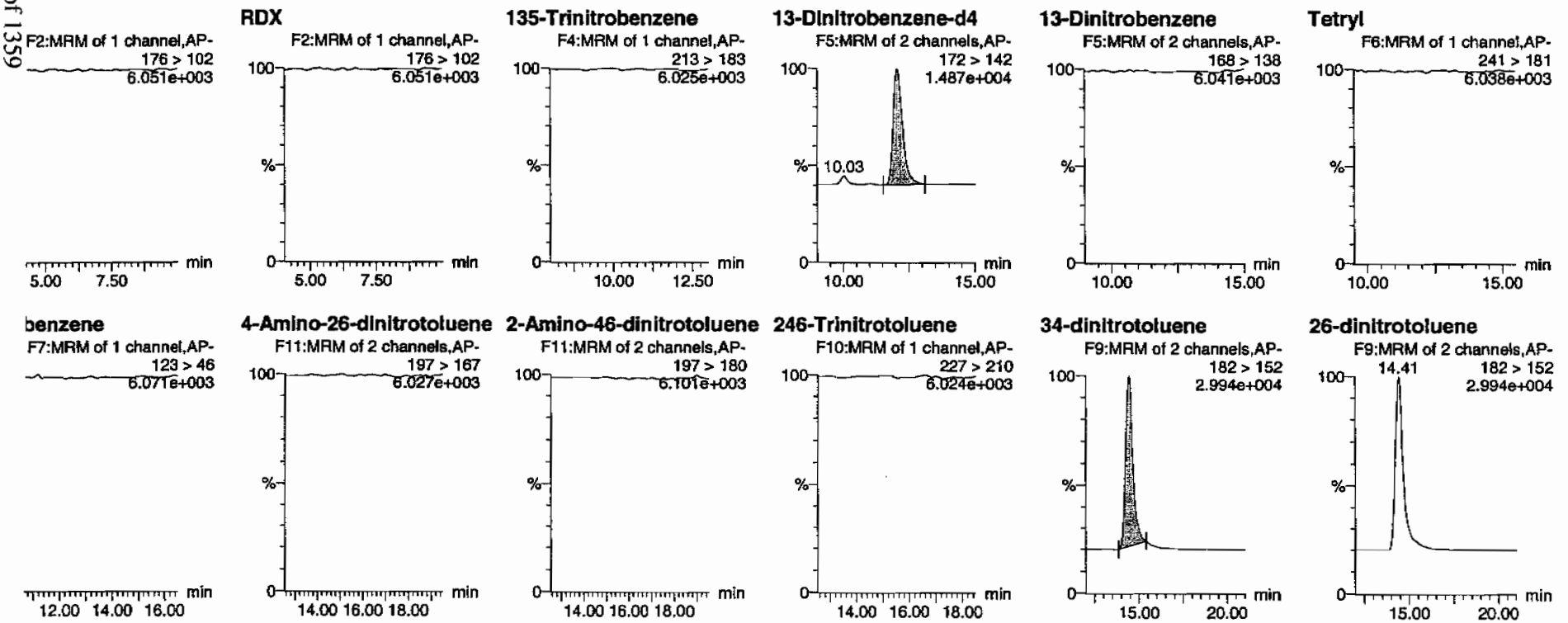

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SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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et: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

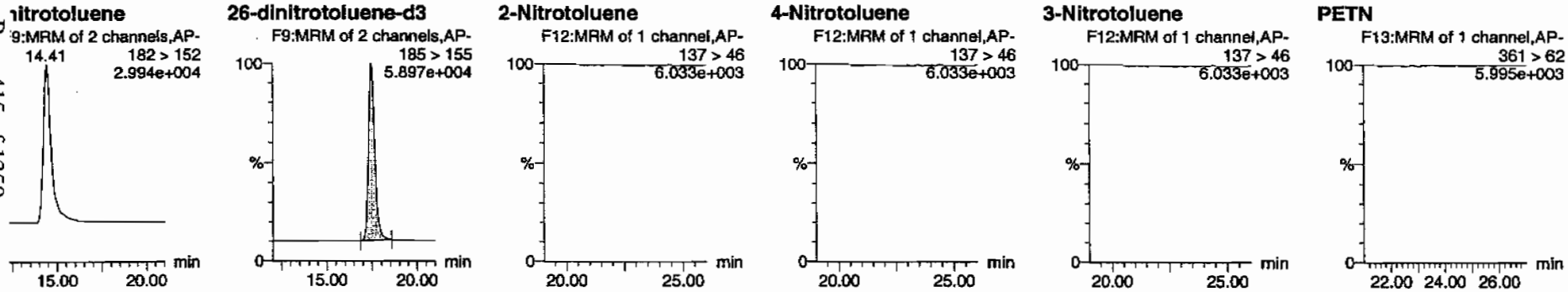

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
'0014	HMX	176 > 102			3663.489									
'0014	RDX	176 > 102			3663.489									
'0014	135-Trinitrobenzene	213 > 183			3663.489									
'0014	13-Dinitrobenzene-d4	172 > 142	12.06	3663.489		3663.489	3663.489	bb			521.5987	104.3	4.3	374.7
'0014	13-Dinitrobenzene	168 > 138			3663.489									
'0014	Tetryl	241 > 181			3663.489									
'0014	Nitrobenzene	123 > 46			3663.489									
'0014	4-Amino-26-dinitrotoluene	197 > 167			21594.793									
'0014	2-Amino-46-dinitrotoluene	197 > 180			21594.793									
'0014	246-Trinitrotoluene	227 > 210			21594.793									
'0014	34-dinitrotoluene	182 > 152	14.41	11295.437	21594.793	11295.437	261.531	bb			270.6058	108.2	8.2	606.4
'0014	26-dinitrotoluene	182 > 152			21594.793									
'0014	24-dinitrotoluene	182 > 152			21594.793									
'0014	26-dinitrotoluene-d3	185 > 155	17.45	21594.793		21594.793	21594.793	bb			525.1503	105.0	5.0	1261.1
'0014	2-Nitrotoluene	137 > 46			21594.793									
'0014	4-Nitrotoluene	137 > 46			21594.793									
'0014	3-Nitrotoluene	137 > 46			21594.793									
'0014	PETN	361 > 62			21594.793									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8149

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070014

Sample Amount 2

Moisture: 11.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260116.wiff

Date Analyzed: 27-FEB-10 21:00

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rev 3/1/10

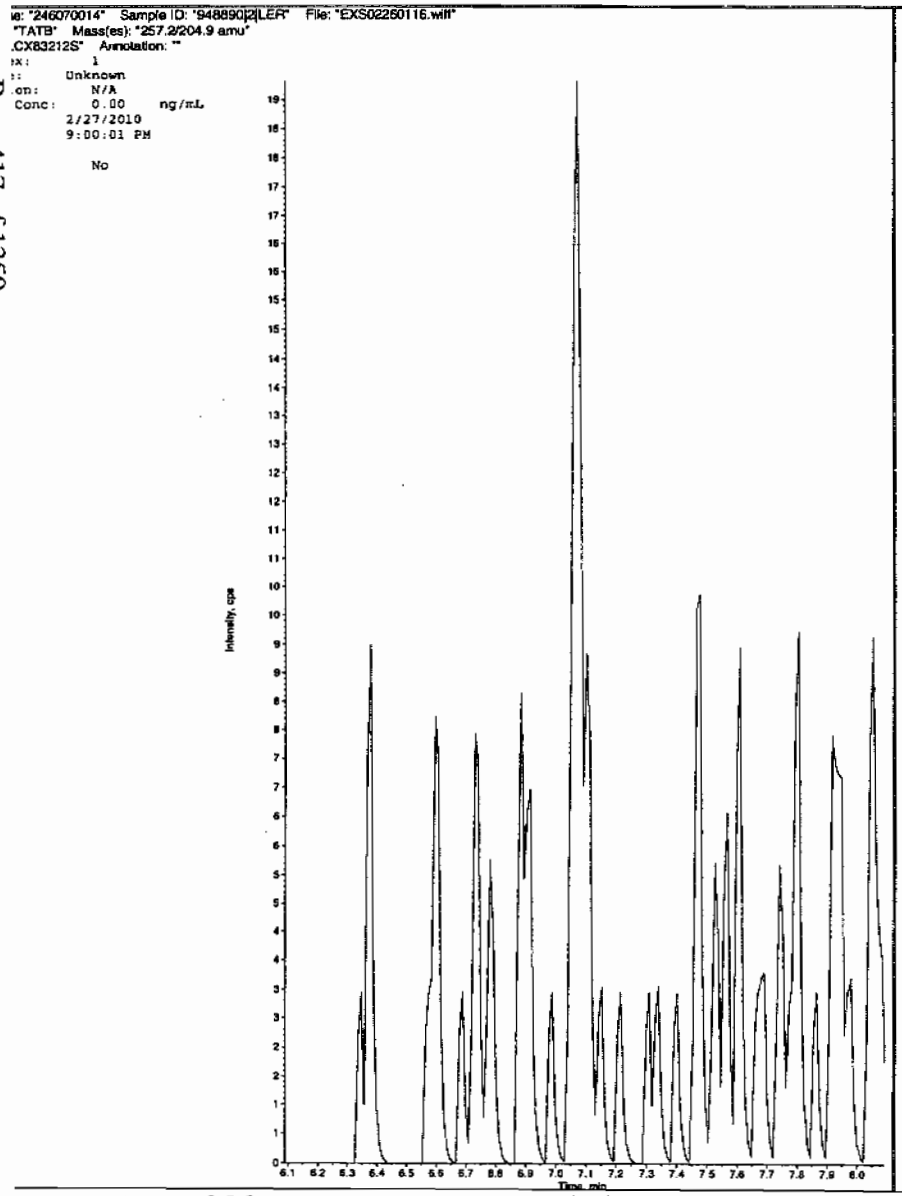

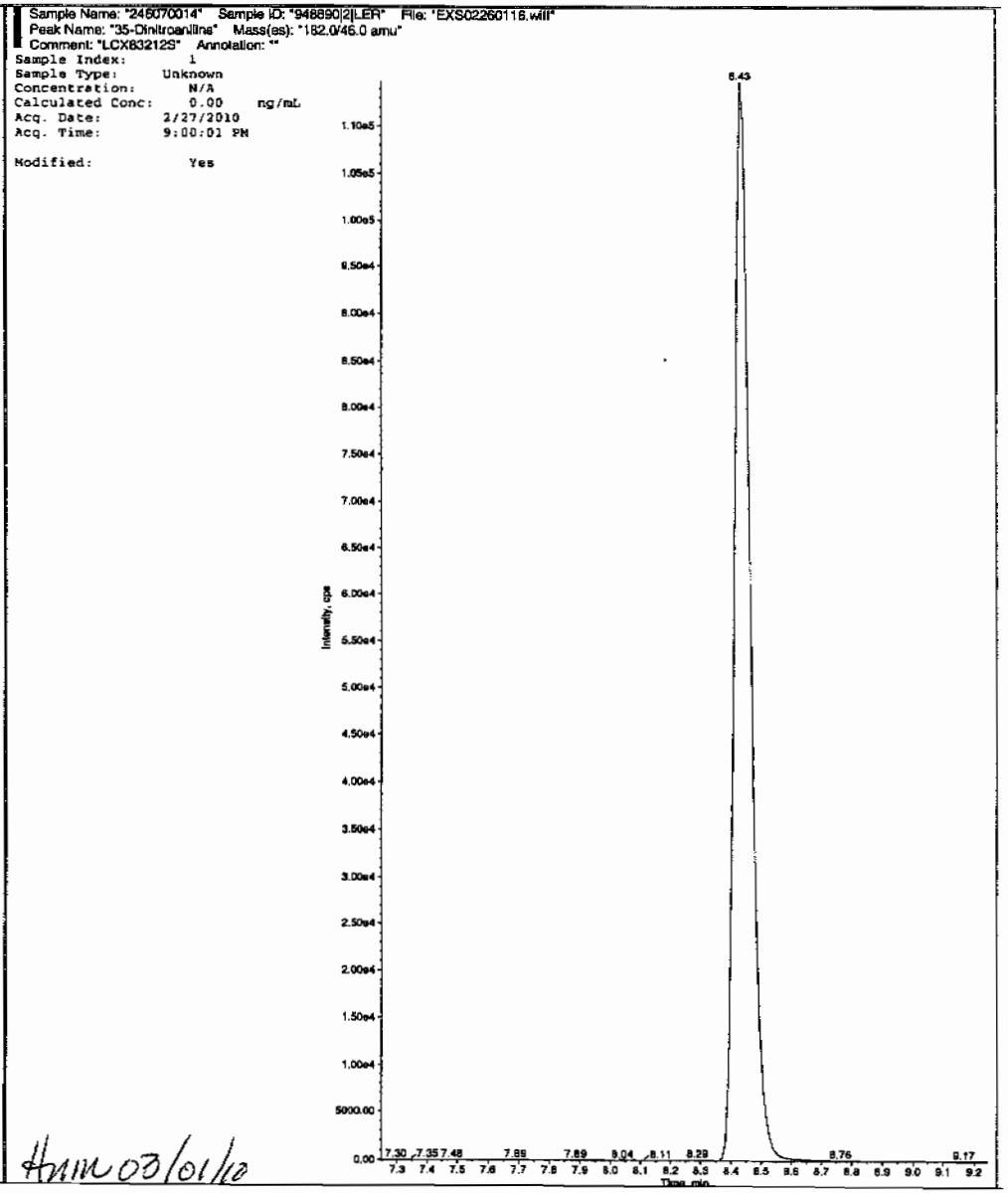

HMM 03/01/10

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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: "246070014" Sample ID: "948690|2|LER" File: "EXS02260116.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CX83212S" Annotation: "

x: 1
: Unknown
on: N/A
Conc: 245. ng/mL
2/27/2010
9:00:01 PM

No
ithm: IntelliQuan - IQA
eight: 1460.00 cps
idth: 0.00 sec
idth: 3 points
15.0 sec
: 8.46 min
e RT: No

Valley
ime: 8.43 min
3.38e+006 counts
995138.062 cps
8.34 min
8.79 min

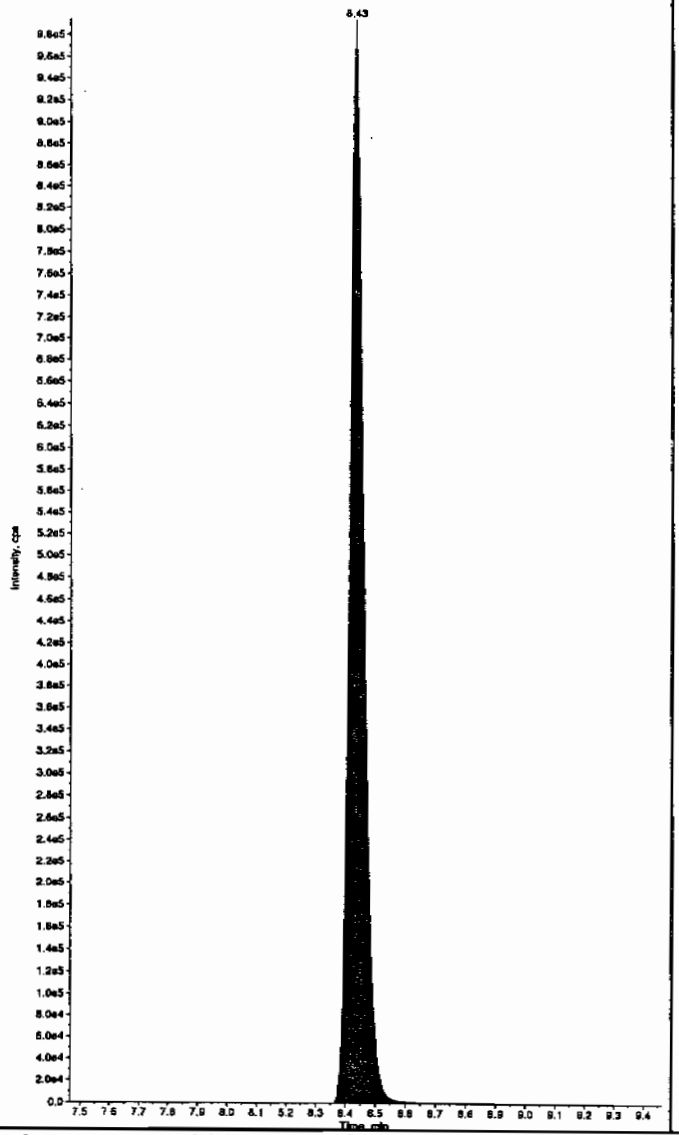

Sample Name: "246070014" Sample ID: "948690|2|LER" File: "EXS02260116.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 9:00:01 PM

Modified: No

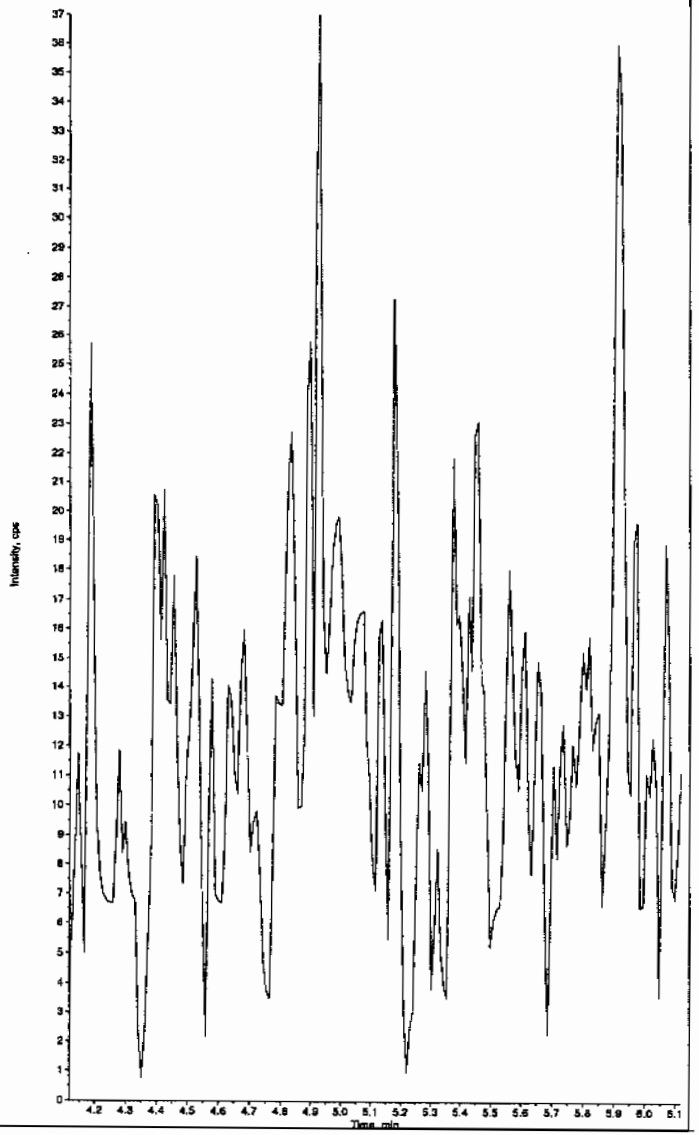

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: "246070014" Sample ID: "948890|2|LER" File: "EXS02260116.wiff"
'24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
CX83212S" Annotation: ""
K: 1
: Unknown
on: N/A
Conc: 0.00 ng/mL
2/27/2010
9:00:01 PM
No

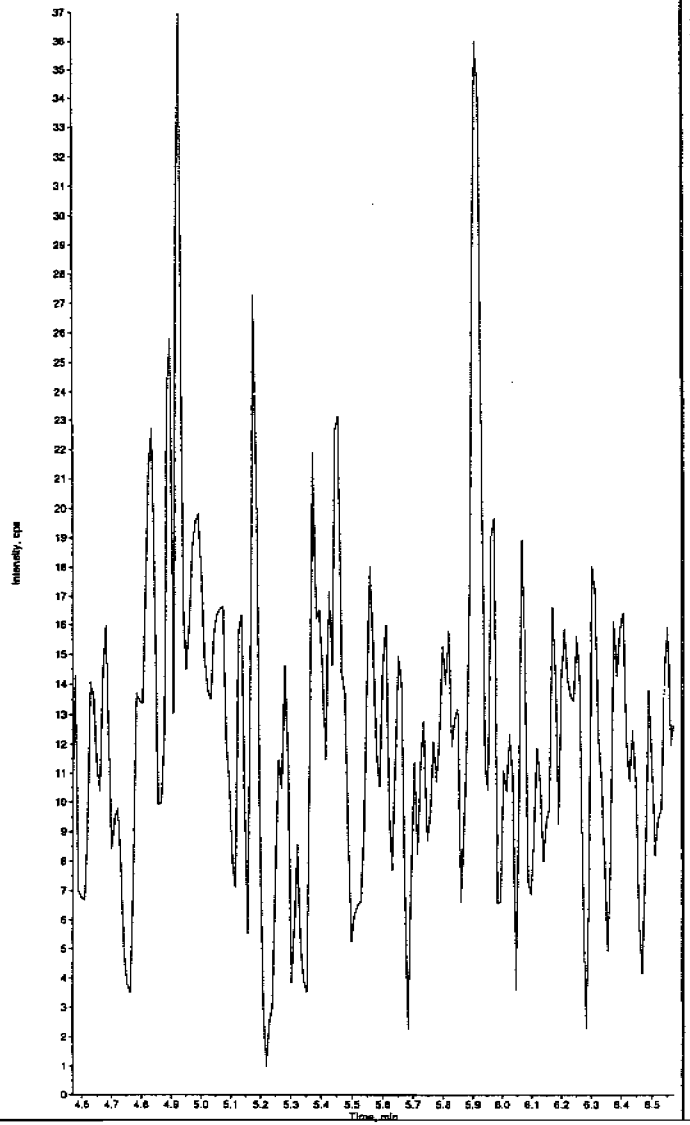

Sample Name: "246070014" Sample ID: "948890|2|LER" File: "EXS02260116.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 9:00:01 PM

Modified: No

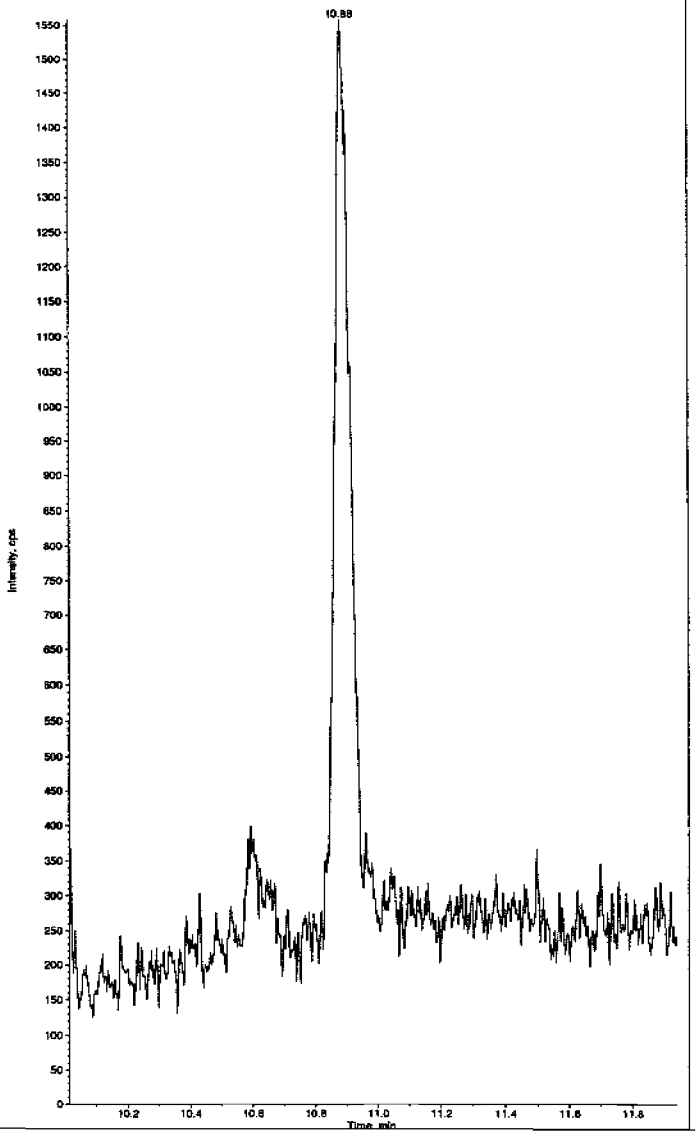

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8167

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070015

Sample Amount 2

Moisture: 13.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304137a

Date Analyzed: 07-MAR-10 10:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

t: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304137a
07-Mar-2010
10:08:49
3070015 | LANL | 948890 | Solid | 2 |
:8,A

MMT 3/7/10

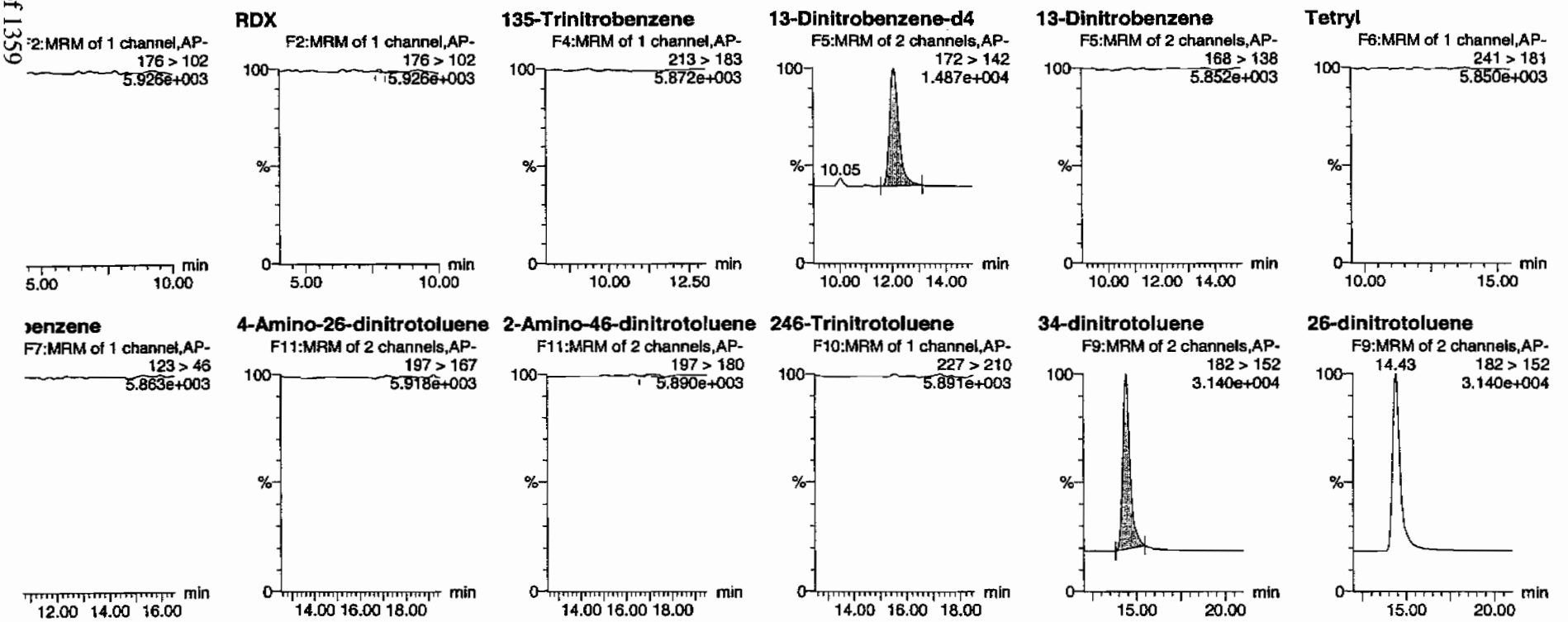

HMM 03/08/10

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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t: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

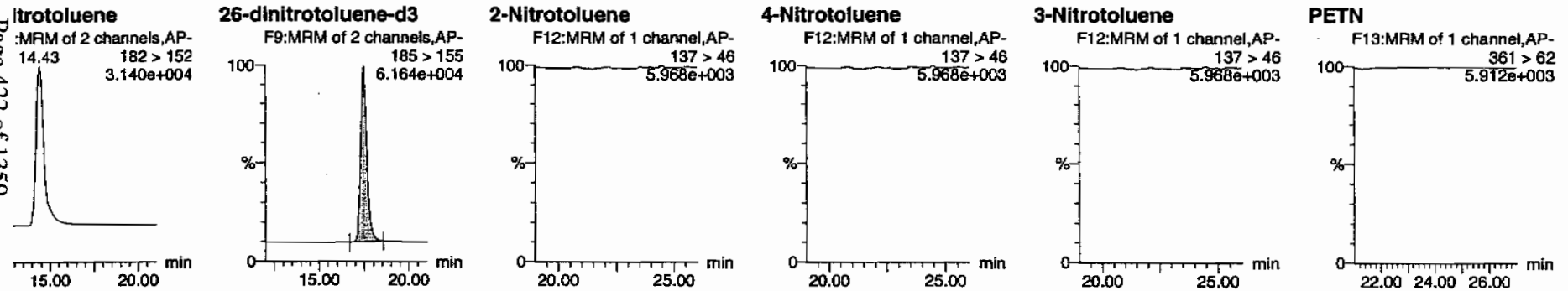

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
015	HMX	176 > 102			3683.125									
015	RDX	176 > 102			3683.125			MM-	07-Mar-10	13:20:17				
015	135-Trinitrobenzene	213 > 183			3683.125									
015	13-Dinitrobenzene-d4	172 > 142	12.07	3683.125		3683.125	3683.125	bb			524.3945	104.9	4.9	196.1
015	13-Dinitrobenzene	168 > 138			3683.125									
015	Tetryl	241 > 181			3683.125									
015	Nitrobenzene	123 > 46			3683.125									
015	4-Amino-26-dinitrotoluene	197 > 167			22365.402									
015	2-Amino-46-dinitrotoluene	197 > 180			22365.402			MM-	07-Mar-10	13:26:45				
015	246-Trinitrotoluene	227 > 210			22365.402									
015	34-dinitrotoluene	182 > 152	14.43	12090.843	22365.402	12090.843	270.302	bb			279.6810	111.9	11.9	852.2
015	26-dinitrotoluene	182 > 152			22365.402									
015	24-dinitrotoluene	182 > 152			22365.402									
015	26-dinitrotoluene-d3	185 > 155	17.47	22365.402		22365.402	22365.402	bb			543.8903	108.8	8.8	2307.8
015	2-Nitrotoluene	137 > 46			22365.402									
015	4-Nitrotoluene	137 > 46			22365.402									
015	3-Nitrotoluene	137 > 46			22365.402									
015	PETN	361 > 62			22365.402									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8167

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070015

Sample Amount 2

Moisture: 13.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260117.wiff

Date Analyzed: 27-FEB-10 21:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcn 3/1/10

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e: "246070015" Sample ID: "948890[2]LER" File: "EXS02260117.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CX83212S" Annotation: "
x: 1
: Unknown
on: N/A
Conc: 0.00 ng/mL
2/27/2010
9:15:42 PM

No

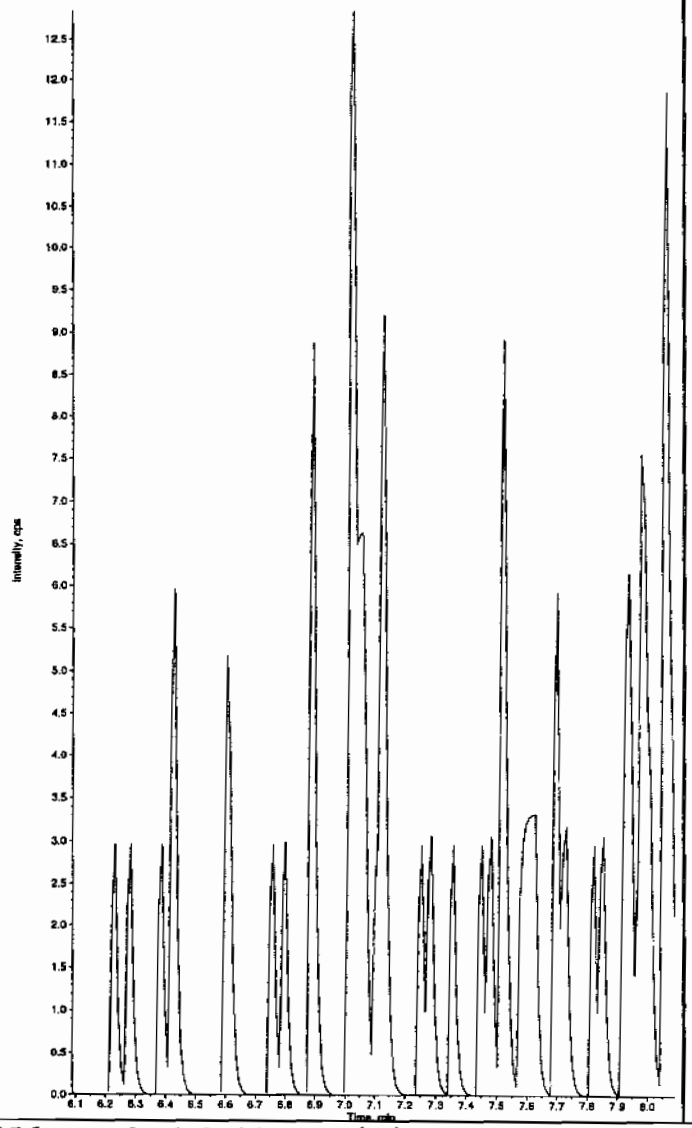

Sample Name: "246070015" Sample ID: "948890[2]LER" File: "EXS02260117.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 9:15:42 PM

Modified: Yes

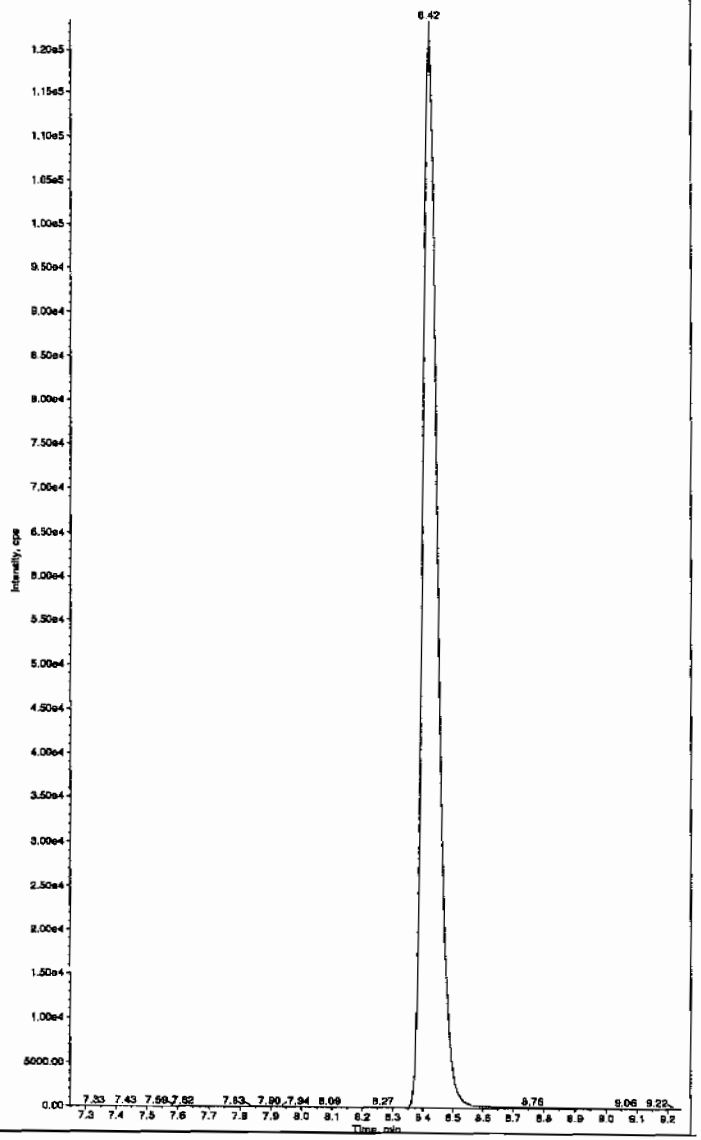

HMM 03/01/10

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: "246070015" Sample ID: "948890|2|LER" File: "EXS02260117.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CX83212S" Annotation: ""
x: 1
: Unknown
on: N/A
Conc: 242. ng/mL
2/27/2010
9:15:42 PM

No
ithm: IntelliQuan - IQA
eight:1460.00 cps
idth: 0.00 sec
idth: 3 points
15.0 sec
: 8.46 min
e RT: No

Valley
ime: 8.41 min
3.34e+006 counts
984241.394 cps
8.29 min
8.75 min

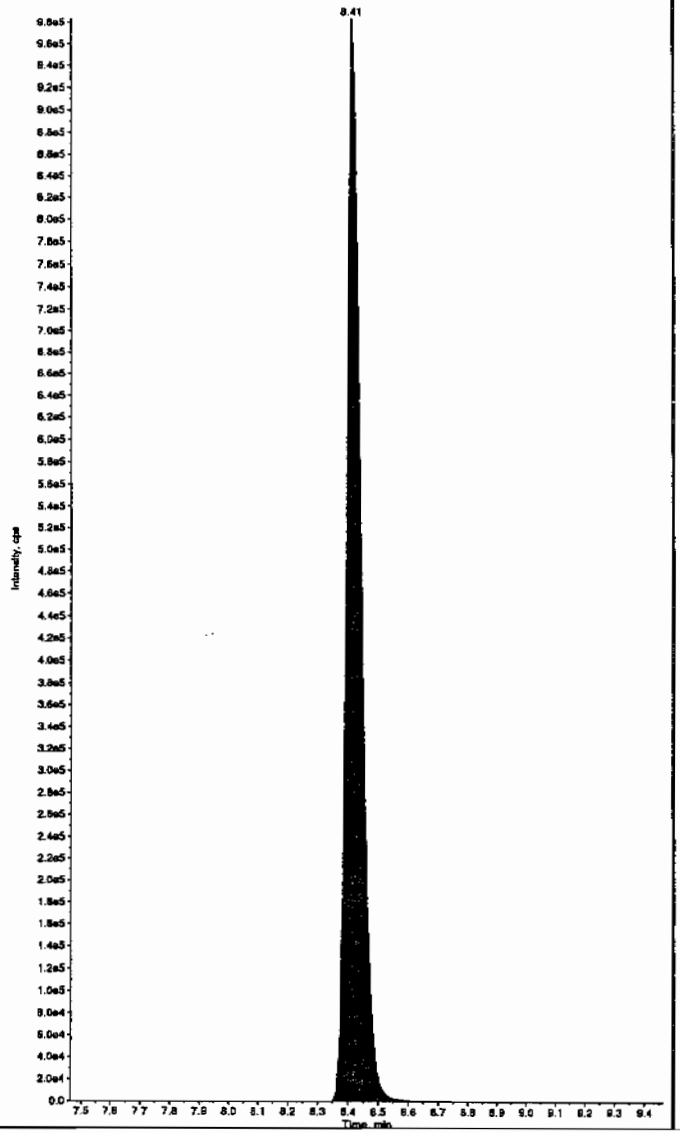

Sample Name: "246070015" Sample ID: "948890|2|LER" File: "EXS02260117.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 9:15:42 PM

Modified: No

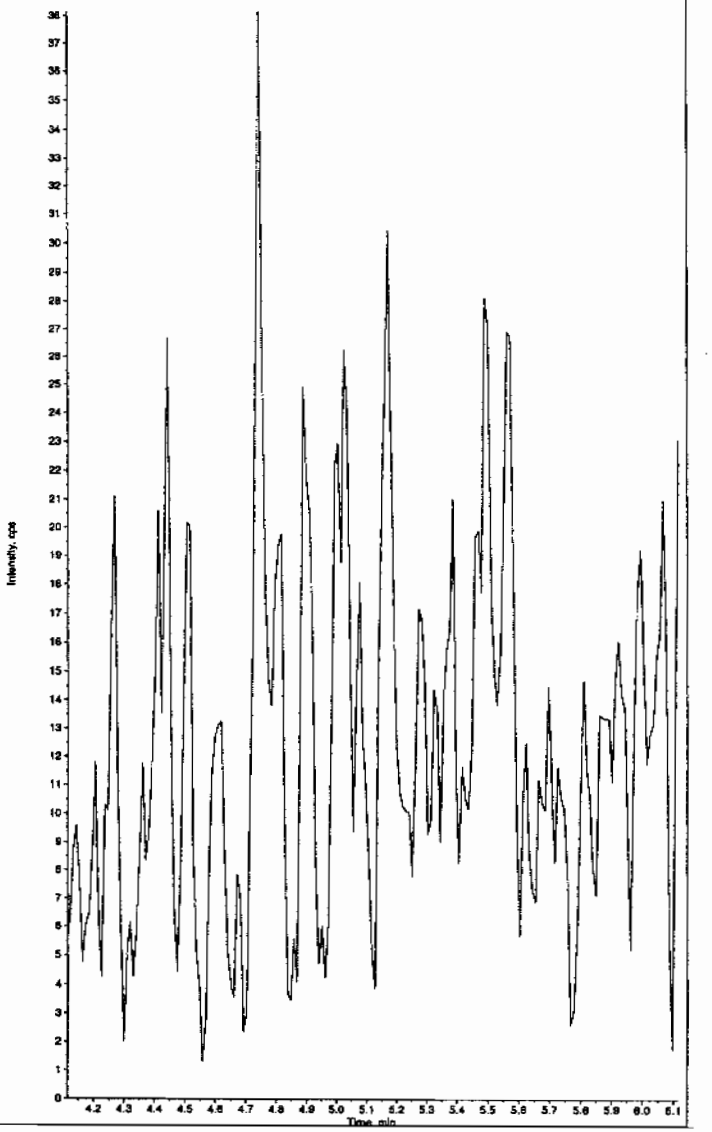

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a: "246070015" Sample ID: "946890|2|LER" File: "EXS02260117.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
CX83212S" Annotation: ""
x: 1
: Unknown
on: N/A
Conc: 0.00 ng/mL
2/27/2010
9:15:42 PM

No

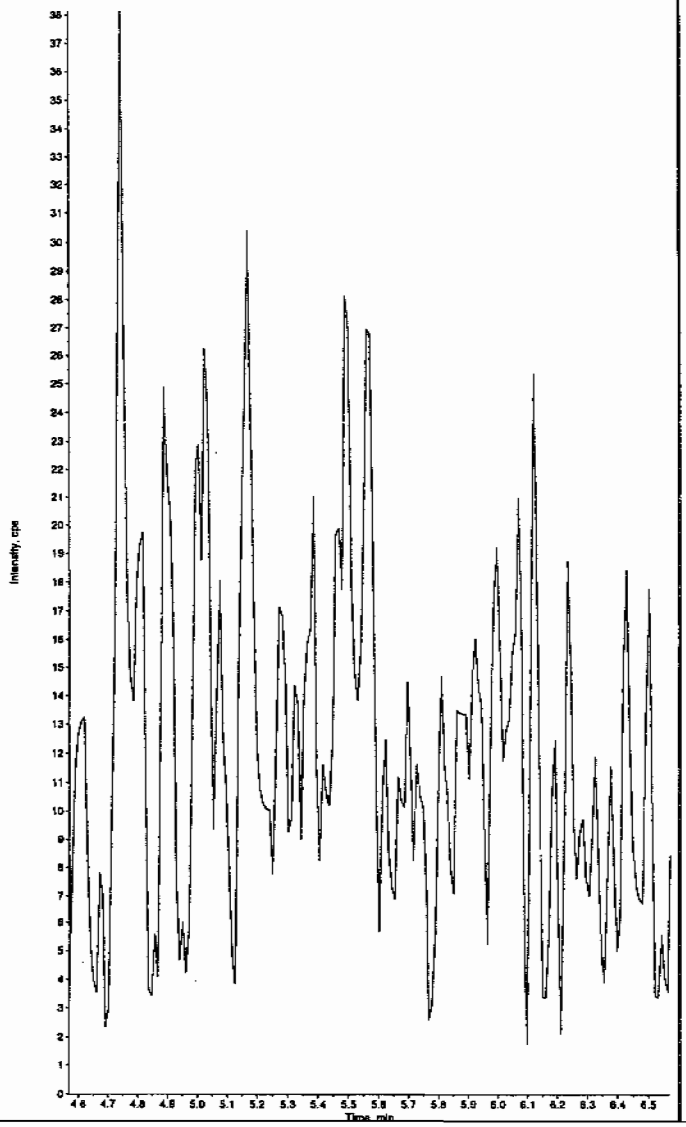

Sample Name: "246070015" Sample ID: "946890|2|LER" File: "EXS02260117.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 9:15:42 PM

Modified: No

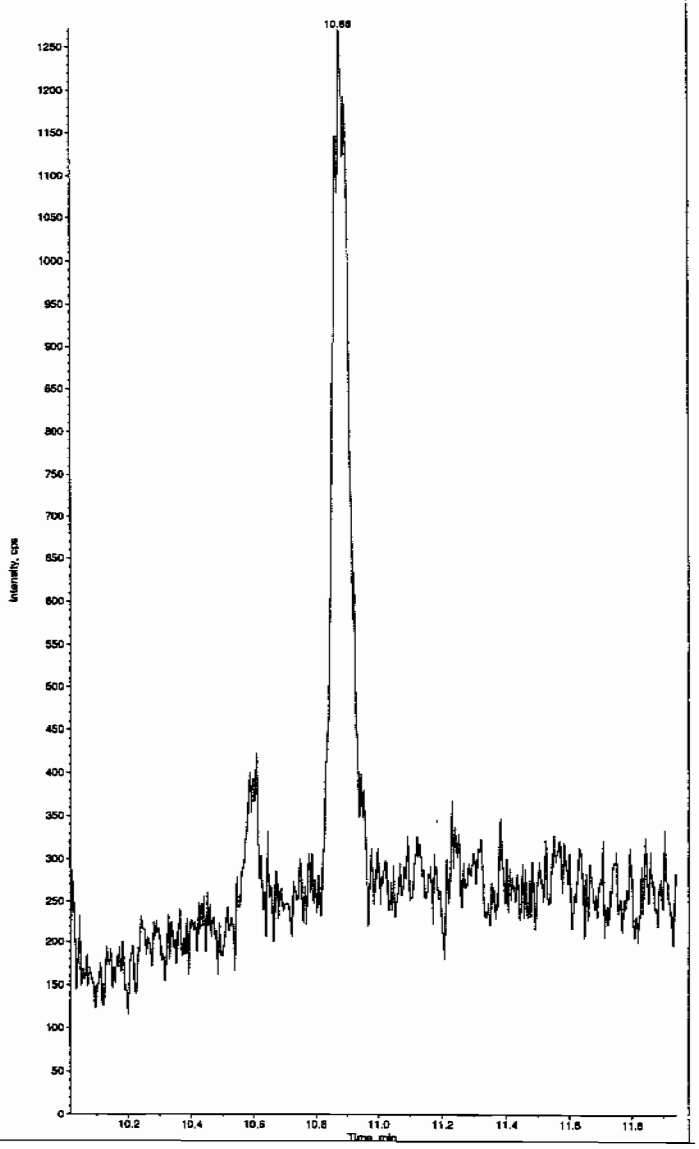

:OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8152

Lab Code: GEI

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070016

Sample Amount 2

Moisture: 19.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304138a

Date Analyzed: 07-MAR-10 10:38

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

set: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

e: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304138a
: 07-Mar-2010
: 10:38:21
46070016
3:8,B

LANL | 948890 | Solid | 2

MMP 3/17/10

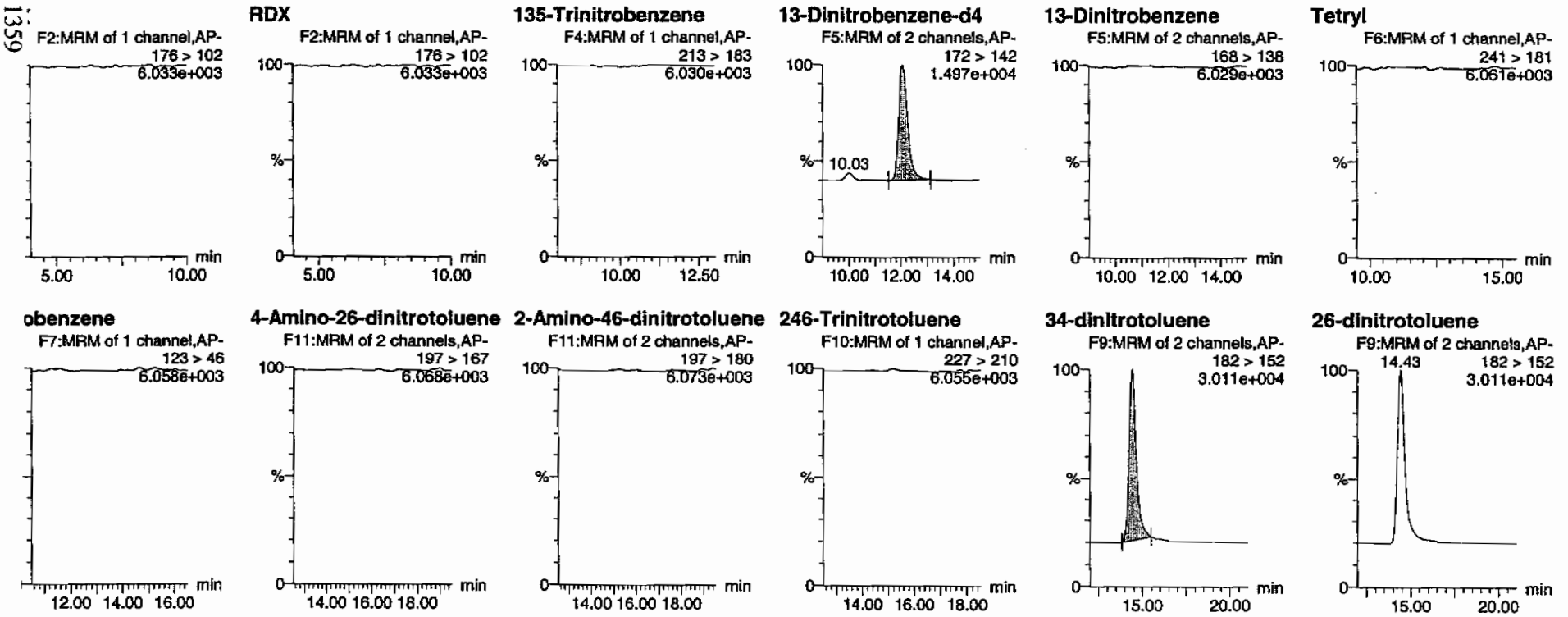

HMC 03/08/10

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ɔt: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

itrotoluene

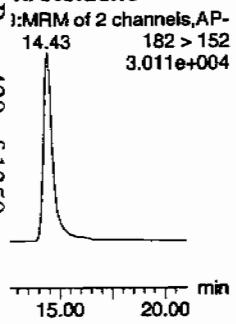

26-dinitrotoluene-d3

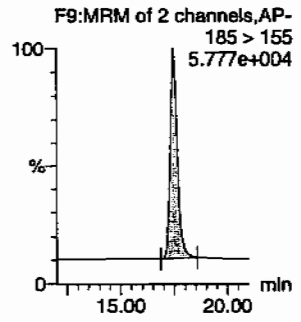

2-Nitrotoluene

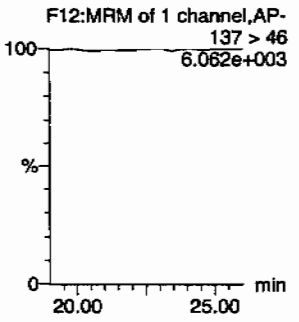

4-Nitrotoluene

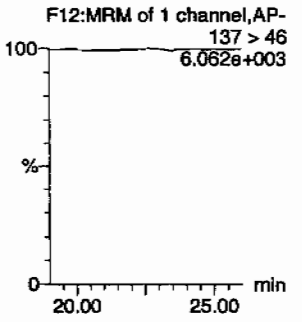

3-Nitrotoluene

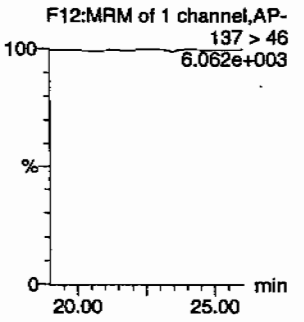

PETN

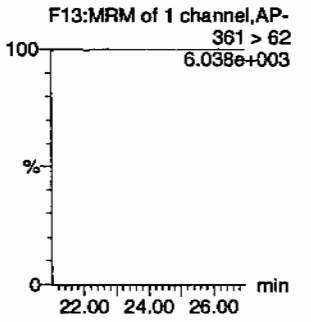

	Name	Trace	RT	Area	IS Area	Abs Resp	IS Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
)016	HMX	176 > 102			3628.506									
)016	RDX	176 > 102			3628.506									
)016	135-Trinitrobenzene	213 > 183			3628.506									
)016	13-Dinitrobenzene-d4	172 > 142	12.07	3628.506		3628.506	3628.506	bb			516.6179	103.3	3.3	74.1
)016	13-Dinitrobenzene	168 > 138			3628.506									
)016	Tetryl	241 > 181			3628.506									
)016	Nitrobenzene	123 > 46			3628.506									
)016	4-Amino-26-dinitrotoluene	197 > 167			20851.691									
)016	2-Amino-46-dinitrotoluene	197 > 180			20851.691									
0016	246-Trinitrotoluene	227 > 210			20851.691									
0016	34-dinitrotoluene	182 > 152	14.43	11440.864	20851.691	11440.864	274.339	bb			283.8577	113.5	13.5	684.2
0016	26-dinitrotoluene	182 > 152			20851.691									
0016	24-dinitrotoluene	182 > 152			20851.691									
0016	26-dinitrotoluene-d3	185 > 155	17.47	20851.691		20851.691	20851.691	bb			507.0793	101.4	1.4	1923.5
0016	2-Nitrotoluene	137 > 46			20851.691									
0016	4-Nitrotoluene	137 > 46			20851.691									
0016	3-Nitrotoluene	137 > 46			20851.691									
0016	PETN	361 > 62			20851.691									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8152

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070016

Sample Amount 2

Moisture: 19.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260118.wiff

Date Analyzed: 27-FEB-10 21:31

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sun 3/1/10

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e: "246070016" Sample ID: "948890|2|LER" File: "EXS02260118.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
LCX83212S" Annotation: "
ex: 1
e: Unknown
ion: N/A
Conc: 0.00 ng/mL
2/27/2010
9:31:23 PM

No

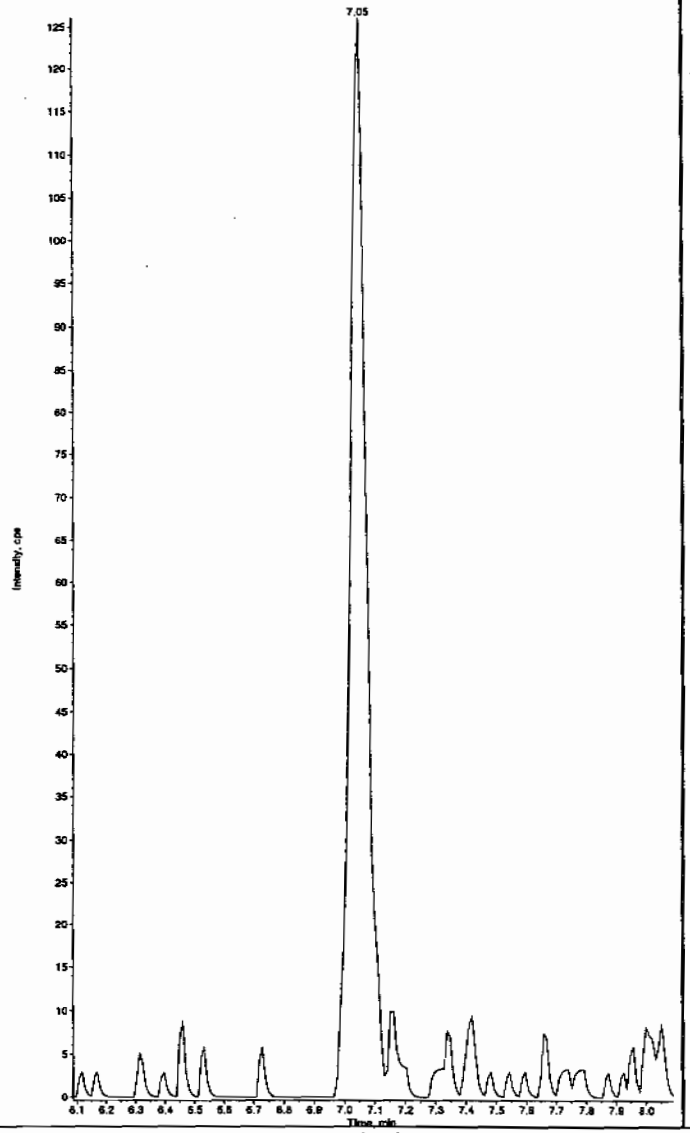

Sample Name: "246070016" Sample ID: "948890|2|LER" File: "EXS02260118.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 9:31:23 PM

Modified: Yes

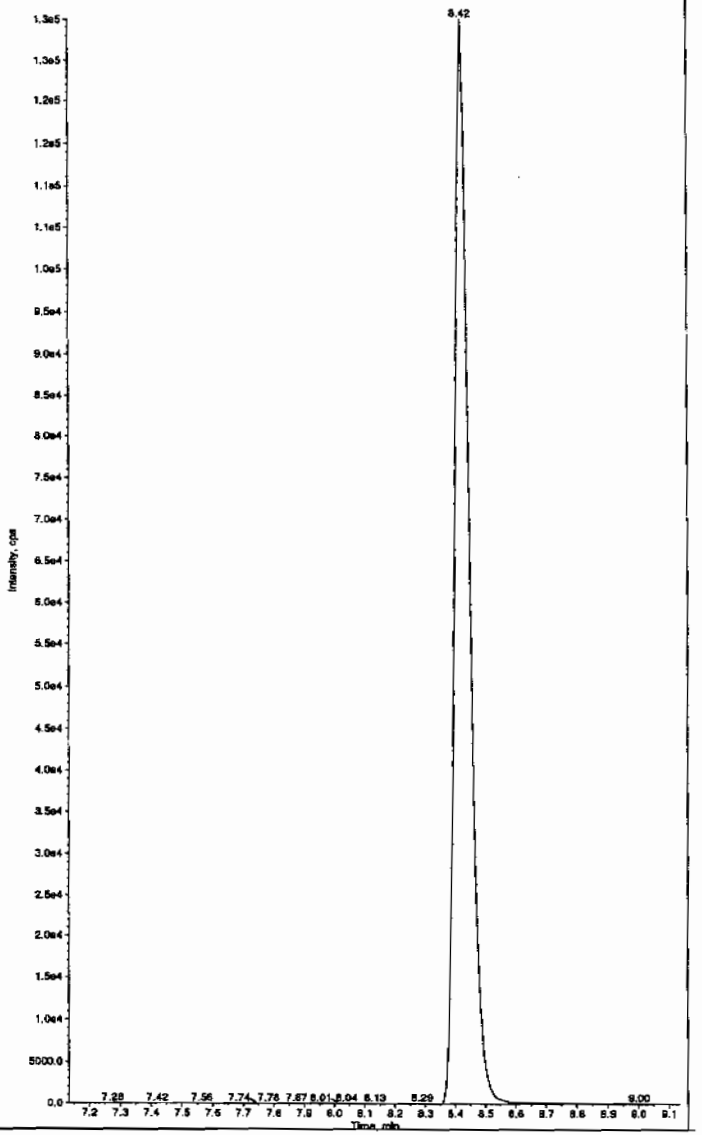

HMM 03/01/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

s: "246070016" Sample ID: "948890|2|LER" File: "EXS02260118.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CX83212S" Annotation: ""

```
x:        1
:      Unknown
on:       N/A
Conc:     235.     ng/mL
       2/27/2010
       9:31:23 PM

          No
ithm: IntelliQuan - IQA
eight:1460.00    cps
idth:    0.00    sec
idth:  3        points
         15.0     sec
          8.46    min
e RT:     No

         Valley
ime:      8.42    min
    3.24e+006    counts
     937812.134   cps
          8.26    min
          8.77    min
```

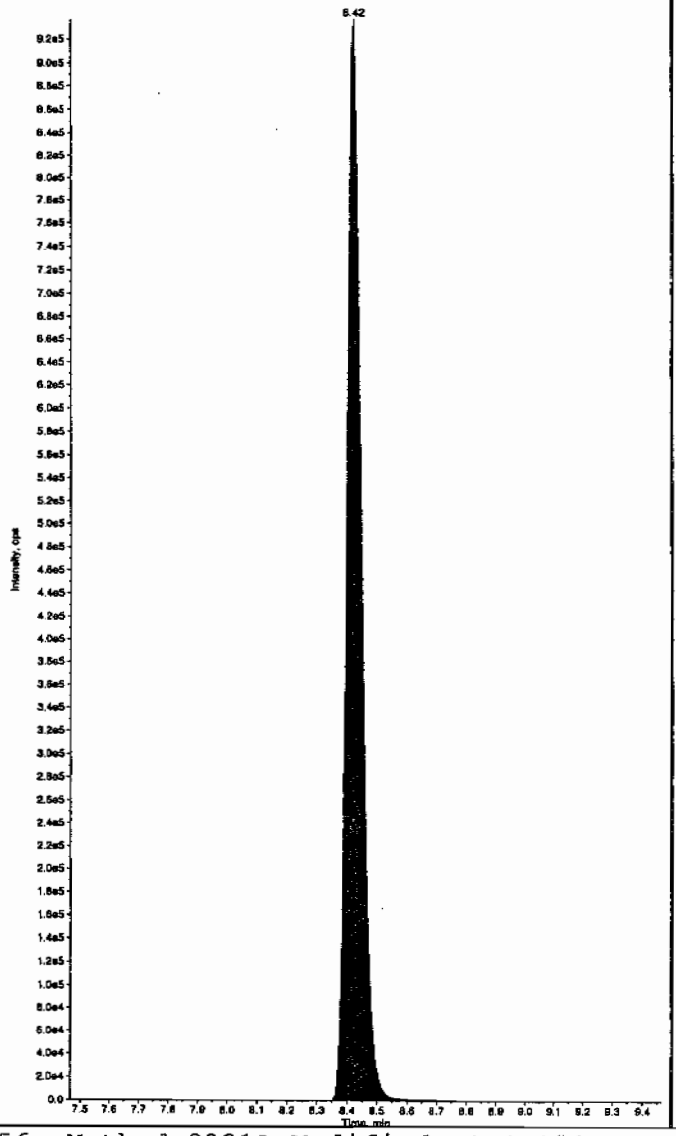

Sample Name: "246070016" Sample ID: "948890|2|LER" File: "EXS02260118.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     0.00     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        9:31:23 PM

Modified:            No
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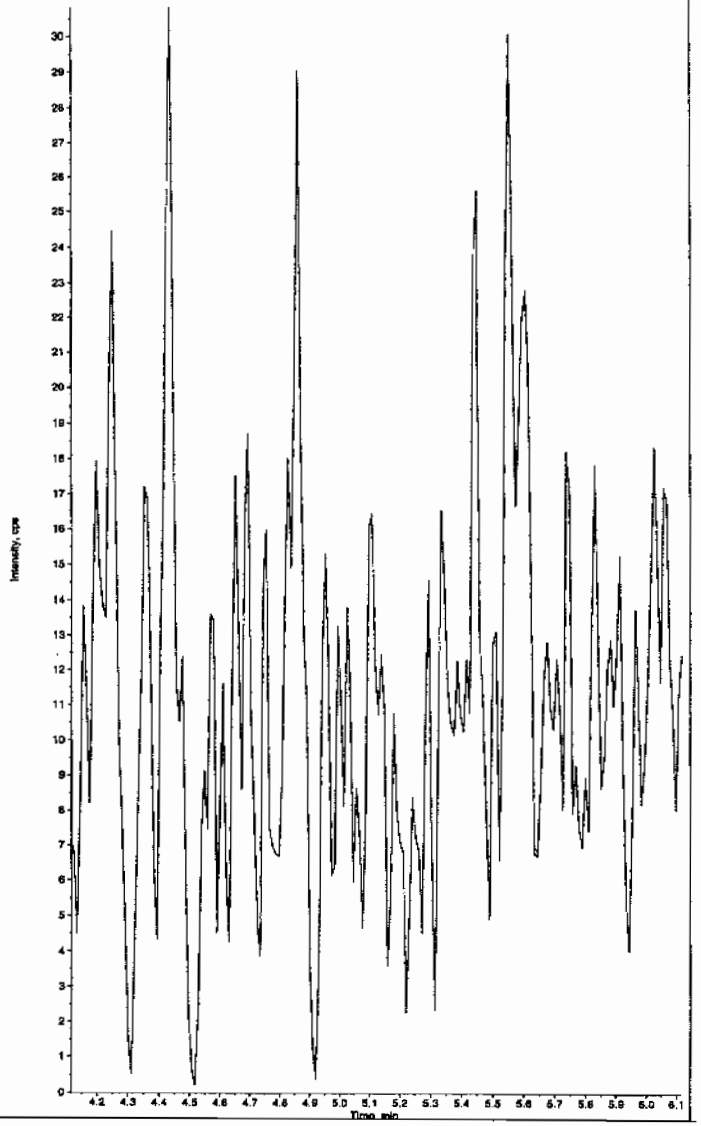

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e: "246070016" Sample ID: "948890|2|LER" File: "EXS02260118.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
.CX83212S" Annotation: ""
ix: 1
: Unknown
.on: N/A
Conc: 0.00 ng/mL
2/27/2010
9:31:23 PM
No

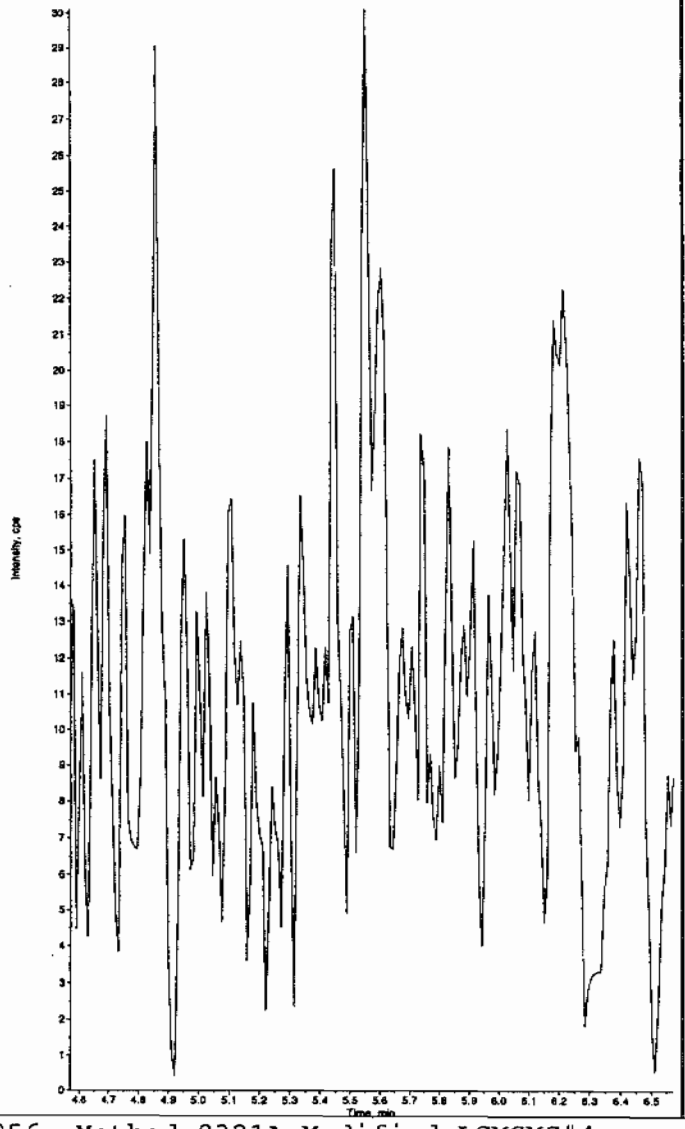

Sample Name: "246070016" Sample ID: "948890|2|LER" File: "EXS02260118.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 9:31:23 PM

Modified: No

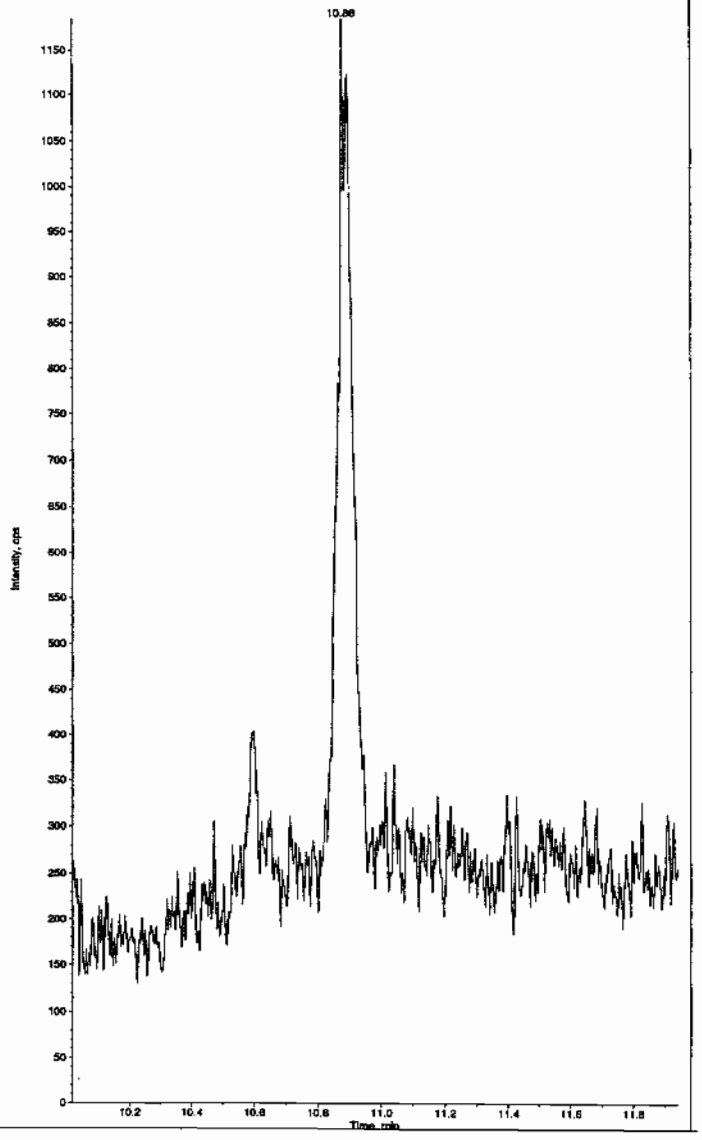

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8150

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070017

Sample Amount 2

Moisture: 10.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304142a

Date Analyzed: 07-MAR-10 12:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

tify Sample Report
_aboratories, LLC / Analyst : Michael A. Penny

Printed: Mon Mar 08 12:06:42 2010, Page 1 of 93

:et: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

od: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
ration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030410expa.cdb, Time: Fri Mar 05 10:16:18 2010

e: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304142a
07-Mar-2010
: 12:36:22
16070017 | LANL | 948590 | Soil | 21
3:8,C

MMT 3/8/10

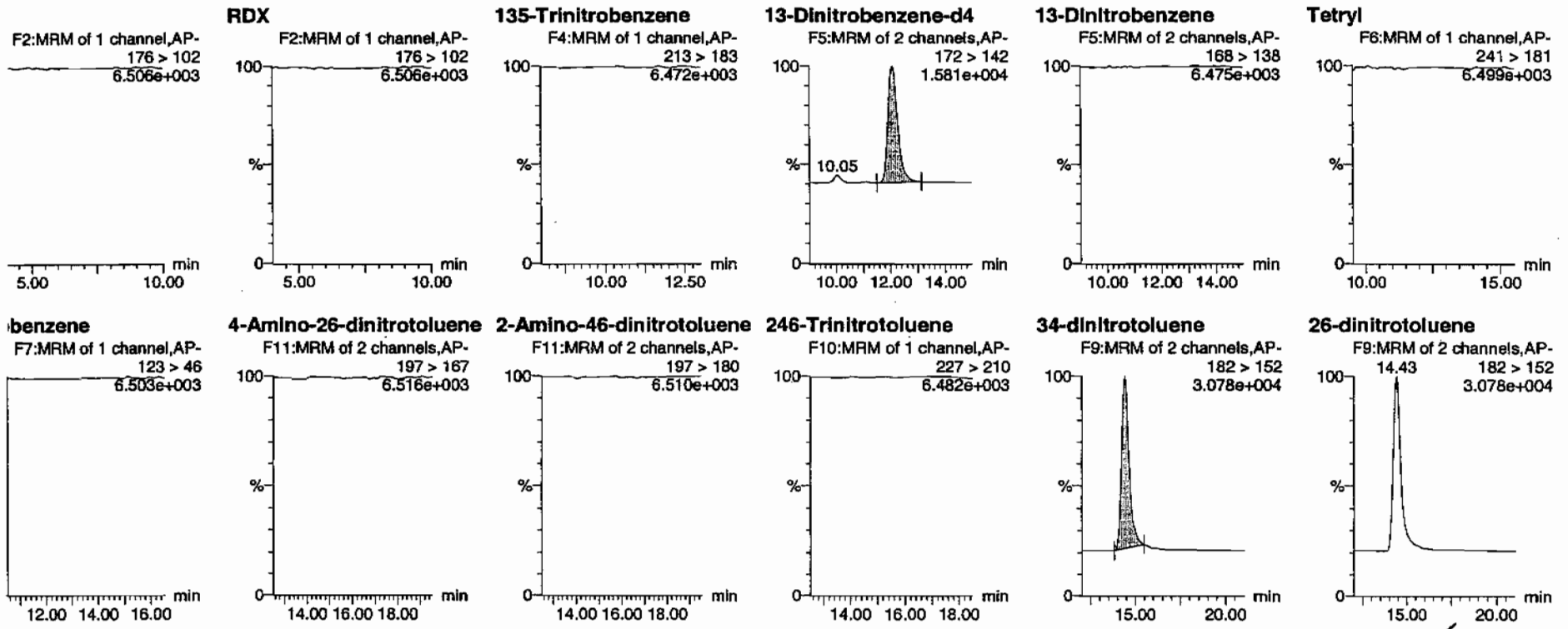

HMM 03/08/10

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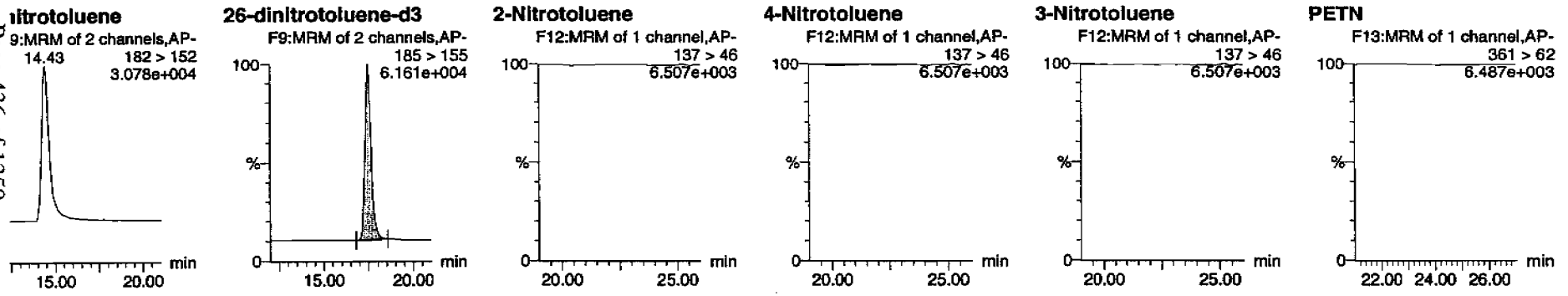

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
0017	HMX	176 > 102			3848.776									
0017	RDX	176 > 102			3848.776									
0017	135-Trinitrobenzene	213 > 183			3848.776									
0017	13-Dinitrobenzene-d4	172 > 142	12.07	3848.776		3848.776	3848.776	bb			547.9794	109.6	9.6	153.0
0017	13-Dinitrobenzene	168 > 138			3848.776									
0017	Tetryl	241 > 181			3848.776									
0017	Nitrobenzene	123 > 46			3848.776									
0017	4-Amino-26-dinitrotoluene	197 > 167			21898.861									
0017	2-Amino-46-dinitrotoluene	197 > 180			21898.861									
0017	246-Trinitrotoluene	227 > 210			21898.861									
0017	34-dinitrotoluene	182 > 152	14.43	11565.515	21898.861	11565.515	264.067	bb			273.2288	109.3	9.3	766.3
0017	26-dinitrotoluene	182 > 152			21898.861									
0017	24-dinitrotoluene	182 > 152			21898.861									
0017	26-dinitrotoluene-d3	185 > 155	17.47	21898.861		21898.861	21898.861	bb			532.5447	106.5	6.5	1986.1
0017	2-Nitrotoluene	137 > 46			21898.861									
0017	4-Nitrotoluene	137 > 46			21898.861									
0017	3-Nitrotoluene	137 > 46			21898.861									
0017	PETN	361 > 62			21898.861									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8150

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070017

Sample Amount 2

Moisture: 10.1

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260119.wiff

Date Analyzed: 27-FEB-10 21:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcv 3/1/10

ne: "246070017" Sample ID: "948890|2|LER" File: "EXS02260119.wiff"
. "TATB" Mass(es): "257.2/204.9 amu"
LCX83212S" Annotation: ""
ex: 1
e: Unknown
ion: N/A
Conc: 0.00 ng/mL
2/27/2010
9:47:04 PM

No

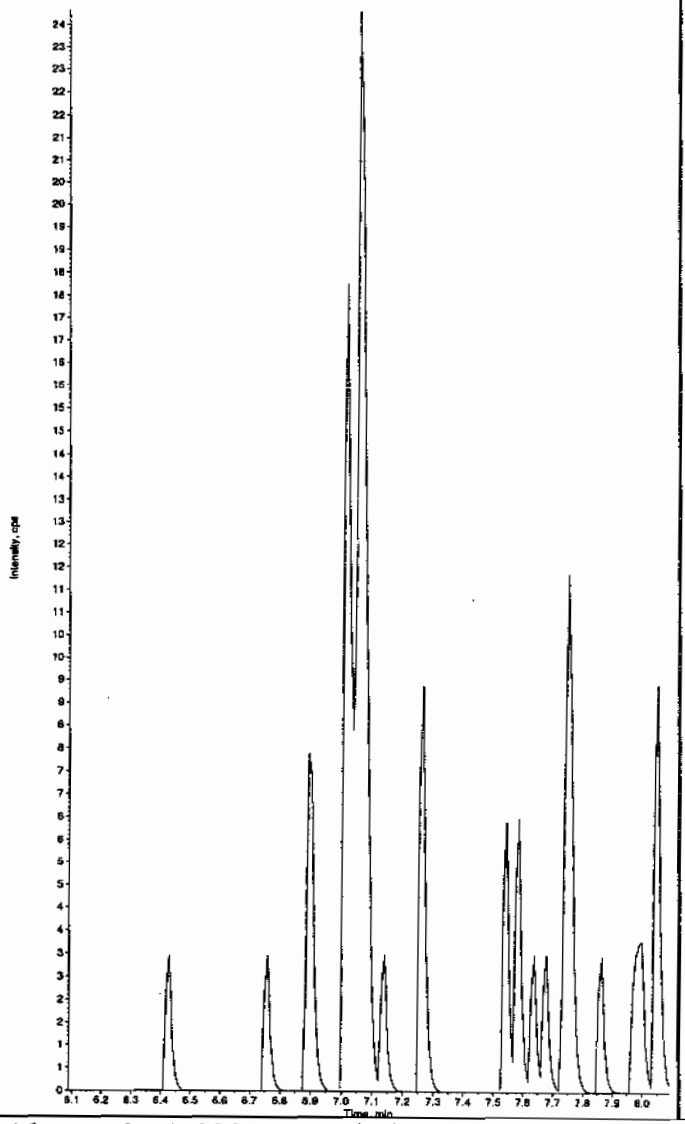

Sample Name: "246070017" Sample ID: "948890|2|LER" File: "EXS02260119.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 9:47:04 PM

Modified: Yes

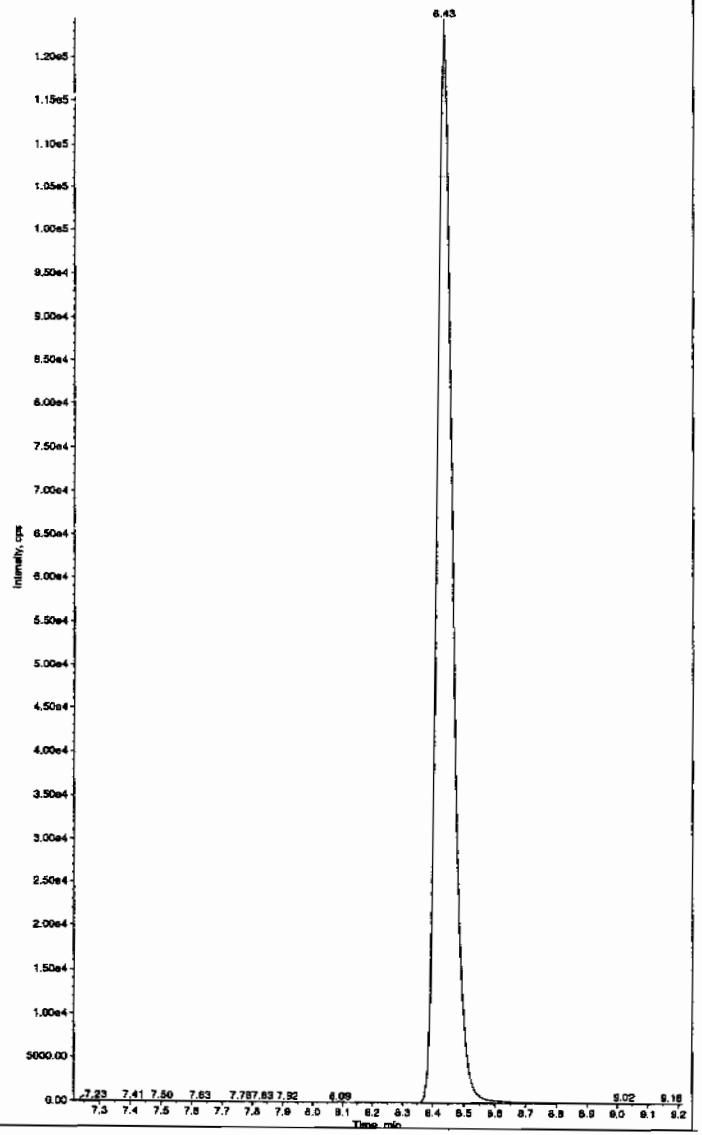

HMM 03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e: "246070017" Sample ID: "948890|2|LER" File: "EXS02260119.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CX83212S" Annotation: ""

```
ex:        1
e:      Unknown
ion:       N/A
Conc:     237.     ng/mL
       2/27/2010
       9:47:04 PM

          No
rithm: IntelliQuan - IQA
eight:1460.00    cps
width:    0.00    sec
width:  3        points
         15.0     sec
:        8.46    min
e RT:     No

        Valley
Time:     8.42    min
     3.27e+006   counts
     924799.500   cps
:        8.28    min
         8.78    min
```

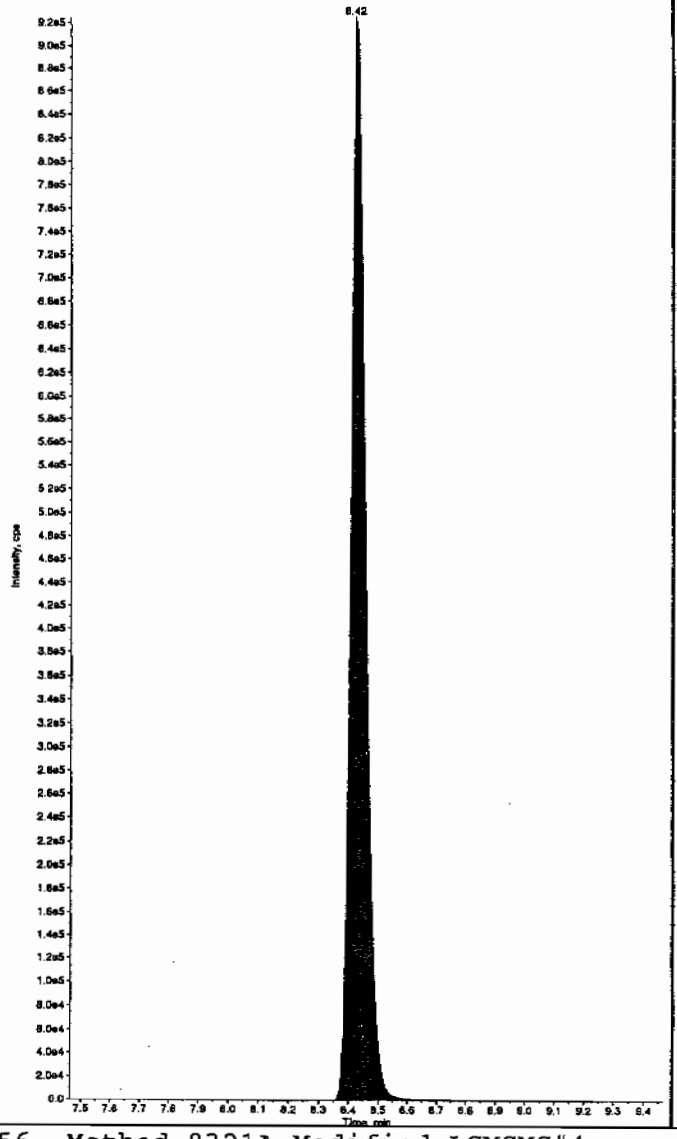

Sample Name: "246070017" Sample ID: "948890|2|LER" File: "EXS02260119.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     0.00     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       9:47:04 PM

Modified:           No
```

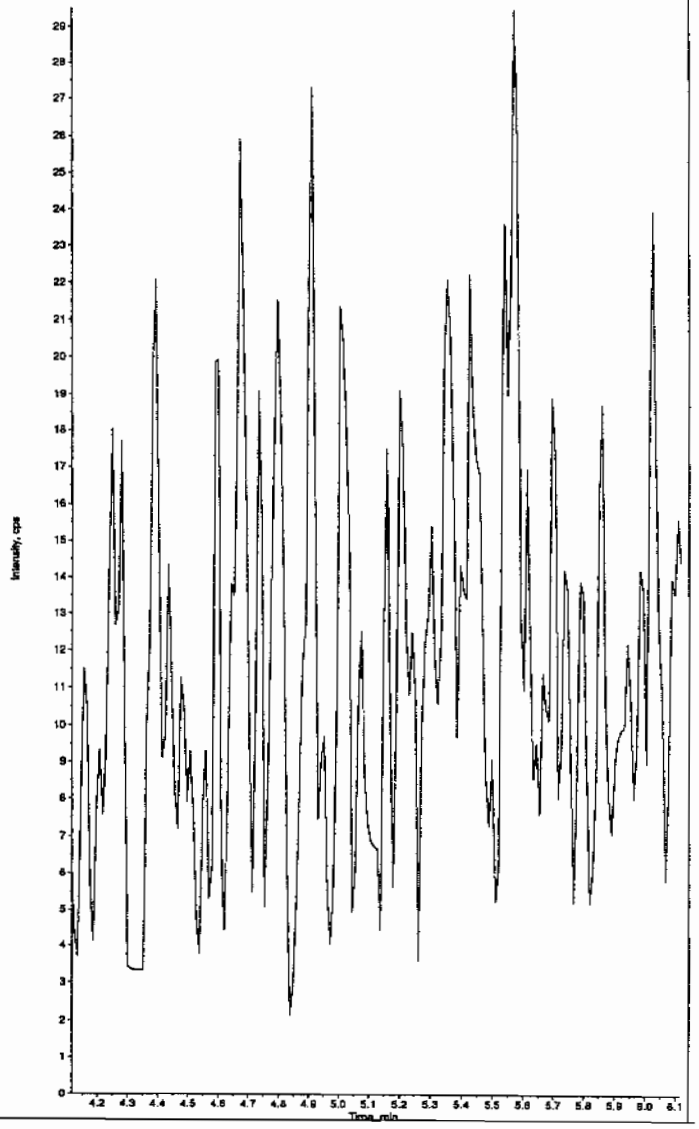

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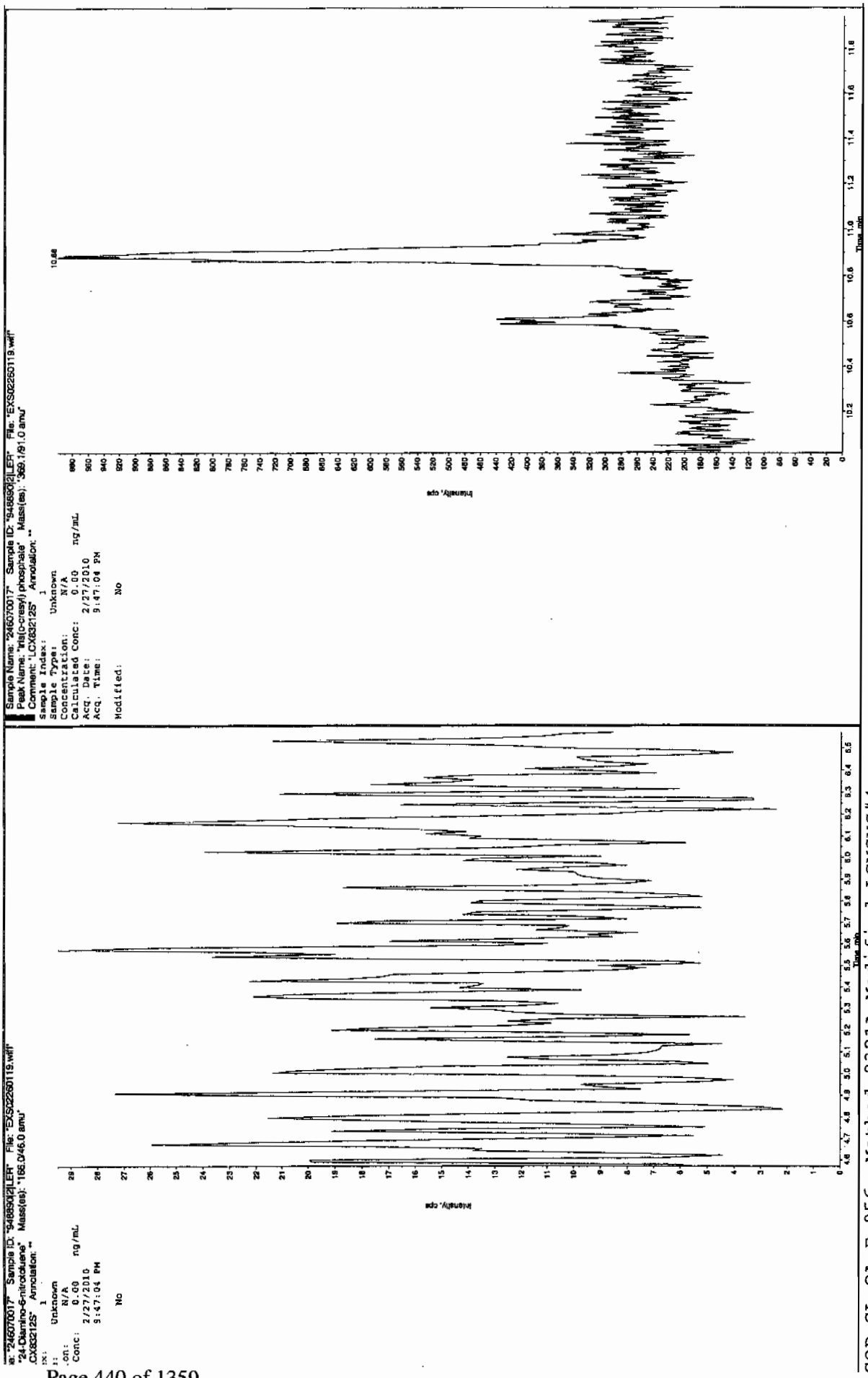

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8153

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070018

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304143a

Date Analyzed: 07-MAR-10 13:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304143a
07-Mar-2010
: 13:05:58
6070018 | LANU | 948890 | 80 ug | 2 |
3:8,D

LMT 3/8/10

F2:MRM of 1 channel,AP-
176 > 102
6.475e+003

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.475e+003

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.453e+003

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.387e+004

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.423e+003

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.427e+003

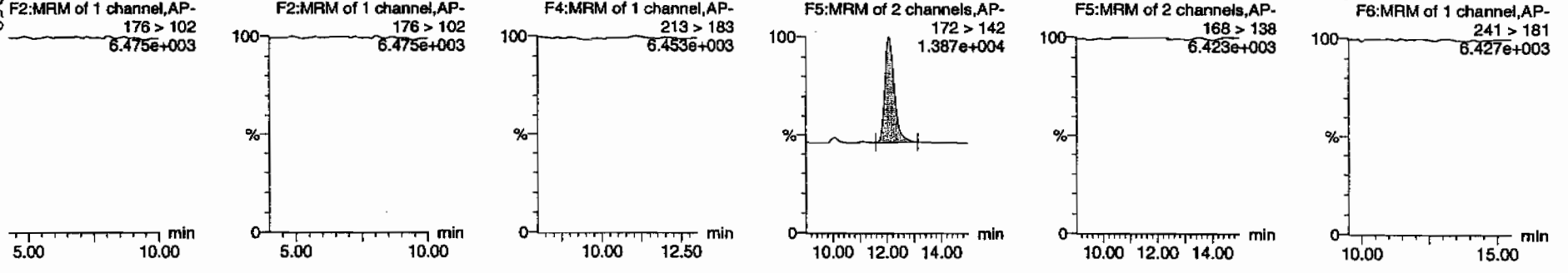

benzene
F7:MRM of 1 channel,AP-
123 > 46
6.452e+003

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.459e+003

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.478e+003

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.425e+003

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.006e+004

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
3.006e+004

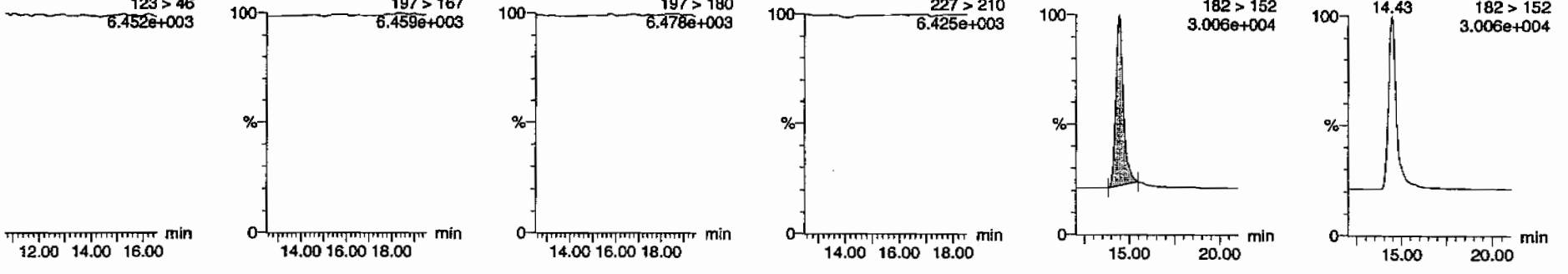

HMM 03/08/10

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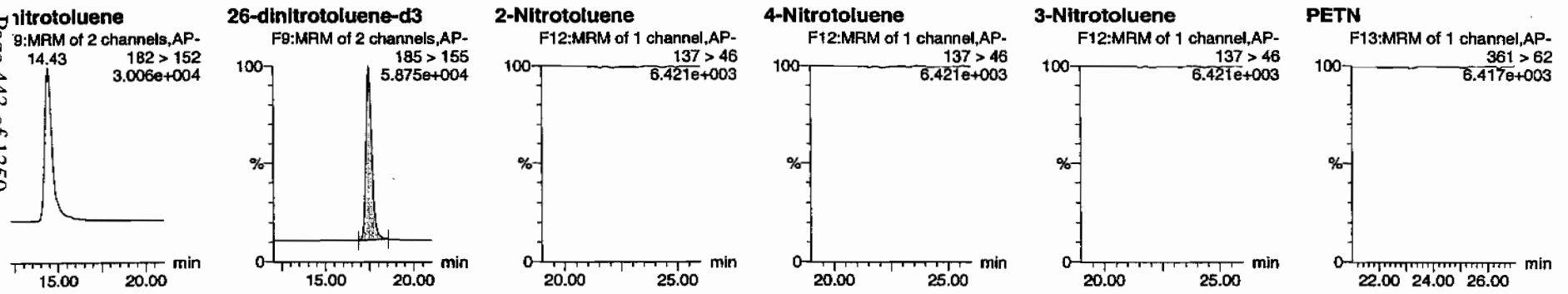

	Name	Transition	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
'0018	HMX	176 > 102			3042.611									
'0018	RDX	176 > 102			3042.611									
70018	135-Trinitrobenzene	213 > 183			3042.611									
70018	13-Dinitrobenzene-d4	172 > 142	12.07	3042.611		3042.611	3042.611	bb			433.1996	86.6	-13.4	288.6
70018	13-Dinitrobenzene	168 > 138			3042.611									
70018	Tetryl	241 > 181			3042.611									
70018	Nitrobenzene	123 > 46			3042.611									
70018	4-Amino-26-dinitrotoluene	197 > 167			20877.463									
70018	2-Amino-46-dinitrotoluene	197 > 180			20877.463									
70018	246-Trinitrotoluene	227 > 210			20877.463									
70018	34-dinitrotoluene	182 > 152	14.43	11221.238	20877.463	11221.238	268.740	bb			278.0649	111.2	11.2	662.3
70018	26-dinitrotoluene	182 > 152			20877.463									
70018	24-dinitrotoluene	182 > 152			20877.463									
70018	26-dinitrotoluene-d3	185 > 155	17.47	20877.463		20877.463	20877.463	bb			507.7060	101.5	1.5	1421.1
70018	2-Nitrotoluene	137 > 46			20877.463									
70018	4-Nitrotoluene	137 > 46			20877.463									
70018	3-Nitrotoluene	137 > 46			20877.463									
70018	PETN	361 > 62			20877.463									

. SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8153

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070018

Sample Amount 2

Moisture: 24.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260120.wiff

Date Analyzed: 27-FEB-10 22:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ker 3/1/10

ne: "246070018" Sample ID: "948890|2|LER" File: "EXS02260120.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
LCX83212S" Annotation: ""
ex: 1
e: Unknown
ion: N/A
Conc: 0.00 ng/mL
2/27/2010
10:02:46 PM

No

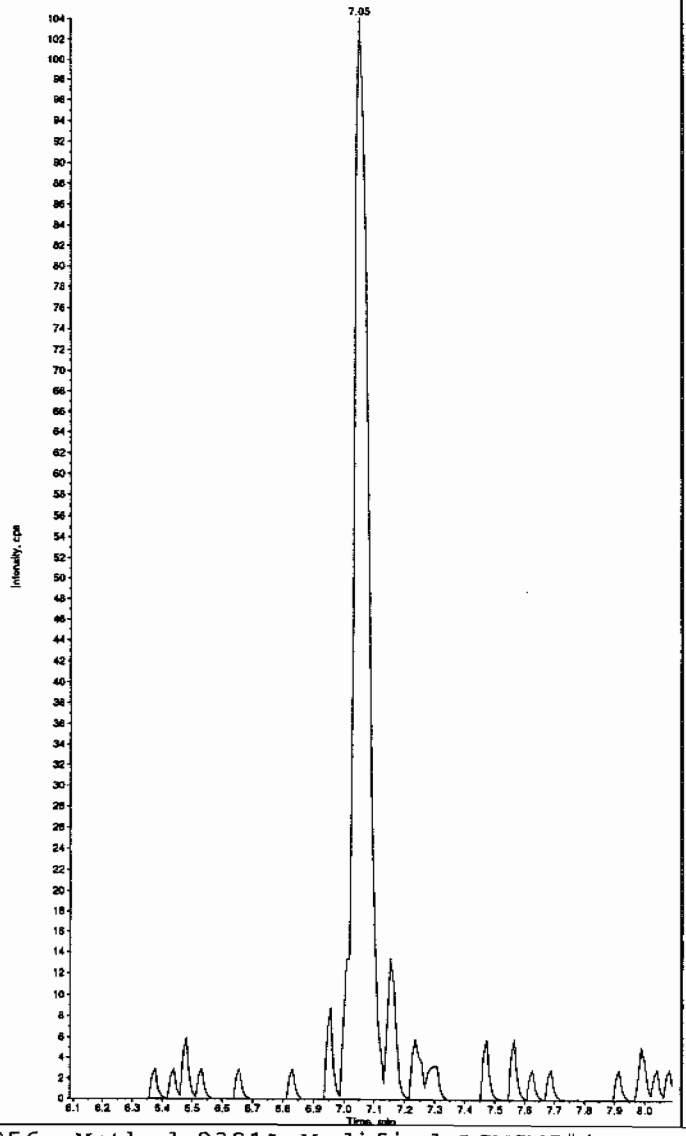

Sample Name: "246070018" Sample ID: "948890|2|LER" File: "EXS02260120.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:02:46 PM

Modified: Yes

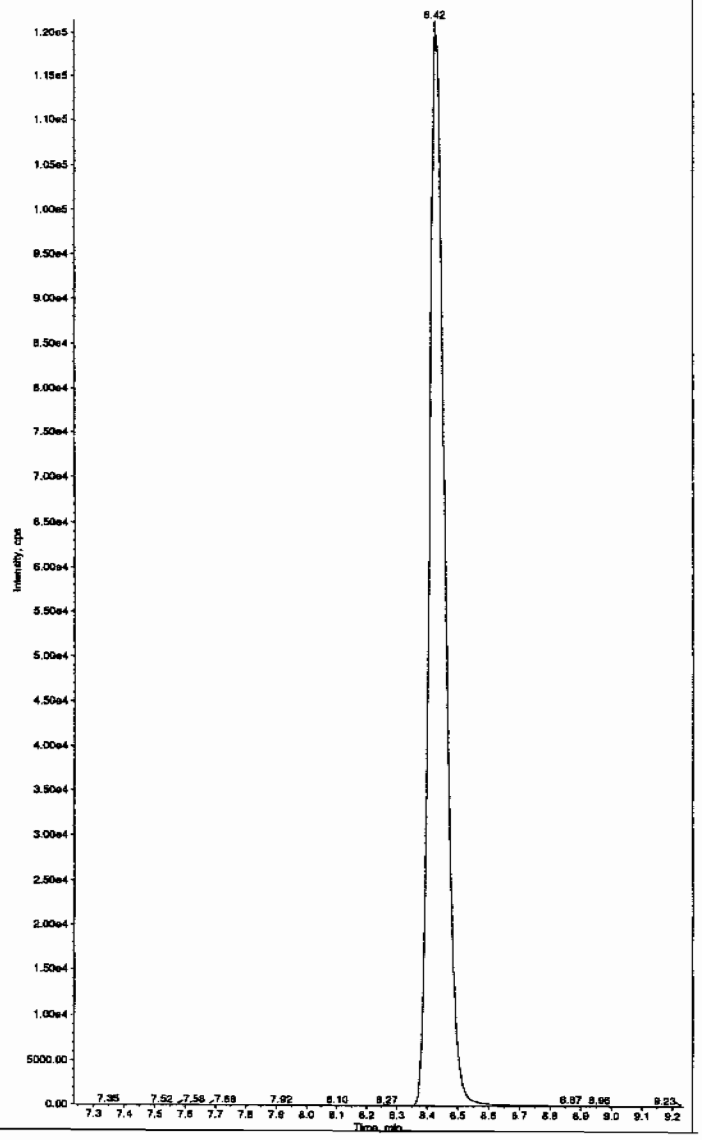

HMC 03/01/10

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e: "246070018" Sample ID: "948890|2|LER" File: "EXS02260120.wlf"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CX83212S" Annotation: ""

```
ex:        1
::      Unknown
.on:      N/A
Conc:     228.     ng/mL
        2/27/2010
        10:02:46 PM

          No
:ithm: IntelliQuan - IQA
Height:1460.00    cps
Width:    0.00    sec
Width:  3         points
         15.0     sec
T:        8.46    min
/e RT:    No

        Valley
Time:     8.42    min
    3.16e+006   counts
     910772.339  cps
:         8.32    min
          8.78    min
```

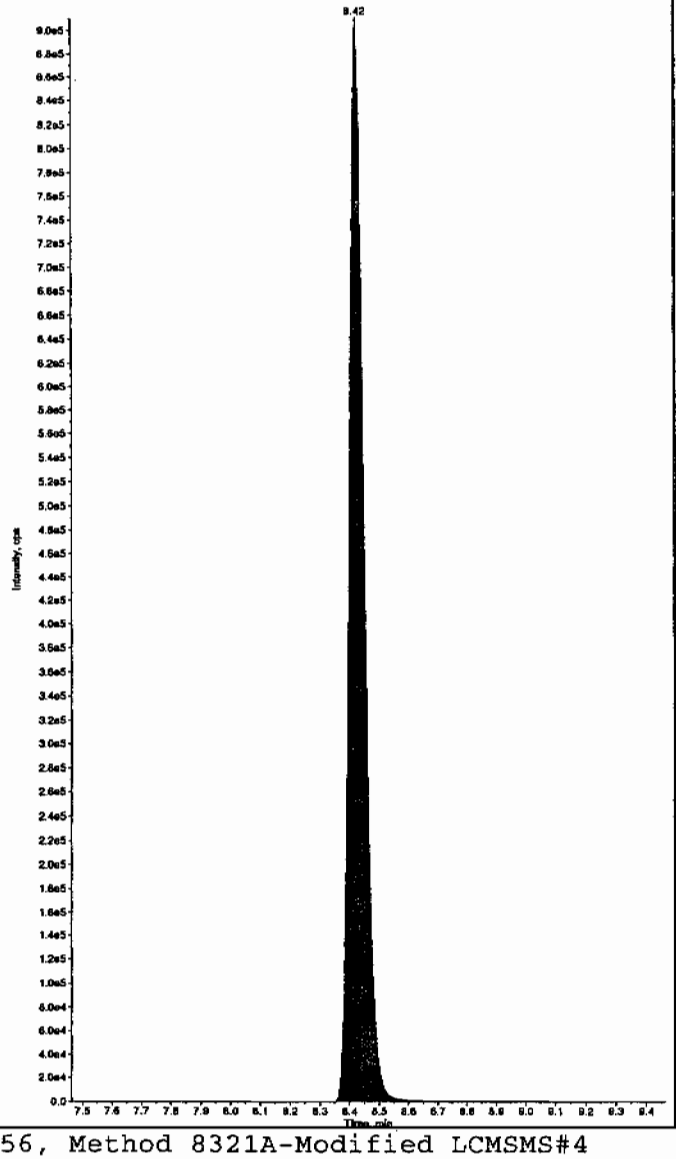

Sample Name: "246070018" Sample ID: "948890|2|LER" File: "EXS02260120.wlf"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:      N/A
Calculated Conc:    0.00     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        10:02:46 PM

Modified:           No
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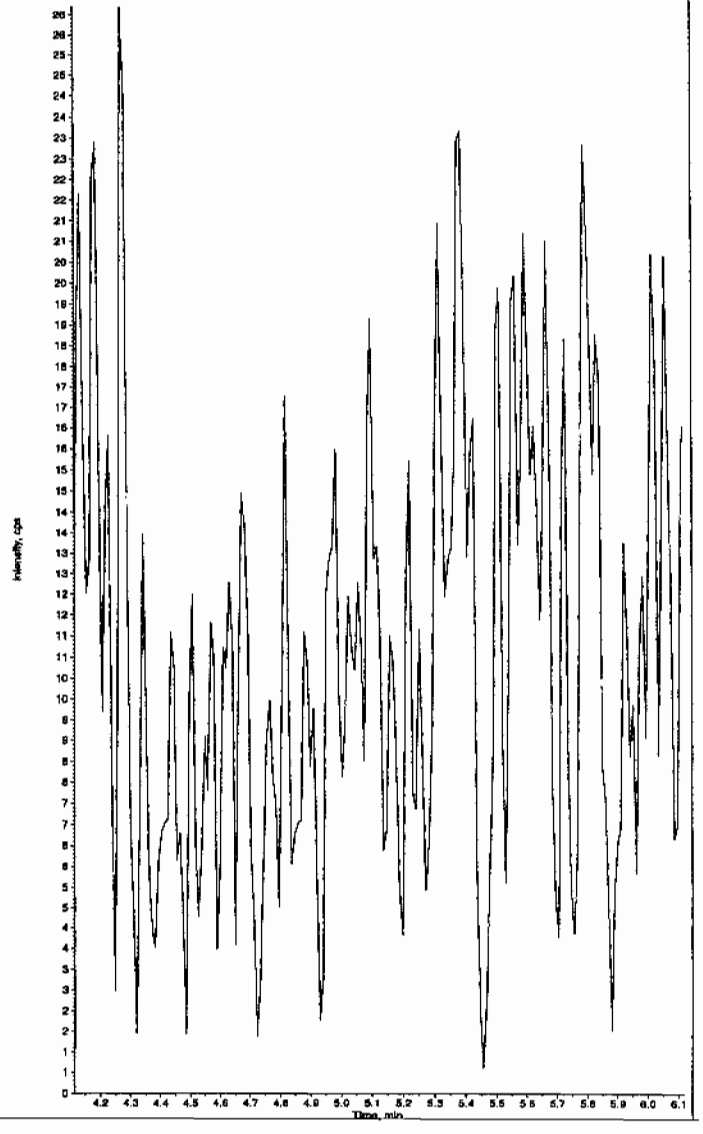

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e: "246070018" Sample ID: "9488902|LER" File: "EXS02260120.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
.CX83212S" Annotation: ""
:x: 1
:: Unknown
.on: N/A
Conc: 0.00 ng/mL
2/27/2010
10:02:46 PM

No

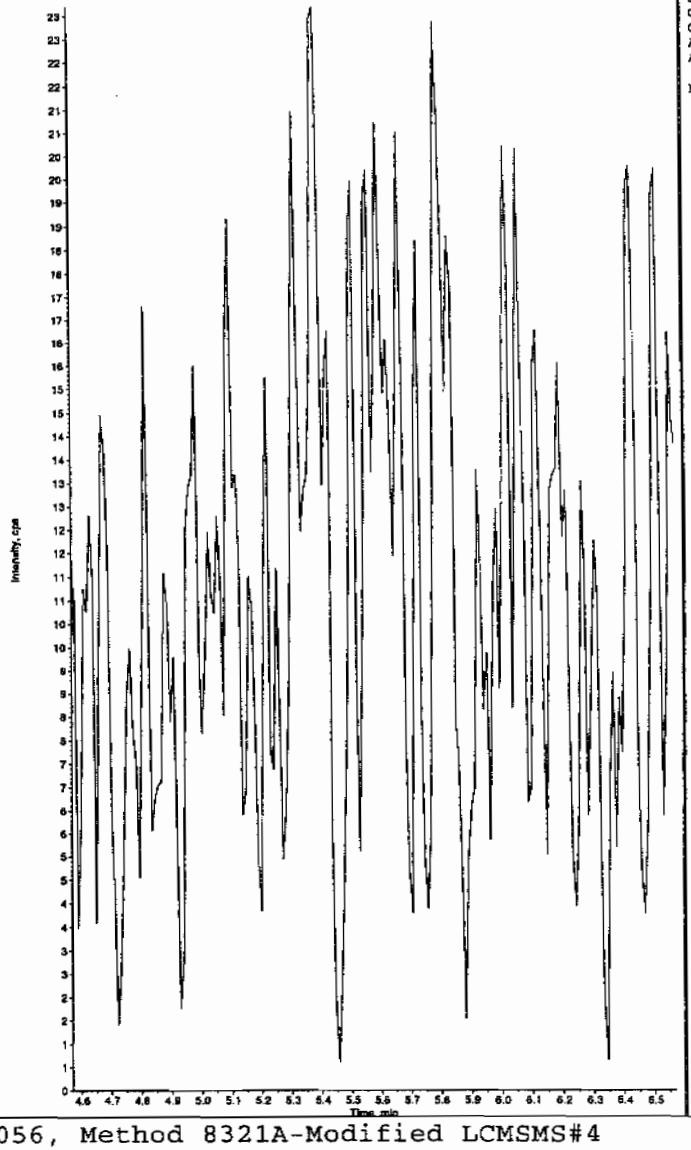

Sample Name: "246070018" Sample ID: "9488902|LER" File: "EXS02260120.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:02:46 PM

Modified: No

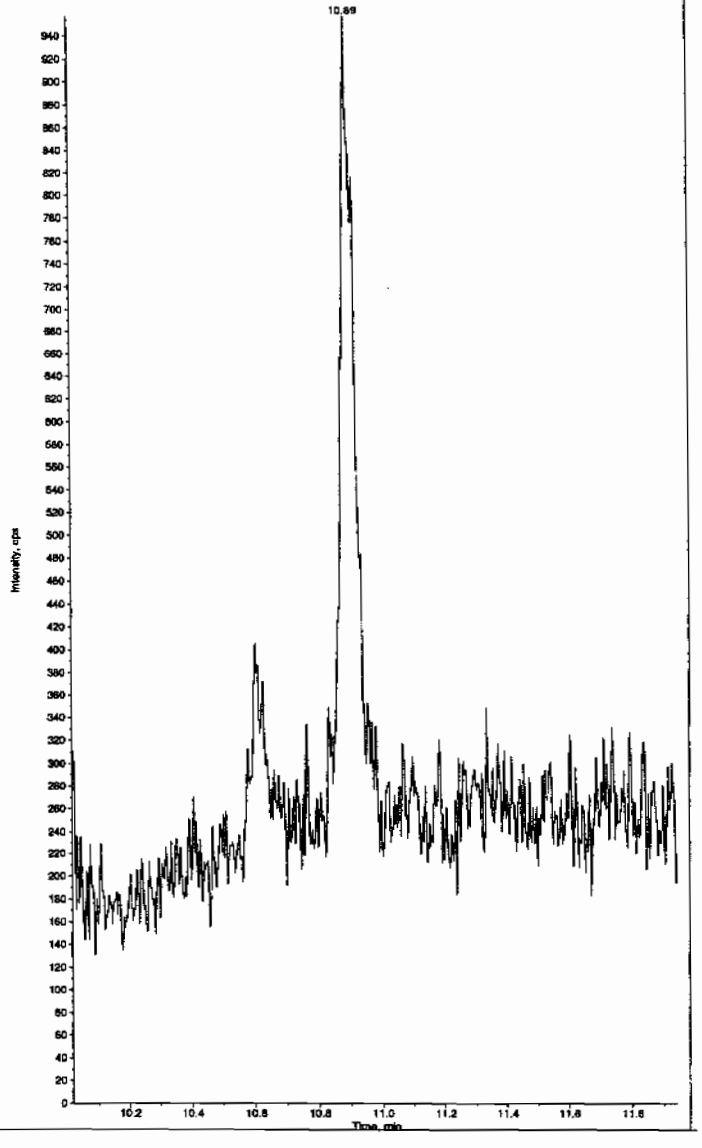

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8165

Lab Code: GEI

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070019

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304144a

Date Analyzed: 07-MAR-10 13:35

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

.aboratories, LLC / Analyst : Michael A. Penny

set: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

e: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304144a
: 07-Mar-2010
: 13:35:31
46070019 | LANL | 948890 | Soil | 2 |
3:8,E

MAT 3/5/10

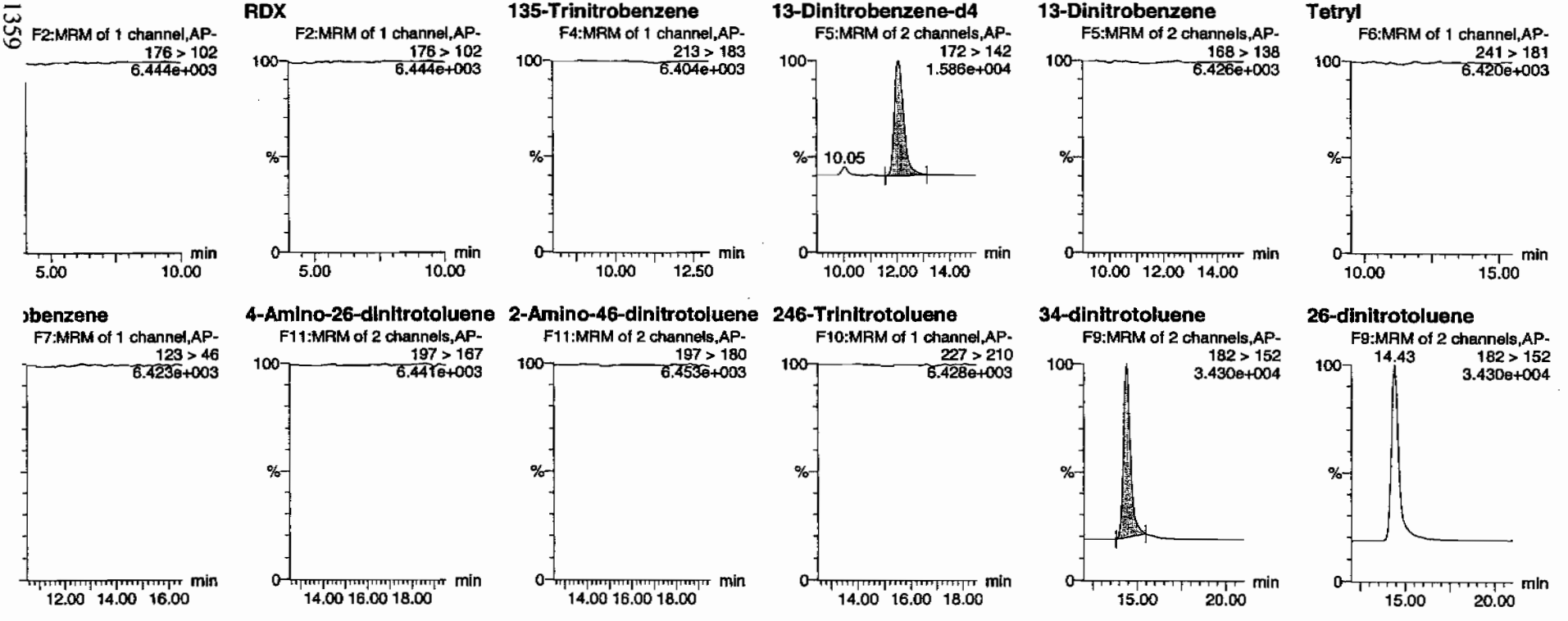

HMM 03/08/10

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ɜt: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

ıitrotoluene

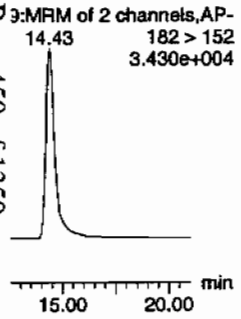

26-dinitrotoluene-d3

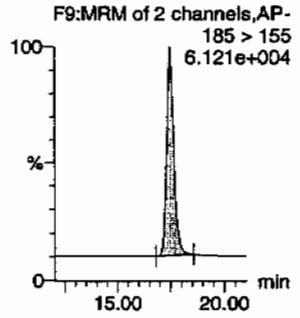

2-Nitrotoluene

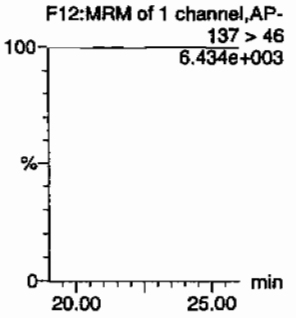

4-Nitrotoluene

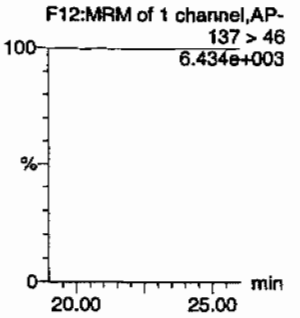

3-Nitrotoluene

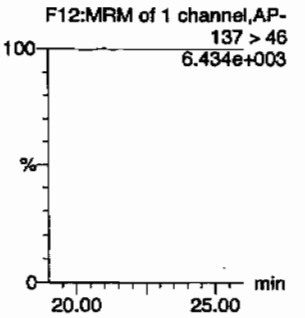

PETN

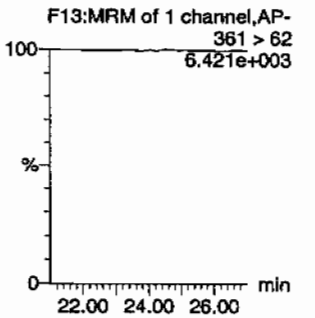

[illegible]	Name	Trace	RT	Area	IS Area	Abs Resp	% Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
0019	HMX	176 > 102			3884.077									
0019	RDX	176 > 102			3884.077									
0019	135-Trinitrobenzene	213 > 183			3884.077									
0019	13-Dinitrobenzene-d4	172 > 142	12.07	3884.077		3884.077	3884.077	bb			553.0055	110.6	10.6	237.9
0019	13-Dinitrobenzene	168 > 138			3884.077									
0019	Tetryl	241 > 181			3884.077									
0019	Nitrobenzene	123 > 46			3884.077									
0019	4-Amino-26-dinitrotoluene	197 > 167			21971.123									
0019	2-Amino-46-dinitrotoluene	197 > 180			21971.123									
0019	246-Trinitrotoluene	227 > 210			21971.123									
0019	34-dinitrotoluene	182 > 152	14.43	12614.768	21971.123	12614.768	287.076	bb			297.0367	118.8	18.8	565.8
0019	26-dinitrotoluene	182 > 152			21971.123									
0019	24-dinitrotoluene	182 > 152			21971.123									
0019	26-dinitrotoluene-d3	185 > 155	17.47	21971.123		21971.123	21971.123	bb			534.3020	106.9	6.9	1509.3
0019	2-Nitrotoluene	137 > 46			21971.123									
0019	4-Nitrotoluene	137 > 46			21971.123									
0019	3-Nitrotoluene	137 > 46			21971.123									
0019	PETN	361 > 62			21971.123									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8165

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070019

Sample Amount 2

Moisture: 11.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260121.wiff

Date Analyzed: 27-FEB-10 22:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcn 3/1/10

e: "246070019" Sample ID: "948890|2|LER" File: "EXS02260121.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
LCX83212S" Annotation: ""
ex: 1
: Unknown
on: N/A
Conc: 0.00 ng/mL
2/27/2010
10:18:26 PM

No

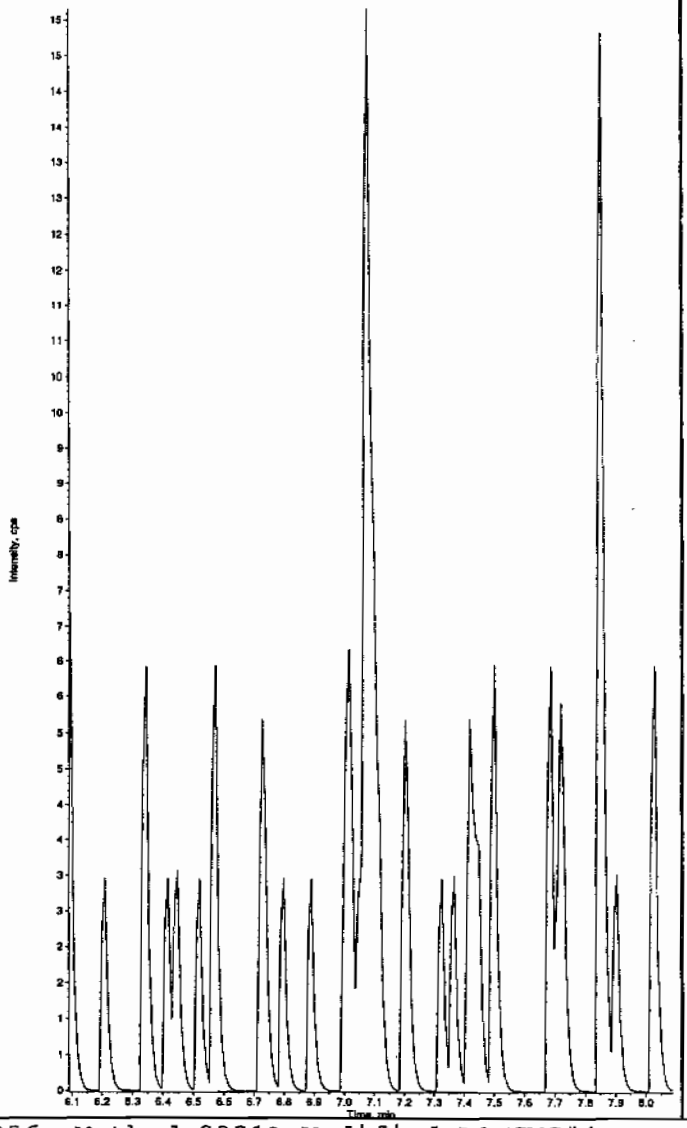

Sample Name: "246070019" Sample ID: "948890|2|LER" File: "EXS02260121.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:18:26 PM

Modified: Yes

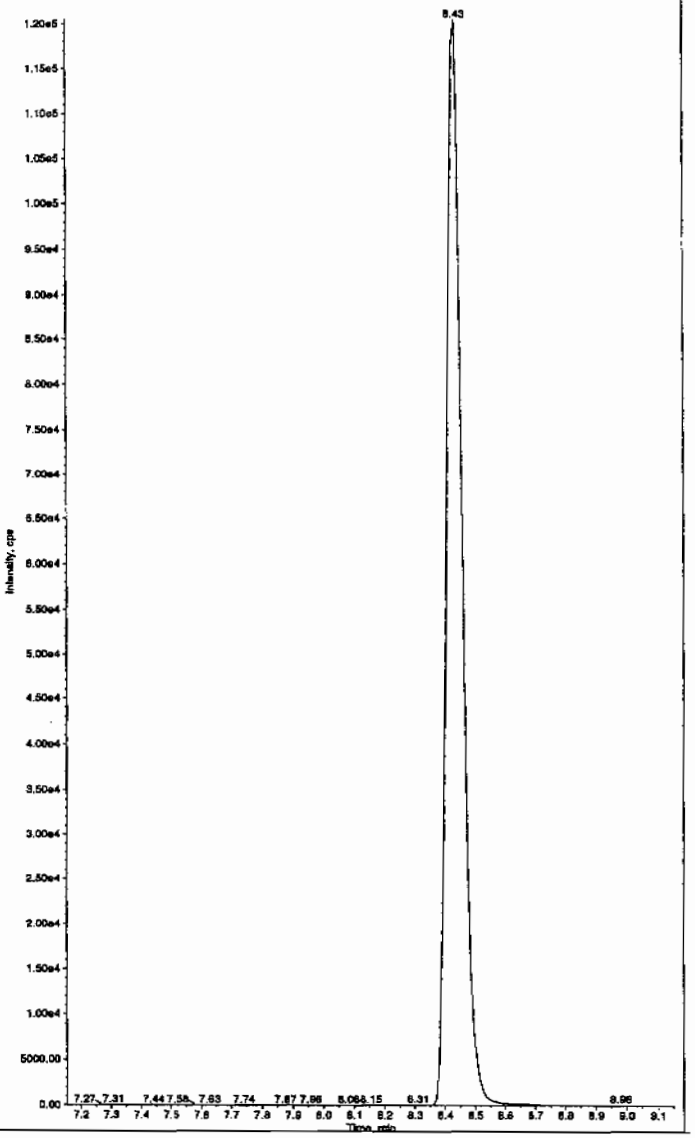

AMM 03/01/10

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e: "246070019" Sample ID: "948890|2|LER" File: "EXS02260121.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CX83212S" Annotation: ""
ex: 1
: Unknown
on: N/A
Conc: 229. ng/mL
2/27/2010
10:18:26 PM

No
ithm: IntelliQuan -.IQA
leight:1460.00 cps
idth: 0.00 sec
idth: 3 points
15.0 sec
: 8.46 min
e RT: No

Valley
ime: 8.42 min
3.16e+006 counts
930707.397 cps
8.33 min
8.76 min

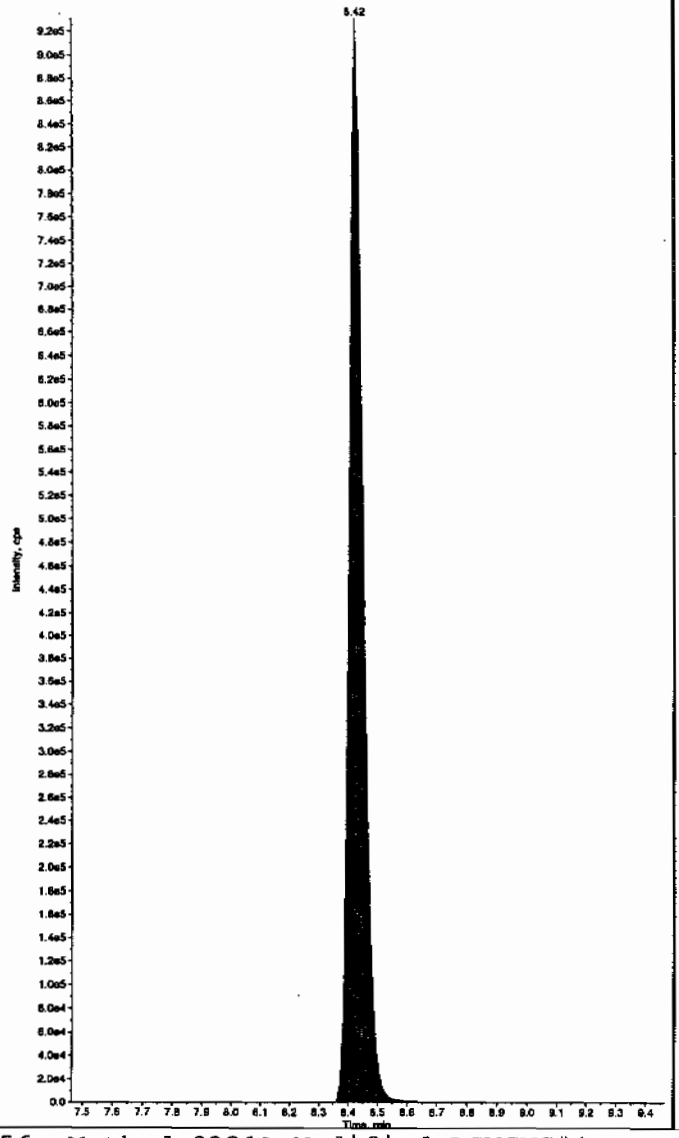

Sample Name: "246070019" Sample ID: "948890|2|LER" File: "EXS02260121.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:18:26 PM

Modified: No

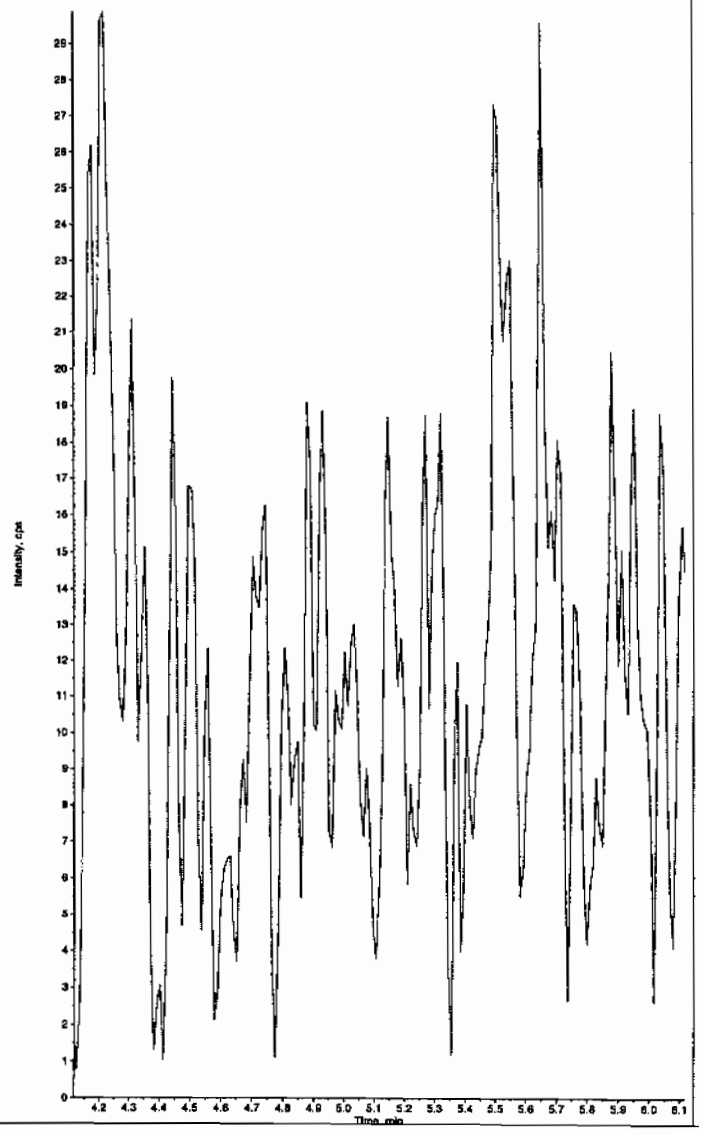

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e: "246070019" Sample ID: "948890|2|LER" File: "EXS02250121.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
.CX83212S" Annotation: ""
:x: 1
:: Unknown
.on: N/A
Conc: 0.00 ng/mL
2/27/2010
10:18:26 PM

No

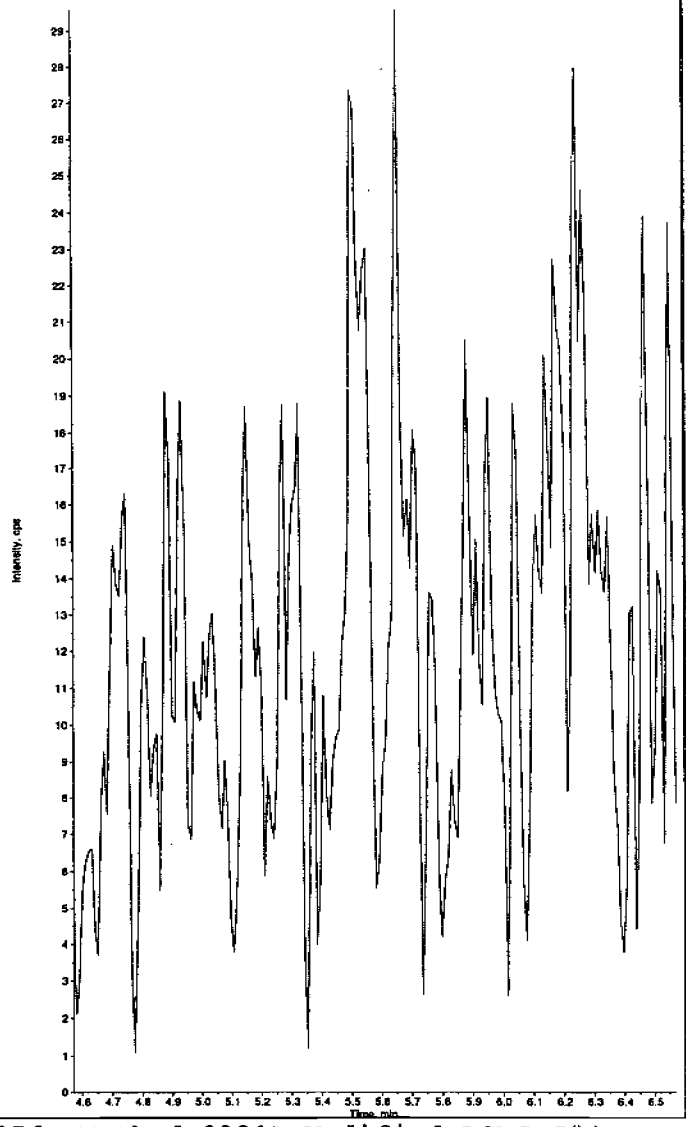

Sample Name: "246070019" Sample ID: "948890|2|LER" File: "EXS02250121.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
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Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:18:26 PM

Modified: No

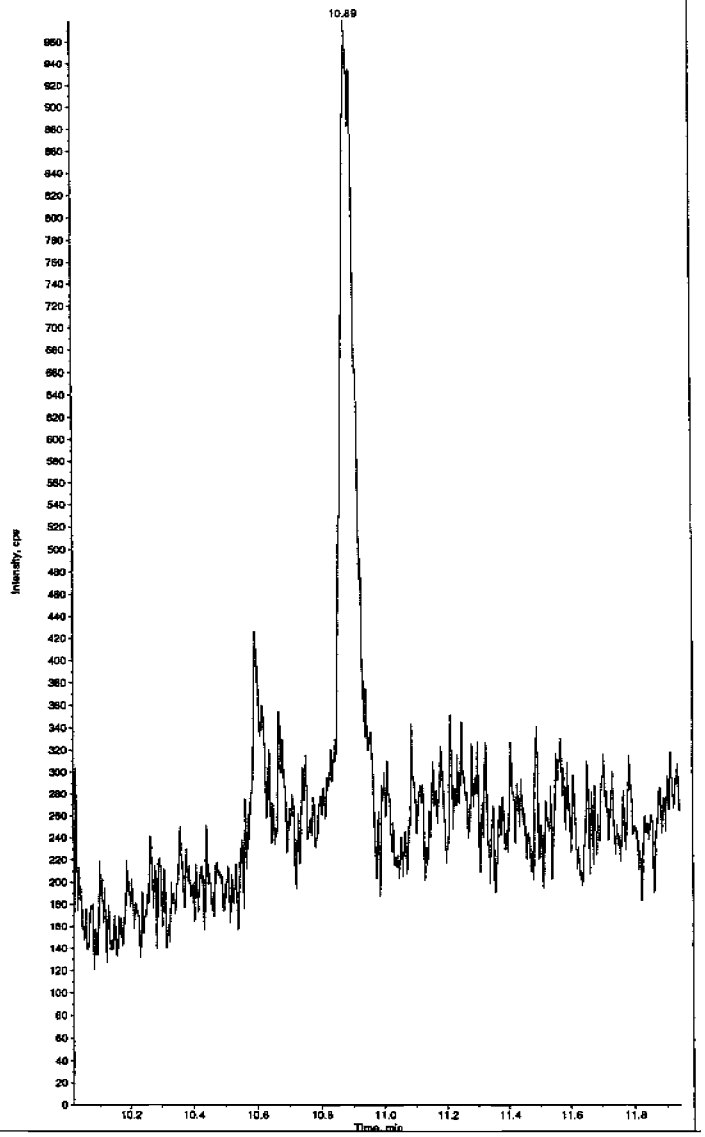

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8155

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070020

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304145a

Date Analyzed: 07-MAR-10 14:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304145a
07-Mar-2010
14:05:08
6070020
3:8,F

LANU | 948890 | 80 | 2

MM 3/8/10

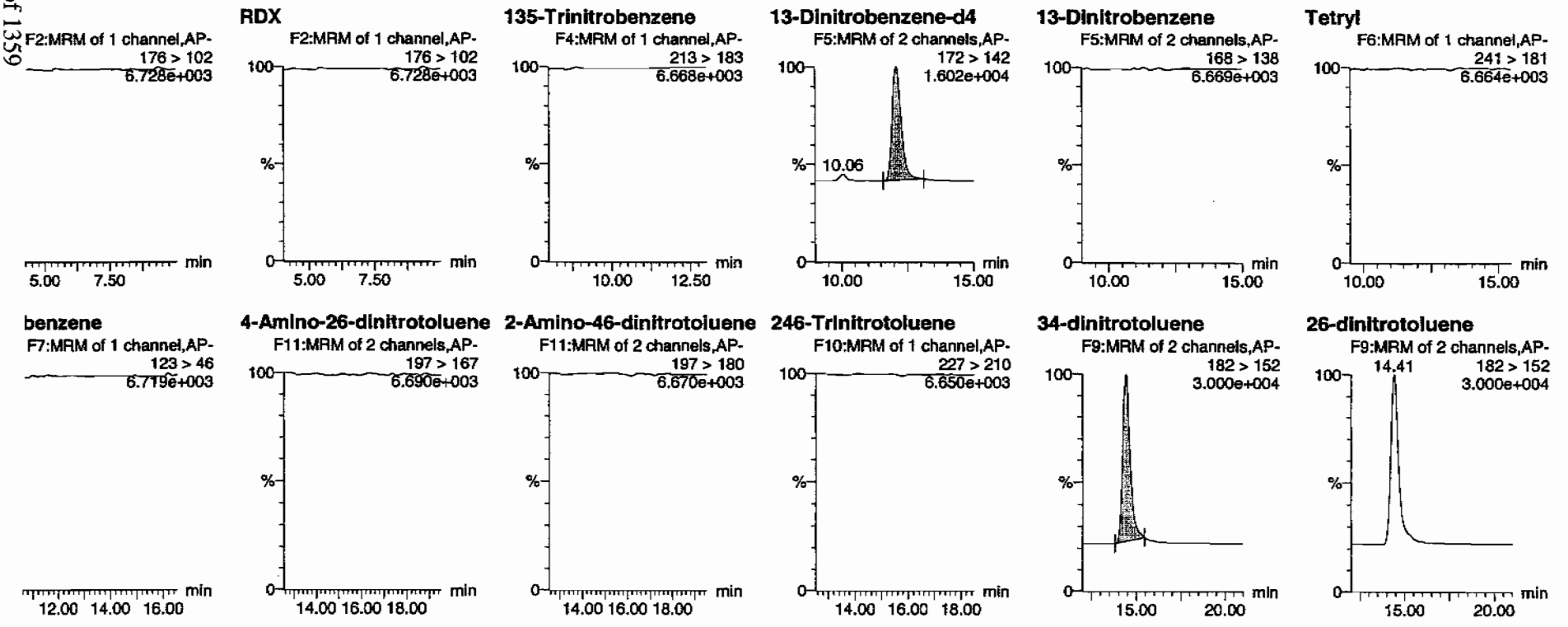

HMM 03/08/10

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et: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

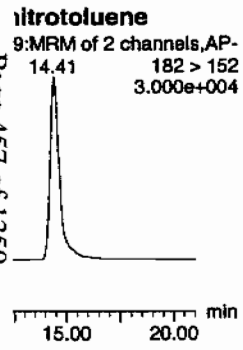

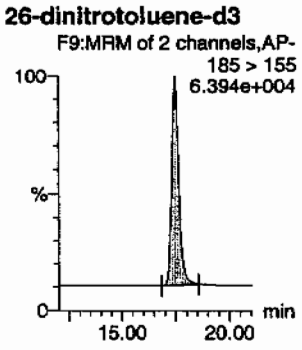

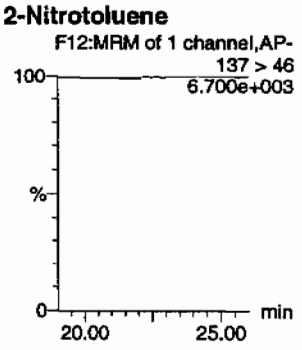

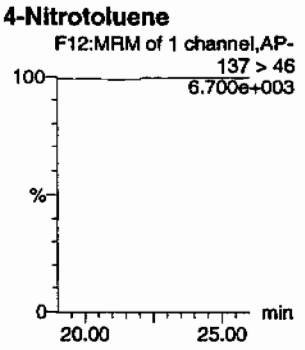

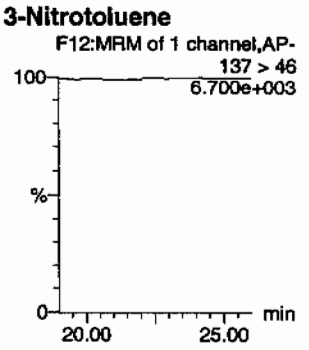

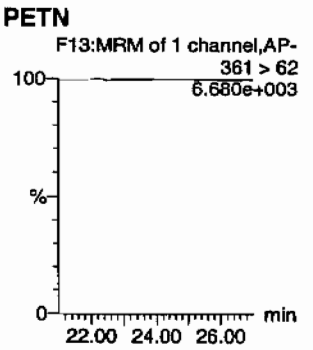

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
0020	HMX	176 > 102			3788.503									
0020	RDX	176 > 102			3788.503									
0020	135-Trinitrobenzene	213 > 183			3788.503									
0020	13-Dinitrobenzene-d4	172 > 142	12.06	3788.503		3788.503	3788.503	bb			539.3979	107.9	7.9	588.3
0020	13-Dinitrobenzene	168 > 138			3788.503									
0020	Tetryl	241 > 181			3788.503									
0020	Nitrobenzene	123 > 46			3788.503									
0020	4-Amino-26-dinitrotoluene	197 > 167			22696.654									
0020	2-Amino-46-dinitrotoluene	197 > 180			22696.654									
0020	246-Trinitrotoluene	227 > 210			22696.654									
0020	34-dinitrotoluene	182 > 152	14.41	11157.121	22696.654	11157.121	245.788	bb			254.3158	101.7	1.7	479.9
0020	26-dinitrotoluene	182 > 152			22696.654									
0020	24-dinitrotoluene	182 > 152			22696.654									
0020	26-dinitrotoluene-d3	185 > 155	17.48	22696.654		22696.654	22696.654	bb			551.9458	110.4	10.4	2168.2
0020	2-Nitrotoluene	137 > 46			22696.654									
0020	4-Nitrotoluene	137 > 46			22696.654									
0020	3-Nitrotoluene	137 > 46			22696.654									
0020	PETN	361 > 62			22696.654									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8155

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 246070020

Sample Amount 2

Moisture: 14.4

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260122.wiff

Date Analyzed: 27-FEB-10 22:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 3/1/10

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e: "246070020" Sample ID: "948890|2|LER" File: "EXS02260122.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
.CX83212S" Annotation: "
ix: 1
: Unknown
.on: N/A
Conc: 0.00 ng/mL
2/27/2010
10:34:09 PM

No

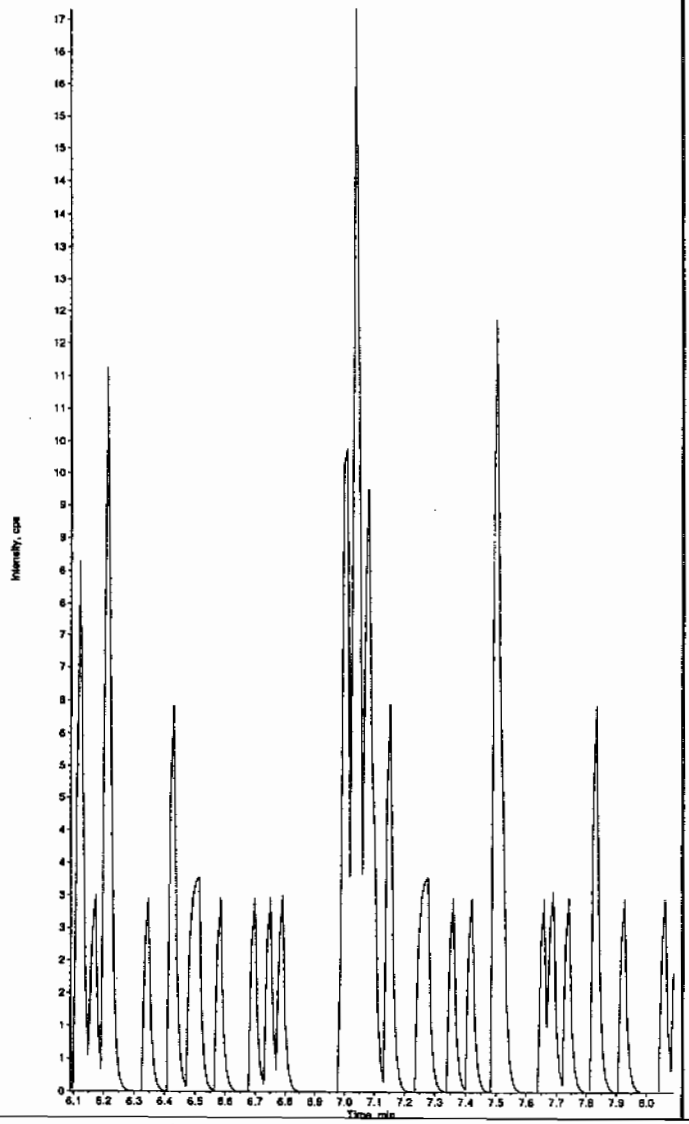

Sample Name: "246070020" Sample ID: "948890|2|LER" File: "EXS02260122.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:34:09 PM

Modified: Yes

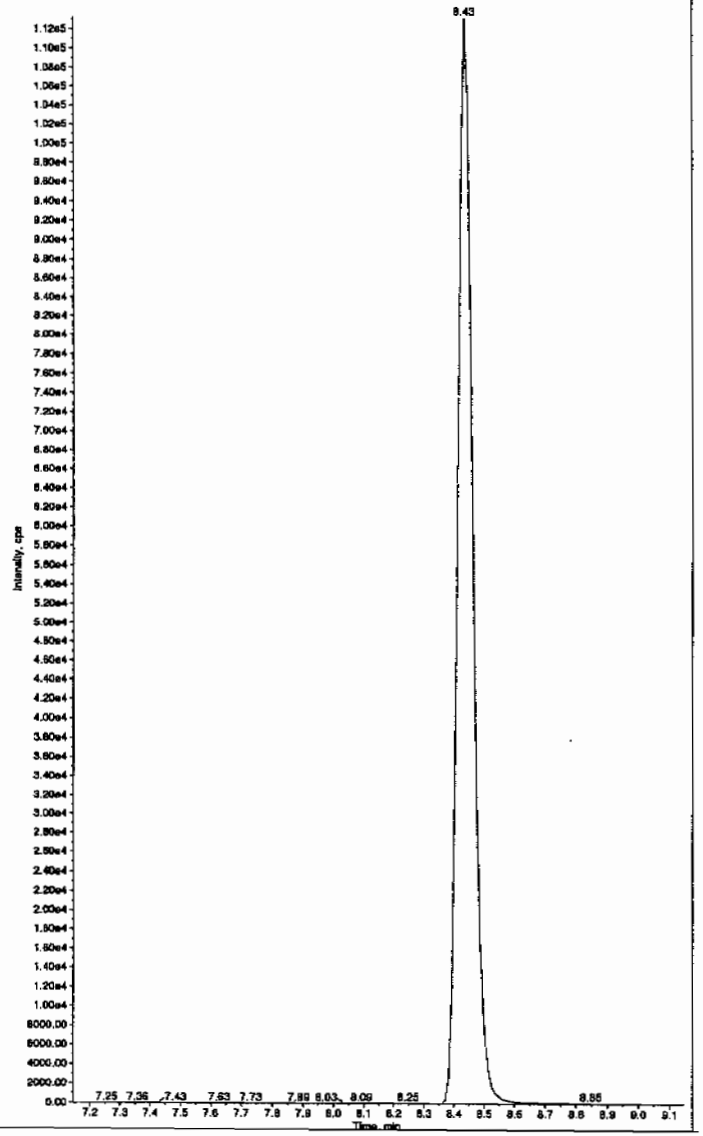

HMC 03/01/10

:OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e: "246070020" Sample ID: "948890[2]LER" File: "EXS02260122.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CX83212S" Annotation: ""

```
ex:        1
e:      Unknown
on:       N/A
Conc:     236.     ng/mL
        2/27/2010
        10:34:09 PM

          No
ithm: IntelliQuan - IQA
eight:1460.00    cps
Width:    0.00    sec
Width:  3        points
         15.0     sec
:         8.46    min
ve RT:    No

         Valley
Time:     8.42    min
     3.25e+006   counts
     945880.005   cps
:         8.33    min
          8.77    min
```

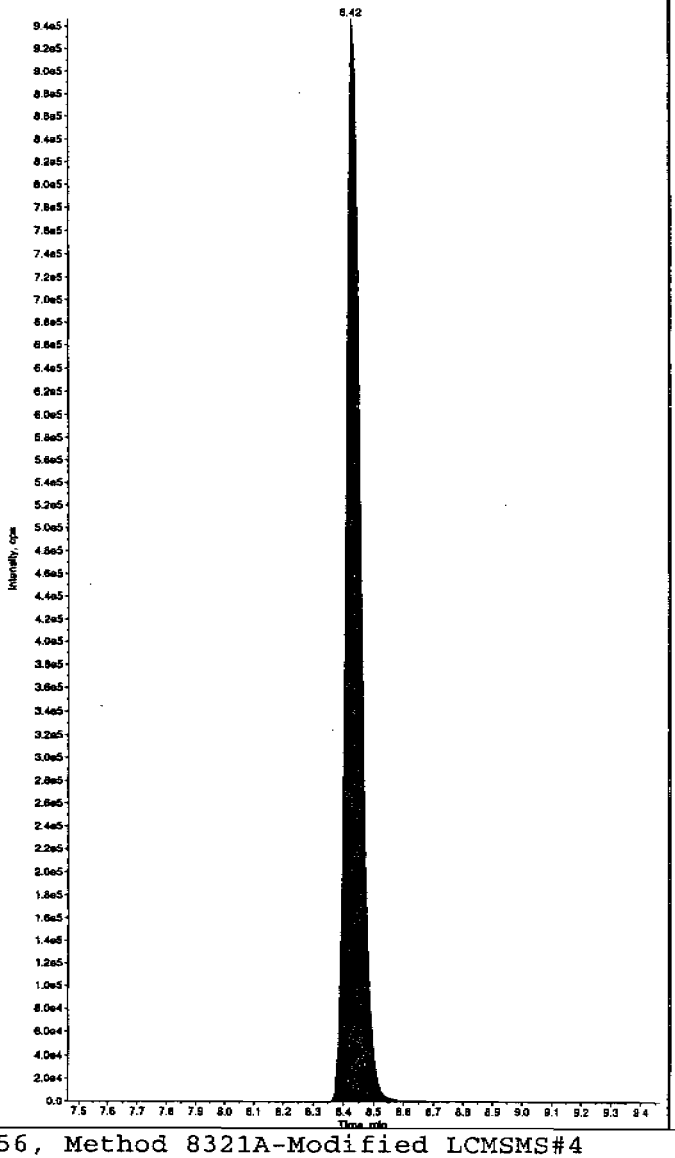

Sample Name: "246070020" Sample ID: "948890[2]LER" File: "EXS02260122.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     0.00     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        10:34:09 PM

Modified:            No
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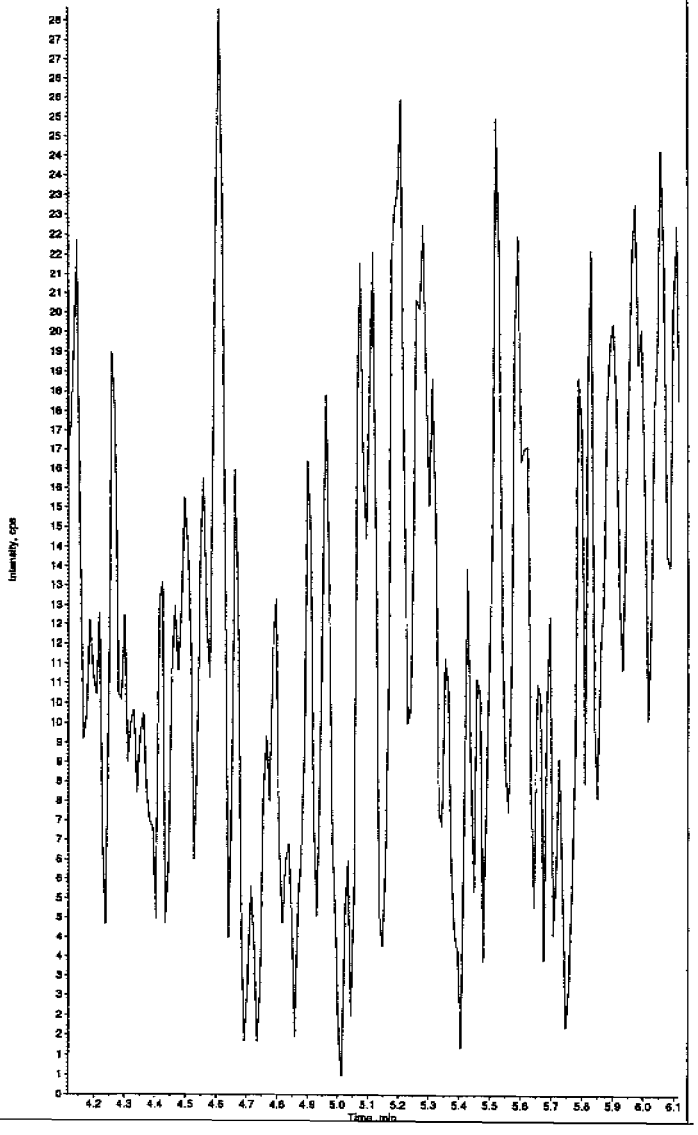

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e: "246070020" Sample ID: "948890|2|LER" File: "EXS02260122.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
.CX83212S" Annotation: ""
ix: 1
:: Unknown
on: N/A
Conc: 0.00 ng/mL
2/27/2010
10:34:09 PM

No

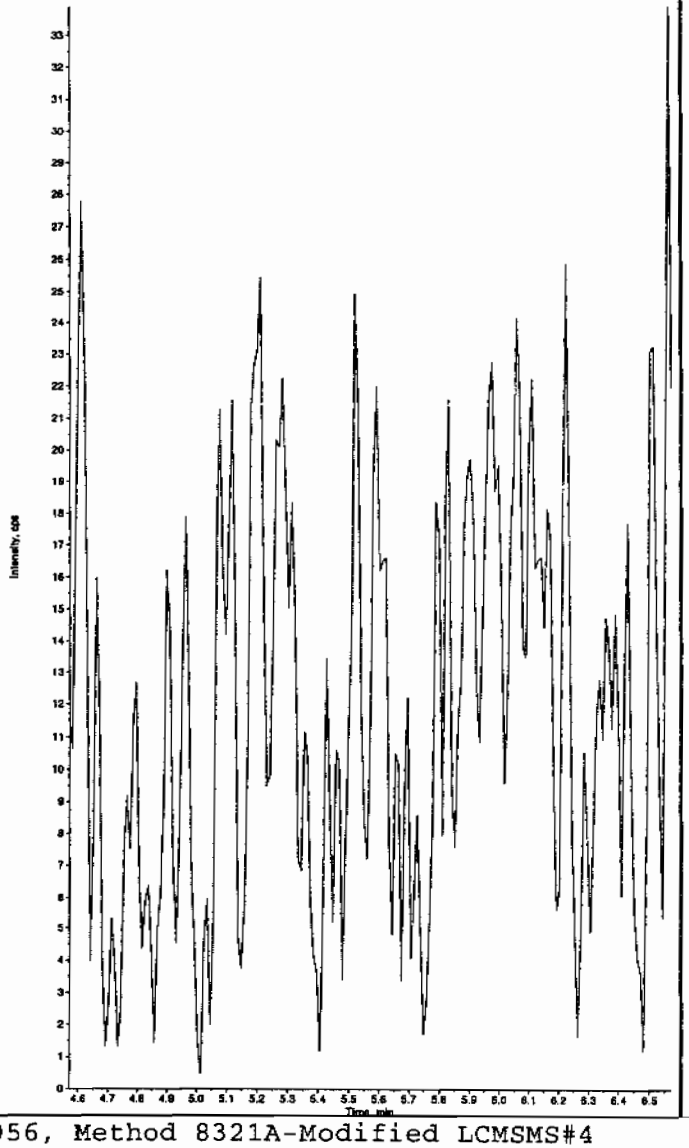

Sample Name: "246070020" Sample ID: "948890|2|LER" File: "EXS02260122.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:34:09 PM

Modified: No

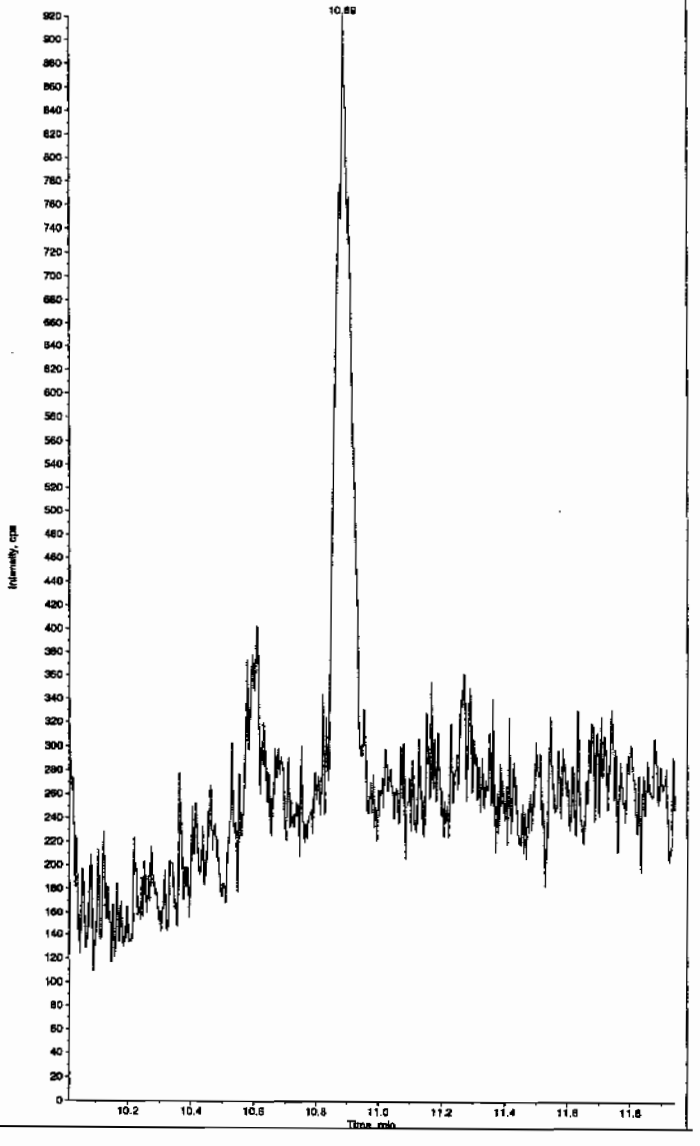

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1544

Lab Code: GEL

Run Date: 04-MAR-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a			
Parmname									
1,3,5-Trinitrobenzene	5.003	4.577	3.342	3.576	3.258	3.608	3.894	18.476	
1,3-Dinitrobenzene-d4	6.789	7.374	7.348	6.733	7.315	6.583	7.024	5.121	
2,4,6-Trinitrotoluene	.3	.336	.341	.337	.35	.308	0.329	6.027	
2,4-Dinitrotoluene	.281	.305	.251	.262	.282	.273	0.276	6.75	
2,6-Dinitrotoluene	1.138	1.111	1.096	1.102	1.137	1.11	1.116	1.607	
2,6-Dinitrotoluene-d3	43.655	42.215	41.583	39.474	40.005	39.795	41.121	4.004	
2-Amino-4,6-dinitrotoluene	.343	.423	.391	.415	.418	.441	0.405	8.534	
3,4-Dinitrotoluene	1.067	.913	.958	.95	1.085	.826	0.967	10.048	
4-Amino-2,6-dinitrotoluene	.248	.266	.292	.289	.283	.277	0.276	5.889	
HMX	5.7	4.915	4.501	4.556	4.433	3.881	4.664	13.011	
Nitrobenzene	.847	.822	.819	.885	.844	.737	0.826	5.999	
RDX	3.372	3.021	2.826	2.815	2.597	2.536	2.861	10.661	
Tetryl	1.148	1.088	.978	.967	.995	.93	1.018	8.121	
m-Dinitrobenzene	1.232	1.296	1.278	1.225	1.314	1.254	1.267	2.82	
m-Nitrotoluene	.108	.096	.087	.092	.093	.09	0.094	7.937	
o-Nitrotoluene	.162	.165	.148	.152	.152	.15	0.155	4.487	
p-Nitrotoluene	.078	.08	.073	.075	.076	.074	0.076	3.543	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1544

Lab Code: GEL

Run Date: 04-MAR-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a					
Parmname:											
PETN	3472.76	5897.1	19825.4	32819.1	49655	58513.4	2.265	-.0008626	37.152	.9967	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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:: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

l: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
tion: Untitled, Time: Fri Mar 05 10:16:18 2010

und name: HMX
ıse Factor: 4.66431
D: 0.606877, % Relative SD: 13.0111
ıse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
ype: RF

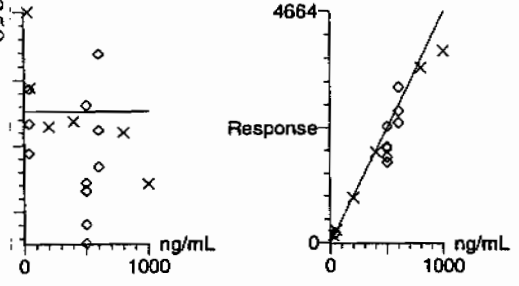

MM
3/6/10

und name: RDX
ıse Factor: 2.8614
D: 0.305061, % Relative SD: 10.6612
ıse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
ype: RF

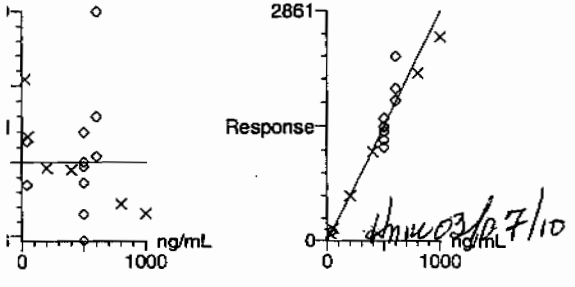

MM 03/27/10

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: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

und name: 135-Trinitrobenzene
se Factor: 3.89381
): 0.719425, % Relative SD: 18.4761
se type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
ype: RF

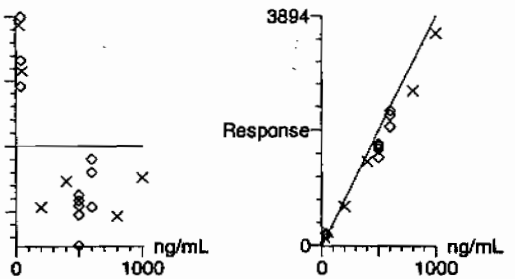

und name: 13-Dinitrobenzene-d4
se Factor: 7.02358
): 0.359695, % Relative SD: 5.12125
se type: External Std, Area
ype: RF

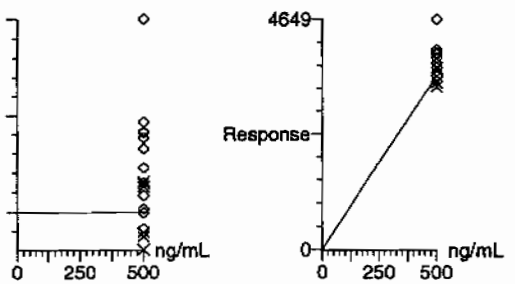

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:: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

und name: 13-Dinitrobenzene
ıse Factor: 1.26646
): 0.0357173, % Relative SD: 2.82024
ıse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
ype: RF

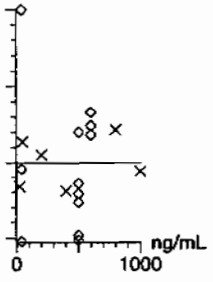

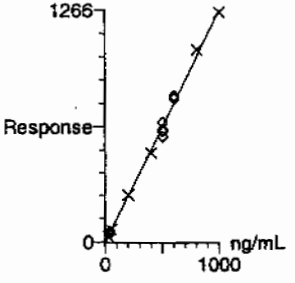

ınd name: Tetryl
se Factor: 1.01755
): 0.0826324, % Relative SD: 8.1207
se type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
/pe: RF

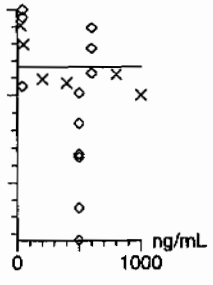

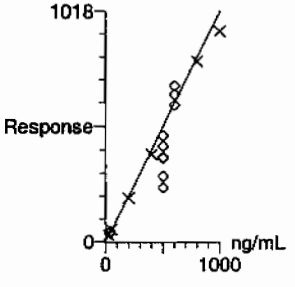

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: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

ınd name: Nitrobenzene
se Factor: 0.825734
): 0.0495369, % Relative SD: 5.99913
se type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
/pe: RF

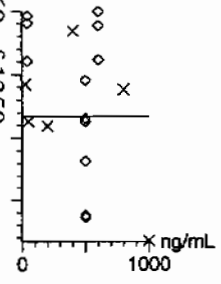

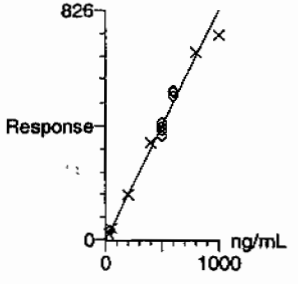

ınd name: 4-Amino-26-dinitrotoluene
se Factor: 0.275828
): 0.0162429, % Relative SD: 5.88879
se type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
/pe: RF

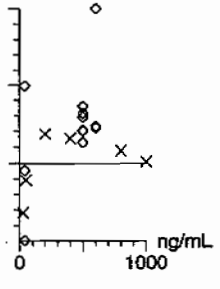

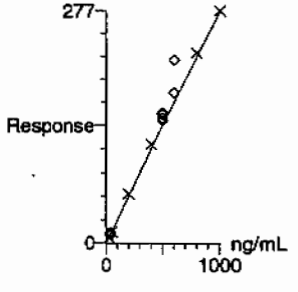

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C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

ınd name: 2-Amino-46-dinitrotoluene
ıse Factor: 0.405103
: 0.0345707, % Relative SD: 8.53382
ıse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
pe: RF

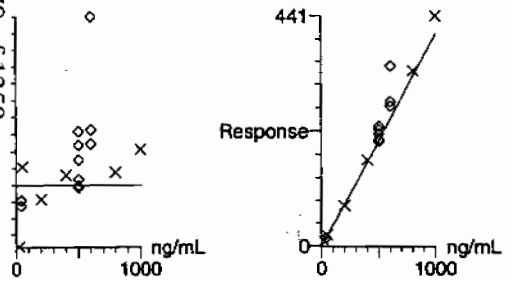

ınd name: 246-Trinitrotoluene
ıse Factor: 0.328607
: 0.0198061, % Relative SD: 6.02729
ıse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
pe: RF

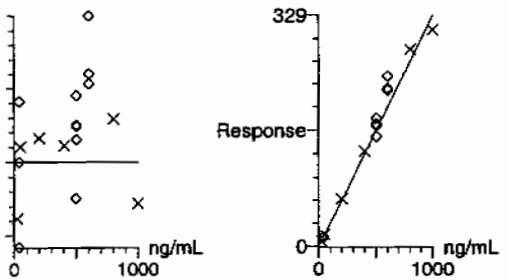

Page 470 of 1359

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: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

ɹnd name: 34-dinitrotoluene
se Factor: 0.966467
): 0.097114, % Relative SD: 10.0484
se type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
/pe: RF

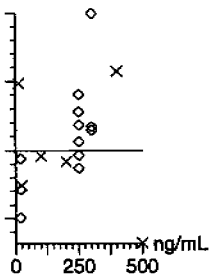

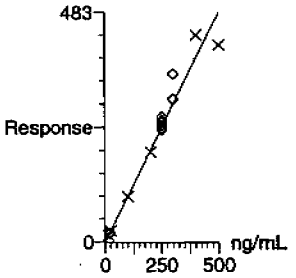

ɹnd name: 26-dinitrotoluene
se Factor: 1.11554
): 0.0179296, % Relative SD: 1.60726
se type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
/pe: RF

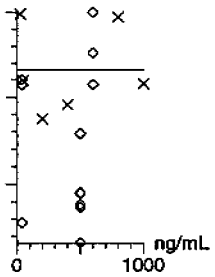

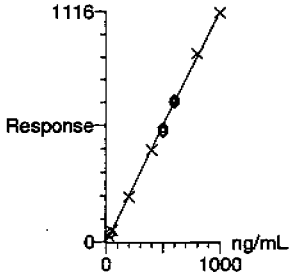

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t: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

und name: 24-dinitrotoluene
ıse Factor: 0.275647
D: 0.0186056, % Relative SD: 6.74978
ıse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
ype: RF

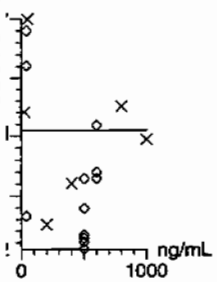

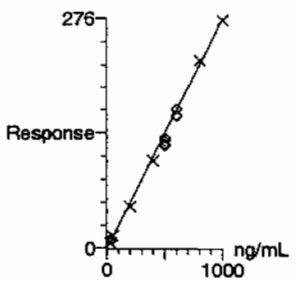

und name: 26-dinitrotoluene-d3
ıse Factor: 41.1212
D: 1.6463, % Relative SD: 4.00354
ıse type: External Std, Area
ype: RF

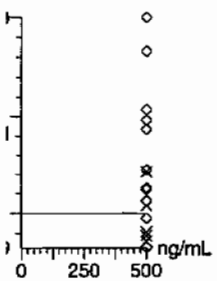

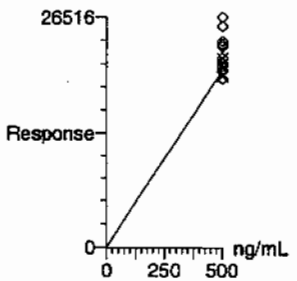

Page 472 of 1359

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:: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

und name: 2-Nitrotoluene
ıse Factor: 0.154899
): 0.00695032, % Relative SD: 4.487
ıse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
ype: RF

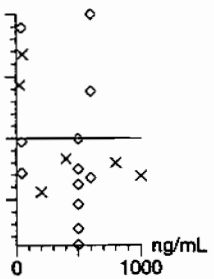

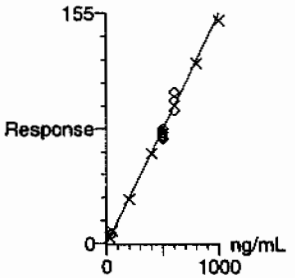

ınd name: 4-Nitrotoluene
se Factor: 0.0762739
): 0.00270209, % Relative SD: 3.54261
se type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
/pe: RF

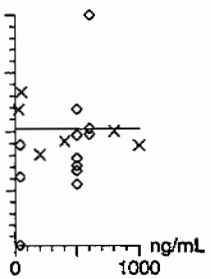

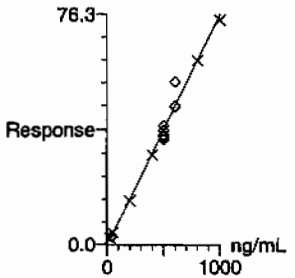

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: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

ınd name: 3-Nitrotoluene
se Factor: 0.0943545
ı: 0.00748873, % Relative SD: 7.9368
se type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
ɪpe: RF

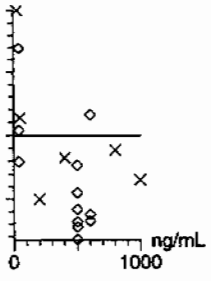

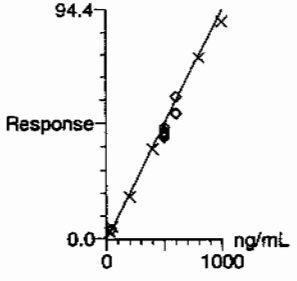

ınd name: PETN
ɜnt of Determination: 0.996692
ion curve: -0.000862571 * x^2 + 2.26503 * x + 37.1516
se type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
ɪpe: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

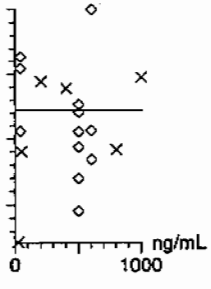

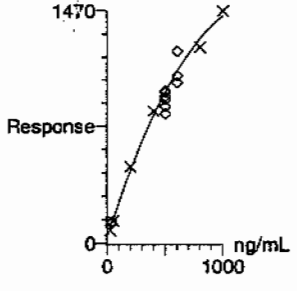

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0304010a

Analysis Date: 04-MAR-10 19:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	517.678	104	
2-Amino-4,6-dinitrotoluene	600	660.901	110	
3,4-Dinitrotoluene	300	309.423	103	
4-Amino-2,6-dinitrotoluene	600	641.886	107	
HMX	600	573.556	96	
Nitrobenzene	600	645.754	108	
PETN	600	544.002	91	
RDX	600	658.987	110	
Tetryl	600	634.792	106	
m-Dinitrobenzene	600	625.108	104	
m-Nitrotoluene	600	544.846	91	
o-Nitrotoluene	600	580.638	97	
p-Nitrotoluene	600	595.264	99	
1,3,5-Trinitrobenzene	600	563.54	94	
1,3-Dinitrobenzene-d4	500	499.497	100	
2,4,6-Trinitrotoluene	600	681.185	114	
2,4-Dinitrotoluene	600	576.449	96	
2,6-Dinitrotoluene	600	596.772	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304010a
4-Mar-2010
9:41:56
X100304-07ICV
1,B

MATT 3/6/10

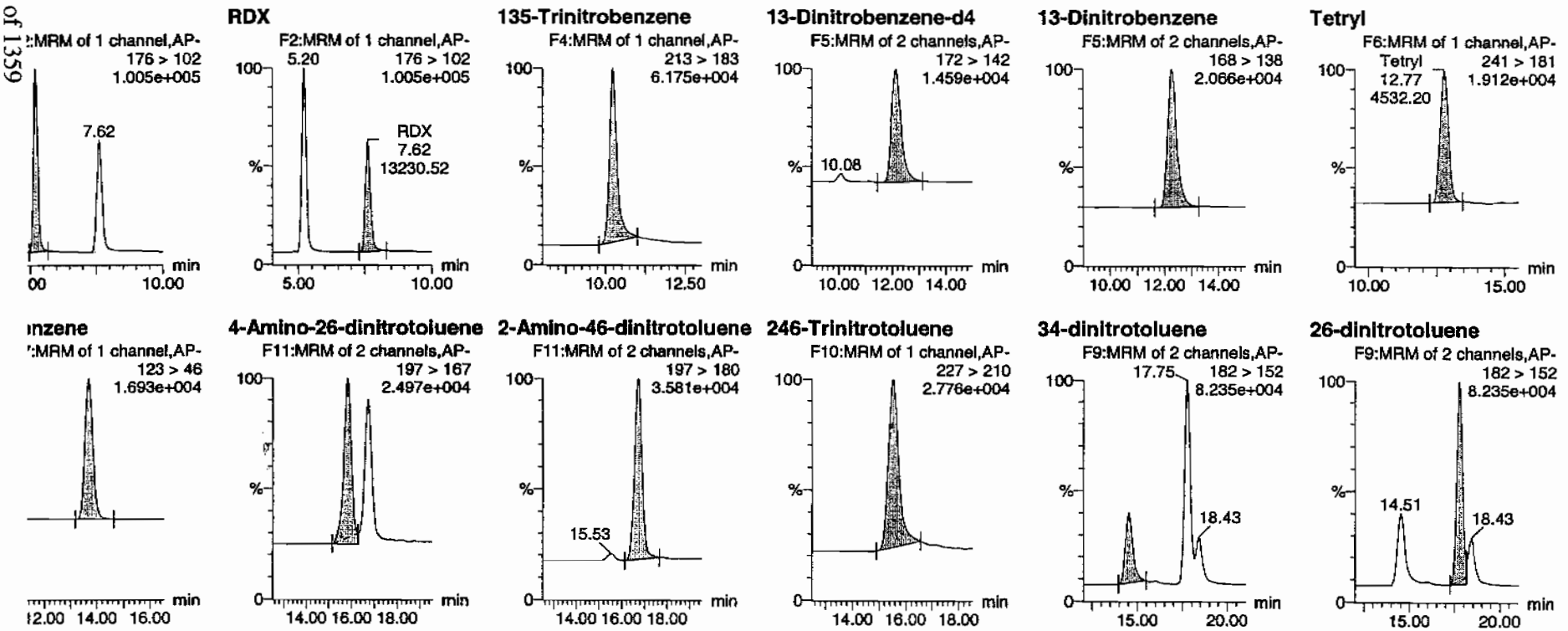

thine 03/07/10

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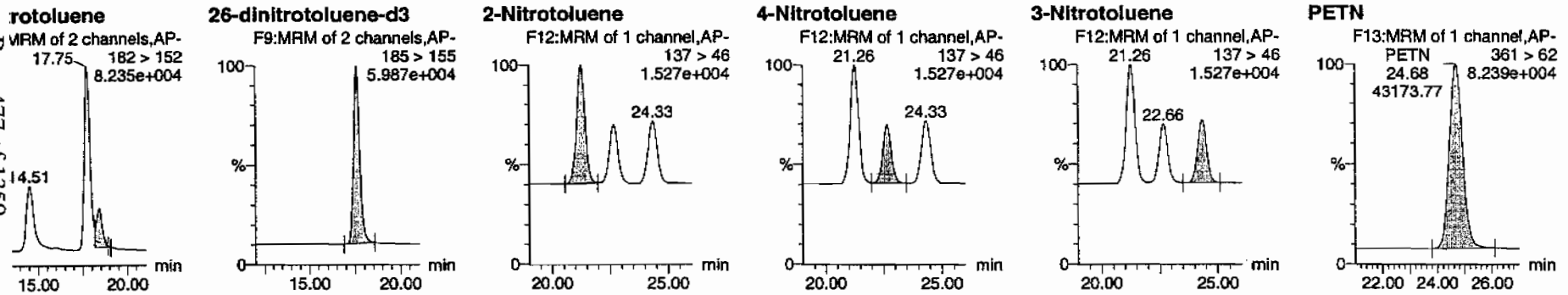

Sample Name	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
304-07ICV	HMX	176 > 102	5.20	18770.877	3508.256	18770.877	2675.243	bb			573.5564	95.6	-4.4	1993.1
304-07ICV	RDX	176 > 102	7.62	13230.516	3508.256	13230.516	1885.626	bb			658.9874	109.8	9.8	1203.8
304-07ICV	135-Trinitrobenzene	213 > 183	10.23	15396.480	3508.256	15396.480	2194.321	bb			563.5402	93.9	-6.1	1042.0
304-07ICV	13-Dinitrobenzene-d4	172 > 142	12.14	3508.256		3508.256	3508.256	bb			499.4970	99.9	-0.1	169.8
304-07ICV	13-Dinitrobenzene	168 > 138	12.27	5554.798	3508.256	5554.798	791.675	bb			625.1075	104.2	4.2	539.3
304-07ICV	Tetryl	241 > 181	12.77	4532.205	3508.256	4532.205	645.934	bb			634.7921	105.8	5.8	454.7
304-07ICV	Nitrobenzene	123 > 46	13.72	3741.350	3508.256	3741.350	533.221	bb			645.7538	107.6	7.6	316.6
304-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7537.907	21287.525	7537.907	177.050	MM	05-Mar-10	10:05:37	641.8862	107.0	7.0	199.0
304-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11398.739	21287.525	11398.739	267.733	bb			660.9014	110.2	10.2	1125.1
304-07ICV	246-Trinitrotoluene	227 > 210	15.55	9530.100	21287.525	9530.100	223.842	bb			681.1854	113.5	13.5	588.8
304-07ICV	34-dinitrotoluene	182 > 152	14.51	12731.959	21287.525	12731.959	299.047	bb			309.4234	103.1	3.1	594.2
304-07ICV	26-dinitrotoluene	182 > 152	17.75	28343.234	21287.525	28343.234	665.724	MM	05-Mar-10	10:09:47	596.7715	99.5	-0.5	1698.9
304-07ICV	24-dinitrotoluene	182 > 152	18.43	6765.037	21287.525	6765.037	158.897	MM	05-Mar-10	10:13:35	576.4492	96.1	-3.9	371.1
304-07ICV	26-dinitrotoluene-d3	185 > 155	17.57	21287.525		21287.525	21287.525	bb			517.6780	103.5	3.5	1368.6
304-07ICV	2-Nitrotoluene	137 > 46	21.26	3829.206	21287.525	3829.206	89.940	bb			580.6380	96.8	-3.2	780.1
304-07ICV	4-Nitrotoluene	137 > 46	22.66	1933.041	21287.525	1933.041	45.403	bb			595.2642	99.2	-0.8	380.6
304-07ICV	3-Nitrotoluene	137 > 46	24.33	2188.727	21287.525	2188.727	51.409	bb			544.8458	90.8	-9.2	406.5
304-07ICV	PETN	361 > 62	24.68	43173.770	21287.525	43173.770	1014.063	bb			544.0022	90.7	-9.3	13474.5

Page 477 of 1359

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/04/10
Time of Injection: 1941
Standard Number: WXX100304-07ICV
Data File: EXP0304010a

HMX		95.6
RDX		109.8
135-TNB		93.9
13-DNB		104.2
Tetryl		105.8
Nitrobenzene		107.6
4A-26-DNT		107.0
2A-46-DNT		110.2
246-TNT		113.5
34-DNT(surr)		103.1
26-DNT		99.5
24-DNT		96.1
2-NT		96.8
4-NT		99.2
3-NT		90.8
PETN		90.7
Total		1623.8
Average		101.5

MATT 3/6/10

HMC 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1544

Lab Code: GEL

Run Date: 04-MAR-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02260003.wifl	EXS02260004.wifl	EXS02260005.wifl	EXS02260006.wifl	EXS02260007.wifl	EXS02260008.wifl	EXS02260009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	80600	158000	383000	773000	1220000	1610000	3220000	-10100	1620	.001	.9999	
2,6-Diamino-4-nitrotoluene	113000	219000	551000	1070000	1680000	2170000	4260000	-5880	2240	-.055	.9999	
3,4-Dinitrotoluene	365000	719000	1740000	3170000	4890000	6230000	11300000	2650	14600	-3.26	.9979	
3,5-Dinitroaniline	531000	1010000	2370000	4530000	6700000	8310000	13900000	41000	9760	-1.41	.9999	
TATB	50800	103000	279000	574000	909000	1230000	2540000	-18200	1200	.04	.9999	
tris(o-cresyl) phosphate	893000	1730000	4120000	7610000	11100000	14100000	23200000	92000	16500	-2.46	1	

Quadradic Fit: $y = Ax^2 + Bx + C$
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.82e+004			
a1	1.2e+003			
a2	0.0401			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	4.1e+004			
a1	9.76e+003			
a2	-1.41			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.65e+003			
a1	1.46e+004			
a2	-3.26			

Correlation coefficient 0.9979
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.88e+003			
a1	2.24e+003			
a2	-0.055			

Correlation coefficient 0.9999
Use Area

Lan 3/1/10

HNW 03/01/10

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.01e+004			
a1	1.62e+003			
a2	0.000677			

Correlation coefficient 0.9999
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	9.2e+004			
a1	1.65e+004			
a2	-2.46			

Correlation coefficient 1.0000
Use Area

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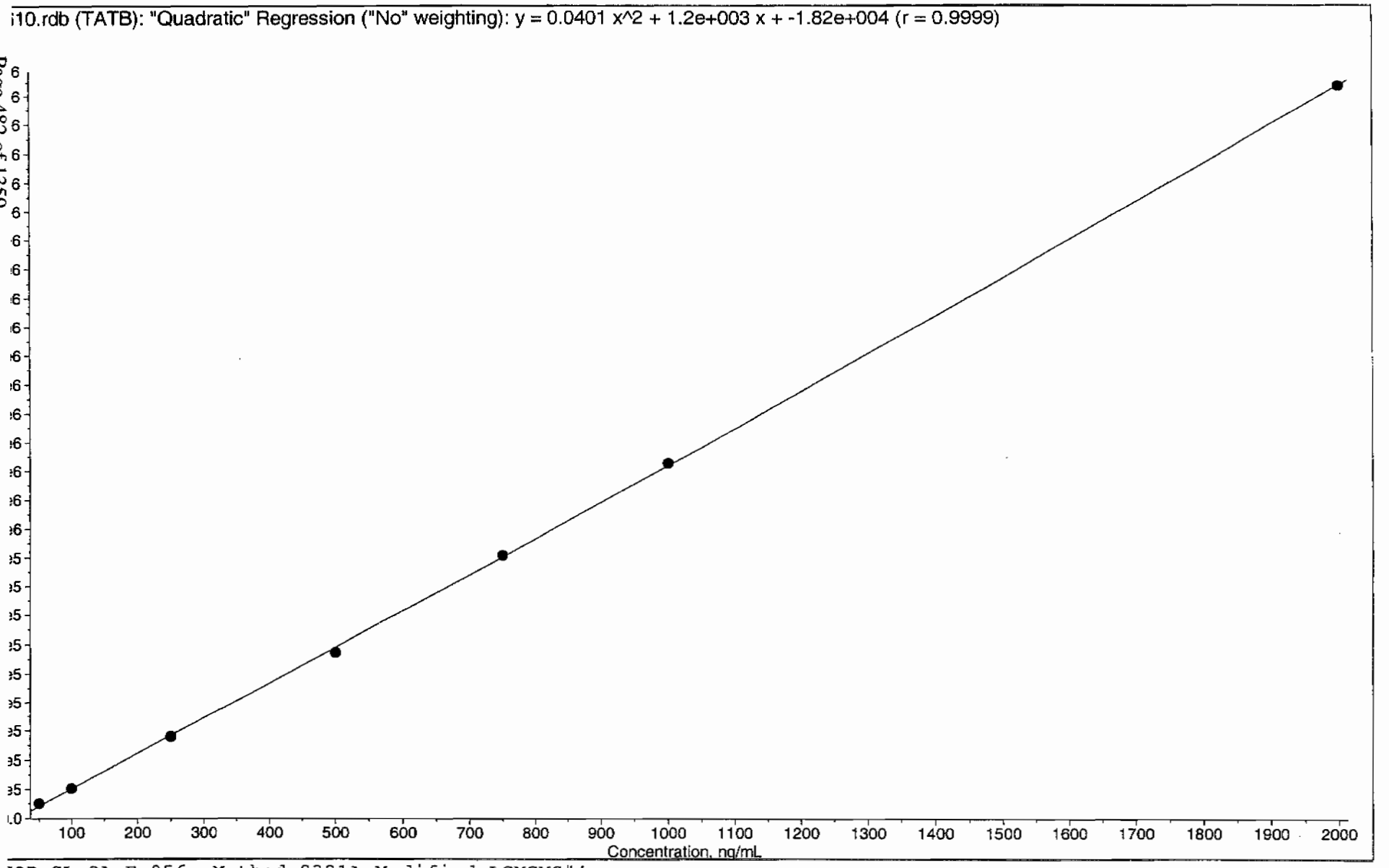

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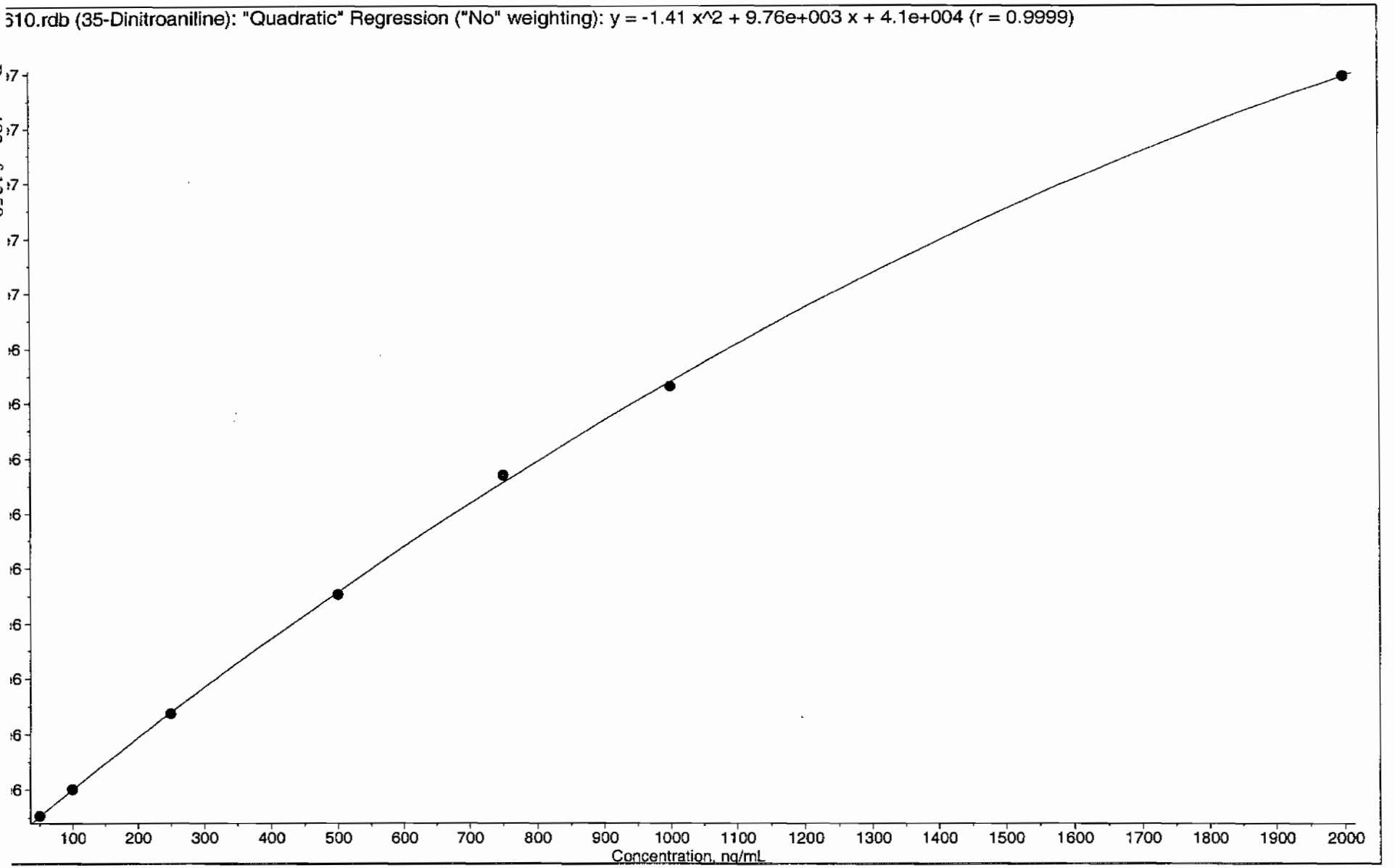

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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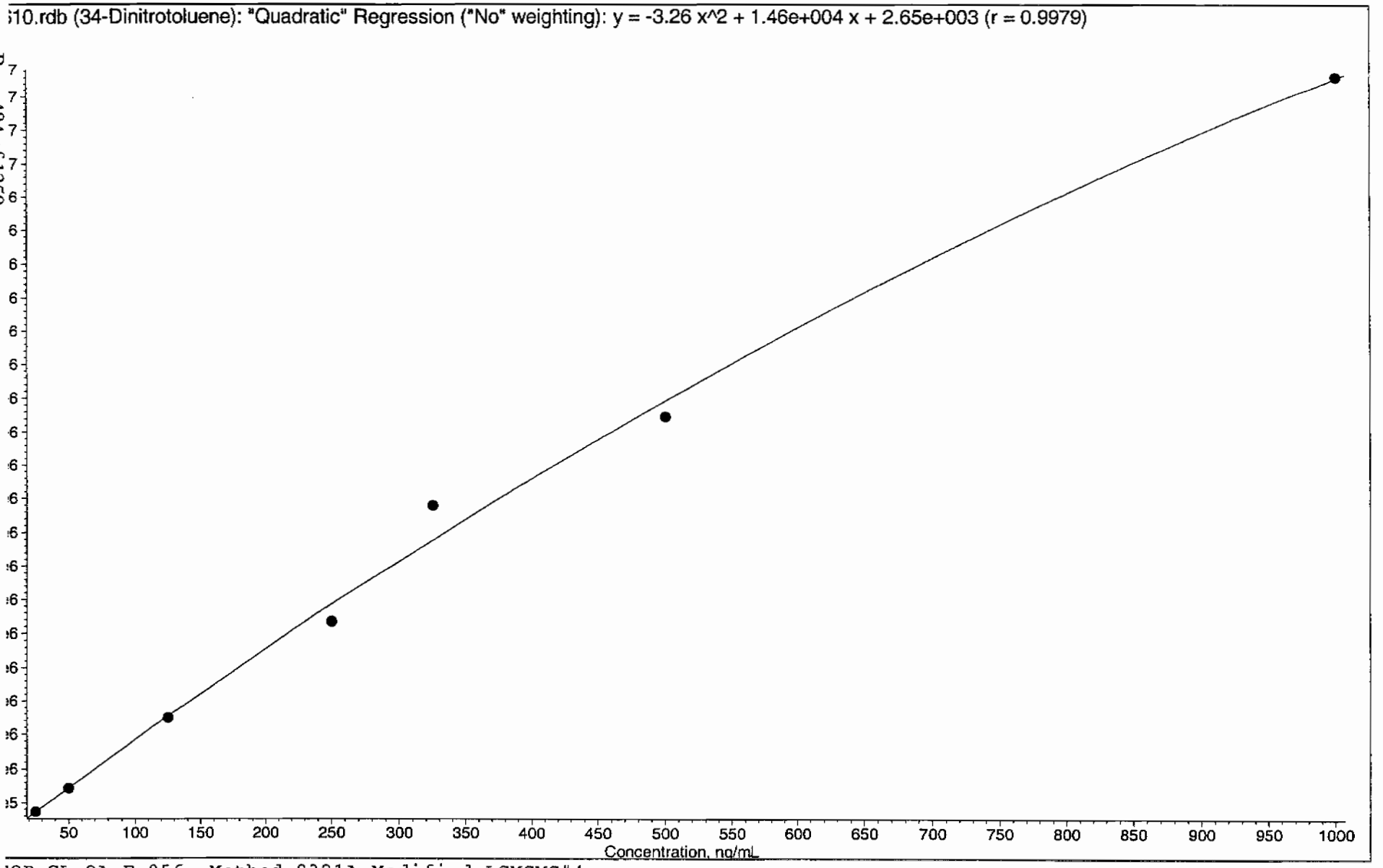

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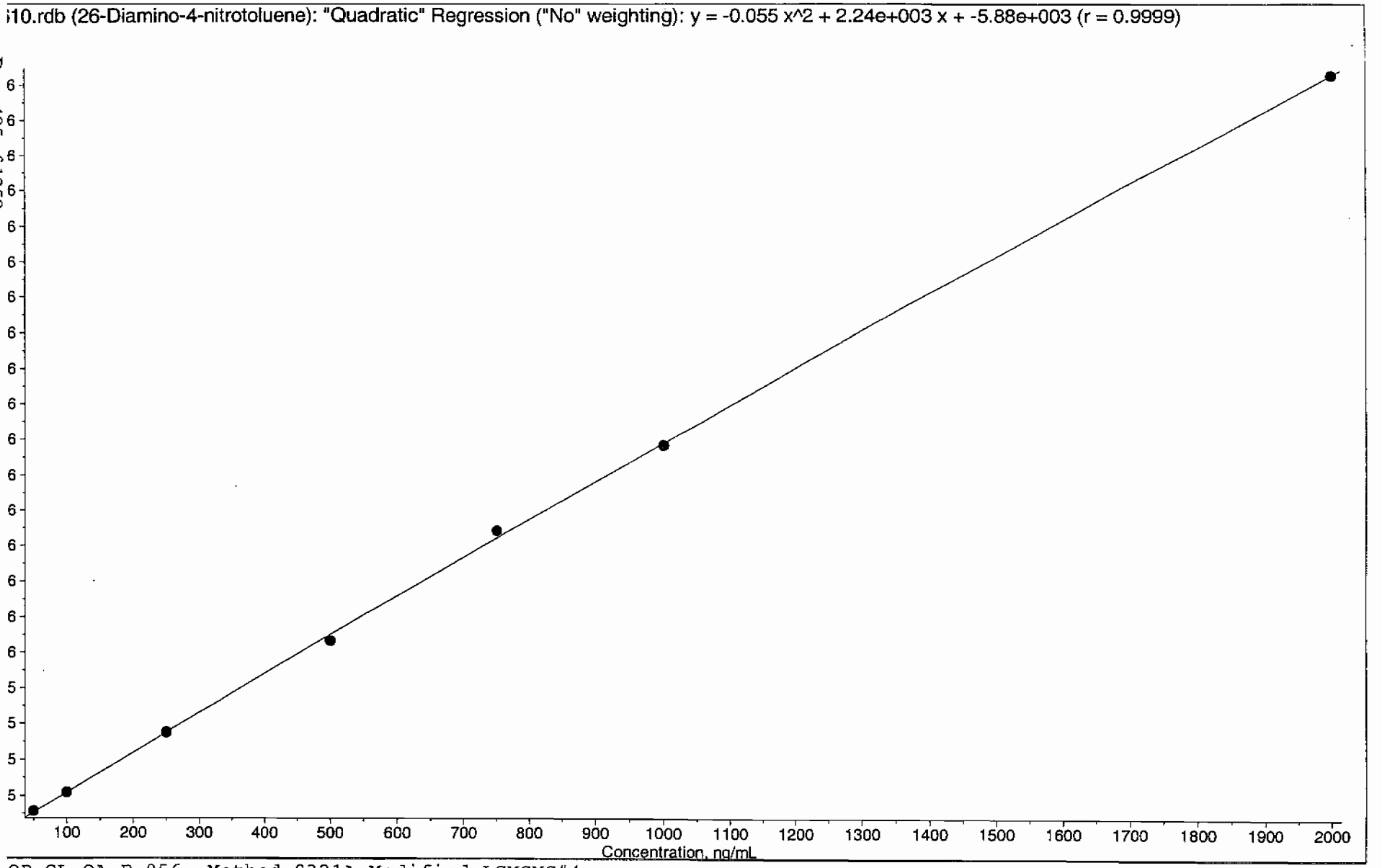

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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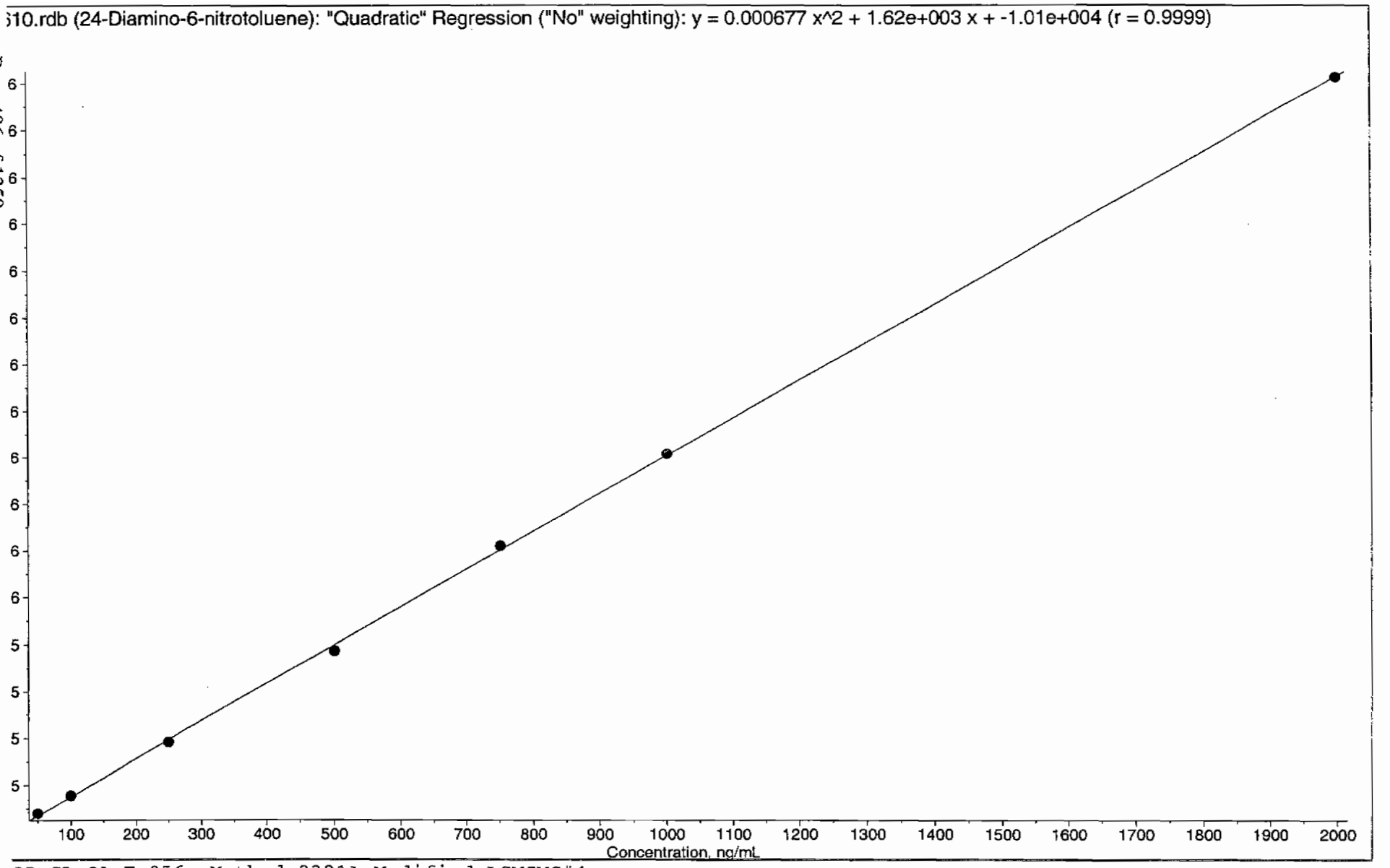

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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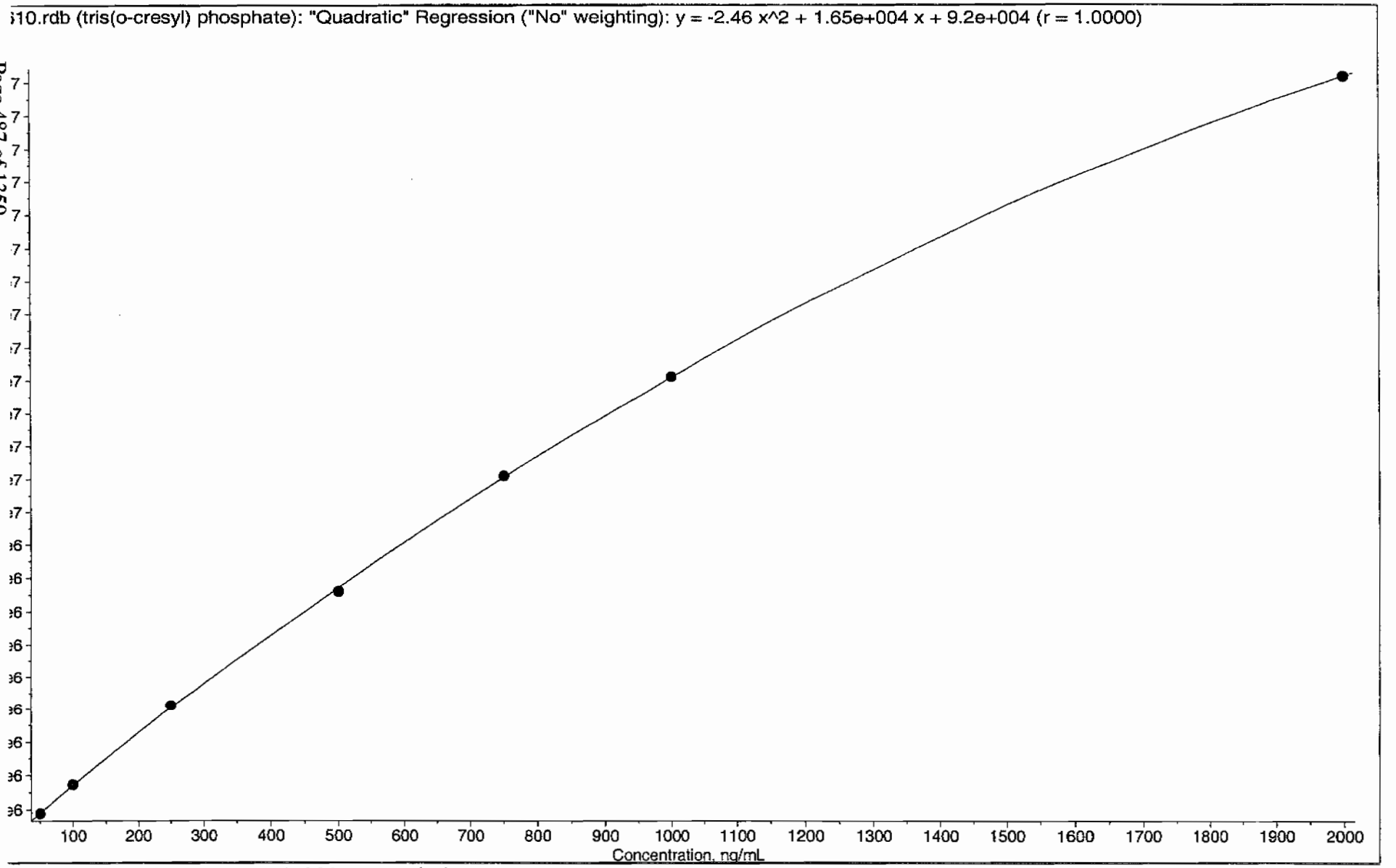

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS02260011.wiff

Analysis Date: 26–FEB–10 17:31

LCMSMS ID: 1358

Column ID JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	483	97	
2,6–Diamino–4–nitrotoluene	500	465	93	
3,4–Dinitrotoluene	250	226	90	
3,5–Dinitroaniline	500	474	95	
TATB	500	472	95	
tris(o–cresyl) phosphate	500	494	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/1/10

e: "WXX100226-26ICV" Sample ID: "|1|LER" File: "EXS02260011.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
.CMSEXP_C" Annotation: ""

ix: 1
: QC
on: 500. ng/mL
Conc: 472. ng/mL
2/26/2010
5:31:06 PM

No
ithm: IntelliQuan - IQA
eight: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
N: 7.09 min
e RT: No

Valley
Time: 7.09 min
5.57e+005 counts
137406.067 cps
7.00 min
7.72 min

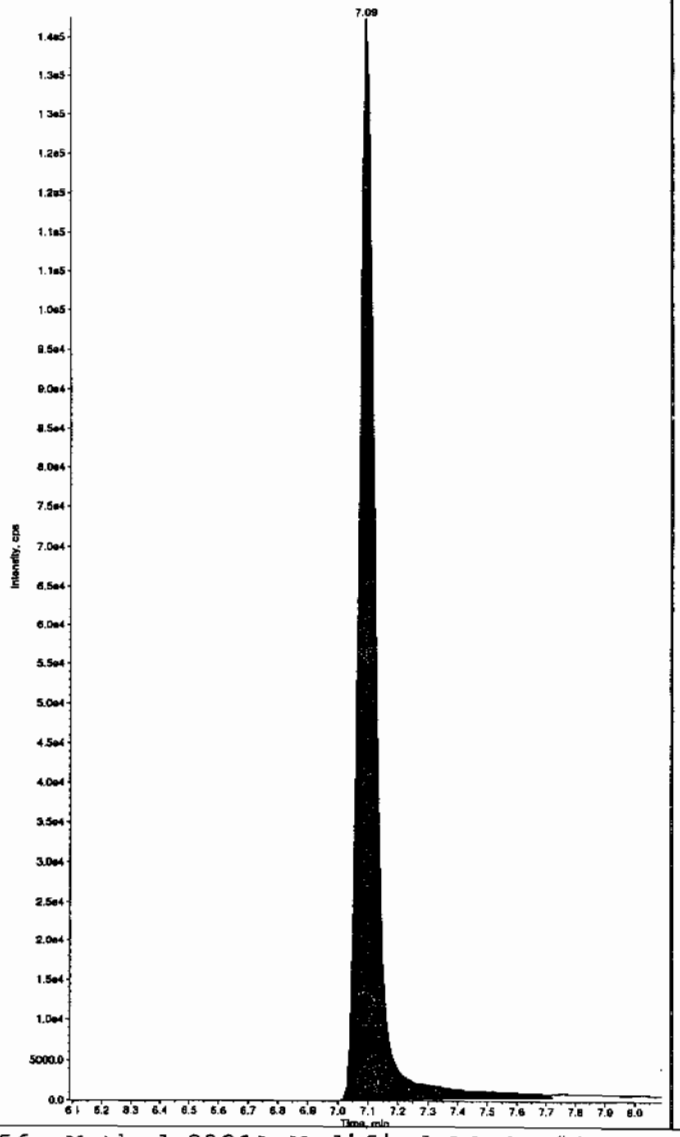

Sample Name: "WXX100226-26ICV" Sample ID: "|1|LER" File: "EXS02260011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 474. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.35e+006 counts
Height: 1097292.725 cps
Start Time: 8.24 min
End Time: 8.42 min

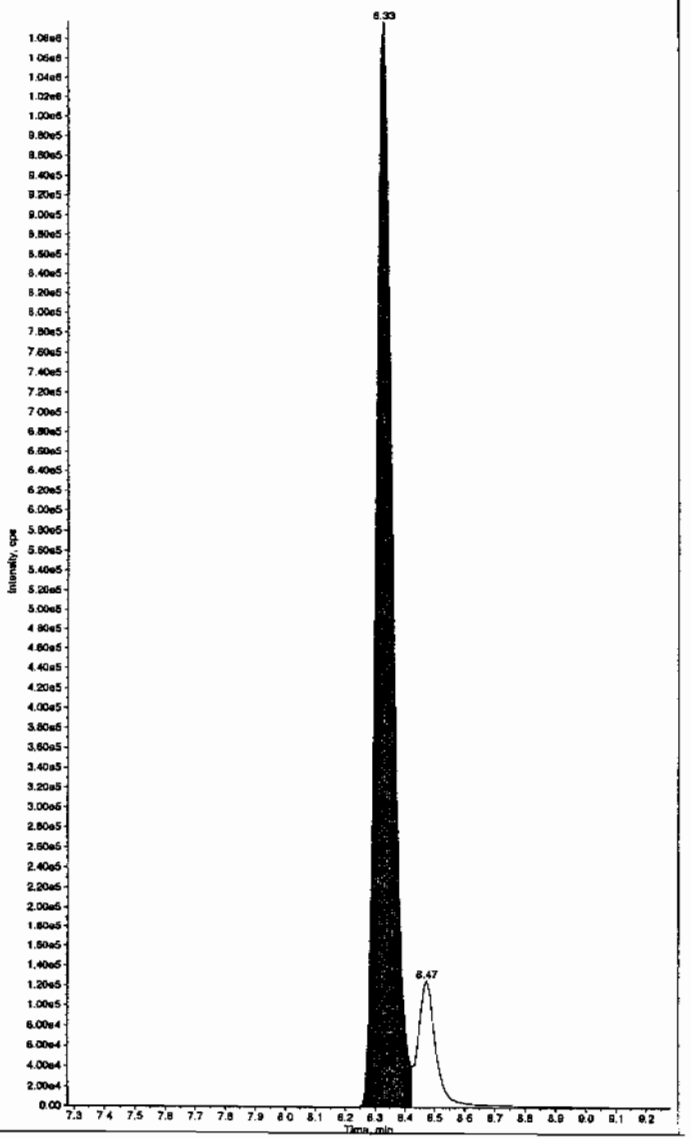

Hmm 03/01/10

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e: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CMSEXP_C" Annotation: "
x: 1
: QC
on: 250. ng/mL
Conc: 226. ng/mL
2/26/2010
5:31:06 PM

No
ithm: IntelliQuan - IQA
eight:1460.00 cps
idth: 0.00 sec
idth: 3 points
15.0 sec
: 8.46 min
e RT: No

Valley
ime: 8.46 min
3.12e+006 counts
869437.378 cps
8.40 min
8.83 min

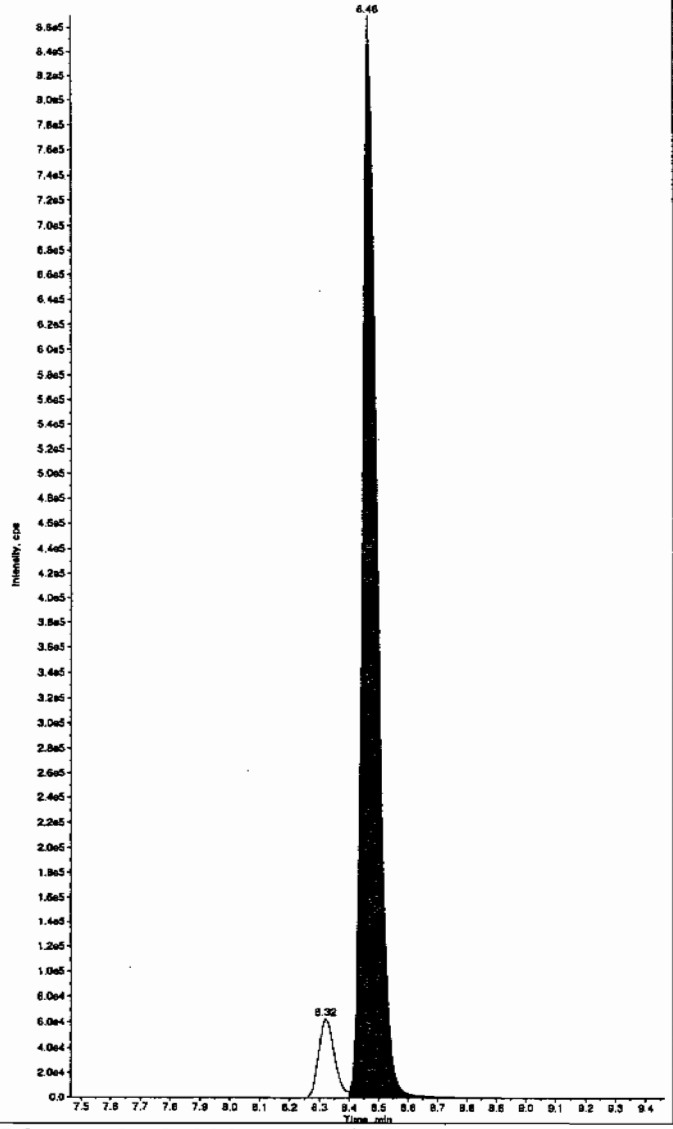

Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 465. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.02e+006 counts
Height: 240925.003 cps
Start Time: 5.01 min
End Time: 5.41 min

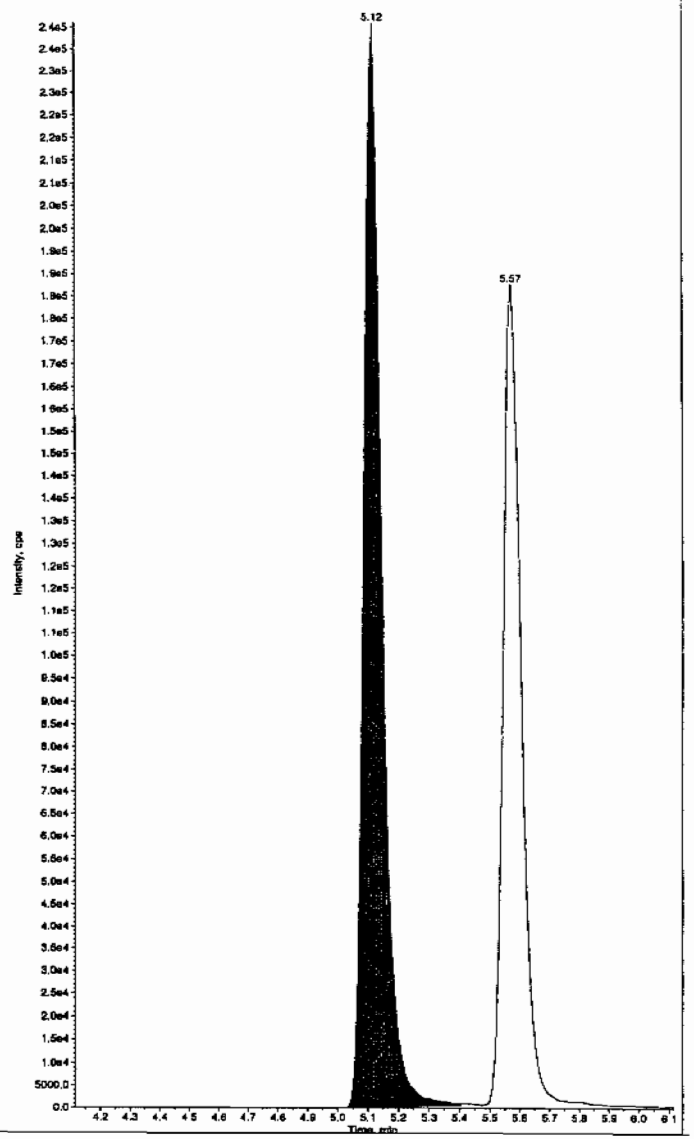

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e: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
.CMSEXP_C" Annotation: ""
ex: 1
: QC
on: 500. ng/mL
Conc: 483. ng/mL
2/26/2010
5:31:06 PM
No
ithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
: 5.57 min
e RT: No
Valley
Time: 5.57 min
7.72e+005 counts
182073.196 cps
5.49 min
5.92 min

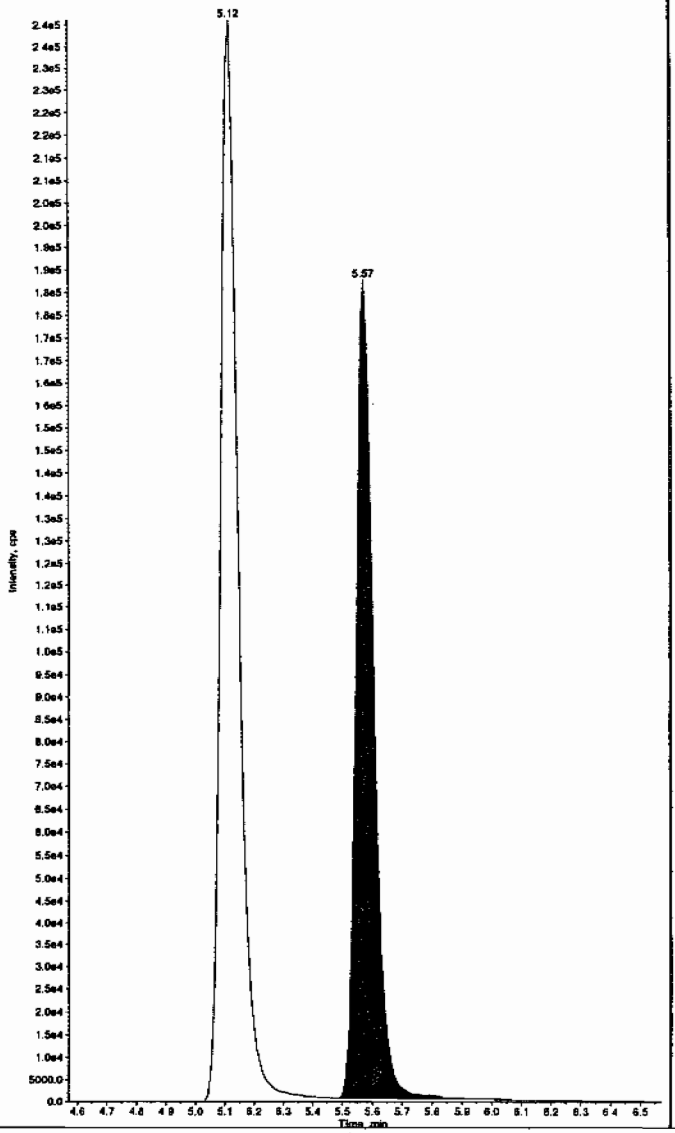

Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	494. ng/mL
Acq. Date:	2/26/2010
Acq. Time:	5:31:06 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	7.63e+006 counts
Height:	2044473.877 cps
Start Time:	10.8 min
End Time:	11.3 min

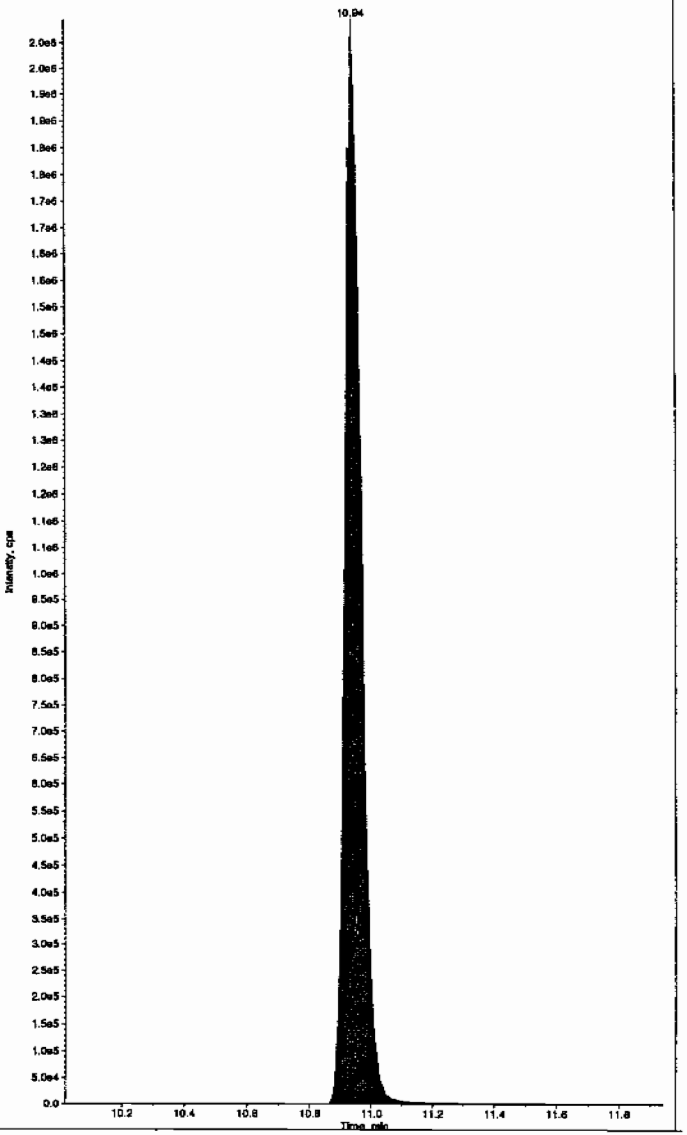

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304012a

Analysis Date: 04-MAR-10 20:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	52.132	130	*
1,3-Dinitrobenzene-d4	500	502.653	101	
2,4,6-Trinitrotoluene	40	43.716	109	
2,4-Dinitrotoluene	40	42.515	106	
2,6-Dinitrotoluene	40	39.781	99	
2,6-Dinitrotoluene-d3	500	509.301	102	
2-Amino-4,6-dinitrotoluene	40	37.902	95	
3,4-Dinitrotoluene	20	19.742	99	
4-Amino-2,6-dinitrotoluene	40	33.746	84	
HMX	40	42.046	105	
Nitrobenzene	40	43.151	108	
PETN	40	43.178	108	
RDX	40	41.86	105	
Tetryl	40	46.154	115	
m-Dinitrobenzene	40	46.893	117	
m-Nitrotoluene	40	38.785	97	
o-Nitrotoluene	40	39.894	100	
p-Nitrotoluene	40	32.889	82	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

t: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304012a
4-Mar-2010
20:40:53
X100304-08CRI
1,C

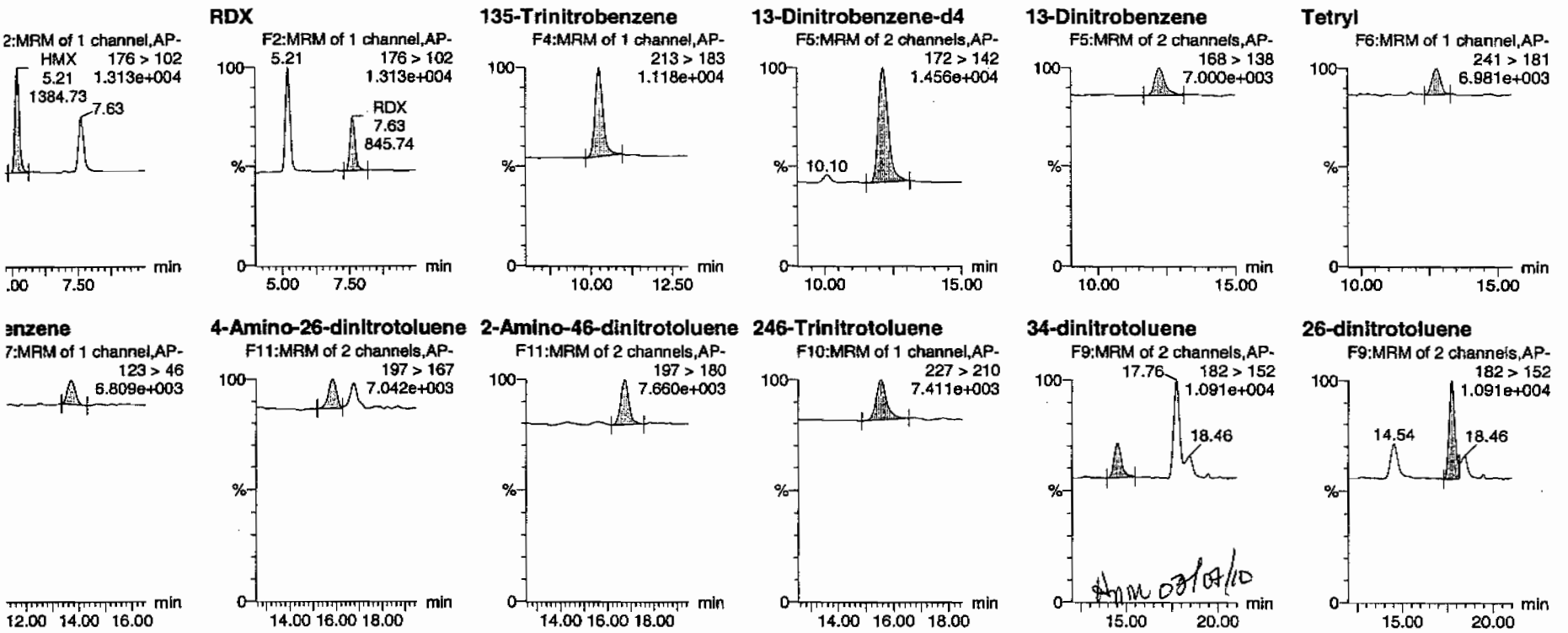

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t: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

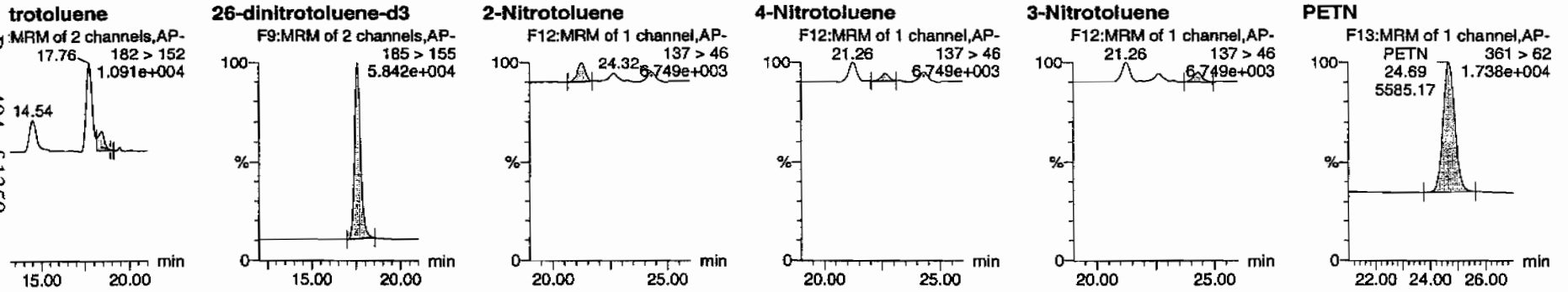

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
)304-08CRI	HMX	176 > 102	5.21	1384.730	3530.423	1384.730	196.114	bb			42.0457	105.1	5.1	144.1
)304-08CRI	RDX	176 > 102	7.63	845.744	3530.423	845.744	119.779	bb			41.8604	104.7	4.7	75.2
)304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1433.303	3530.423	1433.303	202.993	bb			52.1322	130.3	30.3	167.6
)304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.13	3530.423		3530.423	3530.423	bb			502.6531	100.5	0.5	557.7
)304-08CRI	13-Dinitrobenzene	168 > 138	12.24	419.332	3530.423	419.332	59.388	bb			46.8931	117.2	17.2	49.7
)304-08CRI	Tetryl	241 > 181	12.80	331.609	3530.423	331.609	46.964	bb			46.1544	115.4	15.4	33.7
)304-08CRI	Nitrobenzene	123 > 46	13.70	251.584	3530.423	251.584	35.631	bb			43.1505	107.9	7.9	26.0
)304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.85	389.877	20943.066	389.877	9.308	MM	05-Mar-10	10:05:44	33.7458	84.4	-15.6	20.6
)304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.72	643.123	20943.066	643.123	15.354	bb			37.9017	94.8	-5.2	59.0
)304-08CRI	246-Trinitrotoluene	227 > 210	15.54	601.715	20943.066	601.715	14.365	bb			43.7163	109.3	9.3	34.7
)304-08CRI	34-dinitrotoluene	182 > 152	14.54	799.203	20943.066	799.203	19.080	bb			19.7424	98.7	-1.3	67.9
)304-08CRI	26-dinitrotoluene	182 > 152	17.76	1858.792	20943.066	1858.792	44.377	MM	05-Mar-10	10:10:03	39.7809	99.5	-0.5	195.7
)304-08CRI	24-dinitrotoluene	182 > 152	18.46	490.874	20943.066	490.874	11.719	MM	05-Mar-10	10:13:43	42.5154	106.3	6.3	42.9
)304-08CRI	26-dinitrotoluene-d3	185 > 155	17.59	20943.066		20943.066	20943.066	bb			509.3014	101.9	1.9	2489.6
)304-08CRI	2-Nitrotoluene	137 > 46	21.26	258.838	20943.066	258.838	6.180	bb			39.8942	99.7	-0.3	72.0
)304-08CRI	4-Nitrotoluene	137 > 46	22.65	105.073	20943.066	105.073	2.509	bb			32.8885	82.2	-17.8	28.3
)304-08CRI	3-Nitrotoluene	137 > 46	24.32	153.282	20943.066	153.282	3.659	bb			38.7845	97.0	-3.0	37.4
)304-08CRI	PETN	361 > 62	24.69	5585.170	20943.066	5585.170	133.342	bb			43.1775	107.9	7.9	1559.5

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/04/10
Time of Injection	2040
Standard Number	WXX100304-08CRI
Data File	EXP0304012a

HMX	105.1
RDX	104.7
135-TNB	130.3
13-DNB	117.2
Tetryl	115.4
Nitrobenzene	107.9
4A-26-DNT	84.4
2A-46-DNT	94.8
246-TNT	109.3
34-DNT(surr)	98.7
26-DNT	99.5
24-DNT	106.3
2-NT	99.7
4-NT	82.2
3-NT	97.0
PETN	107.9
Total	1660.4
Average	103.8

MHT 3/6/10

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304023a

Analysis Date: 05–MAR–10 02:05

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	582.184	97	
1,3–Dinitrobenzene–d4	500	523.805	105	
2,4,6–Trinitrotoluene	600	735.028	123	*
2,4–Dinitrotoluene	600	602.974	100	
2,6–Dinitrotoluene	600	603.708	101	
2,6–Dinitrotoluene–d3	500	475.367	95	
2–Amino–4,6–dinitrotoluene	600	849.542	142	*
3,4–Dinitrotoluene	300	364.434	121	*
4–Amino–2,6–dinitrotoluene	600	789.715	132	*
HMX	600	677.366	113	
Nitrobenzene	600	653.257	109	
PETN	600	714.882	119	
RDX	600	797.625	133	*
Tetryl	600	672.594	112	
m–Dinitrobenzene	600	619.329	103	
m–Nitrotoluene	600	614.199	102	
o–Nitrotoluene	600	660.057	110	
p–Nitrotoluene	600	704.198	117	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

t: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304023a
5-Mar-2010
)2:05:17
X100304-07CCV
1,B

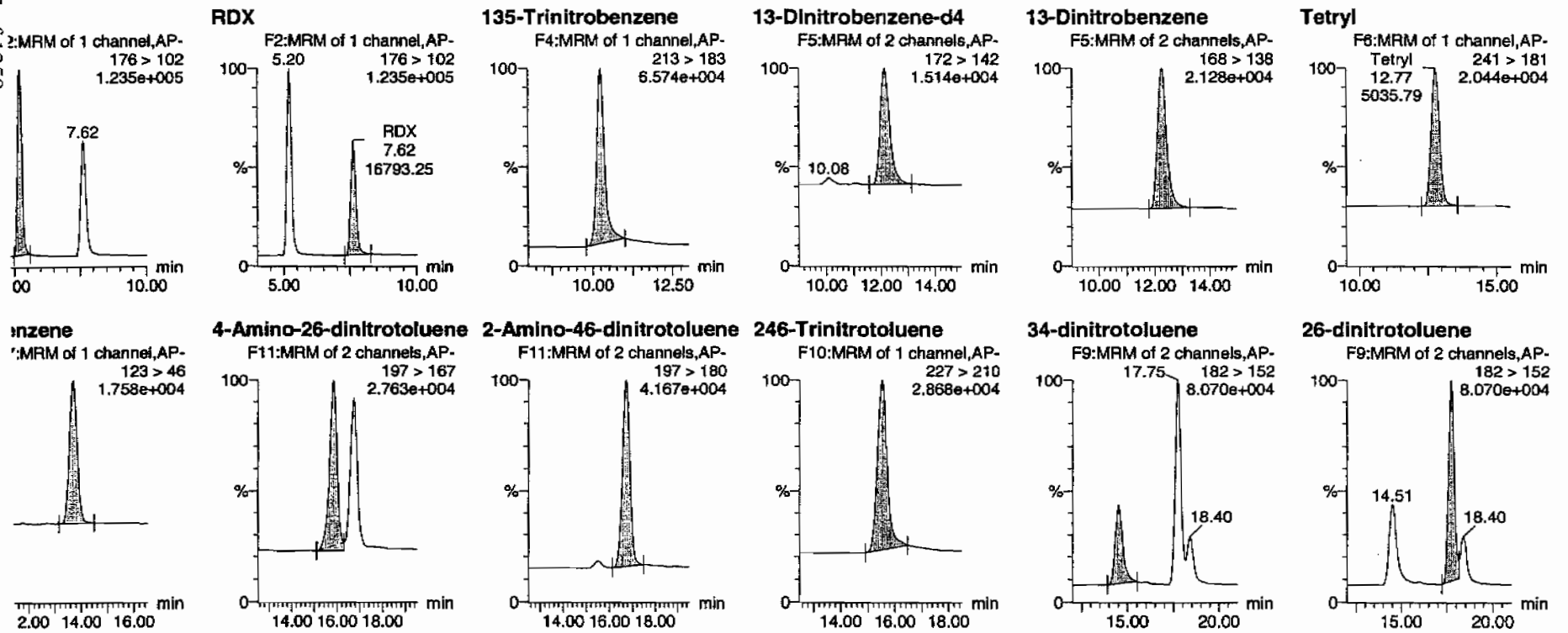

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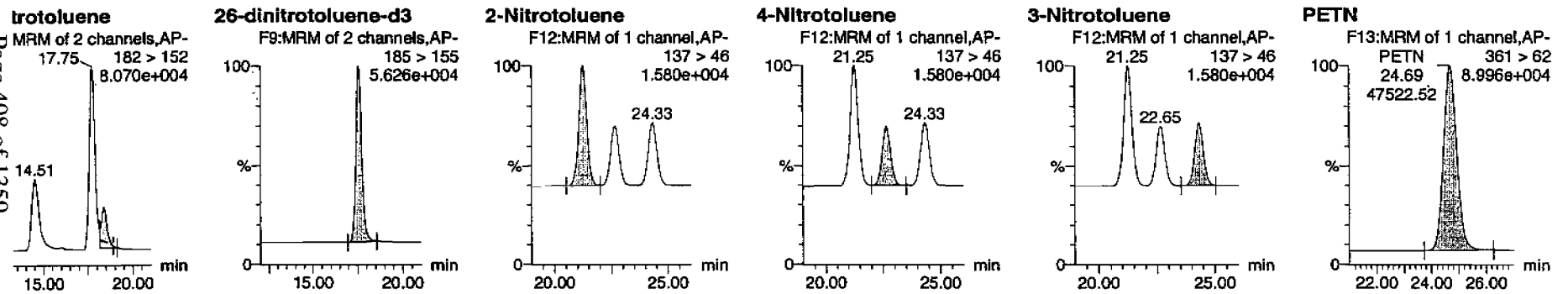

[illegible]	Name	Trace	RT	[illegible] Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
)304-07CCV	HMX	176 > 102	5.20	23247.100	3678.984	23247.100	3159.446	bb			677.3665	112.9	12.9	2560.3
)304-07CCV	RDX	176 > 102	7.62	16793.252	3678.984	16793.252	2282.322	bb			797.6245	132.9	32.9	1567.4
)304-07CCV	135-Trinitrobenzene	213 > 183	10.23	16679.912	3678.984	16679.912	2266.918	bb			582.1844	97.0	-3.0	428.8
)304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3678.984		3678.984	3678.984	bb			523.8049	104.8	4.8	230.9
)304-07CCV	13-Dinitrobenzene	168 > 138	12.27	5771.273	3678.984	5771.273	784.357	bb			619.3290	103.2	3.2	630.1
)304-07CCV	Tetryl	241 > 181	12.77	5035.788	3678.984	5035.788	684.399	bb			672.5937	112.1	12.1	382.1
)304-07CCV	Nitrobenzene	123 > 46	13.71	3969.008	3678.984	3969.008	539.416	bb			653.2568	108.9	8.9	464.3
)304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	8515.934	19547.650	8515.934	217.825	MM	05-Mar-10	10:06:27	789.7146	131.6	31.6	450.0
)304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	13454.715	19547.650	13454.715	344.152	bb			849.5422	141.6	41.6	1164.7
)304-07CCV	246-Trinitrotoluene	227 > 210	15.52	9442.896	19547.650	9442.896	241.535	bb			735.0276	122.5	22.5	274.1
)304-07CCV	34-dinitrotoluene	182 > 152	14.51	13769.875	19547.650	13769.875	352.213	bb			364.4337	121.5	21.5	676.9
)304-07CCV	26-dinitrotoluene	182 > 152	17.75	26329.188	19547.650	26329.188	673.462	bd			603.7078	100.6	0.6	1723.2
)304-07CCV	24-dinitrotoluene	182 > 152	18.40	6497.957	19547.650	6497.957	166.208	MM	05-Mar-10	10:14:36	602.9736	100.5	0.5	387.9
)304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	19547.650		19547.650	19547.650	bb			475.3671	95.1	-4.9	1057.7
)304-07CCV	2-Nitrotoluene	137 > 46	21.25	3997.184	19547.650	3997.184	102.242	bb			660.0571	110.0	10.0	1109.3
)304-07CCV	4-Nitrotoluene	137 > 46	22.65	2099.885	19547.650	2099.885	53.712	bb			704.1980	117.4	17.4	556.9
)304-07CCV	3-Nitrotoluene	137 > 46	24.33	2265.668	19547.650	2265.668	57.952	bb			614.1987	102.4	2.4	587.3
)304-07CCV	PETN	361 > 62	24.69	47522.520	19547.650	47522.520	1215.556	bb			714.8825	119.1	19.1	12806.0

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 0205
Standard Number: WXX100304-07CCV
Data File: EXP0304023a

HMX	112.9
RDX	132.9
135-TNB	97.0
13-DNB	103.2
Tetryl	112.1
Nitrobenzene	108.9
4A-26-DNT	131.6
2A-46-DNT	141.6
246-TNT	122.5
34-DNT(surr)	121.5
26-DNT	100.6
24-DNT	100.5
2-NT	110.0
4-NT	117.4
3-NT	102.1
PETN	119.1
Total	1833.9
Average	114.6

MTP 3/6/10

HMC 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304025a

Analysis Date: 05–MAR–10 03:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	36.072	90	
Nitrobenzene	40	41.851	105	
PETN	40	44.092	110	
RDX	40	37.991	95	
Tetryl	40	37.595	94	
m–Dinitrobenzene	40	36.407	91	
m–Nitrotoluene	40	44.127	110	
o–Nitrotoluene	40	43.573	109	
p–Nitrotoluene	40	37.14	93	
1,3,5–Trinitrobenzene	40	45.531	114	
1,3–Dinitrobenzene–d4	500	486.162	97	
2,4,6–Trinitrotoluene	40	34.785	87	
2,4–Dinitrotoluene	40	43.839	110	
2,6–Dinitrotoluene	40	37.827	95	
2,6–Dinitrotoluene–d3	500	496.377	99	
2–Amino–4,6–dinitrotoluene	40	38.416	96	
3,4–Dinitrotoluene	20	18.756	94	
4–Amino–2,6–dinitrotoluene	40	39.423	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MATT 3/6/10

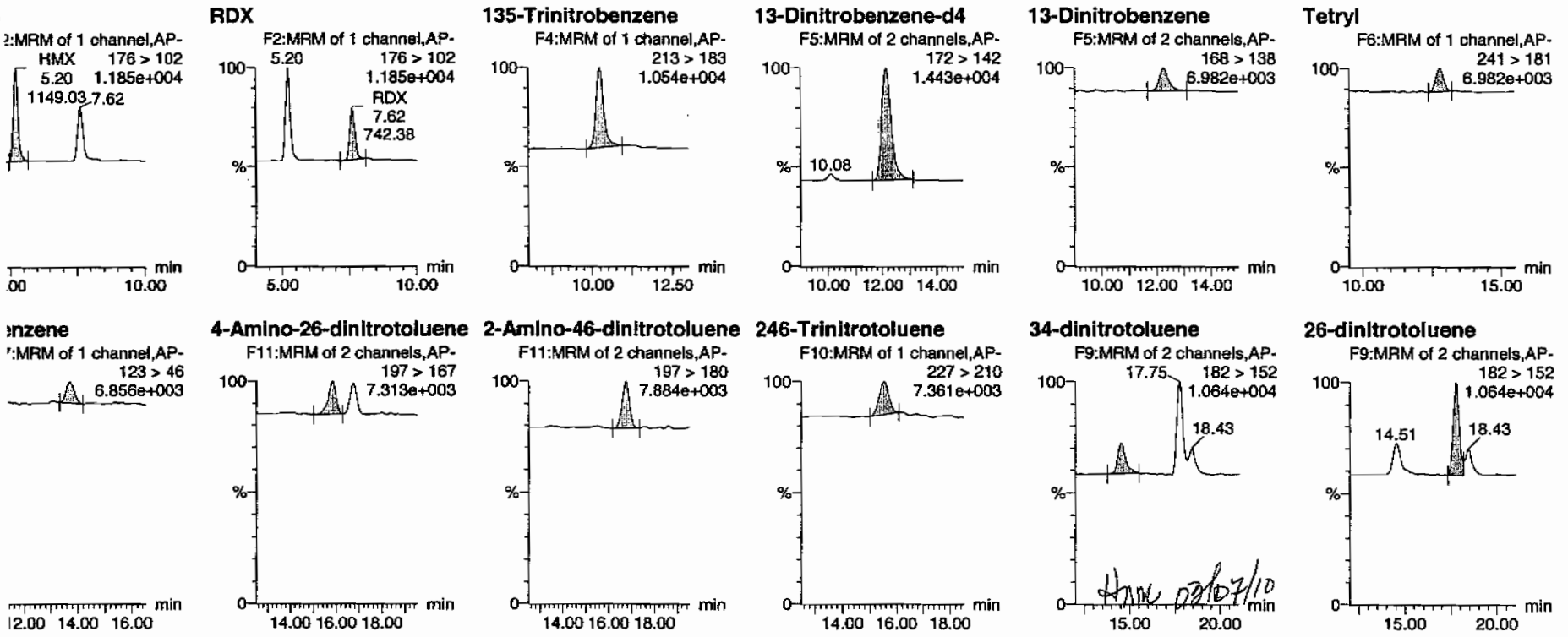

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ly Sample Report
boratories, LLC / Analyst : Michael A. Penny

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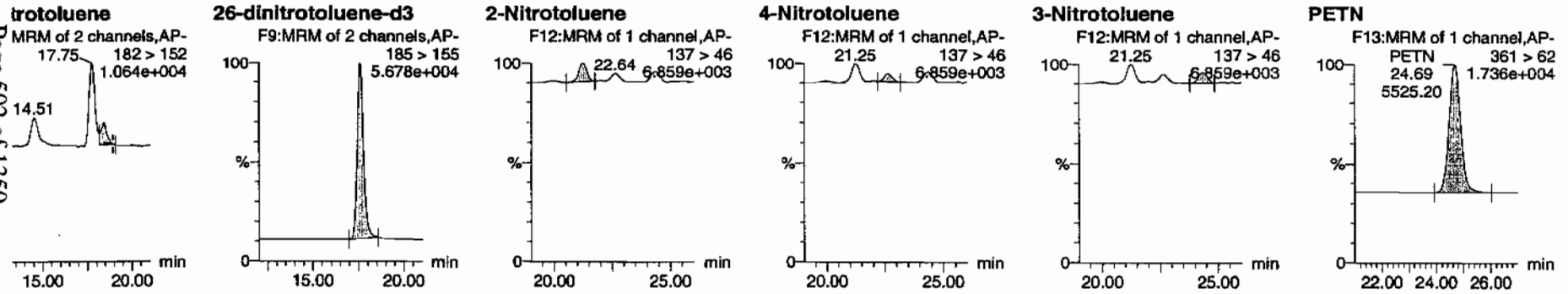

	Name	Trace	RT	Area	%S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
)304-08CRI	HMX	176 > 102	5.20	1149.025	3414.594	1149.025	168.252	bb			36.0722	90.2	-9.8	165.6
)304-08CRI	RDX	176 > 102	7.62	742.378	3414.594	742.378	108.707	bb			37.9907	95.0	-5.0	95.5
)304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1210.741	3414.594	1210.741	177.289	bb			45.5310	113.8	13.8	229.8
)304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3414.594		3414.594	3414.594	bb			486.1617	97.2	-2.8	85.2
)304-08CRI	13-Dinitrobenzene	168 > 138	12.27	314.881	3414.594	314.881	46.108	bb			36.4070	91.0	-9.0	27.6
)304-08CRI	Tetryl	241 > 181	12.77	261.250	3414.594	261.250	38.255	bb			37.5950	94.0	-6.0	25.8
)304-08CRI	Nitrobenzene	123 > 46	13.72	236.004	3414.594	236.004	34.558	bb			41.8514	104.6	4.6	38.7
)304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	443.909	20411.605	443.909	10.874	bb			39.4230	98.6	-1.4	32.3
)304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	635.304	20411.605	635.304	15.562	bb			38.4158	96.0	-4.0	53.4
)304-08CRI	246-Trinitrotoluene	227 > 210	15.55	466.627	20411.605	466.627	11.430	bb			34.7845	87.0	-13.0	48.2
)304-08CRI	34-dinitrotoluene	182 > 152	14.51	740.008	20411.605	740.008	18.127	bb			18.7561	93.8	-6.2	47.1
)304-08CRI	26-dinitrotoluene	182 > 152	17.75	1722.620	20411.605	1722.620	42.197	MM	05-Mar-10	10:11:23	37.8265	94.6	-5.4	142.3
)304-08CRI	24-dinitrotoluene	182 > 152	18.43	493.310	20411.605	493.310	12.084	MM	05-Mar-10	10:14:45	43.8388	109.6	9.6	38.2
)304-08CRI	26-dinitrotoluene-d3	185 > 155	17.57	20411.605		20411.605	20411.605	bb			496.3771	99.3	-0.7	287.3
)304-08CRI	2-Nitrotoluene	137 > 46	21.25	275.529	20411.605	275.529	6.749	bb			43.5725	108.9	8.9	54.8
)304-08CRI	4-Nitrotoluene	137 > 46	22.64	115.645	20411.605	115.645	2.833	bb			37.1401	92.9	-7.1	23.6
)304-08CRI	3-Nitrotoluene	137 > 46	24.36	169.971	20411.605	169.971	4.164	bb			44.1270	110.3	10.3	31.1
)304-08CRI	PETN	361 > 62	24.69	5525.200	20411.605	5525.200	135.345	bb			44.0922	110.2	10.2	367.0

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	0304
Standard Number	WXX100304-08CRI
Data File	EXP0304025a

HMX	90.2
RDX	95.0
135-TNB	113.8
13-DNB	91.0
Tetryl	94.0
Nitrobenzene	104.6
4A-26-DNT	98.6
2A-46-DNT	96.0
246-TNT	87.0
34-DNT(surr)	93.8
26-DNT	94.6
24-DNT	109.6
2-NT	108.9
4-NT	92.9
3-NT	110.3
PETN	110.2
Total	1590.5
Average	99.4

3/6/10

03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304036a

Analysis Date: 05-MAR-10 08:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	600	643.868	107	
HMX	600	523.143	87	
Nitrobenzene	600	628.495	105	
PETN	600	577.567	96	
RDX	600	607.989	101	
Tetryl	600	588.724	98	
m-Dinitrobenzene	600	634.351	106	
m-Nitrotoluene	600	540.173	90	
o-Nitrotoluene	600	622.879	104	
p-Nitrotoluene	600	600.392	100	
1,3,5-Trinitrobenzene	600	515.274	86	
1,3-Dinitrobenzene-d4	500	536.623	107	
2,4,6-Trinitrotoluene	600	672.018	112	
2,4-Dinitrotoluene	600	572.889	95	
2,6-Dinitrotoluene	600	612.517	102	
2,6-Dinitrotoluene-d3	500	508.792	102	
2-Amino-4,6-dinitrotoluene	600	681.036	114	
3,4-Dinitrotoluene	300	311.088	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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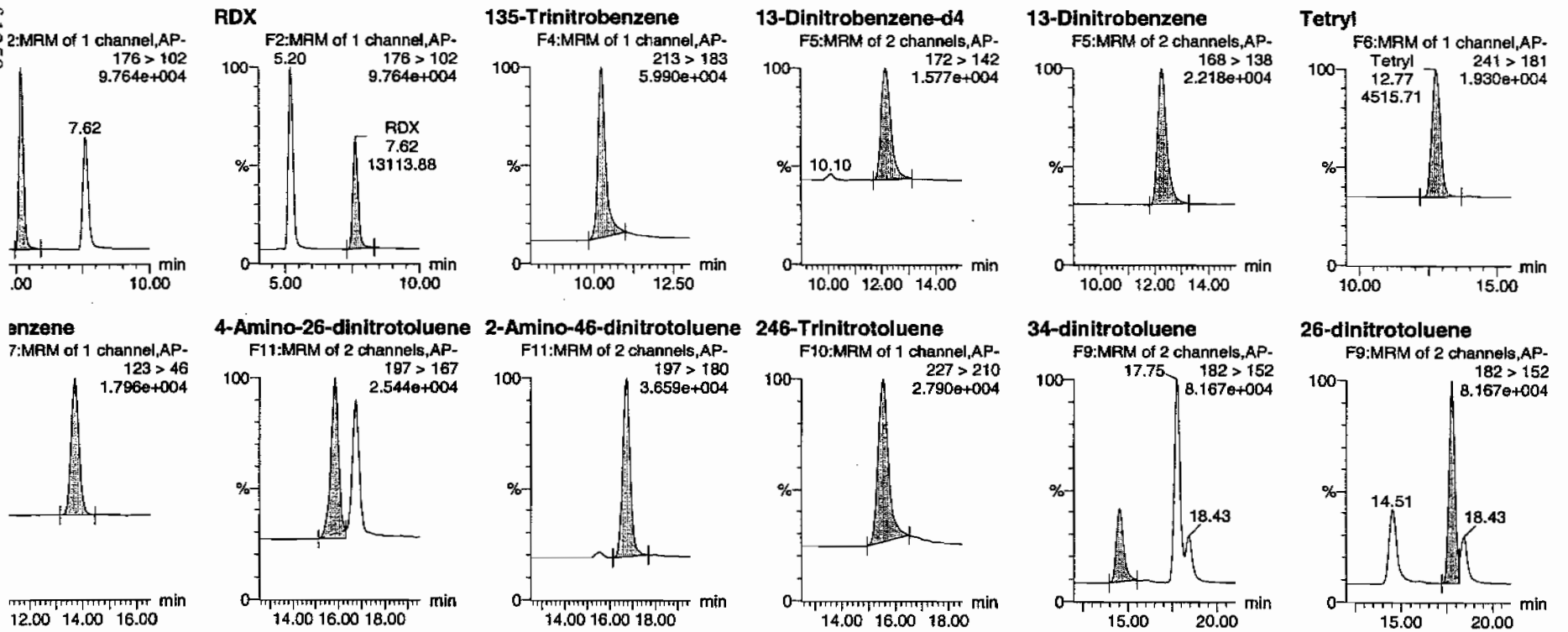

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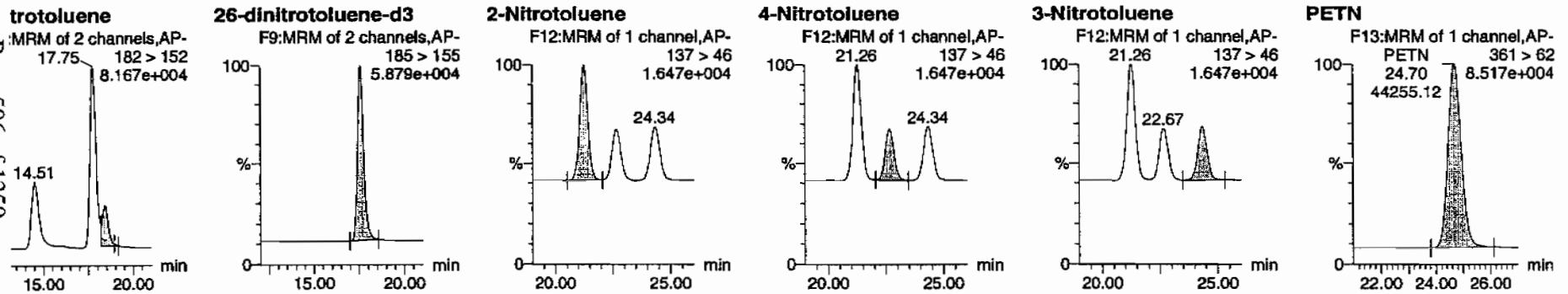

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
)304-07CCV	HMX	176 > 102	5.20	18393.506	3769.010	18393.506	2440.098	db			523.1425	87.2	-12.8	1478.9
)304-07CCV	RDX	176 > 102	7.62	13113.881	3769.010	13113.881	1739.698	bb			607.9888	101.3	1.3	912.6
)304-07CCV	135-Trinitrobenzene	213 > 183	10.23	15124.150	3769.010	15124.150	2006.382	bb			515.2742	85.9	-14.1	1681.4
)304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3769.010		3769.010	3769.010	bb			536.6226	107.3	7.3	211.6
)304-07CCV	13-Dinitrobenzene	168 > 138	12.27	6055.908	3769.010	6055.908	803.382	bb			634.3511	105.7	5.7	341.1
)304-07CCV	Tetryl	241 > 181	12.77	4515.707	3769.010	4515.707	599.057	bb			588.7240	98.1	-1.9	461.6
)304-07CCV	Nitrobenzene	123 > 46	13.72	3912.001	3769.010	3912.001	518.969	bb			628.4946	104.7	4.7	410.3
)304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7431.390	20922.104	7431.390	177.597	MM	05-Mar-10	10:07:06	643.8684	107.3	7.3	244.6
)304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11544.367	20922.104	11544.367	275.889	bb			681.0355	113.5	13.5	719.9
)304-07CCV	246-Trinitrotoluene	227 > 210	15.55	9240.455	20922.104	9240.455	220.830	bb			672.0182	112.0	12.0	377.4
)304-07CCV	34-dinitrotoluene	182 > 152	14.51	12580.740	20922.104	12580.740	300.657	bb			311.0885	103.7	3.7	401.3
)304-07CCV	26-dinitrotoluene	182 > 152	17.75	28591.688	20922.104	28591.688	683.289	MM	05-Mar-10	10:12:12	612.5172	102.1	2.1	1125.2
)304-07CCV	24-dinitrotoluene	182 > 152	18.43	6607.849	20922.104	6607.849	157.915	MM	05-Mar-10	10:15:32	572.8894	95.5	-4.5	244.0
)304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	20922.104		20922.104	20922.104	bb			508.7916	101.8	1.8	2012.4
)304-07CCV	2-Nitrotoluene	137 > 46	21.26	4037.262	20922.104	4037.262	96.483	bb			622.8787	103.8	3.8	781.2
)304-07CCV	4-Nitrotoluene	137 > 46	22.67	1916.226	20922.104	1916.226	45.794	bb			600.3925	100.1	0.1	346.0
)304-07CCV	3-Nitrotoluene	137 > 46	24.34	2132.706	20922.104	2132.706	50.968	bb			540.1729	90.0	-10.0	362.7
)304-07CCV	PETN	361 > 62	24.70	44255.117	20922.104	44255.117	1057.616	bb			577.5671	96.3	-3.7	1129.7

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 0828
Standard Number: WXX100304-07CCV
Data File: EXP0304036a

HMX		87.2
RDX		101.3
135-TNB		85.9
13-DNB		105.7
Tetryl		98.1
Nitrobenzene		104.7
4A-26-DNT		107.3
2A-46-DNT		113.5
246-TNT		112.0
34-DNT(surr)		103.7
26-DNT		102.1
24-DNT		95.5
2-NT		103.8
4-NT		100.1
3-NT		90.0
PETN		96.3
Total		1607.2
Average		100.5

HMT 3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1544

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0304038a **Analysis Date:** 05-MAR-10 09:27

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.063	120	
1,3-Dinitrobenzene-d4	500	567.712	114	
2,4,6-Trinitrotoluene	40	40.001	100	
2,4-Dinitrotoluene	40	36.759	92	
2,6-Dinitrotoluene	40	39.855	100	
2,6-Dinitrotoluene-d3	500	569.834	114	
2-Amino-4,6-dinitrotoluene	40	38.546	96	
3,4-Dinitrotoluene	20	17.879	89	
4-Amino-2,6-dinitrotoluene	40	46.263	116	
HMX	40	38.837	97	
Nitrobenzene	40	43.406	109	
PETN	40	38.4	96	
RDX	40	41.881	105	
Tetryl	40	47.052	118	
m-Dinitrobenzene	40	39.692	99	
m-Nitrotoluene	40	40.239	101	
o-Nitrotoluene	40	38.86	97	
p-Nitrotoluene	40	39.046	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMP 3/6/10

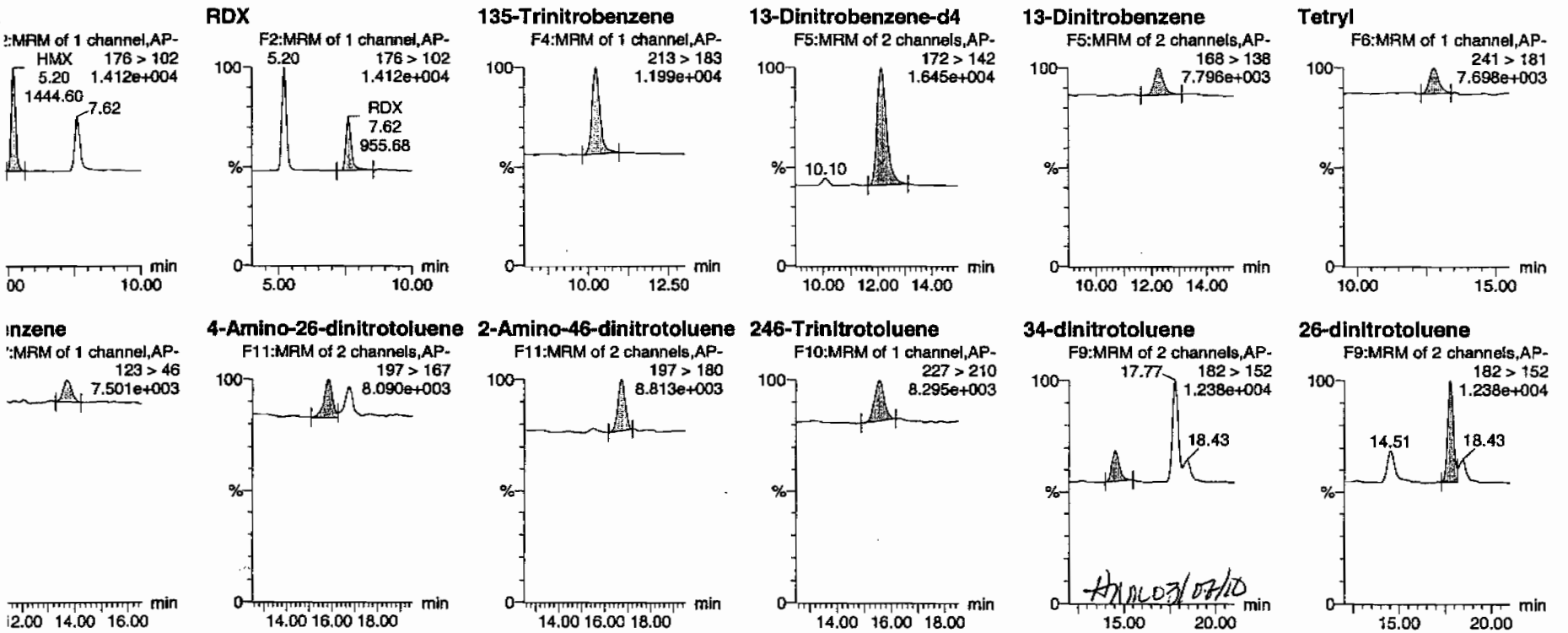

HMC 03/08/10

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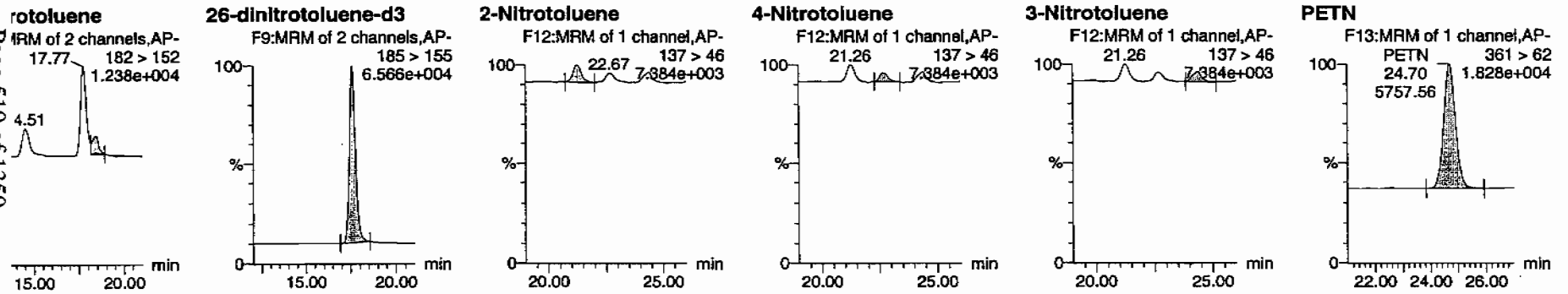

	Name	Trace	RT	Area	S Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	norm	%Rec	%Dev	S/N
304-08CRI	HMX	176 > 102	5.20	1444.595	3987.369	1444.595	181.146	bb			38.8367	97.1	-2.9	378.8
304-08CRI	RDX	176 > 102	7.62	955.681	3987.369	955.681	119.839	bb			41.8811	104.7	4.7	198.0
304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1492.464	3987.369	1492.464	187.149	bb			48.0631	120.2	20.2	84.1
304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3987.369		3987.369	3987.369	bb			567.7120	113.5	13.5	417.0
304-08CRI	13-Dinitrobenzene	168 > 138	12.27	400.882	3987.369	400.882	50.269	bb			39.6924	99.2	-0.8	24.5
304-08CRI	Tetryl	241 > 181	12.77	381.817	3987.369	381.817	47.878	bb			47.0524	117.6	17.6	25.7
304-08CRI	Nitrobenzene	123 > 46	13.72	285.830	3987.369	285.830	35.842	bb			43.4061	108.5	8.5	24.9
304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	598.013	23432.250	598.013	12.760	MM	05-Mar-10	10:07:28	46.2625	115.7	15.7	34.2
304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	731.783	23432.250	731.783	15.615	bb			38.5455	96.4	-3.6	66.3
304-08CRI	246-Trinitrotoluene	227 > 210	15.55	616.013	23432.250	616.013	13.145	bb			40.0008	100.0	0.0	42.1
304-08CRI	34-dinitrotoluene	182 > 152	14.51	809.807	23432.250	809.807	17.280	bb			17.8793	89.4	-10.6	40.6
304-08CRI	26-dinitrotoluene	182 > 152	17.77	2083.575	23432.250	2083.575	44.460	MM	05-Mar-10	10:12:20	39.8547	99.6	-0.4	131.5
304-08CRI	24-dinitrotoluene	182 > 152	18.43	474.849	23432.250	474.849	10.132	MM	05-Mar-10	10:15:38	36.7585	91.9	-8.1	26.6
304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23432.250		23432.250	23432.250	bb			569.8343	114.0	14.0	2088.9
304-08CRI	2-Nitrotoluene	137 > 46	21.26	282.094	23432.250	282.094	6.019	bb			38.8599	97.1	-2.9	32.5
304-08CRI	4-Nitrotoluene	137 > 46	22.67	139.572	23432.250	139.572	2.978	bb			39.0461	97.6	-2.4	16.0
304-08CRI	3-Nitrotoluene	137 > 46	24.38	177.933	23432.250	177.933	3.797	bb			40.2392	100.6	0.6	18.9
304-08CRI	PETN	361 > 62	24.70	5757.563	23432.250	5757.563	122.856	bb			38.3995	96.0	-4.0	941.2

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ɔP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	0927
Standard Number	WXX100304-08CRI
Data File	EXP0304038a

HMX	97.1
RDX	104.7
135-TNB	120.2
13-DNB	99.2
Tetryl	117.6
Nitrobenzene	108.5
4A-26-DNT	115.7
2A-46-DNT	96.4
246-TNT	100.0
34-DNT(surr)	89.4
26-DNT	99.6
24-DNT	91.9
2-NT	97.1
4-NT	97.6
3-NT	100.6
PETN	96.0
Total	1631.6
Average	102.0

MAP 3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304049a

Analysis Date: 05–MAR–10 14:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	553.66	92	
1,3–Dinitrobenzene–d4	500	505.7	101	
2,4,6–Trinitrotoluene	600	658.826	110	
2,4–Dinitrotoluene	600	563.598	94	
2,6–Dinitrotoluene	600	590.275	98	
2,6–Dinitrotoluene–d3	500	516.322	103	
2–Amino–4,6–dinitrotoluene	600	640.403	107	
3,4–Dinitrotoluene	300	295.719	99	
4–Amino–2,6–dinitrotoluene	600	631.798	105	
HMX	600	537.583	90	
Nitrobenzene	600	626.896	104	
PETN	600	590.161	98	
RDX	600	630.1	105	
Tetryl	600	629.847	105	
m–Dinitrobenzene	600	598.536	100	
m–Nitrotoluene	600	561.186	94	
o–Nitrotoluene	600	596.576	99	
p–Nitrotoluene	600	615.575	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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5-Mar-2010
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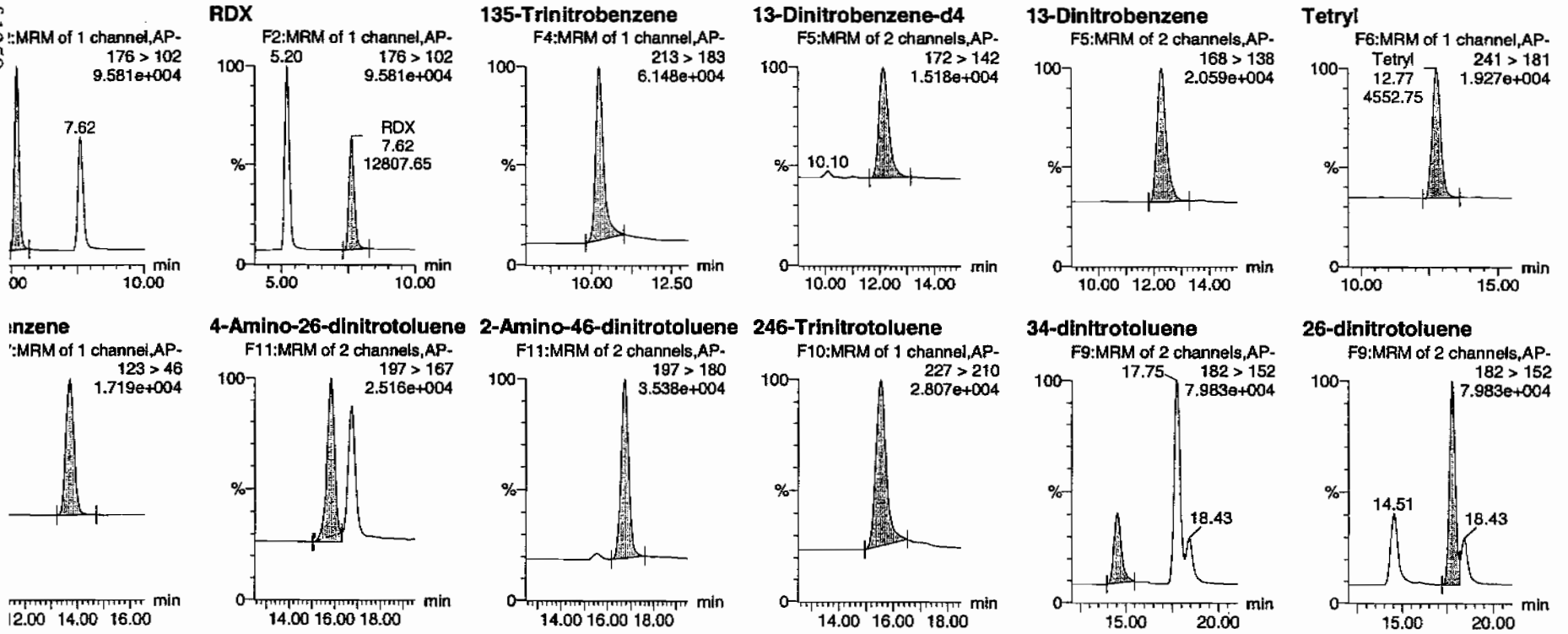

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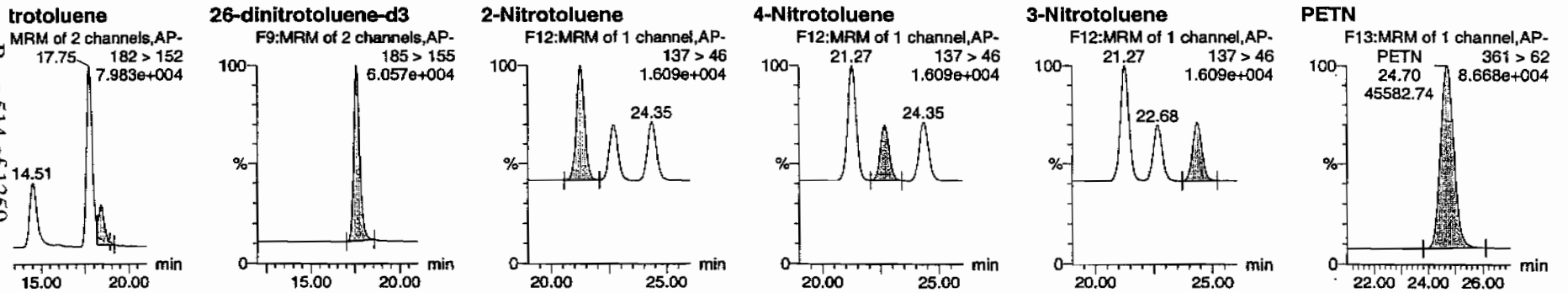

Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
304-07CCV HMX	176 > 102	5.20	17812.063	3551.826	17812.063	2507.452	bb			537.5828	89.6	-10.4	1664.9
304-07CCV RDX	176 > 102	7.62	12807.652	3551.826	12807.652	1802.967	bb			630.0999	105.0	5.0	1029.0
304-07CCV 135-Trinitrobenzene	213 > 183	10.23	15314.414	3551.826	15314.414	2155.851	bb			553.6603	92.3	-7.7	787.1
304-07CCV 13-Dinitrobenzene-d4	172 > 142	12.14	3551.826		3551.826	3551.826	bb			505.7004	101.1	1.1	212.6
304-07CCV 13-Dinitrobenzene	168 > 138	12.27	5384.733	3551.826	5384.733	758.023	bb			598.5359	99.8	-0.2	403.2
304-07CCV Tetryl	241 > 181	12.77	4552.748	3551.826	4552.748	640.902	bb			629.8472	105.0	5.0	552.4
304-07CCV Nitrobenzene	123 > 46	13.72	3677.203	3551.826	3677.203	517.650	bb			626.8964	104.5	4.5	408.6
304-07CCV 4-Amino-26-dinitrotoluene	197 > 167	15.83	7399.999	21231.762	7399.999	174.267	MM	06-Mar-10	12:11:04	631.7977	105.3	5.3	496.7
304-07CCV 2-Amino-46-dinitrotoluene	197 > 180	16.73	11016.273	21231.762	11016.273	259.429	bb			640.4034	106.7	6.7	751.3
304-07CCV 246-Trinitrotoluene	227 > 210	15.55	9193.135	21231.762	9193.135	216.495	bb			658.8258	109.8	9.8	813.4
304-07CCV 34-dinitrotoluene	182 > 152	14.51	12136.202	21231.762	12136.202	285.803	bb			295.7194	98.6	-1.4	558.4
304-07CCV 26-dinitrotoluene	182 > 152	17.75	27961.234	21231.762	27961.234	658.477	MM	06-Mar-10	12:14:47	590.2747	98.4	-1.6	1598.9
304-07CCV 24-dinitrotoluene	182 > 152	18.43	6596.898	21231.762	6596.898	155.354	MM	06-Mar-10	12:15:00	563.5984	93.9	-6.1	349.0
304-07CCV 26-dinitrotoluene-d3	185 > 155	17.57	21231.762		21231.762	21231.762	bb			516.3220	103.3	3.3	1428.5
304-07CCV 2-Nitrotoluene	137 > 46	21.27	3924.011	21231.762	3924.011	92.409	bb			596.5764	99.4	-0.6	813.6
304-07CCV 4-Nitrotoluene	137 > 46	22.68	1993.761	21231.762	1993.761	46.952	bb			615.5749	102.6	2.6	395.6
304-07CCV 3-Nitrotoluene	137 > 46	24.35	2248.463	21231.762	2248.463	52.950	bb			561.1861	93.5	-6.5	417.7
304-07CCV PETN	361 > 62	24.70	45582.738	21231.762	45582.738	1073.456	bb			590.1608	98.4	-1.6	3875.9

P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 1452
Standard Number: WXX100304-07CCV
Data File: EXP0304049a

HMX	89.6
RDX	105.0
135-TNB	92.3
13-DNB	99.8
Tetryl	105.0
Nitrobenzene	104.5
4A-26-DNT	105.3
2A-46-DNT	106.7
246-TNT	109.8
34-DNT(surr)	98.6
26-DNT	98.4
24-DNT	93.9
2-NT	99.4
4-NT	102.6
3-NT	93.5
PETN	98.4
Total	1602.8
Average	100.2

MJP 3/6/10

HMC 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1544

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0304051a **Analysis Date:** 05-MAR-10 15:51

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	40	43.019	108	
2,4-Dinitrotoluene	40	36.168	90	
2,6-Dinitrotoluene	40	40.992	102	
2,6-Dinitrotoluene-d3	500	562.467	112	
2-Amino-4,6-dinitrotoluene	40	41.661	104	
3,4-Dinitrotoluene	20	18.026	90	
4-Amino-2,6-dinitrotoluene	40	34.434	86	
HMX	40	42.762	107	
Nitrobenzene	40	43.048	108	
PETN	40	41.201	103	
RDX	40	42.966	107	
Tetryl	40	50.733	127	
m-Dinitrobenzene	40	39.555	99	
m-Nitrotoluene	40	42.174	105	
o-Nitrotoluene	40	36.513	91	
p-Nitrotoluene	40	41.047	103	
1,3,5-Trinitrobenzene	40	51.153	128	
1,3-Dinitrobenzene-d4	500	505.962	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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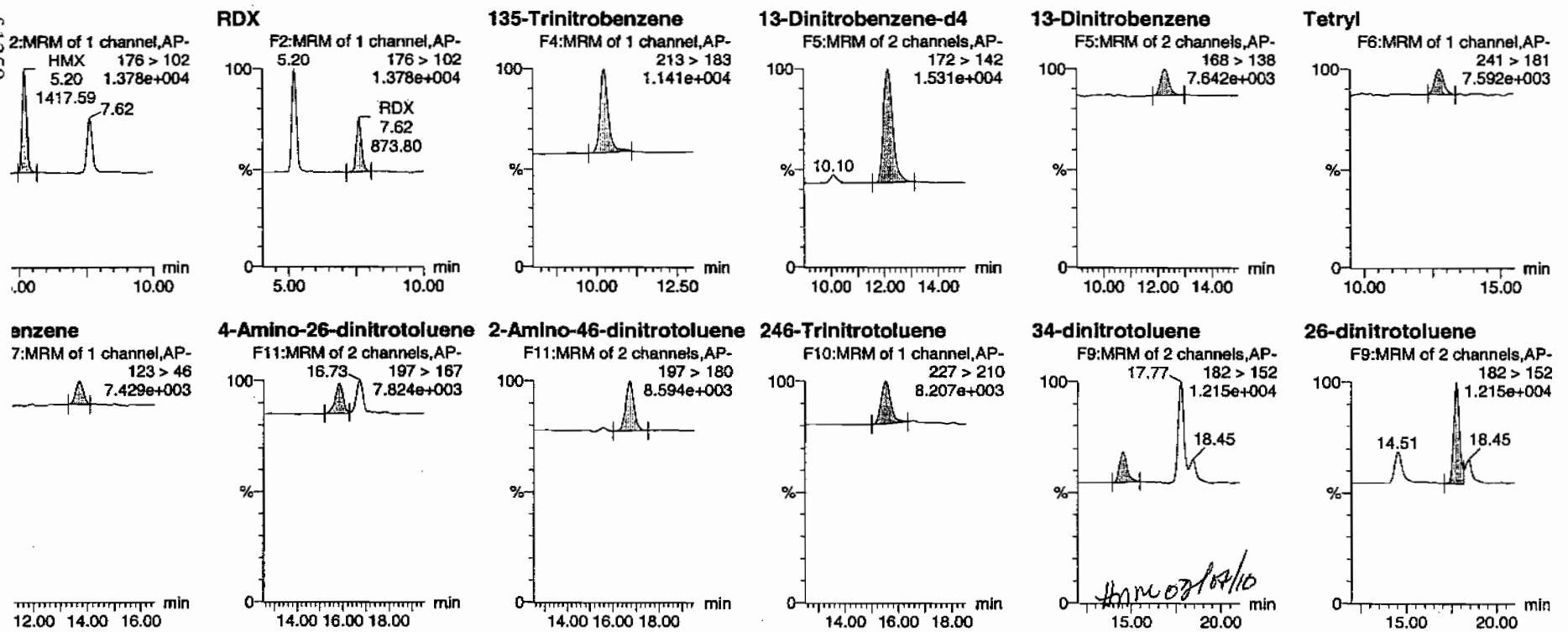

OP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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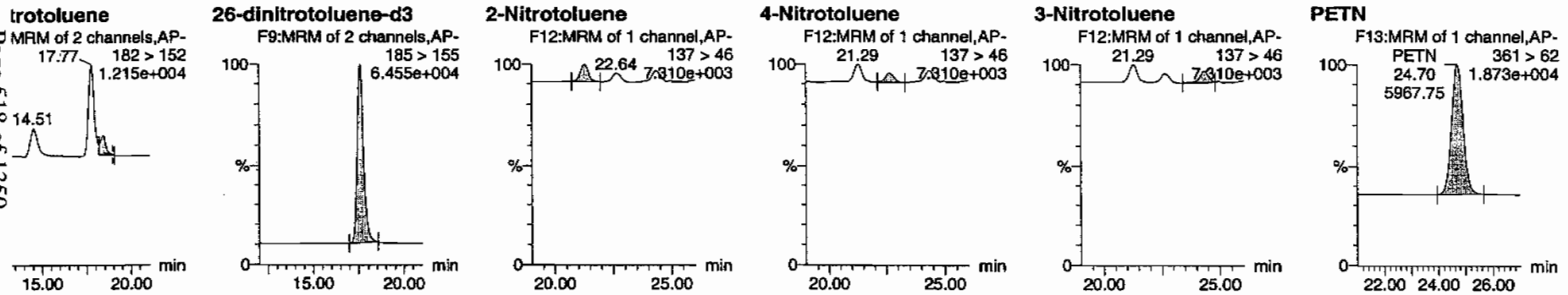

	Name	Trace Data	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
)304-08CRI	HMX	176 > 102	5.20	1417.593	3553.665	1417.593	199.455	bb			42.7620	106.9	6.9	172.8
)304-08CRI	RDX	176 > 102	7.62	873.798	3553.665	873.798	122.943	bb			42.9661	107.4	7.4	91.2
)304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1415.644	3553.665	1415.644	199.181	bb			51.1531	127.9	27.9	144.6
)304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3553.665		3553.665	3553.665	bb			505.9623	101.2	1.2	134.1
)304-08CRI	13-Dinitrobenzene	168 > 138	12.27	356.044	3553.665	356.044	50.095	bb			39.5553	98.9	-1.1	61.5
)304-08CRI	Tetryl	241 > 181	12.77	366.905	3553.665	366.905	51.623	bb			50.7330	126.8	26.8	38.1
)304-08CRI	Nitrobenzene	123 > 46	13.72	252.641	3553.665	252.641	35.547	bb			43.0484	107.6	7.6	26.8
)304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	439.361	23129.281	439.361	9.498	MM	06-Mar-10	12:10:49	34.4343	86.1	-13.9	41.3
)304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	780.703	23129.281	780.703	16.877	bb			41.6609	104.2	4.2	107.0
)304-08CRI	246-Trinitrotoluene	227 > 210	15.52	653.919	23129.281	653.919	14.136	bb			43.0185	107.5	7.5	46.5
)304-08CRI	34-dinitrotoluene	182 > 152	14.51	805.904	23129.281	805.904	17.422	bb			18.0262	90.1	-9.9	92.2
)304-08CRI	26-dinitrotoluene	182 > 152	17.77	2115.341	23129.281	2115.341	45.729	MM	06-Mar-10	12:14:36	40.9923	102.5	2.5	301.7
)304-08CRI	24-dinitrotoluene	182 > 152	18.45	461.181	23129.281	461.181	9.970	MM	06-Mar-10	12:15:17	36.1681	90.4	-9.6	64.8
)304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23129.281		23129.281	23129.281	bb			562.4666	112.5	12.5	1880.7
)304-08CRI	2-Nitrotoluene	137 > 46	21.29	261.630	23129.281	261.630	5.656	bb			36.5130	91.3	-8.7	58.0
)304-08CRI	4-Nitrotoluene	137 > 46	22.64	144.827	23129.281	144.827	3.131	bb			41.0470	102.6	2.6	29.7
)304-08CRI	3-Nitrotoluene	137 > 46	24.34	184.075	23129.281	184.075	3.979	bb			42.1735	105.4	5.4	36.7
)304-08CRI	PETN	361 > 62	24.70	5967.752	23129.281	5967.752	129.009	bb			41.2009	103.0	3.0	1834.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	1551
Standard Number	WXX100304-08CRI
Data File	EXP0304051a

HMX		106.9
RDX		107.4
135-TNB		127.9
13-DNB		98.9
Tetryl		126.8
Nitrobenzene		107.6
4A-26-DNT		86.1
2A-46-DNT		104.2
246-TNT		107.5
34-DNT(surr)		90.1
26-DNT		102.5
24-DNT		90.4
2-NT		91.3
4-NT		102.6
3-NT		105.4
PETN		103.0
Total		1658.6
Average		103.7

MJT 3/6/10

HMM 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304064a

Analysis Date: 05–MAR–10 22:14

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2–Amino–4,6–dinitrotoluene	600	681.738	114	
3,4–Dinitrotoluene	300	308.574	103	
4–Amino–2,6–dinitrotoluene	600	672.822	112	
HMX	600	559.79	93	
Nitrobenzene	600	614.548	102	
PETN	600	770.241	128	*
RDX	600	631.612	105	
Tetryl	600	585.793	98	
m–Dinitrobenzene	600	571.183	95	
m–Nitrotoluene	600	594.436	99	
o–Nitrotoluene	600	627.073	105	
p–Nitrotoluene	600	632.094	105	
1,3,5–Trinitrobenzene	600	563.548	94	
1,3–Dinitrobenzene–d4	500	511.802	102	
2,4,6–Trinitrotoluene	600	684.022	114	
2,4–Dinitrotoluene	600	572.807	95	
2,6–Dinitrotoluene	600	602.144	100	
2,6–Dinitrotoluene–d3	500	514.259	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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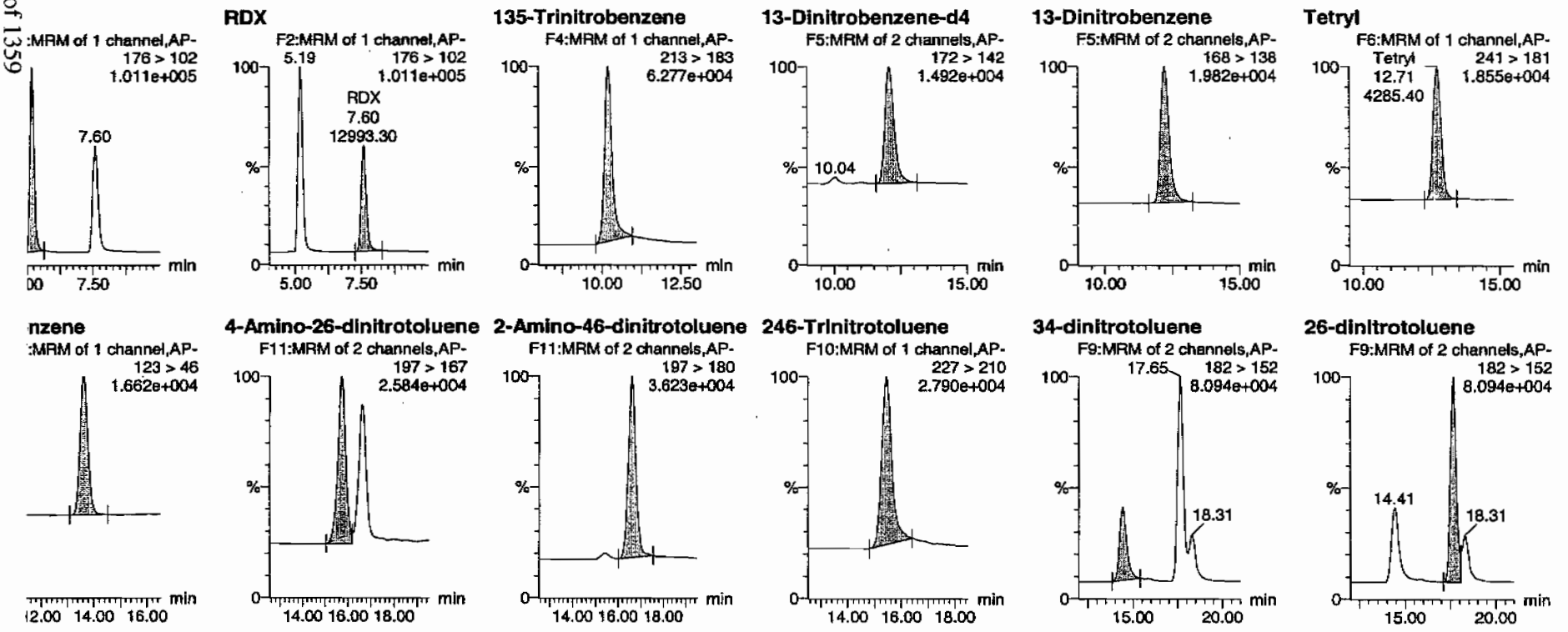

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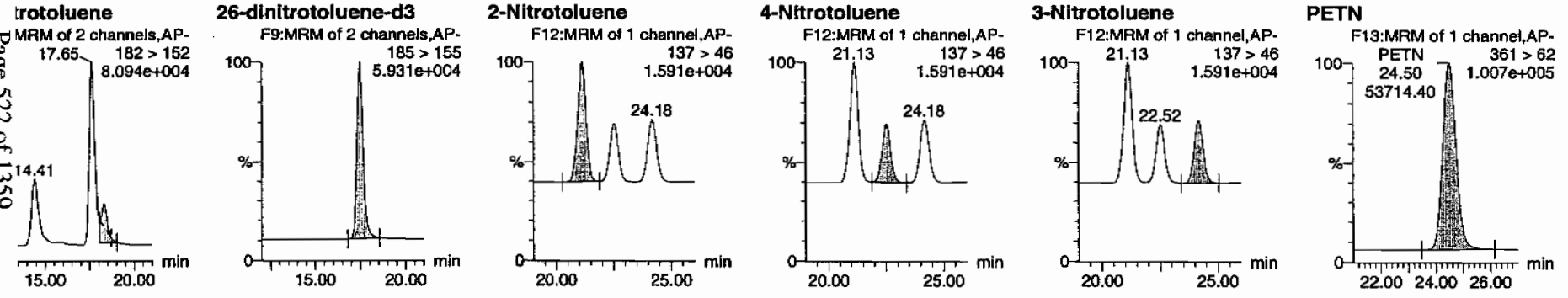

[illegible]	Name	Trace	RT	[illegible] Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ug/mL	%Rec	%Dev	S/N
304-07CCV	HMX	176 > 102	5.19	18771.666	3594.682	18771.666	2611.033	bb			559.7900	93.3	-6.7	1043.3
304-07CCV	RDX	176 > 102	7.60	12993.296	3594.682	12993.296	1807.294	bb			631.6121	105.3	5.3	610.6
304-07CCV	135-Trinitrobenzene	213 > 183	10.19	15775.996	3594.682	15775.996	2194.352	bb			563.5481	93.9	-6.1	3611.2
304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3594.682		3594.682	3594.682	bb			511.8022	102.4	2.4	147.2
304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5200.653	3594.682	5200.653	723.382	bb			571.1828	95.2	-4.8	212.5
304-07CCV	Tetryl	241 > 181	12.71	4285.402	3594.682	4285.402	596.075	bb			585.7932	97.6	-2.4	284.4
304-07CCV	Nitrobenzene	123 > 46	13.61	3648.266	3594.682	3648.266	507.453	bb			614.5481	102.4	2.4	254.9
304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7849.007	21146.920	7849.007	185.583	MM	06-Mar-10	12:09:33	672.8217	112.1	12.1	316.7
304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11680.449	21146.920	11680.449	276.174	bb			681.7379	113.6	13.6	1008.4
304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9506.581	21146.920	9506.581	224.775	bb			684.0223	114.0	14.0	131.1
304-07CCV	34-dinitrotoluene	182 > 152	14.41	12613.161	21146.920	12613.161	298.227	bb			308.5744	102.9	2.9	354.8
304-07CCV	26-dinitrotoluene	182 > 152	17.65	28409.504	21146.920	28409.504	671.717	MM	06-Mar-10	12:13:32	602.1441	100.4	0.4	993.5
304-07CCV	24-dinitrotoluene	182 > 152	18.31	6677.896	21146.920	6677.896	157.893	MM	06-Mar-10	12:17:10	572.8073	95.5	-4.5	212.4
304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	21146.920		21146.920	21146.920	bb			514.2588	102.9	2.9	1777.2
304-07CCV	2-Nitrotoluene	137 > 46	21.13	4108.123	21146.920	4108.123	97.133	bb			627.0731	104.5	4.5	746.4
304-07CCV	4-Nitrotoluene	137 > 46	22.52	2039.084	21146.920	2039.084	48.212	bb			632.0943	105.3	5.3	366.9
304-07CCV	3-Nitrotoluene	137 > 46	24.18	2372.165	21146.920	2372.165	56.088	bb			594.4358	99.1	-0.9	394.8
304-07CCV	PETN	361 > 62	24.50	53714.398	21146.920	53714.398	1270.029	bb			770.2412	128.4	28.4	6214.2

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 2214
Standard Number: WXX100304-07CCV
Data File: EXP0304064a

HMX	93.3
RDX	105.3
135-TNB	93.9
13-DNB	95.2
Tetryl	97.6
Nitrobenzene	102.4
4A-26-DNT	112.1
2A-46-DNT	113.6
246-TNT	114.0
34-DNT(surr)	102.9
26-DNT	100.4
24-DNT	95.5
2-NT	104.5
4-NT	105.3
3-NT	99.1
PETN	128.4
Total	1663.5
Average	104.0

MDT 3/6/10

Hm 03/04/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1544

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0304066a **Analysis Date:** 05–MAR–10 23:13

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	39.862	100	
Tetryl	40	44.962	112	
m–Dinitrobenzene	40	38.965	97	
m–Nitrotoluene	40	40.333	101	
o–Nitrotoluene	40	39.738	99	
p–Nitrotoluene	40	41.622	104	
1,3,5–Trinitrobenzene	40	45.259	113	
1,3–Dinitrobenzene–d4	500	507.864	102	
2,4,6–Trinitrotoluene	40	36.863	92	
2,4–Dinitrotoluene	40	36.208	91	
2,6–Dinitrotoluene	40	38.64	97	
2,6–Dinitrotoluene–d3	500	550.381	110	
2–Amino–4,6–dinitrotoluene	40	44.961	112	
3,4–Dinitrotoluene	20	22.033	110	
4–Amino–2,6–dinitrotoluene	40	40.967	102	
HMX	40	40.601	102	
Nitrobenzene	40	46.373	116	
PETN	40	50.567	126	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMT 3/6/10

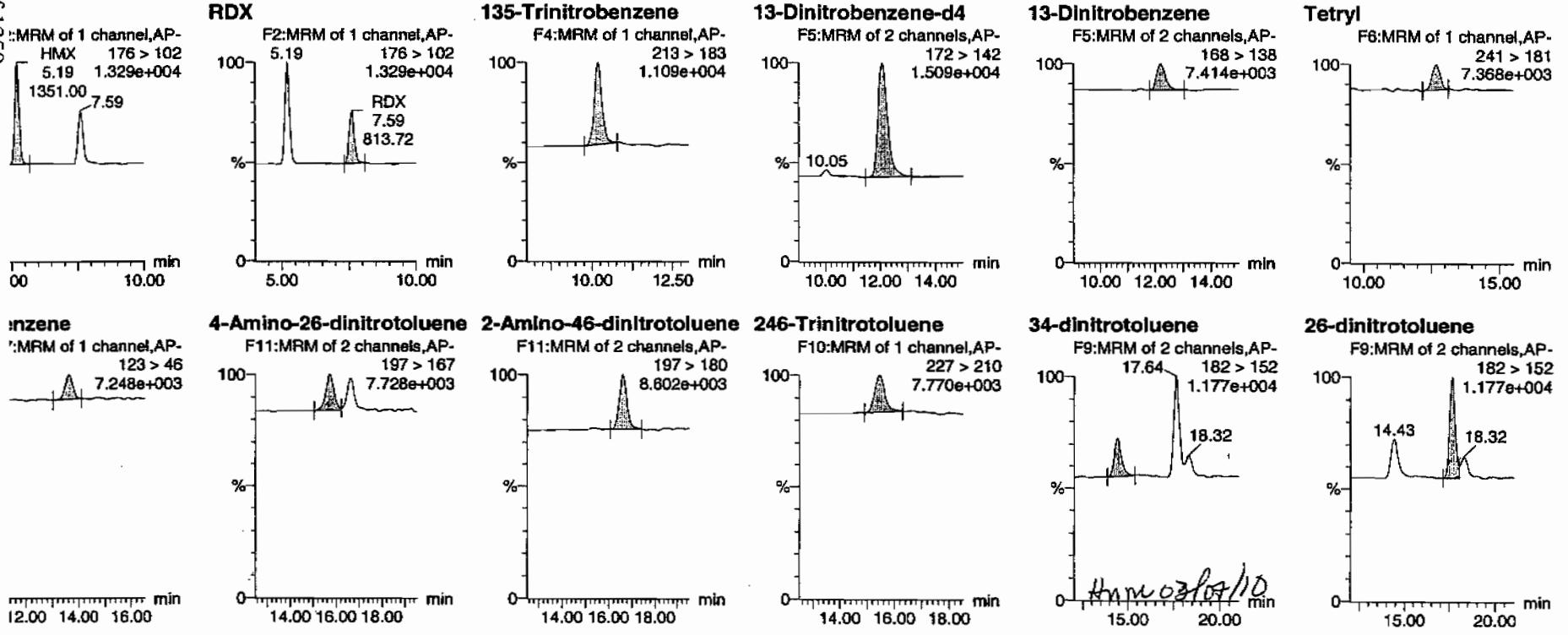

Hmm 03/07/10

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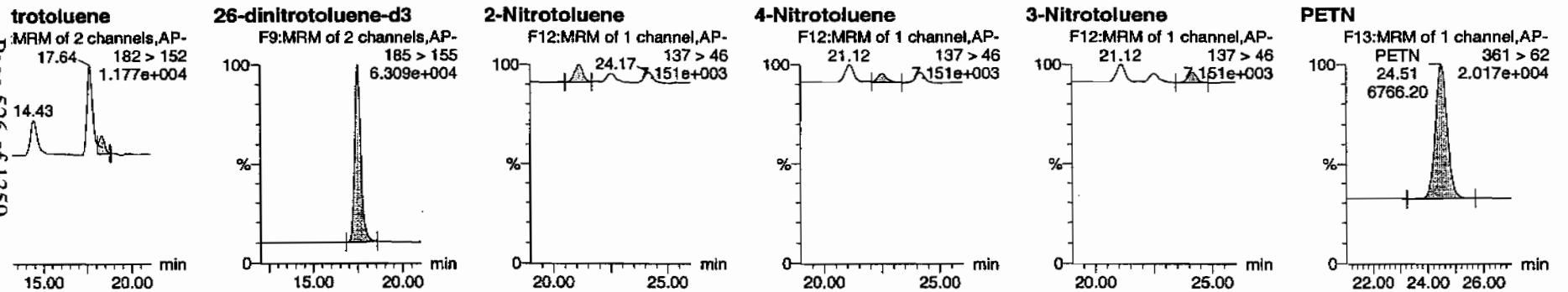

	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
)304-08CRI	HMX	176 > 102	5.19	1351.002	3567.025	1351.002	189.374	bb			40.6006	101.5	1.5	260.1
)304-08CRI	RDX	176 > 102	7.59	813.718	3567.025	813.718	114.061	bb			39.8620	99.7	-0.3	135.2
)304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1257.242	3567.025	1257.242	176.231	bb			45.2593	113.1	13.1	251.2
)304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3567.025		3567.025	3567.025	bb			507.8644	101.6	1.6	201.8
)304-08CRI	13-Dinitrobenzene	168 > 138	12.20	352.048	3567.025	352.048	49.348	bb			38.9649	97.4	-2.6	48.8
)304-08CRI	Tetryl	241 > 181	12.68	326.391	3567.025	326.391	45.751	bb			44.9620	112.4	12.4	22.2
)304-08CRI	Nitrobenzene	123 > 46	13.63	273.177	3567.025	273.177	38.292	bb			46.3733	115.9	15.9	20.5
)304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	511.486	22632.297	511.486	11.300	MM	06-Mar-10	12:09:24	40.9673	102.4	2.4	47.7
)304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	824.442	22632.297	824.442	18.214	bb			44.9611	112.4	12.4	109.3
)304-08CRI	246-Trinitrotoluene	227 > 210	15.45	548.303	22632.297	548.303	12.113	bb			36.8625	92.2	-7.8	78.8
)304-08CRI	34-dinitrotoluene	182 > 152	14.43	963.852	22632.297	963.852	21.294	bb			22.0326	110.2	10.2	29.0
)304-08CRI	26-dinitrotoluene	182 > 152	17.64	1951.119	22632.297	1951.119	43.105	MM	06-Mar-10	12:13:21	38.6402	96.6	-3.4	74.9
)304-08CRI	24-dinitrotoluene	182 > 152	18.32	451.769	22632.297	451.769	9.981	MM	06-Mar-10	12:17:18	36.2079	90.5	-9.5	15.3
)304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	22632.297		22632.297	22632.297	bb			550.3807	110.1	10.1	2079.0
)304-08CRI	2-Nitrotoluene	137 > 46	21.12	278.623	22632.297	278.623	6.155	bb			39.7384	99.3	-0.7	65.0
)304-08CRI	4-Nitrotoluene	137 > 46	22.53	143.700	22632.297	143.700	3.175	bb			41.6219	104.1	4.1	31.0
)304-08CRI	3-Nitrotoluene	137 > 46	24.17	172.257	22632.297	172.257	3.806	bb			40.3325	100.8	0.8	37.8
)304-08CRI	PETN	361 > 62	24.51	6766.197	22632.297	6766.197	149.481	bb			50.5667	126.4	26.4	2009.1

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	2313
Standard Number	WXX100304-08CRI
Data File	EXP0304066a

HMX	101.5
RDX	99.7
135-TNB	113.1
13-DNB	97.4
Tetryl	112.4
Nitrobenzene	115.9
4A-26-DNT	102.4
2A-46-DNT	112.4
246-TNT	92.2
34-DNT(surr)	110.2
26-DNT	96.6
24-DNT	90.5
2-NT	99.3
4-NT	104.1
3-NT	100.8
PETN	126.4
Total	1674.9
Average	104.7

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304076a

Analysis Date: 06–MAR–10 04:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o–Nitrotoluene	600	606.407	101	
p–Nitrotoluene	600	588.238	98	
1,3,5–Trinitrobenzene	600	589.2	98	
1,3–Dinitrobenzene–d4	500	483.866	97	
2,4,6–Trinitrotoluene	600	655.326	109	
2,4–Dinitrotoluene	600	604.001	101	
2,6–Dinitrotoluene	600	599.969	100	
2,6–Dinitrotoluene–d3	500	511.697	102	
2–Amino–4,6–dinitrotoluene	600	680.408	113	
3,4–Dinitrotoluene	300	309.322	103	
4–Amino–2,6–dinitrotoluene	600	655.281	109	
HMX	600	622.243	104	
Nitrobenzene	600	610.192	102	
PETN	600	828.113	138	*
RDX	600	676.064	113	
Tetryl	600	623.054	104	
m–Dinitrobenzene	600	593.851	99	
m–Nitrotoluene	600	569.058	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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X100304-07CCV
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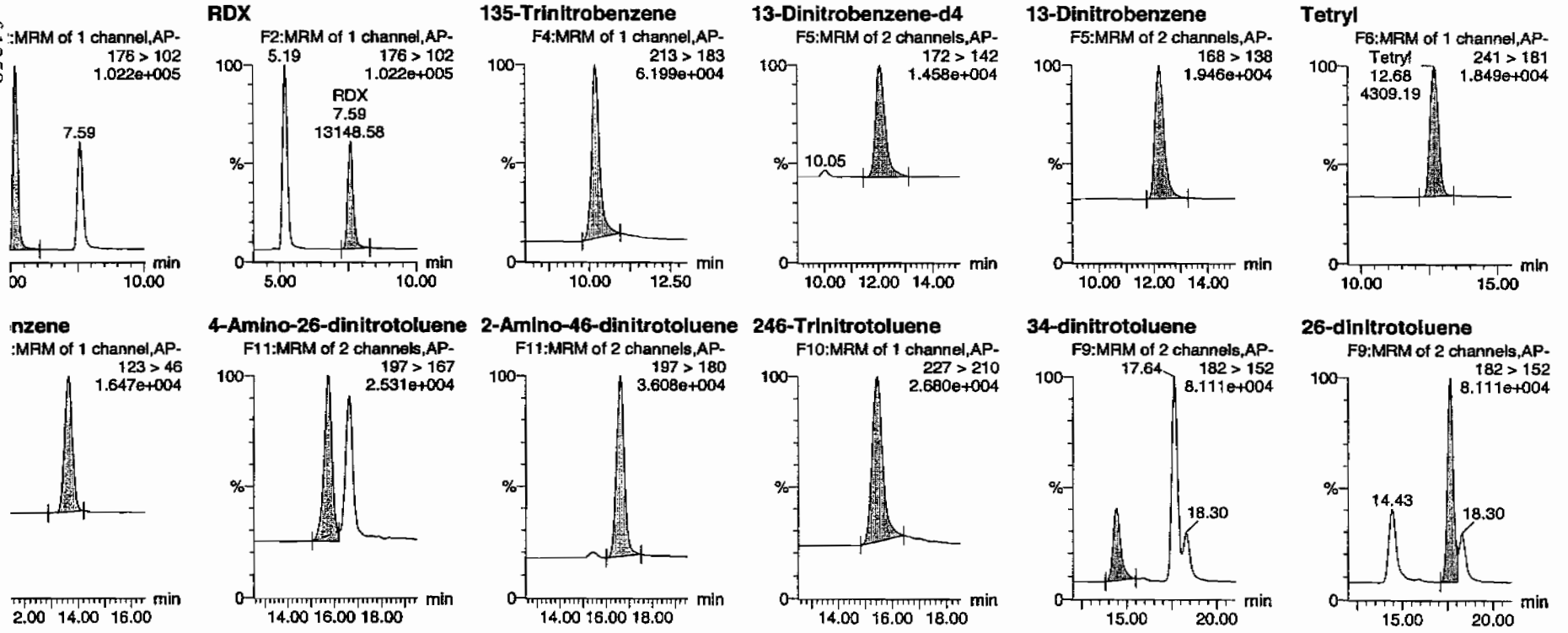

HMM 03/07/10

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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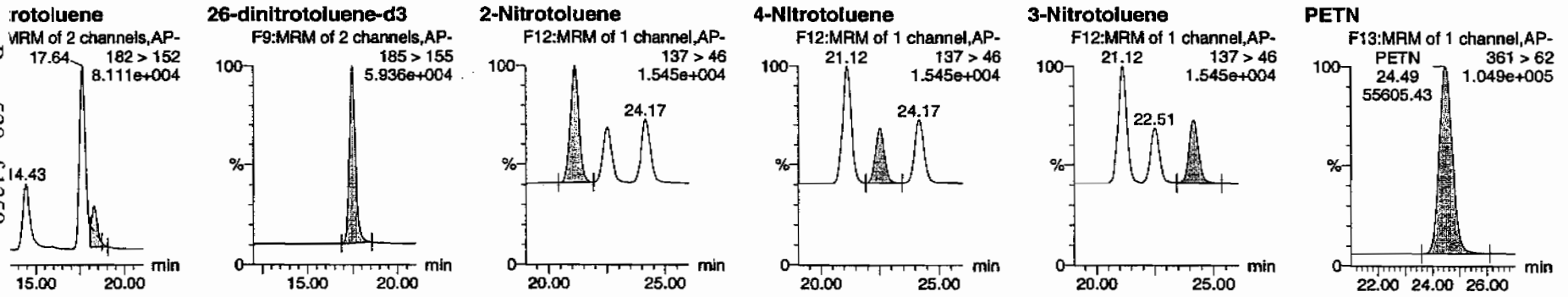

Sample Name	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Unit/mL	%Rec	%Dev	S/N
304-07CCV	HMX	176 > 102	5.19	19726.965	3398.467	19726.965	2902.333	db			622.2430	103.7	3.7	4565.0
304-07CCV	RDX	176 > 102	7.59	13148.583	3398.467	13148.583	1934.487	bb			676.0635	112.7	12.7	2653.1
304-07CCV	135-Trinitrobenzene	213 > 183	10.20	15593.780	3398.467	15593.780	2294.237	bb			589.2004	98.2	-1.8	1170.8
304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3398.467		3398.467	3398.467	bb			483.8655	96.8	-3.2	717.3
304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5111.909	3398.467	5111.909	752.090	bb			593.8514	99.0	-1.0	390.5
304-07CCV	Tetryl	241 > 181	12.68	4309.189	3398.467	4309.189	633.990	bb			623.0541	103.8	3.8	472.5
304-07CCV	Nitrobenzene	123 > 46	13.63	3424.676	3398.467	3424.676	503.856	bb			610.1917	101.7	1.7	484.4
304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7606.306	21041.582	7606.306	180.745	MM	06-Mar-10	12:09:12	655.2814	109.2	9.2	352.5
304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11599.599	21041.582	11599.599	275.635	bb			680.4083	113.4	13.4	146.4
304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9062.394	21041.582	9062.394	215.345	bb			655.3263	109.2	9.2	258.1
304-07CCV	34-dinitrotoluene	182 > 152	14.43	12580.745	21041.582	12580.745	298.950	bb			309.3222	103.1	3.1	551.3
304-07CCV	26-dinitrotoluene	182 > 152	17.64	28165.873	21041.582	28165.873	669.291	MM	06-Mar-10	12:13:13	599.9688	100.0	-0.0	1564.5
304-07CCV	24-dinitrotoluene	182 > 152	18.30	7006.479	21041.582	7006.479	166.491	MM	06-Mar-10	12:17:36	604.0007	100.7	0.7	350.7
304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21041.582		21041.582	21041.582	bb			511.6971	102.3	2.3	878.4
304-07CCV	2-Nitrotoluene	137 > 46	21.12	3952.942	21041.582	3952.942	93.932	bb			606.4066	101.1	1.1	552.8
304-07CCV	4-Nitrotoluene	137 > 46	22.51	1888.156	21041.582	1888.156	44.867	bb			588.2384	98.0	-2.0	258.2
304-07CCV	3-Nitrotoluene	137 > 46	24.17	2259.582	21041.582	2259.582	53.693	bb			569.0585	94.8	-5.2	298.2
304-07CCV	PETN	361 > 62	24.49	55605.426	21041.582	55605.426	1321.322	bb			828.1129	138.0	38.0	21170.4

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 0408
Standard Number: WXX100304-07CCV
Data File: EXP0304076a

HMX	103.7
RDX	112.7
135-TNB	98.2
13-DNB	99.0
Tetryl	103.8
Nitrobenzene	101.7
4A-26-DNT	109.2
2A-46-DNT	113.4
246-TNT	109.2
34-DNT(surr)	103.1
26-DNT	100.0
24-DNT	100.7
2-NT	101.1
4-NT	98.0
3-NT	94.8
PETN	138.0
Total	1686.6
Average	105.4

HMM 03/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304078a

Analysis Date: 06-MAR-10 05:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.824	122	
1,3-Dinitrobenzene-d4	500	497.56	100	
2,4,6-Trinitrotoluene	40	42.485	106	
2,4-Dinitrotoluene	40	37.142	93	
2,6-Dinitrotoluene	40	39.595	99	
2,6-Dinitrotoluene-d3	500	512.953	103	
2-Amino-4,6-dinitrotoluene	40	40.704	102	
3,4-Dinitrotoluene	20	18.958	95	
4-Amino-2,6-dinitrotoluene	40	44.438	111	
HMX	40	44.364	111	
Nitrobenzene	40	44.712	112	
PETN	40	54.239	136	*
RDX	40	46.673	117	
Tetryl	40	40.325	101	
m-Dinitrobenzene	40	38.944	97	
m-Nitrotoluene	40	43.213	108	
o-Nitrotoluene	40	39.546	99	
p-Nitrotoluene	40	36.291	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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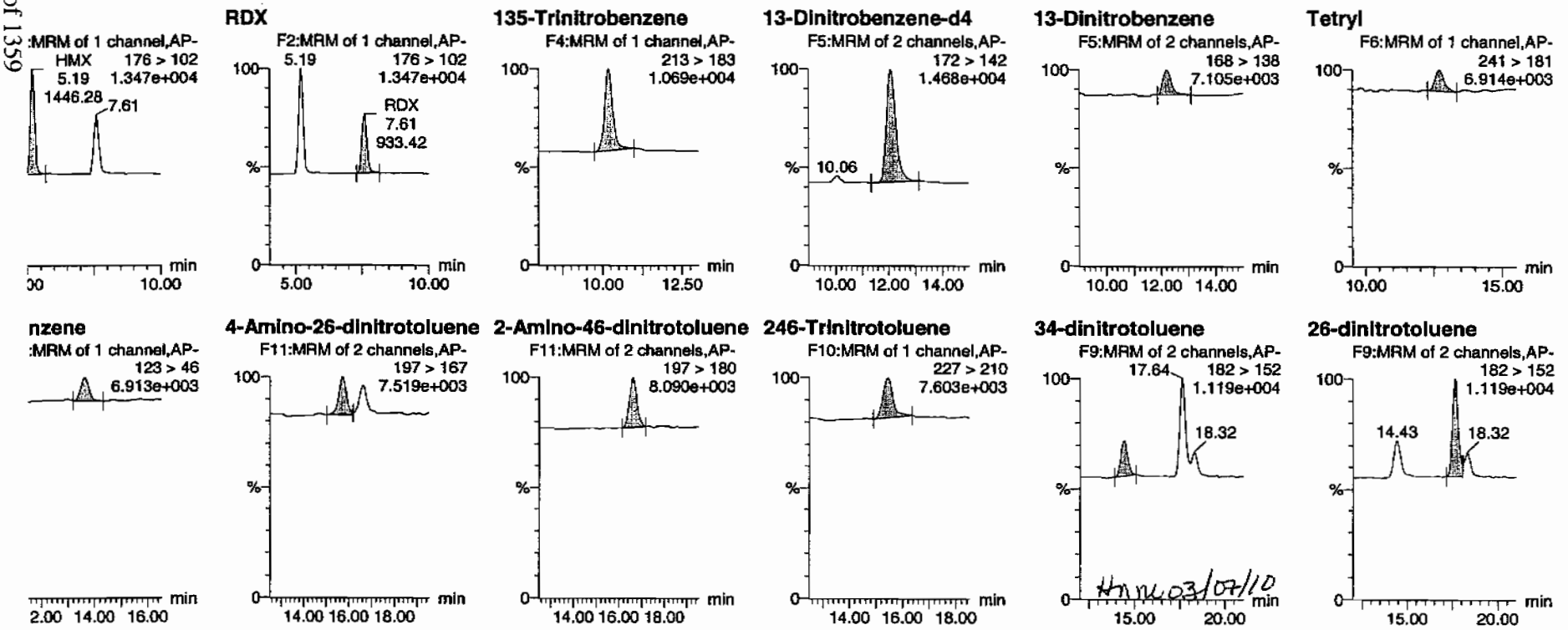

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y Sample Report
boratories, LLC / Analyst : Michael A. Penny

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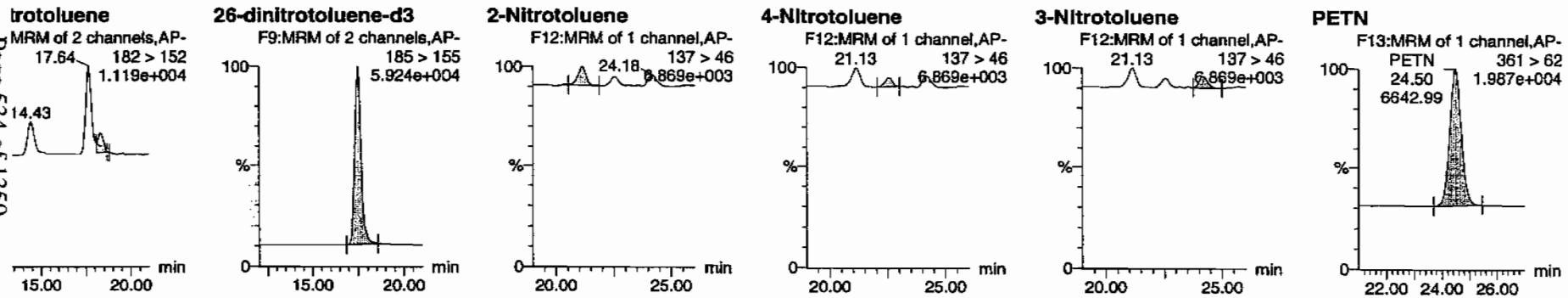

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
I304-08CRI	HMX	176 > 102	5.19	1446.278	3494.653	1446.278	206.927	bb			44.3640	110.9	10.9	195.2
I304-08CRI	RDX	176 > 102	7.61	933.425	3494.653	933.425	133.550	bb			46.6731	116.7	16.7	109.3
I304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1328.744	3494.653	1328.744	190.111	bb			48.8238	122.1	22.1	108.6
I304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3494.653		3494.653	3494.653	bb			497.5603	99.5	-0.5	251.0
I304-08CRI	13-Dinitrobenzene	168 > 138	12.20	344.722	3494.653	344.722	49.321	bb			38.9442	97.4	-2.6	30.0
I304-08CRI	Tetryl	241 > 181	12.72	286.792	3494.653	286.792	41.033	bb			40.3252	100.8	0.8	21.0
I304-08CRI	Nitrobenzene	123 > 46	13.63	258.047	3494.653	258.047	36.920	bb			44.7121	111.8	11.8	22.5
I304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	517.084	21093.240	517.084	12.257	MM	06-Mar-10	12:08:56	44.4376	111.1	11.1	51.3
I304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	695.617	21093.240	695.617	16.489	bb			40.7035	101.8	1.8	47.2
I304-08CRI	246-Trinitrotoluene	227 > 210	15.45	588.958	21093.240	588.958	13.961	bb			42.4848	106.2	6.2	69.7
I304-08CRI	34-dinitrotoluene	182 > 152	14.43	772.950	21093.240	772.950	18.322	bb			18.9579	94.8	-5.2	60.5
I304-08CRI	26-dinitrotoluene	182 > 152	17.64	1863.380	21093.240	1863.380	44.170	MM	06-Mar-10	12:13:06	39.5952	99.0	-1.0	165.7
I304-08CRI	24-dinitrotoluene	182 > 152	18.32	431.908	21093.240	431.908	10.238	MM	06-Mar-10	12:17:44	37.1419	92.9	-7.1	38.4
I304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	21093.240		21093.240	21093.240	bb			512.9533	102.6	2.6	1620.2
I304-08CRI	2-Nitrotoluene	137 > 46	21.13	258.417	21093.240	258.417	6.126	bb			39.5457	98.9	-1.1	64.0
I304-08CRI	4-Nitrotoluene	137 > 46	22.55	116.773	21093.240	116.773	2.768	bb			36.2905	90.7	-9.3	29.5
I304-08CRI	3-Nitrotoluene	137 > 46	24.18	172.009	21093.240	172.009	4.077	bb			43.2131	108.0	8.0	39.1
I304-08CRI	PETN	361 > 62	24.50	6642.990	21093.240	6642.990	157.467	bb			54.2392	135.6	35.6	771.2

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	0508
Standard Number	WXX100304-08CRI
Data File	EXP0304078a

HMX	110.9
RDX	116.7
135-TNB	122.1
13-DNB	97.4
Tetryl	100.8
Nitrobenzene	111.8
4A-26-DNT	111.1
2A-46-DNT	101.8
246-TNT	106.2
34-DNT(surr)	94.8
26-DNT	99.0
24-DNT	92.9
2-NT	98.9
4-NT	90.7
3-NT	108.0
PETN	135.6
Total	1698.7
Average	106.2

MJT 3/6/10

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304089a

Analysis Date: 06–MAR–10 10:32

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m–Dinitrobenzene	600	584.838	97	
m–Nitrotoluene	600	548.387	91	
o–Nitrotoluene	600	591.399	99	
p–Nitrotoluene	600	580.434	97	
1,3,5–Trinitrobenzene	600	553.473	92	
1,3–Dinitrobenzene–d4	500	503.069	101	
2,4,6–Trinitrotoluene	600	674.145	112	
2,4–Dinitrotoluene	600	580.325	97	
2,6–Dinitrotoluene	600	597.561	100	
2,6–Dinitrotoluene–d3	500	512.552	103	
2–Amino–4,6–dinitrotoluene	600	669.438	112	
3,4–Dinitrotoluene	300	311.876	104	
4–Amino–2,6–dinitrotoluene	600	656.337	109	
HMX	600	553.757	92	
Nitrobenzene	600	617.957	103	
PETN	600	732.772	122	*
RDX	600	630.521	105	
Tetryl	600	603.367	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Page 537 of 1359

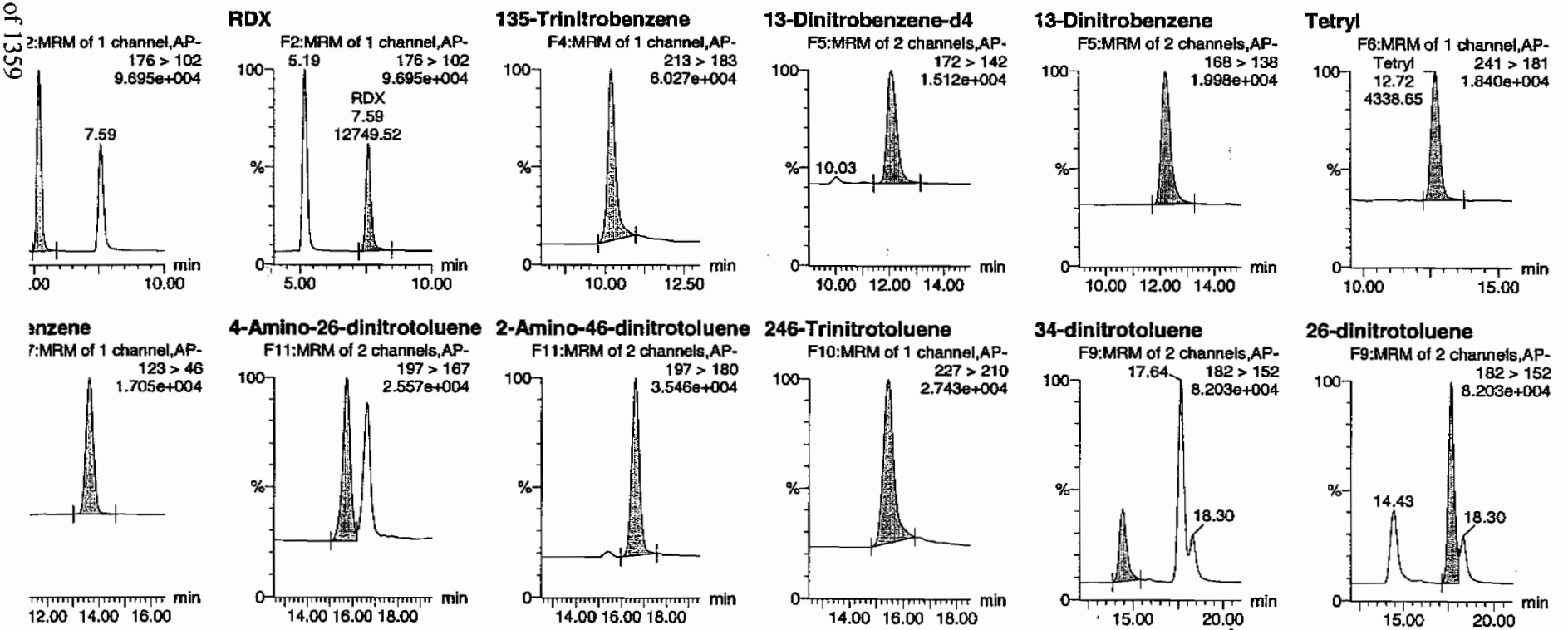

Hnm 03/07/10

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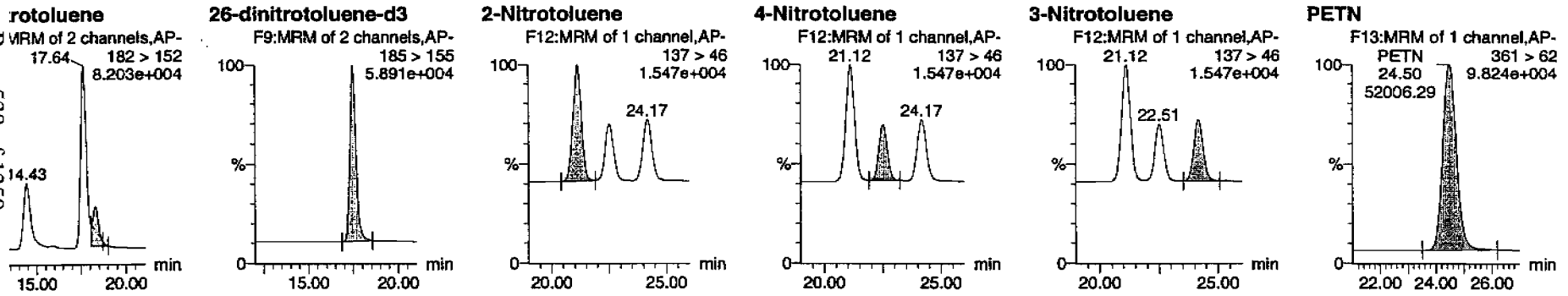

	Name	Trace	RT	Area	SrArea	AbsResp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
)304-07CCV	HMX	176 > 102	5.19	18252.482	3533.342	18252.482	2582.892	db			553.7568	92.3	-7.7	1165.1
)304-07CCV	RDX	176 > 102	7.59	12749.517	3533.342	12749.517	1804.173	bb			630.5211	105.1	5.1	685.6
)304-07CCV	135-Trinitrobenzene	213 > 183	10.20	15229.551	3533.342	15229.551	2155.120	bb			553.4726	92.2	-7.8	907.4
)304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3533.342		3533.342	3533.342	bb			503.0687	100.6	0.6	231.2
)304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5234.116	3533.342	5234.116	740.675	bb			584.8377	97.5	-2.5	297.4
)304-07CCV	Tetryl	241 > 181	12.72	4338.646	3533.342	4338.646	613.958	bb			603.3673	100.6	0.6	222.3
)304-07CCV	Nitrobenzene	123 > 46	13.63	3605.905	3533.342	3605.905	510.268	bb			617.9573	103.0	3.0	361.1
)304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	7631.281	21076.730	7631.281	181.036	MM	06-Mar-10	12:08:21	656.3366	109.4	9.4	323.0
)304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	11431.646	21076.730	11431.646	271.191	bb			669.4383	111.6	11.6	409.7
)304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9338.211	21076.730	9338.211	221.529	bb			674.1452	112.4	12.4	1636.3
)304-07CCV	34-dinitrotoluene	182 > 152	14.43	12705.782	21076.730	12705.782	301.417	bb			311.8755	104.0	4.0	273.4
)304-07CCV	26-dinitrotoluene	182 > 152	17.64	28099.705	21076.730	28099.705	666.605	MM	06-Mar-10	12:12:35	597.5612	99.6	-0.4	767.4
)304-07CCV	24-dinitrotoluene	182 > 152	18.30	6743.083	21076.730	6743.083	159.965	MM	06-Mar-10	12:18:37	580.3250	96.7	-3.3	166.4
)304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21076.730		21076.730	21076.730	bb			512.5519	102.5	2.5	1117.0
)304-07CCV	2-Nitrotoluene	137 > 46	21.12	3861.552	21076.730	3861.552	91.607	bb			591.3989	98.6	-1.4	186.8
)304-07CCV	4-Nitrotoluene	137 > 46	22.51	1866.217	21076.730	1866.217	44.272	bb			580.4339	96.7	-3.3	89.1
)304-07CCV	3-Nitrotoluene	137 > 46	24.17	2181.137	21076.730	2181.137	51.743	bb			548.3867	91.4	-8.6	96.8
)304-07CCV	PETN	361 > 62	24.50	52006.285	21076.730	52006.285	1233.737	bb			732.7717	122.1	22.1	8860.6

OP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 1032
Standard Number: WXX100304-07CCV
Data File: EXP0304089a

HMX	92.3
RDX	105.1
135-TNB	92.2
13-DNB	97.5
Tetryl	100.6
Nitrobenzene	103.0
4A-26-DNT	109.4
2A-46-DNT	111.6
246-TNT	112.4
34-DNT(surr)	104.0
26-DNT	99.6
24-DNT	96.7
2-NT	98.6
4-NT	96.7
3-NT	91.4
PETN	122.1
Total	1633.2
Average	102.1

MTP 3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1544

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0304091a **Analysis Date:** 06–MAR–10 11:31

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene	40	40.616	102	
2,6–Dinitrotoluene–d3	500	541.704	108	
2–Amino–4,6–dinitrotoluene	40	48.053	120	
3,4–Dinitrotoluene	20	20.798	104	
4–Amino–2,6–dinitrotoluene	40	45.468	114	
HMX	40	42.165	105	
Nitrobenzene	40	42.58	106	
PETN	40	51.168	128	
RDX	40	43.537	109	
Tetryl	40	43.891	110	
m–Dinitrobenzene	40	41.557	104	
m–Nitrotoluene	40	38.735	97	
o–Nitrotoluene	40	46.96	117	
p–Nitrotoluene	40	44.509	111	
1,3,5–Trinitrobenzene	40	47.447	119	
1,3–Dinitrobenzene–d4	500	555.149	111	
2,4,6–Trinitrotoluene	40	43.328	108	
2,4–Dinitrotoluene	40	38.335	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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11:31:45
X100304-08CRI
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MATT 3/6/10

Page 541 of 1359

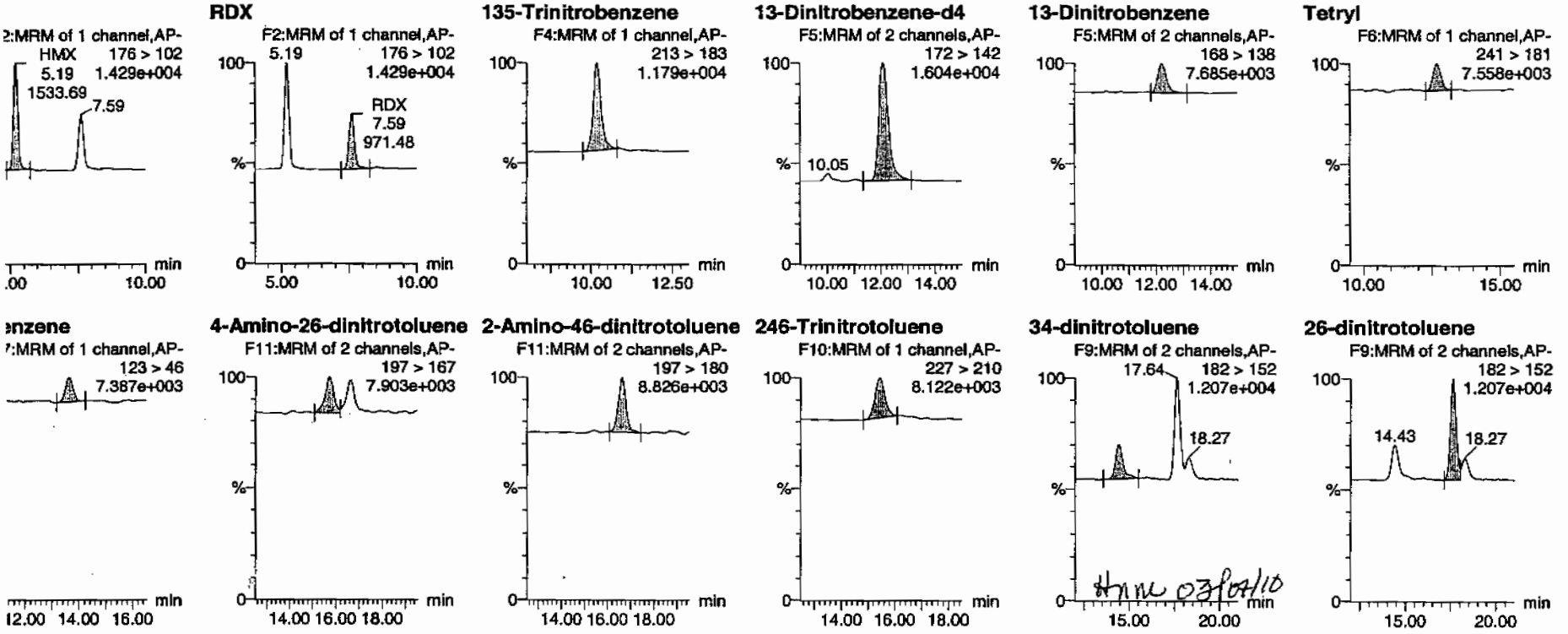

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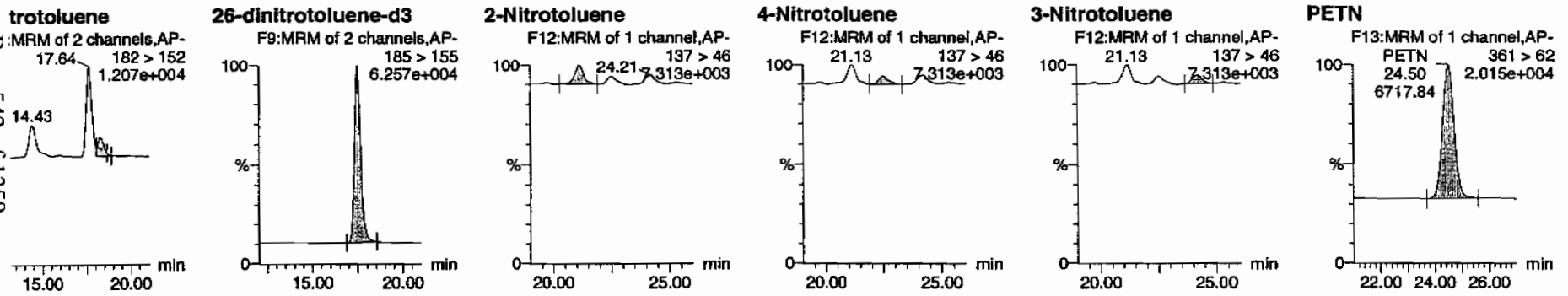

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
)304-08CRI	HMX	176 > 102	5.19	1533.692	3899.129	1533.692	196.671	bb			42.1651	105.4	5.4	202.2
)304-08CRI	RDX	176 > 102	7.59	971.480	3899.129	971.480	124.577	bb			43.5369	108.8	8.8	106.5
)304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1440.717	3899.129	1440.717	184.749	bb			47.4467	118.6	18.6	117.2
)304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3899.129		3899.129	3899.129	bb			555.1486	111.0	11.0	158.7
)304-08CRI	13-Dinitrobenzene	168 > 138	12.20	410.425	3899.129	410.425	52.630	bb			41.5570	103.9	3.9	23.6
)304-08CRI	Tetryl	241 > 181	12.68	348.279	3899.129	348.279	44.661	bb			43.8907	109.7	9.7	32.0
)304-08CRI	Nitrobenzene	123 > 46	13.63	274.182	3899.129	274.182	35.159	bb			42.5796	106.4	6.4	29.5
)304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	558.731	22275.498	558.731	12.541	MM	06-Mar-10	12:08:13	45.4682	113.7	13.7	47.2
)304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	867.252	22275.498	867.252	19.467	bb			48.0533	120.1	20.1	36.1
)304-08CRI	246-Trinitrotoluene	227 > 210	15.45	634.306	22275.498	634.306	14.238	bb			43.3276	108.3	8.3	36.0
)304-08CRI	34-dinitrotoluene	182 > 152	14.43	895.479	22275.498	895.479	20.100	bb			20.7975	104.0	4.0	26.9
)304-08CRI	26-dinitrotoluene	182 > 152	17.64	2018.552	22275.498	2018.552	45.309	MM	06-Mar-10	12:12:23	40.6159	101.5	1.5	78.5
)304-08CRI	24-dinitrotoluene	182 > 152	18.27	470.763	22275.498	470.763	10.567	MM	06-Mar-10	12:18:45	38.3346	95.8	-4.2	15.9
)304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22275.498		22275.498	22275.498	bb			541.7039	108.3	8.3	2395.4
)304-08CRI	2-Nitrotoluene	137 > 46	21.13	324.066	22275.498	324.066	7.274	bb			46.9600	117.4	17.4	44.6
)304-08CRI	4-Nitrotoluene	137 > 46	22.51	151.246	22275.498	151.246	3.395	bb			44.5093	111.3	11.3	18.9
)304-08CRI	3-Nitrotoluene	137 > 46	24.21	162.824	22275.498	162.824	3.655	bb			38.7345	96.8	-3.2	19.9
)304-08CRI	PETN	361 > 62	24.50	6717.837	22275.498	6717.837	150.790	bb			51.1679	127.9	27.9	1576.8

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	1131
Standard Number	WXX100304-08CRI
Data File	EXP0304091a

HMX	105.4
RDX	108.8
135-TNB	118.6
13-DNB	103.9
Tetryl	109.7
Nitrobenzene	106.4
4A-26-DNT	113.7
2A-46-DNT	120.1
246-TNT	108.3
34-DNT(surr)	104.0
26-DNT	101.5
24-DNT	95.8
2-NT	117.4
4-NT	111.3
3-NT	96.8
PETN	127.9
Total	1749.6
Average	109.4

MJT 3/6/10

HM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304101a

Analysis Date: 06-MAR-10 16:26

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	587.261	98	
1,3-Dinitrobenzene-d4	500	465.389	93	
2,4,6-Trinitrotoluene	600	683.072	114	
2,4-Dinitrotoluene	600	521.302	87	
2,6-Dinitrotoluene	600	601.174	100	
2,6-Dinitrotoluene-d3	500	580.685	116	
2-Amino-4,6-dinitrotoluene	600	708.501	118	
3,4-Dinitrotoluene	300	324.528	108	
4-Amino-2,6-dinitrotoluene	600	649.296	108	
HMX	600	614.149	102	
Nitrobenzene	600	698.592	116	
PETN	600	592.689	99	
RDX	600	791.111	132	*
Tetryl	600	592.657	99	
m-Dinitrobenzene	600	614.282	102	
m-Nitrotoluene	600	534.445	89	
o-Nitrotoluene	600	583.716	97	
p-Nitrotoluene	600	549.111	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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6-Mar-2010
16:26:43
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1,B

MMT 3/7/10

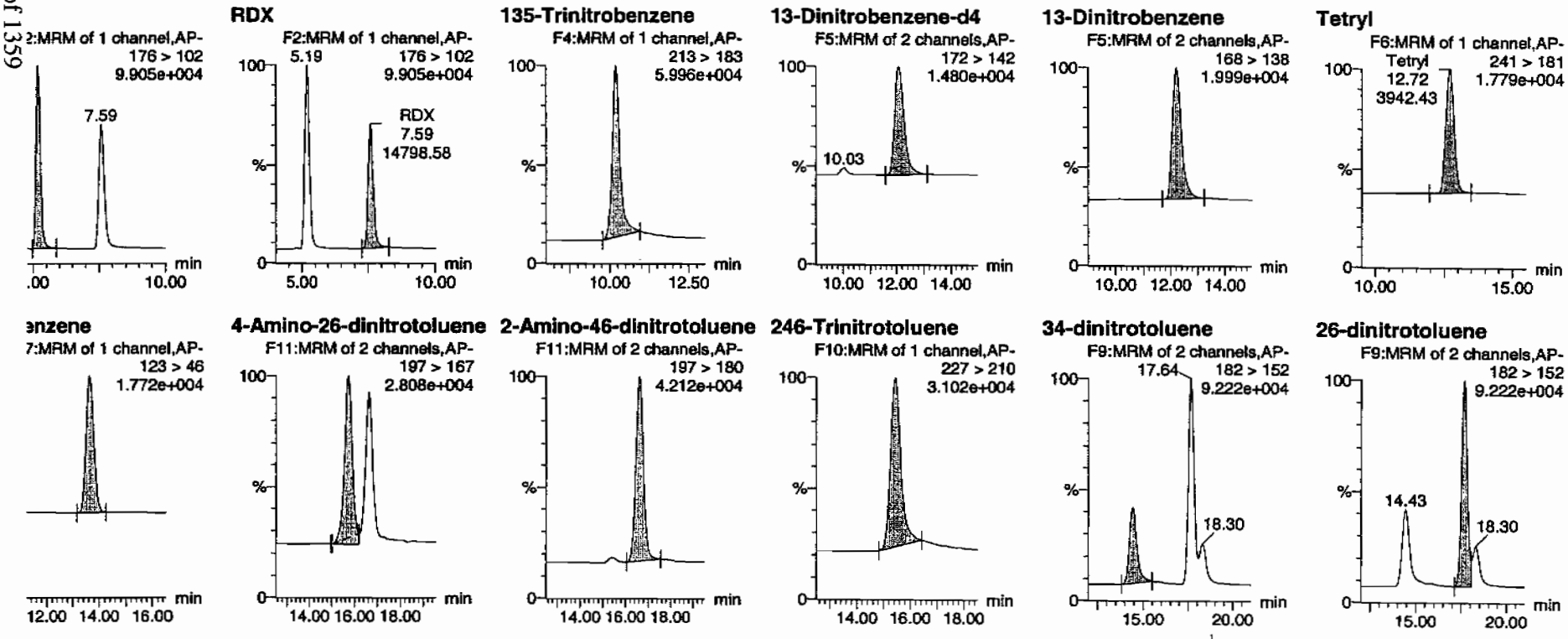

Hmm 03/08/10

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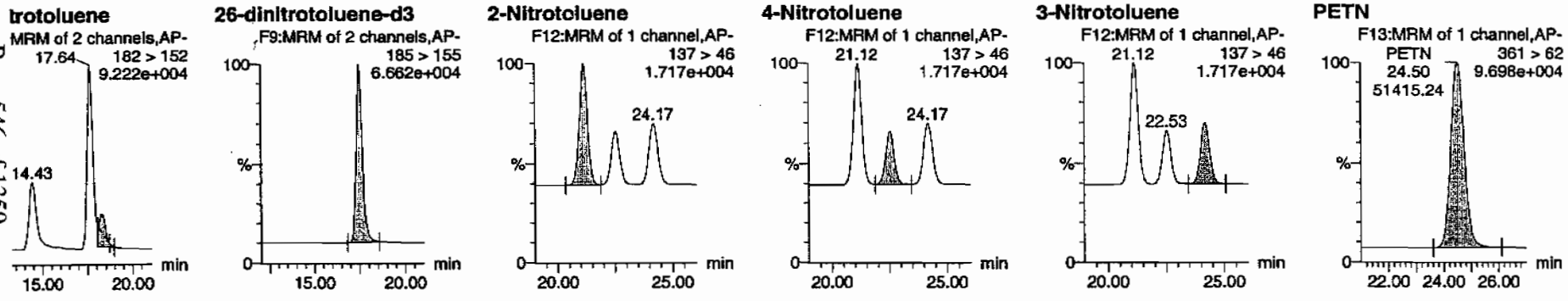

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
)304-07CCV	HMX	176 > 102	5.19	18726.861	3268.693	18726.861	2864.579	bb			614.1489	102.4	2.4	2087.5
)304-07CCV	RDX	176 > 102	7.59	14798.579	3268.693	14798.579	2263.684	bb			791.1111	131.9	31.9	1419.4
)304-07CCV	135-Trinitrobenzene	213 > 183	10.20	14948.942	3268.693	14948.942	2286.685	bb			587.2608	97.9	-2.1	864.8
)304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3268.693		3268.693	3268.693	bb			465.3886	93.1	-6.9	511.6
)304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5085.855	3268.693	5085.855	777.965	bb			614.2817	102.4	2.4	574.4
)304-07CCV	Tetryl	241 > 181	12.72	3942.433	3268.693	3942.433	603.060	bb			592.6570	98.8	-1.2	337.2
)304-07CCV	Nitrobenzene	123 > 46	13.63	3771.098	3268.693	3771.098	576.851	bb			698.5919	116.4	16.4	260.3
)304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	8552.964	23878.449	8552.964	179.094	MM	07-Mar-10	13:24:55	649.2963	108.2	8.2	773.5
)304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	13706.979	23878.449	13706.979	287.016	bb			708.5013	118.1	18.1	349.6
)304-07CCV	246-Trinitrotoluene	227 > 210	15.45	10719.617	23878.449	10719.617	224.462	bb			683.0715	113.8	13.8	768.2
)304-07CCV	34-dinitrotoluene	182 > 152	14.43	14978.756	23878.449	14978.756	313.646	bb			324.5284	108.2	8.2	1105.2
)304-07CCV	26-dinitrotoluene	182 > 152	17.64	32027.473	23878.449	32027.473	670.636	MM	07-Mar-10	13:27:42	601.1743	100.2	0.2	2998.1
)304-07CCV	24-dinitrotoluene	182 > 152	18.30	6862.457	23878.449	6862.457	143.696	MM	07-Mar-10	13:32:09	521.3022	86.9	-13.1	554.4
)304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	23878.449		23878.449	23878.449	bb			580.6851	116.1	16.1	1296.0
)304-07CCV	2-Nitrotoluene	137 > 46	21.12	4318.029	23878.449	4318.029	90.417	bb			583.7156	97.3	-2.7	852.3
)304-07CCV	4-Nitrotoluene	137 > 46	22.53	2000.195	23878.449	2000.195	41.883	bb			549.1109	91.5	-8.5	372.7
)304-07CCV	3-Nitrotoluene	137 > 46	24.17	2408.250	23878.449	2408.250	50.427	bb			534.4445	89.1	-10.9	424.0
)304-07CCV	PETN	361 > 62	24.50	51415.242	23878.449	51415.242	1076.603	bb			592.6892	98.8	-1.2	3710.0

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 1626
Standard Number: WXX100304-07CCV
Data File: EXP0304101a

HMX	102.4
RDX	131.9
135-TNB	97.9
13-DNB	102.4
Tetryl	98.8
Nitrobenzene	116.4
4A-26-DNT	108.2
2A-46-DNT	118.1
246-TNT	113.8
34-DNT(surr)	108.2
26-DNT	100.2
24-DNT	86.9
2-NT	97.3
4-NT	91.5
3-NT	89.1
PETN	98.8
Total	1661.9
Average	103.9

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304103a

Analysis Date: 06–MAR–10 17:25

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m–Nitrotoluene	40	36.714	92	
o–Nitrotoluene	40	52.856	132	*
p–Nitrotoluene	40	50.186	125	
1,3,5–Trinitrobenzene	40	43.717	109	
1,3–Dinitrobenzene–d4	500	554.792	111	
2,4,6–Trinitrotoluene	40	39.922	100	
2,4–Dinitrotoluene	40	34.956	87	
2,6–Dinitrotoluene	40	40.043	100	
2,6–Dinitrotoluene–d3	500	520.302	104	
2–Amino–4,6–dinitrotoluene	40	41.209	103	
3,4–Dinitrotoluene	20	23.339	117	
4–Amino–2,6–dinitrotoluene	40	46.12	115	
HMX	40	33.904	85	
Nitrobenzene	40	37.192	93	
PETN	40	49.668	124	
RDX	40	33.251	83	
Tetryl	40	40.4	101	
m–Dinitrobenzene	40	44.614	112	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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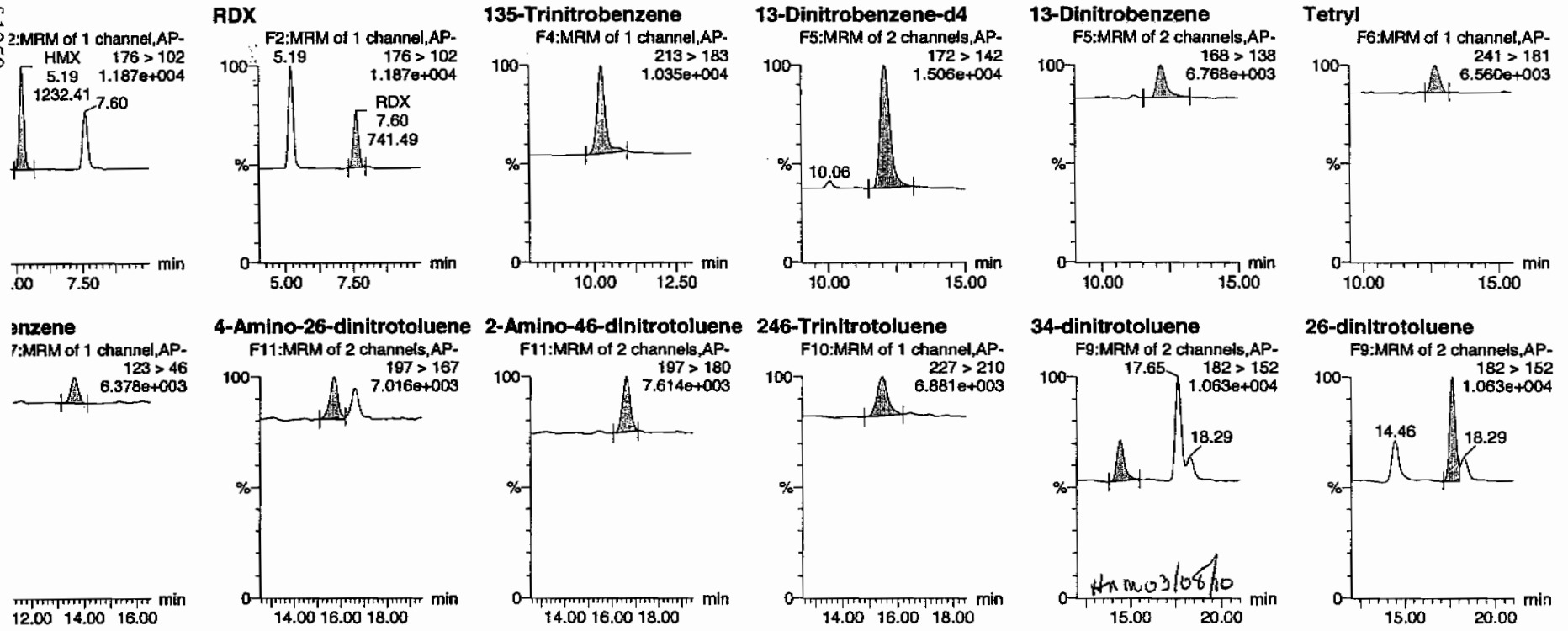

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

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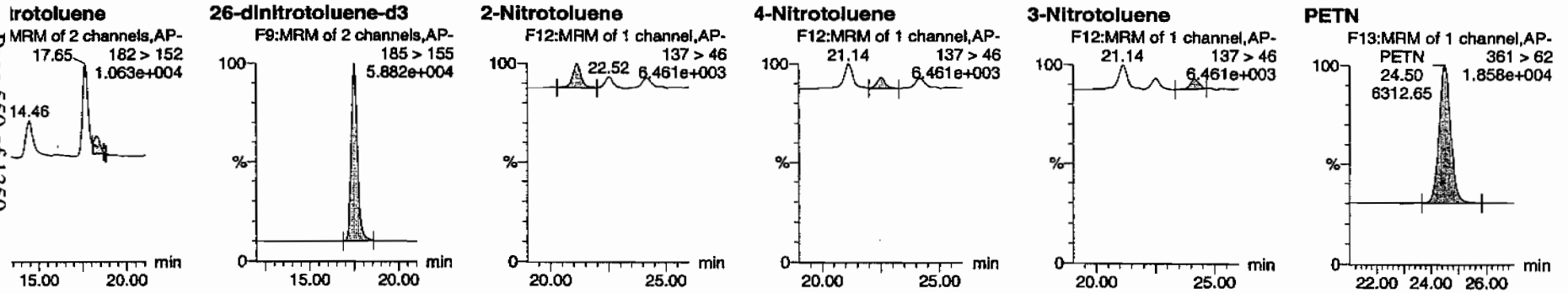

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
304-08CRI	HMX	176 > 102	5.19	1232.405	3896.626	1232.405	158.137	bb			33.9037	84.8	-15.2	190.0
304-08CRI	RDX	176 > 102	7.60	741.492	3896.626	741.492	95.145	bb			33.2514	83.1	-16.9	103.7
304-08CRI	135-Trinitrobenzene	213 > 183	10.19	1326.625	3896.626	1326.625	170.227	bb			43.7174	109.3	9.3	195.5
304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.10	3896.626		3896.626	3896.626	bb			554.7922	111.0	11.0	299.8
304-08CRI	13-Dinitrobenzene	168 > 138	12.20	440.335	3896.626	440.335	56.502	bb			44.6141	111.5	11.5	30.7
304-08CRI	Tetryl	241 > 181	12.71	320.374	3896.626	320.374	41.109	bb			40.4000	101.0	1.0	45.4
304-08CRI	Nitrobenzene	123 > 46	13.66	239.336	3896.626	239.336	30.711	bb			37.1920	93.0	-7.0	19.2
304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	544.347	21395.426	544.347	12.721	MM	07-Mar-10	13:25:01	46.1198	115.3	15.3	29.7
304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	714.343	21395.426	714.343	16.694	bb			41.2089	103.0	3.0	73.9
304-08CRI	246-Trinitrotoluene	227 > 210	15.44	561.354	21395.426	561.354	13.119	bb			39.9217	99.8	-0.2	62.9
304-08CRI	34-dinitrotoluene	182 > 152	14.46	965.184	21395.426	965.184	22.556	bb			23.3385	116.7	16.7	61.3
304-08CRI	26-dinitrotoluene	182 > 152	17.65	1911.469	21395.426	1911.469	44.670	MM	07-Mar-10	13:27:50	40.0433	100.1	0.1	155.0
304-08CRI	24-dinitrotoluene	182 > 152	18.29	412.308	21395.426	412.308	9.635	MM	07-Mar-10	13:31:56	34.9556	87.4	-12.6	31.2
304-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	21395.426		21395.426	21395.426	bb			520.3020	104.1	4.1	3319.8
304-08CRI	2-Nitrotoluene	137 > 46	21.14	350.345	21395.426	350.345	8.187	bb			52.8563	132.1	32.1	91.6
304-08CRI	4-Nitrotoluene	137 > 46	22.52	163.797	21395.426	163.797	3.828	bb			50.1856	125.5	25.5	43.3
304-08CRI	3-Nitrotoluene	137 > 46	24.17	148.233	21395.426	148.233	3.464	bb			36.7140	91.8	-8.2	37.5
304-08CRI	PETN	361 > 62	24.50	6312.647	21395.426	6312.647	147.523	bb			49.6681	124.2	24.2	2068.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	1725
Standard Number	WXX100304-08CRI
Data File	EXP0304103a

HMX	84.8
RDX	83.1
135-TNB	109.3
13-DNB	111.5
Tetryl	101.0
Nitrobenzene	93.0
4A-26-DNT	115.3
2A-46-DNT	103.0
246-TNT	99.8
34-DNT(surr)	116.7
26-DNT	100.1
24-DNT	87.4
2-NT	132.1
4-NT	125.5
3-NT	91.8
PETN	124.2
Total	1678.6
Average	104.9

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304113a

Analysis Date: 06–MAR–10 22:20

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	605.837	101	
Tetryl	600	566.333	94	
m–Dinitrobenzene	600	588.821	98	
m–Nitrotoluene	600	526.711	88	
o–Nitrotoluene	600	548.289	91	
p–Nitrotoluene	600	549.39	92	
1,3,5–Trinitrobenzene	600	540.591	90	
1,3–Dinitrobenzene–d4	500	533.105	107	
2,4,6–Trinitrotoluene	600	652.208	109	
2,4–Dinitrotoluene	600	560.172	93	
2,6–Dinitrotoluene	600	593.564	99	
2,6–Dinitrotoluene–d3	500	529.569	106	
2–Amino–4,6–dinitrotoluene	600	630.466	105	
3,4–Dinitrotoluene	300	315.943	105	
4–Amino–2,6–dinitrotoluene	600	633.97	106	
HMX	600	558.17	93	
Nitrobenzene	600	582.752	97	
PETN	600	719.523	120	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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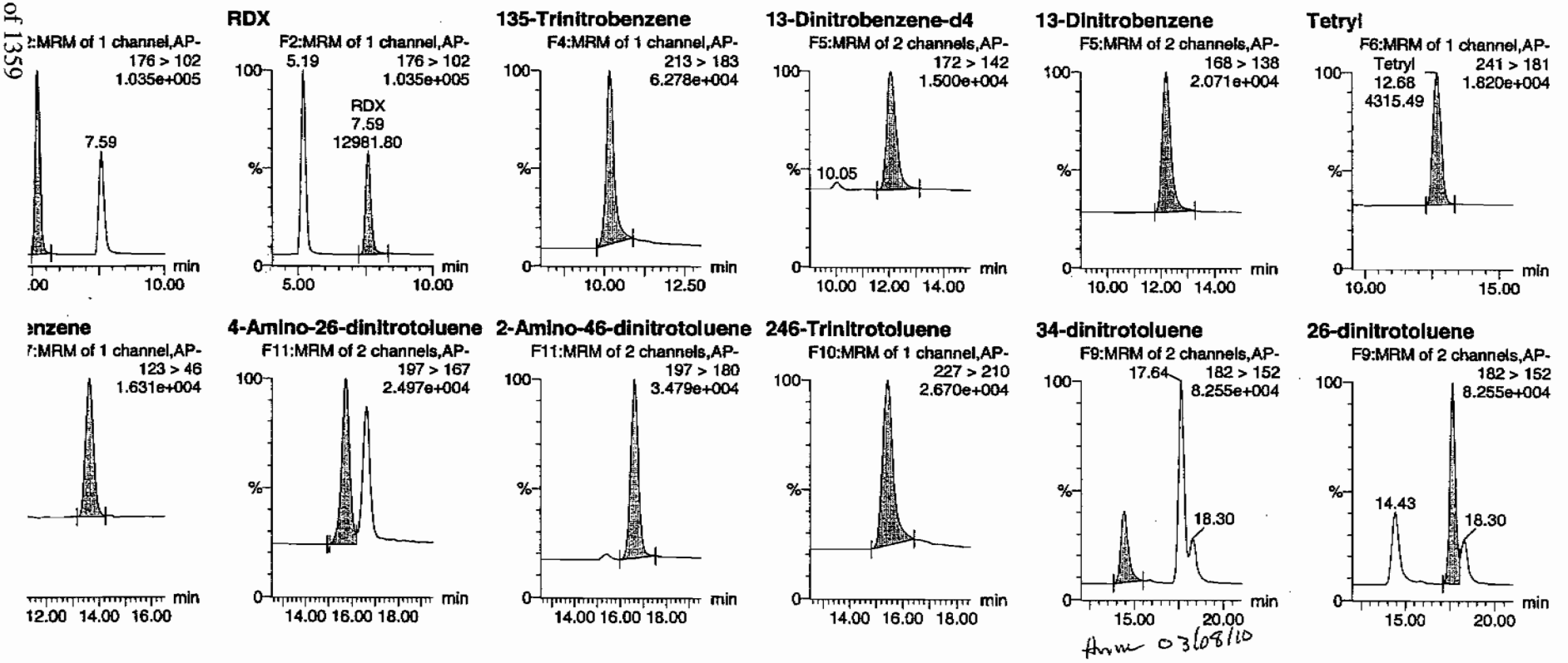

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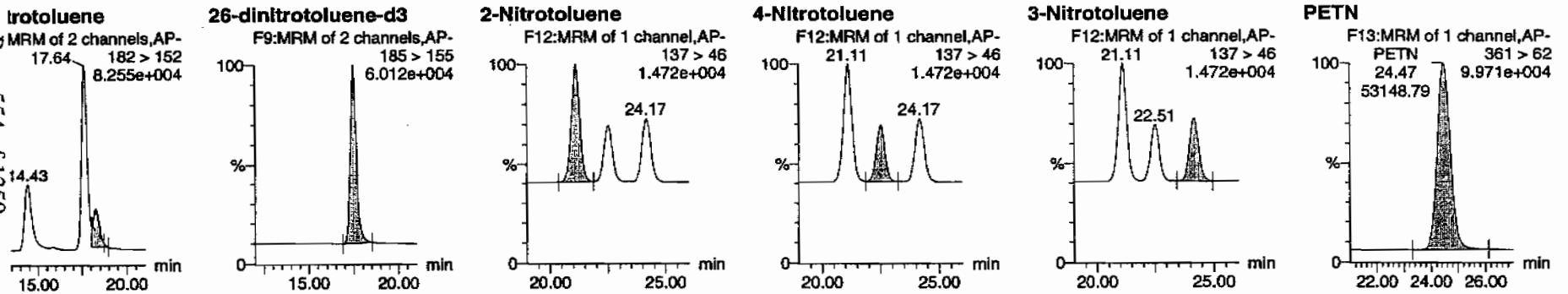

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
304-07CCV	HMX	176 > 102	5.19	19496.410	3744.302	19496.410	2603.477	bb			558.1701	93.0	-7.0	2424.3
304-07CCV	RDX	176 > 102	7.59	12981.799	3744.302	12981.799	1733.541	bb			605.8367	101.0	1.0	1357.5
304-07CCV	135-Trinitrobenzene	213 > 183	10.18	15763.218	3744.302	15763.218	2104.961	bb			540.5909	90.1	-9.9	1483.8
304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3744.302		3744.302	3744.302	bb			533.1047	106.6	6.6	316.8
304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5584.403	3744.302	5584.403	745.720	bb			588.8214	98.1	-1.9	607.0
304-07CCV	Tetryl	241 > 181	12.68	4315.487	3744.302	4315.487	576.274	bb			566.3334	94.4	-5.6	461.0
304-07CCV	Nitrobenzene	123 > 46	13.63	3603.499	3744.302	3603.499	481.198	bd			582.7515	97.1	-2.9	252.5
304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7615.953	21776.480	7615.953	174.866	MM	07-Mar-10	13:25:24	633.9704	105.7	5.7	471.8
304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11123.577	21776.480	11123.577	255.403	bb			630.4662	105.1	5.1	242.8
304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9334.282	21776.480	9334.282	214.320	bb			652.2082	108.7	8.7	501.4
304-07CCV	34-dinitrotoluene	182 > 152	14.43	13298.813	21776.480	13298.813	305.348	bb			315.9427	105.3	5.3	492.9
304-07CCV	26-dinitrotoluene	182 > 152	17.64	28838.430	21776.480	28838.430	662.146	MM	07-Mar-10	13:28:01	593.5643	98.9	-1.1	1377.7
304-07CCV	24-dinitrotoluene	182 > 152	18.30	6725.012	21776.480	6725.012	154.410	MM	07-Mar-10	13:31:45	560.1720	93.4	-6.6	290.4
304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21776.480		21776.480	21776.480	bb			529.5686	105.9	5.9	2107.6
304-07CCV	2-Nitrotoluene	137 > 46	21.11	3698.925	21776.480	3698.925	84.929	bb			548.2893	91.4	-8.6	643.1
304-07CCV	4-Nitrotoluene	137 > 46	22.51	1825.049	21776.480	1825.049	41.904	bb			549.3899	91.6	-8.4	311.5
304-07CCV	3-Nitrotoluene	137 > 46	24.17	2164.477	21776.480	2164.477	49.698	bb			526.7111	87.8	-12.2	349.0
304-07CCV	PETN	361 > 62	24.47	53148.789	21776.480	53148.789	1220.326	bb			719.5234	119.9	19.9	10981.9

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 2220
Standard Number: WXX100304-07CCV
Data File: EXP0304113a

HMX		93.0
RDX		101.0
135-TNB		90.1
13-DNB		98.1
Tetryl		94.4
Nitrobenzene		97.1
4A-26-DNT		105.7
2A-46-DNT		105.1
246-TNT		108.7
34-DNT(surr)		105.3
26-DNT		98.9
24-DNT		93.4
2-NT		91.4
4-NT		91.6
3-NT		87.8
PETN		119.9
Total		1581.5
Average		98.8

HM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304115a

Analysis Date: 06–MAR–10 23:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	43.572	109	
1,3–Dinitrobenzene–d4	500	549.103	110	
2,4,6–Trinitrotoluene	40	43.289	108	
2,4–Dinitrotoluene	40	32.71	82	
2,6–Dinitrotoluene	40	40.13	100	
2,6–Dinitrotoluene–d3	500	547.162	109	
2–Amino–4,6–dinitrotoluene	40	41.723	104	
3,4–Dinitrotoluene	20	21.531	108	
4–Amino–2,6–dinitrotoluene	40	42.41	106	
HMX	40	37.966	95	
Nitrobenzene	40	28.768	72	
PETN	40	49.806	125	
RDX	40	37.916	95	
Tetryl	40	44.352	111	
m–Dinitrobenzene	40	39.17	98	
m–Nitrotoluene	40	34.211	86	
o–Nitrotoluene	40	39.798	99	
p–Nitrotoluene	40	46.592	116	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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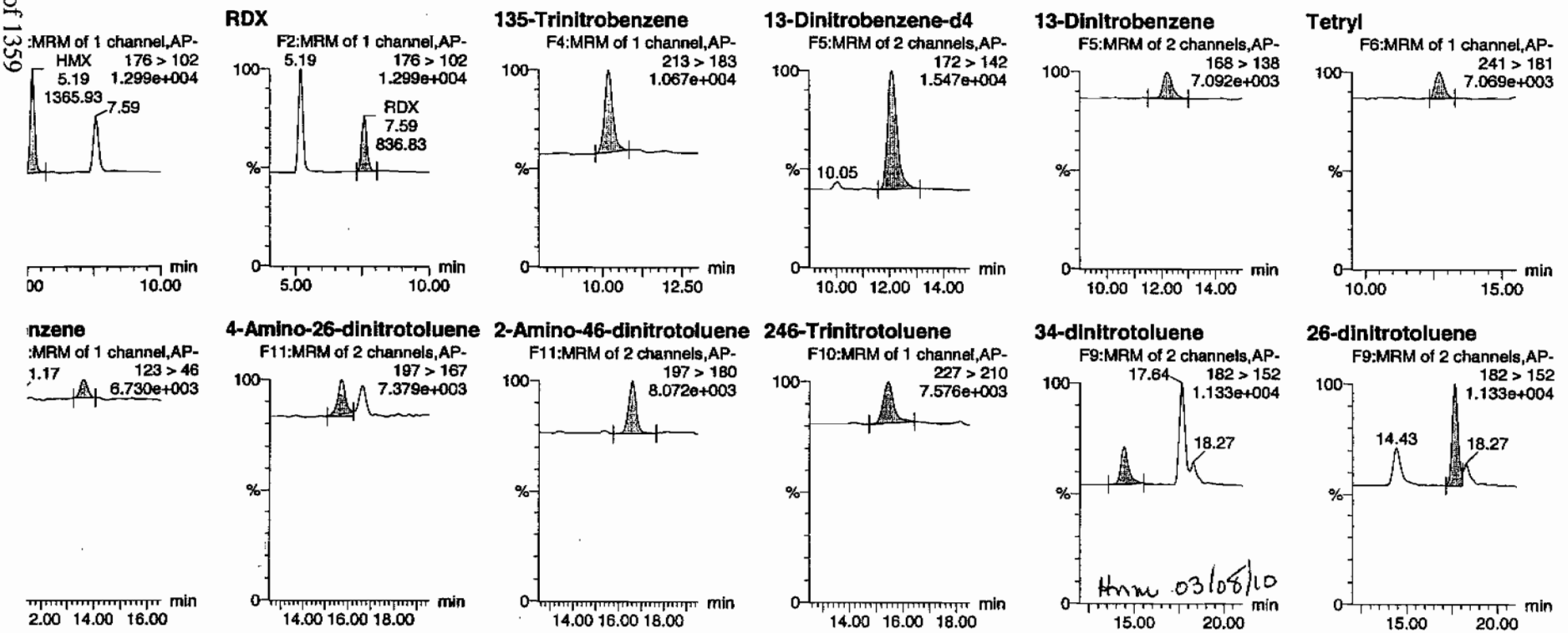

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y Sample Report
boratories, LLC / Analyst : Michael A. Penny

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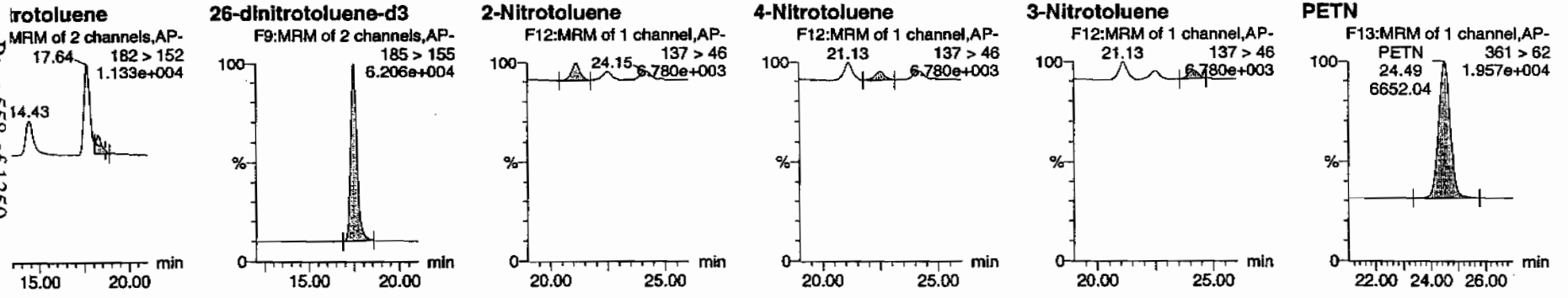

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
304-08CRI	HMX	176 > 102	5.19	1365.932	3856.666	1365.932	177.087	bb			37.9664	94.9	-5.1	230.0
304-08CRI	RDX	176 > 102	7.59	836.831	3856.666	836.831	108.492	bb			37.9155	94.8	-5.2	123.0
304-08CRI	135-Trinitrobenzene	213 > 183	10.18	1308.658	3856.666	1308.658	169.662	bb			43.5721	108.9	8.9	79.0
304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3856.666		3856.666	3856.666	bb			549.1028	109.8	9.8	395.0
304-08CRI	13-Dinitrobenzene	168 > 138	12.20	382.634	3856.666	382.634	49.607	bb			39.1696	97.9	-2.1	59.0
304-08CRI	Tetryl	241 > 181	12.72	348.105	3856.666	348.105	45.130	bb			44.3518	110.9	10.9	30.8
304-08CRI	Nitrobenzene	123 > 46	13.63	183.230	3856.666	183.230	23.755	bb			28.7683	71.9	-28.1	22.7
304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	526.396	22499.932	526.396	11.698	MM	07-Mar-10	13:25:38	42.4096	106.0	6.0	39.7
304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	760.583	22499.932	760.583	16.902	bb			41.7225	104.3	4.3	40.0
304-08CRI	246-Trinitrotoluene	227 > 210	15.45	640.125	22499.932	640.125	14.225	bb			43.2889	108.2	8.2	44.4
304-08CRI	34-dinitrotoluene	182 > 152	14.43	936.421	22499.932	936.421	20.809	bb			21.5314	107.7	7.7	52.9
304-08CRI	26-dinitrotoluene	182 > 152	17.64	2014.470	22499.932	2014.470	44.766	MM	07-Mar-10	13:28:30	40.1295	100.3	0.3	145.5
304-08CRI	24-dinitrotoluene	182 > 152	18.27	405.736	22499.932	405.736	9.016	MM	07-Mar-10	13:31:35	32.7098	81.8	-18.2	29.3
304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22499.932		22499.932	22499.932	bb			547.1618	109.4	9.4	1657.8
304-08CRI	2-Nitrotoluene	137 > 46	21.13	277.406	22499.932	277.406	6.165	bb			39.7976	99.5	-0.5	72.9
304-08CRI	4-Nitrotoluene	137 > 46	22.52	159.918	22499.932	159.918	3.554	bb			46.5919	116.5	16.5	35.8
304-08CRI	3-Nitrotoluene	137 > 46	24.15	145.256	22499.932	145.256	3.228	bb			34.2105	85.5	-14.5	32.8
304-08CRI	PETN	361 > 62	24.49	6652.039	22499.932	6652.039	147.824	bb			49.8059	124.5	24.5	2184.6

)P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	2319
Standard Number	WXX100304-08CRI
Data File	EXP0304115a

HMX	94.9
RDX	94.8
135-TNB	108.9
13-DNB	97.9
Tetryl	110.9
Nitrobenzene	71.9
4A-26-DNT	106.0
2A-46-DNT	104.3
246-TNT	108.2
34-DNT(surr)	107.7
26-DNT	100.3
24-DNT	81.8
2-NT	99.5
4-NT	116.5
3-NT	85.5
PETN	124.5
Total	1613.6
Average	100.9

MR 3/17/10

Hmc 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304126a

Analysis Date: 07-MAR-10 04:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	568.57	95	
1,3-Dinitrobenzene-d4	500	558.522	112	
2,4,6-Trinitrotoluene	600	698.222	116	
2,4-Dinitrotoluene	600	603.344	101	
2,6-Dinitrotoluene	600	597.429	100	
2,6-Dinitrotoluene-d3	500	528.041	106	
2-Amino-4,6-dinitrotoluene	600	816.024	136	*
3,4-Dinitrotoluene	300	346.312	115	
4-Amino-2,6-dinitrotoluene	600	741.134	124	*
HMX	600	692.406	115	
Nitrobenzene	600	605.334	101	
PETN	600	690.898	115	
RDX	600	736.312	123	*
Tetryl	600	619.275	103	
m-Dinitrobenzene	600	567.553	95	
m-Nitrotoluene	600	614.616	102	
o-Nitrotoluene	600	653.972	109	
p-Nitrotoluene	600	663.056	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMP 3/7/10

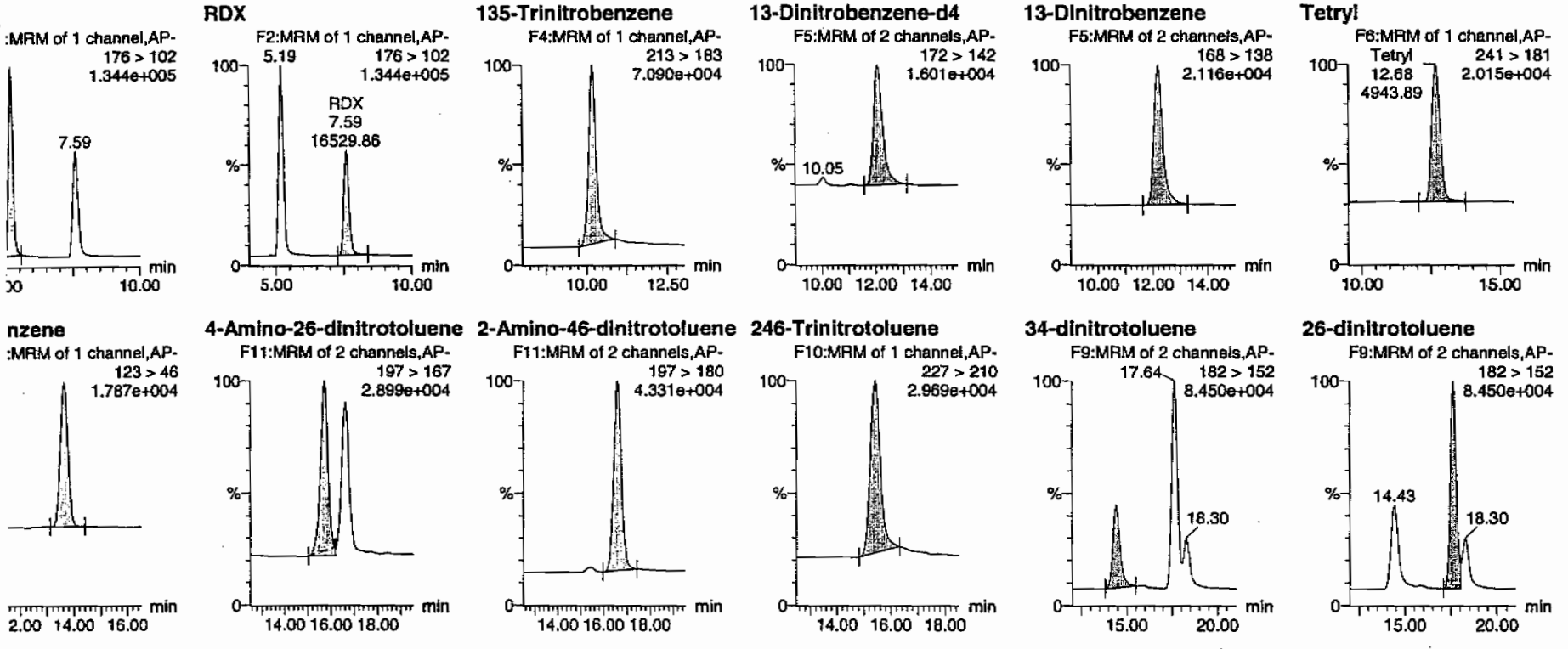

KMM 03/08/10

P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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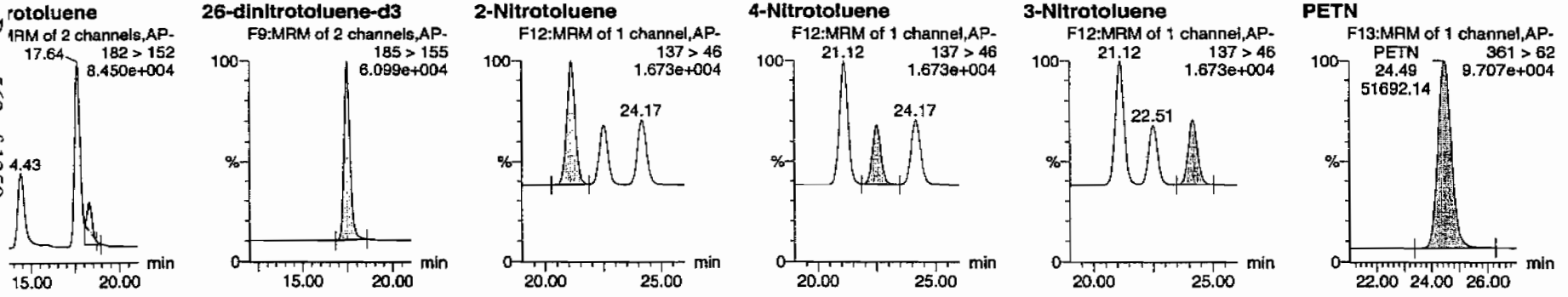

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
304-07CCV	HMX	176 > 102	5.19	25338.254	3922.825	25338.254	3229.593	bb			692.4056	115.4	15.4	3349.1
304-07CCV	RDX	176 > 102	7.59	16529.859	3922.825	16529.859	2106.882	bb			736.3119	122.7	22.7	1867.6
304-07CCV	135-Trinitrobenzene	213 > 183	10.18	17369.531	3922.825	17369.531	2213.906	bb			568.5699	94.8	-5.2	969.7
304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3922.825		3922.825	3922.825	bb			558.5224	111.7	11.7	548.8
304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5639.335	3922.825	5639.335	718.785	bb			567.5533	94.6	-5.4	542.2
304-07CCV	Tetryl	241 > 181	12.68	4943.892	3922.825	4943.892	630.144	bb			619.2746	103.2	3.2	382.6
304-07CCV	Nitrobenzene	123 > 46	13.63	3921.610	3922.825	3921.610	499.845	bb			605.3344	100.9	0.9	492.4
304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	8877.644	21713.674	8877.644	204.425	MM	07-Mar-10	13:26:13	741.1342	123.5	23.5	341.1
304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	14355.930	21713.674	14355.930	330.573	bb			816.0242	136.0	36.0	1138.4
304-07CCV	246-Trinitrotoluene	227 > 210	15.41	9964.003	21713.674	9964.003	229.441	bb			698.2220	116.4	16.4	799.0
304-07CCV	34-dinitrotoluene	182 > 152	14.43	14535.098	21713.674	14535.098	334.699	bb			346.3122	115.4	15.4	552.9
304-07CCV	26-dinitrotoluene	182 > 152	17.64	28942.479	21713.674	28942.479	666.457	MM	07-Mar-10	13:29:10	597.4290	99.6	-0.4	1381.9
304-07CCV	24-dinitrotoluene	182 > 152	18.30	7222.412	21713.674	7222.412	166.310	MM	07-Mar-10	13:30:37	603.3440	100.6	0.6	317.9
304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21713.674		21713.674	21713.674	bb			528.0413	105.6	5.6	2793.7
304-07CCV	2-Nitrotoluene	137 > 46	21.12	4399.167	21713.674	4399.167	101.299	bb			653.9718	109.0	9.0	570.5
304-07CCV	4-Nitrotoluene	137 > 46	22.51	2196.290	21713.674	2196.290	50.574	bb			663.0560	110.5	10.5	276.7
304-07CCV	3-Nitrotoluene	137 > 46	24.17	2518.430	21713.674	2518.430	57.992	bb			614.6158	102.4	2.4	300.4
304-07CCV	PETN	361 > 62	24.49	51692.145	21713.674	51692.145	1190.313	bb			690.8976	115.1	15.1	5875.9

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 0444
Standard Number: WXX100304-07CCV
Data File: EXP0304126a

HMX	115.4
RDX	122.7
135-TNB	94.8
13-DNB	94.6
Tetryl	103.2
Nitrobenzene	100.9
4A-26-DNT	123.5
2A-46-DNT	136.0
246-TNT	116.4
34-DNT(surr)	115.4
26-DNT	99.6
24-DNT	100.6
2-NT	109.0
4-NT	110.5
3-NT	102.4
PETN	115.1
Total	1760.1
Average	110.0

MTP 3/9/10

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304128a

Analysis Date: 07-MAR-10 05:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	20	21.251	106	
4-Amino-2,6-dinitrotoluene	40	39.317	98	
HMX	40	33.443	84	
Nitrobenzene	40	37.013	93	
PETN	40	41.779	104	
RDX	40	35.061	88	
Tetryl	40	39.432	99	
m-Dinitrobenzene	40	41.676	104	
m-Nitrotoluene	40	35.683	89	
o-Nitrotoluene	40	36.507	91	
p-Nitrotoluene	40	42.08	105	
1,3,5-Trinitrobenzene	40	40.314	101	
1,3-Dinitrobenzene-d4	500	526.897	105	
2,4,6-Trinitrotoluene	40	34.77	87	
2,4-Dinitrotoluene	40	32.591	81	
2,6-Dinitrotoluene	40	41.49	104	
2,6-Dinitrotoluene-d3	500	563.769	113	
2-Amino-4,6-dinitrotoluene	40	36.882	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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7-Mar-2010
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MMT 3/7/10

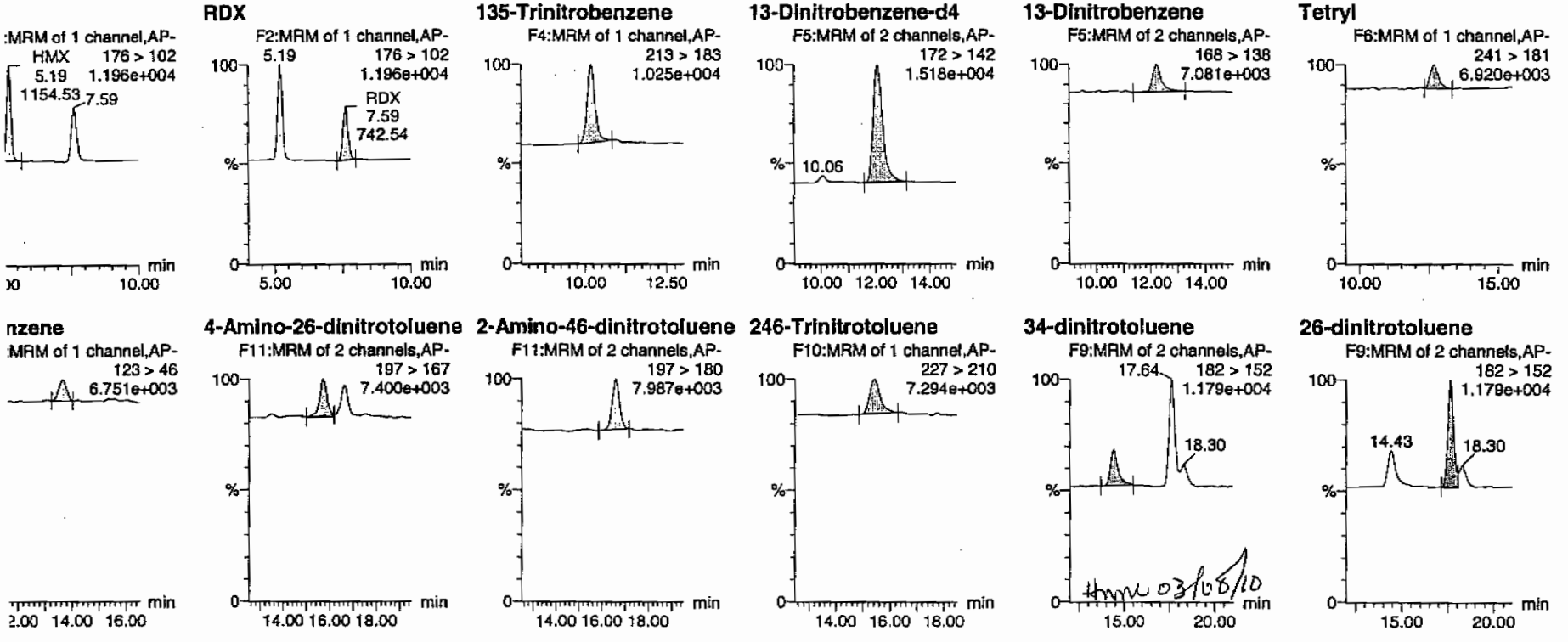

HMM 03/08/10

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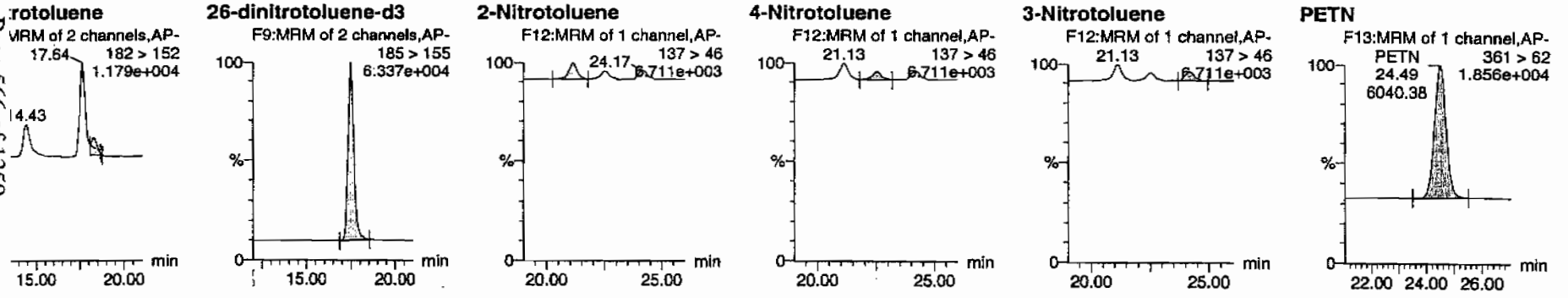

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
304-08CRI	HMX	176 > 102	5.19	1154.527	3700.700	1154.527	155.988	bb			33.4428	83.6	-16.4	273.7
304-08CRI	RDX	176 > 102	7.59	742.539	3700.700	742.539	100.324	bb			35.0612	87.7	-12.3	154.0
304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1161.825	3700.700	1161.825	156.974	bb			40.3136	100.8	0.8	185.9
304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3700.700		3700.700	3700.700	bb			526.8967	105.4	5.4	209.3
304-08CRI	13-Dinitrobenzene	168 > 138	12.24	390.652	3700.700	390.652	52.781	bb			41.6758	104.2	4.2	44.6
304-08CRI	Tetryl	241 > 181	12.68	296.977	3700.700	296.977	40.124	bb			39.4323	98.6	-1.4	20.7
304-08CRI	Nitrobenzene	123 > 46	13.63	226.207	3700.700	226.207	30.563	bb			37.0128	92.5	-7.5	19.7
304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	502.817	23182.834	502.817	10.845	MM	07-Mar-10	13:26:20	39.3166	98.3	-1.7	52.3
304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	692.750	23182.834	692.750	14.941	bb			36.8820	92.2	-7.8	68.3
304-08CRI	246-Trinitrotoluene	227 > 210	15.45	529.763	23182.834	529.763	11.426	bb			34.7703	86.9	-13.1	71.0
304-08CRI	34-dinitrotoluene	182 > 152	14.43	952.272	23182.834	952.272	20.538	bb			21.2509	106.3	6.3	33.7
304-08CRI	26-dinitrotoluene	182 > 152	17.64	2145.957	23182.834	2145.957	46.283	MM	07-Mar-10	13:29:23	41.4895	103.7	3.7	100.0
304-08CRI	24-dinitrotoluene	182 > 152	18.30	416.527	23182.834	416.527	8.984	MM	07-Mar-10	13:30:22	32.5906	81.5	-18.5	18.5
304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	23182.834		23182.834	23182.834	bb			563.7689	112.8	12.8	1520.3
304-08CRI	2-Nitrotoluene	137 > 46	21.13	262.196	23182.834	262.196	5.655	bb			36.5074	91.3	-8.7	40.8
304-08CRI	4-Nitrotoluene	137 > 46	22.53	148.814	23182.834	148.814	3.210	bb			42.0796	105.2	5.2	20.6
304-08CRI	3-Nitrotoluene	137 > 46	24.17	156.104	23182.834	156.104	3.367	bb			35.6825	89.2	-10.8	22.3
304-08CRI	PETN	361 > 62	24.49	6040.378	23182.834	6040.378	130.277	bb			41.7792	104.4	4.4	1396.8

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	0543
Standard Number	WXX100304-08CRI
Data File	EXP0304128a

HMX	83.6
RDX	87.7
135-TNB	100.8
13-DNB	104.2
Tetryl	98.6
Nitrobenzene	92.5
4A-26-DNT	98.3
2A-46-DNT	92.2
246-TNT	86.9
34-DNT(surr)	106.3
26-DNT	103.7
24-DNT	81.5
2-NT	91.3
4-NT	105.2
3-NT	89.2
PETN	104.4
Total	1526.4
Average	95.4

AMT 3/9/10

HMM-03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304139a

Analysis Date: 07–MAR–10 11:07

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene	600	594.181	99	
2,6–Dinitrotoluene–d3	500	537.834	108	
2–Amino–4,6–dinitrotoluene	600	667.838	111	
3,4–Dinitrotoluene	300	299.843	100	
4–Amino–2,6–dinitrotoluene	600	633.205	106	
HMX	600	667.227	111	
Nitrobenzene	600	574.855	96	
PETN	600	533.256	89	
RDX	600	699.96	117	
Tetryl	600	552.331	92	
m–Dinitrobenzene	600	604.819	101	
m–Nitrotoluene	600	530.755	88	
o–Nitrotoluene	600	667.006	111	
p–Nitrotoluene	600	620.102	103	
1,3,5–Trinitrobenzene	600	576.366	96	
1,3–Dinitrobenzene–d4	500	493.791	99	
2,4,6–Trinitrotoluene	600	622.65	104	
2,4–Dinitrotoluene	600	620.507	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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7-Mar-2010
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MJT 3/7/10

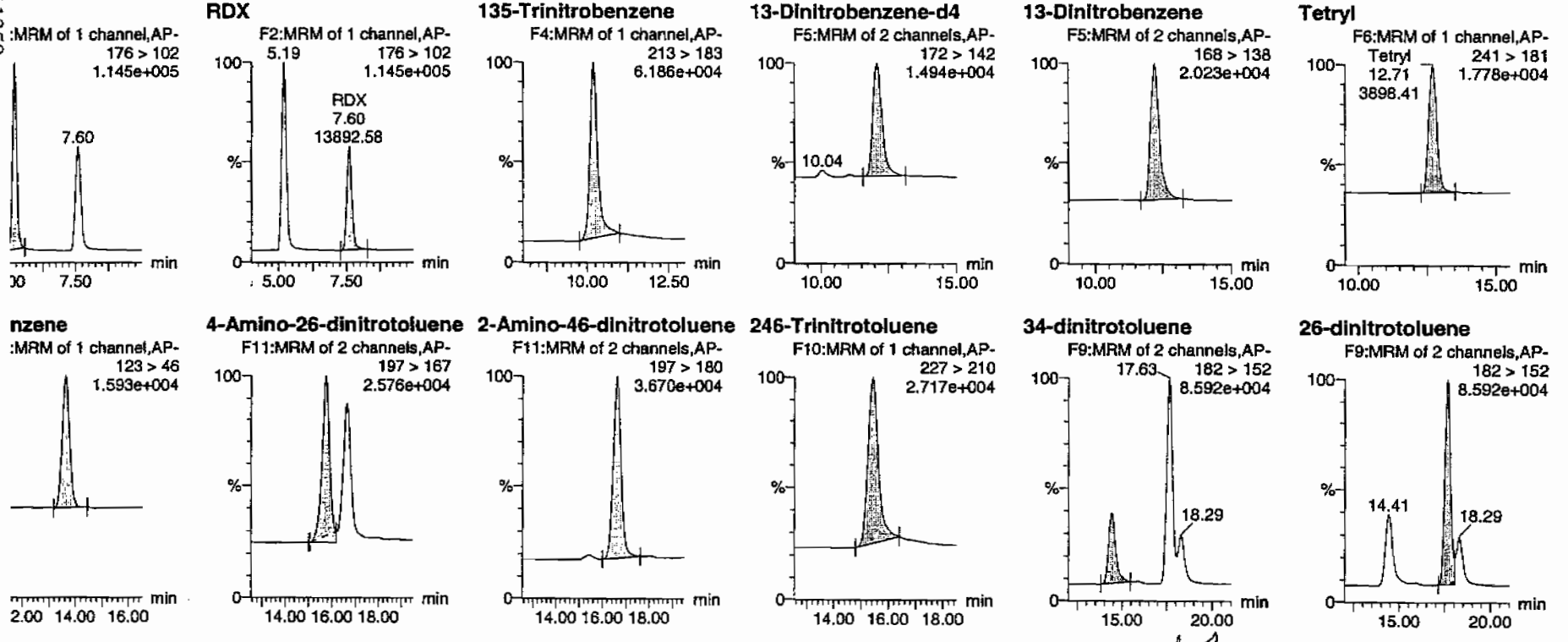

Hmm 03/08/10

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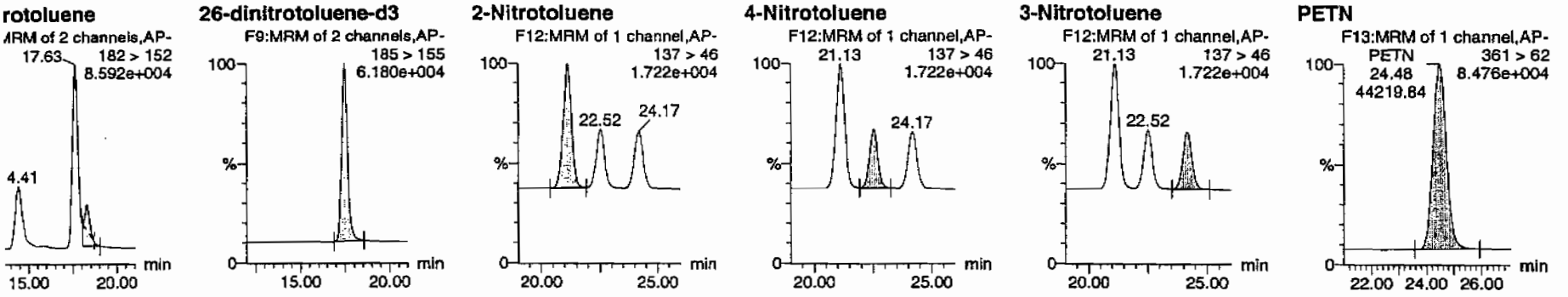

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
304-07CCV	HMX	176 > 102	5.19	21586.969	3468.176	21586.969	3112.150	bb			667.2266	111.2	11.2	2182.3
304-07CCV	RDX	176 > 102	7.60	13892.584	3468.176	13892.584	2002.866	bb			699.9604	116.7	16.7	1206.4
304-07CCV	135-Trinitrobenzene	213 > 183	10.19	15567.002	3468.176	15567.002	2244.264	bb			576.3663	96.1	-3.9	2734.4
304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3468.176		3468.176	3468.176	bb			493.7905	98.8	-1.2	127.7
304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5313.112	3468.176	5313.112	765.981	bb			604.8192	100.8	0.8	469.4
304-07CCV	Tetryl	241 > 181	12.71	3898.411	3468.176	3898.411	562.026	bb			552.3314	92.1	-7.9	343.2
304-07CCV	Nitrobenzene	123 > 46	13.61	3292.529	3468.176	3292.529	474.677	bb			574.8551	95.8	-4.2	478.4
304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7725.487	22116.371	7725.487	174.655	MM	07-Mar-10	13:26:32	633.2051	105.5	5.5	321.1
304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11966.849	22116.371	11966.849	270.543	bb			667.8377	111.3	11.3	1813.8
304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9050.346	22116.371	9050.346	204.607	bb			622.6505	103.8	3.8	444.5
304-07CCV	34-dinitrotoluene	182 > 152	14.41	12818.127	22116.371	12818.127	289.788	bb			299.8429	99.9	-0.1	271.1
304-07CCV	26-dinitrotoluene	182 > 152	17.63	29318.959	22116.371	29318.959	662.834	MM	07-Mar-10	13:29:40	594.1807	99.0	-1.0	795.3
304-07CCV	24-dinitrotoluene	182 > 152	18.29	7565.616	22116.371	7565.616	171.041	MM	07-Mar-10	13:30:11	620.5067	103.4	3.4	181.3
304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	22116.371		22116.371	22116.371	bb			537.8342	107.6	7.6	1452.4
304-07CCV	2-Nitrotoluene	137 > 46	21.13	4570.058	22116.371	4570.058	103.318	bb			667.0060	111.2	11.2	920.7
304-07CCV	4-Nitrotoluene	137 > 46	22.52	2092.102	22116.371	2092.102	47.298	bb			620.1016	103.4	3.4	432.4
304-07CCV	3-Nitrotoluene	137 > 46	24.17	2215.137	22116.371	2215.137	50.079	bb			530.7548	88.5	-11.5	418.0
304-07CCV	PETN	361 > 62	24.48	44219.840	22116.371	44219.840	999.708	bb			533.2564	88.9	-11.1	8673.6

P GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 1107
Standard Number: WXX100304-07CCV
Data File: EXP0304139a

HMX	111.2
RDX	116.7
135-TNB	96.1
13-DNB	100.8
Tetryl	92.1
Nitrobenzene	95.8
4A-26-DNT	105.5
2A-46-DNT	111.3
246-TNT	103.8
34-DNT(surr)	99.9
26-DNT	99.0
24-DNT	103.4
2-NT	111.2
4-NT	103.4
3-NT	88.5
PETN	88.9
Total	1627.6
Average	101.7

MJT 3/7/10

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304141a

Analysis Date: 07–MAR–10 12:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	42.864	107	
1,3–Dinitrobenzene–d4	500	543.802	109	
2,4,6–Trinitrotoluene	40	39.405	99	
2,4–Dinitrotoluene	40	34.117	85	
2,6–Dinitrotoluene	40	41.089	103	
2,6–Dinitrotoluene–d3	500	522.237	104	
2–Amino–4,6–dinitrotoluene	40	46.396	116	
3,4–Dinitrotoluene	20	17.875	89	
4–Amino–2,6–dinitrotoluene	40	41.16	103	
HMX	40	36.496	91	
Nitrobenzene	40	38.472	96	
PETN	40	57.261	143	*
RDX	40	35.957	90	
Tetryl	40	39.267	98	
m–Dinitrobenzene	40	41.353	103	
m–Nitrotoluene	40	39.049	98	
o–Nitrotoluene	40	37.499	94	
p–Nitrotoluene	40	40.552	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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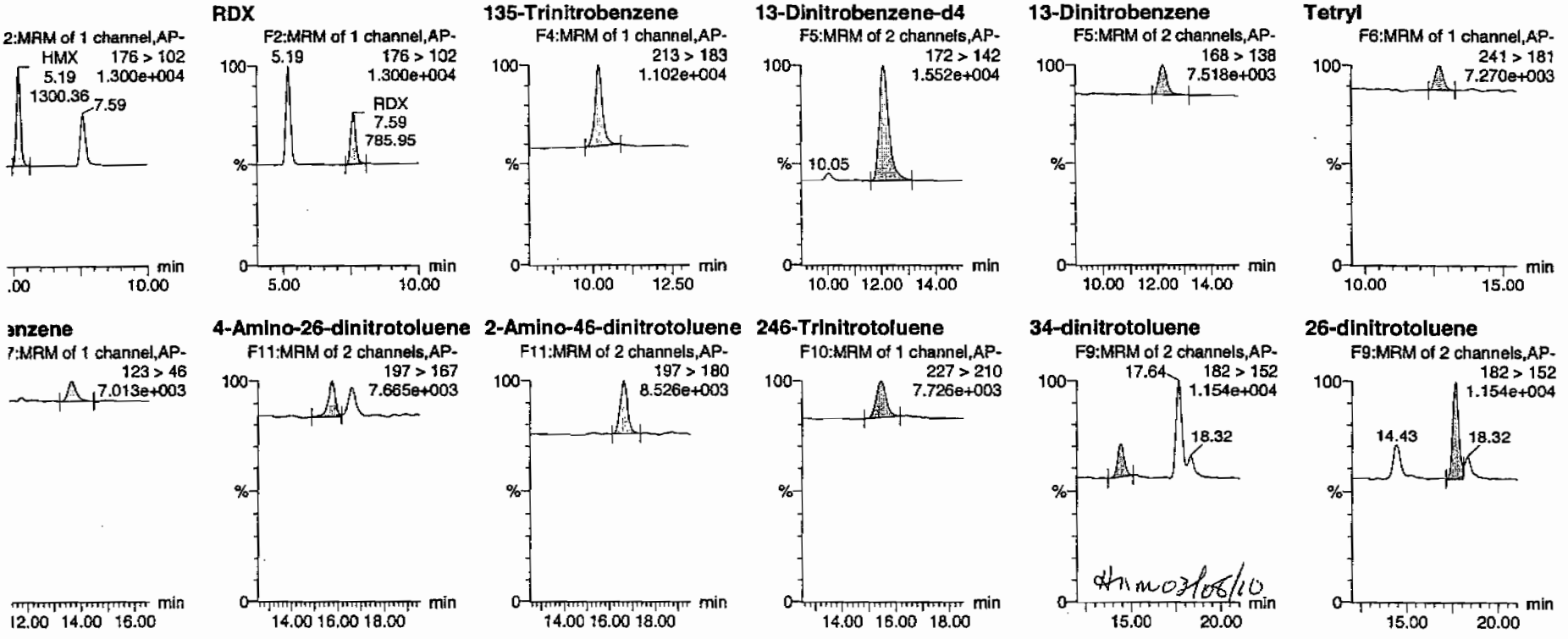

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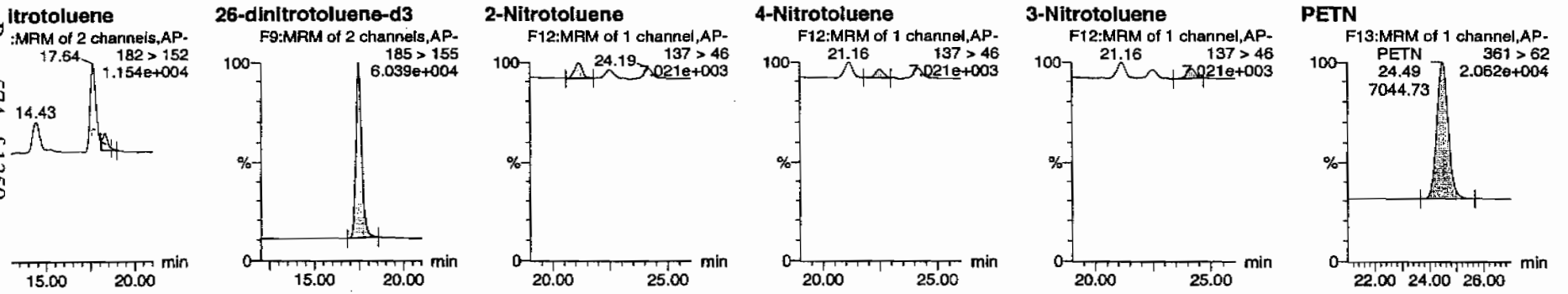

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
0304-08CRI	HMX	176 > 102	5.19	1300.355	3819.438	1300.355	170.229	bb			36.4960	91.2	-8.8	242.0
0304-08CRI	RDX	176 > 102	7.59	785.948	3819.438	785.948	102.888	bb			35.9572	89.9	-10.1	128.4
0304-08CRI	135-Trinitrobenzene	213 > 183	10.18	1274.962	3819.438	1274.962	166.904	bb			42.8640	107.2	7.2	124.4
0304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3819.438		3819.438	3819.438	bb			543.8024	108.8	8.8	438.1
0304-08CRI	13-Dinitrobenzene	168 > 138	12.20	400.061	3819.438	400.061	52.372	bb			41.3528	103.4	3.4	62.1
0304-08CRI	Tetryl	241 > 181	12.68	305.221	3819.438	305.221	39.956	bb			39.2670	98.2	-1.8	22.3
0304-08CRI	Nitrobenzene	123 > 46	13.63	242.671	3819.438	242.671	31.768	bb			38.4723	96.2	-3.8	13.9
0304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	487.615	21475.008	487.615	11.353	MM	07-Mar-10	13:26:39	41.1601	102.9	2.9	25.1
0304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	807.255	21475.008	807.255	18.795	bb			46.3962	116.0	16.0	80.7
0304-08CRI	246-Trinitrotoluene	227 > 210	15.45	556.148	21475.008	556.148	12.949	bb			39.4049	98.5	-1.5	38.0
0304-08CRI	34-dinitrotoluene	182 > 152	14.43	741.980	21475.008	741.980	17.275	bb			17.8748	89.4	-10.6	45.0
0304-08CRI	26-dinitrotoluene	182 > 152	17.64	1968.676	21475.008	1968.676	45.836	MM	07-Mar-10	13:29:53	41.0889	102.7	2.7	135.6
0304-08CRI	24-dinitrotoluene	182 > 152	18.32	403.917	21475.008	403.917	9.404	MM	07-Mar-10	13:30:03	34.1173	85.3	-14.7	27.2
0304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	21475.008		21475.008	21475.008	bb			522.2373	104.4	4.4	1724.4
0304-08CRI	2-Nitrotoluene	137 > 46	21.16	249.480	21475.008	249.480	5.809	bb			37.4994	93.7	-6.3	46.9
0304-08CRI	4-Nitrotoluene	137 > 46	22.50	132.846	21475.008	132.846	3.093	bb			40.5517	101.4	1.4	24.1
0304-08CRI	3-Nitrotoluene	137 > 46	24.19	158.247	21475.008	158.247	3.684	bb			39.0489	97.6	-2.4	28.5
0304-08CRI	PETN	361 > 62	24.49	7044.725	21475.008	7044.725	164.021	bb			57.2612	143.2	43.2	1280.2

✓

OP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	1206
Standard Number	WXX100304-08CRI
Data File	EXP0304141a

HMX		91.2
RDX		89.9
135-TNB		107.2
13-DNB		103.4
Tetryl		98.2
Nitrobenzene		96.2
4A-26-DNT		102.9
2A-46-DNT		116.0
246-TNT		98.5
34-DNT(surr)		89.4
26-DNT		102.7
24-DNT		85.3
2-NT		93.7
4-NT		101.4
3-NT		97.6
PETN		143.2
Total		1616.8
Average		101.1

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304146a

Analysis Date: 07-MAR-10 14:34

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	600	662.99	110	
2,4-Dinitrotoluene	600	604.969	101	
2,6-Dinitrotoluene	600	610.904	102	
2,6-Dinitrotoluene-d3	500	512.665	103	
2-Amino-4,6-dinitrotoluene	600	705.31	118	
3,4-Dinitrotoluene	300	316.867	106	
4-Amino-2,6-dinitrotoluene	600	683.603	114	
HMX	600	556.277	93	
Nitrobenzene	600	571.879	95	
PETN	600	618.034	103	
RDX	600	622.846	104	
Tetryl	600	548.624	91	
m-Dinitrobenzene	600	583.825	97	
m-Nitrotoluene	600	570.191	95	
o-Nitrotoluene	600	604.577	101	
p-Nitrotoluene	600	621.97	104	
1,3,5-Trinitrobenzene	600	558.926	93	
1,3-Dinitrobenzene-d4	500	556.32	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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7-Mar-2010
4:34:39
X100304-07CCV
1,B

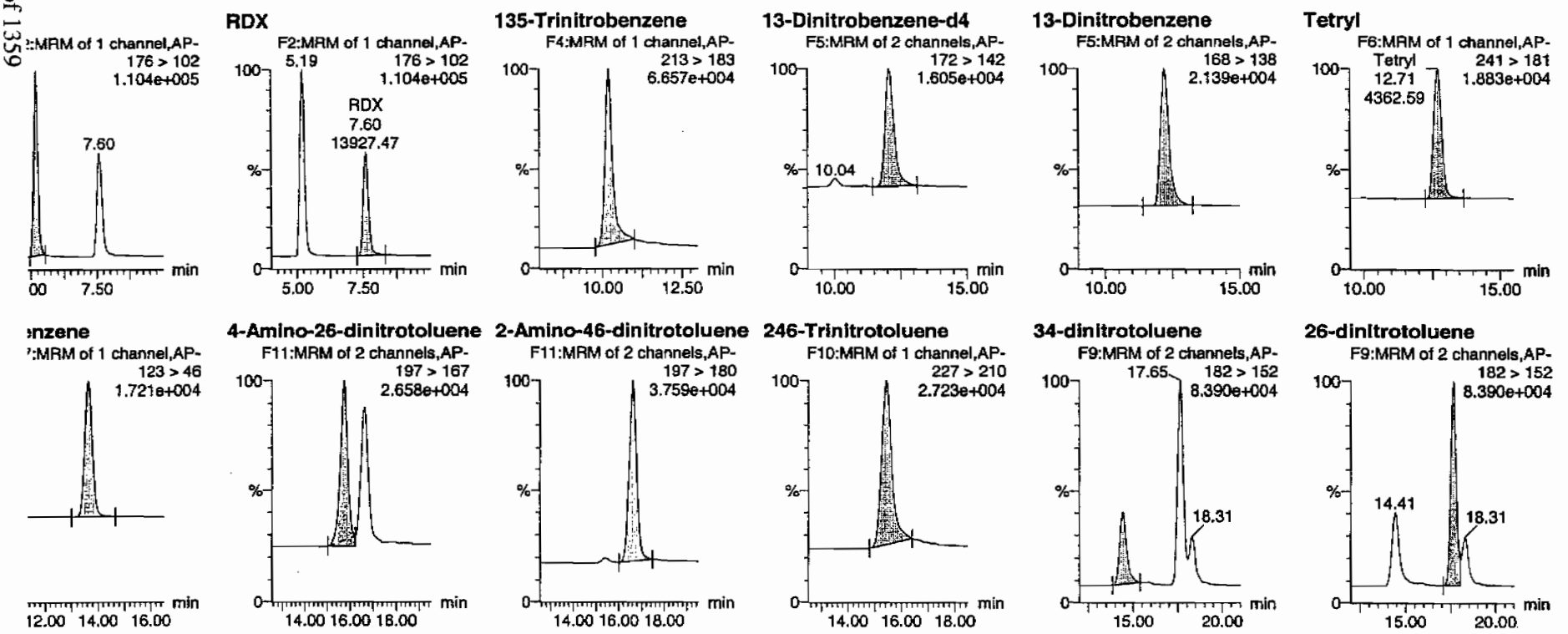

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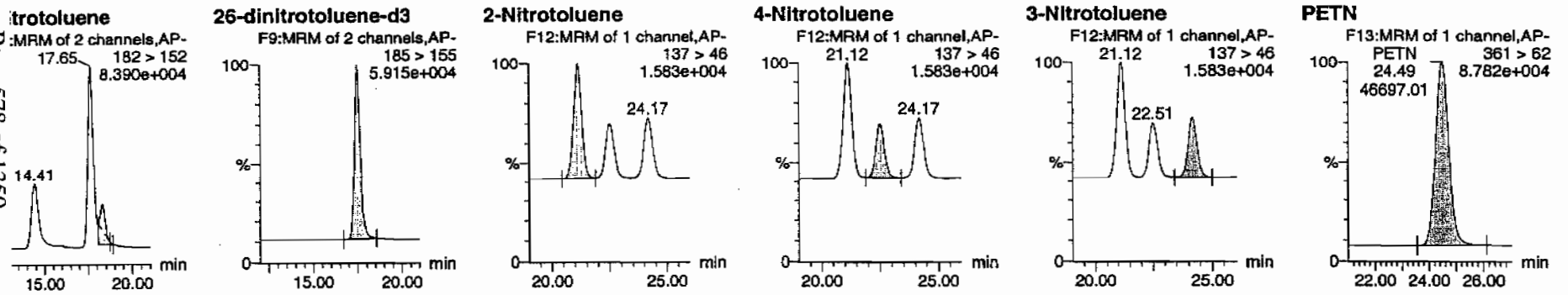

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
0304-07CCV	HMX	176 > 102	5.19	20276.393	3907.354	20276.393	2594.645	bb			556.2765	92.7	-7.3	2391.1
0304-07CCV	RDX	176 > 102	7.60	13927.465	3907.354	13927.465	1782.212	bb			622.8463	103.8	3.8	1359.0
0304-07CCV	135-Trinitrobenzene	213 > 183	10.19	17007.564	3907.354	17007.564	2176.353	bb			558.9257	93.2	-6.8	1116.3
0304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3907.354		3907.354	3907.354	bb			556.3196	111.3	11.3	287.7
0304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5778.132	3907.354	5778.132	739.392	bb			583.8246	97.3	-2.7	498.5
0304-07CCV	Tetryl	241 > 181	12.71	4362.592	3907.354	4362.592	558.254	bb			548.6244	91.4	-8.6	367.7
0304-07CCV	Nitrobenzene	123 > 46	13.61	3690.261	3907.354	3690.261	472.220	bb			571.8791	95.3	-4.7	365.5
0304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7950.056	21081.367	7950.056	188.556	MM	08-Mar-10	11:33:36	683.6028	113.9	13.9	595.9
0304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	12046.863	21081.367	12046.863	285.723	bb			705.3103	117.6	17.6	484.2
0304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9185.715	21081.367	9185.715	217.863	bb			662.9904	110.5	10.5	489.7
0304-07CCV	34-dinitrotoluene	182 > 152	14.41	12911.955	21081.367	12911.955	306.241	bb			316.8665	105.6	5.6	606.5
0304-07CCV	26-dinitrotoluene	182 > 152	17.65	28733.469	21081.367	28733.469	681.490	MM	08-Mar-10	11:51:50	610.9043	101.8	1.8	1727.2
0304-07CCV	24-dinitrotoluene	182 > 152	18.31	7030.979	21081.367	7030.979	166.758	MM	08-Mar-10	11:52:36	604.9689	100.8	0.8	381.8
0304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	21081.367		21081.367	21081.367	bb			512.6646	102.5	2.5	1209.3
0304-07CCV	2-Nitrotoluene	137 > 46	21.12	3948.466	21081.367	3948.466	93.648	bb			604.5769	100.8	0.8	471.6
0304-07CCV	4-Nitrotoluene	137 > 46	22.51	2000.205	21081.367	2000.205	47.440	bb			621.9702	103.7	3.7	228.6
0304-07CCV	3-Nitrotoluene	137 > 46	24.17	2268.361	21081.367	2268.361	53.800	bb			570.1913	95.0	-5.0	250.8
0304-07CCV	PETN	361 > 62	24.49	46697.008	21081.367	46697.008	1107.542	bb			618.0345	103.0	3.0	7203.9

OP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 1434
Standard Number: WXX100304-07CCV
Data File: EXP0304146a

HMX		92.7
RDX		103.8
135-TNB		93.2
13-DNB		97.3
Tetryl		91.4
Nitrobenzene		95.3
4A-26-DNT		113.9
2A-46-DNT		117.6
246-TNT		110.5
34-DNT(surr)		105.6
26-DNT		101.8
24-DNT		100.8
2-NT		100.8
4-NT		103.7
3-NT		95.0
PETN		103.0
Total		1626.4
Average		101.7

MMT 3/8/10

03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304148a

Analysis Date: 07–MAR–10 15:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	47.467	119	
1,3–Dinitrobenzene–d4	500	542.513	109	
2,4,6–Trinitrotoluene	40	38.864	97	
2,4–Dinitrotoluene	40	36.945	92	
2,6–Dinitrotoluene	40	38.784	97	
2,6–Dinitrotoluene–d3	500	550.313	110	
2–Amino–4,6–dinitrotoluene	40	47.189	118	
3,4–Dinitrotoluene	20	20.504	103	
4–Amino–2,6–dinitrotoluene	40	48.089	120	
HMX	40	45.84	115	
Nitrobenzene	40	41.167	103	
PETN	40	55.645	139	*
RDX	40	44.484	111	
Tetryl	40	36.664	92	
m–Dinitrobenzene	40	34.02	85	
m–Nitrotoluene	40	36.88	92	
o–Nitrotoluene	40	39.142	98	
p–Nitrotoluene	40	43.464	109	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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15:33:40
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Page 581 of 1359

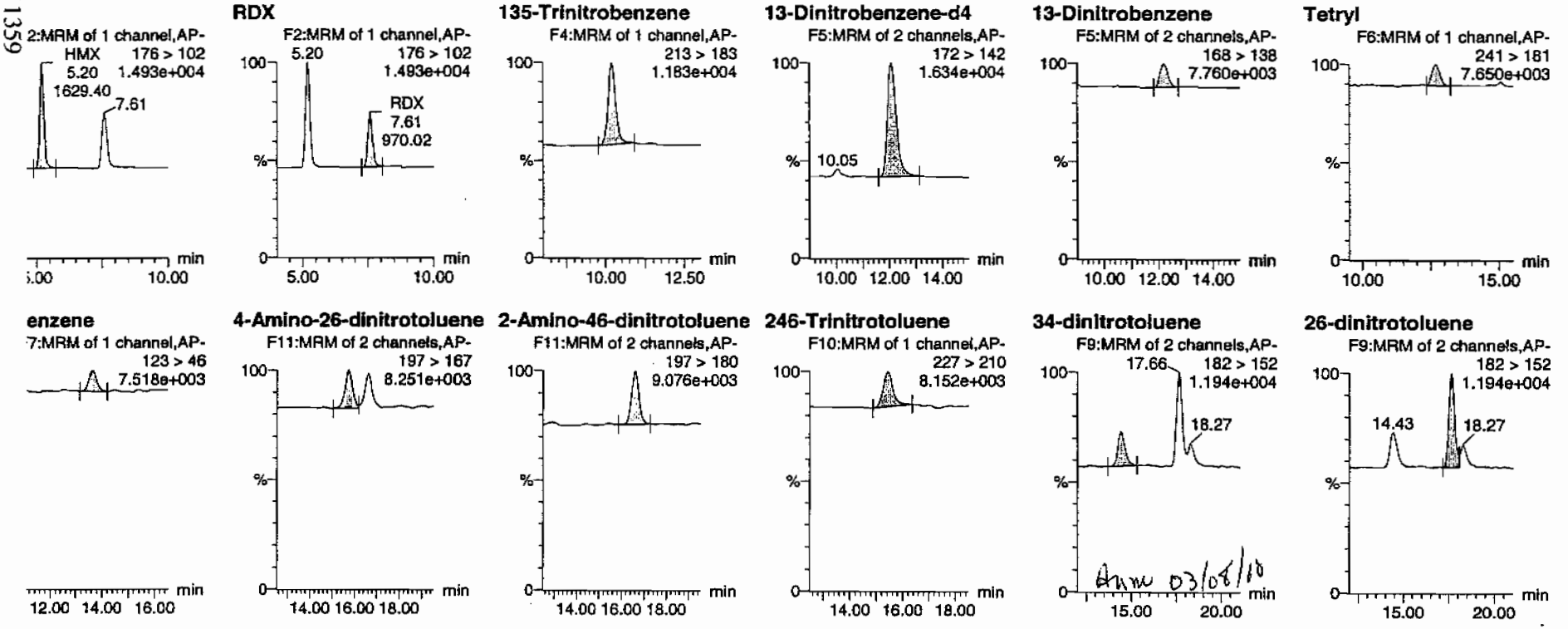

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Page 582 of 1359

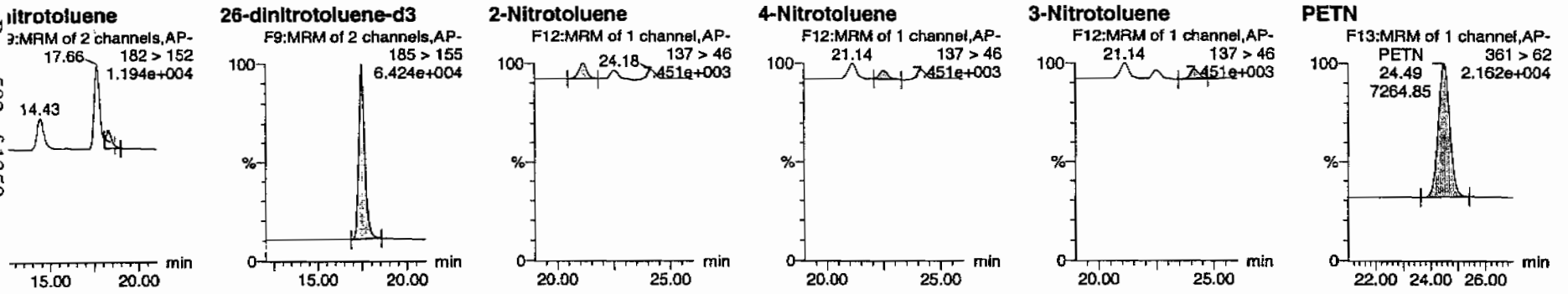

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
)0304-08CRI	HMX	176 > 102	5.20	1629.401	3810.383	1629.401	213.811	bb			45.8397	114.6	14.6	388.1
)0304-08CRI	RDX	176 > 102	7.61	970.024	3810.383	970.024	127.287	bb			44.4842	111.2	11.2	203.5
)0304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1408.539	3810.383	1408.539	184.829	bb			47.4673	118.7	18.7	246.9
)0304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3810.383		3810.383	3810.383	bb			542.5131	108.5	8.5	450.2
)0304-08CRI	13-Dinitrobenzene	168 > 138	12.20	328.342	3810.383	328.342	43.085	bb			34.0201	85.1	-14.9	41.2
)0304-08CRI	Tetryl	241 > 181	12.68	284.310	3810.383	284.310	37.307	bb			36.6637	91.7	-8.3	39.7
)0304-08CRI	Nitrobenzene	123 > 46	13.63	259.052	3810.383	259.052	33.993	bb			41.1669	102.9	2.9	25.6
)0304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	600.325	22629.516	600.325	13.264	MM	08-Mar-10	11:33:46	48.0888	120.2	20.2	22.8
)0304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	865.188	22629.516	865.188	19.116	bb			47.1889	118.0	18.0	57.4
)0304-08CRI	246-Trinitrotoluene	227 > 210	15.45	577.999	22629.516	577.999	12.771	bb			38.8638	97.2	-2.8	45.6
)0304-08CRI	34-dinitrotoluene	182 > 152	14.43	896.863	22629.516	896.863	19.816	bb			20.5038	102.5	2.5	70.8
)0304-08CRI	26-dinitrotoluene	182 > 152	17.66	1958.128	22629.516	1958.128	43.265	MM	08-Mar-10	11:51:38	38.7837	97.0	-3.0	188.7
)0304-08CRI	24-dinitrotoluene	182 > 152	18.27	460.912	22629.516	460.912	10.184	MM	08-Mar-10	11:54:42	36.9453	92.4	-7.6	43.3
)0304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22629.516		22629.516	22629.516	bb			550.3131	110.1	10.1	1392.3
)0304-08CRI	2-Nitrotoluene	137 > 46	21.14	274.408	22629.516	274.408	6.063	bb			39.1420	97.9	-2.1	66.4
)0304-08CRI	4-Nitrotoluene	137 > 46	22.51	150.040	22629.516	150.040	3.315	bb			43.4636	108.7	8.7	37.1
)0304-08CRI	3-Nitrotoluene	137 > 46	24.18	157.494	22629.516	157.494	3.480	bb			36.8804	92.2	-7.8	39.8
)0304-08CRI	PETN	361 > 62	24.49	7264.852	22629.516	7264.852	160.517	bb			55.6445	139.1	39.1	2871.6

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	1533
Standard Number	WXX100304-08CRI
Data File	EXP0304148a

HMX	114.6
RDX	111.2
135-TNB	118.7
13-DNB	85.1
Tetryl	91.7
Nitrobenzene	102.9
4A-26-DNT	120.2
2A-46-DNT	118.0
246-TNT	97.2
34-DNT(surr)	102.5
26-DNT	97.0
24-DNT	92.4
2-NT	97.9
4-NT	108.7
3-NT	92.2
PETN	139.1
Total	1689.4
Average	105.6

MHT 3/8/10

HMK 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260013.wiff

Analysis Date: 26–FEB–10 18:02

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	110	110	
2,6–Diamino–4–nitrotoluene	100	104	104	
3,4–Dinitrotoluene	50	46.1	92	
3,5–Dinitroaniline	100	94.6	95	
TATB	100	105	105	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcn 3/1/10

e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
"TATS" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: "

x: 1
: QC
on: 100. ng/mL
Conc: 105. ng/mL
2/26/2010
6:02:29 PM

No
ithm: IntelliQuan - IQA
eight: 2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.08 min
1.08e+005 counts
28029.306 cps
6.99 min
7.63 min

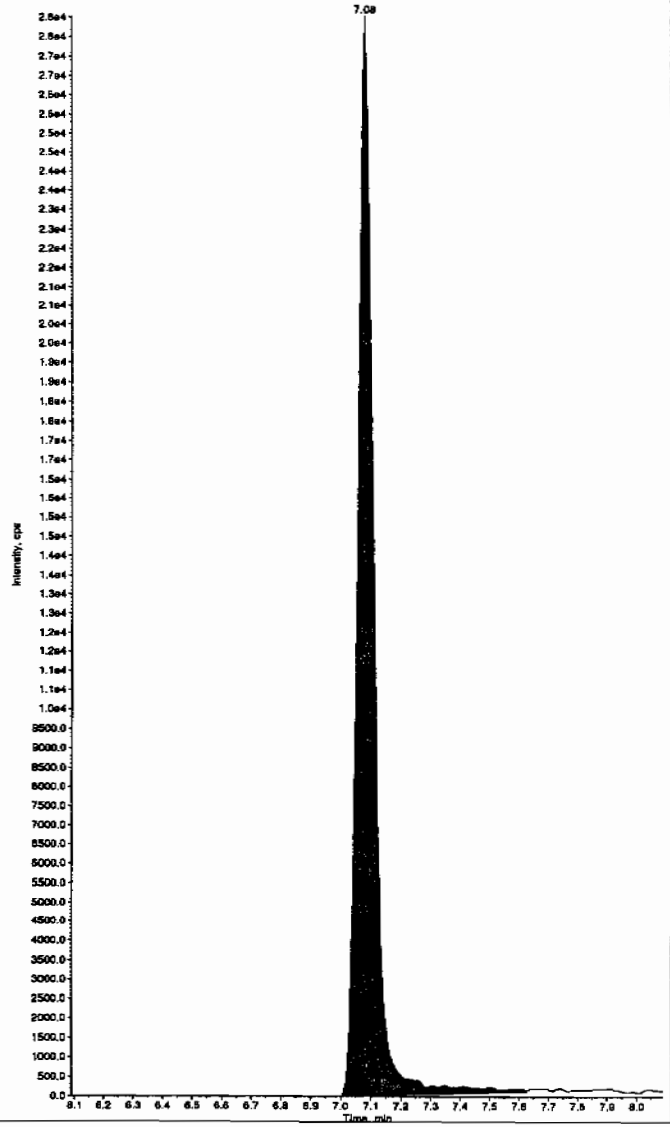

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.6 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 6:02:29 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.27 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.32 min
Area: 9.52e+005 counts
Height: 246685.013 cps
Start Time: 8.22 min
End Time: 8.42 min

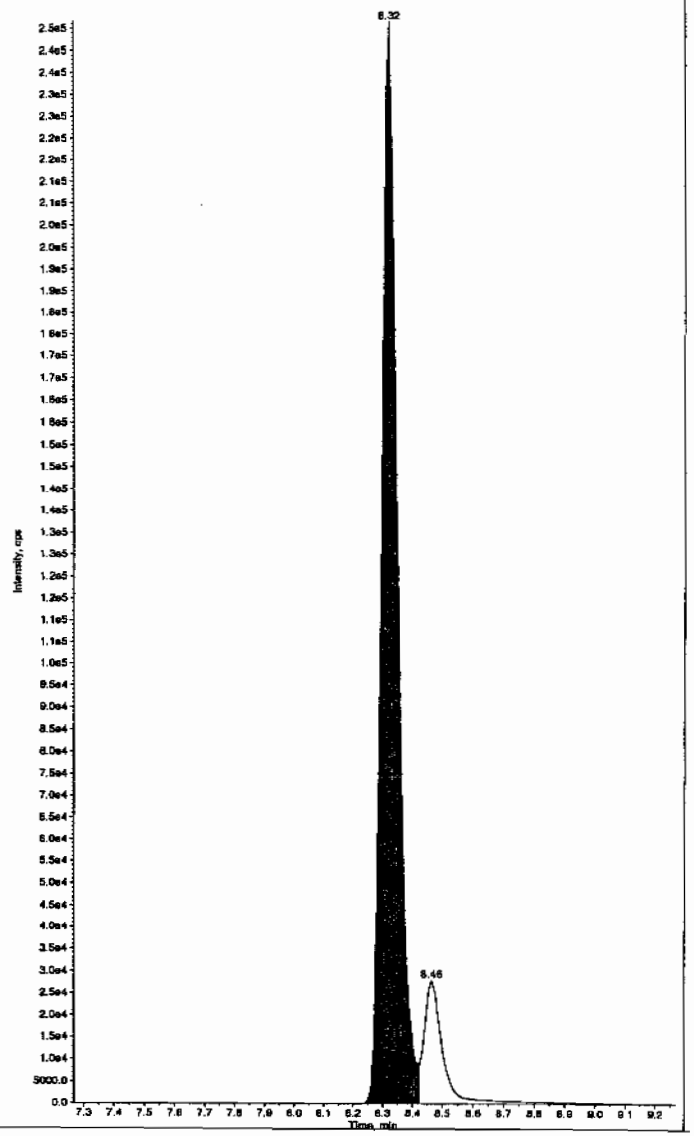

Hnm 03/01/10

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CMSEXP_C" Annotation: ""

```
x:          1
:          QC
on:       50.0     ng/mL
Conc:     46.1     ng/mL
       2/26/2010
       6:02:29 PM

          No
ithm: IntelliQuan - IQA
eight:1460.00    cps
idth:     0.00    sec
idth:  3        points
         15.0     sec
:         8.46    min
e RT:     No

        Valley
ime:      8.46    min
    6.66e+005    counts
     181473.358   cps
         8.39     min
         8.79     min
```

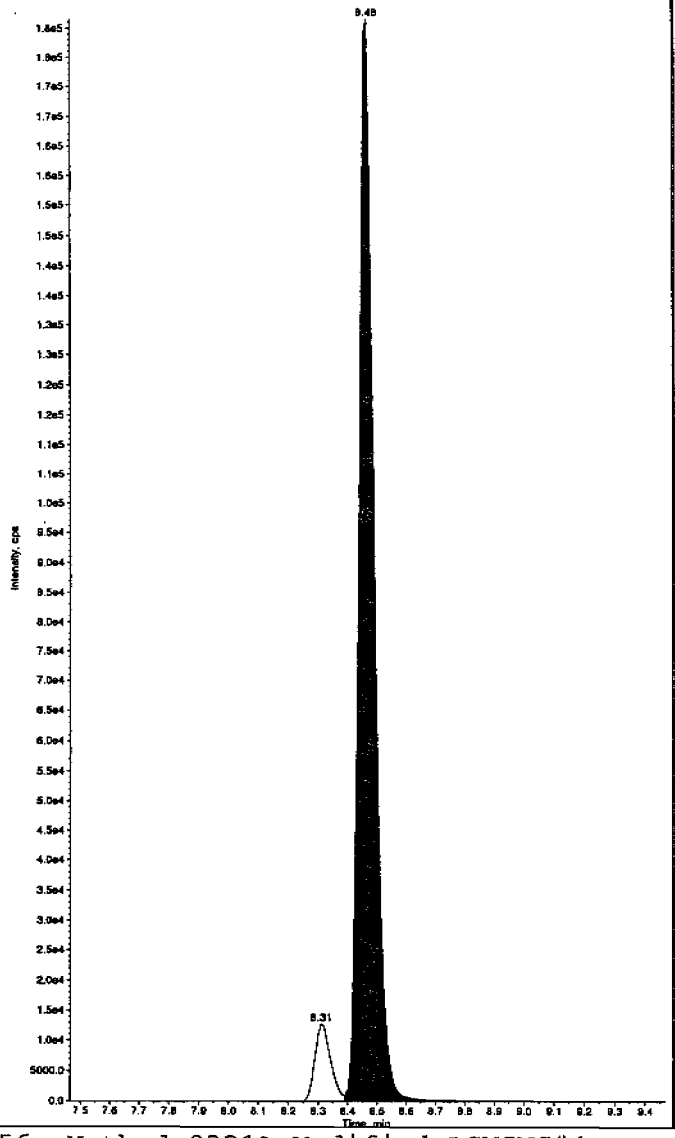

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     104.     ng/mL
Acq. Date:        2/26/2010
Acq. Time:        6:02:29 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        5.12    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:      5.11   min
Area:          2.28e+005   counts
Height:        53935.883   cps
Start Time:          5.01   min
End Time:            5.35   min
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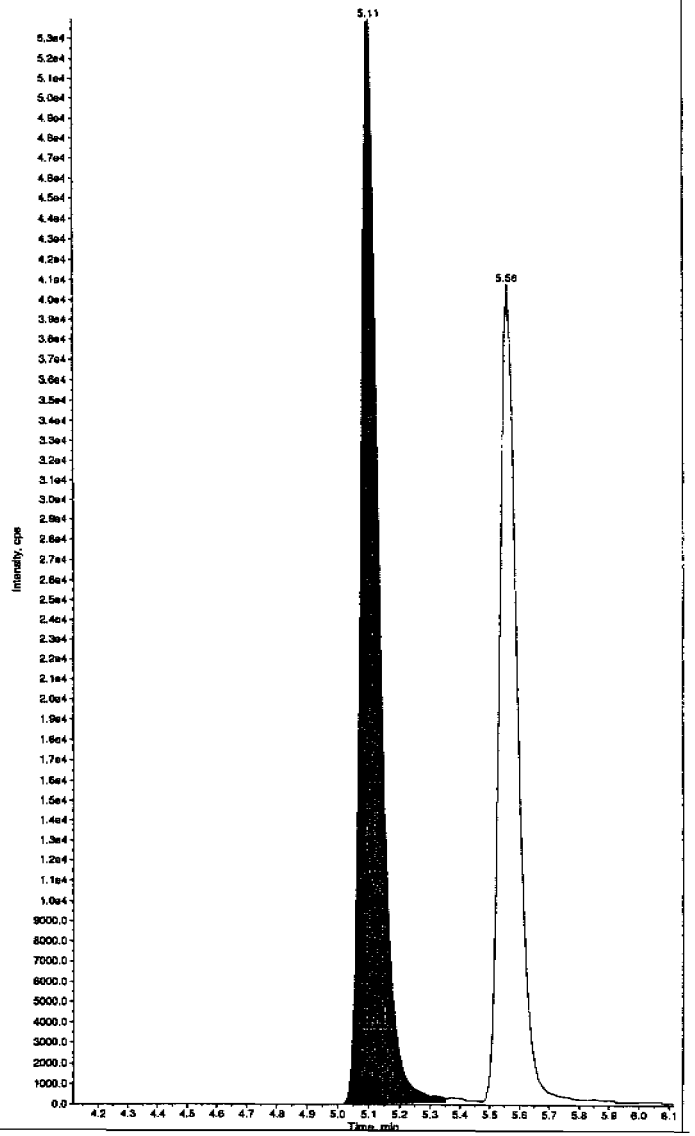

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e: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
_CMSEXP_C" Annotation: "

```
ex:          1
e:          QC
ion:       100.     ng/mL
Conc:      110.     ng/mL
        2/26/2010
        6:02:29 PM

           No
rithm: IntelliQuan - IQA
Height: 350.00    cps
Width:    0.00    sec
Width:  3        points
        30.0      sec
T:       5.57     min
ve RT:   No

        Valley
Time:    5.56     min
     1.68e+005   counts
     40613.808   cps
:        5.48     min
         5.80     min
```

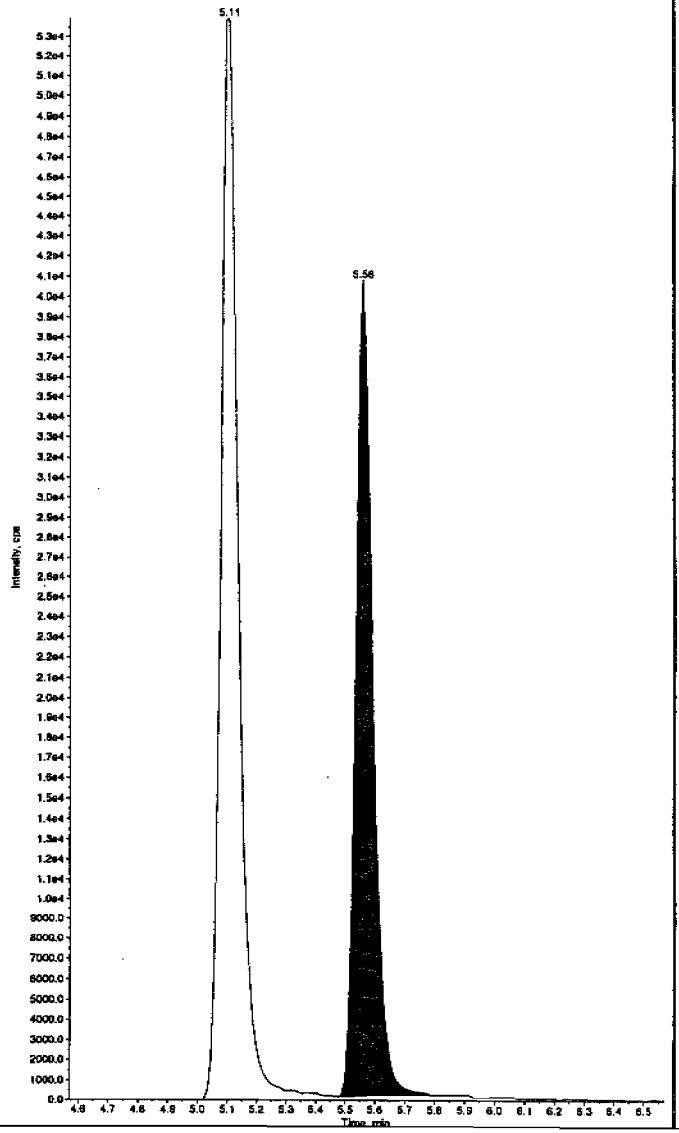

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     103.     ng/mL
Acq. Date:        2/26/2010
Acq. Time:        6:02:29 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9     min
Area:          1.76e+006    counts
Height:        481600.250   cps
Start Time:         10.8     min
End Time:           11.2     min
```

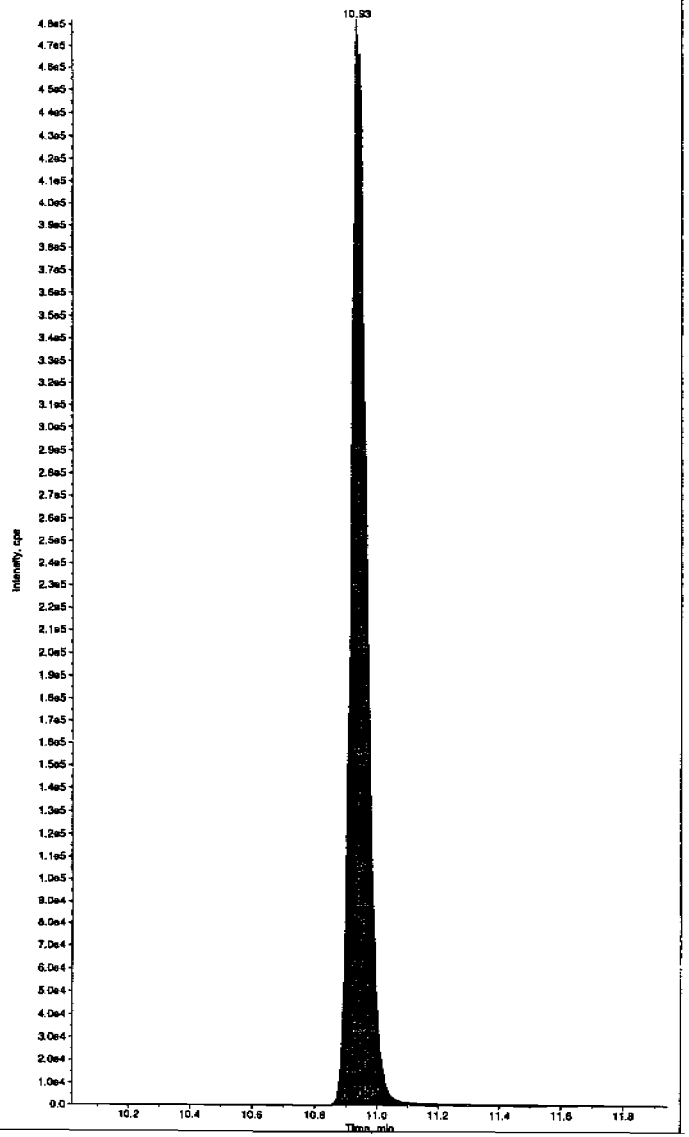

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260024.wiff

Analysis Date: 26-FEB-10 20:55

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	536	107	
2,6-Diamino-4-nitrotoluene	500	541	108	
3,4-Dinitrotoluene	250	219	88	
3,5-Dinitroaniline	500	464	93	
TATB	500	493	99	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lan 3/1/10

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a: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260024.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
on: 500. ng/mL
Conc: 493. ng/mL
2/26/2010
8:55:16 PM

No
ithm: IntelliQuan - IQA
eight:2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.09 min
5.82e+005 counts
146054.626 cps
6.99 min
7.71 min

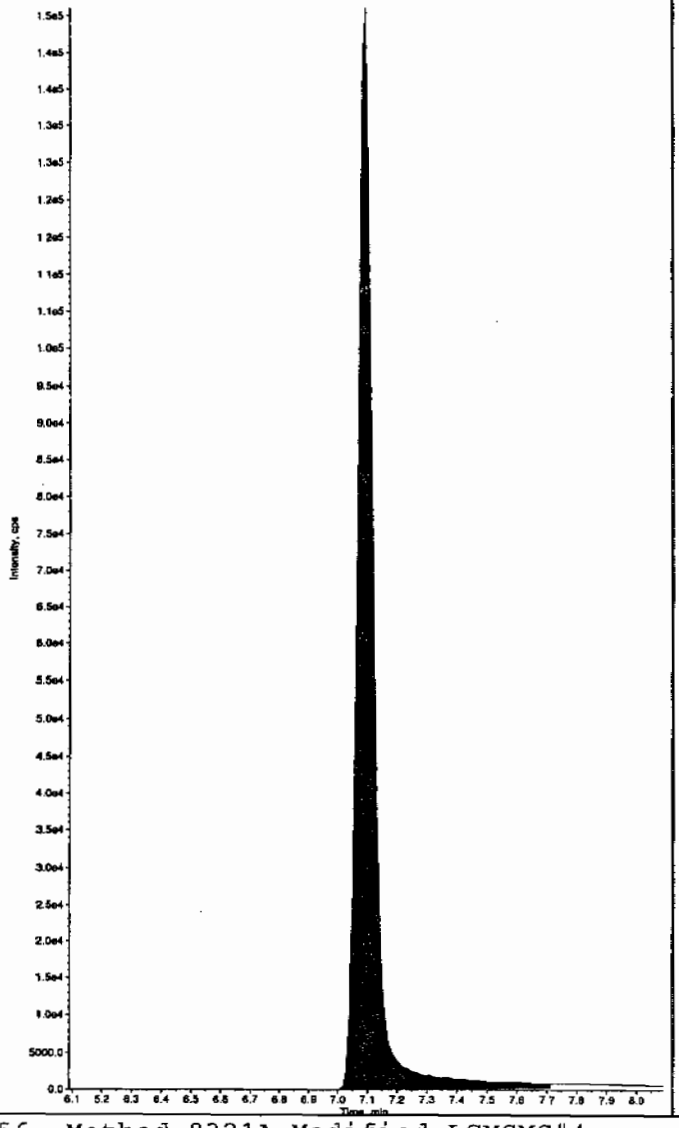

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	439.	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	8:55:16 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.27	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.32	min
Area:	4.06e+006	counts
Height:	1111148.438	cps
Start Time:	8.26	min
End Time:	8.42	min

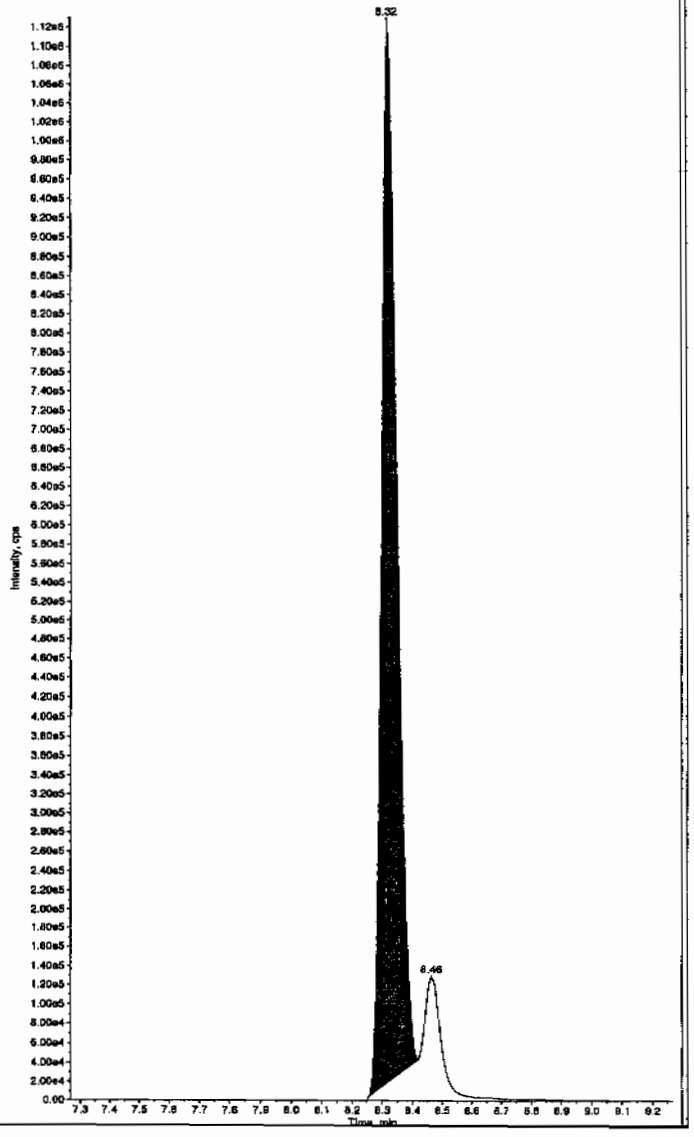

Hmm 03/01/10

after Ker 3/1/10

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e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
.CMSEXP_C" Annotation: ""
ex: 1
: QC
on: 500. ng/mL
Conc: 493.' ng/mL
2/26/2010
8:55:16 PM

No
ithm: IntelliQuan - IQA
eight:2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
Time: 7.09 min
5.82e+005 counts
146054.626 cps
6.99 min
7.71 min

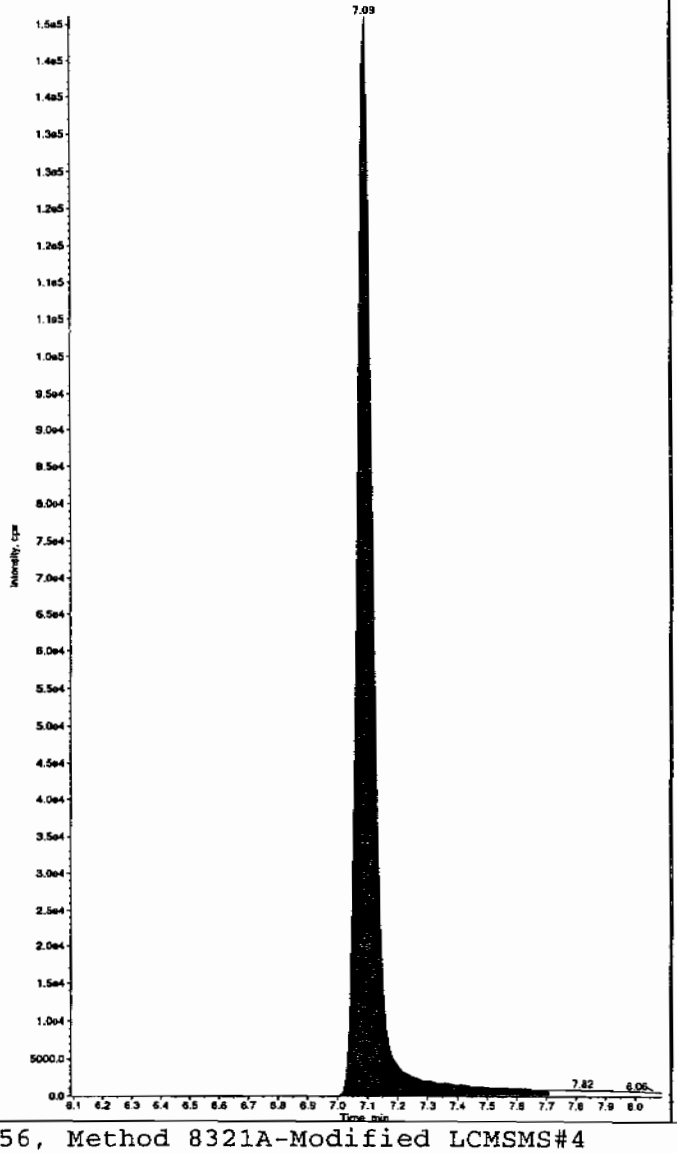

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	464. ng/mL
Acq. Date:	2/26/2010
Acq. Time:	8:55:16 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.27 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.32 min
Area:	4.27e+006 counts
Height:	1136132.036 cps
Start Time:	8.26 min
End Time:	8.42 min

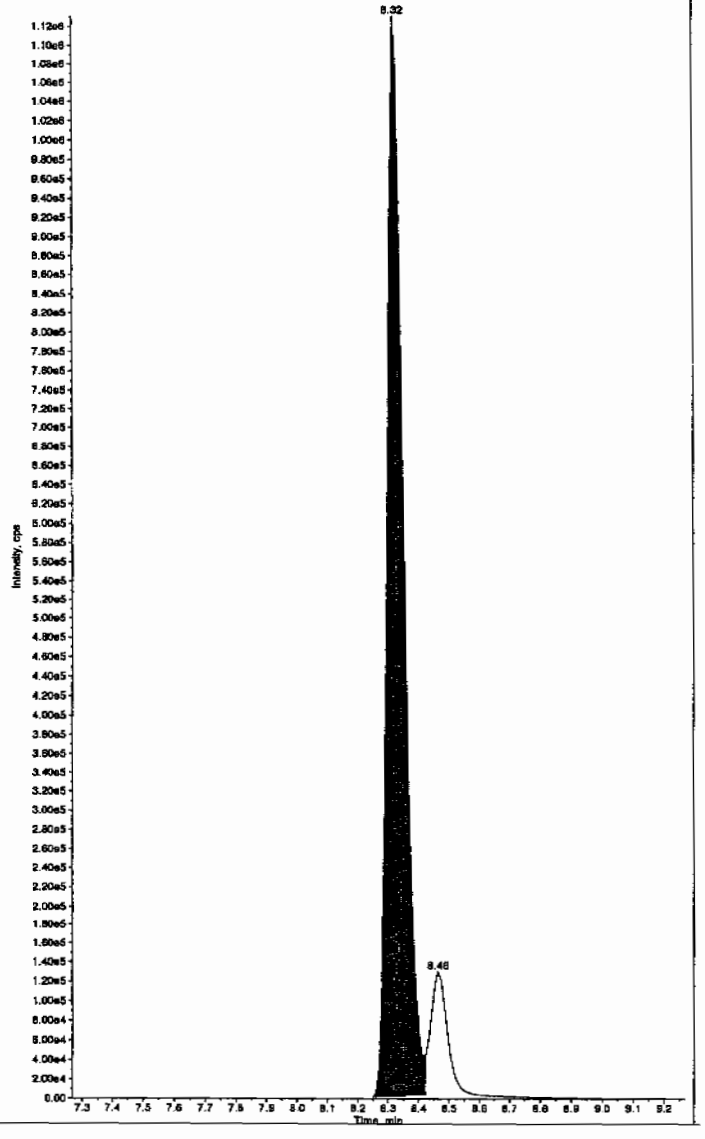

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e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
_CMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 250. ng/mL
Conc: 219. ng/mL
2/26/2010
8:55:16 PM

No
rithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
e: 8.46 min
e RT: No

Valley
Time: 8.46 min
3.04e+006 counts
837212.036 cps
8.39 min
8.82 min

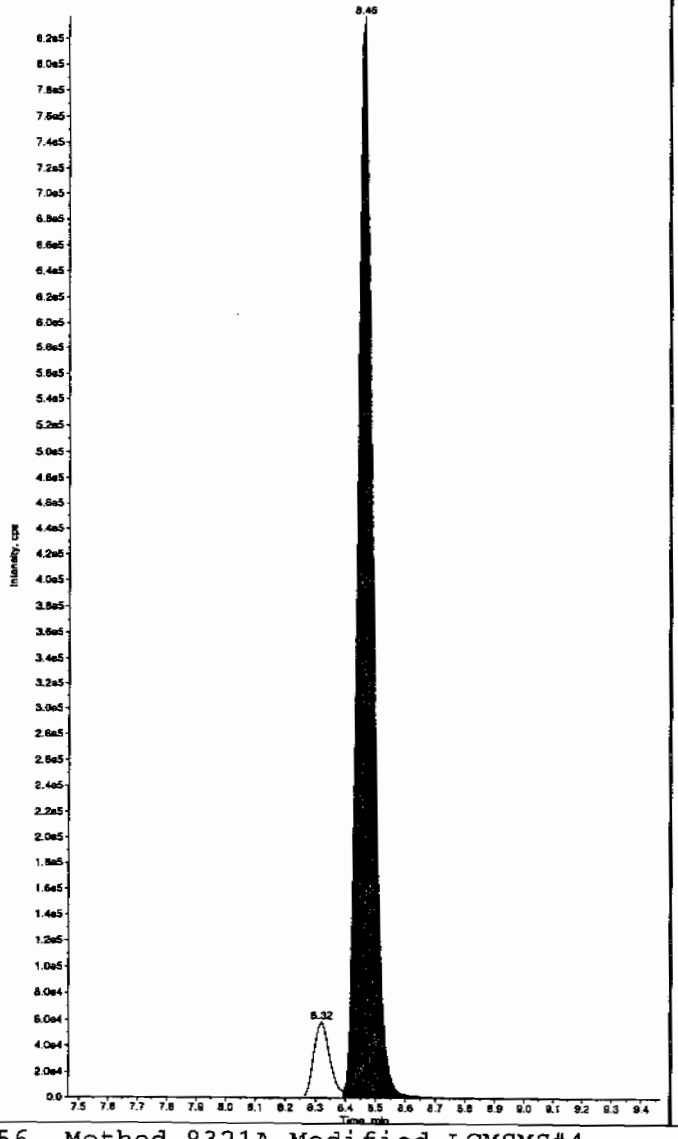

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	541.	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	8:55:16 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.12	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.11	min
Area:	1.19e+006	counts
Height:	280100.037	cps
Start Time:	5.01	min
End Time:	5.41	min

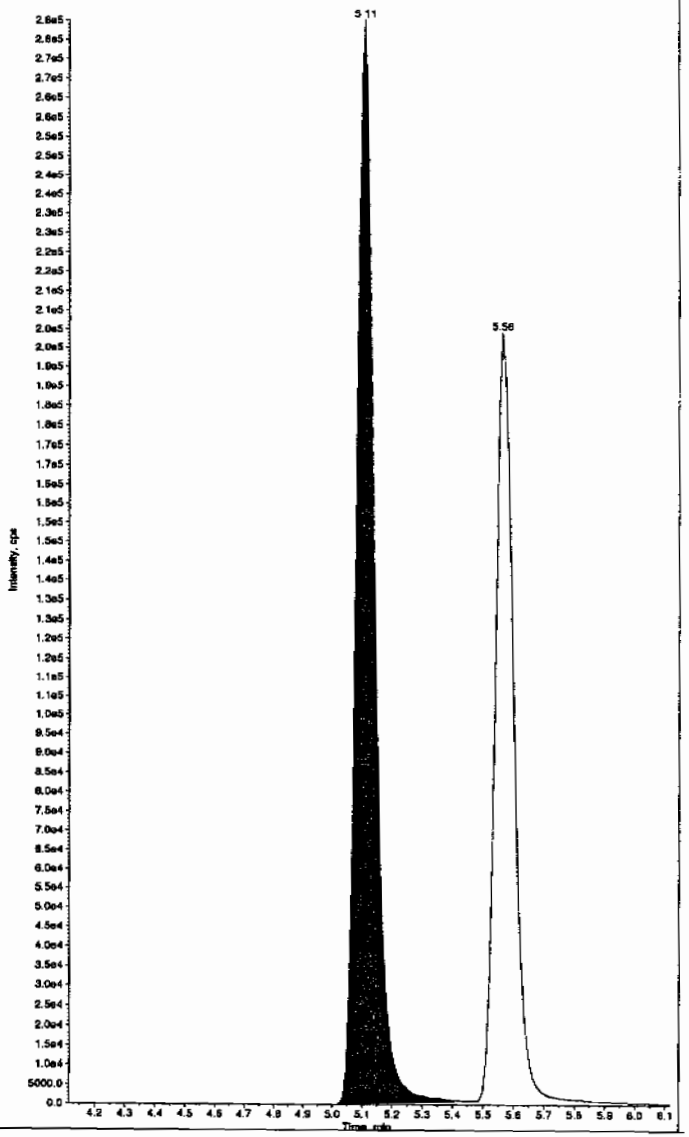

me: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
x: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""

```
dex:          1
e:            QC
ion:        500.     ng/mL
l Conc:     536.     ng/mL
        2/26/2010
        8:55:16 PM

            No
orithm: IntelliQuan - IQA
Height: 350.00    cps
Width:    0.00    sec
Width:  3       points
        30.0      sec
RT:       5.57    min
ve RT:    No

          Valley
Time:     5.56    min
    8.57e+005   counts
    199263.412  cps
::        5.48    min
          6.09    min
```

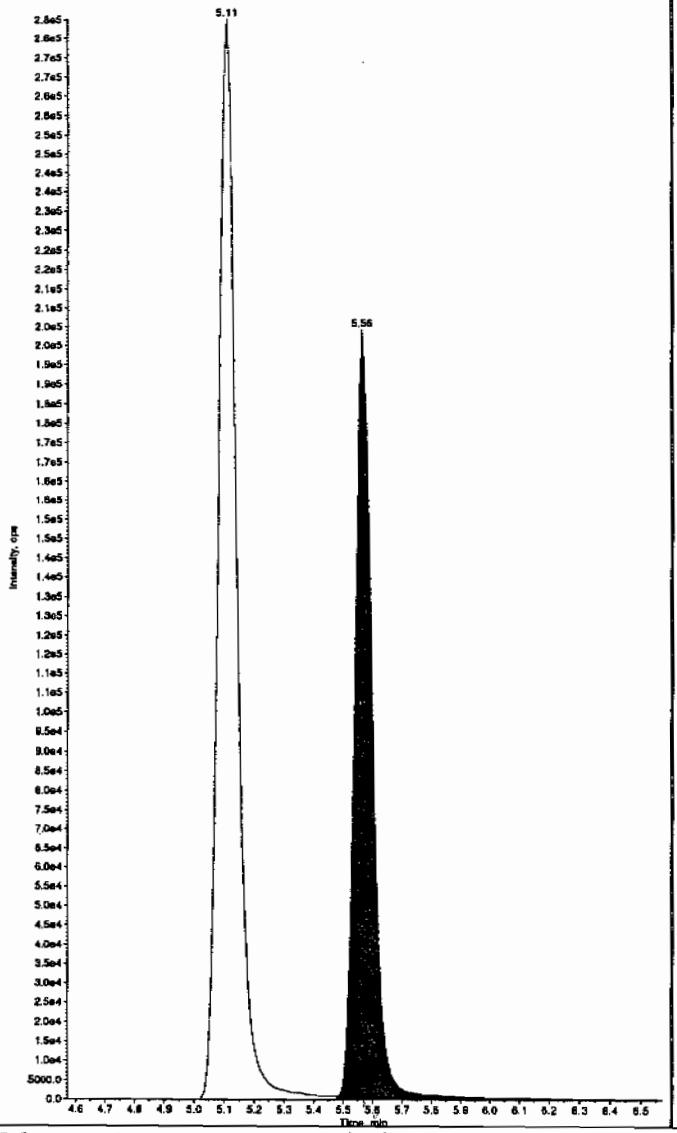

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     498.     ng/mL
Acq. Date:       2/26/2010
Acq. Time:       8:55:16 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3       points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.9     min
Area:        7.70e+006   counts
Height:      2130550.781   cps
Start Time:        10.8     min
End Time:          11.2     min
```

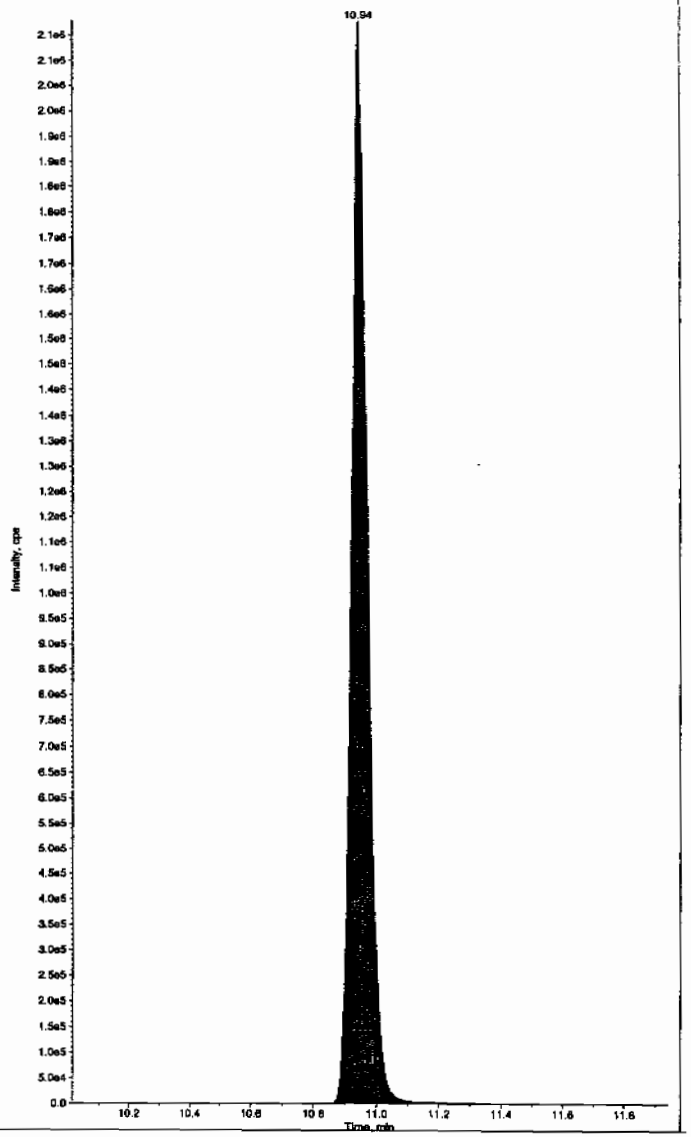

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260026.wiff

Analysis Date: 26–FEB–10 21:26

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	104	104	
2,6–Diamino–4–nitrotoluene	100	109	109	
3,4–Dinitrotoluene	50	43.5	87	
3,5–Dinitroaniline	100	91.3	91	
TATB	100	105	105	
tris(o–cresyl) phosphate	100	104	104	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Run 3/1/10

a: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260025.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: "

```
x:          1
:           QC
on:       100.     ng/mL
Conc:     105.     ng/mL
        2/26/2010
        9:26:41 PM

          No
ithm: IntelliQuan - IQA
leight:2500.00    cps
idth:     0.00    sec
idth:  3        points
         30.0     sec
:         7.09    min
e RT:     No

        Valley
ime:      7.11    min
    1.08e+005   counts
    28018.894   cps
         7.03    min
         7.49    min
```

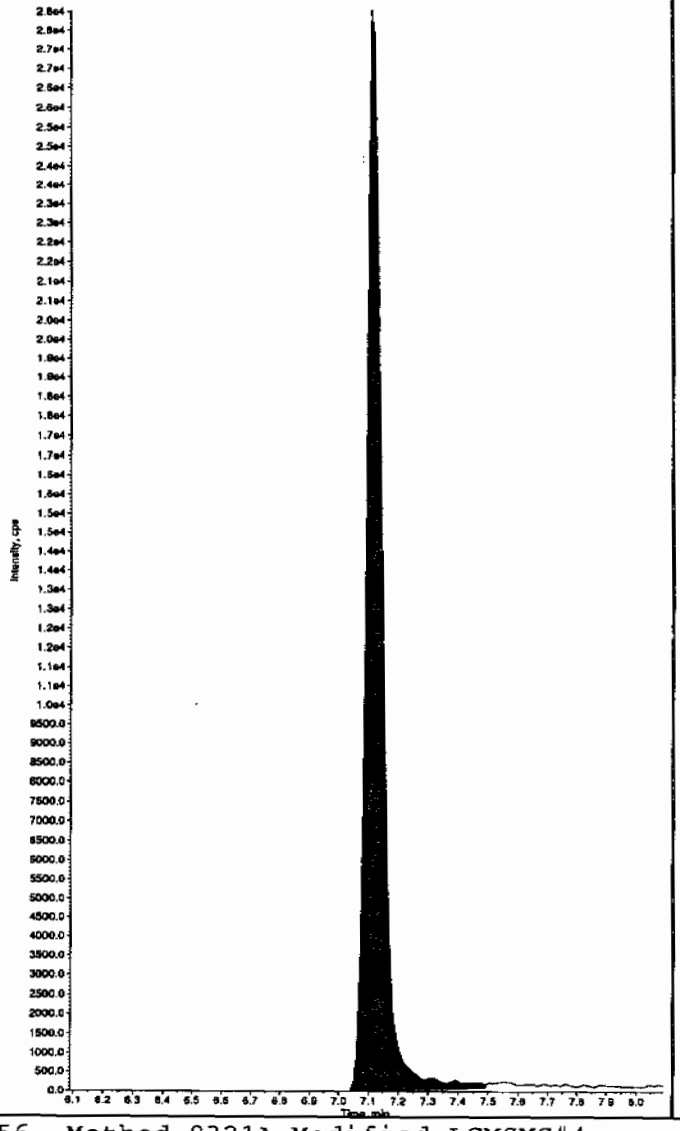

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     85.6     ng/mL
Acq. Date:        2/26/2010
Acq. Time:        9:26:41 PM

Modified:            Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          15.0     sec
Expected RT:         8.29    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.34    min
Area:          8.66e+005   counts
Height:        243722.839   cps
Start Time:          8.28    min
End Time:            8.43    min
```

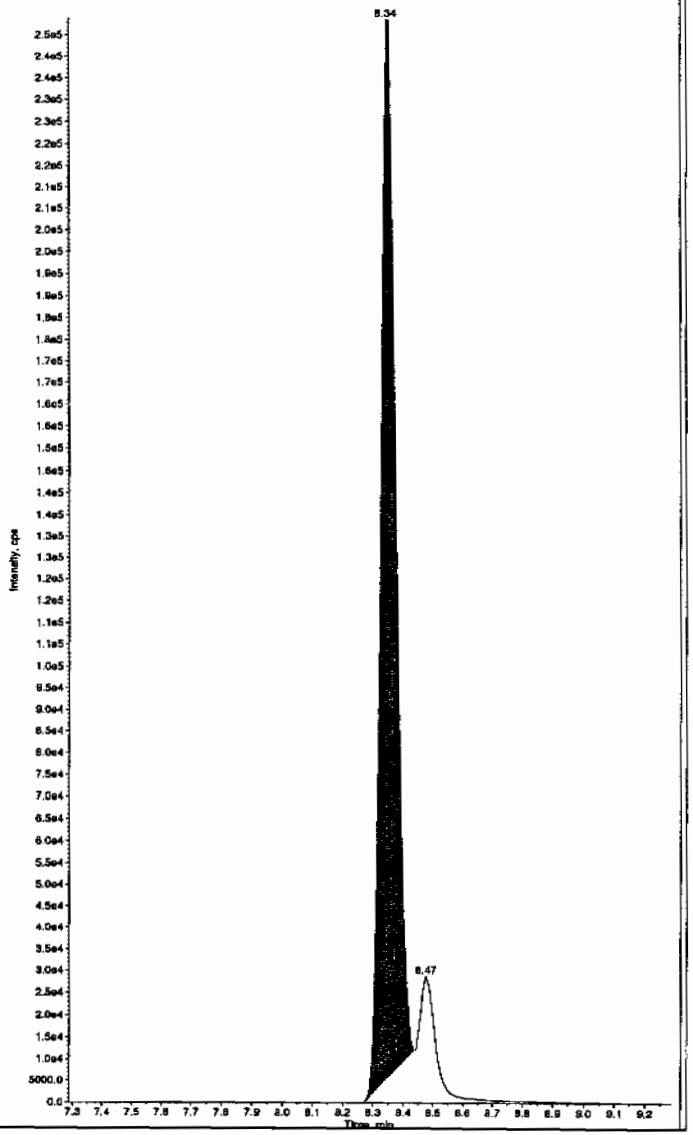

Hm 03/01/10

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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After Ran 3/1/10

x: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""

x: 1
: QC
on: 100. ng/mL
Conc: 105. ng/mL
2/26/2010
9:26:41 PM

No
ithm: IntelliQuan - IQA
eight: 2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.11 min
1.08e+005 counts
28018.894 cps
7.03 min
7.49 min

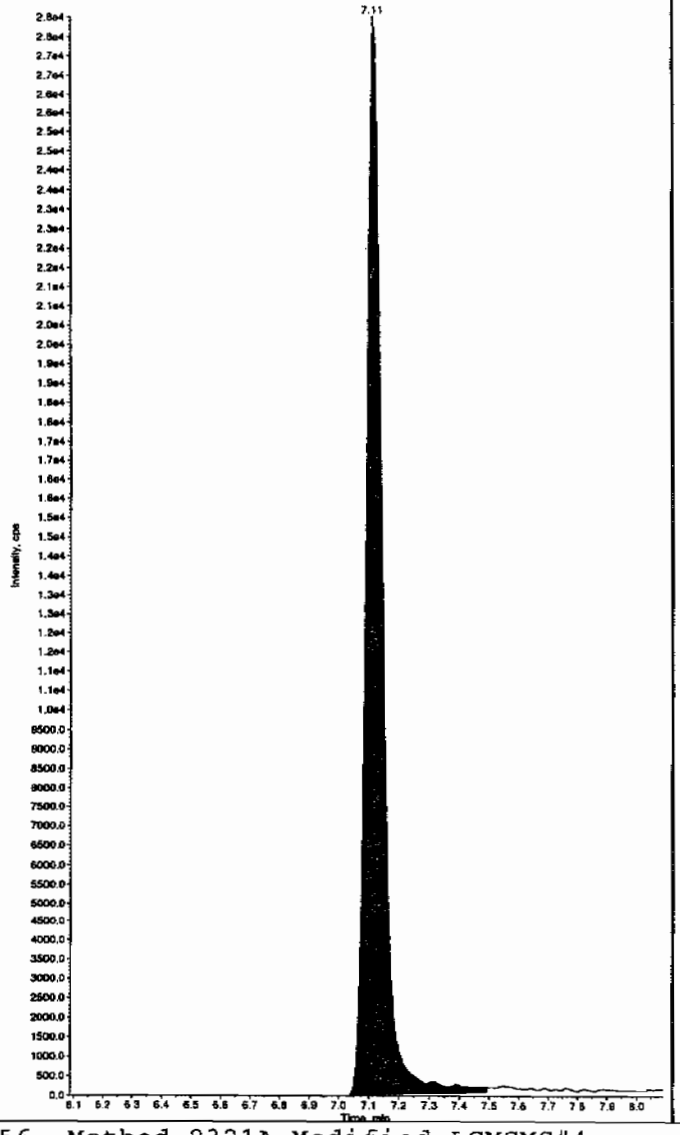

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.3 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.35 min
Area: 9.21e+005 counts
Height: 255293.764 cps
Start Time: 8.28 min
End Time: 8.43 min

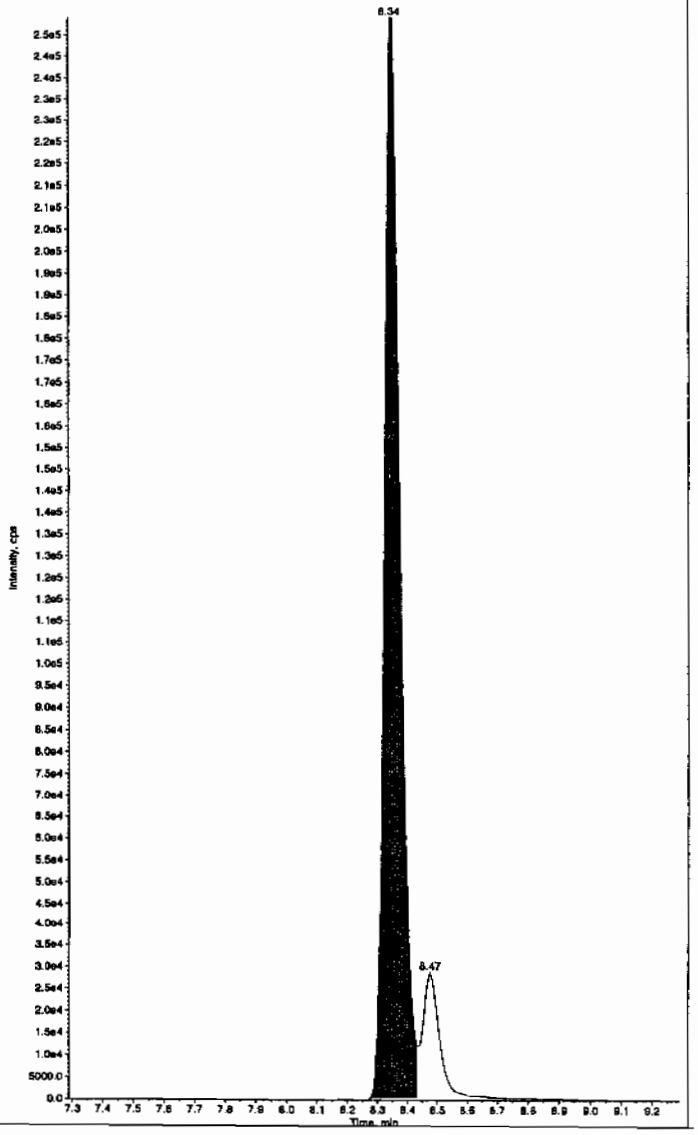

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
_CMSEXP_C" Annotation. "
ex: 1
e: QC
ion: 50.0 ng/mL
Conc: 43.5 ng/mL
2/26/2010
9:26:41 PM

No
rithm: IntelliQuan - IQA
Height: 1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
r: 8.46 min
ze RT: No

Valley
Time: 8.47 min
6.30e+005 counts
179327.957 cps
: 8.40 min
8.81 min

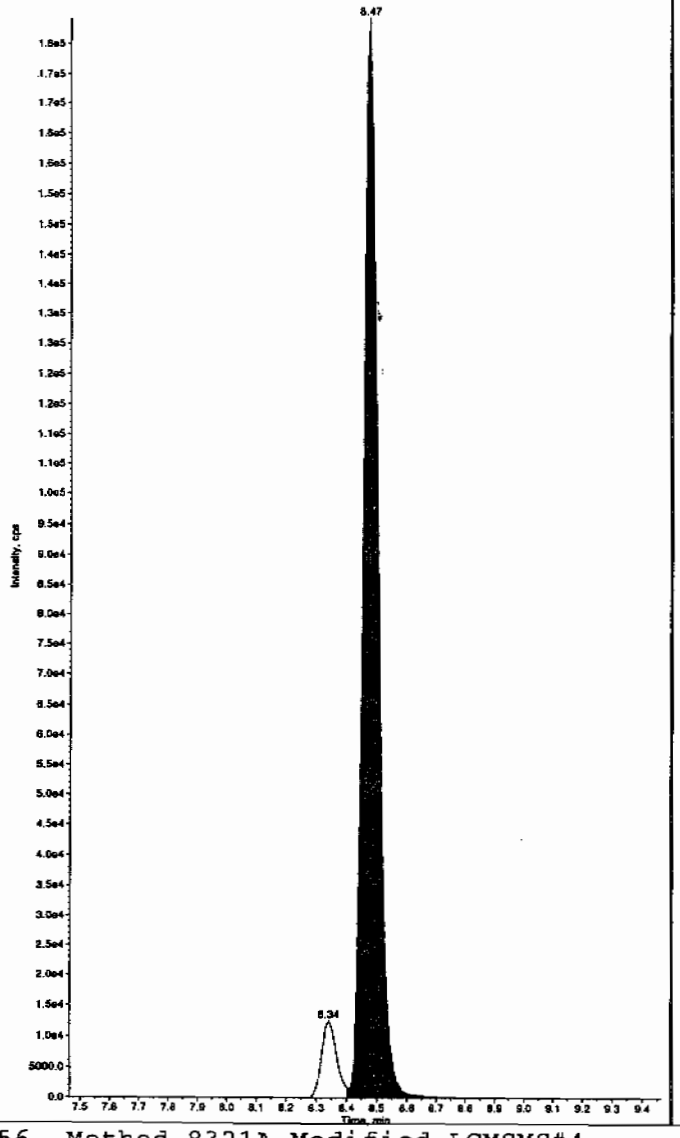

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:26:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 2.38e+005 counts
Height: 56011.360 cps
Start Time: 5.00 min
End Time: 5.38 min

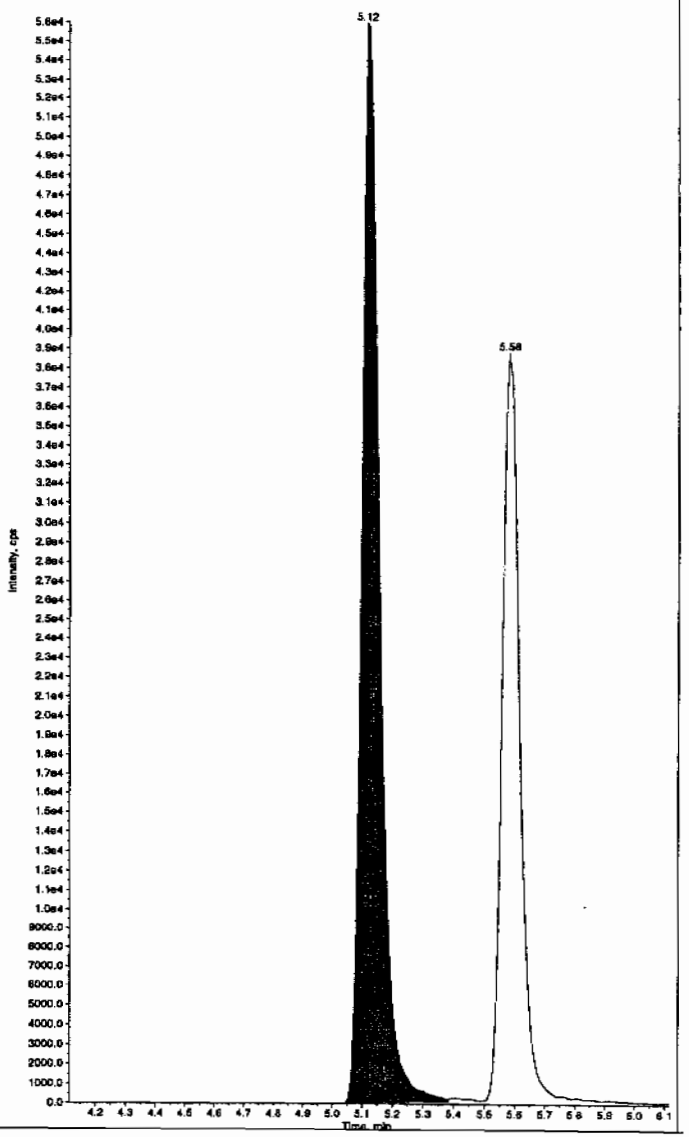

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
"24-Diamino-6-nitrotoluene" Mass(as): "165.0/46.0 amu"
CMSEXP_C" Annotation: ""

x:	1
:	QC
on:	100. ng/mL
Conc:	104. ng/mL
	2/26/2010
	9:26:41 PM
	No
ithm:	IntelliQuan - IQA
eight:	350.00 cps
idth:	0.00 sec
idth:	3 points
	30.0 sec
:	5.57 min
e RT:	No
	Valley
ima:	5.58 min
	1.58e+005 counts
	38749.264 cps
	5.50 min
	5.89 min

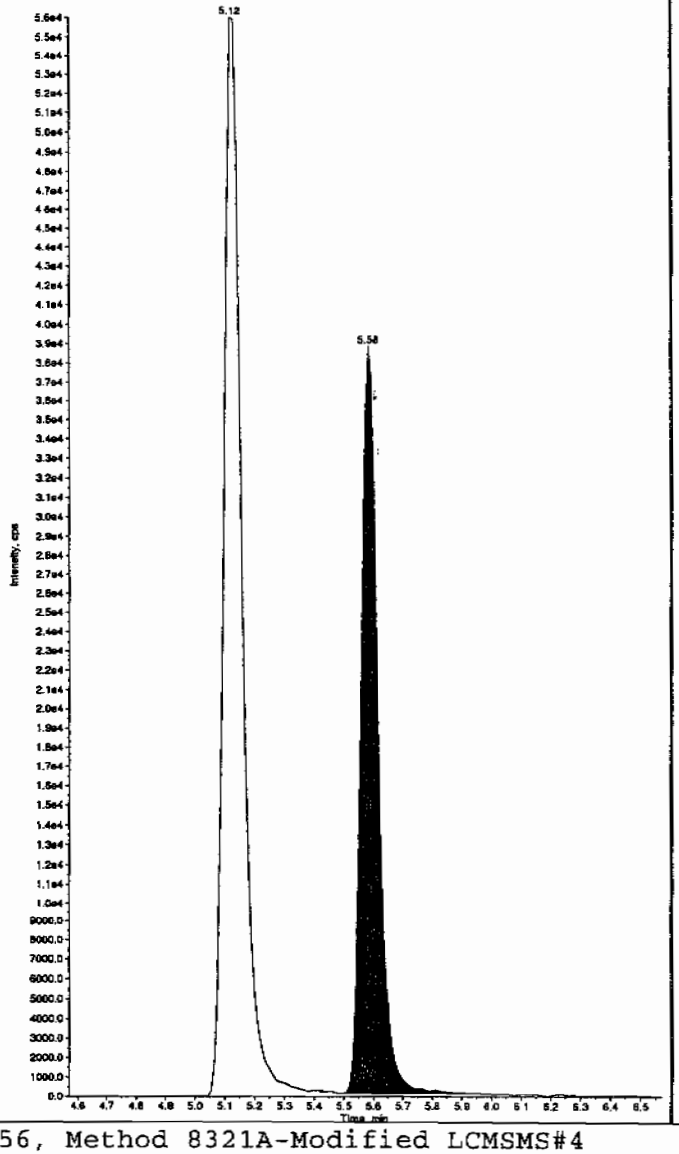

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	104. ng/mL
Acq. Date:	2/26/2010
Acq. Time:	9:26:41 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	1.77e+006 counts
Height:	501760.681 cps
Start Time:	10.9 min
End Time:	11.3 min

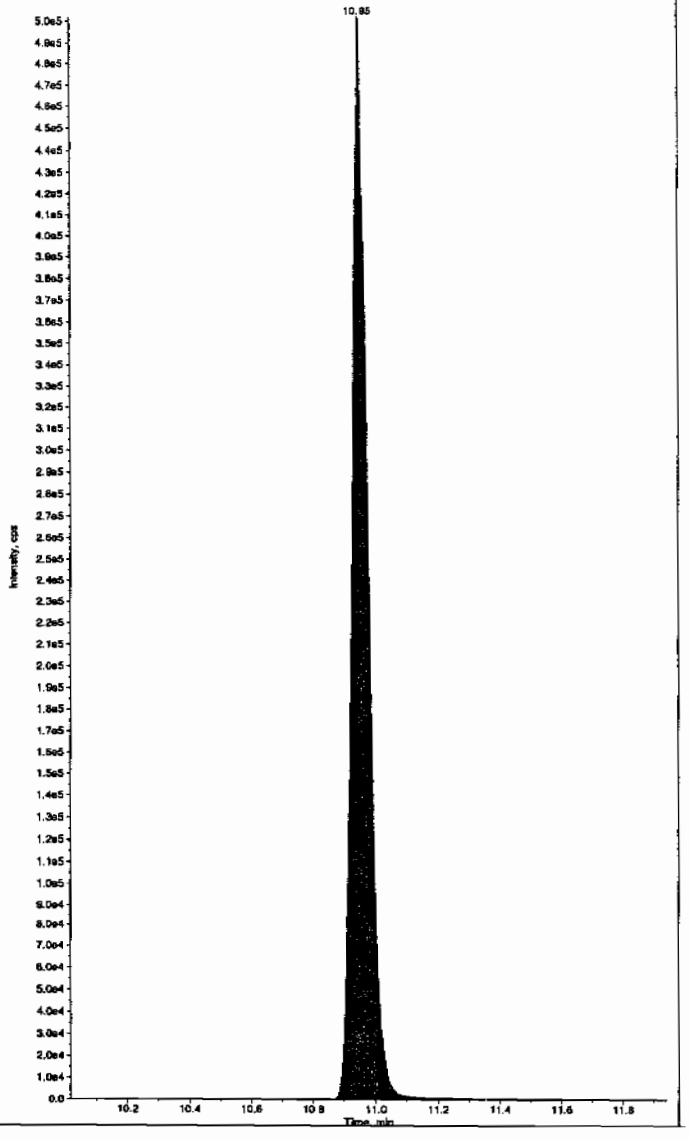

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260037.wiff

Analysis Date: 27-FEB-10 00:19

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	482	96	
2,6-Diamino-4-nitrotoluene	500	477	96	
3,4-Dinitrotoluene	250	222	89	
3,5-Dinitroaniline	500	469	94	
TATB	500	487	97	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCN 3/1/10

a: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260037.wiff"
'TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""

x: 1
: QC
on: 500. ng/mL
Conc: 487. ng/mL
2/27/2010
12:19:36 AM

No
ithm: IntelliQuan - IQA
eight:2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.09 min
5.75e+005 counts
143670.853 cps
7.00 min
7.76 min

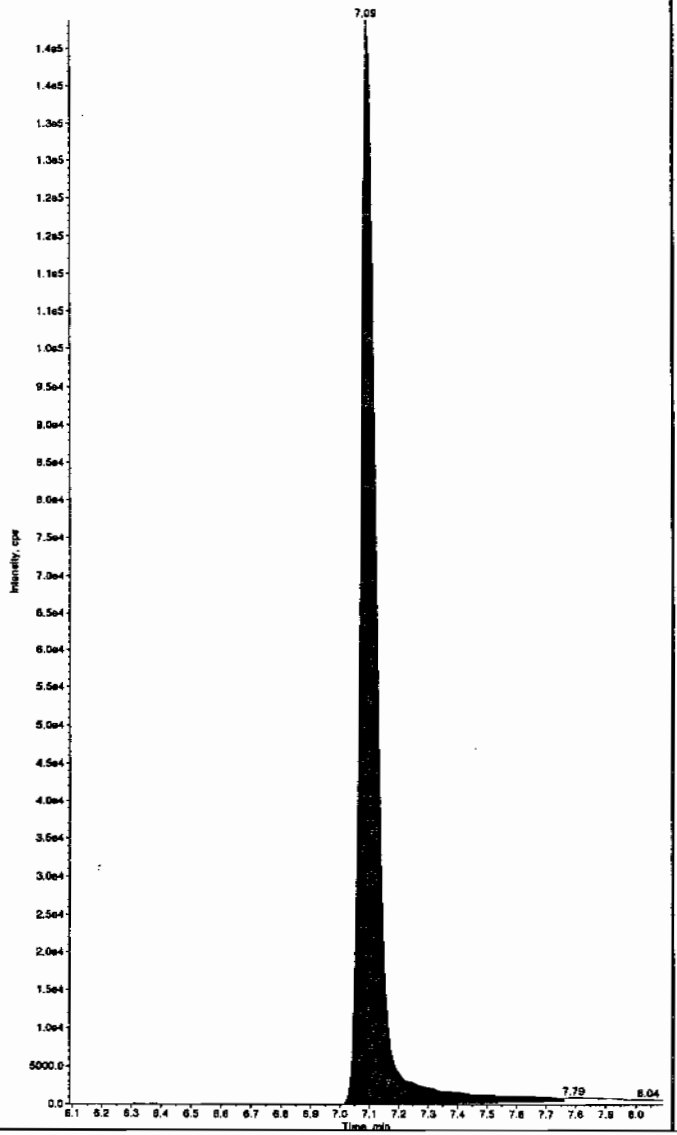

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 469. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:19:36 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.31e+006 counts
Height: 1119113.281 cps
Start Time: 8.24 min
End Time: 8.42 min

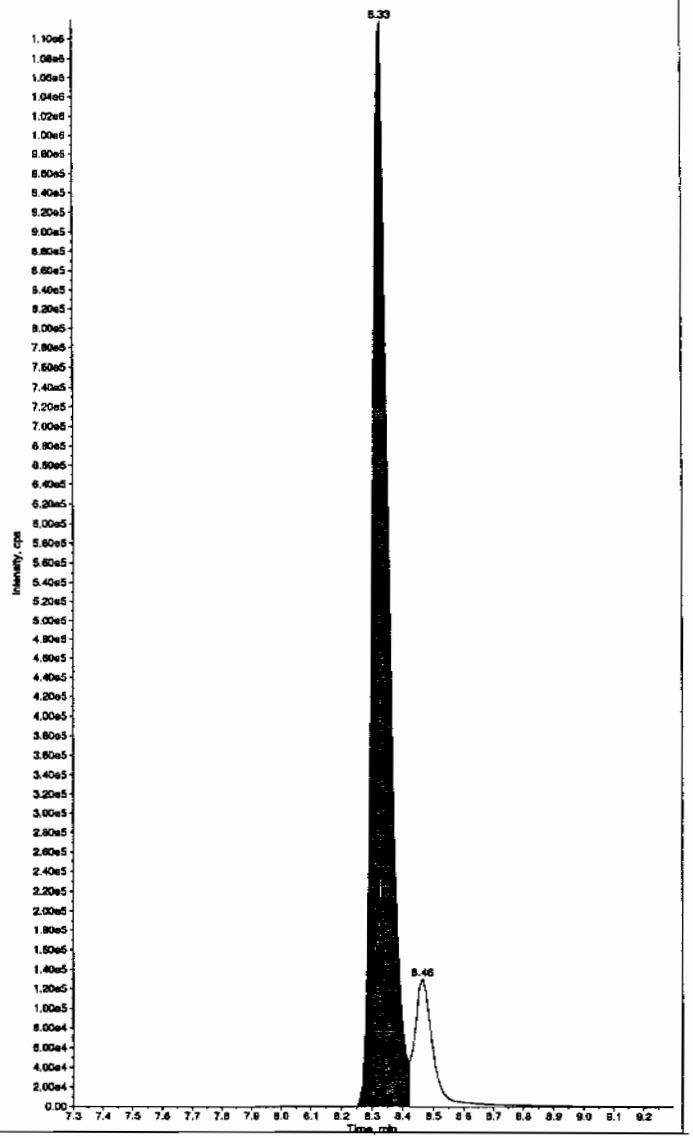

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ne: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260037.wiff"
: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
LCMSEXP_C" Annotation: "
ex: 1
e: QC
ion: 250. ng/mL
Conc: 222. ng/mL
2/27/2010
12:19:36 AM

No
rithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
T: 8.46 min
ve RT: No

Valley
Time: 8.46 min
3.08e+006 counts
850868.896 cps
: 8.39 min
8.79 min

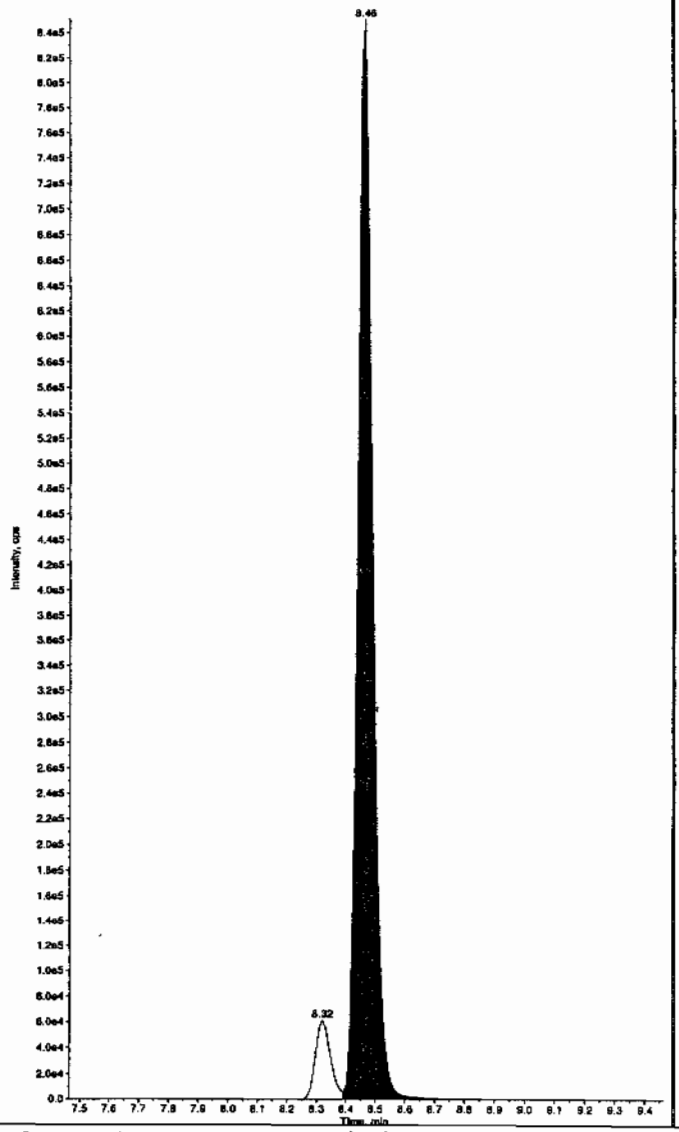

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	477. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	12:19:36 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.12 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.11 min
Area:	1.05e+006 counts
Height:	251884.293 cps
Start Time:	5.01 min
End Time:	5.42 min

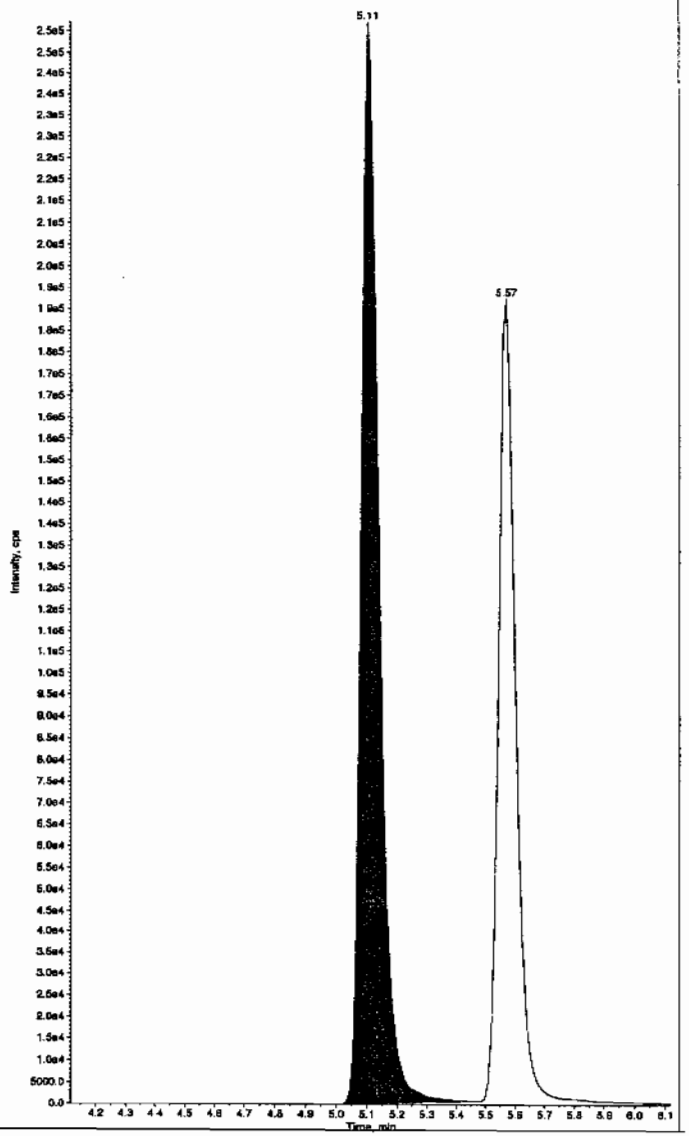

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me: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260037.wiff"
: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""
lex: 1
e: QC
ion: 500. ng/mL
Conc: 482. ng/mL
2/27/2010
12:19:36 AM

No
rithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 5.57 min
ve RT: No

Valley
Time: 5.57 min
7.69e+005 counts
187302.551 cps
: 5.47 min
6.07 min

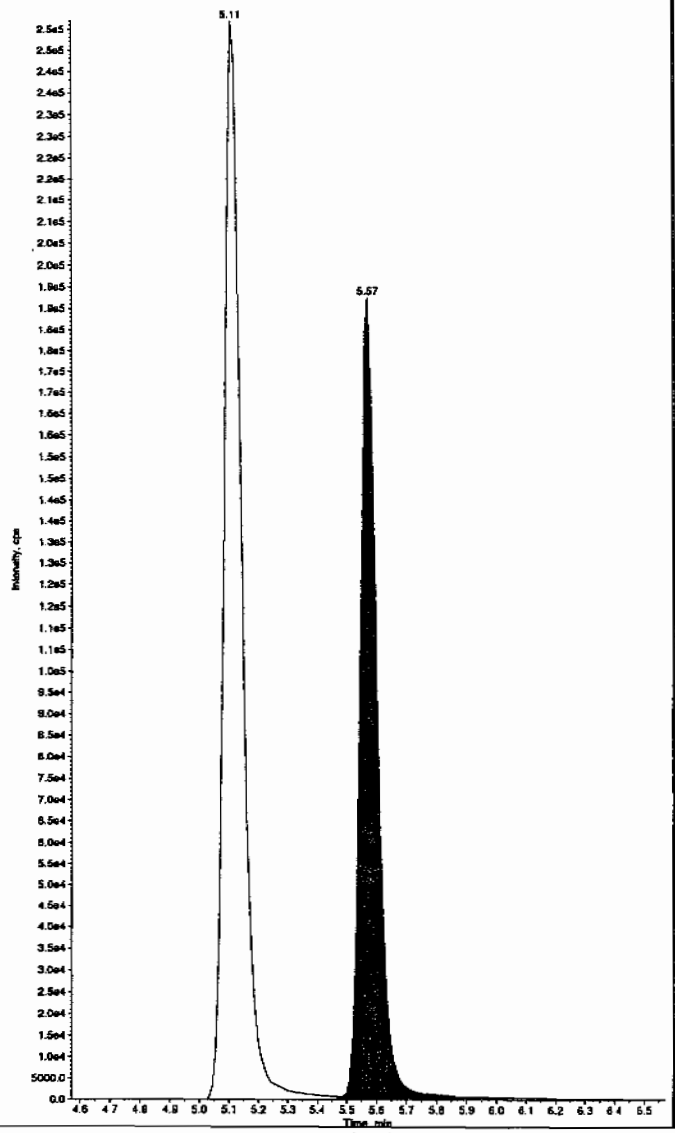

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:19:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 7.60e+006 counts
Height: 2133710.449 cps
Start Time: 10.8 min
End Time: 11.3 min

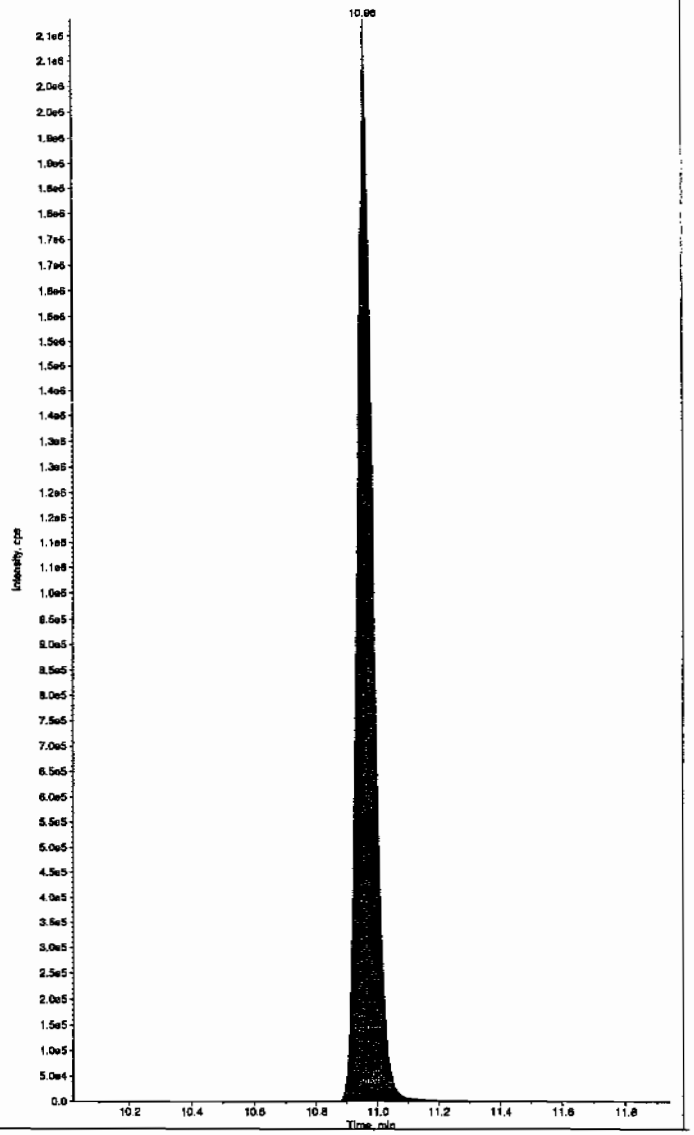

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260039.wiff

Analysis Date: 27-FEB-10 00:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	102	102	
3,4-Dinitrotoluene	50	43.9	88	
3,5-Dinitroaniline	100	91.6	92	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 3/1/10

ne: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 100. ng/mL
Conc: 107. ng/mL
2/27/2010
12:51:00 AM

No
rithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 7.09 min
ve RT: No

Valley
Time: 7.10 min
1.11e+005 counts
28614.511 cps
: 7.00 min
7.58 min

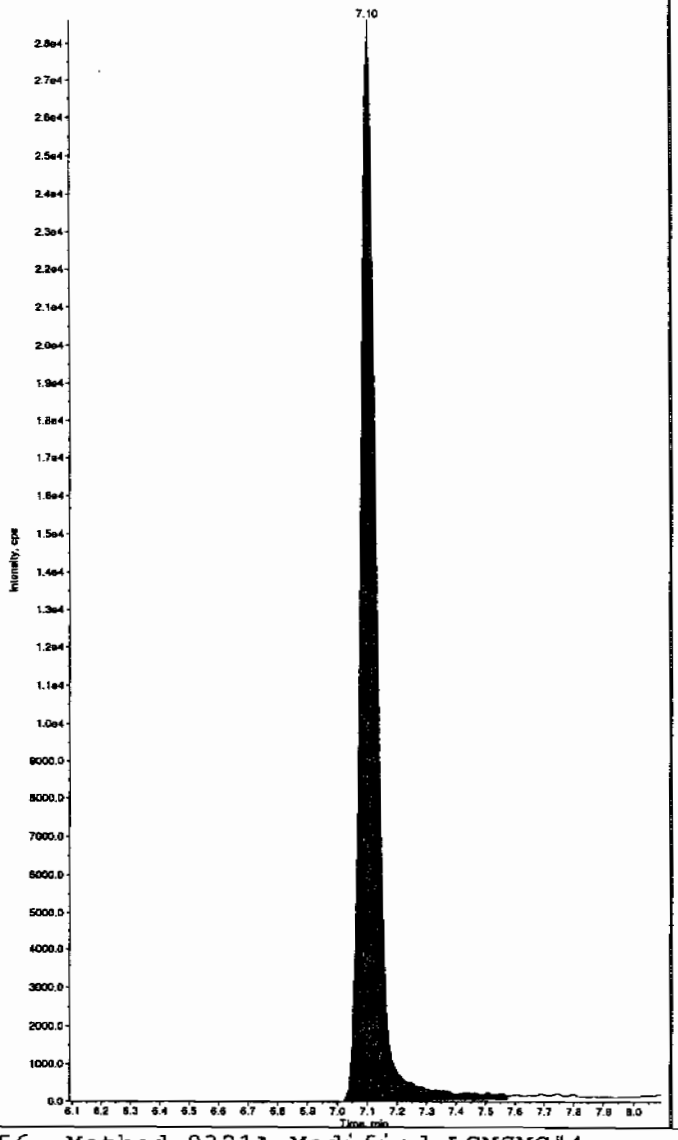

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.6 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:51:00 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 9.23e+005 counts
Height: 251086.685 cps
Start Time: 8.24 min
End Time: 8.42 min

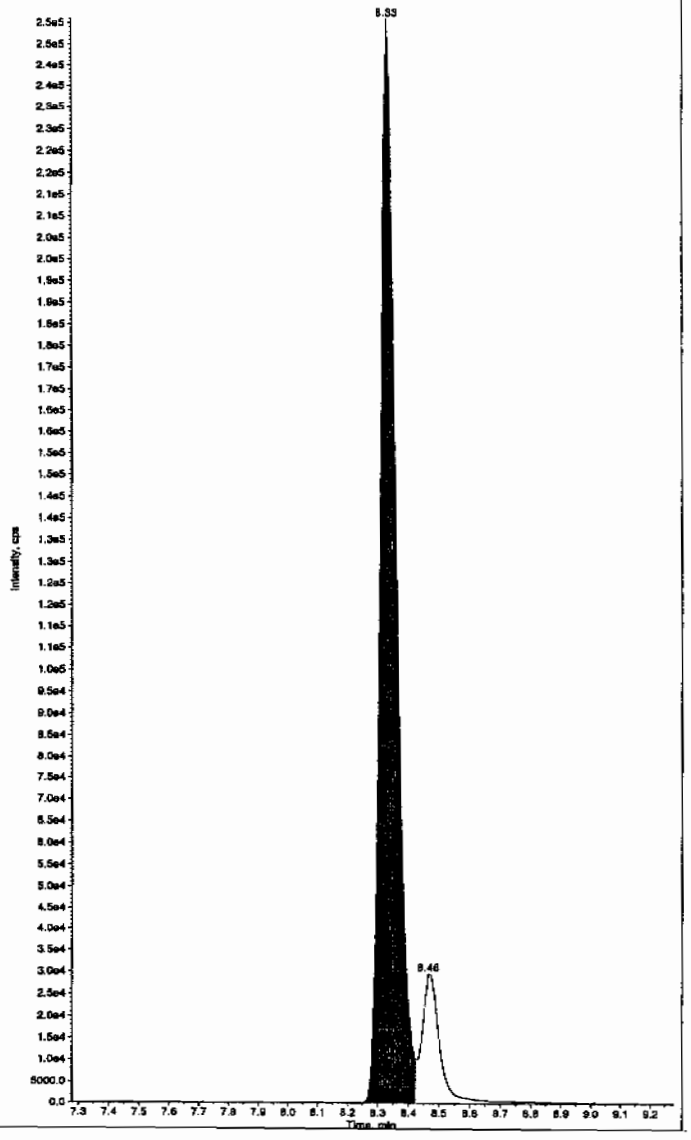

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

me: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 50.0 ng/mL
Conc: 43.9 ng/mL
2/27/2010
12:51:00 AM

No
rithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
T: 8.46 min
ve RT: No

Valley
Time: 8.46 min
6.35e+005 counts
189587.891 cps
: 8.40 min
8.76 min

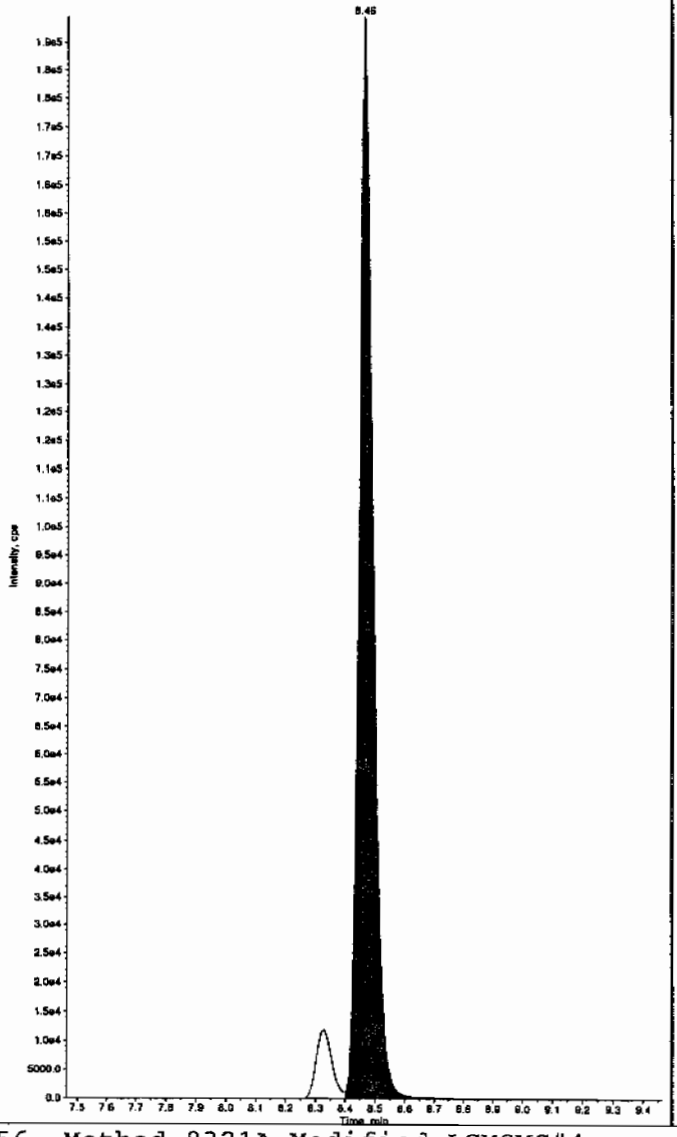

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:51:00 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 2.21e+005 counts
Height: 53184.658 cps
Start Time: 4.97 min
End Time: 5.42 min

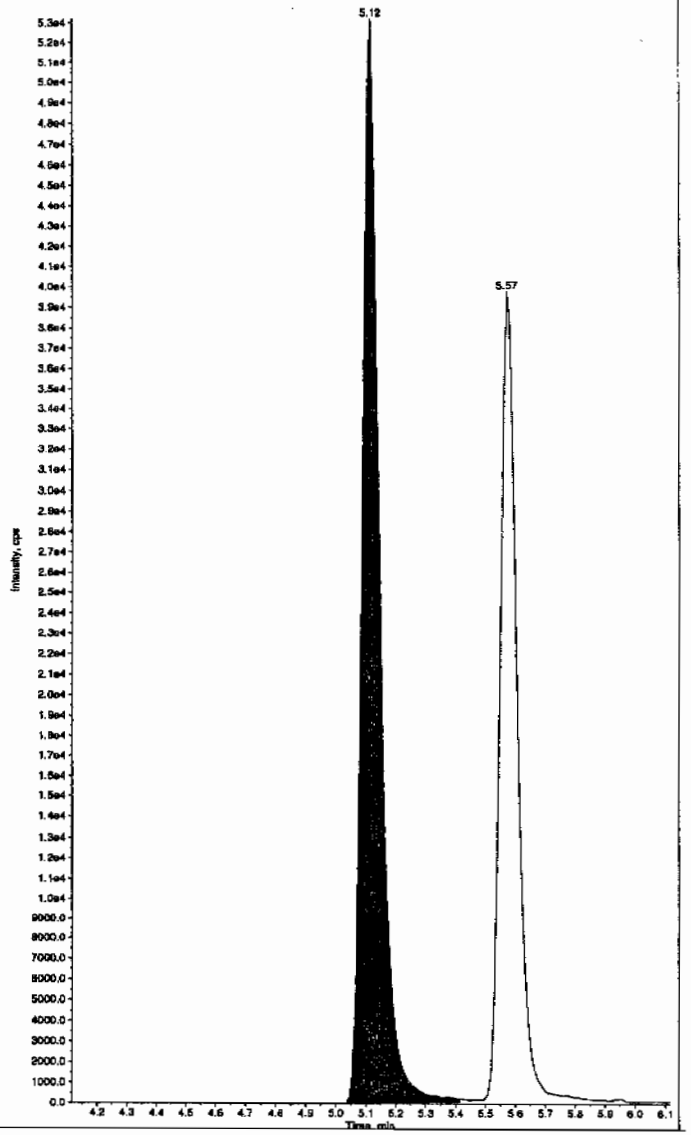

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
.CMSEXP_C" Annotation: ""
ex: 1
: QC
on: 100. ng/mL
Conc: 103. ng/mL
2/27/2010
12:51:00 AM

No
ithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
: 5.57 min
e RT: No

Valley
Time: 5.57 min
1.57e+005 counts
39630.726 cps
5.46 min
5.87 min

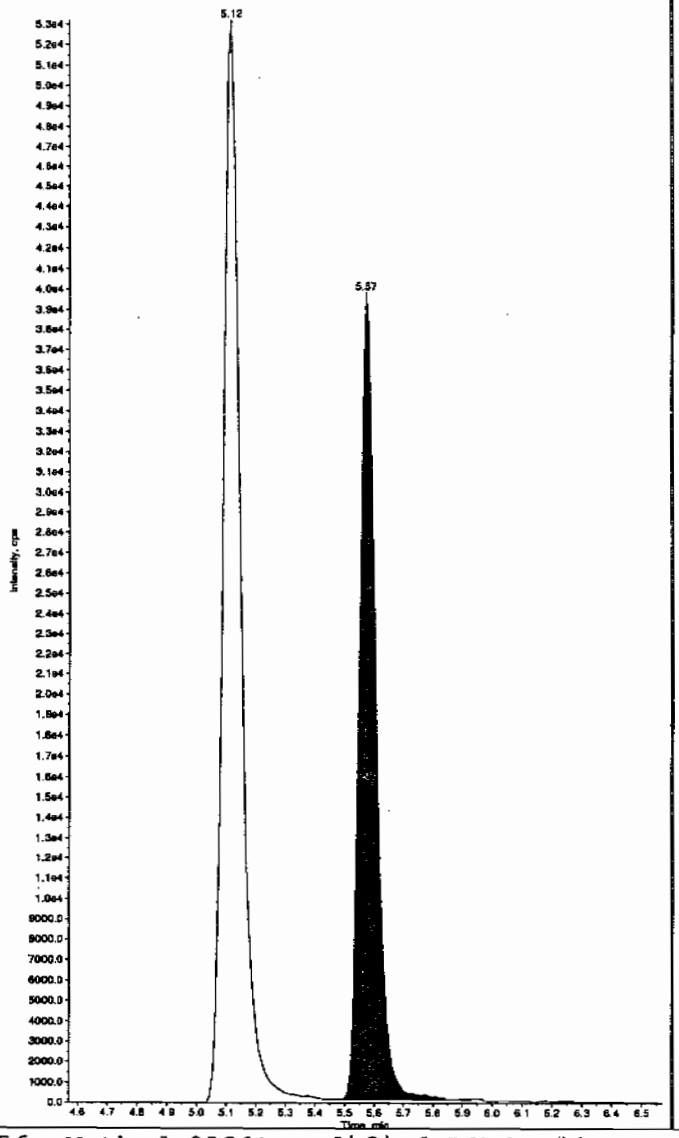

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	102.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	12:51:00 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	1.75e+006	counts
Height:	488172.638	cps
Start Time:	10.8	min
End Time:	11.3	min

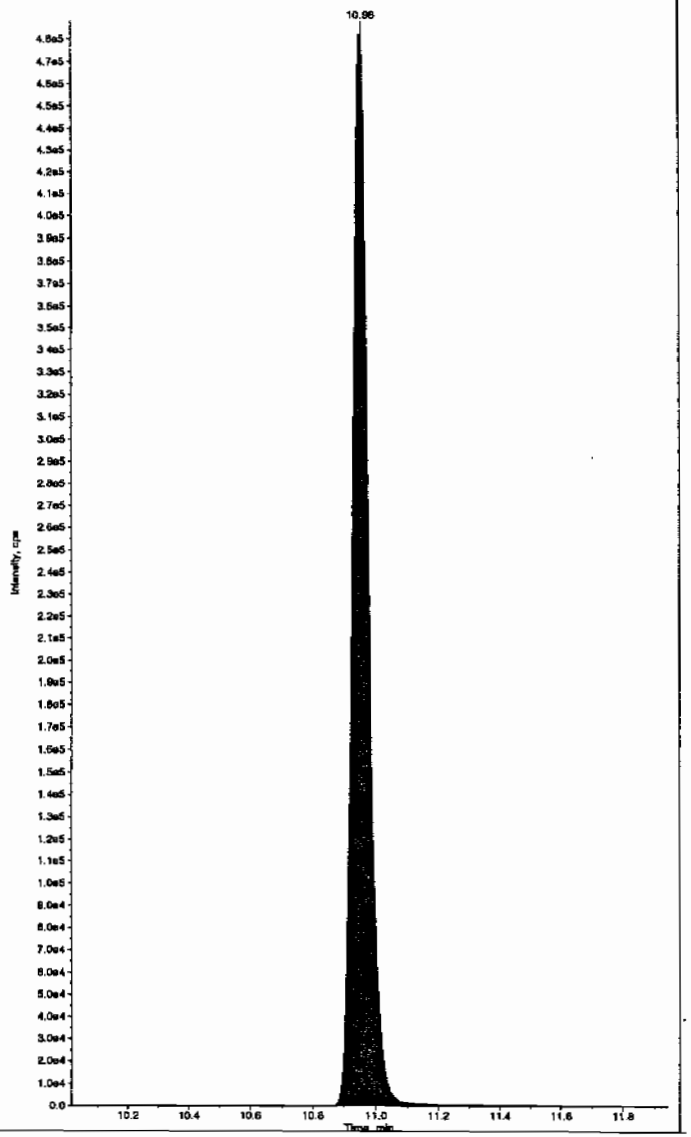

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260050.wiff

Analysis Date: 27-FEB-10 03:43

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	556	111	
2,6-Diamino-4-nitrotoluene	500	574	115	
3,4-Dinitrotoluene	250	226	91	
3,5-Dinitroaniline	500	482	96	
TATB	500	521	104	
tris(o-cresyl) phosphate	500	513	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rar 3/1/10

e: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260050.wiff"
"TATB" Mass(as): "257.2/204.9 amu"
.CMSEXP_C" Annotation: ""
ex: 1
: QC
on: 500. ng/mL
Conc: 521. ng/mL
2/27/2010
3:43:44 AM

No
ithm: IntelliQuan - IQA
eight: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
Time: 7.11 min
6.17e+005 counts
155759.445 cps
7.02 min
7.77 min

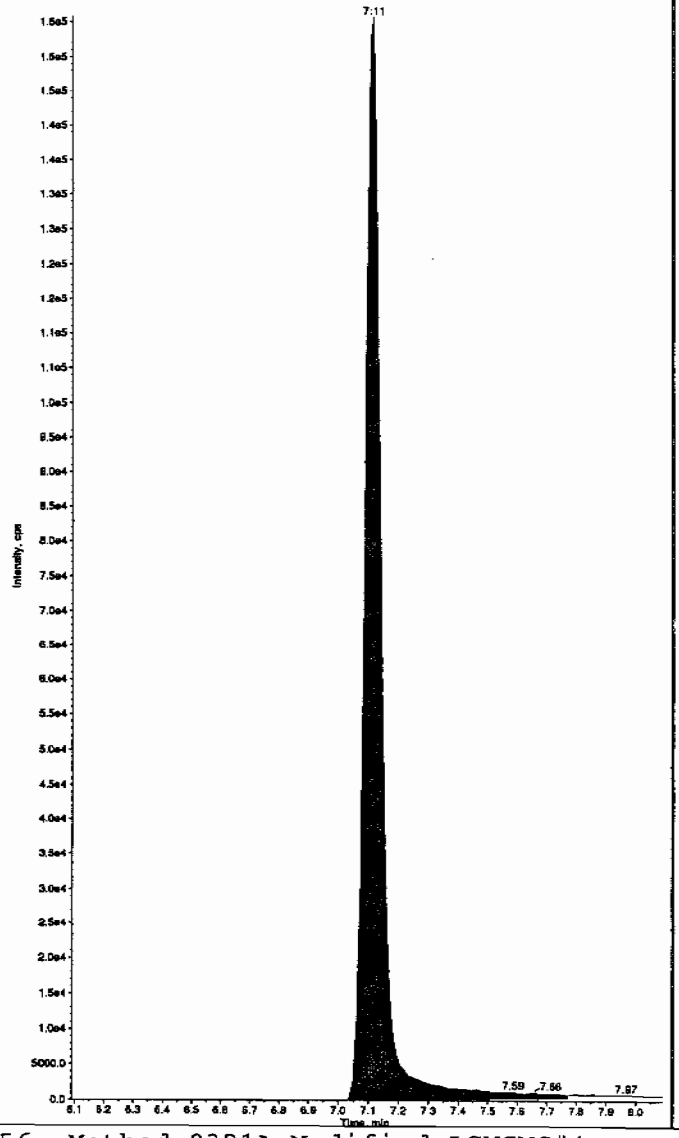

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260050.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	482.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	3:43:44 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.30	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.34	min
Area:	4.42e+006	counts
Height:	1165491.943	cps
Start Time:	8.25	min
End Time:	8.43	min

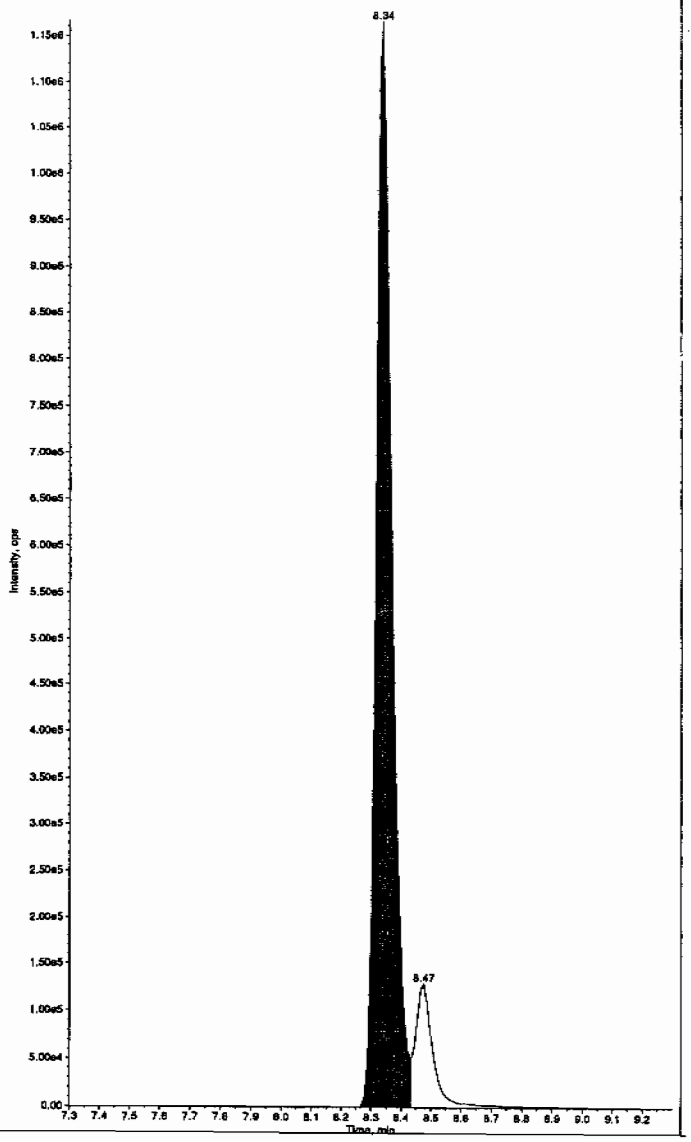

Hrm 03/01/10

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ne: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
_CMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 250. ng/mL
Conc: 226. ng/mL
2/27/2010
3:43:44 AM

No
rithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
r: 8.46 min
ve RT: No

Valley
Time: 8.46 min
1.11e+006 counts
884715.454 cps
8.40 min
8.79 min

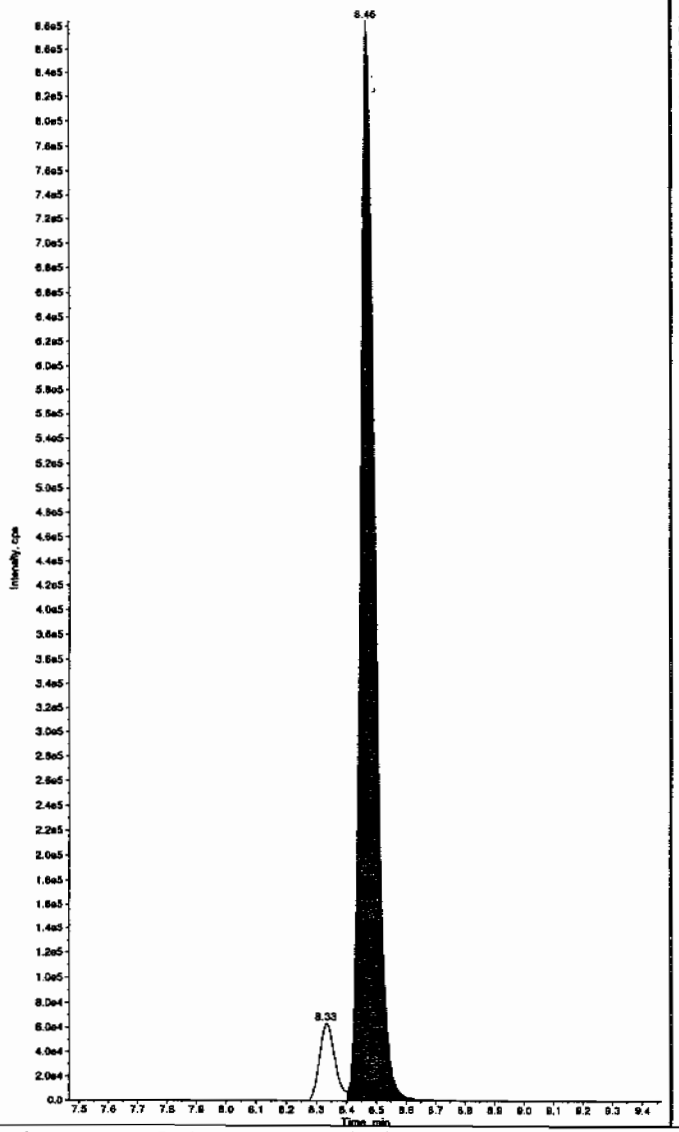

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	574. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	3:43:44 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.12 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.12 min
Area:	1.26e+006 counts
Height:	290760.040 cps
Start Time:	5.02 min
End Time:	5.43 min

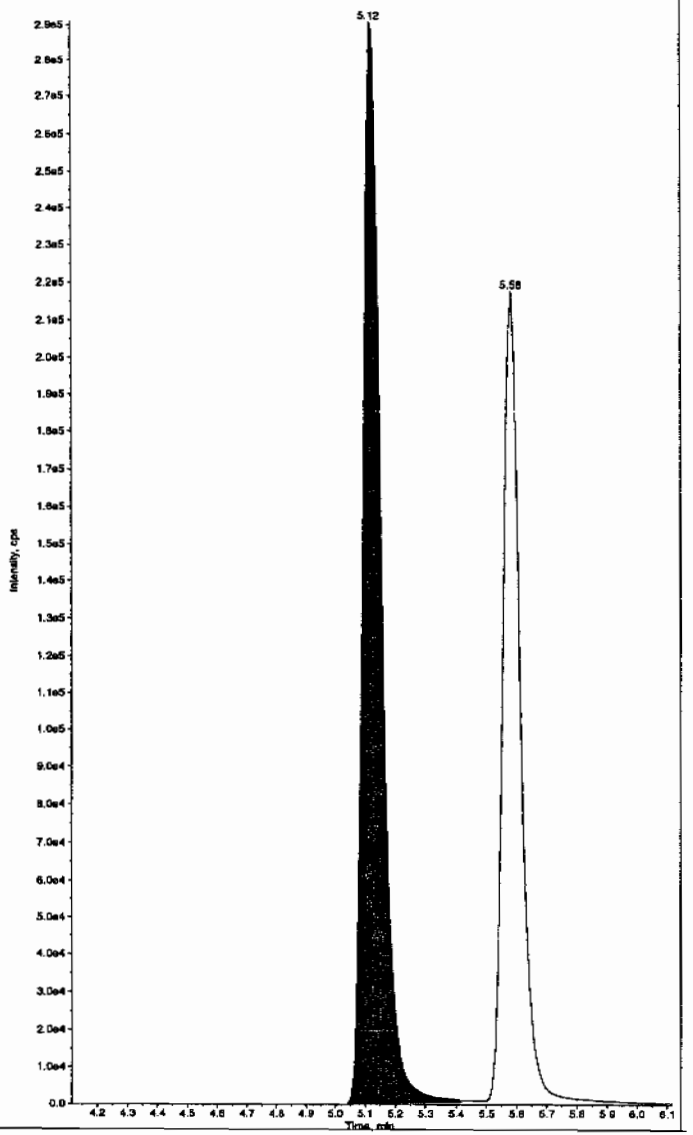

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e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 500. ng/mL
Conc: 556. ng/mL
2/27/2010
3:43:44 AM

No
rithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
r: 5.57 min
ve RT: No

Valley
Time: 5.58 min
8.90e+005 counts
217654.068 cps
: 5.49 min
6.08 min

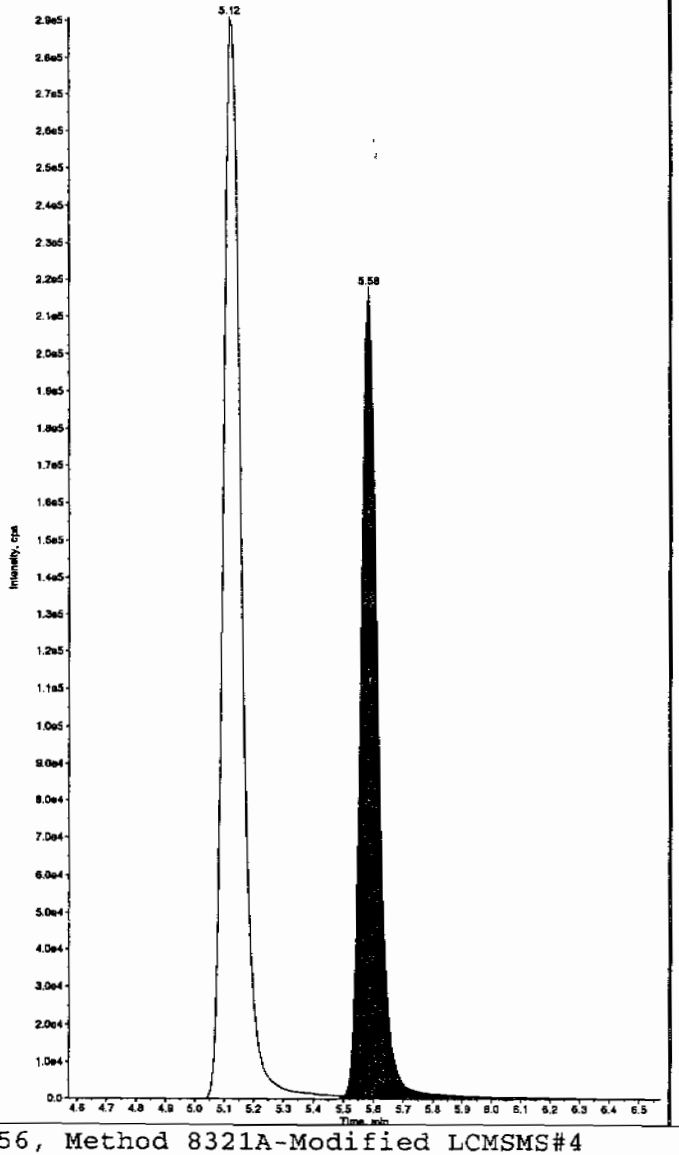

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	513.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	3:43:44 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	7.90e+006	counts
Height:	2125021.484	cps
Start Time:	10.8	min
End Time:	11.2	min

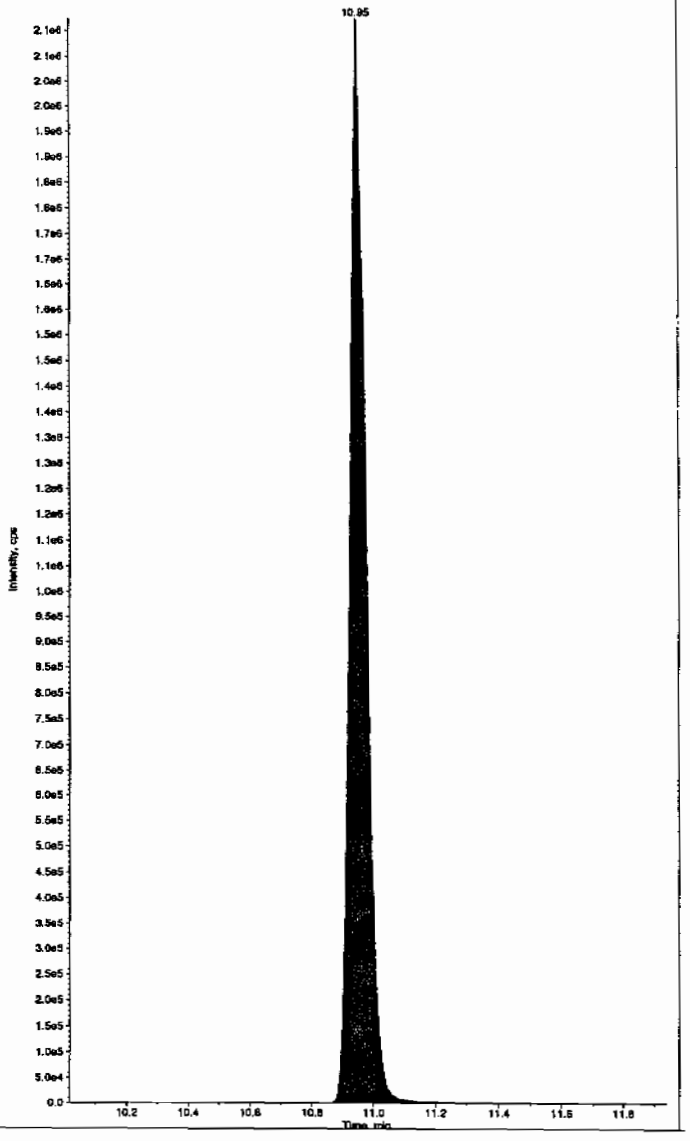

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02260052.wiff

Analysis Date: 27–FEB–10 04:15

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	119	119	
2,6–Diamino–4–nitrotoluene	100	121	121	
3,4–Dinitrotoluene	50	46.3	93	
3,5–Dinitroaniline	100	92.4	92	
TATB	100	109	109	
tris(o–cresyl) phosphate	100	102	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/1/10

e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02250052.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
on: 100. ng/mL
Conc: 109. ng/mL
2/27/2010
4:15:10 AM

No
ithm: IntelliQuan - IQA
eight: 2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.11 min
1.13e+005 counts
28701.506 cps
7.02 min
7.50 min

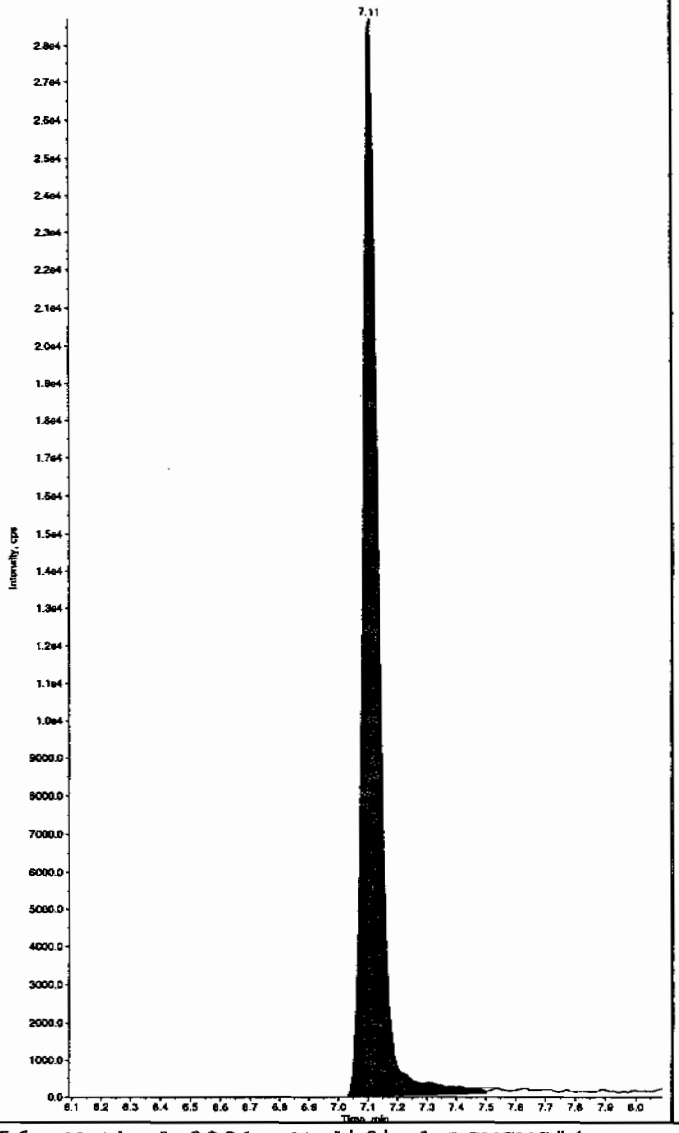

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02250052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	86.8	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	4:15:10 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.30	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.34	min
Area:	8.78e+005	counts
Height:	248106.522	cps
Start Time:	8.27	min
End Time:	8.43	min

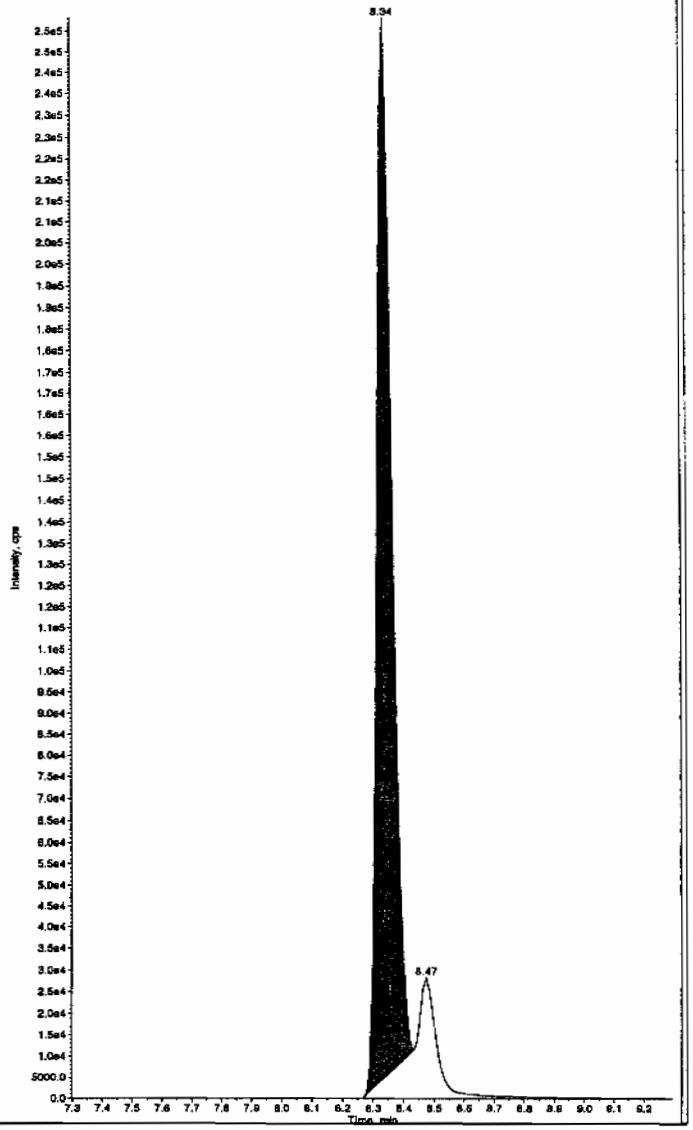

HMM 03/01/10

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after Scan 3/1/10

e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
on: 100. ng/mL
Conc: 109. ng/mL
2/27/2010
4:15:10 AM

No
ithm: IntelliQuan - IQA
eight:2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
'ime: 7.11 min
1.13e+005 counts
28701.506 cps
7.02 min
7.50 min

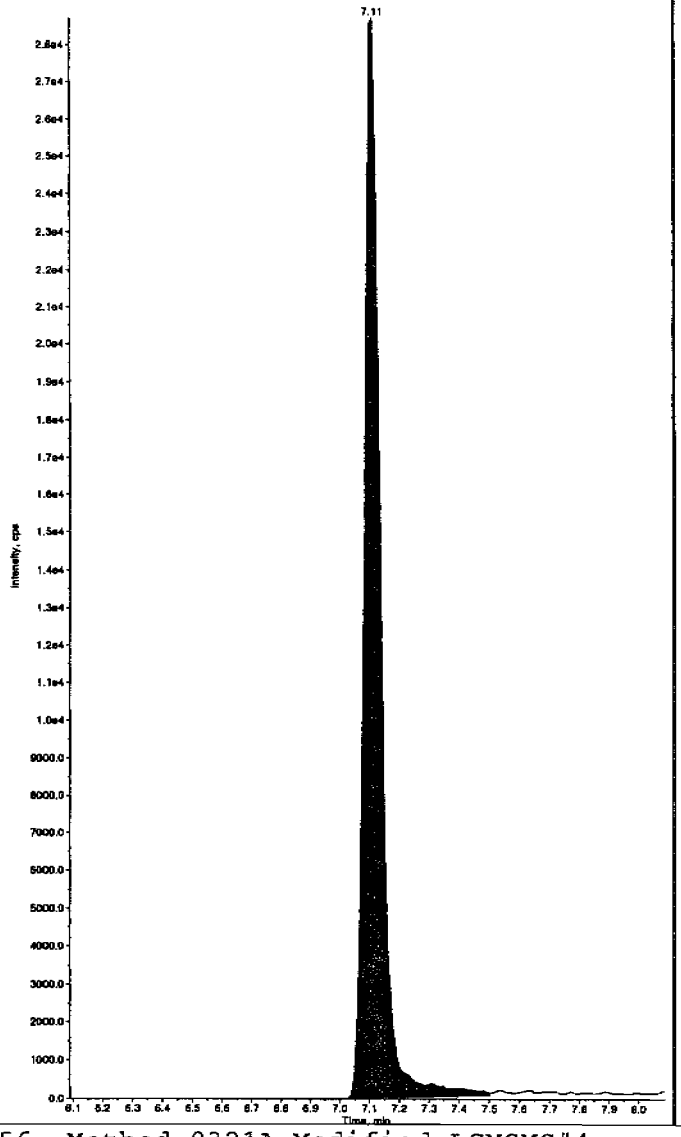

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.4 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 9.31e+005 counts
Height: 252788.637 cps
Start Time: 8.27 min
End Time: 8.43 min

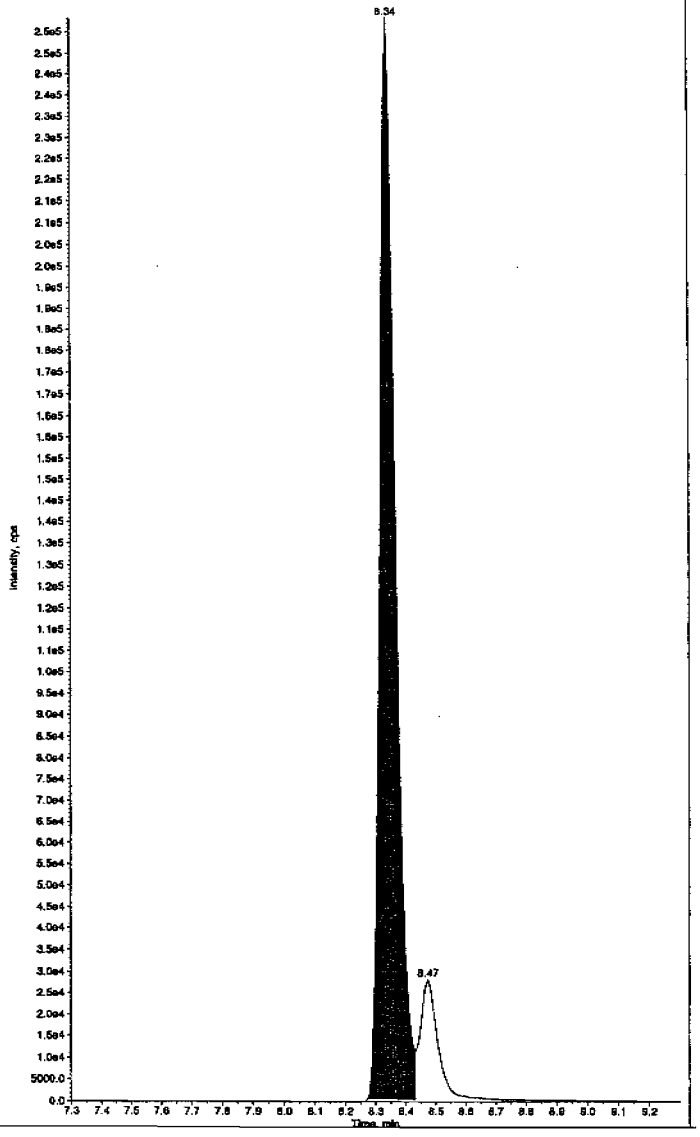

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
_CMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 50.0 ng/mL
Conc: 46.3 ng/mL
2/27/2010
4:15:10 AM

No
rithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
r: 8.46 min
ve RT: No

Valley
Time: 8.47 min
6.70e+005 counts
187516.296 cps
: 8.40 min
8.79 min

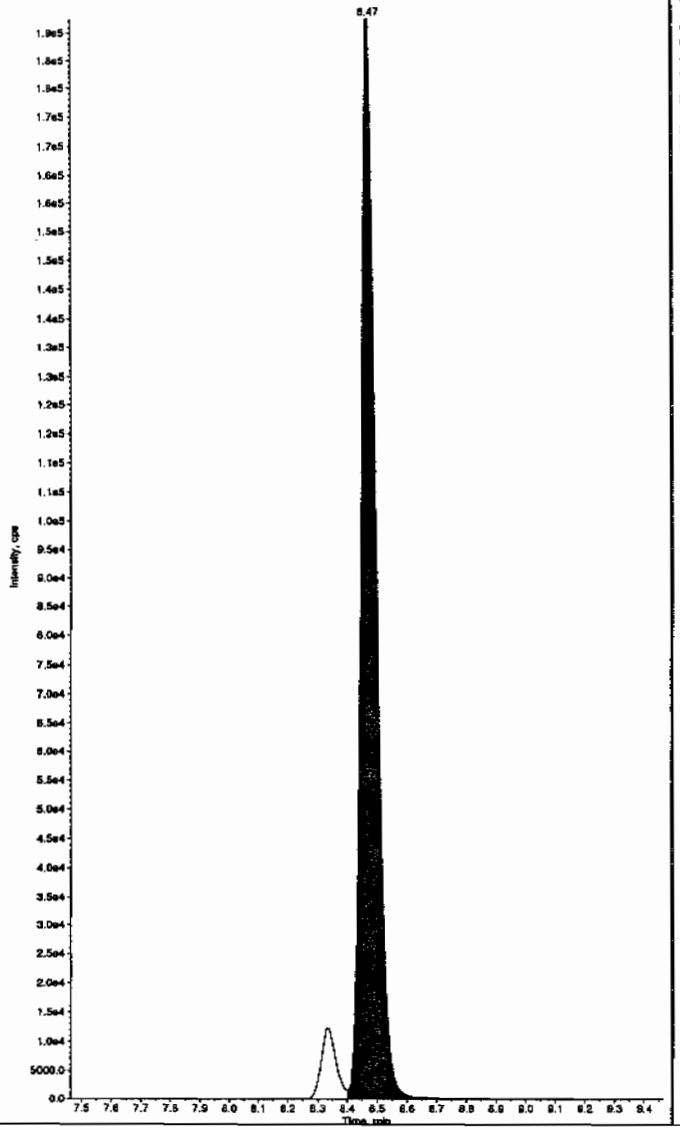

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	121.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	4:15:10 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.12	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.12	min
Area:	2.64e+005	counts
Height:	64638.481	cps
Start Time:	5.02	min
End Time:	5.42	min

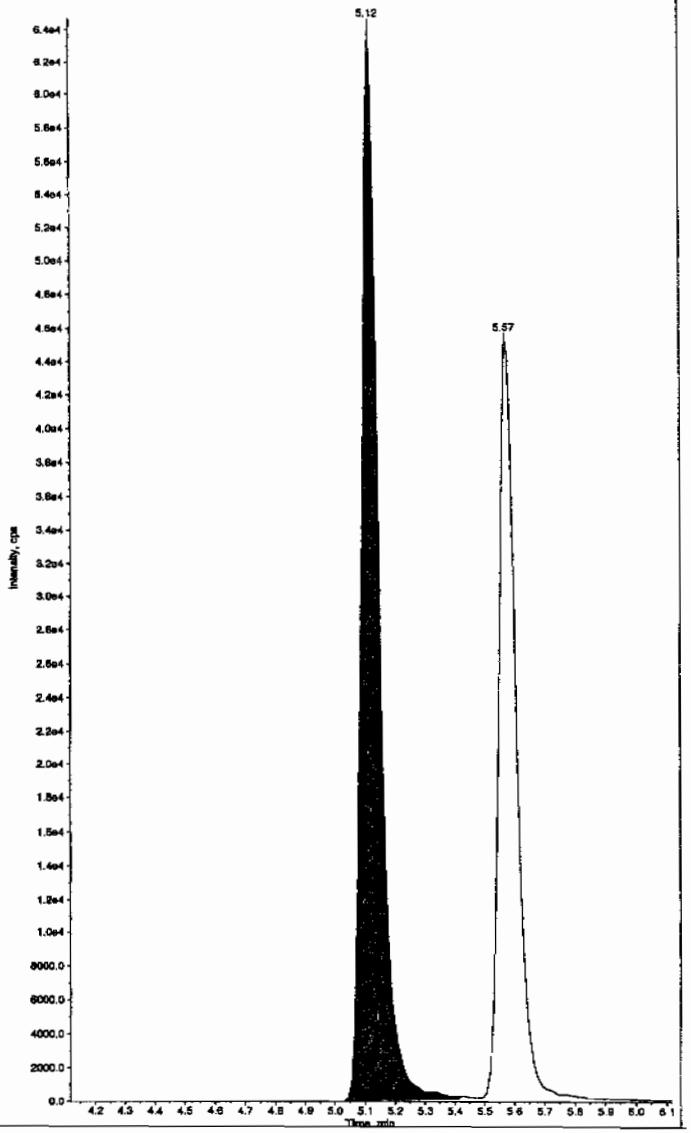

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
.CMSEXP_C" Annotation: "

```
ex:        1
:          QC
on:      100.     ng/mL
Conc:    119.     ng/mL
       2/27/2010
       4:15:10 AM

         No
ithm: IntelliQuan - IQA
eight: 350.00    cps
idth:    0.00    sec
idth:  3        points
        30.0     sec
:        5.57    min
e RT:    No

       Valley
ime:     5.57    min
    1.82e+005    counts
    45589.886    cps
        5.48     min
        5.93     min
```

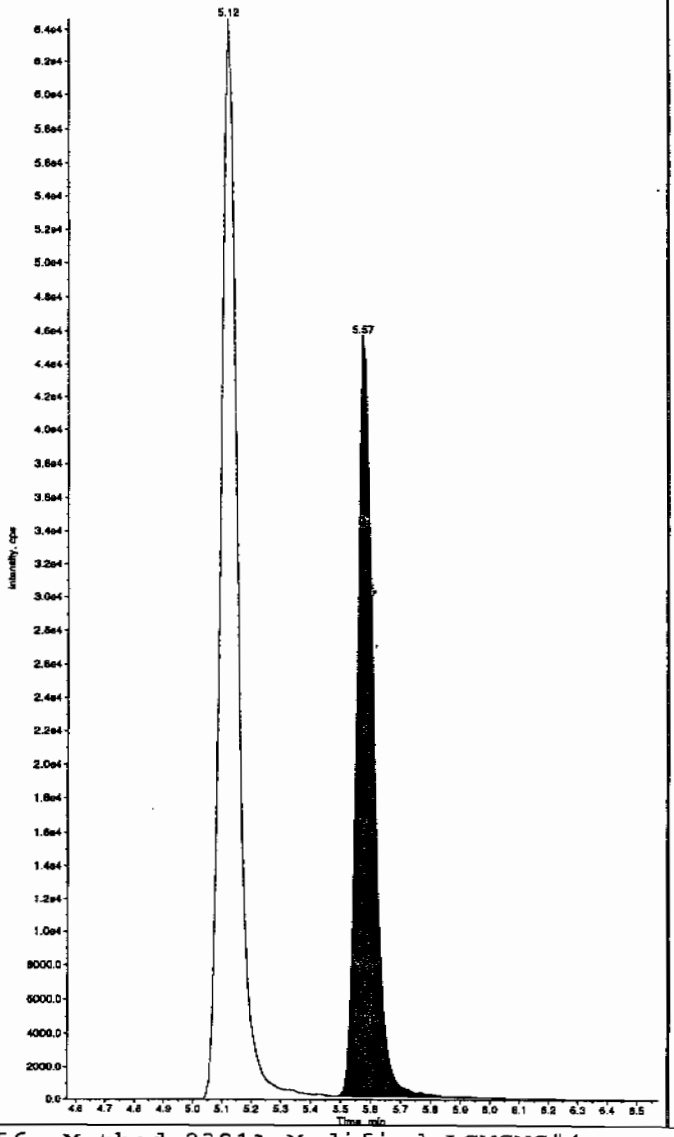

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     100.     ng/mL
Calculated Conc:   102.     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       4:15:10 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    11.0     min
Area:          1.75e+006    counts
Height:        488648.682   cps
Start Time:        10.8     min
End Time:          11.2     min
```

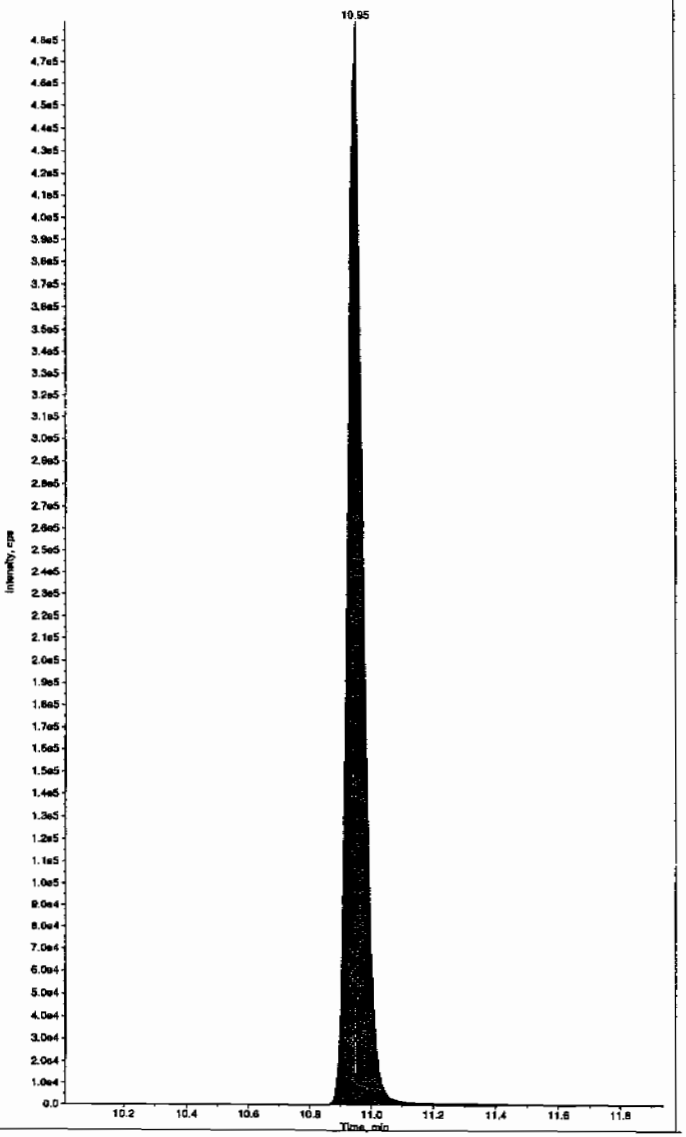

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260060.wiff

Analysis Date: 27-FEB-10 06:20

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	480	96	
TATB	500	542	108	
tris(o-cresyl) phosphate	500	485	97	
2,4-Diamino-6-nitrotoluene	500	571	114	
2,6-Diamino-4-nitrotoluene	500	590	118	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcn 3/1/10

e: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260060.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: "
x: 1
: QC
on: 500. ng/mL
Conc: 542. ng/mL
2/27/2010
6:20:48 AM

No
ithm: IntelliQuan - IQA
Height:2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
Time: 7.11 min
6.43e+005 counts
164211.945 cps
7.01 min
7.89 min

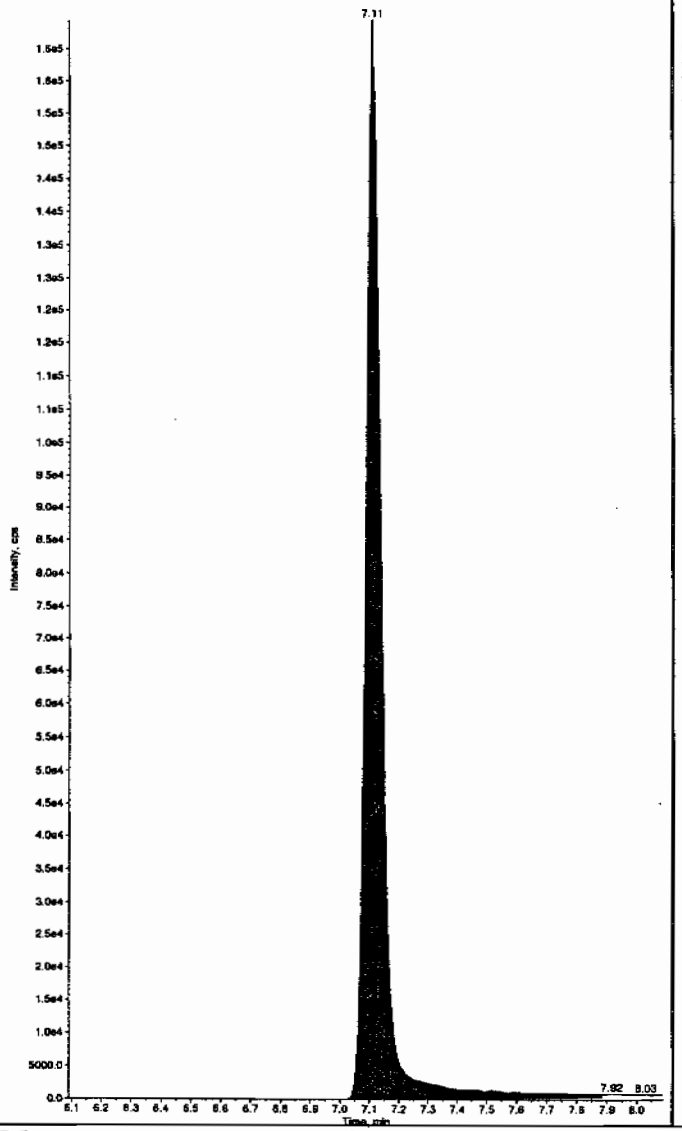

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260060.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 480. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 4.40e+006 counts
Height: 1138583.862 cps
Start Time: 8.25 min
End Time: 8.43 min

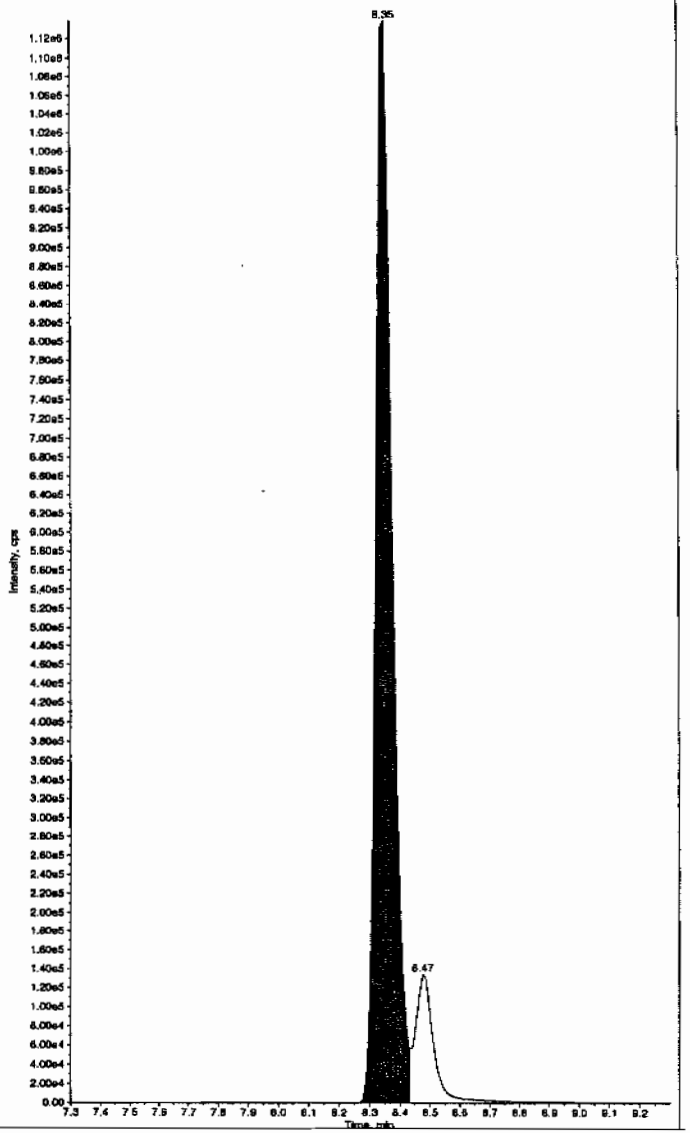

Hmm 03/01/10

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e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CMSEXP_C" Annotation: ""
ex: 1
e: QC
on: 250. ng/mL
Conc: 232. ng/mL
2/27/2010
6:20:48 AM

No
ithm: IntelliQuan - IQA
eight: 1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
t: 8.46 min
se RT: No

Valley
Time: 8.47 min
3.20e+006 counts
905951.782 cps
8.40 min
8.84 min

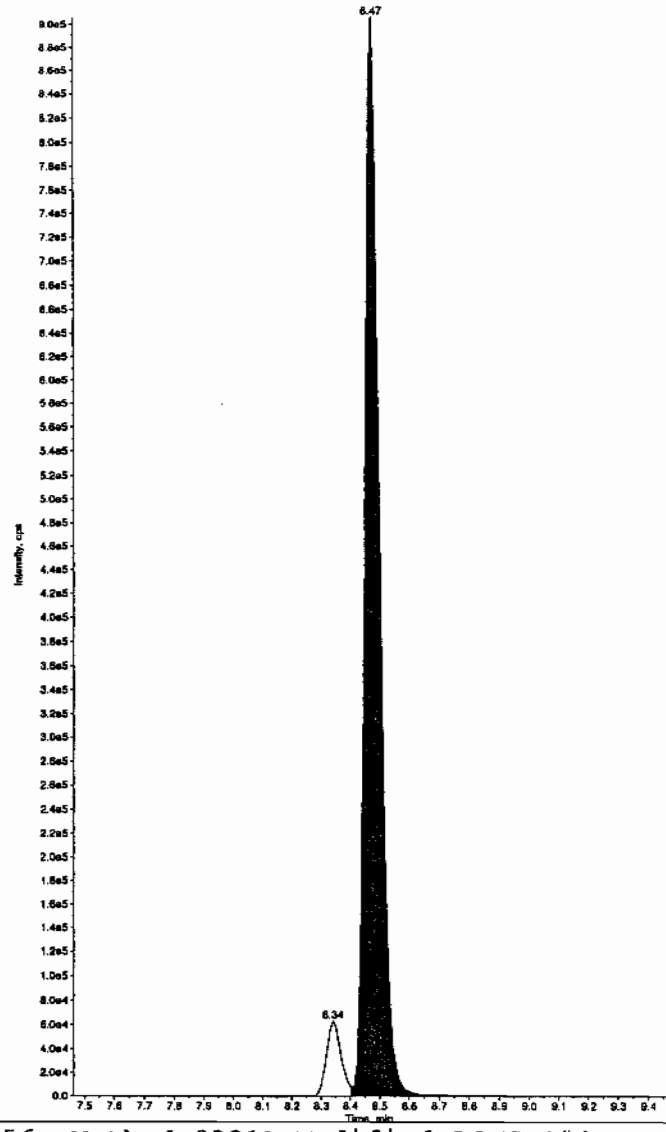

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 590. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.30e+006 counts
Height: 311600.555 cps
Start Time: 5.02 min
End Time: 5.42 min

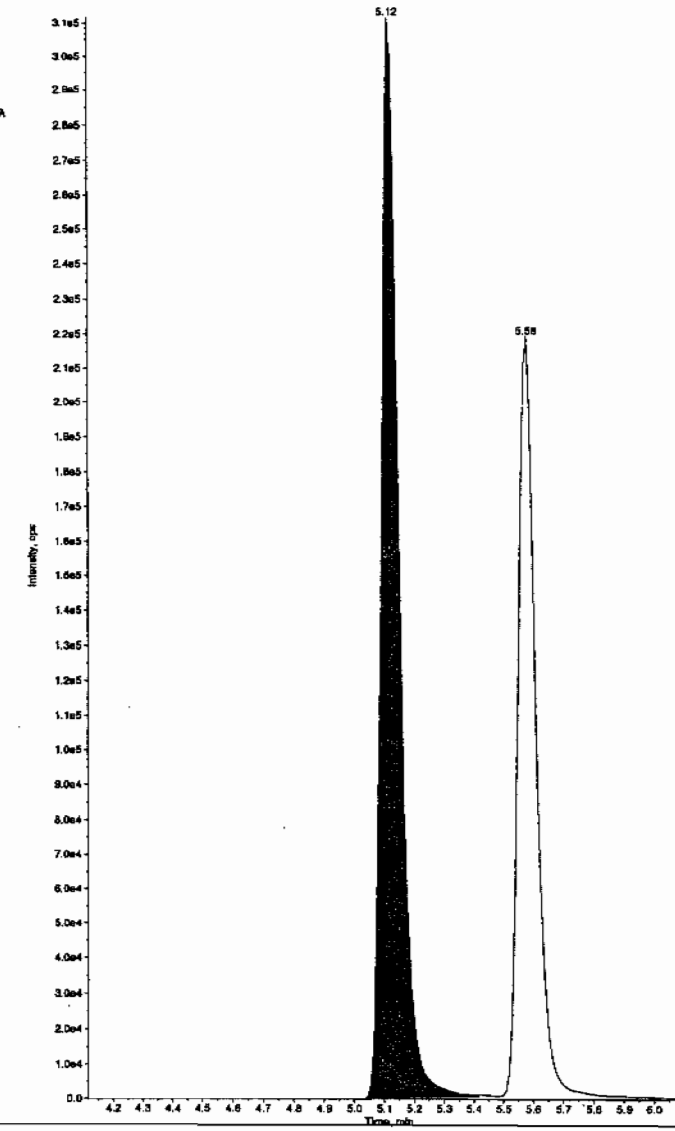

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e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
LCMSEXP_C" Annotation: "
ex: 1
: QC
on: 500. ng/mL
Conc: 571. ng/mL
2/27/2010
6:20:48 AM

No
ithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
: 5.57 min
e RT: No

Valley
Time: 5.58 min
9.14e+005 counts
219210.556 cps
5.49 min
6.07 min

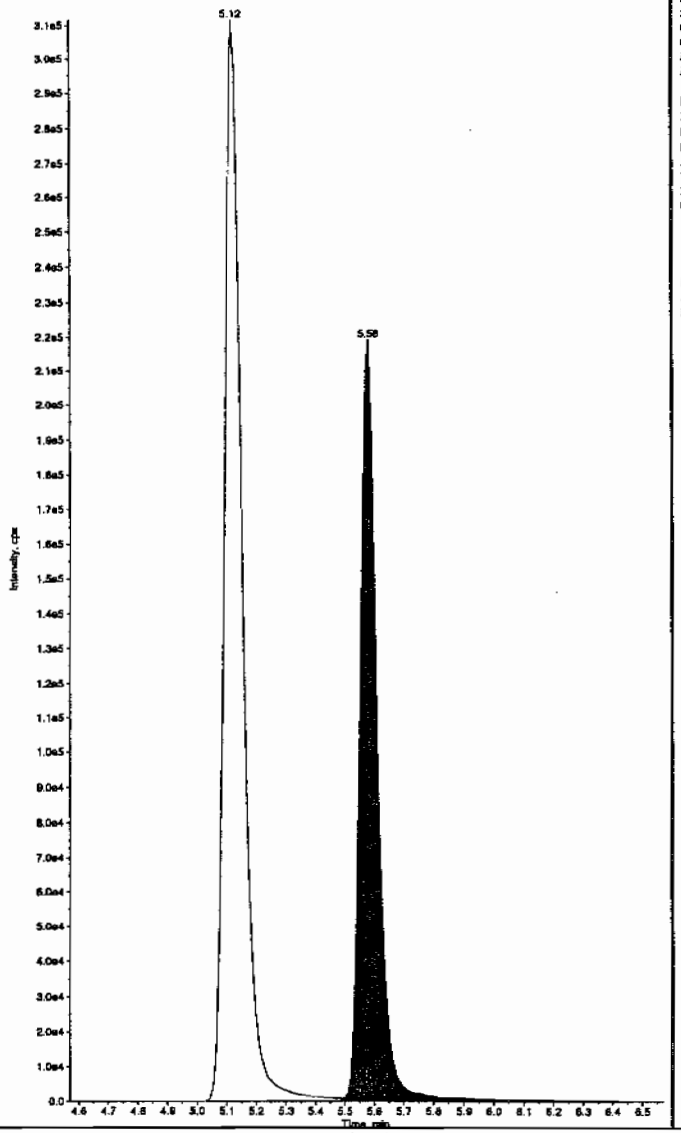

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 7.50e+006 counts
Height: 2068702.393 cps
Start Time: 10.9 min
End Time: 11.2 min

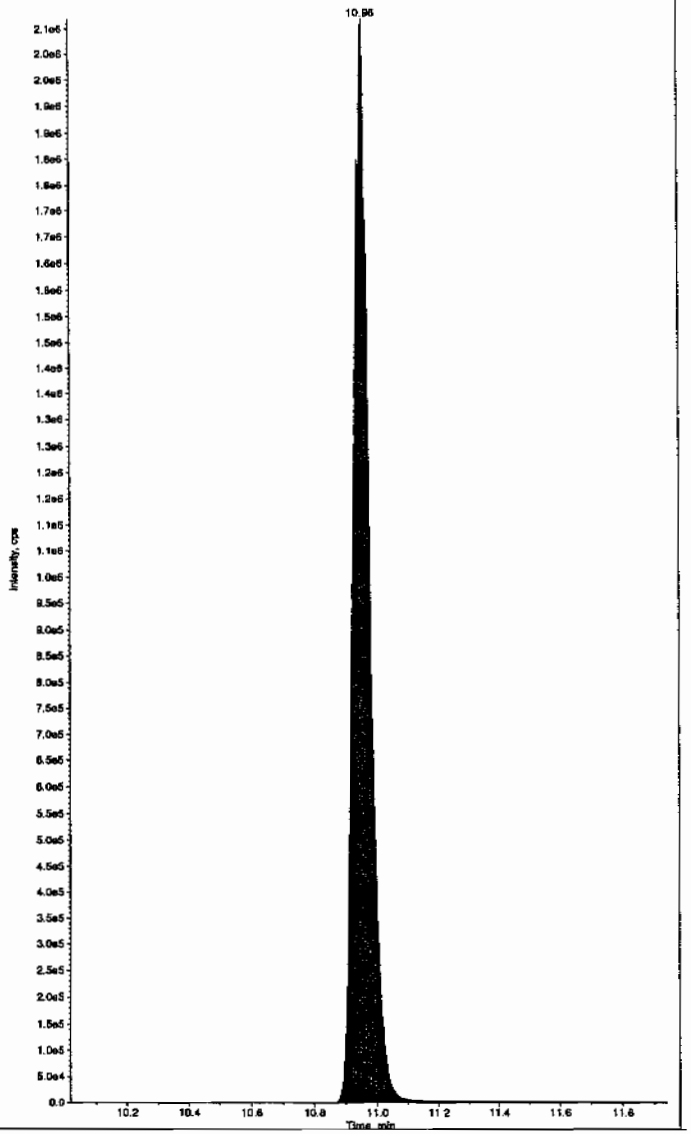

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260062.wiff

Analysis Date: 27-FEB-10 06:52

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
TATB	100	117	117	
tris(o-cresyl) phosphate	100	96.2	96	
2,4-Diamino-6-nitrotoluene	100	115	115	
2,6-Diamino-4-nitrotoluene	100	115	115	
3,4-Dinitrotoluene	50	45.9	92	
3,5-Dinitroaniline	100	93	93	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rcn 3/1/10

e: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260062.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
.CMSEXP_C" Annotation: ""
:x: 1
:: QC
.on: 100. ng/mL
Conc: 117. ng/mL
2/27/2010
6:52:11 AM

No :
:ithm: IntelliQuan - IQA
Height:2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
7.09 min
/e RT: No

Valley
Time: 7.10 min
1.23e+005 counts
31840.464 cps
: 6.99 min
7.77 min

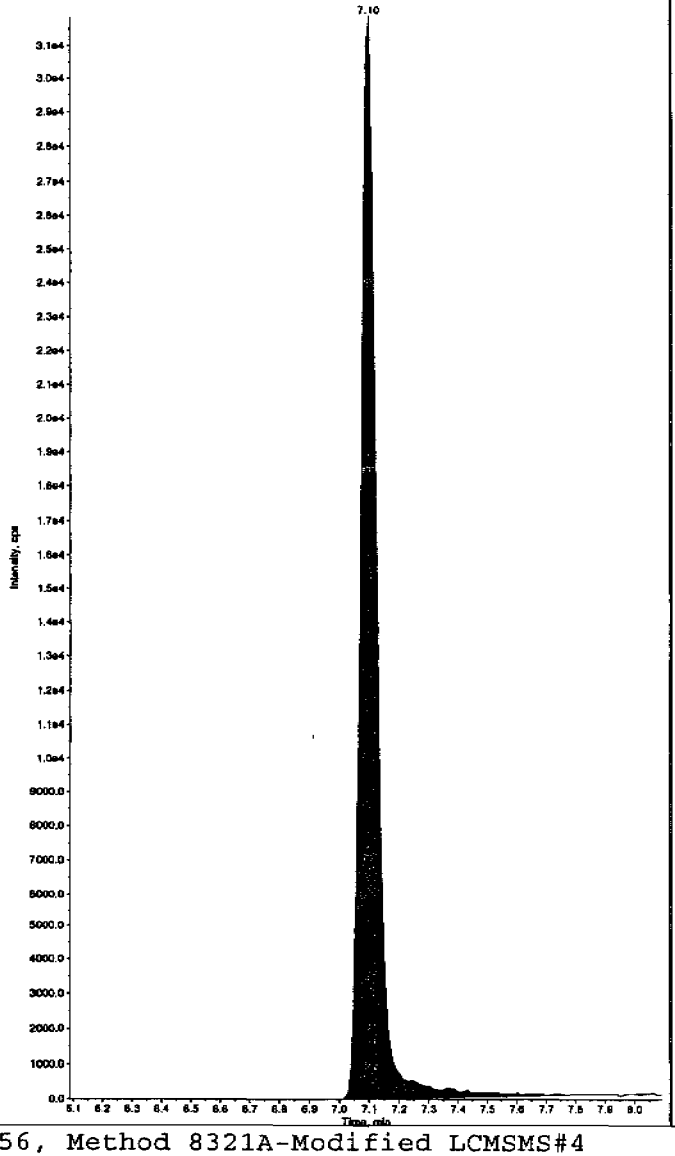

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260062.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.0 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:52:11 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 9.37e+005 counts
Height: 260031.525 cps
Start Time: 8.23 min
End Time: 8.42 min

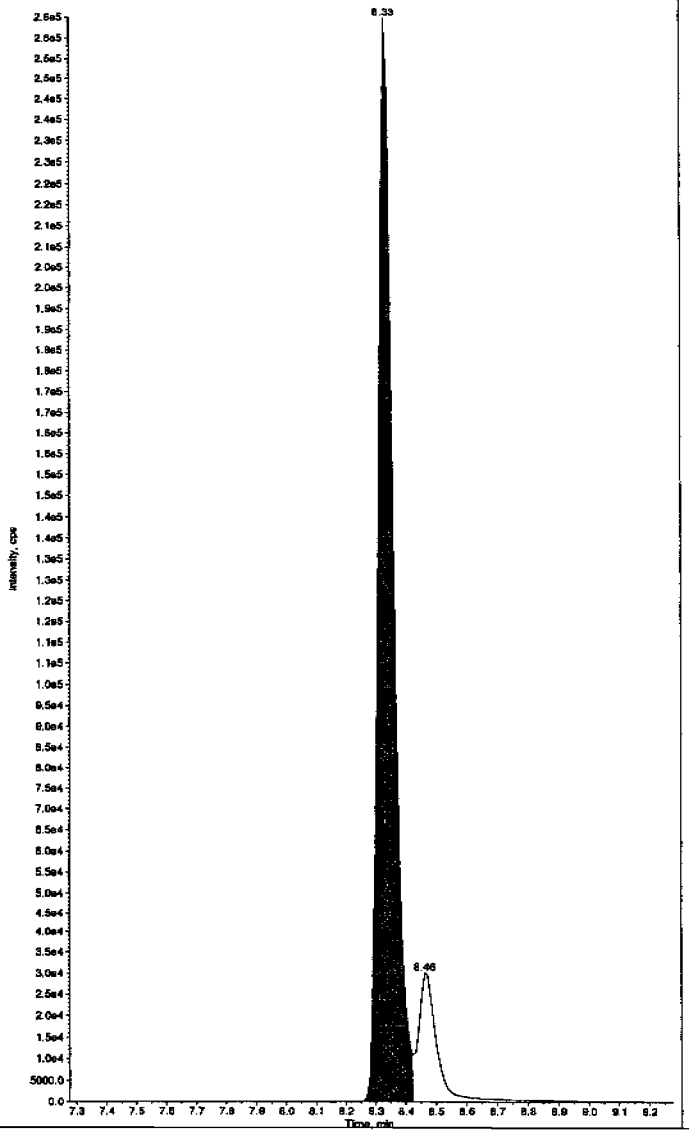

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CMSEXP_C" Annotation: ""

```
:x:          1
::          QC
.on:      50.0    ng/mL
Conc:     45.9    ng/mL
      2/27/2010
      6:52:11 AM

          No
rithm: IntelliQuan - IQA
Height:1460.00    cps
Width:    0.00    sec
Width:  3       points
         15.0     sec
t:        8.46    min
ve RT:    No

         Valley
Time:     8.46    min
     6.63e+005   counts
    191753.464   cps
:         8.39    min
          8.81    min
```

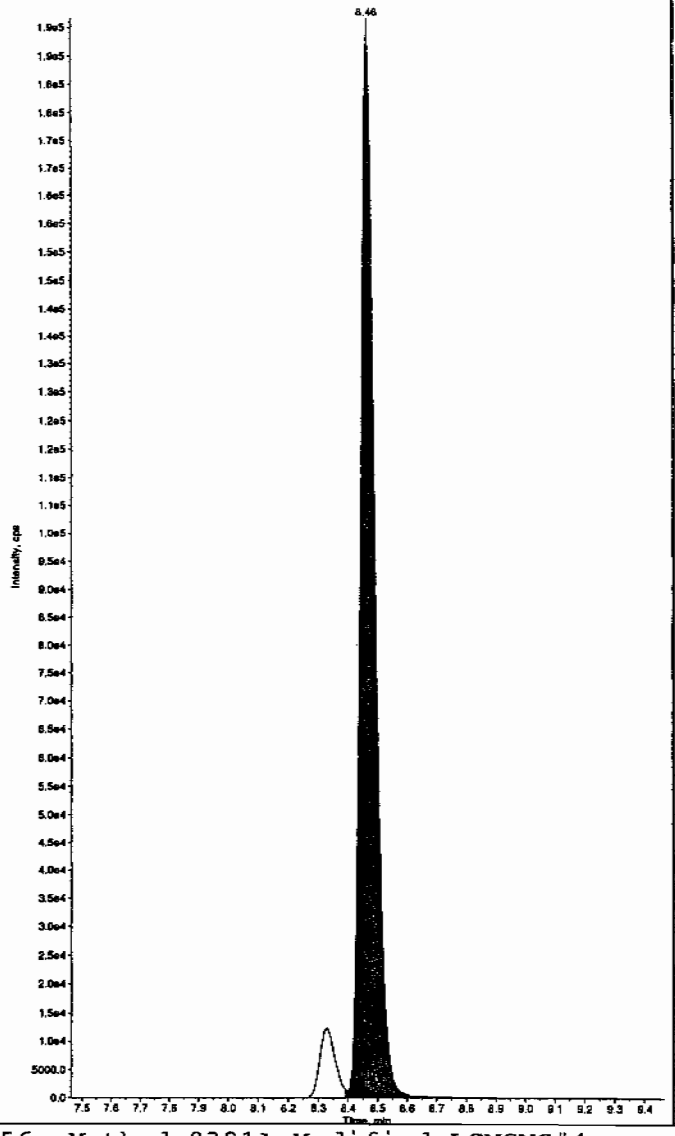

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.    ng/mL
Calculated Conc:    115.    ng/mL
Acq. Date:       2/27/2010
Acq. Time:       6:52:11 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3       points
RT Window:         30.0     sec
Expected RT:        5.12    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.12    min
Area:        2.52e+005   counts
Height:       59789.192   cps
Start Time:         5.00    min
End Time:           5.36    min
```

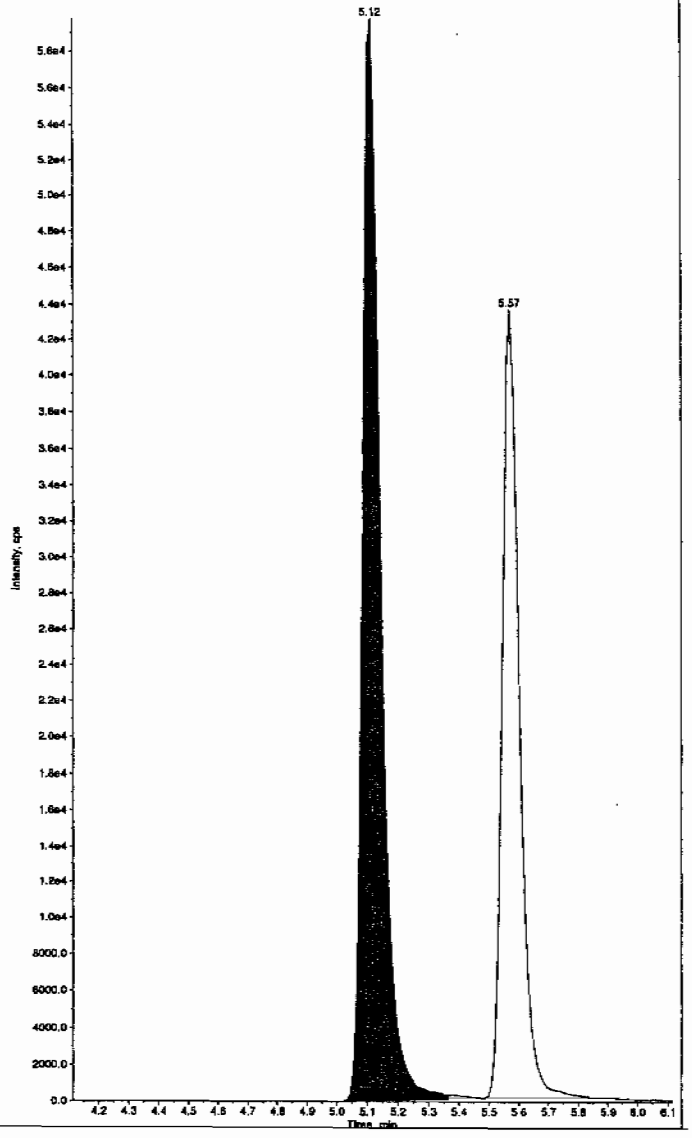

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e: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260062.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
.CMSEXP_C" Annotation: ""

```
ex:          1
e:          QC
.on:       100.    ng/mL
 Conc:     115.    ng/mL
        2/27/2010
        6:52:11 AM

           No
:ithm: IntelliQuan - IQA
Height: 350.00   cps
Width:    0.00   sec
Width:  3        points
          30.0   sec
::          5.57 min
e RT:      No

         Valley
Time:       5.57 min
     1.76e+005   counts
     43545.845   cps
            5.49 min
            5.95 min
```

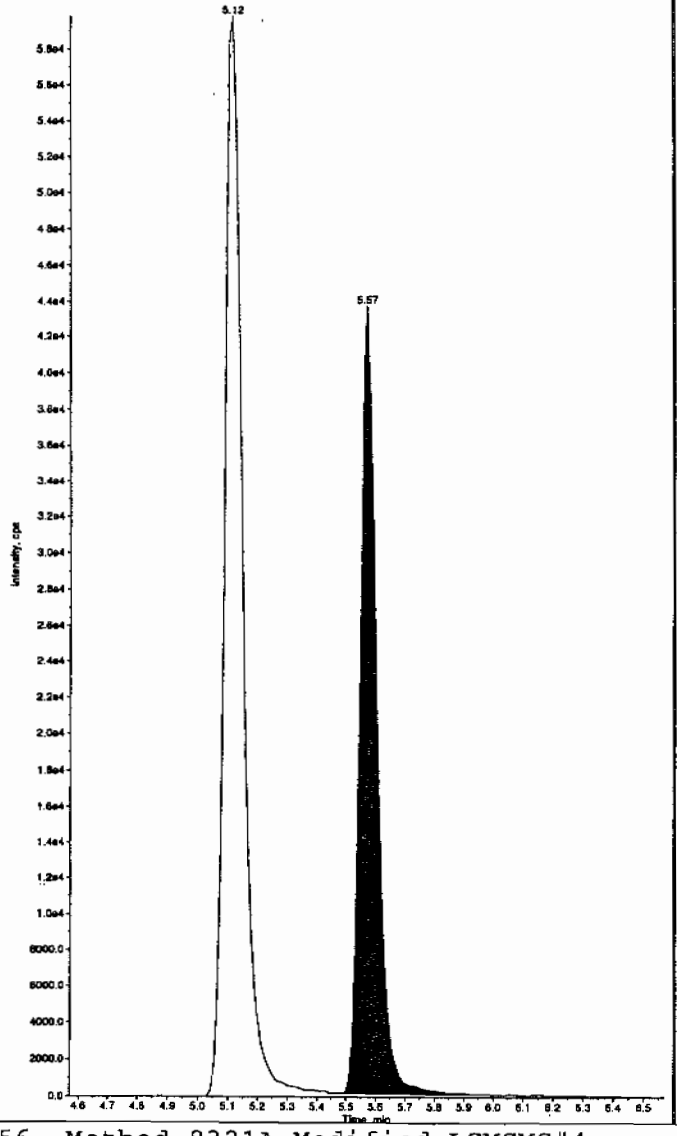

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260062.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.    ng/mL
Calculated Conc:      96.2   ng/mL
Acq. Date:        2/27/2010
Acq. Time:        6:52:11 AM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:     0.00  sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     11.0   min
Area:         1.66e+006   counts
Height:        430343.140  cps
Start Time:         10.8   min
End Time:           11.2   min
```

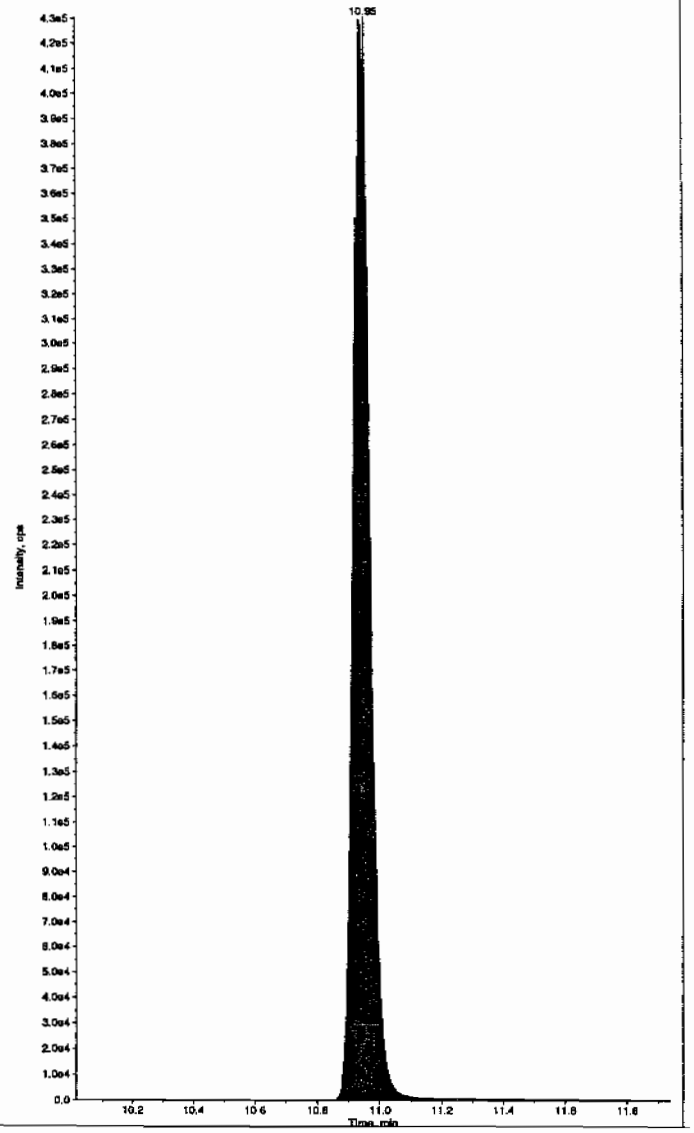

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260073.wiff

Analysis Date: 27–FEB–10 09:44

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	546	109	
2,6–Diamino–4–nitrotoluene	500	540	108	
3,4–Dinitrotoluene	250	227	91	
3,5–Dinitroaniline	500	497	99	
TATB	500	538	108	
tris(o–cresyl) phosphate	500	493	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/1/10

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e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260073.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
.CMSEXP_C" Annotation: ""
ex: 1
e: QC
on: 500. ng/mL
Conc: 538. ng/mL
2/27/2010
9:44:55 AM

No
rithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
Time: 7.07 min
6.38e+005 counts
164663.864 cps
6.98 min
7.66 min

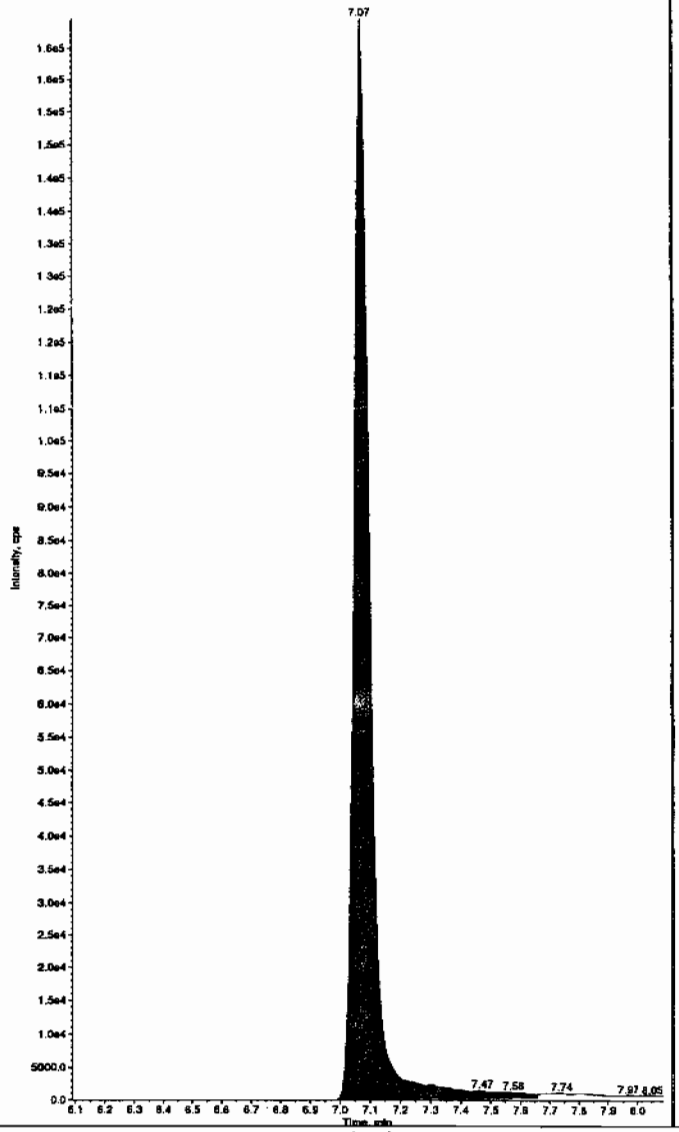

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260073.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	497.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	9:44:55 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.27	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.31	min
Area:	4.54e+006	counts
Height:	1194238.525	cps
Start Time:	8.21	min
End Time:	8.40	min

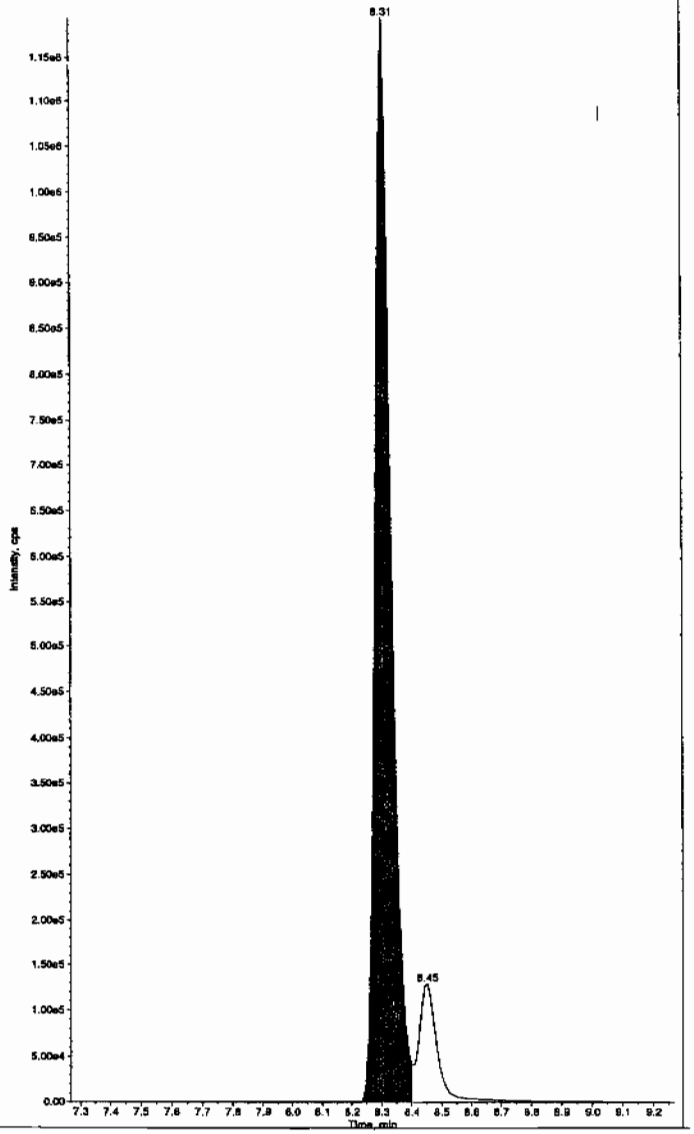

thm 03/01/10

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e: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02260073.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CMSEXP_C" Annotation: ""

```
ex:          1
e:          QC
.on:       250.     ng/mL
Conc:      227.     ng/mL
        2/27/2010
        9:44:55 AM

           No
rithm: IntelliQuan - IQA
Height:1460.00    cps
Width:    0.00    sec
Width:  3        points
         15.0     sec
t:        8.46    min
e RT:     No

        Valley
Time:     8.44    min
    3.14e+006   counts
    906183.472   cps
          8.38    min
          8.77    min
```

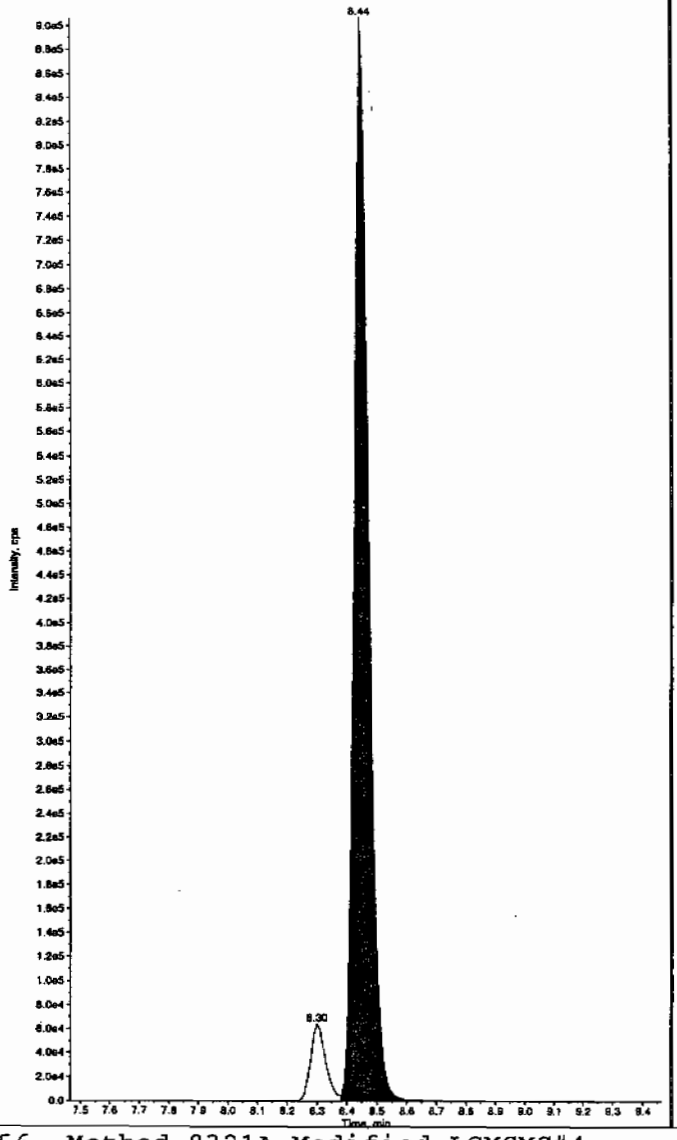

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02260073.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     540.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        9:44:55 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        5.12    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.09    min
Area:         1.19e+006   counts
Height:       279406.769   cps
Start Time:         4.99    min
End Time:           5.39    min
```

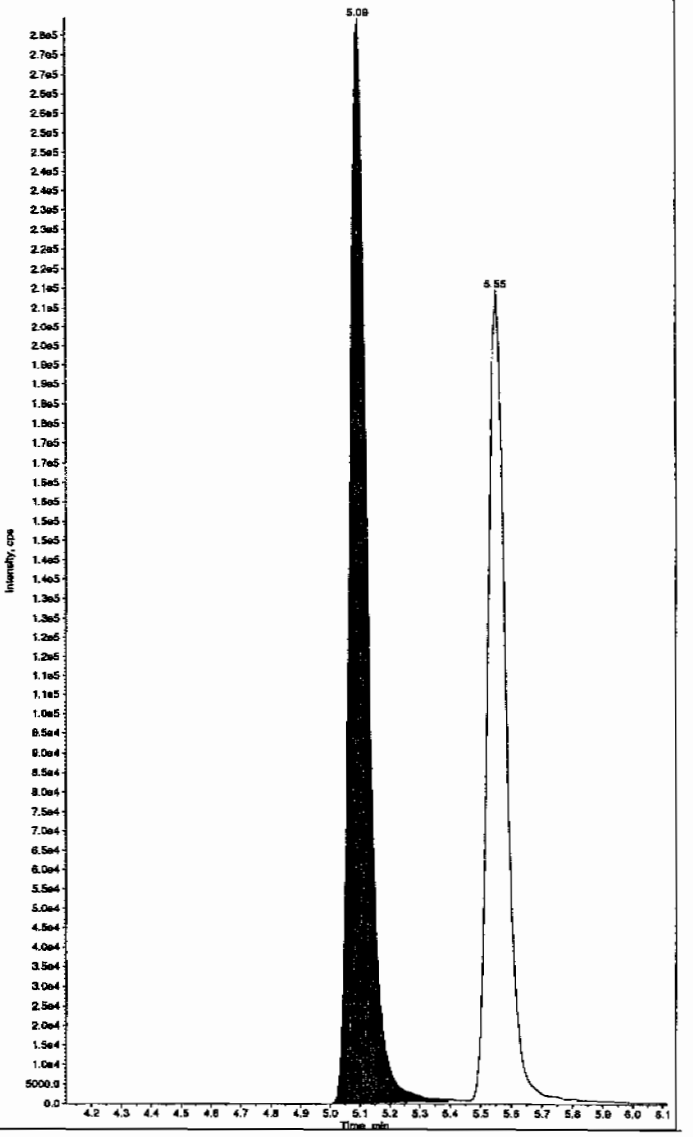

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e: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260073.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
.CMSEXP_C" Annotation: ""

```
ex:          1
:            QC
on:        500.     ng/mL
Conc:      546.     ng/mL
        2/27/2010
        9:44:55 AM

           No
ithm: IntelliQuan - IQA
Height: 350.00    cps
Width:    0.00    sec
Width:  3        points
         30.0     sec
:         5.57    min
e RT:     No

         Valley
Time:     5.55    min
    8.73e+005    counts
    209572.876   cps
:         5.45    min
          6.03    min
```

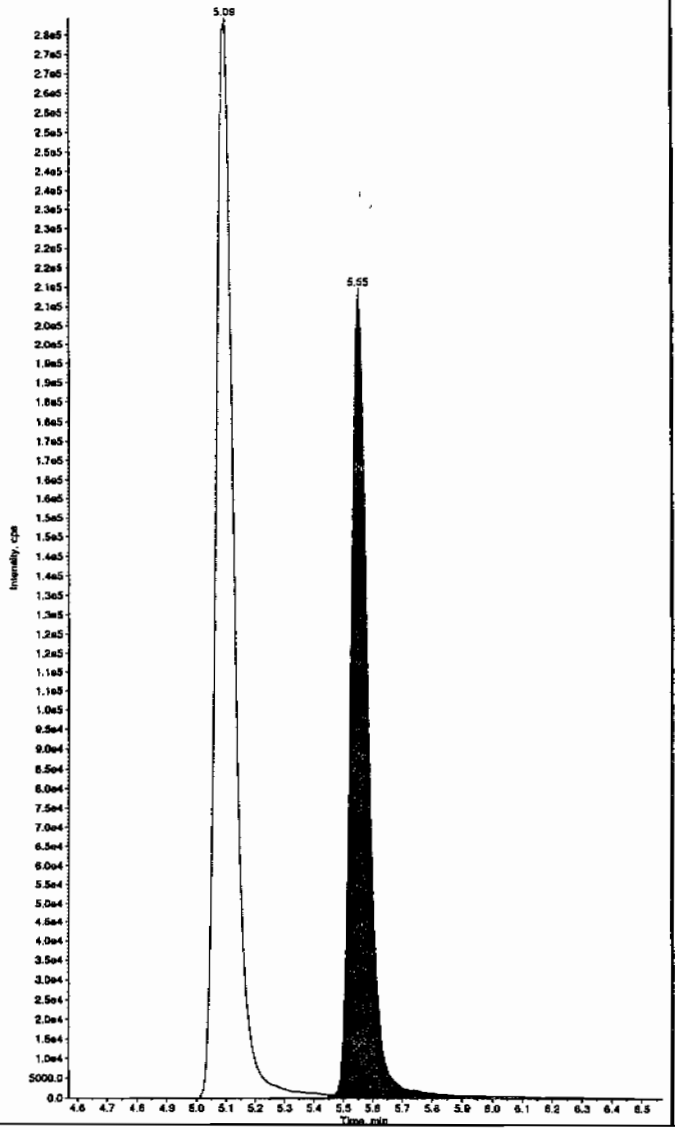

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260073.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     493.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        9:44:55 AM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height: 8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:          Valley
Retention Time:     10.9     min
Area:          7.62e+006    counts
Height:        2076728.516  cps
Start Time:         10.8     min
End Time:           11.3     min
```

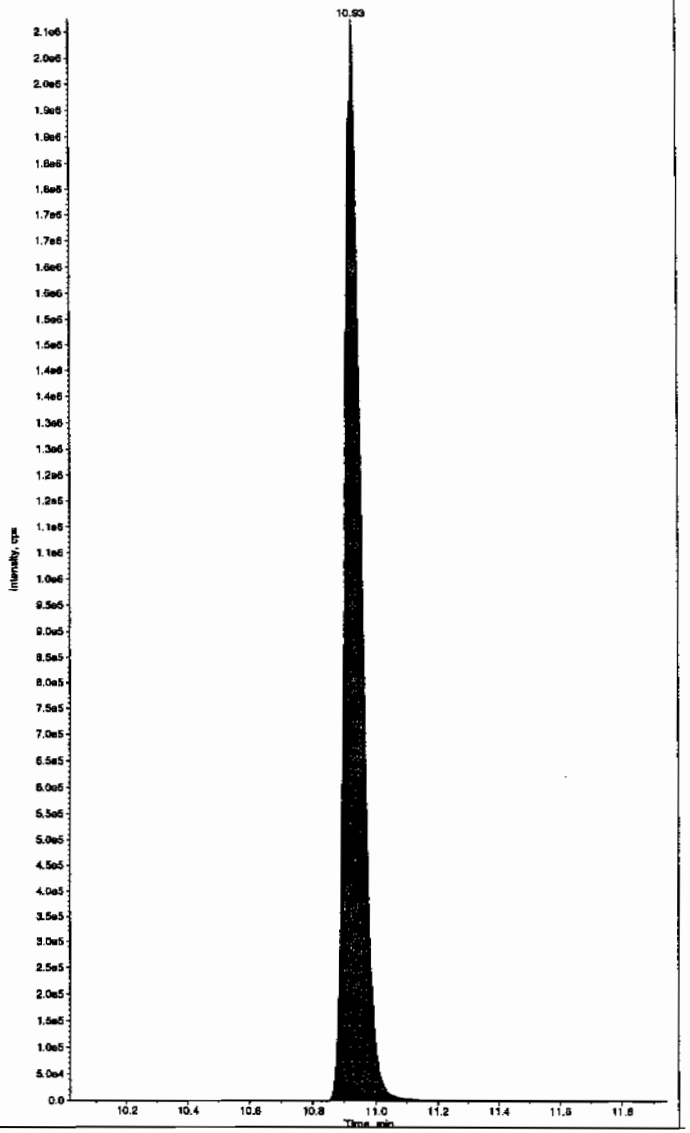

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260075.wiff

Analysis Date: 27–FEB–10 10:16

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	115	115	
2,6–Diamino–4–nitrotoluene	100	117	117	
3,4–Dinitrotoluene	50	46.1	92	
3,5–Dinitroaniline	100	96.7	97	
TATB	100	109	109	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Hrm 3/1/10

me: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260075.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 100. ng/mL
Conc: 109. ng/mL
2/27/2010
10:16:22 AM

No
rithm: IntelliQuan - IQA
Height:2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 7.09 min
ve RT: No

Valley
Time: 7.06 min
1.13e+005 counts
28663.118 cps
6.94 min
7.55 min

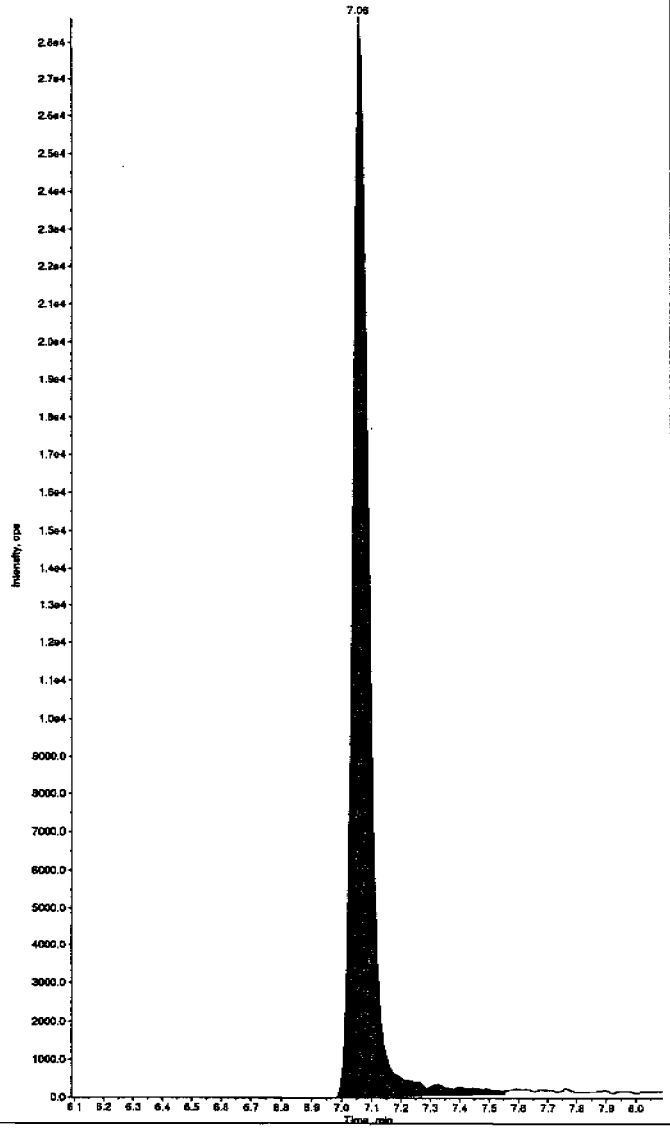

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260075.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	96.7 ng/mL
Acq. Date:	2/27/2010
Acq. Time:	10:16:22 AM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.24 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.29 min
Area:	9.72e+005 counts
Height:	256883.392 cps
Start Time:	8.20 min
End Time:	8.39 min

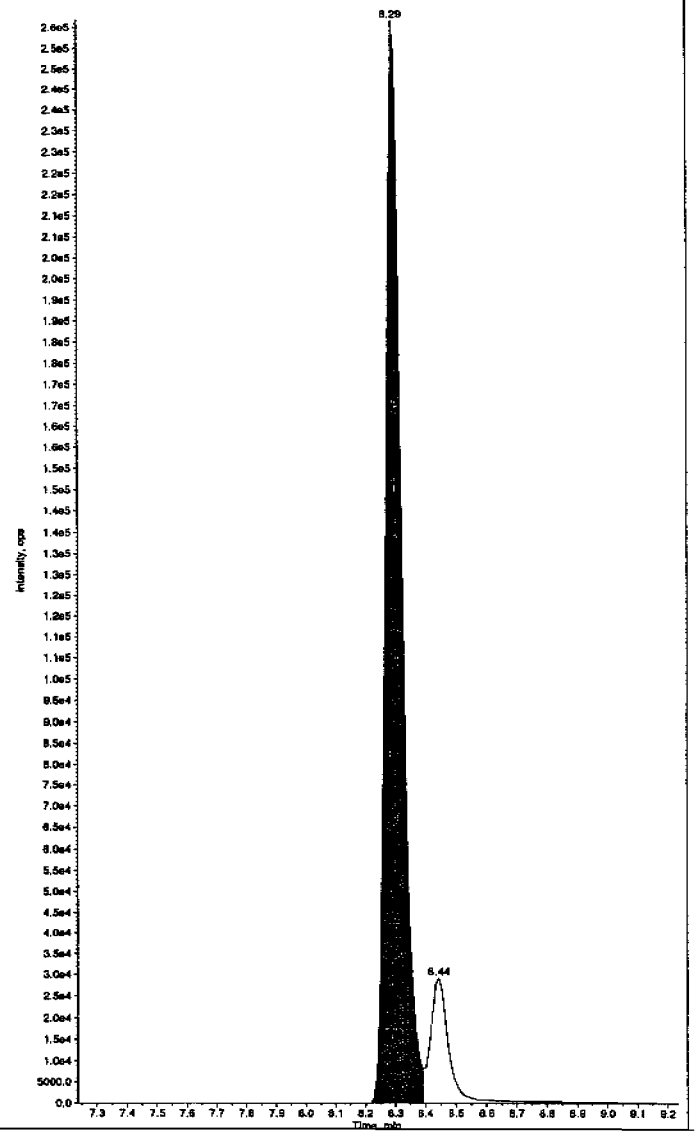

Hrm 03/01/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260075.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CMSEXP_C" Annotation: "
:x: 1
:: QC
on: 50.0 ng/mL
Conc: 46.1 ng/mL
2/27/2010
10:16:22 AM

No
rithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
t: 8.46 min
re RT: No

Valley
Time: 8.43 min
6.67e+005 counts
193711.090 cps
: 8.37 min
8.72 min

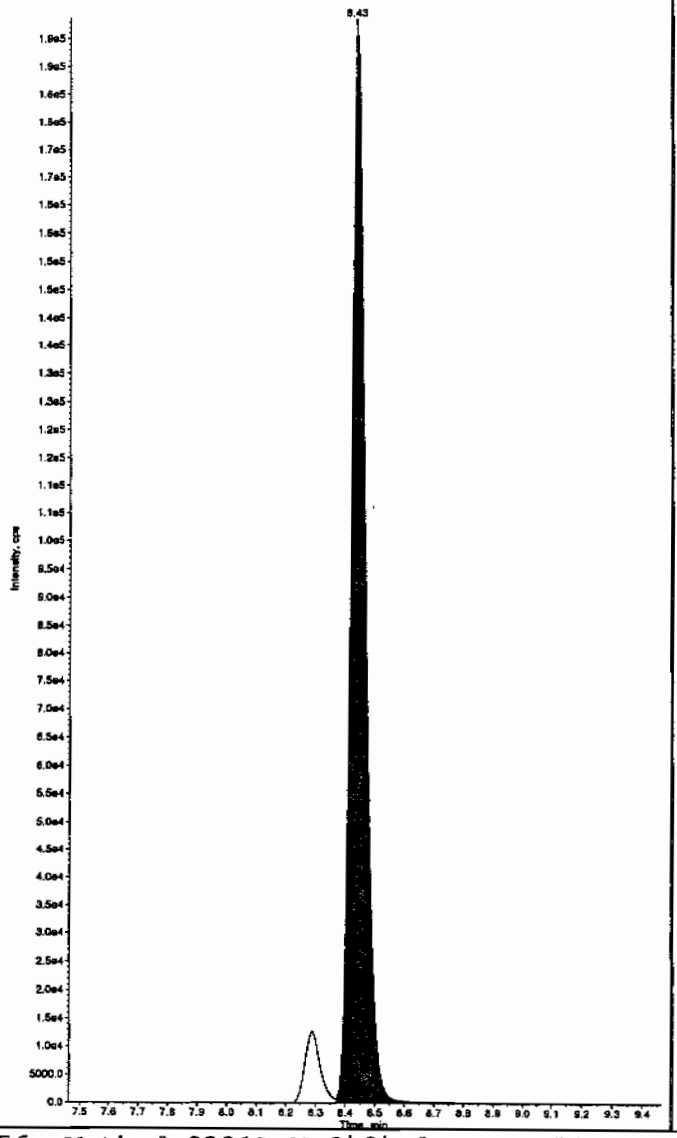

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260075.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 117. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:16:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 2.57e+005 counts
Height: 60480.255 cps
Start Time: 4.95 min
End Time: 5.35 min

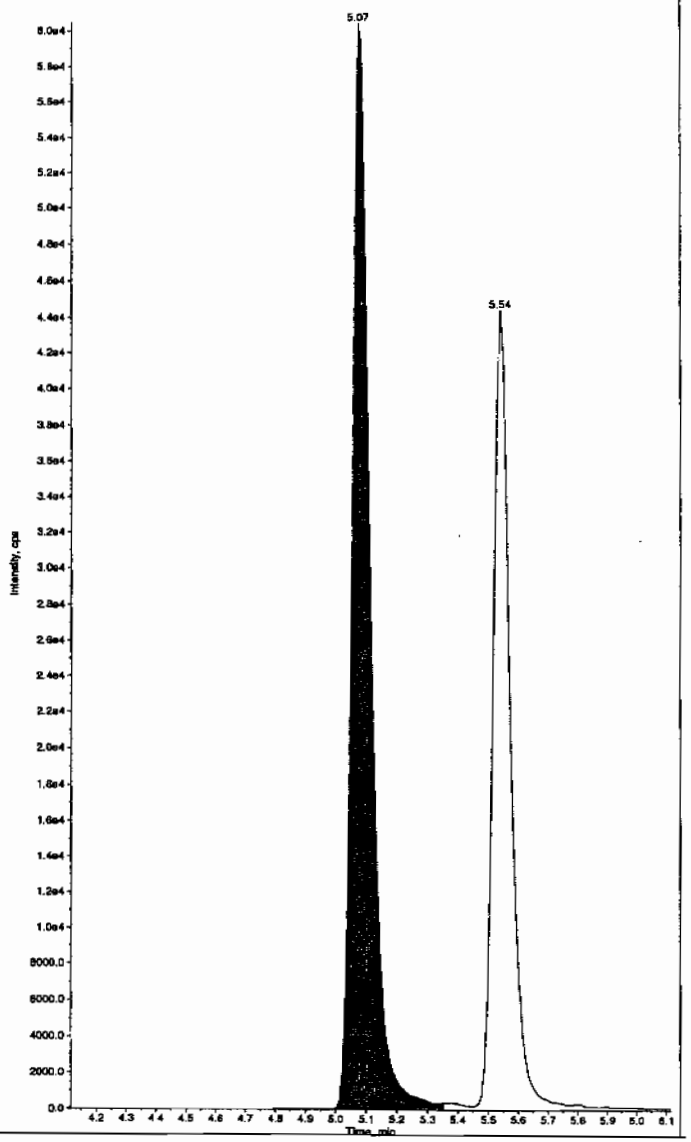

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me: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260075.wiff"
: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 100. ng/mL
Conc: 115. ng/mL
2/27/2010
10:16:22 AM

No
rithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 5.57 min
ve RT: No

Valley
Time: 5.54 min
1.76e+005 counts
44263.847 cps
:: 5.45 min
5.85 min

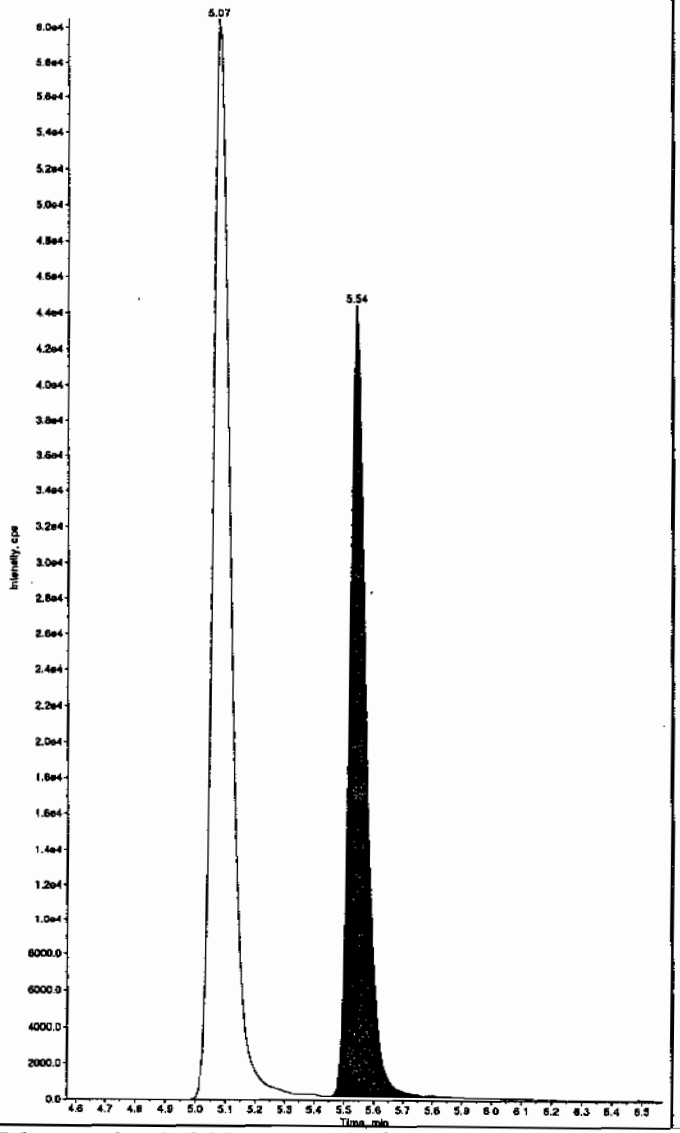

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260075.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:16:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.77e+006 counts
Height: 503175.293 cps
Start Time: 10.8 min
End Time: 11.2 min

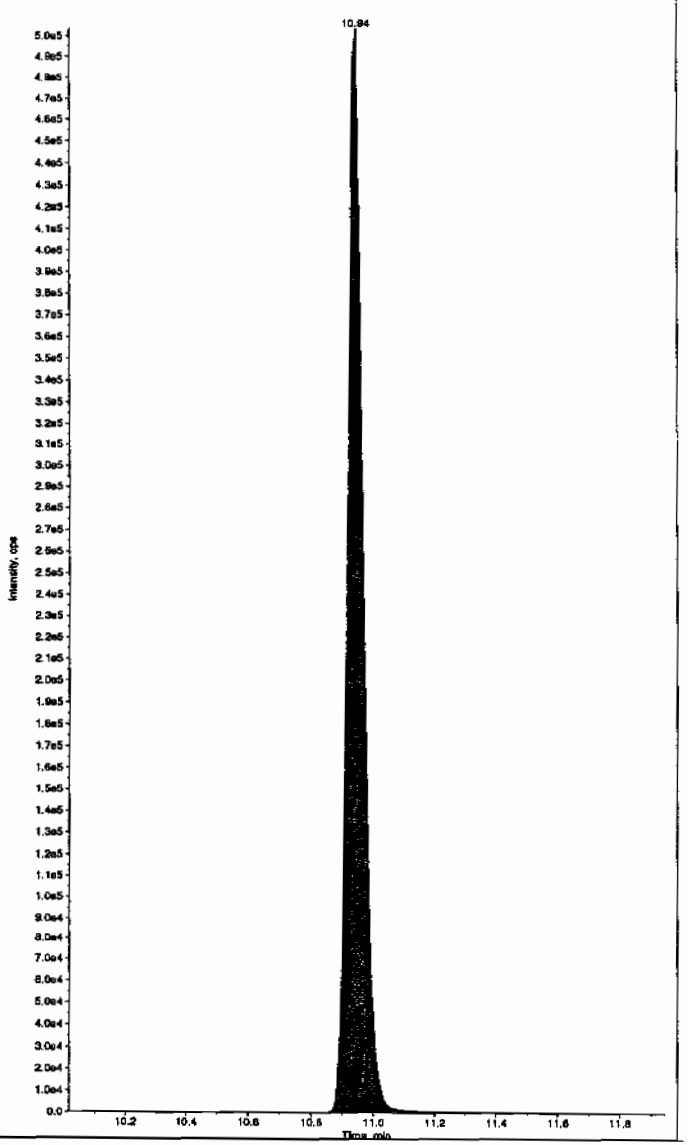

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260086.wiff

Analysis Date: 27–FEB–10 13:09

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	445	89	
2,6–Diamino–4–nitrotoluene	500	442	89	
3,4–Dinitrotoluene	250	218	87	
3,5–Dinitroaniline	500	452	90	
TATB	500	487	97	
tris(o–cresyl) phosphate	500	491	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Jan 3/1/10

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e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
.CMSEXP_C" Annotation: "
ex: 1
e: QC
ion: 500. ng/mL
Conc: 487. ng/mL
2/27/2010
1:09:06 PM

No
rithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
r: 7.09 min
ve RT: No

Valley
Time: 7.07 min
5.75e+005 counts
142410.309 cps
: 6.97 min
8.05 min

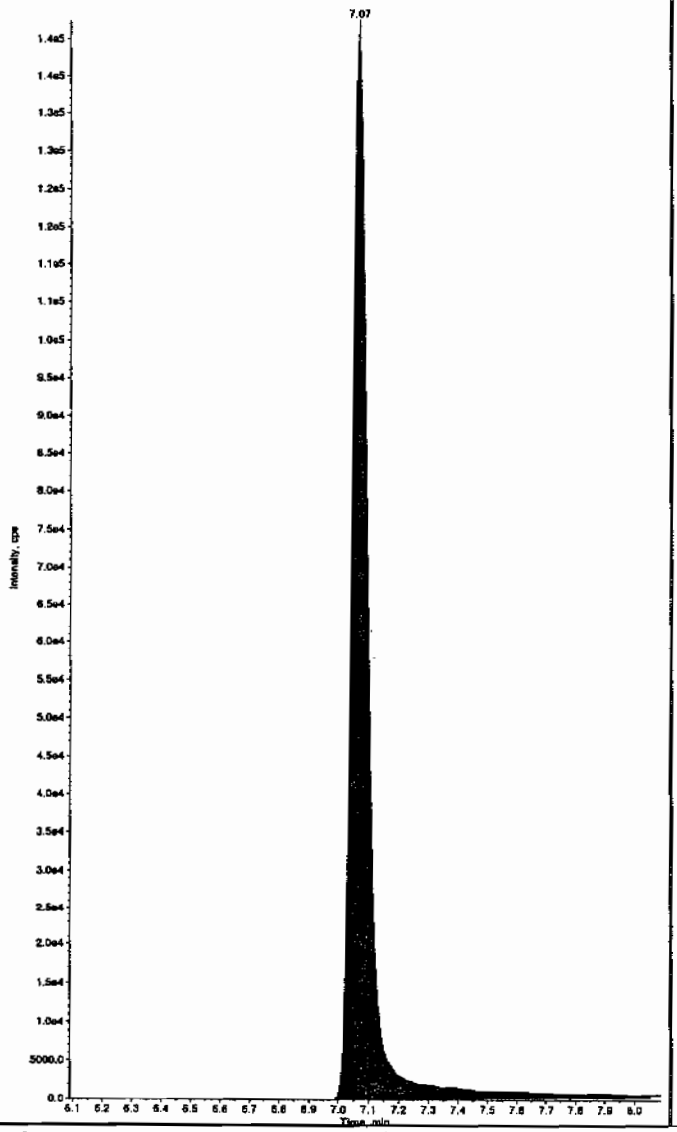

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	432.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	1:09:06 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.26	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.30	min
Area:	3.99e+006	counts
Height:	1101794.312	cps
Start Time:	8.24	min
End Time:	8.40	min

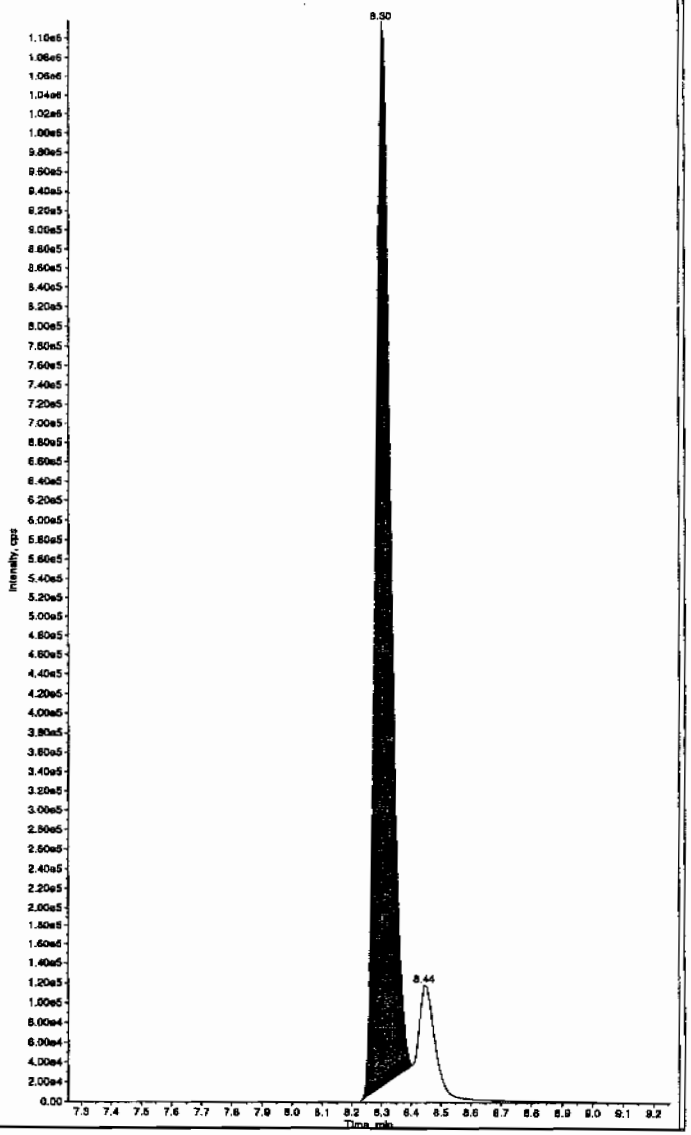

Hmm 03/01/10

after Jan 3/2/10

me: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
"LCMSEXP_C" Annotation: ""
dex: 1
e: QC
ion: 500. ng/mL
Conc: 487. ng/mL
2/27/2010
1:09:06 PM

No
orithm: IntelliQuan - IQA
Height:2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 7.09 min
ve RT: No

Valley
Time: 7.07 min
5.75e+005 counts
142410.309 cps
: 6.97 min
8.05 min

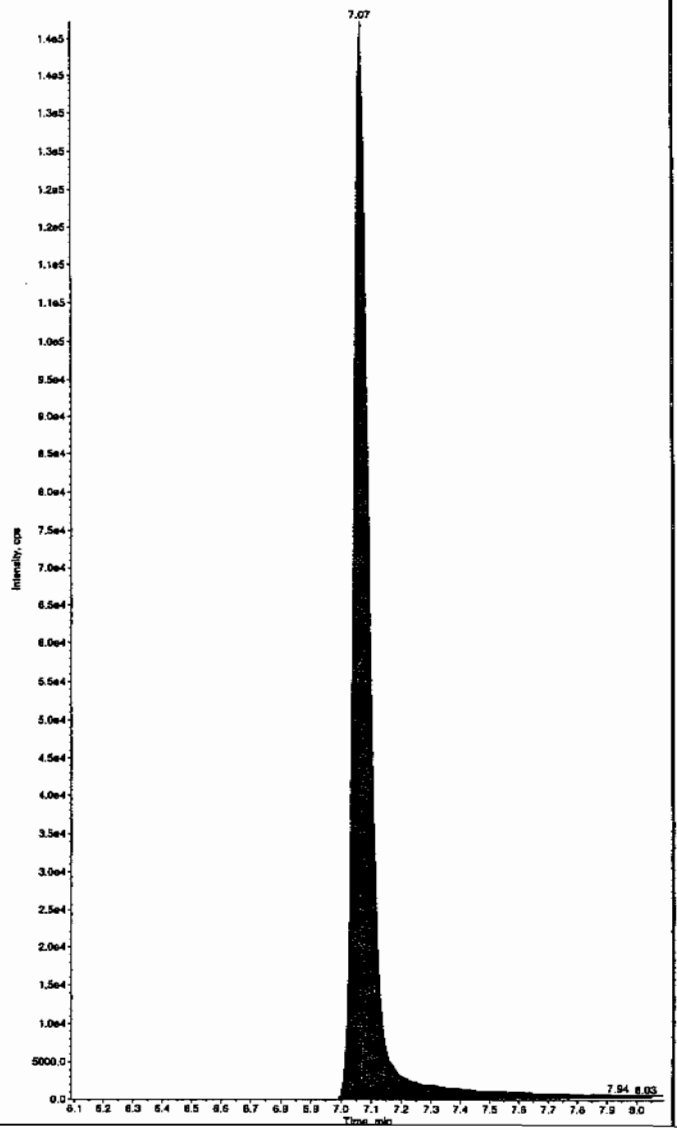

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 452. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:09:06 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.30 min
Area: 4.17e+006 counts
Height: 1135373.042 cps
Start Time: 8.24 min
End Time: 8.40 min

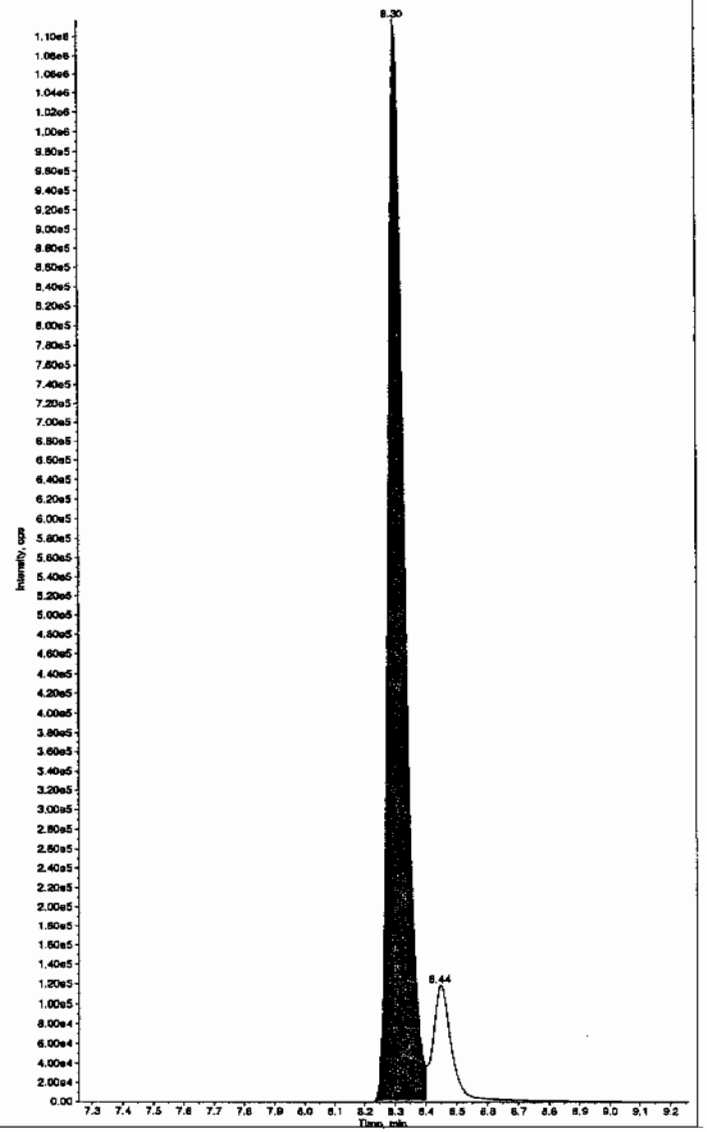

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ne: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 250. ng/mL
Conc: 218. ng/mL
2/27/2010
1:09:06 PM

No
rithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
T: 8.46 min
ve RT: No

Valley
Time: 8.44 min
3.03e+006 counts
851000.977 cps
:: 8.37 min
8.78 min

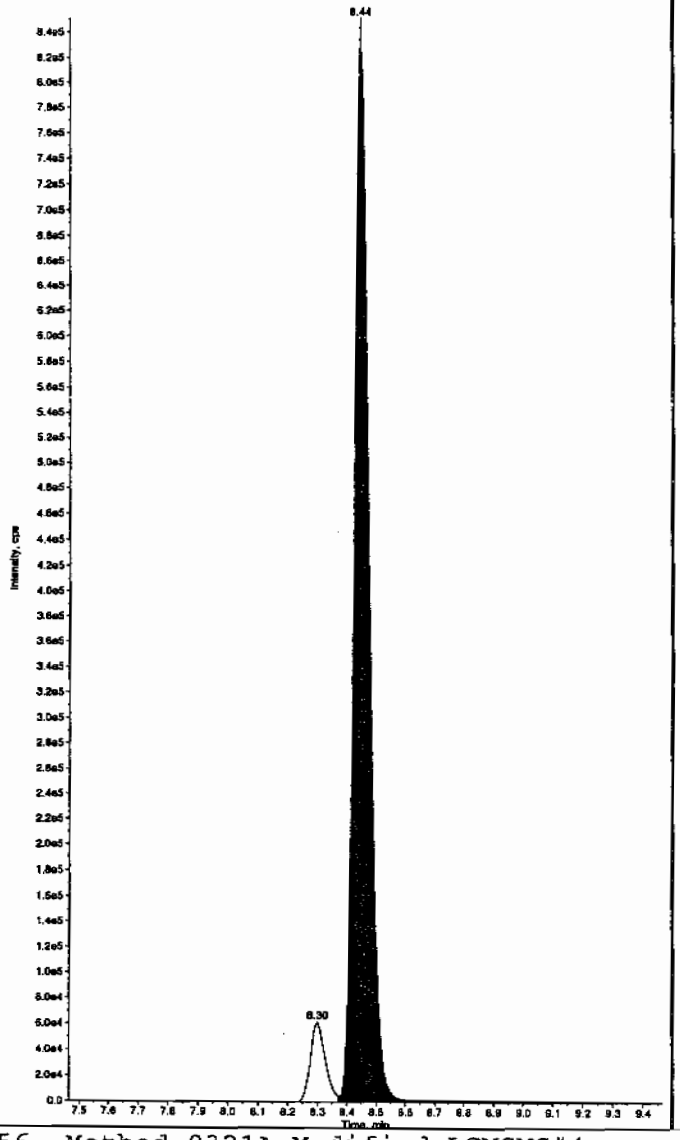

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 442. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:09:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 9.75e+005 counts
Height: 233281.586 cps
Start Time: 4.99 min
End Time: 5.39 min

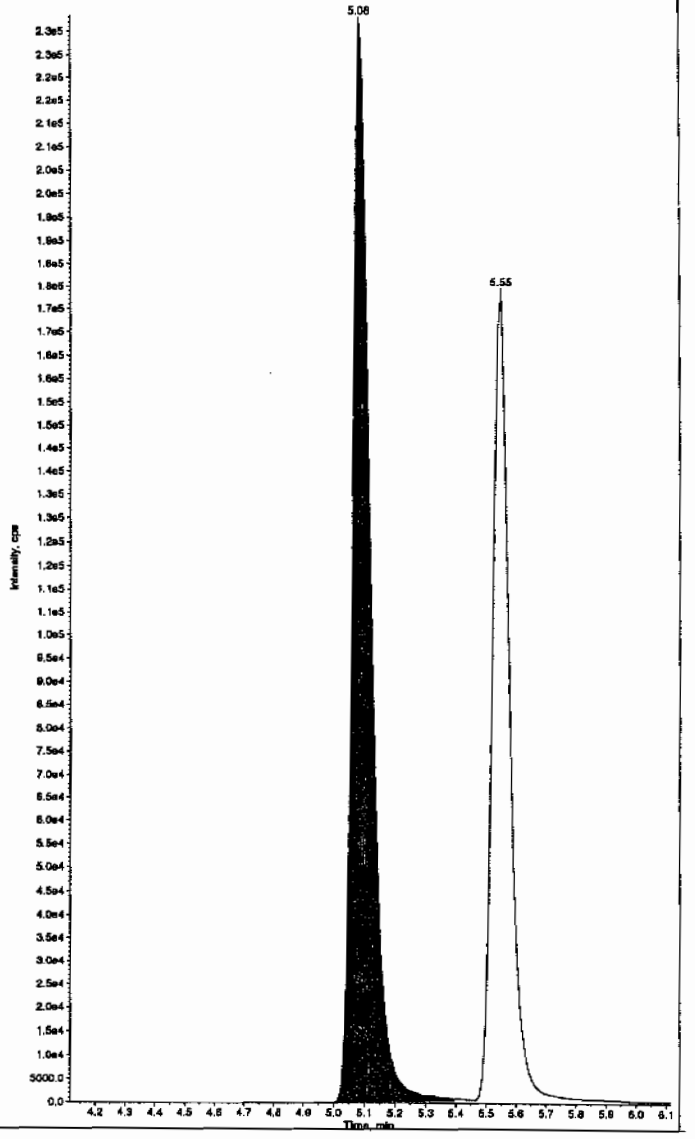

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ne: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260086.wiff"
: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
LCMSEXP_C" Annotation: "

```
ex:          1
e:          QC
ion:       500.     ng/mL
l Conc:    445.     ng/mL
        2/27/2010
        1:09:05 PM

           No
rithm: IntelliQuan - IQA
Height: 350.00   cps
Width:    0.00   sec
Width:  3       points
:        30.0    sec
TT:       5.57   min
ive RT:   No

:        Valley
Time:     5.55   min
     7.10e+005   counts
       174844.727  cps
e:        5.46   min
          6.01   min
```

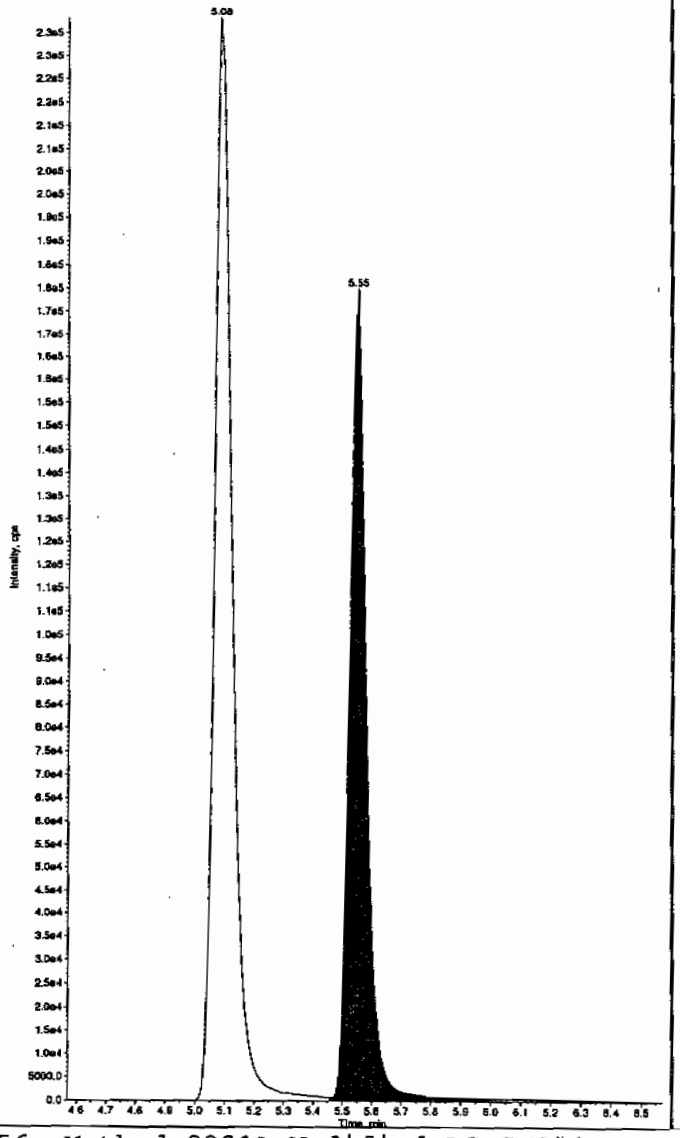

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260086.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     491.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        1:09:05 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9   min
Area:          7.59e+006   counts
Height:        2110954.346  cps
Start Time:         10.8   min
End Time:           11.2   min
```

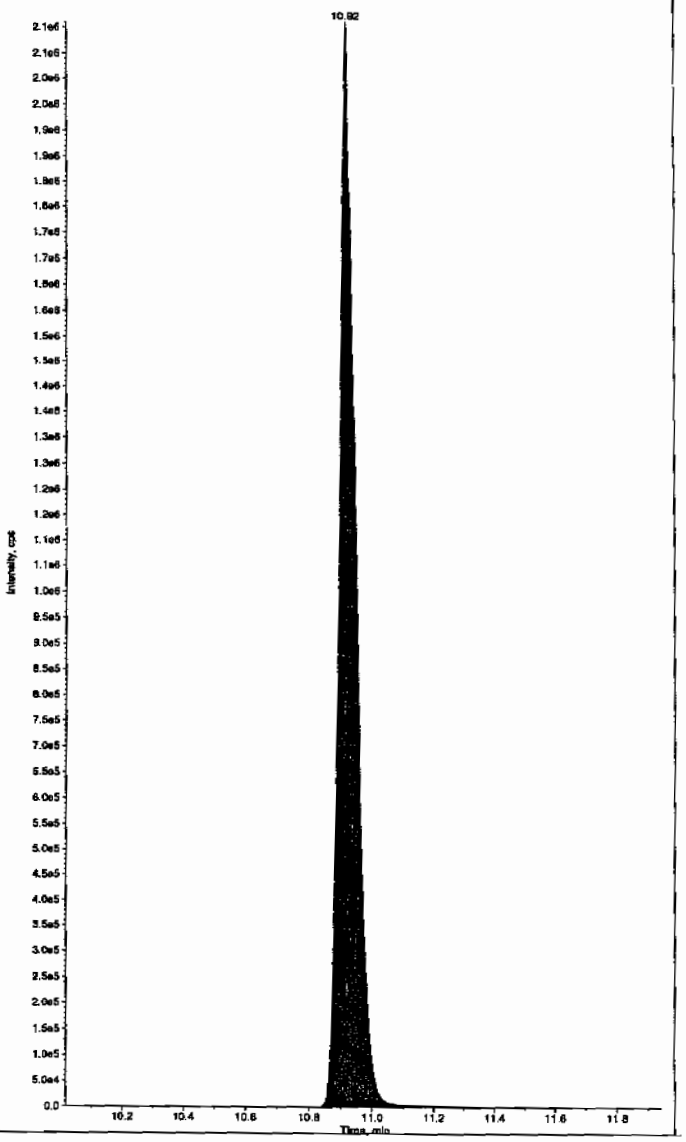

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260088.wiff

Analysis Date: 27-FEB-10 13:40

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	98.3	98	
2,6-Diamino-4-nitrotoluene	100	96.3	96	
3,4-Dinitrotoluene	50	43.9	88	
3,5-Dinitroaniline	100	89.2	89	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Jan 3/1/10

ne: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260088.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 100. ng/mL
Conc: 104. ng/mL
2/27/2010
1:40:30 PM

No
rithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 7.09 min
ve RT: No

Valley
Time: 7.06 min
1.07e+005 counts
27383.224 cps
: 6.96 min
7.54 min

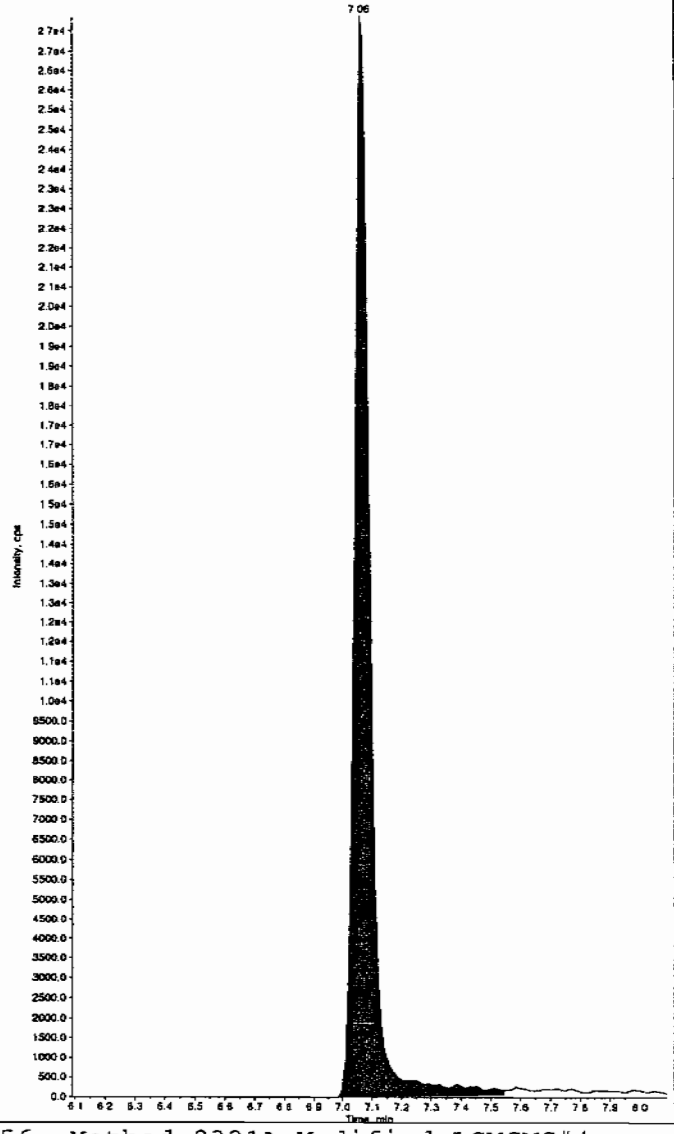

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260088.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 89.2 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:40:30 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 9.01e+005 counts
Height: 248924.591 cps
Start Time: 8.21 min
End Time: 8.39 min

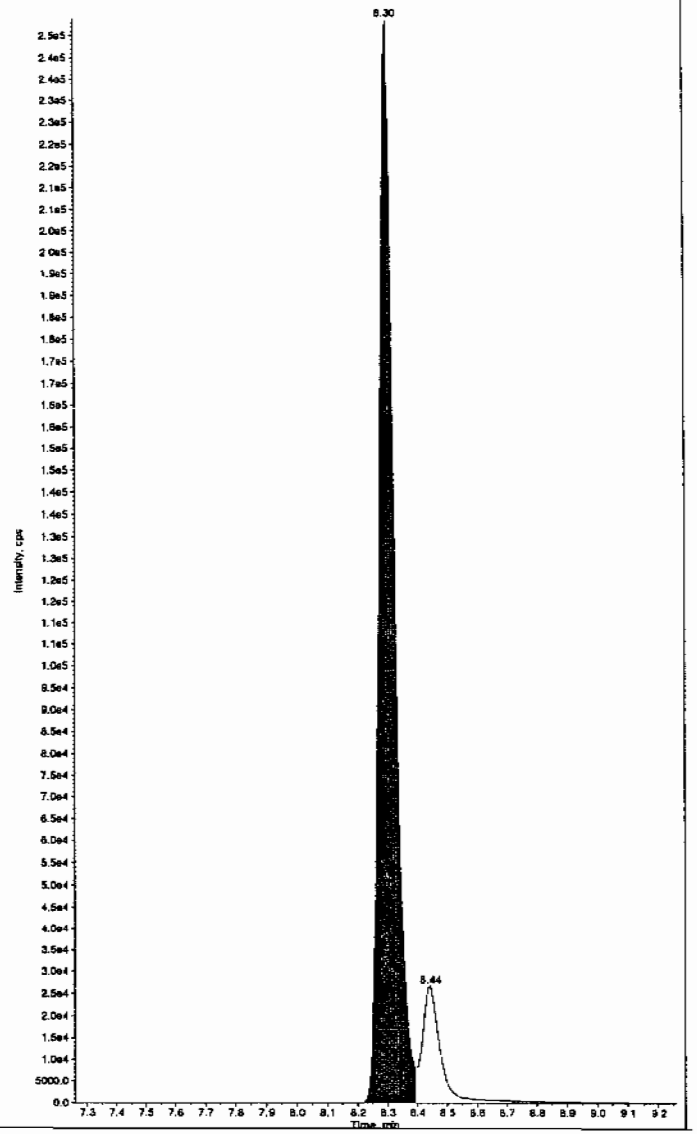

dmm 03/01/10

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me: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260088.wiff"
: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 50.0 ng/mL
Conc: 43.8 ng/mL
2/27/2010
1:40:30 PM

No
rithm: IntelliQuan - IQA
Height: 1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
RT: 8.46 min
ve RT: No

Valley
Time: 8.43 min
6.35e+005 counts
179588.821 cps
8.37 min
8.73 min

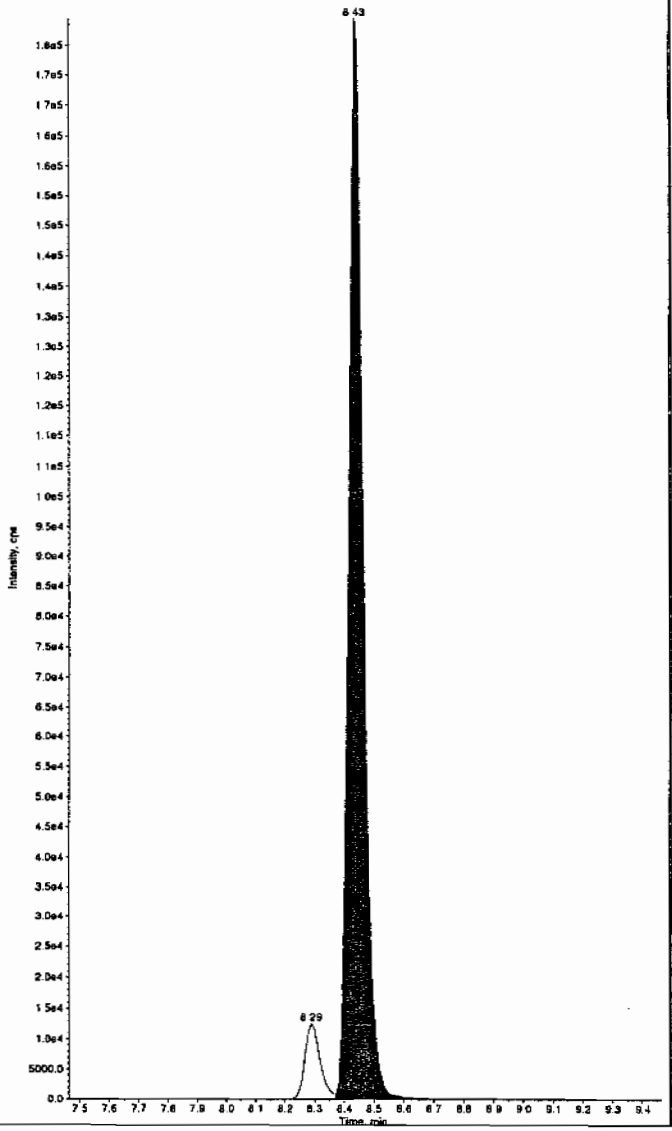

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260088.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	96.3	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	1:40:30 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.12	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.08	min
Area:	2.10e+005	counts
Height:	50727.360	cps
Start Time:	4.97	min
End Time:	5.39	min

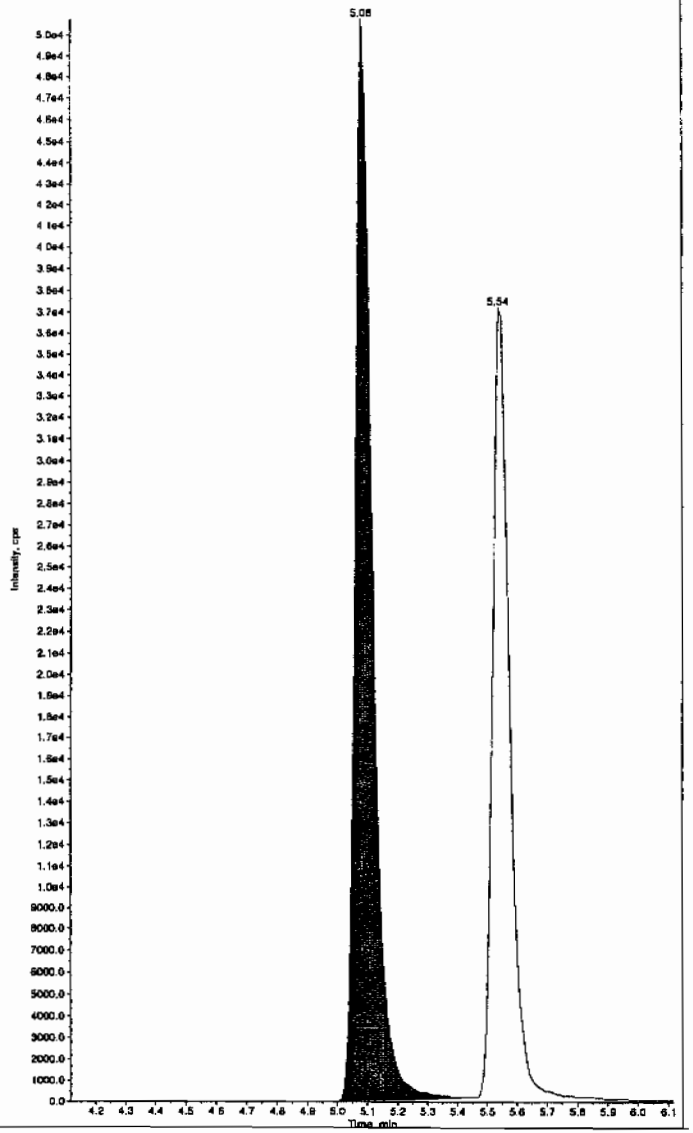

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260088.wiff"
24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
CMSEXP_C" Annotation: ""

```
:          1
:         QC
on:      100.     ng/mL
Conc:     98.3     ng/mL
      2/27/2010
      1:40:30 PM

         No
ithm: IntelliQuan - IQA
eight: 350.00    cps
idth:    0.00    sec
idth:  3        points
        30.0     sec
         5.57    min
e RT:    No

       Valley
ime:     5.54    min
   1.49e+005   counts
   37054.600   cps
         5.39   min
         5.91   min
```

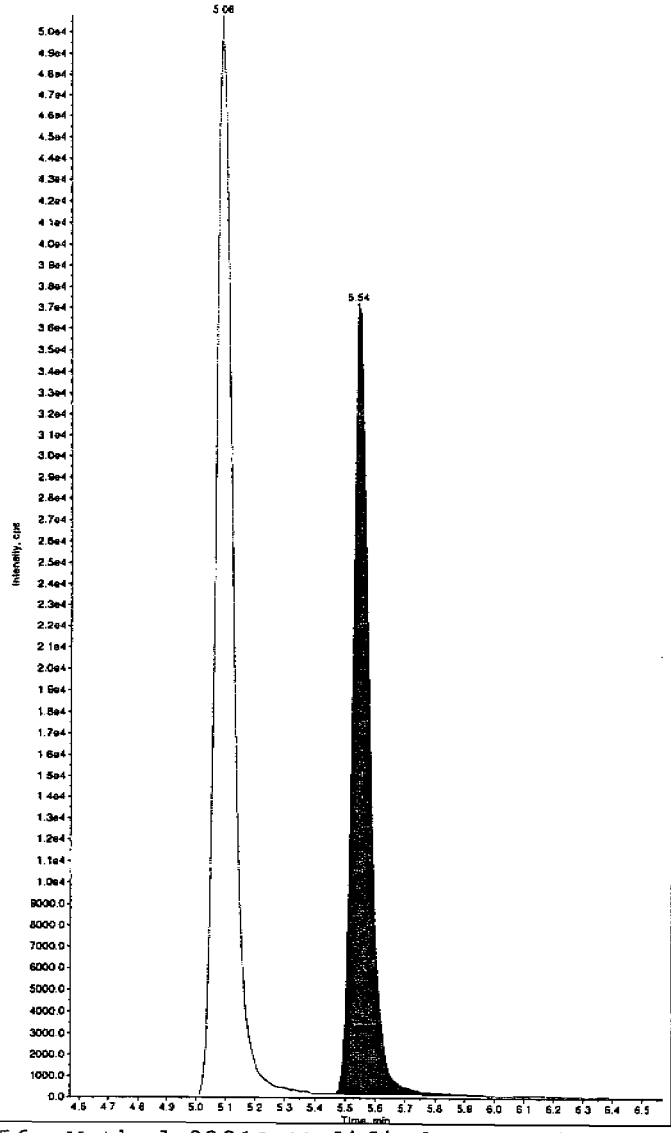

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260068.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     100.     ng/mL
Calculated Conc:   101.     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       1:40:30 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    10.9     min
Area:        1.73e+006    counts
Height:        488800.812   cps
Start Time:        10.8     min
End Time:          11.2     min
```

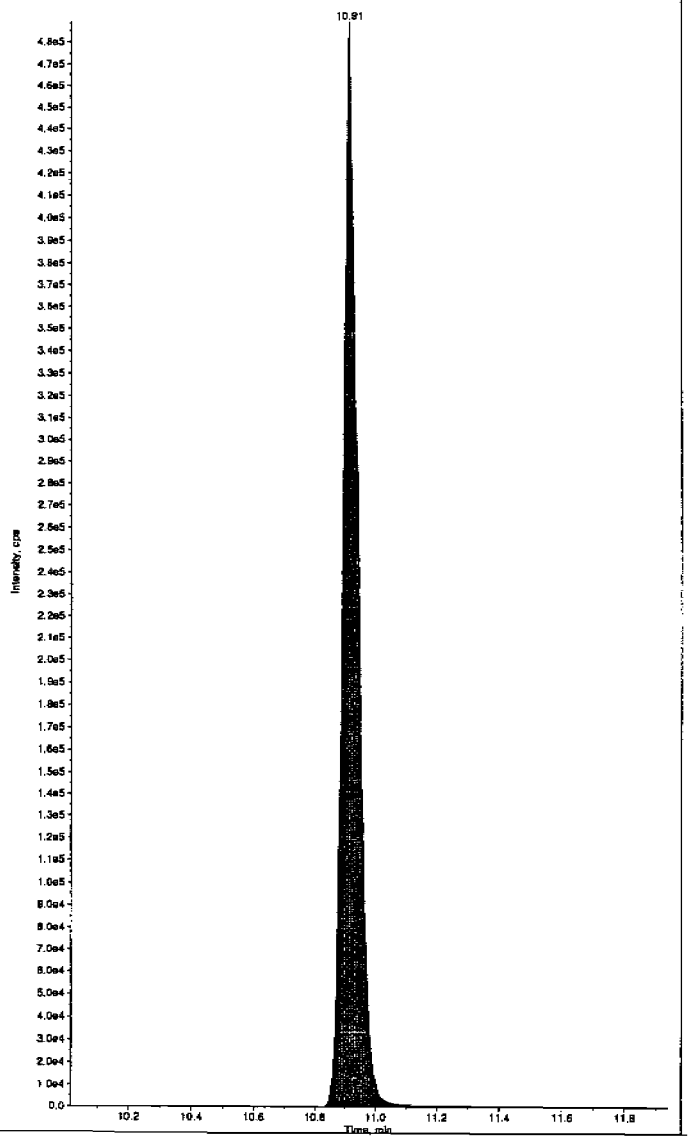

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260099.wiff

Analysis Date: 27–FEB–10 16:33

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	504	101	
2,6–Diamino–4–nitrotoluene	500	480	96	
3,4–Dinitrotoluene	250	212	85	
3,5–Dinitroaniline	500	448	90	
TATB	500	481	96	
tris(o–cresyl) phosphate	500	488	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/1/10

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e: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260099.wiff"
TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: "
x: 1
: QC
on: 500. ng/mL
Conc: 481. ng/mL
2/27/2010
4:33:07 PM

No
ithm: IntelliQuan - IQA
eight: 2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.04 min
5.68e+005 counts
141659.256 cps
6.94 min
7.59 min

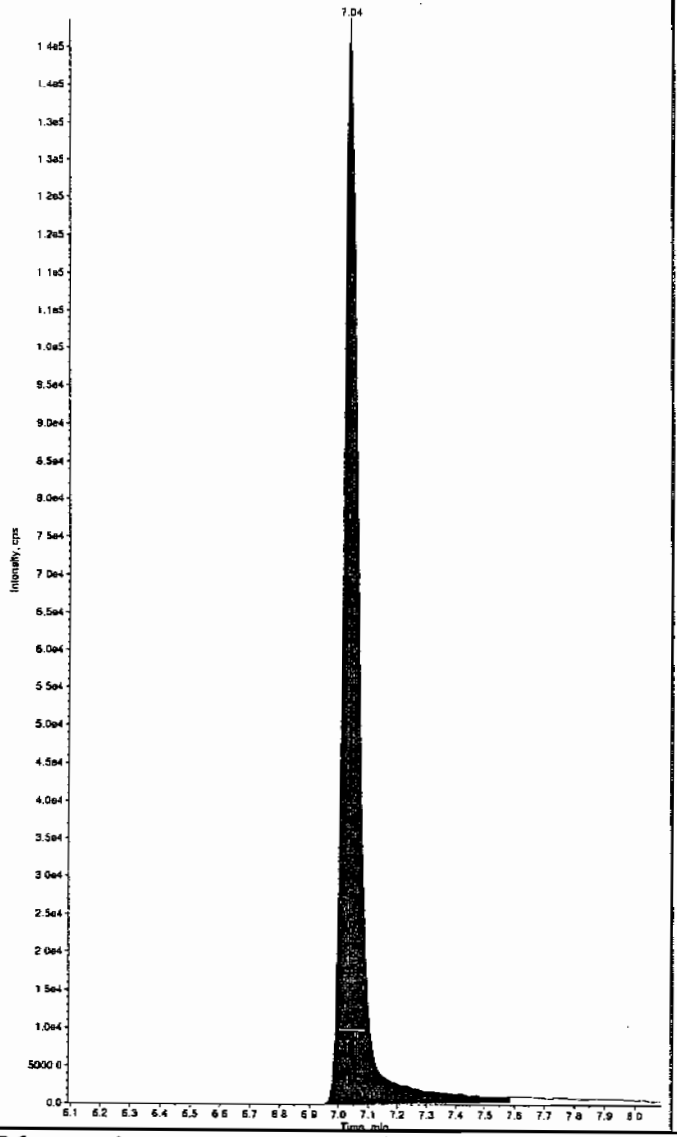

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260099.wiff"
Peak Name. "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	433. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	4:33:07 PM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.24 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.27 min
Area:	4.01e+006 counts
Height:	1103254.639 cps
Start Time:	8.20 min
End Time:	8.37 min

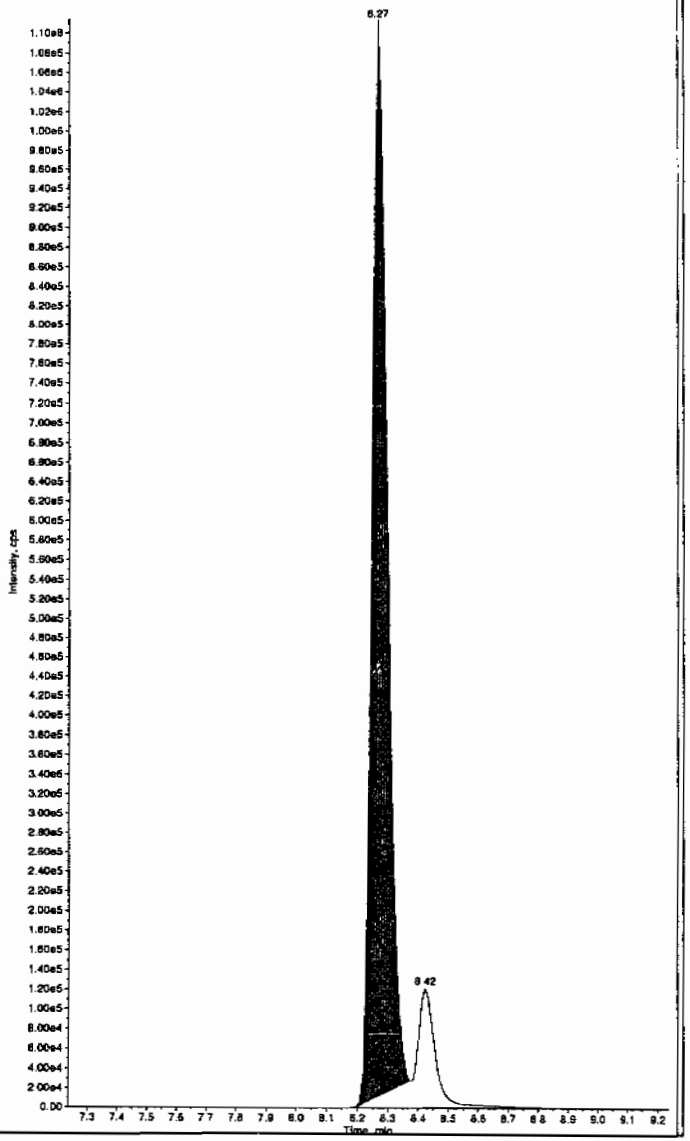

Hmm 03/01/10

after Scan 3/1/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

c "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260099.wiff"
TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""
s: 1
: QC
on: 500. ng/mL
Conc: 481. ng/mL
2/27/2010
4:33:07 PM
No
ithm: IntelliQuan - IQA
eight: 2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No
Valley
ime: 7.04 min
5.68e+005 counts
143659.286 cps
6.94 min
7.59 min

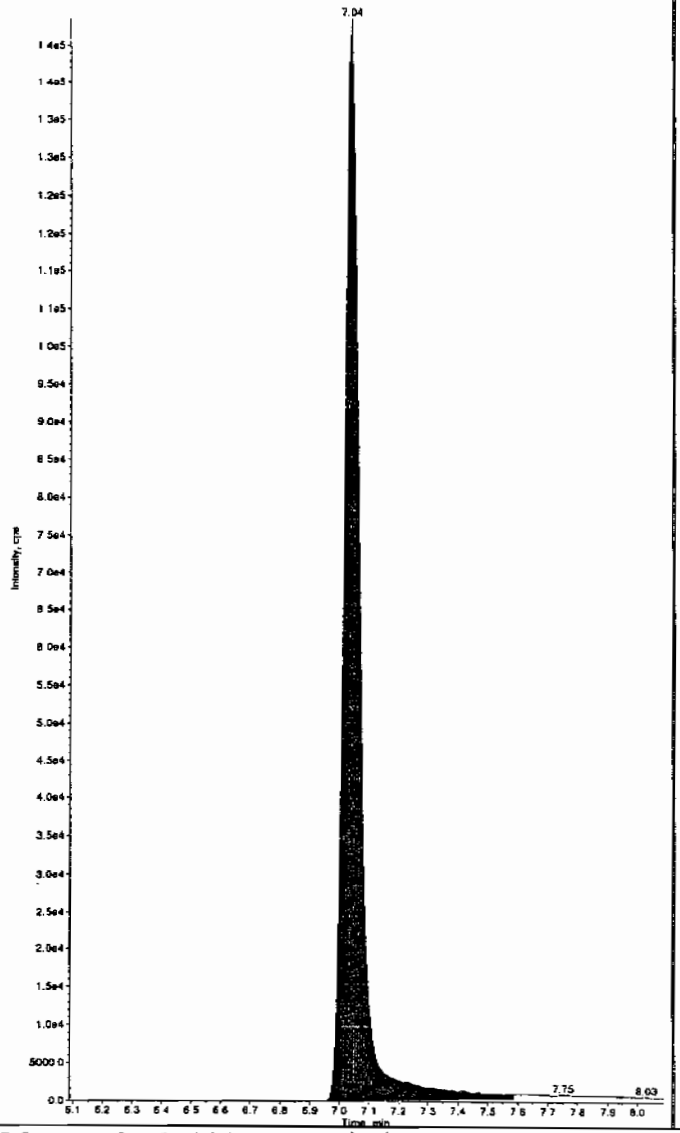

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260099.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	448.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	4:33:07 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.24	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.27	min
Area:	4.13e+006	counts
Height:	1114206.808	cps
Start Time:	8.20	min
End Time:	8.37	min

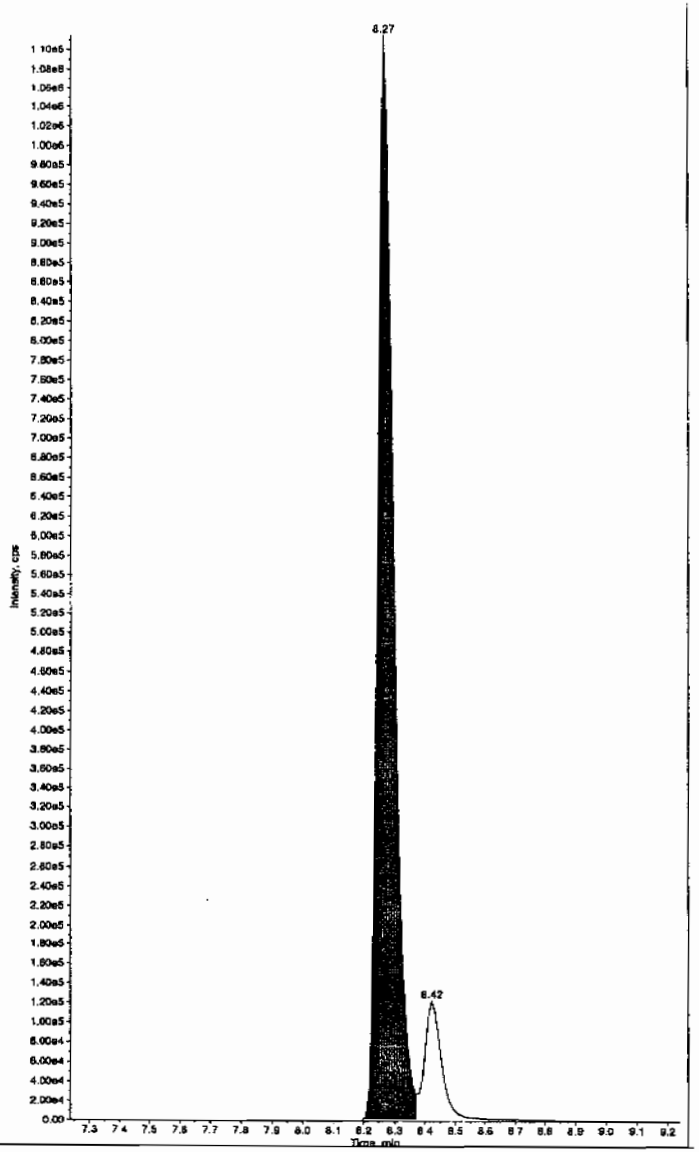

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260099.wiff"
'34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
on: 250. ng/mL
Conc: 212. ng/mL
2/27/2010
4:33:07 PM

No
ithm: IntelliQuan - IQA
eight:1460.00 cps
idth: 0.00 sec
idth: 3 points
15.0 sec
: 8.46 min
a RT: No

Valley
ime: 8.42 min
2.94e+006 counts
811372.314 cps
8.35 min
8.75 min

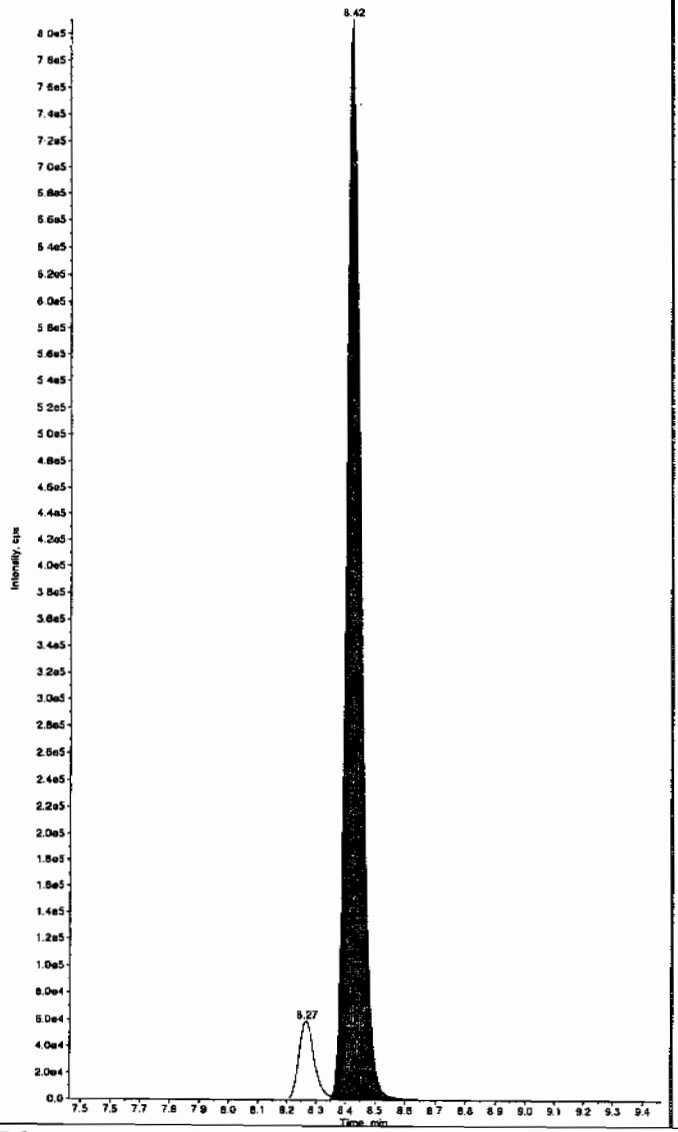

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260099.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	480.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	4:33:07 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.12	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.06	min
Area:	1.06e+006	counts
Height:	263584.412	cps
Start Time:	4.97	min
End Time:	5.36	min

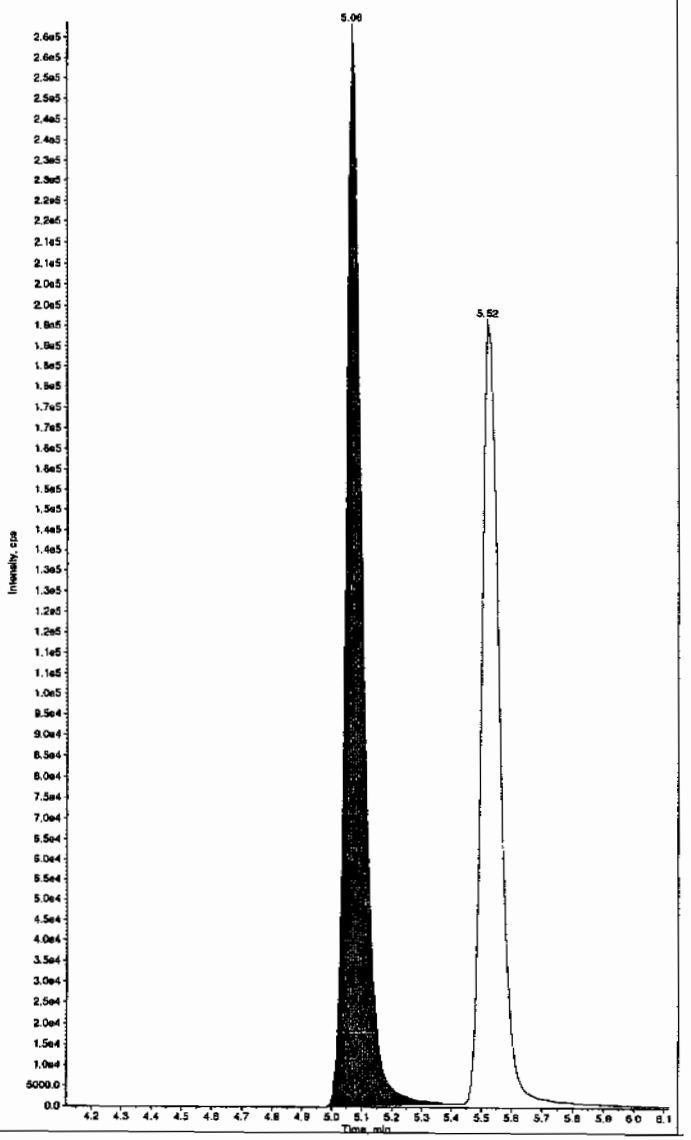

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: "WXX100226-26CCV" Sample ID: "j1|LER" File: "EXS02260099.wiff"
24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
CMSEXP_C" Annotation: "

```
::          1
            QC
on:       500.     ng/mL
Conc:     504.     ng/mL
      2/27/2010
      4:33:07 PM

          No
ithm: IntelliQuan - IQA
eight: 350.00    cps
idth:    0.00    sec
idth:  3         points
         30.0     sec
          5.57    min
: RT:     No

        Valley
ime:      5.52    min
   8.06e+005    counts
   191996.830   cps
          5.44    min
          6.02    min
```

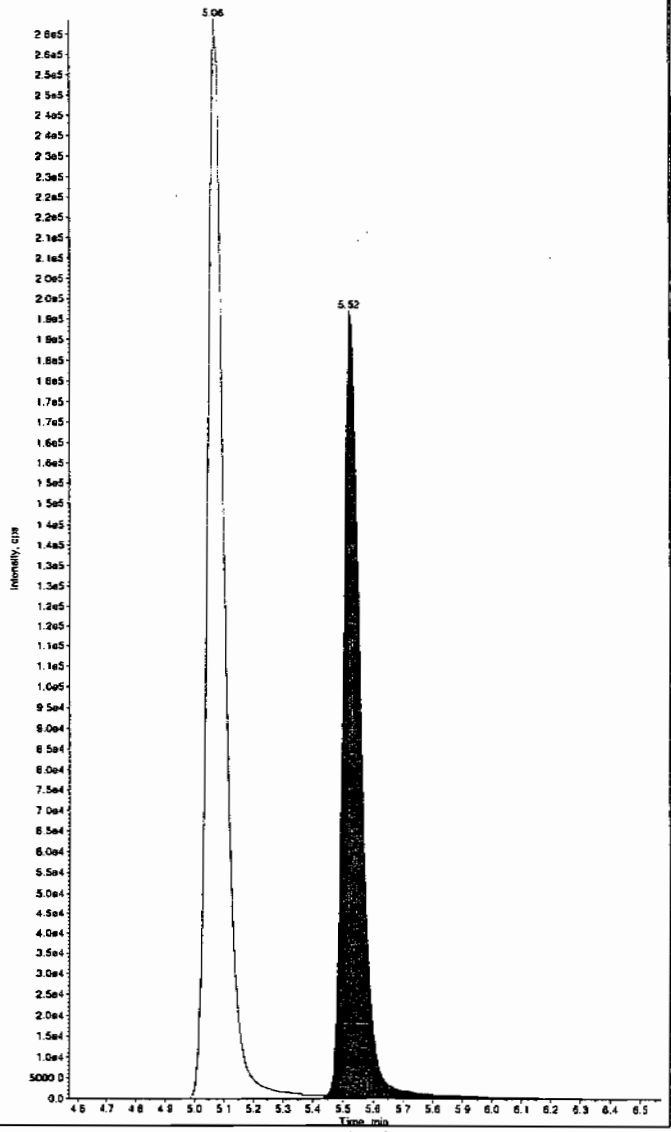

Sample Name: "WXX100226-26CCV" Sample ID: "j1|LER" File: "EXS02260099.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     488.     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       4:33:07 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3          points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.9    min
Area:        7.55e+006    counts
Height:      1963935.791  cps
Start Time:          10.8    min
End Time:            11.2    min
```

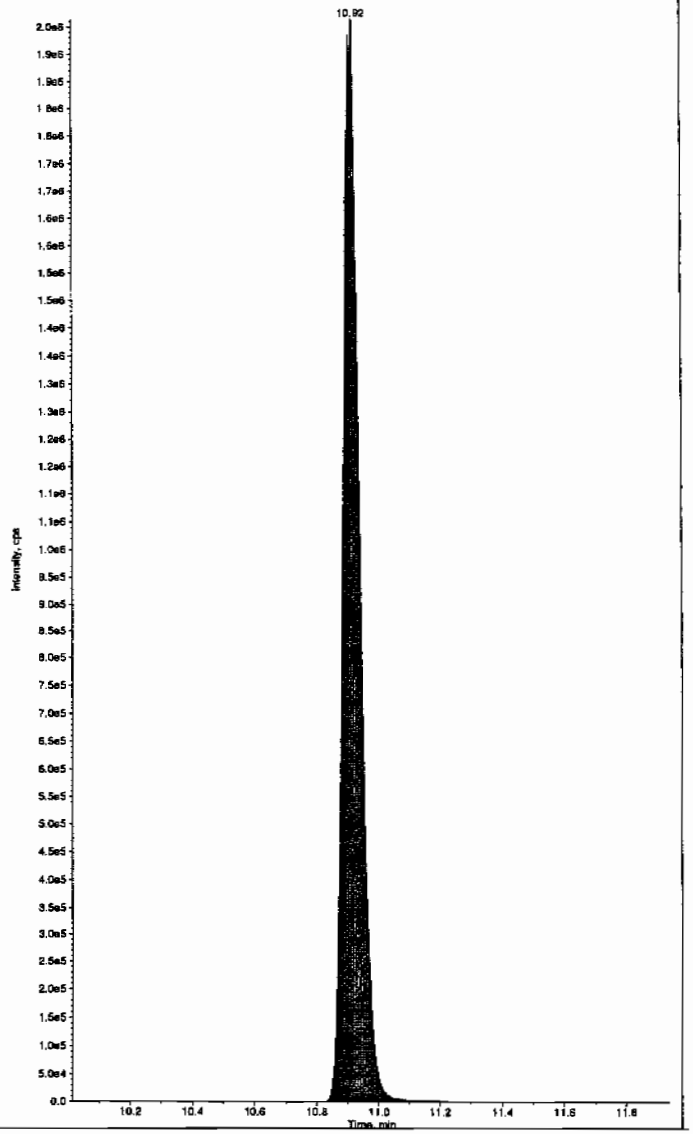

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260101.wiff

Analysis Date: 27–FEB–10 17:04

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	109	109	
2,6–Diamino–4–nitrotoluene	100	101	101	
3,4–Dinitrotoluene	50	43.3	87	
3,5–Dinitroaniline	100	85.9	86	
TATB	100	99.7	100	
tris(o–cresyl) phosphate	100	101	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/1/10

"WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02250101.wiff"
TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: "

```
:        1
:        QC
on:      100.     ng/mL
Conc:    99.7     ng/mL
      2/27/2010
      5:04:32 PM

         No
ithm: IntelliQuan - IQA
eight:2500.00    cps
idth:    0.00    sec
idth:  3         points
        30.0     sec
:        7.09    min
e RT:    No

       Valley
ime:     7.03    min
   1.02e+005     counts
   27516.521     cps
        6.93     min
        7.29     min
```

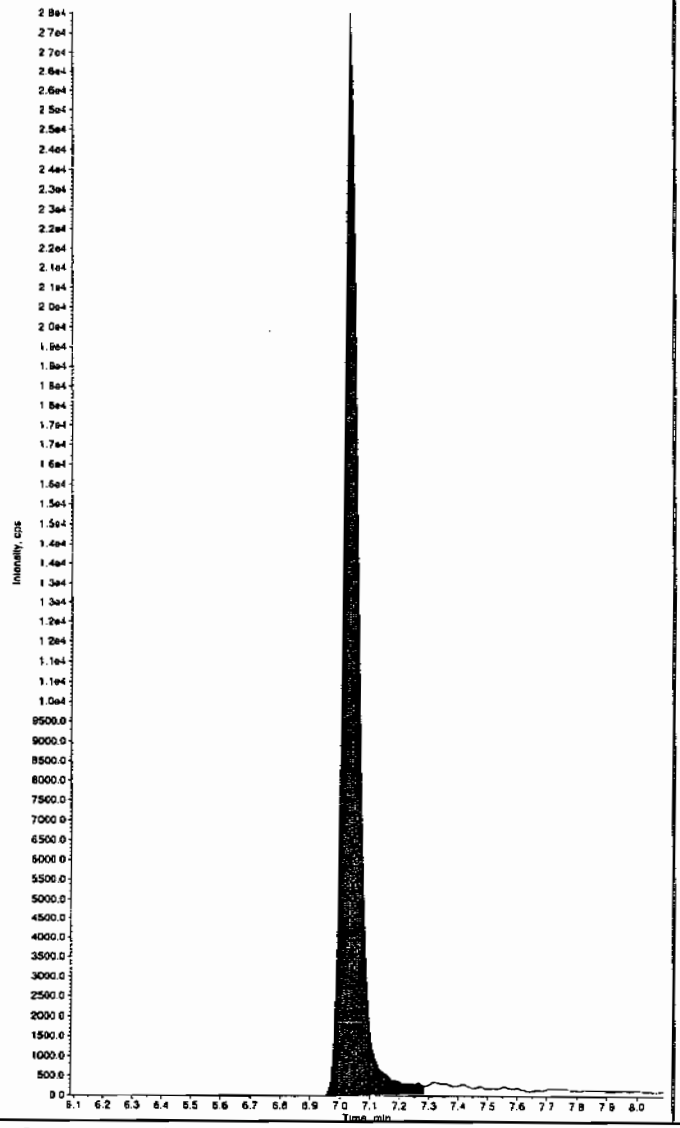

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02250101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     83.4     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        5:04:32 PM

Modified:            Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3          points
RT Window:          15.0     sec
Expected RT:         8.22    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.26    min
Area:          8.45e+005     counts
Height:        245172.485    cps
Start Time:          8.19    min
End Time:            8.37    min
```

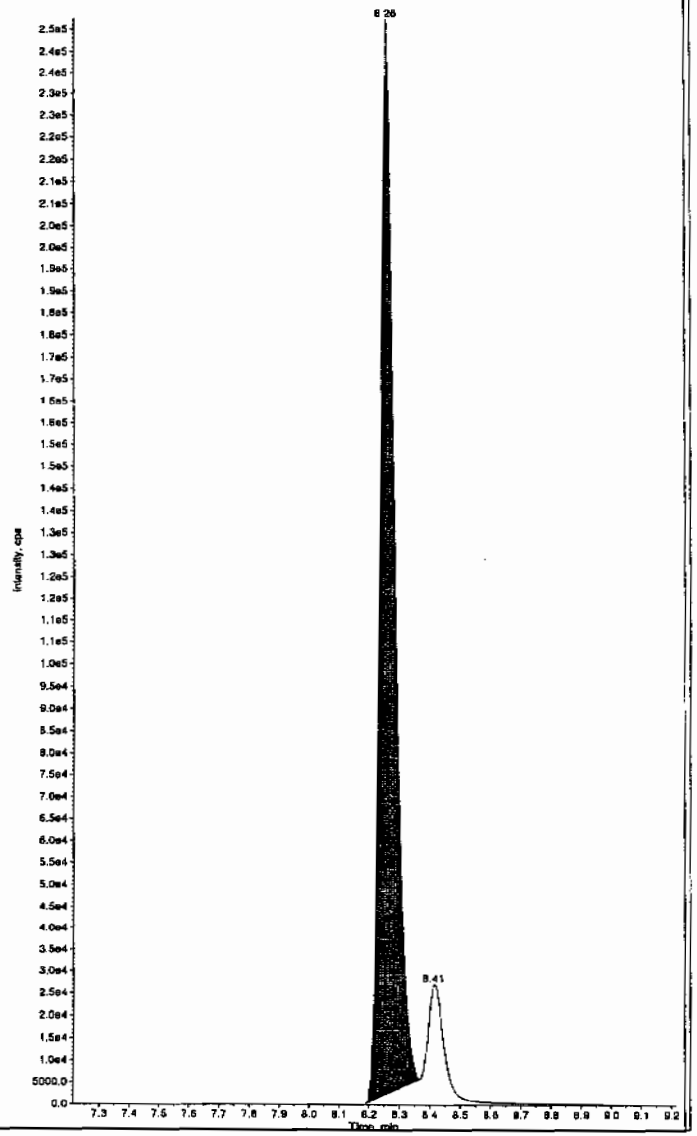

Hmm 03/01/10

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Ken 3/1/10

e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260101.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
on: 100. ng/mL
Conc: 99.7 ng/mL
2/27/2010
5:04:32 PM

No
ithm: IntelliQuan - IQA
eight: 2500.00 cps
idth: 6.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.03 min
1.02e+005 counts
27516.521 cps
6.93 min
7.29 min

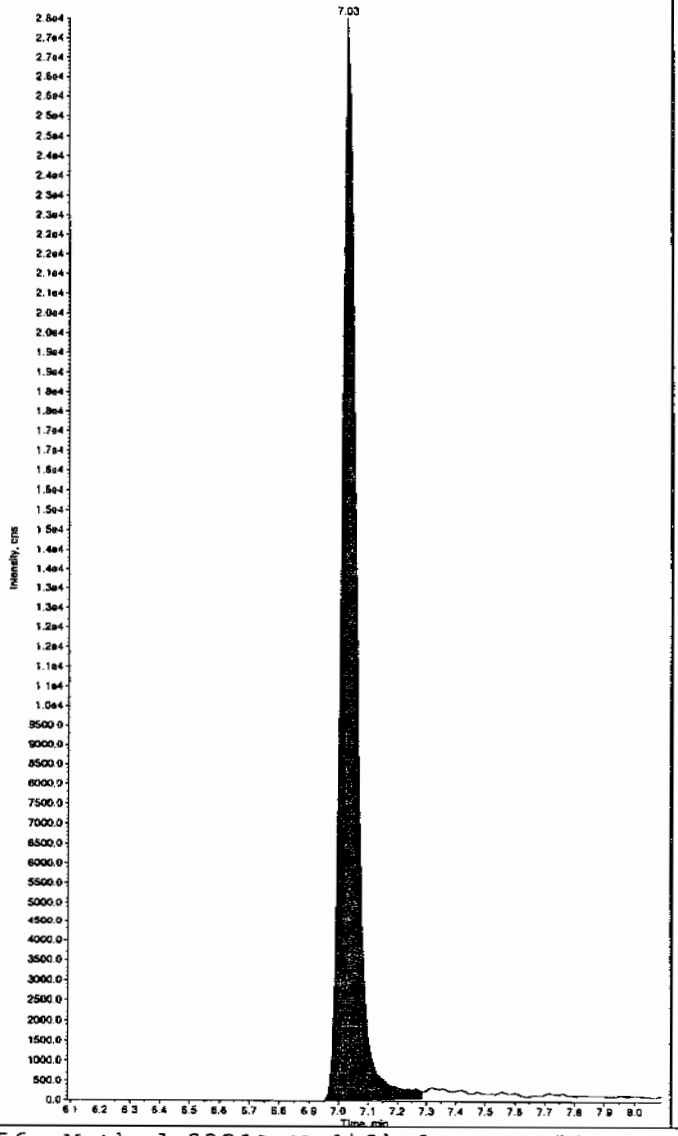

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 85.9 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:04:32 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.26 min
Area: 8.69e+005 counts
Height: 247263.054 cps
Start Time: 8.20 min
End Time: 8.36 min

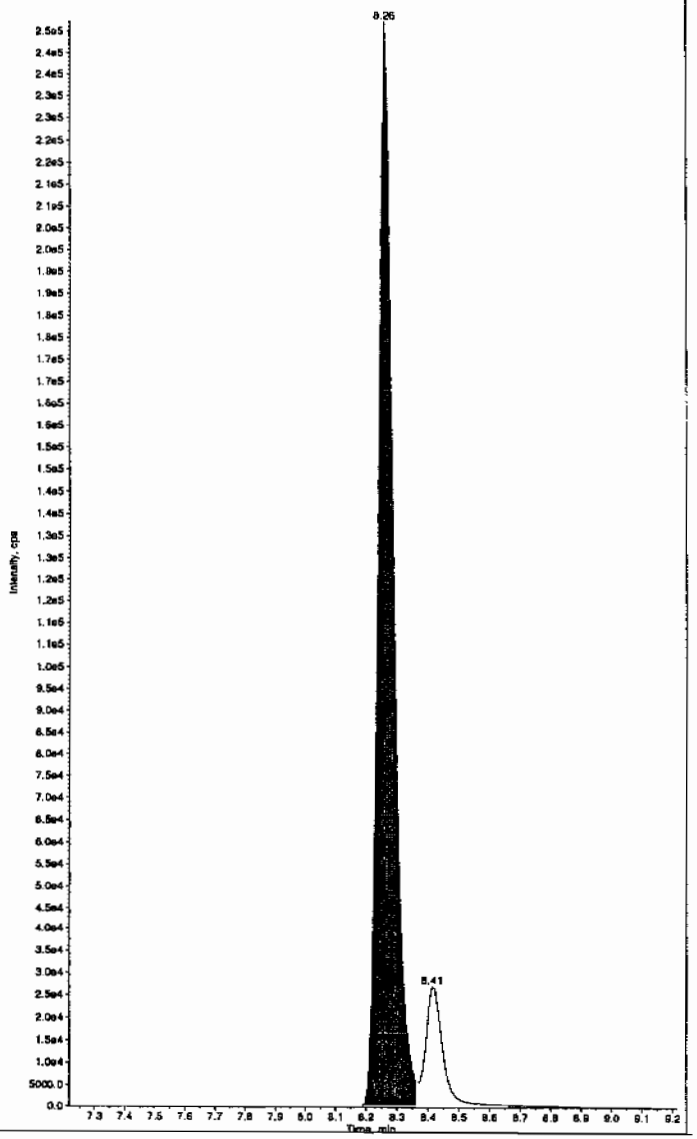

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260101.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CMSEXP_C" Annotation: ""
:N: 1
: QC
on: 50.0 ng/mL
Conc: 43.3 ng/mL
2/27/2010
5:04:32 PM

No
:ithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
: 8.46 min
re RT: No

Valley
Time: 8.41 min
6.27e+005 counts
183851.471 cps
8.34 min
8.73 min

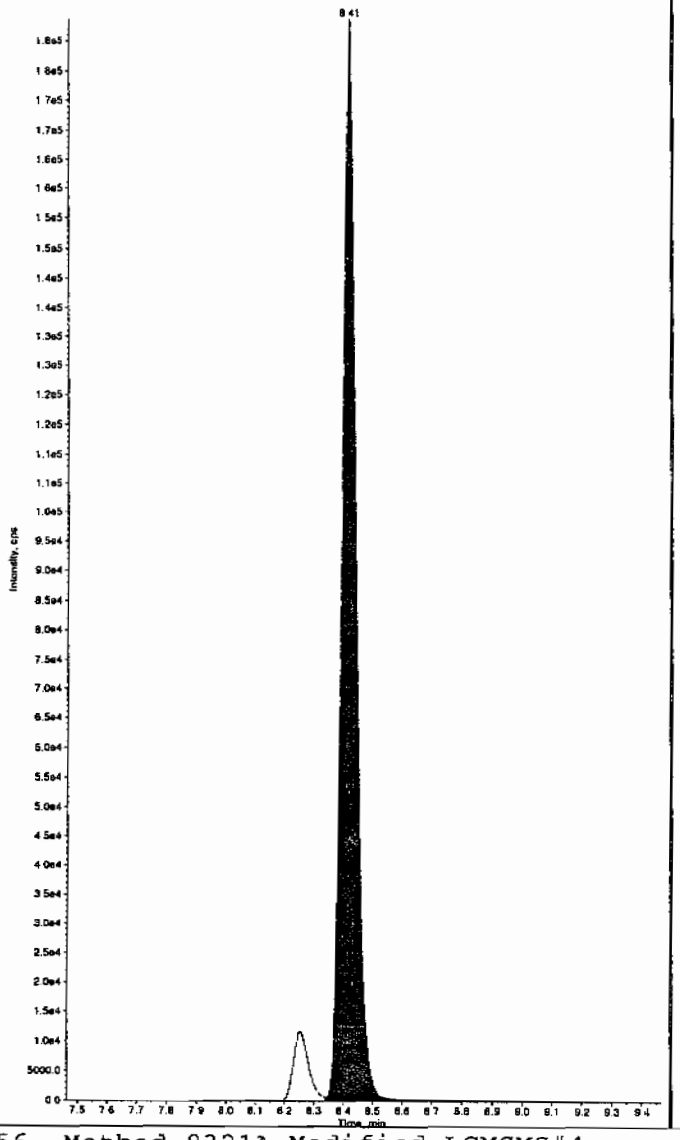

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260101.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	101.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	5:04:32 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.03	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.12	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.05	min
Area:	2.21e+005	counts
Height:	53787.304	cps
Start Time:	4.95	min
End Time:	5.36	min

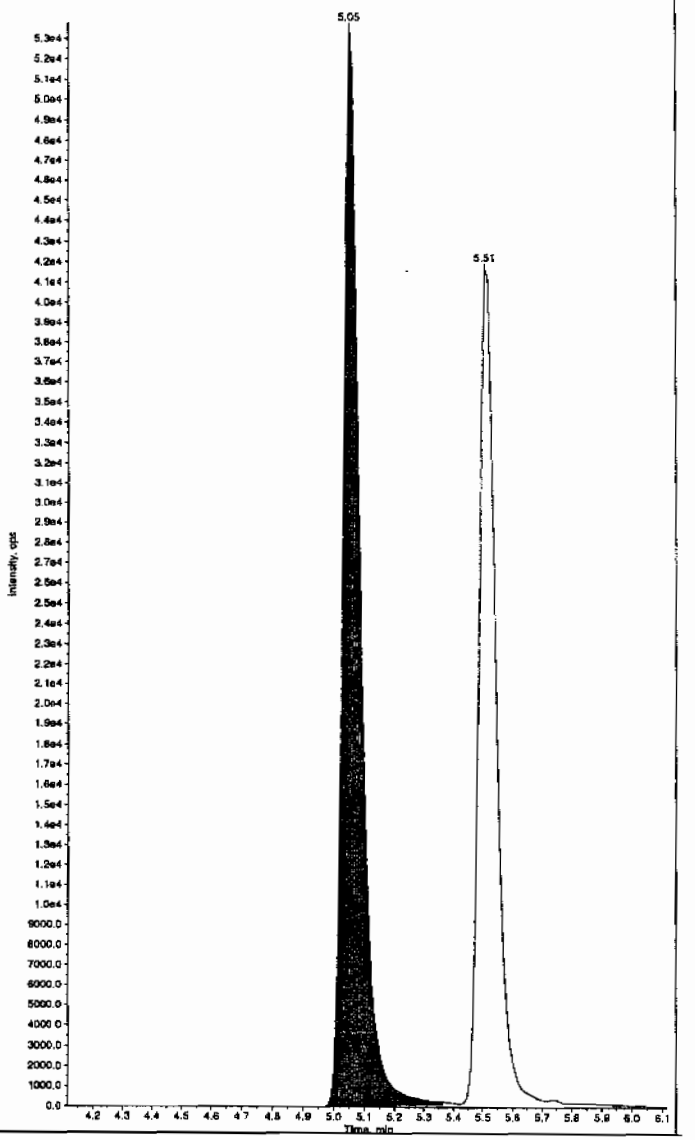

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3: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260101.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
CMSEXP_C" Annotation: ""

```
x:          1
:          QC
on:       100.     ng/mL
Conc:     109.     ng/mL
        3/27/2010
.       5:04:32 PM

          No
ithm: IntelliQuan - IQA
eight: 350.00    cps
idth:    0.00    sec
idth:  3         points
         30.0    sec
:         5.57   min
e RT:     No

        Valley
ime:      5.51   min
   1.66e+005    counts
     41730.853  cps
         5.43   min
         5.85   min
```

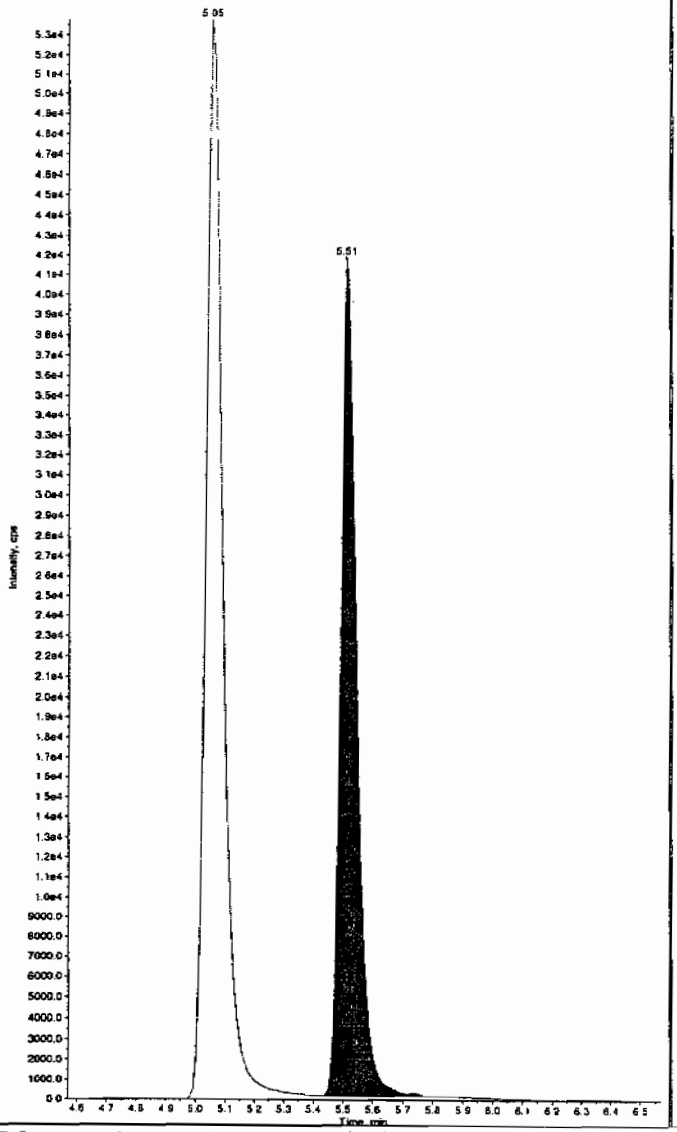

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260101.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     101.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        5:04:32 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:5000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3         points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:          Valley
Retention Time:     10.9     min
Area:          1.73e+006    counts
Height:        497241.821   cps
Start Time:         10.8     min
End Time:           11.2     min
```

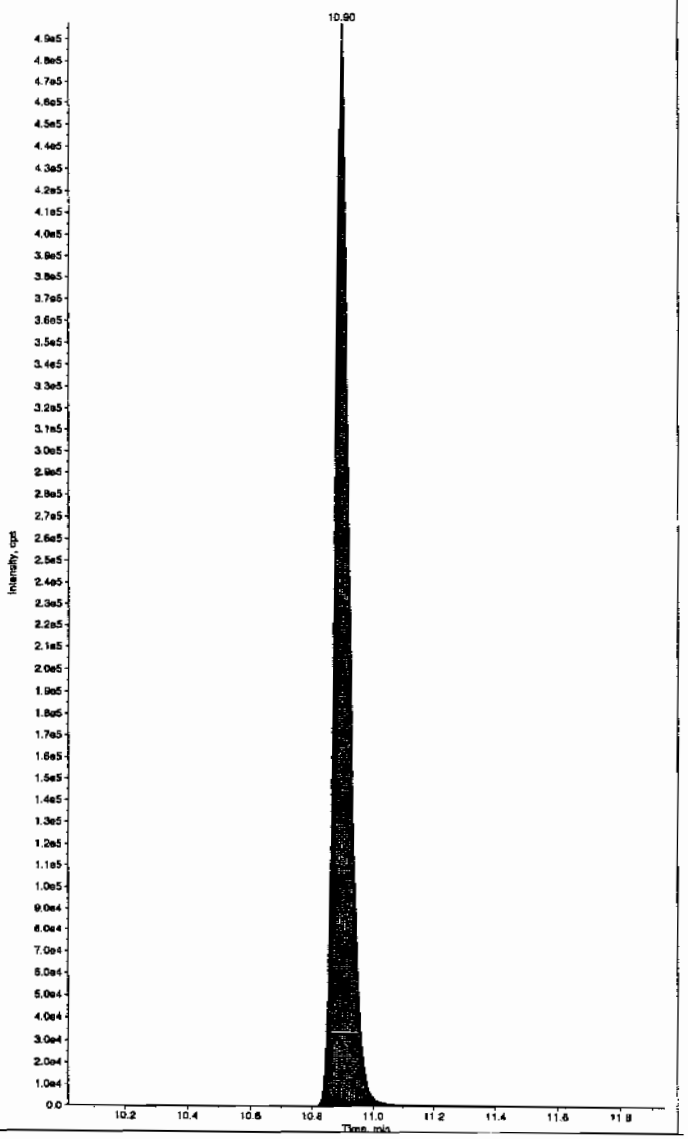

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260112.wiff

Analysis Date: 27–FEB–10 19:57

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	505	101	
2,6–Diamino–4–nitrotoluene	500	501	100	
3,4–Dinitrotoluene	250	206	82	
3,5–Dinitroaniline	500	444	89	
TATB	500	473	95	
tris(o–cresyl) phosphate	500	495	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/1/10

e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
en: 500. ng/mL
Conc: 473. ng/mL
2/27/2010
7:57:13 PM

No
ithm: IntelliQuan - IQA
eight:2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.04 min
5.58e+005 counts
143699.112 cps
6.96 min
7.65 min

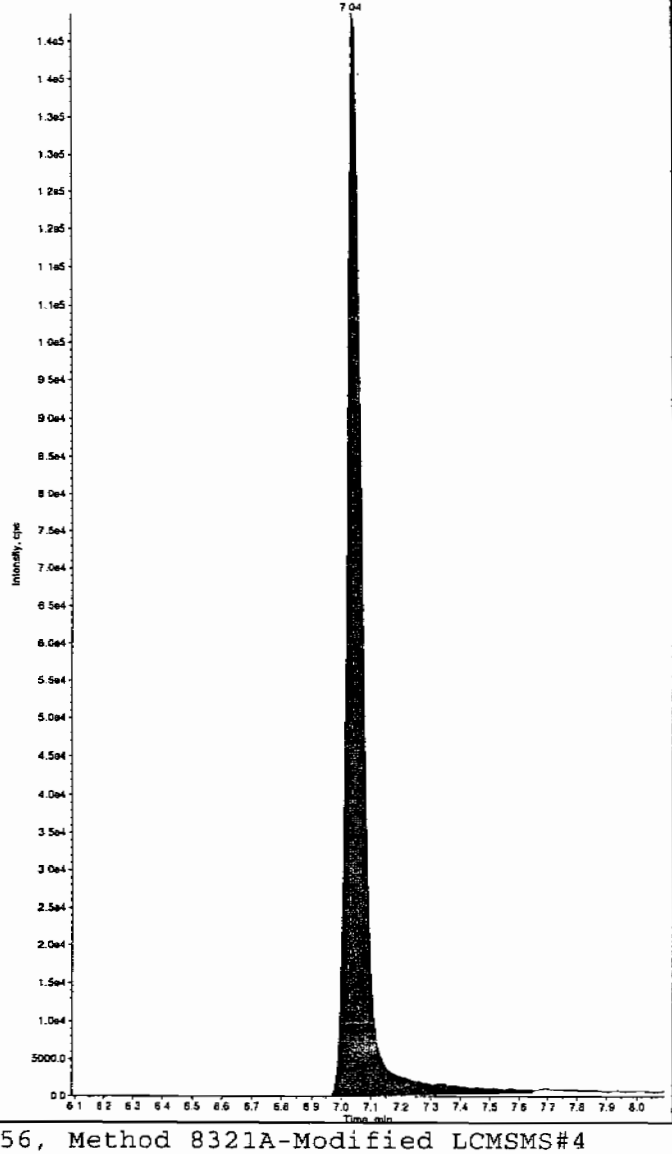

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 428. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:57:13 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 3.96e+006 counts
Height: 1098096.313 cps
Start Time: 8.21 min
End Time: 8.37 min

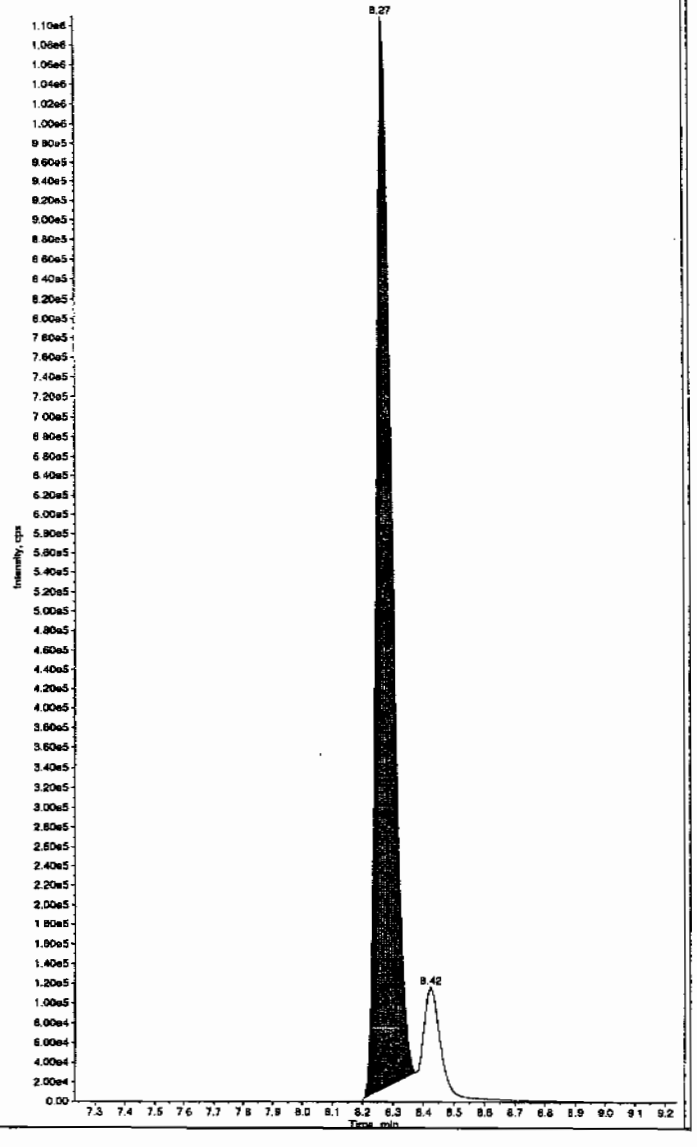

Hnm 03/01/10

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after Scan 3/1/10

: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260112.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: "
x: 1
: QC
on: 500. ng/mL
Conc: 473. ng/mL
2/27/2010
7:57:13 PM

No
ithm: IntelliQuan - IQA
eight:2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.04 min
5.58e+005 counts
143699.112 cps
6.96 min
7.65 min

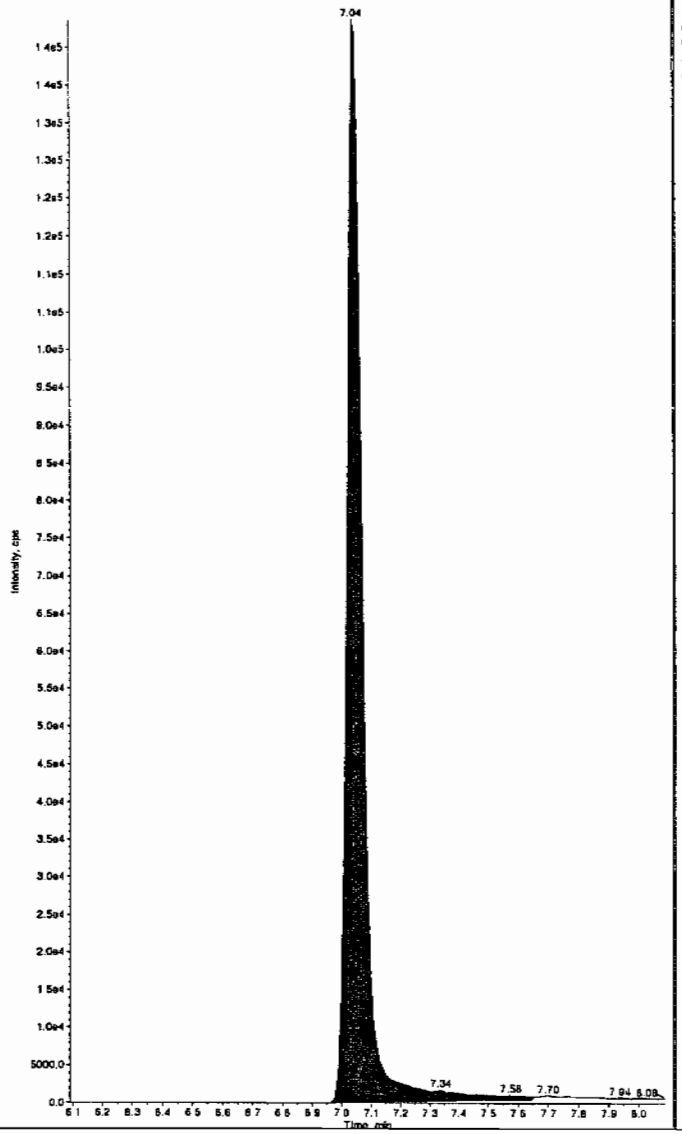

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260112.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 444. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:57:13 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.27 min
Area: 4.10e+006 counts
Height: 1118318.652 cps
Start Time: 8.21 min
End Time: 8.37 min

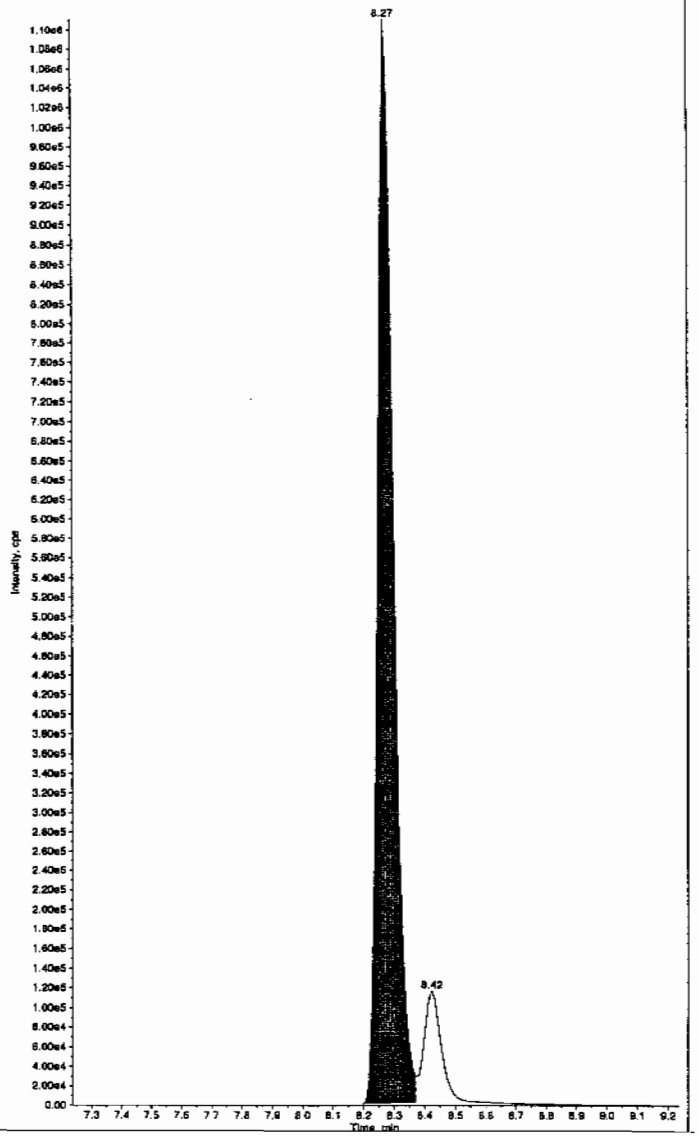

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250112.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CMSEXP_C" Annotation: ""

x: 1
: QC
on: 250. ng/mL
Conc: 206. ng/mL
2/27/2010
7:57:13 PM

No
ithm: IntelliQuan - IQA
eight: 1460.00 cps
idth: 0.00 sec
idth: 3 points
15.0 sec
: 8.46 min
e RT: No

Valley
ime: 8.41 min
2.86e+006 counts
791254.790 cps
8.35 min
8.74 min

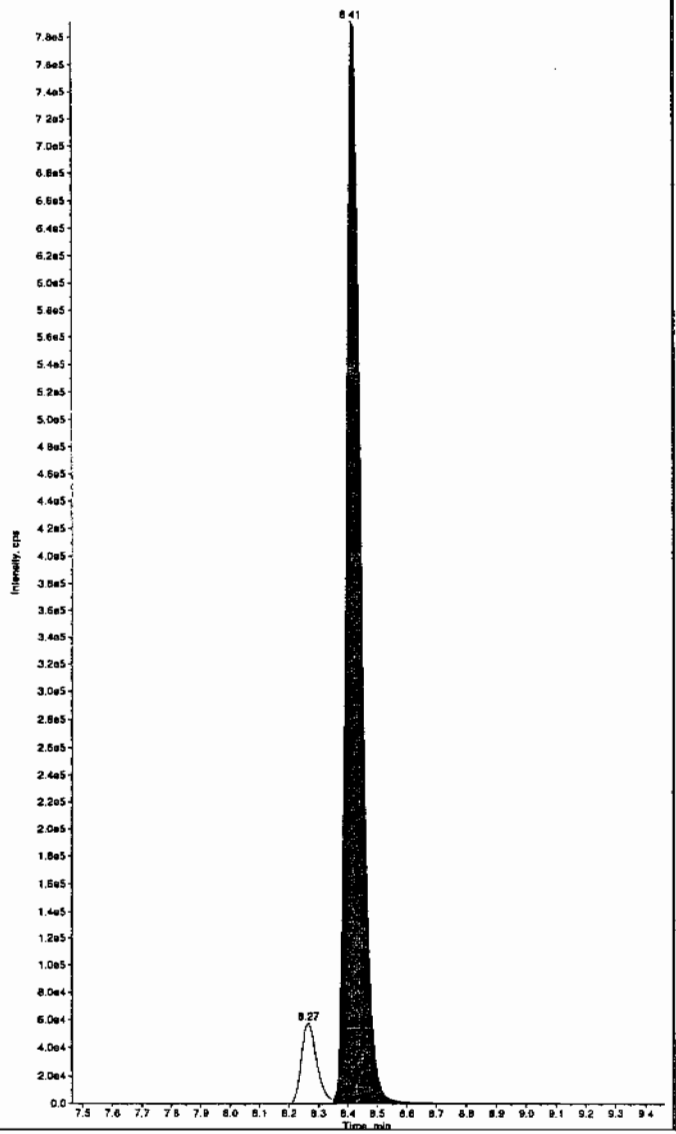

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02250112.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:57:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.06 min
Area: 1.10e+006 counts
Height: 265248.596 cps
Start Time: 4.97 min
End Time: 5.37 min

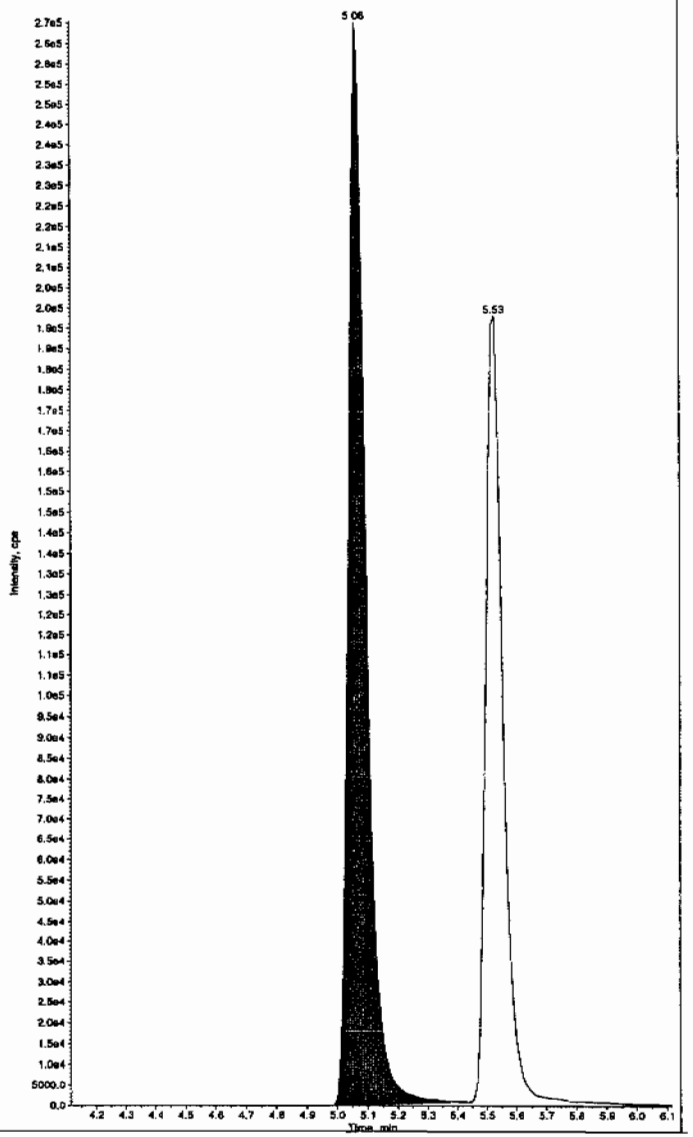

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

a: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
on: 500. ng/mL
Conc: 505. ng/mL
2/27/2010
7:57:13 PM

No
ithm: IntelliQuan - IQA
eight: 350.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 5.57 min
e RT: No

Valley
ime: 5.53 min
8.06e+005 counts
193222.031 cps
5.44 min
6.32 min

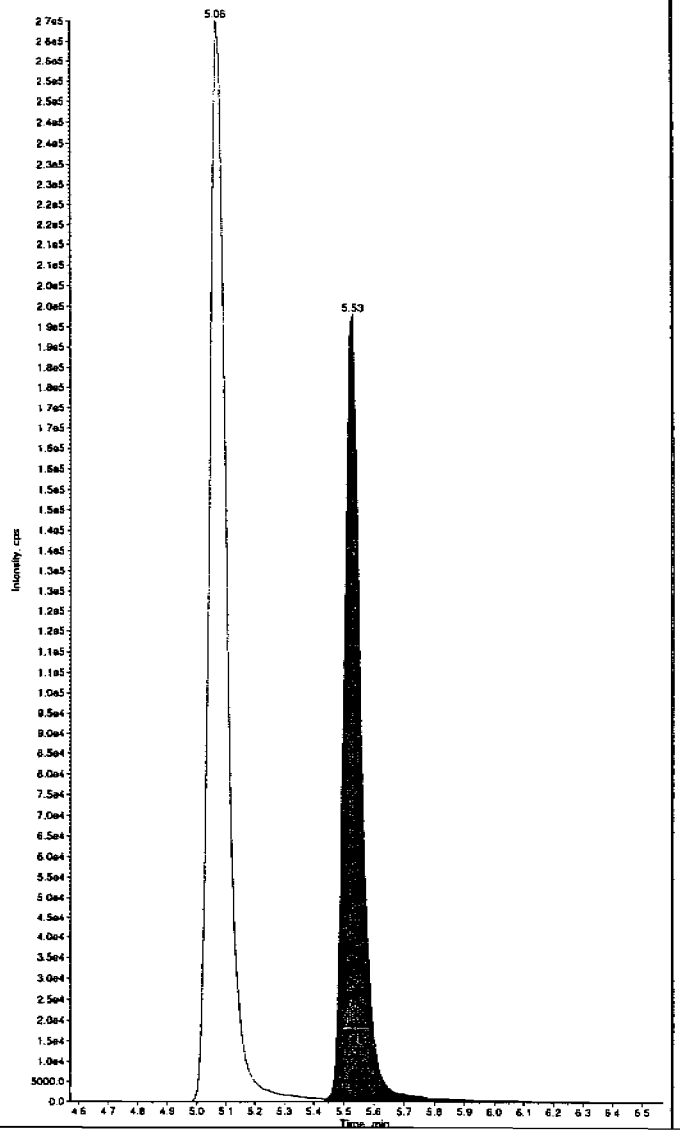

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 495. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:57:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.65e+006 counts
Height: 2057594.482 cps
Start Time: 10.8 min
End Time: 11.2 min

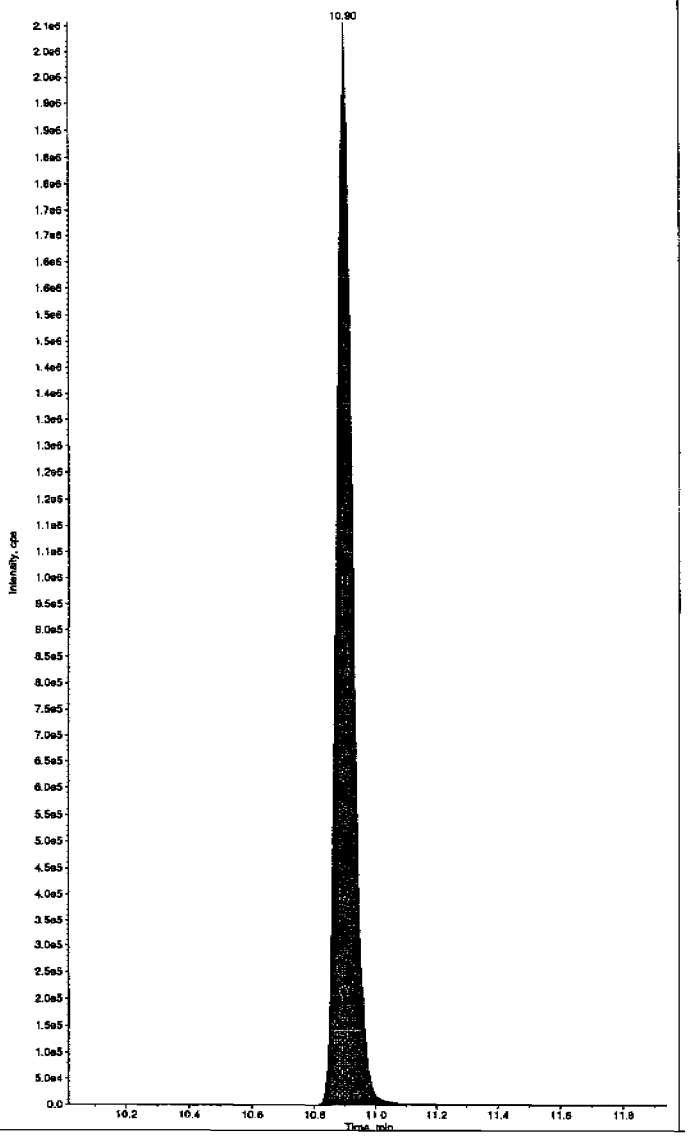

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260114.wiff

Analysis Date: 27–FEB–10 20:28

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	103	103	
2,6–Diamino–4–nitrotoluene	100	98	98	
3,4–Dinitrotoluene	50	43.6	87	
3,5–Dinitroaniline	100	84.7	85	
TATB	100	97.3	97	
tris(o–cresyl) phosphate	100	101	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Jan 3/1/10

: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260114.wiff"
'TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""
X: 1
: QC
on: 100. ng/mL
Conc: 97.3 ng/mL
2/27/2010
8:28:37 PM

No
ithm: IntelliQuan - IQA
eight:2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.04 min
9.89e+004 counts
24904.774 cps
6.94 min
7.39 min

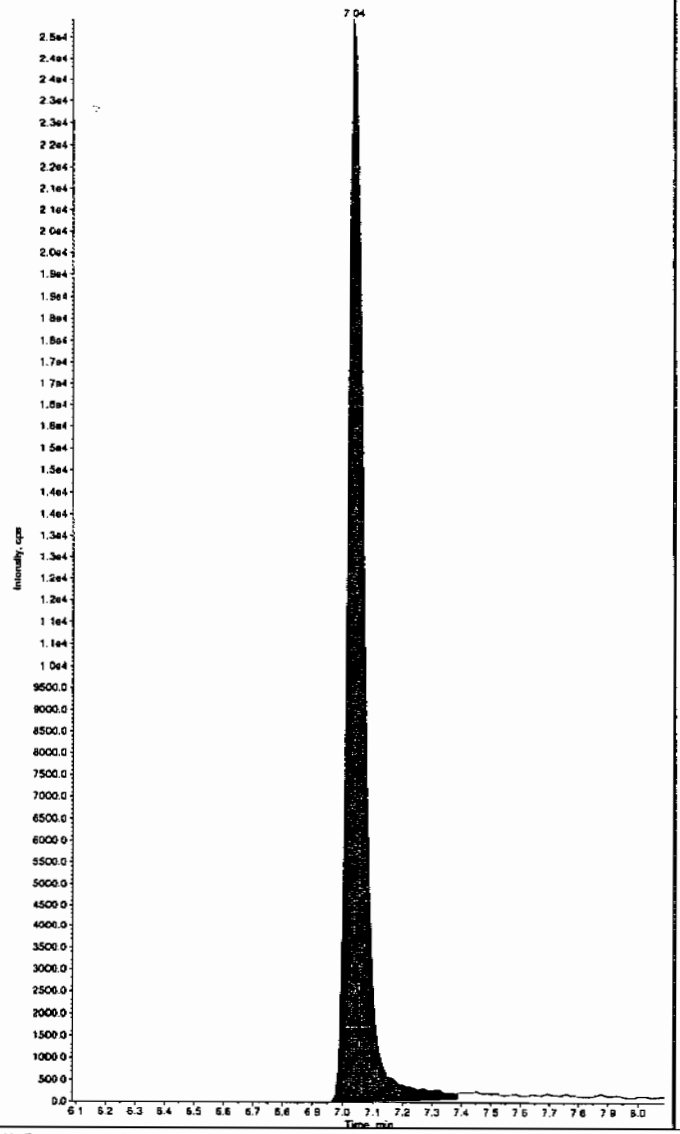

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260114.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	84.7	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	8:28:37 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.36	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.27	min
Area:	8.58e+005	counts
Height:	224756.836	cps
Start Time:	8.17	min
End Time:	8.37	min

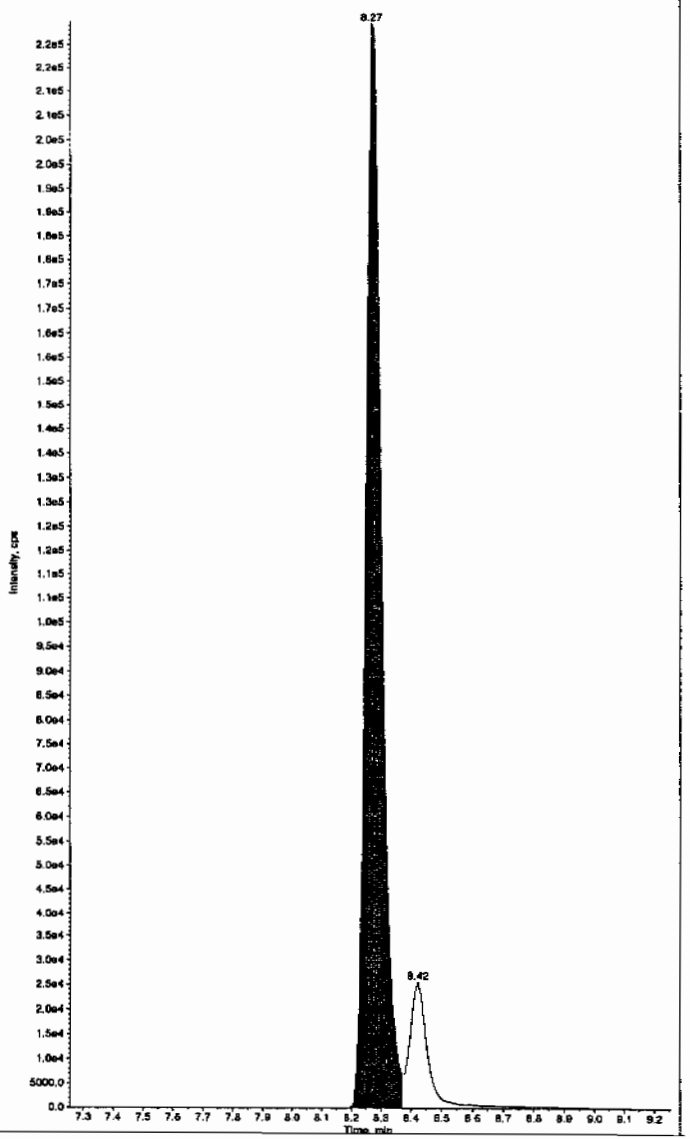

dhm 03/01/10

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a: "WXX100226-27CRI" Sample ID: "]1]LER" File: "EXS02260114.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CMSEXP_C" Annotation: "

x: 1
: QC
on: 50.0 ng/mL
Conc: 43.6 ng/mL
2/27/2010
8:28:37 PM

No
ithm: IntelliQuan - IQA
eight:1460.00 cps
idth: 0.00 sec
idth: 3 points
15.0 sec
: 8.46 min
e RT: No

Valley
ime: 8.41 min
6.31e+005 counts
183688.278 cps
8.35 min
8.71 min

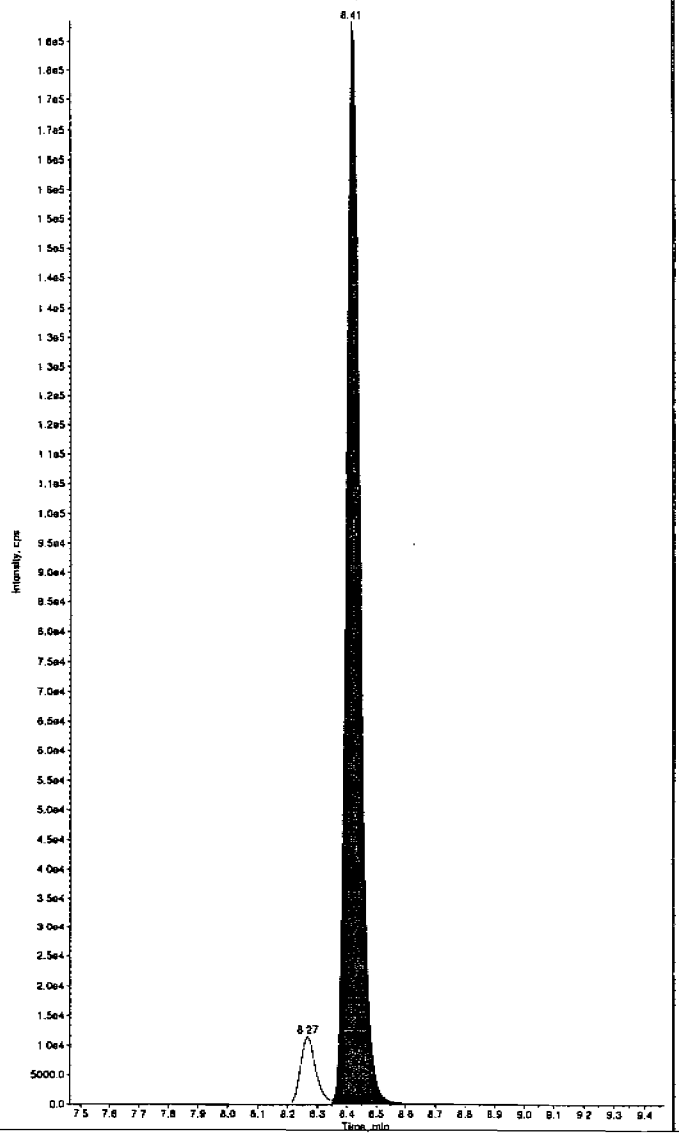

Sample Name: "WXX100226-27CRI" Sample ID: "]1]LER" File: "EXS02260114.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.0 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:28:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.06 min
Area: 2.13e+005 counts
Height: 50756.393 cps
Start Time: 4.93 min
End Time: 5.37 min

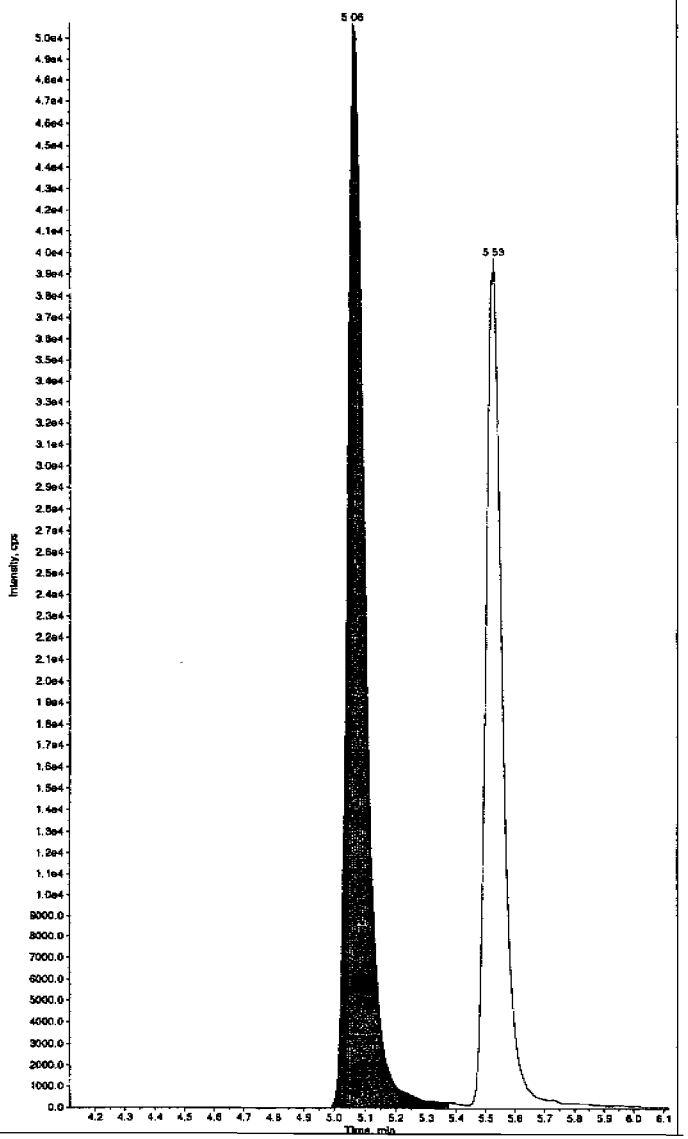

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260114.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
on: 100. ng/mL
Conc: 103. ng/mL
2/27/2010
8:28:37 PM

No
ithm: IntelliQuan - IQA
eight: 350.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 5.57 min
e RT: No

Valley
ime: 5.53 min
1.57e+005 counts
39637.032 cps
5.45 min
6.12 min

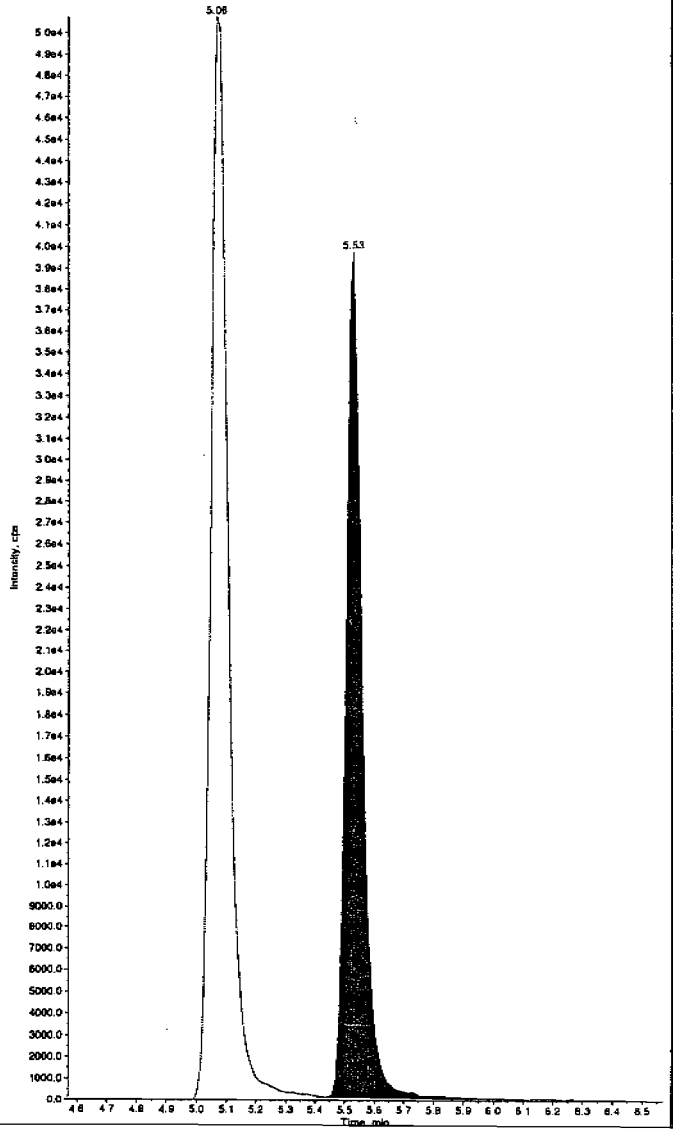

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260114.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:28:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.73e+006 counts
Height: 498755.157 cps
Start Time: 10.8 min
End Time: 11.2 min

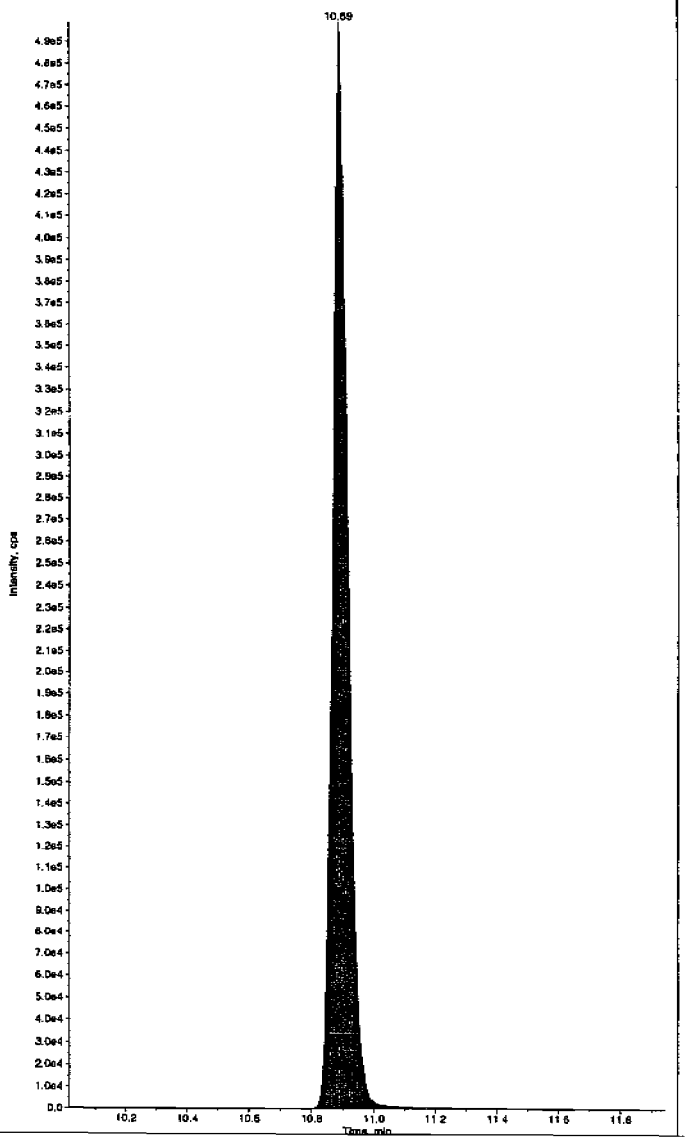

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260123.wiff

Analysis Date: 27-FEB-10 22:49

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,5-Dinitroaniline	500	447	89	
TATB	500	473	95	
tris(o-cresyl) phosphate	500	484	97	
2,4-Diamino-6-nitrotoluene	500	507	101	
2,6-Diamino-4-nitrotoluene	500	489	98	
3,4-Dinitrotoluene	250	209	84	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rcea 3/1/10

e: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260123.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
_CMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 500. ng/mL
Conc: 473. ng/mL
2/27/2010
10:49:52 PM

No
rithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
: 30.0 sec
: 7.09 min
e RT: No

Valley
Time: 7.06 min
5.58e+005 counts
140523.590 cps
6.96 min
7.68 min

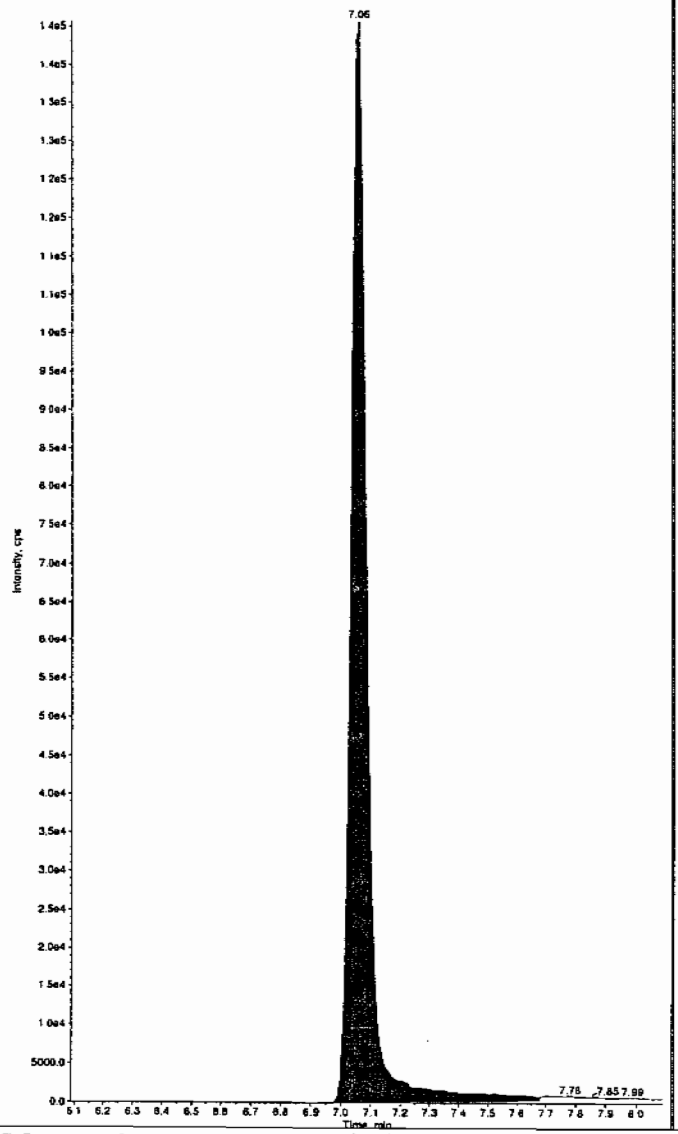

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260123.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 447. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:49:52 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 4.13e+006 counts
Height: 1099061.768 cps
Start Time: 8.20 min
End Time: 8.39 min

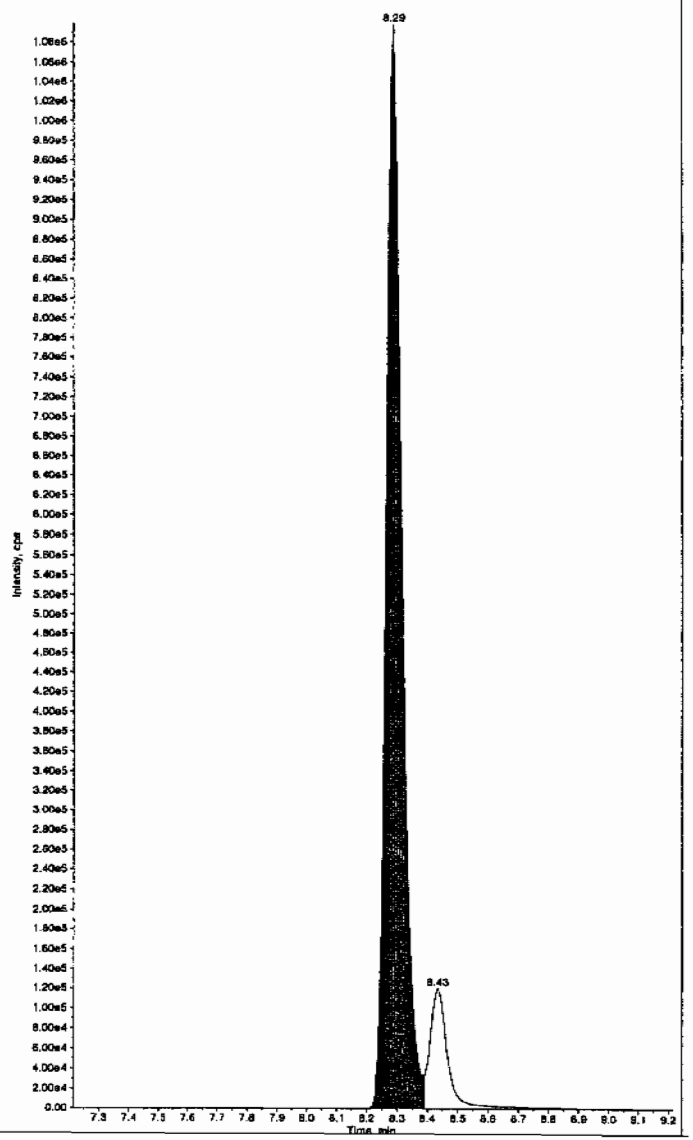

dhm 03/01/10

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260123.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CMSEXP_C" Annotation: ""

```
ix:          1
:            QC
on:        250.     ng/mL
Conc:      209.     ng/mL
        2/27/2010
        10:49:52 PM

           No
ithm: IntelliQuan - IQA
eight:1460.00    cps
idth:     0.00    sec
idth:  3        points
          15.0     sec
:          8.46    min
e RT:      No

         Valley
ime:       8.43    min
     2.91e+006    counts
     840913.330   cps
          8.36    min
          8.74    min
```

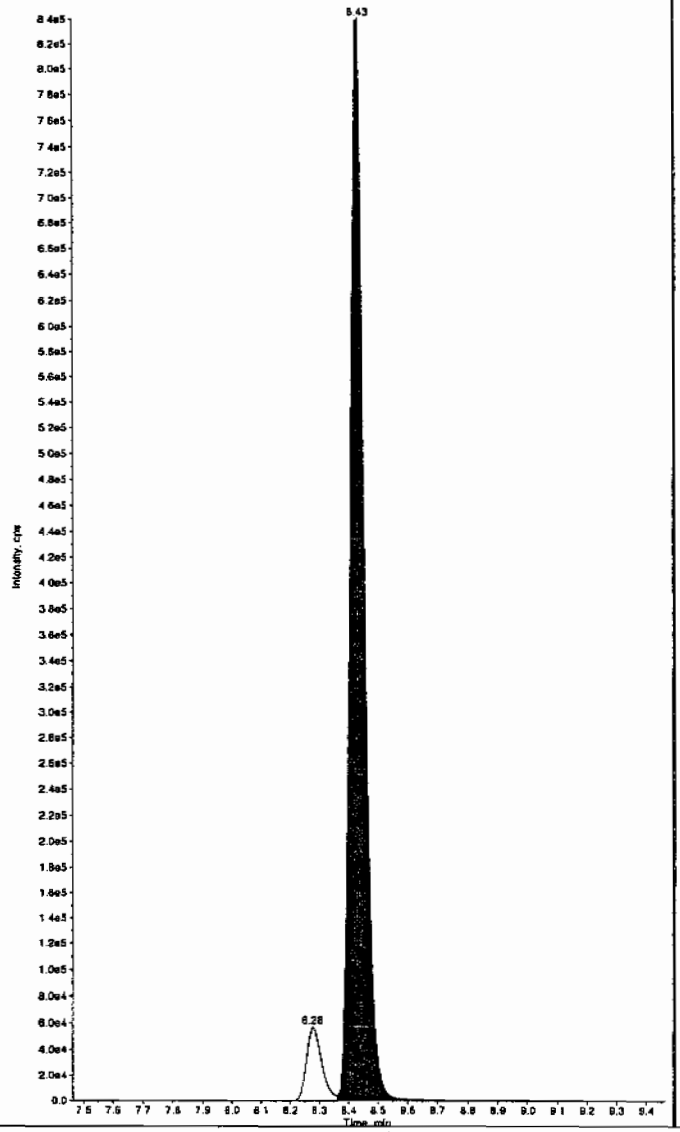

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260123.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     489.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        10:49:52 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        5.12    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.07    min
Area:          1.08e+006   counts
Height:        259045.990  cps
Start Time:         4.98    min
End Time:           5.38    min
```

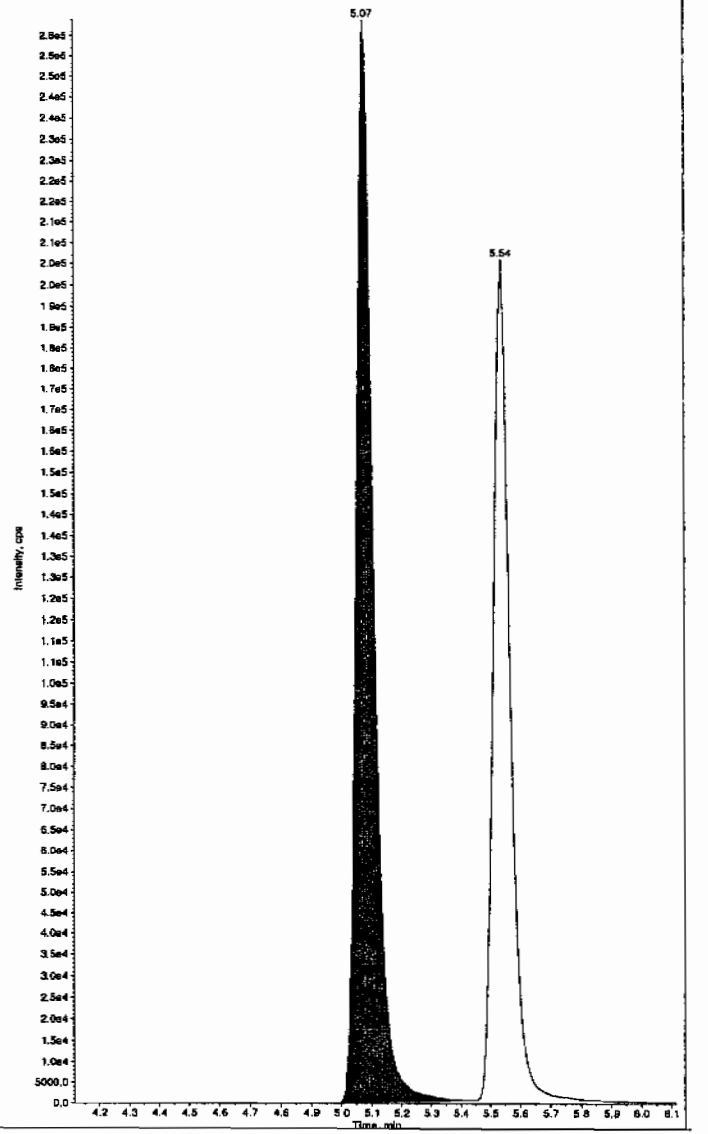

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: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260123.wiff"
24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
CMSEXP_C" Annotation: ""

```
s:          1
:          QC
on:       500.     ng/mL
Conc:     507.     ng/mL
       2/27/2010
       10:49:52 PM

          No
ithm: IntelliQuan - IQA
eight: 350.00    cps
idth:    0.00    sec
idth:  3         points
         30.0     sec
:         5.57    min
e RT:     No

         Valley
ime:      5.54    min
   8.10e+005    counts
   201070.770   cps
        5.45    min
        6.26    min
```

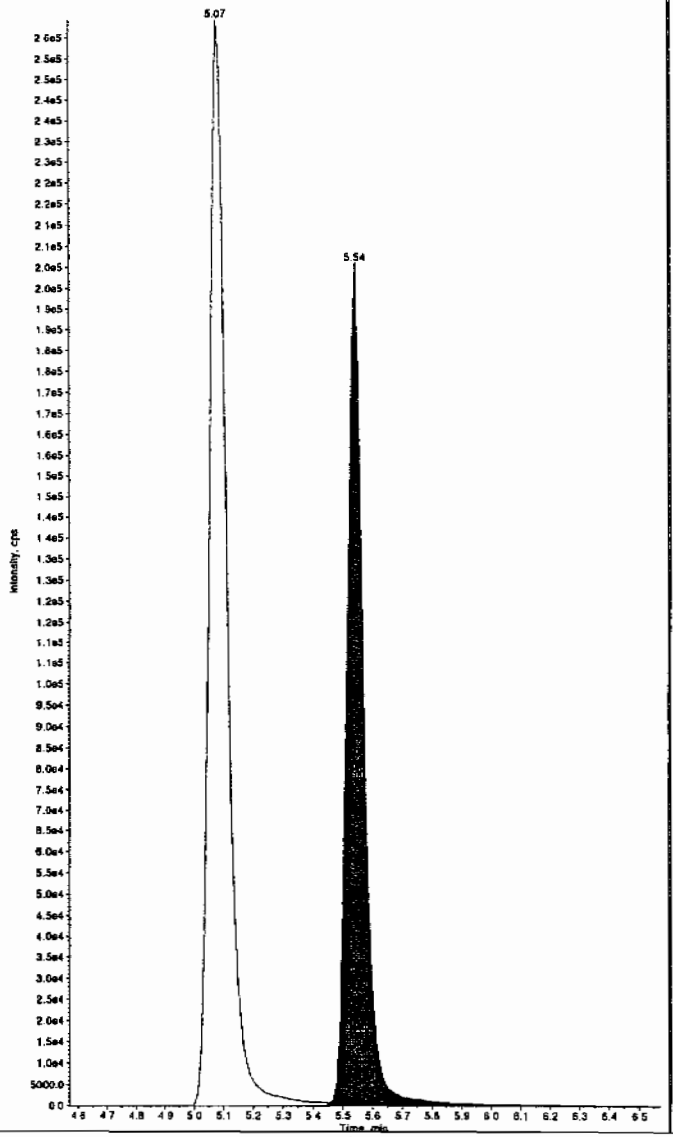

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260123.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     484.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        10:49:52 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.9     min
Area:        7.50e+006    counts
Height:      2081064.453   cps
Start Time:        10.8     min
End Time:          11.2     min
```

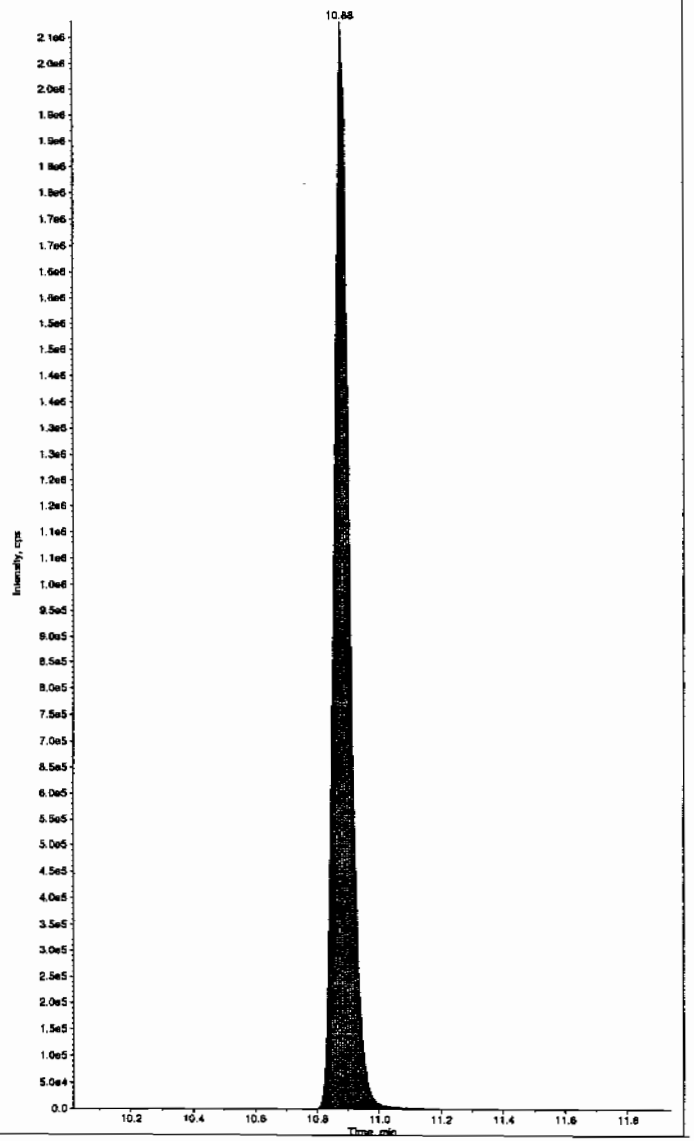

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1544

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260125.wiff

Analysis Date: 27-FEB-10 23:21

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	100	102	102	
2,4-Diamino-6-nitrotoluene	100	116	116	
2,6-Diamino-4-nitrotoluene	100	113	113	
3,4-Dinitrotoluene	50	42.9	86	
3,5-Dinitroaniline	100	86.1	86	
TATB	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 3/1/10

e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""

x: 1
: QC
on: 100. ng/mL
Conc: 101. ng/mL
2/27/2010
11:21:16 PM

No -
ithm: IntelliQuan - IQA
eight:2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 7.09 min
e RT: No

Valley
ime: 7.06 min
1.03e+005 counts
26872.643 cps
6.97 min
7.69 min

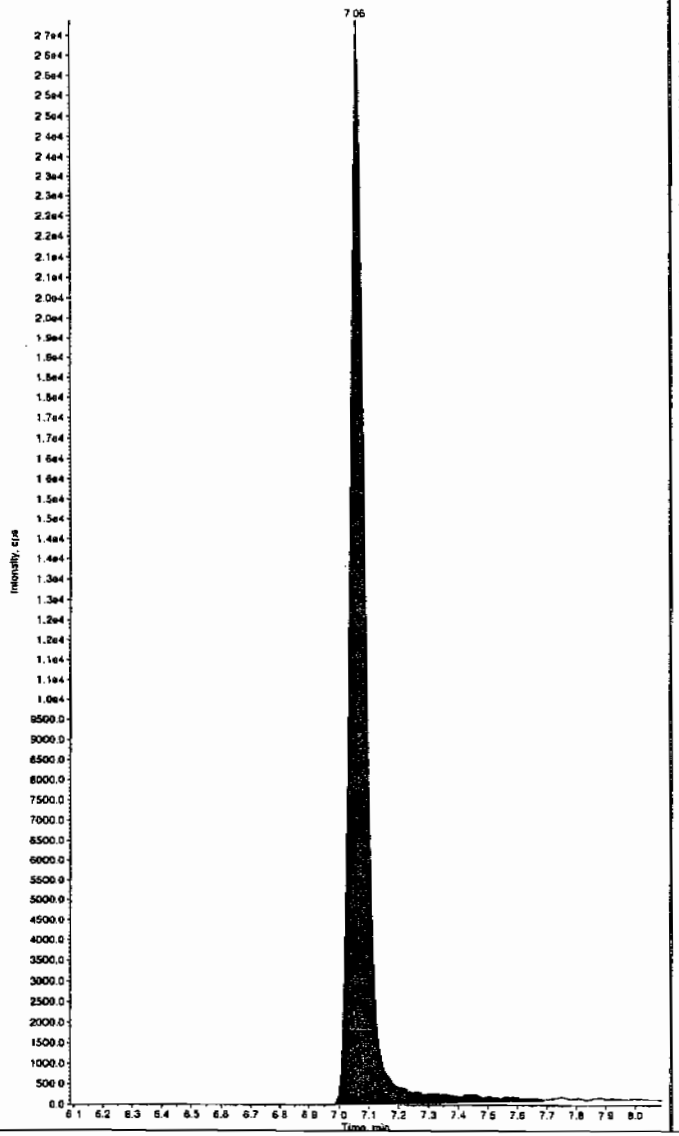

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 86.1 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:21:16 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 8.71e+005 counts
Height: 240817.032 cps
Start Time: 8.20 min
End Time: 8.39 min

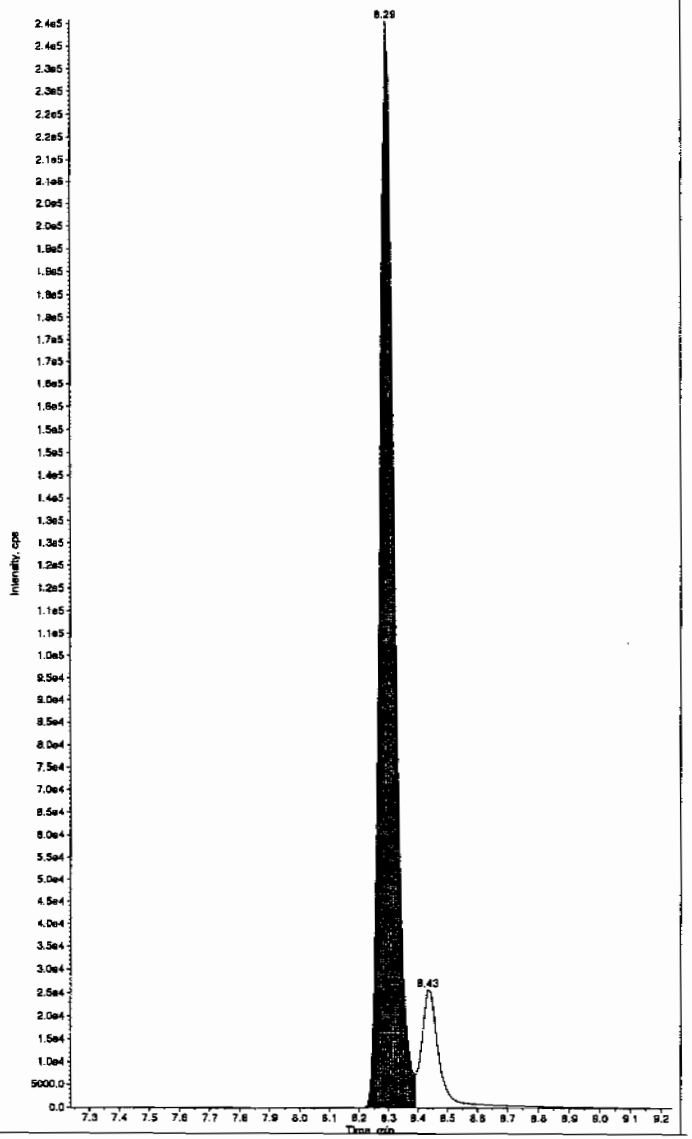

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
.CMSEXP_C" Annotation: "
ex: 1
: QC
.on: 50.0 ng/mL
Conc: 42.9 ng/mL
2/27/2010
11:21:16 PM

No
ithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
15.0 sec
: 8.46 min
e RT: No

Valley
Time: 8.43 min
6.21e+005 counts
182975.998 cps
8.36 min
8.74 min

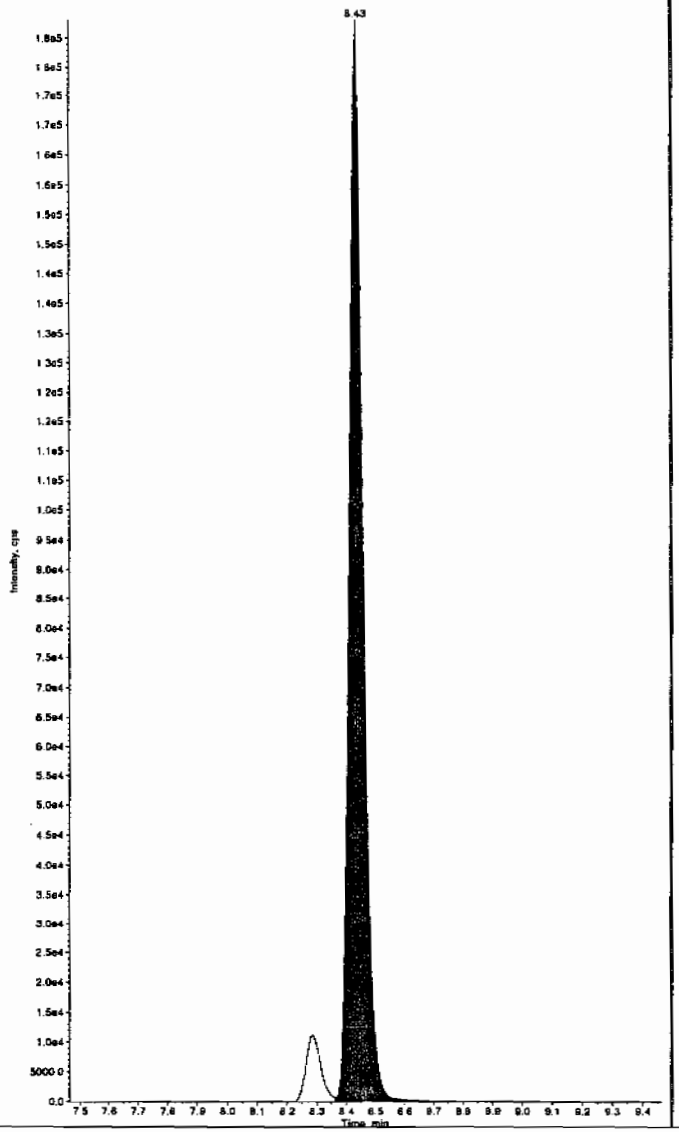

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	113.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	11:21:16 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.12	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.07	min
Area:	2.47e+005	counts
Height:	60243.855	cps
Start Time:	4.93	min
End Time:	5.38	min

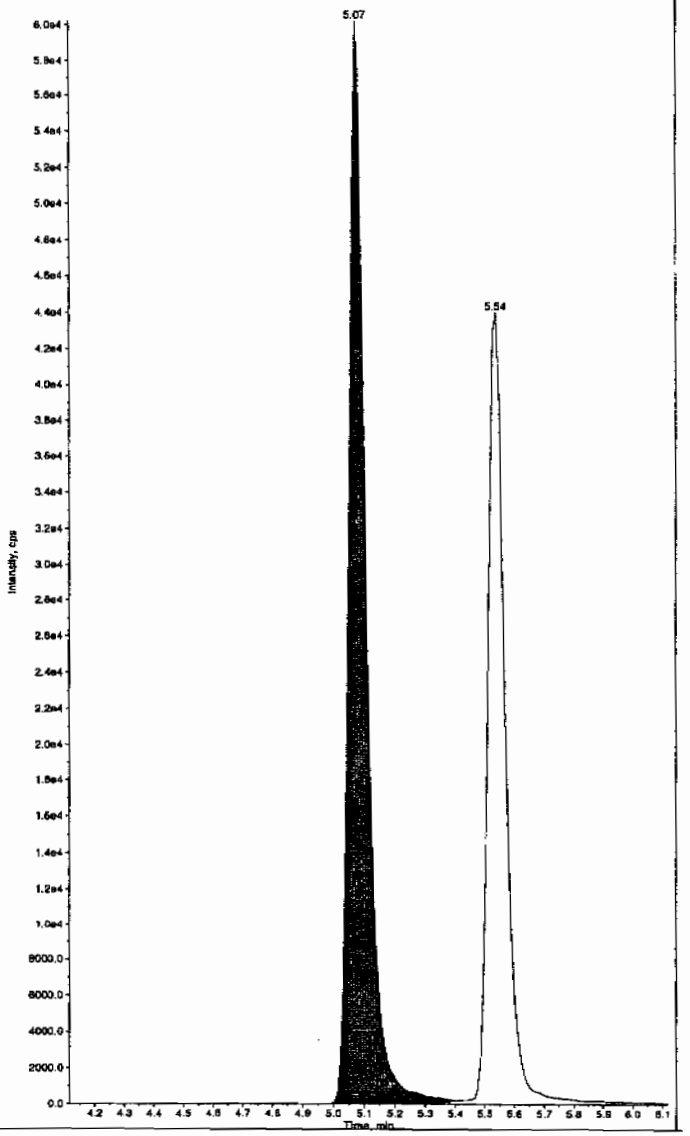

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e: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
'24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
CMSEXP_C" Annotation: ""
x: 1
: QC
on: 100. ng/mL
Conc: 116. ng/mL
2/27/2010
11:21:16 PM

No
ithm: IntelliQuan - IQA
eight: 350.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 5.57 min
e RT: No

Valley
ime: 5.54 min
1.77e+005 counts
43947.105 cps
5.39 min
5.56 min

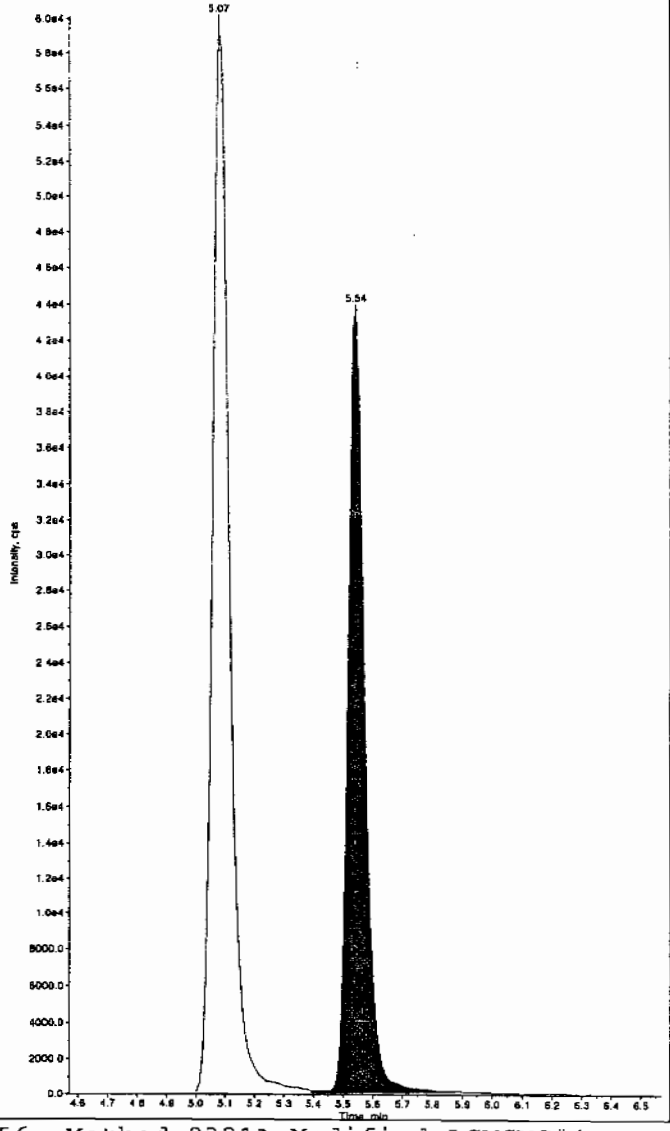

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	102.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	11:21:16 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.75e+006	counts
Height:	484998.596	cps
Start Time:	10.8	min
End Time:	11.2	min

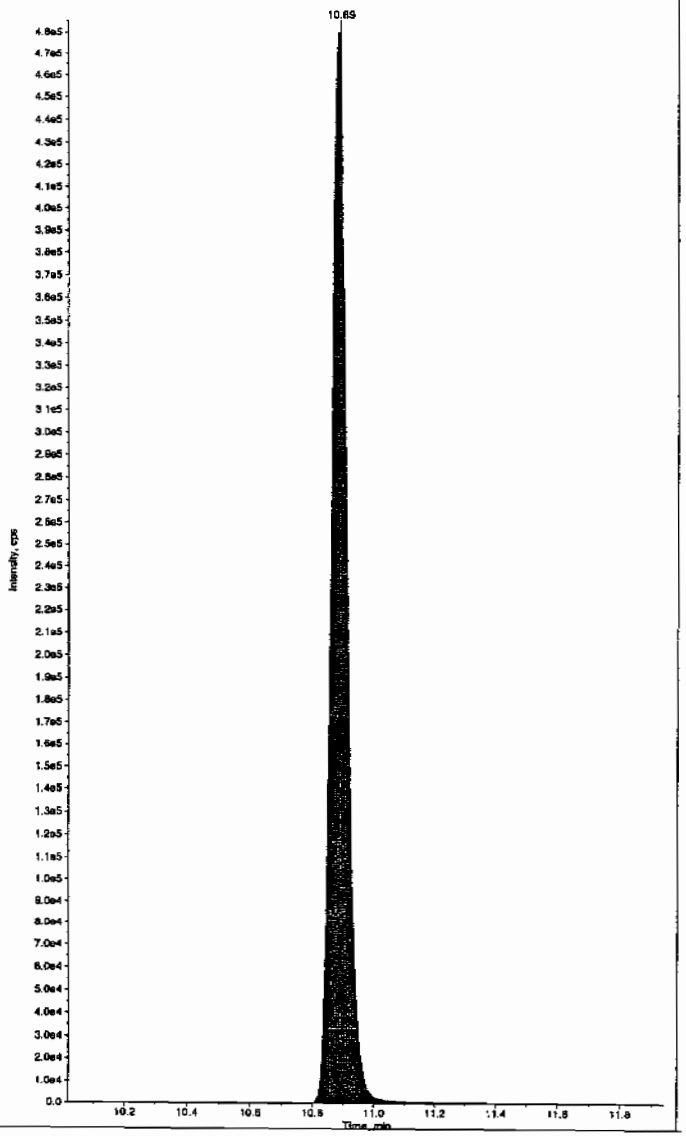

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948889

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 1202032878

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304116a

Date Analyzed: 06-MAR-10 23:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

aset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

ne: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304116a
e: 06-Mar-2010
e: 23:49:09
1202032878
: 3:5,A

LANU | 948890 | Solid | MB | 2 |

MAP 3/7/10

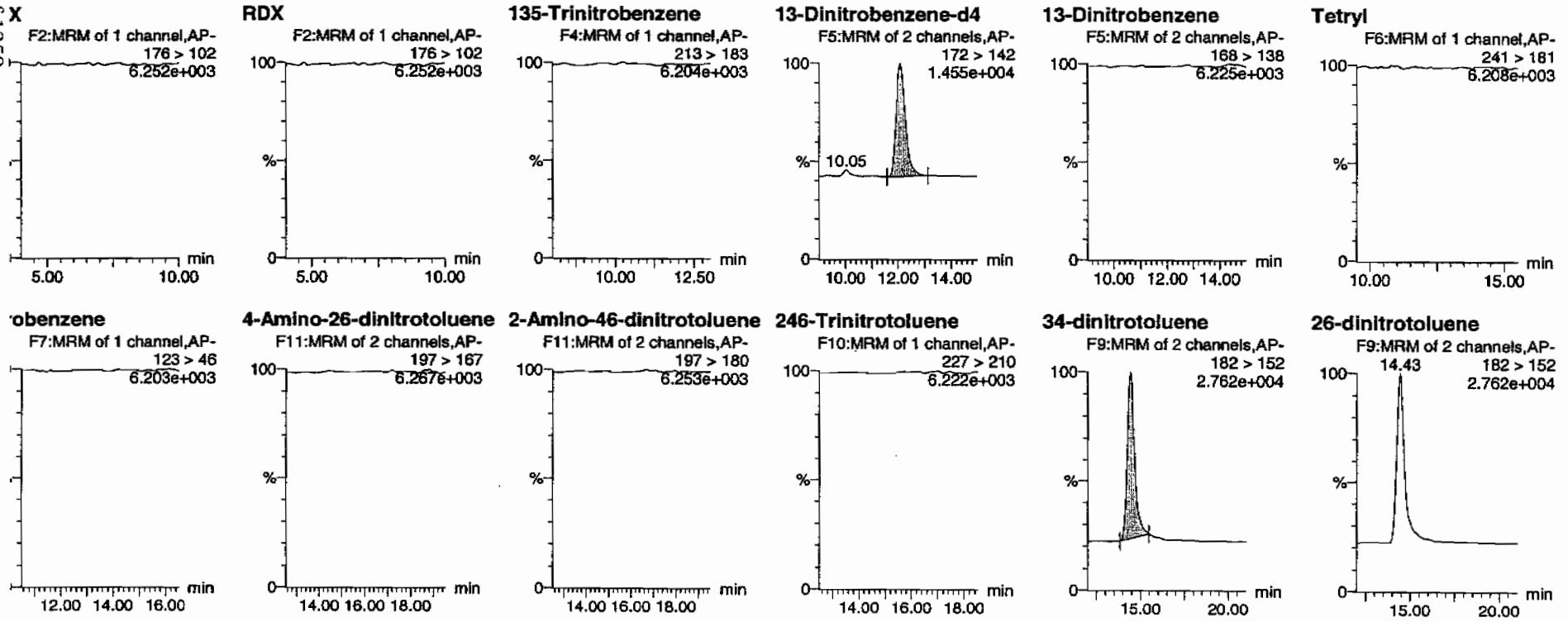

Hmc 03/08/10

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aset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

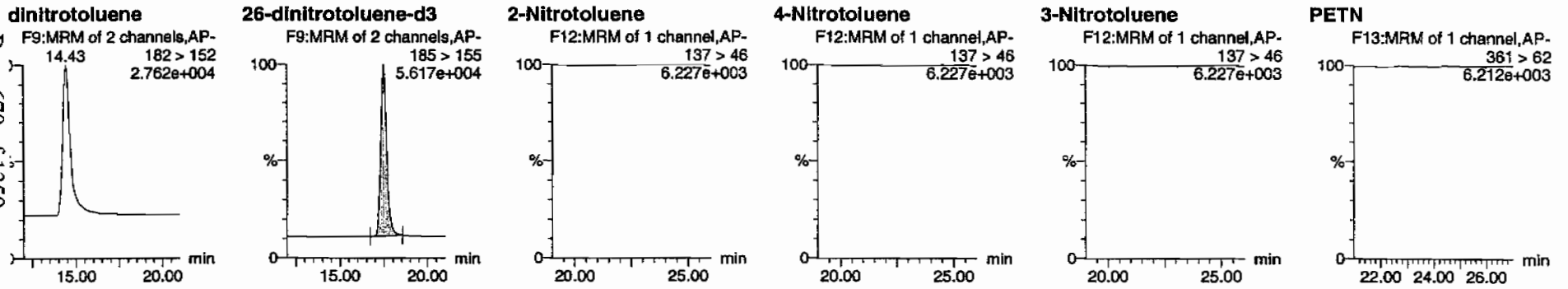

	Name	Trace	NRT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
2032878	HMX	176 > 102			3470.093									
2032878	RDX	176 > 102			3470.093									
2032878	135-Trinitrobenzene	213 > 183			3470.093									
2032878	13-Dinitrobenzene-d4	172 > 142	12.07	3470.093		3470.093	3470.093	bb			494.0635	98.8	-1.2	323.3
2032878	13-Dinitrobenzene	168 > 138			3470.093									
2032878	Tetryl	241 > 181			3470.093									
2032878	Nitrobenzene	123 > 46			3470.093									
2032878	4-Amino-26-dinitrotoluene	197 > 167			20103.986									
2032878	2-Amino-46-dinitrotoluene	197 > 180			20103.986									
2032878	246-Trinitrotoluene	227 > 210			20103.986									
2032878	34-dinitrotoluene	182 > 152	14.43	10223.903	20103.986	10223.903	254.276	bb			263.0981	105.2	5.2	813.5
2032878	26-dinitrotoluene	182 > 152			20103.986									
2032878	24-dinitrotoluene	182 > 152			20103.986									
2032878	26-dinitrotoluene-d3	185 > 155	17.47	20103.986		20103.986	20103.986	bb			488.8963	97.8	-2.2	2073.3
2032878	2-Nitrotoluene	137 > 46			20103.986									
2032878	4-Nitrotoluene	137 > 46			20103.986									
2032878	3-Nitrotoluene	137 > 46			20103.986									
2032878	PETN	361 > 62			20103.986									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948889

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 1202032878

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260093.wiff

Date Analyzed: 27-FEB-10 14:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/4/10

Name: "1202032878" Sample ID: "948890|2|LER" File: "EXS02260093.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCX83212S" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
ate: 2/27/2010
me: 2:59:00 PM
ed: No

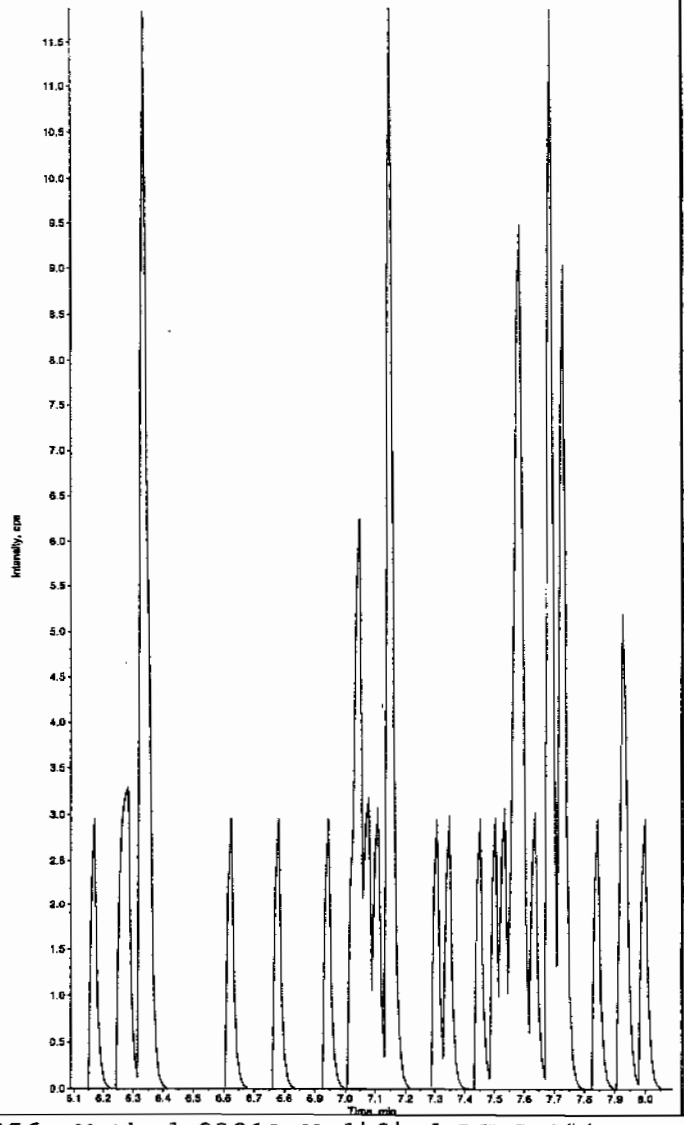

Sample Name: "1202032878" Sample ID: "948890|2|LER" File: "EXS02260093.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:59:00 PM

Modified: Yes

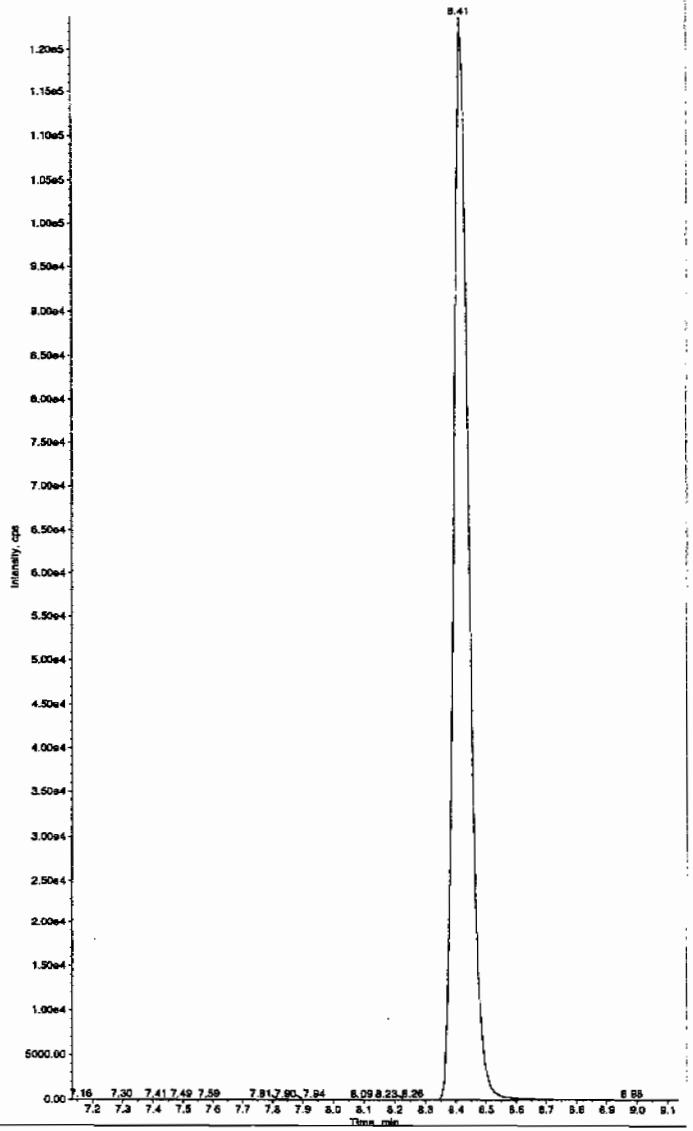

Hm 03/01/10

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e Name: "1202032878" Sample ID: "948890|2|LER" File: "EXS02260093.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCX83212S" Annotation: "

Index: 1
Type: Unknown
tration: N/A
ated Conc: 247. ng/mL
ate: 2/27/2010
ime: 2:59:00 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 15.0 sec
ed RT: 8.46 min
lative RT: No

ype: Valley
ion Time: 8.41 min
3.40e+006 counts
959126.770 cps
Time: 8.29 min
me: 8.76 min

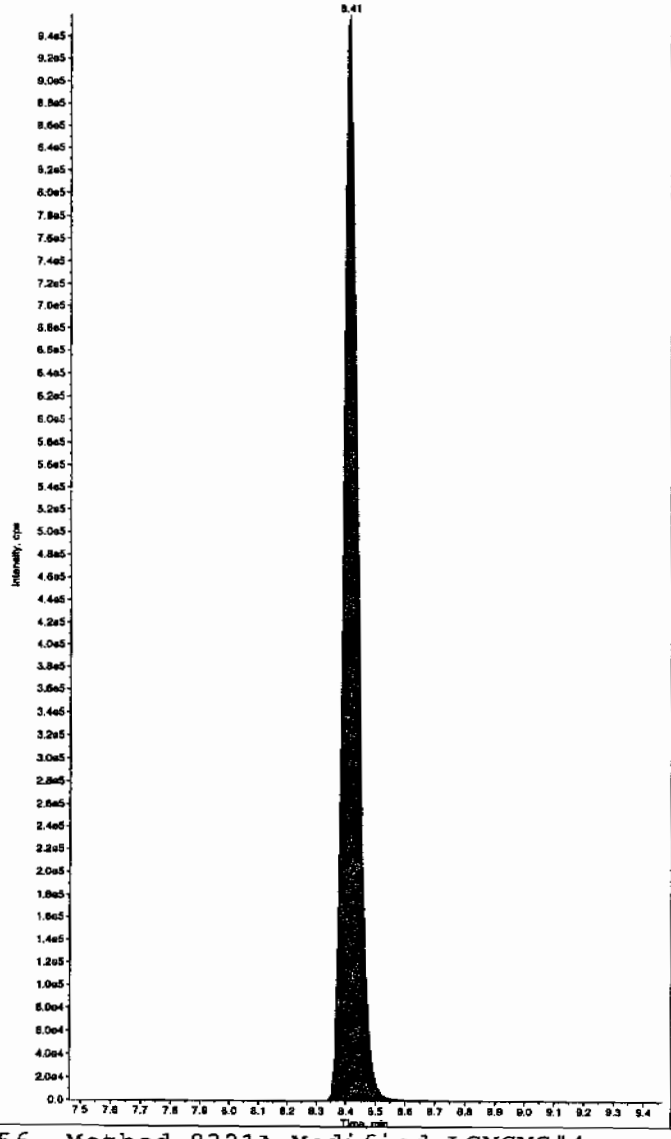

Sample Name: "1202032878" Sample ID: "948890|2|LER" File: "EXS02260093.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:59:00 PM

Modified: No

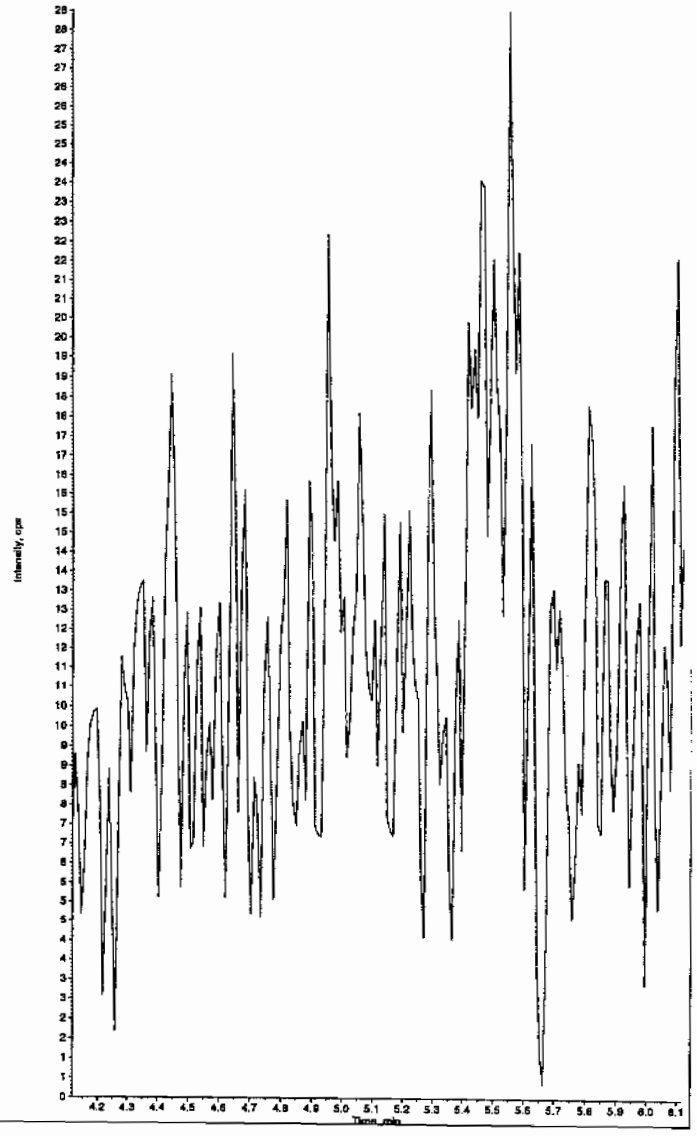

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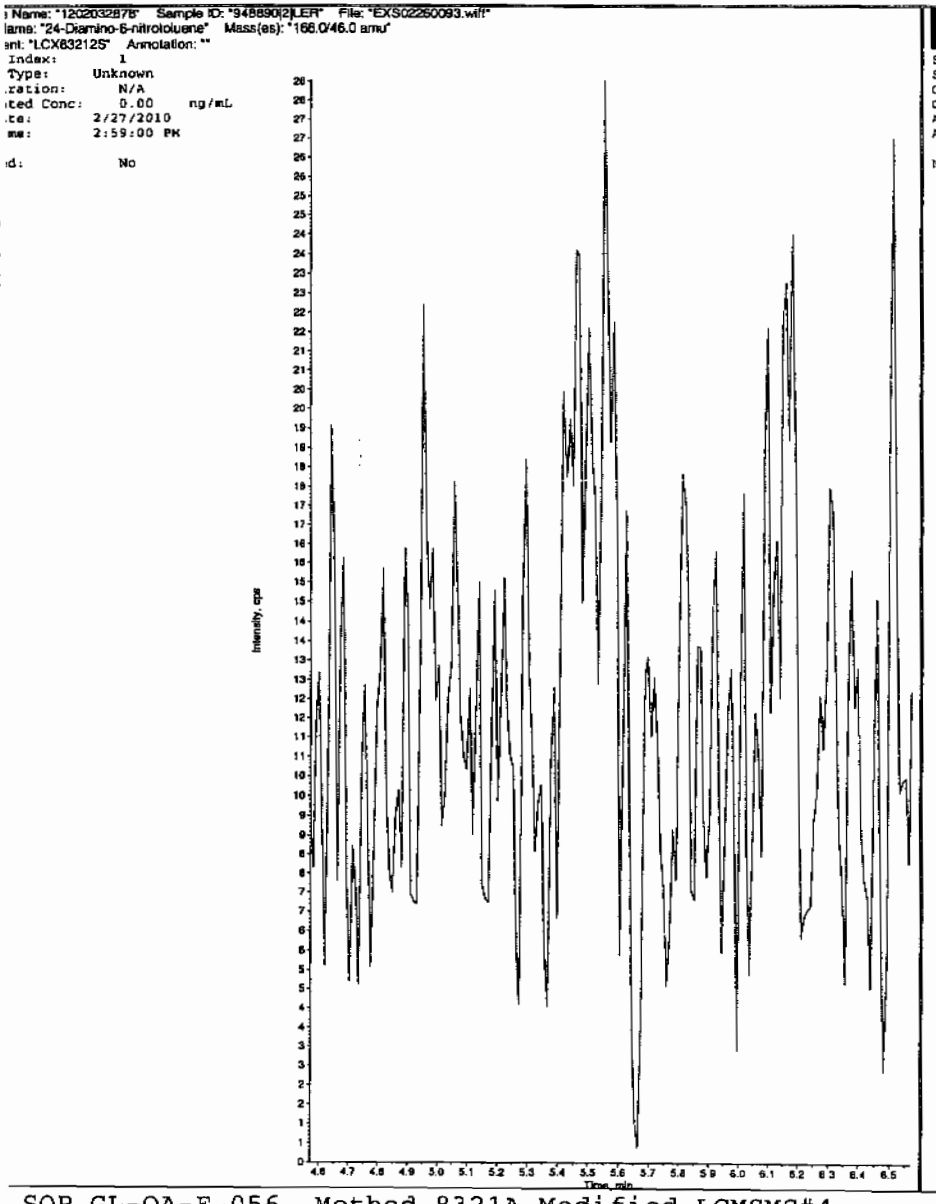

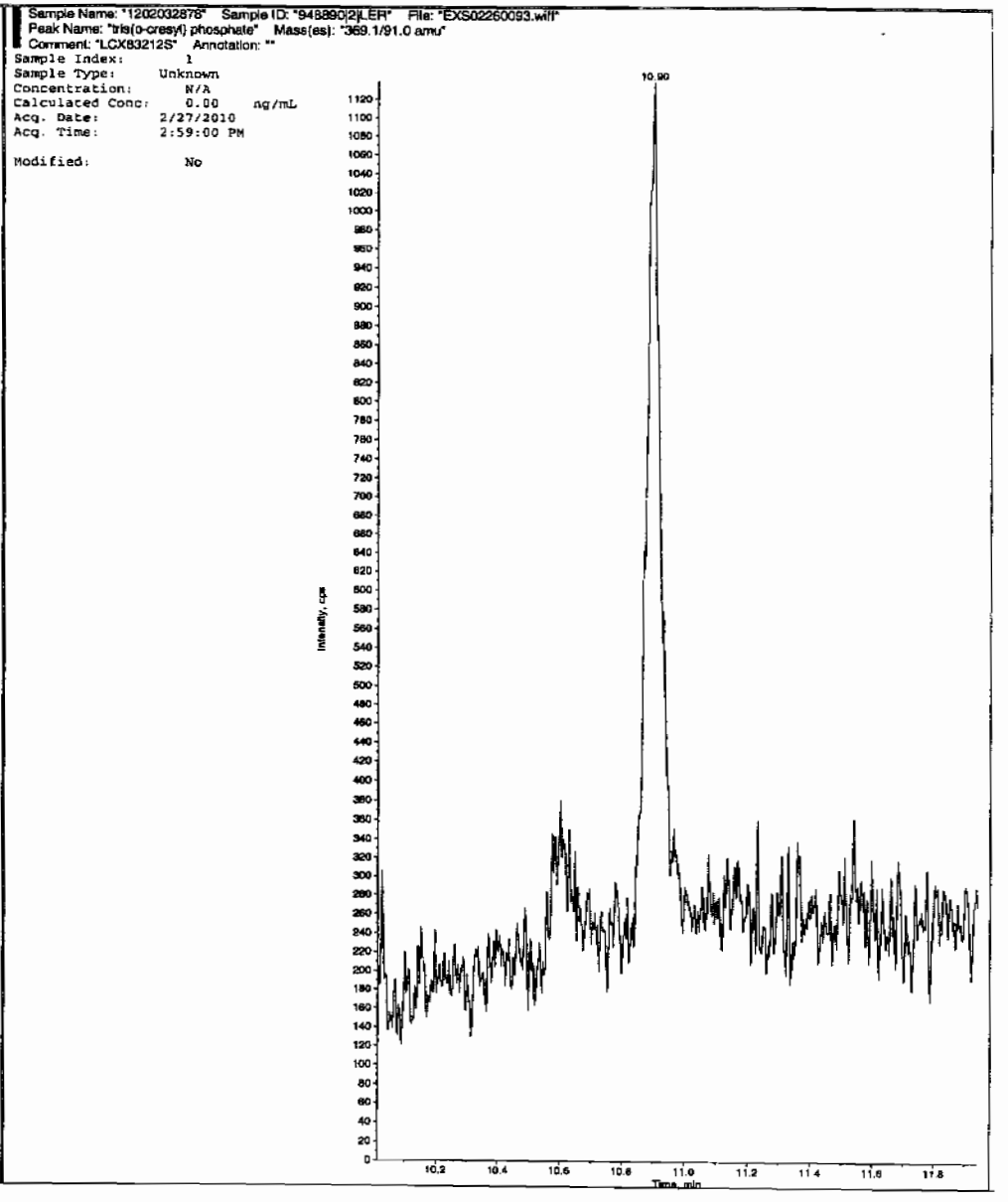

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948889

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 1202032879

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304117a

Date Analyzed: 07-MAR-10 00:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5050	
121-14-2	2,4-Dinitrotoluene	4570	
121-82-4	RDX	4380	
19406-51-0	4-Amino-2,6-dinitrotoluene	5110	
2691-41-0	HMX	4120	
35572-78-2	2-Amino-4,6-dinitrotoluene	5720	
479-45-8	Tetryl	2370	
606-20-2	2,6-Dinitrotoluene	4800	
78-11-5	PETN	5500	
88-72-2	o-Nitrotoluene	4240	
98-95-3	Nitrobenzene	5130	
99-08-1	m-Nitrotoluene	3880	
99-35-4	1,3,5-Trinitrobenzene	3850	
99-65-0	m-Dinitrobenzene	4860	
99-99-0	p-Nitrotoluene	4220	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ne: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304117a
e: 07-Mar-2010
e: 00:18:45
1202032879
: 3:5,B

| LANU | 948890 | Solid | LCS | 2 |

↓ Tetryl

AMP 3/7/10

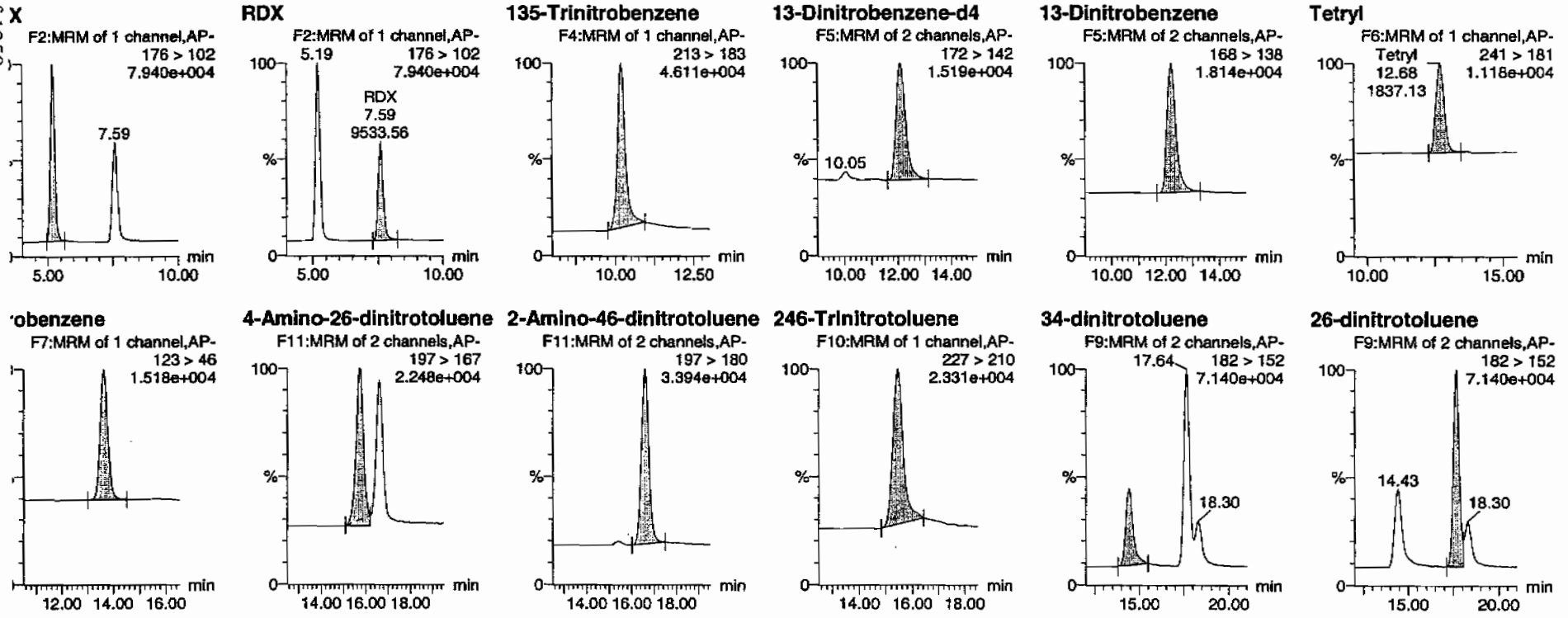

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ıntify Sample Report
_ Laboratories, LLC / Analyst : Michael A. Penny

aset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

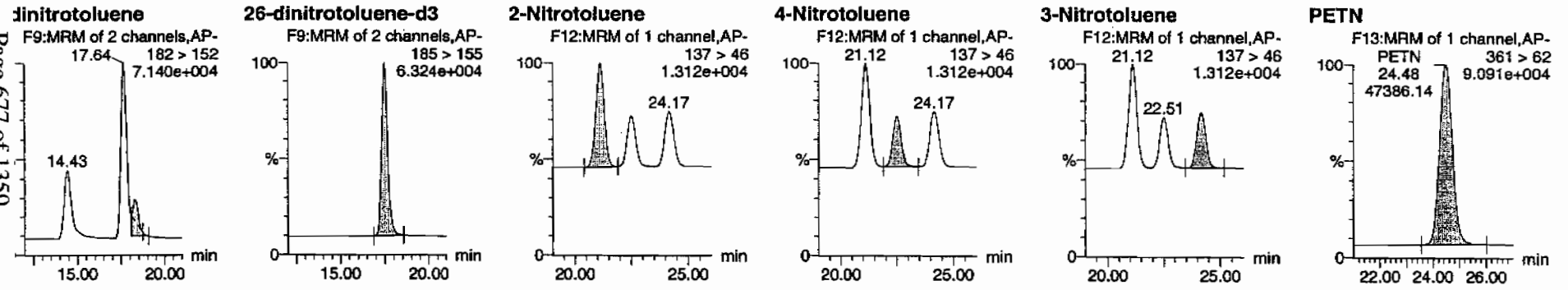

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
2032879	HMX	176 > 102	5.19	14605.235	3801.680	14605.235	1920.892	bb			411.8279	82.4	-17.6	2488.5
2032879	RDX	176 > 102	7.59	9533.557	3801.680	9533.557	1253.861	bb			438.1986	87.6	-12.4	1378.1
2032879	135-Trinitrobenzene	213 > 183	10.20	11390.578	3801.680	11390.578	1498.098	bb			384.7379	76.9	-23.1	535.1
2032879	13-Dinitrobenzene-d4	172 > 142	12.07	3801.680		3801.680	3801.680	bb			541.2740	108.3	8.3	785.8
2032879	13-Dinitrobenzene	168 > 138	12.20	4682.558	3801.680	4682.558	615.854	bb			486.2788	97.3	-2.7	410.8
2032879	Tetryl	241 > 181	12.68	1837.125	3801.680	1837.125	241.620	bb			237.4523	47.5	-52.5	223.1
2032879	Nitrobenzene	123 > 46	13.63	3218.481	3801.680	3218.481	423.297	bb			512.6315	102.5	2.5	238.8
2032879	4-Amino-26-dinitrotoluene	197 > 167	15.74	6533.902	23170.242	6533.902	140.998	MM	07-Mar-10	13:25:45	511.1807	102.2	2.2	209.6
2032879	2-Amino-46-dinitrotoluene	197 > 180	16.60	10729.245	23170.242	10729.245	231.531	bb			571.5360	114.3	14.3	794.7
2032879	246-Trinitrotoluene	227 > 210	15.45	7692.657	23170.242	7692.657	166.003	bb			505.1715	101.0	1.0	497.2
2032879	34-dinitrotoluene	182 > 152	14.43	12265.959	23170.242	12265.959	264.692	bb			273.8760	109.6	9.6	387.6
2032879	26-dinitrotoluene	182 > 152	17.64	24833.498	23170.242	24833.498	535.892	MM	07-Mar-10	13:28:38	480.3870	96.1	-3.9	992.4
2032879	24-dinitrotoluene	182 > 152	18.30	5832.932	23170.242	5832.932	125.871	MM	07-Mar-10	13:31:22	456.6383	91.3	-8.7	212.0
2032879	26-dinitrotoluene-d3	185 > 155	17.47	23170.242		23170.242	23170.242	bb			563.4627	112.7	12.7	2253.6
2032879	2-Nitrotoluene	137 > 46	21.12	3044.425	23170.242	3044.425	65.697	bb			424.1277	84.8	-15.2	452.6
2032879	4-Nitrotoluene	137 > 46	22.51	1491.840	23170.242	1491.840	32.193	bb			422.0710	84.4	-15.6	216.0
2032879	3-Nitrotoluene	137 > 46	24.17	1697.557	23170.242	1697.557	36.632	bb			388.2406	77.6	-22.4	234.9
2032879	PETN	361 > 62	24.48	47386.141	23170.242	47386.141	1022.565	bb			550.4382	110.1	10.1	4525.9

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948889

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 1202032879

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260094.wiff

Date Analyzed: 27-FEB-10 15:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6050	
59229-75-3	2,6-Diamino-4-nitrotoluene	4660	
618-87-1	3,5-Dinitroaniline	4500	
6629-29-4	2,4-Diamino-6-nitrotoluene	4420	
78-30-8	tris(o-cresyl) phosphate	4850	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Lan 3/1/10

Name: "1202032879" Sample ID: "948890|2|LER" File: "EXS02260094.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t "LCX83212S" Annotation: ""
ndex: 1
ype: Unknown
ation: N/A
ed Conc: 605. ng/mL
e: 2/27/2010
e: 3:14:41 PM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 7.09 min
tive RT: No

e: Valley
n Time: 7.07 min
7.22e+005 counts
180024.796 cps
me: 6.98 min
: 7.85 min

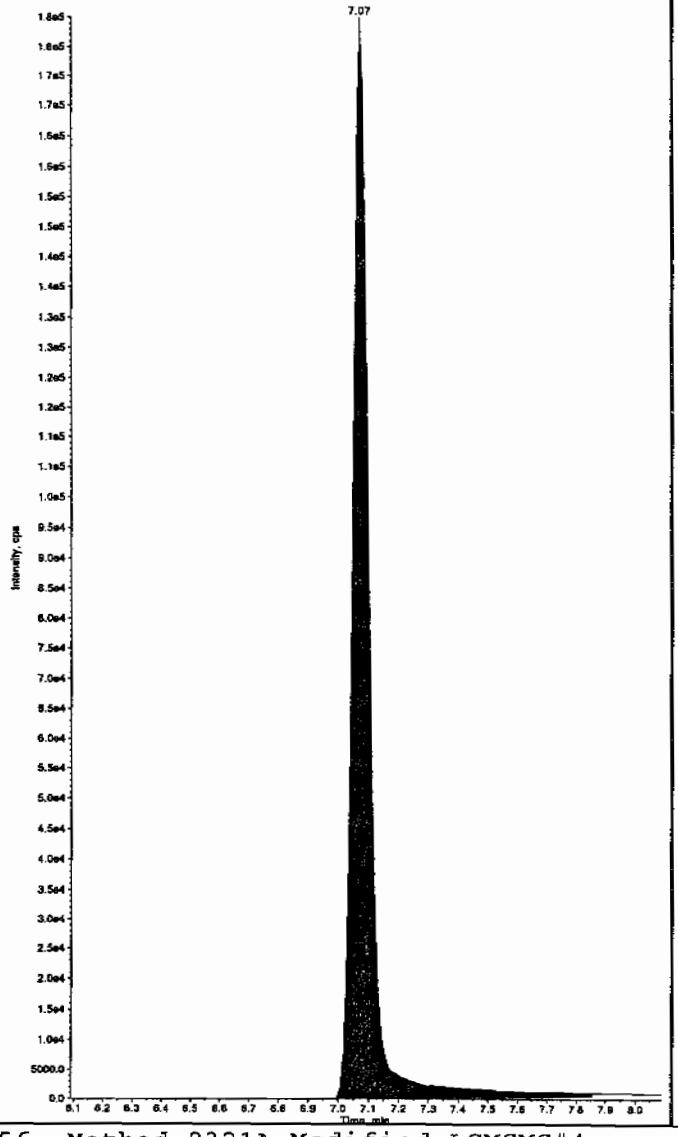

Sample Name: "1202032879" Sample ID: "948890|2|LER" File: "EXS02260094.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 416. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:14:41 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 3.86e+006 counts
Height: 1063821.899 cps
Start Time: 8.23 min
End Time: 8.38 min

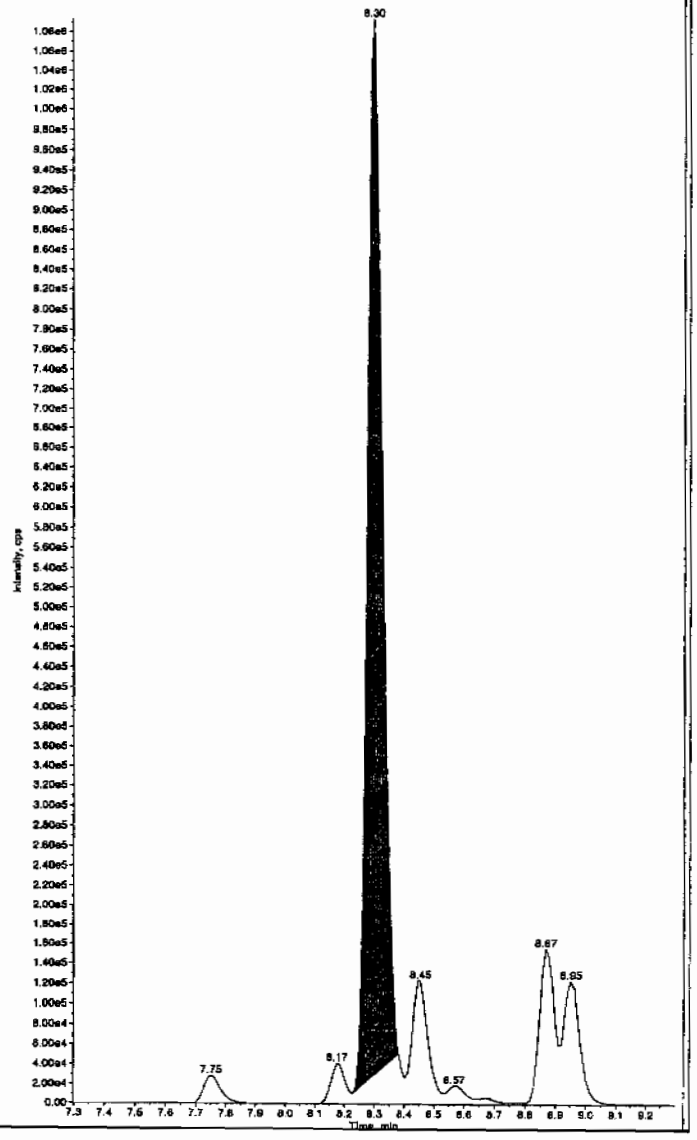

Hmm 03/01/10

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after Scan 3/1/10

Name: "1202032879" Sample ID: "948890|2|LER" File: "EXS02260094.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCX83212S" Annotation: ""
ndex: 1
ype: Unknown
ation: N/A
ed Conc: 605. ng/mL
e: 2/27/2010
e: 3:14:41 PM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 7.09 min
tive RT: No

e: Valley
n Time: 7.07 min
7.22e+005 counts
180024.796 cps
me: 6.98 min
: 7.85 min

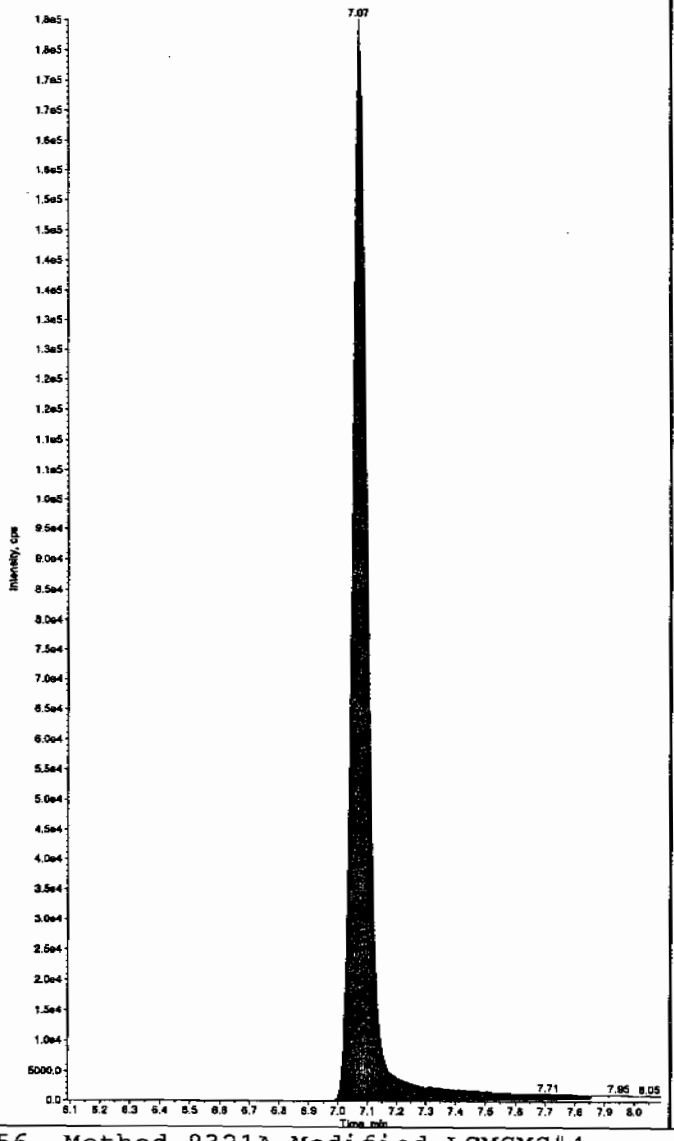

Sample Name: "1202032879" Sample ID: "948890|2|LER" File: "EXS02260094.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 450. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:14:41 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.30 min
Area: 4.15e+006 counts
Height: 1092785.427 cps
Start Time: 8.23 min
End Time: 8.40 min

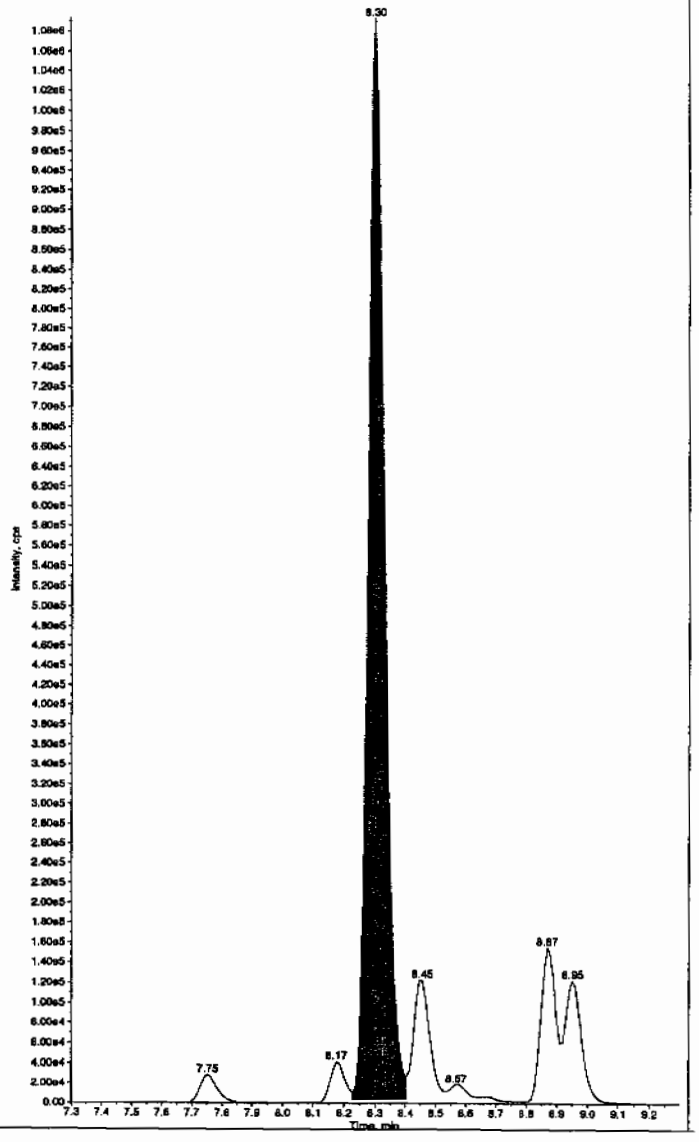

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Name: "1202032879" Sample ID: "946890[2]LER" File: "EXS02250094.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCX83212S" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ted Conc: 226. ng/mL
te: 2/27/2010
me: 3:14:41 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1460.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 15.0 sec
d RT: 8.46 min
ative RT: No

pe: Valley
on Time: 8.44 min
3.13e+006 counts
892525.696 cps
lme: 8.37 min
e: 8.62 min

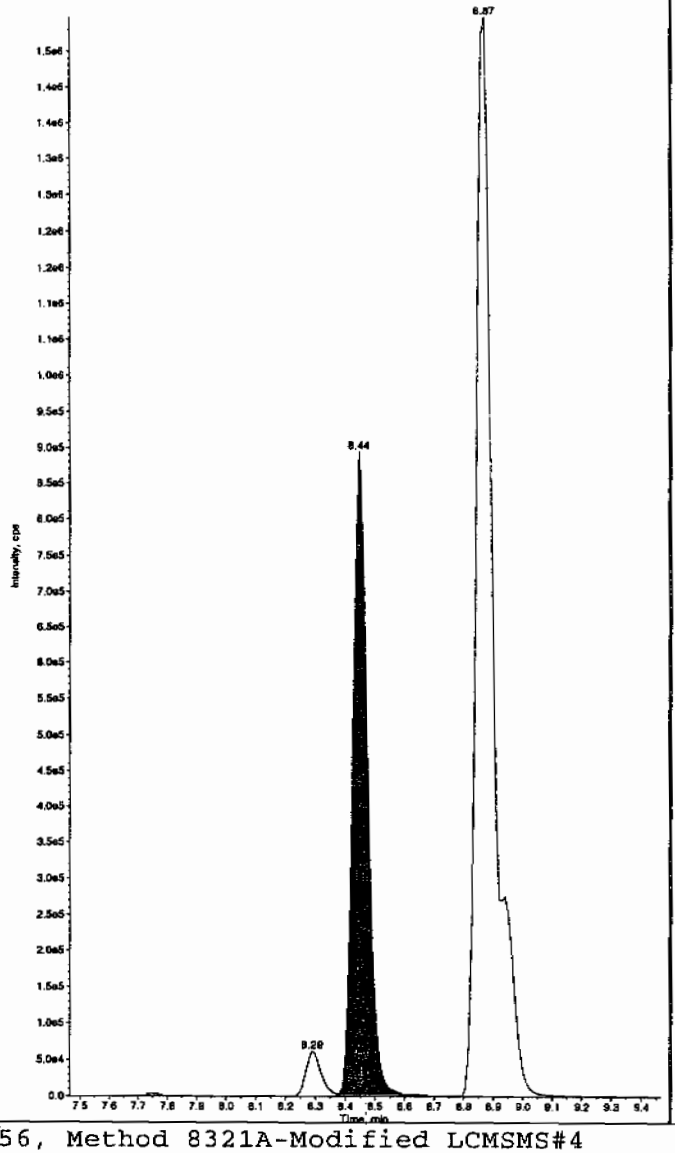

Sample Name: "1202032879" Sample ID: "946890[2]LER" File: "EXS02250094.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 466. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:14:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 1.03e+006 counts
Height: 247397.263 cps
Start Time: 4.99 min
End Time: 5.39 min

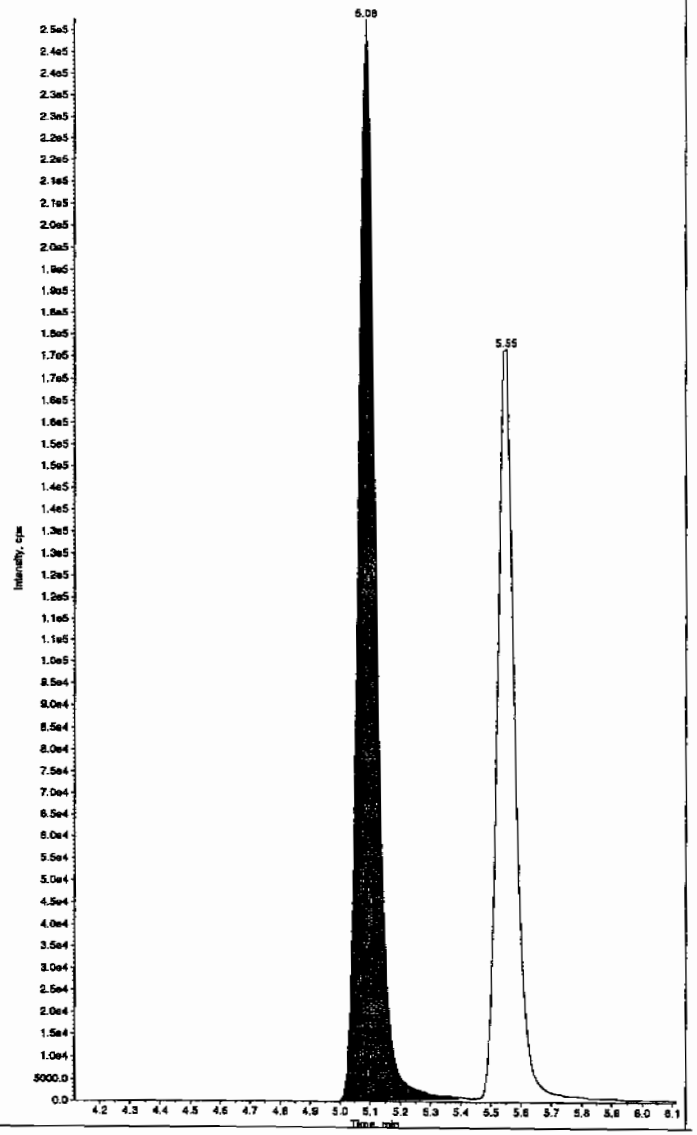

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Name: "1202032879" Sample ID: "948890|2|LER" File: "EXS02260094.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
nt: "LCX83212S" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ted Conc: 442. ng/mL
te: 2/27/2010
me: 3:14:41 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 350.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 5.57 min
ative RT: No

pe: Valley
on Time: 5.55 min
7.05e+005 counts
171509.247 cps
ime: 5.44 min
e: 5.95 min

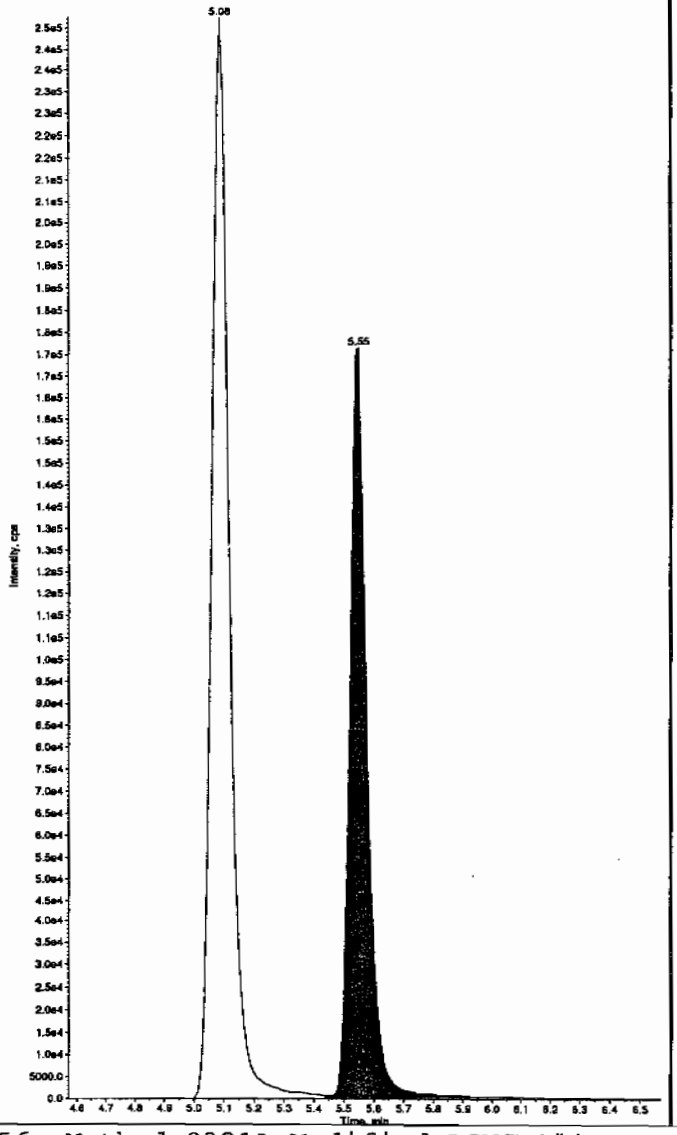

Sample Name: "1202032879" Sample ID: "948890|2|LER" File: "EXS02260094.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 485. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:14:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.51e+006 counts
Height: 1974158.447 cps
Start Time: 10.8 min
End Time: 11.2 min

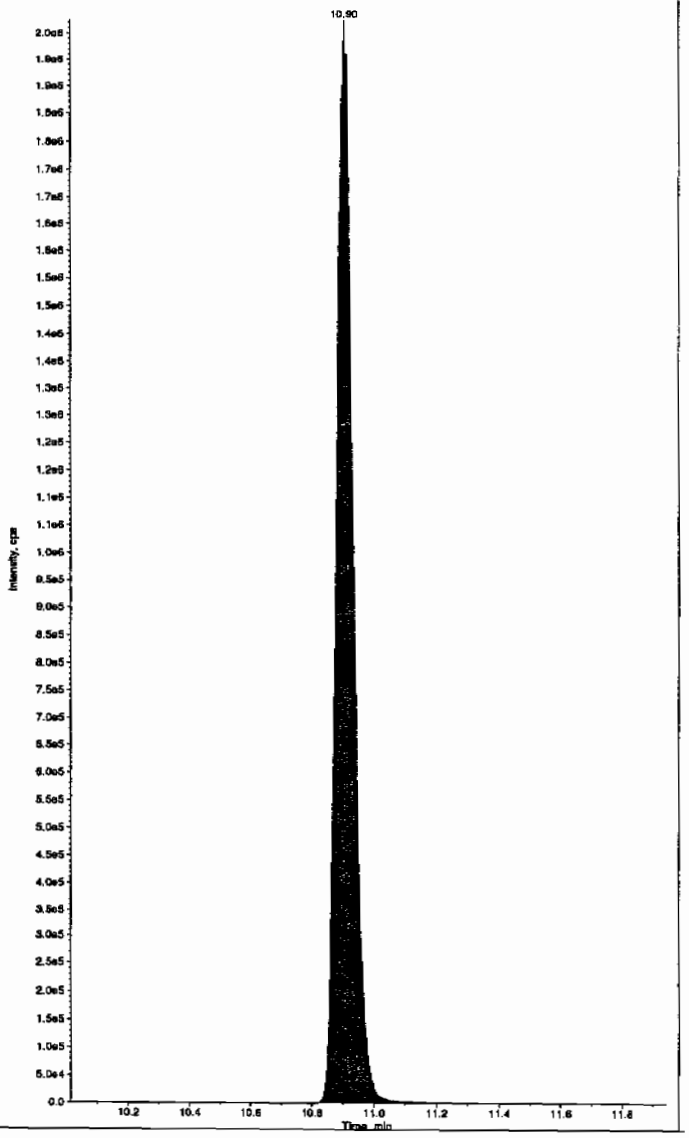

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164(246070001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 1202032880

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304119a

Date Analyzed: 07-MAR-10 01:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5430	
121-14-2	2,4-Dinitrotoluene	4520	
121-82-4	RDX	4610	
19406-51-0	4-Amino-2,6-dinitrotoluene	5830	
2691-41-0	HMX	3630	
35572-78-2	2-Amino-4,6-dinitrotoluene	6020	
479-45-8	Tetryl	3200	
606-20-2	2,6-Dinitrotoluene	4940	
78-11-5	PETN	5960	
88-72-2	o-Nitrotoluene	5210	
98-95-3	Nitrobenzene	5150	
99-08-1	m-Nitrotoluene	5340	
99-35-4	1,3,5-Trinitrobenzene	4410	
99-65-0	m-Dinitrobenzene	4510	
99-99-0	p-Nitrotoluene	5980	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

aset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

ne: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304119a
e: 07-Mar-2010
e: 01:17:46
1202032880
: 3:5,D

| LANU | 948890 | Soils | 246070001MS | 2 |

MAT 3/7/10

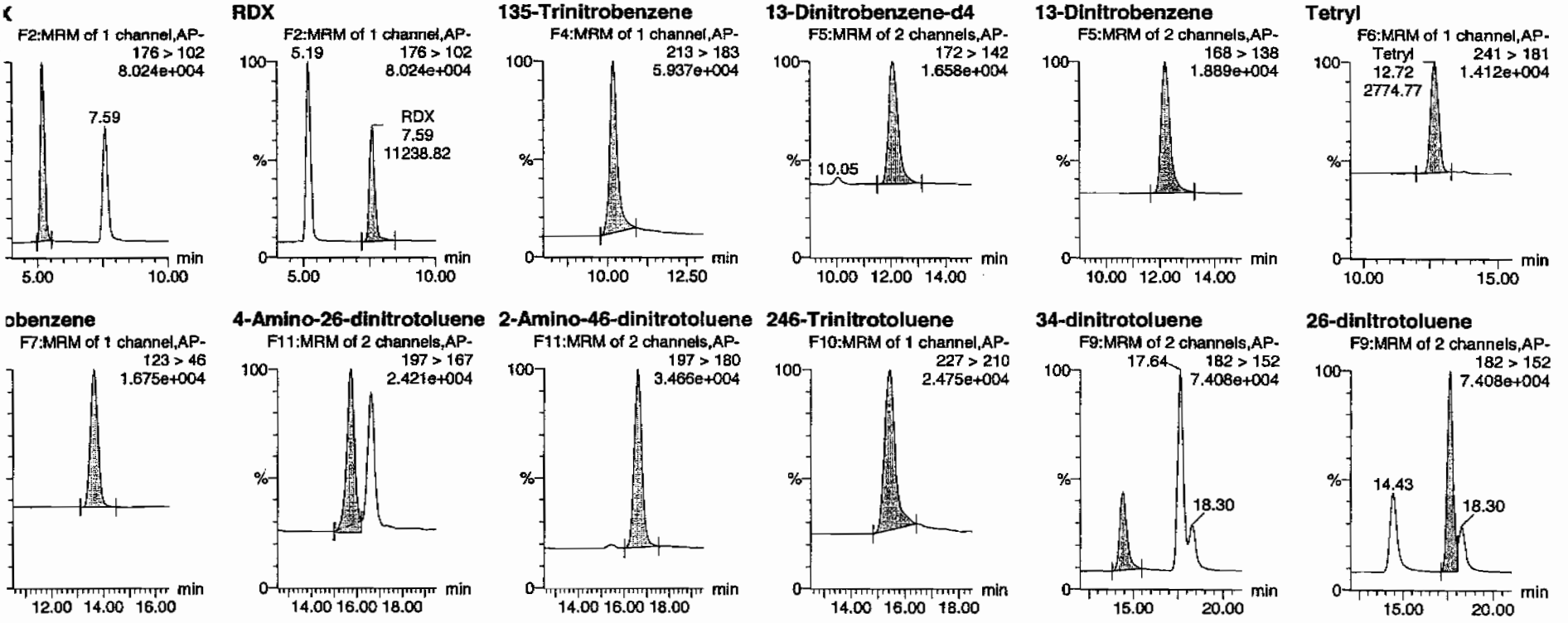

dhm 03/08/10

. SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ıset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

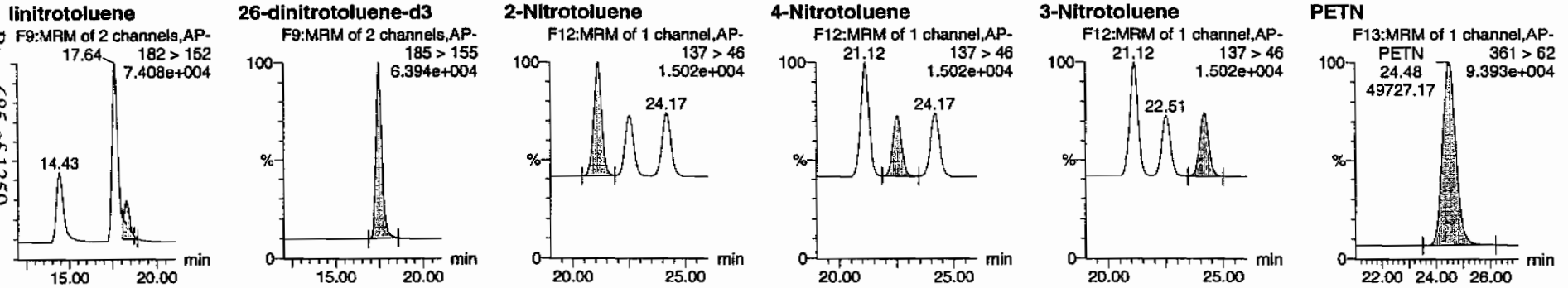

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
:032880	HMX	176 > 102	5.19	14428.250	4263.818	14428.250	1691.940	bb			362.7420	72.5	-27.5	2473.0
:032880	RDX	176 > 102	7.59	11238.823	4263.818	11238.823	1317.929	bb			460.5892	92.1	-7.9	1606.2
:032880	135-Trinitrobenzene	213 > 183	10.18	14644.967	4263.818	14644.967	1717.354	bb			441.0466	88.2	-11.8	867.1
:032880	13-Dinitrobenzene-d4	172 > 142	12.07	4263.818		4263.818	4263.818	bb			607.0721	121.4	21.4	460.0
:032880	13-Dinitrobenzene	168 > 138	12.20	4872.494	4263.818	4872.494	571.377	bb			451.1598	90.2	-9.8	319.0
:032880	Tetryl	241 > 181	12.72	2774.767	4263.818	2774.767	325.385	bb			319.7725	64.0	-36.0	168.3
:032880	Nitrobenzene	123 > 46	13.63	3623.514	4263.818	3623.514	424.914	bb			514.5898	102.9	2.9	483.4
:032880	4-Amino-26-dinitrotoluene	197 > 167	15.71	7402.268	23002.145	7402.268	160.904	MM	07-Mar-10	13:25:57	583.3496	116.7	16.7	345.1
:032880	2-Amino-46-dinitrotoluene	197 > 180	16.60	11215.135	23002.145	11215.135	243.785	bb			601.7848	120.4	20.4	1353.9
:032880	246-Trinitrotoluene	227 > 210	15.45	8202.574	23002.145	8202.574	178.300	bb			542.5938	108.5	8.5	171.2
:032880	34-dinitrotoluene	182 > 152	14.43	12574.409	23002.145	12574.409	273.331	bb			282.8149	113.1	13.1	739.8
032880	26-dinitrotoluene	182 > 152	17.64	25332.680	23002.145	25332.680	550.659	MM	07-Mar-10	13:28:47	493.6245	98.7	-1.3	1911.9
032880	24-dinitrotoluene	182 > 152	18.30	5728.673	23002.145	5728.673	124.525	MM	07-Mar-10	13:31:06	451.7537	90.4	-9.6	402.3
032880	26-dinitrotoluene-d3	185 > 155	17.47	23002.145		23002.145	23002.145	bb			559.3748	111.9	11.9	1551.7
032880	2-Nitrotoluene	137 > 46	21.12	3713.486	23002.145	3713.486	80.720	bb			521.1171	104.2	4.2	475.8
032880	4-Nitrotoluene	137 > 46	22.51	2099.182	23002.145	2099.182	45.630	bb			598.2402	119.6	19.6	255.5
032880	3-Nitrotoluene	137 > 46	24.17	2318.202	23002.145	2318.202	50.391	bb			534.0601	106.8	6.8	267.6
032880	PETN	361 > 62	24.48	49727.172	23002.145	49727.172	1080.925	bb			596.1753	119.2	19.2	8371.1

Page 685 of 1359

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164(246070001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 1202032880

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260096.wiff

Date Analyzed: 27-FEB-10 15:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	6190	
59229-75-3	2,6-Diamino-4-nitrotoluene	4410	
618-87-1	3,5-Dinitroaniline	4440	
6629-29-4	2,4-Diamino-6-nitrotoluene	4330	
78-30-8	tris(o-cresyl) phosphate	4900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 3/1/10

Name: "1202032880" Sample ID: "948890|2|LER" File: "EXS02260096.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCX83212S" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 619. ng/mL
te: 2/27/2010
me: 3:46:03 PM
d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 7.09 min
ative RT: No

pe: Valley
on Time: 7.04 min
7.40e+005 counts
183105.682 cps
ime: 6.94 min
e: 7.55 min

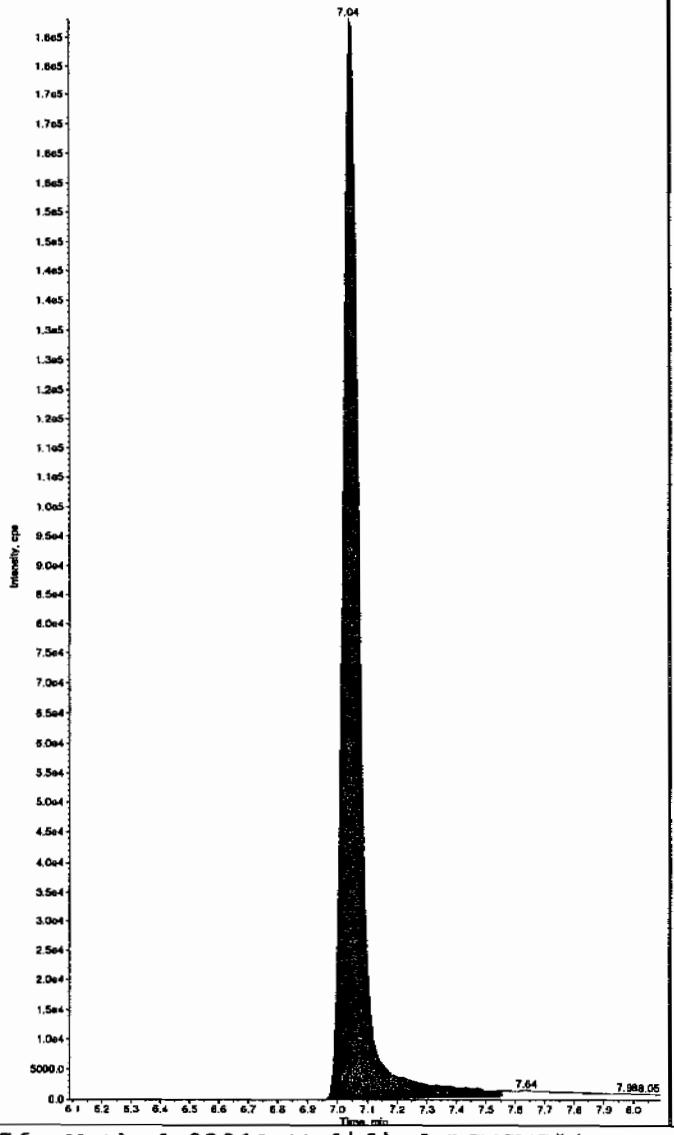

Sample Name: "1202032880" Sample ID: "948890|2|LER" File: "EXS02260096.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 444. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:46:03 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.28 min
Area: 4.10e+006 counts
Height: 1103287.598 cps
Start Time: 8.22 min
End Time: 8.38 min

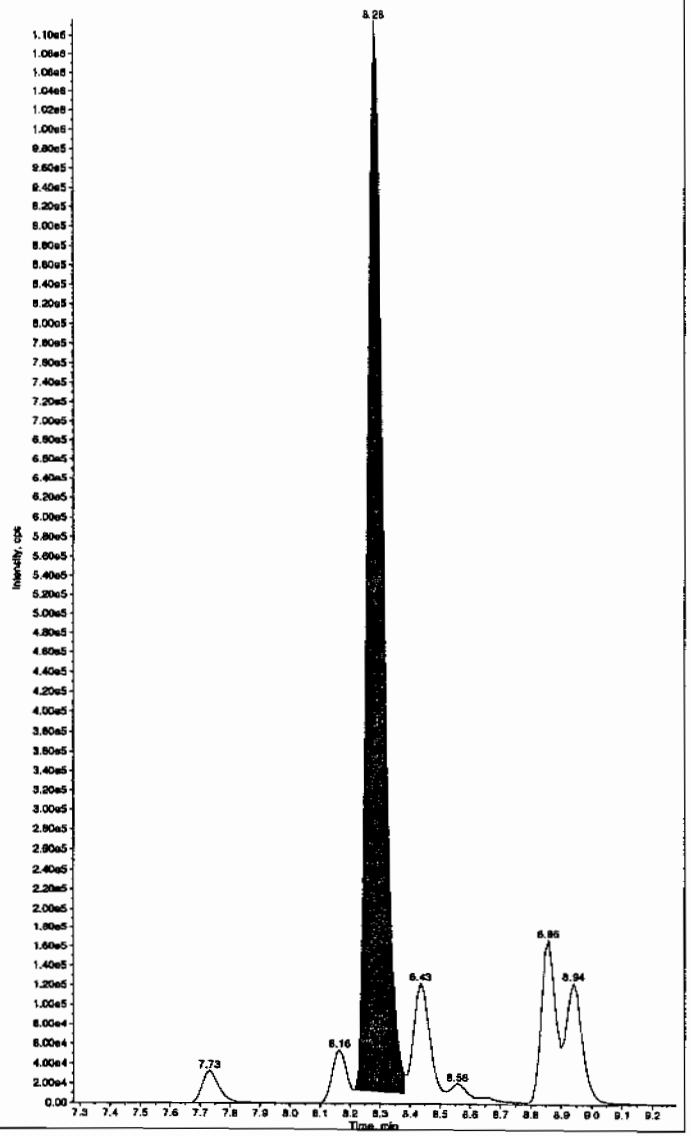

Hmm 03/01/10

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Name: "1202032880" Sample ID: "948890[2]LER" File: "EXS02260096.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCX83212S" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ted Conc: 231. ng/mL
te: 2/27/2010
me: 3:46:03 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1460.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 15.0 sec
d RT: 8.46 min
ative RT: No

pe: Valley
on Time: 8.43 min
3.20e+006 counts
936029.480 cps
ime: 8.36 min
e: 8.61 min

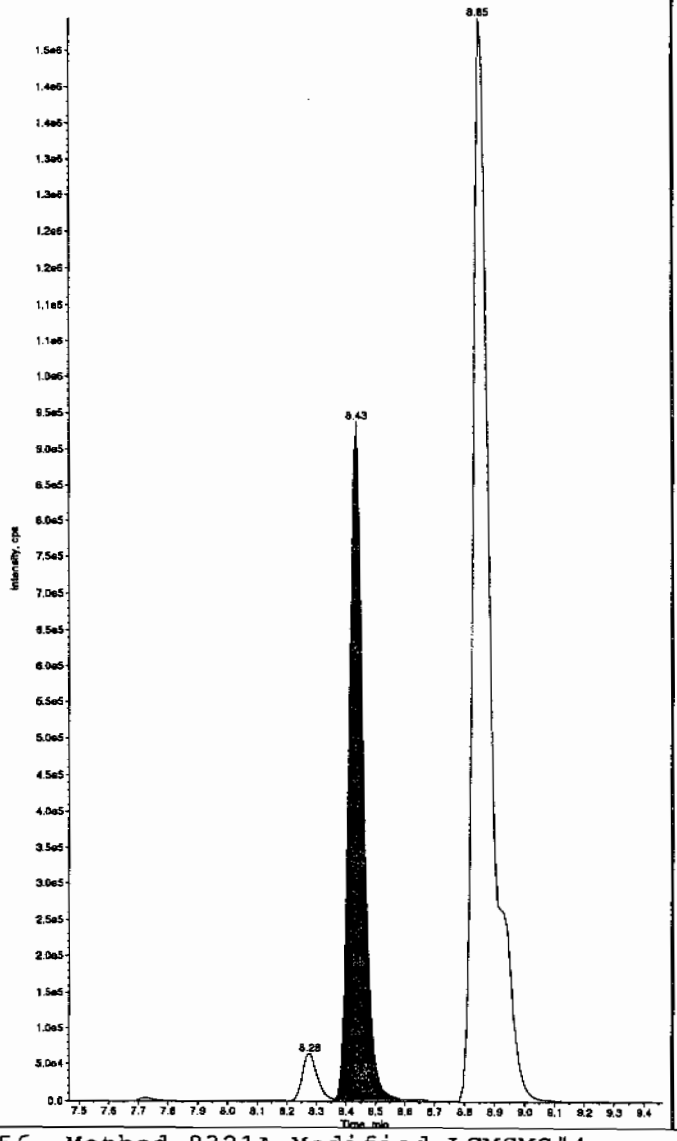

Sample Name: "1202032880" Sample ID: "948890[2]LER" File: "EXS02260096.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 441. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:46:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 9.72e+005 counts
Height: 234853.699 cps
Start Time: 4.99 min
End Time: 5.37 min

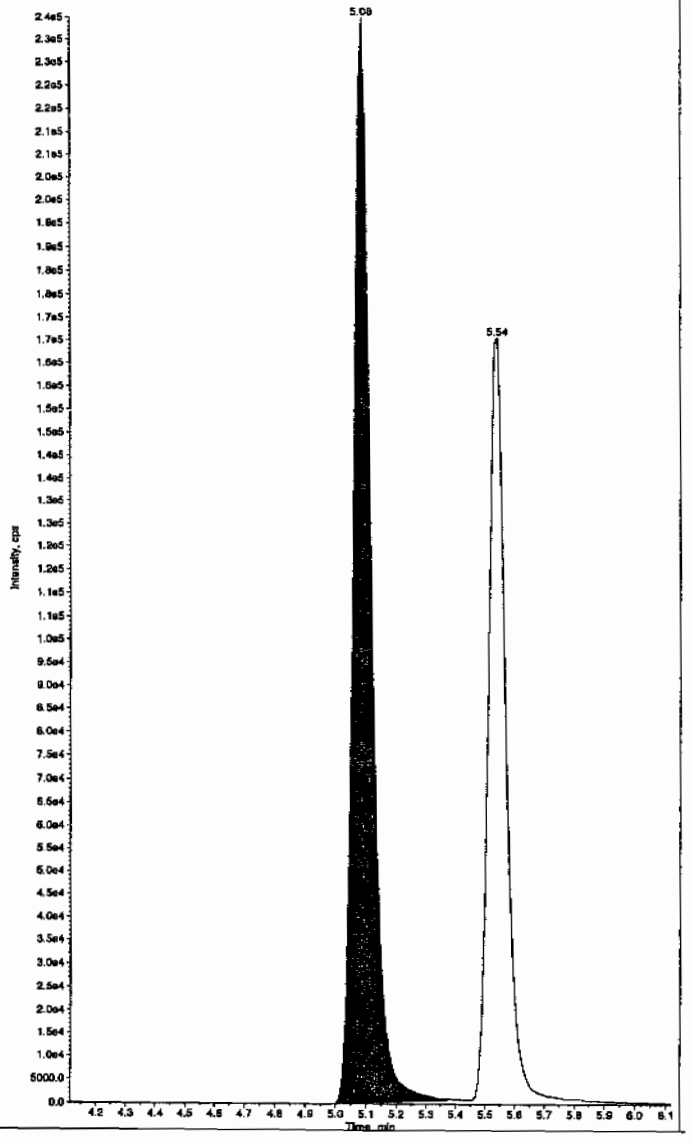

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Name: "1202032880" Sample ID: "948890|2|LER" File: "EXS02260096.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCX83212S" Annotation: ""

```
Index:          1
Type:       Unknown
:ration:      N/A
ated Conc:    433.     ng/mL
ate:        2/27/2010
ime:        3:46:03 PM

id:           No
Algorithm: IntelliQuan - IQA
eak Height: 350.00    cps
eak Width:    0.00    sec
ing Width:  3        points
dow:         30.0     sec
d RT:         5.57    min
lative RT:    No

ype:        Valley
ion Time:     5.54    min
        6.90e+005    counts
        165648.849   cps
Time:         5.45    min
e:            6.18    min
```

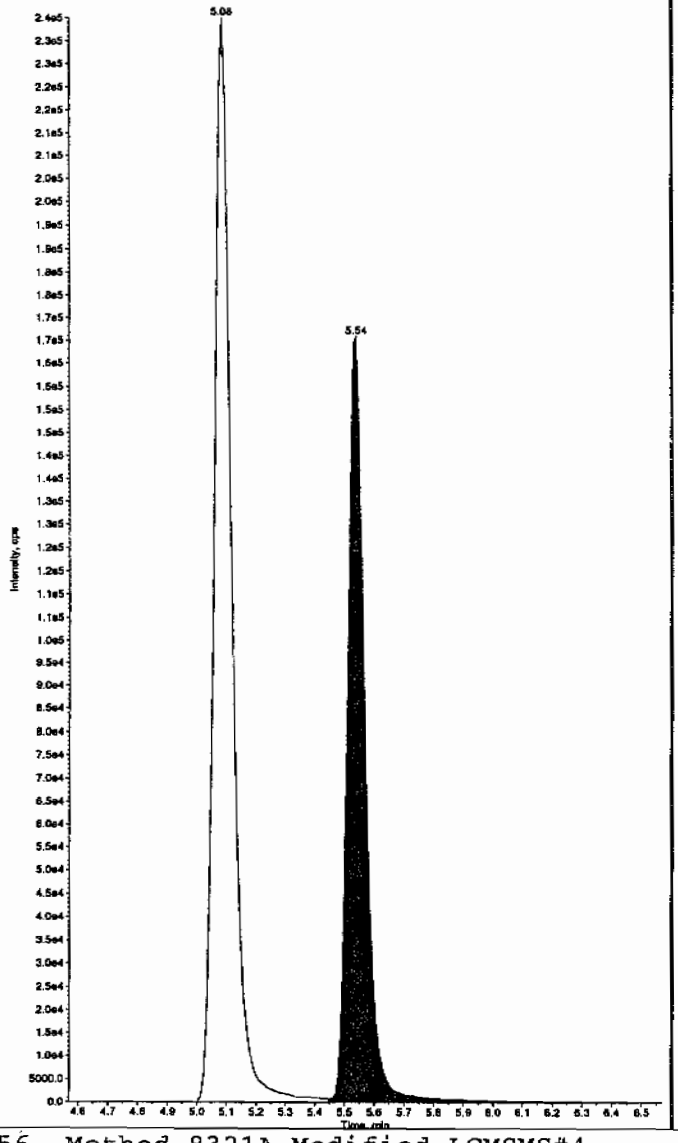

Sample Name: "1202032880" Sample ID: "948890|2|LER" File: "EXS02260096.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:          1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     490.     ng/mL
Acq. Date:         2/27/2010
Acq. Time:         3:46:03 PM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height: 8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:      10.9    min
Area:          7.57e+006    counts
Height:        1999126.587  cps
Start Time:          10.8    min
End Time:            11.2    min
```

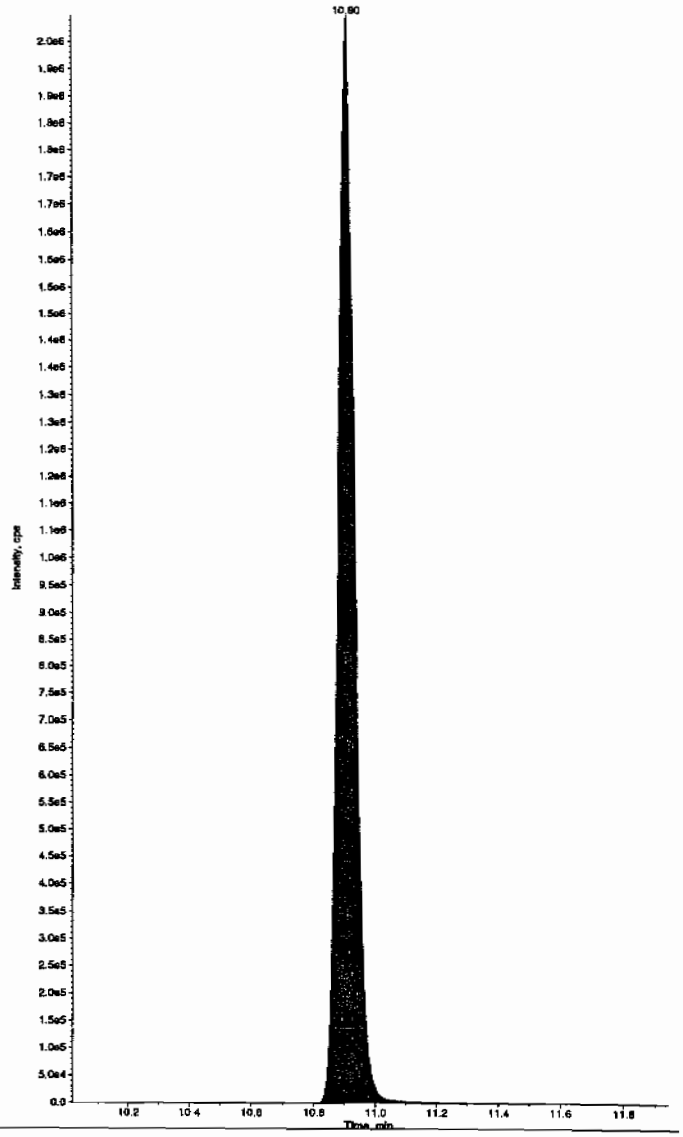

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164(246070001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 1202032881

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304120a

Date Analyzed: 07-MAR-10 01:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5070	
121-14-2	2,4-Dinitrotoluene	4690	
121-82-4	RDX	5220	
19406-51-0	4-Amino-2,6-dinitrotoluene	5580	
2691-41-0	HMX	4930	
35572-78-2	2-Amino-4,6-dinitrotoluene	5810	
479-45-8	Tetryl	3260	
606-20-2	2,6-Dinitrotoluene	4940	
78-11-5	PETN	7100	
88-72-2	o-Nitrotoluene	4870	
98-95-3	Nitrobenzene	4760	
99-08-1	m-Nitrotoluene	4780	
99-35-4	1,3,5-Trinitrobenzene	4520	
99-65-0	m-Dinitrobenzene	4810	
99-99-0	p-Nitrotoluene	5040	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

antify Sample Report
L Laboratories, LLC / Analyst : Michael A. Penny

:aset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

me: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304120a
te: 07-Mar-2010
ne: 01:47:15
1202032881
l: 3:5,E

| LANU | 948890 | Solid | 246070001MSD | 2 |

MM 3/7/10

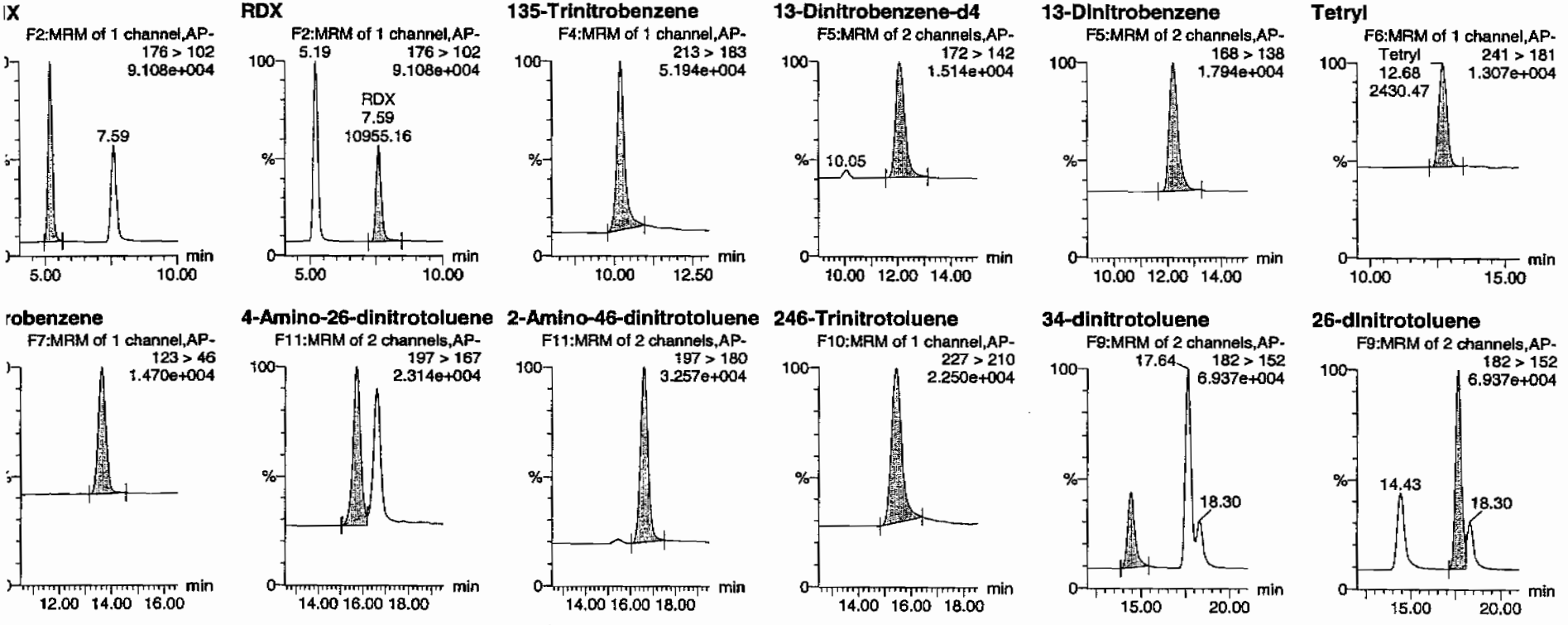

dmm 03/08/10

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ıntify Sample Report

_ Laboratories, LLC / Analyst : Michael A. Penny

aset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

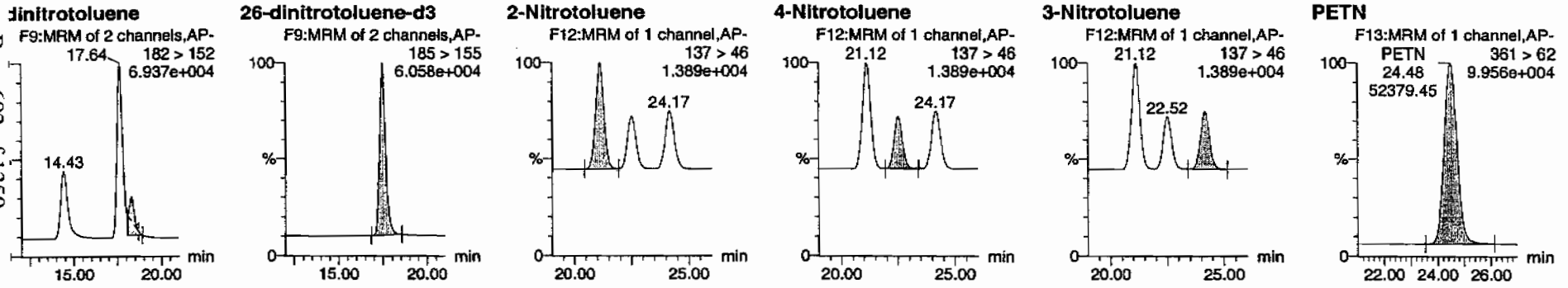

	Name	Trace	RT	Area	S/Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
2032881	HMX	176 > 102	5.19	16856.818	3667.472	16856.818	2298.152	bb			492.7103	98.5	-1.5	1314.4
2032881	RDX	176 > 102	7.59	10955.161	3667.472	10955.161	1493.558	bb			521.9676	104.4	4.4	710.3
2032881	135-Trinitrobenzene	213 > 183	10.20	12906.670	3667.472	12906.670	1759.614	bb			451.8998	90.4	-9.6	1455.7
2032881	13-Dinitrobenzene-d4	172 > 142	12.07	3667.472		3667.472	3667.472	bb			522.1658	104.4	4.4	733.5
2032881	13-Dinitrobenzene	168 > 138	12.20	4470.150	3667.472	4470.150	609.432	bb			481.2082	96.2	-3.8	614.5
2032881	Tetryl	241 > 181	12.68	2430.469	3667.472	2430.469	331.355	bb			325.6391	65.1	-34.9	199.9
2032881	Nitrobenzene	123 > 46	13.63	2884.912	3667.472	2884.912	393.311	bb			476.3165	95.3	-4.7	311.8
2032881	4-Amino-26-dinitrotoluene	197 > 167	15.74	6664.710	21644.033	6664.710	153.962	MM	07-Mar-10	13:26:06	558.1816	111.6	11.6	428.8
2032881	2-Amino-46-dinitrotoluene	197 > 180	16.63	10186.007	21644.033	10186.007	235.308	bb			580.8591	116.2	16.2	517.3
2032881	246-Trinitrotoluene	227 > 210	15.45	7214.057	21644.033	7214.057	166.652	bb			507.1476	101.4	1.4	390.6
2032881	34-dinitrotoluene	182 > 152	14.43	11385.287	21644.033	11385.287	263.012	bb			272.1378	108.9	8.9	336.4
2032881	26-dinitrotoluene	182 > 152	17.64	23842.777	21644.033	23842.777	550.793	MM	07-Mar-10	13:28:55	493.7448	98.7	-1.3	880.3
2032881	24-dinitrotoluene	182 > 152	18.30	5593.055	21644.033	5593.055	129.205	MM	07-Mar-10	13:30:52	468.7345	93.7	-6.3	195.0
2032881	26-dinitrotoluene-d3	185 > 155	17.47	21644.033		21644.033	21644.033	bb			526.3477	105.3	5.3	1187.5
2032881	2-Nitrotoluene	137 > 46	21.12	3264.738	21644.033	3264.738	75.419	bb			486.8913	97.4	-2.6	981.5
2032881	4-Nitrotoluene	137 > 46	22.52	1663.759	21644.033	1663.759	38.435	bb			503.9020	100.8	0.8	488.8
2032881	3-Nitrotoluene	137 > 46	24.17	1953.364	21644.033	1953.364	45.125	bb			478.2469	95.6	-4.4	540.2
2032881	PETN	361 > 62	24.48	52379.445	21644.033	52379.445	1210.020	bb			709.5413	141.9	41.9	4905.2

_ SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8164(246070001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1544

Matrix: SOIL

GEL Sample ID: 1202032881

Sample Amount 2

Moisture: 17.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948889

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260097.wiff

Date Analyzed: 27-FEB-10 16:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5200	
59229-75-3	2,6-Diamino-4-nitrotoluene	4400	
618-87-1	3,5-Dinitroaniline	4540	
6629-29-4	2,4-Diamino-6-nitrotoluene	4340	
78-30-8	tris(o-cresyl) phosphate	4910	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Lan 3/1/10

le Name: "1202032881" Sample ID: "948890[2]LER" File: "EXS02250097.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCX83212S" Annotation: ""

Index:	1	
Type:	Unknown	
tration:	N/A	
ated Conc:	520.	ng/mL
ate:	2/27/2010	
ime:	4:01:44 PM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	2500.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	7.09	min
lative RT:	No	
ype:	Valley	
ion Time:	7.05	min
	6.16e+005	counts
:	152987.427	cps
Time:	6.96	min
me:	7.63	min

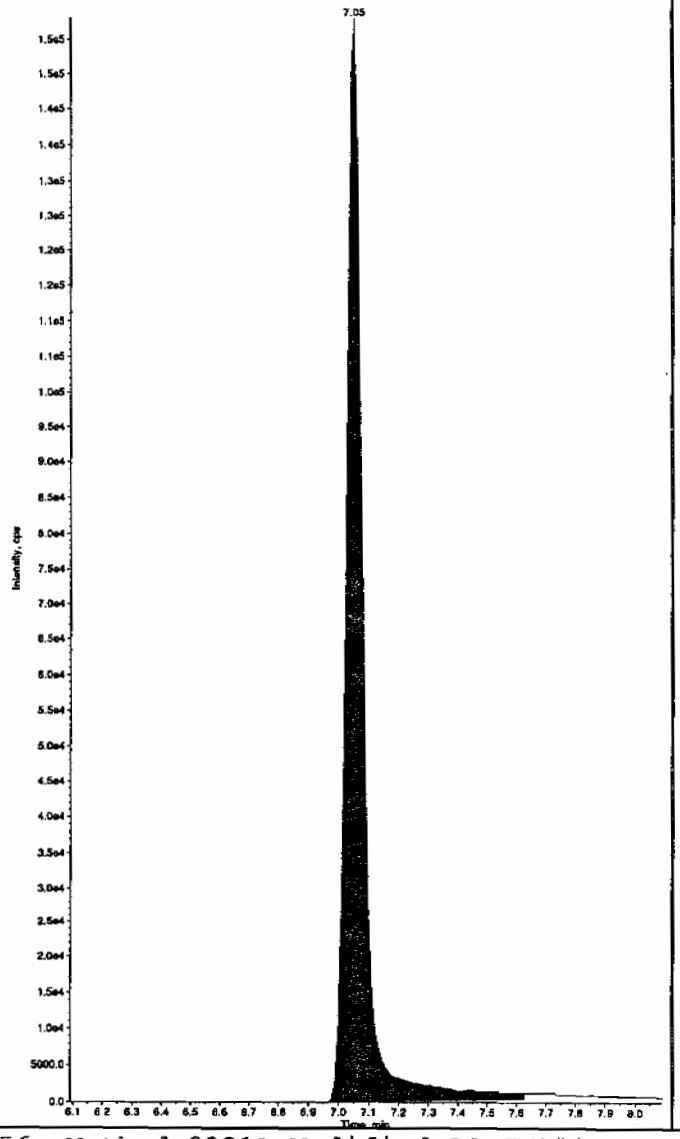

Sample Name: "1202032881" Sample ID: "948890[2]LER" File: "EXS02250097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	419.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	4:01:44 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.28	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.28	min
Area:	3.88e+006	counts
Height:	1062581.543	cps
Start Time:	8.21	min
End Time:	8.36	min

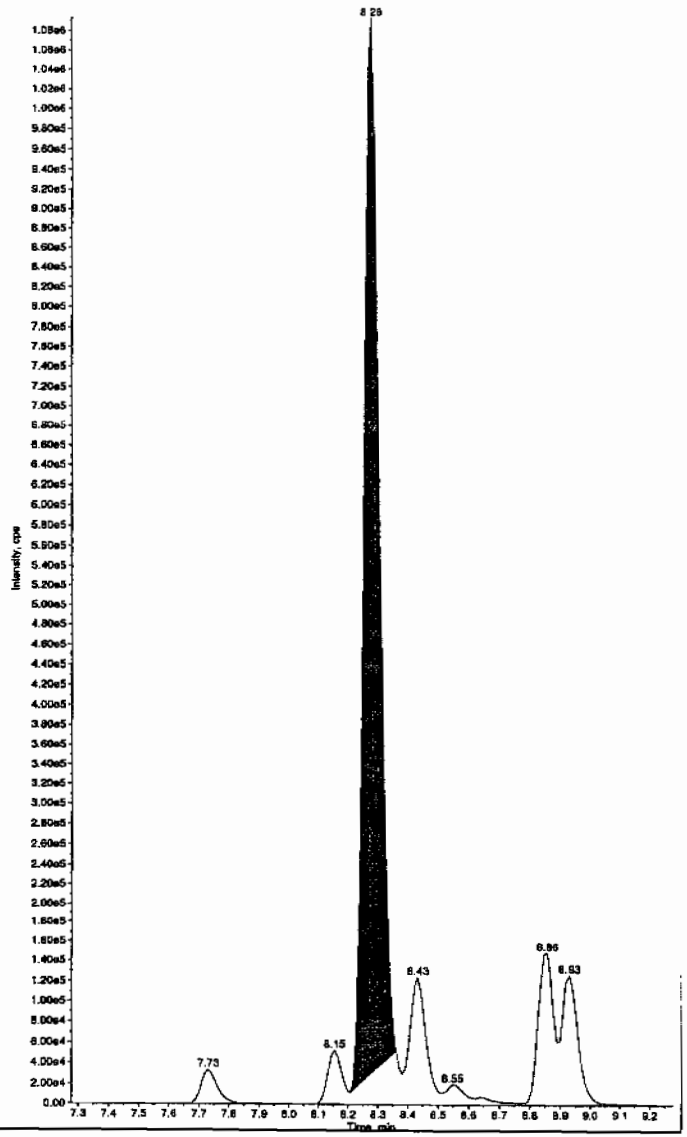

HMM 03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Seen 3/1/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "1202032861" Sample ID: "948890(2)LER" File: "EXS02260097.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCX83212S" Annotation: ""

Index:	1
Type:	Unknown
tration:	N/A
ated Conc:	520. ng/mL
ate:	2/27/2010
ime:	4:01:44 PM
ed:	No
Algorithm:	IntelliQuan - IQA
eak Height:	2500.00 cps
eak Width:	0.00 sec
ing Width:	3 points
dow:	30.0 sec
ed RT:	7.09 min
lative RT:	No
ype:	Valley
ion Time:	7.05 min
	6.16e+005 counts
:	152987.427 cps
rime:	6.96 min
me:	7.63 min

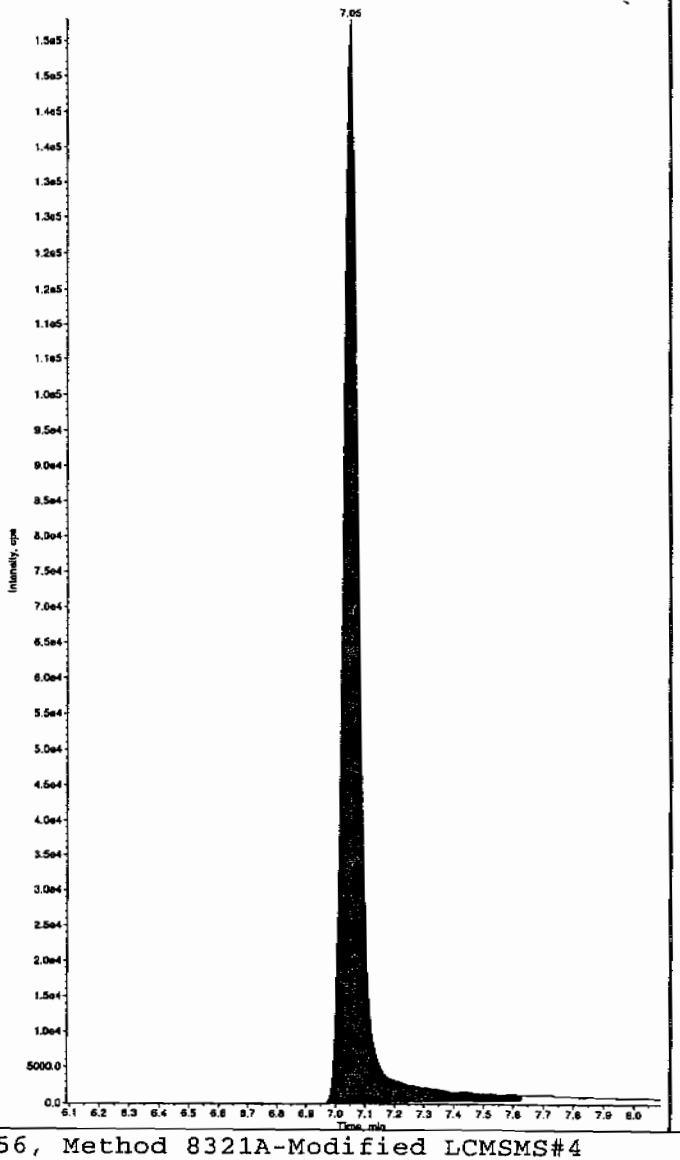

Sample Name: "1202032861" Sample ID: "948890(2)LER" File: "EXS02260097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	454. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	4:01:44 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.28 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.28 min
Area:	4.18e+006 counts
Height:	1093757.244 cps
Start Time:	8.21 min
End Time:	8.38 min

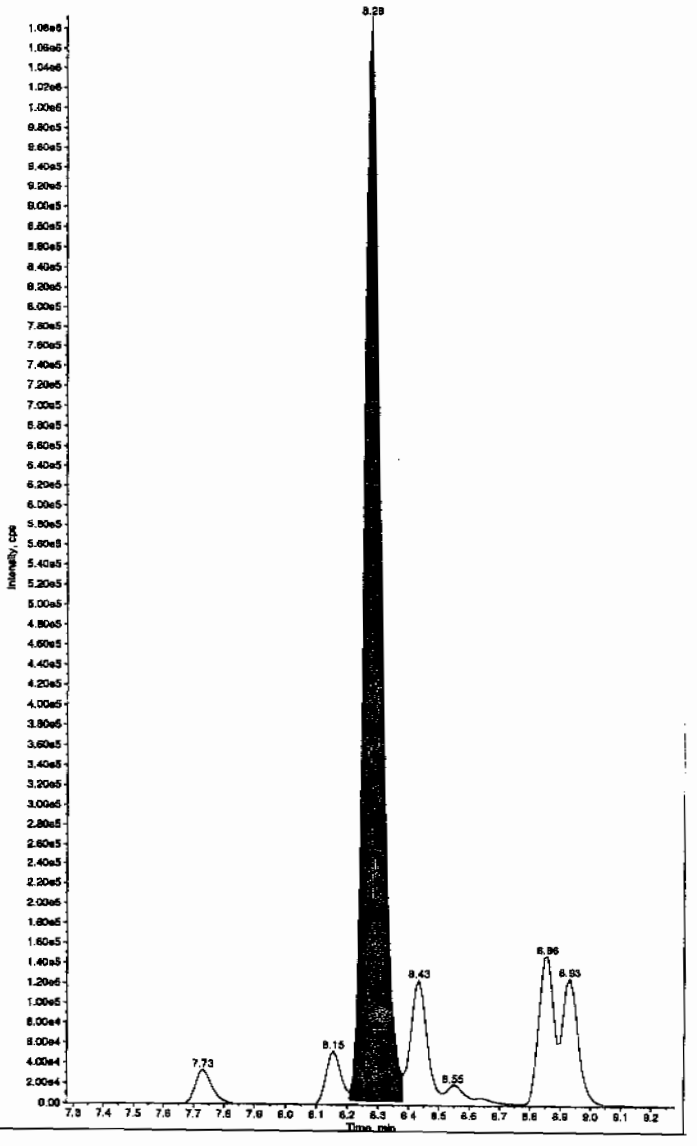

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le Name: "1202032881" Sample ID: "948890|2|LER" File: "EXS02260097.wlf"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCX83212S" Annotation: ""

: Index: 1
: Type: Unknown
ıtration: N/A
ated Conc: 234. ng/mL
ıate: 2/27/2010
'ime: 4:01:44 PM

ed: No
Algorithm: IntelliQuan - IQA
'eak Height:1460.00 cps
'eak Width: 0.00 sec
ing Width: 3 points
dow: 15.0 sec
ed RT: 8.46 min
lative RT: No

ype: Valley
ion Time: 8.42 min
3.23e+006 counts
: 934246.765 cps
Time: 8.35 min
me: 8.56 min

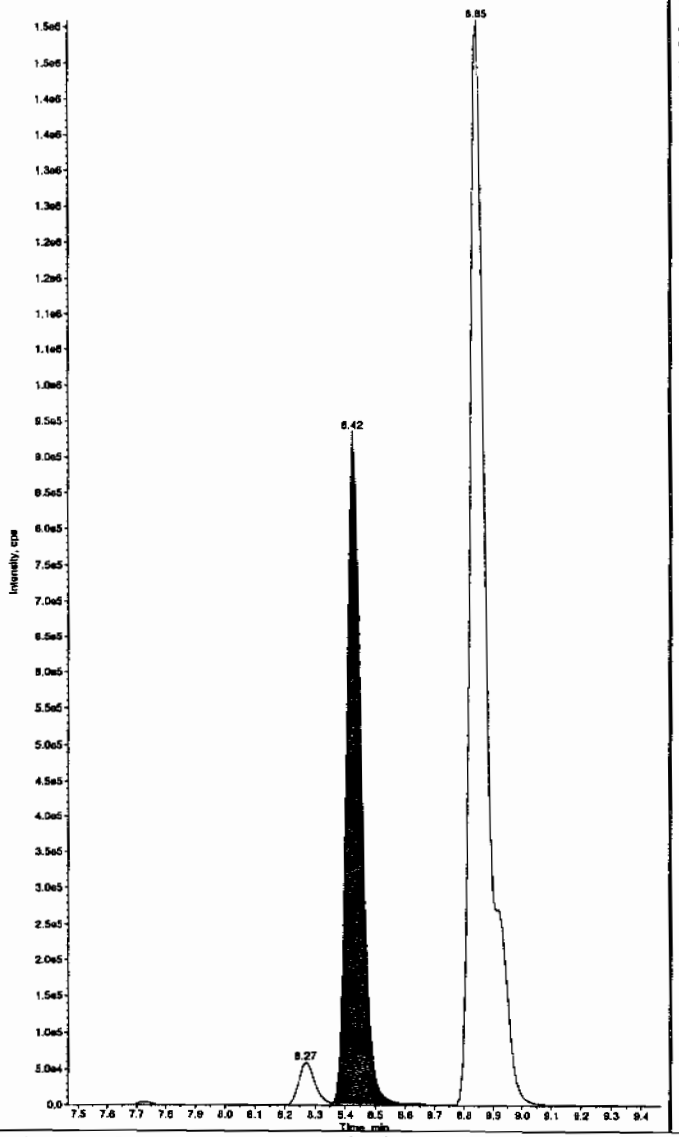

Sample Name: "1202032881" Sample ID: "948890|2|LER" File: "EXS02260097.wlf"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 440. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:01:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 9.70e+005 counts
Height: 222669.174 cps
Start Time: 4.99 min
End Time: 5.38 min

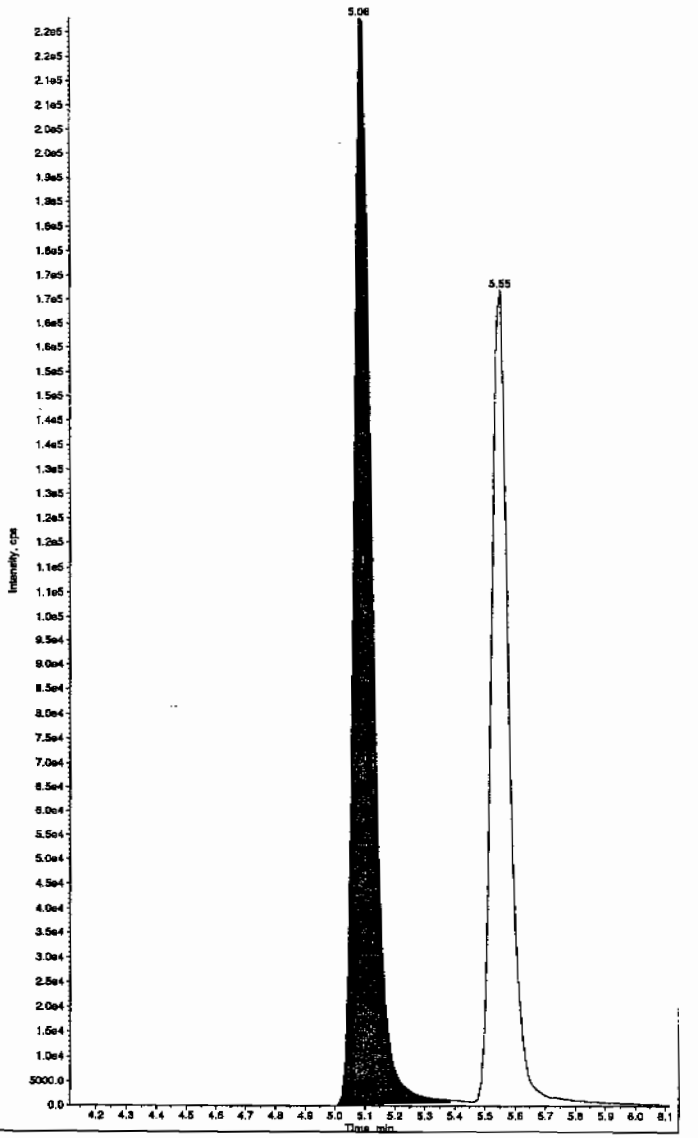

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ple Name: "1202032881" Sample ID: "948890(2)LER" File: "EXS02260097.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCX83212S" Annotation: ""

e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 434. ng/mL
Date: 2/27/2010
Time: 4:01:44 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ted RT: 5.57 min
elative RT: No

Type: Valley
tion Time: 5.55 min
6.92e+005 counts
: 166922.592 cps
Time: 5.46 min
me: 6.12 min

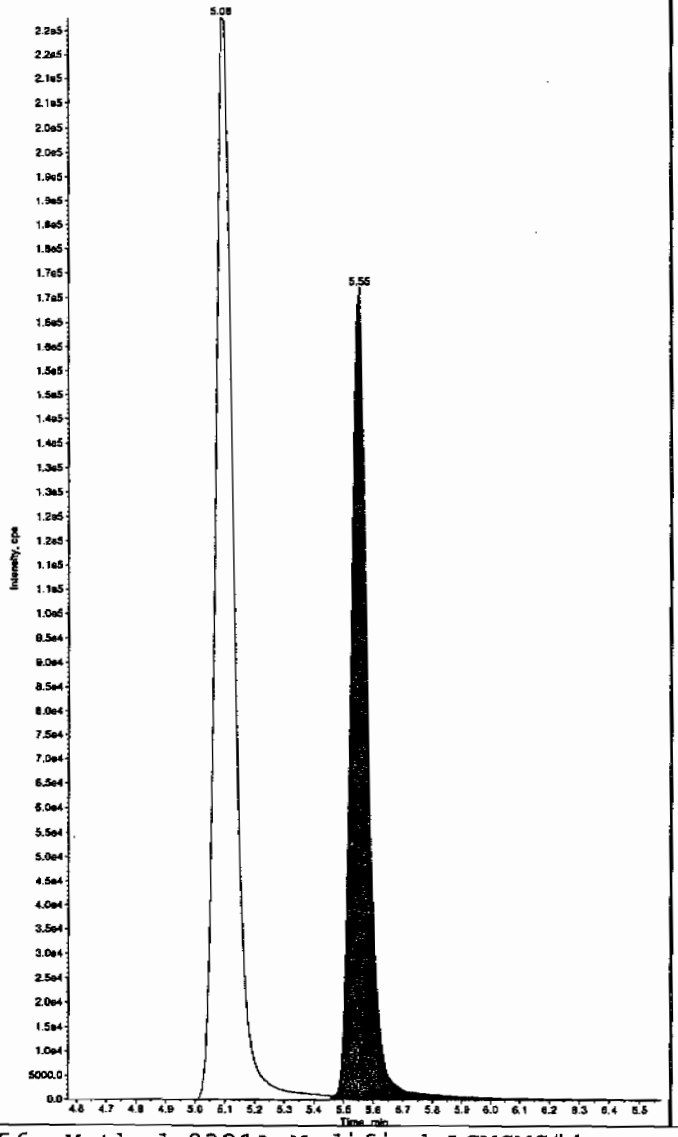

Sample Name: "1202032881" Sample ID: "948890(2)LER" File: "EXS02260097.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 491. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:01:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.60e+006 counts
Height: 2035612.915 cps
Start Time: 10.8 min
End Time: 11.2 min

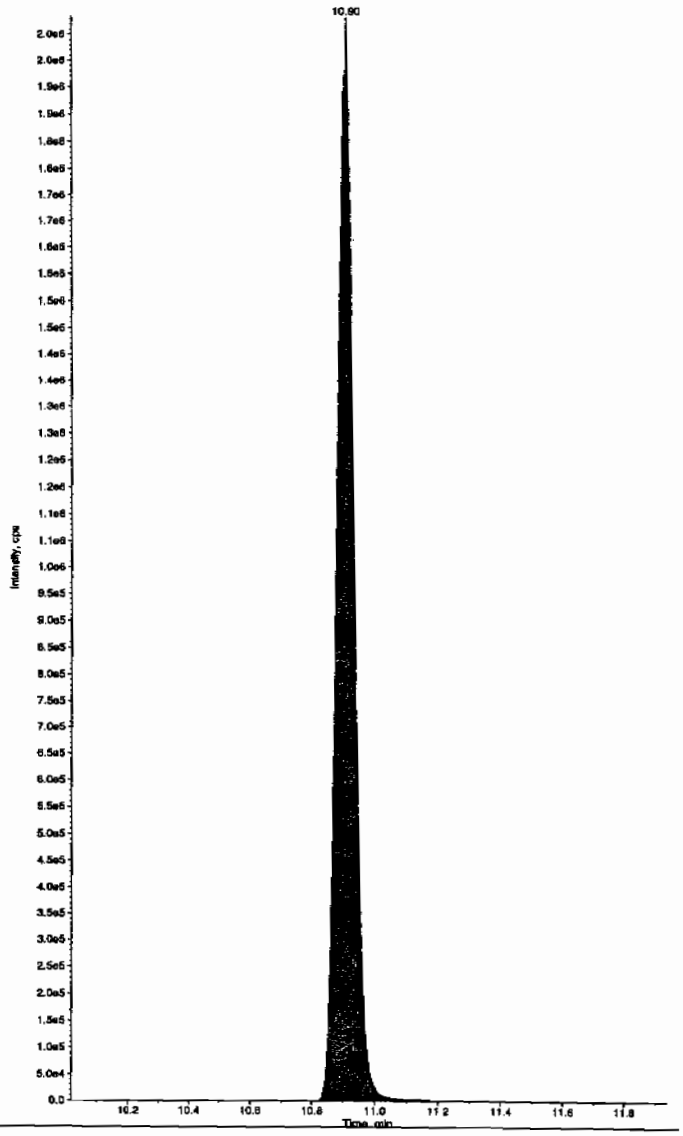

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 948889 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202032878 MB	10-FEB-2010 17:10:00	2	10	5
1202032879 LCS	10-FEB-2010 17:10:00	2	10	5
246070001	10-FEB-2010 17:10:00	2	10	5
1202032880 MS (246070001)	10-FEB-2010 17:10:00	2	10	5
1202032881 MSD (246070001)	10-FEB-2010 17:10:00	2	10	5
246070002	10-FEB-2010 17:10:00	2	10	5
246070003	10-FEB-2010 17:10:00	2	10	5
246070004	10-FEB-2010 17:10:00	2	10	5
246070005	10-FEB-2010 17:10:00	2	10	5
246070006	10-FEB-2010 17:10:00	2	10	5
246070007	10-FEB-2010 17:10:00	2	10	5
246070008	10-FEB-2010 17:10:00	2	10	5
246070009	10-FEB-2010 17:10:00	2	10	5
246070010	10-FEB-2010 17:10:00	2	10	5
246070011	10-FEB-2010 17:10:00	2	10	5
246070012	10-FEB-2010 17:10:00	2	10	5
246070013	10-FEB-2010 17:10:00	2	10	5
246070014	10-FEB-2010 17:10:00	2	10	5
246070015	10-FEB-2010 17:10:00	2	10	5
246070016	10-FEB-2010 17:10:00	2	10	5
246070017	10-FEB-2010 17:10:00	2	10	5
246070018	10-FEB-2010 17:10:00	2	10	5
246070019	10-FEB-2010 17:10:00	2	10	5
246070020	10-FEB-2010 17:10:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202032879	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202032879	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
MS	1202032880	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202032880	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
MSD	1202032881	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202032881	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100204-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date:03/04/10
Extr. Injection Volume: 50uL
Sequence Number: 030410expA
Initial Calibration Date: 03/04/10

Method: SW846 8321A-Modified
Int. Std.: UXX1000220-01
Mobile Phase Lot#: 1277087, 1268566
Standard-Samp Reagent Lot#: 1274562, 1271949

Reviewed BY: [illegible]
Date: 03/08/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100304-07& WXX100307-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0304001a	XIBLK01	MAP	3/4/10 15:16			1		USE	B
EXP0304002a	XIBLK01	MAP	3/4/10 15:46			1		USE	B
EXP0304003a	WXXICAL-01	MAP	3/4/10 16:15			1		USE	I
EXP0304004a	WXXICAL-02	MAP	3/4/10 16:45			1		USE	I
EXP0304005a	WXXICAL-03	MAP	3/4/10 17:14			1		USE	I
EXP0304006a	WXXICAL-04	MAP	3/4/10 17:44			1		USE	I
EXP0304007a	WXXICAL-05	MAP	3/4/10 18:13			1		USE	I
EXP0304008a	WXXICAL-06	MAP	3/4/10 18:43			1		USE	I
EXP0304009a	XIBLK02	MAP	3/4/10 19:12			1		USE	B
EXP0304010a	WXXICV	MAP	3/4/10 19:41			1		USE	C
EXP0304011a	XIBLK03	MAP	3/4/10 20:11			1		USE	B
EXP0304012a	WXXCRI	MAP	3/4/10 20:40			1		USE	C
EXP0304013a	1202038795	MAP	3/4/10 21:10	951357	Various	2	LANL	USE	S
EXP0304014a	1202038796	MAP	3/4/10 21:39	951357	Various	2	LANL	USE	S
EXP0304015a	246610001	MAP	3/4/10 22:09	951357	10-1701	2	LANL	USE	S
EXP0304016a	1202038797	MAP	3/4/10 22:38	951357	10-1701	2	LANL	USE	S
EXP0304017a	1202038798	MAP	3/4/10 23:08	951357	10-1701	2	LANL	DUSE-RA	S
EXP0304018a	246610002	MAP	3/4/10 23:37	951357	10-1701	2	LANL	USE	S
EXP0304019a	246610003	MAP	3/5/10 0:07	951357	10-1701	2	LANL	USE	S
EXP0304020a	246611001	MAP	3/5/10 0:36	951357	10-1702	2	LANL	USE	S
EXP0304021a	246611002	MAP	3/5/10 1:06	951357	10-1702	2	LANL	USE	S
EXP0304022a	246611003	MAP	3/5/10 1:35	951357	10-1702	2	LANL	USE	S
EXP0304023a	WXXCCV	MAP	3/5/10 2:05			1		USE	C
EXP0304024a	XIBLK04	MAP	3/5/10 2:34			1		USE	B
EXP0304025a	WXXCRI	MAP	3/5/10 3:04			1		USE	C
EXP0304026a	1202038789	MAP	3/5/10 3:33	951353	Various	2	LANL	USE	S
EXP0304027a	1202038790	MAP	3/5/10 4:03	951353	Various	2	LANL	USE	S
EXP0304028a	246588002	MAP	3/5/10 4:32	951353	10-1688	2	LANL	USE	S
EXP0304029a	1202038791	MAP	3/5/10 5:02	951353	10-1688	2	LANL	USE	S

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EXP0304030a	1202038792	MAP	3/5/10 5:31	951353	10-1688	2	LANL	USE	S
EXP0304031a	246588003	MAP	3/5/10 6:01	951353	10-1688	2	LANL	USE	S
EXP0304032a	246588004	MAP	3/5/10 6:30	951353	10-1688	2	LANL	USE	S
EXP0304033a	246588005	MAP	3/5/10 7:00	951353	10-1688	2	LANL	USE	S
EXP0304034a	246588006	MAP	3/5/10 7:29	951353	10-1688	2	LANL	USE	S
EXP0304035a	246588007	MAP	3/5/10 7:59	951353	10-1688	2	LANL	USE	S
EXP0304036a	WXXCCV	MAP	3/5/10 8:28			1		USE	C
EXP0304037a	XIBLK05	MAP	3/5/10 8:58			1		USE	B
EXP0304038a	WXXCRI	MAP	3/5/10 9:27			1		USE	C
EXP0304039a	246588008	MAP	3/5/10 9:57	951353	10-1688	2	LANL	USE	S
EXP0304040a	246588009	MAP	3/5/10 10:26	951353	10-1688	2	LANL	USE	S
EXP0304041a	246588010	MAP	3/5/10 10:56	951353	10-1688	2	LANL	USE	S
EXP0304042a	246588011	MAP	3/5/10 11:25	951353	10-1688	2	LANL	USE	S
EXP0304043a	246588012	MAP	3/5/10 11:55	951353	10-1688	2	LANL	USE	S
EXP0304044a	246605001	MAP	3/5/10 12:24	951353	10-1698-1	2	LANL	USE	S
EXP0304045a	246605002	MAP	3/5/10 12:54	951353	10-1698-1	2	LANL	USE	S
EXP0304046a	246605003	MAP	3/5/10 13:23	951353	10-1698-1	2	LANL	USE	S
EXP0304047a	246605004	MAP	3/5/10 13:53	951353	10-1698-1	2	LANL	USE	S
EXP0304048a	246605005	MAP	3/5/10 14:22	951353	10-1698-1	2	LANL	USE	S
EXP0304049a	WXXCCV	MAP	3/5/10 14:52			1	LANL	USE	C
EXP0304050a	XIBLK06	MAP	3/5/10 15:21			1	LANL	USE	B
EXP0304051a	WXXCRI	MAP	3/5/10 15:51			1	LANL	USE	C
EXP0304052a	246605006	MAP	3/5/10 16:20	951353	10-1698-1	2	LANL	USE	S
EXP0304053a	1202038798	MAP	3/5/10 16:50	951357	10-1701	2	LANL	USE	S
EXP0304054a	XIBLK07	MAP	3/5/10 17:19			1	LANL	USE	B
EXP0304055a	1202041901	MAP	3/5/10 17:49	952679	Various	2	LANL	USE	S
EXP0304056a	1202041902	MAP	3/5/10 18:18	952679	Various	2	LANL	USE	S
EXP0304057a	246721001	MAP	3/5/10 18:48	952679	10-1709	2	LANL	USE	S
EXP0304058a	1202041903	MAP	3/5/10 19:17	952679	10-1709	2	LANL	USE	S
EXP0304059a	1202041904	MAP	3/5/10 19:47	952679	10-1709	2	LANL	USE	S
EXP0304060a	246721002	MAP	3/5/10 20:16	952679	10-1709	2	LANL	USE	S
EXP0304061a	246837001	MAP	3/5/10 20:46	952679	10-1747	2	LANL	USE	S
EXP0304062a	246837002	MAP	3/5/10 21:15	952679	10-1747	2	LANL	USE	S
EXP0304063a	246837003	MAP	3/5/10 21:45	952679	10-1747	2	LANL	USE	S
EXP0304064a	WXXCCV	MAP	3/5/10 22:14			1		USE	C
EXP0304065a	XIBLK08	MAP	3/5/10 22:44			1		USE	B
EXP0304066a	WXXCRI	MAP	3/5/10 23:13			1		USE	C

EXP0304067a	246837004	MAP	3/5/10 23:43	952679	10-1747	2	LANL	USE	S
EXP0304068a	246837005	MAP	3/6/10 0:13	952679	10-1747	2	LANL	USE	S
EXP0304069a	246837006	MAP	3/6/10 0:42	952679	10-1747	2	LANL	USE	S
EXP0304070a	246841001	MAP	3/6/10 1:11	952679	10-1748	2	LANL	USE	S
EXP0304071a	246841002	MAP	3/6/10 1:41	952679	10-1748	2	LANL	USE	S
EXP0304072a	246841003	MAP	3/6/10 2:11	952679	10-1748	2	LANL	USE	S
EXP0304073a	246843002	MAP	3/6/10 2:40	952679	10-1749	2	LANL	USE	S
EXP0304074a	246843003	MAP	3/6/10 3:10	952679	10-1749	2	LANL	USE	S
EXP0304075a	246843004	MAP	3/6/10 3:39	952679	10-1749	2	LANL	USE	S
EXP0304076a	WXXCCV	MAP	3/6/10 4:08			1		USE	C
EXP0304077a	XIBLK09	MAP	3/6/10 4:38			1		USE	B
EXP0304078a	WXXCRI	MAP	3/6/10 5:08			1		USE	C
EXP0304079a	246846001	MAP	3/6/10 5:37	952679	10-1750	2	LANL	USE	S
EXP0304080a	246846002	MAP	3/6/10 6:07	952679	10-1750	2	LANL	USE	S
EXP0304081a	246847001	MAP	3/6/10 6:36	952679	10-1751	2	LANL	USE	S
EXP0304082a	246847002	MAP	3/6/10 7:06	952679	10-1751	2	LANL	USE	S
EXP0304083a	XIBLK10	MAP	3/6/10 7:35			1		USE	B
EXP0304084a	1202045764	MAP	3/6/10 8:05	954338	Various	2	LANL	USE	S
EXP0304085a	1202045765	MAP	3/6/10 8:34	954338	Various	2	LANL	USE	S
EXP0304086a	247083001	MAP	3/6/10 9:04	954338	10-1827	2	LANL	USE	S
EXP0304087a	1202045766	MAP	3/6/10 9:33	954338	10-1827	2	LANL	USE	S
EXP0304088a	1202045767	MAP	3/6/10 10:03	954338	10-1827	2	LANL	USE	S
EXP0304089a	WXXCCV	MAP	3/6/10 10:32			1		USE	C
EXP0304090a	XIBLK11	MAP	3/6/10 11:02			1		USE	B
EXP0304091a	WXXCRI	MAP	3/6/10 11:31			1		USE	C
EXP0304092a	247083002	MAP	3/6/10 12:01	954338	10-1827	2	LANL	USE	S
EXP0304093a	247083003	MAP	3/6/10 12:30	954338	10-1827	2	LANL	USE	S
EXP0304094a	247083004	MAP	3/6/10 13:00	954338	10-1827	2	LANL	USE	S
EXP0304095a	247084001	MAP	3/6/10 13:29	954338	10-1828	2	LANL	USE	S
EXP0304096a	247084002	MAP	3/6/10 13:59	954338	10-1828	2	LANL	USE	S
EXP0304097a	247086001	MAP	3/6/10 14:28	954338	10-1829	2	LANL	USE	S
EXP0304098a	247088001	MAP	3/6/10 14:58	954338	10-1830	2	LANL	USE	S
EXP0304099a	247088002	MAP	3/6/10 15:27	954338	10-1830	2	LANL	USE	S
EXP0304100a	247088003	MAP	3/6/10 15:57	954338	10-1830	2	LANL	USE	S
EXP0304101a	WXXCCV	MAP	3/6/10 16:26			1		USE	C
EXP0304102a	XIBLK12	MAP	3/6/10 16:56			1		USE	B
EXP0304103a	WXXCRI	MAP	3/6/10 17:25			1		USE	C

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EXP0304104a	247091001	MAP	3/6/10 17:55	954338	10-1831	2	LANL	USE	S
EXP0304105a	247091002	MAP	3/6/10 18:24	954338	10-1831	2	LANL	USE	S
EXP0304106a	247094001	MAP	3/6/10 18:54	954338	10-1832	2	LANL	USE	S
EXP0304107a	247094002	MAP	3/6/10 19:23	954338	10-1832	2	LANL	USE	S
EXP0304108a	247121002	MAP	3/6/10 19:53	954338	10-1846	2	LANL	USE	S
EXP0304109a	247123001	MAP	3/6/10 20:22	954338	10-1848	2	LANL	USE	S
EXP0304110a	247123002	MAP	3/6/10 20:52	954338	10-1848	2	LANL	USE	S
EXP0304111a	247123003	MAP	3/6/10 21:21	954338	10-1848	2	LANL	USE	S
EXP0304112a	247123004	MAP	3/6/10 21:51	954338	10-1848	2	LANL	USE	S
EXP0304113a	WXXCCV	MAP	3/6/10 22:20			1		USE	C
EXP0304114a	XIBLK13	MAP	3/6/10 22:50			1		USE	B
EXP0304115a	WXXCRI	MAP	3/6/10 23:19			1		USE	C
EXP0304116a	1202032878	MAP	3/6/10 23:49	948890	10-1544	2	LANL	USE	S
EXP0304117a	1202032879	MAP	3/7/10 0:18	948890	10-1544	2	LANL	USE	S
EXP0304118a	246070001	MAP	3/7/10 0:48	948890	10-1544	2	LANL	USE	S
EXP0304119a	1202032880	MAP	3/7/10 1:17	948890	10-1544	2	LANL	USE	S
EXP0304120a	1202032881	MAP	3/7/10 1:47	948890	10-1544	2	LANL	USE	S
EXP0304121a	246070002	MAP	3/7/10 2:16	948890	10-1544	2	LANL	USE	S
EXP0304122a	246070003	MAP	3/7/10 2:46	948890	10-1544	2	LANL	USE	S
EXP0304123a	246070004	MAP	3/7/10 3:15	948890	10-1544	2	LANL	USE	S
EXP0304124a	246070005	MAP	3/7/10 3:45	948890	10-1544	2	LANL	USE	S
EXP0304125a	246070006	MAP	3/7/10 4:14	948890	10-1544	2	LANL	USE	S
EXP0304126a	WXXCCV	MAP	3/7/10 4:44			1		USE	C
EXP0304127a	XIBLK14	MAP	3/7/10 5:13			1		USE	B
EXP0304128a	WXXCRI	MAP	3/7/10 5:43			1		USE	C
EXP0304129a	246070007	MAP	3/7/10 6:12	948890	10-1544	2	LANL	USE	S
EXP0304130a	246070008	MAP	3/7/10 6:42	948890	10-1544	2	LANL	USE	S
EXP0304131a	246070009	MAP	3/7/10 7:11	948890	10-1544	2	LANL	USE	S
EXP0304132a	246070010	MAP	3/7/10 7:41	948890	10-1544	2	LANL	USE	S
EXP0304133a	246070011	MAP	3/7/10 8:10	948890	10-1544	2	LANL	USE	S
EXP0304134a	246070012	MAP	3/7/10 8:40	948890	10-1544	2	LANL	USE	S
EXP0304135a	246070013	MAP	3/7/10 9:09	948890	10-1544	2	LANL	USE	S
EXP0304136a	246070014	MAP	3/7/10 9:39	948890	10-1544	2	LANL	USE	S
EXP0304137a	246070015	MAP	3/7/10 10:08	948890	10-1544	2	LANL	USE	S
EXP0304138a	246070016	MAP	3/7/10 10:38	948890	10-1544	2	LANL	USE	S
EXP0304139a	WXXCCV	MAP	3/7/10 11:07			1		USE	C
EXP0304140a	XIBLK15	MAP	3/7/10 11:37			1		USE	B

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EXP0304141a	WXXCRI	MAP	3/7/10 12:06			1		USE	C
EXP0304142a	246070017	MAP	3/7/10 12:36	948890	10-1544	2	LANL	USE	S
EXP0304143a	246070018	MAP	3/7/10 13:05	948890	10-1544	2	LANL	USE	S
EXP0304144a	246070019	MAP	3/7/10 13:35	948890	10-1544	2	LANL	USE	S
EXP0304145a	246070020	MAP	3/7/10 14:05	948890	10-1544	2	LANL	USE	S
EXP0304146a	WXXCCV	MAP	3/7/10 14:34			1		USE	C
EXP0304147a	XIBLK16	MAP	3/7/10 15:04			1		USE	B
EXP0304148a	WXXCRI	MAP	3/7/10 15:33			1		USE	C
EXP0304149a	1202032874	MAP	3/7/10 16:03	948888	10-1543	2	LANL	USE	S
EXP0304150a	1202032875	MAP	3/7/10 16:32	948888	10-1543	2	LANL	USE	S
EXP0304151a	246066001	MAP	3/7/10 17:02	948888	10-1543	2	LANL	USE	S
EXP0304152a	1202032876	MAP	3/7/10 17:31	948888	10-1543	2	LANL	USE	S
EXP0304153a	1202032877	MAP	3/7/10 18:01	948888	10-1543	2	LANL	USE	S
EXP0304154a	246066002	MAP	3/7/10 18:30	948888	10-1543	2	LANL	USE	S
EXP0304155a	246066003	MAP	3/7/10 19:00	948888	10-1543	2	LANL	USE	S
EXP0304156a	246066004	MAP	3/7/10 19:29	948888	10-1543	2	LANL	USE	S
EXP0304157a	246066005	MAP	3/7/10 19:59	948888	10-1543	2	LANL	USE	S
EXP0304158a	246066006	MAP	3/7/10 20:28	948888	10-1543	2	LANL	USE	S
EXP0304159a	WXXCCV	MAP	3/7/10 20:58			1		USE	C
EXP0304160a	XIBLK17	MAP	3/7/10 21:27			1		USE	B
EXP0304161a	WXXCRI	MAP	3/7/10 21:57			1		USE	C
EXP0304162a	246066007	MAP	3/7/10 22:26	948888	10-1543	2	LANL	USE	S
EXP0304163a	246066008	MAP	3/7/10 22:56	948888	10-1543	2	LANL	USE	S
EXP0304164a	246066009	MAP	3/7/10 23:25	948888	10-1543	2	LANL	USE	S
EXP0304165a	246066010	MAP	3/7/10 23:55	948888	10-1543	2	LANL	USE	S
EXP0304166a	246066011	MAP	3/8/10 0:24	948888	10-1543	2	LANL	USE	S
EXP0304167a	246066012	MAP	3/8/10 0:53	948888	10-1543	2	LANL	USE	S
EXP0304168a	246066013	MAP	3/8/10 1:23	948888	10-1543	2	LANL	USE	S
EXP0304169a	246066014	MAP	3/8/10 1:52	948888	10-1543	2	LANL	USE	S
EXP0304170a	246066015	MAP	3/8/10 2:22	948888	10-1543	2	LANL	USE	S
EXP0304171a	246066016	MAP	3/8/10 2:51	948888	10-1543	2	LANL	USE	S
EXP0304172a	WXXCCV	MAP	3/8/10 3:21			1		USE	C
EXP0304173a	XIBLK18	MAP	3/8/10 3:50			1		USE	B
EXP0304174a	WXXCRI	MAP	3/8/10 4:20			1		USE	C
EXP0304175a	246066017	MAP	3/8/10 4:49	948888	10-1543	2	LANL	USE	S
EXP0304176a	246066018	MAP	3/8/10 5:19	948888	10-1543	2	LANL	USE	S
EXP0304177a	246066019	MAP	3/8/10 5:48	948888	10-1543	2	LANL	USE	S

EXP0304178a	246066020	MAP	3/8/10 6:18	948888	10-1543	2	LANL	USE	S
EXP0304179a	XIBLK19	MAP	3/8/10 6:47			1		USE	B
EXP0304180a	1202032884	MAP	3/8/10 7:17	948893	10-1545	2	LANL	USE	S
EXP0304181a	1202032885	MAP	3/8/10 7:47	948893	10-1545	2	LANL	USE	S
EXP0304182a	246055001	MAP	3/8/10 8:16	948893	10-1545	2	LANL	USE	S
EXP0304183a	1202032886	MAP	3/8/10 8:46	948893	10-1545	2	LANL	USE	S
EXP0304184a	1202032887	MAP	3/8/10 9:15	948893	10-1545	2	LANL	USE	S
EXP0304185a	WXXCCV	MAP	3/8/10 9:45			1		USE	C
EXP0304186a	XIBLK20	MAP	3/8/10 10:14			1		USE	B
EXP0304187a	WXXCRI	MAP	3/8/10 10:44			1		USE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 02/26/10 Method: 8321A-Modified Reviewed By: Hmc
Extr. Injection Volume: 10uL Int. Std.: N/A Date: 03/01/10
Sequence Number: 022610exs Mobile Phase Lot#:1268566, 1268568 SOP: GL-OA-E-056 Rev.12
Initial Calibration Date: 022610 Standard-Samp Reagent Lot# :1274562, 1261217 Alt Check Std. ID: WXX100226-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02260001.wiff	XIBLK01	LER	2/26/2010 14:53			1		USE	B
EXS02260002.wiff	XIBLK01	LER	2/26/2010 15:09			1		USE	B
EXS02260003.wiff	WXXICAL-19	LER	2/26/2010 15:25			1		USE	I
EXS02260004.wiff	WXXICAL-20	LER	2/26/2010 15:41			1		USE	I
EXS02260005.wiff	WXXICAL-21	LER	2/26/2010 15:56			1		USE	I
EXS02260006.wiff	WXXICAL-22	LER	2/26/2010 16:12			1		USE	I
EXS02260007.wiff	WXXICAL-23	LER	2/26/2010 16:28			1		USE	I
EXS02260008.wiff	WXXICAL-24	LER	2/26/2010 16:43			1		USE	I
EXS02260009.wiff	WXXICAL-25	LER	2/26/2010 16:59			1		USE	I
EXS02260010.wiff	XIBLK02	LER	2/26/2010 17:15			1		USE	B
EXS02260011.wiff	WXXICV	LER	2/26/2010 17:31			1		USE	C
EXS02260012.wiff	XIBLK03	LER	2/26/2010 17:46			1		USE	B
EXS02260013.wiff	WXXCRI	LER	2/26/2010 18:02			1		USE	C
EXS02260014.wiff	246837005	LER	2/26/2010 18:18	952679	10-1747	2	LANL	USE	S
EXS02260015.wiff	246837006	LER	2/26/2010 18:33	952679	10-1747	2	LANL	USE	S
EXS02260016.wiff	246841001	LER	2/26/2010 18:49	952679	10-1748	2	LANL	USE	S
EXS02260017.wiff	246841002	LER	2/26/2010 19:05	952679	10-1748	2	LANL	USE	S
EXS02260018.wiff	246841003	LER	2/26/2010 19:21	952679	10-1748	2	LANL	USE	S
EXS02260019.wiff	246843002	LER	2/26/2010 19:36	952679	10-1749	2	LANL	USE	S
EXS02260020.wiff	246843003	LER	2/26/2010 19:52	952679	10-1749	2	LANL	USE	S
EXS02260021.wiff	246843004	LER	2/26/2010 20:08	952679	10-1749	2	LANL	USE	S
EXS02260022.wiff	246846001	LER	2/26/2010 20:23	952679	10-1750	2	LANL	USE	S
EXS02260023.wiff	246846002	LER	2/26/2010 20:39	952679	10-1750	2	LANL	USE	S
EXS02260024.wiff	WXXCCV	LER	2/26/2010 20:55			1		USE	C
EXS02260025.wiff	XIBLK04	LER	2/26/2010 21:10			1		USE	B
EXS02260026.wiff	WXXCRI	LER	2/26/2010 21:26			1		USE	C
EXS02260027.wiff	246847001	LER	2/26/2010 21:42	952679	10-1751	2	LANL	USE	S
EXS02260028.wiff	246847002	LER	2/26/2010 21:58	952679	10-1751	2	LANL	USE	S
EXS02260029.wiff	XIBLK05	LER	2/26/2010 22:13			1		USE	B
EXS02260030.wiff	1202032874	LER	2/26/2010 22:29	948888	10-1543	2	LANL	USE	S

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EXS02260031.wiff	1202032875	LER	2/26/2010 22:45	948888	10-1543	2	LANL	USE	S
EXS02260032.wiff	246066001	LER	2/26/2010 23:01	948888	10-1543	2	LANL	USE	S
EXS02260033.wiff	1202032876	LER	2/26/2010 23:16	948888	10-1543	2	LANL	USE	S
EXS02260034.wiff	1202032877	LER	2/26/2010 23:32	948888	10-1543	2	LANL	USE	S
EXS02260035.wiff	246066002	LER	2/26/2010 23:48	948888	10-1543	2	LANL	USE	S
EXS02260036.wiff	246066003	LER	2/27/2010 0:03	948888	10-1543	2	LANL	USE	S
EXS02260037.wiff	WXXCCV	LER	2/27/2010 0:19			1		USE	C
EXS02260038.wiff	XIBLK06	LER	2/27/2010 0:35			1		USE	B
EXS02260039.wiff	WXXCRI	LER	2/27/2010 0:51			1		USE	C
EXS02260040.wiff	246066004	LER	2/27/2010 1:06	948888	10-1543	2	LANL	USE	S
EXS02260041.wiff	246066005	LER	2/27/2010 1:22	948888	10-1543	2	LANL	USE	S
EXS02260042.wiff	246066006	LER	2/27/2010 1:38	948888	10-1543	2	LANL	USE	S
EXS02260043.wiff	246066007	LER	2/27/2010 1:53	948888	10-1543	2	LANL	USE	S
EXS02260044.wiff	246066008	LER	2/27/2010 2:09	948888	10-1543	2	LANL	USE	S
EXS02260045.wiff	246066009	LER	2/27/2010 2:25	948888	10-1543	2	LANL	USE	S
EXS02260046.wiff	246066010	LER	2/27/2010 2:40	948888	10-1543	2	LANL	USE	S
EXS02260047.wiff	246066011	LER	2/27/2010 2:56	948888	10-1543	2	LANL	USE	S
EXS02260048.wiff	246066012	LER	2/27/2010 3:12	948888	10-1543	2	LANL	USE	S
EXS02260049.wiff	246066013	LER	2/27/2010 3:28	948888	10-1543	2	LANL	USE	S
EXS02260050.wiff	WXXCCV	LER	2/27/2010 3:43			1		USE	C
EXS02260051.wiff	XIBLK07	LER	2/27/2010 3:59			1		USE	B
EXS02260052.wiff	WXXCRI	LER	2/27/2010 4:15			1		USE	C
EXS02260053.wiff	246066014	LER	2/27/2010 4:30	948888	10-1543	2	LANL	USE	S
EXS02260054.wiff	246066015	LER	2/27/2010 4:46	948888	10-1543	2	LANL	USE	S
EXS02260055.wiff	246066016	LER	2/27/2010 5:02	948888	10-1543	2	LANL	USE	S
EXS02260056.wiff	246066017	LER	2/27/2010 5:18	948888	10-1543	2	LANL	USE	S
EXS02260057.wiff	246066018	LER	2/27/2010 5:33	948888	10-1543	2	LANL	USE	S
EXS02260058.wiff	246066019	LER	2/27/2010 5:49	948888	10-1543	2	LANL	USE	S
EXS02260059.wiff	246066020	LER	2/27/2010 6:05	948888	10-1543	2	LANL	USE	S
EXS02260060.wiff	WXXCCV	LER	2/27/2010 6:20			1		USE	C
EXS02260061.wiff	XIBLK08	LER	2/27/2010 6:36			1		USE	B
EXS02260062.wiff	WXXCRI	LER	2/27/2010 6:52			1		USE	C
EXS02260063.wiff	1202045764	LER	2/27/2010 7:07	954338	VARIOUS	2	LANL	USE	S
EXS02260064.wiff	1202045765	LER	2/27/2010 7:23	954338	VARIOUS	2	LANL	USE	S
EXS02260065.wiff	247083001	LER	2/27/2010 7:39	954338	10-1827	2	LANL	USE	S
EXS02260066.wiff	1202045766	LER	2/27/2010 7:55	954338	10-1827	2	LANL	USE	S
EXS02260067.wiff	1202045767	LER	2/27/2010 8:10	954338	10-1827	2	LANL	USE	S

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EXS02260068.wiff	247083002	LER	2/27/2010 8:26	954338	10-1827	2	LANL	USE	S
EXS02260069.wiff	247083003	LER	2/27/2010 8:42	954338	10-1827	2	LANL	USE	S
EXS02260070.wiff	247083004	LER	2/27/2010 8:57	954338	10-1827	2	LANL	USE	S
EXS02260071.wiff	247084001	LER	2/27/2010 9:13	954338	10-1828	2	LANL	USE	S
EXS02260072.wiff	247084002	LER	2/27/2010 9:29	954338	10-1828	2	LANL	USE	S
EXS02260073.wiff	WXXCCV	LER	2/27/2010 9:44			1		USE	C
EXS02260074.wiff	XIBLK09	LER	2/27/2010 10:00			1		USE	B
EXS02260075.wiff	WXXCRI	LER	2/27/2010 10:16			1		USE	C
EXS02260076.wiff	247086001	LER	2/27/2010 10:32	954338	10-1829	2	LANL	USE	S
EXS02260077.wiff	247088001	LER	2/27/2010 10:47	954338	10-1830	2	LANL	USE	S
EXS02260078.wiff	247088002	LER	2/27/2010 11:03	954338	10-1830	2	LANL	USE	S
EXS02260079.wiff	247088003	LER	2/27/2010 11:19	954338	10-1830	2	LANL	USE	S
EXS02260080.wiff	247091001	LER	2/27/2010 11:34	954338	10-1831	2	LANL	USE	S
EXS02260081.wiff	247091002	LER	2/27/2010 11:50	954338	10-1831	2	LANL	USE	S
EXS02260082.wiff	247094001	LER	2/27/2010 12:06	954338	10-1832	2	LANL	USE	S
EXS02260083.wiff	247094002	LER	2/27/2010 12:21	954338	10-1832	2	LANL	USE	S
EXS02260084.wiff	247121002	LER	2/27/2010 12:37	954338	10-1846	2	LANL	USE	S
EXS02260085.wiff	247123001	LER	2/27/2010 12:53	954338	10-1848	2	LANL	USE	S
EXS02260086.wiff	WXXCCV	LER	2/27/2010 13:09			1		USE	C
EXS02260087.wiff	XIBLK10	LER	2/27/2010 13:24			1		USE	B
EXS02260088.wiff	WXXCRI	LER	2/27/2010 13:40			1		USE	C
EXS02260089.wiff	247123002	LER	2/27/2010 13:56	954338	10-1848	2	LANL	USE	S
EXS02260090.wiff	247123003	LER	2/27/2010 14:11	954338	10-1848	2	LANL	USE	S
EXS02260091.wiff	247123004	LER	2/27/2010 14:27	954338	10-1848	2	LANL	USE	S
EXS02260092.wiff	XIBLK11	LER	2/27/2010 14:43			1		USE	B
EXS02260093.wiff	1202032878	LER	2/27/2010 14:59	948890	10-1544	2	LANL	USE	S
EXS02260094.wiff	1202032879	LER	2/27/2010 15:14	948890	10-1544	2	LANL	USE	S
EXS02260095.wiff	246070001	LER	2/27/2010 15:30	948890	10-1544	2	LANL	USE	S
EXS02260096.wiff	1202032880	LER	2/27/2010 15:46	948890	10-1544	2	LANL	USE	S
EXS02260097.wiff	1202032881	LER	2/27/2010 16:01	948890	10-1544	2	LANL	USE	S
EXS02260098.wiff	246070002	LER	2/27/2010 16:17	948890	10-1544	2	LANL	USE	S
EXS02260099.wiff	WXXCCV	LER	2/27/2010 16:33			1		USE	C
EXS02260100.wiff	XIBLK12	LER	2/27/2010 16:48			1		USE	B
EXS02260101.wiff	WXXCRI	LER	2/27/2010 17:04			1		USE	C
EXS02260102.wiff	246070003	LER	2/27/2010 17:20	948890	10-1544	2	LANL	USE	S
EXS02260103.wiff	246070004	LER	2/27/2010 17:35	948890	10-1544	2	LANL	USE	S
EXS02260104.wiff	246070005	LER	2/27/2010 17:51	948890	10-1544	2	LANL	USE	S

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EXS02260105.wiff	246070006	LER	2/27/2010 18:07	948890	10-1544	2	LANL	USE	S
EXS02260106.wiff	246070007	LER	2/27/2010 18:23	948890	10-1544	2	LANL	USE	S
EXS02260107.wiff	246070008	LER	2/27/2010 18:38	948890	10-1544	2	LANL	USE	S
EXS02260108.wiff	246070009	LER	2/27/2010 18:54	948890	10-1544	2	LANL	USE	S
EXS02260109.wiff	246070010	LER	2/27/2010 19:10	948890	10-1544	2	LANL	USE	S
EXS02260110.wiff	246070011	LER	2/27/2010 19:25	948890	10-1544	2	LANL	USE	S
EXS02260111.wiff	246070012	LER	2/27/2010 19:41	948890	10-1544	2	LANL	USE	S
EXS02260112.wiff	WXXCCV	LER	2/27/2010 19:57			1		USE	C
EXS02260113.wiff	XIBLK13	LER	2/27/2010 20:12			1		USE	B
EXS02260114.wiff	WXXCRI	LER	2/27/2010 20:28			1		USE	C
EXS02260115.wiff	246070013	LER	2/27/2010 20:44	948890	10-1544	2	LANL	USE	S
EXS02260116.wiff	246070014	LER	2/27/2010 21:00	948890	10-1544	2	LANL	USE	S
EXS02260117.wiff	246070015	LER	2/27/2010 21:15	948890	10-1544	2	LANL	USE	S
EXS02260118.wiff	246070016	LER	2/27/2010 21:31	948890	10-1544	2	LANL	USE	S
EXS02260119.wiff	246070017	LER	2/27/2010 21:47	948890	10-1544	2	LANL	USE	S
EXS02260120.wiff	246070018	LER	2/27/2010 22:02	948890	10-1544	2	LANL	USE	S
EXS02260121.wiff	246070019	LER	2/27/2010 22:18	948890	10-1544	2	LANL	USE	S
EXS02260122.wiff	246070020	LER	2/27/2010 22:34	948890	10-1544	2	LANL	USE	S
EXS02260123.wiff	WXXCCV	LER	2/27/2010 22:49			1		USE	C
EXS02260124.wiff	XIBLK14	LER	2/27/2010 23:05			1		USE	B
EXS02260125.wiff	WXXCRI	LER	2/27/2010 23:21			1		USE	C
EXS02260126.wiff	1202032884	LER	2/27/2010 23:36	948893	10-1545	2	LANL	USE	S
EXS02260127.wiff	1202032885	LER	2/27/2010 23:52	948893	10-1545	2	LANL	USE	S
EXS02260128.wiff	246055001	LER	2/28/2010 0:08	948893	10-1545	2	LANL	USE	S
EXS02260129.wiff	1202032886	LER	2/28/2010 0:24	948893	10-1545	2	LANL	USE	S
EXS02260130.wiff	1202032887	LER	2/28/2010 0:39	948893	10-1545	2	LANL	USE	S
EXS02260131.wiff	246055002	LER	2/28/2010 0:55	948893	10-1545	2	LANL	USE	S
EXS02260132.wiff	246055003	LER	2/28/2010 1:11	948893	10-1545	2	LANL	USE	S
EXS02260133.wiff	246055004	LER	2/28/2010 1:26	948893	10-1545	2	LANL	USE	S
EXS02260134.wiff	246055005	LER	2/28/2010 1:42	948893	10-1545	2	LANL	USE	S
EXS02260135.wiff	246055006	LER	2/28/2010 1:58	948893	10-1545	2	LANL	USE	S
EXS02260136.wiff	WXXCCV	LER	2/28/2010 2:14			1		USE	C
EXS02260137.wiff	XIBLK15	LER	2/28/2010 2:29			1		USE	B
EXS02260138.wiff	WXXCRI	LER	2/28/2010 2:45			1		USE	C
EXS02260139.wiff	246055007	LER	2/28/2010 3:01	948893	10-1545	2	LANL	USE	S
EXS02260140.wiff	246055008	LER	2/28/2010 3:17	948893	10-1545	2	LANL	USE	S
EXS02260141.wiff	246055009	LER	2/28/2010 3:32	948893	10-1545	2	LANL	USE	S

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EXS02260142.wiff	UXX100122-01.3	LER	2/28/2010 3:48	SCREEN	SOLID	2	O2SI	USE	S
EXS02260143.wiff	XIBLK16	LER	2/28/2010 4:04			1		USE	B
EXS02260144.wiff	1202040473	LER	2/28/2010 4:20	952049	VARIOUS	2	LANL	USE	S
EXS02260145.wiff	1202040474	LER	2/28/2010 4:36	952049	VARIOUS	2	LANL	USE	S
EXS02260146.wiff	246713001	LER	2/28/2010 4:51	952049	10-1728	2	LANL	USE	S
EXS02260147.wiff	1202040475	LER	2/28/2010 5:07	952049	10-1728	2	LANL	USE	S
EXS02260148.wiff	1202040476	LER	2/28/2010 5:23	952049	10-1728	2	LANL	USE	S
EXS02260149.wiff	WXXCCV	LER	2/28/2010 5:38			1		USE	C
EXS02260150.wiff	XIBLK17	LER	2/28/2010 5:54			1		USE	B
EXS02260151.wiff	WXXCRI	LER	2/28/2010 6:10			1		USE	C
EXS02260152.wiff	246713002	LER	2/28/2010 6:26	952049	10-1728	2	LANL	USE	S
EXS02260153.wiff	246713003	LER	2/28/2010 6:41	952049	10-1728	2	LANL	USE	S
EXS02260154.wiff	246713004	LER	2/28/2010 6:57	952049	10-1728	2	LANL	USE	S
EXS02260155.wiff	246713005	LER	2/28/2010 7:13	952049	10-1728	2	LANL	USE	S
EXS02260156.wiff	246713006	LER	2/28/2010 7:29	952049	10-1728	2	LANL	USE	S
EXS02260157.wiff	246713007	LER	2/28/2010 7:44	952049	10-1728	2	LANL	USE	S
EXS02260158.wiff	246713008	LER	2/28/2010 8:00	952049	10-1728	2	LANL	USE	S
EXS02260159.wiff	246734001	LER	2/28/2010 8:16	952049	10-1731-1	2	LANL	USE	S
EXS02260160.wiff	246736001	LER	2/28/2010 8:31	952049	10-1732	2	LANL	USE	S
EXS02260161.wiff	246736002	LER	2/28/2010 8:47	952049	10-1732	2	LANL	USE	S
EXS02260162.wiff	WXXCCV	LER	2/28/2010 9:03			1		USE	C
EXS02260163.wiff	XIBLK18	LER	2/28/2010 9:19			1		USE	B
EXS02260164.wiff	WXXCRI	LER	2/28/2010 9:34			1		USE	C
EXS02260165.wiff	246739002	LER	2/28/2010 9:50	952049	10-1733	2	LANL	USE	S
EXS02260166.wiff	246739003	LER	2/28/2010 10:06	952049	10-1733	2	LANL	USE	S
EXS02260167.wiff	246739004	LER	2/28/2010 10:22	952049	10-1733	2	LANL	USE	S
EXS02260168.wiff	246739005	LER	2/28/2010 10:37	952049	10-1733	2	LANL	USE	S
EXS02260169.wiff	246739006	LER	2/28/2010 10:53	952049	10-1733	2	LANL	USE	S
EXS02260170.wiff	246739007	LER	2/28/2010 11:09	952049	10-1733	2	LANL	USE	S
EXS02260171.wiff	246739008	LER	2/28/2010 11:25	952049	10-1733	2	LANL	USE	S
EXS02260172.wiff	246739009	LER	2/28/2010 11:40	952049	10-1733	2	LANL	USE	S
EXS02260173.wiff	246739010	LER	2/28/2010 11:56	952049	10-1733	2	LANL	USE	S
EXS02260174.wiff	WXXCCV	LER	2/28/2010 12:12			1		USE	C
EXS02260175.wiff	XIBLK19	LER	2/28/2010 12:28			1		USE	B
EXS02260176.wiff	WXXCRI	LER	2/28/2010 12:43			1		USE	C
EXS02260177.wiff	1202040477	LER	2/28/2010 12:59	952051	VARIOUS	2	LANL	USE	S
EXS02260178.wiff	1202040478	LER	2/28/2010 13:15	952051	VARIOUS	2	LANL	USE	S

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EXS02260179.wiff	246732002	LER	2/28/2010 13:30	952051	10-1742	2	LANL	USE	S
EXS02260180.wiff	246732003	LER	2/28/2010 13:46	952051	10-1742	2	LANL	USE	S
EXS02260181.wiff	246732004	LER	2/28/2010 14:02	952051	10-1742	2	LANL	USE	S
EXS02260182.wiff	246732005	LER	2/28/2010 14:18	952051	10-1742	2	LANL	USE	S
EXS02260183.wiff	246732006	LER	2/28/2010 14:33	952051	10-1742	2	LANL	USE	S
EXS02260184.wiff	246744002	LER	2/28/2010 14:49	952051	10-1736	2	LANL	USE	S
EXS02260185.wiff	1202040479	LER	2/28/2010 15:05	952051	10-1736	2	LANL	USE	S
EXS02260186.wiff	1202040480	LER	2/28/2010 15:20	952051	10-1736	2	LANL	USE	S
EXS02260187.wiff	WXXCCV	LER	2/28/2010 15:36			1		USE	C
EXS02260188.wiff	XIBLK20	LER	2/28/2010 15:52			1		USE	B
EXS02260189.wiff	WXXCRI	LER	2/28/2010 16:08			1		USE	C
EXS02260190.wiff	246744003	LER	2/28/2010 16:23	952051	10-1736	2	LANL	DUSE-RA	S
EXS02260191.wiff	246744004	LER	2/28/2010 16:39	952051	10-1736	2	LANL	DUSE-RA	S
EXS02260192.wiff	246752002	LER	2/28/2010 16:55	952051	10-1745	2	LANL	DUSE-RA	S
EXS02260193.wiff	246752003	LER	2/28/2010 17:11	952051	10-1745	2	LANL	DUSE-RA	S
EXS02260194.wiff	246760001	LER	2/28/2010 17:27	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260195.wiff	246760002	LER	2/28/2010 17:42	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260196.wiff	246760003	LER	2/28/2010 17:58	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260197.wiff	246760004	LER	2/28/2010 18:14	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260198.wiff	246760005	LER	2/28/2010 18:29	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260199.wiff	246760006	LER	2/28/2010 18:45	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260200.wiff	WXXCCV	LER	2/28/2010 19:01			1		DUSE-RA	C
EXS02260201.wiff	XIBLK21	LER	2/28/2010 19:17			1		DUSE-RA	B
EXS02260202.wiff	WXXCRI	LER	2/28/2010 19:32			1		DUSE-RA	C
EXS02260203.wiff	246760007	LER	2/28/2010 19:48	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260204.wiff	246760008	LER	2/28/2010 20:04	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260205.wiff	246760009	LER	2/28/2010 20:20	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260206.wiff	246760010	LER	2/28/2010 20:35	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260207.wiff	XIBLK22	LER	2/28/2010 20:51			1		DUSE-RA	B
EXS02260208.wiff	1202040457	LER	2/28/2010 21:07	952043	VARIOUS	2	LANL	DUSE-RA	S
EXS02260209.wiff	1202040458	LER	2/28/2010 21:23	952043	VARIOUS	2	LANL	DUSE-RA	S
EXS02260210.wiff	246677001	LER	2/28/2010 21:38	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260211.wiff	1202040459	LER	2/28/2010 21:54	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260212.wiff	1202040460	LER	2/28/2010 22:10	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260213.wiff	WXXCCV	LER	2/28/2010 22:26			1		USE	C
EXS02260214.wiff	XIBLK23	LER	2/28/2010 22:41			1		USE	B
EXS02260215.wiff	WXXCRI	LER	2/28/2010 22:57			1		USE	C

EXS02260216.wiff	246677002	LER	2/28/2010 23:13	952043	10-1703	2	LANL	USE	S
EXS02260217.wiff	246677003	LER	2/28/2010 23:29	952043	10-1703	2	LANL	USE	S
EXS02260218.wiff	246677004	LER	2/28/2010 23:44	952043	10-1703	2	LANL	USE	S
EXS02260219.wiff	246677005	LER	3/1/2010 0:00	952043	10-1703	2	LANL	USE	S
EXS02260220.wiff	246677006	LER	3/1/2010 0:16	952043	10-1703	2	LANL	USE	S
EXS02260221.wiff	246677007	LER	3/1/2010 0:31	952043	10-1703	2	LANL	USE	S
EXS02260222.wiff	246677008	LER	3/1/2010 0:47	952043	10-1703	2	LANL	USE	S
EXS02260223.wiff	246682002	LER	3/1/2010 1:03	952043	10-1706	2	LANL	USE	S
EXS02260224.wiff	WXXCCV	LER	3/1/2010 1:19			1		USE	C
EXS02260225.wiff	XIBLK24	LER	3/1/2010 1:34			1		USE	B
EXS02260226.wiff	WXXCRI	LER	3/1/2010 1:50			1		USE	C
EXS02260227.wiff	246682003	LER	3/1/2010 2:06	952043	10-1706	2	LANL	USE	S
EXS02260228.wiff	246682004	LER	3/1/2010 2:22	952043	10-1706	2	LANL	USE	S
EXS02260229.wiff	246682005	LER	3/1/2010 2:37	952043	10-1706	2	LANL	USE	S
EXS02260230.wiff	246682006	LER	3/1/2010 2:53	952043	10-1706	2	LANL	USE	S
EXS02260231.wiff	246682007	LER	3/1/2010 3:09	952043	10-1706	2	LANL	USE	S
EXS02260232.wiff	246682008	LER	3/1/2010 3:24	952043	10-1706	2	LANL	USE	S
EXS02260233.wiff	246682009	LER	3/1/2010 3:40	952043	10-1706	2	LANL	USE	S
EXS02260234.wiff	WXXCCV	LER	3/1/2010 3:56			1		USE	C
EXS02260235.wiff	XIBLK25	LER	3/1/2010 4:12			1		USE	B
EXS02260236.wiff	WXXCRI	LER	3/1/2010 4:27			1		USE	C
EXS02260237.wiff	UXX100210-02.3	LER	3/1/2010 4:43	SCREEN	SOLID	2	O2SI	USE	S
EXS02260238.wiff	XIBLK26	LER	3/1/2010 4:59			1		USE	B
EXS02260239.wiff	1202032038	LER	3/1/2010 5:15	948558	VARIOUS	2	LANL	USE	S
EXS02260240.wiff	1202032039	LER	3/1/2010 5:31	948558	VARIOUS	2	LANL	USE	S
EXS02260241.wiff	1202032154	LER	3/1/2010 5:46	948558	VARIOUS	2	LANL	USE	S
EXS02260242.wiff	245928018	LER	3/1/2010 6:02	948558	10-1495	2	LANL	USE	S
EXS02260243.wiff	245928025	LER	3/1/2010 6:18	948558	10-1495	2	LANL	USE	S
EXS02260244.wiff	245932006	LER	3/1/2010 6:33	948558	10-1501	2	LANL	USE	S
EXS02260245.wiff	1202032040	LER	3/1/2010 6:49	948558	10-1501	2	LANL	USE	S
EXS02260246.wiff	1202032041	LER	3/1/2010 7:05	948558	10-1501	2	LANL	USE	S
EXS02260247.wiff	WXXCCV	LER	3/1/2010 7:21			1		USE	C
EXS02260248.wiff	XIBLK27	LER	3/1/2010 7:36			1		USE	B
EXS02260249.wiff	WXXCRI	LER	3/1/2010 7:52			1		USE	C

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
08-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
948890	See Below		

Potentially affected work order(s)(SDG): 246070(10-1544)

Application Issues:

Failed Recovery for LCS/LCSD

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The Laboratory Control Sample (1202032879) did not meet spike recovery limits for Tetryl at 47.5%. The recovery limits are 51-112%.	1. Since both the MS and MSD met acceptance limits for Tetryl, method control was achieved. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
2. The MSD recovered PETN at 142%. The recovery limits are 60-140%.	2. Since both the LCS and MS met acceptance limits for PETN, method control was achieved. The data are reported.
3. The MS/MSD pair (1202032880/1) did not meet RPD acceptance limits for HMX at 30.4%. The acceptance limits are 0-30%.	3. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.

Originator's Name:

Michael Penny 08-MAR-10

Data Validator/Group Leader:

Herbert Maier 09-MAR-10

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1544

Sample Analysis

Sample ID	Client ID
246070001	RE15-10-8164
246070002	RE15-10-8162
246070003	RE15-10-8151
246070004	RE15-10-8163
246070005	RE15-10-8148
246070006	RE15-10-8166
246070007	RE15-10-8161
246070008	RE15-10-8154
246070009	RE15-10-8156
246070010	RE15-10-8159
246070011	RE15-10-8157
246070012	RE15-10-8158
246070013	RE15-10-8160
246070014	RE15-10-8149
246070015	RE15-10-8167
246070016	RE15-10-8152
246070017	RE15-10-8150
246070018	RE15-10-8153
246070019	RE15-10-8165
246070020	RE15-10-8155
1202033987	Method Blank (MB) **ICP**
1202033992	Laboratory Control Sample (LCS)
1202033989	246070001(RE15-10-8164L) Serial Dilution (SD)
1202033988	246070001(RE15-10-8164D) Sample Duplicate (DUP)
1202033990	246070001(RE15-10-8164S) Matrix Spike (MS)
1202033991	246070001(RE15-10-8164SD) Matrix Spike Duplicate (MSD)
1202033993	Method Blank (MB) **ICP-MS**
1202033998	Laboratory Control Sample (LCS)
1202033995	246070001(RE15-10-8164L) Serial Dilution (SD)

1202033994	246070001(RE15-10-8164D) Sample Duplicate (DUP)
1202033996	246070001(RE15-10-8164S) Matrix Spike (MS)
1202033997	246070001(RE15-10-8164SD) Matrix Spike Duplicate (MSD)
1202039305	Method Blank (MB) **CVAA**
1202039306	Laboratory Control Sample (LCS)
1202039309	246070001(RE15-10-8164L) Serial Dilution (SD)
1202039307	246070001(RE15-10-8164D) Sample Duplicate (DUP)
1202039308	246070001(RE15-10-8164S) Matrix Spike (MS)
1202039310	246070001(RE15-10-8164SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	949364, 949366 and 951555
Prep Batch :	949363, 949365 and 951554
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-

7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of magnesium that recovered outside of the advisory control limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 246070001 (RE15-10-8164)-ICP, ICP-MS and CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of barium, lead, magnesium, potassium and sodium as indicated by

the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of magnesium, potassium and sodium as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exceptions of lead, arsenic and nickel as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of barium, cobalt, copper, manganese and nickel as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D) with the exceptions of aluminum, calcium, iron, magnesium and potassium as indicated by the "E" qualifiers.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 798248 and 797670. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nikki Cole A. Elmore **Date:** 3-2-10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070001 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8164 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	9170000	ug/kg	E	8210	24200	24200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-36-0	Antimony	1210	ug/kg	U	399	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-38-2	Arsenic	2370	ug/kg	*	233	1160	1160	2	MS	BAJ	03/02/10 16:39	100302-2	949366
7440-39-3	Barium	118000	ug/kg	*N	121	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-41-7	Beryllium	814	ug/kg		23.3	116	116	2	MS	BAJ	03/02/10 16:39	100302-2	949366
7440-43-9	Cadmium	210	ug/kg	J	121	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-70-2	Calcium	2690000	ug/kg	E	9660	30200	30200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-47-3	Chromium	10500	ug/kg		181	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-48-4	Cobalt	4370	ug/kg	*	181	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-50-8	Copper	9140	ug/kg	*	362	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-89-6	Iron	11900000	ug/kg	E	9660	30200	30200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-92-1	Lead	12300	ug/kg	*N	302	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-95-4	Magnesium	1820000	ug/kg	EN	10300	36200	36200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-96-5	Manganese	279000	ug/kg	*	242	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364
7439-97-6	Mercury	4.73	ug/kg	J	4.38	12.9	12.9	1	AV	JXL1	02/18/10 15:55	021810S1-4	951555
7440-02-0	Nickel	7500	ug/kg	*N	116	466	466	2	MS	BAJ	03/02/10 16:39	100302-2	949366
7440-09-7	Potassium	1620000	ug/kg	EN	7730	30200	30200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7782-49-2	Selenium	1160	ug/kg	U	582	1160	1160	2	MS	BAJ	03/02/10 16:39	100302-2	949366
7440-22-4	Silver	338	ug/kg	J	121	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-23-5	Sodium	121000	ug/kg	*N	8460	30200	30200	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-28-0	Thallium	168	ug/kg	J	69.8	233	233	2	MS	RMJ	02/28/10 15:24	100227-3	949366
7440-62-2	Vanadium	23500	ug/kg		121	604	604	1	P	HSC	03/01/10 22:21	030110A-1	949364
7440-66-6	Zinc	29800	ug/kg		399	1210	1210	1	P	HSC	03/01/10 22:21	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.502	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.521	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.565	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070002 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8162 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	6630000	ug/kg	E	8810	25900	25900	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-36-0	Antimony	1300	ug/kg	U	428	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-38-2	Arsenic	2010	ug/kg	*	248	1240	1240	2	MS	BAJ	03/02/10 16:49	100302-2	949366
7440-39-3	Barium	83000	ug/kg	*N	130	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-41-7	Beryllium	575	ug/kg		24.8	124	124	2	MS	BAJ	03/02/10 16:49	100302-2	949366
7440-43-9	Cadmium	196	ug/kg	J	130	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-70-2	Calcium	1930000	ug/kg	E	10400	32400	32400	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-47-3	Chromium	11500	ug/kg		194	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-48-4	Cobalt	3310	ug/kg	*	194	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-50-8	Copper	6300	ug/kg	*	389	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-89-6	Iron	10800000	ug/kg	E	10400	32400	32400	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-92-1	Lead	28300	ug/kg	*N	324	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-95-4	Magnesium	1210000	ug/kg	EN	11000	38900	38900	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-96-5	Manganese	246000	ug/kg	*	259	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364
7439-97-6	Mercury	15	ug/kg	U	5.09	15	15	1	AV	JXL1	02/18/10 16:09	021810S1-4	951555
7440-02-0	Nickel	6320	ug/kg	*N	124	496	496	2	MS	BAJ	03/02/10 16:49	100302-2	949366
7440-09-7	Potassium	1190000	ug/kg	EN	8290	32400	32400	1	P	HSC	03/01/10 22:55	030110A-1	949364
7782-49-2	Selenium	1240	ug/kg	U	619	1240	1240	2	MS	BAJ	03/02/10 16:49	100302-2	949366
7440-22-4	Silver	265	ug/kg	J	130	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-23-5	Sodium	76800	ug/kg	*N	9070	32400	32400	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-28-0	Thallium	143	ug/kg	J	74.3	248	248	2	MS	RMJ	02/28/10 15:53	100227-3	949366
7440-62-2	Vanadium	18900	ug/kg		130	648	648	1	P	HSC	03/01/10 22:55	030110A-1	949364
7440-66-6	Zinc	42300	ug/kg		428	1300	1300	1	P	HSC	03/01/10 22:55	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.502	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.521	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070003 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8151 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 73

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3980000	ug/kg	E	8990	26400	26400	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-36-0	Antimony	1320	ug/kg	U	436	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-38-2	Arsenic	1340	ug/kg	J*	269	1350	1350	2	MS	BAJ	03/02/10 16:51	100302-2	949366
7440-39-3	Barium	52300	ug/kg	*N	132	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-41-7	Beryllium	831	ug/kg		26.9	135	135	2	MS	BAJ	03/02/10 16:51	100302-2	949366
7440-43-9	Cadmium	183	ug/kg	J	132	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-70-2	Calcium	822000	ug/kg	E	10600	33000	33000	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-47-3	Chromium	41400	ug/kg		198	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-48-4	Cobalt	4310	ug/kg	*	198	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-50-8	Copper	6600	ug/kg	*	396	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-89-6	Iron	8160000	ug/kg	E	10600	33000	33000	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-92-1	Lead	12400	ug/kg	*N	330	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-95-4	Magnesium	637000	ug/kg	EN	11200	39600	39600	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-96-5	Manganese	281000	ug/kg	*	264	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364
7439-97-6	Mercury	17	ug/kg		4.79	14.1	14.1	1	AV	JXL1	02/18/10 16:11	021810S1-4	951555
7440-02-0	Nickel	4850	ug/kg	*N	135	539	539	2	MS	BAJ	03/02/10 16:51	100302-2	949366
7440-09-7	Potassium	714000	ug/kg	EN	8460	33000	33000	1	P	HSC	03/01/10 23:02	030110A-1	949364
7782-49-2	Selenium	1350	ug/kg	U	674	1350	1350	2	MS	BAJ	03/02/10 16:51	100302-2	949366
7440-22-4	Silver	188	ug/kg	J	132	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-23-5	Sodium	84800	ug/kg	*N	9250	33000	33000	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-28-0	Thallium	144	ug/kg	J	80.8	269	269	2	MS	RMJ	02/28/10 15:59	100227-3	949366
7440-62-2	Vanadium	8990	ug/kg		132	661	661	1	P	HSC	03/01/10 23:02	030110A-1	949364
7440-66-6	Zinc	39500	ug/kg		436	1320	1320	1	P	HSC	03/01/10 23:02	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.517	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.507	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.582	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070004 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8163 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15800000	ug/kg	E	7770	22900	22900	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-36-0	Antimony	1140	ug/kg	U	377	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-38-2	Arsenic	3180	ug/kg	*	236	1180	1180	2	MS	BAJ	03/02/10 16:53	100302-2	949366
7440-39-3	Barium	170000	ug/kg	*N	114	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-41-7	Beryllium	1090	ug/kg		23.6	118	118	2	MS	BAJ	03/02/10 16:53	100302-2	949366
7440-43-9	Cadmium	186	ug/kg	J	114	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-70-2	Calcium	2440000	ug/kg	E	9150	28600	28600	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-47-3	Chromium	13600	ug/kg		172	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-48-4	Cobalt	6210	ug/kg	*	172	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-50-8	Copper	7710	ug/kg	*	343	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-89-6	Iron	16600000	ug/kg	E	9150	28600	28600	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-92-1	Lead	17400	ug/kg	*N	286	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-95-4	Magnesium	2460000	ug/kg	EN	9720	34300	34300	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-96-5	Manganese	358000	ug/kg	*	229	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364
7439-97-6	Mercury	16.3	ug/kg		4.3	12.6	12.6	1	AV	JXL1	02/18/10 16:13	021810S1-4	951555
7440-02-0	Nickel	10200	ug/kg	*N	118	471	471	2	MS	BAJ	03/02/10 16:53	100302-2	949366
7440-09-7	Potassium	2170000	ug/kg	EN	7320	28600	28600	1	P	HSC	03/01/10 23:23	030110A-1	949364
7782-49-2	Selenium	1180	ug/kg	U	589	1180	1180	2	MS	BAJ	03/02/10 16:53	100302-2	949366
7440-22-4	Silver	663	ug/kg		114	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-23-5	Sodium	89400	ug/kg	*N	8000	28600	28600	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-28-0	Thallium	256	ug/kg		70.7	236	236	2	MS	RMJ	02/28/10 16:05	100227-3	949366
7440-62-2	Vanadium	30600	ug/kg		114	572	572	1	P	HSC	03/01/10 23:23	030110A-1	949364
7440-66-6	Zinc	35800	ug/kg		377	1140	1140	1	P	HSC	03/01/10 23:23	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.515	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.559	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070005 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8148 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 64

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	11500000	ug/kg	E	10300	30300	30300	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-36-0	Antimony	1510	ug/kg	U	500	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-38-2	Arsenic	1950	ug/kg	*	297	1480	1480	2	MS	BAJ	03/02/10 17:00	100302-2	949366
7440-39-3	Barium	135000	ug/kg	*N	151	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-41-7	Beryllium	912	ug/kg		29.7	148	148	2	MS	BAJ	03/02/10 17:00	100302-2	949366
7440-43-9	Cadmium	309	ug/kg	J	151	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-70-2	Calcium	1660000	ug/kg	E	12100	37900	37900	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-47-3	Chromium	21700	ug/kg		227	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-48-4	Cobalt	4890	ug/kg	*	227	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-50-8	Copper	7170	ug/kg	*	454	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-89-6	Iron	12300000	ug/kg	E	12100	37900	37900	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-92-1	Lead	16400	ug/kg	*N	379	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-95-4	Magnesium	1700000	ug/kg	EN	12900	45400	45400	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-96-5	Manganese	315000	ug/kg	*	303	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364
7439-97-6	Mercury	14.4	ug/kg	J	5.29	15.6	15.6	1	AV	JXL1	02/18/10 16:15	021810S1-4	951555
7440-02-0	Nickel	6800	ug/kg	*N	148	593	593	2	MS	BAJ	03/02/10 17:00	100302-2	949366
7440-09-7	Potassium	1690000	ug/kg	EN	9690	37900	37900	1	P	HSC	03/01/10 23:30	030110A-1	949364
7782-49-2	Selenium	1480	ug/kg	U	742	1480	1480	2	MS	BAJ	03/02/10 17:00	100302-2	949366
7440-22-4	Silver	203	ug/kg	J	151	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-23-5	Sodium	77000	ug/kg	*N	10600	37900	37900	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-28-0	Thallium	214	ug/kg	J	89	297	297	2	MS	RMJ	02/28/10 16:23	100227-3	949366
7440-62-2	Vanadium	23400	ug/kg		151	757	757	1	P	HSC	03/01/10 23:30	030110A-1	949364
7440-66-6	Zinc	29200	ug/kg		500	1510	1510	1	P	HSC	03/01/10 23:30	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.514	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070006 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8166 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4420000	ug/kg	E	8290	24400	24400	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-36-0	Antimony	1220	ug/kg	U	402	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-38-2	Arsenic	1560	ug/kg	*	242	1210	1210	2	MS	BAJ	03/02/10 17:02	100302-2	949366
7440-39-3	Barium	71900	ug/kg	*N	122	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-41-7	Beryllium	364	ug/kg		24.2	121	121	2	MS	BAJ	03/02/10 17:02	100302-2	949366
7440-43-9	Cadmium	609	ug/kg	U	122	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-70-2	Calcium	2950000	ug/kg	E	9750	30500	30500	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-47-3	Chromium	13200	ug/kg		183	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-48-4	Cobalt	2360	ug/kg	*	183	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-50-8	Copper	8450	ug/kg	*	366	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-89-6	Iron	8980000	ug/kg	E	9750	30500	30500	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-92-1	Lead	15300	ug/kg	*N	305	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-95-4	Magnesium	1430000	ug/kg	EN	10400	36600	36600	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-96-5	Manganese	241000	ug/kg	*	244	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364
7439-97-6	Mercury	13.3	ug/kg	U	4.52	13.3	13.3	1	AV	JXL1	02/18/10 16:17	021810S1-4	951555
7440-02-0	Nickel	7200	ug/kg	*N	121	484	484	2	MS	BAJ	03/02/10 17:02	100302-2	949366
7440-09-7	Potassium	834000	ug/kg	EN	7800	30500	30500	1	P	HSC	03/01/10 23:37	030110A-1	949364
7782-49-2	Selenium	1210	ug/kg	U	605	1210	1210	2	MS	BAJ	03/02/10 17:02	100302-2	949366
7440-22-4	Silver	506	ug/kg	J	122	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-23-5	Sodium	134000	ug/kg	*N	8530	30500	30500	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-28-0	Thallium	116	ug/kg	J	72.5	242	242	2	MS	RMJ	02/28/10 16:29	100227-3	949366
7440-62-2	Vanadium	12600	ug/kg		122	609	609	1	P	HSC	03/01/10 23:37	030110A-1	949364
7440-66-6	Zinc	27000	ug/kg		402	1220	1220	1	P	HSC	03/01/10 23:37	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.504	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.55	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070007 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8161 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3830000	ug/kg	E	7320	21500	21500	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-36-0	Antimony	1080	ug/kg	U	355	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-38-2	Arsenic	1420	ug/kg	*	225	1130	1130	2	MS	BAJ	03/02/10 17:04	100302-2	949366
7440-39-3	Barium	106000	ug/kg	*N	108	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-41-7	Beryllium	312	ug/kg		22.5	113	113	2	MS	BAJ	03/02/10 17:04	100302-2	949366
7440-43-9	Cadmium	538	ug/kg	U	108	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-70-2	Calcium	3390000	ug/kg	E	8610	26900	26900	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-47-3	Chromium	11100	ug/kg		162	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-48-4	Cobalt	4610	ug/kg	*	162	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-50-8	Copper	7780	ug/kg	*	323	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-89-6	Iron	10100000	ug/kg	E	8610	26900	26900	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-92-1	Lead	8440	ug/kg	*N	269	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-95-4	Magnesium	1830000	ug/kg	EN	9150	32300	32300	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-96-5	Manganese	240000	ug/kg	*	215	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364
7439-97-6	Mercury	13.6	ug/kg	U	4.61	13.6	13.6	1	AV	JXL1	02/18/10 16:19	021810S1-4	951555
7440-02-0	Nickel	3750	ug/kg	*N	113	450	450	2	MS	BAJ	03/02/10 17:04	100302-2	949366
7440-09-7	Potassium	608000	ug/kg	EN	6890	26900	26900	1	P	HSC	03/01/10 23:44	030110A-1	949364
7782-49-2	Selenium	1130	ug/kg	U	563	1130	1130	2	MS	BAJ	03/02/10 17:04	100302-2	949366
7440-22-4	Silver	229	ug/kg	J	108	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-23-5	Sodium	113000	ug/kg	*N	7540	26900	26900	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-28-0	Thallium	225	ug/kg	U	67.6	225	225	2	MS	RMJ	02/28/10 16:35	100227-3	949366
7440-62-2	Vanadium	15700	ug/kg		108	538	538	1	P	HSC	03/01/10 23:44	030110A-1	949364
7440-66-6	Zinc	32200	ug/kg		355	1080	1080	1	P	HSC	03/01/10 23:44	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.502	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.5	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070008 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8154 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12000000	ug/kg	E	8800	25900	25900	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-36-0	Antimony	1290	ug/kg	U	427	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-38-2	Arsenic	2130	ug/kg	*	249	1240	1240	2	MS	BAJ	03/02/10 17:06	100302-2	949366
7440-39-3	Barium	181000	ug/kg	*N	129	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-41-7	Beryllium	679	ug/kg		24.9	124	124	2	MS	BAJ	03/02/10 17:06	100302-2	949366
7440-43-9	Cadmium	635	ug/kg	J	129	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-70-2	Calcium	2300000	ug/kg	E	10400	32400	32400	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-47-3	Chromium	12100	ug/kg		194	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-48-4	Cobalt	7860	ug/kg	*	194	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-50-8	Copper	10800	ug/kg	*	388	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-89-6	Iron	14700000	ug/kg	E	10400	32400	32400	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-92-1	Lead	35700	ug/kg	*N	324	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-95-4	Magnesium	2120000	ug/kg	EN	11000	38800	38800	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-96-5	Manganese	525000	ug/kg	*	259	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364
7439-97-6	Mercury	10.4	ug/kg	J	4.76	14	14	1	AV	JXL1	02/18/10 16:21	021810S1-4	951555
7440-02-0	Nickel	6260	ug/kg	*N	124	498	498	2	MS	BAJ	03/02/10 17:06	100302-2	949366
7440-09-7	Potassium	2310000	ug/kg	EN	8290	32400	32400	1	P	HSC	03/01/10 23:51	030110A-1	949364
7782-49-2	Selenium	1240	ug/kg	U	622	1240	1240	2	MS	BAJ	03/02/10 17:06	100302-2	949366
7440-22-4	Silver	528	ug/kg	J	129	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-23-5	Sodium	77000	ug/kg	*N	9060	32400	32400	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-28-0	Thallium	145	ug/kg	J	74.7	249	249	2	MS	RMJ	02/28/10 16:40	100227-3	949366
7440-62-2	Vanadium	31300	ug/kg		129	647	647	1	P	HSC	03/01/10 23:51	030110A-1	949364
7440-66-6	Zinc	41000	ug/kg		427	1290	1290	1	P	HSC	03/01/10 23:51	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.52	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.555	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070009 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8156 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 77

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7560000	ug/kg	E	8430	24800	24800	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-36-0	Antimony	1240	ug/kg	U	409	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-38-2	Arsenic	1990	ug/kg	*	258	1290	1290	2	MS	BAJ	03/02/10 17:08	100302-2	949366
7440-39-3	Barium	117000	ug/kg	*N	124	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-41-7	Beryllium	599	ug/kg		25.8	129	129	2	MS	BAJ	03/02/10 17:08	100302-2	949366
7440-43-9	Cadmium	178	ug/kg	J	124	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-70-2	Calcium	1700000	ug/kg	E	9920	31000	31000	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-47-3	Chromium	12900	ug/kg		186	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-48-4	Cobalt	3660	ug/kg	*	186	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-50-8	Copper	7650	ug/kg	*	372	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-89-6	Iron	10300000	ug/kg	E	9920	31000	31000	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-92-1	Lead	18200	ug/kg	*N	310	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-95-4	Magnesium	1380000	ug/kg	EN	10500	37200	37200	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-96-5	Manganese	271000	ug/kg	*	248	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364
7439-97-6	Mercury	5.31	ug/kg	J	5.18	15.2	15.2	1	AV	JXL1	02/18/10 16:27	021810S1-4	951555
7440-02-0	Nickel	6110	ug/kg	*N	129	517	517	2	MS	BAJ	03/02/10 17:08	100302-2	949366
7440-09-7	Potassium	1310000	ug/kg	EN	7940	31000	31000	1	P	HSC	03/01/10 23:58	030110A-1	949364
7782-49-2	Selenium	1290	ug/kg	U	646	1290	1290	2	MS	BAJ	03/02/10 17:08	100302-2	949366
7440-22-4	Silver	244	ug/kg	J	124	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-23-5	Sodium	80000	ug/kg	*N	8680	31000	31000	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-28-0	Thallium	137	ug/kg	J	77.5	258	258	2	MS	RMJ	02/28/10 16:46	100227-3	949366
7440-62-2	Vanadium	17900	ug/kg		124	620	620	1	P	HSC	03/01/10 23:58	030110A-1	949364
7440-66-6	Zinc	32000	ug/kg		409	1240	1240	1	P	HSC	03/01/10 23:58	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.521	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.509	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070010 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8159 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 89

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16600000	ug/kg	E	7370	21700	21700	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-36-0	Antimony	1080	ug/kg	U	357	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-38-2	Arsenic	3010	ug/kg	*	219	1100	1100	2	MS	BAJ	03/02/10 17:10	100302-2	949366
7440-39-3	Barium	174000	ug/kg	*N	108	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-41-7	Beryllium	1020	ug/kg		21.9	110	110	2	MS	BAJ	03/02/10 17:10	100302-2	949366
7440-43-9	Cadmium	162	ug/kg	J	108	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-70-2	Calcium	2710000	ug/kg	E	8670	27100	27100	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-47-3	Chromium	13600	ug/kg		162	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-48-4	Cobalt	5640	ug/kg	*	162	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-50-8	Copper	8260	ug/kg	*	325	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-89-6	Iron	15900000	ug/kg	E	8670	27100	27100	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-92-1	Lead	13300	ug/kg	*N	271	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-95-4	Magnesium	2660000	ug/kg	EN	9210	32500	32500	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-96-5	Manganese	303000	ug/kg	*	217	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364
7439-97-6	Mercury	15.4	ug/kg		3.84	11.3	11.3	1	AV	JXL1	02/18/10 16:29	021810S1-4	951555
7440-02-0	Nickel	9310	ug/kg	*N	110	438	438	2	MS	BAJ	03/02/10 17:10	100302-2	949366
7440-09-7	Potassium	1990000	ug/kg	EN	6930	27100	27100	1	P	HSC	03/02/10 00:05	030110A-1	949364
7782-49-2	Selenium	1100	ug/kg	U	548	1100	1100	2	MS	BAJ	03/02/10 17:10	100302-2	949366
7440-22-4	Silver	354	ug/kg	J	108	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-23-5	Sodium	121000	ug/kg	*N	7580	27100	27100	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-28-0	Thallium	321	ug/kg		65.8	219	219	2	MS	RMJ	02/28/10 16:52	100227-3	949366
7440-62-2	Vanadium	30100	ug/kg		108	542	542	1	P	HSC	03/02/10 00:05	030110A-1	949364
7440-66-6	Zinc	29300	ug/kg		357	1080	1080	1	P	HSC	03/02/10 00:05	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.521	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.515	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.6	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070011 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8157 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	20800000	ug/kg	E	7470	22000	22000	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-36-0	Antimony	1100	ug/kg	U	362	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-38-2	Arsenic	2730	ug/kg	*	215	1080	1080	2	MS	BAJ	03/02/10 17:12	100302-2	949366
7440-39-3	Barium	223000	ug/kg	*N	110	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-41-7	Beryllium	1170	ug/kg		21.5	108	108	2	MS	BAJ	03/02/10 17:12	100302-2	949366
7440-43-9	Cadmium	256	ug/kg	J	110	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-70-2	Calcium	2790000	ug/kg	E	8790	27500	27500	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-47-3	Chromium	14000	ug/kg		165	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-48-4	Cobalt	7480	ug/kg	*	165	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-50-8	Copper	10200	ug/kg	*	329	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-89-6	Iron	17300000	ug/kg	E	8790	27500	27500	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-92-1	Lead	15700	ug/kg	*N	275	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-95-4	Magnesium	3080000	ug/kg	EN	9340	32900	32900	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-96-5	Manganese	408000	ug/kg	*	220	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364
7439-97-6	Mercury	24.4	ug/kg		4.45	13.1	13.1	1	AV	JXL1	02/18/10 16:31	021810S1-4	951555
7440-02-0	Nickel	9820	ug/kg	*N	108	431	431	2	MS	BAJ	03/02/10 17:12	100302-2	949366
7440-09-7	Potassium	2490000	ug/kg	EN	7030	27500	27500	1	P	HSC	03/02/10 00:13	030110A-1	949364
7782-49-2	Selenium	1080	ug/kg	U	539	1080	1080	2	MS	BAJ	03/02/10 17:12	100302-2	949366
7440-22-4	Silver	246	ug/kg	J	110	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-23-5	Sodium	136000	ug/kg	*N	7690	27500	27500	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-28-0	Thallium	228	ug/kg		64.6	215	215	2	MS	RMJ	02/28/10 16:58	100227-3	949366
7440-62-2	Vanadium	33100	ug/kg		110	549	549	1	P	HSC	03/02/10 00:13	030110A-1	949364
7440-66-6	Zinc	34100	ug/kg		362	1100	1100	1	P	HSC	03/02/10 00:13	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.515	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.518	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070012 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8158 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	21100000	ug/kg	E	7860	23100	23100	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-36-0	Antimony	1160	ug/kg	U	381	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-38-2	Arsenic	3080	ug/kg	*	234	1170	1170	2	MS	BAJ	03/02/10 17:14	100302-2	949366
7440-39-3	Barium	226000	ug/kg	*N	116	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-41-7	Beryllium	1330	ug/kg		23.4	117	117	2	MS	BAJ	03/02/10 17:14	100302-2	949366
7440-43-9	Cadmium	278	ug/kg	J	116	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-70-2	Calcium	2780000	ug/kg	E	9240	28900	28900	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-47-3	Chromium	15600	ug/kg		173	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-48-4	Cobalt	7270	ug/kg	*	173	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-50-8	Copper	10000	ug/kg	*	347	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-89-6	Iron	17900000	ug/kg	E	9240	28900	28900	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-92-1	Lead	16500	ug/kg	*N	289	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-95-4	Magnesium	3190000	ug/kg	EN	9820	34700	34700	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-96-5	Manganese	445000	ug/kg	*	231	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364
7439-97-6	Mercury	13.3	ug/kg	U	4.54	13.3	13.3	1	AV	JXL1	02/18/10 16:33	021810S1-4	951555
7440-02-0	Nickel	11100	ug/kg	*N	117	468	468	2	MS	BAJ	03/02/10 17:14	100302-2	949366
7440-09-7	Potassium	2540000	ug/kg	EN	7400	28900	28900	1	P	HSC	03/02/10 00:20	030110A-1	949364
7782-49-2	Selenium	1170	ug/kg	U	585	1170	1170	2	MS	BAJ	03/02/10 17:14	100302-2	949366
7440-22-4	Silver	196	ug/kg	J	116	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-23-5	Sodium	136000	ug/kg	*N	8090	28900	28900	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-28-0	Thallium	254	ug/kg		70.2	234	234	2	MS	RMJ	02/28/10 17:04	100227-3	949366
7440-62-2	Vanadium	34600	ug/kg		116	578	578	1	P	HSC	03/02/10 00:20	030110A-1	949364
7440-66-6	Zinc	36200	ug/kg		381	1160	1160	1	P	HSC	03/02/10 00:20	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.512	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.506	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.532	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070013 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8160 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	19200000	ug/kg	E	7880	23200	23200	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-36-0	Antimony	1160	ug/kg	U	382	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-38-2	Arsenic	1080	ug/kg	J*	224	1120	1120	2	MS	BAJ	03/02/10 17:16	100302-2	949366
7440-39-3	Barium	189000	ug/kg	*N	116	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-41-7	Beryllium	355	ug/kg		22.4	112	112	2	MS	BAJ	03/02/10 17:16	100302-2	949366
7440-43-9	Cadmium	212	ug/kg	J	116	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-70-2	Calcium	2440000	ug/kg	E	9270	29000	29000	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-47-3	Chromium	14500	ug/kg		174	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-48-4	Cobalt	6090	ug/kg	*	174	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-50-8	Copper	7560	ug/kg	*	348	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-89-6	Iron	16000000	ug/kg	E	9270	29000	29000	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-92-1	Lead	14600	ug/kg	*N	290	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-95-4	Magnesium	2610000	ug/kg	EN	9850	34800	34800	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-96-5	Manganese	317000	ug/kg	*	232	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364
7439-97-6	Mercury	11.9	ug/kg	U	4.05	11.9	11.9	1	AV	JXL1	02/18/10 16:35	021810S1-4	951555
7440-02-0	Nickel	3560	ug/kg	*N	112	448	448	2	MS	BAJ	03/02/10 17:16	100302-2	949366
7440-09-7	Potassium	2400000	ug/kg	EN	7420	29000	29000	1	P	HSC	03/02/10 00:41	030110A-1	949364
7782-49-2	Selenium	1120	ug/kg	U	561	1120	1120	2	MS	BAJ	03/02/10 17:16	100302-2	949366
7440-22-4	Silver	287	ug/kg	J	116	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-23-5	Sodium	128000	ug/kg	*N	8110	29000	29000	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-28-0	Thallium	69.1	ug/kg	J	67.3	224	224	2	MS	RMJ	02/28/10 17:22	100227-3	949366
7440-62-2	Vanadium	29400	ug/kg		116	579	579	1	P	HSC	03/02/10 00:41	030110A-1	949364
7440-66-6	Zinc	30200	ug/kg		382	1160	1160	1	P	HSC	03/02/10 00:41	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.508	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.593	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070014 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8149 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	17600000	ug/kg	E	7330	21600	21600	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-36-0	Antimony	1080	ug/kg	U	356	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-38-2	Arsenic	2730	ug/kg	*	222	1110	1110	2	MS	BAJ	03/02/10 17:22	100302-2	949366
7440-39-3	Barium	190000	ug/kg	*N	108	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-41-7	Beryllium	1300	ug/kg		22.2	111	111	2	MS	BAJ	03/02/10 17:22	100302-2	949366
7440-43-9	Cadmium	264	ug/kg	J	108	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-70-2	Calcium	3110000	ug/kg	E	8620	26900	26900	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-47-3	Chromium	42500	ug/kg		162	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-48-4	Cobalt	6760	ug/kg	*	162	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-50-8	Copper	8850	ug/kg	*	323	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-89-6	Iron	16500000	ug/kg	E	8620	26900	26900	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-92-1	Lead	15000	ug/kg	*N	269	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-95-4	Magnesium	2480000	ug/kg	EN	9160	32300	32300	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-96-5	Manganese	365000	ug/kg	*	216	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364
7439-97-6	Mercury	21.3	ug/kg		4.49	13.2	13.2	1	AV	JXL1	02/18/10 16:37	021810S1-4	951555
7440-02-0	Nickel	9280	ug/kg	*N	111	445	445	2	MS	BAJ	03/02/10 17:22	100302-2	949366
7440-09-7	Potassium	2110000	ug/kg	EN	6900	26900	26900	1	P	HSC	03/02/10 00:48	030110A-1	949364
7782-49-2	Selenium	1110	ug/kg	U	556	1110	1110	2	MS	BAJ	03/02/10 17:22	100302-2	949366
7440-22-4	Silver	286	ug/kg	J	108	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-23-5	Sodium	99900	ug/kg	*N	7550	26900	26900	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-28-0	Thallium	291	ug/kg		66.7	222	222	2	MS	RMJ	02/28/10 17:28	100227-3	949366
7440-62-2	Vanadium	33200	ug/kg		108	539	539	1	P	HSC	03/02/10 00:48	030110A-1	949364
7440-66-6	Zinc	30600	ug/kg		356	1080	1080	1	P	HSC	03/02/10 00:48	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.509	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.514	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070015 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8167 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3660000	ug/kg	E	7670	22600	22600	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-36-0	Antimony	1130	ug/kg	U	372	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-38-2	Arsenic	2910	ug/kg	*	232	1160	1160	2	MS	BAJ	03/02/10 17:24	100302-2	949366
7440-39-3	Barium	74900	ug/kg	*N	113	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-41-7	Beryllium	1040	ug/kg		23.2	116	116	2	MS	BAJ	03/02/10 17:24	100302-2	949366
7440-43-9	Cadmium	121	ug/kg	J	113	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-70-2	Calcium	4220000	ug/kg	E	9020	28200	28200	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-47-3	Chromium	10800	ug/kg		169	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-48-4	Cobalt	2380	ug/kg	*	169	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-50-8	Copper	5350	ug/kg	*	338	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-89-6	Iron	8490000	ug/kg	E	9020	28200	28200	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-92-1	Lead	19600	ug/kg	*N	282	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-95-4	Magnesium	1070000	ug/kg	EN	9590	33800	33800	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-96-5	Manganese	195000	ug/kg	*	226	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364
7439-97-6	Mercury	11.4	ug/kg	J	4.62	13.6	13.6	1	AV	JXL1	02/18/10 16:39	021810S1-4	951555
7440-02-0	Nickel	13200	ug/kg	*N	116	465	465	2	MS	BAJ	03/02/10 17:24	100302-2	949366
7440-09-7	Potassium	635000	ug/kg	EN	7220	28200	28200	1	P	HSC	03/02/10 00:55	030110A-1	949364
7782-49-2	Selenium	1160	ug/kg	U	581	1160	1160	2	MS	BAJ	03/02/10 17:24	100302-2	949366
7440-22-4	Silver	153	ug/kg	J	113	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-23-5	Sodium	119000	ug/kg	*N	7900	28200	28200	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-28-0	Thallium	332	ug/kg		69.7	232	232	2	MS	RMJ	02/28/10 17:34	100227-3	949366
7440-62-2	Vanadium	14600	ug/kg		113	564	564	1	P	HSC	03/02/10 00:55	030110A-1	949364
7440-66-6	Zinc	33400	ug/kg		372	1130	1130	1	P	HSC	03/02/10 00:55	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.515	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.513	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070016 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8152 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	21200000	ug/kg	E	8410	24700	24700	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-36-0	Antimony	1240	ug/kg	U	408	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-38-2	Arsenic	3150	ug/kg	*	244	1220	1220	2	MS	BAJ	03/02/10 17:26	100302-2	949366
7440-39-3	Barium	186000	ug/kg	*N	124	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-41-7	Beryllium	1180	ug/kg		24.4	122	122	2	MS	BAJ	03/02/10 17:26	100302-2	949366
7440-43-9	Cadmium	257	ug/kg	J	124	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-70-2	Calcium	2680000	ug/kg	E	9890	30900	30900	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-47-3	Chromium	13500	ug/kg		185	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-48-4	Cobalt	5520	ug/kg	*	185	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-50-8	Copper	9810	ug/kg	*	371	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-89-6	Iron	16900000	ug/kg	E	9890	30900	30900	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-92-1	Lead	16000	ug/kg	*N	309	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-95-4	Magnesium	2730000	ug/kg	EN	10500	37100	37100	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-96-5	Manganese	296000	ug/kg	*	247	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364
7439-97-6	Mercury	18.6	ug/kg		4.82	14.2	14.2	1	AV	JXL1	02/18/10 16:41	021810S1-4	951555
7440-02-0	Nickel	9300	ug/kg	*N	122	489	489	2	MS	BAJ	03/02/10 17:26	100302-2	949366
7440-09-7	Potassium	2380000	ug/kg	EN	7910	30900	30900	1	P	HSC	03/02/10 01:02	030110A-1	949364
7782-49-2	Selenium	1220	ug/kg	U	611	1220	1220	2	MS	BAJ	03/02/10 17:26	100302-2	949366
7440-22-4	Silver	491	ug/kg	J	124	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-23-5	Sodium	105000	ug/kg	*N	8650	30900	30900	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-28-0	Thallium	216	ug/kg	J	73.3	244	244	2	MS	RMJ	02/28/10 17:39	100227-3	949366
7440-62-2	Vanadium	32100	ug/kg		124	618	618	1	P	HSC	03/02/10 01:02	030110A-1	949364
7440-66-6	Zinc	31300	ug/kg		408	1240	1240	1	P	HSC	03/02/10 01:02	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.506	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.523	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070017 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8150 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 90

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	19800000	ug/kg	E	7570	22300	22300	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-36-0	Antimony	1110	ug/kg	U	367	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-38-2	Arsenic	2850	ug/kg	*	222	1110	1110	2	MS	BAJ	03/02/10 17:29	100302-2	949366
7440-39-3	Barium	183000	ug/kg	*N	111	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-41-7	Beryllium	1240	ug/kg		22.2	111	111	2	MS	BAJ	03/02/10 17:29	100302-2	949366
7440-43-9	Cadmium	214	ug/kg	J	111	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-70-2	Calcium	2290000	ug/kg	E	8900	27800	27800	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-47-3	Chromium	22700	ug/kg		167	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-48-4	Cobalt	6550	ug/kg	*	167	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-50-8	Copper	8500	ug/kg	*	334	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-89-6	Iron	16700000	ug/kg	E	8900	27800	27800	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-92-1	Lead	14200	ug/kg	*N	278	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-95-4	Magnesium	2610000	ug/kg	EN	9460	33400	33400	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-96-5	Manganese	329000	ug/kg	*	223	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364
7439-97-6	Mercury	17.2	ug/kg		4.24	12.5	12.5	1	AV	JXL1	02/18/10 16:43	021810S1-4	951555
7440-02-0	Nickel	12000	ug/kg	*N	111	443	443	2	MS	BAJ	03/02/10 17:29	100302-2	949366
7440-09-7	Potassium	2300000	ug/kg	EN	7120	27800	27800	1	P	HSC	03/02/10 01:09	030110A-1	949364
7782-49-2	Selenium	1110	ug/kg	U	554	1110	1110	2	MS	BAJ	03/02/10 17:29	100302-2	949366
7440-22-4	Silver	308	ug/kg	J	111	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-23-5	Sodium	273000	ug/kg	*N	7790	27800	27800	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-28-0	Thallium	293	ug/kg		66.5	222	222	2	MS	RMJ	02/28/10 17:45	100227-3	949366
7440-62-2	Vanadium	31800	ug/kg		111	556	556	1	P	HSC	03/02/10 01:09	030110A-1	949364
7440-66-6	Zinc	32900	ug/kg		367	1110	1110	1	P	HSC	03/02/10 01:09	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.5	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.502	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.535	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070018 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8153 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 76

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	20000000	ug/kg	E	8620	25300	25300	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-36-0	Antimony	1270	ug/kg	U	418	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-38-2	Arsenic	2960	ug/kg	*	263	1310	1310	2	MS	BAJ	03/02/10 17:31	100302-2	949366
7440-39-3	Barium	176000	ug/kg	*N	127	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-41-7	Beryllium	1270	ug/kg		26.3	131	131	2	MS	BAJ	03/02/10 17:31	100302-2	949366
7440-43-9	Cadmium	180	ug/kg	J	127	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-70-2	Calcium	2320000	ug/kg	E	10100	31700	31700	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-47-3	Chromium	23200	ug/kg		190	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-48-4	Cobalt	6340	ug/kg	*	190	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-50-8	Copper	8760	ug/kg	*	380	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-89-6	Iron	18000000	ug/kg	E	10100	31700	31700	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-92-1	Lead	16100	ug/kg	*N	317	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-95-4	Magnesium	2610000	ug/kg	EN	10800	38000	38000	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-96-5	Manganese	345000	ug/kg	*	253	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364
7439-97-6	Mercury	12.3	ug/kg	J	5.24	15.4	15.4	1	AV	JXL1	02/18/10 16:45	021810S1-4	951555
7440-02-0	Nickel	10500	ug/kg	*N	131	526	526	2	MS	BAJ	03/02/10 17:31	100302-2	949366
7440-09-7	Potassium	2320000	ug/kg	EN	8110	31700	31700	1	P	HSC	03/02/10 01:16	030110A-1	949364
7782-49-2	Selenium	1310	ug/kg	U	657	1310	1310	2	MS	BAJ	03/02/10 17:31	100302-2	949366
7440-22-4	Silver	416	ug/kg	J	127	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-23-5	Sodium	277000	ug/kg	*N	8870	31700	31700	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-28-0	Thallium	284	ug/kg		78.9	263	263	2	MS	RMJ	02/28/10 17:51	100227-3	949366
7440-62-2	Vanadium	34600	ug/kg		127	633	633	1	P	HSC	03/02/10 01:16	030110A-1	949364
7440-66-6	Zinc	32900	ug/kg		418	1270	1270	1	P	HSC	03/02/10 01:16	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.522	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.503	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.515	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070019 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8165 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	18500000	ug/kg	E	7320	21500	21500	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-36-0	Antimony	1080	ug/kg	U	355	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-38-2	Arsenic	2770	ug/kg	*	221	1100	1100	2	MS	BAJ	03/02/10 17:33	100302-2	949366
7440-39-3	Barium	163000	ug/kg	*N	108	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-41-7	Beryllium	1210	ug/kg		22.1	110	110	2	MS	BAJ	03/02/10 17:33	100302-2	949366
7440-43-9	Cadmium	180	ug/kg	J	108	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-70-2	Calcium	2190000	ug/kg	E	8610	26900	26900	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-47-3	Chromium	18700	ug/kg		162	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-48-4	Cobalt	5630	ug/kg	*	162	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-50-8	Copper	8140	ug/kg	*	323	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-89-6	Iron	16200000	ug/kg	E	8610	26900	26900	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-92-1	Lead	13800	ug/kg	*N	269	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-95-4	Magnesium	2390000	ug/kg	EN	9150	32300	32300	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-96-5	Manganese	287000	ug/kg	*	215	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364
7439-97-6	Mercury	20.9	ug/kg		4.17	12.3	12.3	1	AV	JXL1	02/18/10 17:26	021810SI-4	951555
7440-02-0	Nickel	10100	ug/kg	*N	110	442	442	2	MS	BAJ	03/02/10 17:33	100302-2	949366
7440-09-7	Potassium	2180000	ug/kg	EN	6890	26900	26900	1	P	HSC	03/02/10 01:23	030110A-1	949364
7782-49-2	Selenium	1100	ug/kg	U	552	1100	1100	2	MS	BAJ	03/02/10 17:33	100302-2	949366
7440-22-4	Silver	480	ug/kg	J	108	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-23-5	Sodium	266000	ug/kg	*N	7540	26900	26900	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-28-0	Thallium	297	ug/kg		66.2	221	221	2	MS	RMJ	02/28/10 17:57	100227-3	949366
7440-62-2	Vanadium	30700	ug/kg		108	538	538	1	P	HSC	03/02/10 01:23	030110A-1	949364
7440-66-6	Zinc	29300	ug/kg		355	1080	1080	1	P	HSC	03/02/10 01:23	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.525	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.512	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.553	g	30	mL	02/17/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1544 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246070020 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8155 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 86

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	18900000	ug/kg	E	7800	22900	22900	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-36-0	Antimony	1150	ug/kg	U	379	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-38-2	Arsenic	2900	ug/kg	*	225	1130	1130	2	MS	BAJ	03/02/10 17:35	100302-2	949366
7440-39-3	Barium	183000	ug/kg	*N	115	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-41-7	Beryllium	1340	ug/kg		22.5	113	113	2	MS	BAJ	03/02/10 17:35	100302-2	949366
7440-43-9	Cadmium	203	ug/kg	J	115	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-70-2	Calcium	2360000	ug/kg	E	9180	28700	28700	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-47-3	Chromium	12700	ug/kg		172	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-48-4	Cobalt	5440	ug/kg	*	172	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-50-8	Copper	7990	ug/kg	*	344	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-89-6	Iron	15800000	ug/kg	E	9180	28700	28700	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-92-1	Lead	14400	ug/kg	*N	287	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-95-4	Magnesium	2700000	ug/kg	EN	9750	34400	34400	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-96-5	Manganese	312000	ug/kg	*	229	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364
7439-97-6	Mercury	19.8	ug/kg		4.34	12.8	12.8	1	AV	JXL1	02/18/10 17:28	021810S1-4	951555
7440-02-0	Nickel	10300	ug/kg	*N	113	450	450	2	MS	BAJ	03/02/10 17:35	100302-2	949366
7440-09-7	Potassium	2230000	ug/kg	EN	7340	28700	28700	1	P	HSC	03/02/10 01:30	030110A-1	949364
7782-49-2	Selenium	1130	ug/kg	U	563	1130	1130	2	MS	BAJ	03/02/10 17:35	100302-2	949366
7440-22-4	Silver	240	ug/kg	J	115	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-23-5	Sodium	229000	ug/kg	*N	8030	28700	28700	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-28-0	Thallium	289	ug/kg		67.5	225	225	2	MS	RMJ	02/28/10 18:03	100227-3	949366
7440-62-2	Vanadium	29700	ug/kg		115	574	574	1	P	HSC	03/02/10 01:30	030110A-1	949364
7440-66-6	Zinc	30800	ug/kg		379	1150	1150	1	P	HSC	03/02/10 01:30	030110A-1	949364

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949364	949363	SW846 3050B	0.509	g	50	mL	02/11/10	LYH1
949366	949365	SW846 3050B	0.519	g	50	mL	02/11/10	LYH1
951555	951554	SW846 7471A Prep	0.549	g	30	mL	02/17/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.13	ug/L	5	ug/L	102.6	90.0 – 110.0	AV	18–FEB–10 09:57	021810S1–4
	Thallium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	28–FEB–10 14:19	100227–3
	Aluminum	5070	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Antimony	518	ug/L	500	ug/L	103.7	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Barium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Cobalt	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Iron	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Lead	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Magnesium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Manganese	521	ug/L	500	ug/L	104.1	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Potassium	2520	ug/L	2500	ug/L	100.8	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Silver	260	ug/L	250	ug/L	104	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Sodium	2450	ug/L	2500	ug/L	97.9	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Vanadium	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Zinc	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	01–MAR–10 12:04	030110A–1
	Arsenic	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	02–MAR–10 13:48	100302–2
	Beryllium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	02–MAR–10 13:48	100302–2
	Nickel	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	02–MAR–10 13:48	100302–2
	Selenium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	02–MAR–10 13:48	100302–2
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	18–FEB–10 10:03	021810S1–4
	Thallium	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	28–FEB–10 14:48	100227–3
	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Antimony	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Cadmium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Calcium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Chromium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Cobalt	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Iron	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Magnesium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Manganese	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Potassium	5340	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Sodium	9680	ug/L	10000	ug/L	96.8	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Vanadium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–MAR–10 12:51	030110A–1
	Arsenic	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	02–MAR–10 13:58	100302–2
	Beryllium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	02–MAR–10 13:58	100302–2
	Nickel	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	02–MAR–10 13:58	100302–2
	Selenium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	02–MAR–10 13:58	100302–2
CCV02										
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 – 120.0	AV	18–FEB–10 10:27	021810S1–4
	Thallium	48.2	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	28–FEB–10 15:12	100227–3
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Antimony	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Calcium	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Chromium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Cobalt	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Copper	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Iron	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Silver	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01–MAR–10 13:12	030110A–1
	Arsenic	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	02–MAR–10 14:13	100302–2
	Beryllium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	02–MAR–10 14:13	100302–2
	Nickel	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	02–MAR–10 14:13	100302–2
	Selenium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	02–MAR–10 14:13	100302–2
CCV03										
	Mercury	5.22	ug/L	5	ug/L	104.5	80.0 – 120.0	AV	18–FEB–10 10:51	021810S1–4
	Thallium	50.5	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	28–FEB–10 16:11	100227–3
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Antimony	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Cadmium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Calcium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Chromium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Cobalt	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Copper	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Iron	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Lead	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Manganese	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Potassium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Silver	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Sodium	10100	ug/L	10000	ug/L	100.9	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01–MAR–10 14:20	030110A–1
	Arsenic	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	02–MAR–10 14:29	100302–2
	Beryllium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	02–MAR–10 14:29	100302–2
	Nickel	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	02–MAR–10 14:29	100302–2
	Selenium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	02–MAR–10 14:29	100302–2
CCV04										
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	18–FEB–10 11:15	021810S1–4
	Thallium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	28–FEB–10 17:10	100227–3
	Aluminum	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Antimony	526	ug/L	500	ug/L	105.3	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Barium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Cadmium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Calcium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Chromium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Lead	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Magnesium	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Potassium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Sodium	8800	ug/L	10000	ug/L	88	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Vanadium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Zinc	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	01–MAR–10 15:27	030110A–1
	Arsenic	50.3	ug/L	50	ug/L	100.6	90.0 – 110.0	MS	02–MAR–10 14:47	100302–2
	Beryllium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	02–MAR–10 14:47	100302–2
	Nickel	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	02–MAR–10 14:47	100302–2
	Selenium	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	02–MAR–10 14:47	100302–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	5.01	ug/L	5	ug/L	100.2	80.0 – 120.0	AV	18-FEB-10 11:39	021810S1-4
	Thallium	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	28-FEB-10 18:09	100227-3
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Antimony	535	ug/L	500	ug/L	106.9	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Barium	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Cadmium	520	ug/L	500	ug/L	104	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Chromium	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Cobalt	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Copper	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Iron	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Lead	515	ug/L	500	ug/L	103	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Magnesium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Silver	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Vanadium	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Zinc	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	01-MAR-10 16:37	030110A-1
	Arsenic	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	02-MAR-10 15:13	100302-2
	Beryllium	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	02-MAR-10 15:13	100302-2
	Nickel	49.8	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	02-MAR-10 15:13	100302-2
	Selenium	49.9	ug/L	50	ug/L	99.7	90.0 – 110.0	MS	02-MAR-10 15:13	100302-2
CCV06										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	18-FEB-10 12:03	021810S1-4
	Aluminum	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	01-MAR-10 17:48	030110A-1
	Antimony	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	01-MAR-10 17:48	030110A-1
	Barium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	01-MAR-10 17:48	030110A-1
	Cadmium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	01-MAR-10 17:48	030110A-1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	01-MAR-10 17:48	030110A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Cobalt	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Iron	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Lead	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Magnesium	5320	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Silver	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Zinc	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01–MAR–10 17:48	030110A–1
	Arsenic	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	02–MAR–10 15:33	100302–2
	Beryllium	49.2	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	02–MAR–10 15:33	100302–2
	Nickel	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	02–MAR–10 15:33	100302–2
	Selenium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	02–MAR–10 15:33	100302–2
CCV07										
	Mercury	5.07	ug/L	5	ug/L	101.3	80.0 – 120.0	AV	18–FEB–10 12:26	021810S1–4
	Aluminum	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Antimony	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Barium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Cadmium	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Calcium	5250	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Chromium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Cobalt	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Copper	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Iron	5360	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Lead	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Silver	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Sodium	10300	ug/L	10000	ug/L	103.4	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Zinc	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01–MAR–10 18:22	030110A–1
	Arsenic	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	02–MAR–10 15:54	100302–2
	Beryllium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	02–MAR–10 15:54	100302–2
	Nickel	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	02–MAR–10 15:54	100302–2
	Selenium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	02–MAR–10 15:54	100302–2
CCV08										
	Mercury	5.02	ug/L	5	ug/L	100.4	80.0 – 120.0	AV	18–FEB–10 12:50	021810S1–4
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Antimony	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Cadmium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Copper	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Magnesium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Potassium	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Silver	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Zinc	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01–MAR–10 19:43	030110A–1
	Arsenic	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	02–MAR–10 16:13	100302–2
	Beryllium	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	02–MAR–10 16:13	100302–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Nickel	48.1	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	02-MAR-10 16:13	100302-2
	Selenium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	02-MAR-10 16:13	100302-2
CCV09										
	Mercury	4.93	ug/L	5	ug/L	98.6	80.0 – 120.0	AV	18-FEB-10 13:07	021810S1-4
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Antimony	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Cadmium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Calcium	5110	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Chromium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Iron	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Lead	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Magnesium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Manganese	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Silver	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	01-MAR-10 20:44	030110A-1
	Arsenic	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	02-MAR-10 16:31	100302-2
	Beryllium	47.2	ug/L	50	ug/L	94.4	90.0 – 110.0	MS	02-MAR-10 16:31	100302-2
	Nickel	46.4	ug/L	50	ug/L	92.9	90.0 – 110.0	MS	02-MAR-10 16:31	100302-2
	Selenium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	02-MAR-10 16:31	100302-2
CCV10										
	Mercury	4.88	ug/L	5	ug/L	97.6	80.0 – 120.0	AV	18-FEB-10 13:31	021810S1-4
	Aluminum	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	01-MAR-10 21:54	030110A-1
	Antimony	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	01-MAR-10 21:54	030110A-1
	Barium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	01-MAR-10 21:54	030110A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Calcium	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Chromium	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Cobalt	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Copper	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Iron	5260	ug/L	5000	ug/L	105.1	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Lead	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Manganese	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Silver	498	ug/L	500	ug/L	99.5	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Sodium	10200	ug/L	10000	ug/L	101.9	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Vanadium	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Zinc	493	ug/L	500	ug/L	98.5	90.0 - 110.0	P	01-MAR-10 21:54	030110A-1
	Arsenic	50.3	ug/L	50	ug/L	100.6	90.0 - 110.0	MS	02-MAR-10 16:55	100302-2
	Beryllium	46.3	ug/L	50	ug/L	92.5	90.0 - 110.0	MS	02-MAR-10 16:55	100302-2
	Nickel	46.3	ug/L	50	ug/L	92.7	90.0 - 110.0	MS	02-MAR-10 16:55	100302-2
	Selenium	50.2	ug/L	50	ug/L	100.5	90.0 - 110.0	MS	02-MAR-10 16:55	100302-2
CCV11										
	Mercury	2.33	ug/L	5	ug/L	46.5	80.0 - 120.0	AV	18-FEB-10 13:54	021810S1-4
	Aluminum	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Antimony	505	ug/L	500	ug/L	101	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Barium	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Calcium	5140	ug/L	5000	ug/L	102.9	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Copper	488	ug/L	500	ug/L	97.7	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Iron	5190	ug/L	5000	ug/L	103.9	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1
	Lead	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	01-MAR-10 23:10	030110A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5200	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	01–MAR–10 23:10	030110A–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	01–MAR–10 23:10	030110A–1
	Potassium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	01–MAR–10 23:10	030110A–1
	Silver	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	01–MAR–10 23:10	030110A–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	01–MAR–10 23:10	030110A–1
	Vanadium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	01–MAR–10 23:10	030110A–1
	Zinc	485	ug/L	500	ug/L	97	90.0 – 110.0	P	01–MAR–10 23:10	030110A–1
	Arsenic	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	02–MAR–10 17:18	100302–2
	Beryllium	47.5	ug/L	50	ug/L	95	90.0 – 110.0	MS	02–MAR–10 17:18	100302–2
	Nickel	47.7	ug/L	50	ug/L	95.5	90.0 – 110.0	MS	02–MAR–10 17:18	100302–2
	Selenium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	02–MAR–10 17:18	100302–2
CCV12										
	Mercury	5.32	ug/L	5	ug/L	106.5	80.0 – 120.0	AV	18–FEB–10 14:05	021810S1–4
	Aluminum	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Antimony	515	ug/L	500	ug/L	103	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Cadmium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Calcium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Chromium	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Copper	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Silver	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Sodium	9410	ug/L	10000	ug/L	94.1	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1
	Zinc	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	02–MAR–10 00:27	030110A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	02-MAR-10 17:37	100302-2
	Beryllium	46.4	ug/L	50	ug/L	92.7	90.0 – 110.0	MS	02-MAR-10 17:37	100302-2
	Nickel	47.7	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	02-MAR-10 17:37	100302-2
	Selenium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	02-MAR-10 17:37	100302-2
CCV13										
	Mercury	5.09	ug/L	5	ug/L	101.9	80.0 – 120.0	AV	18-FEB-10 14:29	021810S1-4
	Aluminum	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Antimony	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Cadmium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Chromium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Iron	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Lead	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Magnesium	5270	ug/L	5000	ug/L	105.4	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Manganese	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Potassium	4980	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Silver	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Sodium	10200	ug/L	10000	ug/L	102.4	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	02-MAR-10 01:37	030110A-1
CCV14										
	Mercury	4.97	ug/L	5	ug/L	99.4	80.0 – 120.0	AV	18-FEB-10 14:47	021810S1-4
CCV15										
	Mercury	5.08	ug/L	5	ug/L	101.5	80.0 – 120.0	AV	18-FEB-10 15:11	021810S1-4
CCV16										
	Mercury	5.12	ug/L	5	ug/L	102.4	80.0 – 120.0	AV	18-FEB-10 15:35	021810S1-4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1544

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV17										
	Mercury	5.35	ug/L	5	ug/L	107.1	80.0 - 120.0	AV	18-FEB-10 15:59	021810S1-4
CCV18										
	Mercury	5.29	ug/L	5	ug/L	105.8	80.0 - 120.0	AV	18-FEB-10 16:23	021810S1-4
CCV19										
	Mercury	5.32	ug/L	5	ug/L	106.4	80.0 - 120.0	AV	18-FEB-10 16:47	021810S1-4
CCV20										
	Mercury	-.45	ug/L	5	ug/L	-8.9	80.0 - 120.0	AV	18-FEB-10 17:10	021810S1-4
CCV21										
	Mercury	4.78	ug/L	5	ug/L	95.7	80.0 - 120.0	AV	18-FEB-10 17:22	021810S1-4
CCV22										
	Mercury	4.76	ug/L	5	ug/L	95.2	80.0 - 120.0	AV	18-FEB-10 17:45	021810S1-4

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: ICPMS5,ICPMS6,MER536,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.218	ug/L	.2	ug/L	109	70.0 – 130.0	AV	18–FEB–10 10:01	021810S1–4
	Thallium	1.17	ug/L	1	ug/L	117	70.0 – 130.0	MS	28–FEB–10 14:31	100227–3
	Nickel	2.26	ug/L	2	ug/L	112.9	70.0 – 130.0	MS	02–MAR–10 13:52	100302–2
	Arsenic	5.99	ug/L	5	ug/L	119.9	70.0 – 130.0	MS	02–MAR–10 13:52	100302–2
	Beryllium	.573	ug/L	.5	ug/L	114.6	70.0 – 130.0	MS	02–MAR–10 13:52	100302–2
	Selenium	5.72	ug/L	5	ug/L	114.3	70.0 – 130.0	MS	02–MAR–10 13:52	100302–2
PQL01										
	Calcium	192	ug/L	200	ug/L	96	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Aluminum	201	ug/L	200	ug/L	100.7	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Iron	104	ug/L	100	ug/L	103.6	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Lead	10.8	ug/L	10	ug/L	107.7	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Magnesium	196	ug/L	300	ug/L	65.3	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Manganese	10.1	ug/L	10	ug/L	101.2	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Potassium	161	ug/L	150	ug/L	107.6	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Silver	4.42	ug/L	5	ug/L	88.3	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Sodium	305	ug/L	300	ug/L	101.6	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Antimony	11.5	ug/L	10	ug/L	114.7	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Barium	5.01	ug/L	5	ug/L	100.2	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Cadmium	4.94	ug/L	5	ug/L	98.7	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Zinc	8.93	ug/L	10	ug/L	89.3	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Vanadium	5.22	ug/L	5	ug/L	104.5	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Copper	9.26	ug/L	10	ug/L	92.6	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Cobalt	4.78	ug/L	5	ug/L	95.6	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1
	Chromium	4.89	ug/L	5	ug/L	97.8	70.0 – 130.0	P	01–MAR–10 12:18	030110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	–0.129	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 09:59	021810S1–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	28–FEB–10 14:25	100227–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–MAR–10 12:11	030110A–1
	Antimony	4.34	+/–10	J	3.3	10.0	SOL	P	01–MAR–10 12:11	030110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 12:11	030110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 12:11	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 12:11	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 12:11	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 12:11	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 12:11	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 12:11	030110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 12:11	030110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–MAR–10 12:11	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 12:11	030110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–MAR–10 12:11	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 12:11	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–MAR–10 12:11	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 12:11	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 12:11	030110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 13:50	100302–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	02–MAR–10 13:50	100302–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 13:50	100302–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 13:50	100302–2
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:05	021810S1–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	28–FEB–10 14:54	100227–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–MAR–10 12:58	030110A–1
	Antimony	7.04	+/–10	J	3.3	10.0	SOL	P	01–MAR–10 12:58	030110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 12:58	030110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 12:58	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 12:58	030110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 12:58	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 12:58	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 12:58	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 12:58	030110A–1
	Lead	6.08	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 12:58	030110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–MAR–10 12:58	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 12:58	030110A–1
	Potassium	74.19	+/–250	J	64.0	250	SOL	P	01–MAR–10 12:58	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 12:58	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–MAR–10 12:58	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 12:58	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 12:58	030110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 14:00	100302–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	02–MAR–10 14:00	100302–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 14:00	100302–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 14:00	100302–2
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 10:29	021810S1–4
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	28–FEB–10 15:18	100227–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–MAR–10 13:19	030110A–1
	Antimony	4.08	+/–10	J	3.3	10.0	SOL	P	01–MAR–10 13:19	030110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 13:19	030110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 13:19	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 13:19	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 13:19	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 13:19	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 13:19	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 13:19	030110A–1
	Lead	2.54	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 13:19	030110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–MAR–10 13:19	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 13:19	030110A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	01-MAR-10 13:19	030110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 13:19	030110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-MAR-10 13:19	030110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 13:19	030110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 13:19	030110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	02-MAR-10 14:15	100302-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	02-MAR-10 14:15	100302-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 14:15	100302-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 14:15	100302-2
CCB03										
	Mercury	-0.08	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 10:53	021810S1-4
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	28-FEB-10 16:17	100227-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-MAR-10 14:27	030110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 14:27	030110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 14:27	030110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 14:27	030110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-MAR-10 14:27	030110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-MAR-10 14:27	030110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-MAR-10 14:27	030110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-MAR-10 14:27	030110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-MAR-10 14:27	030110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-MAR-10 14:27	030110A-1
	Magnesium	-95.81	+/-300	J	85.0	300	SOL	P	01-MAR-10 14:27	030110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-MAR-10 14:27	030110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	01-MAR-10 14:27	030110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 14:27	030110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-MAR-10 14:27	030110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 14:27	030110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 14:27	030110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	02-MAR-10 14:31	100302-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	02-MAR-10 14:31	100302-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 14:31	100302-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 14:31	100302-2
CCB04										
	Mercury	-0.106	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 11:17	021810S1-4
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	28-FEB-10 17:16	100227-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-MAR-10 15:34	030110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 15:34	030110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 15:34	030110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 15:34	030110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-MAR-10 15:34	030110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-MAR-10 15:34	030110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-MAR-10 15:34	030110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-MAR-10 15:34	030110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-MAR-10 15:34	030110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-MAR-10 15:34	030110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	01-MAR-10 15:34	030110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-MAR-10 15:34	030110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	01-MAR-10 15:34	030110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 15:34	030110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-MAR-10 15:34	030110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 15:34	030110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 15:34	030110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	02-MAR-10 14:49	100302-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	02-MAR-10 14:49	100302-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 14:49	100302-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 14:49	100302-2
CCB05										
	Mercury	-0.154	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 11:41	021810S1-4
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	28-FEB-10 18:15	100227-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-MAR-10 16:44	030110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 16:44	030110A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 16:44	030110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 16:44	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 16:44	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 16:44	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 16:44	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 16:44	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 16:44	030110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 16:44	030110A–1
	Magnesium	–86.7	+/–300	J	85.0	300	SOL	P	01–MAR–10 16:44	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 16:44	030110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–MAR–10 16:44	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 16:44	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–MAR–10 16:44	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 16:44	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 16:44	030110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 15:15	100302–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	02–MAR–10 15:15	100302–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 15:15	100302–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 15:15	100302–2
CCB06										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:05	021810S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–MAR–10 17:55	030110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 17:55	030110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 17:55	030110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 17:55	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 17:55	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 17:55	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 17:55	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 17:55	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 17:55	030110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 17:55	030110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–MAR–10 17:55	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 17:55	030110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–MAR–10 17:55	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 17:55	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–MAR–10 17:55	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 17:55	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 17:55	030110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 15:35	100302–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	02–MAR–10 15:35	100302–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 15:35	100302–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 15:35	100302–2
CCB07										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 12:28	021810S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–MAR–10 18:29	030110A–1
	Antimony	3.55	+/–10	J	3.3	10.0	SOL	P	01–MAR–10 18:29	030110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 18:29	030110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 18:29	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 18:29	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 18:29	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 18:29	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 18:29	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 18:29	030110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 18:29	030110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–MAR–10 18:29	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 18:29	030110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–MAR–10 18:29	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 18:29	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–MAR–10 18:29	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 18:29	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 18:29	030110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 15:56	100302–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	02-MAR-10 15:56	100302-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 15:56	100302-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 15:56	100302-2
CCB08										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 12:52	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-MAR-10 19:50	030110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 19:50	030110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 19:50	030110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 19:50	030110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	01-MAR-10 19:50	030110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	01-MAR-10 19:50	030110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	01-MAR-10 19:50	030110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	01-MAR-10 19:50	030110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	01-MAR-10 19:50	030110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-MAR-10 19:50	030110A-1
	Magnesium	-127.56	+/-300	J	85.0	300	SOL	P	01-MAR-10 19:50	030110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	01-MAR-10 19:50	030110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	01-MAR-10 19:50	030110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 19:50	030110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	01-MAR-10 19:50	030110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 19:50	030110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 19:50	030110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	02-MAR-10 16:15	100302-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	02-MAR-10 16:15	100302-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 16:15	100302-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 16:15	100302-2
CCB09										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	18-FEB-10 13:09	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	01-MAR-10 20:51	030110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	01-MAR-10 20:51	030110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	01-MAR-10 20:51	030110A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 20:51	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 20:51	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 20:51	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 20:51	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 20:51	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 20:51	030110A–1
	Lead	6.12	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 20:51	030110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–MAR–10 20:51	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 20:51	030110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–MAR–10 20:51	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 20:51	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–MAR–10 20:51	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 20:51	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 20:51	030110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 16:33	100302–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	02–MAR–10 16:33	100302–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 16:33	100302–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 16:33	100302–2
CCB10										
	Mercury	–0.083	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 13:33	021810S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–MAR–10 22:01	030110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 22:01	030110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 22:01	030110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 22:01	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 22:01	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 22:01	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 22:01	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 22:01	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 22:01	030110A–1
	Lead	4.72	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 22:01	030110A–1
	Magnesium	–91.06	+/–300	J	85.0	300	SOL	P	01–MAR–10 22:01	030110A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 22:01	030110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–MAR–10 22:01	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 22:01	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–MAR–10 22:01	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 22:01	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 22:01	030110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 16:58	100302–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	02–MAR–10 16:58	100302–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	02–MAR–10 16:58	100302–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	02–MAR–10 16:58	100302–2
CCB11										
	Mercury	–0.241	+/–.2		0.068	0.2	SOL	AV	18–FEB–10 13:56	021810S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	01–MAR–10 23:17	030110A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 23:17	030110A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 23:17	030110A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 23:17	030110A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 23:17	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 23:17	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	01–MAR–10 23:17	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	01–MAR–10 23:17	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	01–MAR–10 23:17	030110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 23:17	030110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	01–MAR–10 23:17	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	01–MAR–10 23:17	030110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	01–MAR–10 23:17	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 23:17	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	01–MAR–10 23:17	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	01–MAR–10 23:17	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	01–MAR–10 23:17	030110A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	02–MAR–10 17:20	100302–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	02–MAR–10 17:20	100302–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 17:20	100302-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 17:20	100302-2
CCB12										
	Mercury	-0.094	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 14:08	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	02-MAR-10 00:34	030110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	02-MAR-10 00:34	030110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	02-MAR-10 00:34	030110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	02-MAR-10 00:34	030110A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	02-MAR-10 00:34	030110A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	02-MAR-10 00:34	030110A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	02-MAR-10 00:34	030110A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	02-MAR-10 00:34	030110A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	02-MAR-10 00:34	030110A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	02-MAR-10 00:34	030110A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	02-MAR-10 00:34	030110A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	02-MAR-10 00:34	030110A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	02-MAR-10 00:34	030110A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	02-MAR-10 00:34	030110A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	02-MAR-10 00:34	030110A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	02-MAR-10 00:34	030110A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	02-MAR-10 00:34	030110A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	02-MAR-10 17:39	100302-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	02-MAR-10 17:39	100302-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	02-MAR-10 17:39	100302-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	02-MAR-10 17:39	100302-2
CCB13										
	Mercury	-0.091	+/-.2	J	0.068	0.2	SOL	AV	18-FEB-10 14:31	021810S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	02-MAR-10 01:44	030110A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	02-MAR-10 01:44	030110A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	02-MAR-10 01:44	030110A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	02-MAR-10 01:44	030110A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1544

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	02–MAR–10 01:44	030110A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	02–MAR–10 01:44	030110A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	02–MAR–10 01:44	030110A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	02–MAR–10 01:44	030110A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	02–MAR–10 01:44	030110A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	02–MAR–10 01:44	030110A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	02–MAR–10 01:44	030110A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	02–MAR–10 01:44	030110A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	02–MAR–10 01:44	030110A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	02–MAR–10 01:44	030110A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	02–MAR–10 01:44	030110A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	02–MAR–10 01:44	030110A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	02–MAR–10 01:44	030110A–1
CCB14	Mercury	–0.111	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 14:49	021810S1–4
CCB15	Mercury	–0.115	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 15:13	021810S1–4
CCB16	Mercury	–0.122	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 15:37	021810S1–4
CCB17	Mercury	–0.154	+/–.2	J	0.068	0.2	SOL	AV	18–FEB–10 16:01	021810S1–4
CCB18	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 16:25	021810S1–4
CCB19	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 16:49	021810S1–4
CCB20	Mercury	–0.476	+/–.2		0.068	0.2	SOL	AV	18–FEB–10 17:12	021810S1–4
CCB21	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 17:24	021810S1–4
CCB22	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	18–FEB–10 17:47	021810S1–4

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1544

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202033987								
	Iron	7690	ug/kg	+/–24000	U	P	7690	24000
	Lead	313	ug/kg	+/–962	J	P	240	962
	Magnesium	8170	ug/kg	+/–28800	U	P	8170	28800
	Manganese	192	ug/kg	+/–962	U	P	192	962
	Potassium	6150	ug/kg	+/–24000	U	P	6150	24000
	Silver	96.2	ug/kg	+/–481	U	P	96.2	481
	Sodium	6850	ug/kg	+/–24000	J	P	6730	24000
	Vanadium	96.2	ug/kg	+/–481	U	P	96.2	481
	Aluminum	6540	ug/kg	+/–19200	U	P	6540	19200
	Cobalt	144	ug/kg	+/–481	U	P	144	481
	Chromium	144	ug/kg	+/–481	U	P	144	481
	Calcium	7690	ug/kg	+/–24000	U	P	7690	24000
	Cadmium	96.2	ug/kg	+/–481	U	P	96.2	481
	Barium	96.2	ug/kg	+/–481	U	P	96.2	481
	Antimony	317	ug/kg	+/–962	U	P	317	962
	Zinc	317	ug/kg	+/–962	U	P	317	962
	Copper	288	ug/kg	+/–962	U	P	288	962
1202033993								
	Beryllium	20	ug/kg	+/–99.8	U	MS	20	99.8
	Nickel	99.8	ug/kg	+/–399	U	MS	99.8	399
	Selenium	499	ug/kg	+/–998	U	MS	499	998
	Arsenic	200	ug/kg	+/–998	U	MS	200	998
	Thallium	59.9	ug/kg	+/–200	U	MS	59.9	200
1202039305								
	Mercury	3.9	ug/kg	+/–11.5	U	AV	3.9	11.5

METALS
–4–
Interference Check Sample

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	514000	ug/L	500000	ug/L	103	80.0 – 120.0	01–MAR–10 12:25	030110A–1
	Antimony	–4.59	ug/L					01–MAR–10 12:25	030110A–1
	Barium	–0.917	ug/L					01–MAR–10 12:25	030110A–1
	Cadmium	0.977	ug/L					01–MAR–10 12:25	030110A–1
	Calcium	474000	ug/L	500000	ug/L	94.8	80.0 – 120.0	01–MAR–10 12:25	030110A–1
	Chromium	1.87	ug/L					01–MAR–10 12:25	030110A–1
	Cobalt	–1.63	ug/L					01–MAR–10 12:25	030110A–1
	Copper	2.17	ug/L					01–MAR–10 12:25	030110A–1
	Iron	185000	ug/L	200000	ug/L	92.4	80.0 – 120.0	01–MAR–10 12:25	030110A–1
	Lead	9.4	ug/L					01–MAR–10 12:25	030110A–1
	Magnesium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	01–MAR–10 12:25	030110A–1
	Manganese	–3.7	ug/L					01–MAR–10 12:25	030110A–1
	Potassium	–116.0	ug/L					01–MAR–10 12:25	030110A–1
	Silver	–7.28	ug/L					01–MAR–10 12:25	030110A–1
	Sodium	44.4	ug/L					01–MAR–10 12:25	030110A–1
	Vanadium	–3.0	ug/L					01–MAR–10 12:25	030110A–1
	Zinc	–1.45	ug/L					01–MAR–10 12:25	030110A–1
ICSAB01									
	Aluminum	512000	ug/L	500000	ug/L	102	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Antimony	556	ug/L	500	ug/L	111	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Barium	496	ug/L	500	ug/L	99.3	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Cadmium	452	ug/L	500	ug/L	90.3	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Calcium	473000	ug/L	500000	ug/L	94.6	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Chromium	476	ug/L	500	ug/L	95.3	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Cobalt	462	ug/L	500	ug/L	92.4	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Copper	575	ug/L	500	ug/L	115	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Iron	185000	ug/L	200000	ug/L	92.3	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Lead	485	ug/L	500	ug/L	97.1	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Magnesium	491000	ug/L	500000	ug/L	98.2	80.0 – 120.0	01–MAR–10 12:31	030110A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	492	ug/L	500	ug/L	98.5	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Potassium	5210	ug/L	5000	ug/L	104	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Silver	263	ug/L	250	ug/L	105	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Sodium	5180	ug/L	5000	ug/L	104	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Vanadium	495	ug/L	500	ug/L	99	80.0 – 120.0	01–MAR–10 12:31	030110A–1
	Zinc	488	ug/L	500	ug/L	97.7	80.0 – 120.0	01–MAR–10 12:31	030110A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.021	ug/L					02–MAR–10 13:54	100302–2
	Beryllium	0.102	ug/L					02–MAR–10 13:54	100302–2
	Nickel	3.75	ug/L					02–MAR–10 13:54	100302–2
	Selenium	–1.23	ug/L					02–MAR–10 13:54	100302–2
ICSAB01									
	Arsenic	21.8	ug/L	20	ug/L	109	80.0 – 120.0	02–MAR–10 13:56	100302–2
	Beryllium	19.7	ug/L	20	ug/L	98.5	80.0 – 120.0	02–MAR–10 13:56	100302–2
	Nickel	23.2	ug/L	23.31	ug/L	99.5	80.0 – 120.0	02–MAR–10 13:56	100302–2
	Selenium	19.2	ug/L	20	ug/L	95.8	80.0 – 120.0	02–MAR–10 13:56	100302–2

METALS
–4–
Interference Check Sample

SDG No: 10–1544

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.014	ug/L					28–FEB–10 14:37	100227–3
ICSAB01									
	Thallium	19.0	ug/L	20	ug/L	95.1	80.0 – 120.0	28–FEB–10 14:43	100227–3

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1544 **Client ID** RE15–10–8164S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246070001 **Spike ID:** 1202033990

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		16300000		9170000		577000	1230	N/A	P
Antimony	ug/kg	75–125	45200		399	U	57700	78.3		P
Barium	ug/kg	75–125	205000		118000		57700	151	N	P
Cadmium	ug/kg	75–125	55200		210	J	57700	95.2		P
Calcium	ug/kg		3830000		2690000		577000	197	N/A	P
Chromium	ug/kg	75–125	71600		10500		57700	106		P
Cobalt	ug/kg	75–125	66400		4370		57700	107		P
Copper	ug/kg	75–125	76100		9140		57700	116		P
Iron	ug/kg		14600000		11900000		577000	473	N/A	P
Lead	ug/kg	75–125	92000		12300		57700	138	N	P
Magnesium	ug/kg	75–125	2890000		1820000		577000	186	N	P
Manganese	ug/kg		384000		279000		57700	183	N/A	P
Potassium	ug/kg	75–125	2950000		1620000		577000	231	N	P
Silver	ug/kg	75–125	57200		338	J	57700	98.5		P
Sodium	ug/kg	75–125	932000		121000		577000	141	N	P
Vanadium	ug/kg	75–125	86400		23500		57700	109		P
Zinc	ug/kg	75–125	97700		29800		57700	118		P

METALS
–5a–
Matrix Spike Duplicate Summary

SDG NO. 10–1544 **Client ID** RE15–10–8164SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246070001 **Spike ID:** 1202033991

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		15500000		9170000		606000	1040	N/A	P
Antimony	ug/kg	75–125	50400		399	U	60600	83		P
Barium	ug/kg	75–125	182000		118000		60600	105		P
Cadmium	ug/kg	75–125	57800		210	J	60600	95		P
Calcium	ug/kg		3700000		2690000		606000	166	N/A	P
Chromium	ug/kg	75–125	69600		10500		60600	97.5		P
Cobalt	ug/kg	75–125	64600		4370		60600	99.3		P
Copper	ug/kg	75–125	74400		9140		60600	108		P
Iron	ug/kg		14200000		11900000		606000	375	N/A	P
Lead	ug/kg	75–125	71600		12300		60600	97.7		P
Magnesium	ug/kg	75–125	2590000		1820000		606000	128	N	P
Manganese	ug/kg		326000		279000		60600	77.4	N/A	P
Potassium	ug/kg	75–125	2530000		1620000		606000	150	N	P
Silver	ug/kg	75–125	61400		338	J	60600	101		P
Sodium	ug/kg	75–125	903000		121000		606000	129	N	P
Vanadium	ug/kg	75–125	86800		23500		60600	104		P
Zinc	ug/kg	75–125	90100		29800		60600	99.4		P

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1544 **Client ID** RE15–10–8164S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246070001 **Spike ID:** 1202033996

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	12800		2370		9680	108		MS
Beryllium	ug/kg	75–125	7120		814		6050	104		MS
Nickel	ug/kg	75–125	14200		7500		6050	110		MS
Selenium	ug/kg	75–125	2100		582	U	2420	86.7		MS
Thallium	ug/kg	75–125	12500		168	J	12100	102		MS

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1544 **Client ID** RE15-10-8164SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246070001 **Spike ID:** 1202033997

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	ug/kg	75-125	5940		814		5770	88.8		MS
Nickel	ug/kg	75-125	9550		7500		5770	35.5	N	MS
Selenium	ug/kg	75-125	1930		582	U	2310	83.6		MS
Thallium	ug/kg	75-125	11100		168	J	11500	94.3		MS
Arsenic	ug/kg	75-125	10400		2370		9240	86.6		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1544 **Client ID** RE15–10–8164S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246070001 **Spike ID:** 1202039308

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	161		4.73	J	139	113		AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1544 **Client ID** RE15-10-8164SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246070001 **Spike ID:** 1202039310

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	152		4.73	J	129	114		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8164D

Sample ID: 246070001 **Duplicate ID:** 1202033988 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	9170000		9890000		7.58		P
Antimony	ug/kg		399	U	383	U			P
Barium	ug/kg	+/–20%	118000		145000		20.3	*	P
Cadmium	ug/kg	+/–581	210	J	203	J	3.16		P
Calcium	ug/kg	+/–20%	2690000		2230000		19		P
Chromium	ug/kg	+/–20%	10500		10700		1.64		P
Cobalt	ug/kg	+/–20%	4370		7770		56.1	*	P
Copper	ug/kg	+/–20%	9140		5820		44.4	*	P
Iron	ug/kg	+/–20%	11900000		13100000		9.81		P
Lead	ug/kg	+/–20%	12300		14000		13.3		P
Magnesium	ug/kg	+/–20%	1820000		1750000		3.71		P
Manganese	ug/kg	+/–20%	279000		508000		58.2	*	P
Potassium	ug/kg	+/–20%	1620000		1460000		10.4		P
Silver	ug/kg	+/–581	338	J	502	J	38.9		P
Sodium	ug/kg	+/–29000	121000		66700		57.8	*	P
Vanadium	ug/kg	+/–20%	23500		27500		15.8		P
Zinc	ug/kg	+/–20%	29800		24400		20		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1544

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-8164SD

Sample ID: 1202033990 **Duplicate ID:** 1202033991 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20	16300000		15500000		4.95		P
Antimony	ug/kg	+/-20	45200		50400		10.7		P
Barium	ug/kg	+/-20	205000		182000		12.1		P
Cadmium	ug/kg	+/-20	55200		57800		4.7		P
Calcium	ug/kg	+/-20	3830000		3700000		3.55		P
Chromium	ug/kg	+/-20	71600		69600		2.84		P
Cobalt	ug/kg	+/-20	66400		64600		2.7		P
Copper	ug/kg	+/-20	76100		74400		2.27		P
Iron	ug/kg	+/-20	14600000		14200000		3.21		P
Lead	ug/kg	+/-20	92000		71600		25	*	P
Magnesium	ug/kg	+/-20	2890000		2590000		10.9		P
Manganese	ug/kg	+/-20	384000		326000		16.5		P
Potassium	ug/kg	+/-20	2950000		2530000		15.4		P
Silver	ug/kg	+/-20	57200		61400		7.15		P
Sodium	ug/kg	+/-20	932000		903000		3.25		P
Vanadium	ug/kg	+/-20	86400		86800		.478		P
Zinc	ug/kg	+/-20	97700		90100		8.07		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8164D

Sample ID: 246070001 **Duplicate ID:** 1202033994 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1200	2370		1900		22.1		MS
Beryllium	ug/kg	+/–20%	814		907		10.7		MS
Nickel	ug/kg	+/–20%	7500		5650		28.2	*	MS
Selenium	ug/kg		582	U	599	U			MS
Thallium	ug/kg	+/–240	168	J	154	J	8.68		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1544

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-8164SD

Sample ID: 1202033996 **Duplicate ID:** 1202033997 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/-20	12800		10400		21.4	*	MS
Beryllium	ug/kg	+/-20	7120		5940		17.9		MS
Nickel	ug/kg	+/-20	14200		9550		38.8	*	MS
Selenium	ug/kg	+/-20	2100		1930		8.23		MS
Thallium	ug/kg	+/-20	12500		11100		12		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8164D

Sample ID: 246070001 **Duplicate ID:** 1202039307 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–13.7	4.73	J	5.72	J	18.9		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1544

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8164SD

Sample ID: 1202039308 **Duplicate ID:** 1202039310 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	161		152		5.84		AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1544

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033992								
	Aluminum	ug/kg	10500000	10700000		102	56-144	P
	Antimony	ug/kg	173000	141000		81.5	71-130	P
	Barium	ug/kg	198000	205000		104	80-120	P
	Cadmium	ug/kg	60700	58100		95.7	81-120	P
	Calcium	ug/kg	9870000	10700000		108	83-117	P
	Chromium	ug/kg	236000	233000		98.7	80-120	P
	Cobalt	ug/kg	91200	94500		104	81-120	P
	Copper	ug/kg	174000	192000		110	81-118	P
	Iron	ug/kg	18000000	19700000		109	51-149	P
	Lead	ug/kg	86000	83200		96.7	79-121	P
	Magnesium	ug/kg	4000000	4050000		101	79-122	P
	Manganese	ug/kg	558000	550000		98.6	81-119	P
	Potassium	ug/kg	4300000	4330000		101	74-127	P
	Silver	ug/kg	30100	31300		104	66-134	P
	Sodium	ug/kg	1020000	1050000		103	74-127	P
	Vanadium	ug/kg	115000	122000		106	79-121	P
	Zinc	ug/kg	594000	575000		96.8	80-121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1544

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033998								
	Arsenic	ug/kg	104000	111000		107	78–123	MS
	Beryllium	ug/kg	77600	80400		104	84–116	MS
	Nickel	ug/kg	134000	135000		101	78–123	MS
	Selenium	ug/kg	286000	291000		102	77–123	MS
	Thallium	ug/kg	121000	115000		94.9	78–122	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1544

Contract: LANL01004

Aqueous LCS Source:

Solid LCS Source: ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202039306								
	Mercury	ug/kg	5150	5750		112	71.6-128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1544 **Client ID** RE15-10-8164L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246070001 **Serial Dilution ID:** 1202033989

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	75900		86000		13.3	E	10	P
Antimony	3.3	U	16.5	U				P
Barium	978		1020		4.29		10	P
Cadmium	1.74	J	5	U	100			P
Calcium	22300		24800		11	E	10	P
Chromium	87.1		90		3.33		10	P
Cobalt	36.1		38.3		6.09			P
Copper	75.7		72.5		4.23			P
Iron	98400		111000		12.8	E	10	P
Lead	102		114		11.8			P
Magnesium	15100		17200		13.6	E	10	P
Manganese	2310		2410		4.33		10	P
Potassium	13400		15300		14.2	E	10	P
Silver	2.8	J	5	U	100			P
Sodium	1000		1190	J	18.5			P
Vanadium	194		197		1.29		10	P
Zinc	247		248		.405		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1544 **Client ID** RE15-10-8164L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246070001 **Serial Dilution ID:** 1202033995

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	10.2		9.8	J	3.92			MS
Beryllium	3.5		3.37		3.86			MS
Nickel	32.2		31.7		1.55			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.721	J	1.57	J	118			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1544 **Client ID** RE15–10–8164L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246070001 **Serial Dilution ID:** 1202039309

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.0734	J	.34	U	100			AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1544 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949363						
1202033987	MB for batch 949363	MB	S	11–FEB–10	.52g	50mL	
1202033992	LCS for batch 949363	LCS	S	11–FEB–10	.504g	50mL	
1202033990	RE15–10–8164S	MS	S	11–FEB–10	.525g	50mL	
1202033991	RE15–10–8164SD	MSD	S	11–FEB–10	.5g	50mL	
1202033988	RE15–10–8164D	DUP	S	11–FEB–10	.522g	50mL	
246070001	RE15–10–8164	SAMPLE	S	11–FEB–10	.502g	50mL	
246070002	RE15–10–8162	SAMPLE	S	11–FEB–10	.502g	50mL	
246070003	RE15–10–8151	SAMPLE	S	11–FEB–10	.517g	50mL	
246070004	RE15–10–8163	SAMPLE	S	11–FEB–10	.515g	50mL	
246070005	RE15–10–8148	SAMPLE	S	11–FEB–10	.514g	50mL	
246070006	RE15–10–8166	SAMPLE	S	11–FEB–10	.5g	50mL	
246070007	RE15–10–8161	SAMPLE	S	11–FEB–10	.525g	50mL	
246070008	RE15–10–8154	SAMPLE	S	11–FEB–10	.5g	50mL	
246070009	RE15–10–8156	SAMPLE	S	11–FEB–10	.521g	50mL	
246070010	RE15–10–8159	SAMPLE	S	11–FEB–10	.521g	50mL	
246070011	RE15–10–8157	SAMPLE	S	11–FEB–10	.515g	50mL	
246070012	RE15–10–8158	SAMPLE	S	11–FEB–10	.512g	50mL	
246070013	RE15–10–8160	SAMPLE	S	11–FEB–10	.508g	50mL	
246070014	RE15–10–8149	SAMPLE	S	11–FEB–10	.525g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1544 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246070015	RE15-10-8167	SAMPLE	S	11-FEB-10	.515g	50mL	
246070016	RE15-10-8152	SAMPLE	S	11-FEB-10	.5g	50mL	
246070017	RE15-10-8150	SAMPLE	S	11-FEB-10	.5g	50mL	
246070018	RE15-10-8153	SAMPLE	S	11-FEB-10	.522g	50mL	
246070019	RE15-10-8165	SAMPLE	S	11-FEB-10	.525g	50mL	
246070020	RE15-10-8155	SAMPLE	S	11-FEB-10	.509g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1544 **Method Type** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949365						
1202033993	MB for batch 949365	MB	S	11-FEB-10	.501g	50mL	
1202033998	LCS for batch 949365	LCS	S	11-FEB-10	.501g	50mL	
1202033996	RE15-10-8164S	MS	S	11-FEB-10	.501g	50mL	
1202033997	RE15-10-8164SD	MSD	S	11-FEB-10	.525g	50mL	
1202033994	RE15-10-8164D	DUP	S	11-FEB-10	.506g	50mL	
246070001	RE15-10-8164	SAMPLE	S	11-FEB-10	.521g	50mL	
246070002	RE15-10-8162	SAMPLE	S	11-FEB-10	.525g	50mL	
246070003	RE15-10-8151	SAMPLE	S	11-FEB-10	.507g	50mL	
246070004	RE15-10-8163	SAMPLE	S	11-FEB-10	.5g	50mL	
246070005	RE15-10-8148	SAMPLE	S	11-FEB-10	.525g	50mL	
246070006	RE15-10-8166	SAMPLE	S	11-FEB-10	.504g	50mL	
246070007	RE15-10-8161	SAMPLE	S	11-FEB-10	.502g	50mL	
246070008	RE15-10-8154	SAMPLE	S	11-FEB-10	.52g	50mL	
246070009	RE15-10-8156	SAMPLE	S	11-FEB-10	.5g	50mL	
246070010	RE15-10-8159	SAMPLE	S	11-FEB-10	.515g	50mL	
246070011	RE15-10-8157	SAMPLE	S	11-FEB-10	.525g	50mL	
246070012	RE15-10-8158	SAMPLE	S	11-FEB-10	.506g	50mL	
246070013	RE15-10-8160	SAMPLE	S	11-FEB-10	.525g	50mL	
246070014	RE15-10-8149	SAMPLE	S	11-FEB-10	.509g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1544 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246070015	RE15–10–8167	SAMPLE	S	11–FEB–10	.5g	50mL	
246070016	RE15–10–8152	SAMPLE	S	11–FEB–10	.506g	50mL	
246070017	RE15–10–8150	SAMPLE	S	11–FEB–10	.502g	50mL	
246070018	RE15–10–8153	SAMPLE	S	11–FEB–10	.503g	50mL	
246070019	RE15–10–8165	SAMPLE	S	11–FEB–10	.512g	50mL	
246070020	RE15–10–8155	SAMPLE	S	11–FEB–10	.519g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1544 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 951554							
1202039305	MB for batch 951554	MB	S	17–FEB–10	.523g	30mL	
1202039306	LCS for batch 951554	LCS	S	17–FEB–10	.208g	30mL	
1202039308	RE15–10–8164S	MS	S	17–FEB–10	.524g	30mL	
1202039310	RE15–10–8164SD	MSD	S	17–FEB–10	.563g	30mL	
1202039307	RE15–10–8164D	DUP	S	17–FEB–10	.533g	30mL	
246070001	RE15–10–8164	SAMPLE	S	17–FEB–10	.565g	30mL	
246070002	RE15–10–8162	SAMPLE	S	17–FEB–10	.521g	30mL	
246070003	RE15–10–8151	SAMPLE	S	17–FEB–10	.582g	30mL	
246070004	RE15–10–8163	SAMPLE	S	17–FEB–10	.559g	30mL	
246070005	RE15–10–8148	SAMPLE	S	17–FEB–10	.6g	30mL	
246070006	RE15–10–8166	SAMPLE	S	17–FEB–10	.55g	30mL	
246070007	RE15–10–8161	SAMPLE	S	17–FEB–10	.5g	30mL	
246070008	RE15–10–8154	SAMPLE	S	17–FEB–10	.555g	30mL	
246070009	RE15–10–8156	SAMPLE	S	17–FEB–10	.509g	30mL	
246070010	RE15–10–8159	SAMPLE	S	17–FEB–10	.6g	30mL	
246070011	RE15–10–8157	SAMPLE	S	17–FEB–10	.518g	30mL	
246070012	RE15–10–8158	SAMPLE	S	17–FEB–10	.532g	30mL	
246070013	RE15–10–8160	SAMPLE	S	17–FEB–10	.593g	30mL	
246070014	RE15–10–8149	SAMPLE	S	17–FEB–10	.514g	30mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1544 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
246070015	RE15-10-8167	SAMPLE	S	17-FEB-10	.513g	30mL	
246070016	RE15-10-8152	SAMPLE	S	17-FEB-10	.523g	30mL	
246070017	RE15-10-8150	SAMPLE	S	17-FEB-10	.535g	30mL	
246070018	RE15-10-8153	SAMPLE	S	17-FEB-10	.515g	30mL	
246070019	RE15-10-8165	SAMPLE	S	17-FEB-10	.553g	30mL	
246070020	RE15-10-8155	SAMPLE	S	17-FEB-10	.549g	30mL	

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 02–MAR–10 **End Date:** 02–MAR–10

Client Sdg: 10–1544
Method MS
Data File: 100302–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	13:42			X		X											X		X					
S10	1	13:44			X		X											X		X					
S100	1	13:46			X		X											X		X					
ICV01	1	13:48			X		X											X		X					
ICB01	1	13:50			X		X											X		X					
CRDL01	1	13:52			X		X											X		X					
ICSA01	1	13:54			X		X											X		X					
ICSAB01	1	13:56			X		X											X		X					
CCV01	1	13:58			X		X											X		X					
CCB01	1	14:00			X		X											X		X					
ZZZZZZ	2	14:02																							
ZZZZZZ	40	14:04																							
ZZZZZZ	2	14:06																							
ZZZZZZ	2	14:08																							
ZZZZZZ	2	14:11																							
CCV02	1	14:13			X		X											X		X					
CCB02	1	14:15			X		X											X		X					
ZZZZZZ	2	14:17																							
ZZZZZZ	2	14:19																							
ZZZZZZ	2	14:21																							
ZZZZZZ	2	14:23																							
ZZZZZZ	10	14:25																							
ZZZZZZ	2	14:27																							
CCV03	1	14:29			X		X											X		X					
CCB03	1	14:31			X		X											X		X					
ZZZZZZ	2	14:33																							
ZZZZZZ	2	14:35																							
ZZZZZZ	2	14:37																							
ZZZZZZ	2	14:39																							
ZZZZZZ	2	14:41																							
ZZZZZZ	2	14:43																							
ZZZZZZ	2	14:45																							
CCV04	1	14:47			X		X											X		X					
CCB04	1	14:49			X		X											X		X					
ZZZZZZ	2	14:52																							
ZZZZZZ	40	14:54																							
ZZZZZZ	2	14:56																							
ZZZZZZ	2	14:58																							
ZZZZZZ	2	15:00																							
ZZZZZZ	2	15:02																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	10	15:04																							
ZZZZZZ	2	15:07																							
ZZZZZZ	2	15:09																							
ZZZZZZ	2	15:11																							
CCV05	1	15:13			X		X										X		X						
CCB05	1	15:15			X		X										X		X						
ZZZZZZ	2	15:17																							
ZZZZZZ	2	15:19																							
ZZZZZZ	2	15:21																							
ZZZZZZ	2	15:23																							
ZZZZZZ	2	15:25																							
ZZZZZZ	2	15:27																							
ZZZZZZ	2	15:29																							
ZZZZZZ	2	15:31																							
CCV06	1	15:33			X		X										X		X						
CCB06	1	15:35			X		X										X		X						
ZZZZZZ	2	15:37																							
ZZZZZZ	2	15:40																							
ZZZZZZ	2	15:42																							
ZZZZZZ	2	15:44																							
ZZZZZZ	2	15:46																							
ZZZZZZ	2	15:48																							
ZZZZZZ	2	15:50																							
ZZZZZZ	2	15:52																							
CCV07	1	15:54			X		X										X		X						
CCB07	1	15:56			X		X										X		X						
ZZZZZZ	2	15:58																							
ZZZZZZ	40	16:00																							
ZZZZZZ	2	16:02																							
ZZZZZZ	2	16:04																							
ZZZZZZ	2	16:07																							
ZZZZZZ	2	16:09																							
ZZZZZZ	10	16:11																							
CCV08	1	16:13			X		X										X		X						
CCB08	1	16:15			X		X										X		X						
ZZZZZZ	2	16:17																							
ZZZZZZ	2	16:19																							
ZZZZZZ	2	16:21																							
ZZZZZZ	2	16:23																							
ZZZZZZ	2	16:25																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	2	16:27																							
ZZZZZZ	2	16:29																							
CCV09	1	16:31			X		X											X		X					
CCB09	1	16:33			X		X											X		X					
1202033993	2	16:35			X		X											X		X					
1202033998	40	16:37			X		X											X		X					
246070001	2	16:39			X		X											X		X					
1202033994	2	16:41			X		X											X		X					
1202033996	2	16:43			X		X											X		X					
1202033997	2	16:45			X		X											X		X					
1202033995	10	16:47			X		X											X		X					
246070002	2	16:49			X		X											X		X					
246070003	2	16:51			X		X											X		X					
246070004	2	16:53			X		X											X		X					
CCV10	1	16:55			X		X											X		X					
CCB10	1	16:58			X		X											X		X					
246070005	2	17:00			X		X											X		X					
246070006	2	17:02			X		X											X		X					
246070007	2	17:04			X		X											X		X					
246070008	2	17:06			X		X											X		X					
246070009	2	17:08			X		X											X		X					
246070010	2	17:10			X		X											X		X					
246070011	2	17:12			X		X											X		X					
246070012	2	17:14			X		X											X		X					
246070013	2	17:16			X		X											X		X					
CCV11	1	17:18			X		X											X		X					
CCB11	1	17:20			X		X											X		X					
246070014	2	17:22			X		X											X		X					
246070015	2	17:24			X		X											X		X					
246070016	2	17:26			X		X											X		X					
246070017	2	17:29			X		X											X		X					
246070018	2	17:31			X		X											X		X					
246070019	2	17:33			X		X											X		X					
246070020	2	17:35			X		X											X		X					
CCV12	1	17:37			X		X											X		X					
CCB12	1	17:39			X		X											X		X					

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 28–FEB–10 **End Date:** 28–FEB–10

Client Sdg: 10–1544
Method MS
Data File: 100227–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	14:01																					X		
S10	1	14:07																					X		
S100	1	14:13																					X		
ICV01	1	14:19																					X		
ICB01	1	14:25																					X		
CRDL01	1	14:31																					X		
ICSA01	1	14:37																					X		
ICSAB01	1	14:43																					X		
CCV01	1	14:48																					X		
CCB01	1	14:54																					X		
1202033993	2	15:00																					X		
1202033998	40	15:06																					X		
CCV02	1	15:12																					X		
CCB02	1	15:18																					X		
246070001	2	15:24																					X		
1202033994	2	15:30																					X		
1202033996	2	15:36																					X		
1202033997	2	15:41																					X		
1202033995	10	15:47																					X		
246070002	2	15:53																					X		
246070003	2	15:59																					X		
246070004	2	16:05																					X		
CCV03	1	16:11																					X		
CCB03	1	16:17																					X		
246070005	2	16:23																					X		
246070006	2	16:29																					X		
246070007	2	16:35																					X		
246070008	2	16:40																					X		
246070009	2	16:46																					X		
246070010	2	16:52																					X		
246070011	2	16:58																					X		
246070012	2	17:04																					X		
CCV04	1	17:10																					X		
CCB04	1	17:16																					X		
246070013	2	17:22																					X		
246070014	2	17:28																					X		
246070015	2	17:34																					X		
246070016	2	17:39																					X		
246070017	2	17:45																					X		
246070018	2	17:51																					X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
246070019	2	17:57																				X		
246070020	2	18:03																				X		
CCV05	1	18:09																				X		
CCB05	1	18:15																				X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 01-MAR-10 **End Date:** 02-MAR-10

Client Sdg: 10-1544
Method P
Data File: 030110A-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	11:32	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	11:38		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	11:44	X	X		X		X	X	X	X	X		X	X	X			X		X			X	X
SCAL	1	11:52	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S10	1	11:59	X						X				X		X							X			
ICV01	1	12:04	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	12:11	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	12:18	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	12:25	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	12:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	12:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	12:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	12:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	12:58	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR03	1	13:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	13:12	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	13:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	13:31																							
ZZZZZZ	1	13:38																							
ZZZZZZ	1	13:45																							
ZZZZZZ	1	13:52																							
ZZZZZZ	1	13:59																							
ZZZZZZ	1	14:06																							
ZZZZZZ	1	14:13																							
CCV03	1	14:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	14:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	14:32																							
ZZZZZZ	1	14:38																							
ZZZZZZ	1	14:45																							
ZZZZZZ	1	14:52																							
ZZZZZZ	1	14:59																							
ZZZZZZ	1	15:06																							
ZZZZZZ	5	15:13																							
ZZZZZZ	1	15:20																							
CCV04	1	15:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	15:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	15:40																							
ZZZZZZ	1	15:48																							
ZZZZZZ	1	15:55																							
ZZZZZZ	1	16:02																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	16:09																							
ZZZZZZ	1	16:16																							
ZZZZZZ	1	16:23																							
ZZZZZZ	1	16:30																							
CCV05	1	16:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	16:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	16:51																							
ZZZZZZ	1	16:58																							
ZZZZZZ	1	17:05																							
ZZZZZZ	1	17:12																							
ZZZZZZ	1	17:20																							
ZZZZZZ	1	17:27																							
ZZZZZZ	1	17:34																							
ZZZZZZ	1	17:40																							
CCV06	1	17:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	17:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV07	1	18:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	18:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:35																							
ZZZZZZ	1	18:42																							
ZZZZZZ	1	18:49																							
ZZZZZZ	1	18:56																							
ZZZZZZ	1	19:03																							
ZZZZZZ	1	19:09																							
ZZZZZZ	1	19:16																							
ZZZZZZ	1	19:23																							
ZZZZZZ	1	19:30																							
ZZZZZZ	1	19:36																							
CCV08	1	19:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	19:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:57																							
ZZZZZZ	1	20:04																							
ZZZZZZ	50	20:10																							
ZZZZZZ	50	20:17																							
ZZZZZZ	50	20:24																							
ZZZZZZ	50	20:30																							
ZZZZZZ	250	20:37																							
CCV09	1	20:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	20:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:58																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	21:05																							
ZZZZZZ	1	21:12																							
ZZZZZZ	1	21:19																							
ZZZZZZ	1	21:26																							
ZZZZZZ	1	21:33																							
ZZZZZZ	1	21:40																							
ZZZZZZ	100	21:47																							
CCV10	1	21:54	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	22:01	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202033987	1	22:08	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202033992	1	22:14	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070001	1	22:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202033988	1	22:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202033990	1	22:35	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202033991	1	22:42	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202033989	5	22:49	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070002	1	22:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070003	1	23:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV11	1	23:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	23:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070004	1	23:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070005	1	23:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070006	1	23:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070007	1	23:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070008	1	23:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070009	1	23:58	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070010	1	00:05	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070011	1	00:13	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070012	1	00:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV12	1	00:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	00:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070013	1	00:41	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070014	1	00:48	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070015	1	00:55	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070016	1	01:02	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070017	1	01:09	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070018	1	01:16	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070019	1	01:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
246070020	1	01:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV13	1	01:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCB13	1	01:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: MER536
Start Date: 18–FEB–10 **End Date:** 18–FEB–10

Client Sdg: 10–1544
Method AV
Data File: 021810S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:45															X								
S0.2	1	09:47															X								
S0.5	1	09:49															X								
S2.0	1	09:51															X								
S5.0	1	09:53															X								
S10	1	09:55															X								
ICV01	1	09:57															X								
ICB01	1	09:59															X								
CRDL01	1	10:01															X								
CCV01	1	10:03															X								
CCB01	1	10:05															X								
ZZZZZZ	1	10:07																							
ZZZZZZ	10	10:09																							
ZZZZZZ	1	10:11																							
ZZZZZZ	1	10:13																							
ZZZZZZ	1	10:15																							
ZZZZZZ	1	10:17																							
ZZZZZZ	5	10:19																							
ZZZZZZ	1	10:21																							
ZZZZZZ	1	10:23																							
ZZZZZZ	1	10:25																							
CCV02	1	10:27															X								
CCB02	1	10:29															X								
ZZZZZZ	1	10:31																							
ZZZZZZ	1	10:33																							
ZZZZZZ	1	10:35																							
ZZZZZZ	1	10:37																							
ZZZZZZ	1	10:39																							
ZZZZZZ	1	10:41																							
ZZZZZZ	1	10:43																							
ZZZZZZ	1	10:45																							
ZZZZZZ	1	10:47																							
ZZZZZZ	1	10:49																							
CCV03	1	10:51															X								
CCB03	1	10:53															X								
ZZZZZZ	1	10:55																							
ZZZZZZ	1	10:57																							
ZZZZZZ	10	10:59																							
ZZZZZZ	1	11:01																							
ZZZZZZ	1	11:03																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	11:05																							
ZZZZZZ	1	11:07																							
ZZZZZZ	5	11:09																							
ZZZZZZ	1	11:11																							
ZZZZZZ	1	11:13																							
CCV04	1	11:15														X									
CCB04	1	11:17														X									
ZZZZZZ	1	11:19																							
ZZZZZZ	1	11:21																							
ZZZZZZ	1	11:23																							
ZZZZZZ	1	11:25																							
ZZZZZZ	1	11:27																							
ZZZZZZ	1	11:29																							
ZZZZZZ	1	11:31																							
ZZZZZZ	1	11:33																							
ZZZZZZ	1	11:35																							
ZZZZZZ	1	11:37																							
CCV05	1	11:39														X									
CCB05	1	11:41														X									
ZZZZZZ	1	11:43																							
ZZZZZZ	1	11:45																							
ZZZZZZ	1	11:47																							
ZZZZZZ	1	11:49																							
ZZZZZZ	1	11:51																							
ZZZZZZ	1	11:53																							
ZZZZZZ	1	11:55																							
ZZZZZZ	1	11:57																							
ZZZZZZ	10	11:59																							
ZZZZZZ	1	12:01																							
CCV06	1	12:03														X									
CCB06	1	12:05														X									
ZZZZZZ	1	12:07																							
ZZZZZZ	1	12:09																							
ZZZZZZ	1	12:11																							
ZZZZZZ	1	12:12																							
ZZZZZZ	1	12:14																							
ZZZZZZ	1	12:16																							
ZZZZZZ	1	12:18																							
ZZZZZZ	1	12:20																							
ZZZZZZ	1	12:22																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	12:24																							
CCV07	1	12:26															X								
CCB07	1	12:28															X								
ZZZZZZ	1	12:30																							
ZZZZZZ	1	12:32																							
ZZZZZZ	1	12:34																							
ZZZZZZ	1	12:36																							
ZZZZZZ	5	12:38																							
ZZZZZZ	1	12:40																							
ZZZZZZ	1	12:42																							
ZZZZZZ	1	12:44																							
ZZZZZZ	1	12:46																							
ZZZZZZ	1	12:48																							
CCV08	1	12:50															X								
CCB08	1	12:52															X								
ZZZZZZ	1	12:54																							
ZZZZZZ	1	12:56																							
ZZZZZZ	1	12:58																							
CCV09	1	13:07															X								
CCB09	1	13:09															X								
ZZZZZZ	50	13:11																							
ZZZZZZ	10	13:13																							
ZZZZZZ	200	13:15																							
ZZZZZZ	1	13:17																							
ZZZZZZ	200	13:19																							
ZZZZZZ	1	13:21																							
ZZZZZZ	10	13:23																							
ZZZZZZ	1	13:25																							
ZZZZZZ	1	13:27																							
ZZZZZZ	1	13:29																							
CCV10	1	13:31															X								
CCB10	1	13:33															X								
ZZZZZZ	1	13:35																							
ZZZZZZ	5	13:37																							
ZZZZZZ	1	13:39																							
ZZZZZZ	1	13:41																							
ZZZZZZ	1	13:43																							
ZZZZZZ	1	13:45																							
ZZZZZZ	1	13:47																							
ZZZZZZ	1	13:49																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																								
ZZZZZZ	1	13:50																								
ZZZZZZ	1	13:52																								
CCV11	1	13:54															X									
CCB11	1	13:56															X									
CCV12	1	14:05															X									
CCB12	1	14:08															X									
ZZZZZZ	400	14:09																								
ZZZZZZ	1	14:11																								
ZZZZZZ	5	14:13																								
ZZZZZZ	1	14:15																								
ZZZZZZ	1	14:17																								
ZZZZZZ	1	14:19																								
ZZZZZZ	1	14:21																								
ZZZZZZ	1	14:23																								
ZZZZZZ	1	14:25																								
ZZZZZZ	1	14:27																								
CCV13	1	14:29															X									
CCB13	1	14:31															X									
ZZZZZZ	1	14:33																								
ZZZZZZ	1	14:35																								
ZZZZZZ	1	14:37																								
ZZZZZZ	1	14:39																								
ZZZZZZ	1	14:41																								
ZZZZZZ	1	14:43																								
ZZZZZZ	1	14:45																								
CCV14	1	14:47															X									
CCB14	1	14:49															X									
ZZZZZZ	1	14:52																								
ZZZZZZ	10	14:54																								
ZZZZZZ	1	14:56																								
ZZZZZZ	1	14:58																								
ZZZZZZ	1	15:00																								
ZZZZZZ	1	15:02																								
ZZZZZZ	1	15:03																								
ZZZZZZ	1	15:05																								
ZZZZZZ	1	15:07																								
ZZZZZZ	1	15:09																								
CCV15	1	15:11															X									
CCB15	1	15:13															X									
ZZZZZZ	1	15:15																								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	15:17																							
ZZZZZZ	1	15:19																							
ZZZZZZ	1	15:21																							
ZZZZZZ	1	15:23																							
ZZZZZZ	5	15:25																							
ZZZZZZ	1	15:27																							
ZZZZZZ	1	15:29																							
ZZZZZZ	1	15:31																							
ZZZZZZ	1	15:33																							
CCV16	1	15:35															X								
CCB16	1	15:37															X								
ZZZZZZ	1	15:39																							
ZZZZZZ	1	15:41																							
ZZZZZZ	1	15:43																							
ZZZZZZ	1	15:45																							
ZZZZZZ	1	15:47																							
ZZZZZZ	1	15:49																							
1202039305	1	15:51															X								
1202039306	10	15:53															X								
246070001	1	15:55															X								
1202039307	1	15:57															X								
CCV17	1	15:59															X								
CCB17	1	16:01															X								
1202039308	1	16:03															X								
1202039310	1	16:05															X								
1202039309	5	16:07															X								
246070002	1	16:09															X								
246070003	1	16:11															X								
246070004	1	16:13															X								
246070005	1	16:15															X								
246070006	1	16:17															X								
246070007	1	16:19															X								
246070008	1	16:21															X								
CCV18	1	16:23															X								
CCB18	1	16:25															X								
246070009	1	16:27															X								
246070010	1	16:29															X								
246070011	1	16:31															X								
246070012	1	16:33															X								
246070013	1	16:35															X								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
246070014	1	16:37														X								
246070015	1	16:39														X								
246070016	1	16:41														X								
246070017	1	16:43														X								
246070018	1	16:45														X								
CCV19	1	16:47														X								
CCB19	1	16:49														X								
ZZZZZZ	1	16:51																						
ZZZZZZ	1	16:53																						
ZZZZZZ	1	16:55																						
ZZZZZZ	1	16:57																						
ZZZZZZ	1	16:59																						
ZZZZZZ	1	17:00																						
ZZZZZZ	1	17:02																						
ZZZZZZ	1	17:04																						
ZZZZZZ	5	17:06																						
ZZZZZZ	1	17:08																						
CCV20	1	17:10														X								
CCB20	1	17:12														X								
ZZZZZZ	1	17:14																						
ZZZZZZ	1	17:16																						
CCV21	1	17:22														X								
CCB21	1	17:24														X								
246070019	1	17:26														X								
246070020	1	17:28														X								
ZZZZZZ	1	17:30																						
ZZZZZZ	1	17:32																						
ZZZZZZ	1	17:34																						
ZZZZZZ	1	17:35																						
ZZZZZZ	1	17:37																						
ZZZZZZ	1	17:39																						
ZZZZZZ	5	17:41																						
ZZZZZZ	1	17:43																						
CCV22	1	17:45														X								
CCB22	1	17:47														X								

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1544

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1544

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1544

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1544
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1544
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1544
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1544
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1544
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1544
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1544

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1544

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1544

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 030110
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 030110A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/1/2010 13:26:24**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/1/2010 11:32:10**
Analyst: **Data Type: Reprocessed on 3/1/2010 13:29:20**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	771077.3	771077.3	100.41	%	11:35:20
1	Sc Radial	4720.0	4720.0	100	%	11:34:03
1	Y 371.029	691300.5	691300.5	100.33	%	11:35:20
1	Y RADIAL	5001.3	5001.3	100.3	%	11:34:03
1	Ag 328.068†	250.1	249.0	[0.00]	ug/L	11:35:20

1	Al 396.153Radial†	-83.3	-83.0	[0.00]	ug/L	11:34:23
1	As 188.979†	-21.8	-21.8	[0.00]	ug/L	11:35:40
1	B 249.677†	-446.4	-444.5	[0.00]	ug/L	11:35:40
1	Ba 233.527†	3.2	3.2	[0.00]	ug/L	11:35:40
1	Be 313.107†	-8975.1	-8938.6	[0.00]	ug/L	11:35:20
1	Ca 317.933Radial†	22.4	22.3	[0.00]	ug/L	11:34:23
1	Cd 226.502†	-194.3	-193.5	[0.00]	ug/L	11:35:40
1	Co 228.616†	-48.1	-47.9	[0.00]	ug/L	11:35:40
1	Cr 267.716†	76.3	76.0	[0.00]	ug/L	11:35:40
1	Cu 324.752†	7463.3	7433.0	[0.00]	ug/L	11:35:20
1	Fe 238.204 Radial†	5.7	5.6	[0.00]	ug/L	11:34:23
1	K 766.490 Radial†	2178.5	2172.4	[0.00]	ug/L	11:34:03
1	Mg 279.077 IEC†	2.6	2.6	[0.00]	ug/L	11:34:23
1	Mn 257.610†	457.0	455.2	[0.00]	ug/L	11:35:40
1	Mo 202.031†	15.5	15.4	[0.00]	ug/L	11:35:40
1	Na 589.592 Radial†	-839.3	-836.9	[0.00]	ug/L	11:34:03
1	Ni 231.604†	92.4	92.0	[0.00]	ug/L	11:35:40
1	P 214.914†	189.2	188.5	[0.00]	ug/L	11:35:40
1	Pb 220.353†	-69.6	-69.3	[0.00]	ug/L	11:35:40
1	S 181.975 Axial†	44.5	44.3	[0.00]	ug/L	11:35:40
1	Sb 206.836†	42.1	41.9	[0.00]	ug/L	11:35:40
1	Se 196.026†	-20.4	-20.3	[0.00]	ug/L	11:35:40
1	Si 251.611†	573.0	570.6	[0.00]	ug/L	11:35:40
1	Sn 189.927†	7.1	7.0	[0.00]	ug/L	11:35:40
1	Sr 421.552†	7.2	7.1	[0.00]	ug/L	11:34:03
1	Ti 334.940†	-1385.7	-1380.1	[0.00]	ug/L	11:35:20
1	Tl 190.801†	-30.6	-30.5	[0.00]	ug/L	11:35:40
1	U 409.014†	-2567.7	-2557.2	[0.00]	ug/L	11:35:20
1	V 292.402†	-1650.4	-1643.7	[0.00]	ug/L	11:35:20
1	Zn 213.857†	709.8	706.9	[0.00]	ug/L	11:35:40
1	SiO2†	599.2	596.8	[0.00]	ug/L	11:36:36
2	Sc 361.383	771656.5	771656.5	100.48	%	11:35:45
2	Sc Radial	4764.1	4764.1	101	%	11:34:28
2	Y 371.029	692601.0	692601.0	100.52	%	11:35:45
2	Y RADIAL	5064.2	5064.2	101.6	%	11:34:28
2	Ag 328.068†	275.0	273.7	[0.00]	ug/L	11:35:45
2	Al 396.153Radial†	-85.9	-84.8	[0.00]	ug/L	11:34:48
2	As 188.979†	-26.2	-26.1	[0.00]	ug/L	11:36:05
2	B 249.677†	-458.7	-456.5	[0.00]	ug/L	11:36:05
2	Ba 233.527†	14.1	14.1	[0.00]	ug/L	11:36:05
2	Be 313.107†	-9023.6	-8980.1	[0.00]	ug/L	11:35:45
2	Ca 317.933Radial†	18.8	18.5	[0.00]	ug/L	11:34:48
2	Cd 226.502†	-180.2	-179.4	[0.00]	ug/L	11:36:05
2	Co 228.616†	-71.9	-71.5	[0.00]	ug/L	11:36:05
2	Cr 267.716†	75.3	74.9	[0.00]	ug/L	11:36:05
2	Cu 324.752†	7571.0	7534.5	[0.00]	ug/L	11:35:45
2	Fe 238.204 Radial†	8.4	8.3	[0.00]	ug/L	11:34:48
2	K 766.490 Radial†	2281.5	2254.0	[0.00]	ug/L	11:34:28
2	Mg 279.077 IEC†	3.6	3.6	[0.00]	ug/L	11:34:48
2	Mn 257.610†	459.1	456.9	[0.00]	ug/L	11:36:05
2	Mo 202.031†	15.8	15.7	[0.00]	ug/L	11:36:05
2	Na 589.592 Radial†	-873.6	-863.0	[0.00]	ug/L	11:34:28
2	Ni 231.604†	106.1	105.6	[0.00]	ug/L	11:36:05
2	P 214.914†	206.2	205.2	[0.00]	ug/L	11:36:05
2	Pb 220.353†	-80.9	-80.5	[0.00]	ug/L	11:36:05
2	S 181.975 Axial†	37.6	37.4	[0.00]	ug/L	11:36:05
2	Sb 206.836†	19.0	18.9	[0.00]	ug/L	11:36:05
2	Se 196.026†	-12.0	-12.0	[0.00]	ug/L	11:36:05
2	Si 251.611†	602.2	599.3	[0.00]	ug/L	11:36:05
2	Sn 189.927†	8.1	8.1	[0.00]	ug/L	11:36:05
2	Sr 421.552†	-8.0	-7.9	[0.00]	ug/L	11:34:28
2	Ti 334.940†	-1287.1	-1280.9	[0.00]	ug/L	11:35:45
2	Tl 190.801†	-22.7	-22.6	[0.00]	ug/L	11:36:05
2	U 409.014†	-2503.9	-2491.8	[0.00]	ug/L	11:35:45
2	V 292.402†	-1592.0	-1584.3	[0.00]	ug/L	11:35:45
2	Zn 213.857†	715.3	711.8	[0.00]	ug/L	11:36:05
2	SiO2†	612.8	609.9	[0.00]	ug/L	11:36:41
3	Sc 361.383	761083.0	761083.0	99.107	%	11:36:11
3	Sc Radial	4635.9	4635.9	98.5	%	11:34:53
3	Y 371.029	683202.5	683202.5	99.154	%	11:36:11
3	Y RADIAL	4890.8	4890.8	98.10	%	11:34:53

3	Ag 328.068†	242.1	244.3	[0.00]	ug/L	11:36:11
3	Al 396.153Radial†	-92.1	-93.5	[0.00]	ug/L	11:35:13
3	As 188.979†	-27.0	-27.2	[0.00]	ug/L	11:36:31
3	B 249.677†	-455.2	-459.3	[0.00]	ug/L	11:36:31
3	Ba 233.527†	-10.0	-10.1	[0.00]	ug/L	11:36:31
3	Be 313.107†	-8948.7	-9029.3	[0.00]	ug/L	11:36:11
3	Ca 317.933Radial†	25.2	25.6	[0.00]	ug/L	11:35:13
3	Cd 226.502†	-185.4	-187.1	[0.00]	ug/L	11:36:31
3	Co 228.616†	-52.5	-53.0	[0.00]	ug/L	11:36:31
3	Cr 267.716†	75.2	75.9	[0.00]	ug/L	11:36:31
3	Cu 324.752†	7572.7	7641.0	[0.00]	ug/L	11:36:11
3	Fe 238.204 Radial†	7.9	8.0	[0.00]	ug/L	11:35:13
3	K 766.490 Radial†	2323.1	2358.5	[0.00]	ug/L	11:34:53
3	Mg 279.077 IEC†	2.5	2.5	[0.00]	ug/L	11:35:13
3	Mn 257.610†	467.2	471.4	[0.00]	ug/L	11:36:31
3	Mo 202.031†	11.9	12.1	[0.00]	ug/L	11:36:31
3	Na 589.592 Radial†	-830.7	-843.4	[0.00]	ug/L	11:34:53
3	Ni 231.604†	105.5	106.4	[0.00]	ug/L	11:36:31
3	P 214.914†	190.7	192.4	[0.00]	ug/L	11:36:31
3	Pb 220.353†	-61.8	-62.3	[0.00]	ug/L	11:36:31
3	S 181.975 Axial†	45.4	45.8	[0.00]	ug/L	11:36:31
3	Sb 206.836†	29.0	29.2	[0.00]	ug/L	11:36:31
3	Se 196.026†	-26.9	-27.1	[0.00]	ug/L	11:36:31
3	Si 251.611†	592.3	597.7	[0.00]	ug/L	11:36:31
3	Sn 189.927†	9.0	9.1	[0.00]	ug/L	11:36:31
3	Sr 421.552†	-0.6	-0.7	[0.00]	ug/L	11:34:53
3	Ti 334.940†	-1231.1	-1242.1	[0.00]	ug/L	11:36:11
3	Tl 190.801†	-40.2	-40.5	[0.00]	ug/L	11:36:31
3	U 409.014†	-2538.6	-2561.4	[0.00]	ug/L	11:36:11
3	V 292.402†	-1641.2	-1655.9	[0.00]	ug/L	11:36:11
3	Zn 213.857†	705.7	712.1	[0.00]	ug/L	11:36:31
3	SiO2†	577.5	582.7	[0.00]	ug/L	11:36:46

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	767938.9	5944.49	0.77%	100.00	%
Sc Radial	4706.6	65.13	1.38%	100	%
Y 371.029	689034.7	5092.47	0.74%	100.000	%
Y RADIAL	4985.4	87.80	1.76%	100.0	%
Ag 328.068†	255.7	15.78	6.17%	[0.00]	ug/L
Al 396.153Radial†	-87.1	5.59	6.42%	[0.00]	ug/L
As 188.979†	-25.0	2.87	11.48%	[0.00]	ug/L
B 249.677†	-453.4	7.84	1.73%	[0.00]	ug/L
Ba 233.527†	2.4	12.08	503.84%	[0.00]	ug/L
Be 313.107†	-8982.7	45.41	0.51%	[0.00]	ug/L
Ca 317.933Radial†	22.2	3.54	15.98%	[0.00]	ug/L
Cd 226.502†	-186.6	7.06	3.78%	[0.00]	ug/L
Co 228.616†	-57.5	12.42	21.61%	[0.00]	ug/L
Cr 267.716†	75.6	0.58	0.77%	[0.00]	ug/L
Cu 324.752†	7536.1	104.01	1.38%	[0.00]	ug/L
Fe 238.204 Radial†	7.3	1.46	19.98%	[0.00]	ug/L
K 766.490 Radial†	2261.6	93.32	4.13%	[0.00]	ug/L
Mg 279.077 IEC†	2.9	0.58	19.93%	[0.00]	ug/L
Mn 257.610†	461.1	8.91	1.93%	[0.00]	ug/L
Mo 202.031†	14.4	2.02	14.03%	[0.00]	ug/L
Na 589.592 Radial†	-847.8	13.58	1.60%	[0.00]	ug/L
Ni 231.604†	101.3	8.11	8.00%	[0.00]	ug/L
P 214.914†	195.4	8.75	4.48%	[0.00]	ug/L
Pb 220.353†	-70.7	9.15	12.94%	[0.00]	ug/L
S 181.975 Axial†	42.5	4.49	10.57%	[0.00]	ug/L
Sb 206.836†	30.0	11.49	38.28%	[0.00]	ug/L
Se 196.026†	-19.8	7.60	38.38%	[0.00]	ug/L
Si 251.611†	589.2	16.10	2.73%	[0.00]	ug/L
Sn 189.927†	8.1	1.02	12.57%	[0.00]	ug/L
Sr 421.552†	-0.5	7.54	>999.9%	[0.00]	ug/L
Ti 334.940†	-1301.0	71.15	5.47%	[0.00]	ug/L
Tl 190.801†	-31.2	9.00	28.84%	[0.00]	ug/L
U 409.014†	-2536.8	39.04	1.54%	[0.00]	ug/L
V 292.402†	-1628.0	38.29	2.35%	[0.00]	ug/L

Zn 213.857†	710.3	2.91	0.41%	[0.00] ug/L
SiO2†	596.4	13.60	2.28%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/1/2010 11:38:57
Data Type: Reprocessed on 3/1/2010 13:29:22

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	778142.1	778142.1	101.33	%	11:41:22
1	Sc Radial	4713.9	4713.9	100	%	11:40:55
1	Y 371.029	696918.7	696918.7	101.14	%	11:41:22
1	Y RADIAL	4985.6	4985.6	100.0	%	11:40:55
1	Ag 328.068†	19692.1	19178.2	[100]	ug/L	11:41:22
1	As 188.979†	198.5	220.9	[100]	ug/L	11:41:42
1	B 249.677†	3443.4	3851.7	[100]	ug/L	11:41:22
1	Ba 233.527†	8531.0	8416.8	[100]	ug/L	11:41:22
1	Be 313.107†	242750.5	248550.2	[100]	ug/L	11:41:22
1	Cd 226.502†	6779.8	6877.6	[100]	ug/L	11:41:42
1	Co 228.616†	3281.4	3295.8	[100]	ug/L	11:41:42
1	Cr 267.716†	7523.2	7348.9	[100]	ug/L	11:41:22
1	Cu 324.752†	33895.6	25915.0	[100]	ug/L	11:41:22
1	K 766.490 Radial†	7290.4	5017.6	[1000]	ug/L	11:40:50
1	Mn 257.610†	64656.4	63347.5	[100]	ug/L	11:41:22
1	Mo 202.031†	1119.9	1090.8	[100]	ug/L	11:41:42
1	Ni 231.604†	3233.3	3089.5	[100]	ug/L	11:41:42
1	P 214.914†	1086.5	876.8	[500]	ug/L	11:41:42
1	Pb 220.353†	545.6	609.2	[100]	ug/L	11:41:42
1	S 181.975 Axial†	195.3	150.2	[200]	ug/L	11:41:42
1	Sb 206.836†	267.7	234.2	[100]	ug/L	11:41:42
1	Se 196.026†	141.5	159.5	[100]	ug/L	11:41:42
1	Si 251.611†	14319.0	13542.1	[500]	ug/L	11:41:22
1	Sn 189.927†	428.2	414.5	[100]	ug/L	11:41:42
1	Sr 421.552†	13640.7	13620.3	[100]	ug/L	11:40:55
1	Ti 334.940†	49216.9	49872.6	[100]	ug/L	11:41:22
1	Tl 190.801†	183.0	211.9	[100]	ug/L	11:41:42
1	U 409.014†	482.0	3012.5	[100]	ug/L	11:41:22
1	V 292.402†	10893.8	12378.9	[100]	ug/L	11:41:22
1	Zn 213.857†	9808.8	8969.9	[100]	ug/L	11:41:22
1	SiO2†	14406.9	13621.6	[1069.5]	ug/L	11:42:38
2	Sc 361.383	773296.3	773296.3	100.70	%	11:41:47
2	Sc Radial	4723.0	4723.0	100	%	11:41:05
2	Y 371.029	692513.1	692513.1	100.50	%	11:41:47
2	Y RADIAL	4999.7	4999.7	100.3	%	11:41:05
2	Ag 328.068†	19573.1	19181.8	[100]	ug/L	11:41:47
2	As 188.979†	199.3	223.0	[100]	ug/L	11:42:07
2	B 249.677†	3373.9	3804.0	[100]	ug/L	11:41:47
2	Ba 233.527†	8516.8	8455.4	[100]	ug/L	11:41:47
2	Be 313.107†	241861.3	249168.4	[100]	ug/L	11:41:47
2	Cd 226.502†	6779.2	6918.9	[100]	ug/L	11:42:07
2	Co 228.616†	3298.5	3333.1	[100]	ug/L	11:42:07
2	Cr 267.716†	7432.1	7305.0	[100]	ug/L	11:41:47
2	Cu 324.752†	33649.0	25879.8	[100]	ug/L	11:41:47
2	K 766.490 Radial†	7257.0	4970.2	[1000]	ug/L	11:41:00
2	Mn 257.610†	64411.1	63503.7	[100]	ug/L	11:41:47
2	Mo 202.031†	1106.3	1084.2	[100]	ug/L	11:42:07
2	Ni 231.604†	3232.0	3108.3	[100]	ug/L	11:42:07
2	P 214.914†	1089.5	886.6	[500]	ug/L	11:42:07
2	Pb 220.353†	553.9	620.8	[100]	ug/L	11:42:07
2	S 181.975 Axial†	199.4	155.5	[200]	ug/L	11:42:07
2	Sb 206.836†	273.7	241.8	[100]	ug/L	11:42:07
2	Se 196.026†	140.9	159.7	[100]	ug/L	11:42:07
2	Si 251.611†	14283.1	13594.9	[500]	ug/L	11:41:47
2	Sn 189.927†	424.2	413.2	[100]	ug/L	11:42:07
2	Sr 421.552†	13667.2	13620.3	[100]	ug/L	11:41:05
2	Ti 334.940†	48811.0	49773.9	[100]	ug/L	11:41:47
2	Tl 190.801†	184.2	214.1	[100]	ug/L	11:42:07

2	U 409.014†	517.4	3050.7	[100]	ug/L	11:41:47
2	V 292.402†	10815.8	12368.9	[100]	ug/L	11:41:47
2	Zn 213.857†	9815.8	9037.5	[100]	ug/L	11:41:47
2	SiO2†	14287.5	13592.1	[1069.5]	ug/L	11:42:43
3	Sc 361.383	771392.6	771392.6	100.45	%	11:42:13
3	Sc Radial	4684.6	4684.6	99.5	%	11:41:15
3	Y 371.029	689472.4	689472.4	100.06	%	11:42:13
3	Y RADIAL	4931.4	4931.4	98.92	%	11:41:15
3	Ag 328.068†	19554.4	19211.2	[100]	ug/L	11:42:13
3	As 188.979†	195.4	219.5	[100]	ug/L	11:42:33
3	B 249.677†	3421.3	3859.4	[100]	ug/L	11:42:13
3	Ba 233.527†	8545.6	8504.9	[100]	ug/L	11:42:13
3	Be 313.107†	240812.5	248717.0	[100]	ug/L	11:42:13
3	Cd 226.502†	6764.8	6921.1	[100]	ug/L	11:42:33
3	Co 228.616†	3279.8	3322.6	[100]	ug/L	11:42:33
3	Cr 267.716†	7461.9	7352.9	[100]	ug/L	11:42:13
3	Cu 324.752†	33538.9	25852.6	[100]	ug/L	11:42:13
3	K 766.490 Radial†	7330.3	5103.1	[1000]	ug/L	11:41:10
3	Mn 257.610†	64366.7	63617.4	[100]	ug/L	11:42:13
3	Mo 202.031†	1090.9	1071.7	[100]	ug/L	11:42:33
3	Ni 231.604†	3225.7	3110.0	[100]	ug/L	11:42:33
3	P 214.914†	1080.6	880.3	[500]	ug/L	11:42:33
3	Pb 220.353†	551.5	619.7	[100]	ug/L	11:42:33
3	S 181.975 Axial†	199.5	156.1	[200]	ug/L	11:42:33
3	Sb 206.836†	271.9	240.7	[100]	ug/L	11:42:33
3	Se 196.026†	144.0	163.2	[100]	ug/L	11:42:33
3	Si 251.611†	14287.1	13633.9	[500]	ug/L	11:42:13
3	Sn 189.927†	429.0	419.0	[100]	ug/L	11:42:33
3	Sr 421.552†	13646.5	13711.1	[100]	ug/L	11:41:15
3	Ti 334.940†	48626.0	49709.3	[100]	ug/L	11:42:13
3	Tl 190.801†	186.0	216.4	[100]	ug/L	11:42:33
3	U 409.014†	412.8	2947.7	[100]	ug/L	11:42:13
3	V 292.402†	10813.4	12393.0	[100]	ug/L	11:42:13
3	Zn 213.857†	9811.2	9057.0	[100]	ug/L	11:42:13
3	SiO2†	14311.4	13650.9	[1069.5]	ug/L	11:42:48

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	774277.0	3480.00	0.45%	100.83	%
Sc Radial	4707.2	20.05	0.43%	100	%
Y 371.029	692968.1	3743.96	0.54%	100.57	%
Y RADIAL	4972.2	36.05	0.73%	99.73	%
Ag 328.068†	19190.4	18.08	0.09%	[100]	ug/L
As 188.979†	221.1	1.73	0.78%	[100]	ug/L
B 249.677†	3838.4	30.02	0.78%	[100]	ug/L
Ba 233.527†	8459.0	44.17	0.52%	[100]	ug/L
Be 313.107†	248811.8	319.84	0.13%	[100]	ug/L
Cd 226.502†	6905.9	24.53	0.36%	[100]	ug/L
Co 228.616†	3317.2	19.19	0.58%	[100]	ug/L
Cr 267.716†	7335.6	26.60	0.36%	[100]	ug/L
Cu 324.752†	25882.5	31.29	0.12%	[100]	ug/L
K 766.490 Radial†	5030.3	67.36	1.34%	[1000]	ug/L
Mn 257.610†	63489.5	135.52	0.21%	[100]	ug/L
Mo 202.031†	1082.2	9.73	0.90%	[100]	ug/L
Ni 231.604†	3102.6	11.33	0.37%	[100]	ug/L
P 214.914†	881.3	4.93	0.56%	[500]	ug/L
Pb 220.353†	616.5	6.42	1.04%	[100]	ug/L
S 181.975 Axial†	153.9	3.27	2.12%	[200]	ug/L
Sb 206.836†	238.9	4.10	1.72%	[100]	ug/L
Se 196.026†	160.8	2.06	1.28%	[100]	ug/L
Si 251.611†	13590.3	46.10	0.34%	[500]	ug/L
Sn 189.927†	415.6	3.08	0.74%	[100]	ug/L
Sr 421.552†	13650.5	52.40	0.38%	[100]	ug/L
Ti 334.940†	49785.3	82.23	0.17%	[100]	ug/L
Tl 190.801†	214.1	2.28	1.07%	[100]	ug/L
U 409.014†	3003.6	52.03	1.73%	[100]	ug/L
V 292.402†	12380.3	12.11	0.10%	[100]	ug/L
Zn 213.857†	9021.5	45.70	0.51%	[100]	ug/L
SiO2†	13621.5	29.42	0.22%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/1/2010 11:44:59
Data Type: Reprocessed on 3/1/2010 13:29:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	790109.5	790109.5	102.89	%	11:48:08
1	Sc Radial	4632.9	4632.9	98.4	%	11:46:51
1	Y 371.029	699903.0	699903.0	101.58	%	11:48:08
1	Y RADIAL	4914.6	4914.6	98.58	%	11:46:51
1	Ag 328.068†	97511.0	94519.2	[500]	ug/L	11:48:14
1	Al 396.153Radial†	5188.1	5357.8	[5000]	ug/L	11:46:51
1	As 188.979†	1107.8	1101.7	[500]	ug/L	11:48:34
1	B 249.677†	19417.9	19326.4	[500]	ug/L	11:48:14
1	Ba 233.527†	42572.9	41375.9	[500]	ug/L	11:48:14
1	Be 313.107†	1263820.9	1237340.6	[500]	ug/L	11:48:08
1	Ca 317.933Radial†	2804.8	2827.2	[5000]	ug/L	11:47:11
1	Cd 226.502†	35370.6	34564.8	[500]	ug/L	11:48:14
1	Co 228.616†	16446.3	16042.3	[500]	ug/L	11:48:34
1	Cr 267.716†	36946.9	35834.6	[500]	ug/L	11:48:14
1	Cu 324.752†	140635.4	129153.0	[500]	ug/L	11:48:14
1	K 766.490 Radial†	27232.8	25404.3	[5000]	ug/L	11:46:51
1	Mg 279.077 IEC†	133.4	132.6	[5000]	ug/L	11:47:11
1	Mn 257.610†	314138.7	304862.8	[500]	ug/L	11:48:14
1	Mo 202.031†	5445.4	5278.2	[500]	ug/L	11:48:34
1	Ni 231.604†	16123.9	15570.2	[500]	ug/L	11:48:14
1	P 214.914†	4676.0	4349.4	[2500]	ug/L	11:48:34
1	Pb 220.353†	3034.6	3020.1	[500]	ug/L	11:48:34
1	S 181.975 Axial†	813.3	748.0	[1000]	ug/L	11:48:34
1	Sb 206.836†	1254.5	1189.3	[500]	ug/L	11:48:34
1	Se 196.026†	800.3	797.7	[500]	ug/L	11:48:34
1	Si 251.611†	68794.6	66275.0	[2500]	ug/L	11:48:14
1	Sn 189.927†	2106.7	2039.5	[500]	ug/L	11:48:34
1	Sr 421.552†	68297.0	69383.9	[500]	ug/L	11:46:51
1	Ti 334.940†	246507.0	240891.1	[500]	ug/L	11:48:14
1	Tl 190.801†	1050.3	1052.0	[500]	ug/L	11:48:34
1	U 409.014†	12315.1	14506.4	[500]	ug/L	11:48:14
1	V 292.402†	61427.8	61332.1	[500]	ug/L	11:48:14
1	Zn 213.857†	46350.5	44339.6	[500]	ug/L	11:48:14
1	SiO2†	68687.1	66163.3	[5347.5]	ug/L	11:49:41
2	Sc 361.383	790740.8	790740.8	102.97	%	11:48:39
2	Sc Radial	4662.2	4662.2	99.1	%	11:47:16
2	Y 371.029	699967.4	699967.4	101.59	%	11:48:39
2	Y RADIAL	4898.5	4898.5	98.26	%	11:47:16
2	Ag 328.068†	98433.1	95339.0	[500]	ug/L	11:48:44
2	Al 396.153Radial†	5177.9	5314.4	[5000]	ug/L	11:47:16
2	As 188.979†	1104.4	1097.5	[500]	ug/L	11:49:04
2	B 249.677†	19693.8	19579.4	[500]	ug/L	11:48:44
2	Ba 233.527†	43001.0	41758.6	[500]	ug/L	11:48:44
2	Be 313.107†	1263373.0	1235924.9	[500]	ug/L	11:48:39
2	Ca 317.933Radial†	2802.7	2807.2	[5000]	ug/L	11:47:36
2	Cd 226.502†	35805.4	34959.5	[500]	ug/L	11:48:44
2	Co 228.616†	16656.2	16233.3	[500]	ug/L	11:49:04
2	Cr 267.716†	37284.3	36133.5	[500]	ug/L	11:48:44
2	Cu 324.752†	142165.2	130529.6	[500]	ug/L	11:48:44
2	K 766.490 Radial†	27213.5	25211.5	[5000]	ug/L	11:47:16
2	Mg 279.077 IEC†	131.8	130.2	[5000]	ug/L	11:47:36
2	Mn 257.610†	317713.4	308090.7	[500]	ug/L	11:48:44
2	Mo 202.031†	5517.3	5343.8	[500]	ug/L	11:49:04
2	Ni 231.604†	16230.5	15661.1	[500]	ug/L	11:48:44
2	P 214.914†	4727.1	4395.4	[2500]	ug/L	11:49:04
2	Pb 220.353†	3079.3	3061.2	[500]	ug/L	11:49:04
2	S 181.975 Axial†	823.9	757.7	[1000]	ug/L	11:49:04
2	Sb 206.836†	1291.3	1224.0	[500]	ug/L	11:49:04

2	Se 196.026†	808.8	805.2	[500]	ug/L	11:49:04
2	Si 251.611†	69551.7	66956.9	[2500]	ug/L	11:48:44
2	Sn 189.927†	2136.7	2067.0	[500]	ug/L	11:49:04
2	Sr 421.552†	68378.5	69031.3	[500]	ug/L	11:47:16
2	Ti 334.940†	248868.0	242992.6	[500]	ug/L	11:48:44
2	Tl 190.801†	1071.9	1072.2	[500]	ug/L	11:49:04
2	U 409.014†	12438.0	14616.1	[500]	ug/L	11:48:44
2	V 292.402†	62019.9	61859.5	[500]	ug/L	11:48:44
2	Zn 213.857†	46860.7	44799.2	[500]	ug/L	11:48:44
2	SiO2†	68889.7	66306.7	[5347.5]	ug/L	11:49:46
3	Sc 361.383	782342.0	782342.0	101.88	%	11:49:10
3	Sc Radial	4768.5	4768.5	101	%	11:47:41
3	Y 371.029	693075.9	693075.9	100.59	%	11:49:10
3	Y RADIAL	5014.8	5014.8	100.6	%	11:47:41
3	Ag 328.068†	98042.5	95981.8	[500]	ug/L	11:49:15
3	Al 396.153Radial†	5274.4	5293.1	[5000]	ug/L	11:47:41
3	As 188.979†	1097.5	1102.3	[500]	ug/L	11:49:35
3	B 249.677†	19586.2	19679.1	[500]	ug/L	11:49:15
3	Ba 233.527†	42805.1	42014.7	[500]	ug/L	11:49:15
3	Be 313.107†	1250417.1	1236379.4	[500]	ug/L	11:49:10
3	Ca 317.933Radial†	2810.5	2751.9	[5000]	ug/L	11:48:01
3	Cd 226.502†	35501.0	35034.0	[500]	ug/L	11:49:15
3	Co 228.616†	16417.7	16172.9	[500]	ug/L	11:49:35
3	Cr 267.716†	37022.2	36265.0	[500]	ug/L	11:49:15
3	Cu 324.752†	141604.8	131461.7	[500]	ug/L	11:49:15
3	K 766.490 Radial†	27791.7	25169.7	[5000]	ug/L	11:47:41
3	Mg 279.077 IEC†	137.0	132.3	[5000]	ug/L	11:48:01
3	Mn 257.610†	315616.6	309344.9	[500]	ug/L	11:49:15
3	Mo 202.031†	5467.8	5352.7	[500]	ug/L	11:49:35
3	Ni 231.604†	16114.0	15716.0	[500]	ug/L	11:49:15
3	P 214.914†	4674.3	4392.9	[2500]	ug/L	11:49:35
3	Pb 220.353†	3023.0	3038.0	[500]	ug/L	11:49:35
3	S 181.975 Axial†	817.5	759.9	[1000]	ug/L	11:49:35
3	Sb 206.836†	1247.7	1194.7	[500]	ug/L	11:49:35
3	Se 196.026†	797.5	802.6	[500]	ug/L	11:49:35
3	Si 251.611†	69130.1	67268.1	[2500]	ug/L	11:49:15
3	Sn 189.927†	2096.6	2049.9	[500]	ug/L	11:49:35
3	Sr 421.552†	70108.2	69199.4	[500]	ug/L	11:47:41
3	Ti 334.940†	247878.1	244615.7	[500]	ug/L	11:49:15
3	Tl 190.801†	1067.6	1079.2	[500]	ug/L	11:49:35
3	U 409.014†	12484.0	14791.0	[500]	ug/L	11:49:15
3	V 292.402†	61750.0	62241.1	[500]	ug/L	11:49:15
3	Zn 213.857†	46561.7	44994.2	[500]	ug/L	11:49:15
3	SiO2†	68604.0	66744.6	[5347.5]	ug/L	11:49:51

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	787730.8	4677.50	0.59%	102.58	%
Sc Radial	4687.9	71.33	1.52%	99.6	%
Y 371.029	697648.8	3960.38	0.57%	101.25	%
Y RADIAL	4942.6	63.03	1.28%	99.14	%
Ag 328.068†	95280.0	733.09	0.77%	[500]	ug/L
Al 396.153Radial†	5321.7	32.96	0.62%	[5000]	ug/L
As 188.979†	1100.5	2.60	0.24%	[500]	ug/L
B 249.677†	19528.3	181.79	0.93%	[500]	ug/L
Ba 233.527†	41716.4	321.48	0.77%	[500]	ug/L
Be 313.107†	1236548.3	722.81	0.06%	[500]	ug/L
Ca 317.933Radial†	2795.5	39.05	1.40%	[5000]	ug/L
Cd 226.502†	34852.8	252.19	0.72%	[500]	ug/L
Co 228.616†	16149.5	97.65	0.60%	[500]	ug/L
Cr 267.716†	36077.7	220.58	0.61%	[500]	ug/L
Cu 324.752†	130381.4	1161.43	0.89%	[500]	ug/L
K 766.490 Radial†	25261.8	125.16	0.50%	[5000]	ug/L
Mg 279.077 IEC†	131.7	1.32	1.00%	[5000]	ug/L
Mn 257.610†	307432.8	2312.33	0.75%	[500]	ug/L
Mo 202.031†	5324.9	40.70	0.76%	[500]	ug/L
Ni 231.604†	15649.1	73.67	0.47%	[500]	ug/L
P 214.914†	4379.2	25.87	0.59%	[2500]	ug/L
Pb 220.353†	3039.8	20.61	0.68%	[500]	ug/L

S 181.975 Axial†	755.2	6.34	0.84%	[1000]	ug/L
Sb 206.836†	1202.7	18.67	1.55%	[500]	ug/L
Se 196.026†	801.8	3.85	0.48%	[500]	ug/L
Si 251.611†	66833.4	507.96	0.76%	[2500]	ug/L
Sn 189.927†	2052.1	13.87	0.68%	[500]	ug/L
Sr 421.552†	69204.9	176.36	0.25%	[500]	ug/L
Ti 334.940†	242833.1	1867.41	0.77%	[500]	ug/L
Tl 190.801†	1067.8	14.10	1.32%	[500]	ug/L
U 409.014†	14637.8	143.55	0.98%	[500]	ug/L
V 292.402†	61810.9	456.44	0.74%	[500]	ug/L
Zn 213.857†	44711.0	336.06	0.75%	[500]	ug/L
SiO2†	66404.9	302.81	0.46%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/1/2010 11:52:01
Data Type: Reprocessed on 3/1/2010 13:29:31
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	764373.9	764373.9	99.536	%	11:55:17
1	Sc Radial	4594.5	4594.5	97.6	%	11:53:54
1	Y 371.029	678498.0	678498.0	98.471	%	11:55:17
1	Y RADIAL	4835.7	4835.7	97.00	%	11:53:54
1	Ag 328.068†	194905.6	195558.9	[1000]	ug/L	11:55:17
1	Al 396.153Radial†	10324.1	10663.1	[10000]	ug/L	11:53:54
1	As 188.979†	2217.4	2252.8	[1000]	ug/L	11:55:37
1	B 249.677†	39539.4	40177.2	[1000]	ug/L	11:55:17
1	Ba 233.527†	84709.4	85102.0	[1000]	ug/L	11:55:17
1	Be 313.107†	2496774.2	2517401.8	[1000]	ug/L	11:55:11
1	Ca 317.933Radial†	5522.2	5634.7	[10000]	ug/L	11:53:54
1	Cd 226.502†	70329.3	70844.0	[1000]	ug/L	11:55:17
1	Co 228.616†	33153.7	33365.8	[1000]	ug/L	11:55:37
1	Cr 267.716†	73226.0	73491.9	[1000]	ug/L	11:55:17
1	Cu 324.752†	275147.3	268894.4	[1000]	ug/L	11:55:17
1	Fe 238.204 Radial†	977.3	993.9	[10000]	ug/L	11:54:14
1	K 766.490 Radial†	51251.7	50240.4	[10000]	ug/L	11:53:54
1	Mg 279.077 IEC†	255.7	259.1	[10000]	ug/L	11:54:14
1	Mn 257.610†	625097.1	627551.4	[1000]	ug/L	11:55:17
1	Mo 202.031†	10936.9	10973.5	[1000]	ug/L	11:55:37
1	Na 589.592 Radial†	27964.2	29494.3	[10000]	ug/L	11:53:54
1	Ni 231.604†	31284.4	31329.0	[1000]	ug/L	11:55:37
1	P 214.914†	9171.0	9018.4	[5000]	ug/L	11:55:37
1	Pb 220.353†	6157.2	6256.6	[1000]	ug/L	11:55:37
1	S 181.975 Axial†	1587.3	1552.2	[2000]	ug/L	11:55:37
1	Sb 206.836†	2501.1	2482.7	[1000]	ug/L	11:55:37
1	Se 196.026†	1617.2	1644.6	[1000]	ug/L	11:55:37
1	Si 251.611†	137914.9	137968.9	[5000]	ug/L	11:55:17
1	Sn 189.927†	4281.5	4293.4	[1000]	ug/L	11:55:37
1	Sr 421.552†	134424.0	137703.9	[1000]	ug/L	11:53:54
1	Ti 334.940†	495663.3	499276.1	[1000]	ug/L	11:55:17
1	Tl 190.801†	2150.4	2191.7	[1000]	ug/L	11:55:37
1	U 409.014†	27272.9	29936.9	[1000]	ug/L	11:55:17
1	V 292.402†	124028.5	126234.9	[1000]	ug/L	11:55:17
1	Zn 213.857†	91300.7	91016.3	[1000]	ug/L	11:55:17
1	SiO2†	137615.6	137661.0	[10695]	ug/L	11:56:45
2	Sc 361.383	760055.8	760055.8	98.973	%	11:55:48
2	Sc Radial	4648.4	4648.4	98.8	%	11:54:19
2	Y 371.029	673845.2	673845.2	97.796	%	11:55:48
2	Y RADIAL	4896.3	4896.3	98.21	%	11:54:19
2	Ag 328.068†	193600.0	195352.3	[1000]	ug/L	11:55:48
2	Al 396.153Radial†	10430.5	10648.3	[10000]	ug/L	11:54:19
2	As 188.979†	2224.8	2272.9	[1000]	ug/L	11:56:08
2	B 249.677†	39308.2	40169.3	[1000]	ug/L	11:55:48
2	Ba 233.527†	84410.6	85283.7	[1000]	ug/L	11:55:48
2	Be 313.107†	2500143.8	2535057.6	[1000]	ug/L	11:55:42
2	Ca 317.933Radial†	5612.1	5660.2	[10000]	ug/L	11:54:19
2	Cd 226.502†	70124.0	71037.9	[1000]	ug/L	11:55:48
2	Co 228.616†	33014.1	33414.0	[1000]	ug/L	11:56:08
2	Cr 267.716†	72996.6	73678.1	[1000]	ug/L	11:55:48
2	Cu 324.752†	272480.3	267770.3	[1000]	ug/L	11:55:48
2	Fe 238.204 Radial†	978.2	983.2	[10000]	ug/L	11:54:39
2	K 766.490 Radial†	51829.1	50216.5	[10000]	ug/L	11:54:19
2	Mg 279.077 IEC†	258.4	258.8	[10000]	ug/L	11:54:39
2	Mn 257.610†	622130.2	628121.7	[1000]	ug/L	11:55:48
2	Mo 202.031†	10909.8	11008.6	[1000]	ug/L	11:56:08
2	Na 589.592 Radial†	28443.5	29647.4	[10000]	ug/L	11:54:19
2	Ni 231.604†	31196.1	31418.4	[1000]	ug/L	11:56:08

2	P 214.914†	9144.6	9044.1	[5000]	ug/L	11:56:08
2	Pb 220.353†	6123.9	6258.1	[1000]	ug/L	11:56:08
2	S 181.975 Axial†	1578.8	1552.6	[2000]	ug/L	11:56:08
2	Sb 206.836†	2495.6	2491.5	[1000]	ug/L	11:56:08
2	Se 196.026†	1605.7	1642.1	[1000]	ug/L	11:56:08
2	Si 251.611†	137090.1	137922.7	[5000]	ug/L	11:55:48
2	Sn 189.927†	4258.4	4294.5	[1000]	ug/L	11:56:08
2	Sr 421.552†	135779.9	137480.6	[1000]	ug/L	11:54:19
2	Ti 334.940†	492315.4	498722.7	[1000]	ug/L	11:55:48
2	Tl 190.801†	2144.1	2197.5	[1000]	ug/L	11:56:08
2	U 409.014†	27067.1	29884.6	[1000]	ug/L	11:55:48
2	V 292.402†	123262.1	126168.5	[1000]	ug/L	11:55:48
2	Zn 213.857†	90887.3	91119.7	[1000]	ug/L	11:55:48
2	SiO2†	138658.0	139499.7	[10695]	ug/L	11:56:50
3	Sc 361.383	763813.6	763813.6	99.463	%	11:56:19
3	Sc Radial	4595.7	4595.7	97.6	%	11:54:44
3	Y 371.029	677242.1	677242.1	98.289	%	11:56:19
3	Y RADIAL	4859.4	4859.4	97.47	%	11:54:44
3	Ag 328.068†	194810.4	195606.9	[1000]	ug/L	11:56:19
3	Al 396.153Radial†	10282.6	10617.8	[10000]	ug/L	11:54:44
3	As 188.979†	2201.3	2238.2	[1000]	ug/L	11:56:39
3	B 249.677†	39491.5	40158.3	[1000]	ug/L	11:56:19
3	Ba 233.527†	84390.4	84843.8	[1000]	ug/L	11:56:19
3	Be 313.107†	2505418.6	2527933.1	[1000]	ug/L	11:56:14
3	Ca 317.933Radial†	5509.7	5620.5	[10000]	ug/L	11:54:44
3	Cd 226.502†	69846.3	70410.2	[1000]	ug/L	11:56:19
3	Co 228.616†	32838.2	33073.1	[1000]	ug/L	11:56:39
3	Cr 267.716†	72876.8	73194.8	[1000]	ug/L	11:56:19
3	Cu 324.752†	275543.0	269495.1	[1000]	ug/L	11:56:19
3	Fe 238.204 Radial†	962.4	978.3	[10000]	ug/L	11:55:04
3	K 766.490 Radial†	51059.4	50029.8	[10000]	ug/L	11:54:44
3	Mg 279.077 IEC†	260.6	264.0	[10000]	ug/L	11:55:04
3	Mn 257.610†	622791.6	625694.1	[1000]	ug/L	11:56:19
3	Mo 202.031†	10850.7	10894.9	[1000]	ug/L	11:56:39
3	Na 589.592 Radial†	27728.1	29245.0	[10000]	ug/L	11:54:44
3	Ni 231.604†	31028.9	31095.2	[1000]	ug/L	11:56:39
3	P 214.914†	9096.7	8950.5	[5000]	ug/L	11:56:39
3	Pb 220.353†	6078.9	6182.4	[1000]	ug/L	11:56:39
3	S 181.975 Axial†	1581.0	1547.1	[2000]	ug/L	11:56:39
3	Sb 206.836†	2484.0	2467.4	[1000]	ug/L	11:56:39
3	Se 196.026†	1605.8	1634.3	[1000]	ug/L	11:56:39
3	Si 251.611†	137568.5	137722.3	[5000]	ug/L	11:56:19
3	Sn 189.927†	4245.6	4260.5	[1000]	ug/L	11:56:39
3	Sr 421.552†	133510.6	136732.7	[1000]	ug/L	11:54:44
3	Ti 334.940†	494757.9	498731.2	[1000]	ug/L	11:56:19
3	Tl 190.801†	2133.6	2176.3	[1000]	ug/L	11:56:39
3	U 409.014†	27519.3	30204.8	[1000]	ug/L	11:56:19
3	V 292.402†	123543.8	125839.0	[1000]	ug/L	11:56:19
3	Zn 213.857†	91057.2	90838.7	[1000]	ug/L	11:56:19
3	SiO2†	137947.6	138096.2	[10695]	ug/L	11:56:55

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	762747.7	2348.09	0.31%	99.324	%
Sc Radial	4612.9	30.77	0.67%	98.0	%
Y 371.029	676528.4	2407.10	0.36%	98.185	%
Y RADIAL	4863.8	30.56	0.63%	97.56	%
Ag 328.068†	195506.1	135.29	0.07%	[1000]	ug/L
Al 396.153Radial†	10643.0	23.08	0.22%	[10000]	ug/L
As 188.979†	2254.6	17.46	0.77%	[1000]	ug/L
B 249.677†	40168.3	9.53	0.02%	[1000]	ug/L
Ba 233.527†	85076.5	221.08	0.26%	[1000]	ug/L
Be 313.107†	2526797.5	8882.47	0.35%	[1000]	ug/L
Ca 317.933Radial†	5638.5	20.11	0.36%	[10000]	ug/L
Cd 226.502†	70764.0	321.42	0.45%	[1000]	ug/L
Co 228.616†	33284.3	184.52	0.55%	[1000]	ug/L
Cr 267.716†	73455.0	243.79	0.33%	[1000]	ug/L
Cu 324.752†	268719.9	875.55	0.33%	[1000]	ug/L
Fe 238.204 Radial†	985.1	7.96	0.81%	[10000]	ug/L

K 766.490 Radial†	50162.2	115.29	0.23%	[10000]	ug/L
Mg 279.077 IEC†	260.6	2.93	1.12%	[10000]	ug/L
Mn 257.610†	627122.4	1269.35	0.20%	[1000]	ug/L
Mo 202.031†	10959.0	58.21	0.53%	[1000]	ug/L
Na 589.592 Radial†	29462.2	203.12	0.69%	[10000]	ug/L
Ni 231.604†	31280.8	166.87	0.53%	[1000]	ug/L
P 214.914†	9004.3	48.36	0.54%	[5000]	ug/L
Pb 220.353†	6232.4	43.27	0.69%	[1000]	ug/L
S 181.975 Axial†	1550.6	3.08	0.20%	[2000]	ug/L
Sb 206.836†	2480.5	12.19	0.49%	[1000]	ug/L
Se 196.026†	1640.3	5.41	0.33%	[1000]	ug/L
Si 251.611†	137871.3	131.08	0.10%	[5000]	ug/L
Sn 189.927†	4282.8	19.32	0.45%	[1000]	ug/L
Sr 421.552†	137305.7	508.66	0.37%	[1000]	ug/L
Ti 334.940†	498910.0	317.08	0.06%	[1000]	ug/L
Tl 190.801†	2188.5	10.94	0.50%	[1000]	ug/L
U 409.014†	30008.8	171.74	0.57%	[1000]	ug/L
V 292.402†	126080.8	212.01	0.17%	[1000]	ug/L
Zn 213.857†	90991.6	142.12	0.16%	[1000]	ug/L
SiO2†	138419.0	960.93	0.69%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/1/2010 11:59:07
Data Type: Reprocessed on 3/1/2010 13:29:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	770445.5	770445.5	100.33	%	12:02:17
1	Sc Radial	4543.4	4543.4	96.5	%	12:01:20
1	Y 371.029	678491.0	678491.0	98.470	%	12:02:17
1	Y RADIAL	4785.7	4785.7	95.99	%	12:01:20
1	Al 396.153Radial†	51636.6	53578.6	[50000]	ug/L	12:01:00
1	Ca 317.933Radial†	26617.7	27551.7	[50000]	ug/L	12:01:00
1	Fe 238.204 Radial†	1858.9	1918.3	[20000]	ug/L	12:01:20
1	Mg 279.077 IEC†	1216.6	1257.4	[50000]	ug/L	12:01:20
1	Na 589.592 Radial†	56343.4	59215.1	[20000]	ug/L	12:01:00
2	Sc 361.383	765160.6	765160.6	99.638	%	12:02:23
2	Sc Radial	4573.4	4573.4	97.2	%	12:01:45
2	Y 371.029	673725.2	673725.2	97.778	%	12:02:23
2	Y RADIAL	4797.4	4797.4	96.23	%	12:01:45
2	Al 396.153Radial†	51907.2	53506.7	[50000]	ug/L	12:01:25
2	Ca 317.933Radial†	26783.4	27541.7	[50000]	ug/L	12:01:25
2	Fe 238.204 Radial†	1867.4	1914.5	[20000]	ug/L	12:01:45
2	Mg 279.077 IEC†	1226.8	1259.6	[50000]	ug/L	12:01:45
2	Na 589.592 Radial†	56031.4	58511.8	[20000]	ug/L	12:01:25
3	Sc 361.383	768716.6	768716.6	100.10	%	12:02:28
3	Sc Radial	4539.8	4539.8	96.5	%	12:02:10
3	Y 371.029	676808.4	676808.4	98.226	%	12:02:28
3	Y RADIAL	4768.2	4768.2	95.64	%	12:02:10
3	Al 396.153Radial†	51332.8	53306.6	[50000]	ug/L	12:01:50
3	Ca 317.933Radial†	26420.1	27369.0	[50000]	ug/L	12:01:50
3	Fe 238.204 Radial†	1857.5	1918.5	[20000]	ug/L	12:02:10
3	Mg 279.077 IEC†	1212.2	1253.9	[50000]	ug/L	12:02:10
3	Na 589.592 Radial†	55271.5	58150.7	[20000]	ug/L	12:01:50

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	768107.6	2694.59	0.35%	100.02	%
Sc Radial	4552.2	18.44	0.41%	96.7	%
Y 371.029	676341.5	2416.96	0.36%	98.158	%
Y RADIAL	4783.8	14.71	0.31%	95.96	%
Al 396.153Radial†	53464.0	140.93	0.26%	[50000]	ug/L
Ca 317.933Radial†	27487.5	102.68	0.37%	[50000]	ug/L
Fe 238.204 Radial†	1917.1	2.27	0.12%	[20000]	ug/L
Mg 279.077 IEC†	1257.0	2.91	0.23%	[50000]	ug/L
Na 589.592 Radial†	58625.9	541.29	0.92%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	194.5	0.00000	0.999948	
Al 396.153Radial	3	Lin Thru 0	0.0	1.069	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.244	0.00000	0.999954	
B 249.677	3	Lin Thru 0	0.0	39.93	0.00000	0.999932	
Ba 233.527	3	Lin Thru 0	0.0	84.75	0.00000	0.999970	
Be 313.107	3	Lin Thru 0	0.0	2516	0.00000	0.999963	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5504	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	70.54	0.00000	0.999980	
Co 228.616	3	Lin Thru 0	0.0	33.09	0.00000	0.999930	
Cr 267.716	3	Lin Thru 0	0.0	73.20	0.00000	0.999975	
Cu 324.752	3	Lin Thru 0	0.0	267.1	0.00000	0.999926	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0964	0.00000	0.999939	

K 766.490 Radial	3	Lin Thru 0	0.0	5.024	0.00000	0.999996
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0252	0.00000	0.999965
Mn 257.610	3	Lin Thru 0	0.0	624.8	0.00000	0.999968
Mo 202.031	3	Lin Thru 0	0.0	10.90	0.00000	0.999936
Na 589.592 Radia	2	Lin Thru 0	0.0	2.934	0.00000	0.999998
Ni 231.604	3	Lin Thru 0	0.0	31.28	0.00000	1.000000
P 214.914	3	Lin Thru 0	0.0	1.791	0.00000	0.999939
Pb 220.353	3	Lin Thru 0	0.0	6.202	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.7713	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	2.465	0.00000	0.999922
Se 196.026	3	Lin Thru 0	0.0	1.633	0.00000	0.999959
Si 251.611	3	Lin Thru 0	0.0	27.40	0.00000	0.999925
Sn 189.927	3	Lin Thru 0	0.0	4.246	0.00000	0.999858
Sr 421.552	3	Lin Thru 0	0.0	137.5	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	496.3	0.00000	0.999943
Tl 190.801	3	Lin Thru 0	0.0	2.178	0.00000	0.999952
U 409.014	3	Lin Thru 0	0.0	29.86	0.00000	0.999952
V 292.402	3	Lin Thru 0	0.0	125.6	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	90.67	0.00000	0.999976
SiO2	3	Lin Thru 0	0.0	12.84	0.00000	0.999867

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/1/2010 12:04:40
Data Type: Reprocessed on 3/1/2010 13:29:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	784981.8	784981.8	102.22	%			12:07:50
1	Sc Radial	4649.6	4649.6	98.8	%			12:06:32
1	Y 371.029	695335.6	695335.6	100.91	%			12:07:50
1	Y RADIAL	4903.6	4903.6	98.36	%			12:06:32
1	Ag 328.068†	51531.9	50157.4	261.07	ug/L	261.07	ppb	12:07:50
1	Al 396.153Radial†	5284.2	5436.1	5059.3	ug/L	5059.3	ppb	12:06:32
1	As 188.979†	1048.7	1050.9	472.71	ug/L	472.71	ppb	12:08:10
1	B 249.677†	20755.0	20757.8	517.52	ug/L	517.52	ppb	12:07:50
1	Ba 233.527†	43949.7	42993.1	508.60	ug/L	508.60	ppb	12:07:50
1	Be 313.107†	657976.6	652673.8	260.57	ug/L	260.57	ppb	12:07:50
1	Ca 317.933Radial†	2793.0	2805.0	5096.6	ug/L	5096.6	ppb	12:06:53
1	Cd 226.502†	34855.5	34285.3	485.92	ug/L	485.92	ppb	12:08:10
1	Co 228.616†	17128.9	16814.4	508.31	ug/L	508.31	ppb	12:08:10
1	Cr 267.716†	36537.1	35668.2	487.92	ug/L	487.92	ppb	12:07:50
1	Cu 324.752†	145500.6	134805.5	504.77	ug/L	504.77	ppb	12:07:50
1	Fe 238.204 Radial†	499.2	498.0	5182.3	ug/L	5182.3	ppb	12:06:53
1	K 766.490 Radial†	14710.2	12628.9	2510.5	ug/L	2510.5	ppb	12:06:32
1	Mg 279.077 IEC†	136.4	135.2	5368.3	ug/L	5368.3	ppb	12:06:53
1	Mn 257.610†	334228.8	326511.2	522.92	ug/L	522.92	ppb	12:07:50
1	Mo 202.031†	5924.1	5781.1	531.01	ug/L	531.01	ppb	12:08:10
1	Na 589.592 Radial†	6277.5	7202.2	2454.5	ug/L	2454.5	ppb	12:06:32
1	Ni 231.604†	16276.4	15821.7	505.47	ug/L	505.47	ppb	12:08:10
1	P 214.914†	4739.1	4440.9	2381.7	ug/L	2381.7	ppb	12:08:10
1	Pb 220.353†	3062.8	3067.0	496.47	ug/L	496.47	ppb	12:08:10
1	S 181.975 Axial†	1984.6	1899.0	2461.2	ug/L	2461.2	ppb	12:08:10
1	Sb 206.836†	1283.6	1225.7	516.38	ug/L	516.38	ppb	12:08:10
1	Se 196.026†	4171.1	4100.4	2524.9	ug/L	2524.9	ppb	12:08:10
1	Si 251.611†	136009.9	132467.8	4827.3	ug/L	4827.3	ppb	12:07:50
1	Sn 189.927†	2314.6	2256.3	531.96	ug/L	531.96	ppb	12:08:10
1	Sr 421.552†	71138.6	72011.1	523.61	ug/L	523.61	ppb	12:06:32
1	Ti 334.940†	254476.2	250252.3	504.12	ug/L	504.12	ppb	12:07:50
1	Tl 190.801†	1131.0	1137.7	525.94	ug/L	525.94	ppb	12:08:10
1	U 409.014†	12389.3	14657.1	489.12	ug/L	489.12	ppb	12:07:50
1	V 292.402†	64046.6	64284.1	518.99	ug/L	518.99	ppb	12:07:50
1	Zn 213.857†	48398.4	46637.4	509.66	ug/L	509.66	ppb	12:07:50
1	SiO2†	137020.9	133449.6	10381	ug/L	10381	ppb	12:09:08
2	Sc 361.383	788850.1	788850.1	102.72	%			12:08:16
2	Sc Radial	4754.2	4754.2	101	%			12:06:58
2	Y 371.029	700164.8	700164.8	101.62	%			12:08:16
2	Y RADIAL	5055.9	5055.9	101.4	%			12:06:58
2	Ag 328.068†	51408.5	49790.1	259.14	ug/L	259.14	ppb	12:08:16
2	Al 396.153Radial†	5402.3	5435.4	5058.7	ug/L	5058.7	ppb	12:06:58
2	As 188.979†	1048.2	1045.4	470.18	ug/L	470.18	ppb	12:08:36
2	B 249.677†	20691.6	20596.5	513.50	ug/L	513.50	ppb	12:08:16
2	Ba 233.527†	43858.5	42693.5	505.05	ug/L	505.05	ppb	12:08:16
2	Be 313.107†	658498.4	650025.4	259.51	ug/L	259.51	ppb	12:08:16
2	Ca 317.933Radial†	2784.9	2734.9	4969.1	ug/L	4969.1	ppb	12:07:18
2	Cd 226.502†	34942.2	34202.6	484.76	ug/L	484.76	ppb	12:08:36
2	Co 228.616†	17162.6	16765.1	506.82	ug/L	506.82	ppb	12:08:36
2	Cr 267.716†	36417.9	35376.9	483.94	ug/L	483.94	ppb	12:08:16
2	Cu 324.752†	145750.1	134350.3	503.06	ug/L	503.06	ppb	12:08:16
2	Fe 238.204 Radial†	498.7	486.4	5061.0	ug/L	5061.0	ppb	12:07:18
2	K 766.490 Radial†	15123.7	12710.8	2526.8	ug/L	2526.8	ppb	12:06:58
2	Mg 279.077 IEC†	136.6	132.4	5255.8	ug/L	5255.8	ppb	12:07:18
2	Mn 257.610†	333515.9	324213.8	519.23	ug/L	519.23	ppb	12:08:16
2	Mo 202.031†	5951.1	5779.0	530.80	ug/L	530.80	ppb	12:08:36
2	Na 589.592 Radial†	6399.9	7183.7	2448.2	ug/L	2448.2	ppb	12:06:58
2	Ni 231.604†	16270.8	15738.2	502.80	ug/L	502.80	ppb	12:08:36

2	P 214.914†	4771.8	4450.0	2387.1 ug/L	2387.1 ppb	12:08:36
2	Pb 220.353†	3039.0	3029.2	490.39 ug/L	490.39 ppb	12:08:36
2	S 181.975 Axial†	1992.8	1897.5	2459.2 ug/L	2459.2 ppb	12:08:36
2	Sb 206.836†	1293.2	1228.9	517.63 ug/L	517.63 ppb	12:08:36
2	Se 196.026†	4189.2	4097.9	2523.2 ug/L	2523.2 ppb	12:08:36
2	Si 251.611†	135544.0	131361.7	4786.9 ug/L	4786.9 ppb	12:08:16
2	Sn 189.927†	2311.8	2242.5	528.68 ug/L	528.68 ppb	12:08:36
2	Sr 421.552†	72988.6	72259.2	525.41 ug/L	525.41 ppb	12:06:58
2	Ti 334.940†	254195.8	248758.5	501.10 ug/L	501.10 ppb	12:08:16
2	Tl 190.801†	1134.2	1135.4	524.83 ug/L	524.83 ppb	12:08:36
2	U 409.014†	12481.0	14687.0	490.15 ug/L	490.15 ppb	12:08:16
2	V 292.402†	64051.9	63982.0	516.60 ug/L	516.60 ppb	12:08:16
2	Zn 213.857†	48251.5	46262.1	505.56 ug/L	505.56 ppb	12:08:16
2	SiO2†	136513.5	132298.3	10292 ug/L	10292 ppb	12:09:13
3	Sc 361.383	792006.3	792006.3	103.13 %		12:08:42
3	Sc Radial	4646.4	4646.4	98.7 %		12:07:23
3	Y 371.029	703352.1	703352.1	102.08 %		12:08:42
3	Y RADIAL	4906.2	4906.2	98.41 %		12:07:23
3	Ag 328.068†	51696.9	49870.2	259.60 ug/L	259.60 ppb	12:08:42
3	Al 396.153Radial†	5301.8	5457.6	5079.4 ug/L	5079.4 ppb	12:07:23
3	As 188.979†	1054.9	1047.9	471.32 ug/L	471.32 ppb	12:09:02
3	B 249.677†	20800.1	20621.5	514.10 ug/L	514.10 ppb	12:08:42
3	Ba 233.527†	44036.7	42696.1	505.09 ug/L	505.09 ppb	12:08:42
3	Be 313.107†	662340.7	651196.3	259.98 ug/L	259.98 ppb	12:08:42
3	Ca 317.933Radial†	2791.5	2805.5	5097.5 ug/L	5097.5 ppb	12:07:43
3	Cd 226.502†	35234.9	34350.8	486.85 ug/L	486.85 ppb	12:09:02
3	Co 228.616†	17314.9	16846.2	509.27 ug/L	509.27 ppb	12:09:02
3	Cr 267.716†	36654.9	35465.4	485.15 ug/L	485.15 ppb	12:08:42
3	Cu 324.752†	146661.2	134668.4	504.26 ug/L	504.26 ppb	12:08:42
3	Fe 238.204 Radial†	501.3	500.4	5207.3 ug/L	5207.3 ppb	12:07:43
3	K 766.490 Radial†	14756.8	12686.5	2521.9 ug/L	2521.9 ppb	12:07:23
3	Mg 279.077 IEC†	135.6	134.5	5339.2 ug/L	5339.2 ppb	12:07:43
3	Mn 257.610†	335113.8	324469.2	519.65 ug/L	519.65 ppb	12:08:42
3	Mo 202.031†	5985.5	5789.3	531.76 ug/L	531.76 ppb	12:09:02
3	Na 589.592 Radial†	6221.9	7150.4	2436.8 ug/L	2436.8 ppb	12:07:23
3	Ni 231.604†	16398.4	15798.8	504.73 ug/L	504.73 ppb	12:09:02
3	P 214.914†	4793.8	4452.8	2388.4 ug/L	2388.4 ppb	12:09:02
3	Pb 220.353†	3094.4	3071.1	497.14 ug/L	497.14 ppb	12:09:02
3	S 181.975 Axial†	2018.2	1914.4	2481.1 ug/L	2481.1 ppb	12:09:02
3	Sb 206.836†	1307.4	1237.7	521.28 ug/L	521.28 ppb	12:09:02
3	Se 196.026†	4219.9	4111.5	2531.8 ug/L	2531.8 ppb	12:09:02
3	Si 251.611†	136519.5	131781.7	4802.3 ug/L	4802.3 ppb	12:08:42
3	Sn 189.927†	2341.9	2262.6	533.44 ug/L	533.44 ppb	12:09:02
3	Sr 421.552†	71578.4	72506.9	527.21 ug/L	527.21 ppb	12:07:23
3	Ti 334.940†	255503.9	249040.7	501.68 ug/L	501.68 ppb	12:08:42
3	Tl 190.801†	1134.3	1131.0	522.84 ug/L	522.84 ppb	12:09:02
3	U 409.014†	12405.1	14565.0	486.04 ug/L	486.04 ppb	12:08:42
3	V 292.402†	64392.4	64063.7	517.24 ug/L	517.24 ppb	12:08:42
3	Zn 213.857†	48556.1	46370.3	506.72 ug/L	506.72 ppb	12:08:42
3	SiO2†	135032.5	130332.7	10139 ug/L	10139 ppb	12:09:18

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788612.7	102.69	%	0.458				0.45%
Sc Radial	4683.4	99.5	%	1.30				1.31%
Y 371.029	699617.5	101.54	%	0.586				0.58%
Y RADIAL	4955.2	99.39	%	1.749				1.76%
Ag 328.068†	49939.2	259.94	ug/L	1.010	259.94	ppb	1.010	0.39%
QC value within limits for Ag 328.068 Recovery = 103.97%								
Al 396.153Radial†	5443.0	5065.8	ug/L	11.79	5065.8	ppb	11.79	0.23%
QC value within limits for Al 396.153Radial Recovery = 101.32%								
As 188.979†	1048.1	471.40	ug/L	1.265	471.40	ppb	1.265	0.27%
QC value within limits for As 188.979 Recovery = 94.28%								
B 249.677†	20658.6	515.04	ug/L	2.168	515.04	ppb	2.168	0.42%
QC value within limits for B 249.677 Recovery = 103.01%								
Ba 233.527†	42794.2	506.25	ug/L	2.036	506.25	ppb	2.036	0.40%
QC value within limits for Ba 233.527 Recovery = 101.25%								
Be 313.107†	651298.5	260.02	ug/L	0.531	260.02	ppb	0.531	0.20%
QC value within limits for Be 313.107 Recovery = 104.01%								

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Ca 317.933Radial†        2781.8      5054.4 ug/L          73.87      5054.4 ppb          73.87   1.46%
   QC value within limits for Ca 317.933Radial  Recovery = 101.09%
Cd 226.502†             34279.6      485.84 ug/L          1.046      485.84 ppb          1.046   0.22%
   QC value within limits for Cd 226.502  Recovery = 97.17%
Co 228.616†             16808.6      508.13 ug/L          1.233      508.13 ppb          1.233   0.24%
   QC value within limits for Co 228.616  Recovery = 101.63%
Cr 267.716†             35503.5      485.67 ug/L          2.043      485.67 ppb          2.043   0.42%
   QC value within limits for Cr 267.716  Recovery = 97.13%
Cu 324.752†            134608.1      504.03 ug/L          0.879      504.03 ppb          0.879   0.17%
   QC value within limits for Cu 324.752  Recovery = 100.81%
Fe 238.204 Radial†        494.9      5150.2 ug/L          78.23      5150.2 ppb          78.23   1.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.00%
K 766.490 Radial†       12675.4      2519.7 ug/L           8.39      2519.7 ppb           8.39   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 100.79%
Mg 279.077 IEC†           134.0      5321.1 ug/L          58.40      5321.1 ppb          58.40   1.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.42%
Mn 257.610†            325064.7      520.60 ug/L          2.017      520.60 ppb          2.017   0.39%
   QC value within limits for Mn 257.610  Recovery = 104.12%
Mo 202.031†             5783.1      531.19 ug/L          0.503      531.19 ppb          0.503   0.09%
   QC value within limits for Mo 202.031  Recovery = 106.24%
Na 589.592 Radial†      7178.8      2446.5 ug/L           8.95      2446.5 ppb           8.95   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 97.86%
Ni 231.604†            15786.2      504.33 ug/L          1.379      504.33 ppb          1.379   0.27%
   QC value within limits for Ni 231.604  Recovery = 100.87%
P 214.914†              4447.9      2385.7 ug/L           3.58      2385.7 ppb           3.58   0.15%
   QC value within limits for P 214.914  Recovery = 95.43%
Pb 220.353†             3055.7      494.67 ug/L          3.722      494.67 ppb          3.722   0.75%
   QC value within limits for Pb 220.353  Recovery = 98.93%
S 181.975 Axial†        1903.6      2467.2 ug/L          12.10      2467.2 ppb          12.10   0.49%
   QC value within limits for S 181.975 Axial  Recovery = 98.69%
Sb 206.836†             1230.8      518.43 ug/L          2.547      518.43 ppb          2.547   0.49%
   QC value within limits for Sb 206.836  Recovery = 103.69%
Se 196.026†             4103.2      2526.6 ug/L           4.55      2526.6 ppb           4.55   0.18%
   QC value within limits for Se 196.026  Recovery = 101.06%
Si 251.611†           131870.4      4805.5 ug/L          20.37      4805.5 ppb          20.37   0.42%
   QC value within limits for Si 251.611  Recovery = 96.11%
Sn 189.927†             2253.8      531.36 ug/L          2.435      531.36 ppb          2.435   0.46%
   QC value within limits for Sn 189.927  Recovery = 106.27%
Sr 421.552†            72259.0      525.41 ug/L          1.803      525.41 ppb          1.803   0.34%
   QC value within limits for Sr 421.552  Recovery = 105.08%
Ti 334.940†           249350.5      502.30 ug/L          1.601      502.30 ppb          1.601   0.32%
   QC value within limits for Ti 334.940  Recovery = 100.46%
Tl 190.801†             1134.7      524.54 ug/L          1.569      524.54 ppb          1.569   0.30%
   QC value within limits for Tl 190.801  Recovery = 104.91%
U 409.014†             14636.4      488.44 ug/L          2.137      488.44 ppb          2.137   0.44%
   QC value within limits for U 409.014  Recovery = 97.69%
V 292.402†             64109.9      517.61 ug/L          1.236      517.61 ppb          1.236   0.24%
   QC value within limits for V 292.402  Recovery = 103.52%
Zn 213.857†            46423.3      507.31 ug/L          2.114      507.31 ppb          2.114   0.42%
   QC value within limits for Zn 213.857  Recovery = 101.46%
SiO2†                 132026.9       10271 ug/L          122.8       10271 ppb          122.8   1.20%
   QC value within limits for SiO2  Recovery = 96.03%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/1/2010 12:11:29
Data Type: Reprocessed on 3/1/2010 13:29:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	758808.1	758808.1	98.811	%			12:14:39
1	Sc Radial	4656.0	4656.0	98.9	%			12:13:22
1	Y 371.029	678679.2	678679.2	98.497	%			12:14:39
1	Y RADIAL	4939.4	4939.4	99.08	%			12:13:22
1	Ag 328.068†	241.0	-11.7	-0.0650	ug/L	-0.0650	ppb	12:14:39
1	Al 396.153Radial†	-83.2	3.0	2.8298	ug/L	2.8298	ppb	12:13:42
1	As 188.979†	-34.5	-9.9	-4.4161	ug/L	-4.4161	ppb	12:14:59
1	B 249.677†	-140.5	311.3	7.7971	ug/L	7.7971	ppb	12:14:59
1	Ba 233.527†	11.9	9.7	0.1142	ug/L	0.1142	ppb	12:14:59
1	Be 313.107†	-8966.4	-91.6	-0.0368	ug/L	-0.0368	ppb	12:14:39
1	Ca 317.933Radial†	18.4	-3.6	-6.5093	ug/L	-6.5093	ppb	12:13:42
1	Cd 226.502†	-186.6	-2.2	-0.0295	ug/L	-0.0295	ppb	12:14:59
1	Co 228.616†	-66.6	-9.9	-0.2994	ug/L	-0.2994	ppb	12:14:59
1	Cr 267.716†	70.4	-4.4	-0.0616	ug/L	-0.0616	ppb	12:14:59
1	Cu 324.752†	7353.6	-94.0	-0.3546	ug/L	-0.3546	ppb	12:14:39
1	Fe 238.204 Radial†	6.7	-0.5	-5.3824	ug/L	-5.3824	ppb	12:13:42
1	K 766.490 Radial†	2274.4	37.4	7.4499	ug/L	7.4499	ppb	12:13:22
1	Mg 279.077 IEC†	3.1	0.2	8.3929	ug/L	8.3929	ppb	12:13:42
1	Mn 257.610†	444.4	-11.4	-0.0191	ug/L	-0.0191	ppb	12:14:59
1	Mo 202.031†	17.3	3.2	0.2894	ug/L	0.2894	ppb	12:14:59
1	Na 589.592 Radial†	-787.4	51.8	17.655	ug/L	17.655	ppb	12:13:22
1	Ni 231.604†	96.7	-3.5	-0.1109	ug/L	-0.1109	ppb	12:14:59
1	P 214.914†	196.4	3.4	1.9905	ug/L	1.9905	ppb	12:14:59
1	Pb 220.353†	-68.2	1.7	0.2737	ug/L	0.2737	ppb	12:14:59
1	S 181.975 Axial†	46.3	4.3	5.5891	ug/L	5.5891	ppb	12:14:59
1	Sb 206.836†	43.0	13.5	5.4900	ug/L	5.4900	ppb	12:14:59
1	Se 196.026†	-26.0	-6.5	-3.9688	ug/L	-3.9688	ppb	12:14:59
1	Si 251.611†	582.5	0.3	0.0073	ug/L	0.0073	ppb	12:14:59
1	Sn 189.927†	11.4	3.5	0.8176	ug/L	0.8176	ppb	12:14:59
1	Sr 421.552†	19.4	20.1	0.1460	ug/L	0.1460	ppb	12:13:22
1	Ti 334.940†	-1376.3	-91.8	-0.1883	ug/L	-0.1883	ppb	12:14:39
1	Tl 190.801†	-34.8	-4.0	-1.8601	ug/L	-1.8601	ppb	12:14:59
1	U 409.014†	-2387.3	120.8	4.0454	ug/L	4.0454	ppb	12:14:39
1	V 292.402†	-1601.3	7.4	0.0720	ug/L	0.0720	ppb	12:14:39
1	Zn 213.857†	616.6	-86.2	-0.9491	ug/L	-0.9491	ppb	12:14:59
1	SiO2†	632.6	43.8	3.4057	ug/L	3.4057	ppb	12:15:55
2	Sc 361.383	775920.5	775920.5	101.04	%			12:15:04
2	Sc Radial	4685.8	4685.8	99.6	%			12:13:47
2	Y 371.029	694648.1	694648.1	100.81	%			12:15:04
2	Y RADIAL	5001.0	5001.0	100.3	%			12:13:47
2	Ag 328.068†	254.2	-4.1	-0.0242	ug/L	-0.0242	ppb	12:15:04
2	Al 396.153Radial†	-82.5	4.3	3.9611	ug/L	3.9611	ppb	12:14:07
2	As 188.979†	-18.3	6.9	3.0791	ug/L	3.0791	ppb	12:15:24
2	B 249.677†	-175.2	280.0	7.0126	ug/L	7.0126	ppb	12:15:24
2	Ba 233.527†	0.6	-1.8	-0.0209	ug/L	-0.0209	ppb	12:15:24
2	Be 313.107†	-9071.7	4.3	0.0024	ug/L	0.0024	ppb	12:15:04
2	Ca 317.933Radial†	22.7	0.7	1.2181	ug/L	1.2181	ppb	12:14:07
2	Cd 226.502†	-200.3	-11.6	-0.1629	ug/L	-0.1629	ppb	12:15:24
2	Co 228.616†	-51.9	6.1	0.1869	ug/L	0.1869	ppb	12:15:24
2	Cr 267.716†	60.8	-15.4	-0.2113	ug/L	-0.2113	ppb	12:15:24
2	Cu 324.752†	7519.2	-94.3	-0.3542	ug/L	-0.3542	ppb	12:15:04
2	Fe 238.204 Radial†	6.6	-0.7	-6.8362	ug/L	-6.8362	ppb	12:14:07
2	K 766.490 Radial†	2207.8	-44.0	-8.7572	ug/L	-8.7572	ppb	12:13:47
2	Mg 279.077 IEC†	3.0	0.1	4.5344	ug/L	4.5344	ppb	12:14:07
2	Mn 257.610†	452.3	-13.4	-0.0224	ug/L	-0.0224	ppb	12:15:24
2	Mo 202.031†	24.6	10.0	0.9186	ug/L	0.9186	ppb	12:15:24
2	Na 589.592 Radial†	-862.6	-18.6	-6.3517	ug/L	-6.3517	ppb	12:13:47
2	Ni 231.604†	103.5	1.1	0.0341	ug/L	0.0341	ppb	12:15:24

2	P 214.914†	198.4	1.0	0.6627 ug/L	0.6627 ppb	12:15:24
2	Pb 220.353†	-63.5	7.8	1.2656 ug/L	1.2656 ppb	12:15:24
2	S 181.975 Axial†	36.2	-6.7	-8.6998 ug/L	-8.6998 ppb	12:15:24
2	Sb 206.836†	41.5	11.0	4.5298 ug/L	4.5298 ppb	12:15:24
2	Se 196.026†	-27.2	-7.1	-4.3642 ug/L	-4.3642 ppb	12:15:24
2	Si 251.611†	586.5	-8.8	-0.3317 ug/L	-0.3317 ppb	12:15:24
2	Sn 189.927†	19.8	11.5	2.7088 ug/L	2.7088 ppb	12:15:24
2	Sr 421.552†	10.3	10.9	0.0790 ug/L	0.0790 ppb	12:13:47
2	Ti 334.940†	-1172.8	140.3	0.2819 ug/L	0.2819 ppb	12:15:04
2	Tl 190.801†	-42.2	-10.6	-4.8462 ug/L	-4.8462 ppb	12:15:24
2	U 409.014†	-2516.9	45.8	1.5350 ug/L	1.5350 ppb	12:15:04
2	V 292.402†	-1631.4	13.3	0.1229 ug/L	0.1229 ppb	12:15:04
2	Zn 213.857†	618.0	-98.6	-1.0866 ug/L	-1.0866 ppb	12:15:24
2	SiO2†	593.3	-9.3	-0.7477 ug/L	-0.7477 ppb	12:16:00
3	Sc 361.383	768099.9	768099.9	100.02 %		12:15:30
3	Sc Radial	4626.1	4626.1	98.3 %		12:14:12
3	Y 371.029	688037.7	688037.7	99.855 %		12:15:30
3	Y RADIAL	4875.4	4875.4	97.79 %		12:14:12
3	Ag 328.068†	290.8	35.0	0.1764 ug/L	0.1764 ppb	12:15:30
3	Al 396.153Radial†	-80.1	5.7	5.3322 ug/L	5.3322 ppb	12:14:32
3	As 188.979†	-19.7	5.3	2.3529 ug/L	2.3529 ppb	12:15:50
3	B 249.677†	-176.9	276.5	6.9230 ug/L	6.9230 ppb	12:15:50
3	Ba 233.527†	2.7	0.3	0.0032 ug/L	0.0032 ppb	12:15:50
3	Be 313.107†	-8947.7	36.8	0.0146 ug/L	0.0146 ppb	12:15:30
3	Ca 317.933Radial†	19.4	-2.4	-4.4249 ug/L	-4.4249 ppb	12:14:32
3	Cd 226.502†	-182.9	3.7	0.0531 ug/L	0.0531 ppb	12:15:50
3	Co 228.616†	-54.3	3.2	0.0948 ug/L	0.0948 ppb	12:15:50
3	Cr 267.716†	69.5	-6.1	-0.0864 ug/L	-0.0864 ppb	12:15:50
3	Cu 324.752†	7437.2	-100.5	-0.3798 ug/L	-0.3798 ppb	12:15:30
3	Fe 238.204 Radial†	8.2	1.0	10.690 ug/L	10.690 ppb	12:14:32
3	K 766.490 Radial†	2304.9	83.4	16.595 ug/L	16.595 ppb	12:14:12
3	Mg 279.077 IEC†	4.0	1.2	45.673 ug/L	45.673 ppb	12:14:32
3	Mn 257.610†	432.8	-28.4	-0.0463 ug/L	-0.0463 ppb	12:15:50
3	Mo 202.031†	7.2	-7.2	-0.6569 ug/L	-0.6569 ppb	12:15:50
3	Na 589.592 Radial†	-834.4	-1.1	-0.3818 ug/L	-0.3818 ppb	12:14:12
3	Ni 231.604†	83.8	-17.6	-0.5619 ug/L	-0.5619 ppb	12:15:50
3	P 214.914†	196.5	1.1	0.6780 ug/L	0.6780 ppb	12:15:50
3	Pb 220.353†	-71.8	-1.1	-0.1835 ug/L	-0.1835 ppb	12:15:50
3	S 181.975 Axial†	45.5	3.0	3.9028 ug/L	3.9028 ppb	12:15:50
3	Sb 206.836†	37.5	7.4	3.0112 ug/L	3.0112 ppb	12:15:50
3	Se 196.026†	-13.9	5.9	3.6451 ug/L	3.6451 ppb	12:15:50
3	Si 251.611†	602.4	13.1	0.4853 ug/L	0.4853 ppb	12:15:50
3	Sn 189.927†	12.9	4.8	1.1347 ug/L	1.1347 ppb	12:15:50
3	Sr 421.552†	3.6	4.2	0.0304 ug/L	0.0304 ppb	12:14:12
3	Ti 334.940†	-1312.3	-11.0	-0.0297 ug/L	-0.0297 ppb	12:15:30
3	Tl 190.801†	-33.9	-2.6	-1.2156 ug/L	-1.2156 ppb	12:15:50
3	U 409.014†	-2311.6	225.7	7.5562 ug/L	7.5562 ppb	12:15:30
3	V 292.402†	-1657.2	-28.9	-0.2252 ug/L	-0.2252 ppb	12:15:30
3	Zn 213.857†	616.0	-94.4	-1.0390 ug/L	-1.0390 ppb	12:15:50
3	SiO2†	588.8	-7.8	-0.5890 ug/L	-0.5890 ppb	12:16:05

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	767609.5	99.957	%	1.1155				1.12%
Sc Radial	4656.0	98.9	%	0.63				0.64%
Y 371.029	687121.7	99.722	%	1.1645				1.17%
Y RADIAL	4938.6	99.06	%	1.259				1.27%
Ag 328.068†	6.4	0.0291	ug/L	0.12921	0.0291	ppb	0.12921	444.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	4.0410	ug/L	1.25313	4.0410	ppb	1.25313	31.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.3386	ug/L	4.13372	0.3386	ppb	4.13372	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	289.3	7.2442	ug/L	0.48092	7.2442	ppb	0.48092	6.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0322	ug/L	0.07204	0.0322	ppb	0.07204	223.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-16.8	-0.0066	ug/L	0.02687	-0.0066	ppb	0.02687	404.73%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -1.8     -3.2387 ug/L       3.99792     -3.2387 ppb        3.99792 123.44%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.3     -0.0464 ug/L       0.10898     -0.0464 ppb        0.10898 234.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.2     -0.0059 ug/L       0.25833     -0.0059 ppb        0.25833 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -8.6     -0.1198 ug/L       0.08025     -0.1198 ppb        0.08025  67.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -96.3     -0.3629 ug/L       0.01469     -0.3629 ppb        0.01469   4.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.5095 ug/L       9.72638     -0.5095 ppb        9.72638 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          25.6      5.0957 ug/L      12.83879      5.0957 ppb       12.83879 251.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      19.533 ug/L       22.7196      19.533 ppb        22.7196 116.31%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -17.7     -0.0293 ug/L       0.01487     -0.0293 ppb        0.01487  50.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.0      0.1837 ug/L       0.79307      0.1837 ppb        0.79307 431.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.7      3.6404 ug/L      12.49850      3.6404 ppb       12.49850 343.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.7     -0.2129 ug/L       0.31082     -0.2129 ppb        0.31082 146.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.8      1.1104 ug/L       0.76223      1.1104 ppb        0.76223  68.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.8      0.4519 ug/L       0.74082      0.4519 ppb        0.74082 163.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.2      0.2640 ug/L       7.80858      0.2640 ppb        7.80858 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.6      4.3437 ug/L       1.24985      4.3437 ppb        1.24985  28.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.6     -1.5626 ug/L       4.51434     -1.5626 ppb        4.51434 288.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 1.5      0.0536 ug/L       0.41047      0.0536 ppb        0.41047 765.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.6      1.5537 ug/L       1.01284      1.5537 ppb        1.01284  65.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.7      0.0851 ug/L       0.05805      0.0851 ppb        0.05805  68.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.5      0.0213 ug/L       0.23924      0.0213 ppb        0.23924 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.8     -2.6406 ug/L       1.93707     -2.6406 ppb        1.93707  73.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                130.8      4.3789 ug/L       3.02443      4.3789 ppb        3.02443  69.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -2.7     -0.0101 ug/L       0.18805     -0.0101 ppb        0.18805 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -93.1     -1.0249 ug/L       0.06982     -1.0249 ppb        0.06982   6.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       8.9      0.6896 ug/L       2.35349      0.6896 ppb        2.35349 341.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/1/2010 12:18:17
Data Type: Reprocessed on 3/1/2010 13:29:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	781108.3	781108.3	101.71	%			12:21:27
1	Sc Radial	4645.8	4645.8	98.7	%			12:20:10
1	Y 371.029	698977.5	698977.5	101.44	%			12:21:27
1	Y RADIAL	4932.5	4932.5	98.94	%			12:20:10
1	Ag 328.068†	1071.2	797.5	4.1043	ug/L	4.1043	ppb	12:21:27
1	Al 396.153Radial†	127.3	216.1	201.66	ug/L	201.66	ppb	12:20:30
1	As 188.979†	30.9	55.4	24.736	ug/L	24.736	ppb	12:21:47
1	B 249.677†	1608.3	2034.7	50.921	ug/L	50.921	ppb	12:21:27
1	Ba 233.527†	420.4	410.9	4.8632	ug/L	4.8632	ppb	12:21:47
1	Be 313.107†	3192.6	12121.5	4.8295	ug/L	4.8295	ppb	12:21:27
1	Ca 317.933Radial†	125.4	104.9	190.61	ug/L	190.61	ppb	12:20:30
1	Cd 226.502†	166.3	350.1	4.9664	ug/L	4.9664	ppb	12:21:47
1	Co 228.616†	99.6	155.4	4.7063	ug/L	4.7063	ppb	12:21:47
1	Cr 267.716†	425.7	342.9	4.6715	ug/L	4.6715	ppb	12:21:47
1	Cu 324.752†	10229.2	2520.5	9.4125	ug/L	9.4125	ppb	12:21:27
1	Fe 238.204 Radial†	17.0	9.9	102.61	ug/L	102.61	ppb	12:20:30
1	K 766.490 Radial†	3046.7	825.0	164.02	ug/L	164.02	ppb	12:20:10
1	Mg 279.077 IEC†	5.6	2.8	111.94	ug/L	111.94	ppb	12:20:30
1	Mn 257.610†	6914.8	6337.1	10.149	ug/L	10.149	ppb	12:21:27
1	Mo 202.031†	115.7	99.3	9.1255	ug/L	9.1255	ppb	12:21:47
1	Na 589.592 Radial†	68.9	917.6	312.71	ug/L	312.71	ppb	12:20:10
1	Ni 231.604†	246.7	141.2	4.5097	ug/L	4.5097	ppb	12:21:47
1	P 214.914†	471.9	268.6	148.17	ug/L	148.17	ppb	12:21:47
1	Pb 220.353†	-4.7	66.0	10.708	ug/L	10.708	ppb	12:21:47
1	S 181.975 Axial†	115.8	71.3	92.468	ug/L	92.468	ppb	12:21:47
1	Sb 206.836†	53.9	23.0	9.6362	ug/L	9.6362	ppb	12:21:47
1	Se 196.026†	25.8	45.1	27.917	ug/L	27.917	ppb	12:21:47
1	Si 251.611†	3178.0	2535.2	92.399	ug/L	92.399	ppb	12:21:47
1	Sn 189.927†	45.7	36.8	8.7009	ug/L	8.7009	ppb	12:21:47
1	Sr 421.552†	667.8	677.0	4.9214	ug/L	4.9214	ppb	12:20:10
1	Ti 334.940†	1215.3	2495.8	5.0193	ug/L	5.0193	ppb	12:21:27
1	Tl 190.801†	7.3	38.4	17.696	ug/L	17.696	ppb	12:21:47
1	U 409.014†	-881.1	1670.6	55.919	ug/L	55.919	ppb	12:21:27
1	V 292.402†	-994.3	650.5	5.3959	ug/L	5.3959	ppb	12:21:27
1	Zn 213.857†	1537.8	801.6	8.7837	ug/L	8.7837	ppb	12:21:47
1	SiO2†	3293.5	2641.5	205.53	ug/L	205.53	ppb	12:22:43
2	Sc 361.383	764797.2	764797.2	99.591	%			12:21:52
2	Sc Radial	4643.6	4643.6	98.7	%			12:20:35
2	Y 371.029	683958.2	683958.2	99.263	%			12:21:52
2	Y RADIAL	4937.3	4937.3	99.03	%			12:20:35
2	Ag 328.068†	1132.9	881.9	4.5372	ug/L	4.5372	ppb	12:21:52
2	Al 396.153Radial†	121.4	210.1	196.11	ug/L	196.11	ppb	12:20:55
2	As 188.979†	29.7	54.8	24.476	ug/L	24.476	ppb	12:22:12
2	B 249.677†	1589.8	2049.8	51.299	ug/L	51.299	ppb	12:21:52
2	Ba 233.527†	411.2	410.5	4.8581	ug/L	4.8581	ppb	12:22:12
2	Be 313.107†	3087.7	12083.0	4.8140	ug/L	4.8140	ppb	12:21:52
2	Ca 317.933Radial†	125.0	104.6	190.03	ug/L	190.03	ppb	12:20:55
2	Cd 226.502†	157.0	344.3	4.8847	ug/L	4.8847	ppb	12:22:12
2	Co 228.616†	106.6	164.5	4.9828	ug/L	4.9828	ppb	12:22:12
2	Cr 267.716†	444.7	370.9	5.0547	ug/L	5.0547	ppb	12:22:12
2	Cu 324.752†	9987.7	2492.6	9.3082	ug/L	9.3082	ppb	12:21:52
2	Fe 238.204 Radial†	16.6	9.5	99.114	ug/L	99.114	ppb	12:20:55
2	K 766.490 Radial†	3010.2	789.4	156.95	ug/L	156.95	ppb	12:20:35
2	Mg 279.077 IEC†	10.5	7.8	308.17	ug/L	308.17	ppb	12:20:55
2	Mn 257.610†	6721.0	6287.5	10.061	ug/L	10.061	ppb	12:21:52
2	Mo 202.031†	118.8	104.9	9.6350	ug/L	9.6350	ppb	12:22:12
2	Na 589.592 Radial†	29.4	877.6	299.07	ug/L	299.07	ppb	12:20:35
2	Ni 231.604†	257.5	157.2	5.0231	ug/L	5.0231	ppb	12:22:12

2	P 214.914†	467.5	274.1	151.25 ug/L	151.25 ppb	12:22:12
2	Pb 220.353†	-12.7	57.9	9.4032 ug/L	9.4032 ppb	12:22:12
2	S 181.975 Axial†	111.8	69.8	90.410 ug/L	90.410 ppb	12:22:12
2	Sb 206.836†	63.6	33.8	14.073 ug/L	14.073 ppb	12:22:12
2	Se 196.026†	36.0	55.9	34.528 ug/L	34.528 ppb	12:22:12
2	Si 251.611†	3157.6	2581.4	94.078 ug/L	94.078 ppb	12:22:12
2	Sn 189.927†	50.0	42.2	9.9563 ug/L	9.9563 ppb	12:22:12
2	Sr 421.552†	678.1	687.8	5.0000 ug/L	5.0000 ppb	12:20:35
2	Ti 334.940†	1149.4	2455.2	4.9215 ug/L	4.9215 ppb	12:21:52
2	Tl 190.801†	9.1	40.4	18.597 ug/L	18.597 ppb	12:22:12
2	U 409.014†	-891.1	1642.0	54.962 ug/L	54.962 ppb	12:21:52
2	V 292.402†	-1003.4	620.5	5.1665 ug/L	5.1665 ppb	12:21:52
2	Zn 213.857†	1526.9	822.8	9.0153 ug/L	9.0153 ppb	12:22:12
2	SiO2†	3255.5	2672.5	207.93 ug/L	207.93 ppb	12:22:48
3	Sc 361.383	769305.9	769305.9	100.18 %		12:22:17
3	Sc Radial	4649.0	4649.0	98.8 %		12:21:00
3	Y 371.029	689181.3	689181.3	100.02 %		12:22:17
3	Y RADIAL	4939.7	4939.7	99.08 %		12:21:00
3	Ag 328.068†	1152.2	894.5	4.6045 ug/L	4.6045 ppb	12:22:17
3	Al 396.153Radial†	132.6	221.4	206.59 ug/L	206.59 ppb	12:21:20
3	As 188.979†	26.1	51.1	22.805 ug/L	22.805 ppb	12:22:37
3	B 249.677†	1559.9	2010.5	50.316 ug/L	50.316 ppb	12:22:17
3	Ba 233.527†	452.4	449.2	5.3150 ug/L	5.3150 ppb	12:22:37
3	Be 313.107†	3138.9	12116.0	4.8274 ug/L	4.8274 ppb	12:22:17
3	Ca 317.933Radial†	128.2	107.6	195.48 ug/L	195.48 ppb	12:21:20
3	Cd 226.502†	163.1	349.5	4.9567 ug/L	4.9567 ppb	12:22:37
3	Co 228.616†	96.4	153.6	4.6546 ug/L	4.6546 ppb	12:22:37
3	Cr 267.716†	438.7	362.3	4.9364 ug/L	4.9364 ppb	12:22:37
3	Cu 324.752†	9981.6	2427.8	9.0656 ug/L	9.0656 ppb	12:22:17
3	Fe 238.204 Radial†	17.6	10.5	109.01 ug/L	109.01 ppb	12:21:20
3	K 766.490 Radial†	3044.2	820.3	163.09 ug/L	163.09 ppb	12:21:00
3	Mg 279.077 IEC†	7.0	4.2	167.98 ug/L	167.98 ppb	12:21:20
3	Mn 257.610†	6813.4	6340.1	10.152 ug/L	10.152 ppb	12:22:17
3	Mo 202.031†	120.8	106.2	9.7546 ug/L	9.7546 ppb	12:22:37
3	Na 589.592 Radial†	40.2	888.5	302.79 ug/L	302.79 ppb	12:21:00
3	Ni 231.604†	245.4	143.7	4.5895 ug/L	4.5895 ppb	12:22:37
3	P 214.914†	465.0	268.8	148.35 ug/L	148.35 ppb	12:22:37
3	Pb 220.353†	4.5	75.2	12.195 ug/L	12.195 ppb	12:22:37
3	S 181.975 Axial†	121.0	78.3	101.44 ug/L	101.44 ppb	12:22:37
3	Sb 206.836†	55.7	25.6	10.712 ug/L	10.712 ppb	12:22:37
3	Se 196.026†	30.5	50.2	31.056 ug/L	31.056 ppb	12:22:37
3	Si 251.611†	3207.2	2612.3	95.203 ug/L	95.203 ppb	12:22:37
3	Sn 189.927†	46.7	38.5	9.1059 ug/L	9.1059 ppb	12:22:37
3	Sr 421.552†	671.2	680.0	4.9431 ug/L	4.9431 ppb	12:21:00
3	Ti 334.940†	1206.0	2504.9	5.0337 ug/L	5.0337 ppb	12:22:17
3	Tl 190.801†	16.5	47.7	21.979 ug/L	21.979 ppb	12:22:37
3	U 409.014†	-882.4	1656.0	55.428 ug/L	55.428 ppb	12:22:17
3	V 292.402†	-1016.2	613.6	5.1105 ug/L	5.1105 ppb	12:22:17
3	Zn 213.857†	1533.5	820.5	8.9910 ug/L	8.9910 ppb	12:22:37
3	SiO2†	3271.5	2669.3	207.67 ug/L	207.67 ppb	12:22:53

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	771737.1	100.49	%	1.097				1.09%
Sc Radial	4646.1	98.7	%	0.06				0.06%
Y 371.029	690705.6	100.24	%	1.107				1.10%
Y RADIAL	4936.5	99.02	%	0.074				0.07%
Ag 328.068†	858.0	4.4153	ug/L	0.27144	4.4153	ppb	0.27144	6.15%
QC value within limits for Ag 328.068 Recovery = 88.31%								
Al 396.153Radial†	215.9	201.45	ug/L	5.244	201.45	ppb	5.244	2.60%
QC value within limits for Al 396.153Radial Recovery = 100.73%								
As 188.979†	53.8	24.005	ug/L	1.0479	24.005	ppb	1.0479	4.37%
QC value within limits for As 188.979 Recovery = 80.02%								
B 249.677†	2031.7	50.846	ug/L	0.4959	50.846	ppb	0.4959	0.98%
QC value within limits for B 249.677 Recovery = 101.69%								
Ba 233.527†	423.6	5.0121	ug/L	0.26238	5.0121	ppb	0.26238	5.23%
QC value within limits for Ba 233.527 Recovery = 100.24%								
Be 313.107†	12106.8	4.8236	ug/L	0.00839	4.8236	ppb	0.00839	0.17%
QC value within limits for Be 313.107 Recovery = 96.47%								

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Ca 317.933Radial†        105.7      192.04 ug/L        2.992      192.04 ppb        2.992   1.56%
   QC value within limits for Ca 317.933Radial  Recovery = 96.02%
Cd 226.502†              348.0      4.9360 ug/L      0.04465      4.9360 ppb      0.04465   0.90%
   QC value within limits for Cd 226.502  Recovery = 98.72%
Co 228.616†              157.9      4.7812 ug/L      0.17647      4.7812 ppb      0.17647   3.69%
   QC value within limits for Co 228.616  Recovery = 95.62%
Cr 267.716†              358.7      4.8875 ug/L      0.19625      4.8875 ppb      0.19625   4.02%
   QC value within limits for Cr 267.716  Recovery = 97.75%
Cu 324.752†             2480.3      9.2621 ug/L      0.17795      9.2621 ppb      0.17795   1.92%
   QC value within limits for Cu 324.752  Recovery = 92.62%
Fe 238.204 Radial†        10.0      103.58 ug/L        5.018      103.58 ppb        5.018   4.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†        811.6      161.35 ug/L        3.839      161.35 ppb        3.839   2.38%
   QC value within limits for K 766.490 Radial  Recovery = 107.57%
Mg 279.077 IEC†            4.9      196.03 ug/L      101.077      196.03 ppb      101.077  51.56%
   QC value less than the lower limit for Mg 279.077 IEC  Recovery = 65.34%
Mn 257.610†             6321.6      10.121 ug/L       0.0516      10.121 ppb       0.0516   0.51%
   QC value within limits for Mn 257.610  Recovery = 101.21%
Mo 202.031†              103.5      9.5050 ug/L      0.33404      9.5050 ppb      0.33404   3.51%
   QC value within limits for Mo 202.031  Recovery = 95.05%
Na 589.592 Radial†       894.5      304.86 ug/L        7.050      304.86 ppb        7.050   2.31%
   QC value within limits for Na 589.592 Radial  Recovery = 101.62%
Ni 231.604†              147.3      4.7074 ug/L      0.27627      4.7074 ppb      0.27627   5.87%
   QC value within limits for Ni 231.604  Recovery = 94.15%
P 214.914†               270.5      149.26 ug/L        1.726      149.26 ppb        1.726   1.16%
   QC value within limits for P 214.914  Recovery = 99.50%
Pb 220.353†               66.4      10.769 ug/L       1.3968      10.769 ppb       1.3968  12.97%
   QC value within limits for Pb 220.353  Recovery = 107.69%
S 181.975 Axial†          73.1      94.774 ug/L       5.8678      94.774 ppb       5.8678   6.19%
   QC value within limits for S 181.975 Axial  Recovery = 94.77%
Sb 206.836†               27.5      11.474 ug/L       2.3145      11.474 ppb       2.3145  20.17%
   QC value within limits for Sb 206.836  Recovery = 114.74%
Se 196.026†               50.4      31.167 ug/L       3.3067      31.167 ppb       3.3067  10.61%
   QC value within limits for Se 196.026  Recovery = 103.89%
Si 251.611†             2576.3      93.893 ug/L       1.4115      93.893 ppb       1.4115   1.50%
   QC value within limits for Si 251.611  Recovery = 93.89%
Sn 189.927†               39.2      9.2544 ug/L      0.64074      9.2544 ppb      0.64074   6.92%
   QC value within limits for Sn 189.927  Recovery = 92.54%
Sr 421.552†              681.6      4.9548 ug/L      0.04062      4.9548 ppb      0.04062   0.82%
   QC value within limits for Sr 421.552  Recovery = 99.10%
Ti 334.940†             2485.3      4.9915 ug/L      0.06104      4.9915 ppb      0.06104   1.22%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†               42.2      19.424 ug/L       2.2580      19.424 ppb       2.2580  11.62%
   QC value within limits for Tl 190.801  Recovery = 97.12%
U 409.014†              1656.2      55.436 ug/L       0.4786      55.436 ppb       0.4786   0.86%
   QC value within limits for U 409.014  Recovery = 110.87%
V 292.402†               628.2      5.2243 ug/L      0.15122      5.2243 ppb      0.15122   2.89%
   QC value within limits for V 292.402  Recovery = 104.49%
Zn 213.857†              815.0      8.9300 ug/L      0.12725      8.9300 ppb      0.12725   1.42%
   QC value within limits for Zn 213.857  Recovery = 89.30%
SiO2†                   2661.1      207.04 ug/L        1.318      207.04 ppb        1.318   0.64%
   QC value within limits for SiO2  Recovery = 97.20%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/1/2010 12:25:05
Data Type: Reprocessed on 3/1/2010 13:29:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	692739.2	692739.2	90.208	%			12:27:30
1	Sc Radial	4213.4	4213.4	89.5	%			12:27:03
1	Y 371.029	606235.6	606235.6	87.983	%			12:27:30
1	Y RADIAL	4424.5	4424.5	88.75	%			12:27:03
1	Ag 328.068†	-9846.6	-11171.1	-7.2296	ug/L	-7.2296	ppb	12:27:30
1	Al 396.153Radial†	498573.5	557024.9	521050	ug/L	521050	ppb	12:26:58
1	As 188.979†	-77.3	-60.6	16.042	ug/L	16.042	ppb	12:27:51
1	B 249.677†	331.1	820.5	-9.4216	ug/L	-9.4216	ppb	12:27:30
1	Ba 233.527†	-502.3	-559.2	-0.9524	ug/L	-0.9524	ppb	12:27:51
1	Be 313.107†	-9213.7	-1231.3	-0.5420	ug/L	-0.5420	ppb	12:27:30
1	Ca 317.933Radial†	236617.8	264294.7	480210	ug/L	480210	ppb	12:26:58
1	Cd 226.502†	1103.5	1409.9	0.9377	ug/L	0.9377	ppb	12:27:51
1	Co 228.616†	-33.9	19.9	-2.0592	ug/L	-2.0592	ppb	12:27:51
1	Cr 267.716†	-4.7	-80.8	2.4331	ug/L	2.4331	ppb	12:27:51
1	Cu 324.752†	4937.9	-2062.2	2.0156	ug/L	2.0156	ppb	12:27:30
1	Fe 238.204 Radial†	15929.1	17786.5	184530	ug/L	184530	ppb	12:27:03
1	K 766.490 Radial†	2201.2	197.2	-121.37	ug/L	-121.37	ppb	12:27:03
1	Mg 279.077 IEC†	10950.5	12229.5	485380	ug/L	485380	ppb	12:27:03
1	Mn 257.610†	-668.0	-1201.6	-3.5511	ug/L	-3.5511	ppb	12:27:30
1	Mo 202.031†	-156.9	-188.3	2.7540	ug/L	2.7540	ppb	12:27:51
1	Na 589.592 Radial†	-650.8	120.8	41.167	ug/L	41.167	ppb	12:27:03
1	Ni 231.604†	157.3	73.0	2.3338	ug/L	2.3338	ppb	12:27:51
1	P 214.914†	181.1	5.4	-14.933	ug/L	-14.933	ppb	12:27:51
1	Pb 220.353†	-673.5	-675.9	9.7170	ug/L	9.7170	ppb	12:27:51
1	S 181.975 Axial†	57.3	21.0	-70.396	ug/L	-70.396	ppb	12:27:51
1	Sb 206.836†	58.4	34.8	-3.4957	ug/L	-3.4957	ppb	12:27:51
1	Se 196.026†	-734.2	-794.1	-23.568	ug/L	-23.568	ppb	12:27:51
1	Si 251.611†	535.4	4.3	0.3708	ug/L	0.3708	ppb	12:27:51
1	Sn 189.927†	-302.1	-343.0	-6.0541	ug/L	-6.0541	ppb	12:27:51
1	Sr 421.552†	454.9	508.6	0.1125	ug/L	0.1125	ppb	12:27:03
1	Ti 334.940†	-11551.5	-11504.4	1.5431	ug/L	1.5431	ppb	12:27:30
1	Tl 190.801†	-55.8	-30.6	-14.280	ug/L	-14.280	ppb	12:27:51
1	U 409.014†	-832.4	1614.1	33.014	ug/L	33.014	ppb	12:27:30
1	V 292.402†	169.3	1815.7	-3.1552	ug/L	-3.1552	ppb	12:27:51
1	Zn 213.857†	2801.3	2395.2	-1.2049	ug/L	-1.2049	ppb	12:27:51
1	SiO2†	533.5	-5.1	0.0768	ug/L	0.0768	ppb	12:28:47
2	Sc 361.383	694839.9	694839.9	90.481	%			12:27:56
2	Sc Radial	4240.1	4240.1	90.1	%			12:27:13
2	Y 371.029	608131.1	608131.1	88.258	%			12:27:56
2	Y RADIAL	4457.5	4457.5	89.41	%			12:27:13
2	Ag 328.068†	-9940.6	-11242.0	-7.4057	ug/L	-7.4057	ppb	12:27:56
2	Al 396.153Radial†	491658.2	545840.9	510590	ug/L	510590	ppb	12:27:08
2	As 188.979†	-94.3	-79.2	7.8009	ug/L	7.8009	ppb	12:28:16
2	B 249.677†	235.1	713.3	-12.137	ug/L	-12.137	ppb	12:27:56
2	Ba 233.527†	-492.9	-547.2	-0.8042	ug/L	-0.8042	ppb	12:28:16
2	Be 313.107†	-9312.3	-1309.4	-0.5736	ug/L	-0.5736	ppb	12:27:56
2	Ca 317.933Radial†	233334.1	258984.9	470560	ug/L	470560	ppb	12:27:08
2	Cd 226.502†	1124.9	1429.9	1.2033	ug/L	1.2033	ppb	12:28:16
2	Co 228.616†	-13.5	42.6	-1.3759	ug/L	-1.3759	ppb	12:28:16
2	Cr 267.716†	-93.3	-178.7	1.1009	ug/L	1.1009	ppb	12:28:16
2	Cu 324.752†	4943.6	-2072.5	1.9880	ug/L	1.9880	ppb	12:27:56
2	Fe 238.204 Radial†	16045.2	17803.3	184710	ug/L	184710	ppb	12:27:13
2	K 766.490 Radial†	2285.4	275.2	-102.62	ug/L	-102.62	ppb	12:27:13
2	Mg 279.077 IEC†	11078.4	12294.5	487950	ug/L	487950	ppb	12:27:13
2	Mn 257.610†	-776.9	-1319.8	-3.8285	ug/L	-3.8285	ppb	12:27:56
2	Mo 202.031†	-163.6	-195.2	2.0250	ug/L	2.0250	ppb	12:28:16
2	Na 589.592 Radial†	-617.5	162.4	55.338	ug/L	55.338	ppb	12:27:13
2	Ni 231.604†	180.5	98.1	3.1356	ug/L	3.1356	ppb	12:28:16

2	P 214.914†	183.8	7.7	-16.351 ug/L	-16.351 ppb	12:28:16
2	Pb 220.353†	-660.8	-659.6	9.6532 ug/L	9.6532 ppb	12:28:16
2	S 181.975 Axial†	58.5	22.2	-66.935 ug/L	-66.935 ppb	12:28:16
2	Sb 206.836†	53.6	29.2	-5.4814 ug/L	-5.4814 ppb	12:28:16
2	Se 196.026†	-750.4	-809.5	-33.622 ug/L	-33.622 ppb	12:28:16
2	Si 251.611†	542.8	10.7	0.6098 ug/L	0.6098 ppb	12:28:16
2	Sn 189.927†	-301.7	-341.6	-7.4405 ug/L	-7.4405 ppb	12:28:16
2	Sr 421.552†	458.3	509.3	0.1895 ug/L	0.1895 ppb	12:27:13
2	Ti 334.940†	-11693.2	-11622.3	-0.1974 ug/L	-0.1974 ppb	12:27:56
2	Tl 190.801†	-61.5	-36.8	-17.137 ug/L	-17.137 ppb	12:28:16
2	U 409.014†	-903.2	1538.5	30.467 ug/L	30.467 ppb	12:27:56
2	V 292.402†	221.7	1873.0	-2.6869 ug/L	-2.6869 ppb	12:28:16
2	Zn 213.857†	2766.3	2347.1	-1.7663 ug/L	-1.7663 ppb	12:28:16
2	SiO2†	512.5	-30.1	-1.8545 ug/L	-1.8545 ppb	12:28:52
3	Sc 361.383	698608.7	698608.7	90.972 %		12:28:21
3	Sc Radial	4199.1	4199.1	89.2 %		12:27:24
3	Y 371.029	610888.9	610888.9	88.659 %		12:28:21
3	Y RADIAL	4439.7	4439.7	89.05 %		12:27:24
3	Ag 328.068†	-9991.8	-11239.1	-7.2188 ug/L	-7.2188 ppb	12:28:21
3	Al 396.153Radial†	485919.6	544744.6	509560 ug/L	509560 ppb	12:27:19
3	As 188.979†	-79.2	-62.1	15.580 ug/L	15.580 ppb	12:28:41
3	B 249.677†	297.5	780.5	-10.550 ug/L	-10.550 ppb	12:28:21
3	Ba 233.527†	-511.7	-564.8	-0.9955 ug/L	-0.9955 ppb	12:28:41
3	Be 313.107†	-9408.4	-1359.4	-0.5935 ug/L	-0.5935 ppb	12:28:21
3	Ca 317.933Radial†	231332.5	259273.8	471090 ug/L	471090 ppb	12:27:19
3	Cd 226.502†	1108.3	1404.9	0.7890 ug/L	0.7890 ppb	12:28:41
3	Co 228.616†	-15.4	40.5	-1.4499 ug/L	-1.4499 ppb	12:28:41
3	Cr 267.716†	-30.0	-108.6	2.0689 ug/L	2.0689 ppb	12:28:41
3	Cu 324.752†	5085.6	-1945.8	2.4932 ug/L	2.4932 ppb	12:28:21
3	Fe 238.204 Radial†	15940.3	17859.8	185290 ug/L	185290 ppb	12:27:24
3	K 766.490 Radial†	2168.8	169.3	-123.86 ug/L	-123.86 ppb	12:27:24
3	Mg 279.077 IEC†	10977.9	12302.0	488250 ug/L	488250 ppb	12:27:24
3	Mn 257.610†	-750.9	-1286.6	-3.7297 ug/L	-3.7297 ppb	12:28:21
3	Mo 202.031†	-174.5	-206.2	1.0638 ug/L	1.0638 ppb	12:28:41
3	Na 589.592 Radial†	-660.2	107.8	36.735 ug/L	36.735 ppb	12:27:24
3	Ni 231.604†	202.2	121.0	3.8664 ug/L	3.8664 ppb	12:28:41
3	P 214.914†	168.3	-10.3	-27.273 ug/L	-27.273 ppb	12:28:41
3	Pb 220.353†	-667.4	-663.0	8.8179 ug/L	8.8179 ppb	12:28:41
3	S 181.975 Axial†	63.5	27.3	-60.061 ug/L	-60.061 ppb	12:28:41
3	Sb 206.836†	55.5	30.9	-4.7868 ug/L	-4.7868 ppb	12:28:41
3	Se 196.026†	-744.5	-798.5	-25.701 ug/L	-25.701 ppb	12:28:41
3	Si 251.611†	540.2	4.6	0.4000 ug/L	0.4000 ppb	12:28:41
3	Sn 189.927†	-306.9	-345.4	-8.2867 ug/L	-8.2867 ppb	12:28:41
3	Sr 421.552†	460.2	516.3	0.2370 ug/L	0.2370 ppb	12:27:24
3	Ti 334.940†	-11744.9	-11609.4	-0.1259 ug/L	-0.1259 ppb	12:28:21
3	Tl 190.801†	-57.7	-32.2	-15.024 ug/L	-15.024 ppb	12:28:41
3	U 409.014†	-908.7	1537.9	30.376 ug/L	30.376 ppb	12:28:21
3	V 292.402†	179.1	1824.8	-3.1653 ug/L	-3.1653 ppb	12:28:41
3	Zn 213.857†	2821.7	2391.4	-1.3707 ug/L	-1.3707 ppb	12:28:41
3	SiO2†	546.0	3.8	0.8110 ug/L	0.8110 ppb	12:28:57

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	695395.9	90.554	%	0.3873				0.43%
Sc Radial	4217.5	89.6	%	0.44				0.49%
Y 371.029	608418.5	88.300	%	0.3396				0.38%
Y RADIAL	4440.6	89.07	%	0.331				0.37%
Ag 328.068†	-11217.4	-7.2847	ug/L	0.10491	-7.2847	ppb	0.10491	1.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	549203.4	513730	ug/L	6356.8	513730	ppb	6356.8	1.24%
QC value within limits for Al 396.153Radial Recovery = 102.75%								
As 188.979†	-67.3	13.141	ug/L	4.6305	13.141	ppb	4.6305	35.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	771.4	-10.703	ug/L	1.3639	-10.703	ppb	1.3639	12.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-557.1	-0.9174	ug/L	0.10036	-0.9174	ppb	0.10036	10.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1300.0	-0.5697	ug/L	0.02593	-0.5697	ppb	0.02593	4.55%
QC value within limits for Be 313.107 Recovery = Not calculated								

```
Ca 317.933Radial†     260851.1      473950 ug/L        5424.8      473950 ppb        5424.8   1.14%
   QC value within limits for Ca 317.933Radial  Recovery = 94.79%
Cd 226.502†             1414.9      0.9767 ug/L       0.20984      0.9767 ppb       0.20984  21.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               34.3     -1.6283 ug/L       0.37495     -1.6283 ppb       0.37495  23.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -122.7      1.8676 ug/L       0.68852      1.8676 ppb       0.68852  36.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2026.8      2.1656 ug/L       0.28403      2.1656 ppb       0.28403  13.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     17816.5      184850 ug/L         398.7      184850 ppb         398.7   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.42%
K 766.490 Radial†        213.9     -115.95 ug/L        11.610     -115.95 ppb        11.610  10.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        12275.3      487200 ug/L        1582.3      487200 ppb        1582.3   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.44%
Mn 257.610†            -1269.3     -3.7031 ug/L       0.14056     -3.7031 ppb       0.14056   3.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -196.6      1.9476 ug/L       0.84777      1.9476 ppb       0.84777  43.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       130.3      44.413 ug/L        9.7171      44.413 ppb        9.7171  21.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               97.4      3.1119 ug/L       0.76662      3.1119 ppb       0.76662  24.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.9     -19.519 ug/L        6.7523     -19.519 ppb        6.7523  34.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -666.2      9.3960 ug/L       0.50171      9.3960 ppb       0.50171   5.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          23.5     -65.798 ug/L        5.2607     -65.798 ppb        5.2607   8.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               31.6     -4.5880 ug/L       1.00768     -4.5880 ppb       1.00768  21.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -800.7     -27.630 ug/L        5.2975     -27.630 ppb        5.2975  19.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                6.5      0.4602 ug/L       0.13038      0.4602 ppb       0.13038  28.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -343.3     -7.2604 ug/L       1.12715     -7.2604 ppb       1.12715  15.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              511.4      0.1797 ug/L       0.06279      0.1797 ppb       0.06279  34.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -11578.7      0.4066 ug/L       0.98488      0.4066 ppb       0.98488 242.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -33.2     -15.480 ug/L        1.4822     -15.480 ppb        1.4822   9.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1563.5      31.286 ug/L        1.4971      31.286 ppb        1.4971   4.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              1837.8     -3.0025 ug/L       0.27335     -3.0025 ppb       0.27335   9.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2377.9     -1.4473 ug/L       0.28840     -1.4473 ppb       0.28840  19.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -10.4     -0.3222 ug/L       1.37684     -0.3222 ppb       1.37684 427.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/1/2010 12:31:09
Data Type: Reprocessed on 3/1/2010 13:29:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	704340.1	704340.1	91.718	%			12:34:20
1	Sc Radial	4225.3	4225.3	89.8	%			12:33:21
1	Y 371.029	616031.0	616031.0	89.405	%			12:34:20
1	Y RADIAL	4471.3	4471.3	89.69	%			12:33:21
1	Ag 328.068†	38036.6	41215.5	263.83	ug/L	263.83	ppb	12:34:20
1	Al 396.153Radial†	493154.2	549415.5	513910	ug/L	513910	ppb	12:33:01
1	As 188.979†	946.3	1056.8	517.37	ug/L	517.37	ppb	12:34:40
1	B 249.677†	18925.1	21087.4	496.75	ug/L	496.75	ppb	12:34:20
1	Ba 233.527†	38107.9	41546.5	496.98	ug/L	496.98	ppb	12:34:20
1	Be 313.107†	535444.0	592774.9	236.72	ug/L	236.72	ppb	12:34:20
1	Ca 317.933Radial†	234604.4	261305.6	474780	ug/L	474780	ppb	12:33:01
1	Cd 226.502†	30187.9	33100.4	450.56	ug/L	450.56	ppb	12:34:40
1	Co 228.616†	14038.6	15363.7	461.74	ug/L	461.74	ppb	12:34:40
1	Cr 267.716†	31729.1	34518.4	475.63	ug/L	475.63	ppb	12:34:20
1	Cu 324.752†	145564.9	151172.7	575.53	ug/L	575.53	ppb	12:34:20
1	Fe 238.204 Radial†	15986.5	17800.2	184690	ug/L	184690	ppb	12:33:21
1	K 766.490 Radial†	26360.5	27101.5	5233.4	ug/L	5233.4	ppb	12:33:01
1	Mg 279.077 IEC†	11111.9	12374.8	491150	ug/L	491150	ppb	12:33:21
1	Mn 257.610†	283824.2	308991.1	492.73	ug/L	492.73	ppb	12:34:20
1	Mo 202.031†	4589.3	4989.3	477.86	ug/L	477.86	ppb	12:34:40
1	Na 589.592 Radial†	12952.5	15275.7	5205.9	ug/L	5205.9	ppb	12:33:01
1	Ni 231.604†	13064.0	14142.3	451.81	ug/L	451.81	ppb	12:34:40
1	P 214.914†	4284.3	4475.8	2370.1	ug/L	2370.1	ppb	12:34:40
1	Pb 220.353†	2037.4	2292.0	487.34	ug/L	487.34	ppb	12:34:40
1	S 181.975 Axial†	1853.4	1978.2	2468.5	ug/L	2468.5	ppb	12:34:40
1	Sb 206.836†	1276.2	1361.4	552.34	ug/L	552.34	ppb	12:34:40
1	Se 196.026†	3049.4	3344.5	2512.2	ug/L	2512.2	ppb	12:34:40
1	Si 251.611†	133993.5	145503.3	5303.9	ug/L	5303.9	ppb	12:34:20
1	Sn 189.927†	1602.0	1738.6	483.17	ug/L	483.17	ppb	12:34:40
1	Sr 421.552†	61221.6	68195.7	492.36	ug/L	492.36	ppb	12:33:01
1	Ti 334.940†	219311.1	240414.9	507.58	ug/L	507.58	ppb	12:34:20
1	Tl 190.801†	935.6	1051.3	486.15	ug/L	486.15	ppb	12:34:40
1	U 409.014†	12541.6	16210.8	520.72	ug/L	520.72	ppb	12:34:20
1	V 292.402†	56887.3	63651.9	496.30	ug/L	496.30	ppb	12:34:20
1	Zn 213.857†	43887.7	47140.3	488.61	ug/L	488.61	ppb	12:34:20
1	SiO2†	131981.8	143302.7	11151	ug/L	11151	ppb	12:35:37
2	Sc 361.383	696859.8	696859.8	90.744	%			12:34:46
2	Sc Radial	4208.5	4208.5	89.4	%			12:33:47
2	Y 371.029	609654.8	609654.8	88.480	%			12:34:46
2	Y RADIAL	4449.6	4449.6	89.25	%			12:33:47
2	Ag 328.068†	37638.7	41222.2	263.88	ug/L	263.88	ppb	12:34:46
2	Al 396.153Radial†	492018.9	550339.1	514770	ug/L	514770	ppb	12:33:27
2	As 188.979†	954.2	1076.6	526.18	ug/L	526.18	ppb	12:35:06
2	B 249.677†	18678.6	21037.3	495.45	ug/L	495.45	ppb	12:34:46
2	Ba 233.527†	37631.3	41467.2	496.04	ug/L	496.04	ppb	12:34:46
2	Be 313.107†	528866.4	591793.0	236.33	ug/L	236.33	ppb	12:34:46
2	Ca 317.933Radial†	233297.6	260887.5	474020	ug/L	474020	ppb	12:33:27
2	Cd 226.502†	30372.6	33657.3	458.45	ug/L	458.45	ppb	12:35:06
2	Co 228.616†	14147.0	15647.5	470.33	ug/L	470.33	ppb	12:35:06
2	Cr 267.716†	31537.7	34678.9	477.82	ug/L	477.82	ppb	12:34:46
2	Cu 324.752†	143499.5	150600.2	573.39	ug/L	573.39	ppb	12:34:46
2	Fe 238.204 Radial†	15930.7	17808.9	184780	ug/L	184780	ppb	12:33:47
2	K 766.490 Radial†	26323.0	27176.8	5248.6	ug/L	5248.6	ppb	12:33:27
2	Mg 279.077 IEC†	11061.7	12368.0	490880	ug/L	490880	ppb	12:33:47
2	Mn 257.610†	280620.7	308782.6	492.42	ug/L	492.42	ppb	12:34:46
2	Mo 202.031†	4608.4	5064.1	484.73	ug/L	484.73	ppb	12:35:06
2	Na 589.592 Radial†	12874.8	15246.4	5196.0	ug/L	5196.0	ppb	12:33:27
2	Ni 231.604†	13173.5	14415.8	460.55	ug/L	460.55	ppb	12:35:06

2	P 214.914†	4313.6	4558.2	2416.8 ug/L	2416.8 ppb	12:35:06
2	Pb 220.353†	2040.3	2319.1	491.91 ug/L	491.91 ppb	12:35:06
2	S 181.975 Axial†	1870.3	2018.6	2520.7 ug/L	2520.7 ppb	12:35:06
2	Sb 206.836†	1294.0	1395.9	566.58 ug/L	566.58 ppb	12:35:06
2	Se 196.026†	3067.2	3399.9	2546.4 ug/L	2546.4 ppb	12:35:06
2	Si 251.611†	132325.6	145233.5	5293.9 ug/L	5293.9 ppb	12:34:46
2	Sn 189.927†	1615.0	1771.7	490.82 ug/L	490.82 ppb	12:35:06
2	Sr 421.552†	61000.5	68220.7	492.54 ug/L	492.54 ppb	12:33:27
2	Ti 334.940†	217190.8	240645.1	507.96 ug/L	507.96 ppb	12:34:46
2	Tl 190.801†	928.9	1054.9	487.78 ug/L	487.78 ppb	12:35:06
2	U 409.014†	12713.3	16546.9	531.96 ug/L	531.96 ppb	12:34:46
2	V 292.402†	56175.0	63532.8	495.45 ug/L	495.45 ppb	12:34:46
2	Zn 213.857†	43390.4	47105.9	488.16 ug/L	488.16 ppb	12:34:46
2	SiO2†	132995.2	145964.2	11358 ug/L	11358 ppb	12:35:42
3	Sc 361.383	711334.7	711334.7	92.629 %		12:35:12
3	Sc Radial	4245.6	4245.6	90.2 %		12:34:12
3	Y 371.029	620828.2	620828.2	90.101 %		12:35:12
3	Y RADIAL	4479.2	4479.2	89.85 %		12:34:12
3	Ag 328.068†	38184.6	40967.4	262.55 ug/L	262.55 ppb	12:35:12
3	Al 396.153Radial†	490418.7	543766.7	508630 ug/L	508630 ppb	12:33:52
3	As 188.979†	942.0	1042.0	510.73 ug/L	510.73 ppb	12:35:32
3	B 249.677†	19191.0	21171.6	498.90 ug/L	498.90 ppb	12:35:12
3	Ba 233.527†	38418.5	41473.3	496.10 ug/L	496.10 ppb	12:35:12
3	Be 313.107†	537296.8	589034.7	235.23 ug/L	235.23 ppb	12:35:12
3	Ca 317.933Radial†	233252.0	258561.7	469790 ug/L	469790 ppb	12:33:52
3	Cd 226.502†	30167.6	32754.8	445.67 ug/L	445.67 ppb	12:35:32
3	Co 228.616†	13958.9	15127.2	454.59 ug/L	454.59 ppb	12:35:32
3	Cr 267.716†	32066.5	34542.6	475.95 ug/L	475.95 ppb	12:35:12
3	Cu 324.752†	146988.8	151149.2	575.43 ug/L	575.43 ppb	12:35:12
3	Fe 238.204 Radial†	16048.8	17784.4	184530 ug/L	184530 ppb	12:34:12
3	K 766.490 Radial†	26138.4	26715.5	5158.2 ug/L	5158.2 ppb	12:33:52
3	Mg 279.077 IEC†	11161.3	12370.6	490980 ug/L	490980 ppb	12:34:12
3	Mn 257.610†	285976.0	308271.4	491.57 ug/L	491.57 ppb	12:35:12
3	Mo 202.031†	4590.3	4941.1	473.37 ug/L	473.37 ppb	12:35:32
3	Na 589.592 Radial†	12800.0	15037.9	5124.9 ug/L	5124.9 ppb	12:33:52
3	Ni 231.604†	13042.8	13979.4	446.60 ug/L	446.60 ppb	12:35:32
3	P 214.914†	4266.0	4410.1	2332.2 ug/L	2332.2 ppb	12:35:32
3	Pb 220.353†	2003.0	2233.1	476.47 ug/L	476.47 ppb	12:35:32
3	S 181.975 Axial†	1846.6	1951.0	2434.3 ug/L	2434.3 ppb	12:35:32
3	Sb 206.836†	1279.2	1351.0	548.09 ug/L	548.09 ppb	12:35:32
3	Se 196.026†	3008.7	3267.9	2464.4 ug/L	2464.4 ppb	12:35:32
3	Si 251.611†	134990.8	145143.5	5290.8 ug/L	5290.8 ppb	12:35:12
3	Sn 189.927†	1598.8	1718.0	477.44 ug/L	477.44 ppb	12:35:32
3	Sr 421.552†	60729.3	67325.2	486.06 ug/L	486.06 ppb	12:33:52
3	Ti 334.940†	221304.6	240215.9	506.52 ug/L	506.52 ppb	12:35:12
3	Tl 190.801†	918.7	1023.0	473.22 ug/L	473.22 ppb	12:35:32
3	U 409.014†	12848.6	16407.9	527.34 ug/L	527.34 ppb	12:35:12
3	V 292.402†	57099.5	63271.1	493.24 ug/L	493.24 ppb	12:35:12
3	Zn 213.857†	44289.2	47103.3	488.25 ug/L	488.25 ppb	12:35:12
3	SiO2†	131154.4	140994.6	10971 ug/L	10971 ppb	12:35:47

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	704178.2	91.697	%	0.9426				1.03%
Sc Radial	4226.5	89.8	%	0.39				0.44%
Y 371.029	615504.7	89.329	%	0.8135				0.91%
Y RADIAL	4466.7	89.60	%	0.307				0.34%
Ag 328.068†	41135.0	263.42	ug/L	0.754	263.42	ppb	0.754	0.29%
QC value within limits for Ag 328.068 Recovery = 105.37%								
Al 396.153Radial†	547840.5	512440	ug/L	3328.0	512440	ppb	3328.0	0.65%
QC value within limits for Al 396.153Radial Recovery = 102.49%								
As 188.979†	1058.4	518.09	ug/L	7.754	518.09	ppb	7.754	1.50%
QC value within limits for As 188.979 Recovery = 103.62%								
B 249.677†	21098.7	497.03	ug/L	1.742	497.03	ppb	1.742	0.35%
QC value within limits for B 249.677 Recovery = 99.41%								
Ba 233.527†	41495.7	496.38	ug/L	0.524	496.38	ppb	0.524	0.11%
QC value within limits for Ba 233.527 Recovery = 99.28%								
Be 313.107†	591200.9	236.09	ug/L	0.771	236.09	ppb	0.771	0.33%
QC value within limits for Be 313.107 Recovery = 94.44%								

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Ca 317.933Radial†     260251.6      472860 ug/L        2686.1      472860 ppb         2686.1   0.57%
   QC value within limits for Ca 317.933Radial  Recovery = 94.57%
Cd 226.502†            33170.8      451.56 ug/L         6.447      451.56 ppb          6.447   1.43%
   QC value within limits for Cd 226.502  Recovery = 90.31%
Co 228.616†            15379.4      462.22 ug/L         7.883      462.22 ppb          7.883   1.71%
   QC value within limits for Co 228.616  Recovery = 92.44%
Cr 267.716†            34580.0      476.46 ug/L         1.182      476.46 ppb          1.182   0.25%
   QC value within limits for Cr 267.716  Recovery = 95.29%
Cu 324.752†           150974.0      574.78 ug/L         1.211      574.78 ppb          1.211   0.21%
   QC value within limits for Cu 324.752  Recovery = 114.96%
Fe 238.204 Radial†     17797.8      184670 ug/L         129.1      184670 ppb          129.1   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.33%
K 766.490 Radial†      26997.9      5213.4 ug/L         48.39      5213.4 ppb          48.39   0.93%
   QC value within limits for K 766.490 Radial  Recovery = 104.27%
Mg 279.077 IEC†        12371.1      491000 ug/L         134.9      491000 ppb          134.9   0.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.20%
Mn 257.610†           308681.7      492.24 ug/L         0.601      492.24 ppb          0.601   0.12%
   QC value within limits for Mn 257.610  Recovery = 98.45%
Mo 202.031†             4998.2      478.65 ug/L         5.719      478.65 ppb          5.719   1.19%
   QC value within limits for Mo 202.031  Recovery = 95.73%
Na 589.592 Radial†     15186.7      5175.6 ug/L         44.19      5175.6 ppb          44.19   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 103.51%
Ni 231.604†            14179.2      452.98 ug/L         7.046      452.98 ppb          7.046   1.56%
   QC value within limits for Ni 231.604  Recovery = 90.60%
P 214.914†              4481.4      2373.1 ug/L         42.35      2373.1 ppb          42.35   1.78%
   QC value within limits for P 214.914  Recovery = 94.92%
Pb 220.353†             2281.4      485.24 ug/L         7.932      485.24 ppb          7.932   1.63%
   QC value within limits for Pb 220.353  Recovery = 97.05%
S 181.975 Axial†        1982.6      2474.5 ug/L         43.52      2474.5 ppb          43.52   1.76%
   QC value within limits for S 181.975 Axial  Recovery = 98.98%
Sb 206.836†             1369.4      555.67 ug/L         9.684      555.67 ppb          9.684   1.74%
   QC value within limits for Sb 206.836  Recovery = 111.13%
Se 196.026†             3337.4      2507.6 ug/L         41.19      2507.6 ppb          41.19   1.64%
   QC value within limits for Se 196.026  Recovery = 100.31%
Si 251.611†           145293.4      5296.2 ug/L          6.83      5296.2 ppb           6.83   0.13%
   QC value within limits for Si 251.611  Recovery = 105.92%
Sn 189.927†             1742.7      483.81 ug/L         6.713      483.81 ppb          6.713   1.39%
   QC value within limits for Sn 189.927  Recovery = 96.76%
Sr 421.552†            67913.9      490.32 ug/L         3.689      490.32 ppb          3.689   0.75%
   QC value within limits for Sr 421.552  Recovery = 98.06%
Ti 334.940†           240425.3      507.35 ug/L         0.745      507.35 ppb          0.745   0.15%
   QC value within limits for Ti 334.940  Recovery = 101.47%
Tl 190.801†             1043.1      482.38 ug/L         7.980      482.38 ppb          7.980   1.65%
   QC value within limits for Tl 190.801  Recovery = 96.48%
U 409.014†             16388.5      526.67 ug/L         5.648      526.67 ppb          5.648   1.07%
   QC value within limits for U 409.014  Recovery = 105.33%
V 292.402†             63485.3      494.99 ug/L         1.580      494.99 ppb          1.580   0.32%
   QC value within limits for V 292.402  Recovery = 99.00%
Zn 213.857†            47116.5      488.34 ug/L         0.234      488.34 ppb          0.234   0.05%
   QC value within limits for Zn 213.857  Recovery = 97.67%
SiO2†                 143420.5       11160 ug/L         193.6       11160 ppb          193.6   1.73%
   QC value within limits for SiO2  Recovery = 104.35%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/1/2010 12:37:57
Data Type: Reprocessed on 3/1/2010 13:29:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	686767.6	686767.6	89.430	%			12:41:08
1	Sc Radial	4122.0	4122.0	87.6	%			12:40:10
1	Y 371.029	601213.8	601213.8	87.255	%			12:41:08
1	Y RADIAL	4361.2	4361.2	87.48	%			12:40:10
1	Ag 328.068†	-20956.2	-23688.7	-10.393	ug/L	-10.393	ppb	12:41:08
1	Al 396.153Radial†	480771.6	549041.9	513580	ug/L	513580	ppb	12:39:50
1	As 188.979†	-141.7	-133.4	39.576	ug/L	39.576	ppb	12:41:29
1	B 249.677†	909.2	1470.1	-31.931	ug/L	-31.931	ppb	12:41:08
1	Ba 233.527†	-1256.2	-1407.1	-3.6801	ug/L	-3.6801	ppb	12:41:29
1	Be 313.107†	-14739.2	-7498.6	-3.0284	ug/L	-3.0284	ppb	12:41:08
1	Ca 317.933Radial†	229140.4	261615.0	475340	ug/L	475340	ppb	12:39:50
1	Cd 226.502†	3021.3	3565.1	9.7623	ug/L	9.7623	ppb	12:41:29
1	Co 228.616†	125.5	197.8	-0.1878	ug/L	-0.1878	ppb	12:41:29
1	Cr 267.716†	13.3	-60.7	1.3378	ug/L	1.3378	ppb	12:41:29
1	Cu 324.752†	2512.7	-4726.5	-3.6433	ug/L	-3.6433	ppb	12:41:08
1	Fe 238.204 Radial†	35732.5	40792.8	423220	ug/L	423220	ppb	12:40:10
1	K 766.490 Radial†	3769.7	2042.7	57.081	ug/L	57.081	ppb	12:39:50
1	Mg 279.077 IEC†	10832.4	12365.8	490540	ug/L	490540	ppb	12:40:10
1	Mn 257.610†	-19567.0	-22340.8	-14.034	ug/L	-14.034	ppb	12:41:08
1	Mo 202.031†	-368.1	-426.0	-0.5878	ug/L	-0.5878	ppb	12:41:29
1	Na 589.592 Radial†	1254868.7	1433682.2	488600	ug/L	488600	ppb	12:39:50
1	Ni 231.604†	227.3	152.9	4.8834	ug/L	4.8834	ppb	12:41:29
1	P 214.914†	491.6	354.4	-12.244	ug/L	-12.244	ppb	12:41:29
1	Pb 220.353†	-508.5	-497.9	17.358	ug/L	17.358	ppb	12:41:29
1	S 181.975 Axial†	75.3	41.7	-42.221	ug/L	-42.221	ppb	12:41:29
1	Sb 206.836†	55.2	31.7	-7.7022	ug/L	-7.7022	ppb	12:41:29
1	Se 196.026†	-1821.2	-2016.7	-238.73	ug/L	-238.73	ppb	12:41:29
1	Si 251.611†	-295.1	-919.2	-33.061	ug/L	-33.061	ppb	12:41:29
1	Sn 189.927†	-319.9	-365.8	-25.996	ug/L	-25.996	ppb	12:41:29
1	Sr 421.552†	1457.0	1664.2	8.5520	ug/L	8.5520	ppb	12:40:10
1	Ti 334.940†	-10515.5	-10457.4	-4.0393	ug/L	-4.0393	ppb	12:41:08
1	Tl 190.801†	-87.8	-66.9	-31.150	ug/L	-31.150	ppb	12:41:29
1	U 409.014†	400386.5	450246.4	15029	ug/L	15029	ppb	12:41:08
1	V 292.402†	928.2	2665.9	-2.6029	ug/L	-2.6029	ppb	12:41:29
1	Zn 213.857†	5023.9	4907.4	-9.2212	ug/L	-9.2212	ppb	12:41:29
1	SiO2†	-297.9	-929.5	-71.347	ug/L	-71.347	ppb	12:42:25
2	Sc 361.383	698587.1	698587.1	90.969	%			12:41:34
2	Sc Radial	4111.8	4111.8	87.4	%			12:40:36
2	Y 371.029	611197.6	611197.6	88.703	%			12:41:34
2	Y RADIAL	4353.6	4353.6	87.33	%			12:40:36
2	Ag 328.068†	-21331.8	-23705.1	-10.229	ug/L	-10.229	ppb	12:41:34
2	Al 396.153Radial†	481893.3	551691.8	516060	ug/L	516060	ppb	12:40:16
2	As 188.979†	-162.4	-153.5	30.815	ug/L	30.815	ppb	12:41:54
2	B 249.677†	1044.8	1602.0	-28.754	ug/L	-28.754	ppb	12:41:34
2	Ba 233.527†	-1298.2	-1429.5	-3.9206	ug/L	-3.9206	ppb	12:41:54
2	Be 313.107†	-15028.9	-7538.2	-3.0428	ug/L	-3.0428	ppb	12:41:34
2	Ca 317.933Radial†	229225.9	262363.8	476700	ug/L	476700	ppb	12:40:16
2	Cd 226.502†	2974.3	3456.2	8.1325	ug/L	8.1325	ppb	12:41:54
2	Co 228.616†	134.8	205.6	0.0344	ug/L	0.0344	ppb	12:41:54
2	Cr 267.716†	95.5	29.4	2.5996	ug/L	2.5996	ppb	12:41:54
2	Cu 324.752†	2468.3	-4822.8	-3.9426	ug/L	-3.9426	ppb	12:41:34
2	Fe 238.204 Radial†	35707.9	40866.1	423980	ug/L	423980	ppb	12:40:36
2	K 766.490 Radial†	3807.8	2097.0	67.154	ug/L	67.154	ppb	12:40:16
2	Mg 279.077 IEC†	10811.2	12372.3	490790	ug/L	490790	ppb	12:40:36
2	Mn 257.610†	-19964.4	-22407.5	-14.076	ug/L	-14.076	ppb	12:41:34
2	Mo 202.031†	-376.0	-427.7	-0.6620	ug/L	-0.6620	ppb	12:41:54
2	Na 589.592 Radial†	1253696.5	1435905.8	489360	ug/L	489360	ppb	12:40:16
2	Ni 231.604†	221.7	142.4	4.5481	ug/L	4.5481	ppb	12:41:54

2	P 214.914†	500.0	354.3	-12.162 ug/L	-12.162 ppb	12:41:54
2	Pb 220.353†	-509.8	-489.8	19.237 ug/L	19.237 ppb	12:41:54
2	S 181.975 Axial†	81.0	46.5	-36.378 ug/L	-36.378 ppb	12:41:54
2	Sb 206.836†	19.3	-8.8	-24.136 ug/L	-24.136 ppb	12:41:54
2	Se 196.026†	-1799.7	-1958.6	-201.24 ug/L	-201.24 ppb	12:41:54
2	Si 251.611†	-276.4	-893.0	-32.104 ug/L	-32.104 ppb	12:41:54
2	Sn 189.927†	-306.6	-345.1	-20.930 ug/L	-20.930 ppb	12:41:54
2	Sr 421.552†	1473.2	1686.8	8.7066 ug/L	8.7066 ppb	12:40:36
2	Ti 334.940†	-10433.7	-10168.5	-3.2793 ug/L	-3.2793 ppb	12:41:34
2	Tl 190.801†	-93.1	-71.1	-33.081 ug/L	-33.081 ppb	12:41:54
2	U 409.014†	406236.9	449102.7	14990 ug/L	14990 ppb	12:41:34
2	V 292.402†	983.3	2708.9	-2.4425 ug/L	-2.4425 ppb	12:41:54
2	Zn 213.857†	5022.5	4810.8	-10.398 ug/L	-10.398 ppb	12:41:54
2	SiO2†	-358.4	-990.4	-76.088 ug/L	-76.088 ppb	12:42:30
3	Sc 361.383	689597.3	689597.3	89.798 %		12:42:00
3	Sc Radial	4087.4	4087.4	86.8 %		12:41:01
3	Y 371.029	602594.6	602594.6	87.455 %		12:42:00
3	Y RADIAL	4345.6	4345.6	87.17 %		12:41:01
3	Ag 328.068†	-21229.9	-23897.4	-11.215 ug/L	-11.215 ppb	12:42:00
3	Al 396.153Radial†	478076.8	550594.4	515040 ug/L	515040 ppb	12:40:41
3	As 188.979†	-167.3	-161.3	27.351 ug/L	27.351 ppb	12:42:20
3	B 249.677†	880.0	1433.4	-32.969 ug/L	-32.969 ppb	12:42:00
3	Ba 233.527†	-1265.4	-1411.5	-3.7087 ug/L	-3.7087 ppb	12:42:20
3	Be 313.107†	-15003.2	-7725.0	-3.1166 ug/L	-3.1166 ppb	12:42:00
3	Ca 317.933Radial†	227420.5	261853.4	475770 ug/L	475770 ppb	12:40:41
3	Cd 226.502†	2972.8	3497.1	8.7172 ug/L	8.7172 ppb	12:42:20
3	Co 228.616†	119.8	190.9	-0.4170 ug/L	-0.4170 ppb	12:42:20
3	Cr 267.716†	75.5	8.5	2.3123 ug/L	2.3123 ppb	12:42:20
3	Cu 324.752†	2406.4	-4856.4	-4.0718 ug/L	-4.0718 ppb	12:42:00
3	Fe 238.204 Radial†	35493.6	40863.6	423960 ug/L	423960 ppb	12:41:01
3	K 766.490 Radial†	3660.3	1953.3	39.706 ug/L	39.706 ppb	12:40:41
3	Mg 279.077 IEC†	10734.3	12357.7	490220 ug/L	490220 ppb	12:41:01
3	Mn 257.610†	-19381.1	-22044.0	-13.473 ug/L	-13.473 ppb	12:42:00
3	Mo 202.031†	-393.4	-452.5	-2.9511 ug/L	-2.9511 ppb	12:42:20
3	Na 589.592 Radial†	1240645.9	1429456.2	487160 ug/L	487160 ppb	12:40:41
3	Ni 231.604†	240.6	166.6	5.3210 ug/L	5.3210 ppb	12:42:20
3	P 214.914†	499.7	361.1	-8.6219 ug/L	-8.6219 ppb	12:42:20
3	Pb 220.353†	-491.5	-476.6	21.087 ug/L	21.087 ppb	12:42:20
3	S 181.975 Axial†	67.9	33.1	-53.672 ug/L	-53.672 ppb	12:42:20
3	Sb 206.836†	60.3	37.1	-5.6258 ug/L	-5.6258 ppb	12:42:20
3	Se 196.026†	-1787.0	-1970.2	-208.53 ug/L	-208.53 ppb	12:42:20
3	Si 251.611†	-312.3	-937.0	-33.680 ug/L	-33.680 ppb	12:42:20
3	Sn 189.927†	-325.1	-370.1	-26.966 ug/L	-26.966 ppb	12:42:20
3	Sr 421.552†	1458.4	1679.8	8.6627 ug/L	8.6627 ppb	12:41:01
3	Ti 334.940†	-10216.9	-10076.6	-3.1731 ug/L	-3.1731 ppb	12:42:00
3	Tl 190.801†	-87.3	-66.0	-30.702 ug/L	-30.702 ppb	12:42:20
3	U 409.014†	401117.0	449222.7	14994 ug/L	14994 ppb	12:42:00
3	V 292.402†	999.5	2741.1	-2.2187 ug/L	-2.2187 ppb	12:42:20
3	Zn 213.857†	5001.3	4859.2	-9.8651 ug/L	-9.8651 ppb	12:42:20
3	SiO2†	-347.8	-983.8	-75.505 ug/L	-75.505 ppb	12:42:36

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	691650.7	90.066	%	0.8036				0.89%
Sc Radial	4107.1	87.3	%	0.38				0.43%
Y 371.029	605002.0	87.804	%	0.7851				0.89%
Y RADIAL	4353.5	87.32	%	0.156				0.18%
Ag 328.068†	-23763.7	-10.612	ug/L	0.5283	-10.612	ppb	0.5283	4.98%
Al 396.153Radial†	550442.7	514890	ug/L	1245.5	514890	ppb	1245.5	0.24%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	-149.4	32.581	ug/L	6.3010	32.581	ppb	6.3010	19.34%
B 249.677†	1501.9	-31.218	ug/L	2.1962	-31.218	ppb	2.1962	7.03%
Ba 233.527†	-1416.0	-3.7698	ug/L	0.13141	-3.7698	ppb	0.13141	3.49%
Be 313.107†	-7587.3	-3.0626	ug/L	0.04734	-3.0626	ppb	0.04734	1.55%
Ca 317.933Radial†	261944.1	475940	ug/L	695.1	475940	ppb	695.1	0.15%
QC value within limits for Ca 317.933Radial Recovery = 95.19%								
Cd 226.502†	3506.1	8.8707	ug/L	0.82563	8.8707	ppb	0.82563	9.31%
Co 228.616†	198.1	-0.1901	ug/L	0.22570	-0.1901	ppb	0.22570	118.70%
Cr 267.716†	-7.6	2.0832	ug/L	0.66134	2.0832	ppb	0.66134	31.75%

Cu 324.752†	-4801.9	-3.8859	ug/L	0.21982	-3.8859	ppb	0.21982	5.66%
Fe 238.204 Radial†	40840.8	423720	ug/L	432.1	423720	ppb	432.1	0.10%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 84.74%								
K 766.490 Radial†	2031.0	54.647	ug/L	13.8847	54.647	ppb	13.8847	25.41%
Mg 279.077 IEC†	12365.3	490520	ug/L	288.9	490520	ppb	288.9	0.06%
QC value within limits for Mg 279.077 IEC Recovery = 98.10%								
Mn 257.610†	-22264.1	-13.861	ug/L	0.3366	-13.861	ppb	0.3366	2.43%
Mo 202.031†	-435.4	-1.4003	ug/L	1.34357	-1.4003	ppb	1.34357	95.95%
Na 589.592 Radial†	1433014.8	488370	ug/L	1116.5	488370	ppb	1116.5	0.23%
QC value within limits for Na 589.592 Radial Recovery = 97.67%								
Ni 231.604†	153.9	4.9175	ug/L	0.38760	4.9175	ppb	0.38760	7.88%
P 214.914†	356.6	-11.009	ug/L	2.0680	-11.009	ppb	2.0680	18.78%
Pb 220.353†	-488.1	19.228	ug/L	1.8645	19.228	ppb	1.8645	9.70%
S 181.975 Axial†	40.4	-44.090	ug/L	8.7975	-44.090	ppb	8.7975	19.95%
Sb 206.836†	20.0	-12.488	ug/L	10.1408	-12.488	ppb	10.1408	81.20%
Se 196.026†	-1981.8	-216.17	ug/L	19.881	-216.17	ppb	19.881	9.20%
Si 251.611†	-916.4	-32.948	ug/L	0.7939	-32.948	ppb	0.7939	2.41%
Sn 189.927†	-360.3	-24.630	ug/L	3.2411	-24.630	ppb	3.2411	13.16%
Sr 421.552†	1676.9	8.6405	ug/L	0.07972	8.6405	ppb	0.07972	0.92%
Ti 334.940†	-10234.1	-3.4973	ug/L	0.47244	-3.4973	ppb	0.47244	13.51%
Tl 190.801†	-68.0	-31.644	ug/L	1.2645	-31.644	ppb	1.2645	4.00%
U 409.014†	449523.9	15004	ug/L	21.1	15004	ppb	21.1	0.14%
QC value within limits for U 409.014 Recovery = 100.03%								
V 292.402†	2705.3	-2.4214	ug/L	0.19300	-2.4214	ppb	0.19300	7.97%
Zn 213.857†	4859.1	-9.8281	ug/L	0.58917	-9.8281	ppb	0.58917	5.99%
SiO2†	-967.9	-74.313	ug/L	2.5855	-74.313	ppb	2.5855	3.48%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/1/2010 12:44:45
Data Type: Reprocessed on 3/1/2010 13:29:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	782532.9	782532.9	101.90	%			12:48:21
1	Sc Radial	4642.2	4642.2	98.6	%			12:46:43
1	Y 371.029	684711.6	684711.6	99.373	%			12:48:21
1	Y RADIAL	4828.2	4828.2	96.85	%			12:46:43
1	Ag 328.068†	-6161.1	-6301.9	7.2805	ug/L	7.2805	ppb	12:48:26
1	Al 396.153Radial†	409.5	502.3	5.5185	ug/L	5.5185	ppb	12:46:43
1	As 188.979†	21598.3	21220.5	9517.6	ug/L	9517.6	ppb	12:48:26
1	B 249.677†	200037.2	196760.0	4899.5	ug/L	4899.5	ppb	12:48:21
1	Ba 233.527†	1207446.3	1184925.5	14004	ug/L	14004	ppb	12:48:21
1	Be 313.107†	6921766.5	6801660.8	2725.2	ug/L	2725.2	ppb	12:48:14
1	Ca 317.933Radial†	33.0	11.3	20.516	ug/L	20.516	ppb	12:47:03
1	Cd 226.502†	692804.5	680070.6	9647.1	ug/L	9647.1	ppb	12:48:21
1	Co 228.616†	327054.1	321012.1	9700.2	ug/L	9700.2	ppb	12:48:26
1	Cr 267.716†	1776350.6	1743146.8	23829	ug/L	23829	ppb	12:48:21
1	Cu 324.752†	5513657.3	5403293.6	20232	ug/L	20232	ppb	12:48:14
1	Fe 238.204 Radial†	-17.1	-24.7	34.458	ug/L	34.458	ppb	12:47:03
1	K 766.490 Radial†	1449010.1	1466853.5	291980	ug/L	291980	ppb	12:46:38
1	Mg 279.077 IEC†	-2.9	-5.9	-133.00	ug/L	-133.00	ppb	12:47:03
1	Mn 257.610†	5985441.4	5873354.0	9401.1	ug/L	9401.1	ppb	12:48:14
1	Mo 202.031†	106340.9	104343.3	9575.8	ug/L	9575.8	ppb	12:48:26
1	Na 589.592 Radial†	-65.4	781.5	266.32	ug/L	266.32	ppb	12:46:43
1	Ni 231.604†	312178.7	306255.3	9784.2	ug/L	9784.2	ppb	12:48:26
1	P 214.914†	30822.0	30051.8	12858	ug/L	12858	ppb	12:48:26
1	Pb 220.353†	154527.6	151716.5	24477	ug/L	24477	ppb	12:48:26
1	S 181.975 Axial†	39401.6	38624.2	50078	ug/L	50078	ppb	12:48:26
1	Sb 206.836†	26528.1	26003.3	10908	ug/L	10908	ppb	12:48:26
1	Se 196.026†	16594.0	16304.3	10014	ug/L	10014	ppb	12:48:26
1	Si 251.611†	1299129.9	1274312.4	46383	ug/L	46383	ppb	12:48:21
1	Sn 189.927†	43970.3	43142.2	10160	ug/L	10160	ppb	12:48:26
1	Sr 421.552†	1306985.7	1325120.6	9635.9	ug/L	9635.9	ppb	12:46:38
1	Ti 334.940†	4832677.1	4743850.6	9550.3	ug/L	9550.3	ppb	12:48:14
1	Tl 190.801†	22457.7	22070.1	10198	ug/L	10198	ppb	12:48:26
1	U 409.014†	-1171.6	1387.1	-6.8173	ug/L	-6.8173	ppb	12:48:26
1	V 292.402†	1257655.0	1235828.2	9957.9	ug/L	9957.9	ppb	12:48:21
1	Zn 213.857†	1274909.2	1250422.3	13701	ug/L	13701	ppb	12:48:21
1	SiO2†	1276728.6	1252321.6	97297	ug/L	97297	ppb	12:49:12
2	Sc 361.383	777689.9	777689.9	101.27	%			12:48:40
2	Sc Radial	4601.6	4601.6	97.8	%			12:47:14
2	Y 371.029	680527.1	680527.1	98.765	%			12:48:40
2	Y RADIAL	4806.9	4806.9	96.42	%			12:47:14
2	Ag 328.068†	-6103.3	-6282.4	7.1415	ug/L	7.1415	ppb	12:48:46
2	Al 396.153Radial†	410.5	507.0	12.459	ug/L	12.459	ppb	12:47:14
2	As 188.979†	21355.1	21112.4	9471.9	ug/L	9471.9	ppb	12:48:46
2	B 249.677†	197412.6	195390.8	4865.4	ug/L	4865.4	ppb	12:48:40
2	Ba 233.527†	1193882.5	1178910.8	13933	ug/L	13933	ppb	12:48:40
2	Be 313.107†	7068217.4	6988576.2	2800.1	ug/L	2800.1	ppb	12:48:34
2	Ca 317.933Radial†	33.7	12.3	22.341	ug/L	22.341	ppb	12:47:34
2	Cd 226.502†	685092.6	676689.3	9599.2	ug/L	9599.2	ppb	12:48:40
2	Co 228.616†	323493.1	319494.5	9653.7	ug/L	9653.7	ppb	12:48:46
2	Cr 267.716†	1756735.6	1734633.4	23712	ug/L	23712	ppb	12:48:40
2	Cu 324.752†	5628722.1	5550611.1	20784	ug/L	20784	ppb	12:48:34
2	Fe 238.204 Radial†	-16.4	-24.1	39.221	ug/L	39.221	ppb	12:47:34
2	K 766.490 Radial†	1448208.3	1479004.1	294400	ug/L	294400	ppb	12:47:09
2	Mg 279.077 IEC†	-4.3	-7.3	-188.67	ug/L	-188.67	ppb	12:47:34
2	Mn 257.610†	6123112.2	6045877.2	9677.2	ug/L	9677.2	ppb	12:48:34
2	Mo 202.031†	105089.6	103757.6	9522.0	ug/L	9522.0	ppb	12:48:46
2	Na 589.592 Radial†	-125.0	720.0	245.36	ug/L	245.36	ppb	12:47:14
2	Ni 231.604†	308881.1	304906.9	9741.1	ug/L	9741.1	ppb	12:48:46

2	P 214.914†	30500.6	29922.8	12676	ug/L	12676 ppb	12:48:46
2	Pb 220.353†	152893.2	151046.8	24368	ug/L	24368 ppb	12:48:46
2	S 181.975 Axial†	38908.3	38378.0	49759	ug/L	49759 ppb	12:48:46
2	Sb 206.836†	26191.2	25832.8	10835	ug/L	10835 ppb	12:48:46
2	Se 196.026†	16333.3	16148.3	9918.7	ug/L	9918.7 ppb	12:48:46
2	Si 251.611†	1284144.0	1267453.8	46133	ug/L	46133 ppb	12:48:40
2	Sn 189.927†	43436.1	42883.4	10099	ug/L	10099 ppb	12:48:46
2	Sr 421.552†	1303990.6	1333756.6	9698.7	ug/L	9698.7 ppb	12:47:09
2	Ti 334.940†	4935183.4	4874605.3	9813.8	ug/L	9813.8 ppb	12:48:34
2	Tl 190.801†	22100.6	21854.7	10103	ug/L	10103 ppb	12:48:46
2	U 409.014†	-1159.3	1392.1	-6.3906	ug/L	-6.3906 ppb	12:48:46
2	V 292.402†	1242294.0	1228345.7	9897.3	ug/L	9897.3 ppb	12:48:40
2	Zn 213.857†	1262211.2	1245674.8	13648	ug/L	13648 ppb	12:48:40
2	SiO2†	1273958.1	1257388.3	97693	ug/L	97693 ppb	12:49:18
3	Sc 361.383	780596.0	780596.0	101.65	%		12:49:00
3	Sc Radial	4673.4	4673.4	99.3	%		12:47:44
3	Y 371.029	683014.5	683014.5	99.126	%		12:49:00
3	Y RADIAL	4901.1	4901.1	98.31	%		12:47:44
3	Ag 328.068†	-6012.2	-6170.4	7.7025	ug/L	7.7025 ppb	12:49:05
3	Al 396.153Radial†	389.4	479.3	-5.2635	ug/L	-5.2635 ppb	12:47:44
3	As 188.979†	20985.6	20670.4	9274.5	ug/L	9274.5 ppb	12:49:05
3	B 249.677†	198627.6	195860.4	4877.6	ug/L	4877.6 ppb	12:49:00
3	Ba 233.527†	1196921.8	1177511.8	13916	ug/L	13916 ppb	12:49:00
3	Be 313.107†	7026646.0	6921694.7	2773.3	ug/L	2773.3 ppb	12:48:54
3	Ca 317.933Radial†	37.0	15.1	27.403	ug/L	27.403 ppb	12:48:04
3	Cd 226.502†	685216.7	674292.9	9565.1	ug/L	9565.1 ppb	12:49:00
3	Co 228.616†	318810.6	313698.7	9478.4	ug/L	9478.4 ppb	12:49:05
3	Cr 267.716†	1759386.5	1730783.2	23660	ug/L	23660 ppb	12:49:00
3	Cu 324.752†	5591149.3	5492955.1	20568	ug/L	20568 ppb	12:48:54
3	Fe 238.204 Radial†	-19.7	-27.2	1.9320	ug/L	1.9320 ppb	12:48:04
3	K 766.490 Radial†	1473685.9	1481895.8	294980	ug/L	294980 ppb	12:47:39
3	Mg 279.077 IEC†	-11.1	-14.0	-458.65	ug/L	-458.65 ppb	12:48:04
3	Mn 257.610†	6091386.4	5992156.1	9591.2	ug/L	9591.2 ppb	12:48:54
3	Mo 202.031†	103625.2	101930.6	9354.3	ug/L	9354.3 ppb	12:49:05
3	Na 589.592 Radial†	-195.6	650.8	221.78	ug/L	221.78 ppb	12:47:44
3	Ni 231.604†	304752.8	299710.0	9575.1	ug/L	9575.1 ppb	12:49:05
3	P 214.914†	29959.8	29278.7	12358	ug/L	12358 ppb	12:49:05
3	Pb 220.353†	150873.8	148498.1	23957	ug/L	23957 ppb	12:49:05
3	S 181.975 Axial†	38400.4	37735.3	48926	ug/L	48926 ppb	12:49:05
3	Sb 206.836†	25783.6	25335.5	10628	ug/L	10628 ppb	12:49:05
3	Se 196.026†	15988.1	15748.6	9673.3	ug/L	9673.3 ppb	12:49:05
3	Si 251.611†	1291751.4	1270217.0	46236	ug/L	46236 ppb	12:49:00
3	Sn 189.927†	42953.4	42248.8	9949.4	ug/L	9949.4 ppb	12:49:05
3	Sr 421.552†	1323486.9	1332891.7	9692.5	ug/L	9692.5 ppb	12:47:39
3	Ti 334.940†	4907763.8	4829487.5	9723.0	ug/L	9723.0 ppb	12:48:54
3	Tl 190.801†	21724.9	21403.8	9895.5	ug/L	9895.5 ppb	12:49:05
3	U 409.014†	-1401.8	1157.7	-14.117	ug/L	-14.117 ppb	12:49:05
3	V 292.402†	1246575.0	1227990.3	9892.2	ug/L	9892.2 ppb	12:49:00
3	Zn 213.857†	1263738.1	1242536.8	13615	ug/L	13615 ppb	12:49:00
3	SiO2†	1298149.9	1276504.6	99187	ug/L	99187 ppb	12:49:24

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	780272.9	101.61	%	0.317				0.31%
Sc Radial	4639.1	98.6	%	0.77				0.78%
Y 371.029	682751.1	99.088	%	0.3055				0.31%
Y RADIAL	4845.4	97.19	%	0.991				1.02%
Ag 328.068†	-6251.6	7.3749	ug/L	0.29217	7.3749	ppb	0.29217	3.96%
Al 396.153Radial†	496.2	4.2380	ug/L	8.93035	4.2380	ppb	8.93035	210.72%
As 188.979†	21001.1	9421.3	ug/L	129.22	9421.3	ppb	129.22	1.37%
QC value within limits for As 188.979 Recovery = 94.21%								
B 249.677†	196003.8	4880.8	ug/L	17.30	4880.8	ppb	17.30	0.35%
QC value within limits for B 249.677 Recovery = 97.62%								
Ba 233.527†	1180449.4	13951	ug/L	46.6	13951	ppb	46.6	0.33%
QC value within limits for Ba 233.527 Recovery = 93.01%								
Be 313.107†	6903977.2	2766.2	ug/L	37.95	2766.2	ppb	37.95	1.37%
QC value within limits for Be 313.107 Recovery = 92.21%								
Ca 317.933Radial†	12.9	23.420	ug/L	3.5683	23.420	ppb	3.5683	15.24%
Cd 226.502†	677017.6	9603.8	ug/L	41.21	9603.8	ppb	41.21	0.43%

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   QC value within limits for Cd 226.502  Recovery = 96.04%
Co 228.616†          318068.4      9610.8 ug/L        117.00      9610.8 ppb        117.00   1.22%
   QC value within limits for Co 228.616  Recovery = 96.11%
Cr 267.716†         1736187.8       23733 ug/L          86.5       23733 ppb          86.5   0.36%
   QC value within limits for Cr 267.716  Recovery = 94.93%
Cu 324.752†         5482286.6       20528 ug/L         278.0       20528 ppb         278.0   1.35%
   QC value within limits for Cu 324.752  Recovery = 102.64%
Fe 238.204 Radial†      -25.3      25.204 ug/L       20.2941      25.204 ppb       20.2941  80.52%
K 766.490 Radial†   1475917.8      293790 ug/L        1589.0      293790 ppb        1589.0   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 97.93%
Mg 279.077 IEC†          -9.1     -260.10 ug/L       174.182     -260.10 ppb      174.182  66.97%
Mn 257.610†         5970462.5      9556.5 ug/L        141.31      9556.5 ppb        141.31   1.48%
   QC value within limits for Mn 257.610  Recovery = 95.57%
Mo 202.031†          103343.8      9484.0 ug/L        115.49      9484.0 ppb        115.49   1.22%
   QC value within limits for Mo 202.031  Recovery = 94.84%
Na 589.592 Radial†       717.4      244.49 ug/L        22.281      244.49 ppb        22.281   9.11%
Ni 231.604†          303624.1      9700.1 ug/L        110.41      9700.1 ppb        110.41   1.14%
   QC value within limits for Ni 231.604  Recovery = 97.00%
P 214.914†            29751.1       12631 ug/L         253.2       12631 ppb         253.2   2.00%
   QC value less than the lower limit for P 214.914  Recovery = 84.20%
Pb 220.353†          150420.5       24267 ug/L         274.2       24267 ppb         274.2   1.13%
   QC value within limits for Pb 220.353  Recovery = 97.07%
S 181.975 Axial†      38245.8       49588 ug/L         595.1       49588 ppb         595.1   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 99.18%
Sb 206.836†           25723.9       10790 ug/L         145.1       10790 ppb         145.1   1.35%
   QC value within limits for Sb 206.836  Recovery = 107.90%
Se 196.026†           16067.1      9868.8 ug/L        175.92      9868.8 ppb        175.92   1.78%
   QC value within limits for Se 196.026  Recovery = 98.69%
Si 251.611†         1270661.1       46251 ug/L         125.4       46251 ppb         125.4   0.27%
   QC value within limits for Si 251.611  Recovery = 92.50%
Sn 189.927†           42758.1       10069 ug/L         108.2       10069 ppb         108.2   1.08%
   QC value within limits for Sn 189.927  Recovery = 100.69%
Sr 421.552†         1330589.6      9675.7 ug/L        34.58      9675.7 ppb        34.58   0.36%
   QC value within limits for Sr 421.552  Recovery = 96.76%
Ti 334.940†         4815981.1      9695.7 ug/L        133.86      9695.7 ppb        133.86   1.38%
   QC value within limits for Ti 334.940  Recovery = 96.96%
Tl 190.801†           21776.2       10066 ug/L         154.7       10066 ppb         154.7   1.54%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†             1312.3     -9.1083 ug/L       4.34296     -9.1083 ppb       4.34296  47.68%
V 292.402†          1230721.4      9915.8 ug/L        36.54      9915.8 ppb        36.54   0.37%
   QC value within limits for V 292.402  Recovery = 99.16%
Zn 213.857†         1246211.3       13654 ug/L         43.4       13654 ppb         43.4   0.32%
   QC value within limits for Zn 213.857  Recovery = 91.03%
SiO2†               1262071.5       98059 ug/L         996.7       98059 ppb         996.7   1.02%
   QC value within limits for SiO2  Recovery = 91.64%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 12:51:34
Data Type: Reprocessed on 3/1/2010 13:29:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	822882.6	822882.6	107.15	%			12:54:43
1	Sc Radial	4809.3	4809.3	102	%			12:53:26
1	Y 371.029	728740.1	728740.1	105.76	%			12:54:43
1	Y RADIAL	5065.3	5065.3	101.6	%			12:53:26
1	Ag 328.068†	102975.6	95844.3	495.91	ug/L	495.91	ppb	12:54:48
1	Al 396.153Radial†	5501.9	5471.6	5094.4	ug/L	5094.4	ppb	12:53:26
1	As 188.979†	1234.4	1177.0	528.91	ug/L	528.91	ppb	12:55:08
1	B 249.677†	22207.5	21178.2	528.05	ug/L	528.05	ppb	12:54:48
1	Ba 233.527†	45158.0	42140.4	498.50	ug/L	498.50	ppb	12:54:48
1	Be 313.107†	1327236.4	1247599.9	497.02	ug/L	497.02	ppb	12:54:43
1	Ca 317.933Radial†	2946.9	2861.9	5199.9	ug/L	5199.9	ppb	12:53:46
1	Cd 226.502†	37567.8	35246.0	499.54	ug/L	499.54	ppb	12:54:48
1	Co 228.616†	17860.7	16725.6	505.54	ug/L	505.54	ppb	12:54:48
1	Cr 267.716†	39093.8	36407.9	498.00	ug/L	498.00	ppb	12:54:48
1	Cu 324.752†	149252.5	131750.8	493.33	ug/L	493.33	ppb	12:54:48
1	Fe 238.204 Radial†	519.5	501.1	5214.2	ug/L	5214.2	ppb	12:53:46
1	K 766.490 Radial†	29938.5	27037.9	5376.0	ug/L	5376.0	ppb	12:53:26
1	Mg 279.077 IEC†	141.8	135.9	5393.9	ug/L	5393.9	ppb	12:53:46
1	Mn 257.610†	332636.2	309965.0	496.43	ug/L	496.43	ppb	12:54:48
1	Mo 202.031†	5749.3	5351.1	491.54	ug/L	491.54	ppb	12:55:08
1	Na 589.592 Radial†	28044.9	28294.2	9642.6	ug/L	9642.6	ppb	12:53:26
1	Ni 231.604†	17043.8	15804.4	504.92	ug/L	504.92	ppb	12:54:48
1	P 214.914†	4924.0	4399.8	2360.7	ug/L	2360.7	ppb	12:55:08
1	Pb 220.353†	3273.5	3125.7	505.86	ug/L	505.86	ppb	12:55:08
1	S 181.975 Axial†	861.9	761.9	986.84	ug/L	986.84	ppb	12:55:08
1	Sb 206.836†	1385.7	1263.2	530.23	ug/L	530.23	ppb	12:55:08
1	Se 196.026†	857.3	819.8	515.74	ug/L	515.74	ppb	12:55:08
1	Si 251.611†	73316.3	67831.8	2469.2	ug/L	2469.2	ppb	12:54:48
1	Sn 189.927†	2267.6	2108.2	497.09	ug/L	497.09	ppb	12:55:08
1	Sr 421.552†	69652.3	68166.3	495.65	ug/L	495.65	ppb	12:53:26
1	Ti 334.940†	261113.4	244980.0	493.49	ug/L	493.49	ppb	12:54:48
1	Tl 190.801†	1118.1	1074.7	496.83	ug/L	496.83	ppb	12:55:08
1	U 409.014†	13419.9	15060.6	502.61	ug/L	502.61	ppb	12:54:48
1	V 292.402†	65036.2	62321.7	502.84	ug/L	502.84	ppb	12:54:48
1	Zn 213.857†	49138.2	45147.0	493.24	ug/L	493.24	ppb	12:54:48
1	SiO2†	72354.7	66927.1	5200.4	ug/L	5200.4	ppb	12:56:15
2	Sc 361.383	817634.9	817634.9	106.47	%			12:55:14
2	Sc Radial	4813.6	4813.6	102	%			12:53:51
2	Y 371.029	723758.5	723758.5	105.04	%			12:55:14
2	Y RADIAL	5082.9	5082.9	102.0	%			12:53:51
2	Ag 328.068†	102723.2	96224.0	497.86	ug/L	497.86	ppb	12:55:19
2	Al 396.153Radial†	5489.1	5454.3	5078.1	ug/L	5078.1	ppb	12:53:51
2	As 188.979†	1225.4	1175.9	528.43	ug/L	528.43	ppb	12:55:39
2	B 249.677†	22096.5	21206.9	528.75	ug/L	528.75	ppb	12:55:19
2	Ba 233.527†	45029.9	42290.6	500.28	ug/L	500.28	ppb	12:55:19
2	Be 313.107†	1316819.1	1245765.3	496.29	ug/L	496.29	ppb	12:55:14
2	Ca 317.933Radial†	2930.4	2843.1	5165.8	ug/L	5165.8	ppb	12:54:11
2	Cd 226.502†	37458.6	35368.5	501.28	ug/L	501.28	ppb	12:55:19
2	Co 228.616†	17920.1	16888.4	510.47	ug/L	510.47	ppb	12:55:19
2	Cr 267.716†	38967.4	36523.3	499.58	ug/L	499.58	ppb	12:55:19
2	Cu 324.752†	148589.3	132021.8	494.34	ug/L	494.34	ppb	12:55:19
2	Fe 238.204 Radial†	519.6	500.7	5210.4	ug/L	5210.4	ppb	12:54:11
2	K 766.490 Radial†	29656.3	26735.8	5315.8	ug/L	5315.8	ppb	12:53:51
2	Mg 279.077 IEC†	141.8	135.7	5389.4	ug/L	5389.4	ppb	12:54:11
2	Mn 257.610†	331860.9	311229.2	498.46	ug/L	498.46	ppb	12:55:19
2	Mo 202.031†	5743.4	5379.9	494.19	ug/L	494.19	ppb	12:55:39
2	Na 589.592 Radial†	28298.1	28517.1	9718.6	ug/L	9718.6	ppb	12:53:51
2	Ni 231.604†	16958.9	15826.8	505.63	ug/L	505.63	ppb	12:55:19

2	P 214.914†	4909.8	4416.0	2369.5 ug/L	2369.5 ppb	12:55:39
2	Pb 220.353†	3253.2	3126.2	505.94 ug/L	505.94 ppb	12:55:39
2	S 181.975 Axial†	867.7	772.4	1000.6 ug/L	1000.6 ppb	12:55:39
2	Sb 206.836†	1376.8	1263.1	530.27 ug/L	530.27 ppb	12:55:39
2	Se 196.026†	851.8	819.8	515.71 ug/L	515.71 ppb	12:55:39
2	Si 251.611†	72997.4	67971.4	2474.2 ug/L	2474.2 ppb	12:55:19
2	Sn 189.927†	2258.0	2112.7	498.15 ug/L	498.15 ppb	12:55:39
2	Sr 421.552†	70069.5	68513.1	498.17 ug/L	498.17 ppb	12:53:51
2	Ti 334.940†	260009.9	245507.5	494.55 ug/L	494.55 ppb	12:55:19
2	Tl 190.801†	1117.5	1080.8	499.64 ug/L	499.64 ppb	12:55:39
2	U 409.014†	13322.1	15049.2	502.22 ug/L	502.22 ppb	12:55:19
2	V 292.402†	64734.1	62427.6	503.71 ug/L	503.71 ppb	12:55:19
2	Zn 213.857†	49045.6	45354.3	495.52 ug/L	495.52 ppb	12:55:19
2	SiO2†	73690.7	68615.4	5331.8 ug/L	5331.8 ppb	12:56:21
3	Sc 361.383	813886.2	813886.2	105.98 %		12:55:45
3	Sc Radial	4829.5	4829.5	103 %		12:54:16
3	Y 371.029	719850.0	719850.0	104.47 %		12:55:45
3	Y RADIAL	5079.5	5079.5	101.9 %		12:54:16
3	Ag 328.068†	102643.6	96593.3	499.75 ug/L	499.75 ppb	12:55:50
3	Al 396.153Radial†	5521.5	5468.2	5091.0 ug/L	5091.0 ppb	12:54:16
3	As 188.979†	1222.4	1178.4	529.51 ug/L	529.51 ppb	12:56:10
3	B 249.677†	22055.0	21263.3	530.18 ug/L	530.18 ppb	12:55:50
3	Ba 233.527†	44920.6	42382.3	501.36 ug/L	501.36 ppb	12:55:50
3	Be 313.107†	1310616.1	1245609.1	496.24 ug/L	496.24 ppb	12:55:45
3	Ca 317.933Radial†	2924.3	2827.7	5137.9 ug/L	5137.9 ppb	12:54:36
3	Cd 226.502†	37476.3	35547.2	503.82 ug/L	503.82 ppb	12:55:50
3	Co 228.616†	17812.9	16864.8	509.76 ug/L	509.76 ppb	12:55:50
3	Cr 267.716†	38851.6	36582.7	500.39 ug/L	500.39 ppb	12:55:50
3	Cu 324.752†	148529.8	132608.5	496.54 ug/L	496.54 ppb	12:55:50
3	Fe 238.204 Radial†	513.6	493.2	5132.3 ug/L	5132.3 ppb	12:54:36
3	K 766.490 Radial†	29760.8	26742.3	5317.2 ug/L	5317.2 ppb	12:54:16
3	Mg 279.077 IEC†	140.0	133.6	5302.4 ug/L	5302.4 ppb	12:54:36
3	Mn 257.610†	331356.1	312188.6	499.99 ug/L	499.99 ppb	12:55:50
3	Mo 202.031†	5746.6	5407.8	496.75 ug/L	496.75 ppb	12:56:10
3	Na 589.592 Radial†	28279.4	28408.0	9681.4 ug/L	9681.4 ppb	12:54:16
3	Ni 231.604†	16997.8	15936.9	509.15 ug/L	509.15 ppb	12:55:50
3	P 214.914†	4934.1	4460.2	2393.8 ug/L	2393.8 ppb	12:56:10
3	Pb 220.353†	3246.2	3133.6	507.15 ug/L	507.15 ppb	12:56:10
3	S 181.975 Axial†	873.3	781.5	1012.3 ug/L	1012.3 ppb	12:56:10
3	Sb 206.836†	1377.0	1269.2	532.84 ug/L	532.84 ppb	12:56:10
3	Se 196.026†	845.5	817.6	514.21 ug/L	514.21 ppb	12:56:10
3	Si 251.611†	72871.7	68168.6	2481.4 ug/L	2481.4 ppb	12:55:50
3	Sn 189.927†	2261.8	2126.1	501.30 ug/L	501.30 ppb	12:56:10
3	Sr 421.552†	70036.8	68256.1	496.30 ug/L	496.30 ppb	12:54:16
3	Ti 334.940†	259985.2	246609.1	496.78 ug/L	496.78 ppb	12:55:50
3	Tl 190.801†	1107.0	1075.7	497.34 ug/L	497.34 ppb	12:56:10
3	U 409.014†	13085.7	14883.7	496.69 ug/L	496.69 ppb	12:55:50
3	V 292.402†	64604.1	62584.9	505.00 ug/L	505.00 ppb	12:55:50
3	Zn 213.857†	48922.5	45450.3	496.57 ug/L	496.57 ppb	12:55:50
3	SiO2†	73204.9	68475.7	5320.9 ug/L	5320.9 ppb	12:56:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	818134.5	106.54	%	0.588				0.55%
Sc Radial	4817.4	102	%	0.2				0.22%
Y 371.029	724116.2	105.09	%	0.647				0.62%
Y RADIAL	5075.9	101.8	%	0.19				0.18%
Ag 328.068†	96220.5	497.84	ug/L	1.920	497.84	ppb	1.920	0.39%
QC value within limits for Ag 328.068 Recovery = 99.57%								
Al 396.153Radial†	5464.7	5087.8	ug/L	8.59	5087.8	ppb	8.59	0.17%
QC value within limits for Al 396.153Radial Recovery = 101.76%								
As 188.979†	1177.1	528.95	ug/L	0.539	528.95	ppb	0.539	0.10%
QC value within limits for As 188.979 Recovery = 105.79%								
B 249.677†	21216.1	528.99	ug/L	1.087	528.99	ppb	1.087	0.21%
QC value within limits for B 249.677 Recovery = 105.80%								
Ba 233.527†	42271.1	500.05	ug/L	1.442	500.05	ppb	1.442	0.29%
QC value within limits for Ba 233.527 Recovery = 100.01%								
Be 313.107†	1246324.8	496.52	ug/L	0.437	496.52	ppb	0.437	0.09%
QC value within limits for Be 313.107 Recovery = 99.30%								

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Ca 317.933Radial†        2844.3      5167.9 ug/L        31.06      5167.9 ppb        31.06   0.60%
   QC value within limits for Ca 317.933Radial  Recovery = 103.36%
Cd 226.502†             35387.3      501.54 ug/L        2.152      501.54 ppb        2.152   0.43%
   QC value within limits for Cd 226.502  Recovery = 100.31%
Co 228.616†             16826.3      508.59 ug/L        2.661      508.59 ppb        2.661   0.52%
   QC value within limits for Co 228.616  Recovery = 101.72%
Cr 267.716†             36504.6      499.32 ug/L        1.216      499.32 ppb        1.216   0.24%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†            132127.0      494.74 ug/L        1.641      494.74 ppb        1.641   0.33%
   QC value within limits for Cu 324.752  Recovery = 98.95%
Fe 238.204 Radial†        498.4      5185.6 ug/L        46.21      5185.6 ppb        46.21   0.89%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.71%
K 766.490 Radial†       26838.7      5336.3 ug/L        34.37      5336.3 ppb        34.37   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 106.73%
Mg 279.077 IEC†           135.1      5361.9 ug/L        51.55      5361.9 ppb        51.55   0.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.24%
Mn 257.610†            311127.6      498.29 ug/L        1.783      498.29 ppb        1.783   0.36%
   QC value within limits for Mn 257.610  Recovery = 99.66%
Mo 202.031†              5379.6      494.16 ug/L        2.601      494.16 ppb        2.601   0.53%
   QC value within limits for Mo 202.031  Recovery = 98.83%
Na 589.592 Radial†      28406.5      9680.9 ug/L        37.99      9680.9 ppb        37.99   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 96.81%
Ni 231.604†             15856.1      506.56 ug/L        2.266      506.56 ppb        2.266   0.45%
   QC value within limits for Ni 231.604  Recovery = 101.31%
P 214.914†               4425.3      2374.7 ug/L        17.17      2374.7 ppb        17.17   0.72%
   QC value within limits for P 214.914  Recovery = 94.99%
Pb 220.353†              3128.5      506.32 ug/L        0.725      506.32 ppb        0.725   0.14%
   QC value within limits for Pb 220.353  Recovery = 101.26%
S 181.975 Axial†          771.9      999.89 ug/L       12.726      999.89 ppb       12.726   1.27%
   QC value within limits for S 181.975 Axial  Recovery = 99.99%
Sb 206.836†              1265.2      531.12 ug/L        1.496      531.12 ppb        1.496   0.28%
   QC value within limits for Sb 206.836  Recovery = 106.22%
Se 196.026†               819.1      515.22 ug/L        0.875      515.22 ppb        0.875   0.17%
   QC value within limits for Se 196.026  Recovery = 103.04%
Si 251.611†             67990.6      2474.9 ug/L         6.14      2474.9 ppb         6.14   0.25%
   QC value within limits for Si 251.611  Recovery = 99.00%
Sn 189.927†              2115.6      498.84 ug/L        2.193      498.84 ppb        2.193   0.44%
   QC value within limits for Sn 189.927  Recovery = 99.77%
Sr 421.552†             68311.9      496.71 ug/L        1.309      496.71 ppb        1.309   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.34%
Ti 334.940†            245698.8      494.94 ug/L        1.676      494.94 ppb        1.676   0.34%
   QC value within limits for Ti 334.940  Recovery = 98.99%
Tl 190.801†              1077.1      497.94 ug/L        1.499      497.94 ppb        1.499   0.30%
   QC value within limits for Tl 190.801  Recovery = 99.59%
U 409.014†              14997.8      500.51 ug/L        3.311      500.51 ppb        3.311   0.66%
   QC value within limits for U 409.014  Recovery = 100.10%
V 292.402†              62444.7      503.85 ug/L        1.088      503.85 ppb        1.088   0.22%
   QC value within limits for V 292.402  Recovery = 100.77%
Zn 213.857†             45317.2      495.11 ug/L        1.701      495.11 ppb        1.701   0.34%
   QC value within limits for Zn 213.857  Recovery = 99.02%
SiO2†                   68006.1      5284.3 ug/L       72.93      5284.3 ppb        72.93   1.38%
   QC value within limits for SiO2  Recovery = 98.82%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 12:58:36
Data Type: Reprocessed on 3/1/2010 13:29:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	801042.3	801042.3	104.31	%			13:01:45
1	Sc Radial	4860.2	4860.2	103	%			13:00:29
1	Y 371.029	720663.8	720663.8	104.59	%			13:01:45
1	Y RADIAL	5132.1	5132.1	102.9	%			13:00:29
1	Ag 328.068†	218.3	-46.4	-0.2407	ug/L	-0.2407	ppb	13:01:45
1	Al 396.153Radial†	-79.4	10.2	9.5181	ug/L	9.5181	ppb	13:00:49
1	As 188.979†	-1.0	24.1	10.725	ug/L	10.725	ppb	13:02:05
1	B 249.677†	580.1	1009.5	25.279	ug/L	25.279	ppb	13:02:05
1	Ba 233.527†	25.8	22.4	0.2631	ug/L	0.2631	ppb	13:02:05
1	Be 313.107†	-9173.5	188.2	0.0754	ug/L	0.0754	ppb	13:01:45
1	Ca 317.933Radial†	28.1	5.1	9.2452	ug/L	9.2452	ppb	13:00:49
1	Cd 226.502†	-193.7	1.0	0.0138	ug/L	0.0138	ppb	13:02:05
1	Co 228.616†	-53.6	6.1	0.1849	ug/L	0.1849	ppb	13:02:05
1	Cr 267.716†	99.4	19.7	0.2678	ug/L	0.2678	ppb	13:02:05
1	Cu 324.752†	7791.8	-66.3	-0.2498	ug/L	-0.2498	ppb	13:01:45
1	Fe 238.204 Radial†	8.4	0.8	8.2681	ug/L	8.2681	ppb	13:00:49
1	K 766.490 Radial†	2775.3	425.9	84.760	ug/L	84.760	ppb	13:00:29
1	Mg 279.077 IEC†	3.2	0.2	7.4569	ug/L	7.4569	ppb	13:00:49
1	Mn 257.610†	481.9	0.8	0.0019	ug/L	0.0019	ppb	13:02:05
1	Mo 202.031†	17.3	2.2	0.2014	ug/L	0.2014	ppb	13:02:05
1	Na 589.592 Radial†	-681.4	188.0	64.060	ug/L	64.060	ppb	13:00:29
1	Ni 231.604†	109.4	3.6	0.1147	ug/L	0.1147	ppb	13:02:05
1	P 214.914†	196.8	-6.7	-3.6663	ug/L	-3.6663	ppb	13:02:05
1	Pb 220.353†	-32.6	39.4	6.3560	ug/L	6.3560	ppb	13:02:05
1	S 181.975 Axial†	43.7	-0.6	-0.8071	ug/L	-0.8071	ppb	13:02:05
1	Sb 206.836†	45.8	13.9	5.6621	ug/L	5.6621	ppb	13:02:05
1	Se 196.026†	-15.6	4.9	3.0021	ug/L	3.0021	ppb	13:02:05
1	Si 251.611†	692.9	75.0	2.7361	ug/L	2.7361	ppb	13:02:05
1	Sn 189.927†	12.7	4.1	0.9588	ug/L	0.9588	ppb	13:02:05
1	Sr 421.552†	47.3	46.2	0.3362	ug/L	0.3362	ppb	13:00:29
1	Ti 334.940†	-1216.3	135.0	0.2711	ug/L	0.2711	ppb	13:01:45
1	Tl 190.801†	-34.9	-2.3	-1.0317	ug/L	-1.0317	ppb	13:02:05
1	U 409.014†	-2546.6	95.5	3.1959	ug/L	3.1959	ppb	13:01:45
1	V 292.402†	-1758.8	-58.2	-0.4556	ug/L	-0.4556	ppb	13:01:45
1	Zn 213.857†	763.7	21.8	0.2389	ug/L	0.2389	ppb	13:02:05
1	SiO2†	688.1	63.2	4.9216	ug/L	4.9216	ppb	13:03:01
2	Sc 361.383	801808.8	801808.8	104.41	%			13:02:11
2	Sc Radial	4879.3	4879.3	104	%			13:00:54
2	Y 371.029	721183.9	721183.9	104.67	%			13:02:11
2	Y RADIAL	5127.6	5127.6	102.9	%			13:00:54
2	Ag 328.068†	194.9	-69.0	-0.3594	ug/L	-0.3594	ppb	13:02:11
2	Al 396.153Radial†	-81.0	9.0	8.4529	ug/L	8.4529	ppb	13:01:14
2	As 188.979†	-12.0	13.5	6.0097	ug/L	6.0097	ppb	13:02:31
2	B 249.677†	515.7	947.4	23.725	ug/L	23.725	ppb	13:02:31
2	Ba 233.527†	24.5	21.1	0.2489	ug/L	0.2489	ppb	13:02:31
2	Be 313.107†	-9270.9	103.4	0.0414	ug/L	0.0414	ppb	13:02:11
2	Ca 317.933Radial†	31.2	8.0	14.486	ug/L	14.486	ppb	13:01:14
2	Cd 226.502†	-175.5	18.6	0.2638	ug/L	0.2638	ppb	13:02:31
2	Co 228.616†	-63.2	-3.1	-0.0940	ug/L	-0.0940	ppb	13:02:31
2	Cr 267.716†	73.4	-5.4	-0.0753	ug/L	-0.0753	ppb	13:02:31
2	Cu 324.752†	7821.8	-44.7	-0.1705	ug/L	-0.1705	ppb	13:02:11
2	Fe 238.204 Radial†	7.5	-0.0	-0.4398	ug/L	-0.4398	ppb	13:01:14
2	K 766.490 Radial†	2782.1	422.0	83.980	ug/L	83.980	ppb	13:00:54
2	Mg 279.077 IEC†	0.7	-2.2	-87.558	ug/L	-87.558	ppb	13:01:14
2	Mn 257.610†	454.2	-26.1	-0.0383	ug/L	-0.0383	ppb	13:02:31
2	Mo 202.031†	13.3	-1.7	-0.1537	ug/L	-0.1537	ppb	13:02:31
2	Na 589.592 Radial†	-727.7	145.8	49.704	ug/L	49.704	ppb	13:00:54
2	Ni 231.604†	91.1	-14.1	-0.4511	ug/L	-0.4511	ppb	13:02:31

2	P 214.914†	204.9	0.9	0.5662	ug/L	0.5662 ppb	13:02:31
2	Pb 220.353†	-40.4	32.0	5.1682	ug/L	5.1682 ppb	13:02:31
2	S 181.975 Axial†	51.3	6.6	8.5889	ug/L	8.5889 ppb	13:02:31
2	Sb 206.836†	53.9	21.6	8.7842	ug/L	8.7842 ppb	13:02:31
2	Se 196.026†	-15.4	5.1	3.1128	ug/L	3.1128 ppb	13:02:31
2	Si 251.611†	729.1	109.1	3.9823	ug/L	3.9823 ppb	13:02:31
2	Sn 189.927†	20.1	11.2	2.6364	ug/L	2.6364 ppb	13:02:31
2	Sr 421.552†	50.2	48.9	0.3556	ug/L	0.3556 ppb	13:00:54
2	Ti 334.940†	-1292.3	63.4	0.1344	ug/L	0.1344 ppb	13:02:11
2	Tl 190.801†	-29.8	2.7	1.2231	ug/L	1.2231 ppb	13:02:31
2	U 409.014†	-2480.3	161.3	5.4021	ug/L	5.4021 ppb	13:02:11
2	V 292.402†	-1698.8	0.9	0.0139	ug/L	0.0139 ppb	13:02:11
2	Zn 213.857†	766.9	24.2	0.2698	ug/L	0.2698 ppb	13:02:31
2	SiO2†	702.2	76.1	5.9342	ug/L	5.9342 ppb	13:03:07
3	Sc 361.383	802421.1	802421.1	104.49	%		13:02:36
3	Sc Radial	4984.7	4984.7	106	%		13:01:19
3	Y 371.029	720635.8	720635.8	104.59	%		13:02:36
3	Y RADIAL	5262.4	5262.4	105.6	%		13:01:19
3	Ag 328.068†	218.6	-46.4	-0.2424	ug/L	-0.2424 ppb	13:02:36
3	Al 396.153Radial†	-75.3	16.0	14.904	ug/L	14.904 ppb	13:01:39
3	As 188.979†	-5.2	20.0	8.9136	ug/L	8.9136 ppb	13:02:56
3	B 249.677†	455.9	889.8	22.278	ug/L	22.278 ppb	13:02:56
3	Ba 233.527†	16.4	13.3	0.1587	ug/L	0.1587 ppb	13:02:56
3	Be 313.107†	-9310.5	72.3	0.0291	ug/L	0.0291 ppb	13:02:36
3	Ca 317.933Radial†	31.6	7.7	14.027	ug/L	14.027 ppb	13:01:39
3	Cd 226.502†	-178.9	15.5	0.2204	ug/L	0.2204 ppb	13:02:56
3	Co 228.616†	-45.3	14.1	0.4286	ug/L	0.4286 ppb	13:02:56
3	Cr 267.716†	85.1	5.8	0.0766	ug/L	0.0766 ppb	13:02:56
3	Cu 324.752†	7786.8	-84.0	-0.3203	ug/L	-0.3203 ppb	13:02:36
3	Fe 238.204 Radial†	8.7	0.9	9.5950	ug/L	9.5950 ppb	13:01:39
3	K 766.490 Radial†	2681.9	270.6	53.842	ug/L	53.842 ppb	13:01:19
3	Mg 279.077 IEC†	0.0	-2.9	-113.77	ug/L	-113.77 ppb	13:01:39
3	Mn 257.610†	480.8	-1.0	0.0039	ug/L	0.0039 ppb	13:02:56
3	Mo 202.031†	29.8	14.1	1.2981	ug/L	1.2981 ppb	13:02:56
3	Na 589.592 Radial†	-699.5	187.3	63.846	ug/L	63.846 ppb	13:01:19
3	Ni 231.604†	107.4	1.4	0.0453	ug/L	0.0453 ppb	13:02:56
3	P 214.914†	208.2	3.9	2.2321	ug/L	2.2321 ppb	13:02:56
3	Pb 220.353†	-30.4	41.6	6.7188	ug/L	6.7188 ppb	13:02:56
3	S 181.975 Axial†	51.5	6.8	8.8228	ug/L	8.8228 ppb	13:02:56
3	Sb 206.836†	48.5	16.3	6.6726	ug/L	6.6726 ppb	13:02:56
3	Se 196.026†	-14.5	5.9	3.6674	ug/L	3.6674 ppb	13:02:56
3	Si 251.611†	643.8	27.0	0.9678	ug/L	0.9678 ppb	13:02:56
3	Sn 189.927†	12.4	3.8	0.8994	ug/L	0.8994 ppb	13:02:56
3	Sr 421.552†	30.9	29.7	0.2158	ug/L	0.2158 ppb	13:01:19
3	Ti 334.940†	-1266.2	89.3	0.1860	ug/L	0.1860 ppb	13:02:36
3	Tl 190.801†	-23.8	8.4	3.8648	ug/L	3.8648 ppb	13:02:56
3	U 409.014†	-2295.2	340.2	11.392	ug/L	11.392 ppb	13:02:36
3	V 292.402†	-1605.2	91.7	0.7669	ug/L	0.7669 ppb	13:02:36
3	Zn 213.857†	762.4	19.4	0.2123	ug/L	0.2123 ppb	13:02:56
3	SiO2†	670.4	45.2	3.4842	ug/L	3.4842 ppb	13:03:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	801757.4	104.40	%	0.090				0.09%
Sc Radial	4908.1	104	%	1.4				1.37%
Y 371.029	720827.8	104.61	%	0.045				0.04%
Y RADIAL	5174.0	103.8	%	1.54				1.48%
Ag 328.068†	-53.9	-0.2808	ug/L	0.06804	-0.2808	ppb	0.06804	24.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.7	10.958	ug/L	3.4582	10.958	ppb	3.4582	31.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	19.2	8.5495	ug/L	2.37877	8.5495	ppb	2.37877	27.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	948.9	23.761	ug/L	1.5006	23.761	ppb	1.5006	6.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.9	0.2236	ug/L	0.05663	0.2236	ppb	0.05663	25.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	121.3	0.0486	ug/L	0.02400	0.0486	ppb	0.02400	49.33%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          6.9      12.586 ug/L        2.9022      12.586 ppb        2.9022  23.06%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               11.7       0.1660 ug/L       0.13359       0.1660 ppb       0.13359  80.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.7       0.1732 ug/L       0.26151       0.1732 ppb       0.26151 150.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.7       0.0897 ug/L       0.17192       0.0897 ppb       0.17192 191.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -65.0      -0.2468 ug/L       0.07496      -0.2468 ppb       0.07496  30.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.6       5.8078 ug/L       5.45111       5.8078 ppb       5.45111  93.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        372.9      74.194 ug/L       17.6298      74.194 ppb       17.6298  23.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.6     -64.623 ug/L       63.7835     -64.623 ppb       63.7835  98.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -8.8      -0.0108 ug/L       0.02379      -0.0108 ppb       0.02379 219.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.9       0.4486 ug/L       0.75680       0.4486 ppb       0.75680 168.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       173.7      59.203 ug/L        8.2277      59.203 ppb        8.2277  13.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.0      -0.0970 ug/L       0.30861      -0.0970 ppb       0.30861 318.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.6      -0.2893 ug/L       3.04083      -0.2893 ppb       3.04083 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               37.7       6.0810 ug/L       0.81105       6.0810 ppb       0.81105  13.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.3       5.5349 ug/L       5.49352       5.5349 ppb       5.49352  99.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               17.3       7.0396 ug/L       1.59305       7.0396 ppb       1.59305  22.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.3       3.2608 ug/L       0.35649       3.2608 ppb       0.35649  10.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               70.4       2.5621 ug/L       1.51474       2.5621 ppb       1.51474  59.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.4       1.4982 ug/L       0.98615       1.4982 ppb       0.98615  65.82%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               41.6       0.3025 ug/L       0.07575       0.3025 ppb       0.07575  25.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               95.9       0.1972 ug/L       0.06901       0.1972 ppb       0.06901  35.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9       1.3520 ug/L       2.45081       1.3520 ppb       2.45081 181.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               199.0       6.6632 ug/L       4.24084       6.6632 ppb       4.24084  63.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                11.5       0.1084 ug/L       0.61669       0.1084 ppb       0.61669 568.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               21.8       0.2403 ug/L       0.02876       0.2403 ppb       0.02876  11.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     61.5       4.7800 ug/L       1.23111       4.7800 ppb       1.23111  25.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 3/1/2010 13:05:17
Data Type: Reprocessed on 3/1/2010 13:29:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	812300.2	812300.2	105.78	%			13:08:28
1	Sc Radial	4755.7	4755.7	101	%			13:07:10
1	Y 371.029	723774.4	723774.4	105.04	%			13:08:28
1	Y RADIAL	5069.1	5069.1	101.7	%			13:07:10
1	Ag 328.068†	-22401.9	-21434.2	4.1408	ug/L	4.1408	ppb	13:08:28
1	Al 396.153Radial†	-117.7	-29.3	-26.040	ug/L	-26.040	ppb	13:07:30
1	As 188.979†	-163.5	-129.5	29.374	ug/L	29.374	ppb	13:08:48
1	B 249.677†	1509.6	1880.6	-13.289	ug/L	-13.289	ppb	13:08:28
1	Ba 233.527†	-1484.1	-1405.5	-5.1702	ug/L	-5.1702	ppb	13:08:28
1	Be 313.107†	-9274.1	215.0	0.0858	ug/L	0.0858	ppb	13:08:28
1	Ca 317.933Radial†	19.1	-3.2	-5.9044	ug/L	-5.9044	ppb	13:07:30
1	Cd 226.502†	2669.8	2710.6	0.0647	ug/L	0.0647	ppb	13:08:28
1	Co 228.616†	506.4	536.2	10.767	ug/L	10.767	ppb	13:08:48
1	Cr 267.716†	-425.4	-477.8	0.6391	ug/L	0.6391	ppb	13:08:48
1	Cu 324.752†	1326.9	-6281.7	-3.8952	ug/L	-3.8952	ppb	13:08:28
1	Fe 238.204 Radial†	36191.5	35810.8	371530	ug/L	371530	ppb	13:07:10
1	K 766.490 Radial†	2181.4	-102.7	-20.418	ug/L	-20.418	ppb	13:07:10
1	Mg 279.077 IEC†	11.4	8.4	-57.254	ug/L	-57.254	ppb	13:07:30
1	Mn 257.610†	-28426.4	-27335.2	-7.0721	ug/L	-7.0721	ppb	13:08:28
1	Mo 202.031†	-313.7	-310.9	0.3065	ug/L	0.3065	ppb	13:08:28
1	Na 589.592 Radial†	-665.5	189.2	64.484	ug/L	64.484	ppb	13:07:10
1	Ni 231.604†	155.8	46.0	1.4604	ug/L	1.4604	ppb	13:08:48
1	P 214.914†	603.9	375.6	-84.913	ug/L	-84.913	ppb	13:08:48
1	Pb 220.353†	161.1	223.0	6.1224	ug/L	6.1224	ppb	13:08:48
1	S 181.975 Axial†	60.1	14.3	18.519	ug/L	18.519	ppb	13:08:48
1	Sb 206.836†	38.8	6.6	-1.9799	ug/L	-1.9799	ppb	13:08:48
1	Se 196.026†	-1479.5	-1378.9	-12.765	ug/L	-12.765	ppb	13:08:48
1	Si 251.611†	-190.6	-769.4	-27.725	ug/L	-27.725	ppb	13:08:28
1	Sn 189.927†	-18.8	-25.8	-27.414	ug/L	-27.414	ppb	13:08:48
1	Sr 421.552†	69.6	69.4	0.5044	ug/L	0.5044	ppb	13:07:10
1	Ti 334.940†	-1295.8	76.0	0.0966	ug/L	0.0966	ppb	13:08:28
1	Tl 190.801†	-36.8	-3.6	-2.0113	ug/L	-2.0113	ppb	13:08:48
1	U 409.014†	-447.2	2114.1	28.450	ug/L	28.450	ppb	13:08:28
1	V 292.402†	4922.8	6281.9	-4.3450	ug/L	-4.3450	ppb	13:08:28
1	Zn 213.857†	3652.0	2742.3	-25.334	ug/L	-25.334	ppb	13:08:48
1	SiO2†	-213.0	-797.8	-61.371	ug/L	-61.371	ppb	13:09:45
2	Sc 361.383	796825.3	796825.3	103.76	%			13:08:54
2	Sc Radial	4763.9	4763.9	101	%			13:07:35
2	Y 371.029	709451.5	709451.5	102.96	%			13:08:54
2	Y RADIAL	5057.6	5057.6	101.4	%			13:07:35
2	Ag 328.068†	-22071.9	-21527.4	3.6128	ug/L	3.6128	ppb	13:08:54
2	Al 396.153Radial†	-120.5	-32.0	-28.690	ug/L	-28.690	ppb	13:07:55
2	As 188.979†	-156.2	-125.5	31.118	ug/L	31.118	ppb	13:09:14
2	B 249.677†	1545.9	1943.3	-11.695	ug/L	-11.695	ppb	13:08:54
2	Ba 233.527†	-1438.7	-1389.0	-4.9795	ug/L	-4.9795	ppb	13:08:54
2	Be 313.107†	-9114.4	198.7	0.0792	ug/L	0.0792	ppb	13:08:54
2	Ca 317.933Radial†	18.7	-3.7	-6.6481	ug/L	-6.6481	ppb	13:07:55
2	Cd 226.502†	2684.2	2773.5	0.9721	ug/L	0.9721	ppb	13:08:54
2	Co 228.616†	510.3	549.2	11.172	ug/L	11.172	ppb	13:09:14
2	Cr 267.716†	-445.0	-504.4	0.2703	ug/L	0.2703	ppb	13:09:14
2	Cu 324.752†	1205.1	-6374.7	-4.2540	ug/L	-4.2540	ppb	13:08:54
2	Fe 238.204 Radial†	36239.1	35796.5	371390	ug/L	371390	ppb	13:07:35
2	K 766.490 Radial†	2339.3	49.5	9.8927	ug/L	9.8927	ppb	13:07:35
2	Mg 279.077 IEC†	9.2	6.2	-144.14	ug/L	-144.14	ppb	13:07:55
2	Mn 257.610†	-27751.5	-27206.6	-6.8774	ug/L	-6.8774	ppb	13:08:54
2	Mo 202.031†	-268.3	-273.0	3.7794	ug/L	3.7794	ppb	13:08:54
2	Na 589.592 Radial†	-739.4	117.3	39.971	ug/L	39.971	ppb	13:07:35
2	Ni 231.604†	141.7	35.2	1.1157	ug/L	1.1157	ppb	13:09:14

2	P 214.914†	609.4	392.0	-75.560	ug/L	-75.560	ppb	13:09:14
2	Pb 220.353†	162.0	226.8	6.7588	ug/L	6.7588	ppb	13:09:14
2	S 181.975 Axial†	53.0	8.6	11.113	ug/L	11.113	ppb	13:09:14
2	Sb 206.836†	21.5	-9.3	-8.3688	ug/L	-8.3688	ppb	13:09:14
2	Se 196.026†	-1481.4	-1407.8	-30.833	ug/L	-30.833	ppb	13:09:14
2	Si 251.611†	-139.9	-724.1	-26.113	ug/L	-26.113	ppb	13:08:54
2	Sn 189.927†	-14.0	-21.6	-26.402	ug/L	-26.402	ppb	13:09:14
2	Sr 421.552†	96.5	95.8	0.6967	ug/L	0.6967	ppb	13:07:35
2	Ti 334.940†	-1295.4	52.6	0.0544	ug/L	0.0544	ppb	13:08:54
2	Tl 190.801†	-33.9	-1.4	-1.0302	ug/L	-1.0302	ppb	13:09:14
2	U 409.014†	-285.3	2261.8	33.416	ug/L	33.416	ppb	13:08:54
2	V 292.402†	4855.5	6307.4	-4.0630	ug/L	-4.0630	ppb	13:08:54
2	Zn 213.857†	3703.4	2858.9	-24.024	ug/L	-24.024	ppb	13:09:14
2	SiO2†	-297.0	-882.7	-68.078	ug/L	-68.078	ppb	13:09:50
3	Sc 361.383	797370.0	797370.0	103.83	%			13:09:20
3	Sc Radial	4772.0	4772.0	101	%			13:08:00
3	Y 371.029	709955.2	709955.2	103.04	%			13:09:20
3	Y RADIAL	5050.4	5050.4	101.3	%			13:08:00
3	Ag 328.068†	-22095.9	-21536.0	2.8813	ug/L	2.8813	ppb	13:09:20
3	Al 396.153Radial†	-115.8	-27.1	-24.221	ug/L	-24.221	ppb	13:08:20
3	As 188.979†	-144.6	-114.2	35.607	ug/L	35.607	ppb	13:09:40
3	B 249.677†	1380.0	1782.5	-15.362	ug/L	-15.362	ppb	13:09:20
3	Ba 233.527†	-1528.7	-1474.6	-6.0580	ug/L	-6.0580	ppb	13:09:20
3	Be 313.107†	-9262.9	61.6	0.0243	ug/L	0.0243	ppb	13:09:20
3	Ca 317.933Radial†	17.1	-5.3	-9.6166	ug/L	-9.6166	ppb	13:08:20
3	Cd 226.502†	2696.8	2783.9	1.3503	ug/L	1.3503	ppb	13:09:20
3	Co 228.616†	537.1	574.8	11.980	ug/L	11.980	ppb	13:09:40
3	Cr 267.716†	-410.6	-471.0	0.6830	ug/L	0.6830	ppb	13:09:40
3	Cu 324.752†	1301.5	-6282.7	-4.0297	ug/L	-4.0297	ppb	13:09:20
3	Fe 238.204 Radial†	36083.0	35581.7	369160	ug/L	369160	ppb	13:08:00
3	K 766.490 Radial†	2313.2	19.9	3.9864	ug/L	3.9864	ppb	13:08:00
3	Mg 279.077 IEC†	9.2	6.1	-142.68	ug/L	-142.68	ppb	13:08:20
3	Mn 257.610†	-27718.6	-27156.6	-7.0174	ug/L	-7.0174	ppb	13:09:20
3	Mo 202.031†	-245.2	-250.5	5.6684	ug/L	5.6684	ppb	13:09:20
3	Na 589.592 Radial†	-751.9	106.1	36.175	ug/L	36.175	ppb	13:08:00
3	Ni 231.604†	118.9	13.2	0.4100	ug/L	0.4100	ppb	13:09:40
3	P 214.914†	587.4	370.3	-85.919	ug/L	-85.919	ppb	13:09:40
3	Pb 220.353†	159.1	223.9	6.4788	ug/L	6.4788	ppb	13:09:40
3	S 181.975 Axial†	50.8	6.4	8.3546	ug/L	8.3546	ppb	13:09:40
3	Sb 206.836†	31.6	0.4	-4.3721	ug/L	-4.3721	ppb	13:09:40
3	Se 196.026†	-1466.2	-1392.3	-26.291	ug/L	-26.291	ppb	13:09:40
3	Si 251.611†	-195.3	-777.3	-28.081	ug/L	-28.081	ppb	13:09:20
3	Sn 189.927†	-20.1	-27.4	-27.653	ug/L	-27.653	ppb	13:09:40
3	Sr 421.552†	74.7	74.1	0.5392	ug/L	0.5392	ppb	13:08:00
3	Ti 334.940†	-1388.2	-36.0	-0.1263	ug/L	-0.1263	ppb	13:09:20
3	Tl 190.801†	-29.1	3.2	1.0833	ug/L	1.0833	ppb	13:09:40
3	U 409.014†	-164.7	2378.1	37.563	ug/L	37.563	ppb	13:09:20
3	V 292.402†	4878.9	6326.8	-3.5477	ug/L	-3.5477	ppb	13:09:20
3	Zn 213.857†	3671.2	2825.4	-24.055	ug/L	-24.055	ppb	13:09:40
3	SiO2†	-288.3	-874.1	-67.468	ug/L	-67.468	ppb	13:09:55

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	802165.1	104.46	%	1.144				1.09%
Sc Radial	4763.8	101	%	0.2				0.17%
Y 371.029	714393.7	103.68	%	1.180				1.14%
Y RADIAL	5059.0	101.5	%	0.19				0.19%
Ag 328.068†	-21499.2	3.5450	ug/L	0.63250	3.5450	ppb	0.63250	17.84%
Al 396.153Radial†	-29.5	-26.317	ug/L	2.2473	-26.317	ppb	2.2473	8.54%
As 188.979†	-123.1	32.033	ug/L	3.2155	32.033	ppb	3.2155	10.04%
B 249.677†	1868.8	-13.449	ug/L	1.8391	-13.449	ppb	1.8391	13.67%
Ba 233.527†	-1423.0	-5.4026	ug/L	0.57556	-5.4026	ppb	0.57556	10.65%
Be 313.107†	158.4	0.0631	ug/L	0.03375	0.0631	ppb	0.03375	53.47%
Ca 317.933Radial†	-4.1	-7.3897	ug/L	1.96406	-7.3897	ppb	1.96406	26.58%
Cd 226.502†	2756.0	0.7957	ug/L	0.66070	0.7957	ppb	0.66070	83.04%
Co 228.616†	553.4	11.306	ug/L	0.6175	11.306	ppb	0.6175	5.46%
Cr 267.716†	-484.4	0.5308	ug/L	0.22664	0.5308	ppb	0.22664	42.70%
Cu 324.752†	-6313.0	-4.0597	ug/L	0.18125	-4.0597	ppb	0.18125	4.46%
Fe 238.204 Radial†	35729.7	370690	ug/L	1331.1	370690	ppb	1331.1	0.36%

K 766.490 Radial†	-11.1	-2.1797	ug/L	16.06862	-2.1797	ppb	16.06862 737.20%
Mg 279.077 IEC†	6.9	-114.69	ug/L	49.747	-114.69	ppb	49.747 43.37%
Mn 257.610†	-27232.8	-6.9890	ug/L	0.10041	-6.9890	ppb	0.10041 1.44%
Mo 202.031†	-278.1	3.2514	ug/L	2.71969	3.2514	ppb	2.71969 83.65%
Na 589.592 Radial†	137.5	46.876	ug/L	15.3661	46.876	ppb	15.3661 32.78%
Ni 231.604†	31.5	0.9953	ug/L	0.53546	0.9953	ppb	0.53546 53.80%
P 214.914†	379.3	-82.131	ug/L	5.7127	-82.131	ppb	5.7127 6.96%
Pb 220.353†	224.6	6.4533	ug/L	0.31893	6.4533	ppb	0.31893 4.94%
S 181.975 Axial†	9.8	12.662	ug/L	5.2564	12.662	ppb	5.2564 41.51%
Sb 206.836†	-0.8	-4.9069	ug/L	3.22782	-4.9069	ppb	3.22782 65.78%
Se 196.026†	-1393.0	-23.296	ug/L	9.3990	-23.296	ppb	9.3990 40.35%
Si 251.611†	-756.9	-27.306	ug/L	1.0485	-27.306	ppb	1.0485 3.84%
Sn 189.927†	-24.9	-27.156	ug/L	0.6640	-27.156	ppb	0.6640 2.45%
Sr 421.552†	79.8	0.5801	ug/L	0.10244	0.5801	ppb	0.10244 17.66%
Ti 334.940†	30.9	0.0082	ug/L	0.11840	0.0082	ppb	0.11840 >999.9%
Tl 190.801†	-0.6	-0.6527	ug/L	1.58142	-0.6527	ppb	1.58142 242.28%
U 409.014†	2251.3	33.143	ug/L	4.5629	33.143	ppb	4.5629 13.77%
V 292.402†	6305.4	-3.9853	ug/L	0.40429	-3.9853	ppb	0.40429 10.14%
Zn 213.857†	2808.9	-24.471	ug/L	0.7475	-24.471	ppb	0.7475 3.05%
SiO2†	-851.5	-65.639	ug/L	3.7086	-65.639	ppb	3.7086 5.65%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 13:12:07
Data Type: Reprocessed on 3/1/2010 13:29:45

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	812020.3	812020.3	105.74	%			13:15:17
1	Sc Radial	4863.6	4863.6	103	%			13:13:59
1	Y 371.029	719915.3	719915.3	104.48	%			13:15:17
1	Y RADIAL	5099.8	5099.8	102.3	%			13:13:59
1	Ag 328.068†	102563.9	96740.4	500.54	ug/L	500.54	ppb	13:15:22
1	Al 396.153Radial†	5533.1	5441.6	5066.2	ug/L	5066.2	ppb	13:13:59
1	As 188.979†	1168.9	1130.5	508.20	ug/L	508.20	ppb	13:15:42
1	B 249.677†	20941.1	20257.8	504.98	ug/L	504.98	ppb	13:15:22
1	Ba 233.527†	44881.5	42442.6	502.08	ug/L	502.08	ppb	13:15:22
1	Be 313.107†	1307756.2	1245745.9	496.29	ug/L	496.29	ppb	13:15:17
1	Ca 317.933Radial†	2944.6	2827.4	5137.2	ug/L	5137.2	ppb	13:14:19
1	Cd 226.502†	37379.9	35537.3	503.67	ug/L	503.67	ppb	13:15:22
1	Co 228.616†	17841.0	16930.0	511.72	ug/L	511.72	ppb	13:15:22
1	Cr 267.716†	38994.1	36801.7	503.39	ug/L	503.39	ppb	13:15:22
1	Cu 324.752†	148770.2	133157.9	498.60	ug/L	498.60	ppb	13:15:22
1	Fe 238.204 Radial†	526.2	501.9	5222.5	ug/L	5222.5	ppb	13:14:19
1	K 766.490 Radial†	28898.2	25703.7	5110.3	ug/L	5110.3	ppb	13:13:59
1	Mg 279.077 IEC†	137.4	130.0	5163.1	ug/L	5163.1	ppb	13:14:19
1	Mn 257.610†	331243.1	312800.1	500.98	ug/L	500.98	ppb	13:15:22
1	Mo 202.031†	5719.9	5395.0	495.57	ug/L	495.57	ppb	13:15:42
1	Na 589.592 Radial†	29528.5	29423.1	10027	ug/L	10027	ppb	13:13:59
1	Ni 231.604†	16931.6	15911.1	508.32	ug/L	508.32	ppb	13:15:22
1	P 214.914†	4912.9	4450.8	2388.0	ug/L	2388.0	ppb	13:15:42
1	Pb 220.353†	3189.5	3087.0	499.62	ug/L	499.62	ppb	13:15:42
1	S 181.975 Axial†	860.8	771.6	999.46	ug/L	999.46	ppb	13:15:42
1	Sb 206.836†	1334.2	1231.7	517.47	ug/L	517.47	ppb	13:15:42
1	Se 196.026†	846.2	820.0	515.88	ug/L	515.88	ppb	13:15:42
1	Si 251.611†	72800.9	68259.6	2484.7	ug/L	2484.7	ppb	13:15:22
1	Sn 189.927†	2219.7	2091.2	493.07	ug/L	493.07	ppb	13:15:42
1	Sr 421.552†	71418.0	69113.0	502.53	ug/L	502.53	ppb	13:13:59
1	Ti 334.940†	260272.1	247444.0	498.47	ug/L	498.47	ppb	13:15:22
1	Tl 190.801†	1102.3	1073.7	496.38	ug/L	496.38	ppb	13:15:42
1	U 409.014†	13062.6	14890.3	496.89	ug/L	496.89	ppb	13:15:22
1	V 292.402†	64813.9	62923.4	507.66	ug/L	507.66	ppb	13:15:22
1	Zn 213.857†	48794.6	45435.4	496.39	ug/L	496.39	ppb	13:15:22
1	SiO2†	72942.2	68386.1	5313.9	ug/L	5313.9	ppb	13:16:49
2	Sc 361.383	813811.3	813811.3	105.97	%			13:15:47
2	Sc Radial	4865.8	4865.8	103	%			13:14:24
2	Y 371.029	720903.6	720903.6	104.63	%			13:15:47
2	Y RADIAL	5108.9	5108.9	102.5	%			13:14:24
2	Ag 328.068†	101911.1	95911.0	496.26	ug/L	496.26	ppb	13:15:53
2	Al 396.153Radial†	5473.4	5381.4	5009.9	ug/L	5009.9	ppb	13:14:24
2	As 188.979†	1160.9	1120.5	503.70	ug/L	503.70	ppb	13:16:13
2	B 249.677†	20791.7	20073.1	500.36	ug/L	500.36	ppb	13:15:53
2	Ba 233.527†	44701.5	42179.4	498.97	ug/L	498.97	ppb	13:15:53
2	Be 313.107†	1314042.1	1248955.8	497.56	ug/L	497.56	ppb	13:15:47
2	Ca 317.933Radial†	2945.2	2826.7	5135.9	ug/L	5135.9	ppb	13:14:44
2	Cd 226.502†	37205.6	35295.0	500.23	ug/L	500.23	ppb	13:15:53
2	Co 228.616†	17802.6	16856.6	509.51	ug/L	509.51	ppb	13:15:53
2	Cr 267.716†	38619.8	36367.3	497.45	ug/L	497.45	ppb	13:15:53
2	Cu 324.752†	147549.5	131696.4	493.13	ug/L	493.13	ppb	13:15:53
2	Fe 238.204 Radial†	527.6	503.0	5233.9	ug/L	5233.9	ppb	13:14:44
2	K 766.490 Radial†	28858.3	25652.7	5100.1	ug/L	5100.1	ppb	13:14:24
2	Mg 279.077 IEC†	139.3	131.9	5236.0	ug/L	5236.0	ppb	13:14:44
2	Mn 257.610†	329381.0	310353.6	497.06	ug/L	497.06	ppb	13:15:53
2	Mo 202.031†	5731.3	5393.8	495.47	ug/L	495.47	ppb	13:16:13
2	Na 589.592 Radial†	29341.6	29229.6	9961.4	ug/L	9961.4	ppb	13:14:24
2	Ni 231.604†	16871.9	15819.5	505.39	ug/L	505.39	ppb	13:15:53

2	P 214.914†	4927.2	4454.1	2390.9	ug/L	2390.9 ppb	13:16:13
2	Pb 220.353†	3211.0	3100.7	501.81	ug/L	501.81 ppb	13:16:13
2	S 181.975 Axial†	861.5	770.4	997.93	ug/L	997.93 ppb	13:16:13
2	Sb 206.836†	1348.4	1242.3	521.80	ug/L	521.80 ppb	13:16:13
2	Se 196.026†	857.7	829.2	521.51	ug/L	521.51 ppb	13:16:13
2	Si 251.611†	72316.4	67650.9	2462.5	ug/L	2462.5 ppb	13:15:53
2	Sn 189.927†	2226.1	2092.5	493.39	ug/L	493.39 ppb	13:16:13
2	Sr 421.552†	71143.7	68817.0	500.38	ug/L	500.38 ppb	13:14:24
2	Ti 334.940†	258466.2	245198.2	493.94	ug/L	493.94 ppb	13:15:53
2	Tl 190.801†	1114.1	1082.5	500.41	ug/L	500.41 ppb	13:16:13
2	U 409.014†	13006.7	14810.4	494.23	ug/L	494.23 ppb	13:15:53
2	V 292.402†	64402.0	62399.8	503.49	ug/L	503.49 ppb	13:15:53
2	Zn 213.857†	48693.6	45238.6	494.25	ug/L	494.25 ppb	13:15:53
2	SiO2†	72357.4	67682.4	5259.1	ug/L	5259.1 ppb	13:16:54
3	Sc 361.383	826056.0	826056.0	107.57	%		13:16:18
3	Sc Radial	4827.1	4827.1	103	%		13:14:50
3	Y 371.029	729803.6	729803.6	105.92	%		13:16:18
3	Y RADIAL	5073.6	5073.6	101.8	%		13:14:50
3	Ag 328.068†	102086.2	94648.2	489.74	ug/L	489.74 ppb	13:16:23
3	Al 396.153Radial†	5507.4	5457.0	5081.0	ug/L	5081.0 ppb	13:14:50
3	As 188.979†	1149.1	1093.2	491.53	ug/L	491.53 ppb	13:16:43
3	B 249.677†	20848.5	19835.2	494.43	ug/L	494.43 ppb	13:16:23
3	Ba 233.527†	44848.9	41691.2	493.19	ug/L	493.19 ppb	13:16:23
3	Be 313.107†	1328033.0	1243582.0	495.41	ug/L	495.41 ppb	13:16:18
3	Ca 317.933Radial†	2936.0	2840.5	5161.1	ug/L	5161.1 ppb	13:15:10
3	Cd 226.502†	37177.5	34748.5	492.48	ug/L	492.48 ppb	13:16:23
3	Co 228.616†	17794.4	16599.9	501.75	ug/L	501.75 ppb	13:16:23
3	Cr 267.716†	38712.8	35913.6	491.24	ug/L	491.24 ppb	13:16:23
3	Cu 324.752†	147458.5	129547.9	485.09	ug/L	485.09 ppb	13:16:23
3	Fe 238.204 Radial†	521.3	501.0	5213.0	ug/L	5213.0 ppb	13:15:10
3	K 766.490 Radial†	28625.2	25649.0	5099.4	ug/L	5099.4 ppb	13:14:50
3	Mg 279.077 IEC†	139.1	132.8	5270.6	ug/L	5270.6 ppb	13:15:10
3	Mn 257.610†	329726.2	306067.2	490.20	ug/L	490.20 ppb	13:16:23
3	Mo 202.031†	5713.1	5296.8	486.56	ug/L	486.56 ppb	13:16:43
3	Na 589.592 Radial†	29108.6	29229.8	9961.5	ug/L	9961.5 ppb	13:14:50
3	Ni 231.604†	16821.7	15536.9	496.36	ug/L	496.36 ppb	13:16:23
3	P 214.914†	4912.6	4371.6	2346.5	ug/L	2346.5 ppb	13:16:43
3	Pb 220.353†	3191.7	3037.8	491.68	ug/L	491.68 ppb	13:16:43
3	S 181.975 Axial†	857.3	754.5	977.26	ug/L	977.26 ppb	13:16:43
3	Sb 206.836†	1333.5	1209.6	508.24	ug/L	508.24 ppb	13:16:43
3	Se 196.026†	829.0	790.4	497.72	ug/L	497.72 ppb	13:16:43
3	Si 251.611†	72262.7	66589.4	2423.9	ug/L	2423.9 ppb	13:16:23
3	Sn 189.927†	2230.2	2065.2	486.97	ug/L	486.97 ppb	13:16:43
3	Sr 421.552†	70763.1	68997.1	501.69	ug/L	501.69 ppb	13:14:50
3	Ti 334.940†	258767.4	241862.9	487.23	ug/L	487.23 ppb	13:16:23
3	Tl 190.801†	1102.1	1055.8	488.10	ug/L	488.10 ppb	13:16:43
3	U 409.014†	13109.0	14723.5	491.34	ug/L	491.34 ppb	13:16:23
3	V 292.402†	64389.0	61486.9	496.10	ug/L	496.10 ppb	13:16:23
3	Zn 213.857†	48575.3	44447.5	485.59	ug/L	485.59 ppb	13:16:23
3	SiO2†	73293.1	67540.1	5248.2	ug/L	5248.2 ppb	13:16:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	817295.9	106.43	%	0.995				0.93%
Sc Radial	4852.2	103	%	0.5				0.45%
Y 371.029	723540.8	105.01	%	0.790				0.75%
Y RADIAL	5094.1	102.2	%	0.37				0.36%
Ag 328.068†	95766.5	495.51	ug/L	5.440	495.51	ppb	5.440	1.10%
QC value within limits for Ag 328.068 Recovery = 99.10%								
Al 396.153Radial†	5426.7	5052.3	ug/L	37.52	5052.3	ppb	37.52	0.74%
QC value within limits for Al 396.153Radial Recovery = 101.05%								
As 188.979†	1114.7	501.14	ug/L	8.624	501.14	ppb	8.624	1.72%
QC value within limits for As 188.979 Recovery = 100.23%								
B 249.677†	20055.4	499.92	ug/L	5.290	499.92	ppb	5.290	1.06%
QC value within limits for B 249.677 Recovery = 99.98%								
Ba 233.527†	42104.4	498.08	ug/L	4.512	498.08	ppb	4.512	0.91%
QC value within limits for Ba 233.527 Recovery = 99.62%								
Be 313.107†	1246094.6	496.42	ug/L	1.081	496.42	ppb	1.081	0.22%
QC value within limits for Be 313.107 Recovery = 99.28%								

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Ca 317.933Radial†       2831.5      5144.7 ug/L        14.18      5144.7 ppb        14.18   0.28%
   QC value within limits for Ca 317.933Radial  Recovery = 102.89%
Cd 226.502†            35193.6      498.79 ug/L         5.732      498.79 ppb         5.732  1.15%
   QC value within limits for Cd 226.502  Recovery = 99.76%
Co 228.616†            16795.5      507.66 ug/L         5.238      507.66 ppb         5.238  1.03%
   QC value within limits for Co 228.616  Recovery = 101.53%
Cr 267.716†            36360.8      497.36 ug/L         6.074      497.36 ppb         6.074  1.22%
   QC value within limits for Cr 267.716  Recovery = 99.47%
Cu 324.752†           131467.4      492.27 ug/L         6.798      492.27 ppb         6.798  1.38%
   QC value within limits for Cu 324.752  Recovery = 98.45%
Fe 238.204 Radial†       502.0      5223.1 ug/L        10.45      5223.1 ppb        10.45   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.46%
K 766.490 Radial†      25668.4      5103.3 ug/L         6.07      5103.3 ppb         6.07   0.12%
   QC value within limits for K 766.490 Radial  Recovery = 102.07%
Mg 279.077 IEC†          131.6      5223.2 ug/L        54.89      5223.2 ppb        54.89   1.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.46%
Mn 257.610†           309740.3      496.08 ug/L         5.458      496.08 ppb         5.458  1.10%
   QC value within limits for Mn 257.610  Recovery = 99.22%
Mo 202.031†             5361.9      492.54 ug/L         5.172      492.54 ppb         5.172  1.05%
   QC value within limits for Mo 202.031  Recovery = 98.51%
Na 589.592 Radial†     29294.2      9983.4 ug/L        38.04      9983.4 ppb        38.04   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 99.83%
Ni 231.604†            15755.8      503.36 ug/L         6.233      503.36 ppb         6.233  1.24%
   QC value within limits for Ni 231.604  Recovery = 100.67%
P 214.914†              4425.5      2375.1 ug/L        24.87      2375.1 ppb        24.87   1.05%
   QC value within limits for P 214.914  Recovery = 95.01%
Pb 220.353†             3075.2      497.71 ug/L         5.332      497.71 ppb         5.332  1.07%
   QC value within limits for Pb 220.353  Recovery = 99.54%
S 181.975 Axial†         765.5      991.55 ug/L        12.401      991.55 ppb        12.401  1.25%
   QC value within limits for S 181.975 Axial  Recovery = 99.15%
Sb 206.836†             1227.9      515.84 ug/L         6.927      515.84 ppb         6.927  1.34%
   QC value within limits for Sb 206.836  Recovery = 103.17%
Se 196.026†              813.2      511.70 ug/L        12.435      511.70 ppb        12.435  2.43%
   QC value within limits for Se 196.026  Recovery = 102.34%
Si 251.611†            67500.0      2457.1 ug/L        30.78      2457.1 ppb        30.78   1.25%
   QC value within limits for Si 251.611  Recovery = 98.28%
Sn 189.927†             2083.0      491.14 ug/L         3.622      491.14 ppb         3.622  0.74%
   QC value within limits for Sn 189.927  Recovery = 98.23%
Sr 421.552†            68975.7      501.54 ug/L         1.085      501.54 ppb         1.085  0.22%
   QC value within limits for Sr 421.552  Recovery = 100.31%
Ti 334.940†           244835.0      493.21 ug/L         5.658      493.21 ppb         5.658  1.15%
   QC value within limits for Ti 334.940  Recovery = 98.64%
Tl 190.801†             1070.7      494.96 ug/L         6.277      494.96 ppb         6.277  1.27%
   QC value within limits for Tl 190.801  Recovery = 98.99%
U 409.014†             14808.0      494.15 ug/L         2.779      494.15 ppb         2.779  0.56%
   QC value within limits for U 409.014  Recovery = 98.83%
V 292.402†             62270.0      502.42 ug/L         5.853      502.42 ppb         5.853  1.16%
   QC value within limits for V 292.402  Recovery = 100.48%
Zn 213.857†            45040.5      492.08 ug/L         5.717      492.08 ppb         5.717  1.16%
   QC value within limits for Zn 213.857  Recovery = 98.42%
SiO2†                  67869.5      5273.7 ug/L        35.20      5273.7 ppb        35.20   0.67%
   QC value within limits for SiO2  Recovery = 98.62%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 13:19:10
Data Type: Reprocessed on 3/1/2010 13:29:46

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	810277.2	810277.2	105.51	%			13:22:19
1	Sc Radial	4862.4	4862.4	103	%			13:21:02
1	Y 371.029	730937.1	730937.1	106.08	%			13:22:19
1	Y RADIAL	5156.5	5156.5	103.4	%			13:21:02
1	Ag 328.068†	194.7	-71.2	-0.3643	ug/L	-0.3643	ppb	13:22:19
1	Al 396.153Radial†	-78.9	10.7	10.042	ug/L	10.042	ppb	13:21:22
1	As 188.979†	-31.1	-4.4	-1.9674	ug/L	-1.9674	ppb	13:22:39
1	B 249.677†	-33.5	421.7	10.556	ug/L	10.556	ppb	13:22:39
1	Ba 233.527†	19.4	16.0	0.1900	ug/L	0.1900	ppb	13:22:39
1	Be 313.107†	-9262.9	203.7	0.0817	ug/L	0.0817	ppb	13:22:19
1	Ca 317.933Radial†	30.9	7.7	14.063	ug/L	14.063	ppb	13:21:22
1	Cd 226.502†	-192.9	3.8	0.0532	ug/L	0.0532	ppb	13:22:39
1	Co 228.616†	-58.1	2.4	0.0721	ug/L	0.0721	ppb	13:22:39
1	Cr 267.716†	90.6	10.2	0.1388	ug/L	0.1388	ppb	13:22:39
1	Cu 324.752†	7847.5	-98.7	-0.3715	ug/L	-0.3715	ppb	13:22:19
1	Fe 238.204 Radial†	9.1	1.5	15.345	ug/L	15.345	ppb	13:21:22
1	K 766.490 Radial†	2382.5	44.6	8.8454	ug/L	8.8454	ppb	13:21:02
1	Mg 279.077 IEC†	1.1	-1.8	-71.376	ug/L	-71.376	ppb	13:21:22
1	Mn 257.610†	447.3	-37.2	-0.0552	ug/L	-0.0552	ppb	13:22:39
1	Mo 202.031†	14.0	-1.1	-0.1034	ug/L	-0.1034	ppb	13:22:39
1	Na 589.592 Radial†	-714.9	155.8	53.086	ug/L	53.086	ppb	13:21:02
1	Ni 231.604†	110.2	3.1	0.0990	ug/L	0.0990	ppb	13:22:39
1	P 214.914†	213.8	7.3	4.1503	ug/L	4.1503	ppb	13:22:39
1	Pb 220.353†	-61.1	12.8	2.0625	ug/L	2.0625	ppb	13:22:39
1	S 181.975 Axial†	46.4	1.5	1.9452	ug/L	1.9452	ppb	13:22:39
1	Sb 206.836†	43.0	10.8	4.3950	ug/L	4.3950	ppb	13:22:39
1	Se 196.026†	-8.9	11.4	7.0057	ug/L	7.0057	ppb	13:22:39
1	Si 251.611†	629.3	7.2	0.2636	ug/L	0.2636	ppb	13:22:39
1	Sn 189.927†	17.3	8.3	1.9670	ug/L	1.9670	ppb	13:22:39
1	Sr 421.552†	13.0	13.1	0.0952	ug/L	0.0952	ppb	13:21:02
1	Ti 334.940†	-1209.9	154.3	0.3165	ug/L	0.3165	ppb	13:22:19
1	Tl 190.801†	-30.7	2.1	0.9794	ug/L	0.9794	ppb	13:22:39
1	U 409.014†	-2521.8	146.8	4.9130	ug/L	4.9130	ppb	13:22:19
1	V 292.402†	-1680.2	35.6	0.2874	ug/L	0.2874	ppb	13:22:19
1	Zn 213.857†	772.4	21.7	0.2371	ug/L	0.2371	ppb	13:22:39
1	SiO2†	612.1	-16.4	-1.2714	ug/L	-1.2714	ppb	13:23:35
2	Sc 361.383	814797.3	814797.3	106.10	%			13:22:44
2	Sc Radial	4967.9	4967.9	106	%			13:21:27
2	Y 371.029	734106.6	734106.6	106.54	%			13:22:44
2	Y RADIAL	5264.3	5264.3	105.6	%			13:21:27
2	Ag 328.068†	194.8	-72.1	-0.3747	ug/L	-0.3747	ppb	13:22:44
2	Al 396.153Radial†	-71.0	19.8	18.547	ug/L	18.547	ppb	13:21:47
2	As 188.979†	-24.6	1.8	0.8228	ug/L	0.8228	ppb	13:23:04
2	B 249.677†	-28.9	426.2	10.672	ug/L	10.672	ppb	13:23:04
2	Ba 233.527†	11.2	8.2	0.0978	ug/L	0.0978	ppb	13:23:04
2	Be 313.107†	-9362.0	159.0	0.0638	ug/L	0.0638	ppb	13:22:44
2	Ca 317.933Radial†	31.1	7.3	13.318	ug/L	13.318	ppb	13:21:47
2	Cd 226.502†	-197.0	1.0	0.0144	ug/L	0.0144	ppb	13:23:04
2	Co 228.616†	-63.8	-2.6	-0.0812	ug/L	-0.0812	ppb	13:23:04
2	Cr 267.716†	77.9	-2.2	-0.0331	ug/L	-0.0331	ppb	13:23:04
2	Cu 324.752†	7860.4	-127.7	-0.4832	ug/L	-0.4832	ppb	13:22:44
2	Fe 238.204 Radial†	8.4	0.7	6.9292	ug/L	6.9292	ppb	13:21:47
2	K 766.490 Radial†	2417.9	29.1	5.7731	ug/L	5.7731	ppb	13:21:27
2	Mg 279.077 IEC†	-0.8	-3.6	-143.72	ug/L	-143.72	ppb	13:21:47
2	Mn 257.610†	433.3	-52.7	-0.0779	ug/L	-0.0779	ppb	13:23:04
2	Mo 202.031†	11.6	-3.5	-0.3167	ug/L	-0.3167	ppb	13:23:04
2	Na 589.592 Radial†	-699.1	185.5	63.207	ug/L	63.207	ppb	13:21:27
2	Ni 231.604†	93.7	-13.0	-0.4163	ug/L	-0.4163	ppb	13:23:04

2	P 214.914†	196.5	-10.1	-5.5656	ug/L	-5.5656 ppb	13:23:04
2	Pb 220.353†	-51.9	21.7	3.5099	ug/L	3.5099 ppb	13:23:04
2	S 181.975 Axial†	42.6	-2.4	-3.1100	ug/L	-3.1100 ppb	13:23:04
2	Sb 206.836†	39.3	7.0	2.8282	ug/L	2.8282 ppb	13:23:04
2	Se 196.026†	-24.6	-3.3	-2.0299	ug/L	-2.0299 ppb	13:23:04
2	Si 251.611†	618.5	-6.2	-0.2238	ug/L	-0.2238 ppb	13:23:04
2	Sn 189.927†	10.0	1.4	0.3266	ug/L	0.3266 ppb	13:23:04
2	Sr 421.552†	51.0	48.8	0.3546	ug/L	0.3546 ppb	13:21:27
2	Ti 334.940†	-1237.5	134.7	0.2809	ug/L	0.2809 ppb	13:22:44
2	Tl 190.801†	-38.4	-5.0	-2.3044	ug/L	-2.3044 ppb	13:23:04
2	U 409.014†	-2390.9	283.4	9.4882	ug/L	9.4882 ppb	13:22:44
2	V 292.402†	-1673.9	50.4	0.4107	ug/L	0.4107 ppb	13:22:44
2	Zn 213.857†	760.3	6.3	0.0721	ug/L	0.0721 ppb	13:23:04
2	SiO2†	610.5	-21.1	-1.6327	ug/L	-1.6327 ppb	13:23:40
3	Sc 361.383	804933.5	804933.5	104.82	%		13:23:09
3	Sc Radial	4961.0	4961.0	105	%		13:21:52
3	Y 371.029	724081.2	724081.2	105.09	%		13:23:09
3	Y RADIAL	5272.6	5272.6	105.8	%		13:21:52
3	Ag 328.068†	244.9	-22.0	-0.1231	ug/L	-0.1231 ppb	13:23:09
3	Al 396.153Radial†	-83.4	8.0	7.4930	ug/L	7.4930 ppb	13:22:12
3	As 188.979†	-29.4	-3.0	-1.3442	ug/L	-1.3442 ppb	13:23:30
3	B 249.677†	-52.9	402.9	10.093	ug/L	10.093 ppb	13:23:30
3	Ba 233.527†	12.4	9.5	0.1119	ug/L	0.1119 ppb	13:23:30
3	Be 313.107†	-9348.5	63.8	0.0257	ug/L	0.0257 ppb	13:23:09
3	Ca 317.933Radial†	31.8	8.0	14.549	ug/L	14.549 ppb	13:22:12
3	Cd 226.502†	-197.9	-2.2	-0.0285	ug/L	-0.0285 ppb	13:23:30
3	Co 228.616†	-68.1	-7.5	-0.2254	ug/L	-0.2254 ppb	13:23:30
3	Cr 267.716†	77.6	-1.5	-0.0245	ug/L	-0.0245 ppb	13:23:30
3	Cu 324.752†	7766.6	-126.5	-0.4791	ug/L	-0.4791 ppb	13:23:09
3	Fe 238.204 Radial†	6.5	-1.1	-11.602	ug/L	-11.602 ppb	13:22:12
3	K 766.490 Radial†	2405.0	20.1	3.9680	ug/L	3.9680 ppb	13:21:52
3	Mg 279.077 IEC†	2.7	-0.3	-12.789	ug/L	-12.789 ppb	13:22:12
3	Mn 257.610†	432.0	-49.0	-0.0790	ug/L	-0.0790 ppb	13:23:30
3	Mo 202.031†	15.7	0.6	0.0514	ug/L	0.0514 ppb	13:23:30
3	Na 589.592 Radial†	-721.3	163.5	55.725	ug/L	55.725 ppb	13:21:52
3	Ni 231.604†	95.3	-10.4	-0.3321	ug/L	-0.3321 ppb	13:23:30
3	P 214.914†	208.0	3.0	1.7986	ug/L	1.7986 ppb	13:23:30
3	Pb 220.353†	-60.9	12.6	2.0348	ug/L	2.0348 ppb	13:23:30
3	S 181.975 Axial†	41.6	-2.8	-3.6233	ug/L	-3.6233 ppb	13:23:30
3	Sb 206.836†	44.5	12.4	5.0231	ug/L	5.0231 ppb	13:23:30
3	Se 196.026†	-11.6	8.7	5.3236	ug/L	5.3236 ppb	13:23:30
3	Si 251.611†	598.2	-18.6	-0.6777	ug/L	-0.6777 ppb	13:23:30
3	Sn 189.927†	8.3	-0.2	-0.0374	ug/L	-0.0374 ppb	13:23:30
3	Sr 421.552†	20.2	19.7	0.1430	ug/L	0.1430 ppb	13:21:52
3	Ti 334.940†	-1280.3	79.6	0.1595	ug/L	0.1595 ppb	13:23:09
3	Tl 190.801†	-29.6	3.0	1.3776	ug/L	1.3776 ppb	13:23:30
3	U 409.014†	-2382.8	263.5	8.8255	ug/L	8.8255 ppb	13:23:09
3	V 292.402†	-1669.3	35.4	0.3009	ug/L	0.3009 ppb	13:23:09
3	Zn 213.857†	752.1	7.3	0.0847	ug/L	0.0847 ppb	13:23:30
3	SiO2†	638.4	12.6	0.9782	ug/L	0.9782 ppb	13:23:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	810002.7	105.48	%	0.643				0.61%
Sc Radial	4930.4	105	%	1.3				1.20%
Y 371.029	729708.3	105.90	%	0.744				0.70%
Y RADIAL	5231.1	104.9	%	1.30				1.24%
Ag 328.068†	-55.1	-0.2874	ug/L	0.14233	-0.2874	ppb	0.14233	49.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.9	12.027	ug/L	5.7882	12.027	ppb	5.7882	48.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.8296	ug/L	1.46457	-0.8296	ppb	1.46457	176.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	416.9	10.440	ug/L	0.3065	10.440	ppb	0.3065	2.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.2	0.1333	ug/L	0.04967	0.1333	ppb	0.04967	37.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	142.2	0.0571	ug/L	0.02859	0.0571	ppb	0.02859	50.09%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          7.7      13.977 ug/L        0.6201      13.977 ppb        0.6201   4.44%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.8       0.0131 ug/L       0.04087      0.0131 ppb       0.04087 313.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -2.6      -0.0782 ug/L       0.14876     -0.0782 ppb       0.14876 190.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.2       0.0270 ug/L       0.09684      0.0270 ppb       0.09684 357.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -117.6      -0.4446 ug/L       0.06337     -0.4446 ppb       0.06337  14.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.3       3.5571 ug/L      13.78636      3.5571 ppb      13.78636 387.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         31.3       6.1955 ug/L       2.46600      6.1955 ppb       2.46600  39.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.9     -75.961 ug/L       65.5845     -75.961 ppb       65.5845  86.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -46.3      -0.0707 ug/L       0.01345     -0.0707 ppb       0.01345  19.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.3      -0.1229 ug/L       0.18481     -0.1229 ppb       0.18481 150.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       168.3      57.340 ug/L        5.2500      57.340 ppb        5.2500   9.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -6.8      -0.2165 ug/L       0.27642     -0.2165 ppb       0.27642 127.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.1       0.1278 ug/L       5.06885      0.1278 ppb       5.06885 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               15.7       2.5357 ug/L       0.84374      2.5357 ppb       0.84374  33.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2      -1.5960 ug/L       3.07750     -1.5960 ppb       3.07750 192.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               10.0       4.0821 ug/L       1.13043      4.0821 ppb       1.13043  27.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.6       3.4331 ug/L       4.80533      3.4331 ppb       4.80533 139.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -5.9      -0.2126 ug/L       0.47075     -0.2126 ppb       0.47075 221.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.2       0.7521 ug/L       1.06777      0.7521 ppb       1.06777 141.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               27.2       0.1976 ug/L       0.13806      0.1976 ppb       0.13806  69.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              122.9       0.2523 ug/L       0.08231      0.2523 ppb       0.08231  32.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.0       0.0175 ug/L       2.02068      0.0175 ppb       2.02068 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               231.2       7.7422 ug/L       2.47252      7.7422 ppb       2.47252  31.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                40.5       0.3330 ug/L       0.06763      0.3330 ppb       0.06763  20.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               11.8       0.1313 ug/L       0.09183      0.1313 ppb       0.09183  69.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -8.3      -0.6420 ug/L       1.41470     -0.6420 ppb       1.41470 220.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 14:20:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5106.5	5106.5	108	%			14:21:59
1	Y RADIAL	5370.5	5370.5	107.7	%			14:21:59
1	Al 396.153Radial†	5786.0	5420.0	5045.8	ug/L	5045.8	ppb	14:21:59
1	Ca 317.933Radial†	3030.2	2770.8	5034.4	ug/L	5034.4	ppb	14:22:19
1	Fe 238.204 Radial†	542.1	492.3	5122.9	ug/L	5122.9	ppb	14:22:19
1	K 766.490 Radial†	29833.1	25235.4	5017.1	ug/L	5017.1	ppb	14:21:59
1	Mg 279.077 IEC†	145.0	130.8	5191.4	ug/L	5191.4	ppb	14:22:19
1	Na 589.592 Radial†	30899.7	29327.9	9994.9	ug/L	9994.9	ppb	14:21:59
1	Sr 421.552†	74979.2	69108.5	502.50	ug/L	502.50	ppb	14:21:59
1	Sc 361.383	826727.5	826727.5	107.66	%			14:23:17
1	Y 371.029	729362.4	729362.4	105.85	%			14:23:17
1	Ag 328.068†	104560.7	96869.8	501.16	ug/L	501.16	ppb	14:23:22
1	As 188.979†	1187.5	1128.0	507.10	ug/L	507.10	ppb	14:23:42
1	B 249.677†	20897.5	19864.9	495.15	ug/L	495.15	ppb	14:23:22
1	Ba 233.527†	45864.8	42601.0	503.95	ug/L	503.95	ppb	14:23:22
1	Be 313.107†	1348946.3	1262005.5	502.76	ug/L	502.76	ppb	14:23:17
1	Cd 226.502†	38090.1	35568.2	504.12	ug/L	504.12	ppb	14:23:22
1	Co 228.616†	18229.1	16990.3	513.55	ug/L	513.55	ppb	14:23:22
1	Cr 267.716†	39521.4	36635.4	501.11	ug/L	501.11	ppb	14:23:22
1	Cu 324.752†	152344.6	133975.3	501.65	ug/L	501.65	ppb	14:23:22
1	Mn 257.610†	338312.0	313793.5	502.56	ug/L	502.56	ppb	14:23:22
1	Mo 202.031†	5874.9	5442.8	499.95	ug/L	499.95	ppb	14:23:42
1	Ni 231.604†	17162.4	15840.6	506.07	ug/L	506.07	ppb	14:23:22
1	P 214.914†	5041.7	4487.8	2408.2	ug/L	2408.2	ppb	14:23:42
1	Pb 220.353†	3262.9	3101.6	501.98	ug/L	501.98	ppb	14:23:42
1	S 181.975 Axial†	887.9	782.2	1013.3	ug/L	1013.3	ppb	14:23:42
1	Sb 206.836†	1366.6	1239.4	520.76	ug/L	520.76	ppb	14:23:42
1	Se 196.026†	866.9	825.0	518.74	ug/L	518.74	ppb	14:23:42
1	Si 251.611†	74504.2	68617.0	2497.7	ug/L	2497.7	ppb	14:23:22
1	Sn 189.927†	2281.9	2111.6	497.87	ug/L	497.87	ppb	14:23:42
1	Ti 334.940†	266197.5	248569.3	500.72	ug/L	500.72	ppb	14:23:22
1	Tl 190.801†	1134.6	1085.1	501.65	ug/L	501.65	ppb	14:23:42
1	U 409.014†	13786.7	15343.1	512.07	ug/L	512.07	ppb	14:23:22
1	V 292.402†	65975.8	62912.3	507.68	ug/L	507.68	ppb	14:23:22
1	Zn 213.857†	49751.0	45502.9	497.16	ug/L	497.16	ppb	14:23:22
1	SiO2†	74476.3	68583.9	5329.2	ug/L	5329.2	ppb	14:24:49
2	Sc Radial	4922.9	4922.9	105	%			14:22:25
2	Y RADIAL	5179.3	5179.3	103.9	%			14:22:25
2	Al 396.153Radial†	5689.1	5526.3	5145.4	ug/L	5145.4	ppb	14:22:25
2	Ca 317.933Radial†	3022.8	2867.8	5210.7	ug/L	5210.7	ppb	14:22:45
2	Fe 238.204 Radial†	546.5	515.2	5360.3	ug/L	5360.3	ppb	14:22:45
2	K 766.490 Radial†	29347.0	25796.2	5128.6	ug/L	5128.6	ppb	14:22:25
2	Mg 279.077 IEC†	144.3	135.1	5362.4	ug/L	5362.4	ppb	14:22:45
2	Na 589.592 Radial†	30283.4	29800.9	10156	ug/L	10156	ppb	14:22:25
2	Sr 421.552†	73566.0	70334.9	511.42	ug/L	511.42	ppb	14:22:25
2	Sc 361.383	827747.3	827747.3	107.79	%			14:23:47
2	Y 371.029	732457.2	732457.2	106.30	%			14:23:47
2	Ag 328.068†	104699.6	96878.9	501.28	ug/L	501.28	ppb	14:23:53
2	As 188.979†	1183.3	1122.8	504.82	ug/L	504.82	ppb	14:24:13
2	B 249.677†	20929.2	19870.4	495.26	ug/L	495.26	ppb	14:23:53
2	Ba 233.527†	46007.2	42680.6	504.89	ug/L	504.89	ppb	14:23:53
2	Be 313.107†	1345459.0	1257226.4	500.86	ug/L	500.86	ppb	14:23:47
2	Cd 226.502†	38045.1	35482.8	502.88	ug/L	502.88	ppb	14:23:53
2	Co 228.616†	18208.5	16950.3	512.33	ug/L	512.33	ppb	14:23:53
2	Cr 267.716†	39574.4	36639.3	501.17	ug/L	501.17	ppb	14:23:53
2	Cu 324.752†	152379.4	133833.1	501.13	ug/L	501.13	ppb	14:23:53
2	Mn 257.610†	338226.6	313327.2	501.83	ug/L	501.83	ppb	14:23:53
2	Mo 202.031†	5846.1	5409.3	496.90	ug/L	496.90	ppb	14:24:13
2	Ni 231.604†	17221.9	15876.2	507.20	ug/L	507.20	ppb	14:23:53

2	P 214.914†	5035.5	4476.3	2401.7 ug/L	2401.7 ppb	14:24:13
2	Pb 220.353†	3257.7	3093.0	500.59 ug/L	500.59 ppb	14:24:13
2	S 181.975 Axial†	876.8	770.9	998.55 ug/L	998.55 ppb	14:24:13
2	Sb 206.836†	1362.0	1233.5	518.27 ug/L	518.27 ppb	14:24:13
2	Se 196.026†	875.3	831.8	523.44 ug/L	523.44 ppb	14:24:13
2	Si 251.611†	74525.3	68551.3	2495.4 ug/L	2495.4 ppb	14:23:53
2	Sn 189.927†	2274.1	2101.7	495.57 ug/L	495.57 ppb	14:24:13
2	Ti 334.940†	266227.9	248292.9	500.17 ug/L	500.17 ppb	14:23:53
2	Tl 190.801†	1146.7	1095.0	506.21 ug/L	506.21 ppb	14:24:13
2	U 409.014†	13694.6	15242.0	508.66 ug/L	508.66 ppb	14:23:53
2	V 292.402†	66061.4	62916.1	507.63 ug/L	507.63 ppb	14:23:53
2	Zn 213.857†	49748.1	45443.3	496.46 ug/L	496.46 ppb	14:23:53
2	SiO2†	74098.9	68148.4	5295.4 ug/L	5295.4 ppb	14:24:54
3	Sc Radial	4997.1	4997.1	106 %		14:22:50
3	Y RADIAL	5257.7	5257.7	105.5 %		14:22:50
3	Al 396.153Radial†	5759.9	5512.2	5132.0 ug/L	5132.0 ppb	14:22:50
3	Ca 317.933Radial†	3025.9	2827.8	5138.0 ug/L	5138.0 ppb	14:23:10
3	Fe 238.204 Radial†	542.6	503.7	5241.7 ug/L	5241.7 ppb	14:23:10
3	K 766.490 Radial†	29692.0	25704.5	5110.4 ug/L	5110.4 ppb	14:22:50
3	Mg 279.077 IEC†	144.4	133.2	5286.6 ug/L	5286.6 ppb	14:23:10
3	Na 589.592 Radial†	30661.5	29727.0	10131 ug/L	10131 ppb	14:22:50
3	Sr 421.552†	74595.9	70260.3	510.88 ug/L	510.88 ppb	14:22:50
3	Sc 361.383	828096.0	828096.0	107.83 %		14:24:18
3	Y 371.029	732734.7	732734.7	106.34 %		14:24:18
3	Ag 328.068†	105136.8	97243.5	503.13 ug/L	503.13 ppb	14:24:24
3	As 188.979†	1195.9	1134.1	509.81 ug/L	509.81 ppb	14:24:44
3	B 249.677†	21085.8	20007.5	498.70 ug/L	498.70 ppb	14:24:24
3	Ba 233.527†	45960.5	42619.3	504.17 ug/L	504.17 ppb	14:24:24
3	Be 313.107†	1346591.1	1257750.6	501.07 ug/L	501.07 ppb	14:24:18
3	Cd 226.502†	38249.0	35657.0	505.37 ug/L	505.37 ppb	14:24:24
3	Co 228.616†	18343.5	17068.4	515.91 ug/L	515.91 ppb	14:24:24
3	Cr 267.716†	39643.9	36688.3	501.84 ug/L	501.84 ppb	14:24:24
3	Cu 324.752†	152708.4	134078.7	502.04 ug/L	502.04 ppb	14:24:24
3	Mn 257.610†	339250.8	314144.7	503.13 ug/L	503.13 ppb	14:24:24
3	Mo 202.031†	5877.3	5436.0	499.34 ug/L	499.34 ppb	14:24:44
3	Ni 231.604†	17346.3	15984.8	510.67 ug/L	510.67 ppb	14:24:24
3	P 214.914†	5050.0	4487.8	2408.0 ug/L	2408.0 ppb	14:24:44
3	Pb 220.353†	3269.9	3103.0	502.22 ug/L	502.22 ppb	14:24:44
3	S 181.975 Axial†	891.0	783.8	1015.3 ug/L	1015.3 ppb	14:24:44
3	Sb 206.836†	1381.4	1251.0	525.41 ug/L	525.41 ppb	14:24:44
3	Se 196.026†	870.5	827.0	520.24 ug/L	520.24 ppb	14:24:44
3	Si 251.611†	74682.0	68667.5	2499.6 ug/L	2499.6 ppb	14:24:24
3	Sn 189.927†	2274.4	2101.1	495.42 ug/L	495.42 ppb	14:24:44
3	Ti 334.940†	266619.9	248552.3	500.69 ug/L	500.69 ppb	14:24:24
3	Tl 190.801†	1154.8	1102.2	509.48 ug/L	509.48 ppb	14:24:44
3	U 409.014†	13704.4	15245.7	508.79 ug/L	508.79 ppb	14:24:24
3	V 292.402†	66211.2	63029.3	508.58 ug/L	508.58 ppb	14:24:24
3	Zn 213.857†	49976.7	45635.8	498.58 ug/L	498.58 ppb	14:24:24
3	SiO2†	74184.0	68198.4	5299.2 ug/L	5299.2 ppb	14:24:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	827523.6	107.76	%	0.093				0.09%
Sc Radial	5008.8	106	%	2.0				1.84%
Y 371.029	731518.1	106.17	%	0.272				0.26%
Y RADIAL	5269.1	105.7	%	1.93				1.82%
Ag 328.068†	96997.4	501.86	ug/L	1.100	501.86	ppb	1.100	0.22%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	5486.2	5107.7	ug/L	54.07	5107.7	ppb	54.07	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.15%								
As 188.979†	1128.3	507.24	ug/L	2.499	507.24	ppb	2.499	0.49%
QC value within limits for As 188.979 Recovery = 101.45%								
B 249.677†	19914.3	496.37	ug/L	2.017	496.37	ppb	2.017	0.41%
QC value within limits for B 249.677 Recovery = 99.27%								
Ba 233.527†	42633.6	504.34	ug/L	0.495	504.34	ppb	0.495	0.10%
QC value within limits for Ba 233.527 Recovery = 100.87%								
Be 313.107†	1258994.2	501.56	ug/L	1.042	501.56	ppb	1.042	0.21%
QC value within limits for Be 313.107 Recovery = 100.31%								
Ca 317.933Radial†	2822.2	5127.7	ug/L	88.62	5127.7	ppb	88.62	1.73%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.55%
Cd 226.502†            35569.3      504.12 ug/L         1.242      504.12 ppb          1.242   0.25%
   QC value within limits for Cd 226.502  Recovery = 100.82%
Co 228.616†            17003.0      513.93 ug/L         1.818      513.93 ppb          1.818   0.35%
   QC value within limits for Co 228.616  Recovery = 102.79%
Cr 267.716†            36654.4      501.37 ug/L         0.404      501.37 ppb          0.404   0.08%
   QC value within limits for Cr 267.716  Recovery = 100.27%
Cu 324.752†           133962.4      501.61 ug/L         0.458      501.61 ppb          0.458   0.09%
   QC value within limits for Cu 324.752  Recovery = 100.32%
Fe 238.204 Radial†       503.7      5241.6 ug/L        118.67      5241.6 ppb         118.67   2.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.83%
K 766.490 Radial†      25578.7      5085.4 ug/L         59.82      5085.4 ppb          59.82   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 101.71%
Mg 279.077 IEC†          133.0      5280.1 ug/L         85.70      5280.1 ppb          85.70   1.62%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.60%
Mn 257.610†           313755.1      502.51 ug/L         0.652      502.51 ppb          0.652   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†             5429.4      498.73 ug/L         1.613      498.73 ppb          1.613   0.32%
   QC value within limits for Mo 202.031  Recovery = 99.75%
Na 589.592 Radial†     29618.6       10094 ug/L          86.7       10094 ppb           86.7   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 100.94%
Ni 231.604†            15900.5      507.98 ug/L         2.400      507.98 ppb          2.400   0.47%
   QC value within limits for Ni 231.604  Recovery = 101.60%
P 214.914†              4484.0      2406.0 ug/L          3.72      2406.0 ppb           3.72   0.15%
   QC value within limits for P 214.914  Recovery = 96.24%
Pb 220.353†             3099.2      501.60 ug/L         0.878      501.60 ppb          0.878   0.18%
   QC value within limits for Pb 220.353  Recovery = 100.32%
S 181.975 Axial†         779.0      1009.0 ug/L          9.13      1009.0 ppb           9.13   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 100.90%
Sb 206.836†             1241.3      521.48 ug/L         3.622      521.48 ppb          3.622   0.69%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              828.0      520.80 ug/L         2.400      520.80 ppb          2.400   0.46%
   QC value within limits for Se 196.026  Recovery = 104.16%
Si 251.611†            68612.0      2497.6 ug/L          2.11      2497.6 ppb           2.11   0.08%
   QC value within limits for Si 251.611  Recovery = 99.90%
Sn 189.927†             2104.8      496.29 ug/L         1.375      496.29 ppb          1.375   0.28%
   QC value within limits for Sn 189.927  Recovery = 99.26%
Sr 421.552†            69901.2      508.27 ug/L         4.999      508.27 ppb          4.999   0.98%
   QC value within limits for Sr 421.552  Recovery = 101.65%
Ti 334.940†           248471.5      500.52 ug/L         0.308      500.52 ppb          0.308   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.10%
Tl 190.801†             1094.1      505.78 ug/L         3.930      505.78 ppb          3.930   0.78%
   QC value within limits for Tl 190.801  Recovery = 101.16%
U 409.014†             15276.9      509.84 ug/L         1.934      509.84 ppb          1.934   0.38%
   QC value within limits for U 409.014  Recovery = 101.97%
V 292.402†             62952.6      507.96 ug/L         0.535      507.96 ppb          0.535   0.11%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            45527.3      497.40 ug/L         1.079      497.40 ppb          1.079   0.22%
   QC value within limits for Zn 213.857  Recovery = 99.48%
SiO2†                  68310.3      5307.9 ug/L         18.53      5307.9 ppb          18.53   0.35%
   QC value within limits for SiO2  Recovery = 99.26%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 14:27:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5218.0	5218.0	111	%			14:29:02
1	Y RADIAL	5544.9	5544.9	111.2	%			14:29:02
1	Al 396.153Radial†	-77.7	17.1	15.981	ug/L	15.981	ppb	14:29:22
1	Ca 317.933Radial†	26.4	1.6	2.9394	ug/L	2.9394	ppb	14:29:22
1	Fe 238.204 Radial†	6.9	-1.1	-11.400	ug/L	-11.400	ppb	14:29:22
1	K 766.490 Radial†	2305.6	-182.0	-36.259	ug/L	-36.259	ppb	14:29:02
1	Mg 279.077 IEC†	0.6	-2.4	-94.447	ug/L	-94.447	ppb	14:29:22
1	Na 589.592 Radial†	-704.6	212.2	72.333	ug/L	72.333	ppb	14:29:02
1	Sr 421.552†	28.1	25.8	0.1875	ug/L	0.1875	ppb	14:29:02
1	Sc 361.383	818015.8	818015.8	106.52	%			14:30:19
1	Y 371.029	730161.0	730161.0	105.97	%			14:30:19
1	Ag 328.068†	171.6	-94.6	-0.4967	ug/L	-0.4967	ppb	14:30:19
1	As 188.979†	-32.1	-5.1	-2.2835	ug/L	-2.2835	ppb	14:30:39
1	B 249.677†	-275.0	195.3	4.8931	ug/L	4.8931	ppb	14:30:39
1	Ba 233.527†	33.1	28.6	0.3385	ug/L	0.3385	ppb	14:30:39
1	Be 313.107†	-9561.3	6.7	0.0033	ug/L	0.0033	ppb	14:30:19
1	Cd 226.502†	-194.1	4.4	0.0659	ug/L	0.0659	ppb	14:30:39
1	Co 228.616†	-60.4	0.8	0.0227	ug/L	0.0227	ppb	14:30:39
1	Cr 267.716†	76.3	-4.0	-0.0578	ug/L	-0.0578	ppb	14:30:39
1	Cu 324.752†	7961.1	-62.4	-0.2399	ug/L	-0.2399	ppb	14:30:19
1	Mn 257.610†	462.2	-27.3	-0.0409	ug/L	-0.0409	ppb	14:30:39
1	Mo 202.031†	10.4	-4.6	-0.4211	ug/L	-0.4211	ppb	14:30:39
1	Ni 231.604†	92.0	-15.0	-0.4788	ug/L	-0.4788	ppb	14:30:39
1	P 214.914†	203.0	-4.8	-2.6490	ug/L	-2.6490	ppb	14:30:39
1	Pb 220.353†	-70.8	4.2	0.6871	ug/L	0.6871	ppb	14:30:39
1	S 181.975 Axial†	48.0	2.5	3.3025	ug/L	3.3025	ppb	14:30:39
1	Sb 206.836†	34.9	2.7	1.0817	ug/L	1.0817	ppb	14:30:39
1	Se 196.026†	-20.6	0.5	0.2706	ug/L	0.2706	ppb	14:30:39
1	Si 251.611†	641.9	13.4	0.4936	ug/L	0.4936	ppb	14:30:39
1	Sn 189.927†	1.4	-6.7	-1.5826	ug/L	-1.5826	ppb	14:30:39
1	Ti 334.940†	-1226.9	149.3	0.3043	ug/L	0.3043	ppb	14:30:19
1	Tl 190.801†	-32.6	0.6	0.2786	ug/L	0.2786	ppb	14:30:39
1	U 409.014†	-2367.3	314.4	10.530	ug/L	10.530	ppb	14:30:19
1	V 292.402†	-1671.2	59.0	0.4840	ug/L	0.4840	ppb	14:30:19
1	Zn 213.857†	768.6	11.3	0.1294	ug/L	0.1294	ppb	14:30:39
1	SiO2†	941.4	287.3	22.396	ug/L	22.396	ppb	14:31:35
2	Sc Radial	4894.3	4894.3	104	%			14:29:27
2	Y RADIAL	5151.7	5151.7	103.3	%			14:29:27
2	Al 396.153Radial†	-72.5	17.4	16.310	ug/L	16.310	ppb	14:29:47
2	Ca 317.933Radial†	30.3	7.0	12.674	ug/L	12.674	ppb	14:29:47
2	Fe 238.204 Radial†	7.3	-0.3	-2.8340	ug/L	-2.8340	ppb	14:29:47
2	K 766.490 Radial†	2376.3	23.5	4.6600	ug/L	4.6600	ppb	14:29:27
2	Mg 279.077 IEC†	-1.5	-4.3	-171.82	ug/L	-171.82	ppb	14:29:47
2	Na 589.592 Radial†	-730.3	145.5	49.591	ug/L	49.591	ppb	14:29:27
2	Sr 421.552†	47.6	46.2	0.3361	ug/L	0.3361	ppb	14:29:27
2	Sc 361.383	826087.4	826087.4	107.57	%			14:30:44
2	Y 371.029	736765.2	736765.2	106.93	%			14:30:44
2	Ag 328.068†	286.3	10.5	0.0460	ug/L	0.0460	ppb	14:30:44
2	As 188.979†	-26.6	0.3	0.1195	ug/L	0.1195	ppb	14:31:04
2	B 249.677†	-282.8	190.5	4.7711	ug/L	4.7711	ppb	14:31:04
2	Ba 233.527†	24.2	20.1	0.2383	ug/L	0.2383	ppb	14:31:04
2	Be 313.107†	-9617.7	41.9	0.0173	ug/L	0.0173	ppb	14:30:44
2	Cd 226.502†	-184.9	14.8	0.2112	ug/L	0.2112	ppb	14:31:04
2	Co 228.616†	-57.8	3.8	0.1138	ug/L	0.1138	ppb	14:31:04
2	Cr 267.716†	68.8	-11.6	-0.1624	ug/L	-0.1624	ppb	14:31:04
2	Cu 324.752†	8077.0	-27.6	-0.1094	ug/L	-0.1094	ppb	14:30:44
2	Mn 257.610†	457.6	-35.7	-0.0505	ug/L	-0.0505	ppb	14:31:04
2	Mo 202.031†	15.1	-0.4	-0.0350	ug/L	-0.0350	ppb	14:31:04
2	Ni 231.604†	82.9	-24.2	-0.7749	ug/L	-0.7749	ppb	14:31:04

2	P 214.914†	209.6	-0.5	-0.2668 ug/L	-0.2668 ppb	14:31:04
2	Pb 220.353†	-65.5	9.8	1.5802 ug/L	1.5802 ppb	14:31:04
2	S 181.975 Axial†	47.6	1.7	2.2181 ug/L	2.2181 ppb	14:31:04
2	Sb 206.836†	40.9	8.0	3.2413 ug/L	3.2413 ppb	14:31:04
2	Se 196.026†	-18.5	2.6	1.5708 ug/L	1.5708 ppb	14:31:04
2	Si 251.611†	616.6	-16.0	-0.5841 ug/L	-0.5841 ppb	14:31:04
2	Sn 189.927†	8.8	0.1	0.0315 ug/L	0.0315 ppb	14:31:04
2	Ti 334.940†	-1256.3	133.1	0.2795 ug/L	0.2795 ppb	14:30:44
2	Tl 190.801†	-31.6	1.8	0.8279 ug/L	0.8279 ppb	14:31:04
2	U 409.014†	-2397.0	308.5	10.332 ug/L	10.332 ppb	14:30:44
2	V 292.402†	-1694.5	52.7	0.4359 ug/L	0.4359 ppb	14:30:44
2	Zn 213.857†	775.3	10.4	0.1202 ug/L	0.1202 ppb	14:31:04
2	SiO2†	920.1	258.9	20.171 ug/L	20.171 ppb	14:31:40
3	Sc Radial	5105.8	5105.8	108 %		14:29:52
3	Y RADIAL	5352.2	5352.2	107.4 %		14:29:52
3	Al 396.153Radial†	-71.6	21.1	19.753 ug/L	19.753 ppb	14:30:12
3	Ca 317.933Radial†	28.4	4.0	7.3248 ug/L	7.3248 ppb	14:30:12
3	Fe 238.204 Radial†	7.6	-0.3	-3.2048 ug/L	-3.2048 ppb	14:30:12
3	K 766.490 Radial†	2357.6	-88.3	-17.604 ug/L	-17.604 ppb	14:29:52
3	Mg 279.077 IEC†	2.6	-0.5	-21.163 ug/L	-21.163 ppb	14:30:12
3	Na 589.592 Radial†	-717.6	186.3	63.493 ug/L	63.493 ppb	14:29:52
3	Sr 421.552†	26.4	24.8	0.1805 ug/L	0.1805 ppb	14:29:52
3	Sc 361.383	828191.4	828191.4	107.85 %		14:31:10
3	Y 371.029	738495.9	738495.9	107.18 %		14:31:10
3	Ag 328.068†	235.0	-37.7	-0.2027 ug/L	-0.2027 ppb	14:31:10
3	As 188.979†	-27.5	-0.4	-0.1939 ug/L	-0.1939 ppb	14:31:30
3	B 249.677†	-243.9	227.3	5.6914 ug/L	5.6914 ppb	14:31:30
3	Ba 233.527†	31.0	26.3	0.3114 ug/L	0.3114 ppb	14:31:30
3	Be 313.107†	-9667.4	18.6	0.0084 ug/L	0.0084 ppb	14:31:10
3	Cd 226.502†	-185.7	14.5	0.2072 ug/L	0.2072 ppb	14:31:30
3	Co 228.616†	-56.4	5.1	0.1535 ug/L	0.1535 ppb	14:31:30
3	Cr 267.716†	55.6	-24.0	-0.3321 ug/L	-0.3321 ppb	14:31:30
3	Cu 324.752†	8025.1	-94.9	-0.3621 ug/L	-0.3621 ppb	14:31:10
3	Mn 257.610†	526.6	27.2	0.0440 ug/L	0.0440 ppb	14:31:30
3	Mo 202.031†	10.0	-5.1	-0.4724 ug/L	-0.4724 ppb	14:31:30
3	Ni 231.604†	94.5	-13.7	-0.4386 ug/L	-0.4386 ppb	14:31:30
3	P 214.914†	202.3	-7.8	-4.2895 ug/L	-4.2895 ppb	14:31:30
3	Pb 220.353†	-68.3	7.4	1.1910 ug/L	1.1910 ppb	14:31:30
3	S 181.975 Axial†	41.9	-3.6	-4.6868 ug/L	-4.6868 ppb	14:31:30
3	Sb 206.836†	36.9	4.2	1.6841 ug/L	1.6841 ppb	14:31:30
3	Se 196.026†	-12.9	7.8	4.7720 ug/L	4.7720 ppb	14:31:30
3	Si 251.611†	677.7	39.2	1.4351 ug/L	1.4351 ppb	14:31:30
3	Sn 189.927†	6.8	-1.8	-0.4216 ug/L	-0.4216 ppb	14:31:30
3	Ti 334.940†	-1153.1	231.9	0.4648 ug/L	0.4648 ppb	14:31:10
3	Tl 190.801†	-37.2	-3.3	-1.5222 ug/L	-1.5222 ppb	14:31:30
3	U 409.014†	-2354.5	353.6	11.843 ug/L	11.843 ppb	14:31:10
3	V 292.402†	-1686.9	63.8	0.5238 ug/L	0.5238 ppb	14:31:10
3	Zn 213.857†	767.6	1.5	0.0198 ug/L	0.0198 ppb	14:31:30
3	SiO2†	850.9	192.6	15.014 ug/L	15.014 ppb	14:31:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	824098.2	107.31	%	0.699				0.65%
Sc Radial	5072.7	108	%	3.5				3.24%
Y 371.029	735140.7	106.69	%	0.638				0.60%
Y RADIAL	5349.6	107.3	%	3.94				3.67%
Ag 328.068†	-40.6	-0.2178	ug/L	0.27163	-0.2178	ppb	0.27163	124.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.5	17.348	ug/L	2.0891	17.348	ppb	2.0891	12.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-0.7860	ug/L	1.30634	-0.7860	ppb	1.30634	166.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	204.4	5.1185	ug/L	0.49985	5.1185	ppb	0.49985	9.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.0	0.2961	ug/L	0.05185	0.2961	ppb	0.05185	17.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	22.4	0.0097	ug/L	0.00705	0.0097	ppb	0.00705	72.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.2	7.6459	ug/L	4.87507	7.6459	ppb	4.87507	63.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              11.2      0.1614 ug/L       0.08279      0.1614 ppb        0.08279  51.28%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.2      0.0967 ug/L       0.06705      0.0967 ppb        0.06705  69.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.2     -0.1841 ug/L       0.13844     -0.1841 ppb        0.13844  75.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -61.6     -0.2371 ug/L       0.12639     -0.2371 ppb        0.12639  53.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.6     -5.8130 ug/L       4.84221     -5.8130 ppb        4.84221  83.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -82.3     -16.401 ug/L       20.4862     -16.401 ppb        20.4862 124.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.4     -95.811 ug/L       75.3398     -95.811 ppb        75.3398  78.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -12.0     -0.0158 ug/L       0.05201     -0.0158 ppb        0.05201 329.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.4     -0.3095 ug/L       0.23909     -0.3095 ppb        0.23909  77.24%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      181.4      61.806 ug/L       11.4646      61.806 ppb        11.4646  18.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -17.6     -0.5641 ug/L       0.18364     -0.5641 ppb        0.18364  32.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.4     -2.4018 ug/L       2.02272     -2.4018 ppb        2.02272  84.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               7.1      1.1528 ug/L       0.44776      1.1528 ppb        0.44776  38.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.2      0.2779 ug/L       4.33364      0.2779 ppb        4.33364 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.0      2.0024 ug/L       1.11439      2.0024 ppb        1.11439  55.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.6      2.2045 ug/L       2.31661      2.2045 ppb        2.31661 105.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              12.2      0.4482 ug/L       1.01036      0.4482 ppb        1.01036 225.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.8     -0.6576 ug/L       0.83250     -0.6576 ppb        0.83250 126.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              32.3      0.2347 ug/L       0.08787      0.2347 ppb        0.08787  37.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             171.4      0.3496 ug/L       0.10060      0.3496 ppb        0.10060  28.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.3     -0.1386 ug/L       1.22934     -0.1386 ppb        1.22934 887.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              325.5      10.902 ug/L        0.8213      10.902 ppb         0.8213   7.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               58.5      0.4812 ug/L       0.04400      0.4812 ppb        0.04400   9.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               7.7      0.0898 ug/L       0.06078      0.0898 ppb        0.06078  67.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   246.3      19.193 ug/L        3.7872      19.193 ppb         3.7872  19.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 15:27:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4801.6	4801.6	102	%			15:29:00
1	Y RADIAL	5070.2	5070.2	101.7	%			15:29:00
1	Al 396.153Radial†	5642.5	5618.0	5230.8	ug/L	5230.8	ppb	15:29:00
1	Ca 317.933Radial†	2986.5	2905.3	5278.7	ug/L	5278.7	ppb	15:29:20
1	Fe 238.204 Radial†	509.6	492.2	5121.6	ug/L	5121.6	ppb	15:29:20
1	K 766.490 Radial†	28651.7	25823.2	5134.5	ug/L	5134.5	ppb	15:29:00
1	Mg 279.077 IEC†	136.6	131.0	5201.6	ug/L	5201.6	ppb	15:29:20
1	Na 589.592 Radial†	25533.2	25875.8	8818.5	ug/L	8818.5	ppb	15:29:00
1	Sr 421.552†	67617.1	66279.8	481.93	ug/L	481.93	ppb	15:29:00
1	Sc 361.383	822556.0	822556.0	107.11	%			15:30:17
1	Y 371.029	727631.3	727631.3	105.60	%			15:30:17
1	Ag 328.068†	105703.6	98429.3	509.20	ug/L	509.20	ppb	15:30:22
1	As 188.979†	1190.4	1136.4	510.88	ug/L	510.88	ppb	15:30:42
1	B 249.677†	21110.4	20162.2	502.63	ug/L	502.63	ppb	15:30:22
1	Ba 233.527†	46249.5	43176.2	510.75	ug/L	510.75	ppb	15:30:22
1	Be 313.107†	1341298.8	1261220.3	502.47	ug/L	502.47	ppb	15:30:17
1	Cd 226.502†	38393.7	36031.1	510.69	ug/L	510.69	ppb	15:30:22
1	Co 228.616†	17776.8	16653.9	503.38	ug/L	503.38	ppb	15:30:42
1	Cr 267.716†	39826.5	37106.4	507.55	ug/L	507.55	ppb	15:30:22
1	Cu 324.752†	153452.9	135727.6	508.21	ug/L	508.21	ppb	15:30:22
1	Mn 257.610†	340811.0	317720.3	508.85	ug/L	508.85	ppb	15:30:22
1	Mo 202.031†	5891.9	5486.3	503.95	ug/L	503.95	ppb	15:30:42
1	Ni 231.604†	17366.5	16112.1	514.75	ug/L	514.75	ppb	15:30:22
1	P 214.914†	5058.7	4527.4	2429.1	ug/L	2429.1	ppb	15:30:42
1	Pb 220.353†	3268.4	3122.1	505.35	ug/L	505.35	ppb	15:30:42
1	S 181.975 Axial†	887.1	785.7	1017.8	ug/L	1017.8	ppb	15:30:42
1	Sb 206.836†	1382.5	1260.7	529.54	ug/L	529.54	ppb	15:30:42
1	Se 196.026†	869.8	831.9	522.97	ug/L	522.97	ppb	15:30:42
1	Si 251.611†	75208.7	69625.7	2534.5	ug/L	2534.5	ppb	15:30:22
1	Sn 189.927†	2292.3	2132.0	502.72	ug/L	502.72	ppb	15:30:42
1	Ti 334.940†	268455.2	251931.0	507.52	ug/L	507.52	ppb	15:30:22
1	Tl 190.801†	1144.1	1099.4	508.33	ug/L	508.33	ppb	15:30:42
1	U 409.014†	13959.4	15569.3	519.63	ug/L	519.63	ppb	15:30:22
1	V 292.402†	66706.9	63905.6	515.65	ug/L	515.65	ppb	15:30:22
1	Zn 213.857†	50195.6	46152.4	504.26	ug/L	504.26	ppb	15:30:22
1	SiO2†	74630.6	69078.8	5367.6	ug/L	5367.6	ppb	15:31:49
2	Sc Radial	4837.8	4837.8	103	%			15:29:25
2	Y RADIAL	5090.4	5090.4	102.1	%			15:29:25
2	Al 396.153Radial†	5668.8	5602.2	5216.4	ug/L	5216.4	ppb	15:29:25
2	Ca 317.933Radial†	2961.1	2858.6	5194.0	ug/L	5194.0	ppb	15:29:45
2	Fe 238.204 Radial†	509.8	488.6	5084.2	ug/L	5084.2	ppb	15:29:45
2	K 766.490 Radial†	28904.9	25859.6	5141.8	ug/L	5141.8	ppb	15:29:25
2	Mg 279.077 IEC†	139.3	132.6	5266.1	ug/L	5266.1	ppb	15:29:45
2	Na 589.592 Radial†	25698.2	25849.3	8809.4	ug/L	8809.4	ppb	15:29:25
2	Sr 421.552†	68146.4	66299.5	482.07	ug/L	482.07	ppb	15:29:25
2	Sc 361.383	838776.6	838776.6	109.22	%			15:30:48
2	Y 371.029	741833.5	741833.5	107.66	%			15:30:48
2	Ag 328.068†	104827.8	95719.0	495.22	ug/L	495.22	ppb	15:30:53
2	As 188.979†	1188.7	1113.3	500.47	ug/L	500.47	ppb	15:31:13
2	B 249.677†	20992.5	19673.0	490.41	ug/L	490.41	ppb	15:30:53
2	Ba 233.527†	45983.5	42097.6	497.99	ug/L	497.99	ppb	15:30:53
2	Be 313.107†	1359130.3	1253329.6	499.30	ug/L	499.30	ppb	15:30:48
2	Cd 226.502†	38214.7	35173.9	498.53	ug/L	498.53	ppb	15:30:53
2	Co 228.616†	17755.0	16313.0	493.09	ug/L	493.09	ppb	15:31:13
2	Cr 267.716†	39700.5	36272.1	496.14	ug/L	496.14	ppb	15:30:53
2	Cu 324.752†	152286.2	131888.9	493.84	ug/L	493.84	ppb	15:30:53
2	Mn 257.610†	338804.1	309729.8	496.05	ug/L	496.05	ppb	15:30:53
2	Mo 202.031†	5910.4	5396.8	495.73	ug/L	495.73	ppb	15:31:13
2	Ni 231.604†	17323.1	15758.8	503.46	ug/L	503.46	ppb	15:30:53

2	P 214.914†	5073.0	4449.2	2388.2 ug/L	2388.2 ppb	15:31:13
2	Pb 220.353†	3277.7	3071.6	497.18 ug/L	497.18 ppb	15:31:13
2	S 181.975 Axial†	883.2	766.1	992.31 ug/L	992.31 ppb	15:31:13
2	Sb 206.836†	1383.6	1236.7	519.46 ug/L	519.46 ppb	15:31:13
2	Se 196.026†	876.5	822.3	516.95 ug/L	516.95 ppb	15:31:13
2	Si 251.611†	74662.4	67767.7	2466.8 ug/L	2466.8 ppb	15:30:53
2	Sn 189.927†	2278.9	2078.4	490.08 ug/L	490.08 ppb	15:31:13
2	Ti 334.940†	266477.0	245273.1	494.10 ug/L	494.10 ppb	15:30:53
2	Tl 190.801†	1146.3	1080.7	499.64 ug/L	499.64 ppb	15:31:13
2	U 409.014†	13588.9	14978.1	499.86 ug/L	499.86 ppb	15:30:53
2	V 292.402†	66251.0	62283.9	502.61 ug/L	502.61 ppb	15:30:53
2	Zn 213.857†	49879.3	44956.5	491.17 ug/L	491.17 ppb	15:30:53
2	SiO2†	74730.2	67822.5	5270.0 ug/L	5270.0 ppb	15:31:54
3	Sc Radial	4902.5	4902.5	104 %		15:29:50
3	Y RADIAL	5171.3	5171.3	103.7 %		15:29:50
3	Al 396.153Radial†	5673.2	5533.7	5151.8 ug/L	5151.8 ppb	15:29:50
3	Ca 317.933Radial†	2992.0	2850.3	5178.8 ug/L	5178.8 ppb	15:30:10
3	Fe 238.204 Radial†	510.6	482.8	5024.6 ug/L	5024.6 ppb	15:30:10
3	K 766.490 Radial†	29135.8	25710.3	5112.0 ug/L	5112.0 ppb	15:29:50
3	Mg 279.077 IEC†	143.0	134.4	5336.1 ug/L	5336.1 ppb	15:30:10
3	Na 589.592 Radial†	25947.8	25759.2	8778.7 ug/L	8778.7 ppb	15:29:50
3	Sr 421.552†	68568.7	65830.3	478.66 ug/L	478.66 ppb	15:29:50
3	Sc 361.383	822814.3	822814.3	107.15 %		15:31:18
3	Y 371.029	728686.5	728686.5	105.75 %		15:31:18
3	Ag 328.068†	106159.5	98823.8	511.21 ug/L	511.21 ppb	15:31:24
3	As 188.979†	1197.3	1142.5	513.57 ug/L	513.57 ppb	15:31:44
3	B 249.677†	21320.3	20351.9	507.38 ug/L	507.38 ppb	15:31:24
3	Ba 233.527†	46537.4	43431.3	513.76 ug/L	513.76 ppb	15:31:24
3	Be 313.107†	1341588.7	1261097.7	502.42 ug/L	502.42 ppb	15:31:18
3	Cd 226.502†	38639.4	36249.1	513.79 ug/L	513.79 ppb	15:31:24
3	Co 228.616†	17881.3	16746.2	506.17 ug/L	506.17 ppb	15:31:44
3	Cr 267.716†	40120.6	37369.2	511.14 ug/L	511.14 ppb	15:31:24
3	Cu 324.752†	154209.7	136389.0	510.68 ug/L	510.68 ppb	15:31:24
3	Mn 257.610†	342521.9	319217.2	511.23 ug/L	511.23 ppb	15:31:24
3	Mo 202.031†	5930.7	5520.8	507.10 ug/L	507.10 ppb	15:31:44
3	Ni 231.604†	17489.5	16221.7	518.25 ug/L	518.25 ppb	15:31:24
3	P 214.914†	5124.5	4587.4	2462.2 ug/L	2462.2 ppb	15:31:44
3	Pb 220.353†	3286.8	3138.3	507.95 ug/L	507.95 ppb	15:31:44
3	S 181.975 Axial†	895.4	793.2	1027.4 ug/L	1027.4 ppb	15:31:44
3	Sb 206.836†	1383.8	1261.5	529.97 ug/L	529.97 ppb	15:31:44
3	Se 196.026†	874.9	836.4	525.48 ug/L	525.48 ppb	15:31:44
3	Si 251.611†	75446.0	69825.1	2541.7 ug/L	2541.7 ppb	15:31:24
3	Sn 189.927†	2306.0	2144.1	505.57 ug/L	505.57 ppb	15:31:44
3	Ti 334.940†	269531.0	252856.4	509.36 ug/L	509.36 ppb	15:31:24
3	Tl 190.801†	1147.4	1102.1	509.57 ug/L	509.57 ppb	15:31:44
3	U 409.014†	13914.5	15523.3	518.10 ug/L	518.10 ppb	15:31:24
3	V 292.402†	66891.2	64058.1	516.92 ug/L	516.92 ppb	15:31:24
3	Zn 213.857†	50453.9	46378.8	506.75 ug/L	506.75 ppb	15:31:24
3	SiO2†	74915.8	69323.1	5386.6 ug/L	5386.6 ppb	15:31:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828049.0	107.83	%	1.210				1.12%
Sc Radial	4847.3	103	%	1.1				1.05%
Y 371.029	732717.1	106.34	%	1.148				1.08%
Y RADIAL	5110.6	102.5	%	1.07				1.05%
Ag 328.068†	97657.4	505.21	ug/L	8.709	505.21	ppb	8.709	1.72%
QC value within limits for Ag 328.068 Recovery = 101.04%								
Al 396.153Radial†	5584.6	5199.6	ug/L	42.07	5199.6	ppb	42.07	0.81%
QC value within limits for Al 396.153Radial Recovery = 103.99%								
As 188.979†	1130.7	508.31	ug/L	6.915	508.31	ppb	6.915	1.36%
QC value within limits for As 188.979 Recovery = 101.66%								
B 249.677†	20062.4	500.14	ug/L	8.754	500.14	ppb	8.754	1.75%
QC value within limits for B 249.677 Recovery = 100.03%								
Ba 233.527†	42901.7	507.50	ug/L	8.370	507.50	ppb	8.370	1.65%
QC value within limits for Ba 233.527 Recovery = 101.50%								
Be 313.107†	1258549.2	501.39	ug/L	1.816	501.39	ppb	1.816	0.36%
QC value within limits for Be 313.107 Recovery = 100.28%								
Ca 317.933Radial†	2871.4	5217.2	ug/L	53.84	5217.2	ppb	53.84	1.03%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.34%
Cd 226.502†            35818.0      507.67 ug/L         8.066      507.67 ppb          8.066   1.59%
   QC value within limits for Cd 226.502  Recovery = 101.53%
Co 228.616†            16571.0      500.88 ug/L         6.892      500.88 ppb          6.892   1.38%
   QC value within limits for Co 228.616  Recovery = 100.18%
Cr 267.716†            36915.9      504.95 ug/L         7.833      504.95 ppb          7.833   1.55%
   QC value within limits for Cr 267.716  Recovery = 100.99%
Cu 324.752†           134668.5      504.24 ug/L         9.092      504.24 ppb          9.092   1.80%
   QC value within limits for Cu 324.752  Recovery = 100.85%
Fe 238.204 Radial†       487.9      5076.8 ug/L        48.93      5076.8 ppb          48.93   0.96%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.54%
K 766.490 Radial†      25797.7      5129.4 ug/L        15.49      5129.4 ppb          15.49   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 102.59%
Mg 279.077 IEC†          132.7      5267.9 ug/L        67.27      5267.9 ppb          67.27   1.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.36%
Mn 257.610†           315555.8      505.37 ug/L         8.162      505.37 ppb          8.162   1.62%
   QC value within limits for Mn 257.610  Recovery = 101.07%
Mo 202.031†             5468.0      502.26 ug/L         5.870      502.26 ppb          5.870   1.17%
   QC value within limits for Mo 202.031  Recovery = 100.45%
Na 589.592 Radial†     25828.1      8802.2 ug/L        20.84      8802.2 ppb          20.84   0.24%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 88.02%
Ni 231.604†            16030.9      512.16 ug/L         7.730      512.16 ppb          7.730   1.51%
   QC value within limits for Ni 231.604  Recovery = 102.43%
P 214.914†              4521.3      2426.5 ug/L        37.07      2426.5 ppb          37.07   1.53%
   QC value within limits for P 214.914  Recovery = 97.06%
Pb 220.353†             3110.7      503.49 ug/L         5.618      503.49 ppb          5.618   1.12%
   QC value within limits for Pb 220.353  Recovery = 100.70%
S 181.975 Axial†         781.7      1012.5 ug/L        18.13      1012.5 ppb          18.13   1.79%
   QC value within limits for S 181.975 Axial  Recovery = 101.25%
Sb 206.836†             1252.9      526.32 ug/L         5.948      526.32 ppb          5.948   1.13%
   QC value within limits for Sb 206.836  Recovery = 105.26%
Se 196.026†              830.2      521.80 ug/L         4.383      521.80 ppb          4.383   0.84%
   QC value within limits for Se 196.026  Recovery = 104.36%
Si 251.611†            69072.8      2514.3 ug/L        41.33      2514.3 ppb          41.33   1.64%
   QC value within limits for Si 251.611  Recovery = 100.57%
Sn 189.927†             2118.2      499.46 ug/L         8.241      499.46 ppb          8.241   1.65%
   QC value within limits for Sn 189.927  Recovery = 99.89%
Sr 421.552†            66136.5      480.89 ug/L         1.930      480.89 ppb          1.930   0.40%
   QC value within limits for Sr 421.552  Recovery = 96.18%
Ti 334.940†           250020.2      503.66 ug/L         8.330      503.66 ppb          8.330   1.65%
   QC value within limits for Ti 334.940  Recovery = 100.73%
Tl 190.801†             1094.0      505.85 ug/L         5.415      505.85 ppb          5.415   1.07%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†             15356.9      512.53 ug/L        10.997      512.53 ppb         10.997   2.15%
   QC value within limits for U 409.014  Recovery = 102.51%
V 292.402†             63415.8      511.72 ug/L         7.922      511.72 ppb          7.922   1.55%
   QC value within limits for V 292.402  Recovery = 102.34%
Zn 213.857†            45829.2      500.72 ug/L         8.369      500.72 ppb          8.369   1.67%
   QC value within limits for Zn 213.857  Recovery = 100.14%
SiO2†                  68741.5      5341.4 ug/L        62.56      5341.4 ppb          62.56   1.17%
   QC value within limits for SiO2  Recovery = 99.89%
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 15:34:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4944.1	4944.1	105	%			15:36:02
1	Y RADIAL	5213.5	5213.5	104.6	%			15:36:02
1	Al 396.153Radial†	-67.3	23.0	21.558	ug/L	21.558	ppb	15:36:22
1	Ca 317.933Radial†	31.1	7.5	13.594	ug/L	13.594	ppb	15:36:22
1	Fe 238.204 Radial†	7.9	0.2	1.7148	ug/L	1.7148	ppb	15:36:22
1	K 766.490 Radial†	2200.8	-166.6	-33.181	ug/L	-33.181	ppb	15:36:02
1	Mg 279.077 IEC†	4.6	1.5	57.937	ug/L	57.937	ppb	15:36:22
1	Na 589.592 Radial†	-727.5	155.3	52.913	ug/L	52.913	ppb	15:36:02
1	Sr 421.552†	29.0	28.1	0.2040	ug/L	0.2040	ppb	15:36:02
1	Sc 361.383	805254.2	805254.2	104.86	%			15:37:19
1	Y 371.029	724298.2	724298.2	105.12	%			15:37:19
1	Ag 328.068†	222.3	-43.7	-0.2332	ug/L	-0.2332	ppb	15:37:19
1	As 188.979†	-27.1	-0.8	-0.3630	ug/L	-0.3630	ppb	15:37:39
1	B 249.677†	-243.3	221.4	5.5438	ug/L	5.5438	ppb	15:37:39
1	Ba 233.527†	17.3	14.1	0.1668	ug/L	0.1668	ppb	15:37:39
1	Be 313.107†	-9377.4	39.8	0.0166	ug/L	0.0166	ppb	15:37:19
1	Cd 226.502†	-192.2	3.4	0.0499	ug/L	0.0499	ppb	15:37:39
1	Co 228.616†	-53.8	6.2	0.1850	ug/L	0.1850	ppb	15:37:39
1	Cr 267.716†	78.6	-0.7	-0.0135	ug/L	-0.0135	ppb	15:37:39
1	Cu 324.752†	7769.0	-127.2	-0.4829	ug/L	-0.4829	ppb	15:37:19
1	Mn 257.610†	465.1	-17.6	-0.0304	ug/L	-0.0304	ppb	15:37:39
1	Mo 202.031†	7.2	-7.5	-0.6882	ug/L	-0.6882	ppb	15:37:39
1	Ni 231.604†	92.6	-13.1	-0.4177	ug/L	-0.4177	ppb	15:37:39
1	P 214.914†	208.2	3.2	1.8848	ug/L	1.8848	ppb	15:37:39
1	Pb 220.353†	-61.5	12.0	1.9461	ug/L	1.9461	ppb	15:37:39
1	S 181.975 Axial†	44.9	0.3	0.3998	ug/L	0.3998	ppb	15:37:39
1	Sb 206.836†	34.9	3.2	1.2801	ug/L	1.2801	ppb	15:37:39
1	Se 196.026†	-14.9	5.6	3.4245	ug/L	3.4245	ppb	15:37:39
1	Si 251.611†	614.9	-2.8	-0.0948	ug/L	-0.0948	ppb	15:37:39
1	Sn 189.927†	6.4	-1.9	-0.4515	ug/L	-0.4515	ppb	15:37:39
1	Ti 334.940†	-1194.9	161.5	0.3172	ug/L	0.3172	ppb	15:37:19
1	Tl 190.801†	-23.7	8.6	3.9587	ug/L	3.9587	ppb	15:37:39
1	U 409.014†	-2282.4	360.2	12.061	ug/L	12.061	ppb	15:37:19
1	V 292.402†	-1678.5	27.3	0.2311	ug/L	0.2311	ppb	15:37:19
1	Zn 213.857†	766.5	20.7	0.2312	ug/L	0.2312	ppb	15:37:39
1	SiO2†	632.6	6.8	0.5505	ug/L	0.5505	ppb	15:38:35
2	Sc Radial	4836.5	4836.5	103	%			15:36:27
2	Y RADIAL	5126.6	5126.6	102.8	%			15:36:27
2	Al 396.153Radial†	-72.1	16.9	15.834	ug/L	15.834	ppb	15:36:48
2	Ca 317.933Radial†	27.3	4.4	8.0472	ug/L	8.0472	ppb	15:36:48
2	Fe 238.204 Radial†	8.0	0.5	5.1872	ug/L	5.1872	ppb	15:36:48
2	K 766.490 Radial†	2370.7	45.4	9.0223	ug/L	9.0223	ppb	15:36:27
2	Mg 279.077 IEC†	3.7	0.7	28.603	ug/L	28.603	ppb	15:36:48
2	Na 589.592 Radial†	-704.7	162.1	55.231	ug/L	55.231	ppb	15:36:27
2	Sr 421.552†	3.5	3.9	0.0281	ug/L	0.0281	ppb	15:36:27
2	Sc 361.383	810766.0	810766.0	105.58	%			15:37:45
2	Y 371.029	731028.7	731028.7	106.09	%			15:37:45
2	Ag 328.068†	255.7	-13.5	-0.0782	ug/L	-0.0782	ppb	15:37:45
2	As 188.979†	-32.5	-5.8	-2.5812	ug/L	-2.5812	ppb	15:38:05
2	B 249.677†	-277.8	190.3	4.7638	ug/L	4.7638	ppb	15:38:05
2	Ba 233.527†	-8.1	-10.1	-0.1184	ug/L	-0.1184	ppb	15:38:05
2	Be 313.107†	-9420.6	59.7	0.0246	ug/L	0.0246	ppb	15:37:45
2	Cd 226.502†	-183.3	13.0	0.1860	ug/L	0.1860	ppb	15:38:05
2	Co 228.616†	-56.1	4.3	0.1295	ug/L	0.1295	ppb	15:38:05
2	Cr 267.716†	67.1	-12.1	-0.1702	ug/L	-0.1702	ppb	15:38:05
2	Cu 324.752†	7830.9	-118.9	-0.4521	ug/L	-0.4521	ppb	15:37:45
2	Mn 257.610†	459.2	-26.2	-0.0426	ug/L	-0.0426	ppb	15:38:05
2	Mo 202.031†	11.4	-3.6	-0.3290	ug/L	-0.3290	ppb	15:38:05
2	Ni 231.604†	75.8	-29.6	-0.9448	ug/L	-0.9448	ppb	15:38:05

2	P 214.914†	211.1	4.6	2.6403 ug/L	2.6403 ppb	15:38:05
2	Pb 220.353†	-70.1	4.3	0.6935 ug/L	0.6935 ppb	15:38:05
2	S 181.975 Axial†	40.6	-4.0	-5.2264 ug/L	-5.2264 ppb	15:38:05
2	Sb 206.836†	39.8	7.7	3.0765 ug/L	3.0765 ppb	15:38:05
2	Se 196.026†	-16.8	3.9	2.4270 ug/L	2.4270 ppb	15:38:05
2	Si 251.611†	608.3	-13.0	-0.4713 ug/L	-0.4713 ppb	15:38:05
2	Sn 189.927†	2.0	-6.2	-1.4509 ug/L	-1.4509 ppb	15:38:05
2	Ti 334.940†	-1183.1	180.4	0.3566 ug/L	0.3566 ppb	15:37:45
2	Tl 190.801†	-28.6	4.1	1.8840 ug/L	1.8840 ppb	15:38:05
2	U 409.014†	-2259.9	396.3	13.271 ug/L	13.271 ppb	15:37:45
2	V 292.402†	-1700.8	17.1	0.1560 ug/L	0.1560 ppb	15:37:45
2	Zn 213.857†	779.1	27.6	0.3105 ug/L	0.3105 ppb	15:38:05
2	SiO2†	621.9	-7.4	-0.5681 ug/L	-0.5681 ppb	15:38:40
3	Sc Radial	4983.4	4983.4	106 %		15:36:53
3	Y RADIAL	5296.6	5296.6	106.2 %		15:36:53
3	Al 396.153Radial†	-71.1	20.0	18.691 ug/L	18.691 ppb	15:37:13
3	Ca 317.933Radial†	27.5	3.8	6.9040 ug/L	6.9040 ppb	15:37:13
3	Fe 238.204 Radial†	8.4	0.6	6.5314 ug/L	6.5314 ppb	15:37:13
3	K 766.490 Radial†	2155.9	-225.5	-44.908 ug/L	-44.908 ppb	15:36:53
3	Mg 279.077 IEC†	1.1	-1.8	-72.404 ug/L	-72.404 ppb	15:37:13
3	Na 589.592 Radial†	-695.0	191.4	65.213 ug/L	65.213 ppb	15:36:53
3	Sr 421.552†	24.7	23.8	0.1731 ug/L	0.1731 ppb	15:36:53
3	Sc 361.383	806979.5	806979.5	105.08 %		15:38:10
3	Y 371.029	725892.3	725892.3	105.35 %		15:38:10
3	Ag 328.068†	189.7	-75.2	-0.3892 ug/L	-0.3892 ppb	15:38:10
3	As 188.979†	-28.2	-1.8	-0.7959 ug/L	-0.7959 ppb	15:38:30
3	B 249.677†	-261.3	204.8	5.1269 ug/L	5.1269 ppb	15:38:30
3	Ba 233.527†	13.9	10.8	0.1287 ug/L	0.1287 ppb	15:38:30
3	Be 313.107†	-9310.1	122.9	0.0492 ug/L	0.0492 ppb	15:38:10
3	Cd 226.502†	-190.3	5.5	0.0794 ug/L	0.0794 ppb	15:38:30
3	Co 228.616†	-51.3	8.6	0.2615 ug/L	0.2615 ppb	15:38:30
3	Cr 267.716†	78.5	-0.9	-0.0141 ug/L	-0.0141 ppb	15:38:30
3	Cu 324.752†	7761.5	-150.1	-0.5659 ug/L	-0.5659 ppb	15:38:10
3	Mn 257.610†	498.7	13.5	0.0252 ug/L	0.0252 ppb	15:38:30
3	Mo 202.031†	19.2	3.9	0.3558 ug/L	0.3558 ppb	15:38:30
3	Ni 231.604†	106.3	-0.2	-0.0063 ug/L	-0.0063 ppb	15:38:30
3	P 214.914†	199.6	-5.4	-2.9000 ug/L	-2.9000 ppb	15:38:30
3	Pb 220.353†	-60.0	13.6	2.1959 ug/L	2.1959 ppb	15:38:30
3	S 181.975 Axial†	44.0	-0.7	-0.8773 ug/L	-0.8773 ppb	15:38:30
3	Sb 206.836†	30.9	-0.6	-0.2455 ug/L	-0.2455 ppb	15:38:30
3	Se 196.026†	-19.3	1.4	0.8864 ug/L	0.8864 ppb	15:38:30
3	Si 251.611†	602.2	-16.2	-0.5937 ug/L	-0.5937 ppb	15:38:30
3	Sn 189.927†	7.7	-0.8	-0.1771 ug/L	-0.1771 ppb	15:38:30
3	Ti 334.940†	-1293.6	70.0	0.1446 ug/L	0.1446 ppb	15:38:10
3	Tl 190.801†	-30.0	2.7	1.2377 ug/L	1.2377 ppb	15:38:30
3	U 409.014†	-2431.4	223.0	7.4673 ug/L	7.4673 ppb	15:38:10
3	V 292.402†	-1658.6	49.7	0.4122 ug/L	0.4122 ppb	15:38:10
3	Zn 213.857†	777.0	29.2	0.3214 ug/L	0.3214 ppb	15:38:30
3	SiO2†	627.2	0.4	0.0238 ug/L	0.0238 ppb	15:38:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807666.5	105.17	%	0.367				0.35%
Sc Radial	4921.3	105	%	1.6				1.55%
Y 371.029	727073.1	105.52	%	0.510				0.48%
Y RADIAL	5212.2	104.5	%	1.71				1.63%
Ag 328.068†	-44.1	-0.2335	ug/L	0.15546	-0.2335	ppb	0.15546	66.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.0	18.694	ug/L	2.8623	18.694	ppb	2.8623	15.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.2467	ug/L	1.17579	-1.2467	ppb	1.17579	94.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	205.5	5.1448	ug/L	0.39033	5.1448	ppb	0.39033	7.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.9	0.0591	ug/L	0.15484	0.0591	ppb	0.15484	262.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	74.1	0.0301	ug/L	0.01701	0.0301	ppb	0.01701	56.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.2	9.5150	ug/L	3.57827	9.5150	ppb	3.57827	37.61%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.3      0.1051 ug/L       0.07159      0.1051 ppb        0.07159  68.12%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.4      0.1920 ug/L       0.06630      0.1920 ppb        0.06630  34.53%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -4.5     -0.0659 ug/L       0.09030     -0.0659 ppb        0.09030 136.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -132.1     -0.5003 ug/L       0.05884     -0.5003 ppb        0.05884  11.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.4      4.4778 ug/L       2.48545      4.4778 ppb        2.48545  55.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -115.5     -23.022 ug/L       28.3639     -23.022 ppb        28.3639 123.20%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.1      4.7118 ug/L      68.37614      4.7118 ppb       68.37614 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -10.1     -0.0160 ug/L       0.03614     -0.0160 ppb        0.03614 226.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -2.4     -0.2204 ug/L       0.53041     -0.2204 ppb        0.53041 240.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       169.6      57.786 ug/L        6.5356      57.786 ppb         6.5356  11.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.3     -0.4563 ug/L       0.47043     -0.4563 ppb        0.47043 103.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.8      0.5417 ug/L       3.00443      0.5417 ppb        3.00443 554.65%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               10.0      1.6119 ug/L       0.80503      1.6119 ppb        0.80503  49.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.5     -1.9013 ug/L       2.94957     -1.9013 ppb        2.94957 155.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.4      1.3704 ug/L       1.66281      1.3704 ppb        1.66281 121.34%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.6      2.2460 ug/L       1.27874      2.2460 ppb        1.27874  56.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -10.7     -0.3866 ug/L       0.26004     -0.3866 ppb        0.26004  67.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.9     -0.6931 ug/L       0.67043     -0.6931 ppb        0.67043  96.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               18.6      0.1350 ug/L       0.09392      0.1350 ppb        0.09392  69.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              137.3      0.2728 ug/L       0.11274      0.2728 ppb        0.11274  41.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.1      2.3601 ug/L       1.42158      2.3601 ppb        1.42158  60.23%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               326.5      10.933 ug/L        3.0618      10.933 ppb         3.0618  28.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                31.3      0.2664 ug/L       0.13170      0.2664 ppb        0.13170  49.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               25.8      0.2877 ug/L       0.04920      0.2877 ppb        0.04920  17.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -0.1      0.0020 ug/L       0.55963      0.0020 ppb        0.55963 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 16:37:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4963.4	4963.4	105	%			16:39:36
1	Y RADIAL	5241.2	5241.2	105.1	%			16:39:36
1	Al 396.153Radial†	5697.0	5489.4	5110.2	ug/L	5110.2	ppb	16:39:36
1	Ca 317.933Radial†	3020.5	2842.1	5164.0	ug/L	5164.0	ppb	16:39:56
1	Fe 238.204 Radial†	534.8	499.8	5201.7	ug/L	5201.7	ppb	16:39:56
1	K 766.490 Radial†	29336.9	25557.9	5081.3	ug/L	5081.3	ppb	16:39:36
1	Mg 279.077 IEC†	146.6	136.1	5405.1	ug/L	5405.1	ppb	16:39:56
1	Na 589.592 Radial†	29502.5	28824.4	9823.3	ug/L	9823.3	ppb	16:39:36
1	Sr 421.552†	72525.2	68774.6	500.07	ug/L	500.07	ppb	16:39:36
1	Sc 361.383	820799.0	820799.0	106.88	%			16:40:53
1	Y 371.029	727017.8	727017.8	105.51	%			16:40:53
1	Ag 328.068†	107664.2	100474.9	519.79	ug/L	519.79	ppb	16:40:58
1	As 188.979†	1193.5	1141.6	513.29	ug/L	513.29	ppb	16:41:18
1	B 249.677†	21347.4	20426.0	509.14	ug/L	509.14	ppb	16:40:58
1	Ba 233.527†	47150.2	44111.3	521.81	ug/L	521.81	ppb	16:40:58
1	Be 313.107†	1358559.4	1280049.8	509.97	ug/L	509.97	ppb	16:40:53
1	Cd 226.502†	39110.1	36778.0	521.28	ug/L	521.28	ppb	16:40:58
1	Co 228.616†	18693.6	17547.2	530.37	ug/L	530.37	ppb	16:40:58
1	Cr 267.716†	40719.8	38021.8	520.08	ug/L	520.08	ppb	16:40:58
1	Cu 324.752†	156357.9	138752.2	519.53	ug/L	519.53	ppb	16:40:58
1	Mn 257.610†	347203.3	324382.0	519.51	ug/L	519.51	ppb	16:40:58
1	Mo 202.031†	5958.9	5560.8	510.79	ug/L	510.79	ppb	16:41:18
1	Ni 231.604†	17683.6	16443.4	525.33	ug/L	525.33	ppb	16:40:58
1	P 214.914†	5110.4	4585.9	2459.4	ug/L	2459.4	ppb	16:41:18
1	Pb 220.353†	3316.2	3173.4	513.58	ug/L	513.58	ppb	16:41:18
1	S 181.975 Axial†	886.7	787.1	1019.5	ug/L	1019.5	ppb	16:41:18
1	Sb 206.836†	1390.6	1271.0	533.91	ug/L	533.91	ppb	16:41:18
1	Se 196.026†	875.6	839.0	527.50	ug/L	527.50	ppb	16:41:18
1	Si 251.611†	76459.3	70946.0	2582.6	ug/L	2582.6	ppb	16:40:58
1	Sn 189.927†	2290.5	2134.9	503.38	ug/L	503.38	ppb	16:41:18
1	Ti 334.940†	273384.7	257079.5	517.85	ug/L	517.85	ppb	16:40:58
1	Tl 190.801†	1140.8	1098.5	507.93	ug/L	507.93	ppb	16:41:18
1	U 409.014†	14120.7	15748.1	525.58	ug/L	525.58	ppb	16:40:58
1	V 292.402†	68114.7	65356.0	527.28	ug/L	527.28	ppb	16:40:58
1	Zn 213.857†	51091.3	47090.7	514.51	ug/L	514.51	ppb	16:40:58
1	SiO2†	74325.3	68942.3	5356.8	ug/L	5356.8	ppb	16:42:25
2	Sc Radial	4977.3	4977.3	106	%			16:40:01
2	Y RADIAL	5243.9	5243.9	105.2	%			16:40:01
2	Al 396.153Radial†	5735.1	5510.4	5129.4	ug/L	5129.4	ppb	16:40:01
2	Ca 317.933Radial†	3035.9	2848.7	5175.9	ug/L	5175.9	ppb	16:40:21
2	Fe 238.204 Radial†	539.4	502.8	5232.4	ug/L	5232.4	ppb	16:40:21
2	K 766.490 Radial†	29460.6	25597.1	5089.1	ug/L	5089.1	ppb	16:40:01
2	Mg 279.077 IEC†	142.7	132.0	5241.9	ug/L	5241.9	ppb	16:40:21
2	Na 589.592 Radial†	29624.4	28861.5	9836.0	ug/L	9836.0	ppb	16:40:01
2	Sr 421.552†	72779.9	68823.2	500.43	ug/L	500.43	ppb	16:40:01
2	Sc 361.383	808760.3	808760.3	105.32	%			16:41:24
2	Y 371.029	716988.4	716988.4	104.06	%			16:41:24
2	Ag 328.068†	106072.4	100462.8	519.74	ug/L	519.74	ppb	16:41:29
2	As 188.979†	1192.5	1157.4	520.31	ug/L	520.31	ppb	16:41:49
2	B 249.677†	21085.7	20474.9	510.35	ug/L	510.35	ppb	16:41:29
2	Ba 233.527†	46610.5	44255.5	523.52	ug/L	523.52	ppb	16:41:29
2	Be 313.107†	1344452.2	1285575.0	512.17	ug/L	512.17	ppb	16:41:24
2	Cd 226.502†	38764.7	36994.7	524.35	ug/L	524.35	ppb	16:41:29
2	Co 228.616†	18536.5	17658.3	533.74	ug/L	533.74	ppb	16:41:29
2	Cr 267.716†	40330.4	38219.1	522.78	ug/L	522.78	ppb	16:41:29
2	Cu 324.752†	154006.7	138697.2	519.33	ug/L	519.33	ppb	16:41:29
2	Mn 257.610†	343391.2	325597.8	521.46	ug/L	521.46	ppb	16:41:29
2	Mo 202.031†	5949.6	5634.9	517.60	ug/L	517.60	ppb	16:41:49
2	Ni 231.604†	17519.2	16533.6	528.21	ug/L	528.21	ppb	16:41:29

2	P 214.914†	5126.3	4672.2	2507.7 ug/L	2507.7 ppb	16:41:49
2	Pb 220.353†	3294.6	3199.0	517.74 ug/L	517.74 ppb	16:41:49
2	S 181.975 Axial†	891.2	803.7	1041.1 ug/L	1041.1 ppb	16:41:49
2	Sb 206.836†	1381.3	1281.5	538.49 ug/L	538.49 ppb	16:41:49
2	Se 196.026†	874.6	850.2	534.47 ug/L	534.47 ppb	16:41:49
2	Si 251.611†	75494.7	71095.0	2587.9 ug/L	2587.9 ppb	16:41:29
2	Sn 189.927†	2312.3	2187.5	515.76 ug/L	515.76 ppb	16:41:49
2	Ti 334.940†	269828.7	257510.4	518.74 ug/L	518.74 ppb	16:41:29
2	Tl 190.801†	1159.1	1131.8	523.20 ug/L	523.20 ppb	16:41:49
2	U 409.014†	13746.5	15589.5	520.26 ug/L	520.26 ppb	16:41:29
2	V 292.402†	67241.7	65475.7	528.31 ug/L	528.31 ppb	16:41:29
2	Zn 213.857†	50654.6	47387.6	517.77 ug/L	517.77 ppb	16:41:29
2	SiO2†	75893.0	71466.0	5553.2 ug/L	5553.2 ppb	16:42:30
3	Sc Radial	4959.5	4959.5	105 %		16:40:26
3	Y RADIAL	5212.3	5212.3	104.6 %		16:40:26
3	Al 396.153Radial†	5710.2	5506.2	5125.8 ug/L	5125.8 ppb	16:40:26
3	Ca 317.933Radial†	3036.1	2859.2	5195.0 ug/L	5195.0 ppb	16:40:46
3	Fe 238.204 Radial†	542.7	507.7	5283.0 ug/L	5283.0 ppb	16:40:46
3	K 766.490 Radial†	29375.5	25616.3	5092.9 ug/L	5092.9 ppb	16:40:26
3	Mg 279.077 IEC†	143.8	133.6	5305.2 ug/L	5305.2 ppb	16:40:46
3	Na 589.592 Radial†	29753.4	29084.3	9911.9 ug/L	9911.9 ppb	16:40:26
3	Sr 421.552†	72982.9	69262.7	503.62 ug/L	503.62 ppb	16:40:26
3	Sc 361.383	816327.2	816327.2	106.30 %		16:41:55
3	Y 371.029	721896.3	721896.3	104.77 %		16:41:55
3	Ag 328.068†	104916.9	98442.2	509.33 ug/L	509.33 ppb	16:42:00
3	As 188.979†	1203.5	1157.2	520.16 ug/L	520.16 ppb	16:42:20
3	B 249.677†	20841.6	20059.6	499.98 ug/L	499.98 ppb	16:42:00
3	Ba 233.527†	46125.0	43388.5	513.26 ug/L	513.26 ppb	16:42:00
3	Be 313.107†	1349906.8	1278872.9	509.48 ug/L	509.48 ppb	16:41:55
3	Cd 226.502†	38399.1	36309.6	514.62 ug/L	514.62 ppb	16:42:00
3	Co 228.616†	18320.2	17291.8	522.67 ug/L	522.67 ppb	16:42:00
3	Cr 267.716†	39761.9	37329.4	510.61 ug/L	510.61 ppb	16:42:00
3	Cu 324.752†	151204.8	134705.9	504.39 ug/L	504.39 ppb	16:42:00
3	Mn 257.610†	338997.0	318441.6	510.01 ug/L	510.01 ppb	16:42:00
3	Mo 202.031†	5932.5	5566.5	511.32 ug/L	511.32 ppb	16:42:20
3	Ni 231.604†	17290.7	16164.5	516.41 ug/L	516.41 ppb	16:42:00
3	P 214.914†	5095.0	4597.6	2469.0 ug/L	2469.0 ppb	16:42:20
3	Pb 220.353†	3301.6	3176.6	514.12 ug/L	514.12 ppb	16:42:20
3	S 181.975 Axial†	890.8	795.5	1030.4 ug/L	1030.4 ppb	16:42:20
3	Sb 206.836†	1376.3	1264.7	531.44 ug/L	531.44 ppb	16:42:20
3	Se 196.026†	887.6	854.8	537.35 ug/L	537.35 ppb	16:42:20
3	Si 251.611†	74307.9	69314.0	2523.0 ug/L	2523.0 ppb	16:42:00
3	Sn 189.927†	2299.6	2155.3	508.17 ug/L	508.17 ppb	16:42:20
3	Ti 334.940†	266240.5	251760.0	507.15 ug/L	507.15 ppb	16:42:00
3	Tl 190.801†	1144.6	1107.9	512.17 ug/L	512.17 ppb	16:42:20
3	U 409.014†	13565.0	15297.7	510.51 ug/L	510.51 ppb	16:42:00
3	V 292.402†	66352.0	64046.9	516.84 ug/L	516.84 ppb	16:42:00
3	Zn 213.857†	50029.6	46353.8	506.45 ug/L	506.45 ppb	16:42:00
3	SiO2†	74574.5	69557.6	5404.7 ug/L	5404.7 ppb	16:42:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	815295.5	106.17	%	0.792				0.75%
Sc Radial	4966.7	106	%	0.2				0.19%
Y 371.029	721967.5	104.78	%	0.728				0.69%
Y RADIAL	5232.5	105.0	%	0.35				0.33%
Ag 328.068†	99793.3	516.29	ug/L	6.024	516.29	ppb	6.024	1.17%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	5502.0	5121.8	ug/L	10.24	5121.8	ppb	10.24	0.20%
QC value within limits for Al 396.153Radial Recovery = 102.44%								
As 188.979†	1152.1	517.92	ug/L	4.009	517.92	ppb	4.009	0.77%
QC value within limits for As 188.979 Recovery = 103.58%								
B 249.677†	20320.2	506.49	ug/L	5.673	506.49	ppb	5.673	1.12%
QC value within limits for B 249.677 Recovery = 101.30%								
Ba 233.527†	43918.4	519.53	ug/L	5.494	519.53	ppb	5.494	1.06%
QC value within limits for Ba 233.527 Recovery = 103.91%								
Be 313.107†	1281499.2	510.54	ug/L	1.432	510.54	ppb	1.432	0.28%
QC value within limits for Be 313.107 Recovery = 102.11%								
Ca 317.933Radial†	2850.0	5178.3	ug/L	15.63	5178.3	ppb	15.63	0.30%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.57%
Cd 226.502†          36694.1      520.08 ug/L        4.973      520.08 ppb        4.973   0.96%
   QC value within limits for Cd 226.502  Recovery = 104.02%
Co 228.616†          17499.1      528.93 ug/L        5.674      528.93 ppb        5.674   1.07%
   QC value within limits for Co 228.616  Recovery = 105.79%
Cr 267.716†          37856.8      517.82 ug/L        6.390      517.82 ppb        6.390   1.23%
   QC value within limits for Cr 267.716  Recovery = 103.56%
Cu 324.752†         137385.1      514.42 ug/L        8.683      514.42 ppb        8.683   1.69%
   QC value within limits for Cu 324.752  Recovery = 102.88%
Fe 238.204 Radial†     503.4      5239.0 ug/L       41.02      5239.0 ppb       41.02   0.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.78%
K 766.490 Radial†    25590.4      5087.7 ug/L        5.91      5087.7 ppb        5.91   0.12%
   QC value within limits for K 766.490 Radial  Recovery = 101.75%
Mg 279.077 IEC†        133.9      5317.4 ug/L       82.28      5317.4 ppb       82.28   1.55%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.35%
Mn 257.610†         322807.1      516.99 ug/L        6.126      516.99 ppb        6.126   1.18%
   QC value within limits for Mn 257.610  Recovery = 103.40%
Mo 202.031†          5587.4      513.23 ug/L        3.786      513.23 ppb        3.786   0.74%
   QC value within limits for Mo 202.031  Recovery = 102.65%
Na 589.592 Radial†   28923.4      9857.1 ug/L       47.91      9857.1 ppb       47.91   0.49%
   QC value within limits for Na 589.592 Radial  Recovery = 98.57%
Ni 231.604†          16380.5      523.32 ug/L        6.148      523.32 ppb        6.148   1.17%
   QC value within limits for Ni 231.604  Recovery = 104.66%
P 214.914†            4618.6      2478.7 ug/L       25.59      2478.7 ppb       25.59   1.03%
   QC value within limits for P 214.914  Recovery = 99.15%
Pb 220.353†           3183.0      515.15 ug/L        2.261      515.15 ppb        2.261   0.44%
   QC value within limits for Pb 220.353  Recovery = 103.03%
S 181.975 Axial†       795.4      1030.3 ug/L       10.81      1030.3 ppb       10.81   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 103.03%
Sb 206.836†           1272.4      534.61 ug/L        3.581      534.61 ppb        3.581   0.67%
   QC value within limits for Sb 206.836  Recovery = 106.92%
Se 196.026†            848.0      533.11 ug/L        5.064      533.11 ppb        5.064   0.95%
   QC value within limits for Se 196.026  Recovery = 106.62%
Si 251.611†          70451.7      2564.5 ug/L       36.03      2564.5 ppb       36.03   1.40%
   QC value within limits for Si 251.611  Recovery = 102.58%
Sn 189.927†           2159.2      509.10 ug/L        6.243      509.10 ppb        6.243   1.23%
   QC value within limits for Sn 189.927  Recovery = 101.82%
Sr 421.552†          68953.5      501.37 ug/L        1.955      501.37 ppb        1.955   0.39%
   QC value within limits for Sr 421.552  Recovery = 100.27%
Ti 334.940†         255450.0      514.58 ug/L        6.446      514.58 ppb        6.446   1.25%
   QC value within limits for Ti 334.940  Recovery = 102.92%
Tl 190.801†           1112.7      514.43 ug/L        7.882      514.43 ppb        7.882   1.53%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†           15545.1      518.79 ug/L        7.642      518.79 ppb        7.642   1.47%
   QC value within limits for U 409.014  Recovery = 103.76%
V 292.402†           64959.5      524.14 ug/L        6.349      524.14 ppb        6.349   1.21%
   QC value within limits for V 292.402  Recovery = 104.83%
Zn 213.857†          46944.0      512.91 ug/L        5.825      512.91 ppb        5.825   1.14%
   QC value within limits for Zn 213.857  Recovery = 102.58%
SiO2†                69988.6      5438.3 ug/L      102.41      5438.3 ppb      102.41   1.88%
   QC value within limits for SiO2  Recovery = 101.70%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 16:44:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4926.9	4926.9	105	%			16:46:38
1	Y RADIAL	5199.1	5199.1	104.3	%			16:46:38
1	Al 396.153Radial†	-73.8	16.6	15.558	ug/L	15.558	ppb	16:46:58
1	Ca 317.933Radial†	29.0	5.6	10.115	ug/L	10.115	ppb	16:46:58
1	Fe 238.204 Radial†	9.2	1.5	15.058	ug/L	15.058	ppb	16:46:58
1	K 766.490 Radial†	2335.1	-30.9	-6.1852	ug/L	-6.1852	ppb	16:46:38
1	Mg 279.077 IEC†	0.1	-2.8	-109.51	ug/L	-109.51	ppb	16:46:58
1	Na 589.592 Radial†	-708.1	171.4	58.399	ug/L	58.399	ppb	16:46:38
1	Sr 421.552†	26.2	25.5	0.1852	ug/L	0.1852	ppb	16:46:38
1	Sc 361.383	814753.1	814753.1	106.10	%			16:47:55
1	Y 371.029	734452.6	734452.6	106.59	%			16:47:55
1	Ag 328.068†	248.7	-21.2	-0.1096	ug/L	-0.1096	ppb	16:47:55
1	As 188.979†	-29.3	-2.6	-1.1579	ug/L	-1.1579	ppb	16:48:15
1	B 249.677†	-361.3	112.9	2.8243	ug/L	2.8243	ppb	16:48:15
1	Ba 233.527†	21.8	18.2	0.2169	ug/L	0.2169	ppb	16:48:15
1	Be 313.107†	-9551.2	-19.7	-0.0068	ug/L	-0.0068	ppb	16:47:55
1	Cd 226.502†	-197.4	0.6	0.0083	ug/L	0.0083	ppb	16:48:15
1	Co 228.616†	-57.8	3.0	0.0882	ug/L	0.0882	ppb	16:48:15
1	Cr 267.716†	77.4	-2.7	-0.0395	ug/L	-0.0395	ppb	16:48:15
1	Cu 324.752†	7890.3	-99.2	-0.3764	ug/L	-0.3764	ppb	16:47:55
1	Mn 257.610†	501.2	11.3	0.0240	ug/L	0.0240	ppb	16:48:15
1	Mo 202.031†	9.6	-5.3	-0.4886	ug/L	-0.4886	ppb	16:48:15
1	Ni 231.604†	90.0	-16.5	-0.5288	ug/L	-0.5288	ppb	16:48:15
1	P 214.914†	203.5	-3.6	-1.9057	ug/L	-1.9057	ppb	16:48:15
1	Pb 220.353†	-48.0	25.4	4.1022	ug/L	4.1022	ppb	16:48:15
1	S 181.975 Axial†	45.9	0.8	1.0187	ug/L	1.0187	ppb	16:48:15
1	Sb 206.836†	27.3	-4.3	-1.7190	ug/L	-1.7190	ppb	16:48:15
1	Se 196.026†	-14.8	5.9	3.6430	ug/L	3.6430	ppb	16:48:15
1	Si 251.611†	624.5	-0.6	-0.0157	ug/L	-0.0157	ppb	16:48:15
1	Sn 189.927†	15.1	6.1	1.4478	ug/L	1.4478	ppb	16:48:15
1	Ti 334.940†	-1146.3	220.6	0.4504	ug/L	0.4504	ppb	16:47:55
1	Tl 190.801†	-39.1	-5.6	-2.5762	ug/L	-2.5762	ppb	16:48:15
1	U 409.014†	-2364.7	308.0	10.312	ug/L	10.312	ppb	16:47:55
1	V 292.402†	-1613.0	107.7	0.8656	ug/L	0.8656	ppb	16:47:55
1	Zn 213.857†	772.9	18.2	0.2025	ug/L	0.2025	ppb	16:48:15
1	SiO2†	620.5	-11.5	-0.8860	ug/L	-0.8860	ppb	16:49:11
2	Sc Radial	4911.1	4911.1	104	%			16:47:03
2	Y RADIAL	5199.3	5199.3	104.3	%			16:47:03
2	Al 396.153Radial†	-76.0	14.3	13.378	ug/L	13.378	ppb	16:47:23
2	Ca 317.933Radial†	28.3	4.9	8.9689	ug/L	8.9689	ppb	16:47:23
2	Fe 238.204 Radial†	6.9	-0.7	-7.5516	ug/L	-7.5516	ppb	16:47:23
2	K 766.490 Radial†	2263.0	-92.8	-18.508	ug/L	-18.508	ppb	16:47:03
2	Mg 279.077 IEC†	0.6	-2.4	-93.554	ug/L	-93.554	ppb	16:47:23
2	Na 589.592 Radial†	-707.3	170.0	57.920	ug/L	57.920	ppb	16:47:03
2	Sr 421.552†	-5.5	-4.8	-0.0350	ug/L	-0.0350	ppb	16:47:03
2	Sc 361.383	798560.3	798560.3	103.99	%			16:48:20
2	Y 371.029	717916.1	717916.1	104.19	%			16:48:20
2	Ag 328.068†	235.8	-28.9	-0.1556	ug/L	-0.1556	ppb	16:48:20
2	As 188.979†	-32.7	-6.4	-2.8586	ug/L	-2.8586	ppb	16:48:41
2	B 249.677†	-364.3	103.1	2.5816	ug/L	2.5816	ppb	16:48:41
2	Ba 233.527†	-10.9	-12.9	-0.1506	ug/L	-0.1506	ppb	16:48:41
2	Be 313.107†	-9274.6	63.7	0.0261	ug/L	0.0261	ppb	16:48:20
2	Cd 226.502†	-178.0	15.5	0.2219	ug/L	0.2219	ppb	16:48:41
2	Co 228.616†	-47.2	12.1	0.3657	ug/L	0.3657	ppb	16:48:41
2	Cr 267.716†	76.1	-2.4	-0.0354	ug/L	-0.0354	ppb	16:48:41
2	Cu 324.752†	7771.7	-62.4	-0.2391	ug/L	-0.2391	ppb	16:48:20
2	Mn 257.610†	511.8	31.1	0.0528	ug/L	0.0528	ppb	16:48:41
2	Mo 202.031†	14.8	-0.1	-0.0125	ug/L	-0.0125	ppb	16:48:41
2	Ni 231.604†	96.6	-8.4	-0.2700	ug/L	-0.2700	ppb	16:48:41

2	P 214.914†	194.7	-8.2	-4.4960	ug/L	-4.4960 ppb	16:48:41
2	Pb 220.353†	-55.9	16.9	2.7351	ug/L	2.7351 ppb	16:48:41
2	S 181.975 Axial†	41.9	-2.2	-2.8833	ug/L	-2.8833 ppb	16:48:41
2	Sb 206.836†	44.3	12.6	5.1064	ug/L	5.1064 ppb	16:48:41
2	Se 196.026†	-26.1	-5.3	-3.2693	ug/L	-3.2693 ppb	16:48:41
2	Si 251.611†	619.5	6.6	0.2397	ug/L	0.2397 ppb	16:48:41
2	Sn 189.927†	9.6	1.1	0.2701	ug/L	0.2701 ppb	16:48:41
2	Ti 334.940†	-1177.9	168.3	0.3441	ug/L	0.3441 ppb	16:48:20
2	Tl 190.801†	-34.6	-2.1	-0.9622	ug/L	-0.9622 ppb	16:48:41
2	U 409.014†	-2363.1	264.3	8.8523	ug/L	8.8523 ppb	16:48:20
2	V 292.402†	-1611.4	78.4	0.6400	ug/L	0.6400 ppb	16:48:20
2	Zn 213.857†	772.4	32.5	0.3619	ug/L	0.3619 ppb	16:48:41
2	SiO2†	605.7	-13.9	-1.0852	ug/L	-1.0852 ppb	16:49:16
3	Sc Radial	4955.6	4955.6	105	%		16:47:28
3	Y RADIAL	5248.9	5248.9	105.3	%		16:47:28
3	Al 396.153Radial†	-74.6	16.3	15.195	ug/L	15.195 ppb	16:47:48
3	Ca 317.933Radial†	30.9	7.2	13.079	ug/L	13.079 ppb	16:47:48
3	Fe 238.204 Radial†	8.0	0.3	2.6756	ug/L	2.6756 ppb	16:47:48
3	K 766.490 Radial†	2317.1	-61.0	-12.171	ug/L	-12.171 ppb	16:47:28
3	Mg 279.077 IEC†	1.5	-1.4	-57.035	ug/L	-57.035 ppb	16:47:48
3	Na 589.592 Radial†	-671.7	209.9	71.520	ug/L	71.520 ppb	16:47:28
3	Sr 421.552†	7.8	7.9	0.0573	ug/L	0.0573 ppb	16:47:28
3	Sc 361.383	812872.8	812872.8	105.85	%		16:48:46
3	Y 371.029	730747.6	730747.6	106.05	%		16:48:46
3	Ag 328.068†	152.4	-111.7	-0.5777	ug/L	-0.5777 ppb	16:48:46
3	As 188.979†	-22.6	3.6	1.6156	ug/L	1.6156 ppb	16:49:06
3	B 249.677†	-374.2	100.0	2.5033	ug/L	2.5033 ppb	16:49:06
3	Ba 233.527†	-10.5	-12.3	-0.1455	ug/L	-0.1455 ppb	16:49:06
3	Be 313.107†	-9523.7	-14.6	-0.0053	ug/L	-0.0053 ppb	16:48:46
3	Cd 226.502†	-181.4	15.3	0.2173	ug/L	0.2173 ppb	16:49:06
3	Co 228.616†	-68.1	-6.9	-0.2078	ug/L	-0.2078 ppb	16:49:06
3	Cr 267.716†	62.9	-16.2	-0.2233	ug/L	-0.2233 ppb	16:49:06
3	Cu 324.752†	7787.6	-179.0	-0.6728	ug/L	-0.6728 ppb	16:48:46
3	Mn 257.610†	508.2	19.0	0.0330	ug/L	0.0330 ppb	16:49:06
3	Mo 202.031†	16.7	1.4	0.1285	ug/L	0.1285 ppb	16:49:06
3	Ni 231.604†	94.7	-11.8	-0.3780	ug/L	-0.3780 ppb	16:49:06
3	P 214.914†	198.9	-7.5	-4.0525	ug/L	-4.0525 ppb	16:49:06
3	Pb 220.353†	-78.3	-3.2	-0.5157	ug/L	-0.5157 ppb	16:49:06
3	S 181.975 Axial†	42.9	-2.0	-2.5539	ug/L	-2.5539 ppb	16:49:06
3	Sb 206.836†	32.7	0.9	0.3329	ug/L	0.3329 ppb	16:49:06
3	Se 196.026†	-13.5	7.0	4.3143	ug/L	4.3143 ppb	16:49:06
3	Si 251.611†	605.3	-17.4	-0.6356	ug/L	-0.6356 ppb	16:49:06
3	Sn 189.927†	-1.1	-9.1	-2.1511	ug/L	-2.1511 ppb	16:49:06
3	Ti 334.940†	-1259.9	110.8	0.2277	ug/L	0.2277 ppb	16:48:46
3	Tl 190.801†	-41.6	-8.1	-3.6937	ug/L	-3.6937 ppb	16:49:06
3	U 409.014†	-2533.3	143.6	4.8081	ug/L	4.8081 ppb	16:48:46
3	V 292.402†	-1731.8	-8.1	-0.0551	ug/L	-0.0551 ppb	16:48:46
3	Zn 213.857†	764.3	11.7	0.1323	ug/L	0.1323 ppb	16:49:06
3	SiO2†	646.2	14.0	1.0896	ug/L	1.0896 ppb	16:49:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808728.7	105.31	%	1.153				1.10%
Sc Radial	4931.2	105	%	0.5				0.46%
Y 371.029	727705.5	105.61	%	1.259				1.19%
Y RADIAL	5215.8	104.6	%	0.57				0.55%
Ag 328.068†	-53.9	-0.2810	ug/L	0.25802	-0.2810	ppb	0.25802	91.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.7	14.710	ug/L	1.1681	14.710	ppb	1.1681	7.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-0.8003	ug/L	2.25841	-0.8003	ppb	2.25841	282.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	105.3	2.6364	ug/L	0.16736	2.6364	ppb	0.16736	6.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.3	-0.0264	ug/L	0.21069	-0.0264	ppb	0.21069	798.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	9.8	0.0047	ug/L	0.01858	0.0047	ppb	0.01858	399.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.9	10.721	ug/L	2.1211	10.721	ppb	2.1211	19.78%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.5      0.1492 ug/L       0.12199      0.1492 ppb        0.12199  81.78%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               2.7      0.0820 ug/L       0.28681      0.0820 ppb        0.28681 349.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -7.1     -0.0994 ug/L       0.10731     -0.0994 ppb        0.10731 107.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -113.6     -0.4295 ug/L       0.22166     -0.4295 ppb        0.22166  51.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      3.3940 ug/L      11.32194      3.3940 ppb       11.32194 333.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -61.6     -12.288 ug/L        6.1621     -12.288 ppb        6.1621  50.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.2     -86.701 ug/L       26.9014     -86.701 ppb       26.9014  31.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              20.4      0.0366 ug/L       0.01471      0.0366 ppb        0.01471  40.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.4     -0.1242 ug/L       0.32336     -0.1242 ppb        0.32336 260.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      183.7      62.613 ug/L        7.7170      62.613 ppb        7.7170  12.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -12.3     -0.3923 ug/L       0.12995     -0.3923 ppb        0.12995  33.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.4     -3.4847 ug/L       1.38533     -3.4847 ppb        1.38533  39.75%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      2.1072 ug/L       2.37211      2.1072 ppb        2.37211 112.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.1     -1.4728 ug/L       2.16401     -1.4728 ppb        2.16401 146.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.1      1.2401 ug/L       3.50193      1.2401 ppb        3.50193 282.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.5      1.5627 ug/L       4.19807      1.5627 ppb        4.19807 268.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -3.8     -0.1372 ug/L       0.45014     -0.1372 ppb        0.45014 328.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.1444 ug/L       1.83488     -0.1444 ppb        1.83488 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               9.5      0.0692 ug/L       0.11057      0.0692 ppb        0.11057 159.82%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             166.6      0.3407 ug/L       0.11139      0.3407 ppb        0.11139  32.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.3     -2.4107 ug/L       1.37326     -2.4107 ppb        1.37326  56.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              238.6      7.9907 ug/L       2.85118      7.9907 ppb        2.85118  35.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               59.3      0.4835 ug/L       0.47988      0.4835 ppb        0.47988  99.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              20.8      0.2322 ug/L       0.11762      0.2322 ppb        0.11762  50.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -3.8     -0.2939 ug/L       1.20224     -0.2939 ppb        1.20224 409.08%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 17:48:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4939.2	4939.2	105	%			17:49:53
1	Y RADIAL	5178.9	5178.9	103.9	%			17:49:53
1	Al 396.153Radial†	5629.3	5451.3	5074.9	ug/L	5074.9	ppb	17:49:53
1	Ca 317.933Radial†	2995.5	2832.3	5146.2	ug/L	5146.2	ppb	17:50:13
1	Fe 238.204 Radial†	528.5	496.3	5164.8	ug/L	5164.8	ppb	17:50:13
1	K 766.490 Radial†	29381.8	25736.7	5116.9	ug/L	5116.9	ppb	17:49:53
1	Mg 279.077 IEC†	144.0	134.3	5332.2	ug/L	5332.2	ppb	17:50:13
1	Na 589.592 Radial†	29196.0	28669.2	9770.4	ug/L	9770.4	ppb	17:49:53
1	Sr 421.552†	72310.8	68906.6	501.03	ug/L	501.03	ppb	17:49:53
1	Sc 361.383	817806.6	817806.6	106.49	%			17:51:11
1	Y 371.029	725093.1	725093.1	105.23	%			17:51:11
1	Ag 328.068†	105025.5	98365.7	508.90	ug/L	508.90	ppb	17:51:16
1	As 188.979†	1183.5	1136.4	510.88	ug/L	510.88	ppb	17:51:36
1	B 249.677†	20928.6	20105.8	501.16	ug/L	501.16	ppb	17:51:16
1	Ba 233.527†	46118.6	43304.0	512.26	ug/L	512.26	ppb	17:51:16
1	Be 313.107†	1331354.5	1259154.8	501.64	ug/L	501.64	ppb	17:51:11
1	Cd 226.502†	38356.1	36203.9	513.13	ug/L	513.13	ppb	17:51:16
1	Co 228.616†	18260.9	17204.9	520.03	ug/L	520.03	ppb	17:51:16
1	Cr 267.716†	39805.8	37302.9	510.24	ug/L	510.24	ppb	17:51:16
1	Cu 324.752†	152572.7	135733.0	508.23	ug/L	508.23	ppb	17:51:16
1	Mn 257.610†	339742.2	318564.5	510.20	ug/L	510.20	ppb	17:51:16
1	Mo 202.031†	5840.8	5470.2	502.48	ug/L	502.48	ppb	17:51:36
1	Ni 231.604†	17378.3	16217.3	518.10	ug/L	518.10	ppb	17:51:16
1	P 214.914†	4996.6	4496.5	2411.7	ug/L	2411.7	ppb	17:51:36
1	Pb 220.353†	3260.3	3132.2	506.92	ug/L	506.92	ppb	17:51:36
1	S 181.975 Axial†	868.8	773.3	1001.7	ug/L	1001.7	ppb	17:51:36
1	Sb 206.836†	1360.1	1247.2	523.92	ug/L	523.92	ppb	17:51:36
1	Se 196.026†	861.1	828.4	520.92	ug/L	520.92	ppb	17:51:36
1	Si 251.611†	75035.6	69870.9	2543.5	ug/L	2543.5	ppb	17:51:16
1	Sn 189.927†	2242.1	2097.3	494.53	ug/L	494.53	ppb	17:51:36
1	Ti 334.940†	266907.9	251933.7	507.49	ug/L	507.49	ppb	17:51:16
1	Tl 190.801†	1135.9	1097.8	507.55	ug/L	507.55	ppb	17:51:36
1	U 409.014†	13772.1	15469.2	516.27	ug/L	516.27	ppb	17:51:16
1	V 292.402†	66522.2	64093.9	517.12	ug/L	517.12	ppb	17:51:16
1	Zn 213.857†	50106.1	46340.5	506.31	ug/L	506.31	ppb	17:51:16
1	SiO2†	73235.0	68172.9	5297.1	ug/L	5297.1	ppb	17:52:43
2	Sc Radial	4932.1	4932.1	105	%			17:50:18
2	Y RADIAL	5179.9	5179.9	103.9	%			17:50:18
2	Al 396.153Radial†	5665.7	5493.8	5114.8	ug/L	5114.8	ppb	17:50:18
2	Ca 317.933Radial†	2987.8	2829.0	5140.2	ug/L	5140.2	ppb	17:50:39
2	Fe 238.204 Radial†	530.1	498.6	5188.0	ug/L	5188.0	ppb	17:50:39
2	K 766.490 Radial†	29536.7	25924.9	5154.4	ug/L	5154.4	ppb	17:50:18
2	Mg 279.077 IEC†	140.9	131.6	5224.8	ug/L	5224.8	ppb	17:50:39
2	Na 589.592 Radial†	29469.9	28970.6	9873.2	ug/L	9873.2	ppb	17:50:18
2	Sr 421.552†	72616.2	69297.3	503.87	ug/L	503.87	ppb	17:50:18
2	Sc 361.383	822013.5	822013.5	107.04	%			17:51:41
2	Y 371.029	727307.2	727307.2	105.55	%			17:51:41
2	Ag 328.068†	103326.9	96274.0	498.12	ug/L	498.12	ppb	17:51:47
2	As 188.979†	1176.0	1123.6	505.10	ug/L	505.10	ppb	17:52:07
2	B 249.677†	20567.4	19667.9	490.22	ug/L	490.22	ppb	17:51:47
2	Ba 233.527†	45328.3	42344.1	500.91	ug/L	500.91	ppb	17:51:47
2	Be 313.107†	1329224.3	1250766.5	498.28	ug/L	498.28	ppb	17:51:41
2	Cd 226.502†	37797.2	35497.5	503.11	ug/L	503.11	ppb	17:51:47
2	Co 228.616†	18028.8	16900.3	510.83	ug/L	510.83	ppb	17:51:47
2	Cr 267.716†	39222.9	36567.1	500.18	ug/L	500.18	ppb	17:51:47
2	Cu 324.752†	149396.3	132032.4	494.38	ug/L	494.38	ppb	17:51:47
2	Mn 257.610†	334268.5	311818.1	499.40	ug/L	499.40	ppb	17:51:47
2	Mo 202.031†	5832.9	5434.8	499.23	ug/L	499.23	ppb	17:52:07
2	Ni 231.604†	17037.1	15815.0	505.25	ug/L	505.25	ppb	17:51:47

2	P 214.914†	5002.0	4477.6	2403.9 ug/L	2403.9 ppb	17:52:07
2	Pb 220.353†	3242.5	3099.9	501.72 ug/L	501.72 ppb	17:52:07
2	S 181.975 Axial†	870.7	770.9	998.60 ug/L	998.60 ppb	17:52:07
2	Sb 206.836†	1344.2	1225.7	515.20 ug/L	515.20 ppb	17:52:07
2	Se 196.026†	868.0	830.7	522.37 ug/L	522.37 ppb	17:52:07
2	Si 251.611†	73602.2	68171.2	2481.5 ug/L	2481.5 ppb	17:51:47
2	Sn 189.927†	2266.7	2109.5	497.40 ug/L	497.40 ppb	17:52:07
2	Ti 334.940†	262336.1	246379.9	496.32 ug/L	496.32 ppb	17:51:47
2	Tl 190.801†	1130.7	1087.5	502.72 ug/L	502.72 ppb	17:52:07
2	U 409.014†	13391.6	15047.4	502.17 ug/L	502.17 ppb	17:51:47
2	V 292.402†	65361.3	62689.6	505.87 ug/L	505.87 ppb	17:51:47
2	Zn 213.857†	49236.1	45286.9	494.78 ug/L	494.78 ppb	17:51:47
2	SiO2†	74637.5	69131.2	5371.8 ug/L	5371.8 ppb	17:52:48
3	Sc Radial	4914.7	4914.7	104 %		17:50:44
3	Y RADIAL	5157.0	5157.0	103.4 %		17:50:44
3	Al 396.153Radial†	5612.4	5461.9	5085.1 ug/L	5085.1 ppb	17:50:44
3	Ca 317.933Radial†	3010.2	2860.6	5197.6 ug/L	5197.6 ppb	17:51:04
3	Fe 238.204 Radial†	533.5	503.6	5240.5 ug/L	5240.5 ppb	17:51:04
3	K 766.490 Radial†	29091.7	25598.6	5089.4 ug/L	5089.4 ppb	17:50:44
3	Mg 279.077 IEC†	145.4	136.4	5414.2 ug/L	5414.2 ppb	17:51:04
3	Na 589.592 Radial†	29216.1	28827.1	9824.3 ug/L	9824.3 ppb	17:50:44
3	Sr 421.552†	72104.6	69052.8	502.10 ug/L	502.10 ppb	17:50:44
3	Sc 361.383	823539.4	823539.4	107.24 %		17:52:12
3	Y 371.029	728257.9	728257.9	105.69 %		17:52:12
3	Ag 328.068†	105130.5	97777.1	505.88 ug/L	505.88 ppb	17:52:17
3	As 188.979†	1184.7	1129.7	507.91 ug/L	507.91 ppb	17:52:37
3	B 249.677†	20927.7	19968.2	497.71 ug/L	497.71 ppb	17:52:17
3	Ba 233.527†	46059.8	42947.7	508.05 ug/L	508.05 ppb	17:52:17
3	Be 313.107†	1335261.6	1254095.5	499.63 ug/L	499.63 ppb	17:52:12
3	Cd 226.502†	38311.9	35912.0	508.98 ug/L	508.98 ppb	17:52:17
3	Co 228.616†	18341.9	17161.0	518.70 ug/L	518.70 ppb	17:52:17
3	Cr 267.716†	39750.9	36991.6	505.98 ug/L	505.98 ppb	17:52:17
3	Cu 324.752†	152481.0	134650.2	504.18 ug/L	504.18 ppb	17:52:17
3	Mn 257.610†	339766.9	316366.8	506.68 ug/L	506.68 ppb	17:52:17
3	Mo 202.031†	5824.9	5417.3	497.62 ug/L	497.62 ppb	17:52:37
3	Ni 231.604†	17304.4	16034.8	512.27 ug/L	512.27 ppb	17:52:17
3	P 214.914†	4992.9	4460.4	2392.3 ug/L	2392.3 ppb	17:52:37
3	Pb 220.353†	3253.6	3104.7	502.47 ug/L	502.47 ppb	17:52:37
3	S 181.975 Axial†	877.4	775.6	1004.7 ug/L	1004.7 ppb	17:52:37
3	Sb 206.836†	1358.8	1237.0	519.67 ug/L	519.67 ppb	17:52:37
3	Se 196.026†	860.6	822.3	517.32 ug/L	517.32 ppb	17:52:37
3	Si 251.611†	75072.3	69414.7	2526.9 ug/L	2526.9 ppb	17:52:17
3	Sn 189.927†	2255.0	2094.7	493.92 ug/L	493.92 ppb	17:52:37
3	Ti 334.940†	266901.6	250183.0	503.97 ug/L	503.97 ppb	17:52:17
3	Tl 190.801†	1136.9	1091.4	504.55 ug/L	504.55 ppb	17:52:37
3	U 409.014†	13808.9	15413.4	514.40 ug/L	514.40 ppb	17:52:17
3	V 292.402†	66340.2	63489.3	512.22 ug/L	512.22 ppb	17:52:17
3	Zn 213.857†	50031.3	45943.2	501.96 ug/L	501.96 ppb	17:52:17
3	SiO2†	73209.3	67670.2	5258.1 ug/L	5258.1 ppb	17:52:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	821119.8	106.93	%	0.387				0.36%
Sc Radial	4928.7	105	%	0.3				0.26%
Y 371.029	726886.1	105.49	%	0.236				0.22%
Y RADIAL	5171.9	103.7	%	0.26				0.25%
Ag 328.068†	97472.3	504.30	ug/L	5.561	504.30	ppb	5.561	1.10%
QC value within limits for Ag 328.068 Recovery = 100.86%								
Al 396.153Radial†	5469.0	5091.6	ug/L	20.74	5091.6	ppb	20.74	0.41%
QC value within limits for Al 396.153Radial Recovery = 101.83%								
As 188.979†	1129.9	507.96	ug/L	2.889	507.96	ppb	2.889	0.57%
QC value within limits for As 188.979 Recovery = 101.59%								
B 249.677†	19914.0	496.36	ug/L	5.595	496.36	ppb	5.595	1.13%
QC value within limits for B 249.677 Recovery = 99.27%								
Ba 233.527†	42865.3	507.08	ug/L	5.738	507.08	ppb	5.738	1.13%
QC value within limits for Ba 233.527 Recovery = 101.42%								
Be 313.107†	1254672.3	499.85	ug/L	1.691	499.85	ppb	1.691	0.34%
QC value within limits for Be 313.107 Recovery = 99.97%								
Ca 317.933Radial†	2840.7	5161.3	ug/L	31.56	5161.3	ppb	31.56	0.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.23%
Cd 226.502†            35871.1      508.41 ug/L         5.039      508.41 ppb          5.039   0.99%
   QC value within limits for Cd 226.502  Recovery = 101.68%
Co 228.616†            17088.7      516.52 ug/L         4.968      516.52 ppb          4.968   0.96%
   QC value within limits for Co 228.616  Recovery = 103.30%
Cr 267.716†            36953.8      505.47 ug/L         5.051      505.47 ppb          5.051   1.00%
   QC value within limits for Cr 267.716  Recovery = 101.09%
Cu 324.752†           134138.6      502.26 ug/L         7.120      502.26 ppb          7.120   1.42%
   QC value within limits for Cu 324.752  Recovery = 100.45%
Fe 238.204 Radial†       499.5      5197.8 ug/L        38.82      5197.8 ppb          38.82   0.75%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.96%
K 766.490 Radial†      25753.4      5120.2 ug/L        32.61      5120.2 ppb          32.61   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          134.1      5323.7 ug/L        95.00      5323.7 ppb          95.00   1.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.47%
Mn 257.610†           315583.1      505.43 ug/L         5.504      505.43 ppb          5.504   1.09%
   QC value within limits for Mn 257.610  Recovery = 101.09%
Mo 202.031†             5440.8      499.77 ug/L         2.474      499.77 ppb          2.474   0.49%
   QC value within limits for Mo 202.031  Recovery = 99.95%
Na 589.592 Radial†     28822.3      9822.6 ug/L        51.39      9822.6 ppb          51.39   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 98.23%
Ni 231.604†            16022.4      511.88 ug/L         6.436      511.88 ppb          6.436   1.26%
   QC value within limits for Ni 231.604  Recovery = 102.38%
P 214.914†              4478.2      2402.6 ug/L         9.77      2402.6 ppb           9.77   0.41%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             3112.2      503.71 ug/L         2.812      503.71 ppb          2.812   0.56%
   QC value within limits for Pb 220.353  Recovery = 100.74%
S 181.975 Axial†         773.3      1001.7 ug/L         3.05      1001.7 ppb           3.05   0.30%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             1236.6      519.60 ug/L         4.363      519.60 ppb          4.363   0.84%
   QC value within limits for Sb 206.836  Recovery = 103.92%
Se 196.026†              827.1      520.21 ug/L         2.600      520.21 ppb          2.600   0.50%
   QC value within limits for Se 196.026  Recovery = 104.04%
Si 251.611†            69152.3      2517.3 ug/L        32.09      2517.3 ppb          32.09   1.27%
   QC value within limits for Si 251.611  Recovery = 100.69%
Sn 189.927†             2100.5      495.28 ug/L         1.860      495.28 ppb          1.860   0.38%
   QC value within limits for Sn 189.927  Recovery = 99.06%
Sr 421.552†            69085.5      502.33 ug/L         1.435      502.33 ppb          1.435   0.29%
   QC value within limits for Sr 421.552  Recovery = 100.47%
Ti 334.940†           249498.8      502.59 ug/L         5.712      502.59 ppb          5.712   1.14%
   QC value within limits for Ti 334.940  Recovery = 100.52%
Tl 190.801†             1092.2      504.94 ug/L         2.439      504.94 ppb          2.439   0.48%
   QC value within limits for Tl 190.801  Recovery = 100.99%
U 409.014†             15310.0      510.94 ug/L         7.660      510.94 ppb          7.660   1.50%
   QC value within limits for U 409.014  Recovery = 102.19%
V 292.402†             63424.2      511.74 ug/L         5.639      511.74 ppb          5.639   1.10%
   QC value within limits for V 292.402  Recovery = 102.35%
Zn 213.857†            45856.9      501.02 ug/L         5.818      501.02 ppb          5.818   1.16%
   QC value within limits for Zn 213.857  Recovery = 100.20%
SiO2†                  68324.8      5309.0 ug/L        57.81      5309.0 ppb          57.81   1.09%
   QC value within limits for SiO2  Recovery = 99.28%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 17:55:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5004.8	5004.8	106	%			17:56:56
1	Y RADIAL	5280.9	5280.9	105.9	%			17:56:56
1	Al 396.153Radial†	-61.3	29.5	27.624	ug/L	27.624	ppb	17:57:16
1	Ca 317.933Radial†	32.9	8.8	15.955	ug/L	15.955	ppb	17:57:16
1	Fe 238.204 Radial†	8.5	0.6	6.6145	ug/L	6.6145	ppb	17:57:16
1	K 766.490 Radial†	2344.9	-56.4	-11.258	ug/L	-11.258	ppb	17:56:56
1	Mg 279.077 IEC†	2.9	-0.1	-5.8188	ug/L	-5.8188	ppb	17:57:16
1	Na 589.592 Radial†	-732.7	158.7	54.089	ug/L	54.089	ppb	17:56:56
1	Sr 421.552†	34.1	32.6	0.2367	ug/L	0.2367	ppb	17:56:56
1	Sc 361.383	807716.8	807716.8	105.18	%			17:58:13
1	Y 371.029	722275.5	722275.5	104.82	%			17:58:13
1	Ag 328.068†	200.3	-65.3	-0.3361	ug/L	-0.3361	ppb	17:58:13
1	As 188.979†	-36.4	-9.6	-4.2834	ug/L	-4.2834	ppb	17:58:33
1	B 249.677†	-365.0	106.4	2.6637	ug/L	2.6637	ppb	17:58:33
1	Ba 233.527†	-3.3	-5.5	-0.0639	ug/L	-0.0639	ppb	17:58:33
1	Be 313.107†	-9404.8	41.1	0.0166	ug/L	0.0166	ppb	17:58:13
1	Cd 226.502†	-177.9	17.5	0.2479	ug/L	0.2479	ppb	17:58:33
1	Co 228.616†	-62.6	-2.1	-0.0650	ug/L	-0.0650	ppb	17:58:33
1	Cr 267.716†	76.5	-2.9	-0.0410	ug/L	-0.0410	ppb	17:58:33
1	Cu 324.752†	7666.4	-247.3	-0.9284	ug/L	-0.9284	ppb	17:58:13
1	Mn 257.610†	483.1	-1.8	-0.0020	ug/L	-0.0020	ppb	17:58:33
1	Mo 202.031†	5.3	-9.3	-0.8564	ug/L	-0.8564	ppb	17:58:33
1	Ni 231.604†	91.1	-14.8	-0.4715	ug/L	-0.4715	ppb	17:58:33
1	P 214.914†	199.0	-6.2	-3.2627	ug/L	-3.2627	ppb	17:58:33
1	Pb 220.353†	-66.2	7.8	1.2550	ug/L	1.2550	ppb	17:58:33
1	S 181.975 Axial†	40.7	-3.8	-4.9723	ug/L	-4.9723	ppb	17:58:33
1	Sb 206.836†	42.1	10.0	4.0202	ug/L	4.0202	ppb	17:58:33
1	Se 196.026†	-28.3	-7.1	-4.3127	ug/L	-4.3127	ppb	17:58:33
1	Si 251.611†	598.2	-20.4	-0.7352	ug/L	-0.7352	ppb	17:58:33
1	Sn 189.927†	2.2	-6.0	-1.4095	ug/L	-1.4095	ppb	17:58:33
1	Ti 334.940†	-1305.1	60.2	0.1217	ug/L	0.1217	ppb	17:58:13
1	Tl 190.801†	-33.0	-0.1	-0.0678	ug/L	-0.0678	ppb	17:58:33
1	U 409.014†	-2505.5	154.7	5.1793	ug/L	5.1793	ppb	17:58:13
1	V 292.402†	-1649.5	59.7	0.4718	ug/L	0.4718	ppb	17:58:13
1	Zn 213.857†	790.5	41.3	0.4587	ug/L	0.4587	ppb	17:58:33
1	SiO2†	613.3	-13.4	-1.0189	ug/L	-1.0189	ppb	17:59:29
2	Sc Radial	5007.4	5007.4	106	%			17:57:21
2	Y RADIAL	5287.9	5287.9	106.1	%			17:57:21
2	Al 396.153Radial†	-80.7	11.3	10.562	ug/L	10.562	ppb	17:57:41
2	Ca 317.933Radial†	28.2	4.4	7.9139	ug/L	7.9139	ppb	17:57:41
2	Fe 238.204 Radial†	7.9	0.1	1.4009	ug/L	1.4009	ppb	17:57:41
2	K 766.490 Radial†	2197.8	-195.9	-39.011	ug/L	-39.011	ppb	17:57:21
2	Mg 279.077 IEC†	1.1	-1.9	-73.518	ug/L	-73.518	ppb	17:57:41
2	Na 589.592 Radial†	-738.2	154.0	52.469	ug/L	52.469	ppb	17:57:21
2	Sr 421.552†	30.0	28.7	0.2088	ug/L	0.2088	ppb	17:57:21
2	Sc 361.383	806824.0	806824.0	105.06	%			17:58:38
2	Y 371.029	721011.8	721011.8	104.64	%			17:58:38
2	Ag 328.068†	272.1	3.4	0.0073	ug/L	0.0073	ppb	17:58:38
2	As 188.979†	-25.6	0.6	0.2817	ug/L	0.2817	ppb	17:58:59
2	B 249.677†	-370.4	100.9	2.5255	ug/L	2.5255	ppb	17:58:59
2	Ba 233.527†	13.5	10.5	0.1240	ug/L	0.1240	ppb	17:58:59
2	Be 313.107†	-9361.5	72.3	0.0292	ug/L	0.0292	ppb	17:58:38
2	Cd 226.502†	-200.4	-4.1	-0.0558	ug/L	-0.0558	ppb	17:58:59
2	Co 228.616†	-59.4	1.0	0.0298	ug/L	0.0298	ppb	17:58:59
2	Cr 267.716†	65.1	-13.6	-0.1910	ug/L	-0.1910	ppb	17:58:59
2	Cu 324.752†	7692.3	-214.6	-0.8108	ug/L	-0.8108	ppb	17:58:38
2	Mn 257.610†	482.7	-1.7	0.0004	ug/L	0.0004	ppb	17:58:59
2	Mo 202.031†	18.1	2.9	0.2643	ug/L	0.2643	ppb	17:58:59
2	Ni 231.604†	84.2	-21.2	-0.6768	ug/L	-0.6768	ppb	17:58:59

2	P 214.914†	207.9	2.5	1.5342 ug/L	1.5342 ppb	17:58:59
2	Pb 220.353†	-65.8	8.1	1.3110 ug/L	1.3110 ppb	17:58:59
2	S 181.975 Axial†	44.7	0.1	0.0648 ug/L	0.0648 ppb	17:58:59
2	Sb 206.836†	37.9	6.0	2.4261 ug/L	2.4261 ppb	17:58:59
2	Se 196.026†	-18.5	2.2	1.3439 ug/L	1.3439 ppb	17:58:59
2	Si 251.611†	599.5	-18.6	-0.6834 ug/L	-0.6834 ppb	17:58:59
2	Sn 189.927†	-0.9	-8.9	-2.0928 ug/L	-2.0928 ppb	17:58:59
2	Ti 334.940†	-1265.4	96.6	0.1961 ug/L	0.1961 ppb	17:58:38
2	Tl 190.801†	-36.8	-3.8	-1.7415 ug/L	-1.7415 ppb	17:58:59
2	U 409.014†	-2255.2	390.3	13.069 ug/L	13.069 ppb	17:58:38
2	V 292.402†	-1699.6	10.3	0.1087 ug/L	0.1087 ppb	17:58:38
2	Zn 213.857†	784.4	36.3	0.4056 ug/L	0.4056 ppb	17:58:59
2	SiO2†	648.7	21.0	1.6272 ug/L	1.6272 ppb	17:59:34
3	Sc Radial	4987.8	4987.8	106 %		17:57:46
3	Y RADIAL	5274.6	5274.6	105.8 %		17:57:46
3	Al 396.153Radial†	-75.2	16.1	15.144 ug/L	15.144 ppb	17:58:06
3	Ca 317.933Radial†	33.6	9.5	17.272 ug/L	17.272 ppb	17:58:06
3	Fe 238.204 Radial†	10.6	2.7	27.956 ug/L	27.956 ppb	17:58:06
3	K 766.490 Radial†	2348.1	-45.9	-9.1600 ug/L	-9.1600 ppb	17:57:46
3	Mg 279.077 IEC†	1.5	-1.5	-57.883 ug/L	-57.883 ppb	17:58:06
3	Na 589.592 Radial†	-702.0	185.4	63.181 ug/L	63.181 ppb	17:57:46
3	Sr 421.552†	9.6	9.5	0.0689 ug/L	0.0689 ppb	17:57:46
3	Sc 361.383	811978.0	811978.0	105.73 %		17:59:04
3	Y 371.029	725369.6	725369.6	105.27 %		17:59:04
3	Ag 328.068†	154.8	-109.3	-0.5614 ug/L	-0.5614 ppb	17:59:04
3	As 188.979†	-27.1	-0.6	-0.2765 ug/L	-0.2765 ppb	17:59:24
3	B 249.677†	-382.7	91.5	2.2876 ug/L	2.2876 ppb	17:59:24
3	Ba 233.527†	10.6	7.7	0.0910 ug/L	0.0910 ppb	17:59:24
3	Be 313.107†	-9460.8	35.0	0.0147 ug/L	0.0147 ppb	17:59:04
3	Cd 226.502†	-193.8	3.3	0.0460 ug/L	0.0460 ppb	17:59:24
3	Co 228.616†	-64.7	-3.7	-0.1140 ug/L	-0.1140 ppb	17:59:24
3	Cr 267.716†	45.7	-32.3	-0.4452 ug/L	-0.4452 ppb	17:59:24
3	Cu 324.752†	7714.3	-240.2	-0.9031 ug/L	-0.9031 ppb	17:59:04
3	Mn 257.610†	498.7	10.5	0.0219 ug/L	0.0219 ppb	17:59:24
3	Mo 202.031†	5.8	-8.9	-0.8170 ug/L	-0.8170 ppb	17:59:24
3	Ni 231.604†	98.4	-8.2	-0.2634 ug/L	-0.2634 ppb	17:59:24
3	P 214.914†	208.1	1.5	0.9801 ug/L	0.9801 ppb	17:59:24
3	Pb 220.353†	-52.0	21.5	3.4685 ug/L	3.4685 ppb	17:59:24
3	S 181.975 Axial†	41.4	-3.4	-4.3757 ug/L	-4.3757 ppb	17:59:24
3	Sb 206.836†	28.5	-3.0	-1.2475 ug/L	-1.2475 ppb	17:59:24
3	Se 196.026†	-27.4	-6.1	-3.6800 ug/L	-3.6800 ppb	17:59:24
3	Si 251.611†	603.5	-18.5	-0.6645 ug/L	-0.6645 ppb	17:59:24
3	Sn 189.927†	8.5	-0.1	-0.0111 ug/L	-0.0111 ppb	17:59:24
3	Ti 334.940†	-1192.7	173.0	0.3517 ug/L	0.3517 ppb	17:59:04
3	Tl 190.801†	-26.1	6.6	3.0193 ug/L	3.0193 ppb	17:59:24
3	U 409.014†	-2389.5	276.9	9.2703 ug/L	9.2703 ppb	17:59:04
3	V 292.402†	-1731.6	-9.7	-0.0761 ug/L	-0.0761 ppb	17:59:04
3	Zn 213.857†	786.8	33.9	0.3723 ug/L	0.3723 ppb	17:59:24
3	SiO2†	590.1	-38.4	-2.9675 ug/L	-2.9675 ppb	17:59:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808839.6	105.33	%	0.359				0.34%
Sc Radial	5000.0	106	%	0.2				0.21%
Y 371.029	722885.6	104.91	%	0.325				0.31%
Y RADIAL	5281.1	105.9	%	0.13				0.13%
Ag 328.068†	-57.1	-0.2968	ug/L	0.28638	-0.2968	ppb	0.28638	96.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.0	17.777	ug/L	8.8304	17.777	ppb	8.8304	49.67%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-1.4261	ug/L	2.49023	-1.4261	ppb	2.49023	174.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	99.6	2.4923	ug/L	0.19020	2.4923	ppb	0.19020	7.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.2	0.0504	ug/L	0.10031	0.0504	ppb	0.10031	199.05%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	49.5	0.0202	ug/L	0.00788	0.0202	ppb	0.00788	39.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.5	13.714	ug/L	5.0656	13.714	ppb	5.0656	36.94%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 5.6      0.0793 ug/L       0.15459      0.0793 ppb        0.15459 194.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.6     -0.0497 ug/L       0.07308     -0.0497 ppb        0.07308 146.94%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -16.3     -0.2257 ug/L       0.20430     -0.2257 ppb        0.20430  90.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -234.0     -0.8807 ug/L       0.06190     -0.8807 ppb        0.06190   7.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      11.990 ug/L       14.0702      11.990 ppb        14.0702 117.34%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -99.4     -19.810 ug/L       16.6619     -19.810 ppb        16.6619  84.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2     -45.740 ug/L       35.4454     -45.740 ppb        35.4454  77.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 2.3      0.0068 ug/L       0.01319      0.0068 ppb        0.01319 194.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -5.1     -0.4697 ug/L       0.63595     -0.4697 ppb        0.63595 135.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        166.0      56.580 ug/L        5.7741      56.580 ppb         5.7741  10.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -14.7     -0.4706 ug/L       0.20671     -0.4706 ppb        0.20671  43.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.7     -0.2494 ug/L       2.62421     -0.2494 ppb        2.62421 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                12.5      2.0115 ug/L       1.26211      2.0115 ppb        1.26211  62.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.4     -3.0944 ug/L       2.75214     -3.0944 ppb        2.75214  88.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.3      1.7329 ug/L       2.70138      1.7329 ppb        2.70138 155.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.7     -2.2163 ug/L       3.09934     -2.2163 ppb        3.09934 139.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -19.2     -0.6944 ug/L       0.03662     -0.6944 ppb        0.03662   5.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -5.0     -1.1711 ug/L       1.06112     -1.1711 ppb        1.06112  90.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                23.6      0.1715 ug/L       0.08989      0.1715 ppb        0.08989  52.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               109.9      0.2232 ug/L       0.11736      0.2232 ppb        0.11736  52.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.4034 ug/L       2.41512      0.4034 ppb        2.41512 598.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                274.0      9.1727 ug/L       3.94559      9.1727 ppb        3.94559  43.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 20.1      0.1681 ug/L       0.27875      0.1681 ppb        0.27875 165.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                37.2      0.4122 ug/L       0.04360      0.4122 ppb        0.04360  10.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -10.3     -0.7864 ug/L       2.30616     -0.7864 ppb        2.30616 293.25%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/1/2010 18:22:02 **Plasma On Time: 3/1/2010 06:57:40**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030110.sif
Batch ID:
Results Data Set: 030110A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/1/2010 18:22:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4848.9	4848.9	103	%			18:23:55
1	Y RADIAL	5099.4	5099.4	102.3	%			18:23:55
1	Al 396.153Radial†	5538.9	5463.5	5086.9	ug/L	5086.9	ppb	18:23:55
1	Ca 317.933Radial†	2972.2	2862.8	5201.6	ug/L	5201.6	ppb	18:24:15
1	Fe 238.204 Radial†	531.3	508.4	5289.6	ug/L	5289.6	ppb	18:24:15
1	K 766.490 Radial†	28912.7	25803.0	5130.0	ug/L	5130.0	ppb	18:23:55
1	Mg 279.077 IEC†	141.9	134.9	5355.2	ug/L	5355.2	ppb	18:24:15
1	Na 589.592 Radial†	29722.0	29697.9	10121	ug/L	10121	ppb	18:23:55
1	Sr 421.552†	72381.2	70258.4	510.86	ug/L	510.86	ppb	18:23:55
1	Sc 361.383	823743.9	823743.9	107.27	%			18:25:12
1	Y 371.029	729086.6	729086.6	105.81	%			18:25:12
1	Ag 328.068†	103603.7	96329.3	498.42	ug/L	498.42	ppb	18:25:17
1	As 188.979†	1162.0	1108.3	498.32	ug/L	498.32	ppb	18:25:38
1	B 249.677†	20665.4	19718.9	491.48	ug/L	491.48	ppb	18:25:17
1	Ba 233.527†	45511.5	42425.9	501.88	ug/L	501.88	ppb	18:25:17
1	Be 313.107†	1304868.4	1225452.0	488.22	ug/L	488.22	ppb	18:25:12
1	Cd 226.502†	37637.7	35274.6	499.94	ug/L	499.94	ppb	18:25:17
1	Co 228.616†	17962.7	16803.3	507.88	ug/L	507.88	ppb	18:25:17
1	Cr 267.716†	39112.8	36387.5	497.72	ug/L	497.72	ppb	18:25:17
1	Cu 324.752†	151112.4	133339.0	499.27	ug/L	499.27	ppb	18:25:17
1	Mn 257.610†	334728.4	311590.9	499.05	ug/L	499.05	ppb	18:25:17
1	Mo 202.031†	5754.1	5349.9	491.45	ug/L	491.45	ppb	18:25:38
1	Ni 231.604†	17034.6	15779.3	504.11	ug/L	504.11	ppb	18:25:17
1	P 214.914†	4951.0	4420.2	2370.7	ug/L	2370.7	ppb	18:25:38
1	Pb 220.353†	3205.5	3059.0	495.10	ug/L	495.10	ppb	18:25:38
1	S 181.975 Axial†	855.5	755.1	978.04	ug/L	978.04	ppb	18:25:38
1	Sb 206.836†	1333.8	1213.4	509.88	ug/L	509.88	ppb	18:25:38
1	Se 196.026†	854.0	815.9	513.51	ug/L	513.51	ppb	18:25:38
1	Si 251.611†	74370.7	68743.2	2502.4	ug/L	2502.4	ppb	18:25:17
1	Sn 189.927†	2229.0	2069.9	488.08	ug/L	488.08	ppb	18:25:38
1	Ti 334.940†	263123.2	246598.8	496.76	ug/L	496.76	ppb	18:25:17
1	Tl 190.801†	1125.3	1080.3	499.43	ug/L	499.43	ppb	18:25:38
1	U 409.014†	13745.2	15350.8	512.32	ug/L	512.32	ppb	18:25:17
1	V 292.402†	65375.2	62574.3	504.85	ug/L	504.85	ppb	18:25:17
1	Zn 213.857†	49329.6	45277.5	494.67	ug/L	494.67	ppb	18:25:17
1	SiO2†	73360.0	67793.8	5267.9	ug/L	5267.9	ppb	18:26:45
2	Sc Radial	4788.2	4788.2	102	%			18:24:20
2	Y RADIAL	5011.5	5011.5	100.5	%			18:24:20
2	Al 396.153Radial†	5659.7	5650.4	5261.4	ug/L	5261.4	ppb	18:24:20
2	Ca 317.933Radial†	2945.0	2872.7	5219.4	ug/L	5219.4	ppb	18:24:40
2	Fe 238.204 Radial†	527.7	511.4	5321.4	ug/L	5321.4	ppb	18:24:40
2	K 766.490 Radial†	29436.1	26673.0	5303.0	ug/L	5303.0	ppb	18:24:20
2	Mg 279.077 IEC†	137.3	132.1	5242.8	ug/L	5242.8	ppb	18:24:40
2	Na 589.592 Radial†	30423.8	30753.3	10481	ug/L	10481	ppb	18:24:20
2	Sr 421.552†	73908.4	72649.9	528.25	ug/L	528.25	ppb	18:24:20
2	Sc 361.383	814108.0	814108.0	106.01	%			18:25:43
2	Y 371.029	720459.4	720459.4	104.56	%			18:25:43

2	Ag 328.068†	102915.8	96823.7	501.00 ug/L	501.00 ppb	18:25:48
2	As 188.979†	1172.5	1131.0	508.48 ug/L	508.48 ppb	18:26:08
2	B 249.677†	20537.5	19826.2	494.15 ug/L	494.15 ppb	18:25:48
2	Ba 233.527†	45359.5	42784.7	506.12 ug/L	506.12 ppb	18:25:48
2	Be 313.107†	1301861.6	1237014.0	492.83 ug/L	492.83 ppb	18:25:43
2	Cd 226.502†	37747.5	35793.5	507.29 ug/L	507.29 ppb	18:25:48
2	Co 228.616†	18022.3	17057.7	515.58 ug/L	515.58 ppb	18:25:48
2	Cr 267.716†	39124.2	36829.8	503.78 ug/L	503.78 ppb	18:25:48
2	Cu 324.752†	149591.7	133572.0	500.15 ug/L	500.15 ppb	18:25:48
2	Mn 257.610†	333785.3	314394.8	503.54 ug/L	503.54 ppb	18:25:48
2	Mo 202.031†	5766.3	5424.9	498.33 ug/L	498.33 ppb	18:26:08
2	Ni 231.604†	17028.0	15961.0	509.91 ug/L	509.91 ppb	18:25:48
2	P 214.914†	4977.6	4500.0	2415.2 ug/L	2415.2 ppb	18:26:08
2	Pb 220.353†	3205.4	3094.3	500.85 ug/L	500.85 ppb	18:26:08
2	S 181.975 Axial†	869.9	778.0	1007.8 ug/L	1007.8 ppb	18:26:08
2	Sb 206.836†	1344.6	1238.3	520.24 ug/L	520.24 ppb	18:26:08
2	Se 196.026†	865.9	836.6	526.28 ug/L	526.28 ppb	18:26:08
2	Si 251.611†	74008.1	69221.8	2519.8 ug/L	2519.8 ppb	18:25:48
2	Sn 189.927†	2238.4	2103.4	495.95 ug/L	495.95 ppb	18:26:08
2	Ti 334.940†	261782.4	248237.4	500.07 ug/L	500.07 ppb	18:25:48
2	Tl 190.801†	1125.4	1092.8	505.17 ug/L	505.17 ppb	18:26:08
2	U 409.014†	13364.2	15143.1	505.35 ug/L	505.35 ppb	18:25:48
2	V 292.402†	65143.5	63077.1	508.92 ug/L	508.92 ppb	18:25:48
2	Zn 213.857†	49083.5	45589.6	498.07 ug/L	498.07 ppb	18:25:48
2	SiO2†	72273.2	67578.1	5250.9 ug/L	5250.9 ppb	18:26:50
3	Sc Radial	4714.0	4714.0	100 %		18:24:45
3	Y RADIAL	4940.6	4940.6	99.10 %		18:24:45
3	Al 396.153Radial†	5539.3	5617.8	5231.0 ug/L	5231.0 ppb	18:24:45
3	Ca 317.933Radial†	2967.4	2940.6	5342.9 ug/L	5342.9 ppb	18:25:05
3	Fe 238.204 Radial†	533.0	524.8	5460.5 ug/L	5460.5 ppb	18:25:05
3	K 766.490 Radial†	28919.1	26612.2	5290.9 ug/L	5290.9 ppb	18:24:45
3	Mg 279.077 IEC†	142.9	139.8	5550.2 ug/L	5550.2 ppb	18:25:05
3	Na 589.592 Radial†	29742.9	30544.1	10409 ug/L	10409 ppb	18:24:45
3	Sr 421.552†	72603.5	72490.3	527.09 ug/L	527.09 ppb	18:24:45
3	Sc 361.383	821751.5	821751.5	107.01 %		18:26:14
3	Y 371.029	726701.4	726701.4	105.47 %		18:26:14
3	Ag 328.068†	102757.0	95772.3	495.61 ug/L	495.61 ppb	18:26:19
3	As 188.979†	1158.6	1107.7	498.09 ug/L	498.09 ppb	18:26:39
3	B 249.677†	20592.3	19697.3	490.91 ug/L	490.91 ppb	18:26:19
3	Ba 233.527†	45223.0	42259.1	499.91 ug/L	499.91 ppb	18:26:19
3	Be 313.107†	1312086.8	1235147.2	492.07 ug/L	492.07 ppb	18:26:14
3	Cd 226.502†	37586.9	35312.1	500.45 ug/L	500.45 ppb	18:26:19
3	Co 228.616†	17994.5	16873.6	510.02 ug/L	510.02 ppb	18:26:19
3	Cr 267.716†	38941.5	36315.8	496.75 ug/L	496.75 ppb	18:26:19
3	Cu 324.752†	149380.4	132062.1	494.51 ug/L	494.51 ppb	18:26:19
3	Mn 257.610†	333088.8	310815.2	497.81 ug/L	497.81 ppb	18:26:19
3	Mo 202.031†	5768.9	5376.7	493.92 ug/L	493.92 ppb	18:26:39
3	Ni 231.604†	17035.5	15818.6	505.36 ug/L	505.36 ppb	18:26:19
3	P 214.914†	4972.0	4451.1	2388.8 ug/L	2388.8 ppb	18:26:39
3	Pb 220.353†	3198.9	3060.1	495.30 ug/L	495.30 ppb	18:26:39
3	S 181.975 Axial†	865.7	766.5	992.83 ug/L	992.83 ppb	18:26:39
3	Sb 206.836†	1350.2	1231.7	517.42 ug/L	517.42 ppb	18:26:39
3	Se 196.026†	849.8	814.0	512.74 ug/L	512.74 ppb	18:26:39
3	Si 251.611†	73922.9	68492.8	2493.3 ug/L	2493.3 ppb	18:26:19
3	Sn 189.927†	2237.7	2083.1	491.19 ug/L	491.19 ppb	18:26:39
3	Ti 334.940†	261236.0	245430.0	494.41 ug/L	494.41 ppb	18:26:19
3	Tl 190.801†	1121.7	1079.5	499.02 ug/L	499.02 ppb	18:26:39
3	U 409.014†	13283.0	14949.9	498.88 ug/L	498.88 ppb	18:26:19
3	V 292.402†	64932.8	62308.6	502.72 ug/L	502.72 ppb	18:26:19
3	Zn 213.857†	48961.8	45045.3	492.08 ug/L	492.08 ppb	18:26:19
3	SiO2†	72599.3	67248.7	5225.3 ug/L	5225.3 ppb	18:26:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	819867.8	106.76	%	0.662				0.62%
Sc Radial	4783.7	102	%	1.4				1.41%
Y 371.029	725415.8	105.28	%	0.647				0.61%
Y RADIAL	5017.2	100.6	%	1.60				1.59%
Ag 328.068†	96308.4	498.34	ug/L	2.693	498.34	ppb	2.693	0.54%

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   QC value within limits for Ag 328.068  Recovery = 99.67%
Al 396.153Radial†       5577.3      5193.1 ug/L         93.25      5193.1 ppb          93.25   1.80%
   QC value within limits for Al 396.153Radial  Recovery = 103.86%
As 188.979†             1115.7      501.63 ug/L         5.931      501.63 ppb          5.931   1.18%
   QC value within limits for As 188.979  Recovery = 100.33%
B 249.677†             19747.5      492.18 ug/L         1.727      492.18 ppb          1.727   0.35%
   QC value within limits for B 249.677  Recovery = 98.44%
Ba 233.527†            42489.9      502.64 ug/L         3.174      502.64 ppb          3.174   0.63%
   QC value within limits for Ba 233.527  Recovery = 100.53%
Be 313.107†          1232537.8      491.04 ug/L         2.469      491.04 ppb          2.469   0.50%
   QC value within limits for Be 313.107  Recovery = 98.21%
Ca 317.933Radial†       2892.0      5254.6 ug/L         76.96      5254.6 ppb          76.96   1.46%
   QC value within limits for Ca 317.933Radial  Recovery = 105.09%
Cd 226.502†            35460.0      502.56 ug/L         4.106      502.56 ppb          4.106   0.82%
   QC value within limits for Cd 226.502  Recovery = 100.51%
Co 228.616†            16911.5      511.16 ug/L         3.975      511.16 ppb          3.975   0.78%
   QC value within limits for Co 228.616  Recovery = 102.23%
Cr 267.716†            36511.0      499.42 ug/L         3.807      499.42 ppb          3.807   0.76%
   QC value within limits for Cr 267.716  Recovery = 99.88%
Cu 324.752†           132991.0      497.98 ug/L         3.036      497.98 ppb          3.036   0.61%
   QC value within limits for Cu 324.752  Recovery = 99.60%
Fe 238.204 Radial†       514.9      5357.1 ug/L         90.89      5357.1 ppb          90.89   1.70%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.14%
K 766.490 Radial†      26362.7      5241.3 ug/L         96.59      5241.3 ppb          96.59   1.84%
   QC value within limits for K 766.490 Radial  Recovery = 104.83%
Mg 279.077 IEC†          135.6      5382.7 ug/L        155.56      5382.7 ppb         155.56   2.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.65%
Mn 257.610†           312267.0      500.13 ug/L         3.015      500.13 ppb          3.015   0.60%
   QC value within limits for Mn 257.610  Recovery = 100.03%
Mo 202.031†             5383.9      494.57 ug/L         3.487      494.57 ppb          3.487   0.71%
   QC value within limits for Mo 202.031  Recovery = 98.91%
Na 589.592 Radial†     30331.8       10337 ug/L         190.4       10337 ppb          190.4   1.84%
   QC value within limits for Na 589.592 Radial  Recovery = 103.37%
Ni 231.604†            15852.9      506.46 ug/L         3.055      506.46 ppb          3.055   0.60%
   QC value within limits for Ni 231.604  Recovery = 101.29%
P 214.914†              4457.1      2391.6 ug/L         22.36      2391.6 ppb          22.36   0.93%
   QC value within limits for P 214.914  Recovery = 95.66%
Pb 220.353†             3071.1      497.08 ug/L         3.264      497.08 ppb          3.264   0.66%
   QC value within limits for Pb 220.353  Recovery = 99.42%
S 181.975 Axial†         766.5      992.88 ug/L        14.866      992.88 ppb         14.866   1.50%
   QC value within limits for S 181.975 Axial  Recovery = 99.29%
Sb 206.836†             1227.8      515.85 ug/L         5.353      515.85 ppb          5.353   1.04%
   QC value within limits for Sb 206.836  Recovery = 103.17%
Se 196.026†              822.2      517.51 ug/L         7.605      517.51 ppb          7.605   1.47%
   QC value within limits for Se 196.026  Recovery = 103.50%
Si 251.611†            68819.3      2505.2 ug/L         13.48      2505.2 ppb          13.48   0.54%
   QC value within limits for Si 251.611  Recovery = 100.21%
Sn 189.927†             2085.4      491.74 ug/L         3.966      491.74 ppb          3.966   0.81%
   QC value within limits for Sn 189.927  Recovery = 98.35%
Sr 421.552†            71799.5      522.07 ug/L         9.722      522.07 ppb          9.722   1.86%
   QC value within limits for Sr 421.552  Recovery = 104.41%
Ti 334.940†           246755.4      497.08 ug/L         2.844      497.08 ppb          2.844   0.57%
   QC value within limits for Ti 334.940  Recovery = 99.42%
Tl 190.801†             1084.2      501.21 ug/L         3.441      501.21 ppb          3.441   0.69%
   QC value within limits for Tl 190.801  Recovery = 100.24%
U 409.014†             15148.0      505.51 ug/L         6.722      505.51 ppb          6.722   1.33%
   QC value within limits for U 409.014  Recovery = 101.10%
V 292.402†             62653.3      505.50 ug/L         3.151      505.50 ppb          3.151   0.62%
   QC value within limits for V 292.402  Recovery = 101.10%
Zn 213.857†            45304.1      494.94 ug/L         3.003      494.94 ppb          3.003   0.61%
   QC value within limits for Zn 213.857  Recovery = 98.99%
SiO2†                  67540.2      5248.0 ug/L         21.41      5248.0 ppb          21.41   0.41%
   QC value within limits for SiO2  Recovery = 98.14%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 18:29:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4989.1	4989.1	106	%			18:30:56
1	Y RADIAL	5274.7	5274.7	105.8	%			18:30:56
1	Al 396.153Radial†	-95.3	-2.8	-2.5721	ug/L	-2.5721	ppb	18:31:16
1	Ca 317.933Radial†	19.6	-3.7	-6.6941	ug/L	-6.6941	ppb	18:31:16
1	Fe 238.204 Radial†	5.5	-2.2	-22.353	ug/L	-22.353	ppb	18:31:16
1	K 766.490 Radial†	2224.7	-162.9	-32.455	ug/L	-32.455	ppb	18:30:56
1	Mg 279.077 IEC†	2.5	-0.5	-20.708	ug/L	-20.708	ppb	18:31:16
1	Na 589.592 Radial†	-719.8	168.7	57.502	ug/L	57.502	ppb	18:30:56
1	Sr 421.552†	50.9	48.5	0.3529	ug/L	0.3529	ppb	18:30:56
1	Sc 361.383	803091.4	803091.4	104.58	%			18:32:13
1	Y 371.029	720271.0	720271.0	104.53	%			18:32:13
1	Ag 328.068†	183.4	-80.3	-0.4303	ug/L	-0.4303	ppb	18:32:13
1	As 188.979†	-32.3	-5.9	-2.6279	ug/L	-2.6279	ppb	18:32:33
1	B 249.677†	-346.5	122.1	3.0616	ug/L	3.0616	ppb	18:32:33
1	Ba 233.527†	0.9	-1.6	-0.0194	ug/L	-0.0194	ppb	18:32:33
1	Be 313.107†	-9584.6	-182.5	-0.0721	ug/L	-0.0721	ppb	18:32:13
1	Cd 226.502†	-182.5	12.1	0.1757	ug/L	0.1757	ppb	18:32:33
1	Co 228.616†	-71.1	-10.5	-0.3185	ug/L	-0.3185	ppb	18:32:33
1	Cr 267.716†	60.1	-18.2	-0.2535	ug/L	-0.2535	ppb	18:32:33
1	Cu 324.752†	7756.0	-119.6	-0.4560	ug/L	-0.4560	ppb	18:32:13
1	Mn 257.610†	446.3	-34.4	-0.0564	ug/L	-0.0564	ppb	18:32:33
1	Mo 202.031†	11.2	-3.7	-0.3416	ug/L	-0.3416	ppb	18:32:33
1	Ni 231.604†	87.8	-17.4	-0.5558	ug/L	-0.5558	ppb	18:32:33
1	P 214.914†	217.3	12.4	7.0548	ug/L	7.0548	ppb	18:32:33
1	Pb 220.353†	-50.2	22.7	3.6638	ug/L	3.6638	ppb	18:32:33
1	S 181.975 Axial†	38.3	-5.9	-7.6824	ug/L	-7.6824	ppb	18:32:33
1	Sb 206.836†	30.7	-0.7	-0.2932	ug/L	-0.2932	ppb	18:32:33
1	Se 196.026†	-20.5	0.2	0.0472	ug/L	0.0472	ppb	18:32:33
1	Si 251.611†	560.5	-53.3	-1.9395	ug/L	-1.9395	ppb	18:32:33
1	Sn 189.927†	10.0	1.5	0.3600	ug/L	0.3600	ppb	18:32:33
1	Ti 334.940†	-1271.1	85.6	0.1678	ug/L	0.1678	ppb	18:32:13
1	Tl 190.801†	-33.5	-0.9	-0.3927	ug/L	-0.3927	ppb	18:32:33
1	U 409.014†	-2261.1	374.6	12.548	ug/L	12.548	ppb	18:32:13
1	V 292.402†	-1712.1	-9.2	-0.0512	ug/L	-0.0512	ppb	18:32:13
1	Zn 213.857†	738.8	-3.9	-0.0351	ug/L	-0.0351	ppb	18:32:33
1	SiO2†	545.1	-75.2	-5.8485	ug/L	-5.8485	ppb	18:33:29
2	Sc Radial	5012.1	5012.1	106	%			18:31:21
2	Y RADIAL	5271.4	5271.4	105.7	%			18:31:21
2	Al 396.153Radial†	-84.3	8.0	7.4737	ug/L	7.4737	ppb	18:31:41
2	Ca 317.933Radial†	16.4	-6.7	-12.219	ug/L	-12.219	ppb	18:31:41
2	Fe 238.204 Radial†	6.2	-1.5	-15.893	ug/L	-15.893	ppb	18:31:41
2	K 766.490 Radial†	2360.5	-45.0	-8.9714	ug/L	-8.9714	ppb	18:31:21
2	Mg 279.077 IEC†	2.6	-0.4	-17.768	ug/L	-17.768	ppb	18:31:41
2	Na 589.592 Radial†	-710.7	180.4	61.495	ug/L	61.495	ppb	18:31:21
2	Sr 421.552†	46.2	43.9	0.3191	ug/L	0.3191	ppb	18:31:21
2	Sc 361.383	795327.1	795327.1	103.57	%			18:32:38
2	Y 371.029	713569.6	713569.6	103.56	%			18:32:38
2	Ag 328.068†	279.5	14.2	0.0567	ug/L	0.0567	ppb	18:32:38
2	As 188.979†	-32.2	-6.1	-2.7120	ug/L	-2.7120	ppb	18:32:58
2	B 249.677†	-367.2	98.9	2.4781	ug/L	2.4781	ppb	18:32:58
2	Ba 233.527†	-15.2	-17.1	-0.2022	ug/L	-0.2022	ppb	18:32:58
2	Be 313.107†	-9662.9	-347.5	-0.1379	ug/L	-0.1379	ppb	18:32:38
2	Cd 226.502†	-204.3	-10.6	-0.1461	ug/L	-0.1461	ppb	18:32:58
2	Co 228.616†	-50.7	8.5	0.2568	ug/L	0.2568	ppb	18:32:58
2	Cr 267.716†	56.7	-20.8	-0.2903	ug/L	-0.2903	ppb	18:32:58
2	Cu 324.752†	7818.8	13.4	0.0412	ug/L	0.0412	ppb	18:32:38
2	Mn 257.610†	478.8	1.2	0.0011	ug/L	0.0011	ppb	18:32:58
2	Mo 202.031†	15.8	0.8	0.0763	ug/L	0.0763	ppb	18:32:58
2	Ni 231.604†	85.9	-18.3	-0.5867	ug/L	-0.5867	ppb	18:32:58

2	P 214.914†	218.1	15.3	8.5297	ug/L	8.5297	ppb	18:32:58
2	Pb 220.353†	-68.7	4.3	0.7031	ug/L	0.7031	ppb	18:32:58
2	S 181.975 Axial†	42.1	-1.9	-2.4610	ug/L	-2.4610	ppb	18:32:58
2	Sb 206.836†	45.5	13.9	5.6604	ug/L	5.6604	ppb	18:32:58
2	Se 196.026†	-14.8	5.5	3.3627	ug/L	3.3627	ppb	18:32:58
2	Si 251.611†	587.9	-21.6	-0.7886	ug/L	-0.7886	ppb	18:32:58
2	Sn 189.927†	9.6	1.2	0.2849	ug/L	0.2849	ppb	18:32:58
2	Ti 334.940†	-1283.0	62.3	0.1189	ug/L	0.1189	ppb	18:32:38
2	Tl 190.801†	-31.3	1.0	0.4576	ug/L	0.4576	ppb	18:32:58
2	U 409.014†	-2176.2	435.6	14.588	ug/L	14.588	ppb	18:32:38
2	V 292.402†	-1669.8	15.7	0.1562	ug/L	0.1562	ppb	18:32:38
2	Zn 213.857†	742.4	6.5	0.0779	ug/L	0.0779	ppb	18:32:58
2	SiO2†	616.5	-1.2	-0.0935	ug/L	-0.0935	ppb	18:33:34
3	Sc Radial	5011.8	5011.8	106	%			18:31:46
3	Y RADIAL	5336.2	5336.2	107.0	%			18:31:46
3	Al 396.153Radial†	-82.3	9.8	9.1879	ug/L	9.1879	ppb	18:32:06
3	Ca 317.933Radial†	20.9	-2.6	-4.6623	ug/L	-4.6623	ppb	18:32:06
3	Fe 238.204 Radial†	7.9	0.1	0.9742	ug/L	0.9742	ppb	18:32:06
3	K 766.490 Radial†	2342.9	-61.4	-12.245	ug/L	-12.245	ppb	18:31:46
3	Mg 279.077 IEC†	1.7	-1.3	-49.688	ug/L	-49.688	ppb	18:32:06
3	Na 589.592 Radial†	-703.1	187.5	63.913	ug/L	63.913	ppb	18:31:46
3	Sr 421.552†	-13.7	-12.3	-0.0897	ug/L	-0.0897	ppb	18:31:46
3	Sc 361.383	789366.6	789366.6	102.79	%			18:33:04
3	Y 371.029	706943.5	706943.5	102.60	%			18:33:04
3	Ag 328.068†	230.9	-31.1	-0.1614	ug/L	-0.1614	ppb	18:33:04
3	As 188.979†	-33.3	-7.4	-3.2919	ug/L	-3.2919	ppb	18:33:24
3	B 249.677†	-389.2	74.8	1.8740	ug/L	1.8740	ppb	18:33:24
3	Ba 233.527†	-0.7	-3.1	-0.0350	ug/L	-0.0350	ppb	18:33:24
3	Be 313.107†	-9606.4	-363.0	-0.1435	ug/L	-0.1435	ppb	18:33:04
3	Cd 226.502†	-195.7	-3.8	-0.0534	ug/L	-0.0534	ppb	18:33:24
3	Co 228.616†	-69.2	-9.8	-0.2984	ug/L	-0.2984	ppb	18:33:24
3	Cr 267.716†	50.5	-26.5	-0.3629	ug/L	-0.3629	ppb	18:33:24
3	Cu 324.752†	7632.8	-110.6	-0.4167	ug/L	-0.4167	ppb	18:33:04
3	Mn 257.610†	473.6	-0.4	0.0015	ug/L	0.0015	ppb	18:33:24
3	Mo 202.031†	8.8	-5.9	-0.5372	ug/L	-0.5372	ppb	18:33:24
3	Ni 231.604†	72.6	-30.7	-0.9812	ug/L	-0.9812	ppb	18:33:24
3	P 214.914†	219.1	17.8	10.011	ug/L	10.011	ppb	18:33:24
3	Pb 220.353†	-70.9	1.7	0.2812	ug/L	0.2812	ppb	18:33:24
3	S 181.975 Axial†	38.6	-4.9	-6.3870	ug/L	-6.3870	ppb	18:33:24
3	Sb 206.836†	44.3	13.0	5.2909	ug/L	5.2909	ppb	18:33:24
3	Se 196.026†	-24.5	-4.1	-2.4900	ug/L	-2.4900	ppb	18:33:24
3	Si 251.611†	568.5	-36.2	-1.3137	ug/L	-1.3137	ppb	18:33:24
3	Sn 189.927†	11.5	3.1	0.7308	ug/L	0.7308	ppb	18:33:24
3	Ti 334.940†	-1153.0	179.4	0.3629	ug/L	0.3629	ppb	18:33:04
3	Tl 190.801†	-30.5	1.6	0.7264	ug/L	0.7264	ppb	18:33:24
3	U 409.014†	-2460.6	143.0	4.7888	ug/L	4.7888	ppb	18:33:04
3	V 292.402†	-1612.8	59.0	0.4698	ug/L	0.4698	ppb	18:33:04
3	Zn 213.857†	750.5	19.8	0.2251	ug/L	0.2251	ppb	18:33:24
3	SiO2†	611.8	-1.3	-0.0849	ug/L	-0.0849	ppb	18:33:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	795928.4	103.64	%	0.896				0.86%
Sc Radial	5004.4	106	%	0.3				0.26%
Y 371.029	713594.7	103.56	%	0.967				0.93%
Y RADIAL	5294.1	106.2	%	0.73				0.69%
Ag 328.068†	-32.4	-0.1784	ug/L	0.24396	-0.1784	ppb	0.24396	136.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.0	4.6965	ug/L	6.35290	4.6965	ppb	6.35290	135.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.5	-2.8773	ug/L	0.36156	-2.8773	ppb	0.36156	12.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	98.6	2.4713	ug/L	0.59386	2.4713	ppb	0.59386	24.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.2	-0.0855	ug/L	0.10134	-0.0855	ppb	0.10134	118.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-297.7	-0.1178	ug/L	0.03966	-0.1178	ppb	0.03966	33.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.3	-7.8585	ug/L	3.91062	-7.8585	ppb	3.91062	49.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -0.8     -0.0079 ug/L       0.16563     -0.0079 ppb        0.16563 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -3.9     -0.1200 ug/L       0.32647     -0.1200 ppb        0.32647 271.98%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -21.8     -0.3022 ug/L       0.05565     -0.3022 ppb        0.05565  18.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -72.3     -0.2772 ug/L       0.27641     -0.2772 ppb        0.27641  99.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.2     -12.424 ug/L       12.0445     -12.424 ppb        12.0445  96.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -89.8     -17.891 ug/L       12.7193     -17.891 ppb        12.7193  71.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -29.388 ug/L       17.6418     -29.388 ppb        17.6418  60.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -11.2     -0.0179 ug/L       0.03333     -0.0179 ppb        0.03333 185.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -2.9     -0.2675 ug/L       0.31342     -0.2675 ppb        0.31342 117.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      178.9      60.970 ug/L        3.2377      60.970 ppb         3.2377   5.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -22.1     -0.7079 ug/L       0.23720     -0.7079 ppb        0.23720  33.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               15.2      8.5318 ug/L       1.47805      8.5318 ppb        1.47805  17.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.6      1.5494 ug/L       1.84324      1.5494 ppb        1.84324 118.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.2     -5.5102 ug/L       2.71890     -5.5102 ppb        2.71890  49.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               8.8      3.5527 ug/L       3.33575      3.5527 ppb        3.33575  93.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.5      0.3066 ug/L       2.93493      0.3066 ppb        2.93493 957.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -37.0     -1.3473 ug/L       0.57615     -1.3473 ppb        0.57615  42.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.0      0.4585 ug/L       0.23876      0.4585 ppb        0.23876  52.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.7      0.1941 ug/L       0.24635      0.1941 ppb        0.24635 126.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             109.1      0.2165 ug/L       0.12906      0.2165 ppb        0.12906  59.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.2638 ug/L       0.58418      0.2638 ppb        0.58418 221.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              317.7      10.642 ug/L        5.1702      10.642 ppb         5.1702  48.58%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               21.8      0.1916 ug/L       0.26230      0.1916 ppb        0.26230 136.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               7.5      0.0893 ug/L       0.13049      0.0893 ppb        0.13049 146.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -25.9     -2.0090 ug/L       3.32516     -2.0090 ppb        3.32516 165.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/1/2010 19:43:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5258.2	5258.2	112	%			19:45:36
1	Y RADIAL	5514.4	5514.4	110.6	%			19:45:36
1	Al 396.153Radial†	5435.5	4952.4	4608.5	ug/L	4608.5	ppb	19:45:36
1	Ca 317.933Radial†	2936.2	2606.1	4735.1	ug/L	4735.1	ppb	19:45:56
1	Fe 238.204 Radial†	521.8	459.7	4785.1	ug/L	4785.1	ppb	19:45:56
1	K 766.490 Radial†	28379.1	23140.4	4600.6	ug/L	4600.6	ppb	19:45:36
1	Mg 279.077 IEC†	140.5	122.8	4877.6	ug/L	4877.6	ppb	19:45:56
1	Na 589.592 Radial†	28372.3	26243.7	8943.8	ug/L	8943.8	ppb	19:45:36
1	Sr 421.552†	70270.1	62899.0	457.35	ug/L	457.35	ppb	19:45:36
1	Sc 361.383	817652.6	817652.6	106.47	%			19:46:53
1	Y 371.029	721883.8	721883.8	104.77	%			19:46:53
1	Ag 328.068†	103478.5	96931.2	501.38	ug/L	501.38	ppb	19:46:58
1	As 188.979†	1172.1	1125.8	506.06	ug/L	506.06	ppb	19:47:19
1	B 249.677†	20544.9	19749.2	492.30	ug/L	492.30	ppb	19:46:58
1	Ba 233.527†	45582.3	42808.5	506.38	ug/L	506.38	ppb	19:46:58
1	Be 313.107†	1314161.5	1243242.5	495.31	ug/L	495.31	ppb	19:46:53
1	Cd 226.502†	37664.0	35560.6	504.05	ug/L	504.05	ppb	19:46:58
1	Co 228.616†	18103.7	17060.5	515.67	ug/L	515.67	ppb	19:46:58
1	Cr 267.716†	39068.3	36617.3	500.86	ug/L	500.86	ppb	19:46:58
1	Cu 324.752†	150882.8	134172.9	502.37	ug/L	502.37	ppb	19:46:58
1	Mn 257.610†	335325.6	314476.5	503.63	ug/L	503.63	ppb	19:46:58
1	Mo 202.031†	5770.2	5405.0	496.45	ug/L	496.45	ppb	19:47:19
1	Ni 231.604†	17103.1	15961.9	509.94	ug/L	509.94	ppb	19:46:58
1	P 214.914†	4959.7	4462.8	2394.2	ug/L	2394.2	ppb	19:47:19
1	Pb 220.353†	3216.1	3091.3	500.23	ug/L	500.23	ppb	19:47:19
1	S 181.975 Axial†	857.4	762.8	988.10	ug/L	988.10	ppb	19:47:19
1	Sb 206.836†	1358.4	1245.8	523.27	ug/L	523.27	ppb	19:47:19
1	Se 196.026†	862.0	829.4	520.60	ug/L	520.60	ppb	19:47:19
1	Si 251.611†	74456.8	69340.6	2524.2	ug/L	2524.2	ppb	19:46:58
1	Sn 189.927†	2248.9	2104.1	496.08	ug/L	496.08	ppb	19:47:19
1	Ti 334.940†	263621.9	248894.6	501.36	ug/L	501.36	ppb	19:46:58
1	Tl 190.801†	1107.5	1071.4	495.35	ug/L	495.35	ppb	19:47:19
1	U 409.014†	13605.2	15314.8	511.16	ug/L	511.16	ppb	19:46:58
1	V 292.402†	65218.1	62880.8	507.42	ug/L	507.42	ppb	19:46:58
1	Zn 213.857†	49333.3	45623.5	498.52	ug/L	498.52	ppb	19:46:58
1	SiO2†	73401.9	68342.6	5310.5	ug/L	5310.5	ppb	19:48:26
2	Sc Radial	4926.1	4926.1	105	%			19:46:01
2	Y RADIAL	5155.6	5155.6	103.4	%			19:46:01
2	Al 396.153Radial†	5543.0	5383.1	5011.5	ug/L	5011.5	ppb	19:46:01
2	Ca 317.933Radial†	2964.8	2810.6	5106.7	ug/L	5106.7	ppb	19:46:21
2	Fe 238.204 Radial†	523.5	492.9	5128.7	ug/L	5128.7	ppb	19:46:21
2	K 766.490 Radial†	28687.4	25147.4	4999.7	ug/L	4999.7	ppb	19:46:01
2	Mg 279.077 IEC†	136.5	127.5	5062.4	ug/L	5062.4	ppb	19:46:21
2	Na 589.592 Radial†	28800.7	28365.1	9666.8	ug/L	9666.8	ppb	19:46:01
2	Sr 421.552†	71499.3	68313.8	496.72	ug/L	496.72	ppb	19:46:01
2	Sc 361.383	816523.1	816523.1	106.33	%			19:47:24
2	Y 371.029	722213.5	722213.5	104.82	%			19:47:24
2	Ag 328.068†	102668.6	96304.0	498.25	ug/L	498.25	ppb	19:47:29
2	As 188.979†	1164.7	1120.4	503.66	ug/L	503.66	ppb	19:47:49
2	B 249.677†	20444.4	19681.3	490.57	ug/L	490.57	ppb	19:47:29
2	Ba 233.527†	44900.5	42226.4	499.52	ug/L	499.52	ppb	19:47:29
2	Be 313.107†	1315474.0	1246184.3	496.46	ug/L	496.46	ppb	19:47:24
2	Cd 226.502†	37176.3	35150.9	498.20	ug/L	498.20	ppb	19:47:29
2	Co 228.616†	17843.0	16838.8	508.97	ug/L	508.97	ppb	19:47:29
2	Cr 267.716†	38682.8	36305.5	496.60	ug/L	496.60	ppb	19:47:29
2	Cu 324.752†	149352.6	132929.8	497.74	ug/L	497.74	ppb	19:47:29
2	Mn 257.610†	331022.1	310864.7	497.88	ug/L	497.88	ppb	19:47:29
2	Mo 202.031†	5747.8	5391.4	495.24	ug/L	495.24	ppb	19:47:49
2	Ni 231.604†	16908.3	15800.9	504.80	ug/L	504.80	ppb	19:47:29

2	P 214.914†	4942.3	4452.9	2389.4 ug/L	2389.4 ppb	19:47:49
2	Pb 220.353†	3176.1	3057.8	494.90 ug/L	494.90 ppb	19:47:49
2	S 181.975 Axial†	862.2	768.4	995.34 ug/L	995.34 ppb	19:47:49
2	Sb 206.836†	1352.9	1242.4	521.80 ug/L	521.80 ppb	19:47:49
2	Se 196.026†	848.6	817.9	514.38 ug/L	514.38 ppb	19:47:49
2	Si 251.611†	73523.1	68559.2	2495.7 ug/L	2495.7 ppb	19:47:29
2	Sn 189.927†	2234.7	2093.6	493.65 ug/L	493.65 ppb	19:47:49
2	Ti 334.940†	260600.8	246395.8	496.36 ug/L	496.36 ppb	19:47:29
2	Tl 190.801†	1102.4	1068.0	493.78 ug/L	493.78 ppb	19:47:49
2	U 409.014†	13333.6	15077.0	503.17 ug/L	503.17 ppb	19:47:29
2	V 292.402†	64677.2	62456.8	503.97 ug/L	503.97 ppb	19:47:29
2	Zn 213.857†	48777.2	45164.6	493.44 ug/L	493.44 ppb	19:47:29
2	SiO2†	74238.1	69224.4	5379.2 ug/L	5379.2 ppb	19:48:31
3	Sc Radial	4932.9	4932.9	105 %		19:46:26
3	Y RADIAL	5206.7	5206.7	104.4 %		19:46:26
3	Al 396.153Radial†	5571.6	5403.2	5030.3 ug/L	5030.3 ppb	19:46:26
3	Ca 317.933Radial†	2983.5	2824.5	5132.0 ug/L	5132.0 ppb	19:46:46
3	Fe 238.204 Radial†	526.7	495.2	5152.9 ug/L	5152.9 ppb	19:46:46
3	K 766.490 Radial†	28953.3	25363.6	5042.7 ug/L	5042.7 ppb	19:46:26
3	Mg 279.077 IEC†	138.5	129.3	5131.9 ug/L	5131.9 ppb	19:46:46
3	Na 589.592 Radial†	29149.8	28660.6	9767.5 ug/L	9767.5 ppb	19:46:26
3	Sr 421.552†	71956.2	68656.1	499.21 ug/L	499.21 ppb	19:46:26
3	Sc 361.383	822719.6	822719.6	107.13 %		19:47:55
3	Y 371.029	727811.7	727811.7	105.63 %		19:47:55
3	Ag 328.068†	104367.2	97162.3	502.68 ug/L	502.68 ppb	19:48:00
3	As 188.979†	1159.1	1106.9	497.73 ug/L	497.73 ppb	19:48:20
3	B 249.677†	20967.5	20024.8	499.15 ug/L	499.15 ppb	19:48:00
3	Ba 233.527†	45808.6	42756.0	505.78 ug/L	505.78 ppb	19:48:00
3	Be 313.107†	1322789.4	1243694.3	495.49 ug/L	495.49 ppb	19:47:55
3	Cd 226.502†	37922.9	35584.5	504.35 ug/L	504.35 ppb	19:48:00
3	Co 228.616†	18192.8	17038.9	515.00 ug/L	515.00 ppb	19:48:00
3	Cr 267.716†	39421.2	36720.7	502.28 ug/L	502.28 ppb	19:48:00
3	Cu 324.752†	152244.7	134571.4	503.88 ug/L	503.88 ppb	19:48:00
3	Mn 257.610†	337419.7	314491.5	503.68 ug/L	503.68 ppb	19:48:00
3	Mo 202.031†	5785.6	5386.0	494.74 ug/L	494.74 ppb	19:48:20
3	Ni 231.604†	17189.0	15943.1	509.34 ug/L	509.34 ppb	19:48:00
3	P 214.914†	4971.5	4445.1	2383.8 ug/L	2383.8 ppb	19:48:20
3	Pb 220.353†	3223.6	3079.7	498.43 ug/L	498.43 ppb	19:48:20
3	S 181.975 Axial†	855.6	756.1	979.43 ug/L	979.43 ppb	19:48:20
3	Sb 206.836†	1358.2	1237.8	519.88 ug/L	519.88 ppb	19:48:20
3	Se 196.026†	869.2	831.2	522.54 ug/L	522.54 ppb	19:48:20
3	Si 251.611†	74951.6	69371.7	2525.3 ug/L	2525.3 ppb	19:48:00
3	Sn 189.927†	2237.7	2080.6	490.59 ug/L	490.59 ppb	19:48:20
3	Ti 334.940†	265417.9	249046.1	501.70 ug/L	501.70 ppb	19:48:00
3	Tl 190.801†	1127.0	1083.2	500.78 ug/L	500.78 ppb	19:48:20
3	U 409.014†	13613.7	15244.1	508.75 ug/L	508.75 ppb	19:48:00
3	V 292.402†	65707.5	62960.4	507.97 ug/L	507.97 ppb	19:48:00
3	Zn 213.857†	49570.0	45559.1	497.75 ug/L	497.75 ppb	19:48:00
3	SiO2†	73615.7	68117.5	5293.0 ug/L	5293.0 ppb	19:48:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818965.1	106.64	%	0.430				0.40%
Sc Radial	5039.1	107	%	4.0				3.77%
Y 371.029	723969.7	105.07	%	0.483				0.46%
Y RADIAL	5292.2	106.2	%	3.89				3.67%
Ag 328.068†	96799.2	500.77	ug/L	2.278	500.77	ppb	2.278	0.45%
QC value within limits for Ag 328.068 Recovery = 100.15%								
Al 396.153Radial†	5246.2	4883.4	ug/L	238.27	4883.4	ppb	238.27	4.88%
QC value within limits for Al 396.153Radial Recovery = 97.67%								
As 188.979†	1117.7	502.48	ug/L	4.289	502.48	ppb	4.289	0.85%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	19818.5	494.01	ug/L	4.537	494.01	ppb	4.537	0.92%
QC value within limits for B 249.677 Recovery = 98.80%								
Ba 233.527†	42597.0	503.89	ug/L	3.801	503.89	ppb	3.801	0.75%
QC value within limits for Ba 233.527 Recovery = 100.78%								
Be 313.107†	1244373.7	495.75	ug/L	0.623	495.75	ppb	0.623	0.13%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	2747.0	4991.2	ug/L	222.21	4991.2	ppb	222.21	4.45%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.82%
Cd 226.502†            35432.0      502.20 ug/L        3.467      502.20 ppb        3.467   0.69%
   QC value within limits for Cd 226.502  Recovery = 100.44%
Co 228.616†            16979.4      513.21 ug/L        3.691      513.21 ppb        3.691   0.72%
   QC value within limits for Co 228.616  Recovery = 102.64%
Cr 267.716†            36547.8      499.91 ug/L        2.954      499.91 ppb        2.954   0.59%
   QC value within limits for Cr 267.716  Recovery = 99.98%
Cu 324.752†           133891.3      501.33 ug/L        3.202      501.33 ppb        3.202   0.64%
   QC value within limits for Cu 324.752  Recovery = 100.27%
Fe 238.204 Radial†       482.6      5022.2 ug/L      205.73      5022.2 ppb      205.73   4.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.44%
K 766.490 Radial†      24550.5      4881.0 ug/L      243.79      4881.0 ppb      243.79   4.99%
   QC value within limits for K 766.490 Radial  Recovery = 97.62%
Mg 279.077 IEC†          126.5      5024.0 ug/L      131.45      5024.0 ppb      131.45   2.62%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.48%
Mn 257.610†           313277.6      501.73 ug/L        3.337      501.73 ppb        3.337   0.67%
   QC value within limits for Mn 257.610  Recovery = 100.35%
Mo 202.031†             5394.1      495.48 ug/L        0.880      495.48 ppb        0.880   0.18%
   QC value within limits for Mo 202.031  Recovery = 99.10%
Na 589.592 Radial†     27756.5      9459.4 ug/L      449.31      9459.4 ppb      449.31   4.75%
   QC value within limits for Na 589.592 Radial  Recovery = 94.59%
Ni 231.604†            15902.0      508.03 ug/L        2.811      508.03 ppb        2.811   0.55%
   QC value within limits for Ni 231.604  Recovery = 101.61%
P 214.914†              4453.6      2389.1 ug/L        5.22      2389.1 ppb         5.22   0.22%
   QC value within limits for P 214.914  Recovery = 95.57%
Pb 220.353†             3076.3      497.85 ug/L        2.711      497.85 ppb        2.711   0.54%
   QC value within limits for Pb 220.353  Recovery = 99.57%
S 181.975 Axial†         762.4      987.62 ug/L        7.965      987.62 ppb        7.965   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 98.76%
Sb 206.836†             1242.0      521.65 ug/L        1.702      521.65 ppb        1.702   0.33%
   QC value within limits for Sb 206.836  Recovery = 104.33%
Se 196.026†              826.2      519.17 ug/L        4.260      519.17 ppb        4.260   0.82%
   QC value within limits for Se 196.026  Recovery = 103.83%
Si 251.611†            69090.5      2515.1 ug/L       16.80      2515.1 ppb       16.80   0.67%
   QC value within limits for Si 251.611  Recovery = 100.60%
Sn 189.927†             2092.8      493.44 ug/L        2.750      493.44 ppb        2.750   0.56%
   QC value within limits for Sn 189.927  Recovery = 98.69%
Sr 421.552†            66623.0      484.43 ug/L       23.483      484.43 ppb       23.483   4.85%
   QC value within limits for Sr 421.552  Recovery = 96.89%
Ti 334.940†           248112.2      499.80 ug/L        2.987      499.80 ppb        2.987   0.60%
   QC value within limits for Ti 334.940  Recovery = 99.96%
Tl 190.801†             1074.2      496.64 ug/L        3.672      496.64 ppb        3.672   0.74%
   QC value within limits for Tl 190.801  Recovery = 99.33%
U 409.014†             15211.9      507.69 ug/L        4.099      507.69 ppb        4.099   0.81%
   QC value within limits for U 409.014  Recovery = 101.54%
V 292.402†             62766.0      506.45 ug/L        2.169      506.45 ppb        2.169   0.43%
   QC value within limits for V 292.402  Recovery = 101.29%
Zn 213.857†            45449.1      496.57 ug/L        2.735      496.57 ppb        2.735   0.55%
   QC value within limits for Zn 213.857  Recovery = 99.31%
SiO2†                  68561.5      5327.6 ug/L       45.57      5327.6 ppb       45.57   0.86%
   QC value within limits for SiO2  Recovery = 99.63%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 19:50:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5098.3	5098.3	108	%			19:52:37
1	Y RADIAL	5360.2	5360.2	107.5	%			19:52:37
1	Al 396.153Radial†	-95.5	-1.1	-1.0300	ug/L	-1.0300	ppb	19:52:57
1	Ca 317.933Radial†	27.7	3.4	6.2222	ug/L	6.2222	ppb	19:52:57
1	Fe 238.204 Radial†	8.8	0.8	8.6908	ug/L	8.6908	ppb	19:52:57
1	K 766.490 Radial†	2225.7	-206.9	-41.212	ug/L	-41.212	ppb	19:52:37
1	Mg 279.077 IEC†	-0.9	-3.7	-146.90	ug/L	-146.90	ppb	19:52:57
1	Na 589.592 Radial†	-724.1	179.3	61.116	ug/L	61.116	ppb	19:52:37
1	Sr 421.552†	10.3	10.0	0.0727	ug/L	0.0727	ppb	19:52:37
1	Sc 361.383	809198.9	809198.9	105.37	%			19:53:54
1	Y 371.029	726387.2	726387.2	105.42	%			19:53:54
1	Ag 328.068†	232.7	-34.8	-0.1837	ug/L	-0.1837	ppb	19:53:54
1	As 188.979†	-33.6	-6.9	-3.0745	ug/L	-3.0745	ppb	19:54:14
1	B 249.677†	-275.8	191.7	4.8001	ug/L	4.8001	ppb	19:54:14
1	Ba 233.527†	4.3	1.7	0.0216	ug/L	0.0216	ppb	19:54:14
1	Be 313.107†	-9677.4	-201.3	-0.0793	ug/L	-0.0793	ppb	19:53:54
1	Cd 226.502†	-190.7	5.7	0.0814	ug/L	0.0814	ppb	19:54:14
1	Co 228.616†	-72.8	-11.7	-0.3519	ug/L	-0.3519	ppb	19:54:14
1	Cr 267.716†	52.9	-25.4	-0.3513	ug/L	-0.3513	ppb	19:54:14
1	Cu 324.752†	7861.9	-75.1	-0.2876	ug/L	-0.2876	ppb	19:53:54
1	Mn 257.610†	430.3	-52.8	-0.0776	ug/L	-0.0776	ppb	19:54:14
1	Mo 202.031†	21.6	6.1	0.5640	ug/L	0.5640	ppb	19:54:14
1	Ni 231.604†	92.2	-13.9	-0.4433	ug/L	-0.4433	ppb	19:54:14
1	P 214.914†	209.9	3.8	2.1760	ug/L	2.1760	ppb	19:54:14
1	Pb 220.353†	-72.1	2.2	0.3603	ug/L	0.3603	ppb	19:54:14
1	S 181.975 Axial†	43.6	-1.1	-1.4395	ug/L	-1.4395	ppb	19:54:14
1	Sb 206.836†	32.2	0.5	0.2111	ug/L	0.2111	ppb	19:54:14
1	Se 196.026†	-21.6	-0.7	-0.3977	ug/L	-0.3977	ppb	19:54:14
1	Si 251.611†	566.3	-51.8	-1.8977	ug/L	-1.8977	ppb	19:54:14
1	Sn 189.927†	5.6	-2.7	-0.6469	ug/L	-0.6469	ppb	19:54:14
1	Ti 334.940†	-1204.4	158.0	0.3260	ug/L	0.3260	ppb	19:53:54
1	Tl 190.801†	-37.1	-4.0	-1.8469	ug/L	-1.8469	ppb	19:54:14
1	U 409.014†	-2287.4	366.0	12.256	ug/L	12.256	ppb	19:53:54
1	V 292.402†	-1625.4	85.5	0.7079	ug/L	0.7079	ppb	19:53:54
1	Zn 213.857†	774.2	24.5	0.2716	ug/L	0.2716	ppb	19:54:14
1	SiO2†	565.2	-60.1	-4.6949	ug/L	-4.6949	ppb	19:55:10
2	Sc Radial	5013.8	5013.8	107	%			19:53:02
2	Y RADIAL	5282.8	5282.8	106.0	%			19:53:02
2	Al 396.153Radial†	-84.6	7.7	7.2409	ug/L	7.2409	ppb	19:53:22
2	Ca 317.933Radial†	17.7	-5.5	-10.026	ug/L	-10.026	ppb	19:53:22
2	Fe 238.204 Radial†	5.9	-1.7	-18.125	ug/L	-18.125	ppb	19:53:22
2	K 766.490 Radial†	2367.3	-39.4	-7.8501	ug/L	-7.8501	ppb	19:53:02
2	Mg 279.077 IEC†	-1.8	-4.6	-181.52	ug/L	-181.52	ppb	19:53:22
2	Na 589.592 Radial†	-745.7	147.8	50.373	ug/L	50.373	ppb	19:53:02
2	Sr 421.552†	5.2	5.4	0.0391	ug/L	0.0391	ppb	19:53:02
2	Sc 361.383	811656.1	811656.1	105.69	%			19:54:19
2	Y 371.029	728765.3	728765.3	105.77	%			19:54:19
2	Ag 328.068†	225.8	-42.0	-0.2247	ug/L	-0.2247	ppb	19:54:19
2	As 188.979†	-19.3	6.7	2.9993	ug/L	2.9993	ppb	19:54:39
2	B 249.677†	-320.1	150.6	3.7740	ug/L	3.7740	ppb	19:54:39
2	Ba 233.527†	4.3	1.7	0.0208	ug/L	0.0208	ppb	19:54:39
2	Be 313.107†	-9604.9	-104.9	-0.0413	ug/L	-0.0413	ppb	19:54:19
2	Cd 226.502†	-193.1	3.9	0.0587	ug/L	0.0587	ppb	19:54:39
2	Co 228.616†	-60.1	0.6	0.0196	ug/L	0.0196	ppb	19:54:39
2	Cr 267.716†	72.3	-7.2	-0.1004	ug/L	-0.1004	ppb	19:54:39
2	Cu 324.752†	7858.3	-101.1	-0.3833	ug/L	-0.3833	ppb	19:54:19
2	Mn 257.610†	434.4	-50.1	-0.0746	ug/L	-0.0746	ppb	19:54:39
2	Mo 202.031†	15.5	0.3	0.0282	ug/L	0.0282	ppb	19:54:39
2	Ni 231.604†	80.4	-25.2	-0.8067	ug/L	-0.8067	ppb	19:54:39

2	P 214.914†	200.8	-5.4	-2.9387	ug/L	-2.9387 ppb	19:54:39
2	Pb 220.353†	-71.0	3.5	0.5747	ug/L	0.5747 ppb	19:54:39
2	S 181.975 Axial†	47.9	2.8	3.5836	ug/L	3.5836 ppb	19:54:39
2	Sb 206.836†	33.4	1.5	0.6259	ug/L	0.6259 ppb	19:54:39
2	Se 196.026†	-15.9	4.7	2.8543	ug/L	2.8543 ppb	19:54:39
2	Si 251.611†	549.9	-68.9	-2.5159	ug/L	-2.5159 ppb	19:54:39
2	Sn 189.927†	9.6	1.0	0.2389	ug/L	0.2389 ppb	19:54:39
2	Ti 334.940†	-1286.2	84.1	0.1799	ug/L	0.1799 ppb	19:54:19
2	Tl 190.801†	-29.3	3.5	1.5886	ug/L	1.5886 ppb	19:54:39
2	U 409.014†	-2462.8	206.7	6.9222	ug/L	6.9222 ppb	19:54:19
2	V 292.402†	-1644.9	71.7	0.5835	ug/L	0.5835 ppb	19:54:19
2	Zn 213.857†	750.7	0.0	0.0086	ug/L	0.0086 ppb	19:54:39
2	SiO2†	585.8	-42.2	-3.2855	ug/L	-3.2855 ppb	19:55:15
3	Sc Radial	4969.6	4969.6	106	%		19:53:27
3	Y RADIAL	5232.0	5232.0	104.9	%		19:53:27
3	Al 396.153Radial†	-79.7	11.7	10.912	ug/L	10.912 ppb	19:53:47
3	Ca 317.933Radial†	19.5	-3.7	-6.6605	ug/L	-6.6605 ppb	19:53:47
3	Fe 238.204 Radial†	8.7	0.9	9.7216	ug/L	9.7216 ppb	19:53:47
3	K 766.490 Radial†	2313.3	-70.8	-14.101	ug/L	-14.101 ppb	19:53:27
3	Mg 279.077 IEC†	1.6	-1.4	-54.255	ug/L	-54.255 ppb	19:53:47
3	Na 589.592 Radial†	-763.6	124.6	42.468	ug/L	42.468 ppb	19:53:27
3	Sr 421.552†	-5.1	-4.4	-0.0318	ug/L	-0.0318 ppb	19:53:27
3	Sc 361.383	817019.0	817019.0	106.39	%		19:54:44
3	Y 371.029	735068.1	735068.1	106.68	%		19:54:44
3	Ag 328.068†	215.7	-53.0	-0.2734	ug/L	-0.2734 ppb	19:54:44
3	As 188.979†	-35.3	-8.2	-3.6355	ug/L	-3.6355 ppb	19:55:05
3	B 249.677†	-317.1	155.4	3.8897	ug/L	3.8897 ppb	19:55:05
3	Ba 233.527†	-2.5	-4.8	-0.0543	ug/L	-0.0543 ppb	19:55:05
3	Be 313.107†	-9648.7	-86.4	-0.0336	ug/L	-0.0336 ppb	19:54:44
3	Cd 226.502†	-199.1	-0.5	-0.0059	ug/L	-0.0059 ppb	19:55:05
3	Co 228.616†	-59.4	1.6	0.0484	ug/L	0.0484 ppb	19:55:05
3	Cr 267.716†	68.1	-11.6	-0.1613	ug/L	-0.1613 ppb	19:55:05
3	Cu 324.752†	7896.2	-114.3	-0.4326	ug/L	-0.4326 ppb	19:54:44
3	Mn 257.610†	472.2	-17.3	-0.0244	ug/L	-0.0244 ppb	19:55:05
3	Mo 202.031†	17.9	2.4	0.2234	ug/L	0.2234 ppb	19:55:05
3	Ni 231.604†	98.4	-8.8	-0.2818	ug/L	-0.2818 ppb	19:55:05
3	P 214.914†	204.2	-3.4	-1.8227	ug/L	-1.8227 ppb	19:55:05
3	Pb 220.353†	-62.0	12.4	2.0036	ug/L	2.0036 ppb	19:55:05
3	S 181.975 Axial†	51.2	5.7	7.3357	ug/L	7.3357 ppb	19:55:05
3	Sb 206.836†	45.6	12.8	5.2063	ug/L	5.2063 ppb	19:55:05
3	Se 196.026†	-23.5	-2.3	-1.3558	ug/L	-1.3558 ppb	19:55:05
3	Si 251.611†	557.1	-65.6	-2.3953	ug/L	-2.3953 ppb	19:55:05
3	Sn 189.927†	9.8	1.2	0.2744	ug/L	0.2744 ppb	19:55:05
3	Ti 334.940†	-1219.7	154.6	0.3111	ug/L	0.3111 ppb	19:54:44
3	Tl 190.801†	-31.5	1.6	0.7328	ug/L	0.7328 ppb	19:55:05
3	U 409.014†	-2400.1	280.9	9.4041	ug/L	9.4041 ppb	19:54:44
3	V 292.402†	-1616.3	108.8	0.8846	ug/L	0.8846 ppb	19:54:44
3	Zn 213.857†	741.5	-13.4	-0.1464	ug/L	-0.1464 ppb	19:55:05
3	SiO2†	575.6	-55.5	-4.3265	ug/L	-4.3265 ppb	19:55:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812624.7	105.82	%	0.521				0.49%
Sc Radial	5027.2	107	%	1.4				1.30%
Y 371.029	730073.6	105.96	%	0.651				0.61%
Y RADIAL	5291.7	106.1	%	1.30				1.22%
Ag 328.068†	-43.3	-0.2273	ug/L	0.04494	-0.2273	ppb	0.04494	19.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.1	5.7077	ug/L	6.11690	5.7077	ppb	6.11690	107.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.2369	ug/L	3.67937	-1.2369	ppb	3.67937	297.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	165.9	4.1546	ug/L	0.56199	4.1546	ppb	0.56199	13.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.5	-0.0039	ug/L	0.04359	-0.0039	ppb	0.04359	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-130.9	-0.0514	ug/L	0.02444	-0.0514	ppb	0.02444	47.53%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-3.4880	ug/L	8.57595	-3.4880	ppb	8.57595	245.87%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.0      0.0447 ug/L       0.04530      0.0447 ppb        0.04530 101.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -3.1     -0.0946 ug/L       0.22324     -0.0946 ppb        0.22324 235.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.8     -0.2043 ug/L       0.13088     -0.2043 ppb        0.13088  64.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -96.8     -0.3678 ug/L       0.07371     -0.3678 ppb        0.07371  20.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.0959 ug/L      15.78781      0.0959 ppb       15.78781 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -105.7     -21.054 ug/L       17.7344     -21.054 ppb        17.7344  84.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.2     -127.56 ug/L        65.798     -127.56 ppb         65.798  51.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -40.0     -0.0589 ug/L       0.02986     -0.0589 ppb        0.02986  50.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.0      0.2719 ug/L       0.27119      0.2719 ppb        0.27119  99.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       150.6      51.319 ug/L        9.3597      51.319 ppb         9.3597  18.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -16.0     -0.5106 ug/L       0.26886     -0.5106 ppb        0.26886  52.65%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.7     -0.8618 ug/L       2.68930     -0.8618 ppb        2.68930 312.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.1      0.9796 ug/L       0.89334      0.9796 ppb        0.89334  91.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.4      3.1600 ug/L       4.40291      3.1600 ppb        4.40291 139.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.0      2.0144 ug/L       2.77201      2.0144 ppb        2.77201 137.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.6      0.3669 ug/L       2.20672      0.3669 ppb        2.20672 601.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -62.1     -2.2696 ug/L       0.32771     -2.2696 ppb        0.32771  14.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.2     -0.0445 ug/L       0.52199     -0.0445 ppb        0.52199 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                3.7      0.0267 ug/L       0.05336      0.0267 ppb        0.05336 199.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              132.3      0.2723 ug/L       0.08038      0.2723 ppb        0.08038  29.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.3      0.1582 ug/L       1.78842      0.1582 ppb        1.78842 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               284.5      9.5273 ug/L       2.66884      9.5273 ppb        2.66884  28.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                88.6      0.7253 ug/L       0.15129      0.7253 ppb        0.15129  20.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                3.7      0.0446 ug/L       0.21132      0.0446 ppb        0.21132 473.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -52.6     -4.1023 ug/L       0.73095     -4.1023 ppb        0.73095  17.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/1/2010 20:44:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4955.3	4955.3	105	%			20:46:23
1	Y RADIAL	5216.5	5216.5	104.6	%			20:46:23
1	Al 396.153Radial†	5530.9	5340.5	4971.5	ug/L	4971.5	ppb	20:46:23
1	Ca 317.933Radial†	2981.9	2810.1	5105.8	ug/L	5105.8	ppb	20:46:43
1	Fe 238.204 Radial†	530.0	496.1	5162.5	ug/L	5162.5	ppb	20:46:43
1	K 766.490 Radial†	28735.5	25031.7	4976.5	ug/L	4976.5	ppb	20:46:23
1	Mg 279.077 IEC†	142.5	132.4	5257.9	ug/L	5257.9	ppb	20:46:43
1	Na 589.592 Radial†	30146.9	29481.7	10047	ug/L	10047	ppb	20:46:23
1	Sr 421.552†	72753.2	69102.4	502.46	ug/L	502.46	ppb	20:46:23
1	Sc 361.383	818841.5	818841.5	106.63	%			20:47:40
1	Y 371.029	725332.2	725332.2	105.27	%			20:47:40
1	Ag 328.068†	102995.3	96337.0	498.42	ug/L	498.42	ppb	20:47:46
1	As 188.979†	1169.6	1121.9	504.32	ug/L	504.32	ppb	20:48:06
1	B 249.677†	20483.8	19663.9	490.13	ug/L	490.13	ppb	20:47:46
1	Ba 233.527†	45020.1	42219.0	499.43	ug/L	499.43	ppb	20:47:46
1	Be 313.107†	1315047.5	1242281.3	494.91	ug/L	494.91	ppb	20:47:40
1	Cd 226.502†	37426.5	35286.5	500.12	ug/L	500.12	ppb	20:47:46
1	Co 228.616†	17883.3	16829.1	508.68	ug/L	508.68	ppb	20:47:46
1	Cr 267.716†	38856.1	36365.0	497.41	ug/L	497.41	ppb	20:47:46
1	Cu 324.752†	149317.2	132498.8	496.13	ug/L	496.13	ppb	20:47:46
1	Mn 257.610†	331754.3	310670.0	497.56	ug/L	497.56	ppb	20:47:46
1	Mo 202.031†	5776.1	5402.6	496.27	ug/L	496.27	ppb	20:48:06
1	Ni 231.604†	16954.0	15798.7	504.73	ug/L	504.73	ppb	20:47:46
1	P 214.914†	4982.1	4477.1	2403.2	ug/L	2403.2	ppb	20:48:06
1	Pb 220.353†	3268.4	3135.9	507.49	ug/L	507.49	ppb	20:48:06
1	S 181.975 Axial†	868.6	772.1	1000.2	ug/L	1000.2	ppb	20:48:06
1	Sb 206.836†	1333.6	1220.7	513.02	ug/L	513.02	ppb	20:48:06
1	Se 196.026†	862.9	829.0	521.26	ug/L	521.26	ppb	20:48:06
1	Si 251.611†	73537.2	68376.6	2489.0	ug/L	2489.0	ppb	20:47:46
1	Sn 189.927†	2239.5	2092.2	493.31	ug/L	493.31	ppb	20:48:06
1	Ti 334.940†	260825.7	245912.7	495.37	ug/L	495.37	ppb	20:47:46
1	Tl 190.801†	1118.2	1079.9	499.23	ug/L	499.23	ppb	20:48:06
1	U 409.014†	13342.1	15049.5	502.24	ug/L	502.24	ppb	20:47:46
1	V 292.402†	64737.1	62340.8	503.06	ug/L	503.06	ppb	20:47:46
1	Zn 213.857†	48862.8	45115.0	492.89	ug/L	492.89	ppb	20:47:46
1	SiO2†	73818.2	68632.9	5333.1	ug/L	5333.1	ppb	20:49:13
2	Sc Radial	5017.5	5017.5	107	%			20:46:48
2	Y RADIAL	5219.2	5219.2	104.7	%			20:46:48
2	Al 396.153Radial†	5559.1	5301.8	4935.6	ug/L	4935.6	ppb	20:46:48
2	Ca 317.933Radial†	3010.9	2802.2	5091.5	ug/L	5091.5	ppb	20:47:08
2	Fe 238.204 Radial†	538.0	497.4	5175.3	ug/L	5175.3	ppb	20:47:08
2	K 766.490 Radial†	28842.7	24793.9	4929.2	ug/L	4929.2	ppb	20:46:48
2	Mg 279.077 IEC†	142.5	130.8	5192.3	ug/L	5192.3	ppb	20:47:08
2	Na 589.592 Radial†	30254.1	29227.3	9960.7	ug/L	9960.7	ppb	20:46:48
2	Sr 421.552†	72983.2	68461.6	497.80	ug/L	497.80	ppb	20:46:48
2	Sc 361.383	821062.7	821062.7	106.92	%			20:48:11
2	Y 371.029	726323.4	726323.4	105.41	%			20:48:11
2	Ag 328.068†	102390.9	95510.4	494.17	ug/L	494.17	ppb	20:48:16
2	As 188.979†	1152.4	1102.8	495.81	ug/L	495.81	ppb	20:48:37
2	B 249.677†	20439.9	19570.9	487.80	ug/L	487.80	ppb	20:48:16
2	Ba 233.527†	44946.5	42036.0	497.27	ug/L	497.27	ppb	20:48:16
2	Be 313.107†	1314649.6	1238572.8	493.43	ug/L	493.43	ppb	20:48:11
2	Cd 226.502†	37367.3	35136.2	497.99	ug/L	497.99	ppb	20:48:16
2	Co 228.616†	17843.2	16746.2	506.17	ug/L	506.17	ppb	20:48:16
2	Cr 267.716†	38716.6	36136.0	494.28	ug/L	494.28	ppb	20:48:16
2	Cu 324.752†	148595.4	131444.9	492.18	ug/L	492.18	ppb	20:48:16
2	Mn 257.610†	331036.1	309156.5	495.14	ug/L	495.14	ppb	20:48:16
2	Mo 202.031†	5719.9	5335.5	490.11	ug/L	490.11	ppb	20:48:37
2	Ni 231.604†	16931.5	15734.6	502.68	ug/L	502.68	ppb	20:48:16

2	P 214.914†	4918.2	4404.7	2363.5 ug/L	2363.5 ppb	20:48:37
2	Pb 220.353†	3250.0	3110.4	503.36 ug/L	503.36 ppb	20:48:37
2	S 181.975 Axial†	870.5	771.7	999.56 ug/L	999.56 ppb	20:48:37
2	Sb 206.836†	1329.4	1213.4	509.87 ug/L	509.87 ppb	20:48:37
2	Se 196.026†	847.0	812.0	510.86 ug/L	510.86 ppb	20:48:37
2	Si 251.611†	73320.7	67987.6	2474.9 ug/L	2474.9 ppb	20:48:16
2	Sn 189.927†	2229.0	2076.7	489.65 ug/L	489.65 ppb	20:48:37
2	Ti 334.940†	259779.9	244272.9	492.07 ug/L	492.07 ppb	20:48:16
2	Tl 190.801†	1108.4	1067.9	493.70 ug/L	493.70 ppb	20:48:37
2	U 409.014†	13394.0	15064.2	502.74 ug/L	502.74 ppb	20:48:16
2	V 292.402†	64573.2	62023.2	500.44 ug/L	500.44 ppb	20:48:16
2	Zn 213.857†	48729.1	44866.0	490.16 ug/L	490.16 ppb	20:48:16
2	SiO2†	74174.8	68779.2	5344.7 ug/L	5344.7 ppb	20:49:18
3	Sc Radial	4975.9	4975.9	106 %		20:47:13
3	Y RADIAL	5234.1	5234.1	105.0 %		20:47:13
3	Al 396.153Radial†	5545.5	5332.5	4964.2 ug/L	4964.2 ppb	20:47:13
3	Ca 317.933Radial†	3002.1	2817.5	5119.2 ug/L	5119.2 ppb	20:47:33
3	Fe 238.204 Radial†	533.6	497.4	5175.7 ug/L	5175.7 ppb	20:47:33
3	K 766.490 Radial†	28618.8	24808.6	4932.1 ug/L	4932.1 ppb	20:47:13
3	Mg 279.077 IEC†	141.3	130.8	5192.8 ug/L	5192.8 ppb	20:47:33
3	Na 589.592 Radial†	29982.9	29208.3	9954.2 ug/L	9954.2 ppb	20:47:13
3	Sr 421.552†	72795.7	68857.3	500.67 ug/L	500.67 ppb	20:47:13
3	Sc 361.383	822590.8	822590.8	107.12 %		20:48:42
3	Y 371.029	727105.4	727105.4	105.53 %		20:48:42
3	Ag 328.068†	103098.9	95993.5	496.66 ug/L	496.66 ppb	20:48:47
3	As 188.979†	1166.9	1114.4	500.99 ug/L	500.99 ppb	20:49:07
3	B 249.677†	20666.7	19747.1	492.21 ug/L	492.21 ppb	20:48:47
3	Ba 233.527†	45128.4	42127.7	498.35 ug/L	498.35 ppb	20:48:47
3	Be 313.107†	1314512.6	1236160.7	492.48 ug/L	492.48 ppb	20:48:42
3	Cd 226.502†	37523.2	35216.8	499.13 ug/L	499.13 ppb	20:48:47
3	Co 228.616†	17897.7	16766.1	506.77 ug/L	506.77 ppb	20:48:47
3	Cr 267.716†	39024.4	36356.1	497.29 ug/L	497.29 ppb	20:48:47
3	Cu 324.752†	149979.0	132478.5	496.05 ug/L	496.05 ppb	20:48:47
3	Mn 257.610†	333180.4	310583.2	497.43 ug/L	497.43 ppb	20:48:47
3	Mo 202.031†	5762.0	5364.8	492.80 ug/L	492.80 ppb	20:49:07
3	Ni 231.604†	17000.7	15769.8	503.81 ug/L	503.81 ppb	20:48:47
3	P 214.914†	4952.8	4428.4	2376.0 ug/L	2376.0 ppb	20:49:07
3	Pb 220.353†	3249.5	3104.3	502.38 ug/L	502.38 ppb	20:49:07
3	S 181.975 Axial†	860.6	760.9	985.61 ug/L	985.61 ppb	20:49:07
3	Sb 206.836†	1345.2	1225.8	514.97 ug/L	514.97 ppb	20:49:07
3	Se 196.026†	859.7	822.4	517.23 ug/L	517.23 ppb	20:49:07
3	Si 251.611†	73953.3	68450.7	2491.8 ug/L	2491.8 ppb	20:48:47
3	Sn 189.927†	2232.5	2076.1	489.52 ug/L	489.52 ppb	20:49:07
3	Ti 334.940†	262019.5	245912.3	495.38 ug/L	495.38 ppb	20:48:47
3	Tl 190.801†	1116.9	1073.9	496.50 ug/L	496.50 ppb	20:49:07
3	U 409.014†	13367.1	15015.8	501.12 ug/L	501.12 ppb	20:48:47
3	V 292.402†	64956.2	62268.6	502.43 ug/L	502.43 ppb	20:48:47
3	Zn 213.857†	49082.1	45110.8	492.85 ug/L	492.85 ppb	20:48:47
3	SiO2†	74158.0	68634.6	5333.3 ug/L	5333.3 ppb	20:49:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	820831.7	106.89	%	0.246				0.23%
Sc Radial	4982.9	106	%	0.7				0.64%
Y 371.029	726253.7	105.40	%	0.129				0.12%
Y RADIAL	5223.3	104.8	%	0.19				0.18%
Ag 328.068†	95947.0	496.42	ug/L	2.139	496.42	ppb	2.139	0.43%
QC value within limits for Ag 328.068 Recovery = 99.28%								
Al 396.153Radial†	5324.9	4957.1	ug/L	18.96	4957.1	ppb	18.96	0.38%
QC value within limits for Al 396.153Radial Recovery = 99.14%								
As 188.979†	1113.0	500.37	ug/L	4.286	500.37	ppb	4.286	0.86%
QC value within limits for As 188.979 Recovery = 100.07%								
B 249.677†	19660.6	490.05	ug/L	2.206	490.05	ppb	2.206	0.45%
QC value within limits for B 249.677 Recovery = 98.01%								
Ba 233.527†	42127.6	498.35	ug/L	1.082	498.35	ppb	1.082	0.22%
QC value within limits for Ba 233.527 Recovery = 99.67%								
Be 313.107†	1239004.9	493.60	ug/L	1.226	493.60	ppb	1.226	0.25%
QC value within limits for Be 313.107 Recovery = 98.72%								
Ca 317.933Radial†	2809.9	5105.5	ug/L	13.85	5105.5	ppb	13.85	0.27%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.11%
Cd 226.502†            35213.2      499.08 ug/L         1.068      499.08 ppb          1.068   0.21%
   QC value within limits for Cd 226.502  Recovery = 99.82%
Co 228.616†            16780.4      507.20 ug/L         1.312      507.20 ppb          1.312   0.26%
   QC value within limits for Co 228.616  Recovery = 101.44%
Cr 267.716†            36285.7      496.33 ug/L         1.775      496.33 ppb          1.775   0.36%
   QC value within limits for Cr 267.716  Recovery = 99.27%
Cu 324.752†           132140.7      494.79 ug/L         2.257      494.79 ppb          2.257   0.46%
   QC value within limits for Cu 324.752  Recovery = 98.96%
Fe 238.204 Radial†       497.0      5171.2 ug/L          7.54      5171.2 ppb           7.54   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.42%
K 766.490 Radial†      24878.1      4945.9 ug/L         26.50      4945.9 ppb          26.50   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 98.92%
Mg 279.077 IEC†          131.3      5214.4 ug/L         37.72      5214.4 ppb          37.72   0.72%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.29%
Mn 257.610†           310136.5      496.71 ug/L         1.359      496.71 ppb          1.359   0.27%
   QC value within limits for Mn 257.610  Recovery = 99.34%
Mo 202.031†             5367.6      493.06 ug/L         3.090      493.06 ppb          3.090   0.63%
   QC value within limits for Mo 202.031  Recovery = 98.61%
Na 589.592 Radial†     29305.8      9987.4 ug/L         52.02      9987.4 ppb          52.02   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 99.87%
Ni 231.604†            15767.7      503.74 ug/L         1.025      503.74 ppb          1.025   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.75%
P 214.914†              4436.7      2380.9 ug/L         20.30      2380.9 ppb          20.30   0.85%
   QC value within limits for P 214.914  Recovery = 95.24%
Pb 220.353†             3116.9      504.41 ug/L         2.713      504.41 ppb          2.713   0.54%
   QC value within limits for Pb 220.353  Recovery = 100.88%
S 181.975 Axial†         768.2      995.12 ug/L         8.237      995.12 ppb          8.237   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 99.51%
Sb 206.836†             1220.0      512.62 ug/L         2.573      512.62 ppb          2.573   0.50%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†              821.2      516.45 ug/L         5.245      516.45 ppb          5.245   1.02%
   QC value within limits for Se 196.026  Recovery = 103.29%
Si 251.611†            68271.6      2485.2 ug/L          9.05      2485.2 ppb           9.05   0.36%
   QC value within limits for Si 251.611  Recovery = 99.41%
Sn 189.927†             2081.6      490.83 ug/L         2.152      490.83 ppb          2.152   0.44%
   QC value within limits for Sn 189.927  Recovery = 98.17%
Sr 421.552†            68807.1      500.31 ug/L         2.351      500.31 ppb          2.351   0.47%
   QC value within limits for Sr 421.552  Recovery = 100.06%
Ti 334.940†           245366.0      494.27 ug/L         1.907      494.27 ppb          1.907   0.39%
   QC value within limits for Ti 334.940  Recovery = 98.85%
Tl 190.801†             1073.9      496.48 ug/L         2.764      496.48 ppb          2.764   0.56%
   QC value within limits for Tl 190.801  Recovery = 99.30%
U 409.014†             15043.2      502.03 ug/L         0.833      502.03 ppb          0.833   0.17%
   QC value within limits for U 409.014  Recovery = 100.41%
V 292.402†             62210.9      501.98 ug/L         1.364      501.98 ppb          1.364   0.27%
   QC value within limits for V 292.402  Recovery = 100.40%
Zn 213.857†            45030.6      491.97 ug/L         1.564      491.97 ppb          1.564   0.32%
   QC value within limits for Zn 213.857  Recovery = 98.39%
SiO2†                  68682.2      5337.0 ug/L          6.61      5337.0 ppb           6.61   0.12%
   QC value within limits for SiO2  Recovery = 99.80%
All analyte(s) passed QC.
```

Sequence No.: 23
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 20:51:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5140.4	5140.4	109	%			20:53:25
1	Y RADIAL	5445.0	5445.0	109.2	%			20:53:25
1	Al 396.153Radial†	-92.6	2.3	2.2059	ug/L	2.2059	ppb	20:53:45
1	Ca 317.933Radial†	21.7	-2.2	-4.0799	ug/L	-4.0799	ppb	20:53:45
1	Fe 238.204 Radial†	7.5	-0.5	-4.7746	ug/L	-4.7746	ppb	20:53:45
1	K 766.490 Radial†	2105.5	-333.8	-66.474	ug/L	-66.474	ppb	20:53:25
1	Mg 279.077 IEC†	0.6	-2.3	-92.264	ug/L	-92.264	ppb	20:53:45
1	Na 589.592 Radial†	-738.6	171.6	58.466	ug/L	58.466	ppb	20:53:25
1	Sr 421.552†	21.5	20.2	0.1469	ug/L	0.1469	ppb	20:53:25
1	Sc 361.383	820422.2	820422.2	106.83	%			20:54:42
1	Y 371.029	739637.5	739637.5	107.34	%			20:54:42
1	Ag 328.068†	225.1	-45.0	-0.2376	ug/L	-0.2376	ppb	20:54:42
1	As 188.979†	-20.6	5.8	2.5671	ug/L	2.5671	ppb	20:55:02
1	B 249.677†	-303.2	169.7	4.2499	ug/L	4.2499	ppb	20:55:02
1	Ba 233.527†	-1.3	-3.6	-0.0416	ug/L	-0.0416	ppb	20:55:02
1	Be 313.107†	-9639.5	-40.2	-0.0155	ug/L	-0.0155	ppb	20:54:42
1	Cd 226.502†	-183.9	14.5	0.2072	ug/L	0.2072	ppb	20:55:02
1	Co 228.616†	-59.9	1.4	0.0395	ug/L	0.0395	ppb	20:55:02
1	Cr 267.716†	53.3	-25.7	-0.3540	ug/L	-0.3540	ppb	20:55:02
1	Cu 324.752†	7987.9	-59.2	-0.2266	ug/L	-0.2266	ppb	20:54:42
1	Mn 257.610†	431.7	-57.0	-0.0880	ug/L	-0.0880	ppb	20:55:02
1	Mo 202.031†	7.6	-7.3	-0.6667	ug/L	-0.6667	ppb	20:55:02
1	Ni 231.604†	98.1	-9.5	-0.3042	ug/L	-0.3042	ppb	20:55:02
1	P 214.914†	207.9	-0.8	-0.3938	ug/L	-0.3938	ppb	20:55:02
1	Pb 220.353†	-31.4	41.3	6.6597	ug/L	6.6597	ppb	20:55:02
1	S 181.975 Axial†	47.5	2.0	2.5349	ug/L	2.5349	ppb	20:55:02
1	Sb 206.836†	30.8	-1.2	-0.4889	ug/L	-0.4889	ppb	20:55:02
1	Se 196.026†	-20.9	0.2	0.1304	ug/L	0.1304	ppb	20:55:02
1	Si 251.611†	556.7	-68.1	-2.4772	ug/L	-2.4772	ppb	20:55:02
1	Sn 189.927†	6.4	-2.1	-0.4842	ug/L	-0.4842	ppb	20:55:02
1	Ti 334.940†	-1273.9	108.6	0.2223	ug/L	0.2223	ppb	20:54:42
1	Tl 190.801†	-30.6	2.5	1.1709	ug/L	1.1709	ppb	20:55:02
1	U 409.014†	-2442.8	250.3	8.3830	ug/L	8.3830	ppb	20:54:42
1	V 292.402†	-1673.5	61.5	0.4954	ug/L	0.4954	ppb	20:54:42
1	Zn 213.857†	759.5	0.6	0.0098	ug/L	0.0098	ppb	20:55:02
1	SiO2†	560.1	-72.2	-5.6068	ug/L	-5.6068	ppb	20:55:58
2	Sc Radial	5007.8	5007.8	106	%			20:53:50
2	Y RADIAL	5267.2	5267.2	105.7	%			20:53:50
2	Al 396.153Radial†	-90.3	2.3	2.1517	ug/L	2.1517	ppb	20:54:10
2	Ca 317.933Radial†	21.7	-1.8	-3.2381	ug/L	-3.2381	ppb	20:54:10
2	Fe 238.204 Radial†	6.7	-1.0	-10.709	ug/L	-10.709	ppb	20:54:10
2	K 766.490 Radial†	2297.3	-102.4	-20.408	ug/L	-20.408	ppb	20:53:50
2	Mg 279.077 IEC†	0.5	-2.4	-94.770	ug/L	-94.770	ppb	20:54:10
2	Na 589.592 Radial†	-739.9	152.4	51.948	ug/L	51.948	ppb	20:53:50
2	Sr 421.552†	42.0	40.0	0.2906	ug/L	0.2906	ppb	20:53:50
2	Sc 361.383	813000.7	813000.7	105.87	%			20:55:07
2	Y 371.029	731605.8	731605.8	106.18	%			20:55:07
2	Ag 328.068†	205.6	-61.5	-0.3269	ug/L	-0.3269	ppb	20:55:07
2	As 188.979†	-24.6	1.7	0.7798	ug/L	0.7798	ppb	20:55:27
2	B 249.677†	-301.1	169.0	4.2355	ug/L	4.2355	ppb	20:55:27
2	Ba 233.527†	-1.8	-4.1	-0.0466	ug/L	-0.0466	ppb	20:55:27
2	Be 313.107†	-9573.6	-60.3	-0.0234	ug/L	-0.0234	ppb	20:55:07
2	Cd 226.502†	-195.0	2.5	0.0378	ug/L	0.0378	ppb	20:55:27
2	Co 228.616†	-69.2	-7.9	-0.2386	ug/L	-0.2386	ppb	20:55:27
2	Cr 267.716†	67.1	-12.2	-0.1712	ug/L	-0.1712	ppb	20:55:27
2	Cu 324.752†	7909.0	-65.5	-0.2531	ug/L	-0.2531	ppb	20:55:07
2	Mn 257.610†	454.3	-32.0	-0.0484	ug/L	-0.0484	ppb	20:55:27
2	Mo 202.031†	13.8	-1.4	-0.1268	ug/L	-0.1268	ppb	20:55:27
2	Ni 231.604†	71.5	-33.8	-1.0796	ug/L	-1.0796	ppb	20:55:27

2	P 214.914†	215.1	7.8	4.4102	ug/L	4.4102 ppb	20:55:27
2	Pb 220.353†	-37.1	35.7	5.7555	ug/L	5.7555 ppb	20:55:27
2	S 181.975 Axial†	40.9	-3.9	-5.0770	ug/L	-5.0770 ppb	20:55:27
2	Sb 206.836†	39.6	7.3	2.9549	ug/L	2.9549 ppb	20:55:27
2	Se 196.026†	-19.2	1.7	1.0251	ug/L	1.0251 ppb	20:55:27
2	Si 251.611†	583.7	-37.9	-1.3811	ug/L	-1.3811 ppb	20:55:27
2	Sn 189.927†	3.4	-4.9	-1.1479	ug/L	-1.1479 ppb	20:55:27
2	Ti 334.940†	-1239.5	130.3	0.2642	ug/L	0.2642 ppb	20:55:07
2	Tl 190.801†	-46.8	-13.0	-5.9678	ug/L	-5.9678 ppb	20:55:27
2	U 409.014†	-2280.3	382.9	12.824	ug/L	12.824 ppb	20:55:07
2	V 292.402†	-1630.2	88.1	0.7242	ug/L	0.7242 ppb	20:55:07
2	Zn 213.857†	752.7	0.6	0.0160	ug/L	0.0160 ppb	20:55:27
2	SiO2†	606.2	-23.9	-1.8558	ug/L	-1.8558 ppb	20:56:03
3	Sc Radial	5000.7	5000.7	106	%		20:54:15
3	Y RADIAL	5303.6	5303.6	106.4	%		20:54:15
3	Al 396.153Radial†	-93.6	-0.9	-0.8691	ug/L	-0.8691 ppb	20:54:35
3	Ca 317.933Radial†	19.1	-4.2	-7.6059	ug/L	-7.6059 ppb	20:54:35
3	Fe 238.204 Radial†	4.8	-2.8	-28.726	ug/L	-28.726 ppb	20:54:35
3	K 766.490 Radial†	2343.6	-55.9	-11.133	ug/L	-11.133 ppb	20:54:15
3	Mg 279.077 IEC†	3.5	0.4	17.486	ug/L	17.486 ppb	20:54:35
3	Na 589.592 Radial†	-794.3	100.2	34.151	ug/L	34.151 ppb	20:54:15
3	Sr 421.552†	7.0	7.1	0.0518	ug/L	0.0518 ppb	20:54:15
3	Sc 361.383	813556.3	813556.3	105.94	%		20:55:33
3	Y 371.029	731926.4	731926.4	106.22	%		20:55:33
3	Ag 328.068†	204.7	-62.4	-0.3418	ug/L	-0.3418 ppb	20:55:33
3	As 188.979†	-30.8	-4.1	-1.8159	ug/L	-1.8159 ppb	20:55:53
3	B 249.677†	-325.5	146.2	3.6648	ug/L	3.6648 ppb	20:55:53
3	Ba 233.527†	-0.1	-2.5	-0.0303	ug/L	-0.0303 ppb	20:55:53
3	Be 313.107†	-9502.0	13.5	0.0059	ug/L	0.0059 ppb	20:55:33
3	Cd 226.502†	-194.0	3.5	0.0557	ug/L	0.0557 ppb	20:55:53
3	Co 228.616†	-41.2	18.6	0.5610	ug/L	0.5610 ppb	20:55:53
3	Cr 267.716†	61.8	-17.2	-0.2420	ug/L	-0.2420 ppb	20:55:53
3	Cu 324.752†	7928.3	-52.4	-0.2063	ug/L	-0.2063 ppb	20:55:33
3	Mn 257.610†	443.8	-42.2	-0.0711	ug/L	-0.0711 ppb	20:55:53
3	Mo 202.031†	13.9	-1.3	-0.1193	ug/L	-0.1193 ppb	20:55:53
3	Ni 231.604†	96.7	-10.1	-0.3220	ug/L	-0.3220 ppb	20:55:53
3	P 214.914†	212.7	5.4	3.0981	ug/L	3.0981 ppb	20:55:53
3	Pb 220.353†	-35.8	36.9	5.9573	ug/L	5.9573 ppb	20:55:53
3	S 181.975 Axial†	48.1	2.9	3.7984	ug/L	3.7984 ppb	20:55:53
3	Sb 206.836†	40.1	7.8	3.1815	ug/L	3.1815 ppb	20:55:53
3	Se 196.026†	-19.4	1.5	0.8751	ug/L	0.8751 ppb	20:55:53
3	Si 251.611†	570.7	-50.5	-1.8414	ug/L	-1.8414 ppb	20:55:53
3	Sn 189.927†	15.3	6.4	1.5067	ug/L	1.5067 ppb	20:55:53
3	Ti 334.940†	-1245.6	125.3	0.2431	ug/L	0.2431 ppb	20:55:33
3	Tl 190.801†	-35.3	-2.1	-0.9590	ug/L	-0.9590 ppb	20:55:53
3	U 409.014†	-2189.9	469.7	15.732	ug/L	15.732 ppb	20:55:33
3	V 292.402†	-1700.6	22.7	0.2137	ug/L	0.2137 ppb	20:55:33
3	Zn 213.857†	747.8	-4.5	-0.0426	ug/L	-0.0426 ppb	20:55:53
3	SiO2†	603.4	-26.9	-2.0909	ug/L	-2.0909 ppb	20:56:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	815659.8	106.21	%	0.538				0.51%
Sc Radial	5049.6	107	%	1.7				1.56%
Y 371.029	734389.9	106.58	%	0.660				0.62%
Y RADIAL	5338.6	107.1	%	1.88				1.76%
Ag 328.068†	-56.3	-0.3021	ug/L	0.05632	-0.3021	ppb	0.05632	18.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.2	1.1628	ug/L	1.75994	1.1628	ppb	1.75994	151.35%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	0.5103	ug/L	2.20388	0.5103	ppb	2.20388	431.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	161.7	4.0501	ug/L	0.33376	4.0501	ppb	0.33376	8.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.4	-0.0395	ug/L	0.00833	-0.0395	ppb	0.00833	21.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-29.0	-0.0110	ug/L	0.01516	-0.0110	ppb	0.01516	138.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-4.9746	ug/L	2.31729	-4.9746	ppb	2.31729	46.58%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.8      0.1003 ug/L       0.09306      0.1003 ppb        0.09306  92.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.0      0.1207 ug/L       0.40591      0.1207 ppb        0.40591 336.43%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -18.4     -0.2557 ug/L       0.09215     -0.2557 ppb        0.09215  36.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -59.0     -0.2287 ug/L       0.02345     -0.2287 ppb        0.02345  10.26%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.4     -14.736 ug/L       12.4732     -14.736 ppb        12.4732  84.64%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -164.0     -32.672 ug/L       29.6384     -32.672 ppb        29.6384  90.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.4     -56.516 ug/L       64.1002     -56.516 ppb        64.1002 113.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -43.7     -0.0692 ug/L       0.01985     -0.0692 ppb        0.01985  28.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.3043 ug/L       0.31392     -0.3043 ppb        0.31392 103.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        141.4      48.188 ug/L       12.5863      48.188 ppb        12.5863  26.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -17.8     -0.5686 ug/L       0.44261     -0.5686 ppb        0.44261  77.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.1      2.3715 ug/L       2.48302      2.3715 ppb        2.48302 104.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                38.0      6.1242 ug/L       0.47463      6.1242 ppb        0.47463   7.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.3      0.4188 ug/L       4.80124      0.4188 ppb        4.80124 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.7      1.8825 ug/L       2.05683      1.8825 ppb        2.05683 109.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.2      0.6769 ug/L       0.47914      0.6769 ppb        0.47914  70.79%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -52.2     -1.8999 ug/L       0.55039     -1.8999 ppb        0.55039  28.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.2     -0.0418 ug/L       1.38151     -0.0418 ppb        1.38151 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.4      0.1631 ug/L       0.12023      0.1631 ppb        0.12023  73.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               121.4      0.2432 ug/L       0.02094      0.2432 ppb        0.02094   8.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.2     -1.9186 ug/L       3.66480     -1.9186 ppb        3.66480 191.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                367.6      12.313 ug/L        3.7011      12.313 ppb         3.7011  30.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 57.5      0.4778 ug/L       0.25572      0.4778 ppb        0.25572  53.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -1.1     -0.0056 ug/L       0.03214     -0.0056 ppb        0.03214 573.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -41.0     -3.1845 ug/L       2.10106     -3.1845 ppb        2.10106  65.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/1/2010 21:54:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4914.6	4914.6	104	%			21:56:12
1	Y RADIAL	5163.5	5163.5	103.6	%			21:56:12
1	Al 396.153Radial†	5715.4	5560.6	5177.9	ug/L	5177.9	ppb	21:56:12
1	Ca 317.933Radial†	2995.1	2846.2	5171.4	ug/L	5171.4	ppb	21:56:32
1	Fe 238.204 Radial†	536.4	506.4	5268.9	ug/L	5268.9	ppb	21:56:32
1	K 766.490 Radial†	29258.3	25758.7	5121.0	ug/L	5121.0	ppb	21:56:12
1	Mg 279.077 IEC†	144.7	135.7	5386.6	ug/L	5386.6	ppb	21:56:32
1	Na 589.592 Radial†	31396.1	30915.5	10536	ug/L	10536	ppb	21:56:12
1	Sr 421.552†	75434.9	72243.5	525.30	ug/L	525.30	ppb	21:56:12
1	Sc 361.383	834131.3	834131.3	108.62	%			21:57:30
1	Y 371.029	738744.7	738744.7	107.21	%			21:57:30
1	Ag 328.068†	104279.9	95749.1	495.43	ug/L	495.43	ppb	21:57:35
1	As 188.979†	1168.5	1100.8	494.95	ug/L	494.95	ppb	21:57:55
1	B 249.677†	20870.4	19667.6	490.21	ug/L	490.21	ppb	21:57:35
1	Ba 233.527†	45596.1	41975.4	496.56	ug/L	496.56	ppb	21:57:35
1	Be 313.107†	1329784.9	1233242.6	491.31	ug/L	491.31	ppb	21:57:30
1	Cd 226.502†	37863.2	35045.2	496.68	ug/L	496.68	ppb	21:57:35
1	Co 228.616†	18091.4	16713.2	505.16	ug/L	505.16	ppb	21:57:35
1	Cr 267.716†	39343.5	36145.8	494.42	ug/L	494.42	ppb	21:57:35
1	Cu 324.752†	151576.5	132012.0	494.31	ug/L	494.31	ppb	21:57:35
1	Mn 257.610†	336247.6	309103.6	495.06	ug/L	495.06	ppb	21:57:35
1	Mo 202.031†	5787.1	5313.5	488.10	ug/L	488.10	ppb	21:57:55
1	Ni 231.604†	17160.3	15697.2	501.49	ug/L	501.49	ppb	21:57:35
1	P 214.914†	5001.2	4409.0	2365.4	ug/L	2365.4	ppb	21:57:55
1	Pb 220.353†	3245.8	3058.9	495.10	ug/L	495.10	ppb	21:57:55
1	S 181.975 Axial†	870.7	759.1	983.22	ug/L	983.22	ppb	21:57:55
1	Sb 206.836†	1344.8	1208.1	507.61	ug/L	507.61	ppb	21:57:55
1	Se 196.026†	863.4	814.7	512.72	ug/L	512.72	ppb	21:57:55
1	Si 251.611†	74691.6	68175.2	2481.8	ug/L	2481.8	ppb	21:57:35
1	Sn 189.927†	2243.5	2057.4	485.13	ug/L	485.13	ppb	21:57:55
1	Ti 334.940†	264613.6	244916.3	493.37	ug/L	493.37	ppb	21:57:35
1	Tl 190.801†	1112.2	1055.2	487.87	ug/L	487.87	ppb	21:57:55
1	U 409.014†	13529.5	14992.7	500.34	ug/L	500.34	ppb	21:57:35
1	V 292.402†	65858.3	62260.1	502.29	ug/L	502.29	ppb	21:57:35
1	Zn 213.857†	49463.8	44828.4	489.74	ug/L	489.74	ppb	21:57:35
1	SiO2†	73671.8	67229.2	5224.0	ug/L	5224.0	ppb	21:59:02
2	Sc Radial	4994.1	4994.1	106	%			21:56:37
2	Y RADIAL	5200.4	5200.4	104.3	%			21:56:37
2	Al 396.153Radial†	5532.2	5300.9	4934.2	ug/L	4934.2	ppb	21:56:37
2	Ca 317.933Radial†	3036.0	2839.1	5158.5	ug/L	5158.5	ppb	21:56:58
2	Fe 238.204 Radial†	544.7	506.0	5264.9	ug/L	5264.9	ppb	21:56:58
2	K 766.490 Radial†	28785.6	24867.1	4943.7	ug/L	4943.7	ppb	21:56:37
2	Mg 279.077 IEC†	141.6	130.6	5184.0	ug/L	5184.0	ppb	21:56:58
2	Na 589.592 Radial†	30352.5	29453.2	10038	ug/L	10038	ppb	21:56:37
2	Sr 421.552†	72885.1	68690.4	499.46	ug/L	499.46	ppb	21:56:37
2	Sc 361.383	813210.4	813210.4	105.90	%			21:58:00
2	Y 371.029	720315.7	720315.7	104.54	%			21:58:00
2	Ag 328.068†	102582.1	96615.7	499.90	ug/L	499.90	ppb	21:58:06
2	As 188.979†	1181.8	1141.0	512.87	ug/L	512.87	ppb	21:58:26
2	B 249.677†	20328.6	19650.3	489.77	ug/L	489.77	ppb	21:58:06
2	Ba 233.527†	44845.9	42346.9	500.95	ug/L	500.95	ppb	21:58:06
2	Be 313.107†	1321101.4	1256538.3	500.58	ug/L	500.58	ppb	21:58:00
2	Cd 226.502†	37304.9	35414.7	501.93	ug/L	501.93	ppb	21:58:06
2	Co 228.616†	17820.3	16885.7	510.40	ug/L	510.40	ppb	21:58:06
2	Cr 267.716†	38787.5	36552.6	499.98	ug/L	499.98	ppb	21:58:06
2	Cu 324.752†	148380.2	132583.7	496.45	ug/L	496.45	ppb	21:58:06
2	Mn 257.610†	330390.4	311536.5	498.96	ug/L	498.96	ppb	21:58:06
2	Mo 202.031†	5813.3	5475.3	502.95	ug/L	502.95	ppb	21:58:26
2	Ni 231.604†	16909.6	15866.9	506.91	ug/L	506.91	ppb	21:58:06

2	P 214.914†	5000.1	4526.4	2430.7 ug/L	2430.7 ppb	21:58:26
2	Pb 220.353†	3252.8	3142.4	508.53 ug/L	508.53 ppb	21:58:26
2	S 181.975 Axial†	870.0	779.0	1009.1 ug/L	1009.1 ppb	21:58:26
2	Sb 206.836†	1353.3	1248.0	524.36 ug/L	524.36 ppb	21:58:26
2	Se 196.026†	850.4	822.9	517.75 ug/L	517.75 ppb	21:58:26
2	Si 251.611†	73340.6	68668.5	2499.6 ug/L	2499.6 ppb	21:58:06
2	Sn 189.927†	2261.2	2127.2	501.56 ug/L	501.56 ppb	21:58:26
2	Ti 334.940†	259609.1	246457.7	496.48 ug/L	496.48 ppb	21:58:06
2	Tl 190.801†	1119.2	1088.1	503.00 ug/L	503.00 ppb	21:58:26
2	U 409.014†	13335.4	15129.8	504.92 ug/L	504.92 ppb	21:58:06
2	V 292.402†	64626.2	62656.5	505.65 ug/L	505.65 ppb	21:58:06
2	Zn 213.857†	48758.2	45333.5	495.27 ug/L	495.27 ppb	21:58:06
2	SiO2†	74438.5	69698.0	5415.9 ug/L	5415.9 ppb	21:59:07
3	Sc Radial	4968.2	4968.2	106 %		21:57:03
3	Y RADIAL	5214.4	5214.4	104.6 %		21:57:03
3	Al 396.153Radial†	5498.2	5295.8	4930.0 ug/L	4930.0 ppb	21:57:03
3	Ca 317.933Radial†	3004.1	2823.8	5130.7 ug/L	5130.7 ppb	21:57:23
3	Fe 238.204 Radial†	539.0	503.3	5237.2 ug/L	5237.2 ppb	21:57:23
3	K 766.490 Radial†	28550.3	24785.4	4927.5 ug/L	4927.5 ppb	21:57:03
3	Mg 279.077 IEC†	144.6	134.1	5325.2 ug/L	5325.2 ppb	21:57:23
3	Na 589.592 Radial†	30091.8	29355.3	10004 ug/L	10004 ppb	21:57:03
3	Sr 421.552†	72593.4	68771.8	500.05 ug/L	500.05 ppb	21:57:03
3	Sc 361.383	819206.7	819206.7	106.68 %		21:58:31
3	Y 371.029	724158.1	724158.1	105.10 %		21:58:31
3	Ag 328.068†	102914.3	96218.0	497.83 ug/L	497.83 ppb	21:58:36
3	As 188.979†	1163.5	1115.7	501.59 ug/L	501.59 ppb	21:58:56
3	B 249.677†	20524.1	19693.1	490.84 ug/L	490.84 ppb	21:58:36
3	Ba 233.527†	45139.8	42312.4	500.53 ug/L	500.53 ppb	21:58:36
3	Be 313.107†	1305600.4	1232875.8	491.17 ug/L	491.17 ppb	21:58:31
3	Cd 226.502†	37499.8	35339.6	500.86 ug/L	500.86 ppb	21:58:36
3	Co 228.616†	17900.5	16837.7	508.93 ug/L	508.93 ppb	21:58:36
3	Cr 267.716†	38791.7	36288.4	496.37 ug/L	496.37 ppb	21:58:36
3	Cu 324.752†	149063.3	132198.5	495.01 ug/L	495.01 ppb	21:58:36
3	Mn 257.610†	332243.9	310990.3	498.08 ug/L	498.08 ppb	21:58:36
3	Mo 202.031†	5727.1	5354.3	491.84 ug/L	491.84 ppb	21:58:56
3	Ni 231.604†	17009.4	15843.5	506.16 ug/L	506.16 ppb	21:58:36
3	P 214.914†	4904.5	4402.2	2361.5 ug/L	2361.5 ppb	21:58:56
3	Pb 220.353†	3229.6	3098.2	501.38 ug/L	501.38 ppb	21:58:56
3	S 181.975 Axial†	847.9	752.3	974.53 ug/L	974.53 ppb	21:58:56
3	Sb 206.836†	1338.1	1224.4	514.37 ug/L	514.37 ppb	21:58:56
3	Se 196.026†	861.9	827.8	520.65 ug/L	520.65 ppb	21:58:56
3	Si 251.611†	73711.0	68508.8	2493.9 ug/L	2493.9 ppb	21:58:36
3	Sn 189.927†	2225.4	2078.1	489.99 ug/L	489.99 ppb	21:58:56
3	Ti 334.940†	260972.8	245941.6	495.43 ug/L	495.43 ppb	21:58:36
3	Tl 190.801†	1125.8	1086.6	502.30 ug/L	502.30 ppb	21:58:56
3	U 409.014†	13418.7	15115.7	504.45 ug/L	504.45 ppb	21:58:36
3	V 292.402†	64794.2	62367.2	503.20 ug/L	503.20 ppb	21:58:36
3	Zn 213.857†	48864.4	45096.1	492.67 ug/L	492.67 ppb	21:58:36
3	SiO2†	73854.2	68635.8	5333.5 ug/L	5333.5 ppb	21:59:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	822182.8	107.06	%	1.403				1.31%
Sc Radial	4959.0	105	%	0.9				0.82%
Y 371.029	727739.5	105.62	%	1.411				1.34%
Y RADIAL	5192.8	104.2	%	0.53				0.51%
Ag 328.068†	96194.3	497.72	ug/L	2.234	497.72	ppb	2.234	0.45%
QC value within limits for Ag 328.068 Recovery = 99.54%								
Al 396.153Radial†	5385.8	5014.0	ug/L	141.92	5014.0	ppb	141.92	2.83%
QC value within limits for Al 396.153Radial Recovery = 100.28%								
As 188.979†	1119.2	503.14	ug/L	9.056	503.14	ppb	9.056	1.80%
QC value within limits for As 188.979 Recovery = 100.63%								
B 249.677†	19670.3	490.27	ug/L	0.542	490.27	ppb	0.542	0.11%
QC value within limits for B 249.677 Recovery = 98.05%								
Ba 233.527†	42211.6	499.35	ug/L	2.424	499.35	ppb	2.424	0.49%
QC value within limits for Ba 233.527 Recovery = 99.87%								
Be 313.107†	1240885.6	494.35	ug/L	5.391	494.35	ppb	5.391	1.09%
QC value within limits for Be 313.107 Recovery = 98.87%								
Ca 317.933Radial†	2836.4	5153.5	ug/L	20.83	5153.5	ppb	20.83	0.40%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.07%
Cd 226.502†            35266.5      499.83 ug/L         2.772      499.83 ppb          2.772   0.55%
   QC value within limits for Cd 226.502  Recovery = 99.97%
Co 228.616†            16812.2      508.16 ug/L         2.703      508.16 ppb          2.703   0.53%
   QC value within limits for Co 228.616  Recovery = 101.63%
Cr 267.716†            36328.9      496.92 ug/L         2.821      496.92 ppb          2.821   0.57%
   QC value within limits for Cr 267.716  Recovery = 99.38%
Cu 324.752†           132264.7      495.26 ug/L         1.091      495.26 ppb          1.091   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.05%
Fe 238.204 Radial†       505.2      5257.0 ug/L        17.27      5257.0 ppb         17.27   0.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.14%
K 766.490 Radial†      25137.1      4997.4 ug/L       107.36      4997.4 ppb        107.36   2.15%
   QC value within limits for K 766.490 Radial  Recovery = 99.95%
Mg 279.077 IEC†          133.5      5298.6 ug/L       103.89      5298.6 ppb        103.89   1.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.97%
Mn 257.610†           310543.4      497.37 ug/L         2.046      497.37 ppb          2.046   0.41%
   QC value within limits for Mn 257.610  Recovery = 99.47%
Mo 202.031†             5381.0      494.29 ug/L         7.725      494.29 ppb          7.725   1.56%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†     29908.0       10193 ug/L       297.8        10193 ppb        297.8   2.92%
   QC value within limits for Na 589.592 Radial  Recovery = 101.93%
Ni 231.604†            15802.6      504.85 ug/L         2.940      504.85 ppb          2.940   0.58%
   QC value within limits for Ni 231.604  Recovery = 100.97%
P 214.914†              4445.9      2385.9 ug/L        38.86      2385.9 ppb         38.86   1.63%
   QC value within limits for P 214.914  Recovery = 95.43%
Pb 220.353†             3099.8      501.67 ug/L         6.721      501.67 ppb          6.721   1.34%
   QC value within limits for Pb 220.353  Recovery = 100.33%
S 181.975 Axial†         763.5      988.96 ug/L        17.993      988.96 ppb         17.993   1.82%
   QC value within limits for S 181.975 Axial  Recovery = 98.90%
Sb 206.836†             1226.8      515.45 ug/L         8.427      515.45 ppb          8.427   1.63%
   QC value within limits for Sb 206.836  Recovery = 103.09%
Se 196.026†              821.8      517.04 ug/L         4.010      517.04 ppb          4.010   0.78%
   QC value within limits for Se 196.026  Recovery = 103.41%
Si 251.611†            68450.8      2491.7 ug/L         9.10      2491.7 ppb          9.10   0.37%
   QC value within limits for Si 251.611  Recovery = 99.67%
Sn 189.927†             2087.6      492.23 ug/L         8.442      492.23 ppb          8.442   1.72%
   QC value within limits for Sn 189.927  Recovery = 98.45%
Sr 421.552†            69901.9      508.27 ug/L        14.749      508.27 ppb         14.749   2.90%
   QC value within limits for Sr 421.552  Recovery = 101.65%
Ti 334.940†           245771.8      495.09 ug/L         1.585      495.09 ppb          1.585   0.32%
   QC value within limits for Ti 334.940  Recovery = 99.02%
Tl 190.801†             1076.6      497.72 ug/L         8.542      497.72 ppb          8.542   1.72%
   QC value within limits for Tl 190.801  Recovery = 99.54%
U 409.014†             15079.4      503.24 ug/L         2.522      503.24 ppb          2.522   0.50%
   QC value within limits for U 409.014  Recovery = 100.65%
V 292.402†             62427.9      503.71 ug/L         1.741      503.71 ppb          1.741   0.35%
   QC value within limits for V 292.402  Recovery = 100.74%
Zn 213.857†            45086.0      492.56 ug/L         2.769      492.56 ppb          2.769   0.56%
   QC value within limits for Zn 213.857  Recovery = 98.51%
SiO2†                  68521.0      5324.4 ug/L        96.28      5324.4 ppb         96.28   1.81%
   QC value within limits for SiO2  Recovery = 99.57%
All analyte(s) passed QC.
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Sequence No.: 33
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 22:01:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5014.4	5014.4	107	%			22:03:14
1	Y RADIAL	5308.8	5308.8	106.5	%			22:03:14
1	Al 396.153Radial†	-84.1	8.1	7.6177	ug/L	7.6177	ppb	22:03:34
1	Ca 317.933Radial†	18.9	-4.4	-8.0663	ug/L	-8.0663	ppb	22:03:34
1	Fe 238.204 Radial†	8.8	0.9	9.7285	ug/L	9.7285	ppb	22:03:34
1	K 766.490 Radial†	2343.4	-62.0	-12.370	ug/L	-12.370	ppb	22:03:14
1	Mg 279.077 IEC†	1.6	-1.4	-54.043	ug/L	-54.043	ppb	22:03:34
1	Na 589.592 Radial†	-735.2	157.7	53.751	ug/L	53.751	ppb	22:03:14
1	Sr 421.552†	23.4	22.4	0.1632	ug/L	0.1632	ppb	22:03:14
1	Sc 361.383	814487.0	814487.0	106.06	%			22:04:31
1	Y 371.029	733697.1	733697.1	106.48	%			22:04:31
1	Ag 328.068†	176.1	-89.6	-0.4655	ug/L	-0.4655	ppb	22:04:31
1	As 188.979†	-32.8	-5.9	-2.6231	ug/L	-2.6231	ppb	22:04:51
1	B 249.677†	-353.9	119.8	2.9988	ug/L	2.9988	ppb	22:04:51
1	Ba 233.527†	10.2	7.2	0.0865	ug/L	0.0865	ppb	22:04:51
1	Be 313.107†	-9582.5	-52.2	-0.0200	ug/L	-0.0200	ppb	22:04:31
1	Cd 226.502†	-203.1	-4.9	-0.0681	ug/L	-0.0681	ppb	22:04:51
1	Co 228.616†	-67.9	-6.6	-0.1986	ug/L	-0.1986	ppb	22:04:51
1	Cr 267.716†	65.7	-13.7	-0.1907	ug/L	-0.1907	ppb	22:04:51
1	Cu 324.752†	7794.4	-187.2	-0.7076	ug/L	-0.7076	ppb	22:04:31
1	Mn 257.610†	465.2	-22.5	-0.0329	ug/L	-0.0329	ppb	22:04:51
1	Mo 202.031†	16.6	1.3	0.1164	ug/L	0.1164	ppb	22:04:51
1	Ni 231.604†	86.3	-20.0	-0.6389	ug/L	-0.6389	ppb	22:04:51
1	P 214.914†	209.1	1.8	1.1192	ug/L	1.1192	ppb	22:04:51
1	Pb 220.353†	-36.7	36.1	5.8281	ug/L	5.8281	ppb	22:04:51
1	S 181.975 Axial†	44.3	-0.7	-0.9579	ug/L	-0.9579	ppb	22:04:51
1	Sb 206.836†	33.5	1.5	0.6118	ug/L	0.6118	ppb	22:04:51
1	Se 196.026†	-24.2	-3.0	-1.8058	ug/L	-1.8058	ppb	22:04:51
1	Si 251.611†	584.8	-37.8	-1.3819	ug/L	-1.3819	ppb	22:04:51
1	Sn 189.927†	4.9	-3.5	-0.8153	ug/L	-0.8153	ppb	22:04:51
1	Ti 334.940†	-1219.7	151.0	0.3020	ug/L	0.3020	ppb	22:04:31
1	Tl 190.801†	-24.4	8.2	3.7831	ug/L	3.7831	ppb	22:04:51
1	U 409.014†	-2277.6	389.4	13.038	ug/L	13.038	ppb	22:04:31
1	V 292.402†	-1635.4	86.1	0.7094	ug/L	0.7094	ppb	22:04:31
1	Zn 213.857†	754.3	0.9	0.0130	ug/L	0.0130	ppb	22:04:51
1	SiO2†	583.2	-46.5	-3.6292	ug/L	-3.6292	ppb	22:05:47
2	Sc Radial	5129.8	5129.8	109	%			22:03:39
2	Y RADIAL	5431.0	5431.0	108.9	%			22:03:39
2	Al 396.153Radial†	-90.6	4.0	3.7117	ug/L	3.7117	ppb	22:03:59
2	Ca 317.933Radial†	23.3	-0.8	-1.4574	ug/L	-1.4574	ppb	22:03:59
2	Fe 238.204 Radial†	7.3	-0.7	-6.7488	ug/L	-6.7488	ppb	22:03:59
2	K 766.490 Radial†	2254.9	-192.7	-38.377	ug/L	-38.377	ppb	22:03:39
2	Mg 279.077 IEC†	-0.8	-3.6	-143.46	ug/L	-143.46	ppb	22:03:59
2	Na 589.592 Radial†	-771.2	140.2	47.771	ug/L	47.771	ppb	22:03:39
2	Sr 421.552†	17.3	16.4	0.1189	ug/L	0.1189	ppb	22:03:39
2	Sc 361.383	736947.0	736947.0	95.964	%			22:04:56
2	Y 371.029	659437.4	659437.4	95.705	%			22:04:56
2	Ag 328.068†	277.0	33.0	0.1617	ug/L	0.1617	ppb	22:04:56
2	As 188.979†	-26.7	-2.9	-1.2737	ug/L	-1.2737	ppb	22:05:16
2	B 249.677†	-355.6	82.9	2.0777	ug/L	2.0777	ppb	22:05:16
2	Ba 233.527†	8.6	6.6	0.0755	ug/L	0.0755	ppb	22:05:16
2	Be 313.107†	-9673.6	-1097.7	-0.4363	ug/L	-0.4363	ppb	22:04:56
2	Cd 226.502†	-181.8	-2.8	-0.0384	ug/L	-0.0384	ppb	22:05:16
2	Co 228.616†	-51.2	4.2	0.1253	ug/L	0.1253	ppb	22:05:16
2	Cr 267.716†	72.4	-0.1	-0.0045	ug/L	-0.0045	ppb	22:05:16
2	Cu 324.752†	7848.5	642.4	2.4033	ug/L	2.4033	ppb	22:04:56
2	Mn 257.610†	453.4	11.3	0.0233	ug/L	0.0233	ppb	22:05:16
2	Mo 202.031†	12.1	-1.8	-0.1625	ug/L	-0.1625	ppb	22:05:16
2	Ni 231.604†	89.9	-7.6	-0.2431	ug/L	-0.2431	ppb	22:05:16

2	P 214.914†	205.8	19.1	10.196 ug/L	10.196 ppb	22:05:16
2	Pb 220.353†	-39.0	30.0	4.8414 ug/L	4.8414 ppb	22:05:16
2	S 181.975 Axial†	47.7	7.2	9.3865 ug/L	9.3865 ppb	22:05:16
2	Sb 206.836†	33.4	4.8	1.9422 ug/L	1.9422 ppb	22:05:16
2	Se 196.026†	-17.0	2.1	1.2623 ug/L	1.2623 ppb	22:05:16
2	Si 251.611†	576.4	11.4	0.4187 ug/L	0.4187 ppb	22:05:16
2	Sn 189.927†	9.1	1.4	0.3257 ug/L	0.3257 ppb	22:05:16
2	Ti 334.940†	-1238.0	11.0	0.0322 ug/L	0.0322 ppb	22:04:56
2	Tl 190.801†	-34.0	-4.2	-1.9463 ug/L	-1.9463 ppb	22:05:16
2	U 409.014†	-2336.6	102.0	3.4159 ug/L	3.4159 ppb	22:04:56
2	V 292.402†	-1653.4	-94.9	-0.7534 ug/L	-0.7534 ppb	22:04:56
2	Zn 213.857†	755.8	77.3	0.8522 ug/L	0.8522 ppb	22:05:16
2	SiO2†	564.0	-8.7	-0.6737 ug/L	-0.6737 ppb	22:05:52
3	Sc Radial	4919.6	4919.6	105 %		22:04:04
3	Y RADIAL	5169.6	5169.6	103.7 %		22:04:04
3	Al 396.153Radial†	-93.4	-2.2	-2.0692 ug/L	-2.0692 ppb	22:04:24
3	Ca 317.933Radial†	18.4	-4.6	-8.2681 ug/L	-8.2681 ppb	22:04:24
3	Fe 238.204 Radial†	6.1	-1.5	-15.527 ug/L	-15.527 ppb	22:04:24
3	K 766.490 Radial†	2352.6	-10.9	-2.1814 ug/L	-2.1814 ppb	22:04:04
3	Mg 279.077 IEC†	1.0	-1.9	-75.673 ug/L	-75.673 ppb	22:04:24
3	Na 589.592 Radial†	-782.7	99.0	33.739 ug/L	33.739 ppb	22:04:04
3	Sr 421.552†	-4.5	-3.8	-0.0277 ug/L	-0.0277 ppb	22:04:04
3	Sc 361.383	817138.7	817138.7	106.41 %		22:05:22
3	Y 371.029	735183.8	735183.8	106.70 %		22:05:22
3	Ag 328.068†	202.5	-65.4	-0.3506 ug/L	-0.3506 ppb	22:05:22
3	As 188.979†	-25.4	1.1	0.4961 ug/L	0.4961 ppb	22:05:42
3	B 249.677†	-365.2	110.2	2.7621 ug/L	2.7621 ppb	22:05:42
3	Ba 233.527†	-3.6	-5.8	-0.0676 ug/L	-0.0676 ppb	22:05:42
3	Be 313.107†	-9532.8	23.8	0.0106 ug/L	0.0106 ppb	22:05:22
3	Cd 226.502†	-199.7	-1.0	-0.0103 ug/L	-0.0103 ppb	22:05:42
3	Co 228.616†	-60.7	0.4	0.0123 ug/L	0.0123 ppb	22:05:42
3	Cr 267.716†	57.6	-21.5	-0.2985 ug/L	-0.2985 ppb	22:05:42
3	Cu 324.752†	7876.3	-134.1	-0.5109 ug/L	-0.5109 ppb	22:05:22
3	Mn 257.610†	486.5	-4.0	-0.0048 ug/L	-0.0048 ppb	22:05:42
3	Mo 202.031†	16.1	0.8	0.0686 ug/L	0.0686 ppb	22:05:42
3	Ni 231.604†	90.8	-16.0	-0.5116 ug/L	-0.5116 ppb	22:05:42
3	P 214.914†	205.6	-2.2	-1.1081 ug/L	-1.1081 ppb	22:05:42
3	Pb 220.353†	-52.3	21.6	3.4801 ug/L	3.4801 ppb	22:05:42
3	S 181.975 Axial†	41.8	-3.2	-4.1784 ug/L	-4.1784 ppb	22:05:42
3	Sb 206.836†	39.9	7.5	3.0113 ug/L	3.0113 ppb	22:05:42
3	Se 196.026†	-20.4	0.6	0.3452 ug/L	0.3452 ppb	22:05:42
3	Si 251.611†	586.6	-37.9	-1.3842 ug/L	-1.3842 ppb	22:05:42
3	Sn 189.927†	0.6	-7.5	-1.7759 ug/L	-1.7759 ppb	22:05:42
3	Ti 334.940†	-1109.4	258.5	0.5197 ug/L	0.5197 ppb	22:05:22
3	Tl 190.801†	-33.7	-0.4	-0.1894 ug/L	-0.1894 ppb	22:05:42
3	U 409.014†	-2244.6	427.4	14.314 ug/L	14.314 ppb	22:05:22
3	V 292.402†	-1675.0	53.9	0.4577 ug/L	0.4577 ppb	22:05:22
3	Zn 213.857†	758.4	2.5	0.0336 ug/L	0.0336 ppb	22:05:42
3	SiO2†	603.9	-28.9	-2.2546 ug/L	-2.2546 ppb	22:05:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	789524.2	102.81	%	5.932				5.77%
Sc Radial	5021.3	107	%	2.2				2.10%
Y 371.029	709439.4	102.96	%	6.286				6.10%
Y RADIAL	5303.1	106.4	%	2.62				2.47%
Ag 328.068†	-40.7	-0.2181	ug/L	0.33395	-0.2181	ppb	0.33395	153.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	3.3	3.0868	ug/L	4.87361	3.0868	ppb	4.87361	157.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.5	-1.1335	ug/L	1.56434	-1.1335	ppb	1.56434	138.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	104.3	2.6129	ug/L	0.47833	2.6129	ppb	0.47833	18.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0315	ug/L	0.08598	0.0315	ppb	0.08598	273.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-375.4	-0.1486	ug/L	0.24964	-0.1486	ppb	0.24964	168.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.3	-5.9306	ug/L	3.87519	-5.9306	ppb	3.87519	65.34%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -2.9     -0.0389 ug/L       0.02889     -0.0389 ppb        0.02889  74.18%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.7     -0.0203 ug/L       0.16442     -0.0203 ppb        0.16442 808.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -11.8     -0.1646 ug/L       0.14873     -0.1646 ppb        0.14873  90.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             107.0      0.3949 ug/L       1.74209      0.3949 ppb        1.74209 441.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -4.1823 ug/L      12.82167     -4.1823 ppb       12.82167 306.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -88.6     -17.643 ug/L       18.6653     -17.643 ppb        18.6653 105.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -91.059 ug/L       46.6515     -91.059 ppb        46.6515  51.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -5.1     -0.0048 ug/L       0.02808     -0.0048 ppb        0.02808 585.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               0.1      0.0075 ug/L       0.14918      0.0075 ppb        0.14918 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      132.3      45.087 ug/L       10.2726      45.087 ppb        10.2726  22.78%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -14.5     -0.4645 ug/L       0.20207     -0.4645 ppb        0.20207  43.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                6.2      3.4025 ug/L       5.98819      3.4025 ppb        5.98819 175.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              29.2      4.7165 ug/L       1.17894      4.7165 ppb        1.17894  25.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.1      1.4167 ug/L       7.08737      1.4167 ppb        7.08737 500.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.6      1.8551 ug/L       1.20212      1.8551 ppb        1.20212  64.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.1     -0.0661 ug/L       1.57485     -0.0661 ppb        1.57485 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -21.4     -0.7825 ug/L       1.04026     -0.7825 ppb        1.04026 132.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.2     -0.7552 ug/L       1.05210     -0.7552 ppb        1.05210 139.32%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              11.7      0.0848 ug/L       0.09990      0.0848 ppb        0.09990 117.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             140.2      0.2846 ug/L       0.24422      0.2846 ppb        0.24422  85.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.2      0.5491 ug/L       2.93524      0.5491 ppb        2.93524 534.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              306.3      10.256 ug/L        5.9579      10.256 ppb         5.9579  58.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               15.0      0.1379 ug/L       0.78206      0.1379 ppb        0.78206 567.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.9      0.2996 ug/L       0.47869      0.2996 ppb        0.47869 159.77%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -28.1     -2.1858 ug/L       1.47897     -2.1858 ppb        1.47897  67.66%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: 1202033987|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 63
Date Collected: 3/1/2010 22:08:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033987|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5138.7	5138.7	109	%			22:10:00
1	Y RADIAL	5417.1	5417.1	108.7	%			22:10:00
1	Al 396.153Radial†	-38.0	52.3	48.985	ug/L	48.985	ppb	22:10:20
1	Ca 317.933Radial†	44.9	19.0	34.484	ug/L	34.484	ppb	22:10:20
1	Fe 238.204 Radial†	14.9	6.3	65.877	ug/L	65.877	ppb	22:10:20
1	K 766.490 Radial†	2356.8	-103.0	-20.548	ug/L	-20.548	ppb	22:10:00
1	Mg 279.077 IEC†	0.5	-2.4	-97.193	ug/L	-97.193	ppb	22:10:20
1	Na 589.592 Radial†	-620.2	279.7	95.336	ug/L	95.336	ppb	22:10:00
1	Sr 421.552†	55.1	50.9	0.3700	ug/L	0.3700	ppb	22:10:00
1	Sc 361.383	809505.9	809505.9	105.41	%			22:11:17
1	Y 371.029	727806.2	727806.2	105.63	%			22:11:17
1	Ag 328.068†	225.3	-41.9	-0.2038	ug/L	-0.2038	ppb	22:11:17
1	As 188.979†	-31.2	-4.6	-2.0037	ug/L	-2.0037	ppb	22:11:37
1	B 249.677†	-423.5	51.7	1.2838	ug/L	1.2838	ppb	22:11:37
1	Ba 233.527†	54.1	48.9	0.5807	ug/L	0.5807	ppb	22:11:37
1	Be 313.107†	-9241.5	215.7	0.0895	ug/L	0.0895	ppb	22:11:17
1	Cd 226.502†	-178.1	17.6	0.2456	ug/L	0.2456	ppb	22:11:37
1	Co 228.616†	-54.4	5.9	0.1731	ug/L	0.1731	ppb	22:11:37
1	Cr 267.716†	112.2	30.9	0.4189	ug/L	0.4189	ppb	22:11:37
1	Cu 324.752†	7920.6	-22.3	-0.0871	ug/L	-0.0871	ppb	22:11:17
1	Mn 257.610†	1352.0	821.5	1.3254	ug/L	1.3254	ppb	22:11:37
1	Mo 202.031†	10.6	-4.3	-0.3871	ug/L	-0.3871	ppb	22:11:37
1	Ni 231.604†	100.9	-5.6	-0.1782	ug/L	-0.1782	ppb	22:11:37
1	P 214.914†	207.1	1.1	0.6401	ug/L	0.6401	ppb	22:11:37
1	Pb 220.353†	-53.7	19.8	3.1984	ug/L	3.1984	ppb	22:11:37
1	S 181.975 Axial†	44.7	-0.1	-0.1020	ug/L	-0.1020	ppb	22:11:37
1	Sb 206.836†	28.1	-3.4	-1.3495	ug/L	-1.3495	ppb	22:11:37
1	Se 196.026†	-19.7	1.1	0.8452	ug/L	0.8452	ppb	22:11:37
1	Si 251.611†	2372.0	1661.0	60.615	ug/L	60.615	ppb	22:11:37
1	Sn 189.927†	21.7	12.5	2.9424	ug/L	2.9424	ppb	22:11:37
1	Ti 334.940†	-507.5	819.6	1.6583	ug/L	1.6583	ppb	22:11:17
1	Tl 190.801†	-37.2	-4.1	-1.8722	ug/L	-1.8722	ppb	22:11:37
1	U 409.014†	-2270.7	382.7	12.807	ug/L	12.807	ppb	22:11:17
1	V 292.402†	-1631.6	80.1	0.6436	ug/L	0.6436	ppb	22:11:17
1	Zn 213.857†	925.0	167.2	1.8358	ug/L	1.8358	ppb	22:11:37
1	SiO2†	2416.7	1696.2	132.14	ug/L	132.14	ppb	22:12:33
2	Sc Radial	4952.3	4952.3	105	%			22:10:26
2	Y RADIAL	5226.3	5226.3	104.8	%			22:10:26
2	Al 396.153Radial†	-44.9	44.5	41.622	ug/L	41.622	ppb	22:10:46
2	Ca 317.933Radial†	41.9	17.7	32.116	ug/L	32.116	ppb	22:10:46
2	Fe 238.204 Radial†	15.9	7.7	80.382	ug/L	80.382	ppb	22:10:46
2	K 766.490 Radial†	2542.9	155.2	30.857	ug/L	30.857	ppb	22:10:26
2	Mg 279.077 IEC†	3.4	0.4	14.647	ug/L	14.647	ppb	22:10:46
2	Na 589.592 Radial†	-712.4	170.8	58.196	ug/L	58.196	ppb	22:10:26
2	Sr 421.552†	52.0	49.9	0.3629	ug/L	0.3629	ppb	22:10:26
2	Sc 361.383	810279.5	810279.5	105.51	%			22:11:43
2	Y 371.029	727651.6	727651.6	105.60	%			22:11:43
2	Ag 328.068†	277.1	7.0	0.0521	ug/L	0.0521	ppb	22:11:43
2	As 188.979†	-33.4	-6.7	-2.9298	ug/L	-2.9298	ppb	22:12:03
2	B 249.677†	-426.0	49.7	1.2313	ug/L	1.2313	ppb	22:12:03
2	Ba 233.527†	35.0	30.8	0.3675	ug/L	0.3675	ppb	22:12:03
2	Be 313.107†	-9332.4	138.0	0.0589	ug/L	0.0589	ppb	22:11:43
2	Cd 226.502†	-180.8	15.3	0.2111	ug/L	0.2111	ppb	22:12:03
2	Co 228.616†	-62.2	-1.4	-0.0492	ug/L	-0.0492	ppb	22:12:03
2	Cr 267.716†	109.8	28.5	0.3860	ug/L	0.3860	ppb	22:12:03
2	Cu 324.752†	7923.7	-26.5	-0.1023	ug/L	-0.1023	ppb	22:11:43
2	Mn 257.610†	1363.7	831.3	1.3380	ug/L	1.3380	ppb	22:12:03
2	Mo 202.031†	11.3	-3.6	-0.3276	ug/L	-0.3276	ppb	22:12:03
2	Ni 231.604†	92.7	-13.5	-0.4317	ug/L	-0.4317	ppb	22:12:03

2	P 214.914†	227.3	20.1	11.204 ug/L	11.204 ppb	22:12:03
2	Pb 220.353†	-42.5	30.5	4.9158 ug/L	4.9158 ppb	22:12:03
2	S 181.975 Axial†	52.6	7.3	9.4950 ug/L	9.4950 ppb	22:12:03
2	Sb 206.836†	39.5	7.4	3.0328 ug/L	3.0328 ppb	22:12:03
2	Se 196.026†	-25.1	-4.0	-2.2370 ug/L	-2.2370 ppb	22:12:03
2	Si 251.611†	2330.9	1619.9	59.116 ug/L	59.116 ppb	22:12:03
2	Sn 189.927†	20.1	10.9	2.5769 ug/L	2.5769 ppb	22:12:03
2	Ti 334.940†	-442.2	882.0	1.7743 ug/L	1.7743 ppb	22:11:43
2	Tl 190.801†	-34.9	-1.8	-0.8226 ug/L	-0.8226 ppb	22:12:03
2	U 409.014†	-2257.3	397.5	13.300 ug/L	13.300 ppb	22:11:43
2	V 292.402†	-1624.9	88.0	0.7080 ug/L	0.7080 ppb	22:11:43
2	Zn 213.857†	911.1	153.2	1.6809 ug/L	1.6809 ppb	22:12:03
2	SiO2†	2463.0	1737.8	135.39 ug/L	135.39 ppb	22:12:38
3	Sc Radial	4994.0	4994.0	106 %		22:10:51
3	Y RADIAL	5278.9	5278.9	105.9 %		22:10:51
3	Al 396.153Radial†	-46.6	43.2	40.412 ug/L	40.412 ppb	22:11:11
3	Ca 317.933Radial†	40.8	16.3	29.556 ug/L	29.556 ppb	22:11:11
3	Fe 238.204 Radial†	14.7	6.6	68.026 ug/L	68.026 ppb	22:11:11
3	K 766.490 Radial†	2259.4	-132.3	-26.361 ug/L	-26.361 ppb	22:10:51
3	Mg 279.077 IEC†	0.7	-2.3	-90.242 ug/L	-90.242 ppb	22:11:11
3	Na 589.592 Radial†	-712.4	176.4	60.106 ug/L	60.106 ppb	22:10:51
3	Sr 421.552†	37.9	36.2	0.2632 ug/L	0.2632 ppb	22:10:51
3	Sc 361.383	806691.1	806691.1	105.05 %		22:12:08
3	Y 371.029	723547.7	723547.7	105.01 %		22:12:08
3	Ag 328.068†	282.2	13.0	0.0771 ug/L	0.0771 ppb	22:12:08
3	As 188.979†	-29.5	-3.1	-1.3572 ug/L	-1.3572 ppb	22:12:28
3	B 249.677†	-419.7	53.9	1.3395 ug/L	1.3395 ppb	22:12:28
3	Ba 233.527†	62.3	56.9	0.6745 ug/L	0.6745 ppb	22:12:28
3	Be 313.107†	-9310.9	119.1	0.0515 ug/L	0.0515 ppb	22:12:08
3	Cd 226.502†	-193.7	2.3	0.0282 ug/L	0.0282 ppb	22:12:28
3	Co 228.616†	-59.8	0.6	0.0125 ug/L	0.0125 ppb	22:12:28
3	Cr 267.716†	94.6	14.4	0.1933 ug/L	0.1933 ppb	22:12:28
3	Cu 324.752†	7895.8	-19.6	-0.0779 ug/L	-0.0779 ppb	22:12:08
3	Mn 257.610†	1352.6	826.5	1.3333 ug/L	1.3333 ppb	22:12:28
3	Mo 202.031†	13.9	-1.2	-0.1014 ug/L	-0.1014 ppb	22:12:28
3	Ni 231.604†	114.5	7.6	0.2438 ug/L	0.2438 ppb	22:12:28
3	P 214.914†	220.9	15.0	8.3473 ug/L	8.3473 ppb	22:12:28
3	Pb 220.353†	-63.6	10.1	1.6380 ug/L	1.6380 ppb	22:12:28
3	S 181.975 Axial†	52.9	7.8	10.132 ug/L	10.132 ppb	22:12:28
3	Sb 206.836†	30.8	-0.7	-0.2433 ug/L	-0.2433 ppb	22:12:28
3	Se 196.026†	-24.6	-3.6	-2.0678 ug/L	-2.0678 ppb	22:12:28
3	Si 251.611†	2332.2	1631.0	59.517 ug/L	59.517 ppb	22:12:28
3	Sn 189.927†	19.4	10.4	2.4535 ug/L	2.4535 ppb	22:12:28
3	Ti 334.940†	-404.1	916.3	1.8513 ug/L	1.8513 ppb	22:12:08
3	Tl 190.801†	-40.1	-7.0	-3.1718 ug/L	-3.1718 ppb	22:12:28
3	U 409.014†	-2213.0	430.1	14.395 ug/L	14.395 ppb	22:12:08
3	V 292.402†	-1653.0	54.4	0.4456 ug/L	0.4456 ppb	22:12:08
3	Zn 213.857†	933.7	178.6	1.9580 ug/L	1.9580 ppb	22:12:28
3	SiO2†	2411.4	1699.2	132.37 ug/L	132.37 ppb	22:12:43

Mean Data: 1202033987|949364|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808825.5	105.32	%	0.246				0.23%
Sc Radial	5028.3	107	%	2.1				1.95%
Y 371.029	726335.1	105.41	%	0.351				0.33%
Y RADIAL	5307.4	106.5	%	1.98				1.86%
Ag 328.068†	-7.3	-0.0249	ug/L	0.15544	-0.0249	ppb	0.15544	625.46%
Al 396.153Radial†	46.7	43.673	ug/L	4.6400	43.673	ppb	4.6400	10.62%
As 188.979†	-4.8	-2.0969	ug/L	0.79039	-2.0969	ppb	0.79039	37.69%
B 249.677†	51.8	1.2849	ug/L	0.05409	1.2849	ppb	0.05409	4.21%
Ba 233.527†	45.5	0.5409	ug/L	0.15735	0.5409	ppb	0.15735	29.09%
Be 313.107†	157.6	0.0666	ug/L	0.02013	0.0666	ppb	0.02013	30.22%
Ca 317.933Radial†	17.6	32.052	ug/L	2.4647	32.052	ppb	2.4647	7.69%
Cd 226.502†	11.7	0.1616	ug/L	0.11682	0.1616	ppb	0.11682	72.27%
Co 228.616†	1.7	0.0454	ug/L	0.11478	0.0454	ppb	0.11478	252.62%
Cr 267.716†	24.6	0.3327	ug/L	0.12186	0.3327	ppb	0.12186	36.63%
Cu 324.752†	-22.8	-0.0891	ug/L	0.01234	-0.0891	ppb	0.01234	13.85%
Fe 238.204 Radial†	6.9	71.428	ug/L	7.8279	71.428	ppb	7.8279	10.96%
K 766.490 Radial†	-26.7	-5.3505	ug/L	31.49107	-5.3505	ppb	31.49107	588.56%

Mg 279.077 IEC†	-1.4	-57.596	ug/L	62.6608	-57.596	ppb	62.6608 108.79%
Mn 257.610†	826.4	1.3322	ug/L	0.00637	1.3322	ppb	0.00637 0.48%
Mo 202.031†	-3.0	-0.2721	ug/L	0.15073	-0.2721	ppb	0.15073 55.40%
Na 589.592 Radial†	209.0	71.213	ug/L	20.9130	71.213	ppb	20.9130 29.37%
Ni 231.604†	-3.8	-0.1220	ug/L	0.34125	-0.1220	ppb	0.34125 279.62%
P 214.914†	12.1	6.7305	ug/L	5.46442	6.7305	ppb	5.46442 81.19%
Pb 220.353†	20.1	3.2508	ug/L	1.63953	3.2508	ppb	1.63953 50.44%
S 181.975 Axial†	5.0	6.5084	ug/L	5.73364	6.5084	ppb	5.73364 88.10%
Sb 206.836†	1.1	0.4800	ug/L	2.27896	0.4800	ppb	2.27896 474.77%
Se 196.026†	-2.1	-1.1532	ug/L	1.73271	-1.1532	ppb	1.73271 150.25%
Si 251.611†	1637.3	59.749	ug/L	0.7757	59.749	ppb	0.7757 1.30%
Sn 189.927†	11.3	2.6576	ug/L	0.25420	2.6576	ppb	0.25420 9.57%
Sr 421.552†	45.7	0.3321	ug/L	0.05971	0.3321	ppb	0.05971 17.98%
Ti 334.940†	872.6	1.7613	ug/L	0.09717	1.7613	ppb	0.09717 5.52%
Tl 190.801†	-4.3	-1.9555	ug/L	1.17682	-1.9555	ppb	1.17682 60.18%
U 409.014†	403.4	13.501	ug/L	0.8124	13.501	ppb	0.8124 6.02%
V 292.402†	74.2	0.5991	ug/L	0.13678	0.5991	ppb	0.13678 22.83%
Zn 213.857†	166.4	1.8249	ug/L	0.13886	1.8249	ppb	0.13886 7.61%
SiO2†	1711.0	133.30	ug/L	1.812	133.30	ppb	1.812 1.36%

Sequence No.: 35
Sample ID: 1202033992|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 64
Date Collected: 3/1/2010 22:14:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033992|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5202.0	5202.0	111	%			22:17:08
1	Y RADIAL	5990.6	5990.6	120.2	%			22:17:08
1	Al 396.153Radial†	125969.9	114060.7	106670	ug/L	106670	ppb	22:16:47
1	Ca 317.933Radial†	65203.3	58971.7	107150	ug/L	107150	ppb	22:16:47
1	Fe 238.204 Radial†	21011.0	19002.7	197180	ug/L	197180	ppb	22:16:47
1	K 766.490 Radial†	243481.9	218033.0	43360	ug/L	43360	ppb	22:16:47
1	Mg 279.077 IEC†	1140.7	1029.2	40661	ug/L	40661	ppb	22:17:08
1	Na 589.592 Radial†	33189.4	30876.5	10523	ug/L	10523	ppb	22:16:47
1	Sr 421.552†	355168.4	321345.6	2335.9	ug/L	2335.9	ppb	22:16:47
1	Sc 361.383	847588.7	847588.7	110.37	%			22:18:09
1	Y 371.029	821359.0	821359.0	119.20	%			22:18:09
1	Ag 328.068†	53976.3	48648.4	314.48	ug/L	314.48	ppb	22:18:09
1	As 188.979†	2481.8	2273.6	1114.0	ug/L	1114.0	ppb	22:18:14
1	B 249.677†	67734.5	61822.8	1513.4	ug/L	1513.4	ppb	22:18:09
1	Ba 233.527†	191788.5	173763.3	2059.2	ug/L	2059.2	ppb	22:18:09
1	Be 313.107†	2083632.3	1896811.4	768.52	ug/L	768.52	ppb	22:18:09
1	Cd 226.502†	47075.0	42837.9	587.74	ug/L	587.74	ppb	22:18:14
1	Co 228.616†	35394.0	32125.4	955.70	ug/L	955.70	ppb	22:18:14
1	Cr 267.716†	188474.4	170687.4	2337.5	ug/L	2337.5	ppb	22:18:09
1	Cu 324.752†	572164.4	510860.7	1923.4	ug/L	1923.4	ppb	22:18:09
1	Mn 257.610†	3793341.4	3436411.7	5518.2	ug/L	5518.2	ppb	22:18:09
1	Mo 202.031†	5872.6	5306.4	503.56	ug/L	503.56	ppb	22:18:14
1	Ni 231.604†	46438.0	41972.8	1341.2	ug/L	1341.2	ppb	22:18:14
1	P 214.914†	17130.6	15325.4	8055.2	ug/L	8055.2	ppb	22:18:14
1	Pb 220.353†	5592.6	5137.7	840.24	ug/L	840.24	ppb	22:18:14
1	S 181.975 Axial†	3482.3	3112.6	4015.6	ug/L	4015.6	ppb	22:18:14
1	Sb 206.836†	3896.4	3500.2	1424.1	ug/L	1424.1	ppb	22:18:14
1	Se 196.026†	4631.2	4215.8	3035.0	ug/L	3035.0	ppb	22:18:14
1	Si 251.611†	1134455.1	1027258.6	37479	ug/L	37479	ppb	22:18:09
1	Sn 189.927†	4771.0	4314.6	1023.8	ug/L	1023.8	ppb	22:18:14
1	Ti 334.940†	3513576.9	3184699.4	6427.5	ug/L	6427.5	ppb	22:18:09
1	Tl 190.801†	2877.5	2638.3	1284.5	ug/L	1284.5	ppb	22:18:14
1	U 409.014†	-8233.5	-4923.0	-192.54	ug/L	-192.54	ppb	22:18:09
1	V 292.402†	172288.0	157725.7	1227.0	ug/L	1227.0	ppb	22:18:09
1	Zn 213.857†	581639.0	526270.8	5763.4	ug/L	5763.4	ppb	22:18:09
1	SiO2†	1141235.8	1033395.0	80490	ug/L	80490	ppb	22:18:49
2	Sc Radial	5190.5	5190.5	110	%			22:17:33
2	Y RADIAL	5970.8	5970.8	119.8	%			22:17:33
2	Al 396.153Radial†	126327.6	114637.9	107210	ug/L	107210	ppb	22:17:13
2	Ca 317.933Radial†	65137.5	59043.0	107280	ug/L	107280	ppb	22:17:13
2	Fe 238.204 Radial†	21016.4	19049.8	197670	ug/L	197670	ppb	22:17:13
2	K 766.490 Radial†	244098.3	219080.8	43568	ug/L	43568	ppb	22:17:13
2	Mg 279.077 IEC†	1144.0	1034.5	40872	ug/L	40872	ppb	22:17:33
2	Na 589.592 Radial†	33114.8	30875.5	10522	ug/L	10522	ppb	22:17:13
2	Sr 421.552†	355954.2	322771.0	2346.3	ug/L	2346.3	ppb	22:17:13
2	Sc 361.383	853194.8	853194.8	111.10	%			22:18:23
2	Y 371.029	825653.9	825653.9	119.83	%			22:18:23
2	Ag 328.068†	54615.0	48901.9	315.97	ug/L	315.97	ppb	22:18:23
2	As 188.979†	2496.3	2271.8	1113.7	ug/L	1113.7	ppb	22:18:28
2	B 249.677†	69096.6	62645.6	1533.9	ug/L	1533.9	ppb	22:18:23
2	Ba 233.527†	194653.4	175200.1	2076.1	ug/L	2076.1	ppb	22:18:23
2	Be 313.107†	2112475.8	1910368.4	774.01	ug/L	774.01	ppb	22:18:23
2	Cd 226.502†	47170.5	42643.6	584.93	ug/L	584.93	ppb	22:18:28
2	Co 228.616†	35496.4	32006.8	952.00	ug/L	952.00	ppb	22:18:28
2	Cr 267.716†	190921.1	171767.6	2352.3	ug/L	2352.3	ppb	22:18:23
2	Cu 324.752†	581179.2	515568.5	1941.1	ug/L	1941.1	ppb	22:18:23
2	Mn 257.610†	3848047.7	3463068.6	5560.9	ug/L	5560.9	ppb	22:18:23
2	Mo 202.031†	5834.5	5237.1	497.24	ug/L	497.24	ppb	22:18:28
2	Ni 231.604†	46540.2	41788.3	1335.3	ug/L	1335.3	ppb	22:18:28

2	P 214.914†	17147.9	15239.0	8003.1	ug/L	8003.1 ppb	22:18:28
2	Pb 220.353†	5588.2	5100.5	834.31	ug/L	834.31 ppb	22:18:28
2	S 181.975 Axial†	3433.2	3047.6	3931.3	ug/L	3931.3 ppb	22:18:28
2	Sb 206.836†	3915.8	3494.5	1421.4	ug/L	1421.4 ppb	22:18:28
2	Se 196.026†	4649.5	4204.7	3029.3	ug/L	3029.3 ppb	22:18:28
2	Si 251.611†	1153558.9	1037699.7	37860	ug/L	37860 ppb	22:18:23
2	Sn 189.927†	4761.6	4277.7	1015.1	ug/L	1015.1 ppb	22:18:28
2	Ti 334.940†	3562843.1	3208125.4	6474.7	ug/L	6474.7 ppb	22:18:23
2	Tl 190.801†	2878.7	2622.3	1277.7	ug/L	1277.7 ppb	22:18:28
2	U 409.014†	-8256.6	-4894.7	-191.69	ug/L	-191.69 ppb	22:18:23
2	V 292.402†	174738.2	158905.4	1236.2	ug/L	1236.2 ppb	22:18:23
2	Zn 213.857†	590111.3	530433.9	5809.2	ug/L	5809.2 ppb	22:18:23
2	SiO2†	1130374.1	1016824.5	79199	ug/L	79199 ppb	22:18:55
3	Sc Radial	5189.5	5189.5	110	%		22:17:58
3	Y RADIAL	5979.5	5979.5	119.9	%		22:17:58
3	Al 396.153Radial†	127929.0	116112.4	108590	ug/L	108590 ppb	22:17:38
3	Ca 317.933Radial†	65796.0	59651.5	108380	ug/L	108380 ppb	22:17:38
3	Fe 238.204 Radial†	21211.0	19230.0	199540	ug/L	199540 ppb	22:17:38
3	K 766.490 Radial†	246886.4	221652.2	44080	ug/L	44080 ppb	22:17:38
3	Mg 279.077 IEC†	1145.2	1035.8	40921	ug/L	40921 ppb	22:17:58
3	Na 589.592 Radial†	33387.9	31129.0	10609	ug/L	10609 ppb	22:17:38
3	Sr 421.552†	359971.3	326476.7	2373.2	ug/L	2373.2 ppb	22:17:38
3	Sc 361.383	846893.8	846893.8	110.28	%		22:18:37
3	Y 371.029	819913.1	819913.1	118.99	%		22:18:37
3	Ag 328.068†	54316.3	48996.8	317.03	ug/L	317.03 ppb	22:18:37
3	As 188.979†	2437.9	2235.6	1098.1	ug/L	1098.1 ppb	22:18:42
3	B 249.677†	68547.4	62610.3	1532.7	ug/L	1532.7 ppb	22:18:37
3	Ba 233.527†	193198.8	175184.7	2076.0	ug/L	2076.0 ppb	22:18:37
3	Be 313.107†	2095602.3	1909214.5	773.57	ug/L	773.57 ppb	22:18:37
3	Cd 226.502†	46777.9	42603.5	584.16	ug/L	584.16 ppb	22:18:42
3	Co 228.616†	35154.7	31934.7	949.77	ug/L	949.77 ppb	22:18:42
3	Cr 267.716†	189776.9	172008.6	2355.6	ug/L	2355.6 ppb	22:18:37
3	Cu 324.752†	577980.8	516560.3	1944.9	ug/L	1944.9 ppb	22:18:37
3	Mn 257.610†	3821299.2	3464583.1	5563.6	ug/L	5563.6 ppb	22:18:37
3	Mo 202.031†	5772.6	5220.1	495.83	ug/L	495.83 ppb	22:18:42
3	Ni 231.604†	45997.2	41607.6	1329.5	ug/L	1329.5 ppb	22:18:42
3	P 214.914†	16985.4	15206.5	7983.1	ug/L	7983.1 ppb	22:18:42
3	Pb 220.353†	5589.8	5139.3	840.76	ug/L	840.76 ppb	22:18:42
3	S 181.975 Axial†	3377.4	3020.1	3895.3	ug/L	3895.3 ppb	22:18:42
3	Sb 206.836†	3875.0	3483.7	1417.0	ug/L	1417.0 ppb	22:18:42
3	Se 196.026†	4555.5	4150.6	3000.5	ug/L	3000.5 ppb	22:18:42
3	Si 251.611†	1144913.9	1037585.8	37856	ug/L	37856 ppb	22:18:37
3	Sn 189.927†	4743.1	4292.9	1018.8	ug/L	1018.8 ppb	22:18:42
3	Ti 334.940†	3540969.3	3212150.2	6482.9	ug/L	6482.9 ppb	22:18:37
3	Tl 190.801†	2829.3	2596.7	1266.0	ug/L	1266.0 ppb	22:18:42
3	U 409.014†	-8368.4	-5051.4	-197.15	ug/L	-197.15 ppb	22:18:37
3	V 292.402†	173596.2	159040.0	1237.0	ug/L	1237.0 ppb	22:18:37
3	Zn 213.857†	586086.7	530736.3	5812.3	ug/L	5812.3 ppb	22:18:37
3	SiO2†	1144682.2	1037368.4	80800	ug/L	80800 ppb	22:19:01

Mean Data: 1202033992|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849225.8	110.59	%	0.450				0.41%
Sc Radial	5194.0	110	%	0.1				0.13%
Y 371.029	822308.7	119.34	%	0.433				0.36%
Y RADIAL	5980.3	120.0	%	0.20				0.17%
Ag 328.068†	48849.0	315.83	ug/L	1.279	315.83	ppb	1.279	0.40%
Al 396.153Radial†	114937.0	107490	ug/L	989.9	107490	ppb	989.9	0.92%
As 188.979†	2260.4	1108.6	ug/L	9.09	1108.6	ppb	9.09	0.82%
B 249.677†	62359.5	1526.6	ug/L	11.53	1526.6	ppb	11.53	0.76%
Ba 233.527†	174716.1	2070.4	ug/L	9.77	2070.4	ppb	9.77	0.47%
Be 313.107†	1905464.8	772.03	ug/L	3.054	772.03	ppb	3.054	0.40%
Ca 317.933Radial†	59222.1	107600	ug/L	678.9	107600	ppb	678.9	0.63%
Cd 226.502†	42695.0	585.61	ug/L	1.882	585.61	ppb	1.882	0.32%
Co 228.616†	32022.3	952.49	ug/L	2.996	952.49	ppb	2.996	0.31%
Cr 267.716†	171487.9	2348.5	ug/L	9.64	2348.5	ppb	9.64	0.41%
Cu 324.752†	514329.8	1936.5	ug/L	11.45	1936.5	ppb	11.45	0.59%
Fe 238.204 Radial†	19094.2	198130	ug/L	1244.7	198130	ppb	1244.7	0.63%
K 766.490 Radial†	219588.7	43669	ug/L	370.5	43669	ppb	370.5	0.85%

Mg 279.077 IEC†	1033.1	40818	ug/L	137.9	40818	ppb	137.9	0.34%
Mn 257.610†	3454687.8	5547.6	ug/L	25.44	5547.6	ppb	25.44	0.46%
Mo 202.031†	5254.5	498.88	ug/L	4.114	498.88	ppb	4.114	0.82%
Na 589.592 Radial†	30960.3	10551	ug/L	49.8	10551	ppb	49.8	0.47%
Ni 231.604†	41789.6	1335.3	ug/L	5.84	1335.3	ppb	5.84	0.44%
P 214.914†	15257.0	8013.8	ug/L	37.22	8013.8	ppb	37.22	0.46%
Pb 220.353†	5125.9	838.44	ug/L	3.585	838.44	ppb	3.585	0.43%
S 181.975 Axial†	3060.1	3947.4	ug/L	61.73	3947.4	ppb	61.73	1.56%
Sb 206.836†	3492.8	1420.8	ug/L	3.63	1420.8	ppb	3.63	0.26%
Se 196.026†	4190.4	3021.6	ug/L	18.49	3021.6	ppb	18.49	0.61%
Si 251.611†	1034181.4	37732	ug/L	218.8	37732	ppb	218.8	0.58%
Sn 189.927†	4295.1	1019.2	ug/L	4.36	1019.2	ppb	4.36	0.43%
Sr 421.552†	323531.1	2351.8	ug/L	19.26	2351.8	ppb	19.26	0.82%
Ti 334.940†	3201658.3	6461.7	ug/L	29.92	6461.7	ppb	29.92	0.46%
Tl 190.801†	2619.1	1276.1	ug/L	9.32	1276.1	ppb	9.32	0.73%
U 409.014†	-4956.4	-193.79	ug/L	2.941	-193.79	ppb	2.941	1.52%
V 292.402†	158557.0	1233.4	ug/L	5.53	1233.4	ppb	5.53	0.45%
Zn 213.857†	529147.0	5794.9	ug/L	27.41	5794.9	ppb	27.41	0.47%
SiO2†	1029196.0	80163	ug/L	848.9	80163	ppb	848.9	1.06%

Sequence No.: 36
Sample ID: 246070001|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 65
Date Collected: 3/1/2010 22:21:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070001|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5192.4	5192.4	110	%			22:23:24
1	Y RADIAL	5883.2	5883.2	118.0	%			22:23:24
1	Al 396.153Radial†	89002.3	80763.8	75548	ug/L	75548	ppb	22:23:04
1	Ca 317.933Radial†	13566.0	12274.8	22303	ug/L	22303	ppb	22:23:04
1	Fe 238.204 Radial†	10448.9	9464.1	98191	ug/L	98191	ppb	22:23:04
1	K 766.490 Radial†	76805.6	67359.2	13400	ug/L	13400	ppb	22:23:04
1	Mg 279.077 IEC†	425.6	382.9	15099	ug/L	15099	ppb	22:23:24
1	Na 589.592 Radial†	2311.8	2943.4	1003.1	ug/L	1003.1	ppb	22:23:04
1	Sr 421.552†	31530.3	28581.3	207.67	ug/L	207.67	ppb	22:23:04
1	Sc 361.383	849912.0	849912.0	110.67	%			22:24:22
1	Y 371.029	817421.8	817421.8	118.63	%			22:24:22
1	Ag 328.068†	-5764.1	-5463.8	2.7095	ug/L	2.7095	ppb	22:24:27
1	As 188.979†	-60.0	-29.2	48.525	ug/L	48.525	ppb	22:24:47
1	B 249.677†	1726.5	2013.4	34.340	ug/L	34.340	ppb	22:24:27
1	Ba 233.527†	91876.9	83013.1	983.01	ug/L	983.01	ppb	22:24:27
1	Be 313.107†	-25956.7	-14470.6	4.3506	ug/L	4.3506	ppb	22:24:27
1	Cd 226.502†	723.9	840.7	1.7979	ug/L	1.7979	ppb	22:24:47
1	Co 228.616†	1646.2	1544.9	36.374	ug/L	36.374	ppb	22:24:47
1	Cr 267.716†	6988.6	6238.9	87.448	ug/L	87.448	ppb	22:24:27
1	Cu 324.752†	29269.4	18910.3	76.043	ug/L	76.043	ppb	22:24:27
1	Mn 257.610†	1593538.5	1439382.3	2313.0	ug/L	2313.0	ppb	22:24:22
1	Mo 202.031†	-37.0	-47.8	3.4989	ug/L	3.4989	ppb	22:24:47
1	Ni 231.604†	2063.7	1763.4	56.341	ug/L	56.341	ppb	22:24:47
1	P 214.914†	3663.0	3114.3	1664.6	ug/L	1664.6	ppb	22:24:47
1	Pb 220.353†	559.6	576.4	103.72	ug/L	103.72	ppb	22:24:47
1	S 181.975 Axial†	987.6	849.9	1087.7	ug/L	1087.7	ppb	22:24:47
1	Sb 206.836†	78.0	40.5	-1.1355	ug/L	-1.1355	ppb	22:24:47
1	Se 196.026†	-411.5	-352.0	11.418	ug/L	11.418	ppb	22:24:47
1	Si 251.611†	1200687.8	1084293.5	39567	ug/L	39567	ppb	22:24:22
1	Sn 189.927†	-76.4	-77.1	-19.840	ug/L	-19.840	ppb	22:24:47
1	Ti 334.940†	2442649.0	2208359.2	4451.6	ug/L	4451.6	ppb	22:24:22
1	Tl 190.801†	-132.7	-88.7	6.5903	ug/L	6.5903	ppb	22:24:47
1	U 409.014†	-5066.5	-2041.0	-79.730	ug/L	-79.730	ppb	22:24:27
1	V 292.402†	28030.3	26954.8	195.71	ug/L	195.71	ppb	22:24:27
1	Zn 213.857†	27207.7	23873.3	248.14	ug/L	248.14	ppb	22:24:27
1	SiO2†	1191332.7	1075833.5	83809	ug/L	83809	ppb	22:25:56
2	Sc Radial	5226.0	5226.0	111	%			22:23:49
2	Y RADIAL	5928.8	5928.8	118.9	%			22:23:49
2	Al 396.153Radial†	89341.0	80549.7	75348	ug/L	75348	ppb	22:23:29
2	Ca 317.933Radial†	13538.9	12171.3	22114	ug/L	22114	ppb	22:23:29
2	Fe 238.204 Radial†	10453.5	9407.4	97602	ug/L	97602	ppb	22:23:29
2	K 766.490 Radial†	76695.6	66812.2	13291	ug/L	13291	ppb	22:23:29
2	Mg 279.077 IEC†	419.4	374.8	14779	ug/L	14779	ppb	22:23:49
2	Na 589.592 Radial†	2271.9	2893.9	986.24	ug/L	986.24	ppb	22:23:29
2	Sr 421.552†	31608.2	28467.6	206.84	ug/L	206.84	ppb	22:23:29
2	Sc 361.383	847271.0	847271.0	110.33	%			22:24:53
2	Y 371.029	815615.6	815615.6	118.37	%			22:24:53
2	Ag 328.068†	-5767.6	-5483.3	2.4325	ug/L	2.4325	ppb	22:24:58
2	As 188.979†	-65.8	-34.6	45.875	ug/L	45.875	ppb	22:25:18
2	B 249.677†	1644.0	1943.5	32.684	ug/L	32.684	ppb	22:24:58
2	Ba 233.527†	91400.9	82840.4	980.95	ug/L	980.95	ppb	22:24:58
2	Be 313.107†	-25641.4	-14257.8	4.4024	ug/L	4.4024	ppb	22:24:58
2	Cd 226.502†	722.7	841.7	1.8724	ug/L	1.8724	ppb	22:25:18
2	Co 228.616†	1657.5	1559.8	36.862	ug/L	36.862	ppb	22:25:18
2	Cr 267.716†	6954.4	6227.6	87.284	ug/L	87.284	ppb	22:24:58
2	Cu 324.752†	29183.3	18914.6	76.031	ug/L	76.031	ppb	22:24:58
2	Mn 257.610†	1584091.8	1435308.2	2306.4	ug/L	2306.4	ppb	22:24:53
2	Mo 202.031†	-31.2	-42.6	3.9281	ug/L	3.9281	ppb	22:25:18
2	Ni 231.604†	2075.2	1779.5	56.858	ug/L	56.858	ppb	22:25:18

2	P 214.914†	3676.8	3137.2	1677.8	ug/L	1677.8 ppb	22:25:18
2	Pb 220.353†	546.8	566.3	102.10	ug/L	102.10 ppb	22:25:18
2	S 181.975 Axial†	982.4	847.9	1085.2	ug/L	1085.2 ppb	22:25:18
2	Sb 206.836†	62.2	26.4	-6.7887	ug/L	-6.7887 ppb	22:25:18
2	Se 196.026†	-400.5	-343.2	15.506	ug/L	15.506 ppb	22:25:18
2	Si 251.611†	1193303.8	1080982.6	39446	ug/L	39446 ppb	22:24:53
2	Sn 189.927†	-77.1	-78.0	-20.042	ug/L	-20.042 ppb	22:25:18
2	Ti 334.940†	2427163.1	2201202.8	4437.2	ug/L	4437.2 ppb	22:24:53
2	Tl 190.801†	-144.6	-99.9	1.3171	ug/L	1.3171 ppb	22:25:18
2	U 409.014†	-5210.9	-2186.2	-84.522	ug/L	-84.522 ppb	22:24:58
2	V 292.402†	27859.8	26879.2	195.20	ug/L	195.20 ppb	22:24:58
2	Zn 213.857†	27118.7	23869.2	248.18	ug/L	248.18 ppb	22:24:58
2	SiO2†	1185539.2	1073937.8	83662	ug/L	83662 ppb	22:26:01
3	Sc Radial	5109.7	5109.7	109	%		22:24:14
3	Y RADIAL	5801.0	5801.0	116.4	%		22:24:14
3	Al 396.153Radial†	89076.0	82136.5	76832	ug/L	76832 ppb	22:23:54
3	Ca 317.933Radial†	13473.6	12388.6	22509	ug/L	22509 ppb	22:23:54
3	Fe 238.204 Radial†	10404.5	9576.5	99357	ug/L	99357 ppb	22:23:54
3	K 766.490 Radial†	76585.8	68282.9	13584	ug/L	13584 ppb	22:23:54
3	Mg 279.077 IEC†	423.6	387.3	15274	ug/L	15274 ppb	22:24:14
3	Na 589.592 Radial†	2308.6	2974.3	1013.6	ug/L	1013.6 ppb	22:23:54
3	Sr 421.552†	31530.3	29043.5	211.03	ug/L	211.03 ppb	22:23:54
3	Sc 361.383	859194.4	859194.4	111.88	%		22:25:24
3	Y 371.029	824735.4	824735.4	119.69	%		22:25:24
3	Ag 328.068†	-5783.2	-5424.6	3.2606	ug/L	3.2606 ppb	22:25:29
3	As 188.979†	-52.8	-22.2	51.828	ug/L	51.828 ppb	22:25:49
3	B 249.677†	1650.7	1928.9	32.037	ug/L	32.037 ppb	22:25:29
3	Ba 233.527†	91771.1	82021.6	971.34	ug/L	971.34 ppb	22:25:29
3	Be 313.107†	-25602.1	-13900.2	4.5438	ug/L	4.5438 ppb	22:25:29
3	Cd 226.502†	721.4	831.5	1.5448	ug/L	1.5448 ppb	22:25:49
3	Co 228.616†	1619.6	1505.1	35.180	ug/L	35.180 ppb	22:25:49
3	Cr 267.716†	6988.0	6170.2	86.531	ug/L	86.531 ppb	22:25:29
3	Cu 324.752†	29252.1	18609.1	74.982	ug/L	74.982 ppb	22:25:29
3	Mn 257.610†	1607255.5	1436087.1	2307.8	ug/L	2307.8 ppb	22:25:24
3	Mo 202.031†	-26.8	-38.3	4.4617	ug/L	4.4617 ppb	22:25:49
3	Ni 231.604†	2063.0	1742.6	55.678	ug/L	55.678 ppb	22:25:49
3	P 214.914†	3652.1	3068.8	1638.8	ug/L	1638.8 ppb	22:25:49
3	Pb 220.353†	536.2	549.9	99.686	ug/L	99.686 ppb	22:25:49
3	S 181.975 Axial†	969.7	824.2	1054.3	ug/L	1054.3 ppb	22:25:49
3	Sb 206.836†	61.5	24.9	-7.4663	ug/L	-7.4663 ppb	22:25:49
3	Se 196.026†	-392.6	-331.1	26.990	ug/L	26.990 ppb	22:25:49
3	Si 251.611†	1211335.5	1082089.8	39486	ug/L	39486 ppb	22:25:24
3	Sn 189.927†	-87.2	-86.0	-21.953	ug/L	-21.953 ppb	22:25:49
3	Ti 334.940†	2461132.1	2201035.2	4436.9	ug/L	4436.9 ppb	22:25:24
3	Tl 190.801†	-164.8	-116.1	-6.1032	ug/L	-6.1032 ppb	22:25:49
3	U 409.014†	-5389.3	-2280.1	-87.866	ug/L	-87.866 ppb	22:25:29
3	V 292.402†	27909.4	26573.1	192.51	ug/L	192.51 ppb	22:25:29
3	Zn 213.857†	27137.0	23544.5	244.34	ug/L	244.34 ppb	22:25:29
3	SiO2†	1188743.8	1061890.4	82723	ug/L	82723 ppb	22:26:07

Mean Data: 246070001|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	852125.8	110.96	%	0.815				0.73%
Sc Radial	5176.0	110	%	1.3				1.16%
Y 371.029	819257.6	118.90	%	0.701				0.59%
Y RADIAL	5871.0	117.8	%	1.30				1.10%
Ag 328.068†	-5457.2	2.8009	ug/L	0.42154	2.8009	ppb	0.42154	15.05%
Al 396.153Radial†	81150.0	75909	ug/L	805.4	75909	ppb	805.4	1.06%
As 188.979†	-28.7	48.743	ug/L	2.9825	48.743	ppb	2.9825	6.12%
B 249.677†	1961.9	33.020	ug/L	1.1879	33.020	ppb	1.1879	3.60%
Ba 233.527†	82625.0	978.43	ug/L	6.230	978.43	ppb	6.230	0.64%
Be 313.107†	-14209.5	4.4323	ug/L	0.09999	4.4323	ppb	0.09999	2.26%
Ca 317.933Radial†	12278.2	22309	ug/L	197.5	22309	ppb	197.5	0.89%
Cd 226.502†	837.9	1.7384	ug/L	0.17172	1.7384	ppb	0.17172	9.88%
Co 228.616†	1536.6	36.139	ug/L	0.8649	36.139	ppb	0.8649	2.39%
Cr 267.716†	6212.2	87.088	ug/L	0.4892	87.088	ppb	0.4892	0.56%
Cu 324.752†	18811.3	75.686	ug/L	0.6094	75.686	ppb	0.6094	0.81%
Fe 238.204 Radial†	9482.7	98383	ug/L	892.7	98383	ppb	892.7	0.91%
K 766.490 Radial†	67484.8	13425	ug/L	147.9	13425	ppb	147.9	1.10%

Mg 279.077 IEC†	381.7	15050	ug/L	251.1	15050	ppb	251.1	1.67%
Mn 257.610†	1436925.9	2309.1	ug/L	3.46	2309.1	ppb	3.46	0.15%
Mo 202.031†	-42.9	3.9629	ug/L	0.48234	3.9629	ppb	0.48234	12.17%
Na 589.592 Radial†	2937.2	1001.0	ug/L	13.82	1001.0	ppb	13.82	1.38%
Ni 231.604†	1761.8	56.292	ug/L	0.5916	56.292	ppb	0.5916	1.05%
P 214.914†	3106.8	1660.4	ug/L	19.83	1660.4	ppb	19.83	1.19%
Pb 220.353†	564.2	101.83	ug/L	2.030	101.83	ppb	2.030	1.99%
S 181.975 Axial†	840.7	1075.7	ug/L	18.65	1075.7	ppb	18.65	1.73%
Sb 206.836†	30.6	-5.1302	ug/L	3.47602	-5.1302	ppb	3.47602	67.76%
Se 196.026†	-342.1	17.972	ug/L	8.0735	17.972	ppb	8.0735	44.92%
Si 251.611†	1082455.3	39500	ug/L	61.5	39500	ppb	61.5	0.16%
Sn 189.927†	-80.4	-20.612	ug/L	1.1659	-20.612	ppb	1.1659	5.66%
Sr 421.552†	28697.5	208.51	ug/L	2.217	208.51	ppb	2.217	1.06%
Ti 334.940†	2203532.4	4441.9	ug/L	8.42	4441.9	ppb	8.42	0.19%
Tl 190.801†	-101.5	0.6014	ug/L	6.37698	0.6014	ppb	6.37698	>999.9%
U 409.014†	-2169.1	-84.040	ug/L	4.0892	-84.040	ppb	4.0892	4.87%
V 292.402†	26802.4	194.47	ug/L	1.715	194.47	ppb	1.715	0.88%
Zn 213.857†	23762.3	246.89	ug/L	2.203	246.89	ppb	2.203	0.89%
SiO2†	1070553.9	83398	ug/L	589.1	83398	ppb	589.1	0.71%

Sequence No.: 37
Sample ID: 1202033988|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 66
Date Collected: 3/1/2010 22:28:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033988|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5124.4	5124.4	109	%			22:30:31
1	Y RADIAL	5770.7	5770.7	115.8	%			22:30:31
1	Al 396.153Radial†	98782.4	90816.1	84951	ug/L	84951	ppb	22:30:11
1	Ca 317.933Radial†	11493.3	10534.1	19140	ug/L	19140	ppb	22:30:11
1	Fe 238.204 Radial†	11837.3	10864.9	112730	ug/L	112730	ppb	22:30:11
1	K 766.490 Radial†	71278.4	63205.7	12574	ug/L	12574	ppb	22:30:11
1	Mg 279.077 IEC†	419.3	382.2	15059	ug/L	15059	ppb	22:30:31
1	Na 589.592 Radial†	944.6	1715.4	584.60	ug/L	584.60	ppb	22:30:11
1	Sr 421.552†	31765.0	29175.8	212.02	ug/L	212.02	ppb	22:30:11
1	Sc 361.383	842818.0	842818.0	109.75	%			22:31:30
1	Y 371.029	805686.9	805686.9	116.93	%			22:31:30
1	Ag 328.068†	-6356.8	-6047.7	4.4541	ug/L	4.4541	ppb	22:31:50
1	As 188.979†	-46.4	-17.3	62.187	ug/L	62.187	ppb	22:31:50
1	B 249.677†	1054.5	1414.3	16.886	ug/L	16.886	ppb	22:31:30
1	Ba 233.527†	115377.5	105124.6	1244.5	ug/L	1244.5	ppb	22:31:30
1	Be 313.107†	-27739.4	-16292.3	4.9177	ug/L	4.9177	ppb	22:31:30
1	Cd 226.502†	832.3	944.9	1.7647	ug/L	1.7647	ppb	22:31:50
1	Co 228.616†	2782.6	2592.9	66.773	ug/L	66.773	ppb	22:31:50
1	Cr 267.716†	7286.7	6563.7	92.255	ug/L	92.255	ppb	22:31:50
1	Cu 324.752†	21162.3	11746.0	50.029	ug/L	50.029	ppb	22:31:30
1	Mn 257.610†	2985096.5	2719428.4	4363.3	ug/L	4363.3	ppb	22:31:30
1	Mo 202.031†	-12.7	-26.0	6.5966	ug/L	6.5966	ppb	22:31:50
1	Ni 231.604†	2304.8	1998.7	63.844	ug/L	63.844	ppb	22:31:50
1	P 214.914†	2289.3	1890.5	977.18	ug/L	977.18	ppb	22:31:50
1	Pb 220.353†	666.2	677.7	121.17	ug/L	121.17	ppb	22:31:50
1	S 181.975 Axial†	690.0	586.1	744.05	ug/L	744.05	ppb	22:31:50
1	Sb 206.836†	54.4	19.6	-11.709	ug/L	-11.709	ppb	22:31:50
1	Se 196.026†	-462.3	-401.5	14.583	ug/L	14.583	ppb	22:31:50
1	Si 251.611†	1077619.0	981290.1	35808	ug/L	35808	ppb	22:31:30
1	Sn 189.927†	-67.3	-69.4	-19.414	ug/L	-19.414	ppb	22:31:50
1	Ti 334.940†	2732030.9	2490608.3	5020.0	ug/L	5020.0	ppb	22:31:30
1	Tl 190.801†	-207.6	-157.9	-10.897	ug/L	-10.897	ppb	22:31:50
1	U 409.014†	-7548.7	-4341.2	-158.42	ug/L	-158.42	ppb	22:31:30
1	V 292.402†	33721.5	32353.6	235.86	ug/L	235.86	ppb	22:31:30
1	Zn 213.857†	23401.0	20611.7	209.98	ug/L	209.98	ppb	22:31:50
1	SiO2†	1080237.5	983668.8	76629	ug/L	76629	ppb	22:32:50
2	Sc Radial	5135.6	5135.6	109	%			22:30:57
2	Y RADIAL	5788.9	5788.9	116.1	%			22:30:57
2	Al 396.153Radial†	99039.9	90854.1	84987	ug/L	84987	ppb	22:30:37
2	Ca 317.933Radial†	11502.0	10519.1	19113	ug/L	19113	ppb	22:30:37
2	Fe 238.204 Radial†	11859.1	10861.2	112690	ug/L	112690	ppb	22:30:37
2	K 766.490 Radial†	71360.9	63138.4	12560	ug/L	12560	ppb	22:30:37
2	Mg 279.077 IEC†	422.6	384.4	15146	ug/L	15146	ppb	22:30:57
2	Na 589.592 Radial†	919.8	1690.8	576.23	ug/L	576.23	ppb	22:30:37
2	Sr 421.552†	31784.9	29130.4	211.69	ug/L	211.69	ppb	22:30:37
2	Sc 361.383	840952.7	840952.7	109.51	%			22:31:57
2	Y 371.029	805273.9	805273.9	116.87	%			22:31:57
2	Ag 328.068†	-6416.8	-6115.4	4.0991	ug/L	4.0991	ppb	22:32:17
2	As 188.979†	-71.5	-40.3	52.078	ug/L	52.078	ppb	22:32:17
2	B 249.677†	1038.7	1402.0	16.584	ug/L	16.584	ppb	22:31:57
2	Ba 233.527†	115417.3	105394.1	1247.6	ug/L	1247.6	ppb	22:31:57
2	Be 313.107†	-27842.4	-16442.4	4.8966	ug/L	4.8966	ppb	22:31:57
2	Cd 226.502†	825.0	940.0	1.6987	ug/L	1.6987	ppb	22:32:17
2	Co 228.616†	2783.6	2599.4	66.933	ug/L	66.933	ppb	22:32:17
2	Cr 267.716†	7248.3	6543.4	91.979	ug/L	91.979	ppb	22:32:17
2	Cu 324.752†	21206.0	11828.7	50.336	ug/L	50.336	ppb	22:31:57
2	Mn 257.610†	2989539.7	2729518.9	4379.5	ug/L	4379.5	ppb	22:31:57
2	Mo 202.031†	-25.7	-37.8	5.5028	ug/L	5.5028	ppb	22:32:17
2	Ni 231.604†	2282.6	1983.1	63.345	ug/L	63.345	ppb	22:32:17

2	P 214.914†	2303.3	1907.9	986.89 ug/L	986.89 ppb	22:32:17
2	Pb 220.353†	667.7	680.4	121.61 ug/L	121.61 ppb	22:32:17
2	S 181.975 Axial†	698.5	595.4	756.02 ug/L	756.02 ppb	22:32:17
2	Sb 206.836†	80.5	43.5	-2.0697 ug/L	-2.0697 ppb	22:32:17
2	Se 196.026†	-460.6	-400.8	14.885 ug/L	14.885 ppb	22:32:17
2	Si 251.611†	1078775.5	984524.2	35926 ug/L	35926 ppb	22:31:57
2	Sn 189.927†	-65.2	-67.6	-18.997 ug/L	-18.997 ppb	22:32:17
2	Ti 334.940†	2735219.0	2499041.2	5037.0 ug/L	5037.0 ppb	22:31:57
2	Tl 190.801†	-194.8	-146.7	-5.5234 ug/L	-5.5234 ppb	22:32:17
2	U 409.014†	-7456.8	-4272.6	-156.12 ug/L	-156.12 ppb	22:31:57
2	V 292.402†	33864.4	32552.2	237.42 ug/L	237.42 ppb	22:31:57
2	Zn 213.857†	23366.6	20627.6	210.17 ug/L	210.17 ppb	22:32:17
2	SiO2†	1083307.9	988655.8	77018 ug/L	77018 ppb	22:32:56
3	Sc Radial	5103.5	5103.5	108 %		22:31:22
3	Y RADIAL	5761.3	5761.3	115.6 %		22:31:22
3	Al 396.153Radial†	99037.2	91423.8	85519 ug/L	85519 ppb	22:31:02
3	Ca 317.933Radial†	11504.4	10587.7	19237 ug/L	19237 ppb	22:31:02
3	Fe 238.204 Radial†	11835.0	10907.5	113170 ug/L	113170 ppb	22:31:02
3	K 766.490 Radial†	71191.5	63394.4	12611 ug/L	12611 ppb	22:31:02
3	Mg 279.077 IEC†	416.9	381.6	15031 ug/L	15031 ppb	22:31:22
3	Na 589.592 Radial†	869.7	1649.9	562.28 ug/L	562.28 ppb	22:31:02
3	Sr 421.552†	31582.4	29127.2	211.66 ug/L	211.66 ppb	22:31:02
3	Sc 361.383	839829.9	839829.9	109.36 %		22:32:23
3	Y 371.029	802455.6	802455.6	116.46 %		22:32:23
3	Ag 328.068†	-6375.9	-6085.8	4.3992 ug/L	4.3992 ppb	22:32:44
3	As 188.979†	-58.9	-28.8	57.211 ug/L	57.211 ppb	22:32:44
3	B 249.677†	1119.3	1476.9	18.384 ug/L	18.384 ppb	22:32:23
3	Ba 233.527†	115425.9	105542.9	1249.4 ug/L	1249.4 ppb	22:32:23
3	Be 313.107†	-27460.9	-16127.6	5.0007 ug/L	5.0007 ppb	22:32:23
3	Cd 226.502†	834.9	950.0	1.7910 ug/L	1.7910 ppb	22:32:44
3	Co 228.616†	2776.1	2595.9	66.842 ug/L	66.842 ppb	22:32:44
3	Cr 267.716†	7234.8	6539.9	91.941 ug/L	91.941 ppb	22:32:44
3	Cu 324.752†	21068.9	11729.2	49.989 ug/L	49.989 ppb	22:32:23
3	Mn 257.610†	2985012.4	2729028.7	4378.7 ug/L	4378.7 ppb	22:32:23
3	Mo 202.031†	-22.9	-35.3	5.7729 ug/L	5.7729 ppb	22:32:44
3	Ni 231.604†	2284.4	1987.5	63.487 ug/L	63.487 ppb	22:32:44
3	P 214.914†	2291.6	1900.1	982.33 ug/L	982.33 ppb	22:32:44
3	Pb 220.353†	655.6	670.2	120.06 ug/L	120.06 ppb	22:32:44
3	S 181.975 Axial†	692.1	590.4	749.39 ug/L	749.39 ppb	22:32:44
3	Sb 206.836†	91.2	53.4	1.9610 ug/L	1.9610 ppb	22:32:44
3	Se 196.026†	-465.5	-405.8	12.951 ug/L	12.951 ppb	22:32:44
3	Si 251.611†	1075063.0	982446.4	35850 ug/L	35850 ppb	22:32:23
3	Sn 189.927†	-61.1	-63.9	-18.132 ug/L	-18.132 ppb	22:32:44
3	Ti 334.940†	2726541.8	2494445.9	5027.7 ug/L	5027.7 ppb	22:32:23
3	Tl 190.801†	-208.8	-159.7	-11.599 ug/L	-11.599 ppb	22:32:44
3	U 409.014†	-7514.4	-4334.3	-158.24 ug/L	-158.24 ppb	22:32:23
3	V 292.402†	33830.4	32562.4	237.44 ug/L	237.44 ppb	22:32:23
3	Zn 213.857†	23336.9	20629.0	210.11 ug/L	210.11 ppb	22:32:44
3	SiO2†	1079860.8	986826.3	76875 ug/L	76875 ppb	22:33:02

Mean Data: 1202033988|949364|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841200.2	109.54	%	0.197				0.18%
Sc Radial	5121.2	109	%	0.3				0.32%
Y 371.029	804472.1	116.75	%	0.255				0.22%
Y RADIAL	5773.7	115.8	%	0.28				0.24%
Ag 328.068†	-6083.0	4.3175	ug/L	0.19109	4.3175	ppb	0.19109	4.43%
Al 396.153Radial†	91031.3	85152	ug/L	318.4	85152	ppb	318.4	0.37%
As 188.979†	-28.8	57.159	ug/L	5.0550	57.159	ppb	5.0550	8.84%
B 249.677†	1431.1	17.285	ug/L	0.9635	17.285	ppb	0.9635	5.57%
Ba 233.527†	105353.8	1247.2	ug/L	2.51	1247.2	ppb	2.51	0.20%
Be 313.107†	-16287.4	4.9383	ug/L	0.05504	4.9383	ppb	0.05504	1.11%
Ca 317.933Radial†	10547.0	19163	ug/L	65.6	19163	ppb	65.6	0.34%
Cd 226.502†	945.0	1.7515	ug/L	0.04758	1.7515	ppb	0.04758	2.72%
Co 228.616†	2596.0	66.849	ug/L	0.0806	66.849	ppb	0.0806	0.12%
Cr 267.716†	6549.0	92.058	ug/L	0.1716	92.058	ppb	0.1716	0.19%
Cu 324.752†	11768.0	50.118	ug/L	0.1894	50.118	ppb	0.1894	0.38%
Fe 238.204 Radial†	10877.8	112860	ug/L	266.9	112860	ppb	266.9	0.24%
K 766.490 Radial†	63246.2	12582	ug/L	26.4	12582	ppb	26.4	0.21%

Mg 279.077 IEC†	382.7	15079	ug/L	59.9	15079	ppb	59.9	0.40%
Mn 257.610†	2725992.0	4373.8	ug/L	9.12	4373.8	ppb	9.12	0.21%
Mo 202.031†	-33.0	5.9574	ug/L	0.56981	5.9574	ppb	0.56981	9.56%
Na 589.592 Radial†	1685.4	574.37	ug/L	11.278	574.37	ppb	11.278	1.96%
Ni 231.604†	1989.8	63.559	ug/L	0.2571	63.559	ppb	0.2571	0.40%
P 214.914†	1899.5	982.13	ug/L	4.858	982.13	ppb	4.858	0.49%
Pb 220.353†	676.1	120.95	ug/L	0.797	120.95	ppb	0.797	0.66%
S 181.975 Axial†	590.6	749.82	ug/L	6.000	749.82	ppb	6.000	0.80%
Sb 206.836†	38.8	-3.9392	ug/L	7.02399	-3.9392	ppb	7.02399	178.31%
Se 196.026†	-402.7	14.140	ug/L	1.0407	14.140	ppb	1.0407	7.36%
Si 251.611†	982753.6	35861	ug/L	59.8	35861	ppb	59.8	0.17%
Sn 189.927†	-67.0	-18.848	ug/L	0.6543	-18.848	ppb	0.6543	3.47%
Sr 421.552†	29144.4	211.79	ug/L	0.198	211.79	ppb	0.198	0.09%
Ti 334.940†	2494698.5	5028.2	ug/L	8.50	5028.2	ppb	8.50	0.17%
Tl 190.801†	-154.8	-9.3397	ug/L	3.32354	-9.3397	ppb	3.32354	35.59%
U 409.014†	-4316.0	-157.59	ug/L	1.281	-157.59	ppb	1.281	0.81%
V 292.402†	32489.4	236.90	ug/L	0.906	236.90	ppb	0.906	0.38%
Zn 213.857†	20622.7	210.08	ug/L	0.094	210.08	ppb	0.094	0.04%
SiO2†	986383.6	76841	ug/L	196.5	76841	ppb	196.5	0.26%

Sequence No.: 38
Sample ID: 1202033990|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 67
Date Collected: 3/1/2010 22:35:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033990|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5086.3	5086.3	108	%			22:37:26
1	Y RADIAL	5869.2	5869.2	117.7	%			22:37:26
1	Al 396.153Radial†	162316.7	150287.8	140560	ug/L	140560	ppb	22:37:06
1	Ca 317.933Radial†	19711.6	18218.1	33101	ug/L	33101	ppb	22:37:06
1	Fe 238.204 Radial†	13153.7	12164.5	126220	ug/L	126220	ppb	22:37:06
1	K 766.490 Radial†	141117.2	128321.9	25528	ug/L	25528	ppb	22:37:06
1	Mg 279.077 IEC†	693.7	639.1	25247	ug/L	25247	ppb	22:37:26
1	Na 589.592 Radial†	24709.2	23712.6	8081.2	ug/L	8081.2	ppb	22:37:06
1	Sr 421.552†	119059.0	110172.4	800.90	ug/L	800.90	ppb	22:37:06
1	Sc 361.383	831562.5	831562.5	108.28	%			22:38:25
1	Y 371.029	814142.1	814142.1	118.16	%			22:38:25
1	Ag 328.068†	95136.4	87601.7	491.47	ug/L	491.47	ppb	22:38:25
1	As 188.979†	1321.1	1245.0	635.11	ug/L	635.11	ppb	22:38:45
1	B 249.677†	26733.0	25141.0	607.41	ug/L	607.41	ppb	22:38:25
1	Ba 233.527†	160919.2	148604.8	1759.0	ug/L	1759.0	ppb	22:38:25
1	Be 313.107†	1418330.3	1318795.3	537.75	ug/L	537.75	ppb	22:38:25
1	Cd 226.502†	37103.7	34451.5	475.81	ug/L	475.81	ppb	22:38:45
1	Co 228.616†	20881.4	19341.2	571.81	ug/L	571.81	ppb	22:38:45
1	Cr 267.716†	48515.5	44727.9	614.39	ug/L	614.39	ppb	22:38:25
1	Cu 324.752†	195489.2	172996.0	654.22	ug/L	654.22	ppb	22:38:25
1	Mn 257.610†	2223624.5	2053032.1	3297.6	ug/L	3297.6	ppb	22:38:25
1	Mo 202.031†	5190.8	4779.3	448.80	ug/L	448.80	ppb	22:38:45
1	Ni 231.604†	19756.8	18143.9	579.65	ug/L	579.65	ppb	22:38:45
1	P 214.914†	8544.5	7695.4	4106.2	ug/L	4106.2	ppb	22:38:45
1	Pb 220.353†	5103.2	4783.4	796.63	ug/L	796.63	ppb	22:38:45
1	S 181.975 Axial†	5276.3	4830.1	6236.2	ug/L	6236.2	ppb	22:38:45
1	Sb 206.836†	1084.0	971.0	387.68	ug/L	387.68	ppb	22:38:45
1	Se 196.026†	391.4	381.3	530.82	ug/L	530.82	ppb	22:38:45
1	Si 251.611†	1189072.0	1097505.9	40043	ug/L	40043	ppb	22:38:25
1	Sn 189.927†	2100.6	1931.8	453.56	ug/L	453.56	ppb	22:38:45
1	Ti 334.940†	3206435.7	2962409.8	5971.3	ug/L	5971.3	ppb	22:38:25
1	Tl 190.801†	1165.9	1107.9	570.02	ug/L	570.02	ppb	22:38:45
1	U 409.014†	10891.0	12594.5	405.98	ug/L	405.98	ppb	22:38:25
1	V 292.402†	101259.6	95140.1	740.20	ug/L	740.20	ppb	22:38:25
1	Zn 213.857†	85316.3	78078.4	837.63	ug/L	837.63	ppb	22:38:25
1	SiO2†	1192971.1	1101099.4	85765	ug/L	85765	ppb	22:39:46
2	Sc Radial	4994.7	4994.7	106	%			22:37:51
2	Y RADIAL	5790.9	5790.9	116.2	%			22:37:51
2	Al 396.153Radial†	164637.3	155229.0	145180	ug/L	145180	ppb	22:37:31
2	Ca 317.933Radial†	20028.4	18851.1	34251	ug/L	34251	ppb	22:37:31
2	Fe 238.204 Radial†	13378.4	12599.5	130740	ug/L	130740	ppb	22:37:31
2	K 766.490 Radial†	142878.2	132376.1	26335	ug/L	26335	ppb	22:37:31
2	Mg 279.077 IEC†	693.3	650.5	25694	ug/L	25694	ppb	22:37:51
2	Na 589.592 Radial†	24943.1	24352.3	8299.2	ug/L	8299.2	ppb	22:37:31
2	Sr 421.552†	120700.5	113739.6	826.83	ug/L	826.83	ppb	22:37:31
2	Sc 361.383	828845.0	828845.0	107.93	%			22:38:52
2	Y 371.029	811679.1	811679.1	117.80	%			22:38:52
2	Ag 328.068†	95789.9	88495.3	497.47	ug/L	497.47	ppb	22:38:52
2	As 188.979†	1301.8	1231.2	630.50	ug/L	630.50	ppb	22:39:12
2	B 249.677†	26988.1	25458.4	614.61	ug/L	614.61	ppb	22:38:52
2	Ba 233.527†	162339.1	150407.6	1780.5	ug/L	1780.5	ppb	22:38:52
2	Be 313.107†	1429171.7	1333134.5	543.58	ug/L	543.58	ppb	22:38:52
2	Cd 226.502†	37170.0	34625.3	477.81	ug/L	477.81	ppb	22:39:12
2	Co 228.616†	20931.8	19451.2	574.96	ug/L	574.96	ppb	22:39:12
2	Cr 267.716†	48964.6	45290.9	622.18	ug/L	622.18	ppb	22:38:52
2	Cu 324.752†	196446.6	174475.0	660.00	ug/L	660.00	ppb	22:38:52
2	Mn 257.610†	2241490.1	2076317.5	3335.3	ug/L	3335.3	ppb	22:38:52
2	Mo 202.031†	5198.3	4802.0	451.24	ug/L	451.24	ppb	22:39:12
2	Ni 231.604†	19792.1	18236.4	582.61	ug/L	582.61	ppb	22:39:12

2	P 214.914†	8571.6	7746.3	4131.1 ug/L	4131.1 ppb	22:39:12
2	Pb 220.353†	5086.5	4783.4	797.40 ug/L	797.40 ppb	22:39:12
2	S 181.975 Axial†	5273.4	4843.4	6252.5 ug/L	6252.5 ppb	22:39:12
2	Sb 206.836†	1094.8	984.3	392.81 ug/L	392.81 ppb	22:39:12
2	Se 196.026†	397.7	388.3	545.64 ug/L	545.64 ppb	22:39:12
2	Si 251.611†	1197113.5	1108556.8	40447 ug/L	40447 ppb	22:38:52
2	Sn 189.927†	2103.1	1940.5	455.56 ug/L	455.56 ppb	22:39:12
2	Ti 334.940†	3225877.1	2990130.9	6027.2 ug/L	6027.2 ppb	22:38:52
2	Tl 190.801†	1166.7	1112.2	572.58 ug/L	572.58 ppb	22:39:12
2	U 409.014†	10904.8	12640.3	406.98 ug/L	406.98 ppb	22:38:52
2	V 292.402†	102278.3	96390.6	749.48 ug/L	749.48 ppb	22:38:52
2	Zn 213.857†	86092.5	79055.9	847.71 ug/L	847.71 ppb	22:38:52
2	SiO2†	1194777.0	1106384.7	86177 ug/L	86177 ppb	22:39:52
3	Sc Radial	5218.6	5218.6	111 %		22:38:16
3	Y RADIAL	6016.3	6016.3	120.7 %		22:38:16
3	Al 396.153Radial†	162433.4	146585.4	137100 ug/L	137100 ppb	22:37:56
3	Ca 317.933Radial†	19677.3	17724.7	32205 ug/L	32205 ppb	22:37:56
3	Fe 238.204 Radial†	13119.6	11825.2	122700 ug/L	122700 ppb	22:37:56
3	K 766.490 Radial†	140939.9	124851.6	24838 ug/L	24838 ppb	22:37:56
3	Mg 279.077 IEC†	682.9	613.0	24217 ug/L	24217 ppb	22:38:16
3	Na 589.592 Radial†	24557.3	22996.0	7837.0 ug/L	7837.0 ppb	22:37:56
3	Sr 421.552†	118961.4	107291.4	779.96 ug/L	779.96 ppb	22:37:56
3	Sc 361.383	821630.7	821630.7	106.99 %		22:39:19
3	Y 371.029	803414.2	803414.2	116.60 %		22:39:19
3	Ag 328.068†	95324.8	88839.9	496.81 ug/L	496.81 ppb	22:39:19
3	As 188.979†	1307.7	1247.2	636.08 ug/L	636.08 ppb	22:39:39
3	B 249.677†	26984.4	25674.5	621.32 ug/L	621.32 ppb	22:39:19
3	Ba 233.527†	161743.0	151171.1	1789.2 ug/L	1789.2 ppb	22:39:19
3	Be 313.107†	1420484.2	1336641.3	545.05 ug/L	545.05 ppb	22:39:19
3	Cd 226.502†	36925.2	34698.9	479.68 ug/L	479.68 ppb	22:39:39
3	Co 228.616†	20820.0	19516.9	576.99 ug/L	576.99 ppb	22:39:39
3	Cr 267.716†	48687.3	45430.1	623.93 ug/L	623.93 ppb	22:39:19
3	Cu 324.752†	195784.1	175453.9	663.24 ug/L	663.24 ppb	22:39:19
3	Mn 257.610†	2234784.1	2088284.6	3353.7 ug/L	3353.7 ppb	22:39:19
3	Mo 202.031†	5161.5	4809.8	451.31 ug/L	451.31 ppb	22:39:39
3	Ni 231.604†	19688.4	18300.5	584.66 ug/L	584.66 ppb	22:39:39
3	P 214.914†	8496.8	7746.2	4134.7 ug/L	4134.7 ppb	22:39:39
3	Pb 220.353†	5038.3	4779.8	795.46 ug/L	795.46 ppb	22:39:39
3	S 181.975 Axial†	5250.6	4864.9	6282.0 ug/L	6282.0 ppb	22:39:39
3	Sb 206.836†	1087.9	986.8	394.09 ug/L	394.09 ppb	22:39:39
3	Se 196.026†	394.1	388.1	526.80 ug/L	526.80 ppb	22:39:39
3	Si 251.611†	1194264.5	1115632.7	40705 ug/L	40705 ppb	22:39:19
3	Sn 189.927†	2098.5	1953.3	458.68 ug/L	458.68 ppb	22:39:39
3	Ti 334.940†	3217010.8	3008087.2	6063.3 ug/L	6063.3 ppb	22:39:19
3	Tl 190.801†	1168.9	1123.7	578.27 ug/L	578.27 ppb	22:39:39
3	U 409.014†	10695.5	12533.4	404.31 ug/L	404.31 ppb	22:39:19
3	V 292.402†	101757.8	96736.1	753.34 ug/L	753.34 ppb	22:39:19
3	Zn 213.857†	85694.6	79384.3	852.52 ug/L	852.52 ppb	22:39:19
3	SiO2†	1204792.4	1125465.4	87664 ug/L	87664 ppb	22:39:58

Mean Data: 1202033990|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	827346.1	107.74	%	0.668				0.62%
Sc Radial	5099.9	108	%	2.4				2.21%
Y 371.029	809745.1	117.52	%	0.816				0.69%
Y RADIAL	5892.1	118.2	%	2.30				1.94%
Ag 328.068†	88312.3	495.25	ug/L	3.294	495.25	ppb	3.294	0.67%
Al 396.153Radial†	150700.7	140950	ug/L	4056.5	140950	ppb	4056.5	2.88%
As 188.979†	1241.1	633.90	ug/L	2.984	633.90	ppb	2.984	0.47%
B 249.677†	25424.7	614.45	ug/L	6.959	614.45	ppb	6.959	1.13%
Ba 233.527†	150061.1	1776.2	ug/L	15.54	1776.2	ppb	15.54	0.87%
Be 313.107†	1329523.7	542.13	ug/L	3.861	542.13	ppb	3.861	0.71%
Ca 317.933Radial†	18264.6	33186	ug/L	1025.9	33186	ppb	1025.9	3.09%
Cd 226.502†	34591.9	477.77	ug/L	1.937	477.77	ppb	1.937	0.41%
Co 228.616†	19436.4	574.59	ug/L	2.613	574.59	ppb	2.613	0.45%
Cr 267.716†	45149.6	620.17	ug/L	5.080	620.17	ppb	5.080	0.82%
Cu 324.752†	174308.3	659.15	ug/L	4.568	659.15	ppb	4.568	0.69%
Fe 238.204 Radial†	12196.4	126550	ug/L	4026.5	126550	ppb	4026.5	3.18%
K 766.490 Radial†	128516.5	25567	ug/L	749.2	25567	ppb	749.2	2.93%

Mg 279.077 IEC†	634.2	25053	ug/L	757.4	25053	ppb	757.4	3.02%
Mn 257.610†	2072544.8	3328.9	ug/L	28.61	3328.9	ppb	28.61	0.86%
Mo 202.031†	4797.0	450.45	ug/L	1.433	450.45	ppb	1.433	0.32%
Na 589.592 Radial†	23686.9	8072.5	ug/L	231.24	8072.5	ppb	231.24	2.86%
Ni 231.604†	18226.9	582.31	ug/L	2.516	582.31	ppb	2.516	0.43%
P 214.914†	7729.3	4124.0	ug/L	15.54	4124.0	ppb	15.54	0.38%
Pb 220.353†	4782.2	796.50	ug/L	0.973	796.50	ppb	0.973	0.12%
S 181.975 Axial†	4846.2	6256.9	ug/L	23.20	6256.9	ppb	23.20	0.37%
Sb 206.836†	980.7	391.53	ug/L	3.394	391.53	ppb	3.394	0.87%
Se 196.026†	385.9	534.42	ug/L	9.927	534.42	ppb	9.927	1.86%
Si 251.611†	1107231.8	40398	ug/L	333.4	40398	ppb	333.4	0.83%
Sn 189.927†	1941.9	455.93	ug/L	2.576	455.93	ppb	2.576	0.57%
Sr 421.552†	110401.1	802.56	ug/L	23.481	802.56	ppb	23.481	2.93%
Ti 334.940†	2986876.0	6020.6	ug/L	46.36	6020.6	ppb	46.36	0.77%
Tl 190.801†	1114.6	573.62	ug/L	4.222	573.62	ppb	4.222	0.74%
U 409.014†	12589.4	405.76	ug/L	1.348	405.76	ppb	1.348	0.33%
V 292.402†	96088.9	747.67	ug/L	6.752	747.67	ppb	6.752	0.90%
Zn 213.857†	78839.5	845.95	ug/L	7.597	845.95	ppb	7.597	0.90%
SiO2†	1110983.2	86535	ug/L	998.5	86535	ppb	998.5	1.15%

Sequence No.: 39
Sample ID: 1202033991|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 68
Date Collected: 3/1/2010 22:42:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033991|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5039.7	5039.7	107	%			22:44:22
1	Y RADIAL	5707.0	5707.0	114.5	%			22:44:22
1	Al 396.153Radial†	148313.9	138598.1	129620	ug/L	129620	ppb	22:44:02
1	Ca 317.933Radial†	18272.5	17042.6	30965	ug/L	30965	ppb	22:44:02
1	Fe 238.204 Radial†	12274.4	11455.8	118870	ug/L	118870	ppb	22:44:02
1	K 766.490 Radial†	116605.3	106636.6	21213	ug/L	21213	ppb	22:44:02
1	Mg 279.077 IEC†	589.1	547.3	21610	ug/L	21610	ppb	22:44:22
1	Na 589.592 Radial†	22933.7	22265.7	7588.1	ug/L	7588.1	ppb	22:44:02
1	Sr 421.552†	116675.8	108964.5	792.13	ug/L	792.13	ppb	22:44:02
1	Sc 361.383	831563.1	831563.1	108.29	%			22:45:21
1	Y 371.029	798832.0	798832.0	115.93	%			22:45:21
1	Ag 328.068†	98783.7	90970.0	506.44	ug/L	506.44	ppb	22:45:21
1	As 188.979†	1137.5	1075.5	554.26	ug/L	554.26	ppb	22:45:41
1	B 249.677†	22987.9	21682.5	522.11	ug/L	522.11	ppb	22:45:21
1	Ba 233.527†	136691.2	126230.3	1494.7	ug/L	1494.7	ppb	22:45:21
1	Be 313.107†	1330478.6	1237664.3	504.58	ug/L	504.58	ppb	22:45:21
1	Cd 226.502†	37112.7	34459.8	476.67	ug/L	476.67	ppb	22:45:41
1	Co 228.616†	19429.8	18000.7	532.18	ug/L	532.18	ppb	22:45:41
1	Cr 267.716†	45202.6	41668.4	572.41	ug/L	572.41	ppb	22:45:21
1	Cu 324.752†	183858.1	162254.7	613.61	ug/L	613.61	ppb	22:45:21
1	Mn 257.610†	1805109.4	1666536.6	2678.4	ug/L	2678.4	ppb	22:45:21
1	Mo 202.031†	5409.5	4981.2	466.73	ug/L	466.73	ppb	22:45:41
1	Ni 231.604†	18943.3	17392.6	555.66	ug/L	555.66	ppb	22:45:41
1	P 214.914†	4949.4	4375.3	2264.1	ug/L	2264.1	ppb	22:45:41
1	Pb 220.353†	3727.5	3513.0	589.74	ug/L	589.74	ppb	22:45:41
1	S 181.975 Axial†	5092.1	4660.0	6017.6	ug/L	6017.6	ppb	22:45:41
1	Sb 206.836†	1142.3	1024.8	412.70	ug/L	412.70	ppb	22:45:41
1	Se 196.026†	412.4	400.6	525.23	ug/L	525.23	ppb	22:45:41
1	Si 251.611†	1117637.9	1031536.5	37636	ug/L	37636	ppb	22:45:21
1	Sn 189.927†	2453.6	2257.8	530.37	ug/L	530.37	ppb	22:45:41
1	Ti 334.940†	2988109.9	2760786.1	5565.0	ug/L	5565.0	ppb	22:45:21
1	Tl 190.801†	999.2	954.0	493.22	ug/L	493.22	ppb	22:45:41
1	U 409.014†	10793.8	12504.8	403.91	ug/L	403.91	ppb	22:45:21
1	V 292.402†	97385.0	91561.9	713.41	ug/L	713.41	ppb	22:45:21
1	Zn 213.857†	75624.1	69127.7	740.23	ug/L	740.23	ppb	22:45:21
1	SiO2†	1110741.1	1025160.1	79849	ug/L	79849	ppb	22:46:42
2	Sc Radial	5120.1	5120.1	109	%			22:44:47
2	Y RADIAL	5795.9	5795.9	116.3	%			22:44:47
2	Al 396.153Radial†	148575.5	136664.9	127820	ug/L	127820	ppb	22:44:27
2	Ca 317.933Radial†	18319.1	16817.7	30557	ug/L	30557	ppb	22:44:27
2	Fe 238.204 Radial†	12253.9	11257.0	116810	ug/L	116810	ppb	22:44:27
2	K 766.490 Radial†	116636.3	104956.1	20878	ug/L	20878	ppb	22:44:27
2	Mg 279.077 IEC†	592.1	541.4	21380	ug/L	21380	ppb	22:44:47
2	Na 589.592 Radial†	22866.1	21867.4	7452.4	ug/L	7452.4	ppb	22:44:27
2	Sr 421.552†	116716.2	107291.6	779.97	ug/L	779.97	ppb	22:44:27
2	Sc 361.383	819928.8	819928.8	106.77	%			22:45:48
2	Y 371.029	788124.7	788124.7	114.38	%			22:45:48
2	Ag 328.068†	98141.9	91663.3	509.40	ug/L	509.40	ppb	22:45:48
2	As 188.979†	1137.1	1090.0	560.66	ug/L	560.66	ppb	22:46:08
2	B 249.677†	22921.0	21921.1	528.40	ug/L	528.40	ppb	22:45:48
2	Ba 233.527†	136040.3	127411.9	1508.6	ug/L	1508.6	ppb	22:45:48
2	Be 313.107†	1323325.2	1248398.7	508.95	ug/L	508.95	ppb	22:45:48
2	Cd 226.502†	36875.1	34723.6	480.62	ug/L	480.62	ppb	22:46:08
2	Co 228.616†	19338.0	18169.3	537.23	ug/L	537.23	ppb	22:46:08
2	Cr 267.716†	45050.7	42118.5	578.53	ug/L	578.53	ppb	22:45:48
2	Cu 324.752†	182189.4	163101.1	616.67	ug/L	616.67	ppb	22:45:48
2	Mn 257.610†	1798236.4	1683753.0	2705.7	ug/L	2705.7	ppb	22:45:48
2	Mo 202.031†	5380.7	5025.2	470.60	ug/L	470.60	ppb	22:46:08
2	Ni 231.604†	18810.8	17516.7	559.63	ug/L	559.63	ppb	22:46:08

2	P 214.914†	4925.4	4417.7	2288.4	ug/L	2288.4 ppb	22:46:08
2	Pb 220.353†	3701.4	3537.4	593.39	ug/L	593.39 ppb	22:46:08
2	S 181.975 Axial†	5071.4	4707.3	6079.3	ug/L	6079.3 ppb	22:46:08
2	Sb 206.836†	1148.9	1046.0	421.37	ug/L	421.37 ppb	22:46:08
2	Se 196.026†	400.2	394.7	516.80	ug/L	516.80 ppb	22:46:08
2	Si 251.611†	1109707.7	1038754.4	37899	ug/L	37899 ppb	22:45:48
2	Sn 189.927†	2428.7	2266.6	532.51	ug/L	532.51 ppb	22:46:08
2	Ti 334.940†	2970108.5	2783081.5	5609.9	ug/L	5609.9 ppb	22:45:48
2	Tl 190.801†	982.2	951.1	492.39	ug/L	492.39 ppb	22:46:08
2	U 409.014†	10636.1	12498.5	403.92	ug/L	403.92 ppb	22:45:48
2	V 292.402†	96903.3	92386.8	720.28	ug/L	720.28 ppb	22:45:48
2	Zn 213.857†	75398.9	69907.7	749.11	ug/L	749.11 ppb	22:45:48
2	SiO2†	1115911.8	1044557.8	81360	ug/L	81360 ppb	22:46:48
3	Sc Radial	5109.5	5109.5	109	%		22:45:12
3	Y RADIAL	5799.6	5799.6	116.3	%		22:45:12
3	Al 396.153Radial†	145922.4	134505.1	125800	ug/L	125800 ppb	22:44:52
3	Ca 317.933Radial†	17943.0	16506.2	29991	ug/L	29991 ppb	22:44:52
3	Fe 238.204 Radial†	11985.2	11032.9	114480	ug/L	114480 ppb	22:44:52
3	K 766.490 Radial†	114432.5	103149.1	20519	ug/L	20519 ppb	22:44:52
3	Mg 279.077 IEC†	585.1	536.1	21169	ug/L	21169 ppb	22:45:12
3	Na 589.592 Radial†	22288.2	21378.8	7285.9	ug/L	7285.9 ppb	22:44:52
3	Sr 421.552†	114255.7	105248.4	765.12	ug/L	765.12 ppb	22:44:52
3	Sc 361.383	831657.3	831657.3	108.30	%		22:46:15
3	Y 371.029	798241.0	798241.0	115.85	%		22:46:15
3	Ag 328.068†	98567.2	90759.7	504.02	ug/L	504.02 ppb	22:46:15
3	As 188.979†	1123.9	1062.8	547.51	ug/L	547.51 ppb	22:46:35
3	B 249.677†	23004.5	21695.5	523.16	ug/L	523.16 ppb	22:46:15
3	Ba 233.527†	136623.9	126153.9	1493.7	ug/L	1493.7 ppb	22:46:15
3	Be 313.107†	1326246.8	1233617.6	502.95	ug/L	502.95 ppb	22:46:15
3	Cd 226.502†	36839.5	34203.6	473.49	ug/L	473.49 ppb	22:46:35
3	Co 228.616†	19299.1	17877.9	528.55	ug/L	528.55 ppb	22:46:35
3	Cr 267.716†	45134.7	41601.0	571.41	ug/L	571.41 ppb	22:46:15
3	Cu 324.752†	183134.5	161567.3	610.81	ug/L	610.81 ppb	22:46:15
3	Mn 257.610†	1804039.1	1665359.6	2676.1	ug/L	2676.1 ppb	22:46:15
3	Mo 202.031†	5371.1	4945.2	463.07	ug/L	463.07 ppb	22:46:35
3	Ni 231.604†	18809.4	17267.0	551.65	ug/L	551.65 ppb	22:46:35
3	P 214.914†	4912.2	4340.4	2247.7	ug/L	2247.7 ppb	22:46:35
3	Pb 220.353†	3716.2	3502.2	587.39	ug/L	587.39 ppb	22:46:35
3	S 181.975 Axial†	5047.7	4618.5	5964.5	ug/L	5964.5 ppb	22:46:35
3	Sb 206.836†	1139.1	1021.8	411.54	ug/L	411.54 ppb	22:46:35
3	Se 196.026†	408.6	397.1	512.87	ug/L	512.87 ppb	22:46:35
3	Si 251.611†	1115740.1	1029667.3	37568	ug/L	37568 ppb	22:46:15
3	Sn 189.927†	2443.6	2248.3	528.23	ug/L	528.23 ppb	22:46:35
3	Ti 334.940†	2983934.9	2756618.6	5556.5	ug/L	5556.5 ppb	22:46:15
3	Tl 190.801†	996.8	951.6	492.10	ug/L	492.10 ppb	22:46:35
3	U 409.014†	10558.8	12286.6	397.10	ug/L	397.10 ppb	22:46:15
3	V 292.402†	97227.8	91406.5	712.75	ug/L	712.75 ppb	22:46:15
3	Zn 213.857†	75550.3	69051.6	740.07	ug/L	740.07 ppb	22:46:15
3	SiO2†	1111732.1	1025959.1	79912	ug/L	79912 ppb	22:46:53

Mean Data: 1202033991|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	827716.4	107.78	%	0.878				0.81%
Sc Radial	5089.8	108	%	0.9				0.86%
Y 371.029	795065.9	115.39	%	0.873				0.76%
Y RADIAL	5767.5	115.7	%	1.05				0.91%
Ag 328.068†	91131.0	506.62	ug/L	2.694	506.62	ppb	2.694	0.53%
Al 396.153Radial†	136589.4	127750	ug/L	1915.2	127750	ppb	1915.2	1.50%
As 188.979†	1076.1	554.15	ug/L	6.576	554.15	ppb	6.576	1.19%
B 249.677†	21766.3	524.56	ug/L	3.372	524.56	ppb	3.372	0.64%
Ba 233.527†	126598.7	1499.0	ug/L	8.34	1499.0	ppb	8.34	0.56%
Be 313.107†	1239893.6	505.49	ug/L	3.101	505.49	ppb	3.101	0.61%
Ca 317.933Radial†	16788.8	30504	ug/L	489.4	30504	ppb	489.4	1.60%
Cd 226.502†	34462.3	476.93	ug/L	3.576	476.93	ppb	3.576	0.75%
Co 228.616†	18016.0	532.65	ug/L	4.361	532.65	ppb	4.361	0.82%
Cr 267.716†	41796.0	574.12	ug/L	3.855	574.12	ppb	3.855	0.67%
Cu 324.752†	162307.7	613.70	ug/L	2.932	613.70	ppb	2.932	0.48%
Fe 238.204 Radial†	11248.6	116720	ug/L	2195.1	116720	ppb	2195.1	1.88%
K 766.490 Radial†	104913.9	20870	ug/L	347.0	20870	ppb	347.0	1.66%

Mg 279.077 IEC†	541.6	21387	ug/L	220.5	21387	ppb	220.5	1.03%
Mn 257.610†	1671883.1	2686.7	ug/L	16.50	2686.7	ppb	16.50	0.61%
Mo 202.031†	4983.9	466.80	ug/L	3.763	466.80	ppb	3.763	0.81%
Na 589.592 Radial†	21837.3	7442.1	ug/L	151.39	7442.1	ppb	151.39	2.03%
Ni 231.604†	17392.1	555.64	ug/L	3.989	555.64	ppb	3.989	0.72%
P 214.914†	4377.8	2266.8	ug/L	20.47	2266.8	ppb	20.47	0.90%
Pb 220.353†	3517.5	590.17	ug/L	3.023	590.17	ppb	3.023	0.51%
S 181.975 Axial†	4661.9	6020.5	ug/L	57.45	6020.5	ppb	57.45	0.95%
Sb 206.836†	1030.9	415.20	ug/L	5.370	415.20	ppb	5.370	1.29%
Se 196.026†	397.5	518.30	ug/L	6.313	518.30	ppb	6.313	1.22%
Si 251.611†	1033319.4	37701	ug/L	175.1	37701	ppb	175.1	0.46%
Sn 189.927†	2257.6	530.37	ug/L	2.142	530.37	ppb	2.142	0.40%
Sr 421.552†	107168.2	779.07	ug/L	13.530	779.07	ppb	13.530	1.74%
Ti 334.940†	2766828.7	5577.2	ug/L	28.68	5577.2	ppb	28.68	0.51%
Tl 190.801†	952.2	492.57	ug/L	0.580	492.57	ppb	0.580	0.12%
U 409.014†	12430.0	401.64	ug/L	3.931	401.64	ppb	3.931	0.98%
V 292.402†	91785.1	715.48	ug/L	4.170	715.48	ppb	4.170	0.58%
Zn 213.857†	69362.3	743.14	ug/L	5.172	743.14	ppb	5.172	0.70%
SiO2†	1031892.4	80374	ug/L	855.0	80374	ppb	855.0	1.06%

Sequence No.: 40
Sample ID: 1202033989|949364|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 69
Date Collected: 3/1/2010 22:49:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033989|949364|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4605.8	4605.8	97.9	%			22:51:17
1	Y RADIAL	5078.4	5078.4	101.9	%			22:50:57
1	Al 396.153Radial†	18175.8	18660.7	17456	ug/L	17456	ppb	22:50:57
1	Ca 317.933Radial†	2683.9	2720.5	4943.0	ug/L	4943.0	ppb	22:51:17
1	Fe 238.204 Radial†	2105.3	2144.1	22245	ug/L	22245	ppb	22:51:17
1	K 766.490 Radial†	17420.9	15540.5	3091.6	ug/L	3091.6	ppb	22:50:57
1	Mg 279.077 IEC†	87.4	86.4	3408.2	ug/L	3408.2	ppb	22:51:17
1	Na 589.592 Radial†	-114.7	730.6	248.97	ug/L	248.97	ppb	22:50:57
1	Sr 421.552†	6408.7	6549.5	47.589	ug/L	47.589	ppb	22:50:57
1	Sc 361.383	814701.2	814701.2	106.09	%			22:52:14
1	Y 371.029	740626.1	740626.1	107.49	%			22:52:14
1	Ag 328.068†	-1079.6	-1273.3	0.4038	ug/L	0.4038	ppb	22:52:14
1	As 188.979†	-42.6	-15.2	6.3542	ug/L	6.3542	ppb	22:52:34
1	B 249.677†	157.7	602.1	11.437	ug/L	11.437	ppb	22:52:34
1	Ba 233.527†	18205.4	17158.1	203.24	ug/L	203.24	ppb	22:52:14
1	Be 313.107†	-12745.0	-3030.8	0.8648	ug/L	0.8648	ppb	22:52:14
1	Cd 226.502†	-6.9	180.1	0.2623	ug/L	0.2623	ppb	22:52:34
1	Co 228.616†	272.9	314.7	7.3690	ug/L	7.3690	ppb	22:52:34
1	Cr 267.716†	1431.0	1273.2	17.885	ug/L	17.885	ppb	22:52:34
1	Cu 324.752†	11815.3	3600.9	14.663	ug/L	14.663	ppb	22:52:14
1	Mn 257.610†	318523.5	299779.8	481.89	ug/L	481.89	ppb	22:52:14
1	Mo 202.031†	8.2	-6.7	1.1737	ug/L	1.1737	ppb	22:52:34
1	Ni 231.604†	503.8	373.6	11.936	ug/L	11.936	ppb	22:52:34
1	P 214.914†	903.5	656.3	350.18	ug/L	350.18	ppb	22:52:34
1	Pb 220.353†	57.1	124.5	22.602	ug/L	22.602	ppb	22:52:34
1	S 181.975 Axial†	235.3	179.3	229.16	ug/L	229.16	ppb	22:52:34
1	Sb 206.836†	37.5	5.3	-1.5226	ug/L	-1.5226	ppb	22:52:34
1	Se 196.026†	-99.6	-74.1	6.0922	ug/L	6.0922	ppb	22:52:34
1	Si 251.611†	235605.0	221492.5	8082.4	ug/L	8082.4	ppb	22:52:14
1	Sn 189.927†	-14.8	-22.0	-5.5753	ug/L	-5.5753	ppb	22:52:34
1	Ti 334.940†	478549.2	452382.4	911.94	ug/L	911.94	ppb	22:52:14
1	Tl 190.801†	-50.9	-16.8	2.0224	ug/L	2.0224	ppb	22:52:34
1	U 409.014†	-2782.4	-85.9	-5.4510	ug/L	-5.4510	ppb	22:52:14
1	V 292.402†	4132.9	5523.6	39.827	ug/L	39.827	ppb	22:52:34
1	Zn 213.857†	5929.9	4879.2	50.387	ug/L	50.387	ppb	22:52:34
1	SiO2†	236649.8	222470.2	17331	ug/L	17331	ppb	22:53:31
2	Sc Radial	4628.5	4628.5	98.3	%			22:51:42
2	Y RADIAL	5589.0	5589.0	112.1	%			22:51:22
2	Al 396.153Radial†	17888.7	18277.8	17097	ug/L	17097	ppb	22:51:22
2	Ca 317.933Radial†	2704.3	2727.7	4956.2	ug/L	4956.2	ppb	22:51:42
2	Fe 238.204 Radial†	2121.3	2149.8	22305	ug/L	22305	ppb	22:51:42
2	K 766.490 Radial†	17319.6	15350.4	3053.8	ug/L	3053.8	ppb	22:51:22
2	Mg 279.077 IEC†	86.1	84.7	3339.8	ug/L	3339.8	ppb	22:51:42
2	Na 589.592 Radial†	-136.6	708.9	241.60	ug/L	241.60	ppb	22:51:22
2	Sr 421.552†	6282.5	6389.0	46.422	ug/L	46.422	ppb	22:51:22
2	Sc 361.383	825533.3	825533.3	107.50	%			22:52:40
2	Y 371.029	751422.1	751422.1	109.05	%			22:52:40
2	Ag 328.068†	-993.8	-1180.1	0.8950	ug/L	0.8950	ppb	22:52:40
2	As 188.979†	-37.2	-9.6	8.8682	ug/L	8.8682	ppb	22:53:00
2	B 249.677†	128.3	572.8	10.693	ug/L	10.693	ppb	22:53:00
2	Ba 233.527†	18522.3	17227.7	204.06	ug/L	204.06	ppb	22:52:40
2	Be 313.107†	-12948.3	-3062.3	0.8578	ug/L	0.8578	ppb	22:52:40
2	Cd 226.502†	13.6	199.3	0.5291	ug/L	0.5291	ppb	22:53:00
2	Co 228.616†	283.2	320.9	7.5530	ug/L	7.5530	ppb	22:53:00
2	Cr 267.716†	1473.3	1294.9	18.180	ug/L	18.180	ppb	22:53:00
2	Cu 324.752†	11919.5	3551.8	14.480	ug/L	14.480	ppb	22:52:40
2	Mn 257.610†	323464.9	300436.8	482.96	ug/L	482.96	ppb	22:52:40
2	Mo 202.031†	20.0	4.2	2.1751	ug/L	2.1751	ppb	22:53:00
2	Ni 231.604†	512.8	375.7	12.005	ug/L	12.005	ppb	22:53:00

2	P 214.914†	904.7	646.2	344.46 ug/L	344.46 ppb	22:53:00
2	Pb 220.353†	62.0	128.4	23.140 ug/L	23.140 ppb	22:53:00
2	S 181.975 Axial†	230.4	171.8	219.60 ug/L	219.60 ppb	22:53:00
2	Sb 206.836†	25.4	-6.4	-6.2728 ug/L	-6.2728 ppb	22:53:00
2	Se 196.026†	-86.0	-60.2	14.719 ug/L	14.719 ppb	22:53:00
2	Si 251.611†	239424.0	222131.0	8105.7 ug/L	8105.7 ppb	22:52:40
2	Sn 189.927†	-14.5	-21.6	-5.4865 ug/L	-5.4865 ppb	22:53:00
2	Ti 334.940†	486221.6	453600.7	914.40 ug/L	914.40 ppb	22:52:40
2	Tl 190.801†	-59.1	-23.7	-1.1350 ug/L	-1.1350 ppb	22:53:00
2	U 409.014†	-2732.3	-4.9	-2.7457 ug/L	-2.7457 ppb	22:52:40
2	V 292.402†	4064.6	5409.0	38.921 ug/L	38.921 ppb	22:53:00
2	Zn 213.857†	5888.7	4767.6	49.147 ug/L	49.147 ppb	22:53:00
2	SiO2†	239795.9	222469.8	17331 ug/L	17331 ppb	22:53:36
3	Sc Radial	4600.1	4600.1	97.7 %		22:52:08
3	Y RADIAL	5570.2	5570.2	111.7 %		22:51:48
3	Al 396.153Radial†	17806.9	18306.5	17124 ug/L	17124 ppb	22:51:48
3	Ca 317.933Radial†	2680.0	2719.9	4941.9 ug/L	4941.9 ppb	22:52:08
3	Fe 238.204 Radial†	2092.6	2133.8	22138 ug/L	22138 ppb	22:52:08
3	K 766.490 Radial†	17174.2	15310.3	3045.8 ug/L	3045.8 ppb	22:51:48
3	Mg 279.077 IEC†	90.4	89.6	3534.7 ug/L	3534.7 ppb	22:52:08
3	Na 589.592 Radial†	-197.5	645.8	220.08 ug/L	220.08 ppb	22:51:48
3	Sr 421.552†	6269.5	6415.2	46.613 ug/L	46.613 ppb	22:51:48
3	Sc 361.383	822947.1	822947.1	107.16 %		22:53:05
3	Y 371.029	748748.2	748748.2	108.67 %		22:53:05
3	Ag 328.068†	-954.8	-1146.6	1.0214 ug/L	1.0214 ppb	22:53:05
3	As 188.979†	-41.8	-14.0	6.8559 ug/L	6.8559 ppb	22:53:25
3	B 249.677†	125.9	570.9	10.672 ug/L	10.672 ppb	22:53:25
3	Ba 233.527†	18398.5	17166.3	203.33 ug/L	203.33 ppb	22:53:05
3	Be 313.107†	-12914.9	-3069.0	0.8534 ug/L	0.8534 ppb	22:53:05
3	Cd 226.502†	-13.3	174.2	0.1898 ug/L	0.1898 ppb	22:53:25
3	Co 228.616†	300.1	337.5	8.0542 ug/L	8.0542 ppb	22:53:25
3	Cr 267.716†	1456.3	1283.4	18.021 ug/L	18.021 ppb	22:53:25
3	Cu 324.752†	11860.2	3531.3	14.398 ug/L	14.398 ppb	22:53:05
3	Mn 257.610†	321512.3	299560.3	481.53 ug/L	481.53 ppb	22:53:05
3	Mo 202.031†	2.2	-12.3	0.6464 ug/L	0.6464 ppb	22:53:25
3	Ni 231.604†	503.7	368.7	11.781 ug/L	11.781 ppb	22:53:25
3	P 214.914†	908.5	652.4	348.08 ug/L	348.08 ppb	22:53:25
3	Pb 220.353†	58.3	125.1	22.633 ug/L	22.633 ppb	22:53:25
3	S 181.975 Axial†	235.5	177.2	226.58 ug/L	226.58 ppb	22:53:25
3	Sb 206.836†	37.7	5.2	-1.5755 ug/L	-1.5755 ppb	22:53:25
3	Se 196.026†	-88.1	-62.4	12.981 ug/L	12.981 ppb	22:53:25
3	Si 251.611†	238364.5	221842.3	8095.2 ug/L	8095.2 ppb	22:53:05
3	Sn 189.927†	-8.9	-16.4	-4.2565 ug/L	-4.2565 ppb	22:53:25
3	Ti 334.940†	484267.4	453198.6	913.57 ug/L	913.57 ppb	22:53:05
3	Tl 190.801†	-55.8	-20.8	0.1776 ug/L	0.1776 ppb	22:53:25
3	U 409.014†	-2899.6	-168.9	-8.2202 ug/L	-8.2202 ppb	22:53:05
3	V 292.402†	4073.6	5429.3	39.080 ug/L	39.080 ppb	22:53:25
3	Zn 213.857†	5885.6	4781.9	49.331 ug/L	49.331 ppb	22:53:25
3	SiO2†	237909.9	221410.9	17248 ug/L	17248 ppb	22:53:41

Mean Data: 1202033989|949364|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	821060.5	106.92	%	0.737				0.69%
Sc Radial	4611.5	98.0	%	0.32				0.33%
Y 371.029	746932.1	108.40	%	0.816				0.75%
Y RADIAL	5412.5	108.6	%	5.81				5.35%
Ag 328.068†	-1200.0	0.7734	ug/L	0.32627	0.7734	ppb	0.32627	42.19%
Al 396.153Radial†	18415.0	17226	ug/L	199.5	17226	ppb	199.5	1.16%
As 188.979†	-12.9	7.3594	ug/L	1.33049	7.3594	ppb	1.33049	18.08%
B 249.677†	581.9	10.934	ug/L	0.4356	10.934	ppb	0.4356	3.98%
Ba 233.527†	17184.0	203.54	ug/L	0.450	203.54	ppb	0.450	0.22%
Be 313.107†	-3054.0	0.8587	ug/L	0.00576	0.8587	ppb	0.00576	0.67%
Ca 317.933Radial†	2722.7	4947.0	ug/L	7.94	4947.0	ppb	7.94	0.16%
Cd 226.502†	184.5	0.3271	ug/L	0.17869	0.3271	ppb	0.17869	54.63%
Co 228.616†	324.4	7.6587	ug/L	0.35464	7.6587	ppb	0.35464	4.63%
Cr 267.716†	1283.8	18.028	ug/L	0.1476	18.028	ppb	0.1476	0.82%
Cu 324.752†	3561.3	14.513	ug/L	0.1356	14.513	ppb	0.1356	0.93%
Fe 238.204 Radial†	2142.6	22229	ug/L	84.4	22229	ppb	84.4	0.38%
K 766.490 Radial†	15400.4	3063.7	ug/L	24.47	3063.7	ppb	24.47	0.80%

Mg 279.077 IEC†	86.9	3427.6	ug/L	98.87	3427.6	ppb	98.87	2.88%
Mn 257.610†	299925.6	482.13	ug/L	0.741	482.13	ppb	0.741	0.15%
Mo 202.031†	-4.9	1.3317	ug/L	0.77648	1.3317	ppb	0.77648	58.31%
Na 589.592 Radial†	695.1	236.89	ug/L	15.014	236.89	ppb	15.014	6.34%
Ni 231.604†	372.7	11.907	ug/L	0.1148	11.907	ppb	0.1148	0.96%
P 214.914†	651.6	347.57	ug/L	2.891	347.57	ppb	2.891	0.83%
Pb 220.353†	126.0	22.792	ug/L	0.3024	22.792	ppb	0.3024	1.33%
S 181.975 Axial†	176.1	225.11	ug/L	4.943	225.11	ppb	4.943	2.20%
Sb 206.836†	1.4	-3.1236	ug/L	2.72740	-3.1236	ppb	2.72740	87.32%
Se 196.026†	-65.5	11.264	ug/L	4.5625	11.264	ppb	4.5625	40.50%
Si 251.611†	221821.9	8094.4	ug/L	11.66	8094.4	ppb	11.66	0.14%
Sn 189.927†	-20.0	-5.1061	ug/L	0.73709	-5.1061	ppb	0.73709	14.44%
Sr 421.552†	6451.2	46.875	ug/L	0.6260	46.875	ppb	0.6260	1.34%
Ti 334.940†	453060.6	913.30	ug/L	1.252	913.30	ppb	1.252	0.14%
Tl 190.801†	-20.4	0.3550	ug/L	1.58616	0.3550	ppb	1.58616	446.84%
U 409.014†	-86.6	-5.4723	ug/L	2.73732	-5.4723	ppb	2.73732	50.02%
V 292.402†	5454.0	39.276	ug/L	0.4839	39.276	ppb	0.4839	1.23%
Zn 213.857†	4809.6	49.622	ug/L	0.6693	49.622	ppb	0.6693	1.35%
SiO2†	222116.9	17303	ug/L	47.6	17303	ppb	47.6	0.28%

Sequence No.: 41
Sample ID: 246070002|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 70
Date Collected: 3/1/2010 22:55:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070002|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5135.2	5135.2	109	%			22:57:45
1	Y RADIAL	5870.9	5870.9	117.8	%			22:57:45
1	Al 396.153Radial†	59241.6	54385.0	50873	ug/L	50873	ppb	22:57:45
1	Ca 317.933Radial†	8938.3	8170.3	14845	ug/L	14845	ppb	22:57:45
1	Fe 238.204 Radial†	8730.2	7994.4	82942	ug/L	82942	ppb	22:57:45
1	K 766.490 Radial†	52327.9	45699.5	9091.2	ug/L	9091.2	ppb	22:57:45
1	Mg 279.077 IEC†	262.7	237.8	9356.7	ug/L	9356.7	ppb	22:58:05
1	Na 589.592 Radial†	978.8	1744.9	594.66	ug/L	594.66	ppb	22:57:45
1	Sr 421.552†	17477.1	16019.1	116.38	ug/L	116.38	ppb	22:57:45
1	Sc 361.383	846701.8	846701.8	110.26	%			22:59:03
1	Y 371.029	819121.5	819121.5	118.88	%			22:59:03
1	Ag 328.068†	-4885.2	-4686.4	1.8853	ug/L	1.8853	ppb	22:59:08
1	As 188.979†	-52.5	-22.6	40.796	ug/L	40.796	ppb	22:59:28
1	B 249.677†	743.2	1127.5	14.668	ug/L	14.668	ppb	22:59:08
1	Ba 233.527†	59735.4	54176.2	642.15	ug/L	642.15	ppb	22:59:08
1	Be 313.107†	-23074.1	-11945.0	3.4914	ug/L	3.4914	ppb	22:59:08
1	Cd 226.502†	592.7	724.2	1.7205	ug/L	1.7205	ppb	22:59:28
1	Co 228.616†	1184.9	1132.2	25.681	ug/L	25.681	ppb	22:59:28
1	Cr 267.716†	7073.9	6340.3	88.455	ug/L	88.455	ppb	22:59:28
1	Cu 324.752†	21464.4	11931.5	49.088	ug/L	49.088	ppb	22:59:08
1	Mn 257.610†	1300834.7	1179365.8	1895.5	ug/L	1895.5	ppb	22:59:03
1	Mo 202.031†	-7.9	-21.5	4.6417	ug/L	4.6417	ppb	22:59:28
1	Ni 231.604†	1628.5	1375.7	43.956	ug/L	43.956	ppb	22:59:28
1	P 214.914†	2937.9	2469.2	1315.7	ug/L	1315.7	ppb	22:59:28
1	Pb 220.353†	1377.4	1320.0	218.77	ug/L	218.77	ppb	22:59:28
1	S 181.975 Axial†	432.5	349.7	443.93	ug/L	443.93	ppb	22:59:28
1	Sb 206.836†	69.2	32.7	-0.7486	ug/L	-0.7486	ppb	22:59:28
1	Se 196.026†	-345.2	-293.3	10.895	ug/L	10.895	ppb	22:59:28
1	Si 251.611†	984502.9	892332.1	32562	ug/L	32562	ppb	22:59:03
1	Sn 189.927†	-46.7	-50.4	-14.002	ug/L	-14.002	ppb	22:59:28
1	Ti 334.940†	1984401.4	1801107.1	3630.5	ug/L	3630.5	ppb	22:59:03
1	Tl 190.801†	-138.8	-94.6	-4.7776	ug/L	-4.7776	ppb	22:59:28
1	U 409.014†	-4039.0	-1126.5	-47.370	ug/L	-47.370	ppb	22:59:08
1	V 292.402†	20717.5	20418.3	146.72	ug/L	146.72	ppb	22:59:08
1	Zn 213.857†	34797.9	30850.6	327.48	ug/L	327.48	ppb	22:59:08
1	SiO2†	976551.3	885112.9	68952	ug/L	68952	ppb	23:00:37
2	Sc Radial	5181.8	5181.8	110	%			22:58:10
2	Y RADIAL	5947.6	5947.6	119.3	%			22:58:10
2	Al 396.153Radial†	60243.7	54806.1	51267	ug/L	51267	ppb	22:58:10
2	Ca 317.933Radial†	9072.8	8218.6	14933	ug/L	14933	ppb	22:58:10
2	Fe 238.204 Radial†	8843.2	8024.9	83259	ug/L	83259	ppb	22:58:10
2	K 766.490 Radial†	53424.8	46263.8	9203.5	ug/L	9203.5	ppb	22:58:10
2	Mg 279.077 IEC†	259.8	233.1	9168.8	ug/L	9168.8	ppb	22:58:30
2	Na 589.592 Radial†	992.1	1748.9	596.04	ug/L	596.04	ppb	22:58:10
2	Sr 421.552†	17734.5	16108.6	117.03	ug/L	117.03	ppb	22:58:10
2	Sc 361.383	842438.3	842438.3	109.70	%			22:59:34
2	Y 371.029	814403.8	814403.8	118.19	%			22:59:34
2	Ag 328.068†	-4822.6	-4651.8	2.1560	ug/L	2.1560	ppb	22:59:39
2	As 188.979†	-59.4	-29.1	37.965	ug/L	37.965	ppb	22:59:59
2	B 249.677†	767.8	1153.3	15.263	ug/L	15.263	ppb	22:59:39
2	Ba 233.527†	58998.6	53778.8	637.47	ug/L	637.47	ppb	22:59:39
2	Be 313.107†	-22735.9	-11742.7	3.5673	ug/L	3.5673	ppb	22:59:39
2	Cd 226.502†	566.4	703.0	1.3854	ug/L	1.3854	ppb	22:59:59
2	Co 228.616†	1171.3	1125.2	25.467	ug/L	25.467	ppb	22:59:59
2	Cr 267.716†	7042.4	6344.0	88.511	ug/L	88.511	ppb	22:59:59
2	Cu 324.752†	21070.1	11670.7	48.130	ug/L	48.130	ppb	22:59:39
2	Mn 257.610†	1295637.8	1180599.4	1897.6	ug/L	1897.6	ppb	22:59:34
2	Mo 202.031†	-12.4	-25.7	4.2855	ug/L	4.2855	ppb	22:59:59
2	Ni 231.604†	1603.8	1360.6	43.474	ug/L	43.474	ppb	22:59:59

2	P 214.914†	2939.3	2484.0	1324.0	ug/L	1324.0 ppb	22:59:59
2	Pb 220.353†	1378.1	1326.9	219.96	ug/L	219.96 ppb	22:59:59
2	S 181.975 Axial†	445.7	363.8	462.02	ug/L	462.02 ppb	22:59:59
2	Sb 206.836†	66.2	30.3	-1.7159	ug/L	-1.7159 ppb	22:59:59
2	Se 196.026†	-334.4	-285.0	16.738	ug/L	16.738 ppb	22:59:59
2	Si 251.611†	979979.3	892727.5	32576	ug/L	32576 ppb	22:59:34
2	Sn 189.927†	-41.9	-46.3	-13.024	ug/L	-13.024 ppb	22:59:59
2	Ti 334.940†	1973319.5	1800113.8	3628.5	ug/L	3628.5 ppb	22:59:34
2	Tl 190.801†	-136.2	-92.9	-3.9973	ug/L	-3.9973 ppb	22:59:59
2	U 409.014†	-4141.0	-1238.0	-51.140	ug/L	-51.140 ppb	22:59:39
2	V 292.402†	20389.3	20214.2	145.04	ug/L	145.04 ppb	22:59:39
2	Zn 213.857†	34348.2	30600.4	324.68	ug/L	324.68 ppb	22:59:39
2	SiO2†	980713.2	893389.3	69597	ug/L	69597 ppb	23:00:43
3	Sc Radial	5104.6	5104.6	108	%		22:58:36
3	Y RADIAL	5895.4	5895.4	118.3	%		22:58:36
3	Al 396.153Radial†	59504.2	54952.3	51403	ug/L	51403 ppb	22:58:36
3	Ca 317.933Radial†	8978.4	8256.3	15001	ug/L	15001 ppb	22:58:36
3	Fe 238.204 Radial†	8701.7	8016.0	83166	ug/L	83166 ppb	22:58:36
3	K 766.490 Radial†	52706.5	46335.8	9217.8	ug/L	9217.8 ppb	22:58:36
3	Mg 279.077 IEC†	261.6	238.3	9375.8	ug/L	9375.8 ppb	22:58:56
3	Na 589.592 Radial†	951.9	1725.5	588.03	ug/L	588.03 ppb	22:58:36
3	Sr 421.552†	17449.3	16089.4	116.89	ug/L	116.89 ppb	22:58:36
3	Sc 361.383	838822.1	838822.1	109.23	%		23:00:05
3	Y 371.029	811573.4	811573.4	117.78	%		23:00:05
3	Ag 328.068†	-4810.3	-4659.4	2.0916	ug/L	2.0916 ppb	23:00:10
3	As 188.979†	-53.1	-23.6	40.323	ug/L	40.323 ppb	23:00:30
3	B 249.677†	734.8	1126.1	14.598	ug/L	14.598 ppb	23:00:10
3	Ba 233.527†	59081.1	54086.1	641.10	ug/L	641.10 ppb	23:00:10
3	Be 313.107†	-22872.6	-11957.1	3.4669	ug/L	3.4669 ppb	23:00:10
3	Cd 226.502†	567.7	706.4	1.4430	ug/L	1.4430 ppb	23:00:30
3	Co 228.616†	1165.7	1124.6	25.466	ug/L	25.466 ppb	23:00:30
3	Cr 267.716†	7039.2	6368.8	88.849	ug/L	88.849 ppb	23:00:30
3	Cu 324.752†	21111.0	11790.9	48.576	ug/L	48.576 ppb	23:00:10
3	Mn 257.610†	1286444.8	1177274.8	1892.2	ug/L	1892.2 ppb	23:00:05
3	Mo 202.031†	-14.7	-27.8	4.0790	ug/L	4.0790 ppb	23:00:30
3	Ni 231.604†	1622.6	1384.2	44.227	ug/L	44.227 ppb	23:00:30
3	P 214.914†	2944.5	2500.3	1333.1	ug/L	1333.1 ppb	23:00:30
3	Pb 220.353†	1355.4	1311.6	217.52	ug/L	217.52 ppb	23:00:30
3	S 181.975 Axial†	423.9	345.6	438.40	ug/L	438.40 ppb	23:00:30
3	Sb 206.836†	55.8	21.0	-5.5395	ug/L	-5.5395 ppb	23:00:30
3	Se 196.026†	-341.8	-293.1	11.577	ug/L	11.577 ppb	23:00:30
3	Si 251.611†	972421.2	889659.2	32464	ug/L	32464 ppb	23:00:05
3	Sn 189.927†	-63.7	-66.4	-17.744	ug/L	-17.744 ppb	23:00:30
3	Ti 334.940†	1961229.9	1796800.6	3621.8	ug/L	3621.8 ppb	23:00:05
3	Tl 190.801†	-138.0	-95.1	-5.0880	ug/L	-5.0880 ppb	23:00:30
3	U 409.014†	-4169.0	-1279.9	-52.535	ug/L	-52.535 ppb	23:00:10
3	V 292.402†	20412.0	20315.1	145.86	ug/L	145.86 ppb	23:00:10
3	Zn 213.857†	34346.6	30733.9	326.16	ug/L	326.16 ppb	23:00:10
3	SiO2†	979416.8	896056.5	69804	ug/L	69804 ppb	23:00:48

Mean Data: 246070002|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842654.1	109.73	%	0.514				0.47%
Sc Radial	5140.5	109	%	0.8				0.76%
Y 371.029	815032.9	118.29	%	0.553				0.47%
Y RADIAL	5904.6	118.4	%	0.79				0.66%
Ag 328.068†	-4665.9	2.0443	ug/L	0.14144	2.0443	ppb	0.14144	6.92%
Al 396.153Radial†	54714.5	51181	ug/L	275.5	51181	ppb	275.5	0.54%
As 188.979†	-25.1	39.695	ug/L	1.5165	39.695	ppb	1.5165	3.82%
B 249.677†	1135.7	14.843	ug/L	0.3656	14.843	ppb	0.3656	2.46%
Ba 233.527†	54013.7	640.24	ug/L	2.456	640.24	ppb	2.456	0.38%
Be 313.107†	-11881.6	3.5086	ug/L	0.05234	3.5086	ppb	0.05234	1.49%
Ca 317.933Radial†	8215.0	14926	ug/L	78.3	14926	ppb	78.3	0.52%
Cd 226.502†	711.2	1.5163	ug/L	0.17918	1.5163	ppb	0.17918	11.82%
Co 228.616†	1127.3	25.538	ug/L	0.1239	25.538	ppb	0.1239	0.49%
Cr 267.716†	6351.0	88.605	ug/L	0.2133	88.605	ppb	0.2133	0.24%
Cu 324.752†	11797.7	48.598	ug/L	0.4793	48.598	ppb	0.4793	0.99%
Fe 238.204 Radial†	8011.8	83123	ug/L	163.0	83123	ppb	163.0	0.20%
K 766.490 Radial†	46099.7	9170.8	ug/L	69.34	9170.8	ppb	69.34	0.76%

Mg 279.077 IEC†	236.4	9300.4	ug/L	114.39	9300.4	ppb	114.39	1.23%
Mn 257.610†	1179080.0	1895.1	ug/L	2.70	1895.1	ppb	2.70	0.14%
Mo 202.031†	-25.0	4.3354	ug/L	0.28462	4.3354	ppb	0.28462	6.56%
Na 589.592 Radial†	1739.8	592.91	ug/L	4.281	592.91	ppb	4.281	0.72%
Ni 231.604†	1373.5	43.886	ug/L	0.3813	43.886	ppb	0.3813	0.87%
P 214.914†	2484.5	1324.3	ug/L	8.70	1324.3	ppb	8.70	0.66%
Pb 220.353†	1319.5	218.75	ug/L	1.218	218.75	ppb	1.218	0.56%
S 181.975 Axial†	353.0	448.12	ug/L	12.355	448.12	ppb	12.355	2.76%
Sb 206.836†	28.0	-2.6680	ug/L	2.53337	-2.6680	ppb	2.53337	94.95%
Se 196.026†	-290.5	13.070	ug/L	3.1950	13.070	ppb	3.1950	24.45%
Si 251.611†	891572.9	32534	ug/L	60.9	32534	ppb	60.9	0.19%
Sn 189.927†	-54.4	-14.923	ug/L	2.4912	-14.923	ppb	2.4912	16.69%
Sr 421.552†	16072.4	116.76	ug/L	0.342	116.76	ppb	0.342	0.29%
Ti 334.940†	1799340.5	3626.9	ug/L	4.54	3626.9	ppb	4.54	0.13%
Tl 190.801†	-94.2	-4.6210	ug/L	0.56200	-4.6210	ppb	0.56200	12.16%
U 409.014†	-1214.8	-50.348	ug/L	2.6717	-50.348	ppb	2.6717	5.31%
V 292.402†	20315.8	145.87	ug/L	0.843	145.87	ppb	0.843	0.58%
Zn 213.857†	30728.3	326.11	ug/L	1.402	326.11	ppb	1.402	0.43%
SiO2†	891519.6	69451	ug/L	444.5	69451	ppb	444.5	0.64%

Sequence No.: 42
Sample ID: 246070003|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 71
Date Collected: 3/1/2010 23:02:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070003|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5168.7	5168.7	110	%			23:04:52
1	Y RADIAL	6227.6	6227.6	124.9	%			23:04:52
1	Al 396.153Radial†	34997.3	31955.7	29892	ug/L	29892	ppb	23:04:52
1	Ca 317.933Radial†	3765.0	3406.2	6188.9	ug/L	6188.9	ppb	23:05:12
1	Fe 238.204 Radial†	6497.3	5909.1	61308	ug/L	61308	ppb	23:04:52
1	K 766.490 Radial†	32088.0	26957.8	5363.2	ug/L	5363.2	ppb	23:04:52
1	Mg 279.077 IEC†	138.0	122.8	4810.6	ug/L	4810.6	ppb	23:05:12
1	Na 589.592 Radial†	1178.0	1920.5	654.51	ug/L	654.51	ppb	23:04:52
1	Sr 421.552†	8996.6	8192.8	59.530	ug/L	59.530	ppb	23:04:52
1	Sc 361.383	835526.2	835526.2	108.80	%			23:06:10
1	Y 371.029	850361.8	850361.8	123.41	%			23:06:10
1	Ag 328.068†	-3519.4	-3490.3	1.2255	ug/L	1.2255	ppb	23:06:15
1	As 188.979†	-55.2	-25.7	28.510	ug/L	28.510	ppb	23:06:35
1	B 249.677†	511.4	923.5	13.058	ug/L	13.058	ppb	23:06:15
1	Ba 233.527†	36471.2	33518.5	397.56	ug/L	397.56	ppb	23:06:15
1	Be 313.107†	-19227.4	-8689.4	3.2623	ug/L	3.2623	ppb	23:06:15
1	Cd 226.502†	391.7	546.6	1.4274	ug/L	1.4274	ppb	23:06:35
1	Co 228.616†	1358.0	1305.6	32.434	ug/L	32.434	ppb	23:06:35
1	Cr 267.716†	25044.4	22942.9	314.77	ug/L	314.77	ppb	23:06:15
1	Cu 324.752†	21934.4	12623.9	50.572	ug/L	50.572	ppb	23:06:15
1	Mn 257.610†	1443468.4	1326242.4	2128.7	ug/L	2128.7	ppb	23:06:10
1	Mo 202.031†	51.1	32.6	7.8274	ug/L	7.8274	ppb	23:06:35
1	Ni 231.604†	1782.6	1537.0	49.111	ug/L	49.111	ppb	23:06:35
1	P 214.914†	1630.6	1303.3	676.42	ug/L	676.42	ppb	23:06:35
1	Pb 220.353†	538.3	565.5	93.611	ug/L	93.611	ppb	23:06:35
1	S 181.975 Axial†	432.3	354.8	454.40	ug/L	454.40	ppb	23:06:35
1	Sb 206.836†	60.3	25.4	-0.7170	ug/L	-0.7170	ppb	23:06:35
1	Se 196.026†	-244.6	-205.0	14.553	ug/L	14.553	ppb	23:06:35
1	Si 251.611†	760924.0	698782.2	25499	ug/L	25499	ppb	23:06:10
1	Sn 189.927†	-13.2	-20.2	-7.1856	ug/L	-7.1856	ppb	23:06:35
1	Ti 334.940†	1595924.1	1468127.8	2958.7	ug/L	2958.7	ppb	23:06:10
1	Tl 190.801†	-113.5	-73.1	0.8135	ug/L	0.8135	ppb	23:06:35
1	U 409.014†	-6110.4	-3079.3	-110.80	ug/L	-110.80	ppb	23:06:15
1	V 292.402†	9275.0	10152.7	68.610	ug/L	68.610	ppb	23:06:15
1	Zn 213.857†	31356.2	28109.5	300.45	ug/L	300.45	ppb	23:06:15
1	SiO2†	772740.4	709635.5	55282	ug/L	55282	ppb	23:07:43
2	Sc Radial	5121.7	5121.7	109	%			23:05:17
2	Y RADIAL	6204.0	6204.0	124.4	%			23:05:17
2	Al 396.153Radial†	35190.6	32425.9	30332	ug/L	30332	ppb	23:05:17
2	Ca 317.933Radial†	3756.7	3430.1	6232.2	ug/L	6232.2	ppb	23:05:37
2	Fe 238.204 Radial†	6541.1	6003.7	62289	ug/L	62289	ppb	23:05:17
2	K 766.490 Radial†	32218.9	27346.3	5440.5	ug/L	5440.5	ppb	23:05:17
2	Mg 279.077 IEC†	138.3	124.2	4867.8	ug/L	4867.8	ppb	23:05:37
2	Na 589.592 Radial†	1104.2	1862.5	634.74	ug/L	634.74	ppb	23:05:17
2	Sr 421.552†	9061.8	8327.9	60.512	ug/L	60.512	ppb	23:05:17
2	Sc 361.383	848040.8	848040.8	110.43	%			23:06:41
2	Y 371.029	862835.3	862835.3	125.22	%			23:06:41
2	Ag 328.068†	-3576.0	-3493.9	1.4981	ug/L	1.4981	ppb	23:06:46
2	As 188.979†	-52.6	-22.6	30.137	ug/L	30.137	ppb	23:07:06
2	B 249.677†	532.7	935.8	13.207	ug/L	13.207	ppb	23:06:46
2	Ba 233.527†	36747.7	33274.3	394.70	ug/L	394.70	ppb	23:06:46
2	Be 313.107†	-19355.6	-8544.7	3.3189	ug/L	3.3189	ppb	23:06:46
2	Cd 226.502†	397.8	546.8	1.3307	ug/L	1.3307	ppb	23:07:06
2	Co 228.616†	1375.7	1303.2	32.347	ug/L	32.347	ppb	23:07:06
2	Cr 267.716†	25196.8	22741.2	312.03	ug/L	312.03	ppb	23:06:46
2	Cu 324.752†	22011.3	12396.0	49.766	ug/L	49.766	ppb	23:06:46
2	Mn 257.610†	1462946.3	1324302.2	2125.7	ug/L	2125.7	ppb	23:06:41
2	Mo 202.031†	45.3	26.7	7.3570	ug/L	7.3570	ppb	23:07:06
2	Ni 231.604†	1806.7	1534.7	49.036	ug/L	49.036	ppb	23:07:06

2	P 214.914†	1635.5	1285.6	666.07 ug/L	666.07 ppb	23:07:06
2	Pb 220.353†	538.2	558.1	92.452 ug/L	92.452 ppb	23:07:06
2	S 181.975 Axial†	419.7	337.6	432.01 ug/L	432.01 ppb	23:07:06
2	Sb 206.836†	75.9	38.7	4.7416 ug/L	4.7416 ppb	23:07:06
2	Se 196.026†	-257.5	-213.4	11.661 ug/L	11.661 ppb	23:07:06
2	Si 251.611†	773476.9	699828.7	25537 ug/L	25537 ppb	23:06:41
2	Sn 189.927†	7.1	-1.7	-2.8653 ug/L	-2.8653 ppb	23:07:06
2	Ti 334.940†	1619620.4	1467939.8	2958.3 ug/L	2958.3 ppb	23:06:41
2	Tl 190.801†	-123.8	-80.9	-2.7945 ug/L	-2.7945 ppb	23:07:06
2	U 409.014†	-5948.0	-2849.4	-103.21 ug/L	-103.21 ppb	23:06:46
2	V 292.402†	9275.7	10027.6	67.480 ug/L	67.480 ppb	23:06:46
2	Zn 213.857†	31587.0	27893.2	297.92 ug/L	297.92 ppb	23:06:46
2	SiO2†	767847.7	694724.0	54120 ug/L	54120 ppb	23:07:49
3	Sc Radial	5124.3	5124.3	109 %		23:05:43
3	Y RADIAL	6193.0	6193.0	124.2 %		23:05:43
3	Al 396.153Radial†	34956.3	32194.3	30115 ug/L	30115 ppb	23:05:43
3	Ca 317.933Radial†	3763.9	3434.9	6241.1 ug/L	6241.1 ppb	23:06:03
3	Fe 238.204 Radial†	6484.8	5949.0	61722 ug/L	61722 ppb	23:05:43
3	K 766.490 Radial†	31992.7	27123.5	5396.1 ug/L	5396.1 ppb	23:05:43
3	Mg 279.077 IEC†	136.4	122.4	4794.8 ug/L	4794.8 ppb	23:06:03
3	Na 589.592 Radial†	1112.0	1869.1	637.00 ug/L	637.00 ppb	23:05:43
3	Sr 421.552†	8969.0	8238.5	59.861 ug/L	59.861 ppb	23:05:43
3	Sc 361.383	834811.8	834811.8	108.71 %		23:07:12
3	Y 371.029	849726.1	849726.1	123.32 %		23:07:12
3	Ag 328.068†	-3472.6	-3450.1	1.5530 ug/L	1.5530 ppb	23:07:17
3	As 188.979†	-55.0	-25.6	28.645 ug/L	28.645 ppb	23:07:37
3	B 249.677†	484.1	898.8	12.369 ug/L	12.369 ppb	23:07:17
3	Ba 233.527†	36241.9	33336.3	395.42 ug/L	395.42 ppb	23:07:17
3	Be 313.107†	-19229.2	-8706.2	3.2491 ug/L	3.2491 ppb	23:07:17
3	Cd 226.502†	391.7	547.0	1.3913 ug/L	1.3913 ppb	23:07:37
3	Co 228.616†	1383.0	1329.7	33.161 ug/L	33.161 ppb	23:07:37
3	Cr 267.716†	24879.9	22811.3	312.98 ug/L	312.98 ppb	23:07:17
3	Cu 324.752†	21616.4	12348.7	49.560 ug/L	49.560 ppb	23:07:17
3	Mn 257.610†	1441594.7	1325654.2	2127.8 ug/L	2127.8 ppb	23:07:12
3	Mo 202.031†	46.5	28.4	7.4690 ug/L	7.4690 ppb	23:07:37
3	Ni 231.604†	1810.8	1564.4	49.986 ug/L	49.986 ppb	23:07:37
3	P 214.914†	1636.8	1310.3	680.26 ug/L	680.26 ppb	23:07:37
3	Pb 220.353†	548.0	574.8	95.139 ug/L	95.139 ppb	23:07:37
3	S 181.975 Axial†	426.9	350.2	448.44 ug/L	448.44 ppb	23:07:37
3	Sb 206.836†	64.4	29.2	0.8674 ug/L	0.8674 ppb	23:07:37
3	Se 196.026†	-265.2	-224.1	3.7820 ug/L	3.7820 ppb	23:07:37
3	Si 251.611†	760563.0	699048.7	25509 ug/L	25509 ppb	23:07:12
3	Sn 189.927†	-6.3	-13.9	-5.7073 ug/L	-5.7073 ppb	23:07:37
3	Ti 334.940†	1593013.7	1466705.8	2955.8 ug/L	2955.8 ppb	23:07:12
3	Tl 190.801†	-115.7	-75.2	-0.2104 ug/L	-0.2104 ppb	23:07:37
3	U 409.014†	-5936.4	-2924.0	-105.65 ug/L	-105.65 ppb	23:07:17
3	V 292.402†	9205.4	10095.9	68.106 ug/L	68.106 ppb	23:07:17
3	Zn 213.857†	31140.6	27935.8	298.47 ug/L	298.47 ppb	23:07:17
3	SiO2†	766614.5	704608.2	54890 ug/L	54890 ppb	23:07:54

Mean Data: 246070003|949364|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	839459.6	109.31	%	0.969				0.89%
Sc Radial	5138.2	109	%	0.6				0.51%
Y 371.029	854307.8	123.99	%	1.073				0.87%
Y RADIAL	6208.2	124.5	%	0.35				0.28%
Ag 328.068†	-3478.1	1.4255	ug/L	0.17536	1.4255	ppb	0.17536	12.30%
Al 396.153Radial†	32192.0	30113	ug/L	219.9	30113	ppb	219.9	0.73%
As 188.979†	-24.6	29.097	ug/L	0.9032	29.097	ppb	0.9032	3.10%
B 249.677†	919.4	12.878	ug/L	0.4471	12.878	ppb	0.4471	3.47%
Ba 233.527†	33376.4	395.89	ug/L	1.485	395.89	ppb	1.485	0.38%
Be 313.107†	-8646.8	3.2767	ug/L	0.03710	3.2767	ppb	0.03710	1.13%
Ca 317.933Radial†	3423.7	6220.7	ug/L	27.90	6220.7	ppb	27.90	0.45%
Cd 226.502†	546.8	1.3831	ug/L	0.04888	1.3831	ppb	0.04888	3.53%
Co 228.616†	1312.8	32.647	ug/L	0.4472	32.647	ppb	0.4472	1.37%
Cr 267.716†	22831.8	313.26	ug/L	1.392	313.26	ppb	1.392	0.44%
Cu 324.752†	12456.2	49.966	ug/L	0.5345	49.966	ppb	0.5345	1.07%
Fe 238.204 Radial†	5953.9	61773	ug/L	492.5	61773	ppb	492.5	0.80%
K 766.490 Radial†	27142.5	5399.9	ug/L	38.81	5399.9	ppb	38.81	0.72%

Mg 279.077 IEC†	123.1	4824.4	ug/L	38.41	4824.4	ppb	38.41	0.80%
Mn 257.610†	1325399.6	2127.4	ug/L	1.55	2127.4	ppb	1.55	0.07%
Mo 202.031†	29.2	7.5511	ug/L	0.24575	7.5511	ppb	0.24575	3.25%
Na 589.592 Radial†	1884.0	642.08	ug/L	10.824	642.08	ppb	10.824	1.69%
Ni 231.604†	1545.4	49.378	ug/L	0.5284	49.378	ppb	0.5284	1.07%
P 214.914†	1299.7	674.25	ug/L	7.342	674.25	ppb	7.342	1.09%
Pb 220.353†	566.1	93.734	ug/L	1.3477	93.734	ppb	1.3477	1.44%
S 181.975 Axial†	347.5	444.95	ug/L	11.595	444.95	ppb	11.595	2.61%
Sb 206.836†	31.1	1.6306	ug/L	2.80824	1.6306	ppb	2.80824	172.22%
Se 196.026†	-214.2	9.9989	ug/L	5.57470	9.9989	ppb	5.57470	55.75%
Si 251.611†	699219.9	25515	ug/L	19.8	25515	ppb	19.8	0.08%
Sn 189.927†	-11.9	-5.2527	ug/L	2.19570	-5.2527	ppb	2.19570	41.80%
Sr 421.552†	8253.0	59.968	ug/L	0.4996	59.968	ppb	0.4996	0.83%
Ti 334.940†	1467591.1	2957.6	ug/L	1.55	2957.6	ppb	1.55	0.05%
Tl 190.801†	-76.4	-0.7305	ug/L	1.85938	-0.7305	ppb	1.85938	254.55%
U 409.014†	-2950.9	-106.55	ug/L	3.876	-106.55	ppb	3.876	3.64%
V 292.402†	10092.1	68.066	ug/L	0.5660	68.066	ppb	0.5660	0.83%
Zn 213.857†	27979.5	298.95	ug/L	1.331	298.95	ppb	1.331	0.45%
SiO2†	702989.2	54764	ug/L	591.0	54764	ppb	591.0	1.08%

Sequence No.: 43
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/1/2010 23:10:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4968.0	4968.0	106	%			23:11:57
1	Y RADIAL	5233.3	5233.3	105.0	%			23:11:57
1	Al 396.153Radial†	5556.8	5351.5	4982.6	ug/L	4982.6	ppb	23:11:57
1	Ca 317.933Radial†	3018.1	2837.1	5154.8	ug/L	5154.8	ppb	23:12:17
1	Fe 238.204 Radial†	531.5	496.2	5163.1	ug/L	5163.1	ppb	23:12:17
1	K 766.490 Radial†	28676.6	24906.1	4951.5	ug/L	4951.5	ppb	23:11:57
1	Mg 279.077 IEC†	142.8	132.4	5256.9	ug/L	5256.9	ppb	23:12:17
1	Na 589.592 Radial†	29971.2	29242.0	9965.7	ug/L	9965.7	ppb	23:11:57
1	Sr 421.552†	72537.2	68721.0	499.68	ug/L	499.68	ppb	23:11:57
1	Sc 361.383	840574.7	840574.7	109.46	%			23:13:15
1	Y 371.029	743993.5	743993.5	107.98	%			23:13:15
1	Ag 328.068†	103473.9	94276.9	487.80	ug/L	487.80	ppb	23:13:20
1	As 188.979†	1154.1	1079.3	485.31	ug/L	485.31	ppb	23:13:40
1	B 249.677†	20493.3	19175.8	477.93	ug/L	477.93	ppb	23:13:20
1	Ba 233.527†	45114.2	41213.4	487.54	ug/L	487.54	ppb	23:13:20
1	Be 313.107†	1330246.5	1224279.9	487.73	ug/L	487.73	ppb	23:13:15
1	Cd 226.502†	37458.2	34408.0	487.66	ug/L	487.66	ppb	23:13:20
1	Co 228.616†	17988.0	16491.1	498.45	ug/L	498.45	ppb	23:13:20
1	Cr 267.716†	39019.3	35572.0	486.57	ug/L	486.57	ppb	23:13:20
1	Cu 324.752†	149829.4	129346.2	484.33	ug/L	484.33	ppb	23:13:20
1	Mn 257.610†	332938.5	303707.5	486.42	ug/L	486.42	ppb	23:13:20
1	Mo 202.031†	5748.6	5237.5	481.11	ug/L	481.11	ppb	23:13:40
1	Ni 231.604†	17023.0	15450.7	493.61	ug/L	493.61	ppb	23:13:20
1	P 214.914†	4933.2	4311.5	2312.9	ug/L	2312.9	ppb	23:13:40
1	Pb 220.353†	3182.0	2977.7	481.95	ug/L	481.95	ppb	23:13:40
1	S 181.975 Axial†	850.0	734.1	950.84	ug/L	950.84	ppb	23:13:40
1	Sb 206.836†	1332.8	1187.6	499.00	ug/L	499.00	ppb	23:13:40
1	Se 196.026†	854.5	800.4	503.69	ug/L	503.69	ppb	23:13:40
1	Si 251.611†	74026.1	67040.1	2440.4	ug/L	2440.4	ppb	23:13:20
1	Sn 189.927†	2213.9	2014.5	475.03	ug/L	475.03	ppb	23:13:40
1	Ti 334.940†	262024.3	240683.3	484.85	ug/L	484.85	ppb	23:13:20
1	Tl 190.801†	1104.5	1040.2	480.94	ug/L	480.94	ppb	23:13:40
1	U 409.014†	13522.7	14891.0	496.96	ug/L	496.96	ppb	23:13:20
1	V 292.402†	65137.1	61136.5	493.26	ug/L	493.26	ppb	23:13:20
1	Zn 213.857†	49141.7	44184.9	482.72	ug/L	482.72	ppb	23:13:20
1	SiO2†	74240.6	67228.9	5224.1	ug/L	5224.1	ppb	23:14:47
2	Sc Radial	5006.5	5006.5	106	%			23:12:22
2	Y RADIAL	5267.7	5267.7	105.7	%			23:12:22
2	Al 396.153Radial†	5601.6	5353.1	4983.8	ug/L	4983.8	ppb	23:12:22
2	Ca 317.933Radial†	3056.4	2851.1	5180.4	ug/L	5180.4	ppb	23:12:43
2	Fe 238.204 Radial†	542.7	502.9	5232.4	ug/L	5232.4	ppb	23:12:43
2	K 766.490 Radial†	28884.3	24892.5	4948.8	ug/L	4948.8	ppb	23:12:22
2	Mg 279.077 IEC†	142.8	131.4	5215.2	ug/L	5215.2	ppb	23:12:43
2	Na 589.592 Radial†	29976.8	29028.9	9893.0	ug/L	9893.0	ppb	23:12:22
2	Sr 421.552†	72841.9	68478.9	497.92	ug/L	497.92	ppb	23:12:22
2	Sc 361.383	835435.0	835435.0	108.79	%			23:13:45
2	Y 371.029	740043.8	740043.8	107.40	%			23:13:45
2	Ag 328.068†	103650.6	95020.8	491.66	ug/L	491.66	ppb	23:13:51
2	As 188.979†	1156.3	1087.9	489.18	ug/L	489.18	ppb	23:14:11
2	B 249.677†	20693.5	19475.0	485.41	ug/L	485.41	ppb	23:13:51
2	Ba 233.527†	45400.9	41730.5	493.66	ug/L	493.66	ppb	23:13:51
2	Be 313.107†	1319372.9	1221761.3	486.74	ug/L	486.74	ppb	23:13:45
2	Cd 226.502†	37544.0	34697.4	491.75	ug/L	491.75	ppb	23:13:51
2	Co 228.616†	18003.3	16606.3	501.94	ug/L	501.94	ppb	23:13:51
2	Cr 267.716†	39107.9	35872.7	490.69	ug/L	490.69	ppb	23:13:51
2	Cu 324.752†	150682.7	130972.7	490.42	ug/L	490.42	ppb	23:13:51
2	Mn 257.610†	334349.0	306875.3	491.50	ug/L	491.50	ppb	23:13:51
2	Mo 202.031†	5794.0	5311.5	487.91	ug/L	487.91	ppb	23:14:11
2	Ni 231.604†	17020.0	15543.6	496.58	ug/L	496.58	ppb	23:13:51

2	P 214.914†	4930.4	4336.7	2325.8 ug/L	2325.8 ppb	23:14:11
2	Pb 220.353†	3202.0	3014.0	487.81 ug/L	487.81 ppb	23:14:11
2	S 181.975 Axial†	858.2	746.4	966.74 ug/L	966.74 ppb	23:14:11
2	Sb 206.836†	1349.5	1210.4	508.47 ug/L	508.47 ppb	23:14:11
2	Se 196.026†	862.3	812.4	511.21 ug/L	511.21 ppb	23:14:11
2	Si 251.611†	74373.4	67775.5	2467.2 ug/L	2467.2 ppb	23:13:51
2	Sn 189.927†	2225.7	2037.8	480.51 ug/L	480.51 ppb	23:14:11
2	Ti 334.940†	263130.0	243172.4	489.87 ug/L	489.87 ppb	23:13:51
2	Tl 190.801†	1112.5	1053.8	487.22 ug/L	487.22 ppb	23:14:11
2	U 409.014†	13394.0	14848.7	495.53 ug/L	495.53 ppb	23:13:51
2	V 292.402†	65314.0	61665.2	497.54 ug/L	497.54 ppb	23:13:51
2	Zn 213.857†	49147.0	44466.1	485.79 ug/L	485.79 ppb	23:13:51
2	SiO2†	74998.2	68342.5	5310.7 ug/L	5310.7 ppb	23:14:52
3	Sc Radial	5023.2	5023.2	107 %		23:12:48
3	Y RADIAL	5271.2	5271.2	105.7 %		23:12:48
3	Al 396.153Radial†	5581.5	5316.9	4950.0 ug/L	4950.0 ppb	23:12:48
3	Ca 317.933Radial†	3018.2	2805.9	5098.1 ug/L	5098.1 ppb	23:13:08
3	Fe 238.204 Radial†	539.7	498.3	5185.2 ug/L	5185.2 ppb	23:13:08
3	K 766.490 Radial†	28834.8	24756.2	4921.8 ug/L	4921.8 ppb	23:12:48
3	Mg 279.077 IEC†	141.1	129.4	5135.6 ug/L	5135.6 ppb	23:13:08
3	Na 589.592 Radial†	29749.9	28723.1	9788.8 ug/L	9788.8 ppb	23:12:48
3	Sr 421.552†	72399.8	67838.1	493.26 ug/L	493.26 ppb	23:12:48
3	Sc 361.383	838588.8	838588.8	109.20 %		23:14:16
3	Y 371.029	742826.3	742826.3	107.81 %		23:14:16
3	Ag 328.068†	104076.1	95052.2	491.80 ug/L	491.80 ppb	23:14:22
3	As 188.979†	1172.1	1098.4	493.84 ug/L	493.84 ppb	23:14:42
3	B 249.677†	20800.8	19501.9	486.08 ug/L	486.08 ppb	23:14:22
3	Ba 233.527†	45536.2	41697.4	493.27 ug/L	493.27 ppb	23:14:22
3	Be 313.107†	1333879.2	1230484.6	490.21 ug/L	490.21 ppb	23:14:16
3	Cd 226.502†	37810.1	34811.3	493.37 ug/L	493.37 ppb	23:14:22
3	Co 228.616†	18092.6	16625.8	502.52 ug/L	502.52 ppb	23:14:22
3	Cr 267.716†	39351.1	35960.2	491.88 ug/L	491.88 ppb	23:14:22
3	Cu 324.752†	151148.0	130877.9	490.06 ug/L	490.06 ppb	23:14:22
3	Mn 257.610†	335984.1	307216.8	492.04 ug/L	492.04 ppb	23:14:22
3	Mo 202.031†	5779.6	5278.3	484.87 ug/L	484.87 ppb	23:14:42
3	Ni 231.604†	17087.2	15546.3	496.66 ug/L	496.66 ppb	23:14:22
3	P 214.914†	4936.1	4324.8	2319.2 ug/L	2319.2 ppb	23:14:42
3	Pb 220.353†	3221.0	3020.3	488.82 ug/L	488.82 ppb	23:14:42
3	S 181.975 Axial†	858.3	743.4	962.98 ug/L	962.98 ppb	23:14:42
3	Sb 206.836†	1352.3	1208.3	507.55 ug/L	507.55 ppb	23:14:42
3	Se 196.026†	838.1	787.3	495.71 ug/L	495.71 ppb	23:14:42
3	Si 251.611†	74736.8	67851.1	2470.0 ug/L	2470.0 ppb	23:14:22
3	Sn 189.927†	2227.1	2031.4	479.00 ug/L	479.00 ppb	23:14:42
3	Ti 334.940†	264315.6	243348.4	490.21 ug/L	490.21 ppb	23:14:22
3	Tl 190.801†	1119.1	1056.1	488.25 ug/L	488.25 ppb	23:14:42
3	U 409.014†	13812.9	15186.0	506.82 ug/L	506.82 ppb	23:14:22
3	V 292.402†	65699.2	61792.1	498.54 ug/L	498.54 ppb	23:14:22
3	Zn 213.857†	49387.3	44516.2	486.35 ug/L	486.35 ppb	23:14:22
3	SiO2†	75183.4	68252.9	5303.8 ug/L	5303.8 ppb	23:14:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	838199.5	109.15	%	0.338				0.31%
Sc Radial	4999.2	106	%	0.6				0.57%
Y 371.029	742287.9	107.73	%	0.294				0.27%
Y RADIAL	5257.4	105.5	%	0.42				0.40%
Ag 328.068†	94783.3	490.42	ug/L	2.273	490.42	ppb	2.273	0.46%
QC value within limits for Ag 328.068 Recovery = 98.08%								
Al 396.153Radial†	5340.5	4972.1	ug/L	19.14	4972.1	ppb	19.14	0.38%
QC value within limits for Al 396.153Radial Recovery = 99.44%								
As 188.979†	1088.5	489.44	ug/L	4.272	489.44	ppb	4.272	0.87%
QC value within limits for As 188.979 Recovery = 97.89%								
B 249.677†	19384.2	483.14	ug/L	4.522	483.14	ppb	4.522	0.94%
QC value within limits for B 249.677 Recovery = 96.63%								
Ba 233.527†	41547.1	491.49	ug/L	3.422	491.49	ppb	3.422	0.70%
QC value within limits for Ba 233.527 Recovery = 98.30%								
Be 313.107†	1225508.6	488.23	ug/L	1.787	488.23	ppb	1.787	0.37%
QC value within limits for Be 313.107 Recovery = 97.65%								
Ca 317.933Radial†	2831.4	5144.4	ug/L	42.12	5144.4	ppb	42.12	0.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.89%
Cd 226.502†            34638.9      490.93 ug/L         2.947      490.93 ppb          2.947   0.60%
   QC value within limits for Cd 226.502  Recovery = 98.19%
Co 228.616†            16574.4      500.97 ug/L         2.200      500.97 ppb          2.200   0.44%
   QC value within limits for Co 228.616  Recovery = 100.19%
Cr 267.716†            35801.6      489.71 ug/L         2.785      489.71 ppb          2.785   0.57%
   QC value within limits for Cr 267.716  Recovery = 97.94%
Cu 324.752†           130398.9      488.27 ug/L         3.419      488.27 ppb          3.419   0.70%
   QC value within limits for Cu 324.752  Recovery = 97.65%
Fe 238.204 Radial†       499.1      5193.6 ug/L        35.39      5193.6 ppb         35.39   0.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.87%
K 766.490 Radial†      24851.6      4940.7 ug/L        16.46      4940.7 ppb         16.46   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 98.81%
Mg 279.077 IEC†          131.0      5202.6 ug/L        61.62      5202.6 ppb         61.62   1.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.05%
Mn 257.610†           305933.2      489.99 ug/L         3.102      489.99 ppb          3.102   0.63%
   QC value within limits for Mn 257.610  Recovery = 98.00%
Mo 202.031†             5275.8      484.63 ug/L         3.405      484.63 ppb          3.405   0.70%
   QC value within limits for Mo 202.031  Recovery = 96.93%
Na 589.592 Radial†     28998.0      9882.5 ug/L        88.90      9882.5 ppb         88.90   0.90%
   QC value within limits for Na 589.592 Radial  Recovery = 98.82%
Ni 231.604†            15513.5      495.62 ug/L         1.738      495.62 ppb          1.738   0.35%
   QC value within limits for Ni 231.604  Recovery = 99.12%
P 214.914†              4324.4      2319.3 ug/L         6.43      2319.3 ppb          6.43   0.28%
   QC value within limits for P 214.914  Recovery = 92.77%
Pb 220.353†             3004.0      486.19 ug/L         3.708      486.19 ppb          3.708   0.76%
   QC value within limits for Pb 220.353  Recovery = 97.24%
S 181.975 Axial†         741.3      960.19 ug/L         8.309      960.19 ppb          8.309   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 96.02%
Sb 206.836†             1202.1      505.01 ug/L         5.224      505.01 ppb          5.224   1.03%
   QC value within limits for Sb 206.836  Recovery = 101.00%
Se 196.026†              800.0      503.54 ug/L         7.748      503.54 ppb          7.748   1.54%
   QC value within limits for Se 196.026  Recovery = 100.71%
Si 251.611†            67555.6      2459.2 ug/L        16.31      2459.2 ppb         16.31   0.66%
   QC value within limits for Si 251.611  Recovery = 98.37%
Sn 189.927†             2027.9      478.18 ug/L         2.832      478.18 ppb          2.832   0.59%
   QC value within limits for Sn 189.927  Recovery = 95.64%
Sr 421.552†            68346.0      496.96 ug/L         3.317      496.96 ppb          3.317   0.67%
   QC value within limits for Sr 421.552  Recovery = 99.39%
Ti 334.940†           242401.4      488.31 ug/L         3.004      488.31 ppb          3.004   0.62%
   QC value within limits for Ti 334.940  Recovery = 97.66%
Tl 190.801†             1050.0      485.47 ug/L         3.958      485.47 ppb          3.958   0.82%
   QC value within limits for Tl 190.801  Recovery = 97.09%
U 409.014†             14975.2      499.77 ug/L         6.152      499.77 ppb          6.152   1.23%
   QC value within limits for U 409.014  Recovery = 99.95%
V 292.402†             61531.2      496.45 ug/L         2.806      496.45 ppb          2.806   0.57%
   QC value within limits for V 292.402  Recovery = 99.29%
Zn 213.857†            44389.1      484.95 ug/L         1.950      484.95 ppb          1.950   0.40%
   QC value within limits for Zn 213.857  Recovery = 96.99%
SiO2†                  67941.4      5279.6 ug/L        48.11      5279.6 ppb         48.11   0.91%
   QC value within limits for SiO2  Recovery = 98.73%
All analyte(s) passed QC.
```

Sequence No.: 44
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 23:17:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5287.4	5287.4	112	%			23:18:59
1	Y RADIAL	5581.9	5581.9	112.0	%			23:18:59
1	Al 396.153Radial†	-90.9	6.2	5.8031	ug/L	5.8031	ppb	23:19:19
1	Ca 317.933Radial†	18.2	-5.9	-10.759	ug/L	-10.759	ppb	23:19:19
1	Fe 238.204 Radial†	8.5	0.2	2.2175	ug/L	2.2175	ppb	23:19:19
1	K 766.490 Radial†	2427.1	-101.1	-20.147	ug/L	-20.147	ppb	23:18:59
1	Mg 279.077 IEC†	1.6	-1.5	-58.420	ug/L	-58.420	ppb	23:19:19
1	Na 589.592 Radial†	-767.7	164.4	56.035	ug/L	56.035	ppb	23:18:59
1	Sr 421.552†	-0.8	-0.3	-0.0019	ug/L	-0.0019	ppb	23:18:59
1	Sc 361.383	798318.5	798318.5	103.96	%			23:20:16
1	Y 371.029	714661.5	714661.5	103.72	%			23:20:16
1	Ag 328.068†	235.5	-29.2	-0.1595	ug/L	-0.1595	ppb	23:20:16
1	As 188.979†	-42.4	-15.8	-7.0191	ug/L	-7.0191	ppb	23:20:36
1	B 249.677†	-275.7	188.2	4.7137	ug/L	4.7137	ppb	23:20:36
1	Ba 233.527†	1.5	-0.9	-0.0100	ug/L	-0.0100	ppb	23:20:36
1	Be 313.107†	-9346.8	-8.4	-0.0027	ug/L	-0.0027	ppb	23:20:16
1	Cd 226.502†	-206.7	-12.2	-0.1709	ug/L	-0.1709	ppb	23:20:36
1	Co 228.616†	-68.2	-8.2	-0.2458	ug/L	-0.2458	ppb	23:20:36
1	Cr 267.716†	66.5	-11.6	-0.1643	ug/L	-0.1643	ppb	23:20:36
1	Cu 324.752†	7715.8	-114.0	-0.4350	ug/L	-0.4350	ppb	23:20:16
1	Mn 257.610†	471.0	-8.1	-0.0104	ug/L	-0.0104	ppb	23:20:36
1	Mo 202.031†	24.4	9.1	0.8337	ug/L	0.8337	ppb	23:20:36
1	Ni 231.604†	80.8	-23.6	-0.7550	ug/L	-0.7550	ppb	23:20:36
1	P 214.914†	217.0	13.4	7.5435	ug/L	7.5435	ppb	23:20:36
1	Pb 220.353†	-84.3	-10.4	-1.6762	ug/L	-1.6762	ppb	23:20:36
1	S 181.975 Axial†	46.4	2.2	2.7970	ug/L	2.7970	ppb	23:20:36
1	Sb 206.836†	30.1	-1.1	-0.4258	ug/L	-0.4258	ppb	23:20:36
1	Se 196.026†	-21.5	-0.8	-0.5030	ug/L	-0.5030	ppb	23:20:36
1	Si 251.611†	612.6	0.0	-0.0086	ug/L	-0.0086	ppb	23:20:36
1	Sn 189.927†	6.9	-1.4	-0.3351	ug/L	-0.3351	ppb	23:20:36
1	Ti 334.940†	-1212.1	135.1	0.2689	ug/L	0.2689	ppb	23:20:16
1	Tl 190.801†	-31.9	0.5	0.2489	ug/L	0.2489	ppb	23:20:36
1	U 409.014†	-2167.5	451.8	15.129	ug/L	15.129	ppb	23:20:16
1	V 292.402†	-1629.8	60.2	0.5186	ug/L	0.5186	ppb	23:20:16
1	Zn 213.857†	757.2	18.1	0.2050	ug/L	0.2050	ppb	23:20:36
1	SiO2†	638.1	17.4	1.3310	ug/L	1.3310	ppb	23:21:32
2	Sc Radial	5023.7	5023.7	107	%			23:19:24
2	Y RADIAL	5295.2	5295.2	106.2	%			23:19:24
2	Al 396.153Radial†	-84.2	8.2	7.6965	ug/L	7.6965	ppb	23:19:44
2	Ca 317.933Radial†	19.0	-4.3	-7.8981	ug/L	-7.8981	ppb	23:19:44
2	Fe 238.204 Radial†	6.9	-0.9	-8.9888	ug/L	-8.9888	ppb	23:19:44
2	K 766.490 Radial†	2385.8	-26.4	-5.2693	ug/L	-5.2693	ppb	23:19:24
2	Mg 279.077 IEC†	3.6	0.5	20.520	ug/L	20.520	ppb	23:19:44
2	Na 589.592 Radial†	-731.7	162.3	55.312	ug/L	55.312	ppb	23:19:24
2	Sr 421.552†	8.2	8.2	0.0597	ug/L	0.0597	ppb	23:19:24
2	Sc 361.383	812034.5	812034.5	105.74	%			23:20:41
2	Y 371.029	726362.4	726362.4	105.42	%			23:20:41
2	Ag 328.068†	294.5	22.8	0.1090	ug/L	0.1090	ppb	23:20:41
2	As 188.979†	-27.8	-1.3	-0.5657	ug/L	-0.5657	ppb	23:21:01
2	B 249.677†	-306.8	163.3	4.0895	ug/L	4.0895	ppb	23:21:01
2	Ba 233.527†	-3.8	-6.0	-0.0705	ug/L	-0.0705	ppb	23:21:01
2	Be 313.107†	-9397.9	95.1	0.0385	ug/L	0.0385	ppb	23:20:41
2	Cd 226.502†	-173.6	22.5	0.3209	ug/L	0.3209	ppb	23:21:01
2	Co 228.616†	-53.1	7.3	0.2180	ug/L	0.2180	ppb	23:21:01
2	Cr 267.716†	72.3	-7.2	-0.1016	ug/L	-0.1016	ppb	23:21:01
2	Cu 324.752†	7887.5	-77.0	-0.2926	ug/L	-0.2926	ppb	23:20:41
2	Mn 257.610†	482.4	-4.9	-0.0096	ug/L	-0.0096	ppb	23:21:01
2	Mo 202.031†	7.0	-7.8	-0.7146	ug/L	-0.7146	ppb	23:21:01
2	Ni 231.604†	106.7	-0.4	-0.0141	ug/L	-0.0141	ppb	23:21:01

2	P 214.914†	199.3	-6.9	-3.7916 ug/L	-3.7916 ppb	23:21:01
2	Pb 220.353†	-51.0	22.5	3.6272 ug/L	3.6272 ppb	23:21:01
2	S 181.975 Axial†	42.8	-2.0	-2.5905 ug/L	-2.5905 ppb	23:21:01
2	Sb 206.836†	27.8	-3.7	-1.5426 ug/L	-1.5426 ppb	23:21:01
2	Se 196.026†	-11.0	9.4	5.7486 ug/L	5.7486 ppb	23:21:01
2	Si 251.611†	603.5	-18.5	-0.6672 ug/L	-0.6672 ppb	23:21:01
2	Sn 189.927†	6.8	-1.7	-0.3908 ug/L	-0.3908 ppb	23:21:01
2	Ti 334.940†	-1214.2	152.8	0.3021 ug/L	0.3021 ppb	23:20:41
2	Tl 190.801†	-24.6	8.0	3.6731 ug/L	3.6731 ppb	23:21:01
2	U 409.014†	-2456.9	213.3	7.1443 ug/L	7.1443 ppb	23:20:41
2	V 292.402†	-1716.7	4.5	0.0410 ug/L	0.0410 ppb	23:20:41
2	Zn 213.857†	765.8	13.9	0.1554 ug/L	0.1554 ppb	23:21:01
2	SiO2†	590.5	-38.0	-2.9435 ug/L	-2.9435 ppb	23:21:37
3	Sc Radial	4997.8	4997.8	106 %		23:19:49
3	Y RADIAL	5310.5	5310.5	106.5 %		23:19:49
3	Al 396.153Radial†	-88.5	3.8	3.5758 ug/L	3.5758 ppb	23:20:09
3	Ca 317.933Radial†	19.3	-4.0	-7.3194 ug/L	-7.3194 ppb	23:20:09
3	Fe 238.204 Radial†	8.5	0.6	6.7448 ug/L	6.7448 ppb	23:20:09
3	K 766.490 Radial†	2337.0	-60.8	-12.124 ug/L	-12.124 ppb	23:19:49
3	Mg 279.077 IEC†	2.2	-0.8	-31.325 ug/L	-31.325 ppb	23:20:09
3	Na 589.592 Radial†	-753.3	138.4	47.150 ug/L	47.150 ppb	23:19:49
3	Sr 421.552†	35.6	34.0	0.2471 ug/L	0.2471 ppb	23:19:49
3	Sc 361.383	810141.2	810141.2	105.50 %		23:21:07
3	Y 371.029	724309.6	724309.6	105.12 %		23:21:07
3	Ag 328.068†	317.3	45.1	0.2234 ug/L	0.2234 ppb	23:21:07
3	As 188.979†	-22.5	3.7	1.6569 ug/L	1.6569 ppb	23:21:27
3	B 249.677†	-283.0	185.2	4.6368 ug/L	4.6368 ppb	23:21:27
3	Ba 233.527†	14.0	10.9	0.1288 ug/L	0.1288 ppb	23:21:27
3	Be 313.107†	-9494.5	-17.3	-0.0060 ug/L	-0.0060 ppb	23:21:07
3	Cd 226.502†	-191.2	5.4	0.0778 ug/L	0.0778 ppb	23:21:27
3	Co 228.616†	-53.9	6.3	0.1899 ug/L	0.1899 ppb	23:21:27
3	Cr 267.716†	62.1	-16.7	-0.2337 ug/L	-0.2337 ppb	23:21:27
3	Cu 324.752†	7802.2	-140.4	-0.5325 ug/L	-0.5325 ppb	23:21:07
3	Mn 257.610†	465.5	-19.9	-0.0298 ug/L	-0.0298 ppb	23:21:27
3	Mo 202.031†	12.4	-2.6	-0.2372 ug/L	-0.2372 ppb	23:21:27
3	Ni 231.604†	89.9	-16.1	-0.5156 ug/L	-0.5156 ppb	23:21:27
3	P 214.914†	218.0	11.3	6.4080 ug/L	6.4080 ppb	23:21:27
3	Pb 220.353†	-63.0	11.0	1.7715 ug/L	1.7715 ppb	23:21:27
3	S 181.975 Axial†	40.7	-4.0	-5.1248 ug/L	-5.1248 ppb	23:21:27
3	Sb 206.836†	34.3	2.5	0.9944 ug/L	0.9944 ppb	23:21:27
3	Se 196.026†	-28.2	-7.0	-4.2449 ug/L	-4.2449 ppb	23:21:27
3	Si 251.611†	593.6	-26.5	-0.9646 ug/L	-0.9646 ppb	23:21:27
3	Sn 189.927†	7.9	-0.6	-0.1388 ug/L	-0.1388 ppb	23:21:27
3	Ti 334.940†	-1171.3	190.8	0.3805 ug/L	0.3805 ppb	23:21:07
3	Tl 190.801†	-33.9	-0.9	-0.4088 ug/L	-0.4088 ppb	23:21:27
3	U 409.014†	-2277.8	377.7	12.647 ug/L	12.647 ppb	23:21:07
3	V 292.402†	-1725.8	-8.0	-0.0444 ug/L	-0.0444 ppb	23:21:07
3	Zn 213.857†	773.1	22.5	0.2511 ug/L	0.2511 ppb	23:21:27
3	SiO2†	591.4	-35.8	-2.7861 ug/L	-2.7861 ppb	23:21:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	806831.4	105.06	%	0.968				0.92%
Sc Radial	5103.0	108	%	3.4				3.14%
Y 371.029	721777.8	104.75	%	0.907				0.87%
Y RADIAL	5395.9	108.2	%	3.24				2.99%
Ag 328.068†	12.9	0.0576	ug/L	0.19653	0.0576	ppb	0.19653	341.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.1	5.6918	ug/L	2.06259	5.6918	ppb	2.06259	36.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.9760	ug/L	4.50662	-1.9760	ppb	4.50662	228.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	178.9	4.4800	ug/L	0.34036	4.4800	ppb	0.34036	7.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.3	0.0161	ug/L	0.10219	0.0161	ppb	0.10219	634.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	23.2	0.0099	ug/L	0.02481	0.0099	ppb	0.02481	249.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.8	-8.6589	ug/L	1.84183	-8.6589	ppb	1.84183	21.27%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.2      0.0759 ug/L       0.24591      0.0759 ppb        0.24591 323.82%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                1.8      0.0540 ug/L       0.26002      0.0540 ppb        0.26002 481.08%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -11.9     -0.1665 ug/L       0.06611     -0.1665 ppb        0.06611  39.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -110.5     -0.4200 ug/L       0.12061     -0.4200 ppb        0.12061  28.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.0     -0.0088 ug/L       8.09963     -0.0088 ppb        8.09963 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -62.8     -12.513 ug/L        7.4463     -12.513 ppb         7.4463  59.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6     -23.075 ug/L       40.1116     -23.075 ppb       40.1116 173.83%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -11.0     -0.0166 ug/L       0.01146     -0.0166 ppb        0.01146  69.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.4     -0.0394 ug/L       0.79287     -0.0394 ppb        0.79287 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       155.0      52.832 ug/L        4.9344      52.832 ppb         4.9344   9.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -13.4     -0.4282 ug/L       0.37814     -0.4282 ppb        0.37814  88.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 5.9      3.3866 ug/L       6.24242      3.3866 ppb        6.24242 184.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                7.7      1.2409 ug/L       2.69120      1.2409 ppb        2.69120 216.88%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.3     -1.6394 ug/L       4.04566     -1.6394 ppb        4.04566 246.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.8     -0.3247 ug/L       1.27153     -0.3247 ppb        1.27153 391.64%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.5      0.3336 ug/L       5.04897      0.3336 ppb        5.04897 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -15.0     -0.5468 ug/L       0.48925     -0.5468 ppb        0.48925  89.48%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.2     -0.2882 ug/L       0.13236     -0.2882 ppb        0.13236  45.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               14.0      0.1016 ug/L       0.12969      0.1016 ppb        0.12969 127.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              159.5      0.3171 ug/L       0.05730      0.3171 ppb        0.05730  18.07%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.5      1.1711 ug/L       2.19165      1.1711 ppb        2.19165 187.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               347.6      11.640 ug/L        4.0863      11.640 ppb         4.0863  35.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                18.9      0.1717 ug/L       0.30345      0.1717 ppb        0.30345 176.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               18.2      0.2038 ug/L       0.04783      0.2038 ppb        0.04783  23.47%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -18.8     -1.4662 ug/L       2.42372     -1.4662 ppb        2.42372 165.31%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 45
Sample ID: 246070004|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 72
Date Collected: 3/1/2010 23:23:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070004|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5142.9	5142.9	109	%			23:26:06
1	Y RADIAL	5945.0	5945.0	119.2	%			23:26:06
1	Al 396.153Radial†	162745.1	149025.5	139400	ug/L	139400	ppb	23:25:46
1	Ca 317.933Radial†	13003.2	11877.9	21581	ug/L	21581	ppb	23:25:46
1	Fe 238.204 Radial†	15466.1	14146.7	146770	ug/L	146770	ppb	23:25:46
1	K 766.490 Radial†	107762.8	96358.9	19173	ug/L	19173	ppb	23:25:46
1	Mg 279.077 IEC†	600.4	546.6	21548	ug/L	21548	ppb	23:26:06
1	Na 589.592 Radial†	1638.5	2347.3	799.96	ug/L	799.96	ppb	23:25:46
1	Sr 421.552†	37997.2	34774.2	252.71	ug/L	252.71	ppb	23:25:46
1	Sc 361.383	848991.3	848991.3	110.55	%			23:27:04
1	Y 371.029	828165.6	828165.6	120.19	%			23:27:04
1	Ag 328.068†	-8296.5	-7760.1	6.2467	ug/L	6.2467	ppb	23:27:24
1	As 188.979†	-59.0	-28.4	70.848	ug/L	70.848	ppb	23:27:24
1	B 249.677†	1429.6	1746.6	19.712	ug/L	19.712	ppb	23:27:04
1	Ba 233.527†	139303.1	126001.6	1491.9	ug/L	1491.9	ppb	23:27:04
1	Be 313.107†	-23076.7	-11891.0	8.1427	ug/L	8.1427	ppb	23:27:04
1	Cd 226.502†	1073.8	1157.9	1.2769	ug/L	1.2769	ppb	23:27:24
1	Co 228.616†	2380.2	2210.4	53.458	ug/L	53.458	ppb	23:27:24
1	Cr 267.716†	9410.9	8436.8	118.56	ug/L	118.56	ppb	23:27:24
1	Cu 324.752†	26013.2	15993.6	67.744	ug/L	67.744	ppb	23:27:04
1	Mn 257.610†	2160085.6	1953403.2	3140.3	ug/L	3140.3	ppb	23:27:04
1	Mo 202.031†	-62.9	-71.2	5.1132	ug/L	5.1132	ppb	23:27:24
1	Ni 231.604†	3041.2	2649.6	84.658	ug/L	84.658	ppb	23:27:24
1	P 214.914†	2199.8	1794.4	906.49	ug/L	906.49	ppb	23:27:24
1	Pb 220.353†	823.7	815.7	153.97	ug/L	153.97	ppb	23:27:24
1	S 181.975 Axial†	566.8	470.2	583.55	ug/L	583.55	ppb	23:27:24
1	Sb 206.836†	85.7	47.5	-4.3616	ug/L	-4.3616	ppb	23:27:24
1	Se 196.026†	-600.5	-523.4	21.318	ug/L	21.318	ppb	23:27:24
1	Si 251.611†	1255068.6	1134659.2	41405	ug/L	41405	ppb	23:27:04
1	Sn 189.927†	-73.2	-74.3	-22.087	ug/L	-22.087	ppb	23:27:24
1	Ti 334.940†	3108643.6	2813165.5	5669.7	ug/L	5669.7	ppb	23:27:04
1	Tl 190.801†	-196.3	-146.3	-6.0678	ug/L	-6.0678	ppb	23:27:24
1	U 409.014†	-8056.3	-4750.3	-176.06	ug/L	-176.06	ppb	23:27:04
1	V 292.402†	39230.7	37113.3	268.15	ug/L	268.15	ppb	23:27:04
1	Zn 213.857†	34453.8	30454.2	313.28	ug/L	313.28	ppb	23:27:04
1	SiO2†	1249802.1	1129888.3	88020	ug/L	88020	ppb	23:28:25
2	Sc Radial	5160.8	5160.8	110	%			23:26:31
2	Y RADIAL	5958.8	5958.8	119.5	%			23:26:31
2	Al 396.153Radial†	161687.2	147545.2	138020	ug/L	138020	ppb	23:26:11
2	Ca 317.933Radial†	12842.9	11690.5	21241	ug/L	21241	ppb	23:26:11
2	Fe 238.204 Radial†	15223.7	13876.6	143970	ug/L	143970	ppb	23:26:11
2	K 766.490 Radial†	106643.9	94997.1	18902	ug/L	18902	ppb	23:26:11
2	Mg 279.077 IEC†	602.4	546.5	21549	ug/L	21549	ppb	23:26:31
2	Na 589.592 Radial†	1531.9	2244.9	765.07	ug/L	765.07	ppb	23:26:11
2	Sr 421.552†	37649.5	34336.7	249.53	ug/L	249.53	ppb	23:26:11
2	Sc 361.383	844861.9	844861.9	110.02	%			23:27:31
2	Y 371.029	825900.6	825900.6	119.86	%			23:27:31
2	Ag 328.068†	-8256.5	-7760.5	5.3807	ug/L	5.3807	ppb	23:27:51
2	As 188.979†	-52.5	-22.7	72.565	ug/L	72.565	ppb	23:27:51
2	B 249.677†	1349.1	1679.7	18.489	ug/L	18.489	ppb	23:27:31
2	Ba 233.527†	137843.0	125290.2	1483.4	ug/L	1483.4	ppb	23:27:31
2	Be 313.107†	-23259.4	-12159.0	7.9940	ug/L	7.9940	ppb	23:27:31
2	Cd 226.502†	1093.3	1180.4	1.8863	ug/L	1.8863	ppb	23:27:51
2	Co 228.616†	2410.3	2248.3	54.679	ug/L	54.679	ppb	23:27:51
2	Cr 267.716†	9438.9	8503.9	119.42	ug/L	119.42	ppb	23:27:51
2	Cu 324.752†	25709.5	15832.6	66.989	ug/L	66.989	ppb	23:27:31
2	Mn 257.610†	2139689.7	1944414.2	3125.6	ug/L	3125.6	ppb	23:27:31
2	Mo 202.031†	-53.4	-62.9	5.6559	ug/L	5.6559	ppb	23:27:51
2	Ni 231.604†	3042.3	2664.0	85.118	ug/L	85.118	ppb	23:27:51

2	P 214.914†	2194.3	1799.2	911.20	ug/L	911.20 ppb	23:27:51
2	Pb 220.353†	800.1	798.0	150.99	ug/L	150.99 ppb	23:27:51
2	S 181.975 Axial†	573.2	478.5	594.50	ug/L	594.50 ppb	23:27:51
2	Sb 206.836†	86.0	48.1	-3.9510	ug/L	-3.9510 ppb	23:27:51
2	Se 196.026†	-601.7	-527.1	12.615	ug/L	12.615 ppb	23:27:51
2	Si 251.611†	1241217.8	1127618.3	41148	ug/L	41148 ppb	23:27:31
2	Sn 189.927†	-68.3	-70.2	-21.015	ug/L	-21.015 ppb	23:27:51
2	Ti 334.940†	3083382.2	2803947.6	5651.1	ug/L	5651.1 ppb	23:27:31
2	Tl 190.801†	-195.8	-146.8	-6.5004	ug/L	-6.5004 ppb	23:27:51
2	U 409.014†	-7827.6	-4578.1	-169.97	ug/L	-169.97 ppb	23:27:31
2	V 292.402†	38944.0	37026.2	267.90	ug/L	267.90 ppb	23:27:31
2	Zn 213.857†	34131.1	30313.2	312.14	ug/L	312.14 ppb	23:27:31
2	SiO2†	1243599.2	1129775.6	88012	ug/L	88012 ppb	23:28:31
3	Sc Radial	5176.7	5176.7	110	%		23:26:56
3	Y RADIAL	5970.0	5970.0	119.7	%		23:26:56
3	Al 396.153Radial†	162567.8	147892.3	138340	ug/L	138340 ppb	23:26:36
3	Ca 317.933Radial†	12891.3	11698.5	21256	ug/L	21256 ppb	23:26:36
3	Fe 238.204 Radial†	15364.4	13961.8	144860	ug/L	144860 ppb	23:26:36
3	K 766.490 Radial†	107352.5	95342.3	18971	ug/L	18971 ppb	23:26:36
3	Mg 279.077 IEC†	601.5	544.0	21449	ug/L	21449 ppb	23:26:56
3	Na 589.592 Radial†	1584.4	2288.3	779.86	ug/L	779.86 ppb	23:26:36
3	Sr 421.552†	37932.7	34488.6	250.63	ug/L	250.63 ppb	23:26:36
3	Sc 361.383	849655.8	849655.8	110.64	%		23:27:58
3	Y 371.029	830205.1	830205.1	120.49	%		23:27:58
3	Ag 328.068†	-8279.3	-7738.7	5.7652	ug/L	5.7652 ppb	23:28:18
3	As 188.979†	-81.1	-48.3	61.397	ug/L	61.397 ppb	23:28:18
3	B 249.677†	1343.0	1667.3	18.034	ug/L	18.034 ppb	23:27:58
3	Ba 233.527†	138936.0	125571.3	1486.8	ug/L	1486.8 ppb	23:27:58
3	Be 313.107†	-23327.0	-12100.8	8.0250	ug/L	8.0250 ppb	23:27:58
3	Cd 226.502†	1093.2	1174.7	1.7143	ug/L	1.7143 ppb	23:28:18
3	Co 228.616†	2427.7	2251.7	54.766	ug/L	54.766 ppb	23:28:18
3	Cr 267.716†	9464.2	8478.4	119.09	ug/L	119.09 ppb	23:28:18
3	Cu 324.752†	26006.6	15969.3	67.549	ug/L	67.549 ppb	23:27:58
3	Mn 257.610†	2154438.6	1946771.3	3129.5	ug/L	3129.5 ppb	23:27:58
3	Mo 202.031†	-49.2	-58.9	6.0949	ug/L	6.0949 ppb	23:28:18
3	Ni 231.604†	3070.7	2674.1	85.441	ug/L	85.441 ppb	23:28:18
3	P 214.914†	2197.8	1791.1	905.94	ug/L	905.94 ppb	23:28:18
3	Pb 220.353†	815.5	807.7	152.57	ug/L	152.57 ppb	23:28:18
3	S 181.975 Axial†	571.7	474.2	588.93	ug/L	588.93 ppb	23:28:18
3	Sb 206.836†	85.5	47.3	-4.3448	ug/L	-4.3448 ppb	23:28:18
3	Se 196.026†	-601.3	-523.7	16.743	ug/L	16.743 ppb	23:28:18
3	Si 251.611†	1250357.2	1129513.1	41217	ug/L	41217 ppb	23:27:58
3	Sn 189.927†	-77.0	-77.6	-22.824	ug/L	-22.824 ppb	23:28:18
3	Ti 334.940†	3102774.3	2805661.6	5654.6	ug/L	5654.6 ppb	23:27:58
3	Tl 190.801†	-198.2	-147.9	-6.9595	ug/L	-6.9595 ppb	23:28:18
3	U 409.014†	-7957.2	-4655.1	-172.65	ug/L	-172.65 ppb	23:27:58
3	V 292.402†	39129.1	36993.8	267.51	ug/L	267.51 ppb	23:27:58
3	Zn 213.857†	34475.4	30449.4	313.51	ug/L	313.51 ppb	23:27:58
3	SiO2†	1213161.3	1095887.4	85372	ug/L	85372 ppb	23:28:37

Mean Data: 246070004|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	847836.3	110.40	%	0.338				0.31%
Sc Radial	5160.2	110	%	0.4				0.33%
Y 371.029	828090.5	120.18	%	0.313				0.26%
Y RADIAL	5957.9	119.5	%	0.25				0.21%
Ag 328.068†	-7753.1	5.7975	ug/L	0.43390	5.7975	ppb	0.43390	7.48%
Al 396.153Radial†	148154.3	138590	ug/L	724.2	138590	ppb	724.2	0.52%
As 188.979†	-33.1	68.270	ug/L	6.0135	68.270	ppb	6.0135	8.81%
B 249.677†	1697.9	18.745	ug/L	0.8681	18.745	ppb	0.8681	4.63%
Ba 233.527†	125621.0	1487.4	ug/L	4.27	1487.4	ppb	4.27	0.29%
Be 313.107†	-12050.3	8.0539	ug/L	0.07846	8.0539	ppb	0.07846	0.97%
Ca 317.933Radial†	11755.6	21359	ug/L	192.5	21359	ppb	192.5	0.90%
Cd 226.502†	1171.0	1.6258	ug/L	0.31418	1.6258	ppb	0.31418	19.32%
Co 228.616†	2236.8	54.301	ug/L	0.7313	54.301	ppb	0.7313	1.35%
Cr 267.716†	8473.0	119.02	ug/L	0.433	119.02	ppb	0.433	0.36%
Cu 324.752†	15931.8	67.427	ug/L	0.3916	67.427	ppb	0.3916	0.58%
Fe 238.204 Radial†	13995.0	145200	ug/L	1432.4	145200	ppb	1432.4	0.99%
K 766.490 Radial†	95566.1	19015	ug/L	140.9	19015	ppb	140.9	0.74%

Mg 279.077 IEC†	545.7	21516	ug/L	57.6	21516	ppb	57.6	0.27%
Mn 257.610†	1948196.2	3131.8	ug/L	7.60	3131.8	ppb	7.60	0.24%
Mo 202.031†	-64.3	5.6213	ug/L	0.49173	5.6213	ppb	0.49173	8.75%
Na 589.592 Radial†	2293.5	781.63	ug/L	17.510	781.63	ppb	17.510	2.24%
Ni 231.604†	2662.5	85.072	ug/L	0.3930	85.072	ppb	0.3930	0.46%
P 214.914†	1794.9	907.88	ug/L	2.888	907.88	ppb	2.888	0.32%
Pb 220.353†	807.2	152.51	ug/L	1.492	152.51	ppb	1.492	0.98%
S 181.975 Axial†	474.3	588.99	ug/L	5.478	588.99	ppb	5.478	0.93%
Sb 206.836†	47.6	-4.2192	ug/L	0.23238	-4.2192	ppb	0.23238	5.51%
Se 196.026†	-524.7	16.892	ug/L	4.3538	16.892	ppb	4.3538	25.77%
Si 251.611†	1130596.8	41256	ug/L	133.0	41256	ppb	133.0	0.32%
Sn 189.927†	-74.0	-21.975	ug/L	0.9095	-21.975	ppb	0.9095	4.14%
Sr 421.552†	34533.1	250.96	ug/L	1.614	250.96	ppb	1.614	0.64%
Ti 334.940†	2807591.6	5658.5	ug/L	9.90	5658.5	ppb	9.90	0.18%
Tl 190.801†	-147.0	-6.5093	ug/L	0.44592	-6.5093	ppb	0.44592	6.85%
U 409.014†	-4661.2	-172.89	ug/L	3.049	-172.89	ppb	3.049	1.76%
V 292.402†	37044.4	267.85	ug/L	0.321	267.85	ppb	0.321	0.12%
Zn 213.857†	30405.6	312.98	ug/L	0.732	312.98	ppb	0.732	0.23%
SiO2†	1118517.1	87134	ug/L	1526.7	87134	ppb	1526.7	1.75%

Sequence No.: 46
Sample ID: 246070005|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 73
Date Collected: 3/1/2010 23:30:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070005|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5467.7	5467.7	116	%			23:32:41
1	Y RADIAL	6212.7	6212.7	124.6	%			23:32:41
1	Al 396.153Radial†	89739.2	77335.7	72341	ug/L	72341	ppb	23:32:41
1	Ca 317.933Radial†	6692.4	5738.7	10427	ug/L	10427	ppb	23:32:41
1	Fe 238.204 Radial†	8614.6	7408.3	76862	ug/L	76862	ppb	23:32:41
1	K 766.490 Radial†	64343.8	53126.3	10571	ug/L	10571	ppb	23:32:41
1	Mg 279.077 IEC†	315.0	268.2	10570	ug/L	10570	ppb	23:33:01
1	Na 589.592 Radial†	702.7	1452.7	495.07	ug/L	495.07	ppb	23:32:41
1	Sr 421.552†	20819.6	17922.2	130.25	ug/L	130.25	ppb	23:32:41
1	Sc 361.383	843514.4	843514.4	109.84	%			23:33:59
1	Y 371.029	813577.9	813577.9	118.08	%			23:33:59
1	Ag 328.068†	-4863.2	-4683.1	0.1708	ug/L	0.1708	ppb	23:34:04
1	As 188.979†	-55.1	-25.1	42.570	ug/L	42.570	ppb	23:34:24
1	B 249.677†	838.3	1216.6	17.865	ug/L	17.865	ppb	23:34:04
1	Ba 233.527†	82271.8	74898.2	886.50	ug/L	886.50	ppb	23:34:04
1	Be 313.107†	-21656.6	-10733.6	5.1054	ug/L	5.1054	ppb	23:34:04
1	Cd 226.502†	604.2	736.7	2.5331	ug/L	2.5331	ppb	23:34:24
1	Co 228.616†	1449.3	1376.9	32.213	ug/L	32.213	ppb	23:34:24
1	Cr 267.716†	11428.1	10328.6	142.86	ug/L	142.86	ppb	23:34:04
1	Cu 324.752†	20855.7	11451.0	46.998	ug/L	46.998	ppb	23:34:04
1	Mn 257.610†	1421299.4	1293495.6	2077.6	ug/L	2077.6	ppb	23:33:59
1	Mo 202.031†	-12.0	-25.3	3.7671	ug/L	3.7671	ppb	23:34:24
1	Ni 231.604†	2674.3	2333.4	74.566	ug/L	74.566	ppb	23:34:24
1	P 214.914†	1412.4	1090.5	556.51	ug/L	556.51	ppb	23:34:24
1	Pb 220.353†	570.3	589.9	106.68	ug/L	106.68	ppb	23:34:24
1	S 181.975 Axial†	447.1	364.6	459.12	ug/L	459.12	ppb	23:34:24
1	Sb 206.836†	59.9	24.5	-6.1340	ug/L	-6.1340	ppb	23:34:24
1	Se 196.026†	-360.1	-308.0	-9.6690	ug/L	-9.6690	ppb	23:34:24
1	Si 251.611†	1161018.2	1056406.5	38549	ug/L	38549	ppb	23:33:59
1	Sn 189.927†	-24.3	-30.2	-9.6674	ug/L	-9.6674	ppb	23:34:24
1	Ti 334.940†	2248845.9	2048659.5	4128.6	ug/L	4128.6	ppb	23:33:59
1	Tl 190.801†	-160.0	-114.5	-8.9241	ug/L	-8.9241	ppb	23:34:24
1	U 409.014†	-5907.6	-2841.5	-104.23	ug/L	-104.23	ppb	23:34:04
1	V 292.402†	21691.3	21375.8	154.59	ug/L	154.59	ppb	23:34:04
1	Zn 213.857†	21165.4	18558.8	192.64	ug/L	192.64	ppb	23:34:04
1	SiO2†	1158776.1	1054358.1	82136	ug/L	82136	ppb	23:35:33
2	Sc Radial	4920.9	4920.9	105	%			23:33:06
2	Y RADIAL	5665.4	5665.4	113.6	%			23:33:06
2	Al 396.153Radial†	86529.7	82849.6	77499	ug/L	77499	ppb	23:33:06
2	Ca 317.933Radial†	6474.6	6170.6	11212	ug/L	11212	ppb	23:33:06
2	Fe 238.204 Radial†	8388.0	8015.5	83162	ug/L	83162	ppb	23:33:06
2	K 766.490 Radial†	62242.7	57271.3	11396	ug/L	11396	ppb	23:33:06
2	Mg 279.077 IEC†	315.1	298.5	11763	ug/L	11763	ppb	23:33:26
2	Na 589.592 Radial†	694.9	1512.4	515.44	ug/L	515.44	ppb	23:33:06
2	Sr 421.552†	19912.9	19046.4	138.42	ug/L	138.42	ppb	23:33:06
2	Sc 361.383	841164.6	841164.6	109.54	%			23:34:30
2	Y 371.029	811020.1	811020.1	117.70	%			23:34:30
2	Ag 328.068†	-4897.8	-4727.1	1.8771	ug/L	1.8771	ppb	23:34:35
2	As 188.979†	-57.1	-27.1	43.261	ug/L	43.261	ppb	23:34:55
2	B 249.677†	777.1	1162.9	15.497	ug/L	15.497	ppb	23:34:35
2	Ba 233.527†	83012.7	75783.8	897.15	ug/L	897.15	ppb	23:34:35
2	Be 313.107†	-21815.3	-10933.6	5.0517	ug/L	5.0517	ppb	23:34:35
2	Cd 226.502†	606.9	740.7	1.9399	ug/L	1.9399	ppb	23:34:55
2	Co 228.616†	1457.5	1388.1	32.439	ug/L	32.439	ppb	23:34:55
2	Cr 267.716†	11519.5	10441.1	144.52	ug/L	144.52	ppb	23:34:35
2	Cu 324.752†	21013.1	11647.7	48.069	ug/L	48.069	ppb	23:34:35
2	Mn 257.610†	1421001.9	1296838.6	2083.5	ug/L	2083.5	ppb	23:34:30
2	Mo 202.031†	-15.3	-28.4	3.9858	ug/L	3.9858	ppb	23:34:55
2	Ni 231.604†	2686.7	2351.5	75.144	ug/L	75.144	ppb	23:34:55

2	P 214.914†	1427.1	1107.5	562.02 ug/L	562.02 ppb	23:34:55
2	Pb 220.353†	587.9	607.4	110.27 ug/L	110.27 ppb	23:34:55
2	S 181.975 Axial†	453.3	371.3	466.94 ug/L	466.94 ppb	23:34:55
2	Sb 206.836†	72.6	36.3	-1.6186 ug/L	-1.6186 ppb	23:34:55
2	Se 196.026†	-351.5	-301.0	9.1856 ug/L	9.1856 ppb	23:34:55
2	Si 251.611†	1159882.2	1058322.1	38619 ug/L	38619 ppb	23:34:30
2	Sn 189.927†	-31.7	-37.1	-11.509 ug/L	-11.509 ppb	23:34:55
2	Ti 334.940†	2248754.5	2054295.2	4140.0 ug/L	4140.0 ppb	23:34:30
2	Tl 190.801†	-146.9	-102.9	-3.4706 ug/L	-3.4706 ppb	23:34:55
2	U 409.014†	-5950.8	-2895.9	-106.77 ug/L	-106.77 ppb	23:34:35
2	V 292.402†	21796.3	21526.9	154.88 ug/L	154.88 ppb	23:34:35
2	Zn 213.857†	21347.8	18779.1	194.12 ug/L	194.12 ppb	23:34:35
2	SiO2†	1165811.4	1063727.9	82866 ug/L	82866 ppb	23:35:38
3	Sc Radial	5102.2	5102.2	108 %		23:33:31
3	Y RADIAL	5859.9	5859.9	117.5 %		23:33:31
3	Al 396.153Radial†	90449.9	83524.4	78130 ug/L	78130 ppb	23:33:31
3	Ca 317.933Radial†	6719.3	6176.2	11222 ug/L	11222 ppb	23:33:31
3	Fe 238.204 Radial†	8683.1	8002.6	83028 ug/L	83028 ppb	23:33:31
3	K 766.490 Radial†	64763.1	57480.4	11438 ug/L	11438 ppb	23:33:31
3	Mg 279.077 IEC†	315.5	288.1	11353 ug/L	11353 ppb	23:33:51
3	Na 589.592 Radial†	720.3	1512.2	515.36 ug/L	515.36 ppb	23:33:31
3	Sr 421.552†	20970.5	19345.2	140.59 ug/L	140.59 ppb	23:33:31
3	Sc 361.383	853557.3	853557.3	111.15 %		23:35:01
3	Y 371.029	823642.0	823642.0	119.54 %		23:35:01
3	Ag 328.068†	-4938.6	-4698.9	1.9729 ug/L	1.9729 ppb	23:35:06
3	As 188.979†	-60.8	-29.7	42.054 ug/L	42.054 ppb	23:35:26
3	B 249.677†	781.4	1156.5	15.358 ug/L	15.358 ppb	23:35:06
3	Ba 233.527†	83301.3	74943.2	887.22 ug/L	887.22 ppb	23:35:06
3	Be 313.107†	-21671.7	-10515.2	5.2134 ug/L	5.2134 ppb	23:35:06
3	Cd 226.502†	591.3	718.6	1.6395 ug/L	1.6395 ppb	23:35:26
3	Co 228.616†	1468.9	1379.0	32.167 ug/L	32.167 ppb	23:35:26
3	Cr 267.716†	11544.3	10310.7	142.73 ug/L	142.73 ppb	23:35:06
3	Cu 324.752†	20959.7	11321.2	46.840 ug/L	46.840 ppb	23:35:06
3	Mn 257.610†	1440485.1	1295532.2	2081.4 ug/L	2081.4 ppb	23:35:01
3	Mo 202.031†	-18.2	-30.7	3.7592 ug/L	3.7592 ppb	23:35:26
3	Ni 231.604†	2673.6	2304.1	73.628 ug/L	73.628 ppb	23:35:26
3	P 214.914†	1419.1	1081.4	547.98 ug/L	547.98 ppb	23:35:26
3	Pb 220.353†	580.3	592.8	108.08 ug/L	108.08 ppb	23:35:26
3	S 181.975 Axial†	438.1	351.6	441.28 ug/L	441.28 ppb	23:35:26
3	Sb 206.836†	79.6	41.5	0.5038 ug/L	0.5038 ppb	23:35:26
3	Se 196.026†	-356.0	-300.5	9.2787 ug/L	9.2787 ppb	23:35:26
3	Si 251.611†	1177482.3	1058782.5	38636 ug/L	38636 ppb	23:35:01
3	Sn 189.927†	-30.2	-35.2	-11.071 ug/L	-11.071 ppb	23:35:26
3	Ti 334.940†	2280748.8	2053273.1	4137.9 ug/L	4137.9 ppb	23:35:01
3	Tl 190.801†	-143.5	-97.9	-1.2165 ug/L	-1.2165 ppb	23:35:26
3	U 409.014†	-6022.4	-2881.5	-106.27 ug/L	-106.27 ppb	23:35:06
3	V 292.402†	21860.3	21295.6	153.05 ug/L	153.05 ppb	23:35:06
3	Zn 213.857†	21409.6	18551.8	191.65 ug/L	191.65 ppb	23:35:06
3	SiO2†	1151193.8	1035123.7	80638 ug/L	80638 ppb	23:35:44

Mean Data: 246070005|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846078.8	110.18	%	0.857				0.78%
Sc Radial	5163.6	110	%	5.9				5.39%
Y 371.029	816080.0	118.44	%	0.968				0.82%
Y RADIAL	5912.7	118.6	%	5.56				4.69%
Ag 328.068†	-4703.0	1.3403	ug/L	1.01393	1.3403	ppb	1.01393	75.65%
Al 396.153Radial†	81236.6	75990	ug/L	3175.8	75990	ppb	3175.8	4.18%
As 188.979†	-27.3	42.628	ug/L	0.6057	42.628	ppb	0.6057	1.42%
B 249.677†	1178.7	16.240	ug/L	1.4090	16.240	ppb	1.4090	8.68%
Ba 233.527†	75208.4	890.29	ug/L	5.950	890.29	ppb	5.950	0.67%
Be 313.107†	-10727.4	5.1235	ug/L	0.08232	5.1235	ppb	0.08232	1.61%
Ca 317.933Radial†	6028.5	10953	ug/L	456.0	10953	ppb	456.0	4.16%
Cd 226.502†	732.0	2.0375	ug/L	0.45473	2.0375	ppb	0.45473	22.32%
Co 228.616†	1381.3	32.273	ug/L	0.1454	32.273	ppb	0.1454	0.45%
Cr 267.716†	10360.1	143.37	ug/L	0.997	143.37	ppb	0.997	0.70%
Cu 324.752†	11473.3	47.302	ug/L	0.6690	47.302	ppb	0.6690	1.41%
Fe 238.204 Radial†	7808.8	81017	ug/L	3599.4	81017	ppb	3599.4	4.44%
K 766.490 Radial†	55959.3	11135	ug/L	488.7	11135	ppb	488.7	4.39%

Mg 279.077 IEC†	284.9	11229	ug/L	606.4	11229	ppb	606.4	5.40%
Mn 257.610†	1295288.8	2080.8	ug/L	3.00	2080.8	ppb	3.00	0.14%
Mo 202.031†	-28.1	3.8374	ug/L	0.12858	3.8374	ppb	0.12858	3.35%
Na 589.592 Radial†	1492.5	508.63	ug/L	11.736	508.63	ppb	11.736	2.31%
Ni 231.604†	2329.6	74.446	ug/L	0.7651	74.446	ppb	0.7651	1.03%
P 214.914†	1093.1	555.50	ug/L	7.072	555.50	ppb	7.072	1.27%
Pb 220.353†	596.7	108.35	ug/L	1.810	108.35	ppb	1.810	1.67%
S 181.975 Axial†	362.5	455.78	ug/L	13.153	455.78	ppb	13.153	2.89%
Sb 206.836†	34.1	-2.4163	ug/L	3.39005	-2.4163	ppb	3.39005	140.30%
Se 196.026†	-303.2	2.9318	ug/L	10.91267	2.9318	ppb	10.91267	372.22%
Si 251.611†	1057837.0	38601	ug/L	46.0	38601	ppb	46.0	0.12%
Sn 189.927†	-34.2	-10.749	ug/L	0.9619	-10.749	ppb	0.9619	8.95%
Sr 421.552†	18771.3	136.42	ug/L	5.453	136.42	ppb	5.453	4.00%
Ti 334.940†	2052076.0	4135.5	ug/L	6.06	4135.5	ppb	6.06	0.15%
Tl 190.801†	-105.1	-4.5370	ug/L	3.96295	-4.5370	ppb	3.96295	87.35%
U 409.014†	-2873.0	-105.76	ug/L	1.349	-105.76	ppb	1.349	1.28%
V 292.402†	21399.4	154.18	ug/L	0.984	154.18	ppb	0.984	0.64%
Zn 213.857†	18629.9	192.80	ug/L	1.246	192.80	ppb	1.246	0.65%
SiO2†	1051069.9	81880	ug/L	1136.0	81880	ppb	1136.0	1.39%

Sequence No.: 47
Sample ID: 246070006|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 74
Date Collected: 3/1/2010 23:37:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070006|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4600.9	4600.9	97.8	%			23:40:09
1	Y RADIAL	5296.9	5296.9	106.2	%			23:39:49
1	Al 396.153Radial†	38780.0	39758.2	37191	ug/L	37191	ppb	23:39:49
1	Ca 317.933Radial†	13381.0	13666.3	24831	ug/L	24831	ppb	23:39:49
1	Fe 238.204 Radial†	7143.0	7299.8	75736	ug/L	75736	ppb	23:39:49
1	K 766.490 Radial†	36551.3	35129.6	6983.5	ug/L	6983.5	ppb	23:39:49
1	Mg 279.077 IEC†	291.3	295.1	11637	ug/L	11637	ppb	23:40:09
1	Na 589.592 Radial†	2406.4	3309.5	1127.9	ug/L	1127.9	ppb	23:39:49
1	Sr 421.552†	18619.1	19047.4	138.32	ug/L	138.32	ppb	23:39:49
1	Sc 361.383	826956.2	826956.2	107.69	%			23:41:07
1	Y 371.029	774516.8	774516.8	112.41	%			23:41:07
1	Ag 328.068†	-3592.7	-3591.9	4.9745	ug/L	4.9745	ppb	23:41:07
1	As 188.979†	-44.6	-16.4	27.452	ug/L	27.452	ppb	23:41:27
1	B 249.677†	328.8	758.8	6.6322	ug/L	6.6322	ppb	23:41:07
1	Ba 233.527†	53579.1	49752.9	589.64	ug/L	589.64	ppb	23:41:07
1	Be 313.107†	-16666.9	-6494.7	1.8804	ug/L	1.8804	ppb	23:41:07
1	Cd 226.502†	395.3	553.7	0.0621	ug/L	0.0621	ppb	23:41:27
1	Co 228.616†	810.3	810.0	19.499	ug/L	19.499	ppb	23:41:27
1	Cr 267.716†	8497.9	7815.8	108.41	ug/L	108.41	ppb	23:41:07
1	Cu 324.752†	27029.1	17564.0	69.797	ug/L	69.797	ppb	23:41:07
1	Mn 257.610†	1326785.4	1231635.7	1978.4	ug/L	1978.4	ppb	23:41:07
1	Mo 202.031†	-5.4	-19.3	4.3991	ug/L	4.3991	ppb	23:41:27
1	Ni 231.604†	2388.0	2116.3	67.635	ug/L	67.635	ppb	23:41:27
1	P 214.914†	3100.4	2683.8	1433.6	ug/L	1433.6	ppb	23:41:27
1	Pb 220.353†	753.9	770.8	127.58	ug/L	127.58	ppb	23:41:27
1	S 181.975 Axial†	517.0	437.6	560.36	ug/L	560.36	ppb	23:41:27
1	Sb 206.836†	54.5	20.6	-0.0488	ug/L	-0.0488	ppb	23:41:27
1	Se 196.026†	-267.5	-228.6	33.069	ug/L	33.069	ppb	23:41:27
1	Si 251.611†	783656.3	727140.0	26534	ug/L	26534	ppb	23:41:07
1	Sn 189.927†	-115.5	-115.3	-27.090	ug/L	-27.090	ppb	23:41:27
1	Ti 334.940†	1048924.4	975366.9	1967.7	ug/L	1967.7	ppb	23:41:07
1	Tl 190.801†	-102.2	-63.7	-3.8601	ug/L	-3.8601	ppb	23:41:27
1	U 409.014†	-3969.5	-1149.4	-47.361	ug/L	-47.361	ppb	23:41:07
1	V 292.402†	13946.4	14579.0	103.07	ug/L	103.07	ppb	23:41:07
1	Zn 213.857†	23528.9	21139.5	221.28	ug/L	221.28	ppb	23:41:07
1	SiO2†	784645.7	728051.5	56716	ug/L	56716	ppb	23:42:25
2	Sc Radial	4595.5	4595.5	97.6	%			23:40:34
2	Y RADIAL	5445.7	5445.7	109.2	%			23:40:14
2	Al 396.153Radial†	37399.5	38390.7	35911	ug/L	35911	ppb	23:40:14
2	Ca 317.933Radial†	12908.6	13198.5	23981	ug/L	23981	ppb	23:40:14
2	Fe 238.204 Radial†	6845.8	7004.0	72667	ug/L	72667	ppb	23:40:14
2	K 766.490 Radial†	35564.6	34162.7	6791.3	ug/L	6791.3	ppb	23:40:14
2	Mg 279.077 IEC†	293.4	297.6	11739	ug/L	11739	ppb	23:40:34
2	Na 589.592 Radial†	2306.6	3210.1	1094.0	ug/L	1094.0	ppb	23:40:14
2	Sr 421.552†	17972.9	18407.8	133.68	ug/L	133.68	ppb	23:40:14
2	Sc 361.383	830410.7	830410.7	108.13	%			23:41:32
2	Y 371.029	777335.0	777335.0	112.82	%			23:41:32
2	Ag 328.068†	-3656.8	-3637.4	3.8151	ug/L	3.8151	ppb	23:41:32
2	As 188.979†	-37.7	-9.8	29.605	ug/L	29.605	ppb	23:41:53
2	B 249.677†	290.1	721.7	6.2032	ug/L	6.2032	ppb	23:41:32
2	Ba 233.527†	53821.2	49769.8	589.75	ug/L	589.75	ppb	23:41:32
2	Be 313.107†	-16669.7	-6433.0	1.8878	ug/L	1.8878	ppb	23:41:32
2	Cd 226.502†	397.6	554.3	0.3859	ug/L	0.3859	ppb	23:41:53
2	Co 228.616†	803.8	800.8	19.283	ug/L	19.283	ppb	23:41:53
2	Cr 267.716†	8552.9	7833.9	108.60	ug/L	108.60	ppb	23:41:32
2	Cu 324.752†	27031.2	17461.5	69.255	ug/L	69.255	ppb	23:41:32
2	Mn 257.610†	1330667.5	1230100.3	1975.6	ug/L	1975.6	ppb	23:41:32
2	Mo 202.031†	-0.3	-14.6	4.5840	ug/L	4.5840	ppb	23:41:53
2	Ni 231.604†	2361.0	2082.0	66.542	ug/L	66.542	ppb	23:41:53

2	P 214.914†	3076.2	2649.4	1416.7 ug/L	1416.7 ppb	23:41:53
2	Pb 220.353†	747.9	762.3	126.13 ug/L	126.13 ppb	23:41:53
2	S 181.975 Axial†	519.6	438.0	561.12 ug/L	561.12 ppb	23:41:53
2	Sb 206.836†	57.6	23.3	1.1872 ug/L	1.1872 ppb	23:41:53
2	Se 196.026†	-268.6	-228.6	26.126 ug/L	26.126 ppb	23:41:53
2	Si 251.611†	785006.2	725361.0	26469 ug/L	26469 ppb	23:41:32
2	Sn 189.927†	-96.5	-97.3	-22.822 ug/L	-22.822 ppb	23:41:53
2	Ti 334.940†	1049253.9	971619.6	1960.1 ug/L	1960.1 ppb	23:41:32
2	Tl 190.801†	-106.3	-67.1	-5.4598 ug/L	-5.4598 ppb	23:41:53
2	U 409.014†	-4202.4	-1349.5	-53.711 ug/L	-53.711 ppb	23:41:32
2	V 292.402†	14026.8	14599.5	103.69 ug/L	103.69 ppb	23:41:32
2	Zn 213.857†	23609.6	21123.2	221.57 ug/L	221.57 ppb	23:41:32
2	SiO2†	780645.8	721321.4	56192 ug/L	56192 ppb	23:42:31
3	Sc Radial	4595.2	4595.2	97.6 %		23:40:59
3	Y RADIAL	5663.5	5663.5	113.6 %		23:40:39
3	Al 396.153Radial†	37293.4	38285.2	35813 ug/L	35813 ppb	23:40:39
3	Ca 317.933Radial†	12876.0	13166.2	23922 ug/L	23922 ppb	23:40:39
3	Fe 238.204 Radial†	6841.2	6999.9	72624 ug/L	72624 ppb	23:40:39
3	K 766.490 Radial†	35388.5	33985.3	6756.1 ug/L	6756.1 ppb	23:40:39
3	Mg 279.077 IEC†	294.8	299.1	11800 ug/L	11800 ppb	23:40:59
3	Na 589.592 Radial†	2249.9	3152.2	1074.3 ug/L	1074.3 ppb	23:40:39
3	Sr 421.552†	17864.2	18298.1	132.88 ug/L	132.88 ppb	23:40:39
3	Sc 361.383	827389.9	827389.9	107.74 %		23:41:58
3	Y 371.029	772885.2	772885.2	112.17 %		23:41:58
3	Ag 328.068†	-3670.4	-3662.4	3.6675 ug/L	3.6675 ppb	23:41:58
3	As 188.979†	-51.3	-22.6	23.885 ug/L	23.885 ppb	23:42:18
3	B 249.677†	324.3	754.5	7.0309 ug/L	7.0309 ppb	23:41:58
3	Ba 233.527†	53589.0	49736.0	589.35 ug/L	589.35 ppb	23:41:58
3	Be 313.107†	-16592.8	-6417.9	1.8858 ug/L	1.8858 ppb	23:41:58
3	Cd 226.502†	375.3	534.9	0.1173 ug/L	0.1173 ppb	23:42:18
3	Co 228.616†	801.0	800.9	19.288 ug/L	19.288 ppb	23:42:18
3	Cr 267.716†	8463.2	7779.5	107.85 ug/L	107.85 ppb	23:41:58
3	Cu 324.752†	26880.3	17412.7	69.066 ug/L	69.066 ppb	23:41:58
3	Mn 257.610†	1322969.2	1227447.8	1971.4 ug/L	1971.4 ppb	23:41:58
3	Mo 202.031†	-29.8	-42.1	2.0620 ug/L	2.0620 ppb	23:42:18
3	Ni 231.604†	2360.2	2089.3	66.774 ug/L	66.774 ppb	23:42:18
3	P 214.914†	3060.5	2645.2	1414.4 ug/L	1414.4 ppb	23:42:18
3	Pb 220.353†	725.6	744.1	123.18 ug/L	123.18 ppb	23:42:18
3	S 181.975 Axial†	508.8	429.7	550.48 ug/L	550.48 ppb	23:42:18
3	Sb 206.836†	43.6	10.5	-4.0518 ug/L	-4.0518 ppb	23:42:18
3	Se 196.026†	-259.7	-221.3	30.475 ug/L	30.475 ppb	23:42:18
3	Si 251.611†	780619.8	723940.2	26417 ug/L	26417 ppb	23:41:58
3	Sn 189.927†	-98.5	-99.5	-23.358 ug/L	-23.358 ppb	23:42:18
3	Ti 334.940†	1043554.8	969872.6	1956.5 ug/L	1956.5 ppb	23:41:58
3	Tl 190.801†	-112.6	-73.3	-8.3798 ug/L	-8.3798 ppb	23:42:18
3	U 409.014†	-3943.6	-1123.4	-46.135 ug/L	-46.135 ppb	23:41:58
3	V 292.402†	13957.2	14582.3	103.54 ug/L	103.54 ppb	23:41:58
3	Zn 213.857†	23482.6	21085.0	221.15 ug/L	221.15 ppb	23:41:58
3	SiO2†	775195.1	718898.0	56003 ug/L	56003 ppb	23:42:37

Mean Data: 246070006|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828252.3	107.85	%	0.245				0.23%
Sc Radial	4597.2	97.7	%	0.07				0.07%
Y 371.029	774912.3	112.46	%	0.327				0.29%
Y RADIAL	5468.7	109.7	%	3.70				3.37%
Ag 328.068†	-3630.6	4.1523	ug/L	0.71580	4.1523	ppb	0.71580	17.24%
Al 396.153Radial†	38811.4	36305	ug/L	768.6	36305	ppb	768.6	2.12%
As 188.979†	-16.3	26.981	ug/L	2.8891	26.981	ppb	2.8891	10.71%
B 249.677†	745.0	6.6221	ug/L	0.41391	6.6221	ppb	0.41391	6.25%
Ba 233.527†	49752.9	589.58	ug/L	0.207	589.58	ppb	0.207	0.04%
Be 313.107†	-6448.5	1.8847	ug/L	0.00383	1.8847	ppb	0.00383	0.20%
Ca 317.933Radial†	13343.7	24245	ug/L	508.6	24245	ppb	508.6	2.10%
Cd 226.502†	547.7	0.1884	ug/L	0.17325	0.1884	ppb	0.17325	91.95%
Co 228.616†	803.9	19.357	ug/L	0.1232	19.357	ppb	0.1232	0.64%
Cr 267.716†	7809.7	108.29	ug/L	0.388	108.29	ppb	0.388	0.36%
Cu 324.752†	17479.4	69.373	ug/L	0.3797	69.373	ppb	0.3797	0.55%
Fe 238.204 Radial†	7101.2	73676	ug/L	1784.5	73676	ppb	1784.5	2.42%
K 766.490 Radial†	34425.9	6843.6	ug/L	122.41	6843.6	ppb	122.41	1.79%

Mg 279.077 IEC†	297.3	11725	ug/L	82.2	11725	ppb	82.2	0.70%
Mn 257.610†	1229728.0	1975.1	ug/L	3.53	1975.1	ppb	3.53	0.18%
Mo 202.031†	-25.3	3.6817	ug/L	1.40577	3.6817	ppb	1.40577	38.18%
Na 589.592 Radial†	3223.9	1098.7	ug/L	27.10	1098.7	ppb	27.10	2.47%
Ni 231.604†	2095.9	66.984	ug/L	0.5762	66.984	ppb	0.5762	0.86%
P 214.914†	2659.5	1421.5	ug/L	10.49	1421.5	ppb	10.49	0.74%
Pb 220.353†	759.1	125.63	ug/L	2.243	125.63	ppb	2.243	1.79%
S 181.975 Axial†	435.1	557.32	ug/L	5.937	557.32	ppb	5.937	1.07%
Sb 206.836†	18.1	-0.9711	ug/L	2.73858	-0.9711	ppb	2.73858	282.01%
Se 196.026†	-226.2	29.890	ug/L	3.5080	29.890	ppb	3.5080	11.74%
Si 251.611†	725480.4	26473	ug/L	58.5	26473	ppb	58.5	0.22%
Sn 189.927†	-104.0	-24.424	ug/L	2.3250	-24.424	ppb	2.3250	9.52%
Sr 421.552†	18584.4	134.96	ug/L	2.939	134.96	ppb	2.939	2.18%
Ti 334.940†	972286.4	1961.4	ug/L	5.73	1961.4	ppb	5.73	0.29%
Tl 190.801†	-68.0	-5.8999	ug/L	2.29177	-5.8999	ppb	2.29177	38.84%
U 409.014†	-1207.4	-49.069	ug/L	4.0667	-49.069	ppb	4.0667	8.29%
V 292.402†	14587.0	103.43	ug/L	0.320	103.43	ppb	0.320	0.31%
Zn 213.857†	21115.9	221.34	ug/L	0.213	221.34	ppb	0.213	0.10%
SiO2†	722757.0	56304	ug/L	369.4	56304	ppb	369.4	0.66%

Sequence No.: 48
Sample ID: 246070007|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 75
Date Collected: 3/1/2010 23:44:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070007|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5108.5	5108.5	109	%			23:47:01
1	Y RADIAL	5973.2	5973.2	119.8	%			23:47:01
1	Al 396.153Radial†	40892.7	37762.9	35324	ug/L	35324	ppb	23:46:41
1	Ca 317.933Radial†	18731.0	17235.4	31316	ug/L	31316	ppb	23:46:41
1	Fe 238.204 Radial†	9797.6	9019.6	93579	ug/L	93579	ppb	23:46:41
1	K 766.490 Radial†	33039.0	28178.3	5597.5	ug/L	5597.5	ppb	23:46:41
1	Mg 279.077 IEC†	467.1	427.5	16876	ug/L	16876	ppb	23:47:01
1	Na 589.592 Radial†	2368.0	3029.5	1032.5	ug/L	1032.5	ppb	23:46:41
1	Sr 421.552†	23957.8	22073.6	160.28	ug/L	160.28	ppb	23:46:41
1	Sc 361.383	826332.4	826332.4	107.60	%			23:47:58
1	Y 371.029	822918.1	822918.1	119.43	%			23:47:58
1	Ag 328.068†	-5558.1	-5421.0	1.2615	ug/L	1.2615	ppb	23:48:03
1	As 188.979†	-43.1	-15.0	42.435	ug/L	42.435	ppb	23:48:24
1	B 249.677†	426.6	849.9	5.9417	ug/L	5.9417	ppb	23:48:03
1	Ba 233.527†	90834.8	84413.5	999.28	ug/L	999.28	ppb	23:48:03
1	Be 313.107†	-20695.9	-10250.7	3.0582	ug/L	3.0582	ppb	23:48:03
1	Cd 226.502†	623.7	766.2	1.2124	ug/L	1.2124	ppb	23:48:24
1	Co 228.616†	1746.9	1681.0	43.301	ug/L	43.301	ppb	23:48:24
1	Cr 267.716†	8185.3	7531.3	104.98	ug/L	104.98	ppb	23:48:03
1	Cu 324.752†	27934.2	18424.1	74.026	ug/L	74.026	ppb	23:48:03
1	Mn 257.610†	1503916.5	1397179.9	2244.9	ug/L	2244.9	ppb	23:47:58
1	Mo 202.031†	6.1	-8.7	6.8404	ug/L	6.8404	ppb	23:48:24
1	Ni 231.604†	2549.4	2267.9	72.467	ug/L	72.467	ppb	23:48:24
1	P 214.914†	4362.2	3858.6	2074.1	ug/L	2074.1	ppb	23:48:24
1	Pb 220.353†	436.7	476.6	78.342	ug/L	78.342	ppb	23:48:24
1	S 181.975 Axial†	293.2	230.0	291.53	ug/L	291.53	ppb	23:48:24
1	Sb 206.836†	62.4	27.9	-0.9468	ug/L	-0.9468	ppb	23:48:24
1	Se 196.026†	-378.5	-332.0	9.5494	ug/L	9.5494	ppb	23:48:24
1	Si 251.611†	856394.4	795287.4	29021	ug/L	29021	ppb	23:47:58
1	Sn 189.927†	-113.1	-113.2	-26.470	ug/L	-26.470	ppb	23:48:24
1	Ti 334.940†	1676351.1	1559191.5	3144.6	ug/L	3144.6	ppb	23:47:58
1	Tl 190.801†	-142.1	-100.8	-10.084	ug/L	-10.084	ppb	23:48:24
1	U 409.014†	-7650.8	-4573.3	-164.04	ug/L	-164.04	ppb	23:48:03
1	V 292.402†	20672.2	20839.3	148.98	ug/L	148.98	ppb	23:48:03
1	Zn 213.857†	31880.6	28917.5	304.36	ug/L	304.36	ppb	23:48:03
1	SiO2†	852868.8	792003.7	61698	ug/L	61698	ppb	23:49:32
2	Sc Radial	5113.1	5113.1	109	%			23:47:26
2	Y RADIAL	5991.6	5991.6	120.2	%			23:47:26
2	Al 396.153Radial†	41349.1	38149.1	35685	ug/L	35685	ppb	23:47:06
2	Ca 317.933Radial†	18921.7	17395.3	31606	ug/L	31606	ppb	23:47:06
2	Fe 238.204 Radial†	9881.8	9088.9	94298	ug/L	94298	ppb	23:47:06
2	K 766.490 Radial†	33378.2	28463.1	5654.1	ug/L	5654.1	ppb	23:47:06
2	Mg 279.077 IEC†	475.6	434.9	17169	ug/L	17169	ppb	23:47:26
2	Na 589.592 Radial†	2501.5	3150.4	1073.7	ug/L	1073.7	ppb	23:47:06
2	Sr 421.552†	24236.1	22309.9	162.00	ug/L	162.00	ppb	23:47:06
2	Sc 361.383	842345.4	842345.4	109.69	%			23:48:29
2	Y 371.029	837487.2	837487.2	121.55	%			23:48:29
2	Ag 328.068†	-5372.6	-5153.7	2.8174	ug/L	2.8174	ppb	23:48:35
2	As 188.979†	-51.6	-22.0	39.196	ug/L	39.196	ppb	23:48:55
2	B 249.677†	463.0	875.5	6.4696	ug/L	6.4696	ppb	23:48:35
2	Ba 233.527†	88655.6	80822.0	956.91	ug/L	956.91	ppb	23:48:35
2	Be 313.107†	-20238.5	-9468.1	3.2899	ug/L	3.2899	ppb	23:48:35
2	Cd 226.502†	622.0	753.7	0.9618	ug/L	0.9618	ppb	23:48:55
2	Co 228.616†	1732.0	1636.5	42.001	ug/L	42.001	ppb	23:48:55
2	Cr 267.716†	8029.4	7244.6	101.06	ug/L	101.06	ppb	23:48:35
2	Cu 324.752†	27114.4	17183.1	69.410	ug/L	69.410	ppb	23:48:35
2	Mn 257.610†	1518888.0	1384259.8	2224.3	ug/L	2224.3	ppb	23:48:29
2	Mo 202.031†	5.7	-9.2	6.8532	ug/L	6.8532	ppb	23:48:55
2	Ni 231.604†	2559.6	2232.2	71.327	ug/L	71.327	ppb	23:48:55

2	P 214.914†	4406.9	3822.3	2054.3	ug/L	2054.3 ppb	23:48:55
2	Pb 220.353†	450.6	481.5	79.175	ug/L	79.175 ppb	23:48:55
2	S 181.975 Axial†	298.5	229.6	290.98	ug/L	290.98 ppb	23:48:55
2	Sb 206.836†	53.8	19.1	-4.4729	ug/L	-4.4729 ppb	23:48:55
2	Se 196.026†	-387.8	-333.8	10.109	ug/L	10.109 ppb	23:48:55
2	Si 251.611†	865191.4	788177.6	28761	ug/L	28761 ppb	23:48:29
2	Sn 189.927†	-117.3	-115.0	-26.882	ug/L	-26.882 ppb	23:48:55
2	Ti 334.940†	1689803.2	1541839.8	3109.7	ug/L	3109.7 ppb	23:48:29
2	Tl 190.801†	-120.8	-78.9	-0.3871	ug/L	-0.3871 ppb	23:48:55
2	U 409.014†	-7391.1	-4201.4	-151.66	ug/L	-151.66 ppb	23:48:35
2	V 292.402†	20208.8	20051.7	142.67	ug/L	142.67 ppb	23:48:35
2	Zn 213.857†	31220.6	27752.5	291.42	ug/L	291.42 ppb	23:48:35
2	SiO2†	844466.7	769276.4	59928	ug/L	59928 ppb	23:49:38
3	Sc Radial	5060.0	5060.0	108	%		23:47:51
3	Y RADIAL	5931.1	5931.1	119.0	%		23:47:51
3	Al 396.153Radial†	41033.1	38254.7	35784	ug/L	35784 ppb	23:47:31
3	Ca 317.933Radial†	18712.8	17383.9	31585	ug/L	31585 ppb	23:47:31
3	Fe 238.204 Radial†	9790.1	9099.1	94404	ug/L	94404 ppb	23:47:31
3	K 766.490 Radial†	33145.4	28569.1	5675.2	ug/L	5675.2 ppb	23:47:31
3	Mg 279.077 IEC†	465.5	430.1	16980	ug/L	16980 ppb	23:47:51
3	Na 589.592 Radial†	2407.4	3087.1	1052.1	ug/L	1052.1 ppb	23:47:31
3	Sr 421.552†	23967.2	22293.9	161.88	ug/L	161.88 ppb	23:47:31
3	Sc 361.383	827338.8	827338.8	107.73	%		23:49:00
3	Y 371.029	823083.4	823083.4	119.45	%		23:49:00
3	Ag 328.068†	-5398.4	-5266.5	2.2895	ug/L	2.2895 ppb	23:49:06
3	As 188.979†	-42.5	-14.4	42.615	ug/L	42.615 ppb	23:49:26
3	B 249.677†	464.1	884.2	6.6677	ug/L	6.6677 ppb	23:49:06
3	Ba 233.527†	90007.0	83542.5	989.03	ug/L	989.03 ppb	23:49:06
3	Be 313.107†	-20527.3	-10070.9	3.0563	ug/L	3.0563 ppb	23:49:06
3	Cd 226.502†	590.3	734.6	0.6806	ug/L	0.6806 ppb	23:49:26
3	Co 228.616†	1741.4	1673.9	43.137	ug/L	43.137 ppb	23:49:26
3	Cr 267.716†	8083.9	7427.9	103.58	ug/L	103.58 ppb	23:49:06
3	Cu 324.752†	27733.9	18206.5	73.249	ug/L	73.249 ppb	23:49:06
3	Mn 257.610†	1491310.6	1383778.9	2223.5	ug/L	2223.5 ppb	23:49:00
3	Mo 202.031†	-2.8	-17.0	6.1429	ug/L	6.1429 ppb	23:49:26
3	Ni 231.604†	2535.9	2252.5	71.976	ug/L	71.976 ppb	23:49:26
3	P 214.914†	4340.6	3833.6	2059.8	ug/L	2059.8 ppb	23:49:26
3	Pb 220.353†	432.0	471.7	77.602	ug/L	77.602 ppb	23:49:26
3	S 181.975 Axial†	276.7	214.3	271.18	ug/L	271.18 ppb	23:49:26
3	Sb 206.836†	62.2	27.7	-0.9914	ug/L	-0.9914 ppb	23:49:26
3	Se 196.026†	-368.9	-322.6	17.178	ug/L	17.178 ppb	23:49:26
3	Si 251.611†	848872.7	787337.6	28730	ug/L	28730 ppb	23:49:00
3	Sn 189.927†	-115.0	-114.9	-26.856	ug/L	-26.856 ppb	23:49:26
3	Ti 334.940†	1661097.6	1543137.9	3112.3	ug/L	3112.3 ppb	23:49:00
3	Tl 190.801†	-125.9	-85.7	-3.4890	ug/L	-3.4890 ppb	23:49:26
3	U 409.014†	-7332.0	-4268.7	-153.93	ug/L	-153.93 ppb	23:49:06
3	V 292.402†	20423.6	20585.2	146.88	ug/L	146.88 ppb	23:49:06
3	Zn 213.857†	31548.8	28573.4	300.44	ug/L	300.44 ppb	23:49:06
3	SiO2†	852687.5	790871.2	61610	ug/L	61610 ppb	23:49:44

Mean Data: 246070007|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	832005.5	108.34	%	1.168				1.08%
Sc Radial	5093.9	108	%	0.6				0.58%
Y 371.029	827829.5	120.14	%	1.214				1.01%
Y RADIAL	5965.3	119.7	%	0.62				0.52%
Ag 328.068†	-5280.4	2.1228	ug/L	0.79121	2.1228	ppb	0.79121	37.27%
Al 396.153Radial†	38055.6	35598	ug/L	242.2	35598	ppb	242.2	0.68%
As 188.979†	-17.2	41.416	ug/L	1.9240	41.416	ppb	1.9240	4.65%
B 249.677†	869.9	6.3597	ug/L	0.37529	6.3597	ppb	0.37529	5.90%
Ba 233.527†	82926.0	981.74	ug/L	22.105	981.74	ppb	22.105	2.25%
Be 313.107†	-9929.9	3.1348	ug/L	0.13433	3.1348	ppb	0.13433	4.29%
Ca 317.933Radial†	17338.2	31502	ug/L	162.1	31502	ppb	162.1	0.51%
Cd 226.502†	751.5	0.9516	ug/L	0.26605	0.9516	ppb	0.26605	27.96%
Co 228.616†	1663.8	42.813	ug/L	0.7081	42.813	ppb	0.7081	1.65%
Cr 267.716†	7401.2	103.21	ug/L	1.984	103.21	ppb	1.984	1.92%
Cu 324.752†	17937.9	72.228	ug/L	2.4713	72.228	ppb	2.4713	3.42%
Fe 238.204 Radial†	9069.2	94094	ug/L	449.0	94094	ppb	449.0	0.48%
K 766.490 Radial†	28403.5	5642.3	ug/L	40.18	5642.3	ppb	40.18	0.71%

Mg 279.077 IEC†	430.8	17008	ug/L	148.5	17008	ppb	148.5	0.87%
Mn 257.610†	1388406.2	2230.9	ug/L	12.13	2230.9	ppb	12.13	0.54%
Mo 202.031†	-11.6	6.6122	ug/L	0.40643	6.6122	ppb	0.40643	6.15%
Na 589.592 Radial†	3089.0	1052.7	ug/L	20.61	1052.7	ppb	20.61	1.96%
Ni 231.604†	2250.9	71.923	ug/L	0.5720	71.923	ppb	0.5720	0.80%
P 214.914†	3838.1	2062.7	ug/L	10.25	2062.7	ppb	10.25	0.50%
Pb 220.353†	476.6	78.373	ug/L	0.7873	78.373	ppb	0.7873	1.00%
S 181.975 Axial†	224.6	284.56	ug/L	11.595	284.56	ppb	11.595	4.07%
Sb 206.836†	24.9	-2.1371	ug/L	2.02306	-2.1371	ppb	2.02306	94.67%
Se 196.026†	-329.4	12.279	ug/L	4.2520	12.279	ppb	4.2520	34.63%
Si 251.611†	790267.5	28837	ug/L	159.4	28837	ppb	159.4	0.55%
Sn 189.927†	-114.4	-26.736	ug/L	0.2307	-26.736	ppb	0.2307	0.86%
Sr 421.552†	22225.8	161.39	ug/L	0.959	161.39	ppb	0.959	0.59%
Ti 334.940†	1548056.4	3122.2	ug/L	19.47	3122.2	ppb	19.47	0.62%
Tl 190.801†	-88.5	-4.6535	ug/L	4.95244	-4.6535	ppb	4.95244	106.42%
U 409.014†	-4347.8	-156.54	ug/L	6.591	-156.54	ppb	6.591	4.21%
V 292.402†	20492.1	146.18	ug/L	3.213	146.18	ppb	3.213	2.20%
Zn 213.857†	28414.5	298.74	ug/L	6.637	298.74	ppb	6.637	2.22%
SiO2†	784050.4	61079	ug/L	997.7	61079	ppb	997.7	1.63%

Sequence No.: 49
Sample ID: 246070008|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 76
Date Collected: 3/1/2010 23:51:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070008|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5110.4	5110.4	109	%			23:54:09
1	Y RADIAL	5783.4	5783.4	116.0	%			23:54:09
1	Al 396.153Radial†	109171.1	100632.6	94134	ug/L	94134	ppb	23:53:49
1	Ca 317.933Radial†	10762.1	9889.7	17969	ug/L	17969	ppb	23:53:49
1	Fe 238.204 Radial†	12124.5	11159.3	115780	ug/L	115780	ppb	23:53:49
1	K 766.490 Radial†	101192.4	90935.5	18094	ug/L	18094	ppb	23:53:49
1	Mg 279.077 IEC†	458.3	419.2	16522	ug/L	16522	ppb	23:54:09
1	Na 589.592 Radial†	1036.2	1802.1	614.17	ug/L	614.17	ppb	23:53:49
1	Sr 421.552†	31334.0	28858.8	209.72	ug/L	209.72	ppb	23:53:49
1	Sc 361.383	853780.2	853780.2	111.18	%			23:55:08
1	Y 371.029	820262.2	820262.2	119.05	%			23:55:08
1	Ag 328.068†	-6507.9	-6109.2	5.0671	ug/L	5.0671	ppb	23:55:28
1	As 188.979†	-64.5	-33.0	57.014	ug/L	57.014	ppb	23:55:28
1	B 249.677†	1187.7	1521.7	19.100	ug/L	19.100	ppb	23:55:08
1	Ba 233.527†	131543.9	118315.8	1400.2	ug/L	1400.2	ppb	23:55:08
1	Be 313.107†	-26832.0	-15151.6	5.6657	ug/L	5.6657	ppb	23:55:08
1	Cd 226.502†	1082.4	1160.2	4.5144	ug/L	4.5144	ppb	23:55:28
1	Co 228.616†	2578.9	2377.1	60.004	ug/L	60.004	ppb	23:55:28
1	Cr 267.716†	7431.1	6608.4	92.908	ug/L	92.908	ppb	23:55:28
1	Cu 324.752†	31383.4	20691.9	83.654	ug/L	83.654	ppb	23:55:08
1	Mn 257.610†	2810579.0	2527535.2	4056.4	ug/L	4056.4	ppb	23:55:08
1	Mo 202.031†	-41.7	-51.9	4.4416	ug/L	4.4416	ppb	23:55:28
1	Ni 231.604†	2395.4	2053.2	65.592	ug/L	65.592	ppb	23:55:28
1	P 214.914†	3142.2	2630.9	1383.8	ug/L	1383.8	ppb	23:55:28
1	Pb 220.353†	1710.5	1609.2	273.33	ug/L	273.33	ppb	23:55:28
1	S 181.975 Axial†	1009.3	865.3	1104.3	ug/L	1104.3	ppb	23:55:28
1	Sb 206.836†	91.9	52.6	0.9448	ug/L	0.9448	ppb	23:55:28
1	Se 196.026†	-469.2	-402.2	21.849	ug/L	21.849	ppb	23:55:28
1	Si 251.611†	1138633.7	1023563.4	37351	ug/L	37351	ppb	23:55:08
1	Sn 189.927†	-67.4	-68.7	-19.635	ug/L	-19.635	ppb	23:55:28
1	Ti 334.940†	2839173.9	2555017.2	5149.5	ug/L	5149.5	ppb	23:55:08
1	Tl 190.801†	-199.0	-147.8	-6.6315	ug/L	-6.6315	ppb	23:55:28
1	U 409.014†	-5601.5	-2501.5	-97.165	ug/L	-97.165	ppb	23:55:08
1	V 292.402†	35023.4	33130.1	241.57	ug/L	241.57	ppb	23:55:08
1	Zn 213.857†	34454.0	30279.6	316.09	ug/L	316.09	ppb	23:55:08
1	SiO2†	1131896.4	1017496.3	79265	ug/L	79265	ppb	23:56:28
2	Sc Radial	5104.5	5104.5	108	%			23:54:34
2	Y RADIAL	5806.8	5806.8	116.5	%			23:54:34
2	Al 396.153Radial†	106291.5	98093.7	91759	ug/L	91759	ppb	23:54:14
2	Ca 317.933Radial†	10543.4	9699.5	17623	ug/L	17623	ppb	23:54:14
2	Fe 238.204 Radial†	11800.1	10873.0	112810	ug/L	112810	ppb	23:54:14
2	K 766.490 Radial†	98637.8	88687.8	17647	ug/L	17647	ppb	23:54:14
2	Mg 279.077 IEC†	450.9	412.9	16276	ug/L	16276	ppb	23:54:34
2	Na 589.592 Radial†	952.7	1726.3	588.31	ug/L	588.31	ppb	23:54:14
2	Sr 421.552†	30319.6	27956.8	203.16	ug/L	203.16	ppb	23:54:14
2	Sc 361.383	835523.5	835523.5	108.80	%			23:55:34
2	Y 371.029	803227.4	803227.4	116.57	%			23:55:34
2	Ag 328.068†	-6506.4	-6235.8	3.5044	ug/L	3.5044	ppb	23:55:55
2	As 188.979†	-74.0	-43.0	51.823	ug/L	51.823	ppb	23:55:55
2	B 249.677†	1075.2	1441.7	17.573	ug/L	17.573	ppb	23:55:34
2	Ba 233.527†	128863.1	118437.1	1401.6	ug/L	1401.6	ppb	23:55:34
2	Be 313.107†	-26283.0	-15174.4	5.6464	ug/L	5.6464	ppb	23:55:34
2	Cd 226.502†	1088.1	1186.8	5.1985	ug/L	5.1985	ppb	23:55:55
2	Co 228.616†	2576.0	2425.1	61.508	ug/L	61.508	ppb	23:55:55
2	Cr 267.716†	7417.3	6741.7	94.672	ug/L	94.672	ppb	23:55:55
2	Cu 324.752†	30545.1	20538.2	82.920	ug/L	82.920	ppb	23:55:34
2	Mn 257.610†	2752792.9	2529661.5	4059.5	ug/L	4059.5	ppb	23:55:34
2	Mo 202.031†	-38.9	-50.2	4.3644	ug/L	4.3644	ppb	23:55:55
2	Ni 231.604†	2399.0	2103.6	67.201	ug/L	67.201	ppb	23:55:55

2	P 214.914†	3132.5	2683.7	1415.2	ug/L	1415.2 ppb	23:55:55
2	Pb 220.353†	1719.6	1651.2	279.75	ug/L	279.75 ppb	23:55:55
2	S 181.975 Axial†	999.4	876.1	1118.7	ug/L	1118.7 ppb	23:55:55
2	Sb 206.836†	72.7	36.7	-5.3249	ug/L	-5.3249 ppb	23:55:55
2	Se 196.026†	-462.9	-405.6	12.860	ug/L	12.860 ppb	23:55:55
2	Si 251.611†	1112374.9	1021807.0	37286	ug/L	37286 ppb	23:55:34
2	Sn 189.927†	-53.2	-57.0	-16.772	ug/L	-16.772 ppb	23:55:55
2	Ti 334.940†	2776006.7	2552759.7	5144.9	ug/L	5144.9 ppb	23:55:34
2	Tl 190.801†	-202.9	-155.3	-10.102	ug/L	-10.102 ppb	23:55:55
2	U 409.014†	-5421.1	-2445.8	-94.964	ug/L	-94.964 ppb	23:55:34
2	V 292.402†	34193.9	33056.0	241.42	ug/L	241.42 ppb	23:55:34
2	Zn 213.857†	33796.1	30352.1	317.32	ug/L	317.32 ppb	23:55:34
2	SiO2†	1114952.5	1024168.8	79785	ug/L	79785 ppb	23:56:34
3	Sc Radial	5136.3	5136.3	109	%		23:54:59
3	Y RADIAL	5839.3	5839.3	117.1	%		23:54:59
3	Al 396.153Radial†	107753.0	98825.7	92443	ug/L	92443 ppb	23:54:39
3	Ca 317.933Radial†	10616.5	9706.2	17636	ug/L	17636 ppb	23:54:39
3	Fe 238.204 Radial†	11891.8	10889.7	112980	ug/L	112980 ppb	23:54:39
3	K 766.490 Radial†	99735.9	89130.6	17735	ug/L	17735 ppb	23:54:39
3	Mg 279.077 IEC†	454.8	413.9	16314	ug/L	16314 ppb	23:54:59
3	Na 589.592 Radial†	936.7	1706.2	581.46	ug/L	581.46 ppb	23:54:39
3	Sr 421.552†	30645.6	28082.3	204.08	ug/L	204.08 ppb	23:54:39
3	Sc 361.383	841865.5	841865.5	109.63	%		23:56:01
3	Y 371.029	808812.4	808812.4	117.38	%		23:56:01
3	Ag 328.068†	-6534.4	-6216.2	3.6584	ug/L	3.6584 ppb	23:56:22
3	As 188.979†	-57.0	-27.0	58.990	ug/L	58.990 ppb	23:56:22
3	B 249.677†	1214.2	1561.1	20.537	ug/L	20.537 ppb	23:56:01
3	Ba 233.527†	129506.0	118131.3	1398.0	ug/L	1398.0 ppb	23:56:01
3	Be 313.107†	-26517.0	-15205.8	5.6285	ug/L	5.6285 ppb	23:56:01
3	Cd 226.502†	1081.8	1173.4	4.9903	ug/L	4.9903 ppb	23:56:22
3	Co 228.616†	2566.6	2398.7	60.708	ug/L	60.708 ppb	23:56:22
3	Cr 267.716†	7404.7	6678.9	93.817	ug/L	93.817 ppb	23:56:22
3	Cu 324.752†	30983.5	20726.6	83.636	ug/L	83.636 ppb	23:56:01
3	Mn 257.610†	2765073.8	2521803.9	4047.0	ug/L	4047.0 ppb	23:56:01
3	Mo 202.031†	-48.2	-58.4	3.6247	ug/L	3.6247 ppb	23:56:22
3	Ni 231.604†	2381.3	2070.8	66.154	ug/L	66.154 ppb	23:56:22
3	P 214.914†	3127.8	2657.8	1400.6	ug/L	1400.6 ppb	23:56:22
3	Pb 220.353†	1685.8	1608.5	273.01	ug/L	273.01 ppb	23:56:22
3	S 181.975 Axial†	987.9	858.6	1096.0	ug/L	1096.0 ppb	23:56:22
3	Sb 206.836†	77.7	40.9	-3.7262	ug/L	-3.7262 ppb	23:56:22
3	Se 196.026†	-479.2	-417.3	6.1477	ug/L	6.1477 ppb	23:56:22
3	Si 251.611†	1119952.3	1021016.9	37258	ug/L	37258 ppb	23:56:01
3	Sn 189.927†	-65.2	-67.6	-19.269	ug/L	-19.269 ppb	23:56:22
3	Ti 334.940†	2795800.8	2551594.8	5142.5	ug/L	5142.5 ppb	23:56:01
3	Tl 190.801†	-200.6	-151.8	-8.5632	ug/L	-8.5632 ppb	23:56:22
3	U 409.014†	-5502.5	-2482.5	-96.214	ug/L	-96.214 ppb	23:56:01
3	V 292.402†	34437.4	33041.3	241.27	ug/L	241.27 ppb	23:56:01
3	Zn 213.857†	33953.3	30261.5	316.31	ug/L	316.31 ppb	23:56:01
3	SiO2†	1112572.7	1014278.2	79014	ug/L	79014 ppb	23:56:40

Mean Data: 246070008|949364|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	843723.0	109.87	%	1.207				1.10%
Sc Radial	5117.1	109	%	0.4				0.33%
Y 371.029	810767.3	117.67	%	1.260				1.07%
Y RADIAL	5809.8	116.5	%	0.56				0.48%
Ag 328.068†	-6187.1	4.0766	ug/L	0.86122	4.0766	ppb	0.86122	21.13%
Al 396.153Radial†	99184.0	92779	ug/L	1222.4	92779	ppb	1222.4	1.32%
As 188.979†	-34.3	55.942	ug/L	3.7019	55.942	ppb	3.7019	6.62%
B 249.677†	1508.1	19.070	ug/L	1.4824	19.070	ppb	1.4824	7.77%
Ba 233.527†	118294.7	1399.9	ug/L	1.82	1399.9	ppb	1.82	0.13%
Be 313.107†	-15177.3	5.6469	ug/L	0.01861	5.6469	ppb	0.01861	0.33%
Ca 317.933Radial†	9765.1	17743	ug/L	196.1	17743	ppb	196.1	1.11%
Cd 226.502†	1173.5	4.9011	ug/L	0.35069	4.9011	ppb	0.35069	7.16%
Co 228.616†	2400.3	60.740	ug/L	0.7528	60.740	ppb	0.7528	1.24%
Cr 267.716†	6676.3	93.799	ug/L	0.8818	93.799	ppb	0.8818	0.94%
Cu 324.752†	20652.2	83.403	ug/L	0.4185	83.403	ppb	0.4185	0.50%
Fe 238.204 Radial†	10974.0	113860	ug/L	1667.0	113860	ppb	1667.0	1.46%
K 766.490 Radial†	89584.7	17825	ug/L	236.9	17825	ppb	236.9	1.33%

Mg 279.077 IEC†	415.3	16371	ug/L	132.4	16371	ppb	132.4	0.81%
Mn 257.610†	2526333.5	4054.3	ug/L	6.54	4054.3	ppb	6.54	0.16%
Mo 202.031†	-53.5	4.1436	ug/L	0.45102	4.1436	ppb	0.45102	10.88%
Na 589.592 Radial†	1744.9	594.65	ug/L	17.251	594.65	ppb	17.251	2.90%
Ni 231.604†	2075.9	66.316	ug/L	0.8164	66.316	ppb	0.8164	1.23%
P 214.914†	2657.5	1399.9	ug/L	15.72	1399.9	ppb	15.72	1.12%
Pb 220.353†	1623.0	275.36	ug/L	3.803	275.36	ppb	3.803	1.38%
S 181.975 Axial†	866.7	1106.3	ug/L	11.49	1106.3	ppb	11.49	1.04%
Sb 206.836†	43.4	-2.7021	ug/L	3.25786	-2.7021	ppb	3.25786	120.57%
Se 196.026†	-408.4	13.619	ug/L	7.8784	13.619	ppb	7.8784	57.85%
Si 251.611†	1022129.1	37298	ug/L	47.6	37298	ppb	47.6	0.13%
Sn 189.927†	-64.4	-18.558	ug/L	1.5582	-18.558	ppb	1.5582	8.40%
Sr 421.552†	28299.3	205.65	ug/L	3.551	205.65	ppb	3.551	1.73%
Ti 334.940†	2553123.9	5145.6	ug/L	3.52	5145.6	ppb	3.52	0.07%
Tl 190.801†	-151.6	-8.4324	ug/L	1.73920	-8.4324	ppb	1.73920	20.63%
U 409.014†	-2476.6	-96.114	ug/L	1.1040	-96.114	ppb	1.1040	1.15%
V 292.402†	33075.8	241.42	ug/L	0.152	241.42	ppb	0.152	0.06%
Zn 213.857†	30297.7	316.57	ug/L	0.660	316.57	ppb	0.660	0.21%
SiO2†	1018647.8	79354	ug/L	393.0	79354	ppb	393.0	0.50%

Sequence No.: 50
Sample ID: 246070009|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 77
Date Collected: 3/1/2010 23:58:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070009|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5253.8	5253.8	112	%			00:00:44
1	Y RADIAL	6039.1	6039.1	121.1	%			00:00:44
1	Al 396.153Radial†	72119.9	64696.4	60518	ug/L	60518	ppb	00:00:44
1	Ca 317.933Radial†	8357.5	7465.0	13563	ug/L	13563	ppb	00:00:44
1	Fe 238.204 Radial†	8852.1	7922.9	82201	ug/L	82201	ppb	00:00:44
1	K 766.490 Radial†	61328.8	52680.3	10481	ug/L	10481	ppb	00:00:44
1	Mg 279.077 IEC†	312.7	277.3	10924	ug/L	10924	ppb	00:01:04
1	Na 589.592 Radial†	1174.7	1900.2	647.57	ug/L	647.57	ppb	00:00:44
1	Sr 421.552†	21944.3	19659.5	142.86	ug/L	142.86	ppb	00:00:44
1	Sc 361.383	842470.4	842470.4	109.71	%			00:02:01
1	Y 371.029	817717.1	817717.1	118.68	%			00:02:01
1	Ag 328.068†	-4857.9	-4683.8	1.6758	ug/L	1.6758	ppb	00:02:07
1	As 188.979†	-44.5	-15.6	43.416	ug/L	43.416	ppb	00:02:27
1	B 249.677†	705.1	1096.1	13.992	ug/L	13.992	ppb	00:02:07
1	Ba 233.527†	86823.3	79139.8	936.69	ug/L	936.69	ppb	00:02:07
1	Be 313.107†	-21126.9	-10275.2	4.0671	ug/L	4.0671	ppb	00:02:07
1	Cd 226.502†	565.5	702.1	1.4932	ug/L	1.4932	ppb	00:02:27
1	Co 228.616†	1309.3	1250.9	29.495	ug/L	29.495	ppb	00:02:27
1	Cr 267.716†	8226.1	7422.8	103.23	ug/L	103.23	ppb	00:02:07
1	Cu 324.752†	24885.3	15147.6	61.092	ug/L	61.092	ppb	00:02:07
1	Mn 257.610†	1493033.6	1360487.2	2185.3	ug/L	2185.3	ppb	00:02:01
1	Mo 202.031†	-14.8	-27.9	3.9862	ug/L	3.9862	ppb	00:02:27
1	Ni 231.604†	2164.6	1871.8	59.812	ug/L	59.812	ppb	00:02:27
1	P 214.914†	1805.6	1450.5	747.45	ug/L	747.45	ppb	00:02:27
1	Pb 220.353†	856.1	851.0	145.53	ug/L	145.53	ppb	00:02:27
1	S 181.975 Axial†	542.8	452.2	575.00	ug/L	575.00	ppb	00:02:27
1	Sb 206.836†	62.0	26.5	-3.4257	ug/L	-3.4257	ppb	00:02:27
1	Se 196.026†	-343.1	-292.9	10.393	ug/L	10.393	ppb	00:02:27
1	Si 251.611†	1039793.4	947216.0	34565	ug/L	34565	ppb	00:02:01
1	Sn 189.927†	-53.9	-57.2	-15.772	ug/L	-15.772	ppb	00:02:27
1	Ti 334.940†	1953362.4	1781853.8	3591.4	ug/L	3591.4	ppb	00:02:01
1	Tl 190.801†	-145.2	-101.2	-6.7197	ug/L	-6.7197	ppb	00:02:27
1	U 409.014†	-4053.5	-1158.1	-48.377	ug/L	-48.377	ppb	00:02:07
1	V 292.402†	20162.6	20006.8	143.61	ug/L	143.61	ppb	00:02:07
1	Zn 213.857†	27711.3	24549.4	257.98	ug/L	257.98	ppb	00:02:07
1	SiO2†	1041923.8	949150.7	73940	ug/L	73940	ppb	00:03:35
2	Sc Radial	5139.9	5139.9	109	%			00:01:09
2	Y RADIAL	5875.8	5875.8	117.9	%			00:01:09
2	Al 396.153Radial†	71315.5	65391.1	61168	ug/L	61168	ppb	00:01:09
2	Ca 317.933Radial†	8314.7	7591.7	13794	ug/L	13794	ppb	00:01:09
2	Fe 238.204 Radial†	8745.0	8000.5	83006	ug/L	83006	ppb	00:01:09
2	K 766.490 Radial†	60408.6	53054.8	10556	ug/L	10556	ppb	00:01:09
2	Mg 279.077 IEC†	312.6	283.3	11163	ug/L	11163	ppb	00:01:29
2	Na 589.592 Radial†	1153.3	1903.9	648.84	ug/L	648.84	ppb	00:01:09
2	Sr 421.552†	21608.0	19787.1	143.78	ug/L	143.78	ppb	00:01:09
2	Sc 361.383	849869.9	849869.9	110.67	%			00:02:33
2	Y 371.029	823512.1	823512.1	119.52	%			00:02:33
2	Ag 328.068†	-4805.4	-4597.8	2.3632	ug/L	2.3632	ppb	00:02:38
2	As 188.979†	-44.7	-15.3	43.700	ug/L	43.700	ppb	00:02:58
2	B 249.677†	758.4	1138.8	14.929	ug/L	14.929	ppb	00:02:38
2	Ba 233.527†	86946.2	78561.8	929.90	ug/L	929.90	ppb	00:02:38
2	Be 313.107†	-21266.3	-10233.4	4.0795	ug/L	4.0795	ppb	00:02:38
2	Cd 226.502†	568.4	700.2	1.3818	ug/L	1.3818	ppb	00:02:58
2	Co 228.616†	1315.2	1245.9	29.333	ug/L	29.333	ppb	00:02:58
2	Cr 267.716†	8282.2	7408.2	103.04	ug/L	103.04	ppb	00:02:38
2	Cu 324.752†	25017.5	15069.5	60.844	ug/L	60.844	ppb	00:02:38
2	Mn 257.610†	1504407.6	1358915.4	2182.9	ug/L	2182.9	ppb	00:02:33
2	Mo 202.031†	-7.9	-21.5	4.6371	ug/L	4.6371	ppb	00:02:58
2	Ni 231.604†	2167.8	1857.5	59.355	ug/L	59.355	ppb	00:02:58

2	P 214.914†	1792.8	1424.6	732.54 ug/L	732.54 ppb	00:02:58
2	Pb 220.353†	861.5	849.2	145.33 ug/L	145.33 ppb	00:02:58
2	S 181.975 Axial†	548.5	453.1	576.05 ug/L	576.05 ppb	00:02:58
2	Sb 206.836†	75.3	38.0	1.2369 ug/L	1.2369 ppb	00:02:58
2	Se 196.026†	-345.0	-292.0	12.847 ug/L	12.847 ppb	00:02:58
2	Si 251.611†	1048095.6	946465.7	34537 ug/L	34537 ppb	00:02:33
2	Sn 189.927†	-56.9	-59.5	-16.317 ug/L	-16.317 ppb	00:02:58
2	Ti 334.940†	1969496.8	1780930.3	3589.5 ug/L	3589.5 ppb	00:02:33
2	Tl 190.801†	-135.1	-90.9	-2.0195 ug/L	-2.0195 ppb	00:02:58
2	U 409.014†	-4236.7	-1291.5	-52.936 ug/L	-52.936 ppb	00:02:38
2	V 292.402†	20246.3	19922.5	142.83 ug/L	142.83 ppb	00:02:38
2	Zn 213.857†	27638.9	24264.1	254.72 ug/L	254.72 ppb	00:02:38
2	SiO2†	1040019.8	939161.2	73162 ug/L	73162 ppb	00:03:41
3	Sc Radial	5122.3	5122.3	109 %		00:01:34
3	Y RADIAL	5916.5	5916.5	118.7 %		00:01:34
3	Al 396.153Radial†	71019.6	65344.1	61124 ug/L	61124 ppb	00:01:34
3	Ca 317.933Radial†	8293.0	7597.9	13805 ug/L	13805 ppb	00:01:34
3	Fe 238.204 Radial†	8757.5	8039.6	83411 ug/L	83411 ppb	00:01:34
3	K 766.490 Radial†	60356.3	53197.2	10584 ug/L	10584 ppb	00:01:34
3	Mg 279.077 IEC†	315.0	286.5	11290 ug/L	11290 ppb	00:01:54
3	Na 589.592 Radial†	1118.4	1875.4	639.15 ug/L	639.15 ppb	00:01:34
3	Sr 421.552†	21466.7	19725.4	143.33 ug/L	143.33 ppb	00:01:34
3	Sc 361.383	837597.0	837597.0	109.07 %		00:03:04
3	Y 371.029	812325.9	812325.9	117.89 %		00:03:04
3	Ag 328.068†	-4869.1	-4719.8	1.8733 ug/L	1.8733 ppb	00:03:09
3	As 188.979†	-51.3	-22.0	40.809 ug/L	40.809 ppb	00:03:29
3	B 249.677†	741.6	1133.4	14.727 ug/L	14.727 ppb	00:03:09
3	Ba 233.527†	87853.8	80545.1	953.32 ug/L	953.32 ppb	00:03:09
3	Be 313.107†	-21380.2	-10619.5	3.9233 ug/L	3.9233 ppb	00:03:09
3	Cd 226.502†	567.4	706.8	1.4338 ug/L	1.4338 ppb	00:03:29
3	Co 228.616†	1313.6	1261.8	29.826 ug/L	29.826 ppb	00:03:29
3	Cr 267.716†	8296.6	7531.0	104.73 ug/L	104.73 ppb	00:03:09
3	Cu 324.752†	25302.2	15661.8	63.085 ug/L	63.085 ppb	00:03:09
3	Mn 257.610†	1481951.8	1358245.3	2181.8 ug/L	2181.8 ppb	00:03:04
3	Mo 202.031†	8.1	-6.9	6.0057 ug/L	6.0057 ppb	00:03:29
3	Ni 231.604†	2157.1	1876.4	59.958 ug/L	59.958 ppb	00:03:29
3	P 214.914†	1799.2	1454.2	748.34 ug/L	748.34 ppb	00:03:29
3	Pb 220.353†	874.3	872.3	149.01 ug/L	149.01 ppb	00:03:29
3	S 181.975 Axial†	561.4	472.2	600.73 ug/L	600.73 ppb	00:03:29
3	Sb 206.836†	48.4	14.3	-8.3386 ug/L	-8.3386 ppb	00:03:29
3	Se 196.026†	-329.9	-282.6	19.474 ug/L	19.474 ppb	00:03:29
3	Si 251.611†	1030952.9	944625.3	34470 ug/L	34470 ppb	00:03:04
3	Sn 189.927†	-56.3	-59.7	-16.395 ug/L	-16.395 ppb	00:03:29
3	Ti 334.940†	1940412.2	1780340.4	3588.3 ug/L	3588.3 ppb	00:03:04
3	Tl 190.801†	-136.0	-93.5	-3.2291 ug/L	-3.2291 ppb	00:03:29
3	U 409.014†	-4235.3	-1346.3	-54.821 ug/L	-54.821 ppb	00:03:09
3	V 292.402†	20336.9	20273.6	145.58 ug/L	145.58 ppb	00:03:09
3	Zn 213.857†	27943.0	24908.9	261.76 ug/L	261.76 ppb	00:03:09
3	SiO2†	1042200.9	954930.7	74391 ug/L	74391 ppb	00:03:47

Mean Data: 246070009|949364|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	843312.4	109.82	%	0.805				0.73%
Sc Radial	5172.0	110	%	1.5				1.38%
Y 371.029	817851.7	118.70	%	0.812				0.68%
Y RADIAL	5943.8	119.2	%	1.71				1.43%
Ag 328.068†	-4667.1	1.9708	ug/L	0.35391	1.9708	ppb	0.35391	17.96%
Al 396.153Radial†	65143.8	60937	ug/L	363.1	60937	ppb	363.1	0.60%
As 188.979†	-17.6	42.642	ug/L	1.5933	42.642	ppb	1.5933	3.74%
B 249.677†	1122.8	14.550	ug/L	0.4931	14.550	ppb	0.4931	3.39%
Ba 233.527†	79415.6	939.97	ug/L	12.049	939.97	ppb	12.049	1.28%
Be 313.107†	-10376.1	4.0233	ug/L	0.08680	4.0233	ppb	0.08680	2.16%
Ca 317.933Radial†	7551.5	13721	ug/L	136.3	13721	ppb	136.3	0.99%
Cd 226.502†	703.0	1.4363	ug/L	0.05573	1.4363	ppb	0.05573	3.88%
Co 228.616†	1252.9	29.551	ug/L	0.2512	29.551	ppb	0.2512	0.85%
Cr 267.716†	7454.0	103.67	ug/L	0.928	103.67	ppb	0.928	0.90%
Cu 324.752†	15293.0	61.673	ug/L	1.2282	61.673	ppb	1.2282	1.99%
Fe 238.204 Radial†	7987.7	82873	ug/L	616.0	82873	ppb	616.0	0.74%
K 766.490 Radial†	52977.4	10540	ug/L	53.1	10540	ppb	53.1	0.50%

Mg 279.077 IEC†	282.4	11125	ug/L	186.0	11125	ppb	186.0	1.67%
Mn 257.610†	1359216.0	2183.3	ug/L	1.79	2183.3	ppb	1.79	0.08%
Mo 202.031†	-18.7	4.8764	ug/L	1.03075	4.8764	ppb	1.03075	21.14%
Na 589.592 Radial†	1893.2	645.19	ug/L	5.268	645.19	ppb	5.268	0.82%
Ni 231.604†	1868.5	59.709	ug/L	0.3146	59.709	ppb	0.3146	0.53%
P 214.914†	1443.1	742.78	ug/L	8.875	742.78	ppb	8.875	1.19%
Pb 220.353†	857.5	146.62	ug/L	2.071	146.62	ppb	2.071	1.41%
S 181.975 Axial†	459.2	583.93	ug/L	14.564	583.93	ppb	14.564	2.49%
Sb 206.836†	26.3	-3.5091	ug/L	4.78830	-3.5091	ppb	4.78830	136.45%
Se 196.026†	-289.2	14.238	ug/L	4.6976	14.238	ppb	4.6976	32.99%
Si 251.611†	946102.3	34524	ug/L	48.7	34524	ppb	48.7	0.14%
Sn 189.927†	-58.8	-16.162	ug/L	0.3393	-16.162	ppb	0.3393	2.10%
Sr 421.552†	19724.0	143.33	ug/L	0.463	143.33	ppb	0.463	0.32%
Ti 334.940†	1781041.5	3589.7	ug/L	1.53	3589.7	ppb	1.53	0.04%
Tl 190.801†	-95.2	-3.9894	ug/L	2.44057	-3.9894	ppb	2.44057	61.18%
U 409.014†	-1265.3	-52.045	ug/L	3.3132	-52.045	ppb	3.3132	6.37%
V 292.402†	20067.6	144.01	ug/L	1.420	144.01	ppb	1.420	0.99%
Zn 213.857†	24574.1	258.16	ug/L	3.525	258.16	ppb	3.525	1.37%
SiO2†	947747.5	73831	ug/L	621.5	73831	ppb	621.5	0.84%

Sequence No.: 51
Sample ID: 246070010|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 78
Date Collected: 3/2/2010 00:05:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070010|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5174.1	5174.1	110	%			00:08:12
1	Y RADIAL	5960.7	5960.7	119.6	%			00:08:12
1	Al 396.153Radial†	179376.3	163258.5	152710	ug/L	152710	ppb	00:07:51
1	Ca 317.933Radial†	15084.9	13700.0	24892	ug/L	24892	ppb	00:07:51
1	Fe 238.204 Radial†	15509.5	14101.1	146300	ug/L	146300	ppb	00:07:51
1	K 766.490 Radial†	103953.5	92300.7	18364	ug/L	18364	ppb	00:07:51
1	Mg 279.077 IEC†	680.6	616.2	24313	ug/L	24313	ppb	00:08:12
1	Na 589.592 Radial†	2712.8	3315.6	1129.9	ug/L	1129.9	ppb	00:07:51
1	Sr 421.552†	45385.7	41286.0	300.04	ug/L	300.04	ppb	00:07:51
1	Sc 361.383	840051.4	840051.4	109.39	%			00:09:09
1	Y 371.029	817279.4	817279.4	118.61	%			00:09:09
1	Ag 328.068†	-8870.6	-8364.8	2.9911	ug/L	2.9911	ppb	00:09:14
1	As 188.979†	-59.3	-29.2	67.812	ug/L	67.812	ppb	00:09:34
1	B 249.677†	1169.8	1522.9	14.190	ug/L	14.190	ppb	00:09:14
1	Ba 233.527†	148829.3	136051.0	1610.5	ug/L	1610.5	ppb	00:09:14
1	Be 313.107†	-19253.4	-8618.0	8.7662	ug/L	8.7662	ppb	00:09:14
1	Cd 226.502†	1094.2	1186.9	1.7378	ug/L	1.7378	ppb	00:09:34
1	Co 228.616†	2303.8	2163.5	52.722	ug/L	52.722	ppb	00:09:34
1	Cr 267.716†	9878.5	8954.9	125.64	ug/L	125.64	ppb	00:09:14
1	Cu 324.752†	28328.5	18360.6	76.581	ug/L	76.581	ppb	00:09:14
1	Mn 257.610†	1907251.3	1743066.2	2803.5	ug/L	2803.5	ppb	00:09:09
1	Mo 202.031†	-77.5	-85.2	3.8340	ug/L	3.8340	ppb	00:09:34
1	Ni 231.604†	3020.6	2660.0	84.992	ug/L	84.992	ppb	00:09:34
1	P 214.914†	1860.2	1505.1	746.83	ug/L	746.83	ppb	00:09:34
1	Pb 220.353†	562.9	585.2	120.11	ug/L	120.11	ppb	00:09:34
1	S 181.975 Axial†	417.0	338.7	410.47	ug/L	410.47	ppb	00:09:34
1	Sb 206.836†	85.2	47.9	-3.6610	ug/L	-3.6610	ppb	00:09:34
1	Se 196.026†	-620.7	-547.6	6.6915	ug/L	6.6915	ppb	00:09:34
1	Si 251.611†	1290422.1	1179059.3	43025	ug/L	43025	ppb	00:09:09
1	Sn 189.927†	-101.9	-101.2	-27.805	ug/L	-27.805	ppb	00:09:34
1	Ti 334.940†	2913900.9	2665064.2	5371.5	ug/L	5371.5	ppb	00:09:09
1	Tl 190.801†	-193.6	-145.7	-9.8968	ug/L	-9.8968	ppb	00:09:34
1	U 409.014†	-7933.1	-4715.3	-174.85	ug/L	-174.85	ppb	00:09:14
1	V 292.402†	40338.6	38503.8	279.64	ug/L	279.64	ppb	00:09:14
1	Zn 213.857†	29919.4	26640.8	271.28	ug/L	271.28	ppb	00:09:14
1	SiO2†	1274324.1	1164335.9	90704	ug/L	90704	ppb	00:10:43
2	Sc Radial	5144.0	5144.0	109	%			00:08:37
2	Y RADIAL	5916.3	5916.3	118.7	%			00:08:37
2	Al 396.153Radial†	177929.2	162888.1	152370	ug/L	152370	ppb	00:08:17
2	Ca 317.933Radial†	14953.7	13660.1	24820	ug/L	24820	ppb	00:08:17
2	Fe 238.204 Radial†	15329.6	14018.9	145450	ug/L	145450	ppb	00:08:17
2	K 766.490 Radial†	102614.0	91627.8	18230	ug/L	18230	ppb	00:08:17
2	Mg 279.077 IEC†	684.1	623.0	24586	ug/L	24586	ppb	00:08:37
2	Na 589.592 Radial†	2557.8	3188.2	1086.5	ug/L	1086.5	ppb	00:08:17
2	Sr 421.552†	44744.7	40940.9	297.53	ug/L	297.53	ppb	00:08:17
2	Sc 361.383	844687.0	844687.0	109.99	%			00:09:40
2	Y 371.029	820861.6	820861.6	119.13	%			00:09:40
2	Ag 328.068†	-8931.2	-8375.4	2.6707	ug/L	2.6707	ppb	00:09:45
2	As 188.979†	-53.7	-23.8	70.033	ug/L	70.033	ppb	00:10:05
2	B 249.677†	1340.9	1672.5	18.080	ug/L	18.080	ppb	00:09:45
2	Ba 233.527†	149060.2	135514.3	1604.2	ug/L	1604.2	ppb	00:09:45
2	Be 313.107†	-19499.2	-8744.9	8.7215	ug/L	8.7215	ppb	00:09:45
2	Cd 226.502†	1074.7	1163.7	1.4960	ug/L	1.4960	ppb	00:10:05
2	Co 228.616†	2276.3	2126.9	51.624	ug/L	51.624	ppb	00:10:05
2	Cr 267.716†	9915.4	8938.9	125.41	ug/L	125.41	ppb	00:09:45
2	Cu 324.752†	28427.5	18308.4	76.342	ug/L	76.342	ppb	00:09:45
2	Mn 257.610†	1915838.7	1741304.9	2800.5	ug/L	2800.5	ppb	00:09:40
2	Mo 202.031†	-70.5	-78.4	4.3873	ug/L	4.3873	ppb	00:10:05
2	Ni 231.604†	3000.6	2626.6	83.926	ug/L	83.926	ppb	00:10:05

2	P 214.914†	1819.6	1458.9	721.66 ug/L	721.66 ppb	00:10:05
2	Pb 220.353†	592.6	609.4	124.00 ug/L	124.00 ppb	00:10:05
2	S 181.975 Axial†	411.6	331.7	401.45 ug/L	401.45 ppb	00:10:05
2	Sb 206.836†	80.1	42.8	-5.7218 ug/L	-5.7218 ppb	00:10:05
2	Se 196.026†	-614.5	-538.8	10.120 ug/L	10.120 ppb	00:10:05
2	Si 251.611†	1300505.2	1181752.4	43123 ug/L	43123 ppb	00:09:40
2	Sn 189.927†	-101.1	-100.0	-27.481 ug/L	-27.481 ppb	00:10:05
2	Ti 334.940†	2931376.4	2666333.3	5374.0 ug/L	5374.0 ppb	00:09:40
2	Tl 190.801†	-181.9	-134.2	-4.5751 ug/L	-4.5751 ppb	00:10:05
2	U 409.014†	-8034.4	-4767.6	-176.50 ug/L	-176.50 ppb	00:09:45
2	V 292.402†	40347.9	38309.9	278.23 ug/L	278.23 ppb	00:09:45
2	Zn 213.857†	30025.3	26587.0	270.82 ug/L	270.82 ppb	00:09:45
2	SiO2†	1296241.6	1177869.0	91758 ug/L	91758 ppb	00:10:49
3	Sc Radial	5157.3	5157.3	110 %		00:09:02
3	Y RADIAL	5923.9	5923.9	118.8 %		00:09:02
3	Al 396.153Radial†	182457.7	166602.5	155840 ug/L	155840 ppb	00:08:42
3	Ca 317.933Radial†	15355.3	13991.4	25422 ug/L	25422 ppb	00:08:42
3	Fe 238.204 Radial†	15716.7	14336.1	148740 ug/L	148740 ppb	00:08:42
3	K 766.490 Radial†	105086.9	93643.3	18631 ug/L	18631 ppb	00:08:42
3	Mg 279.077 IEC†	690.9	627.6	24763 ug/L	24763 ppb	00:09:02
3	Na 589.592 Radial†	2686.5	3299.6	1124.5 ug/L	1124.5 ppb	00:08:42
3	Sr 421.552†	45984.2	41966.8	304.98 ug/L	304.98 ppb	00:08:42
3	Sc 361.383	842710.1	842710.1	109.74 %		00:10:11
3	Y 371.029	820740.0	820740.0	119.11 %		00:10:11
3	Ag 328.068†	-8808.4	-8282.5	4.1443 ug/L	4.1443 ppb	00:10:17
3	As 188.979†	-57.2	-27.1	69.327 ug/L	69.327 ppb	00:10:37
3	B 249.677†	1129.4	1482.6	12.789 ug/L	12.789 ppb	00:10:17
3	Ba 233.527†	148226.4	135072.3	1599.0 ug/L	1599.0 ppb	00:10:17
3	Be 313.107†	-19414.5	-8709.3	8.7386 ug/L	8.7386 ppb	00:10:17
3	Cd 226.502†	1079.4	1170.2	1.2497 ug/L	1.2497 ppb	00:10:37
3	Co 228.616†	2281.7	2136.7	51.867 ug/L	51.867 ppb	00:10:37
3	Cr 267.716†	9934.0	8977.0	125.99 ug/L	125.99 ppb	00:10:17
3	Cu 324.752†	28179.6	18143.1	75.894 ug/L	75.894 ppb	00:10:17
3	Mn 257.610†	1909011.8	1739169.6	2797.4 ug/L	2797.4 ppb	00:10:11
3	Mo 202.031†	-68.8	-77.1	4.7752 ug/L	4.7752 ppb	00:10:37
3	Ni 231.604†	3006.8	2638.7	84.311 ug/L	84.311 ppb	00:10:37
3	P 214.914†	1848.6	1489.2	736.94 ug/L	736.94 ppb	00:10:37
3	Pb 220.353†	584.4	603.3	123.60 ug/L	123.60 ppb	00:10:37
3	S 181.975 Axial†	424.9	344.7	417.74 ug/L	417.74 ppb	00:10:37
3	Sb 206.836†	76.5	39.7	-7.0857 ug/L	-7.0857 ppb	00:10:37
3	Se 196.026†	-606.7	-533.1	21.340 ug/L	21.340 ppb	00:10:37
3	Si 251.611†	1294037.9	1178632.5	43009 ug/L	43009 ppb	00:10:11
3	Sn 189.927†	-98.1	-97.5	-26.974 ug/L	-26.974 ppb	00:10:37
3	Ti 334.940†	2925206.6	2666962.7	5375.4 ug/L	5375.4 ppb	00:10:11
3	Tl 190.801†	-191.4	-143.2	-8.7142 ug/L	-8.7142 ppb	00:10:37
3	U 409.014†	-7854.2	-4620.5	-171.95 ug/L	-171.95 ppb	00:10:17
3	V 292.402†	40139.1	38205.6	276.93 ug/L	276.93 ppb	00:10:17
3	Zn 213.857†	29792.3	26438.6	268.69 ug/L	268.69 ppb	00:10:17
3	SiO2†	1305585.7	1189148.5	92637 ug/L	92637 ppb	00:10:55

Mean Data: 246070010|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842482.8	109.71	%	0.303				0.28%
Sc Radial	5158.4	110	%	0.3				0.29%
Y 371.029	819627.0	118.95	%	0.295				0.25%
Y RADIAL	5933.6	119.0	%	0.48				0.40%
Ag 328.068†	-8340.9	3.2687	ug/L	0.77499	3.2687	ppb	0.77499	23.71%
Al 396.153Radial†	164249.7	153640	ug/L	1913.8	153640	ppb	1913.8	1.25%
As 188.979†	-26.7	69.057	ug/L	1.1347	69.057	ppb	1.1347	1.64%
B 249.677†	1559.3	15.020	ug/L	2.7412	15.020	ppb	2.7412	18.25%
Ba 233.527†	135545.8	1604.6	ug/L	5.75	1604.6	ppb	5.75	0.36%
Be 313.107†	-8690.7	8.7421	ug/L	0.02252	8.7421	ppb	0.02252	0.26%
Ca 317.933Radial†	13783.8	25044	ug/L	328.7	25044	ppb	328.7	1.31%
Cd 226.502†	1173.6	1.4945	ug/L	0.24407	1.4945	ppb	0.24407	16.33%
Co 228.616†	2142.4	52.071	ug/L	0.5769	52.071	ppb	0.5769	1.11%
Cr 267.716†	8956.9	125.68	ug/L	0.292	125.68	ppb	0.292	0.23%
Cu 324.752†	18270.7	76.272	ug/L	0.3487	76.272	ppb	0.3487	0.46%
Fe 238.204 Radial†	14152.0	146830	ug/L	1708.1	146830	ppb	1708.1	1.16%
K 766.490 Radial†	92523.9	18408	ug/L	204.2	18408	ppb	204.2	1.11%

Mg 279.077 IEC†	622.3	24554	ug/L	226.8	24554	ppb	226.8	0.92%
Mn 257.610†	1741180.2	2800.5	ug/L	3.01	2800.5	ppb	3.01	0.11%
Mo 202.031†	-80.2	4.3322	ug/L	0.47301	4.3322	ppb	0.47301	10.92%
Na 589.592 Radial†	3267.8	1113.7	ug/L	23.66	1113.7	ppb	23.66	2.12%
Ni 231.604†	2641.8	84.410	ug/L	0.5398	84.410	ppb	0.5398	0.64%
P 214.914†	1484.4	735.14	ug/L	12.684	735.14	ppb	12.684	1.73%
Pb 220.353†	599.3	122.57	ug/L	2.137	122.57	ppb	2.137	1.74%
S 181.975 Axial†	338.3	409.89	ug/L	8.160	409.89	ppb	8.160	1.99%
Sb 206.836†	43.4	-5.4895	ug/L	1.72415	-5.4895	ppb	1.72415	31.41%
Se 196.026†	-539.8	12.717	ug/L	7.6616	12.717	ppb	7.6616	60.25%
Si 251.611†	1179814.7	43052	ug/L	61.7	43052	ppb	61.7	0.14%
Sn 189.927†	-99.5	-27.420	ug/L	0.4192	-27.420	ppb	0.4192	1.53%
Sr 421.552†	41397.9	300.85	ug/L	3.794	300.85	ppb	3.794	1.26%
Ti 334.940†	2666120.1	5373.6	ug/L	1.96	5373.6	ppb	1.96	0.04%
Tl 190.801†	-141.0	-7.7287	ug/L	2.79436	-7.7287	ppb	2.79436	36.16%
U 409.014†	-4701.1	-174.43	ug/L	2.303	-174.43	ppb	2.303	1.32%
V 292.402†	38339.8	278.26	ug/L	1.355	278.26	ppb	1.355	0.49%
Zn 213.857†	26555.4	270.26	ug/L	1.381	270.26	ppb	1.381	0.51%
SiO2†	1177117.8	91700	ug/L	967.8	91700	ppb	967.8	1.06%

Sequence No.: 52
Sample ID: 246070011|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 79
Date Collected: 3/2/2010 00:13:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070011|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5135.9	5135.9	109	%			00:15:19
1	Y RADIAL	6042.4	6042.4	121.2	%			00:15:19
1	Al 396.153Radial†	225444.3	206687.2	193340	ug/L	193340	ppb	00:14:59
1	Ca 317.933Radial†	15602.6	14276.3	25939	ug/L	25939	ppb	00:14:59
1	Fe 238.204 Radial†	16942.2	15518.7	161010	ug/L	161010	ppb	00:14:59
1	K 766.490 Radial†	129497.4	116411.4	23163	ug/L	23163	ppb	00:14:59
1	Mg 279.077 IEC†	782.7	714.4	28197	ug/L	28197	ppb	00:15:19
1	Na 589.592 Radial†	3136.8	3722.4	1268.6	ug/L	1268.6	ppb	00:14:59
1	Sr 421.552†	51235.9	46953.8	341.24	ug/L	341.24	ppb	00:14:59
1	Sc 361.383	819692.4	819692.4	106.74	%			00:16:22
1	Y 371.029	831567.3	831567.3	120.69	%			00:16:17
1	Ag 328.068†	-9615.5	-9264.1	2.9898	ug/L	2.9898	ppb	00:16:22
1	As 188.979†	-9.7	15.9	99.344	ug/L	99.344	ppb	00:16:42
1	B 249.677†	1536.6	1893.1	21.023	ug/L	21.023	ppb	00:16:22
1	Ba 233.527†	182936.2	171383.6	2027.9	ug/L	2027.9	ppb	00:16:22
1	Be 313.107†	-18166.4	-8036.7	11.092	ug/L	11.092	ppb	00:16:22
1	Cd 226.502†	1204.4	1315.0	2.0422	ug/L	2.0422	ppb	00:16:42
1	Co 228.616†	2861.4	2738.2	68.155	ug/L	68.155	ppb	00:16:42
1	Cr 267.716†	9806.9	9112.1	128.11	ug/L	128.11	ppb	00:16:42
1	Cu 324.752†	31946.4	22393.2	92.472	ug/L	92.472	ppb	00:16:22
1	Mn 257.610†	2472517.1	2315947.0	3721.7	ug/L	3721.7	ppb	00:16:17
1	Mo 202.031†	-36.4	-48.5	8.3558	ug/L	8.3558	ppb	00:16:42
1	Ni 231.604†	3567.5	3241.0	103.55	ug/L	103.55	ppb	00:16:42
1	P 214.914†	1901.2	1585.8	787.19	ug/L	787.19	ppb	00:16:42
1	Pb 220.353†	650.0	679.6	144.06	ug/L	144.06	ppb	00:16:42
1	S 181.975 Axial†	535.0	458.7	558.53	ug/L	558.53	ppb	00:16:42
1	Sb 206.836†	83.7	48.4	-7.5308	ug/L	-7.5308	ppb	00:16:42
1	Se 196.026†	-659.9	-598.4	12.369	ug/L	12.369	ppb	00:16:42
1	Si 251.611†	1184658.0	1109272.2	40478	ug/L	40478	ppb	00:16:17
1	Sn 189.927†	-80.3	-83.3	-24.245	ug/L	-24.245	ppb	00:16:42
1	Ti 334.940†	3332172.2	3123087.6	6294.3	ug/L	6294.3	ppb	00:16:17
1	Tl 190.801†	-204.0	-159.9	-4.4599	ug/L	-4.4599	ppb	00:16:42
1	U 409.014†	-8460.7	-5389.7	-199.11	ug/L	-199.11	ppb	00:16:22
1	V 292.402†	42597.1	41535.6	300.74	ug/L	300.74	ppb	00:16:22
1	Zn 213.857†	33194.4	30388.3	310.27	ug/L	310.27	ppb	00:16:22
1	SiO2†	1202762.2	1126226.2	87735	ug/L	87735	ppb	00:17:53
2	Sc Radial	5241.7	5241.7	111	%			00:15:44
2	Y RADIAL	6140.3	6140.3	123.2	%			00:15:44
2	Al 396.153Radial†	224542.1	201708.7	188680	ug/L	188680	ppb	00:15:24
2	Ca 317.933Radial†	15569.3	13957.9	25361	ug/L	25361	ppb	00:15:24
2	Fe 238.204 Radial†	16920.2	15185.7	157550	ug/L	157550	ppb	00:15:24
2	K 766.490 Radial†	129131.3	113688.4	22621	ug/L	22621	ppb	00:15:24
2	Mg 279.077 IEC†	791.1	707.5	27925	ug/L	27925	ppb	00:15:44
2	Na 589.592 Radial†	3096.7	3628.4	1236.6	ug/L	1236.6	ppb	00:15:24
2	Sr 421.552†	50939.7	45740.4	332.42	ug/L	332.42	ppb	00:15:24
2	Sc 361.383	827425.8	827425.8	107.75	%			00:16:54
2	Y 371.029	832567.8	832567.8	120.83	%			00:16:49
2	Ag 328.068†	-9629.7	-9193.0	2.2970	ug/L	2.2970	ppb	00:16:54
2	As 188.979†	-5.2	20.2	100.12	ug/L	100.12	ppb	00:17:14
2	B 249.677†	1712.1	2042.5	25.326	ug/L	25.326	ppb	00:16:54
2	Ba 233.527†	184915.2	171618.6	2030.6	ug/L	2030.6	ppb	00:16:54
2	Be 313.107†	-18522.8	-8208.5	10.944	ug/L	10.944	ppb	00:16:54
2	Cd 226.502†	1211.3	1310.9	2.3400	ug/L	2.3400	ppb	00:17:14
2	Co 228.616†	2877.4	2728.0	67.971	ug/L	67.971	ppb	00:17:14
2	Cr 267.716†	9787.9	9008.6	126.63	ug/L	126.63	ppb	00:17:14
2	Cu 324.752†	32335.8	22474.9	92.593	ug/L	92.593	ppb	00:16:54
2	Mn 257.610†	2480525.1	2301729.3	3698.6	ug/L	3698.6	ppb	00:16:49
2	Mo 202.031†	-40.3	-51.8	7.7812	ug/L	7.7812	ppb	00:17:14
2	Ni 231.604†	3552.6	3195.9	102.11	ug/L	102.11	ppb	00:17:14

2	P 214.914†	1904.8	1572.5	781.30	ug/L	781.30 ppb	00:17:14
2	Pb 220.353†	649.7	673.7	142.25	ug/L	142.25 ppb	00:17:14
2	S 181.975 Axial†	541.7	460.3	561.40	ug/L	561.40 ppb	00:17:14
2	Sb 206.836†	83.4	47.3	-7.7568	ug/L	-7.7568 ppb	00:17:14
2	Se 196.026†	-675.6	-607.3	-1.2086	ug/L	-1.2086 ppb	00:17:14
2	Si 251.611†	1187442.8	1101483.6	40194	ug/L	40194 ppb	00:16:49
2	Sn 189.927†	-97.6	-98.7	-27.775	ug/L	-27.775 ppb	00:17:14
2	Ti 334.940†	3344827.2	3105655.4	6259.1	ug/L	6259.1 ppb	00:16:49
2	Tl 190.801†	-205.4	-159.4	-4.6583	ug/L	-4.6583 ppb	00:17:14
2	U 409.014†	-8418.8	-5276.7	-194.93	ug/L	-194.93 ppb	00:16:54
2	V 292.402†	42959.2	41498.6	300.99	ug/L	300.99 ppb	00:16:54
2	Zn 213.857†	33391.5	30280.5	309.61	ug/L	309.61 ppb	00:16:54
2	SiO2†	1189797.4	1103661.8	85977	ug/L	85977 ppb	00:17:58
3	Sc Radial	5234.7	5234.7	111	%		00:16:09
3	Y RADIAL	6130.3	6130.3	123.0	%		00:16:09
3	Al 396.153Radial†	220270.9	198137.9	185340	ug/L	185340 ppb	00:15:49
3	Ca 317.933Radial†	15342.1	13772.3	25023	ug/L	25023 ppb	00:15:49
3	Fe 238.204 Radial†	16610.0	14927.1	154870	ug/L	154870 ppb	00:15:49
3	K 766.490 Radial†	127051.2	111973.1	22280	ug/L	22280 ppb	00:15:49
3	Mg 279.077 IEC†	792.8	709.9	28024	ug/L	28024 ppb	00:16:09
3	Na 589.592 Radial†	3001.4	3546.4	1208.6	ug/L	1208.6 ppb	00:15:49
3	Sr 421.552†	49994.5	44951.7	326.69	ug/L	326.69 ppb	00:15:49
3	Sc 361.383	824975.5	824975.5	107.43	%		00:17:26
3	Y 371.029	834793.4	834793.4	121.15	%		00:17:21
3	Ag 328.068†	-9614.7	-9205.7	1.4196	ug/L	1.4196 ppb	00:17:26
3	As 188.979†	-15.6	10.5	95.546	ug/L	95.546 ppb	00:17:46
3	B 249.677†	1560.2	1905.7	22.337	ug/L	22.337 ppb	00:17:26
3	Ba 233.527†	184722.8	171949.2	2034.4	ug/L	2034.4 ppb	00:17:26
3	Be 313.107†	-18221.8	-7979.3	11.130	ug/L	11.130 ppb	00:17:26
3	Cd 226.502†	1208.0	1311.1	2.6208	ug/L	2.6208 ppb	00:17:46
3	Co 228.616†	2879.6	2738.0	68.224	ug/L	68.224 ppb	00:17:46
3	Cr 267.716†	9859.1	9101.9	127.86	ug/L	127.86 ppb	00:17:46
3	Cu 324.752†	32215.6	22452.2	92.367	ug/L	92.367 ppb	00:17:26
3	Mn 257.610†	2494043.8	2321151.2	3729.5	ug/L	3729.5 ppb	00:17:21
3	Mo 202.031†	-42.6	-54.1	7.3583	ug/L	7.3583 ppb	00:17:46
3	Ni 231.604†	3570.5	3222.3	102.96	ug/L	102.96 ppb	00:17:46
3	P 214.914†	1909.9	1582.5	788.24	ug/L	788.24 ppb	00:17:46
3	Pb 220.353†	653.7	679.2	142.52	ug/L	142.52 ppb	00:17:46
3	S 181.975 Axial†	536.3	456.7	557.40	ug/L	557.40 ppb	00:17:46
3	Sb 206.836†	80.1	44.5	-8.8807	ug/L	-8.8807 ppb	00:17:46
3	Se 196.026†	-666.6	-600.7	-3.5338	ug/L	-3.5338 ppb	00:17:46
3	Si 251.611†	1194628.3	1111445.7	40557	ug/L	40557 ppb	00:17:21
3	Sn 189.927†	-84.9	-87.1	-24.949	ug/L	-24.949 ppb	00:17:46
3	Ti 334.940†	3357142.2	3126339.6	6300.7	ug/L	6300.7 ppb	00:17:21
3	Tl 190.801†	-201.9	-156.7	-2.9116	ug/L	-2.9116 ppb	00:17:46
3	U 409.014†	-8459.3	-5337.7	-196.67	ug/L	-196.67 ppb	00:17:26
3	V 292.402†	43034.5	41687.2	302.83	ug/L	302.83 ppb	00:17:26
3	Zn 213.857†	33418.8	30398.0	311.30	ug/L	311.30 ppb	00:17:26
3	SiO2†	1191685.6	1108699.3	86370	ug/L	86370 ppb	00:18:04

Mean Data: 246070011|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	824031.3	107.30	%	0.515				0.48%
Sc Radial	5204.1	111	%	1.3				1.14%
Y 371.029	832976.1	120.89	%	0.240				0.20%
Y RADIAL	6104.3	122.4	%	1.08				0.88%
Ag 328.068†	-9220.9	2.2355	ug/L	0.78691	2.2355	ppb	0.78691	35.20%
Al 396.153Radial†	202177.9	189120	ug/L	4016.6	189120	ppb	4016.6	2.12%
As 188.979†	15.5	98.337	ug/L	2.4478	98.337	ppb	2.4478	2.49%
B 249.677†	1947.1	22.895	ug/L	2.2051	22.895	ppb	2.2051	9.63%
Ba 233.527†	171650.5	2031.0	ug/L	3.26	2031.0	ppb	3.26	0.16%
Be 313.107†	-8074.8	11.056	ug/L	0.0982	11.056	ppb	0.0982	0.89%
Ca 317.933Radial†	14002.2	25441	ug/L	463.1	25441	ppb	463.1	1.82%
Cd 226.502†	1312.3	2.3343	ug/L	0.28933	2.3343	ppb	0.28933	12.39%
Co 228.616†	2734.7	68.117	ug/L	0.1305	68.117	ppb	0.1305	0.19%
Cr 267.716†	9074.2	127.53	ug/L	0.792	127.53	ppb	0.792	0.62%
Cu 324.752†	22440.1	92.477	ug/L	0.1130	92.477	ppb	0.1130	0.12%
Fe 238.204 Radial†	15210.5	157810	ug/L	3076.9	157810	ppb	3076.9	1.95%
K 766.490 Radial†	114024.3	22688	ug/L	445.4	22688	ppb	445.4	1.96%

Mg 279.077 IEC†	710.6	28049	ug/L	137.8	28049	ppb	137.8	0.49%
Mn 257.610†	2312942.5	3716.6	ug/L	16.03	3716.6	ppb	16.03	0.43%
Mo 202.031†	-51.4	7.8318	ug/L	0.50066	7.8318	ppb	0.50066	6.39%
Na 589.592 Radial†	3632.4	1237.9	ug/L	30.00	1237.9	ppb	30.00	2.42%
Ni 231.604†	3219.7	102.87	ug/L	0.724	102.87	ppb	0.724	0.70%
P 214.914†	1580.2	785.58	ug/L	3.743	785.58	ppb	3.743	0.48%
Pb 220.353†	677.5	142.94	ug/L	0.979	142.94	ppb	0.979	0.69%
S 181.975 Axial†	458.6	559.11	ug/L	2.065	559.11	ppb	2.065	0.37%
Sb 206.836†	46.8	-8.0561	ug/L	0.72298	-8.0561	ppb	0.72298	8.97%
Se 196.026†	-602.1	2.5421	ug/L	8.58922	2.5421	ppb	8.58922	337.87%
Si 251.611†	1107400.5	40410	ug/L	191.1	40410	ppb	191.1	0.47%
Sn 189.927†	-89.7	-25.656	ug/L	1.8682	-25.656	ppb	1.8682	7.28%
Sr 421.552†	45882.0	333.45	ug/L	7.330	333.45	ppb	7.330	2.20%
Ti 334.940†	3118360.9	6284.7	ug/L	22.41	6284.7	ppb	22.41	0.36%
Tl 190.801†	-158.7	-4.0099	ug/L	0.95633	-4.0099	ppb	0.95633	23.85%
U 409.014†	-5334.7	-196.90	ug/L	2.100	-196.90	ppb	2.100	1.07%
V 292.402†	41573.8	301.52	ug/L	1.141	301.52	ppb	1.141	0.38%
Zn 213.857†	30355.6	310.39	ug/L	0.853	310.39	ppb	0.853	0.27%
SiO2†	1112862.4	86694	ug/L	922.7	86694	ppb	922.7	1.06%

Sequence No.: 53
Sample ID: 246070012|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 80
Date Collected: 3/2/2010 00:20:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070012|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5182.5	5182.5	110	%			00:22:29
1	Y RADIAL	6070.5	6070.5	121.8	%			00:22:29
1	Al 396.153Radial†	217202.7	197347.9	184600	ug/L	184600	ppb	00:22:09
1	Ca 317.933Radial†	14581.4	13220.5	24021	ug/L	24021	ppb	00:22:29
1	Fe 238.204 Radial†	16552.4	15025.4	155890	ug/L	155890	ppb	00:22:09
1	K 766.490 Radial†	125319.5	111552.0	22196	ug/L	22196	ppb	00:22:09
1	Mg 279.077 IEC†	771.7	697.9	27548	ug/L	27548	ppb	00:22:29
1	Na 589.592 Radial†	2881.3	3464.5	1180.7	ug/L	1180.7	ppb	00:22:09
1	Sr 421.552†	47687.3	43309.5	314.76	ug/L	314.76	ppb	00:22:09
1	Sc 361.383	820946.7	820946.7	106.90	%			00:23:33
1	Y 371.029	835145.7	835145.7	121.21	%			00:23:27
1	Ag 328.068†	-9381.7	-9031.6	2.6178	ug/L	2.6178	ppb	00:23:33
1	As 188.979†	-61.8	-32.8	77.739	ug/L	77.739	ppb	00:23:53
1	B 249.677†	1574.5	1926.3	22.699	ug/L	22.699	ppb	00:23:33
1	Ba 233.527†	176257.0	164873.8	1951.0	ug/L	1951.0	ppb	00:23:33
1	Be 313.107†	-19049.6	-8836.9	11.120	ug/L	11.120	ppb	00:23:33
1	Cd 226.502†	1199.1	1308.3	2.4796	ug/L	2.4796	ppb	00:23:53
1	Co 228.616†	2712.1	2594.5	63.515	ug/L	63.515	ppb	00:23:53
1	Cr 267.716†	10364.8	9620.0	134.95	ug/L	134.95	ppb	00:23:53
1	Cu 324.752†	30621.4	21108.1	87.380	ug/L	87.380	ppb	00:23:33
1	Mn 257.610†	2553936.1	2388569.7	3837.5	ug/L	3837.5	ppb	00:23:27
1	Mo 202.031†	-90.0	-98.6	3.3421	ug/L	3.3421	ppb	00:23:53
1	Ni 231.604†	3614.1	3279.4	104.79	ug/L	104.79	ppb	00:23:53
1	P 214.914†	1790.3	1479.4	730.68	ug/L	730.68	ppb	00:23:53
1	Pb 220.353†	664.0	691.8	144.27	ug/L	144.27	ppb	00:23:53
1	S 181.975 Axial†	491.5	417.2	506.37	ug/L	506.37	ppb	00:23:53
1	Sb 206.836†	85.6	50.1	-7.1656	ug/L	-7.1656	ppb	00:23:53
1	Se 196.026†	-677.6	-614.0	-9.4796	ug/L	-9.4796	ppb	00:23:53
1	Si 251.611†	1251679.4	1170270.4	42704	ug/L	42704	ppb	00:23:27
1	Sn 189.927†	-78.2	-81.3	-23.820	ug/L	-23.820	ppb	00:23:53
1	Ti 334.940†	3418000.1	3198604.0	6446.2	ug/L	6446.2	ppb	00:23:27
1	Tl 190.801†	-223.3	-177.7	-10.796	ug/L	-10.796	ppb	00:23:53
1	U 409.014†	-7974.4	-4922.7	-182.90	ug/L	-182.90	ppb	00:23:33
1	V 292.402†	42417.2	41306.4	299.45	ug/L	299.45	ppb	00:23:33
1	Zn 213.857†	33420.0	30551.9	312.84	ug/L	312.84	ppb	00:23:33
1	SiO2†	1248795.6	1167565.6	90956	ug/L	90956	ppb	00:25:03
2	Sc Radial	5209.5	5209.5	111	%			00:22:54
2	Y RADIAL	6108.7	6108.7	122.5	%			00:22:54
2	Al 396.153Radial†	215830.6	195083.9	182480	ug/L	182480	ppb	00:22:34
2	Ca 317.933Radial†	14643.7	13208.0	23998	ug/L	23998	ppb	00:22:54
2	Fe 238.204 Radial†	16515.6	14914.1	154740	ug/L	154740	ppb	00:22:34
2	K 766.490 Radial†	124592.6	110304.2	21948	ug/L	21948	ppb	00:22:34
2	Mg 279.077 IEC†	774.1	696.5	27491	ug/L	27491	ppb	00:22:54
2	Na 589.592 Radial†	2889.2	3458.1	1178.5	ug/L	1178.5	ppb	00:22:34
2	Sr 421.552†	47285.1	42721.2	310.48	ug/L	310.48	ppb	00:22:34
2	Sc 361.383	817493.6	817493.6	106.45	%			00:24:04
2	Y 371.029	833717.1	833717.1	121.00	%			00:23:59
2	Ag 328.068†	-9471.0	-9152.5	1.6443	ug/L	1.6443	ppb	00:24:04
2	As 188.979†	-65.8	-36.8	75.963	ug/L	75.963	ppb	00:24:25
2	B 249.677†	1468.3	1832.7	20.543	ug/L	20.543	ppb	00:24:04
2	Ba 233.527†	175502.4	164861.4	1950.8	ug/L	1950.8	ppb	00:24:04
2	Be 313.107†	-19202.2	-9055.6	11.098	ug/L	11.098	ppb	00:24:04
2	Cd 226.502†	1170.6	1286.3	2.2854	ug/L	2.2854	ppb	00:24:25
2	Co 228.616†	2692.2	2586.5	63.233	ug/L	63.233	ppb	00:24:25
2	Cr 267.716†	10322.4	9621.1	134.94	ug/L	134.94	ppb	00:24:25
2	Cu 324.752†	30362.8	20986.2	86.864	ug/L	86.864	ppb	00:24:04
2	Mn 257.610†	2559686.2	2404062.6	3862.2	ug/L	3862.2	ppb	00:23:59
2	Mo 202.031†	-75.7	-85.5	4.4552	ug/L	4.4552	ppb	00:24:25
2	Ni 231.604†	3577.6	3259.4	104.15	ug/L	104.15	ppb	00:24:25

2	P 214.914†	1794.1	1490.0	737.10 ug/L	737.10 ppb	00:24:25
2	Pb 220.353†	643.2	674.9	141.13 ug/L	141.13 ppb	00:24:25
2	S 181.975 Axial†	479.1	407.6	494.23 ug/L	494.23 ppb	00:24:25
2	Sb 206.836†	92.4	56.8	-4.4194 ug/L	-4.4194 ppb	00:24:25
2	Se 196.026†	-657.9	-598.2	-2.6001 ug/L	-2.6001 ppb	00:24:25
2	Si 251.611†	1252600.6	1176081.6	42916 ug/L	42916 ppb	00:23:59
2	Sn 189.927†	-73.6	-77.2	-22.807 ug/L	-22.807 ppb	00:24:25
2	Ti 334.940†	3418738.0	3212802.8	6474.8 ug/L	6474.8 ppb	00:23:59
2	Tl 190.801†	-202.7	-159.2	-1.9742 ug/L	-1.9742 ppb	00:24:25
2	U 409.014†	-8037.9	-5013.9	-185.83 ug/L	-185.83 ppb	00:24:04
2	V 292.402†	42244.1	41311.3	299.64 ug/L	299.64 ppb	00:24:04
2	Zn 213.857†	33332.4	30601.5	313.56 ug/L	313.56 ppb	00:24:04
2	SiO2†	1244711.0	1168662.9	91041 ug/L	91041 ppb	00:25:09
3	Sc Radial	5181.7	5181.7	110 %		00:23:19
3	Y RADIAL	6071.9	6071.9	121.8 %		00:23:19
3	Al 396.153Radial†	212703.4	193289.2	180810 ug/L	180810 ppb	00:22:59
3	Ca 317.933Radial†	14604.1	13243.0	24062 ug/L	24062 ppb	00:23:19
3	Fe 238.204 Radial†	16262.2	14763.9	153180 ug/L	153180 ppb	00:22:59
3	K 766.490 Radial†	122465.6	108975.9	21683 ug/L	21683 ppb	00:22:59
3	Mg 279.077 IEC†	775.5	701.5	27692 ug/L	27692 ppb	00:23:19
3	Na 589.592 Radial†	2860.0	3445.6	1174.2 ug/L	1174.2 ppb	00:22:59
3	Sr 421.552†	46453.3	42194.8	306.65 ug/L	306.65 ppb	00:22:59
3	Sc 361.383	823941.7	823941.7	107.29 %		00:24:36
3	Y 371.029	838527.7	838527.7	121.70 %		00:24:31
3	Ag 328.068†	-9619.4	-9221.2	0.8134 ug/L	0.8134 ppb	00:24:36
3	As 188.979†	-51.9	-23.3	81.451 ug/L	81.451 ppb	00:24:56
3	B 249.677†	1496.0	1847.8	21.177 ug/L	21.177 ppb	00:24:36
3	Ba 233.527†	177373.8	165315.4	1956.1 ug/L	1956.1 ppb	00:24:36
3	Be 313.107†	-19050.3	-8772.8	11.174 ug/L	11.174 ppb	00:24:36
3	Cd 226.502†	1180.7	1287.1	2.4578 ug/L	2.4578 ppb	00:24:56
3	Co 228.616†	2667.4	2543.5	61.991 ug/L	61.991 ppb	00:24:56
3	Cr 267.716†	10333.6	9555.6	134.02 ug/L	134.02 ppb	00:24:56
3	Cu 324.752†	30552.3	20939.5	86.608 ug/L	86.608 ppb	00:24:36
3	Mn 257.610†	2572487.9	2397176.4	3851.0 ug/L	3851.0 ppb	00:24:31
3	Mo 202.031†	-88.5	-96.9	3.2878 ug/L	3.2878 ppb	00:24:56
3	Ni 231.604†	3607.4	3260.9	104.19 ug/L	104.19 ppb	00:24:56
3	P 214.914†	1760.4	1445.4	713.07 ug/L	713.07 ppb	00:24:56
3	Pb 220.353†	653.6	679.9	141.65 ug/L	141.65 ppb	00:24:56
3	S 181.975 Axial†	483.6	408.2	495.38 ug/L	495.38 ppb	00:24:56
3	Sb 206.836†	79.2	43.8	-9.5737 ug/L	-9.5737 ppb	00:24:56
3	Se 196.026†	-657.7	-593.2	-3.1674 ug/L	-3.1674 ppb	00:24:56
3	Si 251.611†	1260573.2	1174303.7	42851 ug/L	42851 ppb	00:24:31
3	Sn 189.927†	-70.0	-73.3	-21.785 ug/L	-21.785 ppb	00:24:56
3	Ti 334.940†	3437101.7	3204785.1	6458.7 ug/L	6458.7 ppb	00:24:31
3	Tl 190.801†	-195.3	-150.8	1.7096 ug/L	1.7096 ppb	00:24:56
3	U 409.014†	-8136.3	-5046.5	-186.74 ug/L	-186.74 ppb	00:24:36
3	V 292.402†	42617.8	41349.1	300.17 ug/L	300.17 ppb	00:24:36
3	Zn 213.857†	33525.9	30536.8	313.08 ug/L	313.08 ppb	00:24:36
3	SiO2†	1248626.4	1163161.6	90612 ug/L	90612 ppb	00:25:15

Mean Data: 246070012|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	820794.0	106.88	%	0.420				0.39%
Sc Radial	5191.2	110	%	0.3				0.31%
Y 371.029	835796.8	121.30	%	0.359				0.30%
Y RADIAL	6083.7	122.0	%	0.43				0.36%
Ag 328.068†	-9135.1	1.6918	ug/L	0.90316	1.6918	ppb	0.90316	53.38%
Al 396.153Radial†	195240.3	182630	ug/L	1902.6	182630	ppb	1902.6	1.04%
As 188.979†	-31.0	78.384	ug/L	2.8000	78.384	ppb	2.8000	3.57%
B 249.677†	1868.9	21.473	ug/L	1.1077	21.473	ppb	1.1077	5.16%
Ba 233.527†	165016.9	1952.6	ug/L	3.01	1952.6	ppb	3.01	0.15%
Be 313.107†	-8888.4	11.130	ug/L	0.0390	11.130	ppb	0.0390	0.35%
Ca 317.933Radial†	13223.8	24027	ug/L	32.3	24027	ppb	32.3	0.13%
Cd 226.502†	1293.9	2.4076	ug/L	0.10637	2.4076	ppb	0.10637	4.42%
Co 228.616†	2574.8	62.913	ug/L	0.8104	62.913	ppb	0.8104	1.29%
Cr 267.716†	9598.9	134.63	ug/L	0.535	134.63	ppb	0.535	0.40%
Cu 324.752†	21011.3	86.951	ug/L	0.3933	86.951	ppb	0.3933	0.45%
Fe 238.204 Radial†	14901.1	154600	ug/L	1361.3	154600	ppb	1361.3	0.88%
K 766.490 Radial†	110277.4	21942	ug/L	256.5	21942	ppb	256.5	1.17%

Mg 279.077 IEC†	698.6	27577	ug/L	103.4	27577	ppb	103.4	0.37%
Mn 257.610†	2396602.9	3850.2	ug/L	12.36	3850.2	ppb	12.36	0.32%
Mo 202.031†	-93.6	3.6950	ug/L	0.65887	3.6950	ppb	0.65887	17.83%
Na 589.592 Radial†	3456.1	1177.8	ug/L	3.28	1177.8	ppb	3.28	0.28%
Ni 231.604†	3266.6	104.38	ug/L	0.357	104.38	ppb	0.357	0.34%
P 214.914†	1471.6	726.95	ug/L	12.440	726.95	ppb	12.440	1.71%
Pb 220.353†	682.2	142.35	ug/L	1.682	142.35	ppb	1.682	1.18%
S 181.975 Axial†	411.0	498.66	ug/L	6.697	498.66	ppb	6.697	1.34%
Sb 206.836†	50.2	-7.0529	ug/L	2.57897	-7.0529	ppb	2.57897	36.57%
Se 196.026†	-601.8	-5.0824	ug/L	3.81865	-5.0824	ppb	3.81865	75.14%
Si 251.611†	1173551.9	42824	ug/L	108.6	42824	ppb	108.6	0.25%
Sn 189.927†	-77.3	-22.804	ug/L	1.0173	-22.804	ppb	1.0173	4.46%
Sr 421.552†	42741.8	310.63	ug/L	4.055	310.63	ppb	4.055	1.31%
Ti 334.940†	3205397.3	6459.9	ug/L	14.35	6459.9	ppb	14.35	0.22%
Tl 190.801†	-162.6	-3.6867	ug/L	6.42605	-3.6867	ppb	6.42605	174.30%
U 409.014†	-4994.3	-185.16	ug/L	2.004	-185.16	ppb	2.004	1.08%
V 292.402†	41322.2	299.75	ug/L	0.373	299.75	ppb	0.373	0.12%
Zn 213.857†	30563.4	313.16	ug/L	0.369	313.16	ppb	0.369	0.12%
SiO2†	1166463.4	90870	ug/L	226.8	90870	ppb	226.8	0.25%

Sequence No.: 54
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/2/2010 00:27:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4867.3	4867.3	103	%			00:29:17
1	Y RADIAL	5122.3	5122.3	102.7	%			00:29:17
1	Al 396.153Radial†	5630.6	5531.9	5150.9	ug/L	5150.9	ppb	00:29:17
1	Ca 317.933Radial†	2994.7	2873.7	5221.3	ug/L	5221.3	ppb	00:29:37
1	Fe 238.204 Radial†	521.6	497.1	5172.7	ug/L	5172.7	ppb	00:29:37
1	K 766.490 Radial†	29051.8	25831.5	5135.9	ug/L	5135.9	ppb	00:29:17
1	Mg 279.077 IEC†	141.5	133.9	5317.4	ug/L	5317.4	ppb	00:29:37
1	Na 589.592 Radial†	28080.1	28001.2	9542.8	ug/L	9542.8	ppb	00:29:17
1	Sr 421.552†	71165.1	68817.1	500.38	ug/L	500.38	ppb	00:29:17
1	Sc 361.383	833093.9	833093.9	108.48	%			00:30:34
1	Y 371.029	737684.8	737684.8	107.06	%			00:30:34
1	Ag 328.068†	104771.9	96322.2	498.35	ug/L	498.35	ppb	00:30:40
1	As 188.979†	1171.7	1105.1	496.89	ug/L	496.89	ppb	00:31:00
1	B 249.677†	20862.5	19684.3	490.64	ug/L	490.64	ppb	00:30:40
1	Ba 233.527†	45979.0	42380.6	501.34	ug/L	501.34	ppb	00:30:40
1	Be 313.107†	1339664.4	1243874.1	495.55	ug/L	495.55	ppb	00:30:34
1	Cd 226.502†	38057.7	35267.9	499.85	ug/L	499.85	ppb	00:30:40
1	Co 228.616†	18200.3	16834.3	508.82	ug/L	508.82	ppb	00:30:40
1	Cr 267.716†	39554.8	36385.7	497.70	ug/L	497.70	ppb	00:30:40
1	Cu 324.752†	152550.1	133083.3	498.31	ug/L	498.31	ppb	00:30:40
1	Mn 257.610†	338261.0	311345.0	498.64	ug/L	498.64	ppb	00:30:40
1	Mo 202.031†	5783.4	5316.7	488.39	ug/L	488.39	ppb	00:31:00
1	Ni 231.604†	17219.8	15771.7	503.87	ug/L	503.87	ppb	00:30:40
1	P 214.914†	4984.8	4399.5	2359.5	ug/L	2359.5	ppb	00:31:00
1	Pb 220.353†	3232.1	3050.0	493.67	ug/L	493.67	ppb	00:31:00
1	S 181.975 Axial†	862.2	752.2	974.34	ug/L	974.34	ppb	00:31:00
1	Sb 206.836†	1356.4	1220.3	512.63	ug/L	512.63	ppb	00:31:00
1	Se 196.026†	859.9	812.5	511.12	ug/L	511.12	ppb	00:31:00
1	Si 251.611†	75273.1	68796.9	2504.4	ug/L	2504.4	ppb	00:30:40
1	Sn 189.927†	2254.0	2069.6	488.01	ug/L	488.01	ppb	00:31:00
1	Ti 334.940†	266542.5	246997.7	497.56	ug/L	497.56	ppb	00:30:40
1	Tl 190.801†	1121.0	1064.5	492.19	ug/L	492.19	ppb	00:31:00
1	U 409.014†	13941.0	15387.5	513.56	ug/L	513.56	ppb	00:30:40
1	V 292.402†	66175.1	62627.6	505.25	ug/L	505.25	ppb	00:30:40
1	Zn 213.857†	49797.9	45193.0	493.75	ug/L	493.75	ppb	00:30:40
1	SiO2†	74157.7	67761.5	5265.4	ug/L	5265.4	ppb	00:32:07
2	Sc Radial	4960.8	4960.8	105	%			00:29:42
2	Y RADIAL	5217.3	5217.3	104.7	%			00:29:42
2	Al 396.153Radial†	5581.9	5383.1	5011.4	ug/L	5011.4	ppb	00:29:42
2	Ca 317.933Radial†	2980.0	2805.2	5096.9	ug/L	5096.9	ppb	00:30:02
2	Fe 238.204 Radial†	516.0	482.2	5018.4	ug/L	5018.4	ppb	00:30:02
2	K 766.490 Radial†	28925.4	25181.8	5006.6	ug/L	5006.6	ppb	00:29:42
2	Mg 279.077 IEC†	138.2	128.2	5091.6	ug/L	5091.6	ppb	00:30:02
2	Na 589.592 Radial†	28025.6	27437.5	9350.7	ug/L	9350.7	ppb	00:29:42
2	Sr 421.552†	70631.4	67013.0	487.26	ug/L	487.26	ppb	00:29:42
2	Sc 361.383	821788.3	821788.3	107.01	%			00:31:05
2	Y 371.029	727239.4	727239.4	105.54	%			00:31:05
2	Ag 328.068†	103576.7	96534.0	499.40	ug/L	499.40	ppb	00:31:10
2	As 188.979†	1173.3	1121.4	504.10	ug/L	504.10	ppb	00:31:30
2	B 249.677†	20554.3	19660.8	490.08	ug/L	490.08	ppb	00:31:10
2	Ba 233.527†	45254.4	42286.6	500.23	ug/L	500.23	ppb	00:31:10
2	Be 313.107†	1323404.6	1245668.5	496.26	ug/L	496.26	ppb	00:31:05
2	Cd 226.502†	37551.5	35277.5	500.01	ug/L	500.01	ppb	00:31:10
2	Co 228.616†	17927.1	16809.9	508.10	ug/L	508.10	ppb	00:31:10
2	Cr 267.716†	39042.6	36408.6	498.01	ug/L	498.01	ppb	00:31:10
2	Cu 324.752†	150217.2	132837.8	497.39	ug/L	497.39	ppb	00:31:10
2	Mn 257.610†	333648.9	311324.7	498.60	ug/L	498.60	ppb	00:31:10
2	Mo 202.031†	5795.0	5400.9	496.10	ug/L	496.10	ppb	00:31:30
2	Ni 231.604†	16978.0	15764.2	503.63	ug/L	503.63	ppb	00:31:10

2	P 214.914†	4986.7	4464.5	2396.1 ug/L	2396.1 ppb	00:31:30
2	Pb 220.353†	3235.8	3094.5	500.83 ug/L	500.83 ppb	00:31:30
2	S 181.975 Axial†	870.8	771.3	999.04 ug/L	999.04 ppb	00:31:30
2	Sb 206.836†	1355.8	1236.9	519.54 ug/L	519.54 ppb	00:31:30
2	Se 196.026†	856.8	820.5	515.70 ug/L	515.70 ppb	00:31:30
2	Si 251.611†	74186.3	68735.9	2502.1 ug/L	2502.1 ppb	00:31:10
2	Sn 189.927†	2230.4	2076.2	489.55 ug/L	489.55 ppb	00:31:30
2	Ti 334.940†	262389.1	246496.6	496.56 ug/L	496.56 ppb	00:31:10
2	Tl 190.801†	1120.4	1078.2	498.46 ug/L	498.46 ppb	00:31:30
2	U 409.014†	13586.2	15232.8	508.40 ug/L	508.40 ppb	00:31:10
2	V 292.402†	65216.9	62571.4	504.92 ug/L	504.92 ppb	00:31:10
2	Zn 213.857†	49119.2	45190.3	493.75 ug/L	493.75 ppb	00:31:10
2	SiO2†	74113.1	68660.2	5335.2 ug/L	5335.2 ppb	00:32:12
3	Sc Radial	4996.2	4996.2	106 %		00:30:07
3	Y RADIAL	5253.7	5253.7	105.4 %		00:30:07
3	Al 396.153Radial†	5640.1	5400.4	5027.9 ug/L	5027.9 ppb	00:30:07
3	Ca 317.933Radial†	2989.1	2793.7	5075.9 ug/L	5075.9 ppb	00:30:27
3	Fe 238.204 Radial†	516.2	479.0	4984.2 ug/L	4984.2 ppb	00:30:27
3	K 766.490 Radial†	29102.1	25153.8	5001.1 ug/L	5001.1 ppb	00:30:07
3	Mg 279.077 IEC†	141.8	130.7	5190.2 ug/L	5190.2 ppb	00:30:27
3	Na 589.592 Radial†	28191.4	27405.3	9339.7 ug/L	9339.7 ppb	00:30:07
3	Sr 421.552†	71488.9	67346.1	489.69 ug/L	489.69 ppb	00:30:07
3	Sc 361.383	829532.2	829532.2	108.02 %		00:31:36
3	Y 371.029	734191.6	734191.6	106.55 %		00:31:36
3	Ag 328.068†	103045.7	95138.8	492.19 ug/L	492.19 ppb	00:31:41
3	As 188.979†	1151.1	1090.6	490.32 ug/L	490.32 ppb	00:32:01
3	B 249.677†	20507.7	19438.5	484.53 ug/L	484.53 ppb	00:31:41
3	Ba 233.527†	45033.3	41687.2	493.14 ug/L	493.14 ppb	00:31:41
3	Be 313.107†	1328237.5	1238597.8	493.44 ug/L	493.44 ppb	00:31:36
3	Cd 226.502†	37372.3	34784.0	493.01 ug/L	493.01 ppb	00:31:41
3	Co 228.616†	17870.0	16600.6	501.77 ug/L	501.77 ppb	00:31:41
3	Cr 267.716†	38879.2	35916.8	491.28 ug/L	491.28 ppb	00:31:41
3	Cu 324.752†	149504.6	130867.6	490.01 ug/L	490.01 ppb	00:31:41
3	Mn 257.610†	332352.5	307214.0	492.02 ug/L	492.02 ppb	00:31:41
3	Mo 202.031†	5769.4	5326.6	489.28 ug/L	489.28 ppb	00:32:01
3	Ni 231.604†	16939.6	15580.5	497.76 ug/L	497.76 ppb	00:31:41
3	P 214.914†	4954.1	4390.9	2356.4 ug/L	2356.4 ppb	00:32:01
3	Pb 220.353†	3215.7	3047.6	493.27 ug/L	493.27 ppb	00:32:01
3	S 181.975 Axial†	865.6	758.8	982.85 ug/L	982.85 ppb	00:32:01
3	Sb 206.836†	1351.9	1221.5	513.10 ug/L	513.10 ppb	00:32:01
3	Se 196.026†	852.4	808.9	508.51 ug/L	508.51 ppb	00:32:01
3	Si 251.611†	73687.4	67626.8	2461.7 ug/L	2461.7 ppb	00:31:41
3	Sn 189.927†	2236.2	2062.1	486.23 ug/L	486.23 ppb	00:32:01
3	Ti 334.940†	261739.0	243605.8	490.73 ug/L	490.73 ppb	00:31:41
3	Tl 190.801†	1128.6	1076.1	497.44 ug/L	497.44 ppb	00:32:01
3	U 409.014†	13558.0	15088.2	503.57 ug/L	503.57 ppb	00:31:41
3	V 292.402†	64917.6	61725.4	498.09 ug/L	498.09 ppb	00:31:41
3	Zn 213.857†	48897.6	44556.6	486.81 ug/L	486.81 ppb	00:31:41
3	SiO2†	75221.5	69039.8	5365.0 ug/L	5365.0 ppb	00:32:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828138.1	107.84	%	0.753				0.70%
Sc Radial	4941.4	105	%	1.4				1.35%
Y 371.029	733038.6	106.39	%	0.772				0.73%
Y RADIAL	5197.8	104.3	%	1.36				1.30%
Ag 328.068†	95998.3	496.64	ug/L	3.894	496.64	ppb	3.894	0.78%
QC value within limits for Ag 328.068 Recovery = 99.33%								
Al 396.153Radial†	5438.4	5063.4	ug/L	76.27	5063.4	ppb	76.27	1.51%
QC value within limits for Al 396.153Radial Recovery = 101.27%								
As 188.979†	1105.7	497.10	ug/L	6.892	497.10	ppb	6.892	1.39%
QC value within limits for As 188.979 Recovery = 99.42%								
B 249.677†	19594.5	488.41	ug/L	3.375	488.41	ppb	3.375	0.69%
QC value within limits for B 249.677 Recovery = 97.68%								
Ba 233.527†	42118.2	498.24	ug/L	4.450	498.24	ppb	4.450	0.89%
QC value within limits for Ba 233.527 Recovery = 99.65%								
Be 313.107†	1242713.5	495.08	ug/L	1.469	495.08	ppb	1.469	0.30%
QC value within limits for Be 313.107 Recovery = 99.02%								
Ca 317.933Radial†	2824.2	5131.4	ug/L	78.60	5131.4	ppb	78.60	1.53%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.63%
Cd 226.502†            35109.8      497.62 ug/L         3.997      497.62 ppb          3.997   0.80%
   QC value within limits for Cd 226.502  Recovery = 99.52%
Co 228.616†            16748.3      506.23 ug/L         3.878      506.23 ppb          3.878   0.77%
   QC value within limits for Co 228.616  Recovery = 101.25%
Cr 267.716†            36237.0      495.66 ug/L         3.798      495.66 ppb          3.798   0.77%
   QC value within limits for Cr 267.716  Recovery = 99.13%
Cu 324.752†           132262.9      495.23 ug/L         4.549      495.23 ppb          4.549   0.92%
   QC value within limits for Cu 324.752  Recovery = 99.05%
Fe 238.204 Radial†       486.1      5058.5 ug/L       100.42      5058.5 ppb        100.42   1.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.17%
K 766.490 Radial†      25389.0      5047.9 ug/L        76.26      5047.9 ppb         76.26   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 100.96%
Mg 279.077 IEC†          131.0      5199.7 ug/L       113.20      5199.7 ppb        113.20   2.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.99%
Mn 257.610†           309961.3      496.42 ug/L         3.814      496.42 ppb          3.814   0.77%
   QC value within limits for Mn 257.610  Recovery = 99.28%
Mo 202.031†             5348.1      491.26 ug/L         4.221      491.26 ppb          4.221   0.86%
   QC value within limits for Mo 202.031  Recovery = 98.25%
Na 589.592 Radial†     27614.7      9411.1 ug/L       114.22      9411.1 ppb        114.22   1.21%
   QC value within limits for Na 589.592 Radial  Recovery = 94.11%
Ni 231.604†            15705.5      501.75 ug/L         3.459      501.75 ppb          3.459   0.69%
   QC value within limits for Ni 231.604  Recovery = 100.35%
P 214.914†              4418.3      2370.6 ug/L        22.06      2370.6 ppb         22.06   0.93%
   QC value within limits for P 214.914  Recovery = 94.83%
Pb 220.353†             3064.1      495.92 ug/L         4.258      495.92 ppb          4.258   0.86%
   QC value within limits for Pb 220.353  Recovery = 99.18%
S 181.975 Axial†         760.8      985.41 ug/L        12.547      985.41 ppb         12.547   1.27%
   QC value within limits for S 181.975 Axial  Recovery = 98.54%
Sb 206.836†             1226.2      515.09 ug/L         3.865      515.09 ppb          3.865   0.75%
   QC value within limits for Sb 206.836  Recovery = 103.02%
Se 196.026†              813.9      511.78 ug/L         3.640      511.78 ppb          3.640   0.71%
   QC value within limits for Se 196.026  Recovery = 102.36%
Si 251.611†            68386.5      2489.4 ug/L        24.02      2489.4 ppb         24.02   0.96%
   QC value within limits for Si 251.611  Recovery = 99.58%
Sn 189.927†             2069.3      487.93 ug/L         1.659      487.93 ppb          1.659   0.34%
   QC value within limits for Sn 189.927  Recovery = 97.59%
Sr 421.552†            67725.4      492.44 ug/L         6.980      492.44 ppb          6.980   1.42%
   QC value within limits for Sr 421.552  Recovery = 98.49%
Ti 334.940†           245700.0      494.95 ug/L         3.691      494.95 ppb          3.691   0.75%
   QC value within limits for Ti 334.940  Recovery = 98.99%
Tl 190.801†             1072.9      496.03 ug/L         3.365      496.03 ppb          3.365   0.68%
   QC value within limits for Tl 190.801  Recovery = 99.21%
U 409.014†             15236.1      508.51 ug/L         4.995      508.51 ppb          4.995   0.98%
   QC value within limits for U 409.014  Recovery = 101.70%
V 292.402†             62308.2      502.75 ug/L         4.040      502.75 ppb          4.040   0.80%
   QC value within limits for V 292.402  Recovery = 100.55%
Zn 213.857†            44980.0      491.44 ug/L         4.006      491.44 ppb          4.006   0.82%
   QC value within limits for Zn 213.857  Recovery = 98.29%
SiO2†                  68487.2      5321.9 ug/L        51.10      5321.9 ppb         51.10   0.96%
   QC value within limits for SiO2  Recovery = 99.52%
All analyte(s) passed QC.
```

Sequence No.: 55
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/2/2010 00:34:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4748.8	4748.8	101	%			00:36:19
1	Y RADIAL	4985.2	4985.2	100.00	%			00:36:19
1	Al 396.153Radial†	-80.9	6.9	6.4870	ug/L	6.4870	ppb	00:36:39
1	Ca 317.933Radial†	19.3	-3.0	-5.4378	ug/L	-5.4378	ppb	00:36:39
1	Fe 238.204 Radial†	7.5	0.1	0.8871	ug/L	0.8871	ppb	00:36:39
1	K 766.490 Radial†	2316.3	34.2	6.7873	ug/L	6.7873	ppb	00:36:19
1	Mg 279.077 IEC†	1.8	-1.1	-44.804	ug/L	-44.804	ppb	00:36:39
1	Na 589.592 Radial†	-756.0	98.5	33.568	ug/L	33.568	ppb	00:36:19
1	Sr 421.552†	34.2	34.4	0.2503	ug/L	0.2503	ppb	00:36:19
1	Sc 361.383	808435.7	808435.7	105.27	%			00:37:36
1	Y 371.029	723385.3	723385.3	104.99	%			00:37:36
1	Ag 328.068†	244.7	-23.2	-0.1238	ug/L	-0.1238	ppb	00:37:36
1	As 188.979†	-35.3	-8.5	-3.8048	ug/L	-3.8048	ppb	00:37:56
1	B 249.677†	-351.4	119.6	2.9948	ug/L	2.9948	ppb	00:37:56
1	Ba 233.527†	10.1	7.2	0.0856	ug/L	0.0856	ppb	00:37:56
1	Be 313.107†	-9418.9	35.6	0.0153	ug/L	0.0153	ppb	00:37:36
1	Cd 226.502†	-199.4	-2.8	-0.0382	ug/L	-0.0382	ppb	00:37:56
1	Co 228.616†	-50.2	9.8	0.2952	ug/L	0.2952	ppb	00:37:56
1	Cr 267.716†	65.2	-13.7	-0.1895	ug/L	-0.1895	ppb	00:37:56
1	Cu 324.752†	7739.5	-184.3	-0.6948	ug/L	-0.6948	ppb	00:37:36
1	Mn 257.610†	502.5	16.2	0.0278	ug/L	0.0278	ppb	00:37:56
1	Mo 202.031†	17.2	2.0	0.1799	ug/L	0.1799	ppb	00:37:56
1	Ni 231.604†	96.2	-9.9	-0.3177	ug/L	-0.3177	ppb	00:37:56
1	P 214.914†	219.9	13.5	7.6689	ug/L	7.6689	ppb	00:37:56
1	Pb 220.353†	-59.4	14.3	2.3114	ug/L	2.3114	ppb	00:37:56
1	S 181.975 Axial†	42.7	-2.0	-2.5337	ug/L	-2.5337	ppb	00:37:56
1	Sb 206.836†	30.9	-0.7	-0.2750	ug/L	-0.2750	ppb	00:37:56
1	Se 196.026†	-29.8	-8.5	-5.1736	ug/L	-5.1736	ppb	00:37:56
1	Si 251.611†	612.3	-7.6	-0.2803	ug/L	-0.2803	ppb	00:37:56
1	Sn 189.927†	10.7	2.1	0.4887	ug/L	0.4887	ppb	00:37:56
1	Ti 334.940†	-1113.5	243.3	0.4897	ug/L	0.4897	ppb	00:37:36
1	Tl 190.801†	-31.0	1.8	0.8125	ug/L	0.8125	ppb	00:37:56
1	U 409.014†	-2408.9	248.6	8.3245	ug/L	8.3245	ppb	00:37:36
1	V 292.402†	-1652.7	58.1	0.4796	ug/L	0.4796	ppb	00:37:36
1	Zn 213.857†	755.9	7.7	0.0880	ug/L	0.0880	ppb	00:37:56
1	SiO2†	611.3	-15.7	-1.2300	ug/L	-1.2300	ppb	00:38:52
2	Sc Radial	4875.4	4875.4	104	%			00:36:44
2	Y RADIAL	5174.1	5174.1	103.8	%			00:36:44
2	Al 396.153Radial†	-87.8	2.3	2.1783	ug/L	2.1783	ppb	00:37:04
2	Ca 317.933Radial†	16.6	-6.1	-11.128	ug/L	-11.128	ppb	00:37:04
2	Fe 238.204 Radial†	7.7	0.1	0.9751	ug/L	0.9751	ppb	00:37:04
2	K 766.490 Radial†	2281.8	-58.9	-11.735	ug/L	-11.735	ppb	00:36:44
2	Mg 279.077 IEC†	1.2	-1.7	-68.842	ug/L	-68.842	ppb	00:37:04
2	Na 589.592 Radial†	-723.5	149.4	50.913	ug/L	50.913	ppb	00:36:44
2	Sr 421.552†	33.6	32.9	0.2395	ug/L	0.2395	ppb	00:36:44
2	Sc 361.383	811242.0	811242.0	105.64	%			00:38:01
2	Y 371.029	725257.6	725257.6	105.26	%			00:38:01
2	Ag 328.068†	140.9	-122.3	-0.6362	ug/L	-0.6362	ppb	00:38:01
2	As 188.979†	-27.9	-1.4	-0.6093	ug/L	-0.6093	ppb	00:38:21
2	B 249.677†	-340.2	131.4	3.2895	ug/L	3.2895	ppb	00:38:21
2	Ba 233.527†	12.9	9.8	0.1175	ug/L	0.1175	ppb	00:38:21
2	Be 313.107†	-9580.2	-86.2	-0.0333	ug/L	-0.0333	ppb	00:38:01
2	Cd 226.502†	-183.6	12.8	0.1839	ug/L	0.1839	ppb	00:38:21
2	Co 228.616†	-45.7	14.2	0.4293	ug/L	0.4293	ppb	00:38:21
2	Cr 267.716†	53.4	-25.0	-0.3461	ug/L	-0.3461	ppb	00:38:21
2	Cu 324.752†	7758.3	-192.0	-0.7264	ug/L	-0.7264	ppb	00:38:01
2	Mn 257.610†	498.4	10.7	0.0200	ug/L	0.0200	ppb	00:38:21
2	Mo 202.031†	13.2	-1.9	-0.1726	ug/L	-0.1726	ppb	00:38:21
2	Ni 231.604†	97.0	-9.5	-0.3035	ug/L	-0.3035	ppb	00:38:21

2	P 214.914†	209.9	3.3	2.0064	ug/L	2.0064 ppb	00:38:21
2	Pb 220.353†	-54.8	18.8	3.0349	ug/L	3.0349 ppb	00:38:21
2	S 181.975 Axial†	48.6	3.5	4.5606	ug/L	4.5606 ppb	00:38:21
2	Sb 206.836†	31.0	-0.7	-0.2977	ug/L	-0.2977 ppb	00:38:21
2	Se 196.026†	-23.6	-2.6	-1.5722	ug/L	-1.5722 ppb	00:38:21
2	Si 251.611†	589.0	-31.7	-1.1529	ug/L	-1.1529 ppb	00:38:21
2	Sn 189.927†	8.9	0.3	0.0732	ug/L	0.0732 ppb	00:38:21
2	Ti 334.940†	-1148.9	213.5	0.4284	ug/L	0.4284 ppb	00:38:01
2	Tl 190.801†	-31.1	1.8	0.8104	ug/L	0.8104 ppb	00:38:21
2	U 409.014†	-2250.5	406.5	13.611	ug/L	13.611 ppb	00:38:01
2	V 292.402†	-1620.1	94.4	0.7732	ug/L	0.7732 ppb	00:38:01
2	Zn 213.857†	761.6	10.7	0.1203	ug/L	0.1203 ppb	00:38:21
2	SiO2†	581.8	-45.7	-3.5557	ug/L	-3.5557 ppb	00:38:57
3	Sc Radial	4984.0	4984.0	106	%		00:37:09
3	Y RADIAL	5271.6	5271.6	105.7	%		00:37:09
3	Al 396.153Radial†	-84.2	7.6	7.1594	ug/L	7.1594 ppb	00:37:29
3	Ca 317.933Radial†	21.5	-1.9	-3.3922	ug/L	-3.3922 ppb	00:37:29
3	Fe 238.204 Radial†	7.6	-0.2	-1.6298	ug/L	-1.6298 ppb	00:37:29
3	K 766.490 Radial†	2409.3	13.6	2.7032	ug/L	2.7032 ppb	00:37:09
3	Mg 279.077 IEC†	3.0	-0.1	-2.0559	ug/L	-2.0559 ppb	00:37:29
3	Na 589.592 Radial†	-818.8	74.6	25.423	ug/L	25.423 ppb	00:37:09
3	Sr 421.552†	14.4	14.1	0.1025	ug/L	0.1025 ppb	00:37:09
3	Sc 361.383	805015.4	805015.4	104.83	%		00:38:27
3	Y 371.029	719826.5	719826.5	104.47	%		00:38:27
3	Ag 328.068†	264.6	-3.2	-0.0278	ug/L	-0.0278 ppb	00:38:27
3	As 188.979†	-37.8	-11.1	-4.9397	ug/L	-4.9397 ppb	00:38:47
3	B 249.677†	-363.2	107.0	2.6779	ug/L	2.6779 ppb	00:38:47
3	Ba 233.527†	-3.9	-6.1	-0.0720	ug/L	-0.0720 ppb	00:38:47
3	Be 313.107†	-9545.8	-123.5	-0.0480	ug/L	-0.0480 ppb	00:38:27
3	Cd 226.502†	-192.4	3.1	0.0466	ug/L	0.0466 ppb	00:38:47
3	Co 228.616†	-49.0	10.7	0.3212	ug/L	0.3212 ppb	00:38:47
3	Cr 267.716†	59.8	-18.5	-0.2585	ug/L	-0.2585 ppb	00:38:47
3	Cu 324.752†	7750.7	-142.5	-0.5410	ug/L	-0.5410 ppb	00:38:27
3	Mn 257.610†	507.3	22.8	0.0365	ug/L	0.0365 ppb	00:38:47
3	Mo 202.031†	5.0	-9.6	-0.8788	ug/L	-0.8788 ppb	00:38:47
3	Ni 231.604†	89.4	-16.1	-0.5134	ug/L	-0.5134 ppb	00:38:47
3	P 214.914†	198.9	-5.6	-3.0100	ug/L	-3.0100 ppb	00:38:47
3	Pb 220.353†	-73.1	1.0	0.1617	ug/L	0.1617 ppb	00:38:47
3	S 181.975 Axial†	39.2	-5.1	-6.6368	ug/L	-6.6368 ppb	00:38:47
3	Sb 206.836†	28.6	-2.7	-1.1028	ug/L	-1.1028 ppb	00:38:47
3	Se 196.026†	-21.5	-0.7	-0.4268	ug/L	-0.4268 ppb	00:38:47
3	Si 251.611†	580.6	-35.4	-1.2797	ug/L	-1.2797 ppb	00:38:47
3	Sn 189.927†	15.1	6.4	1.4966	ug/L	1.4966 ppb	00:38:47
3	Ti 334.940†	-1115.5	236.9	0.4712	ug/L	0.4712 ppb	00:38:27
3	Tl 190.801†	-34.2	-1.4	-0.6329	ug/L	-0.6329 ppb	00:38:47
3	U 409.014†	-2236.8	403.0	13.496	ug/L	13.496 ppb	00:38:27
3	V 292.402†	-1697.8	8.4	0.0797	ug/L	0.0797 ppb	00:38:27
3	Zn 213.857†	760.2	14.9	0.1688	ug/L	0.1688 ppb	00:38:47
3	SiO2†	637.2	11.4	0.9115	ug/L	0.9115 ppb	00:39:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808231.0	105.25	%	0.406				0.39%
Sc Radial	4869.4	103	%	2.5				2.42%
Y 371.029	722823.1	104.90	%	0.400				0.38%
Y RADIAL	5143.6	103.2	%	2.92				2.83%
Ag 328.068†	-49.6	-0.2626	ug/L	0.32709	-0.2626	ppb	0.32709	124.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.6	5.2749	ug/L	2.70273	5.2749	ppb	2.70273	51.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.0	-3.1179	ug/L	2.24545	-3.1179	ppb	2.24545	72.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	119.3	2.9874	ug/L	0.30590	2.9874	ppb	0.30590	10.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.6	0.0437	ug/L	0.10147	0.0437	ppb	0.10147	232.24%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-58.0	-0.0220	ug/L	0.03310	-0.0220	ppb	0.03310	150.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.7	-6.6527	ug/L	4.00848	-6.6527	ppb	4.00848	60.25%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.4      0.0641 ug/L       0.11208      0.0641 ppb        0.11208 174.96%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               11.6      0.3486 ug/L       0.07110      0.3486 ppb        0.07110  20.40%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -19.1     -0.2647 ug/L       0.07848     -0.2647 ppb        0.07848  29.65%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -172.9     -0.6540 ug/L       0.09918     -0.6540 ppb        0.09918  15.16%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.0775 ug/L       1.47921      0.0775 ppb        1.47921 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -3.7     -0.7482 ug/L       9.73152     -0.7482 ppb        9.73152 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.0     -38.567 ug/L      33.8270     -38.567 ppb       33.8270  87.71%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               16.6      0.0281 ug/L       0.00821      0.0281 ppb        0.00821  29.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -3.2     -0.2905 ug/L       0.53913     -0.2905 ppb        0.53913 185.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       107.5      36.634 ug/L      13.0187      36.634 ppb       13.0187  35.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -11.8     -0.3782 ug/L       0.11727     -0.3782 ppb        0.11727  31.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 3.7      2.2218 ug/L       5.34269      2.2218 ppb        5.34269 240.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               11.4      1.8360 ug/L       1.49441      1.8360 ppb        1.49441  81.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2     -1.5367 ug/L       5.66492     -1.5367 ppb        5.66492 368.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.4     -0.5585 ug/L       0.47148     -0.5585 ppb        0.47148  84.42%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.9     -2.3909 ug/L       2.47700     -2.3909 ppb        2.47700 103.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -24.9     -0.9043 ug/L       0.54410     -0.9043 ppb        0.54410  60.17%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.9      0.6862 ug/L       0.73193      0.6862 ppb        0.73193 106.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               27.1      0.1974 ug/L       0.08241      0.1974 ppb        0.08241  41.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              231.2      0.4631 ug/L       0.03142      0.4631 ppb        0.03142   6.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.7      0.3300 ug/L       0.83391      0.3300 ppb        0.83391 252.69%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               352.7      11.811 ug/L        3.0196      11.811 ppb         3.0196  25.57%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                53.6      0.4442 ug/L       0.34809      0.4442 ppb        0.34809  78.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               11.1      0.1257 ug/L       0.04068      0.1257 ppb        0.04068  32.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -16.7     -1.2914 ug/L       2.23423     -1.2914 ppb        2.23423 173.00%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 56
Sample ID: 246070013|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 81
Date Collected: 3/2/2010 00:41:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070013|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5121.9	5121.9	109	%			00:43:25
1	Y RADIAL	6006.2	6006.2	120.5	%			00:43:25
1	Al 396.153Radial†	193618.1	178008.4	166510	ug/L	166510	ppb	00:43:05
1	Ca 317.933Radial†	12701.6	11649.7	21167	ug/L	21167	ppb	00:43:05
1	Fe 238.204 Radial†	14551.0	13364.0	138650	ug/L	138650	ppb	00:43:05
1	K 766.490 Radial†	116266.5	104579.0	20809	ug/L	20809	ppb	00:43:05
1	Mg 279.077 IEC†	626.7	573.0	22607	ug/L	22607	ppb	00:43:25
1	Na 589.592 Radial†	2606.0	3242.5	1105.0	ug/L	1105.0	ppb	00:43:05
1	Sr 421.552†	38952.1	35794.7	260.13	ug/L	260.13	ppb	00:43:05
1	Sc 361.383	837702.9	837702.9	109.08	%			00:44:24
1	Y 371.029	833282.4	833282.4	120.93	%			00:44:24
1	Ag 328.068†	-8369.6	-7928.2	2.8333	ug/L	2.8333	ppb	00:44:24
1	As 188.979†	-67.6	-36.9	65.585	ug/L	65.585	ppb	00:44:44
1	B 249.677†	1432.2	1766.4	21.529	ug/L	21.529	ppb	00:44:24
1	Ba 233.527†	149993.7	137499.8	1627.3	ug/L	1627.3	ppb	00:44:24
1	Be 313.107†	-17797.1	-7332.3	10.072	ug/L	10.072	ppb	00:44:24
1	Cd 226.502†	1051.3	1150.4	2.0102	ug/L	2.0102	ppb	00:44:44
1	Co 228.616†	2320.6	2184.8	52.755	ug/L	52.755	ppb	00:44:44
1	Cr 267.716†	9855.9	8959.4	125.52	ug/L	125.52	ppb	00:44:44
1	Cu 324.752†	25048.3	15426.1	65.193	ug/L	65.193	ppb	00:44:24
1	Mn 257.610†	1854313.3	1699424.9	2732.9	ug/L	2732.9	ppb	00:44:24
1	Mo 202.031†	-72.7	-81.1	3.5769	ug/L	3.5769	ppb	00:44:44
1	Ni 231.604†	3106.1	2746.1	87.745	ug/L	87.745	ppb	00:44:44
1	P 214.914†	1609.7	1280.2	633.10	ug/L	633.10	ppb	00:44:44
1	Pb 220.353†	579.4	601.9	126.72	ug/L	126.72	ppb	00:44:44
1	S 181.975 Axial†	481.9	399.3	486.44	ug/L	486.44	ppb	00:44:44
1	Sb 206.836†	81.5	44.7	-6.3475	ug/L	-6.3475	ppb	00:44:44
1	Se 196.026†	-581.5	-513.3	11.905	ug/L	11.905	ppb	00:44:44
1	Si 251.611†	1251691.8	1146861.6	41850	ug/L	41850	ppb	00:44:24
1	Sn 189.927†	-70.4	-72.6	-21.299	ug/L	-21.299	ppb	00:44:44
1	Ti 334.940†	3095169.0	2838704.3	5721.0	ug/L	5721.0	ppb	00:44:24
1	Tl 190.801†	-184.8	-138.2	-3.8124	ug/L	-3.8124	ppb	00:44:44
1	U 409.014†	-8194.7	-4975.4	-182.69	ug/L	-182.69	ppb	00:44:24
1	V 292.402†	36517.3	35104.1	253.26	ug/L	253.26	ppb	00:44:24
1	Zn 213.857†	28855.9	25742.4	262.51	ug/L	262.51	ppb	00:44:44
1	SiO2†	1260600.5	1155021.2	89978	ug/L	89978	ppb	00:45:44
2	Sc Radial	5154.7	5154.7	110	%			00:43:51
2	Y RADIAL	6044.4	6044.4	121.2	%			00:43:51
2	Al 396.153Radial†	194689.4	177854.2	166370	ug/L	166370	ppb	00:43:31
2	Ca 317.933Radial†	12703.4	11577.1	21035	ug/L	21035	ppb	00:43:31
2	Fe 238.204 Radial†	14557.3	13284.6	137830	ug/L	137830	ppb	00:43:31
2	K 766.490 Radial†	116747.2	104338.0	20761	ug/L	20761	ppb	00:43:31
2	Mg 279.077 IEC†	629.0	571.4	22543	ug/L	22543	ppb	00:43:51
2	Na 589.592 Radial†	2619.0	3239.1	1103.9	ug/L	1103.9	ppb	00:43:31
2	Sr 421.552†	39181.7	35776.5	260.00	ug/L	260.00	ppb	00:43:31
2	Sc 361.383	843931.8	843931.8	109.90	%			00:44:51
2	Y 371.029	837923.7	837923.7	121.61	%			00:44:51
2	Ag 328.068†	-8490.9	-7982.0	2.3099	ug/L	2.3099	ppb	00:44:51
2	As 188.979†	-62.7	-32.0	67.678	ug/L	67.678	ppb	00:45:11
2	B 249.677†	1419.8	1745.4	21.137	ug/L	21.137	ppb	00:44:51
2	Ba 233.527†	151771.3	138102.4	1634.4	ug/L	1634.4	ppb	00:44:51
2	Be 313.107†	-17683.0	-7108.1	10.182	ug/L	10.182	ppb	00:44:51
2	Cd 226.502†	1019.6	1114.4	1.5847	ug/L	1.5847	ppb	00:45:11
2	Co 228.616†	2343.4	2189.9	52.901	ug/L	52.901	ppb	00:45:11
2	Cr 267.716†	9870.7	8906.3	124.78	ug/L	124.78	ppb	00:45:11
2	Cu 324.752†	25280.2	15467.6	65.305	ug/L	65.305	ppb	00:44:51
2	Mn 257.610†	1874849.1	1705564.9	2742.7	ug/L	2742.7	ppb	00:44:51
2	Mo 202.031†	-85.0	-91.7	2.5317	ug/L	2.5317	ppb	00:45:11
2	Ni 231.604†	3107.1	2726.0	87.102	ug/L	87.102	ppb	00:45:11

2	P 214.914†	1589.4	1250.9	617.33 ug/L	617.33 ppb	00:45:11
2	Pb 220.353†	557.2	577.8	122.86 ug/L	122.86 ppb	00:45:11
2	S 181.975 Axial†	479.0	393.4	478.86 ug/L	478.86 ppb	00:45:11
2	Sb 206.836†	89.9	51.8	-3.4954 ug/L	-3.4954 ppb	00:45:11
2	Se 196.026†	-565.9	-495.2	21.145 ug/L	21.145 ppb	00:45:11
2	Si 251.611†	1264760.9	1150284.7	41975 ug/L	41975 ppb	00:44:51
2	Sn 189.927†	-63.4	-65.7	-19.656 ug/L	-19.656 ppb	00:45:11
2	Ti 334.940†	3123367.9	2843421.5	5730.5 ug/L	5730.5 ppb	00:44:51
2	Tl 190.801†	-189.2	-140.9	-4.9514 ug/L	-4.9514 ppb	00:45:11
2	U 409.014†	-8273.0	-4991.2	-183.12 ug/L	-183.12 ppb	00:44:51
2	V 292.402†	36917.3	35221.0	254.29 ug/L	254.29 ppb	00:44:51
2	Zn 213.857†	28885.1	25573.8	260.78 ug/L	260.78 ppb	00:45:11
2	SiO2†	1247510.0	1134580.0	88386 ug/L	88386 ppb	00:45:50
3	Sc Radial	5146.8	5146.8	109 %		00:44:16
3	Y RADIAL	6050.8	6050.8	121.4 %		00:44:16
3	Al 396.153Radial†	192862.7	176456.7	165060 ug/L	165060 ppb	00:43:56
3	Ca 317.933Radial†	12652.4	11548.2	20982 ug/L	20982 ppb	00:43:56
3	Fe 238.204 Radial†	14467.2	13222.6	137190 ug/L	137190 ppb	00:43:56
3	K 766.490 Radial†	115680.6	103526.2	20600 ug/L	20600 ppb	00:43:56
3	Mg 279.077 IEC†	626.5	570.0	22490 ug/L	22490 ppb	00:44:16
3	Na 589.592 Radial†	2581.6	3208.6	1093.5 ug/L	1093.5 ppb	00:43:56
3	Sr 421.552†	38708.9	35399.1	257.26 ug/L	257.26 ppb	00:43:56
3	Sc 361.383	843062.9	843062.9	109.78 %		00:45:18
3	Y 371.029	837359.7	837359.7	121.53 %		00:45:18
3	Ag 328.068†	-8444.6	-7947.7	2.2910 ug/L	2.2910 ppb	00:45:18
3	As 188.979†	-62.2	-31.6	67.624 ug/L	67.624 ppb	00:45:38
3	B 249.677†	1381.2	1711.6	20.397 ug/L	20.397 ppb	00:45:18
3	Ba 233.527†	151181.8	137707.8	1629.7 ug/L	1629.7 ppb	00:45:18
3	Be 313.107†	-17690.3	-7131.2	10.155 ug/L	10.155 ppb	00:45:18
3	Cd 226.502†	1037.2	1131.4	1.8903 ug/L	1.8903 ppb	00:45:38
3	Co 228.616†	2312.2	2163.6	52.134 ug/L	52.134 ppb	00:45:38
3	Cr 267.716†	9799.9	8851.0	124.02 ug/L	124.02 ppb	00:45:38
3	Cu 324.752†	25255.3	15468.7	65.278 ug/L	65.278 ppb	00:45:18
3	Mn 257.610†	1869097.3	1702083.9	2737.0 ug/L	2737.0 ppb	00:45:18
3	Mo 202.031†	-72.3	-80.3	3.5344 ug/L	3.5344 ppb	00:45:38
3	Ni 231.604†	3102.1	2724.3	87.049 ug/L	87.049 ppb	00:45:38
3	P 214.914†	1593.0	1255.7	620.21 ug/L	620.21 ppb	00:45:38
3	Pb 220.353†	589.5	607.7	127.42 ug/L	127.42 ppb	00:45:38
3	S 181.975 Axial†	483.5	397.9	484.97 ug/L	484.97 ppb	00:45:38
3	Sb 206.836†	80.7	43.5	-6.7717 ug/L	-6.7717 ppb	00:45:38
3	Se 196.026†	-565.4	-495.3	19.527 ug/L	19.527 ppb	00:45:38
3	Si 251.611†	1261827.9	1148799.2	41921 ug/L	41921 ppb	00:45:18
3	Sn 189.927†	-64.0	-66.4	-19.776 ug/L	-19.776 ppb	00:45:38
3	Ti 334.940†	3115865.2	2839516.5	5722.7 ug/L	5722.7 ppb	00:45:18
3	Tl 190.801†	-177.7	-130.6	-0.3097 ug/L	-0.3097 ppb	00:45:38
3	U 409.014†	-8438.7	-5150.0	-188.36 ug/L	-188.36 ppb	00:45:18
3	V 292.402†	36800.6	35149.4	253.82 ug/L	253.82 ppb	00:45:18
3	Zn 213.857†	28713.0	25444.2	259.45 ug/L	259.45 ppb	00:45:38
3	SiO2†	1261817.3	1148782.4	89492 ug/L	89492 ppb	00:45:56

Mean Data: 246070013|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841565.9	109.59	%	0.439				0.40%
Sc Radial	5141.1	109	%	0.4				0.33%
Y 371.029	836188.6	121.36	%	0.368				0.30%
Y RADIAL	6033.8	121.0	%	0.48				0.40%
Ag 328.068†	-7952.7	2.4781	ug/L	0.30783	2.4781	ppb	0.30783	12.42%
Al 396.153Radial†	177439.8	165980	ug/L	799.7	165980	ppb	799.7	0.48%
As 188.979†	-33.5	66.962	ug/L	1.1933	66.962	ppb	1.1933	1.78%
B 249.677†	1741.2	21.021	ug/L	0.5750	21.021	ppb	0.5750	2.74%
Ba 233.527†	137770.0	1630.5	ug/L	3.60	1630.5	ppb	3.60	0.22%
Be 313.107†	-7190.6	10.136	ug/L	0.0577	10.136	ppb	0.0577	0.57%
Ca 317.933Radial†	11591.7	21061	ug/L	95.0	21061	ppb	95.0	0.45%
Cd 226.502†	1132.1	1.8284	ug/L	0.21943	1.8284	ppb	0.21943	12.00%
Co 228.616†	2179.4	52.596	ug/L	0.4071	52.596	ppb	0.4071	0.77%
Cr 267.716†	8905.6	124.77	ug/L	0.753	124.77	ppb	0.753	0.60%
Cu 324.752†	15454.2	65.259	ug/L	0.0584	65.259	ppb	0.0584	0.09%
Fe 238.204 Radial†	13290.4	137890	ug/L	735.2	137890	ppb	735.2	0.53%
K 766.490 Radial†	104147.7	20724	ug/L	109.8	20724	ppb	109.8	0.53%

Mg 279.077 IEC†	571.5	22547	ug/L	58.9	22547	ppb	58.9	0.26%
Mn 257.610†	1702357.9	2737.5	ug/L	4.89	2737.5	ppb	4.89	0.18%
Mo 202.031†	-84.3	3.2144	ug/L	0.59159	3.2144	ppb	0.59159	18.40%
Na 589.592 Radial†	3230.1	1100.8	ug/L	6.36	1100.8	ppb	6.36	0.58%
Ni 231.604†	2732.1	87.299	ug/L	0.3875	87.299	ppb	0.3875	0.44%
P 214.914†	1262.3	623.55	ug/L	8.400	623.55	ppb	8.400	1.35%
Pb 220.353†	595.8	125.67	ug/L	2.455	125.67	ppb	2.455	1.95%
S 181.975 Axial†	396.8	483.43	ug/L	4.021	483.43	ppb	4.021	0.83%
Sb 206.836†	46.7	-5.5382	ug/L	1.78179	-5.5382	ppb	1.78179	32.17%
Se 196.026†	-501.2	17.526	ug/L	4.9345	17.526	ppb	4.9345	28.16%
Si 251.611†	1148648.5	41915	ug/L	62.6	41915	ppb	62.6	0.15%
Sn 189.927†	-68.2	-20.244	ug/L	0.9159	-20.244	ppb	0.9159	4.52%
Sr 421.552†	35656.8	259.13	ug/L	1.623	259.13	ppb	1.623	0.63%
Ti 334.940†	2840547.4	5724.8	ug/L	5.08	5724.8	ppb	5.08	0.09%
Tl 190.801†	-136.6	-3.0245	ug/L	2.41906	-3.0245	ppb	2.41906	79.98%
U 409.014†	-5038.9	-184.72	ug/L	3.158	-184.72	ppb	3.158	1.71%
V 292.402†	35158.2	253.79	ug/L	0.513	253.79	ppb	0.513	0.20%
Zn 213.857†	25586.8	260.92	ug/L	1.537	260.92	ppb	1.537	0.59%
SiO2†	1146127.8	89285	ug/L	816.1	89285	ppb	816.1	0.91%

Sequence No.: 57
Sample ID: 246070014|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 82
Date Collected: 3/2/2010 00:48:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070014|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5197.7	5197.7	110	%			00:50:20
1	Y RADIAL	5977.7	5977.7	119.9	%			00:50:20
1	Al 396.153Radial†	193182.8	175017.6	163710	ug/L	163710	ppb	00:50:00
1	Ca 317.933Radial†	17609.9	15923.9	28933	ug/L	28933	ppb	00:50:00
1	Fe 238.204 Radial†	16397.3	14840.7	153970	ug/L	153970	ppb	00:50:00
1	K 766.490 Radial†	111691.8	98877.3	19672	ug/L	19672	ppb	00:50:00
1	Mg 279.077 IEC†	643.3	579.6	22852	ug/L	22852	ppb	00:50:20
1	Na 589.592 Radial†	2109.9	2758.3	940.04	ug/L	940.04	ppb	00:50:00
1	Sr 421.552†	44355.5	40165.1	291.85	ug/L	291.85	ppb	00:50:00
1	Sc 361.383	811862.1	811862.1	105.72	%			00:51:24
1	Y 371.029	789822.3	789822.3	114.63	%			00:51:24
1	Ag 328.068†	-9104.4	-8867.5	2.8278	ug/L	2.8278	ppb	00:51:24
1	As 188.979†	-73.7	-44.7	75.574	ug/L	75.574	ppb	00:51:44
1	B 249.677†	1516.1	1887.6	22.037	ug/L	22.037	ppb	00:51:24
1	Ba 233.527†	157480.3	148957.9	1763.1	ug/L	1763.1	ppb	00:51:24
1	Be 313.107†	-25717.9	-15343.9	9.4708	ug/L	9.4708	ppb	00:51:24
1	Cd 226.502†	1173.9	1297.0	2.5895	ug/L	2.5895	ppb	00:51:44
1	Co 228.616†	2715.0	2625.6	63.417	ug/L	63.417	ppb	00:51:44
1	Cr 267.716†	30360.9	28642.7	394.80	ug/L	394.80	ppb	00:51:24
1	Cu 324.752†	28798.0	19703.8	82.013	ug/L	82.013	ppb	00:51:24
1	Mn 257.610†	2238880.1	2117291.6	3403.3	ug/L	3403.3	ppb	00:51:19
1	Mo 202.031†	-67.3	-78.1	5.1331	ug/L	5.1331	ppb	00:51:44
1	Ni 231.604†	7174.8	6685.3	213.66	ug/L	213.66	ppb	00:51:44
1	P 214.914†	2051.6	1745.2	876.47	ug/L	876.47	ppb	00:51:44
1	Pb 220.353†	668.7	703.2	141.25	ug/L	141.25	ppb	00:51:44
1	S 181.975 Axial†	600.1	525.1	650.13	ug/L	650.13	ppb	00:51:44
1	Sb 206.836†	92.7	57.7	-4.7916	ug/L	-4.7916	ppb	00:51:44
1	Se 196.026†	-621.4	-568.0	12.452	ug/L	12.452	ppb	00:51:44
1	Si 251.611†	1205650.5	1139833.5	41593	ug/L	41593	ppb	00:51:19
1	Sn 189.927†	-103.4	-105.9	-28.641	ug/L	-28.641	ppb	00:51:44
1	Ti 334.940†	3596793.9	3403502.1	6860.0	ug/L	6860.0	ppb	00:51:19
1	Tl 190.801†	-205.9	-163.6	-2.9935	ug/L	-2.9935	ppb	00:51:44
1	U 409.014†	-7452.6	-4512.6	-169.54	ug/L	-169.54	ppb	00:51:24
1	V 292.402†	43026.0	42326.2	307.28	ug/L	307.28	ppb	00:51:24
1	Zn 213.857†	30639.9	28271.9	287.29	ug/L	287.29	ppb	00:51:44
1	SiO2†	1196335.8	1131015.5	88108	ug/L	88108	ppb	00:52:54
2	Sc Radial	5160.0	5160.0	110	%			00:50:46
2	Y RADIAL	5922.9	5922.9	118.8	%			00:50:46
2	Al 396.153Radial†	191248.2	174531.9	163260	ug/L	163260	ppb	00:50:26
2	Ca 317.933Radial†	17457.3	15901.3	28892	ug/L	28892	ppb	00:50:26
2	Fe 238.204 Radial†	16185.1	14755.8	153090	ug/L	153090	ppb	00:50:26
2	K 766.490 Radial†	110217.0	98271.5	19551	ug/L	19551	ppb	00:50:26
2	Mg 279.077 IEC†	645.4	585.8	23097	ug/L	23097	ppb	00:50:46
2	Na 589.592 Radial†	2042.4	2710.7	923.81	ug/L	923.81	ppb	00:50:26
2	Sr 421.552†	43854.9	40002.2	290.67	ug/L	290.67	ppb	00:50:26
2	Sc 361.383	829025.9	829025.9	107.95	%			00:51:56
2	Y 371.029	806282.3	806282.3	117.02	%			00:51:56
2	Ag 328.068†	-9187.5	-8766.2	3.0778	ug/L	3.0778	ppb	00:51:56
2	As 188.979†	-72.3	-41.9	75.689	ug/L	75.689	ppb	00:52:16
2	B 249.677†	1503.9	1846.5	21.157	ug/L	21.157	ppb	00:51:56
2	Ba 233.527†	160786.9	148936.9	1762.8	ug/L	1762.8	ppb	00:51:56
2	Be 313.107†	-26219.4	-15304.7	9.2485	ug/L	9.2485	ppb	00:51:56
2	Cd 226.502†	1177.5	1277.3	2.3984	ug/L	2.3984	ppb	00:52:16
2	Co 228.616†	2712.7	2570.3	61.977	ug/L	61.977	ppb	00:52:16
2	Cr 267.716†	30970.7	28613.0	394.38	ug/L	394.38	ppb	00:51:56
2	Cu 324.752†	29675.7	19952.9	82.898	ug/L	82.898	ppb	00:51:56
2	Mn 257.610†	2250376.5	2084096.0	3350.0	ug/L	3350.0	ppb	00:51:50
2	Mo 202.031†	-69.6	-78.8	4.9924	ug/L	4.9924	ppb	00:52:16
2	Ni 231.604†	7155.8	6527.2	208.61	ug/L	208.61	ppb	00:52:16

2	P 214.914†	2052.5	1705.9	854.93 ug/L	854.93 ppb	00:52:16
2	Pb 220.353†	649.5	672.3	136.23 ug/L	136.23 ppb	00:52:16
2	S 181.975 Axial†	597.5	510.9	631.87 ug/L	631.87 ppb	00:52:16
2	Sb 206.836†	94.3	57.3	-4.5923 ug/L	-4.5923 ppb	00:52:16
2	Se 196.026†	-623.3	-557.6	16.782 ug/L	16.782 ppb	00:52:16
2	Si 251.611†	1213382.6	1123385.0	40993 ug/L	40993 ppb	00:51:50
2	Sn 189.927†	-106.2	-106.4	-28.718 ug/L	-28.718 ppb	00:52:16
2	Ti 334.940†	3616699.9	3351503.7	6755.2 ug/L	6755.2 ppb	00:51:50
2	Tl 190.801†	-212.2	-165.3	-4.9231 ug/L	-4.9231 ppb	00:52:16
2	U 409.014†	-7547.5	-4454.6	-167.49 ug/L	-167.49 ppb	00:51:56
2	V 292.402†	43970.9	42358.9	307.79 ug/L	307.79 ppb	00:51:56
2	Zn 213.857†	30490.0	27533.0	279.31 ug/L	279.31 ppb	00:52:16
2	SiO2†	1206989.6	1117455.9	87052 ug/L	87052 ppb	00:53:00
3	Sc Radial	5182.8	5182.8	110 %		00:51:11
3	Y RADIAL	5941.3	5941.3	119.2 %		00:51:11
3	Al 396.153Radial†	190733.4	173297.1	162110 ug/L	162110 ppb	00:50:51
3	Ca 317.933Radial†	17402.0	15781.1	28673 ug/L	28673 ppb	00:50:51
3	Fe 238.204 Radial†	16148.4	14657.5	152070 ug/L	152070 ppb	00:50:51
3	K 766.490 Radial†	109963.1	97598.7	19417 ug/L	19417 ppb	00:50:51
3	Mg 279.077 IEC†	649.3	586.8	23139 ug/L	23139 ppb	00:51:11
3	Na 589.592 Radial†	2025.1	2686.9	915.68 ug/L	915.68 ppb	00:50:51
3	Sr 421.552†	43674.0	39661.9	288.20 ug/L	288.20 ppb	00:50:51
3	Sc 361.383	814427.5	814427.5	106.05 %		00:52:27
3	Y 371.029	792872.1	792872.1	115.07 %		00:52:27
3	Ag 328.068†	-9175.8	-8907.7	2.0417 ug/L	2.0417 ppb	00:52:27
3	As 188.979†	-66.7	-37.9	78.227 ug/L	78.227 ppb	00:52:48
3	B 249.677†	1504.4	1872.0	21.958 ug/L	21.958 ppb	00:52:27
3	Ba 233.527†	158000.7	148979.4	1763.3 ug/L	1763.3 ppb	00:52:27
3	Be 313.107†	-25944.8	-15481.2	9.4321 ug/L	9.4321 ppb	00:52:27
3	Cd 226.502†	1145.5	1266.7	2.3544 ug/L	2.3544 ppb	00:52:48
3	Co 228.616†	2698.9	2602.3	62.725 ug/L	62.725 ppb	00:52:48
3	Cr 267.716†	30393.4	28582.8	393.95 ug/L	393.95 ppb	00:52:27
3	Cu 324.752†	28765.3	19587.2	81.477 ug/L	81.477 ppb	00:52:27
3	Mn 257.610†	2244086.6	2115530.2	3400.3 ug/L	3400.3 ppb	00:52:22
3	Mo 202.031†	-71.4	-81.7	4.6449 ug/L	4.6449 ppb	00:52:48
3	Ni 231.604†	7141.6	6632.6	211.98 ug/L	211.98 ppb	00:52:48
3	P 214.914†	2035.9	1724.3	866.01 ug/L	866.01 ppb	00:52:48
3	Pb 220.353†	661.1	694.1	139.54 ug/L	139.54 ppb	00:52:48
3	S 181.975 Axial†	600.4	523.6	648.54 ug/L	648.54 ppb	00:52:48
3	Sb 206.836†	99.6	63.9	-2.2402 ug/L	-2.2402 ppb	00:52:48
3	Se 196.026†	-621.1	-565.8	9.3625 ug/L	9.3625 ppb	00:52:48
3	Si 251.611†	1211239.9	1141511.6	41655 ug/L	41655 ppb	00:52:22
3	Sn 189.927†	-106.6	-108.6	-29.219 ug/L	-29.219 ppb	00:52:48
3	Ti 334.940†	3611846.1	3406978.3	6867.0 ug/L	6867.0 ppb	00:52:22
3	Tl 190.801†	-207.8	-164.7	-3.4526 ug/L	-3.4526 ppb	00:52:48
3	U 409.014†	-7537.6	-4570.5	-171.26 ug/L	-171.26 ppb	00:52:27
3	V 292.402†	43166.4	42330.4	307.58 ug/L	307.58 ppb	00:52:27
3	Zn 213.857†	30403.1	27957.4	284.12 ug/L	284.12 ppb	00:52:48
3	SiO2†	1217661.5	1147559.4	89397 ug/L	89397 ppb	00:53:06

Mean Data: 246070014|949364|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818438.5	106.58	%	1.206				1.13%
Sc Radial	5180.2	110	%	0.4				0.37%
Y 371.029	796325.6	115.57	%	1.271				1.10%
Y RADIAL	5947.3	119.3	%	0.56				0.47%
Ag 328.068†	-8847.1	2.6491	ug/L	0.54065	2.6491	ppb	0.54065	20.41%
Al 396.153Radial†	174282.2	163030	ug/L	829.7	163030	ppb	829.7	0.51%
As 188.979†	-41.5	76.496	ug/L	1.4997	76.496	ppb	1.4997	1.96%
B 249.677†	1868.7	21.717	ug/L	0.4869	21.717	ppb	0.4869	2.24%
Ba 233.527†	148958.1	1763.1	ug/L	0.24	1763.1	ppb	0.24	0.01%
Be 313.107†	-15376.6	9.3838	ug/L	0.11877	9.3838	ppb	0.11877	1.27%
Ca 317.933Radial†	15868.7	28833	ug/L	139.5	28833	ppb	139.5	0.48%
Cd 226.502†	1280.4	2.4474	ug/L	0.12496	2.4474	ppb	0.12496	5.11%
Co 228.616†	2599.4	62.706	ug/L	0.7202	62.706	ppb	0.7202	1.15%
Cr 267.716†	28612.9	394.38	ug/L	0.427	394.38	ppb	0.427	0.11%
Cu 324.752†	19748.0	82.129	ug/L	0.7176	82.129	ppb	0.7176	0.87%
Fe 238.204 Radial†	14751.3	153050	ug/L	951.4	153050	ppb	951.4	0.62%
K 766.490 Radial†	98249.2	19547	ug/L	127.3	19547	ppb	127.3	0.65%

Mg 279.077 IEC†	584.0	23029	ug/L	154.9	23029	ppb	154.9	0.67%
Mn 257.610†	2105639.2	3384.5	ug/L	29.90	3384.5	ppb	29.90	0.88%
Mo 202.031†	-79.5	4.9235	ug/L	0.25130	4.9235	ppb	0.25130	5.10%
Na 589.592 Radial†	2718.6	926.51	ug/L	12.403	926.51	ppb	12.403	1.34%
Ni 231.604†	6615.0	211.42	ug/L	2.572	211.42	ppb	2.572	1.22%
P 214.914†	1725.2	865.81	ug/L	10.770	865.81	ppb	10.770	1.24%
Pb 220.353†	689.9	139.01	ug/L	2.552	139.01	ppb	2.552	1.84%
S 181.975 Axial†	519.9	643.51	ug/L	10.119	643.51	ppb	10.119	1.57%
Sb 206.836†	59.6	-3.8747	ug/L	1.41899	-3.8747	ppb	1.41899	36.62%
Se 196.026†	-563.8	12.866	ug/L	3.7272	12.866	ppb	3.7272	28.97%
Si 251.611†	1134910.0	41414	ug/L	365.5	41414	ppb	365.5	0.88%
Sn 189.927†	-107.0	-28.859	ug/L	0.3139	-28.859	ppb	0.3139	1.09%
Sr 421.552†	39943.1	290.24	ug/L	1.866	290.24	ppb	1.866	0.64%
Ti 334.940†	3387328.0	6827.4	ug/L	62.61	6827.4	ppb	62.61	0.92%
Tl 190.801†	-164.5	-3.7897	ug/L	1.00804	-3.7897	ppb	1.00804	26.60%
U 409.014†	-4512.6	-169.43	ug/L	1.884	-169.43	ppb	1.884	1.11%
V 292.402†	42338.5	307.55	ug/L	0.255	307.55	ppb	0.255	0.08%
Zn 213.857†	27920.8	283.57	ug/L	4.021	283.57	ppb	4.021	1.42%
SiO2†	1132010.3	88186	ug/L	1174.5	88186	ppb	1174.5	1.33%

Sequence No.: 58
Sample ID: 246070015|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 83
Date Collected: 3/2/2010 00:55:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070015|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5103.3	5103.3	108	%			00:57:09
1	Y RADIAL	5833.2	5833.2	117.0	%			00:57:09
1	Al 396.153Radial†	37600.0	34764.8	32520	ug/L	32520	ppb	00:57:09
1	Ca 317.933Radial†	22380.8	20619.1	37464	ug/L	37464	ppb	00:57:09
1	Fe 238.204 Radial†	7921.7	7298.7	75724	ug/L	75724	ppb	00:57:09
1	K 766.490 Radial†	33255.1	28408.8	5641.6	ug/L	5641.6	ppb	00:57:09
1	Mg 279.077 IEC†	262.5	239.2	9419.2	ug/L	9419.2	ppb	00:57:29
1	Na 589.592 Radial†	2449.7	3107.1	1058.9	ug/L	1058.9	ppb	00:57:09
1	Sr 421.552†	22436.5	20693.2	150.20	ug/L	150.20	ppb	00:57:09
1	Sc 361.383	836412.2	836412.2	108.92	%			00:58:27
1	Y 371.029	805276.7	805276.7	116.87	%			00:58:27
1	Ag 328.068†	-4401.3	-4296.7	1.3309	ug/L	1.3309	ppb	00:58:32
1	As 188.979†	-39.3	-11.1	36.120	ug/L	36.120	ppb	00:58:52
1	B 249.677†	323.4	750.4	6.4146	ug/L	6.4146	ppb	00:58:32
1	Ba 233.527†	61537.5	56497.3	669.29	ug/L	669.29	ppb	00:58:32
1	Be 313.107†	-19458.2	-8882.6	2.5788	ug/L	2.5788	ppb	00:58:32
1	Cd 226.502†	490.7	637.1	1.2280	ug/L	1.2280	ppb	00:58:52
1	Co 228.616†	926.2	907.8	20.982	ug/L	20.982	ppb	00:58:52
1	Cr 267.716†	7616.0	6916.9	96.188	ug/L	96.188	ppb	00:58:32
1	Cu 324.752†	20973.8	11720.7	47.943	ug/L	47.943	ppb	00:58:32
1	Mn 257.610†	1174201.0	1077613.3	1732.0	ug/L	1732.0	ppb	00:58:27
1	Mo 202.031†	4.0	-10.7	5.3390	ug/L	5.3390	ppb	00:58:52
1	Ni 231.604†	1940.0	1679.9	53.683	ug/L	53.683	ppb	00:58:52
1	P 214.914†	3400.3	2926.5	1572.3	ug/L	1572.3	ppb	00:58:52
1	Pb 220.353†	1093.1	1074.3	175.57	ug/L	175.57	ppb	00:58:52
1	S 181.975 Axial†	488.2	405.8	520.01	ug/L	520.01	ppb	00:58:52
1	Sb 206.836†	58.2	23.4	-1.1735	ug/L	-1.1735	ppb	00:58:52
1	Se 196.026†	-299.3	-255.0	16.477	ug/L	16.477	ppb	00:58:52
1	Si 251.611†	846974.0	777046.9	28355	ug/L	28355	ppb	00:58:27
1	Sn 189.927†	-135.2	-132.2	-28.836	ug/L	-28.836	ppb	00:58:52
1	Ti 334.940†	1453186.3	1335521.5	2695.4	ug/L	2695.4	ppb	00:58:27
1	Tl 190.801†	-104.0	-64.2	0.6766	ug/L	0.6766	ppb	00:58:52
1	U 409.014†	-5569.2	-2576.5	-95.119	ug/L	-95.119	ppb	00:58:32
1	V 292.402†	18039.9	18191.1	130.95	ug/L	130.95	ppb	00:58:32
1	Zn 213.857†	31389.5	28109.5	298.27	ug/L	298.27	ppb	00:58:32
1	SiO2†	835438.2	766448.2	59708	ug/L	59708	ppb	01:00:01
2	Sc Radial	5107.5	5107.5	109	%			00:57:35
2	Y RADIAL	5828.0	5828.0	116.9	%			00:57:35
2	Al 396.153Radial†	37571.9	34709.9	32468	ug/L	32468	ppb	00:57:35
2	Ca 317.933Radial†	22347.9	20571.6	37377	ug/L	37377	ppb	00:57:35
2	Fe 238.204 Radial†	7867.8	7242.9	75146	ug/L	75146	ppb	00:57:35
2	K 766.490 Radial†	33262.7	28390.2	5637.9	ug/L	5637.9	ppb	00:57:35
2	Mg 279.077 IEC†	269.1	245.1	9653.4	ug/L	9653.4	ppb	00:57:55
2	Na 589.592 Radial†	2389.0	3049.3	1039.2	ug/L	1039.2	ppb	00:57:35
2	Sr 421.552†	22473.8	20710.3	150.32	ug/L	150.32	ppb	00:57:35
2	Sc 361.383	833512.1	833512.1	108.54	%			00:58:58
2	Y 371.029	801863.4	801863.4	116.37	%			00:58:58
2	Ag 328.068†	-4336.7	-4251.2	1.3794	ug/L	1.3794	ppb	00:59:03
2	As 188.979†	-30.1	-2.7	39.630	ug/L	39.630	ppb	00:59:23
2	B 249.677†	293.3	723.7	5.8402	ug/L	5.8402	ppb	00:59:03
2	Ba 233.527†	60599.6	55829.8	661.39	ug/L	661.39	ppb	00:59:03
2	Be 313.107†	-19279.9	-8780.5	2.5952	ug/L	2.5952	ppb	00:59:03
2	Cd 226.502†	469.1	618.8	1.0282	ug/L	1.0282	ppb	00:59:23
2	Co 228.616†	923.1	908.0	21.014	ug/L	21.014	ppb	00:59:23
2	Cr 267.716†	7551.5	6881.8	95.694	ug/L	95.694	ppb	00:59:03
2	Cu 324.752†	20724.4	11557.8	47.302	ug/L	47.302	ppb	00:59:03
2	Mn 257.610†	1165457.6	1073308.8	1725.0	ug/L	1725.0	ppb	00:58:58
2	Mo 202.031†	6.6	-8.3	5.5168	ug/L	5.5168	ppb	00:59:23
2	Ni 231.604†	1927.4	1674.4	53.510	ug/L	53.510	ppb	00:59:23

2	P 214.914†	3377.8	2916.7	1567.4	ug/L	1567.4 ppb	00:59:23
2	Pb 220.353†	1067.1	1053.8	172.30	ug/L	172.30 ppb	00:59:23
2	S 181.975 Axial†	490.5	409.4	524.72	ug/L	524.72 ppb	00:59:23
2	Sb 206.836†	52.3	18.2	-3.2554	ug/L	-3.2554 ppb	00:59:23
2	Se 196.026†	-295.4	-252.3	16.780	ug/L	16.780 ppb	00:59:23
2	Si 251.611†	839661.3	773015.2	28208	ug/L	28208 ppb	00:58:58
2	Sn 189.927†	-136.9	-134.2	-29.275	ug/L	-29.275 ppb	00:59:23
2	Ti 334.940†	1442399.5	1330225.6	2684.6	ug/L	2684.6 ppb	00:58:58
2	Tl 190.801†	-117.2	-76.7	-5.1806	ug/L	-5.1806 ppb	00:59:23
2	U 409.014†	-5481.8	-2513.7	-92.951	ug/L	-92.951 ppb	00:59:03
2	V 292.402†	17738.7	17971.1	129.31	ug/L	129.31 ppb	00:59:03
2	Zn 213.857†	30864.4	27726.0	294.13	ug/L	294.13 ppb	00:59:03
2	SiO2†	836383.2	769987.7	59983	ug/L	59983 ppb	01:00:07
3	Sc Radial	5115.0	5115.0	109	%		00:58:00
3	Y RADIAL	5826.4	5826.4	116.9	%		00:58:00
3	Al 396.153Radial†	37608.7	34693.4	32453	ug/L	32453 ppb	00:58:00
3	Ca 317.933Radial†	22371.0	20562.9	37362	ug/L	37362 ppb	00:58:00
3	Fe 238.204 Radial†	7849.4	7215.5	74861	ug/L	74861 ppb	00:58:00
3	K 766.490 Radial†	33159.1	28250.3	5610.0	ug/L	5610.0 ppb	00:58:00
3	Mg 279.077 IEC†	262.6	238.7	9399.3	ug/L	9399.3 ppb	00:58:20
3	Na 589.592 Radial†	2451.3	3103.4	1057.6	ug/L	1057.6 ppb	00:58:00
3	Sr 421.552†	22413.5	20624.6	149.70	ug/L	149.70 ppb	00:58:00
3	Sc 361.383	837853.1	837853.1	109.10	%		00:59:29
3	Y 371.029	806698.6	806698.6	117.08	%		00:59:29
3	Ag 328.068†	-4345.6	-4238.7	1.3557	ug/L	1.3557 ppb	00:59:34
3	As 188.979†	-36.9	-8.8	36.820	ug/L	36.820 ppb	00:59:54
3	B 249.677†	280.2	710.3	5.5510	ug/L	5.5510 ppb	00:59:34
3	Ba 233.527†	60933.7	55846.7	661.58	ug/L	661.58 ppb	00:59:34
3	Be 313.107†	-19548.8	-8934.9	2.5299	ug/L	2.5299 ppb	00:59:34
3	Cd 226.502†	463.2	611.2	0.9497	ug/L	0.9497 ppb	00:59:54
3	Co 228.616†	935.1	914.5	21.221	ug/L	21.221 ppb	00:59:54
3	Cr 267.716†	7613.9	6903.0	95.978	ug/L	95.978 ppb	00:59:34
3	Cu 324.752†	20804.1	11531.9	47.189	ug/L	47.189 ppb	00:59:34
3	Mn 257.610†	1168458.5	1070496.1	1720.5	ug/L	1720.5 ppb	00:59:29
3	Mo 202.031†	11.6	-3.7	5.9126	ug/L	5.9126 ppb	00:59:54
3	Ni 231.604†	1945.7	1682.0	53.752	ug/L	53.752 ppb	00:59:54
3	P 214.914†	3392.6	2914.1	1566.2	ug/L	1566.2 ppb	00:59:54
3	Pb 220.353†	1071.7	1053.0	172.19	ug/L	172.19 ppb	00:59:54
3	S 181.975 Axial†	492.6	409.0	524.19	ug/L	524.19 ppb	00:59:54
3	Sb 206.836†	54.2	19.6	-2.6299	ug/L	-2.6299 ppb	00:59:54
3	Se 196.026†	-299.5	-254.7	14.691	ug/L	14.691 ppb	00:59:54
3	Si 251.611†	843110.9	772168.8	28177	ug/L	28177 ppb	00:59:29
3	Sn 189.927†	-129.9	-127.2	-27.606	ug/L	-27.606 ppb	00:59:54
3	Ti 334.940†	1448990.2	1329381.2	2683.0	ug/L	2683.0 ppb	00:59:29
3	Tl 190.801†	-121.9	-80.5	-6.9604	ug/L	-6.9604 ppb	00:59:54
3	U 409.014†	-5471.7	-2478.3	-91.733	ug/L	-91.733 ppb	00:59:34
3	V 292.402†	17837.3	17976.9	129.40	ug/L	129.40 ppb	00:59:34
3	Zn 213.857†	31126.2	27818.6	295.19	ug/L	295.19 ppb	00:59:34
3	SiO2†	840777.7	770023.1	59986	ug/L	59986 ppb	01:00:13

Mean Data: 246070015|949364|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835925.8	108.85	%	0.288				0.26%
Sc Radial	5108.6	109	%	0.1				0.12%
Y 371.029	804612.9	116.77	%	0.361				0.31%
Y RADIAL	5829.2	116.9	%	0.07				0.06%
Ag 328.068†	-4262.2	1.3553	ug/L	0.02424	1.3553	ppb	0.02424	1.79%
Al 396.153Radial†	34722.7	32480	ug/L	35.0	32480	ppb	35.0	0.11%
As 188.979†	-7.5	37.523	ug/L	1.8579	37.523	ppb	1.8579	4.95%
B 249.677†	728.1	5.9353	ug/L	0.43954	5.9353	ppb	0.43954	7.41%
Ba 233.527†	56058.0	664.08	ug/L	4.506	664.08	ppb	4.506	0.68%
Be 313.107†	-8866.0	2.5680	ug/L	0.03396	2.5680	ppb	0.03396	1.32%
Ca 317.933Radial†	20584.5	37401	ug/L	55.0	37401	ppb	55.0	0.15%
Cd 226.502†	622.4	1.0686	ug/L	0.14352	1.0686	ppb	0.14352	13.43%
Co 228.616†	910.1	21.072	ug/L	0.1297	21.072	ppb	0.1297	0.62%
Cr 267.716†	6900.5	95.954	ug/L	0.2479	95.954	ppb	0.2479	0.26%
Cu 324.752†	11603.5	47.478	ug/L	0.4069	47.478	ppb	0.4069	0.86%
Fe 238.204 Radial†	7252.4	75244	ug/L	440.0	75244	ppb	440.0	0.58%
K 766.490 Radial†	28349.8	5629.8	ug/L	17.24	5629.8	ppb	17.24	0.31%

Mg 279.077 IEC†	241.0	9490.6	ug/L	141.29	9490.6	ppb	141.29	1.49%
Mn 257.610†	1073806.1	1725.8	ug/L	5.78	1725.8	ppb	5.78	0.33%
Mo 202.031†	-7.6	5.5895	ug/L	0.29361	5.5895	ppb	0.29361	5.25%
Na 589.592 Radial†	3086.6	1051.9	ug/L	11.03	1051.9	ppb	11.03	1.05%
Ni 231.604†	1678.8	53.648	ug/L	0.1246	53.648	ppb	0.1246	0.23%
P 214.914†	2919.1	1568.6	ug/L	3.23	1568.6	ppb	3.23	0.21%
Pb 220.353†	1060.4	173.36	ug/L	1.919	173.36	ppb	1.919	1.11%
S 181.975 Axial†	408.1	522.97	ug/L	2.583	522.97	ppb	2.583	0.49%
Sb 206.836†	20.4	-2.3530	ug/L	1.06822	-2.3530	ppb	1.06822	45.40%
Se 196.026†	-254.0	15.982	ug/L	1.1289	15.982	ppb	1.1289	7.06%
Si 251.611†	774077.0	28247	ug/L	95.1	28247	ppb	95.1	0.34%
Sn 189.927†	-131.2	-28.572	ug/L	0.8651	-28.572	ppb	0.8651	3.03%
Sr 421.552†	20676.0	150.07	ug/L	0.329	150.07	ppb	0.329	0.22%
Ti 334.940†	1331709.4	2687.7	ug/L	6.72	2687.7	ppb	6.72	0.25%
Tl 190.801†	-73.8	-3.8215	ug/L	3.99578	-3.8215	ppb	3.99578	104.56%
U 409.014†	-2522.8	-93.268	ug/L	1.7149	-93.268	ppb	1.7149	1.84%
V 292.402†	18046.4	129.89	ug/L	0.924	129.89	ppb	0.924	0.71%
Zn 213.857†	27884.7	295.87	ug/L	2.151	295.87	ppb	2.151	0.73%
SiO2†	768819.7	59892	ug/L	160.0	59892	ppb	160.0	0.27%

Sequence No.: 59
Sample ID: 246070016|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 84
Date Collected: 3/2/2010 01:02:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070016|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5142.5	5142.5	109	%			01:04:37
1	Y RADIAL	5919.6	5919.6	118.7	%			01:04:37
1	Al 396.153Radial†	196212.7	179670.0	168070	ug/L	168070	ppb	01:04:17
1	Ca 317.933Radial†	12822.6	11713.7	21283	ug/L	21283	ppb	01:04:17
1	Fe 238.204 Radial†	14171.6	12963.2	134490	ug/L	134490	ppb	01:04:17
1	K 766.490 Radial†	106740.2	95431.9	18989	ug/L	18989	ppb	01:04:17
1	Mg 279.077 IEC†	606.2	552.0	21775	ug/L	21775	ppb	01:04:37
1	Na 589.592 Radial†	1753.4	2452.6	835.84	ug/L	835.84	ppb	01:04:17
1	Sr 421.552†	37168.9	34019.1	247.22	ug/L	247.22	ppb	01:04:17
1	Sc 361.383	823709.8	823709.8	107.26	%			01:05:36
1	Y 371.029	802133.1	802133.1	116.41	%			01:05:36
1	Ag 328.068†	-7979.9	-7695.3	2.7592	ug/L	2.7592	ppb	01:05:56
1	As 188.979†	-69.5	-39.8	63.772	ug/L	63.772	ppb	01:05:56
1	B 249.677†	1429.3	1786.0	22.715	ug/L	22.715	ppb	01:05:36
1	Ba 233.527†	138425.8	129051.0	1527.5	ug/L	1527.5	ppb	01:05:36
1	Be 313.107†	-18771.2	-8517.6	9.7129	ug/L	9.7129	ppb	01:05:36
1	Cd 226.502†	1035.0	1151.5	2.4580	ug/L	2.4580	ppb	01:05:56
1	Co 228.616†	2038.4	1957.9	45.812	ug/L	45.812	ppb	01:05:56
1	Cr 267.716†	8534.9	7881.4	110.71	ug/L	110.71	ppb	01:05:56
1	Cu 324.752†	29050.7	19547.6	80.385	ug/L	80.385	ppb	01:05:36
1	Mn 257.610†	1617787.8	1507791.1	2425.8	ug/L	2425.8	ppb	01:05:36
1	Mo 202.031†	-63.6	-73.7	3.9314	ug/L	3.9314	ppb	01:05:56
1	Ni 231.604†	2773.3	2484.2	79.376	ug/L	79.376	ppb	01:05:56
1	P 214.914†	1693.9	1383.9	691.62	ug/L	691.62	ppb	01:05:56
1	Pb 220.353†	592.5	623.1	130.86	ug/L	130.86	ppb	01:05:56
1	S 181.975 Axial†	604.1	520.7	643.60	ug/L	643.60	ppb	01:05:56
1	Sb 206.836†	67.8	33.1	-11.199	ug/L	-11.199	ppb	01:05:56
1	Se 196.026†	-567.4	-509.2	5.2354	ug/L	5.2354	ppb	01:05:56
1	Si 251.611†	1165863.9	1086337.6	39641	ug/L	39641	ppb	01:05:36
1	Sn 189.927†	-77.8	-80.6	-22.915	ug/L	-22.915	ppb	01:05:56
1	Ti 334.940†	3069848.5	2863299.4	5770.7	ug/L	5770.7	ppb	01:05:36
1	Tl 190.801†	-186.2	-142.3	-6.7624	ug/L	-6.7624	ppb	01:05:56
1	U 409.014†	-6831.2	-3831.9	-143.89	ug/L	-143.89	ppb	01:05:36
1	V 292.402†	37204.2	36313.2	263.52	ug/L	263.52	ppb	01:05:36
1	Zn 213.857†	27787.4	25195.7	257.14	ug/L	257.14	ppb	01:05:56
1	SiO2†	1168154.5	1088465.9	84793	ug/L	84793	ppb	01:06:56
2	Sc Radial	5113.4	5113.4	109	%			01:05:03
2	Y RADIAL	5877.2	5877.2	117.9	%			01:05:03
2	Al 396.153Radial†	197482.8	181862.1	170120	ug/L	170120	ppb	01:04:42
2	Ca 317.933Radial†	12957.4	11904.6	21630	ug/L	21630	ppb	01:04:42
2	Fe 238.204 Radial†	14263.0	13121.2	136130	ug/L	136130	ppb	01:04:42
2	K 766.490 Radial†	106858.5	96097.4	19121	ug/L	19121	ppb	01:04:42
2	Mg 279.077 IEC†	611.8	560.3	22102	ug/L	22102	ppb	01:05:03
2	Na 589.592 Radial†	1782.1	2488.1	847.95	ug/L	847.95	ppb	01:04:42
2	Sr 421.552†	37241.8	34280.1	249.11	ug/L	249.11	ppb	01:04:42
2	Sc 361.383	840091.7	840091.7	109.40	%			01:06:03
2	Y 371.029	818497.2	818497.2	118.79	%			01:06:03
2	Ag 328.068†	-7935.0	-7509.2	4.1881	ug/L	4.1881	ppb	01:06:23
2	As 188.979†	-60.4	-30.2	67.602	ug/L	67.602	ppb	01:06:23
2	B 249.677†	1355.2	1692.3	20.108	ug/L	20.108	ppb	01:06:03
2	Ba 233.527†	138441.8	126549.1	1498.0	ug/L	1498.0	ppb	01:06:03
2	Be 313.107†	-19170.4	-8541.3	9.4822	ug/L	9.4822	ppb	01:06:03
2	Cd 226.502†	1039.5	1136.8	2.0799	ug/L	2.0799	ppb	01:06:23
2	Co 228.616†	2000.0	1885.7	43.791	ug/L	43.791	ppb	01:06:23
2	Cr 267.716†	8491.9	7687.0	108.08	ug/L	108.08	ppb	01:06:23
2	Cu 324.752†	29304.7	19251.7	79.361	ug/L	79.361	ppb	01:06:03
2	Mn 257.610†	1617192.0	1477835.5	2378.0	ug/L	2378.0	ppb	01:06:03
2	Mo 202.031†	-91.0	-97.5	1.8735	ug/L	1.8735	ppb	01:06:23
2	Ni 231.604†	2782.9	2442.5	78.046	ug/L	78.046	ppb	01:06:23

2	P 214.914†	1716.2	1373.4	685.21 ug/L	685.21 ppb	01:06:23
2	Pb 220.353†	569.5	591.3	126.09 ug/L	126.09 ppb	01:06:23
2	S 181.975 Axial†	605.3	510.8	630.34 ug/L	630.34 ppb	01:06:23
2	Sb 206.836†	74.8	38.3	-8.8937 ug/L	-8.8937 ppb	01:06:23
2	Se 196.026†	-570.0	-501.2	14.007 ug/L	14.007 ppb	01:06:23
2	Si 251.611†	1168140.3	1067223.3	38944 ug/L	38944 ppb	01:06:03
2	Sn 189.927†	-73.4	-75.1	-21.669 ug/L	-21.669 ppb	01:06:23
2	Ti 334.940†	3077984.5	2814927.3	5673.2 ug/L	5673.2 ppb	01:06:03
2	Tl 190.801†	-187.8	-140.4	-6.9072 ug/L	-6.9072 ppb	01:06:23
2	U 409.014†	-6811.2	-3689.4	-139.30 ug/L	-139.30 ppb	01:06:03
2	V 292.402†	37154.5	35591.4	257.62 ug/L	257.62 ppb	01:06:03
2	Zn 213.857†	27651.6	24566.4	249.96 ug/L	249.96 ppb	01:06:23
2	SiO2†	1157583.4	1057565.8	82386 ug/L	82386 ppb	01:07:02
3	Sc Radial	5108.8	5108.8	109 %		01:05:28
3	Y RADIAL	5893.2	5893.2	118.2 %		01:05:28
3	Al 396.153Radial†	203437.9	187509.7	175400 ug/L	175400 ppb	01:05:08
3	Ca 317.933Radial†	13244.6	12179.8	22130 ug/L	22130 ppb	01:05:08
3	Fe 238.204 Radial†	14609.6	13452.2	139570 ug/L	139570 ppb	01:05:08
3	K 766.490 Radial†	109726.3	98826.6	19664 ug/L	19664 ppb	01:05:08
3	Mg 279.077 IEC†	618.7	567.1	22370 ug/L	22370 ppb	01:05:28
3	Na 589.592 Radial†	1855.1	2556.9	871.38 ug/L	871.38 ppb	01:05:08
3	Sr 421.552†	38498.3	35468.0	257.75 ug/L	257.75 ppb	01:05:08
3	Sc 361.383	829875.8	829875.8	108.07 %		01:06:29
3	Y 371.029	808702.2	808702.2	117.37 %		01:06:29
3	Ag 328.068†	-7893.5	-7560.1	4.9746 ug/L	4.9746 ppb	01:06:50
3	As 188.979†	-66.8	-36.8	65.180 ug/L	65.180 ppb	01:06:50
3	B 249.677†	1404.6	1753.2	21.074 ug/L	21.074 ppb	01:06:29
3	Ba 233.527†	136308.1	126132.5	1493.2 ug/L	1493.2 ppb	01:06:29
3	Be 313.107†	-18775.9	-8391.9	9.4756 ug/L	9.4756 ppb	01:06:29
3	Cd 226.502†	1025.1	1135.2	1.7033 ug/L	1.7033 ppb	01:06:50
3	Co 228.616†	1999.8	1908.0	44.477 ug/L	44.477 ppb	01:06:50
3	Cr 267.716†	8498.7	7788.8	109.54 ug/L	109.54 ppb	01:06:50
3	Cu 324.752†	28612.1	18940.5	78.378 ug/L	78.378 ppb	01:06:29
3	Mn 257.610†	1592408.4	1473099.7	2370.8 ug/L	2370.8 ppb	01:06:29
3	Mo 202.031†	-83.9	-92.1	2.6497 ug/L	2.6497 ppb	01:06:50
3	Ni 231.604†	2775.4	2466.9	78.825 ug/L	78.825 ppb	01:06:50
3	P 214.914†	1692.4	1370.7	682.45 ug/L	682.45 ppb	01:06:50
3	Pb 220.353†	585.4	612.4	130.51 ug/L	130.51 ppb	01:06:50
3	S 181.975 Axial†	610.5	522.4	644.45 ug/L	644.45 ppb	01:06:50
3	Sb 206.836†	74.3	38.8	-8.8121 ug/L	-8.8121 ppb	01:06:50
3	Se 196.026†	-563.1	-501.3	22.132 ug/L	22.132 ppb	01:06:50
3	Si 251.611†	1148797.2	1062468.8	38770 ug/L	38770 ppb	01:06:29
3	Sn 189.927†	-78.5	-80.7	-23.080 ug/L	-23.080 ppb	01:06:50
3	Ti 334.940†	3024954.4	2800491.3	5644.2 ug/L	5644.2 ppb	01:06:29
3	Tl 190.801†	-183.0	-138.2	-6.1365 ug/L	-6.1365 ppb	01:06:50
3	U 409.014†	-6764.8	-3723.1	-140.82 ug/L	-140.82 ppb	01:06:29
3	V 292.402†	36666.3	35557.7	256.89 ug/L	256.89 ppb	01:06:29
3	Zn 213.857†	27675.5	24899.7	253.12 ug/L	253.12 ppb	01:06:50
3	SiO2†	1152980.4	1066332.5	83069 ug/L	83069 ppb	01:07:08

Mean Data: 246070016|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	831225.8	108.24	%	1.077				1.00%
Sc Radial	5121.6	109	%	0.4				0.36%
Y 371.029	809777.5	117.52	%	1.195				1.02%
Y RADIAL	5896.7	118.3	%	0.43				0.36%
Ag 328.068†	-7588.2	3.9740	ug/L	1.12316	3.9740	ppb	1.12316	28.26%
Al 396.153Radial†	183013.9	171190	ug/L	3783.6	171190	ppb	3783.6	2.21%
As 188.979†	-35.6	65.518	ug/L	1.9373	65.518	ppb	1.9373	2.96%
B 249.677†	1743.8	21.299	ug/L	1.3181	21.299	ppb	1.3181	6.19%
Ba 233.527†	127244.2	1506.3	ug/L	18.57	1506.3	ppb	18.57	1.23%
Be 313.107†	-8483.6	9.5569	ug/L	0.13515	9.5569	ppb	0.13515	1.41%
Ca 317.933Radial†	11932.7	21681	ug/L	425.7	21681	ppb	425.7	1.96%
Cd 226.502†	1141.2	2.0804	ug/L	0.37737	2.0804	ppb	0.37737	18.14%
Co 228.616†	1917.2	44.693	ug/L	1.0275	44.693	ppb	1.0275	2.30%
Cr 267.716†	7785.7	109.44	ug/L	1.320	109.44	ppb	1.320	1.21%
Cu 324.752†	19246.6	79.374	ug/L	1.0035	79.374	ppb	1.0035	1.26%
Fe 238.204 Radial†	13178.9	136730	ug/L	2588.8	136730	ppb	2588.8	1.89%
K 766.490 Radial†	96785.3	19258	ug/L	358.0	19258	ppb	358.0	1.86%

Mg 279.077 IEC†	559.8	22083	ug/L	298.0	22083	ppb	298.0	1.35%
Mn 257.610†	1486242.1	2391.5	ug/L	29.91	2391.5	ppb	29.91	1.25%
Mo 202.031†	-87.8	2.8182	ug/L	1.03921	2.8182	ppb	1.03921	36.87%
Na 589.592 Radial†	2499.2	851.72	ug/L	18.068	851.72	ppb	18.068	2.12%
Ni 231.604†	2464.5	78.749	ug/L	0.6683	78.749	ppb	0.6683	0.85%
P 214.914†	1376.0	686.43	ug/L	4.704	686.43	ppb	4.704	0.69%
Pb 220.353†	608.9	129.15	ug/L	2.660	129.15	ppb	2.660	2.06%
S 181.975 Axial†	517.9	639.46	ug/L	7.909	639.46	ppb	7.909	1.24%
Sb 206.836†	36.7	-9.6350	ug/L	1.35525	-9.6350	ppb	1.35525	14.07%
Se 196.026†	-503.9	13.791	ug/L	8.4502	13.791	ppb	8.4502	61.27%
Si 251.611†	1072009.9	39118	ug/L	461.0	39118	ppb	461.0	1.18%
Sn 189.927†	-78.8	-22.555	ug/L	0.7713	-22.555	ppb	0.7713	3.42%
Sr 421.552†	34589.1	251.36	ug/L	5.613	251.36	ppb	5.613	2.23%
Ti 334.940†	2826239.3	5696.0	ug/L	66.26	5696.0	ppb	66.26	1.16%
Tl 190.801†	-140.3	-6.6020	ug/L	0.40961	-6.6020	ppb	0.40961	6.20%
U 409.014†	-3748.1	-141.33	ug/L	2.337	-141.33	ppb	2.337	1.65%
V 292.402†	35820.8	259.34	ug/L	3.633	259.34	ppb	3.633	1.40%
Zn 213.857†	24887.3	253.41	ug/L	3.596	253.41	ppb	3.596	1.42%
SiO2†	1070788.1	83416	ug/L	1240.5	83416	ppb	1240.5	1.49%

Sequence No.: 60
Sample ID: 246070017|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 85
Date Collected: 3/2/2010 01:09:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070017|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5002.2	5002.2	106	%			01:11:32
1	Y RADIAL	5965.6	5965.6	119.7	%			01:11:32
1	Al 396.153Radial†	205851.8	193775.5	181260	ug/L	181260	ppb	01:11:12
1	Ca 317.933Radial†	12300.7	11551.7	20989	ug/L	20989	ppb	01:11:12
1	Fe 238.204 Radial†	15628.7	14697.9	152490	ug/L	152490	ppb	01:11:12
1	K 766.490 Radial†	115139.5	106074.5	21106	ug/L	21106	ppb	01:11:12
1	Mg 279.077 IEC†	652.5	611.0	24102	ug/L	24102	ppb	01:11:32
1	Na 589.592 Radial†	6969.0	7405.0	2523.6	ug/L	2523.6	ppb	01:11:12
1	Sr 421.552†	37602.4	35381.0	257.13	ug/L	257.13	ppb	01:11:12
1	Sc 361.383	827579.9	827579.9	107.77	%			01:12:36
1	Y 371.029	832922.7	832922.7	120.88	%			01:12:31
1	Ag 328.068†	-9017.2	-8623.1	3.6664	ug/L	3.6664	ppb	01:12:36
1	As 188.979†	-80.2	-49.4	69.057	ug/L	69.057	ppb	01:12:56
1	B 249.677†	1402.9	1755.3	18.982	ug/L	18.982	ppb	01:12:36
1	Ba 233.527†	148857.2	138127.1	1635.2	ug/L	1635.2	ppb	01:12:36
1	Be 313.107†	-19613.1	-9216.9	10.840	ug/L	10.840	ppb	01:12:36
1	Cd 226.502†	1105.8	1212.8	1.4872	ug/L	1.4872	ppb	01:12:56
1	Co 228.616†	2548.3	2422.1	58.296	ug/L	58.296	ppb	01:12:56
1	Cr 267.716†	15791.9	14578.2	202.60	ug/L	202.60	ppb	01:12:56
1	Cu 324.752†	27749.7	18213.7	76.369	ug/L	76.369	ppb	01:12:36
1	Mn 257.610†	1982175.9	1838865.8	2957.4	ug/L	2957.4	ppb	01:12:31
1	Mo 202.031†	-73.4	-82.5	4.5150	ug/L	4.5150	ppb	01:12:56
1	Ni 231.604†	4362.8	3947.0	126.13	ug/L	126.13	ppb	01:12:56
1	P 214.914†	1665.6	1350.2	662.66	ug/L	662.66	ppb	01:12:56
1	Pb 220.353†	549.4	580.5	125.76	ug/L	125.76	ppb	01:12:56
1	S 181.975 Axial†	573.3	489.4	600.61	ug/L	600.61	ppb	01:12:56
1	Sb 206.836†	95.7	58.8	-3.2679	ug/L	-3.2679	ppb	01:12:56
1	Se 196.026†	-616.2	-552.0	20.612	ug/L	20.612	ppb	01:12:56
1	Si 251.611†	1294911.6	1201002.3	43825	ug/L	43825	ppb	01:12:31
1	Sn 189.927†	-63.3	-66.9	-20.769	ug/L	-20.769	ppb	01:12:56
1	Ti 334.940†	3415212.8	3170390.6	6389.2	ug/L	6389.2	ppb	01:12:31
1	Tl 190.801†	-213.7	-167.1	-10.555	ug/L	-10.555	ppb	01:12:56
1	U 409.014†	-8400.6	-5258.4	-193.91	ug/L	-193.91	ppb	01:12:36
1	V 292.402†	40809.9	39496.8	285.50	ug/L	285.50	ppb	01:12:36
1	Zn 213.857†	31864.1	28857.5	294.54	ug/L	294.54	ppb	01:12:36
1	SiO2†	1314670.6	1219330.1	94988	ug/L	94988	ppb	01:14:06
2	Sc Radial	5158.8	5158.8	110	%			01:11:58
2	Y RADIAL	6099.9	6099.9	122.4	%			01:11:58
2	Al 396.153Radial†	210530.2	192165.2	179750	ug/L	179750	ppb	01:11:38
2	Ca 317.933Radial†	12507.2	11388.8	20693	ug/L	20693	ppb	01:11:38
2	Fe 238.204 Radial†	15921.6	14518.8	150630	ug/L	150630	ppb	01:11:38
2	K 766.490 Radial†	116722.8	104230.9	20740	ug/L	20740	ppb	01:11:38
2	Mg 279.077 IEC†	646.2	586.6	23134	ug/L	23134	ppb	01:11:58
2	Na 589.592 Radial†	6926.2	7166.9	2442.5	ug/L	2442.5	ppb	01:11:38
2	Sr 421.552†	38222.9	34873.3	253.44	ug/L	253.44	ppb	01:11:38
2	Sc 361.383	823484.3	823484.3	107.23	%			01:13:08
2	Y 371.029	837386.2	837386.2	121.53	%			01:13:03
2	Ag 328.068†	-9039.9	-8685.8	2.7698	ug/L	2.7698	ppb	01:13:08
2	As 188.979†	-77.3	-47.0	69.536	ug/L	69.536	ppb	01:13:28
2	B 249.677†	1480.1	1833.7	21.247	ug/L	21.247	ppb	01:13:08
2	Ba 233.527†	148526.5	138505.7	1639.6	ug/L	1639.6	ppb	01:13:08
2	Be 313.107†	-19694.1	-9383.0	10.735	ug/L	10.735	ppb	01:13:08
2	Cd 226.502†	1137.6	1247.5	2.1732	ug/L	2.1732	ppb	01:13:28
2	Co 228.616†	2557.3	2442.2	58.967	ug/L	58.967	ppb	01:13:28
2	Cr 267.716†	15847.8	14703.2	204.27	ug/L	204.27	ppb	01:13:28
2	Cu 324.752†	27683.8	18280.4	76.517	ug/L	76.517	ppb	01:13:08
2	Mn 257.610†	1966101.7	1833023.7	2947.9	ug/L	2947.9	ppb	01:13:03
2	Mo 202.031†	-73.1	-82.5	4.3668	ug/L	4.3668	ppb	01:13:28
2	Ni 231.604†	4350.2	3955.4	126.40	ug/L	126.40	ppb	01:13:28

2	P 214.914†	1642.7	1336.5	656.06	ug/L	656.06 ppb	01:13:28
2	Pb 220.353†	558.0	591.0	127.23	ug/L	127.23 ppb	01:13:28
2	S 181.975 Axial†	557.7	477.6	585.55	ug/L	585.55 ppb	01:13:28
2	Sb 206.836†	89.2	53.1	-5.4680	ug/L	-5.4680 ppb	01:13:28
2	Se 196.026†	-609.7	-548.8	18.254	ug/L	18.254 ppb	01:13:28
2	Si 251.611†	1286730.5	1199349.1	43765	ug/L	43765 ppb	01:13:03
2	Sn 189.927†	-73.4	-76.5	-22.985	ug/L	-22.985 ppb	01:13:28
2	Ti 334.940†	3389217.2	3161909.9	6372.2	ug/L	6372.2 ppb	01:13:03
2	Tl 190.801†	-200.5	-155.8	-5.5713	ug/L	-5.5713 ppb	01:13:28
2	U 409.014†	-8193.5	-5104.0	-188.53	ug/L	-188.53 ppb	01:13:08
2	V 292.402†	40523.5	39418.1	285.15	ug/L	285.15 ppb	01:13:08
2	Zn 213.857†	31839.4	28981.4	296.18	ug/L	296.18 ppb	01:13:08
2	SiO2†	1298648.0	1210455.6	94297	ug/L	94297 ppb	01:14:12
3	Sc Radial	5170.2	5170.2	110	%		01:12:23
3	Y RADIAL	6092.3	6092.3	122.2	%		01:12:23
3	Al 396.153Radial†	204450.1	186207.3	174180	ug/L	174180 ppb	01:12:03
3	Ca 317.933Radial†	12151.5	11039.9	20059	ug/L	20059 ppb	01:12:03
3	Fe 238.204 Radial†	15483.6	14088.1	146170	ug/L	146170 ppb	01:12:03
3	K 766.490 Radial†	114089.5	101599.2	20216	ug/L	20216 ppb	01:12:03
3	Mg 279.077 IEC†	647.7	586.8	23144	ug/L	23144 ppb	01:12:23
3	Na 589.592 Radial†	6798.7	7037.0	2398.2	ug/L	2398.2 ppb	01:12:03
3	Sr 421.552†	37149.1	33819.0	245.77	ug/L	245.77 ppb	01:12:03
3	Sc 361.383	823966.6	823966.6	107.30	%		01:13:40
3	Y 371.029	838494.8	838494.8	121.69	%		01:13:35
3	Ag 328.068†	-8949.6	-8596.7	1.8655	ug/L	1.8655 ppb	01:13:40
3	As 188.979†	-77.0	-46.7	68.934	ug/L	68.934 ppb	01:14:00
3	B 249.677†	1448.1	1803.1	21.204	ug/L	21.204 ppb	01:13:40
3	Ba 233.527†	149264.6	139112.6	1646.7	ug/L	1646.7 ppb	01:13:40
3	Be 313.107†	-19594.9	-9279.9	10.858	ug/L	10.858 ppb	01:13:40
3	Cd 226.502†	1098.3	1210.2	2.1070	ug/L	2.1070 ppb	01:14:00
3	Co 228.616†	2573.9	2456.3	59.382	ug/L	59.382 ppb	01:14:00
3	Cr 267.716†	15875.4	14720.3	204.42	ug/L	204.42 ppb	01:14:00
3	Cu 324.752†	27703.9	18283.9	76.292	ug/L	76.292 ppb	01:13:40
3	Mn 257.610†	1981879.0	1846655.2	2969.3	ug/L	2969.3 ppb	01:13:35
3	Mo 202.031†	-87.3	-95.7	2.7985	ug/L	2.7985 ppb	01:14:00
3	Ni 231.604†	4368.9	3970.5	126.88	ug/L	126.88 ppb	01:14:00
3	P 214.914†	1653.3	1345.5	663.30	ug/L	663.30 ppb	01:14:00
3	Pb 220.353†	578.4	609.8	129.24	ug/L	129.24 ppb	01:14:00
3	S 181.975 Axial†	564.8	483.9	594.74	ug/L	594.74 ppb	01:14:00
3	Sb 206.836†	96.7	60.1	-2.5576	ug/L	-2.5576 ppb	01:14:00
3	Se 196.026†	-597.6	-537.2	14.827	ug/L	14.827 ppb	01:14:00
3	Si 251.611†	1297440.9	1208629.0	44104	ug/L	44104 ppb	01:13:35
3	Sn 189.927†	-68.9	-72.3	-21.844	ug/L	-21.844 ppb	01:14:00
3	Ti 334.940†	3410531.5	3179925.1	6408.4	ug/L	6408.4 ppb	01:13:35
3	Tl 190.801†	-193.9	-149.5	-2.2784	ug/L	-2.2784 ppb	01:14:00
3	U 409.014†	-8085.2	-4998.6	-184.50	ug/L	-184.50 ppb	01:13:40
3	V 292.402†	40728.0	39586.5	287.10	ug/L	287.10 ppb	01:13:40
3	Zn 213.857†	31885.4	29007.0	297.13	ug/L	297.13 ppb	01:13:40
3	SiO2†	1290056.3	1201739.3	93618	ug/L	93618 ppb	01:14:18

Mean Data: 246070017|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	825010.3	107.43	%	0.291				0.27%
Sc Radial	5110.4	109	%	2.0				1.84%
Y 371.029	836267.9	121.37	%	0.428				0.35%
Y RADIAL	6052.6	121.4	%	1.51				1.25%
Ag 328.068†	-8635.2	2.7673	ug/L	0.90042	2.7673	ppb	0.90042	32.54%
Al 396.153Radial†	190716.0	178400	ug/L	3729.3	178400	ppb	3729.3	2.09%
As 188.979†	-47.7	69.176	ug/L	0.3178	69.176	ppb	0.3178	0.46%
B 249.677†	1797.4	20.478	ug/L	1.2955	20.478	ppb	1.2955	6.33%
Ba 233.527†	138581.8	1640.5	ug/L	5.77	1640.5	ppb	5.77	0.35%
Be 313.107†	-9293.3	10.811	ug/L	0.0665	10.811	ppb	0.0665	0.62%
Ca 317.933Radial†	11326.8	20580	ug/L	475.0	20580	ppb	475.0	2.31%
Cd 226.502†	1223.5	1.9225	ug/L	0.37839	1.9225	ppb	0.37839	19.68%
Co 228.616†	2440.2	58.881	ug/L	0.5481	58.881	ppb	0.5481	0.93%
Cr 267.716†	14667.2	203.77	ug/L	1.009	203.77	ppb	1.009	0.50%
Cu 324.752†	18259.3	76.393	ug/L	0.1144	76.393	ppb	0.1144	0.15%
Fe 238.204 Radial†	14434.9	149760	ug/L	3252.1	149760	ppb	3252.1	2.17%
K 766.490 Radial†	103968.2	20687	ug/L	447.6	20687	ppb	447.6	2.16%

Mg 279.077 IEC†	594.8	23460	ug/L	555.9	23460	ppb	555.9	2.37%
Mn 257.610†	1839514.9	2958.2	ug/L	10.71	2958.2	ppb	10.71	0.36%
Mo 202.031†	-86.9	3.8935	ug/L	0.95114	3.8935	ppb	0.95114	24.43%
Na 589.592 Radial†	7203.0	2454.8	ug/L	63.61	2454.8	ppb	63.61	2.59%
Ni 231.604†	3957.7	126.47	ug/L	0.380	126.47	ppb	0.380	0.30%
P 214.914†	1344.1	660.67	ug/L	4.008	660.67	ppb	4.008	0.61%
Pb 220.353†	593.8	127.41	ug/L	1.747	127.41	ppb	1.747	1.37%
S 181.975 Axial†	483.6	593.63	ug/L	7.593	593.63	ppb	7.593	1.28%
Sb 206.836†	57.3	-3.7645	ug/L	1.51742	-3.7645	ppb	1.51742	40.31%
Se 196.026†	-546.0	17.898	ug/L	2.9086	17.898	ppb	2.9086	16.25%
Si 251.611†	1202993.5	43898	ug/L	180.6	43898	ppb	180.6	0.41%
Sn 189.927†	-71.9	-21.866	ug/L	1.1083	-21.866	ppb	1.1083	5.07%
Sr 421.552†	34691.1	252.11	ug/L	5.791	252.11	ppb	5.791	2.30%
Ti 334.940†	3170741.9	6389.9	ug/L	18.12	6389.9	ppb	18.12	0.28%
Tl 190.801†	-157.5	-6.1348	ug/L	4.16683	-6.1348	ppb	4.16683	67.92%
U 409.014†	-5120.4	-188.98	ug/L	4.724	-188.98	ppb	4.724	2.50%
V 292.402†	39500.5	285.92	ug/L	1.036	285.92	ppb	1.036	0.36%
Zn 213.857†	28948.6	295.95	ug/L	1.311	295.95	ppb	1.311	0.44%
SiO2†	1210508.4	94301	ug/L	685.2	94301	ppb	685.2	0.73%

Sequence No.: 61
Sample ID: 246070018|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 86
Date Collected: 3/2/2010 01:16:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070018|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5116.4	5116.4	109	%			01:18:44
1	Y RADIAL	5929.7	5929.7	118.9	%			01:18:44
1	Al 396.153Radial†	186411.5	171570.9	160490	ug/L	160490	ppb	01:18:24
1	Ca 317.933Radial†	11101.7	10190.5	18516	ug/L	18516	ppb	01:18:24
1	Fe 238.204 Radial†	15085.9	13870.5	143910	ug/L	143910	ppb	01:18:24
1	K 766.490 Radial†	103860.4	93281.7	18561	ug/L	18561	ppb	01:18:24
1	Mg 279.077 IEC†	572.7	524.0	20653	ug/L	20653	ppb	01:18:44
1	Na 589.592 Radial†	6162.0	6516.4	2220.8	ug/L	2220.8	ppb	01:18:24
1	Sr 421.552†	33506.5	30823.8	224.00	ug/L	224.00	ppb	01:18:24
1	Sc 361.383	837713.9	837713.9	109.09	%			01:19:41
1	Y 371.029	820183.2	820183.2	119.03	%			01:19:41
1	Ag 328.068†	-8503.0	-8050.5	3.9432	ug/L	3.9432	ppb	01:19:46
1	As 188.979†	-60.8	-30.7	69.961	ug/L	69.961	ppb	01:20:06
1	B 249.677†	1152.6	1510.0	14.261	ug/L	14.261	ppb	01:19:46
1	Ba 233.527†	128495.8	117790.7	1395.0	ug/L	1395.0	ppb	01:19:46
1	Be 313.107†	-17879.5	-7407.6	10.141	ug/L	10.141	ppb	01:19:46
1	Cd 226.502†	1047.3	1146.7	1.4274	ug/L	1.4274	ppb	01:20:06
1	Co 228.616†	2244.7	2115.2	50.347	ug/L	50.347	ppb	01:20:06
1	Cr 267.716†	14557.6	13269.5	184.54	ug/L	184.54	ppb	01:19:46
1	Cu 324.752†	26194.1	16476.2	69.405	ug/L	69.405	ppb	01:19:46
1	Mn 257.610†	1853149.4	1698335.6	2731.8	ug/L	2731.8	ppb	01:19:41
1	Mo 202.031†	-57.0	-66.6	5.2760	ug/L	5.2760	ppb	01:20:06
1	Ni 231.604†	3796.1	3378.5	107.96	ug/L	107.96	ppb	01:20:06
1	P 214.914†	1528.4	1205.7	584.99	ug/L	584.99	ppb	01:20:06
1	Pb 220.353†	601.7	622.3	128.09	ug/L	128.09	ppb	01:20:06
1	S 181.975 Axial†	474.8	392.7	479.09	ug/L	479.09	ppb	01:20:06
1	Sb 206.836†	84.6	47.5	-5.1654	ug/L	-5.1654	ppb	01:20:06
1	Se 196.026†	-583.5	-515.1	21.991	ug/L	21.991	ppb	01:20:06
1	Si 251.611†	1260803.5	1155199.3	42154	ug/L	42154	ppb	01:19:41
1	Sn 189.927†	-73.1	-75.1	-22.657	ug/L	-22.657	ppb	01:20:06
1	Ti 334.940†	3118926.9	2860446.0	5764.6	ug/L	5764.6	ppb	01:19:41
1	Tl 190.801†	-181.0	-134.7	-1.8918	ug/L	-1.8918	ppb	01:20:06
1	U 409.014†	-8274.0	-5048.0	-185.85	ug/L	-185.85	ppb	01:19:46
1	V 292.402†	39401.2	37747.4	273.46	ug/L	273.46	ppb	01:19:46
1	Zn 213.857†	28698.3	25597.7	260.00	ug/L	260.00	ppb	01:19:46
1	SiO2†	1266418.2	1160339.2	90392	ug/L	90392	ppb	01:21:15
2	Sc Radial	5119.9	5119.9	109	%			01:19:09
2	Y RADIAL	5913.6	5913.6	118.6	%			01:19:09
2	Al 396.153Radial†	184257.7	169471.6	158530	ug/L	158530	ppb	01:18:49
2	Ca 317.933Radial†	11025.2	10113.1	18375	ug/L	18375	ppb	01:18:49
2	Fe 238.204 Radial†	15036.1	13815.1	143330	ug/L	143330	ppb	01:18:49
2	K 766.490 Radial†	102963.0	92390.3	18384	ug/L	18384	ppb	01:18:49
2	Mg 279.077 IEC†	573.9	524.7	20683	ug/L	20683	ppb	01:19:09
2	Na 589.592 Radial†	6137.2	6489.6	2211.7	ug/L	2211.7	ppb	01:18:49
2	Sr 421.552†	33051.4	30384.0	220.81	ug/L	220.81	ppb	01:18:49
2	Sc 361.383	847865.8	847865.8	110.41	%			01:20:12
2	Y 371.029	829055.0	829055.0	120.32	%			01:20:12
2	Ag 328.068†	-8640.2	-8081.3	3.6070	ug/L	3.6070	ppb	01:20:17
2	As 188.979†	-67.2	-35.9	67.057	ug/L	67.057	ppb	01:20:38
2	B 249.677†	1242.2	1578.5	16.072	ug/L	16.072	ppb	01:20:17
2	Ba 233.527†	130186.9	117912.0	1396.4	ug/L	1396.4	ppb	01:20:17
2	Be 313.107†	-18247.8	-7544.9	9.9631	ug/L	9.9631	ppb	01:20:17
2	Cd 226.502†	1046.7	1134.7	1.3180	ug/L	1.3180	ppb	01:20:38
2	Co 228.616†	2246.4	2092.1	49.771	ug/L	49.771	ppb	01:20:38
2	Cr 267.716†	14645.1	13188.9	183.42	ug/L	183.42	ppb	01:20:17
2	Cu 324.752†	26679.1	16628.0	69.939	ug/L	69.939	ppb	01:20:17
2	Mn 257.610†	1857261.0	1681719.0	2705.1	ug/L	2705.1	ppb	01:20:12
2	Mo 202.031†	-58.4	-67.2	5.1759	ug/L	5.1759	ppb	01:20:38
2	Ni 231.604†	3852.3	3387.8	108.26	ug/L	108.26	ppb	01:20:38

2	P 214.914†	1529.7	1190.1	576.13	ug/L	576.13 ppb	01:20:38
2	Pb 220.353†	611.2	624.3	127.98	ug/L	127.98 ppb	01:20:38
2	S 181.975 Axial†	487.1	398.6	487.14	ug/L	487.14 ppb	01:20:38
2	Sb 206.836†	82.9	45.0	-5.9173	ug/L	-5.9173 ppb	01:20:38
2	Se 196.026†	-597.8	-521.6	16.507	ug/L	16.507 ppb	01:20:38
2	Si 251.611†	1264062.2	1144312.0	41757	ug/L	41757 ppb	01:20:12
2	Sn 189.927†	-67.8	-69.5	-21.323	ug/L	-21.323 ppb	01:20:38
2	Ti 334.940†	3126953.0	2833481.5	5710.3	ug/L	5710.3 ppb	01:20:12
2	Tl 190.801†	-185.5	-136.8	-3.4295	ug/L	-3.4295 ppb	01:20:38
2	U 409.014†	-8144.4	-4839.8	-178.81	ug/L	-178.81 ppb	01:20:17
2	V 292.402†	39978.1	37837.4	274.33	ug/L	274.33 ppb	01:20:17
2	Zn 213.857†	29051.9	25602.9	260.14	ug/L	260.14 ppb	01:20:17
2	SiO2†	1270741.8	1150354.7	89615	ug/L	89615 ppb	01:21:21
3	Sc Radial	5111.9	5111.9	109	%		01:19:34
3	Y RADIAL	5918.2	5918.2	118.7	%		01:19:34
3	Al 396.153Radial†	179520.1	165374.4	154690	ug/L	154690 ppb	01:19:14
3	Ca 317.933Radial†	10742.7	9868.8	17931	ug/L	17931 ppb	01:19:14
3	Fe 238.204 Radial†	14650.3	13481.4	139870	ug/L	139870 ppb	01:19:14
3	K 766.490 Radial†	100404.5	90182.5	17944	ug/L	17944 ppb	01:19:14
3	Mg 279.077 IEC†	567.3	519.4	20476	ug/L	20476 ppb	01:19:34
3	Na 589.592 Radial†	5878.1	6259.9	2133.4	ug/L	2133.4 ppb	01:19:14
3	Sr 421.552†	32102.4	29557.7	214.80	ug/L	214.80 ppb	01:19:14
3	Sc 361.383	846535.9	846535.9	110.23	%		01:20:43
3	Y 371.029	826865.2	826865.2	120.00	%		01:20:43
3	Ag 328.068†	-8677.0	-8127.0	2.3038	ug/L	2.3038 ppb	01:20:49
3	As 188.979†	-68.1	-36.7	66.280	ug/L	66.280 ppb	01:21:09
3	B 249.677†	1169.2	1514.1	15.019	ug/L	15.019 ppb	01:20:49
3	Ba 233.527†	128305.2	116390.3	1378.3	ug/L	1378.3 ppb	01:20:49
3	Be 313.107†	-17738.7	-7109.1	10.243	ug/L	10.243 ppb	01:20:49
3	Cd 226.502†	1033.5	1124.2	1.5250	ug/L	1.5250 ppb	01:21:09
3	Co 228.616†	2255.1	2103.2	50.050	ug/L	50.050 ppb	01:21:09
3	Cr 267.716†	14519.5	13095.8	182.08	ug/L	182.08 ppb	01:20:49
3	Cu 324.752†	26150.2	16186.1	68.105	ug/L	68.105 ppb	01:20:49
3	Mn 257.610†	1872828.0	1698483.3	2731.6	ug/L	2731.6 ppb	01:20:43
3	Mo 202.031†	-65.6	-73.9	4.2877	ug/L	4.2877 ppb	01:21:09
3	Ni 231.604†	3840.2	3382.3	108.08	ug/L	108.08 ppb	01:21:09
3	P 214.914†	1523.4	1186.6	576.32	ug/L	576.32 ppb	01:21:09
3	Pb 220.353†	594.6	610.1	125.04	ug/L	125.04 ppb	01:21:09
3	S 181.975 Axial†	498.7	409.9	502.46	ug/L	502.46 ppb	01:21:09
3	Sb 206.836†	86.0	48.0	-4.7786	ug/L	-4.7786 ppb	01:21:09
3	Se 196.026†	-578.0	-504.6	18.850	ug/L	18.850 ppb	01:21:09
3	Si 251.611†	1275187.2	1156202.7	42191	ug/L	42191 ppb	01:20:43
3	Sn 189.927†	-74.2	-75.4	-22.598	ug/L	-22.598 ppb	01:21:09
3	Ti 334.940†	3147644.2	2856700.9	5757.0	ug/L	5757.0 ppb	01:20:43
3	Tl 190.801†	-177.3	-129.6	0.3862	ug/L	0.3862 ppb	01:21:09
3	U 409.014†	-8369.9	-5056.0	-185.65	ug/L	-185.65 ppb	01:20:49
3	V 292.402†	39357.1	37331.0	270.72	ug/L	270.72 ppb	01:20:49
3	Zn 213.857†	28717.5	25340.9	257.77	ug/L	257.77 ppb	01:20:49
3	SiO2†	1269669.2	1151189.8	89680	ug/L	89680 ppb	01:21:27

Mean Data: 246070018|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844038.5	109.91	%	0.718				0.65%
Sc Radial	5116.1	109	%	0.1				0.08%
Y 371.029	825367.8	119.79	%	0.671				0.56%
Y RADIAL	5920.5	118.8	%	0.17				0.14%
Ag 328.068†	-8086.3	3.2846	ug/L	0.86593	3.2846	ppb	0.86593	26.36%
Al 396.153Radial†	168805.6	157900	ug/L	2947.9	157900	ppb	2947.9	1.87%
As 188.979†	-34.4	67.766	ug/L	1.9407	67.766	ppb	1.9407	2.86%
B 249.677†	1534.2	15.117	ug/L	0.9097	15.117	ppb	0.9097	6.02%
Ba 233.527†	117364.3	1389.9	ug/L	10.05	1389.9	ppb	10.05	0.72%
Be 313.107†	-7353.9	10.116	ug/L	0.1415	10.116	ppb	0.1415	1.40%
Ca 317.933Radial†	10057.5	18274	ug/L	305.1	18274	ppb	305.1	1.67%
Cd 226.502†	1135.2	1.4234	ug/L	0.10356	1.4234	ppb	0.10356	7.28%
Co 228.616†	2103.5	50.056	ug/L	0.2881	50.056	ppb	0.2881	0.58%
Cr 267.716†	13184.7	183.35	ug/L	1.229	183.35	ppb	1.229	0.67%
Cu 324.752†	16430.1	69.149	ug/L	0.9431	69.149	ppb	0.9431	1.36%
Fe 238.204 Radial†	13722.3	142370	ug/L	2183.5	142370	ppb	2183.5	1.53%
K 766.490 Radial†	91951.5	18296	ug/L	317.5	18296	ppb	317.5	1.74%

Mg 279.077 IEC†	522.7	20604	ug/L	111.8	20604	ppb	111.8	0.54%
Mn 257.610†	1692846.0	2722.8	ug/L	15.34	2722.8	ppb	15.34	0.56%
Mo 202.031†	-69.3	4.9132	ug/L	0.54399	4.9132	ppb	0.54399	11.07%
Na 589.592 Radial†	6422.0	2188.6	ug/L	48.05	2188.6	ppb	48.05	2.20%
Ni 231.604†	3382.9	108.10	ug/L	0.149	108.10	ppb	0.149	0.14%
P 214.914†	1194.2	579.15	ug/L	5.059	579.15	ppb	5.059	0.87%
Pb 220.353†	618.9	127.04	ug/L	1.733	127.04	ppb	1.733	1.36%
S 181.975 Axial†	400.4	489.56	ug/L	11.873	489.56	ppb	11.873	2.43%
Sb 206.836†	46.8	-5.2871	ug/L	0.57904	-5.2871	ppb	0.57904	10.95%
Se 196.026†	-513.8	19.116	ug/L	2.7514	19.116	ppb	2.7514	14.39%
Si 251.611†	1151904.7	42034	ug/L	240.6	42034	ppb	240.6	0.57%
Sn 189.927†	-73.3	-22.193	ug/L	0.7536	-22.193	ppb	0.7536	3.40%
Sr 421.552†	30255.1	219.87	ug/L	4.672	219.87	ppb	4.672	2.12%
Ti 334.940†	2850209.4	5744.0	ug/L	29.43	5744.0	ppb	29.43	0.51%
Tl 190.801†	-133.7	-1.6450	ug/L	1.91977	-1.6450	ppb	1.91977	116.70%
U 409.014†	-4981.3	-183.43	ug/L	4.009	-183.43	ppb	4.009	2.19%
V 292.402†	37638.6	272.84	ug/L	1.881	272.84	ppb	1.881	0.69%
Zn 213.857†	25513.9	259.30	ug/L	1.328	259.30	ppb	1.328	0.51%
SiO2†	1153961.2	89896	ug/L	431.5	89896	ppb	431.5	0.48%

Sequence No.: 62
Sample ID: 246070019|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 87
Date Collected: 3/2/2010 01:23:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070019|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5109.6	5109.6	109	%			01:25:51
1	Y RADIAL	5904.6	5904.6	118.4	%			01:25:51
1	Al 396.153Radial†	200624.1	184887.7	172950	ug/L	172950	ppb	01:25:31
1	Ca 317.933Radial†	12278.4	11287.8	20509	ug/L	20509	ppb	01:25:31
1	Fe 238.204 Radial†	15887.7	14627.3	151760	ug/L	151760	ppb	01:25:31
1	K 766.490 Radial†	113279.2	102083.1	20312	ug/L	20312	ppb	01:25:31
1	Mg 279.077 IEC†	617.5	565.9	22309	ug/L	22309	ppb	01:25:51
1	Na 589.592 Radial†	6946.4	7246.3	2469.5	ug/L	2469.5	ppb	01:25:31
1	Sr 421.552†	36209.1	33353.7	242.39	ug/L	242.39	ppb	01:25:31
1	Sc 361.383	814805.3	814805.3	106.10	%			01:26:54
1	Y 371.029	811617.9	811617.9	117.79	%			01:26:49
1	Ag 328.068†	-8695.6	-8451.1	4.3250	ug/L	4.3250	ppb	01:27:14
1	As 188.979†	-62.5	-33.9	73.189	ug/L	73.189	ppb	01:27:14
1	B 249.677†	1262.1	1642.9	16.305	ug/L	16.305	ppb	01:26:54
1	Ba 233.527†	136311.7	128468.9	1521.2	ug/L	1521.2	ppb	01:26:54
1	Be 313.107†	-17188.4	-7217.1	10.946	ug/L	10.946	ppb	01:26:54
1	Cd 226.502†	1106.8	1229.8	1.7991	ug/L	1.7991	ppb	01:27:14
1	Co 228.616†	2297.5	2222.8	52.876	ug/L	52.876	ppb	01:27:14
1	Cr 267.716†	13418.4	12571.0	175.16	ug/L	175.16	ppb	01:27:14
1	Cu 324.752†	27208.7	18107.6	75.924	ug/L	75.924	ppb	01:26:54
1	Mn 257.610†	1774565.1	1672033.7	2690.4	ug/L	2690.4	ppb	01:26:49
1	Mo 202.031†	-66.5	-77.1	4.9536	ug/L	4.9536	ppb	01:27:14
1	Ni 231.604†	3853.1	3530.1	112.81	ug/L	112.81	ppb	01:27:14
1	P 214.914†	1495.2	1213.8	585.08	ug/L	585.08	ppb	01:27:14
1	Pb 220.353†	565.9	604.1	127.58	ug/L	127.58	ppb	01:27:14
1	S 181.975 Axial†	545.9	472.0	579.58	ug/L	579.58	ppb	01:27:14
1	Sb 206.836†	77.4	42.9	-8.4785	ug/L	-8.4785	ppb	01:27:14
1	Se 196.026†	-594.9	-540.9	24.959	ug/L	24.959	ppb	01:27:14
1	Si 251.611†	1393130.5	1312410.6	47891	ug/L	47891	ppb	01:26:49
1	Sn 189.927†	-66.6	-70.9	-21.759	ug/L	-21.759	ppb	01:27:14
1	Ti 334.940†	3202716.5	3019802.2	6085.9	ug/L	6085.9	ppb	01:26:49
1	Tl 190.801†	-192.9	-150.6	-6.7434	ug/L	-6.7434	ppb	01:27:14
1	U 409.014†	-7778.0	-4793.8	-178.21	ug/L	-178.21	ppb	01:26:54
1	V 292.402†	40370.5	39676.5	287.37	ug/L	287.37	ppb	01:26:54
1	Zn 213.857†	29437.8	27034.3	274.63	ug/L	274.63	ppb	01:27:14
1	SiO2†	1399561.1	1318464.0	102710	ug/L	102710	ppb	01:28:24
2	Sc Radial	5110.3	5110.3	109	%			01:26:16
2	Y RADIAL	5903.5	5903.5	118.4	%			01:26:16
2	Al 396.153Radial†	200339.6	184602.8	172680	ug/L	172680	ppb	01:25:56
2	Ca 317.933Radial†	12188.0	11203.2	20356	ug/L	20356	ppb	01:25:56
2	Fe 238.204 Radial†	15818.6	14561.8	151080	ug/L	151080	ppb	01:25:56
2	K 766.490 Radial†	113204.0	102000.9	20296	ug/L	20296	ppb	01:25:56
2	Mg 279.077 IEC†	618.2	566.5	22334	ug/L	22334	ppb	01:26:16
2	Na 589.592 Radial†	7048.6	7339.7	2501.4	ug/L	2501.4	ppb	01:25:56
2	Sr 421.552†	36264.1	33400.2	242.73	ug/L	242.73	ppb	01:25:56
2	Sc 361.383	817073.7	817073.7	106.40	%			01:27:26
2	Y 371.029	817539.8	817539.8	118.65	%			01:27:21
2	Ag 328.068†	-8641.6	-8377.6	4.4831	ug/L	4.4831	ppb	01:27:46
2	As 188.979†	-64.0	-35.1	72.064	ug/L	72.064	ppb	01:27:46
2	B 249.677†	1273.8	1650.7	16.610	ug/L	16.610	ppb	01:27:26
2	Ba 233.527†	135782.1	127614.5	1511.1	ug/L	1511.1	ppb	01:27:26
2	Be 313.107†	-17102.9	-7091.8	10.890	ug/L	10.890	ppb	01:27:26
2	Cd 226.502†	1100.4	1220.9	1.7433	ug/L	1.7433	ppb	01:27:46
2	Co 228.616†	2289.4	2209.2	52.566	ug/L	52.566	ppb	01:27:46
2	Cr 267.716†	13421.1	12538.4	174.70	ug/L	174.70	ppb	01:27:46
2	Cu 324.752†	27071.0	17906.9	75.135	ug/L	75.135	ppb	01:27:26
2	Mn 257.610†	1771168.0	1664197.6	2677.8	ug/L	2677.8	ppb	01:27:21
2	Mo 202.031†	-75.8	-85.6	4.1102	ug/L	4.1102	ppb	01:27:46
2	Ni 231.604†	3847.3	3514.6	112.31	ug/L	112.31	ppb	01:27:46

2	P 214.914†	1491.6	1206.6	581.65 ug/L	581.65 ppb	01:27:46
2	Pb 220.353†	574.6	610.8	128.65 ug/L	128.65 ppb	01:27:46
2	S 181.975 Axial†	535.5	460.8	565.02 ug/L	565.02 ppb	01:27:46
2	Sb 206.836†	98.7	62.8	-0.2667 ug/L	-0.2667 ppb	01:27:46
2	Se 196.026†	-613.9	-557.2	13.444 ug/L	13.444 ppb	01:27:46
2	Si 251.611†	1389140.3	1305015.0	47621 ug/L	47621 ppb	01:27:21
2	Sn 189.927†	-66.7	-70.8	-21.721 ug/L	-21.721 ppb	01:27:46
2	Ti 334.940†	3187182.6	2996822.2	6039.5 ug/L	6039.5 ppb	01:27:21
2	Tl 190.801†	-192.1	-149.4	-6.6324 ug/L	-6.6324 ppb	01:27:46
2	U 409.014†	-7669.9	-4671.9	-174.05 ug/L	-174.05 ppb	01:27:26
2	V 292.402†	40167.1	39379.7	285.15 ug/L	285.15 ppb	01:27:26
2	Zn 213.857†	29395.7	26917.7	273.45 ug/L	273.45 ppb	01:27:46
2	SiO2†	1385963.5	1302022.1	101430 ug/L	101430 ppb	01:28:30
3	Sc Radial	5164.4	5164.4	110 %		01:26:41
3	Y RADIAL	5970.2	5970.2	119.8 %		01:26:41
3	Al 396.153Radial†	200049.2	182404.9	170620 ug/L	170620 ppb	01:26:21
3	Ca 317.933Radial†	12219.0	11113.8	20193 ug/L	20193 ppb	01:26:21
3	Fe 238.204 Radial†	15786.6	14380.1	149190 ug/L	149190 ppb	01:26:21
3	K 766.490 Radial†	113005.8	100727.9	20043 ug/L	20043 ppb	01:26:21
3	Mg 279.077 IEC†	616.4	558.9	22033 ug/L	22033 ppb	01:26:41
3	Na 589.592 Radial†	6915.9	7150.7	2437.0 ug/L	2437.0 ppb	01:26:21
3	Sr 421.552†	36118.3	32917.4	239.22 ug/L	239.22 ppb	01:26:21
3	Sc 361.383	835387.4	835387.4	108.78 %		01:27:58
3	Y 371.029	824625.4	824625.4	119.68 %		01:27:53
3	Ag 328.068†	-8692.6	-8246.5	4.5714 ug/L	4.5714 ppb	01:28:18
3	As 188.979†	-70.6	-39.9	68.772 ug/L	68.772 ppb	01:28:18
3	B 249.677†	1322.6	1669.3	17.386 ug/L	17.386 ppb	01:27:58
3	Ba 233.527†	138592.7	127400.4	1508.5 ug/L	1508.5 ppb	01:27:58
3	Be 313.107†	-17398.6	-7011.2	10.732 ug/L	10.732 ppb	01:27:58
3	Cd 226.502†	1089.4	1188.1	1.4717 ug/L	1.4717 ppb	01:28:18
3	Co 228.616†	2295.0	2167.2	51.499 ug/L	51.499 ppb	01:28:18
3	Cr 267.716†	13422.3	12262.9	170.90 ug/L	170.90 ppb	01:28:18
3	Cu 324.752†	27885.8	18098.2	75.749 ug/L	75.749 ppb	01:27:58
3	Mn 257.610†	1783707.8	1639231.5	2637.6 ug/L	2637.6 ppb	01:27:53
3	Mo 202.031†	-75.2	-83.5	4.1549 ug/L	4.1549 ppb	01:28:18
3	Ni 231.604†	3803.0	3394.6	108.48 ug/L	108.48 ppb	01:28:18
3	P 214.914†	1491.3	1175.5	565.17 ug/L	565.17 ppb	01:28:18
3	Pb 220.353†	592.6	615.5	129.05 ug/L	129.05 ppb	01:28:18
3	S 181.975 Axial†	539.0	453.0	555.31 ug/L	555.31 ppb	01:28:18
3	Sb 206.836†	88.2	51.0	-4.7201 ug/L	-4.7201 ppb	01:28:18
3	Se 196.026†	-607.0	-538.2	20.658 ug/L	20.658 ppb	01:28:18
3	Si 251.611†	1400284.7	1286637.6	46950 ug/L	46950 ppb	01:27:53
3	Sn 189.927†	-81.2	-82.7	-24.462 ug/L	-24.462 ppb	01:28:18
3	Ti 334.940†	3213368.2	2955224.5	5955.7 ug/L	5955.7 ppb	01:27:53
3	Tl 190.801†	-186.9	-140.6	-3.4808 ug/L	-3.4808 ppb	01:28:18
3	U 409.014†	-7716.2	-4556.4	-169.96 ug/L	-169.96 ppb	01:27:58
3	V 292.402†	40880.8	39208.1	284.16 ug/L	284.16 ppb	01:27:58
3	Zn 213.857†	29448.1	26360.2	267.60 ug/L	267.60 ppb	01:28:18
3	SiO2†	1393877.6	1280740.7	99772 ug/L	99772 ppb	01:28:36

Mean Data: 246070019|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	822422.2	107.09	%	1.470				1.37%
Sc Radial	5128.1	109	%	0.7				0.61%
Y 371.029	817927.7	118.71	%	0.945				0.80%
Y RADIAL	5926.1	118.9	%	0.77				0.64%
Ag 328.068†	-8358.4	4.4598	ug/L	0.12483	4.4598	ppb	0.12483	2.80%
Al 396.153Radial†	183965.2	172080	ug/L	1270.9	172080	ppb	1270.9	0.74%
As 188.979†	-36.3	71.342	ug/L	2.2956	71.342	ppb	2.2956	3.22%
B 249.677†	1654.3	16.767	ug/L	0.5572	16.767	ppb	0.5572	3.32%
Ba 233.527†	127827.9	1513.6	ug/L	6.71	1513.6	ppb	6.71	0.44%
Be 313.107†	-7106.7	10.856	ug/L	0.1108	10.856	ppb	0.1108	1.02%
Ca 317.933Radial†	11201.6	20353	ug/L	158.1	20353	ppb	158.1	0.78%
Cd 226.502†	1212.9	1.6714	ug/L	0.17516	1.6714	ppb	0.17516	10.48%
Co 228.616†	2199.7	52.314	ug/L	0.7221	52.314	ppb	0.7221	1.38%
Cr 267.716†	12457.4	173.59	ug/L	2.341	173.59	ppb	2.341	1.35%
Cu 324.752†	18037.6	75.602	ug/L	0.4146	75.602	ppb	0.4146	0.55%
Fe 238.204 Radial†	14523.1	150680	ug/L	1329.1	150680	ppb	1329.1	0.88%
K 766.490 Radial†	101604.0	20217	ug/L	151.2	20217	ppb	151.2	0.75%

Mg 279.077 IEC†	563.7	22225	ug/L	166.7	22225	ppb	166.7	0.75%
Mn 257.610†	1658487.6	2668.6	ug/L	27.54	2668.6	ppb	27.54	1.03%
Mo 202.031†	-82.1	4.4063	ug/L	0.47457	4.4063	ppb	0.47457	10.77%
Na 589.592 Radial†	7245.6	2469.3	ug/L	32.21	2469.3	ppb	32.21	1.30%
Ni 231.604†	3479.8	111.20	ug/L	2.371	111.20	ppb	2.371	2.13%
P 214.914†	1198.6	577.30	ug/L	10.645	577.30	ppb	10.645	1.84%
Pb 220.353†	610.1	128.43	ug/L	0.761	128.43	ppb	0.761	0.59%
S 181.975 Axial†	461.9	566.64	ug/L	12.213	566.64	ppb	12.213	2.16%
Sb 206.836†	52.2	-4.4885	ug/L	4.11078	-4.4885	ppb	4.11078	91.59%
Se 196.026†	-545.4	19.687	ug/L	5.8189	19.687	ppb	5.8189	29.56%
Si 251.611†	1301354.4	47487	ug/L	484.3	47487	ppb	484.3	1.02%
Sn 189.927†	-74.8	-22.647	ug/L	1.5717	-22.647	ppb	1.5717	6.94%
Sr 421.552†	33223.8	241.44	ug/L	1.936	241.44	ppb	1.936	0.80%
Ti 334.940†	2990616.3	6027.0	ug/L	65.97	6027.0	ppb	65.97	1.09%
Tl 190.801†	-146.8	-5.6189	ug/L	1.85242	-5.6189	ppb	1.85242	32.97%
U 409.014†	-4674.0	-174.07	ug/L	4.126	-174.07	ppb	4.126	2.37%
V 292.402†	39421.4	285.56	ug/L	1.646	285.56	ppb	1.646	0.58%
Zn 213.857†	26770.7	271.89	ug/L	3.760	271.89	ppb	3.760	1.38%
SiO2†	1300408.9	101300	ug/L	1473.4	101300	ppb	1473.4	1.45%

Sequence No.: 63
Sample ID: 246070020|949364|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 88
Date Collected: 3/2/2010 01:30:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246070020|949364|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5139.7	5139.7	109	%			01:33:01
1	Y RADIAL	5949.2	5949.2	119.3	%			01:33:01
1	Al 396.153Radial†	192428.2	176303.2	164920	ug/L	164920	ppb	01:32:41
1	Ca 317.933Radial†	12406.7	11339.2	20603	ug/L	20603	ppb	01:32:41
1	Fe 238.204 Radial†	14598.5	13361.2	138620	ug/L	138620	ppb	01:32:41
1	K 766.490 Radial†	109667.9	98166.8	19533	ug/L	19533	ppb	01:32:41
1	Mg 279.077 IEC†	648.0	590.6	23303	ug/L	23303	ppb	01:33:01
1	Na 589.592 Radial†	5557.2	5936.8	2023.3	ug/L	2023.3	ppb	01:32:41
1	Sr 421.552†	40395.7	36992.8	268.85	ug/L	268.85	ppb	01:32:41
1	Sc 361.383	829583.3	829583.3	108.03	%			01:33:59
1	Y 371.029	816078.5	816078.5	118.44	%			01:33:59
1	Ag 328.068†	-8534.0	-8155.6	1.6829	ug/L	1.6829	ppb	01:34:04
1	As 188.979†	-56.5	-27.3	66.175	ug/L	66.175	ppb	01:34:24
1	B 249.677†	1227.4	1589.7	17.125	ug/L	17.125	ppb	01:34:04
1	Ba 233.527†	145999.9	135148.6	1599.6	ug/L	1599.6	ppb	01:34:04
1	Be 313.107†	-14253.6	-4211.7	10.339	ug/L	10.339	ppb	01:34:04
1	Cd 226.502†	1016.6	1127.7	1.6895	ug/L	1.6895	ppb	01:34:24
1	Co 228.616†	2090.6	1992.7	47.840	ug/L	47.840	ppb	01:34:24
1	Cr 267.716†	8613.7	7898.0	111.03	ug/L	111.03	ppb	01:34:04
1	Cu 324.752†	26123.6	16646.2	69.758	ug/L	69.758	ppb	01:34:04
1	Mn 257.610†	1830802.5	1694298.9	2724.7	ug/L	2724.7	ppb	01:33:59
1	Mo 202.031†	-71.6	-80.6	3.6079	ug/L	3.6079	ppb	01:34:24
1	Ni 231.604†	2915.7	2597.7	83.004	ug/L	83.004	ppb	01:34:24
1	P 214.914†	1539.9	1230.1	603.83	ug/L	603.83	ppb	01:34:24
1	Pb 220.353†	555.1	584.5	123.53	ug/L	123.53	ppb	01:34:24
1	S 181.975 Axial†	426.8	352.6	426.23	ug/L	426.23	ppb	01:34:24
1	Sb 206.836†	87.8	51.2	-2.2081	ug/L	-2.2081	ppb	01:34:24
1	Se 196.026†	-568.9	-506.9	15.628	ug/L	15.628	ppb	01:34:24
1	Si 251.611†	1360144.5	1258486.3	45923	ug/L	45923	ppb	01:33:59
1	Sn 189.927†	-60.6	-64.2	-19.412	ug/L	-19.412	ppb	01:34:24
1	Ti 334.940†	2835364.0	2625976.0	5292.3	ug/L	5292.3	ppb	01:33:59
1	Tl 190.801†	-183.0	-138.2	-7.4086	ug/L	-7.4086	ppb	01:34:24
1	U 409.014†	-7989.5	-4859.0	-178.75	ug/L	-178.75	ppb	01:34:04
1	V 292.402†	36927.6	35811.6	259.38	ug/L	259.38	ppb	01:34:04
1	Zn 213.857†	29388.3	26494.3	270.83	ug/L	270.83	ppb	01:34:04
1	SiO2†	1382348.6	1279033.2	99639	ug/L	99639	ppb	01:35:32
2	Sc Radial	5086.6	5086.6	108	%			01:33:26
2	Y RADIAL	5922.9	5922.9	118.8	%			01:33:26
2	Al 396.153Radial†	190879.4	176707.5	165300	ug/L	165300	ppb	01:33:06
2	Ca 317.933Radial†	12255.9	11318.2	20564	ug/L	20564	ppb	01:33:06
2	Fe 238.204 Radial†	14415.8	13331.6	138320	ug/L	138320	ppb	01:33:06
2	K 766.490 Radial†	108295.0	97943.5	19488	ug/L	19488	ppb	01:33:06
2	Mg 279.077 IEC†	647.6	596.4	23534	ug/L	23534	ppb	01:33:26
2	Na 589.592 Radial†	5439.0	5880.5	2004.1	ug/L	2004.1	ppb	01:33:06
2	Sr 421.552†	39788.3	36816.5	267.57	ug/L	267.57	ppb	01:33:06
2	Sc 361.383	833034.3	833034.3	108.48	%			01:34:30
2	Y 371.029	819518.7	819518.7	118.94	%			01:34:30
2	Ag 328.068†	-8494.2	-8086.1	1.9580	ug/L	1.9580	ppb	01:34:35
2	As 188.979†	-55.9	-26.5	66.443	ug/L	66.443	ppb	01:34:55
2	B 249.677†	1268.3	1622.7	18.000	ug/L	18.000	ppb	01:34:35
2	Ba 233.527†	147151.8	135650.6	1605.5	ug/L	1605.5	ppb	01:34:35
2	Be 313.107†	-14487.9	-4373.2	10.273	ug/L	10.273	ppb	01:34:35
2	Cd 226.502†	1033.8	1139.7	1.8889	ug/L	1.8889	ppb	01:34:55
2	Co 228.616†	2103.8	1996.9	47.974	ug/L	47.974	ppb	01:34:55
2	Cr 267.716†	8662.6	7910.1	111.19	ug/L	111.19	ppb	01:34:35
2	Cu 324.752†	26550.8	16939.9	70.843	ug/L	70.843	ppb	01:34:35
2	Mn 257.610†	1835330.2	1691451.8	2720.1	ug/L	2720.1	ppb	01:34:30
2	Mo 202.031†	-73.7	-82.4	3.4238	ug/L	3.4238	ppb	01:34:55
2	Ni 231.604†	2882.8	2556.2	81.679	ug/L	81.679	ppb	01:34:55

2	P 214.914†	1536.9	1221.4	599.12 ug/L	599.12 ppb	01:34:55
2	Pb 220.353†	568.8	595.0	125.34 ug/L	125.34 ppb	01:34:55
2	S 181.975 Axial†	424.0	348.4	420.70 ug/L	420.70 ppb	01:34:55
2	Sb 206.836†	79.5	43.2	-5.4686 ug/L	-5.4686 ppb	01:34:55
2	Se 196.026†	-563.6	-499.8	19.313 ug/L	19.313 ppb	01:34:55
2	Si 251.611†	1364091.7	1256909.0	45866 ug/L	45866 ppb	01:34:30
2	Sn 189.927†	-64.4	-67.5	-20.177 ug/L	-20.177 ppb	01:34:55
2	Ti 334.940†	2846758.6	2625606.8	5291.5 ug/L	5291.5 ppb	01:34:30
2	Tl 190.801†	-203.1	-156.0	-15.607 ug/L	-15.607 ppb	01:34:55
2	U 409.014†	-8135.7	-4963.1	-182.20 ug/L	-182.20 ppb	01:34:35
2	V 292.402†	37394.1	36100.0	261.72 ug/L	261.72 ppb	01:34:35
2	Zn 213.857†	29570.0	26549.1	271.49 ug/L	271.49 ppb	01:34:35
2	SiO2†	1375724.1	1267625.2	98750 ug/L	98750 ppb	01:35:38
3	Sc Radial	5076.3	5076.3	108 %		01:33:51
3	Y RADIAL	5925.0	5925.0	118.8 %		01:33:51
3	Al 396.153Radial†	188928.7	175259.0	163940 ug/L	163940 ppb	01:33:31
3	Ca 317.933Radial†	12169.8	11261.5	20462 ug/L	20462 ppb	01:33:31
3	Fe 238.204 Radial†	14300.9	13252.3	137490 ug/L	137490 ppb	01:33:31
3	K 766.490 Radial†	107462.0	97375.6	19375 ug/L	19375 ppb	01:33:31
3	Mg 279.077 IEC†	649.7	599.5	23659 ug/L	23659 ppb	01:33:51
3	Na 589.592 Radial†	5313.3	5774.2	1967.8 ug/L	1967.8 ppb	01:33:31
3	Sr 421.552†	39411.2	36541.9	265.57 ug/L	265.57 ppb	01:33:31
3	Sc 361.383	844389.8	844389.8	109.96 %		01:35:01
3	Y 371.029	830346.3	830346.3	120.51 %		01:35:01
3	Ag 328.068†	-8406.9	-7901.4	2.6237 ug/L	2.6237 ppb	01:35:06
3	As 188.979†	-72.6	-41.0	59.643 ug/L	59.643 ppb	01:35:26
3	B 249.677†	1189.1	1534.9	15.940 ug/L	15.940 ppb	01:35:06
3	Ba 233.527†	145574.9	132392.2	1567.0 ug/L	1567.0 ppb	01:35:06
3	Be 313.107†	-14388.9	-4103.5	10.343 ug/L	10.343 ppb	01:35:06
3	Cd 226.502†	1028.7	1122.2	1.7263 ug/L	1.7263 ppb	01:35:26
3	Co 228.616†	2076.0	1945.5	46.451 ug/L	46.451 ppb	01:35:26
3	Cr 267.716†	8626.1	7769.5	109.24 ug/L	109.24 ppb	01:35:06
3	Cu 324.752†	26211.0	16301.7	68.408 ug/L	68.408 ppb	01:35:06
3	Mn 257.610†	1851838.0	1683711.9	2707.6 ug/L	2707.6 ppb	01:35:01
3	Mo 202.031†	-72.7	-80.5	3.5271 ug/L	3.5271 ppb	01:35:26
3	Ni 231.604†	2897.9	2534.2	80.976 ug/L	80.976 ppb	01:35:26
3	P 214.914†	1545.9	1210.5	593.84 ug/L	593.84 ppb	01:35:26
3	Pb 220.353†	592.1	609.1	127.35 ug/L	127.35 ppb	01:35:26
3	S 181.975 Axial†	428.1	346.9	419.01 ug/L	419.01 ppb	01:35:26
3	Sb 206.836†	81.5	44.1	-5.0114 ug/L	-5.0114 ppb	01:35:26
3	Se 196.026†	-572.7	-501.1	16.554 ug/L	16.554 ppb	01:35:26
3	Si 251.611†	1379223.9	1253760.2	45751 ug/L	45751 ppb	01:35:01
3	Sn 189.927†	-61.6	-64.1	-19.352 ug/L	-19.352 ppb	01:35:26
3	Ti 334.940†	2876538.0	2617398.0	5274.9 ug/L	5274.9 ppb	01:35:01
3	Tl 190.801†	-183.4	-135.6	-6.4166 ug/L	-6.4166 ppb	01:35:26
3	U 409.014†	-8082.6	-4814.0	-177.11 ug/L	-177.11 ppb	01:35:06
3	V 292.402†	36929.2	35213.6	254.81 ug/L	254.81 ppb	01:35:06
3	Zn 213.857†	29196.7	25842.9	263.84 ug/L	263.84 ppb	01:35:06
3	SiO2†	1358580.7	1234978.8	96207 ug/L	96207 ppb	01:35:44

Mean Data: 246070020|949364|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835669.1	108.82	%	1.009				0.93%
Sc Radial	5100.8	108	%	0.7				0.67%
Y 371.029	821981.2	119.29	%	1.081				0.91%
Y RADIAL	5932.4	119.0	%	0.29				0.25%
Ag 328.068†	-8047.7	2.0882	ug/L	0.48371	2.0882	ppb	0.48371	23.16%
Al 396.153Radial†	176089.9	164720	ug/L	699.2	164720	ppb	699.2	0.42%
As 188.979†	-31.6	64.087	ug/L	3.8508	64.087	ppb	3.8508	6.01%
B 249.677†	1582.4	17.022	ug/L	1.0340	17.022	ppb	1.0340	6.07%
Ba 233.527†	134397.2	1590.7	ug/L	20.73	1590.7	ppb	20.73	1.30%
Be 313.107†	-4229.5	10.318	ug/L	0.0392	10.318	ppb	0.0392	0.38%
Ca 317.933Radial†	11306.3	20543	ug/L	73.0	20543	ppb	73.0	0.36%
Cd 226.502†	1129.9	1.7682	ug/L	0.10616	1.7682	ppb	0.10616	6.00%
Co 228.616†	1978.4	47.421	ug/L	0.8435	47.421	ppb	0.8435	1.78%
Cr 267.716†	7859.2	110.49	ug/L	1.081	110.49	ppb	1.081	0.98%
Cu 324.752†	16629.3	69.670	ug/L	1.2203	69.670	ppb	1.2203	1.75%
Fe 238.204 Radial†	13315.0	138140	ug/L	584.3	138140	ppb	584.3	0.42%
K 766.490 Radial†	97828.6	19465	ug/L	81.2	19465	ppb	81.2	0.42%

Mg 279.077 IEC†	595.5	23499	ug/L	180.9	23499	ppb	180.9	0.77%
Mn 257.610†	1689820.9	2717.5	ug/L	8.83	2717.5	ppb	8.83	0.33%
Mo 202.031†	-81.2	3.5196	ug/L	0.09227	3.5196	ppb	0.09227	2.62%
Na 589.592 Radial†	5863.8	1998.4	ug/L	28.14	1998.4	ppb	28.14	1.41%
Ni 231.604†	2562.7	81.886	ug/L	1.0293	81.886	ppb	1.0293	1.26%
P 214.914†	1220.7	598.93	ug/L	4.997	598.93	ppb	4.997	0.83%
Pb 220.353†	596.2	125.41	ug/L	1.912	125.41	ppb	1.912	1.52%
S 181.975 Axial†	349.3	421.98	ug/L	3.775	421.98	ppb	3.775	0.89%
Sb 206.836†	46.2	-4.2294	ug/L	1.76532	-4.2294	ppb	1.76532	41.74%
Se 196.026†	-502.6	17.165	ug/L	1.9168	17.165	ppb	1.9168	11.17%
Si 251.611†	1256385.1	45846	ug/L	87.8	45846	ppb	87.8	0.19%
Sn 189.927†	-65.3	-19.647	ug/L	0.4599	-19.647	ppb	0.4599	2.34%
Sr 421.552†	36783.8	267.33	ug/L	1.652	267.33	ppb	1.652	0.62%
Ti 334.940†	2622993.6	5286.2	ug/L	9.79	5286.2	ppb	9.79	0.19%
Tl 190.801†	-143.3	-9.8106	ug/L	5.04392	-9.8106	ppb	5.04392	51.41%
U 409.014†	-4878.7	-179.36	ug/L	2.599	-179.36	ppb	2.599	1.45%
V 292.402†	35708.4	258.64	ug/L	3.513	258.64	ppb	3.513	1.36%
Zn 213.857†	26295.4	268.72	ug/L	4.244	268.72	ppb	4.244	1.58%
SiO2†	1260545.7	98199	ug/L	1781.2	98199	ppb	1781.2	1.81%

Sequence No.: 64
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/2/2010 01:37:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5019.6	5019.6	107	%			01:39:48
1	Y RADIAL	5279.3	5279.3	105.9	%			01:39:48
1	Al 396.153Radial†	5567.6	5307.6	4941.4	ug/L	4941.4	ppb	01:39:48
1	Ca 317.933Radial†	3010.1	2800.2	5087.9	ug/L	5087.9	ppb	01:40:08
1	Fe 238.204 Radial†	536.2	495.4	5154.9	ug/L	5154.9	ppb	01:40:08
1	K 766.490 Radial†	28931.7	24866.3	4943.5	ug/L	4943.5	ppb	01:39:48
1	Mg 279.077 IEC†	143.0	131.2	5209.4	ug/L	5209.4	ppb	01:40:08
1	Na 589.592 Radial†	31089.1	29998.6	10223	ug/L	10223	ppb	01:39:48
1	Sr 421.552†	73833.9	69231.0	503.39	ug/L	503.39	ppb	01:39:48
1	Sc 361.383	834800.1	834800.1	108.71	%			01:41:05
1	Y 371.029	738911.9	738911.9	107.24	%			01:41:05
1	Ag 328.068†	103967.1	95384.5	493.51	ug/L	493.51	ppb	01:41:10
1	As 188.979†	1161.5	1093.5	491.67	ug/L	491.67	ppb	01:41:30
1	B 249.677†	20476.9	19290.3	480.79	ug/L	480.79	ppb	01:41:10
1	Ba 233.527†	45492.4	41846.4	495.02	ug/L	495.02	ppb	01:41:10
1	Be 313.107†	1325118.6	1227969.3	489.21	ug/L	489.21	ppb	01:41:05
1	Cd 226.502†	37739.3	34903.3	494.68	ug/L	494.68	ppb	01:41:10
1	Co 228.616†	18053.7	16665.2	503.70	ug/L	503.70	ppb	01:41:10
1	Cr 267.716†	39226.0	36008.6	492.54	ug/L	492.54	ppb	01:41:10
1	Cu 324.752†	150797.5	131183.6	491.20	ug/L	491.20	ppb	01:41:10
1	Mn 257.610†	335468.3	308138.7	493.51	ug/L	493.51	ppb	01:41:10
1	Mo 202.031†	5732.9	5259.3	483.12	ug/L	483.12	ppb	01:41:30
1	Ni 231.604†	17119.8	15647.3	499.89	ug/L	499.89	ppb	01:41:10
1	P 214.914†	4905.9	4317.6	2315.0	ug/L	2315.0	ppb	01:41:30
1	Pb 220.353†	3198.8	3013.3	487.67	ug/L	487.67	ppb	01:41:30
1	S 181.975 Axial†	850.9	740.2	958.84	ug/L	958.84	ppb	01:41:30
1	Sb 206.836†	1324.8	1188.6	499.50	ug/L	499.50	ppb	01:41:30
1	Se 196.026†	836.3	789.1	496.76	ug/L	496.76	ppb	01:41:30
1	Si 251.611†	74632.7	68065.9	2477.8	ug/L	2477.8	ppb	01:41:10
1	Sn 189.927†	2211.8	2026.5	477.85	ug/L	477.85	ppb	01:41:30
1	Ti 334.940†	263901.8	244066.3	491.66	ug/L	491.66	ppb	01:41:10
1	Tl 190.801†	1103.7	1046.6	483.89	ug/L	483.89	ppb	01:41:30
1	U 409.014†	13616.7	15062.9	502.70	ug/L	502.70	ppb	01:41:10
1	V 292.402†	65495.4	61877.7	499.19	ug/L	499.19	ppb	01:41:10
1	Zn 213.857†	49386.3	44720.5	488.58	ug/L	488.58	ppb	01:41:10
1	SiO2†	73696.8	67197.8	5221.7	ug/L	5221.7	ppb	01:42:37
2	Sc Radial	4917.3	4917.3	104	%			01:40:13
2	Y RADIAL	5166.3	5166.3	103.6	%			01:40:13
2	Al 396.153Radial†	5589.6	5437.2	5061.9	ug/L	5061.9	ppb	01:40:13
2	Ca 317.933Radial†	3034.9	2882.7	5237.8	ug/L	5237.8	ppb	01:40:33
2	Fe 238.204 Radial†	541.6	511.1	5317.5	ug/L	5317.5	ppb	01:40:33
2	K 766.490 Radial†	29047.1	25541.2	5077.7	ug/L	5077.7	ppb	01:40:13
2	Mg 279.077 IEC†	147.0	137.8	5470.6	ug/L	5470.6	ppb	01:40:33
2	Na 589.592 Radial†	31023.3	30542.1	10409	ug/L	10409	ppb	01:40:13
2	Sr 421.552†	73752.6	70593.7	513.30	ug/L	513.30	ppb	01:40:13
2	Sc 361.383	814338.6	814338.6	106.04	%			01:41:36
2	Y 371.029	720931.9	720931.9	104.63	%			01:41:36
2	Ag 328.068†	103578.1	97420.7	504.06	ug/L	504.06	ppb	01:41:41
2	As 188.979†	1157.5	1116.6	502.04	ug/L	502.04	ppb	01:42:01
2	B 249.677†	20460.2	19747.9	492.19	ug/L	492.19	ppb	01:41:41
2	Ba 233.527†	45309.0	42724.9	505.42	ug/L	505.42	ppb	01:41:41
2	Be 313.107†	1312187.9	1246404.2	496.56	ug/L	496.56	ppb	01:41:36
2	Cd 226.502†	37548.0	35595.2	504.48	ug/L	504.48	ppb	01:41:41
2	Co 228.616†	17971.3	17004.8	513.98	ug/L	513.98	ppb	01:41:41
2	Cr 267.716†	39059.7	36758.6	502.80	ug/L	502.80	ppb	01:41:41
2	Cu 324.752†	150055.6	133969.5	501.64	ug/L	501.64	ppb	01:41:41
2	Mn 257.610†	334053.8	314558.8	503.79	ug/L	503.79	ppb	01:41:41
2	Mo 202.031†	5771.4	5428.2	498.63	ug/L	498.63	ppb	01:42:01
2	Ni 231.604†	16987.6	15918.3	508.55	ug/L	508.55	ppb	01:41:41

2	P 214.914†	4963.1	4485.0	2406.4 ug/L	2406.4 ppb	01:42:01
2	Pb 220.353†	3213.3	3100.9	501.86 ug/L	501.86 ppb	01:42:01
2	S 181.975 Axial†	864.6	772.8	1001.1 ug/L	1001.1 ppb	01:42:01
2	Sb 206.836†	1348.6	1241.7	521.61 ug/L	521.61 ppb	01:42:01
2	Se 196.026†	846.8	818.4	515.09 ug/L	515.09 ppb	01:42:01
2	Si 251.611†	74165.0	69350.0	2524.5 ug/L	2524.5 ppb	01:41:41
2	Sn 189.927†	2228.6	2093.5	493.64 ug/L	493.64 ppb	01:42:01
2	Ti 334.940†	263184.0	249489.2	502.57 ug/L	502.57 ppb	01:41:41
2	Tl 190.801†	1112.0	1079.9	499.27 ug/L	499.27 ppb	01:42:01
2	U 409.014†	13554.6	15319.1	511.24 ug/L	511.24 ppb	01:41:41
2	V 292.402†	65264.4	63173.8	509.71 ug/L	509.71 ppb	01:41:41
2	Zn 213.857†	49051.5	45546.3	497.60 ug/L	497.60 ppb	01:41:41
2	SiO2†	74234.7	69408.5	5393.5 ug/L	5393.5 ppb	01:42:42
3	Sc Radial	5057.8	5057.8	107 %		01:40:38
3	Y RADIAL	5274.2	5274.2	105.8 %		01:40:38
3	Al 396.153Radial†	5591.4	5290.3	4924.6 ug/L	4924.6 ppb	01:40:38
3	Ca 317.933Radial†	3025.7	2793.5	5075.6 ug/L	5075.6 ppb	01:40:58
3	Fe 238.204 Radial†	537.1	492.5	5124.5 ug/L	5124.5 ppb	01:40:58
3	K 766.490 Radial†	29072.6	24792.3	4928.8 ug/L	4928.8 ppb	01:40:38
3	Mg 279.077 IEC†	142.1	129.3	5133.9 ug/L	5133.9 ppb	01:40:58
3	Na 589.592 Radial†	30910.8	29612.3	10092 ug/L	10092 ppb	01:40:38
3	Sr 421.552†	73872.4	68743.5	499.85 ug/L	499.85 ppb	01:40:38
3	Sc 361.383	818596.7	818596.7	106.60 %		01:42:07
3	Y 371.029	725716.5	725716.5	105.32 %		01:42:07
3	Ag 328.068†	102719.5	96107.2	497.23 ug/L	497.23 ppb	01:42:12
3	As 188.979†	1152.8	1106.4	497.44 ug/L	497.44 ppb	01:42:32
3	B 249.677†	20274.8	19473.6	485.37 ug/L	485.37 ppb	01:42:12
3	Ba 233.527†	44988.7	42202.3	499.23 ug/L	499.23 ppb	01:42:12
3	Be 313.107†	1304766.7	1233005.6	491.22 ug/L	491.22 ppb	01:42:07
3	Cd 226.502†	37337.4	35213.5	499.09 ug/L	499.09 ppb	01:42:12
3	Co 228.616†	17907.8	16857.1	509.53 ug/L	509.53 ppb	01:42:12
3	Cr 267.716†	38790.5	36314.4	496.72 ug/L	496.72 ppb	01:42:12
3	Cu 324.752†	148614.3	131881.4	493.81 ug/L	493.81 ppb	01:42:12
3	Mn 257.610†	331255.6	310295.2	496.96 ug/L	496.96 ppb	01:42:12
3	Mo 202.031†	5771.0	5399.5	495.98 ug/L	495.98 ppb	01:42:32
3	Ni 231.604†	16917.4	15769.1	503.78 ug/L	503.78 ppb	01:42:12
3	P 214.914†	4954.6	4452.6	2390.0 ug/L	2390.0 ppb	01:42:32
3	Pb 220.353†	3208.8	3080.9	498.62 ug/L	498.62 ppb	01:42:32
3	S 181.975 Axial†	850.5	755.3	978.40 ug/L	978.40 ppb	01:42:32
3	Sb 206.836†	1340.9	1227.9	515.93 ug/L	515.93 ppb	01:42:32
3	Se 196.026†	836.8	804.8	506.35 ug/L	506.35 ppb	01:42:32
3	Si 251.611†	73520.4	68381.5	2489.2 ug/L	2489.2 ppb	01:42:12
3	Sn 189.927†	2233.3	2087.0	492.09 ug/L	492.09 ppb	01:42:32
3	Ti 334.940†	260613.0	245786.3	495.12 ug/L	495.12 ppb	01:42:12
3	Tl 190.801†	1113.9	1076.2	497.52 ug/L	497.52 ppb	01:42:32
3	U 409.014†	13401.1	15108.6	504.23 ug/L	504.23 ppb	01:42:12
3	V 292.402†	64838.9	62454.4	503.96 ug/L	503.96 ppb	01:42:12
3	Zn 213.857†	48814.6	45083.5	492.56 ug/L	492.56 ppb	01:42:12
3	SiO2†	73527.9	68381.3	5313.5 ug/L	5313.5 ppb	01:42:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	822578.5	107.12	%	1.406				1.31%
Sc Radial	4998.2	106	%	1.5				1.45%
Y 371.029	728520.1	105.73	%	1.351				1.28%
Y RADIAL	5239.9	105.1	%	1.28				1.22%
Ag 328.068†	96304.1	498.27	ug/L	5.351	498.27	ppb	5.351	1.07%
QC value within limits for Ag 328.068 Recovery = 99.65%								
Al 396.153Radial†	5345.0	4976.0	ug/L	74.91	4976.0	ppb	74.91	1.51%
QC value within limits for Al 396.153Radial Recovery = 99.52%								
As 188.979†	1105.5	497.05	ug/L	5.196	497.05	ppb	5.196	1.05%
QC value within limits for As 188.979 Recovery = 99.41%								
B 249.677†	19503.9	486.11	ug/L	5.738	486.11	ppb	5.738	1.18%
QC value within limits for B 249.677 Recovery = 97.22%								
Ba 233.527†	42257.9	499.89	ug/L	5.228	499.89	ppb	5.228	1.05%
QC value within limits for Ba 233.527 Recovery = 99.98%								
Be 313.107†	1235793.0	492.33	ug/L	3.800	492.33	ppb	3.800	0.77%
QC value within limits for Be 313.107 Recovery = 98.47%								
Ca 317.933Radial†	2825.5	5133.8	ug/L	90.30	5133.8	ppb	90.30	1.76%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.68%
Cd 226.502†            35237.3      499.42 ug/L         4.908      499.42 ppb          4.908   0.98%
   QC value within limits for Cd 226.502  Recovery = 99.88%
Co 228.616†            16842.3      509.07 ug/L         5.152      509.07 ppb          5.152   1.01%
   QC value within limits for Co 228.616  Recovery = 101.81%
Cr 267.716†            36360.5      497.35 ug/L         5.159      497.35 ppb          5.159   1.04%
   QC value within limits for Cr 267.716  Recovery = 99.47%
Cu 324.752†           132344.8      495.55 ug/L         5.431      495.55 ppb          5.431   1.10%
   QC value within limits for Cu 324.752  Recovery = 99.11%
Fe 238.204 Radial†       499.6      5199.0 ug/L        103.78      5199.0 ppb         103.78   2.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.98%
K 766.490 Radial†      25066.6      4983.4 ug/L         82.06      4983.4 ppb          82.06   1.65%
   QC value within limits for K 766.490 Radial  Recovery = 99.67%
Mg 279.077 IEC†          132.8      5271.3 ug/L        176.69      5271.3 ppb         176.69   3.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.43%
Mn 257.610†           310997.6      498.09 ug/L         5.232      498.09 ppb          5.232   1.05%
   QC value within limits for Mn 257.610  Recovery = 99.62%
Mo 202.031†            5362.3      492.58 ug/L         8.298      492.58 ppb          8.298   1.68%
   QC value within limits for Mo 202.031  Recovery = 98.52%
Na 589.592 Radial†     30051.0       10241 ug/L         159.2       10241 ppb          159.2   1.55%
   QC value within limits for Na 589.592 Radial  Recovery = 102.41%
Ni 231.604†            15778.2      504.08 ug/L         4.336      504.08 ppb          4.336   0.86%
   QC value within limits for Ni 231.604  Recovery = 100.82%
P 214.914†              4418.4      2370.5 ug/L         48.74      2370.5 ppb          48.74   2.06%
   QC value within limits for P 214.914  Recovery = 94.82%
Pb 220.353†             3065.0      496.05 ug/L         7.431      496.05 ppb          7.431   1.50%
   QC value within limits for Pb 220.353  Recovery = 99.21%
S 181.975 Axial†         756.1      979.43 ug/L        21.127      979.43 ppb         21.127   2.16%
   QC value within limits for S 181.975 Axial  Recovery = 97.94%
Sb 206.836†             1219.4      512.35 ug/L        11.478      512.35 ppb         11.478   2.24%
   QC value within limits for Sb 206.836  Recovery = 102.47%
Se 196.026†              804.1      506.07 ug/L         9.169      506.07 ppb          9.169   1.81%
   QC value within limits for Se 196.026  Recovery = 101.21%
Si 251.611†            68599.1      2497.2 ug/L         24.34      2497.2 ppb          24.34   0.97%
   QC value within limits for Si 251.611  Recovery = 99.89%
Sn 189.927†             2069.0      487.86 ug/L         8.700      487.86 ppb          8.700   1.78%
   QC value within limits for Sn 189.927  Recovery = 97.57%
Sr 421.552†            69522.7      505.51 ug/L         6.973      505.51 ppb          6.973   1.38%
   QC value within limits for Sr 421.552  Recovery = 101.10%
Ti 334.940†           246447.3      496.45 ug/L         5.579      496.45 ppb          5.579   1.12%
   QC value within limits for Ti 334.940  Recovery = 99.29%
Tl 190.801†             1067.5      493.56 ug/L         8.418      493.56 ppb          8.418   1.71%
   QC value within limits for Tl 190.801  Recovery = 98.71%
U 409.014†             15163.5      506.06 ug/L         4.554      506.06 ppb          4.554   0.90%
   QC value within limits for U 409.014  Recovery = 101.21%
V 292.402†             62501.9      504.29 ug/L         5.269      504.29 ppb          5.269   1.04%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†            45116.8      492.91 ug/L         4.517      492.91 ppb          4.517   0.92%
   QC value within limits for Zn 213.857  Recovery = 98.58%
SiO2†                  68329.2      5309.6 ug/L         85.97      5309.6 ppb          85.97   1.62%
   QC value within limits for SiO2  Recovery = 99.29%
All analyte(s) passed QC.
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Sequence No.: 65
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/2/2010 01:44:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5105.7	5105.7	108	%			01:46:49
1	Y RADIAL	5351.2	5351.2	107.3	%			01:46:49
1	Al 396.153Radial†	-85.0	8.7	8.1755	ug/L	8.1755	ppb	01:47:09
1	Ca 317.933Radial†	20.8	-3.0	-5.5003	ug/L	-5.5003	ppb	01:47:09
1	Fe 238.204 Radial†	6.7	-1.2	-12.097	ug/L	-12.097	ppb	01:47:09
1	K 766.490 Radial†	2223.0	-212.4	-42.312	ug/L	-42.312	ppb	01:46:49
1	Mg 279.077 IEC†	1.9	-1.1	-45.258	ug/L	-45.258	ppb	01:47:09
1	Na 589.592 Radial†	-667.3	232.6	79.280	ug/L	79.280	ppb	01:46:49
1	Sr 421.552†	43.3	40.4	0.2939	ug/L	0.2939	ppb	01:46:49
1	Sc 361.383	803168.3	803168.3	104.59	%			01:48:06
1	Y 371.029	719975.7	719975.7	104.49	%			01:48:06
1	Ag 328.068†	151.6	-110.7	-0.5793	ug/L	-0.5793	ppb	01:48:06
1	As 188.979†	-33.4	-6.9	-3.0686	ug/L	-3.0686	ppb	01:48:26
1	B 249.677†	-347.1	121.6	3.0479	ug/L	3.0479	ppb	01:48:26
1	Ba 233.527†	-3.4	-5.6	-0.0658	ug/L	-0.0658	ppb	01:48:26
1	Be 313.107†	-9568.3	-165.9	-0.0648	ug/L	-0.0648	ppb	01:48:06
1	Cd 226.502†	-187.9	7.0	0.1014	ug/L	0.1014	ppb	01:48:26
1	Co 228.616†	-68.7	-8.2	-0.2496	ug/L	-0.2496	ppb	01:48:26
1	Cr 267.716†	50.3	-27.5	-0.3798	ug/L	-0.3798	ppb	01:48:26
1	Cu 324.752†	7748.0	-128.0	-0.4856	ug/L	-0.4856	ppb	01:48:06
1	Mn 257.610†	493.9	11.1	0.0184	ug/L	0.0184	ppb	01:48:26
1	Mo 202.031†	11.8	-3.1	-0.2877	ug/L	-0.2877	ppb	01:48:26
1	Ni 231.604†	81.9	-23.0	-0.7346	ug/L	-0.7346	ppb	01:48:26
1	P 214.914†	202.4	-1.8	-0.9186	ug/L	-0.9186	ppb	01:48:26
1	Pb 220.353†	-43.6	29.0	4.6807	ug/L	4.6807	ppb	01:48:26
1	S 181.975 Axial†	37.7	-6.4	-8.3303	ug/L	-8.3303	ppb	01:48:26
1	Sb 206.836†	29.8	-1.6	-0.6330	ug/L	-0.6330	ppb	01:48:26
1	Se 196.026†	-14.9	5.6	3.3765	ug/L	3.3765	ppb	01:48:26
1	Si 251.611†	601.6	-14.0	-0.5077	ug/L	-0.5077	ppb	01:48:26
1	Sn 189.927†	9.4	0.9	0.2231	ug/L	0.2231	ppb	01:48:26
1	Ti 334.940†	-1096.3	252.8	0.5080	ug/L	0.5080	ppb	01:48:06
1	Tl 190.801†	-48.2	-14.9	-6.8426	ug/L	-6.8426	ppb	01:48:26
1	U 409.014†	-2331.1	308.0	10.315	ug/L	10.315	ppb	01:48:06
1	V 292.402†	-1633.1	66.6	0.5462	ug/L	0.5462	ppb	01:48:06
1	Zn 213.857†	752.1	8.8	0.1045	ug/L	0.1045	ppb	01:48:26
1	SiO2†	640.0	15.5	1.2171	ug/L	1.2171	ppb	01:49:22
2	Sc Radial	5158.5	5158.5	110	%			01:47:14
2	Y RADIAL	5434.1	5434.1	109.0	%			01:47:14
2	Al 396.153Radial†	-87.3	7.4	6.9712	ug/L	6.9712	ppb	01:47:34
2	Ca 317.933Radial†	20.1	-3.8	-6.9061	ug/L	-6.9061	ppb	01:47:34
2	Fe 238.204 Radial†	7.2	-0.8	-7.8378	ug/L	-7.8378	ppb	01:47:34
2	K 766.490 Radial†	2307.4	-156.4	-31.152	ug/L	-31.152	ppb	01:47:14
2	Mg 279.077 IEC†	3.9	0.7	28.209	ug/L	28.209	ppb	01:47:34
2	Na 589.592 Radial†	-744.5	168.5	57.430	ug/L	57.430	ppb	01:47:14
2	Sr 421.552†	-7.2	-6.0	-0.0439	ug/L	-0.0439	ppb	01:47:14
2	Sc 361.383	807843.3	807843.3	105.20	%			01:48:31
2	Y 371.029	725179.5	725179.5	105.25	%			01:48:31
2	Ag 328.068†	177.5	-86.9	-0.4543	ug/L	-0.4543	ppb	01:48:31
2	As 188.979†	-27.9	-1.5	-0.6671	ug/L	-0.6671	ppb	01:48:51
2	B 249.677†	-371.4	100.4	2.5150	ug/L	2.5150	ppb	01:48:51
2	Ba 233.527†	1.6	-0.9	-0.0090	ug/L	-0.0090	ppb	01:48:51
2	Be 313.107†	-9593.2	-136.7	-0.0535	ug/L	-0.0535	ppb	01:48:31
2	Cd 226.502†	-184.9	10.9	0.1572	ug/L	0.1572	ppb	01:48:51
2	Co 228.616†	-60.8	-0.4	-0.0114	ug/L	-0.0114	ppb	01:48:51
2	Cr 267.716†	56.6	-21.8	-0.3014	ug/L	-0.3014	ppb	01:48:51
2	Cu 324.752†	7727.3	-190.6	-0.7197	ug/L	-0.7197	ppb	01:48:31
2	Mn 257.610†	498.8	13.0	0.0189	ug/L	0.0189	ppb	01:48:51
2	Mo 202.031†	14.1	-0.9	-0.0866	ug/L	-0.0866	ppb	01:48:51
2	Ni 231.604†	90.0	-15.8	-0.5055	ug/L	-0.5055	ppb	01:48:51

2	P 214.914†	214.0	8.1	4.6656 ug/L	4.6656 ppb	01:48:51
2	Pb 220.353†	-76.5	-2.0	-0.3232 ug/L	-0.3232 ppb	01:48:51
2	S 181.975 Axial†	47.3	2.5	3.1847 ug/L	3.1847 ppb	01:48:51
2	Sb 206.836†	36.0	4.2	1.6960 ug/L	1.6960 ppb	01:48:51
2	Se 196.026†	-15.2	5.4	3.2930 ug/L	3.2930 ppb	01:48:51
2	Si 251.611†	605.3	-13.8	-0.5028 ug/L	-0.5028 ppb	01:48:51
2	Sn 189.927†	11.3	2.7	0.6297 ug/L	0.6297 ppb	01:48:51
2	Ti 334.940†	-1173.0	185.9	0.3671 ug/L	0.3671 ppb	01:48:31
2	Tl 190.801†	-40.1	-6.9	-3.1572 ug/L	-3.1572 ppb	01:48:51
2	U 409.014†	-2349.1	303.7	10.171 ug/L	10.171 ppb	01:48:31
2	V 292.402†	-1609.8	97.7	0.7977 ug/L	0.7977 ppb	01:48:31
2	Zn 213.857†	750.5	3.1	0.0397 ug/L	0.0397 ppb	01:48:51
2	SiO2†	588.4	-37.1	-2.8910 ug/L	-2.8910 ppb	01:49:27
3	Sc Radial	4976.3	4976.3	106 %		01:47:39
3	Y RADIAL	5263.8	5263.8	105.6 %		01:47:39
3	Al 396.153Radial†	-74.0	17.1	16.010 ug/L	16.010 ppb	01:47:59
3	Ca 317.933Radial†	22.2	-1.2	-2.1039 ug/L	-2.1039 ppb	01:47:59
3	Fe 238.204 Radial†	6.9	-0.8	-7.9419 ug/L	-7.9419 ppb	01:47:59
3	K 766.490 Radial†	2309.1	-77.6	-15.477 ug/L	-15.477 ppb	01:47:39
3	Mg 279.077 IEC†	5.4	2.2	88.328 ug/L	88.328 ppb	01:47:59
3	Na 589.592 Radial†	-715.8	170.8	58.194 ug/L	58.194 ppb	01:47:39
3	Sr 421.552†	36.6	35.1	0.2551 ug/L	0.2551 ppb	01:47:39
3	Sc 361.383	794264.0	794264.0	103.43 %		01:48:57
3	Y 371.029	713447.3	713447.3	103.54 %		01:48:57
3	Ag 328.068†	216.6	-46.3	-0.2470 ug/L	-0.2470 ppb	01:48:57
3	As 188.979†	-31.3	-5.2	-2.3224 ug/L	-2.3224 ppb	01:49:17
3	B 249.677†	-343.1	121.7	3.0498 ug/L	3.0498 ppb	01:49:17
3	Ba 233.527†	8.1	5.5	0.0651 ug/L	0.0651 ppb	01:49:17
3	Be 313.107†	-9427.0	-131.9	-0.0513 ug/L	-0.0513 ppb	01:48:57
3	Cd 226.502†	-196.4	-3.3	-0.0444 ug/L	-0.0444 ppb	01:49:17
3	Co 228.616†	-69.4	-9.7	-0.2922 ug/L	-0.2922 ppb	01:49:17
3	Cr 267.716†	81.6	3.3	0.0413 ug/L	0.0413 ppb	01:49:17
3	Cu 324.752†	7725.6	-66.6	-0.2551 ug/L	-0.2551 ppb	01:48:57
3	Mn 257.610†	506.7	28.8	0.0416 ug/L	0.0416 ppb	01:49:17
3	Mo 202.031†	17.3	2.3	0.2119 ug/L	0.2119 ppb	01:49:17
3	Ni 231.604†	77.7	-26.2	-0.8376 ug/L	-0.8376 ppb	01:49:17
3	P 214.914†	196.8	-5.1	-2.7961 ug/L	-2.7961 ppb	01:49:17
3	Pb 220.353†	-58.2	14.4	2.3277 ug/L	2.3277 ppb	01:49:17
3	S 181.975 Axial†	49.6	5.5	7.1158 ug/L	7.1158 ppb	01:49:17
3	Sb 206.836†	40.9	9.5	3.8261 ug/L	3.8261 ppb	01:49:17
3	Se 196.026†	-24.2	-3.5	-2.1882 ug/L	-2.1882 ppb	01:49:17
3	Si 251.611†	616.2	6.5	0.2351 ug/L	0.2351 ppb	01:49:17
3	Sn 189.927†	-2.9	-10.9	-2.5732 ug/L	-2.5732 ppb	01:49:17
3	Ti 334.940†	-1090.1	247.1	0.4861 ug/L	0.4861 ppb	01:48:57
3	Tl 190.801†	-24.0	8.1	3.7033 ug/L	3.7033 ppb	01:49:17
3	U 409.014†	-2319.0	294.7	9.8674 ug/L	9.8674 ppb	01:48:57
3	V 292.402†	-1636.3	45.9	0.3899 ug/L	0.3899 ppb	01:48:57
3	Zn 213.857†	749.7	14.6	0.1676 ug/L	0.1676 ppb	01:49:17
3	SiO2†	615.6	-1.3	-0.1059 ug/L	-0.1059 ppb	01:49:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	801758.5	104.40	%	0.898				0.86%
Sc Radial	5080.2	108	%	2.0				1.85%
Y 371.029	719534.2	104.43	%	0.853				0.82%
Y RADIAL	5349.7	107.3	%	1.71				1.59%
Ag 328.068†	-81.3	-0.4269	ug/L	0.16786	-0.4269	ppb	0.16786	39.32%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.1	10.386	ug/L	4.9080	10.386	ppb	4.9080	47.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.5	-2.0194	ug/L	1.22910	-2.0194	ppb	1.22910	60.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	114.6	2.8709	ug/L	0.30821	2.8709	ppb	0.30821	10.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.4	-0.0032	ug/L	0.06561	-0.0032	ppb	0.06561	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-144.8	-0.0565	ug/L	0.00725	-0.0565	ppb	0.00725	12.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-4.8368	ug/L	2.46887	-4.8368	ppb	2.46887	51.04%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.9      0.0714 ug/L       0.10410      0.0714 ppb        0.10410 145.86%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -6.1     -0.1844 ug/L       0.15136     -0.1844 ppb        0.15136  82.08%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.4     -0.2133 ug/L       0.22395     -0.2133 ppb        0.22395 105.00%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -128.4     -0.4868 ug/L       0.23227     -0.4868 ppb        0.23227  47.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.9     -9.2924 ug/L       2.42980     -9.2924 ppb        2.42980  26.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -148.8     -29.647 ug/L       13.4809     -29.647 ppb        13.4809  45.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.6      23.759 ug/L       66.9041      23.759 ppb        66.9041 281.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               17.6      0.0263 ug/L       0.01327      0.0263 ppb        0.01327  50.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.6     -0.0541 ug/L       0.25142     -0.0541 ppb        0.25142 464.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       190.6      64.968 ug/L       12.4005      64.968 ppb        12.4005  19.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -21.7     -0.6926 ug/L       0.17003     -0.6926 ppb        0.17003  24.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.4      0.3170 ug/L       3.88125      0.3170 ppb        3.88125 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               13.8      2.2284 ug/L       2.50346      2.2284 ppb        2.50346 112.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.5      0.6567 ug/L       8.02738      0.6567 ppb        8.02738 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.0      1.6297 ug/L       2.23030      1.6297 ppb        2.23030 136.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.5      1.4938 ug/L       3.18894      1.4938 ppb        3.18894 213.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -7.1     -0.2585 ug/L       0.42745     -0.2585 ppb        0.42745 165.38%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.4     -0.5734 ug/L       1.74370     -0.5734 ppb        1.74370 304.08%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               23.1      0.1684 ug/L       0.18487      0.1684 ppb        0.18487 109.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              228.6      0.4537 ug/L       0.07584      0.4537 ppb        0.07584  16.72%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -4.6     -2.0988 ug/L       5.35203     -2.0988 ppb        5.35203 255.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               302.1      10.118 ug/L        0.2287      10.118 ppb         0.2287   2.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                70.1      0.5779 ug/L       0.20577      0.5779 ppb        0.20577  35.61%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                8.8      0.1040 ug/L       0.06392      0.1040 ppb        0.06392  61.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -7.6     -0.5933 ug/L       2.09699     -0.5933 ppb        2.09699 353.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, March 02, 2010 11:15:38
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.626
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	6043.5	6043.478	112.154	1.9
	Mg	24.0	55349.8	55349.826	496.922	0.9
	Co	58.9	107506.4	107506.404	354.671	0.3
	Rh	102.9	184565.4	184565.442	1216.741	0.7
	In	114.9	281395.4	281395.368	2571.286	0.9
	Pb	208.0	268120.4	268120.434	2149.792	0.8
⌈>	Ba	137.9	256763.7	256763.684	1775.683	0.7
⌊	Ba++	69.0	3257.2	0.013	0.000	2.5
⌈>	Ce	139.9	308647.7	308647.682	1893.189	0.6
⌊	CeO	155.9	8124.6	0.026	0.000	1.5
	Bkgd	220.0	14.8	14.800	1.095	7.4

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.3	6684.2
Co	59	17	5.8	108800.1
In	115	17	6.5	282507.0

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2050	0.648
Be	9.0	9.0	2056	2075	0.597
Mg	24.0	24.0	5697	2080	0.583
Mg	25.0	25.0	5949	2080	0.603
Mg	26.0	26.0	6164	2080	0.603
Co	58.9	58.9	14191	2110	0.592
Rh	102.9	102.9	24873	2160	0.611
In	114.9	114.9	27799	2180	0.623
Ce	139.9	139.9	33871	2200	0.620
Pb	206.0	206.0	49948	2295	0.558
Pb	207.0	207.0	50171	2240	0.623
Pb	208.0	208.0	50439	2265	0.682
U	238.1	238.1	57733	2275	0.698

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, March 02, 2010 13:42:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\Blank.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		11	
>	Sc	45		ug/L		1426121	
	Ni	60		ug/L		123	
>	Ge	74		ug/L		436776	
	As	75		ug/L		-208	
	Se	77		ug/L		3914	
	Se	82		ug/L		16	
	Kr	83		ug/L		113	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, March 02, 2010 13:44:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\Standard 1.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	1.283	5818	0.004
>	Sc	45		ug/L		1414241	1414240.565
	Ni	60	10.000	ug/L	2.911	18039	0.013
>	Ge	74		ug/L		441914	441914.243
	As	75	10.000	ug/L	0.604	12800	0.029
	Se	77		ug/L		4972	0.002
	Se	82	10.000	ug/L	4.517	1415	0.003
	Kr	83		ug/L		108	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, March 02, 2010 13:46:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\Standard 2.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.989**	**ug/L**	1.356	57276	0.041
>	Sc	45		**ug/L**		1410234	1410234.379
	Ni	60	**99.963**	**ug/L**	2.863	172349	0.122
>	Ge	74		**ug/L**		434096	434096.372
	As	75	**99.971**	**ug/L**	1.023	123930	0.286
	Se	77		**ug/L**		14654	0.025
	Se	82	**100.003**	**ug/L**	1.920	13792	0.032
	Kr	83		**ug/L**		130	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, March 02, 2010 13:48:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 1.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.346**	**ug/L**	1.328	30138	0.020
>	Sc	45		**ug/L**		1473398	1473397.776
	Ni	60	**50.858**	**ug/L**	2.119	91683	0.062
>	Ge	74		**ug/L**		441626	441626.350
	As	75	**49.745**	**ug/L**	0.736	62636	0.142
	Se	77		**ug/L**		9697	0.013
	Se	82	**51.600**	**ug/L**	1.673	7248	0.016
	Kr	83		**ug/L**		110	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	100.692				
>	Sc	45		103.3			
	Ni	60	101.715				
>	Ge	74		101.1			
	As	75	99.490				
	Se	77					
	Se	82	103.199				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, March 02, 2010 13:50:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 2.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	188.579	14	0.000
>	Sc	45		**ug/L**		1440131	1440130.841
	Ni	60	**0.003**	**ug/L**	112.422	130	0.000
>	Ge	74		**ug/L**		440993	440993.357
	As	75	**0.180**	**ug/L**	162.980	19	0.001
	Se	77		**ug/L**		4297	0.001
	Se	82	**0.153**	**ug/L**	161.159	38	0.000
	Kr	83		**ug/L**		100	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.0			
	Ni	60					
>	Ge	74		101.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, March 02, 2010 13:52:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 3.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.573**	**ug/L**	7.403	346	0.000
>	Sc	45		**ug/L**		1438551	1438550.556
	Ni	60	**2.258**	**ug/L**	3.157	4094	0.003
>	Ge	74		**ug/L**		443273	443272.868
	As	75	**5.994**	**ug/L**	8.569	7392	0.017
	Se	77		**ug/L**		4774	0.002
	Se	82	**5.717**	**ug/L**	11.531	820	0.002
	Kr	83		**ug/L**		102	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	114.550				
>	Sc	45		100.9			
	Ni	60	112.916				
>	Ge	74		101.5			
	As	75	119.877				
	Se	77					
	Se	82	114.335				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, March 02, 2010 13:54:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 4.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.102**	**ug/L**	23.162	62	0.000
>	Sc	45		**ug/L**		1259505	1259504.637
	Ni	60	**3.753**	**ug/L**	1.709	5885	0.005
>	Ge	74		**ug/L**		378783	378783.219
	As	75	**0.021**	**ug/L**	4850.317	-149	0.000
	Se	77		**ug/L**		6590	0.008
	Se	82	**-1.230**	**ug/L**	4.369	-134	-0.000
	Kr	83		**ug/L**		309	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.3			
	Ni	60	113.396				
>	Ge	74		86.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, March 02, 2010 13:56:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 5.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.694**	**ug/L**	1.932	10036	0.008
>	Sc	45		**ug/L**		1253780	1253780.229
	Ni	60	**23.197**	**ug/L**	0.656	35647	0.028
>	Ge	74		**ug/L**		380771	380771.136
	As	75	**21.815**	**ug/L**	2.400	23582	0.062
	Se	77		**ug/L**		8038	0.012
	Se	82	**19.152**	**ug/L**	3.870	2328	0.006
	Kr	83		**ug/L**		387	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.469				
>	Sc	45		87.9			
	Ni	60	99.515				
>	Ge	74		87.2			
	As	75	109.077				
	Se	77					
	Se	82	95.760				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 13:58:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.917**	**ug/L**	3.071	29788	0.021
>	Sc	45		**ug/L**		1440707	1440706.580
	Ni	60	**50.627**	**ug/L**	4.481	89176	0.062
>	Ge	74		**ug/L**		436361	436361.002
	As	75	**50.341**	**ug/L**	1.840	62620	0.144
	Se	77		**ug/L**		9866	0.014
	Se	82	**51.610**	**ug/L**	1.315	7163	0.016
	Kr	83		**ug/L**		100	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	101.835				
>	Sc	45		101.0			
	Ni	60	101.254				
>	Ge	74		99.9			
	As	75	100.682				
	Se	77					
	Se	82	103.220				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 14:00:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.002	ug/L	191.876	13	0.000
>	Sc	45		ug/L		1460947	1460947.414
	Ni	60	0.005	ug/L	159.839	134	0.000
>	Ge	74		ug/L		437979	437979.005
	As	75	0.010	ug/L	2823.834	-199	0.000
	Se	77		ug/L		4811	0.002
	Se	82	0.128	ug/L	112.296	34	0.000
	Kr	83		ug/L		113	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.4			
	Ni	60					
>	Ge	74		100.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, March 02, 2010 14:13:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 8.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.882**	**ug/L**	4.507	29876	0.020
>	Sc	45		**ug/L**		1475686	1475685.740
	Ni	60	**50.146**	**ug/L**	3.188	90498	0.061
>	Ge	74		**ug/L**		441700	441700.251
	As	75	**50.914**	**ug/L**	1.948	64124	0.146
	Se	77		**ug/L**		9554	0.013
	Se	82	**51.784**	**ug/L**	3.143	7275	0.016
	Kr	83		**ug/L**		91	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.765				
>	Sc	45		103.5			
	Ni	60	100.293				
>	Ge	74		101.1			
	As	75	101.828				
	Se	77					
	Se	82	103.568				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, March 02, 2010 14:15:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 9.051

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	90.924	13	0.000
>	Sc	45		**ug/L**		1478238	1478237.584
	Ni	60	**0.002**	**ug/L**	216.933	130	0.000
>	Ge	74		**ug/L**		444750	444750.151
	As	75	**0.098**	**ug/L**	428.117	-80	0.000
	Se	77		**ug/L**		4160	0.000
	Se	82	**0.054**	**ug/L**	251.022	24	0.000
	Kr	83		**ug/L**		104	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.7			
	Ni	60					
>	Ge	74		101.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, March 02, 2010 14:29:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 8.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.099**	**ug/L**	3.627	29409	0.021
>	Sc	45		**ug/L**		1417563	1417563.060
	Ni	60	**50.686**	**ug/L**	1.960	87892	0.062
>	Ge	74		**ug/L**		430082	430082.421
	As	75	**50.191**	**ug/L**	0.627	61546	0.144
	Se	77		**ug/L**		8934	0.012
	Se	82	**50.839**	**ug/L**	0.363	6955	0.016
	Kr	83		**ug/L**		105	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	102.198				
>	Sc	45		99.4			
	Ni	60	101.372				
>	Ge	74		98.5			
	As	75	100.382				
	Se	77					
	Se	82	101.678				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, March 02, 2010 14:31:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 9.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.002**	**ug/L**	161.394	13	0.000
>	Sc	45		**ug/L**		1425024	1425023.682
	Ni	60	**0.002**	**ug/L**	203.333	126	0.000
>	Ge	74		**ug/L**		432104	432103.624
	As	75	**0.211**	**ug/L**	242.016	63	0.001
	Se	77		**ug/L**		3811	-0.000
	Se	82	**0.110**	**ug/L**	122.136	31	0.000
	Kr	83		**ug/L**		95	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.9			
	Ni	60					
>	Ge	74		98.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 14:47:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.074**	**ug/L**	2.434	28986	0.020
>	Sc	45		**ug/L**		1453877	1453876.616
	Ni	60	**50.355**	**ug/L**	1.786	89585	0.062
>	Ge	74		**ug/L**		432252	432251.647
	As	75	**50.285**	**ug/L**	2.678	61968	0.144
	Se	77		**ug/L**		8918	0.012
	Se	82	**50.930**	**ug/L**	1.012	7002	0.016
	Kr	83		**ug/L**		130	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.147				
>	Sc	45		101.9			
	Ni	60	100.710				
>	Ge	74		99.0			
	As	75	100.571				
	Se	77					
	Se	82	101.860				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 14:49:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.001	ug/L	545.529	12	0.000
>	Sc	45		ug/L		1458677	1458677.442
	Ni	60	0.000	ug/L	691.142	126	0.000
>	Ge	74		ug/L		428407	428406.511
	As	75	0.080	ug/L	299.261	-106	0.000
	Se	77		ug/L		3616	-0.001
	Se	82	-0.055	ug/L	80.749	9	-0.000
	Kr	83		ug/L		121	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.3			
	Ni	60					
>	Ge	74		98.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 15:13:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.383**	**ug/L**	1.312	28032	0.020
>	Sc	45		**ug/L**		1426211	1426211.144
	Ni	60	**49.834**	**ug/L**	0.868	86970	0.061
>	Ge	74		**ug/L**		413959	413959.300
	As	75	**49.865**	**ug/L**	2.426	58851	0.143
	Se	77		**ug/L**		8738	0.012
	Se	82	**49.871**	**ug/L**	2.560	6565	0.016
	Kr	83		**ug/L**		187	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	96.766				
>	Sc	45		100.0			
	Ni	60	99.668				
>	Ge	74		94.8			
	As	75	99.730				
	Se	77					
	Se	82	99.742				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 15:15:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.003**	**ug/L**	88.176	13	0.000
>	Sc	45		**ug/L**		1453670	1453669.710
	Ni	60	**0.003**	**ug/L**	105.535	130	0.000
>	Ge	74		**ug/L**		418087	418086.616
	As	75	**0.307**	**ug/L**	109.056	165	0.001
	Se	77		**ug/L**		3684	-0.000
	Se	82	**-0.213**	**ug/L**	2.819	-13	-0.000
	Kr	83		**ug/L**		143	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.9			
	Ni	60					
>	Ge	74		95.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 15:33:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.158**	**ug/L**	1.265	28108	0.020
>	Sc	45		**ug/L**		1407659	1407658.546
	Ni	60	**49.819**	**ug/L**	2.977	85779	0.061
>	Ge	74		**ug/L**		411816	411815.925
	As	75	**50.075**	**ug/L**	0.939	58788	0.143
	Se	77		**ug/L**		8318	0.011
	Se	82	**50.433**	**ug/L**	2.198	6607	0.016
	Kr	83		**ug/L**		170	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.316				
>	Sc	45		98.7			
	Ni	60	99.639				
>	Ge	74		94.3			
	As	75	100.150				
	Se	77					
	Se	82	100.867				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 15:35:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	90.260	14	0.000
>	Sc	45		**ug/L**		1389319	1389318.851
	Ni	60	**0.003**	**ug/L**	228.375	125	0.000
>	Ge	74		**ug/L**		412715	412715.400
	As	75	**0.220**	**ug/L**	97.103	65	0.001
	Se	77		**ug/L**		3389	-0.001
	Se	82	**-0.090**	**ug/L**	101.252	4	-0.000
	Kr	83		**ug/L**		125	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.4			
	Ni	60					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 15:54:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.099

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.860**	**ug/L**	0.830	27381	0.020
>	Sc	45		**ug/L**		1379261	1379261.405
	Ni	60	**49.595**	**ug/L**	2.303	83697	0.061
>	Ge	74		**ug/L**		400664	400663.690
	As	75	**50.549**	**ug/L**	1.097	57747	0.145
	Se	77		**ug/L**		8342	0.012
	Se	82	**50.210**	**ug/L**	1.701	6399	0.016
	Kr	83		**ug/L**		174	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	97.720				
>	Sc	45		96.7			
	Ni	60	99.189				
>	Ge	74		91.7			
	As	75	101.098				
	Se	77					
	Se	82	100.419				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 15:56:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.100

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	318.359	14	0.000
>	Sc	45		**ug/L**		1438940	1438940.134
	Ni	60	**-0.001**	**ug/L**	1092.012	123	-0.000
>	Ge	74		**ug/L**		404533	404532.641
	As	75	**0.272**	**ug/L**	92.839	125	0.001
	Se	77		**ug/L**		3385	-0.001
	Se	82	**-0.096**	**ug/L**	110.088	3	-0.000
	Kr	83		**ug/L**		123	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.9			
	Ni	60					
>	Ge	74		92.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 16:13:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.108

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.994**	**ug/L**	5.694	27605	0.019
>	Sc	45		**ug/L**		1417802	1417801.632
	Ni	60	**48.139**	**ug/L**	1.720	83490	0.059
>	Ge	74		**ug/L**		402339	402338.879
	As	75	**49.656**	**ug/L**	0.816	56959	0.142
	Se	77		**ug/L**		8191	0.011
	Se	82	**50.770**	**ug/L**	2.816	6496	0.016
	Kr	83		**ug/L**		150	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.988				
>	Sc	45		99.4			
	Ni	60	96.278				
>	Ge	74		92.1			
	As	75	99.312				
	Se	77					
	Se	82	101.539				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 16:15:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.109

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.005**	**ug/L**	61.997	14	0.000
>	Sc	45		**ug/L**		1375273	1375273.211
	Ni	60	**-0.001**	**ug/L**	667.648	117	-0.000
>	Ge	74		**ug/L**		409004	409003.520
	As	75	**0.189**	**ug/L**	26.945	27	0.001
	Se	77		**ug/L**		3233	-0.001
	Se	82	**-0.114**	**ug/L**	235.494	0	-0.000
	Kr	83		**ug/L**		127	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.4			
	Ni	60					
>	Ge	74		93.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 16:31:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.117

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.214**	**ug/L**	2.881	28229	0.019
>	Sc	45		**ug/L**		1472017	1472016.894
	Ni	60	**46.433**	**ug/L**	1.383	83654	0.057
>	Ge	74		**ug/L**		406564	406564.153
	As	75	**50.054**	**ug/L**	1.947	58020	0.143
	Se	77		**ug/L**		8200	0.011
	Se	82	**49.486**	**ug/L**	4.224	6400	0.016
	Kr	83		**ug/L**		164	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	94.428				
>	Sc	45		103.2			
	Ni	60	92.865				
>	Ge	74		93.1			
	As	75	100.108				
	Se	77					
	Se	82	98.971				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 16:33:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.118

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.003	ug/L	406.276	13	0.000
>	Sc	45		ug/L		1448632	1448631.896
	Ni	60	-0.004	ug/L	134.055	117	-0.000
>	Ge	74		ug/L		407481	407480.931
	As	75	-0.025	ug/L	981.155	-221	-0.000
	Se	77		ug/L		3289	-0.001
	Se	82	0.001	ug/L	13735.424	15	0.000
	Kr	83		ug/L		114	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.6			
	Ni	60					
>	Ge	74		93.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033993
Sample Date/Time: Tuesday, March 02, 2010 16:35:39
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033993.119

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.044**	**ug/L**	11.396	36	0.000
>	Sc	45		**ug/L**		1400322	1400321.924
	Ni	60	**0.247**	**ug/L**	3.698	543	0.000
>	Ge	74		**ug/L**		398234	398233.586
	As	75	**0.202**	**ug/L**	105.004	41	0.001
	Se	77		**ug/L**		2678	-0.002
	Se	82	**0.079**	**ug/L**	249.634	25	0.000
	Kr	83		**ug/L**		109	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.2			
	Ni	60					
>	Ge	74		91.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033998
Sample Date/Time: Tuesday, March 02, 2010 16:37:40
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949366|40|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033998.120

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.142**	**ug/L**	5.798	11345	0.008
>	Sc	45		**ug/L**		1387644	1387643.929
	Ni	60	**33.754**	**ug/L**	2.248	57325	0.041
>	Ge	74		**ug/L**		392986	392986.464
	As	75	**27.797**	**ug/L**	1.280	31064	0.080
	Se	77		**ug/L**		10878	0.019
	Se	82	**72.803**	**ug/L**	2.672	9094	0.023
	Kr	83		**ug/L**		121	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.3			
	Ni	60					
>	Ge	74		90.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070001
Sample Date/Time: Tuesday, March 02, 2010 16:39:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070001.121

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.499**	**ug/L**	3.311	2001	0.001
>	Sc	45		**ug/L**		1401531	1401531.417
	Ni	60	**32.224**	**ug/L**	3.539	55285	0.039
>	Ge	74		**ug/L**		372887	372886.671
	As	75	**10.161**	**ug/L**	2.461	10662	0.029
	Se	77		**ug/L**		2928	-0.001
	Se	82	**-0.869**	**ug/L**	25.840	-89	-0.000
	Kr	83		**ug/L**		337	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.3			
	Ni	60					
>	Ge	74		85.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033994
Sample Date/Time: Tuesday, March 02, 2010 16:41:43
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033994.122

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.783**	**ug/L**	4.559	2218	0.002
>	Sc	45		**ug/L**		1437468	1437468.357
	Ni	60	**23.563**	**ug/L**	3.312	41495	0.029
>	Ge	74		**ug/L**		384610	384609.646
	As	75	**7.907**	**ug/L**	3.414	8516	0.023
	Se	77		**ug/L**		2881	-0.001
	Se	82	**-0.589**	**ug/L**	29.804	-58	-0.000
	Kr	83		**ug/L**		301	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.8			
	Ni	60					
>	Ge	74		88.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033996
Sample Date/Time: Tuesday, March 02, 2010 16:43:45
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033996.123

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**29.401**	**ug/L**	5.609	16953	0.012
>	Sc	45		**ug/L**		1421167	1421167.135
	Ni	60	**58.475**	**ug/L**	4.773	101535	0.071
>	Ge	74		**ug/L**		379785	379785.183
	As	75	**53.080**	**ug/L**	0.229	57486	0.152
	Se	77		**ug/L**		3778	0.001
	Se	82	**8.665**	**ug/L**	6.322	1058	0.003
	Kr	83		**ug/L**		393	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.7			
	Ni	60					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033997
Sample Date/Time: Tuesday, March 02, 2010 16:45:48
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033997.124

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.735**	**ug/L**	4.090	14829	0.010
>	Sc	45		**ug/L**		1419209	1419209.027
	Ni	60	**41.343**	**ug/L**	3.268	71770	0.051
>	Ge	74		**ug/L**		397889	397888.887
	As	75	**44.885**	**ug/L**	0.107	50898	0.128
	Se	77		**ug/L**		3648	0.000
	Se	82	**8.362**	**ug/L**	5.442	1071	0.003
	Kr	83		**ug/L**		283	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.5			
	Ni	60					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202033995
Sample Date/Time: Tuesday, March 02, 2010 16:47:51
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949366|10|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\1202033995.125

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.673**	**ug/L**	6.977	401	0.000
>	Sc	45		**ug/L**		1428876	1428876.474
	Ni	60	**6.336**	**ug/L**	5.243	11166	0.008
>	Ge	74		**ug/L**		390510	390509.752
	As	75	**1.960**	**ug/L**	10.688	2006	0.006
	Se	77		**ug/L**		3761	0.001
	Se	82	**0.047**	**ug/L**	111.882	21	0.000
	Kr	83		**ug/L**		166	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.2			
	Ni	60					
>	Ge	74		89.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070002
Sample Date/Time: Tuesday, March 02, 2010 16:49:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070002.126

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.321**	**ug/L**	8.225	1354	0.001
>	Sc	45		**ug/L**		1426766	1426766.129
	Ni	60	**25.522**	**ug/L**	4.027	44590	0.031
>	Ge	74		**ug/L**		375065	375065.174
	As	75	**8.098**	**ug/L**	3.798	8510	0.023
	Se	77		**ug/L**		2928	-0.001
	Se	82	**-0.183**	**ug/L**	35.285	-8	-0.000
	Kr	83		**ug/L**		278	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.0			
	Ni	60					
>	Ge	74		85.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070003
Sample Date/Time: Tuesday, March 02, 2010 16:51:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070003.127

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.084**	**ug/L**	5.015	1783	0.001
>	Sc	45		**ug/L**		1417306	1417306.417
	Ni	60	**18.008**	**ug/L**	3.868	31274	0.022
>	Ge	74		**ug/L**		377205	377205.398
	As	75	**4.960**	**ug/L**	6.129	5175	0.014
	Se	77		**ug/L**		2791	-0.002
	Se	82	**-0.590**	**ug/L**	47.624	-56	-0.000
	Kr	83		**ug/L**		364	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.4			
	Ni	60					
>	Ge	74		86.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070004
Sample Date/Time: Tuesday, March 02, 2010 16:53:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070004.128

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	4.630	ug/L	3.961	2712	0.002
>	Sc	45		ug/L		1438181	1438180.943
	Ni	60	43.380	ug/L	5.846	76218	0.053
>	Ge	74		ug/L		364423	364423.145
	As	75	13.495	ug/L	3.096	13899	0.039
	Se	77		ug/L		2783	-0.001
	Se	82	-1.841	ug/L	15.165	-199	-0.001
	Kr	83		ug/L		488	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.8			
	Ni	60					
>	Ge	74		83.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 16:55:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.129

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.262**	**ug/L**	2.002	27535	0.019
>	Sc	45		**ug/L**		1464877	1464877.137
	Ni	60	**46.328**	**ug/L**	1.995	83054	0.057
>	Ge	74		**ug/L**		399625	399625.090
	As	75	**50.292**	**ug/L**	2.777	57293	0.144
	Se	77		**ug/L**		8139	0.011
	Se	82	**50.239**	**ug/L**	0.786	6386	0.016
	Kr	83		**ug/L**		174	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	92.524				
>	Sc	45		102.7			
	Ni	60	92.656				
>	Ge	74		91.5			
	As	75	100.584				
	Se	77					
	Se	82	100.478				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 16:58:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.001**	**ug/L**	53.037	12	0.000
>	Sc	45		**ug/L**		1450652	1450652.319
	Ni	60	**0.008**	**ug/L**	69.273	139	0.000
>	Ge	74		**ug/L**		402597	402597.321
	As	75	**0.185**	**ug/L**	67.548	21	0.001
	Se	77		**ug/L**		3230	-0.001
	Se	82	**-0.095**	**ug/L**	128.015	3	-0.000
	Kr	83		**ug/L**		119	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.7			
	Ni	60					
>	Ge	74		92.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070005
Sample Date/Time: Tuesday, March 02, 2010 17:00:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070005.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.076**	**ug/L**	3.226	1791	0.001
>	Sc	45		**ug/L**		1425448	1425448.270
	Ni	60	**22.933**	**ug/L**	3.536	40054	0.028
>	Ge	74		**ug/L**		374722	374722.400
	As	75	**6.588**	**ug/L**	1.931	6886	0.019
	Se	77		**ug/L**		2778	-0.002
	Se	82	**-0.097**	**ug/L**	229.310	2	-0.000
	Kr	83		**ug/L**		290	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.0			
	Ni	60					
>	Ge	74		85.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070006
Sample Date/Time: Tuesday, March 02, 2010 17:02:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070006.132

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.507**	**ug/L**	1.749	904	0.001
>	Sc	45		**ug/L**		1458045	1458044.830
	Ni	60	**29.763**	**ug/L**	1.808	53149	0.036
>	Ge	74		**ug/L**		383534	383534.391
	As	75	**6.431**	**ug/L**	2.508	6874	0.018
	Se	77		**ug/L**		2900	-0.001
	Se	82	**-0.127**	**ug/L**	175.717	-1	-0.000
	Kr	83		**ug/L**		244	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.2			
	Ni	60					
>	Ge	74		87.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070007
Sample Date/Time: Tuesday, March 02, 2010 17:04:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070007.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.387**	**ug/L**	2.799	808	0.001
>	Sc	45		**ug/L**		1414038	1414038.169
	Ni	60	**16.635**	**ug/L**	2.395	28852	0.020
>	Ge	74		**ug/L**		378630	378629.680
	As	75	**6.285**	**ug/L**	2.552	6629	0.018
	Se	77		**ug/L**		3083	-0.001
	Se	82	**0.211**	**ug/L**	73.550	40	0.000
	Kr	83		**ug/L**		193	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.2			
	Ni	60					
>	Ge	74		86.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070008
Sample Date/Time: Tuesday, March 02, 2010 17:06:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070008.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.729**	**ug/L**	4.432	1570	0.001
>	Sc	45		**ug/L**		1406752	1406751.902
	Ni	60	**25.133**	**ug/L**	2.796	43309	0.031
>	Ge	74		**ug/L**		373223	373222.681
	As	75	**8.544**	**ug/L**	6.099	8943	0.024
	Se	77		**ug/L**		2809	-0.001
	Se	82	**-0.858**	**ug/L**	15.952	-88	-0.000
	Kr	83		**ug/L**		334	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.6			
	Ni	60					
>	Ge	74		85.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070009
Sample Date/Time: Tuesday, March 02, 2010 17:08:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070009.135

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.319**	**ug/L**	4.899	1342	0.001
>	Sc	45		**ug/L**		1414136	1414136.390
	Ni	60	**23.631**	**ug/L**	3.244	40940	0.029
>	Ge	74		**ug/L**		372498	372498.249
	As	75	**7.684**	**ug/L**	4.857	8012	0.022
	Se	77		**ug/L**		2802	-0.001
	Se	82	**-0.451**	**ug/L**	50.890	-39	-0.000
	Kr	83		**ug/L**		294	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.2			
	Ni	60					
>	Ge	74		85.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070010
Sample Date/Time: Tuesday, March 02, 2010 17:10:33
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070010.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.634**	**ug/L**	0.685	2744	0.002
>	Sc	45		**ug/L**		1451724	1451724.457
	Ni	60	**42.492**	**ug/L**	1.540	75501	0.052
>	Ge	74		**ug/L**		363755	363754.839
	As	75	**13.715**	**ug/L**	2.280	14096	0.039
	Se	77		**ug/L**		2930	-0.001
	Se	82	**-2.324**	**ug/L**	13.864	-255	-0.001
	Kr	83		**ug/L**		537	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.8			
	Ni	60					
>	Ge	74		83.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070011
Sample Date/Time: Tuesday, March 02, 2010 17:12:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070011.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.438**	ug/L	5.656	3197	0.002
>	Sc	45		ug/L		1444088	1444088.143
	Ni	60	**45.583**	ug/L	3.176	80514	0.056
>	Ge	74		ug/L		361241	361241.293
	As	75	**12.651**	ug/L	1.876	12903	0.036
	Se	77		ug/L		2893	-0.001
	Se	82	**-2.535**	ug/L	22.086	-278	-0.001
	Kr	83		ug/L		555	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.3			
	Ni	60					
>	Ge	74		82.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070012
Sample Date/Time: Tuesday, March 02, 2010 17:14:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070012.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.706**	**ug/L**	4.233	3314	0.002
>	Sc	45		**ug/L**		1427128	1427128.011
	Ni	60	**47.423**	**ug/L**	5.291	82706	0.058
>	Ge	74		**ug/L**		368673	368673.021
	As	75	**13.160**	**ug/L**	3.365	13700	0.038
	Se	77		**ug/L**		2790	-0.001
	Se	82	**-2.482**	**ug/L**	15.180	-277	-0.001
	Kr	83		**ug/L**		571	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.1			
	Ni	60					
>	Ge	74		84.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070013
Sample Date/Time: Tuesday, March 02, 2010 17:16:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070013.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.583**	**ug/L**	3.512	940	0.001
>	Sc	45		**ug/L**		1444826	1444825.820
	Ni	60	**15.858**	**ug/L**	1.081	28125	0.019
>	Ge	74		**ug/L**		379993	379993.292
	As	75	**4.821**	**ug/L**	8.755	5060	0.014
	Se	77		**ug/L**		3113	-0.001
	Se	82	**-0.033**	**ug/L**	876.269	10	-0.000
	Kr	83		**ug/L**		242	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.3			
	Ni	60					
>	Ge	74		87.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 17:18:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.512**	**ug/L**	3.603	26955	0.019
>	Sc	45		**ug/L**		1397091	1397091.235
	Ni	60	**47.727**	**ug/L**	2.382	81573	0.058
>	Ge	74		**ug/L**		394819	394819.044
	As	75	**50.129**	**ug/L**	0.586	56426	0.143
	Se	77		**ug/L**		7939	0.011
	Se	82	**49.721**	**ug/L**	1.689	6243	0.016
	Kr	83		**ug/L**		158	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.023				
>	Sc	45		98.0			
	Ni	60	95.453				
>	Ge	74		90.4			
	As	75	100.258				
	Se	77					
	Se	82	99.441				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 17:20:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.004	ug/L	158.386	9	-0.000
>	Sc	45		ug/L		1406578	1406578.197
	Ni	60	0.010	ug/L	34.824	138	0.000
>	Ge	74		ug/L		394395	394395.224
	As	75	0.140	ug/L	212.925	-30	0.000
	Se	77		ug/L		3297	-0.001
	Se	82	-0.176	ug/L	106.951	-7	-0.000
	Kr	83		ug/L		135	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.6			
	Ni	60					
>	Ge	74		90.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070014
Sample Date/Time: Tuesday, March 02, 2010 17:22:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070014.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.864**	**ug/L**	0.929	3333	0.002
>	Sc	45		**ug/L**		1394865	1394865.168
	Ni	60	**41.736**	**ug/L**	1.267	71256	0.051
>	Ge	74		**ug/L**		350671	350670.895
	As	75	**12.271**	**ug/L**	3.978	12146	0.035
	Se	77		**ug/L**		2940	-0.001
	Se	82	**-2.321**	**ug/L**	8.981	-245	-0.001
	Kr	83		**ug/L**		567	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.8			
	Ni	60					
>	Ge	74		80.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070015
Sample Date/Time: Tuesday, March 02, 2010 17:24:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070015.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.497**	**ug/L**	4.528	2609	0.002
>	Sc	45		**ug/L**		1422740	1422740.204
	Ni	60	**56.708**	**ug/L**	2.593	98717	0.069
>	Ge	74		**ug/L**		360028	360027.618
	As	75	**12.522**	**ug/L**	4.127	12723	0.036
	Se	77		**ug/L**		2935	-0.001
	Se	82	**-1.450**	**ug/L**	10.125	-152	-0.000
	Kr	83		**ug/L**		509	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.8			
	Ni	60					
>	Ge	74		82.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070016
Sample Date/Time: Tuesday, March 02, 2010 17:26:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070016.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.827**	**ug/L**	4.677	2786	0.002
>	Sc	45		**ug/L**		1417273	1417272.541
	Ni	60	**38.081**	**ug/L**	2.124	66040	0.047
>	Ge	74		**ug/L**		364887	364886.962
	As	75	**12.908**	**ug/L**	1.747	13301	0.037
	Se	77		**ug/L**		2791	-0.001
	Se	82	**-2.115**	**ug/L**	21.634	-231	-0.001
	Kr	83		**ug/L**		517	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.4			
	Ni	60					
>	Ge	74		83.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070017
Sample Date/Time: Tuesday, March 02, 2010 17:29:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070017.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.577**	**ug/L**	1.952	3295	0.002
>	Sc	45		**ug/L**		1449559	1449559.056
	Ni	60	**53.966**	**ug/L**	1.660	95715	0.066
>	Ge	74		**ug/L**		360852	360852.289
	As	75	**12.867**	**ug/L**	1.080	13108	0.037
	Se	77		**ug/L**		2659	-0.002
	Se	82	**-2.707**	**ug/L**	11.790	-296	-0.001
	Kr	83		**ug/L**		583	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.6			
	Ni	60					
>	Ge	74		82.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070018
Sample Date/Time: Tuesday, March 02, 2010 17:31:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070018.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.846**	**ug/L**	4.633	2821	0.002
>	Sc	45		**ug/L**		1428550	1428550.355
	Ni	60	**40.099**	**ug/L**	1.981	70103	0.049
>	Ge	74		**ug/L**		367896	367895.522
	As	75	**11.243**	**ug/L**	4.615	11653	0.032
	Se	77		**ug/L**		2594	-0.002
	Se	82	**-1.998**	**ug/L**	17.418	-219	-0.001
	Kr	83		**ug/L**		486	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.2			
	Ni	60					
>	Ge	74		84.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070019
Sample Date/Time: Tuesday, March 02, 2010 17:33:07
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070019.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.465**	**ug/L**	1.191	3271	0.002
>	Sc	45		**ug/L**		1468583	1468583.354
	Ni	60	**45.746**	**ug/L**	1.478	82225	0.056
>	Ge	74		**ug/L**		372579	372579.016
	As	75	**12.555**	**ug/L**	1.551	13203	0.036
	Se	77		**ug/L**		2745	-0.002
	Se	82	**-1.854**	**ug/L**	20.713	-206	-0.001
	Kr	83		**ug/L**		525	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.0			
	Ni	60					
>	Ge	74		85.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246070020
Sample Date/Time: Tuesday, March 02, 2010 17:35:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|baj
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\246070020.148

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.942**	**ug/L**	3.719	3522	0.002
>	Sc	45		**ug/L**		1454854	1454854.291
	Ni	60	**45.679**	**ug/L**	2.093	81335	0.056
>	Ge	74		**ug/L**		359583	359582.646
	As	75	**12.870**	**ug/L**	2.180	13064	0.037
	Se	77		**ug/L**		2767	-0.001
	Se	82	**-2.917**	**ug/L**	5.952	-319	-0.001
	Kr	83		**ug/L**		626	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.0			
	Ni	60					
>	Ge	74		82.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 17:37:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.149

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**46.358**	**ug/L**	4.362	26983	0.019
>	Sc	45		**ug/L**		1434577	1434576.563
	Ni	60	**47.664**	**ug/L**	5.093	83538	0.058
>	Ge	74		**ug/L**		395008	395007.652
	As	75	**50.667**	**ug/L**	0.629	57066	0.145
	Se	77		**ug/L**		8096	0.012
	Se	82	**49.226**	**ug/L**	1.691	6184	0.016
	Kr	83		**ug/L**		204	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	92.716				
>	Sc	45		100.6			
	Ni	60	95.327				
>	Ge	74		90.4			
	As	75	101.334				
	Se	77					
	Se	82	98.452				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 17:39:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ni as and se.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.150

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.007**	**ug/L**	52.349	15	0.000
>	Sc	45		**ug/L**		1424972	1424971.739
	Ni	60	**0.000**	**ug/L**	1449.232	123	0.000
>	Ge	74		**ug/L**		397046	397046.167
	As	75	**-0.025**	**ug/L**	1557.844	-216	-0.000
	Se	77		**ug/L**		3210	-0.001
	Se	82	**-0.190**	**ug/L**	95.982	-9	-0.000
	Kr	83		**ug/L**		130	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.9			
	Ni	60					
>	Ge	74		90.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, February 27, 2010 23:13:02
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1681
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1646.5	1646.495	46.355	2.8
	Mg	24.0	10161.0	10161.015	305.365	3.0
	Co	58.9	21345.1	21345.142	496.401	2.3
	Rh	102.9	55538.4	55538.377	1004.290	1.8
	In	114.9	64911.2	64911.206	1580.503	2.4
	Pb	208.0	43468.4	43468.440	528.057	1.2
⌈>	Ba	137.9	53237.5	53237.540	1033.858	1.9
⌊	Ba++	69.0	741.4	0.014	0.000	1.8
⌈>	Ce	139.9	72230.6	72230.594	1349.694	1.9
⌊	CeO	155.9	1056.0	0.015	0.001	4.3
	Bkgd	220.0	2.8	2.800	1.204	43.0

Current Optimization File Data

Current Value	Description
0.78	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	5.5	1504.1
Co	59	17	6.8	19845.8
In	115	17	8.0	65863.1

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	581	2080	0.633
Be	9.0	8.9	2028	2080	0.661
Mg	24.0	24.0	5682	2124	0.568
Mg	25.0	24.9	5898	2080	0.596
Mg	26.0	25.9	6177	2120	0.675
Co	58.9	59.0	14168	2170	0.629
Rh	102.9	102.9	24857	2230	0.691
In	114.9	114.9	27785	2260	0.707
Ce	139.9	140.0	33871	2280	0.770
Pb	206.0	206.0	49948	2430	0.715
Pb	207.0	207.0	50147	2385	0.737
Pb	208.0	207.9	50427	2430	0.749
U	238.1	238.1	57734	2470	0.760

Report Date/Time: Saturday, February 27, 2010 23:07:50

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, February 28, 2010 14:01:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\Blank.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		106	
	Be	9		ug/L		6	
	B	11		ug/L		205	
	Na	23		ug/L		11672	
	Mg	24		ug/L		4334	
	Al	27		ug/L		4668	
	P	31		ug/L		3588	
	K	39		ug/L		242038	
	Ca	43		ug/L		69	
>	Sc	45		ug/L		760366	
	V	51		ug/L		7870	
	Cr	52		ug/L		3029	
	Cr	53		ug/L		43172	
	Mn	55		ug/L		555	
	Fe	57		ug/L		3079	
	Co	59		ug/L		44	
	Ni	60		ug/L		41	
	Cu	63		ug/L		111	
	Cu	65		ug/L		68	
	Zn	66		ug/L		77	
	Zn	67		ug/L		4121	
	Zn	68		ug/L		328	
>	Ge	74		ug/L		166080	
	As	75		ug/L		537	
	Se	77		ug/L		2244	
	Se	82		ug/L		12	
	Kr	83		ug/L		32	
	Sr	88		ug/L		71	
	Y	89		ug/L		22	
	Ag	107		ug/L		18	
	Cd	111		ug/L		7	
	Cd	114		ug/L		16	
>	In	115		ug/L		100008	
	Sn	120		ug/L		189	
	Sb	121		ug/L		164	
	Sb	123		ug/L		111	
	Ba	135		ug/L		5	
	Ba	137		ug/L		13	
	Ho	165		ug/L		3	
>	Lu	175		ug/L		127922	
	Tl	205		ug/L		162	
	Pb	208		ug/L		1289	
	Bi	209		ug/L		25	
	U	238		ug/L		46	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	0.9998
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, February 28, 2010 14:07:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\Standard 1.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.189	7780	0.010
	Be	9	10.000	ug/L	1.158	1983	0.003
	B	11	20.000	ug/L	2.323	4255	0.005
	Na	23	1000.000	ug/L	7.708	1816715	2.349
	Mg	24	1000.000	ug/L	4.052	1077533	1.397
	Al	27	1000.000	ug/L	2.689	1940462	2.519
	P	31	1000.000	ug/L	0.510	99305	0.125
	K	39	1000.000	ug/L	3.555	2026850	2.319
	Ca	43	1000.000	ug/L	3.620	4311	0.006
>	Sc	45		ug/L		768429	768428.802
	V	51	10.000	ug/L	16.183	35370	0.036
	Cr	52	10.000	ug/L	1.266	23269	0.026
	Cr	53		ug/L		45521	0.002
	Mn	55	10.000	ug/L	0.730	30389	0.039
	Fe	57	1000.000	ug/L	0.642	59433	0.073
	Co	59	10.000	ug/L	0.675	21275	0.028
	Ni	60	10.000	ug/L	2.653	4390	0.006
	Cu	63		ug/L		10909	0.014
	Cu	65	10.000	ug/L	0.605	5741	0.007
	Zn	66	10.000	ug/L	1.408	3794	0.023
	Zn	67		ug/L		4853	0.005
	Zn	68		ug/L		3137	0.017
>	Ge	74		ug/L		164214	164213.742
	As	75	10.000	ug/L	5.036	4842	0.026
	Se	77		ug/L		2594	0.002
	Se	82	10.000	ug/L	5.629	404	0.002
	Kr	83		ug/L		21	-0.000
	Sr	88	10.000	ug/L	1.178	45915	0.461
	Y	89		ug/L		23	0.000
	Ag	107	10.000	ug/L	0.781	21656	0.217
	Cd	111	10.000	ug/L	2.054	5406	0.054
	Cd	114		ug/L		12156	0.122
>	In	115		ug/L		99542	99542.029
	Sn	120	10.000	ug/L	3.148	20222	0.201
	Sb	121	10.000	ug/L	3.640	17130	0.170
	Sb	123		ug/L		13049	0.130
	Ba	135		ug/L		4321	0.034
	Ba	137	10.000	ug/L	0.814	7686	0.060
	Ho	165		ug/L		2	-0.000
>	Lu	175		ug/L		127342	127341.660
	Tl	205	10.000	ug/L	0.858	34406	0.269
	Pb	208	10.000	ug/L	0.570	61615	0.474
	Bi	209		ug/L		33	0.000
	U	238	10.000	ug/L	0.540	60610	0.476

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, February 28, 2010 14:13:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\Standard 2.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**100.034**	**ug/L**	0.498	71877	0.103
	Be	9	**100.052**	**ug/L**	0.832	18865	0.027
	B	11	**200.152**	**ug/L**	1.737	39798	0.057
	Na	23	**10005.933**	**ug/L**	6.272	17350542	24.983
	Mg	24	**10016.109**	**ug/L**	8.684	11585526	16.674
	Al	27	**9996.538**	**ug/L**	6.200	16897409	24.339
	P	31	**10005.123**	**ug/L**	0.527	914985	1.313
	K	39	**10012.464**	**ug/L**	5.802	18636617	26.528
	Ca	43	**10004.833**	**ug/L**	1.295	40354	0.058
>	Sc	45		**ug/L**		694332	694332.033
	V	51	**99.929**	**ug/L**	1.644	238373	0.333
	Cr	52	**100.053**	**ug/L**	0.809	195737	0.278
	Cr	53		**ug/L**		63602	0.035
	Mn	55	**100.034**	**ug/L**	0.475	279693	0.402
	Fe	57	**10004.503**	**ug/L**	0.915	535917	0.768
	Co	59	**100.040**	**ug/L**	0.515	199940	0.288
	Ni	60	**100.046**	**ug/L**	0.560	41225	0.059
	Cu	63		**ug/L**		98836	0.142
	Cu	65	**99.993**	**ug/L**	1.032	50946	0.073
	Zn	66	**99.977**	**ug/L**	1.433	34105	0.221
	Zn	67		**ug/L**		9955	0.040
	Zn	68		**ug/L**		26455	0.170
>	Ge	74		**ug/L**		153835	153835.409
	As	75	**100.019**	**ug/L**	1.477	41649	0.268
	Se	77		**ug/L**		5034	0.019
	Se	82	**99.984**	**ug/L**	2.011	3623	0.023
	Kr	83		**ug/L**		38	0.000
	Sr	88	**100.008**	**ug/L**	1.402	436309	4.642
	Y	89		**ug/L**		52	0.000
	Ag	107	**100.026**	**ug/L**	0.887	209750	2.232
	Cd	111	**100.020**	**ug/L**	1.104	52051	0.554
	Cd	114		**ug/L**		117571	1.251
>	In	115		**ug/L**		93985	93985.420
	Sn	120	**100.044**	**ug/L**	0.797	198067	2.106
	Sb	121	**100.057**	**ug/L**	1.935	170191	1.809
	Sb	123		**ug/L**		131166	1.395
	Ba	135		**ug/L**		43192	0.352
	Ba	137	**100.023**	**ug/L**	1.452	75596	0.617
	Ho	165		**ug/L**		3	0.000
>	Lu	175		**ug/L**		122573	122572.530
	Tl	205	**100.029**	**ug/L**	0.281	339766	2.771
	Pb	208	**100.021**	**ug/L**	0.977	594453	4.840
	Bi	209		**ug/L**		110	0.001
	U	238	**100.018**	**ug/L**	1.259	593464	4.842

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, February 28, 2010 14:19:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 1.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.659**	**ug/L**	0.899	37360	0.053
	Be	9	**52.029**	**ug/L**	0.128	9864	0.014
	B	11	**101.505**	**ug/L**	4.516	20386	0.029
	Na	23	**4795.624**	**ug/L**	10.583	8366739	11.974
	Mg	24	**5090.068**	**ug/L**	9.901	5920320	8.474
	Al	27	**5264.938**	**ug/L**	12.060	8948030	12.819
	P	31	**5064.479**	**ug/L**	1.137	467230	0.665
	K	39	**5105.195**	**ug/L**	6.070	9661576	13.526
	Ca	43	**4975.816**	**ug/L**	0.639	20206	0.029
>	Sc	45		**ug/L**		698012	698011.865
	V	51	**49.078**	**ug/L**	4.584	121387	0.164
	Cr	52	**51.301**	**ug/L**	2.790	102257	0.143
	Cr	53		**ug/L**		52624	0.019
	Mn	55	**52.426**	**ug/L**	0.463	147605	0.211
	Fe	57	**5009.093**	**ug/L**	0.114	271174	0.384
	Co	59	**50.984**	**ug/L**	0.641	102458	0.147
	Ni	60	**52.767**	**ug/L**	1.099	21877	0.031
	Cu	63		**ug/L**		52007	0.074
	Cu	65	**52.266**	**ug/L**	0.248	26800	0.038
	Zn	66	**52.049**	**ug/L**	1.050	17998	0.115
	Zn	67		**ug/L**		7300	0.022
	Zn	68		**ug/L**		14040	0.088
>	Ge	74		**ug/L**		155635	155635.124
	As	75	**49.039**	**ug/L**	1.556	20916	0.131
	Se	77		**ug/L**		3604	0.010
	Se	82	**51.778**	**ug/L**	3.702	1904	0.012
	Kr	83		**ug/L**		24	-0.000
	Sr	88	**51.550**	**ug/L**	1.677	226857	2.393
	Y	89		**ug/L**		36	0.000
	Ag	107	**50.586**	**ug/L**	0.716	106994	1.129
	Cd	111	**50.418**	**ug/L**	1.680	26465	0.279
	Cd	114		**ug/L**		60285	0.636
>	In	115		**ug/L**		94798	94797.583
	Sn	120	**50.508**	**ug/L**	1.670	100936	1.063
	Sb	121	**51.652**	**ug/L**	1.253	88687	0.934
	Sb	123		**ug/L**		68634	0.723
	Ba	135		**ug/L**		21854	0.178
	Ba	137	**50.556**	**ug/L**	0.541	38266	0.312
	Ho	165		**ug/L**		8	0.000
>	Lu	175		**ug/L**		122723	122722.776
	Tl	205	**48.699**	**ug/L**	1.452	165692	1.349
	Pb	208	**50.863**	**ug/L**	0.780	303284	2.461
	Bi	209		**ug/L**		78	0.000
	U	238	**53.757**	**ug/L**	1.018	319403	2.602

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.319				
	Be	9	104.058				
	B	11	101.505				
	Na	23	95.912				
	Mg	24	101.801				
	Al	27	104.256				
	P	31	101.290				
	K	39	102.104				
	Ca	43	99.516				
>	Sc	45		91.8			
	V	51	98.155				
	Cr	52	102.602				
	Cr	53					
	Mn	55	104.852				
	Fe	57	100.182				
	Co	59	101.969				
	Ni	60	105.533				
	Cu	63					
	Cu	65	104.531				
	Zn	66	104.098				
	Zn	67					
	Zn	68					
>	Ge	74		93.7			
	As	75	98.078				
	Se	77					
	Se	82	103.555				
	Kr	83					
	Sr	88	103.101				
	Y	89					
	Ag	107	101.172				
	Cd	111	100.835				
	Cd	114					
>	In	115		94.8			
	Sn	120	101.016				
	Sb	121	103.304				
	Sb	123					
	Ba	135					
	Ba	137	101.111				
	Ho	165					
>	Lu	175		95.9			
	Tl	205	97.399				
	Pb	208	101.725				
	Bi	209					
	U	238	107.514				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, February 28, 2010 14:25:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 2.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.040**	**ug/L**	21.910	139	0.000
	Be	9	**0.019**	**ug/L**	89.300	10	0.000
	B	11	**3.267**	**ug/L**	17.030	923	0.001
	Na	23	**-1.099**	**ug/L**	76.583	9670	-0.003
	Mg	24	**-1.859**	**ug/L**	42.418	2000	-0.003
	Al	27	**0.151**	**ug/L**	339.068	5001	0.000
	P	31	**2.553**	**ug/L**	99.006	3882	0.000
	K	39	**5.649**	**ug/L**	47.573	255940	0.015
	Ca	43	**7.198**	**ug/L**	34.934	101	0.000
>	Sc	45		**ug/L**		767933	767932.862
	V	51	**0.728**	**ug/L**	52.973	9818	0.002
	Cr	52	**-0.066**	**ug/L**	64.210	2918	-0.000
	Cr	53		**ug/L**		42730	-0.001
	Mn	55	**0.005**	**ug/L**	180.914	575	0.000
	Fe	57	**-2.162**	**ug/L**	79.916	2982	-0.000
	Co	59	**0.011**	**ug/L**	27.382	68	0.000
	Ni	60	**-0.000**	**ug/L**	4454.743	42	-0.000
	Cu	63		**ug/L**		117	0.000
	Cu	65	**-0.004**	**ug/L**	408.004	67	-0.000
	Zn	66	**0.017**	**ug/L**	111.746	82	0.000
	Zn	67		**ug/L**		4272	0.001
	Zn	68		**ug/L**		349	0.000
>	Ge	74		**ug/L**		164361	164360.824
	As	75	**-0.541**	**ug/L**	33.085	293	-0.001
	Se	77		**ug/L**		2196	-0.000
	Se	82	**0.109**	**ug/L**	158.540	16	0.000
	Kr	83		**ug/L**		21	-0.000
	Sr	88	**0.006**	**ug/L**	47.536	98	0.000
	Y	89		**ug/L**		16	-0.000
	Ag	107	**0.010**	**ug/L**	25.647	38	0.000
	Cd	111	**0.013**	**ug/L**	68.738	14	0.000
	Cd	114		**ug/L**		22	0.000
>	In	115		**ug/L**		97326	97326.019
	Sn	120	**0.097**	**ug/L**	26.545	382	0.002
	Sb	121	**0.499**	**ug/L**	16.773	1037	0.009
	Sb	123		**ug/L**		745	0.007
	Ba	135		**ug/L**		10	0.000
	Ba	137	**0.004**	**ug/L**	142.518	16	0.000
	Ho	165		**ug/L**		3	0.000
>	Lu	175		**ug/L**		127227	127227.318
	Tl	205	**0.102**	**ug/L**	18.868	522	0.003
	Pb	208	**-0.011**	**ug/L**	74.073	1215	-0.001
	Bi	209		**ug/L**		23	-0.000
	U	238	**0.011**	**ug/L**	31.386	114	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, February 28, 2010 14:31:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 3.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**12.126**	**ug/L**	0.726	9685	0.013
	Be	9	**0.570**	**ug/L**	1.171	124	0.000
	B	11	**17.454**	**ug/L**	4.361	4009	0.005
	Na	23	**296.070**	**ug/L**	16.783	576597	0.739
	Mg	24	**21.214**	**ug/L**	34.705	31370	0.035
	Al	27	**35.200**	**ug/L**	31.938	70182	0.086
	P	31	**58.590**	**ug/L**	3.270	9485	0.008
	K	39	**380.102**	**ug/L**	5.280	1013053	1.007
	Ca	43	**229.407**	**ug/L**	5.123	1086	0.001
>	Sc	45		**ug/L**		764406	764405.743
	V	51	**10.707**	**ug/L**	10.492	35185	0.036
	Cr	52	**11.436**	**ug/L**	2.057	27328	0.032
	Cr	53		**ug/L**		46043	0.003
	Mn	55	**6.142**	**ug/L**	0.749	19431	0.025
	Fe	57	**114.478**	**ug/L**	1.146	9811	0.009
	Co	59	**1.154**	**ug/L**	4.595	2583	0.003
	Ni	60	**2.355**	**ug/L**	7.927	1109	0.001
	Cu	63		**ug/L**		1979	0.002
	Cu	65	**1.694**	**ug/L**	0.522	1018	0.001
	Zn	66	**12.599**	**ug/L**	0.567	4656	0.028
	Zn	67		**ug/L**		4858	0.005
	Zn	68		**ug/L**		3707	0.021
>	Ge	74		**ug/L**		164277	164276.518
	As	75	**5.822**	**ug/L**	5.993	3089	0.016
	Se	77		**ug/L**		2338	0.001
	Se	82	**6.466**	**ug/L**	10.193	262	0.002
	Kr	83		**ug/L**		19	-0.000
	Sr	88	**12.622**	**ug/L**	0.550	57305	0.586
	Y	89		**ug/L**		15	-0.000
	Ag	107	**1.042**	**ug/L**	0.862	2288	0.023
	Cd	111	**1.189**	**ug/L**	1.494	650	0.007
	Cd	114		**ug/L**		1506	0.015
>	In	115		**ug/L**		97700	97699.842
	Sn	120	**5.546**	**ug/L**	1.450	11588	0.117
	Sb	121	**3.241**	**ug/L**	0.599	5886	0.059
	Sb	123		**ug/L**		4472	0.045
	Ba	135		**ug/L**		1026	0.008
	Ba	137	**2.353**	**ug/L**	1.456	1848	0.015
	Ho	165		**ug/L**		4	0.000
>	Lu	175		**ug/L**		126548	126547.635
	Tl	205	**1.170**	**ug/L**	0.832	4262	0.032
	Pb	208	**2.366**	**ug/L**	0.158	15762	0.114
	Bi	209		**ug/L**		25	0.000
	U	238	**0.268**	**ug/L**	2.882	1688	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	121.264				
	Be	9	114.024				
	B	11	116.363				
	Na	23	118.428				
	Mg	24	141.426				
	Al	27	117.333				
	P	31	117.181				
	K	39	126.701				
	Ca	43	114.703				
>	Sc	45		100.5			
	V	51	107.068				
	Cr	52	114.362				
	Cr	53					
	Mn	55	122.846				
	Fe	57	114.478				
	Co	59	115.394				
	Ni	60	117.739				
	Cu	63					
	Cu	65	169.393				
	Zn	66	125.993				
	Zn	67					
	Zn	68					
>	Ge	74		98.9			
	As	75	116.436				
	Se	77					
	Se	82	129.315				
	Kr	83					
	Sr	88	126.221				
	Y	89					
	Ag	107	104.162				
	Cd	111	118.946				
	Cd	114					
>	In	115		97.7			
	Sn	120	110.914				
	Sb	121	108.043				
	Sb	123					
	Ba	135					
	Ba	137	117.637				
	Ho	165					
>	Lu	175		98.9			
	Tl	205	116.995				
	Pb	208	118.283				
	Bi	209					
	U	238	134.044				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Mg	24	CRDL is out of limits
QC Std 3	Cu	65	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, February 28, 2010 14:37:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 4.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.132**	**ug/L**	29.476	155	0.000
	Be	9	**0.104**	**ug/L**	13.241	20	0.000
	B	11	**1.905**	**ug/L**	5.735	457	0.001
	Na	23	**88462.613**	**ug/L**	16.037	124167259	220.871
	Mg	24	**102097.897**	**ug/L**	9.981	95479374	169.966
	Al	27	**95283.955**	**ug/L**	3.463	130376640	231.995
	P	31	**93055.711**	**ug/L**	2.465	6864846	12.212
	K	39	**91551.233**	**ug/L**	7.143	136529055	242.563
	Ca	43	**90716.739**	**ug/L**	1.111	295709	0.526
>	Sc	45		**ug/L**		561987	561986.534
	V	51	**-1.233**	**ug/L**	37.886	3512	-0.004
	Cr	52	**2.383**	**ug/L**	1.524	5959	0.007
	Cr	53		**ug/L**		34505	0.005
	Mn	55	**5.578**	**ug/L**	1.113	13010	0.022
	Fe	57	**94679.657**	**ug/L**	0.977	4085851	7.267
	Co	59	**0.375**	**ug/L**	4.604	638	0.001
	Ni	60	**5.516**	**ug/L**	2.819	1868	0.003
	Cu	63		**ug/L**		2426	0.004
	Cu	65	**4.318**	**ug/L**	2.177	1829	0.003
	Zn	66	**4.742**	**ug/L**	5.334	1406	0.010
	Zn	67		**ug/L**		4104	0.007
	Zn	68		**ug/L**		529	0.002
>	Ge	74		**ug/L**		128337	128337.173
	As	75	**-0.346**	**ug/L**	63.691	297	-0.001
	Se	77		**ug/L**		2269	0.004
	Se	82	**-2.019**	**ug/L**	16.433	-51	-0.000
	Kr	83		**ug/L**		110	0.001
	Sr	88	**2.719**	**ug/L**	0.352	10401	0.126
	Y	89		**ug/L**		116	0.001
	Ag	107	**0.084**	**ug/L**	4.692	168	0.002
	Cd	111	**0.622**	**ug/L**	19.783	287	0.003
	Cd	114		**ug/L**		2901	0.035
>	In	115		**ug/L**		81954	81954.356
	Sn	120	**0.255**	**ug/L**	9.759	596	0.005
	Sb	121	**0.195**	**ug/L**	23.302	424	0.004
	Sb	123		**ug/L**		310	0.003
	Ba	135		**ug/L**		294	0.003
	Ba	137	**0.661**	**ug/L**	2.174	473	0.004
	Ho	165		**ug/L**		2120	0.019
>	Lu	175		**ug/L**		113230	113230.471
	Tl	205	**0.014**	**ug/L**	40.119	186	0.000
	Pb	208	**0.216**	**ug/L**	8.970	2325	0.010
	Bi	209		**ug/L**		827	0.007
	U	238	**-0.003**	**ug/L**	27.801	23	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	88.463				
	Mg	24	102.098				
	Al	27	95.284				
	P	31	93.056				
	K	39	91.551				
	Ca	43	90.717				
>	Sc	45		73.9			
	V	51					
	Cr	52	72.214				
	Cr	53					
	Mn	55	96.169				
	Fe	57	94.680				
	Co	59	159.373				
	Ni	60	166.633				
	Cu	63					
	Cu	65	129.274				
	Zn	66	126.124				
	Zn	67					
	Zn	68					
>	Ge	74		77.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	91.858				
	Y	89					
	Ag	107					
	Cd	111	140.032				
	Cd	114					
>	In	115		81.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	82.886				
	Ho	165					
>	Lu	175		88.5			
	Tl	205					
	Pb	208	114.418				
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc	45	
Ge 74 Int Std for QC	Ge 74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, February 28, 2010 14:43:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 5.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.488**	**ug/L**	0.646	12518	0.022
	Be	9	**21.552**	**ug/L**	2.961	3281	0.006
	B	11	**20.785**	**ug/L**	2.420	3471	0.006
	Na	23	**93931.412**	**ug/L**	5.934	131410349	234.526
	Mg	24	**94443.157**	**ug/L**	7.935	88025594	157.223
	Al	27	**95366.576**	**ug/L**	10.744	130194550	232.197
	P	31	**91638.243**	**ug/L**	0.985	6739433	12.026
	K	39	**89731.086**	**ug/L**	3.354	133323262	237.740
	Ca	43	**90473.385**	**ug/L**	1.142	293964	0.525
>	Sc	45		**ug/L**		560187	560186.562
	V	51	**20.561**	**ug/L**	4.654	44190	0.069
	Cr	52	**22.335**	**ug/L**	1.367	36983	0.062
	Cr	53		**ug/L**		36076	0.008
	Mn	55	**25.782**	**ug/L**	1.493	58457	0.104
	Fe	57	**93345.393**	**ug/L**	0.299	4015647	7.164
	Co	59	**20.167**	**ug/L**	2.231	32539	0.058
	Ni	60	**24.910**	**ug/L**	1.984	8303	0.015
	Cu	63		**ug/L**		17542	0.031
	Cu	65	**23.213**	**ug/L**	1.527	9580	0.017
	Zn	66	**23.338**	**ug/L**	1.796	6614	0.052
	Zn	67		**ug/L**		4890	0.014
	Zn	68		**ug/L**		4582	0.034
>	Ge	74		**ug/L**		126929	126929.009
	As	75	**20.485**	**ug/L**	0.644	7365	0.055
	Se	77		**ug/L**		2582	0.007
	Se	82	**19.637**	**ug/L**	3.082	595	0.005
	Kr	83		**ug/L**		100	0.001
	Sr	88	**23.172**	**ug/L**	1.685	87764	1.076
	Y	89		**ug/L**		124	0.001
	Ag	107	**18.971**	**ug/L**	0.650	34531	0.423
	Cd	111	**19.545**	**ug/L**	2.123	8830	0.108
	Cd	114		**ug/L**		22866	0.280
>	In	115		**ug/L**		81554	81554.476
	Sn	120	**20.450**	**ug/L**	0.596	35254	0.430
	Sb	121	**21.450**	**ug/L**	0.642	31764	0.388
	Sb	123		**ug/L**		24202	0.296
	Ba	135		**ug/L**		7851	0.071
	Ba	137	**20.626**	**ug/L**	0.764	14086	0.127
	Ho	165		**ug/L**		2124	0.019
>	Lu	175		**ug/L**		110670	110669.810
	Tl	205	**19.024**	**ug/L**	0.103	58458	0.527
	Pb	208	**20.069**	**ug/L**	0.691	108587	0.971
	Bi	209		**ug/L**		897	0.008
	U	238	**21.752**	**ug/L**	0.183	116577	1.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	107.438				
	Be	9	107.759				
	B	11	103.925				
	Na	23	93.931				
	Mg	24	94.443				
	Al	27	95.367				
	P	31	91.638				
	K	39	89.731				
	Ca	43	90.473				
>	Sc	45		73.7			
	V	51	102.803				
	Cr	52	95.858				
	Cr	53					
	Mn	55	99.930				
	Fe	57	93.345				
	Co	59	99.591				
	Ni	60	106.862				
	Cu	63					
	Cu	65	101.367				
	Zn	66	98.225				
	Zn	67					
	Zn	68					
>	Ge	74		76.4			
	As	75	102.423				
	Se	77					
	Se	82	98.187				
	Kr	83					
	Sr	88	100.924				
	Y	89					
	Ag	107	94.857				
	Cd	111	95.603				
	Cd	114					
>	In	115		81.5			
	Sn	120	102.248				
	Sb	121	107.249				
	Sb	123					
	Ba	135					
	Ba	137	99.788				
	Ho	165					
>	Lu	175		86.5			
	Tl	205	95.119				
	Pb	208	99.350				
	Bi	209					
	U	238	108.761				

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc	45	
Ge 74 Int Std for QC Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 14:48:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.775**	**ug/L**	0.988	36379	0.054
	Be	9	**51.513**	**ug/L**	0.677	9489	0.014
	B	11	**97.462**	**ug/L**	2.144	19026	0.028
	Na	23	**4769.448**	**ug/L**	6.750	8081111	11.908
	Mg	24	**5005.285**	**ug/L**	2.977	5656887	8.332
	Al	27	**5247.862**	**ug/L**	10.821	8672050	12.777
	P	31	**4930.827**	**ug/L**	2.028	442024	0.647
	K	39	**4633.999**	**ug/L**	7.432	8536012	12.278
	Ca	43	**5001.071**	**ug/L**	1.251	19730	0.029
>	Sc	45		**ug/L**		678229	678228.594
	V	51	**47.622**	**ug/L**	6.550	114726	0.159
	Cr	52	**50.220**	**ug/L**	1.000	97308	0.140
	Cr	53		**ug/L**		49834	0.017
	Mn	55	**52.327**	**ug/L**	2.686	143103	0.210
	Fe	57	**4949.514**	**ug/L**	3.218	260281	0.380
	Co	59	**49.622**	**ug/L**	2.341	96865	0.143
	Ni	60	**52.372**	**ug/L**	2.214	21093	0.031
	Cu	63		**ug/L**		49647	0.073
	Cu	65	**51.762**	**ug/L**	4.116	25777	0.038
	Zn	66	**52.866**	**ug/L**	1.619	17728	0.117
	Zn	67		**ug/L**		6891	0.021
	Zn	68		**ug/L**		13803	0.089
>	Ge	74		**ug/L**		150953	150952.546
	As	75	**47.935**	**ug/L**	0.595	19842	0.128
	Se	77		**ug/L**		3245	0.008
	Se	82	**50.547**	**ug/L**	2.638	1803	0.012
	Kr	83		**ug/L**		25	-0.000
	Sr	88	**52.148**	**ug/L**	2.860	218645	2.420
	Y	89		**ug/L**		33	0.000
	Ag	107	**49.828**	**ug/L**	1.601	100426	1.112
	Cd	111	**50.857**	**ug/L**	2.128	25436	0.282
	Cd	114		**ug/L**		57622	0.638
>	In	115		**ug/L**		90337	90336.503
	Sn	120	**50.320**	**ug/L**	2.517	95816	1.059
	Sb	121	**51.358**	**ug/L**	3.297	84021	0.929
	Sb	123		**ug/L**		64181	0.710
	Ba	135		**ug/L**		20718	0.179
	Ba	137	**50.888**	**ug/L**	1.065	36226	0.314
	Ho	165		**ug/L**		9	0.000
>	Lu	175		**ug/L**		115424	115423.572
	Tl	205	**48.548**	**ug/L**	1.015	155363	1.345
	Pb	208	**50.650**	**ug/L**	0.667	284068	2.451
	Bi	209		**ug/L**		75	0.000
	U	238	**53.586**	**ug/L**	0.137	299459	2.594

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.551				
	Be	9	103.027				
	B	11	97.462				
	Na	23	95.389				
	Mg	24	100.106				
	Al	27	103.918				
	P	31	98.617				
	K	39	92.680				
	Ca	43	100.021				
>	Sc	45		89.2			
	V	51	95.244				
	Cr	52	100.440				
	Cr	53					
	Mn	55	104.654				
	Fe	57	98.990				
	Co	59	99.244				
	Ni	60	104.745				
	Cu	63					
	Cu	65	103.525				
	Zn	66	105.732				
	Zn	67					
	Zn	68					
>	Ge	74		90.9			
	As	75	95.871				
	Se	77					
	Se	82	101.094				
	Kr	83					
	Sr	88	104.296				
	Y	89					
	Ag	107	99.656				
	Cd	111	101.714				
	Cd	114					
>	In	115		90.3			
	Sn	120	100.639				
	Sb	121	102.716				
	Sb	123					
	Ba	135					
	Ba	137	101.776				
	Ho	165					
>	Lu	175		90.2			
	Tl	205	97.096				
	Pb	208	101.300				
	Bi	209					
	U	238	107.171				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 14:54:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.154**	**ug/L**	14.101	216	0.000
	Be	9	**0.037**	**ug/L**	62.646	13	0.000
	B	11	**2.225**	**ug/L**	17.073	654	0.001
	Na	23	**7.320**	**ug/L**	29.735	24354	0.018
	Mg	24	**1.279**	**ug/L**	98.306	5668	0.002
	Al	27	**-1.192**	**ug/L**	55.947	2334	-0.003
	P	31	**4.861**	**ug/L**	28.230	3877	0.001
	K	39	**9.016**	**ug/L**	53.404	247801	0.024
	Ca	43	**3.376**	**ug/L**	143.691	79	0.000
>	Sc	45		**ug/L**		723998	723998.420
	V	51	**-0.255**	**ug/L**	567.665	6857	-0.001
	Cr	52	**-0.308**	**ug/L**	15.651	2264	-0.001
	Cr	53		**ug/L**		39455	-0.002
	Mn	55	**-0.008**	**ug/L**	148.600	504	-0.000
	Fe	57	**-0.793**	**ug/L**	296.025	2886	-0.000
	Co	59	**0.009**	**ug/L**	53.654	61	0.000
	Ni	60	**-0.008**	**ug/L**	121.162	36	-0.000
	Cu	63		**ug/L**		122	0.000
	Cu	65	**0.017**	**ug/L**	13.412	74	0.000
	Zn	66	**0.003**	**ug/L**	862.867	74	0.000
	Zn	67		**ug/L**		4000	0.001
	Zn	68		**ug/L**		321	0.000
>	Ge	74		**ug/L**		156512	156511.676
	As	75	**0.008**	**ug/L**	3158.846	511	0.000
	Se	77		**ug/L**		1904	-0.001
	Se	82	**-0.014**	**ug/L**	748.007	11	-0.000
	Kr	83		**ug/L**		23	-0.000
	Sr	88	**0.003**	**ug/L**	63.850	80	0.000
	Y	89		**ug/L**		16	-0.000
	Ag	107	**0.010**	**ug/L**	43.718	37	0.000
	Cd	111	**0.008**	**ug/L**	56.899	10	0.000
	Cd	114		**ug/L**		20	0.000
>	In	115		**ug/L**		92948	92947.698
	Sn	120	**0.032**	**ug/L**	22.343	238	0.001
	Sb	121	**0.270**	**ug/L**	25.097	606	0.005
	Sb	123		**ug/L**		443	0.004
	Ba	135		**ug/L**		7	0.000
	Ba	137	**0.001**	**ug/L**	128.307	13	0.000
	Ho	165		**ug/L**		1	-0.000
>	Lu	175		**ug/L**		119473	119472.743
	Tl	205	**0.102**	**ug/L**	29.012	489	0.003
	Pb	208	**-0.023**	**ug/L**	54.807	1071	-0.001
	Bi	209		**ug/L**		24	0.000
	U	238	**0.008**	**ug/L**	24.636	90	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			95.2		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			94.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			92.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.4		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033993
Sample Date/Time: Sunday, February 28, 2010 15:00:42
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\1202033993.185

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.110**	**ug/L**	15.995	182	0.000
	Be	9	**0.043**	**ug/L**	47.579	14	0.000
	B	11	**0.968**	**ug/L**	13.134	392	0.000
	Na	23	**15.459**	**ug/L**	29.172	38721	0.039
	Mg	24	**11.348**	**ug/L**	28.566	17678	0.019
	Al	27	**52.160**	**ug/L**	11.780	95656	0.127
	P	31	**17.552**	**ug/L**	8.565	5042	0.002
	K	39	**11.931**	**ug/L**	21.454	251190	0.032
	Ca	43	**28.979**	**ug/L**	16.020	185	0.000
>	Sc	45		**ug/L**		717848	717847.869
	V	51	**0.144**	**ug/L**	299.137	7766	0.000
	Cr	52	**0.027**	**ug/L**	91.110	2913	0.000
	Cr	53		**ug/L**		30675	-0.014
	Mn	55	**1.306**	**ug/L**	3.253	4294	0.005
	Fe	57	**75.374**	**ug/L**	3.033	7059	0.006
	Co	59	**0.052**	**ug/L**	3.122	150	0.000
	Ni	60	**0.254**	**ug/L**	10.545	147	0.000
	Cu	63		**ug/L**		833	0.001
	Cu	65	**0.755**	**ug/L**	4.541	462	0.001
	Zn	66	**3.151**	**ug/L**	4.598	1145	0.007
	Zn	67		**ug/L**		3275	-0.004
	Zn	68		**ug/L**		1002	0.005
>	Ge	74		**ug/L**		154006	154005.557
	As	75	**-0.481**	**ug/L**	35.471	300	-0.001
	Se	77		**ug/L**		1399	-0.004
	Se	82	**-0.287**	**ug/L**	22.183	1	-0.000
	Kr	83		**ug/L**		24	-0.000
	Sr	88	**0.229**	**ug/L**	4.218	1057	0.011
	Y	89		**ug/L**		225	0.002
	Ag	107	**0.016**	**ug/L**	24.796	50	0.000
	Cd	111	**0.022**	**ug/L**	26.889	17	0.000
	Cd	114		**ug/L**		42	0.000
>	In	115		**ug/L**		93297	93297.094
	Sn	120	**1.745**	**ug/L**	3.198	3604	0.037
	Sb	121	**0.145**	**ug/L**	10.109	397	0.003
	Sb	123		**ug/L**		314	0.002
	Ba	135		**ug/L**		255	0.002
	Ba	137	**0.565**	**ug/L**	2.572	427	0.003
	Ho	165		**ug/L**		15	0.000
>	Lu	175		**ug/L**		119094	119094.218
	Tl	205	**0.082**	**ug/L**	8.342	422	0.002
	Pb	208	**0.381**	**ug/L**	5.522	3398	0.018
	Bi	209		**ug/L**		176	0.001
	U	238	**0.010**	**ug/L**	1.672	103	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			94.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			92.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			93.3		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.1		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033998
Sample Date/Time: Sunday, February 28, 2010 15:06:35
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949366|40|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\1202033998.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.617**	**ug/L**	3.960	2225	0.003
	Be	9	**19.557**	**ug/L**	2.025	4160	0.005
	B	11	**29.333**	**ug/L**	1.194	6754	0.008
	Na	23	**276.983**	**ug/L**	9.909	553601	0.692
	Mg	24	**1022.468**	**ug/L**	4.158	1337669	1.702
	Al	27	**2855.785**	**ug/L**	6.775	5442792	6.953
	P	31	**203.384**	**ug/L**	1.601	24579	0.027
	K	39	**960.096**	**ug/L**	12.677	2243527	2.544
	Ca	43	**2544.608**	**ug/L**	2.135	11618	0.015
>	Sc	45		**ug/L**		782660	782660.161
	V	51	**25.634**	**ug/L**	3.395	75000	0.085
	Cr	52	**55.533**	**ug/L**	1.695	123821	0.154
	Cr	53		**ug/L**		62383	0.023
	Mn	55	**135.185**	**ug/L**	3.308	425613	0.543
	Fe	57	**4045.717**	**ug/L**	1.793	246111	0.311
	Co	59	**22.457**	**ug/L**	3.535	50601	0.065
	Ni	60	**32.362**	**ug/L**	3.615	15052	0.019
	Cu	63		**ug/L**		46205	0.059
	Cu	65	**42.092**	**ug/L**	1.543	24208	0.031
	Zn	66	**153.192**	**ug/L**	2.391	55263	0.339
	Zn	67		**ug/L**		13422	0.058
	Zn	68		**ug/L**		40984	0.250
>	Ge	74		**ug/L**		162849	162849.486
	As	75	**24.924**	**ug/L**	2.841	11380	0.067
	Se	77		**ug/L**		4297	0.013
	Se	82	**69.231**	**ug/L**	1.982	2659	0.016
	Kr	83		**ug/L**		27	-0.000
	Sr	88	**59.811**	**ug/L**	1.740	268065	2.776
	Y	89		**ug/L**		13410	0.139
	Ag	107	**6.990**	**ug/L**	2.167	15072	0.156
	Cd	111	**15.249**	**ug/L**	0.787	8158	0.084
	Cd	114		**ug/L**		18625	0.193
>	In	115		**ug/L**		96551	96551.083
	Sn	120	**3.106**	**ug/L**	0.497	6494	0.065
	Sb	121	**4.123**	**ug/L**	2.561	7354	0.075
	Sb	123		**ug/L**		5599	0.057
	Ba	135		**ug/L**		21629	0.173
	Ba	137	**49.635**	**ug/L**	1.162	38306	0.306
	Ho	165		**ug/L**		718	0.006
>	Lu	175		**ug/L**		125130	125129.869
	Tl	205	**28.760**	**ug/L**	1.678	99839	0.797
	Pb	208	**20.846**	**ug/L**	0.361	127487	1.009
	Bi	209		**ug/L**		1011	0.008
	U	238	**0.423**	**ug/L**	2.944	2610	0.020

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 15:12:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.331**	**ug/L**	2.517	37450	0.054
	Be	9	**52.415**	**ug/L**	1.438	9834	0.014
	B	11	**99.908**	**ug/L**	1.546	19857	0.028
	Na	23	**4730.995**	**ug/L**	4.030	8167339	11.812
	Mg	24	**5415.447**	**ug/L**	3.728	6230894	9.015
	Al	27	**5495.503**	**ug/L**	8.198	9243927	13.380
	P	31	**4925.065**	**ug/L**	0.881	449721	0.646
	K	39	**4499.141**	**ug/L**	1.917	8453510	11.920
	Ca	43	**5010.362**	**ug/L**	2.252	20131	0.029
>	Sc	45		**ug/L**		690720	690719.576
	V	51	**48.600**	**ug/L**	2.221	119031	0.162
	Cr	52	**50.542**	**ug/L**	0.185	99729	0.140
	Cr	53		**ug/L**		48141	0.013
	Mn	55	**51.931**	**ug/L**	0.873	144685	0.209
	Fe	57	**4938.203**	**ug/L**	0.642	264574	0.379
	Co	59	**49.408**	**ug/L**	1.170	98246	0.142
	Ni	60	**51.328**	**ug/L**	1.752	21056	0.030
	Cu	63		**ug/L**		50514	0.073
	Cu	65	**50.973**	**ug/L**	0.223	25866	0.037
	Zn	66	**53.343**	**ug/L**	1.751	17934	0.118
	Zn	67		**ug/L**		6919	0.021
	Zn	68		**ug/L**		13845	0.090
>	Ge	74		**ug/L**		151345	151345.334
	As	75	**47.997**	**ug/L**	2.815	19919	0.128
	Se	77		**ug/L**		3148	0.007
	Se	82	**50.897**	**ug/L**	3.778	1820	0.012
	Kr	83		**ug/L**		24	-0.000
	Sr	88	**52.192**	**ug/L**	1.383	219477	2.422
	Y	89		**ug/L**		35	0.000
	Ag	107	**50.076**	**ug/L**	0.591	101203	1.117
	Cd	111	**51.333**	**ug/L**	0.455	25747	0.284
	Cd	114		**ug/L**		58011	0.640
>	In	115		**ug/L**		90573	90572.605
	Sn	120	**50.569**	**ug/L**	0.353	96568	1.064
	Sb	121	**51.321**	**ug/L**	1.944	84204	0.928
	Sb	123		**ug/L**		64285	0.709
	Ba	135		**ug/L**		20755	0.176
	Ba	137	**50.862**	**ug/L**	0.897	36946	0.314
	Ho	165		**ug/L**		10	0.000
>	Lu	175		**ug/L**		117775	117775.007
	Tl	205	**48.237**	**ug/L**	0.326	157515	1.336
	Pb	208	**50.316**	**ug/L**	0.466	287947	2.435
	Bi	209		**ug/L**		76	0.000
	U	238	**53.125**	**ug/L**	0.688	302922	2.572

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.663				
	Be	9	104.830				
	B	11	99.908				
	Na	23	94.620				
	Mg	24	108.309				
	Al	27	108.822				
	P	31	98.501				
	K	39	89.983				
	Ca	43	100.207				
>	Sc	45		90.8			
	V	51	97.200				
	Cr	52	101.085				
	Cr	53					
	Mn	55	103.861				
	Fe	57	98.764				
	Co	59	98.816				
	Ni	60	102.657				
	Cu	63					
	Cu	65	101.946				
	Zn	66	106.686				
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75	95.994				
	Se	77					
	Se	82	101.794				
	Kr	83					
	Sr	88	104.384				
	Y	89					
	Ag	107	100.153				
	Cd	111	102.667				
	Cd	114					
>	In	115		90.6			
	Sn	120	101.138				
	Sb	121	102.641				
	Sb	123					
	Ba	135					
	Ba	137	101.724				
	Ho	165					
>	Lu	175		92.1			
	Tl	205	96.474				
	Pb	208	100.633				
	Bi	209					
	U	238	106.249				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	K	39	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 15:18:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.062**	**ug/L**	33.912	151	0.000
	Be	9	**0.022**	**ug/L**	39.278	10	0.000
	B	11	**2.189**	**ug/L**	23.679	662	0.001
	Na	23	**5.006**	**ug/L**	65.291	20683	0.012
	Mg	24	**-0.181**	**ug/L**	431.741	4001	-0.000
	Al	27	**-0.666**	**ug/L**	176.253	3334	-0.002
	P	31	**2.096**	**ug/L**	98.953	3694	0.000
	K	39	**10.579**	**ug/L**	150.968	256301	0.028
	Ca	43	**1.205**	**ug/L**	170.044	72	0.000
>	Sc	45		**ug/L**		740180	740180.104
	V	51	**0.584**	**ug/L**	160.983	9119	0.002
	Cr	52	**-0.327**	**ug/L**	18.958	2277	-0.001
	Cr	53		**ug/L**		39142	-0.004
	Mn	55	**-0.013**	**ug/L**	77.900	502	-0.000
	Fe	57	**-2.643**	**ug/L**	33.184	2847	-0.000
	Co	59	**0.007**	**ug/L**	23.670	57	0.000
	Ni	60	**-0.002**	**ug/L**	716.173	39	-0.000
	Cu	63		**ug/L**		119	0.000
	Cu	65	**0.011**	**ug/L**	46.108	73	0.000
	Zn	66	**0.026**	**ug/L**	77.226	82	0.000
	Zn	67		**ug/L**		3879	-0.000
	Zn	68		**ug/L**		313	0.000
>	Ge	74		**ug/L**		157828	157827.657
	As	75	**-0.252**	**ug/L**	74.133	404	-0.001
	Se	77		**ug/L**		1820	-0.002
	Se	82	**0.083**	**ug/L**	231.114	15	0.000
	Kr	83		**ug/L**		23	-0.000
	Sr	88	**0.006**	**ug/L**	18.056	91	0.000
	Y	89		**ug/L**		16	-0.000
	Ag	107	**0.007**	**ug/L**	30.315	32	0.000
	Cd	111	**0.009**	**ug/L**	175.330	11	0.000
	Cd	114		**ug/L**		20	0.000
>	In	115		**ug/L**		93506	93506.493
	Sn	120	**0.042**	**ug/L**	28.972	260	0.001
	Sb	121	**0.260**	**ug/L**	23.784	591	0.005
	Sb	123		**ug/L**		427	0.003
	Ba	135		**ug/L**		10	0.000
	Ba	137	**0.003**	**ug/L**	21.830	14	0.000
	Ho	165		**ug/L**		2	-0.000
>	Lu	175		**ug/L**		119633	119633.044
	Tl	205	**0.130**	**ug/L**	20.728	584	0.004
	Pb	208	**-0.016**	**ug/L**	76.654	1114	-0.001
	Bi	209		**ug/L**		18	-0.000
	U	238	**0.010**	**ug/L**	42.648	103	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.3			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		93.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070001
Sample Date/Time: Sunday, February 28, 2010 15:24:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070001.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.396**	**ug/L**	1.262	37722	0.054
	Be	9	**3.609**	**ug/L**	4.081	686	0.001
	B	11	**15.729**	**ug/L**	0.667	3303	0.004
	Na	23	**323.515**	**ug/L**	10.019	571962	0.808
	Mg	24	**9534.252**	**ug/L**	8.767	11033702	15.872
	Al	27	**61019.909**	**ug/L**	4.415	103245189	148.570
	P	31	**1034.475**	**ug/L**	2.318	97617	0.136
	K	39	**8880.644**	**ug/L**	2.878	16571120	23.529
	Ca	43	**14076.874**	**ug/L**	1.671	56793	0.082
>	Sc	45		**ug/L**		694876	694876.409
	V	51	**71.324**	**ug/L**	2.595	172353	0.238
	Cr	52	**32.436**	**ug/L**	0.759	65379	0.090
	Cr	53		**ug/L**		35312	-0.006
	Mn	55	**1400.839**	**ug/L**	0.567	3913310	5.631
	Fe	57	**44885.704**	**ug/L**	2.082	2396604	3.445
	Co	59	**19.713**	**ug/L**	1.526	39461	0.057
	Ni	60	**32.028**	**ug/L**	1.673	13234	0.019
	Cu	63		**ug/L**		38485	0.055
	Cu	65	**39.069**	**ug/L**	2.170	19959	0.029
	Zn	66	**142.535**	**ug/L**	2.148	45722	0.315
	Zn	67		**ug/L**		11641	0.056
	Zn	68		**ug/L**		38076	0.261
>	Ge	74		**ug/L**		144769	144769.006
	As	75	**8.692**	**ug/L**	3.922	3834	0.023
	Se	77		**ug/L**		1463	-0.003
	Se	82	**-0.315**	**ug/L**	70.116	0	-0.000
	Kr	83		**ug/L**		71	0.000
	Sr	88	**135.514**	**ug/L**	0.687	558999	6.290
	Y	89		**ug/L**		232109	2.612
	Ag	107	**1.686**	**ug/L**	2.130	3358	0.038
	Cd	111	**1.953**	**ug/L**	2.574	967	0.011
	Cd	114		**ug/L**		727	0.008
>	In	115		**ug/L**		88866	88865.740
	Sn	120	**0.428**	**ug/L**	1.133	968	0.009
	Sb	121	**0.262**	**ug/L**	4.722	567	0.005
	Sb	123		**ug/L**		454	0.004
	Ba	135		**ug/L**		282004	2.367
	Ba	137	**669.602**	**ug/L**	0.598	491947	4.129
	Ho	165		**ug/L**		12511	0.105
>	Lu	175		**ug/L**		119154	119154.049
	Tl	205	**0.721**	**ug/L**	2.428	2530	0.020
	Pb	208	**57.229**	**ug/L**	0.957	331179	2.769
	Bi	209		**ug/L**		3171	0.026
	U	238	**34.051**	**ug/L**	1.259	196452	1.648

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			91.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			87.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			88.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.1		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202033994
Sample Date/Time: Sunday, February 28, 2010 15:30:11
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\1202033994.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.485**	**ug/L**	1.281	30608	0.046
	Be	9	**3.898**	**ug/L**	5.286	707	0.001
	B	11	**12.628**	**ug/L**	0.309	2569	0.004
	Na	23	**268.258**	**ug/L**	9.587	454836	0.670
	Mg	24	**6847.846**	**ug/L**	6.747	7570245	11.400
	Al	27	**47753.828**	**ug/L**	10.607	77206279	116.270
	P	31	**755.608**	**ug/L**	2.590	68962	0.099
	K	39	**7499.672**	**ug/L**	3.528	13400685	19.870
	Ca	43	**10275.029**	**ug/L**	1.749	39618	0.060
>	Sc	45		**ug/L**		663815	663814.902
	V	51	**55.825**	**ug/L**	1.585	130356	0.186
	Cr	52	**28.805**	**ug/L**	0.831	55761	0.080
	Cr	53		**ug/L**		34180	-0.005
	Mn	55	**997.275**	**ug/L**	0.911	2661520	4.009
	Fe	57	**34434.762**	**ug/L**	1.706	1756973	2.643
	Co	59	**15.402**	**ug/L**	0.765	29462	0.044
	Ni	60	**24.161**	**ug/L**	0.957	9546	0.014
	Cu	63		**ug/L**		29323	0.044
	Cu	65	**30.977**	**ug/L**	1.364	15130	0.023
	Zn	66	**114.283**	**ug/L**	1.624	35806	0.253
	Zn	67		**ug/L**		9803	0.045
	Zn	68		**ug/L**		29508	0.207
>	Ge	74		**ug/L**		141328	141327.710
	As	75	**7.151**	**ug/L**	1.350	3160	0.019
	Se	77		**ug/L**		1402	-0.004
	Se	82	**-0.446**	**ug/L**	45.158	-4	-0.000
	Kr	83		**ug/L**		71	0.000
	Sr	88	**103.424**	**ug/L**	0.449	421409	4.800
	Y	89		**ug/L**		173514	1.977
	Ag	107	**0.379**	**ug/L**	6.453	758	0.008
	Cd	111	**1.344**	**ug/L**	2.932	659	0.007
	Cd	114		**ug/L**		593	0.007
>	In	115		**ug/L**		87772	87772.470
	Sn	120	**0.646**	**ug/L**	3.018	1359	0.014
	Sb	121	**0.122**	**ug/L**	27.249	337	0.002
	Sb	123		**ug/L**		262	0.002
	Ba	135		**ug/L**		208662	1.789
	Ba	137	**508.352**	**ug/L**	1.073	365641	3.134
	Ho	165		**ug/L**		9474	0.081
>	Lu	175		**ug/L**		116662	116661.613
	Tl	205	**0.642**	**ug/L**	3.338	2224	0.018
	Pb	208	**46.086**	**ug/L**	1.156	261325	2.230
	Bi	209		**ug/L**		2650	0.023
	U	238	**31.657**	**ug/L**	0.308	178827	1.533

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			87.3		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			85.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			87.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			91.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033996
Sample Date/Time: Sunday, February 28, 2010 15:36:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\1202033996.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**92.314**	**ug/L**	2.358	59541	0.095
	Be	9	**31.964**	**ug/L**	1.944	5411	0.009
	B	11	**60.366**	**ug/L**	3.723	10888	0.017
	Na	23	**1389.165**	**ug/L**	11.522	2171835	3.468
	Mg	24	**12106.227**	**ug/L**	7.599	12556070	20.154
	Al	27	**77236.884**	**ug/L**	16.534	117084050	188.055
	P	31	**1995.768**	**ug/L**	1.168	166152	0.262
	K	39	**10849.410**	**ug/L**	6.309	18115086	28.745
	Ca	43	**14814.306**	**ug/L**	1.464	53601	0.086
>	Sc	45		**ug/L**		623180	623179.729
	V	51	**106.839**	**ug/L**	2.771	228301	0.356
	Cr	52	**65.614**	**ug/L**	1.437	116059	0.182
	Cr	53		**ug/L**		39579	0.007
	Mn	55	**1429.148**	**ug/L**	0.406	3580457	5.745
	Fe	57	**55683.704**	**ug/L**	1.517	2665535	4.274
	Co	59	**46.874**	**ug/L**	2.135	84089	0.135
	Ni	60	**61.263**	**ug/L**	2.353	22667	0.036
	Cu	63		**ug/L**		72608	0.116
	Cu	65	**82.471**	**ug/L**	0.518	37722	0.060
	Zn	66	**181.726**	**ug/L**	1.070	54830	0.402
	Zn	67		**ug/L**		13056	0.071
	Zn	68		**ug/L**		45323	0.331
>	Ge	74		**ug/L**		136193	136193.498
	As	75	**50.066**	**ug/L**	2.200	18678	0.134
	Se	77		**ug/L**		1713	-0.001
	Se	82	**9.142**	**ug/L**	2.793	303	0.002
	Kr	83		**ug/L**		95	0.001
	Sr	88	**151.745**	**ug/L**	1.742	611554	7.043
	Y	89		**ug/L**		192942	2.222
	Ag	107	**24.793**	**ug/L**	0.719	48040	0.553
	Cd	111	**7.477**	**ug/L**	1.612	3600	0.041
	Cd	114		**ug/L**		6663	0.077
>	In	115		**ug/L**		86824	86823.739
	Sn	120	**6.835**	**ug/L**	2.112	12655	0.144
	Sb	121	**16.713**	**ug/L**	1.441	26381	0.302
	Sb	123		**ug/L**		20123	0.231
	Ba	135		**ug/L**		262713	2.306
	Ba	137	**655.196**	**ug/L**	1.531	460289	4.040
	Ho	165		**ug/L**		10945	0.096
>	Lu	175		**ug/L**		113948	113948.470
	Tl	205	**51.537**	**ug/L**	2.390	162793	1.428
	Pb	208	**164.692**	**ug/L**	1.710	909178	7.970
	Bi	209		**ug/L**		2993	0.026
	U	238	**87.794**	**ug/L**	1.779	484279	4.250

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			82.0		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			82.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			86.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			89.1		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 1202033997
Sample Date/Time: Sunday, February 28, 2010 15:41:57
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\1202033997.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**58.264**	**ug/L**	0.990	37237	0.060
	Be	9	**27.810**	**ug/L**	0.523	4663	0.008
	B	11	**52.307**	**ug/L**	1.965	9366	0.015
	Na	23	**1176.115**	**ug/L**	4.368	1821248	2.936
	Mg	24	**6272.622**	**ug/L**	8.471	6447187	10.442
	Al	27	**43630.539**	**ug/L**	5.678	65552501	106.231
	P	31	**1560.491**	**ug/L**	0.825	129271	0.205
	K	39	**6887.806**	**ug/L**	6.549	11455995	18.249
	Ca	43	**7659.990**	**ug/L**	3.122	27466	0.044
>	Sc	45		**ug/L**		617018	617018.297
	V	51	**74.015**	**ug/L**	2.774	158570	0.247
	Cr	52	**48.159**	**ug/L**	0.897	85003	0.134
	Cr	53		**ug/L**		38002	0.005
	Mn	55	**979.049**	**ug/L**	1.725	2428675	3.935
	Fe	57	**26952.293**	**ug/L**	1.551	1278831	2.069
	Co	59	**39.888**	**ug/L**	2.587	70862	0.115
	Ni	60	**44.287**	**ug/L**	3.048	16235	0.026
	Cu	63		**ug/L**		40366	0.065
	Cu	65	**46.301**	**ug/L**	1.276	20993	0.034
	Zn	66	**102.081**	**ug/L**	1.471	30992	0.226
	Zn	67		**ug/L**		9041	0.041
	Zn	68		**ug/L**		25532	0.184
>	Ge	74		**ug/L**		136929	136929.188
	As	75	**43.971**	**ug/L**	2.313	16548	0.118
	Se	77		**ug/L**		1740	-0.001
	Se	82	**9.596**	**ug/L**	1.385	319	0.002
	Kr	83		**ug/L**		64	0.000
	Sr	88	**92.585**	**ug/L**	1.923	367851	4.297
	Y	89		**ug/L**		114145	1.333
	Ag	107	**23.722**	**ug/L**	1.960	45311	0.529
	Cd	111	**6.428**	**ug/L**	2.528	3052	0.036
	Cd	114		**ug/L**		5876	0.068
>	In	115		**ug/L**		85598	85597.763
	Sn	120	**7.486**	**ug/L**	3.003	13646	0.158
	Sb	121	**12.795**	**ug/L**	2.154	19942	0.231
	Sb	123		**ug/L**		15105	0.175
	Ba	135		**ug/L**		165386	1.457
	Ba	137	**416.276**	**ug/L**	0.646	291377	2.567
	Ho	165		**ug/L**		6233	0.055
>	Lu	175		**ug/L**		113524	113524.442
	Tl	205	**47.888**	**ug/L**	0.399	150728	1.326
	Pb	208	**138.806**	**ug/L**	0.849	763650	6.717
	Bi	209		**ug/L**		1856	0.016
	U	238	**43.636**	**ug/L**	1.047	239839	2.112

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		81.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		82.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		88.7			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033995
Sample Date/Time: Sunday, February 28, 2010 15:47:50
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949366|10|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\1202033995.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**9.892**	**ug/L**	1.814	7223	0.010
	Be	9	**0.702**	**ug/L**	8.071	138	0.000
	B	11	**4.663**	**ug/L**	7.741	1114	0.001
	Na	23	**63.276**	**ug/L**	3.515	120843	0.158
	Mg	24	**1871.620**	**ug/L**	6.815	2176737	3.116
	Al	27	**11663.026**	**ug/L**	0.400	19796628	28.397
	P	31	**232.657**	**ug/L**	2.642	24569	0.031
	K	39	**1808.485**	**ug/L**	6.655	3562319	4.792
	Ca	43	**2795.240**	**ug/L**	0.996	11361	0.016
>	Sc	45		**ug/L**		696966	696965.694
	V	51	**15.021**	**ug/L**	0.812	42098	0.050
	Cr	52	**6.601**	**ug/L**	0.588	15556	0.018
	Cr	53		**ug/L**		47175	0.011
	Mn	55	**273.487**	**ug/L**	1.257	766658	1.099
	Fe	57	**8867.052**	**ug/L**	0.851	477135	0.681
	Co	59	**3.932**	**ug/L**	1.666	7925	0.011
	Ni	60	**6.498**	**ug/L**	3.485	2722	0.004
	Cu	63		**ug/L**		8193	0.012
	Cu	65	**8.346**	**ug/L**	2.465	4325	0.006
	Zn	66	**27.076**	**ug/L**	0.588	9248	0.060
	Zn	67		**ug/L**		6490	0.018
	Zn	68		**ug/L**		8071	0.051
>	Ge	74		**ug/L**		153176	153175.900
	As	75	**1.934**	**ug/L**	6.526	1287	0.005
	Se	77		**ug/L**		2315	0.002
	Se	82	**-0.004**	**ug/L**	1885.560	11	-0.000
	Kr	83		**ug/L**		41	0.000
	Sr	88	**26.548**	**ug/L**	2.014	115430	1.232
	Y	89		**ug/L**		48005	0.513
	Ag	107	**0.338**	**ug/L**	2.928	723	0.008
	Cd	111	**0.362**	**ug/L**	9.175	194	0.002
	Cd	114		**ug/L**		156	0.002
>	In	115		**ug/L**		93620	93619.576
	Sn	120	**0.096**	**ug/L**	11.219	367	0.002
	Sb	121	**0.034**	**ug/L**	7.388	211	0.001
	Sb	123		**ug/L**		166	0.001
	Ba	135		**ug/L**		57980	0.476
	Ba	137	**136.215**	**ug/L**	0.237	102277	0.840
	Ho	165		**ug/L**		2583	0.021
>	Lu	175		**ug/L**		121764	121764.283
	Tl	205	**0.314**	**ug/L**	16.374	1214	0.009
	Pb	208	**11.582**	**ug/L**	0.245	69468	0.560
	Bi	209		**ug/L**		657	0.005
	U	238	**6.827**	**ug/L**	1.330	40289	0.331

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070002
Sample Date/Time: Sunday, February 28, 2010 15:53:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070002.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**38.160**	ug/L	1.399	26053	0.039
	Be	9	**2.454**	ug/L	6.067	444	0.001
	B	11	**10.093**	ug/L	3.109	2072	0.003
	Na	23	**235.957**	ug/L	15.669	398231	0.589
	Mg	24	**6289.979**	ug/L	17.075	6890864	10.471
	Al	27	**34631.575**	ug/L	10.405	55537535	84.320
	P	31	**696.393**	ug/L	1.095	63268	0.091
	K	39	**6334.626**	ug/L	4.844	11258579	16.783
	Ca	43	**10418.613**	ug/L	2.256	39832	0.060
>	Sc	45		ug/L		658308	658308.396
	V	51	**57.474**	ug/L	0.855	132897	0.192
	Cr	52	**35.004**	ug/L	0.605	66636	0.097
	Cr	53		ug/L		36241	-0.002
	Mn	55	**973.308**	ug/L	1.316	2576038	3.912
	Fe	57	**33185.846**	ug/L	1.406	1679346	2.547
	Co	59	**15.137**	ug/L	1.872	28714	0.044
	Ni	60	**25.229**	ug/L	1.388	9883	0.015
	Cu	63		ug/L		23223	0.035
	Cu	65	**25.704**	ug/L	1.585	12462	0.019
	Zn	66	**129.489**	ug/L	1.339	40388	0.287
	Zn	67		ug/L		10426	0.049
	Zn	68		ug/L		32894	0.232
>	Ge	74		ug/L		140720	140720.427
	As	75	**7.145**	ug/L	11.938	3145	0.019
	Se	77		ug/L		1482	-0.003
	Se	82	**0.383**	ug/L	56.891	23	0.000
	Kr	83		ug/L		56	0.000
	Sr	88	**72.860**	ug/L	0.606	300586	3.382
	Y	89		ug/L		193251	2.174
	Ag	107	**0.366**	ug/L	7.003	742	0.008
	Cd	111	**1.203**	ug/L	4.952	598	0.007
	Cd	114		ug/L		497	0.005
>	In	115		ug/L		88867	88867.478
	Sn	120	**1.508**	ug/L	2.988	2989	0.032
	Sb	121	**0.424**	ug/L	6.595	827	0.008
	Sb	123		ug/L		589	0.006
	Ba	135		ug/L		153522	1.296
	Ba	137	**372.236**	ug/L	0.852	271853	2.295
	Ho	165		ug/L		10826	0.091
>	Lu	175		ug/L		118448	118447.535
	Tl	205	**0.579**	ug/L	5.013	2048	0.016
	Pb	208	**139.947**	ug/L	0.999	803316	6.772
	Bi	209		ug/L		2246	0.019
	U	238	**55.637**	ug/L	0.996	319056	2.693

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			86.6		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			84.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			88.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			92.6		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070003
Sample Date/Time: Sunday, February 28, 2010 15:59:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070003.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**199.989**	**ug/L**	3.383	130832	0.207
	Be	9	**3.202**	**ug/L**	5.820	554	0.001
	B	11	**9.155**	**ug/L**	3.128	1822	0.003
	Na	23	**1237.570**	**ug/L**	23.861	1956905	3.090
	Mg	24	**12476.115**	**ug/L**	1.795	13149489	20.769
	Al	27	**29256.400**	**ug/L**	12.368	44976299	71.233
	P	31	**836.266**	**ug/L**	2.825	72422	0.110
	K	39	**9531.849**	**ug/L**	7.701	16182182	25.254
	Ca	43	**4846.074**	**ug/L**	1.537	17844	0.028
>	Sc	45		**ug/L**		633067	633066.994
	V	51	**62.885**	**ug/L**	2.828	139286	0.210
	Cr	52	**98.595**	**ug/L**	3.640	175793	0.274
	Cr	53		**ug/L**		47963	0.019
	Mn	55	**1758.035**	**ug/L**	4.861	4469712	7.067
	Fe	57	**38131.752**	**ug/L**	2.352	1854516	2.927
	Co	59	**12.103**	**ug/L**	5.221	22063	0.035
	Ni	60	**17.775**	**ug/L**	5.931	6698	0.011
	Cu	63		**ug/L**		19657	0.031
	Cu	65	**22.658**	**ug/L**	3.017	10563	0.017
	Zn	66	**284.849**	**ug/L**	0.243	85398	0.630
	Zn	67		**ug/L**		17478	0.104
	Zn	68		**ug/L**		66732	0.491
>	Ge	74		**ug/L**		135381	135381.156
	As	75	**4.060**	**ug/L**	11.074	1908	0.011
	Se	77		**ug/L**		1404	-0.003
	Se	82	**0.250**	**ug/L**	101.374	18	0.000
	Kr	83		**ug/L**		73	0.000
	Sr	88	**76.437**	**ug/L**	1.292	306760	3.548
	Y	89		**ug/L**		384789	4.451
	Ag	107	**0.866**	**ug/L**	2.227	1685	0.019
	Cd	111	**1.367**	**ug/L**	2.376	660	0.008
	Cd	114		**ug/L**		626	0.007
>	In	115		**ug/L**		86453	86452.592
	Sn	120	**8.072**	**ug/L**	0.898	14851	0.170
	Sb	121	**0.193**	**ug/L**	9.217	442	0.003
	Sb	123		**ug/L**		325	0.003
	Ba	135		**ug/L**		127646	1.068
	Ba	137	**306.034**	**ug/L**	0.730	225465	1.887
	Ho	165		**ug/L**		21033	0.176
>	Lu	175		**ug/L**		119486	119486.495
	Tl	205	**0.534**	**ug/L**	4.012	1917	0.015
	Pb	208	**61.565**	**ug/L**	0.985	357169	2.979
	Bi	209		**ug/L**		1133	0.009
	U	238	**18.982**	**ug/L**	0.249	109843	0.919

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			83.3		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			81.5		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			86.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			93.4		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070004
Sample Date/Time: Sunday, February 28, 2010 16:05:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070004.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**76.007**	**ug/L**	1.658	48680	0.079
	Be	9	**4.901**	**ug/L**	2.148	828	0.001
	B	11	**12.461**	**ug/L**	0.765	2365	0.004
	Na	23	**356.641**	**ug/L**	10.177	560526	0.890
	Mg	24	**11908.770**	**ug/L**	5.823	12270453	19.825
	Al	27	**91747.387**	**ug/L**	4.937	138206522	223.385
	P	31	**436.070**	**ug/L**	0.240	38325	0.057
	K	39	**10500.981**	**ug/L**	6.462	17413819	27.822
	Ca	43	**10909.893**	**ug/L**	1.834	39204	0.063
>	Sc	45		**ug/L**		618680	618680.165
	V	51	**105.013**	**ug/L**	1.442	222898	0.350
	Cr	52	**53.065**	**ug/L**	0.619	93663	0.147
	Cr	53		**ug/L**		36671	0.002
	Mn	55	**1645.473**	**ug/L**	0.692	4092701	6.614
	Fe	57	**64214.478**	**ug/L**	0.646	3051689	4.928
	Co	59	**30.766**	**ug/L**	0.613	54813	0.089
	Ni	60	**44.735**	**ug/L**	0.818	16443	0.027
	Cu	63		**ug/L**		27373	0.044
	Cu	65	**32.064**	**ug/L**	1.567	14594	0.023
	Zn	66	**139.181**	**ug/L**	1.342	40165	0.308
	Zn	67		**ug/L**		11247	0.062
	Zn	68		**ug/L**		34550	0.263
>	Ge	74		**ug/L**		130224	130223.526
	As	75	**11.956**	**ug/L**	2.321	4585	0.032
	Se	77		**ug/L**		1406	-0.003
	Se	82	**-1.446**	**ug/L**	49.218	-34	-0.000
	Kr	83		**ug/L**		117	0.001
	Sr	88	**137.746**	**ug/L**	0.905	537886	6.393
	Y	89		**ug/L**		219907	2.614
	Ag	107	**0.561**	**ug/L**	3.864	1067	0.013
	Cd	111	**2.032**	**ug/L**	4.418	952	0.011
	Cd	114		**ug/L**		393	0.005
>	In	115		**ug/L**		84126	84125.921
	Sn	120	**1.739**	**ug/L**	2.118	3238	0.037
	Sb	121	**0.135**	**ug/L**	9.762	342	0.002
	Sb	123		**ug/L**		254	0.002
	Ba	135		**ug/L**		339661	3.009
	Ba	137	**848.729**	**ug/L**	0.302	590707	5.233
	Ho	165		**ug/L**		12762	0.113
>	Lu	175		**ug/L**		112881	112881.021
	Tl	205	**1.085**	**ug/L**	1.308	3536	0.030
	Pb	208	**68.773**	**ug/L**	0.239	376801	3.328
	Bi	209		**ug/L**		4199	0.037
	U	238	**13.087**	**ug/L**	0.985	71554	0.634

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			81.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			78.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			84.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			88.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 16:11:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.561**	**ug/L**	0.752	31554	0.052
	Be	9	**53.202**	**ug/L**	1.281	8703	0.014
	B	11	**96.439**	**ug/L**	1.166	16720	0.027
	Na	23	**5148.456**	**ug/L**	5.085	7752370	12.855
	Mg	24	**5343.100**	**ug/L**	6.383	5357404	8.895
	Al	27	**5527.479**	**ug/L**	7.593	8103017	13.458
	P	31	**5463.259**	**ug/L**	2.344	434739	0.717
	K	39	**4979.125**	**ug/L**	4.892	8132342	13.192
	Ca	43	**5068.237**	**ug/L**	0.988	17760	0.029
>	Sc	45		**ug/L**		602278	602278.242
	V	51	**54.624**	**ug/L**	0.666	115857	0.182
	Cr	52	**55.859**	**ug/L**	0.402	95853	0.155
	Cr	53		**ug/L**		49246	0.025
	Mn	55	**55.318**	**ug/L**	1.161	134377	0.222
	Fe	57	**5279.894**	**ug/L**	1.131	246507	0.405
	Co	59	**52.415**	**ug/L**	0.672	90891	0.151
	Ni	60	**55.171**	**ug/L**	1.329	19734	0.033
	Cu	63		**ug/L**		46376	0.077
	Cu	65	**53.830**	**ug/L**	0.379	23814	0.039
	Zn	66	**51.244**	**ug/L**	0.131	15767	0.113
	Zn	67		**ug/L**		6924	0.025
	Zn	68		**ug/L**		12437	0.088
>	Ge	74		**ug/L**		138475	138475.293
	As	75	**50.354**	**ug/L**	2.181	19098	0.135
	Se	77		**ug/L**		3477	0.012
	Se	82	**52.060**	**ug/L**	4.450	1703	0.012
	Kr	83		**ug/L**		27	0.000
	Sr	88	**51.685**	**ug/L**	0.292	209084	2.399
	Y	89		**ug/L**		64	0.001
	Ag	107	**51.750**	**ug/L**	0.738	100604	1.155
	Cd	111	**52.515**	**ug/L**	1.404	25340	0.291
	Cd	114		**ug/L**		57825	0.663
>	In	115		**ug/L**		87133	87132.809
	Sn	120	**51.722**	**ug/L**	1.291	95011	1.089
	Sb	121	**53.518**	**ug/L**	1.969	84476	0.968
	Sb	123		**ug/L**		64659	0.741
	Ba	135		**ug/L**		21134	0.184
	Ba	137	**52.259**	**ug/L**	1.267	37098	0.322
	Ho	165		**ug/L**		15	0.000
>	Lu	175		**ug/L**		115105	115104.846
	Tl	205	**50.451**	**ug/L**	0.772	161005	1.397
	Pb	208	**52.572**	**ug/L**	0.836	293987	2.544
	Bi	209		**ug/L**		77	0.000
	U	238	**55.015**	**ug/L**	0.951	306551	2.663

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	101.121				
	Be	9	106.404				
	B	11	96.439				
	Na	23	102.969				
	Mg	24	106.862				
	Al	27	109.455				
	P	31	109.265				
	K	39	99.583				
	Ca	43	101.365				
>	Sc	45		79.2			
	V	51	109.247				
	Cr	52	111.719				
	Cr	53					
	Mn	55	110.636				
	Fe	57	105.598				
	Co	59	104.830				
	Ni	60	110.342				
	Cu	63					
	Cu	65	107.659				
	Zn	66	102.487				
	Zn	67					
	Zn	68					
>	Ge	74		83.4			
	As	75	100.708				
	Se	77					
	Se	82	104.119				
	Kr	83					
	Sr	88	103.370				
	Y	89					
	Ag	107	103.499				
	Cd	111	105.031				
	Cd	114					
>	In	115		87.1			
	Sn	120	103.443				
	Sb	121	107.035				
	Sb	123					
	Ba	135					
	Ba	137	104.517				
	Ho	165					
>	Lu	175		90.0			
	Tl	205	100.901				
	Pb	208	105.143				
	Bi	209					
	U	238	110.030				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Cr	52	CCV is out of limits (+/- 10%)
QC Std 6	Mn	55	CCV is out of limits (+/- 10%)
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 16:17:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.083**	**ug/L**	14.852	145	0.000
	Be	9	**0.012**	**ug/L**	8.319	7	0.000
	B	11	**1.975**	**ug/L**	22.200	537	0.001
	Na	23	**-1.175**	**ug/L**	98.402	8002	-0.003
	Mg	24	**-0.650**	**ug/L**	133.092	3000	-0.001
	Al	27	**-0.159**	**ug/L**	1208.793	3667	-0.000
	P	31	**8.976**	**ug/L**	19.120	3812	0.001
	K	39	**27.667**	**ug/L**	33.343	252888	0.073
	Ca	43	**3.308**	**ug/L**	52.327	71	0.000
>	Sc	45		**ug/L**		646389	646389.136
	V	51	**0.410**	**ug/L**	216.583	7604	0.001
	Cr	52	**0.249**	**ug/L**	26.310	3021	0.001
	Cr	53		**ug/L**		43307	0.010
	Mn	55	**0.092**	**ug/L**	26.276	710	0.000
	Fe	57	**11.594**	**ug/L**	10.460	3192	0.001
	Co	59	**0.019**	**ug/L**	34.793	72	0.000
	Ni	60	**0.014**	**ug/L**	172.984	41	0.000
	Cu	63		**ug/L**		94	-0.000
	Cu	65	**0.019**	**ug/L**	144.877	67	0.000
	Zn	66	**0.010**	**ug/L**	187.437	71	0.000
	Zn	67		**ug/L**		4414	0.005
	Zn	68		**ug/L**		321	0.000
>	Ge	74		**ug/L**		146094	146093.673
	As	75	**0.010**	**ug/L**	1775.358	477	0.000
	Se	77		**ug/L**		2248	0.002
	Se	82	**0.230**	**ug/L**	56.099	19	0.000
	Kr	83		**ug/L**		26	-0.000
	Sr	88	**0.006**	**ug/L**	39.186	91	0.000
	Y	89		**ug/L**		20	-0.000
	Ag	107	**0.008**	**ug/L**	3.617	31	0.000
	Cd	111	**0.004**	**ug/L**	321.204	8	0.000
	Cd	114		**ug/L**		16	0.000
>	In	115		**ug/L**		90634	90633.507
	Sn	120	**0.042**	**ug/L**	25.993	252	0.001
	Sb	121	**0.207**	**ug/L**	31.998	487	0.004
	Sb	123		**ug/L**		388	0.003
	Ba	135		**ug/L**		11	0.000
	Ba	137	**0.017**	**ug/L**	24.177	24	0.000
	Ho	165		**ug/L**		2	-0.000
>	Lu	175		**ug/L**		117504	117503.845
	Tl	205	**0.097**	**ug/L**	29.348	465	0.003
	Pb	208	**0.019**	**ug/L**	65.762	1291	0.001
	Bi	209		**ug/L**		19	-0.000
	U	238	**0.008**	**ug/L**	55.996	88	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			85.0		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			88.0		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			90.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			91.9		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070005
Sample Date/Time: Sunday, February 28, 2010 16:23:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070005.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**41.813**	**ug/L**	3.729	28073	0.043
	Be	9	**3.241**	**ug/L**	5.533	574	0.001
	B	11	**9.716**	**ug/L**	2.426	1969	0.003
	Na	23	**223.107**	**ug/L**	16.487	370834	0.557
	Mg	24	**5550.672**	**ug/L**	1.161	5989645	9.240
	Al	27	**40765.079**	**ug/L**	4.796	64277869	99.254
	P	31	**347.626**	**ug/L**	0.649	32606	0.046
	K	39	**5697.726**	**ug/L**	2.795	9982744	15.096
	Ca	43	**5068.243**	**ug/L**	3.766	19091	0.029
>	Sc	45		**ug/L**		647732	647731.976
	V	51	**46.074**	**ug/L**	2.730	106133	0.154
	Cr	52	**65.184**	**ug/L**	2.705	119837	0.181
	Cr	53		**ug/L**		41673	0.008
	Mn	55	**1040.933**	**ug/L**	2.025	2710235	4.184
	Fe	57	**31041.641**	**ug/L**	1.345	1545636	2.382
	Co	59	**16.222**	**ug/L**	1.248	30273	0.047
	Ni	60	**23.388**	**ug/L**	2.341	9016	0.014
	Cu	63		**ug/L**		20231	0.031
	Cu	65	**22.147**	**ug/L**	2.672	10571	0.016
	Zn	66	**107.421**	**ug/L**	1.263	32911	0.238
	Zn	67		**ug/L**		9276	0.042
	Zn	68		**ug/L**		27242	0.195
>	Ge	74		**ug/L**		138177	138177.435
	As	75	**5.824**	**ug/L**	9.709	2600	0.016
	Se	77		**ug/L**		1455	-0.003
	Se	82	**0.037**	**ug/L**	1930.381	11	0.000
	Kr	83		**ug/L**		66	0.000
	Sr	88	**67.492**	**ug/L**	0.846	272172	3.133
	Y	89		**ug/L**		229060	2.637
	Ag	107	**0.390**	**ug/L**	1.917	772	0.009
	Cd	111	**1.676**	**ug/L**	14.264	812	0.009
	Cd	114		**ug/L**		770	0.009
>	In	115		**ug/L**		86865	86864.883
	Sn	120	**0.742**	**ug/L**	1.179	1521	0.016
	Sb	121	**0.279**	**ug/L**	4.836	580	0.005
	Sb	123		**ug/L**		452	0.004
	Ba	135		**ug/L**		167498	1.434
	Ba	137	**410.992**	**ug/L**	0.985	295973	2.534
	Ho	165		**ug/L**		12182	0.104
>	Lu	175		**ug/L**		116803	116802.762
	Tl	205	**0.722**	**ug/L**	1.016	2485	0.020
	Pb	208	**49.526**	**ug/L**	1.180	281082	2.397
	Bi	209		**ug/L**		2244	0.019
	U	238	**9.882**	**ug/L**	1.114	55914	0.478

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			85.2		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			83.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			86.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			91.3		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEfMn		55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070006
Sample Date/Time: Sunday, February 28, 2010 16:29:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070006.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**35.634**	**ug/L**	0.937	23518	0.037
	Be	9	**1.671**	**ug/L**	2.779	293	0.000
	B	11	**8.180**	**ug/L**	2.157	1655	0.002
	Na	23	**575.336**	**ug/L**	11.630	924996	1.436
	Mg	24	**11710.634**	**ug/L**	4.556	12409102	19.495
	Al	27	**28539.094**	**ug/L**	8.370	44247938	69.486
	P	31	**1802.029**	**ug/L**	0.754	153499	0.236
	K	39	**6777.571**	**ug/L**	13.403	11606266	17.957
	Ca	43	**20611.161**	**ug/L**	0.941	76123	0.120
>	Sc	45		**ug/L**		636329	636328.998
	V	51	**58.752**	**ug/L**	2.134	131134	0.196
	Cr	52	**44.379**	**ug/L**	0.222	80978	0.123
	Cr	53		**ug/L**		37514	0.002
	Mn	55	**904.882**	**ug/L**	2.441	2314187	3.637
	Fe	57	**34133.150**	**ug/L**	2.311	1669090	2.620
	Co	59	**12.568**	**ug/L**	1.077	23051	0.036
	Ni	60	**32.536**	**ug/L**	1.287	12310	0.019
	Cu	63		**ug/L**		32916	0.052
	Cu	65	**36.693**	**ug/L**	0.400	17169	0.027
	Zn	66	**122.530**	**ug/L**	1.756	37619	0.271
	Zn	67		**ug/L**		9643	0.045
	Zn	68		**ug/L**		29987	0.215
>	Ge	74		**ug/L**		138540	138539.820
	As	75	**5.771**	**ug/L**	3.440	2586	0.015
	Se	77		**ug/L**		1747	-0.001
	Se	82	**0.134**	**ug/L**	181.976	15	0.000
	Kr	83		**ug/L**		59	0.000
	Sr	88	**96.078**	**ug/L**	2.196	390810	4.459
	Y	89		**ug/L**		162282	1.852
	Ag	107	**0.254**	**ug/L**	3.463	512	0.006
	Cd	111	**1.011**	**ug/L**	7.232	496	0.006
	Cd	114		**ug/L**		488	0.005
>	In	115		**ug/L**		87639	87638.947
	Sn	120	**0.634**	**ug/L**	1.739	1335	0.013
	Sb	121	**0.206**	**ug/L**	9.111	469	0.004
	Sb	123		**ug/L**		378	0.003
	Ba	135		**ug/L**		134455	1.136
	Ba	137	**326.659**	**ug/L**	1.071	238401	2.014
	Ho	165		**ug/L**		9181	0.078
>	Lu	175		**ug/L**		118375	118375.026
	Tl	205	**0.481**	**ug/L**	2.503	1726	0.013
	Pb	208	**72.677**	**ug/L**	0.987	417476	3.517
	Bi	209		**ug/L**		2052	0.017
	U	238	**9.488**	**ug/L**	0.547	54414	0.459

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		83.7			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		83.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070007
Sample Date/Time: Sunday, February 28, 2010 16:35:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rm|
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070007.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**20.793**	**ug/L**	0.447	14860	0.021
	Be	9	**1.412**	**ug/L**	4.337	268	0.000
	B	11	**6.087**	**ug/L**	2.874	1377	0.002
	Na	23	**389.171**	**ug/L**	4.515	678434	0.972
	Mg	24	**4563.612**	**ug/L**	7.793	5221528	7.597
	Al	27	**19999.145**	**ug/L**	13.316	33504611	48.694
	P	31	**767.852**	**ug/L**	2.793	72498	0.101
	K	39	**2477.400**	**ug/L**	7.852	4726187	6.564
	Ca	43	**16287.881**	**ug/L**	2.018	64959	0.094
>	Sc	45		**ug/L**		687116	687115.893
	V	51	**38.825**	**ug/L**	2.969	96038	0.129
	Cr	52	**21.901**	**ug/L**	1.234	44544	0.061
	Cr	53		**ug/L**		38145	-0.001
	Mn	55	**628.407**	**ug/L**	0.815	1736130	2.526
	Fe	57	**24762.388**	**ug/L**	1.007	1308522	1.901
	Co	59	**7.555**	**ug/L**	2.719	14976	0.022
	Ni	60	**16.886**	**ug/L**	1.345	6917	0.010
	Cu	63		**ug/L**		18873	0.027
	Cu	65	**19.548**	**ug/L**	3.436	9906	0.014
	Zn	66	**91.390**	**ug/L**	0.988	30399	0.202
	Zn	67		**ug/L**		8742	0.033
	Zn	68		**ug/L**		24402	0.161
>	Ge	74		**ug/L**		149984	149984.168
	As	75	**5.724**	**ug/L**	1.467	2782	0.015
	Se	77		**ug/L**		2086	0.000
	Se	82	**0.638**	**ug/L**	12.521	34	0.000
	Kr	83		**ug/L**		38	0.000
	Sr	88	**75.332**	**ug/L**	1.005	321501	3.497
	Y	89		**ug/L**		173691	1.889
	Ag	107	**0.185**	**ug/L**	3.719	396	0.004
	Cd	111	**0.671**	**ug/L**	17.214	347	0.004
	Cd	114		**ug/L**		306	0.003
>	In	115		**ug/L**		91934	91934.251
	Sn	120	**1.505**	**ug/L**	2.165	3086	0.032
	Sb	121	**0.102**	**ug/L**	7.330	320	0.002
	Sb	123		**ug/L**		252	0.002
	Ba	135		**ug/L**		99693	0.810
	Ba	137	**232.401**	**ug/L**	0.537	176308	1.433
	Ho	165		**ug/L**		9450	0.077
>	Lu	175		**ug/L**		123032	123032.419
	Tl	205	**0.260**	**ug/L**	3.106	1041	0.007
	Pb	208	**34.371**	**ug/L**	0.959	205871	1.663
	Bi	209		**ug/L**		1702	0.014
	U	238	**6.401**	**ug/L**	0.412	38166	0.310

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			90.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			90.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			91.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			96.2		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070008
Sample Date/Time: Sunday, February 28, 2010 16:40:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070008.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**40.587**	**ug/L**	2.210	27356	0.042
	Be	9	**2.716**	**ug/L**	5.311	484	0.001
	B	11	**12.775**	**ug/L**	1.287	2543	0.004
	Na	23	**250.528**	**ug/L**	12.314	416363	0.626
	Mg	24	**7457.884**	**ug/L**	12.972	8080474	12.415
	Al	27	**47638.484**	**ug/L**	8.396	75385376	115.989
	P	31	**718.117**	**ug/L**	2.478	64327	0.094
	K	39	**8119.044**	**ug/L**	8.285	14190347	21.511
	Ca	43	**8026.719**	**ug/L**	2.567	30319	0.047
>	Sc	45		**ug/L**		650097	650097.464
	V	51	**64.346**	**ug/L**	4.794	146161	0.214
	Cr	52	**30.521**	**ug/L**	1.158	57710	0.085
	Cr	53		**ug/L**		35730	-0.002
	Mn	55	**1166.748**	**ug/L**	2.210	3049555	4.690
	Fe	57	**34464.920**	**ug/L**	1.266	1722275	2.645
	Co	59	**18.395**	**ug/L**	1.231	34453	0.053
	Ni	60	**25.076**	**ug/L**	1.237	9701	0.015
	Cu	63		**ug/L**		31440	0.048
	Cu	65	**34.436**	**ug/L**	1.108	16467	0.025
	Zn	66	**125.454**	**ug/L**	1.133	39198	0.278
	Zn	67		**ug/L**		10572	0.050
	Zn	68		**ug/L**		32708	0.230
>	Ge	74		**ug/L**		140961	140961.248
	As	75	**7.680**	**ug/L**	5.704	3350	0.021
	Se	77		**ug/L**		1608	-0.002
	Se	82	**-0.401**	**ug/L**	110.288	-3	-0.000
	Kr	83		**ug/L**		69	0.000
	Sr	88	**95.651**	**ug/L**	1.776	386896	4.440
	Y	89		**ug/L**		156849	1.800
	Ag	107	**0.404**	**ug/L**	1.530	802	0.009
	Cd	111	**2.579**	**ug/L**	5.002	1249	0.014
	Cd	114		**ug/L**		1734	0.020
>	In	115		**ug/L**		87158	87158.015
	Sn	120	**0.831**	**ug/L**	5.327	1688	0.017
	Sb	121	**0.240**	**ug/L**	3.007	520	0.004
	Sb	123		**ug/L**		406	0.004
	Ba	135		**ug/L**		217426	1.877
	Ba	137	**533.559**	**ug/L**	0.714	381041	3.290
	Ho	165		**ug/L**		8838	0.076
>	Lu	175		**ug/L**		115824	115824.125
	Tl	205	**0.582**	**ug/L**	3.259	2015	0.016
	Pb	208	**122.696**	**ug/L**	0.378	688859	5.937
	Bi	209		**ug/L**		2928	0.025
	U	238	**49.821**	**ug/L**	0.296	279389	2.412

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		85.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		84.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		90.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EE	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070009
Sample Date/Time: Sunday, February 28, 2010 16:46:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070009.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**37.531**	**ug/L**	2.227	24633	0.039
	Be	9	**2.526**	**ug/L**	3.556	439	0.001
	B	11	**9.565**	**ug/L**	3.614	1897	0.003
	Na	23	**333.648**	**ug/L**	8.800	537316	0.833
	Mg	24	**5746.730**	**ug/L**	4.262	6058969	9.567
	Al	27	**44773.124**	**ug/L**	3.999	69012216	109.013
	P	31	**519.914**	**ug/L**	0.576	46169	0.068
	K	39	**5649.436**	**ug/L**	3.060	9673362	14.968
	Ca	43	**6569.422**	**ug/L**	1.527	24172	0.038
>	Sc	45		**ug/L**		632853	632853.046
	V	51	**54.913**	**ug/L**	4.557	122381	0.183
	Cr	52	**30.756**	**ug/L**	0.608	56586	0.085
	Cr	53		**ug/L**		34369	-0.002
	Mn	55	**995.844**	**ug/L**	1.197	2533504	4.003
	Fe	57	**32265.947**	**ug/L**	1.169	1569544	2.476
	Co	59	**13.688**	**ug/L**	1.591	24963	0.039
	Ni	60	**23.772**	**ug/L**	1.960	8954	0.014
	Cu	63		**ug/L**		24489	0.039
	Cu	65	**28.066**	**ug/L**	0.699	13074	0.021
	Zn	66	**115.043**	**ug/L**	1.113	35112	0.255
	Zn	67		**ug/L**		9562	0.045
	Zn	68		**ug/L**		28619	0.206
>	Ge	74		**ug/L**		137682	137681.704
	As	75	**6.530**	**ug/L**	11.060	2848	0.017
	Se	77		**ug/L**		1412	-0.003
	Se	82	**0.098**	**ug/L**	428.222	13	0.000
	Kr	83		**ug/L**		61	0.000
	Sr	88	**70.143**	**ug/L**	0.425	278593	3.256
	Y	89		**ug/L**		181076	2.116
	Ag	107	**0.352**	**ug/L**	3.492	686	0.008
	Cd	111	**1.326**	**ug/L**	8.208	634	0.007
	Cd	114		**ug/L**		458	0.005
>	In	115		**ug/L**		85553	85552.680
	Sn	120	**1.428**	**ug/L**	0.675	2733	0.030
	Sb	121	**0.318**	**ug/L**	7.353	632	0.006
	Sb	123		**ug/L**		500	0.005
	Ba	135		**ug/L**		156256	1.374
	Ba	137	**391.921**	**ug/L**	0.914	274818	2.416
	Ho	165		**ug/L**		9917	0.087
>	Lu	175		**ug/L**		113726	113725.682
	Tl	205	**0.532**	**ug/L**	1.005	1821	0.015
	Pb	208	**66.729**	**ug/L**	1.778	368360	3.229
	Bi	209		**ug/L**		2270	0.020
	U	238	**33.361**	**ug/L**	1.674	183699	1.615

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			83.2		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			82.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			85.5		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			88.9		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070010
Sample Date/Time: Sunday, February 28, 2010 16:52:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070010.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**82.340**	**ug/L**	2.354	52138	0.085
	Be	9	**5.215**	**ug/L**	3.733	871	0.001
	B	11	**13.211**	**ug/L**	3.511	2469	0.004
	Na	23	**540.611**	**ug/L**	12.815	835682	1.350
	Mg	24	**14826.420**	**ug/L**	4.410	15101669	24.682
	Al	27	**102911.544**	**ug/L**	5.245	153320015	250.567
	P	31	**591.554**	**ug/L**	2.562	50376	0.078
	K	39	**10474.031**	**ug/L**	2.055	17172206	27.751
	Ca	43	**16723.070**	**ug/L**	1.168	59396	0.097
>	Sc	45		**ug/L**		611802	611802.271
	V	51	**115.582**	**ug/L**	0.901	241968	0.385
	Cr	52	**60.542**	**ug/L**	0.754	105327	0.168
	Cr	53		**ug/L**		39715	0.008
	Mn	55	**1448.720**	**ug/L**	1.510	3563224	5.823
	Fe	57	**69256.557**	**ug/L**	2.266	3254396	5.315
	Co	59	**28.193**	**ug/L**	1.155	49673	0.081
	Ni	60	**45.303**	**ug/L**	1.031	16468	0.027
	Cu	63		**ug/L**		33015	0.054
	Cu	65	**38.444**	**ug/L**	1.594	17291	0.028
	Zn	66	**142.873**	**ug/L**	2.060	41067	0.316
	Zn	67		**ug/L**		11753	0.066
	Zn	68		**ug/L**		36166	0.277
>	Ge	74		**ug/L**		129719	129718.992
	As	75	**12.550**	**ug/L**	5.817	4774	0.034
	Se	77		**ug/L**		1545	-0.002
	Se	82	**-1.781**	**ug/L**	29.760	-44	-0.000
	Kr	83		**ug/L**		127	0.001
	Sr	88	**171.147**	**ug/L**	0.694	660178	7.944
	Y	89		**ug/L**		237931	2.863
	Ag	107	**0.616**	**ug/L**	4.734	1155	0.014
	Cd	111	**1.980**	**ug/L**	11.837	916	0.011
	Cd	114		**ug/L**		347	0.004
>	In	115		**ug/L**		83106	83105.933
	Sn	120	**0.571**	**ug/L**	4.982	1155	0.012
	Sb	121	**0.089**	**ug/L**	9.074	270	0.002
	Sb	123		**ug/L**		222	0.002
	Ba	135		**ug/L**		359595	3.165
	Ba	137	**889.334**	**ug/L**	0.124	623024	5.483
	Ho	165		**ug/L**		13752	0.121
>	Lu	175		**ug/L**		113620	113619.508
	Tl	205	**1.464**	**ug/L**	1.633	4753	0.041
	Pb	208	**61.013**	**ug/L**	0.793	336612	2.952
	Bi	209		**ug/L**		4263	0.037
	U	238	**6.240**	**ug/L**	0.990	34363	0.302

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			80.5		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			78.1		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			83.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			88.8		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070011
Sample Date/Time: Sunday, February 28, 2010 16:58:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070011.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**87.380**	ug/L	1.275	53960	0.090
	Be	9	**5.688**	ug/L	3.918	926	0.002
	B	11	**13.099**	ug/L	5.409	2389	0.004
	Na	23	**584.230**	ug/L	11.175	879464	1.459
	Mg	24	**14810.075**	ug/L	1.721	14713451	24.655
	Al	27	**107636.943**	ug/L	8.504	156415550	262.072
	P	31	**453.044**	ug/L	1.747	38288	0.059
	K	39	**11804.559**	ug/L	3.940	18851711	31.276
	Ca	43	**12070.790**	ug/L	1.389	41826	0.070
>	Sc	45		ug/L		596662	596661.744
	V	51	**107.313**	ug/L	3.694	219522	0.358
	Cr	52	**56.887**	ug/L	1.391	96659	0.158
	Cr	53		ug/L		37885	0.007
	Mn	55	**1543.361**	ug/L	1.207	3701864	6.204
	Fe	57	**69538.073**	ug/L	3.139	3186420	5.337
	Co	59	**29.753**	ug/L	2.608	51120	0.086
	Ni	60	**49.250**	ug/L	2.852	17454	0.029
	Cu	63		ug/L		32218	0.054
	Cu	65	**38.087**	ug/L	1.148	16708	0.028
	Zn	66	**142.872**	ug/L	0.803	39595	0.316
	Zn	67		ug/L		11372	0.066
	Zn	68		ug/L		35100	0.279
>	Ge	74		ug/L		125060	125059.692
	As	75	**11.426**	ug/L	5.497	4225	0.031
	Se	77		ug/L		1490	-0.002
	Se	82	**-2.304**	ug/L	56.176	-59	-0.001
	Kr	83		ug/L		144	0.001
	Sr	88	**162.733**	ug/L	0.681	615845	7.553
	Y	89		ug/L		242458	2.974
	Ag	107	**0.569**	ug/L	3.645	1049	0.013
	Cd	111	**1.779**	ug/L	5.316	808	0.010
	Cd	114		ug/L		267	0.003
>	In	115		ug/L		81527	81526.512
	Sn	120	**0.856**	ug/L	2.331	1624	0.018
	Sb	121	**0.046**	ug/L	27.813	201	0.001
	Sb	123		ug/L		148	0.001
	Ba	135		ug/L		375142	3.378
	Ba	137	**952.944**	ug/L	0.679	652487	5.876
	Ho	165		ug/L		14065	0.127
>	Lu	175		ug/L		111054	111053.773
	Tl	205	**1.059**	ug/L	0.661	3399	0.029
	Pb	208	**64.814**	ug/L	0.886	349413	3.136
	Bi	209		ug/L		4557	0.041
	U	238	**6.289**	ug/L	0.728	33849	0.304

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		78.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		75.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		81.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		86.8			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070012
Sample Date/Time: Sunday, February 28, 2010 17:04:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070012.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**90.745**	**ug/L**	0.571	53858	0.094
	Be	9	**6.096**	**ug/L**	1.645	953	0.002
	B	11	**11.692**	**ug/L**	2.127	2066	0.003
	Na	23	**602.681**	**ug/L**	5.868	871507	1.505
	Mg	24	**15989.551**	**ug/L**	3.984	15268048	26.618
	Al	27	**121188.872**	**ug/L**	6.301	169161870	295.068
	P	31	**487.393**	**ug/L**	1.623	39383	0.064
	K	39	**12315.186**	**ug/L**	5.067	18898855	32.629
	Ca	43	**12855.443**	**ug/L**	2.413	42807	0.075
>	Sc	45		**ug/L**		573473	573472.801
	V	51	**110.660**	**ug/L**	0.681	217404	0.369
	Cr	52	**59.953**	**ug/L**	2.404	97773	0.167
	Cr	53		**ug/L**		38389	0.010
	Mn	55	**1617.651**	**ug/L**	2.365	3728684	6.502
	Fe	57	**74959.327**	**ug/L**	2.318	3300937	5.753
	Co	59	**30.205**	**ug/L**	1.930	49876	0.087
	Ni	60	**50.699**	**ug/L**	2.545	17271	0.030
	Cu	63		**ug/L**		35091	0.061
	Cu	65	**43.145**	**ug/L**	2.606	18182	0.032
	Zn	66	**152.278**	**ug/L**	1.678	41236	0.337
	Zn	67		**ug/L**		11937	0.073
	Zn	68		**ug/L**		36794	0.299
>	Ge	74		**ug/L**		122218	122217.504
	As	75	**12.246**	**ug/L**	5.158	4397	0.033
	Se	77		**ug/L**		1653	0.000
	Se	82	**-2.124**	**ug/L**	13.703	-52	-0.000
	Kr	83		**ug/L**		141	0.001
	Sr	88	**172.589**	**ug/L**	0.353	639301	8.011
	Y	89		**ug/L**		259835	3.256
	Ag	107	**0.586**	**ug/L**	3.302	1056	0.013
	Cd	111	**1.984**	**ug/L**	7.611	882	0.011
	Cd	114		**ug/L**		276	0.003
>	In	115		**ug/L**		79798	79798.108
	Sn	120	**0.270**	**ug/L**	4.304	604	0.006
	Sb	121	**-0.005**	**ug/L**	240.296	123	-0.000
	Sb	123		**ug/L**		116	0.000
	Ba	135		**ug/L**		398780	3.583
	Ba	137	**1012.966**	**ug/L**	0.447	695153	6.246
	Ho	165		**ug/L**		15269	0.137
>	Lu	175		**ug/L**		111300	111299.669
	Tl	205	**1.084**	**ug/L**	3.365	3484	0.030
	Pb	208	**70.422**	**ug/L**	0.563	380413	3.408
	Bi	209		**ug/L**		4593	0.041
	U	238	**7.493**	**ug/L**	1.166	40414	0.363

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			75.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			73.6		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			79.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			87.0		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 17:10:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.039**	ug/L	1.170	29438	0.052
	Be	9	**53.182**	ug/L	0.925	8200	0.014
	B	11	**95.800**	ug/L	2.652	15653	0.027
	Na	23	**5378.157**	ug/L	7.366	7639197	13.428
	Mg	24	**5557.918**	ug/L	5.759	5260350	9.252
	Al	27	**5875.080**	ug/L	8.686	8128624	14.305
	P	31	**5686.762**	ug/L	0.889	426309	0.746
	K	39	**5339.216**	ug/L	0.233	8211897	14.146
	Ca	43	**5005.964**	ug/L	2.280	16536	0.029
>	Sc	45		ug/L		567714	567714.162
	V	51	**52.774**	ug/L	0.635	105708	0.176
	Cr	52	**57.065**	ug/L	1.322	92261	0.159
	Cr	53		ug/L		50934	0.033
	Mn	55	**55.623**	ug/L	1.955	127374	0.224
	Fe	57	**5425.951**	ug/L	1.230	238741	0.416
	Co	59	**54.347**	ug/L	2.433	88809	0.156
	Ni	60	**55.163**	ug/L	2.403	18595	0.033
	Cu	63		ug/L		44196	0.078
	Cu	65	**54.146**	ug/L	3.088	22572	0.040
	Zn	66	**50.165**	ug/L	1.189	14758	0.111
	Zn	67		ug/L		6904	0.027
	Zn	68		ug/L		11829	0.087
>	Ge	74		ug/L		132379	132378.570
	As	75	**51.104**	ug/L	1.701	18519	0.137
	Se	77		ug/L		3608	0.014
	Se	82	**53.297**	ug/L	1.604	1667	0.013
	Kr	83		ug/L		28	0.000
	Sr	88	**51.094**	ug/L	0.560	200023	2.372
	Y	89		ug/L		68	0.001
	Ag	107	**52.399**	ug/L	1.018	98594	1.169
	Cd	111	**51.739**	ug/L	1.373	24161	0.286
	Cd	114		ug/L		55743	0.661
>	In	115		ug/L		84318	84317.955
	Sn	120	**52.515**	ug/L	0.961	93356	1.105
	Sb	121	**52.810**	ug/L	2.460	80678	0.955
	Sb	123		ug/L		62485	0.740
	Ba	135		ug/L		20809	0.184
	Ba	137	**52.300**	ug/L	0.848	36445	0.322
	Ho	165		ug/L		8	0.000
>	Lu	175		ug/L		113004	113003.849
	Tl	205	**51.442**	ug/L	0.551	161151	1.425
	Pb	208	**53.763**	ug/L	1.436	295098	2.602
	Bi	209		ug/L		72	0.000
	U	238	**56.085**	ug/L	0.635	306822	2.715

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	100.079				
	Be	9	106.365				
	B	11	95.800				
	Na	23	107.563				
	Mg	24	111.158				
	Al	27	116.338				
	P	31	113.735				
	K	39	106.784				
	Ca	43	100.119				
>	Sc	45		74.7			
	V	51	105.547				
	Cr	52	114.130				
	Cr	53					
	Mn	55	111.247				
	Fe	57	108.519				
	Co	59	108.695				
	Ni	60	110.325				
	Cu	63					
	Cu	65	108.292				
	Zn	66	100.329				
	Zn	67					
	Zn	68					
>	Ge	74		79.7			
	As	75	102.207				
	Se	77					
	Se	82	106.594				
	Kr	83					
	Sr	88	102.188				
	Y	89					
	Ag	107	104.798				
	Cd	111	103.477				
	Cd	114					
>	In	115		84.3			
	Sn	120	105.029				
	Sb	121	105.620				
	Sb	123					
	Ba	135					
	Ba	137	104.599				
	Ho	165					
>	Lu	175		88.3			
	Tl	205	102.884				
	Pb	208	107.526				
	Bi	209					
	U	238	112.169				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Mg	24	CCV is out of limits (+/- 10%)
QC Std 6	Al	27	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Cr	52	CCV is out of limits (+/- 10%)
QC Std 6	Mn	55	CCV is out of limits (+/- 10%)
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 17:16:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.080**	**ug/L**	20.832	136	0.000
	Be	9	**0.019**	**ug/L**	95.585	8	0.000
	B	11	**1.916**	**ug/L**	29.532	498	0.001
	Na	23	**3.214**	**ug/L**	87.015	14341	0.008
	Mg	24	**0.196**	**ug/L**	793.942	3667	0.000
	Al	27	**1.514**	**ug/L**	45.819	6001	0.004
	P	31	**8.605**	**ug/L**	6.979	3575	0.001
	K	39	**20.862**	**ug/L**	78.261	228153	0.055
	Ca	43	**4.340**	**ug/L**	74.712	71	0.000
>	Sc	45		**ug/L**		611425	611425.143
	V	51	**0.723**	**ug/L**	214.370	7809	0.002
	Cr	52	**0.419**	**ug/L**	12.849	3148	0.001
	Cr	53		**ug/L**		42433	0.013
	Mn	55	**0.123**	**ug/L**	5.470	749	0.000
	Fe	57	**15.879**	**ug/L**	15.772	3222	0.001
	Co	59	**0.016**	**ug/L**	18.314	63	0.000
	Ni	60	**0.033**	**ug/L**	74.970	45	0.000
	Cu	63		**ug/L**		97	0.000
	Cu	65	**0.008**	**ug/L**	317.961	58	0.000
	Zn	66	**0.032**	**ug/L**	133.951	75	0.000
	Zn	67		**ug/L**		4502	0.007
	Zn	68		**ug/L**		309	0.000
>	Ge	74		**ug/L**		140973	140973.232
	As	75	**-0.546**	**ug/L**	59.721	250	-0.001
	Se	77		**ug/L**		2422	0.004
	Se	82	**-0.013**	**ug/L**	2560.780	10	-0.000
	Kr	83		**ug/L**		27	0.000
	Sr	88	**0.009**	**ug/L**	19.609	100	0.000
	Y	89		**ug/L**		24	0.000
	Ag	107	**0.012**	**ug/L**	14.025	38	0.000
	Cd	111	**0.005**	**ug/L**	271.597	8	0.000
	Cd	114		**ug/L**		17	0.000
>	In	115		**ug/L**		87837	87836.559
	Sn	120	**0.045**	**ug/L**	30.652	250	0.001
	Sb	121	**0.210**	**ug/L**	30.433	478	0.004
	Sb	123		**ug/L**		366	0.003
	Ba	135		**ug/L**		17	0.000
	Ba	137	**0.017**	**ug/L**	13.279	24	0.000
	Ho	165		**ug/L**		3	0.000
>	Lu	175		**ug/L**		117403	117403.298
	Tl	205	**0.094**	**ug/L**	23.255	453	0.003
	Pb	208	**0.023**	**ug/L**	32.104	1312	0.001
	Bi	209		**ug/L**		22	-0.000
	U	238	**0.011**	**ug/L**	37.325	102	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			80.4		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			84.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			87.8		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			91.8		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070013
Sample Date/Time: Sunday, February 28, 2010 17:22:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070013.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**31.622**	**ug/L**	0.779	21092	0.033
	Be	9	**1.707**	**ug/L**	3.675	303	0.000
	B	11	**5.714**	**ug/L**	2.966	1220	0.002
	Na	23	**806.503**	**ug/L**	9.528	1305488	2.014
	Mg	24	**5242.842**	**ug/L**	3.144	5615292	8.728
	Al	27	**25343.483**	**ug/L**	6.960	39695681	61.706
	P	31	**1365.570**	**ug/L**	1.286	118213	0.179
	K	39	**3114.148**	**ug/L**	12.406	5515849	8.251
	Ca	43	**15846.029**	**ug/L**	1.917	59130	0.092
>	Sc	45		**ug/L**		642705	642705.172
	V	51	**45.310**	**ug/L**	0.495	103698	0.151
	Cr	52	**21.698**	**ug/L**	0.820	41296	0.060
	Cr	53		**ug/L**		37799	0.002
	Mn	55	**921.145**	**ug/L**	1.235	2379861	3.703
	Fe	57	**28203.829**	**ug/L**	2.631	1393342	2.165
	Co	59	**9.053**	**ug/L**	1.571	16779	0.026
	Ni	60	**17.002**	**ug/L**	1.968	6513	0.010
	Cu	63		**ug/L**		22678	0.035
	Cu	65	**25.490**	**ug/L**	1.416	12067	0.019
	Zn	66	**141.906**	**ug/L**	1.220	43817	0.314
	Zn	67		**ug/L**		11114	0.055
	Zn	68		**ug/L**		35100	0.250
>	Ge	74		**ug/L**		139330	139329.590
	As	75	**4.104**	**ug/L**	10.581	1979	0.011
	Se	77		**ug/L**		2104	0.002
	Se	82	**0.525**	**ug/L**	36.791	28	0.000
	Kr	83		**ug/L**		53	0.000
	Sr	88	**87.238**	**ug/L**	2.224	359506	4.049
	Y	89		**ug/L**		192077	2.163
	Ag	107	**0.241**	**ug/L**	3.911	493	0.005
	Cd	111	**0.968**	**ug/L**	6.067	482	0.005
	Cd	114		**ug/L**		410	0.004
>	In	115		**ug/L**		88780	88779.581
	Sn	120	**0.966**	**ug/L**	1.780	1972	0.020
	Sb	121	**0.171**	**ug/L**	3.040	419	0.003
	Sb	123		**ug/L**		328	0.003
	Ba	135		**ug/L**		130436	1.082
	Ba	137	**308.547**	**ug/L**	0.668	229380	1.902
	Ho	165		**ug/L**		10662	0.088
>	Lu	175		**ug/L**		120562	120561.865
	Tl	205	**0.308**	**ug/L**	2.476	1183	0.009
	Pb	208	**96.470**	**ug/L**	0.942	564019	4.668
	Bi	209		**ug/L**		1438	0.012
	U	238	**9.641**	**ug/L**	0.911	56310	0.467

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		84.5			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		83.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.2			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246070014
Sample Date/Time: Sunday, February 28, 2010 17:28:10
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rm|
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070014.210

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**91.399**	**ug/L**	1.828	56953	0.094
	Be	9	**6.254**	**ug/L**	2.006	1027	0.002
	B	11	**16.113**	**ug/L**	0.587	2928	0.005
	Na	23	**568.007**	**ug/L**	6.302	862285	1.418
	Mg	24	**12934.731**	**ug/L**	5.417	12977564	21.533
	Al	27	**123700.346**	**ug/L**	2.917	181361919	301.183
	P	31	**457.454**	**ug/L**	0.913	38984	0.060
	K	39	**12470.612**	**ug/L**	7.984	20106921	33.041
	Ca	43	**10509.771**	**ug/L**	2.214	36744	0.061
>	Sc	45		**ug/L**		602095	602095.409
	V	51	**98.947**	**ug/L**	0.817	204764	0.330
	Cr	52	**58.423**	**ug/L**	1.832	100094	0.162
	Cr	53		**ug/L**		40472	0.010
	Mn	55	**1233.060**	**ug/L**	3.239	2983451	4.957
	Fe	57	**66124.100**	**ug/L**	2.999	3057044	5.075
	Co	59	**25.206**	**ug/L**	2.218	43698	0.073
	Ni	60	**45.631**	**ug/L**	3.808	16313	0.027
	Cu	63		**ug/L**		29236	0.048
	Cu	65	**34.526**	**ug/L**	2.069	15285	0.025
	Zn	66	**129.942**	**ug/L**	1.706	37298	0.288
	Zn	67		**ug/L**		10902	0.059
	Zn	68		**ug/L**		33000	0.253
>	Ge	74		**ug/L**		129503	129502.718
	As	75	**11.091**	**ug/L**	2.882	4260	0.030
	Se	77		**ug/L**		1605	-0.001
	Se	82	**-1.656**	**ug/L**	44.745	-41	-0.000
	Kr	83		**ug/L**		151	0.001
	Sr	88	**135.436**	**ug/L**	0.377	524248	6.286
	Y	89		**ug/L**		240337	2.882
	Ag	107	**0.808**	**ug/L**	5.812	1518	0.018
	Cd	111	**2.425**	**ug/L**	6.561	1125	0.013
	Cd	114		**ug/L**		572	0.007
>	In	115		**ug/L**		83386	83385.593
	Sn	120	**1.621**	**ug/L**	0.978	3002	0.034
	Sb	121	**0.125**	**ug/L**	6.412	325	0.002
	Sb	123		**ug/L**		269	0.002
	Ba	135		**ug/L**		328994	2.927
	Ba	137	**827.765**	**ug/L**	0.691	573574	5.104
	Ho	165		**ug/L**		13577	0.121
>	Lu	175		**ug/L**		112382	112382.433
	Tl	205	**1.309**	**ug/L**	0.715	4218	0.036
	Pb	208	**63.552**	**ug/L**	0.545	346748	3.075
	Bi	209		**ug/L**		4327	0.038
	U	238	**6.177**	**ug/L**	0.527	33645	0.299

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		79.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		78.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.9			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070015
Sample Date/Time: Sunday, February 28, 2010 17:34:05
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070015.211

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**75.123**	**ug/L**	2.023	45132	0.078
	Be	9	**5.127**	**ug/L**	5.787	812	0.001
	B	11	**15.165**	**ug/L**	6.663	2665	0.004
	Na	23	**469.063**	**ug/L**	22.488	688726	1.171
	Mg	24	**12206.472**	**ug/L**	16.679	11793500	20.321
	Al	27	**98312.526**	**ug/L**	12.603	138934883	239.369
	P	31	**486.749**	**ug/L**	0.638	39809	0.064
	K	39	**10210.659**	**ug/L**	2.949	15884585	27.053
	Ca	43	**12831.725**	**ug/L**	1.654	43240	0.074
>	Sc	45		**ug/L**		580321	580321.454
	V	51	**108.103**	**ug/L**	1.249	215061	0.360
	Cr	52	**94.553**	**ug/L**	0.792	154737	0.263
	Cr	53		**ug/L**		45470	0.022
	Mn	55	**1324.260**	**ug/L**	1.890	3089493	5.323
	Fe	57	**62070.861**	**ug/L**	3.097	2766877	4.764
	Co	59	**27.721**	**ug/L**	2.269	46329	0.080
	Ni	60	**61.279**	**ug/L**	0.372	21117	0.036
	Cu	63		**ug/L**		27572	0.047
	Cu	65	**34.075**	**ug/L**	1.205	14545	0.025
	Zn	66	**125.566**	**ug/L**	1.445	34506	0.278
	Zn	67		**ug/L**		10274	0.058
	Zn	68		**ug/L**		30120	0.241
>	Ge	74		**ug/L**		123988	123987.676
	As	75	**11.635**	**ug/L**	1.944	4260	0.031
	Se	77		**ug/L**		1581	-0.001
	Se	82	**-0.779**	**ug/L**	105.538	-13	-0.000
	Kr	83		**ug/L**		107	0.001
	Sr	88	**137.063**	**ug/L**	1.559	512974	6.362
	Y	89		**ug/L**		196448	2.436
	Ag	107	**0.711**	**ug/L**	1.695	1294	0.016
	Cd	111	**2.360**	**ug/L**	7.256	1059	0.013
	Cd	114		**ug/L**		548	0.007
>	In	115		**ug/L**		80632	80632.447
	Sn	120	**0.941**	**ug/L**	1.540	1750	0.020
	Sb	121	**0.324**	**ug/L**	6.900	604	0.006
	Sb	123		**ug/L**		479	0.005
	Ba	135		**ug/L**		311289	2.835
	Ba	137	**803.363**	**ug/L**	0.450	543895	4.953
	Ho	165		**ug/L**		11766	0.107
>	Lu	175		**ug/L**		109801	109801.459
	Tl	205	**1.431**	**ug/L**	1.363	4492	0.040
	Pb	208	**62.967**	**ug/L**	1.015	335674	3.047
	Bi	209		**ug/L**		3919	0.035
	U	238	**9.438**	**ug/L**	1.214	50207	0.457

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			76.3		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			74.7		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			80.6		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			85.8		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070016
Sample Date/Time: Sunday, February 28, 2010 17:39:59
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070016.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**73.089**	**ug/L**	1.983	43644	0.076
	Be	9	**4.795**	**ug/L**	0.926	755	0.001
	B	11	**14.735**	**ug/L**	2.045	2578	0.004
	Na	23	**438.274**	**ug/L**	23.746	639829	1.094
	Mg	24	**11305.905**	**ug/L**	5.762	10859004	18.821
	Al	27	**92719.804**	**ug/L**	7.092	130194550	225.752
	P	31	**575.279**	**ug/L**	0.186	46266	0.075
	K	39	**10739.215**	**ug/L**	2.039	16594692	28.453
	Ca	43	**10471.380**	**ug/L**	1.974	35079	0.061
>	Sc	45		**ug/L**		576771	576771.260
	V	51	**92.837**	**ug/L**	1.669	184401	0.309
	Cr	52	**47.723**	**ug/L**	0.940	78759	0.133
	Cr	53		**ug/L**		35573	0.005
	Mn	55	**1423.331**	**ug/L**	1.386	3300376	5.721
	Fe	57	**59101.373**	**ug/L**	0.230	2618566	4.536
	Co	59	**25.009**	**ug/L**	1.558	41545	0.072
	Ni	60	**39.728**	**ug/L**	0.939	13618	0.024
	Cu	63		**ug/L**		34716	0.060
	Cu	65	**42.794**	**ug/L**	0.647	18142	0.031
	Zn	66	**128.605**	**ug/L**	1.108	34857	0.285
	Zn	67		**ug/L**		10286	0.059
	Zn	68		**ug/L**		30423	0.247
>	Ge	74		**ug/L**		122283	122283.374
	As	75	**11.537**	**ug/L**	2.390	4169	0.031
	Se	77		**ug/L**		1469	-0.001
	Se	82	**-0.964**	**ug/L**	17.722	-19	-0.000
	Kr	83		**ug/L**		99	0.001
	Sr	88	**135.276**	**ug/L**	1.176	494967	6.279
	Y	89		**ug/L**		210587	2.671
	Ag	107	**0.696**	**ug/L**	3.635	1238	0.016
	Cd	111	**2.219**	**ug/L**	9.314	974	0.012
	Cd	114		**ug/L**		502	0.006
>	In	115		**ug/L**		78829	78828.645
	Sn	120	**0.602**	**ug/L**	5.617	1148	0.013
	Sb	121	**0.163**	**ug/L**	0.982	361	0.003
	Sb	123		**ug/L**		296	0.003
	Ba	135		**ug/L**		295017	2.741
	Ba	137	**786.593**	**ug/L**	0.858	522051	4.850
	Ho	165		**ug/L**		12098	0.112
>	Lu	175		**ug/L**		107646	107646.159
	Tl	205	**0.883**	**ug/L**	0.900	2770	0.024
	Pb	208	**93.078**	**ug/L**	1.223	485897	4.504
	Bi	209		**ug/L**		4237	0.039
	U	238	**62.770**	**ug/L**	0.320	327131	3.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		75.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		73.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		78.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		84.1			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070017
Sample Date/Time: Sunday, February 28, 2010 17:45:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070017.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**91.246**	**ug/L**	1.039	52441	0.094
	Be	9	**6.396**	**ug/L**	0.675	968	0.002
	B	11	**13.332**	**ug/L**	1.678	2260	0.004
	Na	23	**1398.961**	**ug/L**	11.391	1947331	3.493
	Mg	24	**12737.848**	**ug/L**	6.329	11776862	21.205
	Al	27	**134149.403**	**ug/L**	4.418	181361919	326.624
	P	31	**472.104**	**ug/L**	1.626	37024	0.062
	K	39	**11592.307**	**ug/L**	2.400	17231136	30.714
	Ca	43	**10687.319**	**ug/L**	2.056	34468	0.062
>	Sc	45		**ug/L**		555326	555325.873
	V	51	**108.976**	**ug/L**	0.552	207412	0.363
	Cr	52	**80.972**	**ug/L**	1.782	127116	0.225
	Cr	53		**ug/L**		39482	0.014
	Mn	55	**1677.643**	**ug/L**	2.027	3745546	6.744
	Fe	57	**71114.343**	**ug/L**	1.177	3033370	5.458
	Co	59	**30.924**	**ug/L**	0.837	49452	0.089
	Ni	60	**58.714**	**ug/L**	0.396	19363	0.035
	Cu	63		**ug/L**		30806	0.055
	Cu	65	**39.237**	**ug/L**	2.080	16018	0.029
	Zn	66	**136.378**	**ug/L**	1.150	36102	0.302
	Zn	67		**ug/L**		10650	0.064
	Zn	68		**ug/L**		32408	0.269
>	Ge	74		**ug/L**		119440	119439.753
	As	75	**11.111**	**ug/L**	4.618	3936	0.030
	Se	77		**ug/L**		1361	-0.002
	Se	82	**-2.669**	**ug/L**	19.314	-66	-0.001
	Kr	83		**ug/L**		145	0.001
	Sr	88	**131.164**	**ug/L**	1.937	477555	6.088
	Y	89		**ug/L**		243246	3.101
	Ag	107	**0.672**	**ug/L**	0.626	1190	0.015
	Cd	111	**2.214**	**ug/L**	5.206	967	0.012
	Cd	114		**ug/L**		277	0.003
>	In	115		**ug/L**		78447	78447.468
	Sn	120	**0.515**	**ug/L**	2.691	998	0.011
	Sb	121	**0.094**	**ug/L**	4.901	262	0.002
	Sb	123		**ug/L**		193	0.001
	Ba	135		**ug/L**		331471	3.083
	Ba	137	**871.528**	**ug/L**	1.545	577823	5.374
	Ho	165		**ug/L**		14080	0.131
>	Lu	175		**ug/L**		107550	107550.163
	Tl	205	**1.323**	**ug/L**	2.017	4078	0.037
	Pb	208	**67.285**	**ug/L**	1.257	351212	3.256
	Bi	209		**ug/L**		4158	0.038
	U	238	**8.222**	**ug/L**	2.116	42836	0.398

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			73.0		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			71.9		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			78.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			84.1		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070018
Sample Date/Time: Sunday, February 28, 2010 17:51:47
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070018.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**71.024**	**ug/L**	1.815	40911	0.073
	Be	9	**5.070**	**ug/L**	3.913	770	0.001
	B	11	**10.818**	**ug/L**	1.085	1866	0.003
	Na	23	**1273.786**	**ug/L**	6.707	1778980	3.180
	Mg	24	**10333.458**	**ug/L**	10.778	9575113	17.202
	Al	27	**105167.571**	**ug/L**	16.426	142758779	256.060
	P	31	**359.583**	**ug/L**	1.442	28880	0.047
	K	39	**10065.422**	**ug/L**	7.703	15003581	26.668
	Ca	43	**8500.128**	**ug/L**	0.474	27483	0.049
>	Sc	45		**ug/L**		556455	556454.990
	V	51	**85.738**	**ug/L**	0.410	164754	0.286
	Cr	52	**56.706**	**ug/L**	0.801	89870	0.158
	Cr	53		**ug/L**		36348	0.009
	Mn	55	**1249.611**	**ug/L**	0.376	2795400	5.023
	Fe	57	**56913.464**	**ug/L**	0.859	2432650	4.368
	Co	59	**24.835**	**ug/L**	2.421	39793	0.071
	Ni	60	**43.047**	**ug/L**	1.631	14231	0.026
	Cu	63		**ug/L**		24412	0.044
	Cu	65	**31.013**	**ug/L**	0.577	12698	0.023
	Zn	66	**111.043**	**ug/L**	0.835	29586	0.246
	Zn	67		**ug/L**		9323	0.053
	Zn	68		**ug/L**		26656	0.220
>	Ge	74		**ug/L**		120177	120177.249
	As	75	**9.868**	**ug/L**	4.685	3560	0.026
	Se	77		**ug/L**		1368	-0.002
	Se	82	**-1.427**	**ug/L**	20.757	-31	-0.000
	Kr	83		**ug/L**		115	0.001
	Sr	88	**108.677**	**ug/L**	0.877	396022	5.044
	Y	89		**ug/L**		193098	2.460
	Ag	107	**0.588**	**ug/L**	2.796	1044	0.013
	Cd	111	**1.935**	**ug/L**	5.634	846	0.011
	Cd	114		**ug/L**		263	0.003
>	In	115		**ug/L**		78495	78495.259
	Sn	120	**0.514**	**ug/L**	1.391	997	0.011
	Sb	121	**0.072**	**ug/L**	11.872	231	0.001
	Sb	123		**ug/L**		202	0.001
	Ba	135		**ug/L**		275706	2.580
	Ba	137	**729.404**	**ug/L**	2.018	480485	4.497
	Ho	165		**ug/L**		11075	0.104
>	Lu	175		**ug/L**		106860	106859.658
	Tl	205	**1.080**	**ug/L**	3.362	3334	0.030
	Pb	208	**53.503**	**ug/L**	0.322	277733	2.589
	Bi	209		**ug/L**		3464	0.032
	U	238	**4.316**	**ug/L**	1.197	22365	0.209

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		73.2			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		72.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		78.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		83.5			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEEMn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEEFe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070019
Sample Date/Time: Sunday, February 28, 2010 17:57:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070019.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**80.731**	**ug/L**	1.186	45067	0.083
	Be	9	**5.982**	**ug/L**	4.709	880	0.002
	B	11	**10.008**	**ug/L**	2.716	1684	0.003
	Na	23	**1300.856**	**ug/L**	15.350	1759264	3.248
	Mg	24	**12422.702**	**ug/L**	2.721	11155713	20.681
	Al	27	**111655.517**	**ug/L**	7.714	146582675	271.857
	P	31	**404.454**	**ug/L**	1.673	31169	0.053
	K	39	**11294.235**	**ug/L**	7.050	16308881	29.924
	Ca	43	**10198.941**	**ug/L**	0.990	31948	0.059
>	Sc	45		**ug/L**		539300	539300.130
	V	51	**95.240**	**ug/L**	2.184	176741	0.317
	Cr	52	**66.710**	**ug/L**	1.065	102086	0.185
	Cr	53		**ug/L**		38121	0.014
	Mn	55	**1496.328**	**ug/L**	0.627	3244152	6.015
	Fe	57	**67179.806**	**ug/L**	1.502	2782811	5.156
	Co	59	**29.316**	**ug/L**	1.974	45533	0.084
	Ni	60	**52.849**	**ug/L**	1.484	16929	0.031
	Cu	63		**ug/L**		27129	0.050
	Cu	65	**35.393**	**ug/L**	0.662	14038	0.026
	Zn	66	**128.728**	**ug/L**	1.941	33621	0.285
	Zn	67		**ug/L**		10163	0.061
	Zn	68		**ug/L**		29883	0.252
>	Ge	74		**ug/L**		117849	117849.311
	As	75	**12.029**	**ug/L**	6.316	4174	0.032
	Se	77		**ug/L**		1446	-0.001
	Se	82	**-1.264**	**ug/L**	67.428	-26	-0.000
	Kr	83		**ug/L**		116	0.001
	Sr	88	**124.443**	**ug/L**	1.999	443538	5.776
	Y	89		**ug/L**		228193	2.972
	Ag	107	**0.581**	**ug/L**	4.049	1010	0.013
	Cd	111	**1.985**	**ug/L**	7.690	849	0.011
	Cd	114		**ug/L**		357	0.004
>	In	115		**ug/L**		76800	76799.596
	Sn	120	**0.310**	**ug/L**	0.358	646	0.007
	Sb	121	**0.050**	**ug/L**	45.614	194	0.001
	Sb	123		**ug/L**		148	0.001
	Ba	135		**ug/L**		310028	2.957
	Ba	137	**829.741**	**ug/L**	0.800	536383	5.116
	Ho	165		**ug/L**		13509	0.129
>	Lu	175		**ug/L**		104844	104844.041
	Tl	205	**1.347**	**ug/L**	1.418	4046	0.037
	Pb	208	**63.939**	**ug/L**	0.434	325447	3.094
	Bi	209		**ug/L**		3703	0.035
	U	238	**5.912**	**ug/L**	1.098	30043	0.286

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		70.9			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		71.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		76.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		82.0			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246070020
Sample Date/Time: Sunday, February 28, 2010 18:03:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949366|2|rmj
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\246070020.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**97.937**	**ug/L**	1.700	55619	0.101
	Be	9	**6.757**	**ug/L**	1.613	1011	0.002
	B	11	**13.915**	**ug/L**	2.094	2325	0.004
	Na	23	**1169.042**	**ug/L**	6.952	1610135	2.919
	Mg	24	**15674.267**	**ug/L**	1.527	14322461	26.094
	Al	27	**134099.278**	**ug/L**	2.319	179176835	326.502
	P	31	**447.520**	**ug/L**	0.992	34819	0.059
	K	39	**12688.239**	**ug/L**	6.368	18624831	33.617
	Ca	43	**11227.131**	**ug/L**	1.211	35782	0.065
>	Sc	45		**ug/L**		548784	548783.903
	V	51	**114.468**	**ug/L**	1.723	215010	0.381
	Cr	52	**60.875**	**ug/L**	1.678	94986	0.169
	Cr	53		**ug/L**		37173	0.011
	Mn	55	**1349.148**	**ug/L**	2.994	2976532	5.423
	Fe	57	**75960.483**	**ug/L**	2.625	3201534	5.830
	Co	59	**28.033**	**ug/L**	1.860	44303	0.081
	Ni	60	**50.866**	**ug/L**	1.300	16580	0.030
	Cu	63		**ug/L**		29216	0.053
	Cu	65	**38.185**	**ug/L**	1.453	15407	0.028
	Zn	66	**141.567**	**ug/L**	1.035	36653	0.313
	Zn	67		**ug/L**		10850	0.068
	Zn	68		**ug/L**		33246	0.283
>	Ge	74		**ug/L**		116839	116838.751
	As	75	**12.073**	**ug/L**	2.006	4152	0.032
	Se	77		**ug/L**		1547	-0.000
	Se	82	**-2.716**	**ug/L**	29.586	-66	-0.001
	Kr	83		**ug/L**		147	0.001
	Sr	88	**157.625**	**ug/L**	3.077	566300	7.316
	Y	89		**ug/L**		233733	3.020
	Ag	107	**0.747**	**ug/L**	4.246	1304	0.017
	Cd	111	**2.218**	**ug/L**	11.406	956	0.012
	Cd	114		**ug/L**		335	0.004
>	In	115		**ug/L**		77428	77428.295
	Sn	120	**0.577**	**ug/L**	5.703	1086	0.012
	Sb	121	**0.066**	**ug/L**	17.582	219	0.001
	Sb	123		**ug/L**		176	0.001
	Ba	135		**ug/L**		354271	3.343
	Ba	137	**939.113**	**ug/L**	0.786	613591	5.790
	Ho	165		**ug/L**		13225	0.125
>	Lu	175		**ug/L**		105967	105966.622
	Tl	205	**1.285**	**ug/L**	1.710	3907	0.036
	Pb	208	**68.073**	**ug/L**	0.140	350135	3.294
	Bi	209		**ug/L**		4455	0.042
	U	238	**4.052**	**ug/L**	1.324	20826	0.196

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			72.2		
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			70.4		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			77.4		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			82.8		
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	Sample is out of limits (over linear range)
V 51 Upper, S, EEE	V	51	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEE	Mn	55	Sample is out of limits (over linear range)
Fe 57 Upper, S, EEE	Fe	57	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, February 28, 2010 18:09:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 noirs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 6.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.351**	**ug/L**	0.260	27531	0.051
	Be	9	**52.718**	**ug/L**	1.852	7707	0.014
	B	11	**90.845**	**ug/L**	2.165	14089	0.026
	Na	23	**5482.239**	**ug/L**	6.842	7383209	13.688
	Mg	24	**4942.473**	**ug/L**	4.509	4434001	8.228
	Al	27	**5836.420**	**ug/L**	6.227	7659172	14.210
	P	31	**5645.350**	**ug/L**	1.331	401463	0.741
	K	39	**5434.892**	**ug/L**	7.335	7931980	14.400
	Ca	43	**4957.427**	**ug/L**	3.656	15535	0.029
>	Sc	45		**ug/L**		538345	538344.899
	V	51	**52.895**	**ug/L**	3.163	100466	0.176
	Cr	52	**57.231**	**ug/L**	0.921	87720	0.159
	Cr	53		**ug/L**		48079	0.033
	Mn	55	**56.276**	**ug/L**	1.570	122166	0.226
	Fe	57	**5347.541**	**ug/L**	0.497	223125	0.410
	Co	59	**53.732**	**ug/L**	0.803	83279	0.155
	Ni	60	**55.024**	**ug/L**	0.436	17592	0.033
	Cu	63		**ug/L**		41328	0.077
	Cu	65	**54.285**	**ug/L**	1.620	21470	0.040
	Zn	66	**49.496**	**ug/L**	0.217	13646	0.110
	Zn	67		**ug/L**		6556	0.028
	Zn	68		**ug/L**		10842	0.085
>	Ge	74		**ug/L**		124064	124064.395
	As	75	**51.257**	**ug/L**	0.874	17410	0.137
	Se	77		**ug/L**		3365	0.014
	Se	82	**53.748**	**ug/L**	2.113	1575	0.013
	Kr	83		**ug/L**		23	-0.000
	Sr	88	**50.853**	**ug/L**	1.811	188992	2.360
	Y	89		**ug/L**		70	0.001
	Ag	107	**51.731**	**ug/L**	0.360	92395	1.154
	Cd	111	**52.453**	**ug/L**	1.590	23254	0.290
	Cd	114		**ug/L**		52678	0.658
>	In	115		**ug/L**		80044	80044.042
	Sn	120	**53.066**	**ug/L**	1.330	89562	1.117
	Sb	121	**53.805**	**ug/L**	1.610	78021	0.973
	Sb	123		**ug/L**		59728	0.745
	Ba	135		**ug/L**		19947	0.188
	Ba	137	**54.130**	**ug/L**	1.102	35451	0.334
	Ho	165		**ug/L**		11	0.000
>	Lu	175		**ug/L**		106210	106209.592
	Tl	205	**51.949**	**ug/L**	0.984	152987	1.439
	Pb	208	**54.533**	**ug/L**	0.693	281335	2.639
	Bi	209		**ug/L**		76	0.001
	U	238	**56.701**	**ug/L**	0.236	291558	2.745

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	98.702				
	Be	9	105.436				
	B	11	90.845				
	Na	23	109.645				
	Mg	24	98.849				
	Al	27	115.573				
	P	31	112.907				
	K	39	108.698				
	Ca	43	99.149				
>	Sc	45		70.8			
	V	51	105.789				
	Cr	52	114.462				
	Cr	53					
	Mn	55	112.553				
	Fe	57	106.951				
	Co	59	107.464				
	Ni	60	110.048				
	Cu	63					
	Cu	65	108.570				
	Zn	66	98.993				
	Zn	67					
	Zn	68					
>	Ge	74		74.7			
	As	75	102.514				
	Se	77					
	Se	82	107.497				
	Kr	83					
	Sr	88	101.706				
	Y	89					
	Ag	107	103.462				
	Cd	111	104.906				
	Cd	114					
>	In	115		80.0			
	Sn	120	106.132				
	Sb	121	107.611				
	Sb	123					
	Ba	135					
	Ba	137	108.261				
	Ho	165					
>	Lu	175		83.0			
	Tl	205	103.898				
	Pb	208	109.065				
	Bi	209					
	U	238	113.401				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	CCV is out of limits (+/- 10%)
QC Std 6	P	31	CCV is out of limits (+/- 10%)
Sc 45 Int Std for QC	Sc	45	
QC Std 6	Cr	52	CCV is out of limits (+/- 10%)
QC Std 6	Mn	55	CCV is out of limits (+/- 10%)
QC Std 6	Ni	60	CCV is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, February 28, 2010 18:15:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 nolrs thtimozr.mth
Dataset File: C:\elandata\Dataset\100227\QC Std 7.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.109**	**ug/L**	13.437	143	0.000
	Be	9	**0.007**	**ug/L**	60.134	5	0.000
	B	11	**2.009**	**ug/L**	24.546	481	0.001
	Na	23	**-1.226**	**ug/L**	102.685	7002	-0.003
	Mg	24	**0.786**	**ug/L**	7.369	4001	0.001
	Al	27	**1.806**	**ug/L**	82.468	6001	0.004
	P	31	**14.345**	**ug/L**	12.934	3768	0.002
	K	39	**43.763**	**ug/L**	28.798	247804	0.116
	Ca	43	**7.748**	**ug/L**	58.628	77	0.000
>	Sc	45		**ug/L**		570835	570835.054
	V	51	**-0.535**	**ug/L**	9.975	4891	-0.002
	Cr	52	**0.351**	**ug/L**	33.009	2829	0.001
	Cr	53		**ug/L**		41065	0.015
	Mn	55	**0.160**	**ug/L**	13.923	784	0.001
	Fe	57	**22.192**	**ug/L**	12.743	3283	0.002
	Co	59	**0.013**	**ug/L**	51.666	55	0.000
	Ni	60	**0.007**	**ug/L**	294.865	33	0.000
	Cu	63		**ug/L**		103	0.000
	Cu	65	**0.026**	**ug/L**	58.456	62	0.000
	Zn	66	**0.017**	**ug/L**	134.241	67	0.000
	Zn	67		**ug/L**		4399	0.008
	Zn	68		**ug/L**		292	0.000
>	Ge	74		**ug/L**		132799	132799.148
	As	75	**0.331**	**ug/L**	185.059	545	0.001
	Se	77		**ug/L**		2168	0.003
	Se	82	**0.073**	**ug/L**	343.101	12	0.000
	Kr	83		**ug/L**		22	-0.000
	Sr	88	**0.010**	**ug/L**	9.453	97	0.000
	Y	89		**ug/L**		25	0.000
	Ag	107	**0.011**	**ug/L**	33.177	35	0.000
	Cd	111	**0.001**	**ug/L**	1339.967	6	0.000
	Cd	114		**ug/L**		19	0.000
>	In	115		**ug/L**		83296	83295.594
	Sn	120	**0.041**	**ug/L**	32.064	230	0.001
	Sb	121	**0.206**	**ug/L**	32.740	446	0.004
	Sb	123		**ug/L**		349	0.003
	Ba	135		**ug/L**		14	0.000
	Ba	137	**0.024**	**ug/L**	66.894	28	0.000
	Ho	165		**ug/L**		3	0.000
>	Lu	175		**ug/L**		111746	111745.793
	Tl	205	**0.092**	**ug/L**	26.670	426	0.003
	Pb	208	**0.019**	**ug/L**	25.369	1230	0.001
	Bi	209		**ug/L**		23	0.000
	U	238	**0.010**	**ug/L**	28.528	96	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9999
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	0.9999
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		75.1			
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		80.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		83.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		87.4			
	Tl	205					
	Pb	208					
	Bi	209					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC Sc	45	
Ge 74 Int Std for QCGe	74	

QC Action

QC Action Line: Continue

==========
Method Name: SOIL
Method Description: 7471A, ILM04 ANALYST JXL1
Element: Hg

Date: 02/18/2010
Technique:FI-MHS
Calibration Type:
Hg, Calc. Intercept : Linear
Wavelength: 253.7 nm
Sample Info Name: 021810S1.SIF Results Data Set Name: 021810S1

==========
Element: Hg Seq. No.: 1 AS Loc.: 1 Date: 02/18/2010
Sample ID: Calib Blank

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0046	0.0046	09:45:19	No
2			0.0045	0.0045	09:45:54	No
Mean:			0.0046			
SD :			0.0001			
%RSD:			2.6075			

Auto-zero performed.

==========
Element: Hg Seq. No.: 2 AS Loc.: 2 Date: 02/18/2010
Sample ID: S0.2

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0019	0.0065	09:47:17	No
2			0.0017	0.0063	09:47:51	No
Mean:			0.0018			
SD :			0.0001			
%RSD:			7.2627			

[Hg] Standard number 1 applied. [0.200]
Correlation Coefficient: 1.00000 Slope: 0.00908
Intercept : 0.00000

==========
Element: Hg Seq. No.: 3 AS Loc.: 3 Date: 02/18/2010
Sample ID: S0.5

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0052	0.0098	09:49:14	No
2			0.0054	0.0099	09:49:48	No
Mean:			0.0053			
SD :			0.0001			
%RSD:			2.3316			

[Hg] Standard number 2 applied. [0.500]
Correlation Coefficient: 0.99797 Slope: 0.01065
Intercept : -0.00012

==========
Element: Hg Seq. No.: 4 AS Loc.: 4 Date: 02/18/2010
Sample ID: S2.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0209	0.0255	09:51:13	No
2			0.0210	0.0255	09:51:49	No
Mean:			0.0210			
SD :			0.0000			
%RSD:			0.1449			

[Hg] Standard number 3 applied. [2.000]

Correlation Coefficient: 0.99989 Slope: 0.01053
Intercept : -0.00009

==========

Element: Hg Seq. No.: 5 AS Loc.: 5 Date: 02/18/2010
Sample ID: S5.0

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.0521	0.0567	09:53:13	No
2			0.0519	0.0564	09:53:49	No
Mean:			0.0520			
SD :			0.0002			
%RSD:			0.3044			

[Hg] Standard number 4 applied. [5.000]
Correlation Coefficient: 0.99997 Slope: 0.01042
Intercept : -0.00003

==========

Element: Hg Seq. No.: 6 AS Loc.: 6 Date: 02/18/2010
Sample ID: S10

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1			0.1014	0.1060	09:55:15	No
2			0.1009	0.1054	09:55:50	No
Mean:			0.1011			
SD :			0.0004			
%RSD:			0.3679			

[Hg] Standard number 5 applied. [10.00]
Correlation Coefficient: 0.99989 Slope: 0.01014
Intercept : 0.00028

Calibration data for Hg

Standard ID	Mean Signal (Pk Height)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.0046	---	----	----	----
S0.2	0.0018	0.200	0.152	0.0001	7.3
S0.5	0.0053	0.500	0.494	0.0001	2.3
S2.0	0.0210	2.000	2.039	0.0000	0.1
S5.0	0.0520	5.000	5.098	0.0002	0.3
S10	0.1011	10.000	9.944	0.0004	0.4

Correlation Coefficient: 0.99989 Slope: 0.01014 Intercept: 0.0003

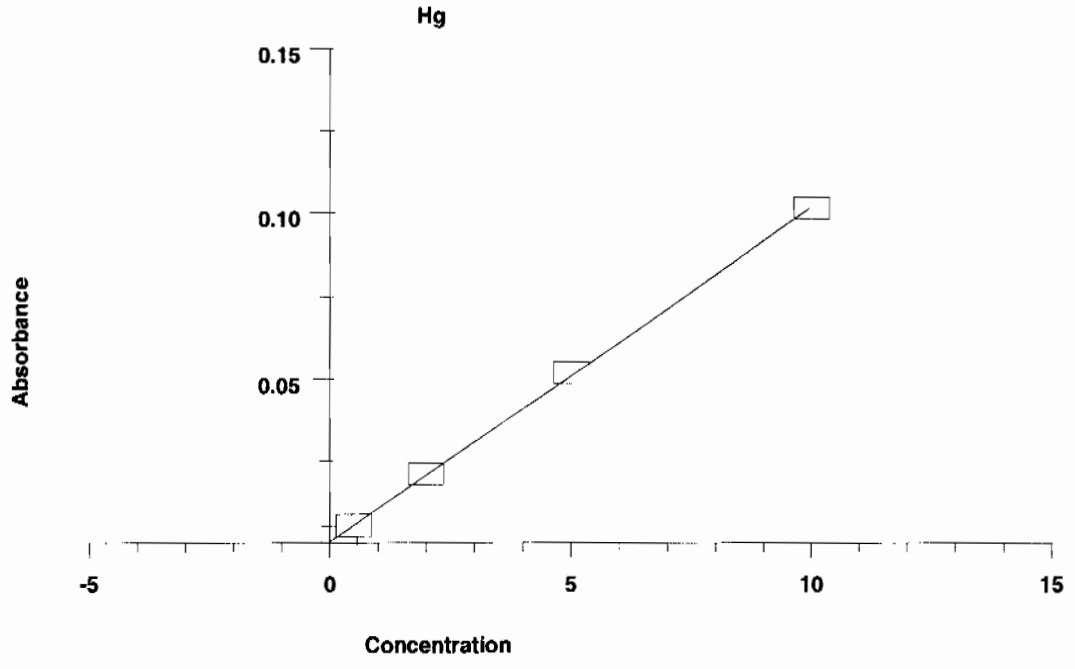

==========

Element: Hg Seq. No.: 7 AS Loc.: 9 Date: 02/18/2010
Sample ID: ICV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.154	5.154	0.0525	0.0571	09:57:18	No
2	5.108	5.108	0.0521	0.0566	09:57:53	No
Mean:	5.131	5.131	0.0523			
SD :	0.0323	0.0323	0.0003			
%RSD:	0.6	0.6	0.6260			

QC value within specified limits.

==========

Element: Hg Seq. No.: 8 AS Loc.: 10 Date: 02/18/2010
Sample ID: ICB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.120	-0.120	-0.0009	0.0036	09:59:15	No
2	-0.138	-0.138	-0.0011	0.0034	09:59:50	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0127	0.0127	0.0001			
%RSD:	9.9	9.9	12.5442			

QC value within specified limits.

==========

Element: Hg Seq. No.: 9 AS Loc.: 11 Date: 02/18/2010
Sample ID: CRDL

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0026	0.0071	10:01:12	No
2	0.211	0.211	0.0024	0.0070	10:01:47	No
Mean:	0.218	0.218	0.0025			
SD :	0.0095	0.0095	0.0001			
%RSD:	4.3	4.3	3.8605			

QC value within specified limits.

==========

Element: Hg Seq. No.: 10 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.040	5.040	0.0514	0.0559	10:03:12	No
2	5.078	5.078	0.0518	0.0563	10:03:46	No
Mean:	5.059	5.059	0.0516			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5390			

QC value within specified limits.

==========

Element: Hg Seq. No.: 11 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.040	-0.040	-0.0001	0.0044	10:05:14	No
2	-0.052	-0.052	-0.0003	0.0043	10:05:49	No
Mean:	-0.046	-0.046	-0.0002			
SD :	0.0083	0.0083	0.0001			
%RSD:	18.0	18.0	43.9084			

QC value within specified limits.

==========

Element: Hg Seq. No.: 12 AS Loc.: 12 Date: 02/18/2010
Sample ID: 1202037115|i||950565|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.073	-0.073	-0.0005	0.0041	10:07:15	No
2	-0.088	-0.088	-0.0006	0.0039	10:07:50	No
Mean:	-0.080	-0.080	-0.0005			
SD :	0.0102	0.0102	0.0001			
%RSD:	12.7	12.7	19.1745			

==========

Element: Hg Seq. No.: 13 AS Loc.: 13 Date: 02/18/2010
Sample ID: 1202037116|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.092	4.092	0.0418	0.0463	10:09:15	No
2	3.952	3.952	0.0404	0.0449	10:09:50	No
Mean:	4.022	4.022	0.0411			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.5	2.5	2.4475			

==========

Element: Hg Seq. No.: 14 AS Loc.: 14 Date: 02/18/2010
Sample ID: 245969001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.246	0.246	0.0028	0.0073	10:11:18	No
2	0.244	0.244	0.0027	0.0073	10:11:53	No
Mean:	0.245	0.245	0.0028			
SD :	0.0019	0.0019	0.0000			
%RSD:	0.8	0.8	0.7089			

==========

Element: Hg Seq. No.: 15 AS Loc.: 15 Date: 02/18/2010
Sample ID: 1202037117|i|||DUP

%RSD: 1.2 1.2 1.1178

==========

Element: Hg Seq. No.: 21 AS Loc.: 21 Date: 02/18/2010
Sample ID: 245969004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.121	0.121	0.0015	0.0061	10:25:06	No
2	0.086	0.086	0.0011	0.0057	10:25:41	No
Mean:	0.103	0.103	0.0013			
SD :	0.0247	0.0247	0.0003			
%RSD:	23.9	23.9	18.9148			

==========

Element: Hg Seq. No.: 22 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.046	5.046	0.0515	0.0560	10:27:06	No
2	5.089	5.089	0.0519	0.0565	10:27:40	No
Mean:	5.068	5.068	0.0517			
SD :	0.0301	0.0301	0.0003			
%RSD:	0.6	0.6	0.5903			

QC value within specified limits.

==========

Element: Hg Seq. No.: 23 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.064	-0.064	-0.0004	0.0042	10:29:09	No
2	-0.067	-0.067	-0.0004	0.0042	10:29:44	No
Mean:	-0.065	-0.065	-0.0004			
SD :	0.0021	0.0021	0.0000			
%RSD:	3.3	3.3	5.6045			

QC value within specified limits.

==========

Element: Hg Seq. No.: 24 AS Loc.: 22 Date: 02/18/2010
Sample ID: 245969005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.140	0.140	0.0017	0.0063	10:31:09	No
2	0.120	0.120	0.0015	0.0061	10:31:44	No
Mean:	0.130	0.130	0.0016			
SD :	0.0141	0.0141	0.0001			
%RSD:	10.8	10.8	8.9311			

==========

Element: Hg Seq. No.: 25 AS Loc.: 23 Date: 02/18/2010
Sample ID: 245969006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.096	0.096	0.0012	0.0058	10:33:07	No
2	0.085	0.085	0.0011	0.0057	10:33:42	No
Mean:	0.090	0.090	0.0012			
SD :	0.0078	0.0078	0.0001			
%RSD:	8.6	8.6	6.6265			

==========

Element: Hg Seq. No.: 26 AS Loc.: 24 Date: 02/18/2010
Sample ID: 245969007|i|||

```
%RSD:        3.1         3.1    2.4888

==========================================================================================
Element: Hg    Seq. No.: 32       AS Loc.: 30   Date: 02/18/2010
Sample ID: 245969013|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.245     0.245    0.0028     0.0073   10:47:09  No
 2        0.224     0.224    0.0025     0.0071   10:47:44  No
Mean:     0.234     0.234    0.0027
SD  :    0.0147    0.0147    0.0001
%RSD:       6.3        6.3    5.6188

==========================================================================================
Element: Hg    Seq. No.: 33       AS Loc.: 31   Date: 02/18/2010
Sample ID: 245969014|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.144     0.144    0.0017     0.0063   10:49:12  No
 2        0.132     0.132    0.0016     0.0062   10:49:47  No
Mean:     0.138     0.138    0.0017
SD  :    0.0087    0.0087    0.0001
%RSD:       6.3        6.3    5.2634

==========================================================================================
Element: Hg    Seq. No.: 34       AS Loc.: 7    Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        5.163     5.163    0.0526     0.0572   10:51:15  No
 2        5.285     5.285    0.0539     0.0584   10:51:50  No
Mean:     5.224     5.224    0.0533
SD  :    0.0865    0.0865    0.0009
%RSD:       1.7        1.7    1.6467
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 35       AS Loc.: 8    Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.077    -0.077   -0.0005     0.0041   10:53:18  No
 2       -0.083    -0.083   -0.0006     0.0040   10:53:53  No
Mean:    -0.080    -0.080   -0.0005
SD  :    0.0044    0.0044    0.0000
%RSD:       5.4        5.4    8.2472
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 36       AS Loc.: 32   Date: 02/18/2010
Sample ID: 245969015|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.223     0.223    0.0025     0.0071   10:55:17  No
 2        0.204     0.204    0.0023     0.0069   10:55:51  No
Mean:     0.213     0.213    0.0024
SD  :    0.0132    0.0132    0.0001
%RSD:       6.2        6.2    5.4733

==========================================================================================
Element: Hg    Seq. No.: 37       AS Loc.: 33   Date: 02/18/2010
Sample ID: 1202039079|i||951467|MB
```

%RSD: 1.1 1.1 1.0627

==========

Element: Hg Seq. No.: 43 AS Loc.: 39 Date: 02/18/2010
Sample ID: 1202039087|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.127	-0.127	-0.0010	0.0035	11:08:50	No
2	-0.131	-0.131	-0.0011	0.0035	11:09:24	No
Mean:	-0.129	-0.129	-0.0010			
SD :	0.0029	0.0029	0.0000			
%RSD:	2.2	2.2	2.8265			

==========

Element: Hg Seq. No.: 44 AS Loc.: 40 Date: 02/18/2010
Sample ID: 246285002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.103	0.103	0.0013	0.0059	11:10:48	No
2	0.090	0.090	0.0012	0.0058	11:11:23	No
Mean:	0.097	0.097	0.0013			
SD :	0.0086	0.0086	0.0001			
%RSD:	8.9	8.9	6.9719			

==========

Element: Hg Seq. No.: 45 AS Loc.: 41 Date: 02/18/2010
Sample ID: 246285003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.328	0.328	0.0036	0.0082	11:12:47	No
2	0.310	0.310	0.0034	0.0080	11:13:23	No
Mean:	0.319	0.319	0.0035			
SD :	0.0125	0.0125	0.0001			
%RSD:	3.9	3.9	3.6171			

==========

Element: Hg Seq. No.: 46 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.195	5.195	0.0530	0.0575	11:14:47	No
2	5.107	5.107	0.0521	0.0566	11:15:22	No
Mean:	5.151	5.151	0.0525			
SD :	0.0627	0.0627	0.0006			
%RSD:	1.2	1.2	1.2114			

QC value within specified limits.

==========

Element: Hg Seq. No.: 47 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.105	-0.105	-0.0008	0.0038	11:16:50	No
2	-0.107	-0.107	-0.0008	0.0037	11:17:25	No
Mean:	-0.106	-0.106	-0.0008			
SD :	0.0020	0.0020	0.0000			
%RSD:	1.9	1.9	2.5083			

QC value within specified limits.

==========

Element: Hg Seq. No.: 48 AS Loc.: 42 Date: 02/18/2010
Sample ID: 246285004|i|||

```
%RSD:        2.1         2.1    1.9191

==========================================================================================
Element: Hg    Seq. No.: 54       AS Loc.: 48   Date: 02/18/2010
Sample ID: 246285010|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.122     0.122    0.0015     0.0061   11:30:55  No
 2        0.119     0.119    0.0015     0.0060   11:31:30  No
Mean:     0.121     0.121    0.0015
SD  :    0.0026    0.0026    0.0000
%RSD:       2.2        2.2    1.7555

==========================================================================================
Element: Hg    Seq. No.: 55       AS Loc.: 49   Date: 02/18/2010
Sample ID: 246285011|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.024    -0.024    0.0000     0.0046   11:32:50  No
 2       -0.033    -0.033   -0.0001     0.0045   11:33:24  No
Mean:    -0.028    -0.028    0.0000
SD  :    0.0065    0.0065    0.0001
%RSD:      22.9       22.9  658.9645

==========================================================================================
Element: Hg    Seq. No.: 56       AS Loc.: 50   Date: 02/18/2010
Sample ID: 246291001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.580     0.580    0.0062     0.0107   11:34:44  No
 2        0.579     0.579    0.0061     0.0107   11:35:19  No
Mean:     0.579     0.579    0.0062
SD  :    0.0007    0.0007    0.0000
%RSD:       0.1        0.1    0.1126

==========================================================================================
Element: Hg    Seq. No.: 57       AS Loc.: 51   Date: 02/18/2010
Sample ID: 246291002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.075    -0.075   -0.0005     0.0041   11:36:41  No
 2       -0.092    -0.092   -0.0007     0.0039   11:37:16  No
Mean:    -0.084    -0.084   -0.0006
SD  :    0.0120    0.0120    0.0001
%RSD:      14.3       14.3   21.3135

==========================================================================================
Element: Hg    Seq. No.: 58       AS Loc.: 7    Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.997     4.997    0.0510     0.0555   11:38:40  No
 2        5.018     5.018    0.0512     0.0557   11:39:15  No
Mean:     5.007     5.007    0.0511
SD  :    0.0152    0.0152    0.0002
%RSD:       0.3        0.3    0.3010
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 59       AS Loc.: 8    Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.154	-0.154	-0.0013	0.0033	11:40:43	No
2	-0.153	-0.153	-0.0013	0.0033	11:41:18	No
Mean:	-0.154	-0.154	-0.0013			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.7	0.7	0.8705			

QC value within specified limits.

==========

Element: Hg Seq. No.: 60 AS Loc.: 52 Date: 02/18/2010
Sample ID: 246291003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.117	1.117	0.0116	0.0162	11:42:43	No
2	1.113	1.113	0.0116	0.0161	11:43:18	No
Mean:	1.115	1.115	0.0116			
SD :	0.0031	0.0031	0.0000			
%RSD:	0.3	0.3	0.2711			

==========

Element: Hg Seq. No.: 61 AS Loc.: 53 Date: 02/18/2010
Sample ID: 246291004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.954	0.954	0.0099	0.0145	11:44:40	No
2	0.930	0.930	0.0097	0.0143	11:45:15	No
Mean:	0.942	0.942	0.0098			
SD :	0.0168	0.0168	0.0002			
%RSD:	1.8	1.8	1.7363			

==========

Element: Hg Seq. No.: 62 AS Loc.: 54 Date: 02/18/2010
Sample ID: 246291005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0005	0.0050	11:46:37	No
2	0.013	0.013	0.0004	0.0050	11:47:12	No
Mean:	0.016	0.016	0.0004			
SD :	0.0038	0.0038	0.0000			
%RSD:	24.1	24.1	8.8365			

==========

Element: Hg Seq. No.: 63 AS Loc.: 55 Date: 02/18/2010
Sample ID: 246291006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0001	0.0047	11:48:34	No
2	-0.026	-0.026	0.0000	0.0046	11:49:09	No
Mean:	-0.020	-0.020	0.0001			
SD :	0.0078	0.0078	0.0001			
%RSD:	38.5	38.5	110.3645			

==========

Element: Hg Seq. No.: 64 AS Loc.: 56 Date: 02/18/2010
Sample ID: 246291007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0002	0.0043	11:50:33	No
2	-0.052	-0.052	-0.0003	0.0043	11:51:08	No
Mean:	-0.050	-0.050	-0.0002			
SD :	0.0027	0.0027	0.0000			

```
%RSD:        5.5         5.5   11.9973

==========================================================================================
Element: Hg    Seq. No.: 65       AS Loc.: 57   Date: 02/18/2010
Sample ID: 246291008|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.378     0.378    0.0041     0.0087   11:52:32  No
 2        0.374     0.374    0.0041     0.0086   11:53:06  No
Mean:     0.376     0.376    0.0041
SD  :    0.0033    0.0033    0.0000
%RSD:       0.9       0.9    0.8199

==========================================================================================
Element: Hg    Seq. No.: 66       AS Loc.: 58   Date: 02/18/2010
Sample ID: 246291009|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        1.880     1.880    0.0193     0.0239   11:54:30  No
 2        1.884     1.884    0.0194     0.0239   11:55:05  No
Mean:     1.882     1.882    0.0194
SD  :    0.0028    0.0028    0.0000
%RSD:       0.1       0.1    0.1449

==========================================================================================
Element: Hg    Seq. No.: 67       AS Loc.: 59   Date: 02/18/2010
Sample ID: 1202039184|i||951512|MB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.178    -0.178   -0.0015     0.0030   11:56:29  No
 2       -0.189    -0.189   -0.0016     0.0029   11:57:04  No
Mean:    -0.183    -0.183   -0.0016
SD  :    0.0082    0.0082    0.0001
%RSD:       4.5       4.5    5.2496

==========================================================================================
Element: Hg    Seq. No.: 68       AS Loc.: 60   Date: 02/18/2010
Sample ID: 1202039185|i|10||LCS
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.043     4.043    0.0413     0.0458   11:58:29  No
 2        4.136     4.136    0.0422     0.0468   11:59:04  No
Mean:     4.090     4.090    0.0418
SD  :    0.0663    0.0663    0.0007
%RSD:       1.6       1.6    1.6101

==========================================================================================
Element: Hg    Seq. No.: 69       AS Loc.: 61   Date: 02/18/2010
Sample ID: 245960001|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.131     0.131    0.0016     0.0062   12:00:31  No
 2        0.129     0.129    0.0016     0.0061   12:01:06  No
Mean:     0.130     0.130    0.0016
SD  :    0.0018    0.0018    0.0000
%RSD:       1.4       1.4    1.1554

==========================================================================================
Element: Hg    Seq. No.: 70       AS Loc.: 7    Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
```

#	µg/L	µg/L	Signal	Height		Stored
1	5.033	5.033	0.0513	0.0559	12:02:32	No
2	4.998	4.998	0.0510	0.0555	12:03:07	No
Mean:	5.015	5.015	0.0511			
SD :	0.0249	0.0249	0.0003			
%RSD:	0.5	0.5	0.4945			

QC value within specified limits.

==========

Element: Hg Seq. No.: 71 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0002	0.0047	12:04:35	No
2	-0.004	-0.004	0.0002	0.0048	12:05:09	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0053	0.0053	0.0001			
%RSD:	65.8	65.8	27.7211			

QC value within specified limits.

==========

Element: Hg Seq. No.: 72 AS Loc.: 62 Date: 02/18/2010
Sample ID: 245960002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.081	0.081	0.0011	0.0057	12:06:35	No
2	0.068	0.068	0.0010	0.0055	12:07:10	No
Mean:	0.074	0.074	0.0010			
SD :	0.0085	0.0085	0.0001			
%RSD:	11.4	11.4	8.3596			

==========

Element: Hg Seq. No.: 73 AS Loc.: 63 Date: 02/18/2010
Sample ID: 245960003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0023	0.0068	12:08:32	No
2	0.194	0.194	0.0022	0.0068	12:09:06	No
Mean:	0.195	0.195	0.0023			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.5	0.5	0.3972			

==========

Element: Hg Seq. No.: 74 AS Loc.: 64 Date: 02/18/2010
Sample ID: 245960004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.164	0.164	0.0019	0.0065	12:10:26	No
2	0.162	0.162	0.0019	0.0065	12:11:01	No
Mean:	0.163	0.163	0.0019			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.6	0.6	0.5000			

==========

Element: Hg Seq. No.: 75 AS Loc.: 65 Date: 02/18/2010
Sample ID: 245960005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0022	0.0068	12:12:22	No
2	0.173	0.173	0.0020	0.0066	12:12:57	No
Mean:	0.181	0.181	0.0021			
SD :	0.0112	0.0112	0.0001			

#	µg/L	µg/L	Signal	Height		Stored
1	0.170	0.170	0.0020	0.0066	12:24:01	No
2	0.165	0.165	0.0020	0.0065	12:24:36	No
Mean:	0.168	0.168	0.0020			
SD :	0.0032	0.0032	0.0000			
%RSD:	1.9	1.9	1.6534			

==========

Element: Hg Seq. No.: 82 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.047	5.047	0.0515	0.0560	12:26:01	No
2	5.085	5.085	0.0519	0.0564	12:26:36	No
Mean:	5.066	5.066	0.0517			
SD :	0.0274	0.0274	0.0003			
%RSD:	0.5	0.5	0.5371			

QC value within specified limits.

==========

Element: Hg Seq. No.: 83 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.010	-0.010	0.0002	0.0047	12:28:04	No
2	-0.005	-0.005	0.0002	0.0048	12:28:39	No
Mean:	-0.008	-0.008	0.0002			
SD :	0.0034	0.0034	0.0000			
%RSD:	43.5	43.5	17.5315			

QC value within specified limits.

==========

Element: Hg Seq. No.: 84 AS Loc.: 72 Date: 02/18/2010
Sample ID: 246470001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.300	9.300	0.0946	0.0992	12:30:05	No
2	9.140	9.140	0.0930	0.0975	12:30:40	No
Mean:	9.220	9.220	0.0938			
SD :	0.1128	0.1128	0.0011			
%RSD:	1.2	1.2	1.2200			

==========

Element: Hg Seq. No.: 85 AS Loc.: 73 Date: 02/18/2010
Sample ID: 1202039186|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	9.013	9.013	0.0917	0.0962	12:32:04	No
2	9.029	9.029	0.0918	0.0964	12:32:39	No
Mean:	9.021	9.021	0.0918			
SD :	0.0110	0.0110	0.0001			
%RSD:	0.1	0.1	0.1221			

==========

Element: Hg Seq. No.: 86 AS Loc.: 74 Date: 02/18/2010
Sample ID: 1202039187|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	12.91	12.91	0.1312	0.1358	12:34:03	No
Sample absorbance is greater than that of the highest standard.						
2	12.95	12.95	0.1316	0.1362	12:34:37	No
Sample absorbance is greater than that of the highest standard.						

```
 2        14.03     14.03    0.1426     0.1471   12:44:30  No
Sample absorbance is greater than that of the highest standard.
Mean:     14.03     14.03    0.1426
SD  :    0.0063    0.0063    0.0001
%RSD:
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 92       AS Loc.: 80   Date: 02/18/2010
Sample ID: 246470005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        160.5     160.5    1.6280  1  1.6326   12:45:50  No
Sample absorbance is greater than that of the highest standard.
 2        148.3     148.3    1.5041  1  1.5087   12:46:24  No
Sample absorbance is greater than that of the highest standard.
Mean:     154.4     154.4    1.5661
SD  :     8.640     8.640    0.0876
%RSD:       5.6       5.6    5.5956
Sample absorbance is greater than that of the highest standard.

==========================================================================================
Element: Hg    Seq. No.: 93       AS Loc.: 81   Date: 02/18/2010
Sample ID: 246470006|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.699     0.699    0.0074  -  0.0119   12:47:45  No
 2        1.028     1.028    0.0107     0.0153   12:48:20  No
Mean:     0.864     0.864    0.0090
SD  :    0.2332    0.2332    0.0024
%RSD:      27.0      27.0   26.1783

==========================================================================================
Element: Hg    Seq. No.: 94       AS Loc.: 7    Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.963     4.963    0.0506     0.0552   12:49:44  No
 2        5.078     5.078    0.0518     0.0563   12:50:19  No
Mean:     5.020     5.020    0.0512
SD  :    0.0809    0.0809    0.0008
%RSD:       1.6       1.6    1.6030
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 95       AS Loc.: 8    Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.001     0.001    0.0003     0.0049   12:51:47  No
 2        0.006     0.006    0.0003     0.0049   12:52:21  No
Mean:     0.004     0.004    0.0003
SD  :    0.0038    0.0038    0.0000
%RSD:      98.6      98.6   12.0691
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 96       AS Loc.: 82   Date: 02/18/2010
Sample ID: 246470007|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.659     0.659    0.0070     0.0115   12:53:45  No
```

```
 2        0.662     0.662    0.0070     0.0116   12:54:20  No
Mean:     0.661     0.661    0.0070
SD  :    0.0024    0.0024    0.0000
%RSD:       0.4       0.4    0.3540

==================================================================================
Element: Hg    Seq. No.: 97       AS Loc.: 83   Date: 02/18/2010
Sample ID: 246470008|i|||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       132.4     132.4    1.3427     1.3473   12:55:41  No
Sample absorbance is greater than that of the highest standard.
 2       129.8     129.8    1.3168     1.3214   12:56:15  No
Sample absorbance is greater than that of the highest standard.
Mean:    131.1     131.1    1.3298
SD  :    1.806     1.806    0.0183
%RSD:      1.4       1.4    1.3772
Sample absorbance is greater than that of the highest standard.

==================================================================================
Element: Hg    Seq. No.: 98       AS Loc.: 84   Date: 02/18/2010
Sample ID: 1202039198|i||951518|MB
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1      -0.258    -0.258   -0.0023  -  0.0022   12:57:37  No
 2      -0.212    -0.212   -0.0019     0.0027   12:58:12  No
Mean:   -0.235    -0.235   -0.0021
SD  :   0.0325    0.0325    0.0003
%RSD:     13.8      13.8   15.6227

==================================================================================
Element: Hg    Seq. No.: 99       AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       4.855     4.855    0.0495     0.0541   13:07:12  No
 2       5.001     5.001    0.0510     0.0556   13:07:48  No
Mean:    4.928     4.928    0.0503
SD  :   0.1032    0.1032    0.0010
%RSD:      2.1       2.1    2.0829
QC value within specified limits.

==================================================================================
Element: Hg    Seq. No.: 100      AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1      -0.060    -0.060   -0.0003     0.0042   13:09:15  No
 2      -0.064    -0.064   -0.0004     0.0042   13:09:50  No
Mean:   -0.062    -0.062   -0.0004
SD  :   0.0033    0.0033    0.0000
%RSD:      5.3       5.3    9.4330
QC value within specified limits.

==================================================================================
Element: Hg    Seq. No.: 101      AS Loc.: 77   Date: 02/18/2010
Sample ID: 246470002|i|50||
----------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time   Peak
 #     µg/L        µg/L       Signal     Height           Stored
 1       1.359     1.359    0.0141     0.0186   13:11:17  No
 2       1.328     1.328    0.0137     0.0183   13:11:52  No
Mean:    1.343     1.343    0.0139
```

Element: Hg Seq. No.: 107 AS Loc.: 85 Date: 02/18/2010
Sample ID: 1202039199|i|10||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	3.945	3.945	0.0403	0.0449	13:22:55	No
2	3.805	3.805	0.0389	0.0434	13:23:30	No
Mean:	3.875	3.875	0.0396			
SD :	0.0991	0.0991	0.0010			
%RSD:	2.6	2.6	2.5383			

Element: Hg Seq. No.: 108 AS Loc.: 86 Date: 02/18/2010
Sample ID: 245979001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.254	0.254	0.0029	0.0074	13:24:53	No
2	0.263	0.263	0.0029	0.0075	13:25:27	No
Mean:	0.259	0.259	0.0029			
SD :	0.0062	0.0062	0.0001			
%RSD:	2.4	2.4	2.1631			

Element: Hg Seq. No.: 109 AS Loc.: 87 Date: 02/18/2010
Sample ID: 1202039200|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.361	0.361	0.0039	0.0085	13:26:50	No
2	0.359	0.359	0.0039	0.0085	13:27:25	No
Mean:	0.360	0.360	0.0039			
SD :	0.0014	0.0014	0.0000			
%RSD:	0.4	0.4	0.3697			

Element: Hg Seq. No.: 110 AS Loc.: 88 Date: 02/18/2010
Sample ID: 1202039201|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.614	2.614	0.0268	0.0313	13:28:49	No
2	2.549	2.549	0.0261	0.0307	13:29:24	No
Mean:	2.581	2.581	0.0265			
SD :	0.0456	0.0456	0.0005			
%RSD:	1.8	1.8	1.7476			

Element: Hg Seq. No.: 111 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.837	4.837	0.0493	0.0539	13:30:49	No
2	4.919	4.919	0.0502	0.0547	13:31:24	No
Mean:	4.878	4.878	0.0497			
SD :	0.0586	0.0586	0.0006			
%RSD:	1.2	1.2	1.1946			

QC value within specified limits.

Element: Hg Seq. No.: 112 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.084	-0.084	-0.0006	0.0040	13:32:52	No

2	-0.081	-0.081	-0.0005	0.0040	13:33:28	No
Mean:	-0.082	-0.082	-0.0006			
SD :	0.0023	0.0023	0.0000			
%RSD:	2.8	2.8	4.2405			

QC value within specified limits.

==========

Element: Hg Seq. No.: 113 AS Loc.: 89 Date: 02/18/2010
Sample ID: 1202039207|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.588	2.588	0.0265	0.0311	13:34:54	No
2	2.636	2.636	0.0270	0.0316	13:35:28	No
Mean:	2.612	2.612	0.0268			
SD :	0.0337	0.0337	0.0003			
%RSD:	1.3	1.3	1.2787			

==========

Element: Hg Seq. No.: 114 AS Loc.: 90 Date: 02/18/2010
Sample ID: 1202039206|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.181	-0.181	-0.0016	0.0030	13:36:52	No
2	-0.194	-0.194	-0.0017	0.0029	13:37:27	No
Mean:	-0.187	-0.187	-0.0016			
SD :	0.0087	0.0087	0.0001			
%RSD:	4.7	4.7	5.4633			

==========

Element: Hg Seq. No.: 115 AS Loc.: 91 Date: 02/18/2010
Sample ID: 245979002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.175	0.175	0.0021	0.0066	13:38:53	No
2	0.163	0.163	0.0019	0.0065	13:39:27	No
Mean:	0.169	0.169	0.0020			
SD :	0.0091	0.0091	0.0001			
%RSD:	5.4	5.4	4.6298			

==========

Element: Hg Seq. No.: 116 AS Loc.: 92 Date: 02/18/2010
Sample ID: 245979003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.163	-0.163	-0.0014	0.0032	13:40:50	No
2	-0.207	-0.207	-0.0018	0.0027	13:41:24	No
Mean:	-0.185	-0.185	-0.0016			
SD :	0.0313	0.0313	0.0003			
%RSD:	16.9	16.9	19.8151			

==========

Element: Hg Seq. No.: 117 AS Loc.: 93 Date: 02/18/2010
Sample ID: 245979004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.191	-0.191	-0.0017	0.0029	13:42:43	No
2	-0.198	-0.198	-0.0017	0.0028	13:43:18	No
Mean:	-0.194	-0.194	-0.0017			
SD :	0.0050	0.0050	0.0001			
%RSD:	2.6	2.6	2.9823			

==========

Element: Hg Seq. No.: 118 AS Loc.: 94 Date: 02/18/2010
Sample ID: 245979005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.056	-0.056	-0.0003	0.0043	13:44:38	No
2	-0.058	-0.058	-0.0003	0.0043	13:45:13	No
Mean:	-0.057	-0.057	-0.0003			
SD :	0.0012	0.0012	0.0000			
%RSD:	2.2	2.2	4.2318			

Element: Hg Seq. No.: 119 AS Loc.: 95 Date: 02/18/2010
Sample ID: 245979006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.153	-0.153	-0.0013	0.0033	13:46:33	No
2	-0.166	-0.166	-0.0014	0.0032	13:47:08	No
Mean:	-0.159	-0.159	-0.0013			
SD :	0.0092	0.0092	0.0001			
%RSD:	5.8	5.8	6.9882			

Element: Hg Seq. No.: 120 AS Loc.: 96 Date: 02/18/2010
Sample ID: 245979007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.049	-0.049	-0.0002	0.0043	13:48:28	No
2	-0.051	-0.051	-0.0002	0.0043	13:49:03	No
Mean:	-0.050	-0.050	-0.0002			
SD :	0.0010	0.0010	0.0000			
%RSD:	2.1	2.1	4.5799			

Element: Hg Seq. No.: 121 AS Loc.: 97 Date: 02/18/2010
Sample ID: 245979008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.235	-0.235	-0.0021	0.0025	13:50:24	No
2	-0.230	-0.230	-0.0021	0.0025	13:50:59	No
Mean:	-0.233	-0.233	-0.0021			
SD :	0.0034	0.0034	0.0000			
%RSD:	1.5	1.5	1.6542			

Element: Hg Seq. No.: 122 AS Loc.: 98 Date: 02/18/2010
Sample ID: 245979009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0009	0.0036	13:52:20	No
2	-0.123	-0.123	-0.0010	0.0036	13:52:55	No
Mean:	-0.121	-0.121	-0.0010			
SD :	0.0027	0.0027	0.0000			
%RSD:	2.2	2.2	2.8459			

Element: Hg Seq. No.: 123 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.340	2.340	0.0240	0.0286	13:54:19	No
2	2.314	2.314	0.0237	0.0283	13:54:55	No

Mean:	2.327	2.327	0.0239
SD :	0.0187	0.0187	0.0002
%RSD:	0.8	0.8	0.7933

QC failed, value less than lower limit for Hg.
Current analysis method being continued.

==========

Element: Hg Seq. No.: 124 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.244	-0.244	-0.0022	0.0024	13:56:23	No
2	-0.237	-0.237	-0.0021	0.0024	13:56:57	No
Mean:	-0.241	-0.241	-0.0022			
SD :	0.0044	0.0044	0.0000			
%RSD:	1.8	1.8	2.0728			

==========

Element: Hg Seq. No.: 125 AS Loc.: 7 Date: 02/18/2010
Sample ID: Sample007

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.253	5.253	0.0535	0.0581	14:00:37	No
2	5.259	5.259	0.0536	0.0582	14:01:12	No
Mean:	5.256	5.256	0.0536			
SD :	0.0047	0.0047	0.0000			
%RSD:						

Element: Hg Seq. No.: 126 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.315	5.315	0.0542	0.0587	14:05:21	No
2	5.331	5.331	0.0543	0.0589	14:05:57	No
Mean:	5.323	5.323	0.0543			
SD :	0.0113	0.0113	0.0001			
%RSD:	0.2	0.2	0.2119			

QC value within specified limits.

Element: Hg Seq. No.: 127 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0006	0.0039	14:07:24	No
2	-0.098	-0.098	-0.0007	0.0038	14:08:00	No
Mean:	-0.094	-0.094	-0.0007			
SD :	0.0052	0.0052	0.0001			
%RSD:	5.6	5.6	7.8415			

QC value within specified limits.

Element: Hg Seq. No.: 128 AS Loc.: 80 Date: 02/18/2010
Sample ID: 246470005|i|400|951512|

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	6.212	6.212	0.0633	0.0678	14:09:24	No
2	6.240	6.240	0.0636	0.0681	14:09:59	No
Mean:	6.226	6.226	0.0634			
SD :	0.0200	0.0200	0.0002			
%RSD:	0.3	0.3	0.3204			

Element: Hg Seq. No.: 129 AS Loc.: 89 Date: 02/18/2010
Sample ID: 1202039207|i||951518|MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.609	2.609	0.0267	0.0313	14:11:22	No
2	2.628	2.628	0.0269	0.0315	14:11:57	No
Mean:	2.619	2.619	0.0268			
SD :	0.0134	0.0134	0.0001			
%RSD:	0.5	0.5	0.5075			

Element: Hg Seq. No.: 130 AS Loc.: 90 Date: 02/18/2010
Sample ID: 1202039206|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.085	-0.085	-0.0006	0.0040	14:13:22	No
2	-0.084	-0.084	-0.0006	0.0040	14:13:57	No
Mean:	-0.085	-0.085	-0.0006			
SD :	0.0010	0.0010	0.0000			
%RSD:	1.1	1.1	1.6625			

Element: Hg Seq. No.: 131 AS Loc.: 91 Date: 02/18/2010
Sample ID: 245979002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.170	0.170	0.0020	0.0066	14:15:22	No

Sample ID: 245979008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0002	0.0044	14:26:55	No
2	-0.066	-0.066	-0.0004	0.0042	14:27:30	No
Mean:	-0.054	-0.054	-0.0003			
SD :	0.0172	0.0172	0.0002			
%RSD:	31.6	31.6	63.5355			

Element: Hg Seq. No.: 138 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.087	5.087	0.0519	0.0564	14:28:54	No
2	5.101	5.101	0.0520	0.0566	14:29:29	No
Mean:	5.094	5.094	0.0519			
SD :	0.0098	0.0098	0.0001			
%RSD:	0.2	0.2	0.1911			

QC value within specified limits.

Element: Hg Seq. No.: 139 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0007	0.0039	14:30:56	No
2	-0.088	-0.088	-0.0006	0.0039	14:31:32	No
Mean:	-0.091	-0.091	-0.0006			
SD :	0.0043	0.0043	0.0000			
%RSD:	4.7	4.7	6.7349			

QC value within specified limits.

Element: Hg Seq. No.: 140 AS Loc.: 98 Date: 02/18/2010
Sample ID: 245979009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0015	0.0060	14:32:57	No
2	0.081	0.081	0.0011	0.0057	14:33:32	No
Mean:	0.099	0.099	0.0013			
SD :	0.0257	0.0257	0.0003			
%RSD:	25.9	25.9	20.2774			

Element: Hg Seq. No.: 141 AS Loc.: 99 Date: 02/18/2010
Sample ID: 245979010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.036	0.036	0.0006	0.0052	14:34:54	No
2	0.039	0.039	0.0007	0.0052	14:35:28	No
Mean:	0.038	0.038	0.0007			
SD :	0.0024	0.0024	0.0000			
%RSD:	6.3	6.3	3.6823			

Element: Hg Seq. No.: 142 AS Loc.: 100 Date: 02/18/2010
Sample ID: 245979011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.080	-0.080	-0.0005	0.0040	14:36:50	No

2	-0.092	-0.092	-0.0007	0.0039	14:37:25	No
Mean:	-0.086	-0.086	-0.0006			
SD :	0.0087	0.0087	0.0001			
%RSD:	10.1	10.1	14.8098			

==========

Element: Hg Seq. No.: 143 AS Loc.: 101 Date: 02/18/2010
Sample ID: 245979012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.121	-0.121	-0.0010	0.0036	14:38:48	No
2	-0.130	-0.130	-0.0010	0.0035	14:39:23	No
Mean:	-0.125	-0.125	-0.0010			
SD :	0.0058	0.0058	0.0001			
%RSD:	4.7	4.7	5.9459			

==========

Element: Hg Seq. No.: 144 AS Loc.: 102 Date: 02/18/2010
Sample ID: 245979013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.173	0.173	0.0020	0.0066	14:40:46	No
2	0.151	0.151	0.0018	0.0064	14:41:21	No
Mean:	0.162	0.162	0.0019			
SD :	0.0154	0.0154	0.0002			
%RSD:	9.5	9.5	8.1041			

==========

Element: Hg Seq. No.: 145 AS Loc.: 103 Date: 02/18/2010
Sample ID: 245979014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.075	-0.075	-0.0005	0.0041	14:42:45	No
2	-0.078	-0.078	-0.0005	0.0040	14:43:20	No
Mean:	-0.077	-0.077	-0.0005			
SD :	0.0021	0.0021	0.0000			
%RSD:	2.8	2.8	4.3162			

==========

Element: Hg Seq. No.: 146 AS Loc.: 104 Date: 02/18/2010
Sample ID: 245979015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0007	0.0052	14:44:45	No
2	0.029	0.029	0.0006	0.0051	14:45:20	No
Mean:	0.033	0.033	0.0006			
SD :	0.0057	0.0057	0.0001			
%RSD:	17.3	17.3	9.4840			

==========

Element: Hg Seq. No.: 147 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.935	4.935	0.0503	0.0549	14:46:45	No
2	5.008	5.008	0.0511	0.0556	14:47:20	No
Mean:	4.971	4.971	0.0507			
SD :	0.0515	0.0515	0.0005			
%RSD:	1.0	1.0	1.0306			

QC value within specified limits.

==========

Element: Hg Seq. No.: 148 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0009	0.0036	14:48:48	No
2	-0.103	-0.103	-0.0008	0.0038	14:49:23	No
Mean:	-0.111	-0.111	-0.0008			
SD :	0.0110	0.0110	0.0001			
%RSD:	9.9	9.9	13.1689			

QC value within specified limits.

SD :	0.0079	0.0079	0.0001
%RSD:	5.9	5.9	4.9302

==========

Element: Hg Seq. No.: 155 AS Loc.: 18 Date: 02/18/2010
Sample ID: 245998005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.171	0.171	0.0020	0.0066	15:03:24	No
2	0.153	0.153	0.0018	0.0064	15:03:59	No
Mean:	0.162	0.162	0.0019			
SD :	0.0130	0.0130	0.0001			
%RSD:	8.0	8.0	6.8596			

==========

Element: Hg Seq. No.: 156 AS Loc.: 19 Date: 02/18/2010
Sample ID: 245998006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.410	0.410	0.0044	0.0090	15:05:20	No
2	0.408	0.408	0.0044	0.0090	15:05:54	No
Mean:	0.409	0.409	0.0044			
SD :	0.0009	0.0009	0.0000			
%RSD:	0.2	0.2	0.2106			

==========

Element: Hg Seq. No.: 157 AS Loc.: 20 Date: 02/18/2010
Sample ID: 245998007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.368	0.368	0.0040	0.0086	15:07:17	No
2	0.368	0.368	0.0040	0.0086	15:07:51	No
Mean:	0.368	0.368	0.0040			
SD :	0.0002	0.0002	0.0000			
%RSD:						

==========

Element: Hg Seq. No.: 158 AS Loc.: 21 Date: 02/18/2010
Sample ID: 245998008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.239	0.239	0.0027	0.0073	15:09:13	No
2	0.230	0.230	0.0026	0.0072	15:09:48	No
Mean:	0.234	0.234	0.0027			
SD :	0.0059	0.0059	0.0001			
%RSD:	2.5	2.5	2.2384			

==========

Element: Hg Seq. No.: 159 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.059	5.059	0.0516	0.0561	15:11:12	No
2	5.093	5.093	0.0519	0.0565	15:11:47	No
Mean:	5.076	5.076	0.0518			
SD :	0.0240	0.0240	0.0002			
%RSD:	0.5	0.5	0.4698			

QC value within specified limits.

==========

Element: Hg Seq. No.: 160 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.120	-0.120	-0.0009	0.0036	15:13:15	No
2	-0.110	-0.110	-0.0008	0.0037	15:13:50	No
Mean:	-0.115	-0.115	-0.0009			
SD :	0.0066	0.0066	0.0001			
%RSD:	5.7	5.7	7.4766			

QC value within specified limits.

Element: Hg Seq. No.: 161 AS Loc.: 22 Date: 02/18/2010
Sample ID: 245998009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.145	0.145	0.0018	0.0063	15:15:16	No
2	0.145	0.145	0.0017	0.0063	15:15:50	No
Mean:	0.145	0.145	0.0017			
SD :	0.0005	0.0005	0.0000			
%RSD:	0.4	0.4	0.3053			

Element: Hg Seq. No.: 162 AS Loc.: 23 Date: 02/18/2010
Sample ID: 246012001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0024	0.0070	15:17:14	No
2	0.203	0.203	0.0023	0.0069	15:17:49	No
Mean:	0.207	0.207	0.0024			
SD :	0.0060	0.0060	0.0001			
%RSD:	2.9	2.9	2.5477			

Element: Hg Seq. No.: 163 AS Loc.: 24 Date: 02/18/2010
Sample ID: 1202039218|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.150	0.150	0.0018	0.0064	15:19:13	No
2	0.140	0.140	0.0017	0.0063	15:19:47	No
Mean:	0.145	0.145	0.0018			
SD :	0.0070	0.0070	0.0001			
%RSD:	4.8	4.8	4.0347			

Element: Hg Seq. No.: 164 AS Loc.: 25 Date: 02/18/2010
Sample ID: 1202039219|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.427	2.427	0.0249	0.0294	15:21:11	No
2	2.429	2.429	0.0249	0.0295	15:21:45	No
Mean:	2.428	2.428	0.0249			
SD :	0.0018	0.0018	0.0000			
%RSD:						

Element: Hg Seq. No.: 165 AS Loc.: 26 Date: 02/18/2010
Sample ID: 1202039221|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.503	2.503	0.0257	0.0302	15:23:09	No
2	2.451	2.451	0.0251	0.0297	15:23:44	No
Mean:	2.477	2.477	0.0254			

SD :	0.0365	0.0365	0.0004
%RSD:	1.5	1.5	1.4594

==========

Element: Hg Seq. No.: 166 AS Loc.: 27 Date: 02/18/2010
Sample ID: 1202039220|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0001	0.0045	15:25:09	No
2	-0.047	-0.047	-0.0002	0.0044	15:25:44	No
Mean:	-0.040	-0.040	-0.0001			
SD :	0.0088	0.0088	0.0001			
%RSD:	21.7	21.7	67.1438			

==========

Element: Hg Seq. No.: 167 AS Loc.: 28 Date: 02/18/2010
Sample ID: 246012002|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0001	0.0045	15:27:10	No
2	-0.044	-0.044	-0.0002	0.0044	15:27:46	No
Mean:	-0.039	-0.039	-0.0001			
SD :	0.0075	0.0075	0.0001			
%RSD:	19.3	19.3	65.1493			

==========

Element: Hg Seq. No.: 168 AS Loc.: 29 Date: 02/18/2010
Sample ID: 246012003|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.102	0.102	0.0013	0.0059	15:29:12	No
2	0.104	0.104	0.0013	0.0059	15:29:47	No
Mean:	0.103	0.103	0.0013			
SD :	0.0012	0.0012	0.0000			
%RSD:	1.1	1.1	0.9059			

==========

Element: Hg Seq. No.: 169 AS Loc.: 30 Date: 02/18/2010
Sample ID: 246012004|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.313	0.313	0.0035	0.0080	15:31:14	No
2	0.307	0.307	0.0034	0.0080	15:31:48	No
Mean:	0.310	0.310	0.0034			
SD :	0.0039	0.0039	0.0000			
%RSD:	1.3	1.3	1.1643			

==========

Element: Hg Seq. No.: 170 AS Loc.: 31 Date: 02/18/2010
Sample ID: 246012005|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.059	0.059	0.0009	0.0054	15:33:16	No
2	0.037	0.037	0.0007	0.0052	15:33:51	No
Mean:	0.048	0.048	0.0008			
SD :	0.0159	0.0159	0.0002			
%RSD:	33.1	33.1	21.1364			

==========

Element: Hg Seq. No.: 171 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.141	5.141	0.0524	0.0570	15:35:18	No
2	5.094	5.094	0.0519	0.0565	15:35:53	No
Mean:	5.118	5.118	0.0522			
SD :	0.0332	0.0332	0.0003			
%RSD:	0.6	0.6	0.6445			

QC value within specified limits.

==========

Element: Hg Seq. No.: 172 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.119	-0.119	-0.0009	0.0036	15:37:21	No
2	-0.124	-0.124	-0.0010	0.0036	15:37:56	No
Mean:	-0.122	-0.122	-0.0010			
SD :	0.0035	0.0035	0.0000			
%RSD:	2.9	2.9	3.6860			

QC value within specified limits.

==========

Element: Hg Seq. No.: 173 AS Loc.: 32 Date: 02/18/2010
Sample ID: 246012006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.201	0.201	0.0023	0.0069	15:39:21	No
2	0.202	0.202	0.0023	0.0069	15:39:56	No
Mean:	0.202	0.202	0.0023			
SD :	0.0011	0.0011	0.0000			
%RSD:	0.5	0.5	0.4708			

==========

Element: Hg Seq. No.: 174 AS Loc.: 33 Date: 02/18/2010
Sample ID: 246012007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.127	0.127	0.0016	0.0061	15:41:16	No
2	0.137	0.137	0.0017	0.0062	15:41:51	No
Mean:	0.132	0.132	0.0016			
SD :	0.0070	0.0070	0.0001			
%RSD:	5.3	5.3	4.4081			

==========

Element: Hg Seq. No.: 175 AS Loc.: 34 Date: 02/18/2010
Sample ID: 246012008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.264	0.264	0.0030	0.0075	15:43:12	No
2	0.250	0.250	0.0028	0.0074	15:43:47	No
Mean:	0.257	0.257	0.0029			
SD :	0.0104	0.0104	0.0001			
%RSD:	4.0	4.0	3.6429			

==========

Element: Hg Seq. No.: 176 AS Loc.: 35 Date: 02/18/2010
Sample ID: 246012009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.029	-0.029	0.0000	0.0045	15:45:07	No
2	-0.031	-0.031	0.0000	0.0045	15:45:42	No
Mean:	-0.030	-0.030	0.0000			

```
SD  :     0.0014     0.0014     0.0000
%RSD:        4.5         4.5    52.0565

==========================================================================================
Element: Hg     Seq. No.: 177       AS Loc.: 36    Date: 02/18/2010
Sample ID: 246012010|i|||
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1        0.300       0.300     0.0033      0.0079   15:47:03  No
 2        0.261       0.261     0.0029      0.0075   15:47:38  No
Mean:     0.281       0.281     0.0031
SD  :    0.0273      0.0273     0.0003
%RSD:       9.7         9.7     8.8773

==========================================================================================
Element: Hg     Seq. No.: 178       AS Loc.: 37    Date: 02/18/2010
Sample ID: 246012011|i|||
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1        0.083       0.083     0.0011      0.0057   15:49:00  No
 2        0.076       0.076     0.0011      0.0056   15:49:35  No
Mean:     0.080       0.080     0.0011
SD  :    0.0048      0.0048     0.0000
%RSD:       6.0         6.0     4.4540

==========================================================================================
Element: Hg     Seq. No.: 179       AS Loc.: 38    Date: 02/18/2010
Sample ID: 1202039305|i||951555|MB
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1       -0.057      -0.057    -0.0003      0.0043   15:50:58  No
 2       -0.072      -0.072    -0.0005      0.0041   15:51:32  No
Mean:    -0.065      -0.065    -0.0004
SD  :    0.0102      0.0102     0.0001
%RSD:      15.8        15.8    27.4571

==========================================================================================
Element: Hg     Seq. No.: 180       AS Loc.: 39    Date: 02/18/2010
Sample ID: 1202039306|i|10||LCS
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1        3.969       3.969     0.0405      0.0451   15:52:56  No
 2        4.007       4.007     0.0409      0.0455   15:53:31  No
Mean:     3.988       3.988     0.0407
SD  :    0.0269      0.0269     0.0003
%RSD:       0.7         0.7     0.6692

==========================================================================================
Element: Hg     Seq. No.: 181       AS Loc.: 40    Date: 02/18/2010
Sample ID: 246070001|i|||
------------------------------------------------------------------------------------------
Repl    SampleConc  StndConc    BlnkCorr    Peak       Time    Peak
 #      µg/L        µg/L        Signal      Height             Stored
 1        0.076       0.076     0.0010      0.0056   15:54:55  No
 2        0.071       0.071     0.0010      0.0056   15:55:29  No
Mean:     0.073       0.073     0.0010
SD  :    0.0033      0.0033     0.0000
%RSD:       4.5         4.5     3.2726

==========================================================================================
Element: Hg     Seq. No.: 182       AS Loc.: 41    Date: 02/18/2010
Sample ID: 1202039307|i|||DUP
------------------------------------------------------------------------------------------
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.086	0.086	0.0011	0.0057	15:56:53	No
2	0.082	0.082	0.0011	0.0057	15:57:27	No
Mean:	0.084	0.084	0.0011			
SD :	0.0028	0.0028	0.0000			
%RSD:	3.4	3.4	2.5638			

==========

Element: Hg Seq. No.: 183 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.280	5.280	0.0538	0.0584	15:58:52	No
2	5.426	5.426	0.0553	0.0599	15:59:27	No
Mean:	5.353	5.353	0.0546			
SD :	0.1037	0.1037	0.0011			
%RSD:	1.9	1.9	1.9279			

QC value within specified limits.

==========

Element: Hg Seq. No.: 184 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.157	-0.157	-0.0013	0.0032	16:00:55	No
2	-0.151	-0.151	-0.0013	0.0033	16:01:30	No
Mean:	-0.154	-0.154	-0.0013			
SD :	0.0043	0.0043	0.0000			
%RSD:	2.8	2.8	3.3910			

QC value within specified limits.

==========

Element: Hg Seq. No.: 185 AS Loc.: 42 Date: 02/18/2010
Sample ID: 1202039308|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.324	2.324	0.0239	0.0284	16:02:57	No
2	2.313	2.313	0.0237	0.0283	16:03:32	No
Mean:	2.319	2.319	0.0238			
SD :	0.0078	0.0078	0.0001			
%RSD:	0.3	0.3	0.3310			

==========

Element: Hg Seq. No.: 186 AS Loc.: 43 Date: 02/18/2010
Sample ID: 1202039310|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.346	2.346	0.0241	0.0286	16:04:57	No
2	2.354	2.354	0.0241	0.0287	16:05:32	No
Mean:	2.350	2.350	0.0241			
SD :	0.0053	0.0053	0.0001			
%RSD:	0.2	0.2	0.2224			

==========

Element: Hg Seq. No.: 187 AS Loc.: 44 Date: 02/18/2010
Sample ID: 1202039309|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.154	-0.154	-0.0013	0.0033	16:06:57	No
2	-0.164	-0.164	-0.0014	0.0032	16:07:32	No
Mean:	-0.159	-0.159	-0.0013			

```
SD  :    0.0069    0.0069    0.0001
%RSD:       4.3       4.3    5.2258

==========================================================================================
Element: Hg    Seq. No.: 188      AS Loc.: 45   Date: 02/18/2010
Sample ID: 246070002|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.047     0.047    0.0008     0.0053   16:08:58  No
 2        0.041     0.041    0.0007     0.0053   16:09:33  No
Mean:     0.044     0.044    0.0007
SD  :    0.0046    0.0046    0.0000
%RSD:      10.6      10.6    6.5129

==========================================================================================
Element: Hg    Seq. No.: 189      AS Loc.: 46   Date: 02/18/2010
Sample ID: 246070003|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.248     0.248    0.0028     0.0074   16:11:00  No
 2        0.236     0.236    0.0027     0.0072   16:11:34  No
Mean:     0.242     0.242    0.0027
SD  :    0.0084    0.0084    0.0001
%RSD:       3.5       3.5    3.1066

==========================================================================================
Element: Hg    Seq. No.: 190      AS Loc.: 47   Date: 02/18/2010
Sample ID: 246070004|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.253     0.253    0.0028     0.0074   16:13:00  No
 2        0.262     0.262    0.0029     0.0075   16:13:34  No
Mean:     0.257     0.257    0.0029
SD  :    0.0062    0.0062    0.0001
%RSD:       2.4       2.4    2.1887

==========================================================================================
Element: Hg    Seq. No.: 191      AS Loc.: 48   Date: 02/18/2010
Sample ID: 246070005|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.195     0.195    0.0023     0.0068   16:14:59  No
 2        0.176     0.176    0.0021     0.0066   16:15:34  No
Mean:     0.185     0.185    0.0022
SD  :    0.0131    0.0131    0.0001
%RSD:       7.1       7.1    6.1581

==========================================================================================
Element: Hg    Seq. No.: 192      AS Loc.: 49   Date: 02/18/2010
Sample ID: 246070006|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.065     0.065    0.0009     0.0055   16:16:54  No
 2        0.066     0.066    0.0009     0.0055   16:17:29  No
Mean:     0.066     0.066    0.0009
SD  :    0.0003    0.0003    0.0000
%RSD:       0.5       0.5    0.3238

==========================================================================================
Element: Hg    Seq. No.: 193      AS Loc.: 50   Date: 02/18/2010
Sample ID: 246070007|i|||
------------------------------------------------------------------------------------------
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.063	-0.063	-0.0004	0.0042	16:18:50	No
2	-0.081	-0.081	-0.0005	0.0040	16:19:25	No
Mean:	-0.072	-0.072	-0.0005			
SD :	0.0124	0.0124	0.0001			
%RSD:	17.3	17.3	28.0094			

==========

Element: Hg Seq. No.: 194 AS Loc.: 51 Date: 02/18/2010
Sample ID: 246070008|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.151	0.151	0.0018	0.0064	16:20:46	No
2	0.145	0.145	0.0018	0.0063	16:21:21	No
Mean:	0.148	0.148	0.0018			
SD :	0.0044	0.0044	0.0000			
%RSD:	2.9	2.9	2.4821			

==========

Element: Hg Seq. No.: 195 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.291	5.291	0.0539	0.0585	16:22:45	No
2	5.286	5.286	0.0539	0.0584	16:23:20	No
Mean:	5.288	5.288	0.0539			
SD :	0.0039	0.0039	0.0000			
%RSD:						

QC value within specified limits.

==========

Element: Hg Seq. No.: 196 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.059	0.059	0.0009	0.0054	16:24:49	No
2	0.053	0.053	0.0008	0.0054	16:25:24	No
Mean:	0.056	0.056	0.0008			
SD :	0.0042	0.0042	0.0000			
%RSD:	7.5	7.5	5.0648			

QC value within specified limits.

==========

Element: Hg Seq. No.: 197 AS Loc.: 52 Date: 02/18/2010
Sample ID: 246070009|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.071	0.071	0.0010	0.0056	16:26:49	No
2	0.068	0.068	0.0010	0.0055	16:27:23	No
Mean:	0.070	0.070	0.0010			
SD :	0.0024	0.0024	0.0000			
%RSD:	3.5	3.5	2.4818			

==========

Element: Hg Seq. No.: 198 AS Loc.: 53 Date: 02/18/2010
Sample ID: 246070010|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.276	0.276	0.0031	0.0076	16:28:45	No
2	0.270	0.270	0.0030	0.0076	16:29:20	No
Mean:	0.273	0.273	0.0030			

SD :	0.0046	0.0046	0.0000
%RSD:	1.7	1.7	1.5296

==========

Element: Hg Seq. No.: 199 AS Loc.: 54 Date: 02/18/2010
Sample ID: 246070011|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.372	0.372	0.0041	0.0086	16:30:42	No
2	0.373	0.373	0.0041	0.0086	16:31:17	No
Mean:	0.373	0.373	0.0041			
SD :	0.0007	0.0007	0.0000			
%RSD:	0.2	0.2	0.1641			

==========

Element: Hg Seq. No.: 200 AS Loc.: 55 Date: 02/18/2010
Sample ID: 246070012|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0004	0.0050	16:32:39	No
2	-0.001	-0.001	0.0003	0.0048	16:33:14	No
Mean:	0.006	0.006	0.0003			
SD :	0.0094	0.0094	0.0001			
%RSD:	167.9	167.9	28.4583			

==========

Element: Hg Seq. No.: 201 AS Loc.: 56 Date: 02/18/2010
Sample ID: 246070013|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0006	0.0051	16:34:38	No
2	0.024	0.024	0.0005	0.0051	16:35:13	No
Mean:	0.026	0.026	0.0005			
SD :	0.0029	0.0029	0.0000			
%RSD:	11.1	11.1	5.4637			

==========

Element: Hg Seq. No.: 202 AS Loc.: 57 Date: 02/18/2010
Sample ID: 246070014|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.326	0.326	0.0036	0.0081	16:36:38	No
2	0.318	0.318	0.0035	0.0081	16:37:13	No
Mean:	0.322	0.322	0.0035			
SD :	0.0057	0.0057	0.0001			
%RSD:	1.8	1.8	1.6379			

==========

Element: Hg Seq. No.: 203 AS Loc.: 58 Date: 02/18/2010
Sample ID: 246070015|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.168	0.168	0.0020	0.0065	16:38:37	No
2	0.166	0.166	0.0020	0.0065	16:39:12	No
Mean:	0.167	0.167	0.0020			
SD :	0.0010	0.0010	0.0000			
%RSD:	0.6	0.6	0.5395			

==========

Element: Hg Seq. No.: 204 AS Loc.: 59 Date: 02/18/2010
Sample ID: 246070016|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.261	0.261	0.0029	0.0075	16:40:37	No
2	0.263	0.263	0.0029	0.0075	16:41:12	No
Mean:	0.262	0.262	0.0029			
SD :	0.0014	0.0014	0.0000			
%RSD:	0.5	0.5	0.4875			

==========

Element: Hg Seq. No.: 205 AS Loc.: 60 Date: 02/18/2010
Sample ID: 246070017|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.288	0.288	0.0032	0.0078	16:42:37	No
2	0.263	0.263	0.0029	0.0075	16:43:11	No
Mean:	0.276	0.276	0.0031			
SD :	0.0177	0.0177	0.0002			
%RSD:	6.4	6.4	5.8492			

==========

Element: Hg Seq. No.: 206 AS Loc.: 61 Date: 02/18/2010
Sample ID: 246070018|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.162	0.162	0.0019	0.0065	16:44:37	No
2	0.157	0.157	0.0019	0.0064	16:45:12	No
Mean:	0.159	0.159	0.0019			
SD :	0.0033	0.0033	0.0000			
%RSD:	2.1	2.1	1.7645			

==========

Element: Hg Seq. No.: 207 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	5.300	5.300	0.0540	0.0586	16:46:39	No
2	5.335	5.335	0.0544	0.0589	16:47:14	No
Mean:	5.318	5.318	0.0542			
SD :	0.0249	0.0249	0.0003			
%RSD:	0.5	0.5	0.4653			

QC value within specified limits.

==========

Element: Hg Seq. No.: 208 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.065	0.065	0.0009	0.0055	16:48:42	No
2	0.053	0.053	0.0008	0.0054	16:49:17	No
Mean:	0.059	0.059	0.0009			
SD :	0.0087	0.0087	0.0001			
%RSD:	14.7	14.7	10.0333			

QC value within specified limits.

==========

Element: Hg Seq. No.: 209 AS Loc.: 62 Date: 02/18/2010
Sample ID: 246070019|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.436	0.436	0.0047	0.0093	16:50:44	No
2	0.417	0.417	0.0045	0.0091	16:51:19	No
Mean:	0.426	0.426	0.0046			

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.336	2.336	0.0240	0.0285	17:02:20	No
2	2.362	2.362	0.0242	0.0288	17:02:55	No
Mean:	2.349	2.349	0.0241			
SD :	0.0181	0.0181	0.0002			
%RSD:	0.8	0.8	0.7616			

==========

Element: Hg Seq. No.: 216 AS Loc.: 69 Date: 02/18/2010
Sample ID: 1202045572|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.274	2.274	0.0233	0.0279	17:04:17	No
2	-0.483	-0.483	-0.0046	- -0.0001	17:04:52	No
Mean:	0.895	0.895	0.0094			
SD :	1.950	1.950	0.0198			
%RSD:	217.8	217.8	211.3103			

==========

Element: Hg Seq. No.: 217 AS Loc.: 70 Date: 02/18/2010
Sample ID: 1202045571|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.477	-0.477	-0.0046	- 0.0000	17:06:14	No
2	-0.474	-0.474	-0.0045	- 0.0000	17:06:49	No
Mean:	-0.476	-0.476	-0.0045			
SD :	0.0023	0.0023	0.0000			
%RSD:	0.5	0.5	0.5160			

==========

Element: Hg Seq. No.: 218 AS Loc.: 71 Date: 02/18/2010
Sample ID: 247004006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.460	-0.460	-0.0044	- 0.0002	17:08:12	No
2	-0.472	-0.472	-0.0045	- 0.0001	17:08:48	No
Mean:	-0.466	-0.466	-0.0044			
SD :	0.0089	0.0089	0.0001			
%RSD:	1.9	1.9	2.0351			

==========

Element: Hg Seq. No.: 219 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.426	-0.426	-0.0040	0.0005	17:10:13	No
2	-0.465	-0.465	-0.0044	- 0.0001	17:10:47	No
Mean:	-0.446	-0.446	-0.0042			
SD :	0.0275	0.0275	0.0003			
%RSD:	6.2	6.2	6.5761			

QC failed, value less than lower limit for Hg.
Current analysis method being continued.

==========

Element: Hg Seq. No.: 220 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.478	-0.478	-0.0046	- 0.0000	17:12:16	No
2	-0.474	-0.474	-0.0045	- 0.0000	17:12:51	No
Mean:	-0.476	-0.476	-0.0046			

```
SD  :     0.0029    0.0029    0.0000
%RSD:        0.6       0.6    0.6413
QC failed, value less than lower limit for Hg.
Current analysis method being continued.

==========================================================================================
Element: Hg    Seq. No.: 221      AS Loc.: 72   Date: 02/18/2010
Sample ID: 247004007|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.463    -0.463   -0.0044  -  0.0001   17:14:17  No
 2       -0.467    -0.467   -0.0045  -  0.0001   17:14:52  No
Mean:    -0.465    -0.465   -0.0044
SD  :    0.0022    0.0022    0.0000
%RSD:       0.5       0.5    0.5045

==========================================================================================
Element: Hg    Seq. No.: 222      AS Loc.: 73   Date: 02/18/2010
Sample ID: 247004010|i|||
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.465    -0.465   -0.0044  -  0.0001   17:16:16  No

==========================================================================================
Element: Hg    Seq. No.: 223      AS Loc.: 7   Date: 02/18/2010
Sample ID: CCV
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        4.751     4.751    0.0485     0.0530   17:21:41  No
 2        4.814     4.814    0.0491     0.0537   17:22:17  No
Mean:     4.782     4.782    0.0488
SD  :    0.0446    0.0446    0.0005
%RSD:       0.9       0.9    0.9279
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 224      AS Loc.: 8   Date: 02/18/2010
Sample ID: CCB
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1       -0.027    -0.027    0.0000     0.0046   17:23:45  No
 2       -0.036    -0.036   -0.0001     0.0045   17:24:20  No
Mean:    -0.031    -0.031    0.0000
SD  :    0.0062    0.0062    0.0001
%RSD:      19.8      19.8  148.9442
QC value within specified limits.

==========================================================================================
Element: Hg    Seq. No.: 225      AS Loc.: 62   Date: 02/18/2010
Sample ID: 246070019|i||951555|
------------------------------------------------------------------------------------------
Repl   SampleConc  StndConc   BlnkCorr   Peak      Time    Peak
 #     µg/L        µg/L       Signal     Height            Stored
 1        0.346     0.346    0.0038     0.0083   17:25:47  No
 2        0.334     0.334    0.0037     0.0082   17:26:21  No
Mean:     0.340     0.340    0.0037
SD  :    0.0081    0.0081    0.0001
%RSD:       2.4       2.4    2.1937

==========================================================================================
Element: Hg    Seq. No.: 226      AS Loc.: 63   Date: 02/18/2010
Sample ID: 246070020|i|||
------------------------------------------------------------------------------------------
```

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.324	0.324	0.0036	0.0081	17:27:43	No
2	0.297	0.297	0.0033	0.0079	17:28:17	No
Mean:	0.311	0.311	0.0034			
SD :	0.0192	0.0192	0.0002			
%RSD:	6.2	6.2	5.6698			

==========

Element: Hg Seq. No.: 227 AS Loc.: 64 Date: 02/18/2010
Sample ID: 1202045567|i||954237|MB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.153	-0.153	-0.0013	0.0033	17:29:37	No
2	-0.167	-0.167	-0.0014	0.0031	17:30:12	No
Mean:	-0.160	-0.160	-0.0013			
SD :	0.0100	0.0100	0.0001			
%RSD:	6.2	6.2	7.4912			

==========

Element: Hg Seq. No.: 228 AS Loc.: 65 Date: 02/18/2010
Sample ID: 1202045568|i|||LCS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	1.952	1.952	0.0201	0.0246	17:31:32	No
2	1.947	1.947	0.0200	0.0246	17:32:07	No
Mean:	1.950	1.950	0.0201			
SD :	0.0033	0.0033	0.0000			
%RSD:	0.2	0.2	0.1687			

==========

Element: Hg Seq. No.: 229 AS Loc.: 66 Date: 02/18/2010
Sample ID: 247004001|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.016	-0.016	0.0001	0.0047	17:33:28	No
2	-0.029	-0.029	0.0000	0.0045	17:34:03	No
Mean:	-0.022	-0.022	0.0001			
SD :	0.0092	0.0092	0.0001			
%RSD:	41.8	41.8	175.0128			

==========

Element: Hg Seq. No.: 230 AS Loc.: 67 Date: 02/18/2010
Sample ID: 1202045569|i|||DUP

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.053	-0.053	-0.0003	0.0043	17:35:24	No
2	-0.070	-0.070	-0.0004	0.0041	17:35:59	No
Mean:	-0.061	-0.061	-0.0003			
SD :	0.0120	0.0120	0.0001			
%RSD:	19.5	19.5	35.2115			

==========

Element: Hg Seq. No.: 231 AS Loc.: 68 Date: 02/18/2010
Sample ID: 1202045570|i|||MS

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.111	2.111	0.0217	0.0263	17:37:21	No
2	2.136	2.136	0.0219	0.0265	17:37:56	No
Mean:	2.124	2.124	0.0218			
SD :	0.0175	0.0175	0.0002			
%RSD:	0.8	0.8	0.8123			

Element: Hg Seq. No.: 232 AS Loc.: 69 Date: 02/18/2010
Sample ID: 1202045572|i|||MSD

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	2.071	2.071	0.0213	0.0258	17:39:19	No
2	2.068	2.068	0.0213	0.0258	17:39:54	No
Mean:	2.070	2.070	0.0213			
SD :	0.0021	0.0021	0.0000			
%RSD:	0.1	0.1	0.1015			

Element: Hg Seq. No.: 233 AS Loc.: 70 Date: 02/18/2010
Sample ID: 1202045571|i|5||SDILT

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.217	-0.217	-0.0019	0.0026	17:41:16	No
2	-0.213	-0.213	-0.0019	0.0027	17:41:51	No
Mean:	-0.215	-0.215	-0.0019			
SD :	0.0029	0.0029	0.0000			
%RSD:	1.4	1.4	1.5619			

Element: Hg Seq. No.: 234 AS Loc.: 71 Date: 02/18/2010
Sample ID: 247004006|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.036	-0.036	-0.0001	0.0045	17:43:15	No
2	-0.040	-0.040	-0.0001	0.0044	17:43:50	No
Mean:	-0.038	-0.038	-0.0001			
SD :	0.0027	0.0027	0.0000			
%RSD:	7.1	7.1	25.0632			

Element: Hg Seq. No.: 235 AS Loc.: 7 Date: 02/18/2010
Sample ID: CCV

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	4.738	4.738	0.0483	0.0529	17:45:16	No
2	4.786	4.786	0.0488	0.0534	17:45:51	No
Mean:	4.762	4.762	0.0486			
SD :	0.0339	0.0339	0.0003			
%RSD:	0.7	0.7	0.7073			

QC value within specified limits.

Element: Hg Seq. No.: 236 AS Loc.: 8 Date: 02/18/2010
Sample ID: CCB

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	-0.035	-0.035	-0.0001	0.0045	17:47:19	No
2	-0.035	-0.035	-0.0001	0.0045	17:47:54	No
Mean:	-0.035	-0.035	-0.0001			
SD :	0.0000	0.0000	0.0000			
%RSD:			0.4425			

QC value within specified limits.

Element: Hg Seq. No.: 237 AS Loc.: 72 Date: 02/18/2010
Sample ID: 247004007|i|||

Repl #	SampleConc µg/L	StndConc µg/L	BlnkCorr Signal	Peak Height	Time	Peak Stored
1	0.098	0.098	0.0013	0.0058	17:49:19	No

Miscellaneous

Prep LogBook

Analyst: LYH1 Verified by:_____

Batch: 949365

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033998	UI062540-MS	.501	g
MS	1202033996	UI091015-A	.5	mL
MS	1202033996	UI091015-B	.5	mL
MSD	1202033997	UI091015-A	.5	mL
MSD	1202033997	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033993		SW846 3050B	11-FEB-2010 08:40	<2	0.501 g	50 mL	99.8004	SOIL
LCS	1202033998		SW846 3050B	11-FEB-2010 08:40	<2	0.501 g	50 mL	99.8004	SOIL
SAMPLE	246070001		SW846 3050B	11-FEB-2010 08:40	<2	0.521 g	50 mL	95.96929	SOIL
DUP	1202033994	246070001	SW846 3050B	11-FEB-2010 08:40	<2	0.506 g	50 mL	98.81423	SOIL
MS	1202033996	246070001	SW846 3050B	11-FEB-2010 08:40	<2	0.501 g	50 mL	99.8004	SOIL
MSD	1202033997	246070001	SW846 3050B	11-FEB-2010 08:40	<2	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246070002		SW846 3050B	11-FEB-2010 08:40	<2	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246070003		SW846 3050B	11-FEB-2010 08:40	<2	0.507 g	50 mL	98.61933	SOIL
SAMPLE	246070004		SW846 3050B	11-FEB-2010 08:40	<2	0.5 g	50 mL	100	SOIL
SAMPLE	246070005		SW846 3050B	11-FEB-2010 08:40	<2	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246070006		SW846 3050B	11-FEB-2010 08:40	<2	0.504 g	50 mL	99.20635	SOIL
SAMPLE	246070007		SW846 3050B	11-FEB-2010 08:40	<2	0.502 g	50 mL	99.60159	SOIL
SAMPLE	246070008		SW846 3050B	11-FEB-2010 08:40	<2	0.52 g	50 mL	96.15385	SOIL
SAMPLE	246070009		SW846 3050B	11-FEB-2010 08:40	<2	0.5 g	50 mL	100	SOIL
SAMPLE	246070010		SW846 3050B	11-FEB-2010 08:40	<2	0.515 g	50 mL	97.08738	SOIL
SAMPLE	246070011		SW846 3050B	11-FEB-2010 08:40	<2	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246070012		SW846 3050B	11-FEB-2010 08:40	<2	0.506 g	50 mL	98.81423	SOIL
SAMPLE	246070013		SW846 3050B	11-FEB-2010 08:40	<2	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246070014		SW846 3050B	11-FEB-2010 08:40	<2	0.509 g	50 mL	98.23183	SOIL
SAMPLE	246070015		SW846 3050B	11-FEB-2010 08:40	<2	0.5 g	50 mL	100	SOIL
SAMPLE	246070016		SW846 3050B	11-FEB-2010 08:40	<2	0.506 g	50 mL	98.81423	SOIL
SAMPLE	246070017		SW846 3050B	11-FEB-2010 08:40	<2	0.502 g	50 mL	99.60159	SOIL
SAMPLE	246070018		SW846 3050B	11-FEB-2010 08:40	<2	0.503 g	50 mL	99.40358	SOIL
SAMPLE	246070019		SW846 3050B	11-FEB-2010 08:40	<2	0.512 g	50 mL	97.65625	SOIL
SAMPLE	246070020		SW846 3050B	11-FEB-2010 08:40	<2	0.519 g	50 mL	96.33911	SOIL

Reagent/Solvent Lot ID	Amount	Description
1203655-02	1.5 mL	Hydrogen Peroxide 30%

Comments

Prep LogBook

1264396	5 mL	Nitric Acid CONC.

Prep LogBook

Analyst: LYH1 Verified by:_____

Batch: 949363

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033992	UI062540-I	.504	g
MS	1202033990	UI100120-01	.25	mL
MS	1202033990	UI100120-06	.25	mL
MSD	1202033991	UI100120-01	.25	mL
MSD	1202033991	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033987		SW846 3050B	11-FEB-2010 08:45	<2	0.52 g	50 mL	96.15385	SOIL
LCS	1202033992		SW846 3050B	11-FEB-2010 08:45	<2	0.504 g	50 mL	99.20635	SOIL
SAMPLE	246070001		SW846 3050B	11-FEB-2010 08:45	<2	0.502 g	50 mL	99.60159	SOIL
DUP	1202033988	246070001	SW846 3050B	11-FEB-2010 08:45	<2	0.522 g	50 mL	95.78544	SOIL
SDILT	1202033989	246070001	SW846 3050B	11-FEB-2010 08:45	<2	0.502 g	50 mL	99.60159	SOIL
MS	1202033990	246070001	SW846 3050B	11-FEB-2010 08:45	<2	0.525 g	50 mL	95.2381	SOIL
MSD	1202033991	246070001	SW846 3050B	11-FEB-2010 08:45	<2	0.5 g	50 mL	100	SOIL
SAMPLE	246070002		SW846 3050B	11-FEB-2010 08:45	<2	0.502 g	50 mL	99.60159	SOIL
SAMPLE	246070003		SW846 3050B	11-FEB-2010 08:45	<2	0.517 g	50 mL	96.7118	SOIL
SAMPLE	246070004		SW846 3050B	11-FEB-2010 08:45	<2	0.515 g	50 mL	97.08738	SOIL
SAMPLE	246070005		SW846 3050B	11-FEB-2010 08:45	<2	0.514 g	50 mL	97.27626	SOIL
SAMPLE	246070006		SW846 3050B	11-FEB-2010 08:45	<2	0.5 g	50 mL	100	SOIL
SAMPLE	246070007		SW846 3050B	11-FEB-2010 08:45	<2	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246070008		SW846 3050B	11-FEB-2010 08:45	<2	0.5 g	50 mL	100	SOIL
SAMPLE	246070009		SW846 3050B	11-FEB-2010 08:45	<2	0.521 g	50 mL	95.96929	SOIL
SAMPLE	246070010		SW846 3050B	11-FEB-2010 08:45	<2	0.521 g	50 mL	95.96929	SOIL
SAMPLE	246070011		SW846 3050B	11-FEB-2010 08:45	<2	0.515 g	50 mL	97.08738	SOIL
SAMPLE	246070012		SW846 3050B	11-FEB-2010 08:45	<2	0.512 g	50 mL	97.65625	SOIL
SAMPLE	246070013		SW846 3050B	11-FEB-2010 08:45	<2	0.508 g	50 mL	98.4252	SOIL
SAMPLE	246070014		SW846 3050B	11-FEB-2010 08:45	<2	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246070015		SW846 3050B	11-FEB-2010 08:45	<2	0.515 g	50 mL	97.08738	SOIL
SAMPLE	246070016		SW846 3050B	11-FEB-2010 08:45	<2	0.5 g	50 mL	100	SOIL
SAMPLE	246070017		SW846 3050B	11-FEB-2010 08:45	<2	0.5 g	50 mL	100	SOIL
SAMPLE	246070018		SW846 3050B	11-FEB-2010 08:45	<2	0.522 g	50 mL	95.78544	SOIL
SAMPLE	246070019		SW846 3050B	11-FEB-2010 08:45	<2	0.525 g	50 mL	95.2381	SOIL
SAMPLE	246070020		SW846 3050B	11-FEB-2010 08:45	<2	0.509 g	50 mL	98.23183	SOIL

Reagent/Solvent Lot ID Amount Description

Prep LogBook

1265209	10 mL	HYDROCHLORIC ACID	Comments
1264396	1.25 mL	Nitric Acid CONC.	

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 951554

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202039306	UI031809A	.208	g
MS	1202039308	WHG100217-14	.3	mL
MSD	1202039310	WHG100217-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202039305		SW846 7471A Prep	17-FEB-2010 19:30	0.523 g	30 mL	57.36138	SOIL
LCS	1202039306		SW846 7471A Prep	17-FEB-2010 19:30	0.208 g	30 mL	144.23077	SOIL
SAMPLE	246070001		SW846 7471A Prep	17-FEB-2010 19:30	0.565 g	30 mL	53.09735	SOIL
DUP	1202039307	246070001	SW846 7471A Prep	17-FEB-2010 19:30	0.533 g	30 mL	56.28518	SOIL
MS	1202039308	246070001	SW846 7471A Prep	17-FEB-2010 19:30	0.524 g	30 mL	57.25191	SOIL
MSD	1202039310	246070001	SW846 7471A Prep	17-FEB-2010 19:30	0.563 g	30 mL	53.28597	SOIL
SDILT	1202039309	246070001	SW846 7471A Prep	17-FEB-2010 19:30	0.565 g	30 mL	53.09735	SOIL
SAMPLE	246070002		SW846 7471A Prep	17-FEB-2010 19:30	0.521 g	30 mL	57.58157	SOIL
SAMPLE	246070003		SW846 7471A Prep	17-FEB-2010 19:30	0.582 g	30 mL	51.54639	SOIL
SAMPLE	246070004		SW846 7471A Prep	17-FEB-2010 19:30	0.559 g	30 mL	53.66726	SOIL
SAMPLE	246070005		SW846 7471A Prep	17-FEB-2010 19:30	0.6 g	30 mL	50	SOIL
SAMPLE	246070006		SW846 7471A Prep	17-FEB-2010 19:30	0.55 g	30 mL	54.54545	SOIL
SAMPLE	246070007		SW846 7471A Prep	17-FEB-2010 19:30	0.5 g	30 mL	60	SOIL
SAMPLE	246070008		SW846 7471A Prep	17-FEB-2010 19:30	0.555 g	30 mL	54.05405	SOIL
SAMPLE	246070009		SW846 7471A Prep	17-FEB-2010 19:30	0.509 g	30 mL	58.9391	SOIL
SAMPLE	246070010		SW846 7471A Prep	17-FEB-2010 19:30	0.6 g	30 mL	50	SOIL
SAMPLE	246070011		SW846 7471A Prep	17-FEB-2010 19:30	0.518 g	30 mL	57.91506	SOIL
SAMPLE	246070012		SW846 7471A Prep	17-FEB-2010 19:30	0.532 g	30 mL	56.39098	SOIL
SAMPLE	246070013		SW846 7471A Prep	17-FEB-2010 19:30	0.593 g	30 mL	50.59022	SOIL
SAMPLE	246070014		SW846 7471A Prep	17-FEB-2010 19:30	0.514 g	30 mL	58.36576	SOIL
SAMPLE	246070015		SW846 7471A Prep	17-FEB-2010 19:30	0.513 g	30 mL	58.47953	SOIL
SAMPLE	246070016		SW846 7471A Prep	17-FEB-2010 19:30	0.523 g	30 mL	57.36138	SOIL
SAMPLE	246070017		SW846 7471A Prep	17-FEB-2010 19:30	0.535 g	30 mL	56.07477	SOIL
SAMPLE	246070018		SW846 7471A Prep	17-FEB-2010 19:30	0.515 g	30 mL	58.25243	SOIL
SAMPLE	246070019		SW846 7471A Prep	17-FEB-2010 19:30	0.553 g	30 mL	54.24955	SOIL
SAMPLE	246070020		SW846 7471A Prep	17-FEB-2010 19:30	0.549 g	30 mL	54.64481	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution

Comments Sample 246070001 is a rocky brown clumpy soil.
Digestion Start Date: 17-FEB-10 19:30
Digestion End Date: 17-FEB-10 20:00

Prep LogBook

1255532-C	2 mL	Hg reducing agent
WHG100217-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100217-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100217-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100217-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100217-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100217-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

DER Report No.: 797670
Revision No.: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
02-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
949364	See Below		

Potentially affected work order(s)(SDG): 246070(10-1544)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202033990MS	1. The matrix spike recovery failed outside of the control limits for barium,lead,magnesium,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
2. Failed RPD for DUP: QC 1202033988DUP	2. The sample and sample duplicate % RPD failed outside the control limits for barium,cobalt,copper,manganese and sodium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
3. Failed RPD for MS/MSD, or PS/PSD: QC 1202033991MSD	3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for lead due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
4. Failed Recovery for MSD/PSD: QC 1202033991MSD	4. The matrix spike duplicate recovery failed outside of the control limits for magnesium,potassium and sodium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 02-MAR-10

Data Validator/Group Leader:
Louise Smith 02-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
02-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
949366	See Below		

Potentially affected work order(s)(SDG): 246070(10-1544)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202033994DUP	The sample and sample duplicate % RPD failed outside the control limits for Ni due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
2. Failed RPD for MS/MSD, or PS/PSD: QC 1202033997MSD	The matrix spike duplicate recovery failed outside of the control limits for Se due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.
3. Failed Recovery for MSD/PSD: QC 1202033997MSD	The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for As and Ni due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 02-MAR-10

Data Validator/Group Leader:

Paul Boyd 02-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 01-MAR-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI091015-42	**Opened:**	28-OCT-09	**Amount :**	500 mL
Name:	SI 1000mg/L	**Received:**	15-OCT-09	**Catalog Number :**	060014-02-03
Type:	Source Material	**Expires:**	28-OCT-10	**Lot Number :**	1017581
Employee:	Helen Camello			**Solvent :**	0.3%H2O(NH4)2SiF6
Supplier:	o2si				
Description:	Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID:	UI091015-A	**Opened:**	15-OCT-09	**Catalog Number :**	160067-03
Name:	ICP-MS DOE SOIL SPIKE	**Received:**	15-OCT-09	**Lot Number :**	1017142
Type:	Source Material	**Expires:**	15-OCT-10		
Employee:	Francena Armstrong				
Supplier:	02si				
Description:	ICP-MS Spike for soil products.				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL

Analyte	Concentration	Analyte	Concentration
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100226-40 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100226-41 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Standard Logbook

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Standard Logbook

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100217-01 **Opened:** 17-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 17-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 18-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100217-02 **Opened:** 17-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 18-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100217-07 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100217-08 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100217-09 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100217-10 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-11 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100217-12 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100217-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100217-14 **Opened:** 17-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 17-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 24-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100301-42 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 01-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100301-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100301-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100301-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100301-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100301-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100301-43 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100301-44 **Opened:** 01-MAR-10 **Balance Id :** 216

Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809

Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1276974

Employee: Helen Carnello

Supplier: o2si

Description: Trace ICP Calibration Standard 1.0ppm

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100301-45 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Standard Logbook

Serial ID: WI100301-46 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1276974
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI100301-47 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL &1%HNO3-1276974
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100227-04AB **Opened:** 27-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 27-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100227-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100227-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100227-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100227-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100227-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100227-04B **Opened:** 27-FEB-10 **Amount :** 50 mL

Name: ICPMS Cal Standard 100 **Received:** 27-FEB-10 **Balance Id :** 40245216

Type: Working **Expires:** 28-FEB-10 **Pipet Id :** 1758088

Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768

Supplier: GEL

Description: ICPMS Calibration Standard (100 ppb)

Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100227-05B **Opened:** 27-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 27-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100227-06B **Opened:** 27-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 27-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins **Verified:** 23-FEB-10
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100227-07B
Name: ICPMS ICSA
Type: Working
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Opened: 27-FEB-10
Received: 27-FEB-10
Expires: 28-FEB-10

Balance Id : 40245216
Lot Number : 1010773
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1272768

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100227-08B **Opened:** 27-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 27-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 28-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100302-04 **Opened:** 02-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 02-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 03-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100302-04A **Opened:** 02-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 02-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100302-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100302-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100302-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100302-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100302-05 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 02-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100302-06 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 02-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100302-07 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 02-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 03-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100302-08 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 02-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Standard Logbook

Serial ID: 1203655-02 **Opened:** 15-OCT-09 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 15-OCT-09
Type: Reagent/Solvent **Expires:** 15-OCT-10
Employee: Francena Arrnstrong
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1276824 **Opened:** 01-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 08-MAR-10
Employee: Paul Boyd
Supplier: GEL

Standard Logbook

Description: 2%HNO3/1%HCl Solution (Type I Water)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1276974 **Opened:** 01-MAR-10 **Amount :** 20 L

Name: B-ICP-RINSE SOLN **Received:** 25-FEB-10 **Lot Number :** H04040+G34050

Type: Reagent/Solvent **Expires:** 07-MAR-10 **Solvent :** 3%HCL+1%HNO3

Employee: Helen Camello

Supplier: GEL

Description: 3%HCL+1%HNO3 RINSE SOLN.

Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1544

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948949 and 949513	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948948 and 949512	**Method:**	SSW846 9010B Prep

Sample Analysis
The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246070001	RE15-10-8164
246070002	RE15-10-8162
246070003	RE15-10-8151
246070004	RE15-10-8163
246070005	RE15-10-8148
246070006	RE15-10-8166
246070007	RE15-10-8161
246070008	RE15-10-8154
246070009	RE15-10-8156
246070010	RE15-10-8159
246070011	RE15-10-8157
246070012	RE15-10-8158
246070013	RE15-10-8160
246070014	RE15-10-8149
246070015	RE15-10-8167
246070016	RE15-10-8152
246070017	RE15-10-8150
246070018	RE15-10-8153
246070019	RE15-10-8165
246070020	RE15-10-8155
1202033028	Method Blank (MB)
1202033029	246066014(RE15-10-8137) Sample Duplicate (DUP)
1202033030	246066015(RE15-10-8143) Sample Duplicate (DUP)
1202033031	246066014(RE15-10-8137) Matrix Spike (MS)
1202033032	246066015(RE15-10-8143) Matrix Spike (MS)
1202033033	246066014(RE15-10-8137) Matrix Spike Duplicate (MSD)
1202033034	246066015(RE15-10-8143) Matrix Spike Duplicate (MSD)
1202033035	Laboratory Control Sample (LCS)
1202034331	Method Blank (MB)
1202034332	246070014(RE15-10-8149) Sample Duplicate (DUP)
1202034333	246070014(RE15-10-8149) Matrix Spike (MS)
1202034334	246070014(RE15-10-8149) Matrix Spike Duplicate (MSD)
1202034335	Laboratory Control Sample (LCS)
1202036005	246268001(RE16-10-1310) Sample Duplicate (DUP)
1202036006	246268001(RE16-10-1310) Matrix Spike (MS)
1202036007	246268001(RE16-10-1310) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 246066014 (RE15-10-8137), 246066015 (RE15-10-8143)- Batch 948949, 246070014 (RE15-10-8149) and 246268001 (RE16-10-1310)- Batch 949513.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The spike recovery falls outside of the client specified acceptance limits due to matrix interference: 1202033031 (RE15-10-8137)- Batch 948949.

Matrix Spike Duplicate (MSD) Recovery Statement

The spike recovery duplicate falls outside of the client specified acceptance limits due to matrix interference: 1202033033 (RE15-10-8137)- Batch 948949.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033029 (RE15-10-8137), 1202033030 (RE15-10-8143)- Batch 948949 and 1202036005 (RE16-10-1310)- Batch 949513.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202033035 (LCS)- Batch 948949 and 1202034335 (LCS)- Batch 949513.

Sample Re-analysis
The following samples were re-analyzed due to CCV failure: 1202036005 (RE16-10-1310), 1202036006 (RE16-10-1310), 1202036007 (RE16-10-1310), 246070019 (RE15-10-8165) and 246070020 (RE15-10-8155)- Batch 949513.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 791246 1202033031 (RE15-10-8137) and 1202033033 (RE15-10-8137)- Batch 948949.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 01Mar10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1544 GEL Work Order: 246070

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8164	Project:	LANL01004
Sample ID:	246070001	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.5	303	ug/kg	1	AXC2 02/12/10	1538	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8162	Project:	LANL01004
Sample ID:	246070002	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	23.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	88.5	325	ug/kg	1	AXC2	02/12/10	1539	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8151	Project:	LANL01004
Sample ID:	246070003	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	26.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	J	112	92.9	342	ug/kg	1	AXC2 02/12/10	1540	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8163	Project:	LANL01004
Sample ID:	246070004	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	15.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.1	294	ug/kg	1	AXC2 02/12/10	1540	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8148	Project:	LANL01004
Sample ID:	246070005	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	35.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	106	389	ug/kg	1	AXC2 02/12/10	1541	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8166	Project:	LANL01004
Sample ID:	246070006	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	82.9	305	ug/kg	1	AXC2 02/12/10	1542	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8161	Project:	LANL01004
Sample ID:	246070007	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.9	283	ug/kg	1	AXC2 02/12/10	1543	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID: RE15-10-8154
Sample ID: 246070008
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 22.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	88.0	324	ug/kg	1	AXC2	02/12/10	1544	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID: RE15-10-8156
Sample ID: 246070009
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 22.6%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	87.9	323	ug/kg	1	AXC2 02/12/10	1545	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8159	Project:	LANL01004
Sample ID:	246070010	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.8	282	ug/kg	1	AXC2 02/12/10	1549	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8157	Project:	LANL01004
Sample ID:	246070011	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	76.9	283	ug/kg	1	AXC2 02/12/10	1550	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8158	Project:	LANL01004
Sample ID:	246070012	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	15.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.5	296	ug/kg	1	AXC2 02/12/10	1551	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8160	Project:	LANL01004
Sample ID:	246070013	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	15%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.0	294	ug/kg	1	AXC2 02/12/10	1552	948949	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/12/10	1243	948948

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8149	Project:	LANL01004
Sample ID:	246070014	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.7%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.6	267	ug/kg	1	AXC2 02/09/10	1108	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8167	Project:	LANL01004
Sample ID:	246070015	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	13.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.3	255	ug/kg	1	AXC2 02/09/10	1111	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID: RE15-10-8152
Sample ID: 246070016
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 19.1%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	79.3	292	ug/kg	1	AXC2 02/09/10	1112	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8150	Project:	LANL01004
Sample ID:	246070017	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	10.1%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	65.2	240	ug/kg	1	AXC2	02/09/10	1113	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID: RE15-10-8153
Sample ID: 246070018
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 24.4%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	86.5	318	ug/kg	1	AXC2 02/09/10	1114	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8165	Project:	LANL01004
Sample ID:	246070019	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	11.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	72.5	267	ug/kg	1	AXC2	02/09/10	1224	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 24, 2010

Client SDG: 10-1544

Client Sample ID:	RE15-10-8155	Project:	LANL01004
Sample ID:	246070020	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	14.4%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	73.5	270	ug/kg	1	AXC2 02/09/10	1225	949513	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/08/10	1432	949512

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 24, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 246070

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948949										
QC1202033029 246066014 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/12/10 15:20
QC1202033030 246066015 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				02/12/10 15:27
QC1202033035 LCS										
Cyanide, Total	67900			43300	ug/kg		63.7	(32%-157%)		02/12/10 15:18
QC1202033028 MB										
Cyanide, Total			U	250	ug/kg					02/12/10 15:17
QC1202033031 246066014 MS										
Cyanide, Total	5970	U	ND	3030	ug/kg		50.7	(26%-158%)		02/12/10 15:24
QC1202033032 246066015 MS										
Cyanide, Total	5590	U	ND	4970	ug/kg		88.8	(26%-158%)		02/12/10 15:28
QC1202033033 246066014 MSD										
Cyanide, Total	5970	U	ND	3470	ug/kg	13.8	58.2	(0%-30%)		02/12/10 15:25
QC1202033034 246066015 MSD										
Cyanide, Total	5590	U	ND	5100	ug/kg	2.44	91	(0%-30%)		02/12/10 15:29
Batch 949513										
QC1202034332 246070014 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A			AXC2	02/09/10 11:09
QC1202036005 246268001 DUP										
Cyanide, Total	U	ND	U	ND	ug/kg	N/A				02/09/10 12:27
QC1202034335 LCS										
Cyanide, Total	67900			76500	ug/kg		113	(32%-157%)		02/09/10 11:07
QC1202034331 MB										
Cyanide, Total			U	250	ug/kg					02/09/10 11:06
QC1202034333 246070014 MS										
Cyanide, Total	5660	U	ND	5480	ug/kg		96.8	(26%-158%)		02/09/10 11:10
QC1202036006 246268001 MS										
Cyanide, Total	5240	U	ND	4780	ug/kg		91.3	(26%-158%)		02/09/10 12:28
QC1202034334 246070014 MSD										
Cyanide, Total	5550	U	ND	5400	ug/kg	1.47	97.3	(0%-30%)		02/09/10 11:10
QC1202036007 246268001 MSD										
Cyanide, Total	5040	U	ND	4510	ug/kg	5.84	89.5	(0%-30%)		02/09/10 12:29

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product

QC Summary

Workorder: 246070

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-FEB-2010 12:27

GEL Laboratories LLC

Contract: **LANL01004**

SDG #: **10-1544**

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**09-FEB-2010 11:00:58**	**OM_2-9-2010_10-50-31**	**154**	**150**	**103**	**(90%-110%)**	**Yes**
CCV	09-FEB-2010 11:15:16	OM_2-9-2010_10-50-31	109	100	109	(90%-110%)	Yes
CCV	09-FEB-2010 12:21:01	OM_2-9-2010_12-19-29	97.2	100	97.2	(90%-110%)	Yes
CCV	09-FEB-2010 12:33:26	OM_2-9-2010_12-19-29	97.1	100	97.1	(90%-110%)	Yes
ICV	**12-FEB-2010 12:36:27**	**OM_2-12-2010_12-28-33**	**138**	**150**	**92**	**(90%-110%)**	**Yes**
CCV	12-FEB-2010 15:08:19	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 15:21:00	OM_2-12-2010_12-28-33	101	100	101	(90%-110%)	Yes
CCV	12-FEB-2010 15:33:36	OM_2-12-2010_12-28-33	101	100	101	(90%-110%)	Yes
CCV	12-FEB-2010 15:46:16	OM_2-12-2010_12-28-33	101	100	101	(90%-110%)	Yes
CCV	12-FEB-2010 15:54:25	OM_2-12-2010_12-28-33	105	100	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**09-FEB-2010 11:02:49**	**OM_2-9-2010_10-50-31**	**-1.37**	**10**	**Yes**
CCB	09-FEB-2010 11:17:06	OM_2-9-2010_10-50-31	-1.86	10	Yes
CCB	09-FEB-2010 12:22:51	OM_2-9-2010_12-19-29	-1.03	10	Yes
CCB	09-FEB-2010 12:35:19	OM_2-9-2010_12-19-29	-1.82	10	Yes
ICB	**12-FEB-2010 12:38:17**	**OM_2-12-2010_12-28-33**	**-1.76**	**10**	**Yes**
CCB	12-FEB-2010 15:10:09	OM_2-12-2010_12-28-33	1.87	10	Yes
CCB	12-FEB-2010 15:22:50	OM_2-12-2010_12-28-33	0.945	10	Yes
CCB	12-FEB-2010 15:35:27	OM_2-12-2010_12-28-33	1.5	10	Yes
CCB	12-FEB-2010 15:48:06	OM_2-12-2010_12-28-33	1.5	10	Yes
CCB	12-FEB-2010 15:56:16	OM_2-12-2010_12-28-33	1.28	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948948

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033035	URF1200957-01	.25	g
MS	1202033031	URF1184831-02	.025	mL
MS	1202033032	URF1184831-02	.025	mL
MSD	1202033033	URF1184831-02	.025	mL
MSD	1202033034	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033028		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
LCS	1202033035		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.25 g	25 mL	100	SOIL
SAMPLE	246066014		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
DUP	1202033029	246066014	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
MS	1202033031	246066014	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
MSD	1202033033	246066014	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066015		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
DUP	1202033030	246066015	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
MS	1202033032	246066015	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
MSD	1202033034	246066015	SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066016		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066017		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066018		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066019		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246066020		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070001		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070002		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070003		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070004		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070005		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070006		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070007		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070008		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070009		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070010		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070011		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070012		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246070013		SW846 9010B Prep	12-FEB-2010 12:43	>12	0.5 g	25 mL	50	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
100210-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100212-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 949512

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202034335	URF1200957-01	.25	g
MS	1202034333	URF1184831-02	.025	mL
MS	1202036006	URF1184831-02	.025	mL
MSD	1202034334	URF1184831-02	.025	mL
MSD	1202036007	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202034331		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.5 g	25 mL	50	SOIL
LCS	1202034335		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.25 g	25 mL	100	SOIL
SAMPLE	246070014		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
DUP	1202034332	246070014	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202034333	246070014	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.5 g	25 mL	50	SOIL
MSD	1202034334	246070014	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246070015		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246070016		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246070017		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246070018		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246070019		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246070020		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246268001		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.55 g	25 mL	45.45455	SOIL
DUP	1202036005	246268001	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
MS	1202036006	246268001	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.51 g	25 mL	49.01961	SOIL
MSD	1202036007	246268001	SW846 9010B Prep	08-FEB-2010 14:32	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246268002		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246268003		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	246268004		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246268005		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246268006		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246280001		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246280002		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246280003		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246280004		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246333001		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246333002		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246415001		SW846 9010B Prep	08-FEB-2010 14:32	>12	0.558 g	25 mL	44.80287	MISC SOLID

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100208-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/9/2010 10:53:49	OM_2-9-2010_10-50-31
150 ppb		1	axc2	2/9/2010 10:54:41	OM_2-9-2010_10-50-31
100 ppb		1	axc2	2/9/2010 10:55:34	OM_2-9-2010_10-50-31
50 ppb		1	axc2	2/9/2010 10:56:26	OM_2-9-2010_10-50-31
10 ppb		1	axc2	2/9/2010 10:57:20	OM_2-9-2010_10-50-31
CRDL 5.0 ppb		1	axc2	2/9/2010 10:58:13	OM_2-9-2010_10-50-31
ICAL-00		1	axc2	2/9/2010 10:59:07	OM_2-9-2010_10-50-31
ICV		1	axc2	2/9/2010 11:00:58	OM_2-9-2010_10-50-31
ICB		1	axc2	2/9/2010 11:02:49	OM_2-9-2010_10-50-31
CRDL		1	axc2	2/9/2010 11:04:39	OM_2-9-2010_10-50-31
1202034331	949513	1	axc2	2/9/2010 11:06:29	OM_2-9-2010_10-50-31
1202034335	949513	25	axc2	2/9/2010 11:07:22	OM_2-9-2010_10-50-31
246070014	949513	1	axc2	2/9/2010 11:08:15	OM_2-9-2010_10-50-31
1202034332	949513	1	axc2	2/9/2010 11:09:08	OM_2-9-2010_10-50-31
1202034333	949513	1	axc2	2/9/2010 11:10:01	OM_2-9-2010_10-50-31
1202034334	949513	1	axc2	2/9/2010 11:10:54	OM_2-9-2010_10-50-31
246070015	949513	1	axc2	2/9/2010 11:11:46	OM_2-9-2010_10-50-31
246070016	949513	1	axc2	2/9/2010 11:12:39	OM_2-9-2010_10-50-31
246070017	949513	1	axc2	2/9/2010 11:13:31	OM_2-9-2010_10-50-31
246070018	949513	1	axc2	2/9/2010 11:14:24	OM_2-9-2010_10-50-31
CCV		1	axc2	2/9/2010 11:15:16	OM_2-9-2010_10-50-31
CCB		1	axc2	2/9/2010 11:17:06	OM_2-9-2010_10-50-31
246070019*	949513	1	axc2	2/9/2010 11:18:54	OM_2-9-2010_10-50-31
246070020*	949513	1	axc2	2/9/2010 11:19:47	OM_2-9-2010_10-50-31
246268001*	949513	1	axc2	2/9/2010 11:20:38	OM_2-9-2010_10-50-31
1202036005*	949513	1	axc2	2/9/2010 11:21:30	OM_2-9-2010_10-50-31
1202036006*	949513	1	axc2	2/9/2010 11:22:22	OM_2-9-2010_10-50-31
1202036007*	949513	1	axc2	2/9/2010 11:23:15	OM_2-9-2010_10-50-31
246268002*	949513	1	axc2	2/9/2010 11:24:09	OM_2-9-2010_10-50-31
246268003*	949513	1	axc2	2/9/2010 11:25:02	OM_2-9-2010_10-50-31
246268004*	949513	1	axc2	2/9/2010 11:25:56	OM_2-9-2010_10-50-31
246268005*	949513	1	axc2	2/9/2010 11:26:49	OM_2-9-2010_10-50-31
CCV		1	axc2	2/9/2010 11:27:42	OM_2-9-2010_10-50-31

Author: axc2 Date : 2/9/2010

Original Run Filename: OM_2-9-2010_10-50-31.OMN created 2/9/2010 10:50:31
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-9-2010_10-50-31.OMN last modified 2/9/2010 11:28:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100209-01	1	S1	200	8.26	2/9/2010@10:53:49			200 ppb
WCN100209-02	1	S2	150	6.28	2/9/2010@10:54:41			150 ppb
WCN100209-03	1	S3	100	4.33	2/9/2010@10:55:34			100 ppb
WCN100209-04	1	S4	50.0	2.10	2/9/2010@10:56:26			50 ppb
WCN100209-05	1	S5	10.0	0.504	2/9/2010@10:57:20			10 ppb
WCN100209-06	1	S6	5.00	0.320	2/9/2010@10:58:13			CRDL 5.0 ppb
WCN100209-08	1	S7	0.00	-0.00404	2/9/2010@10:59:07			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100209-07	1	S8	154	6.43	2/9/2010@11:00:58			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.7 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100209-08	1	S7	-1.37	0.0203	2/9/2010@11:02:49			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.37 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.37 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100209-06	1	S6	5.96	0.322	2/9/2010@11:04:39			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.96 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.96 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202034331|949513|MB	1	1	-1.23	0.0261	2/9/2010@11:06:29			
1202034335||LCS	1	2	30.6	1.34	2/9/2010@11:07:22		25.00	
246070014	1	3	-0.400	0.0601	2/9/2010@11:08:15			
1202034332||DUP	1	4	-0.376	0.0611	2/9/2010@11:09:08			
1202034333||MS	1	5	96.8	4.07	2/9/2010@11:10:01			
1202034334||MSD	1	6	97.3	4.09	2/9/2010@11:10:54			
246070015	1	7	-0.290	0.0647	2/9/2010@11:11:46			
246070016	1	8	0.790	0.109	2/9/2010@11:12:39			
246070017	1	9	-0.535	0.0546	2/9/2010@11:13:31			
246070018	1	10	-0.0214	0.0758	2/9/2010@11:14:24			
WCN100209-03	1	S3	109	4.58	2/9/2010@11:15:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	9.2 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	9.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.86	-1.07e-4	2/9/2010@11:17:06			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246070019	1	11	-0.737	0.0463	2/9/2010@11:18:54			
246070020	1	12	-0.581	0.0527	2/9/2010@11:19:47			
246268001	1	13	-1.07	0.0324	2/9/2010@11:20:38			
1202036005 DUP	1	14	-0.998	0.0355	2/9/2010@11:21:30			
1202036006 MS	1	15	90.0	3.79	2/9/2010@11:22:22			
1202036007 MSD	1	16	91.5	3.85	2/9/2010@11:23:15			
246268002	1	17	0.467	0.0959	2/9/2010@11:24:09			
246268003	1	18	-0.989	0.0359	2/9/2010@11:25:02			
246268004	1	19	-0.595	0.0521	2/9/2010@11:25:56			
246268005	1	20	-0.856	0.0414	2/9/2010@11:26:49			
WCN100209-03	1	S3	110	4.63	2/9/2010@11:27:42			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	10.4 > 10.0					
		Message	CCV Failed					
		Action	Stop Run					
		DQM Test: < - Percent Relative Difference						
		Result:	10.4 > 10.0					
		Message	CCV Passed					
		Action	Continue					

Analyte Properties Table for OM_2-9-2010_10-50-31.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/9/2010

Channel 1: Current View

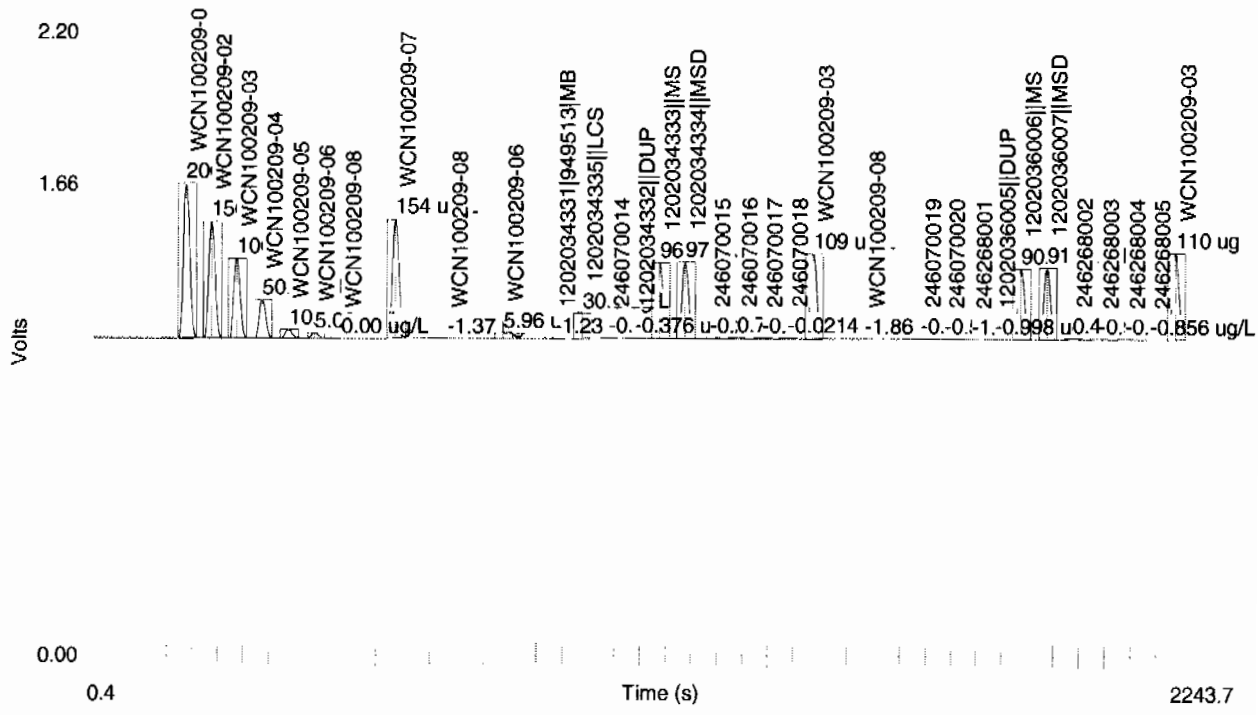

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.26	0.543	0.8	2/9/2010	10:54:52
2	150	1	6.28	0.411	-0.2	2/9/2010	10:55:44
3	100	1	4.33	0.283	-3.0	2/9/2010	10:56:37
4	50.0	1	2.10	0.137	2.0	2/9/2010	10:57:29
5	10.0	1	0.504	0.0318	-2.7	2/9/2010	10:58:23
6	5.00	1	0.320	0.0200	-12.6	2/9/2010	10:59:17
7	0.00	1	-0.00404	-9.71e-4		2/9/2010	11:00:11

Figure 1: TCYANIDE

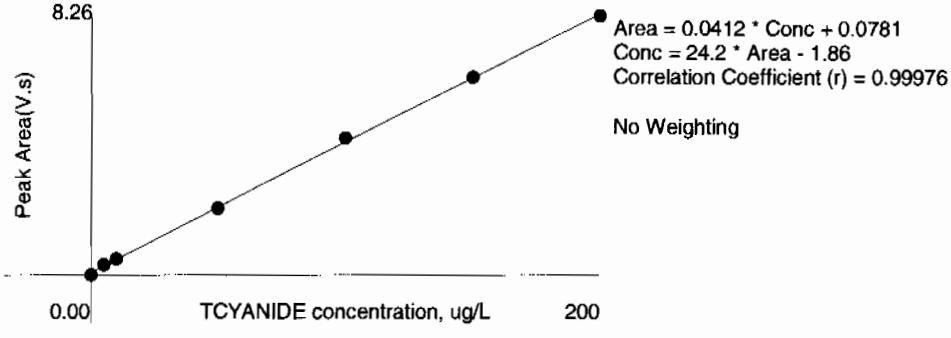

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	2/9/2010 12:21:01	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:22:51	OM_2-9-2010_12-19-29
246070019	949513	1	axc2	2/9/2010 12:24:39	OM_2-9-2010_12-19-29
246070020	949513	1	axc2	2/9/2010 12:25:31	OM_2-9-2010_12-19-29
246268001	949513	1	axc2	2/9/2010 12:26:23	OM_2-9-2010_12-19-29
1202036005	949513	1	axc2	2/9/2010 12:27:15	OM_2-9-2010_12-19-29
1202036006	949513	1	axc2	2/9/2010 12:28:07	OM_2-9-2010_12-19-29
1202036007	949513	1	axc2	2/9/2010 12:29:00	OM_2-9-2010_12-19-29
246268002	949513	1	axc2	2/9/2010 12:29:54	OM_2-9-2010_12-19-29
246268003	949513	1	axc2	2/9/2010 12:30:47	OM_2-9-2010_12-19-29
246268004	949513	1	axc2	2/9/2010 12:31:40	OM_2-9-2010_12-19-29
246268005	949513	1	axc2	2/9/2010 12:32:33	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:33:26	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:35:19	OM_2-9-2010_12-19-29
246268006	949513	1	axc2	2/9/2010 12:37:09	OM_2-9-2010_12-19-29
246280001	949513	1	axc2	2/9/2010 12:38:01	OM_2-9-2010_12-19-29
246280002	949513	1	axc2	2/9/2010 12:38:54	OM_2-9-2010_12-19-29
246280003	949513	1	axc2	2/9/2010 12:39:46	OM_2-9-2010_12-19-29
246280004	949513	1	axc2	2/9/2010 12:40:40	OM_2-9-2010_12-19-29
246333001	949513	1	axc2	2/9/2010 12:41:32	OM_2-9-2010_12-19-29
246333002	949513	1	axc2	2/9/2010 12:42:24	OM_2-9-2010_12-19-29
246415001	949513	1	axc2	2/9/2010 12:43:15	OM_2-9-2010_12-19-29
1202029260	947321	1	axc2	2/9/2010 12:44:08	OM_2-9-2010_12-19-29
1202029267	947321	25	axc2	2/9/2010 12:45:00	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:45:51	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 12:47:43	OM_2-9-2010_12-19-29
245783001	947321	1	axc2	2/9/2010 12:49:34	OM_2-9-2010_12-19-29
1202029262	947321	1	axc2	2/9/2010 12:50:28	OM_2-9-2010_12-19-29
1202029264	947321	1	axc2	2/9/2010 12:51:22	OM_2-9-2010_12-19-29
1202029266	947321	1	axc2	2/9/2010 12:52:15	OM_2-9-2010_12-19-29
245783002	947321	1	axc2	2/9/2010 12:53:08	OM_2-9-2010_12-19-29
245783003	947321	1	axc2	2/9/2010 12:54:01	OM_2-9-2010_12-19-29
245783004	947321	1	axc2	2/9/2010 12:54:55	OM_2-9-2010_12-19-29
245783005	947321	1	axc2	2/9/2010 12:55:48	OM_2-9-2010_12-19-29
245783006	947321	1	axc2	2/9/2010 12:56:42	OM_2-9-2010_12-19-29
245783007	947321	1	axc2	2/9/2010 12:57:34	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 12:58:27	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 13:00:17	OM_2-9-2010_12-19-29
245783008	947321	1	axc2	2/9/2010 13:02:08	OM_2-9-2010_12-19-29
245783009	947321	1	axc2	2/9/2010 13:03:00	OM_2-9-2010_12-19-29
245783010	947321	1	axc2	2/9/2010 13:03:53	OM_2-9-2010_12-19-29
245783011	947321	1	axc2	2/9/2010 13:04:44	OM_2-9-2010_12-19-29
245783012*	947321	1	axc2	2/9/2010 13:05:36	OM_2-9-2010_12-19-29
245783013*	947321	1	axc2	2/9/2010 13:06:31	OM_2-9-2010_12-19-29
245783014*	947321	1	axc2	2/9/2010 13:07:25	OM_2-9-2010_12-19-29
245783015*	947321	1	axc2	2/9/2010 13:08:19	OM_2-9-2010_12-19-29
245783016	947321	1	axc2	2/9/2010 13:09:12	OM_2-9-2010_12-19-29
245786001	947321	1	axc2	2/9/2010 13:10:06	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010 13:10:58	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010 13:12:49	OM_2-9-2010_12-19-29
245783012	947321	1	axc2	2/9/2010 13:14:39	OM_2-9-2010_12-19-29
245783013	947321	1	axc2	2/9/2010 13:15:33	OM_2-9-2010_12-19-29
245783014	947321	1	axc2	2/9/2010 13:16:26	OM_2-9-2010_12-19-29
245783015	947321	1	axc2	2/9/2010 13:17:20	OM_2-9-2010_12-19-29
245806008	947321	1	axc2	2/9/2010 13:18:13	OM_2-9-2010_12-19-29
1202029261	947321	1	axc2	2/9/2010 13:19:07	OM_2-9-2010_12-19-29
1202029263	947321	1	axc2	2/9/2010 13:20:00	OM_2-9-2010_12-19-29
1202029265	947321	1	axc2	2/9/2010 13:20:53	OM_2-9-2010_12-19-29

1202036002	950190	1	axc2	2/9/2010	13:21:46	OM_2-9-2010_12-19-29
246415001	950190	1	axc2	2/9/2010	13:22:37	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010	13:23:31	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010	13:25:21	OM_2-9-2010_12-19-29
1202036003	950190	1	axc2	2/9/2010	13:27:11	OM_2-9-2010_12-19-29
1202036004	950190	1	axc2	2/9/2010	13:28:04	OM_2-9-2010_12-19-29
246415001	950190	10	axc2	2/9/2010	13:28:55	OM_2-9-2010_12-19-29
246415001	949513	10	axc2	2/9/2010	13:29:48	OM_2-9-2010_12-19-29
CCV		1	axc2	2/9/2010	13:30:41	OM_2-9-2010_12-19-29
CCB		1	axc2	2/9/2010	13:32:31	OM_2-9-2010_12-19-29

Author: axc2 Date : 2/9/2010

Original Run Filename: OM_2-9-2010_12-19-29.OMN created 2/9/2010 12:19:29
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-9-2010_12-19-29.OMN last modified 2/9/2010 13:33:37
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100209-03	1	S3	97.2	4.09	2/9/2010@12:21:01			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.03	0.0341	2/9/2010@12:22:51			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.03 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.03 > -5.00					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
246070019|949513|	1	11	-0.492	0.0563	2/9/2010@12:24:39			
246070020	1	12	-1.92	-0.00255	2/9/2010@12:25:31			
246268001	1	13	-1.46	0.0165	2/9/2010@12:26:23			
1202036005|DUP	1	14	-0.928	0.0384	2/9/2010@12:27:15			
1202036006|MS	1	15	91.3	3.84	2/9/2010@12:28:07			
1202036007|MSD	1	16	89.5	3.77	2/9/2010@12:29:00			
246268002	1	17	0.633	0.103	2/9/2010@12:29:54			
246268003	1	18	-1.64	0.00906	2/9/2010@12:30:47			
246268004	1	19	-0.611	0.0514	2/9/2010@12:31:40			
246268005	1	20	-0.546	0.0541	2/9/2010@12:32:33			
WCN100209-03	1	S3	97.1	4.08	2/9/2010@12:33:26			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.82	0.00154	2/9/2010@12:35:19			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246268006	1	21	-1.09	0.0318	2/9/2010@12:37:09			
246280001	1	22	-1.04	0.0336	2/9/2010@12:38:01			
246280002	1	23	-0.224	0.0674	2/9/2010@12:38:54			
246280003	1	24	-0.529	0.0548	2/9/2010@12:39:46			
246280004	1	25	-1.19	0.0277	2/9/2010@12:40:40			

246333001	1	26	-0.821	0.0428	2/9/2010@12:41:32			
246333002	1	27	-1.06	0.0328	2/9/2010@12:42:24			
246415001	1	28	421	17.4	2/9/2010@12:43:15			
1202029260|947321|MB	1	29	-0.194	0.0686	2/9/2010@12:44:08			
1202029267||LCS	1	30	31.1	1.36	2/9/2010@12:45:00		25.00	
WCN100209-03	1	S3	99.6	4.19	2/9/2010@12:45:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.49	0.0152	2/9/2010@12:47:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783001	1	31	-1.21	0.0266	2/9/2010@12:49:34			
1202029262||DUP	1	32	-0.595	0.0521	2/9/2010@12:50:28			
1202029264||MS	1	33	104	4.35	2/9/2010@12:51:22			
1202029266||MSD	1	34	101	4.25	2/9/2010@12:52:15			
245783002	1	35	-0.122	0.0716	2/9/2010@12:53:08			
245783003	1	36	-0.870	0.0408	2/9/2010@12:54:01			
245783004	1	37	-0.551	0.0539	2/9/2010@12:54:55			
245783005	1	38	-1.12	0.0304	2/9/2010@12:55:48			
245783006	1	39	1.45	0.136	2/9/2010@12:56:42			
245783007	1	40	-0.793	0.0439	2/9/2010@12:57:34			
WCN100209-03	1	S3	99.3	4.17	2/9/2010@12:58:27			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.36	0.0206	2/9/2010@13:00:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.36 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.36 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783008	1	41	-1.05	0.0332	2/9/2010@13:02:08			
245783009	1	42	-0.271	0.0655	2/9/2010@13:03:00			
245783010	1	43	-0.884	0.0402	2/9/2010@13:03:53			
245783011	1	44	-1.39	0.0191	2/9/2010@13:04:44			
245783012	1	45	17.9	0.817	2/9/2010@13:05:36			
245783013	1	46	-526	-21.6	2/9/2010@13:06:31			
245783014	1	47	-550	-22.6	2/9/2010@13:07:25			
245783015	1	48	9.69	0.476	2/9/2010@13:08:19			
245783016	1	49	-0.372	0.0613	2/9/2010@13:09:12			
245786001	1	50	-1.14	0.0298	2/9/2010@13:10:06			
WCN100209-03	1	S3	101	4.23	2/9/2010@13:10:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								

		Result:	0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	0.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-2.21	-0.0143	2/9/2010@13:12:49			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-2.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-2.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245783012	1	45	-0.912	0.0390	2/9/2010@13:14:39			
245783013	1	46	-0.469	0.0573	2/9/2010@13:15:33			
245783014	1	47	0.111	0.0812	2/9/2010@13:16:26			
245783015	1	48	-0.872	0.0407	2/9/2010@13:17:20			
245806008	1	51	0.862	0.112	2/9/2010@13:18:13			
1202029261||DUP	1	52	-0.0633	0.0740	2/9/2010@13:19:07			
1202029263||MS	1	53	85.7	3.61	2/9/2010@13:20:00			
1202029265||MSD	1	54	82.8	3.49	2/9/2010@13:20:53			
1202036002|950190|MB	1	55	-1.09	0.0318	2/9/2010@13:21:46			
246415001	1	58	312	13.0	2/9/2010@13:22:37			
WCN100209-03	1	S3	102	4.27	2/9/2010@13:23:31			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.86	-6.73e-5	2/9/2010@13:25:21			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202036003||LCS	1	56	-0.177	0.0694	2/9/2010@13:27:11			
1202036004||LCSD	1	57	-0.890	0.0399	2/9/2010@13:28:04			
246415001	1	58	32.2	1.41	2/9/2010@13:28:55		10.00	
246415001|949513|	1	28	61.7	2.62	2/9/2010@13:29:48		10.00	
WCN100209-03	1	S3	100	4.22	2/9/2010@13:30:41			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	0.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100209-08	1	S7	-1.93	-0.00315	2/9/2010@13:32:31			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.93 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						

Author: axc2 Date : 2/9/2010

Result:	-1.93 > -5.00
Message	CCB Passed
Action	Continue

Analyte Properties Table for OM_2-9-2010_12-19-29.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

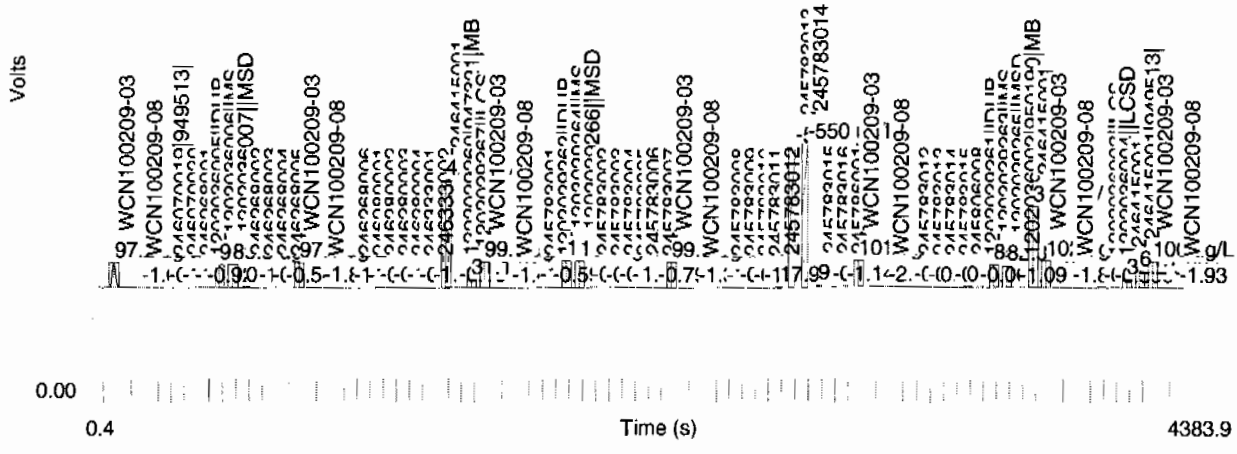

Author: axc2 Date : 2/9/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.26	0.543	0.8	2/9/2010	10:54:52
2	150	1	6.28	0.411	-0.2	2/9/2010	10:55:44
3	100	1	4.33	0.283	-3.0	2/9/2010	10:56:37
4	50.0	1	2.10	0.137	2.0	2/9/2010	10:57:29
5	10.0	1	0.504	0.0318	-2.7	2/9/2010	10:58:23
6	5.00	1	0.320	0.0200	-12.6	2/9/2010	10:59:17
7	0.00	1	-0.00404	-9.71e-4		2/9/2010	11:00:11

Figure 1: TCYANIDE

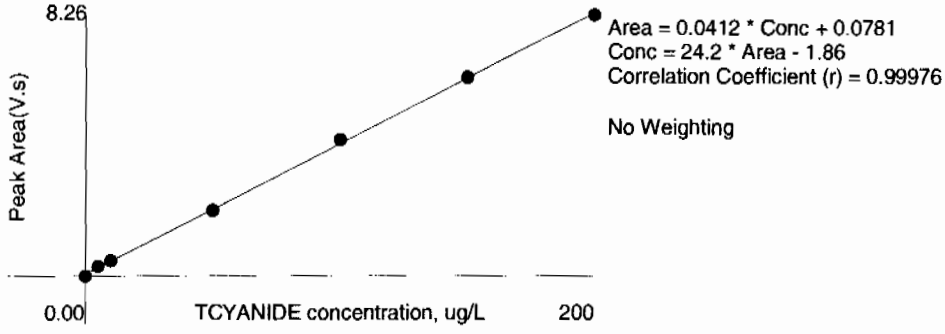

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/12/2010 12:29:18	OM_2-12-2010_12-28-33
150 ppb		1	axc2	2/12/2010 12:30:11	OM_2-12-2010_12-28-33
100 ppb		1	axc2	2/12/2010 12:31:03	OM_2-12-2010_12-28-33
50 ppb		1	axc2	2/12/2010 12:31:56	OM_2-12-2010_12-28-33
10 ppb		1	axc2	2/12/2010 12:32:49	OM_2-12-2010_12-28-33
CRDL 5.0 ppb		1	axc2	2/12/2010 12:33:43	OM_2-12-2010_12-28-33
ICAL-00		1	axc2	2/12/2010 12:34:37	OM_2-12-2010_12-28-33
ICV		1	axc2	2/12/2010 12:36:27	OM_2-12-2010_12-28-33
ICB		1	axc2	2/12/2010 12:38:17	OM_2-12-2010_12-28-33
		1	axc2	2/12/2010 12:40:07	OM_2-12-2010_12-28-33
1202033017	948946	1	axc2	2/12/2010 12:41:56	OM_2-12-2010_12-28-33
1202033024	948946	25	axc2	2/12/2010 12:42:50	OM_2-12-2010_12-28-33
246012007	948946	1	axc2	2/12/2010 12:43:43	OM_2-12-2010_12-28-33
1202033018	948946	1	axc2	2/12/2010 12:44:36	OM_2-12-2010_12-28-33
1202033020	948946	1	axc2	2/12/2010 12:45:29	OM_2-12-2010_12-28-33
1202033022	948946	1	axc2	2/12/2010 12:46:22	OM_2-12-2010_12-28-33
246012008	948946	1	axc2	2/12/2010 12:47:15	OM_2-12-2010_12-28-33
1202033019	948946	1	axc2	2/12/2010 12:48:07	OM_2-12-2010_12-28-33
1202033021	948946	1	axc2	2/12/2010 12:49:00	OM_2-12-2010_12-28-33
1202033023	948946	1	axc2	2/12/2010 12:49:52	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 12:50:44	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 12:52:34	OM_2-12-2010_12-28-33
246012009	948946	1	axc2	2/12/2010 12:54:22	OM_2-12-2010_12-28-33
246012010	948946	1	axc2	2/12/2010 12:55:14	OM_2-12-2010_12-28-33
246012011	948946	1	axc2	2/12/2010 12:56:06	OM_2-12-2010_12-28-33
246055001	948946	1	axc2	2/12/2010 12:56:58	OM_2-12-2010_12-28-33
246055002	948946	1	axc2	2/12/2010 12:57:50	OM_2-12-2010_12-28-33
246055003	948946	1	axc2	2/12/2010 12:58:43	OM_2-12-2010_12-28-33
246055004	948946	1	axc2	2/12/2010 12:59:37	OM_2-12-2010_12-28-33
246055005	948946	1	axc2	2/12/2010 13:00:30	OM_2-12-2010_12-28-33
246055006	948946	1	axc2	2/12/2010 13:01:23	OM_2-12-2010_12-28-33
246055007	948946	1	axc2	2/12/2010 13:02:16	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:03:08	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:04:59	OM_2-12-2010_12-28-33
246055008	948946	1	axc2	2/12/2010 13:06:48	OM_2-12-2010_12-28-33
246055009*	948946	1	axc2	2/12/2010 13:07:41	OM_2-12-2010_12-28-33
246066001	948946	1	axc2	2/12/2010 13:08:34	OM_2-12-2010_12-28-33
246066002	948946	1	axc2	2/12/2010 13:09:27	OM_2-12-2010_12-28-33
246066003	948946	1	axc2	2/12/2010 13:10:18	OM_2-12-2010_12-28-33
246066004	948946	1	axc2	2/12/2010 13:11:11	OM_2-12-2010_12-28-33
246066005	948946	1	axc2	2/12/2010 13:12:03	OM_2-12-2010_12-28-33
246066006	948946	1	axc2	2/12/2010 13:12:55	OM_2-12-2010_12-28-33
1202036012	950194	1	axc2	2/12/2010 13:13:47	OM_2-12-2010_12-28-33
1202036019	950194	25	axc2	2/12/2010 13:14:39	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:15:31	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:17:22	OM_2-12-2010_12-28-33
246055009	948946	1	axc2	2/12/2010 13:19:11	OM_2-12-2010_12-28-33
246262001	950194	1	axc2	2/12/2010 13:20:05	OM_2-12-2010_12-28-33
246280005	950194	1	axc2	2/12/2010 13:20:59	OM_2-12-2010_12-28-33
246280006	950194	1	axc2	2/12/2010 13:21:52	OM_2-12-2010_12-28-33
1202036013	950194	1	axc2	2/12/2010 13:22:46	OM_2-12-2010_12-28-33
1202036015	950194	1	axc2	2/12/2010 13:23:39	OM_2-12-2010_12-28-33
1202036017	950194	1	axc2	2/12/2010 13:24:32	OM_2-12-2010_12-28-33
246280007	950194	1	axc2	2/12/2010 13:25:25	OM_2-12-2010_12-28-33
1202036014	950194	1	axc2	2/12/2010 13:26:18	OM_2-12-2010_12-28-33
1202036016	950194	1	axc2	2/12/2010 13:27:11	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:28:04	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:29:53	OM_2-12-2010_12-28-33

1202036018	950194	1	axc2	2/12/2010	13:31:43	OM_2-12-2010_12-28-33
246280008	950194	1	axc2	2/12/2010	13:32:35	OM_2-12-2010_12-28-33
246280009	950194	1	axc2	2/12/2010	13:33:28	OM_2-12-2010_12-28-33
246280010	950194	1	axc2	2/12/2010	13:34:20	OM_2-12-2010_12-28-33
246291001	950194	1	axc2	2/12/2010	13:35:12	OM_2-12-2010_12-28-33
246291002	950194	1	axc2	2/12/2010	13:36:04	OM_2-12-2010_12-28-33
246291003	950194	1	axc2	2/12/2010	13:36:58	OM_2-12-2010_12-28-33
246291004	950194	1	axc2	2/12/2010	13:37:52	OM_2-12-2010_12-28-33
246291005	950194	1	axc2	2/12/2010	13:38:46	OM_2-12-2010_12-28-33
246291006	950194	1	axc2	2/12/2010	13:39:40	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	13:40:32	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	13:42:22	OM_2-12-2010_12-28-33
246291007	950194	1	axc2	2/12/2010	13:44:12	OM_2-12-2010_12-28-33
246291008	950194	1	axc2	2/12/2010	13:45:05	OM_2-12-2010_12-28-33
246305001	950194	1	axc2	2/12/2010	13:45:59	OM_2-12-2010_12-28-33
246305002	950194	1	axc2	2/12/2010	13:46:51	OM_2-12-2010_12-28-33
246305003	950194	1	axc2	2/12/2010	13:47:43	OM_2-12-2010_12-28-33
246305004	950194	1	axc2	2/12/2010	13:48:36	OM_2-12-2010_12-28-33
246312001	950194	1	axc2	2/12/2010	13:49:30	OM_2-12-2010_12-28-33
1202036056	950207	1	axc2	2/12/2010	13:50:21	OM_2-12-2010_12-28-33
1202036069	950207	1	axc2	2/12/2010	13:51:14	OM_2-12-2010_12-28-33
246191004	950207	1	axc2	2/12/2010	13:52:06	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	13:52:58	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	13:54:48	OM_2-12-2010_12-28-33
1202036058	950207	1	axc2	2/12/2010	13:56:36	OM_2-12-2010_12-28-33
1202036062	950207	1	axc2	2/12/2010	13:57:30	OM_2-12-2010_12-28-33
1202036066	950207	1	axc2	2/12/2010	13:58:25	OM_2-12-2010_12-28-33
246304002	950207	1	axc2	2/12/2010	13:59:20	OM_2-12-2010_12-28-33
1202036059	950207	1	axc2	2/12/2010	14:00:12	OM_2-12-2010_12-28-33
1202036063	950207	1	axc2	2/12/2010	14:01:07	OM_2-12-2010_12-28-33
1202036067*	950207	1	axc2	2/12/2010	14:01:59	OM_2-12-2010_12-28-33
246304003	950207	1	axc2	2/12/2010	14:02:53	OM_2-12-2010_12-28-33
246352001	950207	1	axc2	2/12/2010	14:03:46	OM_2-12-2010_12-28-33
246352003	950207	1	axc2	2/12/2010	14:04:39	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:05:32	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:07:23	OM_2-12-2010_12-28-33
246364002	950207	1	axc2	2/12/2010	14:09:11	OM_2-12-2010_12-28-33
246364003	950207	1	axc2	2/12/2010	14:10:04	OM_2-12-2010_12-28-33
246419002	950207	1	axc2	2/12/2010	14:10:57	OM_2-12-2010_12-28-33
1202036057	950207	1	axc2	2/12/2010	14:11:49	OM_2-12-2010_12-28-33
1202036061	950207	1	axc2	2/12/2010	14:12:42	OM_2-12-2010_12-28-33
1202036065	950207	1	axc2	2/12/2010	14:13:34	OM_2-12-2010_12-28-33
246431001	950207	1	axc2	2/12/2010	14:14:29	OM_2-12-2010_12-28-33
246431002	950207	1	axc2	2/12/2010	14:15:22	OM_2-12-2010_12-28-33
246431003	950207	1	axc2	2/12/2010	14:16:17	OM_2-12-2010_12-28-33
246431004	950207	1	axc2	2/12/2010	14:17:10	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:18:03	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:19:53	OM_2-12-2010_12-28-33
246472002	950207	1	axc2	2/12/2010	14:21:43	OM_2-12-2010_12-28-33
1202036060	950207	1	axc2	2/12/2010	14:22:36	OM_2-12-2010_12-28-33
1202036064	950207	1	axc2	2/12/2010	14:23:30	OM_2-12-2010_12-28-33
1202036068	950207	1	axc2	2/12/2010	14:24:23	OM_2-12-2010_12-28-33
246474001	950207	1	axc2	2/12/2010	14:25:16	OM_2-12-2010_12-28-33
246476001	950207	1	axc2	2/12/2010	14:26:09	OM_2-12-2010_12-28-33
246480001	950207	1	axc2	2/12/2010	14:27:02	OM_2-12-2010_12-28-33
1202033014	948944	1	axc2	2/12/2010	14:27:55	OM_2-12-2010_12-28-33
1202033015	948944	1	axc2	2/12/2010	14:28:48	OM_2-12-2010_12-28-33
1202033016	948944	1	axc2	2/12/2010	14:29:40	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:30:33	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:32:23	OM_2-12-2010_12-28-33

246114001	948944	1	axc2	2/12/2010	14:34:11	OM_2-12-2010_12-28-33
246114002	948944	1	axc2	2/12/2010	14:35:05	OM_2-12-2010_12-28-33
246114003	948944	1	axc2	2/12/2010	14:36:00	OM_2-12-2010_12-28-33
246114004	948944	1	axc2	2/12/2010	14:36:54	OM_2-12-2010_12-28-33
246114005	948944	1	axc2	2/12/2010	14:37:48	OM_2-12-2010_12-28-33
246114006	948944	1	axc2	2/12/2010	14:38:42	OM_2-12-2010_12-28-33
246114007	948944	1	axc2	2/12/2010	14:39:37	OM_2-12-2010_12-28-33
1202031536	948330	1	axc2	2/12/2010	14:40:30	OM_2-12-2010_12-28-33
1202031540	948330	25	axc2	2/12/2010	14:41:24	OM_2-12-2010_12-28-33
245957001	948330	1	axc2	2/12/2010	14:42:18	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:43:10	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:45:00	OM_2-12-2010_12-28-33
1202031537	948330	1	axc2	2/12/2010	14:46:50	OM_2-12-2010_12-28-33
1202031538	948330	1	axc2	2/12/2010	14:47:43	OM_2-12-2010_12-28-33
1202031539	948330	1	axc2	2/12/2010	14:48:36	OM_2-12-2010_12-28-33
245957002	948330	1	axc2	2/12/2010	14:49:28	OM_2-12-2010_12-28-33
245957003	948330	1	axc2	2/12/2010	14:50:22	OM_2-12-2010_12-28-33
245957004	948330	1	axc2	2/12/2010	14:51:14	OM_2-12-2010_12-28-33
245957005	948330	1	axc2	2/12/2010	14:52:09	OM_2-12-2010_12-28-33
245957006	948330	1	axc2	2/12/2010	14:53:03	OM_2-12-2010_12-28-33
246058001	948330	1	axc2	2/12/2010	14:53:58	OM_2-12-2010_12-28-33
1202033025	948330	1	axc2	2/12/2010	14:54:52	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:55:44	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:57:35	OM_2-12-2010_12-28-33
1202033026	948330	1	axc2	2/12/2010	14:59:25	OM_2-12-2010_12-28-33
1202033027	948330	1	axc2	2/12/2010	15:00:20	OM_2-12-2010_12-28-33
246058002	948330	1	axc2	2/12/2010	15:01:13	OM_2-12-2010_12-28-33
246058003	948330	1	axc2	2/12/2010	15:02:07	OM_2-12-2010_12-28-33
246060001	948330	1	axc2	2/12/2010	15:03:01	OM_2-12-2010_12-28-33
246060002	948330	1	axc2	2/12/2010	15:03:54	OM_2-12-2010_12-28-33
246062001	948330	1	axc2	2/12/2010	15:04:48	OM_2-12-2010_12-28-33
246062002	948330	1	axc2	2/12/2010	15:05:41	OM_2-12-2010_12-28-33
246066007	948330	1	axc2	2/12/2010	15:06:34	OM_2-12-2010_12-28-33
246066008	948330	1	axc2	2/12/2010	15:07:27	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:08:19	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:10:09	OM_2-12-2010_12-28-33
246066009	948330	1	axc2	2/12/2010	15:11:58	OM_2-12-2010_12-28-33
246066010	948330	1	axc2	2/12/2010	15:12:53	OM_2-12-2010_12-28-33
246066011	948330	1	axc2	2/12/2010	15:13:48	OM_2-12-2010_12-28-33
246066012	948330	1	axc2	2/12/2010	15:14:43	OM_2-12-2010_12-28-33
246066013	948330	1	axc2	2/12/2010	15:15:37	OM_2-12-2010_12-28-33
246114007	948944	5	axc2	2/12/2010	15:16:31	OM_2-12-2010_12-28-33
1202033028	948949	1	axc2	2/12/2010	15:17:25	OM_2-12-2010_12-28-33
1202033035	948949	25	axc2	2/12/2010	15:18:19	OM_2-12-2010_12-28-33
246066014	948949	1	axc2	2/12/2010	15:19:14	OM_2-12-2010_12-28-33
1202033029	948949	1	axc2	2/12/2010	15:20:08	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:21:00	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:22:50	OM_2-12-2010_12-28-33
1202033031	948949	1	axc2	2/12/2010	15:24:40	OM_2-12-2010_12-28-33
1202033033	948949	1	axc2	2/12/2010	15:25:34	OM_2-12-2010_12-28-33
246066015	948949	1	axc2	2/12/2010	15:26:27	OM_2-12-2010_12-28-33
1202033030	948949	1	axc2	2/12/2010	15:27:21	OM_2-12-2010_12-28-33
1202033032	948949	1	axc2	2/12/2010	15:28:14	OM_2-12-2010_12-28-33
1202033034	948949	1	axc2	2/12/2010	15:29:07	OM_2-12-2010_12-28-33
246066016	948949	1	axc2	2/12/2010	15:29:59	OM_2-12-2010_12-28-33
246066017	948949	1	axc2	2/12/2010	15:30:54	OM_2-12-2010_12-28-33
246066018	948949	1	axc2	2/12/2010	15:31:49	OM_2-12-2010_12-28-33
246066019	948949	1	axc2	2/12/2010	15:32:44	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:33:36	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:35:27	OM_2-12-2010_12-28-33

246066020	948949	1	axc2	2/12/2010	15:37:18	OM_2-12-2010_12-28-33
246070001	948949	1	axc2	2/12/2010	15:38:12	OM_2-12-2010_12-28-33
246070002	948949	1	axc2	2/12/2010	15:39:06	OM_2-12-2010_12-28-33
246070003	948949	1	axc2	2/12/2010	15:40:01	OM_2-12-2010_12-28-33
246070004	948949	1	axc2	2/12/2010	15:40:55	OM_2-12-2010_12-28-33
246070005	948949	1	axc2	2/12/2010	15:41:49	OM_2-12-2010_12-28-33
246070006	948949	1	axc2	2/12/2010	15:42:43	OM_2-12-2010_12-28-33
246070007	948949	1	axc2	2/12/2010	15:43:36	OM_2-12-2010_12-28-33
246070008	948949	1	axc2	2/12/2010	15:44:30	OM_2-12-2010_12-28-33
246070009	948949	1	axc2	2/12/2010	15:45:23	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:46:16	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:48:06	OM_2-12-2010_12-28-33
246070010	948949	1	axc2	2/12/2010	15:49:56	OM_2-12-2010_12-28-33
246070011	948949	1	axc2	2/12/2010	15:50:49	OM_2-12-2010_12-28-33
246070012	948949	1	axc2	2/12/2010	15:51:44	OM_2-12-2010_12-28-33
246070013	948949	1	axc2	2/12/2010	15:52:39	OM_2-12-2010_12-28-33
1202036067	950207	1	axc2	2/12/2010	15:53:33	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:54:25	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:56:16	OM_2-12-2010_12-28-33

Author: axc2

Date : 2/15/2010

Original Run Filename: OM_2-12-2010_12-28-33.OMN created 2/12/2010 12:28:33
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-12-2010_12-28-33.OMN last modified 2/12/2010 15:57:21
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100212-01	1	S1	200	9.01	2/12/2010@12:29:18			200 ppb
WCN100212-02	1	S2	150	7.03	2/12/2010@12:30:11			150 ppb
WCN100212-03	1	S3	100	4.55	2/12/2010@12:31:03			100 ppb
WCN100212-04	1	S4	50.0	2.30	2/12/2010@12:31:56			50 ppb
WCN100212-05	1	S5	10.0	0.695	2/12/2010@12:32:49			10 ppb
WCN100212-06	1	S6	5.00	0.468	2/12/2010@12:33:43			CRDL 5.0 ppb
WCN100212-08	1	S7	0.00	0.0810	2/12/2010@12:34:37			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99951 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100212-07	1	S8	138	6.34	2/12/2010@12:36:27			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-7.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-7.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.76	0.0866	2/12/2010@12:38:17			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.76 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.76 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100212-06	1	S6	6.96	0.476	2/12/2010@12:40:07			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.96 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.96 > 2.50					
		Message	Pass					
		Action	None					
1202033017|948946|MB	1	1	-3.58	0.00565	2/12/2010@12:41:56			
1202033024||LCS	1	2	15.7	0.864	2/12/2010@12:42:50		25.00	
246012007	1	3	-2.00	0.0759	2/12/2010@12:43:43			
1202033018||DUP	1	4	-2.22	0.0662	2/12/2010@12:44:36			
1202033020||MS	1	5	67.8	3.19	2/12/2010@12:45:29			
1202033022||MSD	1	6	82.9	3.86	2/12/2010@12:46:22			
246012008	1	7	-2.80	0.0402	2/12/2010@12:47:15			
1202033019||DUP	1	8	-3.66	0.00214	2/12/2010@12:48:07			
1202033021||MS	1	9	87.6	4.08	2/12/2010@12:49:00			
1202033023||MSD	1	10	84.5	3.94	2/12/2010@12:49:52			
WCN100212-03	1	S3	102	4.71	2/12/2010@12:50:44			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.8 < 10.0					
		Message	CCV Passed					

		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.77	0.0863	2/12/2010@12:52:34			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.77 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.77 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246012009	1	11	-2.54	0.0522	2/12/2010@12:54:22			
246012010	1	12	-2.33	0.0614	2/12/2010@12:55:14			
246012011	1	13	-0.520	0.142	2/12/2010@12:56:06			
246055001	1	14	-1.07	0.118	2/12/2010@12:56:58			
246055002	1	15	-2.20	0.0671	2/12/2010@12:57:50			
246055003	1	16	-0.671	0.135	2/12/2010@12:58:43			
246055004	1	17	-2.40	0.0584	2/12/2010@12:59:37			
246055005	1	18	-0.466	0.145	2/12/2010@13:00:30			
246055006	1	19	-2.01	0.0756	2/12/2010@13:01:23			
246055007	1	20	-2.73	0.0433	2/12/2010@13:02:16			
WCN100212-03	1	S3	102	4.71	2/12/2010@13:03:08			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.83	0.0834	2/12/2010@13:04:59			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246055008	1	21	0.133	0.171	2/12/2010@13:06:48			
246055009	1	22	5.24	0.399	2/12/2010@13:07:41			
246066001	1	23	-1.42	0.102	2/12/2010@13:08:34			
246066002	1	24	-2.08	0.0726	2/12/2010@13:09:27			
246066003	1	25	-1.22	0.111	2/12/2010@13:10:18			
246066004	1	26	-2.10	0.0716	2/12/2010@13:11:11			
246066005	1	27	-2.39	0.0588	2/12/2010@13:12:03			
246066006	1	28	-1.91	0.0800	2/12/2010@13:12:55			
1202036012|950194|MB	1	29	-3.70	2.81e-4	2/12/2010@13:13:47			
1202036019||LCS	1	30	16.1	0.885	2/12/2010@13:14:39		25.00	
WCN100212-03	1	S3	102	4.70	2/12/2010@13:15:31			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.94	0.0787	2/12/2010@13:17:22			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						

		Result:	-1.94 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.94 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246055009|948946	1	22	-1.69	0.0901	2/12/2010@13:19:11			
246262001|950194	1	31	-3.04	0.0298	2/12/2010@13:20:05			
246280005	1	32	-3.07	0.0283	2/12/2010@13:20:59			
246280006	1	33	-2.76	0.0423	2/12/2010@13:21:52			
1202036013||DUP	1	34	-2.82	0.0394	2/12/2010@13:22:46			
1202036015||MS	1	35	84.6	3.94	2/12/2010@13:23:39			
1202036017||MSD	1	36	82.4	3.84	2/12/2010@13:24:32			
246280007	1	37	-2.99	0.0317	2/12/2010@13:25:25			
1202036014||DUP	1	38	-2.89	0.0363	2/12/2010@13:26:18			
1202036016||MS	1	39	86.8	4.04	2/12/2010@13:27:11			
WCN100212-03	1	S3	102	4.71	2/12/2010@13:28:04			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.75	0.0870	2/12/2010@13:29:53			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202036018||MSD	1	40	81.5	3.80	2/12/2010@13:31:43			
246280008	1	41	-2.69	0.0453	2/12/2010@13:32:35			
246280009	1	42	-2.56	0.0510	2/12/2010@13:33:28			
246280010	1	43	-2.69	0.0454	2/12/2010@13:34:20			
246291001	1	44	-2.74	0.0432	2/12/2010@13:35:12			
246291002	1	45	-3.65	0.00256	2/12/2010@13:36:04			
246291003	1	46	-4.03	-0.0144	2/12/2010@13:36:58			
246291004	1	47	-2.33	0.0612	2/12/2010@13:37:52			
246291005	1	48	-2.37	0.0594	2/12/2010@13:38:46			
246291006	1	49	-3.71	-1.56e-4	2/12/2010@13:39:40			
WCN100212-03	1	S3	102	4.73	2/12/2010@13:40:32			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.78	0.0858	2/12/2010@13:42:22			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246291007	1	50	-3.12	0.0260	2/12/2010@13:44:12			

246291008	1	51	-2.58	0.0501	2/12/2010@13:45:05			
246305001	1	52	-3.71	-1.63e-4	2/12/2010@13:45:59			
246305002	1	53	-3.09	0.0274	2/12/2010@13:46:51			
246305003	1	54	-3.16	0.0243	2/12/2010@13:47:43			
246305004	1	55	-2.73	0.0437	2/12/2010@13:48:36			
246312001	1	56	-3.71	-1.36e-4	2/12/2010@13:49:30			
1202036056|950207|MB	1	57	-3.11	0.0266	2/12/2010@13:50:21			
1202036069||LCS	1	58	49.7	2.38	2/12/2010@13:51:14			
246191004	1	59	20.8	1.10	2/12/2010@13:52:06			
WCN100212-03	1	S3	103	4.74	2/12/2010@13:52:58			CCV
	Known Conc:		100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.83	0.0834	2/12/2010@13:54:48			CCB
	Known Conc:		0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202036058||DUP	1	60	19.2	1.02	2/12/2010@13:56:36			
1202036062||MS	1	61	114	5.25	2/12/2010@13:57:30			
1202036066||MSD	1	62	108	4.96	2/12/2010@13:58:25			
246304002	1	63	-2.90	0.0358	2/12/2010@13:59:20			
1202036059||DUP	1	64	-3.87	-0.00751	2/12/2010@14:00:12			
1202036063||MS	1	65	94.0	4.36	2/12/2010@14:01:07			
1202036067||MSD	1	66	61.7	2.92	2/12/2010@14:01:59			
246304003	1	67	-3.22	0.0214	2/12/2010@14:02:53			
246352001	1	68	2.39	0.272	2/12/2010@14:03:46			
246352003	1	69	-3.35	0.0156	2/12/2010@14:04:39			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:05:32			CCV
	Known Conc:		100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.78	0.0858	2/12/2010@14:07:23			CCB
	Known Conc:		0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246364002	1	70	-2.64	0.0473	2/12/2010@14:09:11			
246364003	1	71	-2.89	0.0362	2/12/2010@14:10:04			
246419002	1	72	-2.96	0.0332	2/12/2010@14:10:57			
1202036057||DUP	1	73	-2.54	0.0519	2/12/2010@14:11:49			
1202036061||MS	1	74	92.0	4.27	2/12/2010@14:12:42			
1202036065||MSD	1	75	95.0	4.40	2/12/2010@14:13:34			
246431001	1	76	-2.82	0.0393	2/12/2010@14:14:29			
246431002	1	77	-3.11	0.0264	2/12/2010@14:15:22			
246431003	1	78	-3.11	0.0264	2/12/2010@14:16:17			

246431004	1	79	-3.68	0.00125	2/12/2010@14:17:10			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:18:03			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:	2.2 < 10.0							
Message	CCV Passed							
Action	Continue							
DQM Test: < - Percent Relative Difference								
Result:	2.2 < 10.0							
Message	CCV Passed							
Action	Continue							
WCN100212-08	1	S7	-2.11	0.0711	2/12/2010@14:19:53			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:	-2.11 < 5.00							
Message	CCB Passed							
Action	Continue							
DQM Test: < - Concentration Limit								
Result:	-2.11 > -5.00							
Message	CCB Passed							
Action	Continue							
246472002	1	80	-2.85	0.0382	2/12/2010@14:21:43			
1202036060||DUP	1	81	-2.81	0.0398	2/12/2010@14:22:36			
1202036064||MS	1	82	87.2	4.06	2/12/2010@14:23:30			
1202036068||MSD	1	83	91.2	4.23	2/12/2010@14:24:23			
246474001	1	84	-3.13	0.0258	2/12/2010@14:25:16			
246476001	1	85	-3.29	0.0185	2/12/2010@14:26:09			
246480001	1	86	-3.74	-0.00167	2/12/2010@14:27:02			
1202033014|948944|MB	1	87	-3.05	0.0294	2/12/2010@14:27:55			
1202033015||LCS	1	88	49.2	2.36	2/12/2010@14:28:48			
1202033016||LCSD	1	89	49.0	2.35	2/12/2010@14:29:40			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:30:33			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:	2.3 < 10.0							
Message	CCV Passed							
Action	Continue							
DQM Test: < - Percent Relative Difference								
Result:	2.3 < 10.0							
Message	CCV Passed							
Action	Continue							
WCN100212-08	1	S7	-1.90	0.0803	2/12/2010@14:32:23			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:	-1.90 < 5.00							
Message	CCB Passed							
Action	Continue							
DQM Test: < - Concentration Limit								
Result:	-1.90 > -5.00							
Message	CCB Passed							
Action	Continue							
246114001	1	90	175	7.95	2/12/2010@14:34:11			
246114002	1	91	73.9	3.46	2/12/2010@14:35:05			
246114003	1	92	145	6.63	2/12/2010@14:36:00			
246114004	1	93	175	7.96	2/12/2010@14:36:54			
246114005	1	94	110	5.09	2/12/2010@14:37:48			
246114006	1	95	89.4	4.16	2/12/2010@14:38:42			
246114007	1	96	216	9.79	2/12/2010@14:39:37			
1202031536|948330|MB	1	97	-3.71	-1.72e-4	2/12/2010@14:40:30			
1202031540||LCS	1	98	31.2	1.56	2/12/2010@14:41:24		25.00	
245957001	1	99	-1.60	0.0940	2/12/2010@14:42:18			
WCN100212-03	1	S3	102	4.71	2/12/2010@14:43:10			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:	2.0 < 10.0							
Message	CCV Passed							
Action	Continue							
DQM Test: < - Percent Relative Difference								

		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.81	0.0845	2/12/2010@14:45:00			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202031537||DUP	1	100	-2.50	0.0538	2/12/2010@14:46:50			
1202031538||MS	1	101	92.9	4.31	2/12/2010@14:47:43			
1202031539||MSD	1	102	91.8	4.26	2/12/2010@14:48:36			
245957002	1	103	-3.12	0.0261	2/12/2010@14:49:28			
245957003	1	104	-3.70	2.38e-4	2/12/2010@14:50:22			
245957004	1	105	-2.36	0.0601	2/12/2010@14:51:14			
245957005	1	106	0.227	0.175	2/12/2010@14:52:09			
245957006	1	107	-1.85	0.0829	2/12/2010@14:53:03			
246058001	1	108	-3.71	-1.37e-4	2/12/2010@14:53:58			
1202033025||DUP	1	109	-3.08	0.0280	2/12/2010@14:54:52			
WCN100212-03	1	S3	103	4.76	2/12/2010@14:55:44			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.33	0.225	2/12/2010@14:57:35			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	1.33 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	1.33 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202033026||MS	1	110	103	4.76	2/12/2010@14:59:25			
1202033027||MSD	1	111	94.0	4.36	2/12/2010@15:00:20			
246058002	1	112	1.53	0.234	2/12/2010@15:01:13			
246058003	1	113	-2.59	0.0499	2/12/2010@15:02:07			
246060001	1	114	-2.71	0.0443	2/12/2010@15:03:01			
246060002	1	115	-2.22	0.0664	2/12/2010@15:03:54			
246062001	1	116	-2.63	0.0479	2/12/2010@15:04:48			
246062002	1	117	-2.48	0.0548	2/12/2010@15:05:41			
246066007	1	118	-2.71	0.0443	2/12/2010@15:06:34			
246066008	1	119	-1.12	0.115	2/12/2010@15:07:27			
WCN100212-03	1	S3	102	4.73	2/12/2010@15:08:19			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.87	0.249	2/12/2010@15:10:09			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	1.87 < 5.00					

		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	1.87 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246066009	1	120	-0.539	0.141	2/12/2010@15:11:58			
246066010	1	121	-0.313	0.151	2/12/2010@15:12:53			
246066011	1	122	-1.20	0.112	2/12/2010@15:13:48			
246066012	1	123	-2.18	0.0678	2/12/2010@15:14:43			
246066013	1	124	-0.449	0.145	2/12/2010@15:15:37			
246114007|948944|	1	96	34.1	1.69	2/12/2010@15:16:31		5.00	
1202033028|948949|MB	1	125	-1.73	0.0881	2/12/2010@15:17:25			
1202033035||LCS	1	126	17.3	0.937	2/12/2010@15:18:19		25.00	
246066014	1	127	-0.746	0.132	2/12/2010@15:19:14			
1202033029||DUP	1	128	-1.77	0.0862	2/12/2010@15:20:08			
WCN100212-03	1	S3	101	4.69	2/12/2010@15:21:00			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	0.945	0.207	2/12/2010@15:22:50			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	0.945 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	0.945 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202033031||MS	1	129	50.7	2.43	2/12/2010@15:24:40			
1202033033||MSD	1	130	58.2	2.76	2/12/2010@15:25:34			
246066015	1	131	0.134	0.171	2/12/2010@15:26:27			
1202033030||DUP	1	132	-1.80	0.0851	2/12/2010@15:27:21			
1202033032||MS	1	133	88.9	4.13	2/12/2010@15:28:14			
1202033034||MSD	1	134	91.1	4.23	2/12/2010@15:29:07			
246066016	1	135	0.247	0.176	2/12/2010@15:29:59			
246066017	1	136	-1.83	0.0837	2/12/2010@15:30:54			
246066018	1	137	-2.44	0.0563	2/12/2010@15:31:49			
246066019	1	138	-2.25	0.0648	2/12/2010@15:32:44			
WCN100212-03	1	S3	101	4.67	2/12/2010@15:33:36			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	1.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	1.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.50	0.232	2/12/2010@15:35:27			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	1.50 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	1.50 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246066020	1	139	1.84	0.247	2/12/2010@15:37:18			
246070001	1	140	-0.620	0.138	2/12/2010@15:38:12			

246070002	1	141	-1.35	0.105	2/12/2010@15:39:06			
246070003	1	142	1.64	0.238	2/12/2010@15:40:01			
246070004	1	143	-1.26	0.109	2/12/2010@15:40:55			
246070005	1	144	-2.53	0.0525	2/12/2010@15:41:49			
246070006	1	145	-1.81	0.0845	2/12/2010@15:42:43			
246070007	1	146	-3.06	0.0285	2/12/2010@15:43:36			
246070008	1	147	-1.95	0.0782	2/12/2010@15:44:30			
246070009	1	148	-2.76	0.0423	2/12/2010@15:45:23			
WCN100212-03	1	S3	101	4.68	2/12/2010@15:46:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.50	0.232	2/12/2010@15:48:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.50 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.50 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246070010	1	149	-2.40	0.0582	2/12/2010@15:49:56			
246070011	1	150	-2.53	0.0525	2/12/2010@15:50:49			
246070012	1	151	-2.54	0.0520	2/12/2010@15:51:44			
246070013	1	152	-2.83	0.0390	2/12/2010@15:52:39			
1202036067|950207|MSD	1	66	86.4	4.02	2/12/2010@15:53:33			
WCN100212-03	1	S3	105	4.84	2/12/2010@15:54:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.28	0.222	2/12/2010@15:56:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.28 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.28 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-12-2010_12-28-33.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False

Author: axc2

Date : 2/15/2010

Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

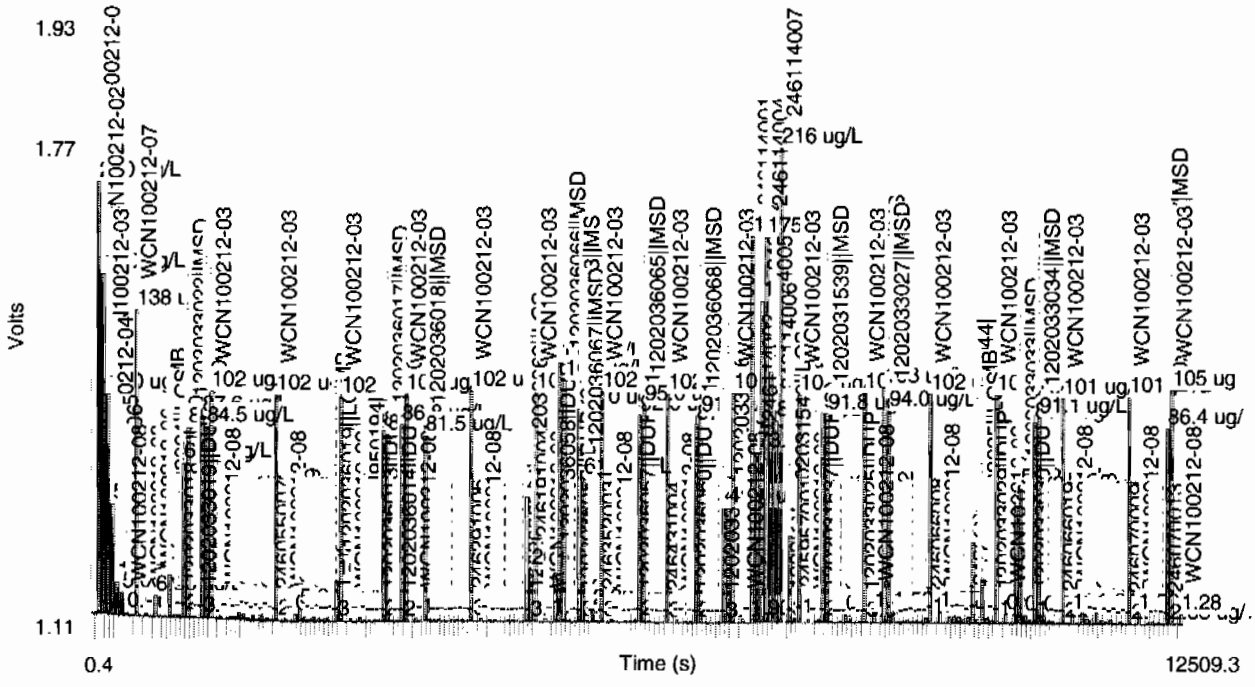

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.01	0.594	0.9	2/12/2010	12:30:21
2	150	1	7.03	0.467	-2.6	2/12/2010	12:31:13
3	100	1	4.55	0.301	1.6	2/12/2010	12:32:06
4	50.0	1	2.30	0.151	4.0	2/12/2010	12:32:59
5	10.0	1	0.695	0.0440	-13.2	2/12/2010	12:33:52
6	5.00	1	0.468	0.0313	-19.5	2/12/2010	12:34:46
7	0.00	1	0.0810	0.00430		2/12/2010	12:35:40

Figure 1: TCYANIDE

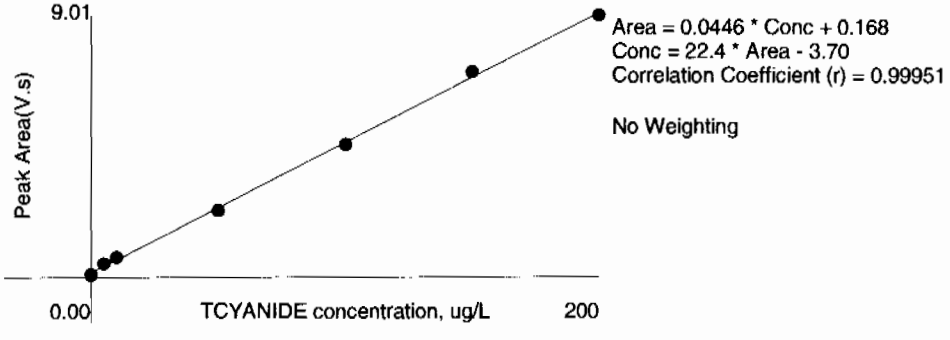

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10	Federal		
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
	SW846 9012A	Solid	LANL
Batch ID:	**Sample Numbers:**		
948949	See Below		

Potentially affected work order(s)(SDG): 246066(10-1543),246070(10-1544)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed recovery for MS/MSD: QC 1202033031MS 1202033033MSD	1. The matrix spike falls outside of the client specified acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:		Data Validator/Group Leader:	
Ashley Earl	16-FEB-10	Elzbieta Szulc	23-FEB-10

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1545

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/2/2010

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	
		1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:6020	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:6850	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:8082	1	RE15-10-8222	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	
		1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	
		1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	

Final Page of REQUEST NUMBER 10-1545

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1545C

REQUEST NUMBER: 10-1545

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8170	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8170	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8169	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8169	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8171	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8171	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8168	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8168	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8222	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8222	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8221	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8220	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8223	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8224	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8233	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8233	1	POLY	SW-846:6850	Ice	W
RE15-10-8233	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8231	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8231	1	POLY	SW-846:6850	Ice	W
RE15-10-8231	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8230	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8230	1	POLY	SW-846:6850	Ice	W
RE15-10-8230	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8232	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8232	1	POLY	SW-846:6850	Ice	W
RE15-10-8232	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8220	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8223	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8224	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8221	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time

2/2/10 3:00

Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature
Printed Name	Signature	Printed Name	Signature

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

10-1545

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8168 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/~~2003~~ 2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1402	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610813	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty sand, cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC: TC-21

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1430 dpm

PID Ambient Reading 0.0 / 0.1 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Larry A Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gonzales (Signature)	1/29/10 1540	(Printed Name) S. MARCZAK (Signature)	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8169 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alih
TIME COLLECTED (HH:MM)		1407	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610813	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	1.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Brown silty clay

FR: RE15-10-8233

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-21

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1513 dpm

PID Ambient Reading 0.0 / 0.2 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas (Signature)	1/29/10 1540	(Printed Name) S. MARCTAY (Signature)	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8170 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		1414	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610814	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sandy silt

FD: RE15-10-8224

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-14

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1714 dpm

PID Ambient 0.0 / Reading 0.6 ppm

COLLECTED BY (PRINT) TLMcFarlang

REVIEWED BY (PRINT) Lowery A. Cooper

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gouma J	1/29/10	(Printed Name) S. MARZAY	1/29/10
(Signature) [signature]	1540	(Signature) [signature]	1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8171 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	ok
TIME COLLECTED (HH:MM)		1420	SUB-MEDIA:	TUFF 1	L
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	15-610814	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown highly weathered tuff, root material

FR RE15-10-8232

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-14

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 1561 **dpm**

PID Ambient / Reading 0.0 / 0.9 **ppm**

COLLECTED BY (PRINT) TL McFarlane

REVIEWED BY (PRINT) Lacey A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gonzales (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARRAY (Signature) [signature]	1/29/10 1560
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8220 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		1036	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610798	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	2.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER TJM 1/29/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	H3	500 ML POLY	Ice	N	
1	↓	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-8139

Gray tuff and brownish weathered tuff

SAMPLE COMMENTS:

Tuff interface at 0.5 ft

LOCATION DESC: 7c-2

FIELD SCREENING/MEASUREMENT RESULTS:

PID Ambient 0.0 / Reading 0.0 **ppm**

Alpha ≤ 22 **dpm**
Beta/Gamma ≤ 1444 **dpm**

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) A. Gowman

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowman (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARCZAK (Signature) [signature]	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8221 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Alh
TIME COLLECTED (HH:MM)		1129	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610803	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	1.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	2.1	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER 72m 1/29/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	N	
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10 - 8149

Brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c - 25

FIELD SCREENING/MEASUREMENT RESULTS:

PID Ambient 0.0 / Reading 0.2 **ppm**

Alpha ≤ 11 **dpm**
Beta/Gamma ≤ 1748 **dpm**

COLLECTED BY (PRINT) T.L. McFarlane

REVIEWED BY (PRINT) A. Gouma

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gouma (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARQUAY (Signature) [signature]	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8222 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	OBT3	Air
TIME COLLECTED (HH:MM)		1146	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610794	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	N	
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-8130

Brown moist silty clay

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-19

FIELD SCREENING/MEASUREMENT RESULTS:

HE negative

PID Ambient Reading 0.0 / 0.1 ppm

Alpha ≤ 27 dpm
Beta/Gamma ≤ 1762 dpm

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) A. Goumas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Goumas (Signature)	1/29/10 1540	(Printed Name) S. MARCZAK (Signature)	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8223 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	A114
TIME COLLECTED (HH:MM)		1348	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610811	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER 1/29/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	N	
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-8164

Brown silty sand, some rocks, moist

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-24

FIELD SCREENING/MEASUREMENT RESULTS:

PID Ambient Reading 0.0 / 0.0 ppm

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1783 dpm

COLLECTED BY (PRINT) TLMcFarlane

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez	1/29/10 1540	(Printed Name) S. MARTIN	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8224 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		1414	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-6108/4	FIELD QC TYPE:	FD	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
		72M 1/29/10				
1	Normal	~~8082+~~NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	N	
1	Normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	Normal	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE 15-10-8170

Brown sandy silt

SAMPLE COMMENTS:

NA

LOCATION DESC:

7c-14

FIELD SCREENING/MEASUREMENT RESULTS:

HE neg

Alpha ≤ 16 **dpm**
Beta/Gamma ≤ 1714 **dpm**

PID Ambient Reading 0.0 / 0.6 = **ppm**

COLLECTED BY (PRINT) TLMcFarlant

REVIEWED BY (PRINT) Larry A. López

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Garma	1/29/10 1540	(Printed Name) S. MARCRAM	1/29/10 1540
(Signature)		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8230 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1017	SUB-MEDIA:	OTHER	
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610797	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-8137

SAMPLE COMMENTS:
Rinsate

LOCATION DESC:
NA

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = ____ dpm TJM 1/29/10
Beta/Gamma = ____ dpm

PID ~~Ambient Reading~~ = ppm TJM 1/29/10

COLLECTED BY (PRINT) THMcFarlane **REVIEWED BY (PRINT)** A. Gowmas

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gowmas (Signature)	1/29/10 1540	(Printed Name) S. MARCTAY (Signature)	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8231 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1221	SUB-MEDIA:	OTHER	↓
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	DC	↓
LOCATION ID:	UNK	15-610806	FIELD QC TYPE:	FR	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	↓
TOP DEPTH:	0	↓	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	↓	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	↓	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1	↓	SW-846:6850	250 ML POLY	Ice	Y	
1	↓	TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-8155

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = ____ dpm TJM 1/29/10
Beta/Gamma = ____ dpm

PID Ambient Reading = ppm TJM 1/29/10

COLLECTED BY (PRINT) TJ McFarland

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature)	1/29/10 1540	(Printed Name) S. MARCZAK (Signature)	1/29/10 1540
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8232 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		1436	SUB-MEDIA:	OTHER	
PRS ID:	15-007(c)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610814	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-8171

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

~~Alpha = _____ dpm~~ TJM 1/29/10
~~Beta/Gamma = _____ dpm~~

~~PID Ambient Reading = ppm~~ TJM 1/29/10

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) Larry A. López

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature)	1/29/10 1540	(Printed Name) S. MARCZAK (Signature)	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8233 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		01/29/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		1437	SUB-MEDIA:	OTHER	
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610813	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:		NA
FIELD MATRIX:	W		EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-8169

SAMPLE COMMENTS:

Rinsate

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS:

~~Alpha = _____ dpm~~ TJM 1/29/10
~~Beta/Gamma = _____ dpm~~

~~PID Ambient Reading = ppm~~ TJM 1/29/10

COLLECTED BY (PRINT) TJ McFarland

REVIEWED BY (PRINT) Larry A. Lopez

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) A. Gomez (Signature) [signature]	1/29/10 1540	(Printed Name) S. MARTIAN (Signature) [signature]	1/29/10 1540
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00037

Client Sample ID: RE15-10-8168

Sample Collection Date: 01/29/10 14:02

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00037-003

Date Received: 02/01/10 00:00

Report Date: 02/03/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	19.80	21.31	28.72	21.45		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	23.71	14.02	19.14	14.32		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.08	0.09	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	9.18	4.92	1.41	4.93		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.11	0.16	0.09	0.16		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.12	0.14	0.07	0.14		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	12.05	0.06	12.05		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.19	0.25	0.11	0.25		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.89	0.35	0.09	0.35		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	1.74	0.73	0.25	0.73		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.17	0.87	0.27	0.87		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	2.02	2.40	1.04	2.48		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.01	0.08	0.07	0.08		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.66

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate # 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00037
Client Sample ID: RE15-10-8169
Sample Collection Date: 01/29/10 14:02
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00037-004
Date Received: 02/01/10 00:00
Report Date: 02/03/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	-2.20	13.33	37.10	13.33		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	29.83	13.70	18.29	14.18		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	19.47	8.18	1.90	8.17		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	12.46	0.13	12.46		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	38.70	0.09	38.70		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.36	0.37	0.15	0.37		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.28	0.50	0.13	0.50		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	2.05	0.91	0.33	0.92		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	-0.08	111.10	0.25	111.10		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	4.04	3.10	1.29	3.23		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.52	0.25	0.05	0.26		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.66

Quality Assurance Review

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AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00037	Request or PO Number:	
Client Sample ID:	RE15-10-8170	ARS Sample ID:	ARS2-10-00037-005
Sample Collection Date:	01/29/10 14:14	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	-5.14	10.47	37.39	10.49		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	33.84	14.08	18.27	14.68		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.02	0.05	0.11	0.05		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	29.03	9.45	1.77	9.49		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.14	0.20	0.12	0.20		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.14	0.18	0.09	0.18		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	15.15	0.07	15.15		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.33	0.46	0.13	0.46		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.84	0.39	0.12	0.40		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	0.93	0.79	0.31	0.79		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.84	0.53	0.19	0.53		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	2.08	2.43	1.15	2.47		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.00	0.04	0.08	0.04		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.29

Quality Assurance Review

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00037	Request or PO Number:	
Client Sample ID:	RE15-10-8171	ARS Sample ID:	ARS2-10-00037-006
Sample Collection Date:	01/29/10 14:20	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	11.87	18.34	31.20	18.40		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	18.68	11.88	16.63	12.10		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.14	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-1.70	-13.64	2.97	-13.64		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	14.65	0.15	14.65		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	-0.01	19.16	0.09	19.16		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	15.23	0.17	15.23		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.82	0.73	0.26	0.73		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-226	0.63	0.40	0.49	0.40		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	-0.09	130.60	0.29	130.60		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	3.18	4.02	1.82	4.08		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.01	0.06	0.08	0.06		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.11

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00037

Client Sample ID: RE15-10-8220

Sample Collection Date: 01/29/10 10:36

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00037-007

Date Received: 02/01/10 00:00

Report Date: 02/02/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	0.48	9.75	28.63	9.75		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	20.71	13.02	18.95	13.27		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.08	0.17	0.14	0.17		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	23.33	9.56	2.19	9.59		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	14.38	0.15	14.38		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.15	0.19	0.11	0.19		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.26	0.25	0.09	0.25		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.59	0.45	0.17	0.45		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.61	0.62	0.19	0.62		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	2.11	0.96	0.38	0.96		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.44	0.79	0.22	0.79		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	1.06	2.56	1.44	2.57		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.25	0.26	0.10	0.26		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 0.60

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00037	Request or PO Number:	
Client Sample ID:	RE15-10-8221	ARS Sample ID:	ARS2-10-00037-008
Sample Collection Date:	01/29/10 11:29	Date Received:	02/01/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	34.55	28.74	37.10	29.05		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	24.12	13.77	18.29	14.08		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.08	0.15	0.13	0.15		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-0.95	-18.05	3.58	-18.05		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.15	0.22	0.13	0.22		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.13	0.14	0.09	0.14		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.19	0.20	0.08	0.20		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	13.41	0.15	13.41		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.85	0.62	0.17	0.62		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	2.50	1.03	0.34	1.04		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.15	0.23	0.20	0.23		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	2.50	2.83	1.37	2.89		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.52	0.42	0.14	0.42		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.19

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00037
Client Sample ID: RE15-10-8222
Sample Collection Date: 01/29/10 11:46
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00037-009
Date Received: 02/01/10 00:00
Report Date: 02/03/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.37	27.61	37.28	27.84		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	31.02	14.58	18.65	15.06		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	14.47	5.22	1.07	5.24		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	7.00	0.07	7.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.15	0.14	0.05	0.14		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.37	0.20	0.04	0.20		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	7.28	0.08	7.28		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.24	0.35	0.06	0.35		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	1.38	0.68	0.19	0.68		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	0.73	0.40	0.11	0.40		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	4.49	3.19	1.20	3.35		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	0.08	0.16	0.08	0.16		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.52

Quality Assurance Review

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ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00037
Client Sample ID: RE15-10-8223
Sample Collection Date: 01/29/10 13:48
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00037-010
Date Received: 02/01/10 00:00
Report Date: 02/03/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	11.82	18.28	31.19	18.34		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	28.60	13.04	16.38	13.50		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.11	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-0.84	-15.23	3.14	-15.23		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.06	0.09	0.11	0.09		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.12	0.12	0.08	0.12		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.03	0.09	0.07	0.09		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	11.77	0.13	11.77		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	1.15	0.44	0.11	0.45		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	1.89	1.22	0.30	1.22		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	2.80	1.31	0.24	1.31		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	8.66	4.81	1.57	5.20		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	-0.01	11.45	0.05	11.45		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 2.16

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

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505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00037

Client Sample ID: RE15-10-8224

Sample Collection Date: 01/29/10 14:14

Sample Matrix: Soil/Solid

Request or PO Number:

ARS Sample ID: ARS2-10-00037-011

Date Received: 02/01/10 00:00

Report Date: 02/02/10 08:24

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	14.97	19.09	28.72	19.18		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
GROSS BETA	24.18	13.96	19.14	14.27		pCi/g	EPA 900.0M	2/2/2010	NP	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
K-40	-0.63	-7.53	1.81	-7.53		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CO-60	0.00	8.57	0.09	8.57		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-134	0.00	0.00	0.06	0.00		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
CS-137	0.06	0.09	0.05	0.09		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
EU-152	0.00	8.91	0.10	8.91		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
PB-212	0.63	0.32	0.11	0.32		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
RA-228	-0.10	86.02	0.23	86.02		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-235	1.16	0.63	0.13	0.63		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
U-238	2.49	2.69	1.11	2.69		pCi/g	EPA 901.1M	2/2/2010	NP	N/A
AM-241	-0.01	17.87	0.04	17.87		pCi/g	EPA 901.1M	2/2/2010	NP	N/A

NOTES: % Moisture: 1.67

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report unless than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1545 VALIDATION DATE: 03/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the parent samples for the aqueous QC analyses were from other LANL RNs. No sample data were qualified as a result.

Reviewed by: Susan Ball **Level:** I **Date:** 3/23/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/22/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8170

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.607	2.43	0.831	ug/kg	J	1	23-FEB-10 19:33	per0223053a
	Perchlorate Isotope Ratio			3.19			1	23-FEB-10 19:33	per0223053a
14797-73-0	Perchlorate-101	.607	2.43	0.836	ug/kg	J	1	23-FEB-10 19:33	per0223053a
	Perchlorate-O(18)			5.52	ug/kg		1	23-FEB-10 19:33	per0223053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/22/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8169

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 19:57	per0223056a
	Perchlorate Isotope Ratio						1	23-FEB-10 19:57	per0223056a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 19:57	per0223056a
	Perchlorate-O(18)			5.33	ug/kg		1	23-FEB-10 19:57	per0223056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8171

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.568	2.27	1.70	ug/kg	J	1	23-FEB-10 20:05	per0223057a
	Perchlorate Isotope Ratio			3.11			1	23-FEB-10 20:05	per0223057a
14797-73-0	Perchlorate-101	.568	2.27	1.75	ug/kg	J	1	23-FEB-10 20:05	per0223057a
	Perchlorate-O(18)			5.83	ug/kg		1	23-FEB-10 20:05	per0223057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/22/10

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8168

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	23-FEB-10 20:13	per0223058a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:13	per0223058a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	23-FEB-10 20:13	per0223058a
	Perchlorate-O(18)			5.65	ug/kg		1	23-FEB-10 20:13	per0223058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8222

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.673	2.69	0.673	ug/kg	U	1	23-FEB-10 20:21	per0223059a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:21	per0223059a
14797-73-0	Perchlorate-101	.673	2.69	0.673	ug/kg	U	1	23-FEB-10 20:21	per0223059a
	Perchlorate-O(18)			5.70	ug/kg		1	23-FEB-10 20:21	per0223059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8221

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.574	2.29	0.574	ug/kg	U	1	23-FEB-10 20:29	per0223060a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:29	per0223060a
14797-73-0	Perchlorate-101	.574	2.29	0.574	ug/kg	U	1	23-FEB-10 20:29	per0223060a
	Perchlorate-O(18)			5.38	ug/kg		1	23-FEB-10 20:29	per0223060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8220

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 91.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 21:02	per0223064a
	Perchlorate Isotope Ratio						1	23-FEB-10 21:02	per0223064a
14797-73-0	Perchlorate-101	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 21:02	per0223064a
	Perchlorate-O(18)			5.05	ug/kg		1	23-FEB-10 21:02	per0223064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/22/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8223

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.621	2.48	0.621	ug/kg	U	1	23-FEB-10 21:10	per0223065a
	Perchlorate Isotope Ratio						1	23-FEB-10 21:10	per0223065a
14797-73-0	Perchlorate-101	.621	2.48	0.621	ug/kg	U	1	23-FEB-10 21:10	per0223065a
	Perchlorate-O(18)			5.62	ug/kg		1	23-FEB-10 21:10	per0223065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/22/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8224

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.595	2.38	0.764	ug/kg	J	1	23-FEB-10 21:18	per0223066a
	Perchlorate Isotope Ratio			3.24			1	23-FEB-10 21:18	per0223066a
14797-73-0	Perchlorate-101	.595	2.38	0.756	ug/kg	J	1	23-FEB-10 21:18	per0223066a
	Perchlorate-O(18)			5.45	ug/kg		1	23-FEB-10 21:18	per0223066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/22/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8233

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:26	per0208070a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:26	per0208070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:26	per0208070a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 21:26	per0208070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

P.S. 3/22/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8231

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056002

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:32	per0208071a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:32	per0208071a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:32	per0208071a
	Perchlorate-O(18)			0.474	ug/L		1	08-FEB-10 21:32	per0208071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8230

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056003

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:39	per0208072a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:39	per0208072a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:39	per0208072a
	Perchlorate-O(18)			0.477	ug/L		1	08-FEB-10 21:39	per0208072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8232

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056004

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 22:05	per0208076a
	Perchlorate Isotope Ratio						1	08-FEB-10 22:05	per0208076a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 22:05	per0208076a
	Perchlorate-O(18)			0.475	ug/L		1	08-FEB-10 22:05	per0208076a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1545 VALIDATION DATE: 03/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds were >20% with a positive bias for PETN; 2-amino-4,6-dinitrotoluene; 2,4-diamino-6-nitrotoluene and 2,6-diamino-4-nitrotoluene. The associated sample results were NDs and, thus, were not qualified.
2. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.

Reviewed by: Susan Ball **Level:** I **Date:** 3/23/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/22/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055001

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304182a

Date Analyzed: 08-MAR-10 08:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

P.S. 3/22/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055001

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260128.wiff

Date Analyzed: 28-FEB-10 00:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8169

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055002

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304188a

Date Analyzed: 08-MAR-10 11:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8169

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055002

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260131.wiff

Date Analyzed: 28-FEB-10 00:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8171

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055003

Sample Amount 2

Moisture: 12.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304189a

Date Analyzed: 08-MAR-10 11:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

P.S. 3/22/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8171

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055003

Sample Amount 2

Moisture: 12.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260132.wiff

Date Analyzed: 28-FEB-10 01:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8168

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055004

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304190a

Date Analyzed: 08-MAR-10 12:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8168

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055004

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260133.wiff

Date Analyzed: 28-FEB-10 01:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	360	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8222

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055005

Sample Amount 2

Moisture: 25.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304191a

Date Analyzed: 08-MAR-10 12:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8222

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055005

Sample Amount 2

Moisture: 25.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260134.wiff

Date Analyzed: 28-FEB-10 01:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8221

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304192a

Date Analyzed: 08-MAR-10 13:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8221

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260135.wiff

Date Analyzed: 28-FEB-10 01:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8220

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055007

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304193a

Date Analyzed: 08-MAR-10 13:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8220

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055007

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260139.wiff

Date Analyzed: 28-FEB-10 03:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8223

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055008

Sample Amount 2

Moisture: 19.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304194a

Date Analyzed: 08-MAR-10 14:10

Units: µg/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8223

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055008

Sample Amount 2

Moisture: 19.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260140.wiff

Date Analyzed: 28-FEB-10 03:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8224

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055009

Sample Amount 2

Moisture: 15.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304195a

Date Analyzed: 08-MAR-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8224

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055009

Sample Amount 2

Moisture: 15.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260141.wiff

Date Analyzed: 28-FEB-10 03:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

P.S. 3/22/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1545 VALIDATION DATE: 03/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL parent sample from another RN, and the parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Susan Ball **Level:** I **Date:** 3/23/10

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/22/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☒	☐	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1545	**Date Collected:**	01/29/2010 12:00	**Matrix:**	R
Lab Sample ID:	246055005	**Date Received:**	02/03/2010 08:55	**%Moisture:**	25.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8222	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 09:30	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.18 g	**Final Volume:**	1 mL
Data File:	014f1401.d	**Column:**	1 CLP1	**Level:**	LOW
	014b1401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.46	ug/kg	1.49	4.46	1
11104-28-2	Aroclor-1221	U	4.46	ug/kg	1.49	4.46	1
11141-16-5	Aroclor-1232	U	4.46	ug/kg	1.49	4.46	1
53469-21-9	Aroclor-1242	U	4.46	ug/kg	1.49	4.46	1
12672-29-6	Aroclor-1248	U	4.46	ug/kg	1.49	4.46	1
11097-69-1	Aroclor-1254		33.2	ug/kg	1.49	4.46	2
11096-82-5	Aroclor-1260		10.3	ug/kg	1.49	4.46	2

P.S. 3/22/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1545 VALIDATION DATE: 03/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the solid ICB/CCBs, Pb and Sb were detected. The Sb results for samples RE15-10-8168 and -8220 through -8223 were NDs and, thus, were not qualified. The Sb result for sample -8171 was a detect ≤5X the greatest associated blank concentration and, thus, was qualified U,I4b. The remaining associated sample results were detects >5X the greatest associated blank concentration and, thus, were not qualified. In the aqueous ICB/CCBs, Tl was detected. The associated result for sample -8231 was a detect ≤5X the greatest associated blank concentration and, thus, was qualified U,I4b. The remaining associated Tl sample results were NDs and, thus, were not qualified.
2. In the FR blanks, samples -8230 through -8233, which were associated with all samples, Al, Ba, Ca, Fe, Pb, Mn, K, Na and Cr were detected. The Na results for samples -8168, -8222, -8221 and -8223 results were detects ≤5X the greatest associated FR concentration and, thus, were qualified U,I4d. The remaining associated sample results were detects >5X the FR blank concentration and, thus, were not qualified.
3. The solid MS %Rs were > the laboratory UAL for Ba, Ca, Mg, Mn, K and Zn. The associated sample results were detects and, thus, were qualified J+,I6b. Also, the solid MS %Rs were > the laboratory UAL for Al, Sb and Pb. However, the associated parent sample concentrations were >4X the spike concentrations. Thus, the associated sample results were not qualified, based on professional judgment.
4. The solid RPD between the duplicate and its parent sample for Pb and V were >35%, and the duplicate and parent sample results were ≥5X the RLs. The associated sample results were detects and, thus, were qualified J,I10a.

Reviewed by: Susan Ball **Level:** I **Date:** 3/23/10

DATA VALIDATION COVER SHEET

5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: Mr. Peter Steves DATE: 03/22/10

Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055001 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8170 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3200000	ug/kg	*	8090	23800	23800	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-36-0	Antimony	243000	ug/kg	*	393	1190	1190	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-38-2	Arsenic	3630	ug/kg		234	1170	1170	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-39-3	Barium J+,I6b	49500	ug/kg	*N	119	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-41-7	Beryllium	470	ug/kg		23.4	117	117	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-43-9	Cadmium	313	ug/kg	J	119	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-70-2	Calcium J+,I6b	1550000	ug/kg	*N	9520	29700	29700	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-47-3	Chromium	6340	ug/kg	*	178	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-48-4	Cobalt	2210	ug/kg		178	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-50-8	Copper	9110	ug/kg		357	1190	1190	1	P	HSC	02/25/10 00:01	022410-1	949334
7439-89-6	Iron	10500000	ug/kg	*	9520	29700	29700	1	P	HSC	02/25/10 00:01	022410-1	949334
7439-92-1	Lead J,I10a	63700000	ug/kg	*	14900	59500	59500	50	P	HSC	03/01/10 20:10	030110A-2	949334
7439-95-4	Magnesium J+,I6b	749000	ug/kg	*N	10100	35700	35700	1	P	HSC	02/25/10 00:01	022410-1	949334
7439-96-5	Manganese J+,I6b	177000	ug/kg	*N	238	1190	1190	1	P	HSC	02/25/10 00:01	022410-1	949334
7439-97-6	Mercury	14.3	ug/kg	*N	4.14	12.2	12.2	1	AV	JXL1	02/22/10 10:24	022210S1-4	951546
7440-02-0	Nickel	5230	ug/kg		117	468	468	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-09-7	Potassium J+,I6b	726000	ug/kg	*N	7610	29700	29700	1	P	HSC	02/25/10 00:01	022410-1	949334
7782-49-2	Selenium	1170	ug/kg	U	586	1170	1170	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-22-4	Silver	743	ug/kg	*	119	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-23-5	Sodium	116000	ug/kg		8330	29700	29700	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-28-0	Thallium	107	ug/kg	J	70.3	234	234	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-62-2	Vanadium J,I10a	9990	ug/kg	*	119	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-66-6	Zinc J+,I6b	206000	ug/kg	*N	393	1190	1190	1	P	HSC	02/25/10 00:01	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.51	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.518	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.598	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055002 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8169 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		13900000	ug/kg	*	6910	20300	20300	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-36-0	Antimony		1760	ug/kg	*	335	1020	1020	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-38-2	Arsenic		3280	ug/kg		211	1050	1050	2	MS	RMJ	02/26/10 01:44	100225-3	949336
7440-39-3	Barium	J+,I6b	173000	ug/kg	*N	102	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-41-7	Beryllium		1560	ug/kg		21.1	105	105	2	MS	RMJ	02/26/10 01:44	100225-3	949336
7440-43-9	Cadmium		226	ug/kg	J	102	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-70-2	Calcium	J+,I6b	2480000	ug/kg	*N	8130	25400	25400	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-47-3	Chromium		17400	ug/kg	*	152	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-48-4	Cobalt		5160	ug/kg		152	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-50-8	Copper		8100	ug/kg		305	1020	1020	1	P	HSC	02/25/10 00:51	022410-1	949334
7439-89-6	Iron		12500000	ug/kg	*	8130	25400	25400	1	P	HSC	02/25/10 00:51	022410-1	949334
7439-92-1	Lead	J,I10a	180000	ug/kg	*	254	1020	1020	1	P	HSC	03/01/10 20:58	030110A-2	949334
7439-95-4	Magnesium	J+,I6b	1890000	ug/kg	*N	8640	30500	30500	1	P	HSC	02/25/10 00:51	022410-1	949334
7439-96-5	Manganese	J+,I6b	282000	ug/kg	*N	203	1020	1020	1	P	HSC	02/25/10 00:51	022410-1	949334
7439-97-6	Mercury		18.8	ug/kg	*N	4.38	12.9	12.9	1	AV	JXL1	02/22/10 10:35	022210S1-4	951546
7440-02-0	Nickel		11500	ug/kg		105	421	421	2	MS	RMJ	02/26/10 01:44	100225-3	949336
7440-09-7	Potassium	J+,I6b	1690000	ug/kg	*N	6510	25400	25400	1	P	HSC	02/25/10 00:51	022410-1	949334
7782-49-2	Selenium		2110	ug/kg	U	1050	2110	2110	4	MS	RMJ	02/26/10 02:28	100225-3	949336
7440-22-4	Silver		508	ug/kg	U*	102	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-23-5	Sodium		71900	ug/kg		7110	25400	25400	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-28-0	Thallium		278	ug/kg		63.2	211	211	2	MS	RMJ	02/26/10 01:44	100225-3	949336
7440-62-2	Vanadium	J,I10a	26600	ug/kg	*	102	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-66-6	Zinc	J+,I6b	24500	ug/kg	*N	335	1020	1020	1	P	HSC	02/25/10 00:51	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.578	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.558	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.547	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055003 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8171 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15100000	ug/kg	*	7000	20600	20600	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-36-0	Antimony U,I4b	414	ug/kg	J*	340	1030	1030	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-38-2	Arsenic	2720	ug/kg		211	1050	1050	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-39-3	Barium J+,I6b	180000	ug/kg	*N	103	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-41-7	Beryllium	1130	ug/kg		21.1	105	105	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-43-9	Cadmium	159	ug/kg	J	103	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-70-2	Calcium J+,I6b	2240000	ug/kg	*N	8230	25700	25700	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-47-3	Chromium	15500	ug/kg	*	154	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-48-4	Cobalt	6750	ug/kg		154	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-50-8	Copper	8990	ug/kg		309	1030	1030	1	P	HSC	02/25/10 00:58	022410-1	949334
7439-89-6	Iron	14700000	ug/kg	*	8230	25700	25700	1	P	HSC	02/25/10 00:58	022410-1	949334
7439-92-1	Lead J,I10a	90600	ug/kg	*	257	1030	1030	1	P	HSC	03/01/10 21:05	030110A-2	949334
7439-95-4	Magnesium J+,I6b	2400000	ug/kg	*N	8750	30900	30900	1	P	HSC	02/25/10 00:58	022410-1	949334
7439-96-5	Manganese J+,I6b	364000	ug/kg	*N	206	1030	1030	1	P	HSC	02/25/10 00:58	022410-1	949334
7439-97-6	Mercury	19.2	ug/kg	*N	4.39	12.9	12.9	1	AV	JXL1	02/22/10 10:37	022210S1-4	951546
7440-02-0	Nickel	9150	ug/kg		105	422	422	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-09-7	Potassium J+,I6b	2060000	ug/kg	*N	6590	25700	25700	1	P	HSC	02/25/10 00:58	022410-1	949334
7782-49-2	Selenium	1050	ug/kg	U	527	1050	1050	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-22-4	Silver	515	ug/kg	U*	103	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-23-5	Sodium	1030000	ug/kg		7200	25700	25700	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-28-0	Thallium	223	ug/kg		63.2	211	211	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-62-2	Vanadium J,I10a	30900	ug/kg	*	103	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-66-6	Zinc J+,I6b	37200	ug/kg	*N	340	1030	1030	1	P	HSC	02/25/10 00:58	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.552	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.539	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.528	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055004 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8168 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		4640000	ug/kg	*	7860	23100	23100	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-36-0	Antimony		1160	ug/kg	U*	381	1160	1160	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-38-2	Arsenic		1270	ug/kg		245	1230	1230	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-39-3	Barium	J+,I6b	83300	ug/kg	*N	116	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-41-7	Beryllium		423	ug/kg		24.5	123	123	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-43-9	Cadmium		122	ug/kg	J	116	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-70-2	Calcium	J+,I6b	3110000	ug/kg	*N	9240	28900	28900	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-47-3	Chromium		12800	ug/kg	*	173	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-48-4	Cobalt		3140	ug/kg		173	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-50-8	Copper		6580	ug/kg		347	1160	1160	1	P	HSC	02/25/10 01:05	022410-1	949334
7439-89-6	Iron		8740000	ug/kg	*	9240	28900	28900	1	P	HSC	02/25/10 01:05	022410-1	949334
7439-92-1	Lead	J,I10a	45900	ug/kg	*	289	1160	1160	1	P	HSC	03/01/10 21:12	030110A-2	949334
7439-95-4	Magnesium	J+,I6b	1240000	ug/kg	*N	9820	34700	34700	1	P	HSC	02/25/10 01:05	022410-1	949334
7439-96-5	Manganese	J+,I6b	242000	ug/kg	*N	231	1160	1160	1	P	HSC	02/25/10 01:05	022410-1	949334
7439-97-6	Mercury		14.4	ug/kg	U*N	4.91	14.4	14.4	1	AV	JXL1	02/22/10 10:39	022210S1-4	951546
7440-02-0	Nickel		4940	ug/kg		123	491	491	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-09-7	Potassium	J+,I6b	1090000	ug/kg	*N	7390	28900	28900	1	P	HSC	02/25/10 01:05	022410-1	949334
7782-49-2	Selenium		1230	ug/kg	U	614	1230	1230	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-22-4	Silver		578	ug/kg	U*	116	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-23-5	Sodium	U,I4d	83000	ug/kg		8090	28900	28900	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-28-0	Thallium		84.2	ug/kg	J	73.6	245	245	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-62-2	Vanadium	J,I10a	18800	ug/kg	*	116	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-66-6	Zinc	J+,I6b	23500	ug/kg	*N	381	1160	1160	1	P	HSC	02/25/10 01:05	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.545	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.513	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.523	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055005 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8222 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		12900000	ug/kg	*	8670	25500	25500	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-36-0	Antimony		1280	ug/kg	U*	421	1280	1280	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-38-2	Arsenic		5360	ug/kg		264	1320	1320	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-39-3	Barium	J+,I6b	168000	ug/kg	*N	128	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-41-7	Beryllium		998	ug/kg		26.4	132	132	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-43-9	Cadmium		140	ug/kg	J	128	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-70-2	Calcium	J+,I6b	2350000	ug/kg	*N	10200	31900	31900	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-47-3	Chromium		11900	ug/kg	*	191	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-48-4	Cobalt		5810	ug/kg		191	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-50-8	Copper		8950	ug/kg		383	1280	1280	1	P	HSC	02/25/10 01:12	022410-1	949334
7439-89-6	Iron		13700000	ug/kg	*	10200	31900	31900	1	P	HSC	02/25/10 01:12	022410-1	949334
7439-92-1	Lead	J,I10a	72900	ug/kg	*	319	1280	1280	1	P	HSC	03/01/10 21:19	030110A-2	949334
7439-95-4	Magnesium	J+,I6b	2180000	ug/kg	*N	10800	38300	38300	1	P	HSC	02/25/10 01:12	022410-1	949334
7439-96-5	Manganese	J+,I6b	332000	ug/kg	*N	255	1280	1280	1	P	HSC	02/25/10 01:12	022410-1	949334
7439-97-6	Mercury		15.7	ug/kg	*N	4.66	13.7	13.7	1	AV	JXL1	02/22/10 10:40	022210S1-4	951546
7440-02-0	Nickel		9020	ug/kg		132	528	528	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-09-7	Potassium	J+,I6b	2080000	ug/kg	*N	8160	31900	31900	1	P	HSC	02/25/10 01:12	022410-1	949334
7782-49-2	Selenium		1320	ug/kg	U	660	1320	1320	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-22-4	Silver		638	ug/kg	U*	128	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-23-5	Sodium	U,I4d	106000	ug/kg		8930	31900	31900	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-28-0	Thallium		200	ug/kg	J	79.2	264	264	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-62-2	Vanadium	J,I10a	29000	ug/kg	*	128	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-66-6	Zinc	J+,I6b	30800	ug/kg	*N	421	1280	1280	1	P	HSC	02/25/10 01:12	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.528	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.51	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.59	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055006 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8221 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16900000	ug/kg	*	7210	21200	21200	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-36-0	Antimony	1060	ug/kg	U*	350	1060	1060	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-38-2	Arsenic	2830	ug/kg		221	1110	1110	2	MS	RMJ	02/26/10 02:08	100225-3	949336
7440-39-3	Barium J+,I6b	190000	ug/kg	*N	106	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-41-7	Beryllium	1590	ug/kg		22.1	111	111	2	MS	RMJ	02/26/10 02:08	100225-3	949336
7440-43-9	Cadmium	214	ug/kg	J	106	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-70-2	Calcium J+,I6b	2650000	ug/kg	*N	8480	26500	26500	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-47-3	Chromium	14800	ug/kg	*	159	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-48-4	Cobalt	5660	ug/kg		159	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-50-8	Copper	8100	ug/kg		318	1060	1060	1	P	HSC	02/25/10 01:19	022410-1	949334
7439-89-6	Iron	13600000	ug/kg	*	8480	26500	26500	1	P	HSC	02/25/10 01:19	022410-1	949334
7439-92-1	Lead J,I10a	45700	ug/kg	*	265	1060	1060	1	P	HSC	03/01/10 21:26	030110A-2	949334
7439-95-4	Magnesium J+,I6b	2370000	ug/kg	*N	9010	31800	31800	1	P	HSC	02/25/10 01:19	022410-1	949334
7439-96-5	Manganese J+,I6b	290000	ug/kg	*N	212	1060	1060	1	P	HSC	02/25/10 01:19	022410-1	949334
7439-97-6	Mercury	19.1	ug/kg	*N	4.47	13.2	13.2	1	AV	JXL1	02/22/10 10:42	022210S1-4	951546
7440-02-0	Nickel	11500	ug/kg		111	443	443	2	MS	RMJ	02/26/10 02:08	100225-3	949336
7440-09-7	Potassium J+,I6b	2210000	ug/kg	*N	6790	26500	26500	1	P	HSC	02/25/10 01:19	022410-1	949334
7782-49-2	Selenium	2210	ug/kg	U	1110	2210	2210	4	MS	RMJ	02/26/10 02:32	100225-3	949336
7440-22-4	Silver	530	ug/kg	U*	106	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-23-5	Sodium U,I4d	97100	ug/kg		7420	26500	26500	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-28-0	Thallium	273	ug/kg		66.4	221	221	2	MS	RMJ	02/26/10 02:08	100225-3	949336
7440-62-2	Vanadium J,I10a	30000	ug/kg	*	106	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-66-6	Zinc J+,I6b	27400	ug/kg	*N	350	1060	1060	1	P	HSC	02/25/10 01:19	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.541	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.518	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.523	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055007 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8220 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10200000	ug/kg	*	7000	20600	20600	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-36-0	Antimony	1030	ug/kg	U*	340	1030	1030	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-38-2	Arsenic	2100	ug/kg		201	1000	1000	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-39-3	Barium J+,I6b	123000	ug/kg	*N	103	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-41-7	Beryllium	888	ug/kg		20.1	100	100	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-43-9	Cadmium	118	ug/kg	J	103	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-70-2	Calcium J+,I6b	1600000	ug/kg	*N	8240	25700	25700	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-47-3	Chromium	14500	ug/kg	*	154	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-48-4	Cobalt	3710	ug/kg		154	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-50-8	Copper	5820	ug/kg		309	1030	1030	1	P	HSC	02/25/10 01:27	022410-1	949334
7439-89-6	Iron	11600000	ug/kg	*	8240	25700	25700	1	P	HSC	02/25/10 01:27	022410-1	949334
7439-92-1	Lead J,I10a	41200	ug/kg	*	257	1030	1030	1	P	HSC	03/01/10 21:33	030110A-2	949334
7439-95-4	Magnesium J+,I6b	1610000	ug/kg	*N	8750	30900	30900	1	P	HSC	02/25/10 01:27	022410-1	949334
7439-96-5	Manganese J+,I6b	292000	ug/kg	*N	206	1030	1030	1	P	HSC	02/25/10 01:27	022410-1	949334
7439-97-6	Mercury	12	ug/kg	J*N	4.15	12.2	12.2	1	AV	JXL1	02/22/10 10:44	022210S1-4	951546
7440-02-0	Nickel	7790	ug/kg		100	402	402	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-09-7	Potassium J+,I6b	1210000	ug/kg	*N	6590	25700	25700	1	P	HSC	02/25/10 01:27	022410-1	949334
7782-49-2	Selenium	1000	ug/kg	U	502	1000	1000	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-22-4	Silver	515	ug/kg	U*	103	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-23-5	Sodium	102000	ug/kg		7210	25700	25700	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-28-0	Thallium	166	ug/kg	J	60.3	201	201	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-62-2	Vanadium J,I10a	19800	ug/kg	*	103	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-66-6	Zinc J+,I6b	34800	ug/kg	*N	340	1030	1030	1	P	HSC	02/25/10 01:27	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.532	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.545	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.539	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055008 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8223 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte		Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum		7670000	ug/kg	*	8120	23900	23900	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-36-0	Antimony		1190	ug/kg	U*	394	1190	1190	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-38-2	Arsenic		1900	ug/kg		243	1210	1210	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-39-3	Barium	J+,I6b	128000	ug/kg	*N	119	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-41-7	Beryllium		754	ug/kg		24.3	121	121	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-43-9	Cadmium		191	ug/kg	J	119	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-70-2	Calcium	J+,I6b	2810000	ug/kg	*N	9550	29900	29900	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-47-3	Chromium		9860	ug/kg	*	179	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-48-4	Cobalt		4110	ug/kg		179	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-50-8	Copper		8380	ug/kg		358	1190	1190	1	P	HSC	02/25/10 01:34	022410-1	949334
7439-89-6	Iron		10700000	ug/kg	*	9550	29900	29900	1	P	HSC	02/25/10 01:34	022410-1	949334
7439-92-1	Lead	J,I10a	48200	ug/kg	*	299	1190	1190	1	P	HSC	03/01/10 21:40	030110A-2	949334
7439-95-4	Magnesium	J+,I6b	1570000	ug/kg	*N	10200	35800	35800	1	P	HSC	02/25/10 01:34	022410-1	949334
7439-96-5	Manganese	J+,I6b	293000	ug/kg	*N	239	1190	1190	1	P	HSC	02/25/10 01:34	022410-1	949334
7439-97-6	Mercury		9.51	ug/kg	J*N	4.49	13.2	13.2	1	AV	JXL1	02/22/10 10:45	022210S1-4	951546
7440-02-0	Nickel		7060	ug/kg		121	485	485	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-09-7	Potassium	J+,I6b	1710000	ug/kg	*N	7640	29900	29900	1	P	HSC	02/25/10 01:34	022410-1	949334
7782-49-2	Selenium		1210	ug/kg	U	607	1210	1210	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-22-4	Silver		164	ug/kg	J*	119	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-23-5	Sodium	U,I4d	55100	ug/kg		8360	29900	29900	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-28-0	Thallium		150	ug/kg	J	72.8	243	243	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-62-2	Vanadium	J,I10a	21400	ug/kg	*	119	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-66-6	Zinc	J+,I6b	30300	ug/kg	*N	394	1190	1190	1	P	HSC	02/25/10 01:34	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.52	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.512	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.564	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055009 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8224 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3060000	ug/kg	*	7930	23300	23300	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-36-0	Antimony	176000	ug/kg	*	385	1170	1170	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-38-2	Arsenic	4000	ug/kg		230	1150	1150	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-39-3	Barium J+,I6b	52900	ug/kg	*N	117	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-41-7	Beryllium	460	ug/kg		23	115	115	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-43-9	Cadmium	273	ug/kg	J	117	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-70-2	Calcium J+,I6b	1430000	ug/kg	*N	9330	29200	29200	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-47-3	Chromium	5950	ug/kg	*	175	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-48-4	Cobalt	1910	ug/kg		175	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-50-8	Copper	7440	ug/kg		350	1170	1170	1	P	HSC	02/25/10 01:41	022410-1	949334
7439-89-6	Iron	7910000	ug/kg	*	9330	29200	29200	1	P	HSC	02/25/10 01:41	022410-1	949334
7439-92-1	Lead J,I10a	66500000	ug/kg	*	29200	117000	117000	100	P	HSC	03/01/10 21:47	030110A-2	949334
7439-95-4	Magnesium J+,I6b	660000	ug/kg	*N	9910	35000	35000	1	P	HSC	02/25/10 01:41	022410-1	949334
7439-96-5	Manganese J+,I6b	200000	ug/kg	*N	233	1170	1170	1	P	HSC	02/25/10 01:41	022410-1	949334
7439-97-6	Mercury	18.2	ug/kg	*N	4.24	12.5	12.5	1	AV	JXL1	02/22/10 10:50	022210S1-4	951546
7440-02-0	Nickel	4590	ug/kg		115	459	459	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-09-7	Potassium J+,I6b	717000	ug/kg	*N	7460	29200	29200	1	P	HSC	02/25/10 01:41	022410-1	949334
7782-49-2	Selenium	1150	ug/kg	U	574	1150	1150	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-22-4	Silver	411	ug/kg	J*	117	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-23-5	Sodium	135000	ug/kg		8160	29200	29200	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-28-0	Thallium	112	ug/kg	J	68.9	230	230	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-62-2	Vanadium J,I10a	10100	ug/kg	*	117	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-66-6	Zinc J+,I6b	194000	ug/kg	*N	385	1170	1170	1	P	HSC	02/25/10 01:41	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.51	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.518	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.572	g	30	mL	02/19/10	TXB3

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246056001 **BASIS:** As Received **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8233 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	103	ug/L	J	68	200	200	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/02/10 05:58	100301-3	949400
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-39-3	Barium	1.47	ug/L	J	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/02/10 05:58	100301-3	949400
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/02/10 05:58	100301-3	949400
7440-70-2	Calcium	53.6	ug/L	J	50	200	200	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-47-3	Chromium	2.5	ug/L	J	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:21	021110B-1	949338
7439-89-6	Iron	75.1	ug/L	J	30	100	100	1	P	HSC	02/11/10 20:21	021110B-1	949338
7439-92-1	Lead	1.21	ug/L	J	0.5	2	2	1	MS	PRB	03/02/10 14:56	100302-2	949400
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:21	021110B-1	949338
7439-96-5	Manganese	3	ug/L	J	1	5	5	1	MS	BAJ	03/02/10 05:58	100301-3	949400
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:14	020510W1-4	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-09-7	Potassium	174	ug/L		50	150	150	1	P	HSC	02/11/10 20:21	021110B-1	949338
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-23-5	Sodium	171	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/02/10 14:56	100302-2	949400
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:21	021110B-1	949338

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3
949338	949337	SW846 3005A	50	mL	50	mL	02/10/10	BXA1
949400	949399	SW846 3005A	50	mL	50	mL	02/10/10	BXA1

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246056002 **BASIS:** As Received **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8231 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/02/10 06:22	100301-3	949400
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/02/10 06:22	100301-3	949400
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/02/10 06:22	100301-3	949400
7440-70-2	Calcium	53.1	ug/L	J	50	200	200	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:35	021110B-1	949338
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 20:35	021110B-1	949338
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	03/02/10 14:45	100302-2	949400
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:35	021110B-1	949338
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	03/02/10 06:22	100301-3	949400
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:22	020510W1-4	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-09-7	Potassium	159	ug/L		50	150	150	1	P	HSC	02/11/10 20:35	021110B-1	949338
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-23-5	Sodium	126	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-28-0	Thallium U,I4b	0.413	ug/L	J	0.3	1	1	1	MS	PRB	03/02/10 14:45	100302-2	949400
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:35	021110B-1	949338

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3
949338	949337	SW846 3005A	50	mL	50	mL	02/10/10	BXA1
949400	949399	SW846 3005A	50	mL	50	mL	02/10/10	BXA1

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246056003 **BASIS:** As Received **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8230 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	265	ug/L		68	200	200	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/02/10 06:29	100301-3	949400
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-39-3	Barium	2.15	ug/L	J	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/02/10 06:29	100301-3	949400
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/02/10 06:29	100301-3	949400
7440-70-2	Calcium	109	ug/L	J	50	200	200	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:39	021110B-1	949338
7439-89-6	Iron	153	ug/L		30	100	100	1	P	HSC	02/11/10 20:39	021110B-1	949338
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	03/02/10 14:47	100302-2	949400
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:39	021110B-1	949338
7439-96-5	Manganese	2.91	ug/L	J	1	5	5	1	MS	BAJ	03/02/10 06:29	100301-3	949400
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:24	020510W1-4	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-09-7	Potassium	203	ug/L		50	150	150	1	P	HSC	02/11/10 20:39	021110B-1	949338
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-23-5	Sodium	186	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/02/10 14:47	100302-2	949400
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:39	021110B-1	949338

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3
949338	949337	SW846 3005A	50	mL	50	mL	02/10/10	BXA1
949400	949399	SW846 3005A	50	mL	50	mL	02/10/10	BXA1

P.S. 3/22/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246056004 **BASIS:** As Received **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8232 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/02/10 06:35	100301-3	949400
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/02/10 06:35	100301-3	949400
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/02/10 06:35	100301-3	949400
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:42	021110B-1	949338
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 20:42	021110B-1	949338
7439-92-1	Lead	3.14	ug/L		0.5	2	2	1	MS	PRB	03/02/10 14:49	100302-2	949400
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:42	021110B-1	949338
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	03/02/10 06:35	100301-3	949400
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:26	020510W1-4	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-09-7	Potassium	142	ug/L	J	50	150	150	1	P	HSC	02/11/10 20:42	021110B-1	949338
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-23-5	Sodium	117	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/02/10 14:49	100302-2	949400
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:42	021110B-1	949338

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3
949338	949337	SW846 3005A	50	mL	50	mL	02/10/10	BXA1
949400	949399	SW846 3005A	50	mL	50	mL	02/10/10	BXA1

P.S. 3/22/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1545 VALIDATION DATE: 03/22/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Peter Steves ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Total CN only

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses were performed on LANL samples from other RNs. No sample data were qualified as a result.

Reviewed by: Susan Ball **Level:** I **Date:** 3/23/10

VALIDATOR'S SIGNATURE: ## Mr. Peter Steves DATE: 03/22/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8170	Project:	LANL01004
Sample ID:	246055001	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	69.9	257	ug/kg	1	AXC2 02/12/10	1256	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8169	Project:	LANL01004
Sample ID:	246055002	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.3	288	ug/kg	1	AXC2 02/12/10	1257	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8171	Project:	LANL01004
Sample ID:	246055003	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.6	245	ug/kg	1	AXC2 02/12/10	1258	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8168	Project:	LANL01004
Sample ID:	246055004	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	20.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	77.9	286	ug/kg	1	AXC2	02/12/10	1259	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8222	Project:	LANL01004
Sample ID:	246055005	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	25.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	80.3	295	ug/kg	1	AXC2	02/12/10	1300	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8221	Project:	LANL01004
Sample ID:	246055006	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.0	287	ug/kg	1	AXC2 02/12/10	1301	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8220	Project:	LANL01004
Sample ID:	246055007	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	8.71%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	71.6	263	ug/kg	1	AXC2 02/12/10	1302	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8223	Project:	LANL01004
Sample ID:	246055008	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	19.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	72.8	268	ug/kg	1	AXC2 02/12/10	1306	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8224	Project:	LANL01004
Sample ID:	246055009	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	15.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.8	286	ug/kg	1	AXC2 02/12/10	1319	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1545-1

Client Sample ID:	RE15-10-8233	Project:	LANL01004
Sample ID:	246056001	Client ID:	LANL010
Matrix:	W		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/08/10	1510	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1545-1

Client Sample ID:	RE15-10-8231	Project:	LANL01004
Sample ID:	246056002	Client ID:	LANL010
Matrix:	W		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1511	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1545-1

Client Sample ID:	RE15-10-8230	Project:	LANL01004
Sample ID:	246056003	Client ID:	LANL010
Matrix:	W		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1512	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 3/22/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1545-1

Client Sample ID:	RE15-10-8232	Project:	LANL01004
Sample ID:	246056004	Client ID:	LANL010
Matrix:	W		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1513	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

P.S. 3/22/10

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1545C

REQUEST NUMBER: 10-1545

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246055/, 246056/

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8170	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8170	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8169	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8169	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8171	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8171	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8168	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8168	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8222	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8222	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8221	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8220	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8223	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8224	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8233	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8233	1	POLY	SW-846:6850	Ice	W
RE15-10-8233	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8231	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8231	1	POLY	SW-846:6850	Ice	W
RE15-10-8231	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8230	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8230	1	POLY	SW-846:6850	Ice	W
RE15-10-8230	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8232	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8232	1	POLY	SW-846:6850	Ice	W
RE15-10-8232	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8220	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8223	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8224	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8221	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time

Printed Name	Signature	Printed Name	Signature
	2/2/10 3:00	Greg Tyler	2/3/10 0855

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

10-1545

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1545
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/2/2010
TURNAROUND/REPORT DUE: 3/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	
		1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:6020	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:6850	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:8082	1	RE15-10-8222	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	
		1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	
		1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	

Final Page of REQUEST NUMBER 10-1545

GEL Laboratories

a member of The GEL Group Inc

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 09, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Orders: 246055 246056
SDG: 10-1545

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 03, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1545
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 246055 and 246056
SDG: 10-1545

Table of Contents

Case Narrative **1**

Chain of Custody and Supporting Documentation **5**

Data Review Qualifier Flag Definition Sheet **14**

LC/MS/MS Perchlorate Analysis **16**
- Sample Data Summary 21
- Quality Control Summary 31
- Sample Data 59
- Standards Data 78
- Quality Control 100
- Miscellaneous Data 109

LC/MS/MS Perchlorate Analysis **116**
- Sample Data Summary 121
- Quality Control Summary 126
- Sample Data 155
- Standards Data 164
- Quality Control 188
- Miscellaneous Data 193

LC/MS/MS Explosives Analysis **201**
- Sample Data Summary 207
- Quality Control Summary 226
- Sample Data 379
- Standards Data 443
- Quality Control Data 696
- Miscellaneous Data 727

GC Semivolatile PCB Analysis **743**
- Sample Data Summary 749
- Quality Control Summary 751
- Sample Data 757
- Standards Data 765
- Quality Control Data 823
- Miscellaneous Data 836

Metals Analysis **857**
- Case Narrative 858
- Sample Data Summary 864

Quality Control Summary 874
Standards 929
Raw Data 941
Miscellaneous 1295

Metals Analysis 1335
Case Narrative 1336
Sample Data Summary 1342
Quality Control Summary 1347
Standards 1394
Raw Data 1407
Miscellaneous 1657

General Chemistry Analysis 1697
Case Narrative 1698
Sample Data Summary 1703
Quality Control Summary 1714
Instrument QC Data Summary 1717
Cyanide, Total 1719
Miscellaneous 1735

General Chemistry Analysis 1737
Case Narrative 1738
Sample Data Summary 1743
Quality Control Summary 1749
Instrument QC Data Summary 1752
Cyanide, Total 1754

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246055 and 246056
SDG # : 10-1545

February 09, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 03, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
246055001	RE15-10-8170
246055002	RE15-10-8169
246055003	RE15-10-8171
246055004	RE15-10-8168
246055005	RE15-10-8222
246055006	RE15-10-8221
246055007	RE15-10-8220
246055008	RE15-10-8223
246055009	RE15-10-8224
246056001	RE15-10-8233
246056002	RE15-10-8231
246056003	RE15-10-8230
246056004	RE15-10-8232

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for D Francis

Valerie Davis

Project Manager

List of current GEL Certifications as of 09 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Tuesday, February 02, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1545C

REQUEST NUMBER: 10-1545

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/4/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246055/, 246056/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8170	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8170	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8169	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8169	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8171	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8171	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8168	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8168	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8222	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8222	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8221	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8220	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8223	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8224	1	POLY	Metals+ClO4+CN	Ice	R
RE15-10-8233	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8233	1	POLY	SW-846:6850	Ice	W
RE15-10-8233	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8231	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8231	1	POLY	SW-846:6850	Ice	W
RE15-10-8231	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8230	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8230	1	POLY	SW-846:6850	Ice	W
RE15-10-8230	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8232	1	POLY	METALS-GEL	Nitric Acid	W
RE15-10-8232	1	POLY	SW-846:6850	Ice	W
RE15-10-8232	1	POLY	TCN	Sodium Hydroxide	W
RE15-10-8220	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8223	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8224	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8221	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time

Printed Name	Signature	Printed Name	Signature
	2/2/10 3:00	Greg Tyler	2/3/10 0855

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

10-1545

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1545
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/2/2010
TURNAROUND/REPORT DUE: 3/4/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	
		1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:6020	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:6850	1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	
	SW-846:8082	1	RE15-10-8222	R	1/29/2010	
	SW-846:8321A_MOD	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	
		1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	
	SW-846:9012A	1	RE15-10-8168	R	1/29/2010	
		1	RE15-10-8169	R	1/29/2010	
		1	RE15-10-8170	R	1/29/2010	
		1	RE15-10-8171	R	1/29/2010	
		1	RE15-10-8220	R	1/29/2010	
		1	RE15-10-8221	R	1/29/2010	

Tuesday, February 02, 2010

REQUEST NUMBER: 10-1545

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:9012A	1	RE15-10-8222	R	1/29/2010	
		1	RE15-10-8223	R	1/29/2010	
		1	RE15-10-8224	R	1/29/2010	
		1	RE15-10-8230	W	1/29/2010	
		1	RE15-10-8231	W	1/29/2010	
		1	RE15-10-8232	W	1/29/2010	
		1	RE15-10-8233	W	1/29/2010	

Final Page of REQUEST NUMBER 10-1545

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1545**
Received By: Greg Tyler	**Date Received: 2/03/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-3, 6C** **11,12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7849 8139 1C
7209 7849 8117 2C
7209 7849 8128 3C
7209 7849 8150 6C
7209 7849 8161 6C
7209 7849 8140 11C
7209 7849 8106 12C

PM (or PMA) review: Initials _____ Date 2/4/10

ORIGIN ID: SAFA (505) 665-9868
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

1°

FedEx Express

2 of 2
WED - 03FEB A1
PRIORITY OVERNIGHT

PS# 0263 7209 7849 8139
Matr# 7209 7849 8128 0201

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9868
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

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3 of 3
WED - 03FEB A1
PRIORITY OVERNIGHT

PS# 0263 7209 7849 8117
Matr# 7209 7849 8091 0201

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 06-09

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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1 of 2
WED - 03FEB A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 8128
MASTER

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

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GENERAL ENGINEERING LAB
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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YDO

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1 of 2
WED - 03FEB A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 8150
MASTER

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 08010AWR2A05158YD0

6°

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2 of 2
MPS# 0263 7209 7849 8161
Mstr# 7209 7849 8158 0201

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 08010AWR3A05529E00

11°

FedEx Express

TRK# 0201 7209 7849 8140

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 02FEB10
ACTWGT: 23.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 08010AWR1A015AGWL0

12°

FedEx Express

2 of 3
MPS# 0263 7209 7849 8106
Mstr# 7209 7849 8091 0201

WED - 03FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1545

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950071
Prep Batch Number:	950068

Sample Analysis

Sample ID	Client ID
246055001	RE15-10-8170
246055002	RE15-10-8169
246055003	RE15-10-8171
246055004	RE15-10-8168
246055005	RE15-10-8222
246055006	RE15-10-8221
246055007	RE15-10-8220
246055008	RE15-10-8223
246055009	RE15-10-8224
1202035664	Interference Check Sample (ICS)
1202035660	Method Blank (MB)
1202035661	Laboratory Control Sample (LCS)
1202035662	246055001(RE15-10-8170) Matrix Spike (MS)
1202035663	246055001(RE15-10-8170) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration

All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 246055001 (RE15-10-8170) from was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Mauer **Date:** 02/28/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8170

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.607	2.43	0.831	ug/kg	J	1	23-FEB-10 19:33	per0223053a
	Perchlorate Isotope Ratio			3.19			1	23-FEB-10 19:33	per0223053a
14797-73-0	Perchlorate-101	.607	2.43	0.836	ug/kg	J	1	23-FEB-10 19:33	per0223053a
	Perchlorate-O(18)			5.52	ug/kg		1	23-FEB-10 19:33	per0223053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8169

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 19:57	per0223056a
	Perchlorate Isotope Ratio						1	23-FEB-10 19:57	per0223056a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 19:57	per0223056a
	Perchlorate-O(18)			5.33	ug/kg		1	23-FEB-10 19:57	per0223056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8171

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.568	2.27	1.70	ug/kg	J	1	23-FEB-10 20:05	per0223057a
	Perchlorate Isotope Ratio			3.11			1	23-FEB-10 20:05	per0223057a
14797-73-0	Perchlorate-101	.568	2.27	1.75	ug/kg	J	1	23-FEB-10 20:05	per0223057a
	Perchlorate-O(18)			5.83	ug/kg		1	23-FEB-10 20:05	per0223057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8168

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	23-FEB-10 20:13	per0223058a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:13	per0223058a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	23-FEB-10 20:13	per0223058a
	Perchlorate-O(18)			5.65	ug/kg		1	23-FEB-10 20:13	per0223058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8222

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.673	2.69	0.673	ug/kg	U	1	23-FEB-10 20:21	per0223059a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:21	per0223059a
14797-73-0	Perchlorate-101	.673	2.69	0.673	ug/kg	U	1	23-FEB-10 20:21	per0223059a
	Perchlorate-O(18)			5.70	ug/kg		1	23-FEB-10 20:21	per0223059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8221

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.574	2.29	0.574	ug/kg	U	1	23-FEB-10 20:29	per0223060a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:29	per0223060a
14797-73-0	Perchlorate-101	.574	2.29	0.574	ug/kg	U	1	23-FEB-10 20:29	per0223060a
	Perchlorate-O(18)			5.38	ug/kg		1	23-FEB-10 20:29	per0223060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8220

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 91.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 21:02	per0223064a
	Perchlorate Isotope Ratio						1	23-FEB-10 21:02	per0223064a
14797-73-0	Perchlorate-101	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 21:02	per0223064a
	Perchlorate-O(18)			5.05	ug/kg		1	23-FEB-10 21:02	per0223064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8223

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.621	2.48	0.621	ug/kg	U	1	23-FEB-10 21:10	per0223065a
	Perchlorate Isotope Ratio						1	23-FEB-10 21:10	per0223065a
14797-73-0	Perchlorate-101	.621	2.48	0.621	ug/kg	U	1	23-FEB-10 21:10	per0223065a
	Perchlorate-O(18)			5.62	ug/kg		1	23-FEB-10 21:10	per0223065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8224

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.595	2.38	0.764	ug/kg	J	1	23-FEB-10 21:18	per0223066a
	Perchlorate Isotope Ratio			3.24			1	23-FEB-10 21:18	per0223066a
14797-73-0	Perchlorate-101	.595	2.38	0.756	ug/kg	J	1	23-FEB-10 21:18	per0223066a
	Perchlorate-O(18)			5.45	ug/kg		1	23-FEB-10 21:18	per0223066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1545

Extract Batch Code: 950068

Date Filtered: 18–FEB–10

Matrix: SOIL

Sample ID: 1202035661

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	1.98	ug/kg	98.8		70 – 130
Perchlorate Isotope Ratio		3.1				–
Perchlorate–101	2.00	2.04	ug/kg	102		70 – 130
Perchlorate–O(18)		4.69	ug/kg			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1545

Extract Batch Code: 950068

Date Filtered: 18–FEB–10

Matrix: SOIL

Sample ID: 1202035664

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	2.00	2.15	ug/kg	108		70 – 130
Perchlorate Isotope Ratio		3.35				
Perchlorate–101	2.00	2.06	ug/kg	103		70 – 130
Perchlorate–O(18)		4.72	ug/kg			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223040a
Date: 23-Feb-2010
Time: 17:48:41
ID: 1202035664
Vial: 2:1,C

|LANL|950071|SDWD|IGS|1|

CWJ 02-24-10

Perchlorate

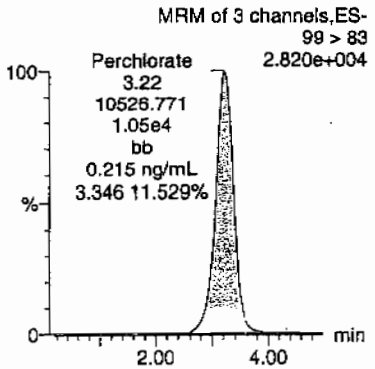

Perchlorate

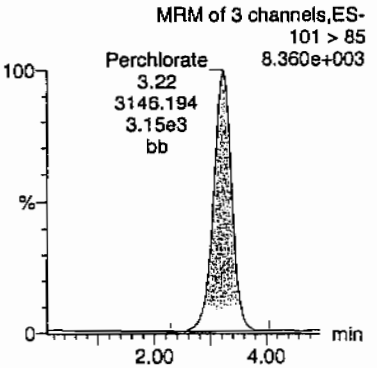

Perchlorate-101

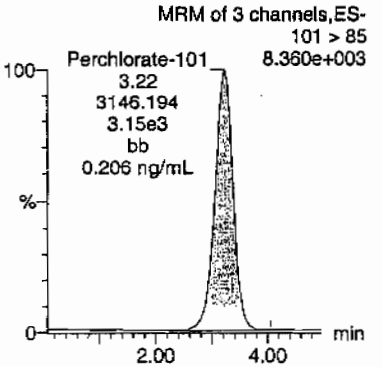

Perchlorate-O(18)

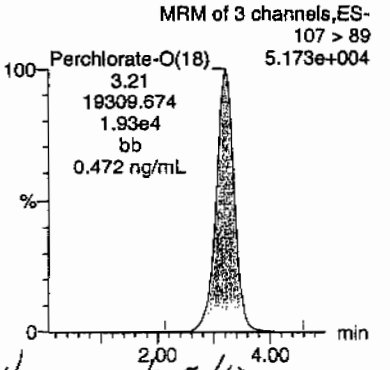

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035664	Perchlorate	99 > 83	3.22	10526.771	10526.771	bb			0.2153	107.63	7.63	1420.2...	3.35
1202035664	Perchlorate-101	101 > 85	3.22	3146.194	3146.194	bb			0.2063	103.14	3.14	910.460	
1202035664	Perchlorate-O(18)	107 > 89	3.21	19309.674	19309.674	bb			0.4719	94.38	-5.62	1264.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1545

Extract Batch Code: 950068

Date Extracted: 18–FEB–10

GEL MS/PS ID: 1202035662

Client ID: RE15–10–8170

GEL MSD/PSD ID: 1202035663

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	2.43	0.831	ug/kg	3.10	93.4	3.22	98.5	3.96	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.29		3.15		0		–
Perchlorate–101	2.43	0.836	ug/kg	3.02	89.9	3.28	101	8.42	30	75 – 125
Perchlorate–O(18)	0	5.52	ug/kg	5.61		5.61		.0629		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area.
The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1545

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	23–FEB–10	per0223001a	IPB001
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223001a	IPB001
Perchlorate	0.00	0	NA	23–FEB–10	per0223002a	IPB001
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022310a.mdb 24 Feb 2010 09:36:48
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022310a.cdb 24 Feb 2010 09:37:11

Name: per0223001a
Date: 23-Feb-2010
Time: 12:33:48
ID: IPB001
Vial: 1:1,A

0224-10

Perchlorate

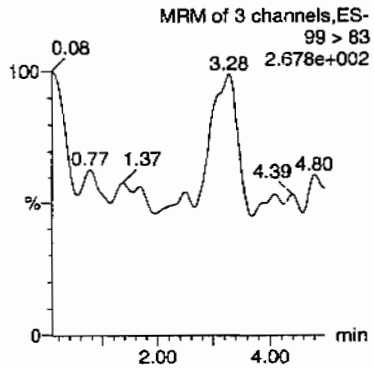

Perchlorate

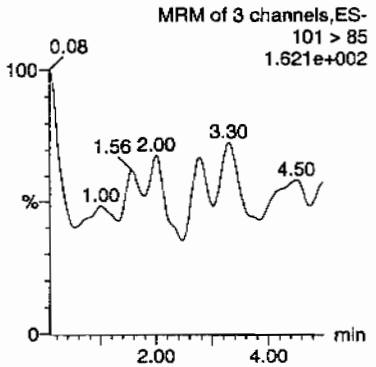

Perchlorate-101

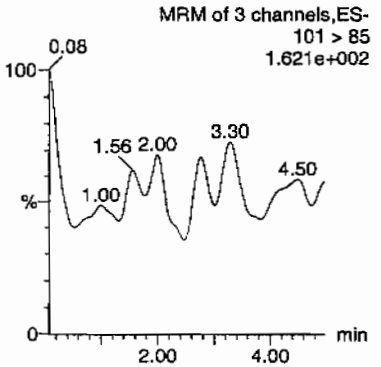

Perchlorate-O(18)

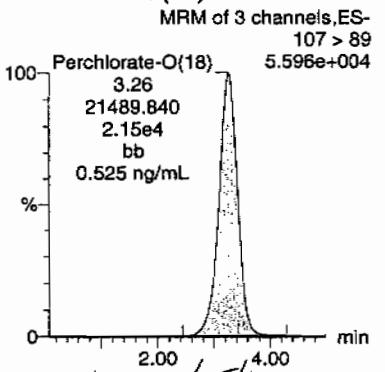

Hmc 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.26	21489.840	21489.840	bb			0.5252	105.04	5.04	7285.2...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223002a
Date: 23-Feb-2010
Time: 12:42:00
ID: IPB001
Vial: 1:1,A

cwo 02-24-10

Perchlorate

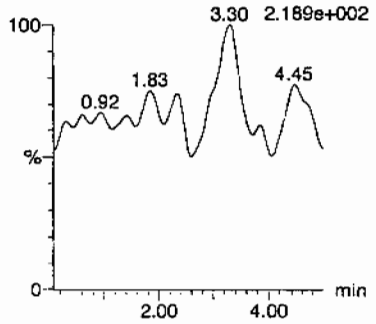

Perchlorate

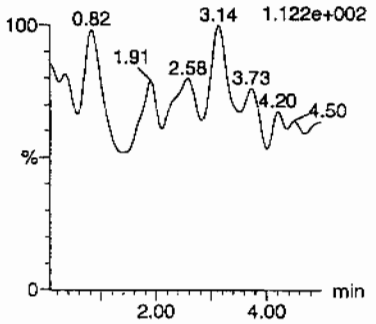

Perchlorate-101

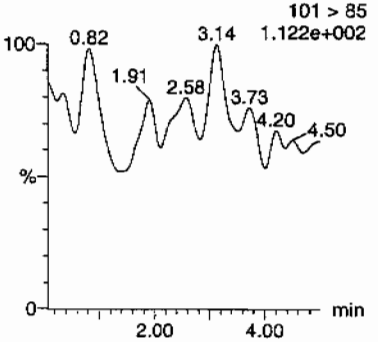

Perchlorate-O(18)

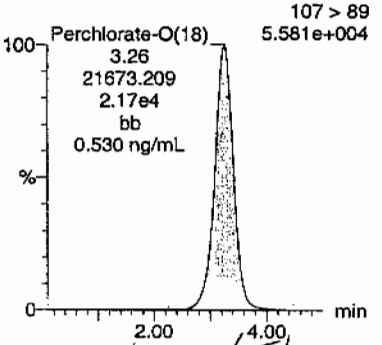

Hmw 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.26	21673.209	21673.209	bb			0.5297	105.93	5.93	1580.2...	

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1545

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	23–FEB–10	per0223008a	IPB002
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223008a	IPB002
Perchlorate	0.00	0	NA	23–FEB–10	per0223010a	IPB003
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223010a	IPB003
Perchlorate	0.00	0	NA	23–FEB–10	per0223023a	IPB004
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223023a	IPB004
Perchlorate	0.00	0	NA	23–FEB–10	per0223036a	IPB005
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223036a	IPB005
Perchlorate	0.00	0	NA	23–FEB–10	per0223049a	IPB006
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223049a	IPB006
Perchlorate	0.00	0	NA	23–FEB–10	per0223062a	IPB007
Perchlorate–101	0.00	0	NA	23–FEB–10	per0223062a	IPB007
Perchlorate	0.00	0	NA	23–FEB–10	per0223067a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1545

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223067a	IPB008
Perchlorate	0.00	0	NA	23-FEB-10	per0223075a	IPB009
Perchlorate-101	0.00	0	NA	23-FEB-10	per0223075a	IPB009

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223008a
Date: 23-Feb-2010
Time: 13:30:32
ID: IPB002
Vial: 1:1,A

CWW 02-24-10

Perchlorate

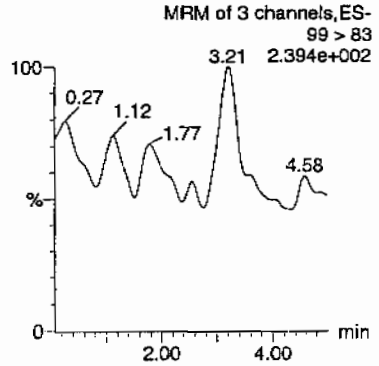

Perchlorate

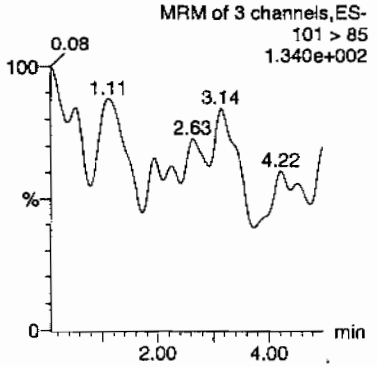

Perchlorate-101

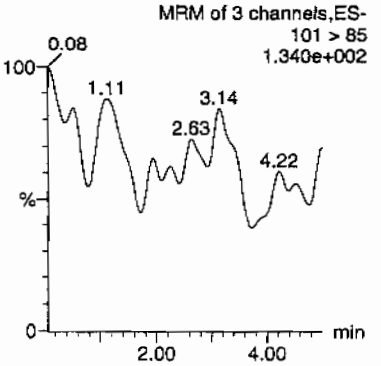

Perchlorate-O(18)

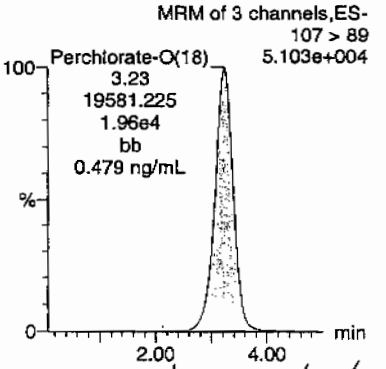

HMC 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.23	19581.225	19581.225	bb			0.4785	95.71	-4.29	7325.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223010a
Date: 23-Feb-2010
Time: 13:46:52
ID: IPB003
Vial: 1:1,A

GWO 02-24-10

Perchlorate

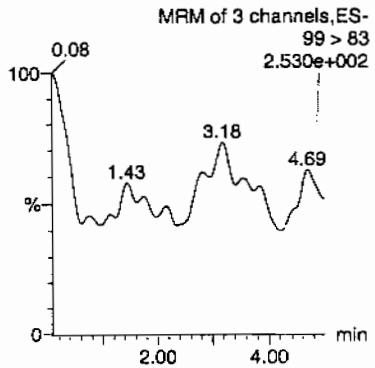

Perchlorate

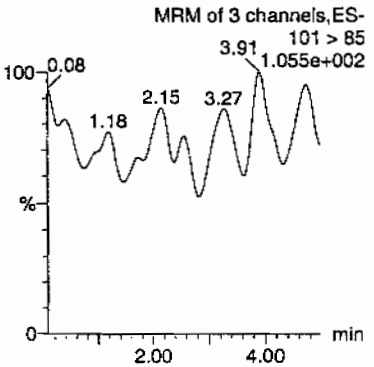

Perchlorate-101

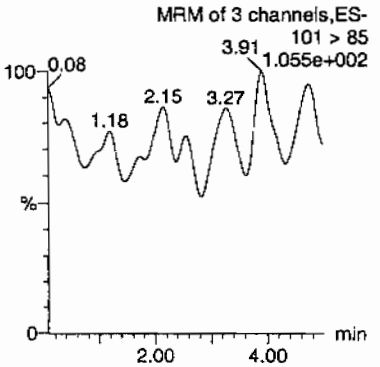

Perchlorate-O(18)

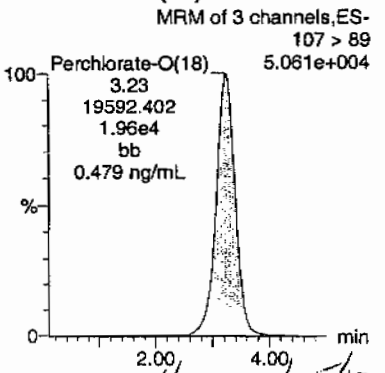

HWW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	3.23	19592.402	19592.402	bb			0.4788	95.76	-4.24	4079.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223023a
Date: 23-Feb-2010
Time: 15:31:45
ID: IPB004
Vial: 1:1,A

CWW 02-24-10

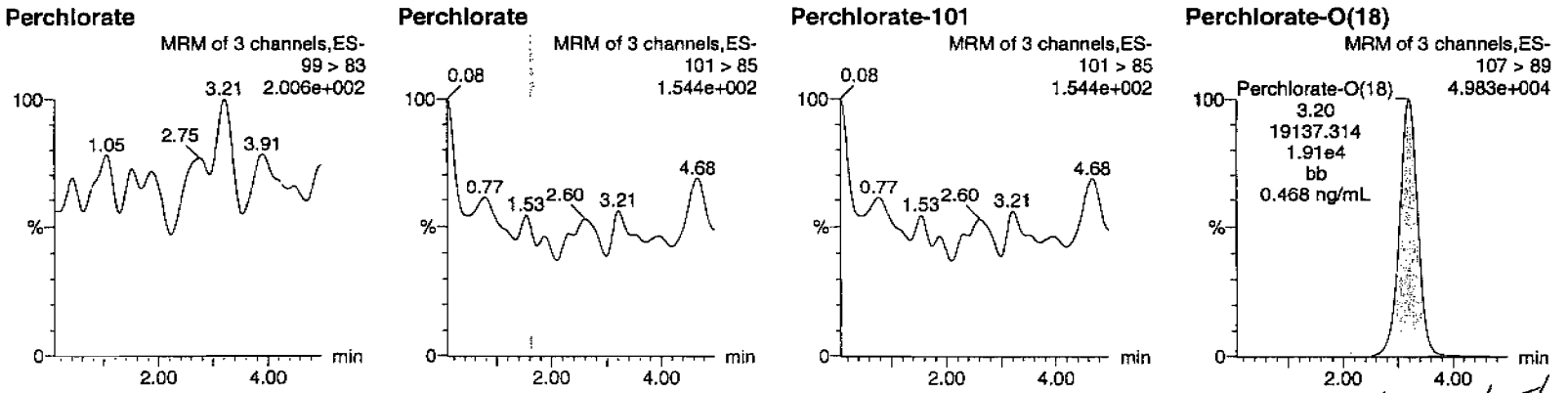

Hmw 02/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.20	19137.314	19137.314	bb			0.4677	93.54	-6.46	8424.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223036a
Date: 23-Feb-2010
Time: 17:16:21
ID: IPB005
Vial: 1:1,A

02-24-10

Perchlorate

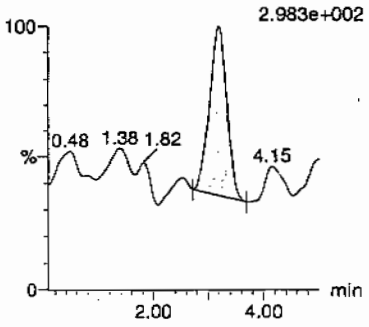

Perchlorate

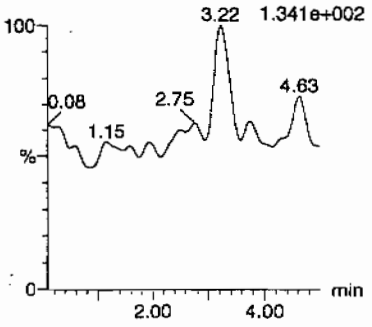

Perchlorate-101

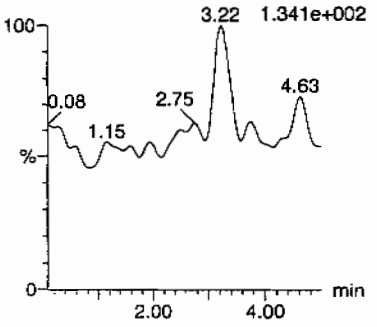

Perchlorate-O(18)

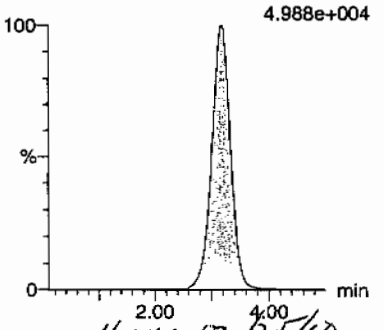

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	3.20	71.064	71.064	bb			0.0015			8.434	0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.17	18894.705	18894.705	bb			0.4618	92.35	-7.65	2125.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223049a
Date: 23-Feb-2010
Time: 19:01:09
ID: IPB006
Vial: 1:1,A

02-24-10

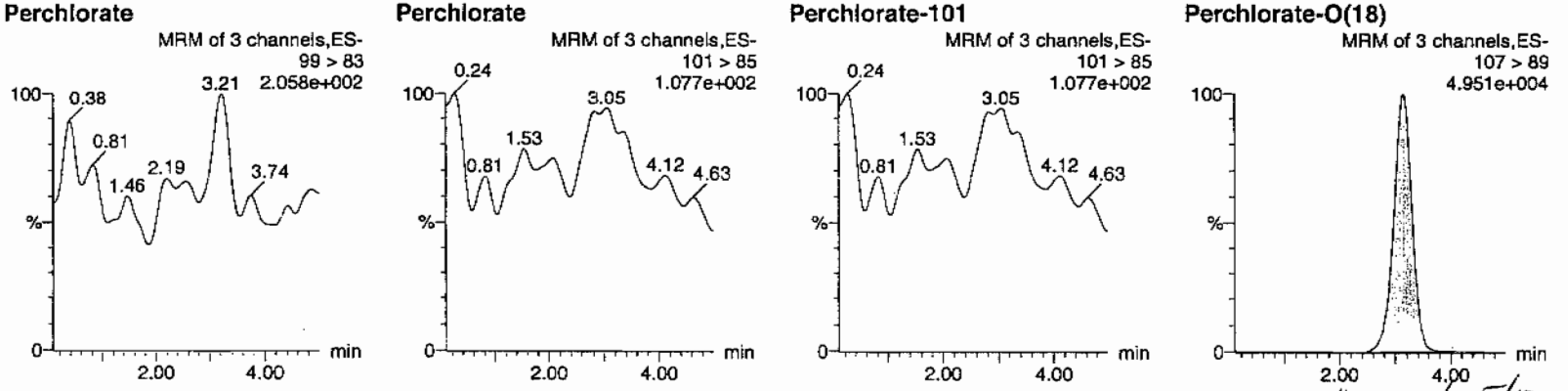

Hmc 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	3.15	18604.625	18604.625	bb			0.4547	90.93	-9.07	6408.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223062a
Date: 23-Feb-2010
Time: 20:46:00
ID: IPB007
Vial: 1:1,A

02-24-10

Perchlorate

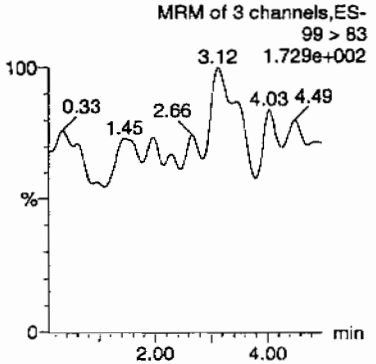

Perchlorate

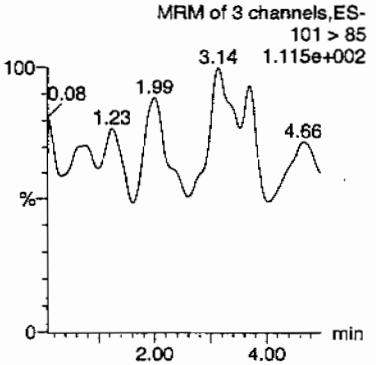

Perchlorate-101

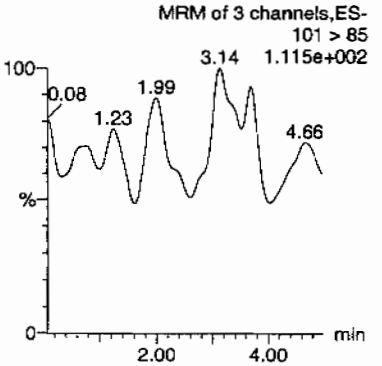

Perchlorate-O(18)

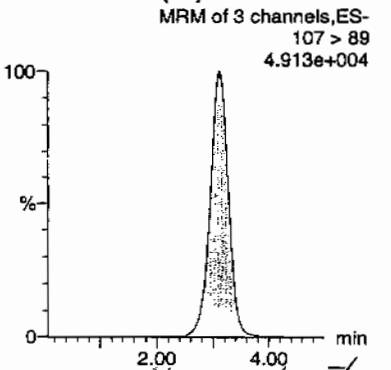

HMM 02/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	3.12	18448.516	18448.516	bb			0.4509	90.17	-9.83	8943.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223067a
Date: 23-Feb-2010
Time: 21:26:20
ID: IPB008
Vial: 1:1,A

CWW
02-24-10

Perchlorate

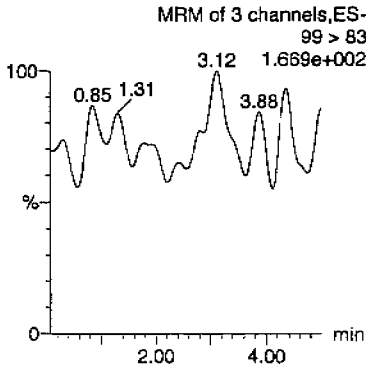

Perchlorate

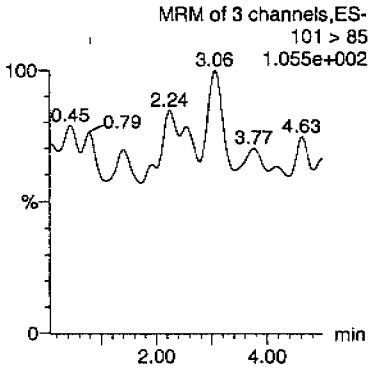

Perchlorate-101

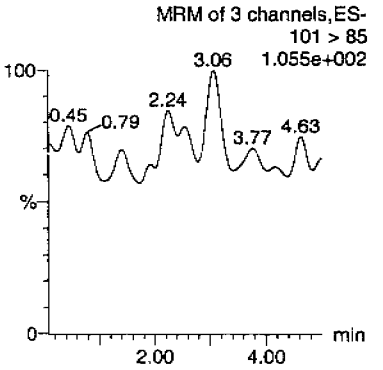

Perchlorate-O(18)

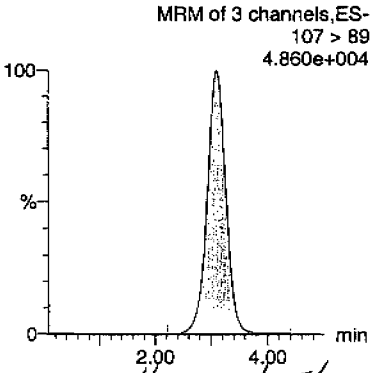

Hmcox 2/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	3.11	18512.709	18512.709	bb			0.4524	90.49	-9.51	6148.8...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223075a
Date: 23-Feb-2010
Time: 22:31:12
ID: IPB009
Vial: 1:1,A

CWW 02-24-10

Perchlorate

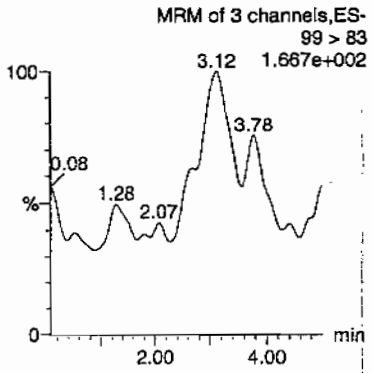

Perchlorate

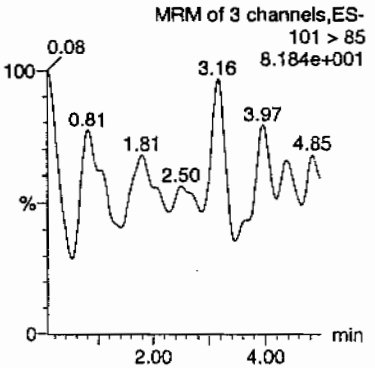

Perchlorate-101

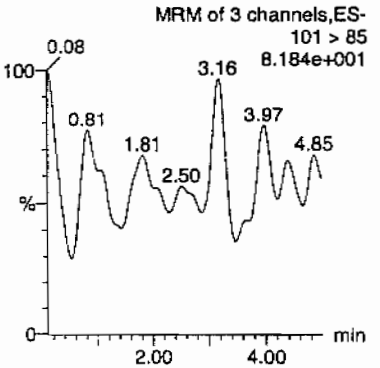

Perchlorate-O(18)

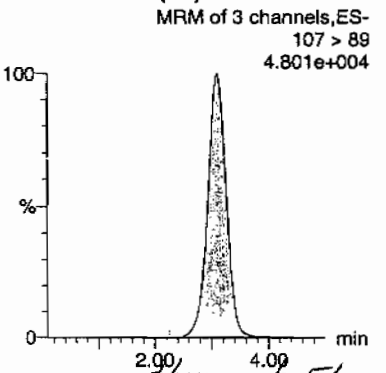

AMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	3.10	18097.576	18097.576	bb			0.4423	88.46	-11.54	6126.7...	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY [illegible] 01-07-03

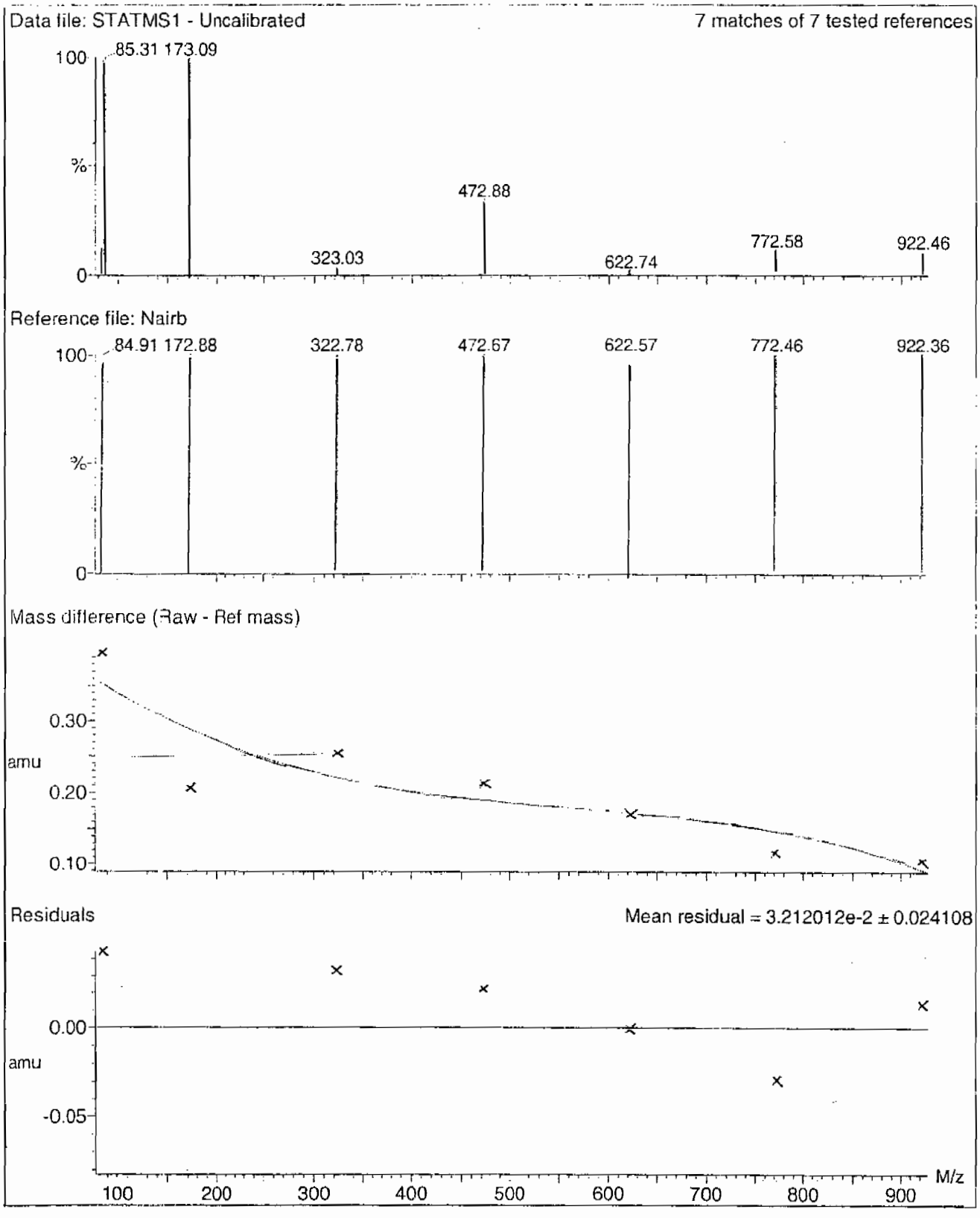

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

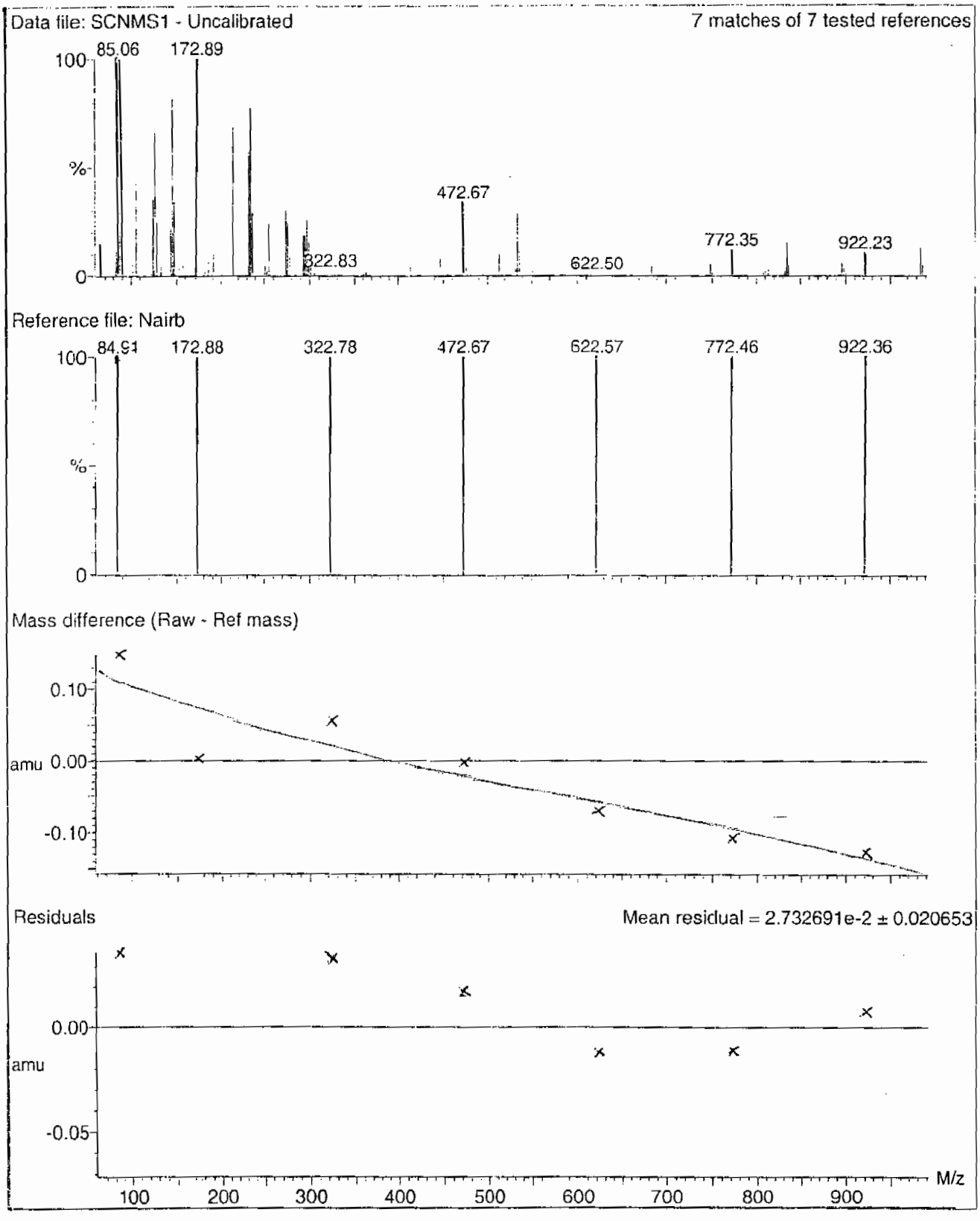

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

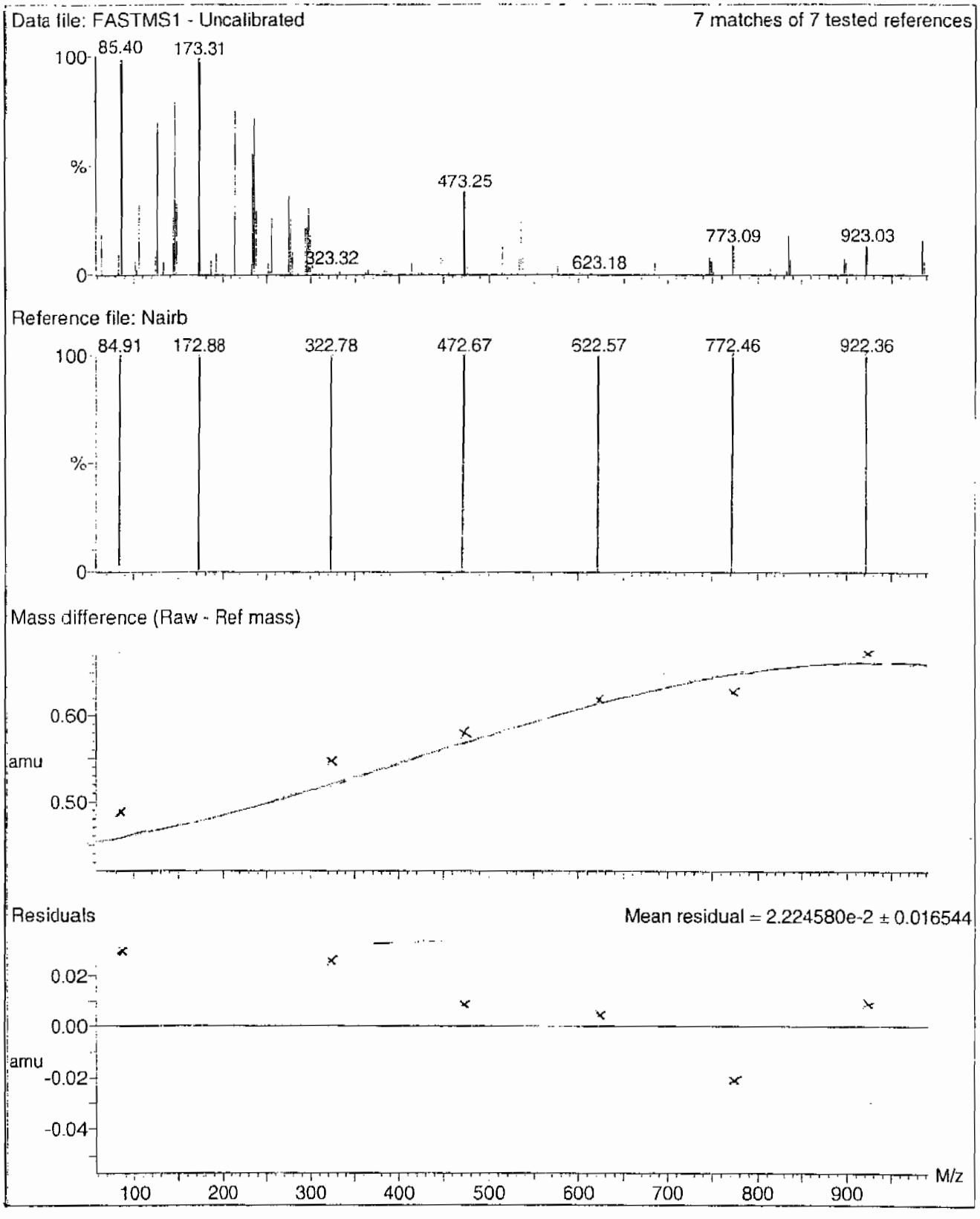

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Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

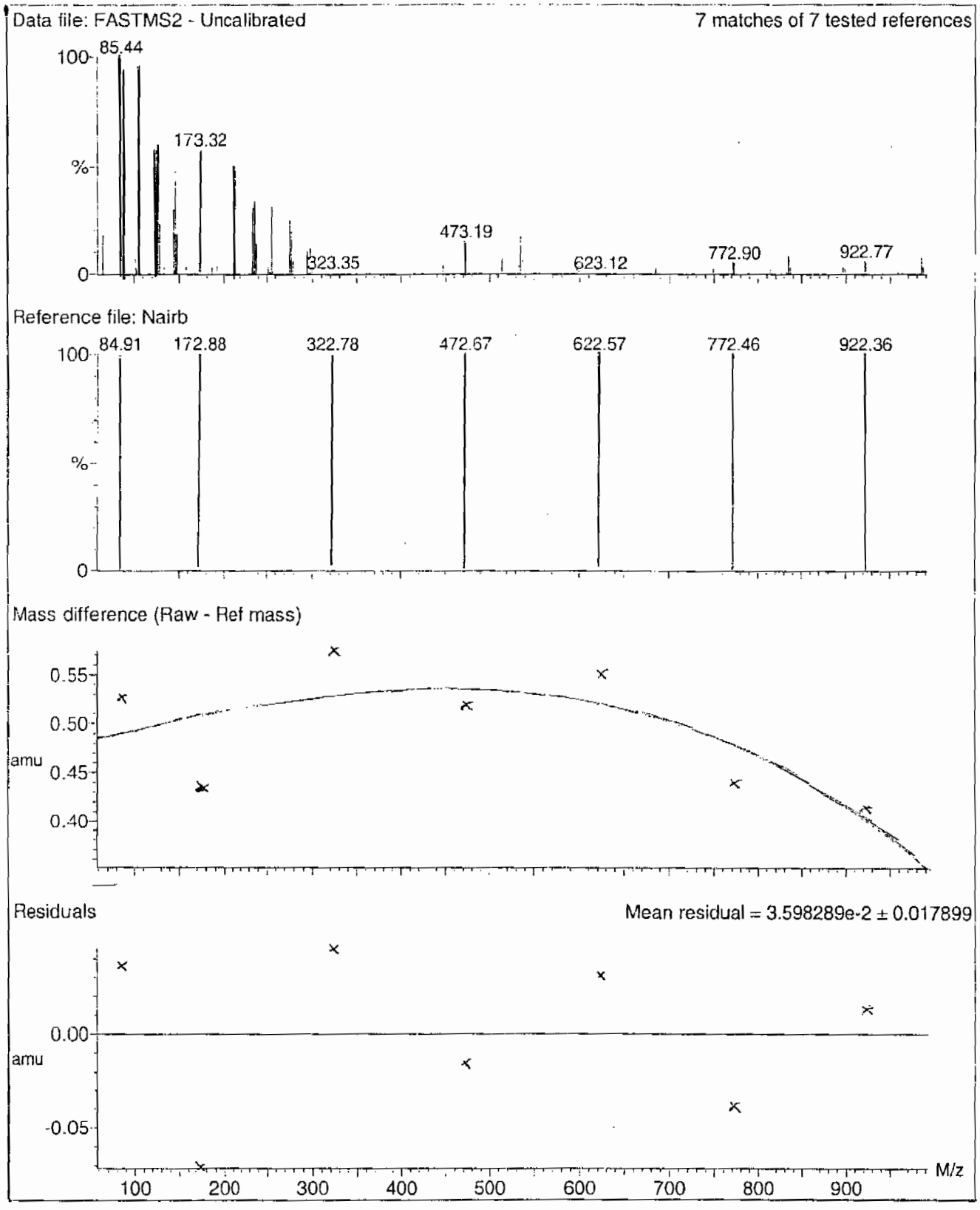

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

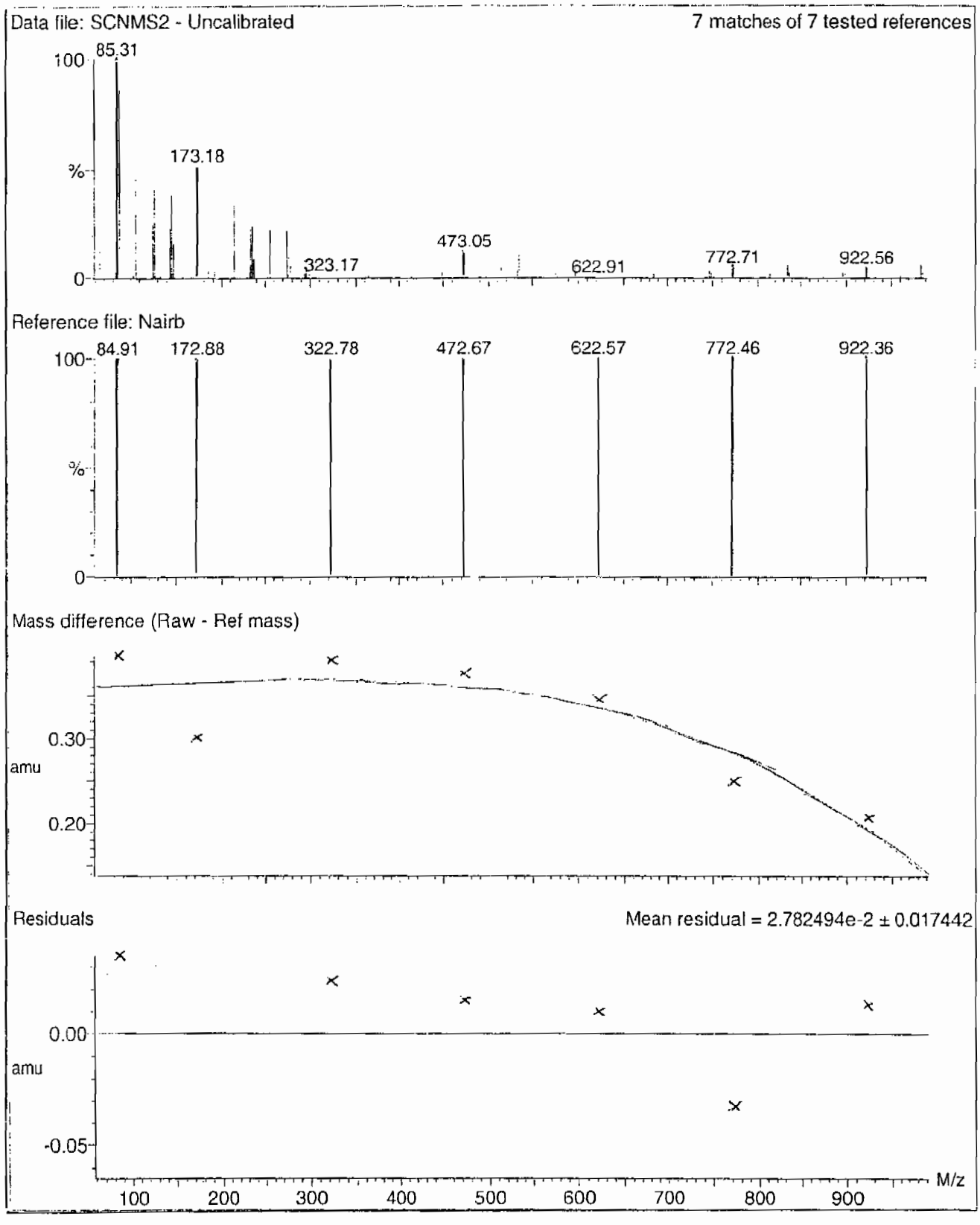

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

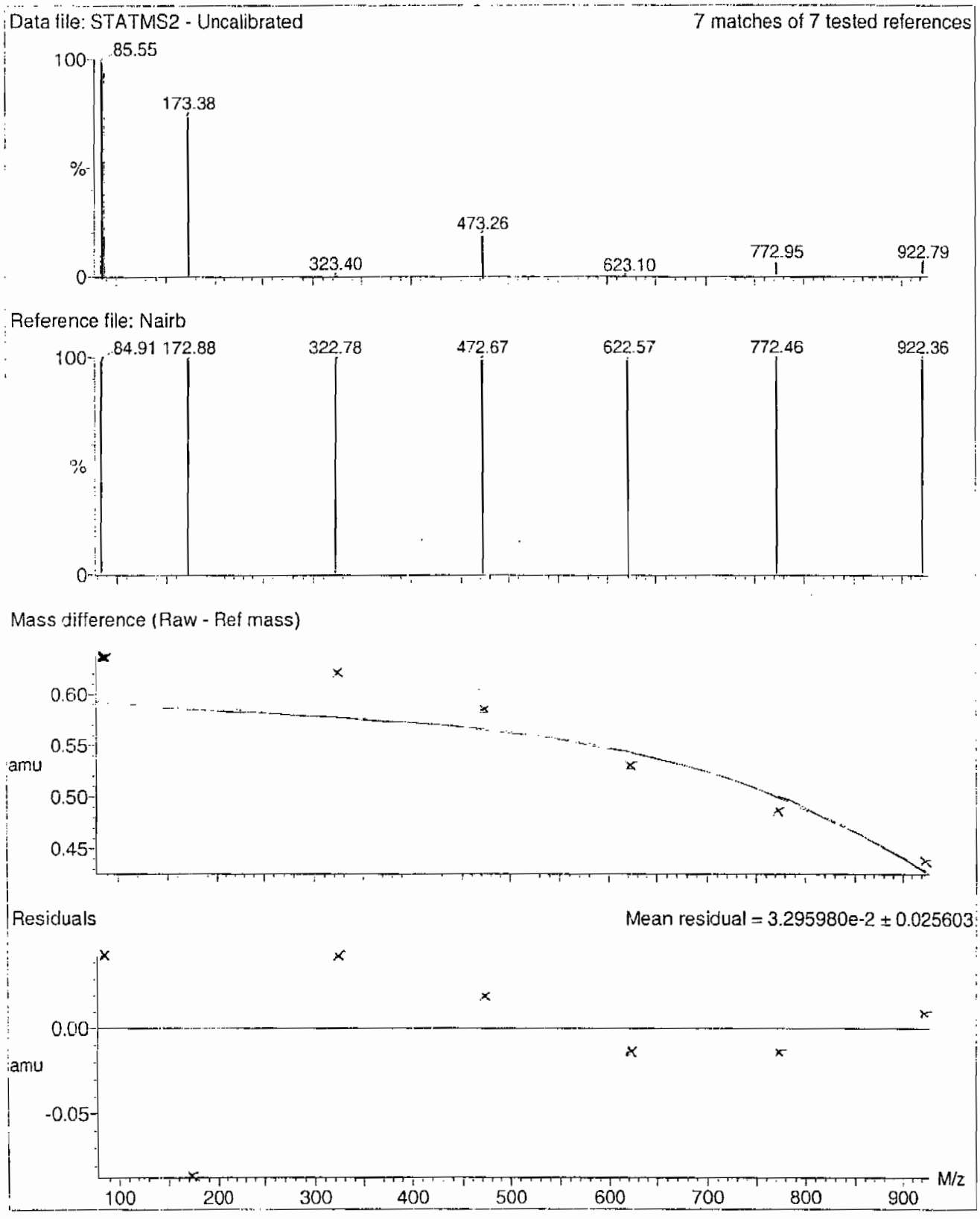

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, February 23, 2010 10:32:55 Eastern Standard Time

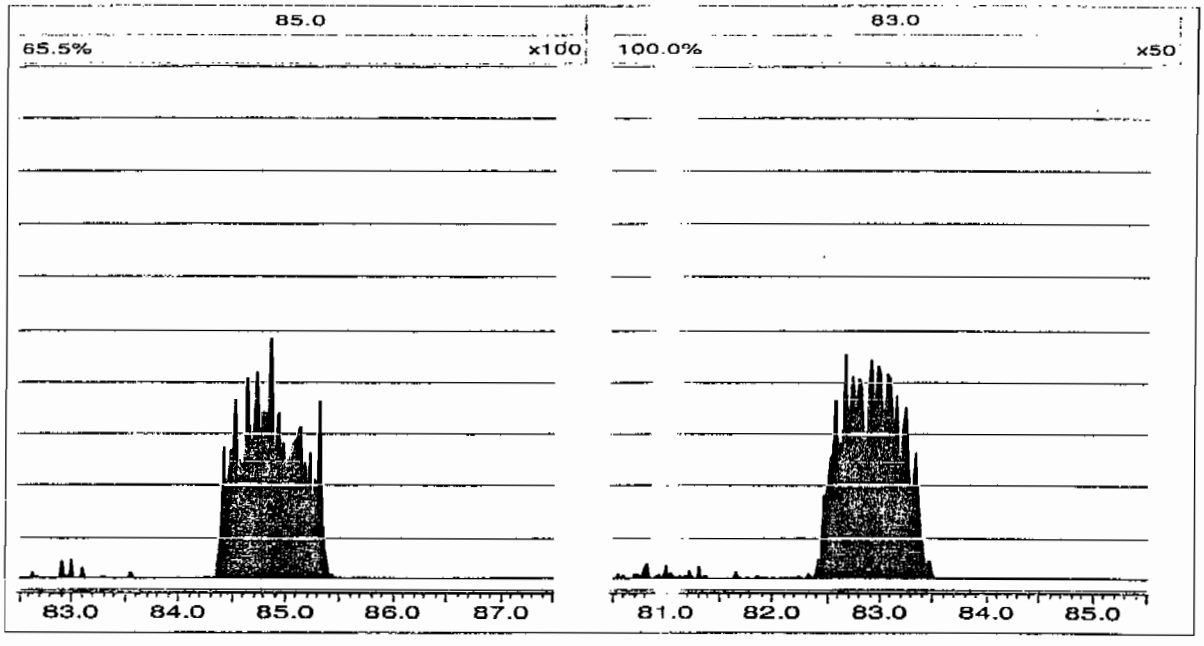

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1545

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0223006a**	**23–FEB–10**	**18832.2**				
Lower Area Limit			**9416.1**				
Upper Area Limit			**37664.4**				
1202035660	per0223038a	23–FEB–10 17:32	20052.6	3.16	3.15988	1	
1202035661	per0223039a	23–FEB–10 17:40	19174.5	3.17	3.18465	1.005	
1202035664	per0223040a	23–FEB–10 17:48	19309.7	3.21	3.2219	1.004	
246055001	per0223053a	23–FEB–10 19:33	18628.7	3.14	3.14743	1.002	
1202035662	per0223054a	23–FEB–10 19:41	18922.6	3.14	3.15983	1.006	
1202035663	per0223055a	23–FEB–10 19:49	18934.5	3.14	3.15985	1.006	
246055002	per0223056a	23–FEB–10 19:57	18576.1	3.12	3.13507	1.005	
246055003	per0223057a	23–FEB–10 20:05	20987.9	3.12	3.13505	1.005	

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Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1545

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0223006a**	**23–FEB–10**	**18832.2**				
Lower Area Limit			**9416.1**				
Upper Area Limit			**37664.4**				
246055004	per0223058a	23–FEB–10 20:13	18356.6	3.12	3.14738	1.009	
246055005	per0223059a	23–FEB–10 20:21	17327	3.12	3.15985	1.013	
246055006	per0223060a	23–FEB–10 20:29	19188.6	3.11	3.12258	1.004	
246055007	per0223064a	23–FEB–10 21:02	18853	3.11	3.13507	1.008	
246055008	per0223065a	23–FEB–10 21:10	18502.7	3.11	3.11015	1	
246055009	per0223066a	23–FEB–10 21:18	18740.9	3.11	3.12255	1.004	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8170

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055001

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.607	2.43	0.831	ug/kg	J	1	23-FEB-10 19:33	per0223053a
	Perchlorate Isotope Ratio			3.19			1	23-FEB-10 19:33	per0223053a
14797-73-0	Perchlorate-101	.607	2.43	0.836	ug/kg	J	1	23-FEB-10 19:33	per0223053a
	Perchlorate-O(18)			5.52	ug/kg		1	23-FEB-10 19:33	per0223053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223053a
Date: 23-Feb-2010
Time: 19:33:26
ID: 246055001
Vial: 2:3,A

LANL | 950071 | 50670 | 1 |

GWJ 02/24/10

Perchlorate

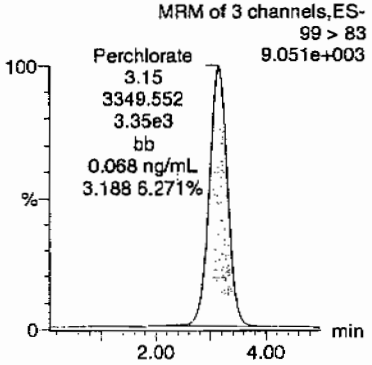

Perchlorate

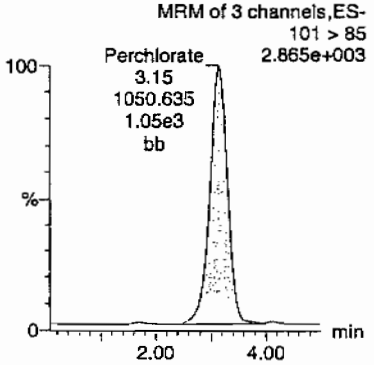

Perchlorate-101

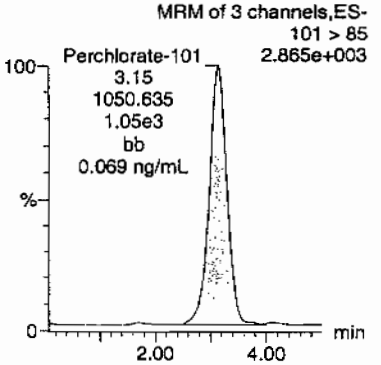

Perchlorate-O(18)

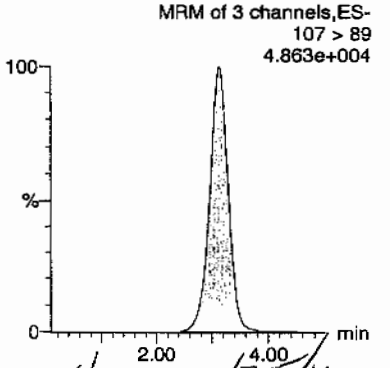

HJM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055001	Perchlorate	99 > 83	3.15	3349.552	3349.552	bb			0.0685			1376.3...	3.19
246055001	Perchlorate-101	101 > 85	3.15	1050.635	1050.635	bb			0.0689			1135.5...	
246055001	Perchlorate-O(18)	107 > 89	3.14	18628.719	18628.719	bb			0.4553	91.05	-8.95	2793.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8169

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055002

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 85

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 19:57	per0223056a
	Perchlorate Isotope Ratio						1	23-FEB-10 19:57	per0223056a
14797-73-0	Perchlorate-101	.587	2.35	0.587	ug/kg	U	1	23-FEB-10 19:57	per0223056a
	Perchlorate-O(18)			5.33	ug/kg		1	23-FEB-10 19:57	per0223056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223056a
Date: 23-Feb-2010
Time: 19:57:34
ID: 246055002
Vial: 2:3,D

|LANL|950071|SOW20|1|

WO 02-24-10

Perchlorate

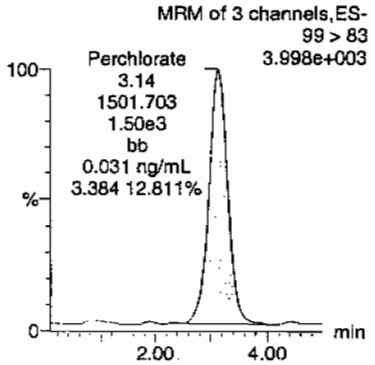

Perchlorate

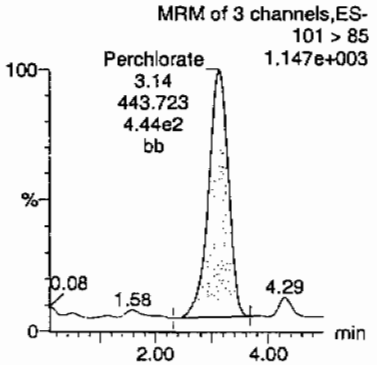

Perchlorate-101

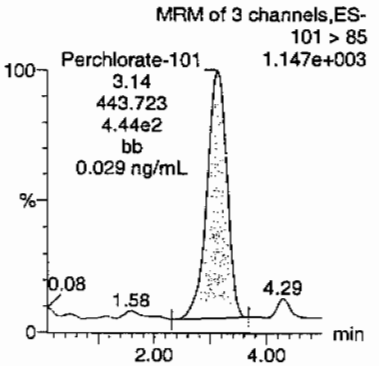

Perchlorate-O(18)

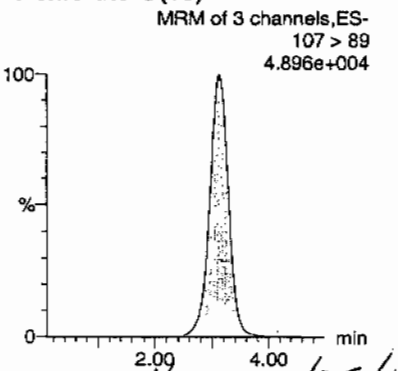

JMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055002	Perchlorate	99 > 83	3.14	1501.703	1501.703	bb			0.0307			326.231	3.38
246055002	Perchlorate-101	101 > 85	3.14	443.723	443.723	bb			0.0291			43.297	
246055002	Perchlorate-O(18)	107 > 89	3.12	18576.113	18576.113	bb			0.4540	90.80	-9.20	3782.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8171

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055003

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 88

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.568	2.27	1.70	ug/kg	J	1	23-FEB-10 20:05	per0223057a
	Perchlorate Isotope Ratio			3.11			1	23-FEB-10 20:05	per0223057a
14797-73-0	Perchlorate-101	.568	2.27	1.75	ug/kg	J	1	23-FEB-10 20:05	per0223057a
	Perchlorate-O(18)			5.83	ug/kg		1	23-FEB-10 20:05	per0223057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223057a
Date: 23-Feb-2010
Time: 20:05:35
ID: 246055003
Vial: 2:3,E

|LANL|950071|50620|1|

AWJ 02-24-10

Perchlorate

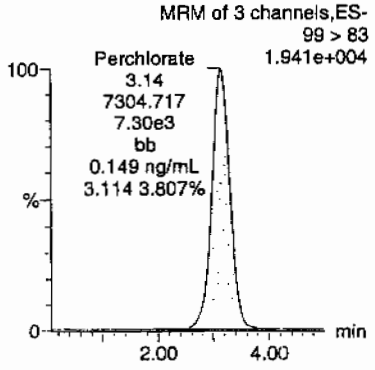

Perchlorate

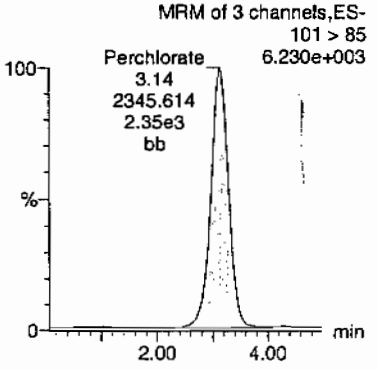

Perchlorate-101

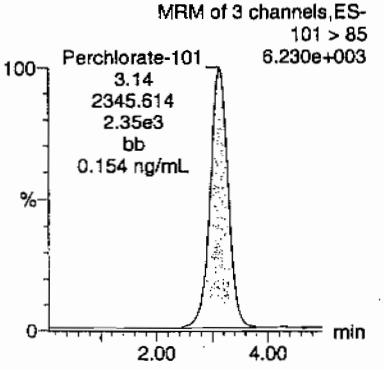

Perchlorate-O(18)

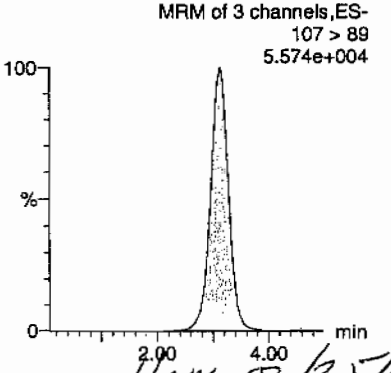

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055003	Perchlorate	99 > 83	3.14	7304.717	7304.717	bb			0.1494			1304.4...	3.11
246055003	Perchlorate-101	101 > 85	3.14	2345.614	2345.614	bb			0.1538			1092.9...	
246055003	Perchlorate-O(18)	107 > 89	3.12	20987.943	20987.943	bb			0.5129	102.58	2.58	30031....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8168

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055004

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 79

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.63	2.52	0.630	ug/kg	U	1	23-FEB-10 20:13	per0223058a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:13	per0223058a
14797-73-0	Perchlorate-101	.63	2.52	0.630	ug/kg	U	1	23-FEB-10 20:13	per0223058a
	Perchlorate-O(18)			5.65	ug/kg		1	23-FEB-10 20:13	per0223058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223058a
Date: 23-Feb-2010
Time: 20:13:37
ID: 246055004
Vial: 2:3,F

LANL|950071|50120|1|

WW 02-24-10

Perchlorate

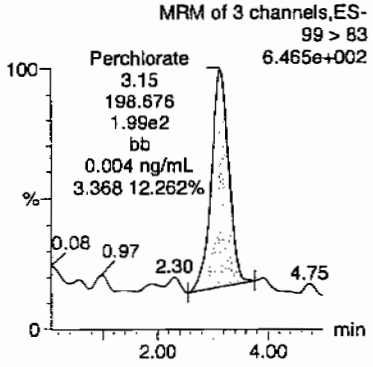

Perchlorate

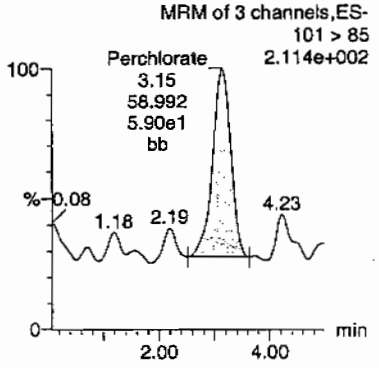

Perchlorate-101

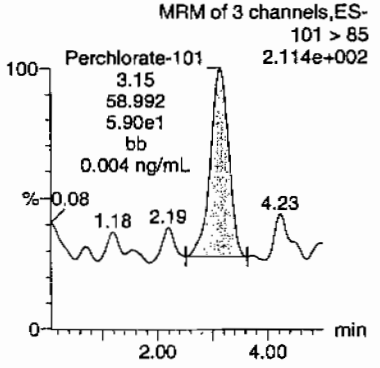

Perchlorate-O(18)

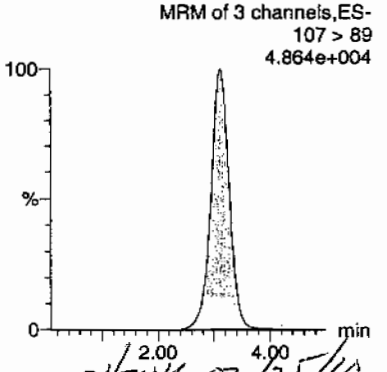

HMK 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055004	Perchlorate	99 > 83	3.15	198.676	198.676	bb			0.0041			10.896	3.37
246055004	Perchlorate-101	101 > 85	3.15	58.992	58.992	bb			0.0039			38.889	
246055004	Perchlorate-O(18)	107 > 89	3.12	18356.637	18356.637	bb			0.4486	89.72	-10.28	10027....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8222

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055005

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 74

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.673	2.69	0.673	ug/kg	U	1	23-FEB-10 20:21	per0223059a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:21	per0223059a
14797-73-0	Perchlorate-101	.673	2.69	0.673	ug/kg	U	1	23-FEB-10 20:21	per0223059a
	Perchlorate-O(18)			5.70	ug/kg		1	23-FEB-10 20:21	per0223059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223059a
Date: 23-Feb-2010
Time: 20:21:38
ID: 246055005
Vial: 2:4,A

|LANL|950071|50120|1|

WW 02-24-10

Perchlorate

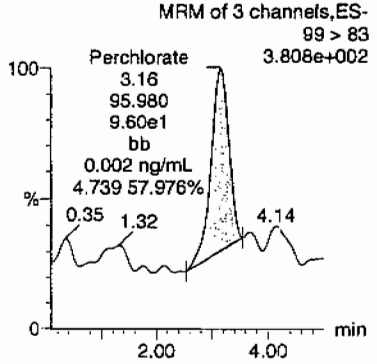

Perchlorate

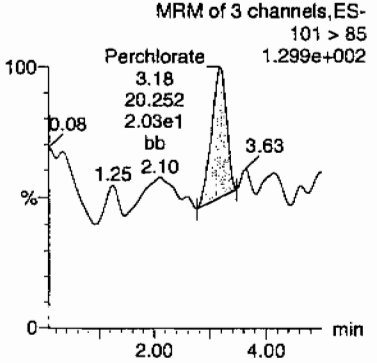

Perchlorate-101

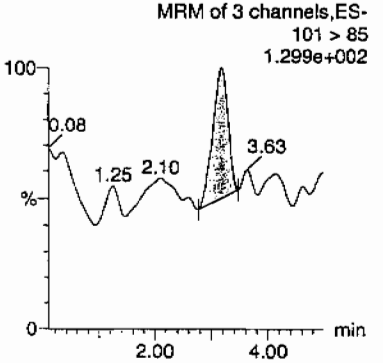

Perchlorate-O(18)

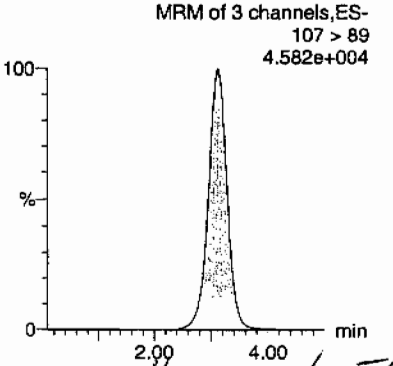

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055005	Perchlorate	99 > 83	3.16	95.980	95.980	bb			0.0020			27.307	4.74
246055005	Perchlorate-101	101 > 85	3.18	20.252	20.252	bb			0.0013			17.693	
246055005	Perchlorate-O(18)	107 > 89	3.12	17326.963	17326.963	bb			0.4235	84.69	-15.31	4915.7...	

OKAY 2/25/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8221

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055006

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 87

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.574	2.29	0.574	ug/kg	U	1	23-FEB-10 20:29	per0223060a
	Perchlorate Isotope Ratio						1	23-FEB-10 20:29	per0223060a
14797-73-0	Perchlorate-101	.574	2.29	0.574	ug/kg	U	1	23-FEB-10 20:29	per0223060a
	Perchlorate-O(18)			5.38	ug/kg		1	23-FEB-10 20:29	per0223060a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223060a
Date: 23-Feb-2010
Time: 20:29:41
ID: 246055006
Vial: 2:4,B

|LANL|950071|SOLID|1|

WW 02-24-10

Perchlorate

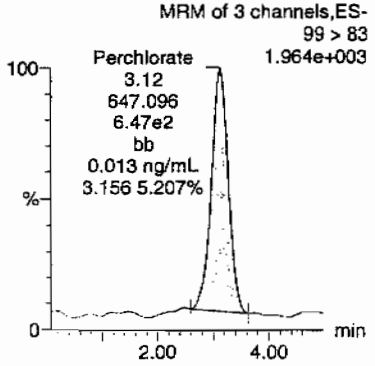

Perchlorate

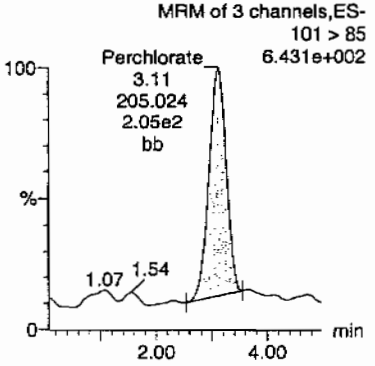

Perchlorate-101

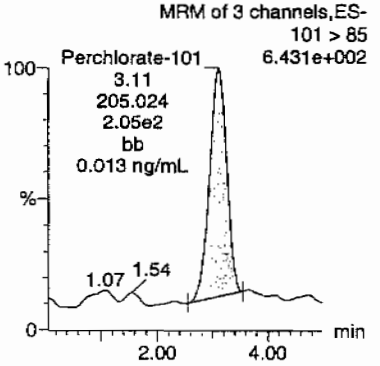

Perchlorate-O(18)

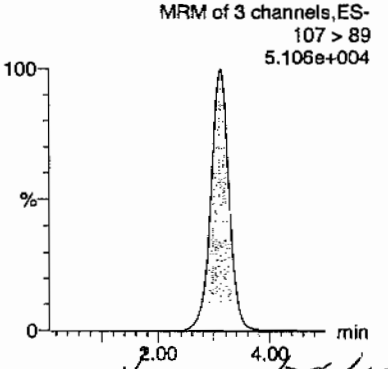

HMK 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055006	Perchlorate	99 > 83	3.12	647.096	647.096	bb			0.0132			251.305	3.16
246055006	Perchlorate-101	101 > 85	3.11	205.024	205.024	bb			0.0134			68.324	
246055006	Perchlorate-O(18)	107 > 89	3.11	19188.623	19188.623	bb			0.4689	93.79	-6.21	11777....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8220

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055007

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 91.3

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 21:02	per0223064a
	Perchlorate Isotope Ratio						1	23-FEB-10 21:02	per0223064a
14797-73-0	Perchlorate-101	.548	2.19	0.548	ug/kg	U	1	23-FEB-10 21:02	per0223064a
	Perchlorate-O(18)			5.05	ug/kg		1	23-FEB-10 21:02	per0223064a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223064a
Date: 23-Feb-2010
Time: 21:02:04
ID: 246055007
Vial: 2:4,C

|LANL|950071|50120|1|

WW 02-24-10

Perchlorate

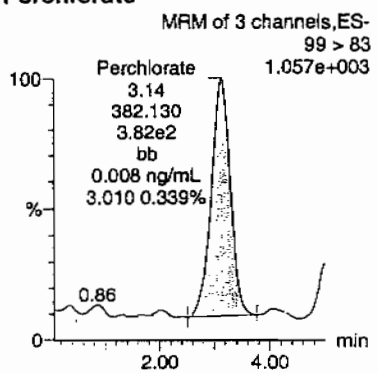

Perchlorate

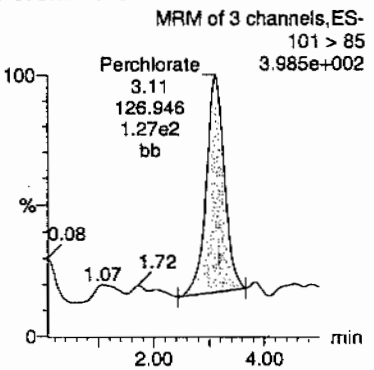

Perchlorate-101

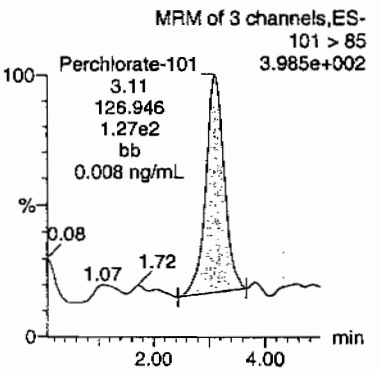

Perchlorate-O(18)

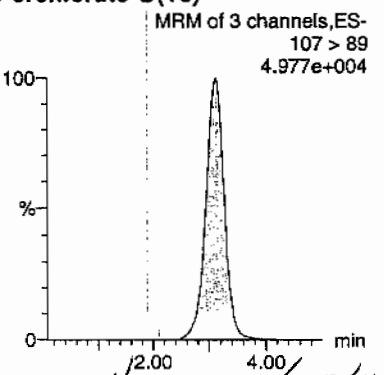

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055007	Perchlorate	99 > 83	3.14	382.130	382.130	bb			0.0078			47.933	3.01
246055007	Perchlorate-101	101 > 85	3.11	126.946	126.946	bb			0.0083			21.190	
246055007	Perchlorate-O(18)	107 > 89	3.11	18852.994	18852.994	bb			0.4607	92.15	-7.85	7586.1...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8223

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055008

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 81

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.621	2.48	0.621	ug/kg	U	1	23-FEB-10 21:10	per0223065a
	Perchlorate Isotope Ratio						1	23-FEB-10 21:10	per0223065a
14797-73-0	Perchlorate-101	.621	2.48	0.621	ug/kg	U	1	23-FEB-10 21:10	per0223065a
	Perchlorate-O(18)			5.62	ug/kg		1	23-FEB-10 21:10	per0223065a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223065a
Date: 23-Feb-2010
Time: 21:10:17
ID: 246055008
Vial: 2:4,D

|LANL|950071|50120|1|

GWO 02.24-10

Perchlorate

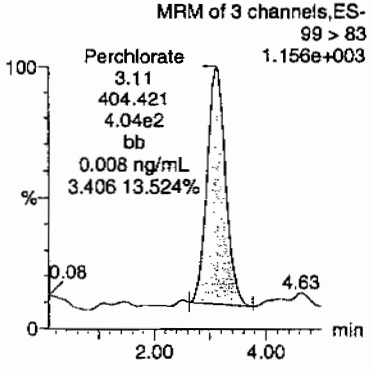

Perchlorate

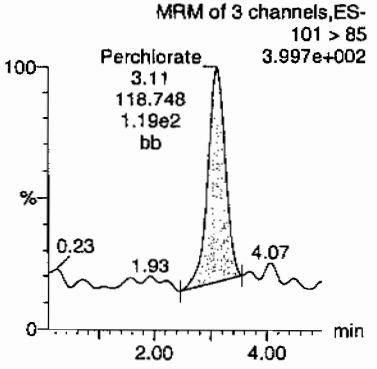

Perchlorate-101

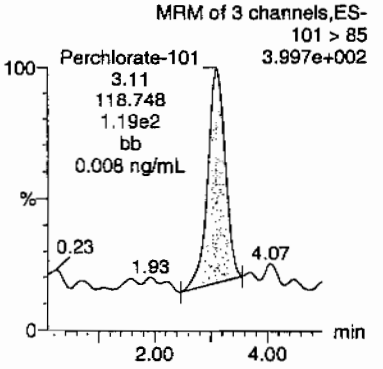

Perchlorate-O(18)

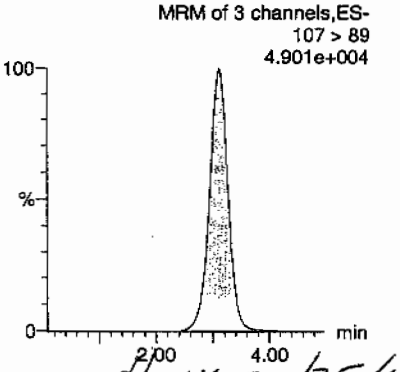

AMK 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055008	Perchlorate	99 > 83	3.11	404.421	404.421	bb			0.0083			48.232	3.41
246055008	Perchlorate-101	101 > 85	3.11	118.748	118.748	bb			0.0078			16.745	
246055008	Perchlorate-O(18)	107 > 89	3.11	18502.715	18502.715	bb			0.4522	90.44	-9.56	5057.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8224

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 246055009

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 84

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.595	2.38	0.764	ug/kg	J	1	23-FEB-10 21:18	per0223066a
	Perchlorate Isotope Ratio			3.24			1	23-FEB-10 21:18	per0223066a
14797-73-0	Perchlorate-101	.595	2.38	0.756	ug/kg	J	1	23-FEB-10 21:18	per0223066a
	Perchlorate-O(18)			5.45	ug/kg		1	23-FEB-10 21:18	per0223066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223066a
Date: 23-Feb-2010
Time: 21:18:19
ID: 246055009
Vial: 2:4,E

|LANL|950071|SOLCO|11|

CWO 02-24-10

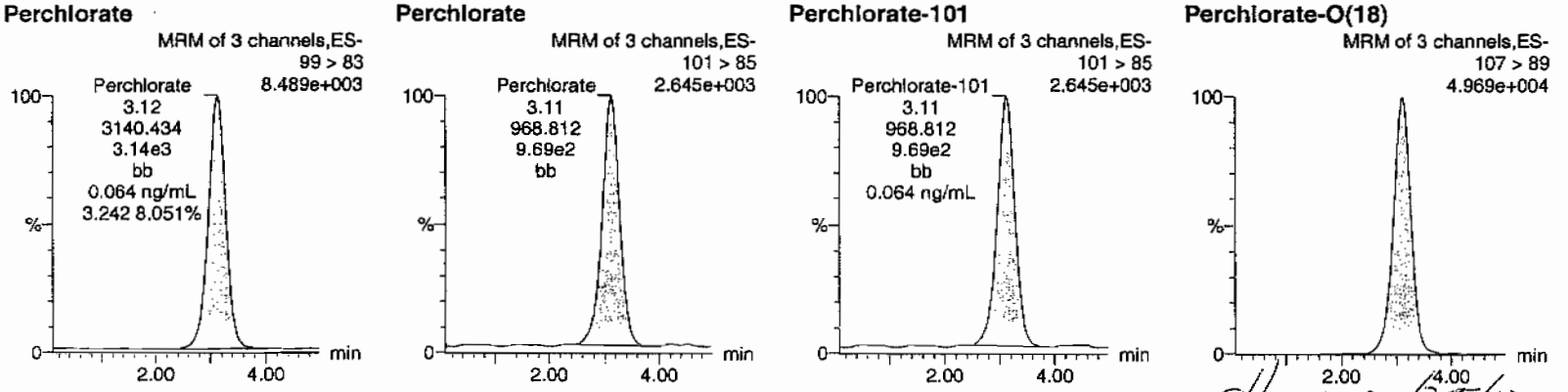

HMC 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246055009	Perchlorate	99 > 83	3.12	3140.434	3140.434	bb			0.0642			750.938	3.24
246055009	Perchlorate-101	101 > 85	3.11	968.812	968.812	bb			0.0635			203.315	
246055009	Perchlorate-O(18)	107 > 89	3.11	18740.887	18740.887	bb			0.4580	91.60	-8.40	4416.3...	

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1545

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 23-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 48901.36

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1545

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 23-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 15252.16

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per022310a.mdb 24 Feb 2010 09:36:48
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per022310a.cdb 24 Feb 2010 09:37:11

Compound name: Perchlorate
Response Factor: 48901.4
RRF SD: 2330.99, % Relative SD: 4.76673
Response type: External Std, Area
Curve type: RF

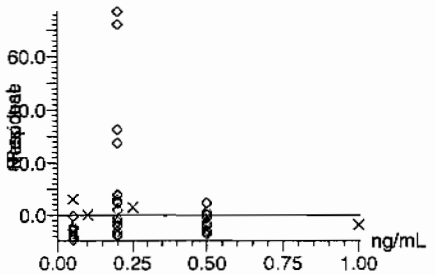

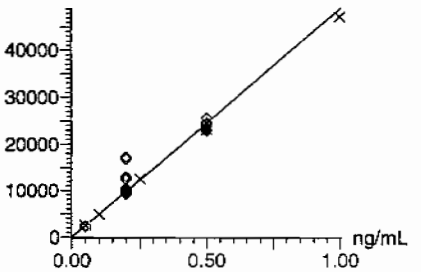

CWW
02-24-10

Compound name: Perchlorate-101
Response Factor: 15252.2
RRF SD: 748.661, % Relative SD: 4.90856
Response type: External Std, Area
Curve type: RF

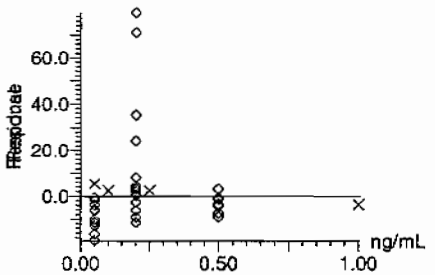

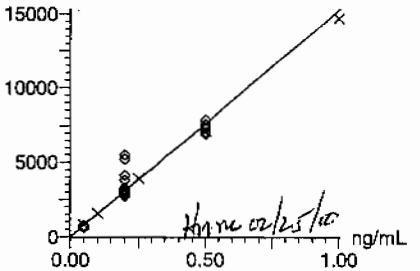

HMM 02/25/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 40918.6
RRF SD: 2026.62, % Relative SD: 4.9528
Response type: External Std, Area
Curve type: RF

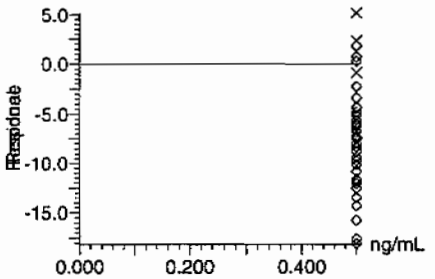

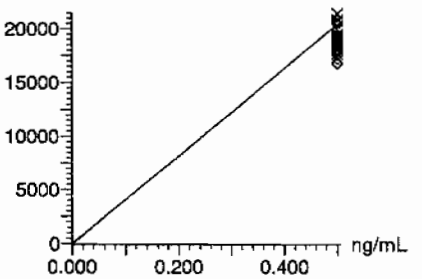

CWW
02-24-10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1545

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.93	23–FEB–10 13:38	per0223009a
Perchlorate Isotope Ratio		3.22		23–FEB–10 13:38	per0223009a
Perchlorate–101	.5	.5	99.45	23–FEB–10 13:38	per0223009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223009a
Date: 23-Feb-2010
Time: 13:38:42
ID: WCL100219-06ICV
Vial: 1:2,A

Pass
aw
02-24-10

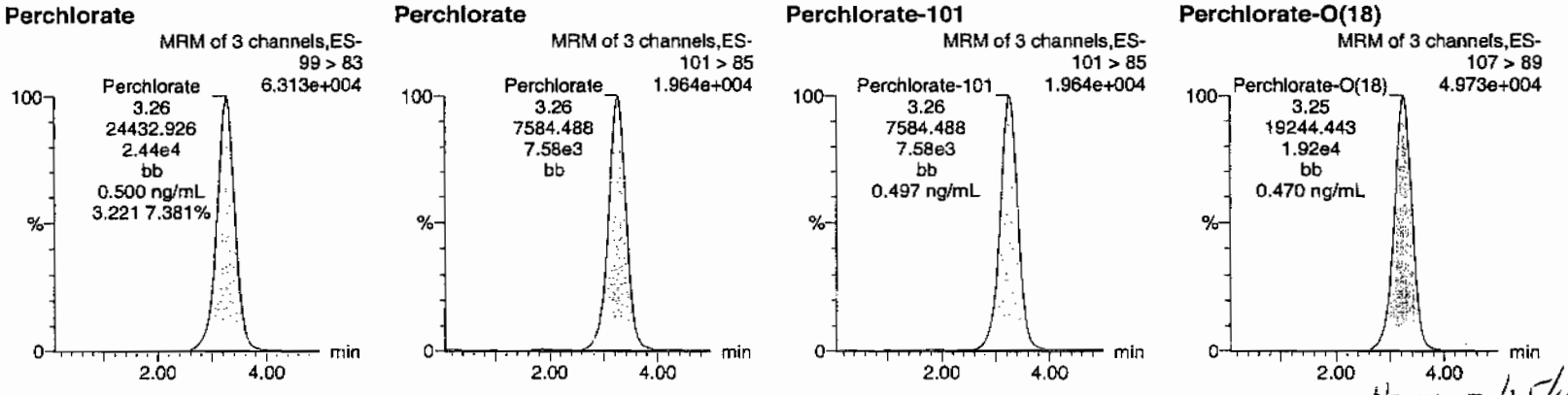

Hum 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06ICV	Perchlorate	99 > 83	3.26	24432.926	24432.926	bb			0.4996	99.93	-0.07	4797.0...	3.22
WCL100219-06ICV	Perchlorate-101	101 > 85	3.26	7584.488	7584.488	bb			0.4973	99.45	-0.55	1371.9...	
WCL100219-06ICV	Perchlorate-O(18)	107 > 89	3.25	19244.443	19244.443	bb			0.4703	94.06	-5.94	7972.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1545

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.18	23-FEB-10 15:23	per0223022a
Perchlorate Isotope Ratio		3.26		23-FEB-10 15:23	per0223022a
Perchlorate-101	.5	.5	99.37	23-FEB-10 15:23	per0223022a
Perchlorate	.5	.52	104.6	23-FEB-10 17:08	per0223035a
Perchlorate Isotope Ratio		3.25		23-FEB-10 17:08	per0223035a
Perchlorate-101	.5	.52	103.03	23-FEB-10 17:08	per0223035a
Perchlorate	.5	.48	96.6	23-FEB-10 18:52	per0223048a
Perchlorate Isotope Ratio		3.23		23-FEB-10 18:52	per0223048a
Perchlorate-101	.5	.48	95.87	23-FEB-10 18:52	per0223048a
Perchlorate	.5	.5	100.19	23-FEB-10 20:37	per0223061a
Perchlorate Isotope Ratio		3.26		23-FEB-10 20:37	per0223061a
Perchlorate-101	.5	.49	98.63	23-FEB-10 20:37	per0223061a
Perchlorate	.5	.48	95.72	23-FEB-10 22:22	per0223074a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1545

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate Isotope Ratio		3.21		23–FEB–10 22:22	per0223074a
Perchlorate–101	.5	.48	95.75	23–FEB–10 22:22	per0223074a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223022a
Date: 23-Feb-2010
Time: 15:23:34
ID: WCL100219-06CCV
Vial: 1:2,A

Pwm
02-24-10

Perchlorate

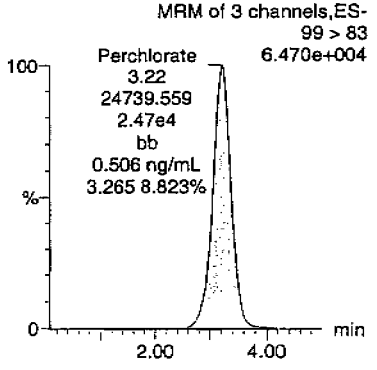

Perchlorate

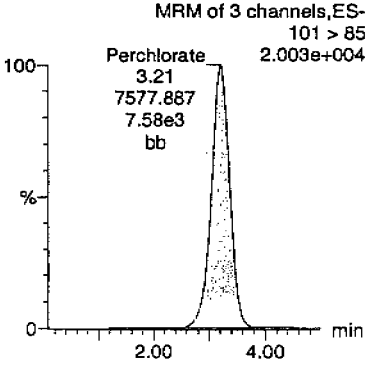

Perchlorate-101

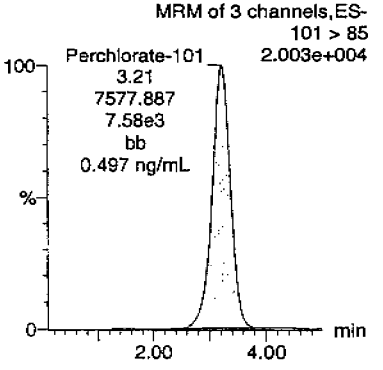

Perchlorate-O(18)

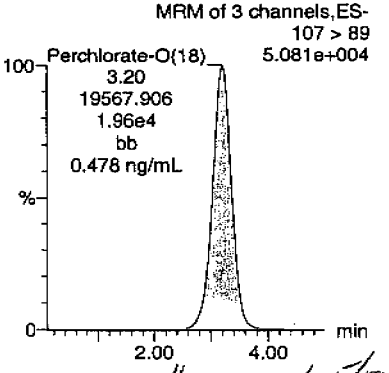

#71 m 02/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	3.22	24739.559	24739.559	bb			0.5059	101.18	1.18	3907.3...	3.26
WCL100219-06CCV	Perchlorate-101	101 > 85	3.21	7577.887	7577.887	bb			0.4968	99.37	-0.63	3206.1...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.20	19567.906	19567.906	bb			0.4782	95.64	-4.36	3999.2...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223035a
Date: 23-Feb-2010
Time: 17:08:18
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
aw
02.24-10

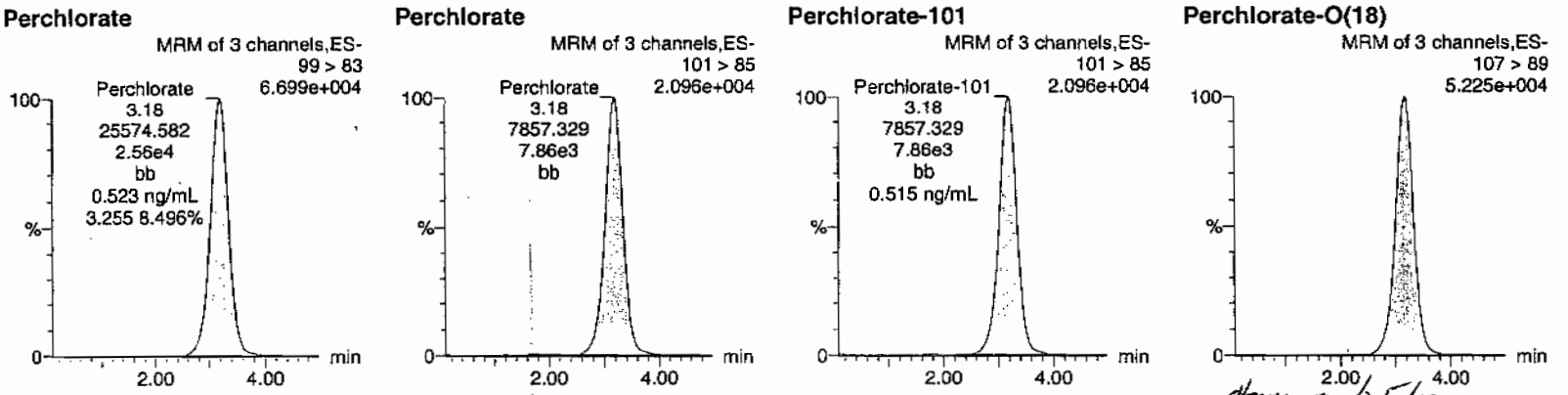

dmm 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	3.18	25574.582	25574.582	bb			0.5230	104.60	4.60	5650.3...	3.25
WCL100219-06CCV	Perchlorate-101	101 > 85	3.18	7857.329	7857.329	bb			0.5152	103.03	3.03	775.250	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.17	20000.623	20000.623	bb			0.4888	97.76	-2.24	9648.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223048a
Date: 23-Feb-2010
Time: 18:52:53
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
GW
02-24-10

Perchlorate

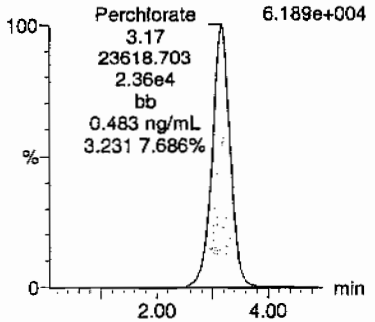

Perchlorate

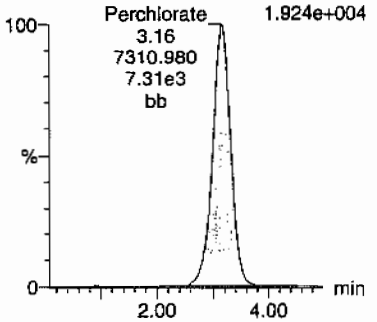

Perchlorate-101

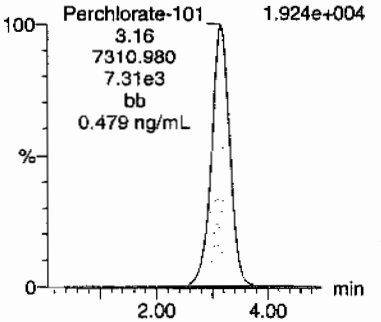

Perchlorate-O(18)

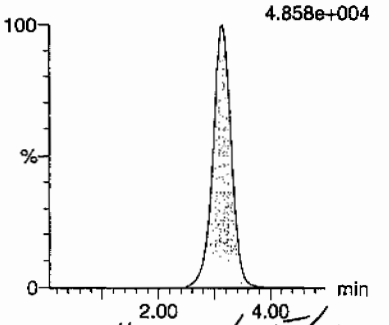

Hum on 1/28/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	3.17	23618.703	23618.703	bb			0.4830	96.60	-3.40	5446.2...	3.23
WCL100219-06CCV	Perchlorate-101	101 > 85	3.16	7310.980	7310.980	bb			0.4793	95.87	-4.13	41.802	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.15	18393.375	18393.375	bb			0.4495	89.90	-10.10	1991.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223061a
Date: 23-Feb-2010
Time: 20:37:43
ID: WCL100219-06CCV
Vial: 1:2,A

Pass
aw
02-24-10

Perchlorate

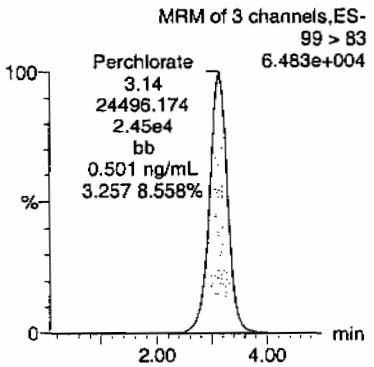

Perchlorate

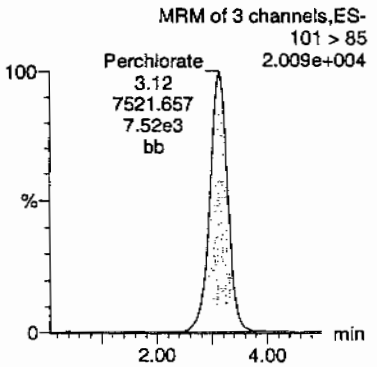

Perchlorate-101

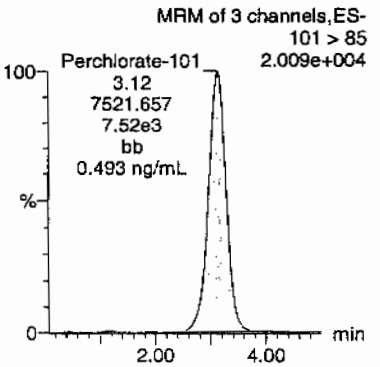

Perchlorate-O(18)

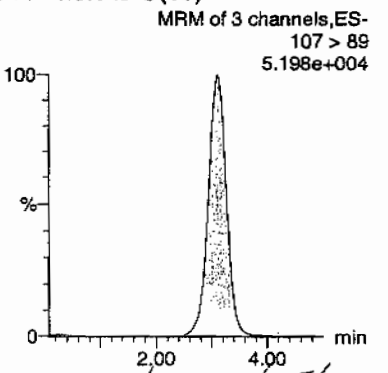

tm m 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	3.14	24496.174	24496.174	bb			0.5009	100.19	0.19	5714.9...	3.26
WCL100219-06CCV	Perchlorate-101	101 > 85	3.12	7521.657	7521.657	bb			0.4932	98.63	-1.37	1497.4...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.11	19571.971	19571.971	bb			0.4783	95.66	-4.34	2684.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223074a
Date: 23-Feb-2010
Time: 22:22:56
ID: WCL100219-06CCV
Vial: 1:2,A

aw 02-24-10

~~[illegible] | 952906 | [illegible]~~

Pwn
aw
02-24-10

Perchlorate

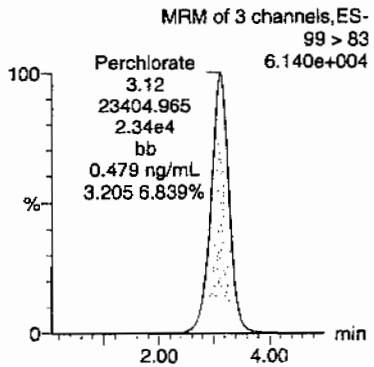

Perchlorate

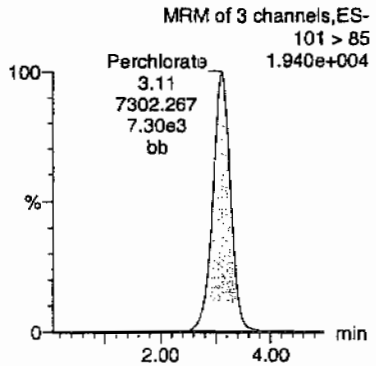

Perchlorate-101

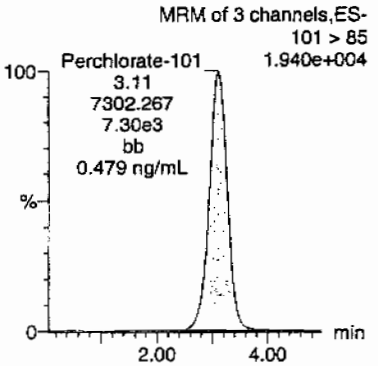

Perchlorate-O(18)

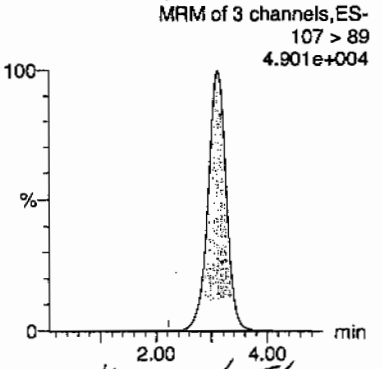

Hum 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-06CCV	Perchlorate	99 > 83	3.12	23404.965	23404.965	bb			0.4786	95.72	-4.28	3543.2...	3.21
WCL100219-06CCV	Perchlorate-101	101 > 85	3.11	7302.267	7302.267	bb			0.4788	95.75	-4.25	1424.8...	
WCL100219-06CCV	Perchlorate-O(18)	107 > 89	3.10	18471.350	18471.350	bb			0.4514	90.28	-9.72	13463....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1545

Lab Code: GEL

Reporting Units: ug/kg

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	99.65	23-FEB-10 13:55	per0223011a
Perchlorate Isotope Ratio		3.41		23-FEB-10 13:55	per0223011a
Perchlorate-101	.05	.05	93.69	23-FEB-10 13:55	per0223011a
Perchlorate	.05	.05	94.13	23-FEB-10 15:39	per0223024a
Perchlorate Isotope Ratio		3.07		23-FEB-10 15:39	per0223024a
Perchlorate-101	.05	.05	98.19	23-FEB-10 15:39	per0223024a
Perchlorate	.05	.05	95.66	23-FEB-10 17:24	per0223037a
Perchlorate Isotope Ratio		3.19		23-FEB-10 17:24	per0223037a
Perchlorate-101	.05	.05	96.29	23-FEB-10 17:24	per0223037a
Perchlorate	.05	.05	94.19	23-FEB-10 19:09	per0223050a
Perchlorate Isotope Ratio		3.04		23-FEB-10 19:09	per0223050a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1545

Lab Code: GEL

Reporting Units: ug/kg

Perchlorate–101	.05	.05	99.39	23–FEB–10 19:09	per0223050a
Perchlorate	.05	.05	94.93	23–FEB–10 20:54	per0223063a
Perchlorate Isotope Ratio		3.23		23–FEB–10 20:54	per0223063a
Perchlorate–101	.05	.05	94.12	23–FEB–10 20:54	per0223063a
Perchlorate	.05	.05	90.68	23–FEB–10 22:39	per0223076a
Perchlorate Isotope Ratio		3.48		23–FEB–10 22:39	per0223076a
Perchlorate–101	.05	.04	83.55	23–FEB–10 22:39	per0223076a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223011a
Date: 23-Feb-2010
Time: 13:55:02
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
aw
02-24-10

Perchlorate

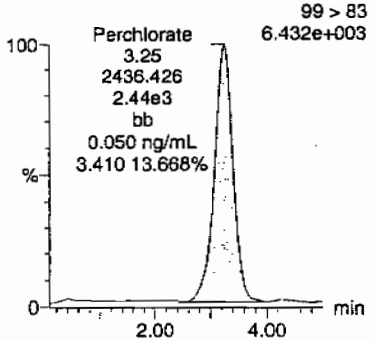

Perchlorate

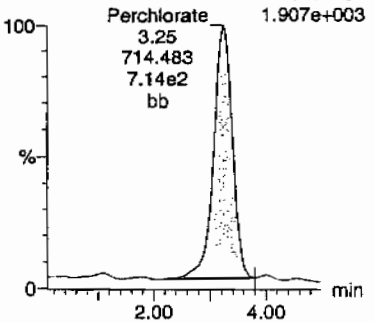

Perchlorate-101

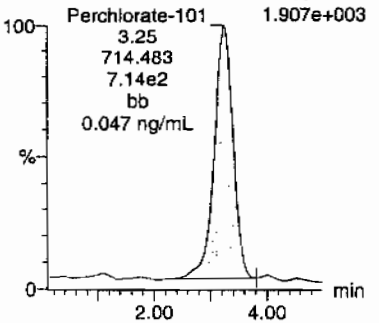

Perchlorate-O(18)

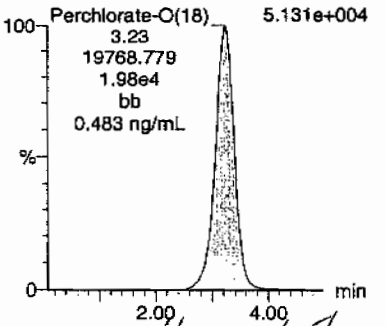

Hmm 02/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.25	2436.426	2436.426	bb			0.0498	99.65	-0.35	752.514	3.41
WCL100219-07CRI	Perchlorate-101	101 > 85	3.25	714.483	714.483	bb			0.0468	93.69	-6.31	197.166	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.23	19768.779	19768.779	bb			0.4831	96.63	-3.37	3562.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223024a
Date: 23-Feb-2010
Time: 15:39:48
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
aw
02-24-10

Perchlorate

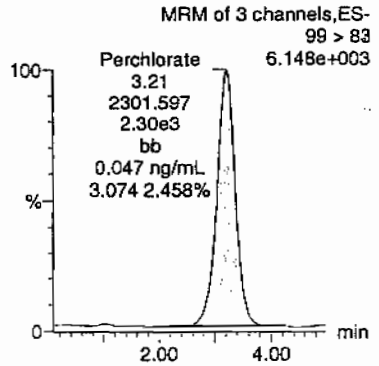

Perchlorate

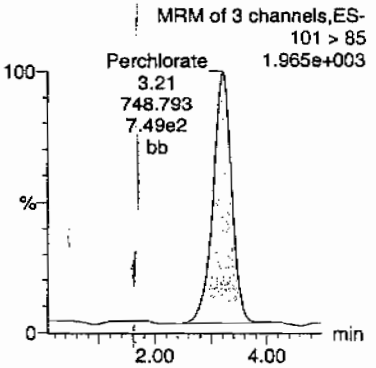

Perchlorate-101

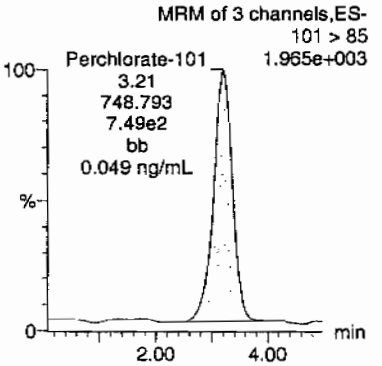

Perchlorate-O(18)

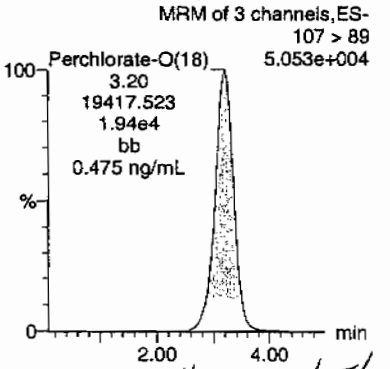

Amount ok

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.21	2301.597	2301.597	bb			0.0471	94.13	-5.87	345.822	3.07
WCL100219-07CRI	Perchlorate-101	101 > 85	3.21	748.793	748.793	bb			0.0491	98.19	-1.81	179.800	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.20	19417.523	19417.523	bb			0.4745	94.91	-5.09	8390.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223037a
Date: 23-Feb-2010
Time: 17:24:23
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
and
02-24-10

Perchlorate

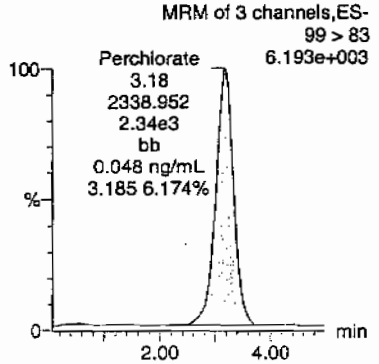

Perchlorate

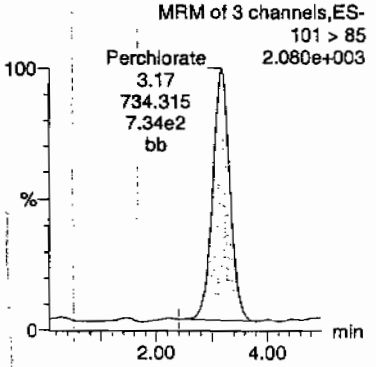

Perchlorate-101

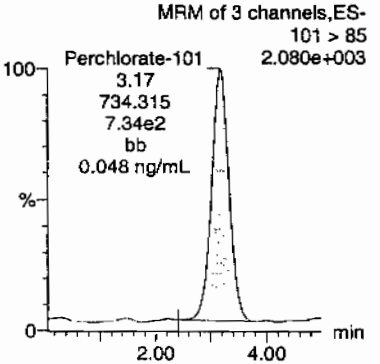

Perchlorate-O(18)

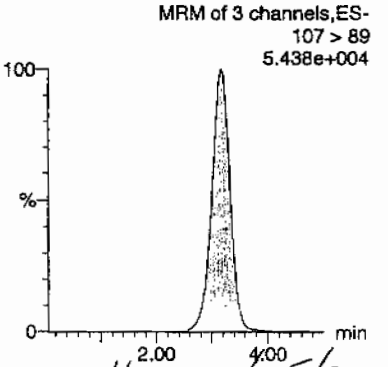

Hmm 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.18	2338.952	2338.952	bb			0.0478	95.66	-4.34	575.341	3.19
WCL100219-07CRI	Perchlorate-101	101 > 85	3.17	734.315	734.315	bb			0.0481	96.29	-3.71	259.348	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.17	20606.650	20606.650	bb			0.5036	100.72	0.72	10983....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223050a
Date: 23-Feb-2010
Time: 19:09:11
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-24-10

Perchlorate

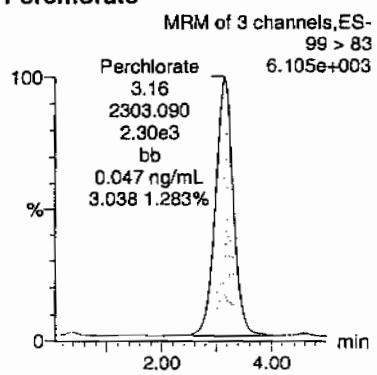

Perchlorate

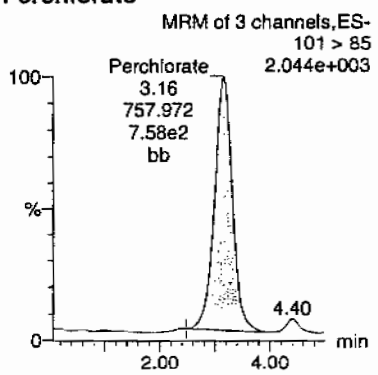

Perchlorate-101

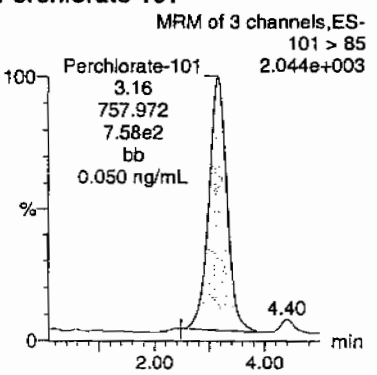

Perchlorate-O(18)

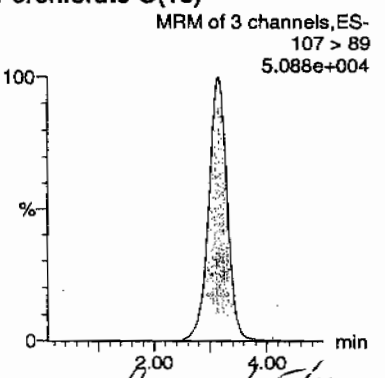

Amico 2/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.16	2303.090	2303.090	bb			0.0471	94.19	-5.81	621.859	3.04
WCL100219-07CRI	Perchlorate-101	101 > 85	3.16	757.972	757.972	bb			0.0497	99.39	-0.61	379.074	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.15	19230.377	19230.377	bb			0.4700	93.99	-6.01	5771.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223063a
Date: 23-Feb-2010
Time: 20:54:02
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
aw
02-24-10

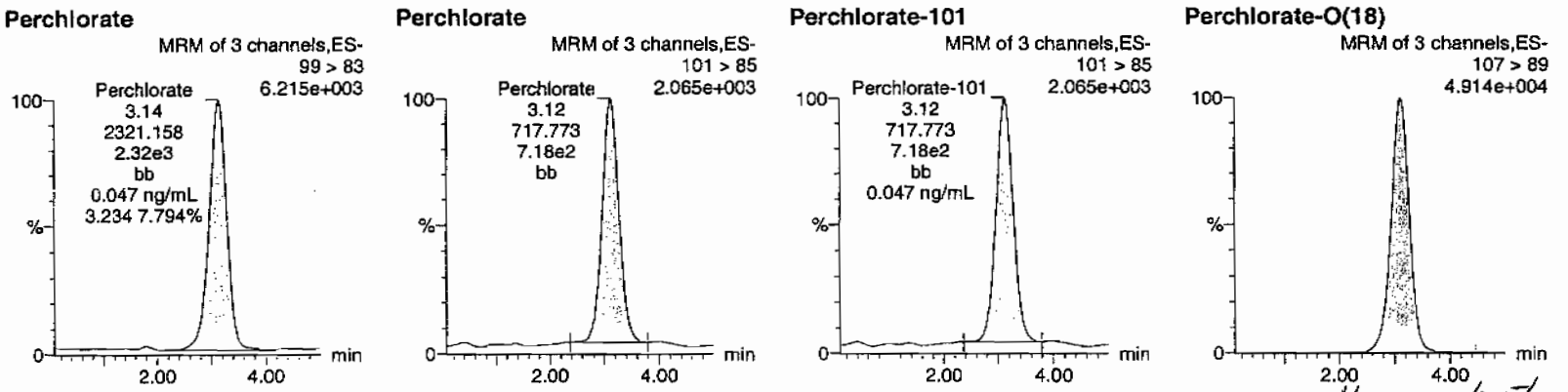

Hm 02/24/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.14	2321.158	2321.158	bb			0.0475	94.93	-5.07	88.026	3.23
WCL100219-07CRI	Perchlorate-101	101 > 85	3.12	717.773	717.773	bb			0.0471	94.12	-5.88	899.037	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.11	18669.115	18669.115	bb			0.4563	91.25	-8.75	2265.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223076a
Date: 23-Feb-2010
Time: 22:39:14
ID: WCL100219-07CRI
Vial: 1:2,B

Pass
02-24-10

Perchlorate

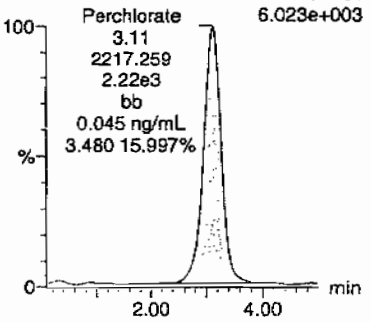

Perchlorate

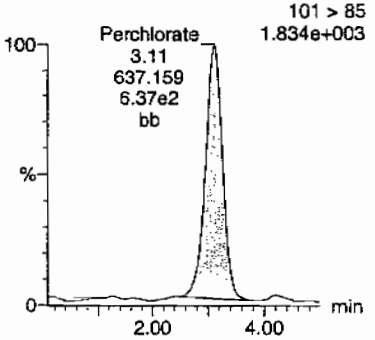

Perchlorate-101

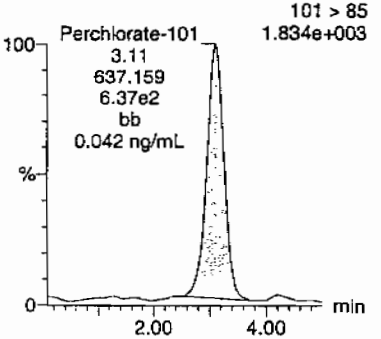

Perchlorate-O(18)

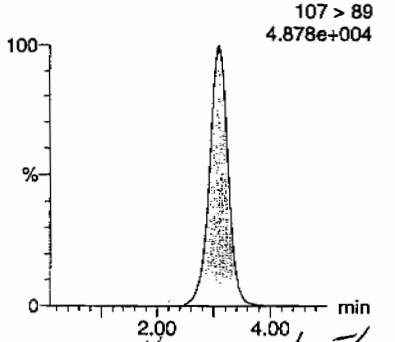

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100219-07CRI	Perchlorate	99 > 83	3.11	2217.259	2217.259	bb			0.0453	90.68	-9.32	486.685	3.48
WCL100219-07CRI	Perchlorate-101	101 > 85	3.11	637.159	637.159	bb			0.0418	83.55	-16.45	214.354	
WCL100219-07CRI	Perchlorate-O(18)	107 > 89	3.10	18546.570	18546.570	bb			0.4533	90.65	-9.35	2896.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
MB

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 1202035660

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	0.500	ug/kg	U	1	23-FEB-10 17:32	per0223038a
	Perchlorate Isotope Ratio						1	23-FEB-10 17:32	per0223038a
14797-73-0	Perchlorate-101	.5	2	0.500	ug/kg	U	1	23-FEB-10 17:32	per0223038a
	Perchlorate-O(18)			4.90	ug/kg		1	23-FEB-10 17:32	per0223038a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223038a
Date: 23-Feb-2010
Time: 17:32:27
ID: 1202035660
Vial: 2:1,A

|LANL|950071|SOLZD|MB|1|

GWD 02-24-10

Perchlorate

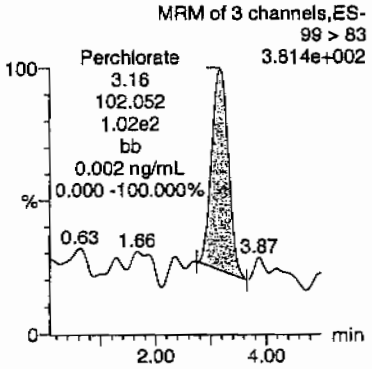

Perchlorate

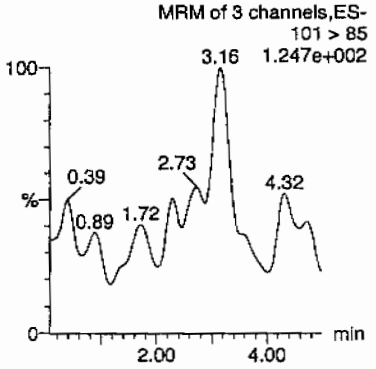

Perchlorate-101

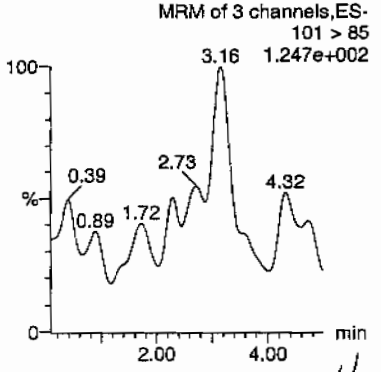

Perchlorate-O(18)

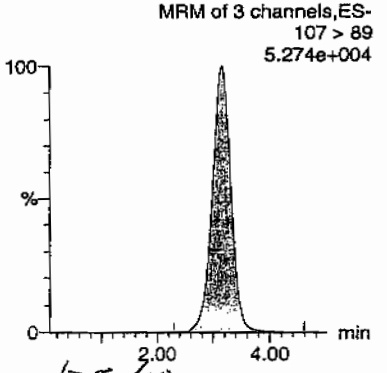

Hmm 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035660	Perchlorate	99 > 83	3.16	102.052	102.052	bb			0.0021			66.515	0.00
1202035660	Perchlorate-101	101 > 85											
1202035660	Perchlorate-O(18)	107 > 89	3.16	20052.578	20052.578	bb			0.4901	98.01	-1.99	3381.9...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
LCS

Date Received: 18-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 1202035661

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 100

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.5	2	1.98	ug/kg	J	1	23-FEB-10 17:40	per0223039a
	Perchlorate Isotope Ratio			3.1			1	23-FEB-10 17:40	per0223039a
14797-73-0	Perchlorate-101	.5	2	2.04	ug/kg		1	23-FEB-10 17:40	per0223039a
	Perchlorate-O(18)			4.69	ug/kg		1	23-FEB-10 17:40	per0223039a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223039a
Date: 23-Feb-2010
Time: 17:40:39
ID: 1202035661
Vial: 2:1,B

|LANL|950071|5070|LCS|1|

CWW 02-24-10

Perchlorate

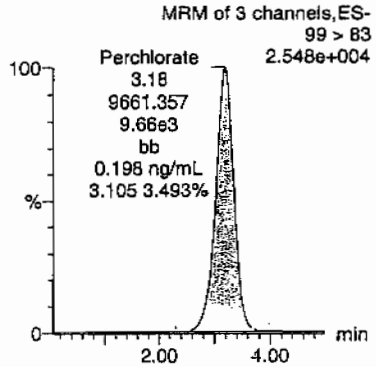

Perchlorate

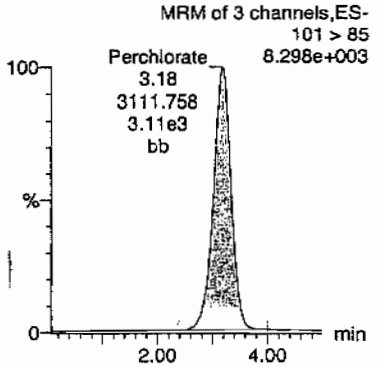

Perchlorate-101

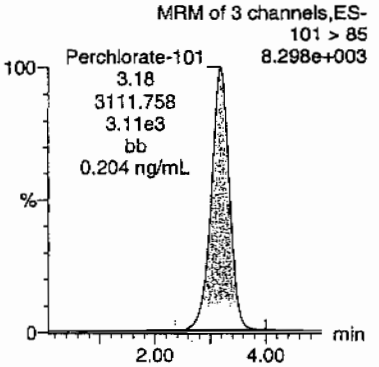

Perchlorate-O(18)

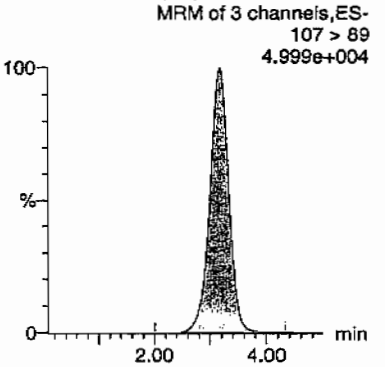

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035661	Perchlorate	99 > 83	3.18	9661.357	9661.357	bb			0.1976	98.78	-1.22	3441.0...	3.10
1202035661	Perchlorate-101	101 > 85	3.18	3111.758	3111.758	bb			0.2040	102.01	2.01	214.221	
1202035661	Perchlorate-O(18)	107 > 89	3.17	19174.484	19174.484	bb			0.4686	93.72	-6.28	5052.6...	

$\frac{9661.357}{48901.4} = 0.1976$

dhm 02/25/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8170MS

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 1202035662

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.607	2.43	3.10	ug/kg		1	23-FEB-10 19:41	per0223054a
	Perchlorate Isotope Ratio			3.29			1	23-FEB-10 19:41	per0223054a
14797-73-0	Perchlorate-101	.607	2.43	3.02	ug/kg		1	23-FEB-10 19:41	per0223054a
	Perchlorate-O(18)			5.61	ug/kg		1	23-FEB-10 19:41	per0223054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223054a
Date: 23-Feb-2010
Time: 19:41:29
ID: 1202035662
Vial: 2:3,B

|LANL|950071|S0120|MS|1|

CWJ 02-24-10

Perchlorate

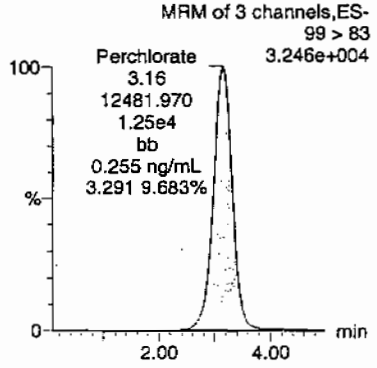

Perchlorate

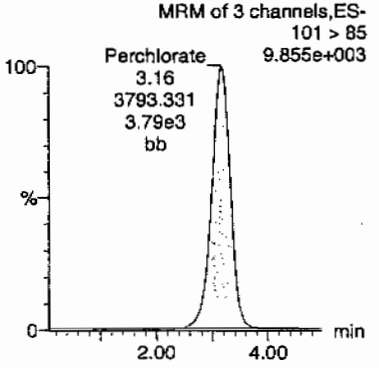

Perchlorate-101

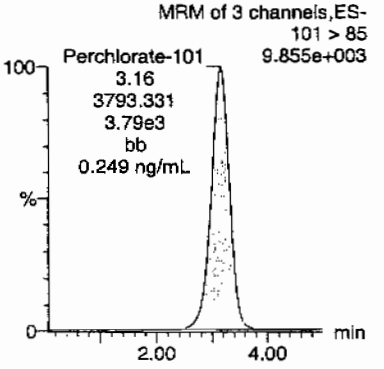

Perchlorate-O(18)

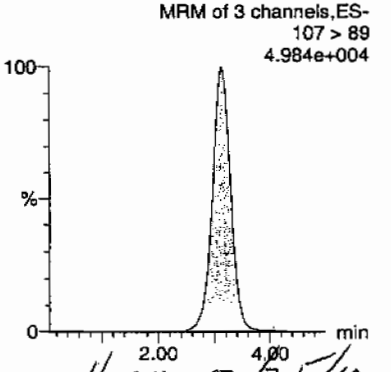

HMW 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035662	Perchlorate	99 > 83	3.16	12481.970	12481.970	bb			0.2552	127.62	27.62	7557.7...	3.29
1202035662	Perchlorate-101	101 > 85	3.16	3793.331	3793.331	bb			0.2487	124.35	24.35	857.059	
1202035662	Perchlorate-O(18)	107 > 89	3.14	18922.586	18922.586	bb			0.4624	92.49	-7.51	4697.1...	

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: SOIL

Extraction Batch ID: 950068

Extraction Type: Solid Prep

Sample Volume/Weight: 2.00 g

Concentrated Extract Volume: 20.0

Client Sample No.
RE15-10-8170MSD

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545

GEL Sample ID: 1202035663

Date Filtered: 18-FEB-10

Injection Volume (uL): 20

%Solids: 82

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.607	2.43	3.22	ug/kg		1	23-FEB-10 19:49	per0223055a
	Perchlorate Isotope Ratio			3.15			1	23-FEB-10 19:49	per0223055a
14797-73-0	Perchlorate-101	.607	2.43	3.28	ug/kg		1	23-FEB-10 19:49	per0223055a
	Perchlorate-O(18)			5.61	ug/kg		1	23-FEB-10 19:49	per0223055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per022310a.qld

Last Altered: Wednesday, February 24, 2010 9:37:13 AM Eastern Standard Time
Printed: Wednesday, February 24, 2010 9:52:21 AM Eastern Standard Time

Name: per0223055a
Date: 23-Feb-2010
Time: 19:49:31
ID: 1202035663
Vial: 2:3,C

| LANL | 950071 | SOLZO | MSD | 1 |

GWD 02-24-10

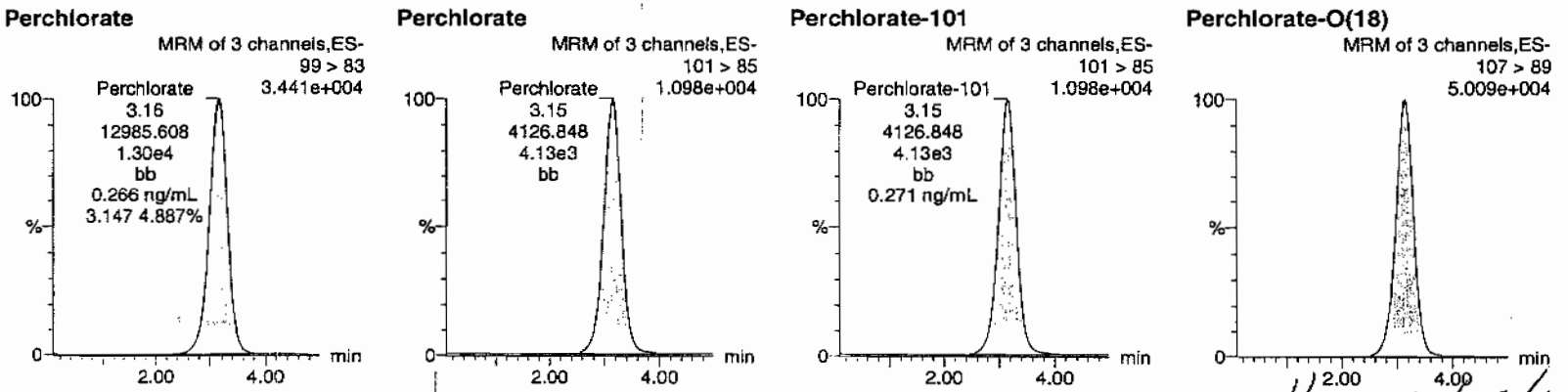

HMM 02/25/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035663	Perchlorate	99 > 83	3.16	12985.608	12985.608	bb			0.2655	132.77	32.77	1922.3...	3.15
1202035663	Perchlorate-101	101 > 85	3.15	4126.848	4126.848	bb			0.2706	135.29	35.29	1121.0...	
1202035663	Perchlorate-O(18)	107 > 89	3.14	18934.469	18934.469	bb			0.4627	92.55	-7.45	2164.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950068 Verified by:
Analyst: Lynne Russell
Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6
Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035660 MB	18-FEB-2010 13:17:00	2	20	10
1202035661 LCS	18-FEB-2010 13:17:00	2	20	10
245998001	18-FEB-2010 13:17:00	2	20	10
245998002	18-FEB-2010 13:17:00	2	20	10
245998003	18-FEB-2010 13:17:00	2	20	10
245998004	18-FEB-2010 13:17:00	2	20	10
245998005	18-FEB-2010 13:17:00	2	20	10
245998006	18-FEB-2010 13:17:00	2	20	10
245998007	18-FEB-2010 13:17:00	2	20	10
245998008	18-FEB-2010 13:17:00	2	20	10
245998009	18-FEB-2010 13:17:00	2	20	10
246055001	18-FEB-2010 13:17:00	2	20	10
1202035662 MS (246055001)	18-FEB-2010 13:17:00	2	20	10
1202035663 MSD (246055001)	18-FEB-2010 13:17:00	2	20	10
246055002	18-FEB-2010 13:17:00	2	20	10
246055003	18-FEB-2010 13:17:00	2	20	10
246055004	18-FEB-2010 13:17:00	2	20	10
246055005	18-FEB-2010 13:17:00	2	20	10
246055006	18-FEB-2010 13:17:00	2	20	10
246055007	18-FEB-2010 13:17:00	2	20	10
246055008	18-FEB-2010 13:17:00	2	20	10
246055009	18-FEB-2010 13:17:00	2	20	10
1202035664 ICS	18-FEB-2010 13:17:00	2	20	10

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035664	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
LCS	1202035661	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MS	1202035662	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL
MSD	1202035663	10 ug/L ICV/CCV Second Source	UCL100126-02.2	.4	mL

Comments:
De-salting cartridges used: 091120-1-Ba and 100112-1-H.

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/23/10
Extr. Injection Volume: 20uL
Sequence Number: per022310a
Initial Calibration Date: 02/23/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1269535, 1261217
Standard-Samp Reagent Lot#:: 1261217

Reviewed BY: Hmk
Date: 02/25/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100219-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0223001a	IPB001	CWW	2/23/2010 12:33			1		USE	B
per0223002a	IPB001	CWW	2/23/2010 12:42			1		USE	B
per0223003a	WCLICAL-01	CWW	2/23/2010 12:50			1		USE	I
per0223004a	WCLICAL-02	CWW	2/23/2010 12:58			1		USE	I
per0223005a	WCLICAL-03	CWW	2/23/2010 13:06			1		USE	I
per0223006a	WCLICAL-04	CWW	2/23/2010 13:14			1		USE	I
per0223007a	WCLICAL-05	CWW	2/23/2010 13:22			1		USE	I
per0223008a	IPB002	CWW	2/23/2010 13:30			1		USE	B
per0223009a	WCLICV	CWW	2/23/2010 13:38			1		USE	C
per0223010a	IPB003	CWW	2/23/2010 13:46			1		USE	B
per0223011a	WCLCRI	CWW	2/23/2010 13:55			1		USE	C
per0223012a	1202035646	CWW	2/23/2010 14:03	950063	10-1514	1	LANL	USE	S
per0223013a	1202035647	CWW	2/23/2010 14:11	950063	10-1514	1	LANL	USE	S
per0223014a	1202035650	CWW	2/23/2010 14:19	950063	10-1514	1	LANL	USE	S
per0223015a	245979001	CWW	2/23/2010 14:27	950063	10-1514	1	LANL	USE	S
per0223016a	1202035648	CWW	2/23/2010 14:35	950063	10-1514	1	LANL	USE	S
per0223017a	1202035649	CWW	2/23/2010 14:43	950063	10-1514	1	LANL	USE	S
per0223018a	245979002	CWW	2/23/2010 14:51	950063	10-1514	1	LANL	USE	S
per0223019a	245979003	CWW	2/23/2010 14:59	950063	10-1514	1	LANL	USE	S
per0223020a	245979004	CWW	2/23/2010 15:07	950063	10-1514	1	LANL	USE	S
per0223021a	245979005	CWW	2/23/2010 15:15	950063	10-1514	1	LANL	USE	S
per0223022a	WCLCCV	CWW	2/23/2010 15:23			1		USE	C
per0223023a	IPB004	CWW	2/23/2010 15:31			1		USE	B
per0223024a	WCLCRI	CWW	2/23/2010 15:39			1		USE	C
per0223025a	245979006	CWW	2/23/2010 15:47	950063	10-1514	1	LANL	USE	S
per0223026a	245979007	CWW	2/23/2010 15:55	950063	10-1514	1	LANL	USE	S
per0223027a	245979008	CWW	2/23/2010 16:03	950063	10-1514	1	LANL	USE	S
per0223028a	245979009	CWW	2/23/2010 16:11	950063	10-1514	1	LANL	USE	S
per0223029a	245979010	CWW	2/23/2010 16:20	950063	10-1514	1	LANL	USE	S

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per0223030a	245979011	CWW	2/23/2010 16:28	950063	10-1514	1	LANL	USE	S
per0223031a	245979012	CWW	2/23/2010 16:36	950063	10-1514	1	LANL	USE	S
per0223032a	245979013	CWW	2/23/2010 16:44	950063	10-1514	1	LANL	USE	S
per0223033a	245979014	CWW	2/23/2010 16:52	950063	10-1514	1	LANL	USE	S
per0223034a	245979015	CWW	2/23/2010 17:00	950063	10-1514	1	LANL	USE	S
per0223035a	WCLCCV	CWW	2/23/2010 17:08			1		USE	C
per0223036a	IPB005	CWW	2/23/2010 17:16			1		USE	B
per0223037a	WCLCRI	CWW	2/23/2010 17:24			1		USE	C
per0223038a	1202035660	CWW	2/23/2010 17:32	950071	VARIOUS	1	LANL	USE	S
per0223039a	1202035661	CWW	2/23/2010 17:40	950071	VARIOUS	1	LANL	USE	S
per0223040a	1202035664	CWW	2/23/2010 17:48	950071	VARIOUS	1	LANL	USE	S
per0223041a	245998001	CWW	2/23/2010 17:56	950071	10-1517	1	LANL	USE	S
per0223042a	245998002	CWW	2/23/2010 18:04	950071	10-1517	1	LANL	USE	S
per0223043a	245998003	CWW	2/23/2010 18:12	950071	10-1517	1	LANL	USE	S
per0223044a	245998004	CWW	2/23/2010 18:20	950071	10-1517	1	LANL	USE	S
per0223045a	245998005	CWW	2/23/2010 18:28	950071	10-1517	1	LANL	USE	S
per0223046a	245998006	CWW	2/23/2010 18:36	950071	10-1517	1	LANL	USE	S
per0223047a	245998007	CWW	2/23/2010 18:44	950071	10-1517	1	LANL	USE	S
per0223048a	WCLCCV	CWW	2/23/2010 18:52			1		USE	C
per0223049a	IPB006	CWW	2/23/2010 19:01			1		USE	B
per0223050a	WCLCRI	CWW	2/23/2010 19:09			1		USE	C
per0223051a	245998008	CWW	2/23/2010 19:17	950071	10-1517	1	LANL	USE	S
per0223052a	245998009	CWW	2/23/2010 19:25	950071	10-1517	1	LANL	USE	S
per0223053a	246055001	CWW	2/23/2010 19:33	950071	10-1545	1	LANL	USE	S
per0223054a	1202035662	CWW	2/23/2010 19:41	950071	10-1545	1	LANL	USE	S
per0223055a	1202035663	CWW	2/23/2010 19:49	950071	10-1545	1	LANL	USE	S
per0223056a	246055002	CWW	2/23/2010 19:57	950071	10-1545	1	LANL	USE	S
per0223057a	246055003	CWW	2/23/2010 20:05	950071	10-1545	1	LANL	USE	S
per0223058a	246055004	CWW	2/23/2010 20:13	950071	10-1545	1	LANL	USE	S
per0223059a	246055005	CWW	2/23/2010 20:21	950071	10-1545	1	LANL	USE	S
per0223060a	246055006	CWW	2/23/2010 20:29	950071	10-1545	1	LANL	USE	S
per0223061a	WCLCCV	CWW	2/23/2010 20:37			1		USE	C
per0223062a	IPB007	CWW	2/23/2010 20:46			1		USE	B
per0223063a	WCLCRI	CWW	2/23/2010 20:54			1		USE	C
per0223064a	246055007	CWW	2/23/2010 21:02	950071	10-1545	1	LANL	USE	S
per0223065a	246055008	CWW	2/23/2010 21:10	950071	10-1545	1	LANL	USE	S
per0223066a	246055009	CWW	2/23/2010 21:18	950071	10-1545	1	LANL	USE	S

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per0223067a	IPB008	CWW	2/23/2010 21:26			1		USE	B
per0223068a	1202042433	CWW	2/23/2010 21:34	952906	VARIOUS	1	LANL	USE	S
per0223069a	1202042434	CWW	2/23/2010 21:42	952906	VARIOUS	1	LANL	USE	S
per0223070a	1202042437	CWW	2/23/2010 21:50	952906	VARIOUS	1	LANL	USE	S
per0223071a	246607001	CWW	2/23/2010 21:58	952906	10-1699-1	1	LANL	USE	S
per0223072a	246607002	CWW	2/23/2010 22:06	952906	10-1699-1	1	LANL	USE	S
per0223073a	246607003	CWW	2/23/2010 22:14	952906	10-1699-1	1	LANL	USE	S
per0223074a	WCLCCV	CWW	2/23/2010 22:22			1		USE	C
per0223075a	IPB009	CWW	2/23/2010 22:31			1		USE	B
per0223076a	WCLCRI	CWW	2/23/2010 22:39			1		USE	C
per0223077a	246607004	CWW	2/23/2010 22:47	952906	10-1699-1	1	LANL	USE	S
per0223078a	246607005	CWW	2/23/2010 22:55	952906	10-1699-1	1	LANL	USE	S
per0223079a	246607006	CWW	2/23/2010 23:03	952906	10-1699-1	1	LANL	USE	S
per0223080a	246610001	CWW	2/23/2010 23:11	952906	10-1701	1	LANL	USE	S
per0223081a	246610002	CWW	2/23/2010 23:19	952906	10-1701	1	LANL	USE	S
per0223082a	246610003	CWW	2/23/2010 23:27	952906	10-1701	1	LANL	USE	S
per0223083a	246611001	CWW	2/23/2010 23:35	952906	10-1702	1	LANL	USE	S
per0223084a	246611002	CWW	2/23/2010 23:43	952906	10-1702	1	LANL	USE	S
per0223085a	246611003	CWW	2/23/2010 23:51	952906	10-1702	1	LANL	USE	S
per0223086a	WCLCCV	CWW	2/23/2010 23:59			1		USE	C
per0223087a	IPB010	CWW	2/24/2010 0:08			1		USE	B
per0223088a	WCLCRI	CWW	2/24/2010 0:16			1		USE	C
per0223089a	246679001	CWW	2/24/2010 0:24	952906	10-1704	1	LANL	USE	S
per0223090a	1202042435	CWW	2/24/2010 0:32	952906	10-1704	1	LANL	USE	S
per0223091a	1202042436	CWW	2/24/2010 0:40	952906	10-1704	1	LANL	USE	S
per0223092a	246679002	CWW	2/24/2010 0:48	952906	10-1704	1	LANL	USE	S
per0223093a	246679003	CWW	2/24/2010 0:56	952906	10-1704	1	LANL	USE	S
per0223094a	246679004	CWW	2/24/2010 1:04	952906	10-1704	1	LANL	USE	S
per0223095a	246679005	CWW	2/24/2010 1:12	952906	10-1704	1	LANL	USE	S
per0223096a	246679006	CWW	2/24/2010 1:20	952906	10-1704	1	LANL	USE	S
per0223097a	246679007	CWW	2/24/2010 1:28	952906	10-1704	1	LANL	USE	S
per0223098a	246679008	CWW	2/24/2010 1:36	952906	10-1704	1	LANL	USE	S
per0223099a	WCLCCV	CWW	2/24/2010 1:44			1		USE	C
per0223100a	IPB011	CWW	2/24/2010 1:52			1		USE	B
per0223101a	WCLCRI	CWW	2/24/2010 2:00			1		USE	C
per0223102a	1202042671	CWW	2/24/2010 2:08	952990	VARIOUS	1	LANL	USE	S
per0223103a	1202042672	CWW	2/24/2010 2:17	952990	VARIOUS	1	LANL	USE	S

per0223104a	1202042675	CWW	2/24/2010 2:25	952990	VARIOUS	1	LANL	USE	S
per0223105a	246719001	CWW	2/24/2010 2:33	952990	10-1729	1	LANL	USE	S
per0223106a	1202042673	CWW	2/24/2010 2:41	952990	10-1729	1	LANL	USE	S
per0223107a	1202042674	CWW	2/24/2010 2:49	952990	10-1729	1	LANL	USE	S
per0223108a	246719002	CWW	2/24/2010 2:57	952990	10-1729	1	LANL	USE	S
per0223109a	246719003	CWW	2/24/2010 3:05	952990	10-1729	1	LANL	USE	S
per0223110a	WCLCCV	CWW	2/24/2010 3:13			1		USE	C
per0223111a	IPB012	CWW	2/24/2010 3:21			1		USE	B
per0223112a	WCLCRI	CWW	2/24/2010 3:29			1		USE	C
per0223113a	246719004	CWW	2/24/2010 3:37	952990	10-1729	1	LANL	USE	S
per0223114a	246719005	CWW	2/24/2010 3:46	952990	10-1729	1	LANL	USE	S
per0223115a	246719006	CWW	2/24/2010 3:54	952990	10-1729	1	LANL	USE	S
per0223116a	246719007	CWW	2/24/2010 4:02	952990	10-1729	1	LANL	USE	S
per0223117a	246719008	CWW	2/24/2010 4:10	952990	10-1729	1	LANL	USE	S
per0223118a	246741001	CWW	2/24/2010 4:18	952990	10-1711	1	LANL	USE	S
per0223119a	246741002	CWW	2/24/2010 4:26	952990	10-1711	1	LANL	USE	S
per0223120a	246741003	CWW	2/24/2010 4:34	952990	10-1711	1	LANL	USE	S
per0223121a	WCLCCV	CWW	2/24/2010 4:42			1		USE	C
per0223122a	IPB013	CWW	2/24/2010 4:50			1		USE	B
per0223123a	WCLCRI	CWW	2/24/2010 4:58			1		USE	C
per0223124a	246741004	CWW	2/24/2010 5:06	952990	10-1711	1	LANL	USE	S
per0223125a	246741005	CWW	2/24/2010 5:14	952990	10-1711	1	LANL	USE	S
per0223126a	246741006	CWW	2/24/2010 5:22	952990	10-1711	1	LANL	USE	S
per0223127a	246741007	CWW	2/24/2010 5:30	952990	10-1711	1	LANL	USE	S
per0223128a	246741008	CWW	2/24/2010 5:38	952990	10-1711	1	LANL	USE	S
per0223129a	246741009	CWW	2/24/2010 5:46	952990	10-1711	1	LANL	USE	S
per0223130a	246741010	CWW	2/24/2010 5:54	952990	10-1711	1	LANL	USE	S
per0223131a	246741011	CWW	2/24/2010 6:02	952990	10-1711	1	LANL	USE	S
per0223132a	WCLCCV	CWW	2/24/2010 6:11			1		USE	C
per0223133a	IPB014	CWW	2/24/2010 6:19			1		USE	B
per0223134a	WCLCRI	CWW	2/24/2010 6:27			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1545-1

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	950028
Prep Batch Number:	950027

Sample Analysis

Sample ID	Client ID
246056001	RE15-10-8233
246056002	RE15-10-8231
246056003	RE15-10-8230
246056004	RE15-10-8232
1202035573	Interference Check Sample (ICS)
1202035565	Method Blank (MB)
1202035566	Laboratory Control Sample (LCS)
1202035571	245911001(RE16-10-1400) Matrix Spike (MS)
1202035572	245911001(RE16-10-1400) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

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CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 245911001 (RE16-10-1400) from SDG 10-1487-1 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

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Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

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Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Mauer **Date:** 02/11/10

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SAMPLE DATA SUMMARY

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8233

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:26	per0208070a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:26	per0208070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:26	per0208070a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 21:26	per0208070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8231

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056002

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:32	per0208071a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:32	per0208071a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:32	per0208071a
	Perchlorate-O(18)			0.474	ug/L		1	08-FEB-10 21:32	per0208071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8230

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056003

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:39	per0208072a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:39	per0208072a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:39	per0208072a
	Perchlorate-O(18)			0.477	ug/L		1	08-FEB-10 21:39	per0208072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8232

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056004

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 22:05	per0208076a
	Perchlorate Isotope Ratio						1	08-FEB-10 22:05	per0208076a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 22:05	per0208076a
	Perchlorate-O(18)			0.475	ug/L		1	08-FEB-10 22:05	per0208076a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1545–1

Extract Batch Code: 950027

Date Filtered: 07–FEB–10

Matrix: WASTE WATER

Sample ID: 1202035566

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.196	ug/L	98.0		85 – 115
Perchlorate Isotope Ratio		3.01				–
Perchlorate–101	0.200	.207	ug/L	103		85 – 115
Perchlorate–O(18)		.483	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Form 5a

Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-1545-1

Extract Batch Code: 950027

Date Filtered: 07-FEB-10

Matrix: WATER

Sample ID: 1202035573

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.211	ug/L	105		70 – 130
Perchlorate Isotope Ratio		3.12				
Perchlorate-101	0.200	.214	ug/L	107		70 – 130
Perchlorate-O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208052a
Date: 08-Feb-2010
Time: 19:28:20
ID: 1202035573
Vial: 2:1,C

|LANL|950028|LCQ|ICS|1|

CWW 02-09-10

Perchlorate

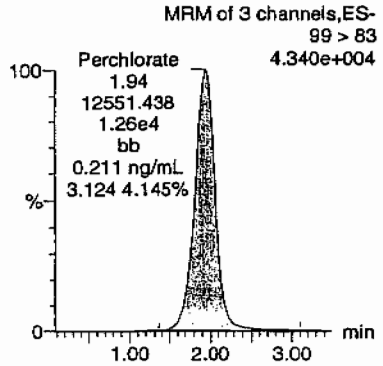

Perchlorate

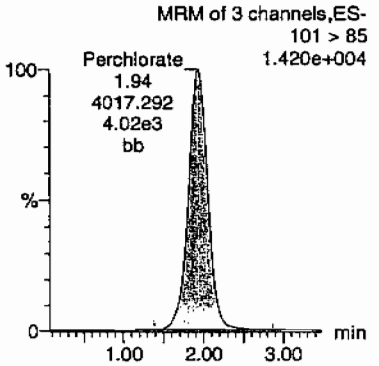

Perchlorate-101

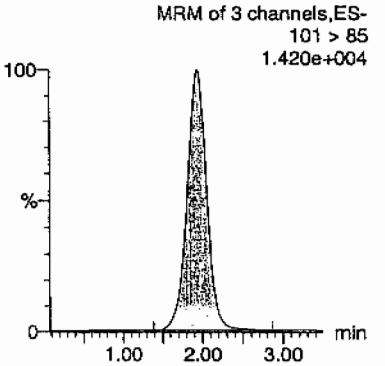

Perchlorate-O(18)

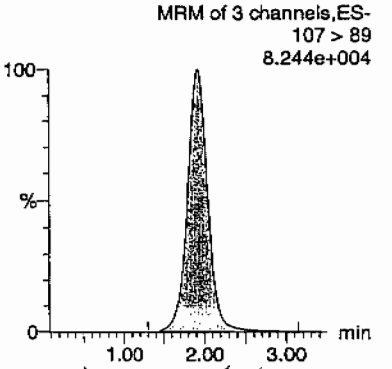

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035573	Perchlorate	99 > 83	1.94	12551.438	12551.438	bb			0.2108	105.42	5.42	1217.2...	3.12
1202035573	Perchlorate-101	101 > 85	1.94	4017.292	4017.292	bb			0.2140	107.01	7.01	2883.8...	
1202035573	Perchlorate-O(18)	107 > 89	1.93	23733.555	23733.555	bb			0.4879	97.59	-2.41	5289.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 6

Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10-1545-1

Extract Batch Code: 950027

Date Extracted: 07-FEB-10

GEL MS/PS ID: 1202035571

Client ID: RE16-10-1400

GEL MSD/PSD ID: 1202035572

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00204	ug/L	0.192	94.8		.198	98.1		3.39		30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3			3.01			0			–
Perchlorate-101	0.200	0.00319	ug/L	0.203	99.9		.209	103		2.76		30	75 – 125
Perchlorate-O(18)	0	0.461	ug/L	0.468			.462			1.31			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Form 4

Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1545-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-FEB-10	per0208001a	IPB001
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208001a	IPB001
Perchlorate	0.00	0	NA	08-FEB-10	per0208002a	IPB001
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208002a	IPB001

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Name: per0208001a
Date: 08-Feb-2010
Time: 13:54:09
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

Perchlorate

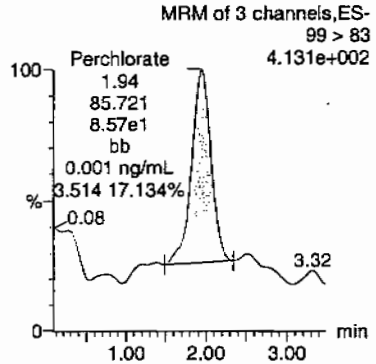

Perchlorate

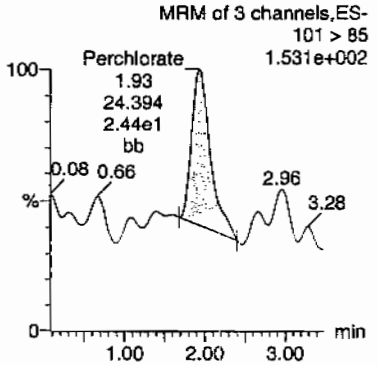

Perchlorate-101

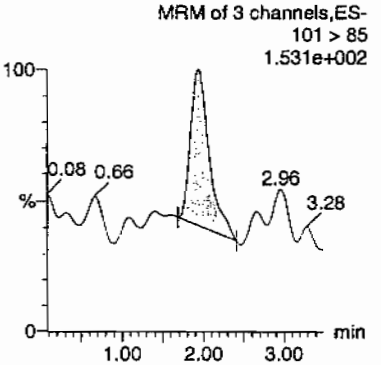

Perchlorate-O(18)

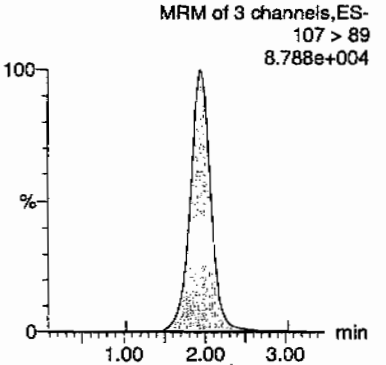

tym 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	1.94	85.721	85.721	bb			0.0014			29.463	3.51
IPB001	Perchlorate-101	101 > 85	1.93	24.394	24.394	bb			0.0013			21.780	
IPB001	Perchlorate-O(18)	107 > 89	1.94	25816.436	25816.436	bb			0.5308	106.15	6.15	6489.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208002a
Date: 08-Feb-2010
Time: 14:00:52
ID: IPB001
Vial: 1:1,A

CWW
02-09-10

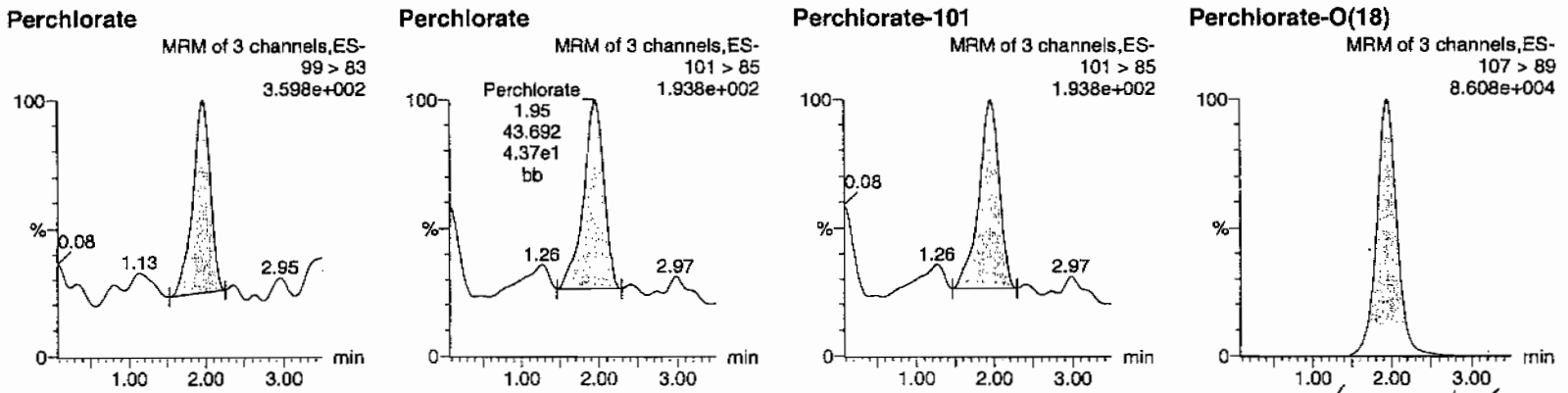

Area on 1/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83	1.97	72.177	72.177	bb			0.0012			25.847	1.65
IPB001	Perchlorate-101	101 > 85	1.95	43.692	43.692	bb			0.0023			6.442	
IPB001	Perchlorate-O(18)	107 > 89	1.94	25472.947	25472.947	bb			0.5237	104.74	4.74	6120.9...	

OKAY
<0.050

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1545-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08-FEB-10	per0208008a	IPB002
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208008a	IPB002
Perchlorate	0.00	0	NA	08-FEB-10	per0208010a	IPB003
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208010a	IPB003
Perchlorate	0.00	0	NA	08-FEB-10	per0208022a	IPB004
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208022a	IPB004
Perchlorate	0.00	0	NA	08-FEB-10	per0208026a	IPB005
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208026a	IPB005
Perchlorate	0.00	0	NA	08-FEB-10	per0208035a	IPB006
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208035a	IPB006
Perchlorate	0.00	0	NA	08-FEB-10	per0208048a	IPB007
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208048a	IPB007
Perchlorate	0.00	0	NA	08-FEB-10	per0208061a	IPB008

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Form 4

Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1545-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208061a	IPB008
Perchlorate	0.00	0	NA	08-FEB-10	per0208074a	IPB009
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208074a	IPB009
Perchlorate	0.00	0	NA	08-FEB-10	per0208080a	IPB010
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208080a	IPB010
Perchlorate	0.00	0	NA	08-FEB-10	per0208084a	IPB011
Perchlorate-101	0.00	0	NA	08-FEB-10	per0208084a	IPB011

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208008a
Date: 08-Feb-2010
Time: 14:40:00
ID: IPB002
Vial: 1:1,A

CWW 02-09-10

Perchlorate

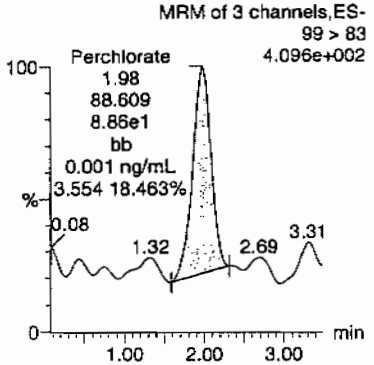

Perchlorate

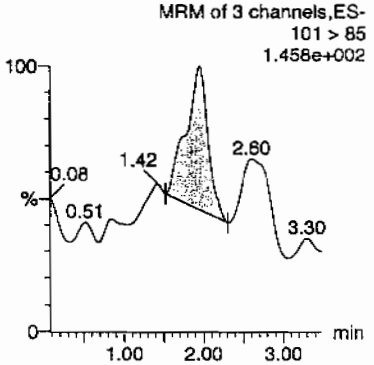

Perchlorate-101

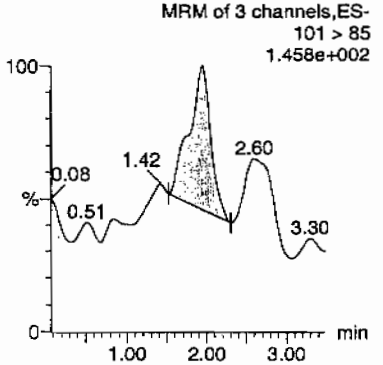

Perchlorate-O(18)

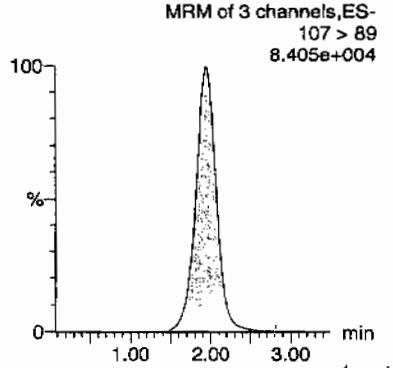

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83	1.98	88.609	88.609	bb			0.0015			17.608	3.55
IPB002	Perchlorate-101	101 > 85	1.95	24.933	24.933	bb			0.0013			9.796	
IPB002	Perchlorate-O(18)	107 > 89	1.94	24800.170	24800.170	bb			0.5099	101.97	1.97	8413.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208010a
Date: 08-Feb-2010
Time: 14:53:04
ID: IPB003
Vial: 1:1,A

CWW
02-09-10

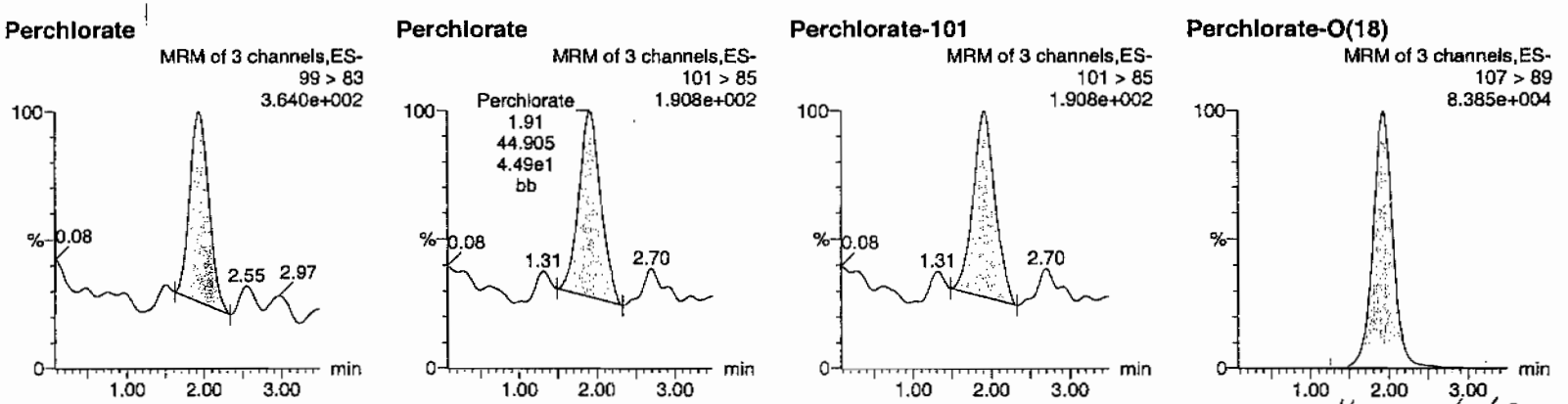

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83	1.93	78.058	78.058	bb			0.0013			17.447	1.74
IPB003	Perchlorate-101	101 > 85	1.91	44.905	44.905	bb			0.0024			6.119	
IPB003	Perchlorate-O(18)	107 > 89	1.93	24645.639	24645.639	bb			0.5067	101.34	1.34	10100....	

OK 34
2.0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208022a
Date: 08-Feb-2010
Time: 16:11:45
ID: IPB004
Vial: 1:1,A

CWW
02-09-10

Perchlorate

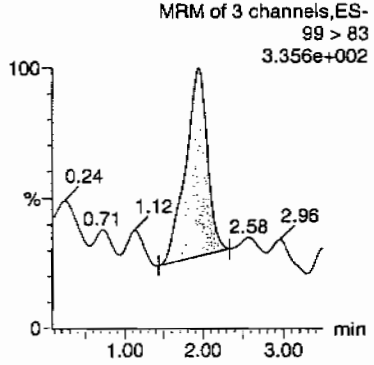

Perchlorate

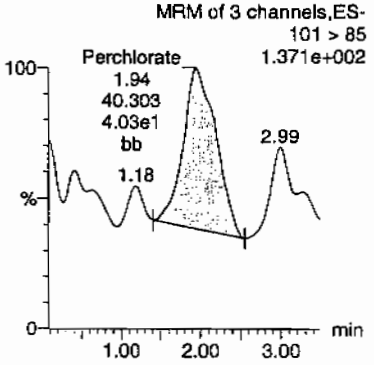

Perchlorate-101

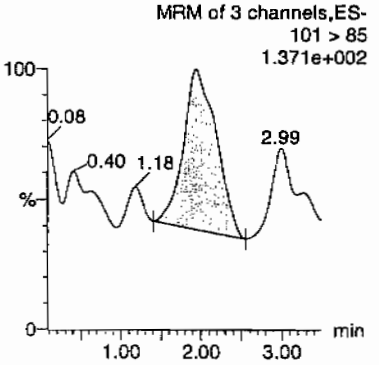

Perchlorate-O(18)

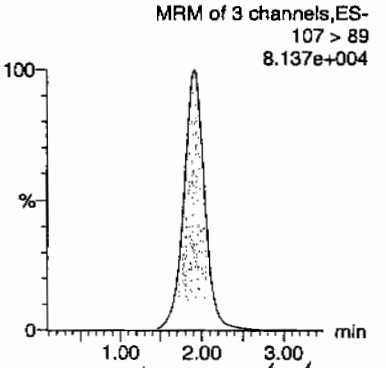

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio	
IPB004	Perchlorate	99 > 83	1.94	78.709	78.709	bb			0.0013			20.514	1.95	ok 94
IPB004	Perchlorate-101	101 > 85	1.94	40.303	40.303	bb			0.0021			13.319		<0.0200
IPB004	Perchlorate-O(18)	107 > 89	1.92	23985.541	23985.541	bb			0.4931	98.62	-1.38	5434.3...		

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208026a
Date: 08-Feb-2010
Time: 16:37:55
ID: IPB005
Vial: 1:1,A

CWW
02-09-10

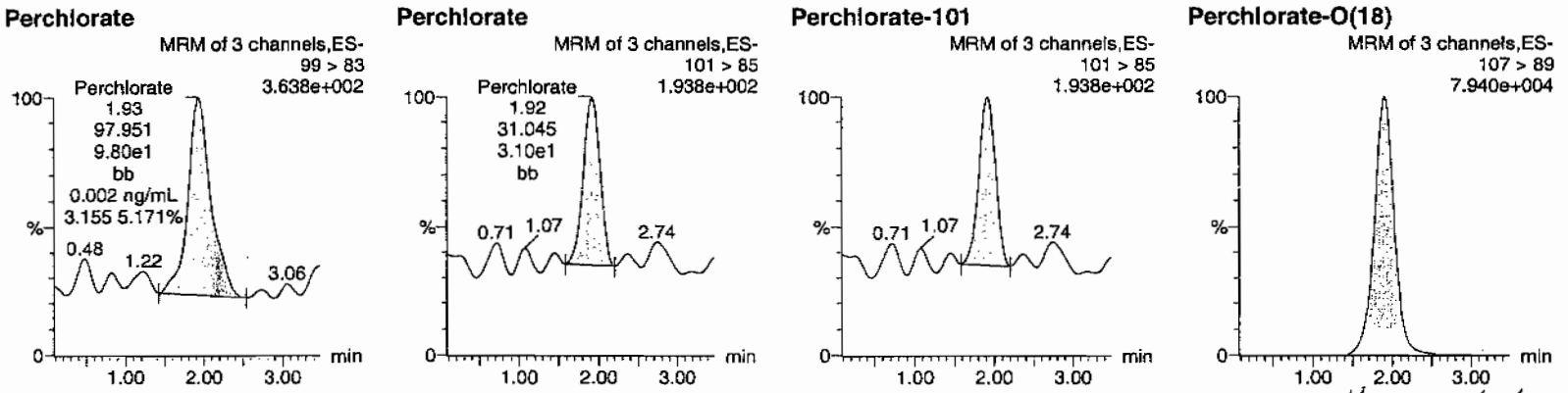

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	1.93	97.951	97.951	bb			0.0016			26.012	3.16
IPB005	Perchlorate-101	101 > 85	1.92	31.045	31.045	bb			0.0017			24.338	
IPB005	Perchlorate-O(18)	107 > 89	1.91	23263.740	23263.740	bb			0.4783	95.66	-4.34	17328....	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208035a
Date: 08-Feb-2010
Time: 17:36:50
ID: IPB006
Vial: 1:1,A

CWW
02-09-10

Perchlorate

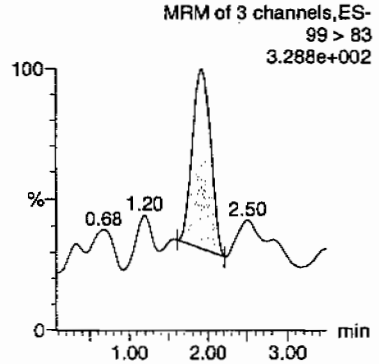

Perchlorate

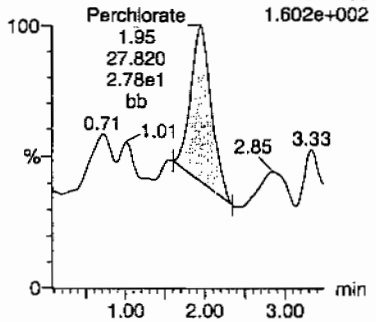

Perchlorate-101

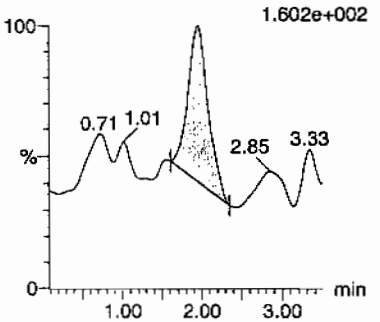

Perchlorate-O(18)

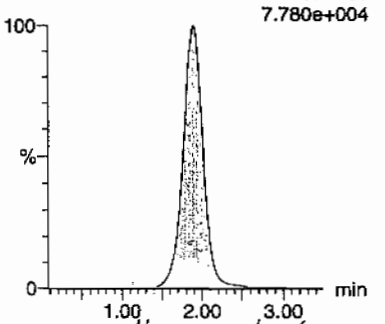

Hmc 2/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83	1.92	61.682	61.682	bb			0.0010			7.589	2.22
IPB006	Perchlorate-101	101 > 85	1.95	27.820	27.820	bb			0.0015			8.535	
IPB006	Perchlorate-O(18)	107 > 89	1.89	22700.701	22700.701	bb			0.4667	93.34	-6.66	9296.2...	

okay
2/10/10

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208048a
Date: 08-Feb-2010
Time: 19:01:59
ID: IPB007
Vial: 1:1,A

02-09-10

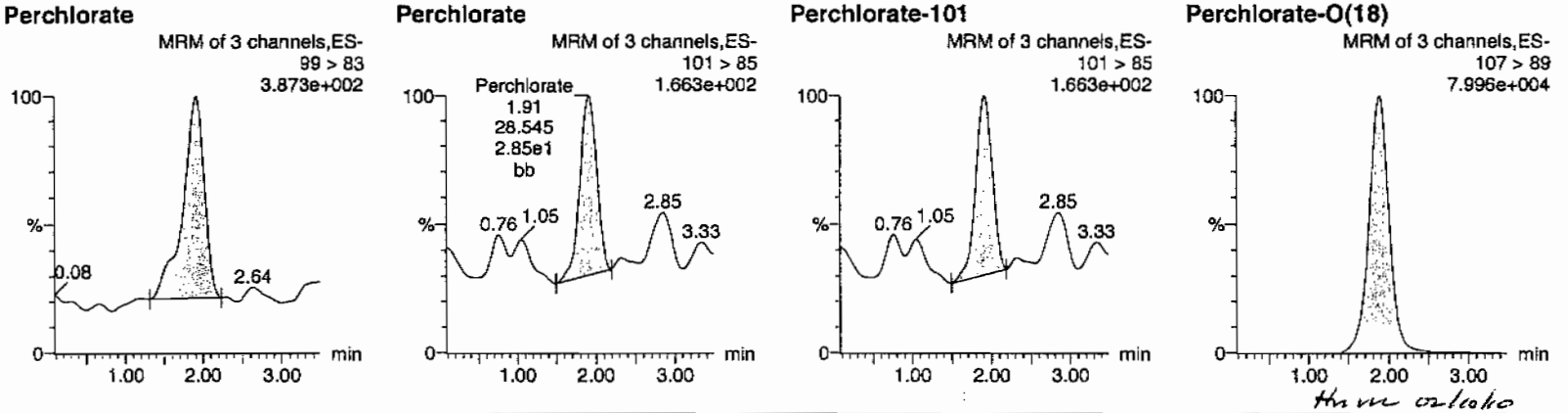

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83	1.92	98.695	98.695	bb			0.0017			45.617	3.46
IPB007	Perchlorate-101	101 > 85	1.91	28.545	28.545	bb			0.0015			16.585	
IPB007	Perchlorate-O(18)	107 > 89	1.88	23201.119	23201.119	bb			0.4770	95.40	-4.60	2781.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208061a
Date: 08-Feb-2010
Time: 20:27:18
ID: IPB008
Vial: 1:1,A

Cwo
02-09-10

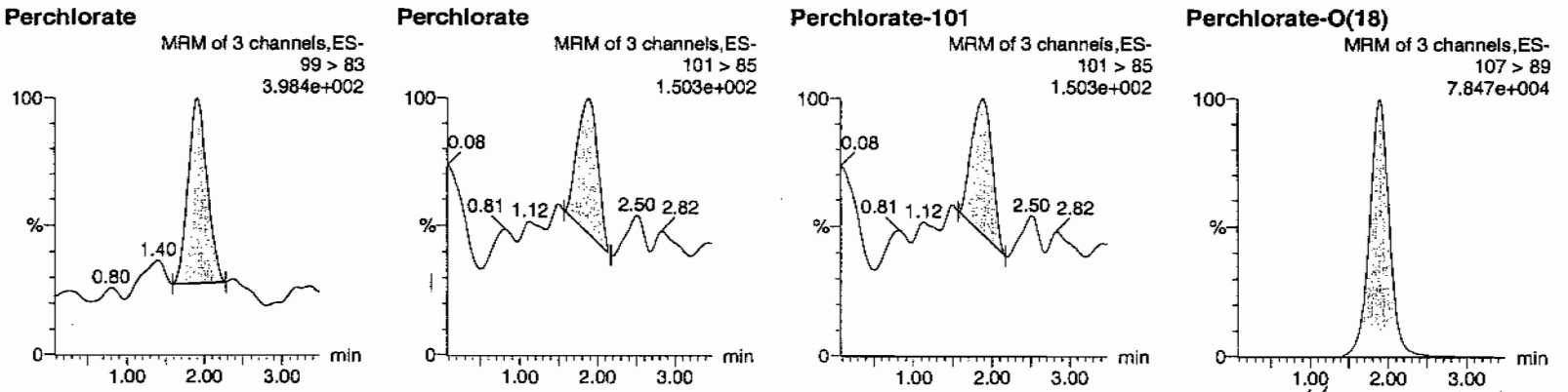

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83	1.91	82.327	82.327	bb			0.0014			25.247	3.44
IPB008	Perchlorate-101	101 > 85	1.88	23.921	23.921	bb			0.0013			7.965	
IPB008	Perchlorate-O(18)	107 > 89	1.89	22850.625	22850.625	bb			0.4698	93.96	-6.04	9586.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208074a
Date: 08-Feb-2010
Time: 21:52:41
ID: IPB009
Vial: 1:1,A

KWW
02-09-10

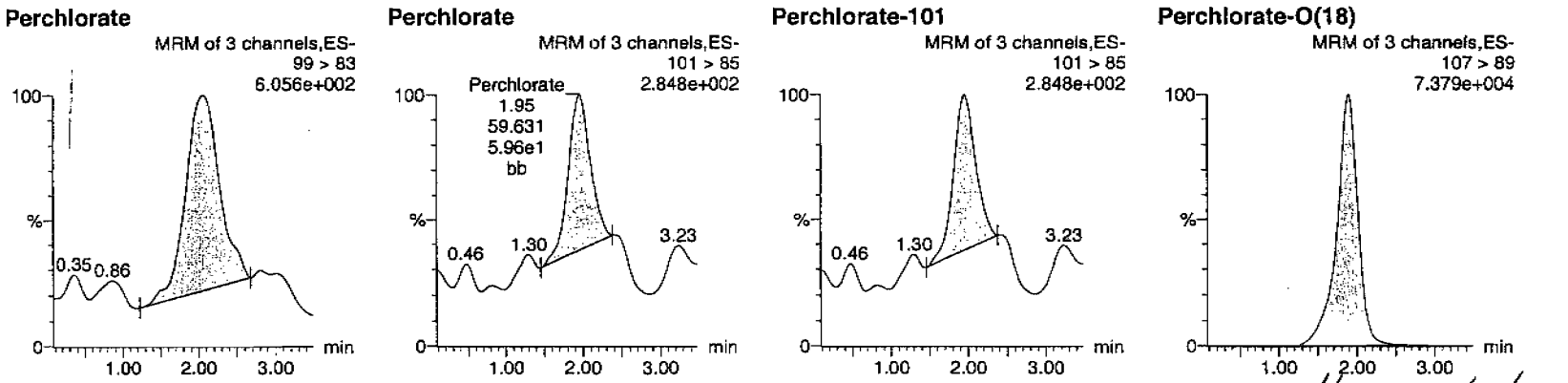

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83	2.05	246.817	246.817	bb			0.0041			12.504	4.14
IPB009	Perchlorate-101	101 > 85	1.95	59.631	59.631	bb			0.0032			10.438	
IPB009	Perchlorate-O(18)	107 > 89	1.89	23201.656	23201.656	bb			0.4770	95.40	-4.60	2554.5...	

OKAY
LO.0500

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208080a
Date: 08-Feb-2010
Time: 22:32:07
ID: IPB010
Vial: 1:1,A

CWW
02-09-10

Perchlorate

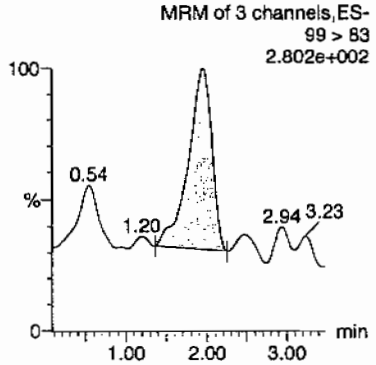

Perchlorate

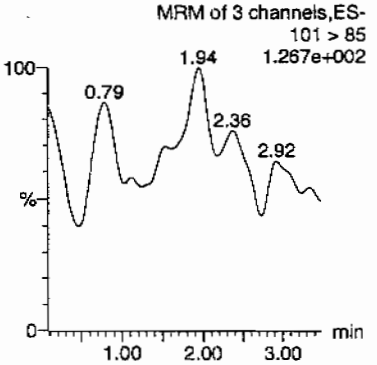

Perchlorate-101

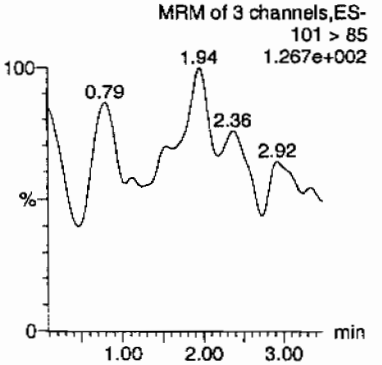

Perchlorate-O(18)

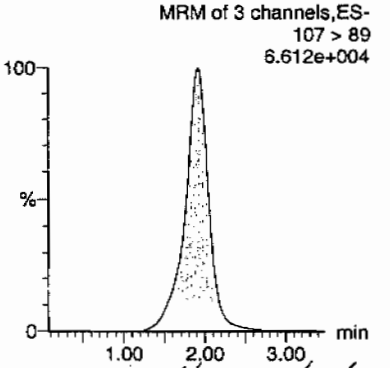

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB010	Perchlorate	99 > 83	1.95	65.232	65.232	bb			0.0011			10.109	0.00
IPB010	Perchlorate-101	101 > 85											
IPB010	Perchlorate-O(18)	107 > 89	1.92	22453.189	22453.189	bb			0.4616	92.32	-7.68	1427.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208084a
Date: 08-Feb-2010
Time: 22:58:57
ID: IPB011
Vial: 1:1,A

CWW
02-09-10

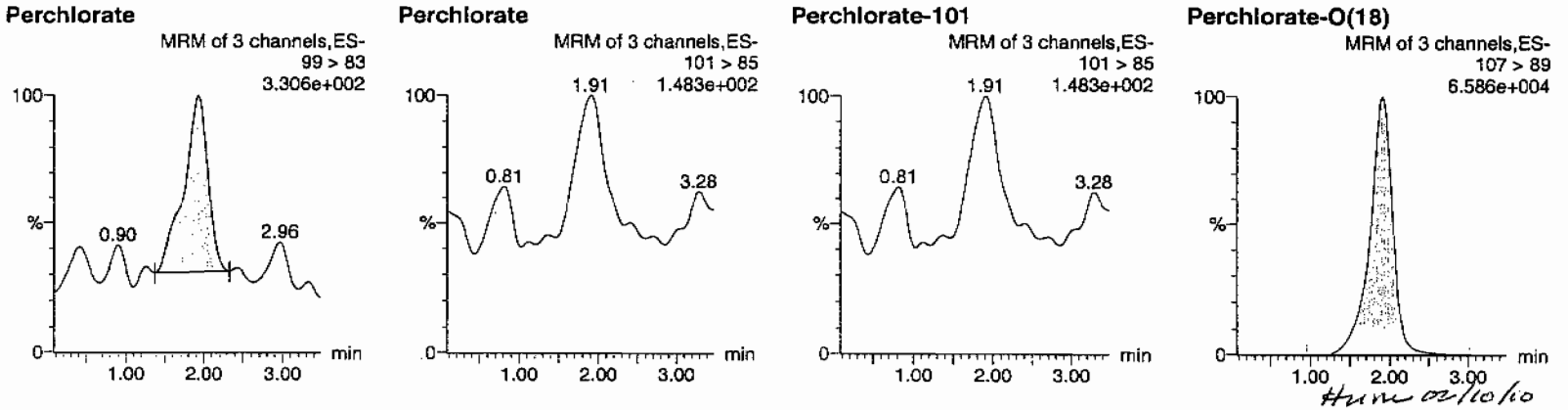

HWW 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB011	Perchlorate	99 > 83	1.92	83.394	83.394	bb			0.0014			6.881	0.00
IPB011	Perchlorate-101	101 > 85											
IPB011	Perchlorate-O(18)	107 > 89	1.92	21983.693	21983.693	bb			0.4520	90.39	-9.61	2001.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

POINTS RECALIBRATED BY [illegible] 01-09-08

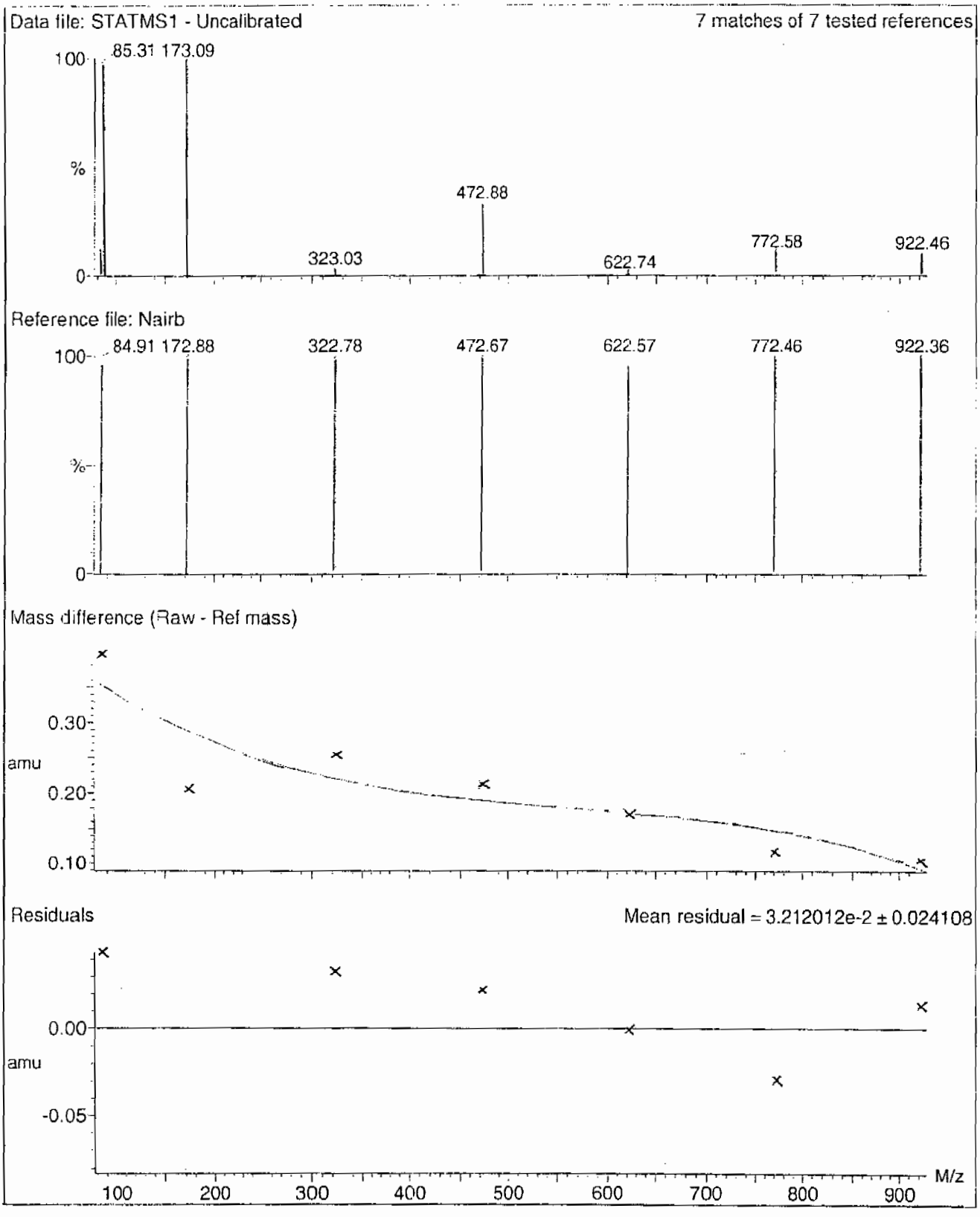

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

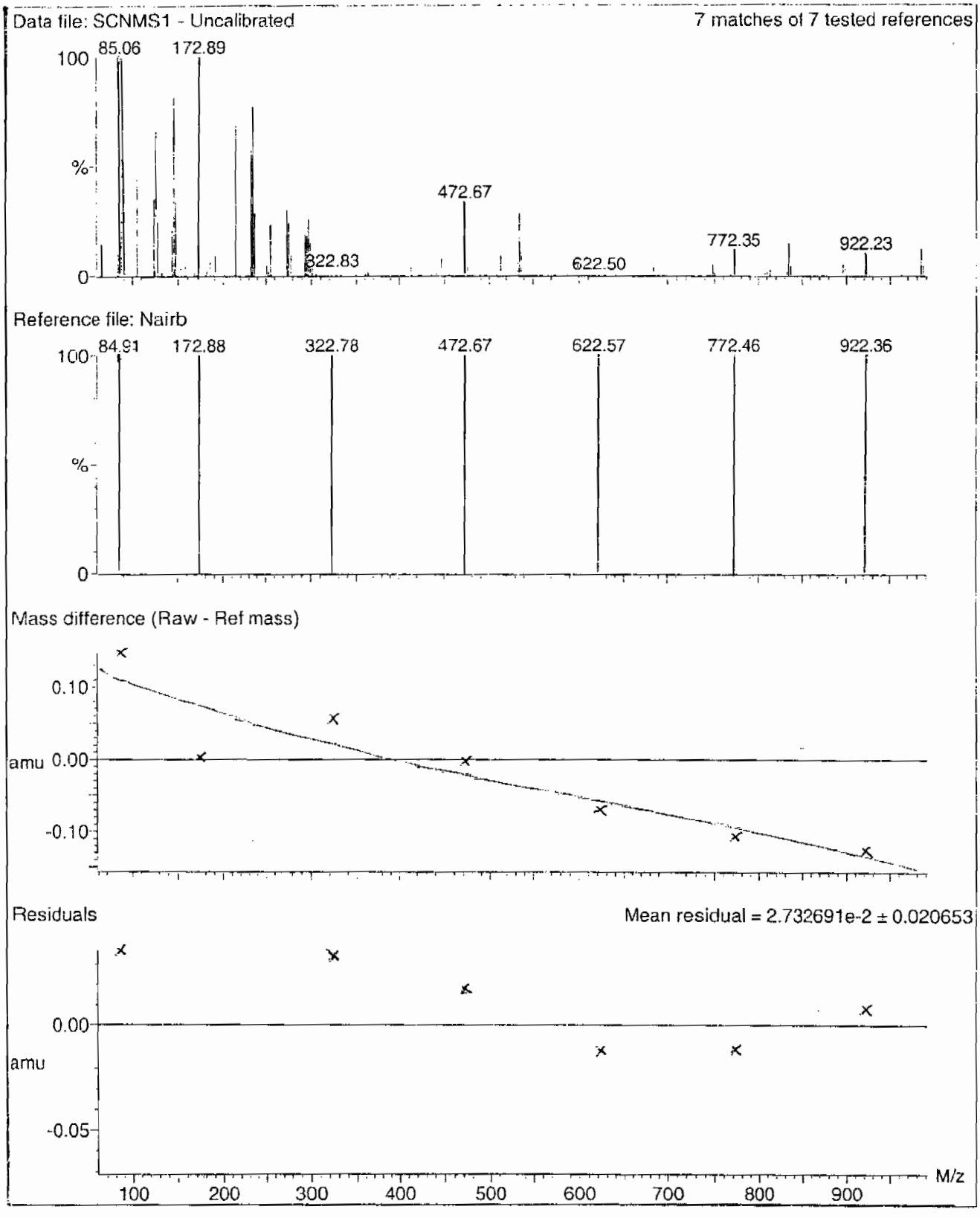

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

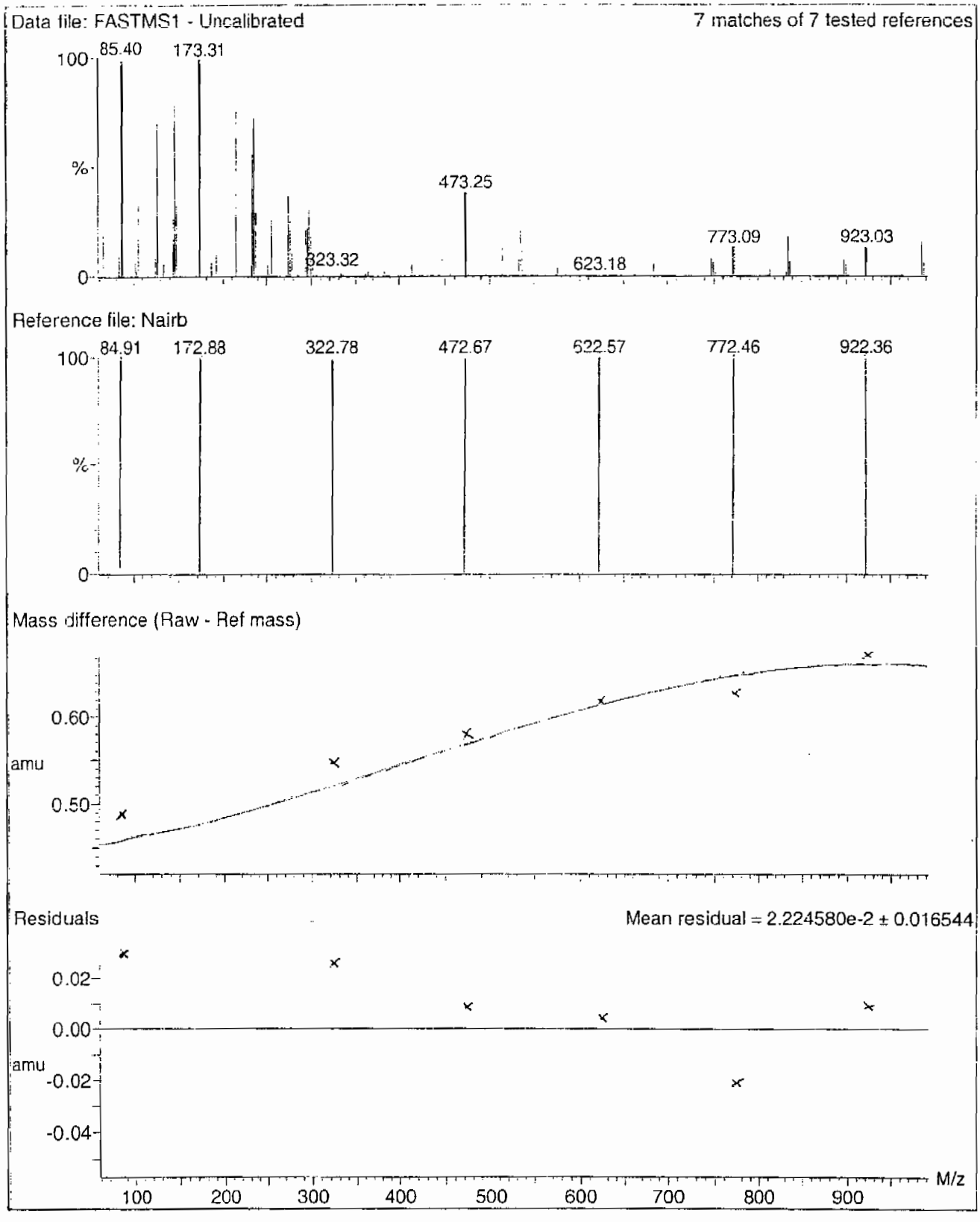

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Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

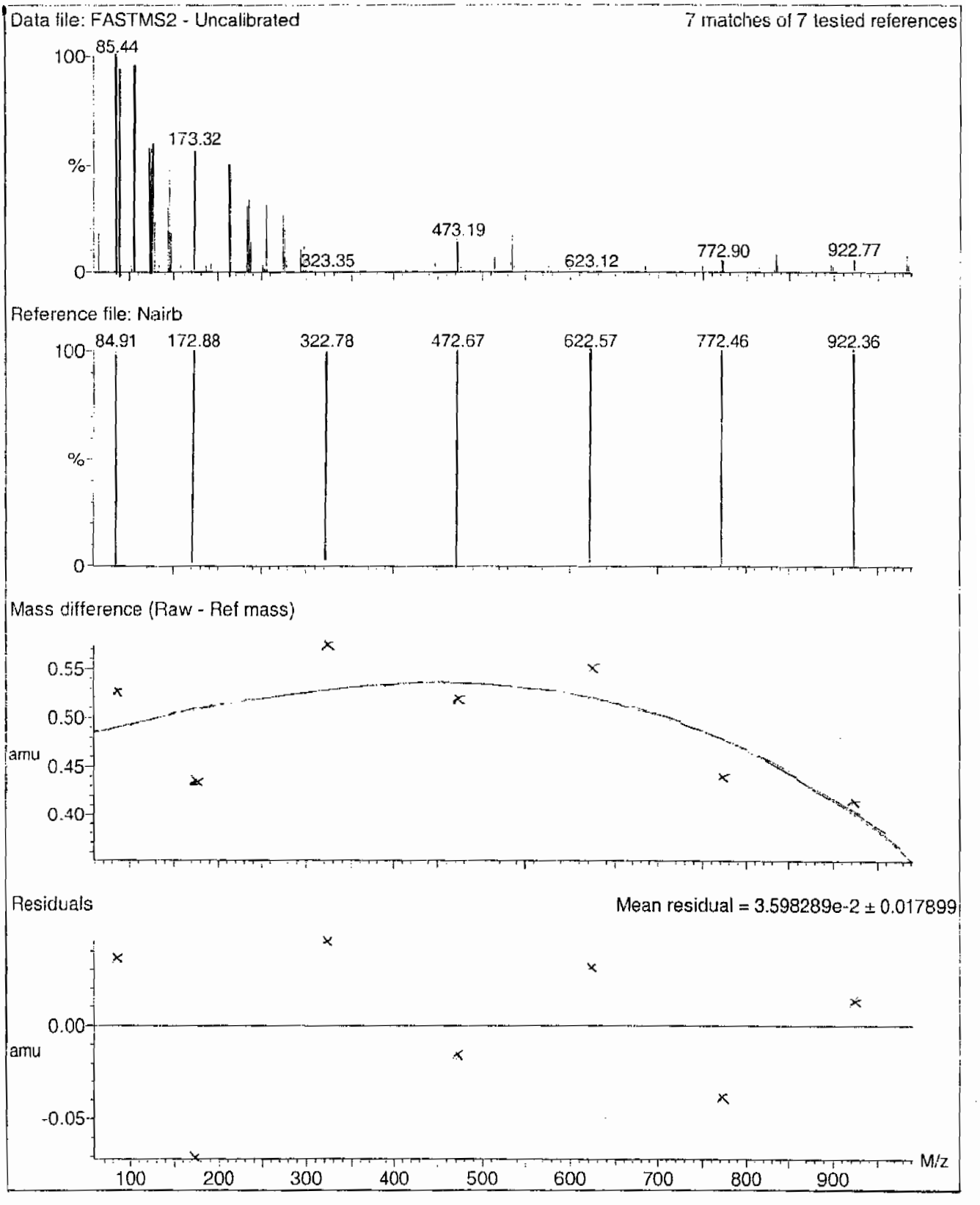

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

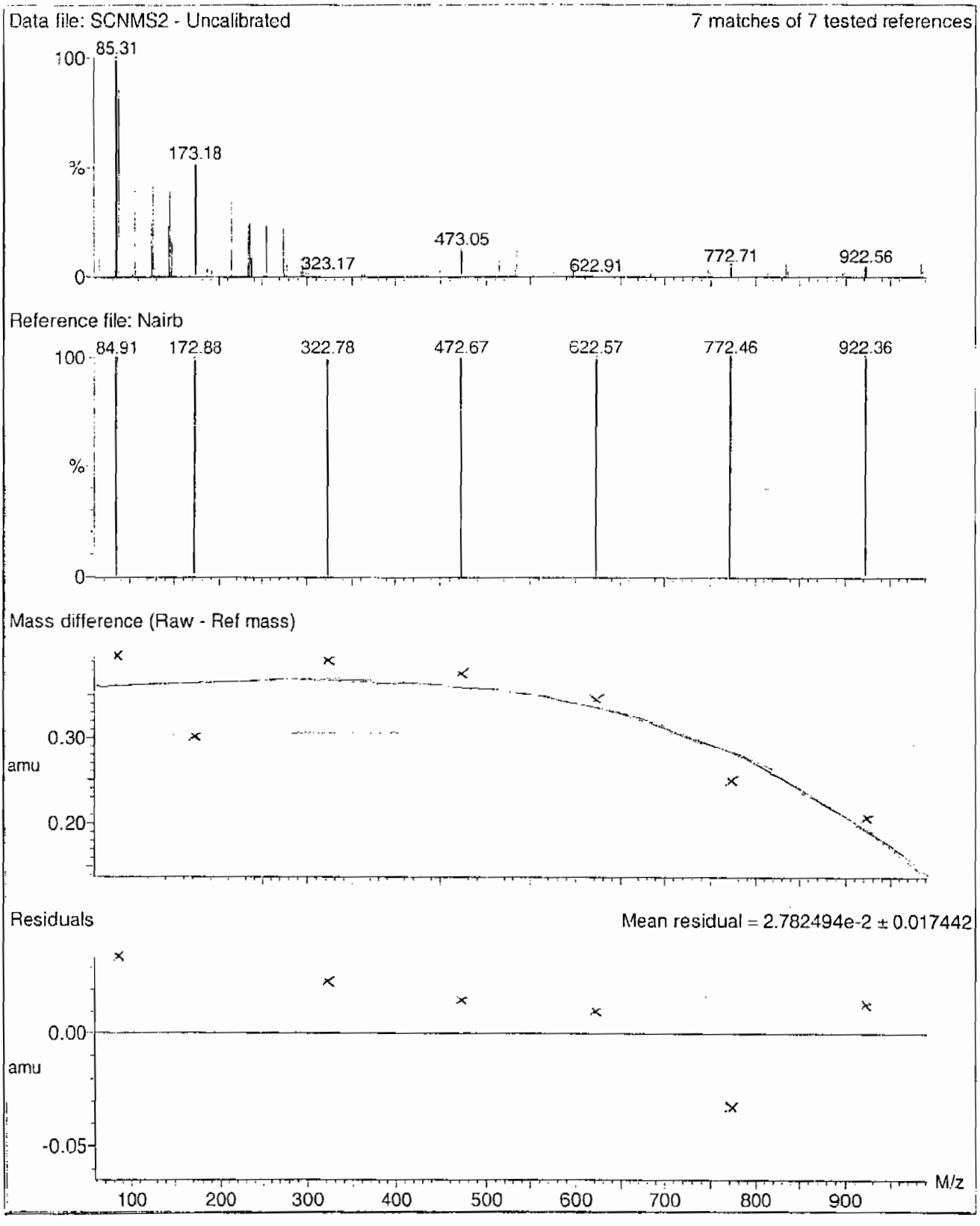

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

7 matches of 7 tested references

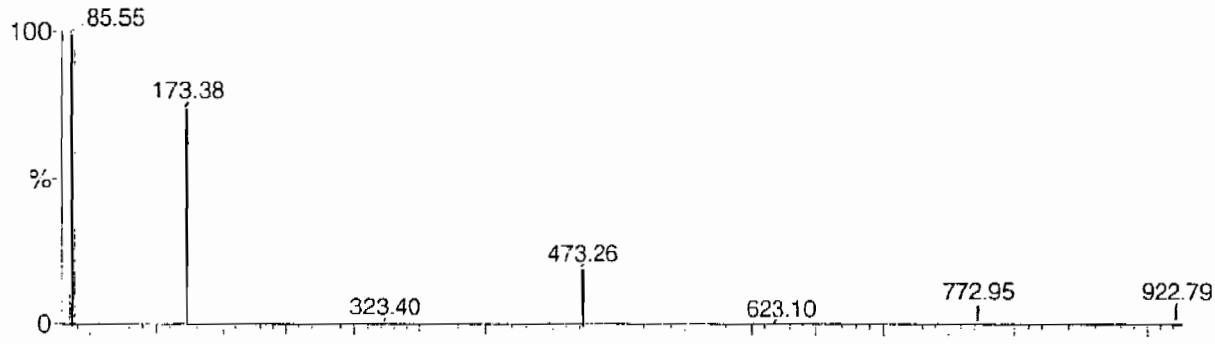

Reference file: Nairb

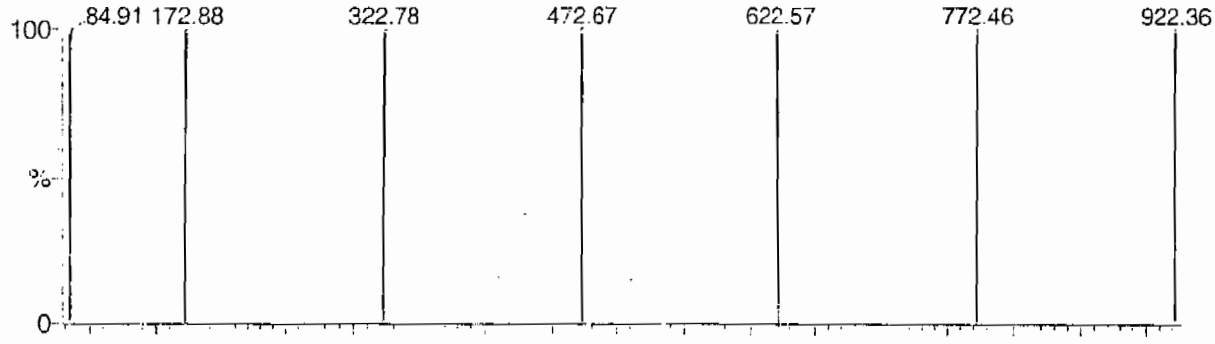

Mass difference (Raw - Ref mass)

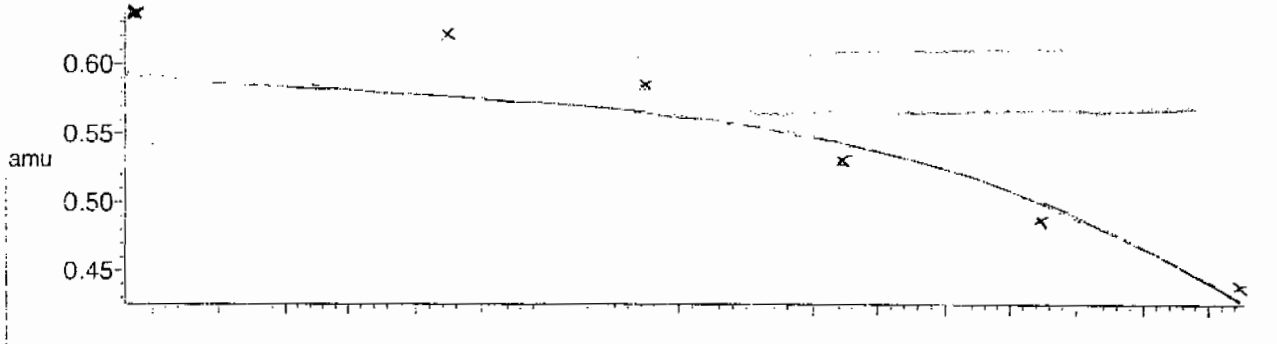

Residuals

Mean residual = 3.295980e-2 ± 0.025603

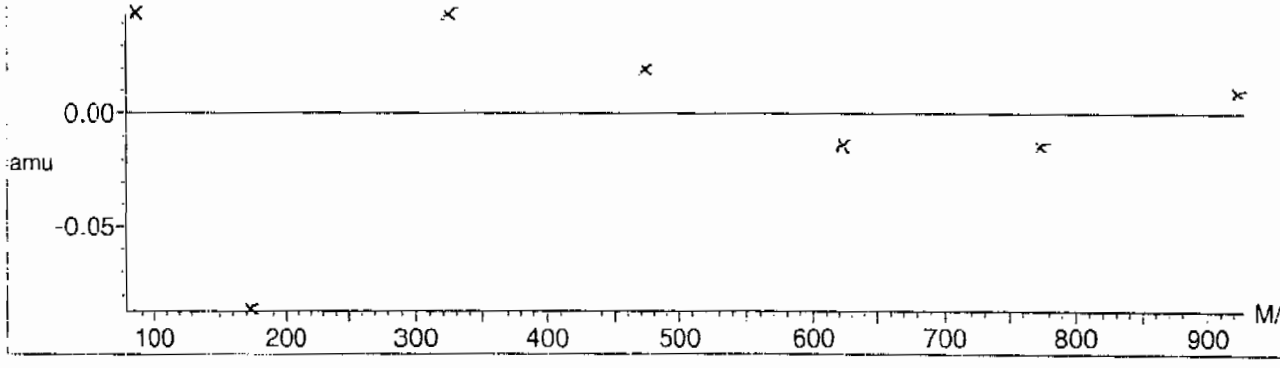

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, February 08, 2010 12:29:43 Eastern Standard Time

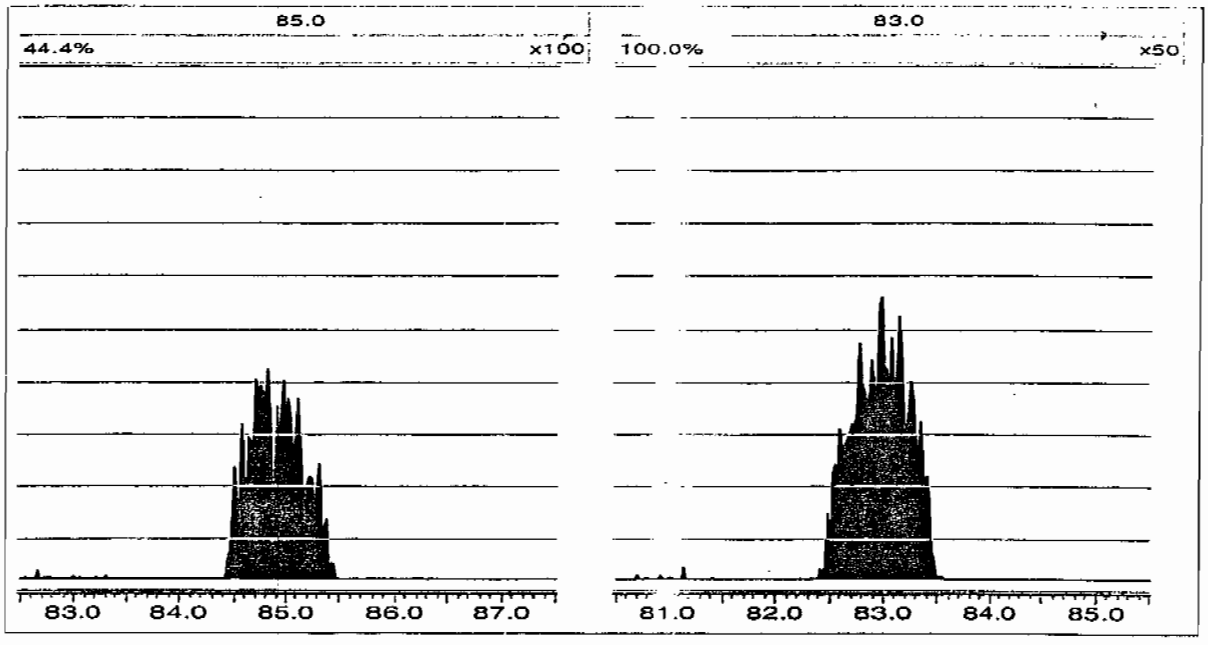

Form 8

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1545–1

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0208006a**	**08–FEB–10**	**24441.6**				
Lower Area Limit			**12220.8**				
Upper Area Limit			**48883.2**				
1202035565	per0208050a	08–FEB–10 19:15	22209.3	1.88	1.89273	1.007	
1202035566	per0208051a	08–FEB–10 19:21	23514.8	1.88	1.89277	1.007	
1202035573	per0208052a	08–FEB–10 19:28	23733.6	1.93	1.94248	1.006	
246056001	per0208070a	08–FEB–10 21:26	23472.1	1.88	1.88027	1	
246056002	per0208071a	08–FEB–10 21:32	23057.8	1.88	1.88027	1	
246056003	per0208072a	08–FEB–10 21:39	23192.6	1.89	1.90522	1.008	
246056004	per0208076a	08–FEB–10 22:05	23081.2	1.91	1.93002	1.01	

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SAMPLE
DATA

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8233

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056001

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:26	per0208070a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:26	per0208070a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:26	per0208070a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 21:26	per0208070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208070a
Date: 08-Feb-2010
Time: 21:26:17
ID: 246056001
Vial: 2:3,F

|LANL|950023|LZQ|11|

CWW 02-09-10

Perchlorate

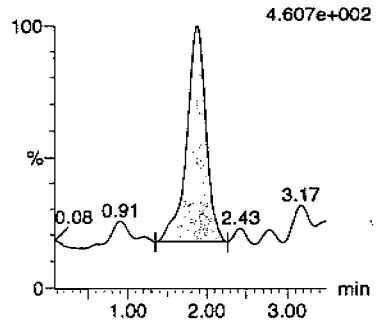

Perchlorate

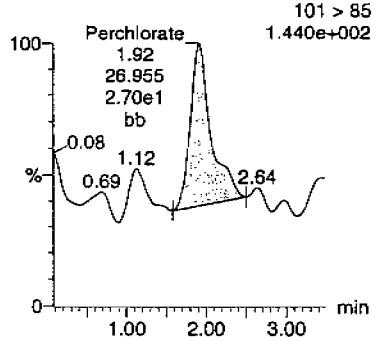

Perchlorate-101

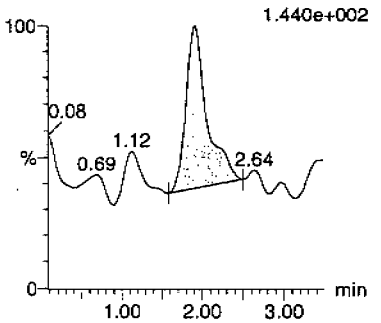

Perchlorate-O(18)

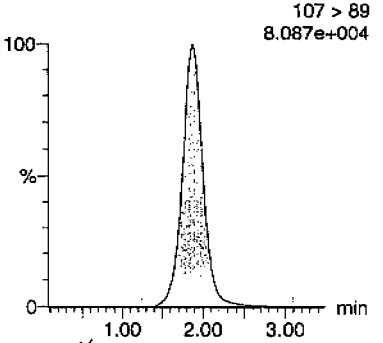

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246056001	Perchlorate	99 > 83	1.88	109.848	109.848	bb			0.0018			27.833	4.08
246056001	Perchlorate-101	101 > 85	1.92	26.955	26.955	bb			0.0014			32.506	
246056001	Perchlorate-O(18)	107 > 89	1.88	23472.148	23472.148	bb			0.4826	96.51	-3.49	2573.6...	

OKAY LA 0500

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8231

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056002

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:32	per0208071a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:32	per0208071a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:32	per0208071a
	Perchlorate-O(18)			0.474	ug/L		1	08-FEB-10 21:32	per0208071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208071a
Date: 08-Feb-2010
Time: 21:32:48
ID: 246056002
Vial: 2:4,A

|LANL|950028|LZQ|11

CWO 02-09-10

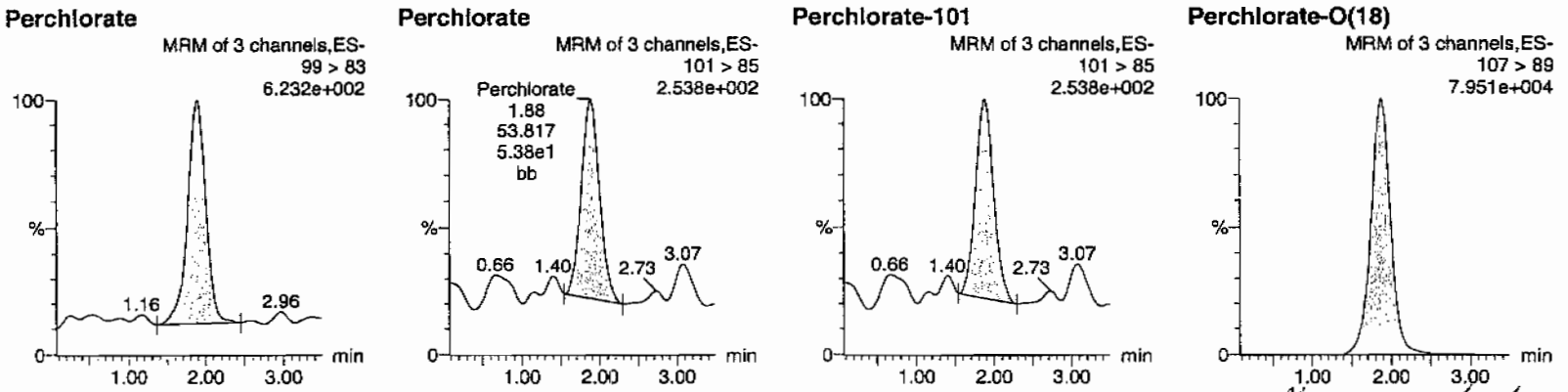

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246056002	Perchlorate	99 > 83	1.88	155.058	155.058	bb			0.0026			32.806	2.88
246056002	Perchlorate-101	101 > 85	1.88	53.817	53.817	bb			0.0029			13.551	
246056002	Perchlorate-O(18)	107 > 89	1.88	23057.768	23057.768	bb			0.4740	94.81	-5.19	2172.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8230

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056003

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:39	per0208072a
	Perchlorate Isotope Ratio						1	08-FEB-10 21:39	per0208072a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 21:39	per0208072a
	Perchlorate-O(18)			0.477	ug/L		1	08-FEB-10 21:39	per0208072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208072a
Date: 08-Feb-2010
Time: 21:39:22
ID: 246056003
Vial: 2:4,B

| LANL | 950028 | L22 | 1 |

CWW
02-09-10

Perchlorate

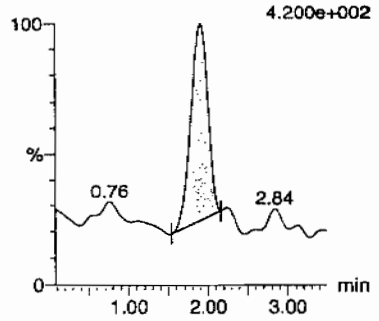

Perchlorate

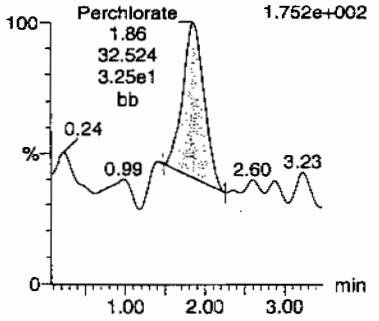

Perchlorate-101

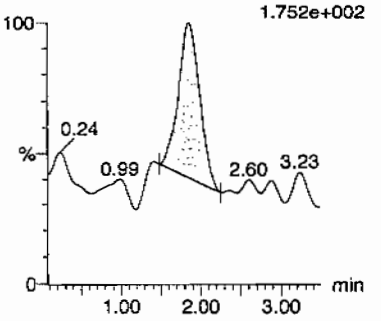

Perchlorate-O(18)

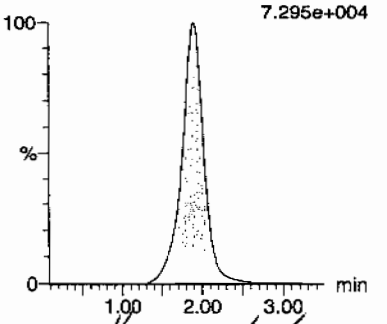

HMM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246056003	Perchlorate	99 > 83	1.91	81.911	81.911	bb			0.0014			26.623	2.52
246056003	Perchlorate-101	101 > 85	1.86	32.524	32.524	bb			0.0017			21.913	
246056003	Perchlorate-O(18)	107 > 89	1.89	23192.615	23192.615	bb			0.4768	95.36	-4.64	8006.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
RE15-10-8232

Date Received: 03-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 246056004

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 22:05	per0208076a
	Perchlorate Isotope Ratio						1	08-FEB-10 22:05	per0208076a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 22:05	per0208076a
	Perchlorate-O(18)			0.475	ug/L		1	08-FEB-10 22:05	per0208076a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208076a
Date: 08-Feb-2010
Time: 22:05:47
ID: 246056004
Vial: 2:4,C

|LANL|950028|LCQ|1|

CWW
02-09-10

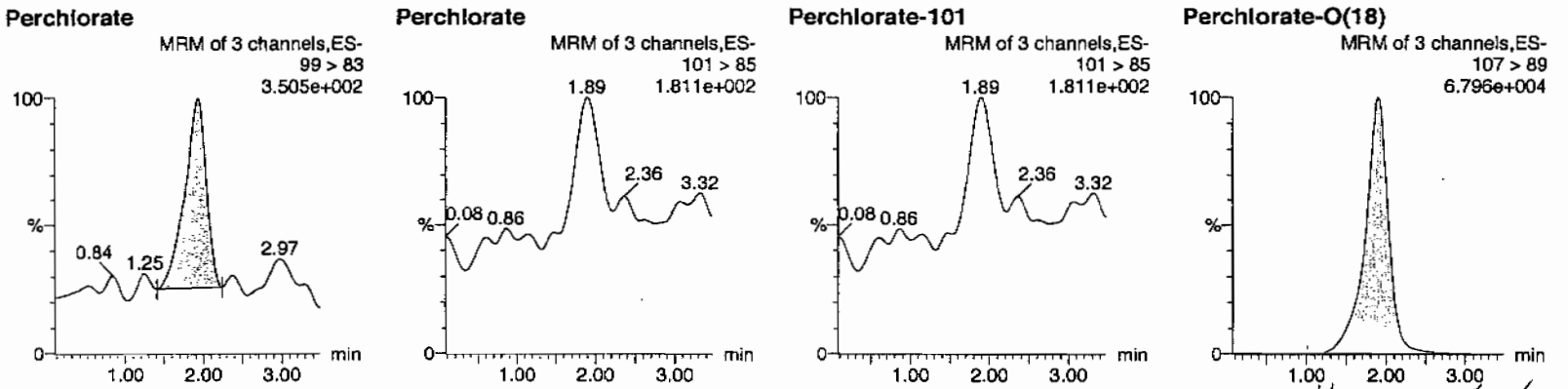

HM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
246056004	Perchlorate	99 > 83	1.93	82.948	82.948	bb			0.0014			21.482	0.00
246056004	Perchlorate-101	101 > 85											
246056004	Perchlorate-O(18)	107 > 89	1.91	23081.150	23081.150	bb			0.4745	94.91	-5.09	3750.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-1545-1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08-FEB-10

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 59530.66

Response Type: External Standard

Curve Type: RF

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Form 2

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1545–1

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08–FEB–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 18771.12

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per020810a.mdb 09 Feb 2010 07:47:59
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per020810a.cdb 09 Feb 2010 07:48:17

Compound name: Perchlorate
Response Factor: 59530.6
RRF SD: 1393.77, % Relative SD: 2.34126
Response type: External Std, Area
Curve type: RF

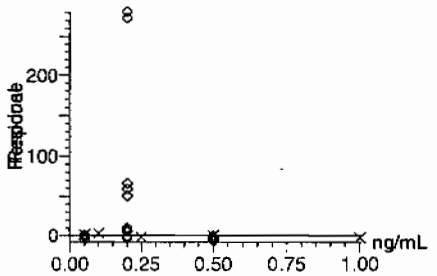

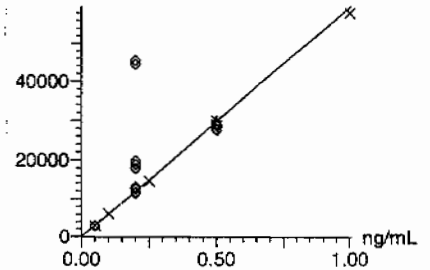

CWW
02-09-10

Compound name: Perchlorate-101
Response Factor: 18771.1
RRF SD: 687.466, % Relative SD: 3.66236
Response type: External Std, Area
Curve type: RF

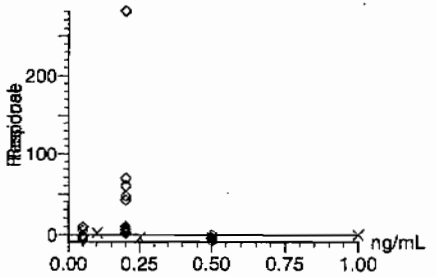

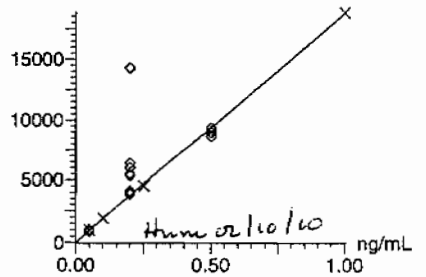

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 48640
RRF SD: 647.782, % Relative SD: 1.33179
Response type: External Std, Area
Curve type: RF

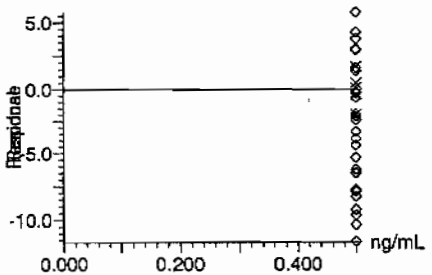

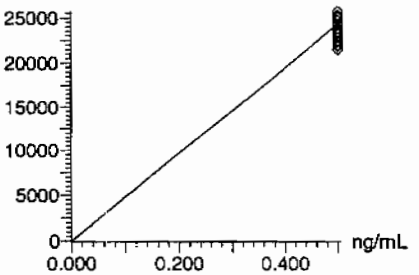

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1545-1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	100.59	08-FEB-10 14:46	per0208009a
Perchlorate Isotope Ratio		3.19		08-FEB-10 14:46	per0208009a
Perchlorate-101	.5	.5	99.88	08-FEB-10 14:46	per0208009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208009a
Date: 08-Feb-2010
Time: 14:46:32
ID: WCL100128-06ICV
Vial: 1:2,A

Pwo
Cwo
02-09-10

Perchlorate

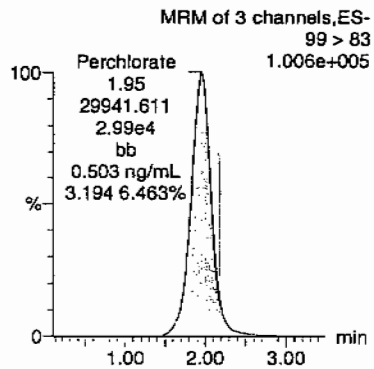

Perchlorate

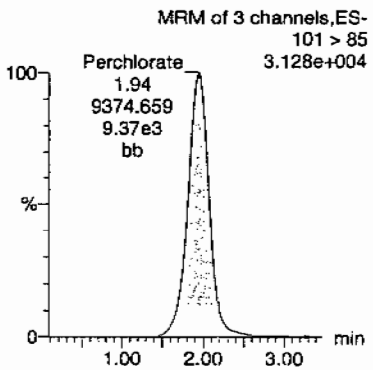

Perchlorate-101

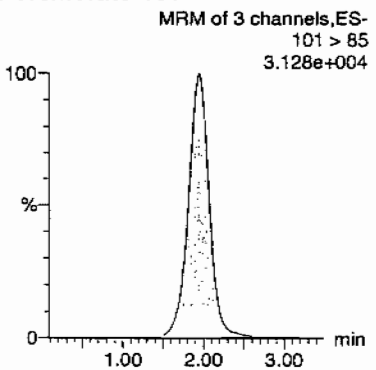

Perchlorate-O(18)

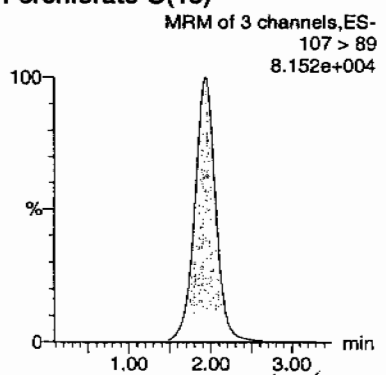

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06ICV	Perchlorate	99 > 83	1.95	29941.611	29941.611	bb			0.5030	100.59	0.59	5446.9...	3.19
WCL100128-06ICV	Perchlorate-101	101 > 85	1.94	9374.659	9374.659	bb			0.4994	99.88	-0.12	264.354	
WCL100128-06ICV	Perchlorate-O(18)	107 > 89	1.93	24277.504	24277.504	bb			0.4991	99.83	-0.17	3258.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1545–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.49	08–FEB–10 16:05	per0208021a
Perchlorate Isotope Ratio		3.13		08–FEB–10 16:05	per0208021a
Perchlorate–101	.5	.5	99.83	08–FEB–10 16:05	per0208021a
Perchlorate	.5	.49	97.32	08–FEB–10 17:30	per0208034a
Perchlorate Isotope Ratio		3.24		08–FEB–10 17:30	per0208034a
Perchlorate–101	.5	.48	95.26	08–FEB–10 17:30	per0208034a
Perchlorate	.5	.48	95.6	08–FEB–10 18:55	per0208047a
Perchlorate Isotope Ratio		3.13		08–FEB–10 18:55	per0208047a
Perchlorate–101	.5	.49	97	08–FEB–10 18:55	per0208047a
Perchlorate	.5	.47	93.45	08–FEB–10 20:20	per0208060a
Perchlorate Isotope Ratio		3.05		08–FEB–10 20:20	per0208060a
Perchlorate–101	.5	.49	97.09	08–FEB–10 20:20	per0208060a
Perchlorate	.5	.48	96.67	08–FEB–10 21:45	per0208073a

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Form 3

Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1545–1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.22		08–FEB–10 21:45	per0208073a
Perchlorate–101	.5	.48	95.12	08–FEB–10 21:45	per0208073a
Perchlorate	.5	.46	92.19	08–FEB–10 22:52	per0208083a
Perchlorate Isotope Ratio		3.17		08–FEB–10 22:52	per0208083a
Perchlorate–101	.5	.46	92.08	08–FEB–10 22:52	per0208083a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208021a
Date: 08-Feb-2010
Time: 16:05:12
ID: WCL100128-06CCV
Vial: 1:2,A

Pwb
aw
02-09-10

Perchlorate

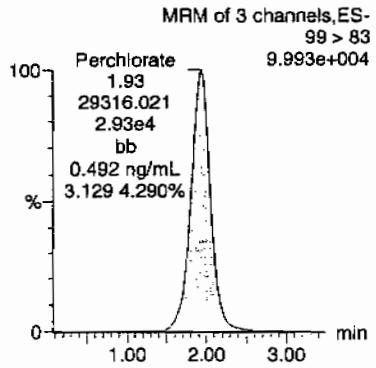

Perchlorate

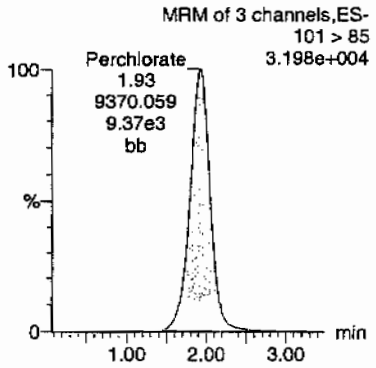

Perchlorate-101

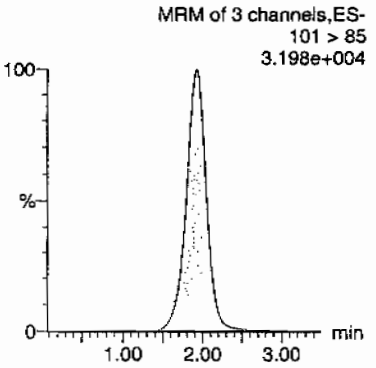

Perchlorate-O(18)

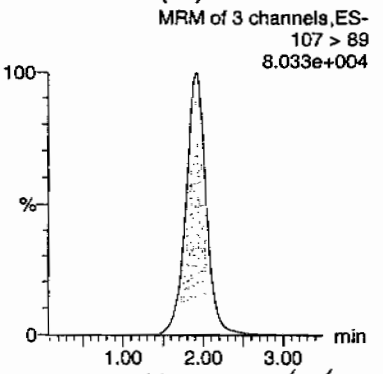

Hung orthotic

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.93	29316.021	29316.021	bb			0.4925	98.49	-1.51	1324.3...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.93	9370.059	9370.059	bb			0.4992	99.83	-0.17	4157.5...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.92	23385.551	23385.551	bb			0.4808	96.16	-3.84	3253.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208034a
Date: 08-Feb-2010
Time: 17:30:17
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
CWW
02-09-10

Perchlorate

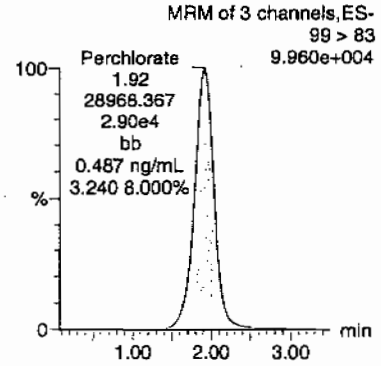

Perchlorate

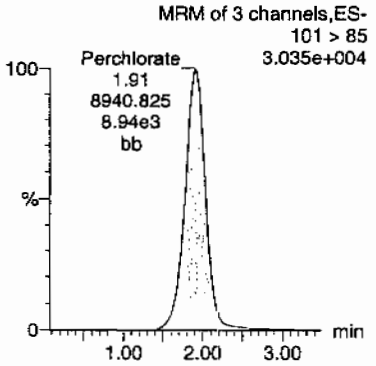

Perchlorate-101

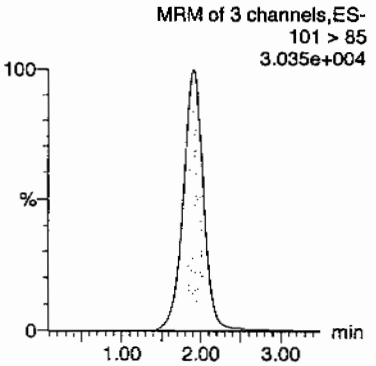

Perchlorate-O(18)

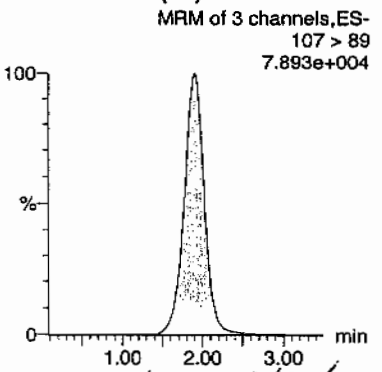

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.92	28968.367	28968.367	bb			0.4866	97.32	-2.68	7606.4...	3.24
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8940.825	8940.825	bb			0.4763	95.26	-4.74	3381.0...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.91	23019.350	23019.350	bb			0.4733	94.65	-5.35	4411.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208047a
Date: 08-Feb-2010
Time: 18:55:25
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
aw
02-09-10

Perchlorate

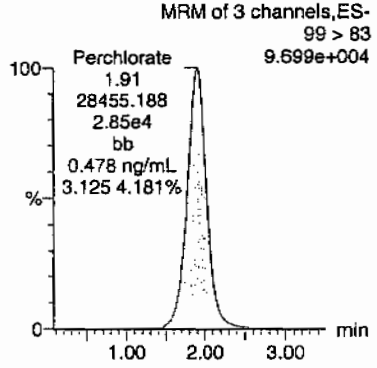

Perchlorate

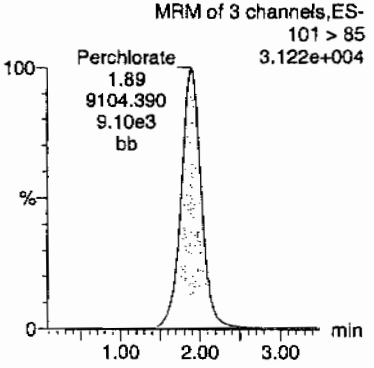

Perchlorate-101

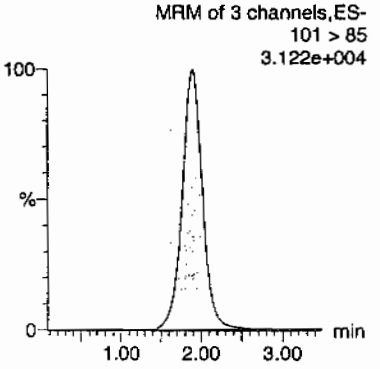

Perchlorate-O(18)

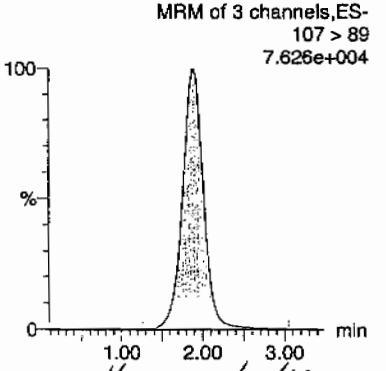

Hannaliella

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28455.188	28455.188	bb			0.4780	95.60	-4.40	6190.9...	3.13
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9104.390	9104.390	bb			0.4850	97.00	-3.00	681.071	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22404.150	22404.150	bb			0.4606	92.12	-7.88	2959.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208060a
Date: 08-Feb-2010
Time: 20:20:32
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
and
02-09-10

Perchlorate

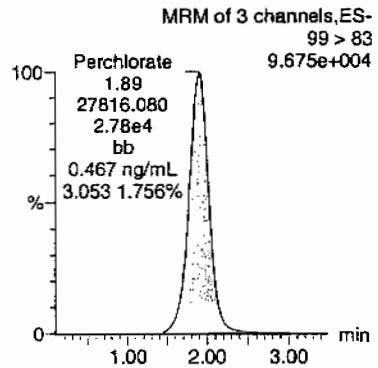

Perchlorate

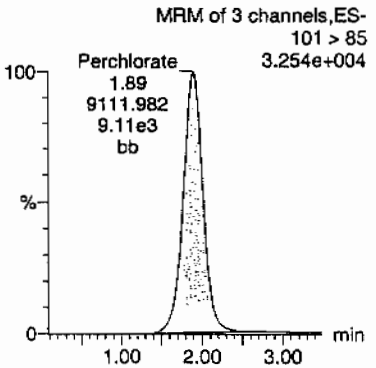

Perchlorate-101

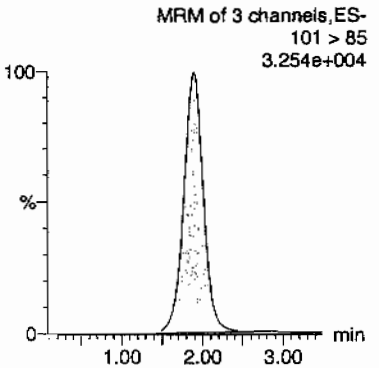

Perchlorate-O(18)

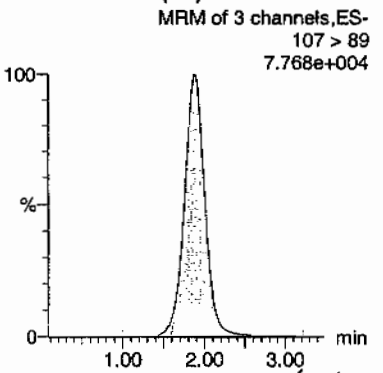

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.89	27816.080	27816.080	bb			0.4673	93.45	-6.55	1799.5...	3.05
WCL100128-06CCV	Perchlorate-101	101 > 85	1.89	9111.982	9111.982	bb			0.4854	97.09	-2.91	1434.4...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22435.383	22435.383	bb			0.4613	92.25	-7.75	1805.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208073a
Date: 08-Feb-2010
Time: 21:45:55
ID: WCL100128-06CCV
Vial: 1:2,A

Pass
GW
02-09-10

Perchlorate

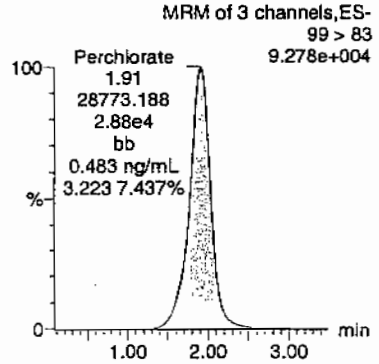

Perchlorate

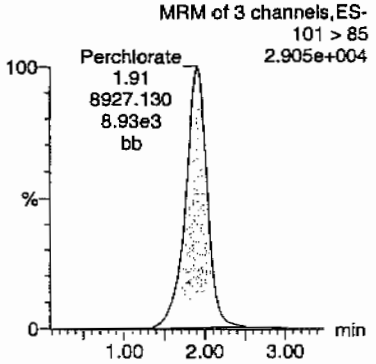

Perchlorate-101

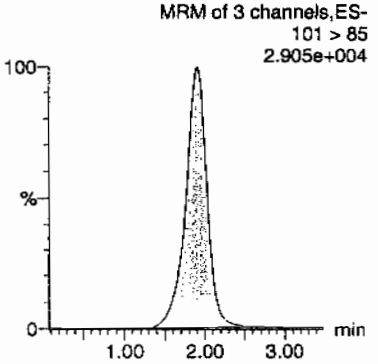

Perchlorate-O(18)

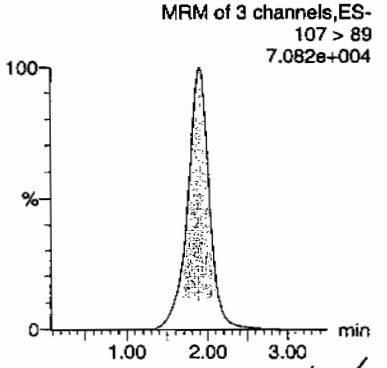

Hm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.91	28773.188	28773.188	bb			0.4833	96.67	-3.33	3174.1...	3.22
WCL100128-06CCV	Perchlorate-101	101 > 85	1.91	8927.130	8927.130	bb			0.4756	95.12	-4.88	5417.8...	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.89	22077.664	22077.664	bb			0.4539	90.78	-9.22	7805.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208083a
Date: 08-Feb-2010
Time: 22:52:11
ID: WCL100128-06CCV
Vial: 1:2,A

Perp
02-09-10

Perchlorate

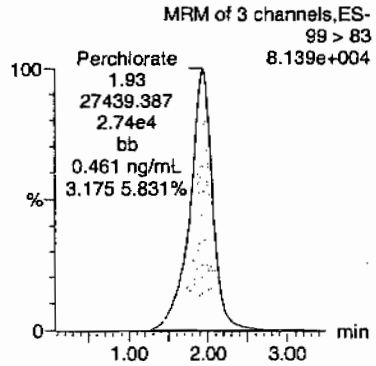

Perchlorate

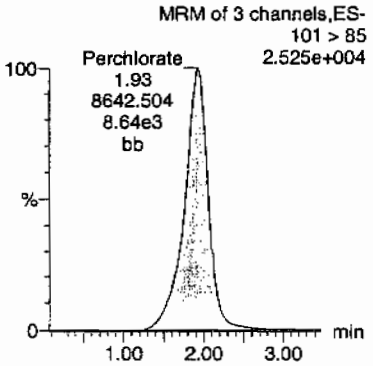

Perchlorate-101

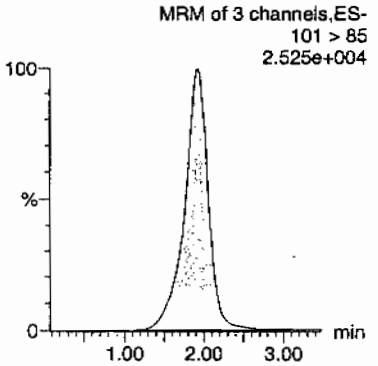

Perchlorate-O(18)

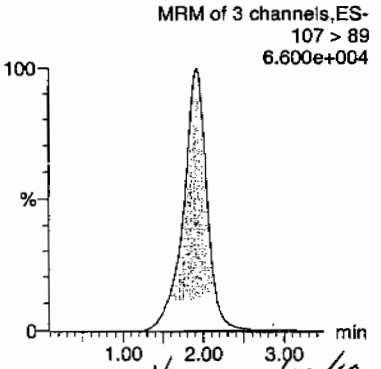

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-06CCV	Perchlorate	99 > 83	1.93	27439.387	27439.387	bb			0.4609	92.19	-7.81	2104.5...	3.17
WCL100128-06CCV	Perchlorate-101	101 > 85	1.93	8642.504	8642.504	bb			0.4604	92.08	-7.92	933.140	
WCL100128-06CCV	Perchlorate-O(18)	107 > 89	1.92	22080.438	22080.438	bb			0.4540	90.79	-9.21	3605.2...	

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1545–1

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	101.73	08–FEB–10 14:59	per0208011a
Perchlorate Isotope Ratio		2.96		08–FEB–10 14:59	per0208011a
Perchlorate–101	.05	.05	109.1	08–FEB–10 14:59	per0208011a
Perchlorate	.05	.05	100.29	08–FEB–10 16:18	per0208023a
Perchlorate Isotope Ratio		3.21		08–FEB–10 16:18	per0208023a
Perchlorate–101	.05	.05	98.94	08–FEB–10 16:18	per0208023a
Perchlorate	.05	.05	101.53	08–FEB–10 17:43	per0208036a
Perchlorate Isotope Ratio		3.05		08–FEB–10 17:43	per0208036a
Perchlorate–101	.05	.05	105.49	08–FEB–10 17:43	per0208036a
Perchlorate	.05	.05	101.45	08–FEB–10 19:08	per0208049a
Perchlorate Isotope Ratio		3.36		08–FEB–10 19:08	per0208049a

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Form 3

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1545-1

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	95.78	08-FEB-10 19:08	per0208049a
Perchlorate	.05	.05	97.2	08-FEB-10 20:33	per0208062a
Perchlorate Isotope Ratio		3.14		08-FEB-10 20:33	per0208062a
Perchlorate-101	.05	.05	98.24	08-FEB-10 20:33	per0208062a
Perchlorate	.05	.05	99.1	08-FEB-10 21:59	per0208075a
Perchlorate Isotope Ratio		3.16		08-FEB-10 21:59	per0208075a
Perchlorate-101	.05	.05	99.59	08-FEB-10 21:59	per0208075a
Perchlorate	.05	.05	93.89	08-FEB-10 23:05	per0208085a
Perchlorate Isotope Ratio		3.2		08-FEB-10 23:05	per0208085a
Perchlorate-101	.05	.05	93.02	08-FEB-10 23:05	per0208085a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208011a
Date: 08-Feb-2010
Time: 14:59:36
ID: WCL100128-07CRI
Vial: 1:2,B

Pwo
Cwo
02-09-10

Perchlorate

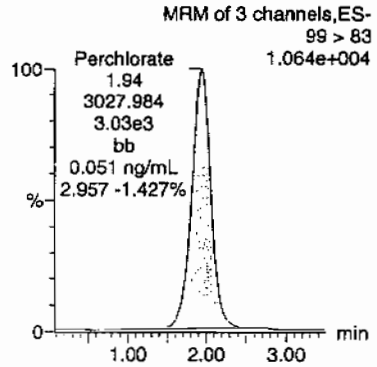

Perchlorate

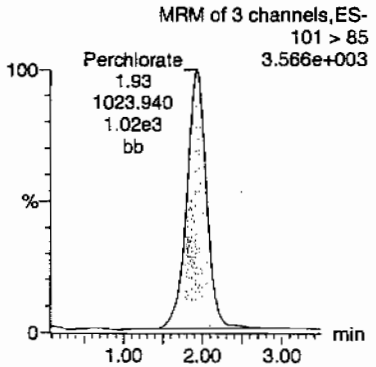

Perchlorate-101

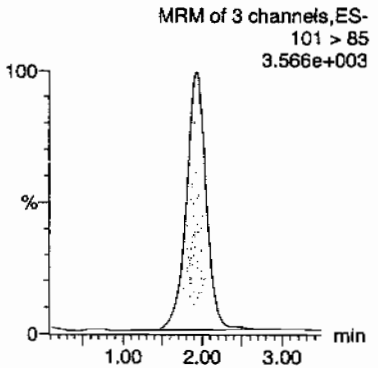

Perchlorate-O(18)

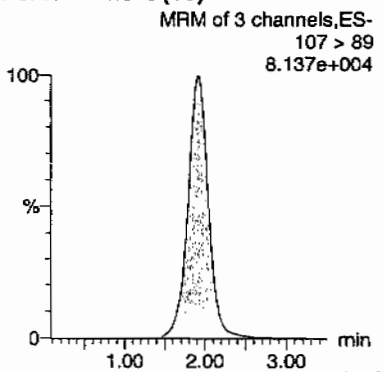

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.94	3027.984	3027.984	bb			0.0509	101.73	1.73	849.198	2.96
WCL100128-07CRI	Perchlorate-101	101 > 85	1.93	1023.940	1023.940	bb			0.0545	109.10	9.10	829.276	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.92	23852.451	23852.451	bb			0.4904	98.08	-1.92	6658.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208023a
Date: 08-Feb-2010
Time: 16:18:17
ID: WCL100128-07CRI
Vial: 1:2,B

Pwm
02-09-10

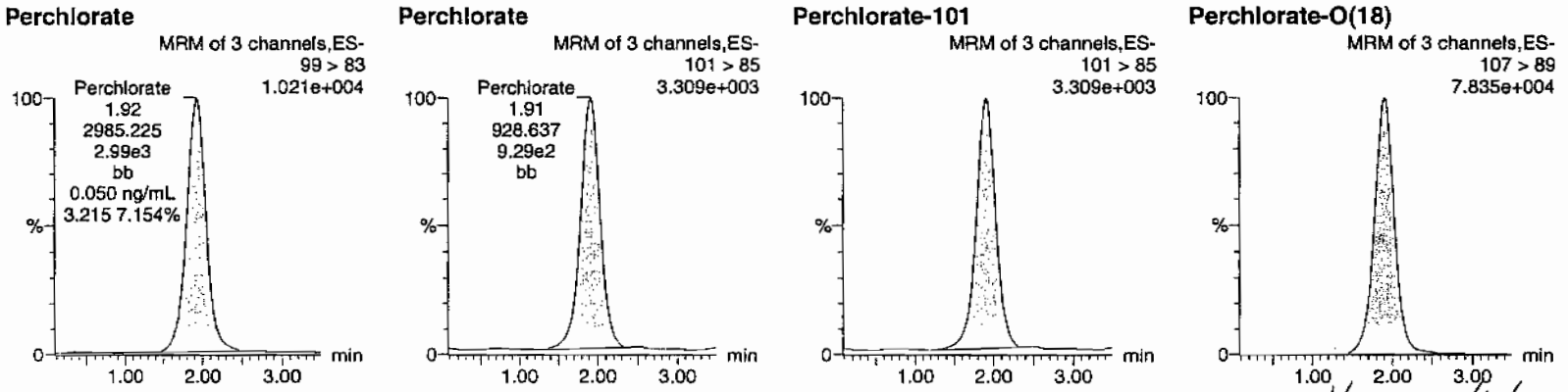

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.92	2985.225	2985.225	bb			0.0501	100.29	0.29	2277.7...	3.21
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	928.637	928.637	bb			0.0495	98.94	-1.06	1285.2...	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.91	22805.957	22805.957	bb			0.4689	93.77	-6.23	2391.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208036a
Date: 08-Feb-2010
Time: 17:43:22
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
02-09-10

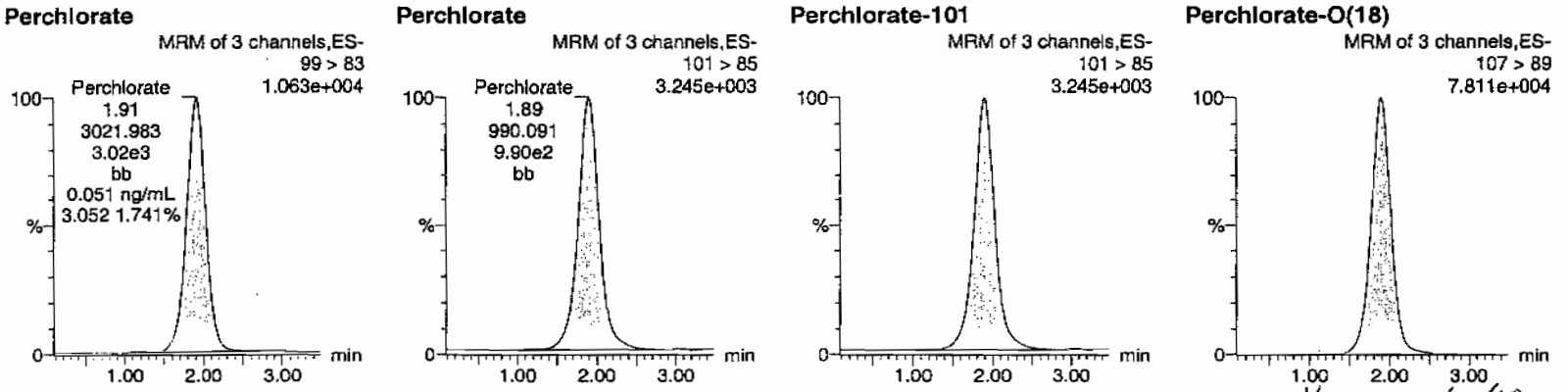

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3021.983	3021.983	bb			0.0508	101.53	1.53	1282.6...	3.05
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	990.091	990.091	bb			0.0527	105.49	5.49	30.390	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22734.426	22734.426	bb			0.4674	93.48	-6.52	4696.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208049a
Date: 08-Feb-2010
Time: 19:08:31
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-09-10

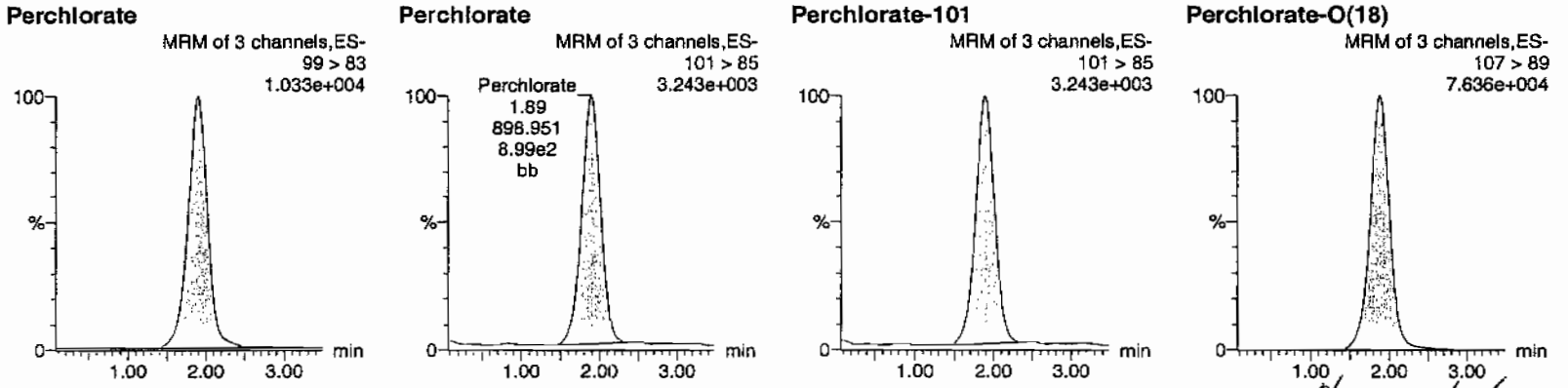

Hum 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	3019.704	3019.704	bb			0.0507	101.45	1.45	1111.1...	3.36
WCL100128-07CRI	Perchlorate-101	101 > 85	1.89	898.951	898.951	bb			0.0479	95.78	-4.22	607.346	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	22316.896	22316.896	bb			0.4588	91.76	-8.24	6290.4...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208062a
Date: 08-Feb-2010
Time: 20:33:51
ID: WCL100128-07CRI
Vial: 1:2,B

Pers
02-09-10

Perchlorate

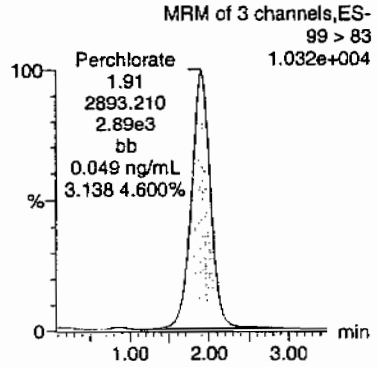

Perchlorate

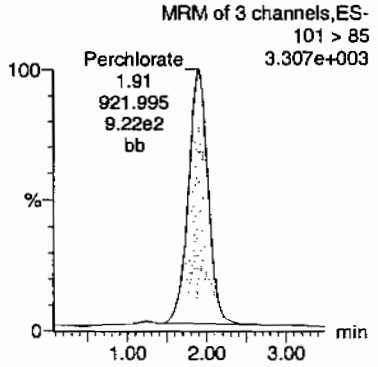

Perchlorate-101

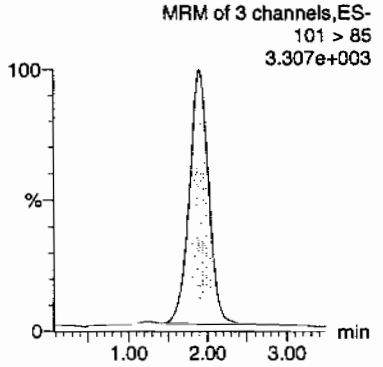

Perchlorate-O(18)

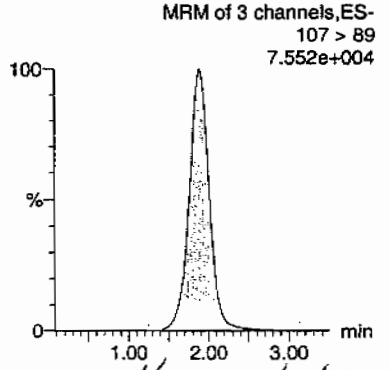

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.91	2893.210	2893.210	bb			0.0486	97.20	-2.80	767.866	3.14
WCL100128-07CRI	Perchlorate-101	101 > 85	1.91	921.995	921.995	bb			0.0491	98.24	-1.76	510.313	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.89	21979.691	21979.691	bb			0.4519	90.38	-9.62	1938.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208075a
Date: 08-Feb-2010
Time: 21:59:15
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
aw
02-24-10

Perchlorate

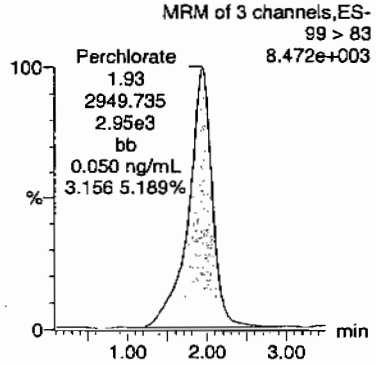

Perchlorate

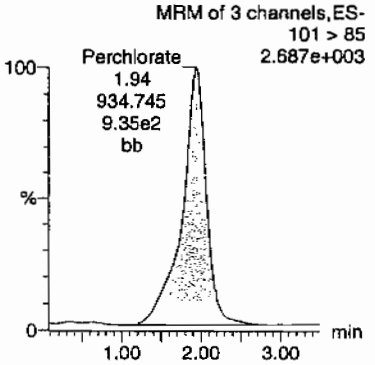

Perchlorate-101

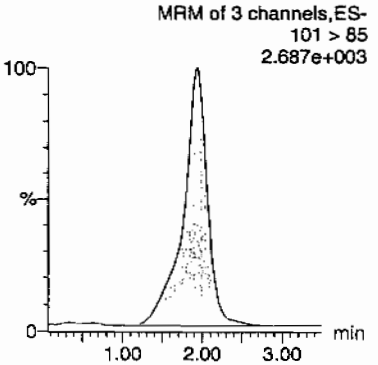

Perchlorate-O(18)

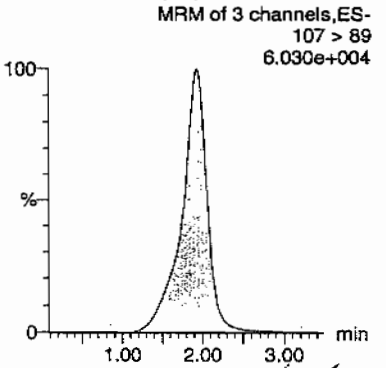

Hmw 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.93	2949.735	2949.735	bb			0.0495	99.10	-0.90	555.102	3.16
WCL100128-07CRI	Perchlorate-101	101 > 85	1.94	934.745	934.745	bb			0.0498	99.59	-0.41	523.923	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.93	21809.545	21809.545	bb			0.4484	89.68	-10.32	1949.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208085a
Date: 08-Feb-2010
Time: 23:05:29
ID: WCL100128-07CRI
Vial: 1:2,B

Pass
CWW
02-09-10

Perchlorate

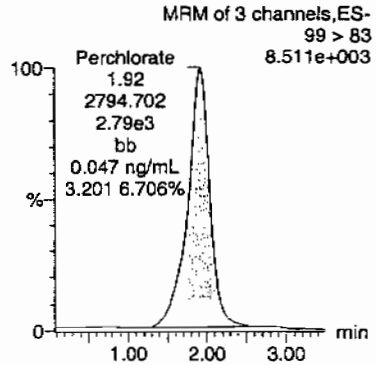

Perchlorate

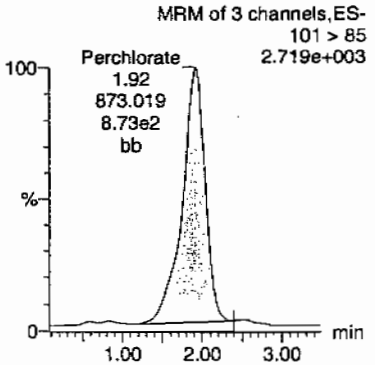

Perchlorate-101

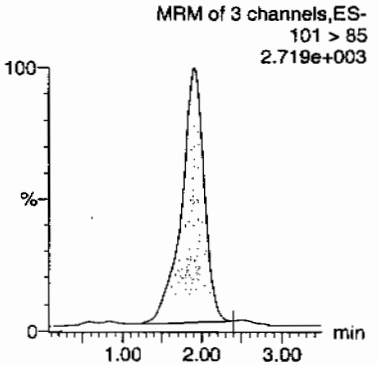

Perchlorate-O(18)

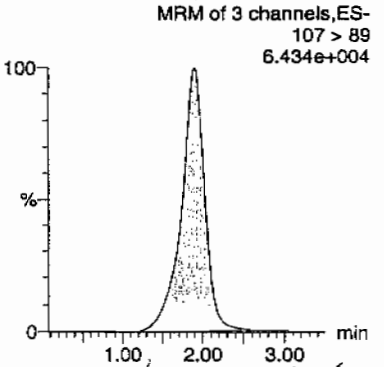

Hume on 110 lie

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100128-07CRI	Perchlorate	99 > 83	1.92	2794.702	2794.702	bb			0.0469	93.89	-6.11	1570.7...	3.20
WCL100128-07CRI	Perchlorate-101	101 > 85	1.92	873.019	873.019	bb			0.0465	93.02	-6.98	221.847	
WCL100128-07CRI	Perchlorate-O(18)	107 > 89	1.91	21503.479	21503.479	bb			0.4421	88.42	-11.58	9450.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 1202035565

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate Isotope Ratio						1	08-FEB-10 19:15	per0208050a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-FEB-10 19:15	per0208050a
	Perchlorate-O(18)			0.457	ug/L		1	08-FEB-10 19:15	per0208050a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208050a
Date: 08-Feb-2010
Time: 19:15:05
ID: 1202035565
Vial: 2:1,A

LANL | 950028 | LZQ | MB | 1 |

CW 02-09-10

Perchlorate

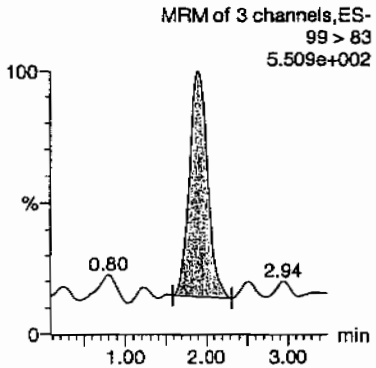

Perchlorate

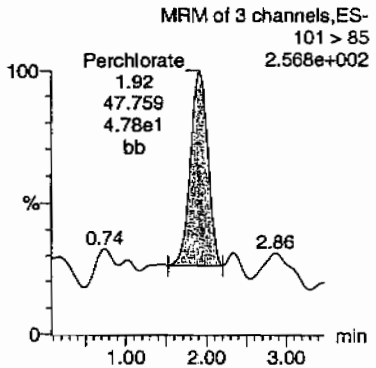

Perchlorate-101

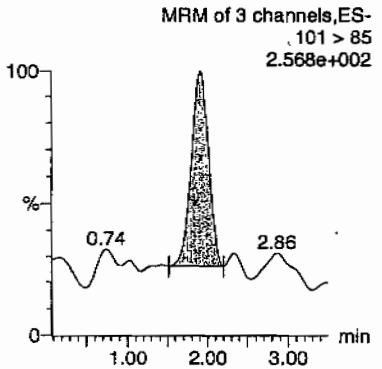

Perchlorate-O(18)

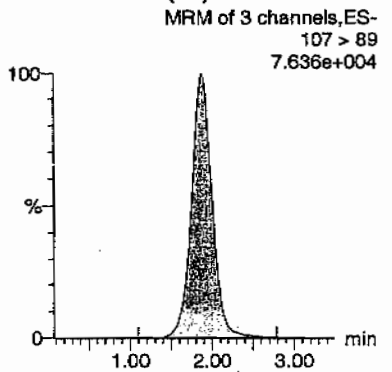

HNM 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035565	Perchlorate	99 > 83	1.89	121.925	121.925	bb			0.0020			39.295	2.55
1202035565	Perchlorate-101	101 > 85	1.92	47.759	47.759	bb			0.0025			14.790	
1202035565	Perchlorate-O(18)	107 > 89	1.88	22209.346	22209.346	bb			0.4566	91.32	-8.68	5376.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WASTE WATER

Extraction Batch ID: 950027

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 07-FEB-10

GEL Job No (SDG): 10-1545-1

GEL Sample ID: 1202035566

Date Filtered: 07-FEB-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	08-FEB-10 19:21	per0208051a
	Perchlorate Isotope Ratio			3.01			1	08-FEB-10 19:21	per0208051a
14797-73-0	Perchlorate-101	.05	.2	0.207	ug/L		1	08-FEB-10 19:21	per0208051a
	Perchlorate-O(18)			0.483	ug/L		1	08-FEB-10 19:21	per0208051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208051a
Date: 08-Feb-2010
Time: 19:21:48
ID: 1202035566
Vial: 2:1,B

1LANL|950028|LCQ|LC3|11

WW 02-09-10

Perchlorate

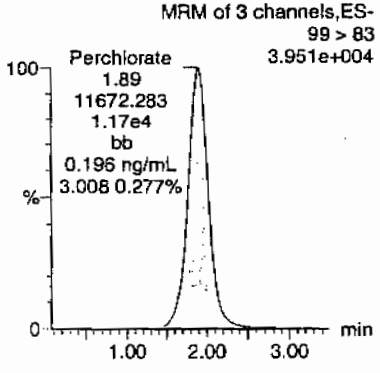

Perchlorate

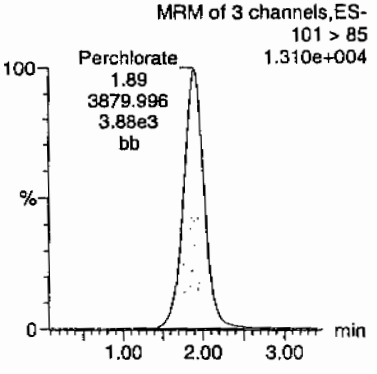

Perchlorate-101

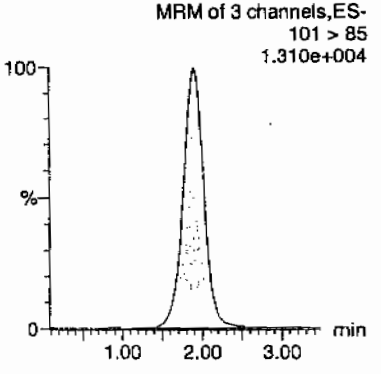

Perchlorate-O(18)

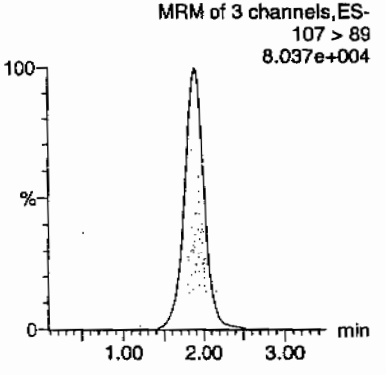

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035566	Perchlorate	99 > 83	1.89	11672.283	11672.283	bb			0.1961	98.04	-1.96	1706.5...	3.01
1202035566	Perchlorate-101	101 > 85	1.89	3879.996	3879.996	bb			0.2067	103.35	3.35	835.288	
1202035566	Perchlorate-O(18)	107 > 89	1.88	23514.770	23514.770	bb			0.4834	96.69	-3.31	6317.6...	

$$\frac{11672.283}{59530.6} = 0.1961$$

HMW 02/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 950027 **Verified by:** _____

Analyst: Charles Wilson

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202035565 MB	07-FEB-2010 14:31:00	10	10	1
1202035566 LCS	07-FEB-2010 14:31:00	10	10	1
245911001	07-FEB-2010 14:31:00	10	10	1
1202035571 MS (245911001)	07-FEB-2010 14:31:00	10	10	1
1202035572 MSD (245911001)	07-FEB-2010 14:31:00	10	10	1
245922001	07-FEB-2010 14:31:00	10	10	1
245934001	07-FEB-2010 14:31:00	10	10	1
245934004	07-FEB-2010 14:31:00	10	10	1
245939001	07-FEB-2010 14:31:00	10	10	1
245939002	07-FEB-2010 14:31:00	10	10	1
245953001	07-FEB-2010 14:31:00	10	10	1
245965001	07-FEB-2010 14:31:00	10	10	1
245975001	07-FEB-2010 14:31:00	10	10	1
245981001	07-FEB-2010 14:31:00	10	10	1
246000001	07-FEB-2010 14:31:00	10	10	1
246007001	07-FEB-2010 14:31:00	10	10	1
246056001	07-FEB-2010 14:31:00	10	10	1
246056002	07-FEB-2010 14:31:00	10	10	1
246056003	07-FEB-2010 14:31:00	10	10	1
246056004	07-FEB-2010 14:31:00	10	10	1
246375001	07-FEB-2010 14:31:00	10	10	1
1202035567 MS (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035568 MSD (246375001)	07-FEB-2010 14:31:00	10	10	1
1202035573 ICS	07-FEB-2010 14:31:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202035573	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
LCS	1202035566	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035567	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MS	1202035571	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035568	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
MSD	1202035572	10 ug/L ICV/CCV Second Source	UCL100126-02.1	.2	mL
RGNT	All	O2SI HPLC Grade Water	1246195	10	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL

Comments:

Desalting cartridges used: 100105-1-H & 091118-1-Ba

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 02/08/10
Extr. Injection Volume: 20uL
Sequence Number: per020810a
Initial Calibration Date: 02/08/10

Method: EPA 6850-Modified
Int. Std.: UCL100122-01
Mobile Phase Lot#: 1254342, 1261217
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: Hnm
Date: 02/10/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100128-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0208001a	IPB001	CWW	2/8/2010 13:54			1		USE	B
per0208002a	IPB001	CWW	2/8/2010 14:00			1		USE	B
per0208003a	WCLICAL-01	CWW	2/8/2010 14:07			1		USE	I
per0208004a	WCLICAL-02	CWW	2/8/2010 14:13			1		USE	I
per0208005a	WCLICAL-03	CWW	2/8/2010 14:20			1		USE	I
per0208006a	WCLICAL-04	CWW	2/8/2010 14:26			1		USE	I
per0208007a	WCLICAL-05	CWW	2/8/2010 14:33			1		USE	I
per0208008a	IPB002	CWW	2/8/2010 14:40			1		USE	B
per0208009a	WCLICV	CWW	2/8/2010 14:46			1		USE	C
per0208010a	IPB003	CWW	2/8/2010 14:53			1		USE	B
per0208011a	WCLCRI	CWW	2/8/2010 14:59			1		USE	C
per0208012a	1202035621	CWW	2/8/2010 15:06	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208013a	1202035622	CWW	2/8/2010 15:12	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208014a	1202035625	CWW	2/8/2010 15:19	950048	VARIOUS	1	LANL	DUSE-RE	S
per0208015a	246431001	CWW	2/8/2010 15:25	950048	10-1650	1	LANL	DUSE-RE	S
per0208016a	1202035623	CWW	2/8/2010 15:32	950048	10-1650	1	LANL	DUSE-RE	S
per0208017a	1202035624	CWW	2/8/2010 15:39	950048	10-1650	1	LANL	DUSE-RE	S
per0208018a	246431002	CWW	2/8/2010 15:45	950048	10-1650	1	LANL	DUSE-RE	S
per0208019a	246431003	CWW	2/8/2010 15:52	950048	10-1650	1	LANL	DUSE-RE	S
per0208020a	246431004	CWW	2/8/2010 15:58	950048	10-1650	1	LANL	DUSE-RE	S
per0208021a	WCLCCV	CWW	2/8/2010 16:05			1		USE	C
per0208022a	IPB004	CWW	2/8/2010 16:11			1		USE	B
per0208023a	WCLCRI	CWW	2/8/2010 16:18			1		USE	C
per0208024a	246472001	CWW	2/8/2010 16:24	950048	10-1640	1	LANL	DUSE-RE	S
per0208025a	246472002	CWW	2/8/2010 16:31	950048	10-1640	1	LANL	DUSE-RE	S
per0208026a	IPB005	CWW	2/8/2010 16:37			1		USE	B
per0208027a	1202029082	CWW	2/8/2010 16:44	947249	VARIOUS	1	LANL	USE	S
per0208028a	1202029083	CWW	2/8/2010 16:51	947249	VARIOUS	1	LANL	USE	S
per0208029a	1202029088	CWW	2/8/2010 16:57	947249	VARIOUS	1	LANL	USE	S

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per0208030a	245605003	CWW	2/8/2010 17:04	947249	10-1413	200	LANL	USE	S
per0208031a	245608002	CWW	2/8/2010 17:10	947249	10-1415	1	LANL	USE	S
per0208032a	245673001	CWW	2/8/2010 17:17	947249	10-1442	100	LANL	USE	S
per0208033a	245673003	CWW	2/8/2010 17:23	947249	10-1442	200	LANL	USE	S
per0208034a	WCLCCV	CWW	2/8/2010 17:30			1		USE	C
per0208035a	IPB006	CWW	2/8/2010 17:36			1		USE	B
per0208036a	WCLCRI	CWW	2/8/2010 17:43			1		USE	C
per0208037a	245673006	CWW	2/8/2010 17:49	947249	10-1442	200	LANL	USE	S
per0208038a	245676001	CWW	2/8/2010 17:56	947249	10-1446	1	LANL	USE	S
per0208039a	1202029086	CWW	2/8/2010 18:03	947249	10-1446	1	LANL	USE	S
per0208040a	1202029087	CWW	2/8/2010 18:09	947249	10-1446	1	LANL	USE	S
per0208041a	245791001	CWW	2/8/2010 18:16	947249	10-1467	1	LANL	USE	S
per0208042a	1202029084	CWW	2/8/2010 18:22	947249	10-1467	1	LANL	USE	S
per0208043a	1202029085	CWW	2/8/2010 18:29	947249	10-1467	1	LANL	USE	S
per0208044a	245791003	CWW	2/8/2010 18:35	947249	10-1467	1	LANL	USE	S
per0208045a	245791006	CWW	2/8/2010 18:42	947249	10-1467	1	LANL	USE	S
per0208046a	245791007	CWW	2/8/2010 18:48	947249	10-1467	1	LANL	USE	S
per0208047a	WCLCCV	CWW	2/8/2010 18:55			1		USE	C
per0208048a	IPB007	CWW	2/8/2010 19:01			1		USE	B
per0208049a	WCLCRI	CWW	2/8/2010 19:08			1		USE	C
per0208050a	1202035565	CWW	2/8/2010 19:15	950028	VARIOUS	1	LANL	USE	S
per0208051a	1202035566	CWW	2/8/2010 19:21	950028	VARIOUS	1	LANL	USE	S
per0208052a	1202035573	CWW	2/8/2010 19:28	950028	VARIOUS	1	LANL	USE	S
per0208053a	245911001	CWW	2/8/2010 19:34	950028	10-1487-1	1	LANL	USE	S
per0208054a	1202035571	CWW	2/8/2010 19:41	950028	10-1487-1	1	LANL	USE	S
per0208055a	1202035572	CWW	2/8/2010 19:47	950028	10-1487-1	1	LANL	USE	S
per0208056a	245922001	CWW	2/8/2010 19:54	950028	10-1493-1	1	LANL	USE	S
per0208057a	245934001	CWW	2/8/2010 20:00	950028	10-1502	1	LANL	DUSE-DL	S
per0208058a	245934004	CWW	2/8/2010 20:07	950028	10-1502	1	LANL	DUSE-RA	S
per0208059a	245939001	CWW	2/8/2010 20:14	950028	10-1506-1	1	LANL	USE	S
per0208060a	WCLCCV	CWW	2/8/2010 20:20			1		USE	C
per0208061a	IPB008	CWW	2/8/2010 20:27			1		USE	B
per0208062a	WCLCRI	CWW	2/8/2010 20:33			1		USE	C
per0208063a	245939002	CWW	2/8/2010 20:40	950028	10-1506-1	1	LANL	USE	S
per0208064a	245953001	CWW	2/8/2010 20:47	950028	10-1508-1	1	LANL	USE	S
per0208065a	245965001	CWW	2/8/2010 20:53	950028	10-1511-1	1	LANL	USE	S
per0208066a	245975001	CWW	2/8/2010 21:00	950028	10-1512-1	1	LANL	USE	S

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per0208067a	245981001	CWW	2/8/2010 21:06	950028	10-1514-1	1	LANL	USE	S
per0208068a	246000001	CWW	2/8/2010 21:13	950028	10-1517-1	1	LANL	USE	S
per0208069a	246007001	CWW	2/8/2010 21:19	950028	10-1520-1	1	LANL	USE	S
per0208070a	246056001	CWW	2/8/2010 21:26	950028	10-1545-1	1	LANL	USE	S
per0208071a	246056002	CWW	2/8/2010 21:32	950028	10-1545-1	1	LANL	USE	S
per0208072a	246056003	CWW	2/8/2010 21:39	950028	10-1545-1	1	LANL	USE	S
per0208073a	WCLCCV	CWW	2/8/2010 21:45			1		USE	C
per0208074a	IPB009	CWW	2/8/2010 21:52			1		USE	B
per0208075a	WCLCRI	CWW	2/8/2010 21:59			1		USE	C
per0208076a	246056004	CWW	2/8/2010 22:05	950028	10-1545-1	1	LANL	USE	S
per0208077a	246375001	CWW	2/8/2010 22:12	950028	10-1609	1	LANL	USE	S
per0208078a	1202035567	CWW	2/8/2010 22:19	950028	10-1609	1	LANL	USE	S
per0208079a	1202035568	CWW	2/8/2010 22:25	950028	10-1609	1	LANL	USE	S
per0208080a	IPB010	CWW	2/8/2010 22:32			1		USE	B
per0208081a	1262643 Supp	CWW	2/8/2010 22:38	Screen	Inhouse	1	GEL	DUSE	S
per0208082a	1202035625	CWW	2/8/2010 22:45	950048	VARIOUS	1	LANL	DUSE	S
per0208083a	WCLCCV	CWW	2/8/2010 22:52			1		USE	C
per0208084a	IPB011	CWW	2/8/2010 22:58			1		USE	B
per0208085a	WCLCRI	CWW	2/8/2010 23:05			1		USE	C

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208054a
Date: 08-Feb-2010
Time: 19:41:23
ID: 1202035571 |LANL|950028|LCQ|MS|1|
Vial: 2:1,E

WW 02-04-10

Perchlorate

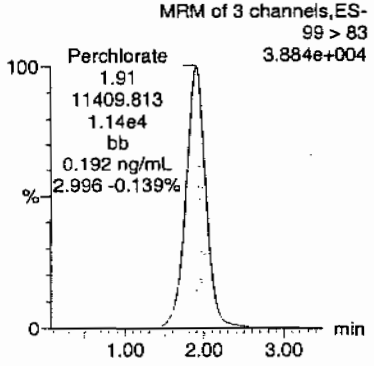

Perchlorate

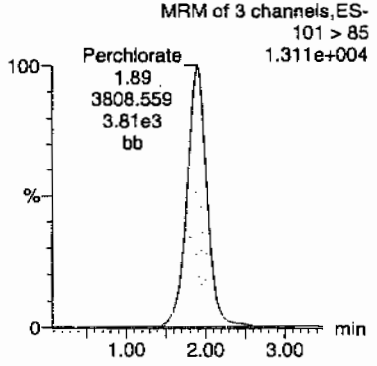

Perchlorate-101

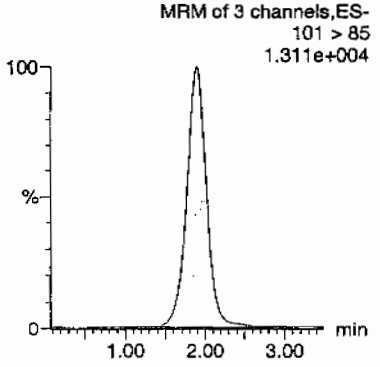

Perchlorate-O(18)

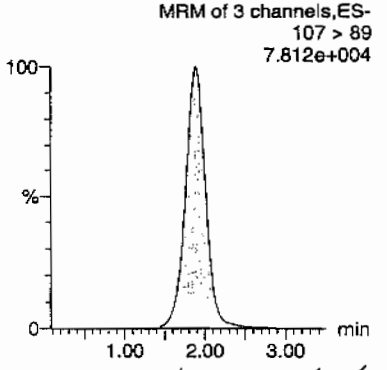

Hmm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035571	Perchlorate	99 > 83	1.91	11409.813	11409.813	bb			0.1917	95.83	-4.17	2471.6...	3.00
1202035571	Perchlorate-101	101 > 85	1.89	3808.559	3808.559	bb			0.2029	101.45	1.45	676.220	
1202035571	Perchlorate-O(18)	107 > 89	1.89	22745.916	22745.916	bb			0.4676	93.53	-6.47	4602.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per020810a.qld

Last Altered: Tuesday, February 09, 2010 7:48:19 AM Eastern Standard Time
Printed: Tuesday, February 09, 2010 8:03:24 AM Eastern Standard Time

Name: per0208055a
Date: 08-Feb-2010
Time: 19:47:53
ID: 1202035572
Vial: 2:1,F

|LANL|950028|LCQ|MSD|1|

CWW 02-09-10

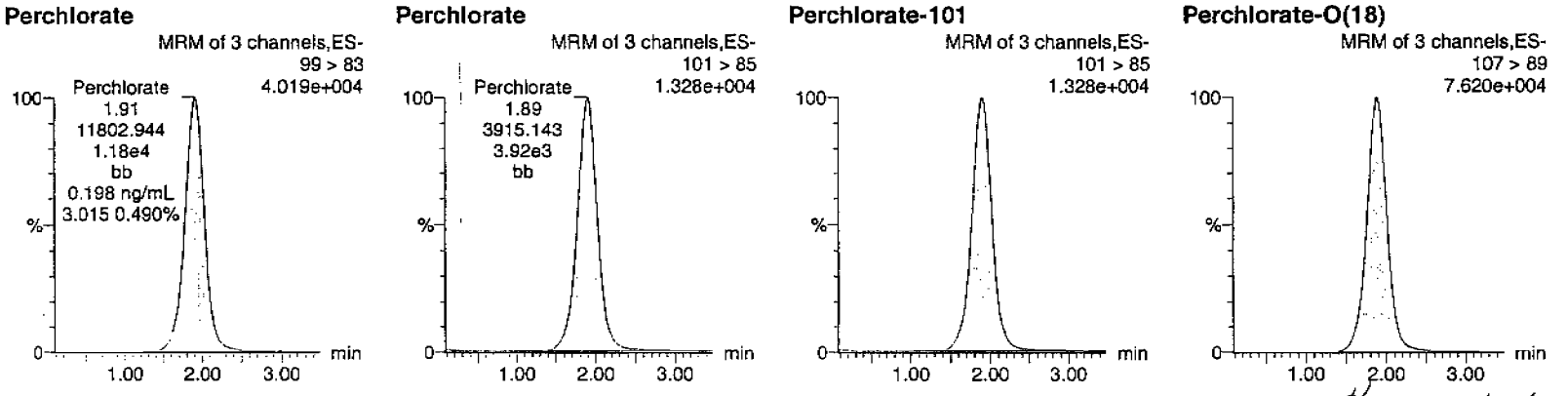

Hm 02/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202035572	Perchlorate	99 > 83	1.91	11802.944	11802.944	bb			0.1983	99.13	-0.87	5921.1...	3.01
1202035572	Perchlorate-101	101 > 85	1.89	3915.143	3915.143	bb			0.2086	104.29	4.29	847.965	
1202035572	Perchlorate-O(18)	107 > 89	1.89	22449.852	22449.852	bb			0.4616	92.31	-7.69	7045.6...	

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1545

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	948893
Prep Batch Number:	948892

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
246055001	RE15-10-8170
246055002	RE15-10-8169
246055003	RE15-10-8171
246055004	RE15-10-8168
246055005	RE15-10-8222
246055006	RE15-10-8221
246055007	RE15-10-8220
246055008	RE15-10-8223
246055009	RE15-10-8224
1202032884	Method Blank (MB)
1202032885	Laboratory Control Sample (LCS)
1202032886	246055001(RE15-10-8170) Matrix Spike (MS)
1202032887	246055001(RE15-10-8170) Matrix Spike Duplicate (MSD)

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Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 246055001 (RE15-10-8170) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Sample 246055001 (RE15-10-8170) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

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Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Mauer **Date:** 03/10/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055001

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304182a

Date Analyzed: 08-MAR-10 08:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055001

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260128.wiff

Date Analyzed: 28-FEB-10 00:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8169

Lab Code: GEI

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055002

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304188a

Date Analyzed: 08-MAR-10 11:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8169

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055002

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260131.wiff

Date Analyzed: 28-FEB-10 00:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8171

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055003

Sample Amount 2

Moisture: 12.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304189a

Date Analyzed: 08-MAR-10 11:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8171

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055003

Sample Amount 2

Moisture: 12.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260132.wiff

Date Analyzed: 28-FEB-10 01:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8168

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055004

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304190a

Date Analyzed: 08-MAR-10 12:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8168

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055004

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260133.wiff

Date Analyzed: 28-FEB-10 01:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	360	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8222

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055005

Sample Amount 2

Moisture: 25.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304191a

Date Analyzed: 08-MAR-10 12:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8222

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055005

Sample Amount 2

Moisture: 25.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260134.wiff

Date Analyzed: 28-FEB-10 01:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8221

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304192a

Date Analyzed: 08-MAR-10 13:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8221

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260135.wiff

Date Analyzed: 28-FEB-10 01:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8220

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055007

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304193a

Date Analyzed: 08-MAR-10 13:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8220

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055007

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260139.wiff

Date Analyzed: 28-FEB-10 03:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8223

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055008

Sample Amount 2

Moisture: 19.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304194a

Date Analyzed: 08-MAR-10 14:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8223

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055008

Sample Amount 2

Moisture: 19.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260140.wiff

Date Analyzed: 28-FEB-10 03:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8224

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055009

Sample Amount 2

Moisture: 15.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304195a

Date Analyzed: 08-MAR-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8224

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055009

Sample Amount 2

Moisture: 15.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260141.wiff

Date Analyzed: 28-FEB-10 03:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1545

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
246055001	RE15-10-8170	110	70 – 144	
246055001	RE15-10-8170	94	70 – 144	
246055002	RE15-10-8169	122	70 – 144	
246055002	RE15-10-8169	98.4	70 – 144	
246055003	RE15-10-8171	114	70 – 144	
246055003	RE15-10-8171	97.6	70 – 144	
246055004	RE15-10-8168	111	70 – 144	
246055004	RE15-10-8168	97.2	70 – 144	
246055005	RE15-10-8222	108	70 – 144	
246055005	RE15-10-8222	97.2	70 – 144	
246055006	RE15-10-8221	113	70 – 144	
246055006	RE15-10-8221	97.2	70 – 144	
246055007	RE15-10-8220	107	70 – 144	
246055007	RE15-10-8220	96.4	70 – 144	
246055008	RE15-10-8223	114	70 – 144	
246055008	RE15-10-8223	96	70 – 144	
246055009	RE15-10-8224	117	70 – 144	
246055009	RE15-10-8224	98.8	70 – 144	
1202032884	MB for batch 948892	109	70 – 144	
1202032884	MB for batch 948892	94.8	70 – 144	
1202032885	LCS for batch 948892	106	70 – 144	
1202032885	LCS for batch 948892	89.2	70 – 144	
1202032886	RE15-10-8170(246055001MS)	119	70 – 144	
1202032886	RE15-10-8170(246055001MS)	94	70 – 144	
1202032887	RE15-10-8170(246055001MSD)	110	70 – 144	
1202032887	RE15-10-8170(246055001MSD)	94	70 – 144	

DNT = 3,4-Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1545

Extract Batch Code: 948892

Date Extracted: 10-FEB-10

GEL LCS ID: 1202032885

GEL LCSDUP ID:

Analysis Date/Time: 08-MAR-10 07:47

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4280	85.6					69 – 126
2,4,6-Trinitrotoluene	5000	4880	97.7					73 – 149
2,4-Dinitrotoluene	5000	4570	91.4					87 – 137
2,6-Dinitrotoluene	5000	4700	94.1					89 – 120
2-Amino-4,6-dinitrotoluene	5000	5550	111					90 – 130
4-Amino-2,6-dinitrotoluene	5000	5480	110					84 – 130
HMX	5000	5530	111					58 – 138
Nitrobenzene	5000	4840	96.7					71 – 122
PETN	5000	5130	103					64 – 137
RDX	5000	4730	94.6					81 – 137
Tetryl	5000	2600	52.1					51 – 112
m-Dinitrobenzene	5000	4920	98.4					83 – 122
m-Nitrotoluene	5000	4590	91.9					73 – 118
o-Nitrotoluene	5000	4970	99.3					72 – 119
p-Nitrotoluene	5000	5000	100					67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1545

Extract Batch Code: 948892

Date Extracted: 10-FEB-10

GEL LCS ID: 1202032885

GEL LCSDUP ID:

Analysis Date/Time: 27-FEB-10 23:52

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	5000	5210	104					52 – 114
2,6-Diamino-4-nitrotoluene	5000	5590	112					64 – 122
3,5-Dinitroaniline	5000	4310	86.2					70 – 127
tris(o-cresyl) phosphate	5000	5100	102					84 – 119
TATB	5000	5050	101					28 – 162

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8170

Lab Code: GEL

GEL Job No (SDG) 10-1545

Extract Batch Code: 948892

Date Extracted: 10-FEB-10

GEL Spike ID: 1202032886

GEL SpikeDup ID: 1202032887

Analysis Date/Time: 08-MAR-10 08:46

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
HMX	5000	0	4350	86.9	4310	86.1	.924	30	51 – 144
Nitrobenzene	5000	0	4970	99.4	4590	91.7	8.05	30	70 – 122
PETN	5000	0	6870	137	6480	130	5.82	30	60 – 140
1,3,5-Trinitrobenzene	5000	0	4420	88.4	5170	103	15.7	30	50 – 140
2-Amino-4,6-dinitrotoluene	5000	0	5580	112	5480	110	1.72	30	85 – 137
2,6-Dinitrotoluene	5000	0	4960	99.2	5010	100	1.04	30	90 – 118
2,4-Dinitrotoluene	5000	0	4560	91.2	4850	96.9	6.13	30	86 – 135
2,4,6-Trinitrotoluene	5000	0	5790	116	4960	99.2	15.4	30	76 – 144
4-Amino-2,6-dinitrotoluene	5000	0	5950	119	5290	106	11.7	30	72 – 143
RDX	5000	0	4610	92.2	4960	99.3	7.46	30	59 – 152
Tetryl	5000	0	3280	65.6	3010	60.1	8.62	30	36 – 124
m-Dinitrobenzene	5000	0	4850	97	4820	96.3	.716	30	85 – 118
m-Nitrotoluene	5000	0	4570	91.5	4390	87.7	4.19	30	70 – 120
o-Nitrotoluene	5000	0	5350	107	4760	95.2	11.7	30	69 – 123
p-Nitrotoluene	5000	0	4720	94.5	4750	95.1	.639	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8170

Lab Code: GEL

GEL Job No (SDG) 10-1545

Extract Batch Code: 948892

Date Extracted: 10-FEB-10

GEL Spike ID: 1202032886

GEL SpikeDup ID: 1202032887

Analysis Date/Time: 28-FEB-10 00:24

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	5220	104	5600	112	7.02	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	5760	115	6190	124	7.2	30	55 - 130
TATB	5000	0	5460	109	5380	108	1.48	30	29 - 155
3,5-Dinitroaniline	5000	0	4670	93.4	4470	89.4	4.38	30	73 - 129
tris(o-cresyl) phosphate	5000	0	5150	103	5130	103	.389	30	72 - 127

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-MAR-10 15:16

GEL Data File: EXP0304001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	607.958
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	536.234
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

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alibration: Untitled, Time: Fri Mar 05 10:16:18 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304001a
ate: 04-Mar-2010
me: 15:16:39
I: XIBLK01
ial: 1:1,A

HMP 3/6/10

MX
F2:MRM of 1 channel,AP-
176 > 102
6.186e+003

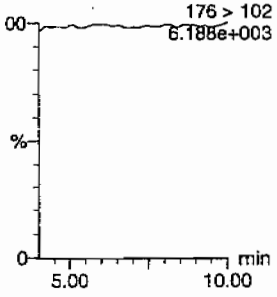

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.186e+003

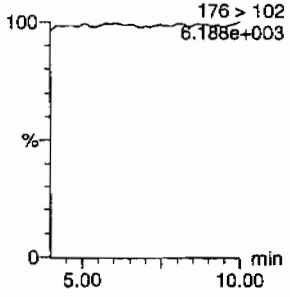

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.012e+003

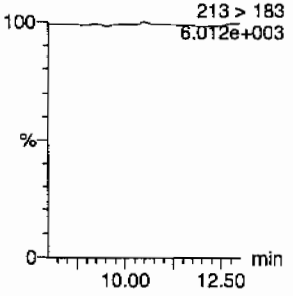

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.618e+004

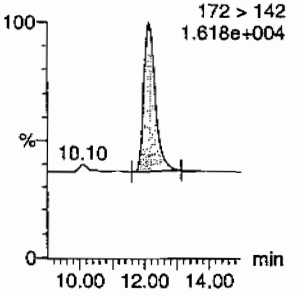

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
9.86
168 > 138
6.094e+003

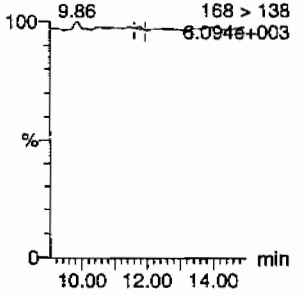

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.981e+003

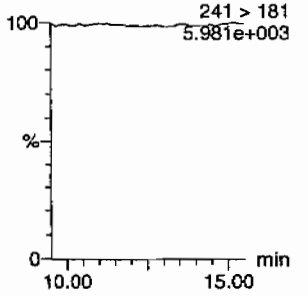

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.984e+003

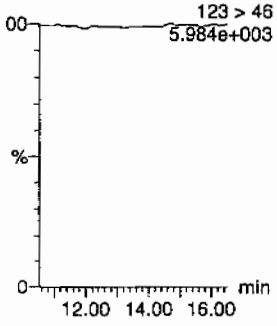

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.031e+003

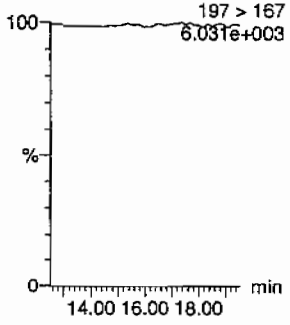

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.032e+003

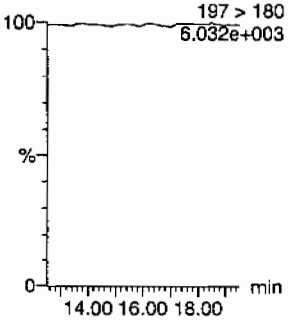

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.063e+003

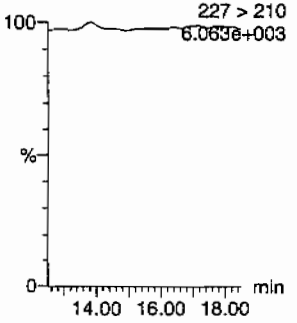

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.000e+003

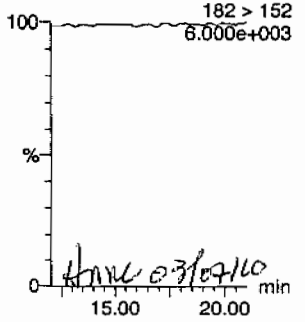

HMP 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.000e+003

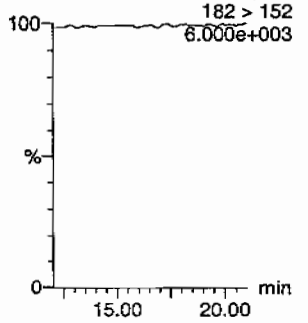

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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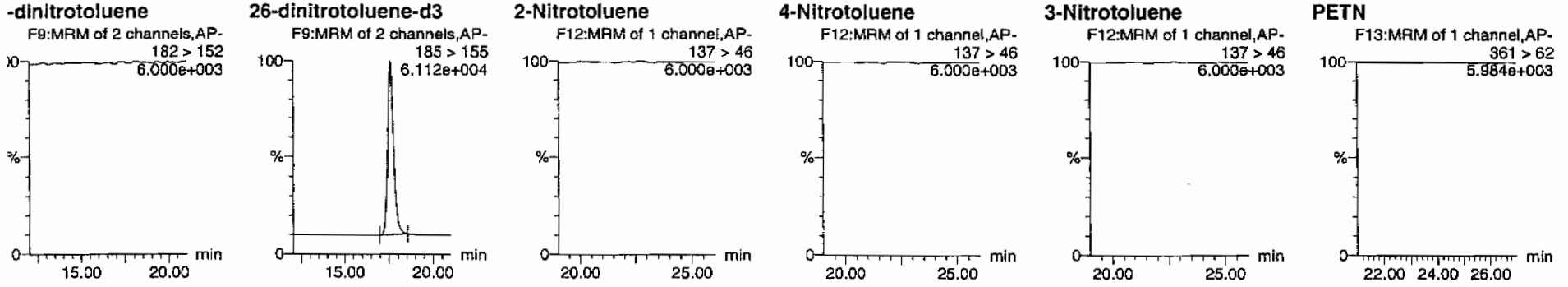

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
BLK01	HMX	176 > 102			4270.042									
BLK01	RDX	176 > 102			4270.042									
BLK01	135-Trinitrobenzene	213 > 183			4270.042									
BLK01	13-Dinitrobenzene-d4	172 > 142	12.14	4270.042		4270.042	4270.042	bb			607.9583	121.6	21.6	332.0
BLK01	13-Dinitrobenzene	168 > 138			4270.042			MM-	05-Mar-10	10:02:47				
BLK01	Tetryl	241 > 181			4270.042									
BLK01	Nitrobenzene	123 > 46			4270.042									
BLK01	4-Amino-26-dinitrotoluene	197 > 167			22050.561									
BLK01	2-Amino-46-dinitrotoluene	197 > 180			22050.561									
BLK01	246-Trinitrotoluene	227 > 210			22050.561									
BLK01	34-dinitrotoluene	182 > 152			22050.561									
BLK01	26-dinitrotoluene	182 > 152			22050.561									
BLK01	24-dinitrotoluene	182 > 152			22050.561									
BLK01	26-dinitrotoluene-d3	185 > 155	17.60	22050.561		22050.561	22050.561	bb			536.2338	107.2	7.2	2058.0
BLK01	2-Nitrotoluene	137 > 46			22050.561									
BLK01	4-Nitrotoluene	137 > 46			22050.561									
BLK01	3-Nitrotoluene	137 > 46			22050.561									
BLK01	PETN	361 > 62			22050.561									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-MAR-10 15:46

GEL Data File: EXP0304002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	579.131
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	573.881
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

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: XIBLK01
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MMT 3/6/10

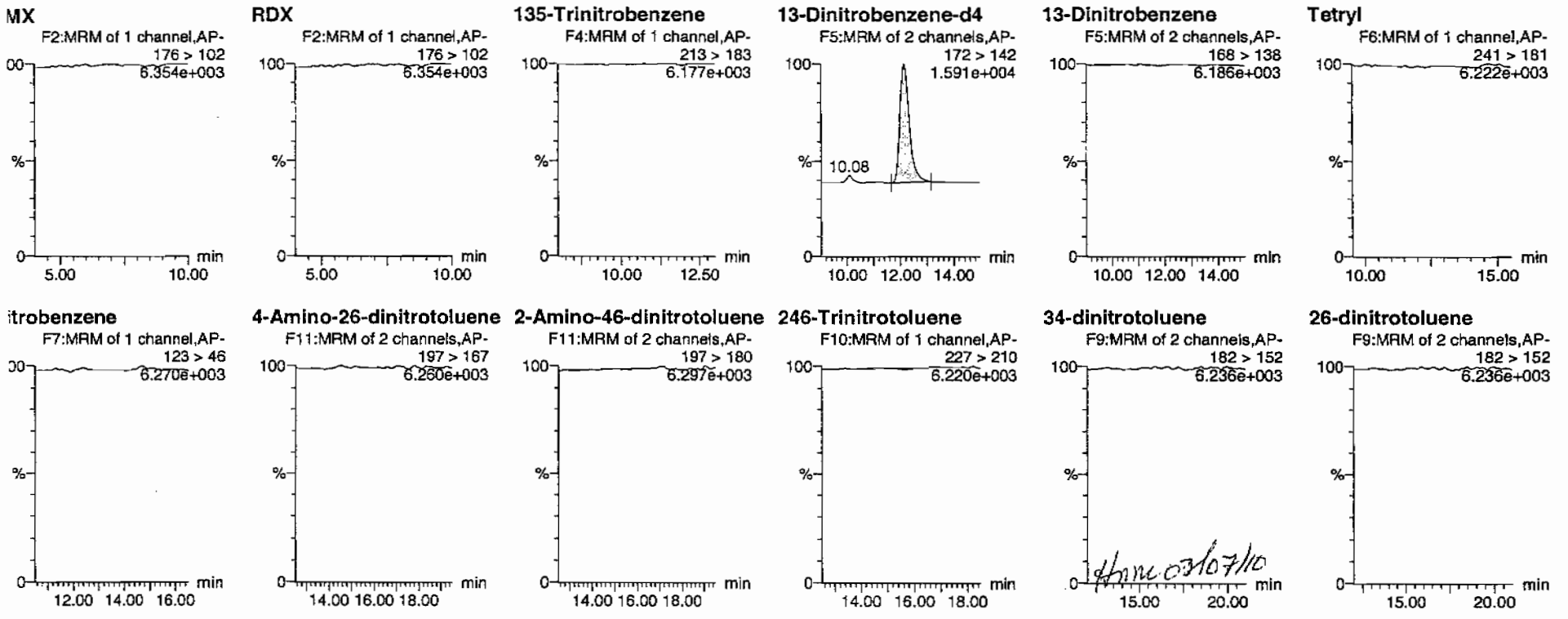

dhm 03/07/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

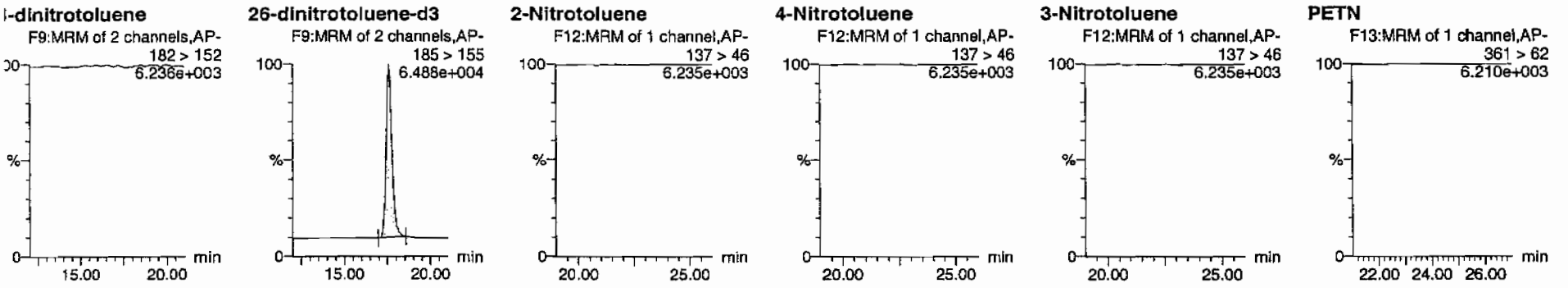

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
BLK01	HMX	176 > 102			4067.572									
BLK01	RDX	176 > 102			4067.572									
BLK01	135-Trinitrobenzene	213 > 183			4067.572									
BLK01	13-Dinitrobenzene-d4	172 > 142	12.14	4067.572		4067.572	4067.572	bb			579.1311	115.8	15.8	625.2
BLK01	13-Dinitrobenzene	168 > 138			4067.572									
BLK01	Tetryl	241 > 181			4067.572									
BLK01	Nitrobenzene	123 > 46			4067.572									
BLK01	4-Amino-26-dinitrotoluene	197 > 167			23598.654									
BLK01	2-Amino-46-dinitrotoluene	197 > 180			23598.654									
BLK01	246-Trinitrotoluene	227 > 210			23598.654									
BLK01	34-dinitrotoluene	182 > 152			23598.654									
BLK01	26-dinitrotoluene	182 > 152			23598.654									
BLK01	24-dinitrotoluene	182 > 152			23598.654									
BLK01	26-dinitrotoluene-d3	185 > 155	17.60	23598.654		23598.654	23598.654	bb			573.8809	114.8	14.8	787.1
BLK01	2-Nitrotoluene	137 > 46			23598.654									
BLK01	4-Nitrotoluene	137 > 46			23598.654									
BLK01	3-Nitrotoluene	137 > 46			23598.654									
BLK01	PETN	361 > 62			23598.654									

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26–FEB–10 14:53

GEL Data File: EXS02260001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0

Lar 3/1/10

pls Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
. Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 2:53:58 PM

ied: No

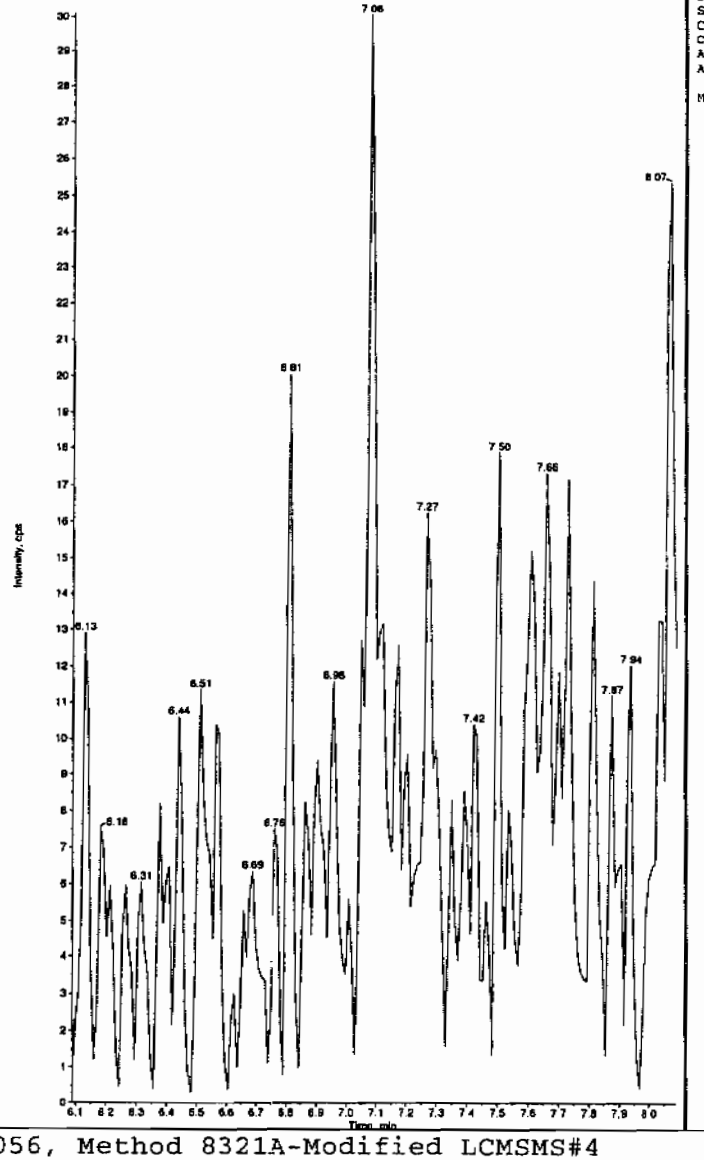

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

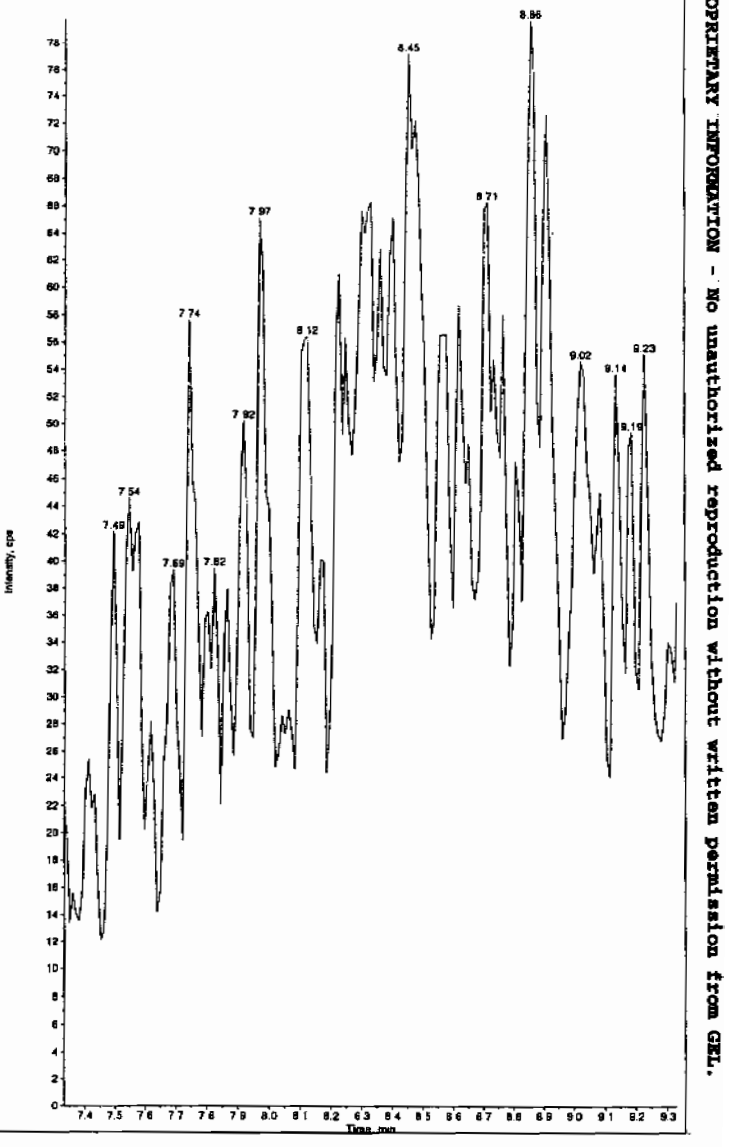

Hmm 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
ntration: N/A
ilated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 2:53:58 PM

fied: No

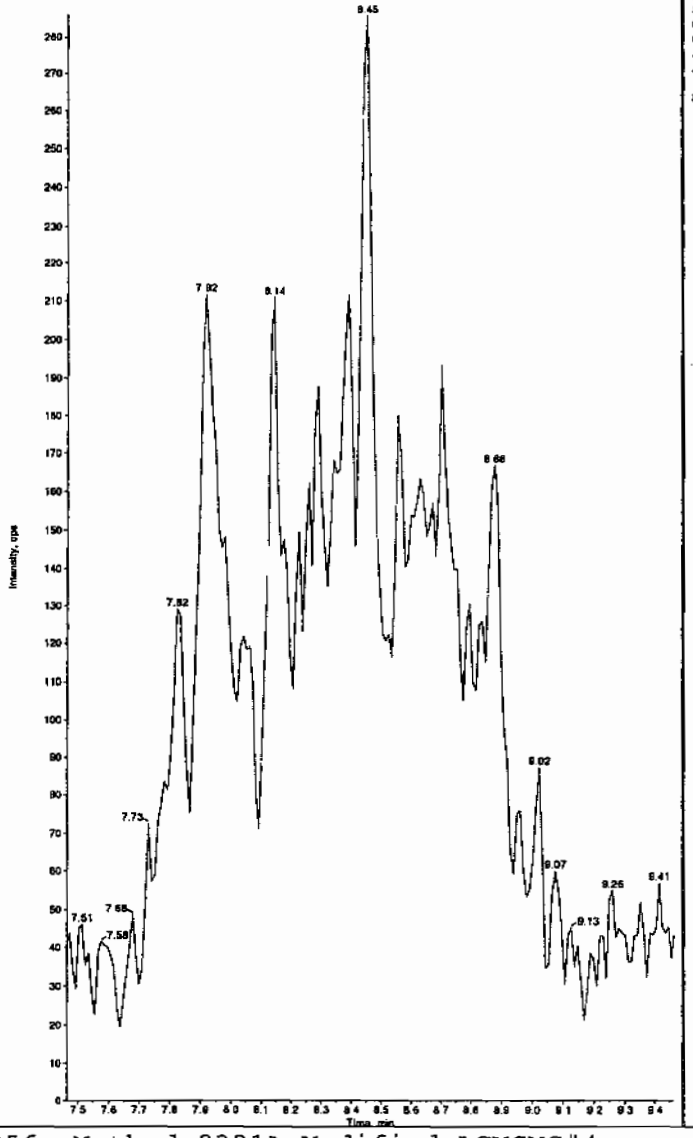

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

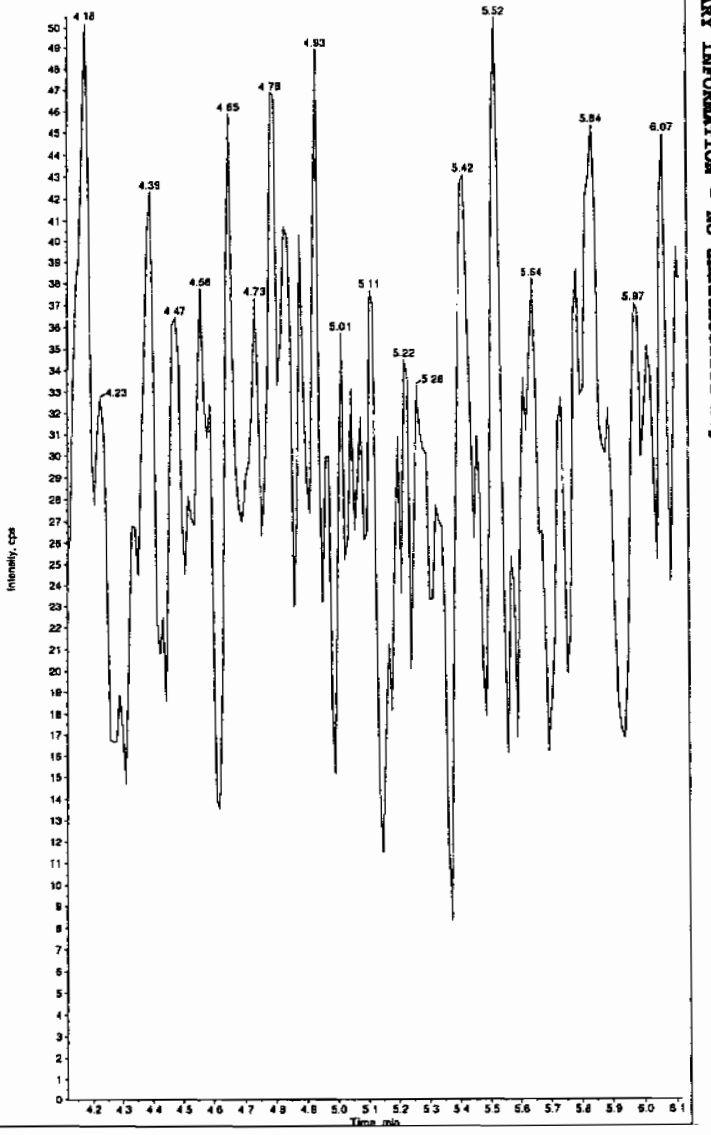

: SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260001.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/48.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 2:53:58 PM

ied: No

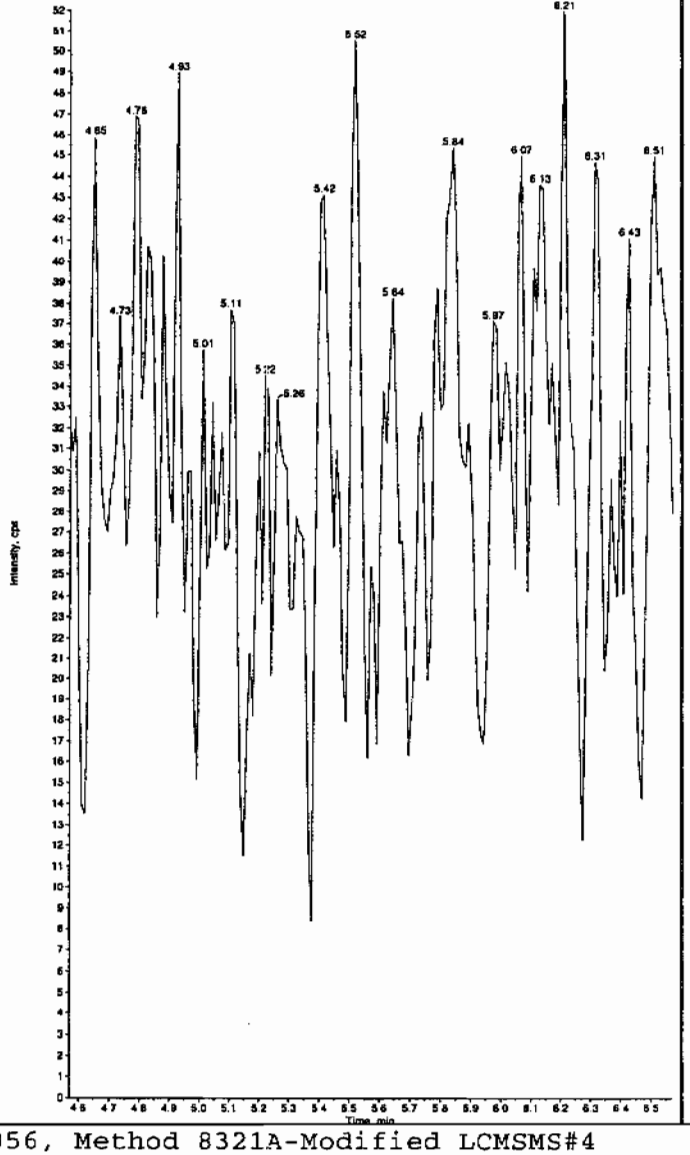

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:53:58 PM

Modified: No

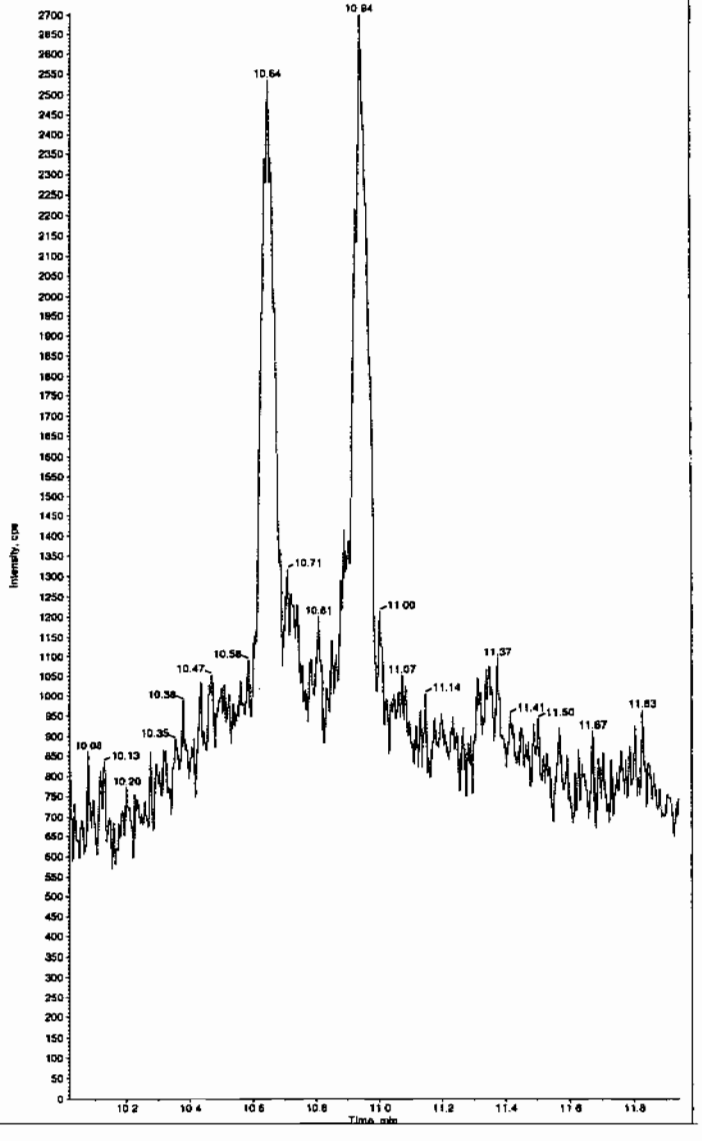

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 26–FEB–10 15:09

GEL Data File: EXS02260002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Scan 3/1/10

nple Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 3:09:45 PM

fied: No

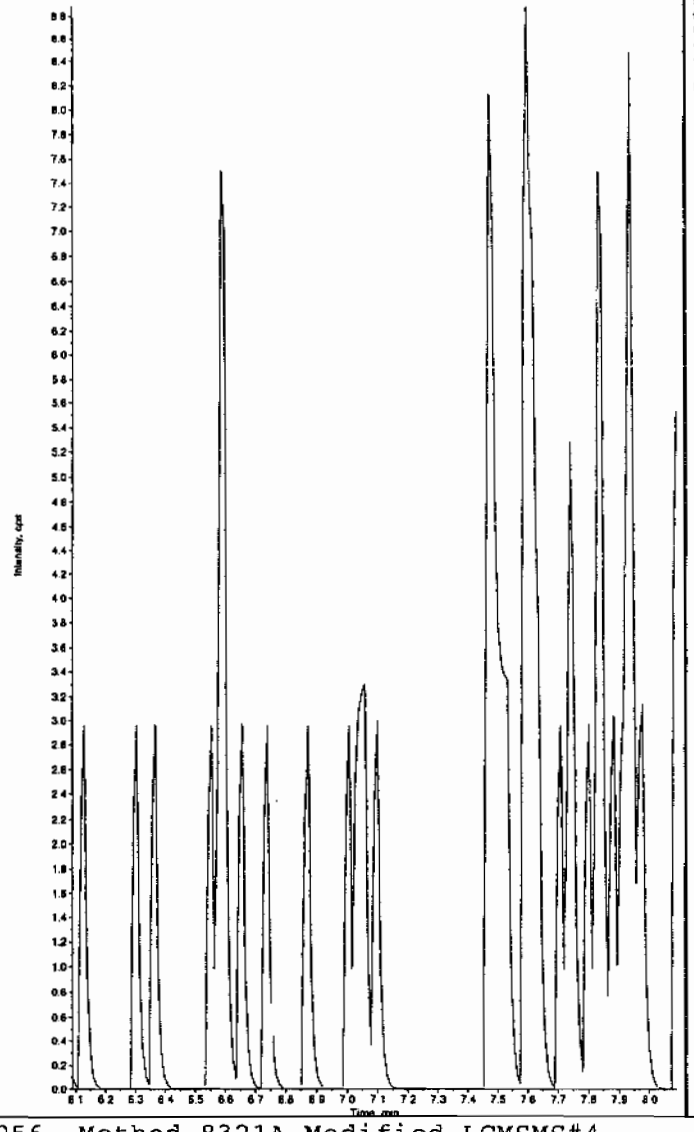

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

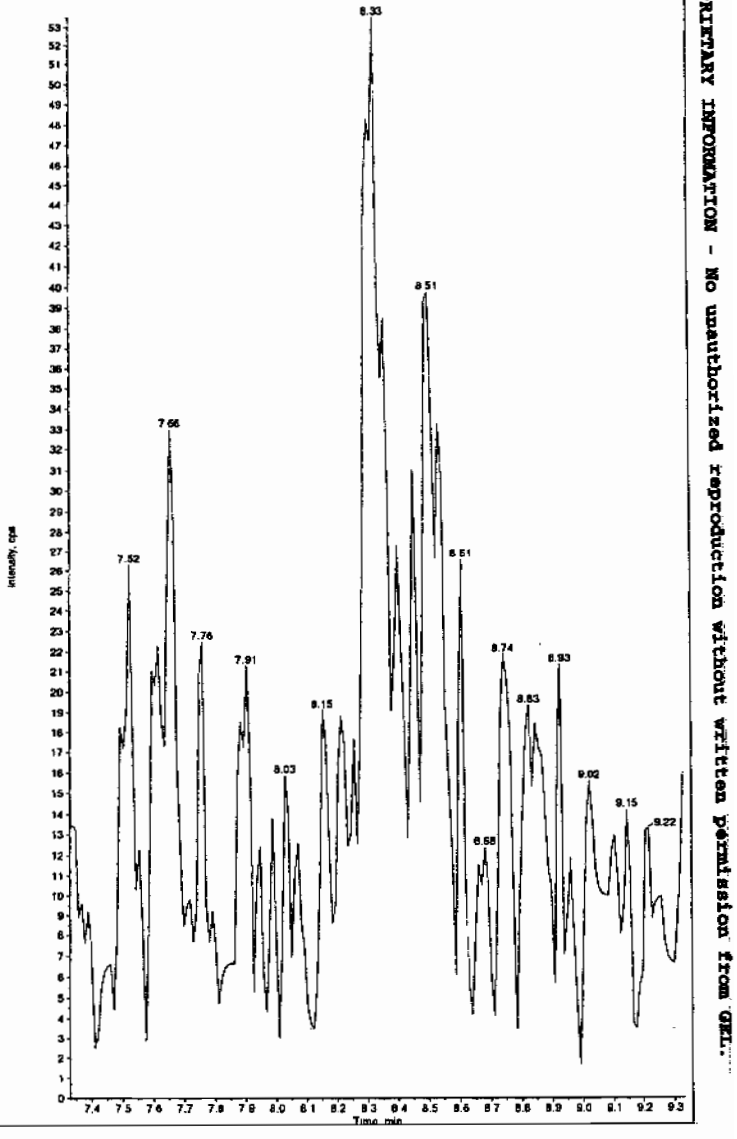

Hrm 03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
k Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 3:09:45 PM

fied: No

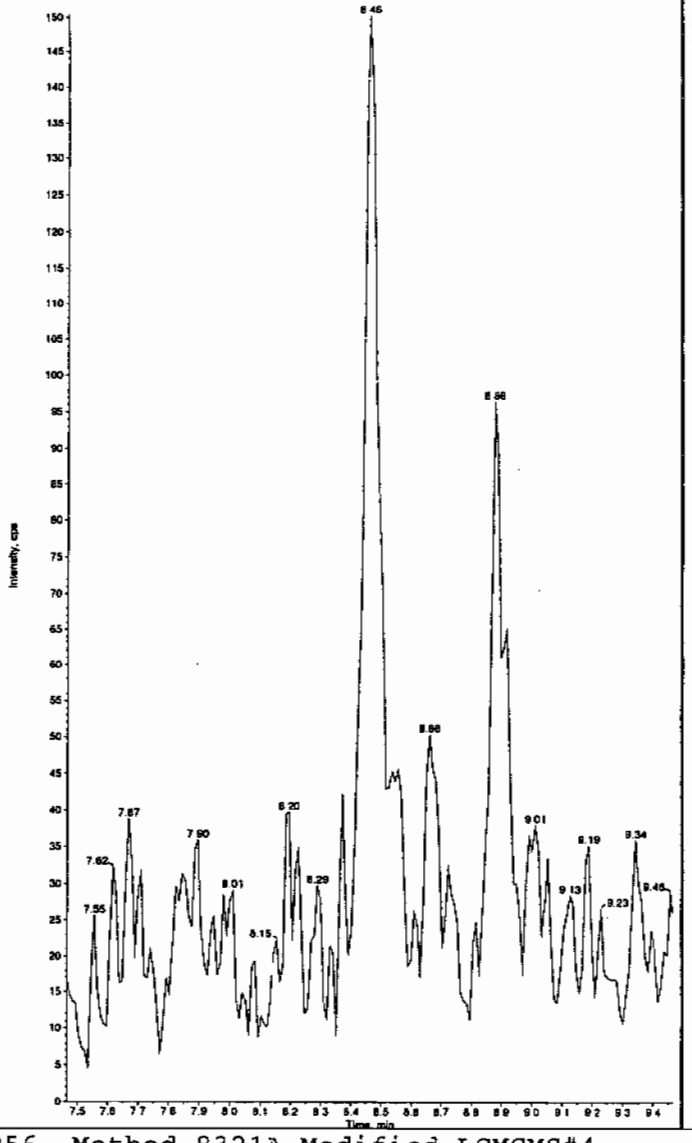

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS02260002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

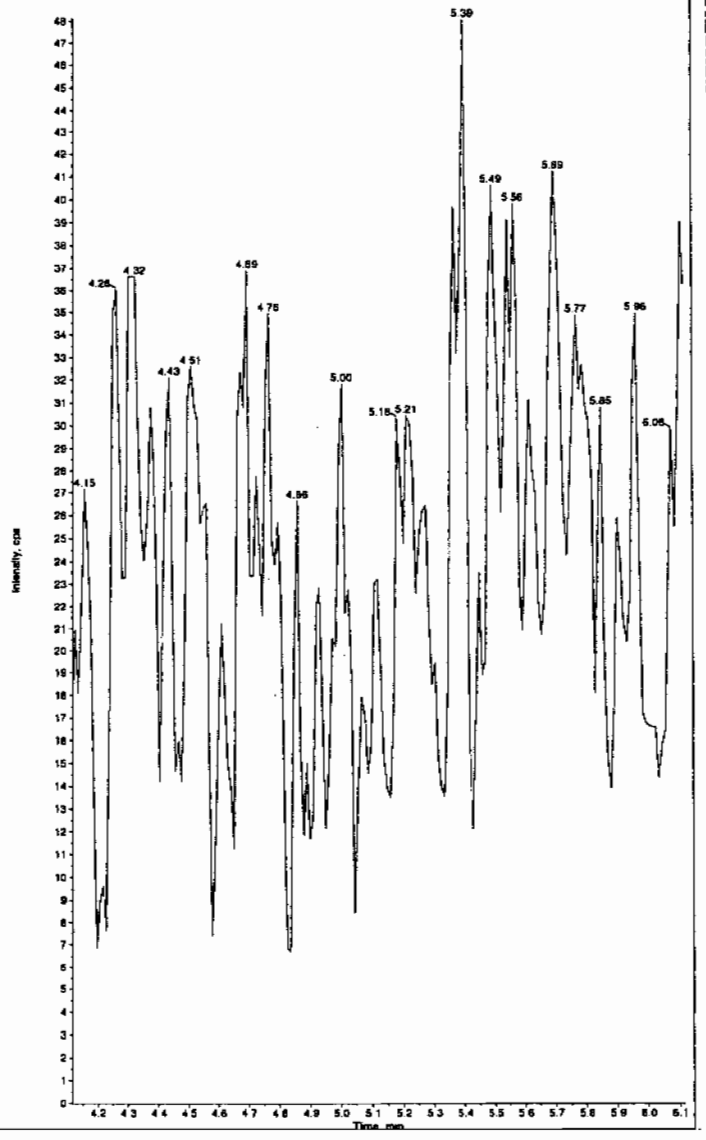

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/26/2010
. Time: 3:09:45 PM

fied: No

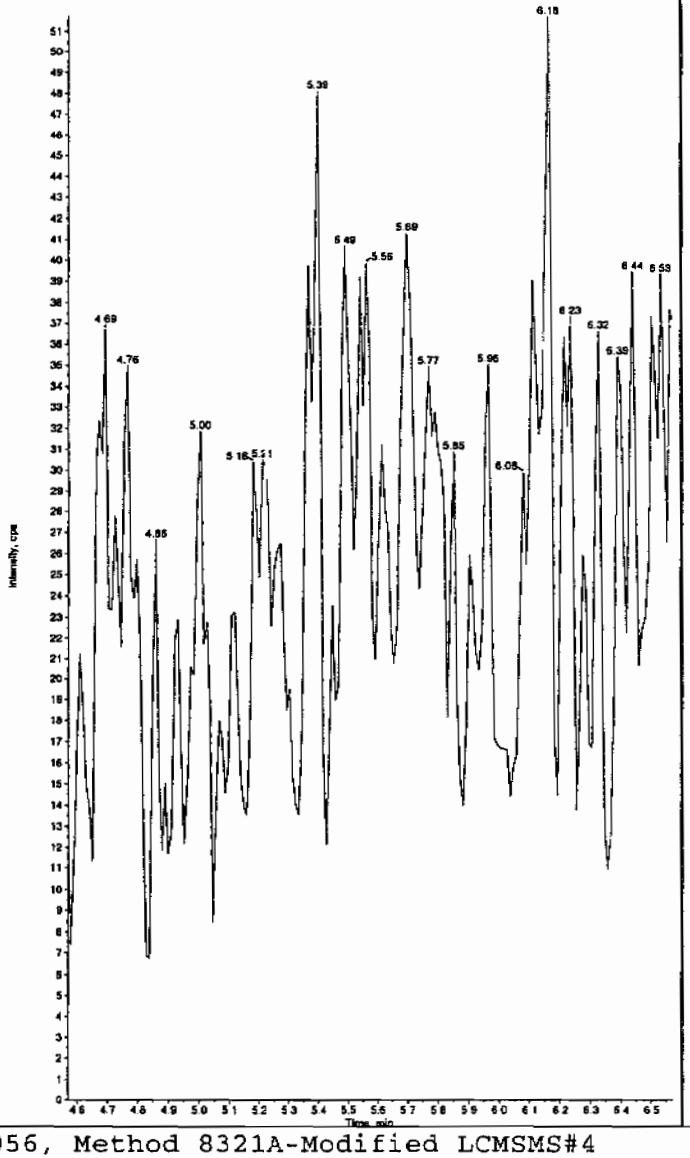

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS02260002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 3:09:45 PM

Modified: No

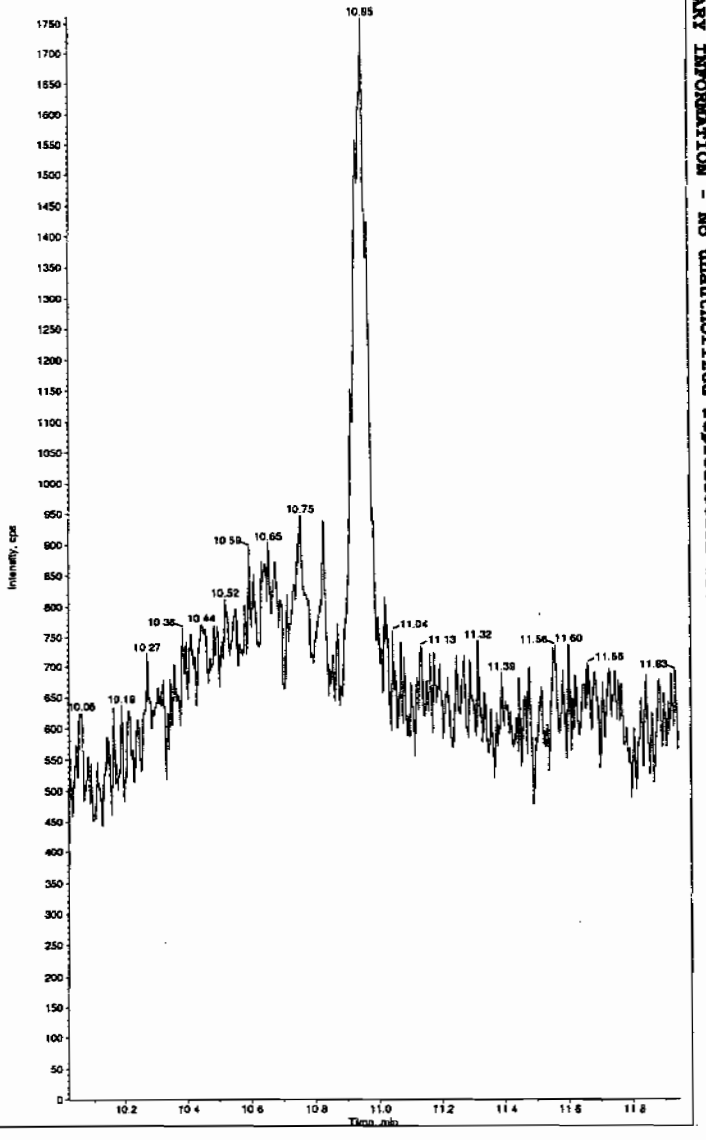

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1545
Lab Code: GEL
Lab Sample ID: XIBLK02
Analysis Date: 04–MAR–10 19:12
GEL Data File: EXP0304009a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	522.148
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	519.283
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304009a
ate: 04-Mar-2010
ime: 19:12:28
D: XIBLK02
ial: 1:1,A

MM 3/6/10

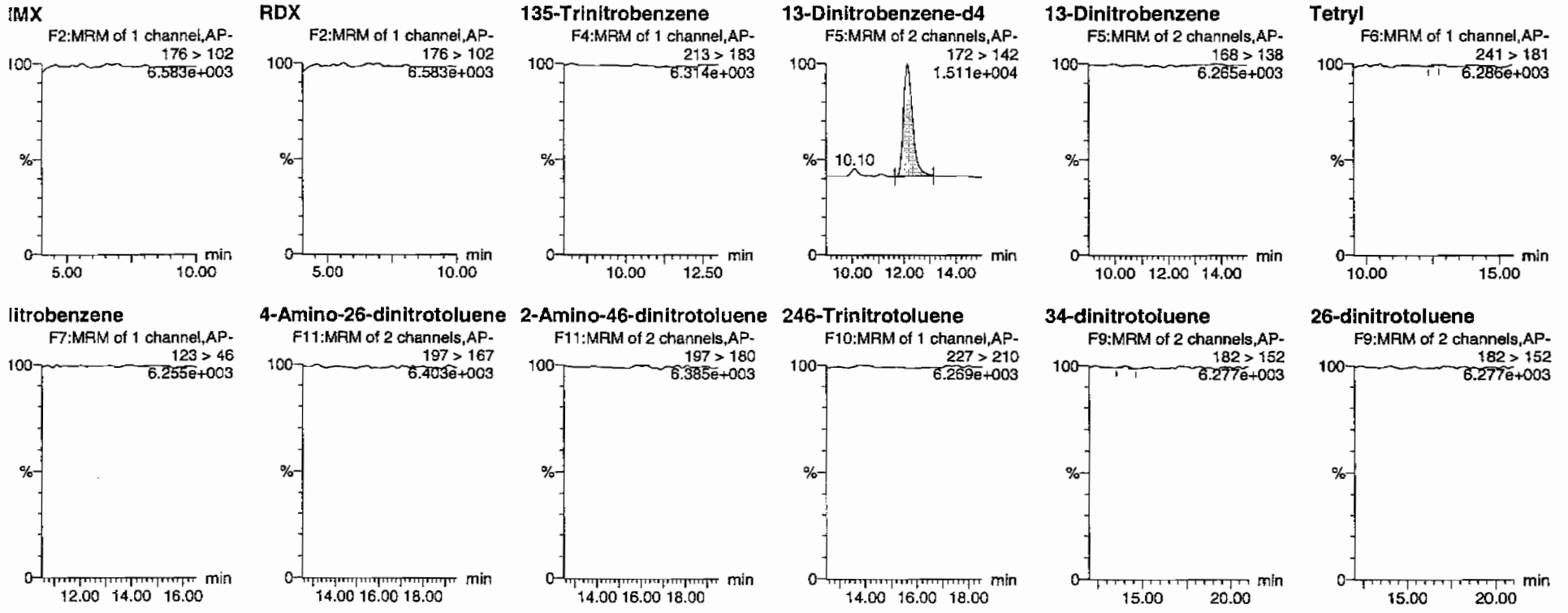

tmw 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

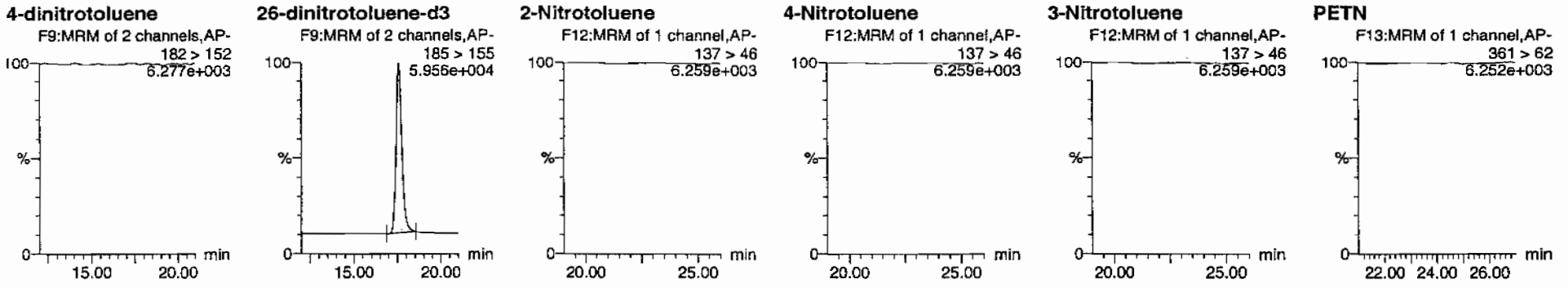

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK02	HMX	176 > 102			3667.345									
IBLK02	RDX	176 > 102			3667.345									
IBLK02	135-Trinitrobenzene	213 > 183			3667.345									
IBLK02	13-Dinitrobenzene-d4	172 > 142	12.14	3667.345		3667.345	3667.345	bb			522.1477	104.4	4.4	148.9
IBLK02	13-Dinitrobenzene	168 > 138			3667.345									
IBLK02	Tetryl	241 > 181			3667.345			MM-	05-Mar-10	10:04:00				
IBLK02	Nitrobenzene	123 > 46			3667.345									
IBLK02	4-Amino-26-dinitrotoluene	197 > 167			21353.541									
IBLK02	2-Amino-46-dinitrotoluene	197 > 180			21353.541									
IBLK02	246-Trinitrotoluene	227 > 210			21353.541									
IBLK02	34-dinitrotoluene	182 > 152			21353.541			MM-	05-Mar-10	10:08:28				
IBLK02	26-dinitrotoluene	182 > 152			21353.541									
IBLK02	24-dinitrotoluene	182 > 152			21353.541									
IBLK02	26-dinitrotoluene-d3	185 > 155	17.58	21353.541		21353.541	21353.541	bb			519.2834	103.9	3.9	1891.3
IBLK02	2-Nitrotoluene	137 > 46			21353.541									
IBLK02	4-Nitrotoluene	137 > 46			21353.541									
IBLK02	3-Nitrotoluene	137 > 46			21353.541									
IBLK02	PETN	361 > 62			21353.541									

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1545
Lab Code: GEL
Lab Sample ID: XIBLK03
Analysis Date: 04–MAR–10 20:11
GEL Data File: EXP0304011a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	542.741
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	569.446
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304011a
ate: 04-Mar-2010
ime: 20:11:24
D: XIBLK03
ial: 1:1,A

MM 3/6/10

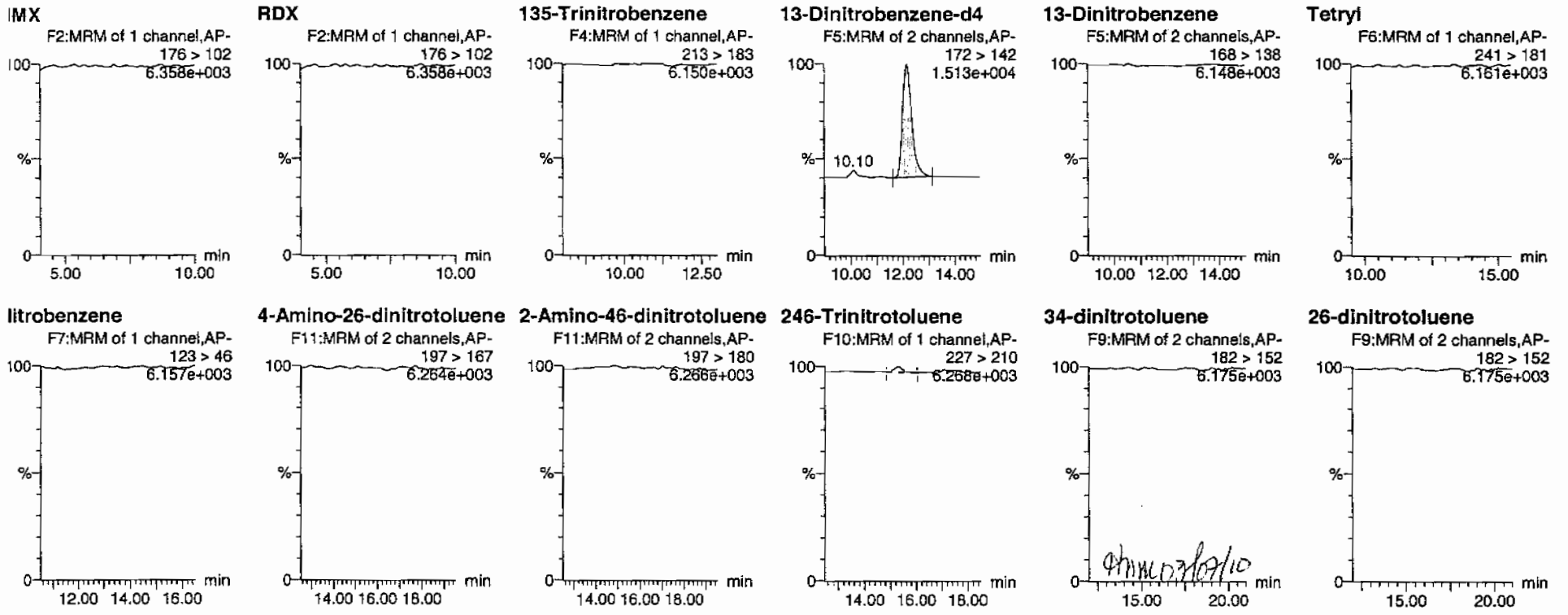

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

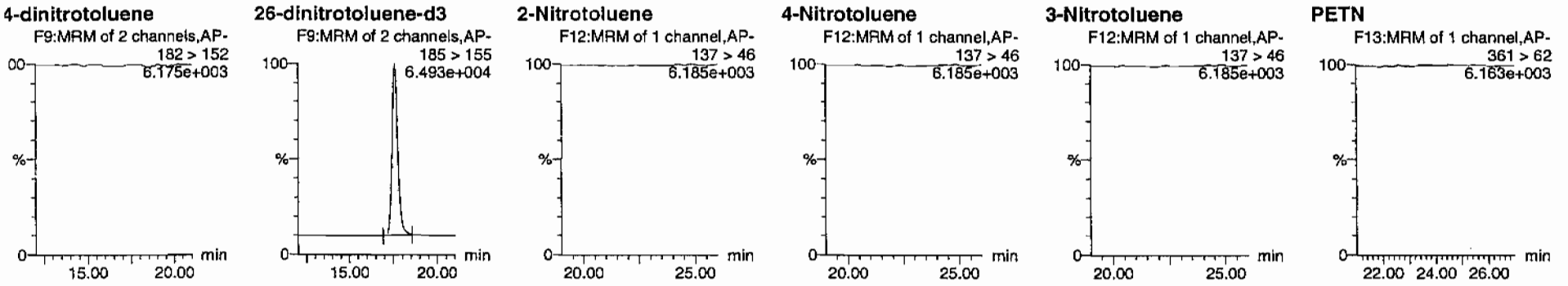

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK03	HMX	176 > 102			3811.982									
IBLK03	RDX	176 > 102			3811.982									
IBLK03	135-Trinitrobenzene	213 > 183			3811.982									
IBLK03	13-Dinitrobenzene-d4	172 > 142	12.14	3811.982		3811.982	3811.982	bb			542.7408	108.5	8.5	563.6
IBLK03	13-Dinitrobenzene	168 > 138			3811.982									
IBLK03	Tetryl	241 > 181			3811.982									
IBLK03	Nitrobenzene	123 > 46			3811.982									
IBLK03	4-Amino-26-dinitrotoluene	197 > 167			23416.273									
IBLK03	2-Amino-46-dinitrotoluene	197 > 180			23416.273									
IBLK03	246-Trinitrotoluene	227 > 210			23416.273			MM-	05-Mar-10	10:08:06				
IBLK03	34-dinitrotoluene	182 > 152			23416.273									
IBLK03	26-dinitrotoluene	182 > 152			23416.273									
IBLK03	24-dinitrotoluene	182 > 152			23416.273									
IBLK03	26-dinitrotoluene-d3	185 > 155	17.57	23416.273		23416.273	23416.273	bb			569.4457	113.9	13.9	2213.1
IBLK03	2-Nitrotoluene	137 > 46			23416.273									
IBLK03	4-Nitrotoluene	137 > 46			23416.273									
IBLK03	3-Nitrotoluene	137 > 46			23416.273									
IBLK03	PETN	361 > 62			23416.273									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 05-MAR-10 02:34
GEL Data File: EXP0304024a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	521.731
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	509.028
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304024a
ate: 05-Mar-2010
ime: 02:34:46
): XIBLK04
ial: 1:1,A

MM 3/10/10

MX
F2:MRM of 1 channel,AP-
176 > 102
6.380e+003

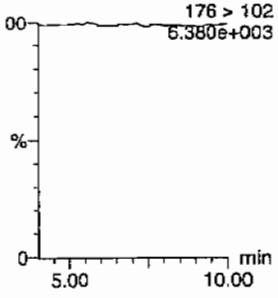

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.380e+003

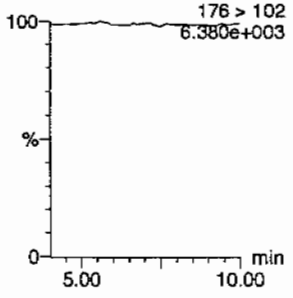

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.291e+003

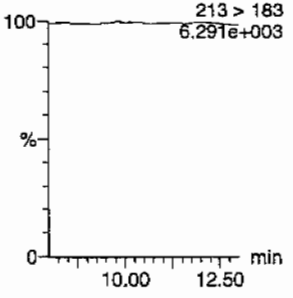

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.523e+004

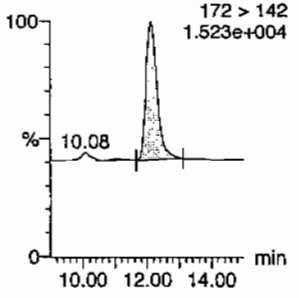

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.285e+003

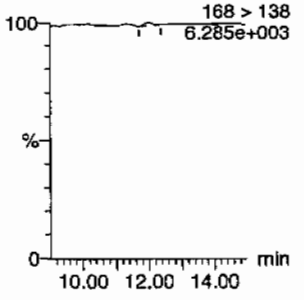

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.270e+003

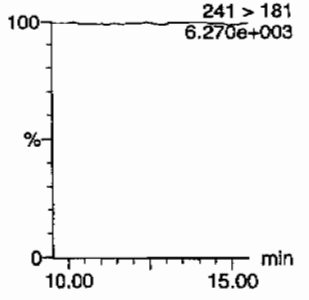

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.285e+003

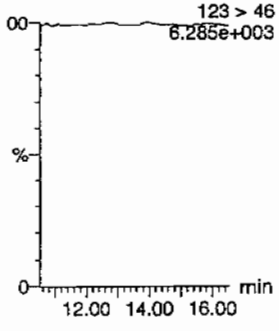

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.326e+003

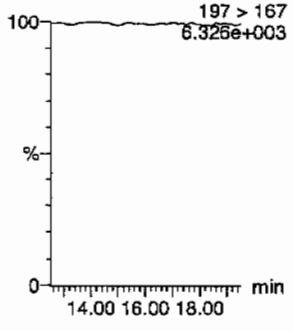

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.323e+003

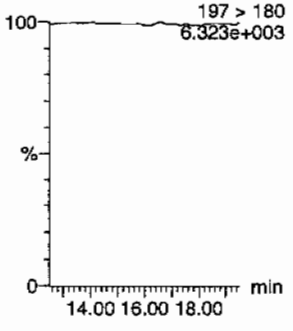

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.280e+003

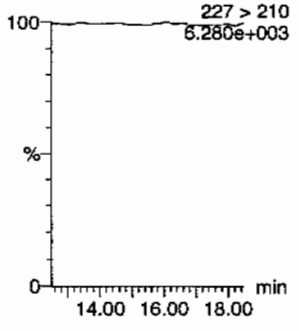

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.280e+003

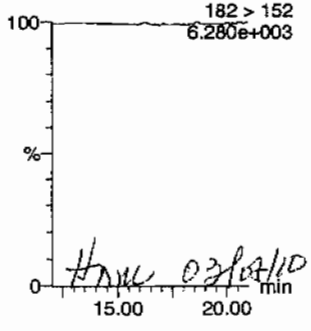

HMC 03/04/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.280e+003

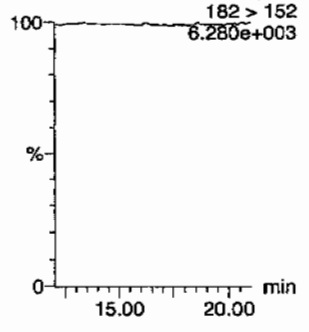

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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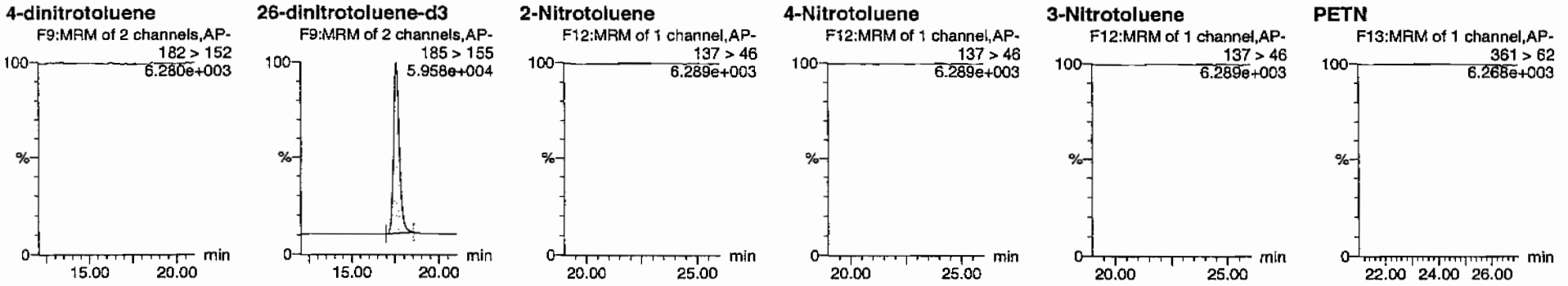

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK04	HMX	176 > 102			3664.416									
IBLK04	RDX	176 > 102			3664.416									
IBLK04	135-Trinitrobenzene	213 > 183			3664.416									
IBLK04	13-Dinitrobenzene-d4	172 > 142	12.14	3664.416		3664.416	3664.416	bb			521.7307	104.3	4.3	406.8
IBLK04	13-Dinitrobenzene	168 > 138			3664.416			MM-	05-Mar-10	10:02:41				
IBLK04	Tetryl	241 > 181			3664.416									
IBLK04	Nitrobenzene	123 > 46			3664.416									
IBLK04	4-Amino-26-dinitrotoluene	197 > 167			20931.807									
IBLK04	2-Amino-46-dinitrotoluene	197 > 180			20931.807									
IBLK04	246-Trinitrotoluene	227 > 210			20931.807									
IBLK04	34-dinitrotoluene	182 > 152			20931.807									
IBLK04	26-dinitrotoluene	182 > 152			20931.807									
IBLK04	24-dinitrotoluene	182 > 152			20931.807									
IBLK04	26-dinitrotoluene-d3	185 > 155	17.57	20931.807		20931.807	20931.807	bb			509.0276	101.8	1.8	1779.3
IBLK04	2-Nitrotoluene	137 > 46			20931.807									
IBLK04	4-Nitrotoluene	137 > 46			20931.807									
IBLK04	3-Nitrotoluene	137 > 46			20931.807									
IBLK04	PETN	361 > 62			20931.807									

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 05-MAR-10 08:58

GEL Data File: EXP0304037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	520.666
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	533.265
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304037a
Date: 05-Mar-2010
Time: 08:58:06
ID: XIBLK05
Vial: 1:1,A

MMT 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.891e+003

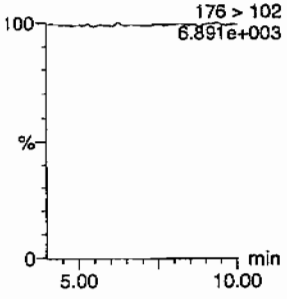

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.891e+003

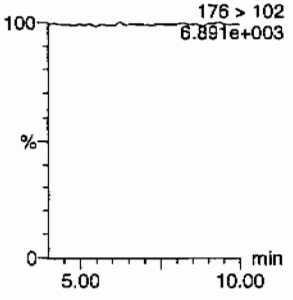

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.757e+003

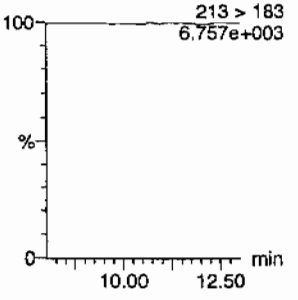

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.557e+004

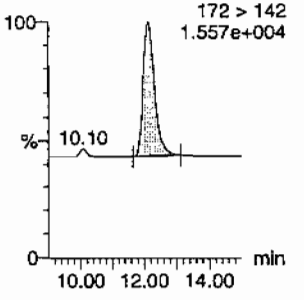

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.751e+003

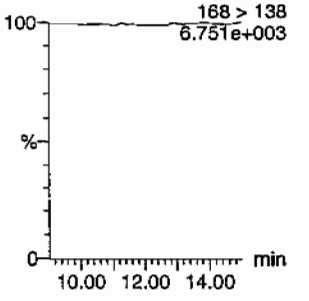

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.757e+003

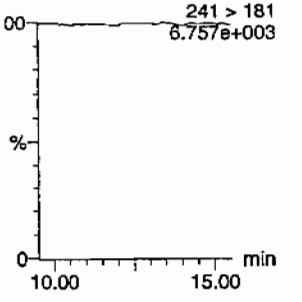

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.770e+003

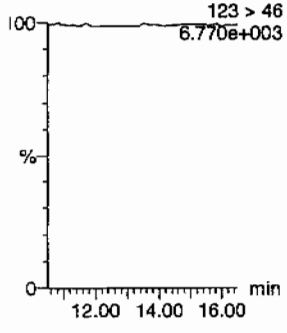

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.827e+003

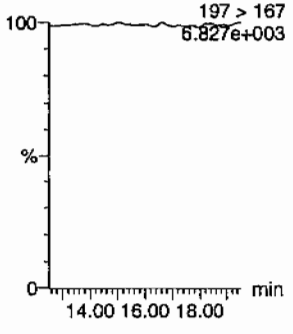

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.824e+003

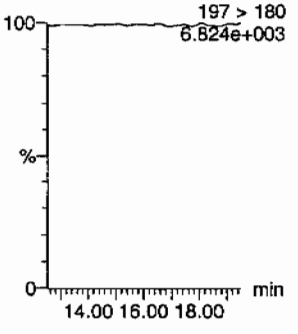

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.757e+003

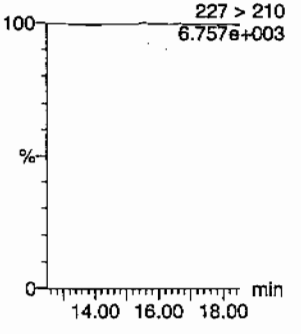

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.771e+003

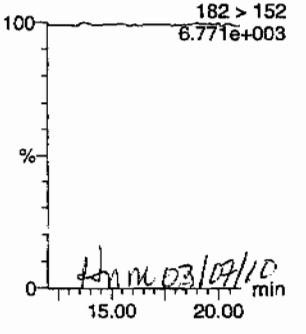

HMM 03/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.771e+003

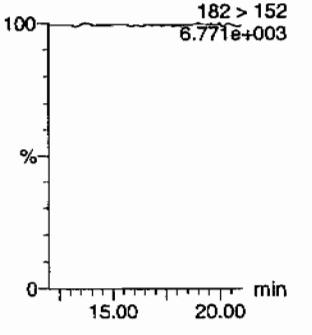

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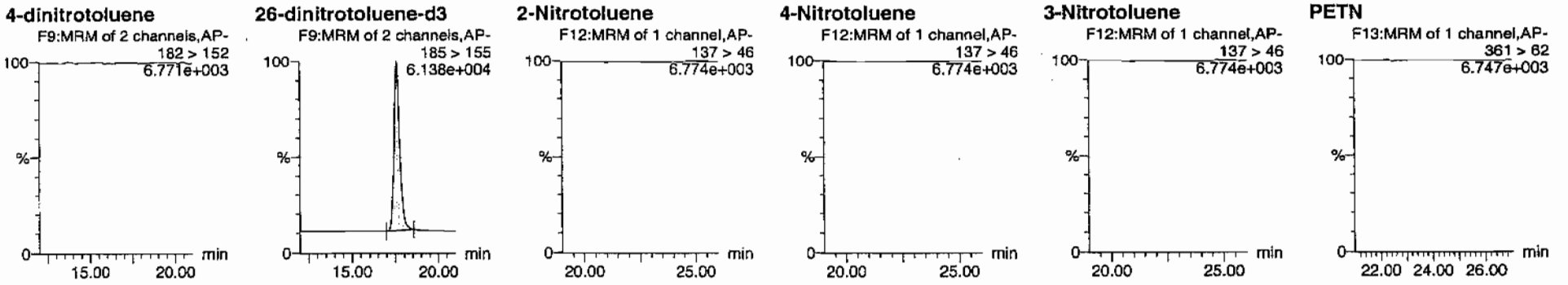

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK05	HMX	176 > 102			3656.936									
IBLK05	RDX	176 > 102			3656.936									
IBLK05	135-Trinitrobenzene	213 > 183			3656.936									
IBLK05	13-Dinitrobenzene-d4	172 > 142	12.14	3656.936		3656.936	3656.936	bb			520.6657	104.1	4.1	660.6
IBLK05	13-Dinitrobenzene	168 > 138			3656.936									
IBLK05	Tetryl	241 > 181			3656.936									
IBLK05	Nitrobenzene	123 > 46			3656.936									
IBLK05	4-Amino-26-dinitrotoluene	197 > 167			21928.471									
IBLK05	2-Amino-46-dinitrotoluene	197 > 180			21928.471									
IBLK05	246-Trinitrotoluene	227 > 210			21928.471									
IBLK05	34-dinitrotoluene	182 > 152			21928.471									
IBLK05	26-dinitrotoluene	182 > 152			21928.471									
IBLK05	24-dinitrotoluene	182 > 152			21928.471									
IBLK05	26-dinitrotoluene-d3	185 > 155	17.60	21928.471		21928.471	21928.471	bb			533.2648	106.7	6.7	2452.1
IBLK05	2-Nitrotoluene	137 > 46			21928.471									
IBLK05	4-Nitrotoluene	137 > 46			21928.471									
IBLK05	3-Nitrotoluene	137 > 46			21928.471									
IBLK05	PETN	361 > 62			21928.471									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK06
Analysis Date: 05-MAR-10 15:21
GEL Data File: EXP0304050a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	566.455
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	585.17
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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ime: 15:21:48
): XIBLK06
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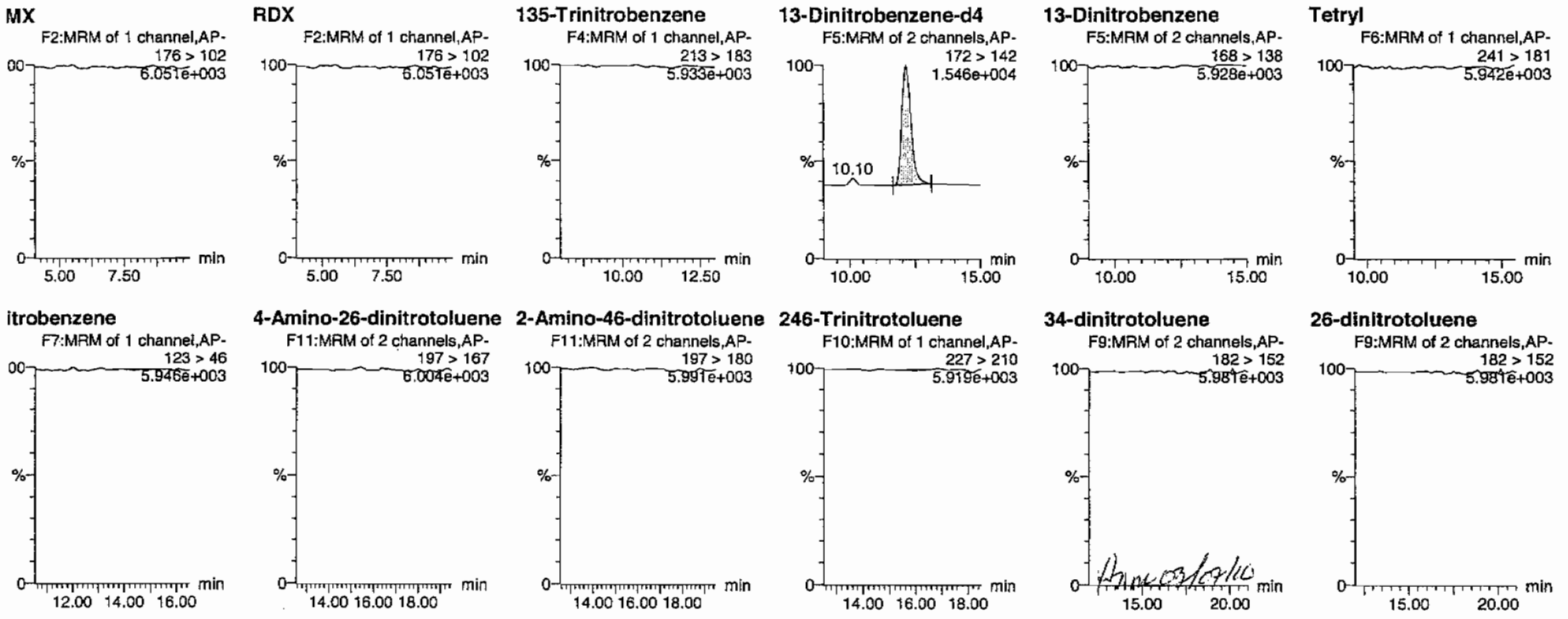

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

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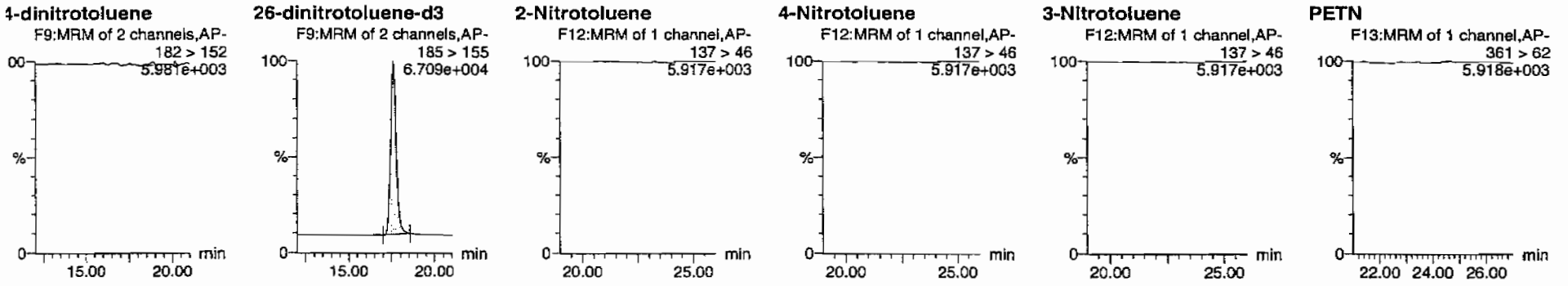

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK06	HMX	176 > 102			3978.542									
IBLK06	RDX	176 > 102			3978.542									
IBLK06	135-Trinitrobenzene	213 > 183			3978.542									
IBLK06	13-Dinitrobenzene-d4	172 > 142	12.13	3978.542		3978.542	3978.542	bb			566.4552	113.3	13.3	507.0
IBLK06	13-Dinitrobenzene	168 > 138			3978.542									
IBLK06	Tetryl	241 > 181			3978.542									
IBLK06	Nitrobenzene	123 > 46			3978.542									
IBLK06	4-Amino-26-dinitrotoluene	197 > 167			24062.877									
IBLK06	2-Amino-46-dinitrotoluene	197 > 180			24062.877									
IBLK06	246-Trinitrotoluene	227 > 210			24062.877									
IBLK06	34-dinitrotoluene	182 > 152			24062.877									
IBLK06	26-dinitrotoluene	182 > 152			24062.877									
IBLK06	24-dinitrotoluene	182 > 152			24062.877			MM-	06-Mar-10	12:15:04				
IBLK06	26-dinitrotoluene-d3	185 > 155	17.59	24062.877		24062.877	24062.877	bb			585.1701	117.0	17.0	2396.3
IBLK06	2-Nitrotoluene	137 > 46			24062.877									
IBLK06	4-Nitrotoluene	137 > 46			24062.877									
IBLK06	3-Nitrotoluene	137 > 46			24062.877									
IBLK06	PETN	361 > 62			24062.877									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1545
Lab Code: GEL
Lab Sample ID: XIBLK07
Analysis Date: 05–MAR–10 17:19
GEL Data File: EXP0304054a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	550.421
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	589.463
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304054a
Date: 05-Mar-2010
Time: 17:19:56
ID: XIBLK07
Vial: 1:1,A

MAT 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.780e+003

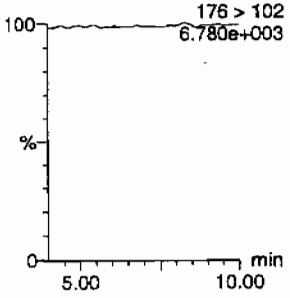

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.780e+003

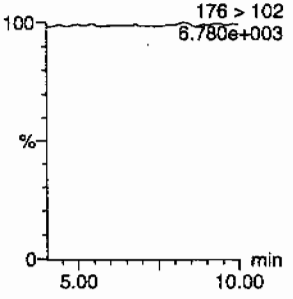

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.672e+003

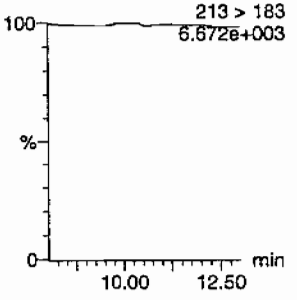

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.604e+004

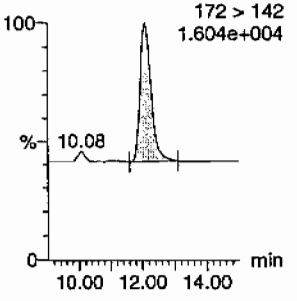

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.654e+003

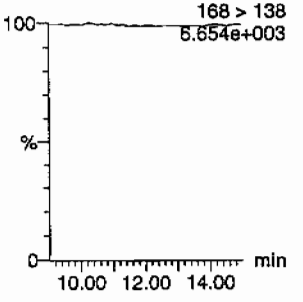

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.627e+003

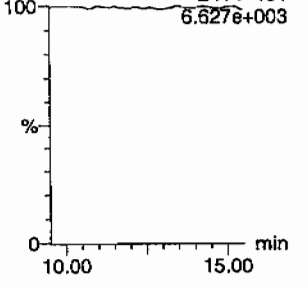

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.637e+003

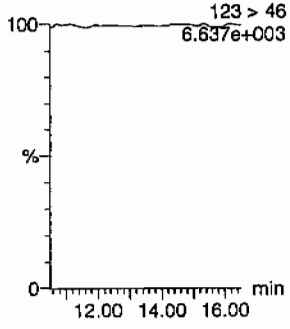

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.696e+003

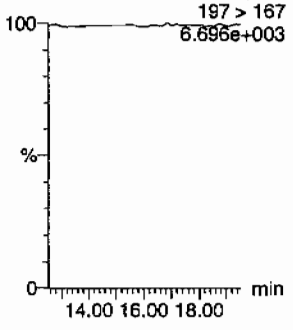

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.701e+003

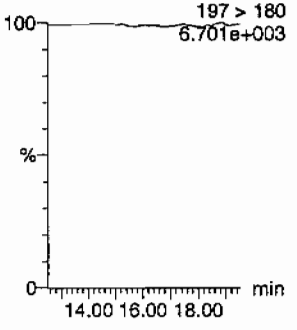

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.623e+003

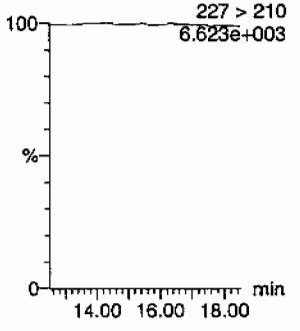

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003

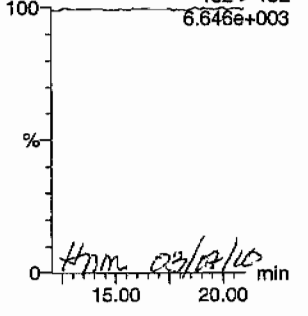

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003

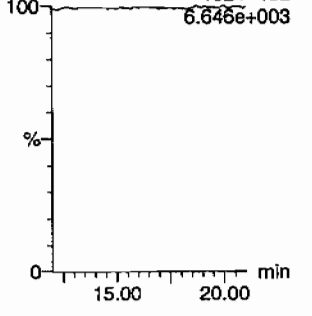

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

4-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.646e+003

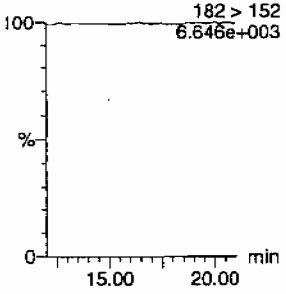

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.790e+004

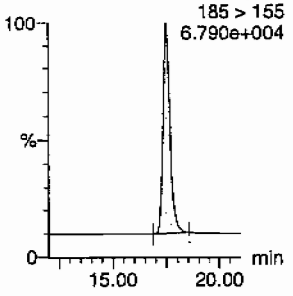

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.646e+003

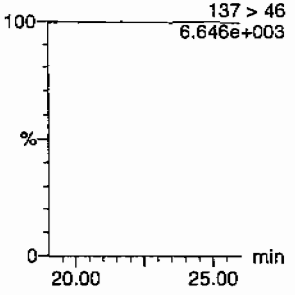

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.646e+003

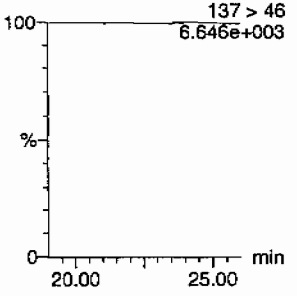

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.646e+003

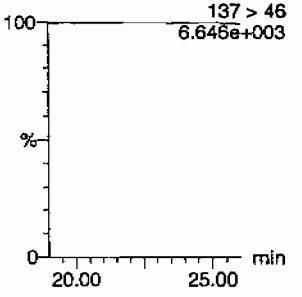

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.628e+003

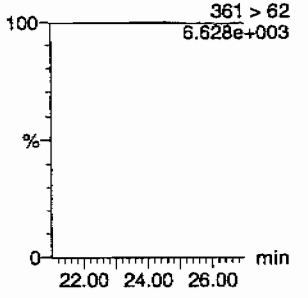

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK07	HMX	176 > 102			3865.926									
IBLK07	RDX	176 > 102			3865.926									
IBLK07	135-Trinitrobenzene	213 > 183			3865.926									
IBLK07	13-Dinitrobenzene-d4	172 > 142	12.10	3865.926		3865.926	3865.926	bb			550.4212	110.1	10.1	286.5
IBLK07	13-Dinitrobenzene	168 > 138			3865.926									
IBLK07	Tetryl	241 > 181			3865.926									
IBLK07	Nitrobenzene	123 > 46			3865.926									
IBLK07	4-Amino-26-dinitrotoluene	197 > 167			24239.424									
IBLK07	2-Amino-46-dinitrotoluene	197 > 180			24239.424									
IBLK07	246-Trinitrotoluene	227 > 210			24239.424									
IBLK07	34-dinitrotoluene	182 > 152			24239.424									
IBLK07	26-dinitrotoluene	182 > 152			24239.424									
IBLK07	24-dinitrotoluene	182 > 152			24239.424									
IBLK07	26-dinitrotoluene-d3	185 > 155	17.49	24239.424		24239.424	24239.424	bb			589.4634	117.9	17.9	2856.4
IBLK07	2-Nitrotoluene	137 > 46			24239.424									
IBLK07	4-Nitrotoluene	137 > 46			24239.424									
IBLK07	3-Nitrotoluene	137 > 46			24239.424									
IBLK07	PETN	361 > 62			24239.424									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 05–MAR–10 22:44

GEL Data File: EXP0304065a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	526.538
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	517.577
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304065a
ate: 05-Mar-2010
ime: 22:44:30
): XIBLK08
ial: 1:1,A

MATT 3/6/10

MX
F2:MRM of 1 channel,AP-
176 > 102
6.526e+003

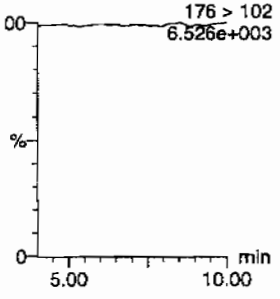

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.526e+003

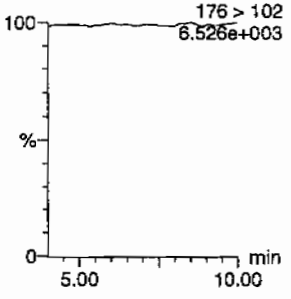

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.413e+003

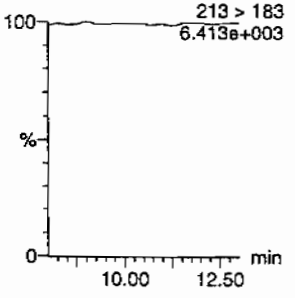

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.545e+004

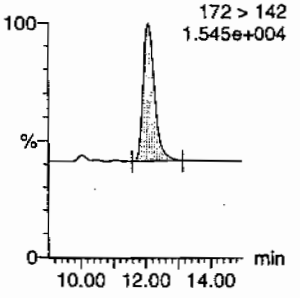

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.409e+003

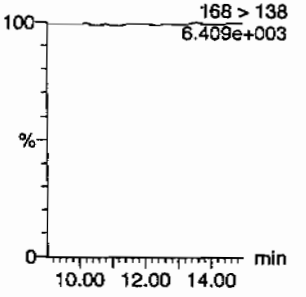

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.486e+003

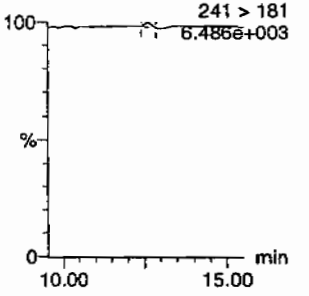

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.427e+003

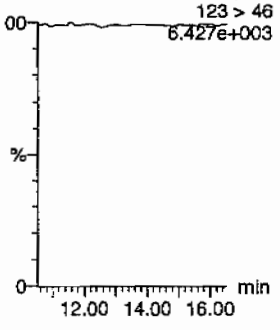

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.463e+003

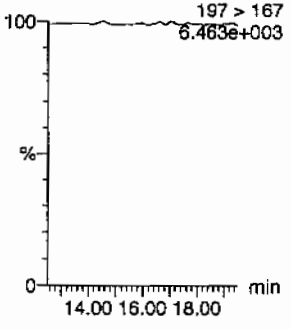

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.460e+003

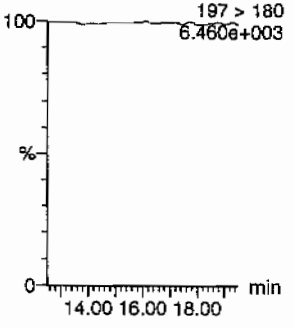

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.407e+003

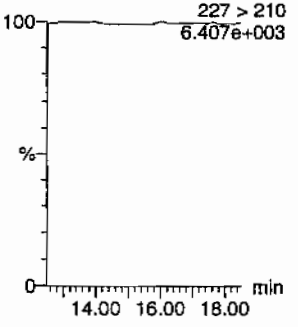

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.425e+003

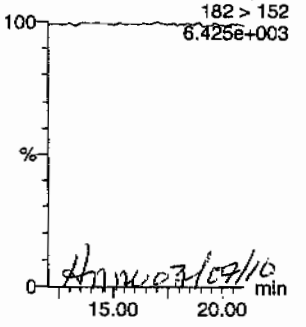

tm 03/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.425e+003

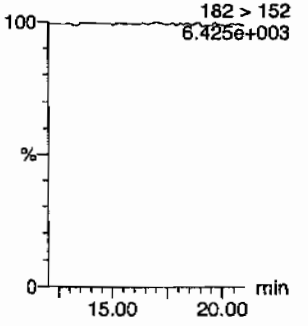

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

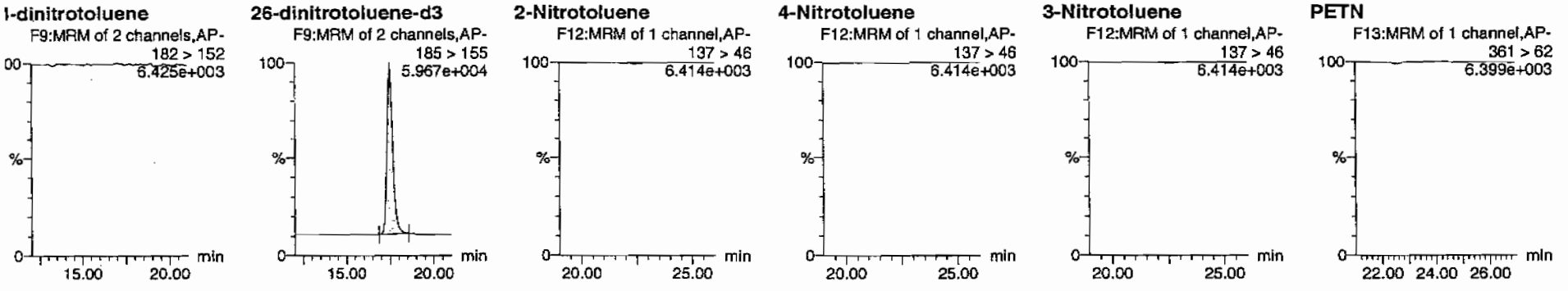

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod Time	ng/mL	%Rec	%Dev	S/N
IBLK08	HMX	176 > 102			3698.178									
IBLK08	RDX	176 > 102			3698.178									
IBLK08	135-Trinitrobenzene	213 > 183			3698.178									
IBLK08	13-Dinitrobenzene-d4	172 > 142	12.07	3698.178		3698.178	3698.178	bb			526.5377	105.3	5.3	528.8
IBLK08	13-Dinitrobenzene	168 > 138			3698.178									
IBLK08	Tetryl	241 > 181			3698.178			MM-	06-Mar-10	12:07:04				
IBLK08	Nitrobenzene	123 > 46			3698.178									
IBLK08	4-Amino-26-dinitrotoluene	197 > 167			21283.357									
IBLK08	2-Amino-46-dinitrotoluene	197 > 180			21283.357									
IBLK08	246-Trinitrotoluene	227 > 210			21283.357									
IBLK08	34-dinitrotoluene	182 > 152			21283.357									
IBLK08	26-dinitrotoluene	182 > 152			21283.357									
IBLK08	24-dinitrotoluene	182 > 152			21283.357									
IBLK08	26-dinitrotoluene-d3	185 > 155	17.49	21283.357		21283.357	21283.357	bb			517.5767	103.5	3.5	1698.2
IBLK08	2-Nitrotoluene	137 > 46			21283.357									
IBLK08	4-Nitrotoluene	137 > 46			21283.357									
IBLK08	3-Nitrotoluene	137 > 46			21283.357									
IBLK08	PETN	361 > 62			21283.357									

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK09
Analysis Date: 06-MAR-10 04:38
GEL Data File: EXP0304077a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	566.283
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	540.156
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304077a
Date: 06-Mar-2010
Time: 04:38:34
ID: XIBLK09
Vial: 1:1,A

MMT 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.387e+003

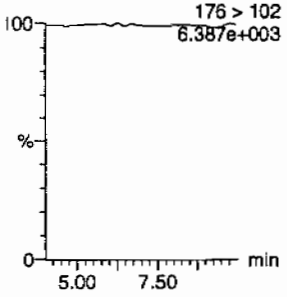

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.387e+003

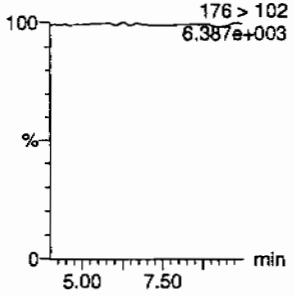

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.274e+003

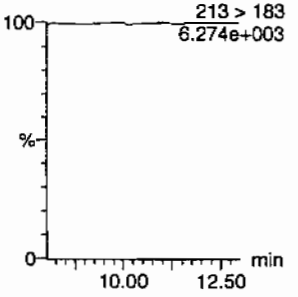

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.602e+004

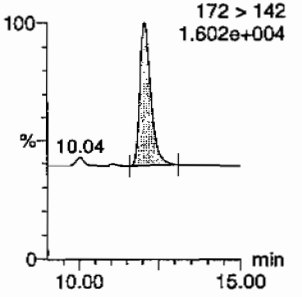

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.299e+003

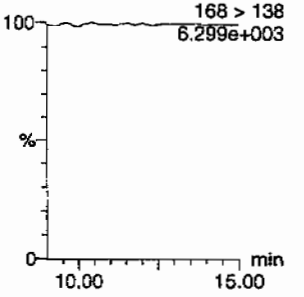

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.297e+003

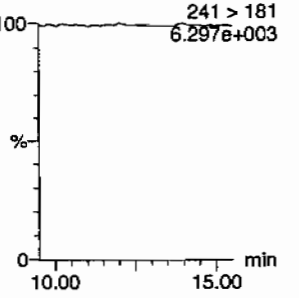

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.332e+003

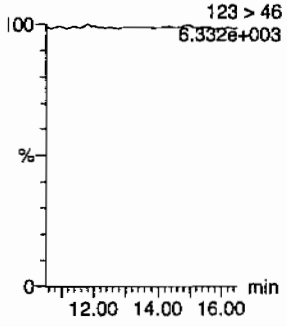

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.438e+003

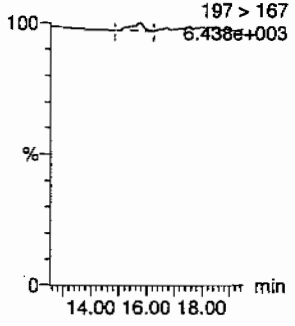

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.350e+003

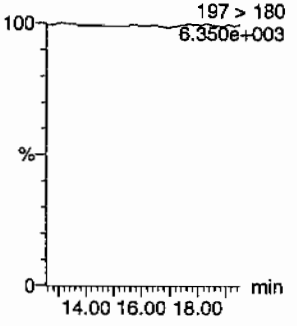

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.289e+003

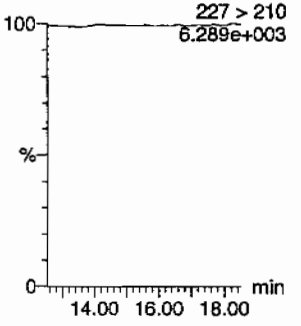

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.313e+003

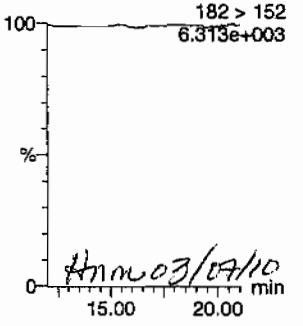

HMW 03/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.313e+003

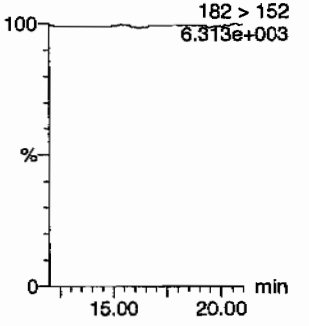

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

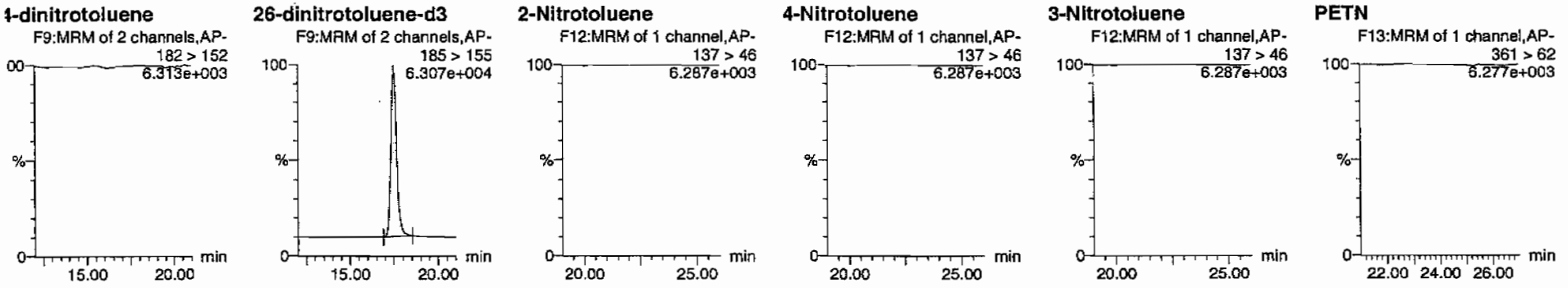

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK09	HMX	176 > 102			3977.332									
IBLK09	RDX	176 > 102			3977.332									
IBLK09	135-Trinitrobenzene	213 > 183			3977.332									
IBLK09	13-Dinitrobenzene-d4	172 > 142	12.06	3977.332		3977.332	3977.332	bb			566.2829	113.3	13.3	313.5
IBLK09	13-Dinitrobenzene	168 > 138			3977.332									
IBLK09	Tetryl	241 > 181			3977.332									
IBLK09	Nitrobenzene	123 > 46			3977.332									
IBLK09	4-Amino-26-dinitrotoluene	197 > 167			22211.859			MM-	06-Mar-10	12:09:02				
IBLK09	2-Amino-46-dinitrotoluene	197 > 180			22211.859									
BLK09	246-Trinitrotoluene	227 > 210			22211.859									
BLK09	34-dinitrotoluene	182 > 152			22211.859									
BLK09	26-dinitrotoluene	182 > 152			22211.859									
BLK09	24-dinitrotoluene	182 > 152			22211.859									
BLK09	26-dinitrotoluene-d3	185 > 155	17.48	22211.859		22211.859	22211.859	bb			540.1563	108.0	8.0	2088.0
BLK09	2-Nitrotoluene	137 > 46			22211.859									
BLK09	4-Nitrotoluene	137 > 46			22211.859									
BLK09	3-Nitrotoluene	137 > 46			22211.859									
BLK09	PETN	361 > 62			22211.859									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK10
Analysis Date: 06-MAR-10 07:35
GEL Data File: EXP0304083a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	560.254
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	557.283
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304083a
ate: 06-Mar-2010
ime: 07:35:40
): XIBLK10
ial: 1:1,A

MMT 3/6/10

MX
F2:MRM of 1 channel,AP-
176 > 102
6.356e+003

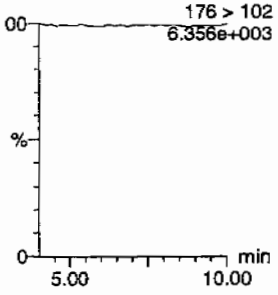

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.356e+003

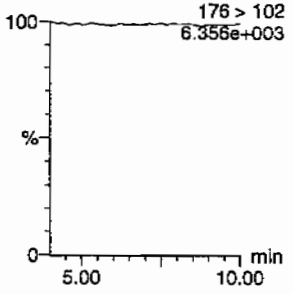

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.306e+003

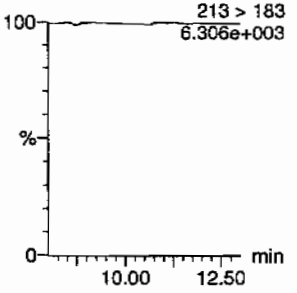

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.602e+004

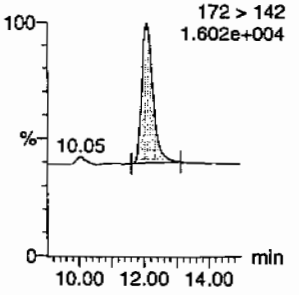

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.328e+003

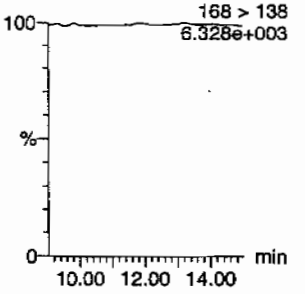

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.312e+003

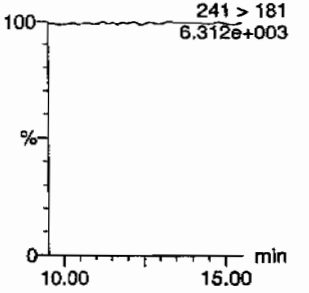

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.330e+003

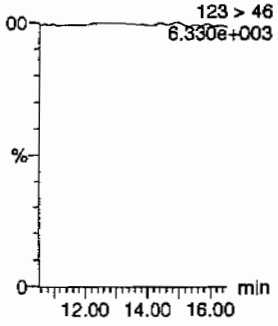

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.333e+003

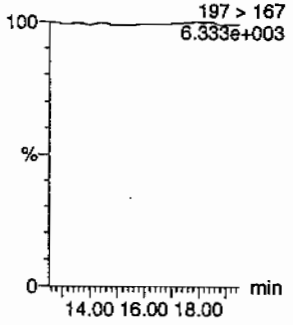

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.330e+003

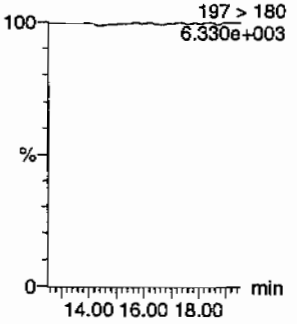

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.320e+003

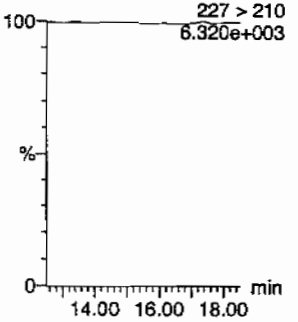

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.387e+003

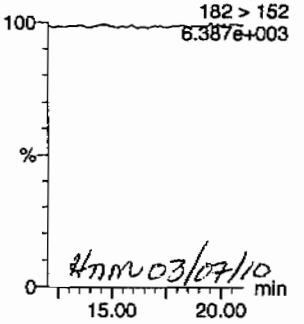

HMM 03/07/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.387e+003

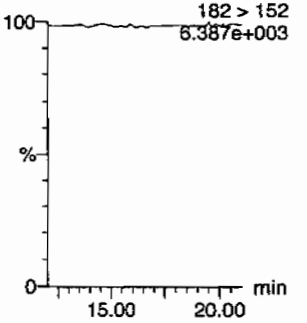

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

1-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.387e+003

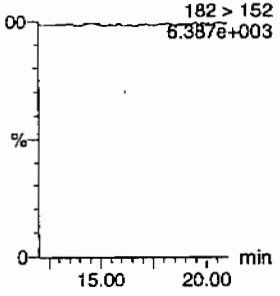

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.366e+004

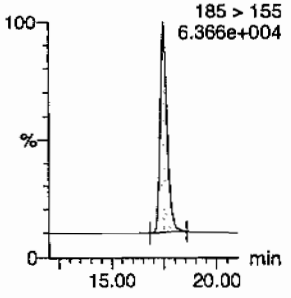

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.366e+003

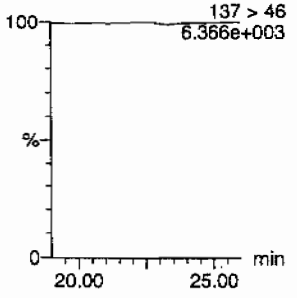

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.366e+003

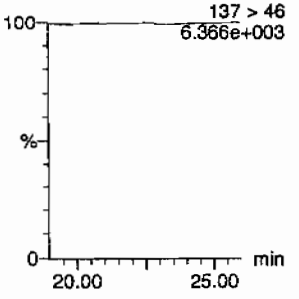

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.366e+003

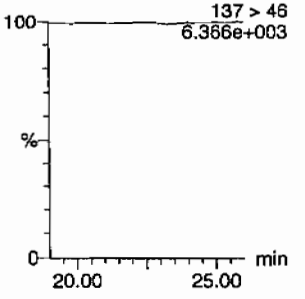

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.353e+003

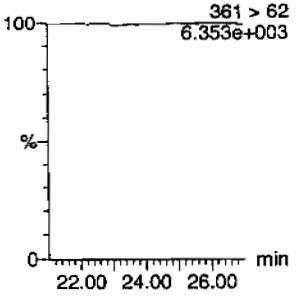

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK10	HMX	176 > 102			3934.990									
IBLK10	RDX	176 > 102			3934.990									
IBLK10	135-Trinitrobenzene	213 > 183			3934.990									
IBLK10	13-Dinitrobenzene-d4	172 > 142	12.07	3934.990		3934.990	3934.990	bb			560.2544	112.1	12.1	500.1
IBLK10	13-Dinitrobenzene	168 > 138			3934.990									
IBLK10	Tetryl	241 > 181			3934.990									
IBLK10	Nitrobenzene	123 > 46			3934.990									
IBLK10	4-Amino-26-dinitrotoluene	197 > 167			22916.141									
IBLK10	2-Amino-46-dinitrotoluene	197 > 180			22916.141									
IBLK10	246-Trinitrotoluene	227 > 210			22916.141									
IBLK10	34-dinitrotoluene	182 > 152			22916.141									
IBLK10	26-dinitrotoluene	182 > 152			22916.141									
IBLK10	24-dinitrotoluene	182 > 152			22916.141									
IBLK10	26-dinitrotoluene-d3	185 > 155	17.49	22916.141		22916.141	22916.141	bb			557.2833	111.5	11.5	1454.1
IBLK10	2-Nitrotoluene	137 > 46			22916.141									
IBLK10	4-Nitrotoluene	137 > 46			22916.141									
IBLK10	3-Nitrotoluene	137 > 46			22916.141									
IBLK10	PETN	361 > 62			22916.141									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 06-MAR-10 11:02

GEL Data File: EXP0304090a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	529.903
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	527.941
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304090a
ate: 06-Mar-2010
me: 11:02:17
: XIBLK11
al: 1:1,A

HOT 3/6/10

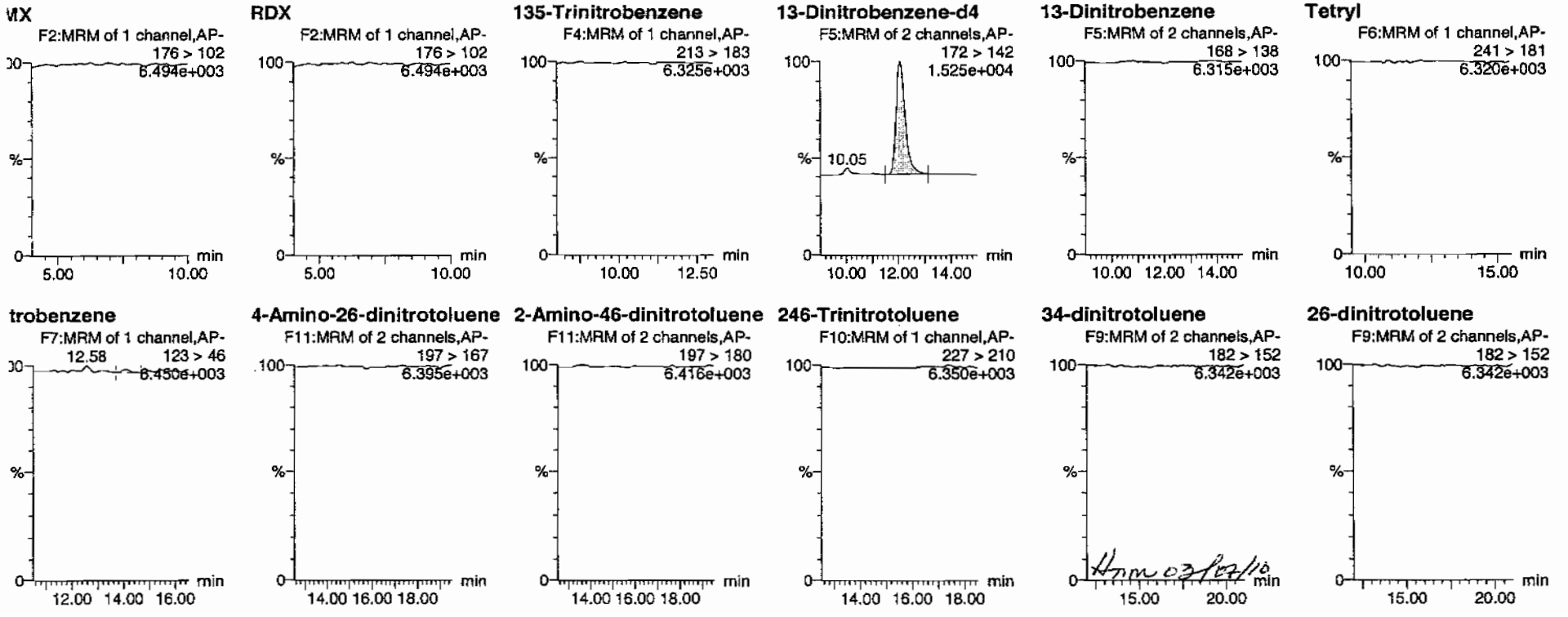

HM 03/07/10

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ataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

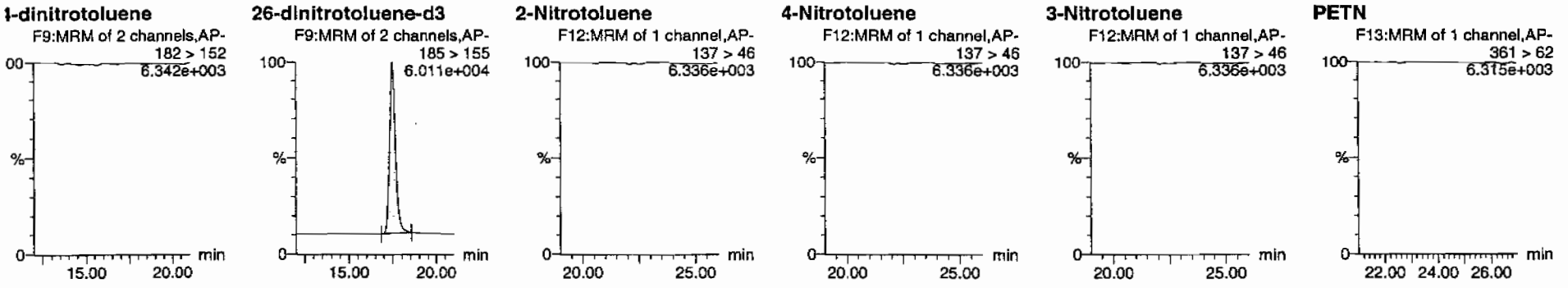

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK11	HMX	176 > 102			3721.816									
IBLK11	RDX	176 > 102			3721.816									
IBLK11	135-Trinitrobenzene	213 > 183			3721.816									
IBLK11	13-Dinitrobenzene-d4	172 > 142	12.07	3721.816		3721.816	3721.816	bb			529.9032	106.0	6.0	363.9
IBLK11	13-Dinitrobenzene	168 > 138			3721.816									
IBLK11	Tetryl	241 > 181			3721.816									
IBLK11	Nitrobenzene	123 > 46			3721.816			MM-	06-Mar-10	12:08:01				
IBLK11	4-Amino-26-dinitrotoluene	197 > 167			21709.531									
IBLK11	2-Amino-46-dinitrotoluene	197 > 180			21709.531									
IBLK11	246-Trinitrotoluene	227 > 210			21709.531									
IBLK11	34-dinitrotoluene	182 > 152			21709.531									
IBLK11	26-dinitrotoluene	182 > 152			21709.531									
IBLK11	24-dinitrotoluene	182 > 152			21709.531									
IBLK11	26-dinitrotoluene-d3	185 > 155	17.49	21709.531		21709.531	21709.531	bb			527.9405	105.6	5.6	1605.8
IBLK11	2-Nitrotoluene	137 > 46			21709.531									
IBLK11	4-Nitrotoluene	137 > 46			21709.531									
IBLK11	3-Nitrotoluene	137 > 46			21709.531									
IBLK11	PETN	361 > 62			21709.531									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 06-MAR-10 16:56

GEL Data File: EXP0304102a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	576.214
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	562.132
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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Printed: Sun Mar 07 13:34:18 2010, Page 21 of 101

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304102a
ate: 06-Mar-2010
ime: 16:56:16
): XIBLK12
ial: 1:1,A

MM 3/7/10

MX
F2:MRM of 1 channel,AP-
176 > 102
5.843e+003

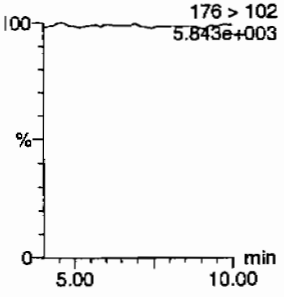

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.843e+003

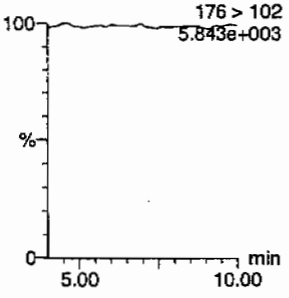

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.713e+003

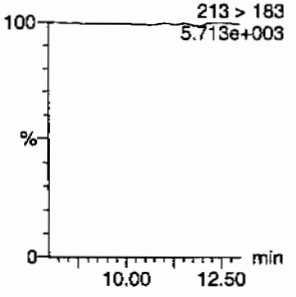

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.539e+004

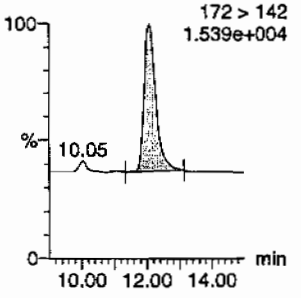

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.698e+003

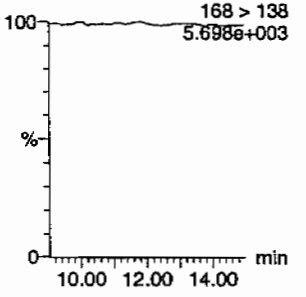

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.724e+003

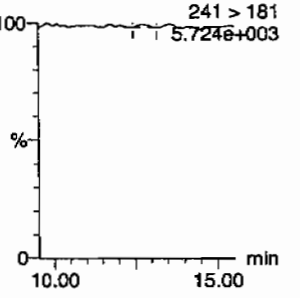

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.699e+003

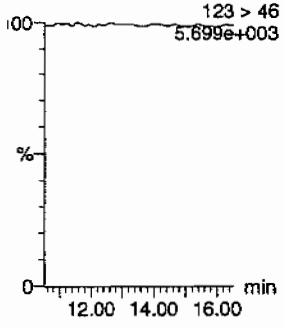

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.767e+003

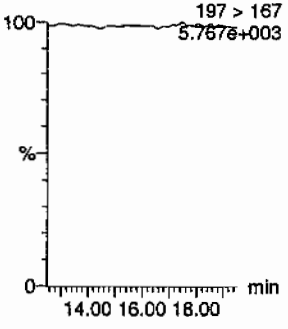

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.757e+003

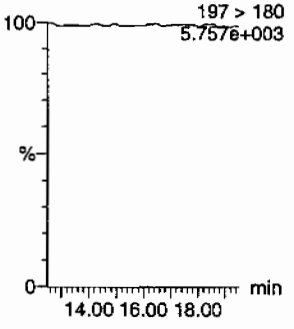

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.701e+003

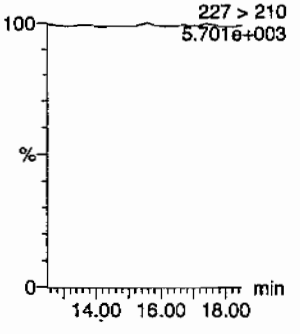

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.732e+003

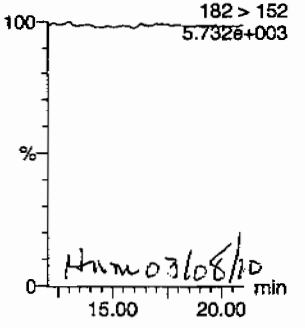

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.732e+003

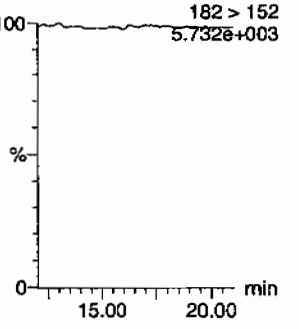

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ataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

4-dinitrotoluene

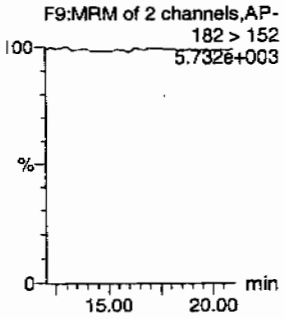

26-dinitrotoluene-d3

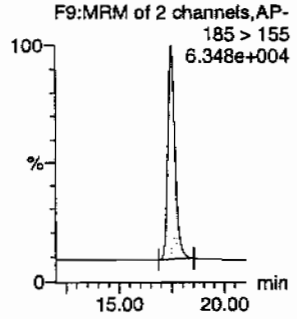

2-Nitrotoluene

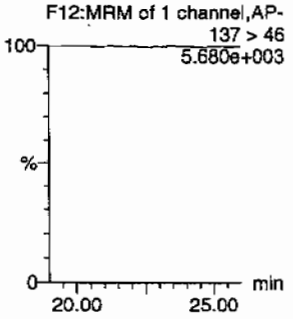

4-Nitrotoluene

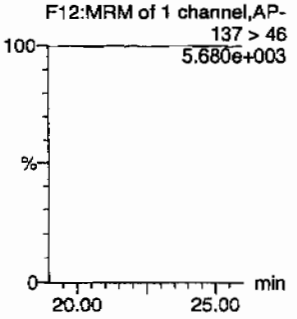

3-Nitrotoluene

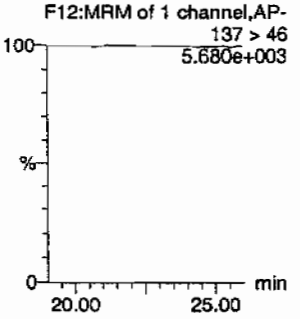

PETN

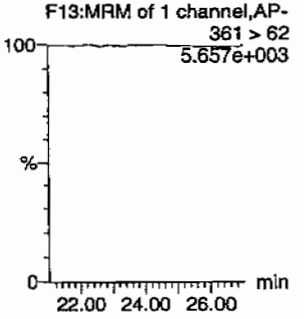

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK12	HMX	176 > 102			4047.082									
IBLK12	RDX	176 > 102			4047.082									
IBLK12	135-Trinitrobenzene	213 > 183			4047.082									
IBLK12	13-Dinitrobenzene-d4	172 > 142	12.07	4047.082		4047.082	4047.082	bb			576.2138	115.2	15.2	319.2
IBLK12	13-Dinitrobenzene	168 > 138			4047.082									
IBLK12	Tetryl	241 > 181			4047.082			MM-	07-Mar-10	13:21:33				
IBLK12	Nitrobenzene	123 > 46			4047.082									
IBLK12	4-Amino-26-dinitrotoluene	197 > 167			23115.531									
IBLK12	2-Amino-46-dinitrotoluene	197 > 180			23115.531									
IBLK12	246-Trinitrotoluene	227 > 210			23115.531									
IBLK12	34-dinitrotoluene	182 > 152			23115.531									
IBLK12	26-dinitrotoluene	182 > 152			23115.531									
IBLK12	24-dinitrotoluene	182 > 152			23115.531									
IBLK12	26-dinitrotoluene-d3	185 > 155	17.47	23115.531		23115.531	23115.531	bb			562.1322	112.4	12.4	2059.7
IBLK12	2-Nitrotoluene	137 > 46			23115.531									
IBLK12	4-Nitrotoluene	137 > 46			23115.531									
IBLK12	3-Nitrotoluene	137 > 46			23115.531									
IBLK12	PETN	361 > 62			23115.531									

iEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK13
Analysis Date: 06-MAR-10 22:50
GEL Data File: EXP0304114a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
Tetryl	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	537.14
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	529.515
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

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ataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304114a
ate: 06-Mar-2010
ime: 22:50:11
): XIBLK13
ial: 1:1,A

MM 3/7/10

MX
F2:MRM of 1 channel,AP-
176 > 102
6.251e+003

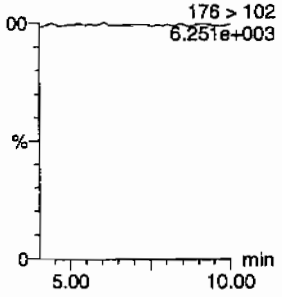

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.251e+003

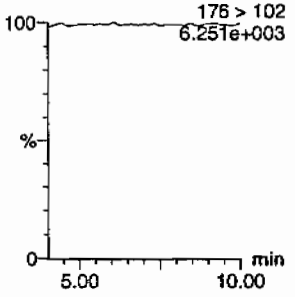

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.141e+003

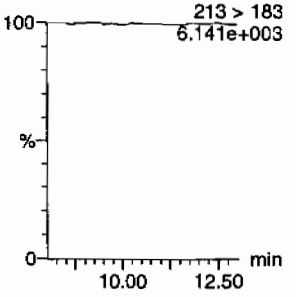

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.518e+004

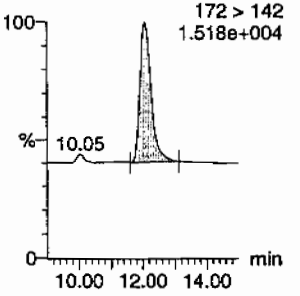

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.160e+003

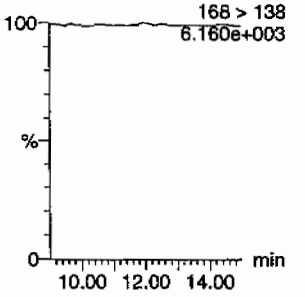

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.178e+003

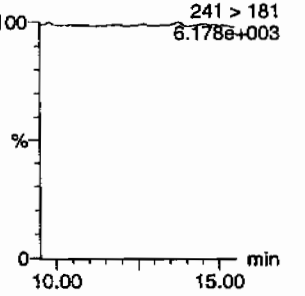

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.144e+003

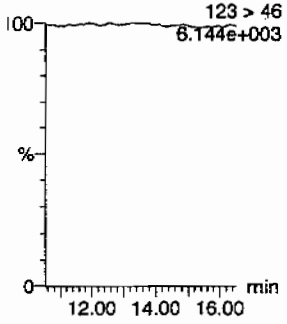

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.213e+003

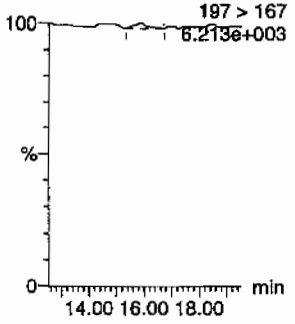

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.197e+003

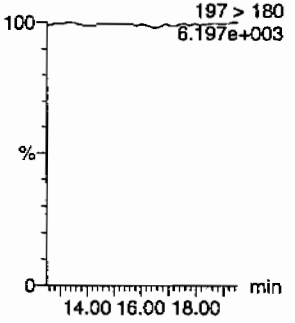

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.123e+003

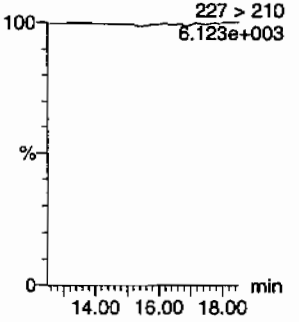

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.141e+003

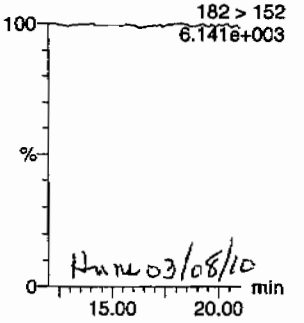

Hmm 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.141e+003

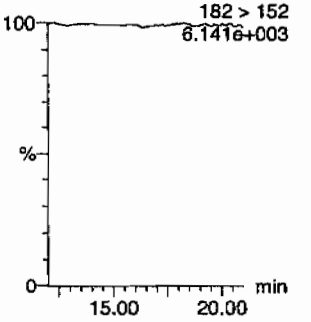

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

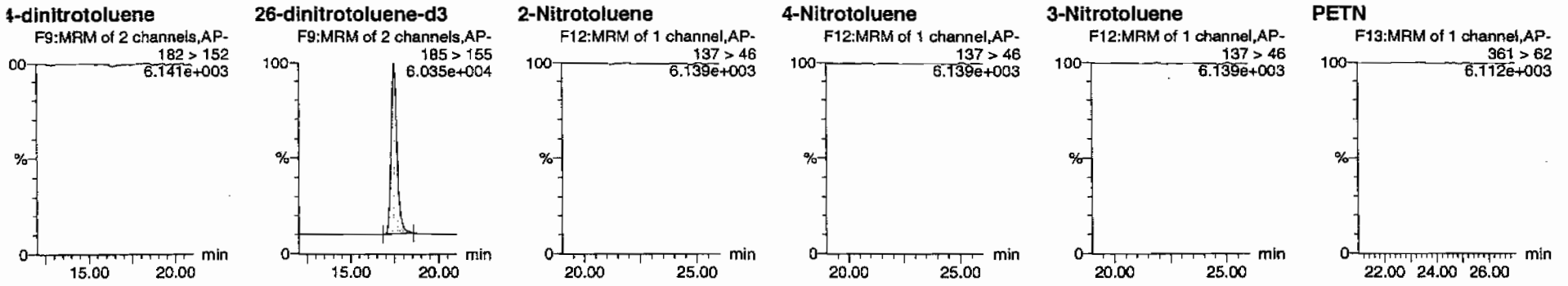

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
IBLK13	HMX	176 > 102			3772.644									
IBLK13	RDX	176 > 102			3772.644									
IBLK13	135-Trinitrobenzene	213 > 183			3772.644									
IBLK13	13-Dinitrobenzene-d4	172 > 142	12.07	3772.644		3772.644	3772.644	bb			537.1400	107.4	7.4	520.5
IBLK13	13-Dinitrobenzene	168 > 138			3772.644									
IBLK13	Tetryl	241 > 181			3772.644									
IBLK13	Nitrobenzene	123 > 46			3772.644									
IBLK13	4-Amino-26-dinitrotoluene	197 > 167			21774.285			MM-	07-Mar-10	13:25:28				
IBLK13	2-Amino-46-dinitrotoluene	197 > 180			21774.285									
IBLK13	246-Trinitrotoluene	227 > 210			21774.285									
IBLK13	34-dinitrotoluene	182 > 152			21774.285									
IBLK13	26-dinitrotoluene	182 > 152			21774.285									
IBLK13	24-dinitrotoluene	182 > 152			21774.285									
IBLK13	26-dinitrotoluene-d3	185 > 155	17.47	21774.285		21774.285	21774.285	bb			529.5153	105.9	5.9	2496.7
IBLK13	2-Nitrotoluene	137 > 46			21774.285									
IBLK13	4-Nitrotoluene	137 > 46			21774.285									
IBLK13	3-Nitrotoluene	137 > 46			21774.285									
IBLK13	PETN	361 > 62			21774.285									

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 07-MAR-10 05:13

GEL Data File: EXP0304127a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	644.848
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	590.438
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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antify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

me: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304127a
te: 07-Mar-2010
ne: 05:13:46
XIBLK14
l: 1:1,A

HMM 3/8/10

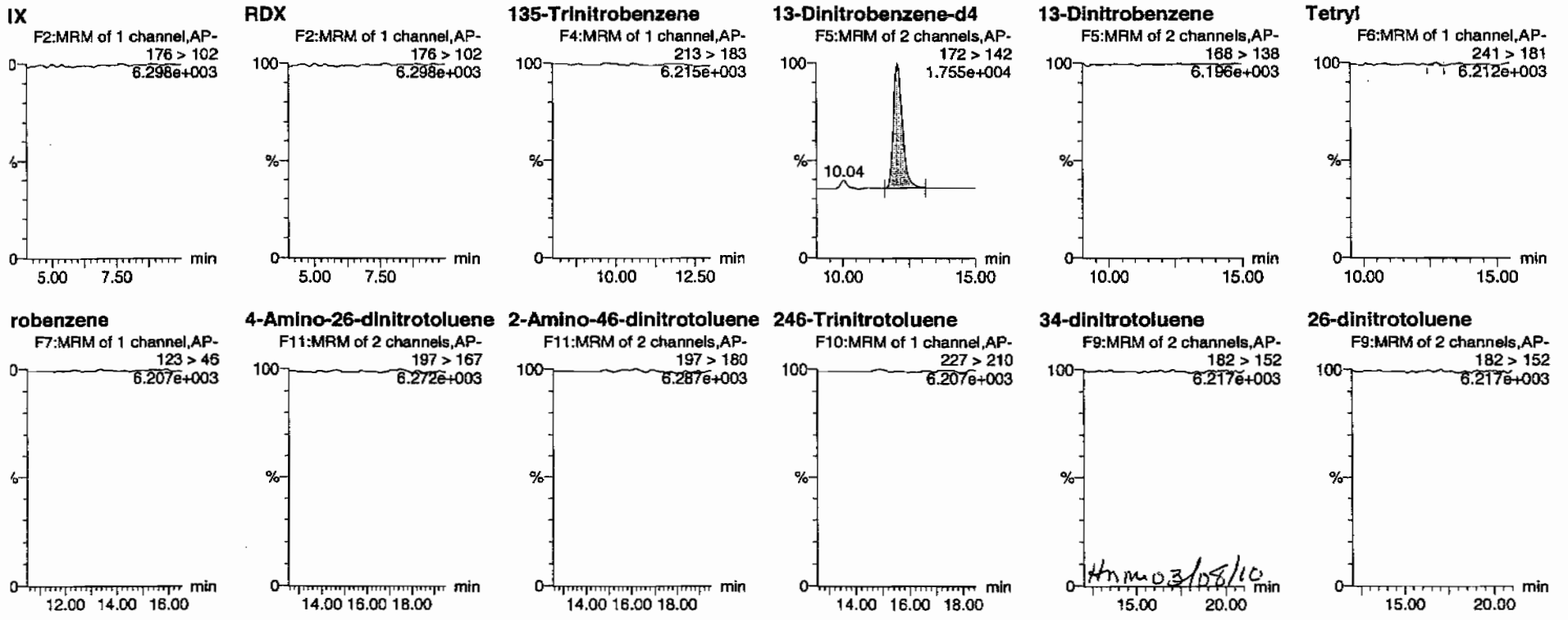

HMM 03/08/10

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ıantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

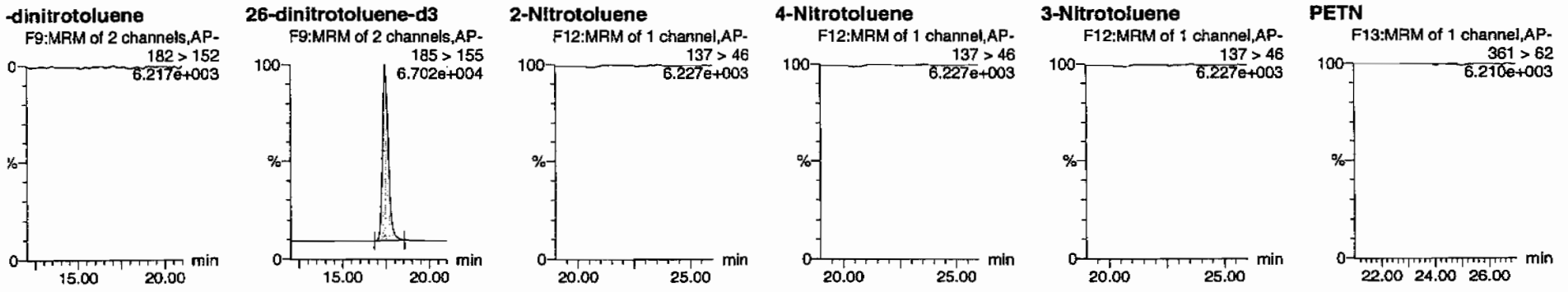

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
3LK14	HMX	176 > 102			4529.140									
3LK14	RDX	176 > 102			4529.140									
3LK14	135-Trinitrobenzene	213 > 183			4529.140									
3LK14	13-Dinitrobenzene-d4	172 > 142	12.06	4529.140		4529.140	4529.140	bb			644.8480	129.0	29.0	454.4
3LK14	13-Dinitrobenzene	168 > 138			4529.140									
3LK14	Tetryl	241 > 181			4529.140			MM-	07-Mar-10	13:21:14				
3LK14	Nitrobenzene	123 > 46			4529.140									
3LK14	4-Amino-26-dinitrotoluene	197 > 167			24279.488									
3LK14	2-Amino-46-dinitrotoluene	197 > 180			24279.488									
3LK14	246-Trinitrotoluene	227 > 210			24279.488									
3LK14	34-dinitrotoluene	182 > 152			24279.488									
3LK14	26-dinitrotoluene	182 > 152			24279.488									
3LK14	24-dinitrotoluene	182 > 152			24279.488									
3LK14	26-dinitrotoluene-d3	185 > 155	17.45	24279.488		24279.488	24279.488	bb			590.4377	118.1	18.1	3202.9
3LK14	2-Nitrotoluene	137 > 46			24279.488									
3LK14	4-Nitrotoluene	137 > 46			24279.488									
3LK14	3-Nitrotoluene	137 > 46			24279.488									
3LK14	PETN	361 > 62			24279.488									

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK15
Analysis Date: 07-MAR-10 11:37
GEL Data File: EXP0304140a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
PETN	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	606.883
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	475.497
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0

iantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

me: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304140a
te: 07-Mar-2010
ne: 11:37:25
: XIBLK15
l: 1:1,A

MM 3/9/10

IX
F2:MRM of 1 channel,AP-
176 > 102
6.573e+003

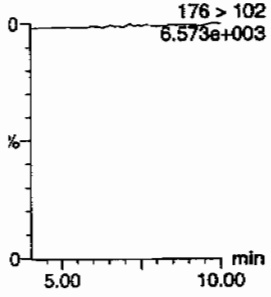

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.573e+003

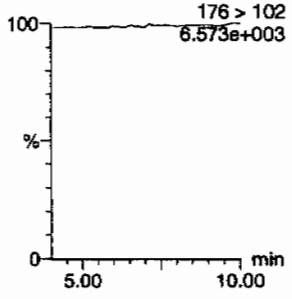

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.476e+003

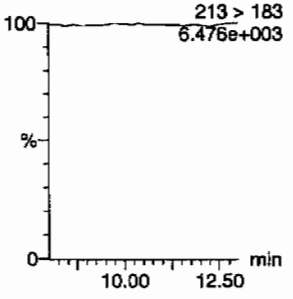

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.700e+004

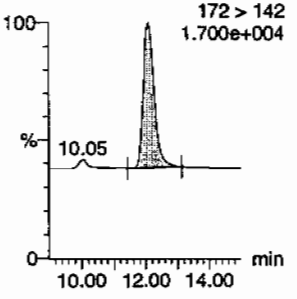

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.476e+003

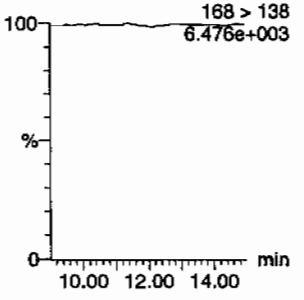

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.471e+003

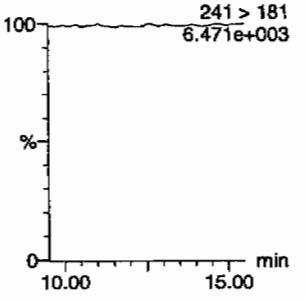

robenzene
F7:MRM of 1 channel,AP-
123 > 46
6.479e+003

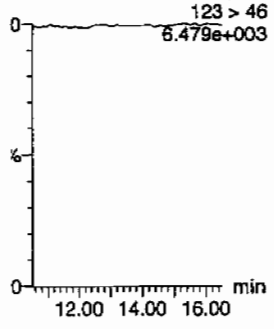

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.585e+003

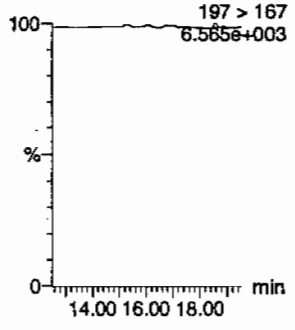

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.542e+003

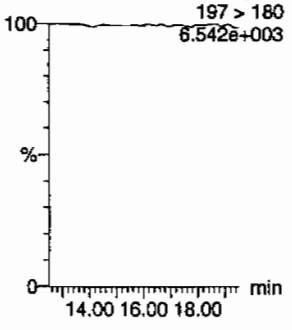

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.472e+003

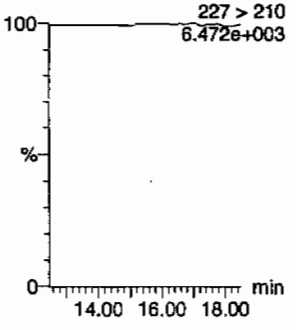

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.498e+003

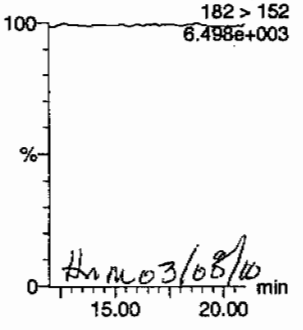

HM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.498e+003

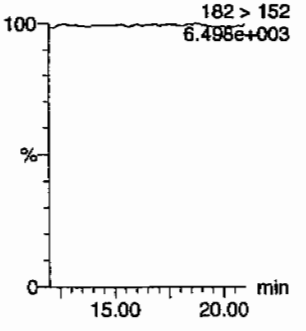

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ıtaset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

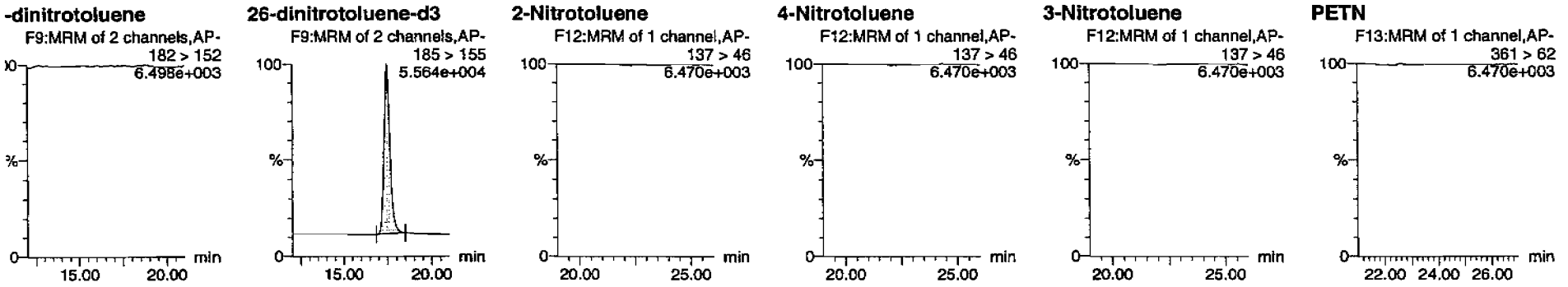

	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
BLK15	HMX	176 > 102			4262.488									
BLK15	RDX	176 > 102			4262.488									
BLK15	135-Trinitrobenzene	213 > 183			4262.488									
BLK15	13-Dinitrobenzene-d4	172 > 142	12.07	4262.488		4262.488	4262.488	bb			606.8828	121.4	21.4	472.5
BLK15	13-Dinitrobenzene	168 > 138			4262.488									
BLK15	Tetryl	241 > 181			4262.488									
BLK15	Nitrobenzene	123 > 46			4262.488									
BLK15	4-Amino-26-dinitrotoluene	197 > 167			19553.002									
BLK15	2-Amino-46-dinitrotoluene	197 > 180			19553.002									
BLK15	246-Trinitrotoluene	227 > 210			19553.002									
BLK15	34-dinitrotoluene	182 > 152			19553.002									
BLK15	26-dinitrotoluene	182 > 152			19553.002									
BLK15	24-dinitrotoluene	182 > 152			19553.002									
BLK15	26-dinitrotoluene-d3	185 > 155	17.47	19553.002		19553.002	19553.002	bb			475.4973	95.1	-4.9	1968.1
BLK15	2-Nitrotoluene	137 > 46			19553.002									
BLK15	4-Nitrotoluene	137 > 46			19553.002									
BLK15	3-Nitrotoluene	137 > 46			19553.002									
BLK15	PETN	361 > 62			19553.002									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK16
Analysis Date: 07-MAR-10 15:04
GEL Data File: EXP0304147a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	546.85
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.472
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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ıantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

.taset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

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ıte: 07-Mar-2010
ne: 15:04:12
: XIBLK16
ıl: 1:1,A

MMT 3/5/10

ΛX

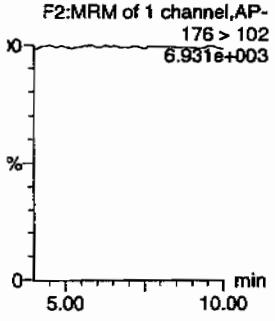

RDX

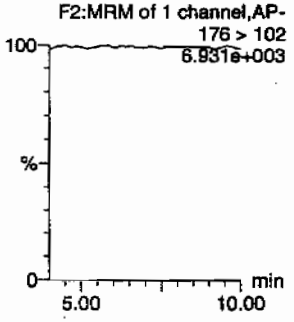

135-Trinitrobenzene

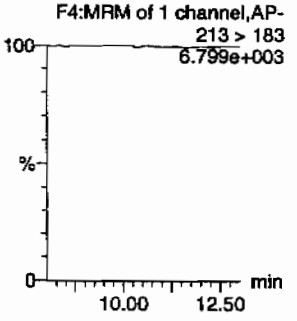

13-Dinitrobenzene-d4

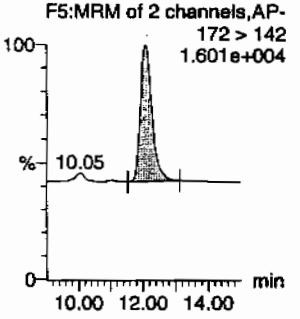

13-Dinitrobenzene

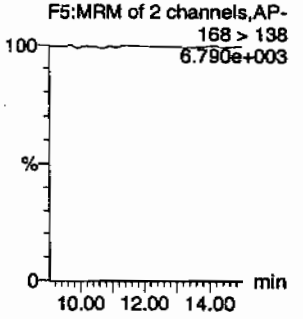

Tetryl

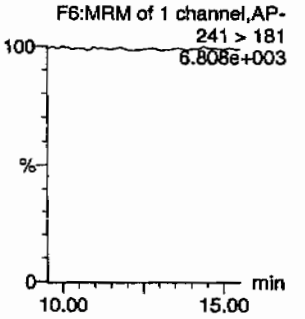

trobenzene

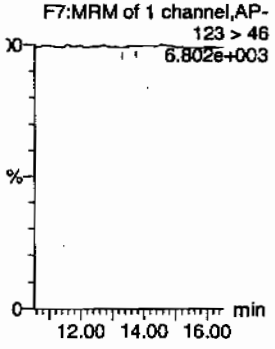

4-Amino-26-dinitrotoluene

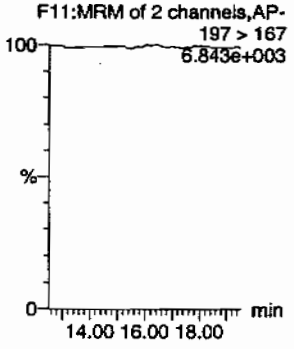

2-Amino-46-dinitrotoluene

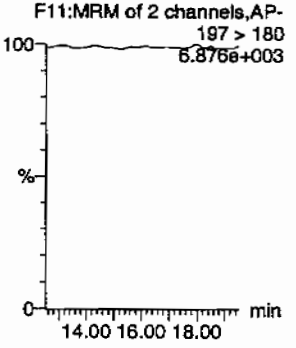

246-Trinitrotoluene

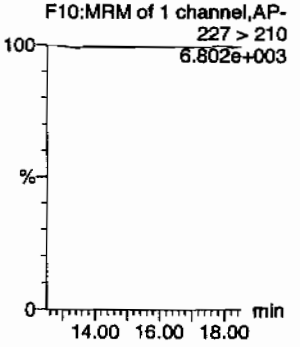

34-dinitrotoluene

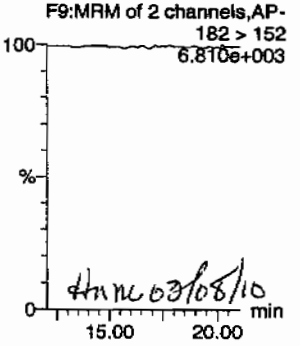

HMC 03/08/10

26-dinitrotoluene

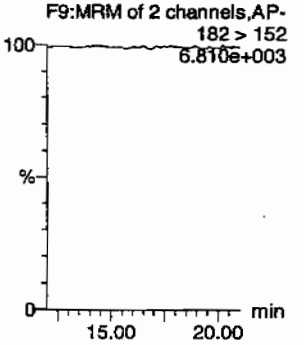

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uantify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

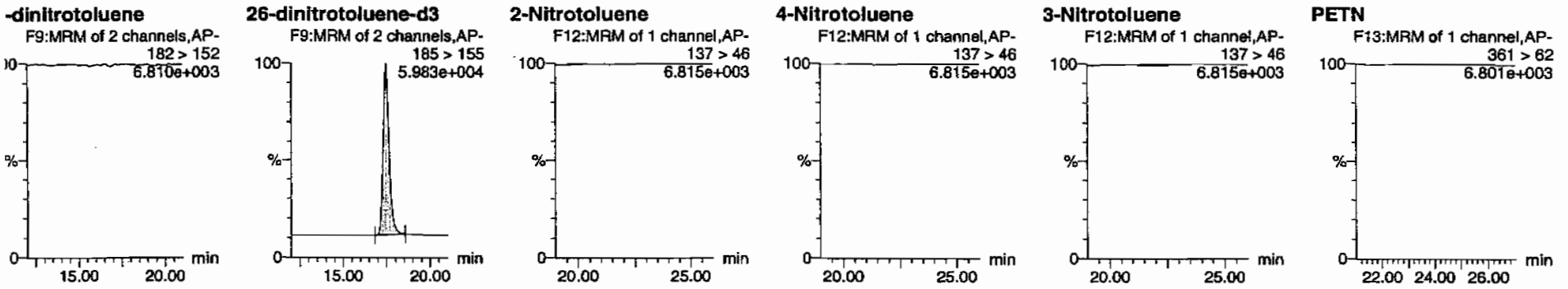

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
BLK16	HMX	176 > 102			3840.846									
BLK16	RDX	176 > 102			3840.846									
BLK16	135-Trinitrobenzene	213 > 183			3840.846									
BLK16	13-Dinitrobenzene-d4	172 > 142	12.07	3840.846		3840.846	3840.846	bb			546.8504	109.4	9.4	224.3
BLK16	13-Dinitrobenzene	168 > 138			3840.846									
BLK16	Tetryl	241 > 181			3840.846									
BLK16	Nitrobenzene	123 > 46			3840.846			MM-	08-Mar-10	11:33:27				
BLK16	4-Amino-26-dinitrotoluene	197 > 167			21361.277									
BLK16	2-Amino-46-dinitrotoluene	197 > 180			21361.277									
BLK16	246-Trinitrotoluene	227 > 210			21361.277									
BLK16	34-dinitrotoluene	182 > 152			21361.277									
BLK16	26-dinitrotoluene	182 > 152			21361.277									
BLK16	24-dinitrotoluene	182 > 152			21361.277									
BLK16	26-dinitrotoluene-d3	185 > 155	17.47	21361.277		21361.277	21361.277	bb			519.4716	103.9	3.9	2944.1
BLK16	2-Nitrotoluene	137 > 46			21361.277									
BLK16	4-Nitrotoluene	137 > 46			21361.277									
BLK16	3-Nitrotoluene	137 > 46			21361.277									
BLK16	PETN	361 > 62			21361.277									

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1545
Lab Code: GEL
Lab Sample ID: XIBLK17
Analysis Date: 07–MAR–10 21:27
GEL Data File: EXP0304160a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	560.78
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	555.358
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0

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ıantify Sample Report
ɜL Laboratories, LLC / Analyst : Michael A. Penny

ıtaset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

ıme: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304160a
ıte: 07-Mar-2010
ne: 21:27:32
: XIBLK17
al: 1:1,A

MAT 3/8/10

ıIX
F2:MRM of 1 channel,AP-
176 > 102
6.254e+003

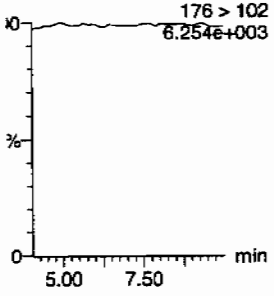

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.254e+003

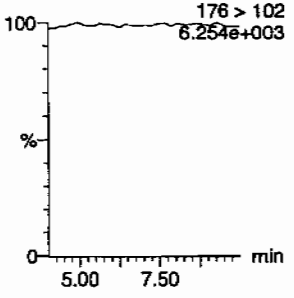

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.119e+003

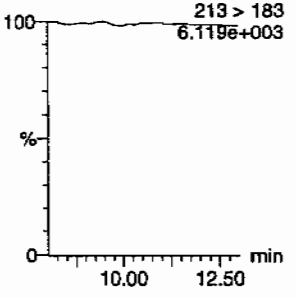

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.589e+004

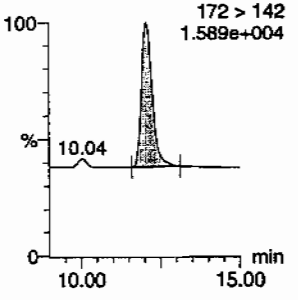

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
13.39 168 > 138
6.252e+003

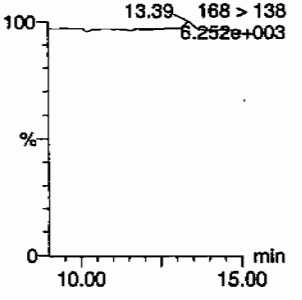

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.100e+003

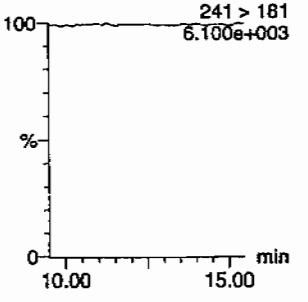

ıtrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.124e+003

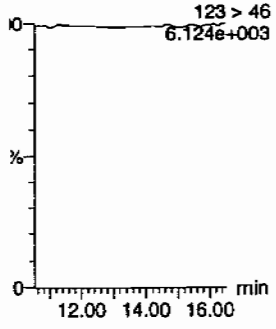

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.177e+003

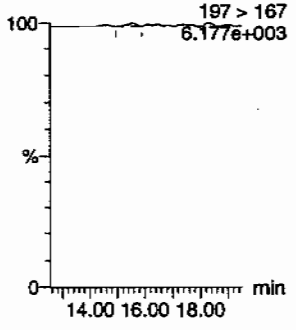

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.200e+003

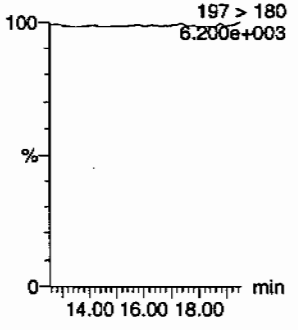

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.118e+003

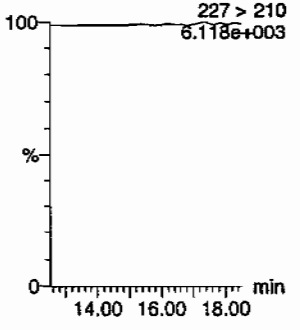

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.181e+003

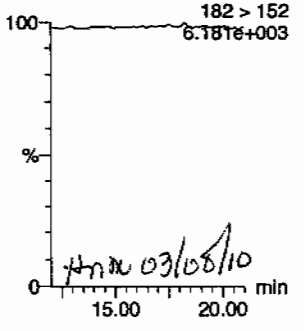

MM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.181e+003

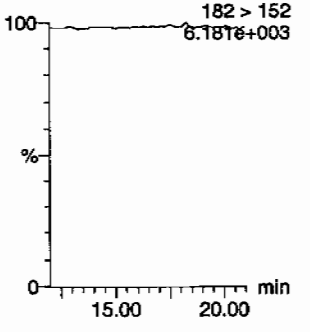

ɜL SOP GL-OA-E-056; Method 8321A-Modified / MM = Manual Modification

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ıantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

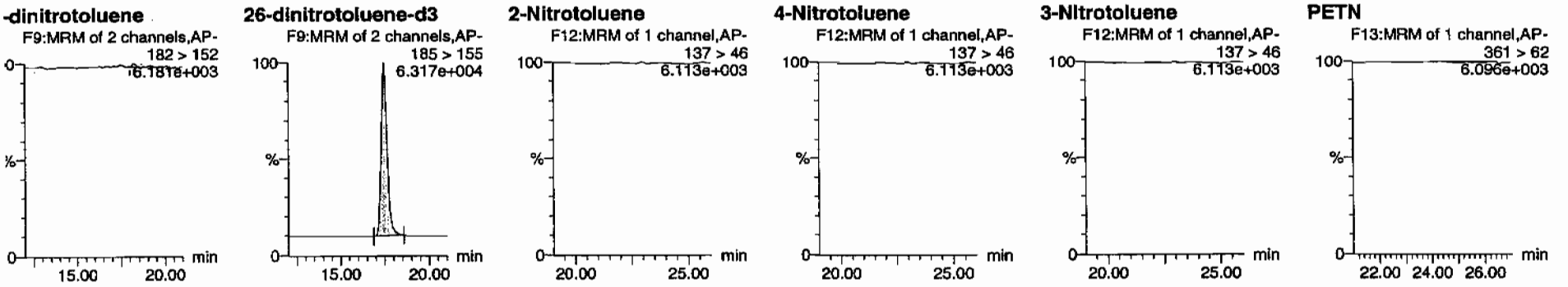

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
3LK17	HMX	176 > 102			3938.683									
3LK17	RDX	176 > 102			3938.683									
3LK17	135-Trinitrobenzene	213 > 183			3938.683									
3LK17	13-Dinitrobenzene-d4	172 > 142	12.06	3938.683		3938.683	3938.683	bb			560.7802	112.2	12.2	468.5
3LK17	13-Dinitrobenzene	168 > 138			3938.683									
3LK17	Tetryl	241 > 181			3938.683									
3LK17	Nitrobenzene	123 > 46			3938.683									
3LK17	4-Amino-26-dinitrotoluene	197 > 167			22836.973			MM-	08-Mar-10	11:34:52				
3LK17	2-Amino-46-dinitrotoluene	197 > 180			22836.973									
3LK17	246-Trinitrotoluene	227 > 210			22836.973									
3LK17	34-dinitrotoluene	182 > 152			22836.973									
3LK17	26-dinitrotoluene	182 > 152			22836.973									
3LK17	24-dinitrotoluene	182 > 152			22836.973			MM-	08-Mar-10	11:55:53				
3LK17	26-dinitrotoluene-d3	185 > 155	17.48	22836.973		22836.973	22836.973	bb			555.3581	111.1	11.1	1688.8
3LK17	2-Nitrotoluene	137 > 46			22836.973									
3LK17	4-Nitrotoluene	137 > 46			22836.973									
3LK17	3-Nitrotoluene	137 > 46			22836.973									
3LK17	PETN	361 > 62			22836.973									

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 08-MAR-10 03:50

GEL Data File: EXP0304173a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	520.029
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	555.047
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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ıantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

me: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304173a
te: 08-Mar-2010
ne: 03:50:54
XIBLK18
ıl: 1:1,A

MM 3/8/10

IX
F2:MRM of 1 channel,AP-
176 > 102
6.239e+003

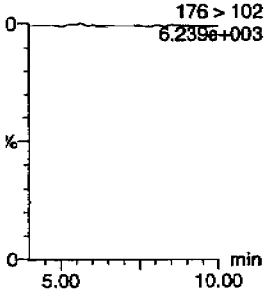

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.239e+003

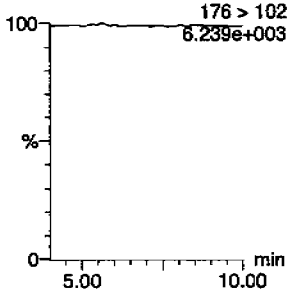

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.170e+003

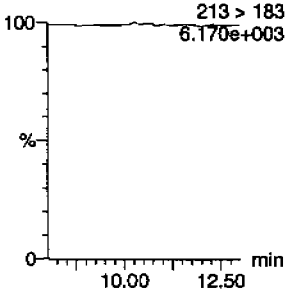

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.524e+004

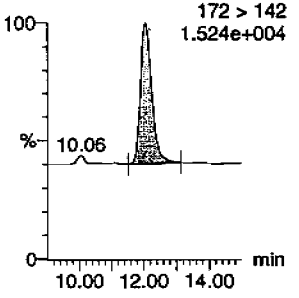

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.156e+003

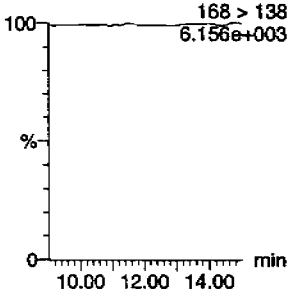

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.137e+003

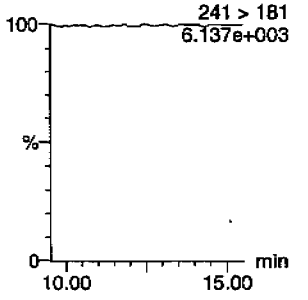

:robenzene
F7:MRM of 1 channel,AP-
123 > 46
6.281e+003

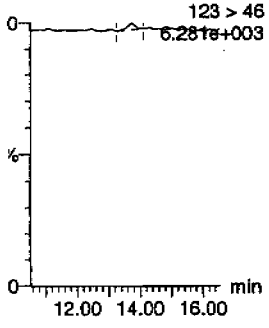

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.216e+003

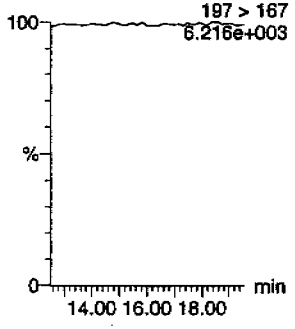

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.247e+003

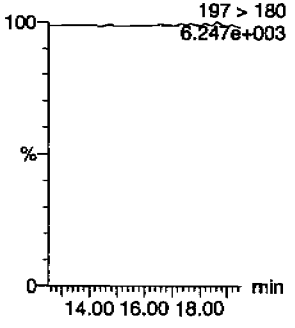

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.174e+003

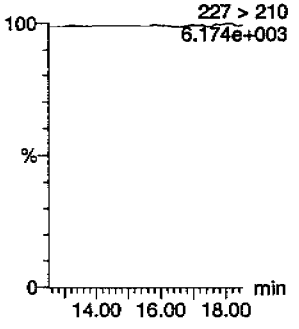

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.161e+003

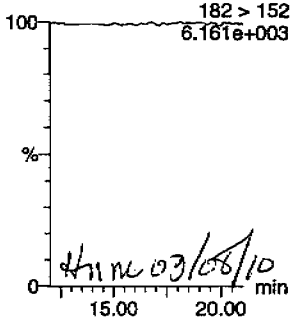

MM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.161e+003

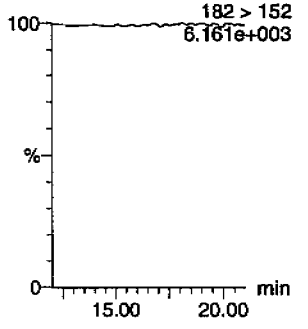

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

ıtaset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

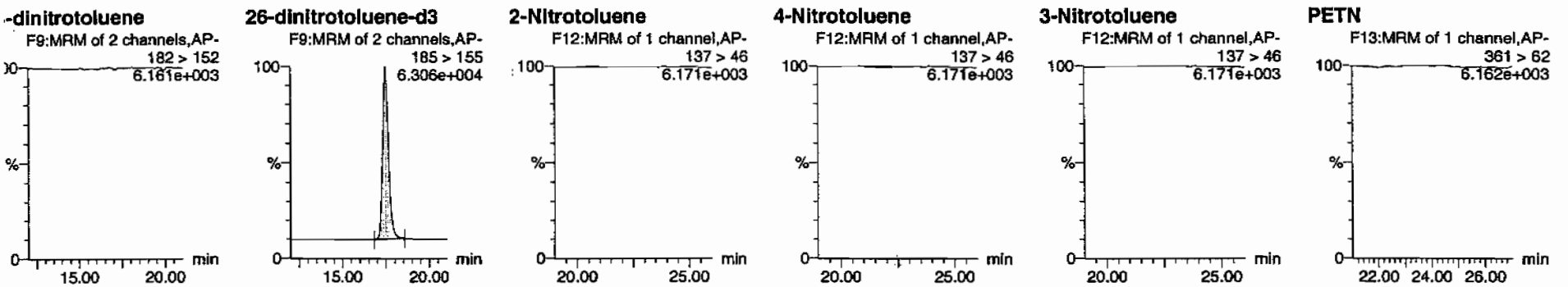

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
BLK18	HMX	176 > 102			3652.467									
BLK18	RDX	176 > 102			3652.467									
BLK18	135-Trinitrobenzene	213 > 183			3652.467									
BLK18	13-Dinitrobenzene-d4	172 > 142	12.07	3652.467		3652.467	3652.467	bb			520.0294	104.0	4.0	218.6
BLK18	13-Dinitrobenzene	168 > 138			3652.467									
BLK18	Tetryl	241 > 181			3652.467									
BLK18	Nitrobenzene	123 > 46			3652.467			MM-	08-Mar-10	11:33:15				
BLK18	4-Amino-26-dinitrotoluene	197 > 167			22824.164									
BLK18	2-Amino-46-dinitrotoluene	197 > 180			22824.164									
BLK18	246-Trinitrotoluene	227 > 210			22824.164									
BLK18	34-dinitrotoluene	182 > 152			22824.164									
BLK18	26-dinitrotoluene	182 > 152			22824.164									
BLK18	24-dinitrotoluene	182 > 152			22824.164									
BLK18	26-dinitrotoluene-d3	185 > 155	17.47	22824.164		22824.164	22824.164	bb			555.0466	111.0	11.0	1739.5
BLK18	2-Nitrotoluene	137 > 46			22824.164									
BLK18	4-Nitrotoluene	137 > 46			22824.164									
BLK18	3-Nitrotoluene	137 > 46			22824.164									
BLK18	PETN	361 > 62			22824.164									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK19

Analysis Date: 08-MAR-10 06:47

GEL Data File: EXP0304179a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	530.016
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	485.003
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304179a
ate: 08-Mar-2010
me: 06:47:54
: XIBLK19
al: 1:1,A

MMT 3/8/10

MX
F2:MRM of 1 channel,AP-
176 > 102
6.205e+003

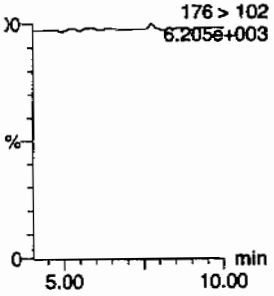

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.205e+003

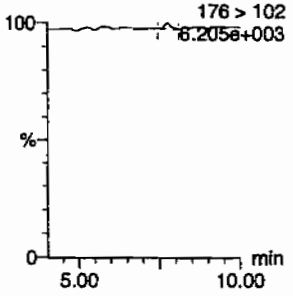

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.118e+003

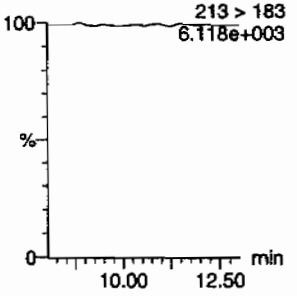

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.533e+004

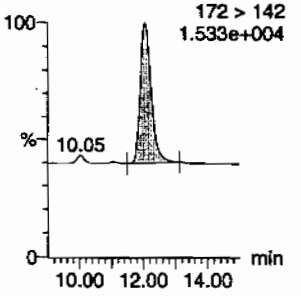

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.101e+003

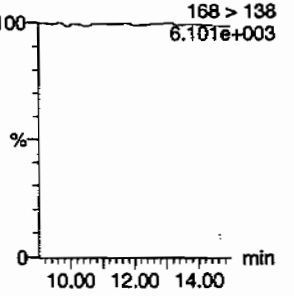

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.143e+003

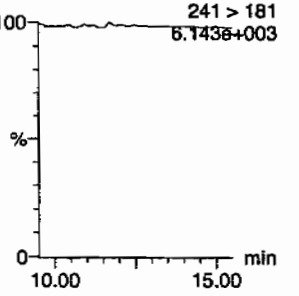

trobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.087e+003

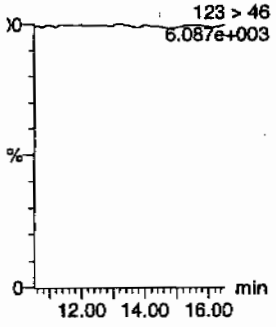

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.109e+003

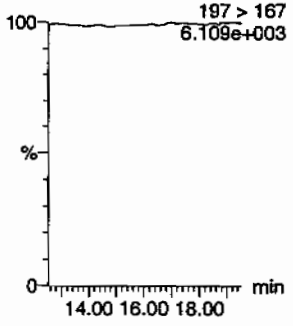

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.130e+003

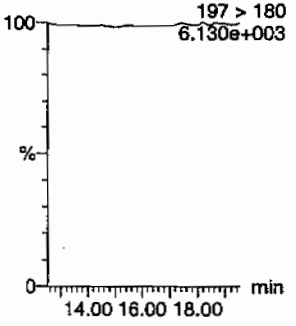

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.097e+003

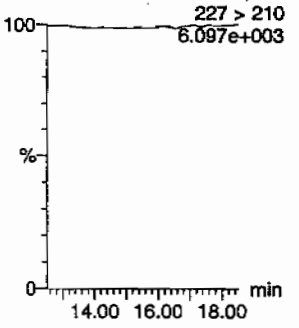

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.096e+003

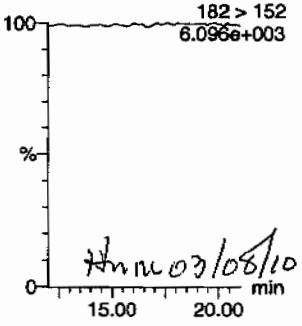

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.096e+003

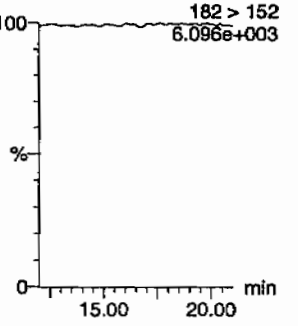

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EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

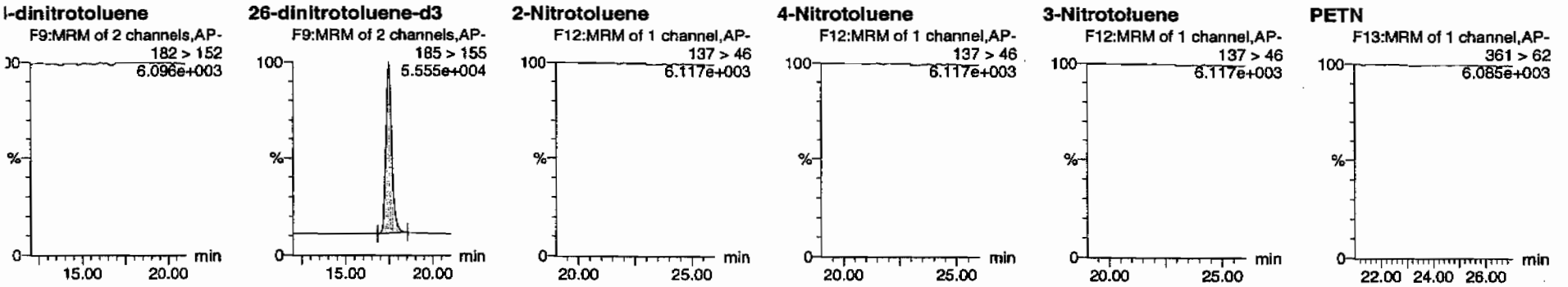

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/ml	%Rec	%Dev	S/N
BLK19	HMX	176 > 102			3722.607									
BLK19	RDX	176 > 102			3722.607			MM-	08-Mar-10	11:14:44				
BLK19	135-Trinitrobenzene	213 > 183			3722.607									
BLK19	13-Dinitrobenzene-d4	172 > 142	12.07	3722.607		3722.607	3722.607	bb			530.0158	106.0	6.0	436.5
BLK19	13-Dinitrobenzene	168 > 138			3722.607									
BLK19	Tetryl	241 > 181			3722.607									
BLK19	Nitrobenzene	123 > 46			3722.607									
BLK19	4-Amino-26-dinitrotoluene	197 > 167			19943.895									
BLK19	2-Amino-46-dinitrotoluene	197 > 180			19943.895									
BLK19	246-Trinitrotoluene	227 > 210			19943.895									
BLK19	34-dinitrotoluene	182 > 152			19943.895									
BLK19	26-dinitrotoluene	182 > 152			19943.895									
BLK19	24-dinitrotoluene	182 > 152			19943.895									
BLK19	26-dinitrotoluene-d3	185 > 155	17.47	19943.895		19943.895	19943.895	bb			485.0031	97.0	-3.0	2344.1
BLK19	2-Nitrotoluene	137 > 46			19943.895									
BLK19	4-Nitrotoluene	137 > 46			19943.895									
BLK19	3-Nitrotoluene	137 > 46			19943.895									
BLK19	PETN	361 > 62			19943.895									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1545
Lab Code: GEL
Lab Sample ID: XIBLK20
Analysis Date: 08–MAR–10 10:14
GEL Data File: EXP0304186a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	520.333
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	699.444
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

me: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304186a
te: 08-Mar-2010
me: 10:14:33
: XIBLK20
al: 1:1,A

MMT 3/8/10

MX
F2:MRM of 1 channel,AP-
176 > 102
6.958e+003

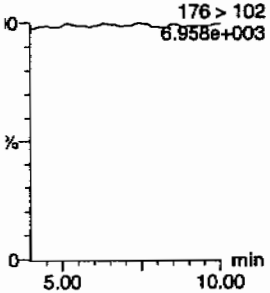

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.958e+003

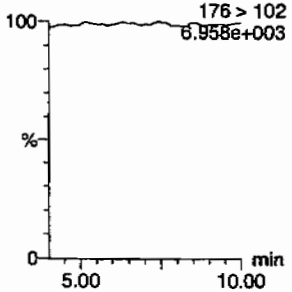

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.803e+003

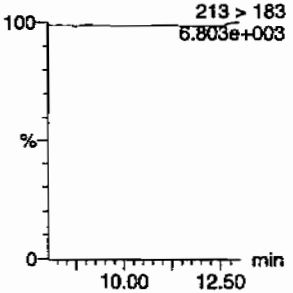

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.902e+004

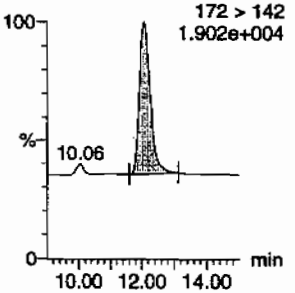

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.725e+003

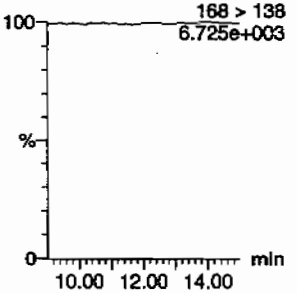

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.732e+003

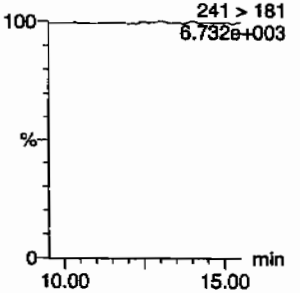

trobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.753e+003

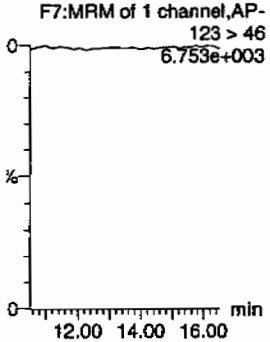

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.899e+003

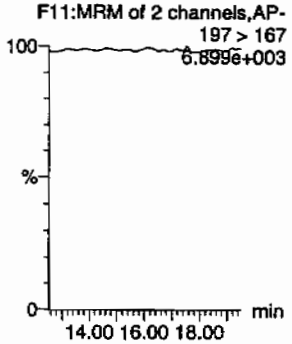

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.874e+003

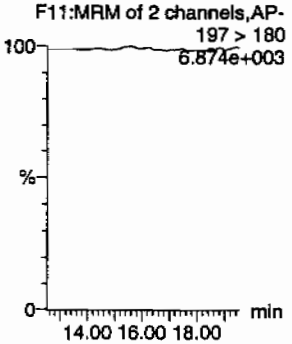

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.739e+003

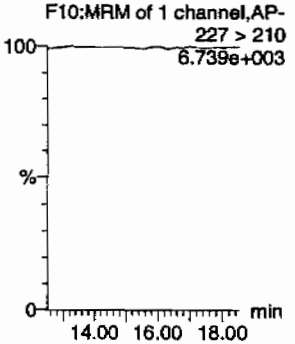

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.776e+003

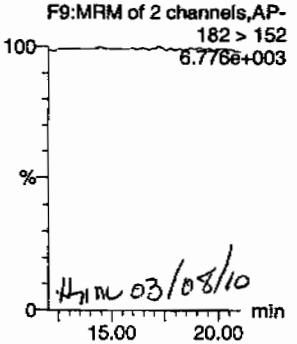

HMC 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.776e+003

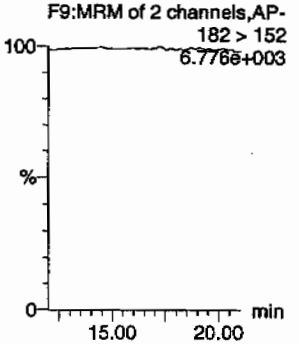

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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uantify Sample Report

EL Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

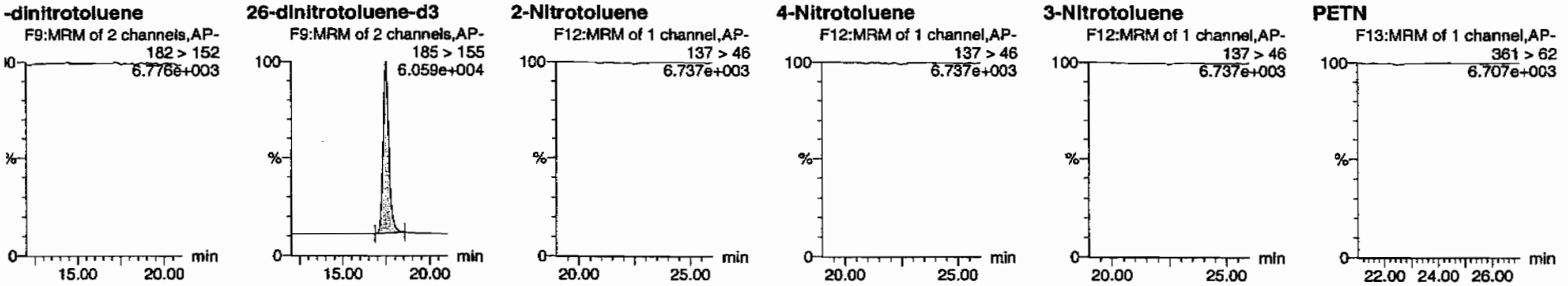

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
BLK20	HMX	176 > 102			4912.598									
BLK20	RDX	176 > 102			4912.598									
BLK20	135-Trinitrobenzene	213 > 183			4912.598									
BLK20	13-Dinitrobenzene-d4	172 > 142	12.07	4912.598		4912.598	4912.598	bb			699.4439	139.9	39.9	1193.3
BLK20	13-Dinitrobenzene	168 > 138			4912.598									
BLK20	Tetryl	241 > 181			4912.598									
BLK20	Nitrobenzene	123 > 46			4912.598									
BLK20	4-Amino-26-dinitrotoluene	197 > 167			21396.686									
BLK20	2-Amino-46-dinitrotoluene	197 > 180			21396.686									
BLK20	246-Trinitrotoluene	227 > 210			21396.686									
BLK20	34-dinitrotoluene	182 > 152			21396.686									
BLK20	26-dinitrotoluene	182 > 152			21396.686									
BLK20	24-dinitrotoluene	182 > 152			21396.686									
BLK20	26-dinitrotoluene-d3	185 > 155	17.49	21396.686		21396.686	21396.686	bb			520.3327	104.1	4.1	1672.6
BLK20	2-Nitrotoluene	137 > 46			21396.686									
BLK20	4-Nitrotoluene	137 > 46			21396.686									
BLK20	3-Nitrotoluene	137 > 46			21396.686									
BLK20	PETN	361 > 62			21396.686									

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK21
Analysis Date: 08-MAR-10 15:39
GEL Data File: EXP0304197a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	536.755
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	515.235
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304197a
Date: 08-Mar-2010
Time: 15:39:14
ID: XIBLK21
Vial: 1:1,A

MM 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.563e+003

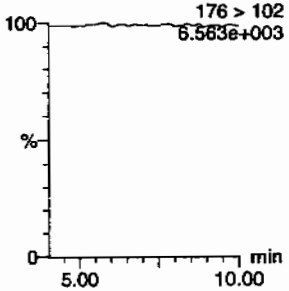

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.563e+003

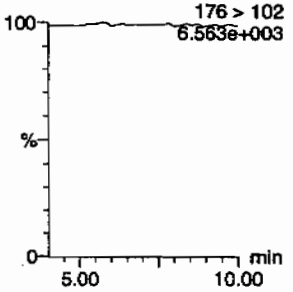

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.453e+003

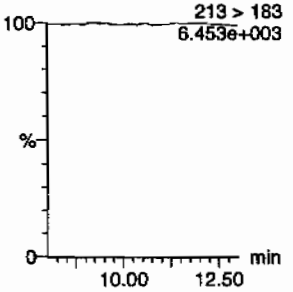

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.553e+004

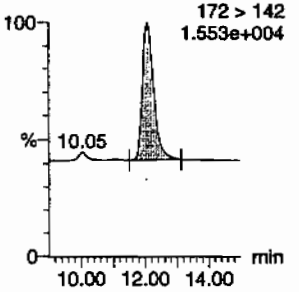

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.452e+003

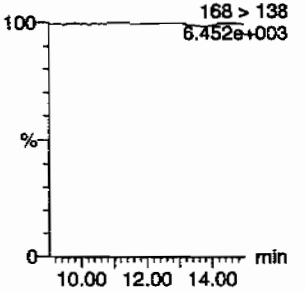

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.469e+003

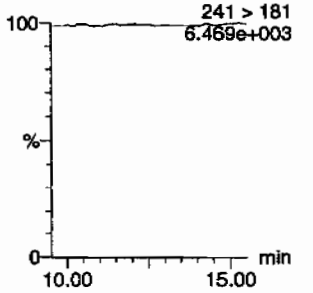

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.480e+003

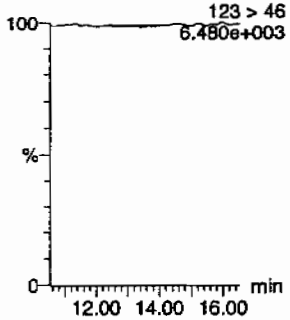

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.506e+003

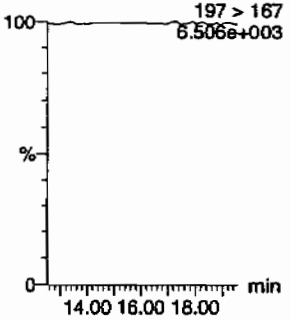

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.531e+003

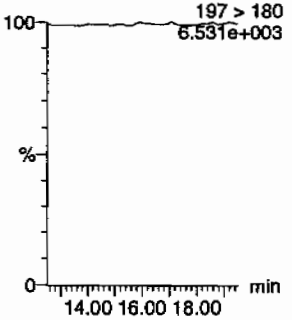

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.457e+003

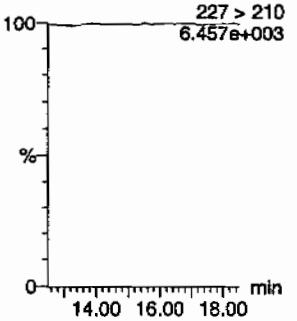

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.494e+003

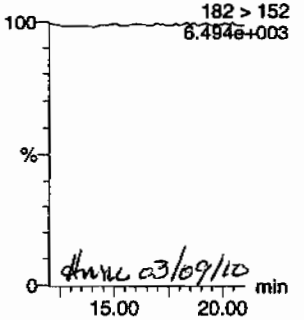

dmc 03/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.494e+003

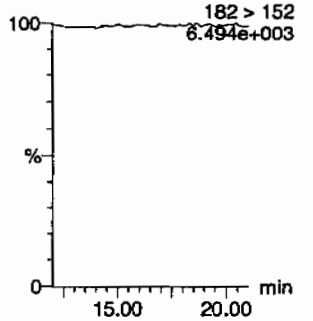

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene

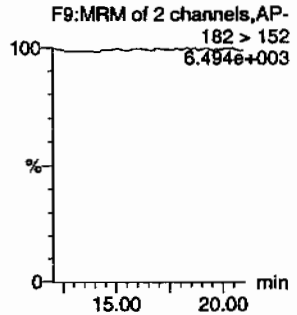

26-dinitrotoluene-d3

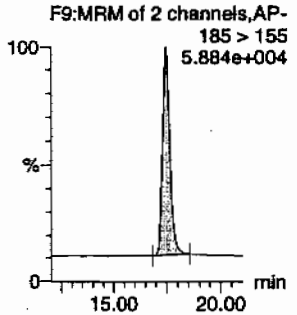

2-Nitrotoluene

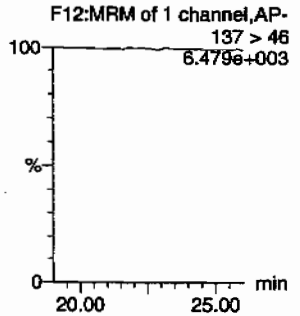

4-Nitrotoluene

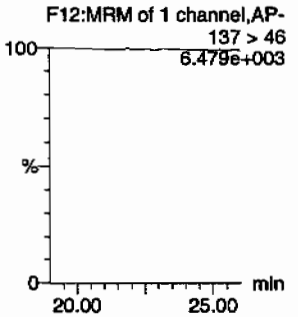

3-Nitrotoluene

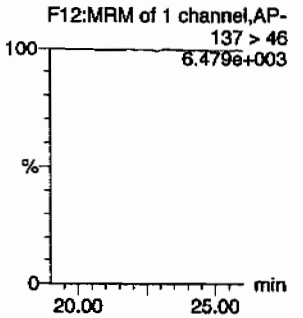

PETN

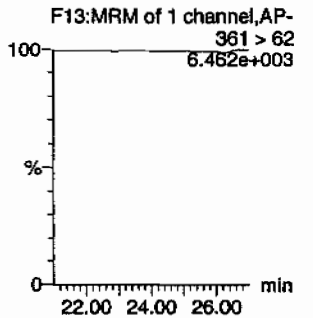

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK21	HMX	176 > 102			3769.941									
XIBLK21	RDX	176 > 102			3769.941									
XIBLK21	135-Trinitrobenzene	213 > 183			3769.941									
XIBLK21	13-Dinitrobenzene-d4	172 > 142	12.07	3769.941		3769.941	3769.941	bb			536.7551	107.4	7.4	351.7
XIBLK21	13-Dinitrobenzene	168 > 138			3769.941									
XIBLK21	Tetryl	241 > 181			3769.941									
XIBLK21	Nitrobenzene	123 > 46			3769.941									
XIBLK21	4-Amino-26-dinitrotoluene	197 > 167			21187.070									
XIBLK21	2-Amino-46-dinitrotoluene	197 > 180			21187.070									
XIBLK21	246-Trinitrotoluene	227 > 210			21187.070									
XIBLK21	34-dinitrotoluene	182 > 152			21187.070									
XIBLK21	26-dinitrotoluene	182 > 152			21187.070									
XIBLK21	24-dinitrotoluene	182 > 152			21187.070									
XIBLK21	26-dinitrotoluene-d3	185 > 155	17.47	21187.070		21187.070	21187.070	bb			515.2351	103.0	3.0	1397.3
XIBLK21	2-Nitrotoluene	137 > 46			21187.070									
XIBLK21	4-Nitrotoluene	137 > 46			21187.070									
XIBLK21	3-Nitrotoluene	137 > 46			21187.070									
XIBLK21	PETN	361 > 62			21187.070									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 26–FEB–10 17:15

GEL Data File: EXS02260010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ran 3/1/10

nple Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 5:15:22 PM

fied: No

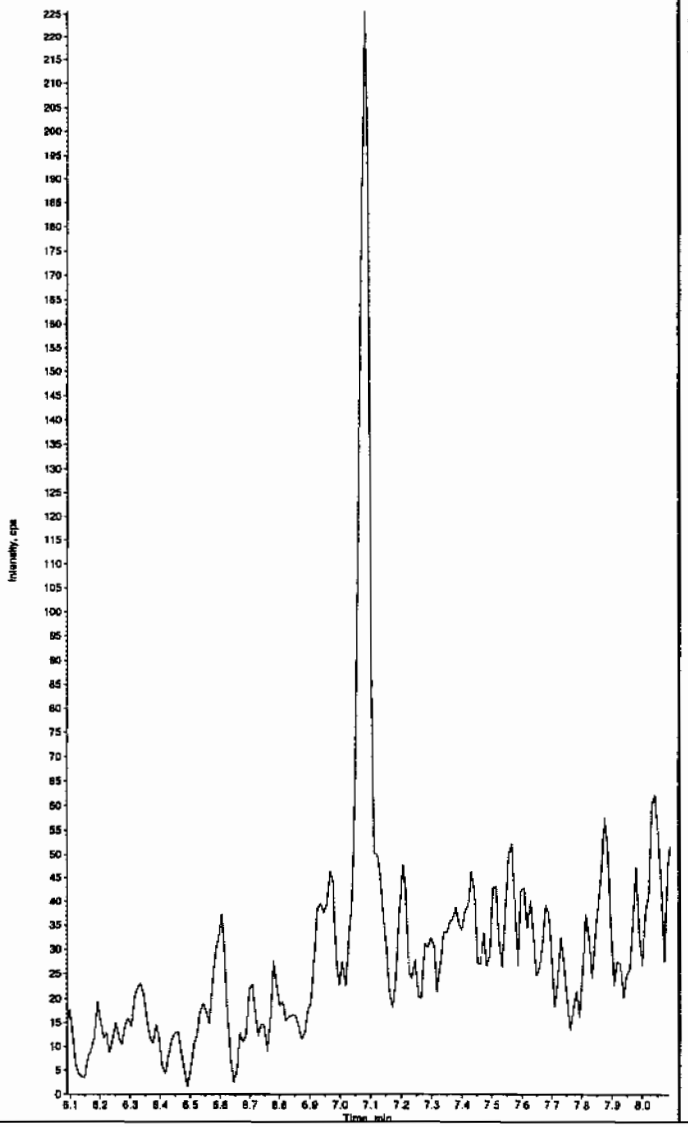

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS02260010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

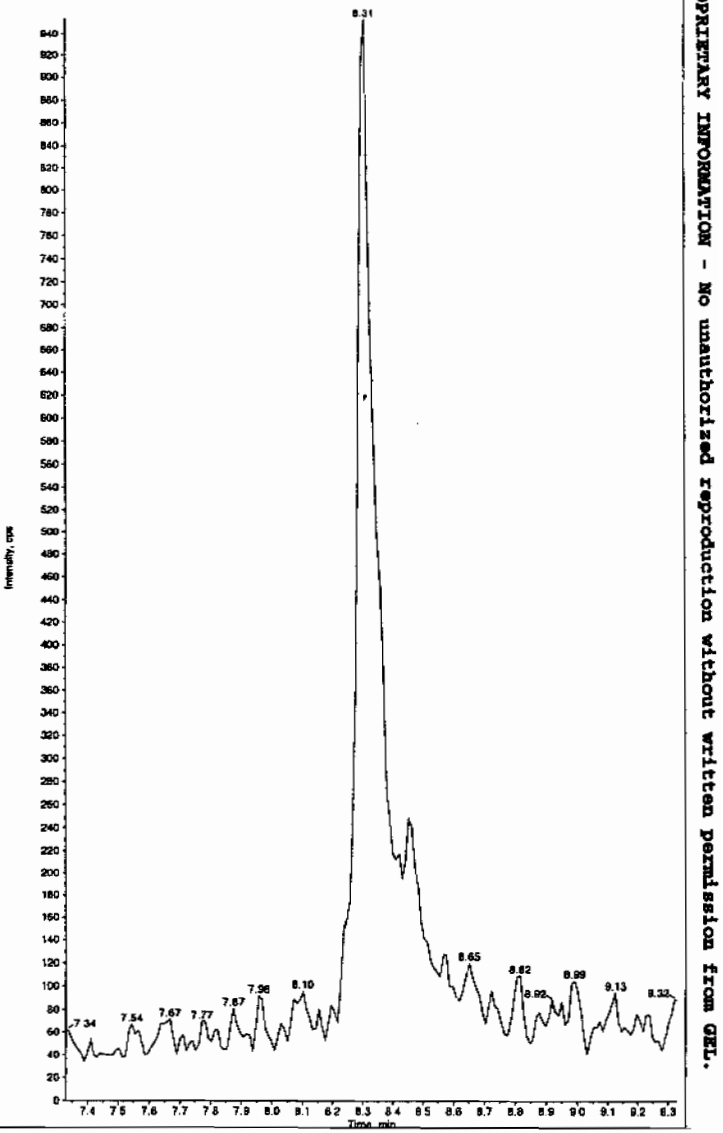

Hnm 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02250010.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
entration: N/A
lated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 5:15:22 PM

fied: No

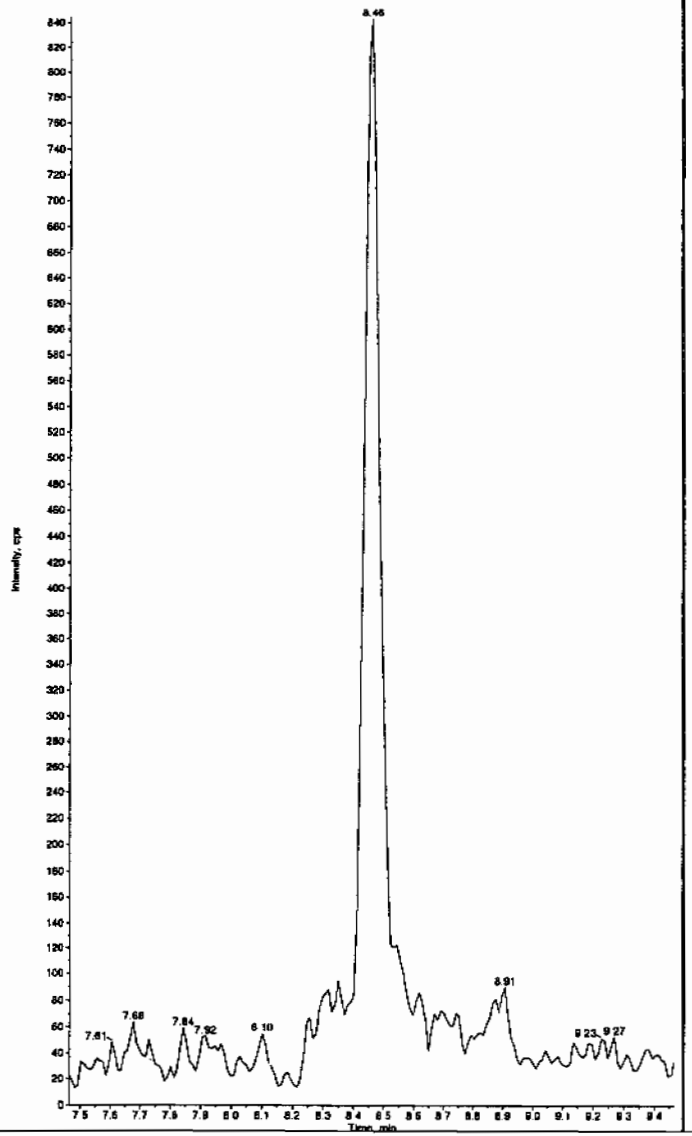

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02250010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/148.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:15:22 PM

Modified: No

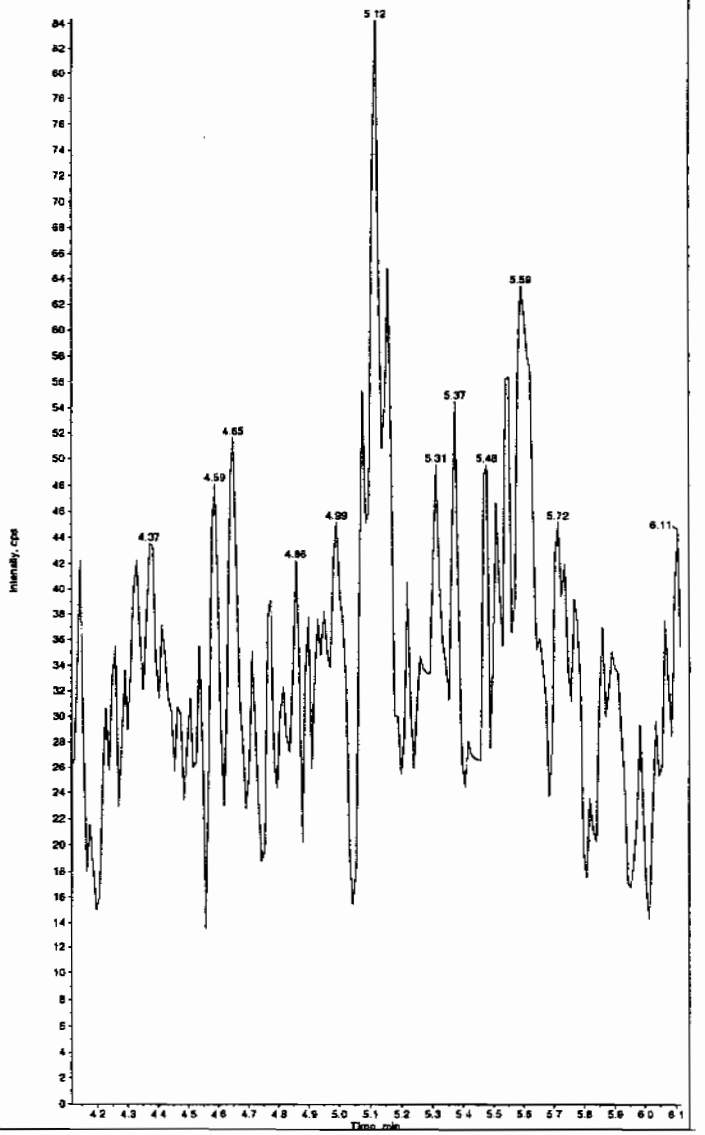

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 5:15:22 PM

fied: No

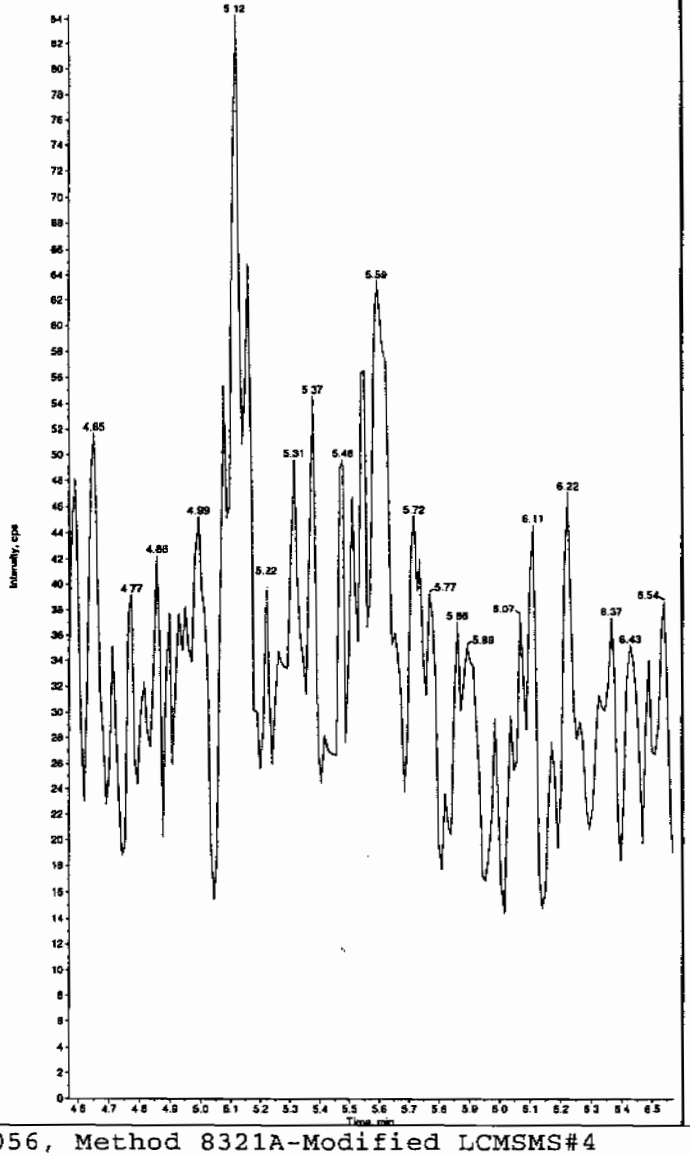

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS02260010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	< 0	
Acq. Date:	2/26/2010	
Acq. Time:	5:15:22 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	8.88e+004	counts
Height:	23771.599	cps
Start Time:	10.9	min
End Time:	11.1	min

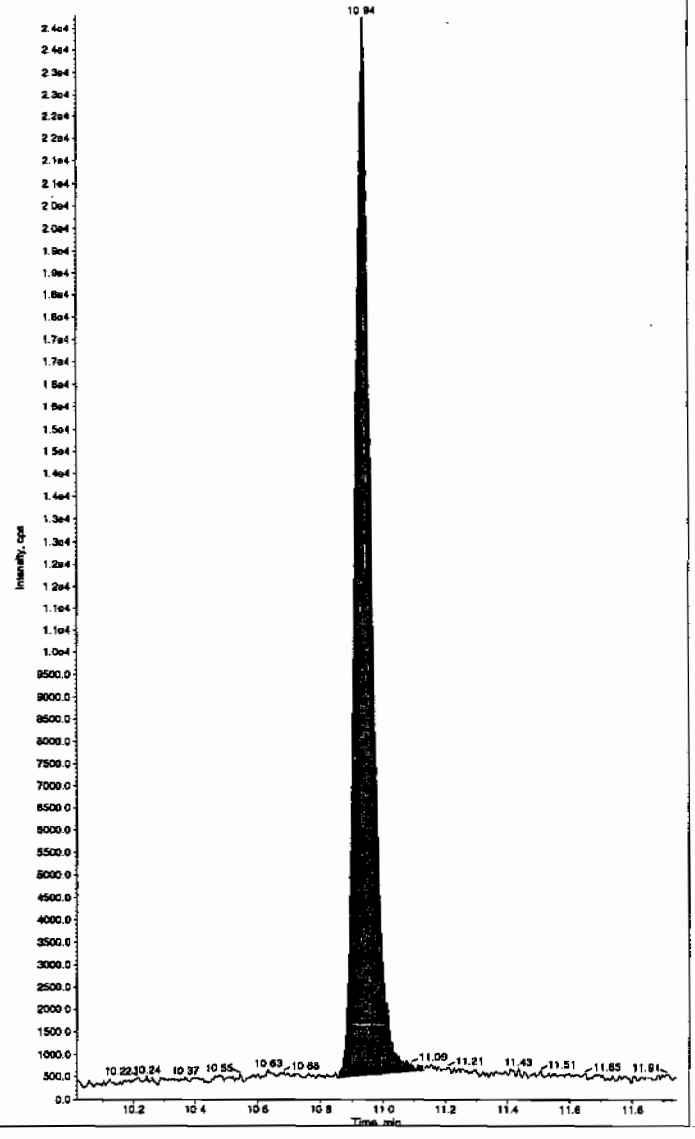

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 26-FEB-10 17:46

GEL Data File: EXS02260012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lcu 3/1/10

pie Name: "X/BLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
k Name: "TAT5" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 5:46:47 PM

ied: No

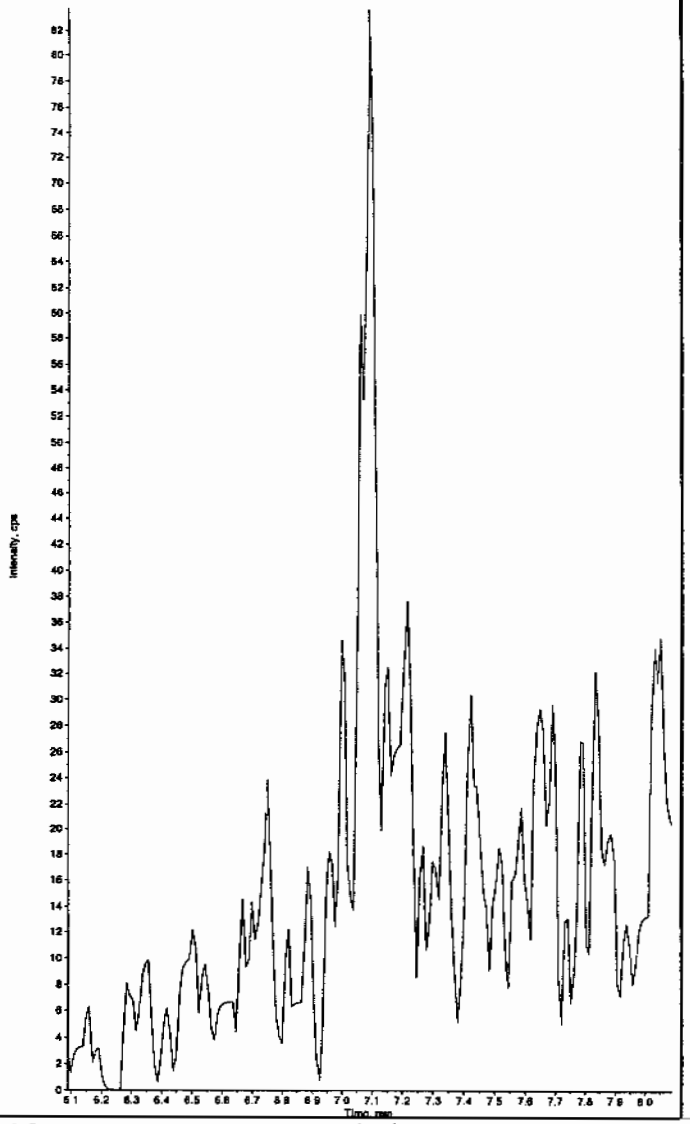

Sample Name: "X/BLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

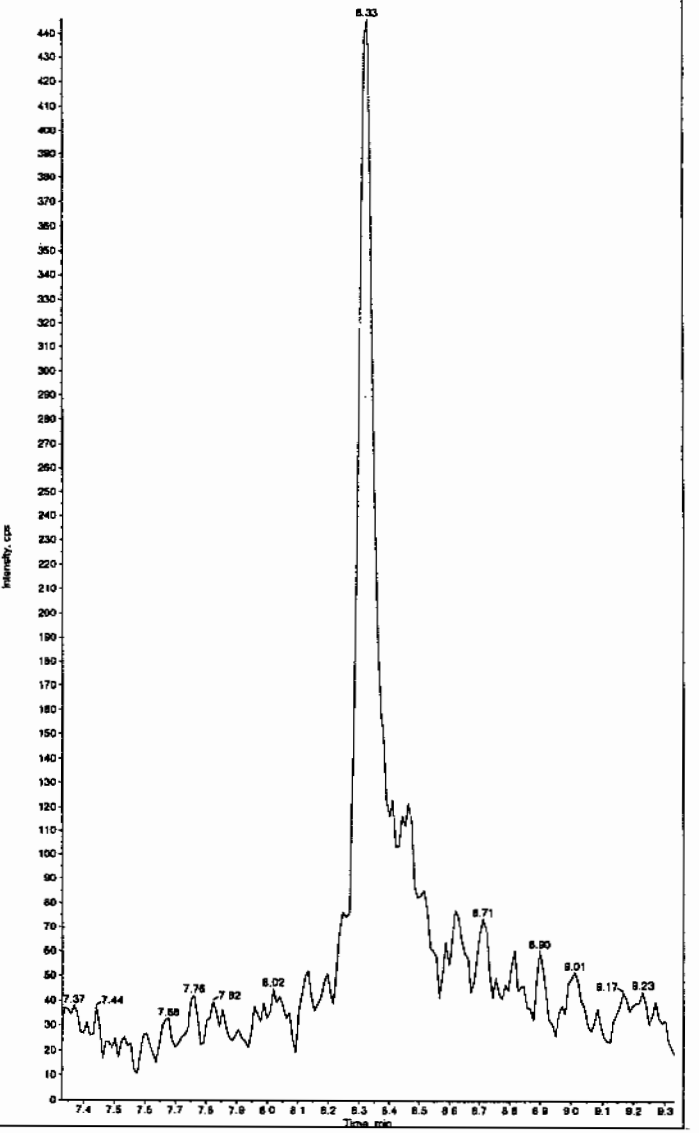

Hmm 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 5:46:47 PM

fied: No

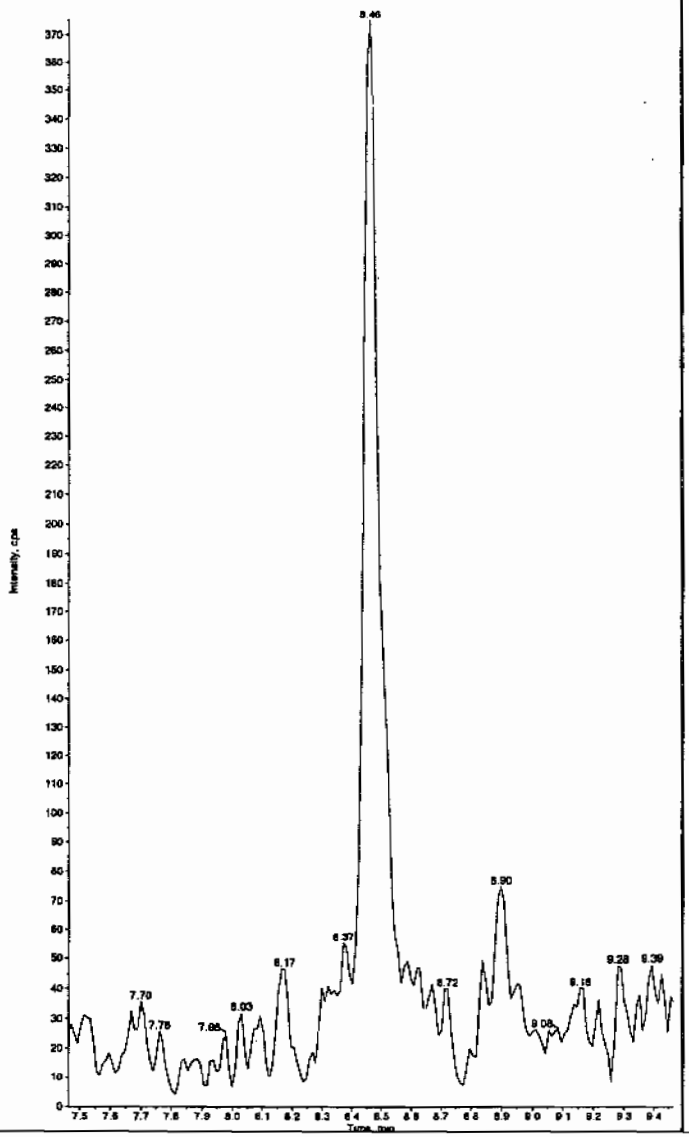

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS02260012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:46:47 PM

Modified: No

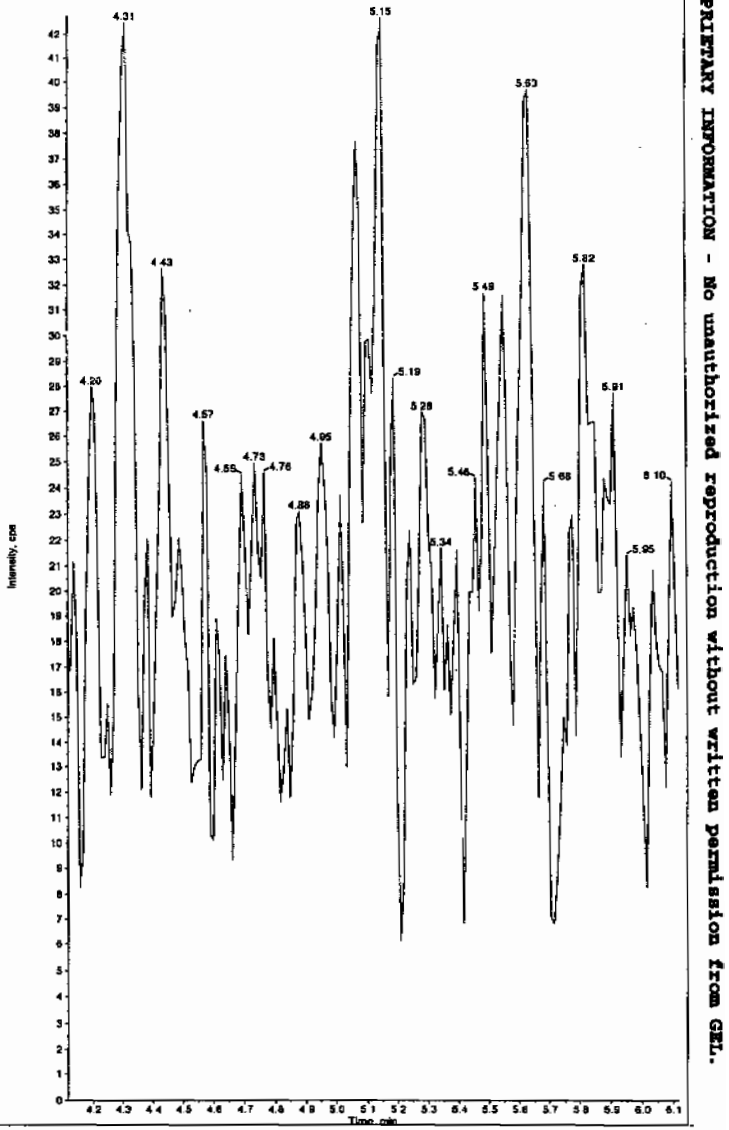

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nple Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 5:46:47 PM

fied: No

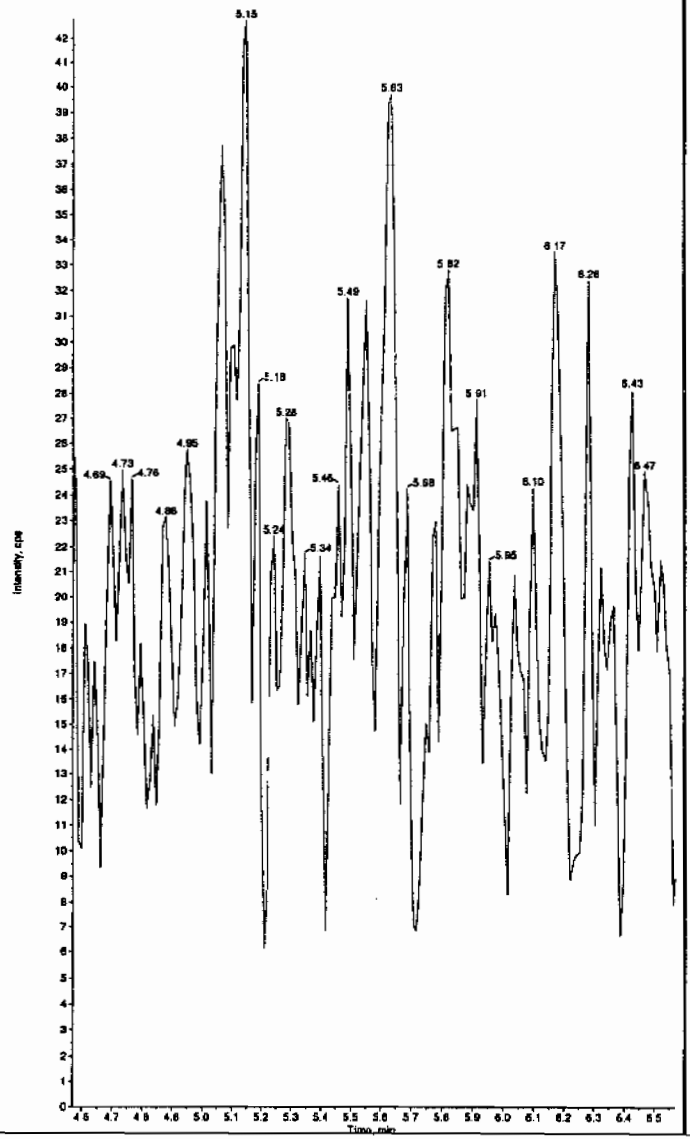

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS02260012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	2/26/2010	
Acq. Time:	5:46:47 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	4.68e+004	counts
Height:	12137.585	cps
Start Time:	10.9	min
End Time:	11.1	min

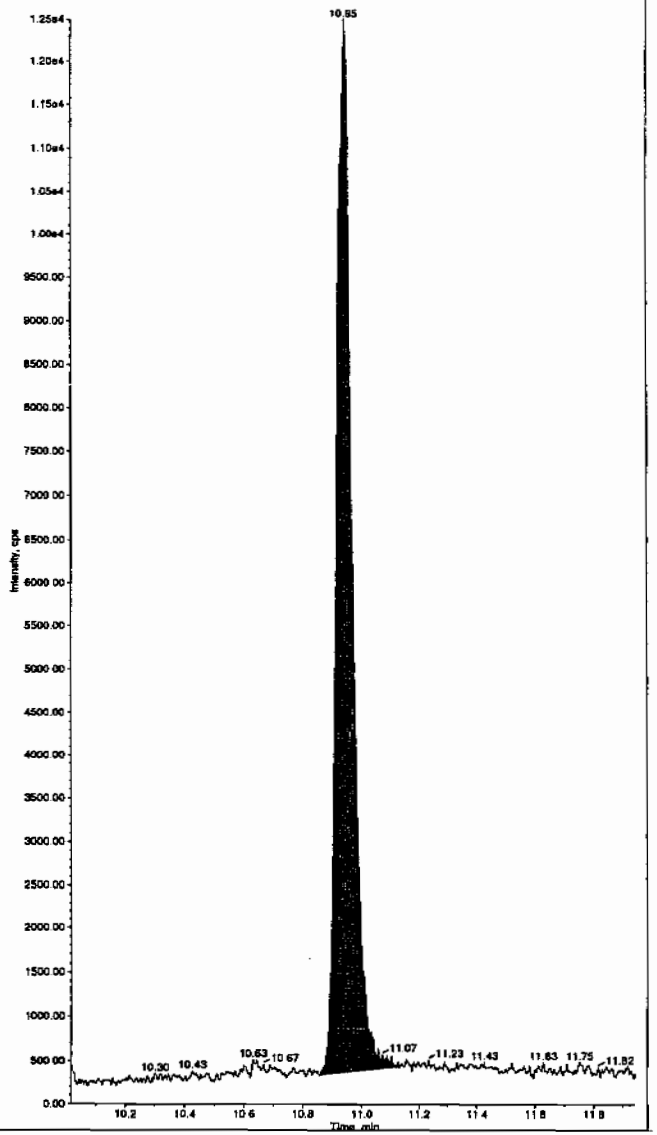

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 26–FEB–10 21:10

GEL Data File: EXS02260025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ker 3/1/10

mple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 9:10:59 PM

fied: No

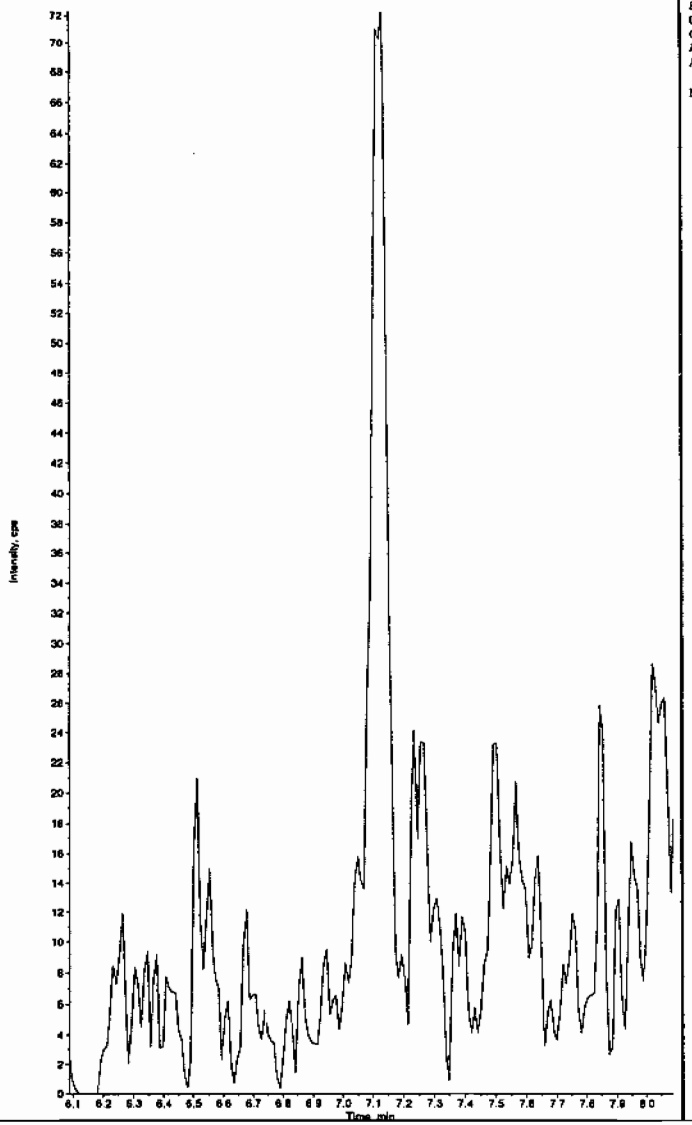

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

Hrm 03/01/10

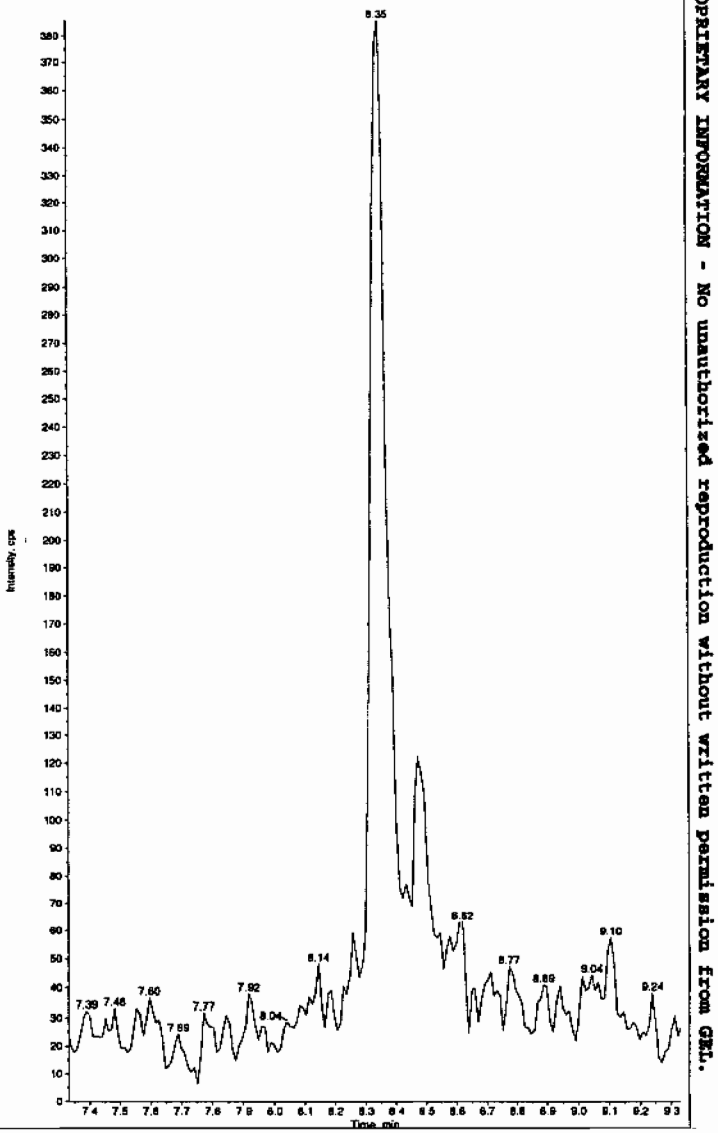

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 9:10:59 PM

fied: No

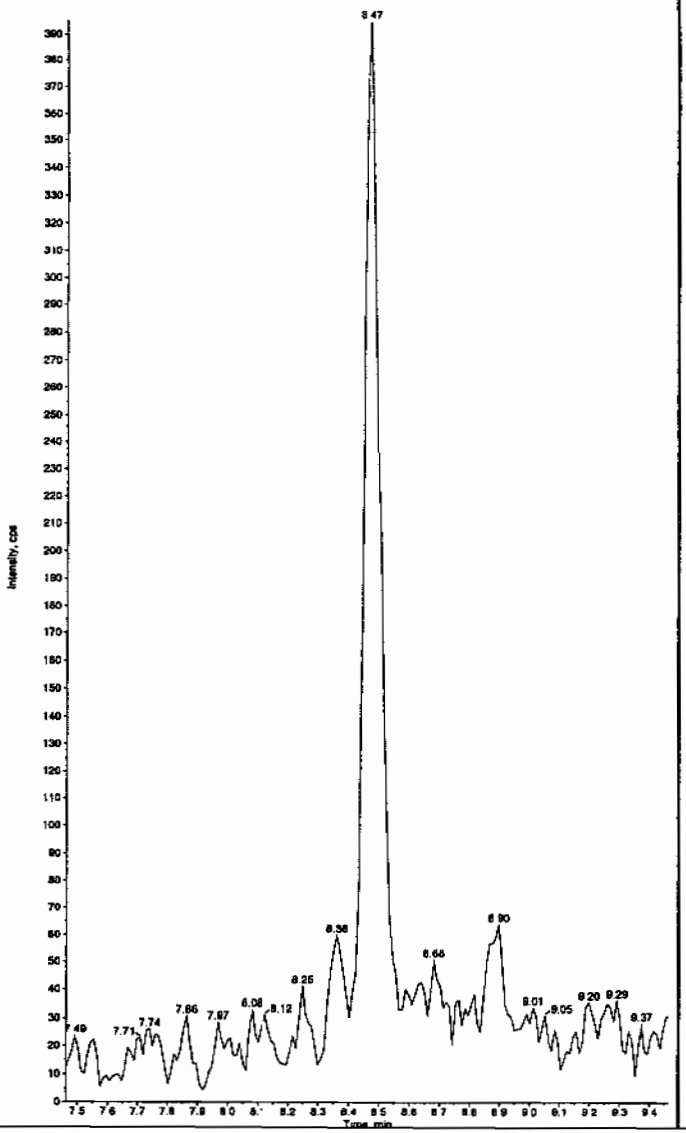

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No

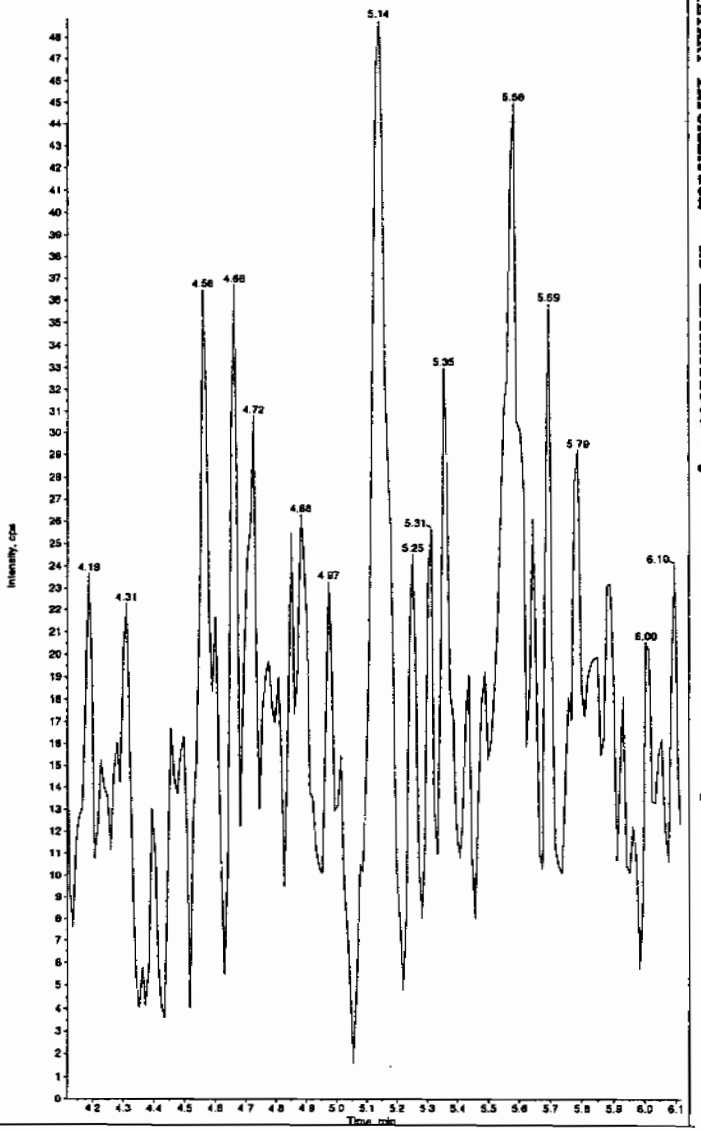

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 9:10:59 PM

fied: No

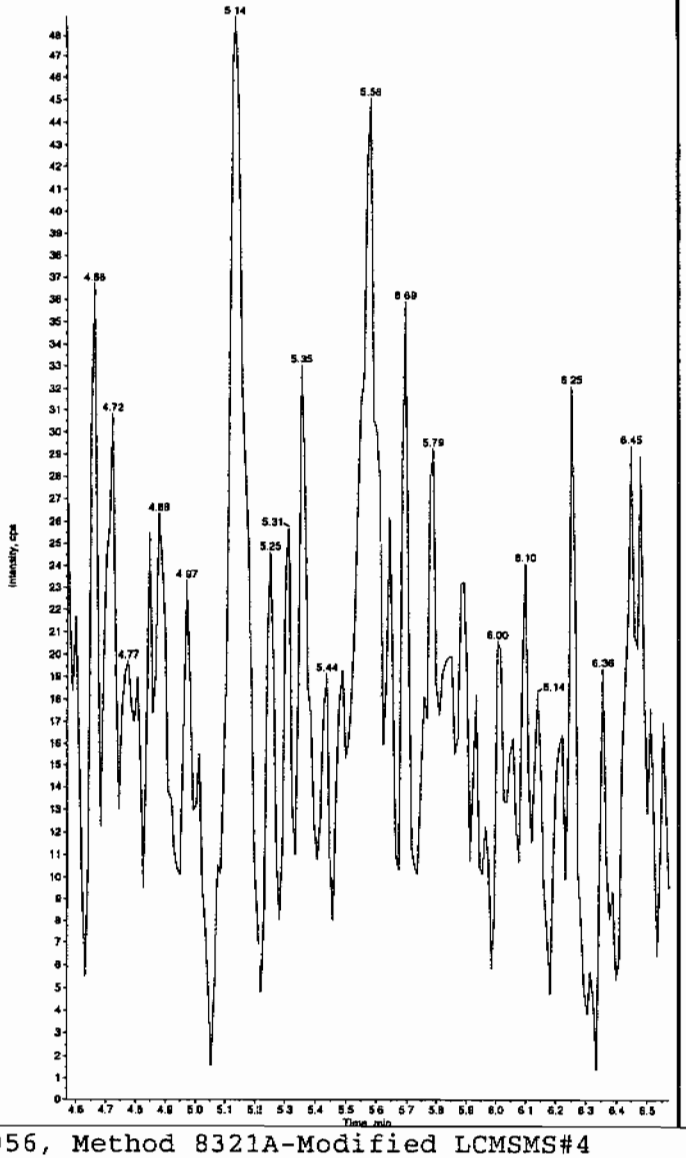

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS02260025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/26/2010
Acq. Time: 9:10:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 3.47e+004 counts
Height: 8966.046 cps
Start Time: 10.8 min
End Time: 11.1 min

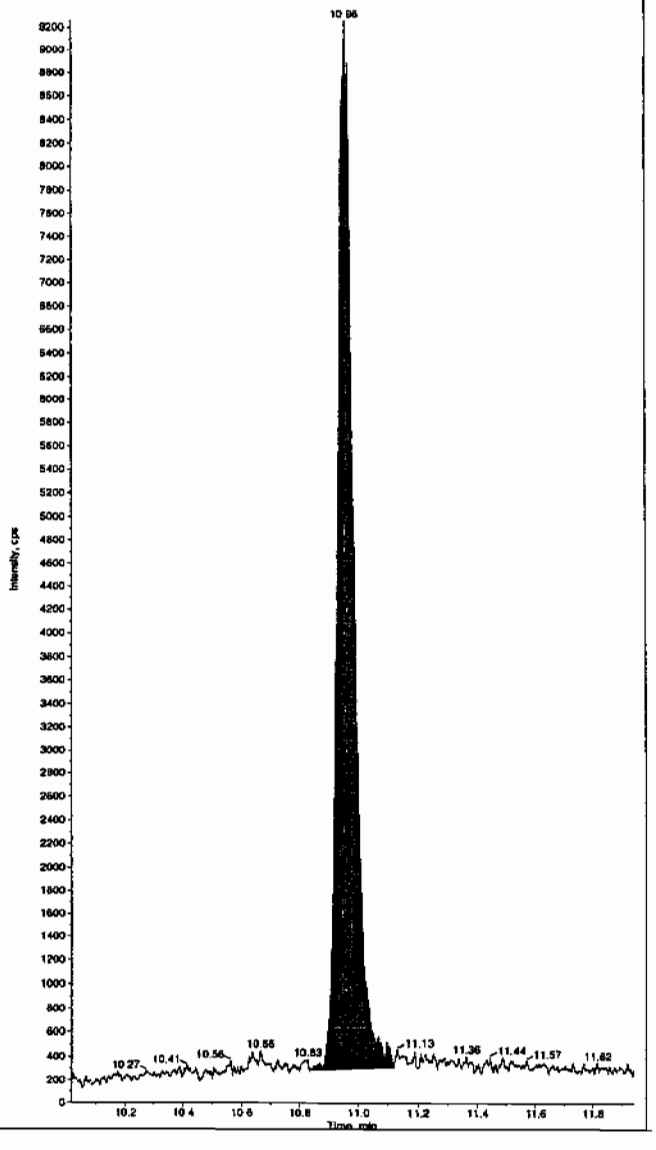

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 26–FEB–10 22:13

GEL Data File: EXS02260029.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 3/1/10

mple Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02260029.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 10:13:52 PM

fied: No

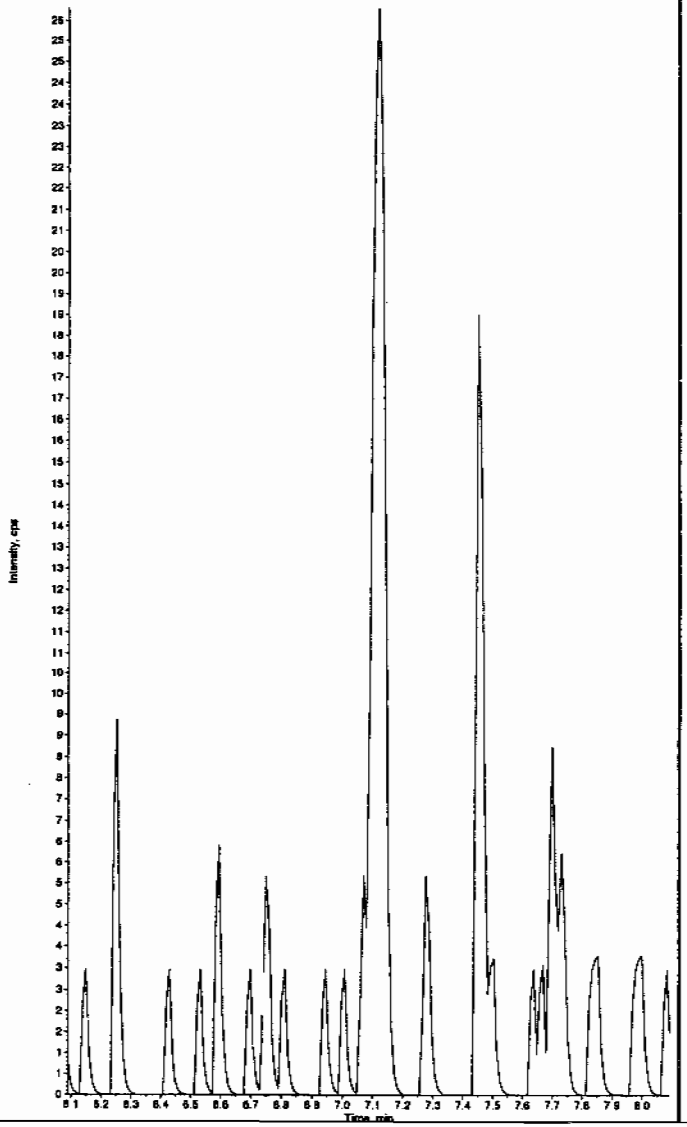

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02260029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

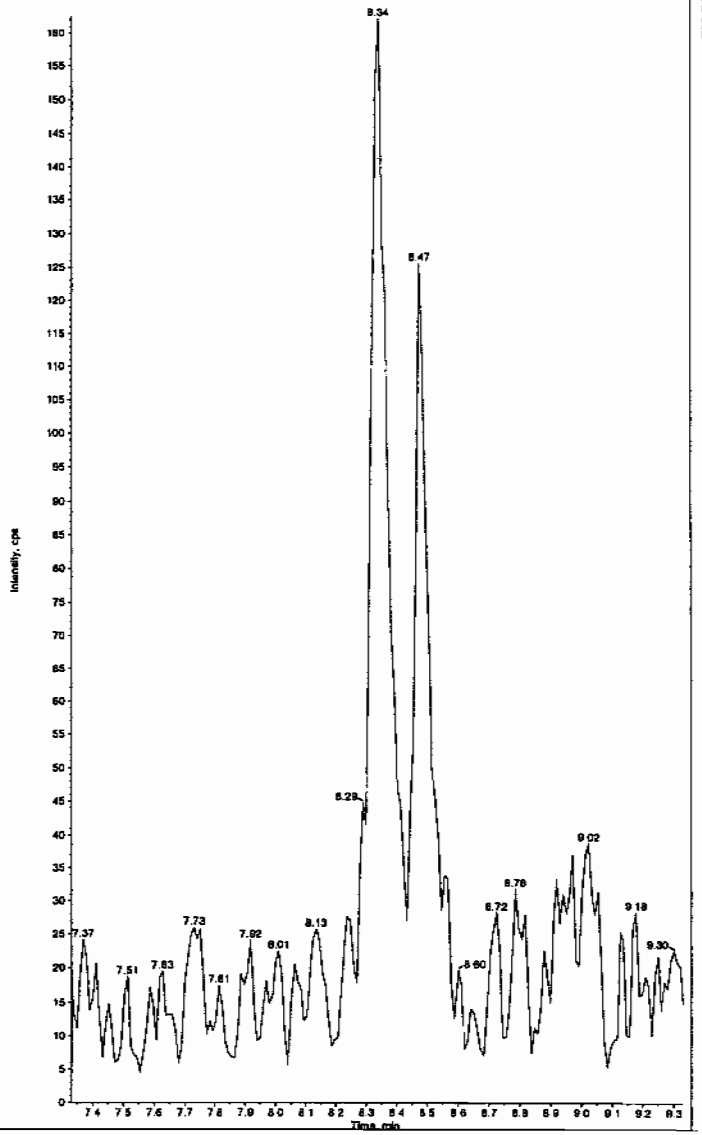

thm 03/01/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02260029.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/26/2010
. Time: 10:13:52 PM

fied: No

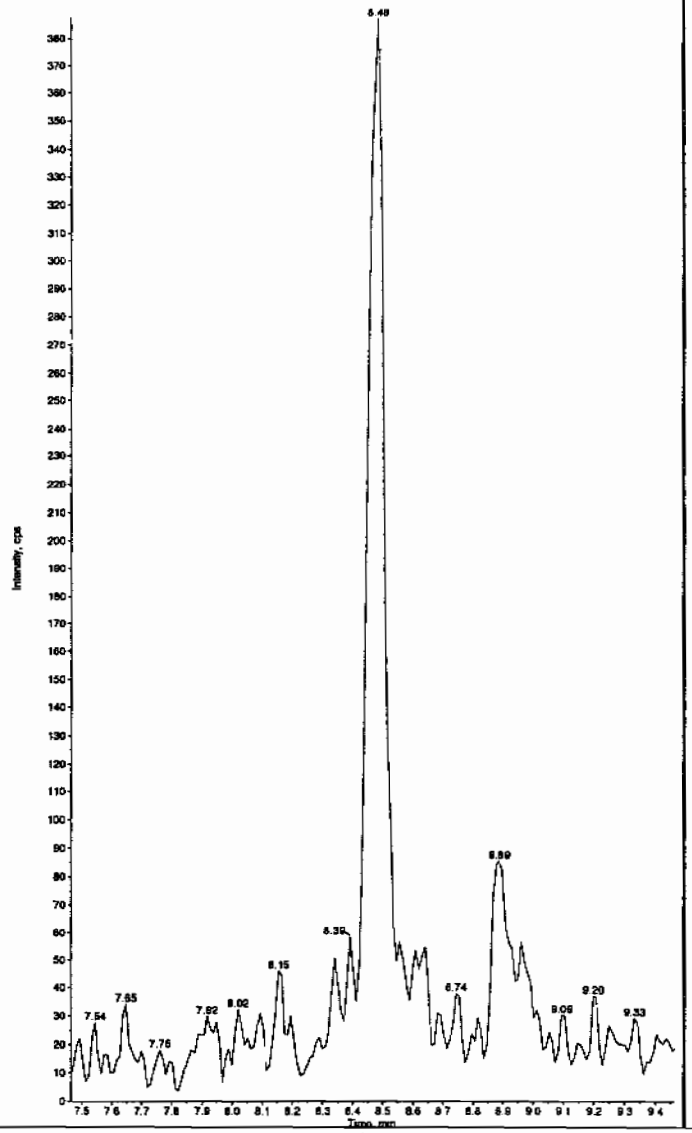

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS02260029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

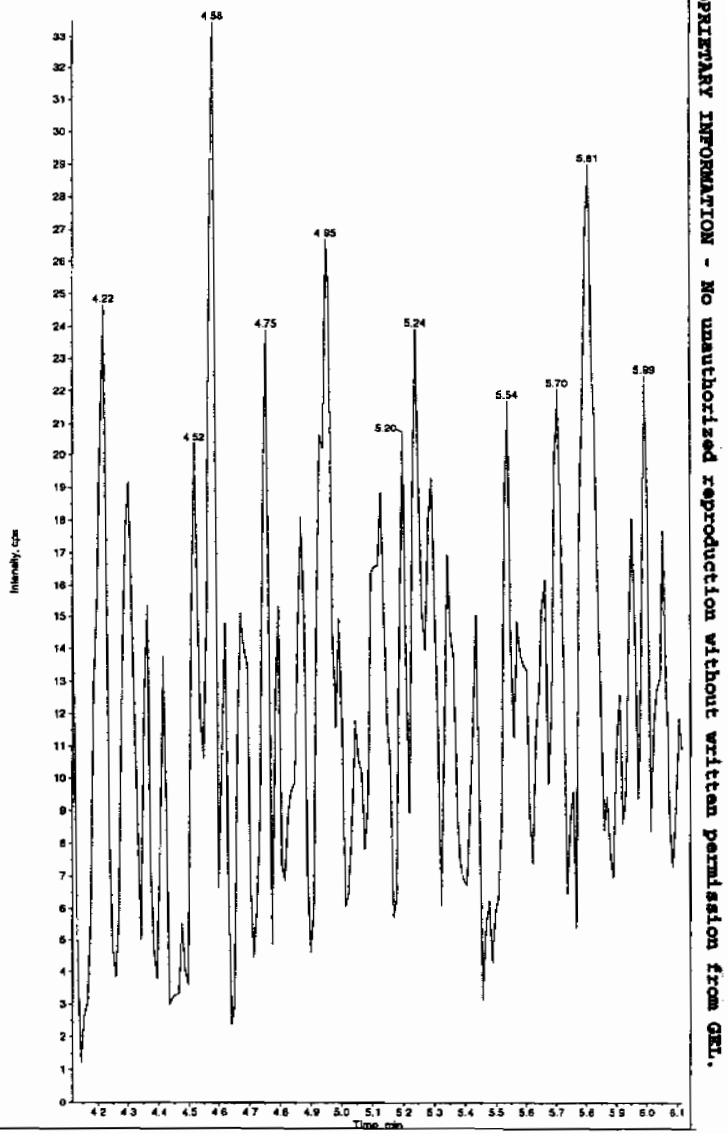

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02260029.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/26/2010
Time: 10:13:52 PM

fied: No

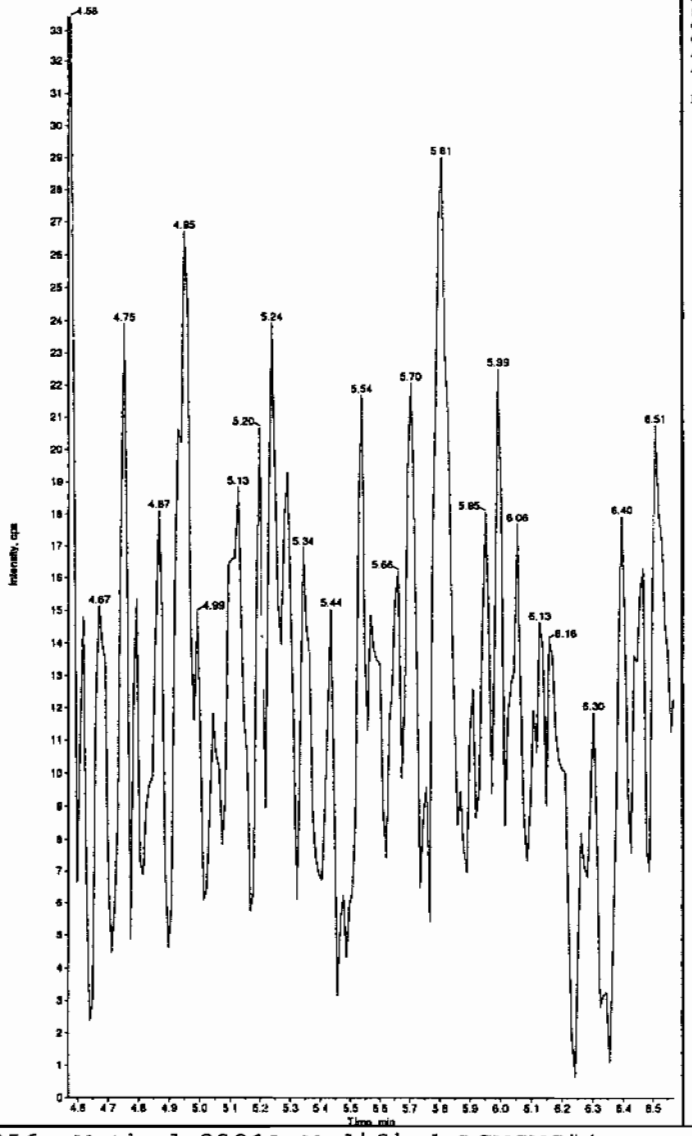

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS02260029.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 10:13:52 PM

Modified: No

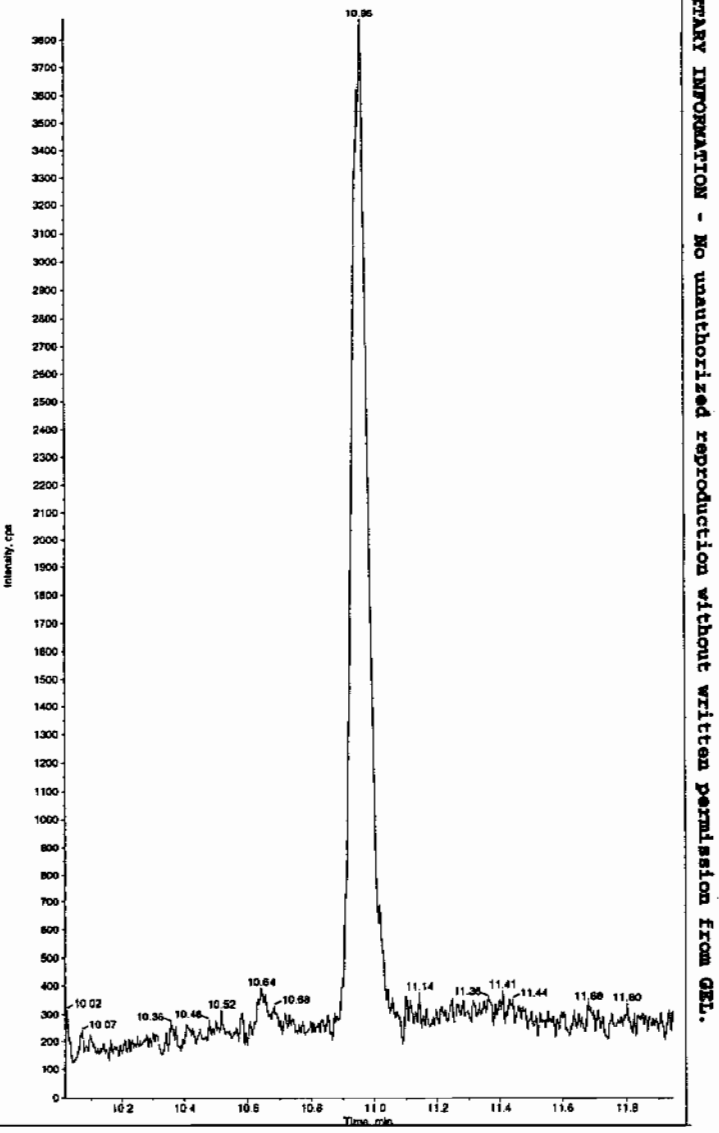

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10--1545

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 27-FEB-10 00:35

GEL Data File: EXS02260038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rcn 3/1/10

nple Name: "XIBLK06" Sample ID: "1|LER" File: "EXS02260036.wiff"
ik Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_6" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 12:35:18 AM

fied: No

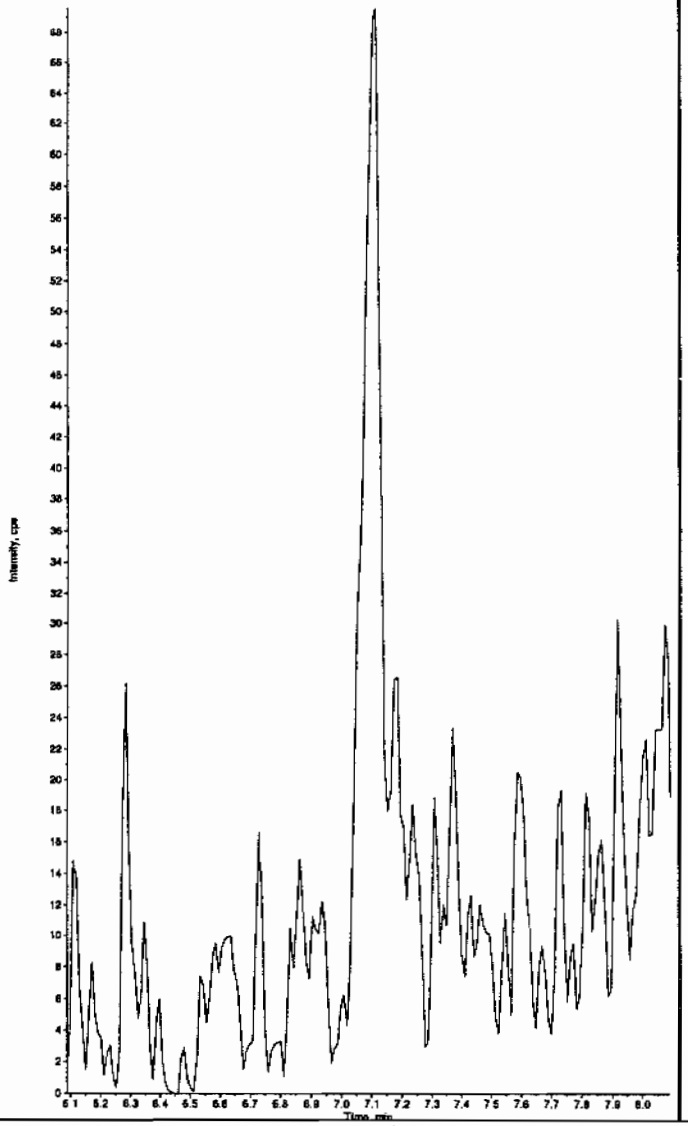

Sample Name: "XIBLK06" Sample ID: "1|LER" File: "EXS02260036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_6" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

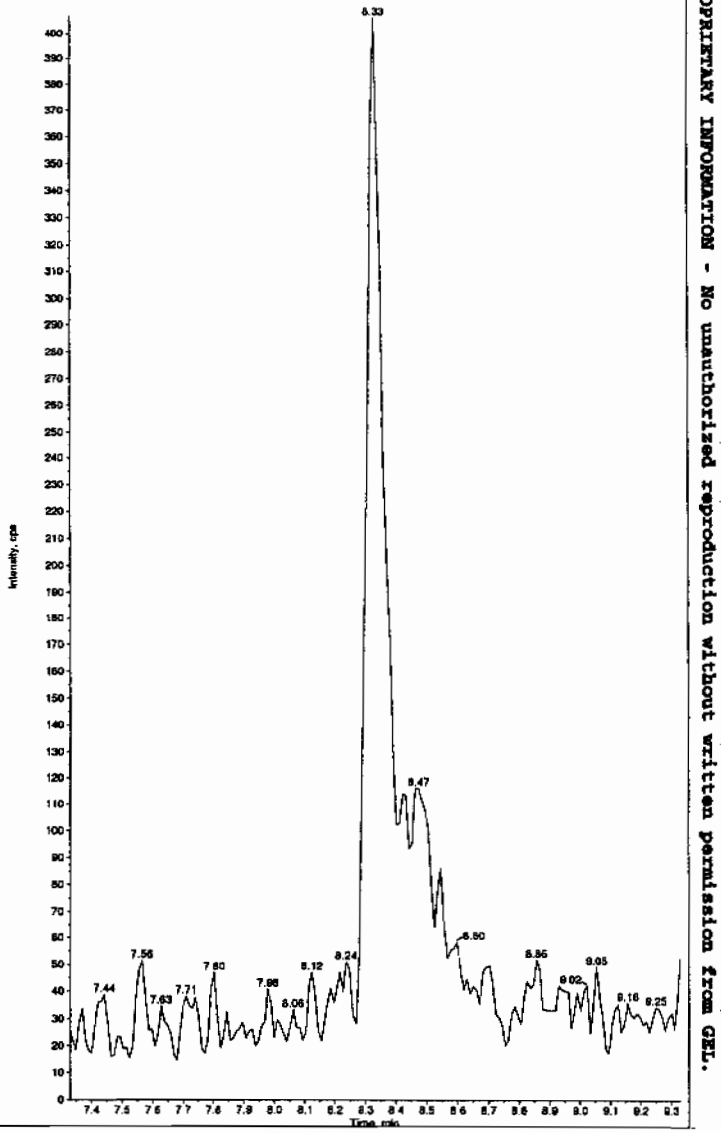

Hnm 03/01/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "162.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 12:35:18 AM

fied: No

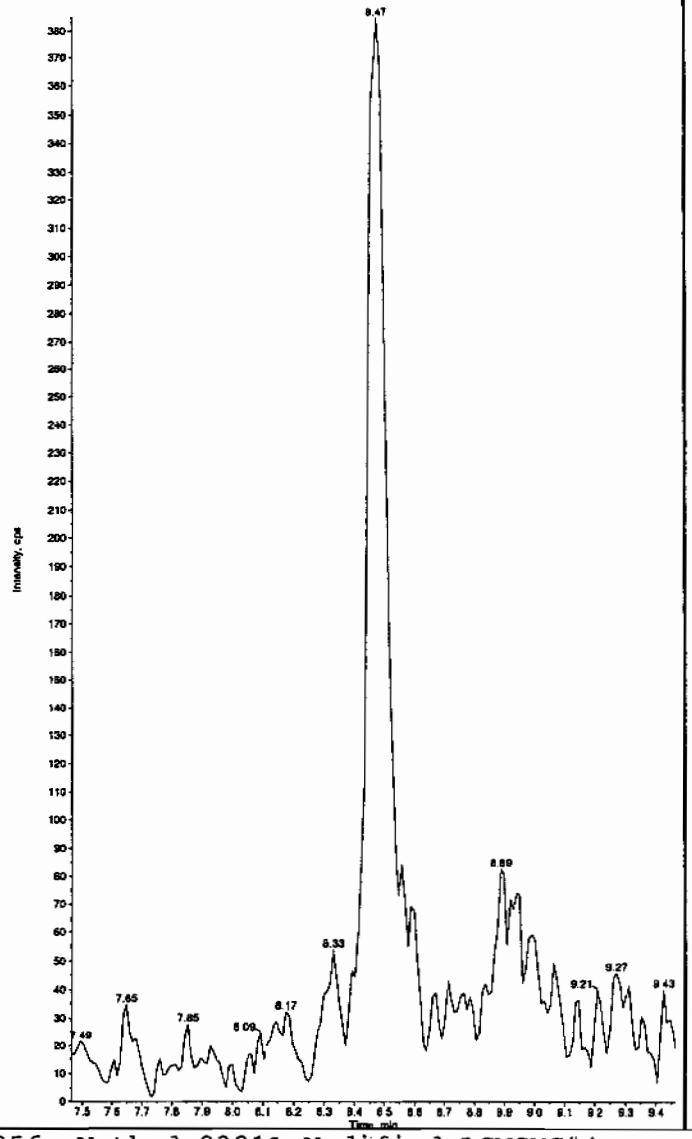

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No

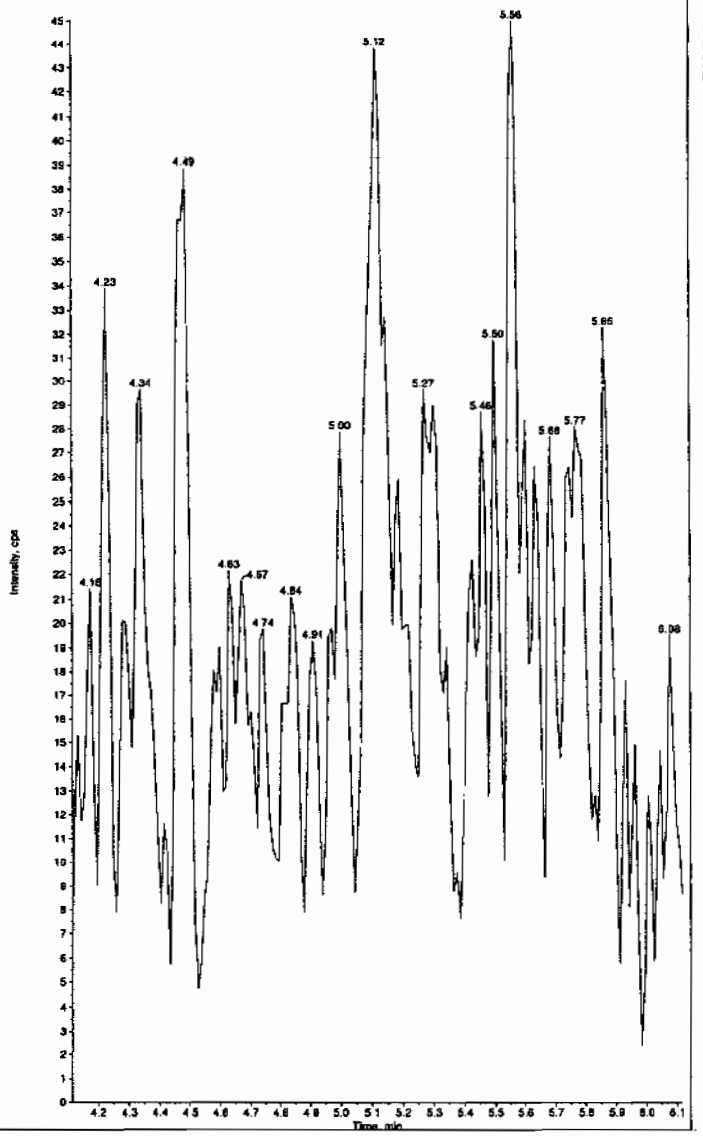

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nple Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02260038.wiff"
ik Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 12:35:18 AM

fied: No

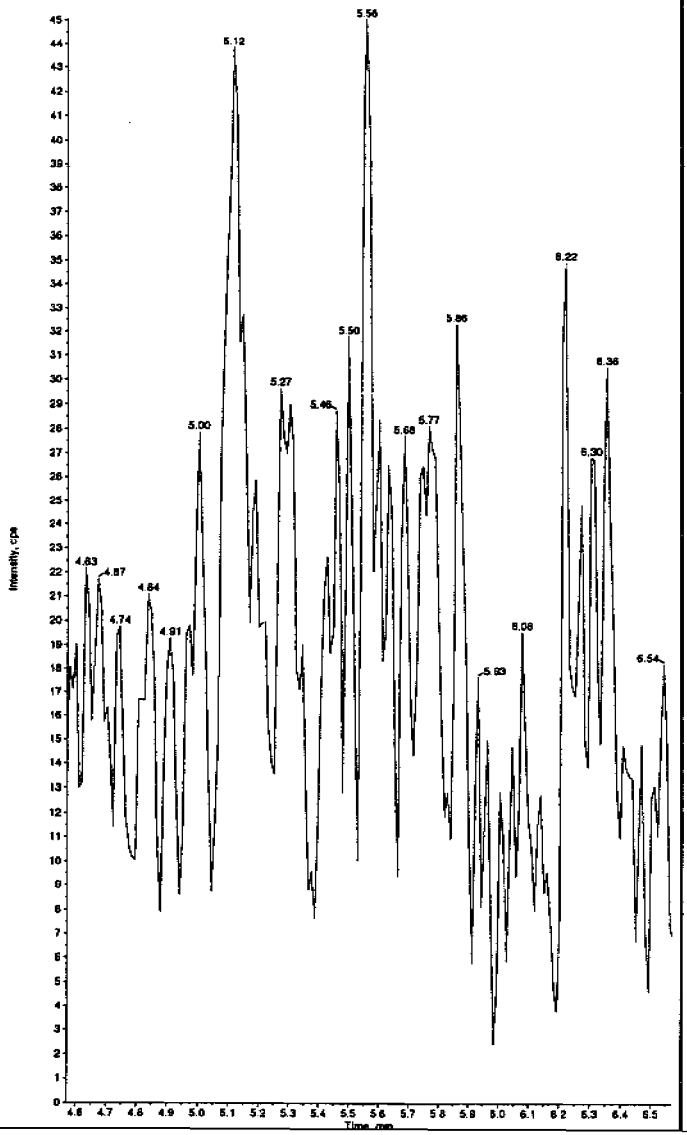

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS02260038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 12:35:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.01e+004 counts
Height: 11519.382 cps
Start Time: 10.9 min
End Time: 11.1 min

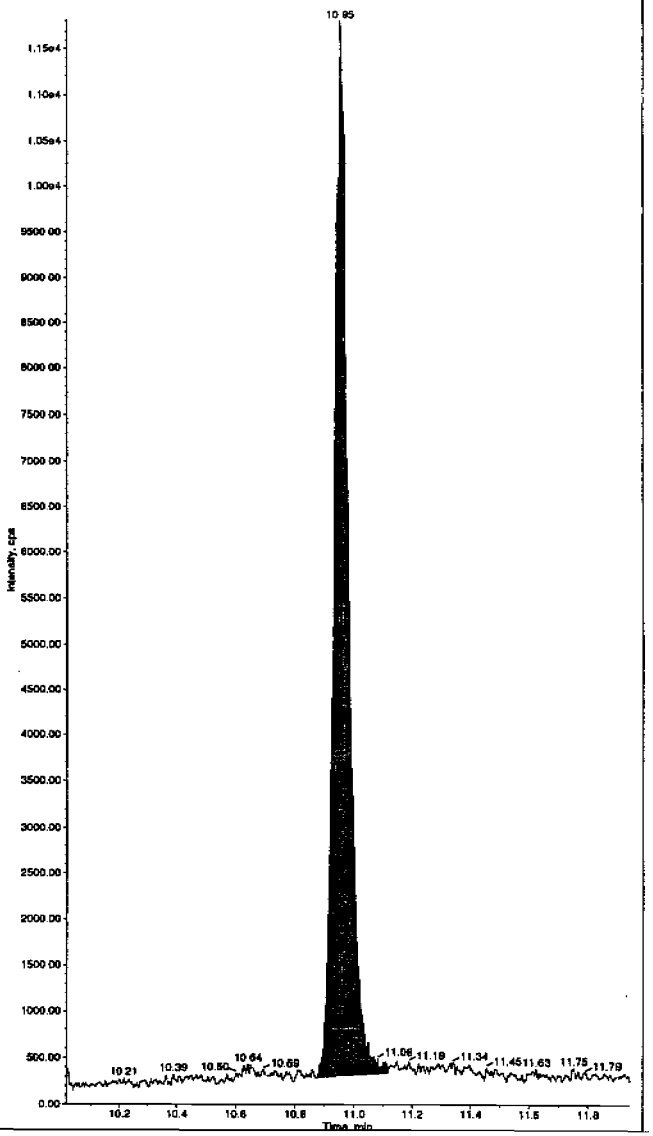

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1545
Lab Code: GEL
Lab Sample ID: XIBLK07
Analysis Date: 27-FEB-10 03:59
GEL Data File: EXS02260051.wiff
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Kam 3/1/10

nple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02260051.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 3:59:27 AM

fied: No

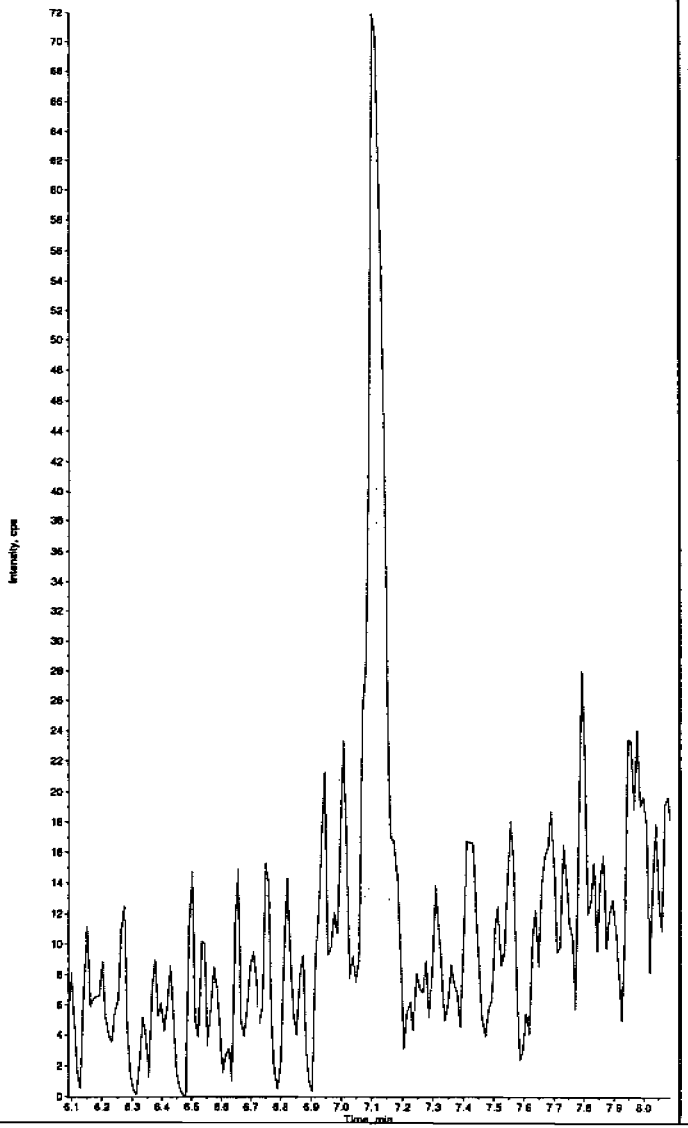

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02260051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

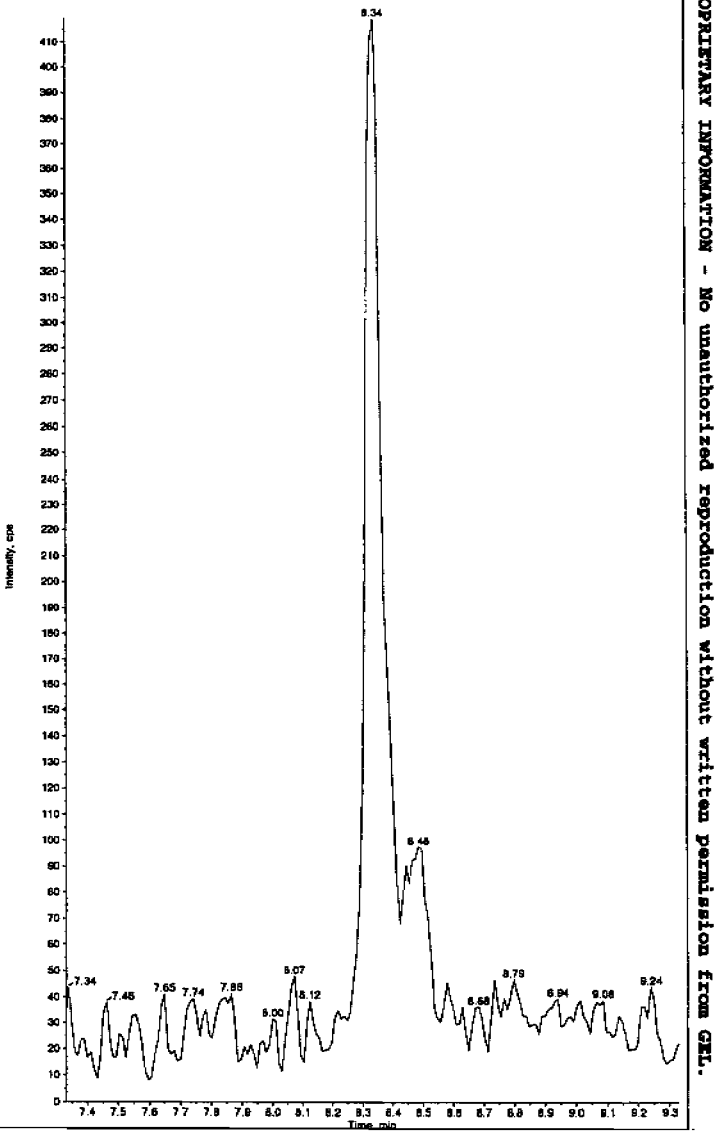

Hmm 03/01/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02260051.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 3:59:27 AM

fied: No

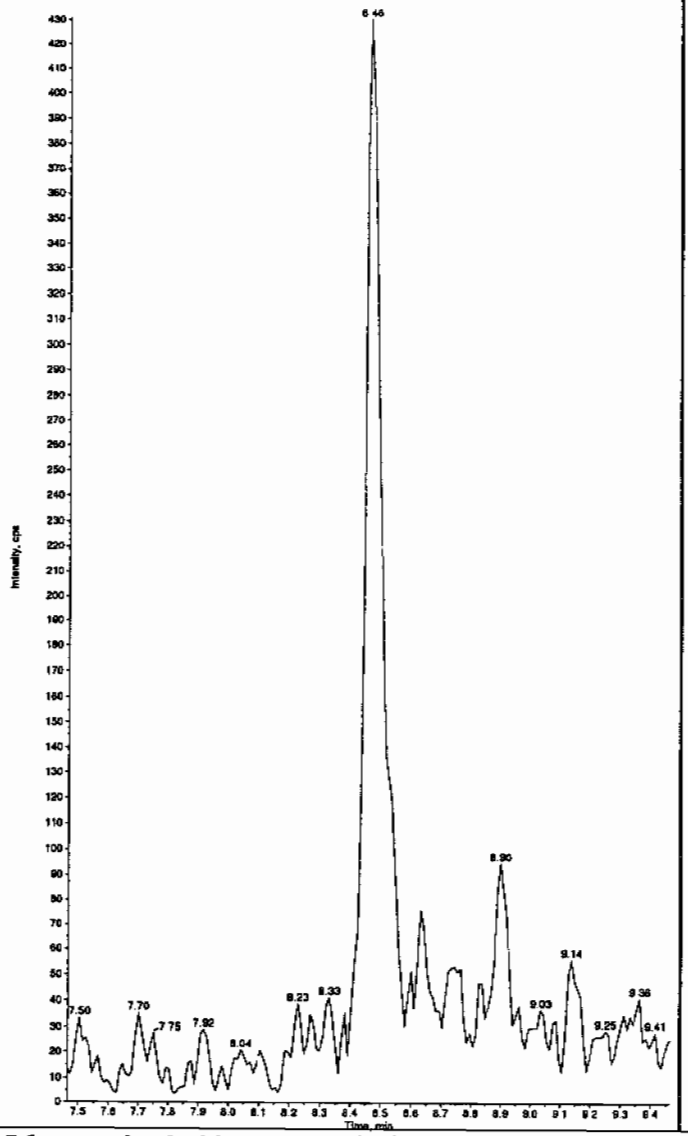

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS02260051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:59:27 AM

Modified: No

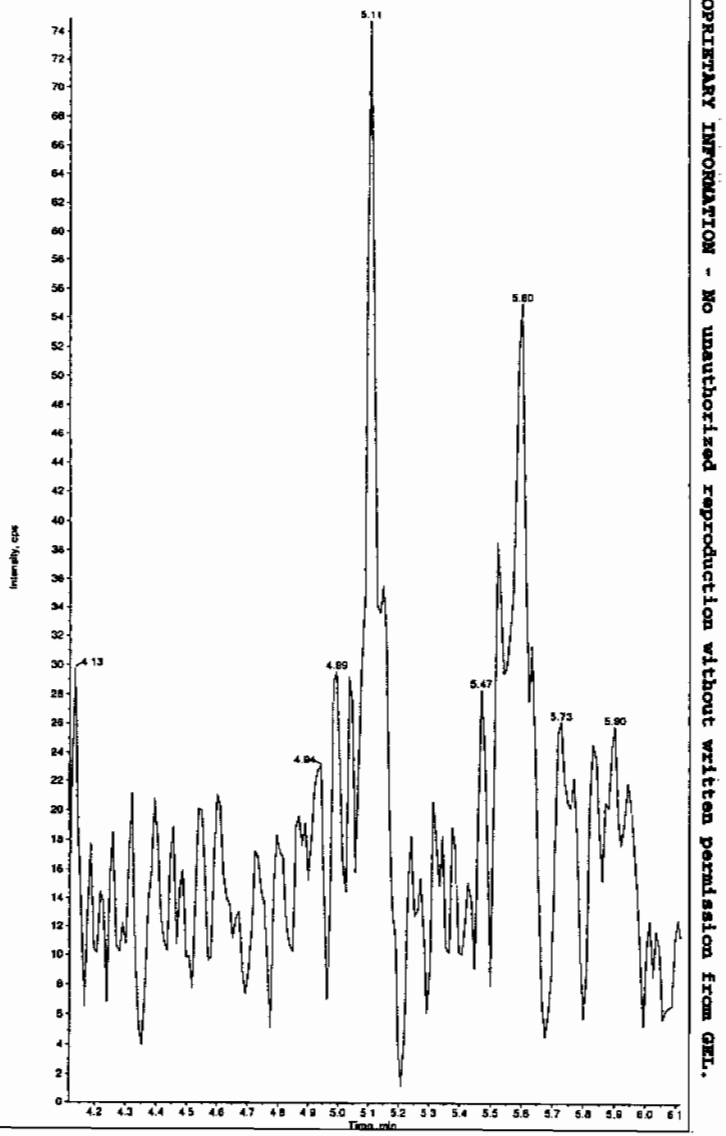

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 3:59:27 AM

fied: No

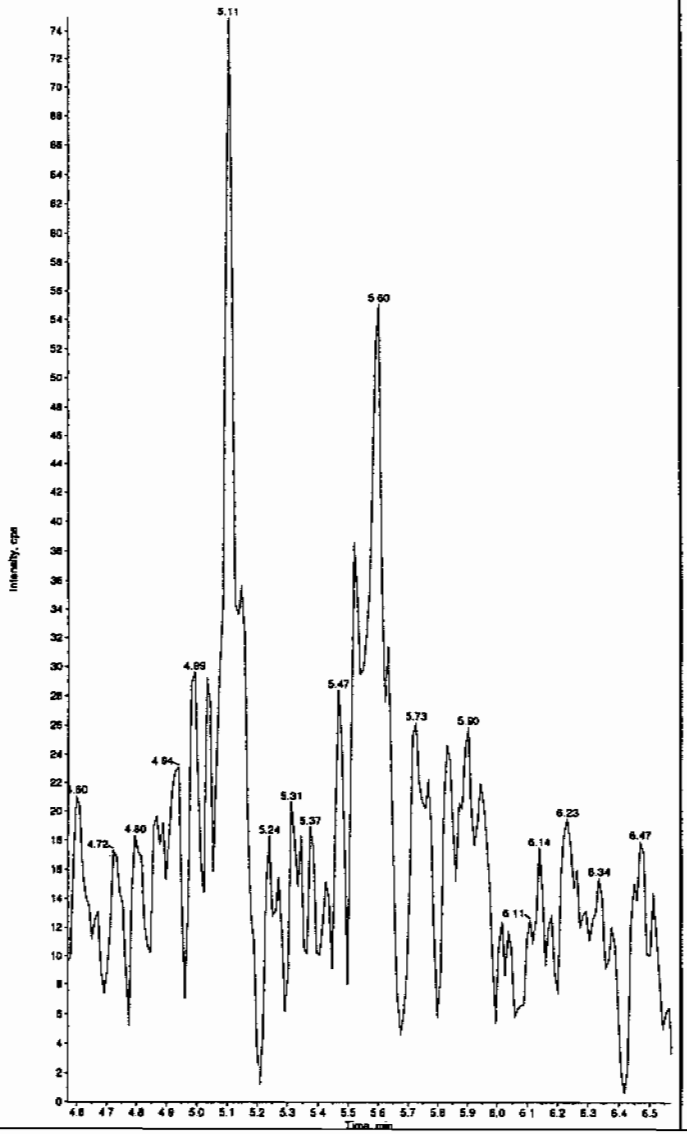

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS02260051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	2/27/2010
Acq. Time:	3:59:27 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	4.38e+004 counts
Height:	11821.117 cps
Start Time:	10.9 min
End Time:	11.1 min

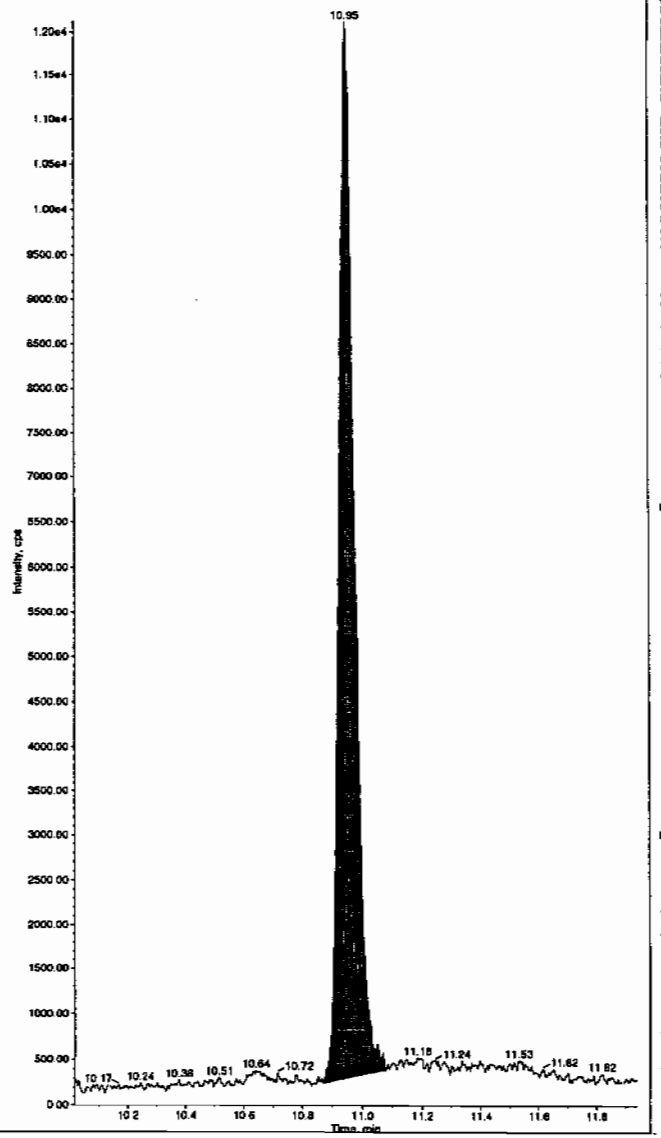

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 27-FEB-10 06:36

GEL Data File: EXS02260061.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Kar 3/1/10

ple Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260061.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 6:36:30 AM

fied: No

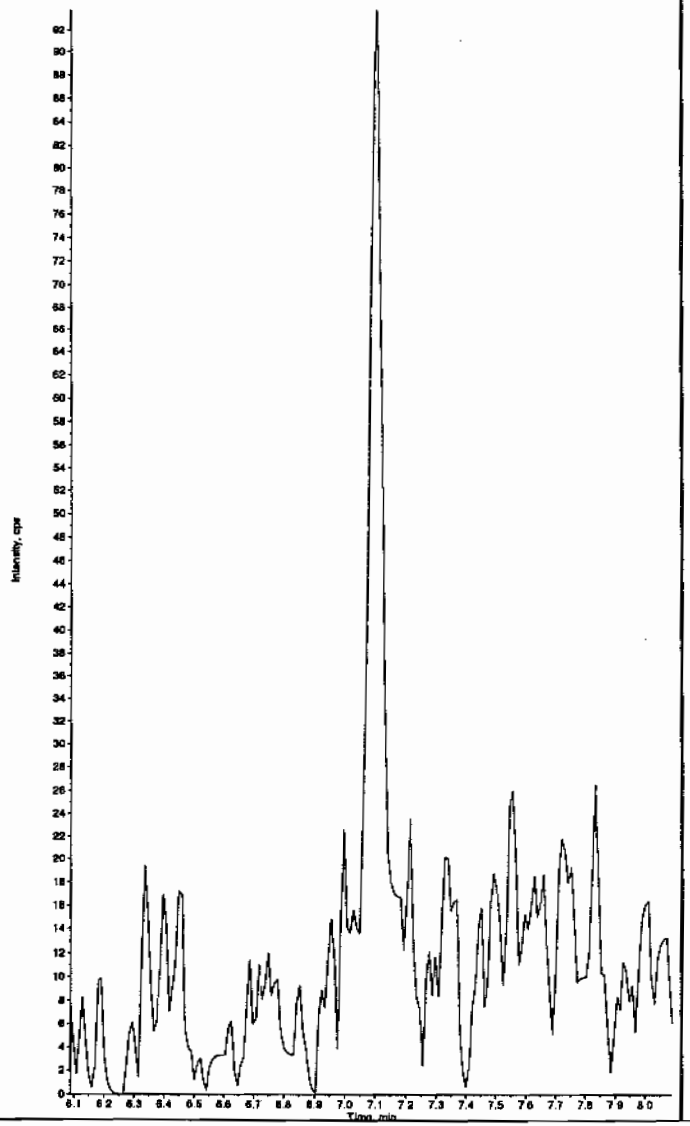

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS02260061.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

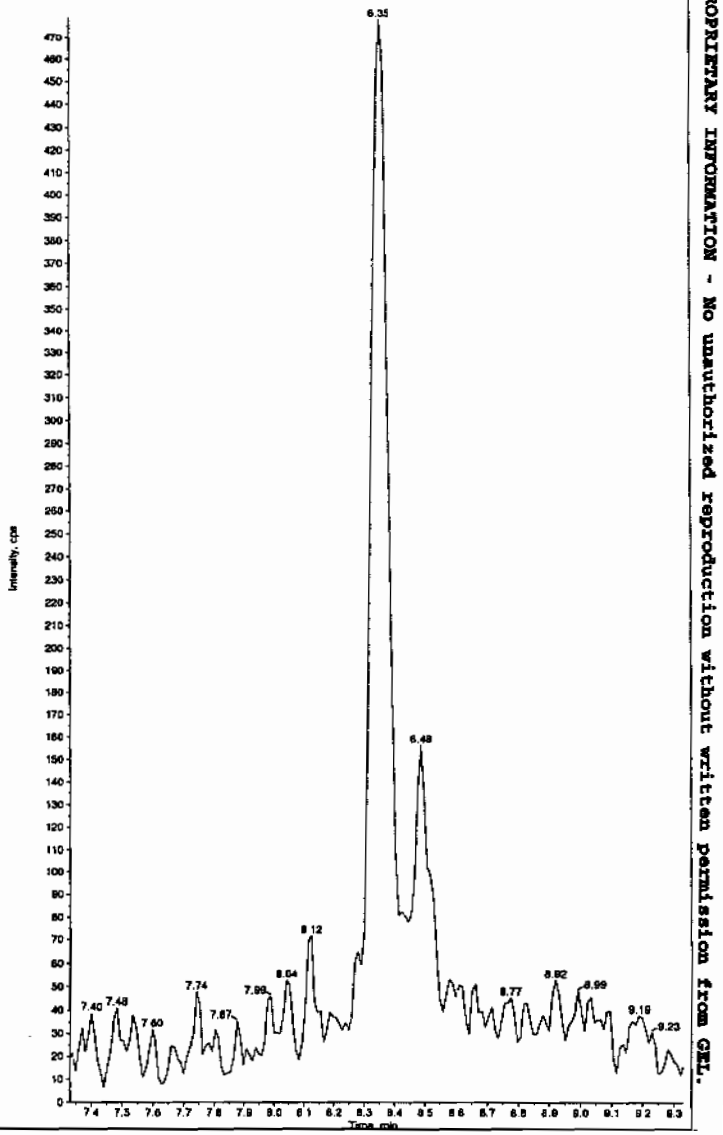

dhm 03/01/10

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nple Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 6:36:30 AM

fied: No

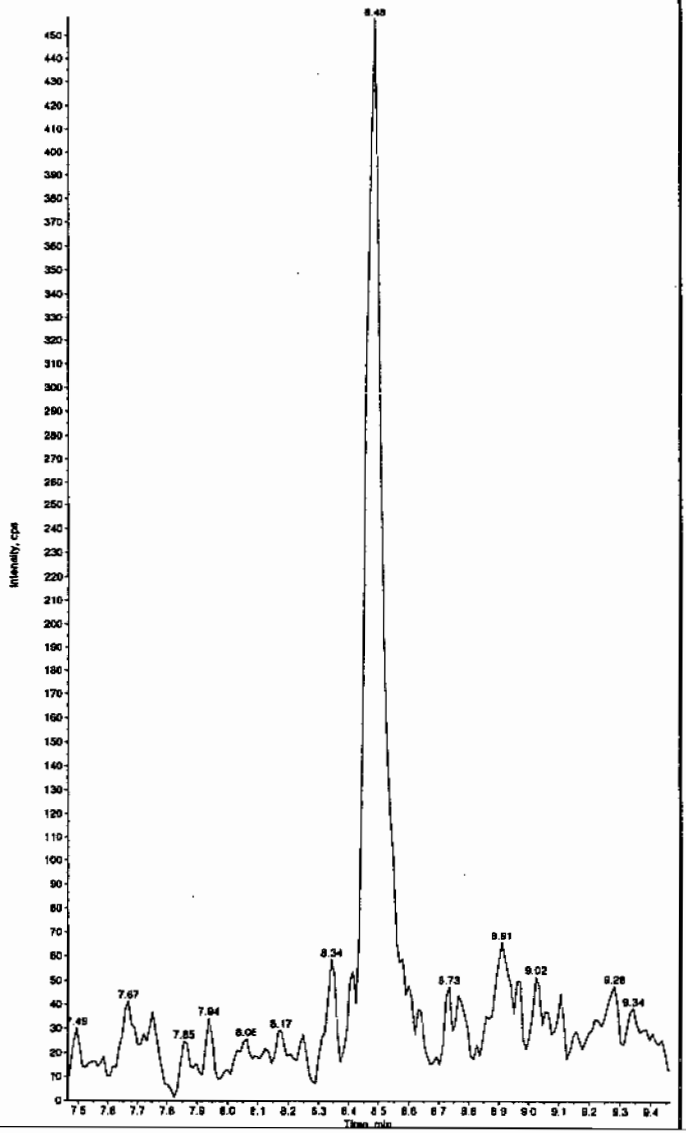

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:36:30 AM

Modified: No

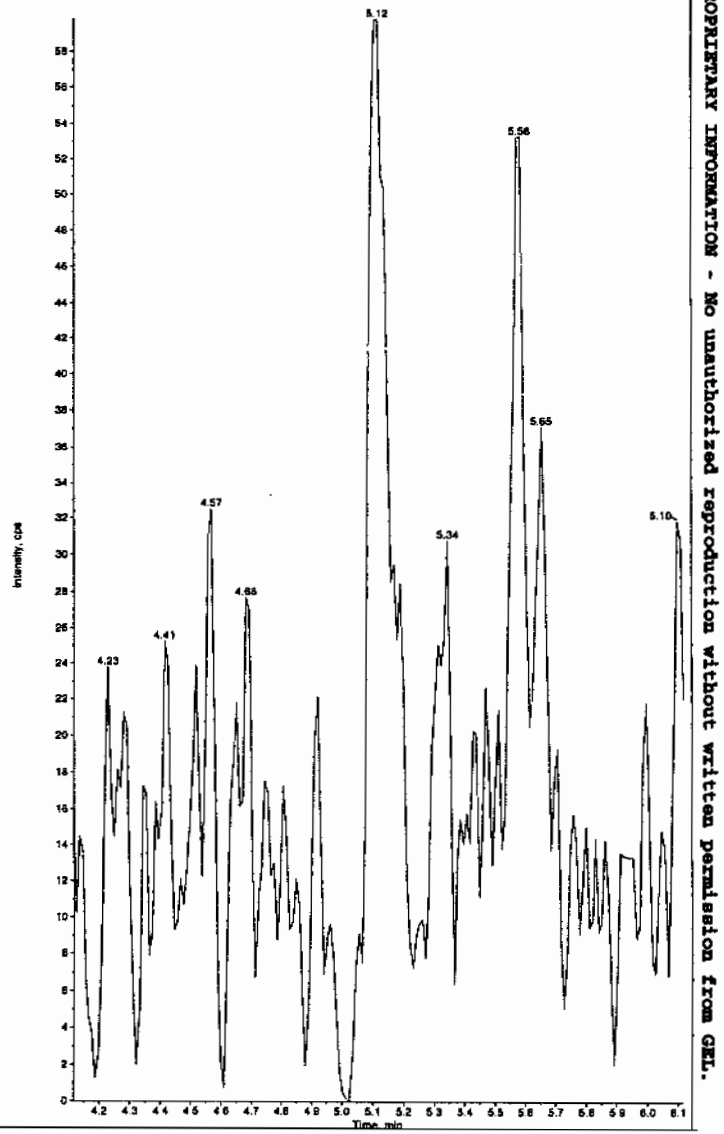

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mple Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 6:36:30 AM

fied: No

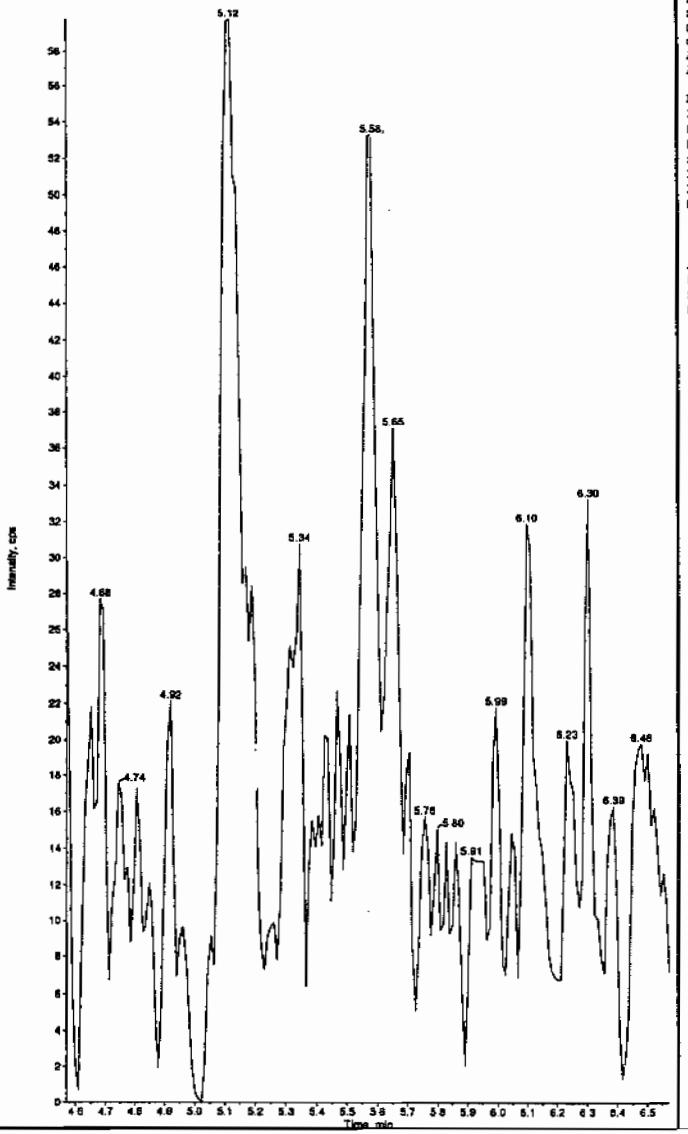

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS02260061.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	2/27/2010	
Acq. Time:	6:36:30 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	4.34e+004	counts
Height:	11941.468	cps
Start Time:	10.9	min
End Time:	11.2	min

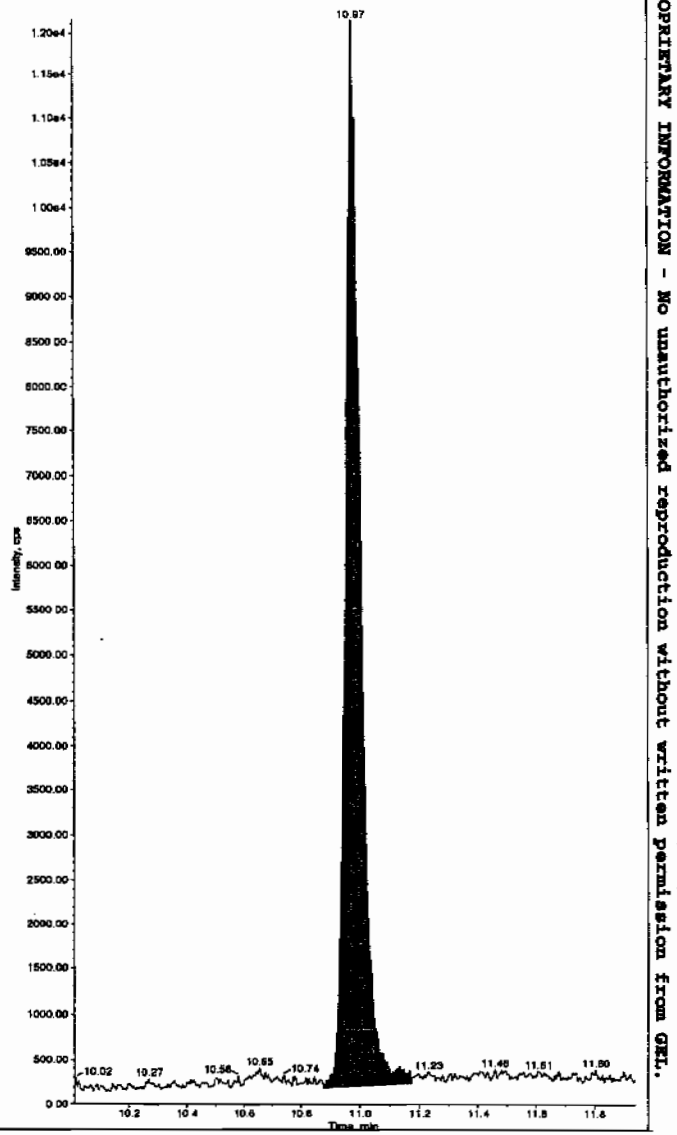

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 27–FEB–10 10:00

GEL Data File: EXS02260074.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ker 3/1/10

ample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/27/2010
. Time: 10:00:38 AM

ified: No

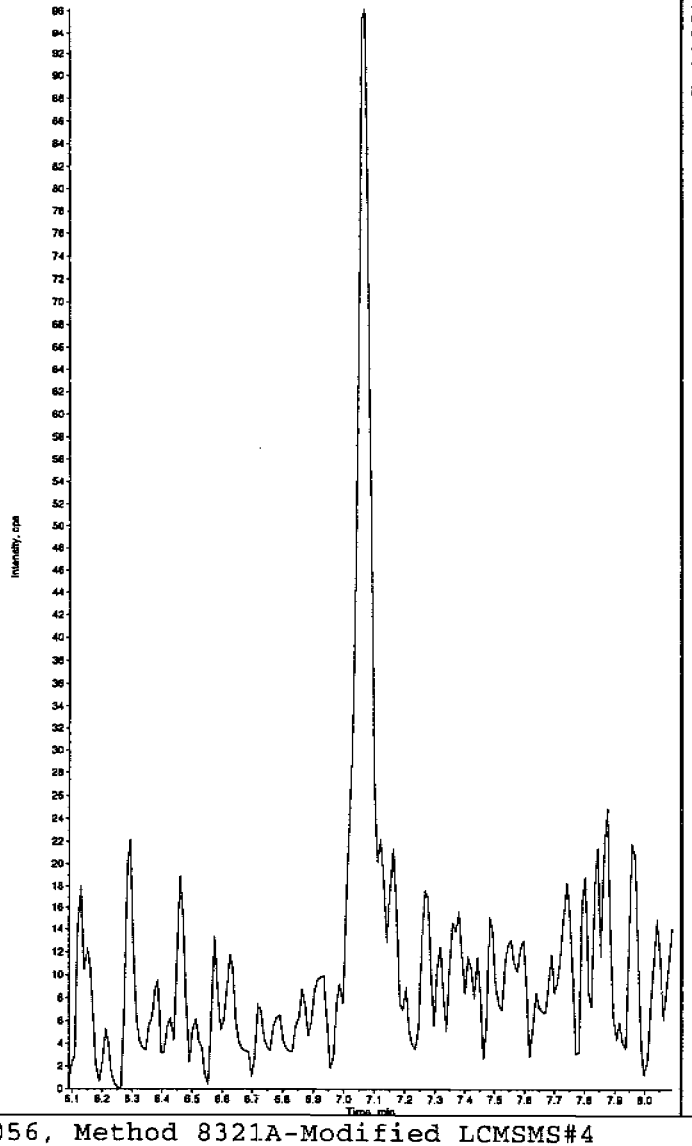

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:00:38 AM

Modified: No

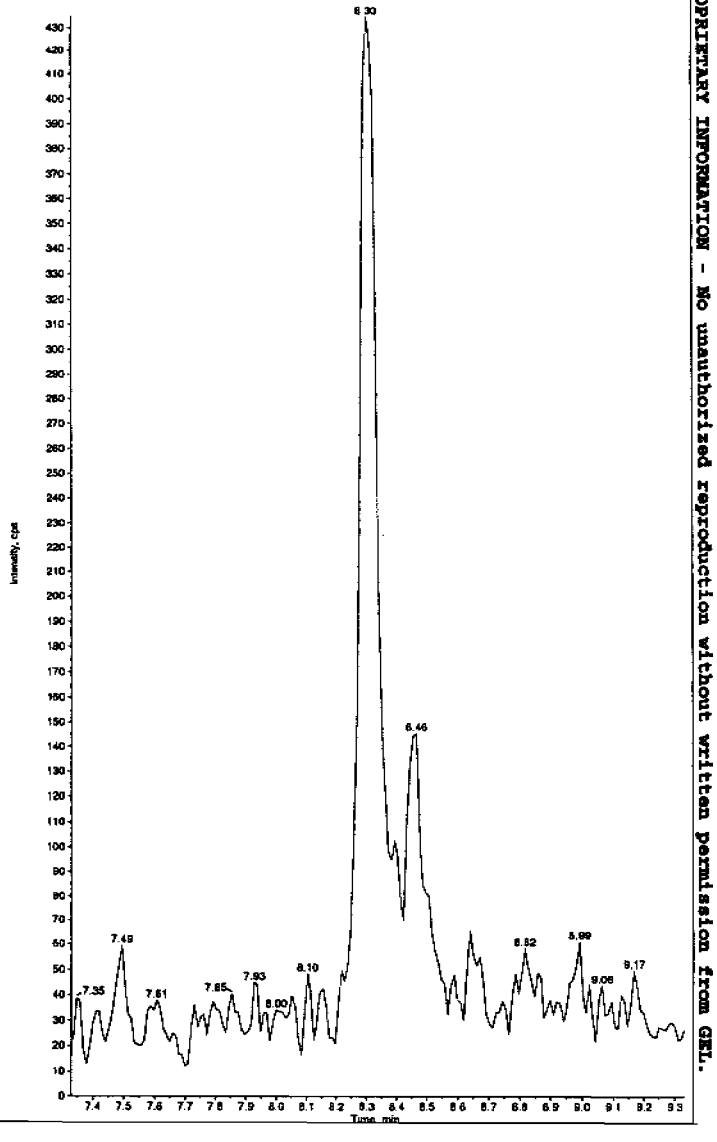

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mple Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/27/2010
. Time: 10:00:38 AM

fied: No

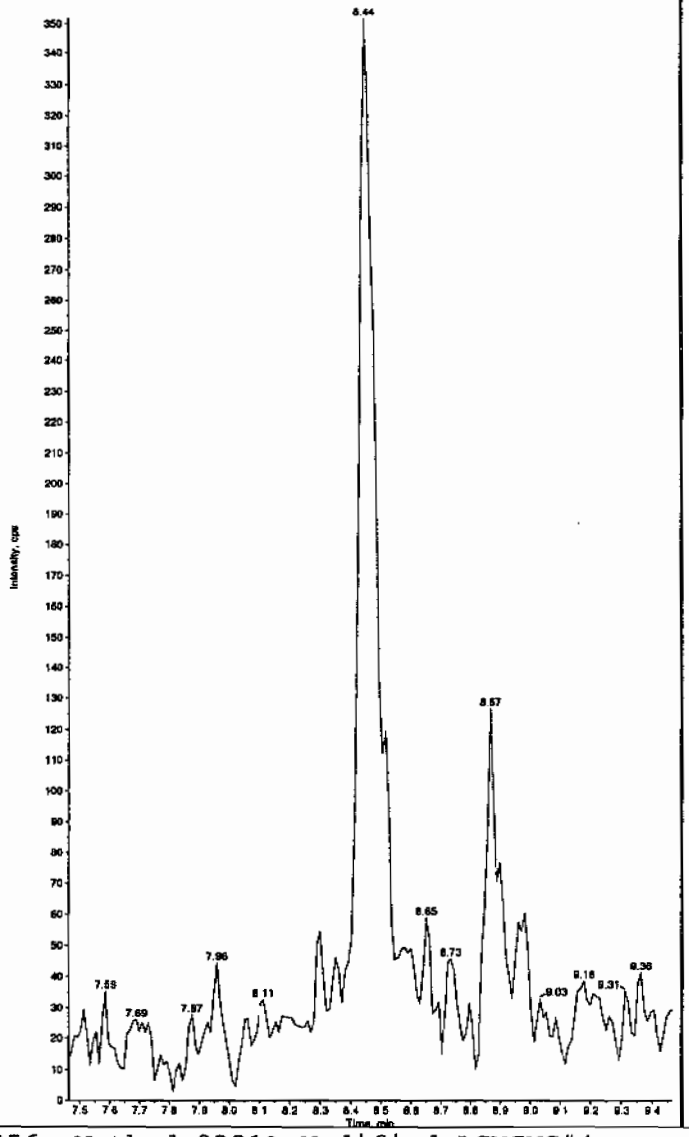

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:00:38 AM

Modified: No

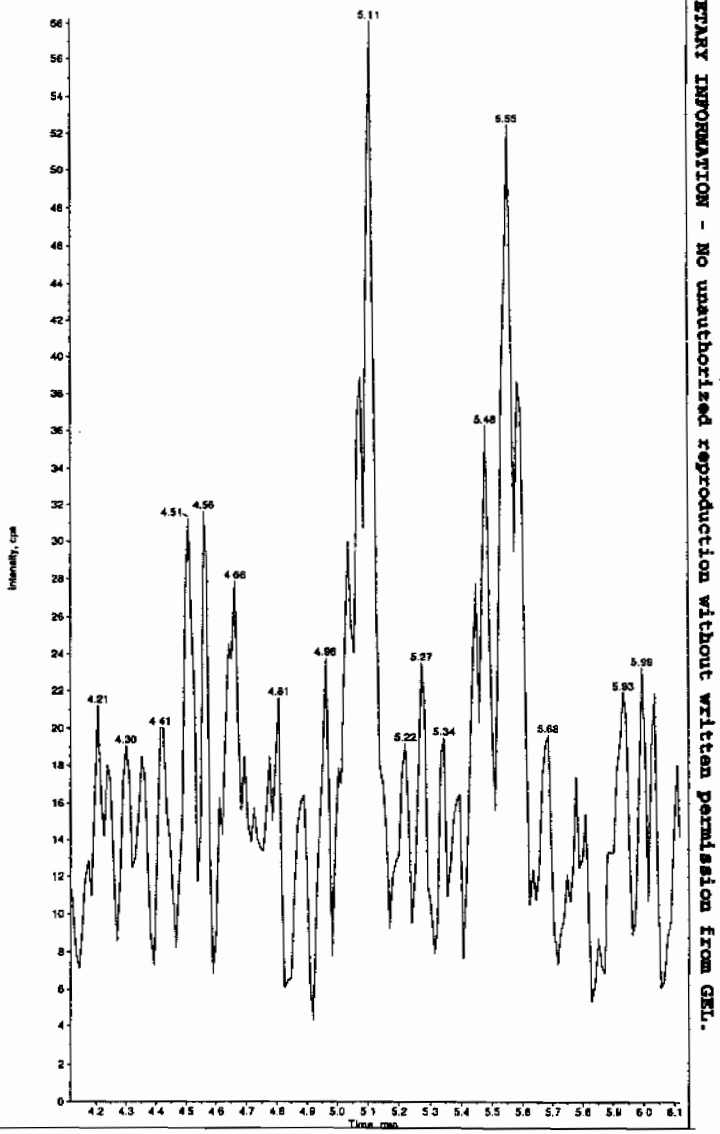

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ple Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 10:00:38 AM

fied: No

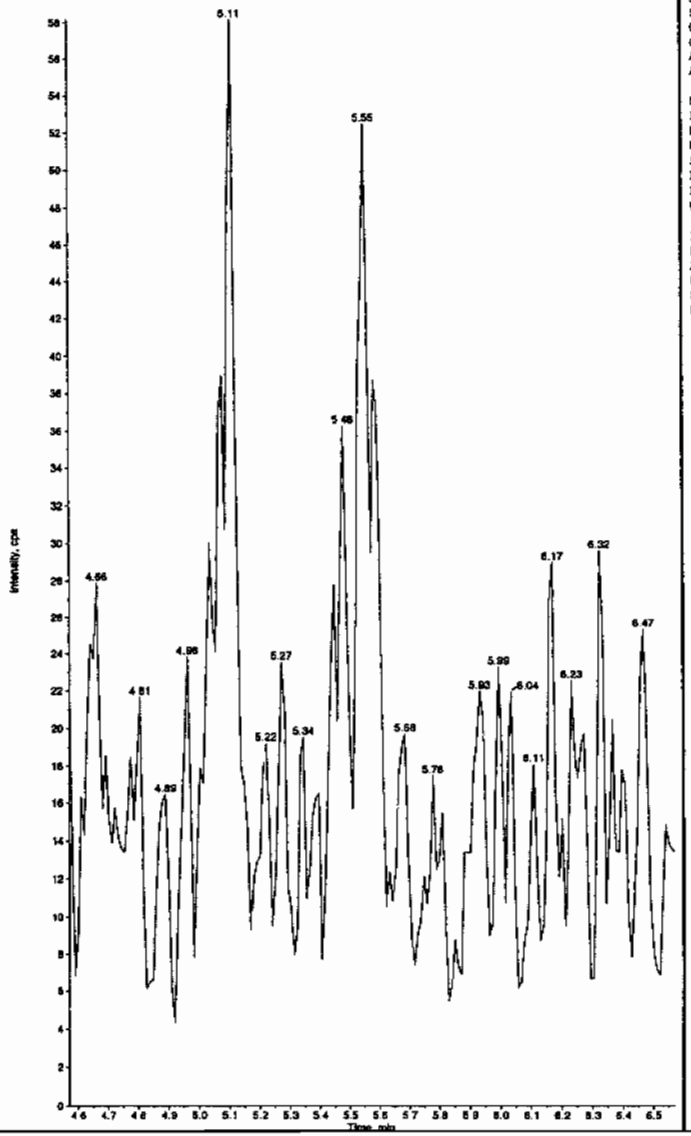

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS02260074.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 10:00:38 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.92e+004 counts
Height: 10472.759 cps
Start Time: 10.8 min
End Time: 11.2 min

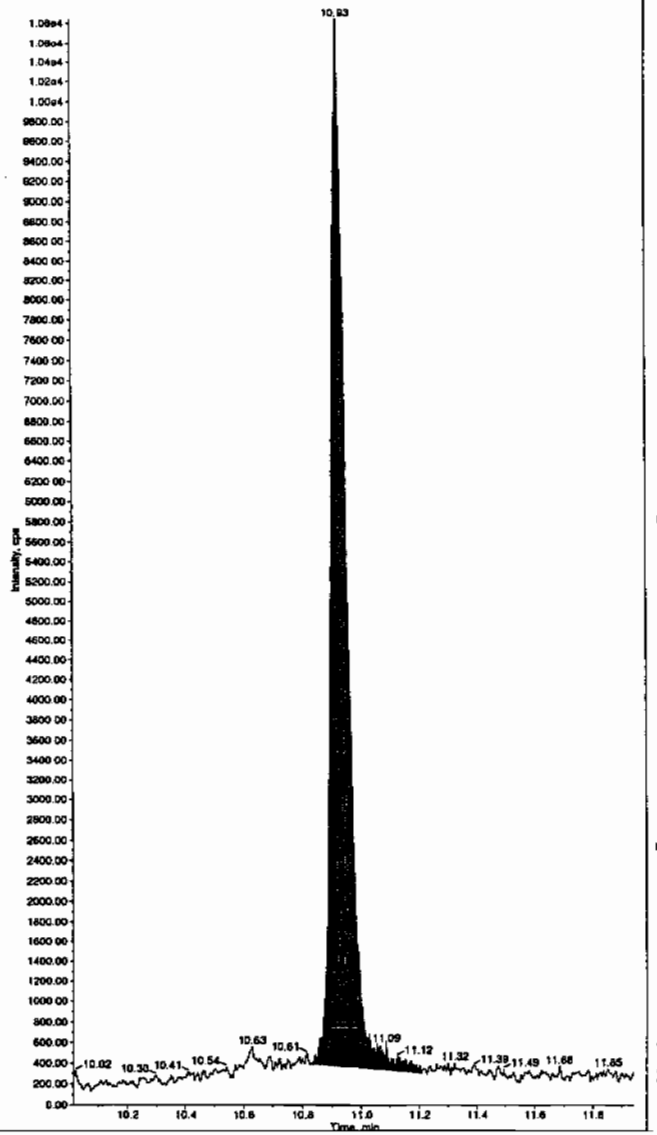

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 27–FEB–10 13:24

GEL Data File: EXS02260087.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 3/1/10

ple Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS02260087.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 1:24:47 PM

fied: No

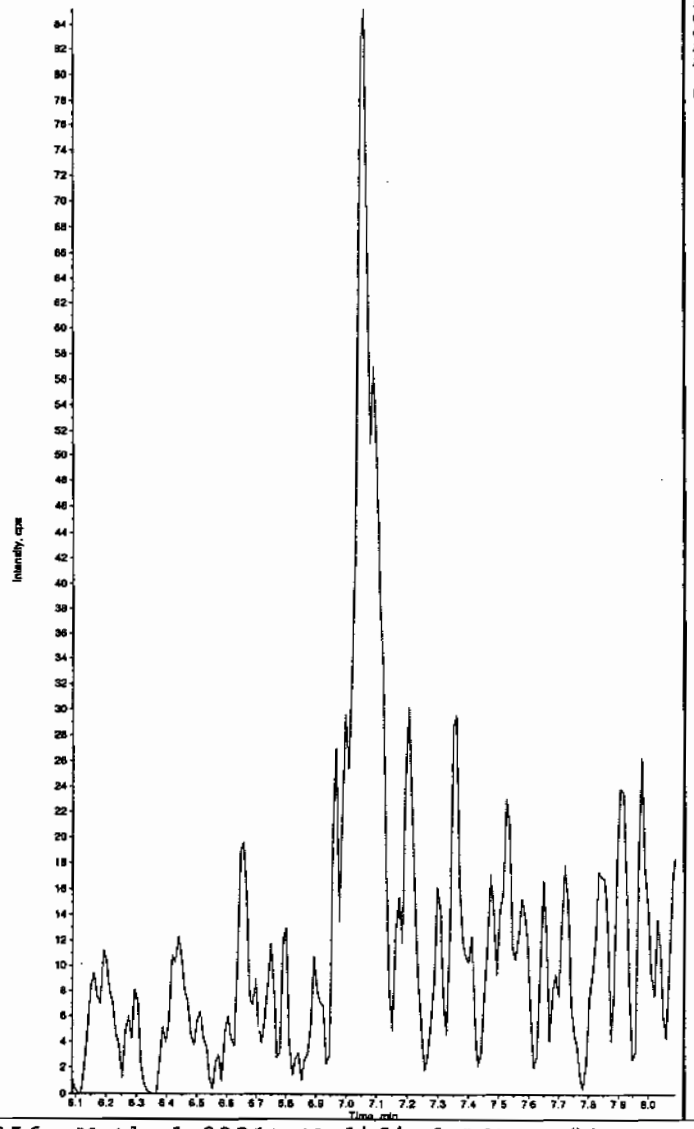

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS02260087.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:24:47 PM

Modified: No

dhm 03/01/10

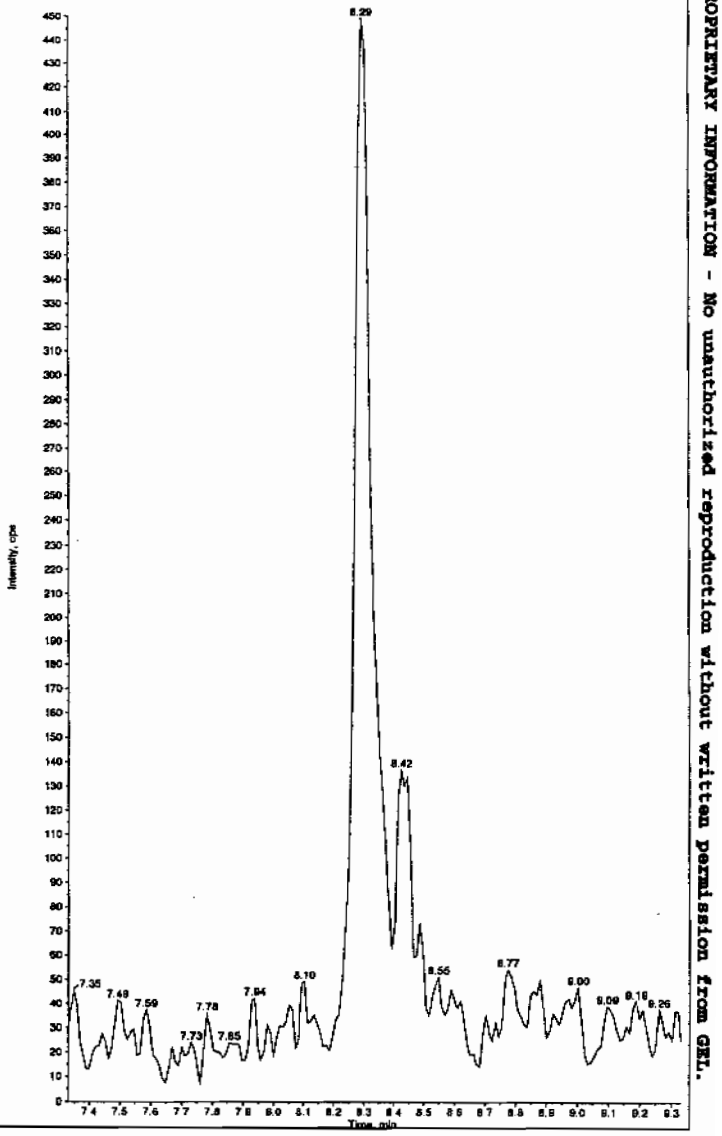

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ple Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02260087.wiff"
k Name: '34-Dinitrotoluene' Mass(es): "182.1/151.9 amu'
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 1:24:47 PM

fied: No

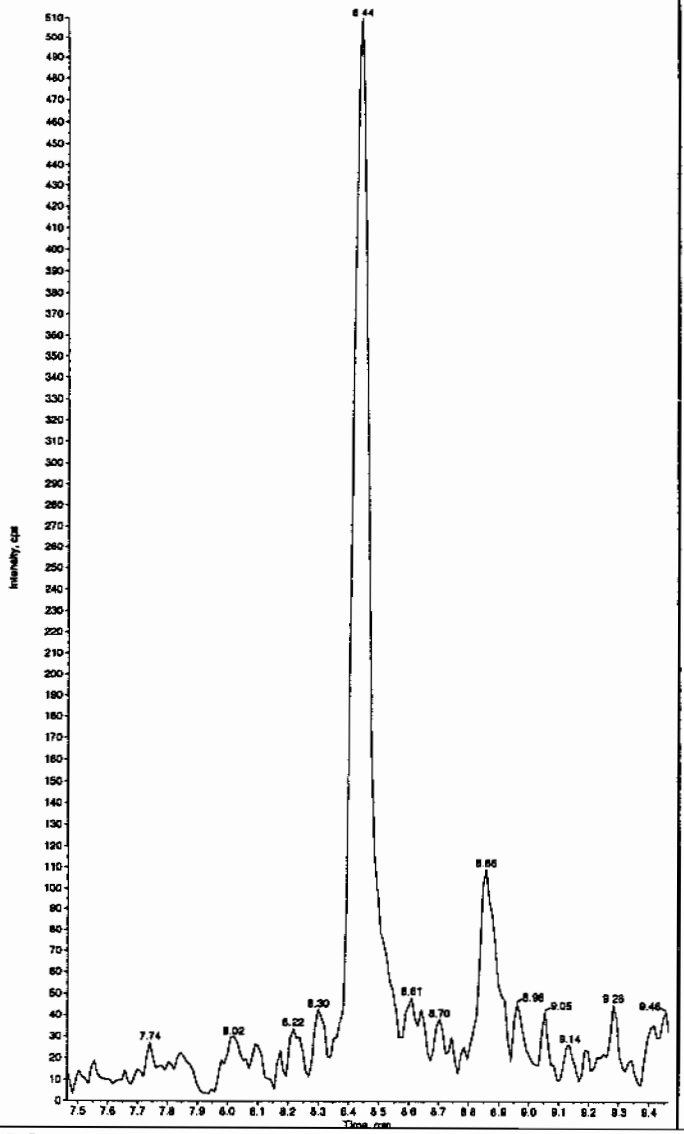

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS02260087.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:24:47 PM

Modified: No

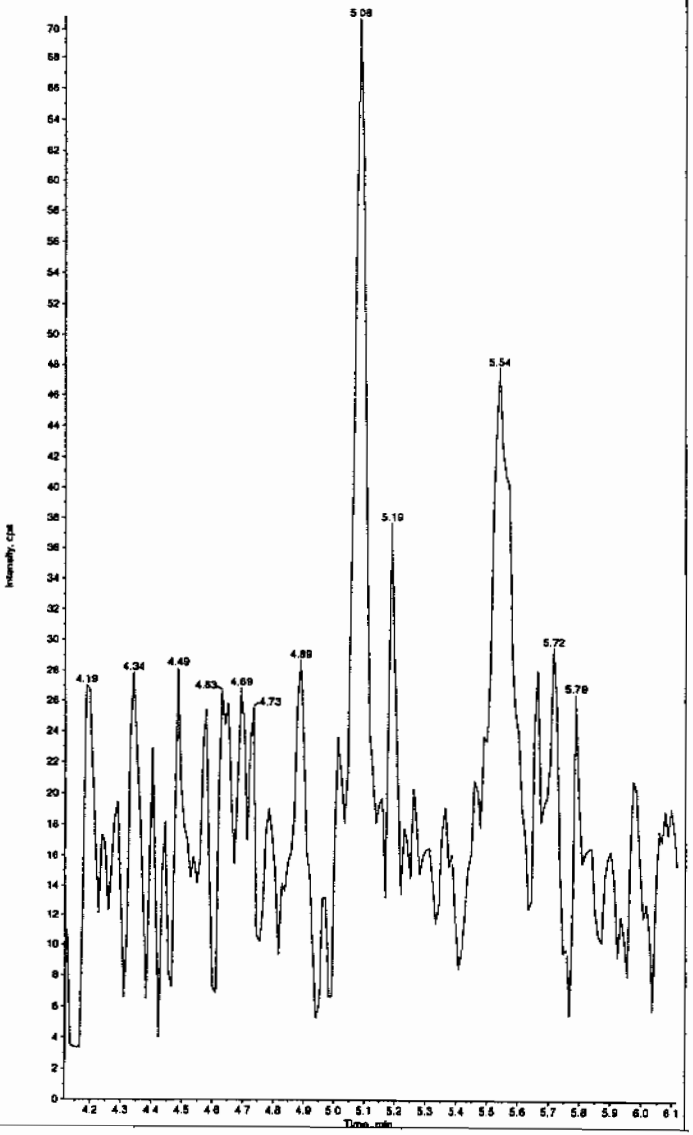

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "XIBLK10" Sample ID: "1|LER" File: "EXS02260087.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 1:24:47 PM

fied: No

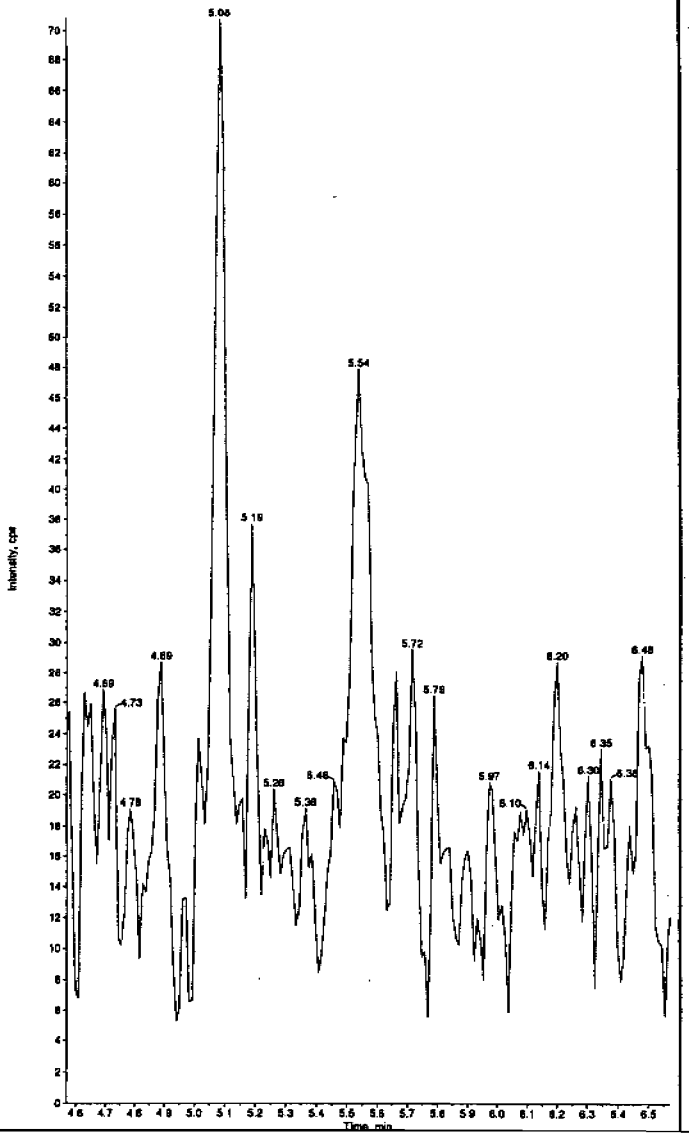

Sample Name: "XIBLK10" Sample ID: "1|LER" File: "EXS02260087.wiff"
Peak Name: "tris(p-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	2/27/2010
Acq. Time:	1:24:47 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	4.23e+004 counts
Height:	11775.695 cps
Start Time:	10.8 min
End Time:	11.1 min

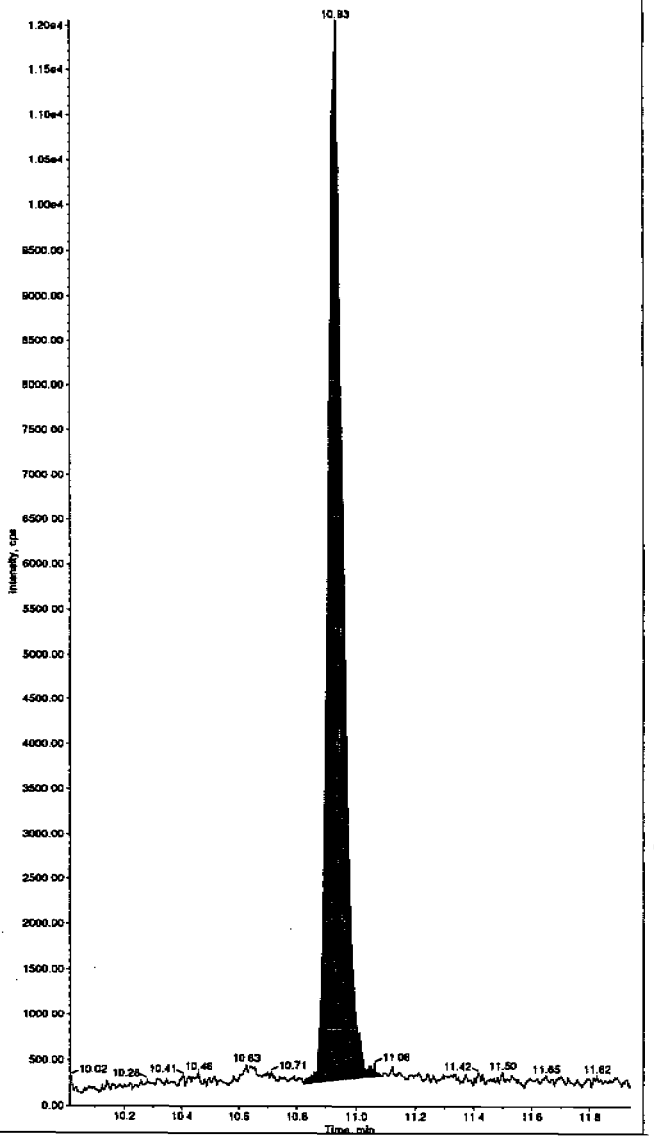

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 27–FEB–10 14:43

GEL Data File: EXS02260092.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 3/1/10

nple Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02260092.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 2:43:18 PM

fied: No

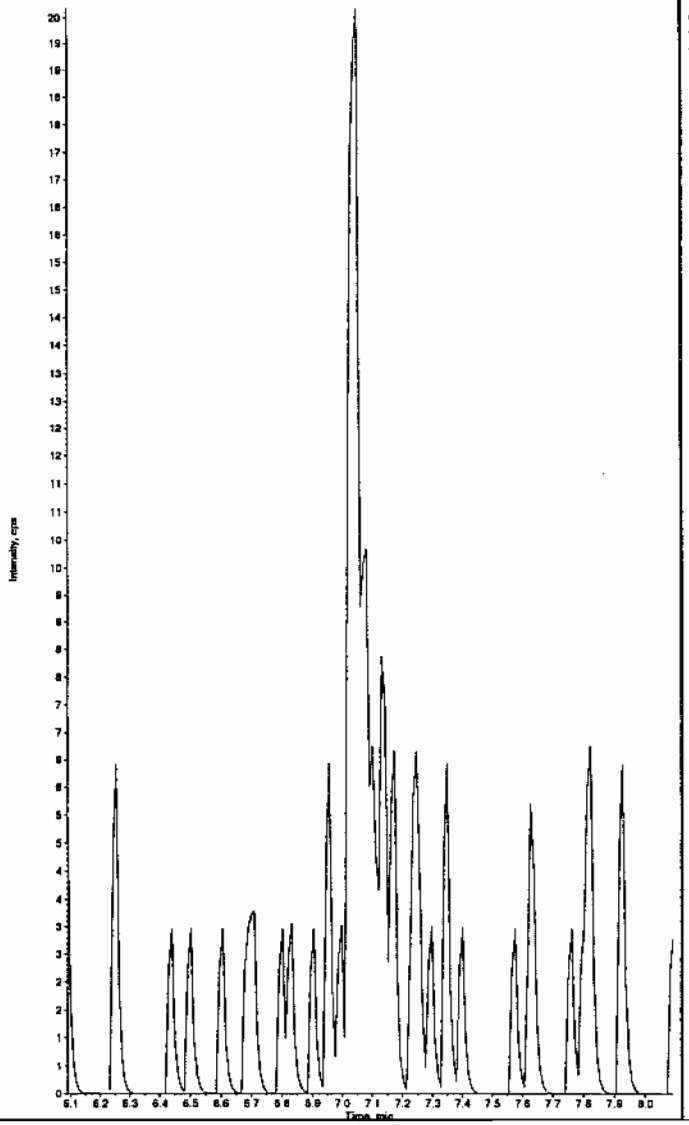

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS02260092.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:43:18 PM

Modified: No

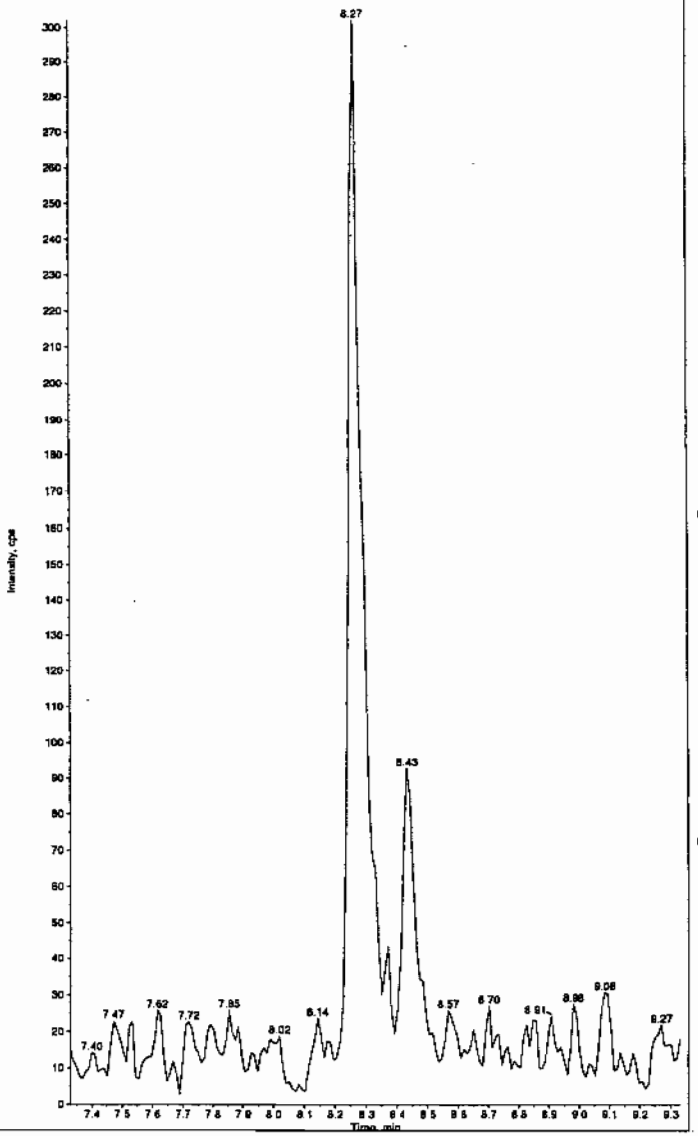

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nple Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02260092.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 2:43:18 PM

fied: No

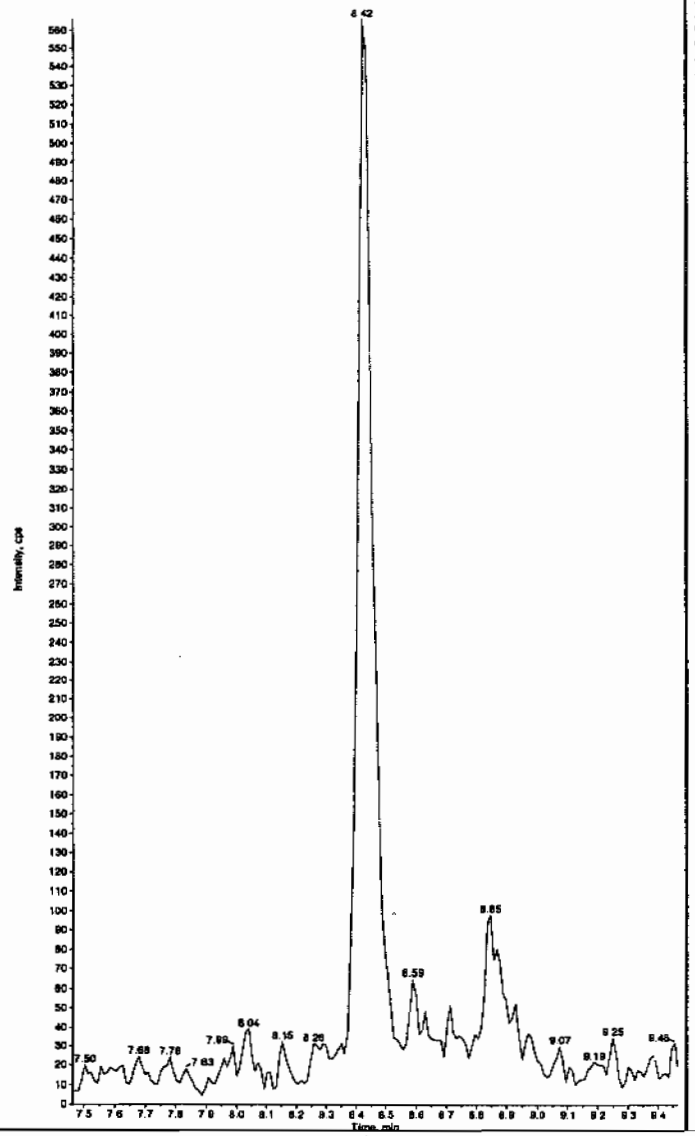

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02260092.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:43:18 PM

Modified: No

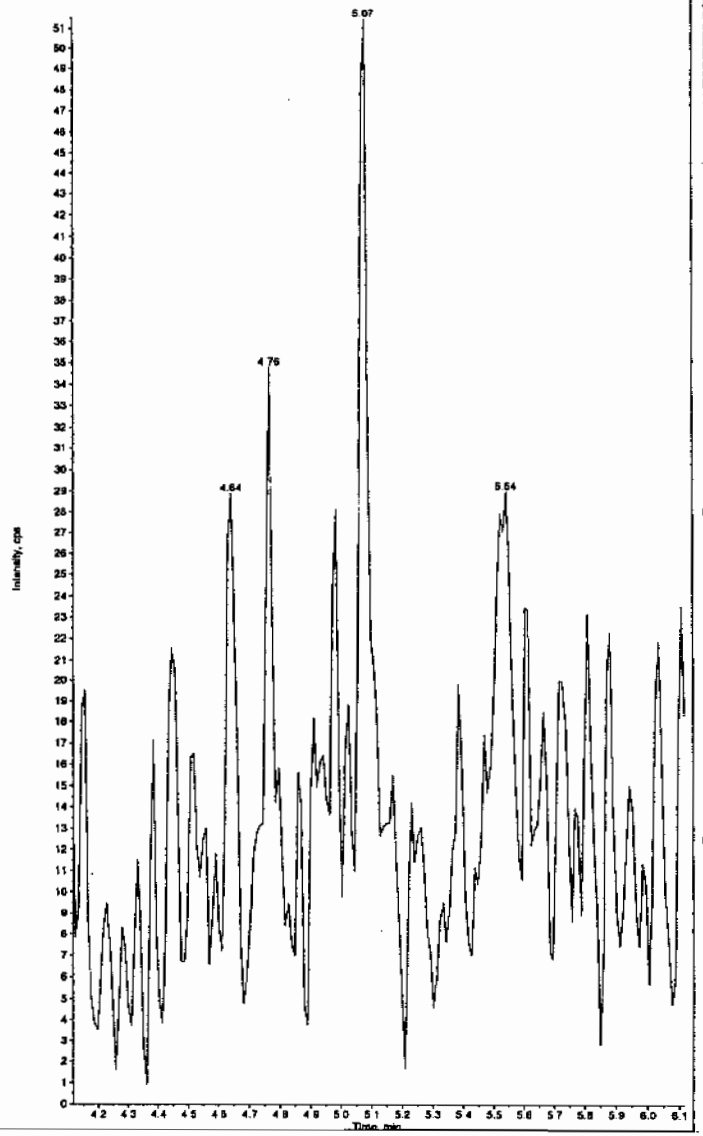

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02260092.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 2:43:18 PM

fied: No

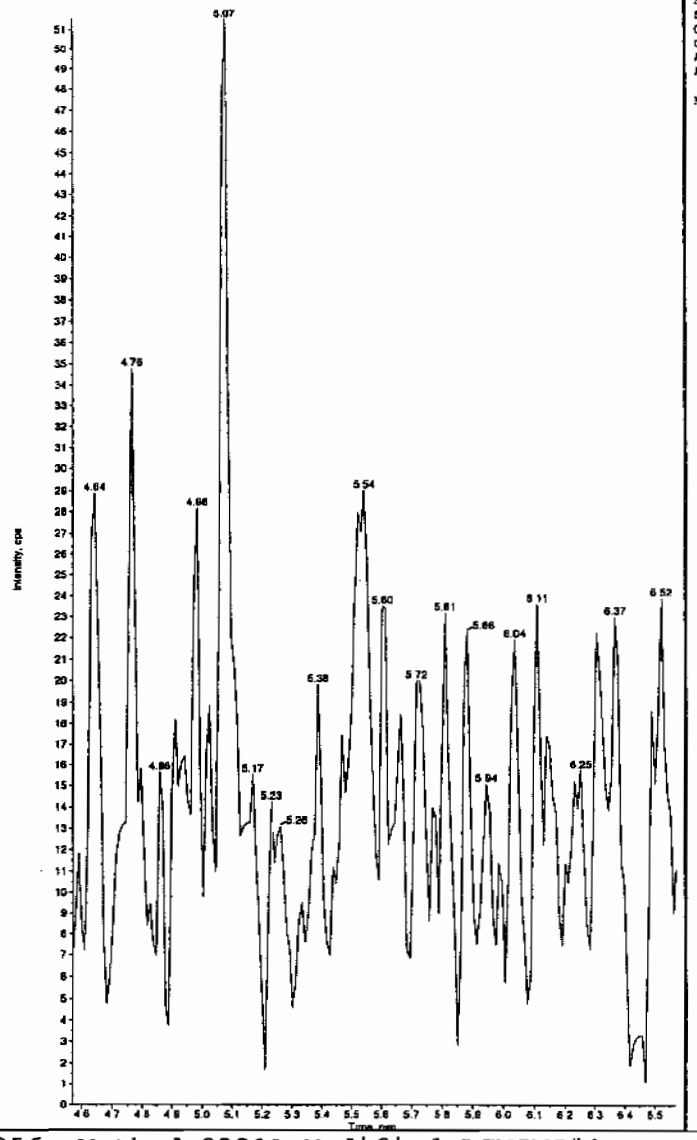

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS02260092.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 2:43:18 PM

Modified: No

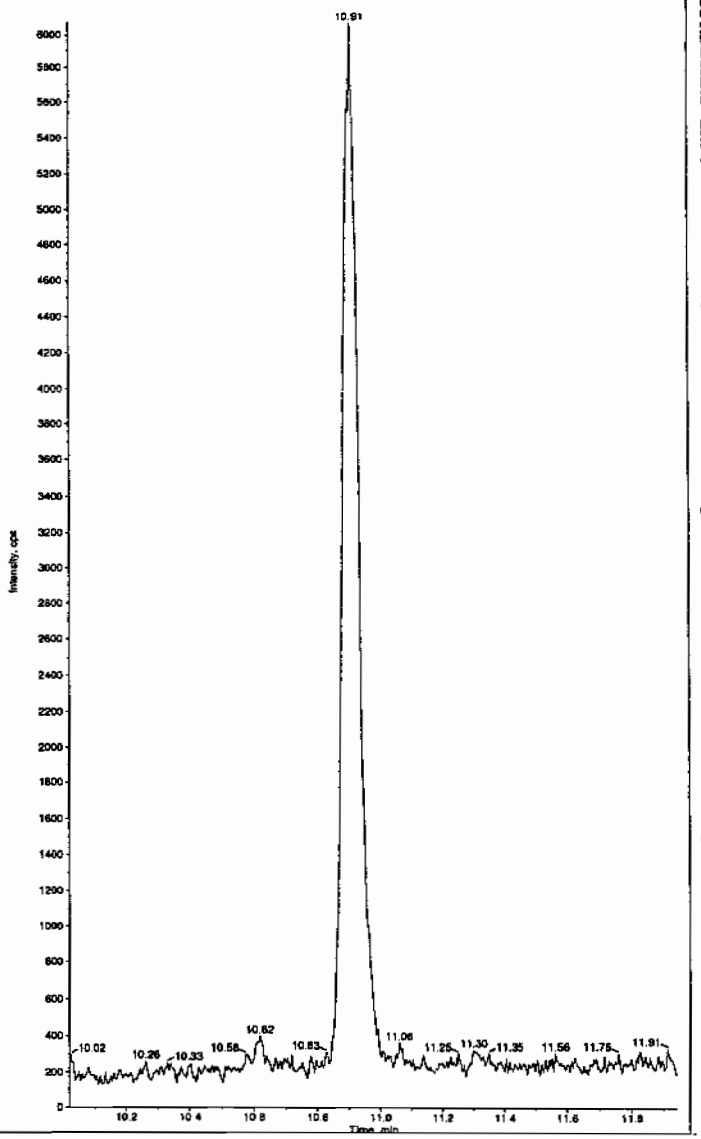

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 27–FEB–10 16:48

GEL Data File: EXS02260100.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rcn 3/1/10

ple Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS02260100.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 4:48:50 PM

ied: No

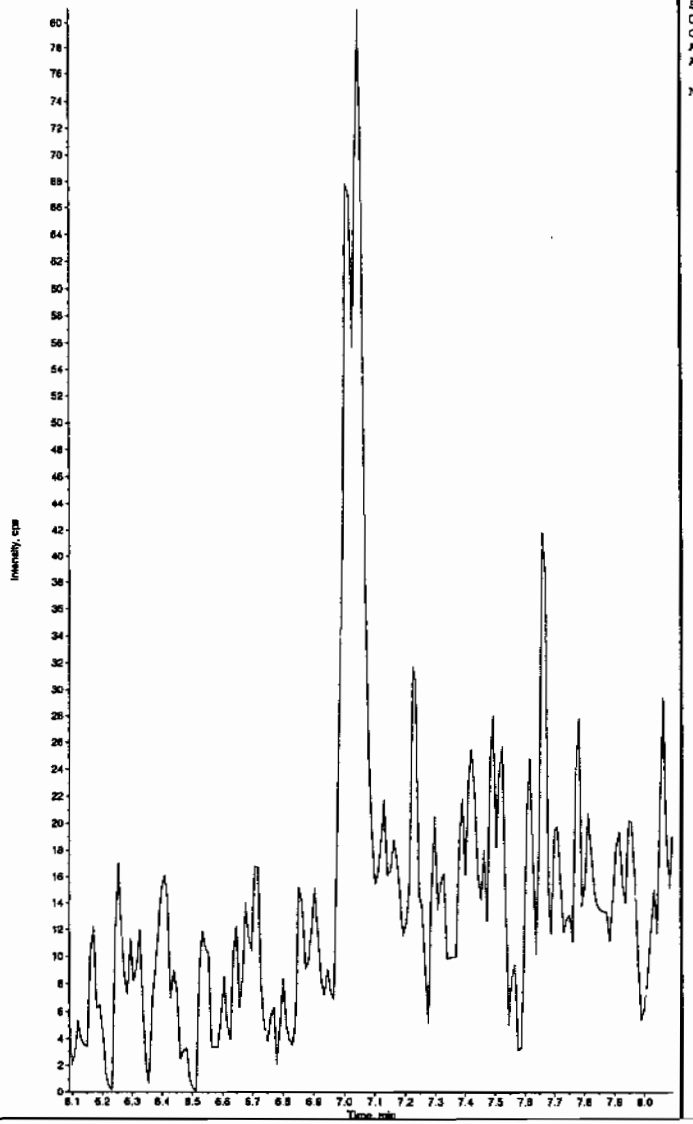

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS02260100.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:48:50 PM

Modified: No

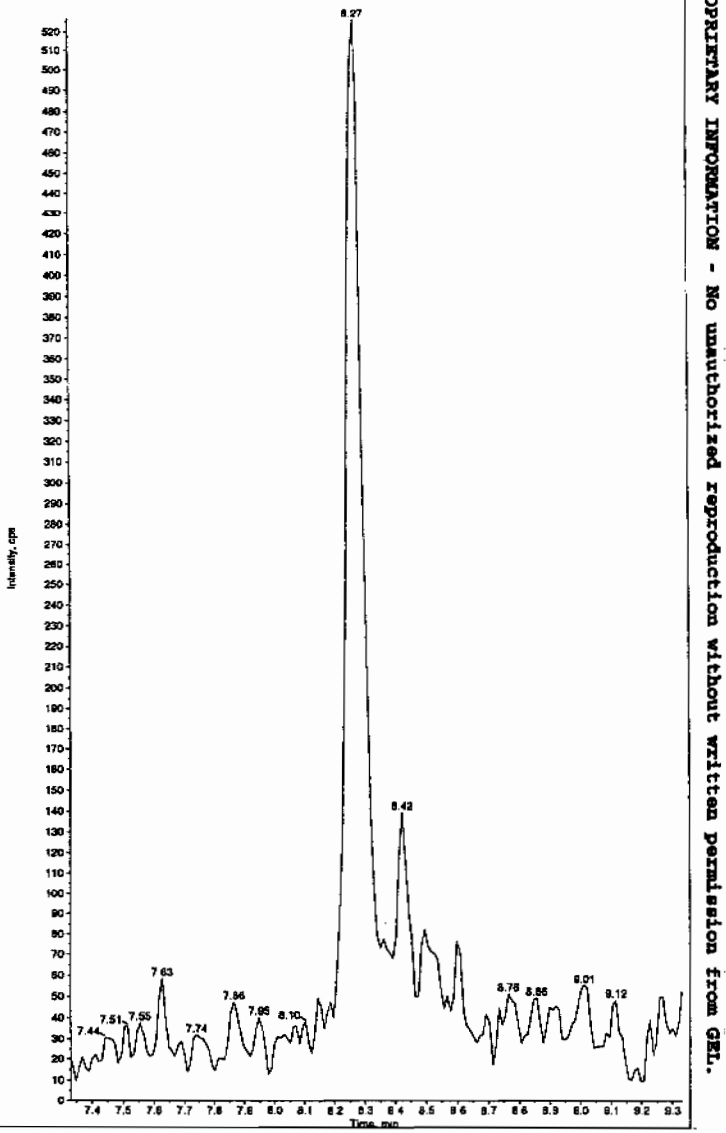

HMM 03/01/10

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nple Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02260100.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 4:48:50 PM

fied: No

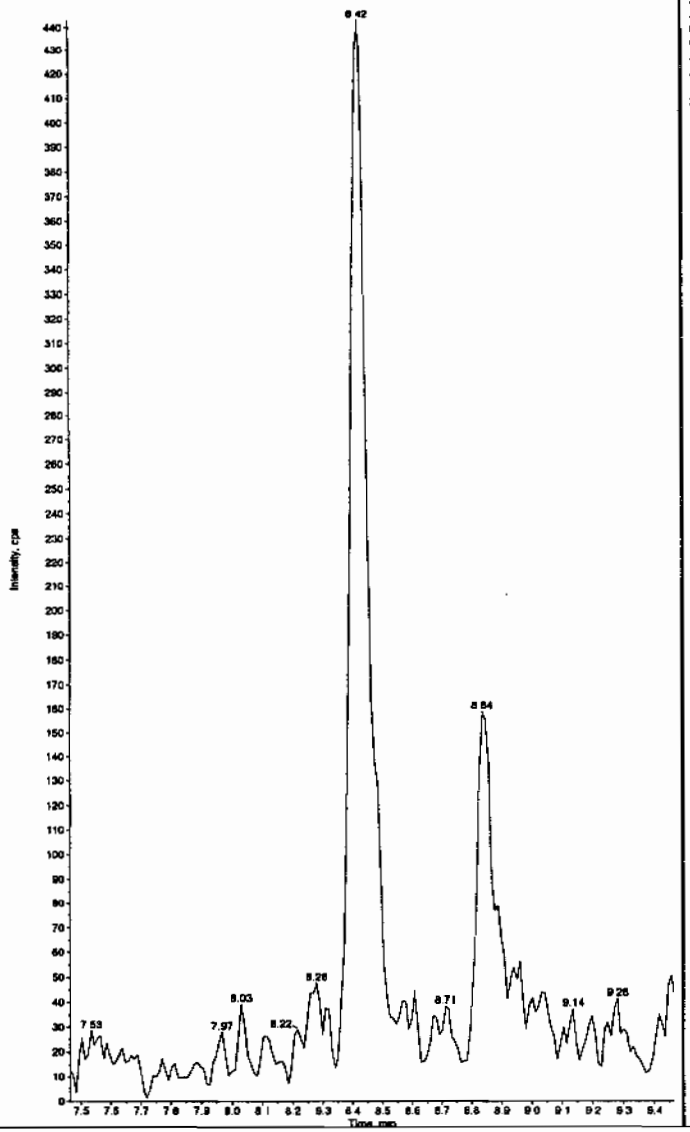

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02260100.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:48:50 PM

Modified: No

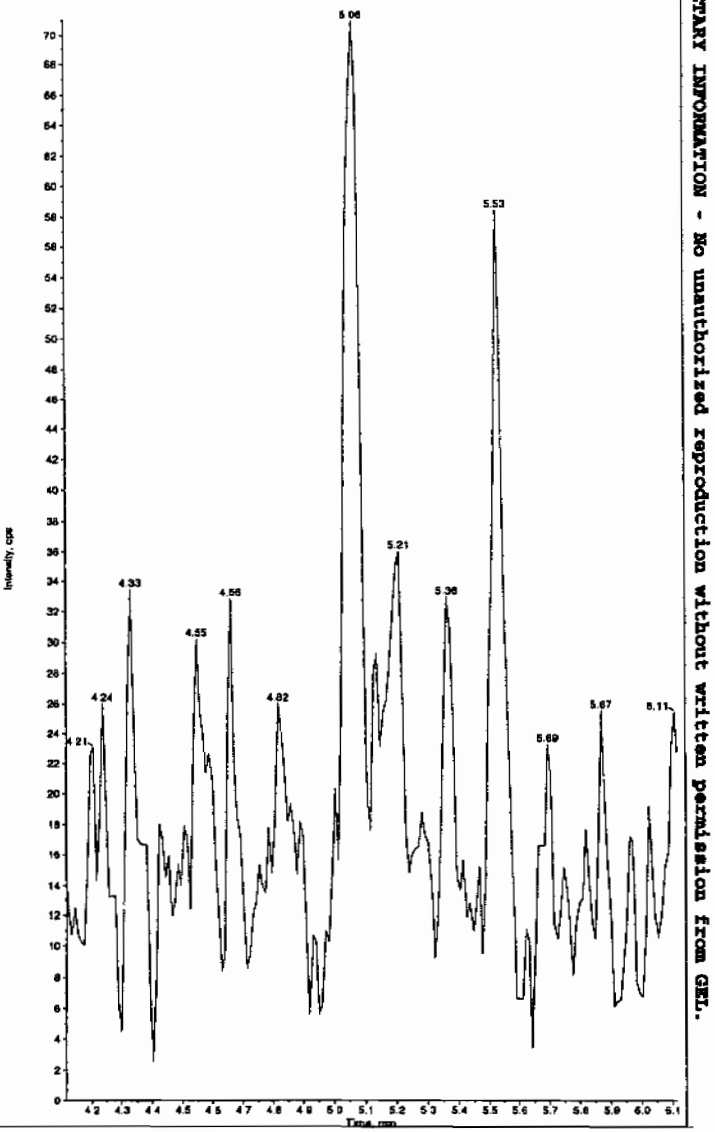

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ple Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02260100.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 4:48:50 PM

ied: No

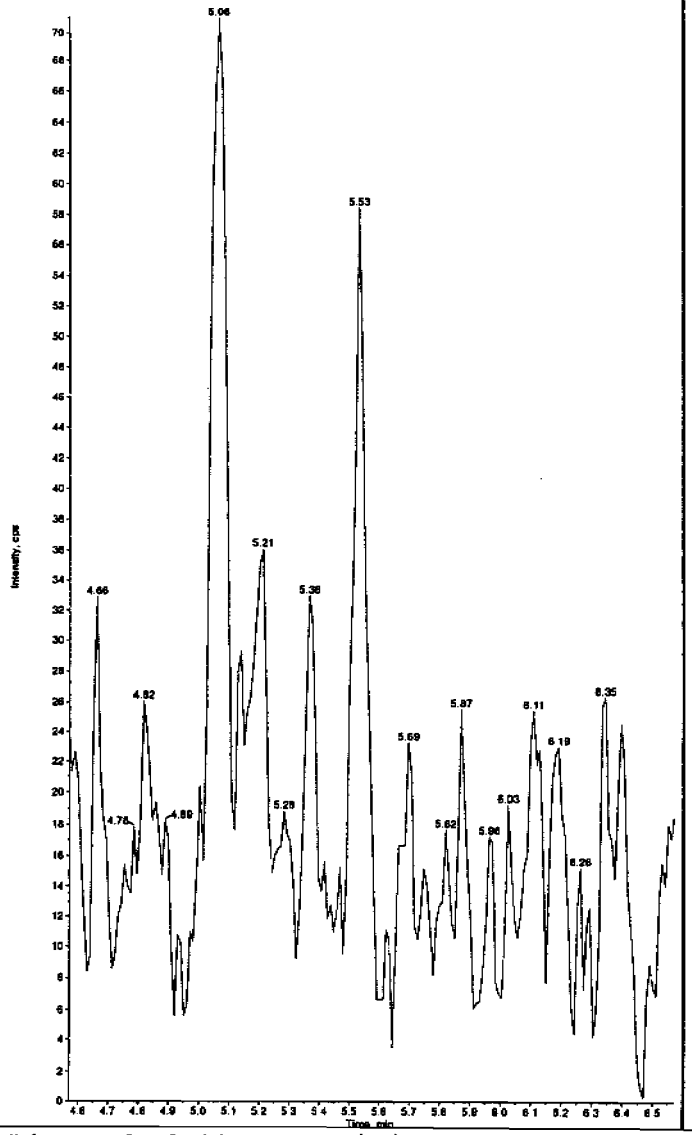

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS02260100.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 4:48:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.91e+004 counts
Height: 13420.494 cps
Start Time: 10.8 min
End Time: 11.1 min

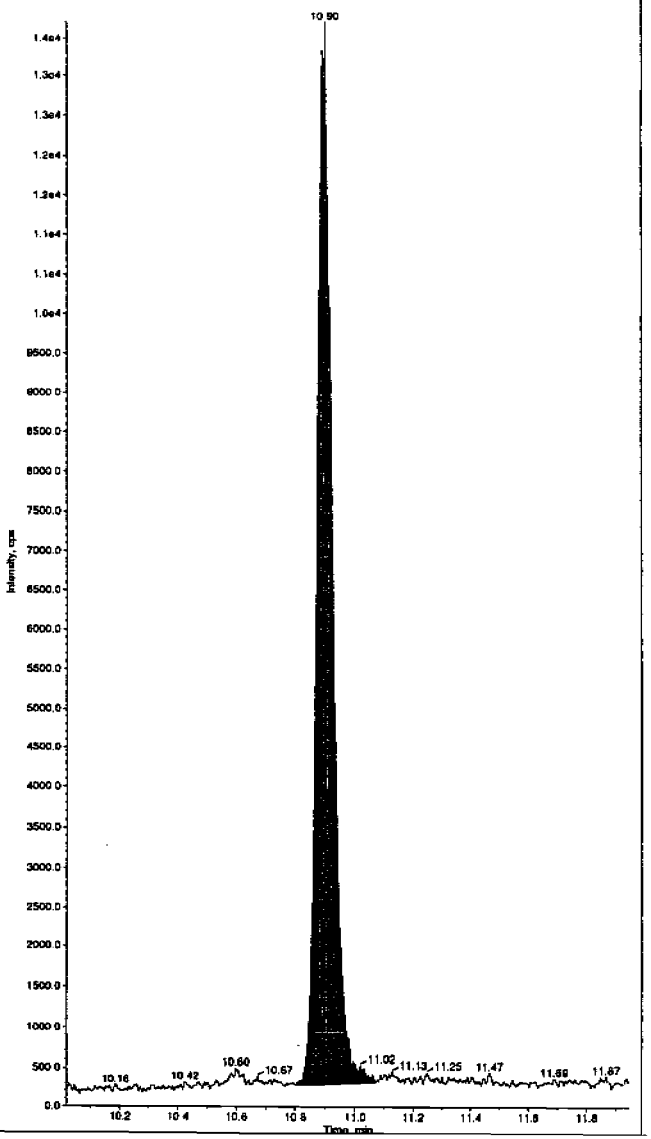

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1545

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 27-FEB-10 20:12

GEL Data File: EXS02260113.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Scan 3/1/10

ple Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02260113.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 8:12:54 PM

fied: No

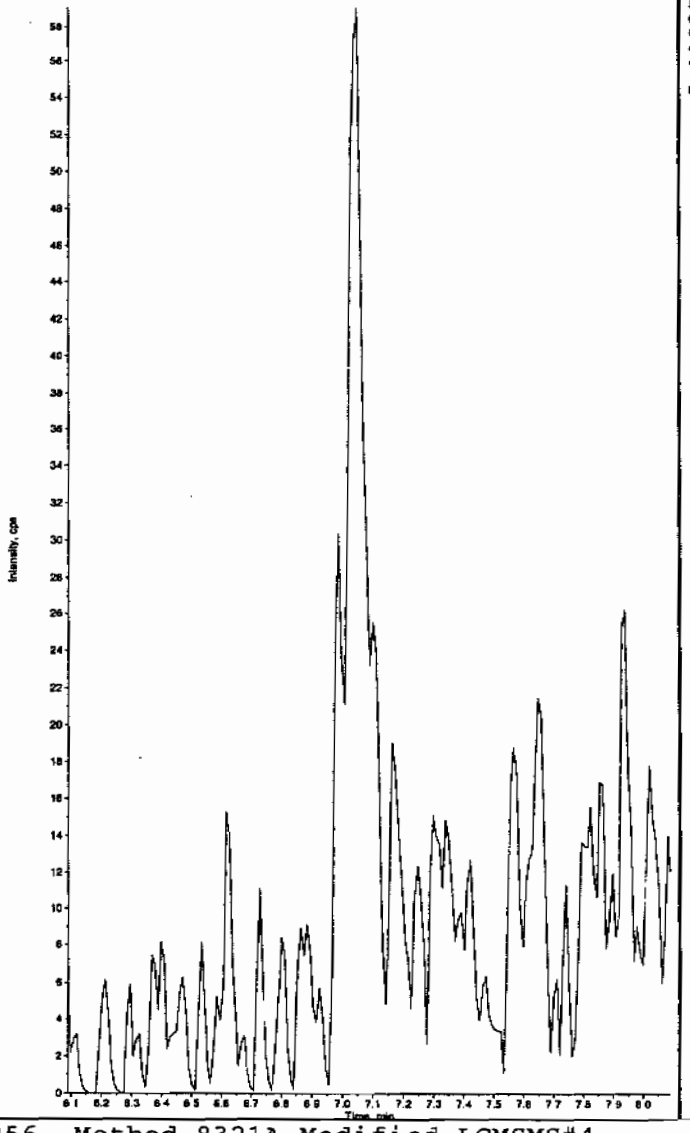

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02260113.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:12:54 PM

Modified: No

Hmm 03/01/10

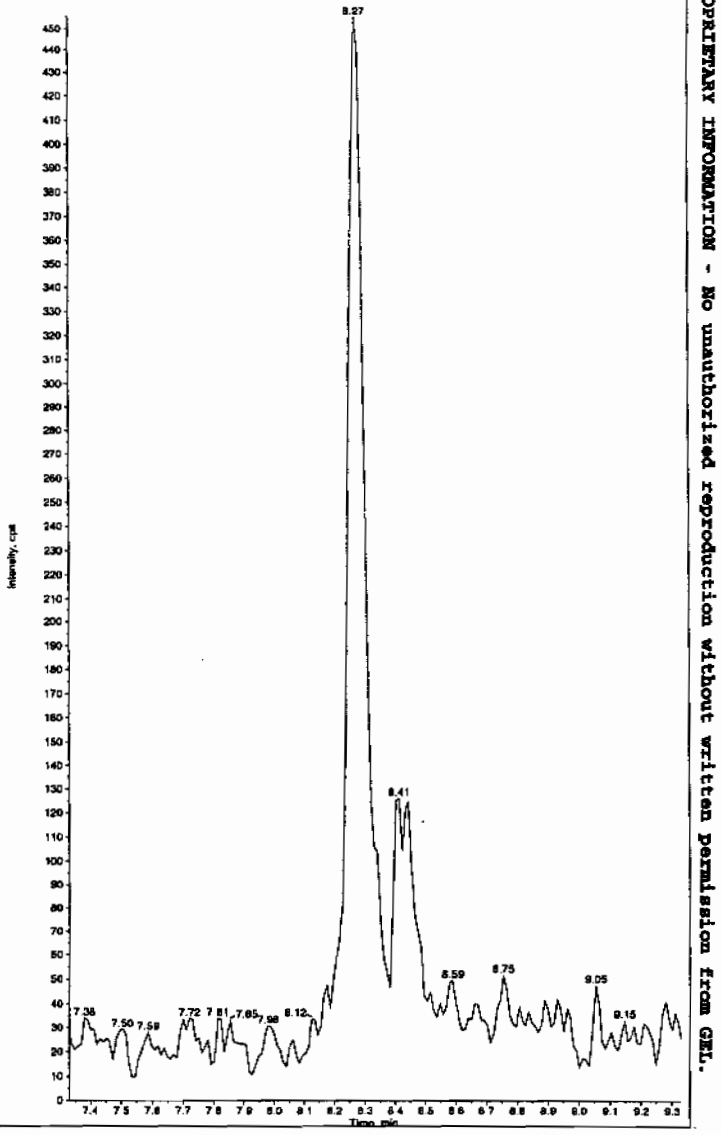

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ple Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02260113.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 8:12:54 PM

ied: No

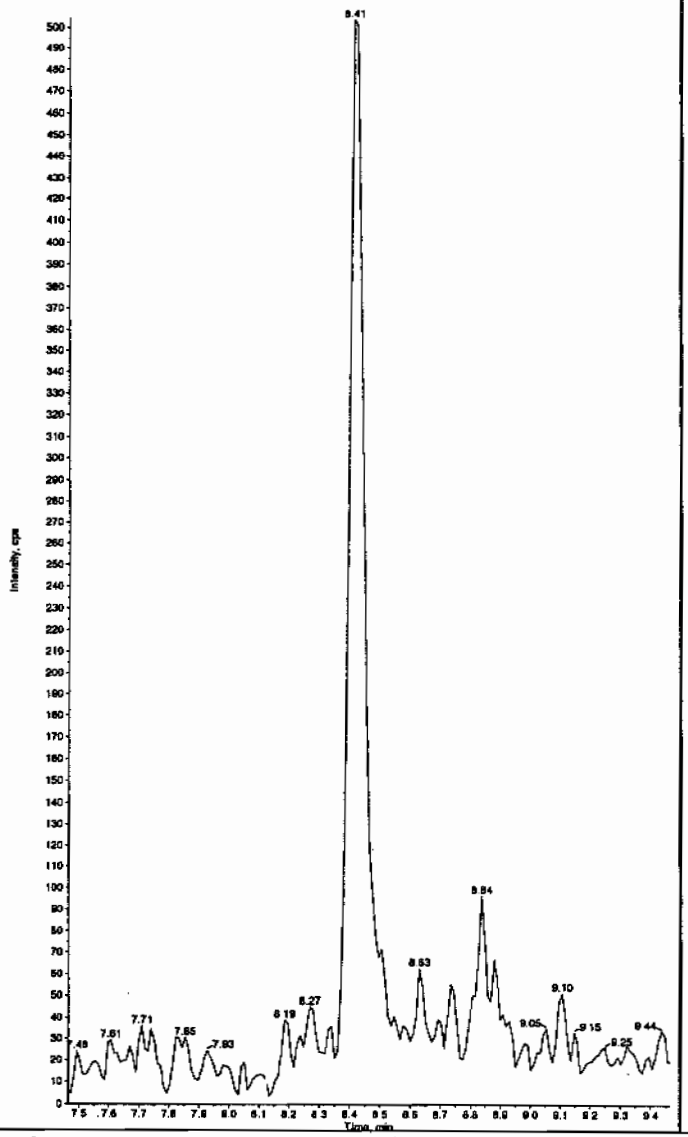

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS02260113.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:12:54 PM

Modified: No

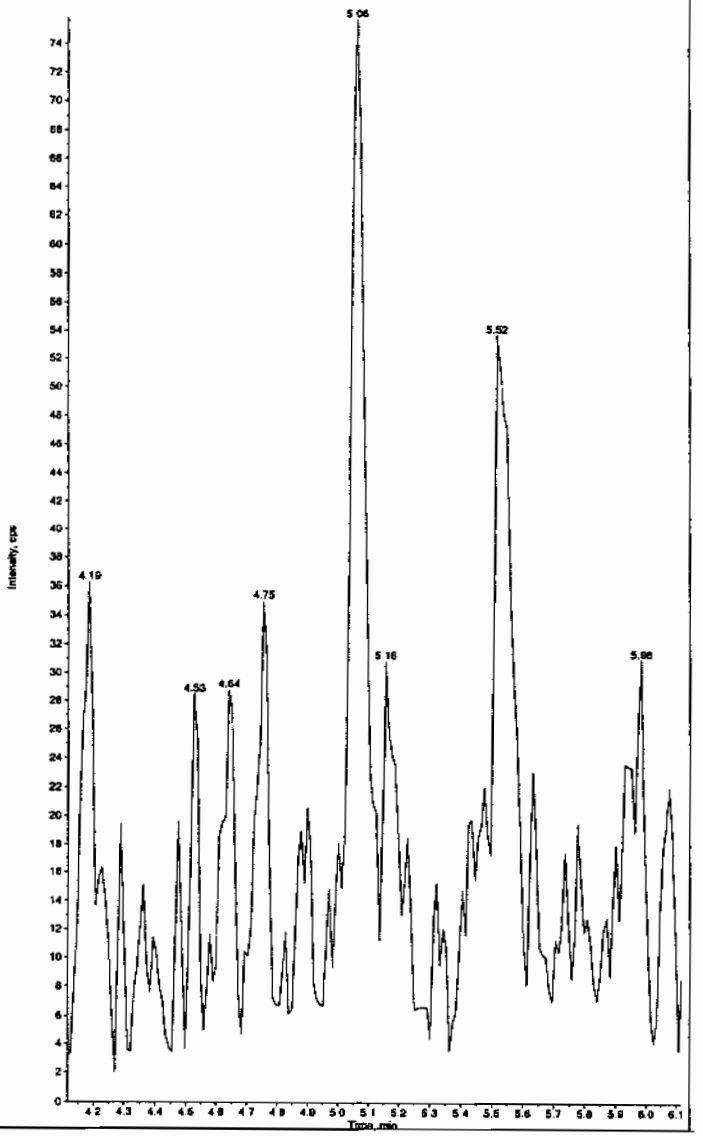

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02260113.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: "

le Index: 1
le Type: Unknown
entracion: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 8:12:54 PM

fied: No

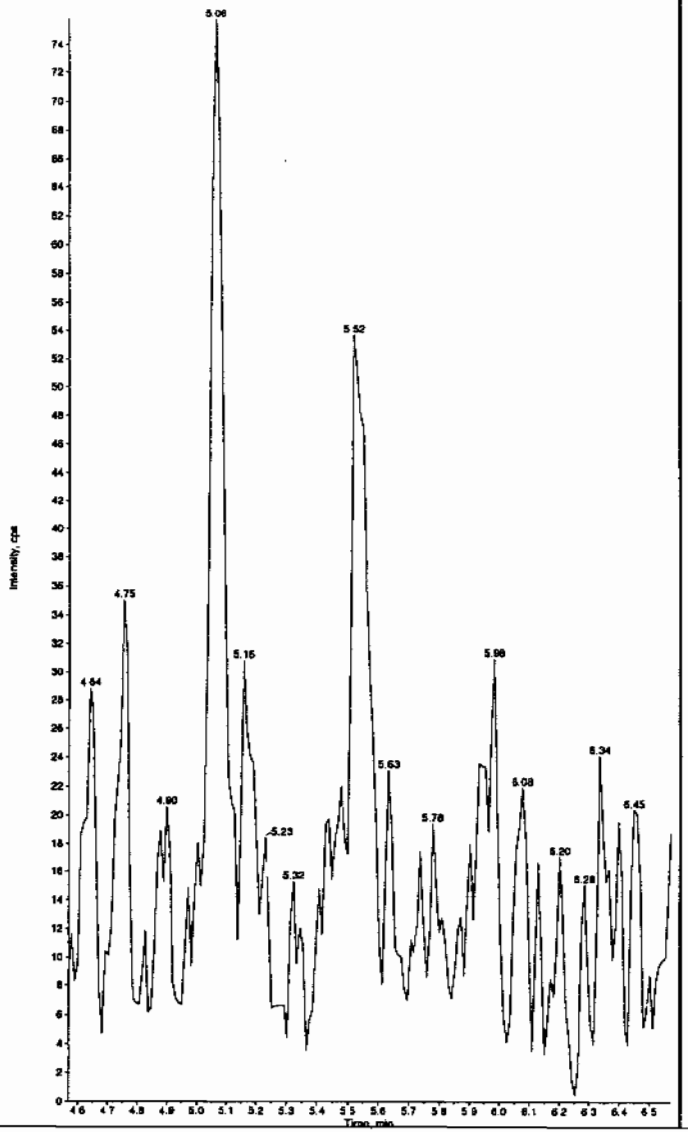

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS02260113.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/27/2010
Acq. Time: 8:12:54 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.52e+004 counts
Height: 13067.869 cps
Start Time: 10.8 min
End Time: 11.1 min

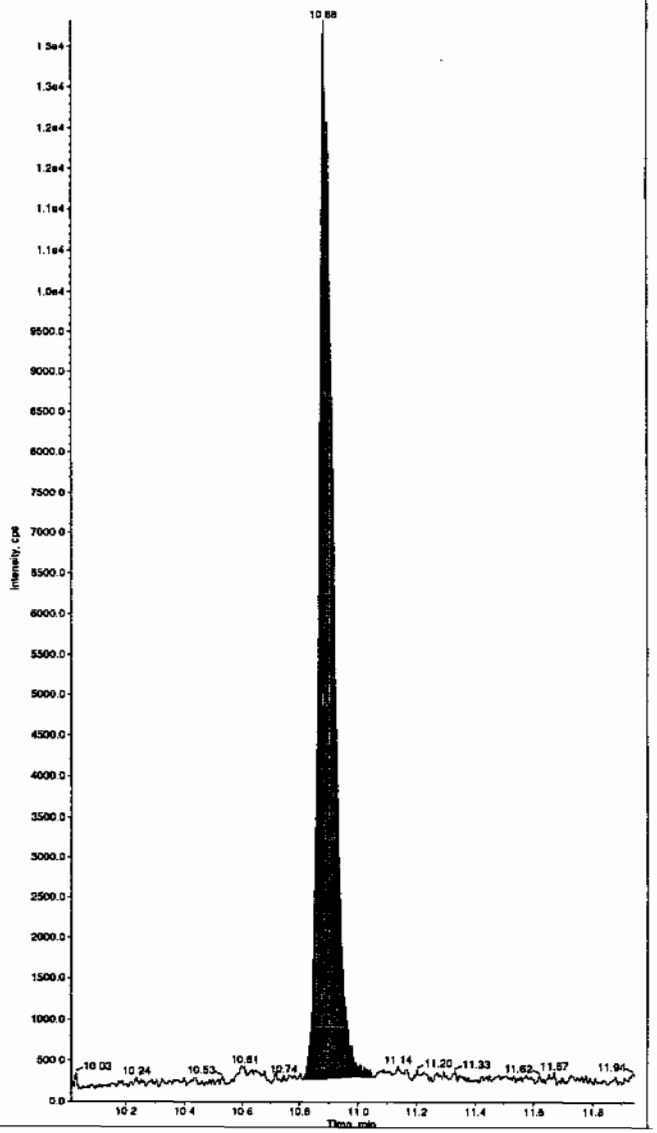

CL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 27–FEB–10 23:05

GEL Data File: EXS02260124.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 3/1/10

mple Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02260124.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 11:05:34 PM

fied: No

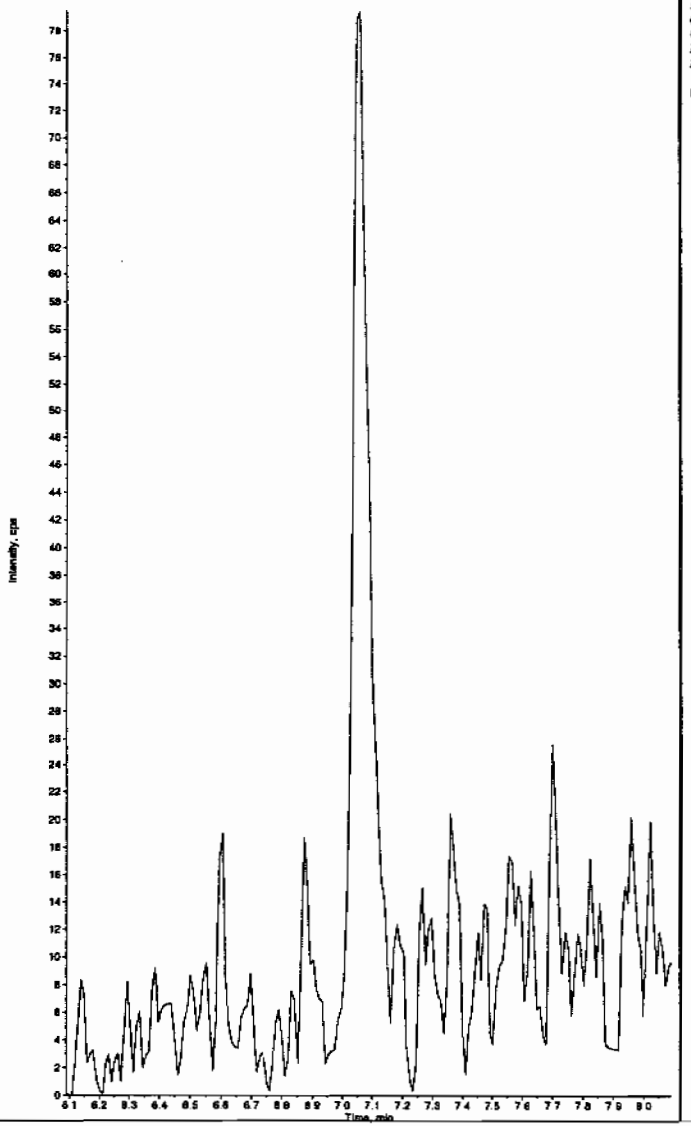

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS02260124.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:05:34 PM

Modified: No

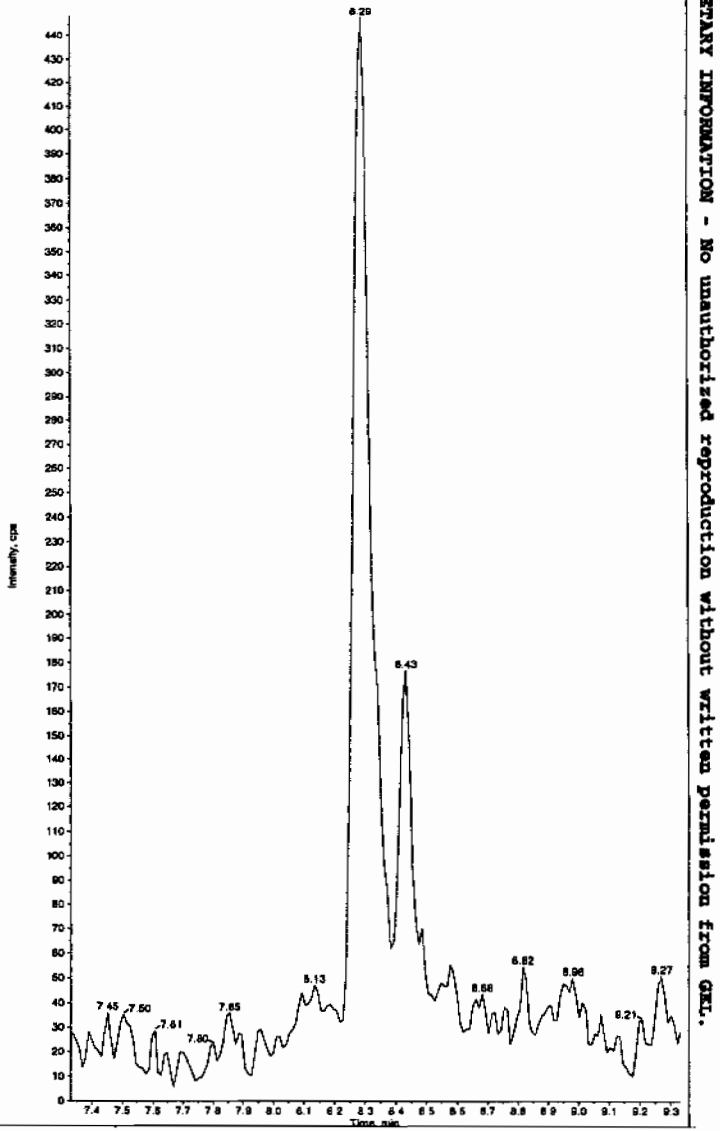

tmm 03/01/10

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nple Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS02260124.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 11:05:34 PM

fied: No

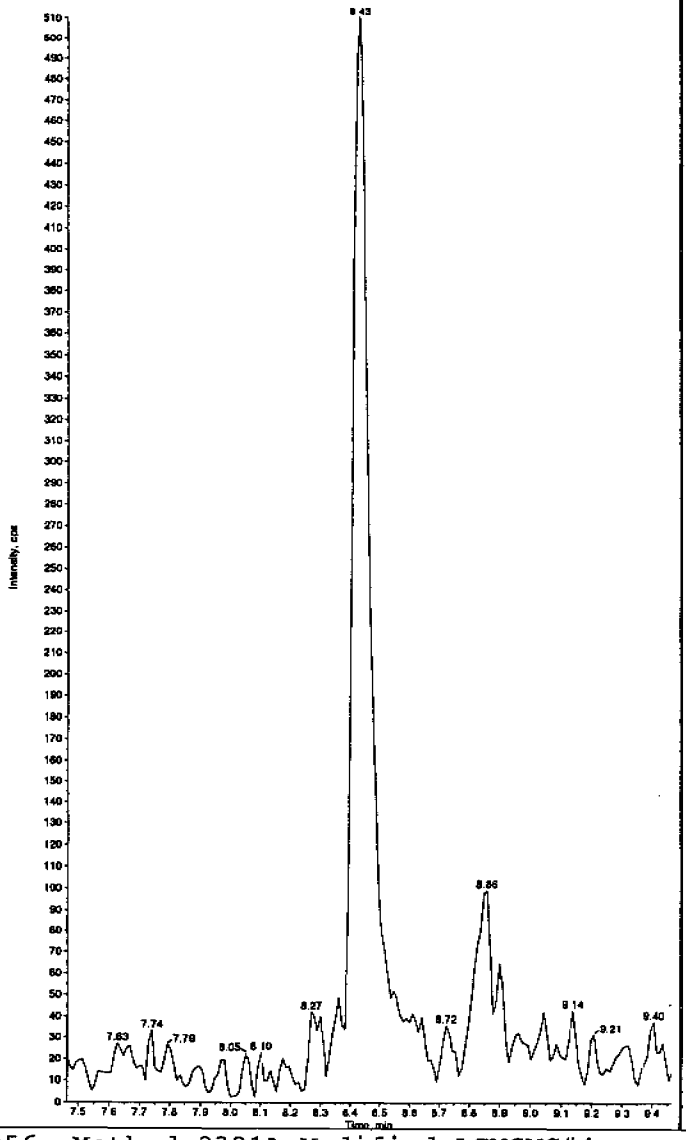

Sample Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS02260124.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:05:34 PM

Modified: No

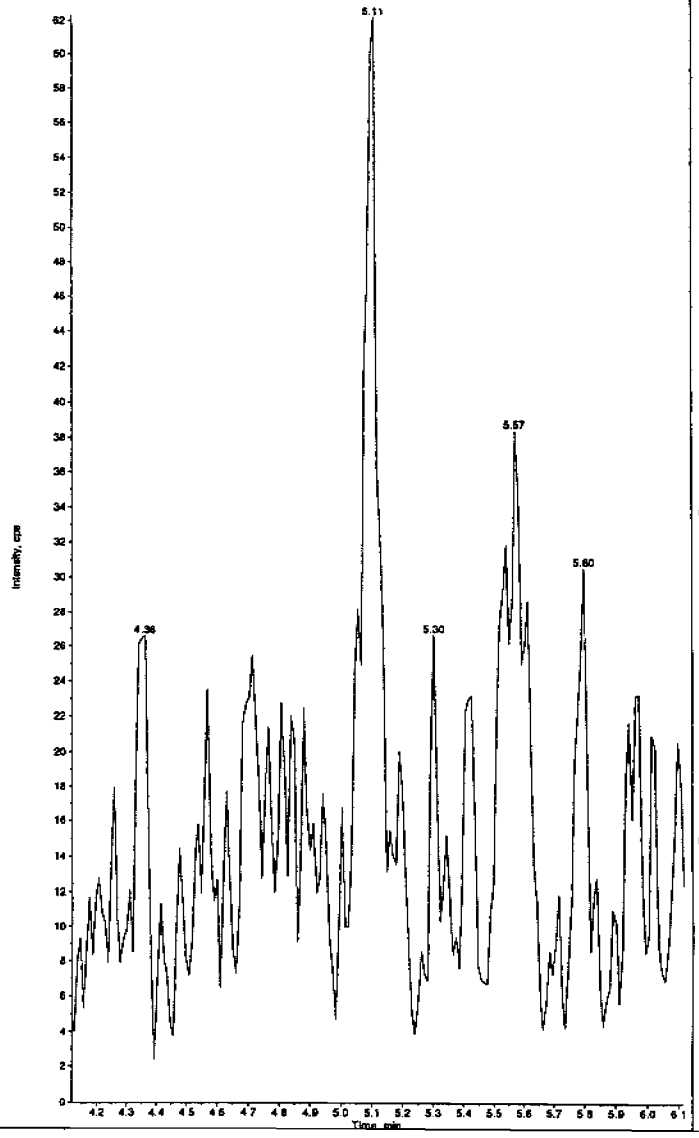

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS02250124.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 11:05:34 PM

fied: No

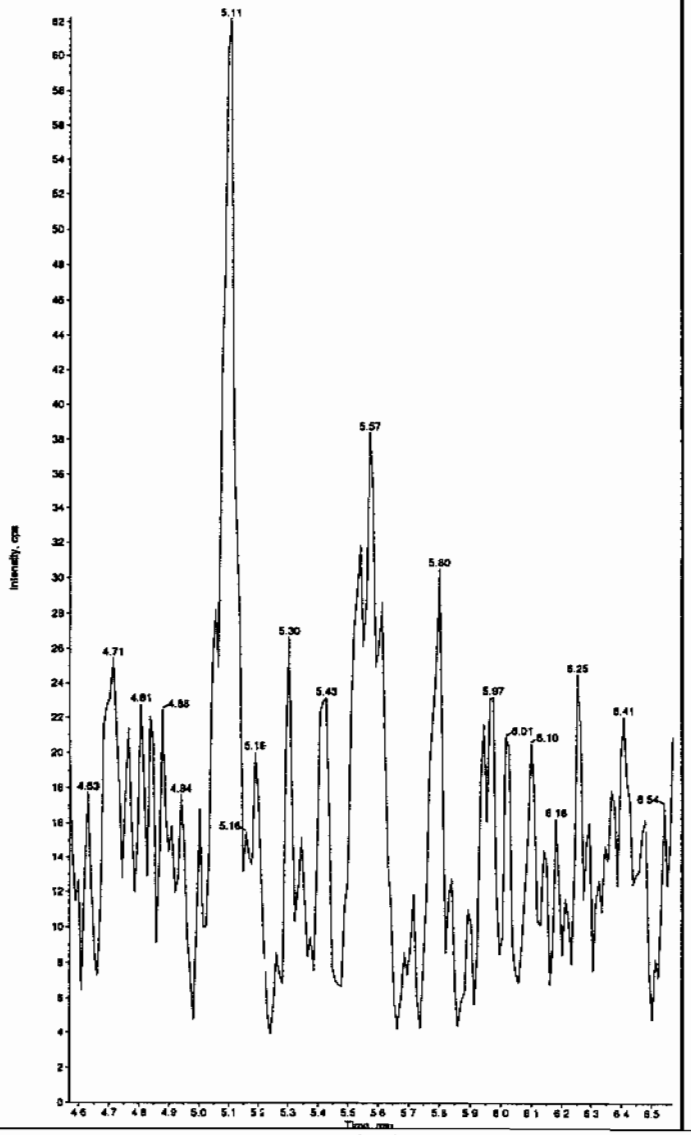

Sample Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS02250124.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	2/27/2010	
Acq. Time:	11:05:34 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	5.08e+004	counts
Height:	14733.544	cps
Start Time:	10.8	min
End Time:	11.0	min

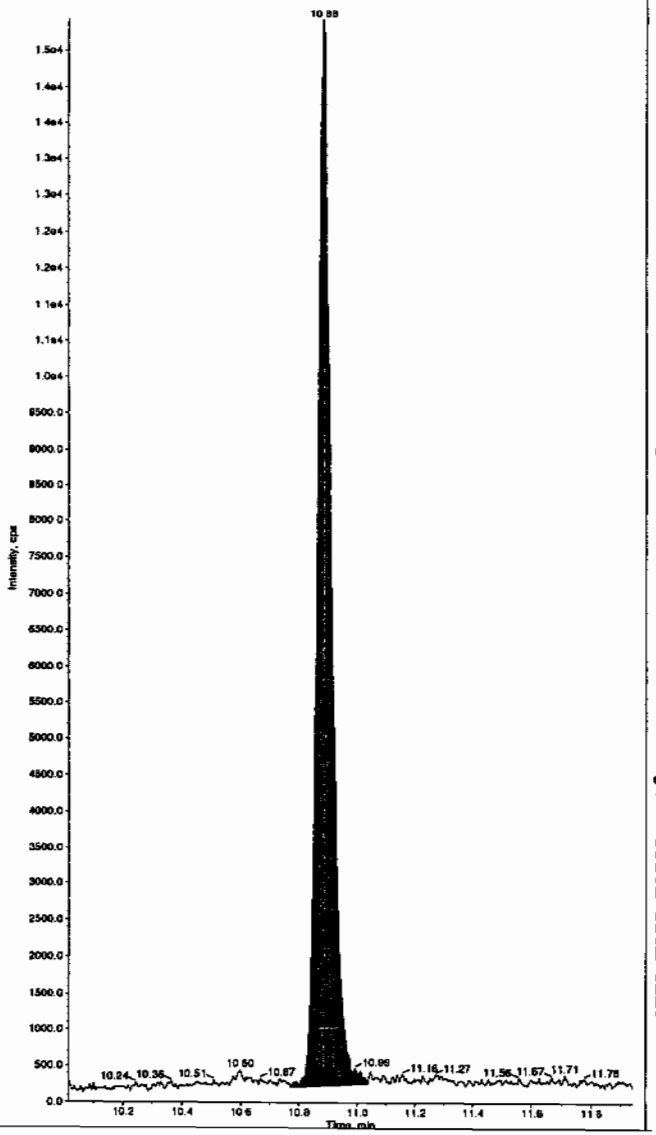

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 28–FEB–10 02:29

GEL Data File: EXS02260137.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sun 3/1/10

mple Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02260137.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/28/2010
. Time: 2:29:59 AM

ified: No

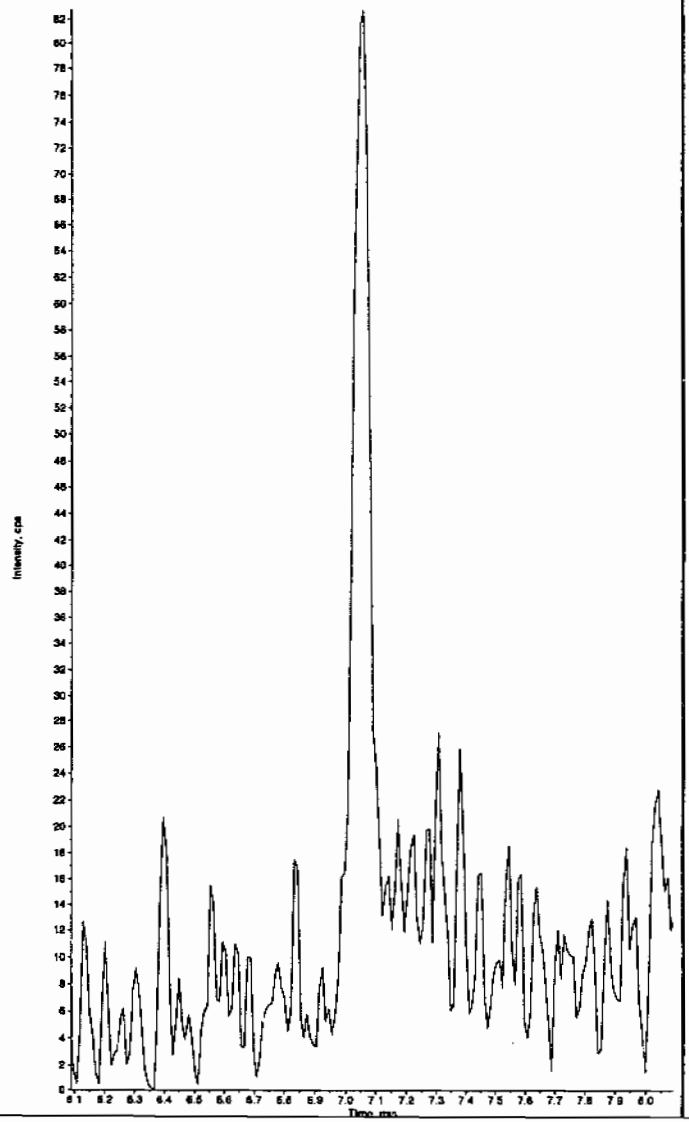

Sample Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02260137.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 2:29:59 AM

Modified: No

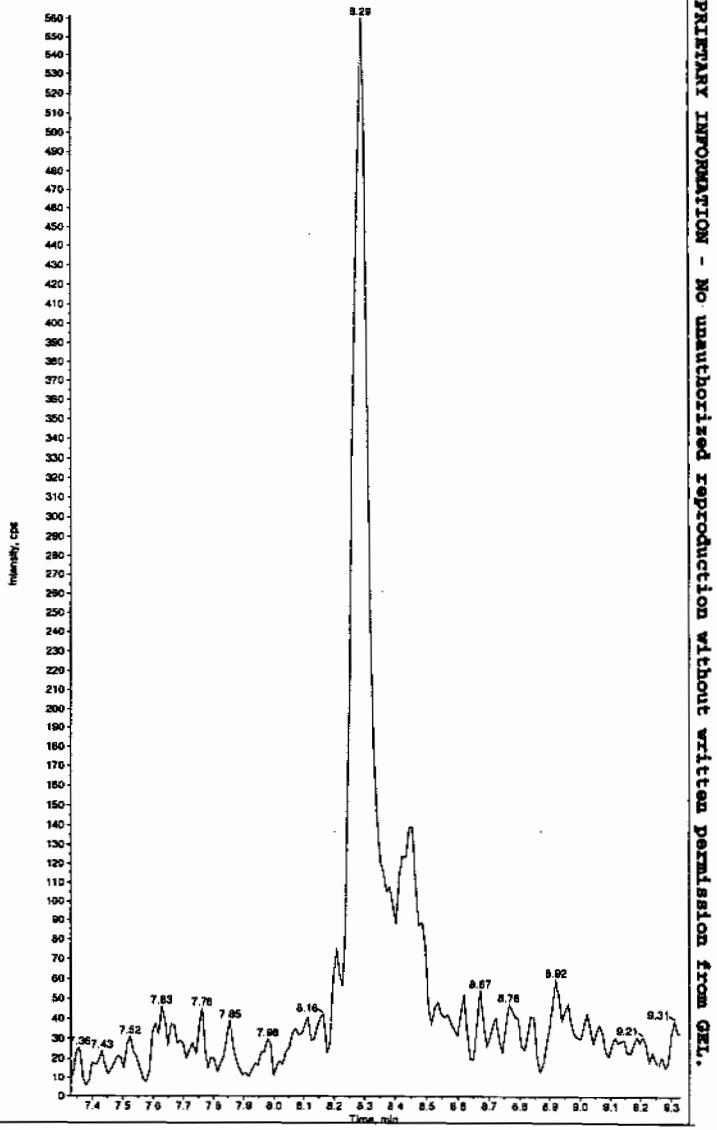

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK15" Sample ID: "1|1|LER" File: "EXS02260137.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/26/2010
. Time: 2:29:59 AM

ified: No

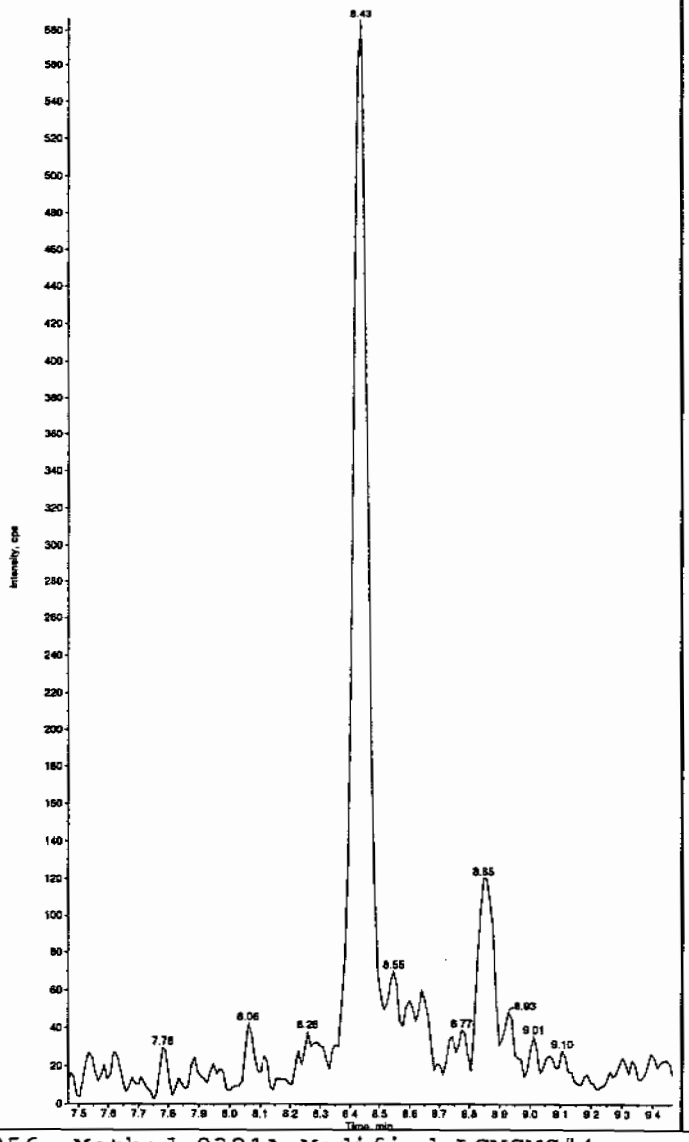

Sample Name: "XIBLK15" Sample ID: "1|1|LER" File: "EXS02260137.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/26/2010
Acq. Time: 2:29:59 AM

Modified: No

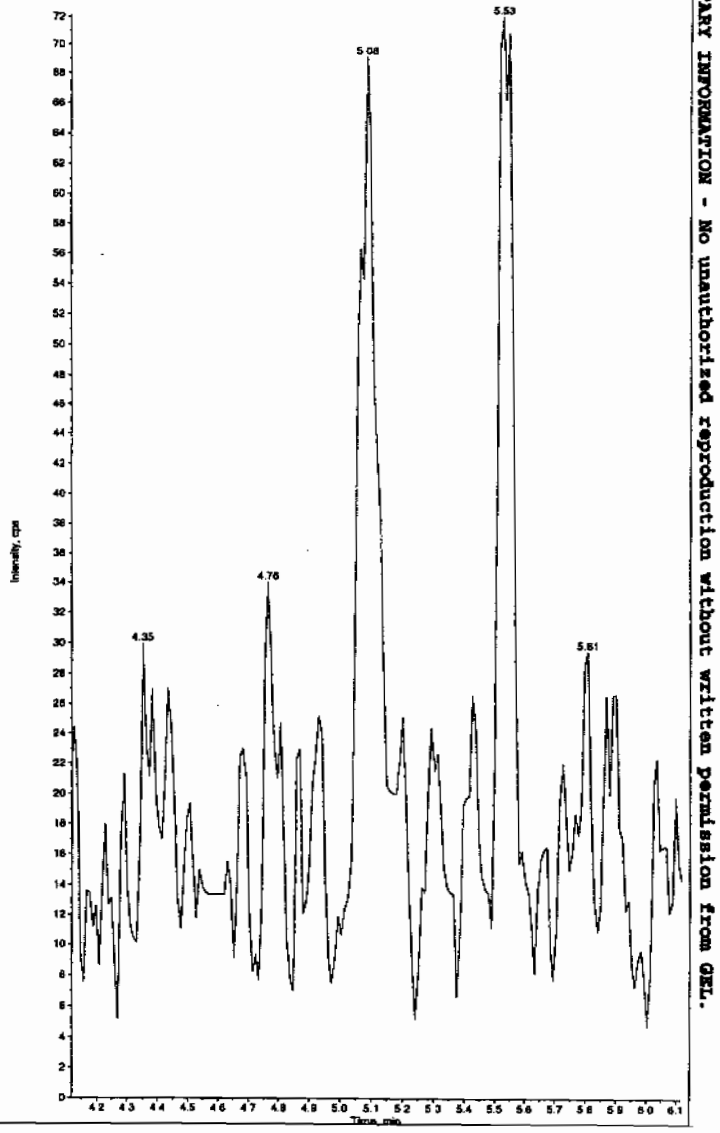

mple Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02260137.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00     ng/mL
. Date:         2/28/2010
. Time:         2:29:59 AM

.fied:            No
```

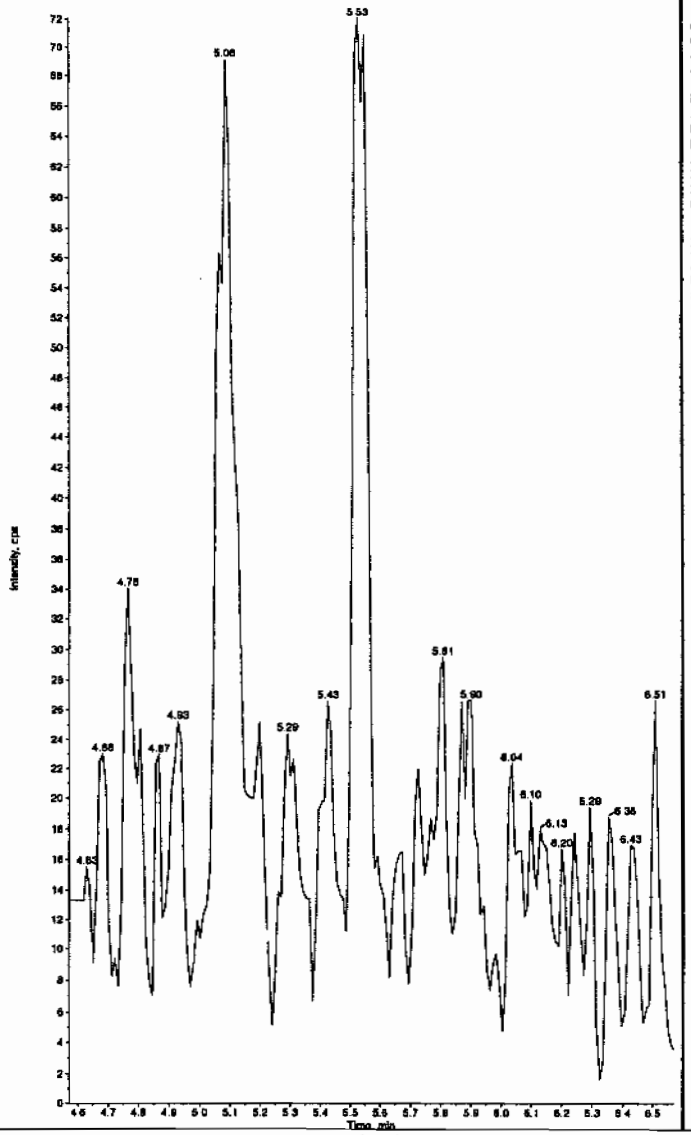

Sample Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02260137.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:   No Intercept
Acq. Date:         2/28/2010
Acq. Time:         2:29:59 AM

Modified:            No
Proc. Algorithm:   IntelliQuan - IQA
Min. Peak Height:  8000.00    cps
Min. Peak Width:      0.00    sec
Smoothing Width:   3          points
RT Window:           30.0     sec
Expected RT:         10.9     min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.9     min
Area:          5.54e+004     counts
Height:        16032.743     cps
Start Time:          10.8     min
End Time:            11.2     min
```

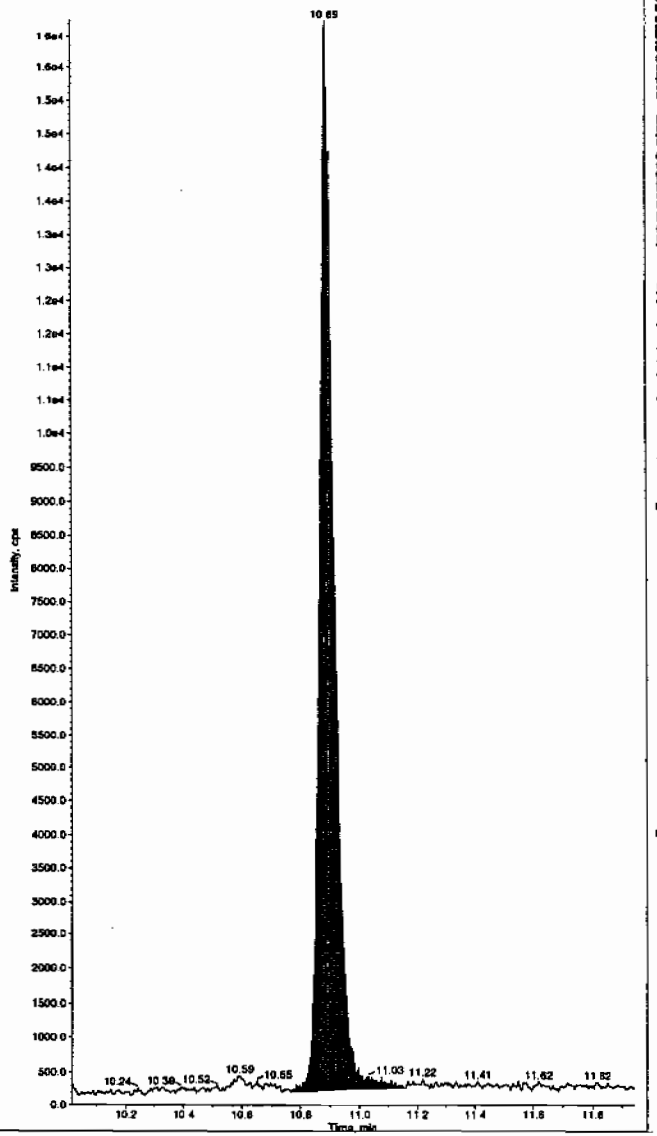

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 28–FEB–10 04:04

GEL Data File: EXS02260143.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ker 3/1/10

mple Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS02260143.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/28/2010
. Time: 4:04:22 AM

.fied: No

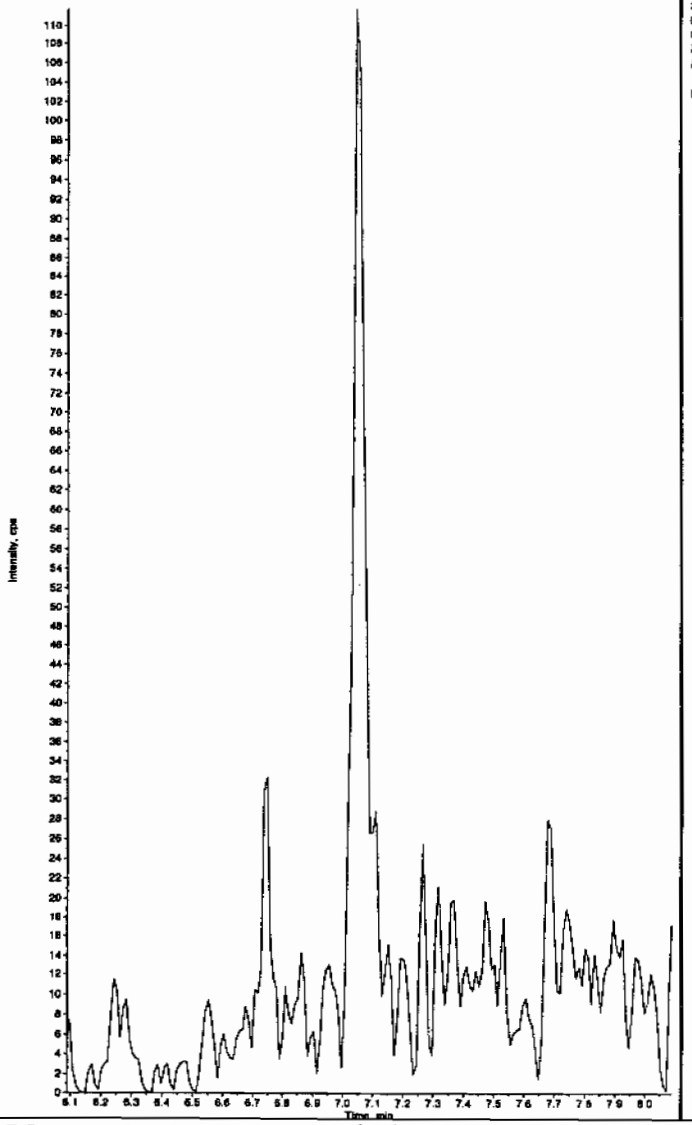

Sample Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS02260143.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 4:04:22 AM

Modified: No

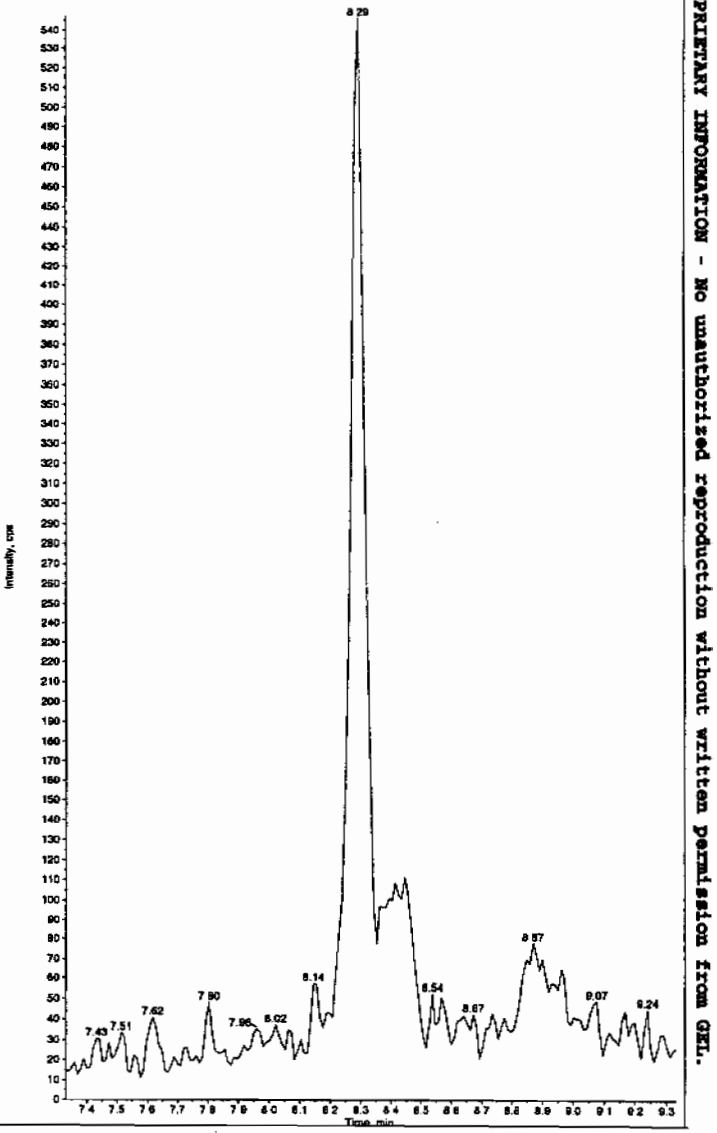

Hmm 03/01/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK15" Sample ID: "|1|LER" File: "EXS02260143.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 4:04:22 AM

fied: No

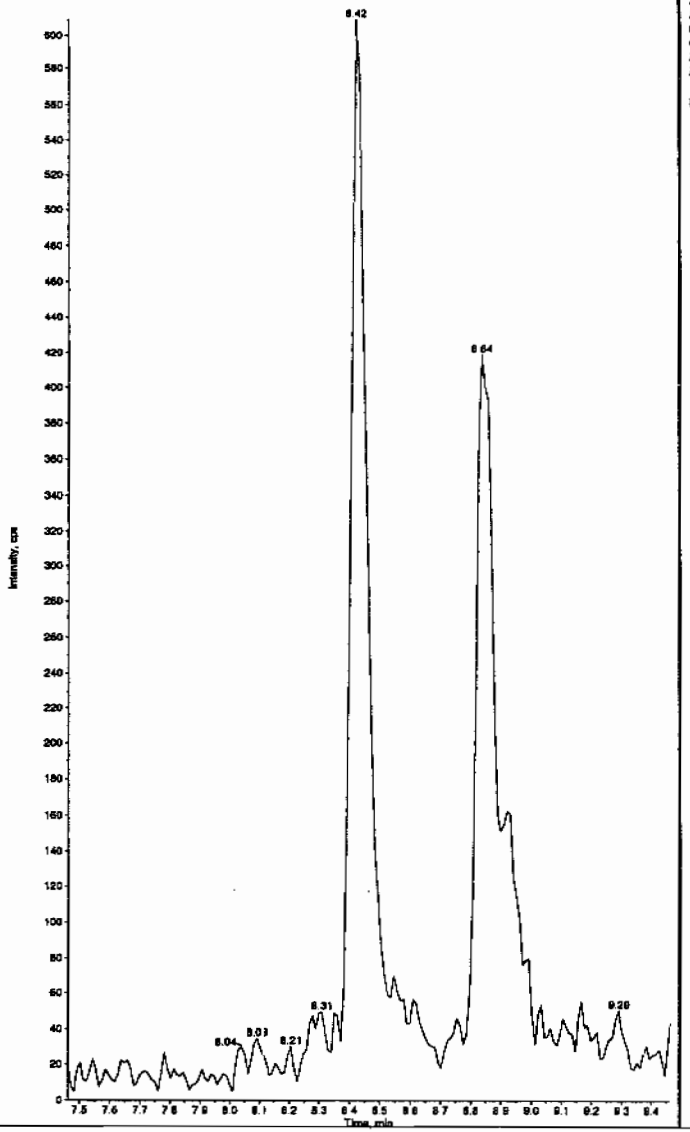

Sample Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS02260143.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 4:04:22 AM

Modified: No

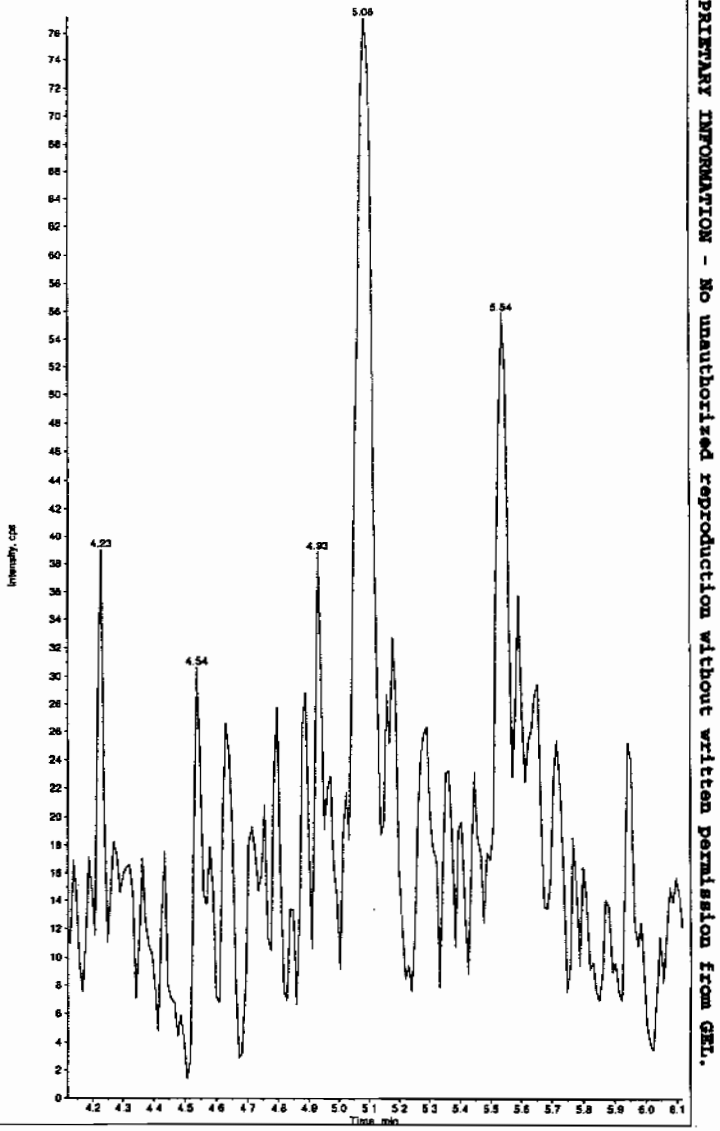

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mple Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS02260143.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 4:04:22 AM

fied: No

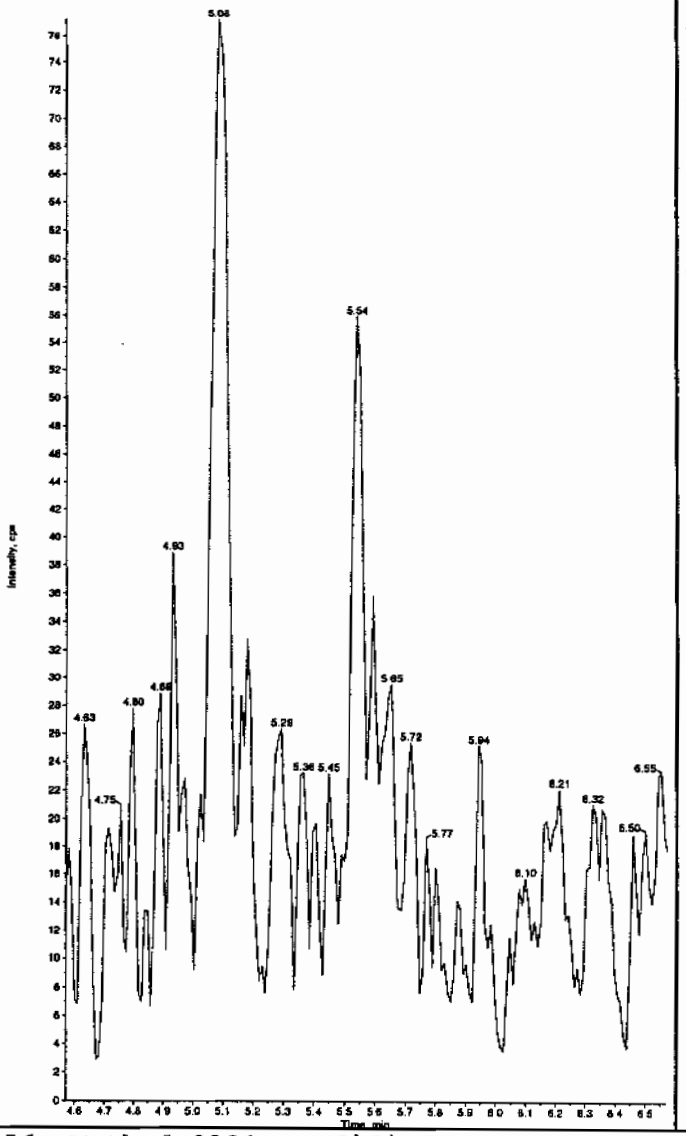

Sample Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS02260143.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	2/28/2010
Acq. Time:	4:04:22 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	5.40e+004 counts
Height:	15474.279 cps
Start Time:	10.8 min
End Time:	11.0 min

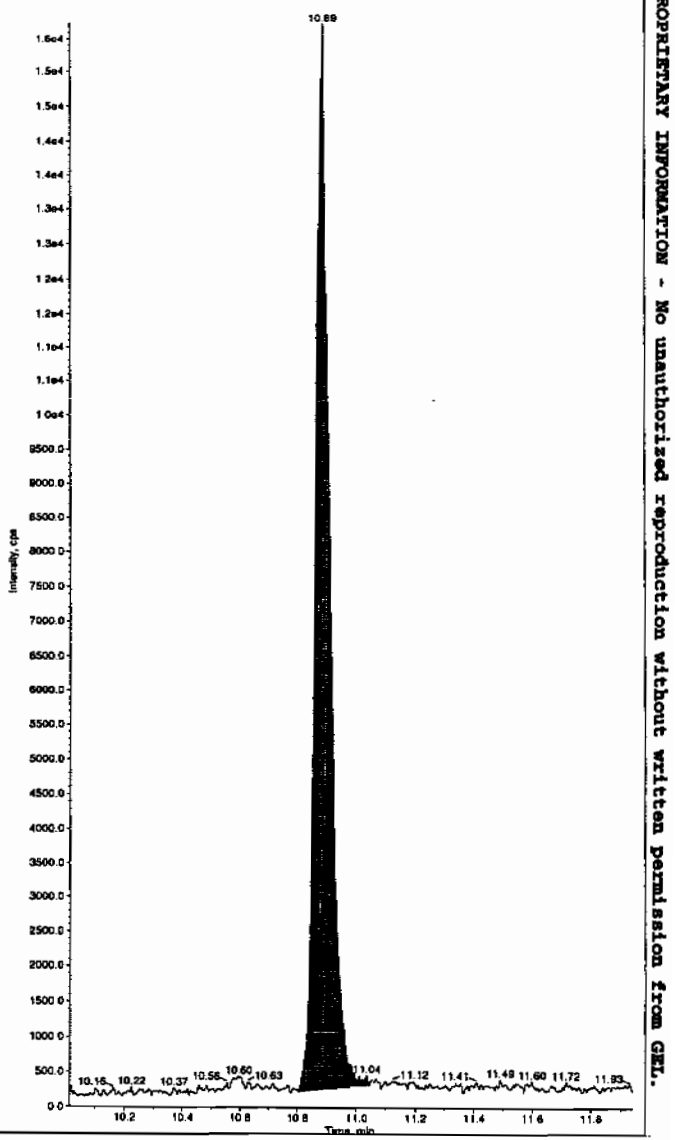

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1545

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 28–FEB–10 05:54

GEL Data File: EXS02260150.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sam 3/1/10

ple Name: "XIBLK17" Sample ID: "|1|LER" File: "EXS02260150.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 5:54:42 AM

fied: No

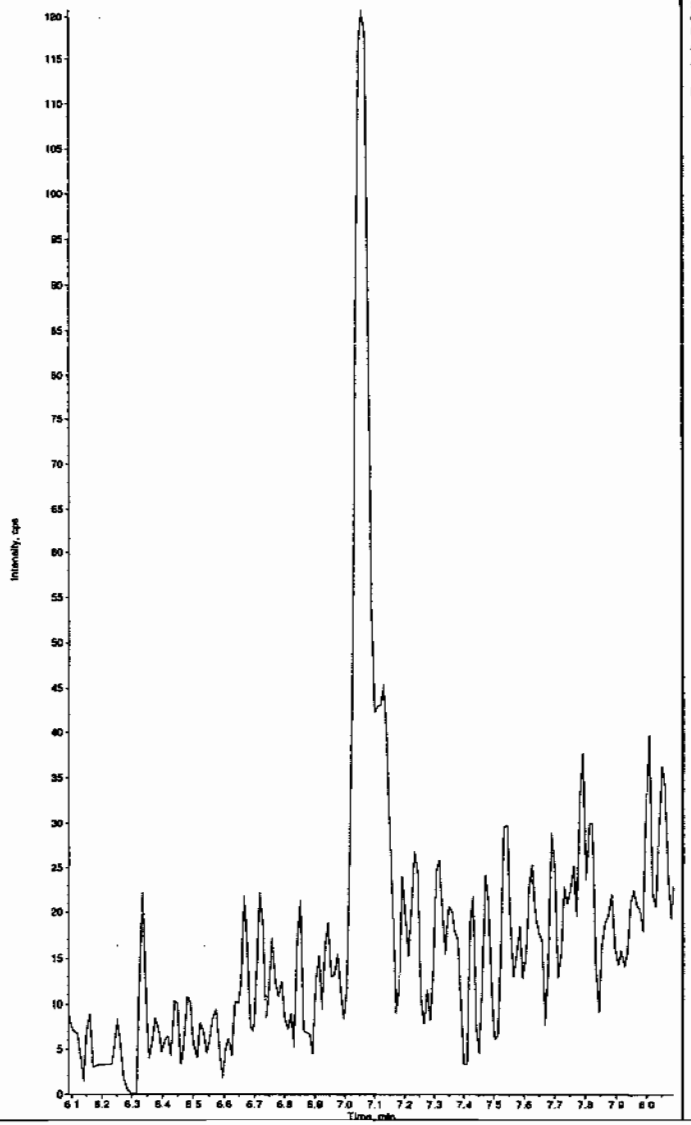

Sample Name: "XIBLK17" Sample ID: "|1|LER" File: "EXS02260150.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 5:54:42 AM

Modified: No

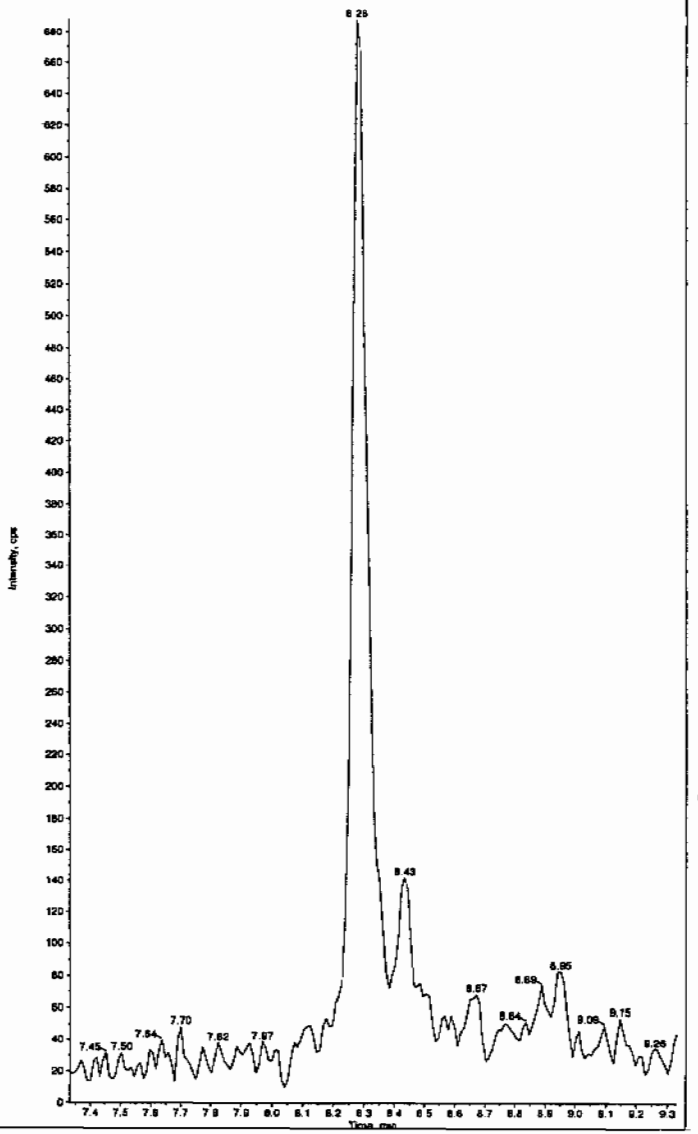

dhm 03/01/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02260150.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 5:54:42 AM

fied: No

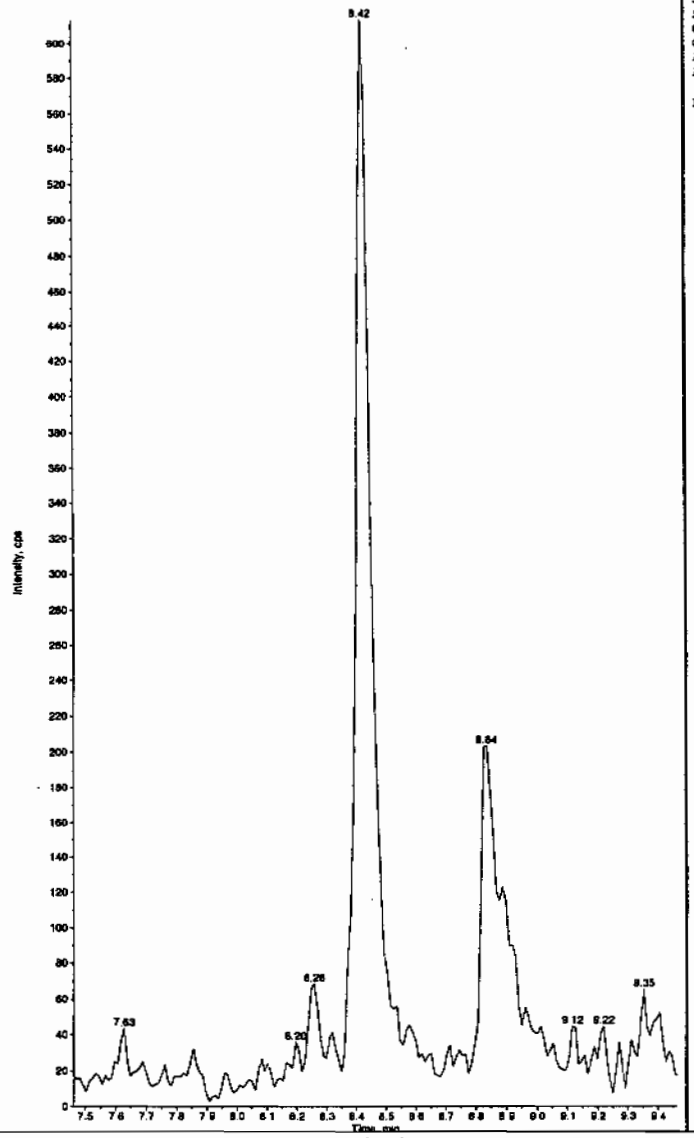

Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02260150.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 5:54:42 AM

Modified: No

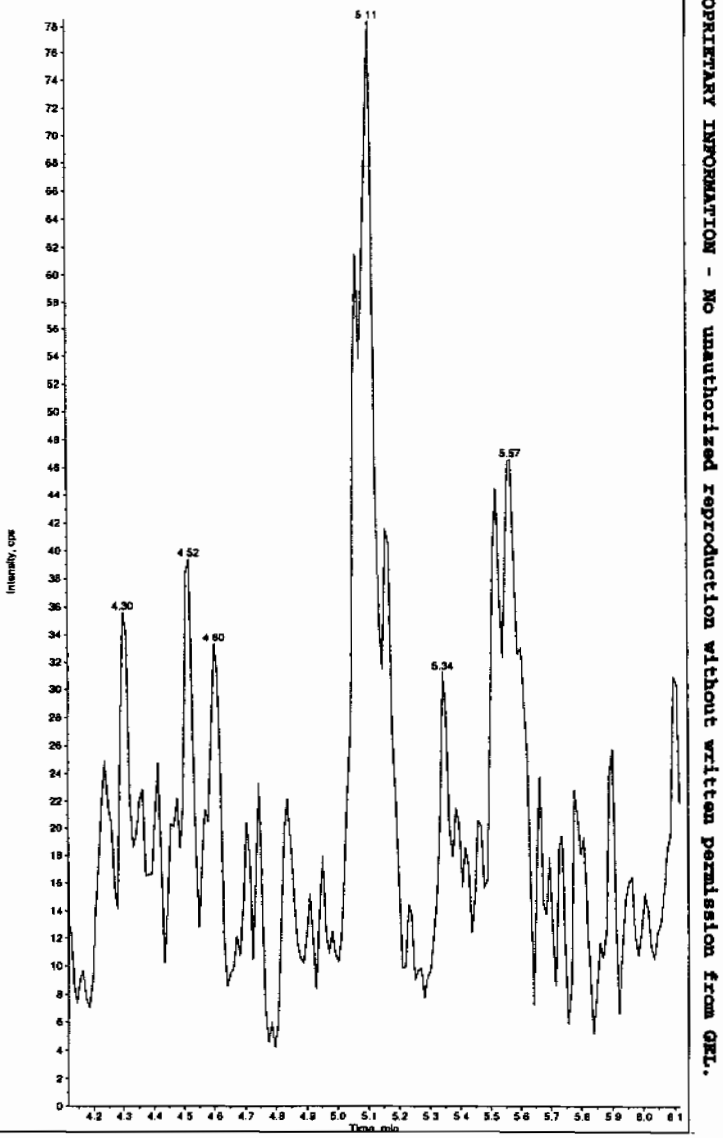

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02260150.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 5:54:42 AM

fied: No

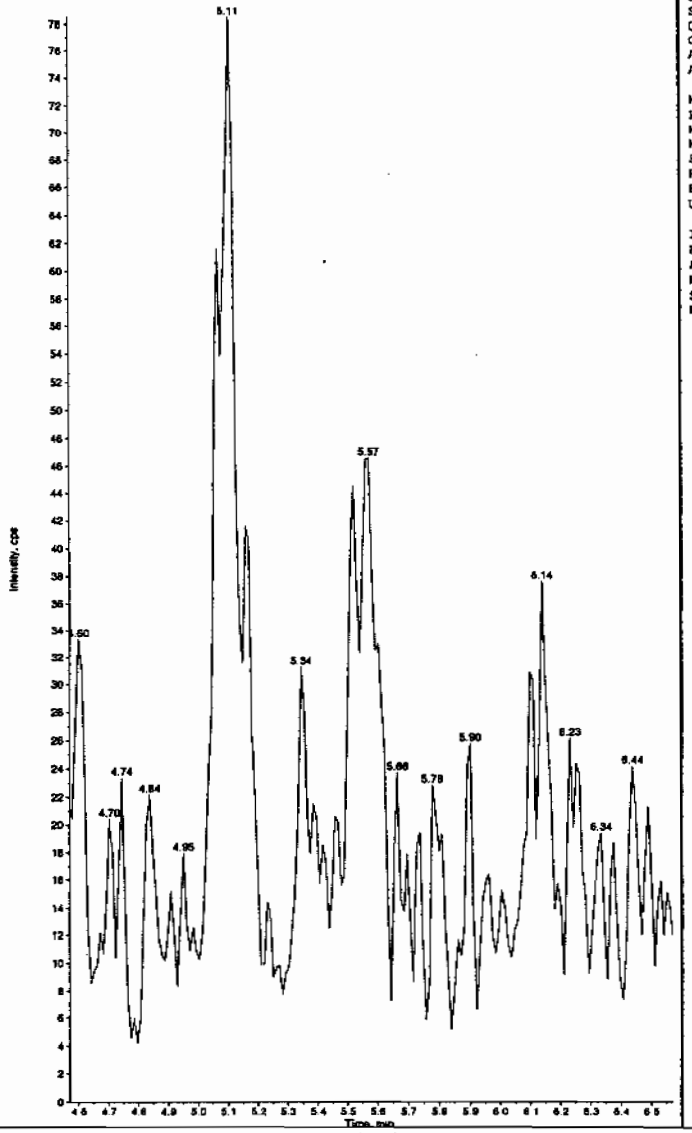

Sample Name: "XIBLK17" Sample ID: "[1]LER" File: "EXS02260150.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/81.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 2/28/2010
Acq. Time: 5:54:42 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.14e+004 counts
Height: 16954.069 cps
Start Time: 10.8 min
End Time: 11.1 min

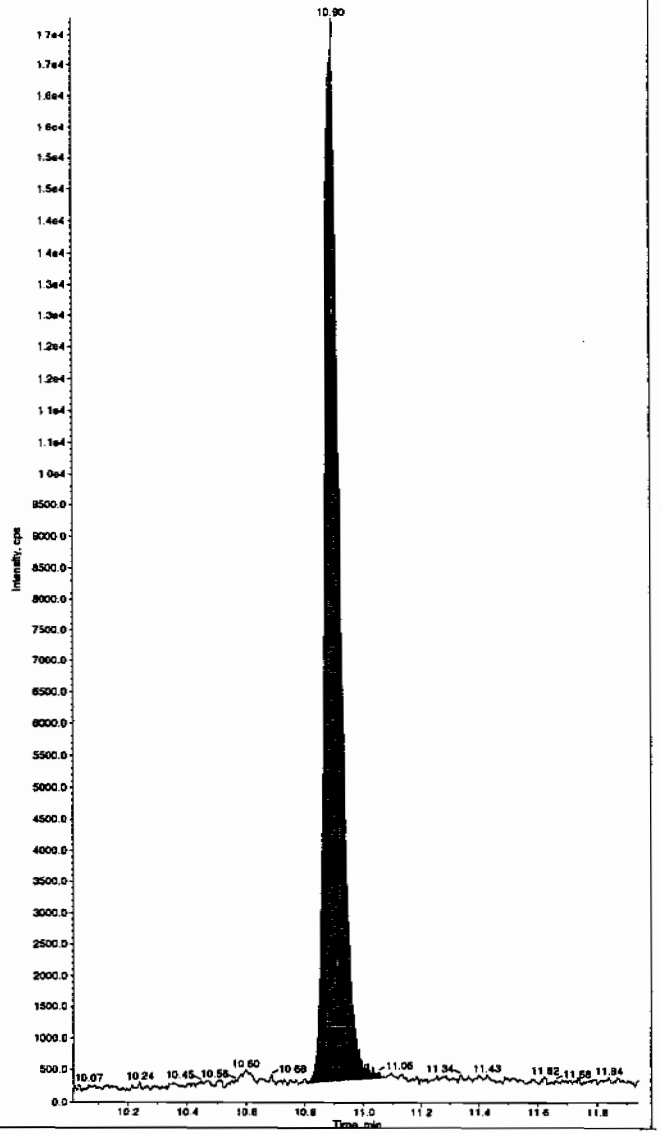

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

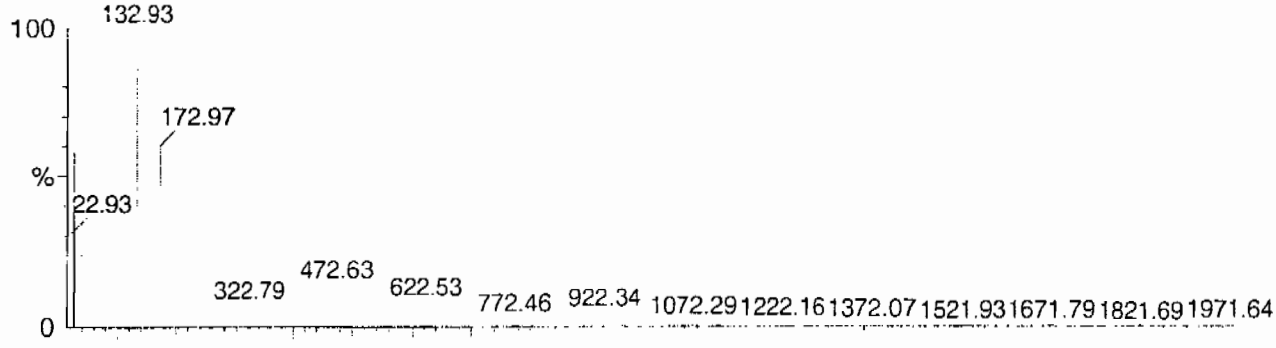

Reference file: Naics2

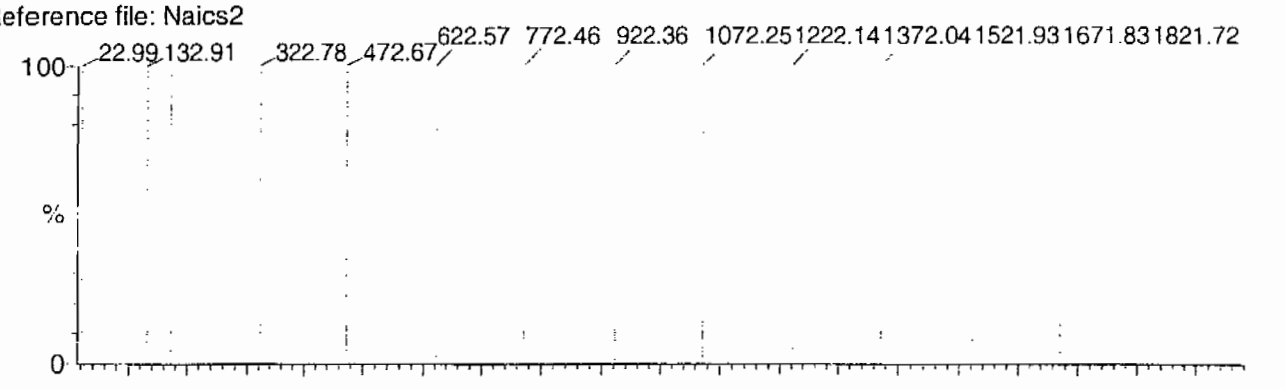

Mass difference (Raw - Ref mass)

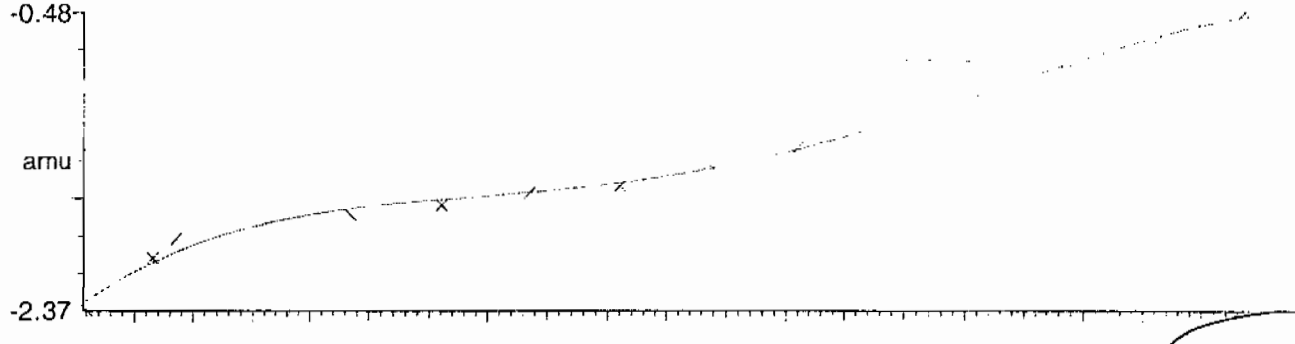

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

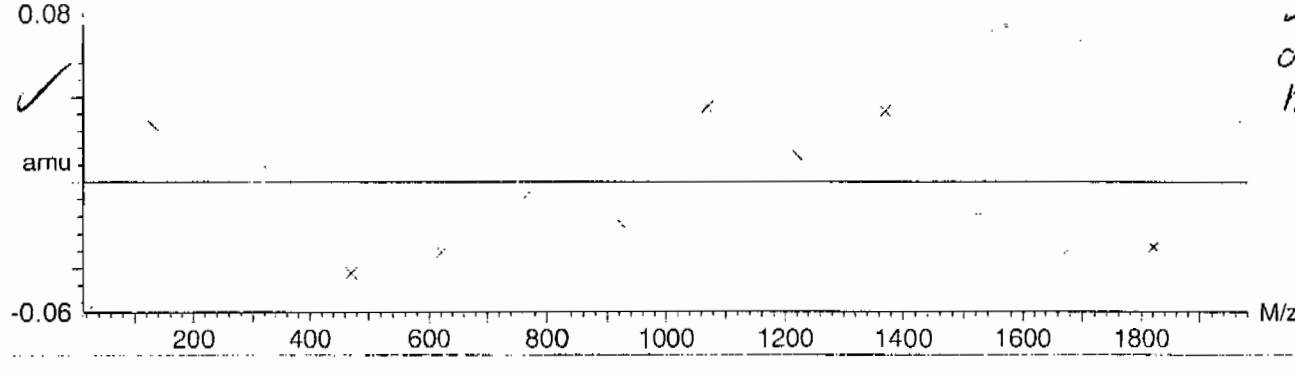

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

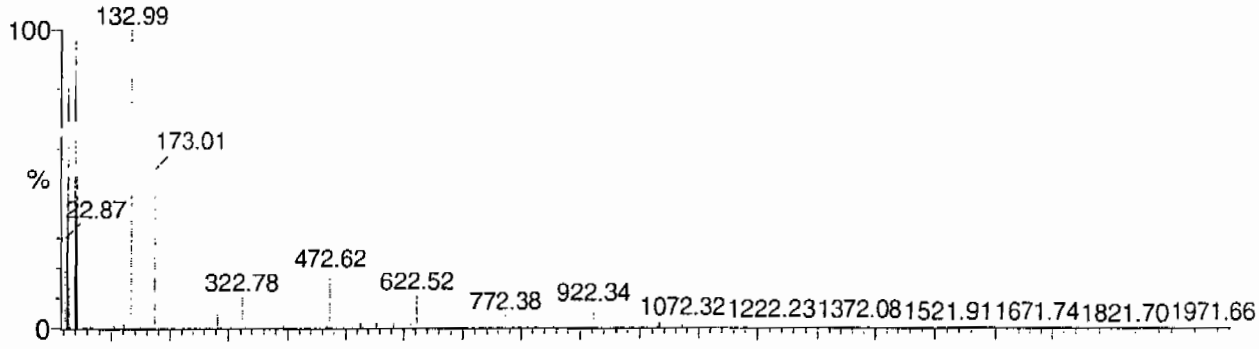

Reference file: Naics2

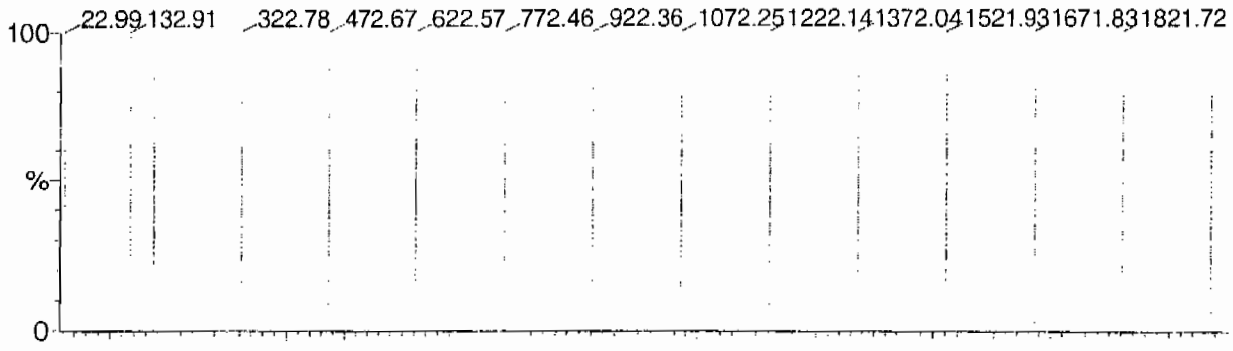

Mass difference (Raw - Ref mass)

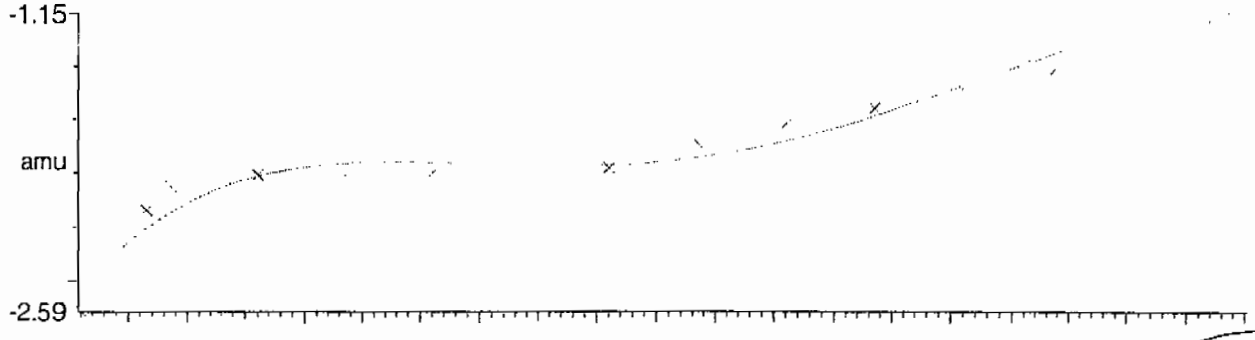

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

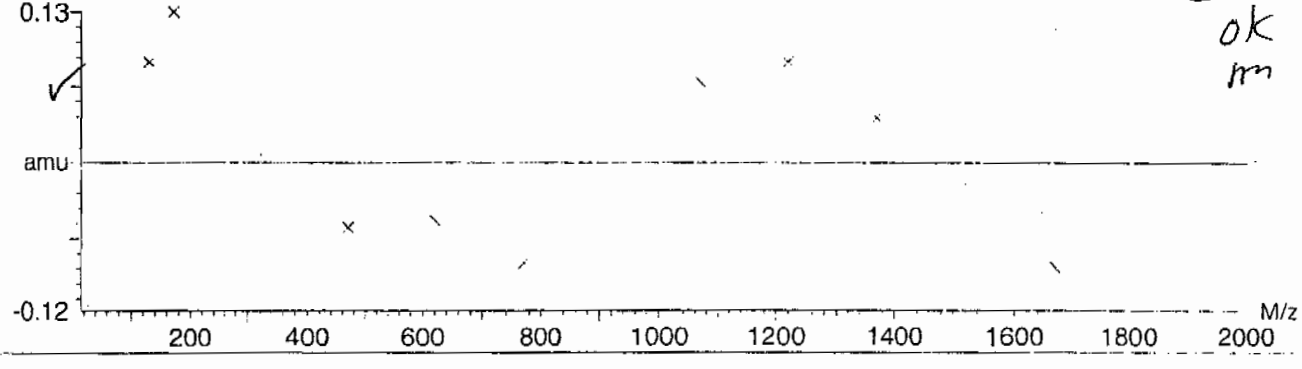

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

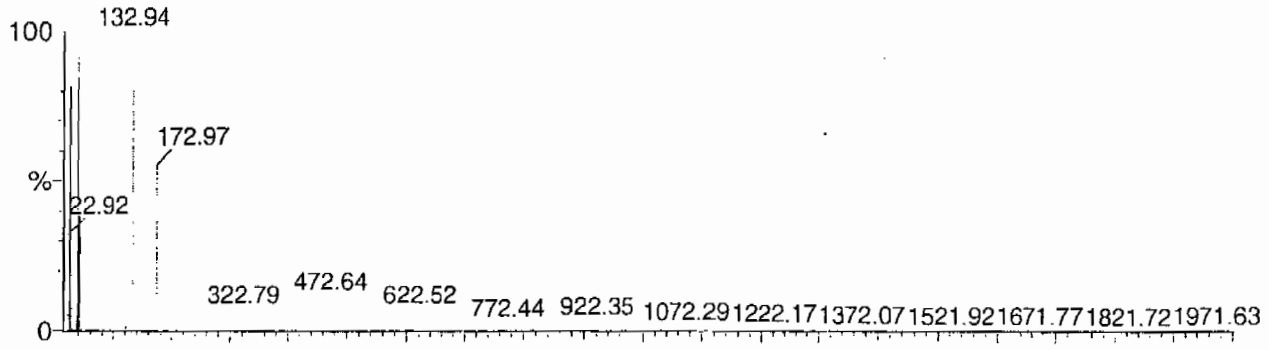

Reference file: Naics2

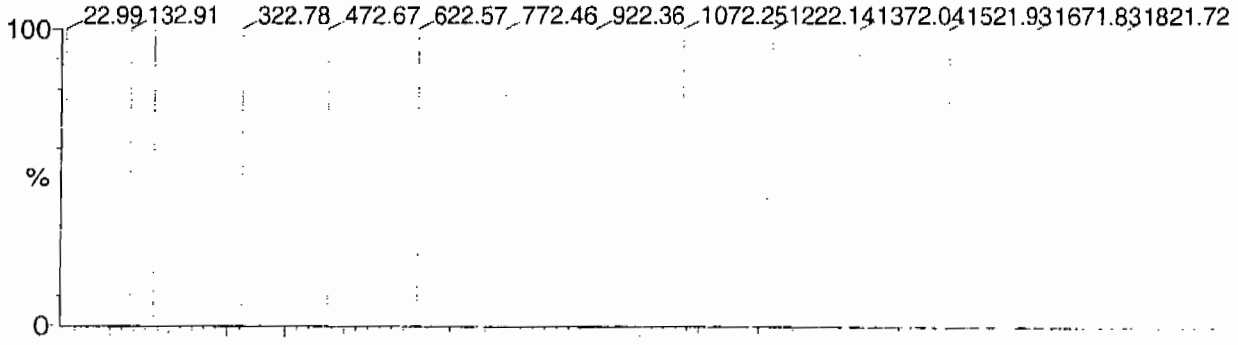

Mass difference (Raw - Ref mass)

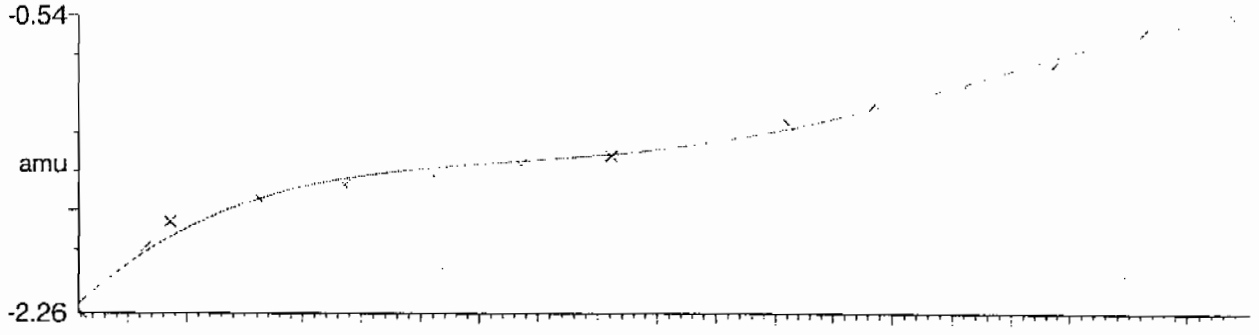

Residuals

Mean residual = 3.486639e-9 ± 0.040487

Acq

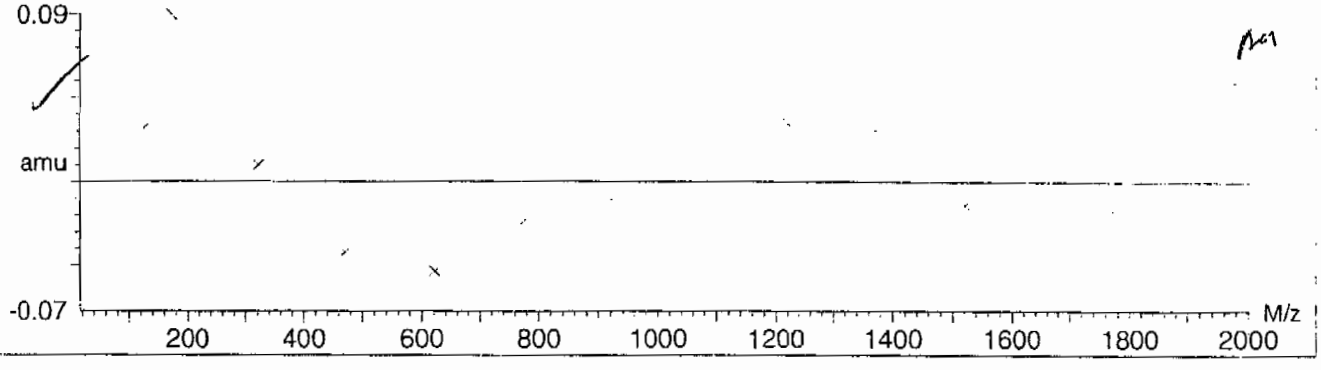

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

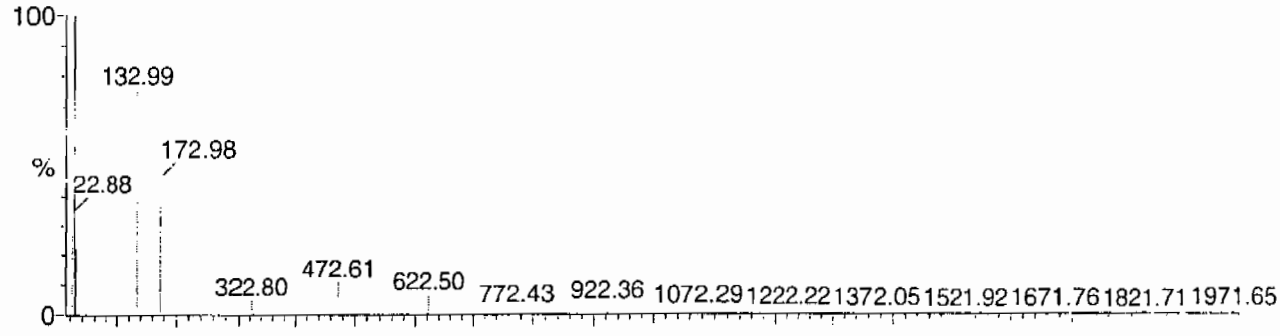

Reference file: Naics2

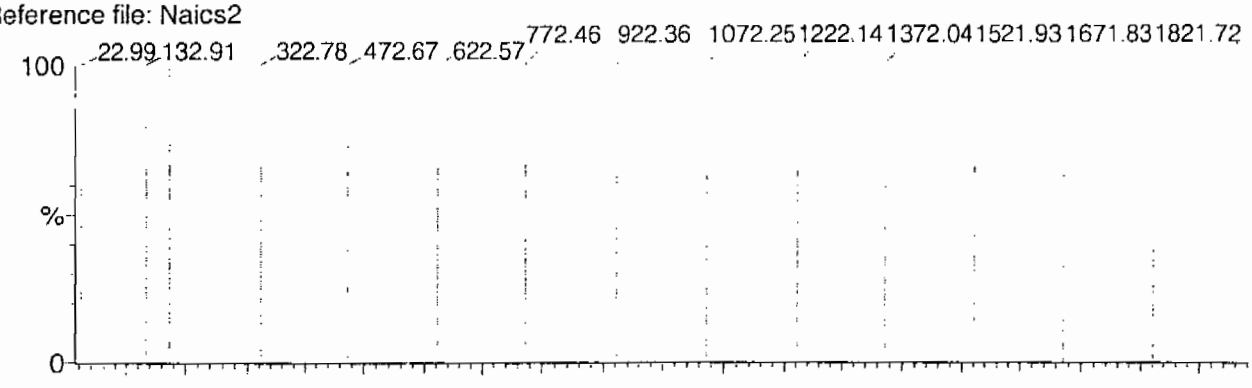

Mass difference (Raw - Ref mass)

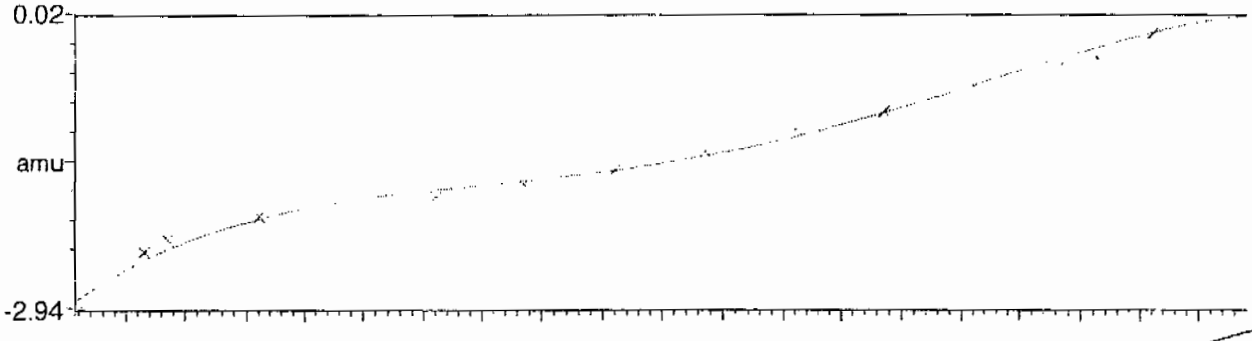

Residuals

Mean residual = 2.048910e-9 ± 0.057803

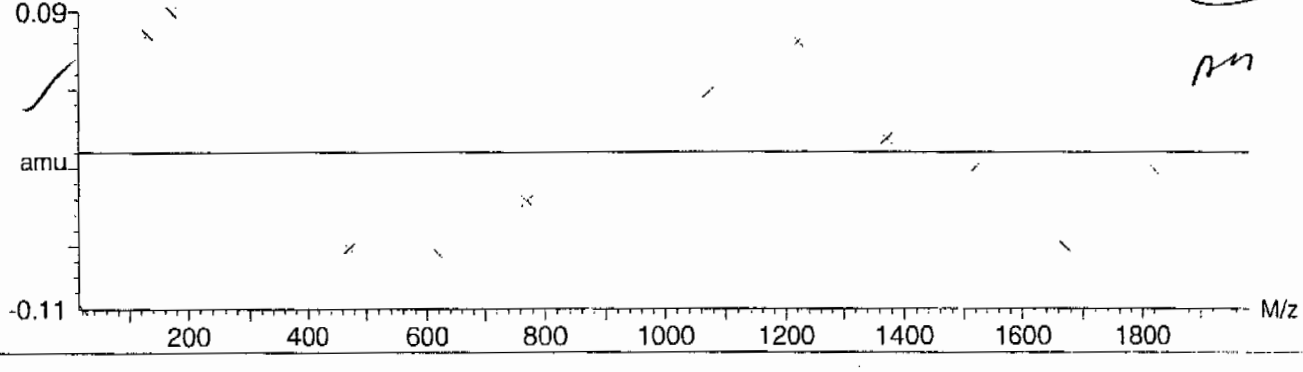

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

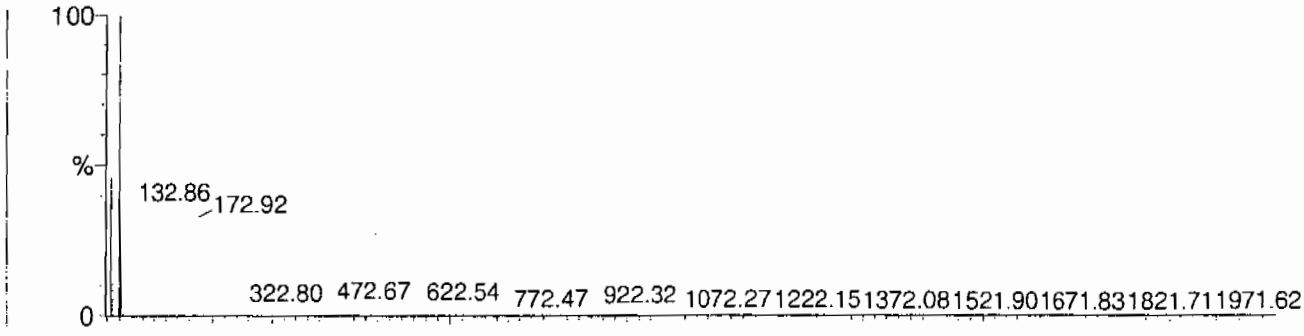

Reference file: Naics2

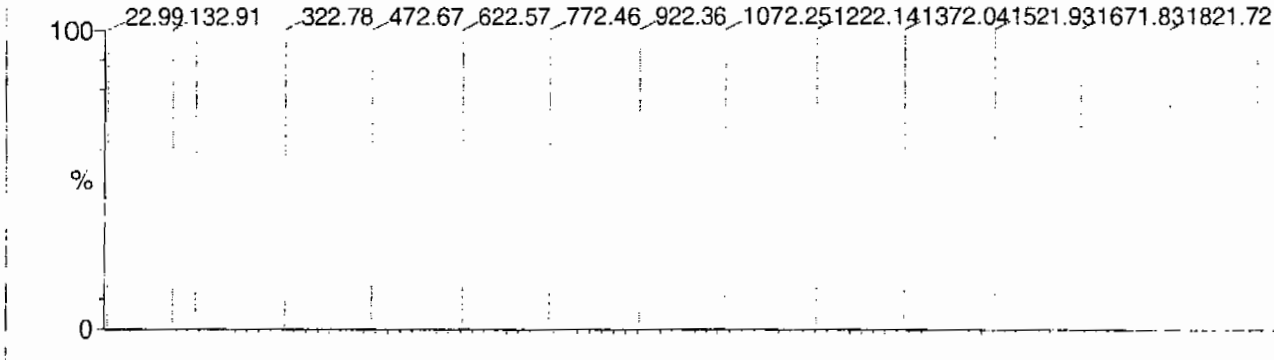

Mass difference (Raw - Ref mass)

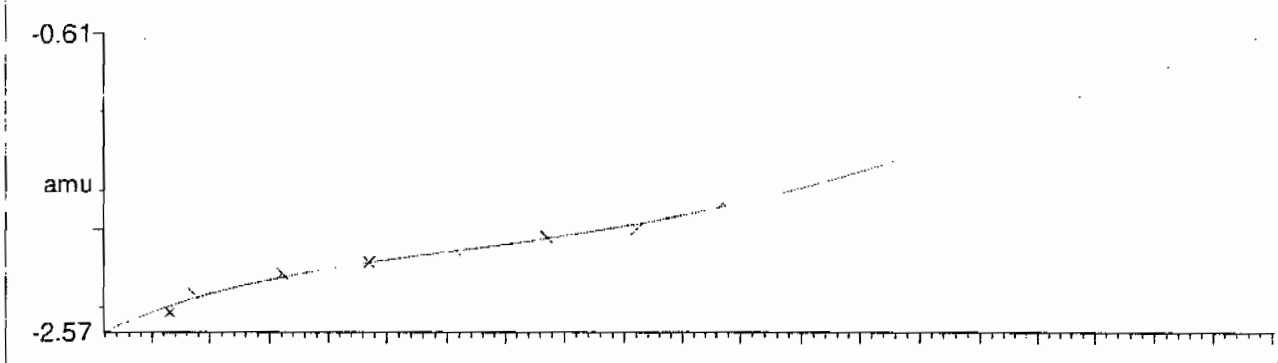

Residuals

Mean residual = -2.623502e-9 ± 0.025622

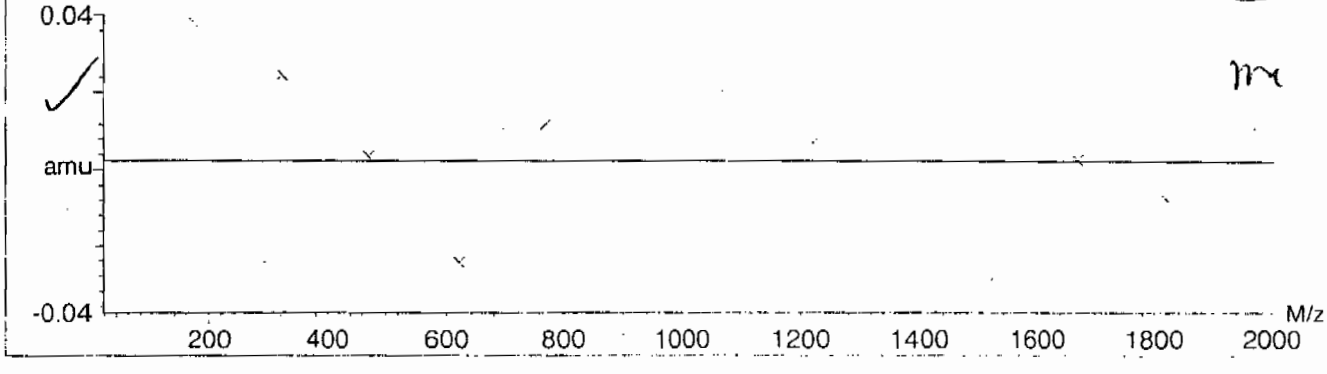

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

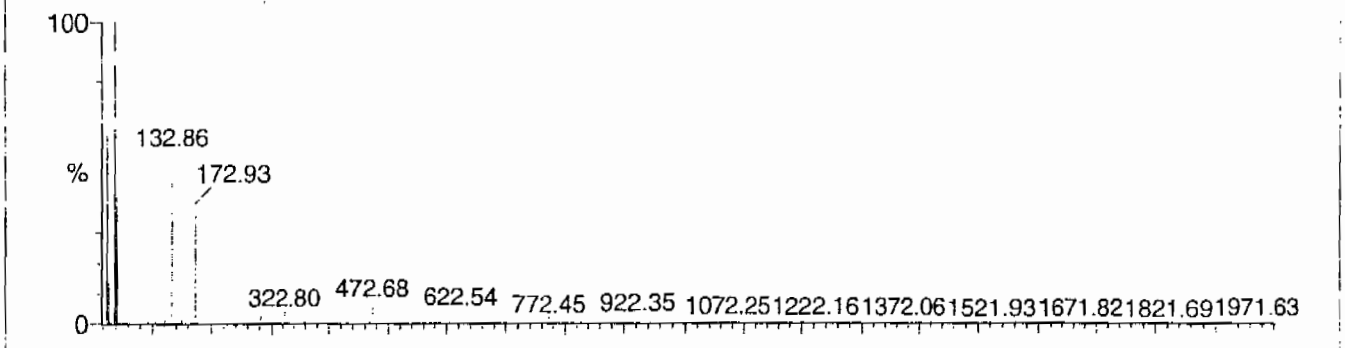

Reference file: Naics2

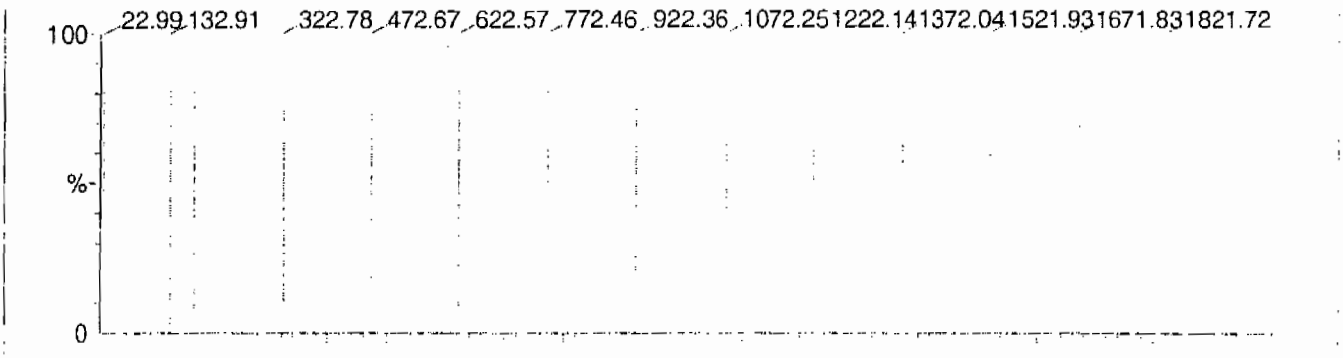

Mass difference (Raw - Ref mass)

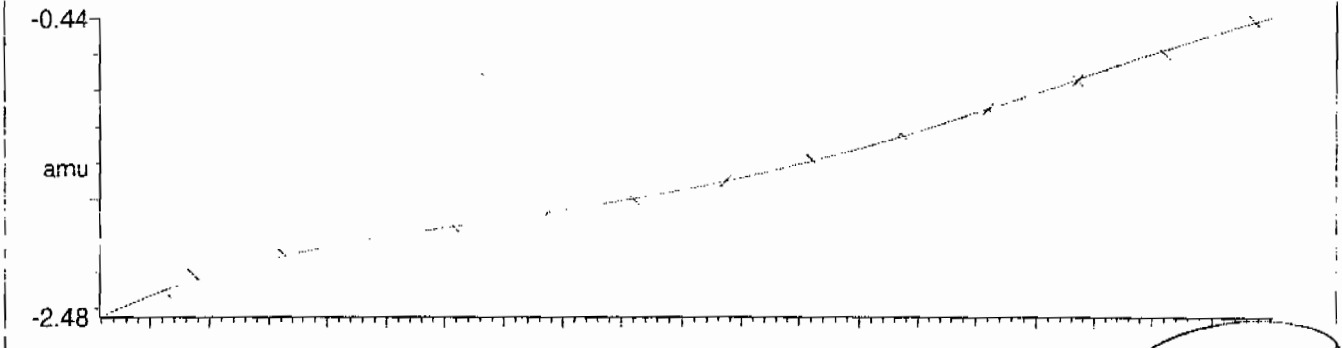

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

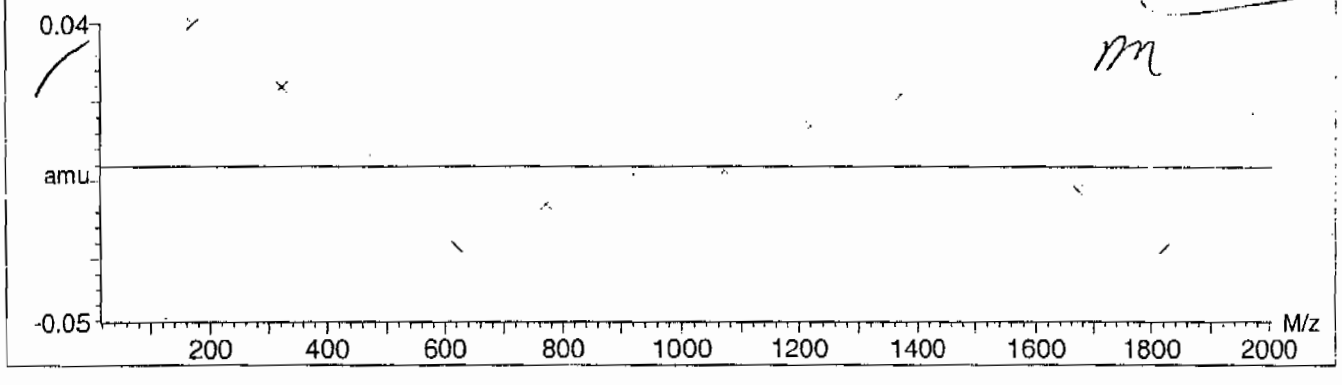

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Thu Mar 04 09:08:29 2010

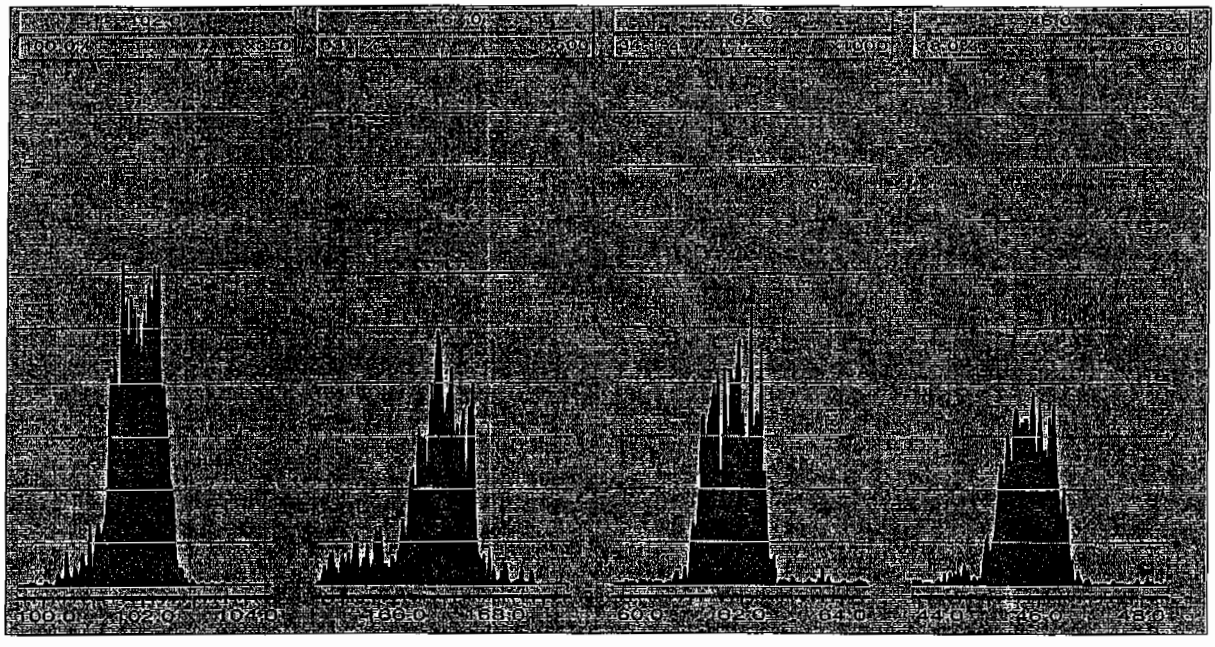

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1545

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3511.79	12.136	20560.6	17.579
Upper Limit			4565.327	12.636	26728.78	18.079
Lower Limit			2458.253	11.636	14392.42	17.079
MB for batch 948892	08–mar–10 07:17	EXP0304180a	3658.14	12.067	19488.9	17.465
LCS for batch 948892	08–mar–10 07:47	EXP0304181a	3688.87	12.067	21915.8	17.465
RE15–10–8170	08–mar–10 08:16	EXP0304182a	3541.4	12.067	20621.2	17.465
RE15–10–8170(246055001MS)	08–mar–10 08:46	EXP0304183a	3549.67	12.067	19988.9	17.465
RE15–10–8170(246055001MSD)	08–mar–10 09:15	EXP0304184a	3658.36	12.067	19742	17.465
RE15–10–8169	08–mar–10 11:13	EXP0304188a	3663.31	12.067	19132.4	17.466
RE15–10–8171	08–mar–10 11:43	EXP0304189a	3637.63	12.067	20723.2	17.465
RE15–10–8168	08–mar–10 12:12	EXP0304190a	3609.93	12.067	20879	17.465
RE15–10–8222	08–mar–10 12:42	EXP0304191a	3634.62	12.067	20040.5	17.465
RE15–10–8221	08–mar–10 13:11	EXP0304192a	3546.55	12.067	20176.8	17.487
RE15–10–8220	08–mar–10 13:41	EXP0304193a	3684.69	12.067	21949	17.465
RE15–10–8223	08–mar–10 14:10	EXP0304194a	3939.07	12.067	19893.2	17.466
RE15–10–8224	08–mar–10 14:40	EXP0304195a	3569.95	12.064	20061.7	17.477

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055001

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304182a

Date Analyzed: 08-MAR-10 08:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304182a
Date: 08-Mar-2010
Time: 08:16:35
ID: 246055001 | LANL | 948893 | Soil | 21
Vial: 4:5,C

MAP 3/8/10

HMX
F2:MRM of 1 channel,AP-176 > 102 6.614e+003

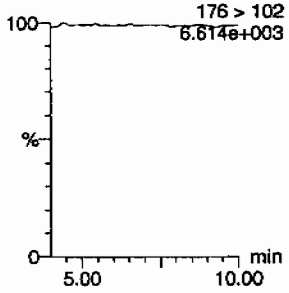

RDX
F2:MRM of 1 channel,AP-176 > 102 6.614e+003

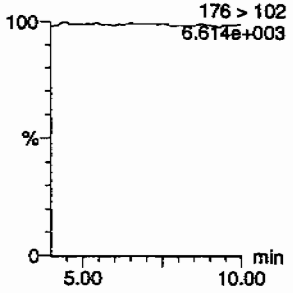

135-Trinitrobenzene
F4:MRM of 1 channel,AP-213 > 183 6.507e+003

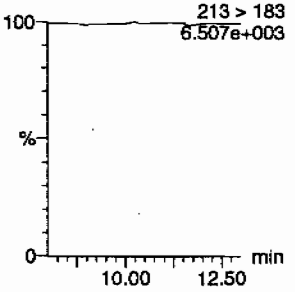

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-172 > 142 1.499e+004

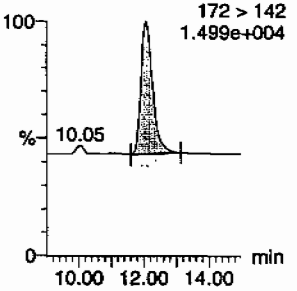

13-Dinitrobenzene
F5:MRM of 2 channels,AP-168 > 138 6.513e+003

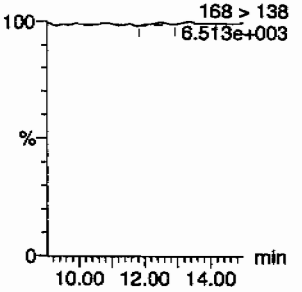

Tetryl
F6:MRM of 1 channel,AP-241 > 181 6.515e+003

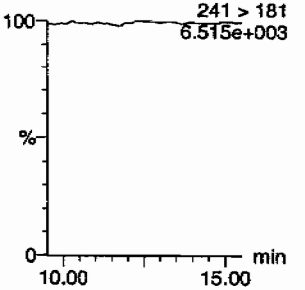

Nitrobenzene
F7:MRM of 1 channel,AP-123 > 46 6.529e+003

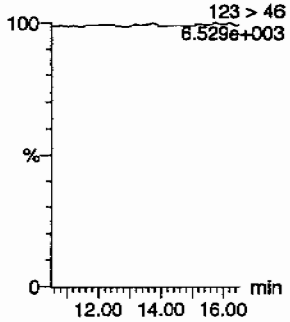

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-197 > 167 6.624e+003

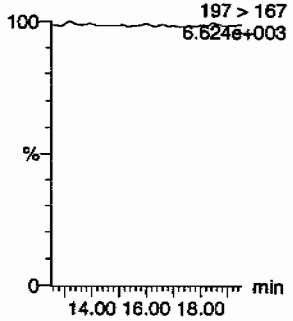

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-197 > 180 6.572e+003

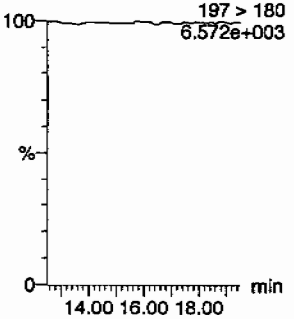

246-Trinitrotoluene
F10:MRM of 1 channel,AP-227 > 210 6.505e+003

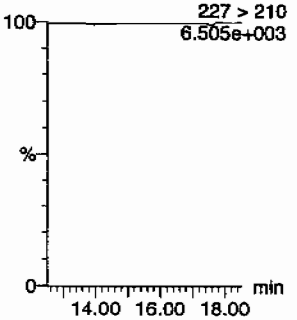

34-dinitrotoluene
F9:MRM of 2 channels,AP-182 > 152 2.942e+004

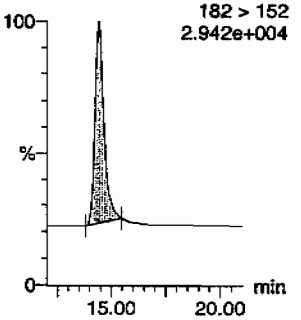

26-dinitrotoluene
F9:MRM of 2 channels,AP-14.43 182 > 152 2.942e+004

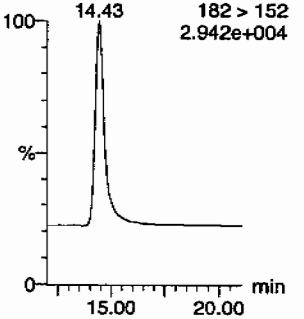

MMM 03/09/10

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luantify Sample Report

iEL Laboratories, LLC / Analyst : Michael A. Penny

lataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

4-dinitrotoluene

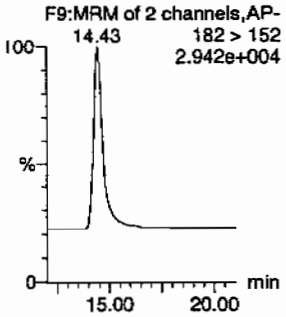

26-dinitrotoluene-d3

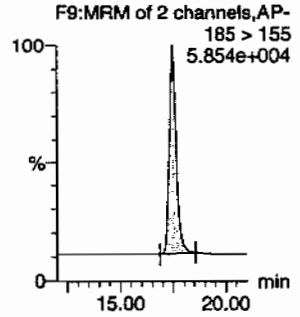

2-Nitrotoluene

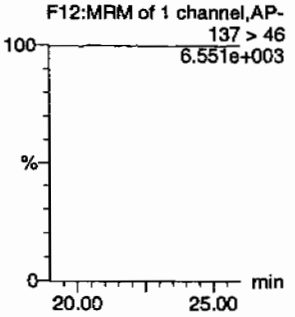

4-Nitrotoluene

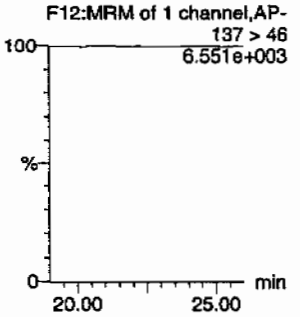

3-Nitrotoluene

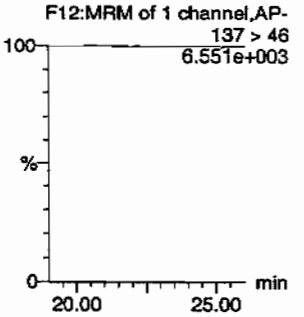

PETN

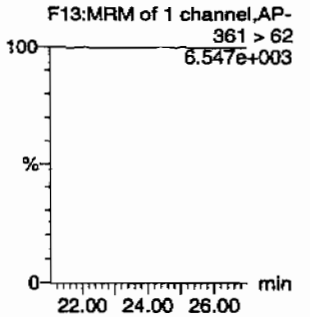

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
!46055001	HMX	176 > 102			3541.401									
!46055001	RDX	176 > 102			3541.401									
!46055001	135-Trinitrobenzene	213 > 183			3541.401									
!46055001	13-Dinitrobenzene-d4	172 > 142	12.07	3541.401		3541.401	3541.401	bb			504.2161	100.8	0.8	313.9
!46055001	13-Dinitrobenzene	168 > 138			3541.401			MM-	08-Mar-10	11:15:12				
!46055001	Tetryl	241 > 181			3541.401									
!46055001	Nitrobenzene	123 > 46			3541.401									
!46055001	4-Amino-26-dinitrotoluene	197 > 167			20621.178									
!46055001	2-Amino-46-dinitrotoluene	197 > 180			20621.178									
!46055001	246-Trinitrotoluene	227 > 210			20621.178									
!46055001	34-dinitrotoluene	182 > 152	14.43	10989.239	20621.178	10989.239	266.455	bb			275.7003	110.3	10.3	790.2
!46055001	26-dinitrotoluene	182 > 152			20621.178									
!46055001	24-dinitrotoluene	182 > 152			20621.178									
!46055001	26-dinitrotoluene-d3	185 > 155	17.47	20621.178		20621.178	20621.178	bb			501.4736	100.3	0.3	2115.9
!46055001	2-Nitrotoluene	137 > 46			20621.178									
!46055001	4-Nitrotoluene	137 > 46			20621.178									
!46055001	3-Nitrotoluene	137 > 46			20621.178									
!46055001	PETN	361 > 62			20621.178									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055001

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260128.wiff

Date Analyzed: 28-FEB-10 00:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dan 3/1/10

de Name: "246055001" Sample ID: "948893|2|LER" File: "EXS02260128.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCX83212S" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 12:08:28 AM

led: No

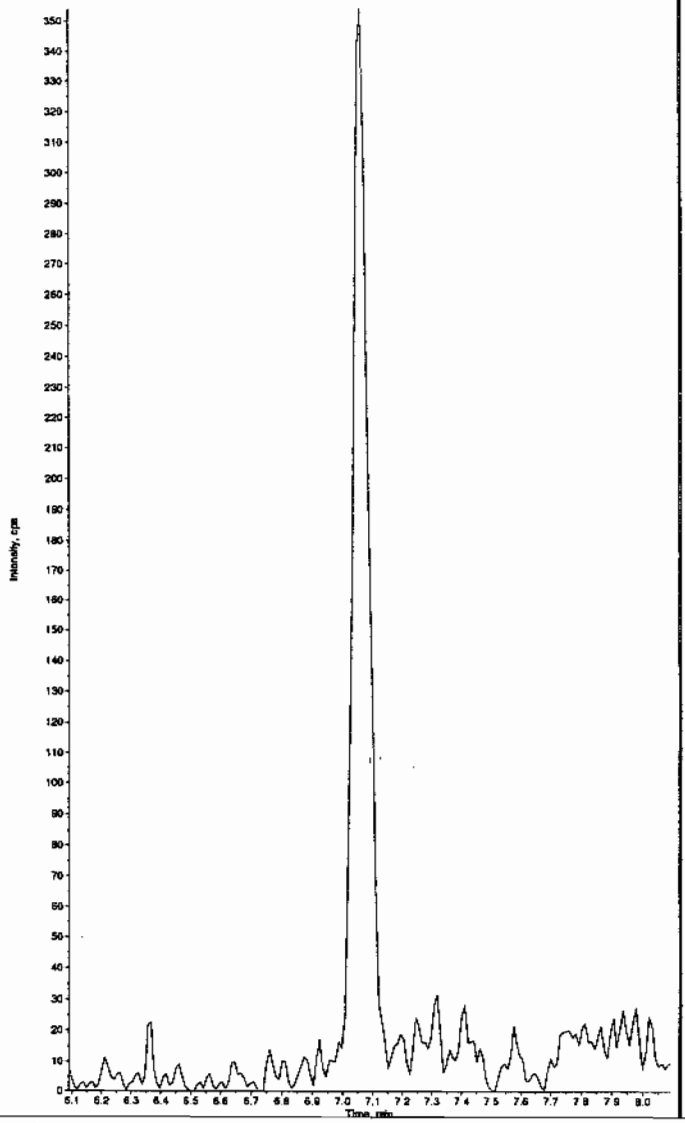

Sample Name: "246055001" Sample ID: "948893|2|LER" File: "EXS02260128.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 12:08:28 AM

Modified: Yes

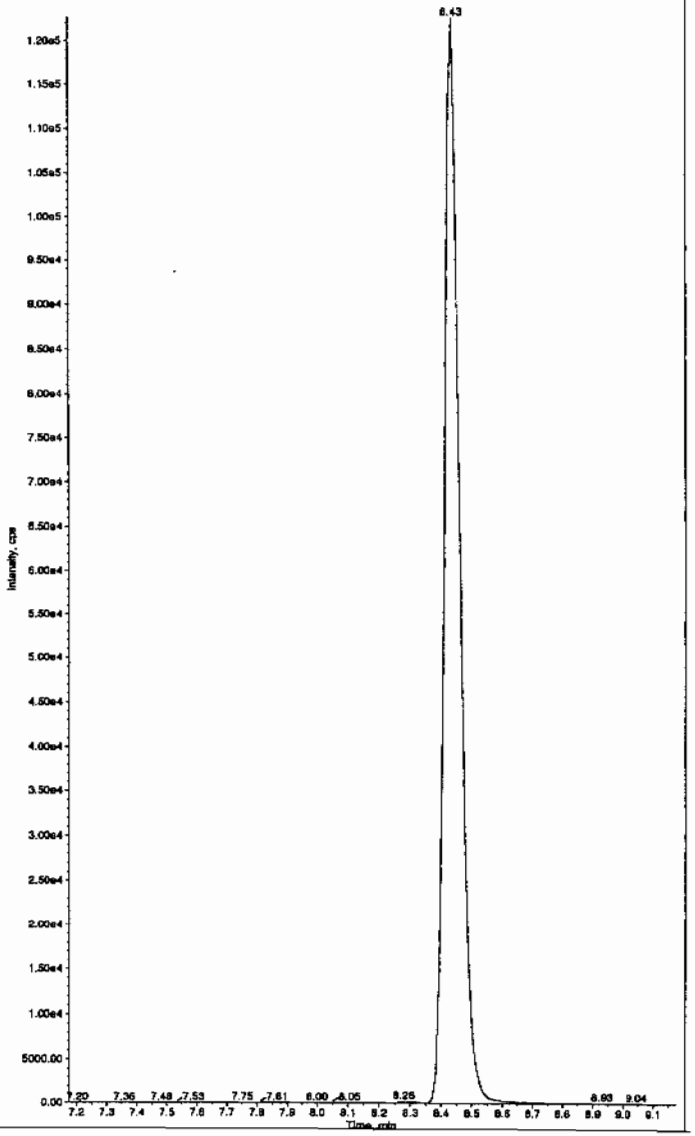

HMM 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "246055001" Sample ID: "948893|2|LER" File: "EXS02260128.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212S" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 235. ng/mL
Date: 2/28/2010
Time: 12:08:28 AM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.46 min
elative RT: No

Type: Valley
ction Time: 8.42 min
3.24e+006 counts
t: 910815.979 cps
Time: 8.32 min
ime: 8.77 min

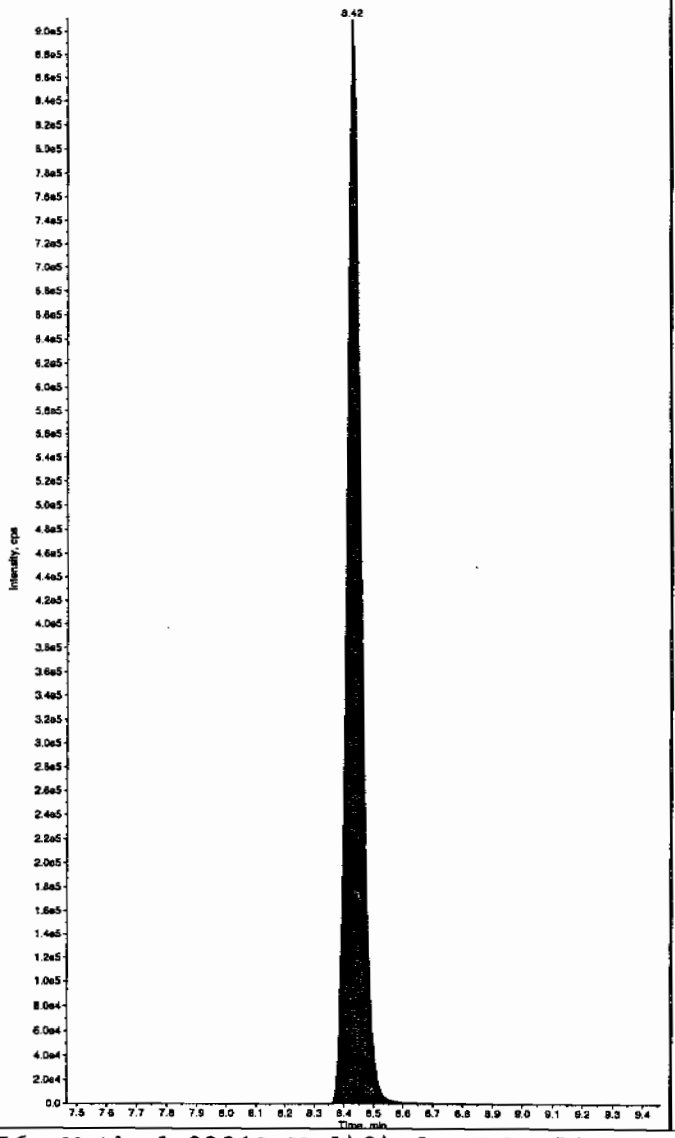

Sample Name: "246055001" Sample ID: "948893|2|LER" File: "EXS02260128.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 12:08:28 AM

Modified: No

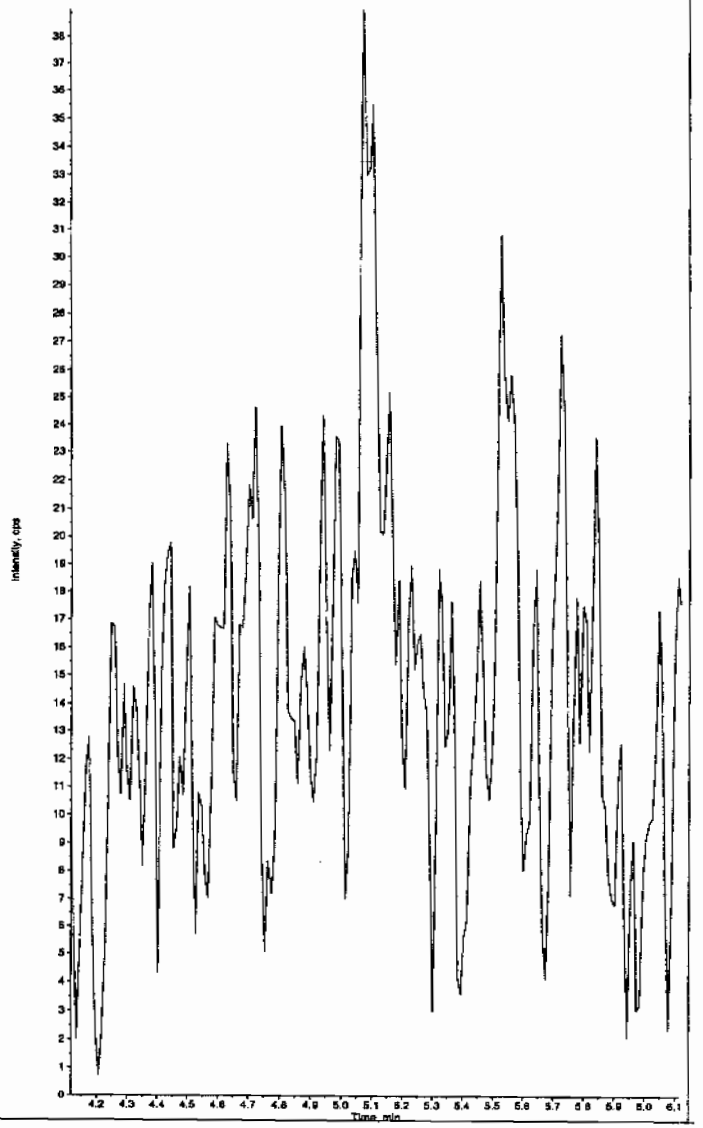

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ple Name: "246055001" Sample ID: "948893|2|LER" File: "EXS02260128.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/45.0 amu"
ment: "LCX83212S" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 12:08:28 AM

ied: No

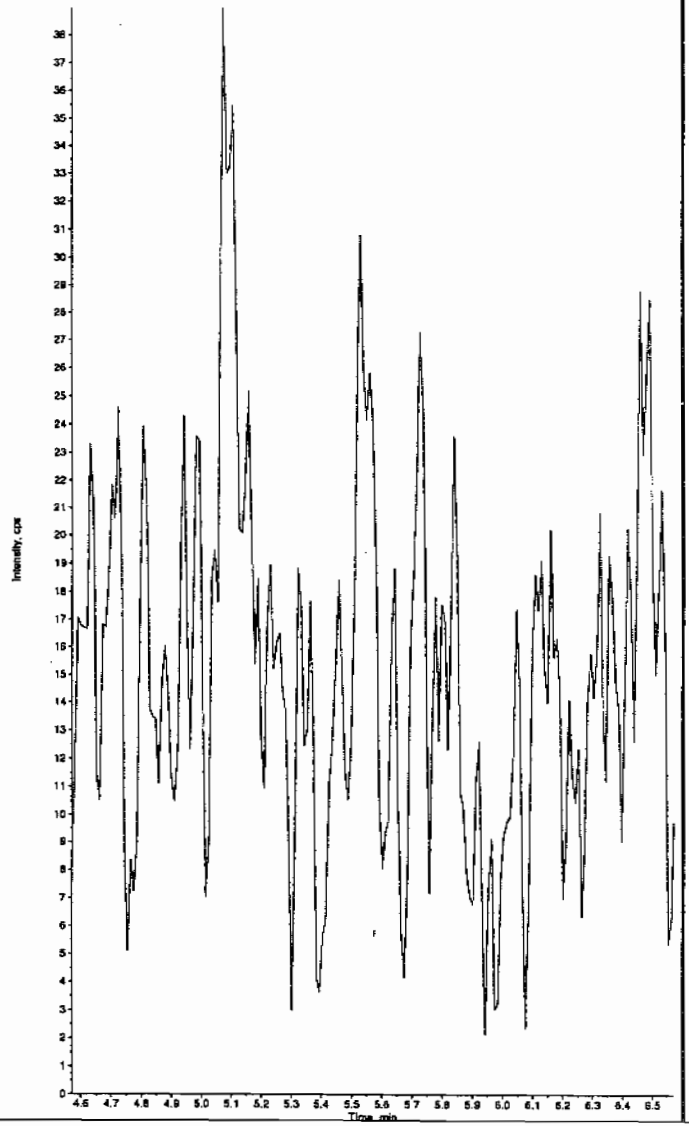

Sample Name: "246055001" Sample ID: "948893|2|LER" File: "EXS02260128.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	2/28/2010	
Acq. Time:	12:08:28 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	3.00e+004	counts
Height:	8647.314	cps
Start Time:	10.8	min
End Time:	11.0	min

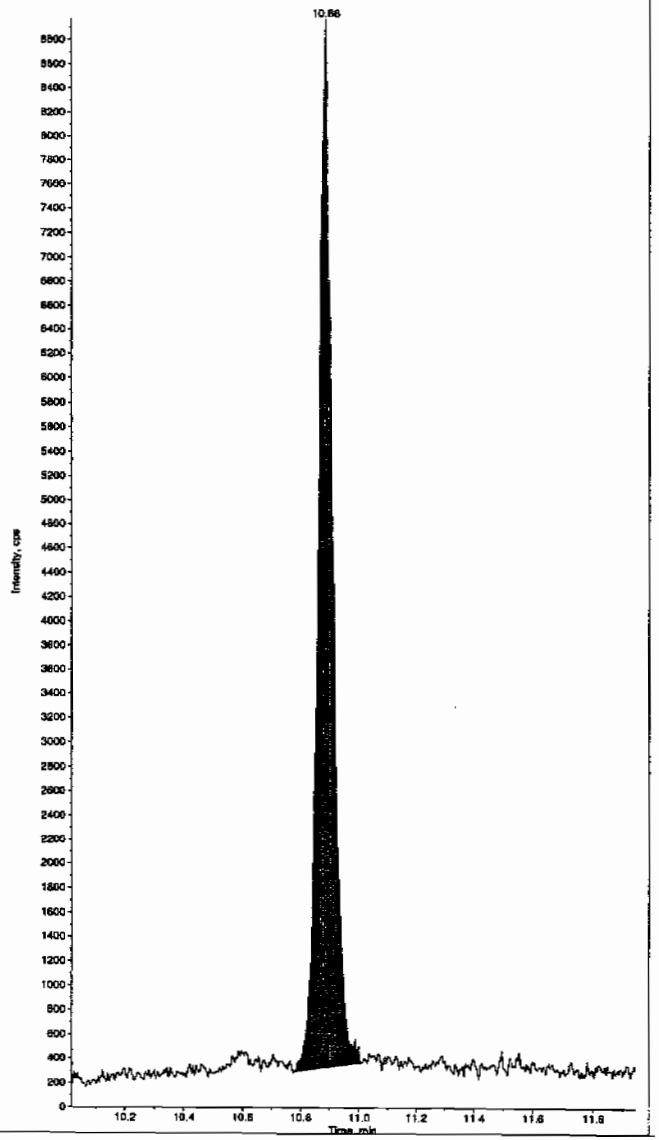

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8169

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055002

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304188a

Date Analyzed: 08-MAR-10 11:13

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030410expa.cdb, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304188a
Date: 08-Mar-2010
Time: 11:13:29
ID: 246055002 | LANC | 948893 | Soil | 2 |
Vial: 4:5,F

MTT 3/9/10

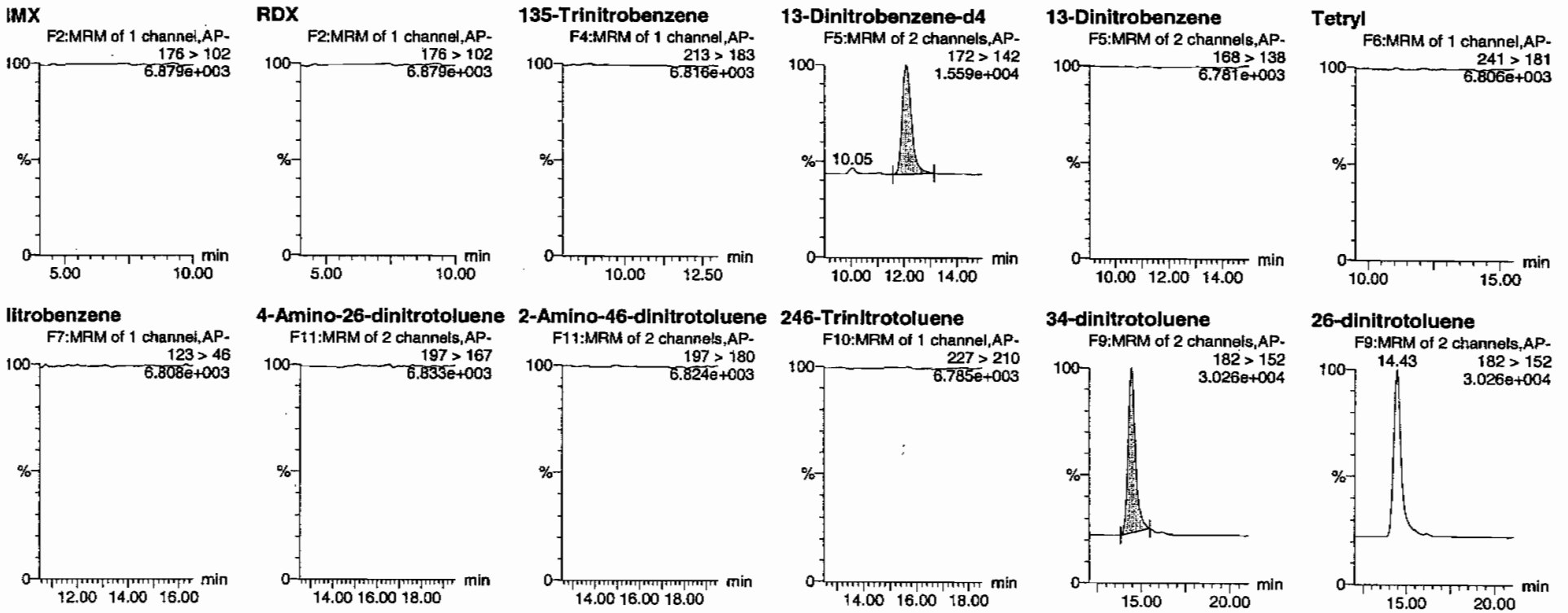

HMW 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

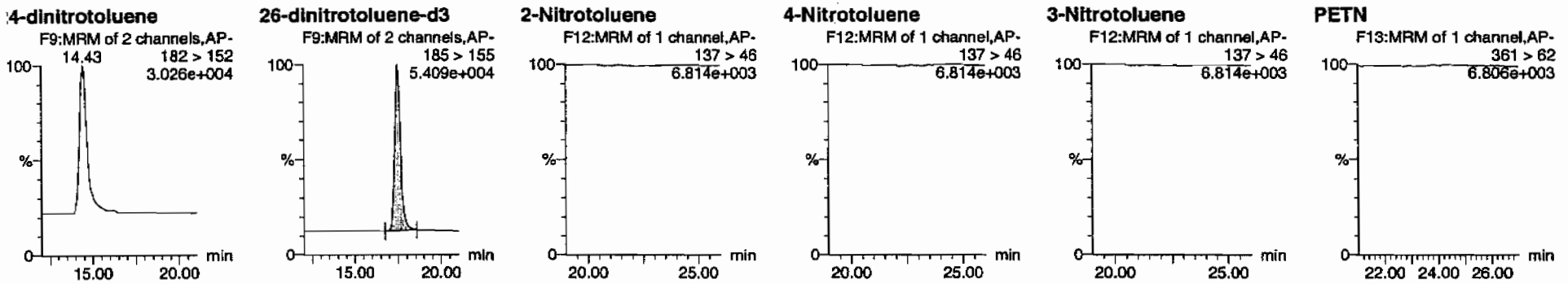

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246055002	HMX	176 > 102			3663.311									
246055002	RDX	176 > 102			3663.311									
246055002	135-Trinitrobenzene	213 > 183			3663.311									
246055002	13-Dinitrobenzene-d4	172 > 142	12.07	3663.311		3663.311	3663.311	bb			521.5734	104.3	4.3	250.9
246055002	13-Dinitrobenzene	168 > 138			3663.311									
246055002	Tetryl	241 > 181			3663.311									
246055002	Nitrobenzene	123 > 46			3663.311									
246055002	4-Amino-26-dinitrotoluene	197 > 167			19132.367									
246055002	2-Amino-46-dinitrotoluene	197 > 180			19132.367									
246055002	246-Trinitrotoluene	227 > 210			19132.367									
246055002	34-dinitrotoluene	182 > 152	14.43	11247.189	19132.367	11247.189	293.931	bb			304.1294	121.7	21.7	600.9
246055002	26-dinitrotoluene	182 > 152			19132.367									
246055002	24-dinitrotoluene	182 > 152			19132.367									
246055002	26-dinitrotoluene-d3	185 > 155	17.47	19132.367		19132.367	19132.367	bb			465.2681	93.1	-6.9	1086.2
246055002	2-Nitrotoluene	137 > 46			19132.367									
246055002	4-Nitrotoluene	137 > 46			19132.367									
246055002	3-Nitrotoluene	137 > 46			19132.367									
246055002	PETN	361 > 62			19132.367									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8169

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055002

Sample Amount 2

Moisture: 14.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260131.wiff

Date Analyzed: 28-FEB-10 00:55

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 3/1/10

ple Name: "246055002" Sample ID: "948893(2)LER" File: "EXS02260131.wiff"
k Name. "TAT8" Mass(es): "257.2/204.9 amu"
ment: "LCX83212S" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
ilated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 12:55:33 AM

ied: No

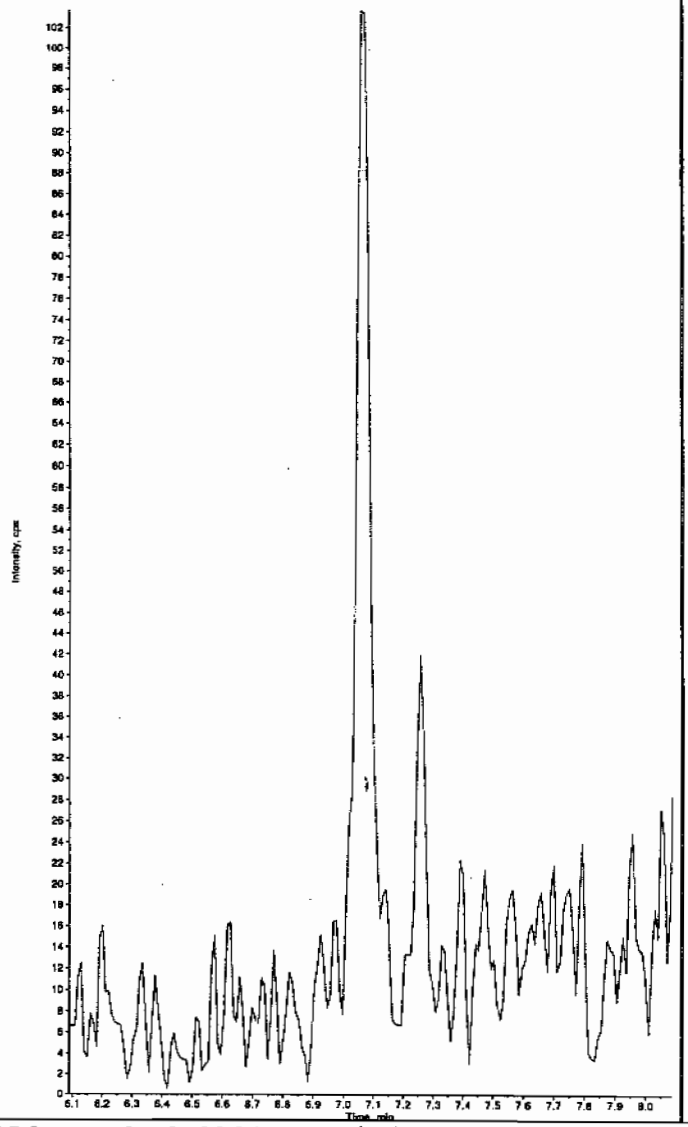

Sample Name: "246055002" Sample ID: "948893(2)LER" File: "EXS02260131.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 12:55:33 AM

Modified: Yes

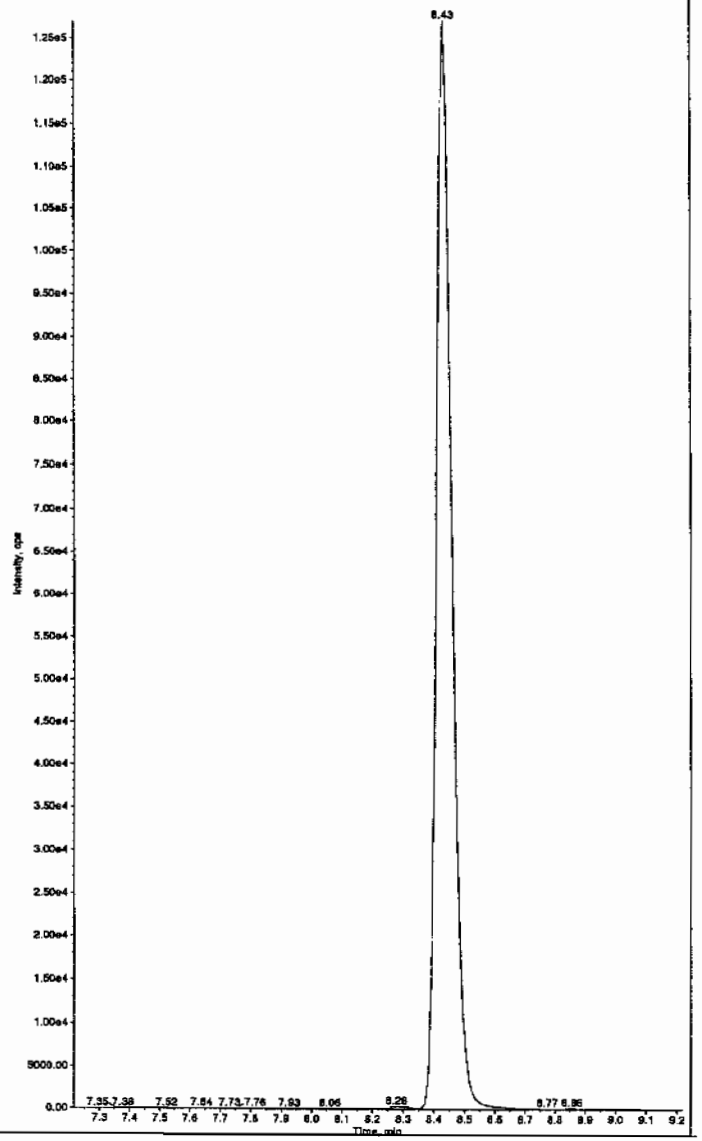

Hmm 03/01/10

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de Name: "246055002" Sample ID: "948893[2]LER" File: "EXS02260131.wiff"
. Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCX83212S" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 246. ng/mL
Date: 2/28/2010
Time: 12:55:33 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.46 min
elative RT: No

Type: Valley
tion Time: 8.42 min
3.39e+006 counts
t: 970146.240 cps
Time: 8.34 min
ime: 8.77 min

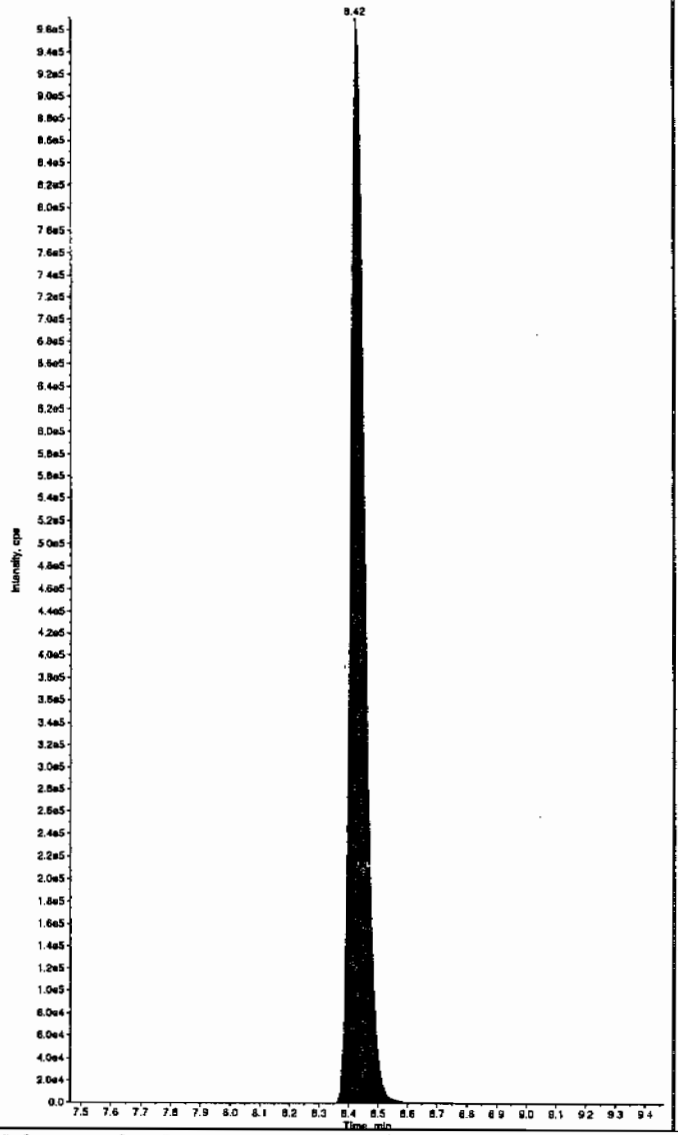

Sample Name: "246055002" Sample ID: "948893[2]LER" File: "EXS02260131.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 12:55:33 AM

Modified: No

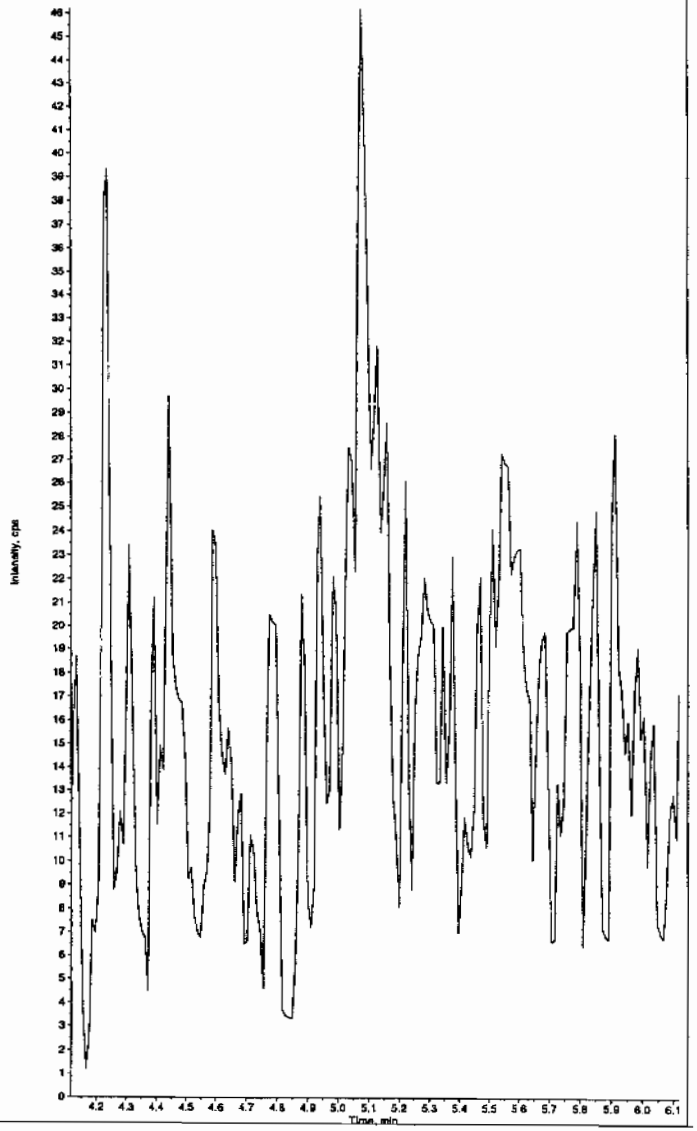

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le Name: "246055002" Sample ID: "948893|2|LER" File: "EXS02260131.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCX83212S" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 12:55:33 AM

ied: No

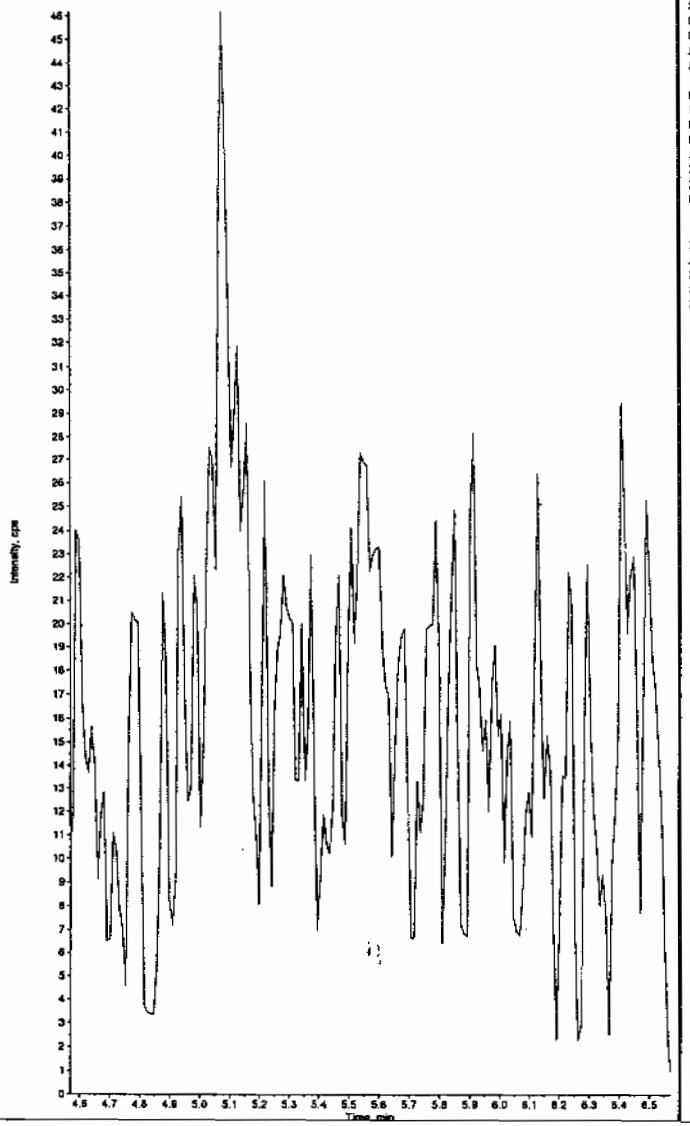

Sample Name: "246055002" Sample ID: "948893|2|LER" File: "EXS02260131.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	2/28/2010	
Acq. Time:	12:55:33 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	3.67e+004	counts
Height:	10164.192	cps
Start Time:	10.8	min
End Time:	11.1	min

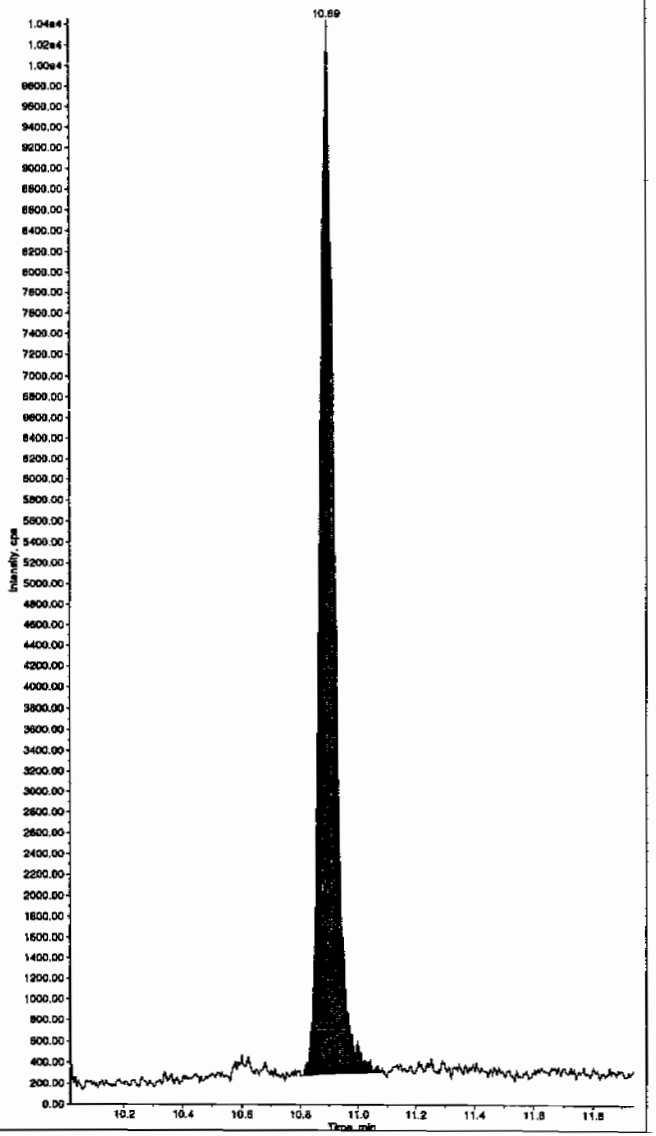

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8171

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055003

Sample Amount 2

Moisture: 12.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304189a

Date Analyzed: 08-MAR-10 11:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304189a
Date: 08-Mar-2010
Time: 11:43:05
ID: 246055003 | LANL | 948893 | Soil | 2
Vial: 4:6,A

MATP 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.942e+003

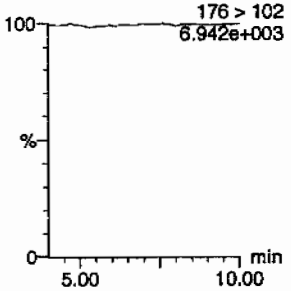

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.942e+003

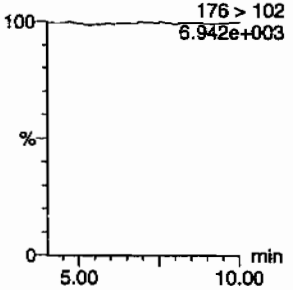

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.870e+003

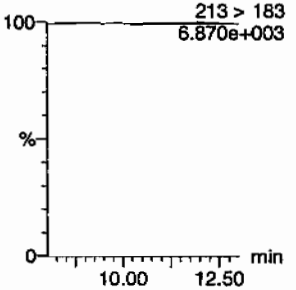

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.579e+004

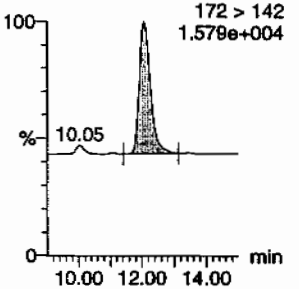

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.876e+003

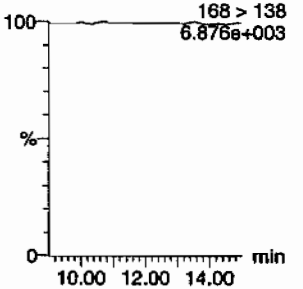

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.885e+003

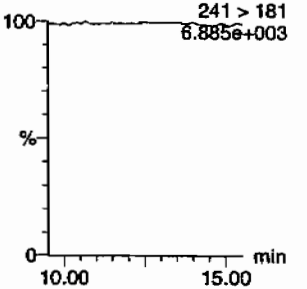

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.875e+003

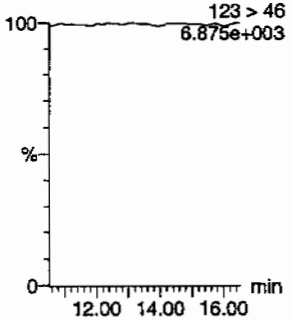

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.925e+003

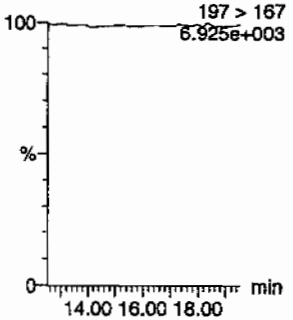

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.900e+003

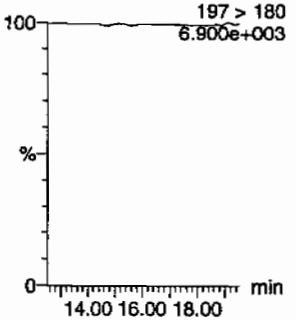

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.869e+003

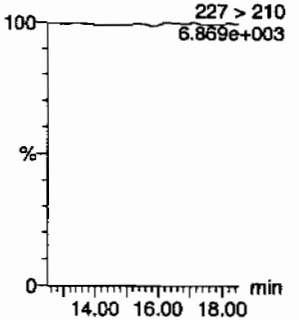

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.140e+004

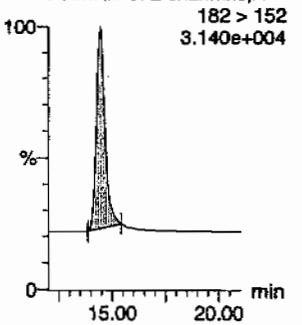

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
3.140e+004

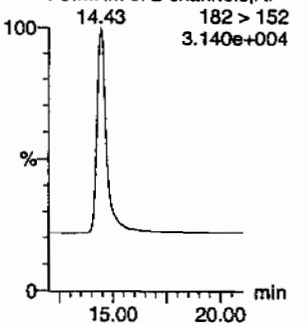

Hmc 03/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene

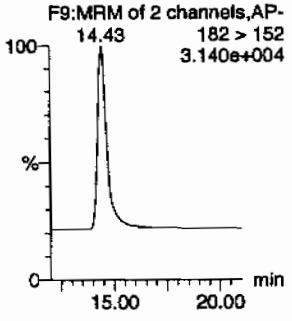

26-dinitrotoluene-d3

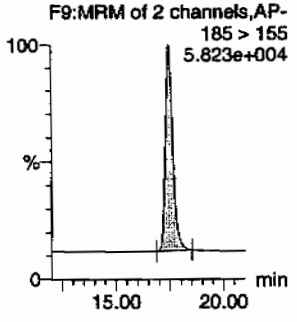

2-Nitrotoluene

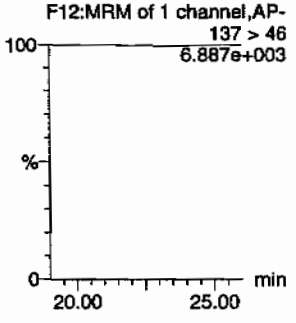

4-Nitrotoluene

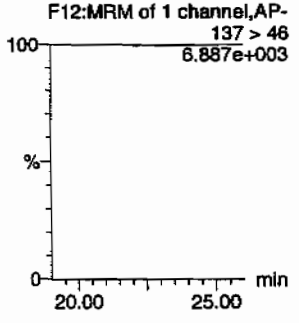

3-Nitrotoluene

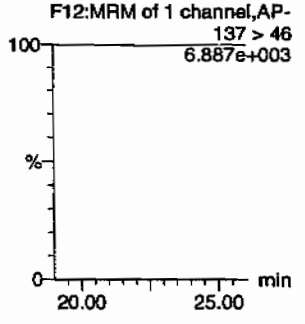

PETN

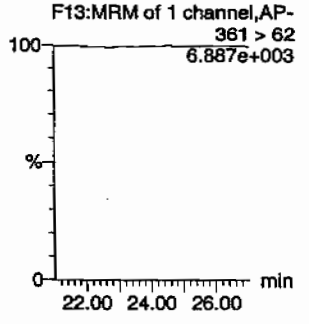

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246055003	HMX	176 > 102			3637.632									
246055003	RDX	176 > 102			3637.632									
246055003	135-Trinitrobenzene	213 > 183			3637.632									
246055003	13-Dinitrobenzene-d4	172 > 142	12.07	3637.632		3637.632	3637.632	bb			517.9173	103.6	3.6	247.1
246055003	13-Dinitrobenzene	168 > 138			3637.632									
246055003	Tetryl	241 > 181			3637.632									
246055003	Nitrobenzene	123 > 46			3637.632									
246055003	4-Amino-26-dinitrotoluene	197 > 167			20723.150									
246055003	2-Amino-46-dinitrotoluene	197 > 180			20723.150									
246055003	246-Trinitrotoluene	227 > 210			20723.150									
246055003	34-dinitrotoluene	182 > 152	14.43	11370.833	20723.150	11370.833	274.351	bb			283.8701	113.5	13.5	772.7
246055003	26-dinitrotoluene	182 > 152			20723.150									
246055003	24-dinitrotoluene	182 > 152			20723.150									
246055003	26-dinitrotoluene-d3	185 > 155	17.47	20723.150		20723.150	20723.150	bb			503.9534	100.8	0.8	713.1
246055003	2-Nitrotoluene	137 > 46			20723.150									
246055003	4-Nitrotoluene	137 > 46			20723.150									
246055003	3-Nitrotoluene	137 > 46			20723.150									
246055003	PETN	361 > 62			20723.150									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8171

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055003

Sample Amount 2

Moisture: 12.0

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260132.wiff

Date Analyzed: 28-FEB-10 01:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcm 3/1/10

ple Name: "246055003" Sample ID: "948693|2|LER" File: "EXS02260132.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 1:11:15 AM

ified: No

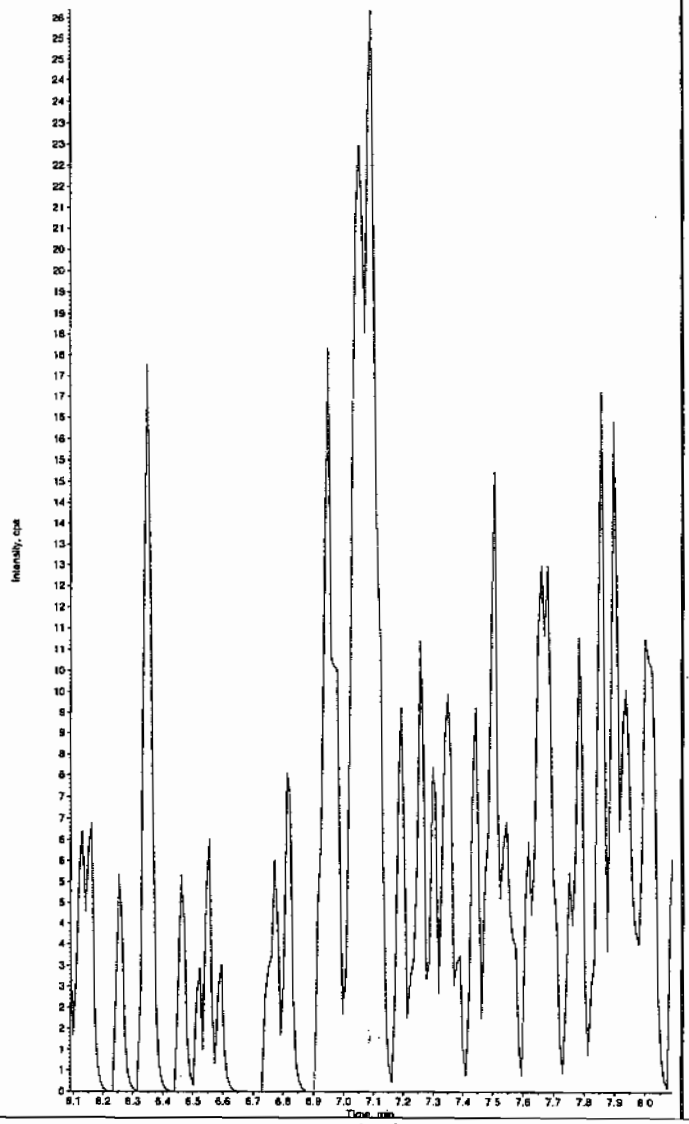

Sample Name: "246055003" Sample ID: "948693|2|LER" File: "EXS02260132.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:11:15 AM

Modified: Yes

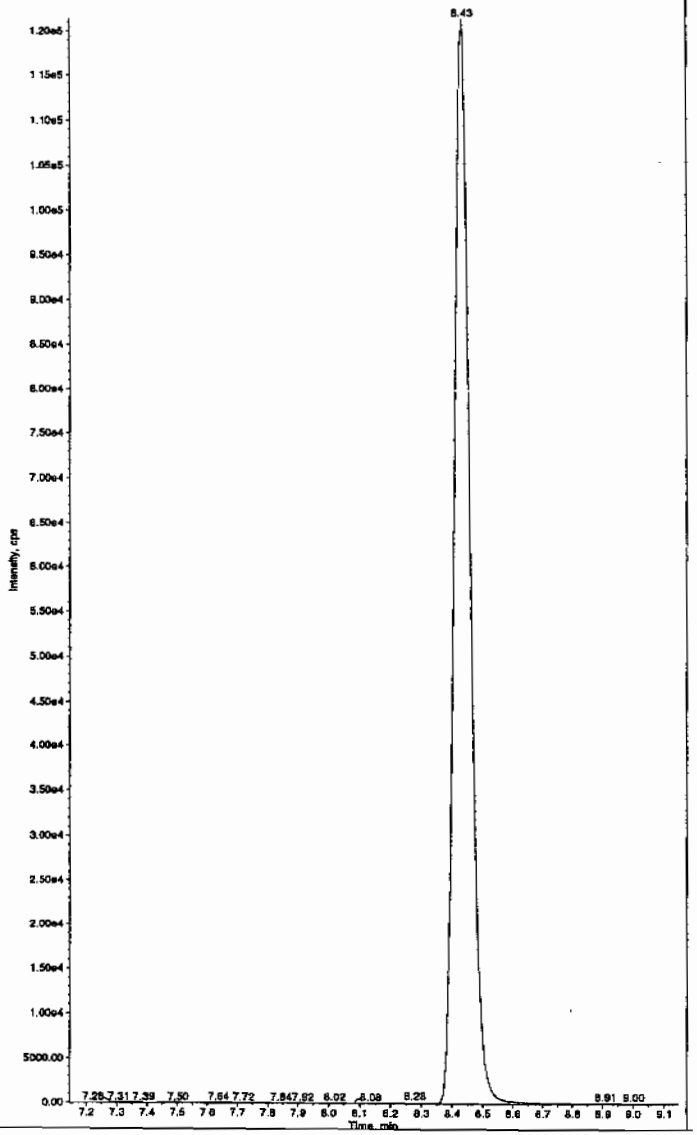

thmk 03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "246055003" Sample ID: "948893|2|LER" File: "EXS02260132.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 244. ng/mL
Date: 2/28/2010
Time: 1:11:15 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.46 min
Relative RT: No

Type: Valley
ntion Time: 8.42 min
: 3.37e+006 counts
nt: 988126.160 cps
t Time: 8.31 min
Time: 8.72 min

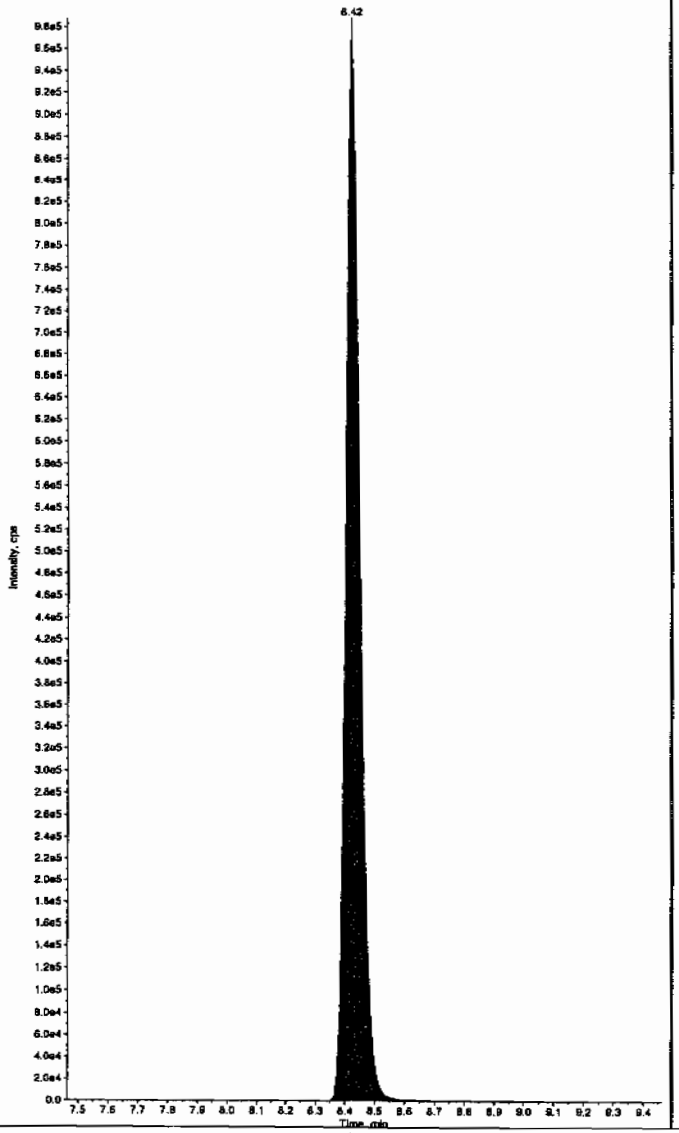

Sample Name: "246055003" Sample ID: "948893|2|LER" File: "EXS02260132.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:11:15 AM

Modified: No

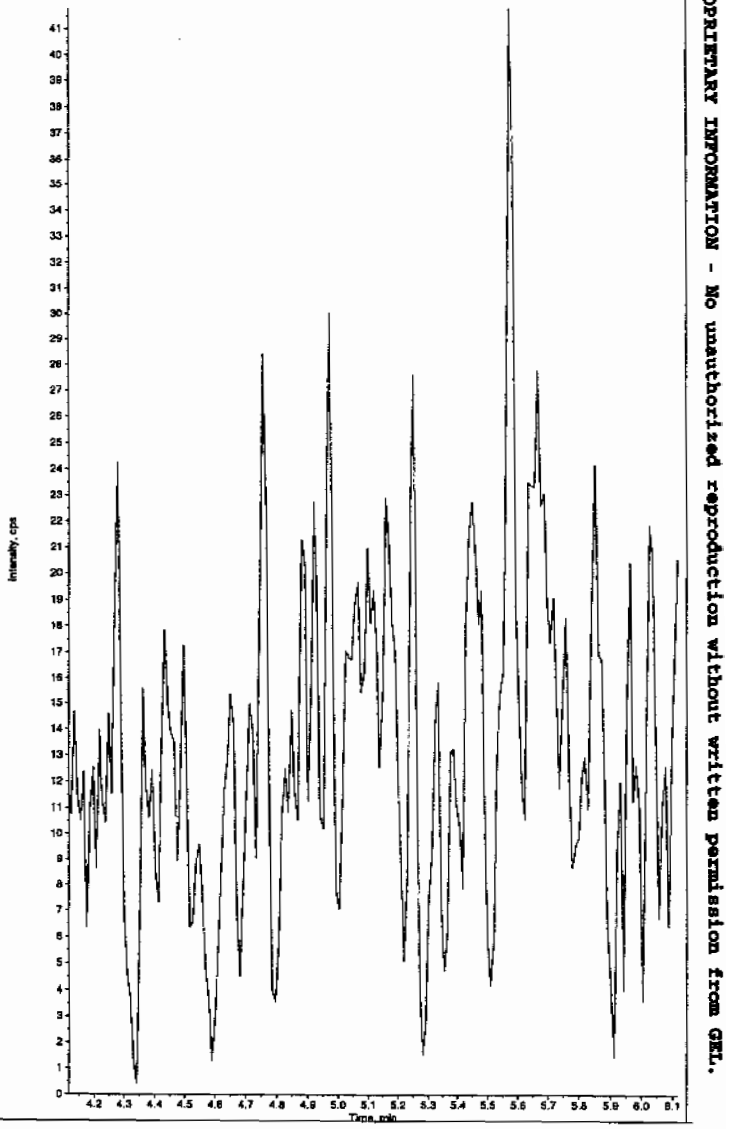

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

mple Name: "246055003" Sample ID: "948893|2|LER" File: "EXS02260132.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 1:11:15 AM

fied: No

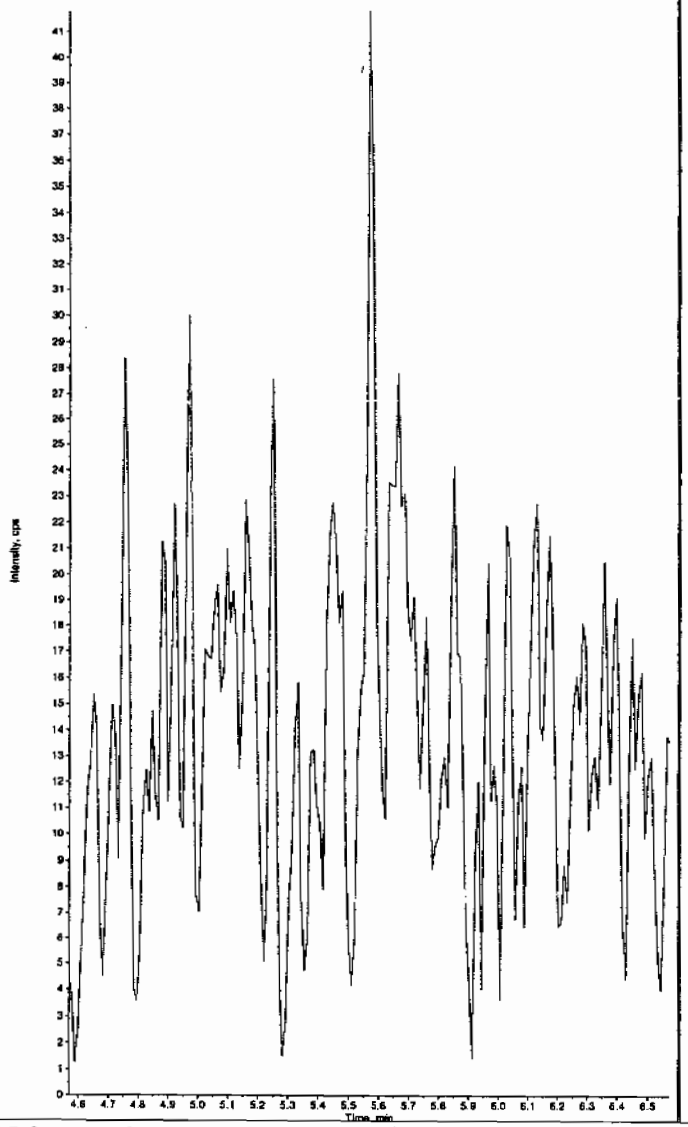

Sample Name: "246055003" Sample ID: "948893|2|LER" File: "EXS02260132.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:11:15 AM

Modified: No

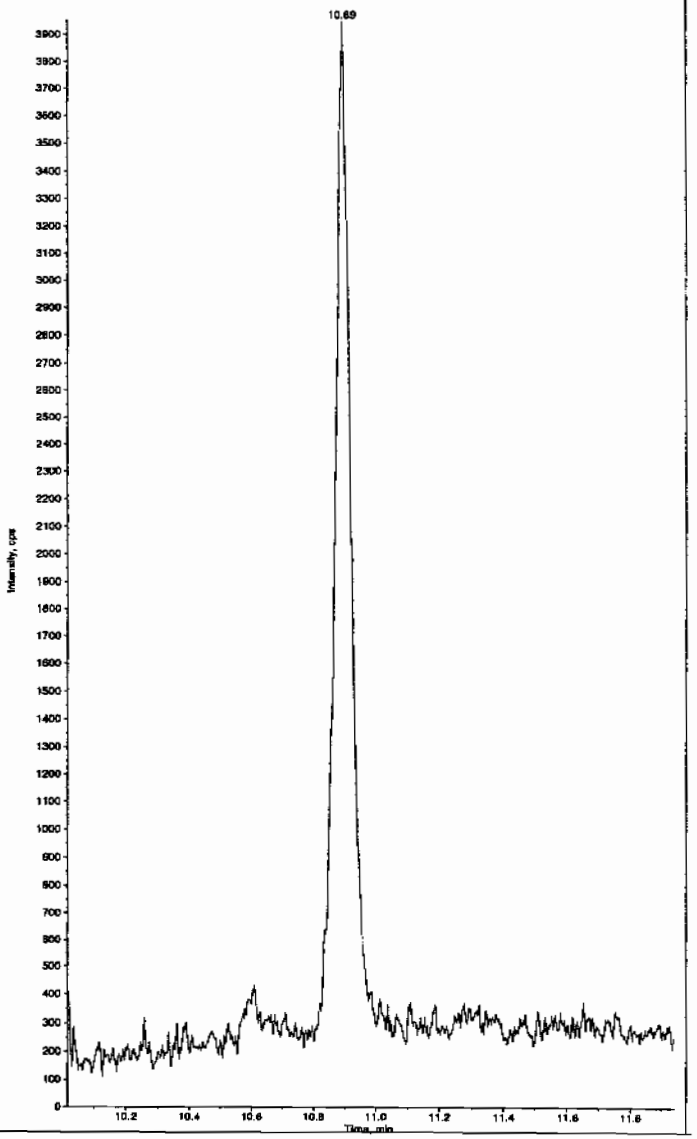

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8168

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055004

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304190a

Date Analyzed: 08-MAR-10 12:12

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304190a
Date: 08-Mar-2010
Time: 12:12:38
ID: 246055004 | LANL | 948893 | Soil | 2 |
Vial: 4:6,B

MAP 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.684e+003

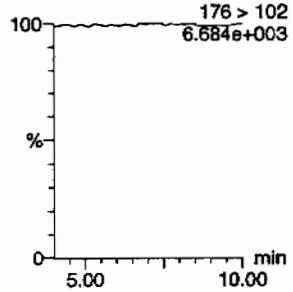

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.684e+003

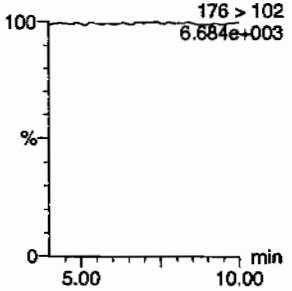

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.658e+003

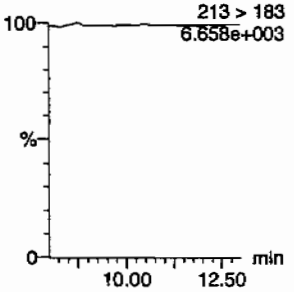

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.547e+004

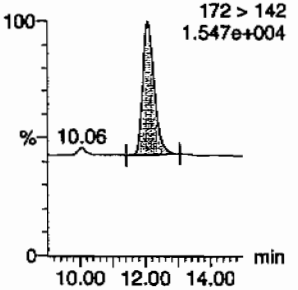

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.631e+003

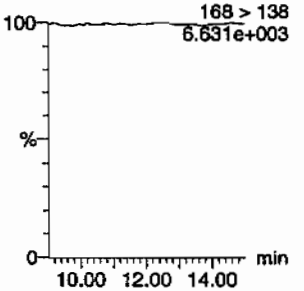

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.650e+003

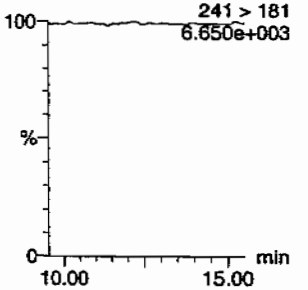

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.660e+003

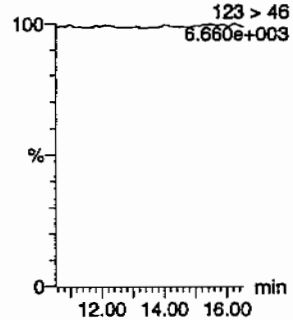

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.683e+003

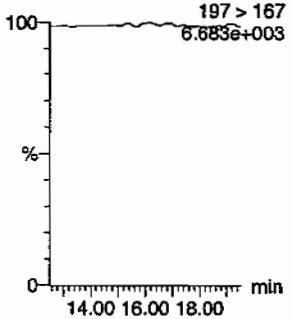

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.657e+003

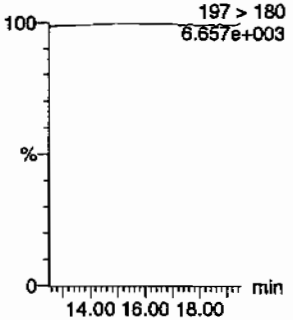

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.631e+003

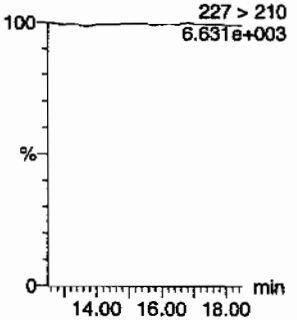

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.064e+004

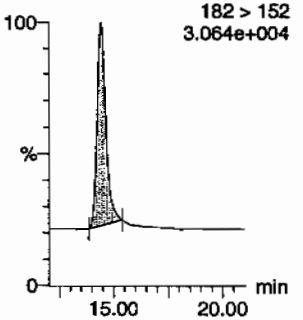

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
3.064e+004

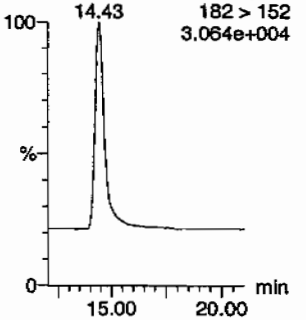

HMM 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
14.43
3.064e+004

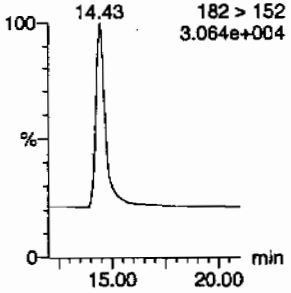

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.841e+004

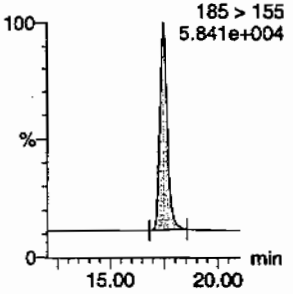

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.628e+003

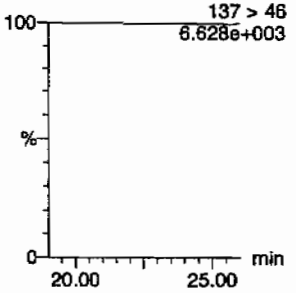

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.628e+003

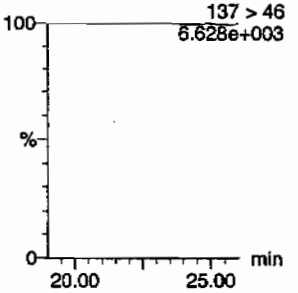

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.628e+003

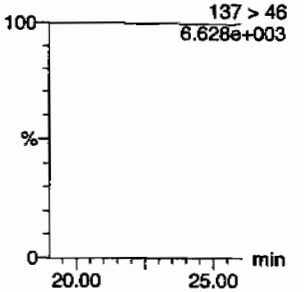

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.613e+003

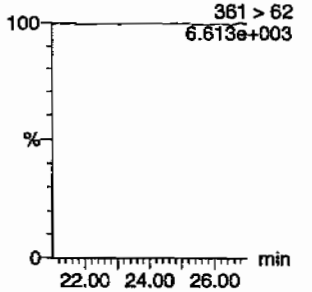

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246055004	HMX	176 > 102			3609.925									
246055004	RDX	176 > 102			3609.925									
246055004	135-Trinitrobenzene	213 > 183			3609.925									
246055004	13-Dinitrobenzene-d4	172 > 142	12.07	3609.925		3609.925	3609.925	bb			513.9724	102.8	2.8	359.6
246055004	13-Dinitrobenzene	168 > 138			3609.925									
246055004	Tetryl	241 > 181			3609.925									
246055004	Nitrobenzene	123 > 46			3609.925									
246055004	4-Amino-26-dinitrotoluene	197 > 167			20879.008									
246055004	2-Amino-46-dinitrotoluene	197 > 180			20879.008									
246055004	246-Trinitrotoluene	227 > 210			20879.008									
246055004	34-dinitrotoluene	182 > 152	14.43	11226.742	20879.008	11226.742	268.852	bb			278.1807	111.3	11.3	740.4
246055004	26-dinitrotoluene	182 > 152			20879.008									
246055004	24-dinitrotoluene	182 > 152			20879.008									
246055004	26-dinitrotoluene-d3	185 > 155	17.47	20879.008		20879.008	20879.008	bb			507.7436	101.5	1.5	1352.5
246055004	2-Nitrotoluene	137 > 46			20879.008									
246055004	4-Nitrotoluene	137 > 46			20879.008									
246055004	3-Nitrotoluene	137 > 46			20879.008									
246055004	PETN	361 > 62			20879.008									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8168

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055004

Sample Amount 2

Moisture: 20.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260133.wiff

Date Analyzed: 28-FEB-10 01:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	360	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcvd 3/1/10

umple Name: "246055004" Sample ID: "948893|2|LER" File: "EXS02260133.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 36.0 ng/mL
. Date: 2/28/2010
. Time: 1:26:57 AM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

. Type: Valley
ention Time: 7.06 min
: 2.51e+004 counts
ght: 6900.000 cps
t Time: 6.98 min
Time: 7.22 min

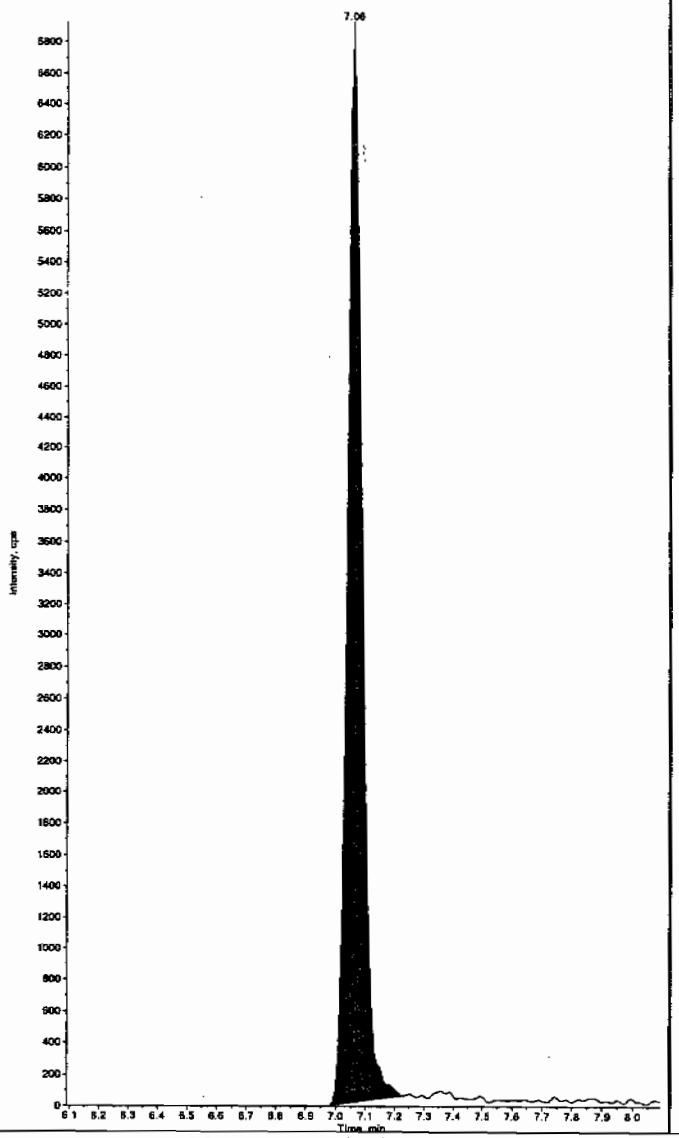

Sample Name: "246055004" Sample ID: "948893|2|LER" File: "EXS02260133.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:26:57 AM

Modified: Yes

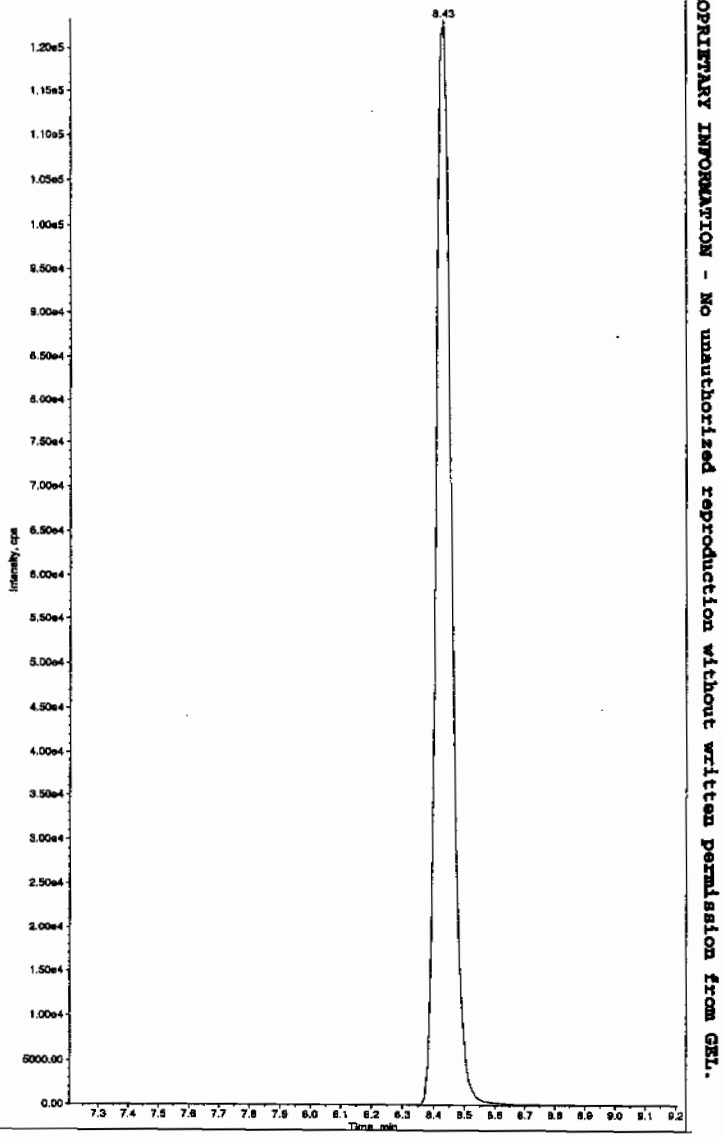

HMM 03/01/10

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mple Name: "246055004" Sample ID: "948893|2|LER" File: "EXS02260133.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	243. ng/mL
Date:	2/28/2010
Time:	1:26:57 AM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	1460.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
indow:	15.0 sec
cted RT:	8.46 min
Relative RT:	No
Type:	Valley
ntion Time:	8.42 min
:	3.35e+006 counts
ht:	999564.087 cps
t Time:	8.30 min
Time:	8.75 min

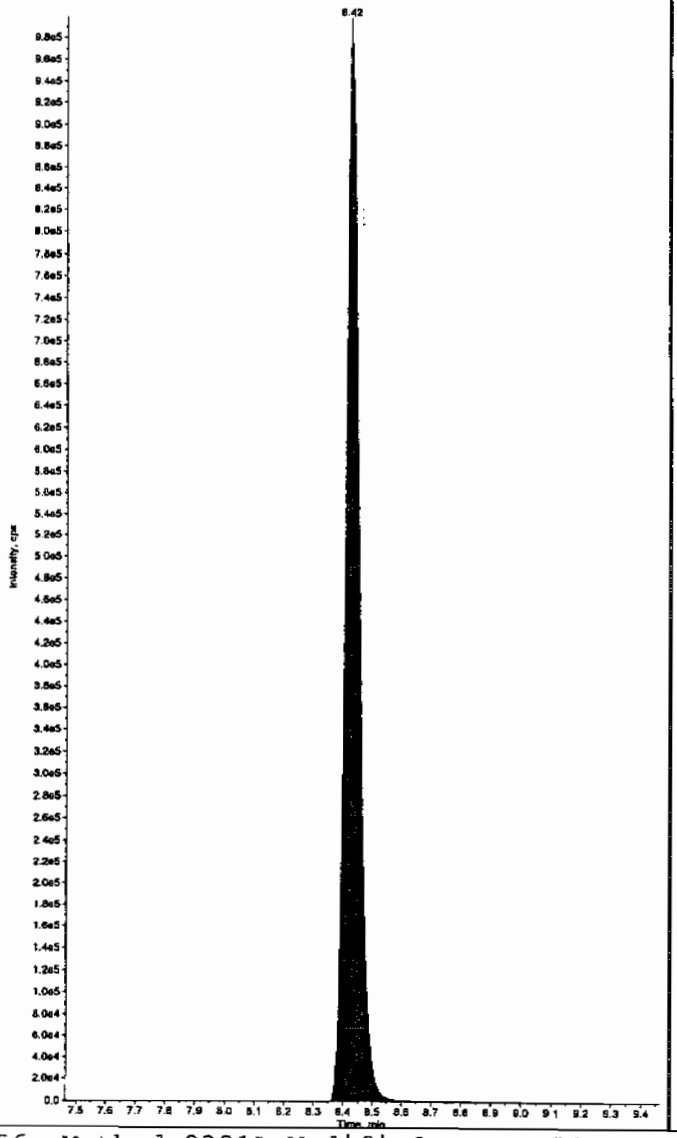

Sample Name: "246055004" Sample ID: "948893|2|LER" File: "EXS02260133.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/28/2010
Acq. Time:	1:26:57 AM
Modified:	No

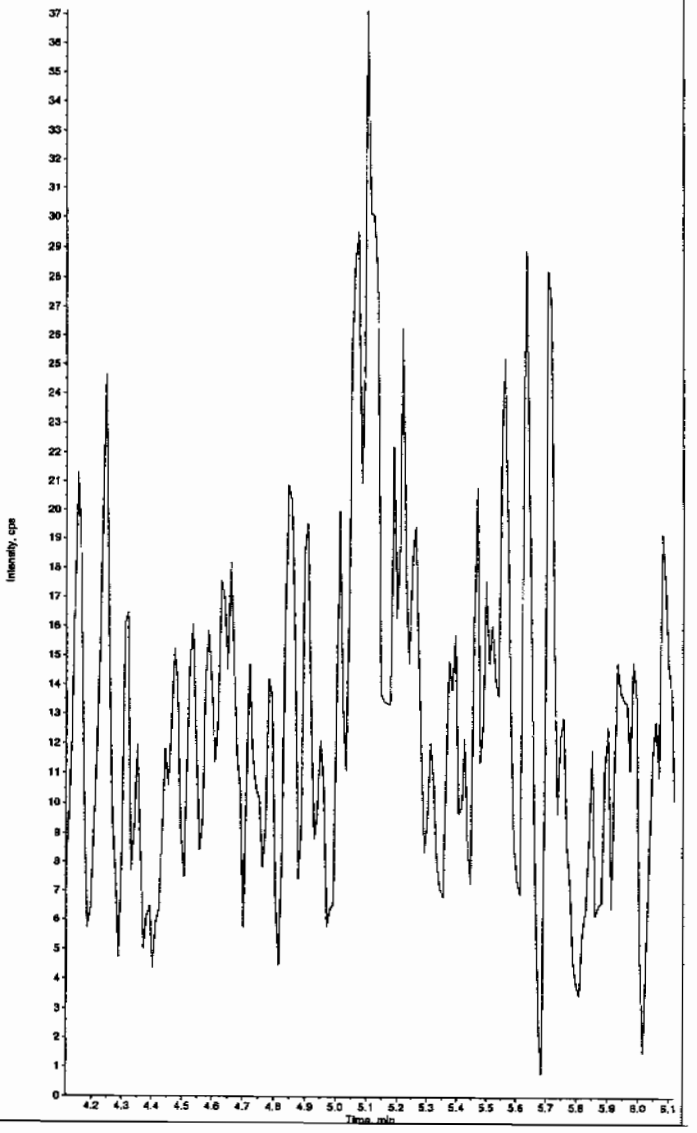

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nple Name: "246055004" Sample ID: "948893|2|LER" File: "EXS02260133.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 1:26:57 AM

fied: No

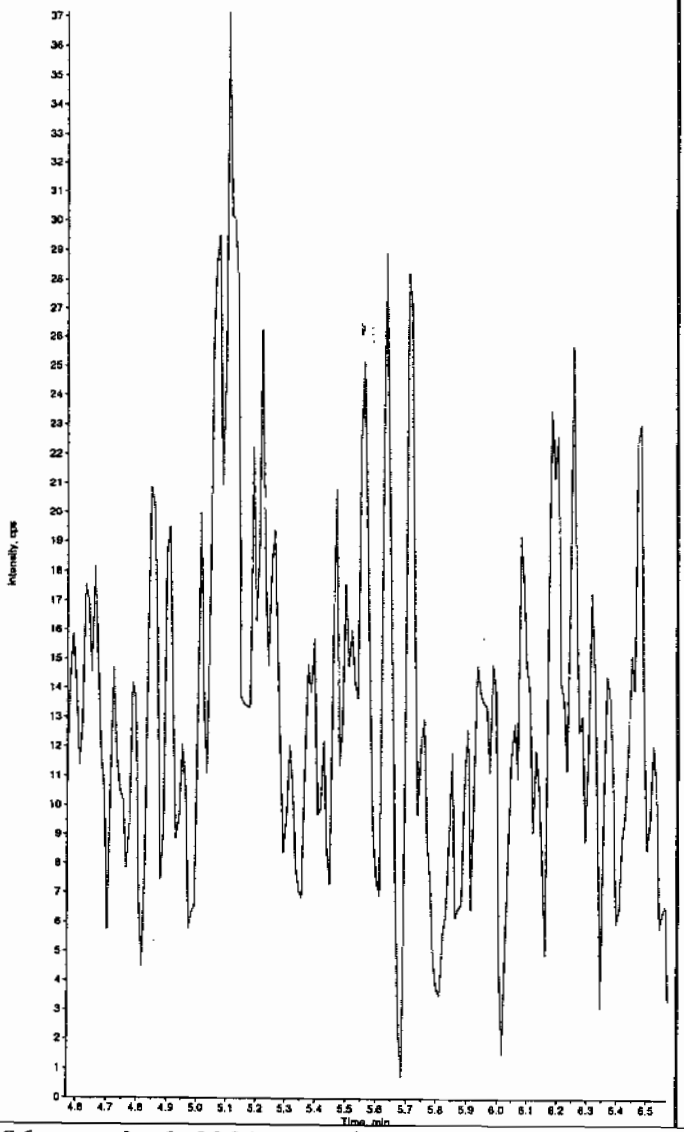

Sample Name: "246055004" Sample ID: "948893|2|LER" File: "EXS02260133.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:26:57 AM

Modified: No

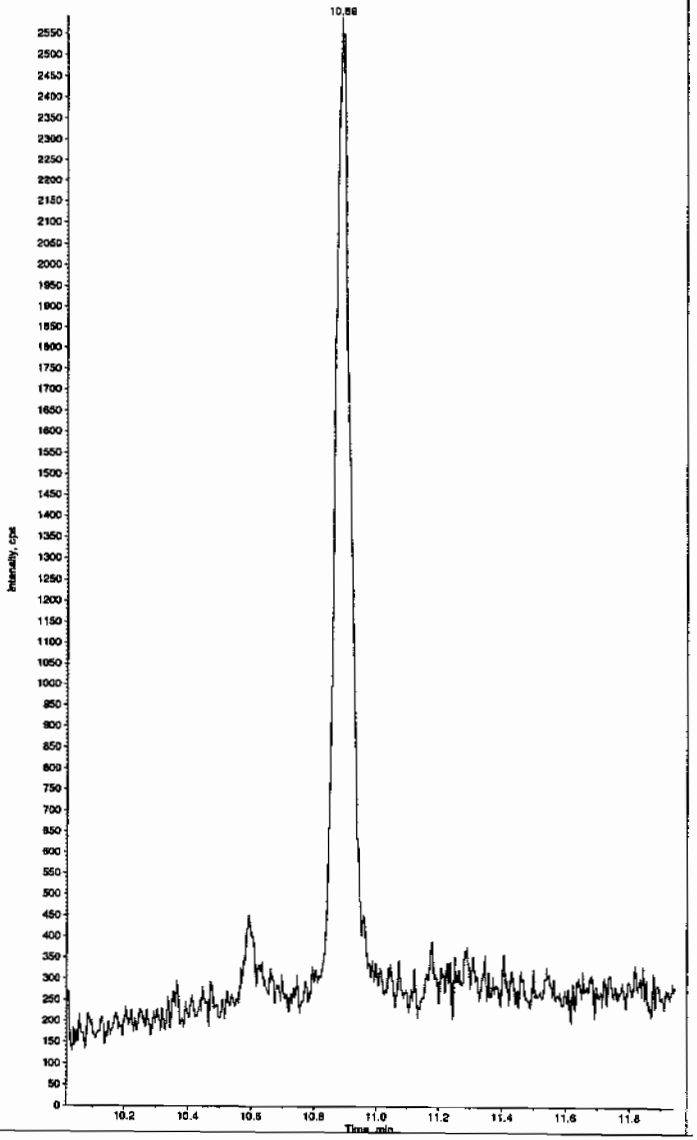

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8222

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055005

Sample Amount 2

Moisture: 25.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304191a

Date Analyzed: 08-MAR-10 12:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304191a
Date: 08-Mar-2010
Time: 12:42:14
ID: 246055005 | LANE | 948893 | SOLID | 21
Vial: 4:6,C

MEP 3/9/10

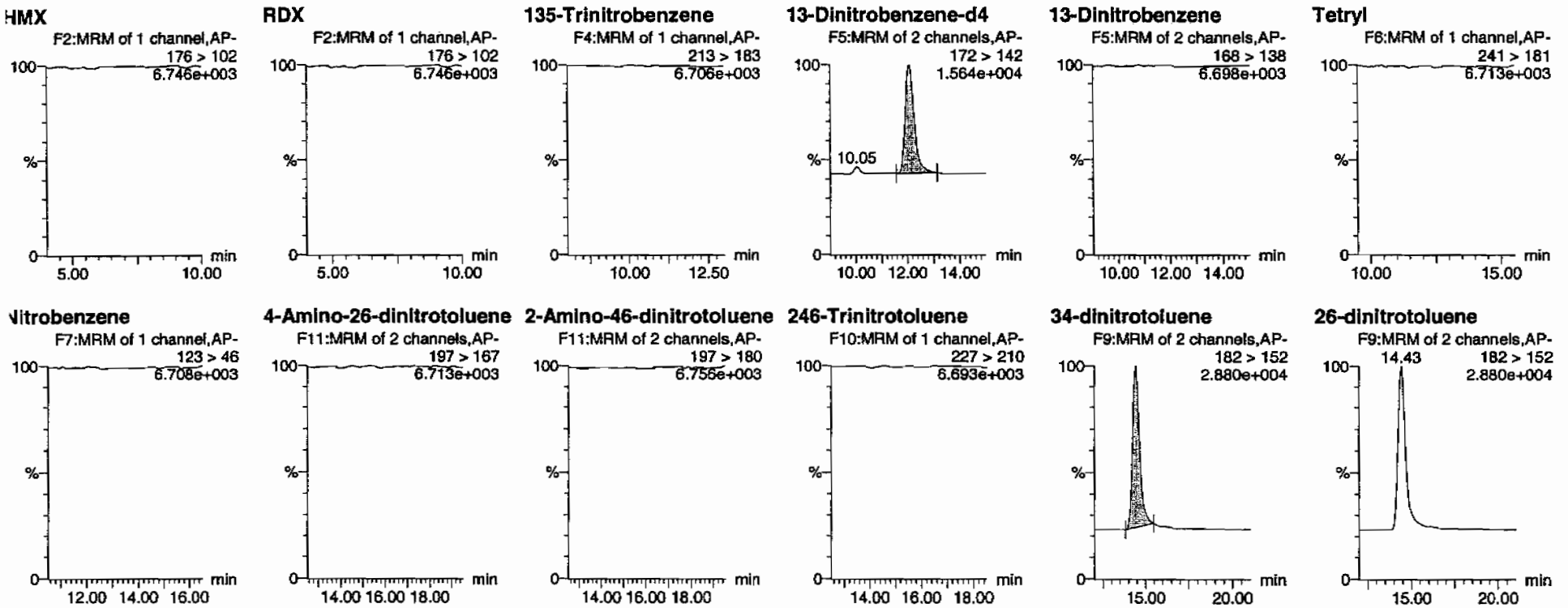

HMW 03/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene

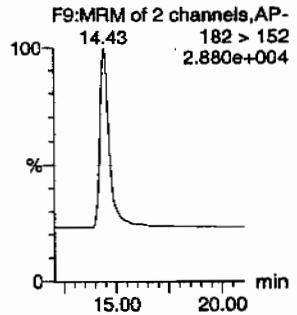

26-dinitrotoluene-d3

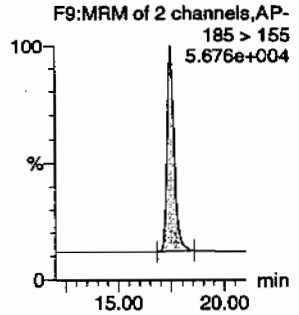

2-Nitrotoluene

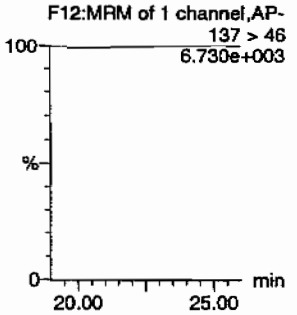

4-Nitrotoluene

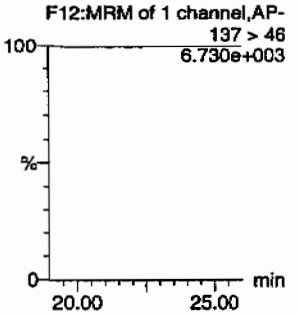

3-Nitrotoluene

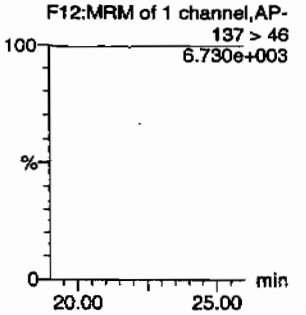

PETN

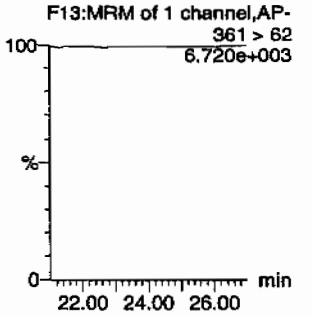

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246055005	HMX	176 > 102			3634.617									
246055005	RDX	176 > 102			3634.617									
246055005	135-Trinitrobenzene	213 > 183			3634.617									
246055005	13-Dinitrobenzene-d4	172 > 142	12.07	3634.617		3634.617	3634.617	bb			517.4880	103.5	3.5	161.0
246055005	13-Dinitrobenzene	168 > 138			3634.617									
246055005	Tetryl	241 > 181			3634.617									
246055005	Nitrobenzene	123 > 46			3634.617									
246055005	4-Amino-26-dinitrotoluene	197 > 167			20040.482									
246055005	2-Amino-46-dinitrotoluene	197 > 180			20040.482									
246055005	246-Trinitrotoluene	227 > 210			20040.482									
246055005	34-dinitrotoluene	182 > 152	14.43	10421.708	20040.482	10421.708	260.016	bb			269.0381	107.6	7.6	575.9
246055005	26-dinitrotoluene	182 > 152			20040.482									
246055005	24-dinitrotoluene	182 > 152			20040.482									
246055005	26-dinitrotoluene-d3	185 > 155	17.47	20040.482		20040.482	20040.482	bb			487.3520	97.5	-2.5	1103.2
246055005	2-Nitrotoluene	137 > 46			20040.482									
246055005	4-Nitrotoluene	137 > 46			20040.482									
246055005	3-Nitrotoluene	137 > 46			20040.482									
246055005	PETN	361 > 62			20040.482									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8222

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055005

Sample Amount 2

Moisture: 25.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260134.wiff

Date Analyzed: 28-FEB-10 01:42

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/1/10

ample Name: "246055005" Sample ID: "948893|2|LER" File: "EXS02260134.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCXB3212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/28/2010
. Time: 1:42:39 AM

ified: No

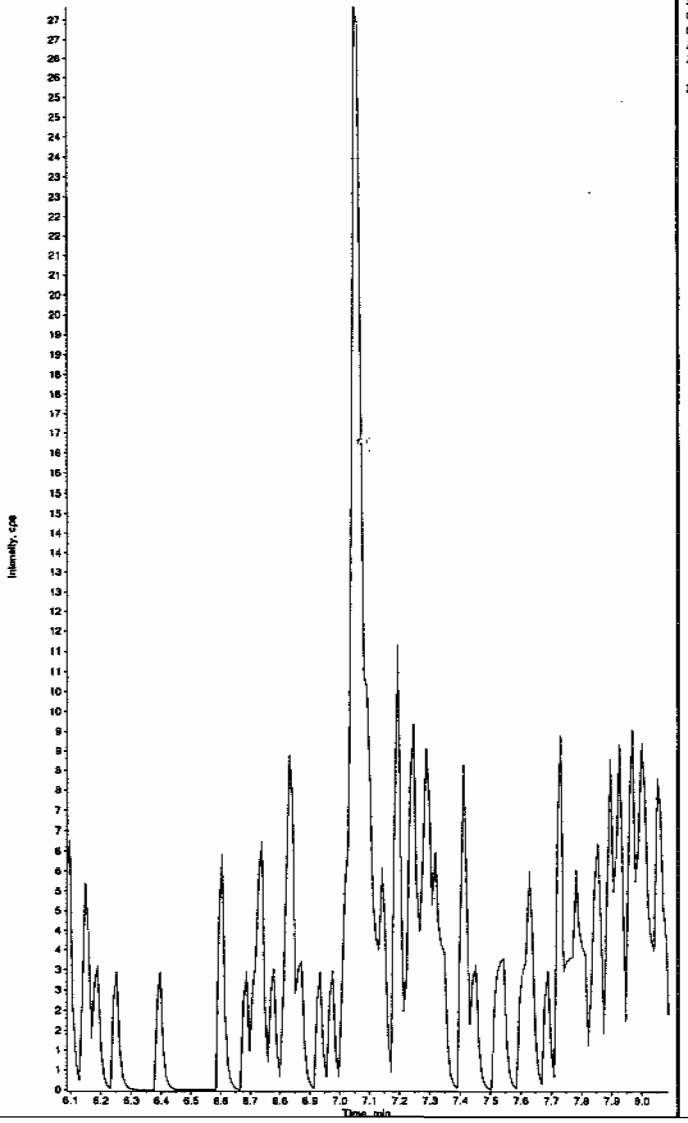

Sample Name: "246055005" Sample ID: "948893|2|LER" File: "EXS02260134.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:42:39 AM

Modified: Yes

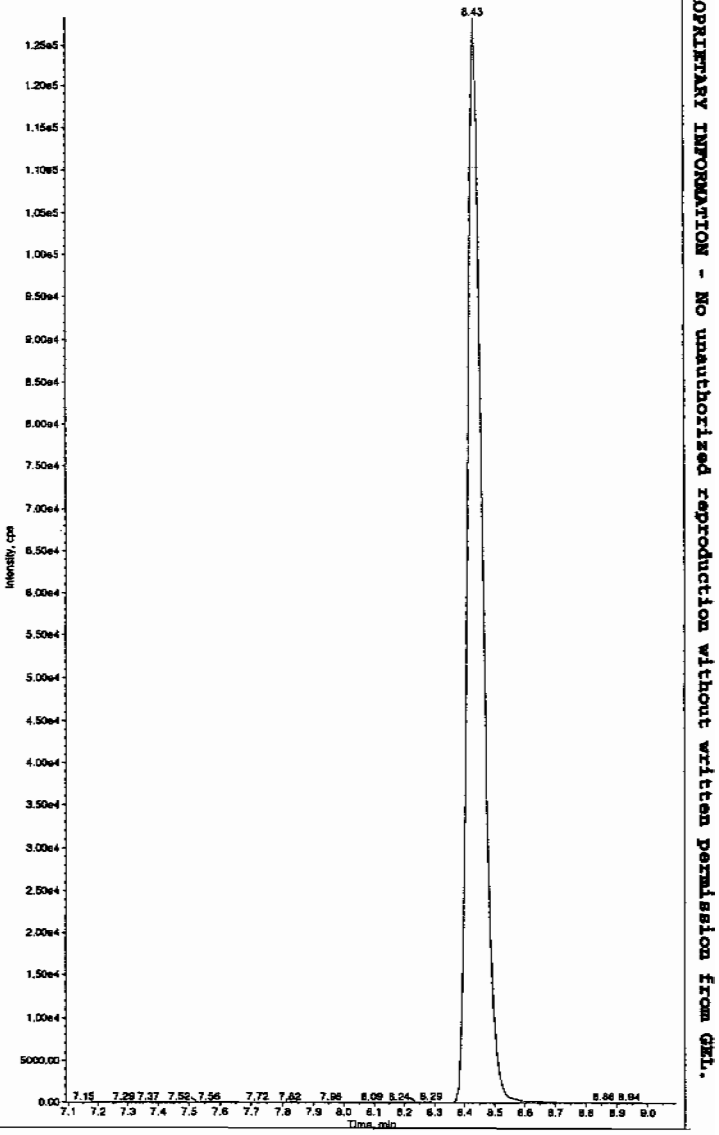

Hmm 03/01/10

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mple Name: "246055005" Sample ID: "948893|2|LER" File: "EXS02260134.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212S" Annotation: ""

```
le Index:        1
le Type:      Unknown
entration:      N/A
ulated Conc:    243.     ng/mL
 Date:        2/28/2010
 Time:        1:42:39 AM

tied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00   cps
 Peak Width:    0.00   sec
thing Width:  3        points
Window:         15.0   sec
cted RT:         8.46  min
 Relative RT:    No

 Type:         Valley
ntion Time:      8.43  min
:          3.35e+006  counts
ht:          974811.279  cps
c Time:          8.27  min
 Time:           8.77  min
```

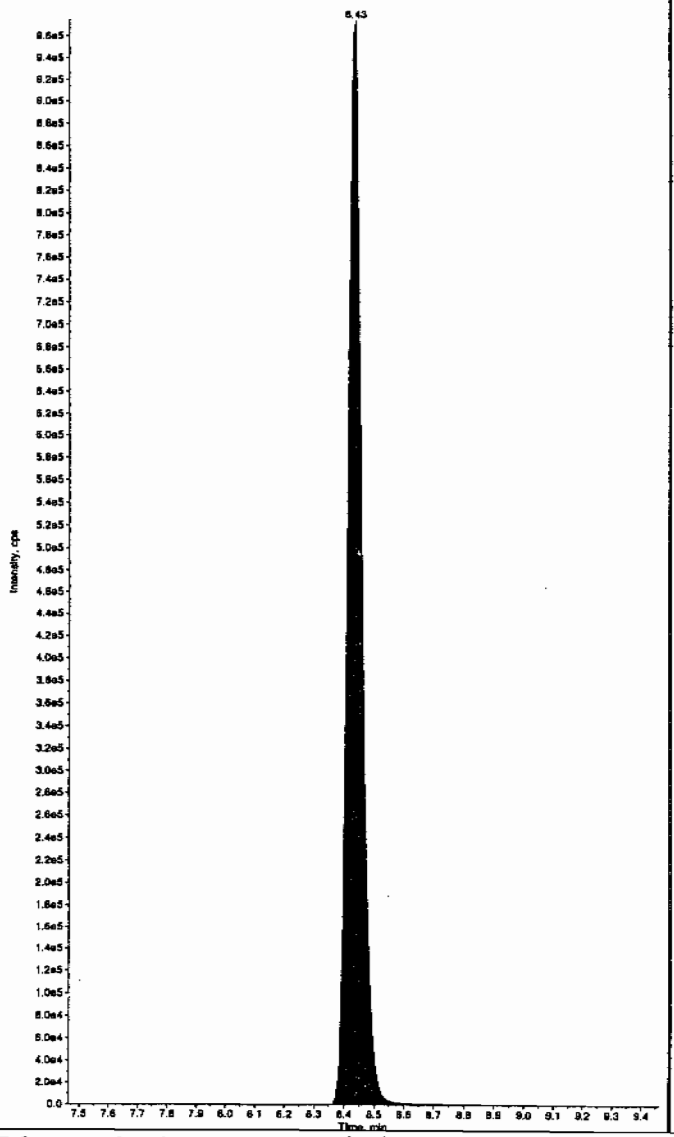

Sample Name: "246055005" Sample ID: "948893|2|LER" File: "EXS02260134.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:      N/A
Calculated Conc:    0.00     ng/mL
Acq. Date:        2/28/2010
Acq. Time:        1:42:39 AM

Modified:            No
```

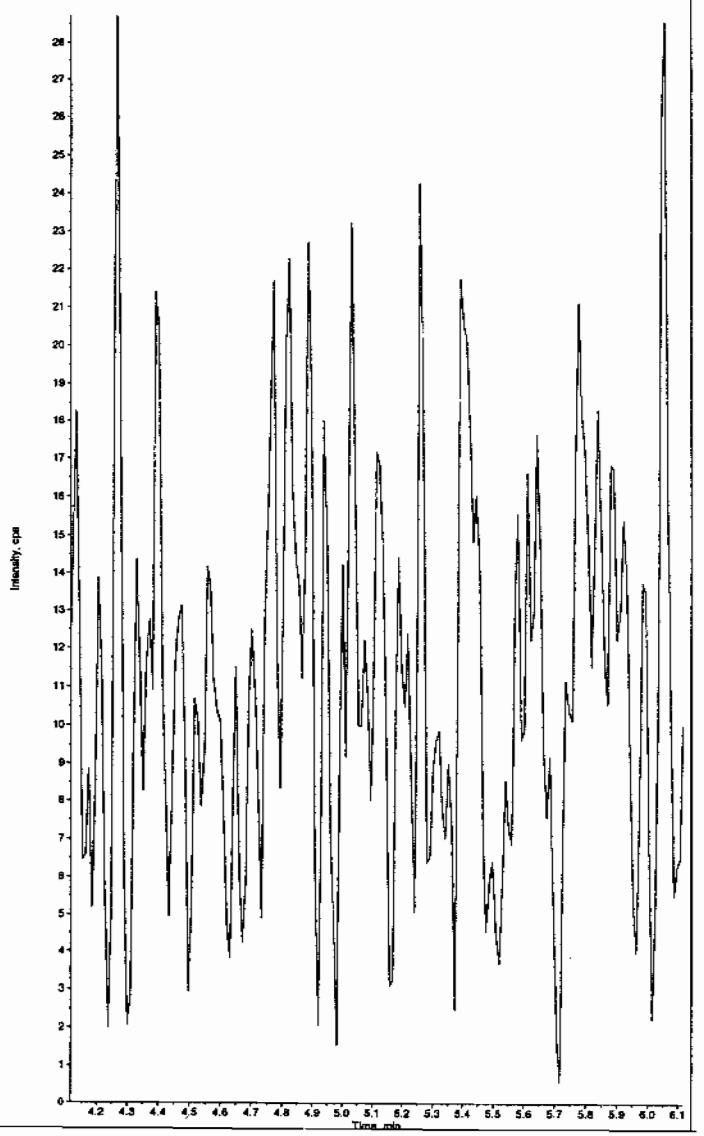

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "246055005" Sample ID: "948893|2|LER" File: "EXS02260134.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 1:42:39 AM

fied: No

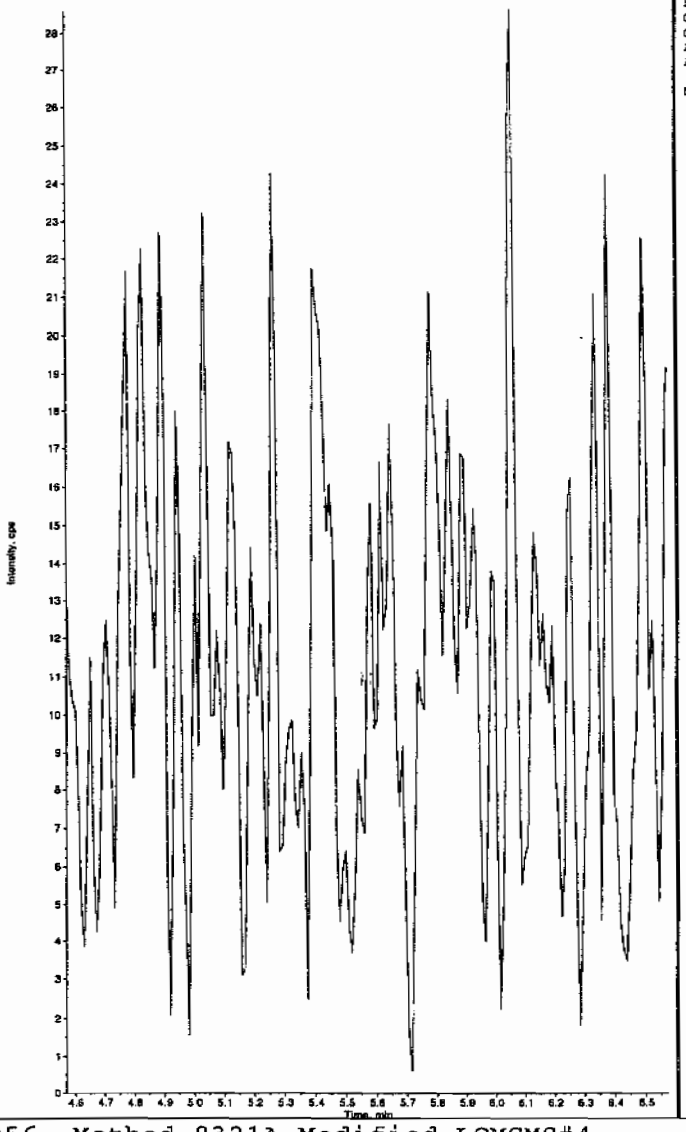

Sample Name: "246055005" Sample ID: "948893|2|LER" File: "EXS02260134.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:42:39 AM

Modified: No

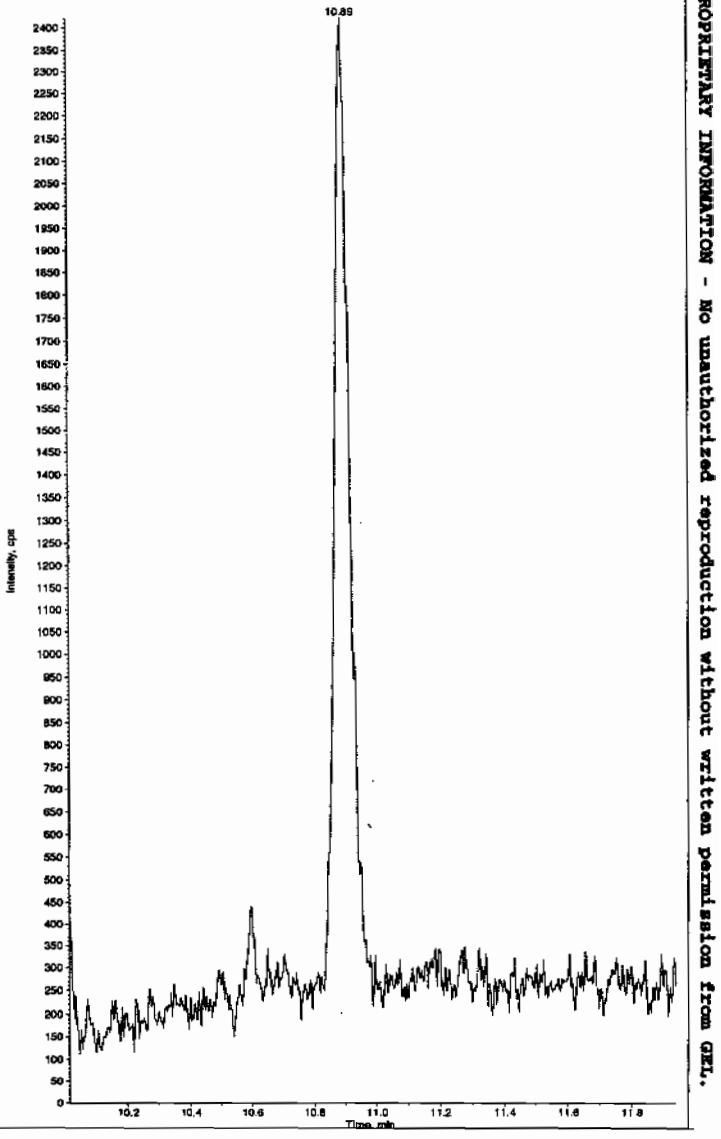

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8221

Lab Code: GEI

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304192a

Date Analyzed: 08-MAR-10 13:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304192a
Date: 08-Mar-2010
Time: 13:11:44
ID: 246055006 | LANC | 948893 | Soil | 2 |
Vial: 4:6,D

MT 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.916e+003

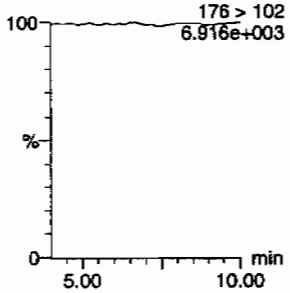

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.916e+003

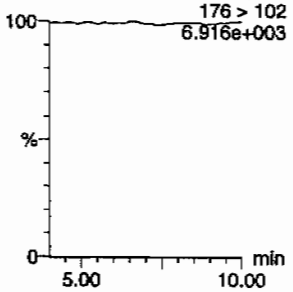

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.895e+003

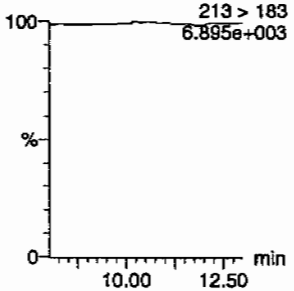

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.563e+004

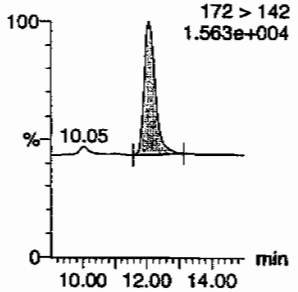

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.872e+003

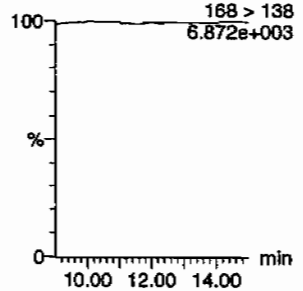

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.923e+003

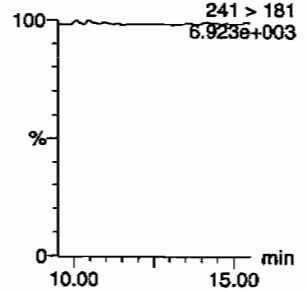

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.880e+003

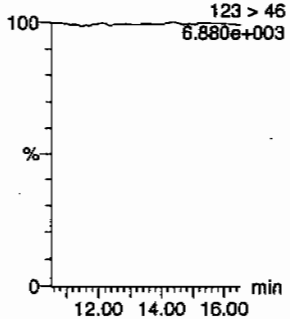

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.876e+003

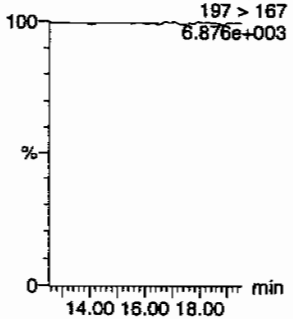

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.887e+003

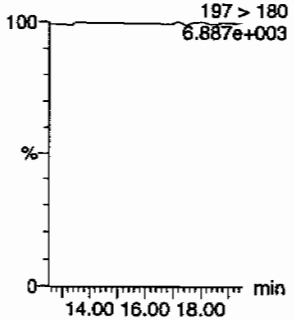

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.862e+003

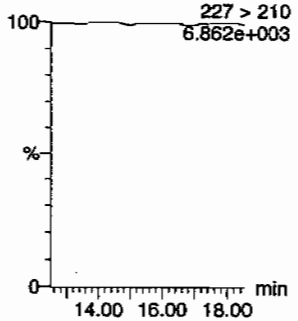

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.997e+004

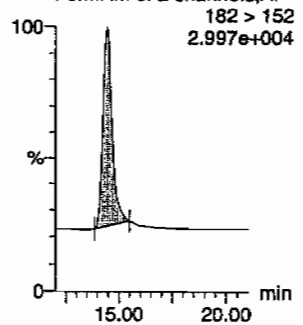

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.997e+004

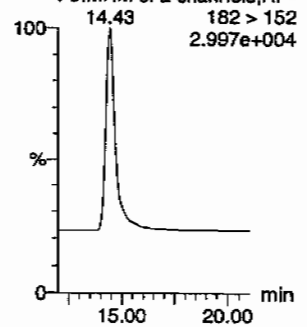

HMM 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43 182 > 152
2.997e+004

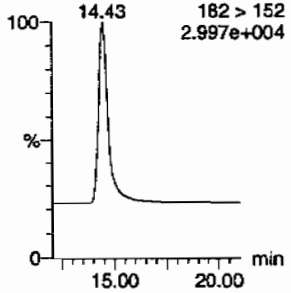

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.677e+004

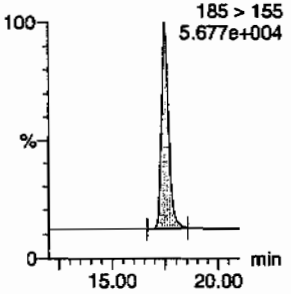

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.883e+003

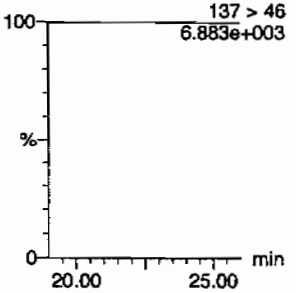

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.883e+003

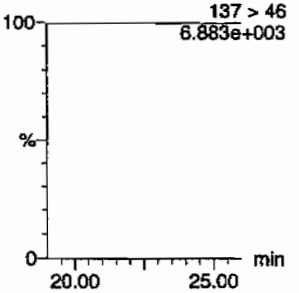

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.883e+003

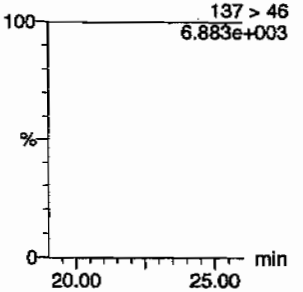

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.864e+003

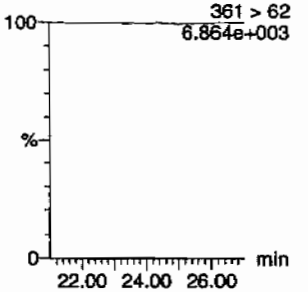

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
246055006	HMX	176 > 102			3546.552									
246055006	RDX	176 > 102			3546.552									
246055006	135-Trinitrobenzene	213 > 183			3546.552									
246055006	13-Dinitrobenzene-d4	172 > 142	12.07	3546.552		3546.552	3546.552	bb			504.9495	101.0	1.0	195.9
246055006	13-Dinitrobenzene	168 > 138			3546.552									
246055006	Tetryl	241 > 181			3546.552									
246055006	Nitrobenzene	123 > 46			3546.552									
246055006	4-Amino-26-dinitrotoluene	197 > 167			20176.818									
246055006	2-Amino-46-dinitrotoluene	197 > 180			20176.818									
246055006	246-Trinitrotoluene	227 > 210			20176.818									
246055006	34-dinitrotoluene	182 > 152	14.43	10999.405	20176.818	10999.405	272.575	bb			282.0328	112.8	12.8	729.9
246055006	26-dinitrotoluene	182 > 152			20176.818									
246055006	24-dinitrotoluene	182 > 152			20176.818									
246055006	26-dinitrotoluene-d3	185 > 155	17.49	20176.818		20176.818	20176.818	bb			490.6675	98.1	-1.9	838.4
246055006	2-Nitrotoluene	137 > 46			20176.818									
246055006	4-Nitrotoluene	137 > 46			20176.818									
246055006	3-Nitrotoluene	137 > 46			20176.818									
246055006	PETN	361 > 62			20176.818									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8221

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055006

Sample Amount 2

Moisture: 12.8

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260135.wiff

Date Analyzed: 28-FEB-10 01:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 3/1/10

mple Name: "246055006" Sample ID: "948893|2|LER" File: "EXS02260135.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 1:58:21 AM

fied: No

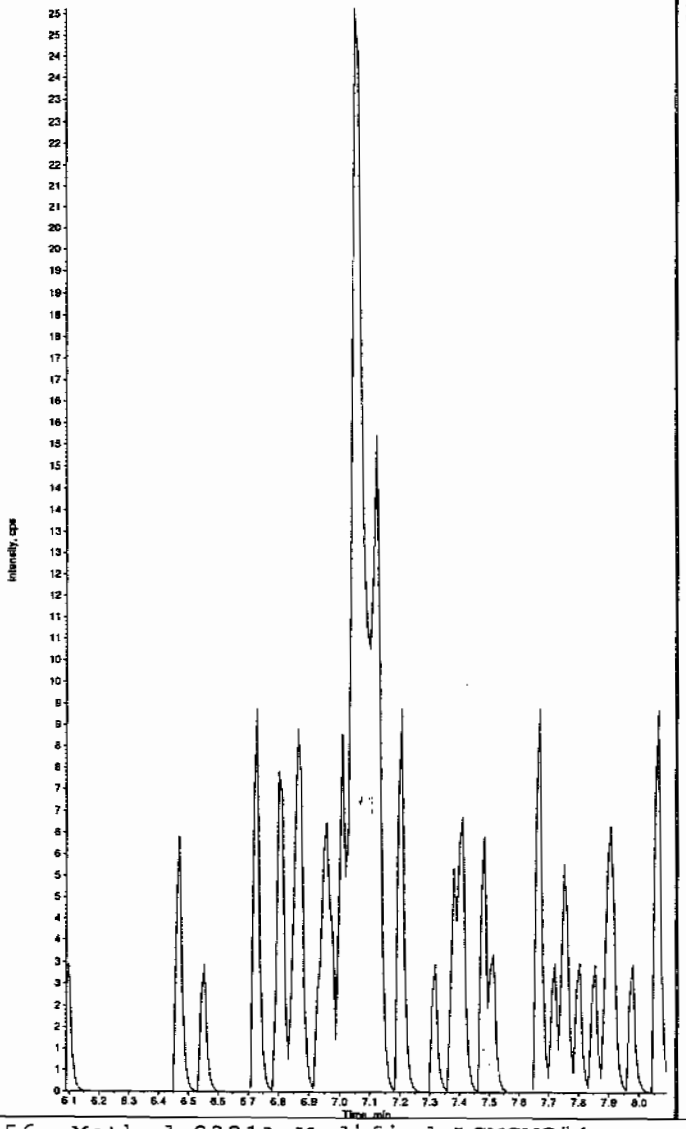

Sample Name: "246055006" Sample ID: "948893|2|LER" File: "EXS02260135.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:58:21 AM

Modified: Yes

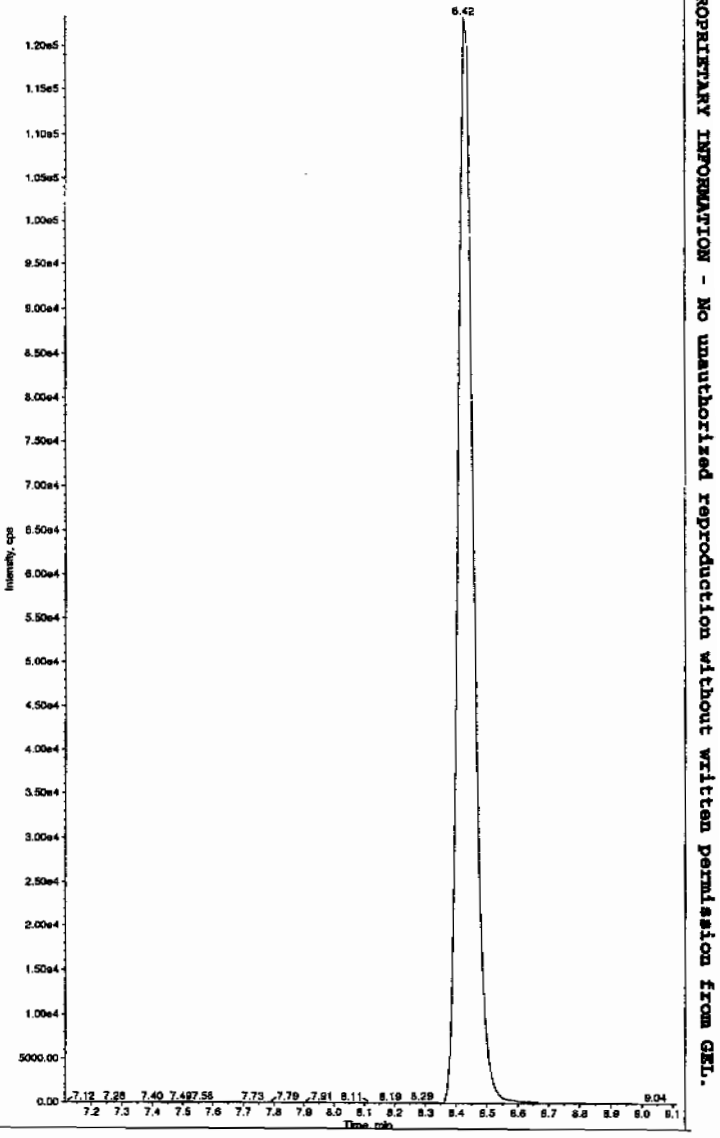

Hjm 03/01/10

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ample Name: "246055006" Sample ID: "948893|2|LER" File: "EXS02260135.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     243.     ng/mL
. Date:        2/28/2010
. Time:        1:58:21 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  3         points
Window:          15.0     sec
ected RT:         8.46    min
 Relative RT:     No

. Type:         Valley
ention Time:      8.42    min
a:          3.35e+006    counts
ght:         973891.296   cps
rt Time:          8.28    min
 Time:            8.76    min
```

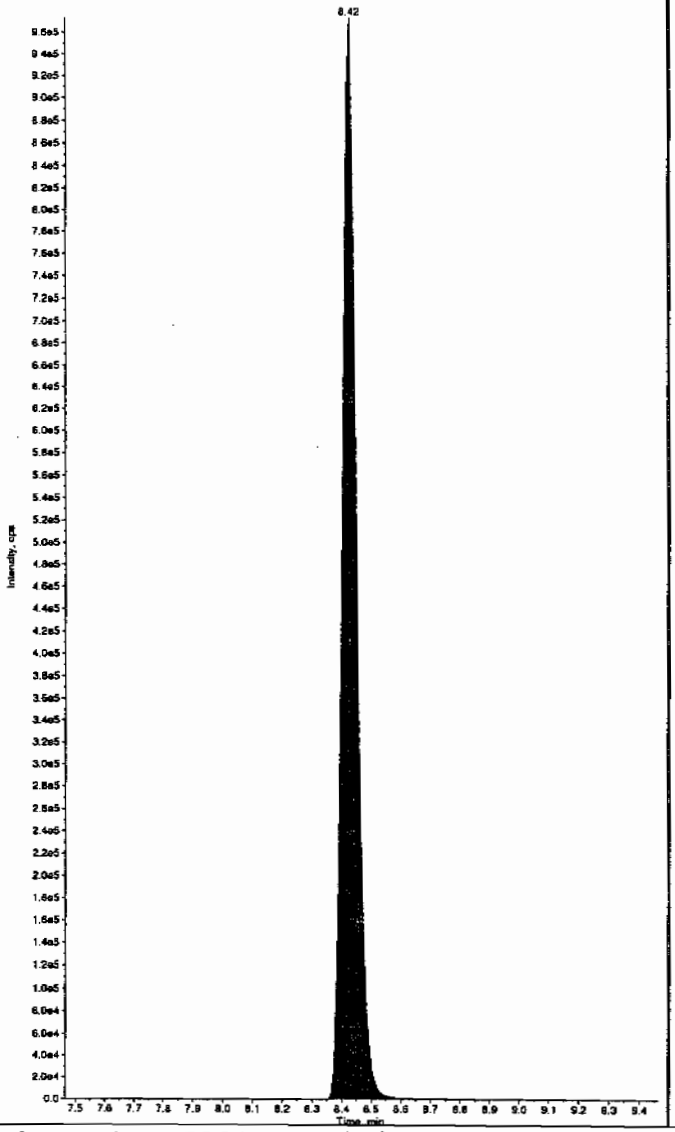

Sample Name: "246055006" Sample ID: "948893|2|LER" File: "EXS02260135.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     0.00     ng/mL
Acq. Date:        2/28/2010
Acq. Time:        1:58:21 AM

Modified:            No
```

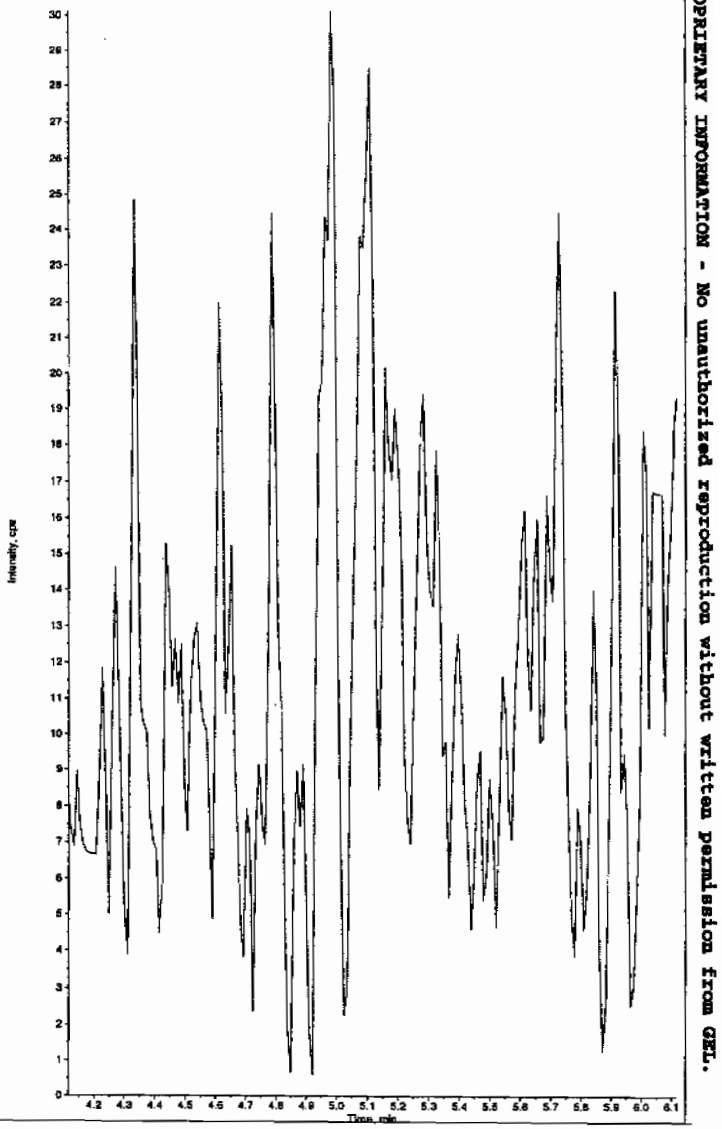

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mple Name: "246055006" Sample ID: "948893|2|LER" File: "EXS02260135.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 2/28/2010
Time: 1:59:21 AM
fied: No

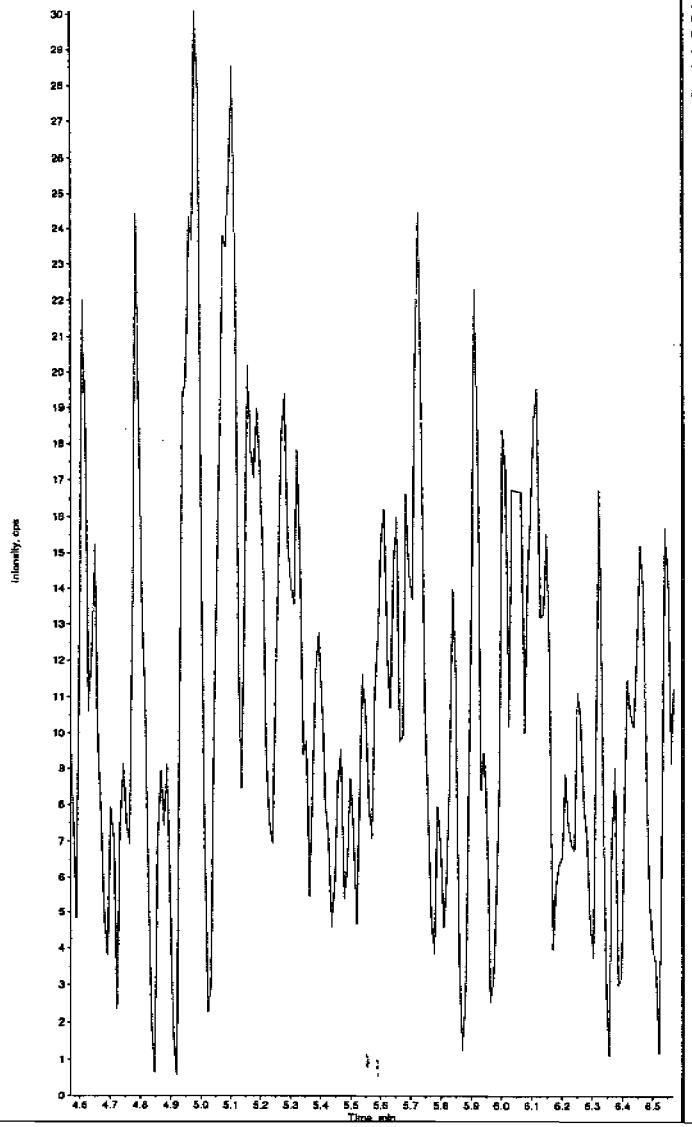

Sample Name: "246055006" Sample ID: "948893|2|LER" File: "EXS02260135.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 1:58:21 AM

Modified: No

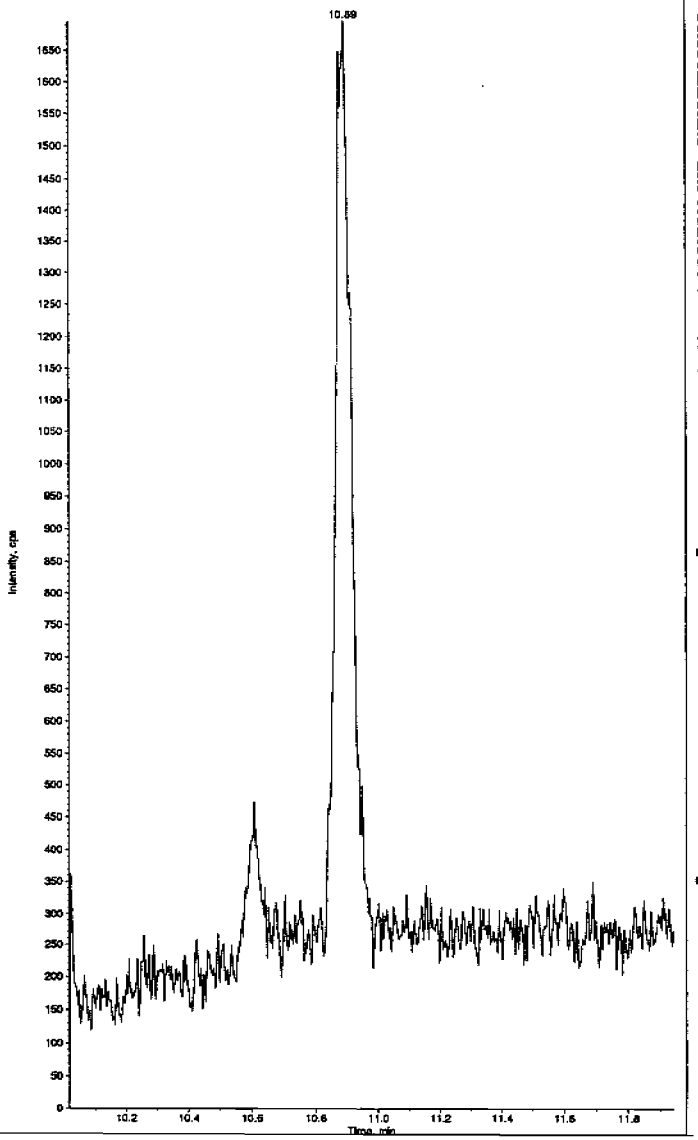

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8220

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055007

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304193a

Date Analyzed: 08-MAR-10 13:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304193a
Date: 08-Mar-2010
Time: 13:41:13
ID: 246055007 | LANW | 948593 | Soil | 2 |
Vial: 4:6,E

MAP
3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.860e+003

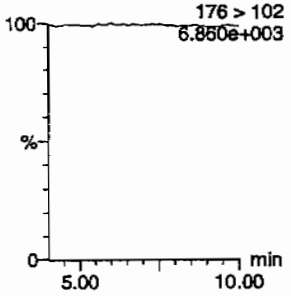

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.860e+003

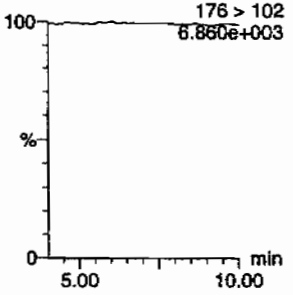

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.789e+003

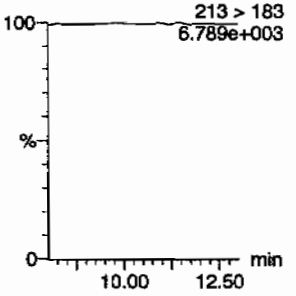

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.583e+004

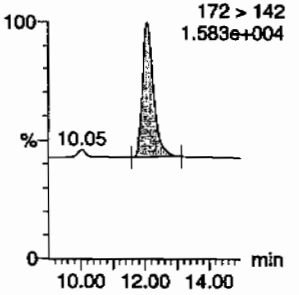

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.795e+003

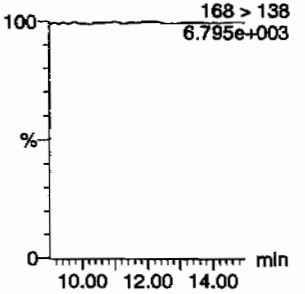

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.825e+003

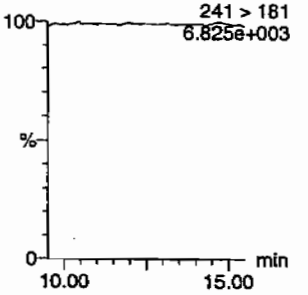

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.821e+003

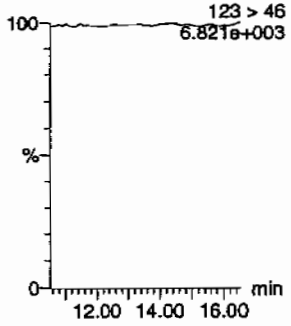

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.812e+003

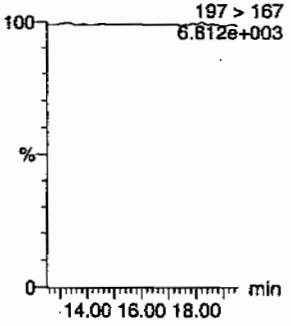

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.810e+003

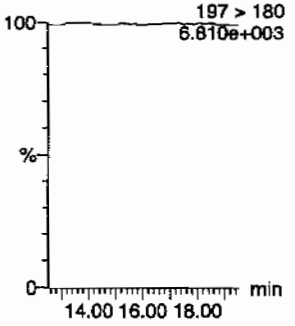

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.803e+003

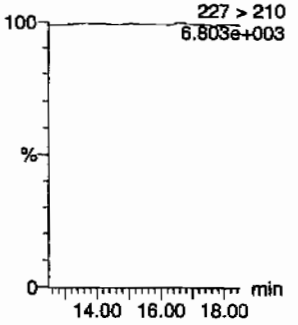

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.051e+004

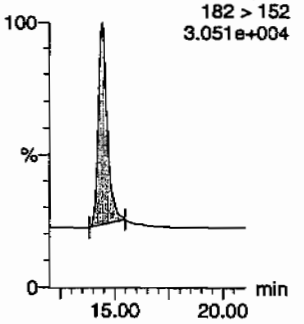

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
3.051e+004

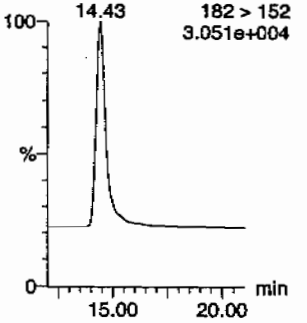

HMM
03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene

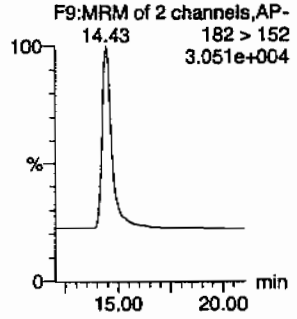

26-dinitrotoluene-d3

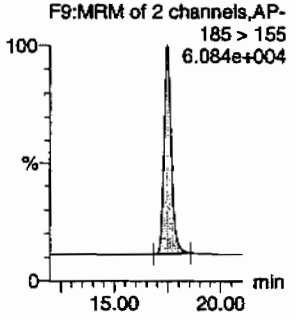

2-Nitrotoluene

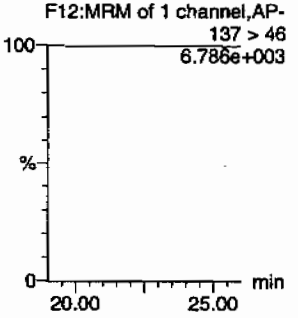

4-Nitrotoluene

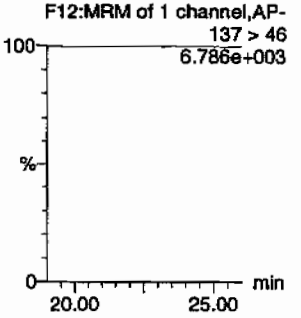

3-Nitrotoluene

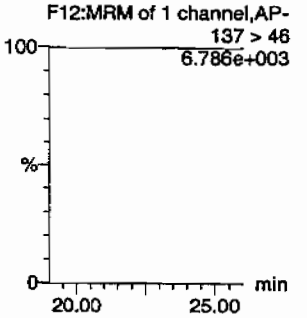

PETN

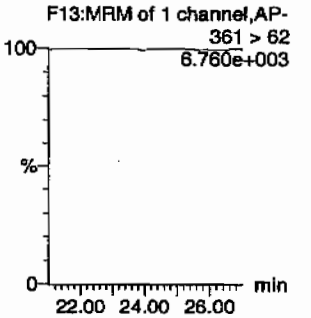

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246055007	HMX	176 > 102			3684.687									
246055007	RDX	176 > 102			3684.687									
246055007	135-Trinitrobenzene	213 > 183			3684.687									
246055007	13-Dinitrobenzene-d4	172 > 142	12.07	3684.687		3684.687	3684.687	bb			524.6168	104.9	4.9	162.3
246055007	13-Dinitrobenzene	168 > 138			3684.687									
246055007	Tetryl	241 > 181			3684.687									
246055007	Nitrobenzene	123 > 46			3684.687									
246055007	4-Amino-26-dinitrotoluene	197 > 167			21949.039									
246055007	2-Amino-46-dinitrotoluene	197 > 180			21949.039									
246055007	246-Trinitrotoluene	227 > 210			21949.039									
246055007	34-dinitrotoluene	182 > 152	14.43	11343.078	21949.039	11343.078	258.396	bb			267.3613	106.9	6.9	548.7
246055007	26-dinitrotoluene	182 > 152			21949.039									
246055007	24-dinitrotoluene	182 > 152			21949.039									
246055007	26-dinitrotoluene-d3	185 > 155	17.47	21949.039		21949.039	21949.039	bb			533.7650	106.8	6.8	2538.5
246055007	2-Nitrotoluene	137 > 46			21949.039									
246055007	4-Nitrotoluene	137 > 46			21949.039									
246055007	3-Nitrotoluene	137 > 46			21949.039									
246055007	PETN	361 > 62			21949.039									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8220

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055007

Sample Amount 2

Moisture: 8.7

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260139.wiff

Date Analyzed: 28-FEB-10 03:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcen 3/1/10

Sample Name: "246055007" Sample ID: "948893|2|LER" File: "EXS02260139.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 2/28/2010
q. Time: 3:01:23 AM

ified: No

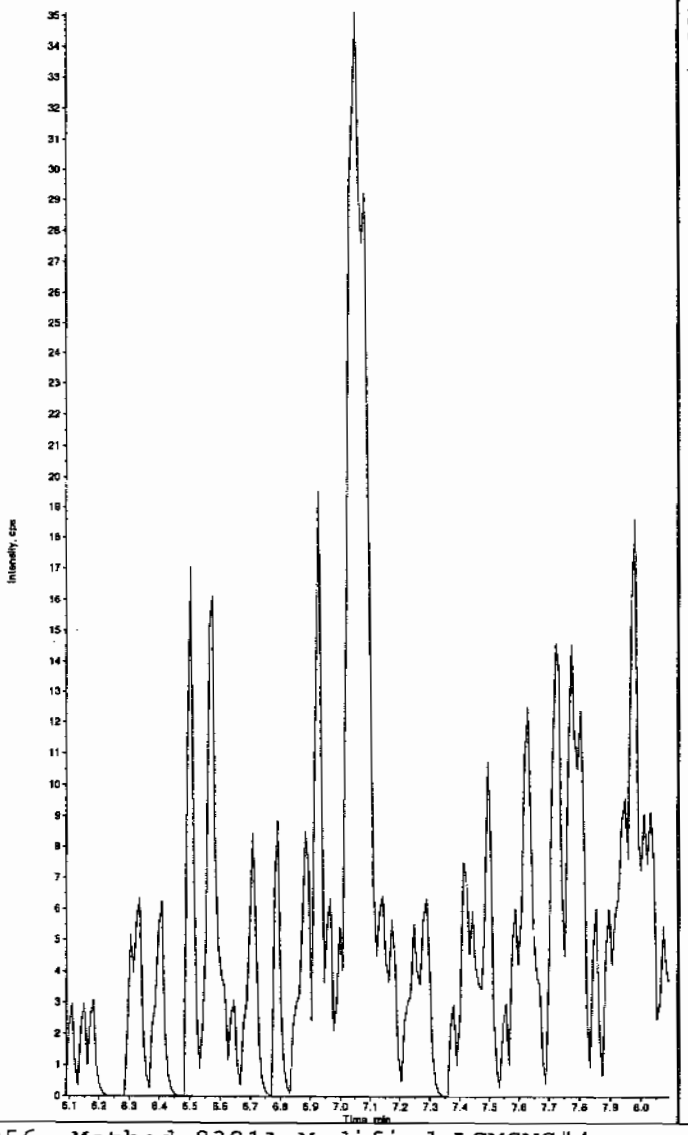

Sample Name: "246055007" Sample ID: "948893|2|LER" File: "EXS02260139.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 3:01:23 AM

Modified: Yes

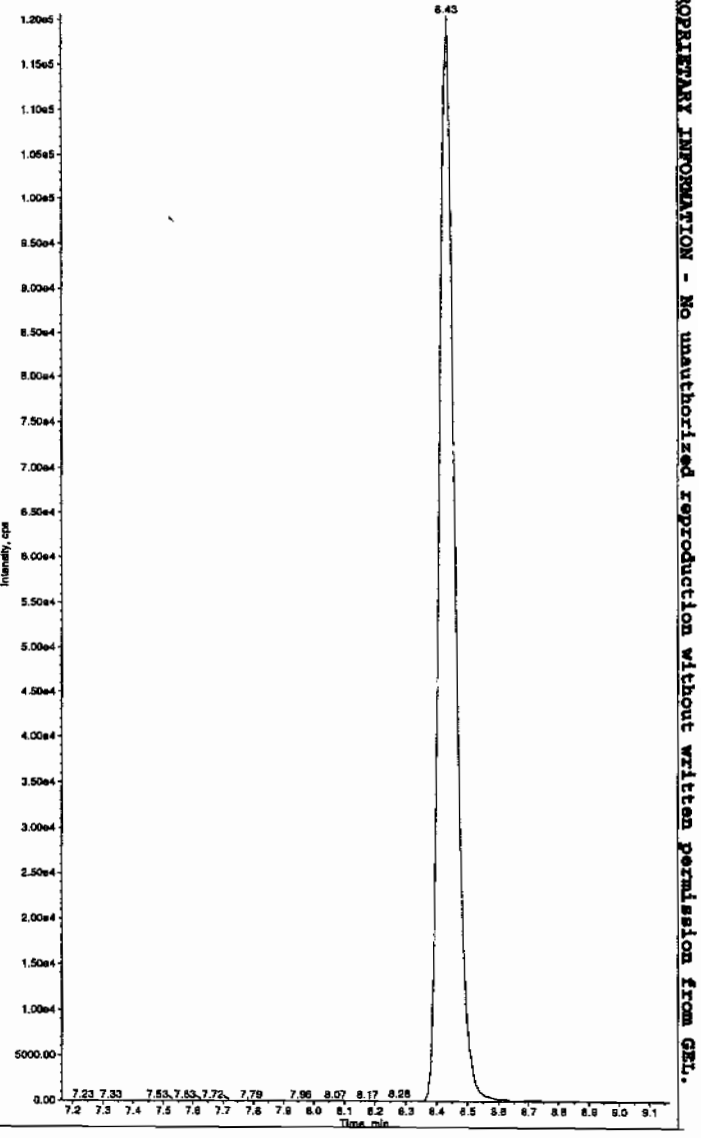

Hnm 03/01/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "246055007" Sample ID: "948893|2|LER" File: "EXS02260139.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:      Unknown
centration:       N/A
culated Conc:     241.     ng/mL
. Date:        2/28/2010
. Time:        3:01:23 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  3        points
Window:          15.0     sec
ected RT:         8.46    min
 Relative RT:     No

. Type:         Valley
ention Time:      8.42    min
a:          3.32e+006   counts
ght:          947893.738  cps
rt Time:          8.30    min
 Time:            8.79    min
```

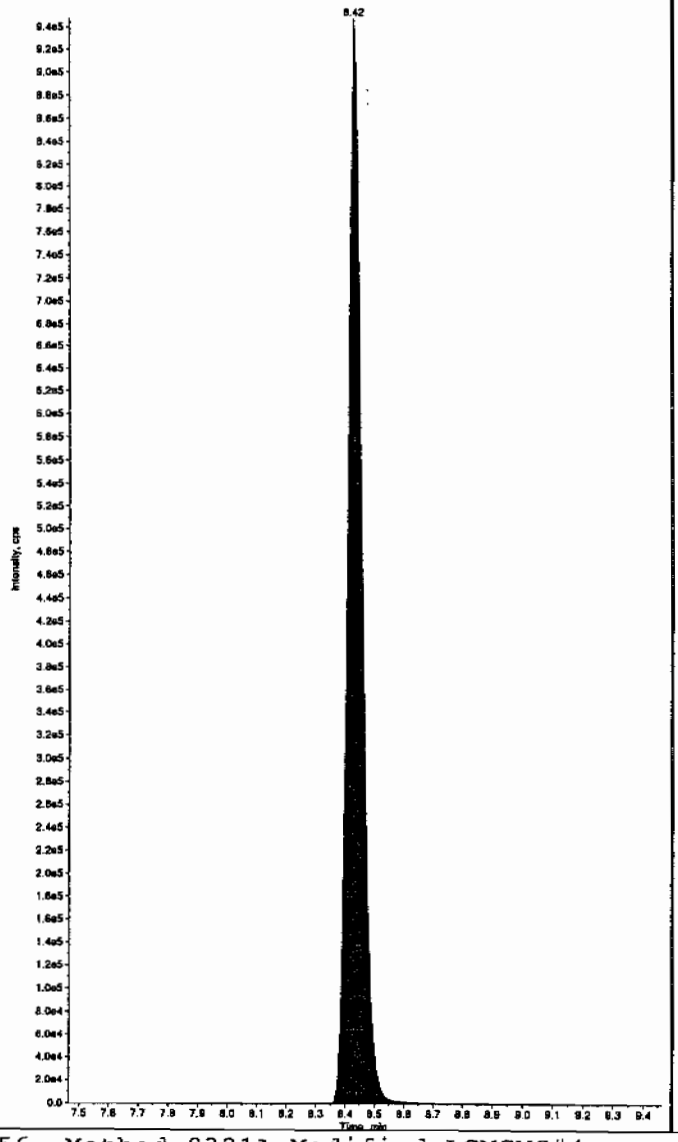

Sample Name: "246055007" Sample ID: "948893|2|LER" File: "EXS02260139.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     0.00     ng/mL
Acq. Date:        2/28/2010
Acq. Time:        3:01:23 AM

Modified:            No
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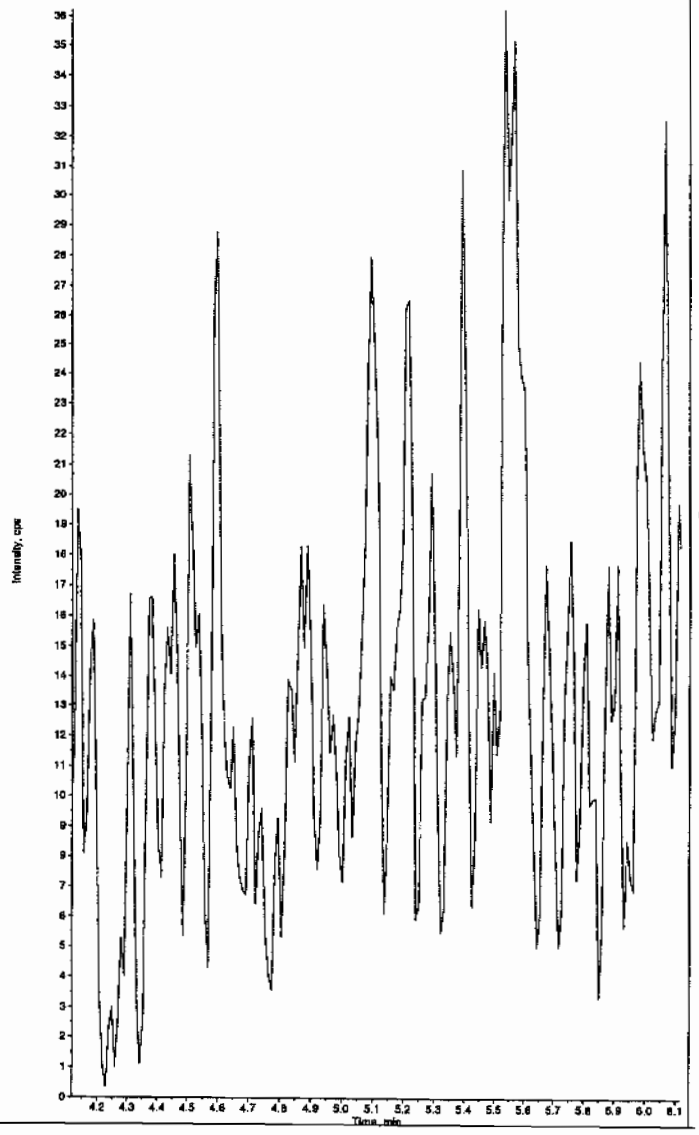

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ample Name: "246055007" Sample ID: "948893|2|LER" File: "EXS02260139.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
:omment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
.culated Conc: 0.00 ng/mL
l. Date: 2/28/2010
l. Time: 3:01:23 AM

lified: No

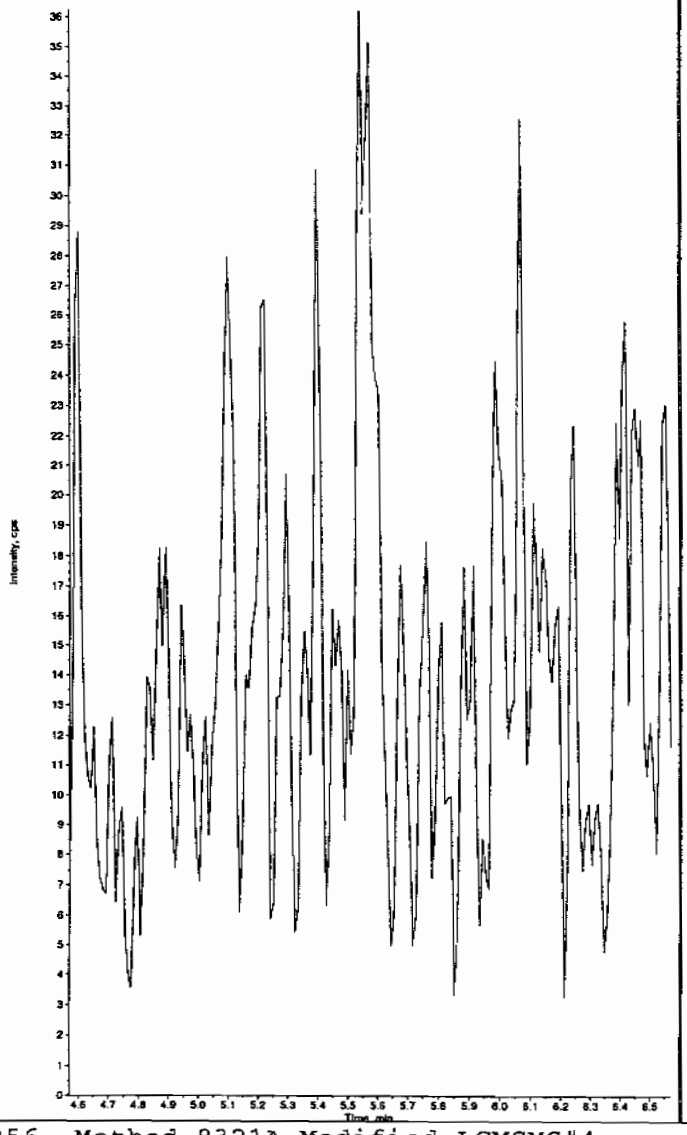

Sample Name: "246055007" Sample ID: "948893|2|LER" File: "EXS02260139.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 3:01:23 AM

Modified: No

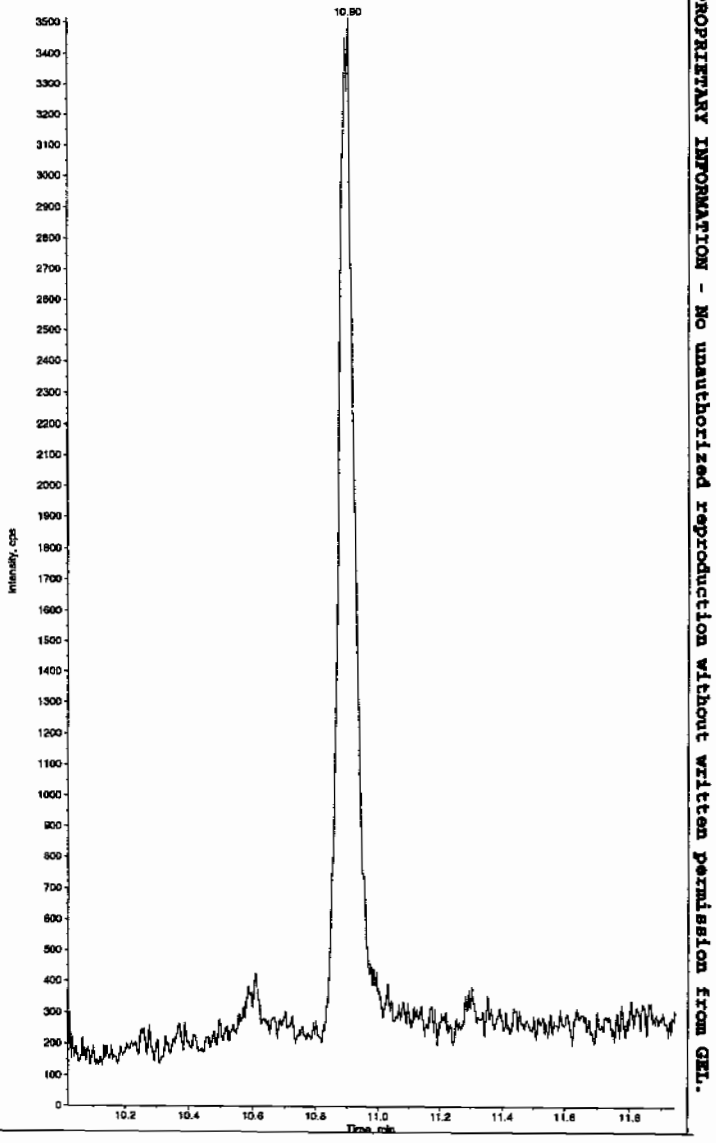

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8223

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055008

Sample Amount 2

Moisture: 19.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304194a

Date Analyzed: 08-MAR-10 14:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304194a
Date: 08-Mar-2010
Time: 14:10:42
ID: 246055008 | LANL | 948893 | Soil | 21
Vial: 4:6,F

MM 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.797e+003

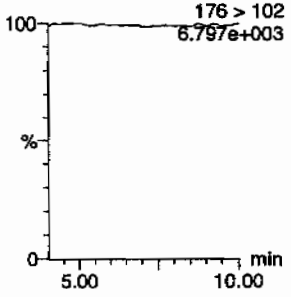

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.797e+003

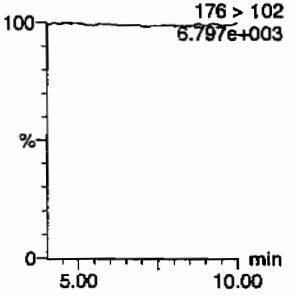

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.769e+003

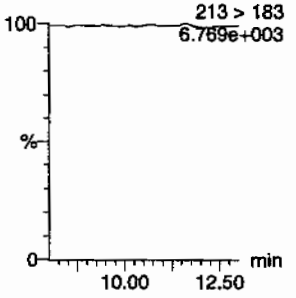

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.638e+004

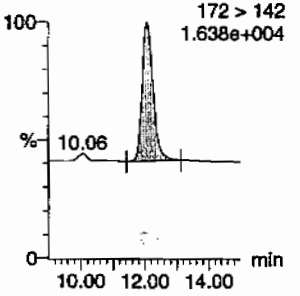

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.744e+003

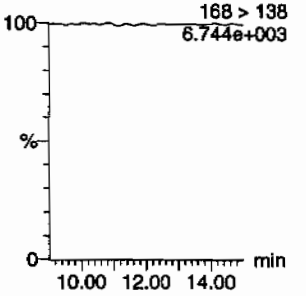

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.802e+003

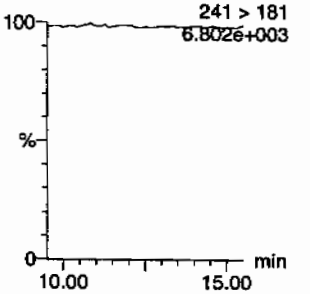

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.768e+003

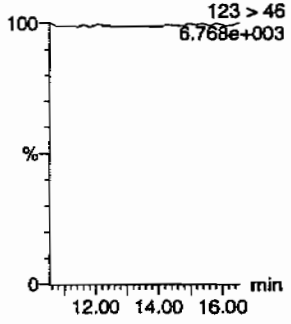

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.738e+003

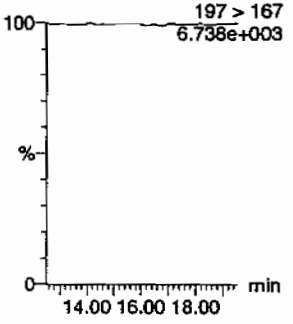

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.754e+003

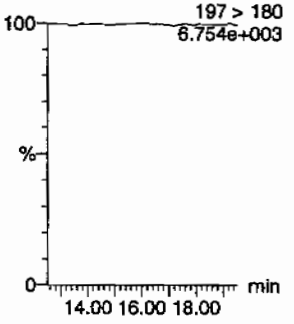

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.736e+003

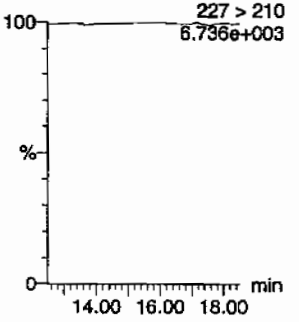

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.994e+004

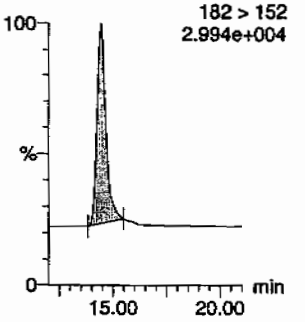

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.994e+004

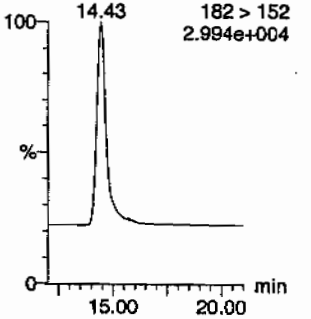

HMW 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43 182 > 152
2.994e+004

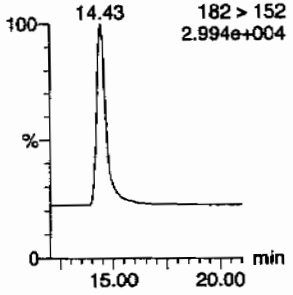

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.628e+004

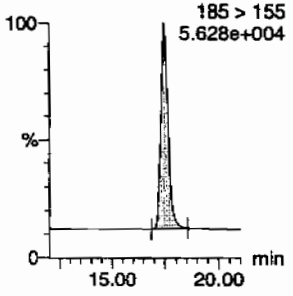

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.766e+003

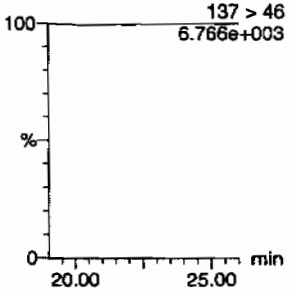

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.766e+003

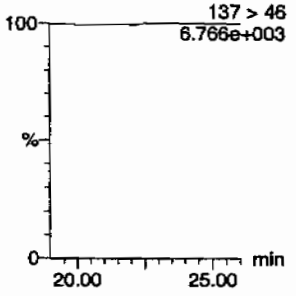

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.766e+003

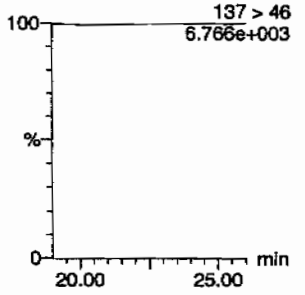

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.747e+003

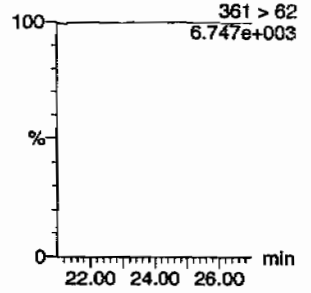

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
246055008	HMX	176 > 102			3939.070									
246055008	RDX	176 > 102			3939.070									
246055008	135-Trinitrobenzene	213 > 183			3939.070									
246055008	13-Dinitrobenzene-d4	172 > 142	12.07	3939.070		3939.070	3939.070	bb			560.8353	112.2	12.2	653.1
246055008	13-Dinitrobenzene	168 > 138			3939.070									
246055008	Tetryl	241 > 181			3939.070									
246055008	Nitrobenzene	123 > 46			3939.070									
246055008	4-Amino-26-dinitrotoluene	197 > 167			19893.174									
246055008	2-Amino-46-dinitrotoluene	197 > 180			19893.174									
246055008	246-Trinitrotoluene	227 > 210			19893.174									
246055008	34-dinitrotoluene	182 > 152	14.43	10980.648	19893.174	10980.648	275.990	bb			285.5663	114.2	14.2	717.7
246055008	26-dinitrotoluene	182 > 152			19893.174									
246055008	24-dinitrotoluene	182 > 152			19893.174									
246055008	26-dinitrotoluene-d3	185 > 155	17.47	19893.174		19893.174	19893.174	bb			483.7697	96.8	-3.2	1811.5
246055008	2-Nitrotoluene	137 > 46			19893.174									
246055008	4-Nitrotoluene	137 > 46			19893.174									
246055008	3-Nitrotoluene	137 > 46			19893.174									
246055008	PETN	361 > 62			19893.174									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8223

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055008

Sample Amount 2

Moisture: 19.5

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260140.wiff

Date Analyzed: 28-FEB-10 03:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcu 3/1/10

Sample Name: "246055008" Sample ID: "948893[2]LER" File: "EXS02260140.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 3:17:13 AM

Modified: No

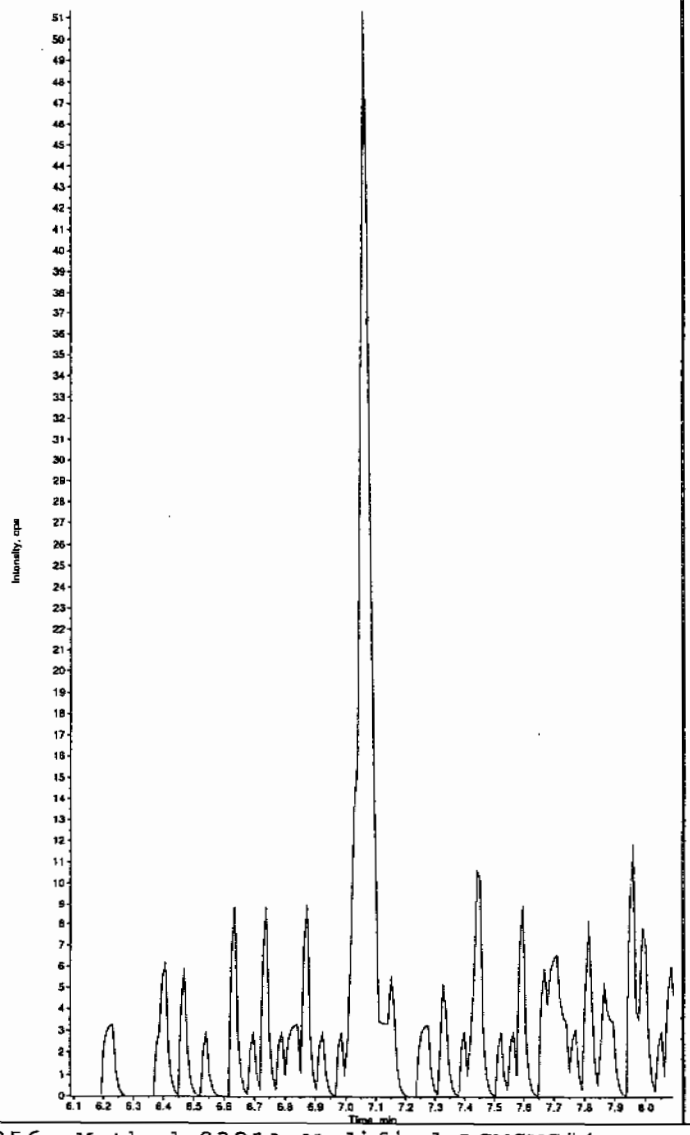

Sample Name: "246055008" Sample ID: "948893[2]LER" File: "EXS02260140.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 3:17:13 AM

Modified: Yes

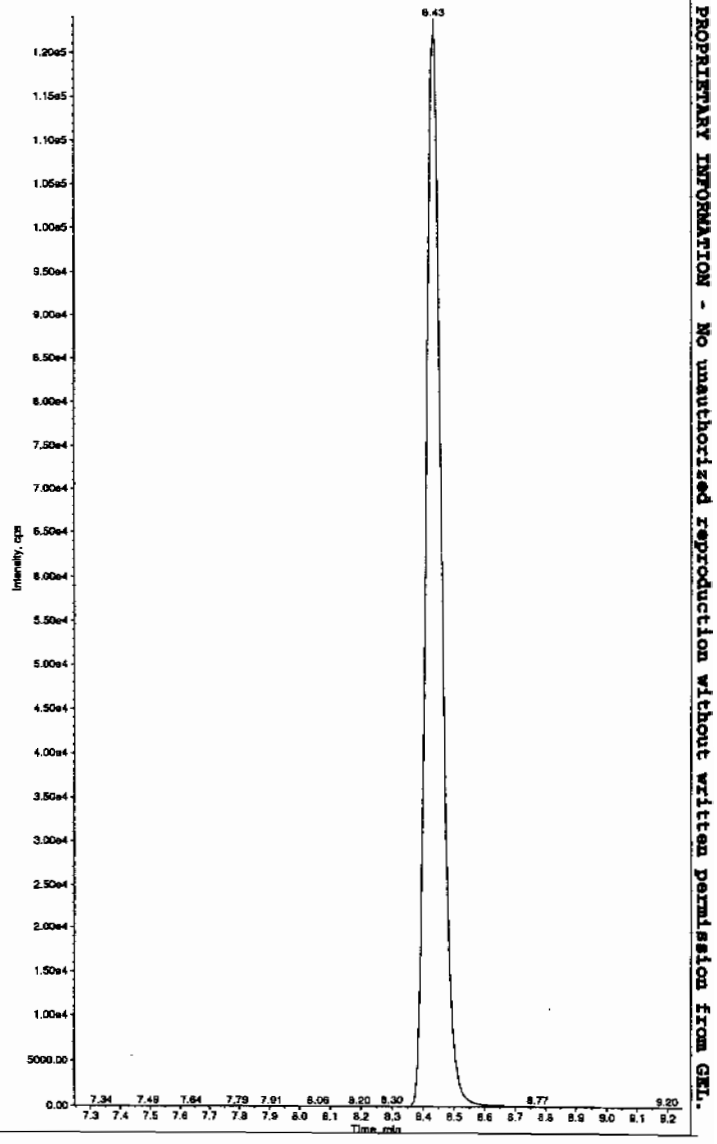

HMM 03/01/10

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ample Name: "246055006" Sample ID: "946893[2]LER" File: "EXS02260140.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 240. ng/mL
. Date: 2/28/2010
. Time: 3:17:13 AM

lified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.46 min
Relative RT: No

. Type: Valley
tention Time: 8.42 min
a: 3.31e+006 counts
ight: 971533.020 cps
rt Time: 8.32 min
Time: 8.78 min

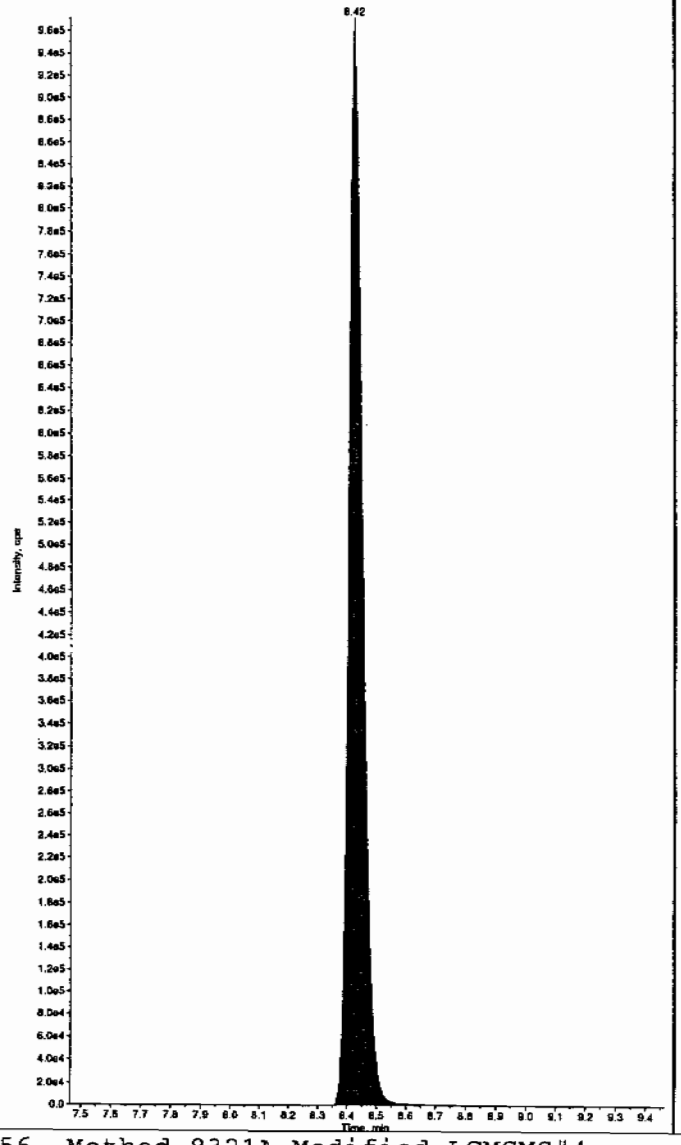

Sample Name: "246055006" Sample ID: "946893[2]LER" File: "EXS02260140.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 3:17:13 AM

Modified: No

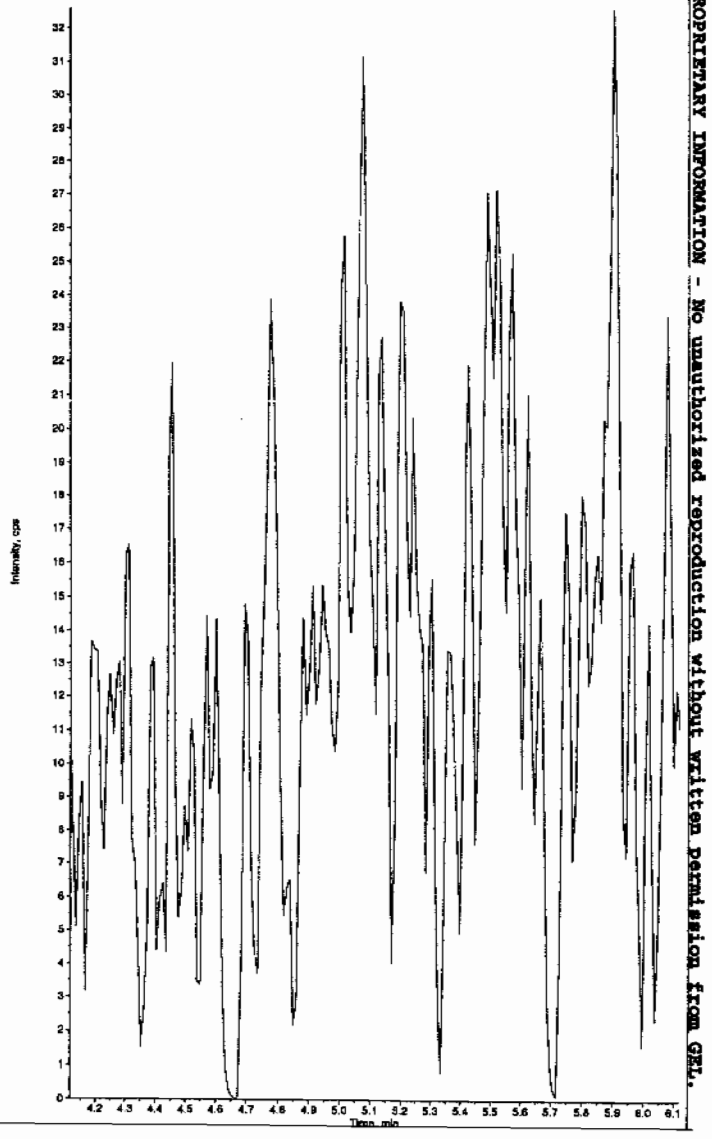

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "246055008" Sample ID: "948893|2|LER" File: "EXS02260140.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
nple Index: 1
nple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/28/2010
. Time: 3:17:13 AM

ified: No

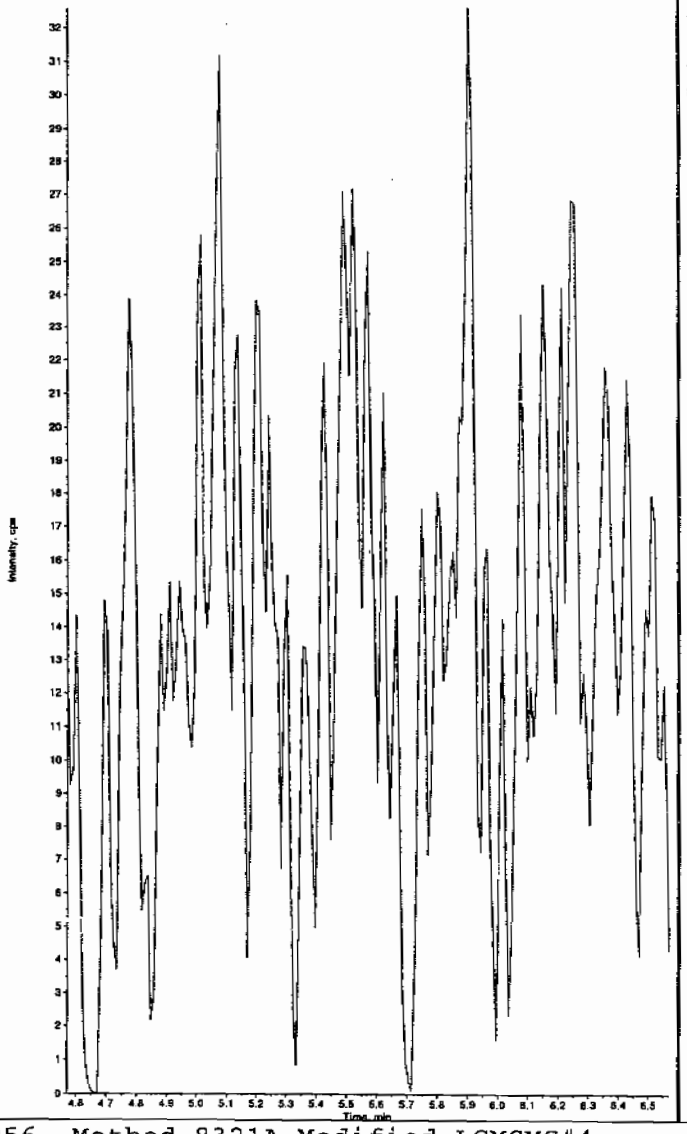

Sample Name: "246055008" Sample ID: "948893|2|LER" File: "EXS02260140.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 3:17:13 AM

Modified: No

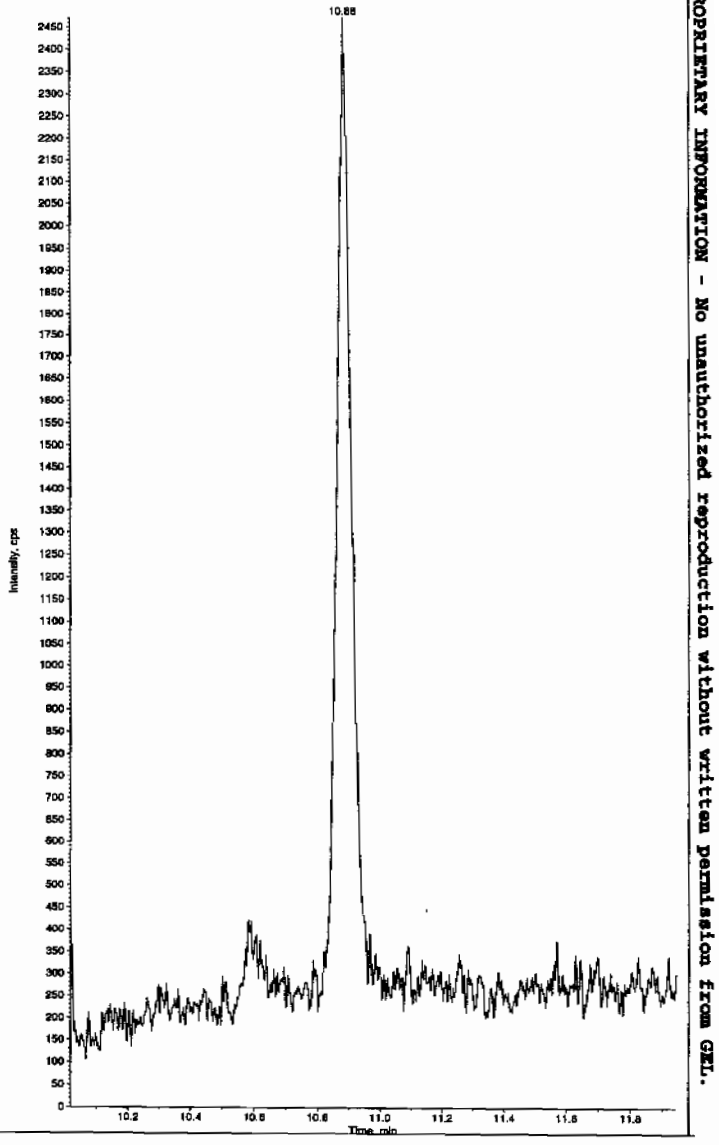

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8224

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055009

Sample Amount 2

Moisture: 15.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304195a

Date Analyzed: 08-MAR-10 14:40

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304195a
Date: 08-Mar-2010
Time: 14:40:12
ID: 246055009 | LAN | 948893 | Solid | 21
Vial: 4:7,A

MM 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.697e+003

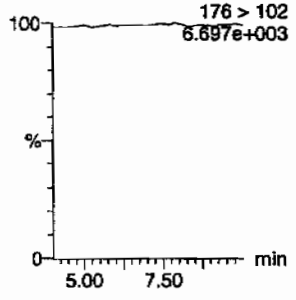

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.697e+003

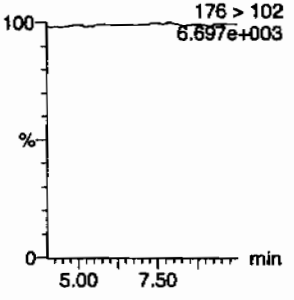

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.634e+003

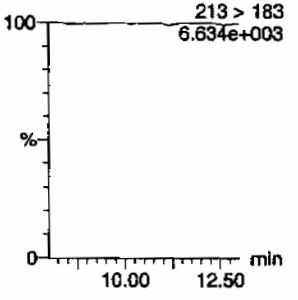

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.520e+004

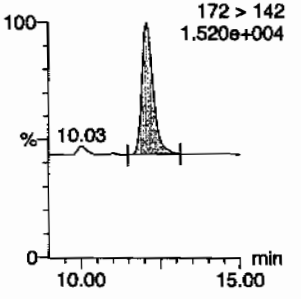

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.647e+003

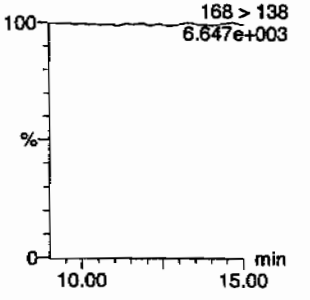

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.675e+003

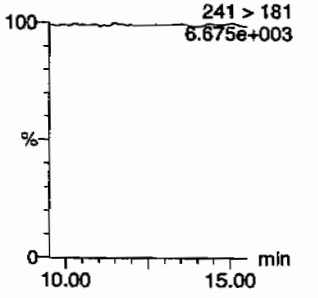

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.661e+003

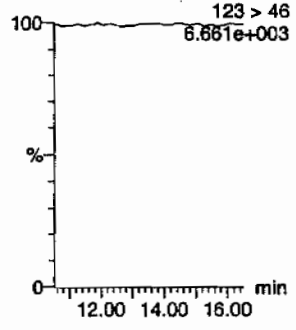

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.631e+003

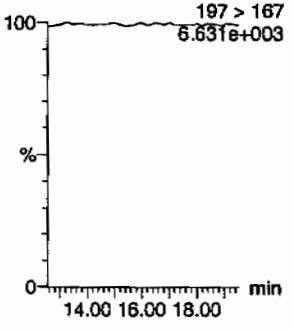

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.664e+003

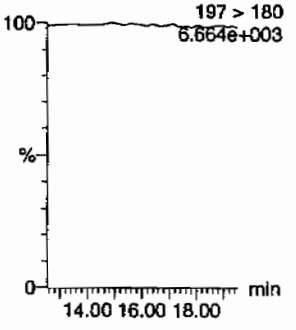

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.624e+003

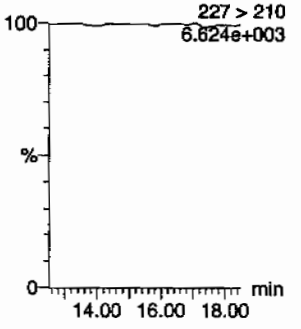

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.067e+004

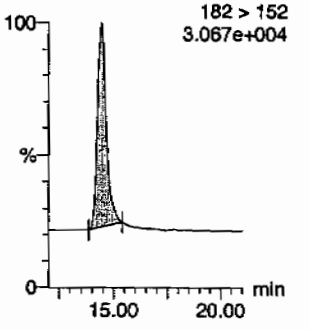

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.41
182 > 152
3.067e+004

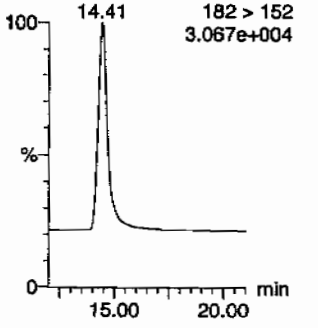

HMM 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene

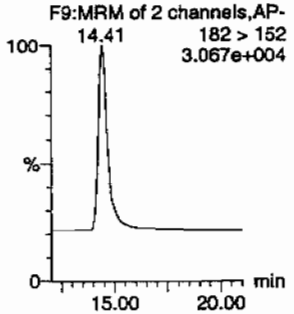

26-dinitrotoluene-d3

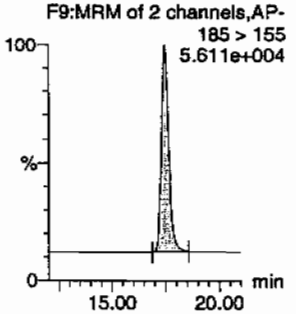

2-Nitrotoluene

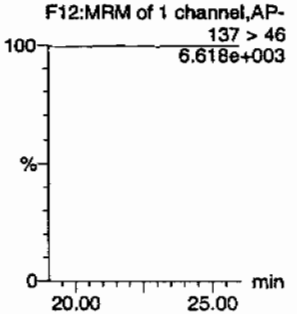

4-Nitrotoluene

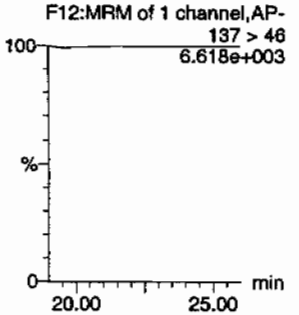

3-Nitrotoluene

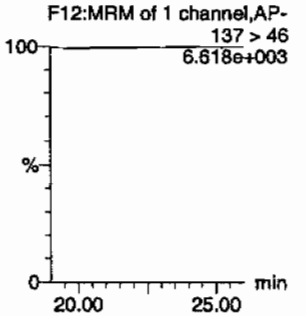

PETN

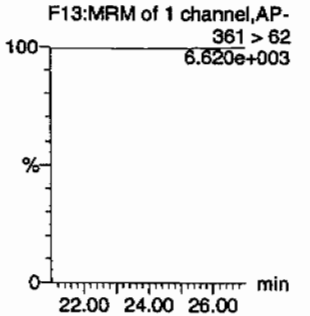

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
246055009	HMX	176 > 102			3569.948									
246055009	RDX	176 > 102			3569.948									
246055009	135-Trinitrobenzene	213 > 183			3569.948									
246055009	13-Dinitrobenzene-d4	172 > 142	12.06	3569.948		3569.948	3569.948	bb			508.2806	101.7	1.7	230.2
246055009	13-Dinitrobenzene	168 > 138			3569.948									
246055009	Tetryl	241 > 181			3569.948									
246055009	Nitrobenzene	123 > 46			3569.948									
246055009	4-Amino-26-dinitrotoluene	197 > 167			20061.748									
246055009	2-Amino-46-dinitrotoluene	197 > 180			20061.748									
246055009	246-Trinitrotoluene	227 > 210			20061.748									
246055009	34-dinitrotoluene	182 > 152	14.41	11315.476	20061.748	11315.476	282.016	bb			291.8013	116.7	16.7	550.1
246055009	26-dinitrotoluene	182 > 152			20061.748									
246055009	24-dinitrotoluene	182 > 152			20061.748									
246055009	26-dinitrotoluene-d3	185 > 155	17.48	20061.748		20061.748	20061.748	bb			487.8691	97.6	-2.4	1264.5
246055009	2-Nitrotoluene	137 > 46			20061.748									
246055009	4-Nitrotoluene	137 > 46			20061.748									
246055009	3-Nitrotoluene	137 > 46			20061.748									
246055009	PETN	361 > 62			20061.748									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8224

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 246055009

Sample Amount 2

Moisture: 15.9

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260141.wiff

Date Analyzed: 28-FEB-10 03:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sec 3/1/10

ample Name: "246055009" Sample ID: "948893|2|LER" File: "EXS02260141.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	22.9 ng/mL
. Date:	2/28/2010
. Time:	3:32:56 AM
ified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	2500.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	30.0 sec
ected RT:	7.09 min
Relative RT:	No
. Type:	Valley
ention Time:	7.06 min
a:	9.32e+003 counts
ght:	2549.458 cps
rt Time:	6.99 min
Time:	7.23 min

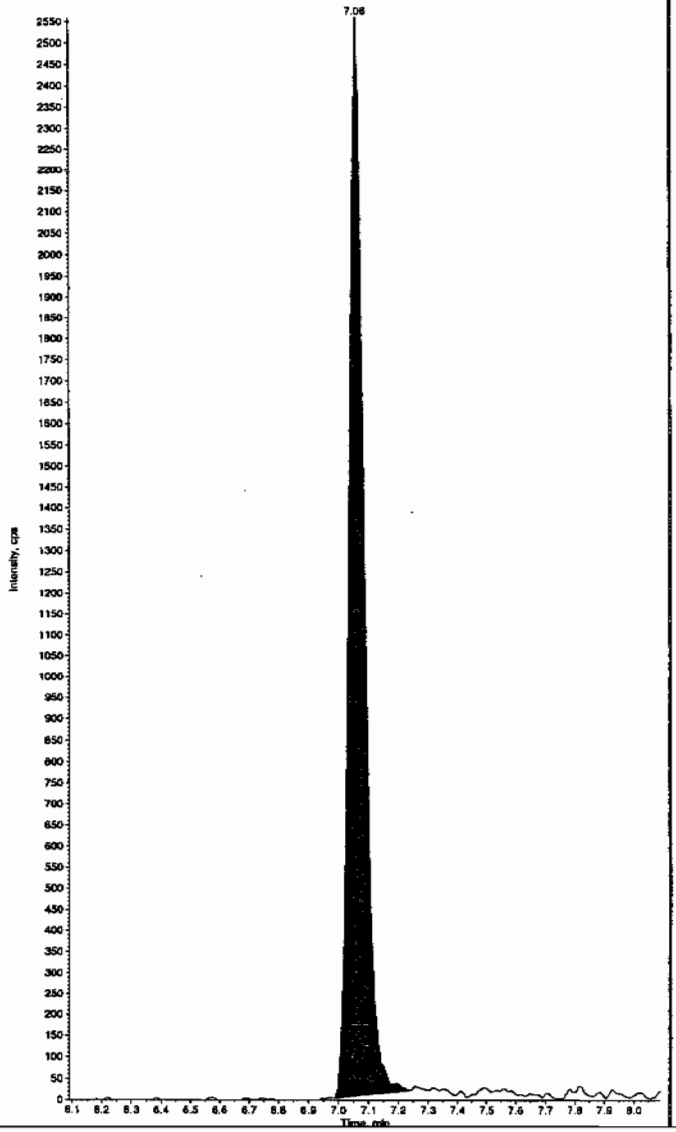

Sample Name: "246055009" Sample ID: "948893|2|LER" File: "EXS02260141.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/28/2010
Acq. Time:	3:32:56 AM
Modified:	Yes

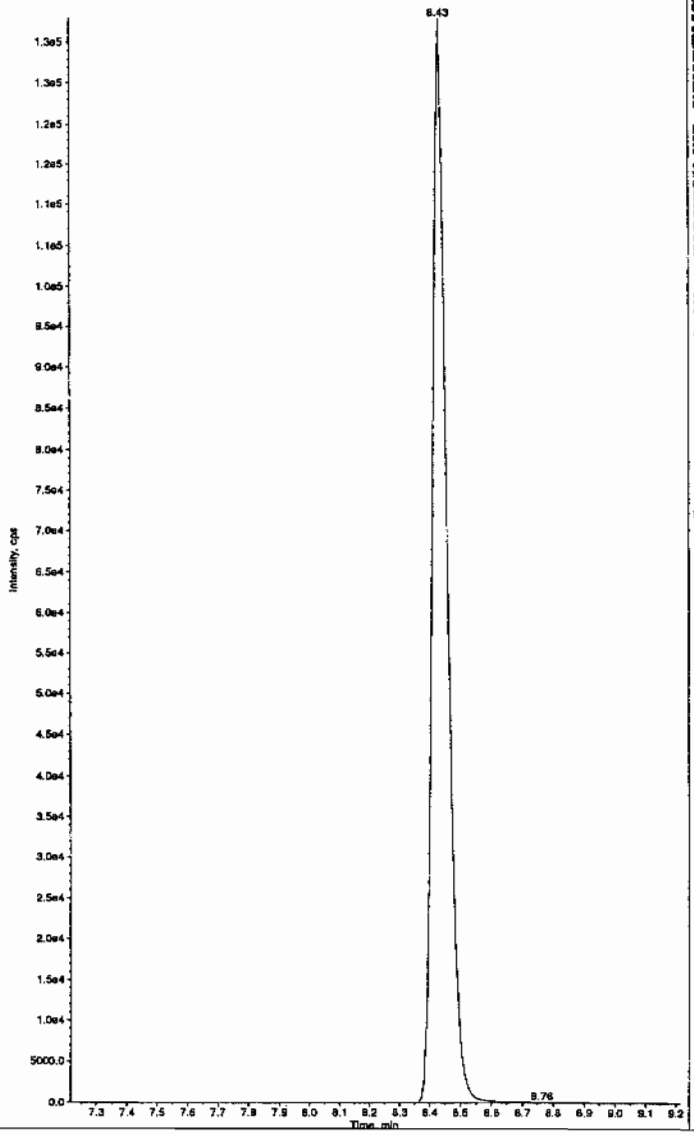

HMC 03/01/10

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Sample Name: "246055009" Sample ID: "948893|2|LER" File: "EXS02260141.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	247. ng/mL
q. Date:	2/28/2010
q. Time:	3:32:56 AM
ified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.46 min
s Relative RT:	No
. Type:	Valley
tention Time:	8.42 min
ea:	3.40e+006 counts
ight:	994799.316 cps
art Time:	8.32 min
d Time:	8.72 min

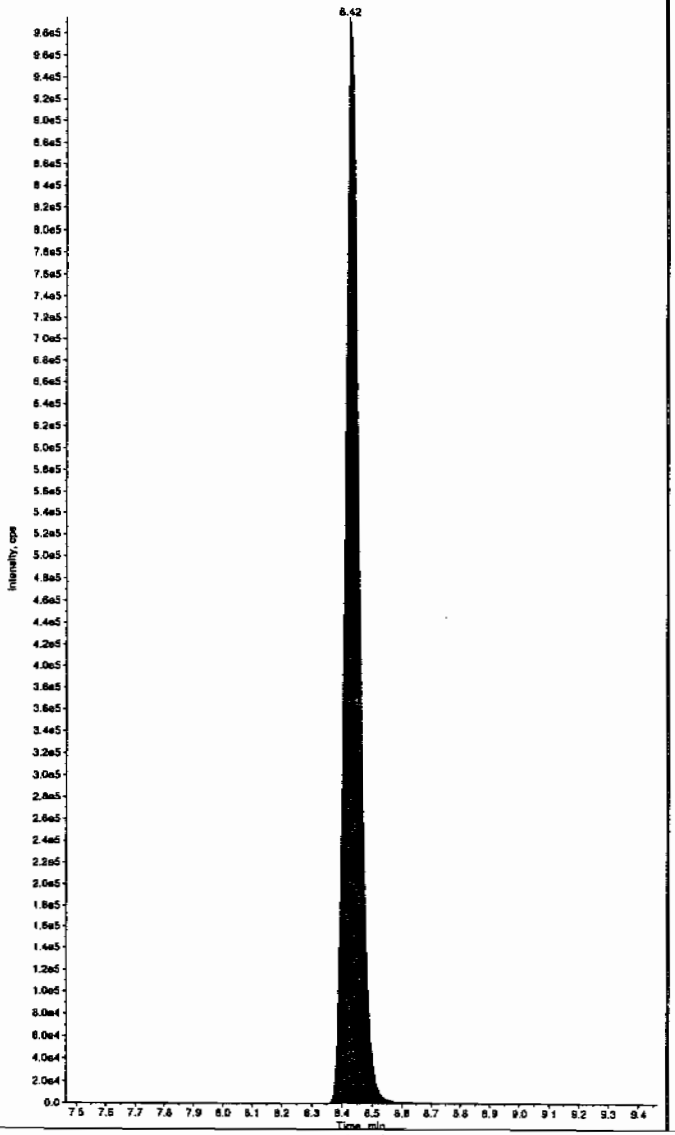

Sample Name: "246055009" Sample ID: "948893|2|LER" File: "EXS02260141.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	2/28/2010
Acq. Time:	3:32:56 AM
Modified:	No

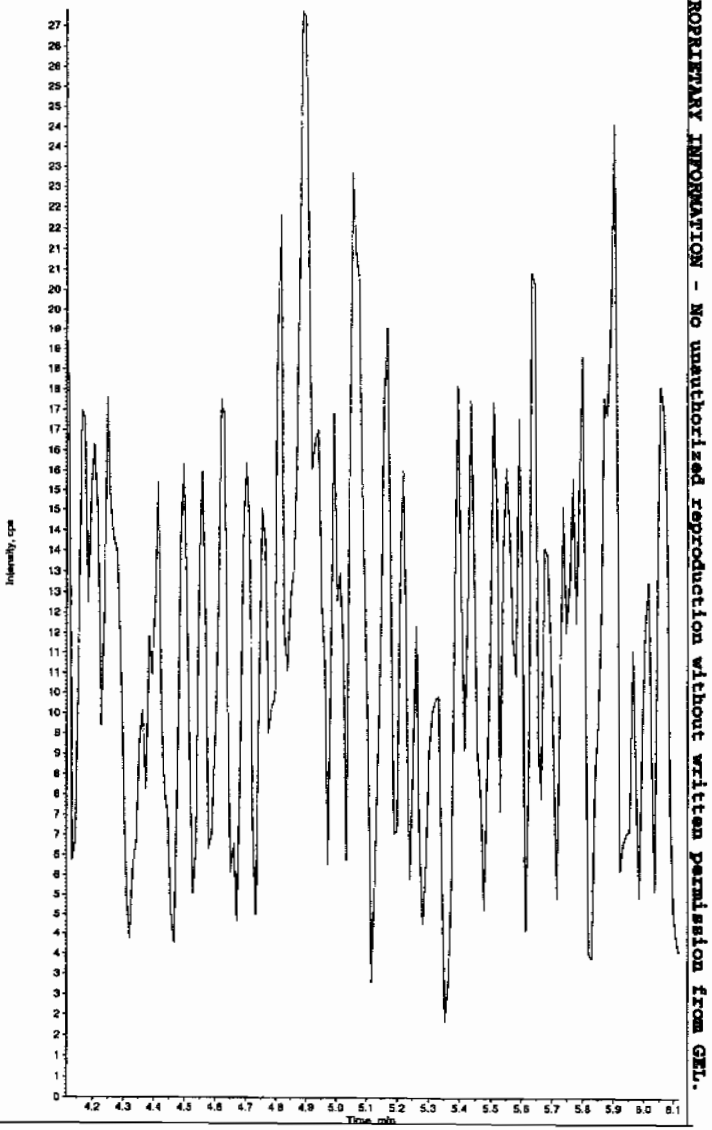

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ample Name: "246055009" Sample ID: "948893|2|LER" File: "EXS02260141.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
icentration: N/A
culated Conc: 0.00 ng/mL
. Date: 2/28/2010
. Time: 3:32:56 AM

ified: No

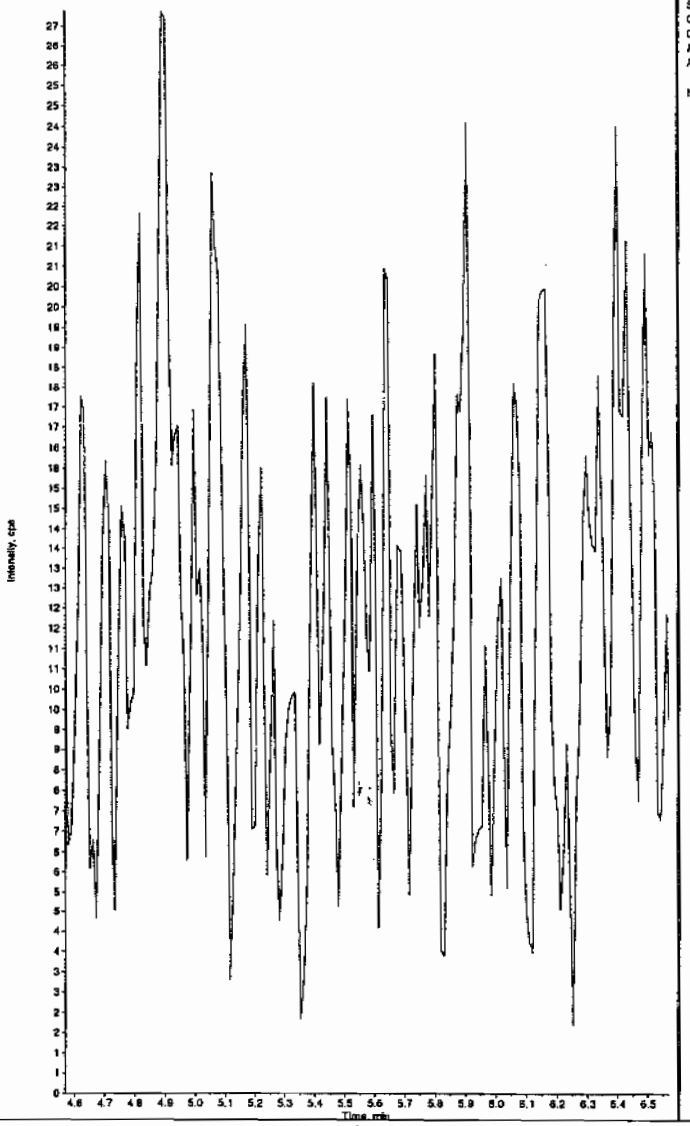

Sample Name: "246055009" Sample ID: "948893|2|LER" File: "EXS02260141.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 3:32:56 AM

Modified: No

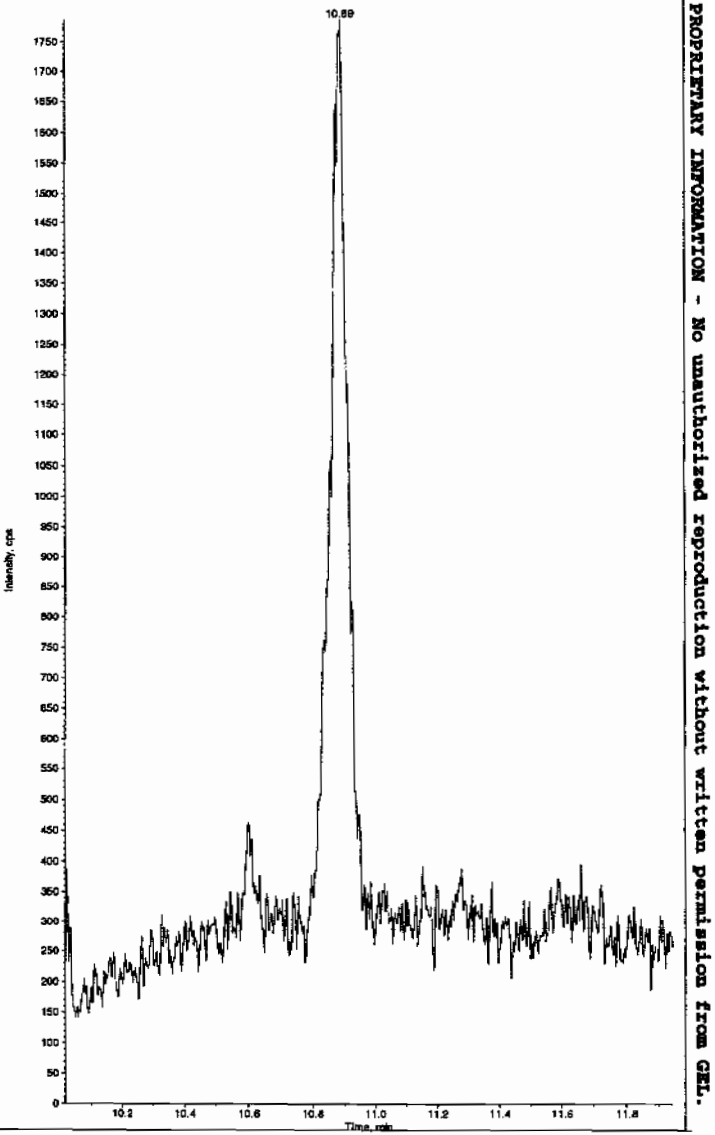

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1545

Lab Code: GEL

Run Date: 04-MAR-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave. RF	RSD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a			
Parmname									
1,3,5-Trinitrobenzene	5.003	4.577	3.342	3.576	3.258	3.608	3.894	18.476	
1,3-Dinitrobenzene-d4	6.789	7.374	7.348	6.733	7.315	6.583	7.024	5.121	
2,4,6-Trinitrotoluene	.3	.336	.341	.337	.35	.308	0.329	6.027	
2,4-Dinitrotoluene	.281	.305	.251	.262	.282	.273	0.276	6.75	
2,6-Dinitrotoluene	1.138	1.111	1.096	1.102	1.137	1.11	1.116	1.607	
2,6-Dinitrotoluene-d3	43.655	42.215	41.583	39.474	40.005	39.795	41.121	4.004	
2-Amino-4,6-dinitrotoluene	.343	.423	.391	.415	.418	.441	0.405	8.534	
3,4-Dinitrotoluene	1.067	.913	.958	.95	1.085	.826	0.967	10.048	
4-Amino-2,6-dinitrotoluene	.248	.266	.292	.289	.283	.277	0.276	5.889	
HMX	5.7	4.915	4.501	4.556	4.433	3.881	4.664	13.011	
Nitrobenzene	.847	.822	.819	.885	.844	.737	0.826	5.999	
RDX	3.372	3.021	2.826	2.815	2.597	2.536	2.861	10.661	
Tetryl	1.148	1.088	.978	.967	.995	.93	1.018	8.121	
m-Dinitrobenzene	1.232	1.296	1.278	1.225	1.314	1.254	1.267	2.82	
m-Nitrotoluene	.108	.096	.087	.092	.093	.09	0.094	7.937	
o-Nitrotoluene	.162	.165	.148	.152	.152	.15	0.155	4.487	
p-Nitrotoluene	.078	.08	.073	.075	.076	.074	0.076	3.543	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1545

Lab Code: GEL

Run Date: 04-MAR-10,26-FEB-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0304003a	EXP0304004a	EXP0304005a	EXP0304006a	EXP0304007a	EXP0304008a					
Parmname:											
PETN	3472.76	5897.1	19825.4	32819.1	49655	58513.4	2.265	-.0008626	37.152	.9967	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
Calibration: Untitled, Time: Fri Mar 05 10:16:18 2010

Compound name: HMX
Response Factor: 4.66431
RRF SD: 0.606877, % Relative SD: 13.0111
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

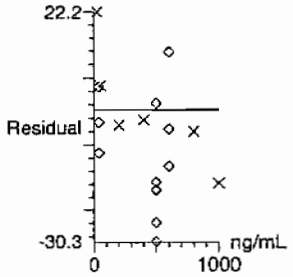

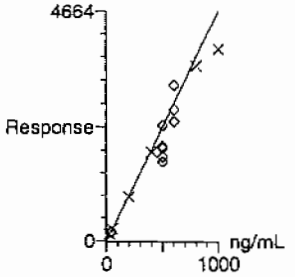

Compound name: RDX
Response Factor: 2.8614
RRF SD: 0.305061, % Relative SD: 10.6612
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

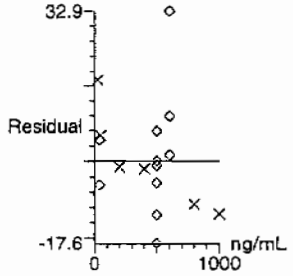

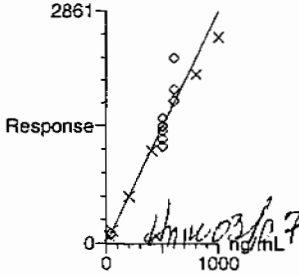

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.89381
RRF SD: 0.719425, % Relative SD: 18.4761
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

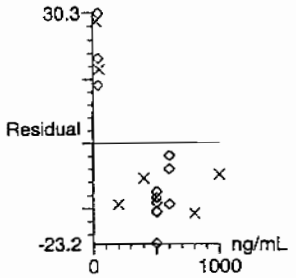

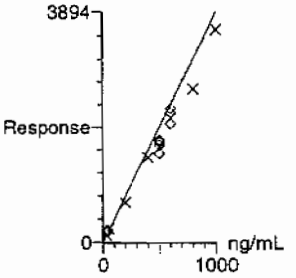

Compound name: 13-Dinitrobenzene-d4
Response Factor: 7.02358
RRF SD: 0.359695, % Relative SD: 5.12125
Response type: External Std, Area
Curve type: RF

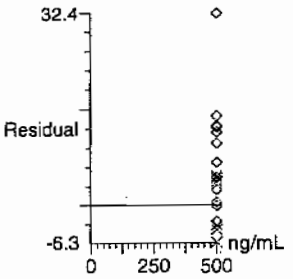

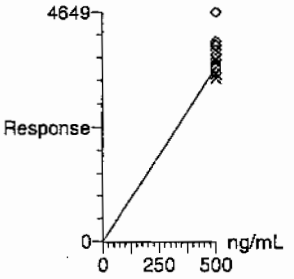

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.26646
RRF SD: 0.0357173, % Relative SD: 2.82024
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

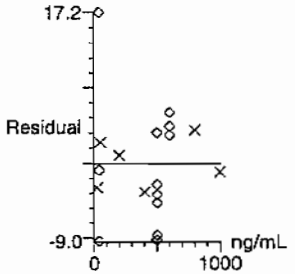

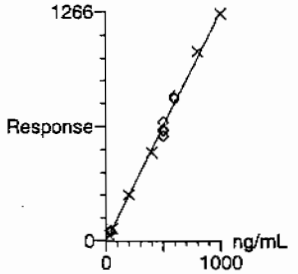

Compound name: Tetryl
Response Factor: 1.01755
RRF SD: 0.0826324, % Relative SD: 8.1207
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

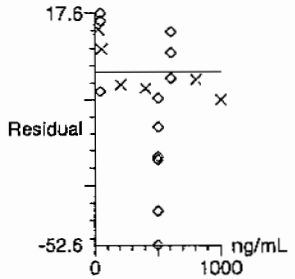

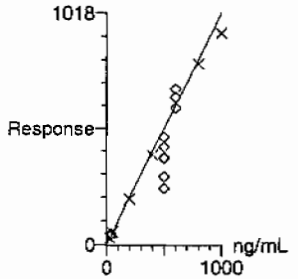

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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: Nitrobenzene
Response Factor: 0.825734
RRF SD: 0.0495369, % Relative SD: 5.99913
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

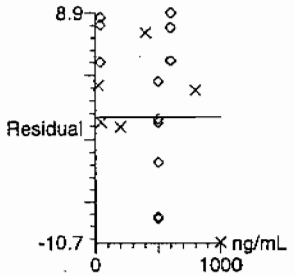

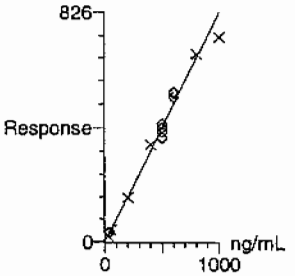

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.275828
RRF SD: 0.0162429, % Relative SD: 5.88879
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

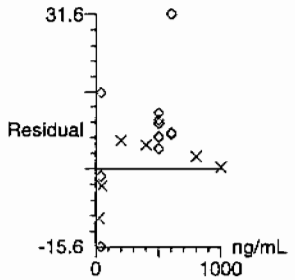

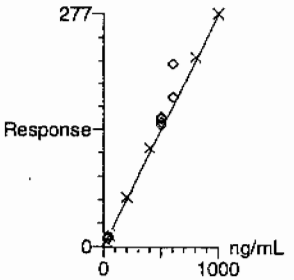

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Quantify Calibration Report
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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.405103
RRF SD: 0.0345707, % Relative SD: 8.53382
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

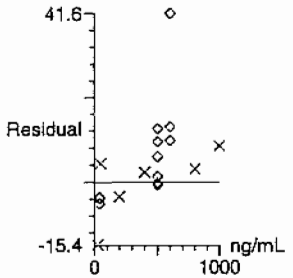

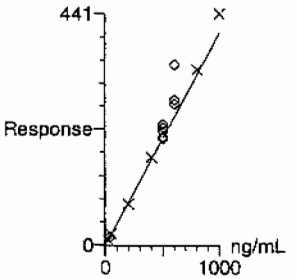

Compound name: 246-Trinitrotoluene
Response Factor: 0.328607
RRF SD: 0.0198061, % Relative SD: 6.02729
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

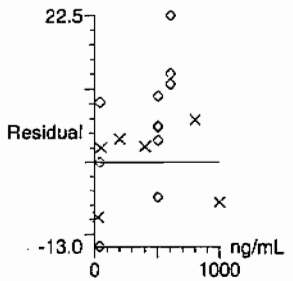

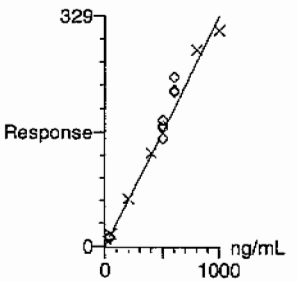

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.966467
RRF SD: 0.097114, % Relative SD: 10.0484
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

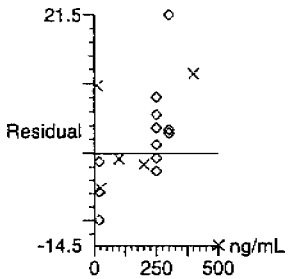

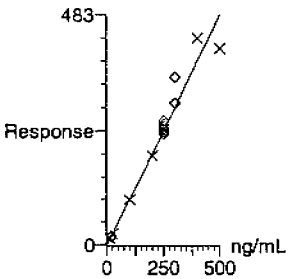

Compound name: 26-dinitrotoluene
Response Factor: 1.11554
RRF SD: 0.0179296, % Relative SD: 1.60726
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

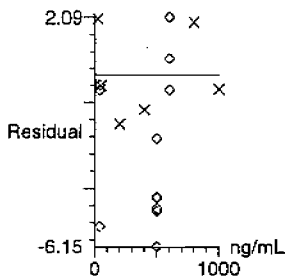

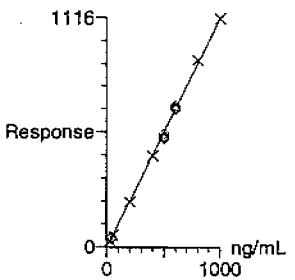

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.275647
RRF SD: 0.0186056, % Relative SD: 6.74978
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

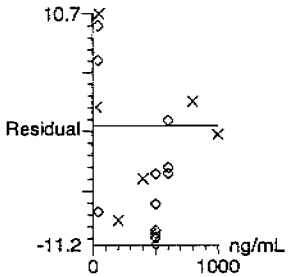

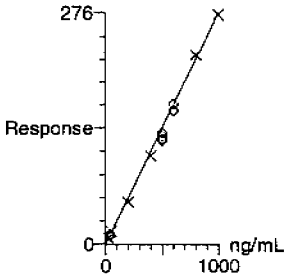

Compound name: 26-dinitrotoluene-d3
Response Factor: 41.1212
RRF SD: 1.6463, % Relative SD: 4.00354
Response type: External Std, Area
Curve type: RF

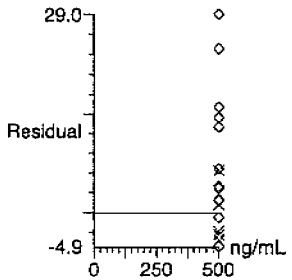

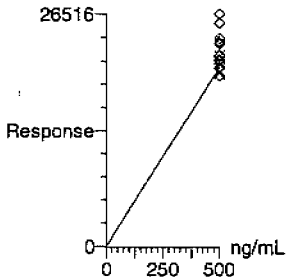

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.154899
RRF SD: 0.00695032, % Relative SD: 4.487
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

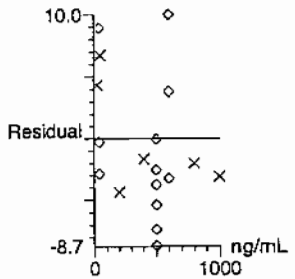

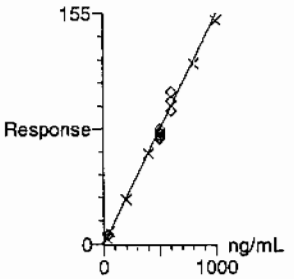

Compound name: 4-Nitrotoluene
Response Factor: 0.0762739
RRF SD: 0.00270209, % Relative SD: 3.54261
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

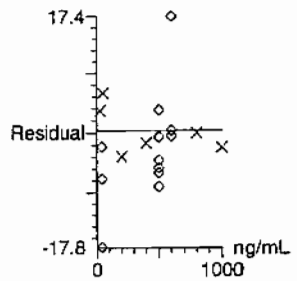

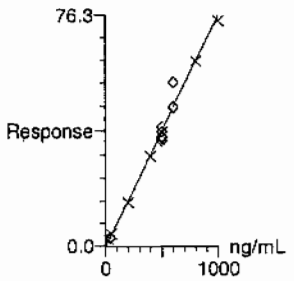

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Quantify Calibration Report
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Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0943545
RRF SD: 0.00748873, % Relative SD: 7.9368
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

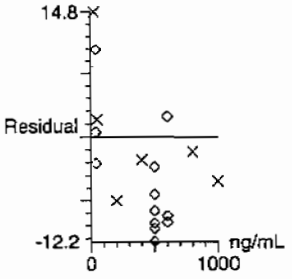

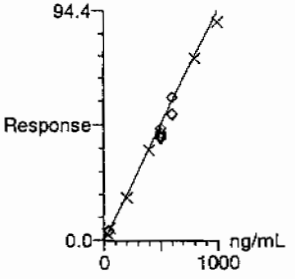

Compound name: PETN
Coefficient of Determination: 0.996692
Calibration curve: -0.000862571 * x^2 + 2.26503 * x + 37.1516
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

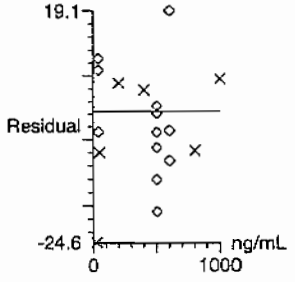

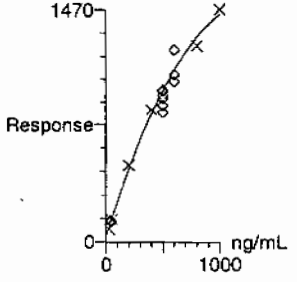

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0304010a

Analysis Date: 04-MAR-10 19:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	300	309.423	103	
4-Amino-2,6-dinitrotoluene	600	641.886	107	
HMX	600	573.556	96	
Nitrobenzene	600	645.754	108	
PETN	600	544.002	91	
RDX	600	658.987	110	
Tetryl	600	634.792	106	
m-Dinitrobenzene	600	625.108	104	
m-Nitrotoluene	600	544.846	91	
o-Nitrotoluene	600	580.638	97	
p-Nitrotoluene	600	595.264	99	
1,3,5-Trinitrobenzene	600	563.54	94	
1,3-Dinitrobenzene-d4	500	499.497	100	
2,4,6-Trinitrotoluene	600	681.185	114	
2,4-Dinitrotoluene	600	576.449	96	
2,6-Dinitrotoluene	600	596.772	99	
2,6-Dinitrotoluene-d3	500	517.678	104	
2-Amino-4,6-dinitrotoluene	600	660.901	110	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304010a
Date: 04-Mar-2010
Time: 19:41:56
ID: WXX100304-07ICV
Vial: 1:1,B

MATT 3/6/10

HMX

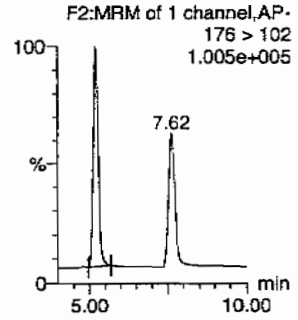

RDX

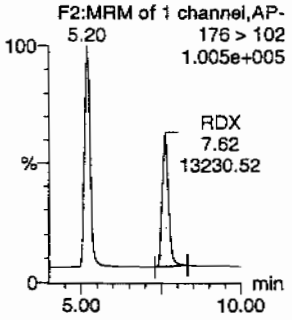

135-Trinitrobenzene

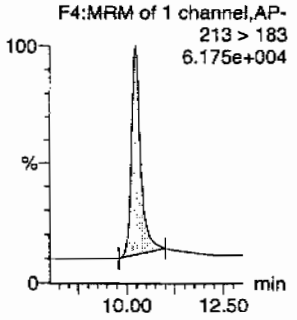

13-Dinitrobenzene-d4

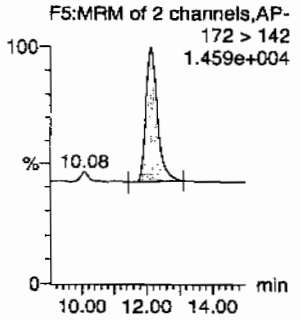

13-Dinitrobenzene

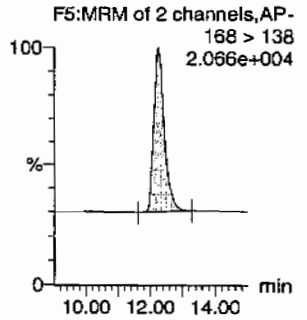

Tetryl

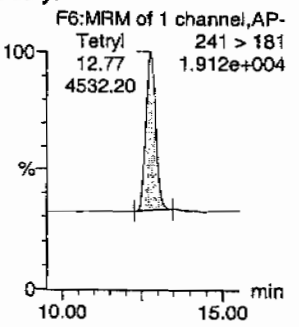

Nitrobenzene

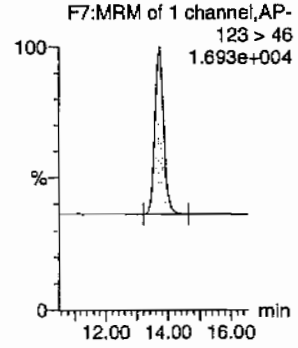

4-Amino-26-dinitrotoluene

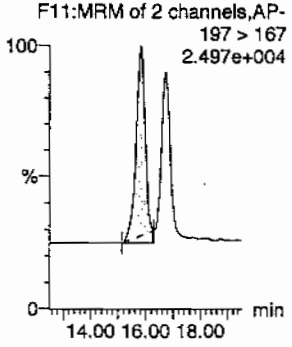

2-Amino-46-dinitrotoluene

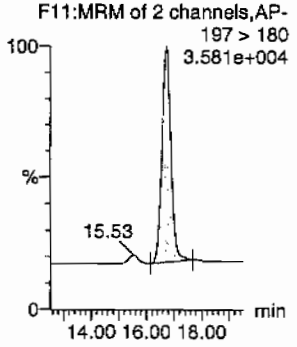

246-Trinitrotoluene

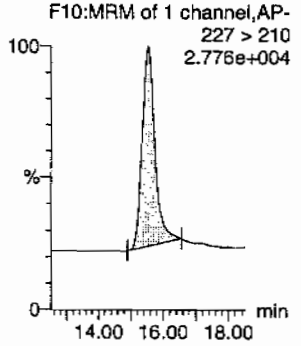

34-dinitrotoluene

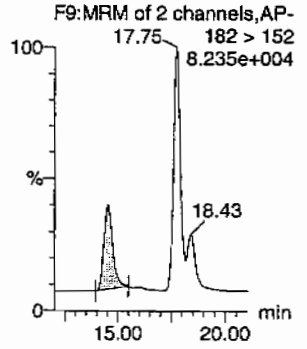

26-dinitrotoluene

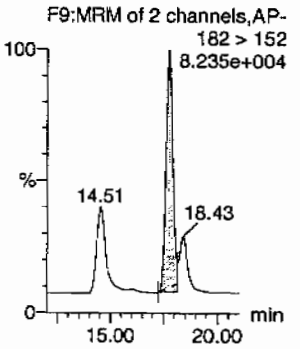

thine 03/07/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

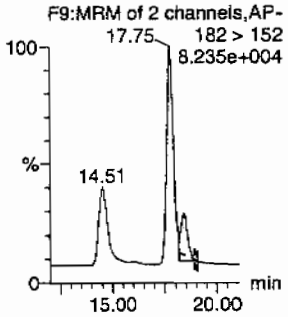

26-dinitrotoluene-d3

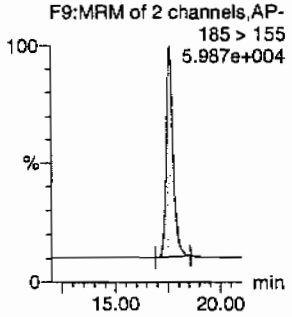

2-Nitrotoluene

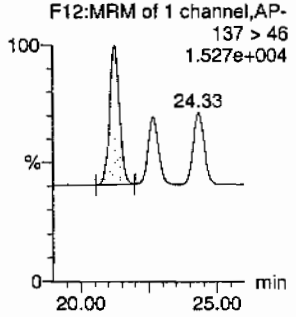

4-Nitrotoluene

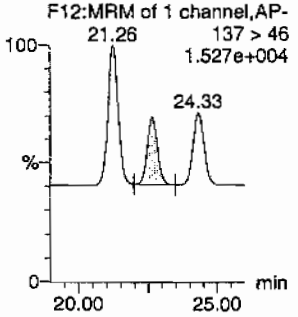

3-Nitrotoluene

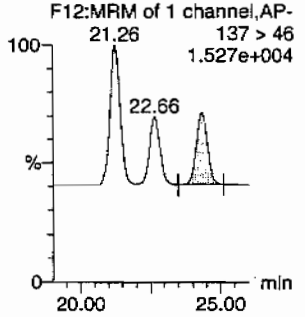

PETN

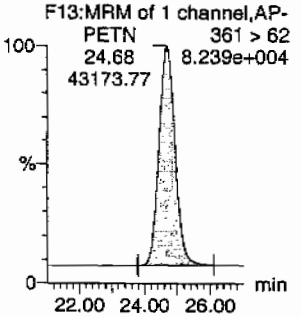

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07ICV	HMX	176 > 102	5.20	18770.877	3508.256	18770.877	2675.243	bb			573.5564	95.6	-4.4	1993.1
WXX100304-07ICV	RDX	176 > 102	7.62	13230.516	3508.256	13230.516	1885.626	bb			658.9874	109.8	9.8	1203.8
WXX100304-07ICV	135-Trinitrobenzene	213 > 183	10.23	15396.480	3508.256	15396.480	2194.321	bb			563.5402	93.9	-6.1	1042.0
WXX100304-07ICV	13-Dinitrobenzene-d4	172 > 142	12.14	3508.256		3508.256	3508.256	bb			499.4970	99.9	-0.1	169.8
WXX100304-07ICV	13-Dinitrobenzene	168 > 138	12.27	5554.798	3508.256	5554.798	791.675	bb			625.1075	104.2	4.2	539.3
WXX100304-07ICV	Tetryl	241 > 181	12.77	4532.205	3508.256	4532.205	645.934	bb			634.7921	105.8	5.8	454.7
WXX100304-07ICV	Nitrobenzene	123 > 46	13.72	3741.350	3508.256	3741.350	533.221	bb			645.7538	107.6	7.6	316.6
WXX100304-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7537.907	21287.525	7537.907	177.050	MM	05-Mar-10	10:05:37	641.8862	107.0	7.0	199.0
WXX100304-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11398.739	21287.525	11398.739	267.733	bb			660.9014	110.2	10.2	1125.1
WXX100304-07ICV	246-Trinitrotoluene	227 > 210	15.55	9530.100	21287.525	9530.100	223.842	bb			681.1854	113.5	13.5	588.8
WXX100304-07ICV	34-dinitrotoluene	182 > 152	14.51	12731.959	21287.525	12731.959	299.047	bb			309.4234	103.1	3.1	594.2
WXX100304-07ICV	26-dinitrotoluene	182 > 152	17.75	28343.234	21287.525	28343.234	665.724	MM	05-Mar-10	10:09:47	596.7715	99.5	-0.5	1698.9
WXX100304-07ICV	24-dinitrotoluene	182 > 152	18.43	6765.037	21287.525	6765.037	158.897	MM	05-Mar-10	10:13:35	576.4492	96.1	-3.9	371.1
WXX100304-07ICV	26-dinitrotoluene-d3	185 > 155	17.57	21287.525		21287.525	21287.525	bb			517.6780	103.5	3.5	1368.6
WXX100304-07ICV	2-Nitrotoluene	137 > 46	21.26	3829.206	21287.525	3829.206	89.940	bb			580.6380	96.8	-3.2	780.1
WXX100304-07ICV	4-Nitrotoluene	137 > 46	22.66	1933.041	21287.525	1933.041	45.403	bb			595.2642	99.2	-0.8	380.6
WXX100304-07ICV	3-Nitrotoluene	137 > 46	24.33	2188.727	21287.525	2188.727	51.409	bb			544.8458	90.8	-9.2	406.5
WXX100304-07ICV	PETN	361 > 62	24.68	43173.770	21287.525	43173.770	1014.063	bb			544.0022	90.7	-9.3	13474.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/04/10
Time of Injection: 1941
Standard Number: WXX100304-07ICV
Data File: EXP0304010a

HMX	95.6
RDX	109.8
135-TNB	93.9
13-DNB	104.2
Tetryl	105.8
Nitrobenzene	107.6
4A-26-DNT	107.0
2A-46-DNT	110.2
246-TNT	113.5
34-DNT(surr)	103.1
26-DNT	99.5
24-DNT	96.1
2-NT	96.8
4-NT	99.2
3-NT	90.8
PETN	90.7
Total	1623.8
Average	101.5

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10–1545

Lab Code: GEL

Run Date: 04–MAR–10,26–FEB–10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J–Sphere ODS–H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS02260003.wifl	EXS02260004.wifl	EXS02260005.wifl	EXS02260006.wifl	EXS02260007.wifl	EXS02260008.wifl	EXS02260009.wifl					
Parmname:												
2,4–Diamino–6–nitrotoluene	80600	158000	383000	773000	1220000	1610000	3220000	–10100	1620	.001	.9999	
2,6–Diamino–4–nitrotoluene	113000	219000	551000	1070000	1680000	2170000	4260000	–5880	2240	–.055	.9999	
3,4–Dinitrotoluene	365000	719000	1740000	3170000	4890000	6230000	11300000	2650	14600	–3.26	.9979	
3,5–Dinitroaniline	531000	1010000	2370000	4530000	6700000	8310000	13900000	41000	9760	–1.41	.9999	
TATB	50800	103000	279000	574000	909000	1230000	2540000	–18200	1200	.04	.9999	
tris(o–cresyl) phosphate	893000	1730000	4120000	7610000	11100000	14100000	23200000	92000	16500	–2.46	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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022610ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.82e+004			
a1	1.2e+003			
a2	0.0401			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	4.1e+004			
a1	9.76e+003			
a2	-1.41			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.65e+003			
a1	1.46e+004			
a2	-3.26			

Correlation coefficient 0.9979
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.88e+003			
a1	2.24e+003			
a2	-0.055			

Correlation coefficient 0.9999
Use Area

Lan 3/1/10

HMW 03/01/10

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Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.01e+004			
a1	1.62e+003			
a2	0.000677			

Correlation coefficient 0.9999
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	9.2e+004			
a1	1.65e+004			
a2	-2.46			

Correlation coefficient 1.0000
Use Area

022610.rdb (TATB): "Quadratic" Regression ("No" weighting): y = 0.0401 x^2 + 1.2e+003 x + -1.82e+004 (r = 0.9999)

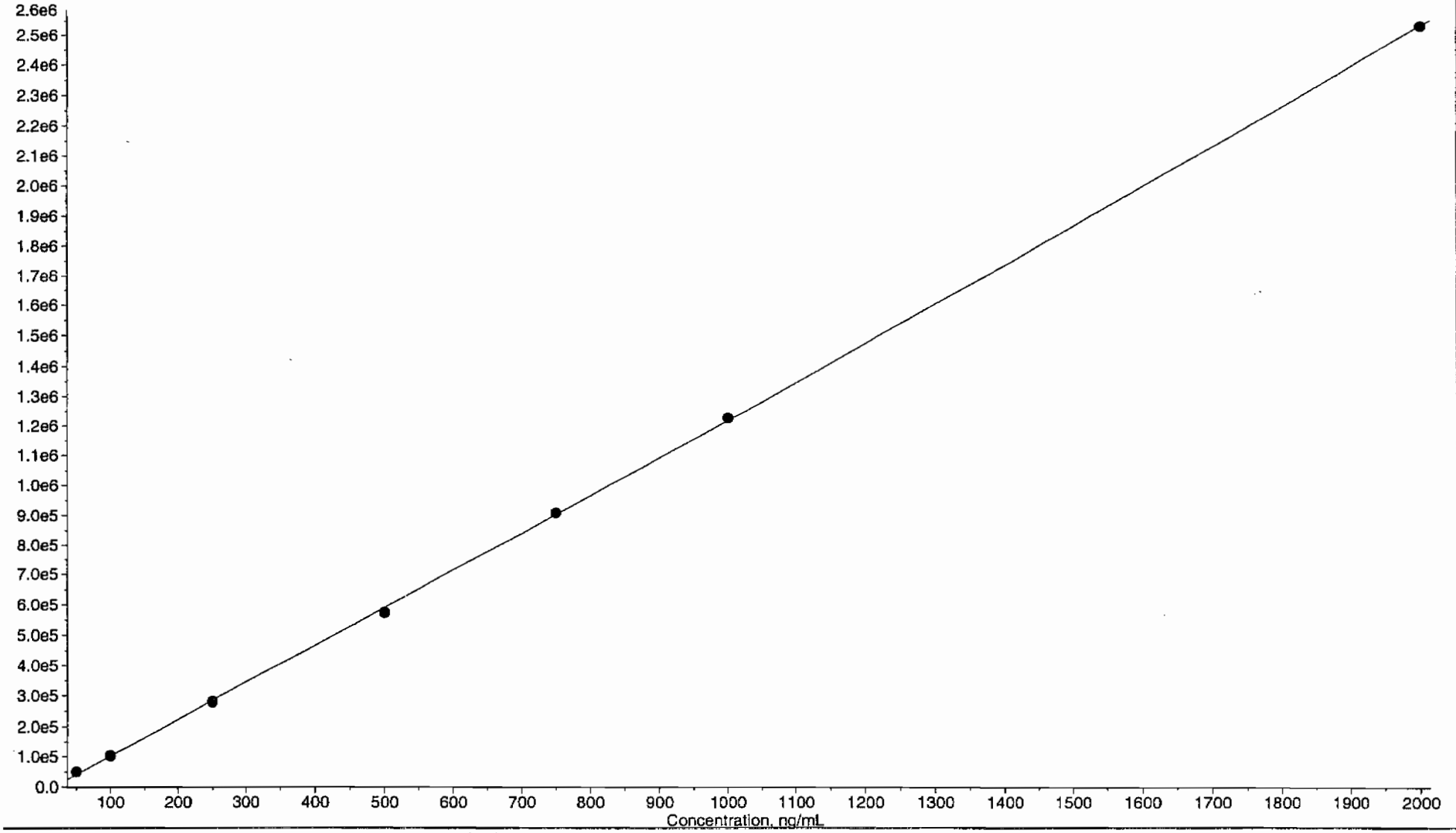

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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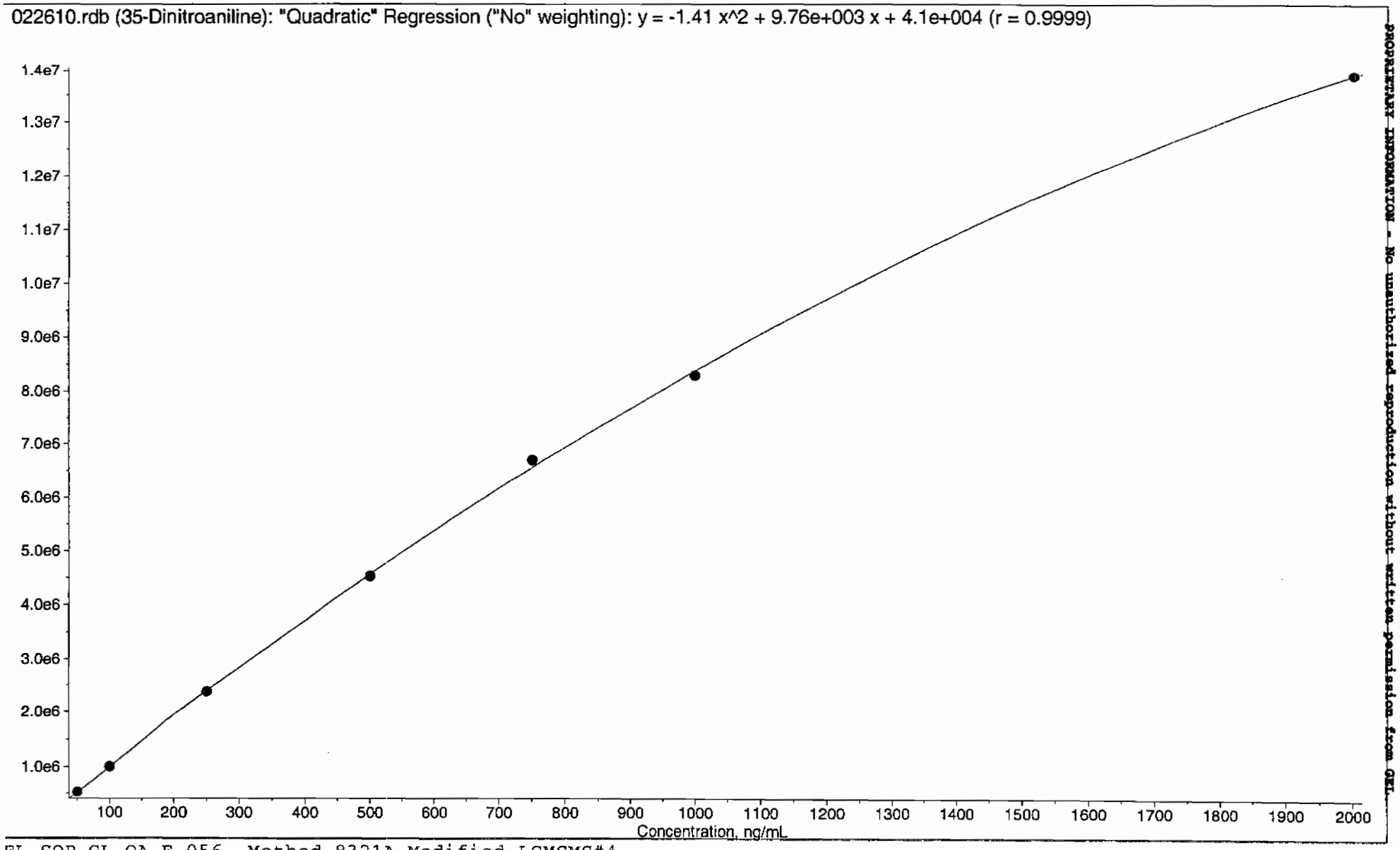

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL

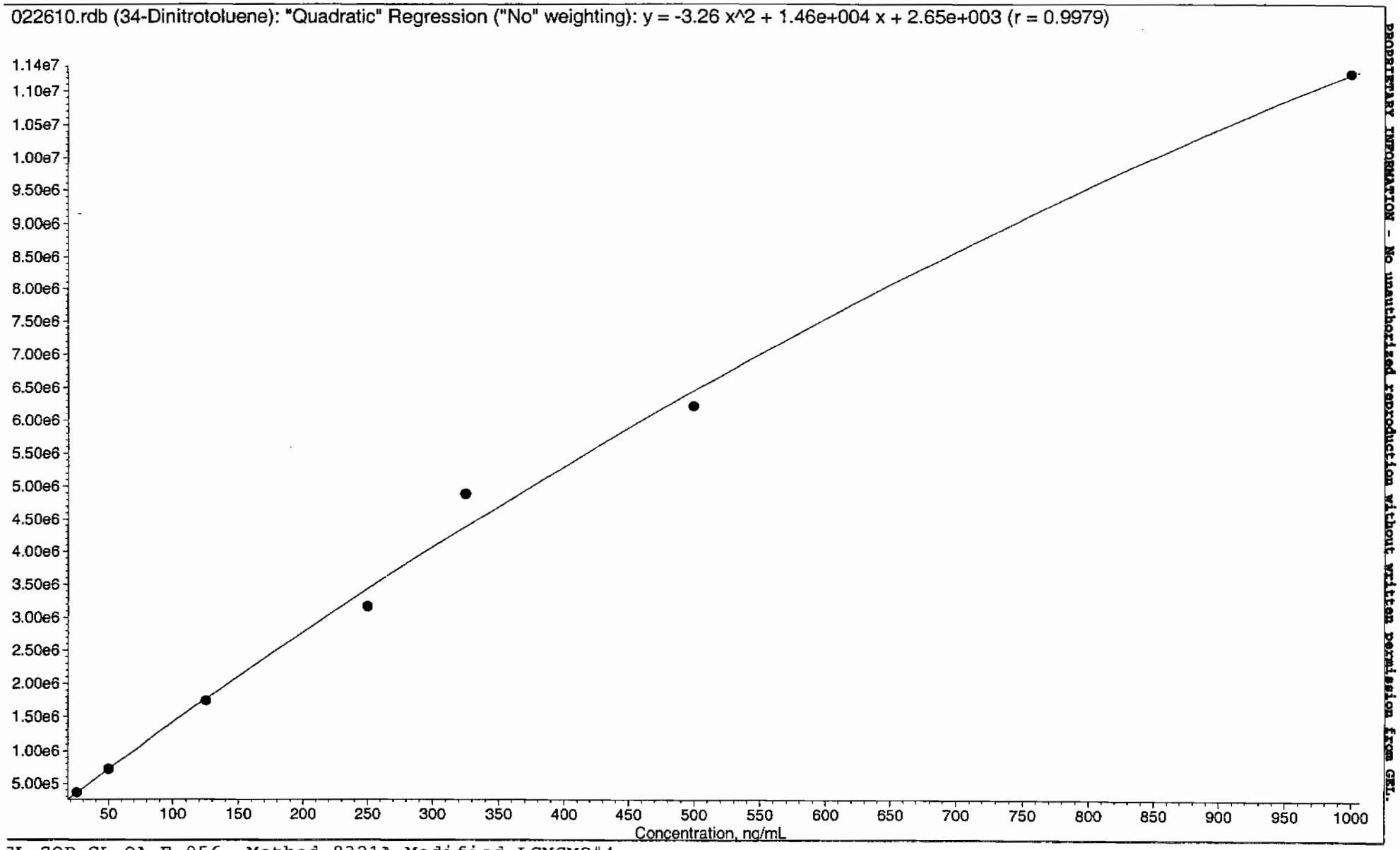

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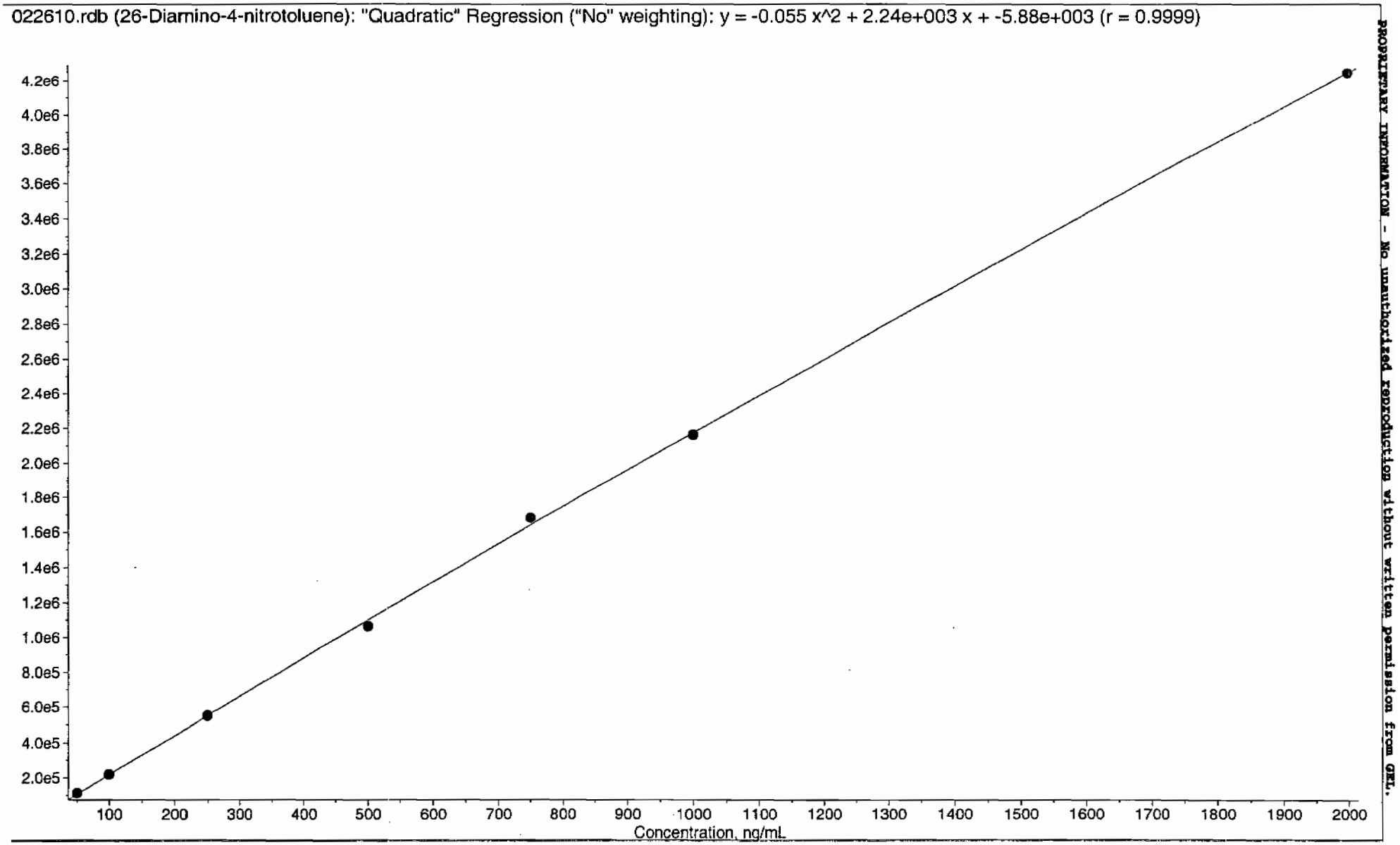

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022610.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): y = 0.000677 x^2 + 1.62e+003 x + -1.01e+004 (r = 0.9999)

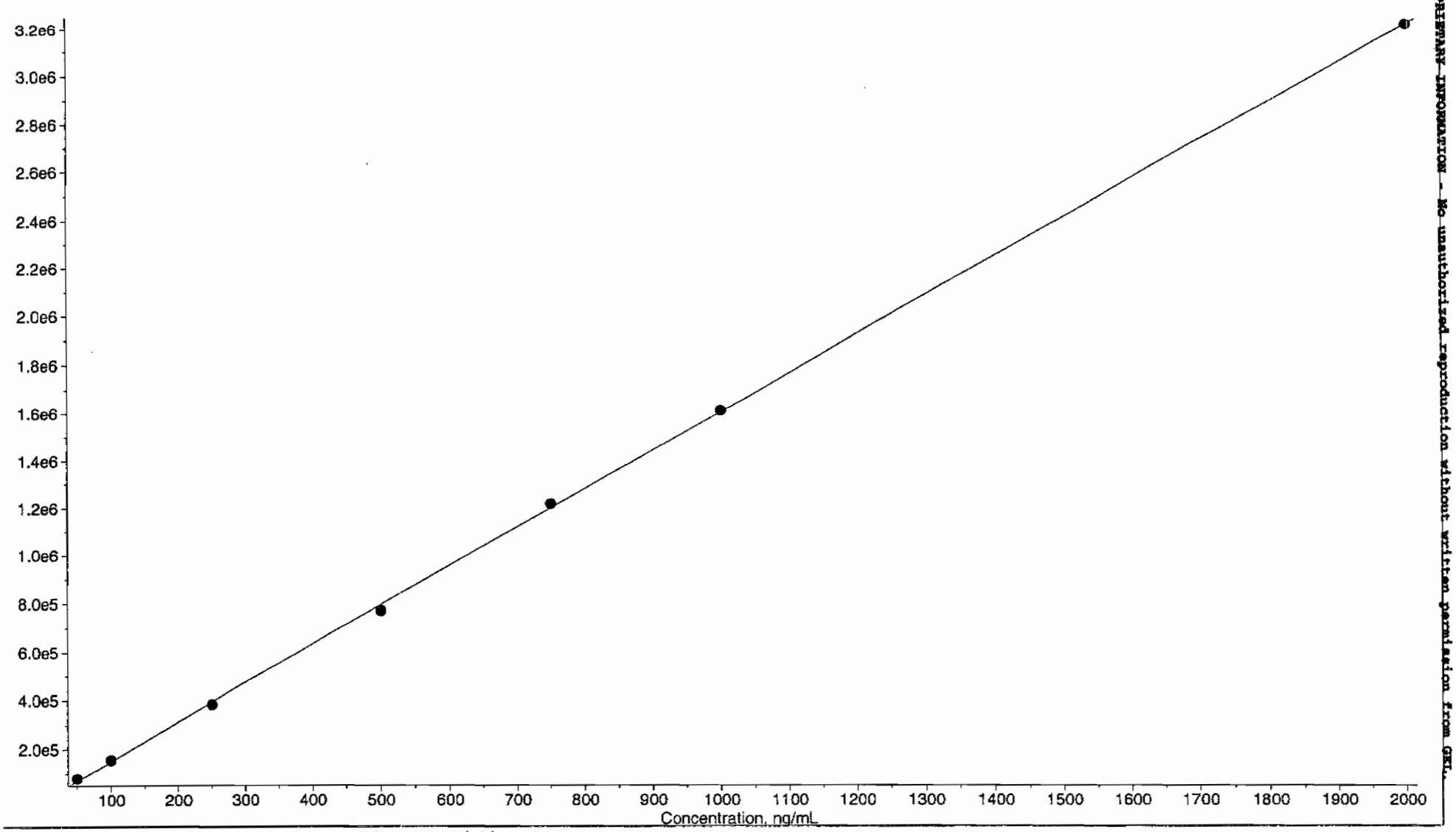

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022610.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): y = -2.46 x^2 + 1.65e+004 x + 9.2e+004 (r = 1.0000)

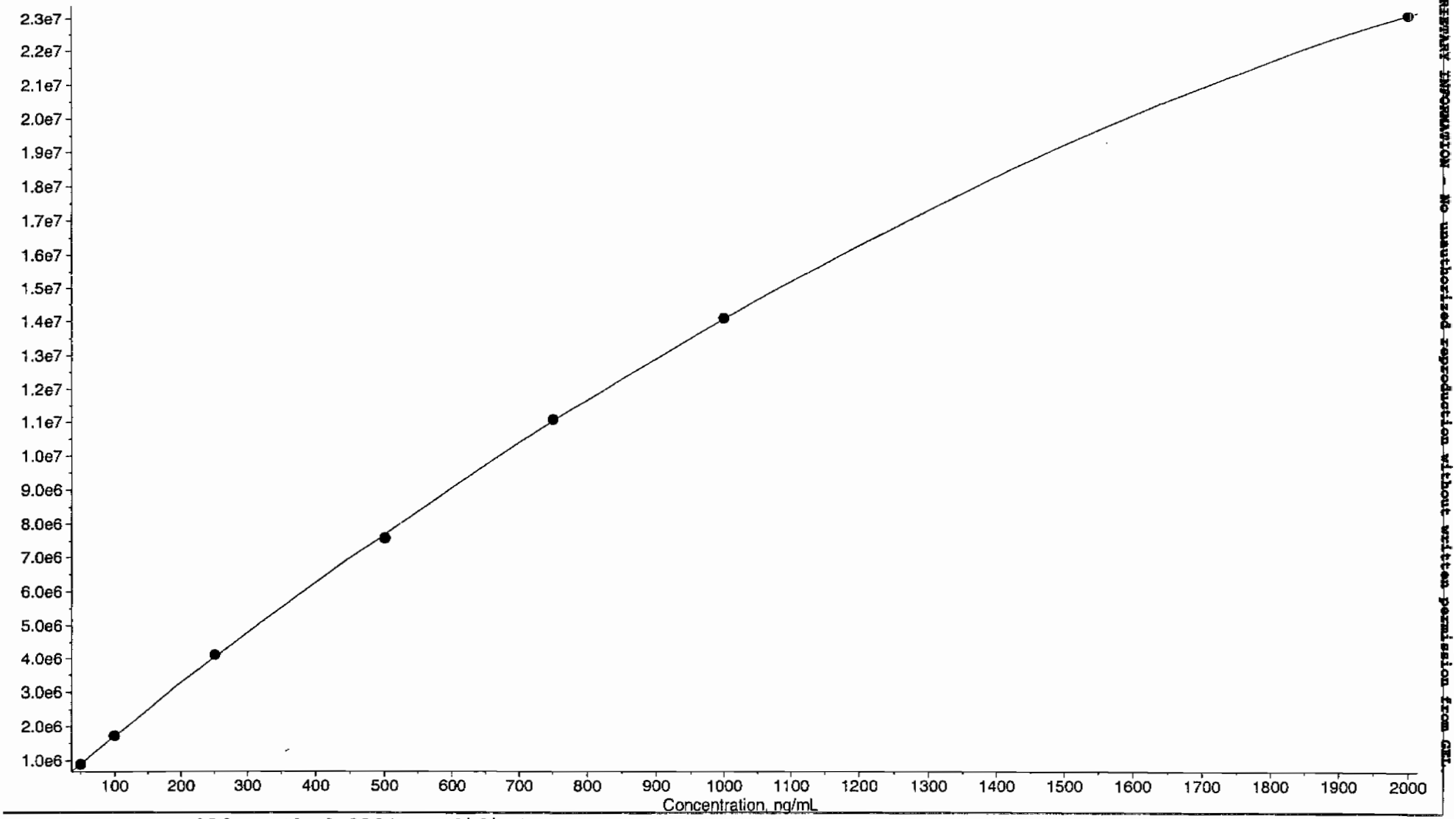

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS022600011.wiff

Analysis Date: 26-FEB-10 17:31

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	483	97	
2,6-Diamino-4-nitrotoluene	500	465	93	
3,4-Dinitrotoluene	250	226	90	
3,5-Dinitroaniline	500	474	95	
TATB	500	472	95	
tris(o-cresyl) phosphate	500	494	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/1/10

Sample Name: "WXX100225-26ICV" Sample ID: "|1|LER" File: "EXS02260011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 500. ng/mL
lculated Conc: 472. ng/mL
q. Date: 2/26/2010
q. Time: 5:31:06 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.09 min
e Relative RT: No

t. Type: Valley
tention Time: 7.09 min
ea: 5.57e+005 counts
ight: 137406.067 cps
art Time: 7.00 min
d Time: 7.72 min

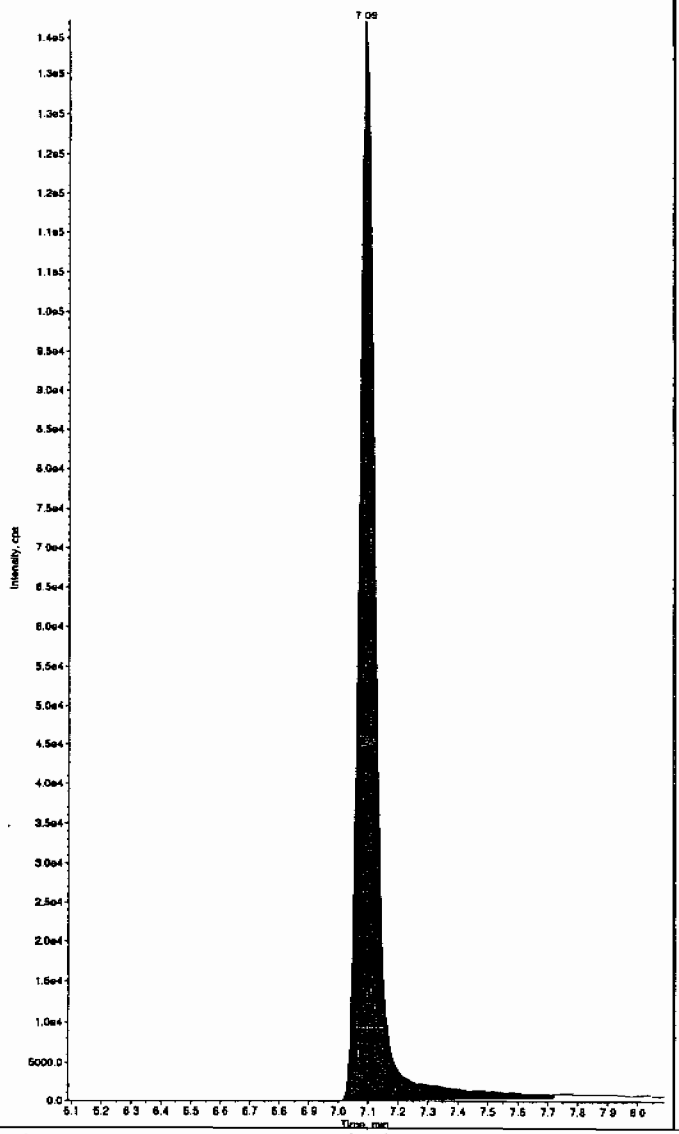

Sample Name: "WXX100226-26ICV" Sample ID: "|1|LER" File: "EXS02260011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 474. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 4.35e+006 counts
Height: 1097292.725 cps
Start Time: 8.24 min
End Time: 8.42 min

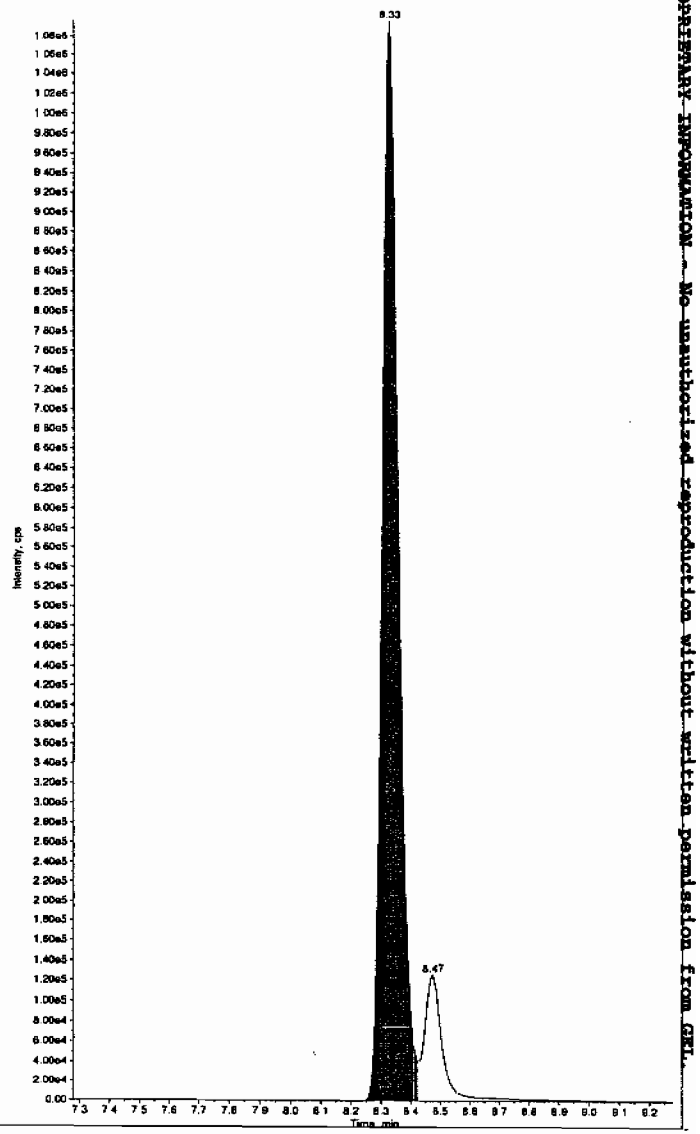

Hmm 03/01/10

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Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 250. ng/mL
alculated Conc: 225. ng/mL
cq. Date: 2/26/2010
cq. Time: 5:31:06 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.46 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.46 min
rea: 3.12e+006 counts
eight: 869437.378 cps
tart Time: 8.40 min
nd Time: 8.83 min

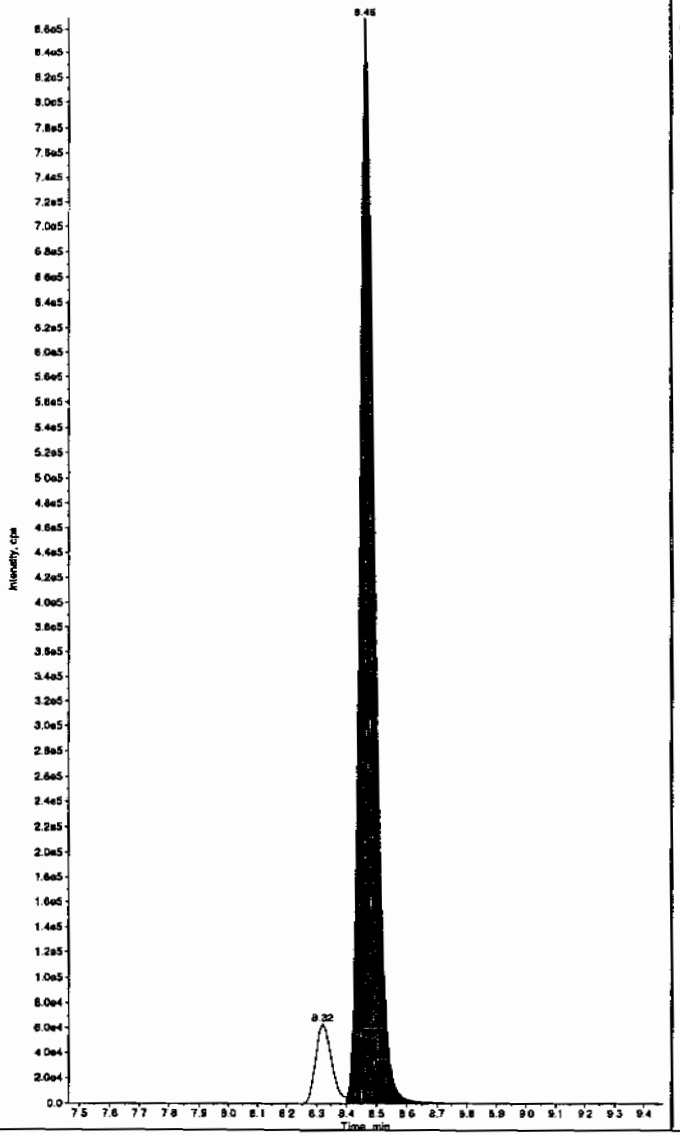

Sample Name: "WXX100226-26ICV" Sample ID: "[1]LER" File: "EXS02260011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 465. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 5:31:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 1.02e+006 counts
Height: 240925.003 cps
Start Time: 5.01 min
End Time: 5.41 min

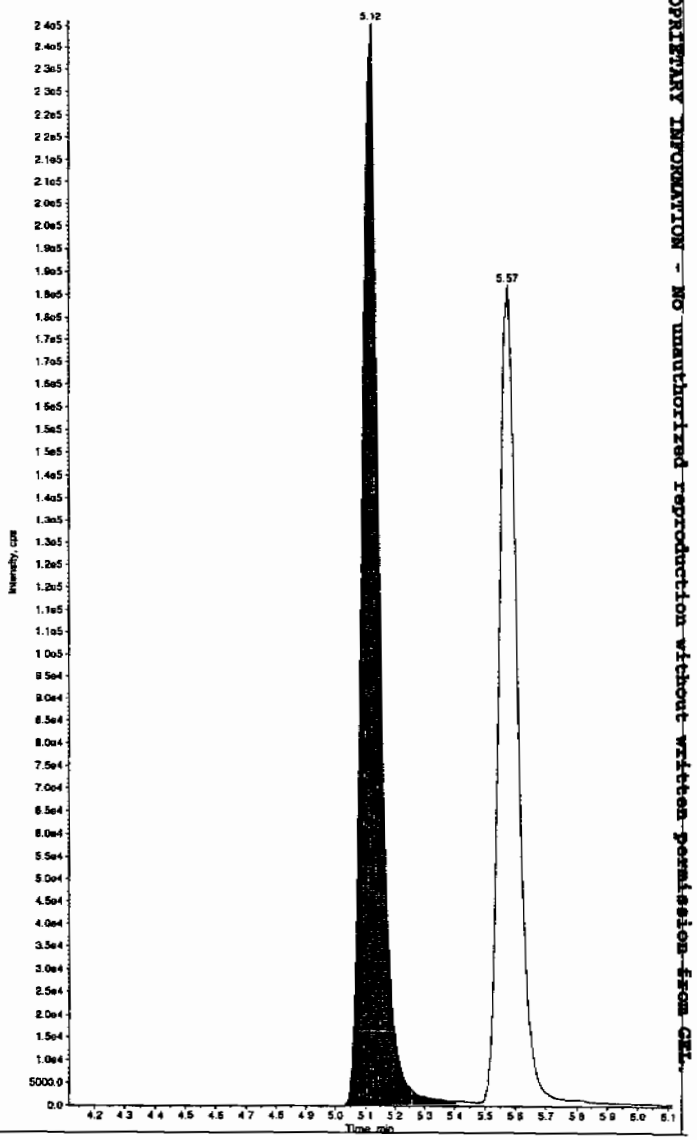

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Sample Name: "WXX100226-25ICV" Sample ID: "1|LER" File: "EXS02260011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ample Index:        1
ample Type:        QC
oncentration:      500.     ng/mL
alculated Conc:    483.     ng/mL
cq. Date:       2/26/2010
cq. Time:       5:31:06 PM

odified:           No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00    cps
in. Peak Width:    0.00    sec
moothing Width:  3        points
T Window:         30.0     sec
xpected RT:        5.57    min
se Relative RT:    No

nt. Type:        Valley
etention Time:     5.57    min
rea:          7.72e+005   counts
eight:        182073.196  cps
tart Time:         5.49    min
nd Time:           5.92    min
```

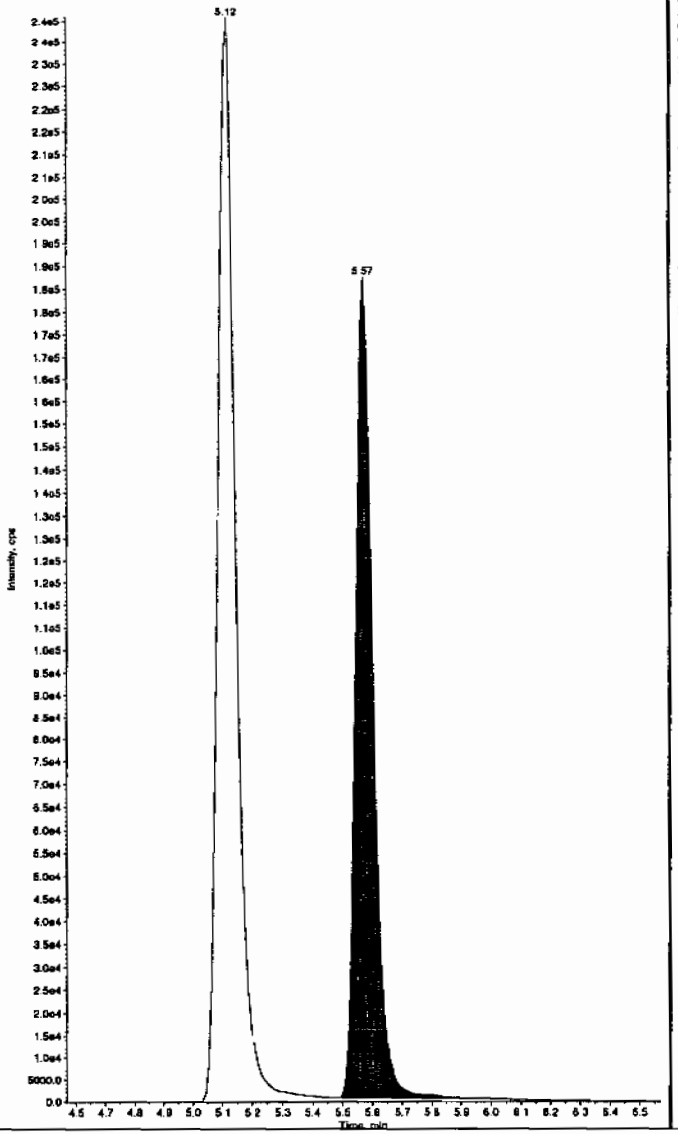

Sample Name: "WXX100226-25ICV" Sample ID: "1|LER" File: "EXS02260011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    494.     ng/mL
Acq. Date:       2/26/2010
Acq. Time:       5:31:06 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:    10.9     min
Area:         7.63e+006    counts
Height:       2044473.877  cps
Start Time:        10.8     min
End Time:          11.3     min
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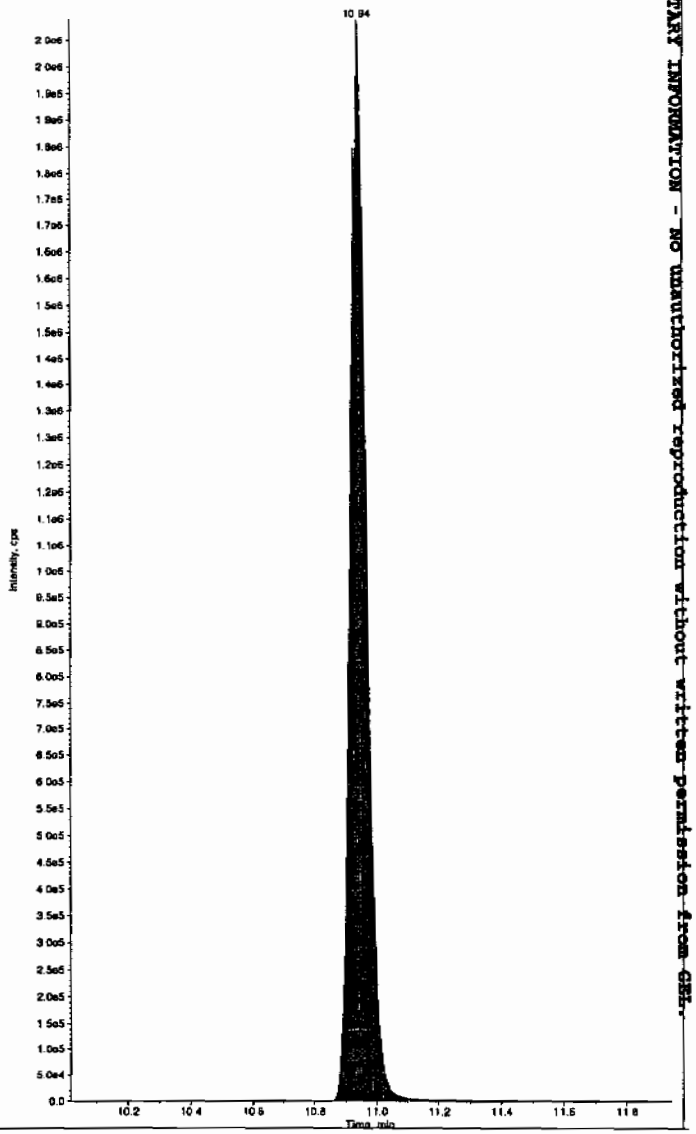

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304012a

Analysis Date: 04-MAR-10 20:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	40	38.785	97	
o-Nitrotoluene	40	39.894	100	
p-Nitrotoluene	40	32.889	82	
1,3,5-Trinitrobenzene	40	52.132	130	*
1,3-Dinitrobenzene-d4	500	502.653	101	
2,4,6-Trinitrotoluene	40	43.716	109	
2,4-Dinitrotoluene	40	42.515	106	
2,6-Dinitrotoluene	40	39.781	99	
2,6-Dinitrotoluene-d3	500	509.301	102	
2-Amino-4,6-dinitrotoluene	40	37.902	95	
3,4-Dinitrotoluene	20	19.742	99	
4-Amino-2,6-dinitrotoluene	40	33.746	84	
HMX	40	42.046	105	
Nitrobenzene	40	43.151	108	
PETN	40	43.178	108	
RDX	40	41.86	105	
Tetryl	40	46.154	115	
m-Dinitrobenzene	40	46.893	117	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304012a
Date: 04-Mar-2010
Time: 20:40:53
ID: WXX100304-08CRI
Vial: 1:1,C

MATT 3/6/10

HMX

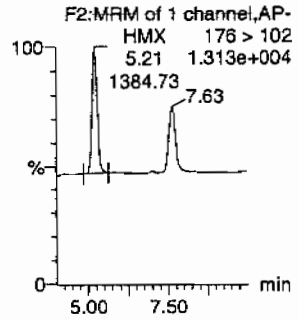

RDX

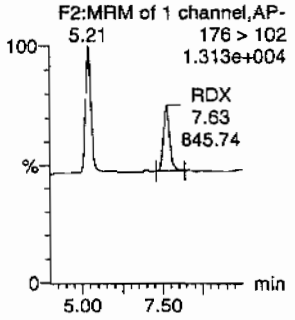

135-Trinitrobenzene

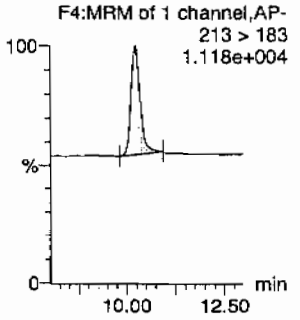

13-Dinitrobenzene-d4

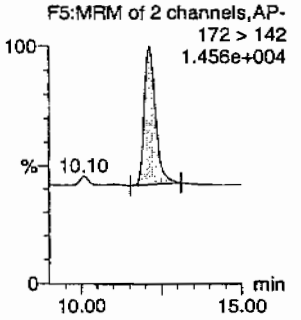

13-Dinitrobenzene

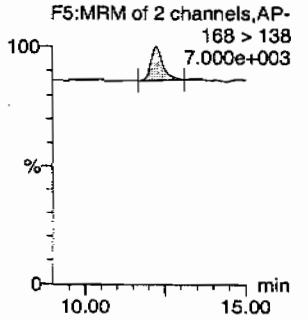

Tetryl

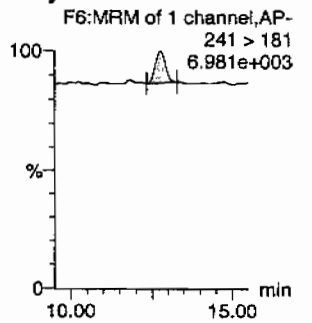

Nitrobenzene

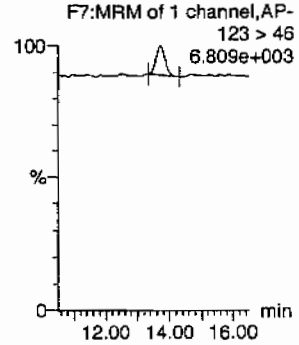

4-Amino-26-dinitrotoluene

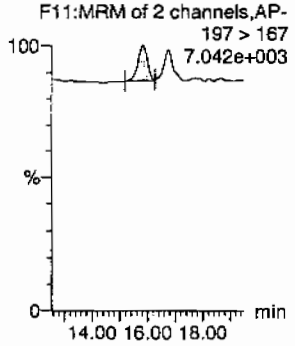

2-Amino-46-dinitrotoluene

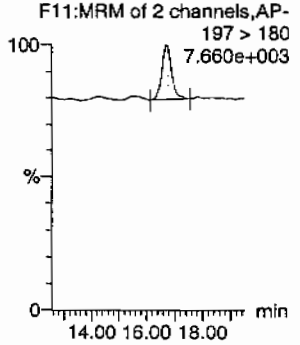

246-Trinitrotoluene

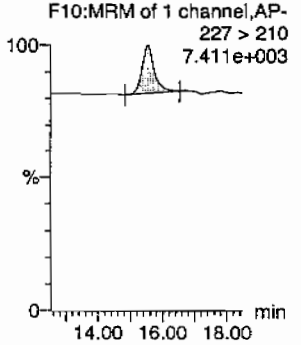

34-dinitrotoluene

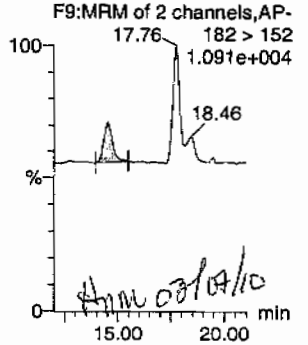

Hm 03/04/10

26-dinitrotoluene

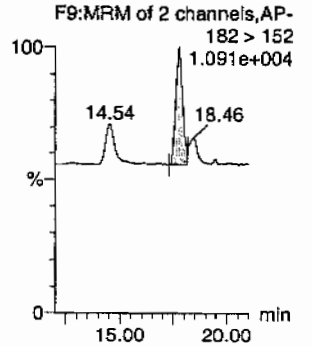

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

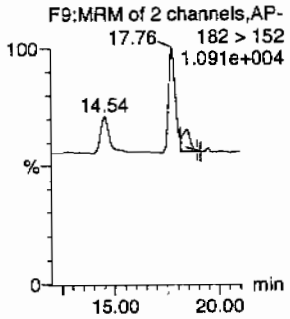

26-dinitrotoluene-d3

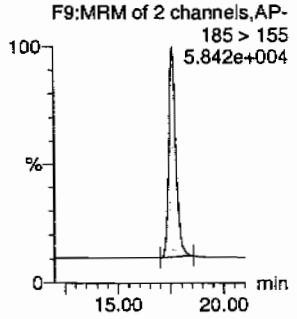

2-Nitrotoluene

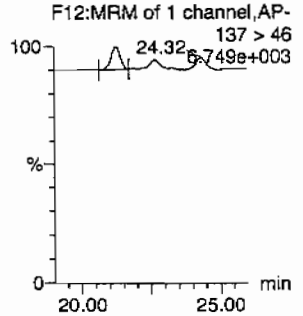

4-Nitrotoluene

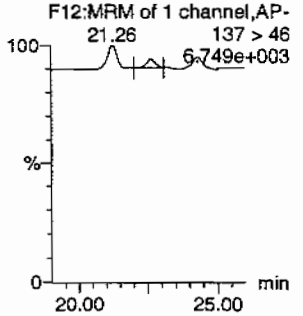

3-Nitrotoluene

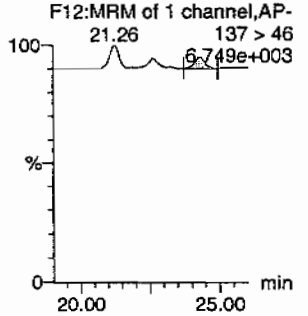

PETN

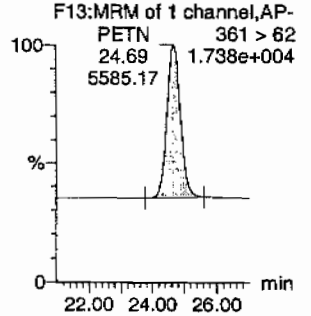

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.21	1384.730	3530.423	1384.730	196.114	bb			42.0457	105.1	5.1	144.1
WXX100304-08CRI	RDX	176 > 102	7.63	845.744	3530.423	845.744	119.779	bb			41.8604	104.7	4.7	75.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1433.303	3530.423	1433.303	202.993	bb			52.1322	130.3	30.3	167.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.13	3530.423		3530.423	3530.423	bb			502.6531	100.5	0.5	557.7
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.24	419.332	3530.423	419.332	59.388	bb			46.8931	117.2	17.2	49.7
WXX100304-08CRI	Tetryl	241 > 181	12.80	331.609	3530.423	331.609	46.964	bb			46.1544	115.4	15.4	33.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.70	251.584	3530.423	251.584	35.631	bb			43.1505	107.9	7.9	26.0
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.85	389.877	20943.066	389.877	9.308	MM	05-Mar-10	10:05:44	33.7458	84.4	-15.6	20.6
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.72	643.123	20943.066	643.123	15.354	bb			37.9017	94.8	-5.2	59.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.54	601.715	20943.066	601.715	14.365	bb			43.7163	109.3	9.3	34.7
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.54	799.203	20943.066	799.203	19.080	bb			19.7424	98.7	-1.3	67.9
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.76	1858.792	20943.066	1858.792	44.377	MM	05-Mar-10	10:10:03	39.7809	99.5	-0.5	195.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.46	490.874	20943.066	490.874	11.719	MM	05-Mar-10	10:13:43	42.5154	106.3	6.3	42.9
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.59	20943.066		20943.066	20943.066	bb			509.3014	101.9	1.9	2489.6
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.26	258.838	20943.066	258.838	6.180	bb			39.8942	99.7	-0.3	72.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.65	105.073	20943.066	105.073	2.509	bb			32.8885	82.2	-17.8	28.3
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.32	153.282	20943.066	153.282	3.659	bb			38.7845	97.0	-3.0	37.4
WXX100304-08CRI	PETN	361 > 62	24.69	5585.170	20943.066	5585.170	133.342	bb			43.1775	107.9	7.9	1559.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/04/10
Time of Injection	2040
Standard Number	WXX100304-08CRI
Data File	EXP0304012a

HMX	105.1
RDX	104.7
135-TNB	130.3
13-DNB	117.2
Tetryl	115.4
Nitrobenzene	107.9
4A-26-DNT	84.4
2A-46-DNT	94.8
246-TNT	109.3
34-DNT(surr)	98.7
26-DNT	99.5
24-DNT	106.3
2-NT	99.7
4-NT	82.2
3-NT	97.0
PETN	107.9
Total	1660.4
Average	103.8

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304023a

Analysis Date: 05-MAR-10 02:05

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	300	364.434	121	*
4-Amino-2,6-dinitrotoluene	600	789.715	132	*
HMX	600	677.366	113	
Nitrobenzene	600	653.257	109	
PETN	600	714.882	119	
RDX	600	797.625	133	*
Tetryl	600	672.594	112	
m-Dinitrobenzene	600	619.329	103	
m-Nitrotoluene	600	614.199	102	
o-Nitrotoluene	600	660.057	110	
p-Nitrotoluene	600	704.198	117	
1,3,5-Trinitrobenzene	600	582.184	97	
1,3-Dinitrobenzene-d4	500	523.805	105	
2,4,6-Trinitrotoluene	600	735.028	123	*
2,4-Dinitrotoluene	600	602.974	100	
2,6-Dinitrotoluene	600	603.708	101	
2,6-Dinitrotoluene-d3	500	475.367	95	
2-Amino-4,6-dinitrotoluene	600	849.542	142	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304023a
Date: 05-Mar-2010
Time: 02:05:17
ID: WXX100304-07CCV
Vial: 1:1,B

MATT 3/6/10

HMX

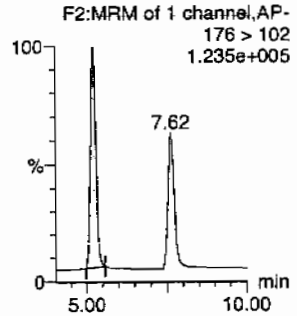

RDX

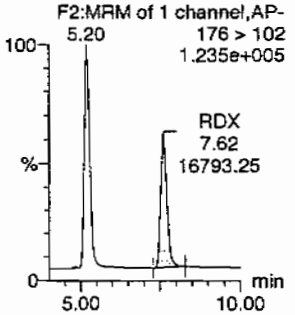

135-Trinitrobenzene

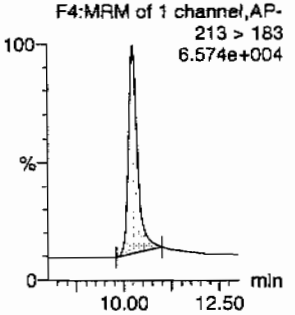

13-Dinitrobenzene-d4

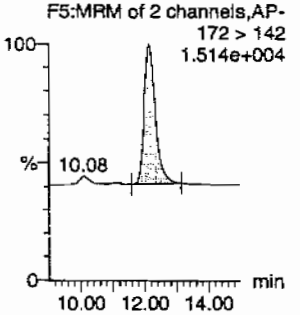

13-Dinitrobenzene

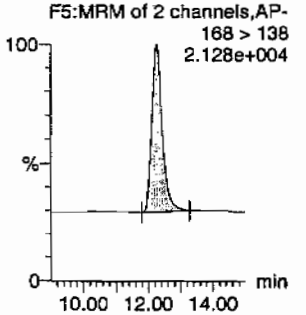

Tetryl

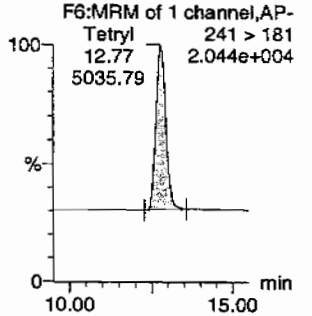

Nitrobenzene

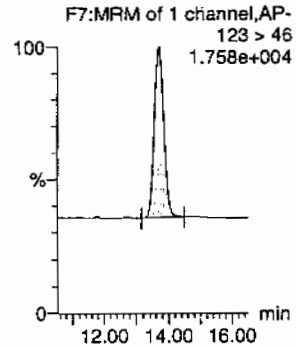

4-Amino-26-dinitrotoluene

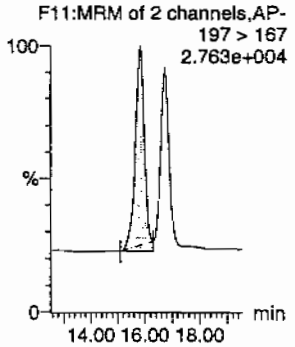

2-Amino-46-dinitrotoluene

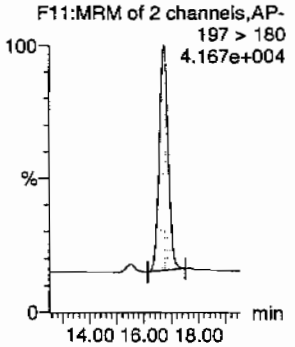

246-Trinitrotoluene

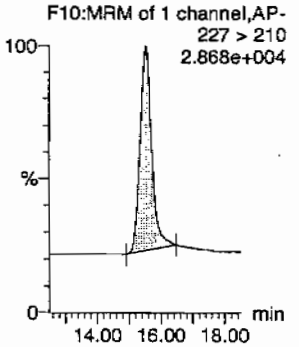

34-dinitrotoluene

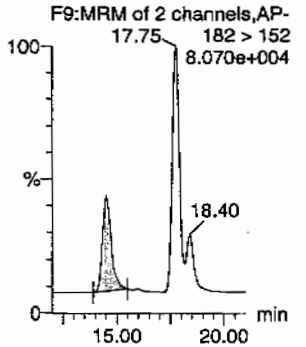

26-dinitrotoluene

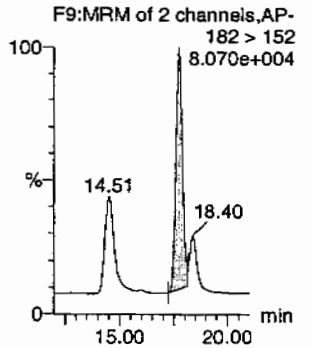

MM 03/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

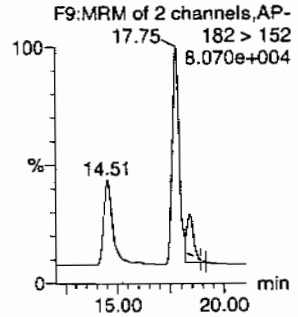

26-dinitrotoluene-d3

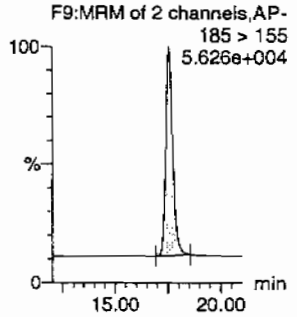

2-Nitrotoluene

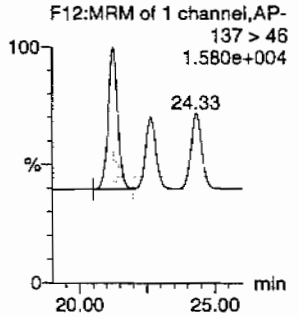

4-Nitrotoluene

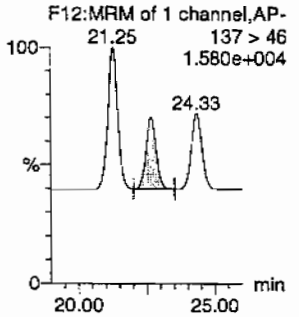

3-Nitrotoluene

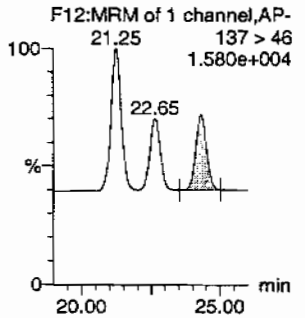

PETN

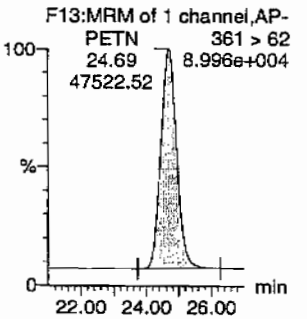

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.20	23247.100	3678.984	23247.100	3159.446	bb			677.3665	112.9	12.9	2560.3
WXX100304-07CCV	RDX	176 > 102	7.62	16793.252	3678.984	16793.252	2282.322	bb			797.6245	132.9	32.9	1567.4
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	16679.912	3678.984	16679.912	2266.918	bb			582.1844	97.0	-3.0	428.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3678.984		3678.984	3678.984	bb			523.8049	104.8	4.8	230.9
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	5771.273	3678.984	5771.273	784.357	bb			619.3290	103.2	3.2	630.1
WXX100304-07CCV	Tetryl	241 > 181	12.77	5035.788	3678.984	5035.788	684.399	bb			672.5937	112.1	12.1	382.1
WXX100304-07CCV	Nitrobenzene	123 > 46	13.71	3969.008	3678.984	3969.008	539.416	bb			653.2568	108.9	8.9	464.3
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	8515.934	19547.650	8515.934	217.825	MM	05-Mar-10	10:06:27	789.7146	131.6	31.6	450.0
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	13454.715	19547.650	13454.715	344.152	bb			849.5422	141.6	41.6	1164.7
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.52	9442.896	19547.650	9442.896	241.535	bb			735.0276	122.5	22.5	274.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	13769.875	19547.650	13769.875	352.213	bb			364.4337	121.5	21.5	676.9
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	26329.188	19547.650	26329.188	673.462	bd			603.7078	100.6	0.6	1723.2
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.40	6497.957	19547.650	6497.957	166.208	MM	05-Mar-10	10:14:36	602.9736	100.5	0.5	387.9
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	19547.650		19547.650	19547.650	bb			475.3671	95.1	-4.9	1057.7
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.25	3997.184	19547.650	3997.184	102.242	bb			660.0571	110.0	10.0	1109.3
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.65	2099.885	19547.650	2099.885	53.712	bb			704.1980	117.4	17.4	556.9
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.33	2265.668	19547.650	2265.668	57.952	bb			614.1987	102.4	2.4	587.3
WXX100304-07CCV	PETN	361 > 62	24.69	47522.520	19547.650	47522.520	1215.556	bb			714.8825	119.1	19.1	12806.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 0205
Standard Number: WXX100304-07CCV
Data File: EXP0304023a

HMX		112.9
RDX		132.9
135-TNB		97.0
13-DNB		103.2
Tetryl		112.1
Nitrobenzene		108.9
4A-26-DNT		131.6
2A-46-DNT		141.6
246-TNT		122.5
34-DNT(surr)		121.5
26-DNT		100.6
24-DNT		100.5
2-NT		110.0
4-NT		117.4
3-NT		102.1
PETN		119.1
Total		1833.9
Average		114.6

MJT 3/6/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304025a

Analysis Date: 05–MAR–10 03:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	45.531	114	
1,3–Dinitrobenzene–d4	500	486.162	97	
2,4,6–Trinitrotoluene	40	34.785	87	
2,4–Dinitrotoluene	40	43.839	110	
2,6–Dinitrotoluene	40	37.827	95	
2,6–Dinitrotoluene–d3	500	496.377	99	
2–Amino–4,6–dinitrotoluene	40	38.416	96	
3,4–Dinitrotoluene	20	18.756	94	
4–Amino–2,6–dinitrotoluene	40	39.423	99	
HMX	40	36.072	90	
Nitrobenzene	40	41.851	105	
PETN	40	44.092	110	
RDX	40	37.991	95	
Tetryl	40	37.595	94	
m–Dinitrobenzene	40	36.407	91	
m–Nitrotoluene	40	44.127	110	
o–Nitrotoluene	40	43.573	109	
p–Nitrotoluene	40	37.14	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304025a
Date: 05-Mar-2010
Time: 03:04:14
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/6/10

HMX

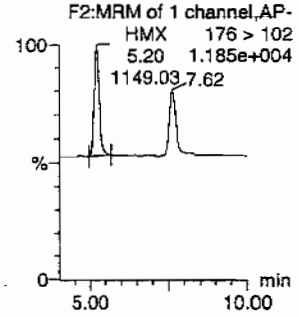

RDX

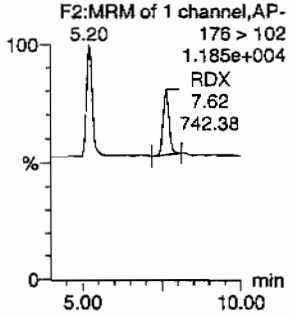

135-Trinitrobenzene

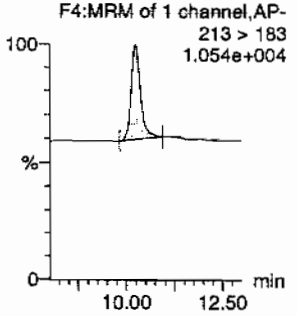

13-Dinitrobenzene-d4

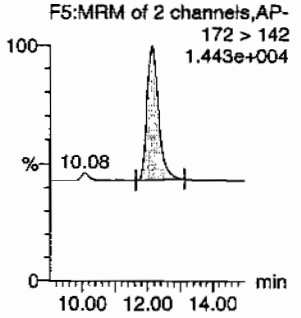

13-Dinitrobenzene

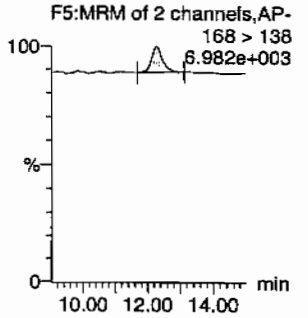

Tetryl

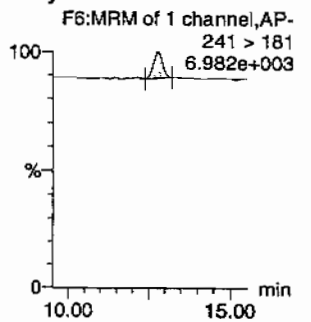

Nitrobenzene

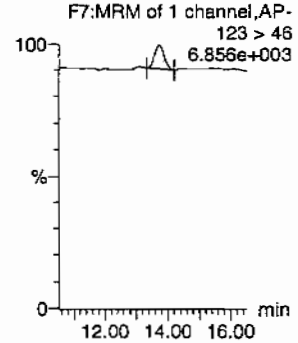

4-Amino-26-dinitrotoluene

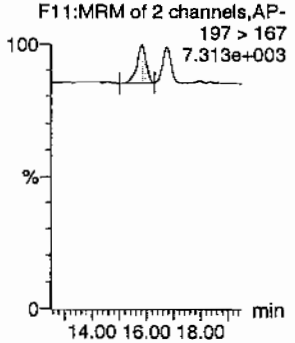

2-Amino-46-dinitrotoluene

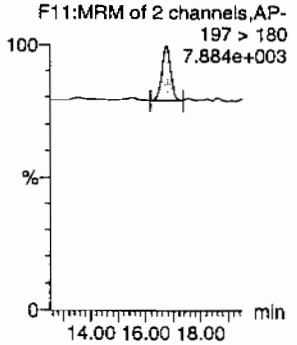

246-Trinitrotoluene

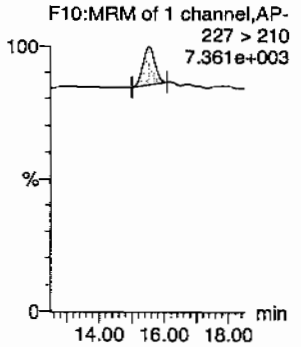

34-dinitrotoluene

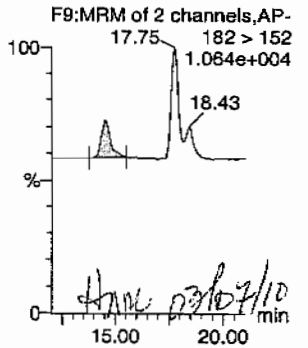

26-dinitrotoluene

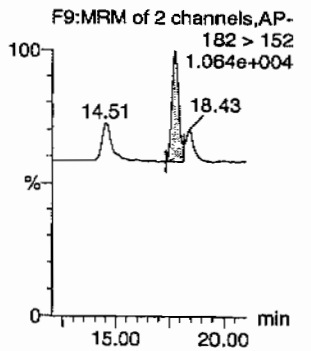

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

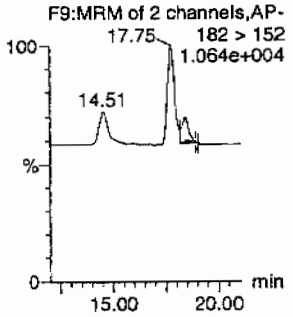

26-dinitrotoluene-d3

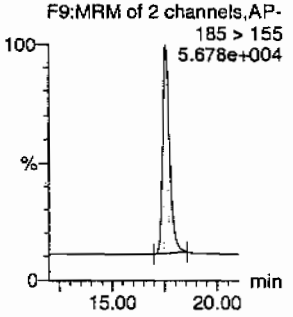

2-Nitrotoluene

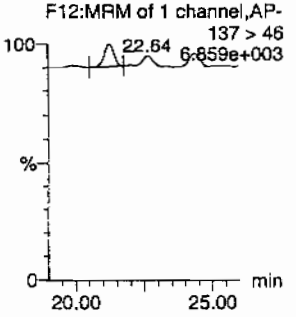

4-Nitrotoluene

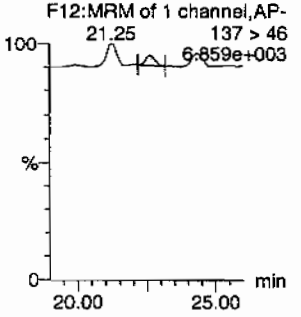

3-Nitrotoluene

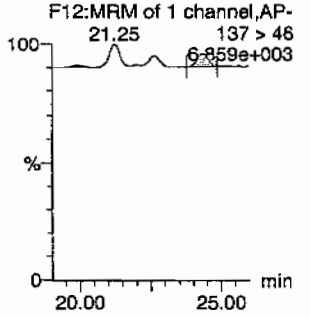

PETN

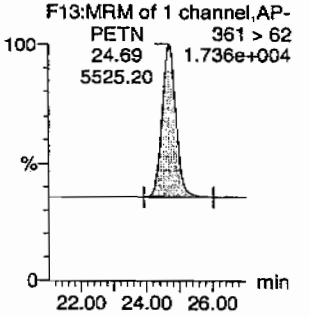

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1149.025	3414.594	1149.025	168.252	bb			36.0722	90.2	-9.8	165.6
WXX100304-08CRI	RDX	176 > 102	7.62	742.378	3414.594	742.378	108.707	bb			37.9907	95.0	-5.0	95.5
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1210.741	3414.594	1210.741	177.289	bb			45.5310	113.8	13.8	229.8
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3414.594		3414.594	3414.594	bb			486.1617	97.2	-2.8	85.2
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	314.881	3414.594	314.881	46.108	bb			36.4070	91.0	-9.0	27.6
WXX100304-08CRI	Tetryl	241 > 181	12.77	261.250	3414.594	261.250	38.255	bb			37.5950	94.0	-6.0	25.8
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	236.004	3414.594	236.004	34.558	bb			41.8514	104.6	4.6	38.7
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	443.909	20411.605	443.909	10.874	bb			39.4230	98.6	-1.4	32.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	635.304	20411.605	635.304	15.562	bb			38.4158	96.0	-4.0	53.4
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.55	466.627	20411.605	466.627	11.430	bb			34.7845	87.0	-13.0	48.2
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	740.008	20411.605	740.008	18.127	bb			18.7561	93.8	-6.2	47.1
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.75	1722.620	20411.605	1722.620	42.197	MM	05-Mar-10	10:11:23	37.8265	94.6	-5.4	142.3
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.43	493.310	20411.605	493.310	12.084	MM	05-Mar-10	10:14:45	43.8388	109.6	9.6	38.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.57	20411.605		20411.605	20411.605	bb			496.3771	99.3	-0.7	287.3
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.25	275.529	20411.605	275.529	6.749	bb			43.5725	108.9	8.9	54.8
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.64	115.645	20411.605	115.645	2.833	bb			37.1401	92.9	-7.1	23.6
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.36	169.971	20411.605	169.971	4.164	bb			44.1270	110.3	10.3	31.1
WXX100304-08CRI	PETN	361 > 62	24.69	5525.200	20411.605	5525.200	135.345	bb			44.0922	110.2	10.2	367.0

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	0304
Standard Number	WXX100304-08CRI
Data File	EXP0304025a

HMX	90.2
RDX	95.0
135-TNB	113.8
13-DNB	91.0
Tetryl	94.0
Nitrobenzene	104.6
4A-26-DNT	98.6
2A-46-DNT	96.0
246-TNT	87.0
34-DNT(surr)	93.8
26-DNT	94.6
24-DNT	109.6
2-NT	108.9
4-NT	92.9
3-NT	110.3
PETN	110.2
Total	1590.5
Average	99.4

3/6/10

03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304036a

Analysis Date: 05-MAR-10 08:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	600.392	100	
1,3,5-Trinitrobenzene	600	515.274	86	
1,3-Dinitrobenzene-d4	500	536.623	107	
2,4,6-Trinitrotoluene	600	672.018	112	
2,4-Dinitrotoluene	600	572.889	95	
2,6-Dinitrotoluene	600	612.517	102	
2,6-Dinitrotoluene-d3	500	508.792	102	
2-Amino-4,6-dinitrotoluene	600	681.036	114	
3,4-Dinitrotoluene	300	311.088	104	
4-Amino-2,6-dinitrotoluene	600	643.868	107	
HMX	600	523.143	87	
Nitrobenzene	600	628.495	105	
PETN	600	577.567	96	
RDX	600	607.989	101	
Tetryl	600	588.724	98	
m-Dinitrobenzene	600	634.351	106	
m-Nitrotoluene	600	540.173	90	
o-Nitrotoluene	600	622.879	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304036a
Date: 05-Mar-2010
Time: 08:28:30
ID: WXX100304-07CCV
Vial: 1:1,B

MMT 3/6/10

HMX

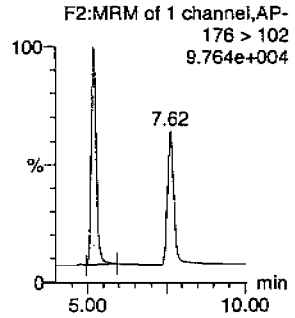

RDX

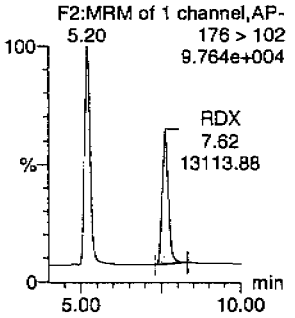

135-Trinitrobenzene

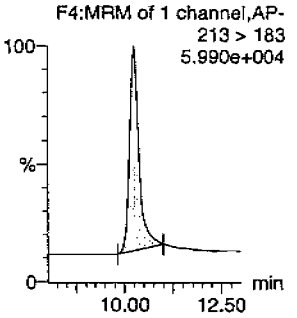

13-Dinitrobenzene-d4

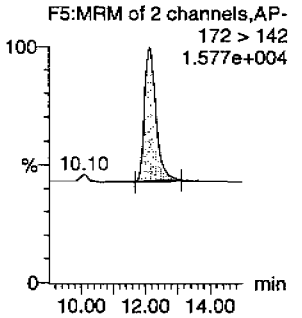

13-Dinitrobenzene

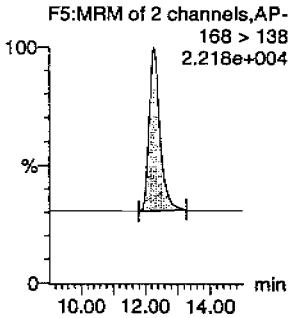

Tetryl

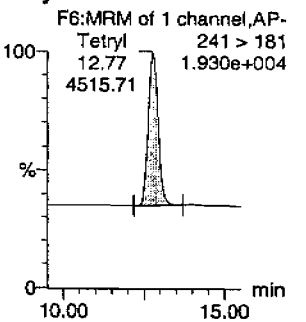

Nitrobenzene

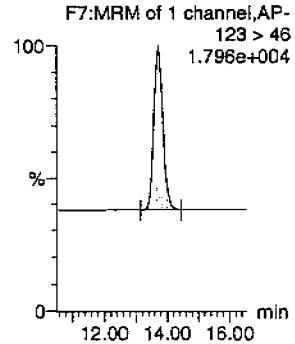

4-Amino-26-dinitrotoluene

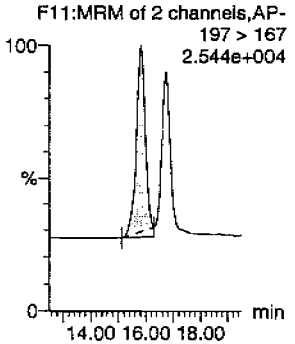

2-Amino-46-dinitrotoluene

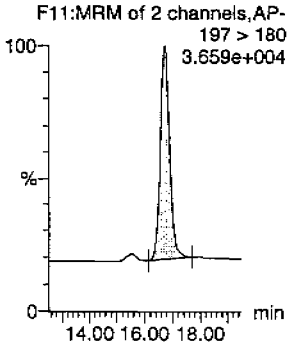

246-Trinitrotoluene

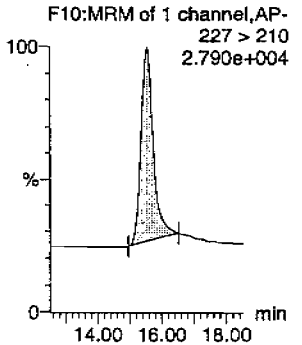

34-dinitrotoluene

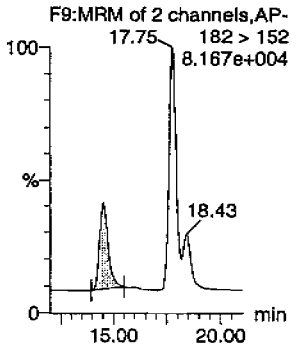

26-dinitrotoluene

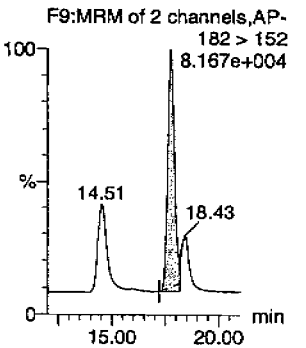

dmm 03/07/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

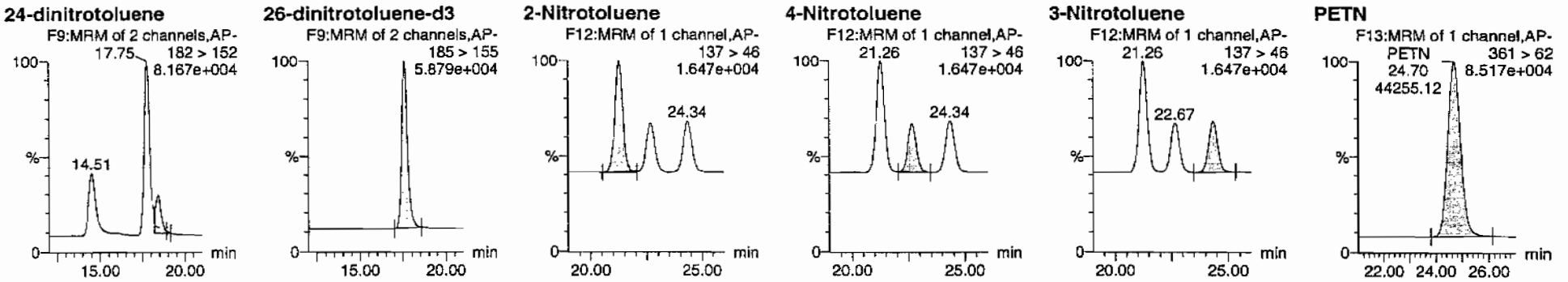

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.20	18393.506	3769.010	18393.506	2440.098	db			523.1425	87.2	-12.8	1478.9
WXX100304-07CCV	RDX	176 > 102	7.62	13113.881	3769.010	13113.881	1739.698	bb			607.9888	101.3	1.3	912.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	15124.150	3769.010	15124.150	2006.382	bb			515.2742	85.9	-14.1	1681.4
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3769.010		3769.010	3769.010	bb			536.6226	107.3	7.3	211.6
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	6055.908	3769.010	6055.908	803.382	bb			634.3511	105.7	5.7	341.1
WXX100304-07CCV	Tetryl	241 > 181	12.77	4515.707	3769.010	4515.707	599.057	bb			588.7240	98.1	-1.9	461.6
WXX100304-07CCV	Nitrobenzene	123 > 46	13.72	3912.001	3769.010	3912.001	518.969	bb			628.4946	104.7	4.7	410.3
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7431.390	20922.104	7431.390	177.597	MM	05-Mar-10	10:07:06	643.8684	107.3	7.3	244.6
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11544.367	20922.104	11544.367	275.889	bb			681.0355	113.5	13.5	719.9
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.55	9240.455	20922.104	9240.455	220.830	bb			672.0182	112.0	12.0	377.4
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	12580.740	20922.104	12580.740	300.657	bb			311.0885	103.7	3.7	401.3
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	28591.688	20922.104	28591.688	683.289	MM	05-Mar-10	10:12:12	612.5172	102.1	2.1	1125.2
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.43	6607.849	20922.104	6607.849	157.915	MM	05-Mar-10	10:15:32	572.8894	95.5	-4.5	244.0
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	20922.104		20922.104	20922.104	bb			508.7916	101.8	1.8	2012.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.26	4037.262	20922.104	4037.262	96.483	bb			622.8787	103.8	3.8	781.2
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.67	1916.226	20922.104	1916.226	45.794	bb			600.3925	100.1	0.1	346.0
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.34	2132.706	20922.104	2132.706	50.968	bb			540.1729	90.0	-10.0	362.7
WXX100304-07CCV	PETN	361 > 62	24.70	44255.117	20922.104	44255.117	1057.616	bb			577.5671	96.3	-3.7	1129.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 0828
Standard Number: WXX100304-07CCV
Data File: EXP0304036a

HMX		87.2
RDX		101.3
135-TNB		85.9
13-DNB		105.7
Tetryl		98.1
Nitrobenzene		104.7
4A-26-DNT		107.3
2A-46-DNT		113.5
246-TNT		112.0
34-DNT(surr)		103.7
26-DNT		102.1
24-DNT		95.5
2-NT		103.8
4-NT		100.1
3-NT		90.0
PETN		96.3
Total		1607.2
Average		100.5

HMT 3/6/10

Hmm 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304038a

Analysis Date: 05–MAR–10 09:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	20	17.879	89	
4–Amino–2,6–dinitrotoluene	40	46.263	116	
HMX	40	38.837	97	
Nitrobenzene	40	43.406	109	
PETN	40	38.4	96	
RDX	40	41.881	105	
Tetryl	40	47.052	118	
m–Dinitrobenzene	40	39.692	99	
m–Nitrotoluene	40	40.239	101	
o–Nitrotoluene	40	38.86	97	
p–Nitrotoluene	40	39.046	98	
1,3,5–Trinitrobenzene	40	48.063	120	
1,3–Dinitrobenzene–d4	500	567.712	114	
2,4,6–Trinitrotoluene	40	40.001	100	
2,4–Dinitrotoluene	40	36.759	92	
2,6–Dinitrotoluene	40	39.855	100	
2,6–Dinitrotoluene–d3	500	569.834	114	
2–Amino–4,6–dinitrotoluene	40	38.546	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304038a
Date: 05-Mar-2010
Time: 09:27:34
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/6/10

HMX

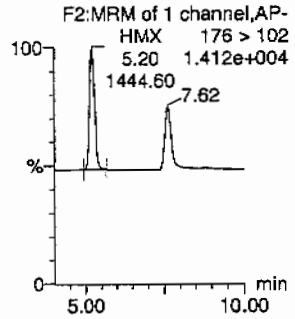

RDX

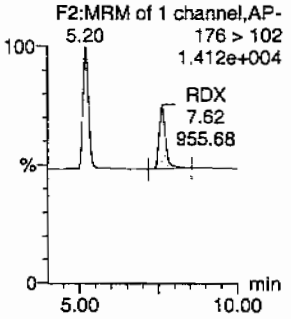

135-Trinitrobenzene

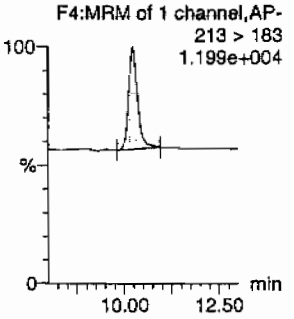

13-Dinitrobenzene-d4

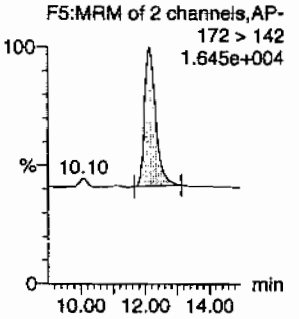

13-Dinitrobenzene

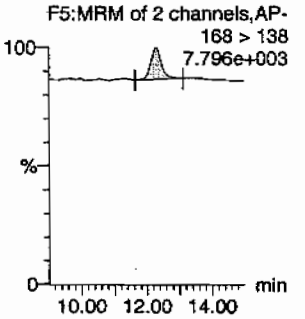

Tetryl

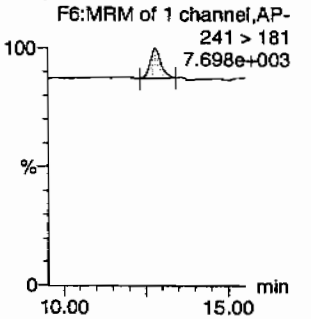

Nitrobenzene

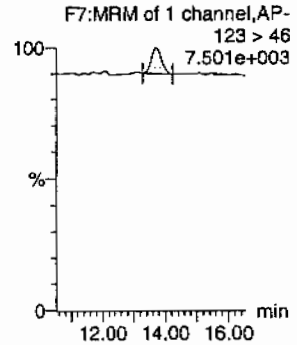

4-Amino-26-dinitrotoluene

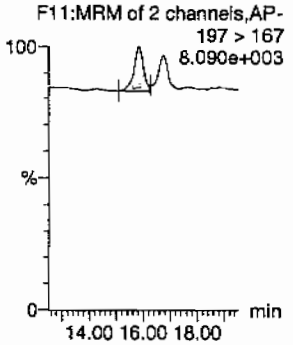

2-Amino-46-dinitrotoluene

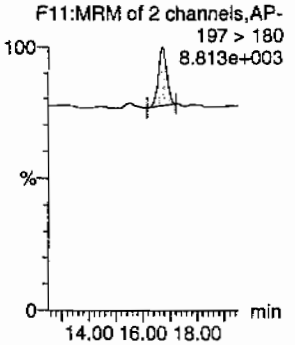

246-Trinitrotoluene

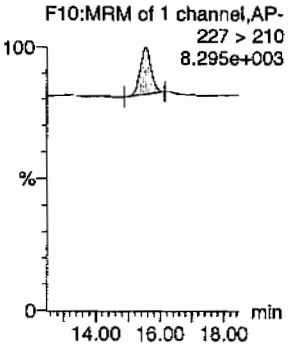

34-dinitrotoluene

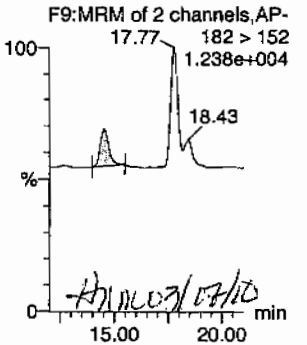

26-dinitrotoluene

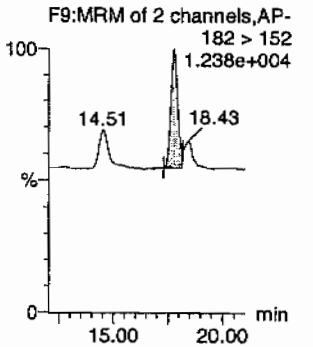

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA.qld, Time: Fri Mar 05 10:16:18 2010

24-dinitrotoluene

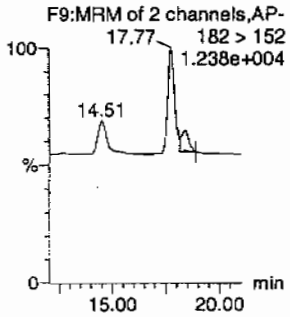

26-dinitrotoluene-d3

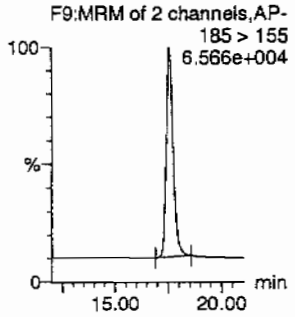

2-Nitrotoluene

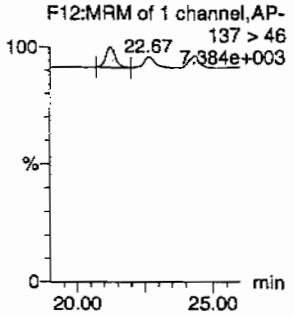

4-Nitrotoluene

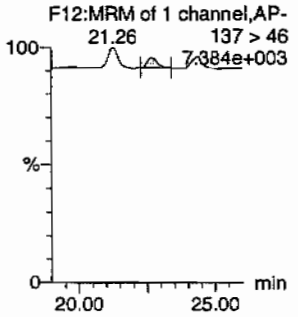

3-Nitrotoluene

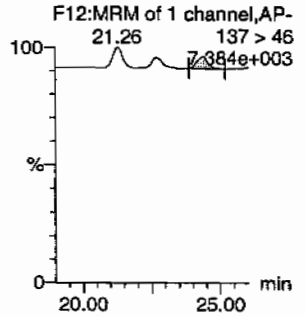

PETN

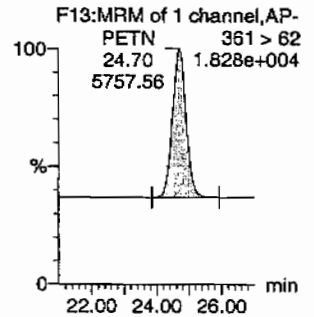

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1444.595	3987.369	1444.595	181.146	bb			38.8367	97.1	-2.9	378.8
WXX100304-08CRI	RDX	176 > 102	7.62	955.681	3987.369	955.681	119.839	bb			41.8811	104.7	4.7	198.0
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1492.464	3987.369	1492.464	187.149	bb			48.0631	120.2	20.2	84.1
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3987.369		3987.369	3987.369	bb			567.7120	113.5	13.5	417.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	400.882	3987.369	400.882	50.269	bb			39.6924	99.2	-0.8	24.5
WXX100304-08CRI	Tetryl	241 > 181	12.77	381.817	3987.369	381.817	47.878	bb			47.0524	117.6	17.6	25.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	285.830	3987.369	285.830	35.842	bb			43.4061	108.5	8.5	24.9
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	598.013	23432.250	598.013	12.760	MM	05-Mar-10	10:07:28	46.2625	115.7	15.7	34.2
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	731.783	23432.250	731.783	15.615	bb			38.5455	96.4	-3.6	66.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.55	616.013	23432.250	616.013	13.145	bb			40.0008	100.0	0.0	42.1
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	809.807	23432.250	809.807	17.280	bb			17.8793	89.4	-10.6	40.6
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.77	2083.575	23432.250	2083.575	44.460	MM	05-Mar-10	10:12:20	39.8547	99.6	-0.4	131.5
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.43	474.849	23432.250	474.849	10.132	MM	05-Mar-10	10:15:38	36.7585	91.9	-8.1	26.6
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23432.250		23432.250	23432.250	bb			569.8343	114.0	14.0	2088.9
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.26	282.094	23432.250	282.094	6.019	bb			38.8599	97.1	-2.9	32.5
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.67	139.572	23432.250	139.572	2.978	bb			39.0461	97.6	-2.4	16.0
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.38	177.933	23432.250	177.933	3.797	bb			40.2392	100.6	0.6	18.9
WXX100304-08CRI	PETN	361 > 62	24.70	5757.563	23432.250	5757.563	122.856	bb			38.3995	96.0	-4.0	941.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	0927
Standard Number	WXX100304-08CRI
Data File	EXP0304038a

HMX	97.1
RDX	104.7
135-TNB	120.2
13-DNB	99.2
Tetryl	117.6
Nitrobenzene	108.5
4A-26-DNT	115.7
2A-46-DNT	96.4
246-TNT	100.0
34-DNT(surr)	89.4
26-DNT	99.6
24-DNT	91.9
2-NT	97.1
4-NT	97.6
3-NT	100.6
PETN	96.0
Total	1631.6
Average	102.0

MHP 3/6/10

HMM 03/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304049a

Analysis Date: 05-MAR-10 14:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	516.322	103	
2-Amino-4,6-dinitrotoluene	600	640.403	107	
3,4-Dinitrotoluene	300	295.719	99	
4-Amino-2,6-dinitrotoluene	600	631.798	105	
HMX	600	537.583	90	
Nitrobenzene	600	626.896	104	
PETN	600	590.161	98	
RDX	600	630.1	105	
Tetryl	600	629.847	105	
m-Dinitrobenzene	600	598.536	100	
m-Nitrotoluene	600	561.186	94	
o-Nitrotoluene	600	596.576	99	
p-Nitrotoluene	600	615.575	103	
1,3,5-Trinitrobenzene	600	553.66	92	
1,3-Dinitrobenzene-d4	500	505.7	101	
2,4,6-Trinitrotoluene	600	658.826	110	
2,4-Dinitrotoluene	600	563.598	94	
2,6-Dinitrotoluene	600	590.275	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304049a
Date: 05-Mar-2010
Time: 14:52:12
ID: WXX100304-07CCV
Vial: 1:1,B

MAT 3/6/10

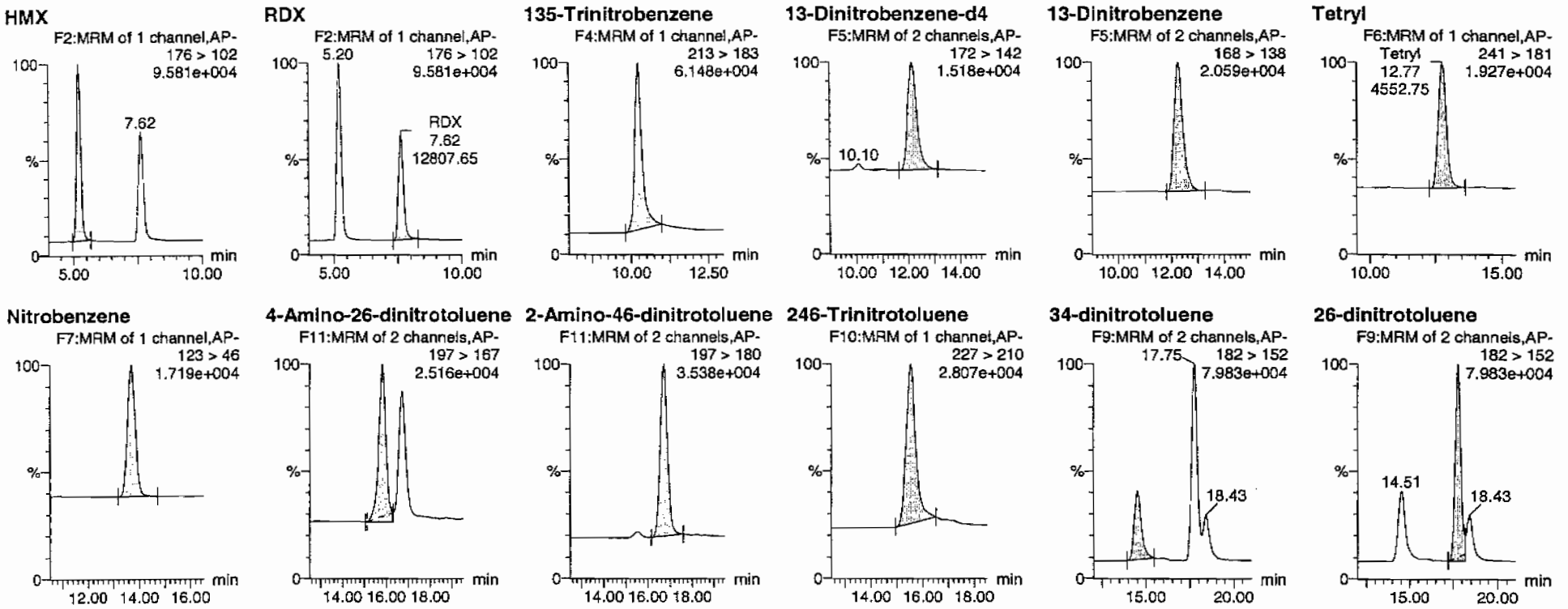

tnm 03/07/10

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

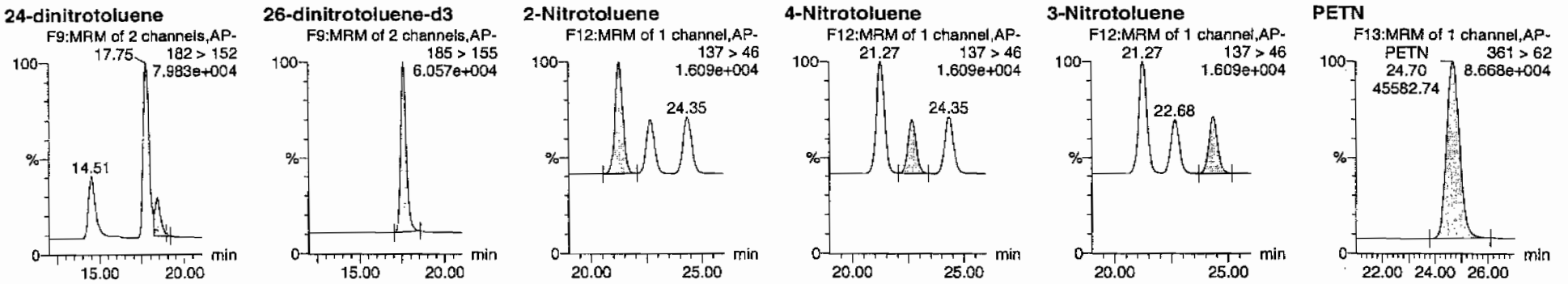

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.20	17812.063	3551.826	17812.063	2507.452	bb			537.5828	89.6	-10.4	1664.9
WXX100304-07CCV	RDX	176 > 102	7.62	12807.652	3551.826	12807.652	1802.967	bb			630.0999	105.0	5.0	1029.0
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.23	15314.414	3551.826	15314.414	2155.851	bb			553.6603	92.3	-7.7	787.1
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3551.826		3551.826	3551.826	bb			505.7004	101.1	1.1	212.6
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.27	5384.733	3551.826	5384.733	758.023	bb			598.5359	99.8	-0.2	403.2
WXX100304-07CCV	Tetryl	241 > 181	12.77	4552.748	3551.826	4552.748	640.902	bb			629.8472	105.0	5.0	552.4
WXX100304-07CCV	Nitrobenzene	123 > 46	13.72	3677.203	3551.826	3677.203	517.650	bb			626.8964	104.5	4.5	408.6
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.83	7399.999	21231.762	7399.999	174.267	MM	06-Mar-10	12:11:04	631.7977	105.3	5.3	496.7
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.73	11016.273	21231.762	11016.273	259.429	bb			640.4034	106.7	6.7	751.3
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.55	9193.135	21231.762	9193.135	216.495	bb			658.8258	109.8	9.8	813.4
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.51	12136.202	21231.762	12136.202	285.803	bb			295.7194	98.6	-1.4	558.4
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.75	27961.234	21231.762	27961.234	658.477	MM	06-Mar-10	12:14:47	590.2747	98.4	-1.6	1598.9
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.43	6596.898	21231.762	6596.898	155.354	MM	06-Mar-10	12:15:00	563.5984	93.9	-6.1	349.0
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.57	21231.762		21231.762	21231.762	bb			516.3220	103.3	3.3	1428.5
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.27	3924.011	21231.762	3924.011	92.409	bb			596.5764	99.4	-0.6	813.6
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.68	1993.761	21231.762	1993.761	46.952	bb			615.5749	102.6	2.6	395.6
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.35	2248.463	21231.762	2248.463	52.950	bb			561.1861	93.5	-6.5	417.7
WXX100304-07CCV	PETN	361 > 62	24.70	45582.738	21231.762	45582.738	1073.456	bb			590.1608	98.4	-1.6	3875.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 1452
Standard Number: WXX100304-07CCV
Data File: EXP0304049a

HMX	89.6
RDX	105.0
135-TNB	92.3
13-DNB	99.8
Tetryl	105.0
Nitrobenzene	104.5
4A-26-DNT	105.3
2A-46-DNT	106.7
246-TNT	109.8
34-DNT(surr)	98.6
26-DNT	98.4
24-DNT	93.9
2-NT	99.4
4-NT	102.6
3-NT	93.5
PETN	98.4
Total	1602.8
Average	100.2

MMT 3/6/10

HMC 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304051a

Analysis Date: 05-MAR-10 15:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	51.153	128	
1,3-Dinitrobenzene-d4	500	505.962	101	
2,4,6-Trinitrotoluene	40	43.019	108	
2,4-Dinitrotoluene	40	36.168	90	
2,6-Dinitrotoluene	40	40.992	102	
2,6-Dinitrotoluene-d3	500	562.467	112	
2-Amino-4,6-dinitrotoluene	40	41.661	104	
3,4-Dinitrotoluene	20	18.026	90	
4-Amino-2,6-dinitrotoluene	40	34.434	86	
HMX	40	42.762	107	
Nitrobenzene	40	43.048	108	
PETN	40	41.201	103	
RDX	40	42.966	107	
Tetryl	40	50.733	127	
m-Dinitrobenzene	40	39.555	99	
m-Nitrotoluene	40	42.174	105	
o-Nitrotoluene	40	36.513	91	
p-Nitrotoluene	40	41.047	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304051a
Date: 05-Mar-2010
Time: 15:51:17
ID: WXX100304-08CRI
Vial: 1:1,C

MM 3/6/10

HMX

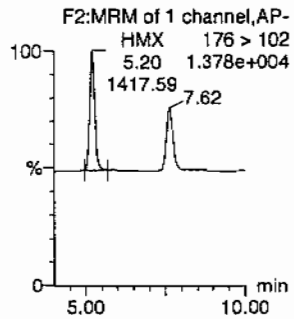

RDX

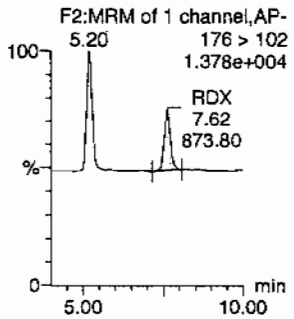

135-Trinitrobenzene

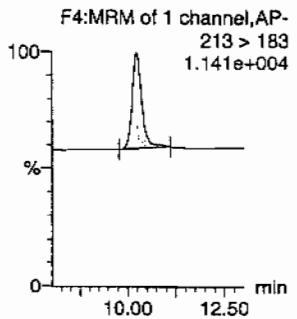

13-Dinitrobenzene-d4

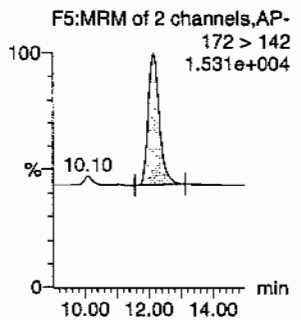

13-Dinitrobenzene

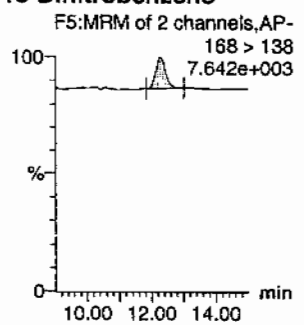

Tetryl

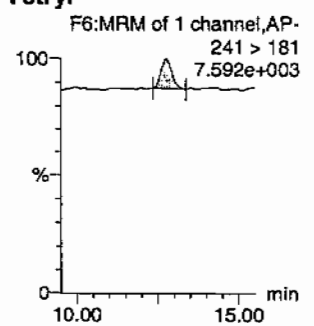

Nitrobenzene

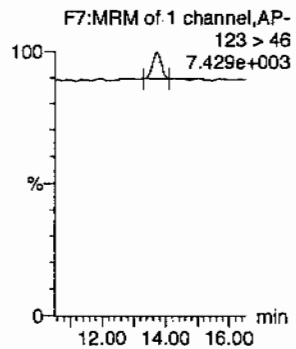

4-Amino-26-dinitrotoluene

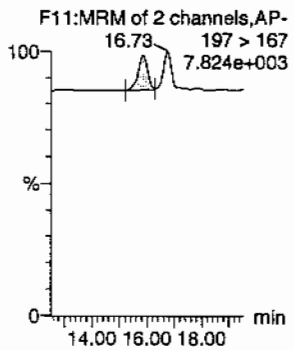

2-Amino-46-dinitrotoluene

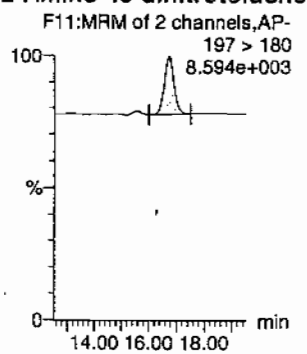

246-Trinitrotoluene

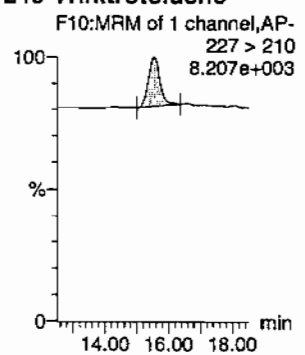

34-dinitrotoluene

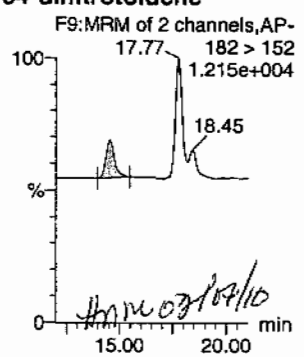

26-dinitrotoluene

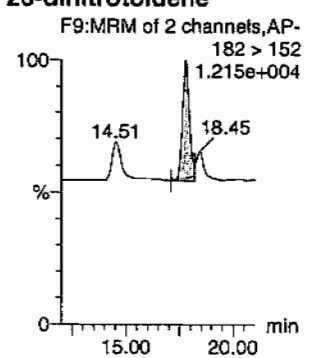

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

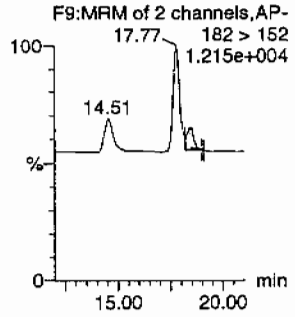

26-dinitrotoluene-d3

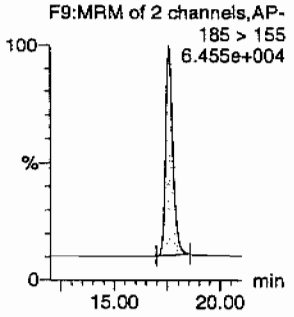

2-Nitrotoluene

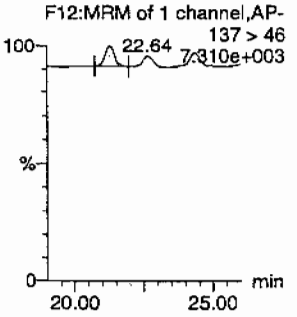

4-Nitrotoluene

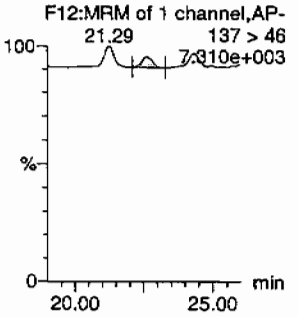

3-Nitrotoluene

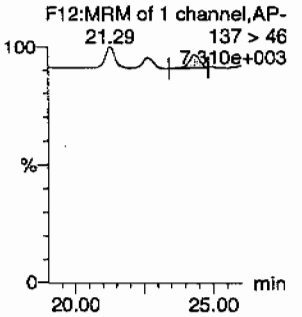

PETN

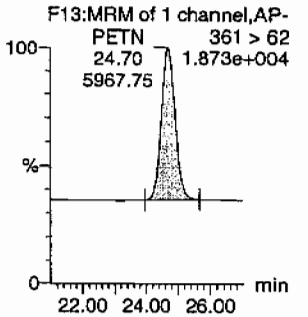

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1417.593	3553.665	1417.593	199.455	bb			42.7620	106.9	6.9	172.8
WXX100304-08CRI	RDX	176 > 102	7.62	873.798	3553.665	873.798	122.943	bb			42.9661	107.4	7.4	91.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.23	1415.644	3553.665	1415.644	199.181	bb			51.1531	127.9	27.9	144.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.14	3553.665		3553.665	3553.665	bb			505.9623	101.2	1.2	134.1
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.27	356.044	3553.665	356.044	50.095	bb			39.5553	98.9	-1.1	61.5
WXX100304-08CRI	Tetryl	241 > 181	12.77	366.905	3553.665	366.905	51.623	bb			50.7330	126.8	26.8	38.1
WXX100304-08CRI	Nitrobenzene	123 > 46	13.72	252.641	3553.665	252.641	35.547	bb			43.0484	107.6	7.6	26.8
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.83	439.361	23129.281	439.361	9.498	MM	06-Mar-10	12:10:49	34.4343	86.1	-13.9	41.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.73	780.703	23129.281	780.703	16.877	bb			41.6609	104.2	4.2	107.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.52	653.919	23129.281	653.919	14.136	bb			43.0185	107.5	7.5	46.5
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.51	805.904	23129.281	805.904	17.422	bb			18.0262	90.1	-9.9	92.2
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.77	2115.341	23129.281	2115.341	45.729	MM	06-Mar-10	12:14:36	40.9923	102.5	2.5	301.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.45	461.181	23129.281	461.181	9.970	MM	06-Mar-10	12:15:17	36.1681	90.4	-9.6	64.8
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.60	23129.281		23129.281	23129.281	bb			562.4666	112.5	12.5	1880.7
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.29	261.630	23129.281	261.630	5.656	bb			36.5130	91.3	-8.7	58.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.64	144.827	23129.281	144.827	3.131	bb			41.0470	102.6	2.6	29.7
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.34	184.075	23129.281	184.075	3.979	bb			42.1735	105.4	5.4	36.7
WXX100304-08CRI	PETN	361 > 62	24.70	5967.752	23129.281	5967.752	129.009	bb			41.2009	103.0	3.0	1834.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	1551
Standard Number	WXX100304-08CRI
Data File	EXP0304051a

HMX	106.9
RDX	107.4
135-TNB	127.9
13-DNB	98.9
Tetryl	126.8
Nitrobenzene	107.6
4A-26-DNT	86.1
2A-46-DNT	104.2
246-TNT	107.5
34-DNT(surr)	90.1
26-DNT	102.5
24-DNT	90.4
2-NT	91.3
4-NT	102.6
3-NT	105.4
PETN	103.0
Total	1658.6
Average	103.7

MMT 3/6/10

HMM 03/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304064a

Analysis Date: 05–MAR–10 22:14

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m–Nitrotoluene	600	594.436	99	
o–Nitrotoluene	600	627.073	105	
p–Nitrotoluene	600	632.094	105	
1,3,5–Trinitrobenzene	600	563.548	94	
1,3–Dinitrobenzene–d4	500	511.802	102	
2,4,6–Trinitrotoluene	600	684.022	114	
2,4–Dinitrotoluene	600	572.807	95	
2,6–Dinitrotoluene	600	602.144	100	
2,6–Dinitrotoluene–d3	500	514.259	103	
2–Amino–4,6–dinitrotoluene	600	681.738	114	
3,4–Dinitrotoluene	300	308.574	103	
4–Amino–2,6–dinitrotoluene	600	672.822	112	
HMX	600	559.79	93	
Nitrobenzene	600	614.548	102	
PETN	600	770.241	128	*
RDX	600	631.612	105	
Tetryl	600	585.793	98	
m–Dinitrobenzene	600	571.183	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304064a
Date: 05-Mar-2010
Time: 22:14:55
ID: WXX100304-07CCV
Vial: 1:1,B

MAP 3/6/10

HMX

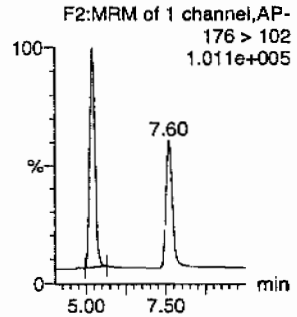

RDX

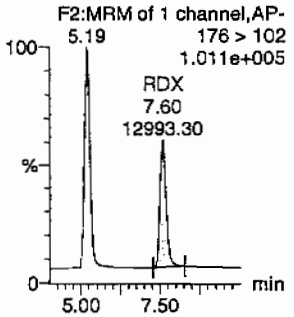

135-Trinitrobenzene

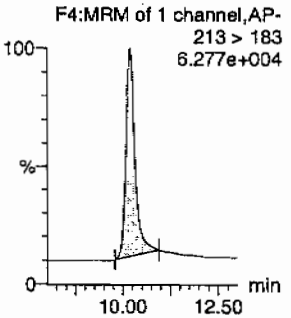

13-Dinitrobenzene-d4

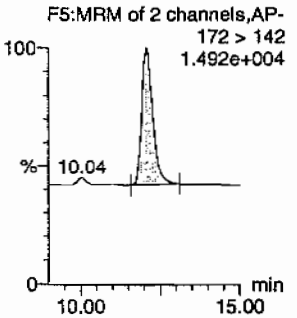

13-Dinitrobenzene

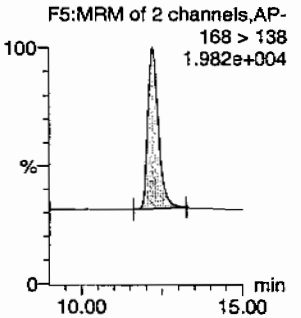

Tetryl

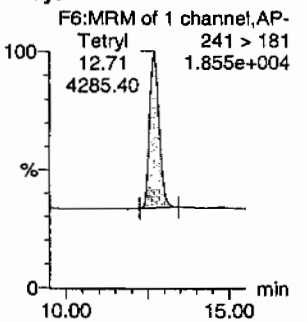

Nitrobenzene

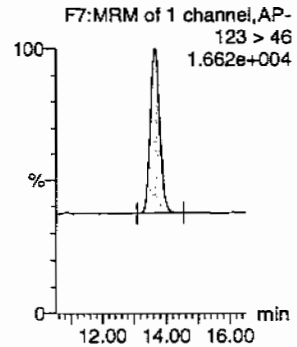

4-Amino-26-dinitrotoluene

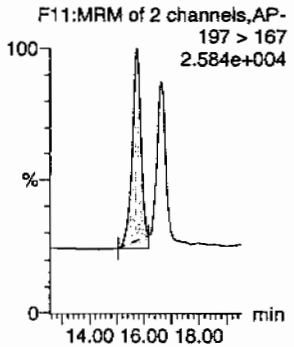

2-Amino-46-dinitrotoluene

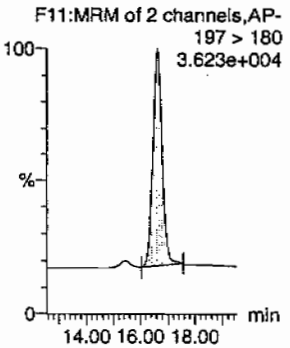

246-Trinitrotoluene

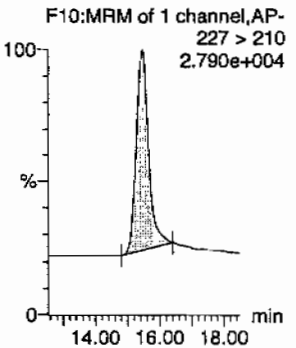

34-dinitrotoluene

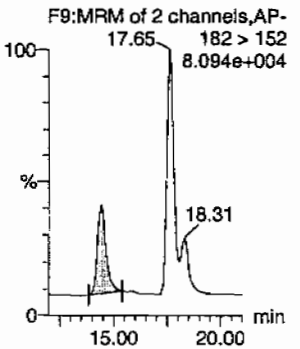

26-dinitrotoluene

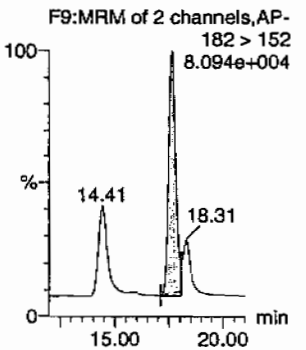

HMW 03/07/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

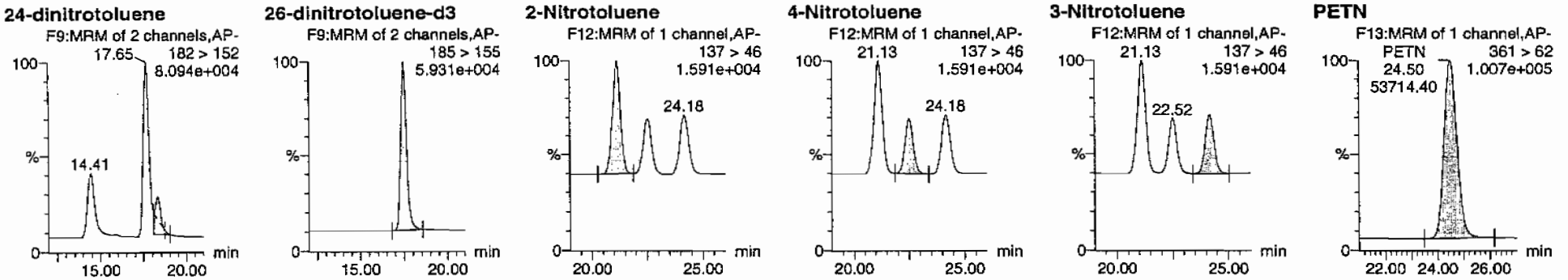

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	18771.666	3594.682	18771.666	2611.033	bb			559.7900	93.3	-6.7	1043.3
WXX100304-07CCV	RDX	176 > 102	7.60	12993.296	3594.682	12993.296	1807.294	bb			631.6121	105.3	5.3	610.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.19	15775.996	3594.682	15775.996	2194.352	bb			563.5481	93.9	-6.1	3611.2
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3594.682		3594.682	3594.682	bb			511.8022	102.4	2.4	147.2
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5200.653	3594.682	5200.653	723.382	bb			571.1828	95.2	-4.8	212.5
WXX100304-07CCV	Tetryl	241 > 181	12.71	4285.402	3594.682	4285.402	596.075	bb			585.7932	97.6	-2.4	284.4
WXX100304-07CCV	Nitrobenzene	123 > 46	13.61	3648.266	3594.682	3648.266	507.453	bb			614.5481	102.4	2.4	254.9
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7849.007	21146.920	7849.007	185.583	MM	06-Mar-10	12:09:33	672.8217	112.1	12.1	316.7
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11680.449	21146.920	11680.449	276.174	bb			681.7379	113.6	13.6	1008.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9506.581	21146.920	9506.581	224.775	bb			684.0223	114.0	14.0	131.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.41	12613.161	21146.920	12613.161	298.227	bb			308.5744	102.9	2.9	354.8
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.65	28409.504	21146.920	28409.504	671.717	MM	06-Mar-10	12:13:32	602.1441	100.4	0.4	993.5
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.31	6677.896	21146.920	6677.896	157.893	MM	06-Mar-10	12:17:10	572.8073	95.5	-4.5	212.4
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	21146.920		21146.920	21146.920	bb			514.2588	102.9	2.9	1777.2
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.13	4108.123	21146.920	4108.123	97.133	bb			627.0731	104.5	4.5	746.4
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.52	2039.084	21146.920	2039.084	48.212	bb			632.0943	105.3	5.3	366.9
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.18	2372.165	21146.920	2372.165	56.088	bb			594.4358	99.1	-0.9	394.8
WXX100304-07CCV	PETN	361 > 62	24.50	53714.398	21146.920	53714.398	1270.029	bb			770.2412	128.4	28.4	6214.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/05/10
Time of Injection: 2214
Standard Number: WXX100304-07CCV
Data File: EXP0304064a

HMX		93.3
RDX		105.3
135-TNB		93.9
13-DNB		95.2
Tetryl		97.6
Nitrobenzene		102.4
4A-26-DNT		112.1
2A-46-DNT		113.6
246-TNT		114.0
34-DNT(surr)		102.9
26-DNT		100.4
24-DNT		95.5
2-NT		104.5
4-NT		105.3
3-NT		99.1
PETN		128.4
Total		1663.5
Average		104.0

MDP 3/6/10

HMM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0304066a

Analysis Date: 05–MAR–10 23:13

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	45.259	113	
1,3–Dinitrobenzene–d4	500	507.864	102	
2,4,6–Trinitrotoluene	40	36.863	92	
2,4–Dinitrotoluene	40	36.208	91	
2,6–Dinitrotoluene	40	38.64	97	
2,6–Dinitrotoluene–d3	500	550.381	110	
2–Amino–4,6–dinitrotoluene	40	44.961	112	
3,4–Dinitrotoluene	20	22.033	110	
4–Amino–2,6–dinitrotoluene	40	40.967	102	
HMX	40	40.601	102	
Nitrobenzene	40	46.373	116	
PETN	40	50.567	126	
RDX	40	39.862	100	
Tetryl	40	44.962	112	
m–Dinitrobenzene	40	38.965	97	
m–Nitrotoluene	40	40.333	101	
o–Nitrotoluene	40	39.738	99	
p–Nitrotoluene	40	41.622	104	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304066a
Date: 05-Mar-2010
Time: 23:13:59
ID: WXX100304-08CRI
Vial: 1:1,C

MATT 3/6/10

HMX

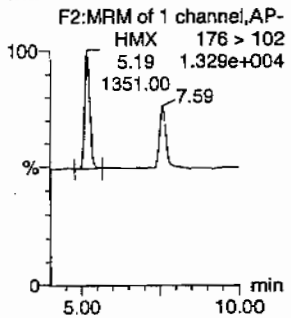

RDX

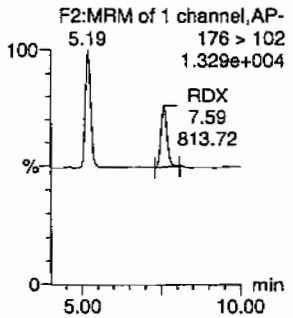

135-Trinitrobenzene

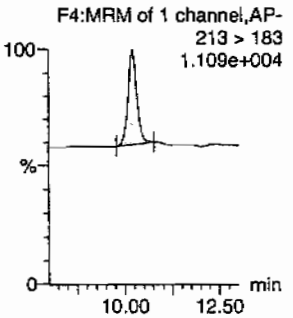

13-Dinitrobenzene-d4

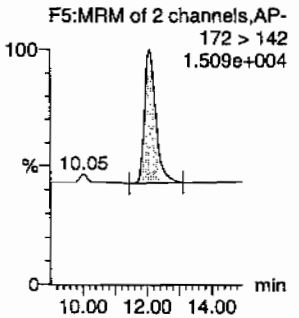

13-Dinitrobenzene

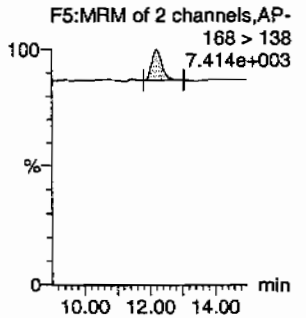

Tetryl

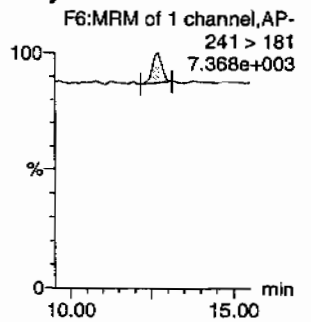

Nitrobenzene

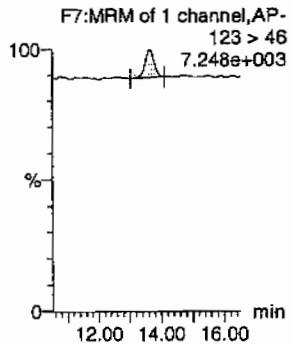

4-Amino-26-dinitrotoluene

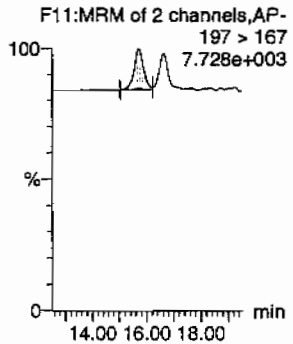

2-Amino-46-dinitrotoluene

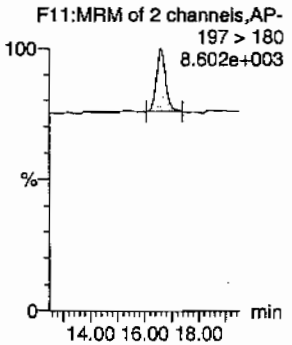

246-Trinitrotoluene

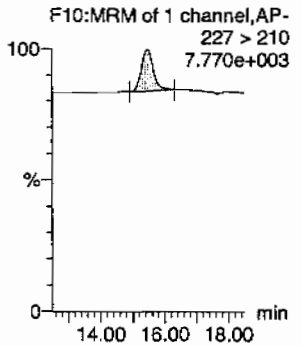

34-dinitrotoluene

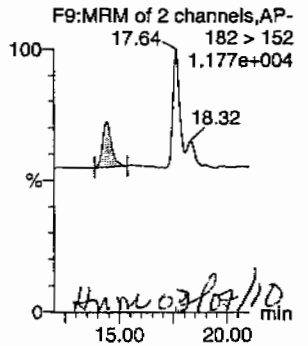

Hmm 03/07/10

26-dinitrotoluene

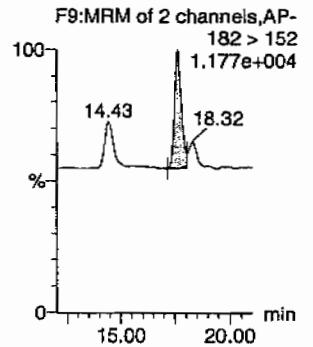

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

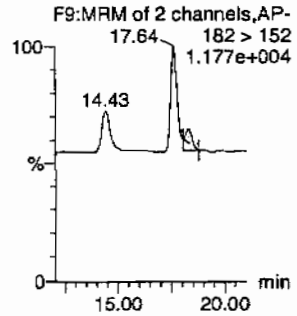

26-dinitrotoluene-d3

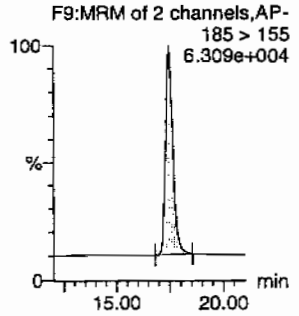

2-Nitrotoluene

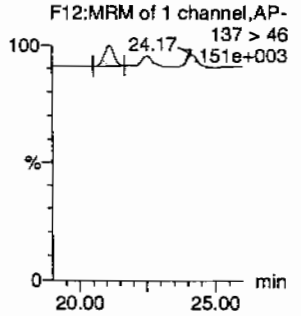

4-Nitrotoluene

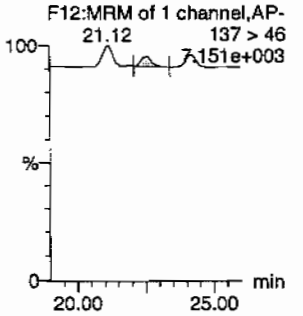

3-Nitrotoluene

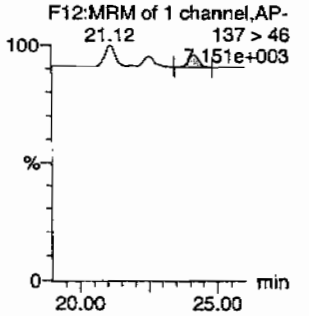

PETN

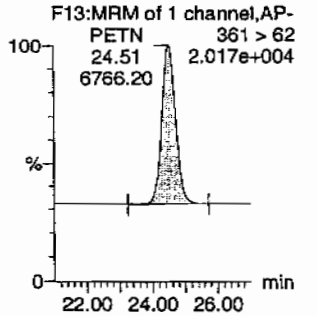

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1351.002	3567.025	1351.002	189.374	bb			40.6006	101.5	1.5	260.1
WXX100304-08CRI	RDX	176 > 102	7.59	813.718	3567.025	813.718	114.061	bb			39.8620	99.7	-0.3	135.2
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1257.242	3567.025	1257.242	176.231	bb			45.2593	113.1	13.1	251.2
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3567.025		3567.025	3567.025	bb			507.8644	101.6	1.6	201.8
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	352.048	3567.025	352.048	49.348	bb			38.9649	97.4	-2.6	48.8
WXX100304-08CRI	Tetryl	241 > 181	12.68	326.391	3567.025	326.391	45.751	bb			44.9620	112.4	12.4	22.2
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	273.177	3567.025	273.177	38.292	bb			46.3733	115.9	15.9	20.5
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	511.486	22632.297	511.486	11.300	MM	06-Mar-10	12:09:24	40.9673	102.4	2.4	47.7
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	824.442	22632.297	824.442	18.214	bb			44.9611	112.4	12.4	109.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	548.303	22632.297	548.303	12.113	bb			36.8625	92.2	-7.8	78.8
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	963.852	22632.297	963.852	21.294	bb			22.0326	110.2	10.2	29.0
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1951.119	22632.297	1951.119	43.105	MM	06-Mar-10	12:13:21	38.6402	96.6	-3.4	74.9
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	451.769	22632.297	451.769	9.981	MM	06-Mar-10	12:17:18	36.2079	90.5	-9.5	15.3
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	22632.297		22632.297	22632.297	bb			550.3807	110.1	10.1	2079.0
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.12	278.623	22632.297	278.623	6.155	bb			39.7384	99.3	-0.7	65.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.53	143.700	22632.297	143.700	3.175	bb			41.6219	104.1	4.1	31.0
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	172.257	22632.297	172.257	3.806	bb			40.3325	100.8	0.8	37.8
WXX100304-08CRI	PETN	361 > 62	24.51	6766.197	22632.297	6766.197	149.481	bb			50.5667	126.4	26.4	2009.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/05/10
Time of Injection	2313
Standard Number	WXX100304-08CRI
Data File	EXP0304066a

HMX	101.5
RDX	99.7
135-TNB	113.1
13-DNB	97.4
Tetryl	112.4
Nitrobenzene	115.9
4A-26-DNT	102.4
2A-46-DNT	112.4
246-TNT	92.2
34-DNT(surr)	110.2
26-DNT	96.6
24-DNT	90.5
2-NT	99.3
4-NT	104.1
3-NT	100.8
PETN	126.4
Total	1674.9
Average	104.7

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304076a

Analysis Date: 06–MAR–10 04:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	589.2	98	
1,3–Dinitrobenzene–d4	500	483.866	97	
2,4,6–Trinitrotoluene	600	655.326	109	
2,4–Dinitrotoluene	600	604.001	101	
2,6–Dinitrotoluene	600	599.969	100	
2,6–Dinitrotoluene–d3	500	511.697	102	
2–Amino–4,6–dinitrotoluene	600	680.408	113	
3,4–Dinitrotoluene	300	309.322	103	
4–Amino–2,6–dinitrotoluene	600	655.281	109	
HMX	600	622.243	104	
Nitrobenzene	600	610.192	102	
PETN	600	828.113	138	*
RDX	600	676.064	113	
Tetryl	600	623.054	104	
m–Dinitrobenzene	600	593.851	99	
m–Nitrotoluene	600	569.058	95	
o–Nitrotoluene	600	606.407	101	
p–Nitrotoluene	600	588.238	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304076a
Date: 06-Mar-2010
Time: 04:08:58
ID: WXX100304-07CCV
Vial: 1:1,B

MMP 3/6/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.022e+005
7.59

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.022e+005
5.19
RDX
7.59
13148.58

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.199e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.458e+004
10.05

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.946e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.849e+004
Tetryl
12.68
4309.19

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.647e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.531e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.608e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.680e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.111e+004
17.64
18.30

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.111e+004
14.43
18.30

HMM 03/07/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

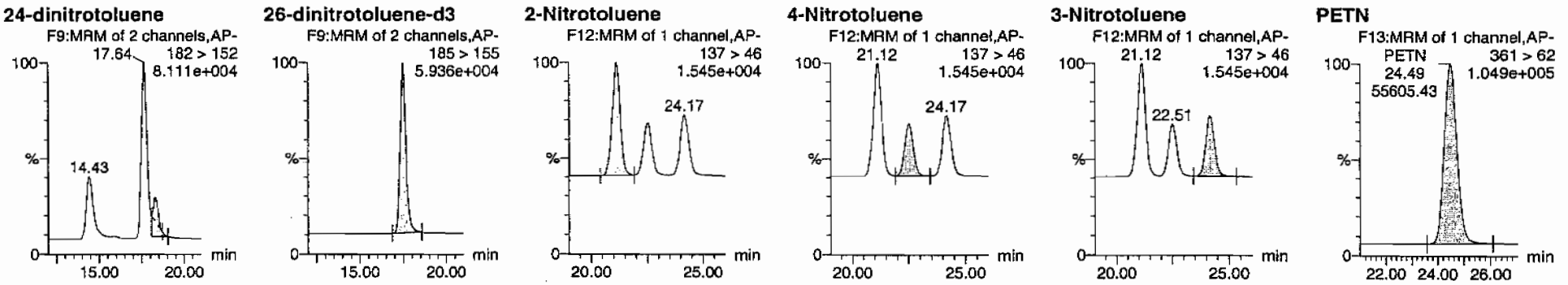

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	19726.965	3398.467	19726.965	2902.333	db			622.2430	103.7	3.7	4565.0
WXX100304-07CCV	RDX	176 > 102	7.59	13148.583	3398.467	13148.583	1934.487	bb			676.0635	112.7	12.7	2653.1
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.20	15593.780	3398.467	15593.780	2294.237	bb			589.2004	98.2	-1.8	1170.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3398.467		3398.467	3398.467	bb			483.8655	96.8	-3.2	717.3
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5111.909	3398.467	5111.909	752.090	bb			593.8514	99.0	-1.0	390.5
WXX100304-07CCV	Tetryl	241 > 181	12.68	4309.189	3398.467	4309.189	633.990	bb			623.0541	103.8	3.8	472.5
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3424.676	3398.467	3424.676	503.856	bb			610.1917	101.7	1.7	484.4
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7606.306	21041.582	7606.306	180.745	MM	06-Mar-10	12:09:12	655.2814	109.2	9.2	352.5
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11599.599	21041.582	11599.599	275.635	bb			680.4083	113.4	13.4	146.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9062.394	21041.582	9062.394	215.345	bb			655.3263	109.2	9.2	258.1
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	12580.745	21041.582	12580.745	298.950	bb			309.3222	103.1	3.1	551.3
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28165.873	21041.582	28165.873	669.291	MM	06-Mar-10	12:13:13	599.9688	100.0	-0.0	1564.5
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	7006.479	21041.582	7006.479	166.491	MM	06-Mar-10	12:17:36	604.0007	100.7	0.7	350.7
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21041.582		21041.582	21041.582	bb			511.6971	102.3	2.3	878.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	3952.942	21041.582	3952.942	93.932	bb			606.4066	101.1	1.1	552.8
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	1888.156	21041.582	1888.156	44.867	bb			588.2384	98.0	-2.0	258.2
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2259.582	21041.582	2259.582	53.693	bb			569.0585	94.8	-5.2	298.2
WXX100304-07CCV	PETN	361 > 62	24.49	55605.426	21041.582	55605.426	1321.322	bb			828.1129	138.0	38.0	21170.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 0408
Standard Number: WXX100304-07CCV
Data File: EXP0304076a

HMX		103.7
RDX		112.7
135-TNB		98.2
13-DNB		99.0
Tetryl		103.8
Nitrobenzene		101.7
4A-26-DNT		109.2
2A-46-DNT		113.4
246-TNT		109.2
34-DNT(surr)		103.1
26-DNT		100.0
24-DNT		100.7
2-NT		101.1
4-NT		98.0
3-NT		94.8
PETN		138.0
Total		1686.6
Average		105.4

HMM 03/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304078a

Analysis Date: 06–MAR–10 05:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	44.712	112	
PETN	40	54.239	136	*
RDX	40	46.673	117	
Tetryl	40	40.325	101	
m–Dinitrobenzene	40	38.944	97	
m–Nitrotoluene	40	43.213	108	
o–Nitrotoluene	40	39.546	99	
p–Nitrotoluene	40	36.291	91	
1,3,5–Trinitrobenzene	40	48.824	122	
1,3–Dinitrobenzene–d4	500	497.56	100	
2,4,6–Trinitrotoluene	40	42.485	106	
2,4–Dinitrotoluene	40	37.142	93	
2,6–Dinitrotoluene	40	39.595	99	
2,6–Dinitrotoluene–d3	500	512.953	103	
2–Amino–4,6–dinitrotoluene	40	40.704	102	
3,4–Dinitrotoluene	20	18.958	95	
4–Amino–2,6–dinitrotoluene	40	44.438	111	
HMX	40	44.364	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304078a
Date: 06-Mar-2010
Time: 05:08:03
ID: WXX100304-08CRI
Vial: 1:1,C

MMP 3/6/10

HMX

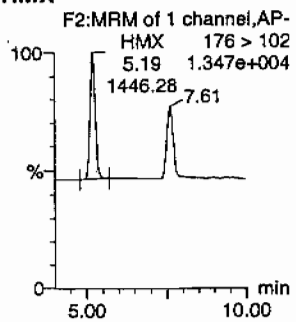

RDX

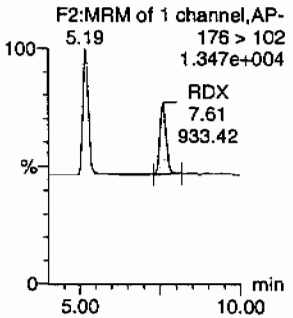

135-Trinitrobenzene

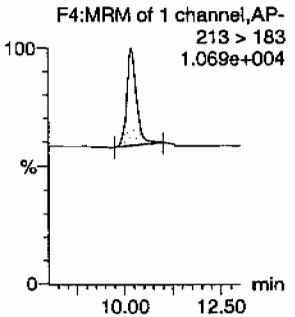

13-Dinitrobenzene-d4

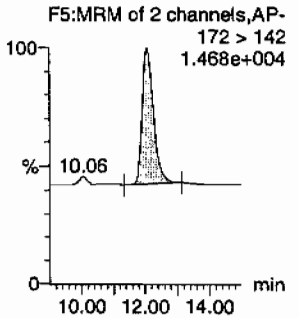

13-Dinitrobenzene

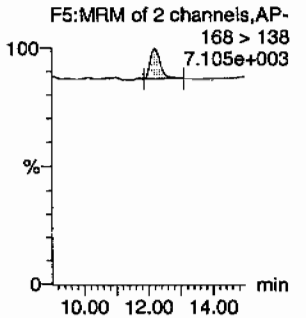

Tetryl

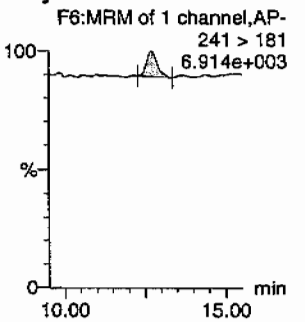

Nitrobenzene

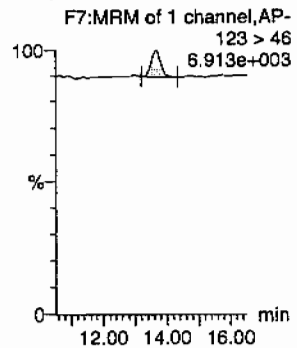

4-Amino-26-dinitrotoluene

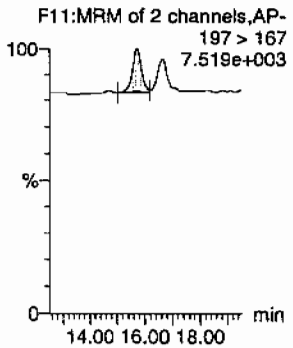

2-Amino-46-dinitrotoluene

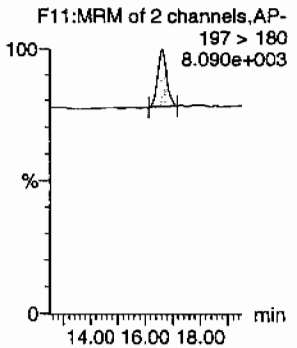

246-Trinitrotoluene

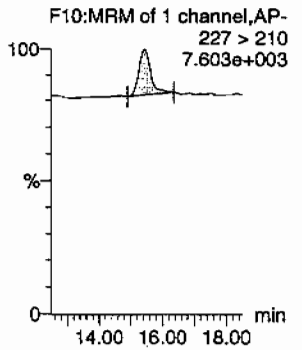

34-dinitrotoluene

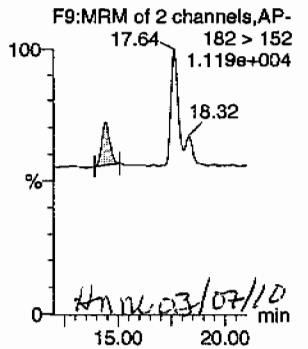

HMM 03/07/10

26-dinitrotoluene

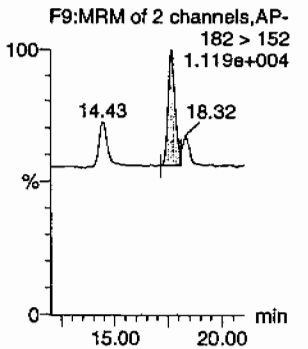

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

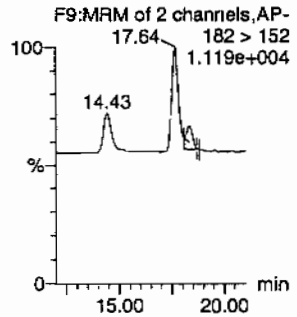

26-dinitrotoluene-d3

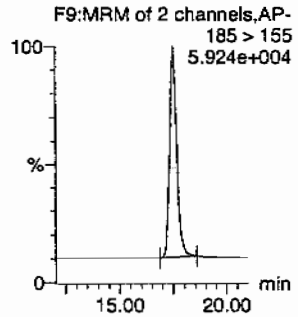

2-Nitrotoluene

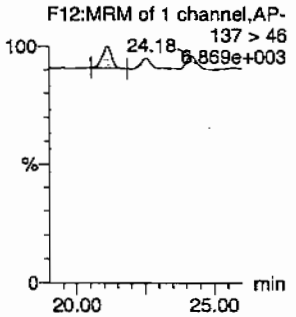

4-Nitrotoluene

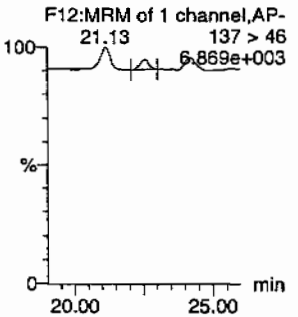

3-Nitrotoluene

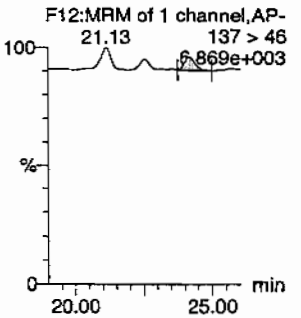

PETN

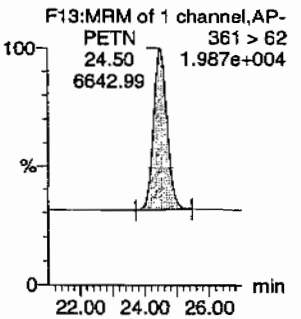

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1446.278	3494.653	1446.278	206.927	bb			44.3640	110.9	10.9	195.2
WXX100304-08CRI	RDX	176 > 102	7.61	933.425	3494.653	933.425	133.550	bb			46.6731	116.7	16.7	109.3
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1328.744	3494.653	1328.744	190.111	bb			48.8238	122.1	22.1	108.6
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3494.653		3494.653	3494.653	bb			497.5603	99.5	-0.5	251.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	344.722	3494.653	344.722	49.321	bb			38.9442	97.4	-2.6	30.0
WXX100304-08CRI	Tetryl	241 > 181	12.72	286.792	3494.653	286.792	41.033	bb			40.3252	100.8	0.8	21.0
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	258.047	3494.653	258.047	36.920	bb			44.7121	111.8	11.8	22.5
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	517.084	21093.240	517.084	12.257	MM	06-Mar-10	12:08:56	44.4376	111.1	11.1	51.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	695.617	21093.240	695.617	16.489	bb			40.7035	101.8	1.8	47.2
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	588.958	21093.240	588.958	13.961	bb			42.4848	106.2	6.2	69.7
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	772.950	21093.240	772.950	18.322	bb			18.9579	94.8	-5.2	60.5
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1863.380	21093.240	1863.380	44.170	MM	06-Mar-10	12:13:06	39.5952	99.0	-1.0	165.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	431.908	21093.240	431.908	10.238	MM	06-Mar-10	12:17:44	37.1419	92.9	-7.1	38.4
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	21093.240		21093.240	21093.240	bb			512.9533	102.6	2.6	1620.2
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	258.417	21093.240	258.417	6.126	bb			39.5457	98.9	-1.1	64.0
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.55	116.773	21093.240	116.773	2.768	bb			36.2905	90.7	-9.3	29.5
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.18	172.009	21093.240	172.009	4.077	bb			43.2131	108.0	8.0	39.1
WXX100304-08CRI	PETN	361 > 62	24.50	6642.990	21093.240	6642.990	157.467	bb			54.2392	135.6	35.6	771.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	0508
Standard Number	WXX100304-08CRI
Data File	EXP0304078a

HMX	110.9
RDX	116.7
135-TNB	122.1
13-DNB	97.4
Tetryl	100.8
Nitrobenzene	111.8
4A-26-DNT	111.1
2A-46-DNT	101.8
246-TNT	106.2
34-DNT(surr)	94.8
26-DNT	99.0
24-DNT	92.9
2-NT	98.9
4-NT	90.7
3-NT	108.0
PETN	135.6
Total	1698.7
Average	106.2

MMT 3/6/10

HMK 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304089a

Analysis Date: 06-MAR-10 10:32

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	553.473	92	
1,3-Dinitrobenzene-d4	500	503.069	101	
2,4,6-Trinitrotoluene	600	674.145	112	
2,4-Dinitrotoluene	600	580.325	97	
2,6-Dinitrotoluene	600	597.561	100	
2,6-Dinitrotoluene-d3	500	512.552	103	
2-Amino-4,6-dinitrotoluene	600	669.438	112	
3,4-Dinitrotoluene	300	311.876	104	
4-Amino-2,6-dinitrotoluene	600	656.337	109	
HMX	600	553.757	92	
Nitrobenzene	600	617.957	103	
PETN	600	732.772	122	*
RDX	600	630.521	105	
Tetryl	600	603.367	101	
m-Dinitrobenzene	600	584.838	97	
m-Nitrotoluene	600	548.387	91	
o-Nitrotoluene	600	591.399	99	
p-Nitrotoluene	600	580.434	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304089a
Date: 06-Mar-2010
Time: 10:32:42
ID: WXX100304-07CCV
Vial: 1:1,B

MMT 3/6/10

HMX

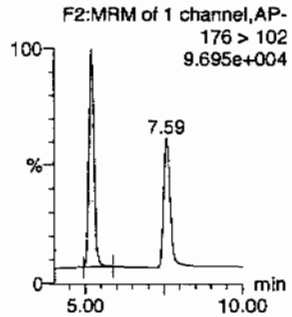

RDX

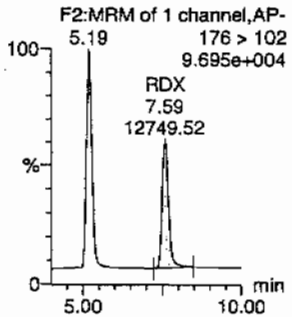

135-Trinitrobenzene

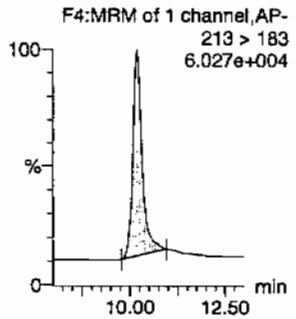

13-Dinitrobenzene-d4

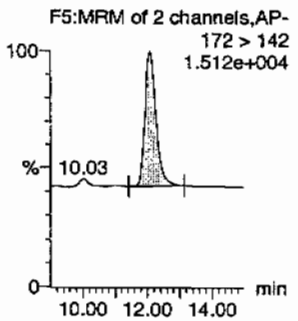

13-Dinitrobenzene

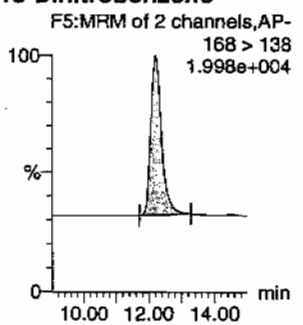

Tetryl

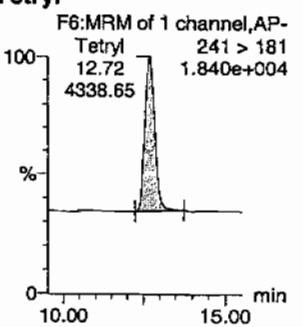

Nitrobenzene

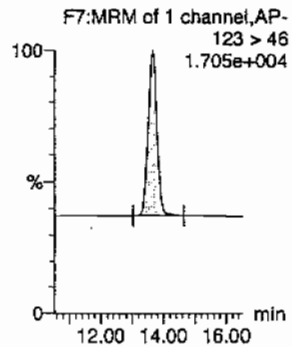

4-Amino-26-dinitrotoluene

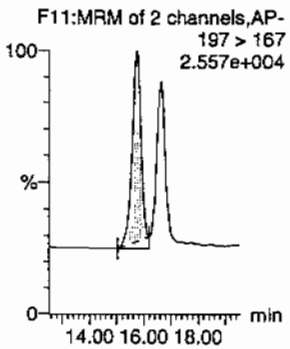

2-Amino-46-dinitrotoluene

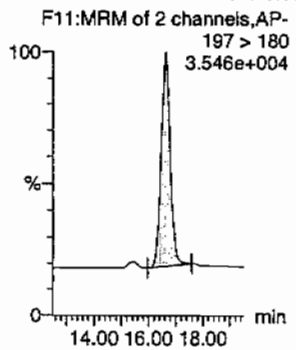

246-Trinitrotoluene

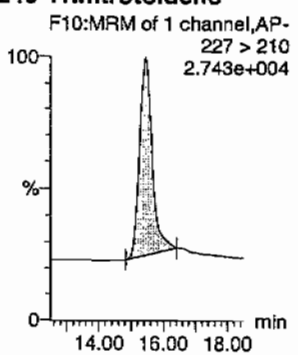

34-dinitrotoluene

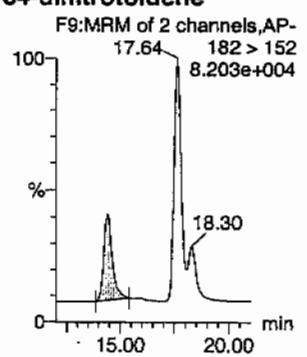

Hmm 03/07/10

26-dinitrotoluene

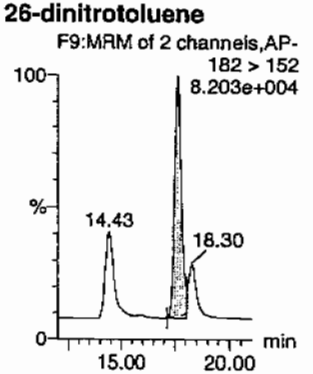

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

24-dinitrotoluene

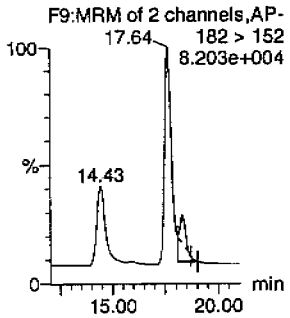

26-dinitrotoluene-d3

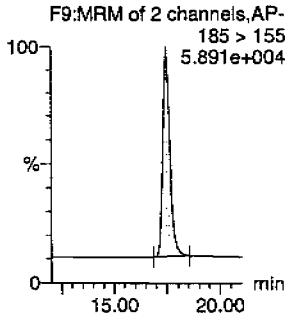

2-Nitrotoluene

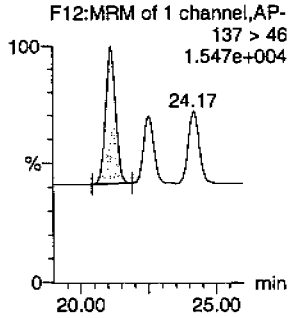

4-Nitrotoluene

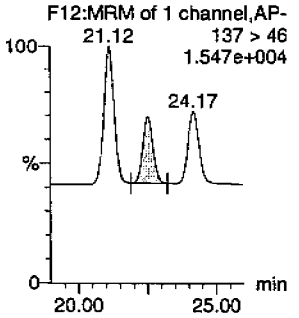

3-Nitrotoluene

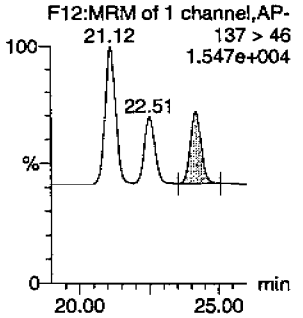

PETN

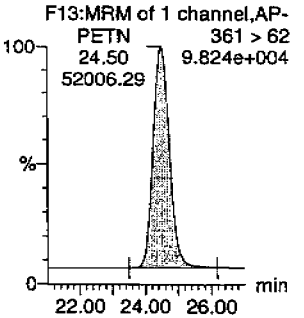

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	18252.482	3533.342	18252.482	2582.892	db			553.7568	92.3	-7.7	1165.1
WXX100304-07CCV	RDX	176 > 102	7.59	12749.517	3533.342	12749.517	1804.173	bb			630.5211	105.1	5.1	685.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.20	15229.551	3533.342	15229.551	2155.120	bb			553.4726	92.2	-7.8	907.4
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3533.342		3533.342	3533.342	bb			503.0687	100.6	0.6	231.2
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5234.116	3533.342	5234.116	740.675	bb			584.8377	97.5	-2.5	297.4
WXX100304-07CCV	Tetryl	241 > 181	12.72	4338.646	3533.342	4338.646	613.958	bb			603.3673	100.6	0.6	222.3
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3605.905	3533.342	3605.905	510.268	bb			617.9573	103.0	3.0	361.1
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	7631.281	21076.730	7631.281	181.036	MM	06-Mar-10	12:08:21	656.3366	109.4	9.4	323.0
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	11431.646	21076.730	11431.646	271.191	bb			669.4383	111.6	11.6	409.7
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9338.211	21076.730	9338.211	221.529	bb			674.1452	112.4	12.4	1636.3
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	12705.782	21076.730	12705.782	301.417	bb			311.8755	104.0	4.0	273.4
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28099.705	21076.730	28099.705	666.605	MM	06-Mar-10	12:12:35	597.5612	99.6	-0.4	767.4
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	6743.083	21076.730	6743.083	159.965	MM	06-Mar-10	12:18:37	580.3250	96.7	-3.3	166.4
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21076.730		21076.730	21076.730	bb			512.5519	102.5	2.5	1117.0
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	3861.552	21076.730	3861.552	91.607	bb			591.3989	98.6	-1.4	186.8
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	1866.217	21076.730	1866.217	44.272	bb			580.4339	96.7	-3.3	89.1
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2181.137	21076.730	2181.137	51.743	bb			548.3867	91.4	-8.6	96.8
WXX100304-07CCV	PETN	361 > 62	24.50	52006.285	21076.730	52006.285	1233.737	bb			732.7717	122.1	22.1	8860.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 1032
Standard Number: WXX100304-07CCV
Data File: EXP0304089a

HMX		92.3
RDX		105.1
135-TNB		92.2
13-DNB		97.5
Tetryl		100.6
Nitrobenzene		103.0
4A-26-DNT		109.4
2A-46-DNT		111.6
246-TNT		112.4
34-DNT(surr)		104.0
26-DNT		99.6
24-DNT		96.7
2-NT		98.6
4-NT		96.7
3-NT		91.4
PETN		122.1
Total		1633.2
Average		102.1

HMM 3/6/10

Hmm 03/06/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304091a

Analysis Date: 06-MAR-10 11:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	47.447	119	
1,3-Dinitrobenzene-d4	500	555.149	111	
2,4,6-Trinitrotoluene	40	43.328	108	
2,4-Dinitrotoluene	40	38.335	96	
2,6-Dinitrotoluene	40	40.616	102	
2,6-Dinitrotoluene-d3	500	541.704	108	
2-Amino-4,6-dinitrotoluene	40	48.053	120	
3,4-Dinitrotoluene	20	20.798	104	
4-Amino-2,6-dinitrotoluene	40	45.468	114	
HMX	40	42.165	105	
Nitrobenzene	40	42.58	106	
PETN	40	51.168	128	
RDX	40	43.537	109	
Tetryl	40	43.891	110	
m-Dinitrobenzene	40	41.557	104	
m-Nitrotoluene	40	38.735	97	
o-Nitrotoluene	40	46.96	117	
p-Nitrotoluene	40	44.509	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304091a
Date: 06-Mar-2010
Time: 11:31:45
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/6/10

HMX

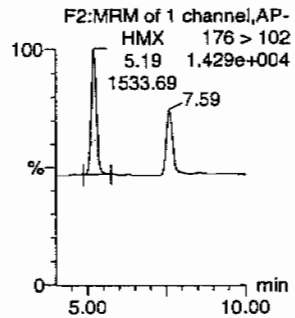

RDX

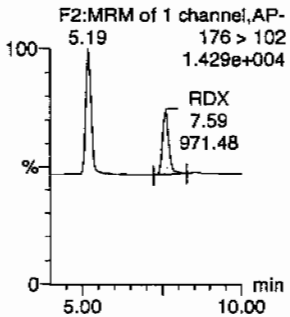

135-Trinitrobenzene

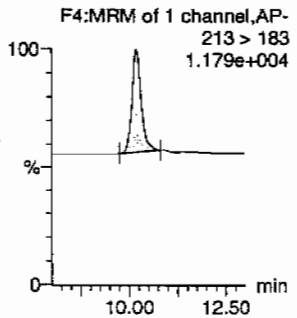

13-Dinitrobenzene-d4

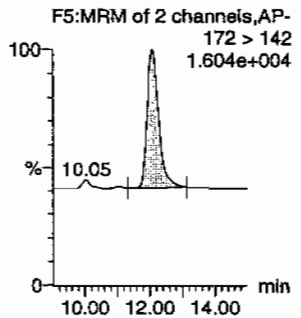

13-Dinitrobenzene

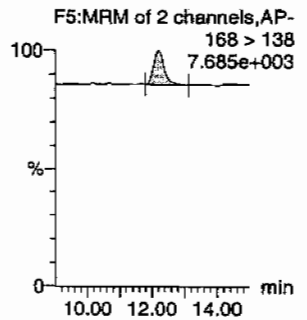

Tetryl

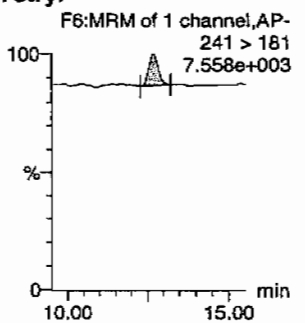

Nitrobenzene

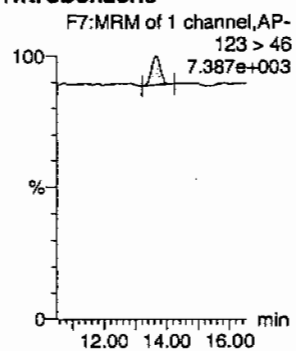

4-Amino-26-dinitrotoluene

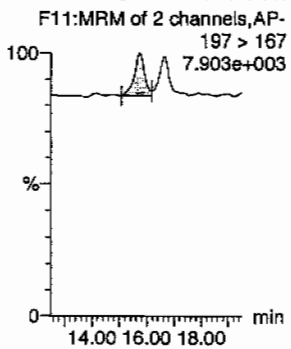

2-Amino-46-dinitrotoluene

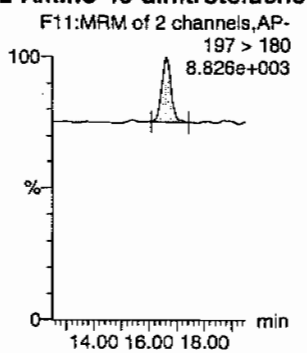

246-Trinitrotoluene

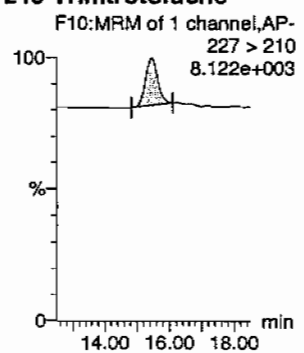

34-dinitrotoluene

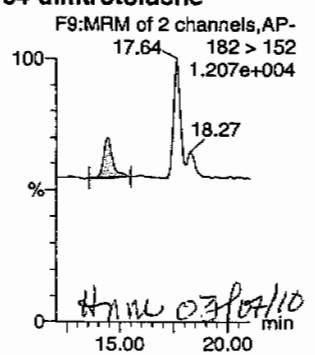

HMM 03/07/10

26-dinitrotoluene

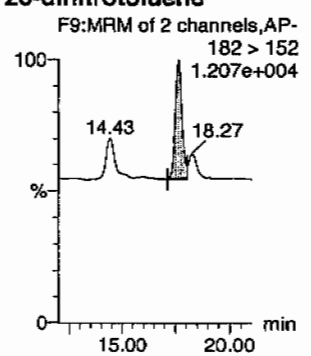

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA1.qld, Time: Sat Mar 06 12:19:13 2010

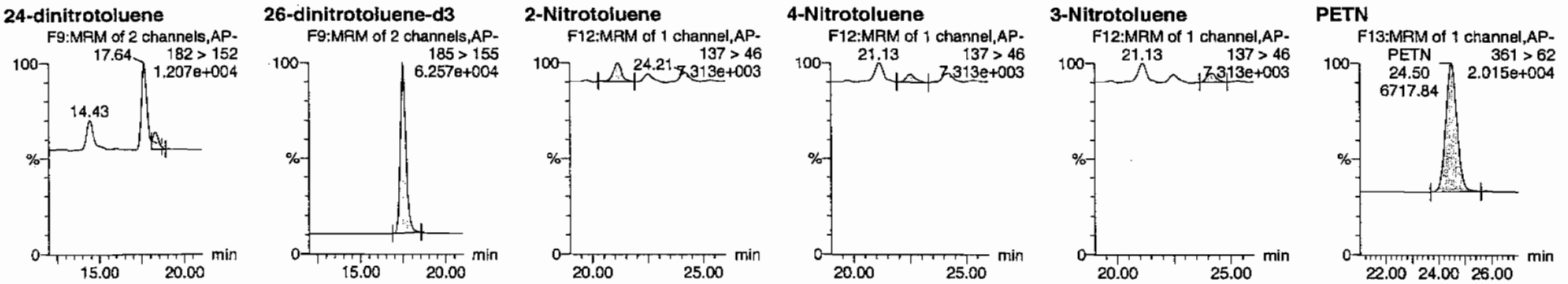

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1533.692	3899.129	1533.692	196.671	bb			42.1651	105.4	5.4	202.2
WXX100304-08CRI	RDX	176 > 102	7.59	971.480	3899.129	971.480	124.577	bb			43.5369	108.8	8.8	106.5
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1440.717	3899.129	1440.717	184.749	bb			47.4467	118.6	18.6	117.2
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3899.129		3899.129	3899.129	bb			555.1486	111.0	11.0	158.7
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	410.425	3899.129	410.425	52.630	bb			41.5570	103.9	3.9	23.6
WXX100304-08CRI	Tetryl	241 > 181	12.68	348.279	3899.129	348.279	44.661	bb			43.8907	109.7	9.7	32.0
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	274.182	3899.129	274.182	35.159	bb			42.5796	106.4	6.4	29.5
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	558.731	22275.498	558.731	12.541	MM	06-Mar-10	12:08:13	45.4682	113.7	13.7	47.2
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	867.252	22275.498	867.252	19.467	bb			48.0533	120.1	20.1	36.1
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	634.306	22275.498	634.306	14.238	bb			43.3276	108.3	8.3	36.0
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	895.479	22275.498	895.479	20.100	bb			20.7975	104.0	4.0	26.9
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	2018.552	22275.498	2018.552	45.309	MM	06-Mar-10	12:12:23	40.6159	101.5	1.5	78.5
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.27	470.763	22275.498	470.763	10.567	MM	06-Mar-10	12:18:45	38.3346	95.8	-4.2	15.9
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22275.498		22275.498	22275.498	bb			541.7039	108.3	8.3	2395.4
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	324.066	22275.498	324.066	7.274	bb			46.9600	117.4	17.4	44.6
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.51	151.246	22275.498	151.246	3.395	bb			44.5093	111.3	11.3	18.9
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.21	162.824	22275.498	162.824	3.655	bb			38.7345	96.8	-3.2	19.9
WXX100304-08CRI	PETN	361 > 62	24.50	6717.837	22275.498	6717.837	150.790	bb			51.1679	127.9	27.9	1576.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	1131
Standard Number	WXX100304-08CRI
Data File	EXP0304091a

HMX	105.4
RDX	108.8
135-TNB	118.6
13-DNB	103.9
Tetryl	109.7
Nitrobenzene	106.4
4A-26-DNT	113.7
2A-46-DNT	120.1
246-TNT	108.3
34-DNT(surr)	104.0
26-DNT	101.5
24-DNT	95.8
2-NT	117.4
4-NT	111.3
3-NT	96.8
PETN	127.9
Total	1749.6
Average	109.4

MMT 3/6/10

HM 03/07/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1545

Lab Code: GEI **GEL Sample ID:** WXXCCV

GEL Data File EXP0304101a **Analysis Date:** 06–MAR–10 16:26

LCMSMS ID: 903 **Column ID** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p–Nitrotoluene	600	549.111	92	
1,3,5–Trinitrobenzene	600	587.261	98	
1,3–Dinitrobenzene–d4	500	465.389	93	
2,4,6–Trinitrotoluene	600	683.072	114	
2,4–Dinitrotoluene	600	521.302	87	
2,6–Dinitrotoluene	600	601.174	100	
2,6–Dinitrotoluene–d3	500	580.685	116	
2–Amino–4,6–dinitrotoluene	600	708.501	118	
3,4–Dinitrotoluene	300	324.528	108	
4–Amino–2,6–dinitrotoluene	600	649.296	108	
HMX	600	614.149	102	
Nitrobenzene	600	698.592	116	
PETN	600	592.689	99	
RDX	600	791.111	132	*
Tetryl	600	592.657	99	
m–Dinitrobenzene	600	614.282	102	
m–Nitrotoluene	600	534.445	89	
o–Nitrotoluene	600	583.716	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304101a
Date: 06-Mar-2010
Time: 16:26:43
ID: WXX100304-07CCV
Vial: 1:1,B

MM 3/7/10

HMX

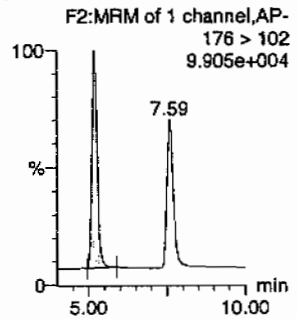

RDX

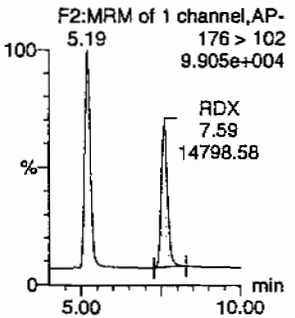

135-Trinitrobenzene

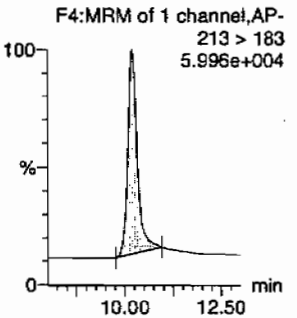

13-Dinitrobenzene-d4

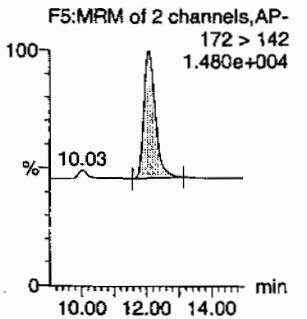

13-Dinitrobenzene

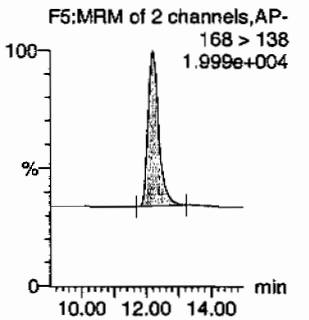

Tetryl

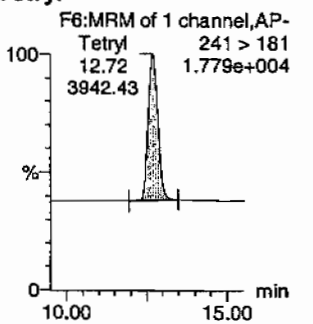

Nitrobenzene

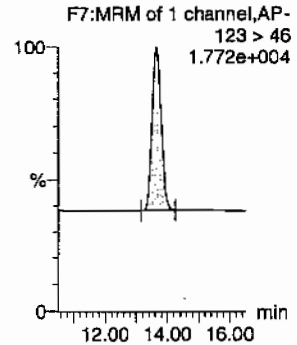

4-Amino-26-dinitrotoluene

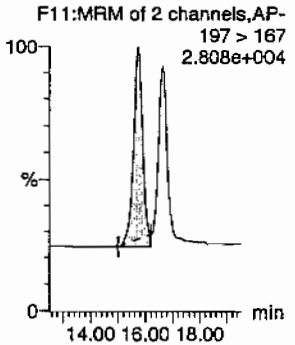

2-Amino-46-dinitrotoluene

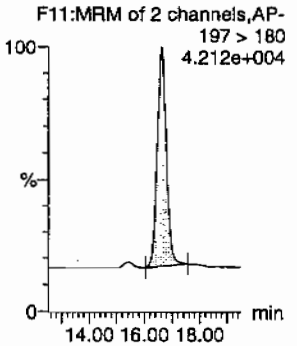

246-Trinitrotoluene

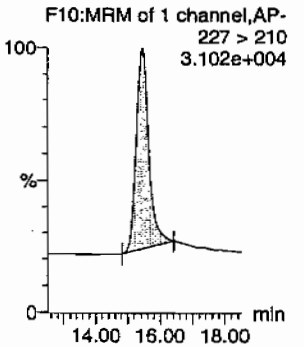

34-dinitrotoluene

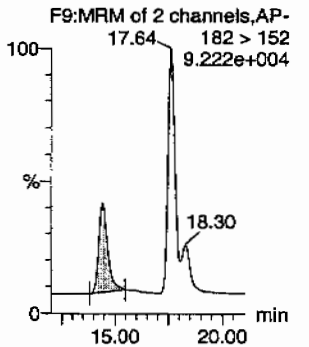

Hmw 03/08/10

26-dinitrotoluene

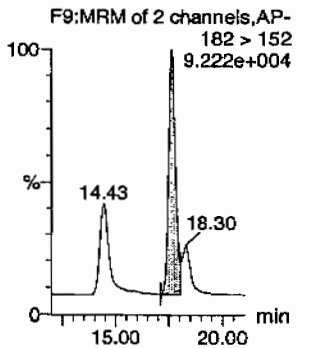

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

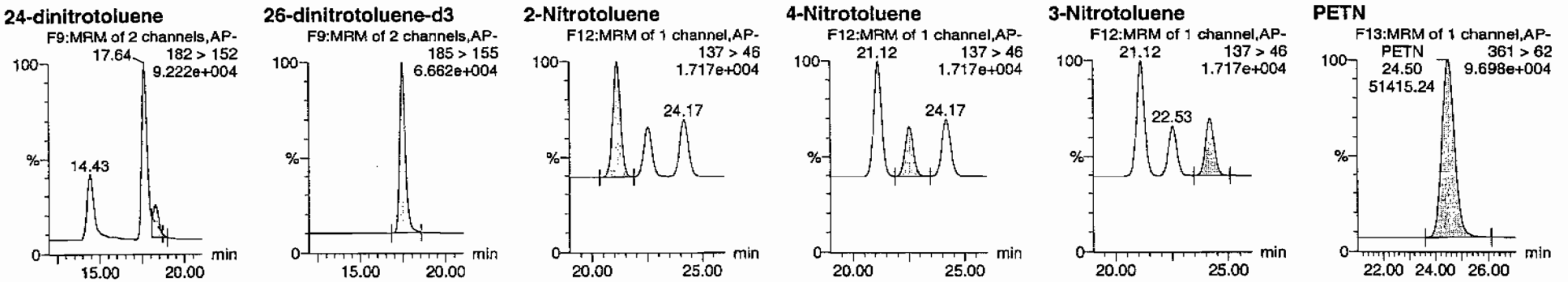

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	18726.861	3268.693	18726.861	2864.579	bb			614.1489	102.4	2.4	2087.5
WXX100304-07CCV	RDX	176 > 102	7.59	14798.579	3268.693	14798.579	2263.684	bb			791.1111	131.9	31.9	1419.4
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.20	14948.942	3268.693	14948.942	2286.685	bb			587.2608	97.9	-2.1	864.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3268.693		3268.693	3268.693	bb			465.3886	93.1	-6.9	511.6
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5085.855	3268.693	5085.855	777.965	bb			614.2817	102.4	2.4	574.4
WXX100304-07CCV	Tetryl	241 > 181	12.72	3942.433	3268.693	3942.433	603.060	bb			592.6570	98.8	-1.2	337.2
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3771.098	3268.693	3771.098	576.851	bb			698.5919	116.4	16.4	260.3
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	8552.964	23878.449	8552.964	179.094	MM	07-Mar-10	13:24:55	649.2963	108.2	8.2	773.5
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.63	13706.979	23878.449	13706.979	287.016	bb			708.5013	118.1	18.1	349.6
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	10719.617	23878.449	10719.617	224.462	bb			683.0715	113.8	13.8	768.2
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	14978.756	23878.449	14978.756	313.646	bb			324.5284	108.2	8.2	1105.2
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	32027.473	23878.449	32027.473	670.636	MM	07-Mar-10	13:27:42	601.1743	100.2	0.2	2998.1
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	6862.457	23878.449	6862.457	143.696	MM	07-Mar-10	13:32:09	521.3022	86.9	-13.1	554.4
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	23878.449		23878.449	23878.449	bb			580.6851	116.1	16.1	1296.0
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	4318.029	23878.449	4318.029	90.417	bb			583.7156	97.3	-2.7	852.3
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.53	2000.195	23878.449	2000.195	41.883	bb			549.1109	91.5	-8.5	372.7
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2408.250	23878.449	2408.250	50.427	bb			534.4445	89.1	-10.9	424.0
WXX100304-07CCV	PETN	361 > 62	24.50	51415.242	23878.449	51415.242	1076.603	bb			592.6892	98.8	-1.2	3710.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 1626
Standard Number: WXX100304-07CCV
Data File: EXP0304101a

HMX	102.4
RDX	131.9
135-TNB	97.9
13-DNB	102.4
Tetryl	98.8
Nitrobenzene	116.4
4A-26-DNT	108.2
2A-46-DNT	118.1
246-TNT	113.8
34-DNT(surr)	108.2
26-DNT	100.2
24-DNT	86.9
2-NT	97.3
4-NT	91.5
3-NT	89.1
PETN	98.8
Total	1661.9
Average	103.9

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304103a

Analysis Date: 06–MAR–10 17:25

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4–Dinitrotoluene	40	34.956	87	
2,6–Dinitrotoluene	40	40.043	100	
2,6–Dinitrotoluene–d3	500	520.302	104	
2–Amino–4,6–dinitrotoluene	40	41.209	103	
3,4–Dinitrotoluene	20	23.339	117	
4–Amino–2,6–dinitrotoluene	40	46.12	115	
HMX	40	33.904	85	
Nitrobenzene	40	37.192	93	
PETN	40	49.668	124	
RDX	40	33.251	83	
Tetryl	40	40.4	101	
m–Dinitrobenzene	40	44.614	112	
m–Nitrotoluene	40	36.714	92	
o–Nitrotoluene	40	52.856	132	*
p–Nitrotoluene	40	50.186	125	
1,3,5–Trinitrobenzene	40	43.717	109	
1,3–Dinitrobenzene–d4	500	554.792	111	
2,4,6–Trinitrotoluene	40	39.922	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304103a
Date: 06-Mar-2010
Time: 17:25:45
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/7/10

HMX

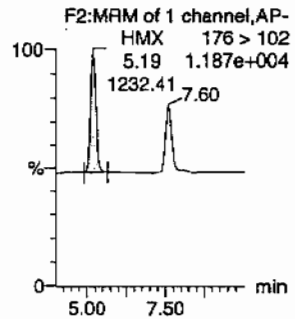

RDX

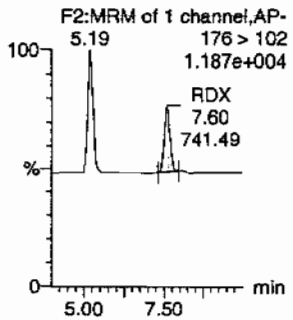

135-Trinitrobenzene

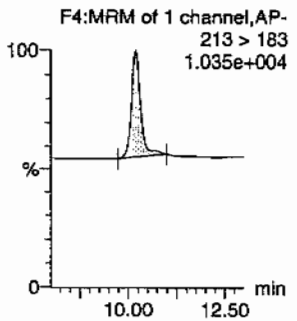

13-Dinitrobenzene-d4

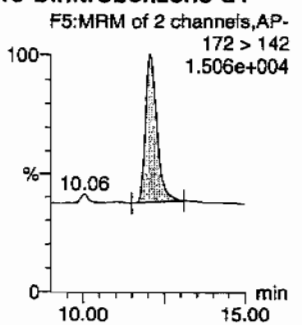

13-Dinitrobenzene

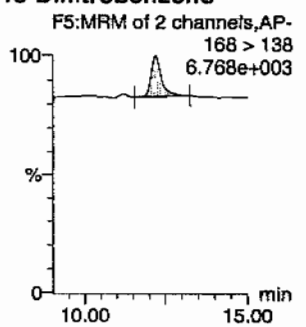

Tetryl

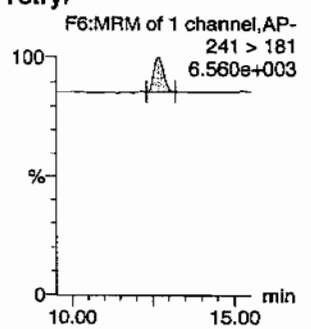

Nitrobenzene

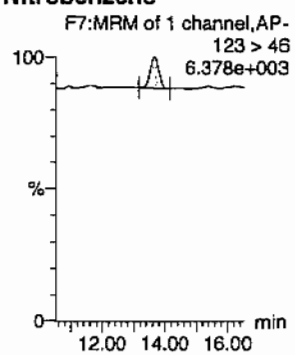

4-Amino-26-dinitrotoluene

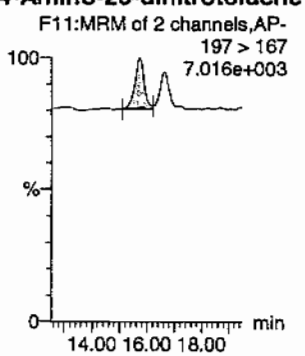

2-Amino-46-dinitrotoluene

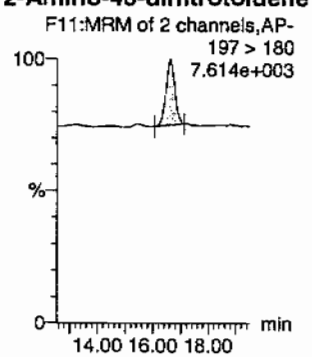

246-Trinitrotoluene

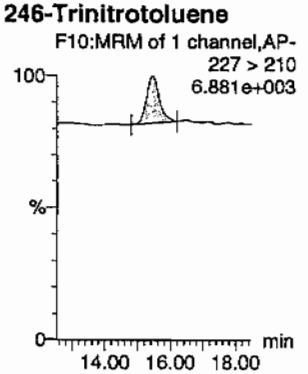

34-dinitrotoluene

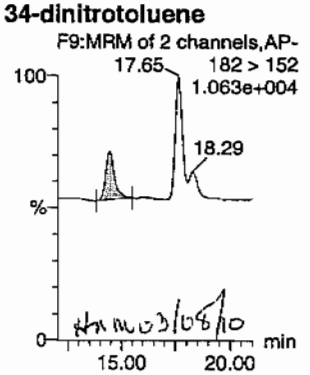

26-dinitrotoluene

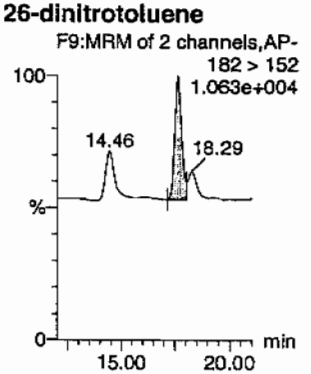

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

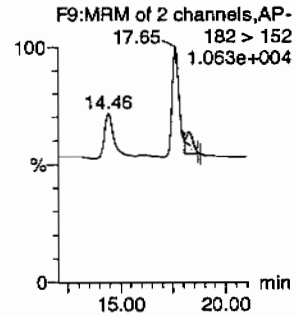

26-dinitrotoluene-d3

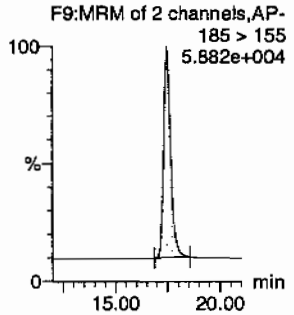

2-Nitrotoluene

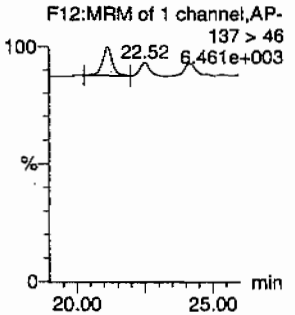

4-Nitrotoluene

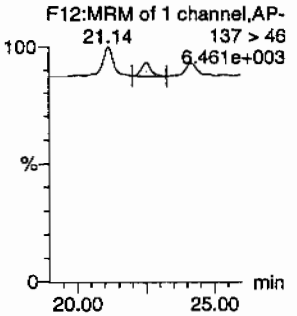

3-Nitrotoluene

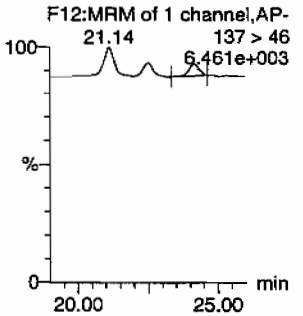

PETN

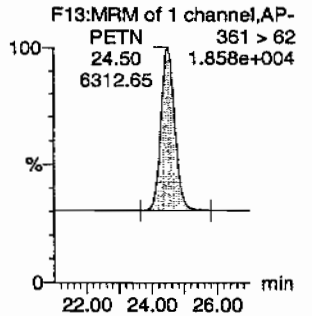

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1232.405	3896.626	1232.405	158.137	bb			33.9037	84.8	-15.2	190.0
WXX100304-08CRI	RDX	176 > 102	7.60	741.492	3896.626	741.492	95.145	bb			33.2514	83.1	-16.9	103.7
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.19	1326.625	3896.626	1326.625	170.227	bb			43.7174	109.3	9.3	195.5
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.10	3896.626		3896.626	3896.626	bb			554.7922	111.0	11.0	299.8
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	440.335	3896.626	440.335	56.502	bb			44.6141	111.5	11.5	30.7
WXX100304-08CRI	Tetryl	241 > 181	12.71	320.374	3896.626	320.374	41.109	bb			40.4000	101.0	1.0	45.4
WXX100304-08CRI	Nitrobenzene	123 > 46	13.66	239.336	3896.626	239.336	30.711	bb			37.1920	93.0	-7.0	19.2
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	544.347	21395.426	544.347	12.721	MM	07-Mar-10	13:25:01	46.1198	115.3	15.3	29.7
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	714.343	21395.426	714.343	16.694	bb			41.2089	103.0	3.0	73.9
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.44	561.354	21395.426	561.354	13.119	bb			39.9217	99.8	-0.2	62.9
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.46	965.184	21395.426	965.184	22.556	bb			23.3385	116.7	16.7	61.3
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.65	1911.469	21395.426	1911.469	44.670	MM	07-Mar-10	13:27:50	40.0433	100.1	0.1	155.0
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.29	412.308	21395.426	412.308	9.635	MM	07-Mar-10	13:31:56	34.9556	87.4	-12.6	31.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	21395.426		21395.426	21395.426	bb			520.3020	104.1	4.1	3319.8
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.14	350.345	21395.426	350.345	8.187	bb			52.8563	132.1	32.1	91.6
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.52	163.797	21395.426	163.797	3.828	bb			50.1856	125.5	25.5	43.3
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	148.233	21395.426	148.233	3.464	bb			36.7140	91.8	-8.2	37.5
WXX100304-08CRI	PETN	361 > 62	24.50	6312.647	21395.426	6312.647	147.523	bb			49.6681	124.2	24.2	2068.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	1725
Standard Number	WXX100304-08CRI
Data File	EXP0304103a

HMX	84.8
RDX	83.1
135-TNB	109.3
13-DNB	111.5
Tetryl	101.0
Nitrobenzene	93.0
4A-26-DNT	115.3
2A-46-DNT	103.0
246-TNT	99.8
34-DNT(surr)	116.7
26-DNT	100.1
24-DNT	87.4
2-NT	132.1
4-NT	125.5
3-NT	91.8
PETN	124.2
Total	1678.6
Average	104.9

LOT 3/7/10

thm 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304113a

Analysis Date: 06-MAR-10 22:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	540.591	90	
1,3-Dinitrobenzene-d4	500	533.105	107	
2,4,6-Trinitrotoluene	600	652.208	109	
2,4-Dinitrotoluene	600	560.172	93	
2,6-Dinitrotoluene	600	593.564	99	
2,6-Dinitrotoluene-d3	500	529.569	106	
2-Amino-4,6-dinitrotoluene	600	630.466	105	
3,4-Dinitrotoluene	300	315.943	105	
4-Amino-2,6-dinitrotoluene	600	633.97	106	
HMX	600	558.17	93	
Nitrobenzene	600	582.752	97	
PETN	600	719.523	120	
RDX	600	605.837	101	
Tetryl	600	566.333	94	
m-Dinitrobenzene	600	588.821	98	
m-Nitrotoluene	600	526.711	88	
o-Nitrotoluene	600	548.289	91	
p-Nitrotoluene	600	549.39	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304113a
Date: 06-Mar-2010
Time: 22:20:37
ID: WXX100304-07CCV
Vial: 1:1,B

MM 3/7/10

HMX

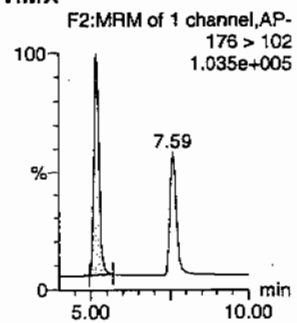

RDX

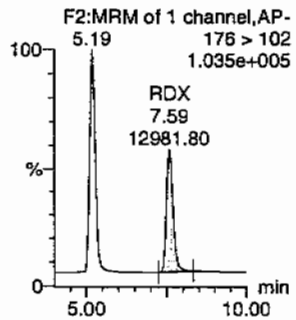

135-Trinitrobenzene

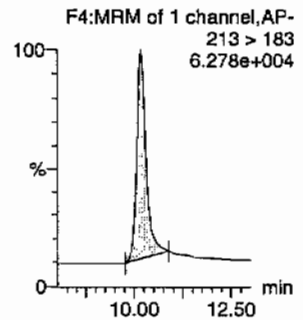

13-Dinitrobenzene-d4

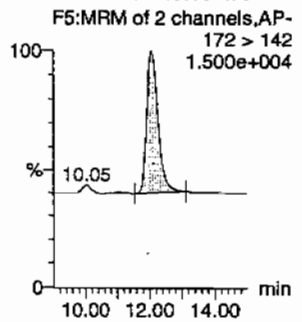

13-Dinitrobenzene

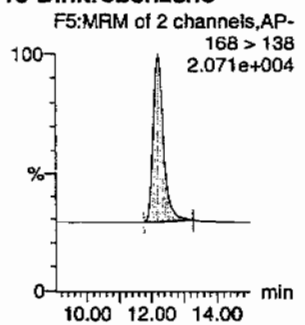

Tetryl

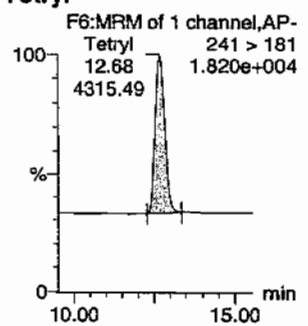

Nitrobenzene

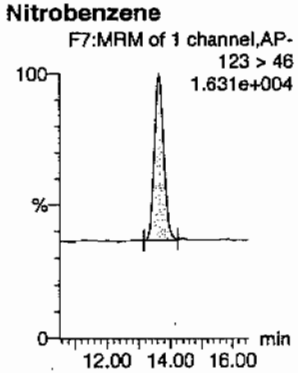

4-Amino-26-dinitrotoluene

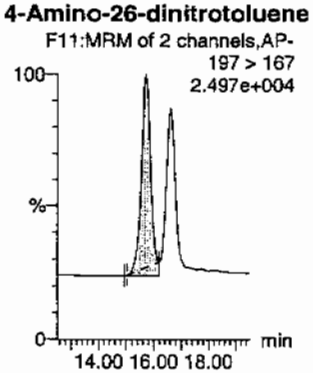

2-Amino-46-dinitrotoluene

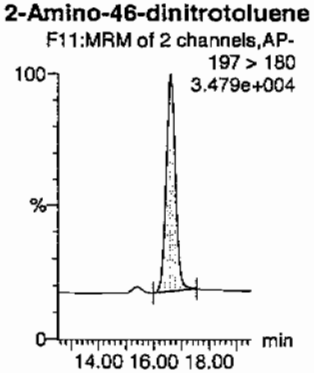

246-Trinitrotoluene

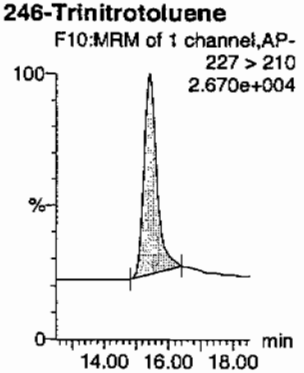

34-dinitrotoluene

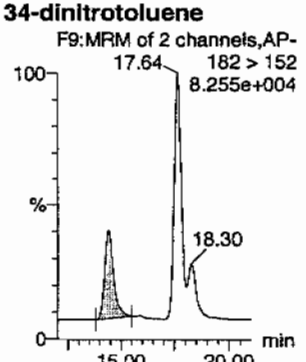

Amm 03/08/10

26-dinitrotoluene

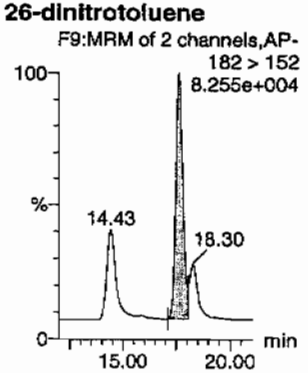

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

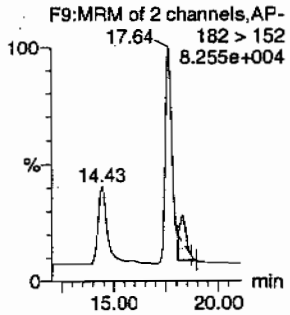

26-dinitrotoluene-d3

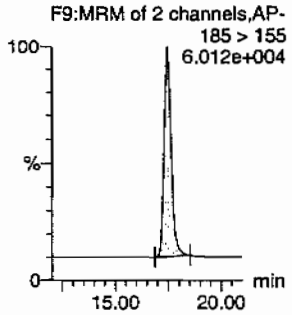

2-Nitrotoluene

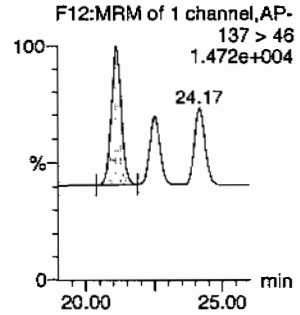

4-Nitrotoluene

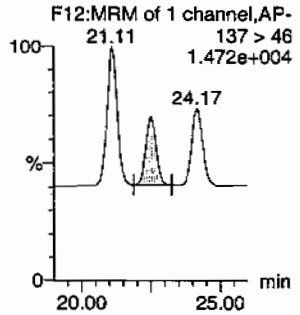

3-Nitrotoluene

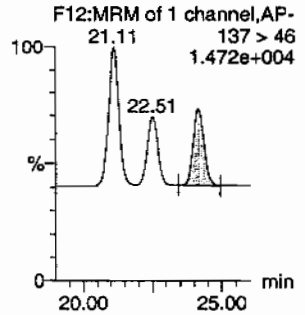

PETN

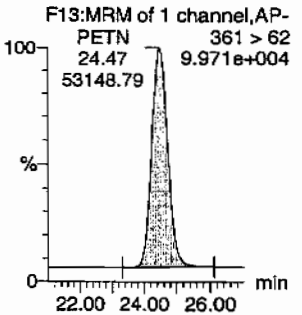

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	19496.410	3744.302	19496.410	2603.477	bb			558.1701	93.0	-7.0	2424.3
WXX100304-07CCV	RDX	176 > 102	7.59	12981.799	3744.302	12981.799	1733.541	bb			605.8367	101.0	1.0	1357.5
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.18	15763.218	3744.302	15763.218	2104.961	bb			540.5909	90.1	-9.9	1483.8
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3744.302		3744.302	3744.302	bb			533.1047	106.6	6.6	316.8
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5584.403	3744.302	5584.403	745.720	bb			588.8214	98.1	-1.9	607.0
WXX100304-07CCV	Tetryl	241 > 181	12.68	4315.487	3744.302	4315.487	576.274	bb			566.3334	94.4	-5.6	461.0
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3603.499	3744.302	3603.499	481.198	bd			582.7515	97.1	-2.9	252.5
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	7615.953	21776.480	7615.953	174.866	MM	07-Mar-10	13:25:24	633.9704	105.7	5.7	471.8
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11123.577	21776.480	11123.577	255.403	bb			630.4662	105.1	5.1	242.8
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.45	9334.282	21776.480	9334.282	214.320	bb			652.2082	108.7	8.7	501.4
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	13298.813	21776.480	13298.813	305.348	bb			315.9427	105.3	5.3	492.9
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28838.430	21776.480	28838.430	662.146	MM	07-Mar-10	13:28:01	593.5643	98.9	-1.1	1377.7
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	6725.012	21776.480	6725.012	154.410	MM	07-Mar-10	13:31:45	560.1720	93.4	-6.6	290.4
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21776.480		21776.480	21776.480	bb			529.5686	105.9	5.9	2107.6
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.11	3698.925	21776.480	3698.925	84.929	bb			548.2893	91.4	-8.6	643.1
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	1825.049	21776.480	1825.049	41.904	bb			549.3899	91.6	-8.4	311.5
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2164.477	21776.480	2164.477	49.698	bb			526.7111	87.8	-12.2	349.0
WXX100304-07CCV	PETN	361 > 62	24.47	53148.789	21776.480	53148.789	1220.326	bb			719.5234	119.9	19.9	10981.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/06/10
Time of Injection: 2220
Standard Number: WXX100304-07CCV
Data File: EXP0304113a

HMX		93.0
RDX		101.0
135-TNB		90.1
13-DNB		98.1
Tetryl		94.4
Nitrobenzene		97.1
4A-26-DNT		105.7
2A-46-DNT		105.1
246-TNT		108.7
34-DNT(surr)		105.3
26-DNT		98.9
24-DNT		93.4
2-NT		91.4
4-NT		91.6
3-NT		87.8
PETN		119.9
Total		1581.5
Average		98.8

3/7/10

03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304115a

Analysis Date: 06-MAR-10 23:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	39.17	98	
m-Nitrotoluene	40	34.211	86	
o-Nitrotoluene	40	39.798	99	
p-Nitrotoluene	40	46.592	116	
1,3,5-Trinitrobenzene	40	43.572	109	
1,3-Dinitrobenzene-d4	500	549.103	110	
2,4,6-Trinitrotoluene	40	43.289	108	
2,4-Dinitrotoluene	40	32.71	82	
2,6-Dinitrotoluene	40	40.13	100	
2,6-Dinitrotoluene-d3	500	547.162	109	
2-Amino-4,6-dinitrotoluene	40	41.723	104	
3,4-Dinitrotoluene	20	21.531	108	
4-Amino-2,6-dinitrotoluene	40	42.41	106	
HMX	40	37.966	95	
Nitrobenzene	40	28.768	72	
PETN	40	49.806	125	
RDX	40	37.916	95	
Tetryl	40	44.352	111	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304115a
Date: 06-Mar-2010
Time: 23:19:40
ID: WXX100304-08CRI
Vial: 1:1,C

MM 3/7/10

HMX

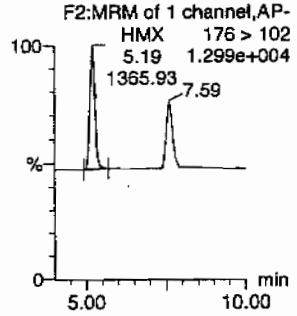

RDX

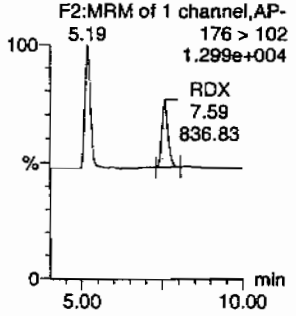

135-Trinitrobenzene

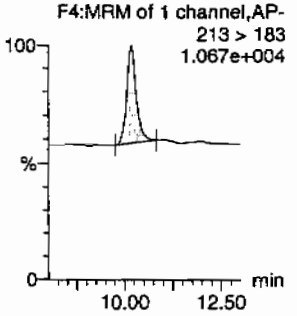

13-Dinitrobenzene-d4

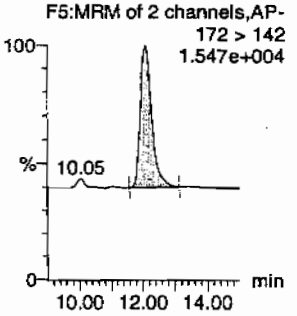

13-Dinitrobenzene

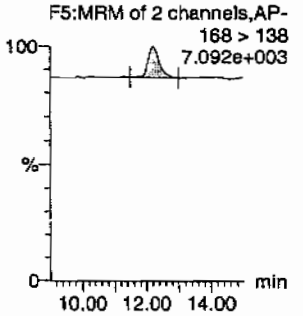

Tetryl

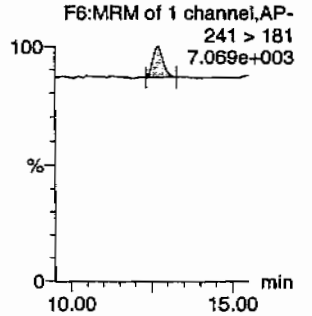

Nitrobenzene

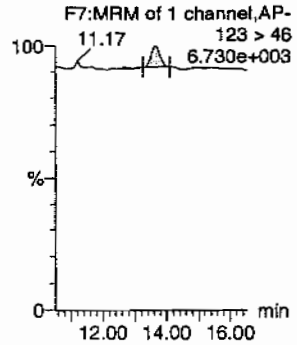

4-Amino-26-dinitrotoluene

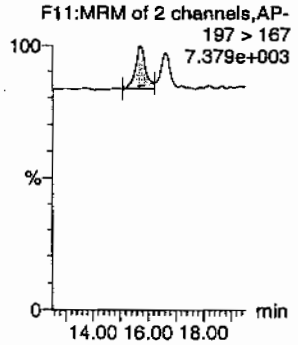

2-Amino-46-dinitrotoluene

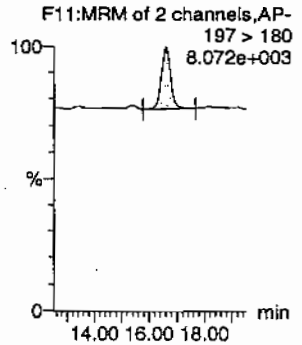

246-Trinitrotoluene

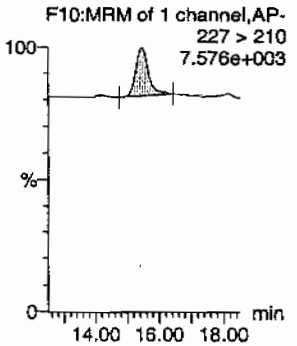

34-dinitrotoluene

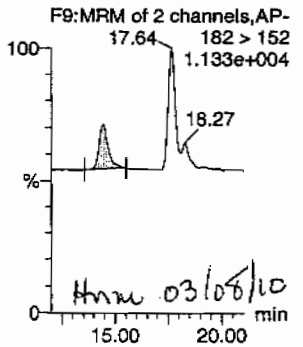

26-dinitrotoluene

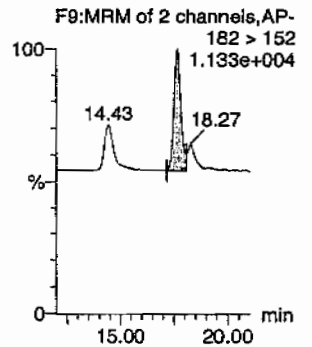

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

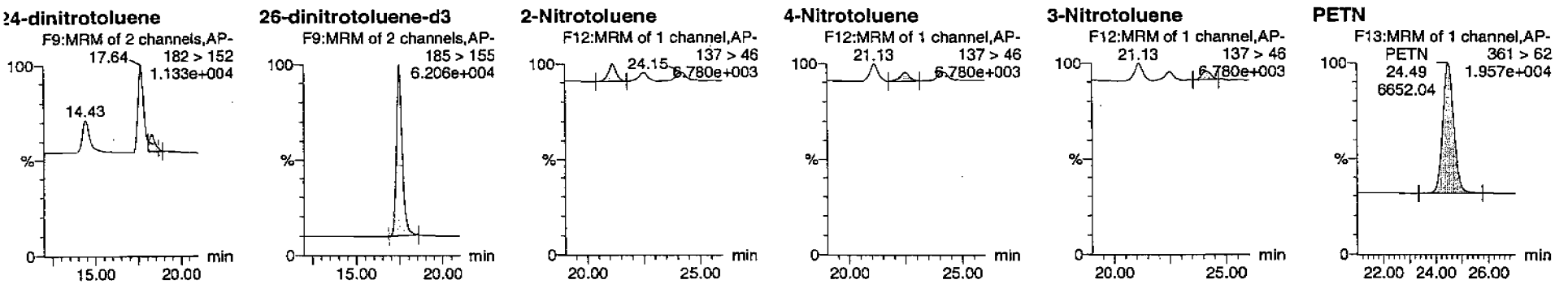

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1365.932	3856.666	1365.932	177.087	bb			37.9664	94.9	-5.1	230.0
WXX100304-08CRI	RDX	176 > 102	7.59	836.831	3856.666	836.831	108.492	bb			37.9155	94.8	-5.2	123.0
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.18	1308.658	3856.666	1308.658	169.662	bb			43.5721	108.9	8.9	79.0
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3856.666		3856.666	3856.666	bb			549.1028	109.8	9.8	395.0
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	382.634	3856.666	382.634	49.607	bb			39.1696	97.9	-2.1	59.0
WXX100304-08CRI	Tetryl	241 > 181	12.72	348.105	3856.666	348.105	45.130	bb			44.3518	110.9	10.9	30.8
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	183.230	3856.666	183.230	23.755	bb			28.7683	71.9	-28.1	22.7
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	526.396	22499.932	526.396	11.698	MM	07-Mar-10	13:25:38	42.4096	106.0	6.0	39.7
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	760.583	22499.932	760.583	16.902	bb			41.7225	104.3	4.3	40.0
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	640.125	22499.932	640.125	14.225	bb			43.2889	108.2	8.2	44.4
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	936.421	22499.932	936.421	20.809	bb			21.5314	107.7	7.7	52.9
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	2014.470	22499.932	2014.470	44.766	MM	07-Mar-10	13:28:30	40.1295	100.3	0.3	145.5
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.27	405.736	22499.932	405.736	9.016	MM	07-Mar-10	13:31:35	32.7098	81.8	-18.2	29.3
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22499.932		22499.932	22499.932	bb			547.1618	109.4	9.4	1657.8
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	277.406	22499.932	277.406	6.165	bb			39.7976	99.5	-0.5	72.9
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.52	159.918	22499.932	159.918	3.554	bb			46.5919	116.5	16.5	35.8
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.15	145.256	22499.932	145.256	3.228	bb			34.2105	85.5	-14.5	32.8
WXX100304-08CRI	PETN	361 > 62	24.49	6652.039	22499.932	6652.039	147.824	bb			49.8059	124.5	24.5	2184.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/06/10
Time of Injection	2319
Standard Number	WXX100304-08CRI
Data File	EXP0304115a

HMX	94.9
RDX	94.8
135-TNB	108.9
13-DNB	97.9
Tetryl	110.9
Nitrobenzene	71.9
4A-26-DNT	106.0
2A-46-DNT	104.3
246-TNT	108.2
34-DNT(surr)	107.7
26-DNT	100.3
24-DNT	81.8
2-NT	99.5
4-NT	116.5
3-NT	85.5
PETN	124.5
Total	1613.6
Average	100.9

MR 3/11/10

Hmm 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304126a

Analysis Date: 07-MAR-10 04:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	600	603.344	101	
2,6-Dinitrotoluene	600	597.429	100	
2,6-Dinitrotoluene-d3	500	528.041	106	
2-Amino-4,6-dinitrotoluene	600	816.024	136	*
3,4-Dinitrotoluene	300	346.312	115	
4-Amino-2,6-dinitrotoluene	600	741.134	124	*
HMX	600	692.406	115	
Nitrobenzene	600	605.334	101	
PETN	600	690.898	115	
RDX	600	736.312	123	*
Tetryl	600	619.275	103	
m-Dinitrobenzene	600	567.553	95	
m-Nitrotoluene	600	614.616	102	
o-Nitrotoluene	600	653.972	109	
p-Nitrotoluene	600	663.056	111	
1,3,5-Trinitrobenzene	600	568.57	95	
1,3-Dinitrobenzene-d4	500	558.522	112	
2,4,6-Trinitrotoluene	600	698.222	116	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304126a
Date: 07-Mar-2010
Time: 04:44:13
ID: WXX100304-07CCV
Vial: 1:1,B

MMT 3/7/10

HMX

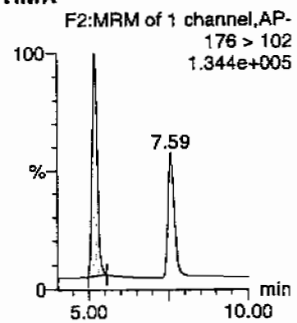

RDX

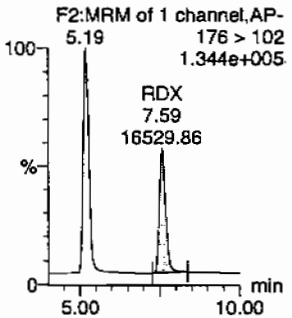

135-Trinitrobenzene

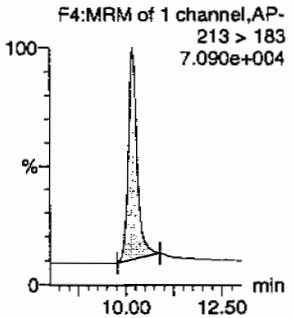

13-Dinitrobenzene-d4

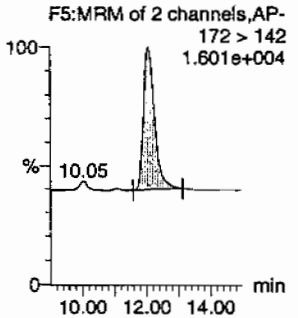

13-Dinitrobenzene

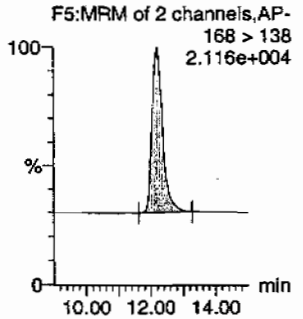

Tetryl

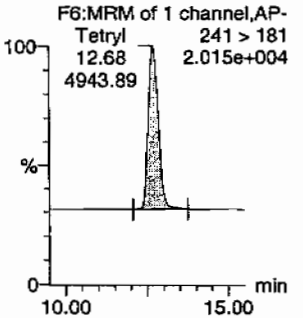

Nitrobenzene

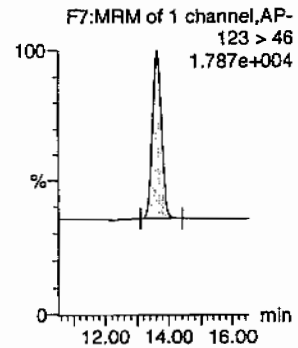

4-Amino-26-dinitrotoluene

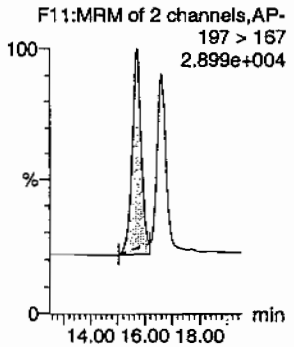

2-Amino-46-dinitrotoluene

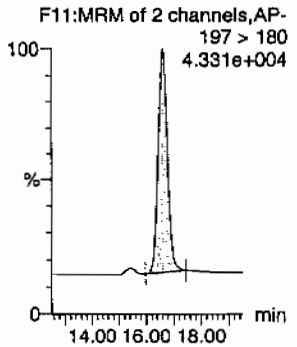

246-Trinitrotoluene

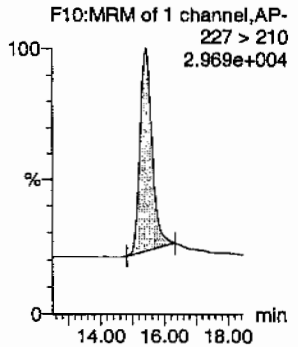

34-dinitrotoluene

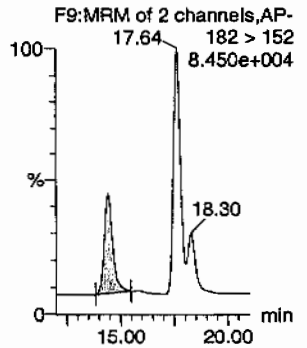

26-dinitrotoluene

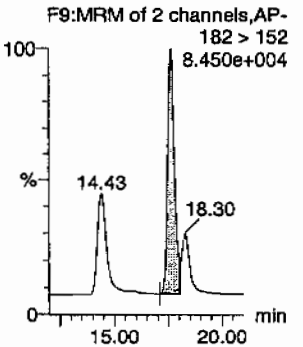

HMM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

24-dinitrotoluene

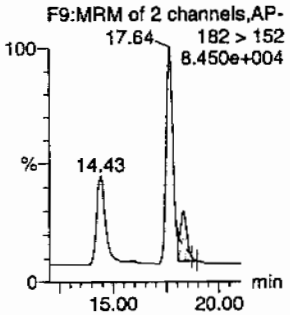

26-dinitrotoluene-d3

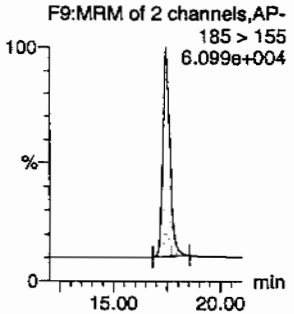

2-Nitrotoluene

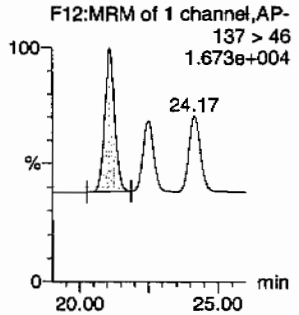

4-Nitrotoluene

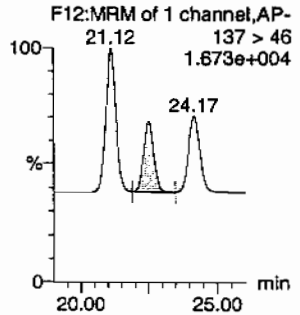

3-Nitrotoluene

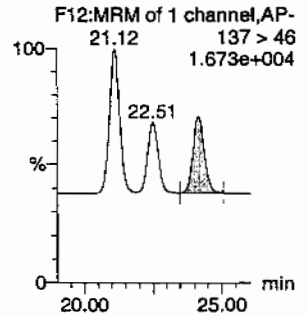

PETN

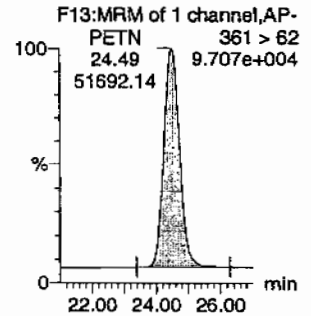

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	25338.254	3922.825	25338.254	3229.593	bb			692.4056	115.4	15.4	3349.1
WXX100304-07CCV	RDX	176 > 102	7.59	16529.859	3922.825	16529.859	2106.882	bb			736.3119	122.7	22.7	1867.6
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.18	17369.531	3922.825	17369.531	2213.906	bb			568.5699	94.8	-5.2	969.7
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3922.825		3922.825	3922.825	bb			558.5224	111.7	11.7	548.8
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5639.335	3922.825	5639.335	718.785	bb			567.5533	94.6	-5.4	542.2
WXX100304-07CCV	Tetryl	241 > 181	12.68	4943.892	3922.825	4943.892	630.144	bb			619.2746	103.2	3.2	382.6
WXX100304-07CCV	Nitrobenzene	123 > 46	13.63	3921.610	3922.825	3921.610	499.845	bb			605.3344	100.9	0.9	492.4
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	8877.644	21713.674	8877.644	204.425	MM	07-Mar-10	13:26:13	741.1342	123.5	23.5	341.1
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	14355.930	21713.674	14355.930	330.573	bb			816.0242	136.0	36.0	1138.4
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.41	9964.003	21713.674	9964.003	229.441	bb			698.2220	116.4	16.4	799.0
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.43	14535.098	21713.674	14535.098	334.699	bb			346.3122	115.4	15.4	552.9
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.64	28942.479	21713.674	28942.479	666.457	MM	07-Mar-10	13:29:10	597.4290	99.6	-0.4	1381.9
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.30	7222.412	21713.674	7222.412	166.310	MM	07-Mar-10	13:30:37	603.3440	100.6	0.6	317.9
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	21713.674		21713.674	21713.674	bb			528.0413	105.6	5.6	2793.7
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	4399.167	21713.674	4399.167	101.299	bb			653.9718	109.0	9.0	570.5
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	2196.290	21713.674	2196.290	50.574	bb			663.0560	110.5	10.5	276.7
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2518.430	21713.674	2518.430	57.992	bb			614.6158	102.4	2.4	300.4
WXX100304-07CCV	PETN	361 > 62	24.49	51692.145	21713.674	51692.145	1190.313	bb			690.8976	115.1	15.1	5875.9

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 0444
Standard Number: WXX100304-07CCV
Data File: EXP0304126a

HMX	115.4
RDX	122.7
135-TNB	94.8
13-DNB	94.6
Tetryl	103.2
Nitrobenzene	100.9
4A-26-DNT	123.5
2A-46-DNT	136.0
246-TNT	116.4
34-DNT(surr)	115.4
26-DNT	99.6
24-DNT	100.6
2-NT	109.0
4-NT	110.5
3-NT	102.4
PETN	115.1
Total	1760.1
Average	110.0

MATP 3/9/10

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304128a

Analysis Date: 07-MAR-10 05:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	40.314	101	
1,3-Dinitrobenzene-d4	500	526.897	105	
2,4,6-Trinitrotoluene	40	34.77	87	
2,4-Dinitrotoluene	40	32.591	81	
2,6-Dinitrotoluene	40	41.49	104	
2,6-Dinitrotoluene-d3	500	563.769	113	
2-Amino-4,6-dinitrotoluene	40	36.882	92	
3,4-Dinitrotoluene	20	21.251	106	
4-Amino-2,6-dinitrotoluene	40	39.317	98	
HMX	40	33.443	84	
Nitrobenzene	40	37.013	93	
PETN	40	41.779	104	
RDX	40	35.061	88	
Tetryl	40	39.432	99	
m-Dinitrobenzene	40	41.676	104	
m-Nitrotoluene	40	35.683	89	
o-Nitrotoluene	40	36.507	91	
p-Nitrotoluene	40	42.08	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304128a
Date: 07-Mar-2010
Time: 05:43:15
ID: WXX100304-08CRI
Vial: 1:1,C

MM 3/8/10

HMX

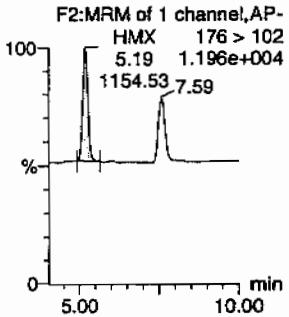

RDX

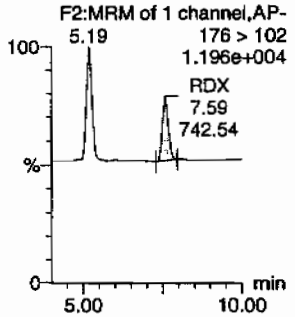

135-Trinitrobenzene

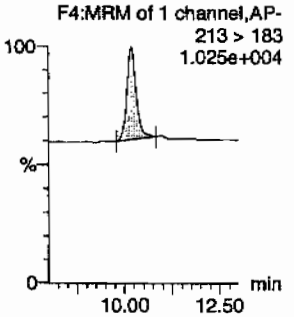

13-Dinitrobenzene-d4

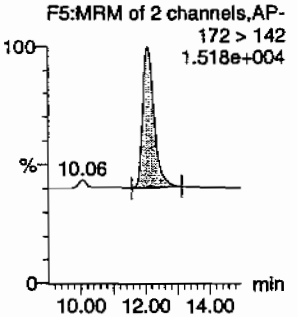

13-Dinitrobenzene

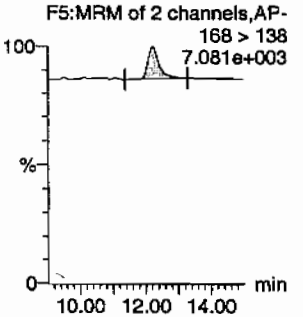

Tetryl

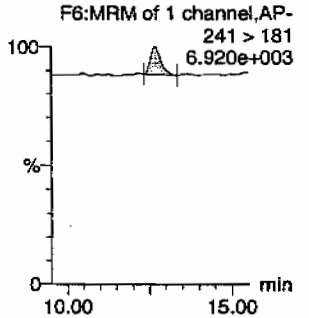

Nitrobenzene

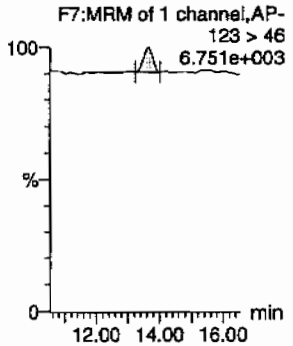

4-Amino-26-dinitrotoluene

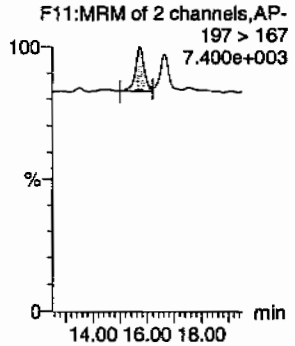

2-Amino-46-dinitrotoluene

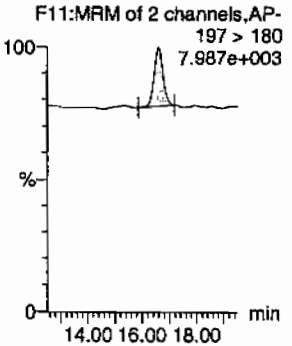

246-Trinitrotoluene

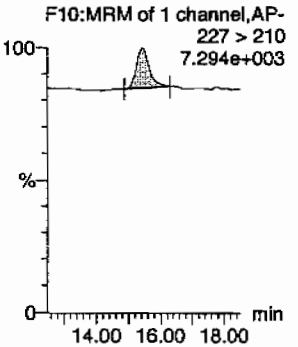

34-dinitrotoluene

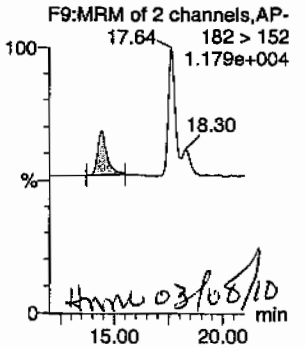

HMM 03/08/10

26-dinitrotoluene

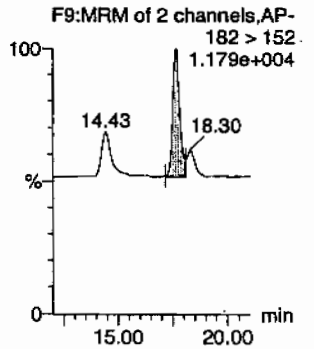

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

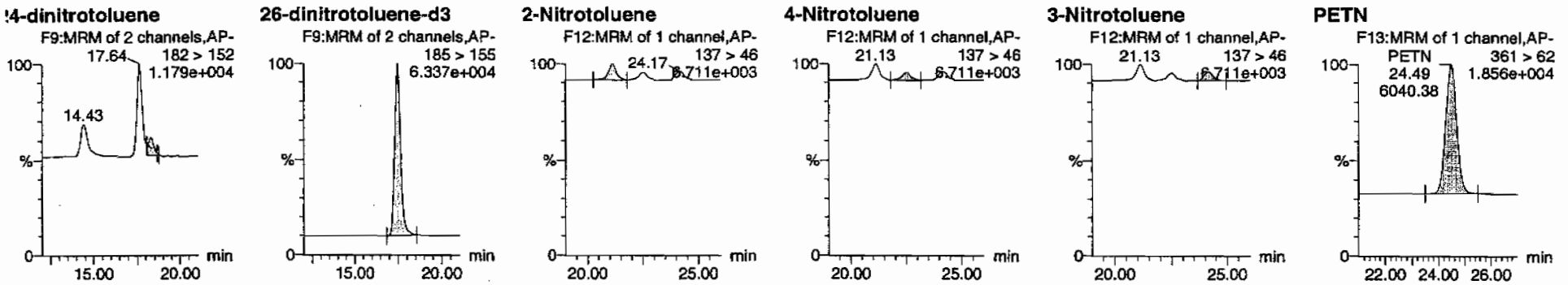

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1154.527	3700.700	1154.527	155.988	bb			33.4428	83.6	-16.4	273.7
WXX100304-08CRI	RDX	176 > 102	7.59	742.539	3700.700	742.539	100.324	bb			35.0612	87.7	-12.3	154.0
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1161.825	3700.700	1161.825	156.974	bb			40.3136	100.8	0.8	185.9
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3700.700		3700.700	3700.700	bb			526.8967	105.4	5.4	209.3
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.24	390.652	3700.700	390.652	52.781	bb			41.6758	104.2	4.2	44.6
WXX100304-08CRI	Tetryl	241 > 181	12.68	296.977	3700.700	296.977	40.124	bb			39.4323	98.6	-1.4	20.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	226.207	3700.700	226.207	30.563	bb			37.0128	92.5	-7.5	19.7
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.71	502.817	23182.834	502.817	10.845	MM	07-Mar-10	13:26:20	39.3166	98.3	-1.7	52.3
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	692.750	23182.834	692.750	14.941	bb			36.8820	92.2	-7.8	68.3
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	529.763	23182.834	529.763	11.426	bb			34.7703	86.9	-13.1	71.0
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	952.272	23182.834	952.272	20.538	bb			21.2509	106.3	6.3	33.7
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	2145.957	23182.834	2145.957	46.283	MM	07-Mar-10	13:29:23	41.4895	103.7	3.7	100.0
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.30	416.527	23182.834	416.527	8.984	MM	07-Mar-10	13:30:22	32.5906	81.5	-18.5	18.5
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	23182.834		23182.834	23182.834	bb			563.7689	112.8	12.8	1520.3
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.13	262.196	23182.834	262.196	5.655	bb			36.5074	91.3	-8.7	40.8
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.53	148.814	23182.834	148.814	3.210	bb			42.0796	105.2	5.2	20.6
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.17	156.104	23182.834	156.104	3.367	bb			35.6825	89.2	-10.8	22.3
WXX100304-08CRI	PETN	361 > 62	24.49	6040.378	23182.834	6040.378	130.277	bb			41.7792	104.4	4.4	1396.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	0543
Standard Number	WXX100304-08CRI
Data File	EXP0304128a

HMX	83.6
RDX	87.7
135-TNB	100.8
13-DNB	104.2
Tetryl	98.6
Nitrobenzene	92.5
4A-26-DNT	98.3
2A-46-DNT	92.2
246-TNT	86.9
34-DNT(surr)	106.3
26-DNT	103.7
24-DNT	81.5
2-NT	91.3
4-NT	105.2
3-NT	89.2
PETN	104.4
Total	1526.4
Average	95.4

LMTP 3/9/10

Hmm 03/05/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304139a

Analysis Date: 07-MAR-10 11:07

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	552.331	92	
m-Dinitrobenzene	600	604.819	101	
m-Nitrotoluene	600	530.755	88	
o-Nitrotoluene	600	667.006	111	
p-Nitrotoluene	600	620.102	103	
1,3,5-Trinitrobenzene	600	576.366	96	
1,3-Dinitrobenzene-d4	500	493.791	99	
2,4,6-Trinitrotoluene	600	622.65	104	
2,4-Dinitrotoluene	600	620.507	103	
2,6-Dinitrotoluene	600	594.181	99	
2,6-Dinitrotoluene-d3	500	537.834	108	
2-Amino-4,6-dinitrotoluene	600	667.838	111	
3,4-Dinitrotoluene	300	299.843	100	
4-Amino-2,6-dinitrotoluene	600	633.205	106	
HMX	600	667.227	111	
Nitrobenzene	600	574.855	96	
PETN	600	533.256	89	
RDX	600	699.96	117	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304139a
Date: 07-Mar-2010
Time: 11:07:52
ID: WXX100304-07CCV
Vial: 1:1,B

MJP 3/7/10

HMX

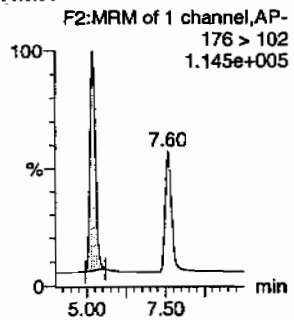

RDX

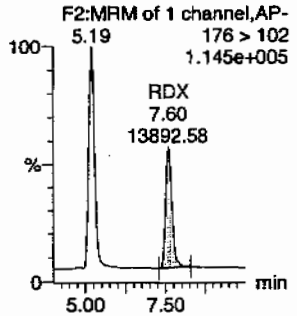

135-Trinitrobenzene

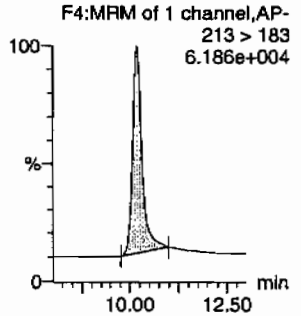

13-Dinitrobenzene-d4

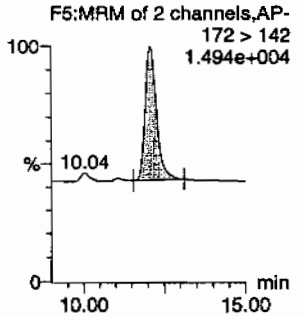

13-Dinitrobenzene

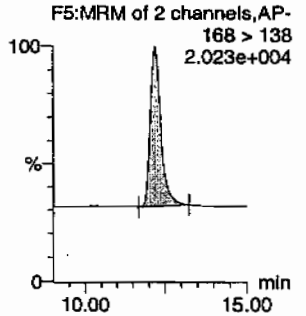

Tetryl

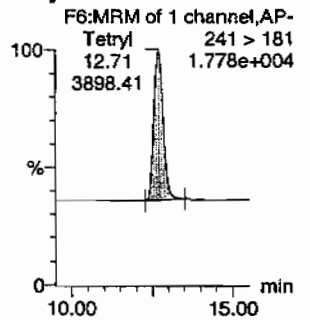

Nitrobenzene

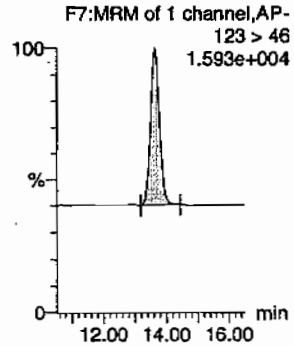

4-Amino-26-dinitrotoluene

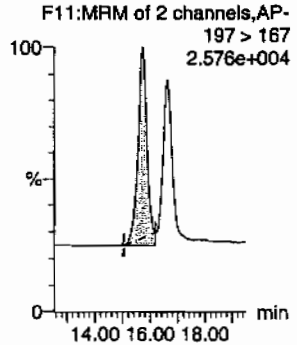

2-Amino-46-dinitrotoluene

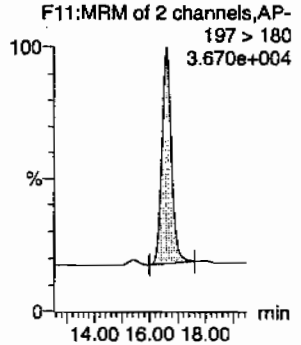

246-Trinitrotoluene

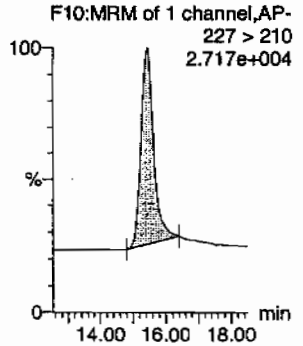

34-dinitrotoluene

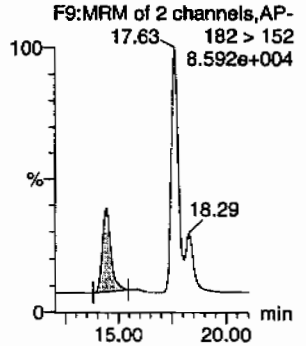

Hmw 03/08/10

26-dinitrotoluene

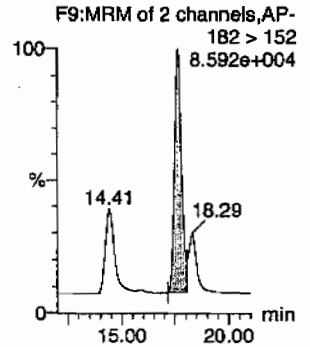

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

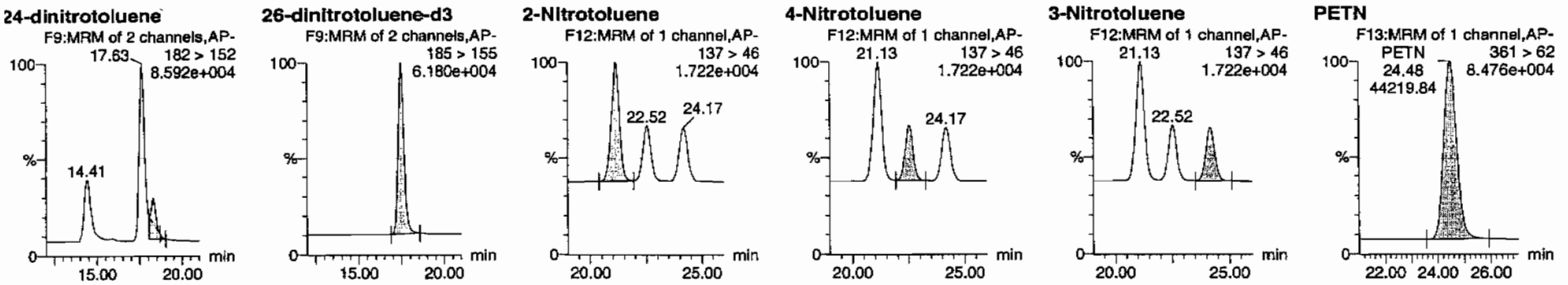

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	21586.969	3468.176	21586.969	3112.150	bb			667.2266	111.2	11.2	2182.3
WXX100304-07CCV	RDX	176 > 102	7.60	13892.584	3468.176	13892.584	2002.866	bb			699.9604	116.7	16.7	1206.4
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.19	15567.002	3468.176	15567.002	2244.264	bb			576.3663	96.1	-3.9	2734.4
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3468.176		3468.176	3468.176	bb			493.7905	98.8	-1.2	127.7
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5313.112	3468.176	5313.112	765.981	bb			604.8192	100.8	0.8	469.4
WXX100304-07CCV	Tetryl	241 > 181	12.71	3898.411	3468.176	3898.411	562.026	bb			552.3314	92.1	-7.9	343.2
WXX100304-07CCV	Nitrobenzene	123 > 46	13.61	3292.529	3468.176	3292.529	474.677	bb			574.8551	95.8	-4.2	478.4
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7725.487	22116.371	7725.487	174.655	MM	07-Mar-10	13:26:32	633.2051	105.5	5.5	321.1
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	11966.849	22116.371	11966.849	270.543	bb			667.8377	111.3	11.3	1813.8
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9050.346	22116.371	9050.346	204.607	bb			622.6505	103.8	3.8	444.5
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.41	12818.127	22116.371	12818.127	289.788	bb			299.8429	99.9	-0.1	271.1
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.63	29318.959	22116.371	29318.959	662.834	MM	07-Mar-10	13:29:40	594.1807	99.0	-1.0	795.3
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.29	7565.616	22116.371	7565.616	171.041	MM	07-Mar-10	13:30:11	620.5067	103.4	3.4	181.3
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	22116.371		22116.371	22116.371	bb			537.8342	107.6	7.6	1452.4
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.13	4570.058	22116.371	4570.058	103.318	bb			667.0060	111.2	11.2	920.7
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.52	2092.102	22116.371	2092.102	47.298	bb			620.1016	103.4	3.4	432.4
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2215.137	22116.371	2215.137	50.079	bb			530.7548	88.5	-11.5	418.0
WXX100304-07CCV	PETN	361 > 62	24.48	44219.840	22116.371	44219.840	999.708	bb			533.2564	88.9	-11.1	8673.6

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 1107
Standard Number: WXX100304-07CCV
Data File: EXP0304139a

HMX		111.2
RDX		116.7
135-TNB		96.1
13-DNB		100.8
Tetryl		92.1
Nitrobenzene		95.8
4A-26-DNT		105.5
2A-46-DNT		111.3
246-TNT		103.8
34-DNT(surr)		99.9
26-DNT		99.0
24-DNT		103.4
2-NT		111.2
4-NT		103.4
3-NT		88.5
PETN		88.9
Total		1627.6
Average		101.7

MJR 3/7/10

HMK-03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304141a

Analysis Date: 07-MAR-10 12:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	46.396	116	
3,4-Dinitrotoluene	20	17.875	89	
4-Amino-2,6-dinitrotoluene	40	41.16	103	
HMX	40	36.496	91	
Nitrobenzene	40	38.472	96	
PETN	40	57.261	143	*
RDX	40	35.957	90	
Tetryl	40	39.267	98	
m-Dinitrobenzene	40	41.353	103	
m-Nitrotoluene	40	39.049	98	
o-Nitrotoluene	40	37.499	94	
p-Nitrotoluene	40	40.552	101	
1,3,5-Trinitrobenzene	40	42.864	107	
1,3-Dinitrobenzene-d4	500	543.802	109	
2,4,6-Trinitrotoluene	40	39.405	99	
2,4-Dinitrotoluene	40	34.117	85	
2,6-Dinitrotoluene	40	41.089	103	
2,6-Dinitrotoluene-d3	500	522.237	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304141a
Date: 07-Mar-2010
Time: 12:06:54
ID: WXX100304-08CRI
Vial: 1:1,C

MMT 3/7/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.300e+004
1300.36 7.59

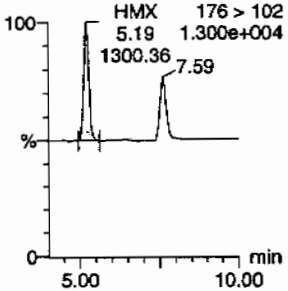

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.300e+004
RDX
7.59
785.95

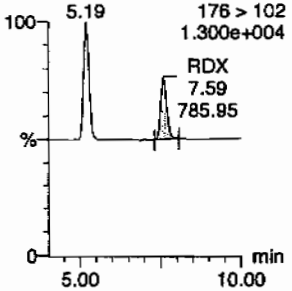

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.102e+004

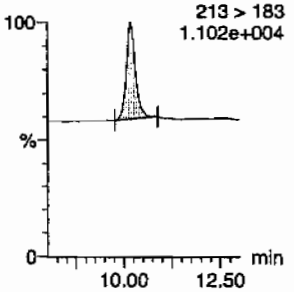

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.552e+004

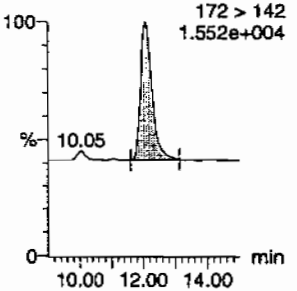

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.518e+003

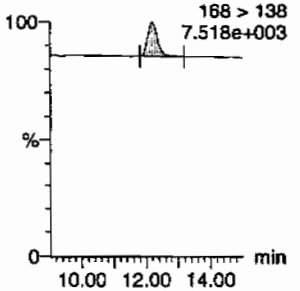

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.270e+003

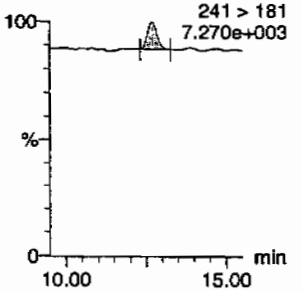

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.013e+003

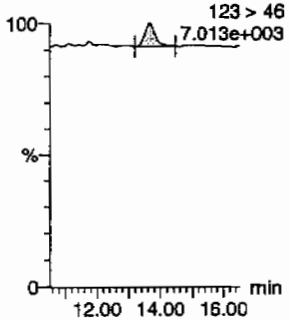

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.665e+003

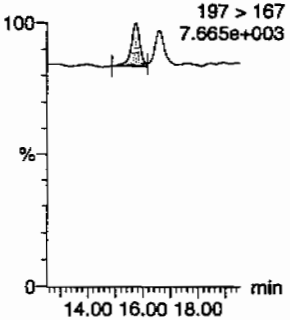

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.526e+003

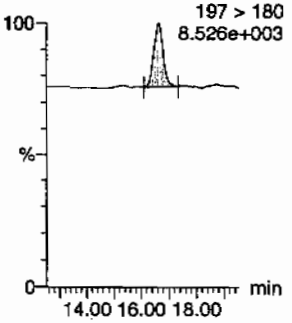

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.726e+003

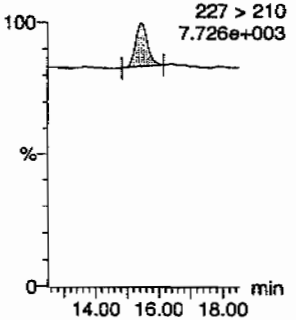

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64 182 > 152
1.154e+004
18.32

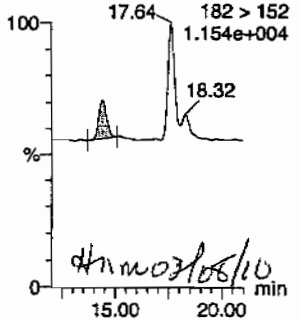

HMM 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.154e+004
14.43
18.32

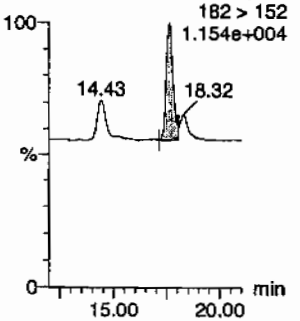

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA2.qld, Time: Sun Mar 07 13:32:46 2010

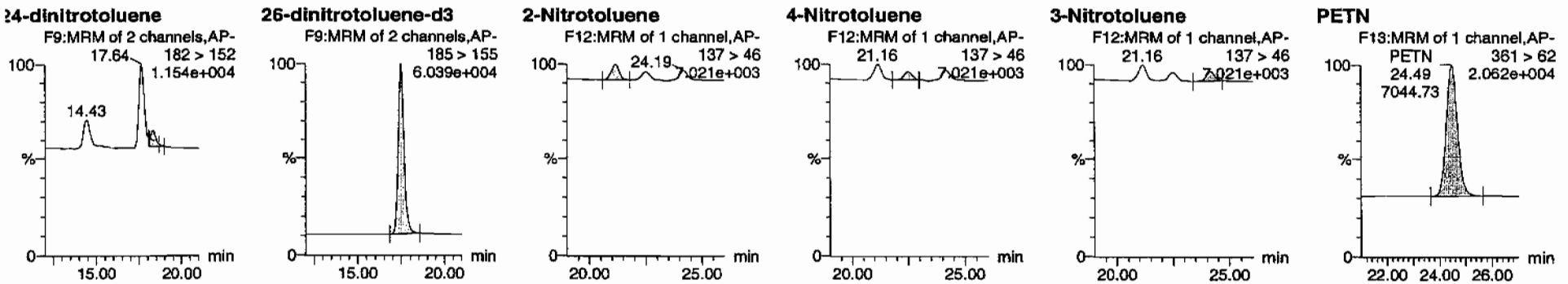

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.19	1300.355	3819.438	1300.355	170.229	bb			36.4960	91.2	-8.8	242.0
WXX100304-08CRI	RDX	176 > 102	7.59	785.948	3819.438	785.948	102.888	bb			35.9572	89.9	-10.1	128.4
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.18	1274.962	3819.438	1274.962	166.904	bb			42.8640	107.2	7.2	124.4
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3819.438		3819.438	3819.438	bb			543.8024	108.8	8.8	438.1
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	400.061	3819.438	400.061	52.372	bb			41.3528	103.4	3.4	62.1
WXX100304-08CRI	Tetryl	241 > 181	12.68	305.221	3819.438	305.221	39.956	bb			39.2670	98.2	-1.8	22.3
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	242.671	3819.438	242.671	31.768	bb			38.4723	96.2	-3.8	13.9
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	487.615	21475.008	487.615	11.353	MM	07-Mar-10	13:26:39	41.1601	102.9	2.9	25.1
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	807.255	21475.008	807.255	18.795	bb			46.3962	116.0	16.0	80.7
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	556.148	21475.008	556.148	12.949	bb			39.4049	98.5	-1.5	38.0
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	741.980	21475.008	741.980	17.275	bb			17.8748	89.4	-10.6	45.0
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.64	1968.676	21475.008	1968.676	45.836	MM	07-Mar-10	13:29:53	41.0889	102.7	2.7	135.6
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.32	403.917	21475.008	403.917	9.404	MM	07-Mar-10	13:30:03	34.1173	85.3	-14.7	27.2
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.49	21475.008		21475.008	21475.008	bb			522.2373	104.4	4.4	1724.4
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.16	249.480	21475.008	249.480	5.809	bb			37.4994	93.7	-6.3	46.9
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.50	132.846	21475.008	132.846	3.093	bb			40.5517	101.4	1.4	24.1
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.19	158.247	21475.008	158.247	3.684	bb			39.0489	97.6	-2.4	28.5
WXX100304-08CRI	PETN	361 > 62	24.49	7044.725	21475.008	7044.725	164.021	bb			57.2612	143.2	43.2	1280.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	1206
Standard Number	WXX100304-08CRI
Data File	EXP0304141a

HMX	91.2
RDX	89.9
135-TNB	107.2
13-DNB	103.4
Tetryl	98.2
Nitrobenzene	96.2
4A-26-DNT	102.9
2A-46-DNT	116.0
246-TNT	98.5
34-DNT(surr)	89.4
26-DNT	102.7
24-DNT	85.3
2-NT	93.7
4-NT	101.4
3-NT	97.6
PETN	143.2
Total	1616.8
Average	101.1

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0304146a

Analysis Date: 07–MAR–10 14:34

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	558.926	93	
1,3–Dinitrobenzene–d4	500	556.32	111	
2,4,6–Trinitrotoluene	600	662.99	110	
2,4–Dinitrotoluene	600	604.969	101	
2,6–Dinitrotoluene	600	610.904	102	
2,6–Dinitrotoluene–d3	500	512.665	103	
2–Amino–4,6–dinitrotoluene	600	705.31	118	
3,4–Dinitrotoluene	300	316.867	106	
4–Amino–2,6–dinitrotoluene	600	683.603	114	
HMX	600	556.277	93	
Nitrobenzene	600	571.879	95	
PETN	600	618.034	103	
RDX	600	622.846	104	
Tetryl	600	548.624	91	
m–Dinitrobenzene	600	583.825	97	
m–Nitrotoluene	600	570.191	95	
o–Nitrotoluene	600	604.577	101	
p–Nitrotoluene	600	621.97	104	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304146a
Date: 07-Mar-2010
Time: 14:34:39
ID: WXX100304-07CCV
Vial: 1:1,B

MM 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.104e+005
7.60

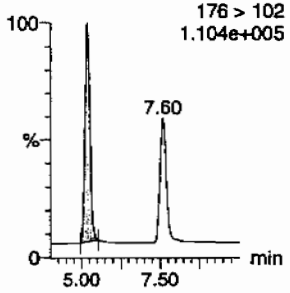

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
1.104e+005
RDX
7.60
13927.47

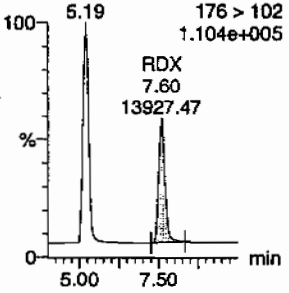

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.657e+004

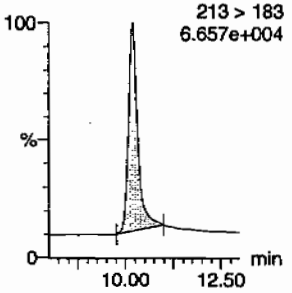

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.605e+004
10.04

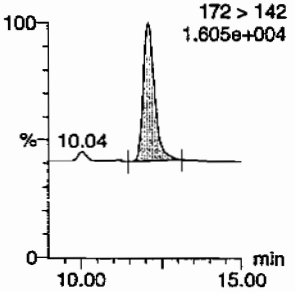

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.139e+004

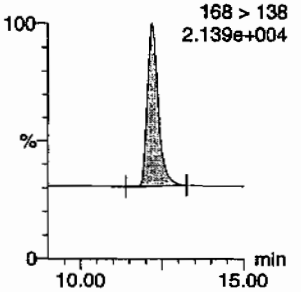

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.71
4362.59
241 > 181
1.883e+004

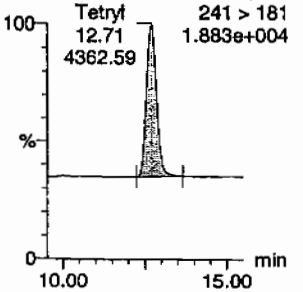

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.721e+004

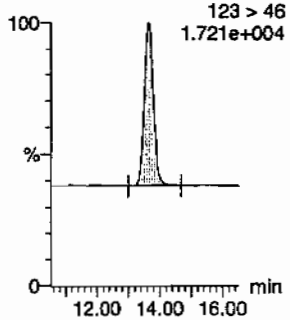

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.658e+004

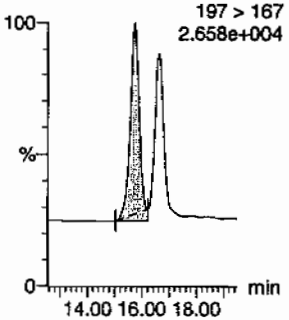

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.759e+004

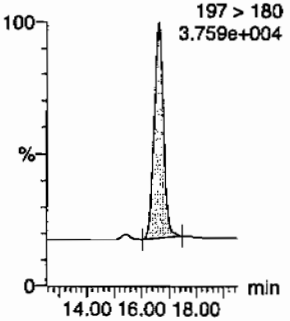

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.723e+004

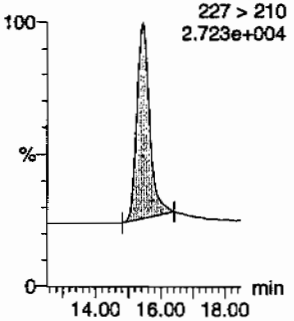

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.65
182 > 152
8.390e+004
18.31

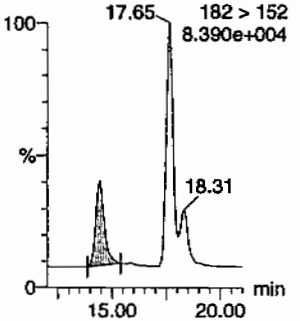

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.390e+004
14.41
18.31

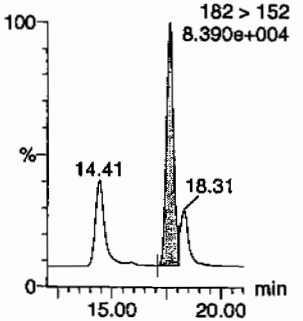

HMW 03/08/10

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

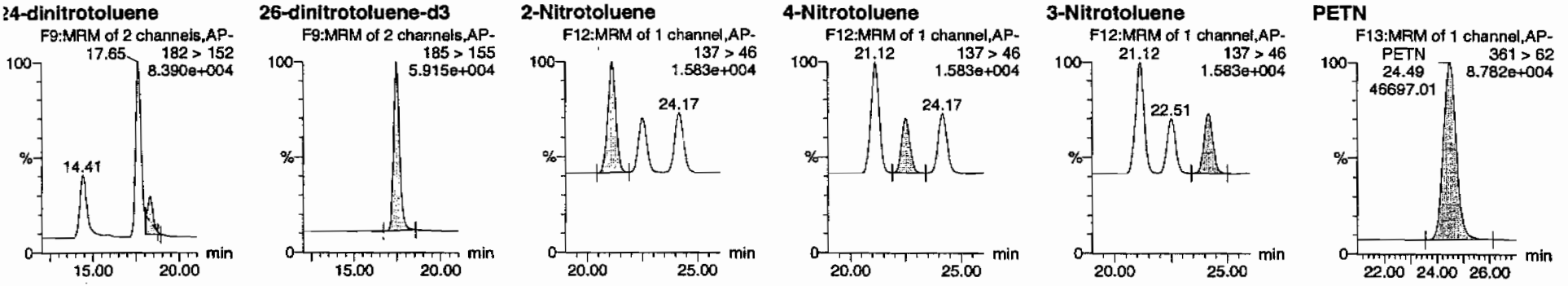

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100304-07CCV	HMX	176 > 102	5.19	20276.393	3907.354	20276.393	2594.645	bb			556.2765	92.7	-7.3	2391.1
WXX100304-07CCV	RDX	176 > 102	7.60	13927.465	3907.354	13927.465	1782.212	bb			622.8463	103.8	3.8	1359.0
WXX100304-07CCV	135-Trinitrobenzene	213 > 183	10.19	17007.564	3907.354	17007.564	2176.353	bb			558.9257	93.2	-6.8	1116.3
WXX100304-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3907.354		3907.354	3907.354	bb			556.3196	111.3	11.3	287.7
WXX100304-07CCV	13-Dinitrobenzene	168 > 138	12.20	5778.132	3907.354	5778.132	739.392	bb			583.8246	97.3	-2.7	498.5
WXX100304-07CCV	Tetryl	241 > 181	12.71	4362.592	3907.354	4362.592	558.254	bb			548.6244	91.4	-8.6	367.7
WXX100304-07CCV	Nitrobenzene	123 > 46	13.61	3690.261	3907.354	3690.261	472.220	bb			571.8791	95.3	-4.7	365.5
WXX100304-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.73	7950.056	21081.367	7950.056	188.556	MM	08-Mar-10	11:33:36	683.6028	113.9	13.9	595.9
WXX100304-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.62	12046.863	21081.367	12046.863	285.723	bb			705.3103	117.6	17.6	484.2
WXX100304-07CCV	246-Trinitrotoluene	227 > 210	15.44	9185.715	21081.367	9185.715	217.863	bb			662.9904	110.5	10.5	489.7
WXX100304-07CCV	34-dinitrotoluene	182 > 152	14.41	12911.955	21081.367	12911.955	306.241	bb			316.8665	105.6	5.6	606.5
WXX100304-07CCV	26-dinitrotoluene	182 > 152	17.65	28733.469	21081.367	28733.469	681.490	MM	08-Mar-10	11:51:50	610.9043	101.8	1.8	1727.2
WXX100304-07CCV	24-dinitrotoluene	182 > 152	18.31	7030.979	21081.367	7030.979	166.758	MM	08-Mar-10	11:52:36	604.9689	100.8	0.8	381.8
WXX100304-07CCV	26-dinitrotoluene-d3	185 > 155	17.48	21081.367		21081.367	21081.367	bb			512.6646	102.5	2.5	1209.3
WXX100304-07CCV	2-Nitrotoluene	137 > 46	21.12	3948.466	21081.367	3948.466	93.648	bb			604.5769	100.8	0.8	471.6
WXX100304-07CCV	4-Nitrotoluene	137 > 46	22.51	2000.205	21081.367	2000.205	47.440	bb			621.9702	103.7	3.7	228.6
WXX100304-07CCV	3-Nitrotoluene	137 > 46	24.17	2268.361	21081.367	2268.361	53.800	bb			570.1913	95.0	-5.0	250.8
WXX100304-07CCV	PETN	361 > 62	24.49	46697.008	21081.367	46697.008	1107.542	bb			618.0345	103.0	3.0	7203.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 1434
Standard Number: WXX100304-07CCV
Data File: EXP0304146a

HMX		92.7
RDX		103.8
135-TNB		93.2
13-DNB		97.3
Tetryl		91.4
Nitrobenzene		95.3
4A-26-DNT		113.9
2A-46-DNT		117.6
246-TNT		110.5
34-DNT(surr)		105.6
26-DNT		101.8
24-DNT		100.8
2-NT		100.8
4-NT		103.7
3-NT		95.0
PETN		103.0
Total		1626.4
Average		101.7

MJT 3/8/10

AMC 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304148a

Analysis Date: 07-MAR-10 15:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	40	43.464	109	
1,3,5-Trinitrobenzene	40	47.467	119	
1,3-Dinitrobenzene-d4	500	542.513	109	
2,4,6-Trinitrotoluene	40	38.864	97	
2,4-Dinitrotoluene	40	36.945	92	
2,6-Dinitrotoluene	40	38.784	97	
2,6-Dinitrotoluene-d3	500	550.313	110	
2-Amino-4,6-dinitrotoluene	40	47.189	118	
3,4-Dinitrotoluene	20	20.504	103	
4-Amino-2,6-dinitrotoluene	40	48.089	120	
HMX	40	45.84	115	
Nitrobenzene	40	41.167	103	
PETN	40	55.645	139	*
RDX	40	44.484	111	
Tetryl	40	36.664	92	
m-Dinitrobenzene	40	34.02	85	
m-Nitrotoluene	40	36.88	92	
o-Nitrotoluene	40	39.142	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304148a
Date: 07-Mar-2010
Time: 15:33:40
ID: WXX100304-08CRI
Vial: 1:1,C

MMP 3/8/10

HMX

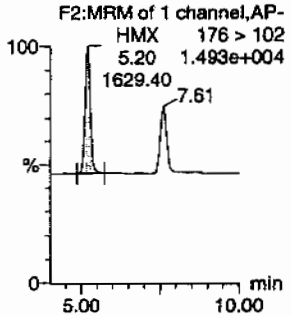

RDX

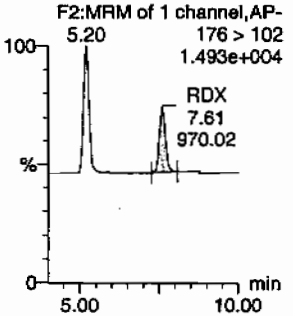

135-Trinitrobenzene

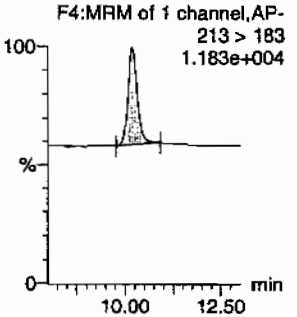

13-Dinitrobenzene-d4

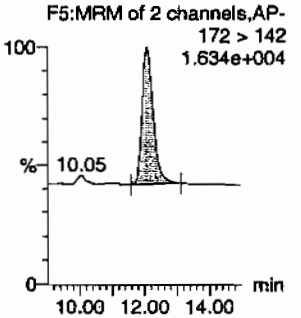

13-Dinitrobenzene

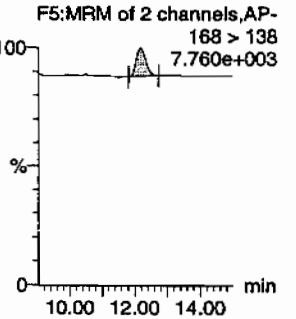

Tetryl

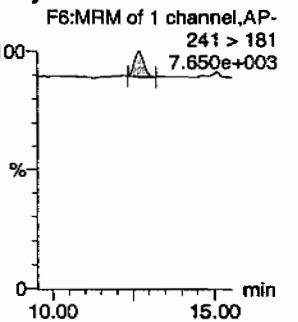

Nitrobenzene

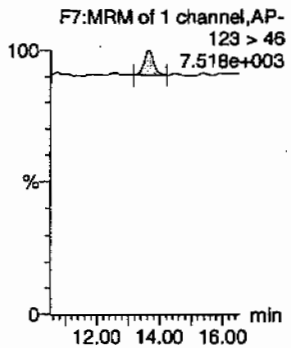

4-Amino-26-dinitrotoluene

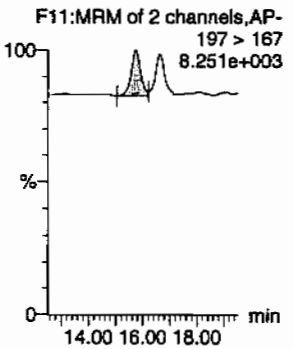

2-Amino-46-dinitrotoluene

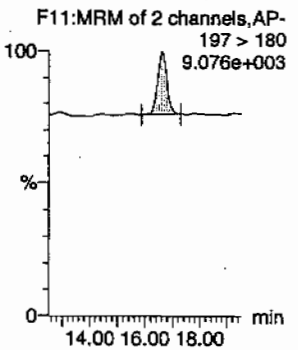

246-Trinitrotoluene

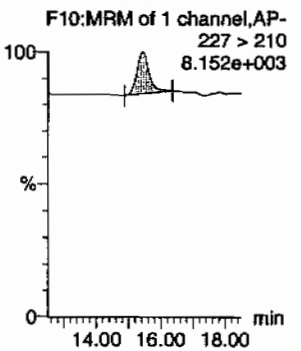

34-dinitrotoluene

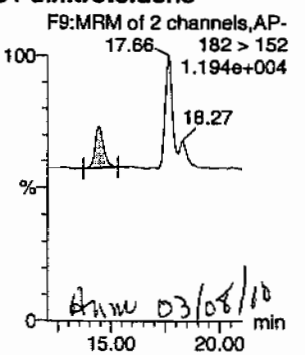

Amw 03/08/10

26-dinitrotoluene

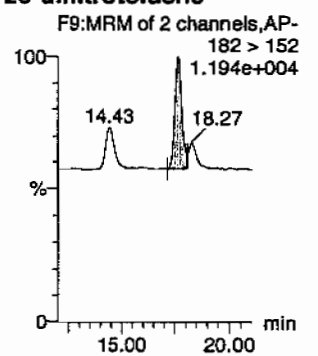

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

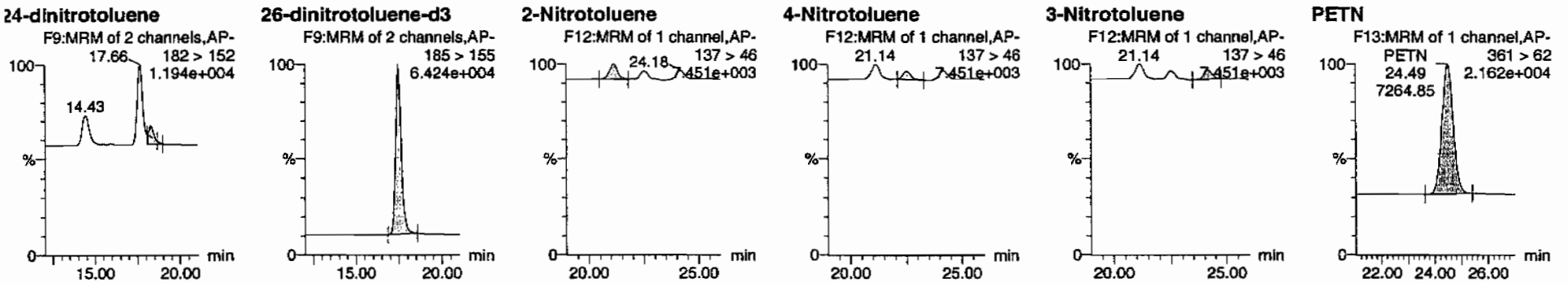

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100304-08CRI	HMX	176 > 102	5.20	1629.401	3810.383	1629.401	213.811	bb			45.8397	114.6	14.6	388.1
WXX100304-08CRI	RDX	176 > 102	7.61	970.024	3810.383	970.024	127.287	bb			44.4842	111.2	11.2	203.5
WXX100304-08CRI	135-Trinitrobenzene	213 > 183	10.20	1408.539	3810.383	1408.539	184.829	bb			47.4673	118.7	18.7	246.9
WXX100304-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3810.383		3810.383	3810.383	bb			542.5131	108.5	8.5	450.2
WXX100304-08CRI	13-Dinitrobenzene	168 > 138	12.20	328.342	3810.383	328.342	43.085	bb			34.0201	85.1	-14.9	41.2
WXX100304-08CRI	Tetryl	241 > 181	12.68	284.310	3810.383	284.310	37.307	bb			36.6637	91.7	-8.3	39.7
WXX100304-08CRI	Nitrobenzene	123 > 46	13.63	259.052	3810.383	259.052	33.993	bb			41.1669	102.9	2.9	25.6
WXX100304-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	600.325	22629.516	600.325	13.264	MM	08-Mar-10	11:33:46	48.0888	120.2	20.2	22.8
WXX100304-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.60	865.188	22629.516	865.188	19.116	bb			47.1889	118.0	18.0	57.4
WXX100304-08CRI	246-Trinitrotoluene	227 > 210	15.45	577.999	22629.516	577.999	12.771	bb			38.8638	97.2	-2.8	45.6
WXX100304-08CRI	34-dinitrotoluene	182 > 152	14.43	896.863	22629.516	896.863	19.816	bb			20.5038	102.5	2.5	70.8
WXX100304-08CRI	26-dinitrotoluene	182 > 152	17.66	1958.128	22629.516	1958.128	43.265	MM	08-Mar-10	11:51:38	38.7837	97.0	-3.0	188.7
WXX100304-08CRI	24-dinitrotoluene	182 > 152	18.27	460.912	22629.516	460.912	10.184	MM	08-Mar-10	11:54:42	36.9453	92.4	-7.6	43.3
WXX100304-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	22629.516		22629.516	22629.516	bb			550.3131	110.1	10.1	1392.3
WXX100304-08CRI	2-Nitrotoluene	137 > 46	21.14	274.408	22629.516	274.408	6.063	bb			39.1420	97.9	-2.1	66.4
WXX100304-08CRI	4-Nitrotoluene	137 > 46	22.51	150.040	22629.516	150.040	3.315	bb			43.4636	108.7	8.7	37.1
WXX100304-08CRI	3-Nitrotoluene	137 > 46	24.18	157.494	22629.516	157.494	3.480	bb			36.8804	92.2	-7.8	39.8
WXX100304-08CRI	PETN	361 > 62	24.49	7264.852	22629.516	7264.852	160.517	bb			55.6445	139.1	39.1	2871.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	1533
Standard Number	WXX100304-08CRI
Data File	EXP0304148a

HMX	114.6
RDX	111.2
135-TNB	118.7
13-DNB	85.1
Tetryl	91.7
Nitrobenzene	102.9
4A-26-DNT	120.2
2A-46-DNT	118.0
246-TNT	97.2
34-DNT(surr)	102.5
26-DNT	97.0
24-DNT	92.4
2-NT	97.9
4-NT	108.7
3-NT	92.2
PETN	139.1
Total	1689.4
Average	105.6

MHP 3/8/10

Hmc 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304159a

Analysis Date: 07-MAR-10 20:58

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	618.608	103	
Nitrobenzene	600	587.842	98	
PETN	600	713.827	119	
RDX	600	721.108	120	*
Tetryl	600	627.476	105	
m-Dinitrobenzene	600	599.197	100	
m-Nitrotoluene	600	525.179	88	
o-Nitrotoluene	600	549.102	92	
p-Nitrotoluene	600	592.181	99	
1,3,5-Trinitrobenzene	600	585.041	98	
1,3-Dinitrobenzene-d4	500	556.17	111	
2,4,6-Trinitrotoluene	600	673.261	112	
2,4-Dinitrotoluene	600	600.36	100	
2,6-Dinitrotoluene	600	601.1	100	
2,6-Dinitrotoluene-d3	500	560.036	112	
2-Amino-4,6-dinitrotoluene	600	674.068	112	
3,4-Dinitrotoluene	300	326.525	109	
4-Amino-2,6-dinitrotoluene	600	653.255	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304159a
Date: 07-Mar-2010
Time: 20:58:00
ID: WXX100307-07CCV
Vial: 1:1,D

MATT 3/8/10

HMX

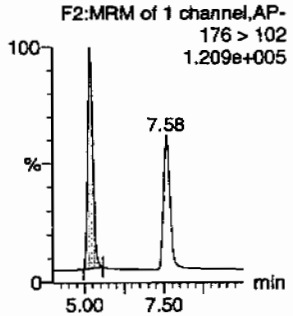

RDX

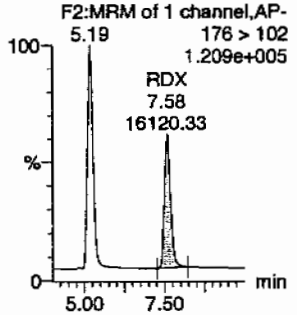

135-Trinitrobenzene

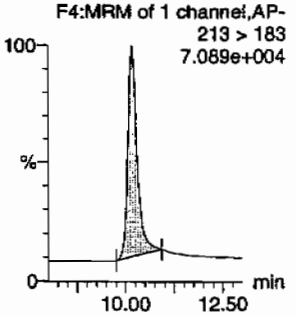

13-Dinitrobenzene-d4

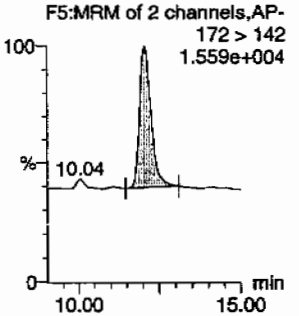

13-Dinitrobenzene

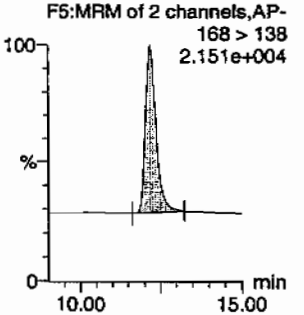

Tetryl

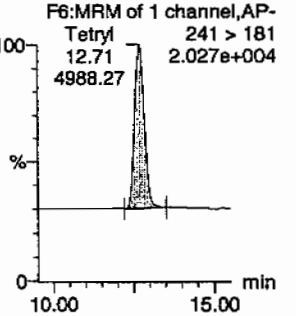

Nitrobenzene

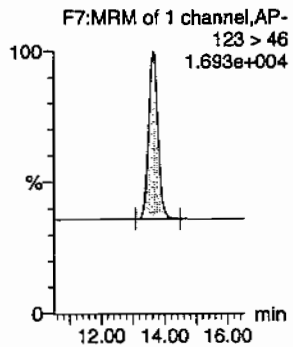

4-Amino-26-dinitrotoluene

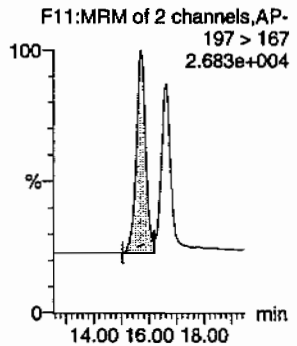

2-Amino-46-dinitrotoluene

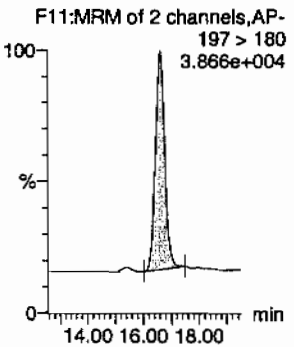

246-Trinitrotoluene

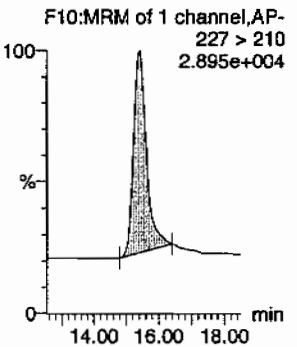

34-dinitrotoluene

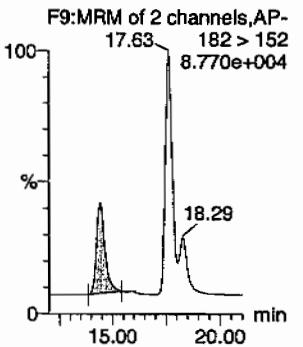

26-dinitrotoluene

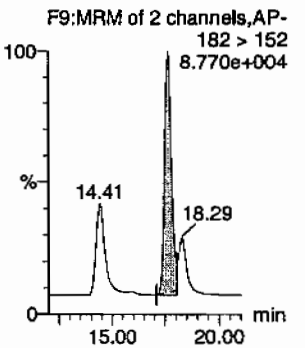

tmw 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

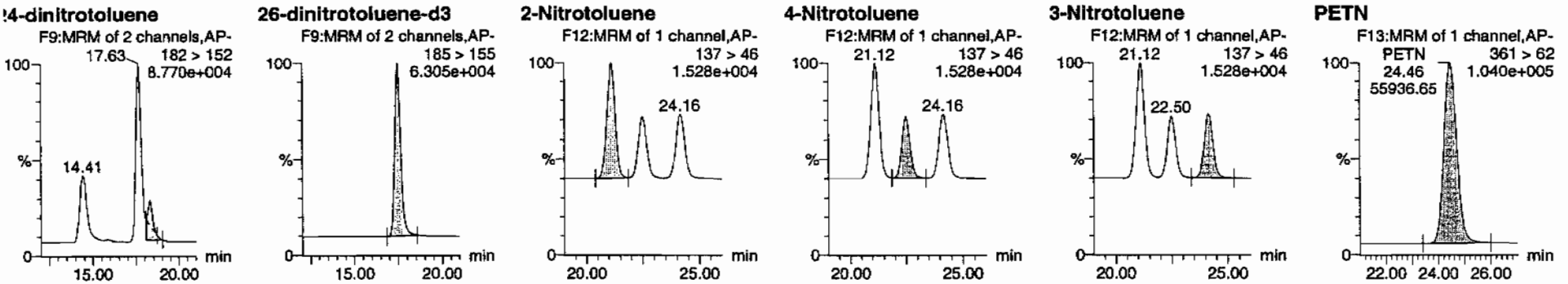

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-07CCV	HMX	176 > 102	5.19	22542.322	3906.300	22542.322	2885.380	bb			618.6085	103.1	3.1	4945.0
WXX100307-07CCV	RDX	176 > 102	7.58	16120.335	3906.300	16120.335	2063.376	bb			721.1076	120.2	20.2	2981.1
WXX100307-07CCV	135-Trinitrobenzene	213 > 183	10.18	17797.439	3906.300	17797.439	2278.043	bb			585.0414	97.5	-2.5	2851.1
WXX100307-07CCV	13-Dinitrobenzene-d4	172 > 142	12.06	3906.300		3906.300	3906.300	bb			556.1696	111.2	11.2	452.5
WXX100307-07CCV	13-Dinitrobenzene	168 > 138	12.20	5928.672	3906.300	5928.672	758.860	bb			599.1969	99.9	-0.1	741.9
WXX100307-07CCV	Tetryl	241 > 181	12.71	4988.266	3906.300	4988.266	638.490	bb			627.4762	104.6	4.6	413.8
WXX100307-07CCV	Nitrobenzene	123 > 46	13.61	3792.245	3906.300	3792.245	485.401	bb			587.8421	98.0	-2.0	281.8
WXX100307-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.70	8299.111	23029.318	8299.111	180.186	MM	08-Mar-10	11:34:48	653.2553	108.9	8.9	358.7
WXX100307-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.59	12577.080	23029.318	12577.080	273.067	bb			674.0681	112.3	12.3	1018.8
WXX100307-07CCV	246-Trinitrotoluene	227 > 210	15.44	10189.931	23029.318	10189.931	221.238	bb			673.2606	112.2	12.2	644.0
WXX100307-07CCV	34-dinitrotoluene	182 > 152	14.41	14534.964	23029.318	14534.964	315.575	bb			326.5247	108.8	8.8	694.3
WXX100307-07CCV	26-dinitrotoluene	182 > 152	17.63	30884.742	23029.318	30884.742	670.553	MM	08-Mar-10	11:50:49	601.1001	100.2	0.2	1864.1
WXX100307-07CCV	24-dinitrotoluene	182 > 152	18.29	7622.137	23029.318	7622.137	165.488	MM	08-Mar-10	11:55:49	600.3599	100.1	0.1	420.9
WXX100307-07CCV	26-dinitrotoluene-d3	185 > 155	17.46	23029.318		23029.318	23029.318	bb			560.0356	112.0	12.0	2738.3
WXX100307-07CCV	2-Nitrotoluene	137 > 46	21.12	3917.528	23029.318	3917.528	85.055	bb			549.1019	91.5	-8.5	937.6
WXX100307-07CCV	4-Nitrotoluene	137 > 46	22.50	2080.375	23029.318	2080.375	45.168	bb			592.1809	98.7	-1.3	491.3
WXX100307-07CCV	3-Nitrotoluene	137 > 46	24.16	2282.346	23029.318	2282.346	49.553	bb			525.1793	87.5	-12.5	510.1
WXX100307-07CCV	PETN	361 > 62	24.46	55936.652	23029.318	55936.652	1214.466	bb			713.8272	119.0	19.0	8650.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/07/10
Time of Injection: 2058
Standard Number: WXX100307-07CCV
Data File: EXP0304159a

HMX		103.1
RDX		120.2
135-TNB		97.5
13-DNB		99.9
Tetryl		104.6
Nitrobenzene		98.0
4A-26-DNT		108.9
2A-46-DNT		112.3
246-TNT		112.2
34-DNT(surr)		108.8
26-DNT		100.2
24-DNT		100.1
2-NT		91.5
4-NT		98.7
3-NT		87.5
PETN		119.0
Total		1662.5
Average		103.9

MATT 3/8/10

HMW 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304161a

Analysis Date: 07–MAR–10 21:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	50.227	126	
1,3–Dinitrobenzene–d4	500	541.886	108	
2,4,6–Trinitrotoluene	40	44.85	112	
2,4–Dinitrotoluene	40	35.359	88	
2,6–Dinitrotoluene	40	40.272	101	
2,6–Dinitrotoluene–d3	500	549.235	110	
2–Amino–4,6–dinitrotoluene	40	47.998	120	
3,4–Dinitrotoluene	20	20.571	103	
4–Amino–2,6–dinitrotoluene	40	45.081	113	
HMX	40	40.951	102	
Nitrobenzene	40	47.556	119	
PETN	40	53.617	134	*
RDX	40	42.046	105	
Tetryl	40	49.527	124	
m–Dinitrobenzene	40	39.101	98	
m–Nitrotoluene	40	40.759	102	
o–Nitrotoluene	40	38.286	96	
p–Nitrotoluene	40	34.049	85	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304161a
Date: 07-Mar-2010
Time: 21:57:01
ID: WXX100307-08CRI
Vial: 1:1,E

MAT 3/8/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.318e+004
1453.94
7.58

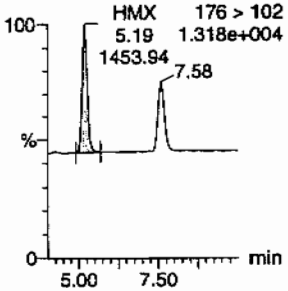

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.318e+004
RDX
7.58
915.79

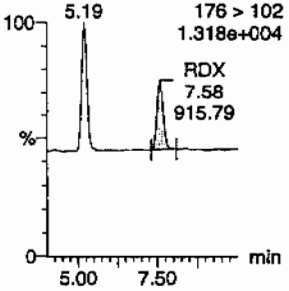

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.086e+004

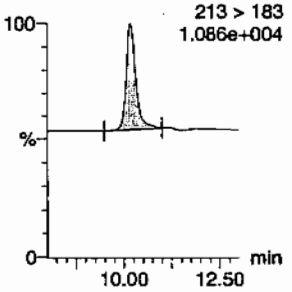

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.527e+004

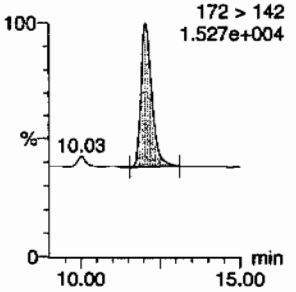

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.729e+003

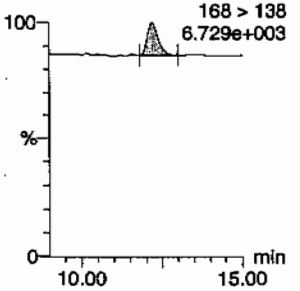

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.852e+003

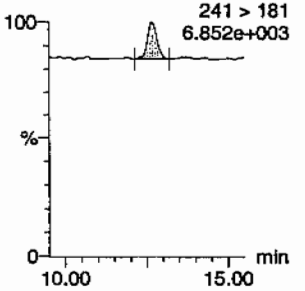

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.646e+003

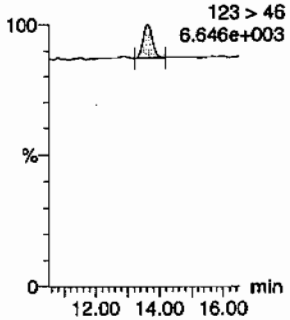

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.105e+003

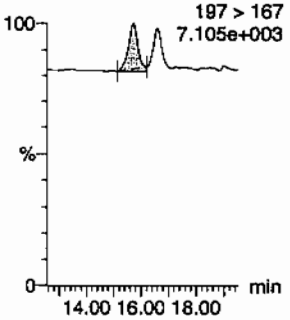

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.117e+003

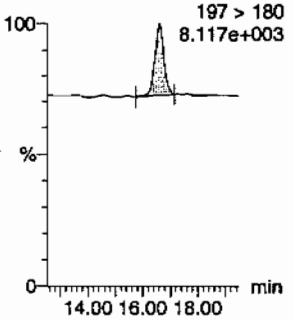

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.248e+003

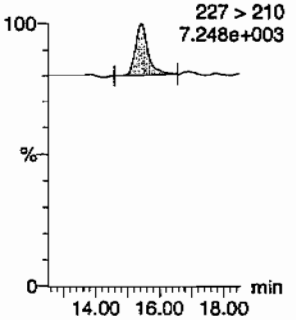

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.63 182 > 152
1.123e+004
18.31

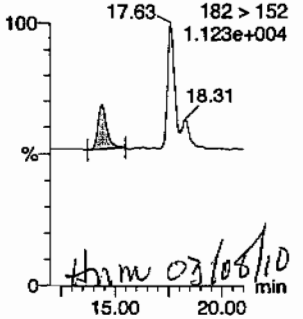

tbm 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.123e+004
14.41
18.31

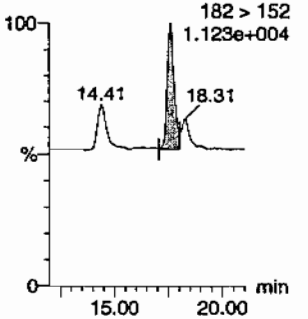

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

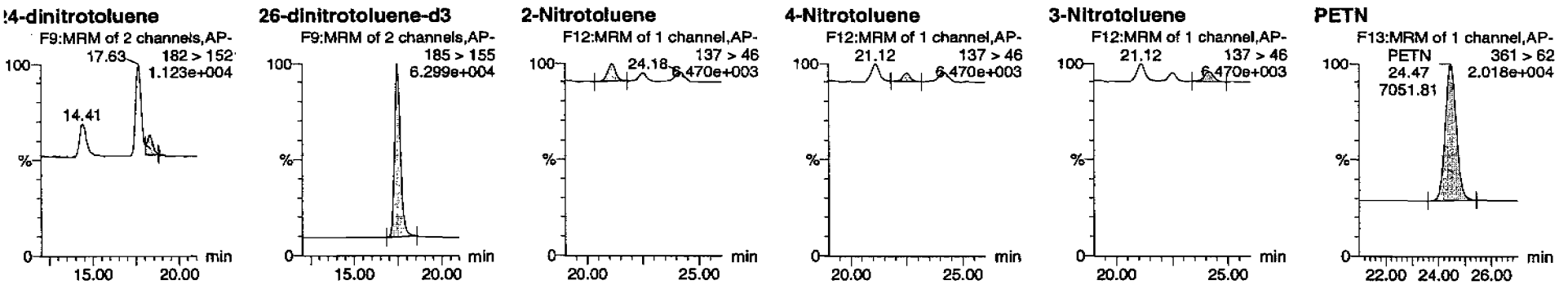

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-08CRI	HMX	176 > 102	5.19	1453.943	3805.979	1453.943	191.008	bb			40.9509	102.4	2.4	168.5
WXX100307-08CRI	RDX	176 > 102	7.58	915.792	3805.979	915.792	120.310	bb			42.0457	105.1	5.1	91.3
WXX100307-08CRI	135-Trinitrobenzene	213 > 183	10.18	1488.702	3805.979	1488.702	195.574	bb			50.2269	125.6	25.6	138.6
WXX100307-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	3805.979		3805.979	3805.979	bb			541.8861	108.4	8.4	406.6
WXX100307-08CRI	13-Dinitrobenzene	168 > 138	12.20	376.940	3805.979	376.940	49.519	bb			39.1006	97.8	-2.2	35.0
WXX100307-08CRI	Tetryl	241 > 181	12.66	383.612	3805.979	383.612	50.396	bb			49.5267	123.8	23.8	32.1
WXX100307-08CRI	Nitrobenzene	123 > 46	13.61	298.912	3805.979	298.912	39.269	bb			47.5562	118.9	18.9	25.1
WXX100307-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	561.673	22585.193	561.673	12.435	MM	08-Mar-10	11:34:59	45.0809	112.7	12.7	34.5
WXX100307-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	878.301	22585.193	878.301	19.444	bb			47.9982	120.0	20.0	99.9
WXX100307-08CRI	246-Trinitrotoluene	227 > 210	15.44	665.724	22585.193	665.724	14.738	bb			44.8501	112.1	12.1	91.8
WXX100307-08CRI	34-dinitrotoluene	182 > 152	14.41	898.023	22585.193	898.023	19.881	bb			20.5706	102.9	2.9	66.7
WXX100307-08CRI	26-dinitrotoluene	182 > 152	17.63	2029.307	22585.193	2029.307	44.926	MM	08-Mar-10	11:50:24	40.2724	100.7	0.7	190.1
WXX100307-08CRI	24-dinitrotoluene	182 > 152	18.31	440.258	22585.193	440.258	9.747	MM	08-Mar-10	11:56:03	35.3590	88.4	-11.6	40.2
WXX100307-08CRI	26-dinitrotoluene-d3	185 > 155	17.45	22585.193		22585.193	22585.193	bb			549.2352	109.8	9.8	1758.8
WXX100307-08CRI	2-Nitrotoluene	137 > 46	21.12	267.884	22585.193	267.884	5.931	bb			38.2864	95.7	-4.3	17.0
WXX100307-08CRI	4-Nitrotoluene	137 > 46	22.52	117.309	22585.193	117.309	2.597	bb			34.0488	85.1	-14.9	7.7
WXX100307-08CRI	3-Nitrotoluene	137 > 46	24.18	173.714	22585.193	173.714	3.846	bb			40.7585	101.9	1.9	9.0
WXX100307-08CRI	PETN	361 > 62	24.47	7051.809	22585.193	7051.809	156.116	bb			53.6170	134.0	34.0	4247.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/07/10
Time of Injection	2157
Standard Number	WXX100307-08CRI
Data File	EXP0304161a

HMX	102.4
RDX	105.1
135-TNB	125.6
13-DNB	97.8
Tetryl	123.8
Nitrobenzene	118.9
4A-26-DNT	112.7
2A-46-DNT	120.0
246-TNT	112.1
34-DNT(surr)	102.9
26-DNT	100.7
24-DNT	88.4
2-NT	95.7
4-NT	85.1
3-NT	101.9
PETN	134.0
Total	1727.1
Average	107.9

MJP 3/8/10

HMC 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304172a

Analysis Date: 08-MAR-10 03:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	562.286	94	
1,3-Dinitrobenzene-d4	500	530.913	106	
2,4,6-Trinitrotoluene	600	611.063	102	
2,4-Dinitrotoluene	600	539.907	90	
2,6-Dinitrotoluene	600	612.576	102	
2,6-Dinitrotoluene-d3	500	477.512	96	
2-Amino-4,6-dinitrotoluene	600	738.793	123	*
3,4-Dinitrotoluene	300	367.23	122	*
4-Amino-2,6-dinitrotoluene	600	640.174	107	
HMX	600	536.302	89	
Nitrobenzene	600	566.687	94	
PETN	600	791.866	132	*
RDX	600	542.202	90	
Tetryl	600	585.702	98	
m-Dinitrobenzene	600	594.753	99	
m-Nitrotoluene	600	532.719	89	
o-Nitrotoluene	600	535.785	89	
p-Nitrotoluene	600	582.76	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304172a
Date: 08-Mar-2010
Time: 03:21:23
ID: WXX100307-07CCV
Vial: 1:1,D

MMP 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.009e+005
7.59

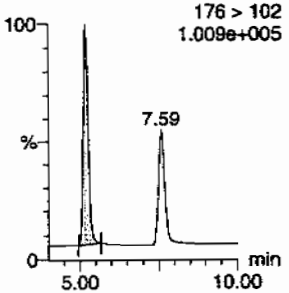

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
1.009e+005
RDX
7.59
11570.48

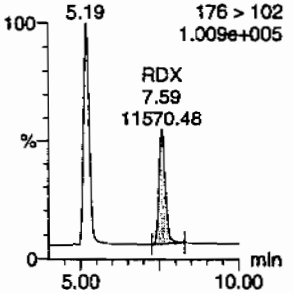

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.374e+004

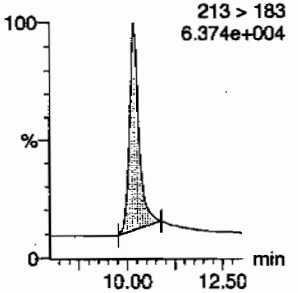

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.518e+004
10.05

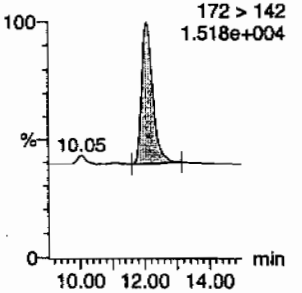

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.044e+004

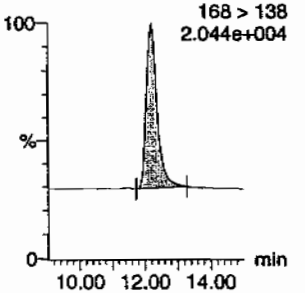

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.68
4444.73
241 > 181
1.885e+004

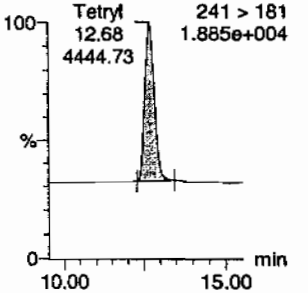

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.588e+004

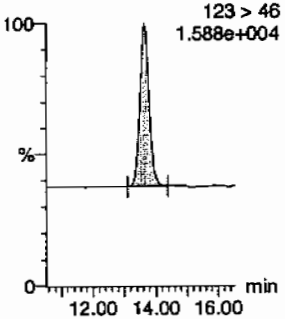

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.336e+004

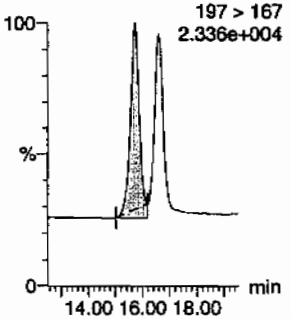

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.623e+004

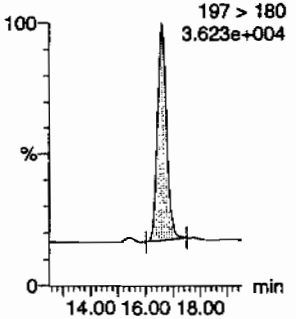

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.434e+004

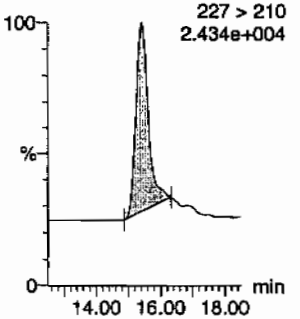

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.62
182 > 152
7.634e+004
18.30

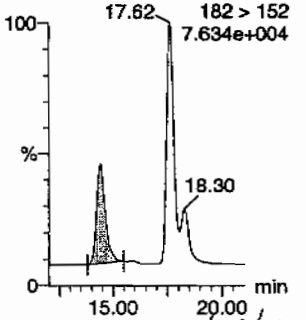

HMW 03/08/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.634e+004
14.43
18.30

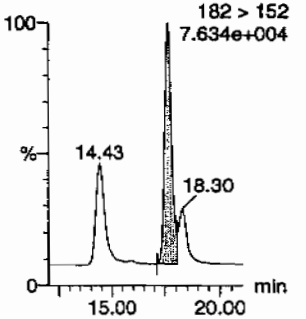

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

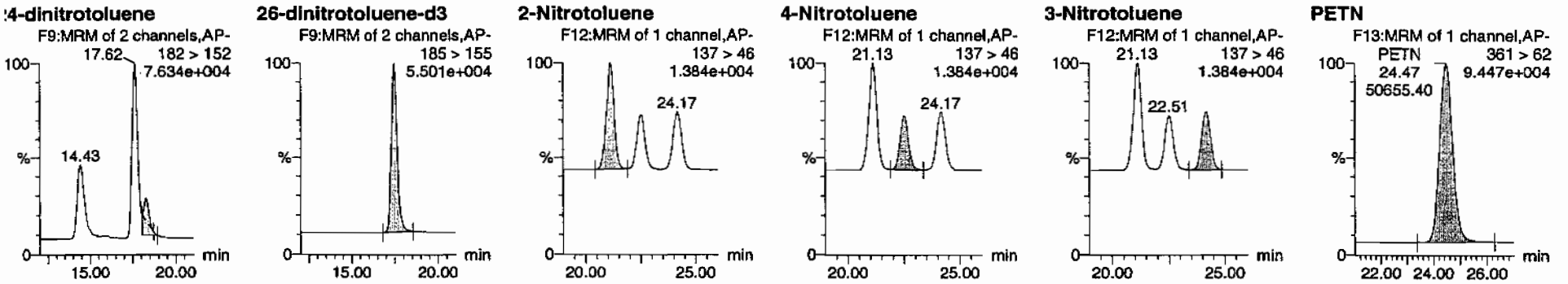

D	Name	Trace	RT	Area	S/Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
NXX100307-07CCV	HMX	176 > 102	5.19	18655.549	3728.907	18655.549	2501.477	bb			536.3018	89.4	-10.6	1954.2
NXX100307-07CCV	RDX	176 > 102	7.59	11570.481	3728.907	11570.481	1551.457	bb			542.2024	90.4	-9.6	1021.2
NXX100307-07CCV	135-Trinitrobenzene	213 > 183	10.18	16328.408	3728.907	16328.408	2189.436	bb			562.2857	93.7	-6.3	2624.4
NXX100307-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3728.907		3728.907	3728.907	bb			530.9128	106.2	6.2	465.1
NXX100307-07CCV	13-Dinitrobenzene	168 > 138	12.20	5617.470	3728.907	5617.470	753.233	bb			594.7534	99.1	-0.9	290.3
NXX100307-07CCV	Tetryl	241 > 181	12.68	4444.726	3728.907	4444.726	595.982	bb			585.7020	97.6	-2.4	400.3
NXX100307-07CCV	Nitrobenzene	123 > 46	13.63	3489.753	3728.907	3489.753	467.932	bb			566.6867	94.4	-5.6	280.4
NXX100307-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	6934.497	19635.836	6934.497	176.578	MM	08-Mar-10	11:35:10	640.1739	106.7	6.7	333.4
NXX100307-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11753.496	19635.836	11753.496	299.287	bb			738.7928	123.1	23.1	325.8
NXX100307-07CCV	246-Trinitrotoluene	227 > 210	15.41	7885.735	19635.836	7885.735	200.800	bb			611.0627	101.8	1.8	1411.5
NXX100307-07CCV	34-dinitrotoluene	182 > 152	14.43	13938.127	19635.836	13938.127	354.916	bb			367.2300	122.4	22.4	794.6
NXX100307-07CCV	26-dinitrotoluene	182 > 152	17.62	26836.455	19635.836	26836.455	683.354	MM	08-Mar-10	11:50:14	612.5755	102.1	2.1	1927.0
NXX100307-07CCV	24-dinitrotoluene	182 > 152	18.30	5844.563	19635.836	5844.563	148.824	MM	08-Mar-10	11:56:26	539.9066	90.0	-10.0	399.9
NXX100307-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	19635.836		19635.836	19635.836	bb			477.5117	95.5	-4.5	1868.9
NXX100307-07CCV	2-Nitrotoluene	137 > 46	21.13	3259.251	19635.836	3259.251	82.992	bb			535.7847	89.3	-10.7	696.6
NXX100307-07CCV	4-Nitrotoluene	137 > 46	22.51	1745.601	19635.836	1745.601	44.449	bb			582.7596	97.1	-2.9	358.3
NXX100307-07CCV	3-Nitrotoluene	137 > 46	24.17	1973.970	19635.836	1973.970	50.264	bb			532.7192	88.8	-11.2	380.9
NXX100307-07CCV	PETN	361 > 62	24.47	50655.402	19635.836	50655.402	1289.871	bb			791.8655	132.0	32.0	11863.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/08/10
Time of Injection: 0321
Standard Number: WXX100307-07CCV
Data File: EXP0304172a

HMX		89.4
RDX		90.4
135-TNB		93.7
13-DNB		99.1
Tetryl		97.6
Nitrobenzene		94.4
4A-26-DNT		106.7
2A-46-DNT		123.1
246-TNT		101.8
34-DNT(surr)		122.4
26-DNT		102.1
24-DNT		90.0
2-NT		89.3
4-NT		97.1
3-NT		88.8
PETN		132.0
Total		1617.9
Average		101.1

MTP 3/8/10

HMC 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304174a

Analysis Date: 08-MAR-10 04:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	44.197	110	
PETN	40	54.182	135	*
RDX	40	40.661	102	
Tetryl	40	39.779	99	
m-Dinitrobenzene	40	36.194	90	
m-Nitrotoluene	40	35.913	90	
o-Nitrotoluene	40	43.601	109	
p-Nitrotoluene	40	41.759	104	
HMX	40	45.949	115	
1,3,5-Trinitrobenzene	40	53.114	133	*
1,3-Dinitrobenzene-d4	500	497.279	99	
2,4,6-Trinitrotoluene	40	43.446	109	
2,4-Dinitrotoluene	40	37.987	95	
2,6-Dinitrotoluene	40	40.715	102	
2,6-Dinitrotoluene-d3	500	475.178	95	
2-Amino-4,6-dinitrotoluene	40	42.13	105	
3,4-Dinitrotoluene	20	21.12	106	
4-Amino-2,6-dinitrotoluene	40	35.768	89	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304174a
Date: 08-Mar-2010
Time: 04:20:23
ID: WXX100307-08CRI
Vial: 1:1,E

MMT 3/8/10

HMX

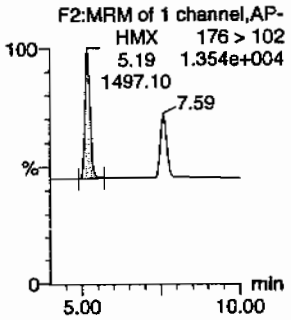

RDX

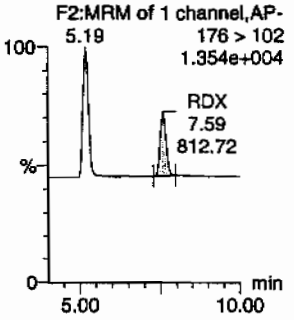

135-Trinitrobenzene

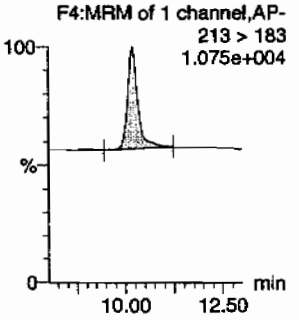

13-Dinitrobenzene-d4

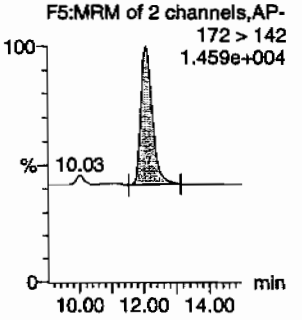

13-Dinitrobenzene

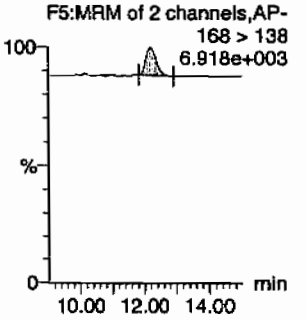

Tetryl

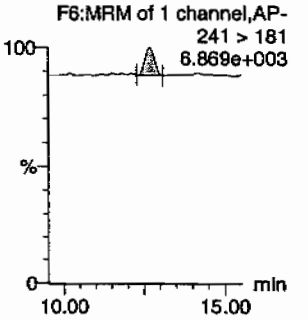

Nitrobenzene

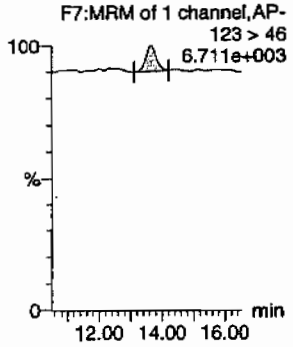

4-Amino-26-dinitrotoluene

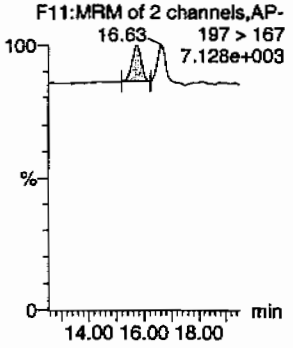

2-Amino-46-dinitrotoluene

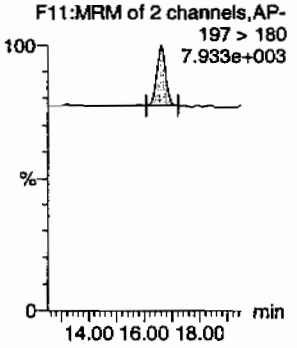

246-Trinitrotoluene

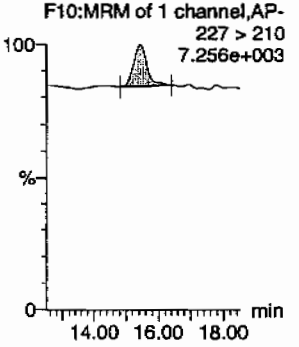

34-dinitrotoluene

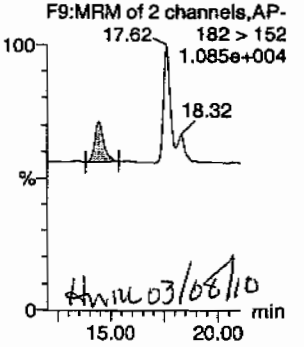

HMM 03/08/10

26-dinitrotoluene

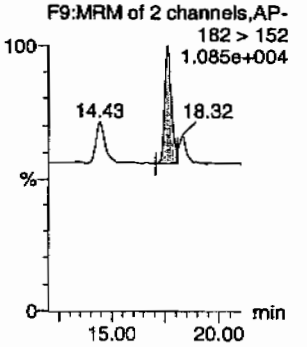

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

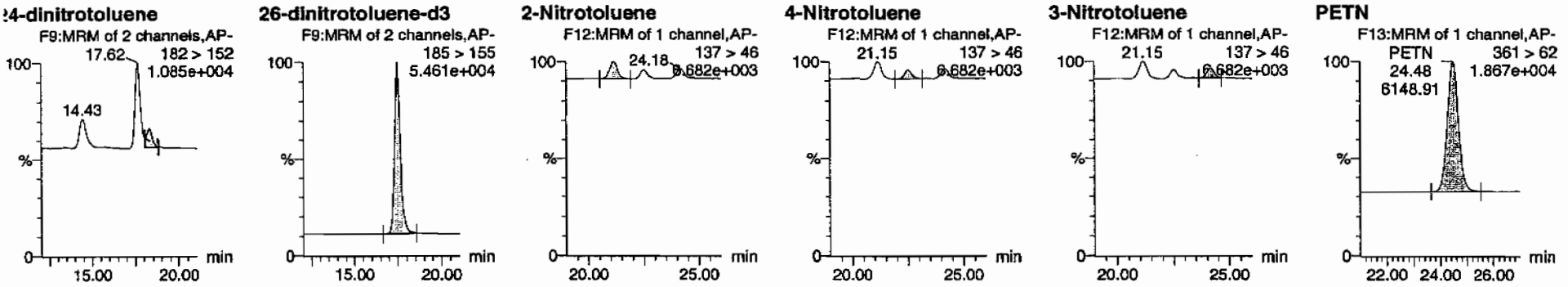

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-08CRI	HMX	176 > 102	5.19	1497.097	3492.680	1497.097	214.319	bb			45.9488	114.9	14.9	317.9
WXX100307-08CRI	RDX	176 > 102	7.59	812.723	3492.680	812.723	116.347	bb			40.6607	101.7	1.7	153.9
WXX100307-08CRI	135-Trinitrobenzene	213 > 183	10.18	1444.688	3492.680	1444.688	206.817	bb			53.1141	132.8	32.8	260.5
WXX100307-08CRI	13-Dinitrobenzene-d4	172 > 142	12.07	3492.680		3492.680	3492.680	bb			497.2794	99.5	-0.5	219.4
WXX100307-08CRI	13-Dinitrobenzene	168 > 138	12.20	320.198	3492.680	320.198	45.838	bb			36.1941	90.5	-9.5	40.2
WXX100307-08CRI	Tetryl	241 > 181	12.68	282.751	3492.680	282.751	40.478	bb			39.7794	99.4	-0.6	19.9
WXX100307-08CRI	Nitrobenzene	123 > 46	13.63	254.932	3492.680	254.932	36.495	bb			44.1973	110.5	10.5	27.4
WXX100307-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.74	385.547	19539.873	385.547	9.866	bb			35.7675	89.4	-10.6	32.9
WXX100307-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.63	666.978	19539.873	666.978	17.067	bb			42.1303	105.3	5.3	90.0
WXX100307-08CRI	246-Trinitrotoluene	227 > 210	15.45	557.928	19539.873	557.928	14.277	bb			43.4460	108.6	8.6	38.7
WXX100307-08CRI	34-dinitrotoluene	182 > 152	14.43	797.688	19539.873	797.688	20.412	bb			21.1200	105.6	5.6	43.1
WXX100307-08CRI	26-dinitrotoluene	182 > 152	17.62	1774.992	19539.873	1774.992	45.420	MM	08-Mar-10	11:49:59	40.7154	101.8	1.8	125.4
WXX100307-08CRI	24-dinitrotoluene	182 > 152	18.32	409.203	19539.873	409.203	10.471	MM	08-Mar-10	11:57:02	37.9868	95.0	-5.0	28.2
WXX100307-08CRI	26-dinitrotoluene-d3	185 > 155	17.47	19539.873		19539.873	19539.873	bb			475.1780	95.0	-5.0	1582.9
WXX100307-08CRI	2-Nitrotoluene	137 > 46	21.15	263.933	19539.873	263.933	6.754	bb			43.6007	109.0	9.0	51.8
WXX100307-08CRI	4-Nitrotoluene	137 > 46	22.51	124.475	19539.873	124.475	3.185	bb			41.7594	104.4	4.4	26.7
WXX100307-08CRI	3-Nitrotoluene	137 > 46	24.18	132.422	19539.873	132.422	3.389	bb			35.9125	89.8	-10.2	27.7
WXX100307-08CRI	PETN	361 > 62	24.48	6148.912	19539.873	6148.912	157.343	bb			54.1818	135.5	35.5	957.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/08/10
Time of Injection	0420
Standard Number	WXX100307-08CRI
Data File	EXP0304174a

HMX	114.9
RDX	101.7
135-TNB	132.8
13-DNB	90.5
Tetryl	99.4
Nitrobenzene	110.5
4A-26-DNT	89.4
2A-46-DNT	105.3
246-TNT	108.6
34-DNT(surr)	105.6
26-DNT	101.8
24-DNT	95.0
2-NT	109.0
4-NT	104.4
3-NT	89.8
PETN	135.5
Total	1694.2
Average	105.9

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0304185a

Analysis Date: 08-MAR-10 09:45

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	522.535	105	
2,4,6-Trinitrotoluene	600	653.289	109	
2,4-Dinitrotoluene	600	607.279	101	
2,6-Dinitrotoluene	600	616.127	103	
2,6-Dinitrotoluene-d3	500	469.458	94	
2-Amino-4,6-dinitrotoluene	600	719.312	120	
3,4-Dinitrotoluene	300	317.062	106	
4-Amino-2,6-dinitrotoluene	600	649.726	108	
HMX	600	635.925	106	
Nitrobenzene	600	610.485	102	
PETN	600	806.82	134	*
RDX	600	667.924	111	
Tetryl	600	511.64	85	
m-Dinitrobenzene	600	594.115	99	
m-Nitrotoluene	600	590.365	98	
o-Nitrotoluene	600	602.331	100	
p-Nitrotoluene	600	616.672	103	
1,3,5-Trinitrobenzene	600	572.565	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304185a
Date: 08-Mar-2010
Time: 09:45:03
ID: WXX100307-07CCV
Vial: 1:1,D

MAP 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.167e+005
7.59

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.167e+005
5.19
RDX
7.59
14028.43

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.519e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.548e+004
10.05

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.098e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.717e+004
Tetryl
12.68
3821.42

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.727e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.426e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.586e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.548e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.610e+004
17.64
18.30

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.610e+004
14.43
18.30

HMM 03/08/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene

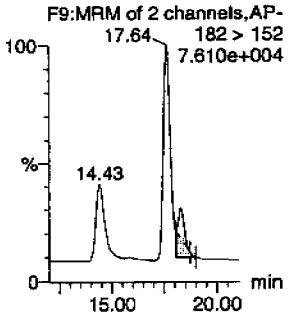

26-dinitrotoluene-d3

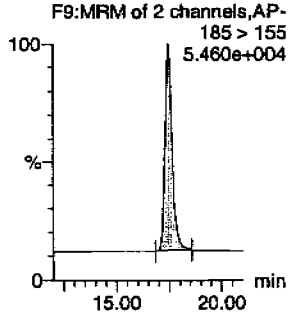

2-Nitrotoluene

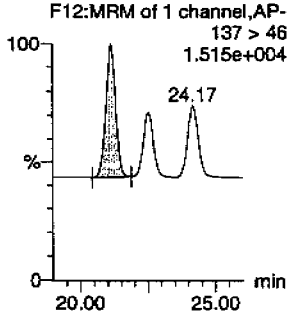

4-Nitrotoluene

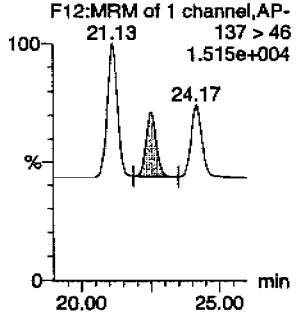

3-Nitrotoluene

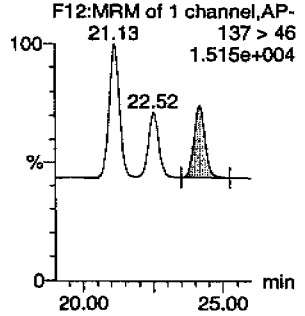

PETN

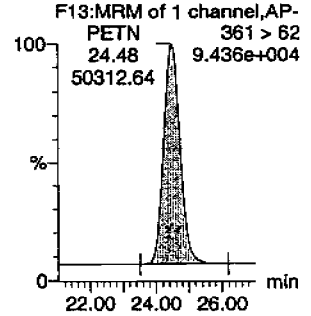

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100307-07CCV	HMX	176 > 102	5.19	21771.916	3670.062	21771.916	2966.151	bb			635.9252	106.0	6.0	2602.0
WXX100307-07CCV	RDX	176 > 102	7.59	14028.431	3670.062	14028.431	1911.198	bb			667.9244	111.3	11.3	1409.4
WXX100307-07CCV	135-Trinitrobenzene	213 > 183	10.18	16364.542	3670.062	16364.542	2229.464	bb			572.5655	95.4	-4.6	1519.9
WXX100307-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3670.062		3670.062	3670.062	bb			522.5346	104.5	4.5	379.9
WXX100307-07CCV	13-Dinitrobenzene	168 > 138	12.20	5522.885	3670.062	5522.885	752.424	bb			594.1147	99.0	-1.0	416.2
WXX100307-07CCV	Tetryl	241 > 181	12.68	3821.422	3670.062	3821.422	520.621	bb			511.6404	85.3	-14.7	350.2
WXX100307-07CCV	Nitrobenzene	123 > 46	13.63	3700.145	3670.062	3700.145	504.098	bb			610.4853	101.7	1.7	217.0
WXX100307-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.71	6919.263	19304.658	6919.263	179.212	MM	08-Mar-10	11:36:29	649.7259	108.3	8.3	291.3
WXX100307-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	11250.569	19304.658	11250.569	291.395	bb			719.3121	119.9	19.9	345.7
WXX100307-07CCV	246-Trinitrotoluene	227 > 210	15.45	8288.476	19304.658	8288.476	214.676	bb			653.2894	108.9	8.9	462.7
WXX100307-07CCV	34-dinitrotoluene	182 > 152	14.43	11831.042	19304.658	11831.042	306.430	bb			317.0618	105.7	5.7	370.6
WXX100307-07CCV	26-dinitrotoluene	182 > 152	17.64	26536.779	19304.658	26536.779	687.315	MM	08-Mar-10	11:48:34	616.1266	102.7	2.7	1055.4
WXX100307-07CCV	24-dinitrotoluene	182 > 152	18.30	6462.998	19304.658	6462.998	167.395	MM	08-Mar-10	11:58:11	607.2785	101.2	1.2	242.1
WXX100307-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	19304.658		19304.658	19304.658	bb			469.4579	93.9	-6.1	1424.1
WXX100307-07CCV	2-Nitrotoluene	137 > 46	21.13	3602.265	19304.658	3602.265	93.300	bb			602.3313	100.4	0.4	1008.0
WXX100307-07CCV	4-Nitrotoluene	137 > 46	22.52	1816.028	19304.658	1816.028	47.036	bb			616.6721	102.8	2.8	494.0
WXX100307-07CCV	3-Nitrotoluene	137 > 46	24.17	2150.677	19304.658	2150.677	55.704	bb			590.3645	98.4	-1.6	548.5
WXX100307-07CCV	PETN	361 > 62	24.48	50312.637	19304.658	50312.637	1303.122	bb			806.8201	134.5	34.5	10629.0

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/08/10
Time of Injection: 0945
Standard Number: WXX100307-07CCV
Data File: EXP0304185a

HMX	106.0
RDX	111.3
135-TNB	95.4
13-DNB	99.0
Tetryl	85.3
Nitrobenzene	101.7
4A-26-DNT	108.3
2A-46-DNT	119.9
246-TNT	108.9
34-DNT(surr)	105.7
26-DNT	102.7
24-DNT	101.2
2-NT	100.4
4-NT	102.8
3-NT	98.4
PETN	134.5
Total	1681.5
Average	105.1

MMT 3/8/10

HMW 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0304187a

Analysis Date: 08-MAR-10 10:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	51.994	130	
1,3-Dinitrobenzene-d4	500	460.445	92	
2,4,6-Trinitrotoluene	40	39.776	99	
2,4-Dinitrotoluene	40	36.568	91	
2,6-Dinitrotoluene	40	41.086	103	
2,6-Dinitrotoluene-d3	500	508.042	102	
2-Amino-4,6-dinitrotoluene	40	47.707	119	
3,4-Dinitrotoluene	20	24.234	121	
4-Amino-2,6-dinitrotoluene	40	45.676	114	
HMX	40	39.354	98	
Nitrobenzene	40	39.828	100	
PETN	40	44.856	112	
RDX	40	43.65	109	
Tetryl	40	35.439	89	
m-Dinitrobenzene	40	45.241	113	
m-Nitrotoluene	40	39.609	99	
o-Nitrotoluene	40	36.13	90	
p-Nitrotoluene	40	39.566	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304187a
Date: 08-Mar-2010
Time: 10:44:02
ID: WXX100307-08CRI
Vial: 1:1,E

MMT 3/8/10

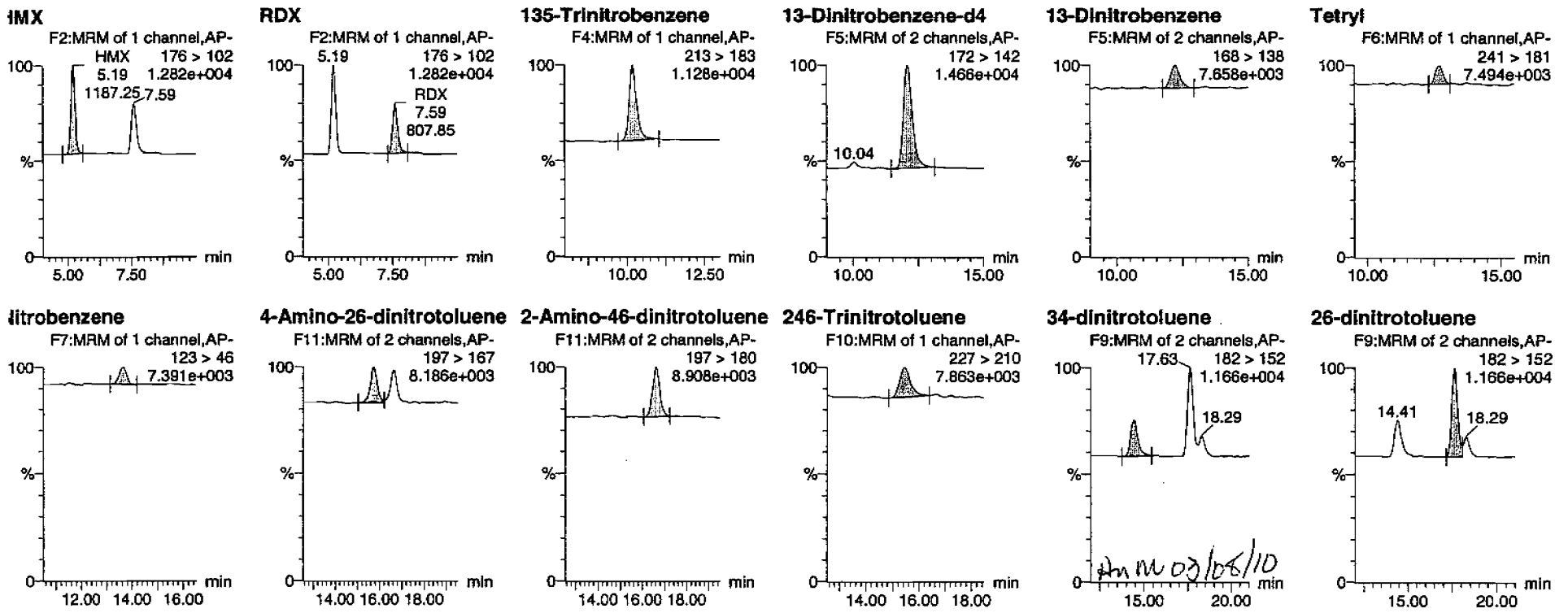

HM 03/08/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

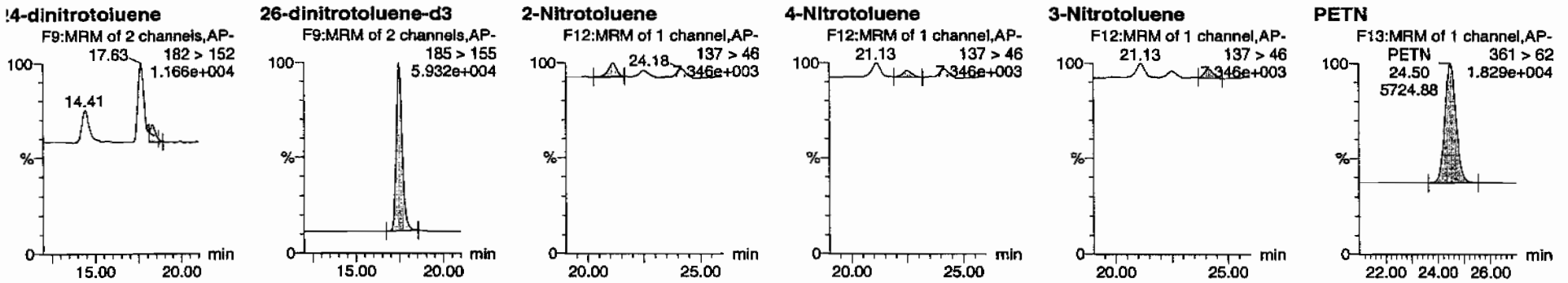

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-08CRI	HMX	176 > 102	5.19	1187.254	3233.970	1187.254	183.560	bb			39.3541	98.4	-1.6	155.3
WXX100307-08CRI	RDX	176 > 102	7.59	807.848	3233.970	807.848	124.900	bb			43.6501	109.1	9.1	88.6
WXX100307-08CRI	135-Trinitrobenzene	213 > 183	10.18	1309.476	3233.970	1309.476	202.456	bb			51.9944	130.0	30.0	270.1
WXX100307-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	3233.970		3233.970	3233.970	bb			460.4448	92.1	-7.9	280.2
WXX100307-08CRI	13-Dinitrobenzene	168 > 138	12.20	370.590	3233.970	370.590	57.296	bb			45.2413	113.1	13.1	55.7
WXX100307-08CRI	Tetryl	241 > 181	12.71	233.243	3233.970	233.243	36.061	bb			35.4394	88.6	-11.4	16.9
WXX100307-08CRI	Nitrobenzene	123 > 46	13.66	212.714	3233.970	212.714	32.887	bb			39.8281	99.6	-0.4	34.2
WXX100307-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	526.406	20891.283	526.406	12.599	MM	08-Mar-10	11:37:02	45.6760	114.2	14.2	80.6
WXX100307-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	807.496	20891.283	807.496	19.326	bb			47.7068	119.3	19.3	44.1
WXX100307-08CRI	246-Trinitrotoluene	227 > 210	15.47	546.124	20891.283	546.124	13.071	bb			39.7758	99.4	-0.6	36.9
WXX100307-08CRI	34-dinitrotoluene	182 > 152	14.41	978.598	20891.283	978.598	23.421	bb			24.2338	121.2	21.2	21.4
WXX100307-08CRI	26-dinitrotoluene	182 > 152	17.63	1915.009	20891.283	1915.009	45.833	MM	08-Mar-10	11:48:27	41.0856	102.7	2.7	52.2
WXX100307-08CRI	24-dinitrotoluene	182 > 152	18.29	421.167	20891.283	421.167	10.080	MM	08-Mar-10	11:58:25	36.5683	91.4	-8.6	11.7
WXX100307-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	20891.283		20891.283	20891.283	bb			508.0421	101.6	1.6	2052.4
WXX100307-08CRI	2-Nitrotoluene	137 > 46	21.13	233.836	20891.283	233.836	5.596	bb			36.1300	90.3	-9.7	40.9
WXX100307-08CRI	4-Nitrotoluene	137 > 46	22.52	126.094	20891.283	126.094	3.018	bb			39.5661	98.9	-1.1	19.5
WXX100307-08CRI	3-Nitrotoluene	137 > 46	24.18	156.153	20891.283	156.153	3.737	bb			39.6089	99.0	-1.0	25.3
WXX100307-08CRI	PETN	361 > 62	24.50	5724.876	20891.283	5724.876	137.016	bb			44.8559	112.1	12.1	1619.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/08/10
Time of Injection	1044
Standard Number	WXX100307-08CRI
Data File	EXP0304187a

HMX		98.4
RDX		109.1
135-TNB		130.0
13-DNB		113.1
Tetryl		88.6
Nitrobenzene		99.6
4A-26-DNT		114.2
2A-46-DNT		119.3
246-TNT		99.4
34-DNT(surr)		121.2
26-DNT		102.7
24-DNT		91.4
2-NT		90.3
4-NT		98.9
3-NT		99.0
PETN		112.1
Total		1687.3
Average		105.5

MHT 3/8/10

HMM 03/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0304196a

Analysis Date: 08–MAR–10 15:09

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	812.841	135	*
RDX	600	598.968	100	
Tetryl	600	587.175	98	
m–Dinitrobenzene	600	579.485	97	
m–Nitrotoluene	600	572.515	95	
o–Nitrotoluene	600	576.503	96	
p–Nitrotoluene	600	588.756	98	
1,3,5–Trinitrobenzene	600	567.534	95	
1,3–Dinitrobenzene–d4	500	490.078	98	
2,4,6–Trinitrotoluene	600	648.009	108	
2,4–Dinitrotoluene	600	591.601	99	
2,6–Dinitrotoluene	600	617.763	103	
2,6–Dinitrotoluene–d3	500	468.58	94	
2–Amino–4,6–dinitrotoluene	600	642.131	107	
3,4–Dinitrotoluene	300	325.286	108	
4–Amino–2,6–dinitrotoluene	600	627.467	105	
HMX	600	536.663	89	
Nitrobenzene	600	566.505	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304196a
Date: 08-Mar-2010
Time: 15:09:43
ID: WXX100307-07CCV
Vial: 1:1,D

MMP 3/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
9.285e+004
7.59

RDX
F2:MRM of 1 channel,AP-
176 > 102
9.285e+004
5.19
RDX
7.59
11798.73

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.974e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.495e+004
10.03

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.957e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.812e+004
Tetryl
12.68
4113.18

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.579e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.347e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.221e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.497e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.662e+004
17.64
18.30

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.662e+004
14.43
18.30

HMW 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene

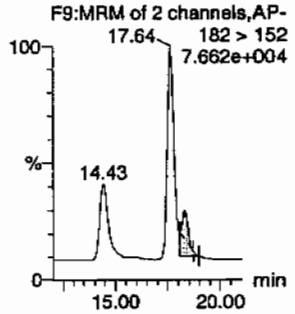

26-dinitrotoluene-d3

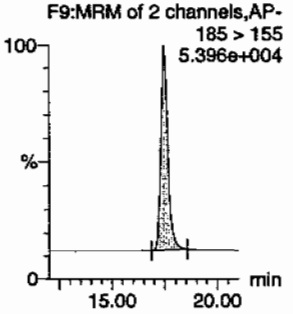

2-Nitrotoluene

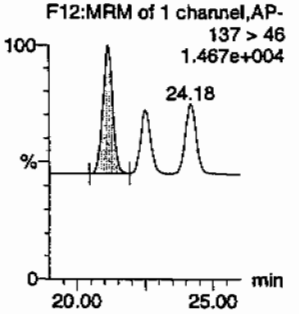

4-Nitrotoluene

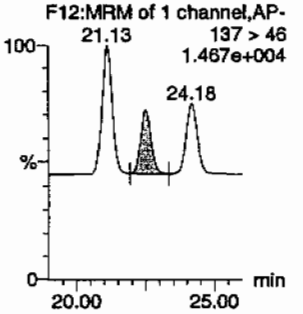

3-Nitrotoluene

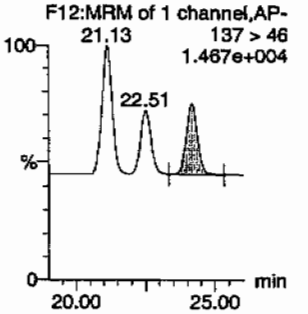

PETN

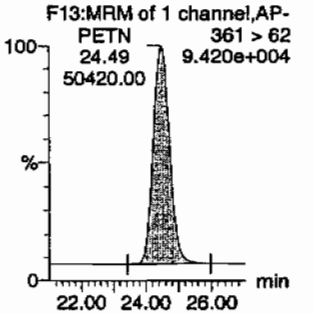

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100307-07CCV	HMX	176 > 102	5.19	17232.238	3442.098	17232.238	2503.159	bb			536.6625	89.4	-10.6	2565.8
WXX100307-07CCV	RDX	176 > 102	7.59	11798.729	3442.098	11798.729	1713.886	bb			598.9680	99.8	-0.2	1488.9
WXX100307-07CCV	135-Trinitrobenzene	213 > 183	10.20	15213.198	3442.098	15213.198	2209.873	bb			567.5342	94.6	-5.4	588.2
WXX100307-07CCV	13-Dinitrobenzene-d4	172 > 142	12.07	3442.098		3442.098	3442.098	bb			490.0776	98.0	-2.0	386.0
WXX100307-07CCV	13-Dinitrobenzene	168 > 138	12.20	5052.286	3442.098	5052.286	733.896	bb			579.4853	96.6	-3.4	562.6
WXX100307-07CCV	Tetryl	241 > 181	12.68	4113.177	3442.098	4113.177	597.481	bb			587.1748	97.9	-2.1	389.1
WXX100307-07CCV	Nitrobenzene	123 > 46	13.63	3220.306	3442.098	3220.306	467.782	bb			566.5051	94.4	-5.6	294.8
WXX100307-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.74	6669.728	19268.574	6669.728	173.073	MM	09-Mar-10	09:26:20	627.4671	104.6	4.6	310.6
WXX100307-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.60	10024.622	19268.574	10024.622	260.129	bb			642.1307	107.0	7.0	491.1
WXX100307-07CCV	246-Trinitrotoluene	227 > 210	15.45	8206.115	19268.574	8206.115	212.940	bb			648.0090	108.0	8.0	430.2
WXX100307-07CCV	34-dinitrotoluene	182 > 152	14.43	12115.234	19268.574	12115.234	314.378	bb			325.2860	108.4	8.4	225.1
WXX100307-07CCV	26-dinitrotoluene	182 > 152	17.64	26557.525	19268.574	26557.525	689.141	MM	09-Mar-10	09:31:28	617.7630	103.0	3.0	637.9
WXX100307-07CCV	24-dinitrotoluene	182 > 152	18.30	6284.381	19268.574	6284.381	163.073	MM	09-Mar-10	09:38:40	591.6011	98.6	-1.4	140.2
WXX100307-07CCV	26-dinitrotoluene-d3	185 > 155	17.47	19268.574		19268.574	19268.574	bb			468.5804	93.7	-6.3	1863.1
WXX100307-07CCV	2-Nitrotoluene	137 > 46	21.13	3441.351	19268.574	3441.351	89.300	bb			576.5026	96.1	-3.9	638.3
WXX100307-07CCV	4-Nitrotoluene	137 > 46	22.51	1730.579	19268.574	1730.579	44.907	bb			588.7565	98.1	-1.9	311.9
WXX100307-07CCV	3-Nitrotoluene	137 > 46	24.18	2081.753	19268.574	2081.753	54.019	bb			572.5149	95.4	-4.6	346.6
WXX100307-07CCV	PETN	361 > 62	24.49	50419.996	19268.574	50419.996	1308.348	bb			812.8414	135.5	35.5	22263.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/08/10
Time of Injection: 1509
Standard Number: WXX100307-07CCV
Data File: EXP0304196a

HMX		89.4
RDX		99.8
135-TNB		94.6
13-DNB		96.6
Tetryl		97.9
Nitrobenzene		94.4
4A-26-DNT		104.6
2A-46-DNT		107.0
246-TNT		108.0
34-DNT(surr)		108.4
26-DNT		103.0
24-DNT		98.6
2-NT		96.1
4-NT		98.1
3-NT		95.4
PETN		135.5
Total		1627.4
Average		101.7

3/9/10

03/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0304198a

Analysis Date: 08-MAR-10 16:08

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5µ ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	40	37.056	93	
2,4-Dinitrotoluene	40	35.751	89	
2,6-Dinitrotoluene	40	38.8	97	
2,6-Dinitrotoluene-d3	500	449.66	90	
2-Amino-4,6-dinitrotoluene	40	41.779	104	
3,4-Dinitrotoluene	20	21.513	108	
4-Amino-2,6-dinitrotoluene	40	45.91	115	
HMX	40	38.162	95	
Nitrobenzene	40	39.96	100	
PETN	40	58.657	147	*
RDX	40	38.206	96	
Tetryl	40	37.305	93	
m-Dinitrobenzene	40	42.466	106	
m-Nitrotoluene	40	40.152	100	
o-Nitrotoluene	40	40.758	102	
p-Nitrotoluene	40	34.536	86	
1,3,5-Trinitrobenzene	40	45.695	114	
1,3-Dinitrobenzene-d4	500	493.234	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304198a
Date: 08-Mar-2010
Time: 16:08:43
ID: WXX100307-08CRI
Vial: 1:1,E

MMT 3/9/10

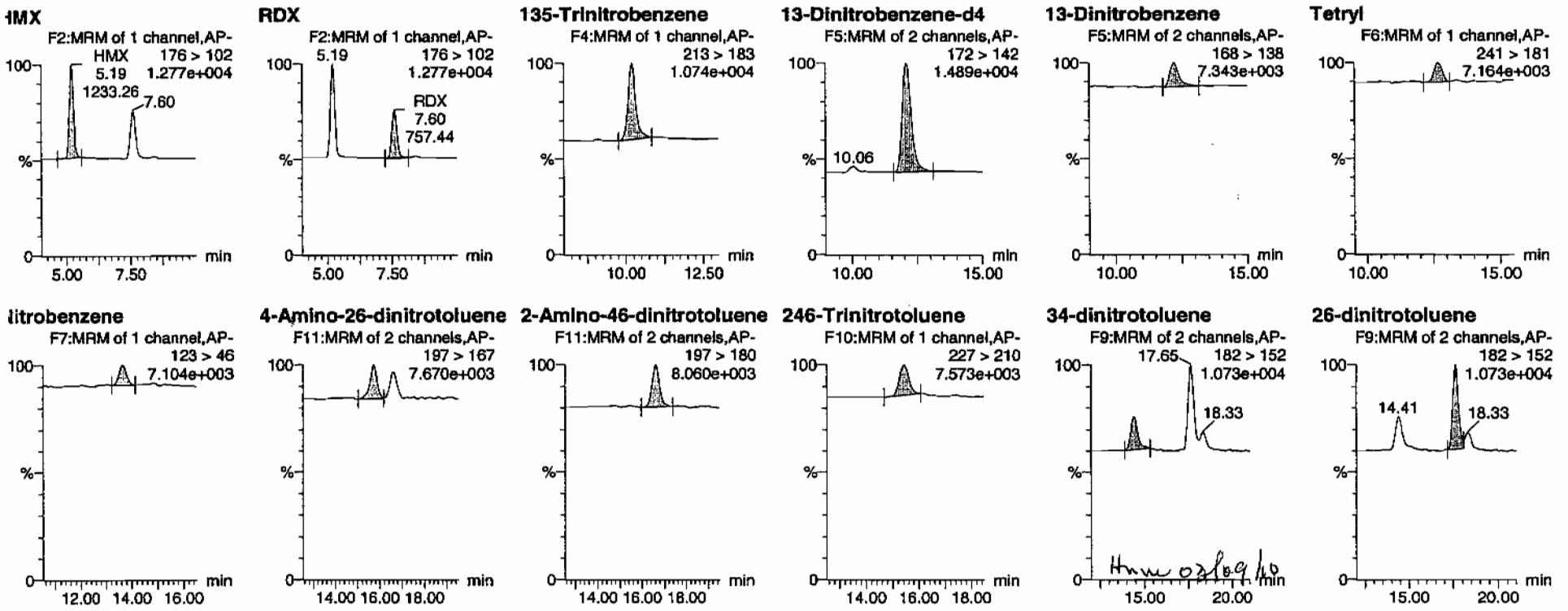

HMW 03/09/10

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA4.qld, Time: Tue Mar 09 09:38:40 2010

24-dinitrotoluene

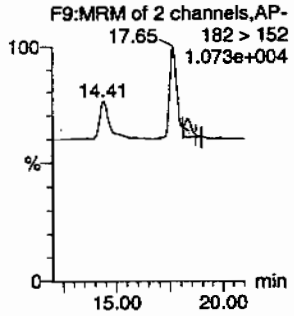

26-dinitrotoluene-d3

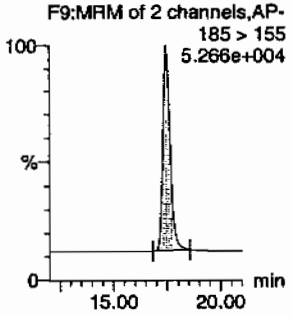

2-Nitrotoluene

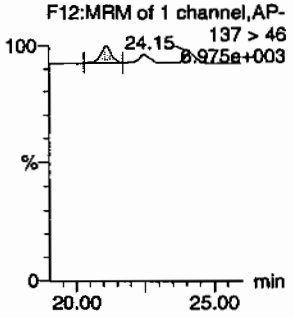

4-Nitrotoluene

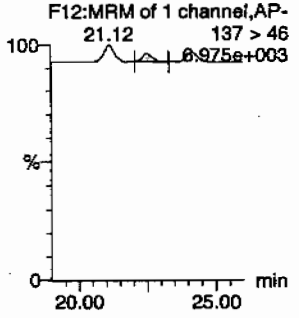

3-Nitrotoluene

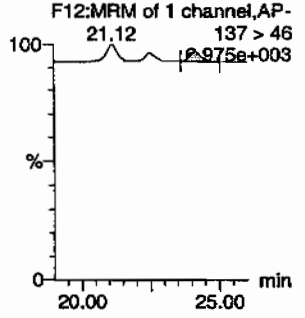

PETN

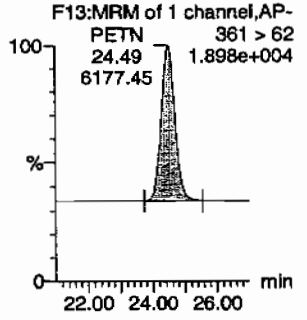

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100307-08CRI	HMX	176 > 102	5.19	1233.263	3464.265	1233.263	177.998	bb			38.1617	95.4	-4.6	323.8
WXX100307-08CRI	RDX	176 > 102	7.60	757.441	3464.265	757.441	109.322	bb			38.2058	95.5	-4.5	167.8
WXX100307-08CRI	135-Trinitrobenzene	213 > 183	10.19	1232.769	3464.265	1232.769	177.926	bb			45.6946	114.2	14.2	188.6
WXX100307-08CRI	13-Dinitrobenzene-d4	172 > 142	12.06	3464.265		3464.265	3464.265	bb			493.2337	98.6	-1.4	621.7
WXX100307-08CRI	13-Dinitrobenzene	168 > 138	12.20	372.631	3464.265	372.631	53.782	bb			42.4664	106.2	6.2	40.2
WXX100307-08CRI	Tetryl	241 > 181	12.71	263.005	3464.265	263.005	37.960	bb			37.3049	93.3	-6.7	18.7
WXX100307-08CRI	Nitrobenzene	123 > 46	13.66	228.614	3464.265	228.614	32.996	bb			39.9596	99.9	-0.1	31.8
WXX100307-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.73	468.296	18490.537	468.296	12.663	MM	09-Mar-10	09:25:48	45.9096	114.8	14.8	54.7
WXX100307-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.62	625.902	18490.537	625.902	16.925	bb			41.7794	104.4	4.4	48.0
WXX100307-08CRI	246-Trinitrotoluene	227 > 210	15.44	450.310	18490.537	450.310	12.177	bb			37.0557	92.6	-7.4	101.8
WXX100307-08CRI	34-dinitrotoluene	182 > 152	14.41	768.903	18490.537	768.903	20.792	bb			21.5132	107.6	7.6	32.0
WXX100307-08CRI	26-dinitrotoluene	182 > 152	17.65	1600.658	18490.537	1600.658	43.283	bd			38.8001	97.0	-3.0	81.1
WXX100307-08CRI	24-dinitrotoluene	182 > 152	18.33	364.440	18490.537	364.440	9.855	MM	09-Mar-10	09:38:30	35.7514	89.4	-10.6	16.8
WXX100307-08CRI	26-dinitrotoluene-d3	185 > 155	17.48	18490.537		18490.537	18490.537	bb			449.6598	89.9	-10.1	1567.7
WXX100307-08CRI	2-Nitrotoluene	137 > 46	21.12	233.477	18490.537	233.477	6.313	bb			40.7583	101.9	1.9	44.9
WXX100307-08CRI	4-Nitrotoluene	137 > 46	22.50	97.414	18490.537	97.414	2.634	bb			34.5355	86.3	-13.7	21.0
WXX100307-08CRI	3-Nitrotoluene	137 > 46	24.15	140.103	18490.537	140.103	3.789	bb			40.1518	100.4	0.4	25.8
WXX100307-08CRI	PETN	361 > 62	24.49	6177.449	18490.537	6177.449	167.044	bb			58.6570	146.6	46.6	1517.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/08/10
Time of Injection	1608
Standard Number	WXX100307-08CRI
Data File	EXP0304198a

HMX	95.4
RDX	95.5
135-TNB	114.2
13-DNB	106.2
Tetryl	93.3
Nitrobenzene	99.9
4A-26-DNT	114.8
2A-46-DNT	104.4
246-TNT	92.6
34-DNT(surr)	107.6
26-DNT	97.0
24-DNT	89.4
2-NT	101.9
4-NT	86.3
3-NT	100.4
PETN	146.6
Total	1645.5
Average	102.8

MJT 3/9/10

HMK 03/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260013.wiff

Analysis Date: 26-FEB-10 18:02

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	110	110	
2,6-Diamino-4-nitrotoluene	100	104	104	
3,4-Dinitrotoluene	50	46.1	92	
3,5-Dinitroaniline	100	94.6	95	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lun 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
lculated Conc:	105.	ng/mL
q. Date:	2/26/2010	
q. Time:	6:02:29 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	7.09	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	7.08	min
ea:	1.08e+005	counts
ight:	28029.306	cps
art Time:	6.99	min
d Time:	7.63	min

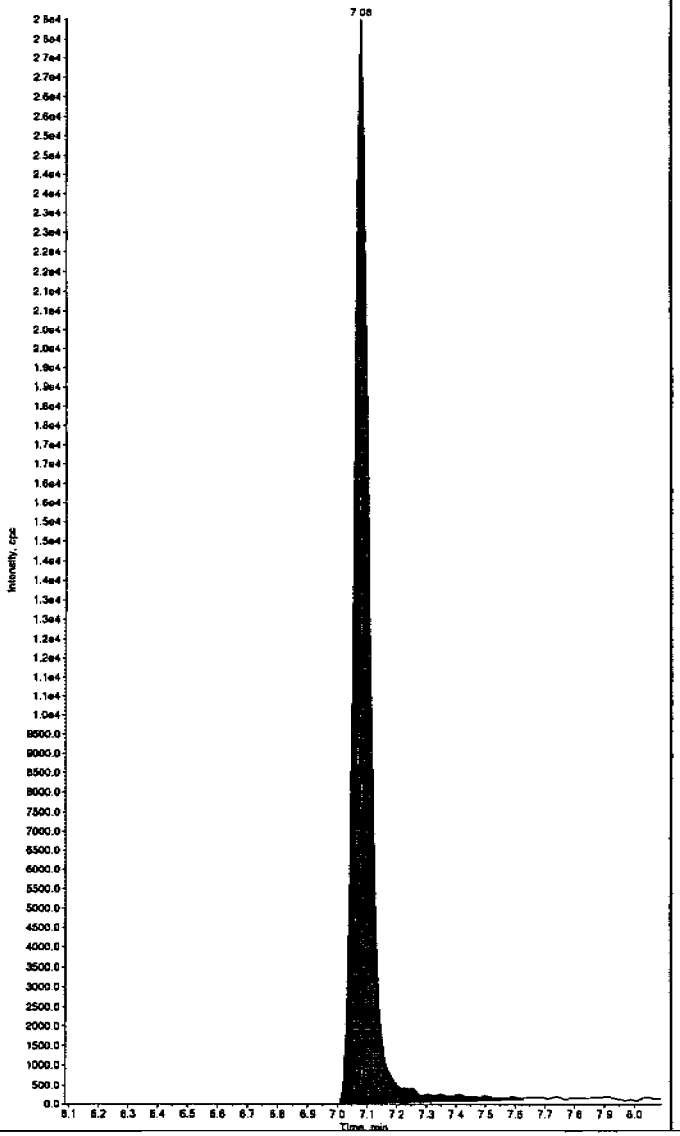

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	94.6	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	6:02:29 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.27	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.32	min
Area:	9.52e+005	counts
Height:	246685.013	cps
Start Time:	8.22	min
End Time:	8.42	min

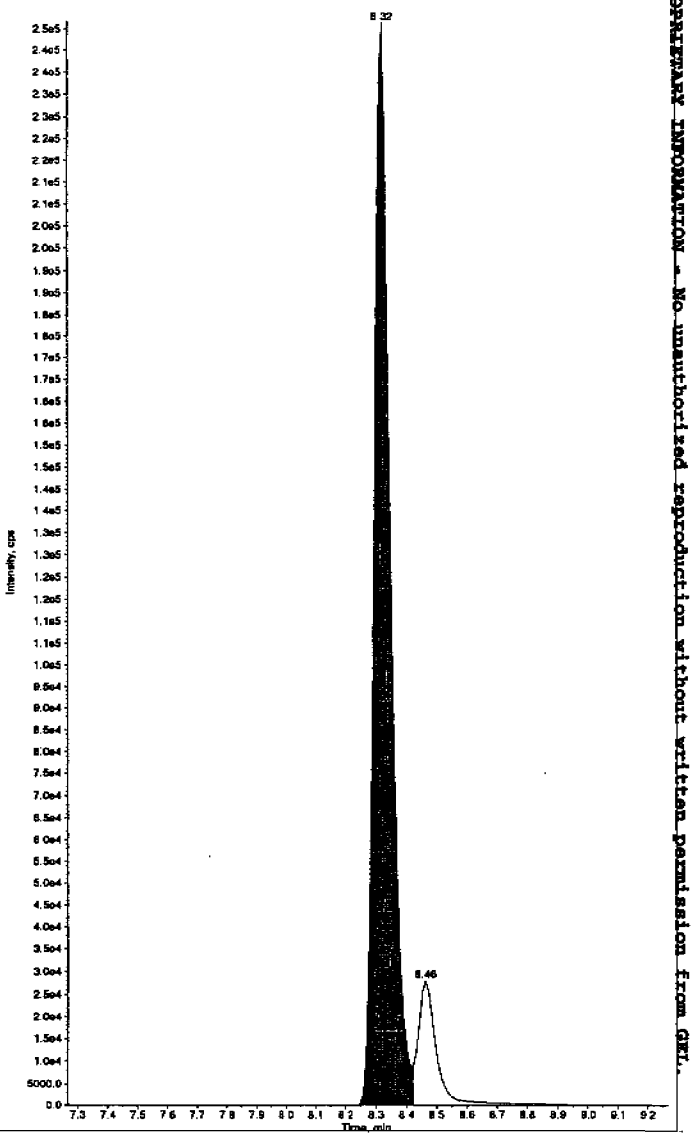

Hmm 03/01/10

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index:	1	
ample Type:	QC	
oncentration:	50.0	ng/mL
alculated Conc:	46.1	ng/mL
cq. Date:	2/26/2010	
cq. Time:	6:02:29 PM	
odified:	No	
roc. Algorithm:	IntelliQuan - IQA	
in. Peak Height:	1450.00	cps
in. Peak Width:	0.00	sec
moothing Width:	3	points
Window:	15.0	sec
pected RT:	8.46	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	8.46	min
rea:	6.66e+005	counts
eight:	181473.358	cps
art Time:	8.39	min
d Time:	8.79	min

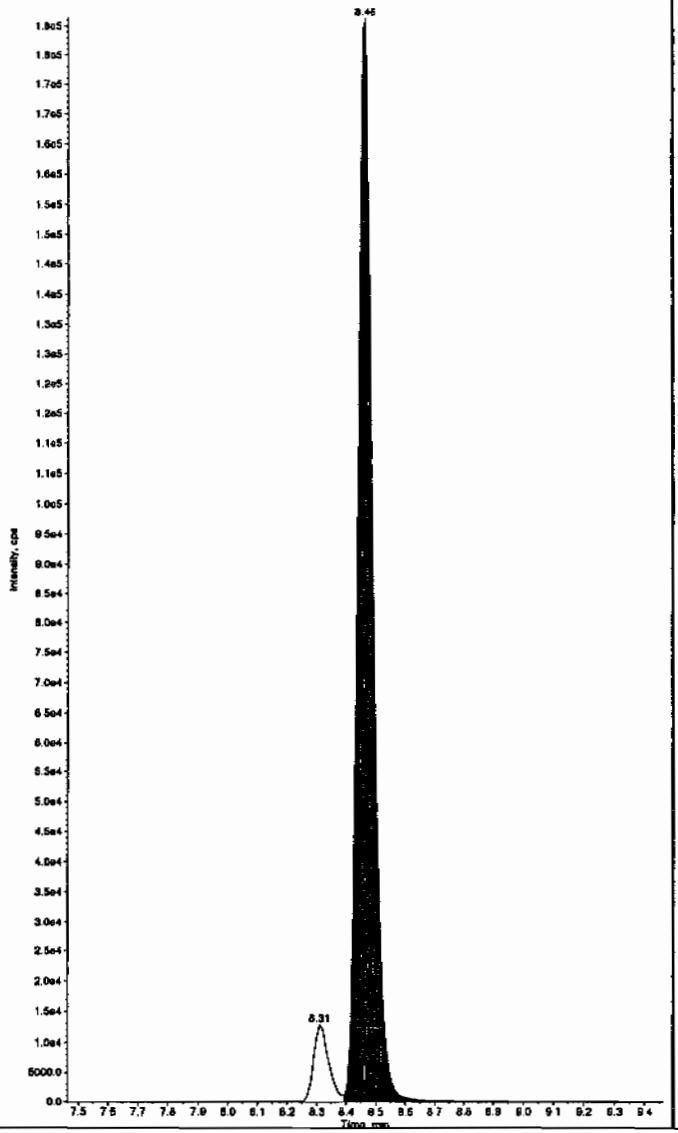

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	104.	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	6:02:29 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.12	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.11	min
Area:	2.28e+005	counts
Height:	53935.883	cps
Start Time:	5.01	min
End Time:	5.35	min

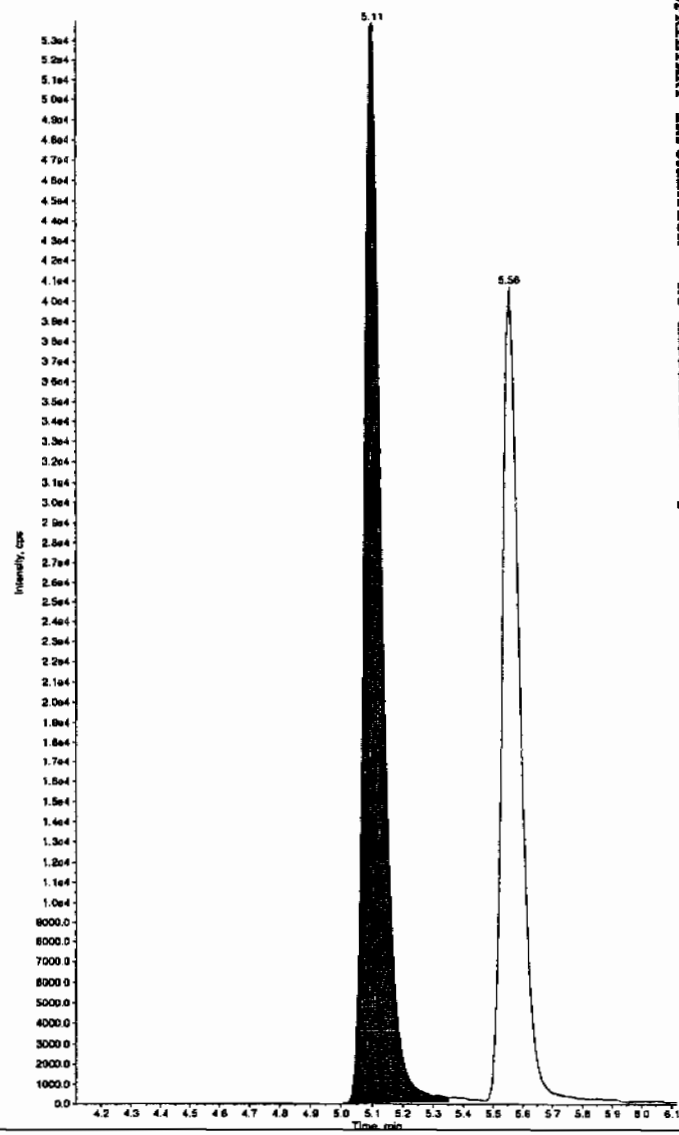

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
lculated Conc:	110.	ng/mL
q. Date:	2/26/2010	
q. Time:	6:02:29 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	350.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.57	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	5.56	min
ea:	1.68e+005	counts
ight:	40613.808	cps
art Time:	5.48	min
d Time:	5.80	min

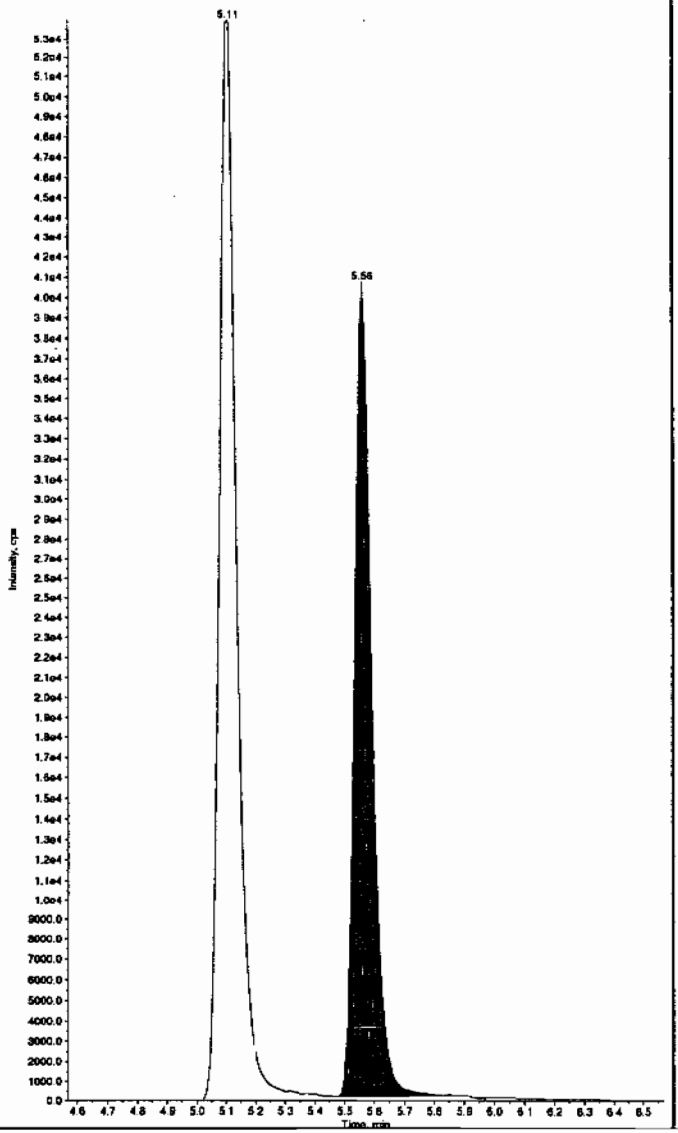

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	103.	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	6:02:29 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.76e+006	counts
Height:	481600.250	cps
Start Time:	10.8	min
End Time:	11.2	min

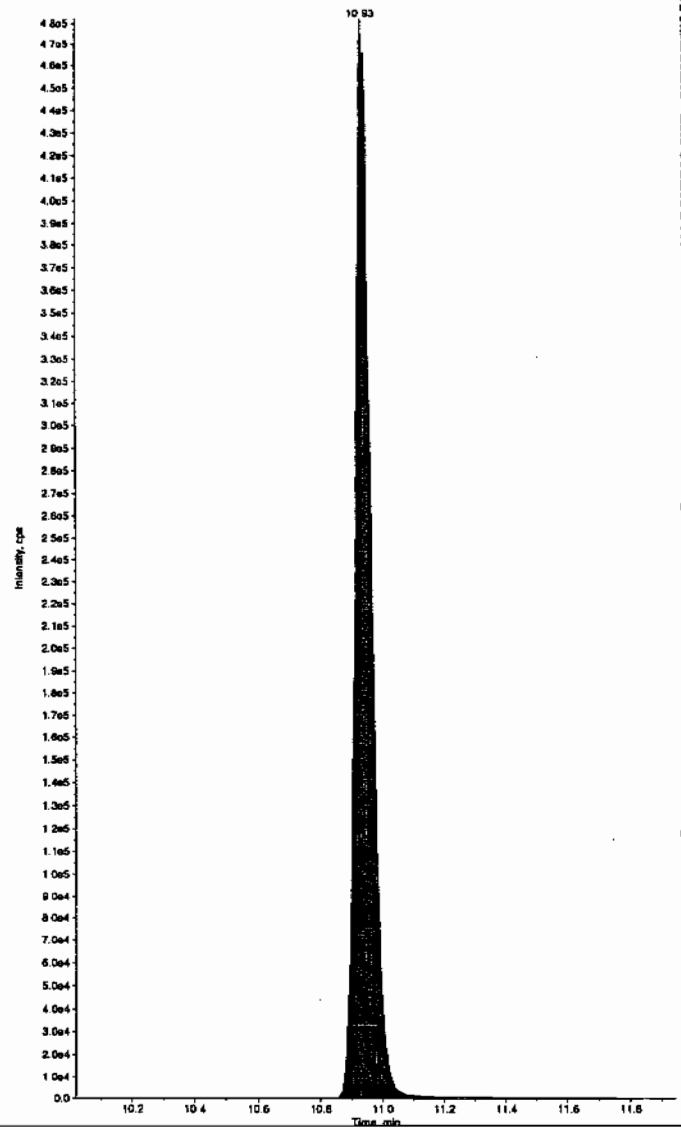

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260024.wiff

Analysis Date: 26-FEB-10 20:55

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	536	107	
2,6-Diamino-4-nitrotoluene	500	541	108	
3,4-Dinitrotoluene	250	219	88	
3,5-Dinitroaniline	500	464	93	
TATB	500	493	99	
tris(o-cresyl) phosphate	500	498	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lean 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:          1
mple Type:          QC
ncentration:       500.     ng/mL
lculated Conc:     493.     ng/mL
q. Date:        2/26/2010
q. Time:        8:55:16 PM

dified:             No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:2500.00    cps
n. Peak Width:     0.00    sec
oothing Width:  3         points
' Window:          30.0    sec
pected RT:         7.09    min
e Relative RT:     No

t. Type:         Valley
tention Time:      7.09    min
ea:          5.82e+005    counts
ight:          146054.626  cps
art Time:          6.99    min
d Time:            7.71    min
```

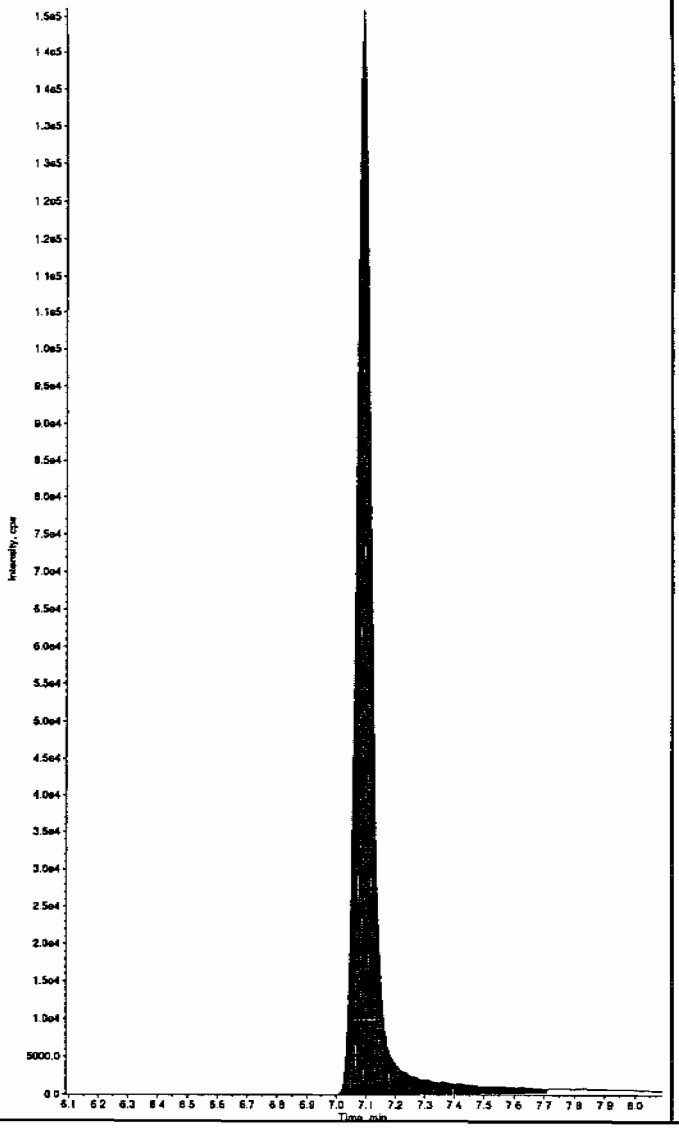

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.     ng/mL
Calculated Conc:   439.     ng/mL
Acq. Date:      2/26/2010
Acq. Time:      8:55:16 PM

Modified:           Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3         points
RT Window:          15.0    sec
Expected RT:        8.27    min
Use Relative RT:    No

Int. Type:       Valley
Retention Time:     8.32    min
Area:        4.06e+006    counts
Height:        1111148.438  cps
Start Time:         8.26    min
End Time:           8.42    min
```

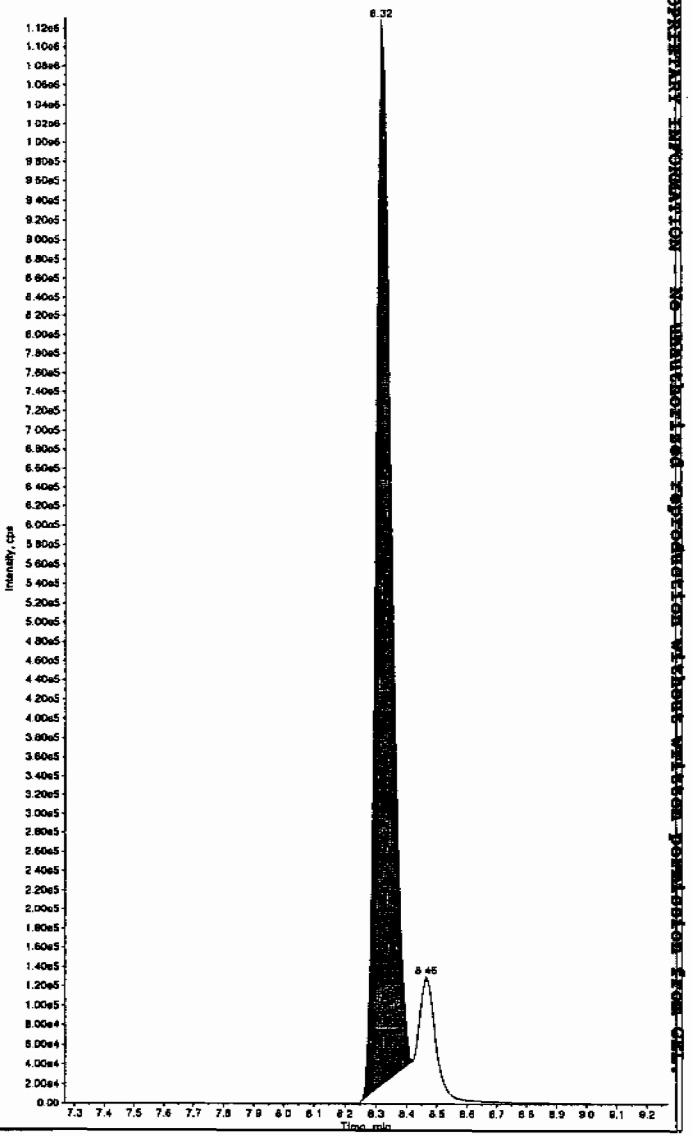

Hmm 03/01/10

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after Ker 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02250024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	493.	ng/mL
q. Date:	2/26/2010	
q. Time:	8:55:16 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	7.09	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	7.09	min
ea:	5.82e+005	counts
ight:	146054.626	cps
art Time:	6.99	min
d Time:	7.71	min

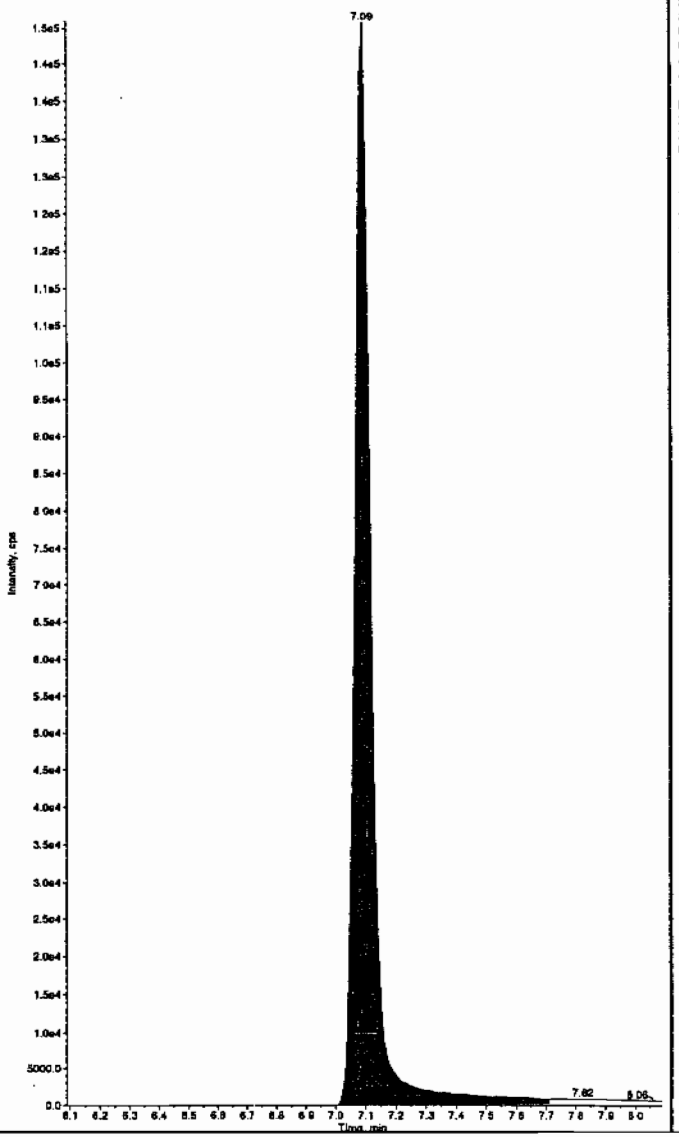

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	464.	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	8:55:16 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.27	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.32	min
Area:	4.27e+006	counts
Height:	1136132.036	cps
Start Time:	8.26	min
End Time:	8.42	min

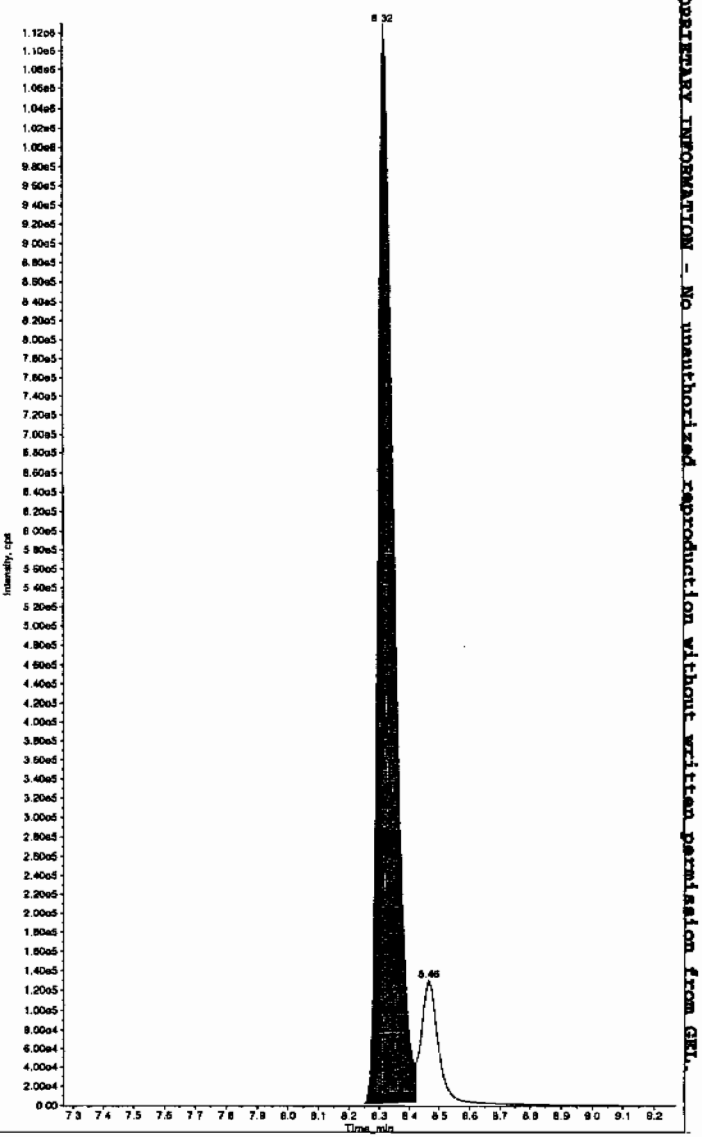

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 219. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.46 min
Area: 3.04e+006 counts
Height: 837212.036 cps
Start Time: 8.39 min
End Time: 8.82 min

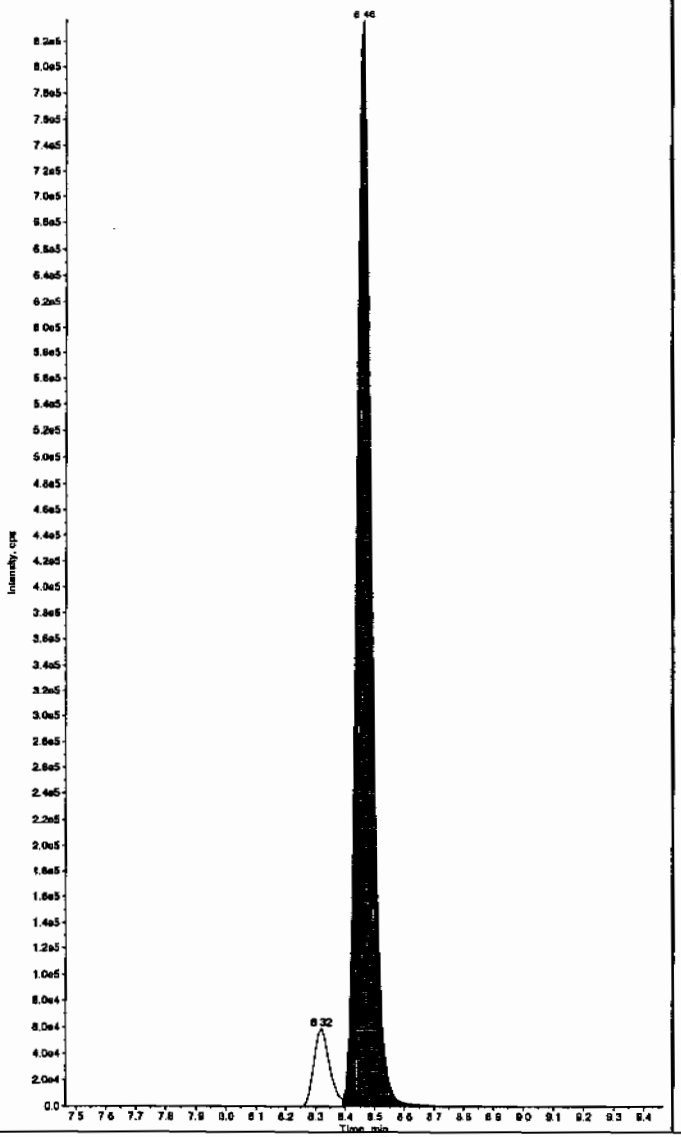

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 541. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.11 min
Area: 1.19e+006 counts
Height: 280100.037 cps
Start Time: 5.01 min
End Time: 5.41 min

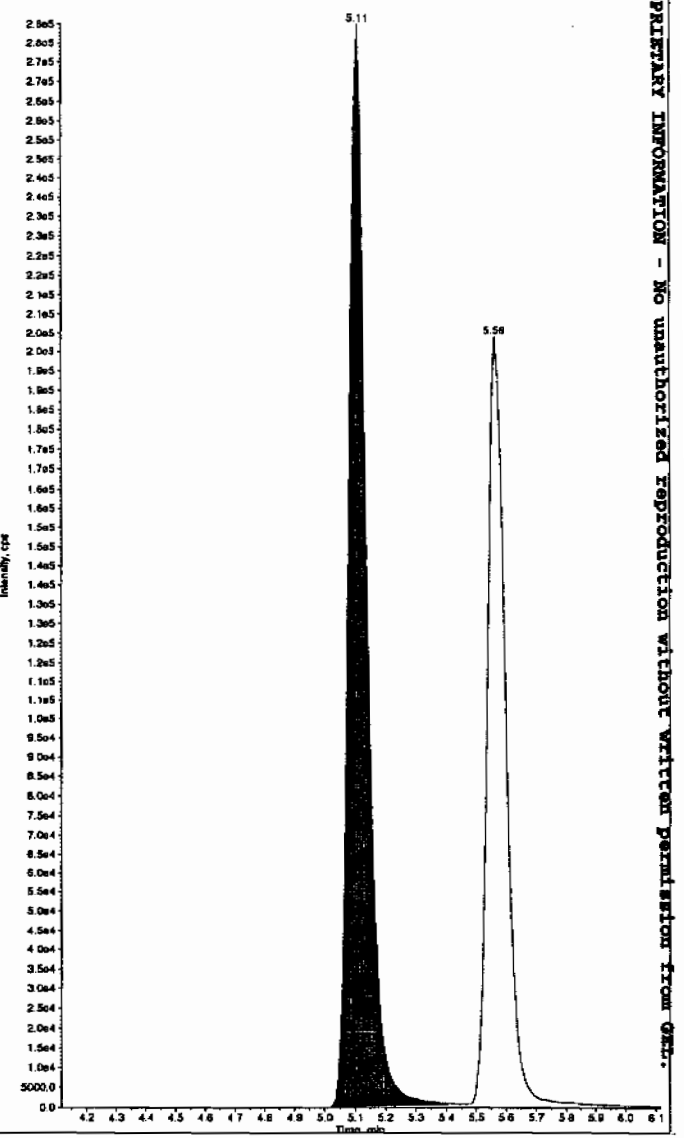

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Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 500. ng/mL
alculated Conc: 536. ng/mL
cq. Date: 2/26/2010
cq. Time: 8:55:16 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.57 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.56 min
rea: 8.57e+005 counts
eight: 199263.412 cps
tart Time: 5.48 min
nd Time: 6.09 min

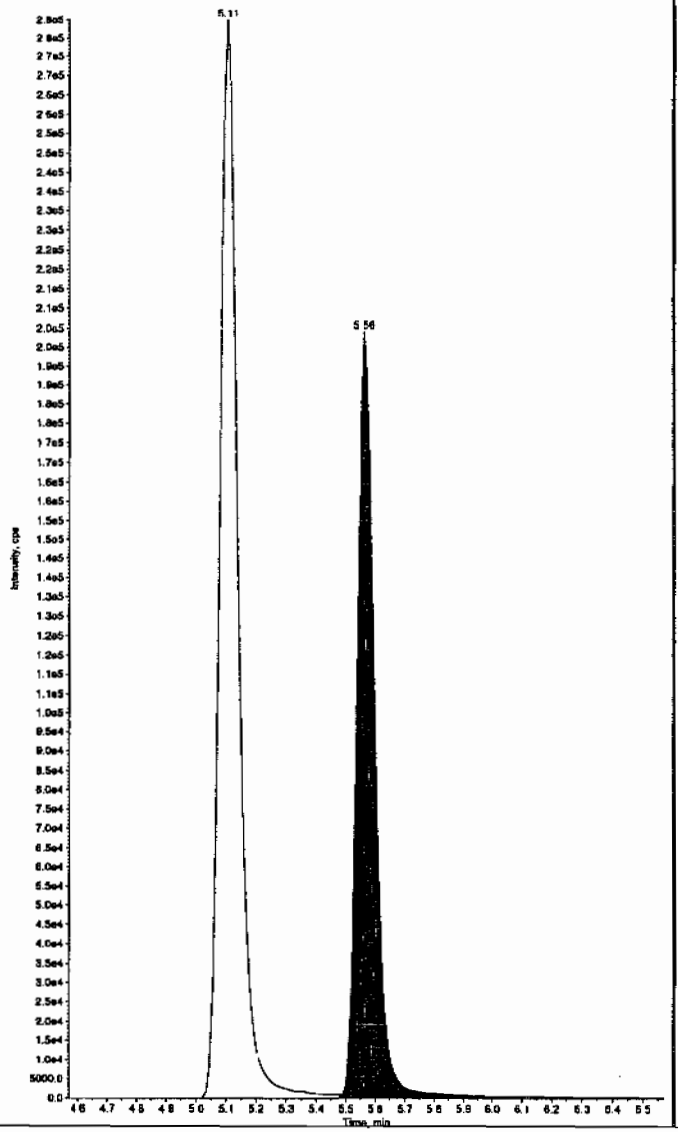

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 2/26/2010
Acq. Time: 8:55:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 6000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.70e+006 counts
Height: 2130550.781 cps
Start Time: 10.8 min
End Time: 11.2 min

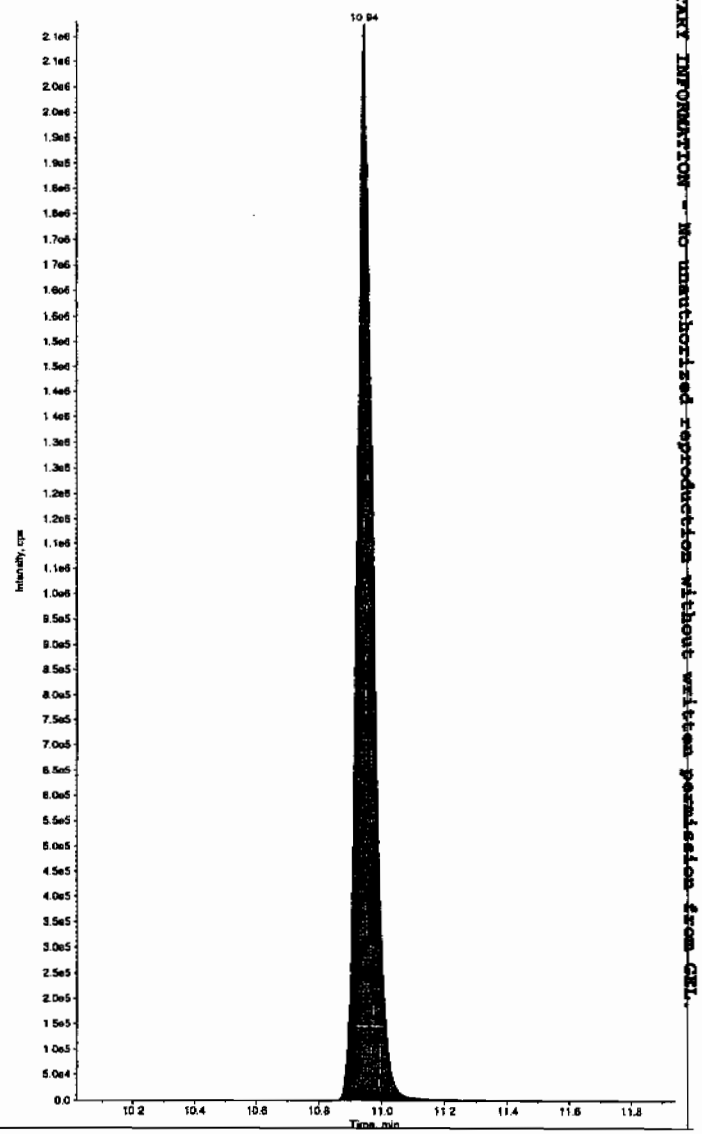

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260026.wiff

Analysis Date: 26-FEB-10 21:26

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	104	104	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	43.5	87	
3,5-Dinitroaniline	100	91.3	91	
TATB	100	105	105	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Run 3/1/10

Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02260026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
lculated Conc:	105.	ng/mL
q. Date:	2/26/2010	
q. Time:	9:26:41 PM	
dified:	No	
roc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	7.09	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	7.11	min
ea:	1.08e+005	counts
ight:	28018.894	cps
art Time:	7.03	min
d Time:	7.49	min

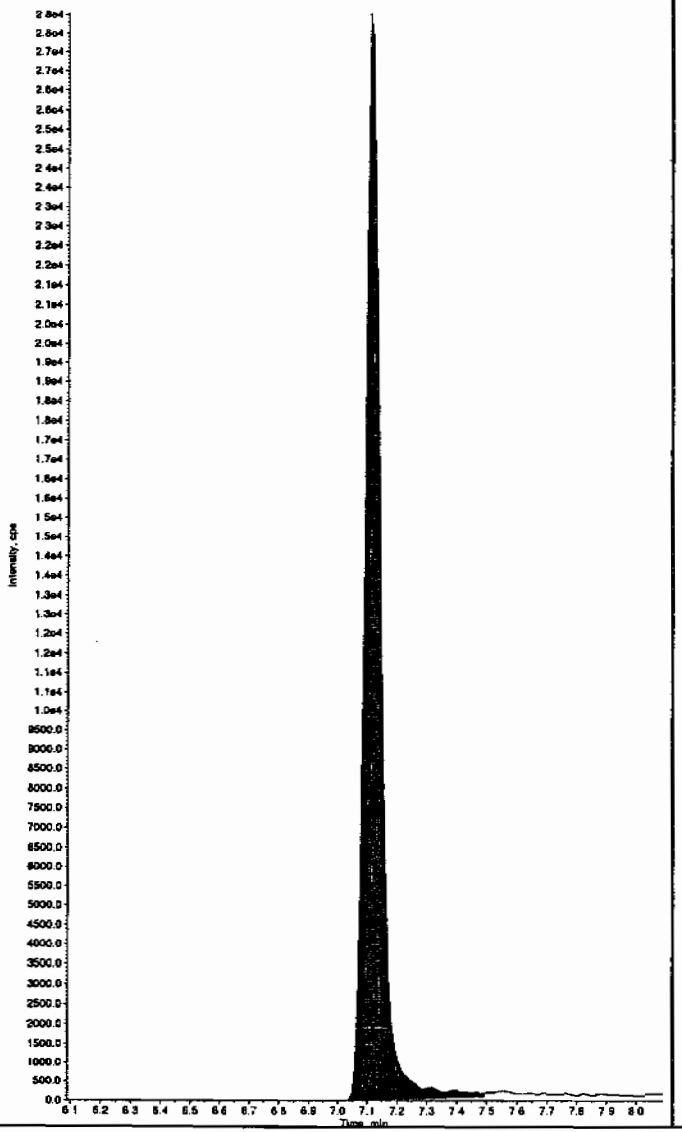

Sample Name: "WXX100225-27CRI" Sample ID: "|1|LER" File: "EXS02260026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	85.6	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	9:26:41 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.29	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.34	min
Area:	8.66e+005	counts
Height:	243722.839	cps
Start Time:	8.28	min
End Time:	8.43	min

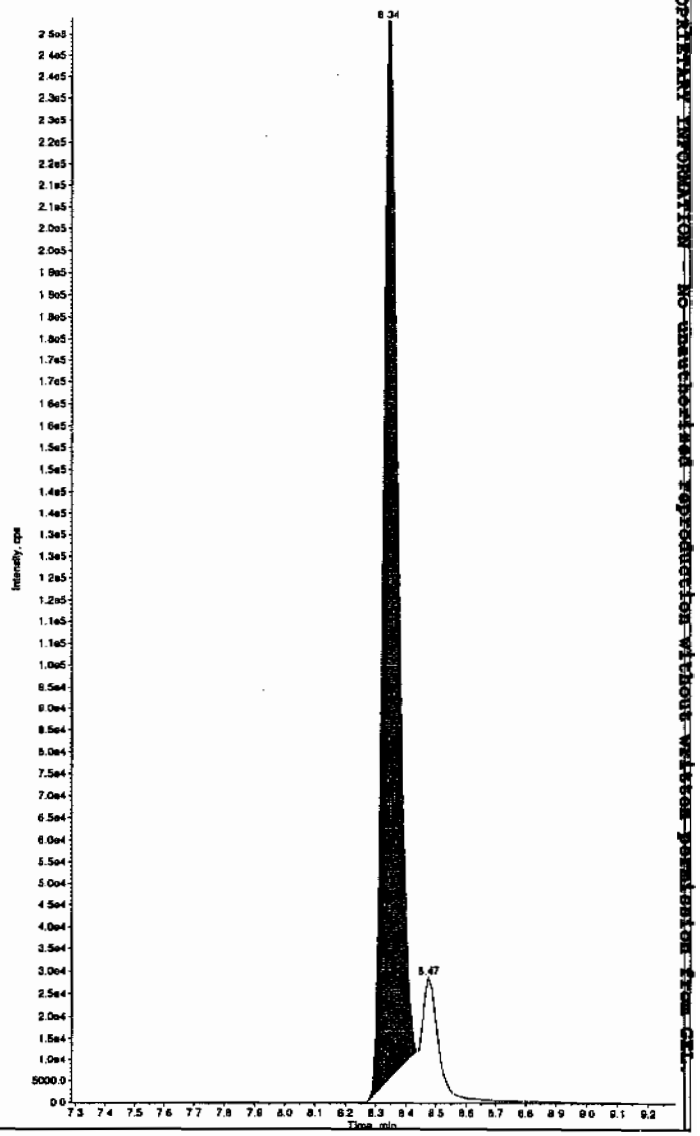

Hm m 03/01/10

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After Run 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
lculated Conc:	105.	ng/mL
q. Date:	2/26/2010	
q. Time:	9:26:41 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	7.09	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	7.11	min
ea:	1.08e+005	counts
ight:	28018.894	cps
art Time:	7.03	min
d Time:	7.49	min

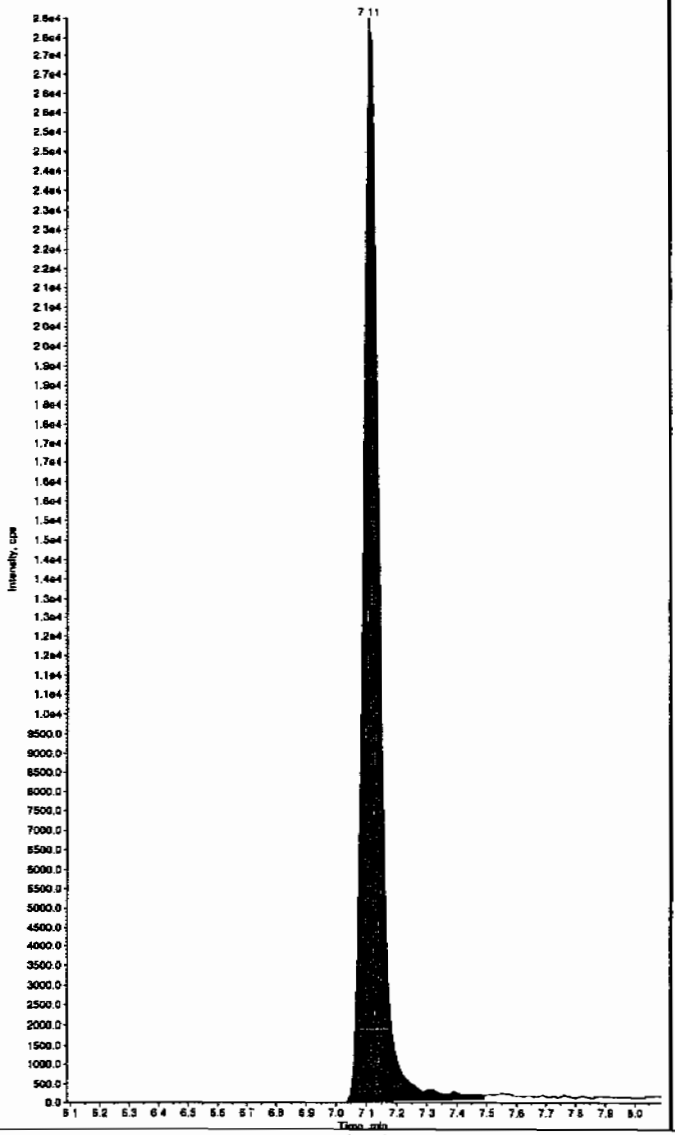

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	91.3	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	9:26:41 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.29	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.35	min
Area:	9.21e+005	counts
Height:	255293.764	cps
Start Time:	8.28	min
End Time:	8.43	min

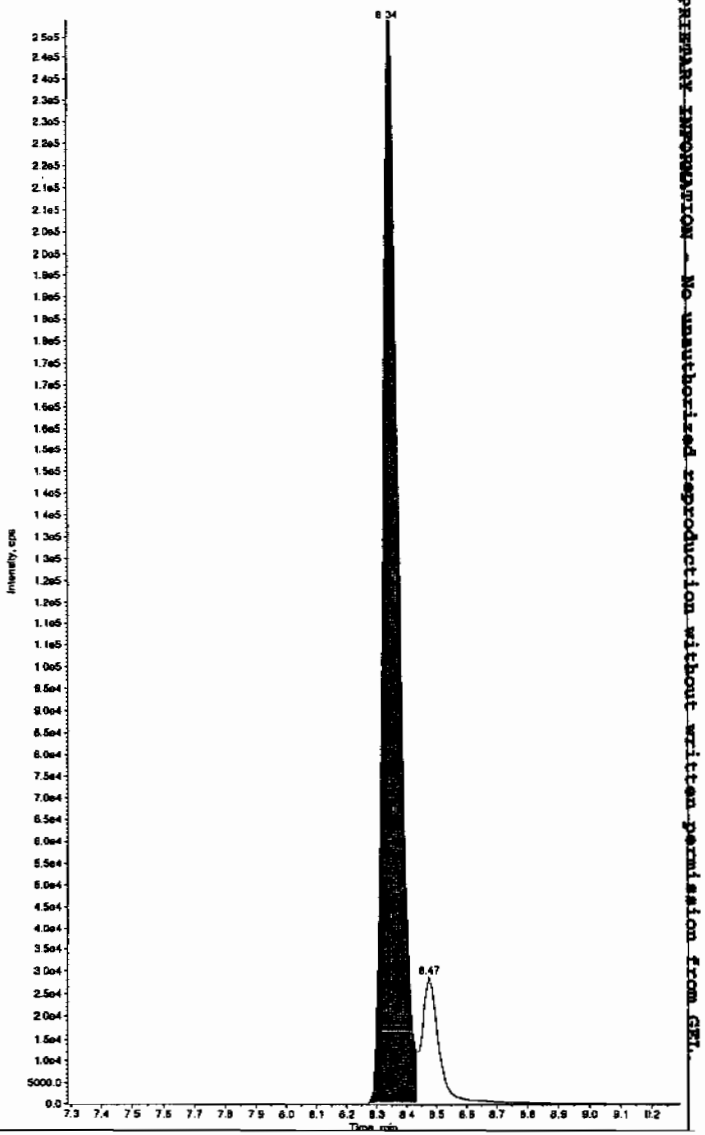

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      50.0     ng/mL
Calculated Conc:    43.5     ng/mL
Acq. Date:       2/26/2010
Acq. Time:       9:26:41 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         15.0    sec
Expected RT:        8.46   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.47   min
Area:        6.30e+005   counts
Height:        179327.957  cps
Start Time:         8.40   min
End Time:           8.81   min
```

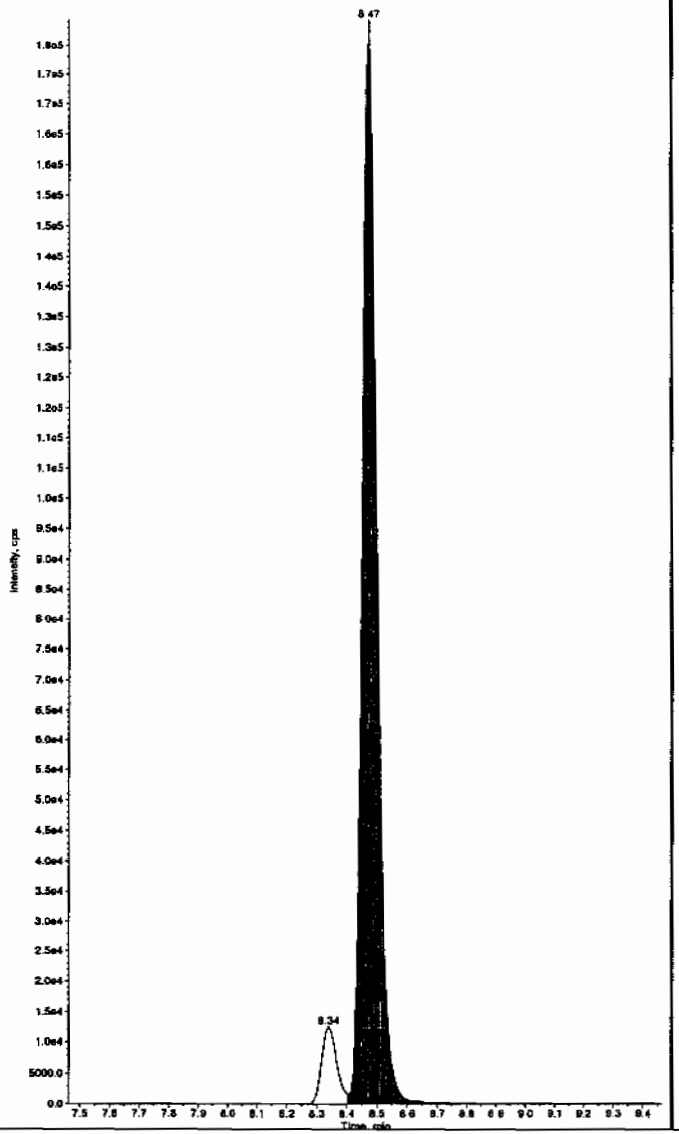

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.     ng/mL
Calculated Conc:    109.     ng/mL
Acq. Date:       2/26/2010
Acq. Time:       9:26:41 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        5.12   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.12   min
Area:        2.38e+005   counts
Height:        56011.360  cps
Start Time:         5.00   min
End Time:           5.36   min
```

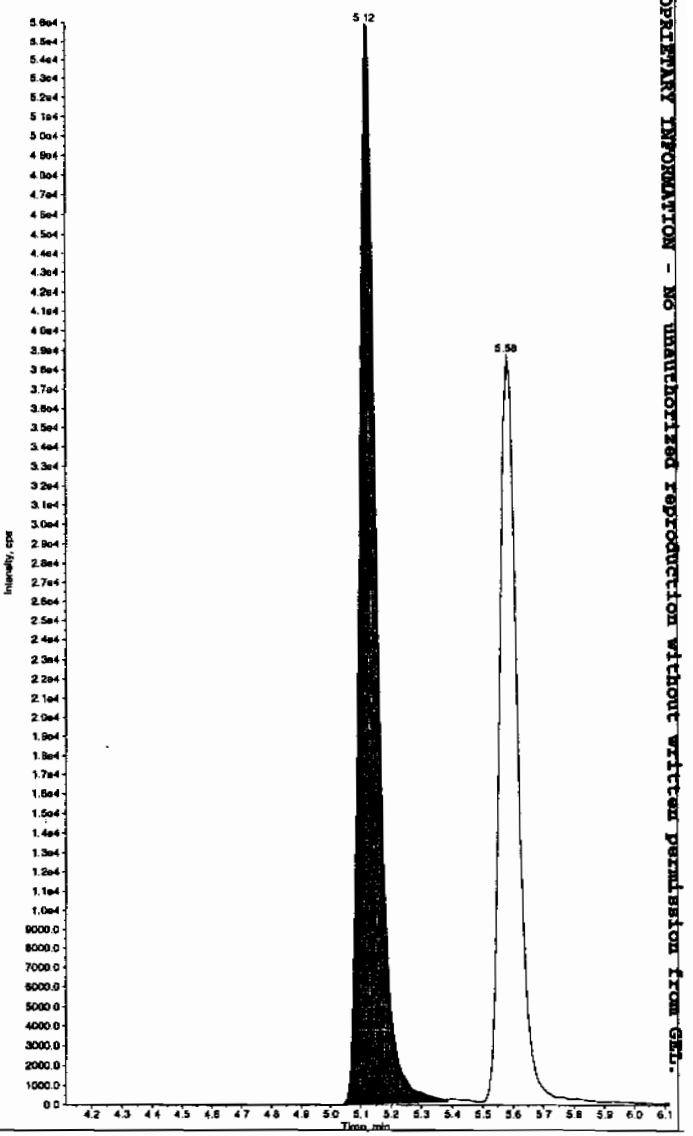

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
lculated Conc:	104.	ng/mL
q. Date:	2/26/2010	
q. Time:	9:26:41 PM	
odified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	350.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.57	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	5.58	min
ea:	1.58e+005	counts
ight:	38749.264	cps
art Time:	5.50	min
d Time:	5.89	min

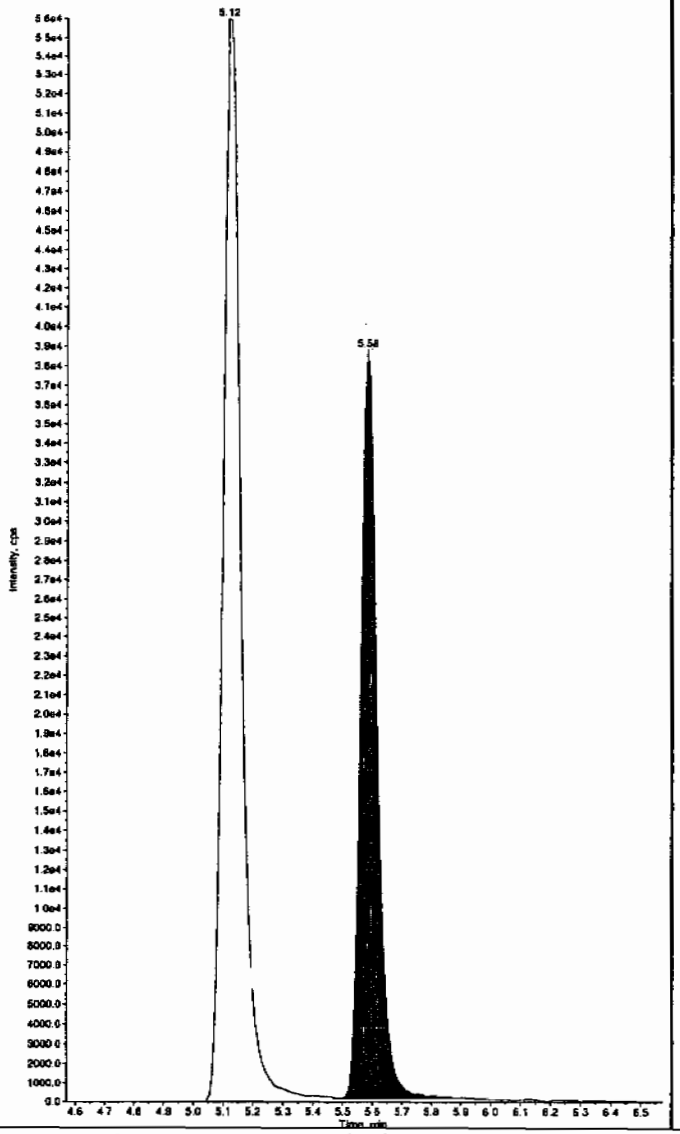

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	104.	ng/mL
Acq. Date:	2/26/2010	
Acq. Time:	9:26:41 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.77e+006	counts
Height:	501760.681	cps
Start Time:	10.9	min
End Time:	11.3	min

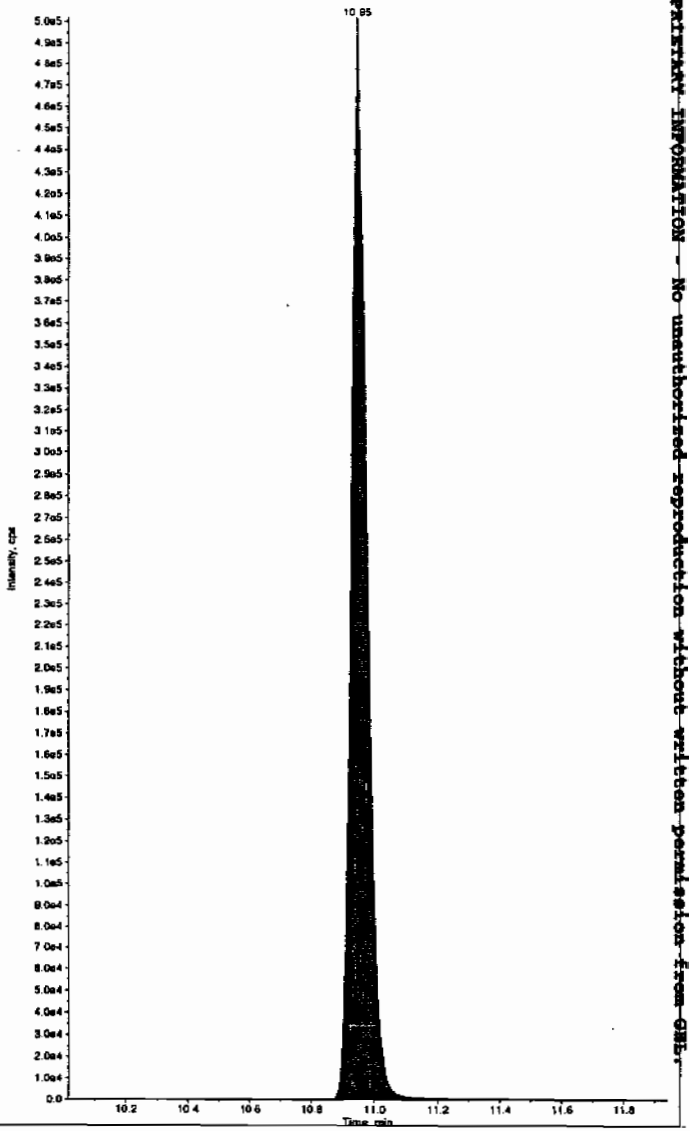

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260037.wiff

Analysis Date: 27-FEB-10 00:19

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	482	96	
2,6-Diamino-4-nitrotoluene	500	477	96	
3,4-Dinitrotoluene	250	222	89	
3,5-Dinitroaniline	500	469	94	
TATB	500	487	97	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:        1
mple Type:          QC
ncentration:      500.    ng/mL
lculated Conc:    487.    ng/mL
q. Date:        2/27/2010
q. Time:        12:19:36 AM

dified:            No
oc. Algorithm: IntelliQuan - IOA
n. Peak Height:2500.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3        points
 Window:         30.0    sec
pected RT:        7.09   min
e Relative RT:    No

t. Type:        Valley
tention Time:     7.09   min
ea:          5.75e+005   counts
ight:         143670.853  cps
art Time:         7.00   min
d Time:           7.76   min
```

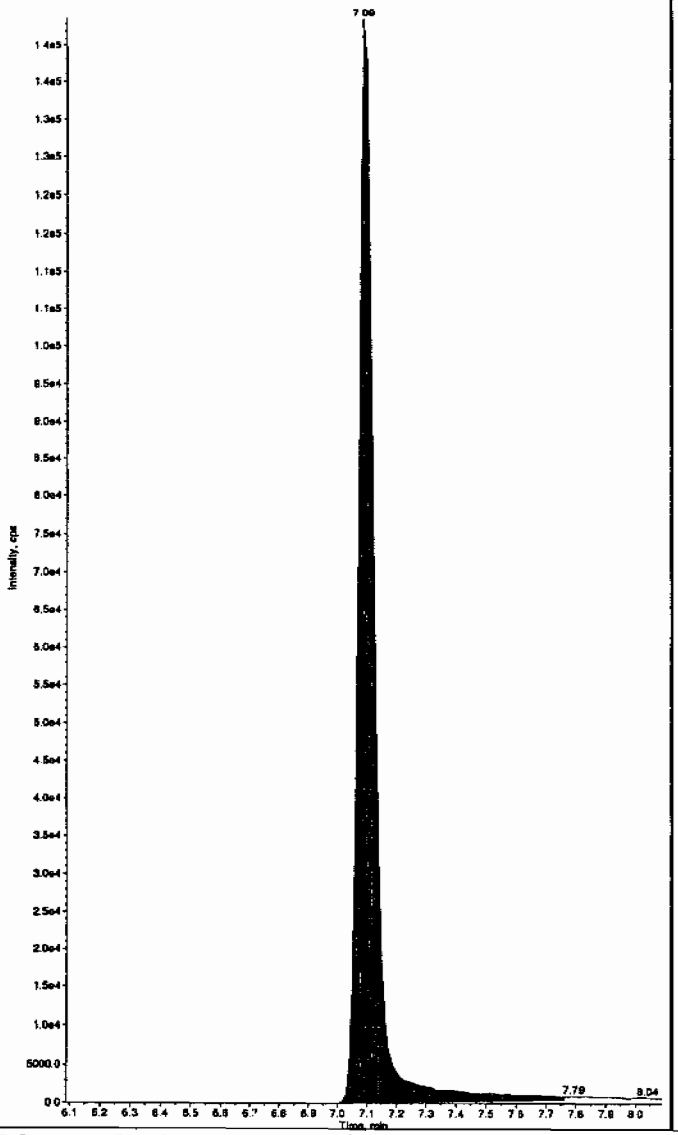

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:      500.    ng/mL
Calculated Conc:    469.    ng/mL
Acq. Date:        2/27/2010
Acq. Time:        12:19:36 AM

Modified:            Yes
Proc. Algorithm: IntelliQuan - IOA
Min. Peak Height:2000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         15.0    sec
Expected RT:        8.30   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.33   min
Area:          4.31e+006   counts
Height:        1119113.281  cps
Start Time:         8.24   min
End Time:           8.42   min
```

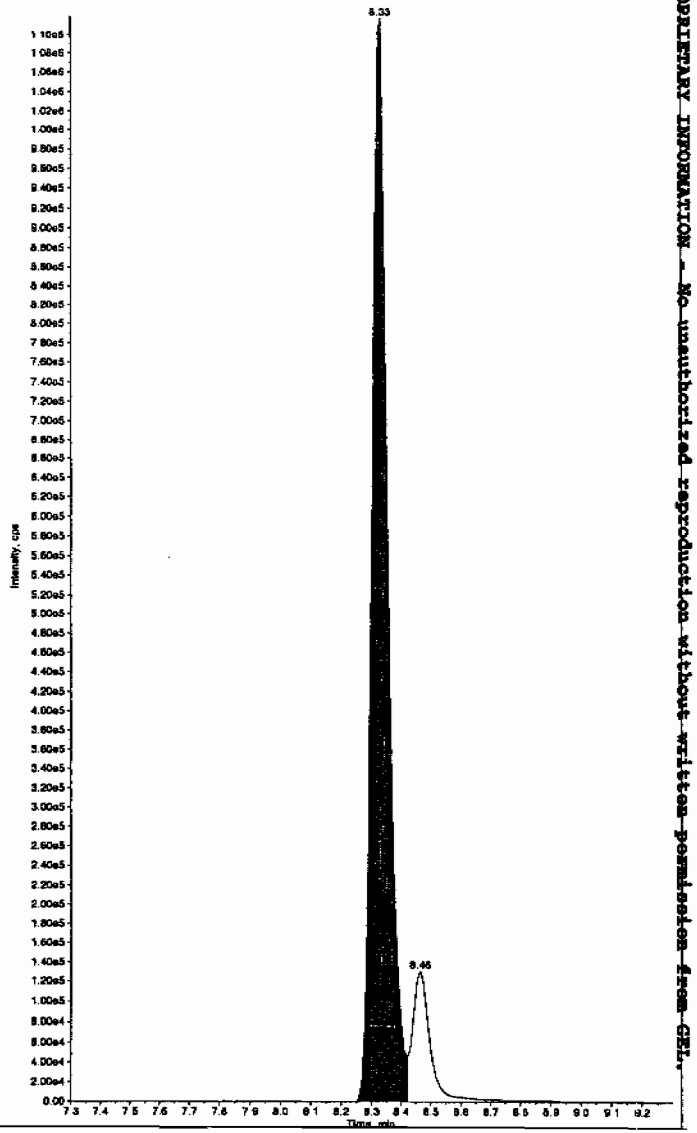

Hnm 03/01/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:          1
mple Type:           QC
ncentration:       250.     ng/mL
lculated Conc:     222.     ng/mL
q. Date:        2/27/2010
q. Time:        12:19:36 AM

dified:            No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:1460.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3        points
 Window:         15.0    sec
pected RT:        8.46   min
e Relative RT:    No

t. Type:         Valley
tention Time:     8.46   min
ea:          3.08e+006   counts
ight:        850868.896  cps
art Time:         8.39   min
d Time:           8.79   min
```

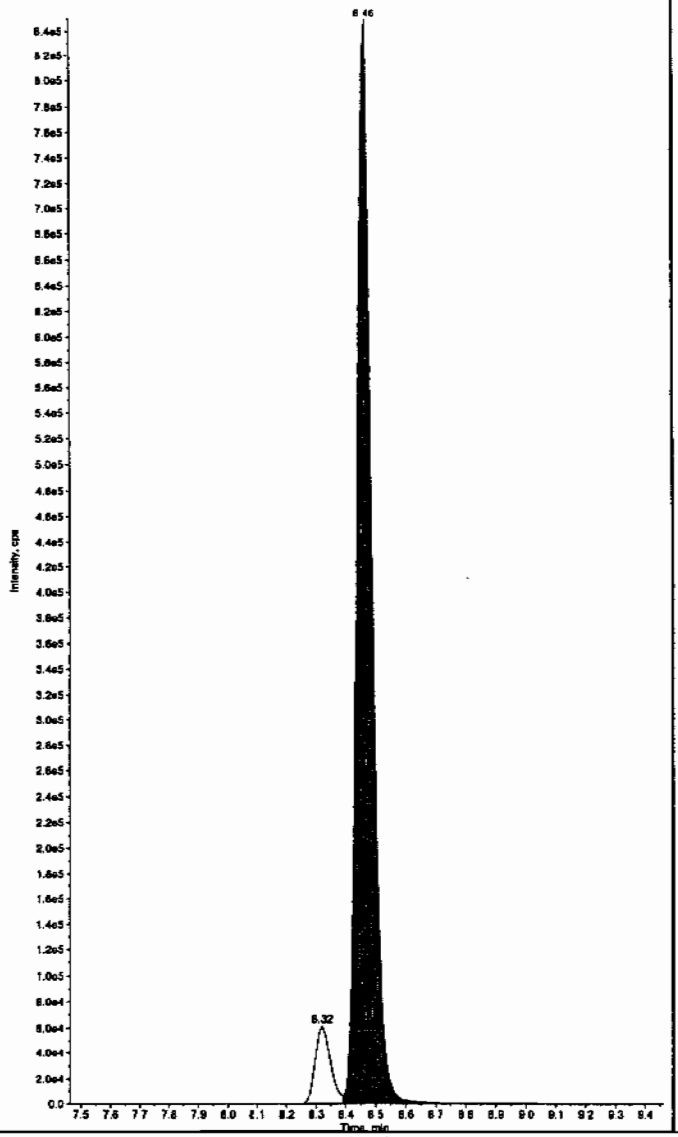

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     477.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        12:19:36 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.12   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.11   min
Area:        1.05e+006   counts
Height:      251884.293  cps
Start Time:         5.01   min
End Time:           5.42   min
```

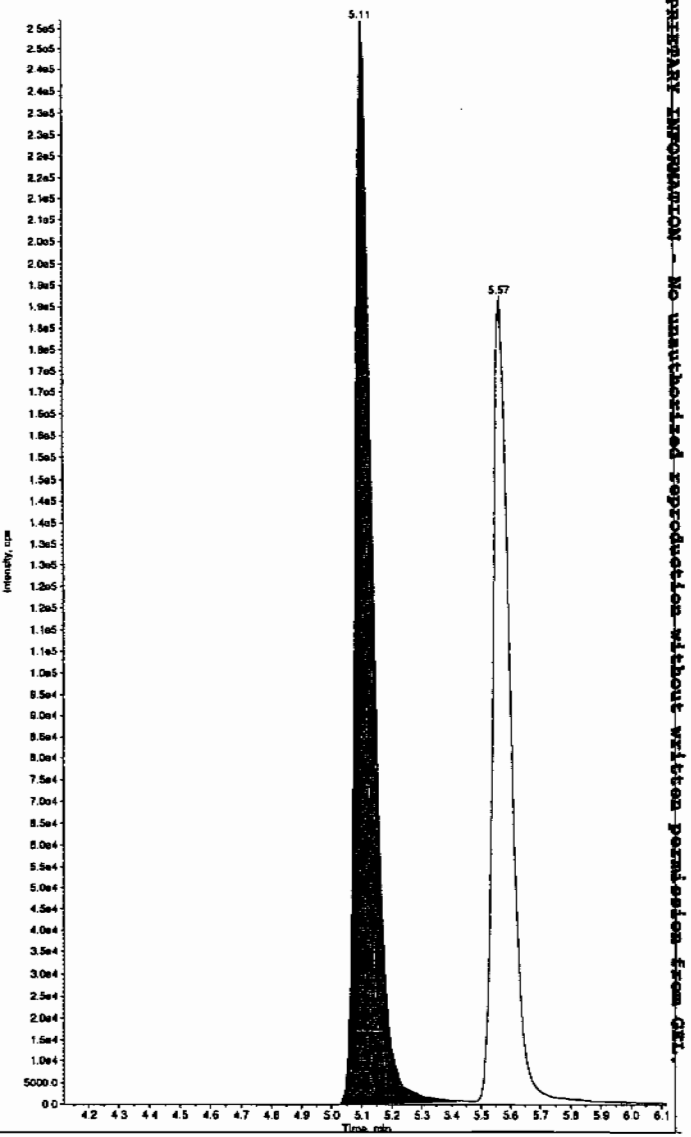

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Sample Name: "WXX100226-26CCV" Sample ID: "1|LER" File: "EXS02260037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:          1
mple Type:           QC
ncentration:       500.     ng/mL
lculated Conc:     482.     ng/mL
q. Date:        2/27/2010
q. Time:        12:19:36 AM

dified:             No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00    cps
n. Peak Width:    0.00    sec
oothing Width:  3         points
' Window:        30.0     sec
pected RT:        5.57    min
e Relative RT:    No

t. Type:         Valley
tention Time:     5.57    min
ea:          7.69e+005    counts
ight:        187302.551   cps
art Time:         5.47    min
d Time:           6.07    min
```

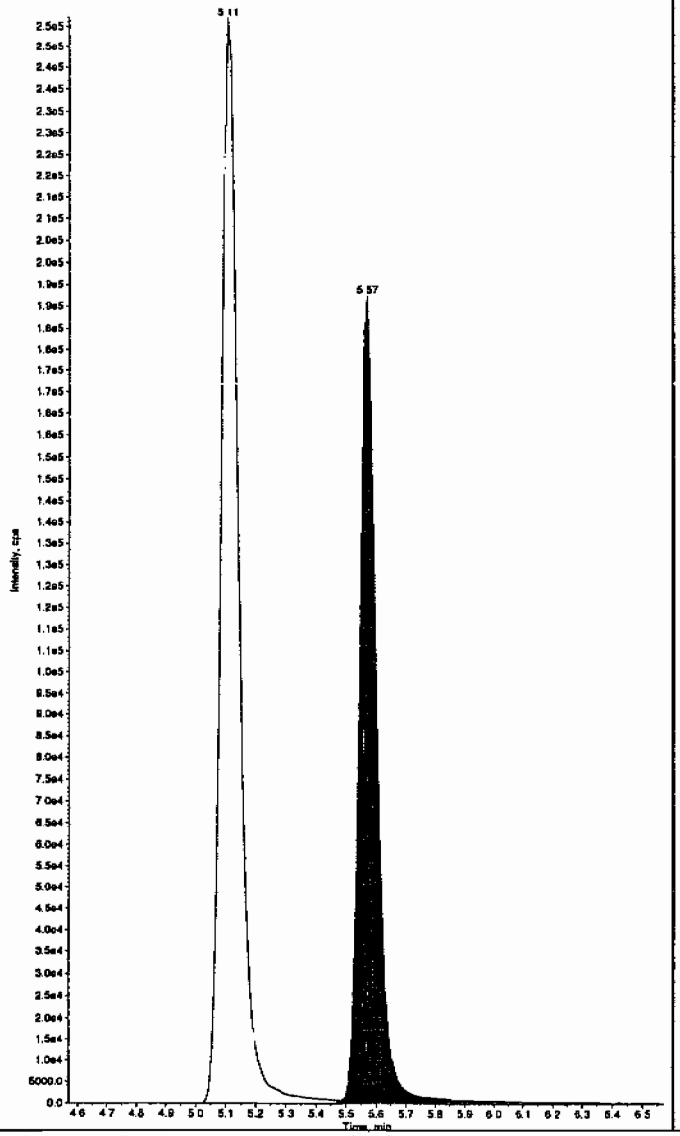

Sample Name: "WXX100226-26CCV" Sample ID: "1|LER" File: "EXS02260037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     491.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        12:19:36 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:    11.0     min
Area:          7.60e+006    counts
Height:        2133710.449  cps
Start Time:        10.8     min
End Time:          11.3     min
```

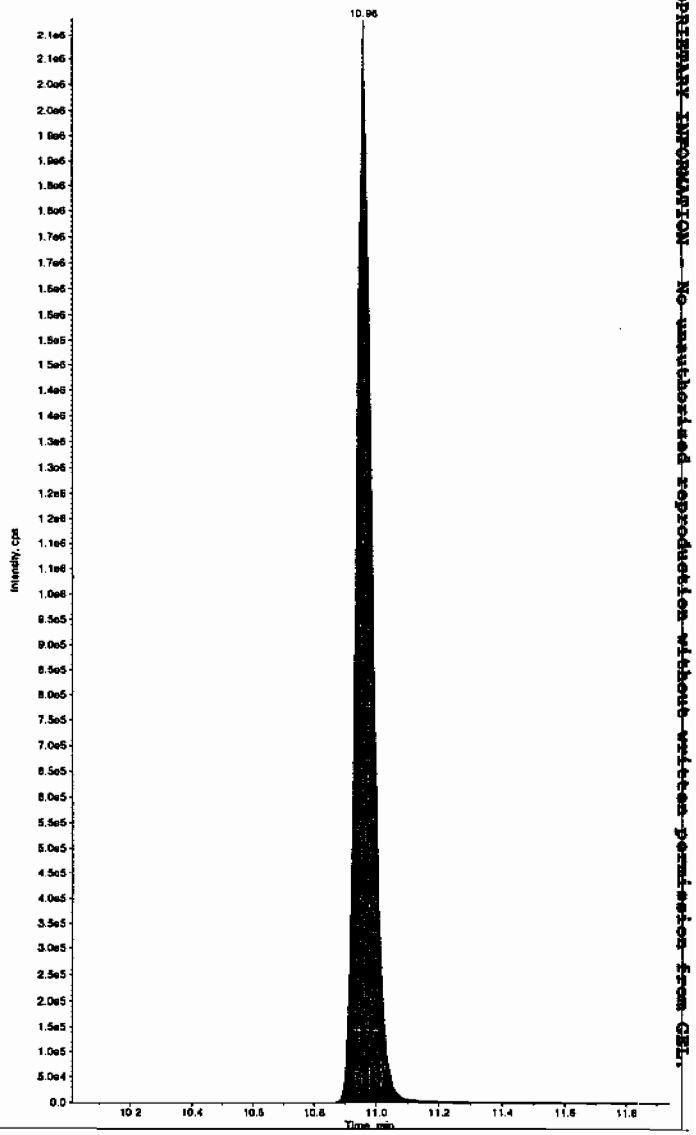

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260039.wiff

Analysis Date: 27-FEB-10 00:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	102	102	
3,4-Dinitrotoluene	50	43.9	88	
3,5-Dinitroaniline	100	91.6	92	
TATB	100	107	107	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:          1
mple Type:          QC
ncentration:       100.     ng/mL
lculated Conc:     107.     ng/mL
q. Date:        2/27/2010
q. Time:        12:51:00 AM

dified:             No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:2500.00   cps
n. Peak Width:     0.00   sec
oothing Width:  3        points
' Window:          30.0   sec
pected RT:         7.09   min
e Relative RT:     No

t. Type:         Valley
tention Time:      7.10   min
ea:          1.11e+005   counts
ight:          28614.511  cps
art Time:          7.00   min
d Time:            7.58   min
```

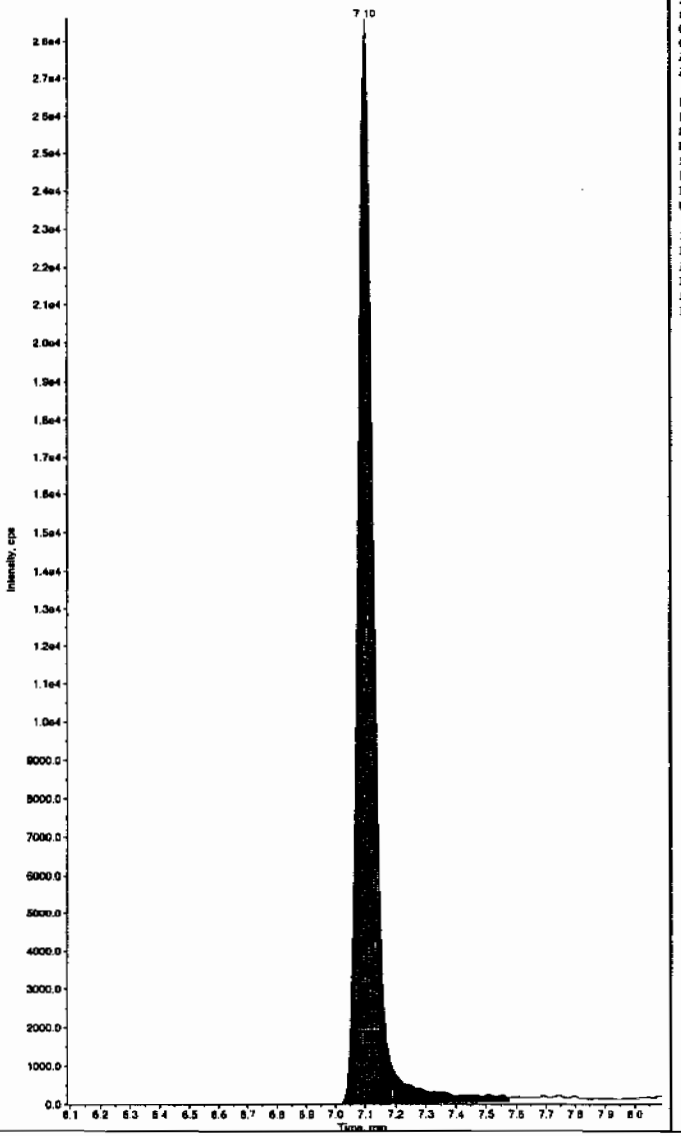

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:      91.6    ng/mL
Acq. Date:        2/27/2010
Acq. Time:        12:51:00 AM

Modified:             Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          15.0    sec
Expected RT:        8.28    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     8.33    min
Area:         9.23e+005    counts
Height:         251086.685  cps
Start Time:         8.24    min
End Time:           8.42    min
```

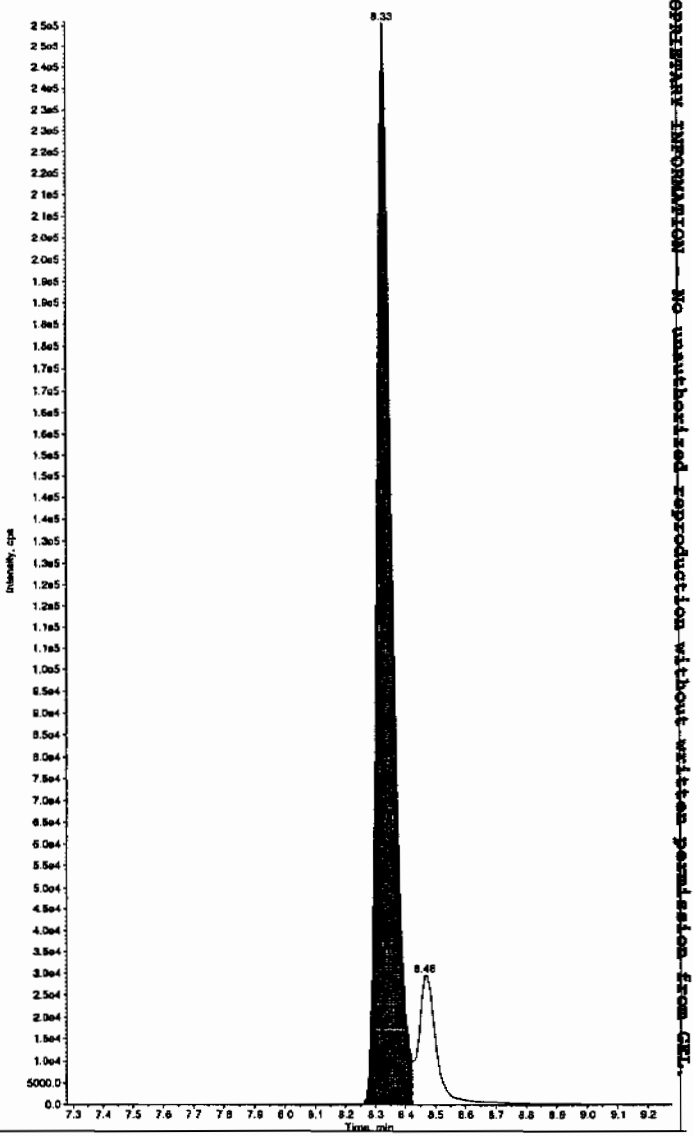

Hum 03/01/10

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ample Index:        1
ample Type:          QC
oncentration:      50.0    ng/mL
alculated Conc:    43.8    ng/mL
cq. Date:       2/27/2010
cq. Time:       12:51:00 AM

odified:            No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height:1460.00   cps
in. Peak Width:    0.00   sec
moothing Width:  3        points
T Window:        15.0     sec
xpected RT:       8.46    min
se Relative RT:    No

nt. Type:        Valley
etention Time:    8.46    min
rea:         6.35e+005    counts
eight:        189587.891  cps
tart Time:        8.40    min
nd Time:          8.76    min
```

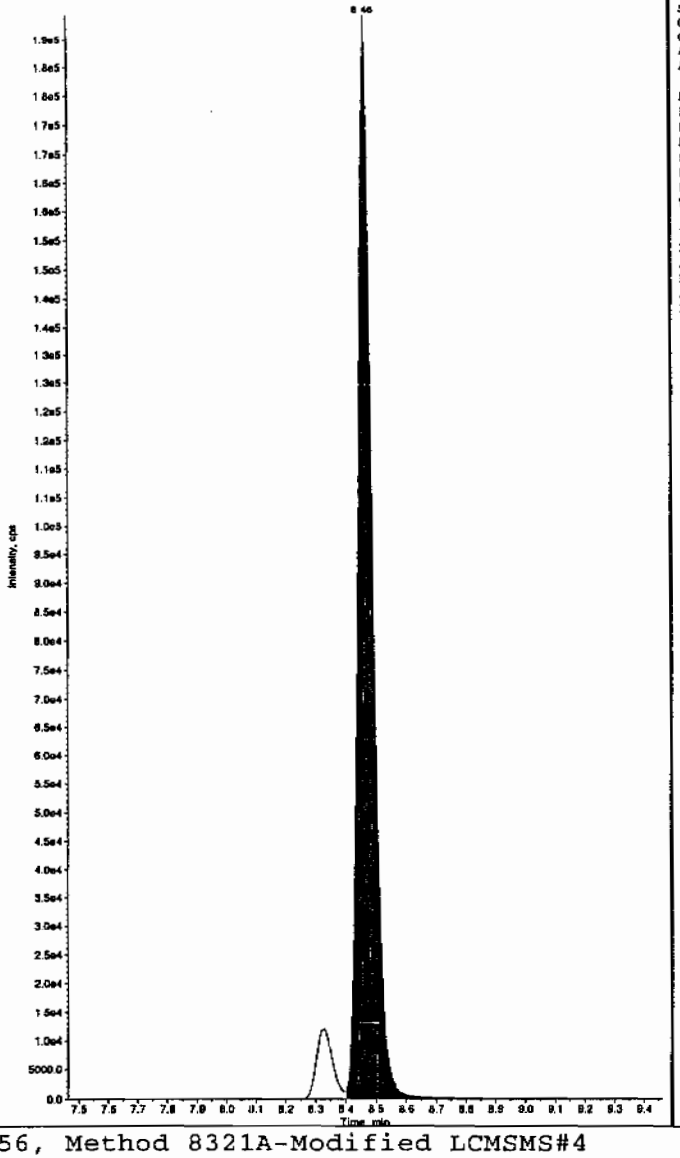

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:       100.    ng/mL
Calculated Conc:     102.    ng/mL
Acq. Date:       2/27/2010
Acq. Time:       12:51:00 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:        30.0     sec
Expected RT:       5.12    min
Use Relative RT:    No

Int. Type:       Valley
Retention Time:    5.12    min
Area:        2.21e+005     counts
Height:       53184.658    cps
Start Time:        4.97    min
End Time:          5.42    min
```

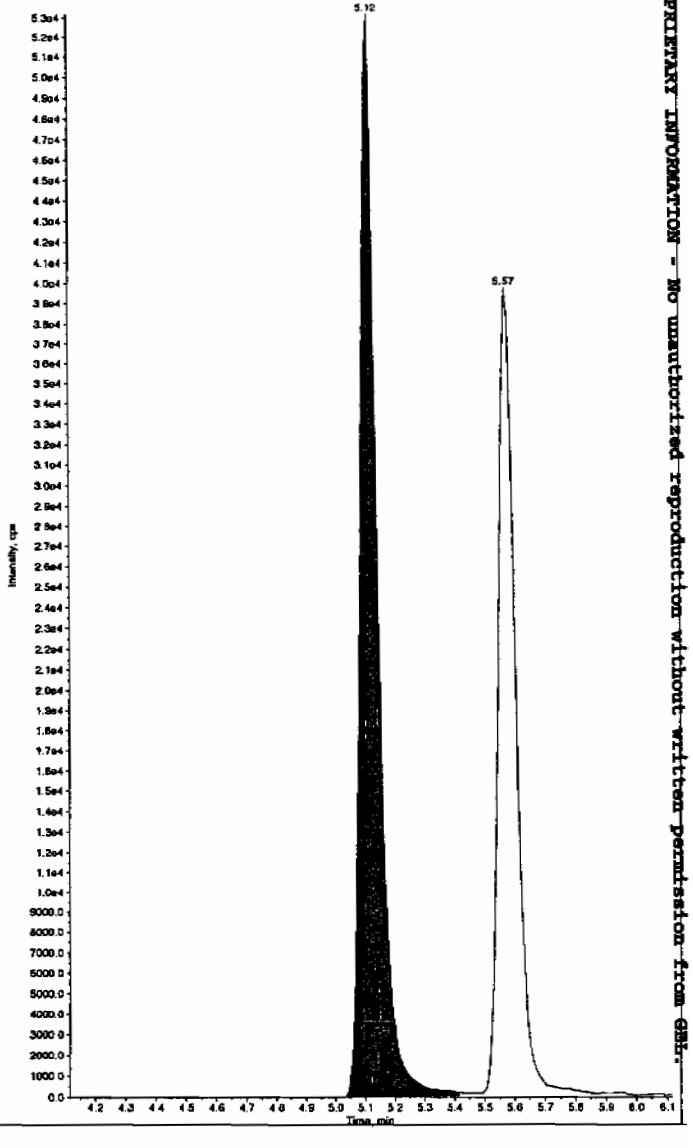

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02250039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ample Index:        1
ample Type:           QC
oncentration:       100.     ng/mL
alculated Conc:     103.     ng/mL
cq. Date:        2/27/2010
cq. Time:        12:51:00 AM

odified:             No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00    cps
in. Peak Width:    0.00    sec
moothing Width:  3         points
T Window:          30.0     sec
xpected RT:        5.57     min
se Relative RT:    No

nt. Type:        Valley
etention Time:     5.57     min
rea:          1.57e+005    counts
eight:        39630.726    cps
tart Time:         5.46     min
nd Time:           5.87     min
```

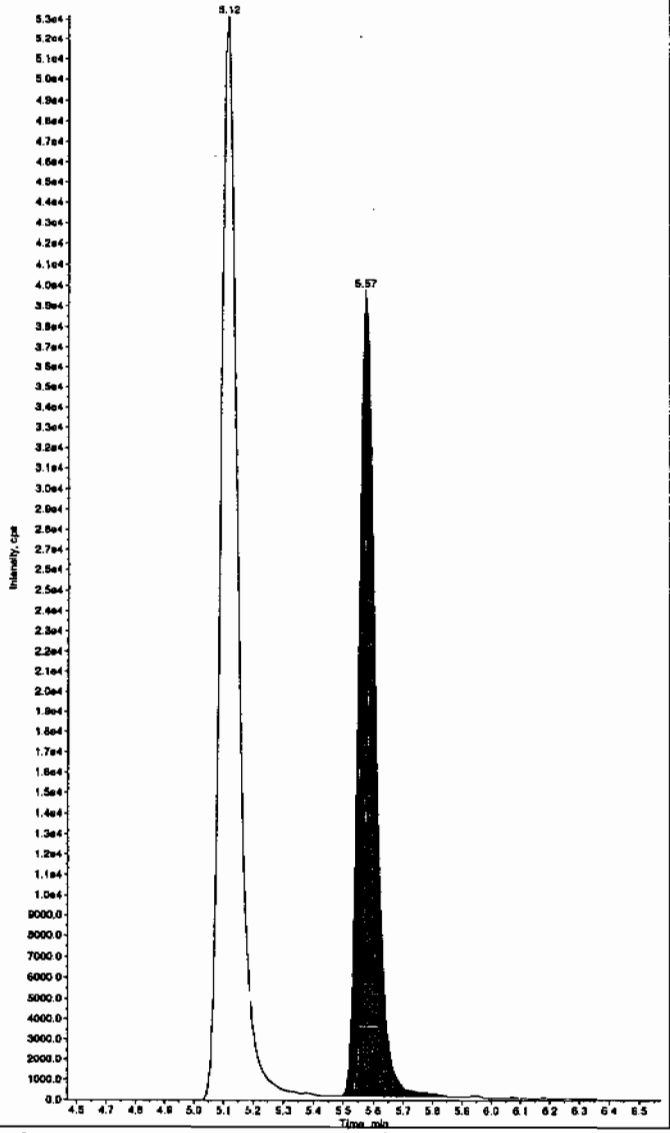

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02250039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:           QC
Concentration:      100.     ng/mL
Calculated Conc:    102.     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       12:51:00 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    11.0     min
Area:         1.75e+006    counts
Height:       488172.638   cps
Start Time:        10.8     min
End Time:          11.3     min
```

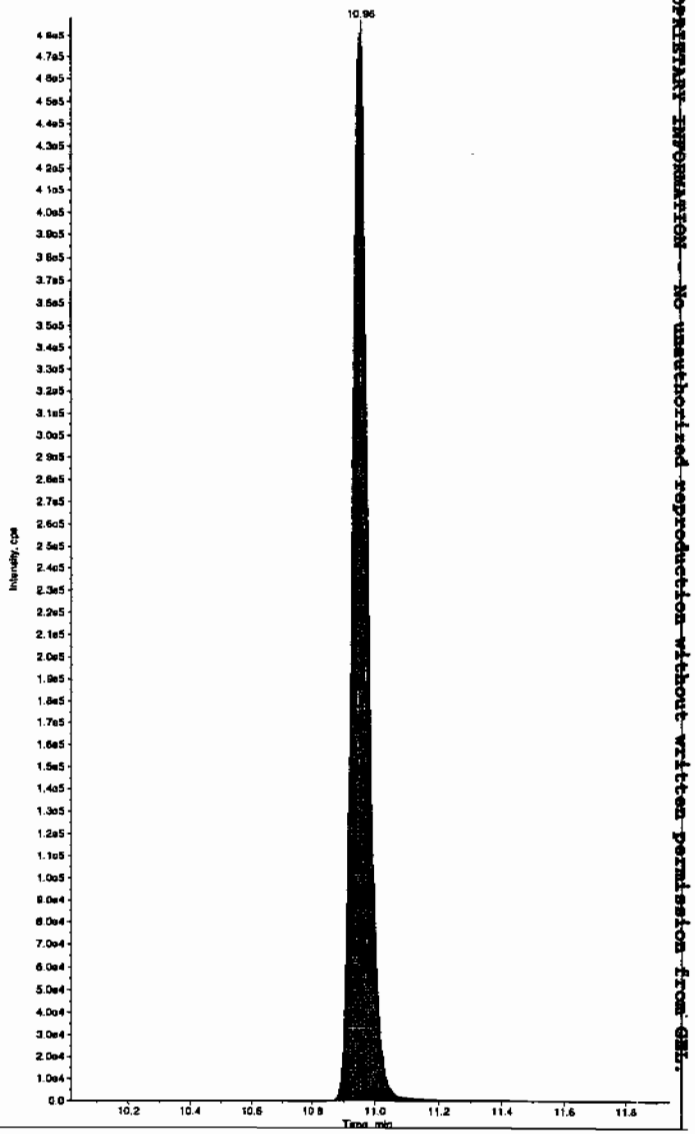

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260050.wiff

Analysis Date: 27-FEB-10 03:43

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	556	111	
2,6-Diamino-4-nitrotoluene	500	574	115	
3,4-Dinitrotoluene	250	226	91	
3,5-Dinitroaniline	500	482	96	
TATB	500	521	104	
tris(o-cresyl) phosphate	500	513	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 500. ng/mL
alculated Conc: 521. ng/mL
cq. Date: 2/27/2010
cq. Time: 3:43:44 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 7.09 min
se Relative RT: No

nt. Type: Valley
etention Time: 7.11 min
rea: 6.17e+005 counts
eight: 155759.445 cps
tart Time: 7.02 min
nd Time: 7.77 min

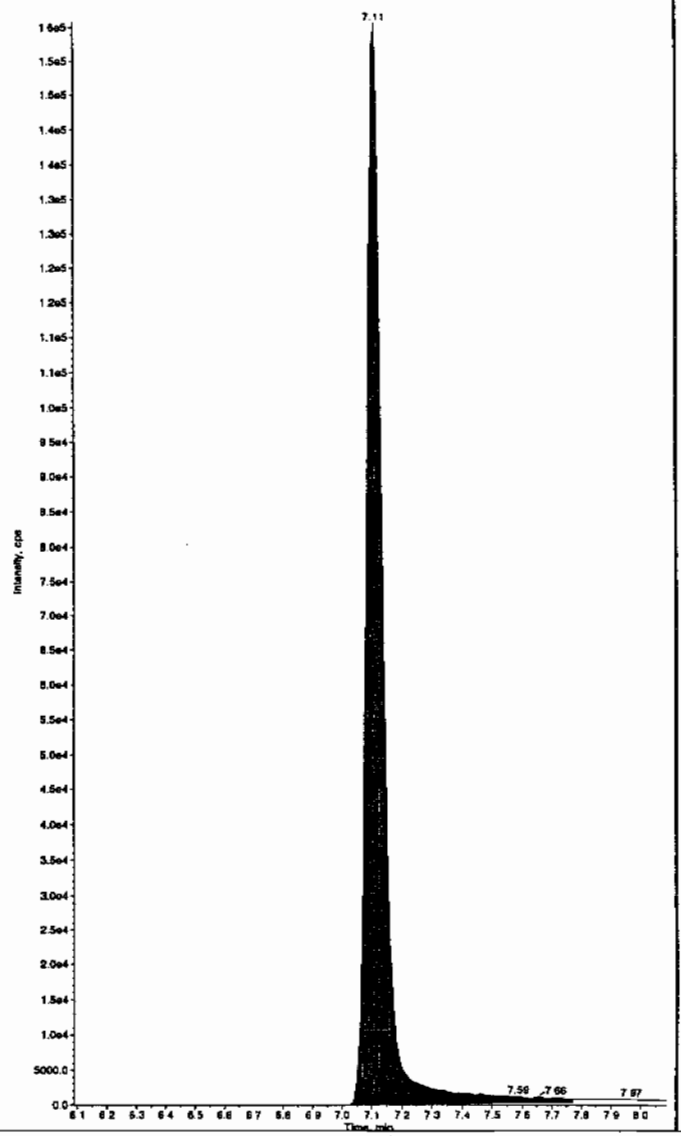

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 482. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 3:43:44 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 4.42e+006 counts
Height: 1165491.943 cps
Start Time: 8.25 min
End Time: 8.43 min

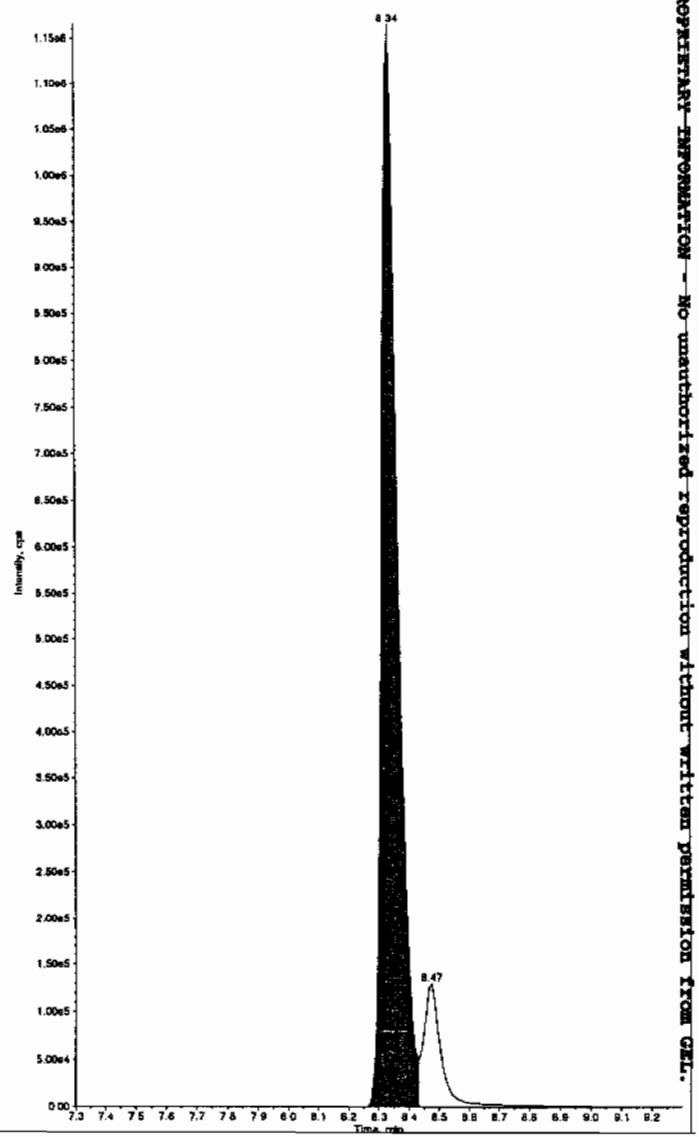

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ample Index:        1
ample Type:         QC
oncentration:       250.     ng/mL
alculated Conc:     226.     ng/mL
cq. Date:        2/27/2010
cq. Time:        3:43:44 AM

odified:            No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height:1460.00   cps
in. Peak Width:     0.00   sec
moothing Width:  3        points
T Window:          15.0    sec
xpected RT:         8.46   min
se Relative RT:     No

nt. Type:         Valley
etention Time:      8.46   min
rea:          3.13e+006   counts
eight:         884715.454  cps
tart Time:          8.40   min
nd Time:            8.79   min
```

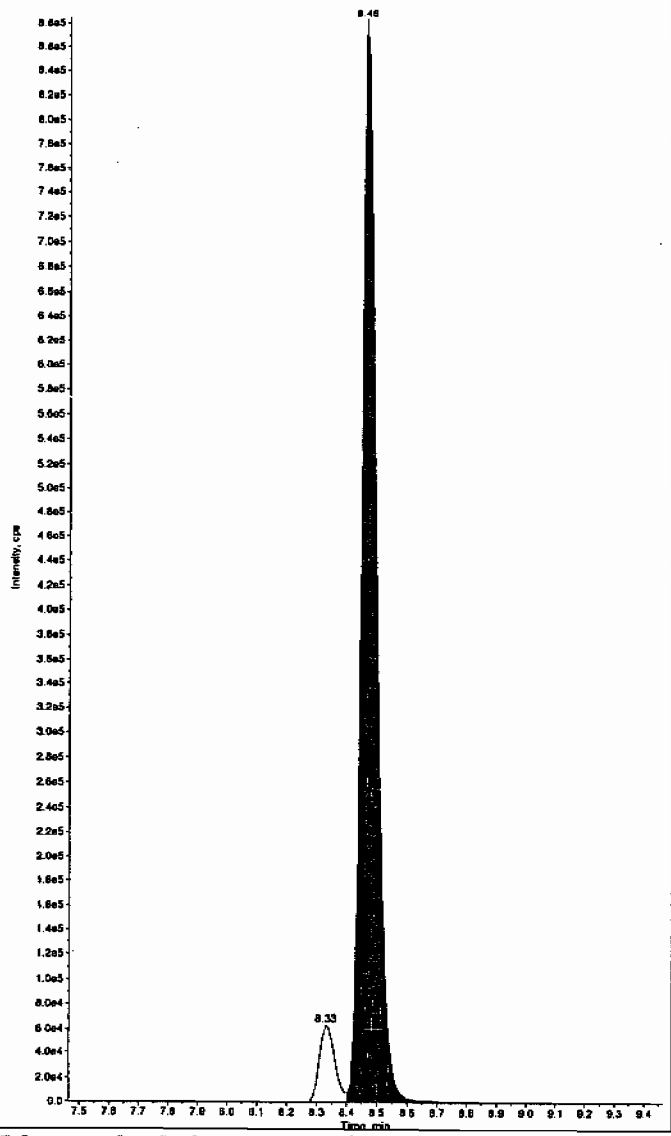

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.     ng/mL
Calculated Conc:     574.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        3:43:44 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.12   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.12   min
Area:         1.26e+006   counts
Height:       290760.040  cps
Start Time:         5.02   min
End Time:           5.43   min
```

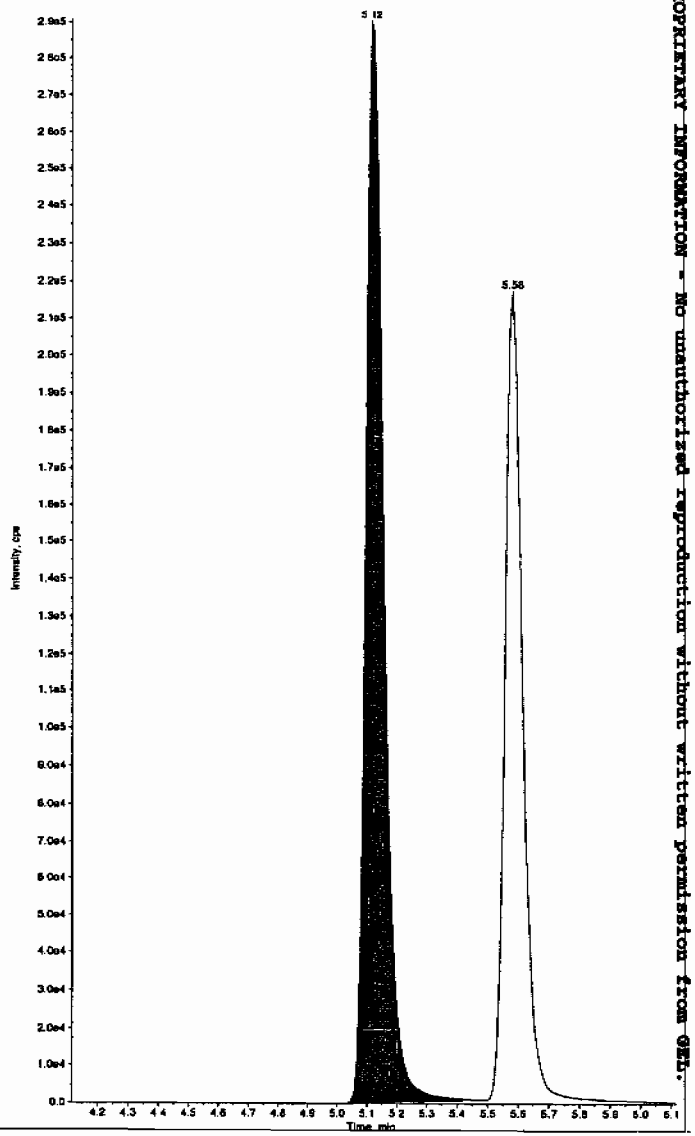

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:        1
mple Type:        QC
oncentration:     500.    ng/mL
lculated Conc:    556.    ng/mL
cq. Date:       2/27/2010
cq. Time:       3:43:44 AM

odified:          No
roc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00   cps
n. Peak Width:    0.00   sec
moothing Width:  3       points
 Window:         30.0    sec
pected RT:        5.57   min
e Relative RT:    No

t. Type:        Valley
tention Time:     5.58   min
ea:          8.90e+005   counts
ight:         217654.068  cps
art Time:         5.49   min
d Time:           6.08   min
```

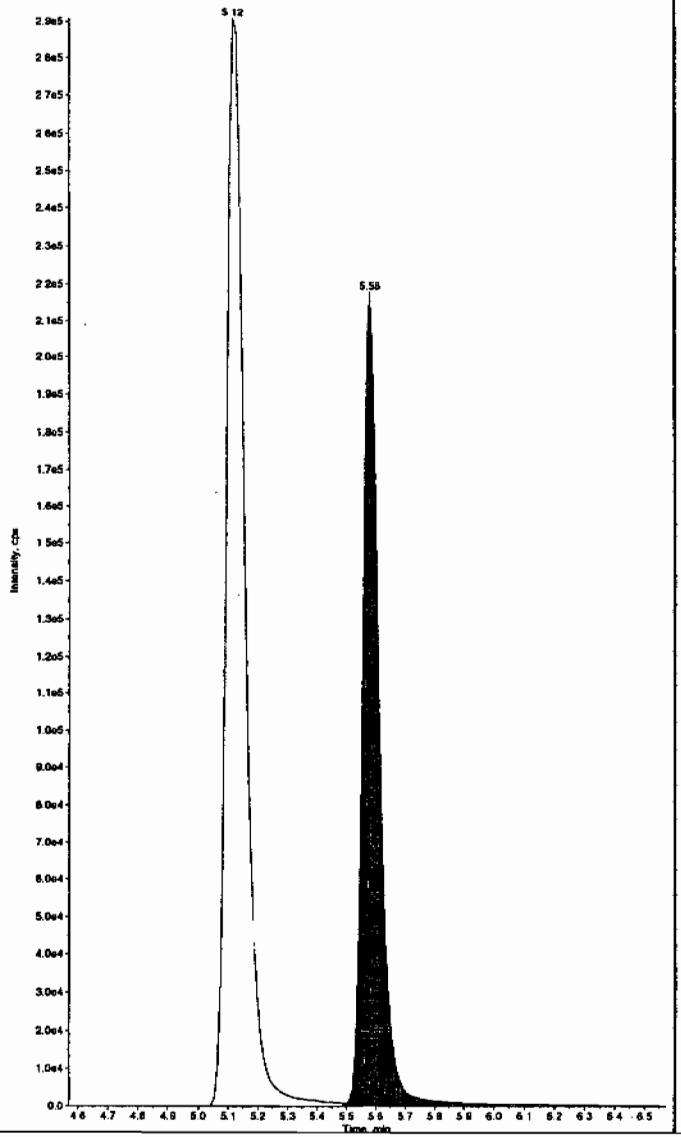

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.    ng/mL
Calculated Conc:   513.    ng/mL
Acq. Date:       2/27/2010
Acq. Time:       3:43:44 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:       10.9    min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.9    min
Area:          7.90e+006   counts
Height:        2125021.484 cps
Start Time:        10.8    min
End Time:          11.2    min
```

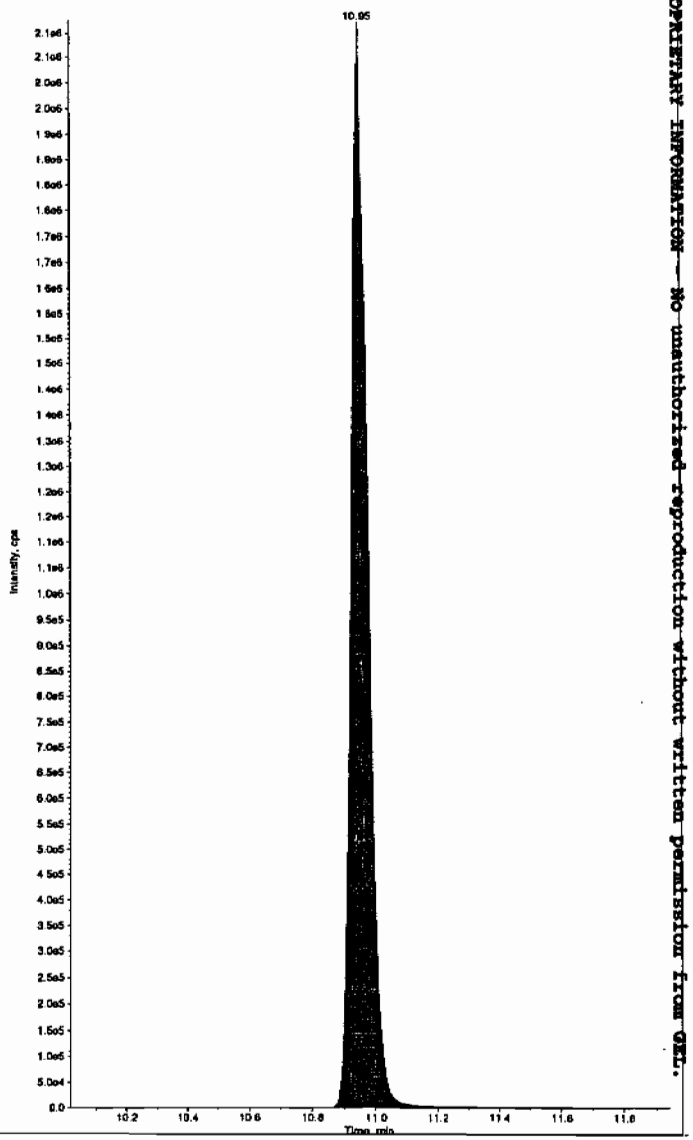

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260052.wiff

Analysis Date: 27-FEB-10 04:15

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	119	119	
2,6-Diamino-4-nitrotoluene	100	121	121	
3,4-Dinitrotoluene	50	46.3	93	
3,5-Dinitroaniline	100	92.4	92	
TATB	100	109	109	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1
mple Type:	QC
ncentration:	100. ng/mL
lculated Conc:	109. ng/mL
q. Date:	2/27/2010
q. Time:	4:15:10 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.09 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.11 min
ea:	1.13e+005 counts
ight:	28701.506 cps
art Time:	7.02 min
d Time:	7.50 min

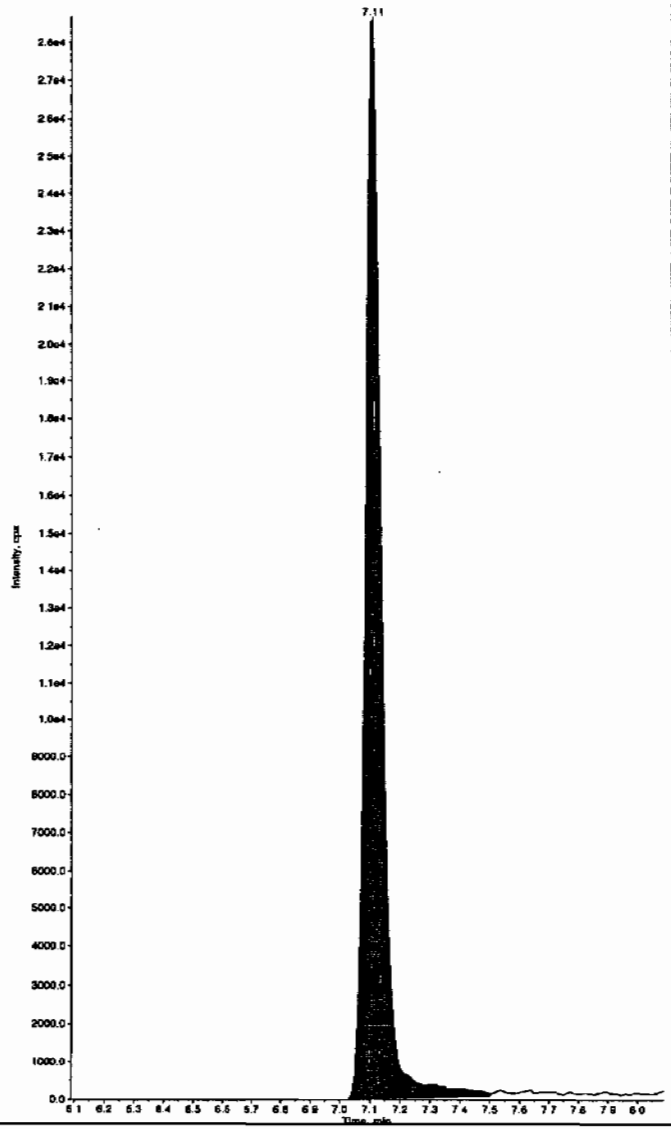

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	86.8 ng/mL
Acq. Date:	2/27/2010
Acq. Time:	4:15:10 AM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.30 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.34 min
Area:	6.78e+005 counts
Height:	248106.522 cps
Start Time:	8.27 min
End Time:	8.43 min

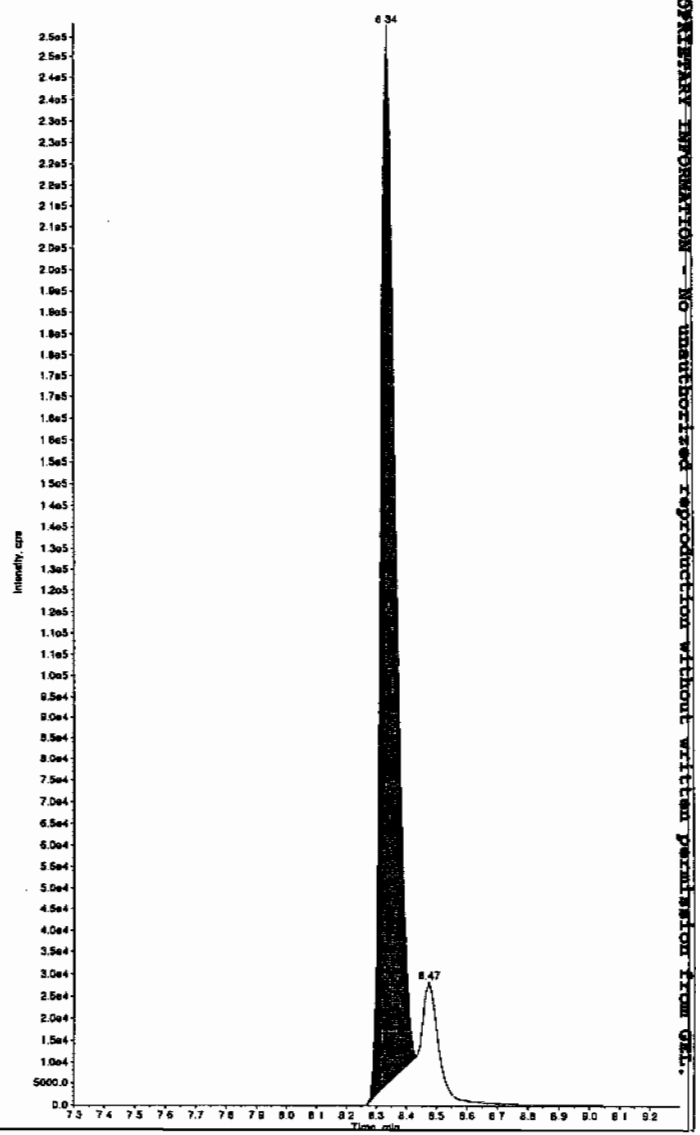

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after Scan 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

umple Index: 1
umple Type: QC
ncentration: 100. ng/mL
lculated Conc: 109. ng/mL
q. Date: 2/27/2010
q. Time: 4:15:10 AM

odified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.09 min
e Relative RT: No

t. Type: Valley
tention Time: 7.11 min
rea: 1.13e+005 counts
eight: 28701.506 cps
tart Time: 7.02 min
d Time: 7.50 min

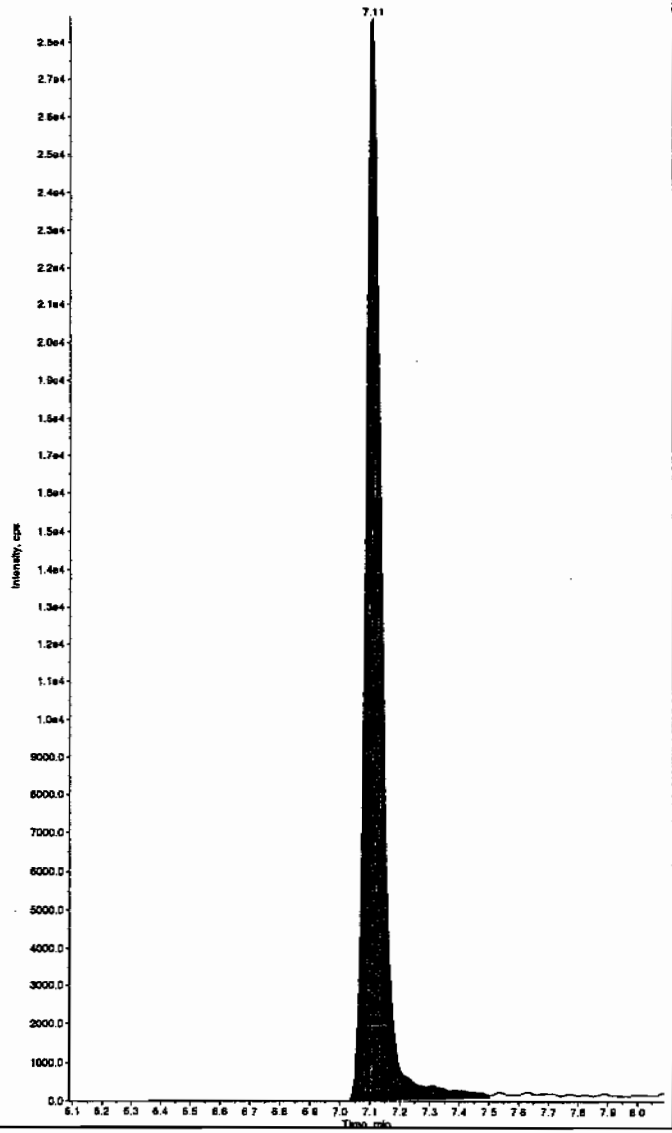

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.4 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 9.31e+005 counts
Height: 252788.637 cps
Start Time: 8.27 min
End Time: 8.43 min

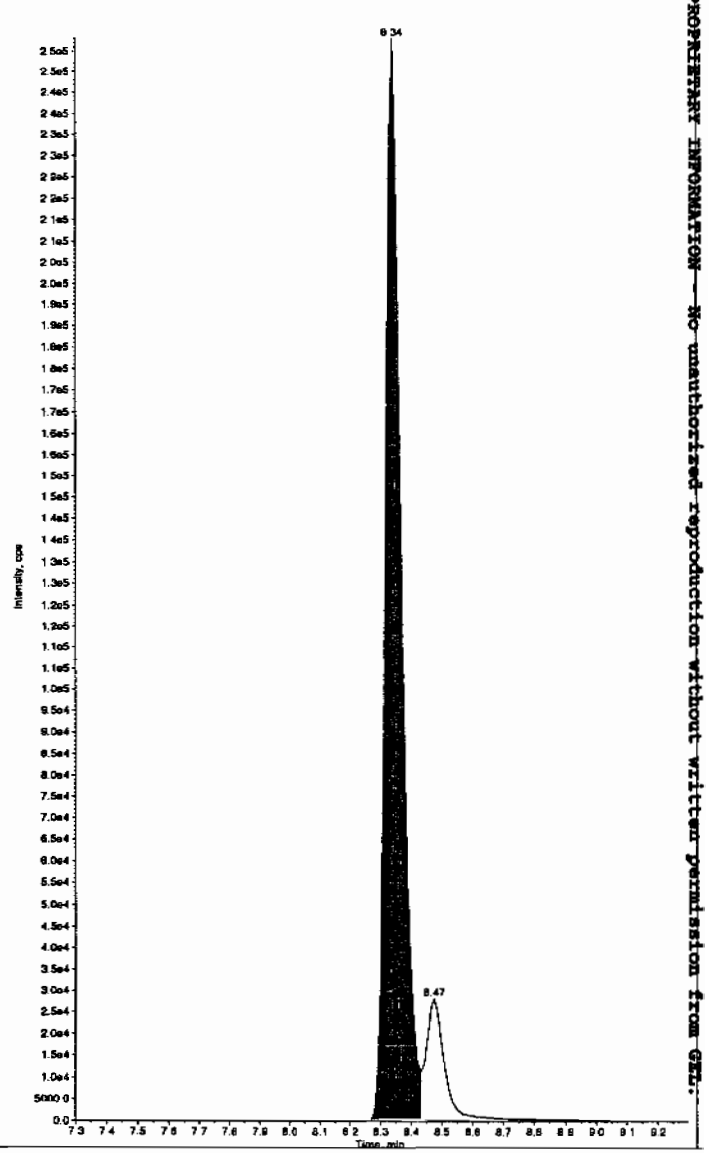

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Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ample Index:        1
ample Type:         QC
oncentration:       50.0     ng/mL
alculated Conc:     46.3     ng/mL
cq. Date:        2/27/2010
cq. Time:        4:15:10 AM

odified:            No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height:1460.00    cps
in. Peak Width:     0.00   sec
moothing Width:  3         points
T Window:          15.0    sec
xpected RT:         8.46   min
se Relative RT:     No

nt. Type:        Valley
etention Time:      8.47   min
rea:          6.70e+005   counts
eight:         187516.296  cps
tart Time:          8.40   min
nd Time:            8.79   min
```

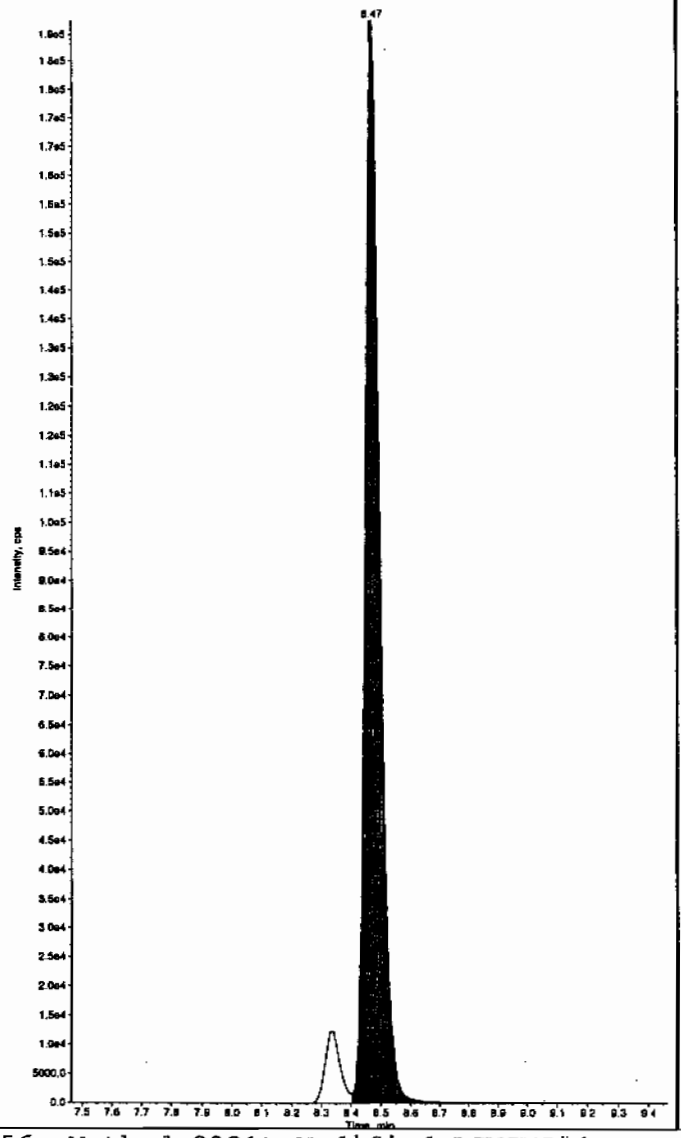

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     121.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        4:15:10 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        5.12    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.12    min
Area:         2.64e+005     counts
Height:       64638.481     cps
Start Time:         5.02    min
End Time:           5.42    min
```

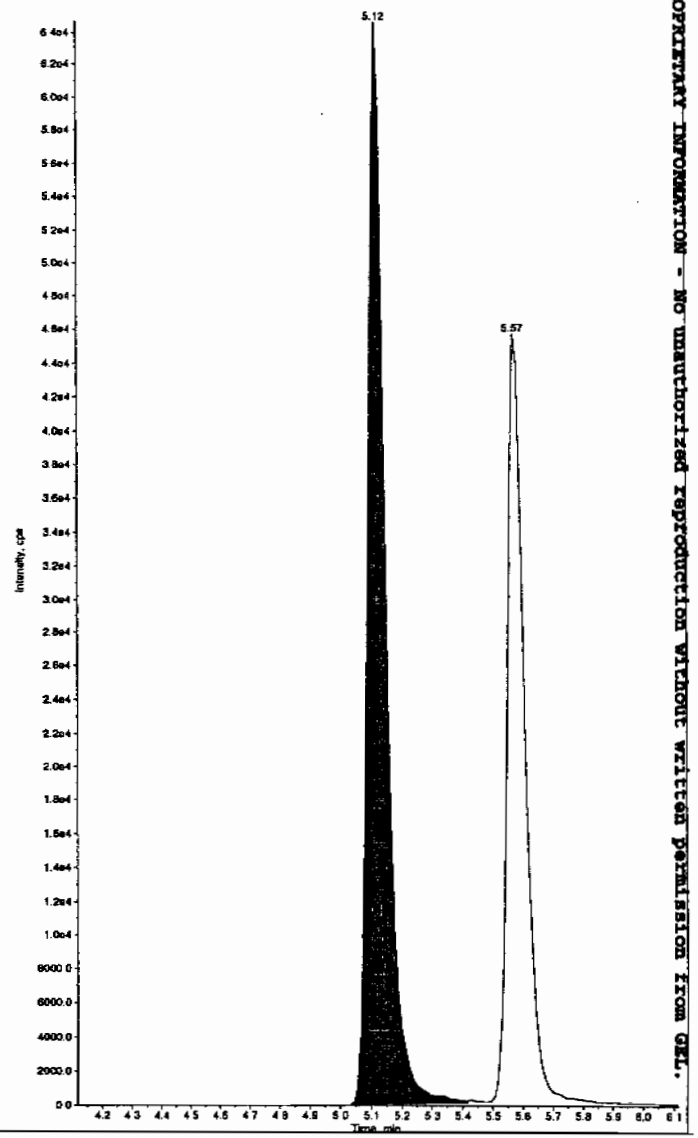

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

ample Index: 1
ample Type: QC
oncentration: 100. ng/mL
alculated Conc: 119. ng/mL
cq. Date: 2/27/2010
cq. Time: 4:15:10 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
Window: 30.0 sec
pected RT: 5.57 min
e Relative RT: No

t. Type: Valley
tention Time: 5.57 min
rea: 1.82e+005 counts
eight: 45589.886 cps
art Time: 5.48 min
d Time: 5.93 min

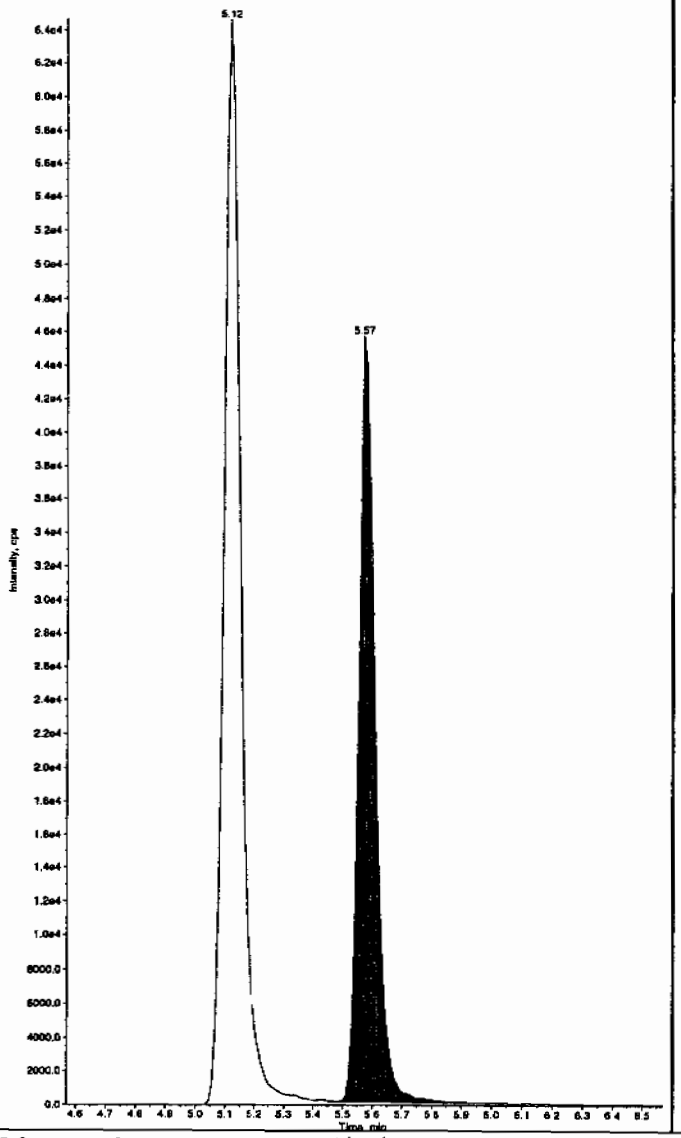

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:15:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.75e+006 counts
Height: 488648.682 cps
Start Time: 10.8 min
End Time: 11.2 min

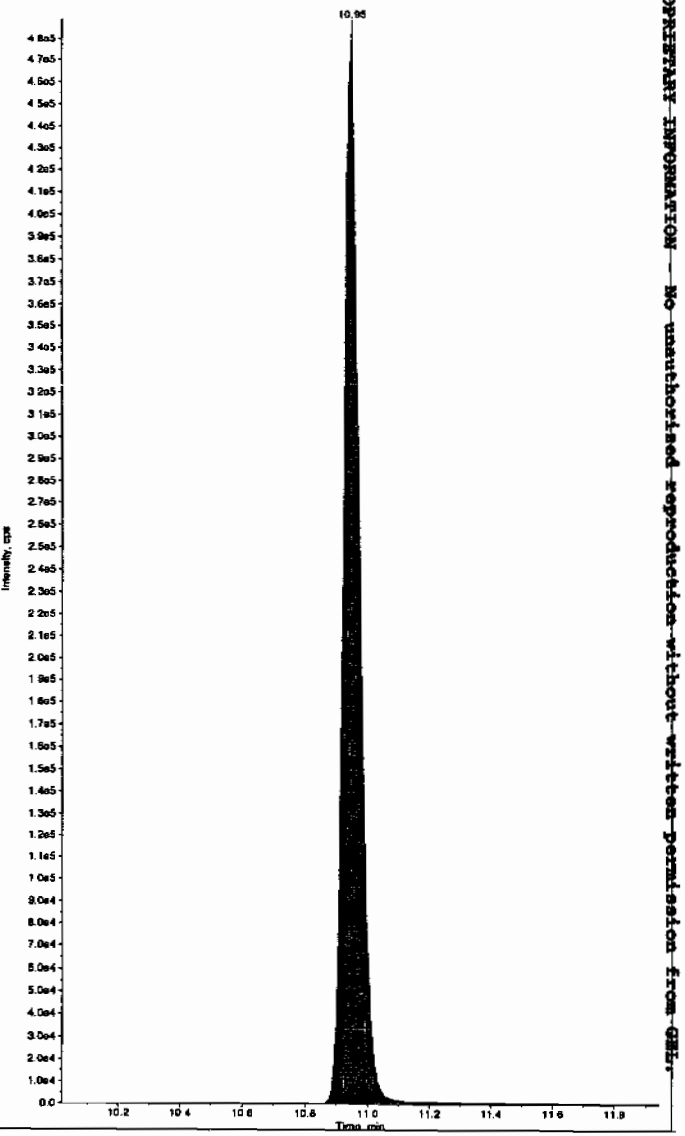

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260060.wiff

Analysis Date: 27-FEB-10 06:20

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	571	114	
2,6-Diamino-4-nitrotoluene	500	590	118	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	480	96	
TATB	500	542	108	
tris(o-cresyl) phosphate	500	485	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcn 3/1/10

Sample Name: "WXX100226-25CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 500. ng/mL
alculated Conc: 542. ng/mL
cq. Date: 2/27/2010
cq. Time: 6:20:48 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 7.09 min
se Relative RT: No

nt. Type: Valley
etention Time: 7.11 min
rea: 6.43e+005 counts
eight: 164211.945 cps
tart Time: 7.01 min
nd Time: 7.89 min

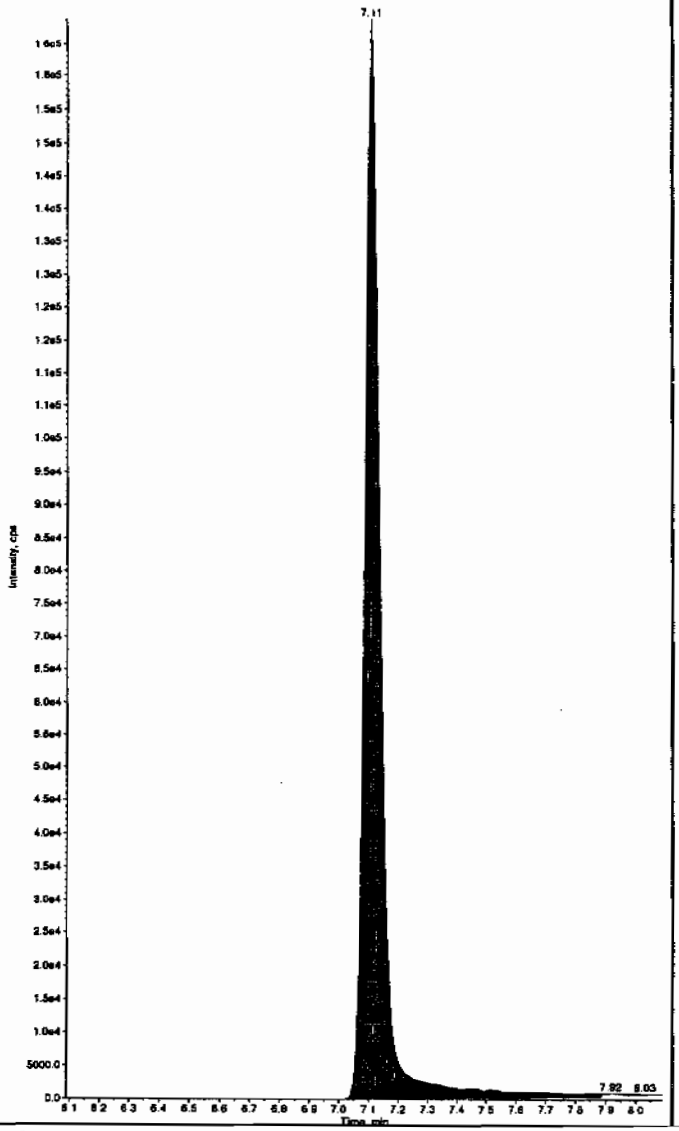

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 480. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.30 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 4.40e+006 counts
Height: 1138583.862 cps
Start Time: 8.25 min
End Time: 8.43 min

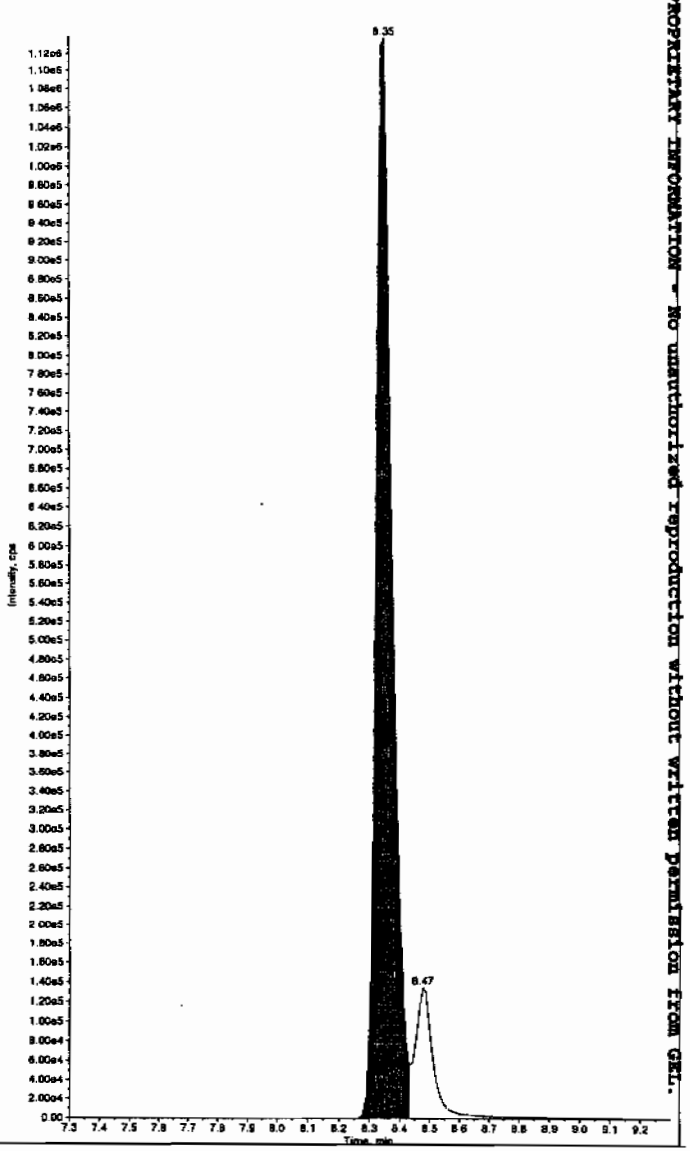

Hmm 03/01/10

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Sample Name: "WXX100226-25CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:          1
mple Type:           QC
ncentration:       250.     ng/mL
lculated Conc:     232.     ng/mL
q. Date:        2/27/2010
q. Time:        6:20:48 AM

odified:             No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height:1460.00   cps
in. Peak Width:     0.00   sec
moothing Width:  3        points
T Window:          15.0    sec
xpected RT:         8.46   min
se Relative RT:     No

nt. Type:         Valley
etention Time:      8.47   min
rea:          3.20e+006   counts
eight:         905951.782  cps
tart Time:          8.40   min
nd Time:            8.84   min
```

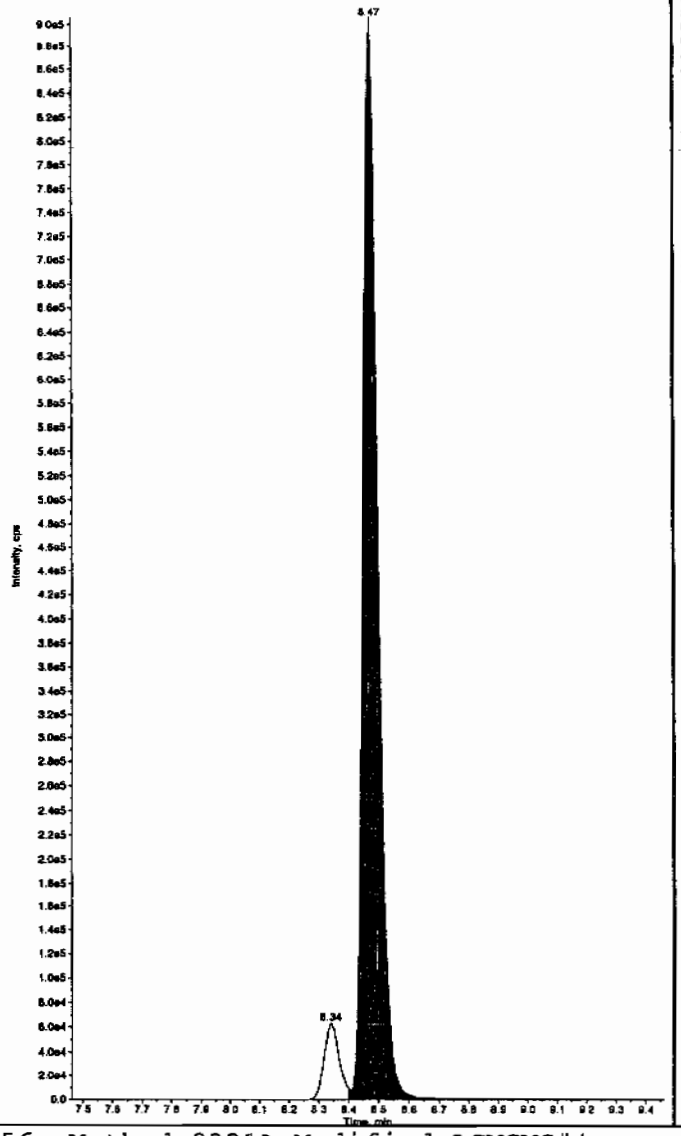

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260060.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     590.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        6:20:48 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:         5.12  min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      5.12  min
Area:          1.30e+006   counts
Height:        311600.555  cps
Start Time:          5.02  min
End Time:            5.42  min
```

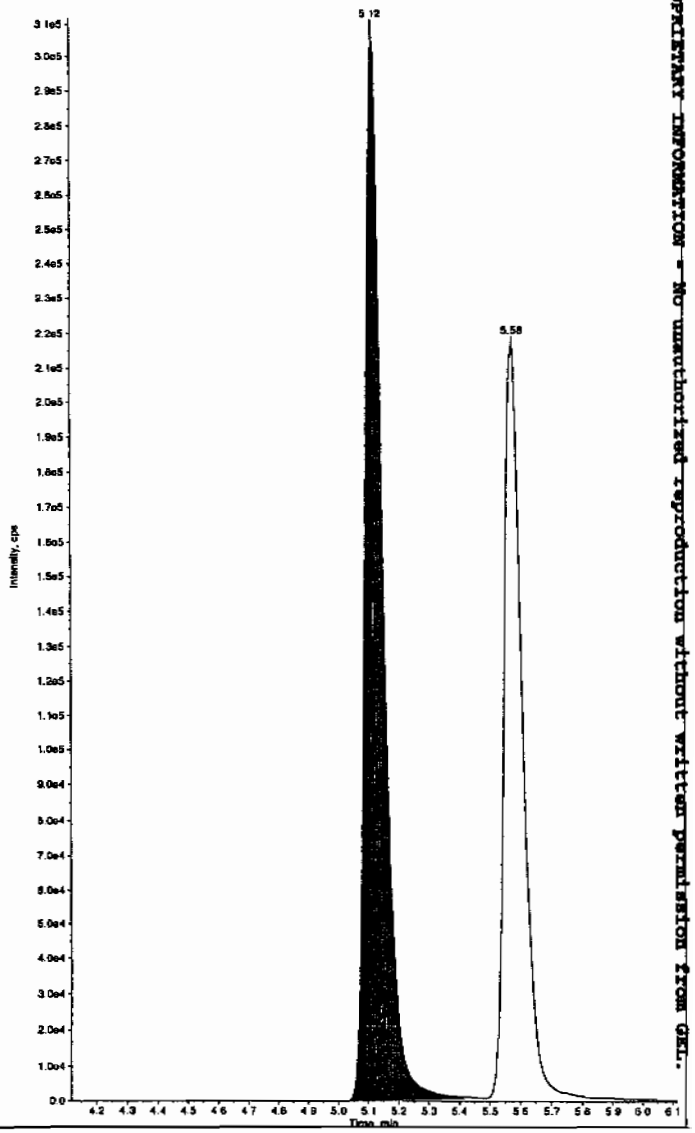

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Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260060.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
ncentration: 500. ng/mL
lculated Conc: 571. ng/mL
q. Date: 2/27/2010
q. Time: 6:20:48 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.57 min
e Relative RT: No

t. Type: Valley
tention Time: 5.58 min
rea: 9.14e+005 counts
ight: 219210.556 cps
art Time: 5.49 min
d Time: 6.07 min

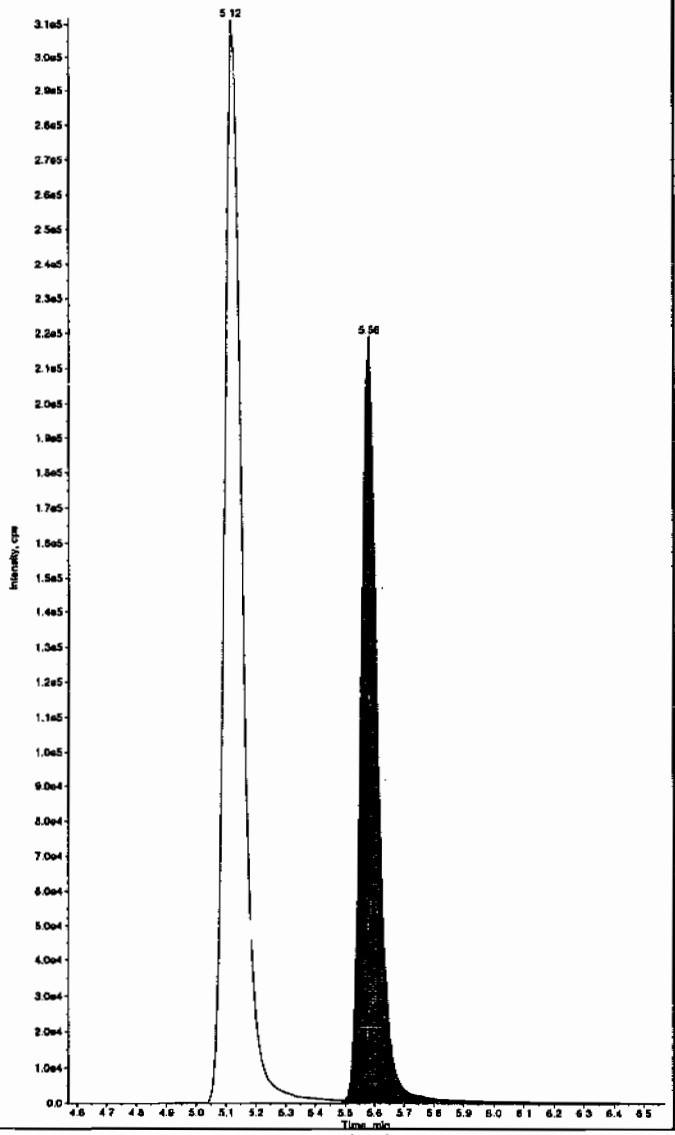

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260060.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:20:48 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 7.50e+006 counts
Height: 2068702.393 cps
Start Time: 10.9 min
End Time: 11.2 min

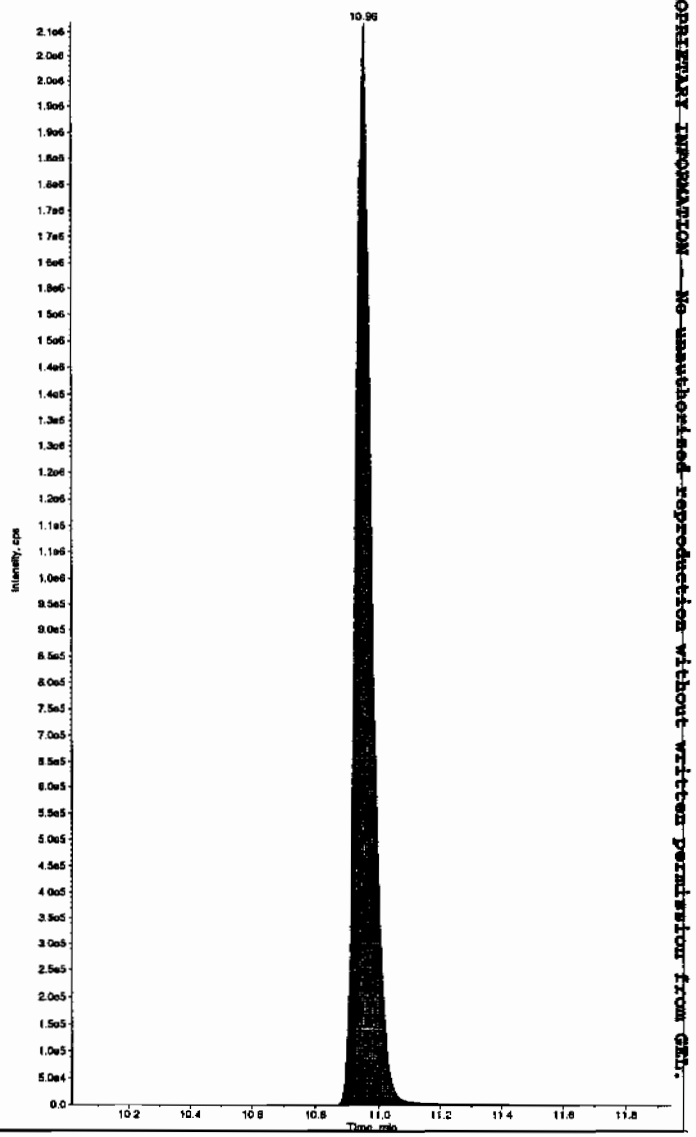

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02260062.wiff

Analysis Date: 27-FEB-10 06:52

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	45.9	92	
3,5-Dinitroaniline	100	93	93	
TATB	100	117	117	
tris(o-cresyl) phosphate	100	96.2	96	
2,4-Diamino-6-nitrotoluene	100	115	115	
2,6-Diamino-4-nitrotoluene	100	115	115	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rcn 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 100. ng/mL
alculated Conc: 117. ng/mL
cq. Date: 2/27/2010
cq. Time: 6:52:11 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 7.09 min
se Relative RT: No

nt. Type: Valley
etention Time: 7.10 min
rea: 1.23e+005 counts
eight: 31840.464 cps
tart Time: 6.99 min
nd Time: 7.77 min

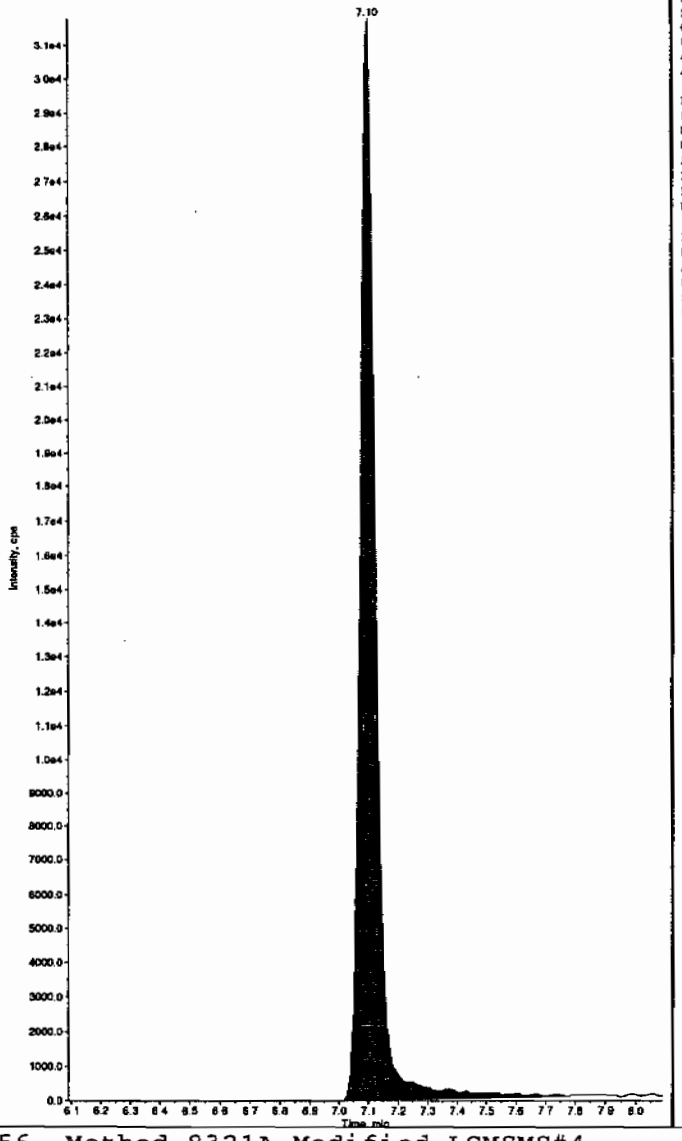

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "3S-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.0 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:52:11 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 9.37e+005 counts
Height: 260031.525 cps
Start Time: 8.23 min
End Time: 8.42 min

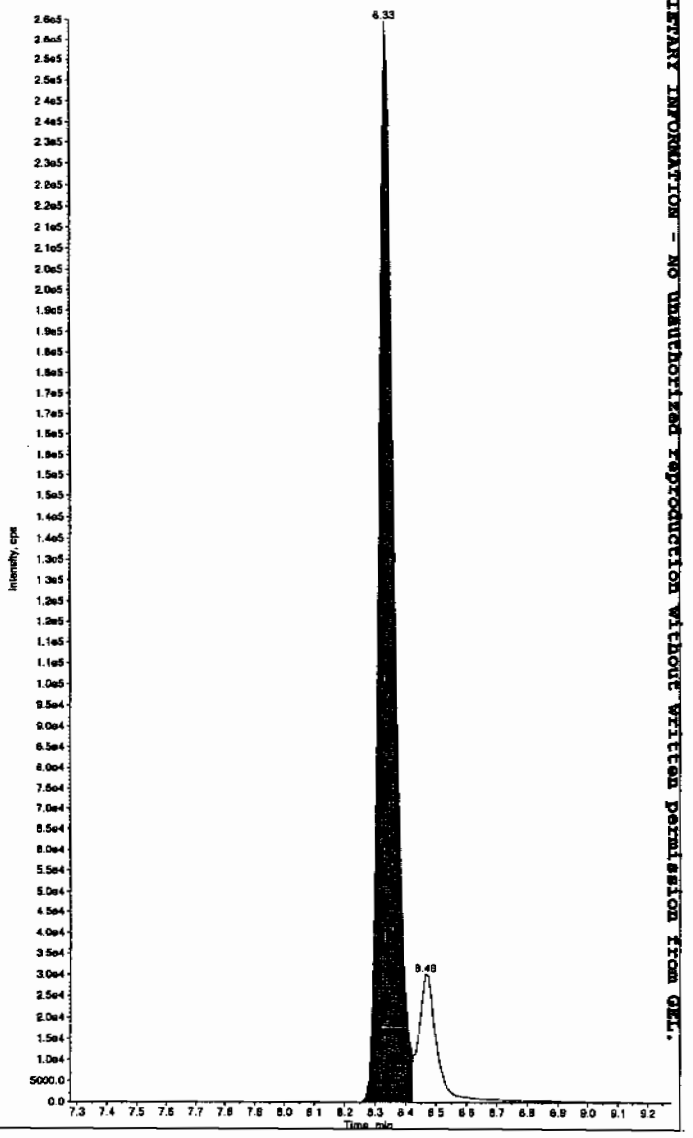

Hnm 03/01/10

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 50.0 ng/mL
alculated Conc: 45.9 ng/mL
cq. Date: 2/27/2010
cq. Time: 6:52:11 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.46 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.46 min
rea: 6.63e+005 counts
eight: 191753.464 cps
tart Time: 8.39 min
nd Time: 8.81 min

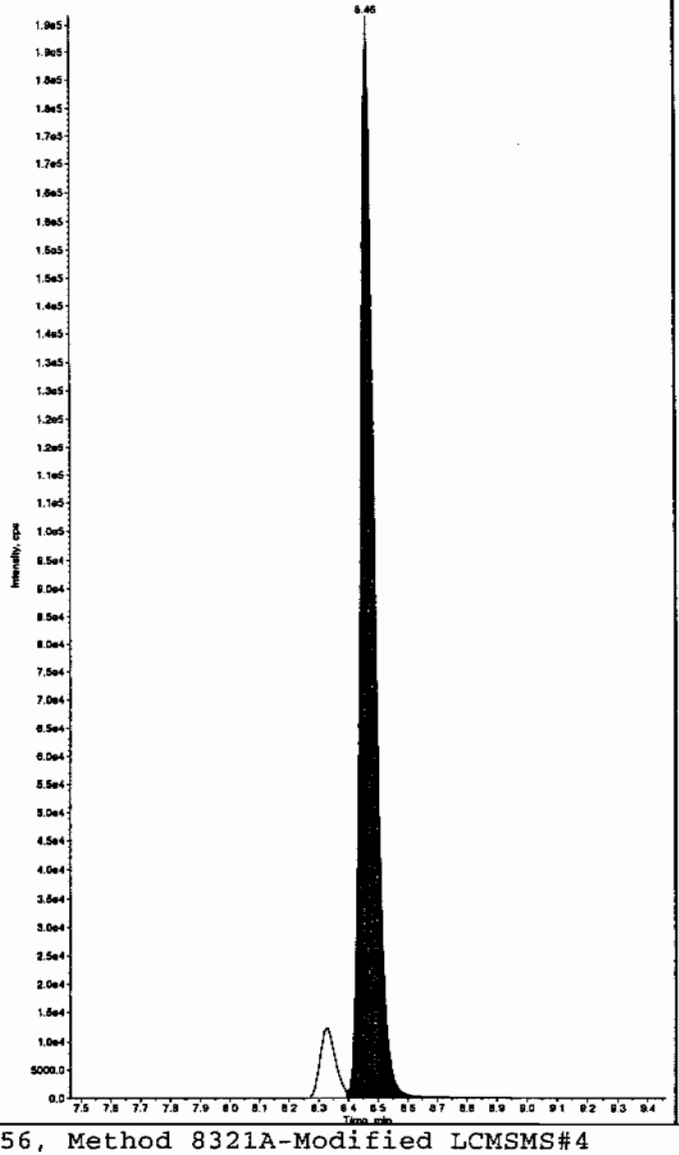

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 115. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 6:52:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.12 min
Area: 2.52e+005 counts
Height: 59789.192 cps
Start Time: 5.00 min
End Time: 5.36 min

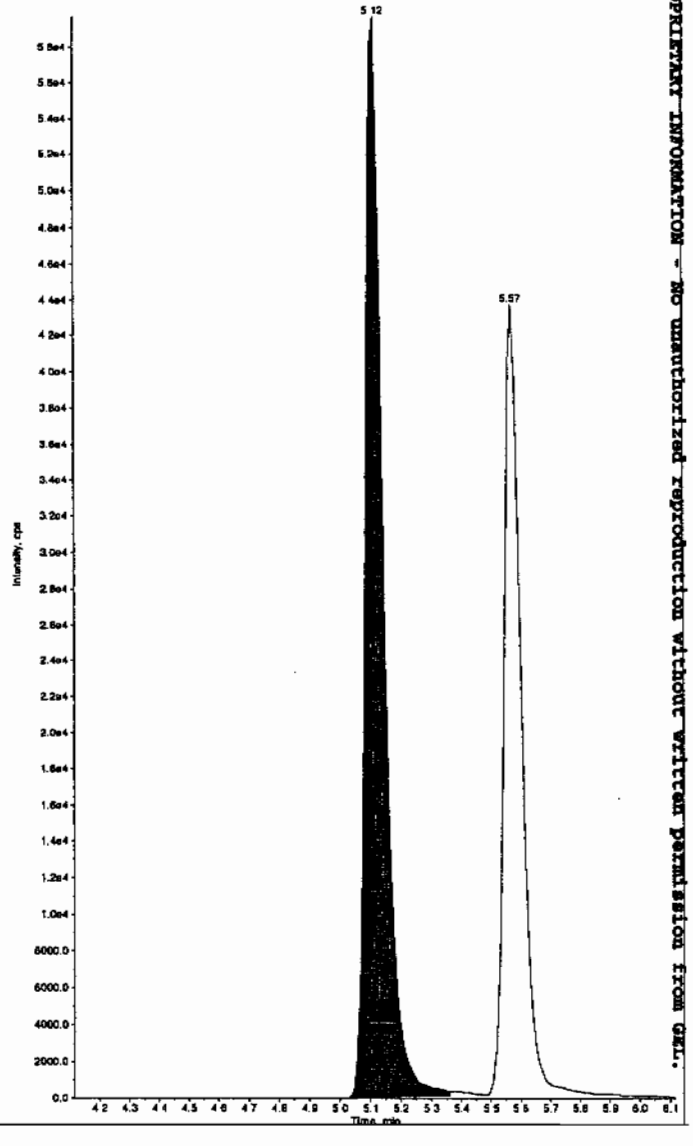

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
lculated Conc:	115.	ng/mL
q. Date:	2/27/2010	
q. Time:	6:52:11 AM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	350.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.57	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	5.57	min
ea:	1.76e+005	counts
ight:	43545.845	cps
art Time:	5.49	min
d Time:	5.95	min

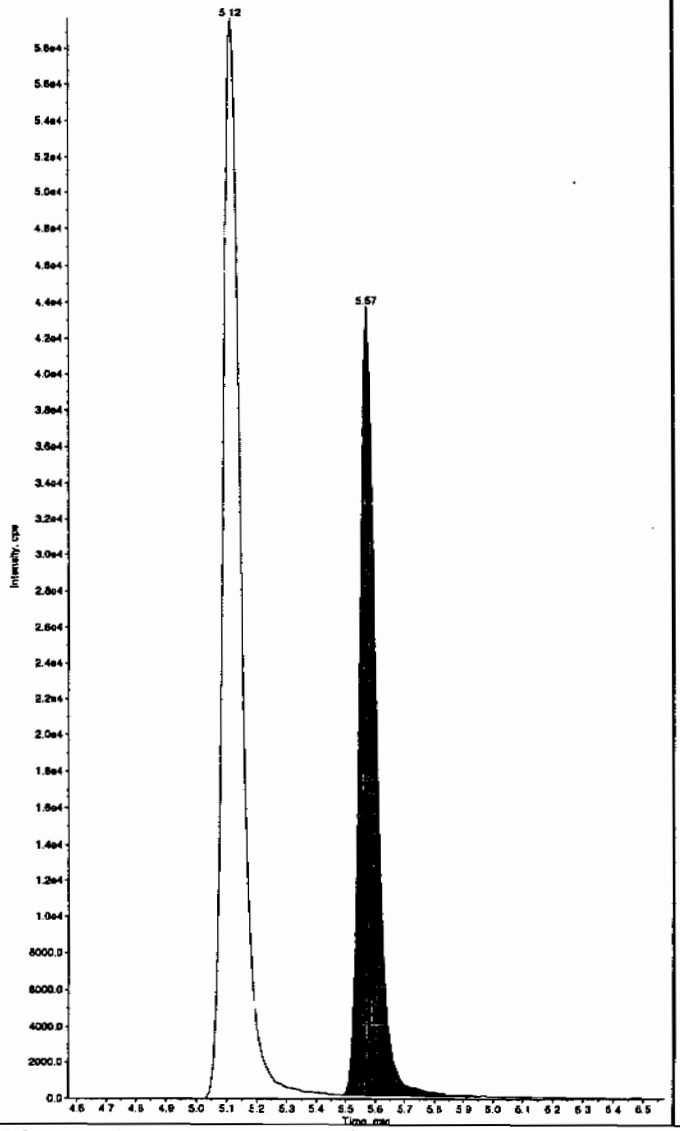

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260062.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	96.2	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	6:52:11 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	11.0	min
Area:	1.66e+006	counts
Height:	430343.140	cps
Start Time:	10.8	min
End Time:	11.2	min

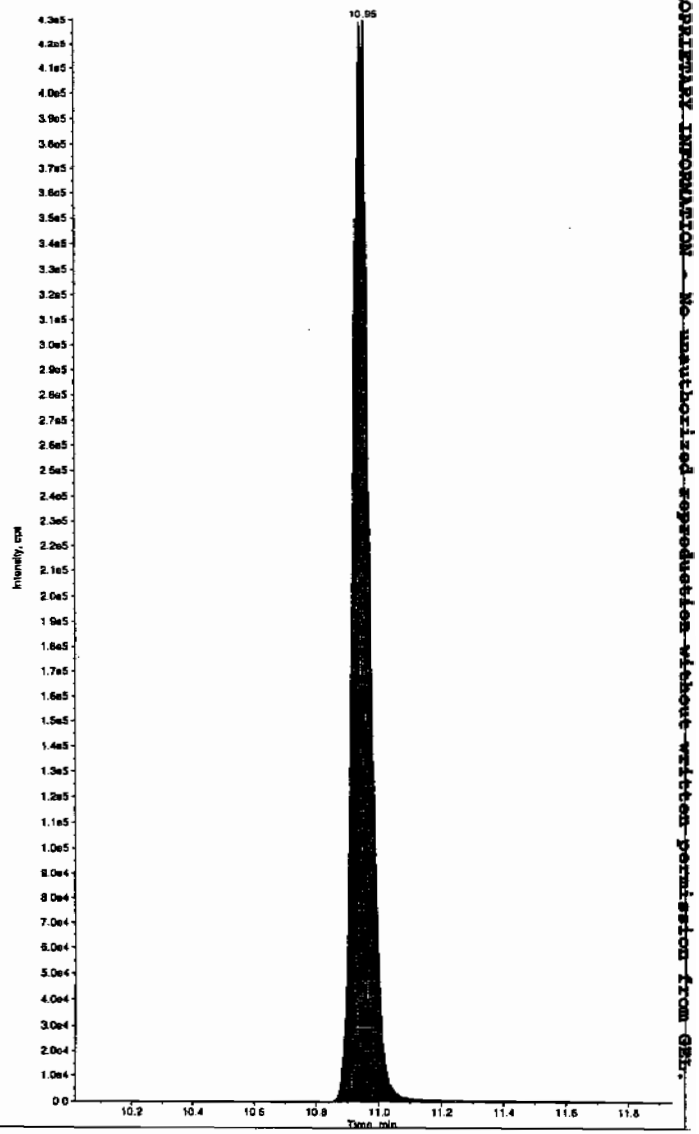

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260073.wiff

Analysis Date: 27–FEB–10 09:44

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	546	109	
2,6–Diamino–4–nitrotoluene	500	540	108	
3,4–Dinitrotoluene	250	227	91	
3,5–Dinitroaniline	500	497	99	
TATB	500	538	108	
tris(o–cresyl) phosphate	500	493	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260073.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: "

mple Index:	1
mple Type:	QC
ncentration:	500. ng/mL
lculated Conc:	538. ng/mL
cq. Date:	2/27/2010
cq. Time:	9:44:55 AM
odified:	No
roc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
moothing Width:	3 points
T Window:	30.0 sec
pected RT:	7.09 min
se Relative RT:	No
nt. Type:	Valley
etention Time:	7.07 min
rea:	6.38e+005 counts
eight:	164663.864 cps
tart Time:	6.98 min
nd Time:	7.66 min

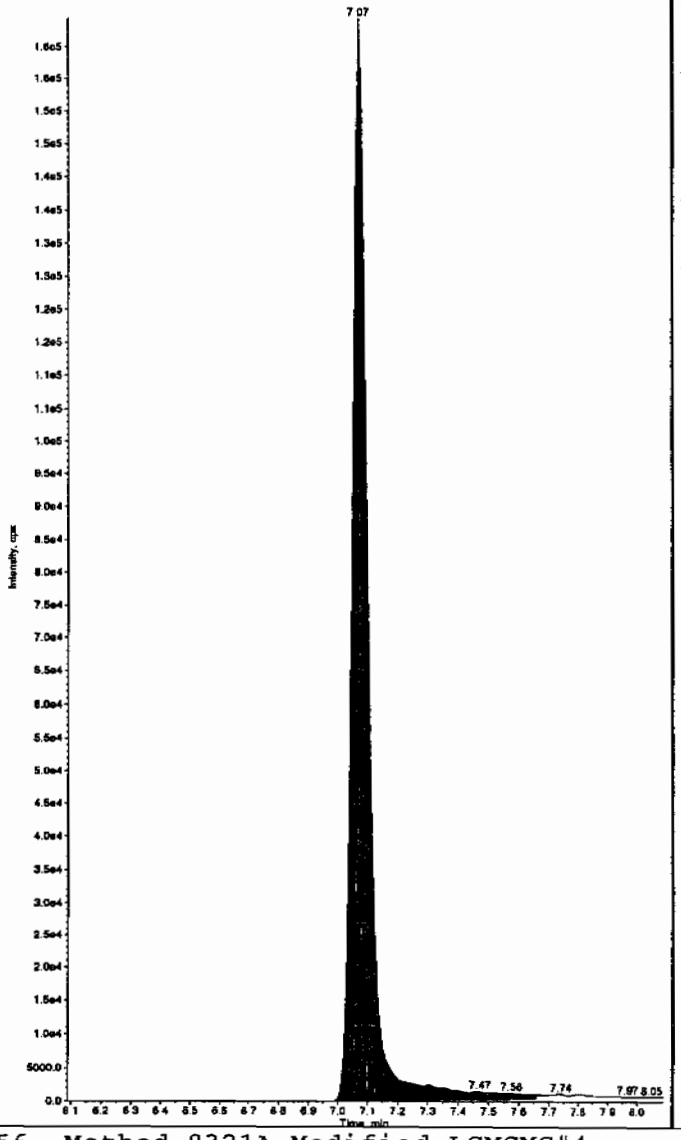

Sample Name: "WXX100226-25CCV" Sample ID: "[1]LER" File: "EXS02260073.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	497. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	9:44:55 AM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.27 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.31 min
Area:	4.54e+006 counts
Height:	1194238.525 cps
Start Time:	8.21 min
End Time:	8.40 min

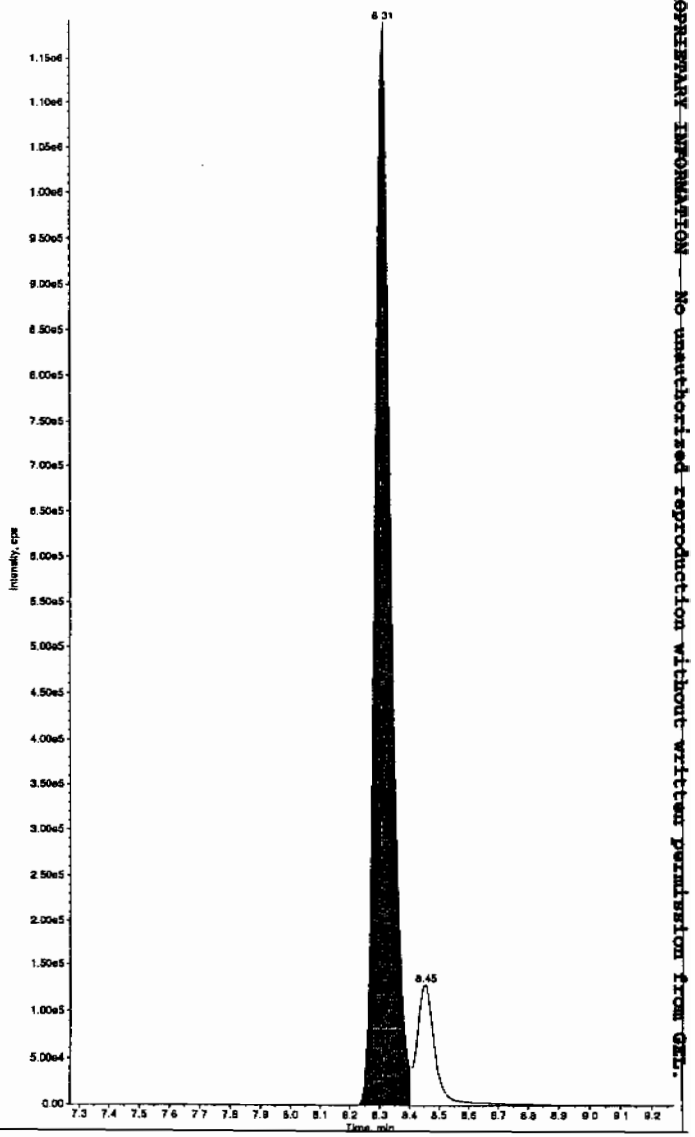

tmm 03/01/10

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Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260073.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1
mple Type:	QC
ncentration:	250. ng/mL
lculated Conc:	227. ng/mL
q. Date:	2/27/2010
q. Time:	9:44:55 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.46 min
e Relative RT:	No
t. Type:	Valley
tention Time:	8.44 min
ea:	3.14e+006 counts
ight:	906183.472 cps
art Time:	8.38 min
d Time:	8.77 min

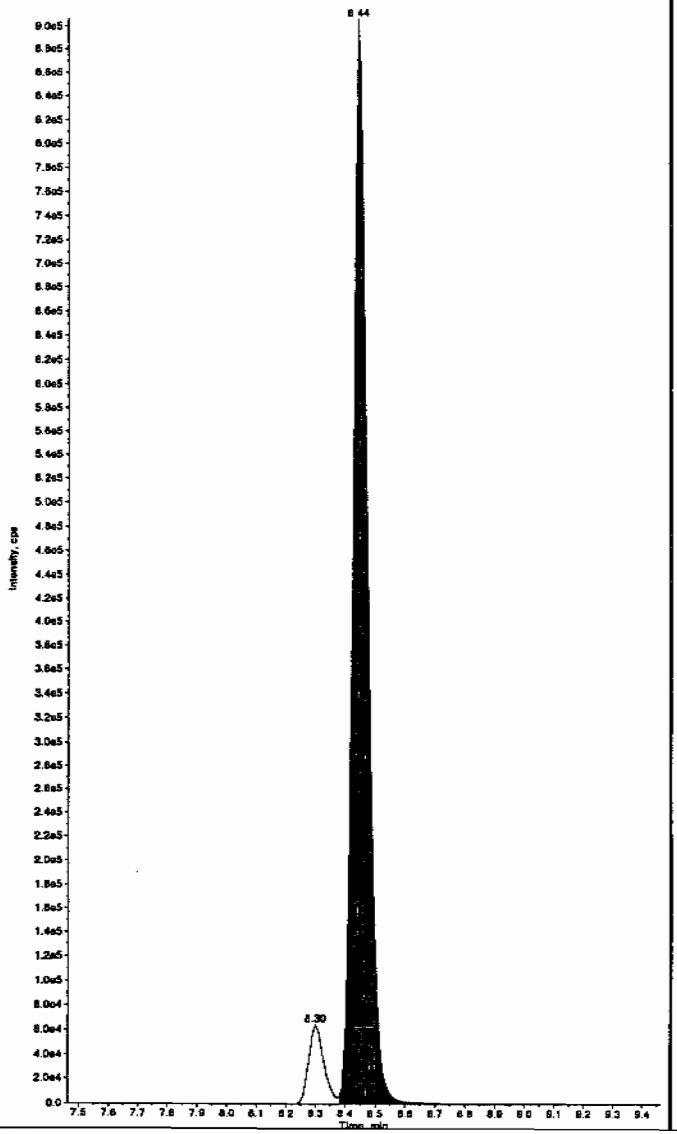

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260073.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	540. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	9:44:55 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.12 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.09 min
Area:	1.19e+006 counts
Height:	279406.769 cps
Start Time:	4.99 min
End Time:	5.39 min

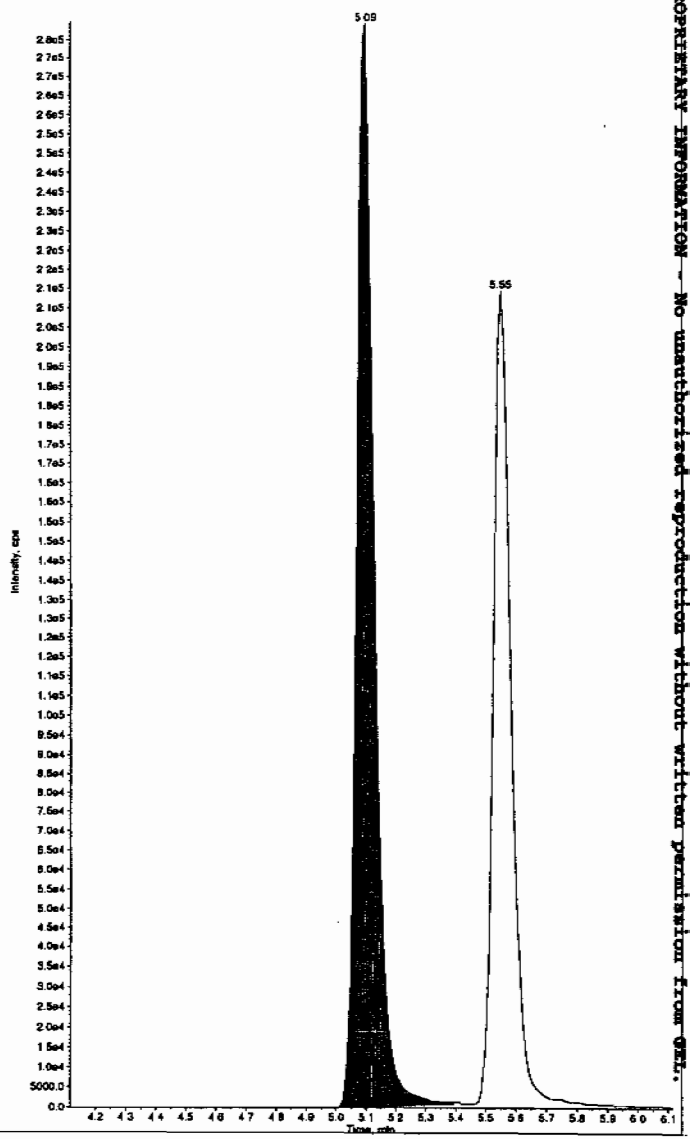

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Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260073.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ample Index:        1
ample Type:        QC
oncentration:      500.    ng/mL
alculated Conc:    546.    ng/mL
cq. Date:       2/27/2010
cq. Time:       9:44:55 AM

odified:           No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00   cps
in. Peak Width:    0.00   sec
moothing Width:  3        points
T Window:         30.0    sec
xpected RT:        5.57   min
se Relative RT:    No

nt. Type:        Valley
etention Time:     5.55   min
rea:         8.73e+005   counts
eight:        209572.876  cps
tart Time:         5.45   min
nd Time:           6.03   min
```

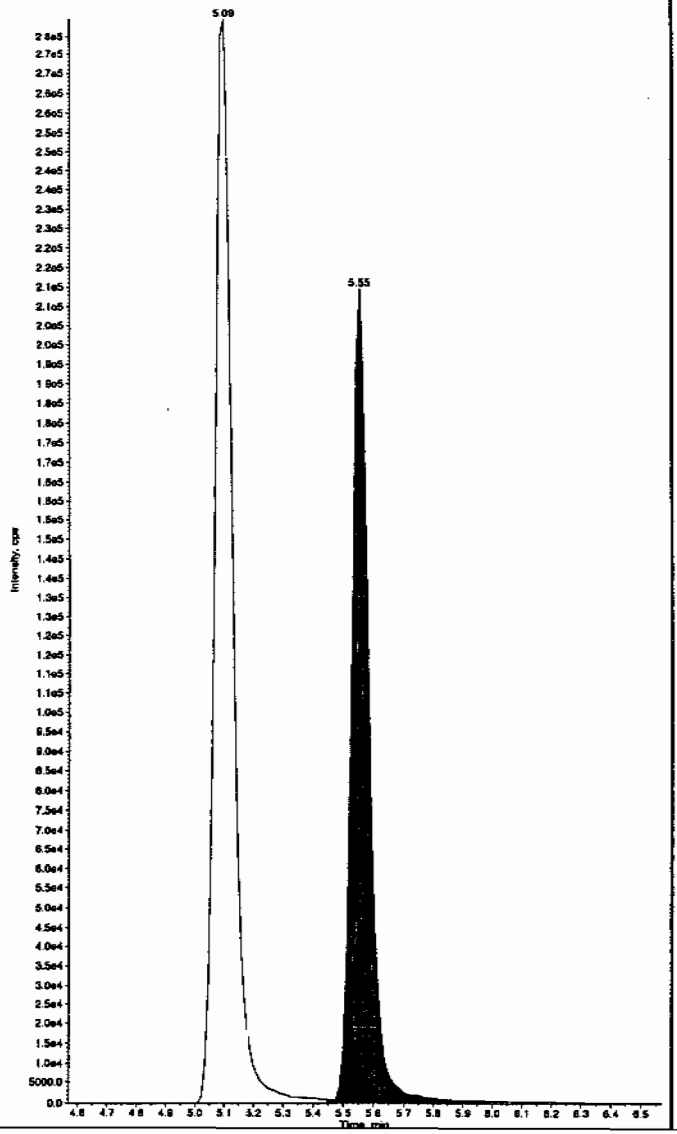

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260073.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.    ng/mL
Calculated Conc:    493.    ng/mL
Acq. Date:       2/27/2010
Acq. Time:       9:44:55 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.9    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:    10.9    min
Area:         7.62e+006   counts
Height:       2076728.516  cps
Start Time:        10.8    min
End Time:          11.3    min
```

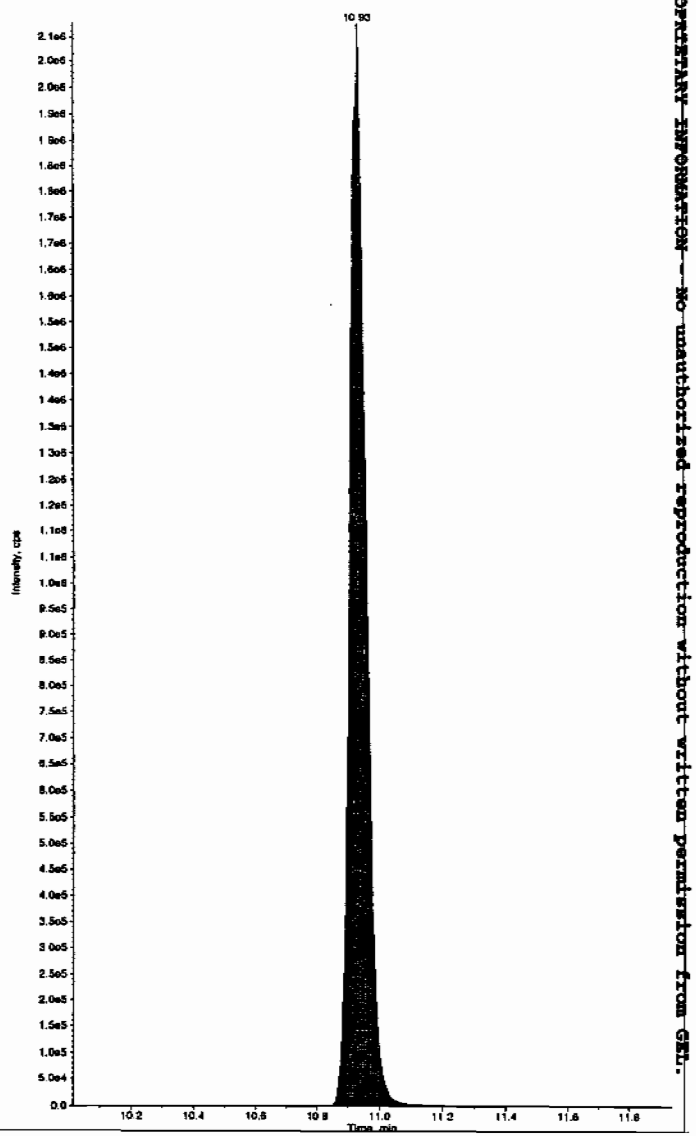

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260075.wiff

Analysis Date: 27–FEB–10 10:16

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	115	115	
2,6–Diamino–4–nitrotoluene	100	117	117	
3,4–Dinitrotoluene	50	46.1	92	
3,5–Dinitroaniline	100	96.7	97	
TATB	100	109	109	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

fcm 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "j1|LER" File: "EXS02260075.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1
mple Type:	QC
ncentration:	100. ng/mL
lculated Conc:	109. ng/mL
q. Date:	2/27/2010
q. Time:	10:16:22 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.09 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.06 min
ea:	1.13e+005 counts
ight:	28663.118 cps
art Time:	6.94 min
d Time:	7.55 min

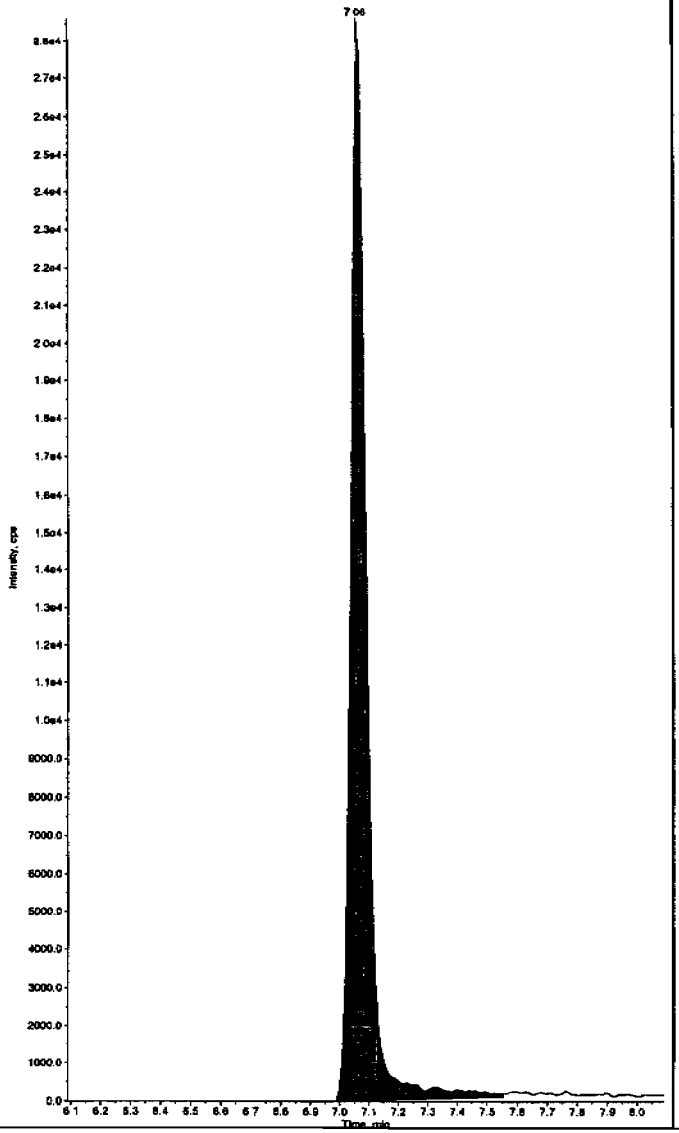

Sample Name: "WXX100226-27CRI" Sample ID: "j1|LER" File: "EXS02260075.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	96.7 ng/mL
Acq. Date:	2/27/2010
Acq. Time:	10:16:22 AM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.24 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.29 min
Area:	9.72e+005 counts
Height:	256883.392 cps
Start Time:	8.20 min
End Time:	8.39 min

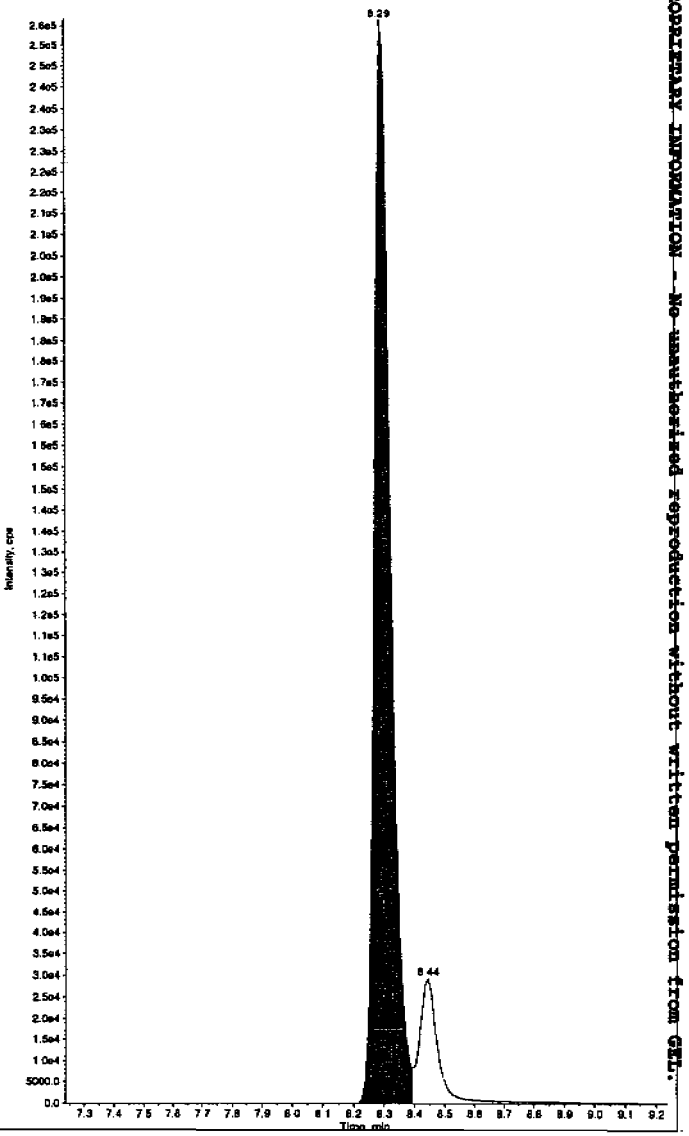

Hmm 03/01/10

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Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260075.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 50.0 ng/mL
lculated Conc: 46.1 ng/mL
q. Date: 2/27/2010
q. Time: 10:16:22 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.46 min
e Relative RT: No

t. Type: Valley
tention Time: 8.43 min
ea: 6.67e+005 counts
ight: 193711.090 cps
art Time: 8.37 min
d Time: 8.72 min

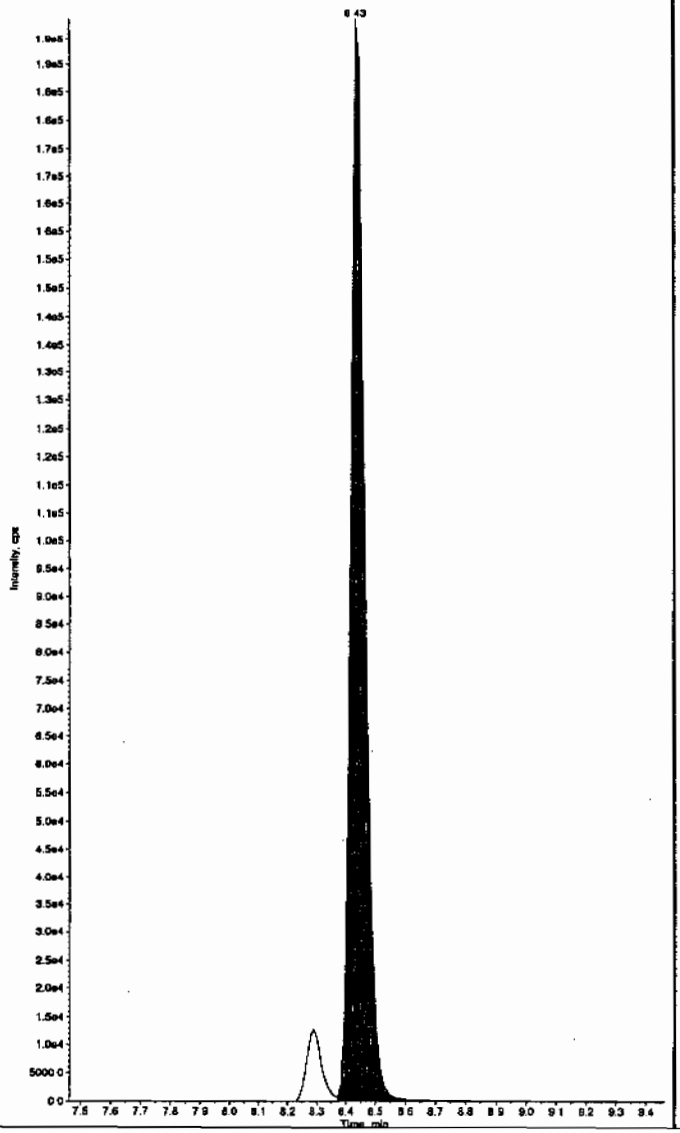

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260075.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 117. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:16:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 2.57e+005 counts
Height: 60480.255 cps
Start Time: 4.95 min
End Time: 5.35 min

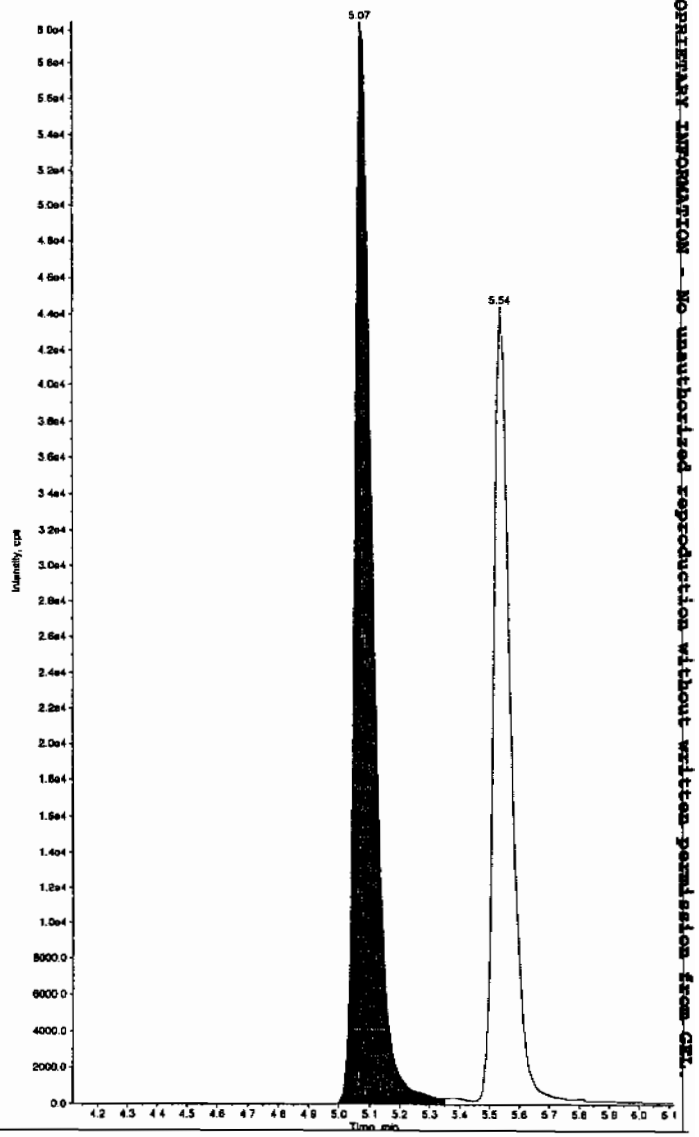

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260075.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 100. ng/mL
alculated Conc: 115. ng/mL
cq. Date: 2/27/2010
cq. Time: 10:16:22 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.57 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.54 min
rea: 1.76e+005 counts
eight: 44263.847 cps
tart Time: 5.45 min
nd Time: 5.85 min

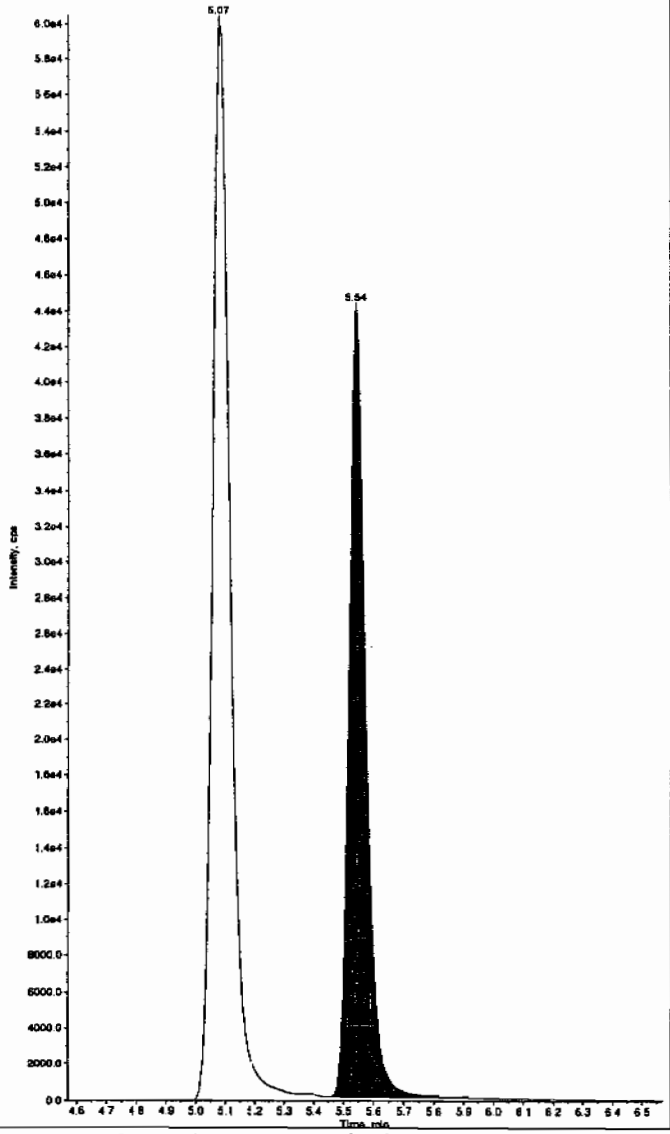

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260075.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:16:22 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 6000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.77e+006 counts
Height: 503175.293 cps
Start Time: 10.8 min
End Time: 11.2 min

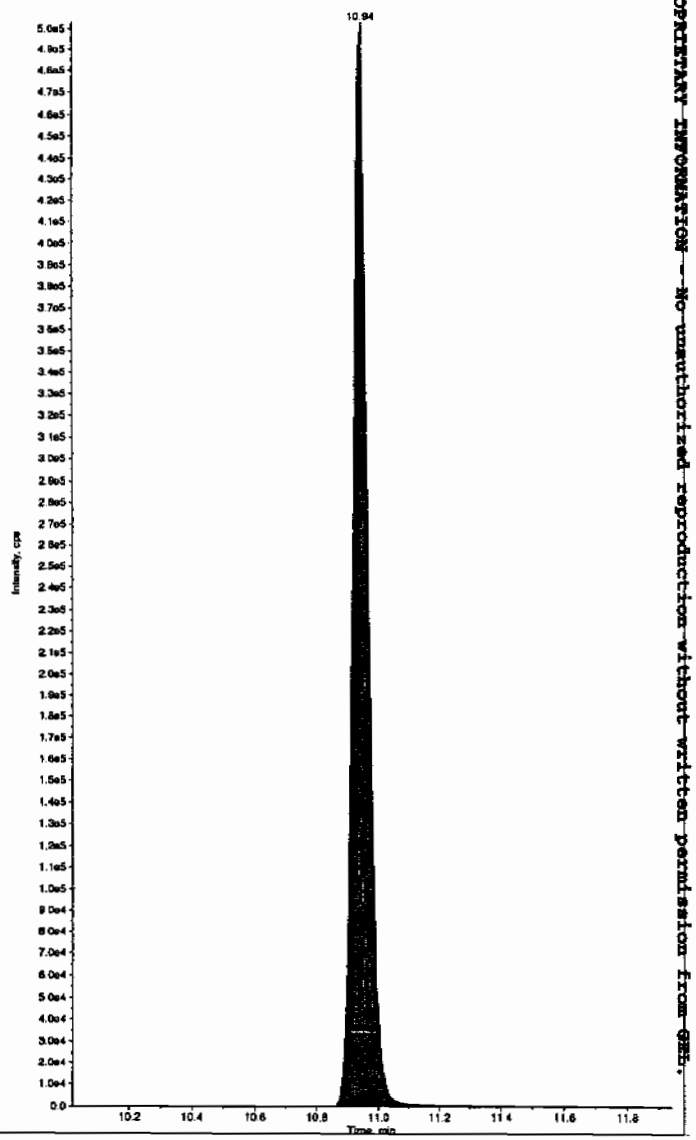

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7A

Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260086.wiff

Analysis Date: 27-FEB-10 13:09

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	445	89	
2,6-Diamino-4-nitrotoluene	500	442	89	
3,4-Dinitrotoluene	250	218	87	
3,5-Dinitroaniline	500	452	90	
TATB	500	487	97	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:        1
mple Type:        QC
ncentration:      500.     ng/mL
lculated Conc:    487.     ng/mL
q. Date:       2/27/2010
q. Time:       1:09:06 PM

dified:           No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:2500.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3        points
 Window:         30.0    sec
pected RT:        7.09   min
e Relative RT:    No

t. Type:        Valley
tention Time:     7.07   min
ea:          5.75e+005   counts
ight:         142410.309  cps
art Time:         6.97   min
d Time:           8.05   min
```

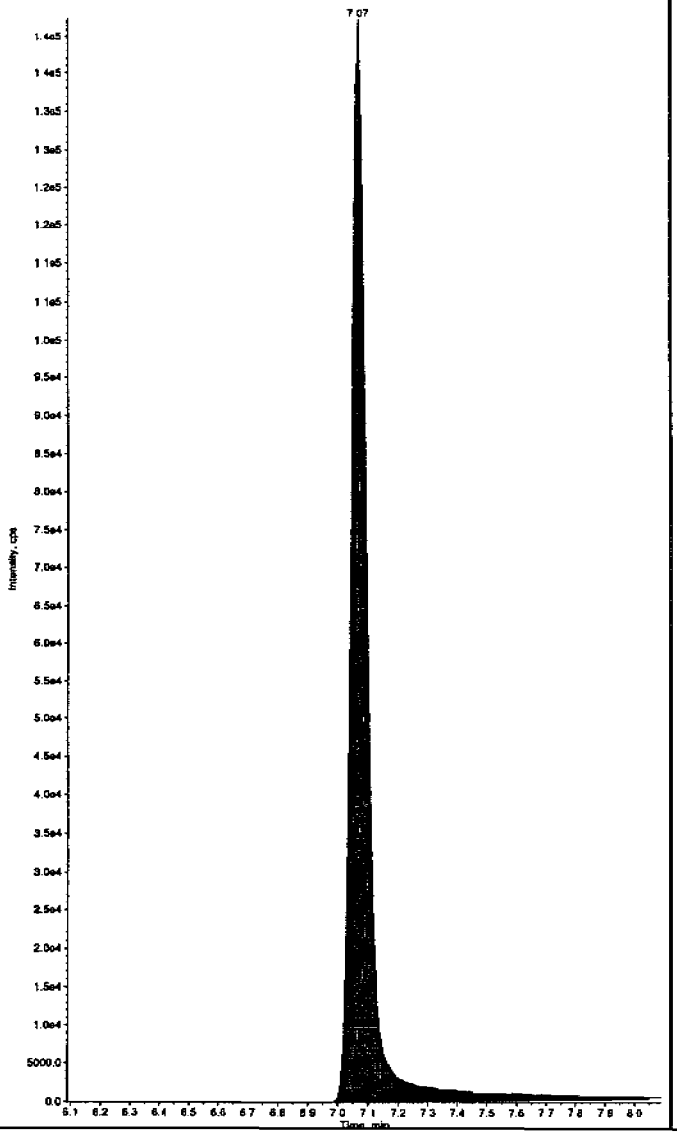

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    432.     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       1:09:06 PM

Modified:           Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         15.0    sec
Expected RT:        8.26   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.30   min
Area:          3.99e+006   counts
Height:        1101794.312  cps
Start Time:         8.24   min
End Time:           8.40   min
```

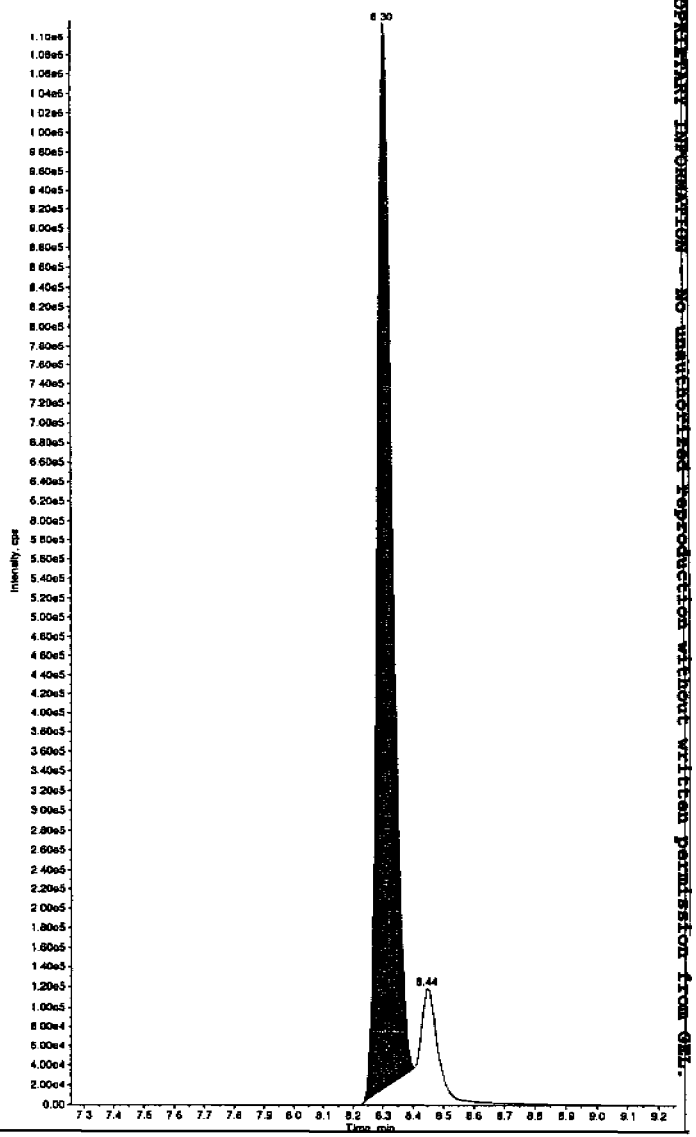

Hmm 03/01/10

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after Scan 3/2/10

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260086.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1
mple Type:	QC
ncentration:	500. ng/mL
lculated Conc:	487. ng/mL
q. Date:	2/27/2010
q. Time:	1:09:06 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.09 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.07 min
ea:	5.75e+005 counts
ight:	142410.309 cps
art Time:	6.97 min
d Time:	8.05 min

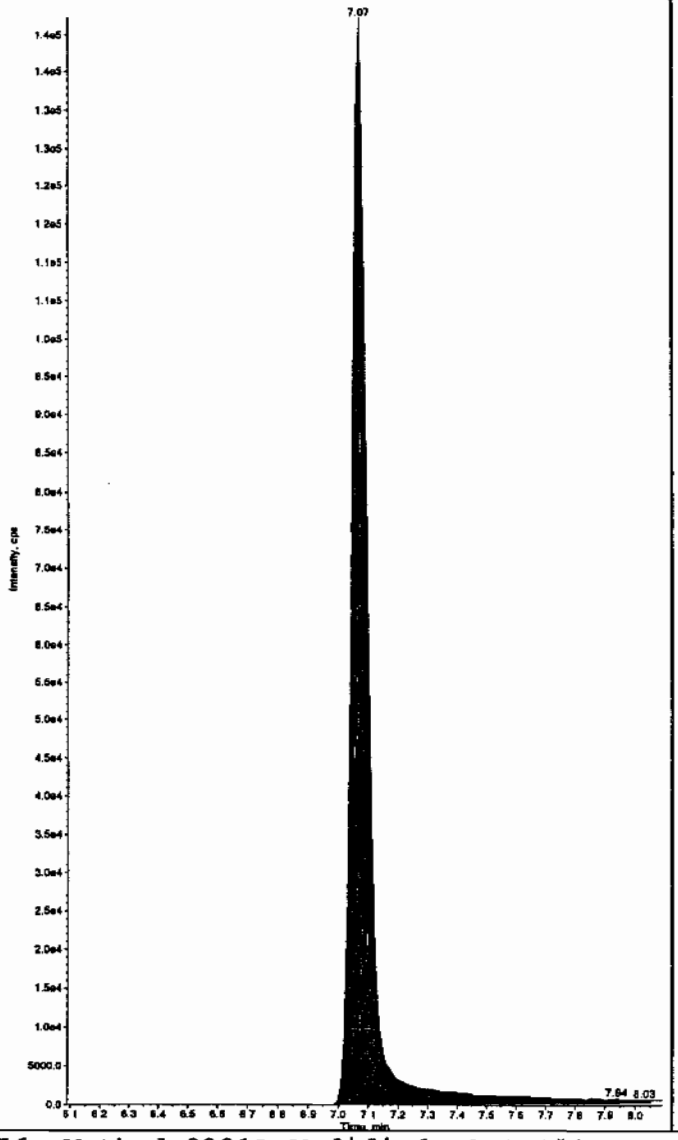

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260086.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	452. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	1:09:06 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.26 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.30 min
Area:	4.17e+006 counts
Height:	1135373.042 cps
Start Time:	8.24 min
End Time:	8.40 min

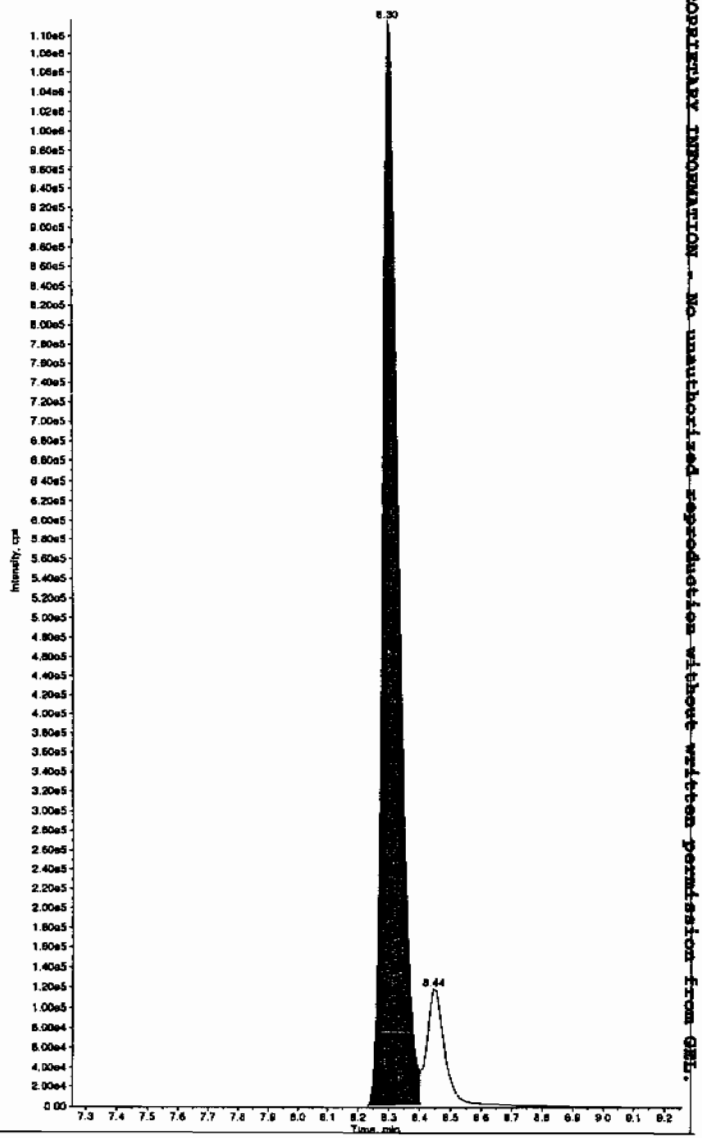

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Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:          1
mple Type:          QC
ncentration:       250.     ng/mL
lculated Conc:     218.     ng/mL
q. Date:        2/27/2010
q. Time:        1:09:06 PM

dified:             No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:1460.00    cps
n. Peak Width:     0.00    sec
oothing Width:  3        points
 Window:          15.0     sec
pected RT:         8.46    min
e Relative RT:     No

t. Type:         Valley
tention Time:      8.44    min
ea:          3.03e+006   counts
ight:         851000.977   cps
art Time:          8.37    min
d Time:            8.78    min
```

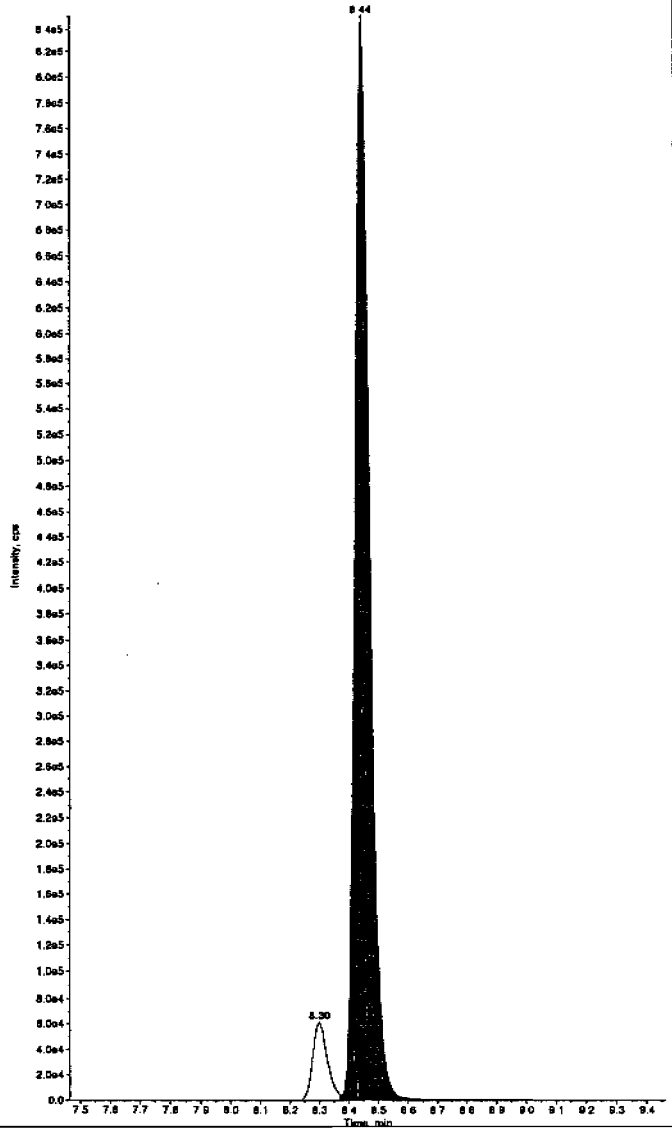

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     443.     ng/mL
Acq. Date:        2/27/2010
Acq. Time:        1:09:06 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        5.12     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.08     min
Area:        9.75e+005   counts
Height:       233281.586   cps
Start Time:         4.99     min
End Time:           5.39     min
```

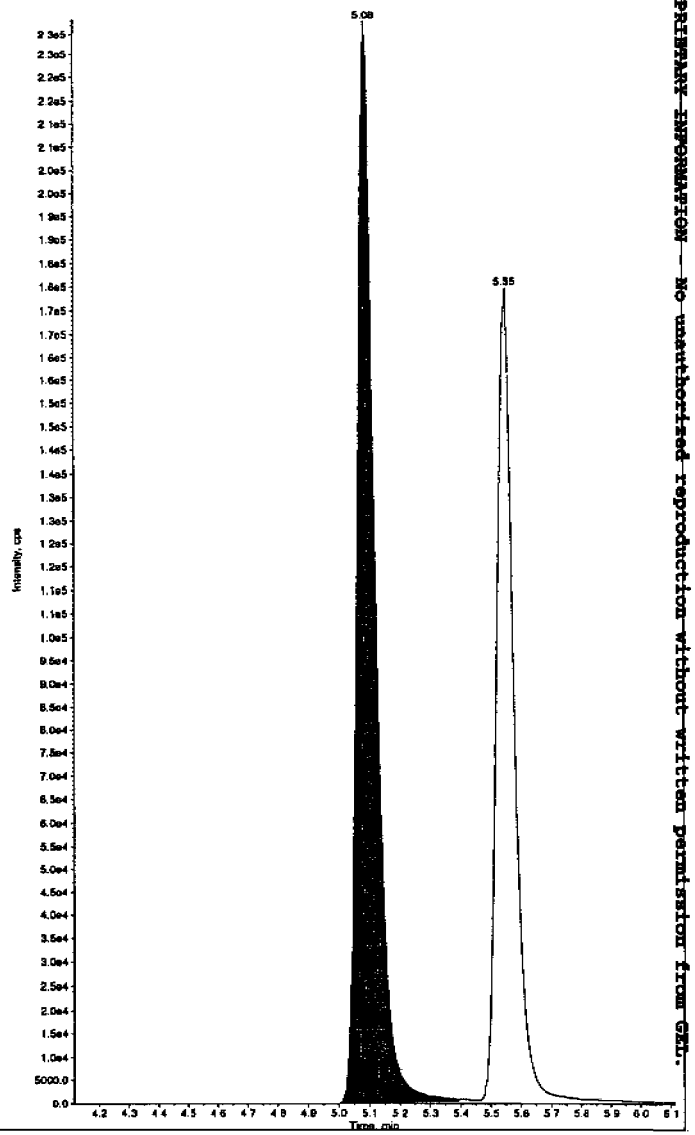

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Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "2,4-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	445.	ng/mL
q. Date:	2/27/2010	
q. Time:	1:09:06 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	350.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.57	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	5.55	min
ea:	7.10e+005	counts
ight:	174844.727	cps
art Time:	5.46	min
d Time:	6.01	min

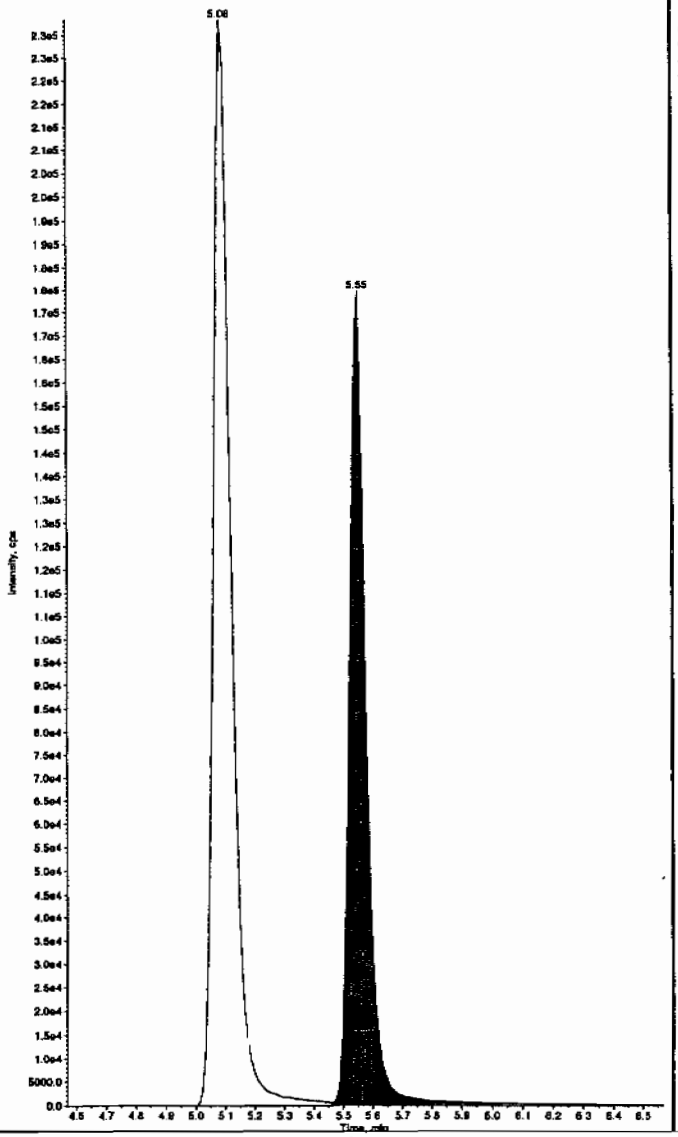

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260086.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	491.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	1:09:06 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	7.59e+006	counts
Height:	2110954.346	cps
Start Time:	10.8	min
End Time:	11.2	min

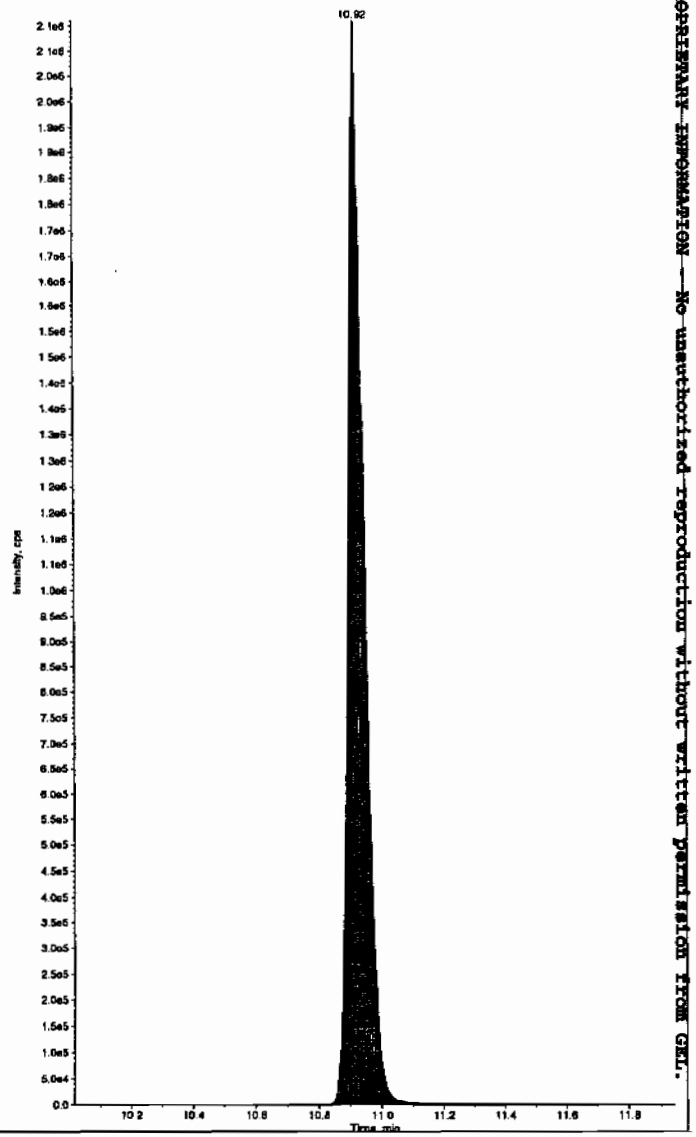

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10--1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260088.wiff

Analysis Date: 27--FEB--10 13:40

LCMSMS ID: 1358

Column ID: JSphere ODS--H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	98.3	98	
2,6–Diamino–4–nitrotoluene	100	96.3	96	
3,4–Dinitrotoluene	50	43.9	88	
3,5–Dinitroaniline	100	89.2	89	
TATB	100	104	104	
tris(o–cresyl) phosphate	100	101	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Tran 3/1/10

ample Name: "WXX100226-27CRI" Sample ID: "1|LER" File: "EXS02260088.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 104. ng/mL
. Date: 2/27/2010
. Time: 1:40:30 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

. Type: Valley
ention Time: 7.06 min
a: 1.07e+005 counts
ight: 27383.224 cps
rt Time: 6.96 min
Time: 7.54 min

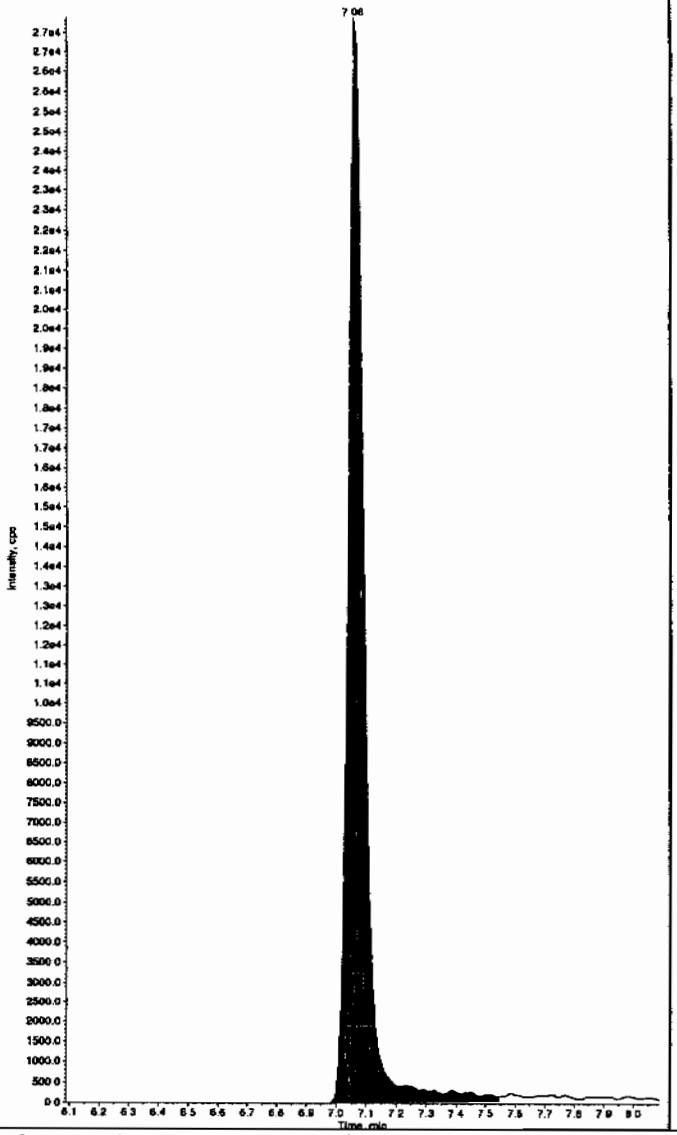

Sample Name: "WXX100226-27CRI" Sample ID: "1|LER" File: "EXS02260088.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 89.2 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:40:30 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 9.01e+005 counts
Height: 248924.591 cps
Start Time: 8.21 min
End Time: 8.39 min

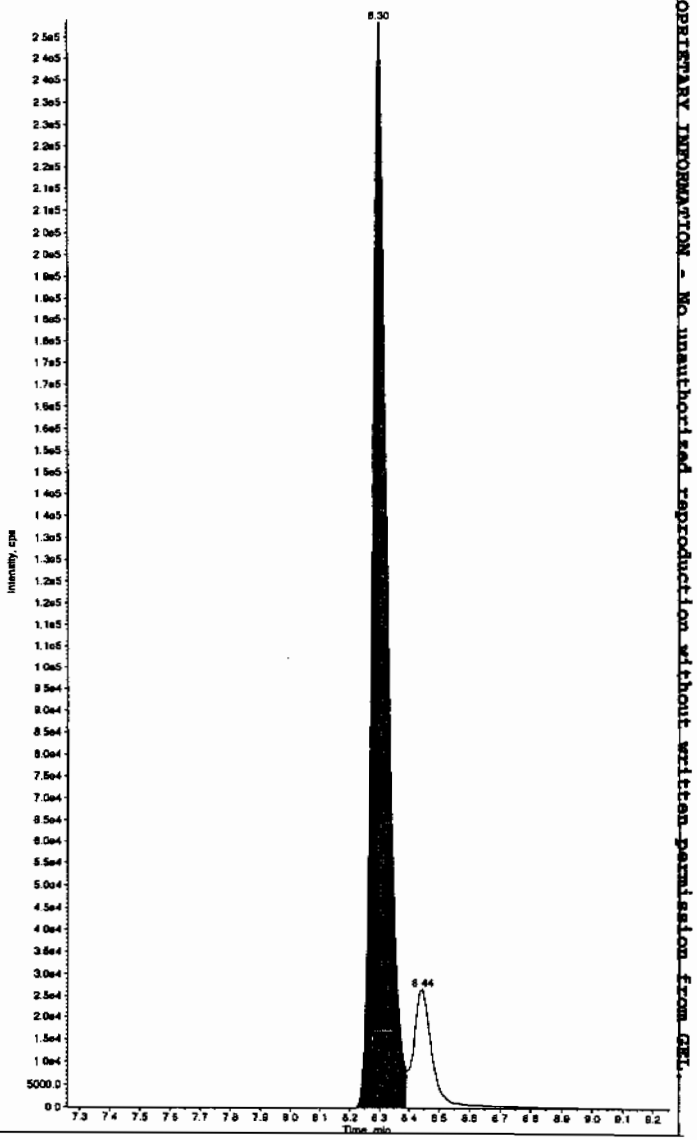

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260068.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
ncentration: 50.0 ng/mL
lculated Conc: 43.9 ng/mL
q. Date: 2/27/2010
q. Time: 1:40:30 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.46 min
Relative RT: No

. Type: Valley
ention Time: 8.43 min
a: 6.35e+005 counts
ght: 179588.811 cps
rt Time: 8.37 min
Time: 8.73 min

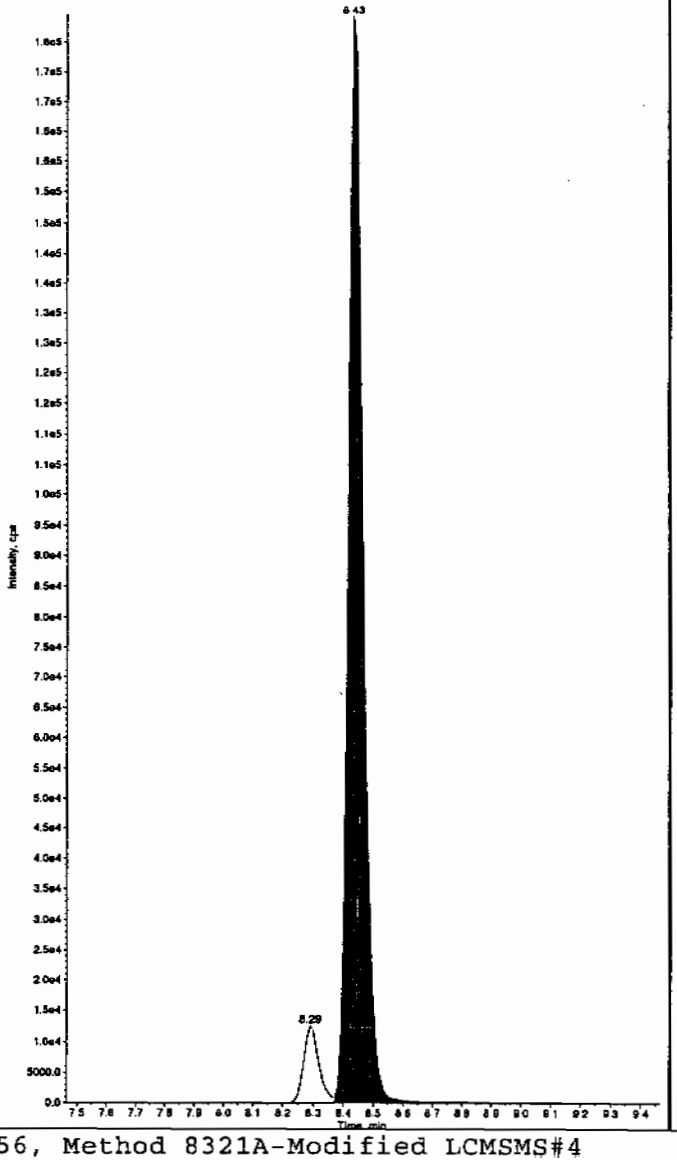

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260068.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.3 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 1:40:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 2.10e+005 counts
Height: 50727.360 cps
Start Time: 4.97 min
End Time: 5.39 min

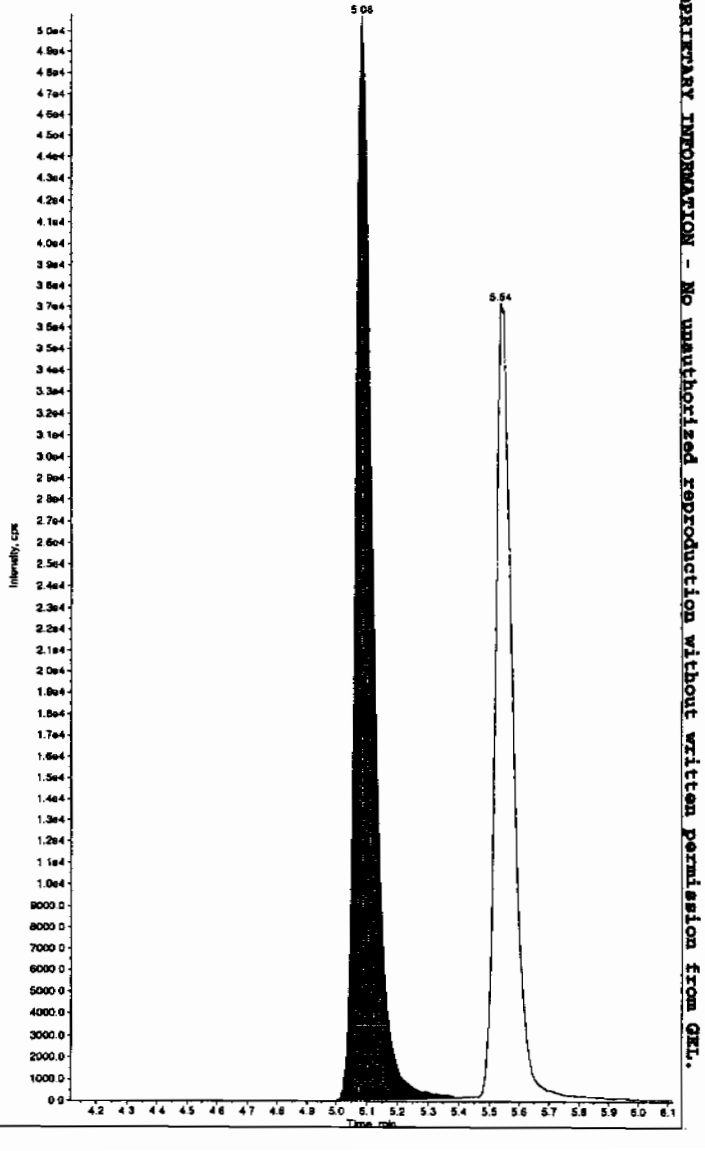

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ample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260088.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/45.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	96.3	ng/mL
. Date:	2/27/2010	
. Time:	1:40:30 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.57	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.54	min
a:	1.49e+005	counts
ght:	37054.600	cps
rt Time:	5.39	min
Time:	5.91	min

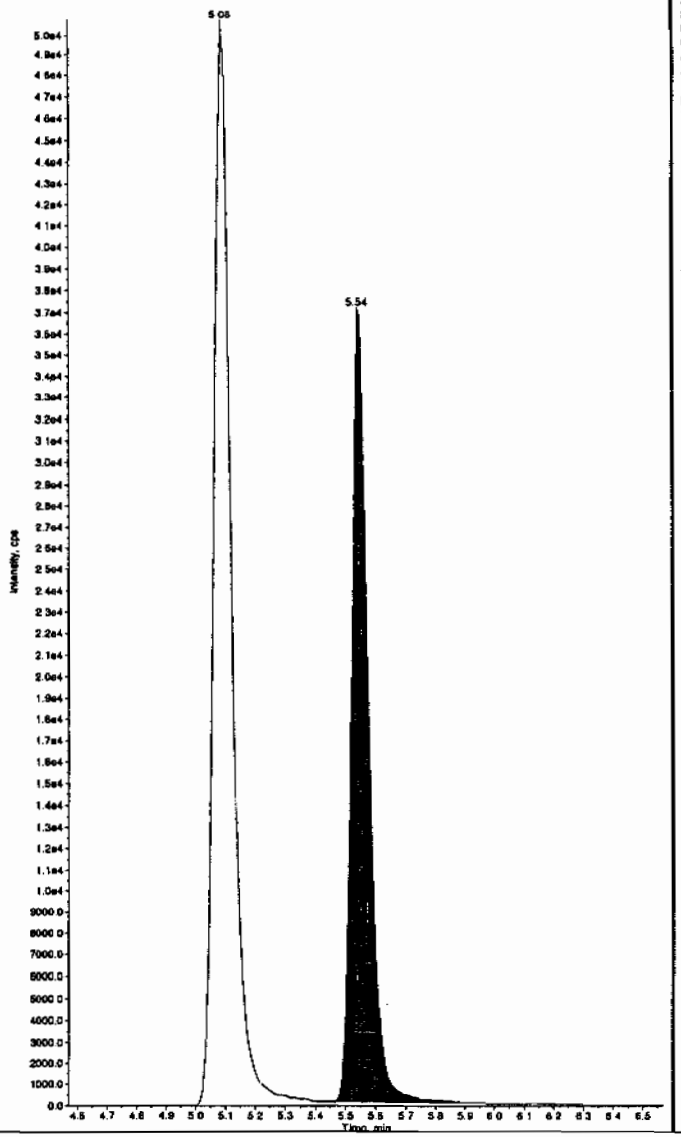

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260088.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	101.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	1:40:30 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.73e+006	counts
Height:	488800.812	cps
Start Time:	10.8	min
End Time:	11.2	min

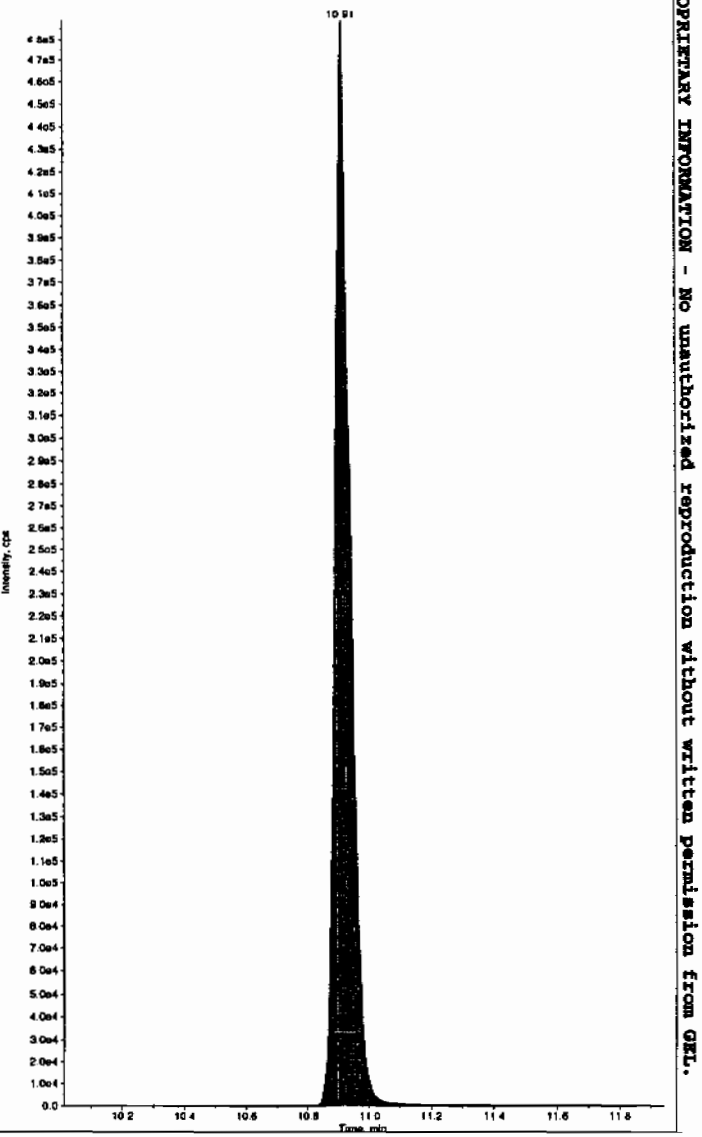

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260099.wiff

Analysis Date: 27–FEB–10 16:33

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	504	101	
2,6–Diamino–4–nitrotoluene	500	480	96	
3,4–Dinitrotoluene	250	212	85	
3,5–Dinitroaniline	500	448	90	
TATB	500	481	96	
tris(o–cresyl) phosphate	500	488	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Plan 3/1/10

ample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260099.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	481.	ng/mL
. Date:	2/27/2010	
. Time:	4:33:07 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	7.09	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.04	min
a:	5.68e+005	counts
ght:	143659.286	cps
rt Time:	6.94	min
Time:	7.59	min

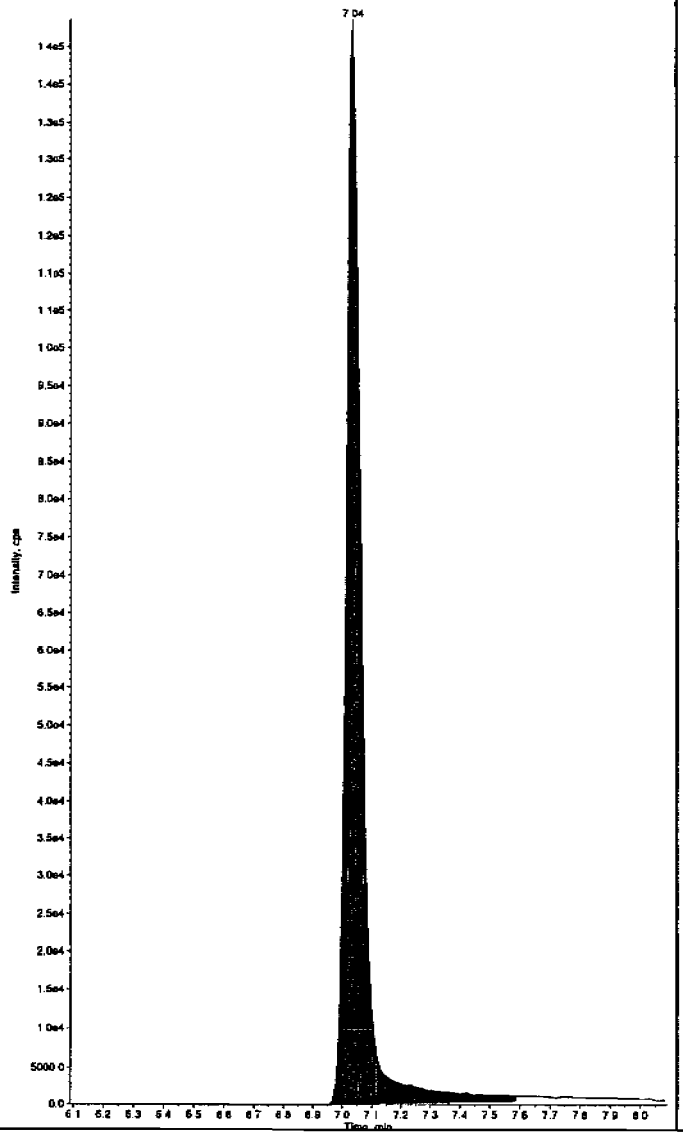

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260099.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	433.	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	4:33:07 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.24	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.27	min
Area:	4.01e+006	counts
Height:	1103254.639	cps
Start Time:	8.20	min
End Time:	8.37	min

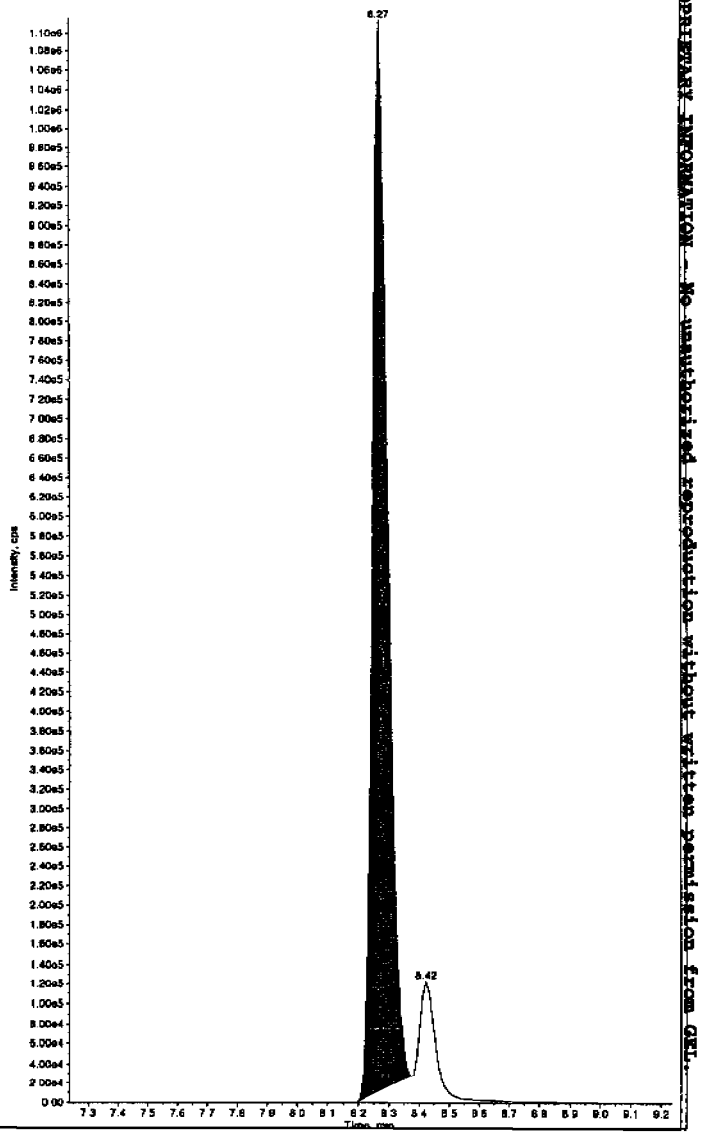

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after Scan 3/1/10

ample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02280099.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 481. ng/mL
. Date: 2/27/2010
. Time: 4:33:07 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

. Type: Valley
ention Time: 7.04 min
a: 5.68e+005 counts
ght: 143659.285 cps
rt Time: 6.94 min
Time: 7.59 min

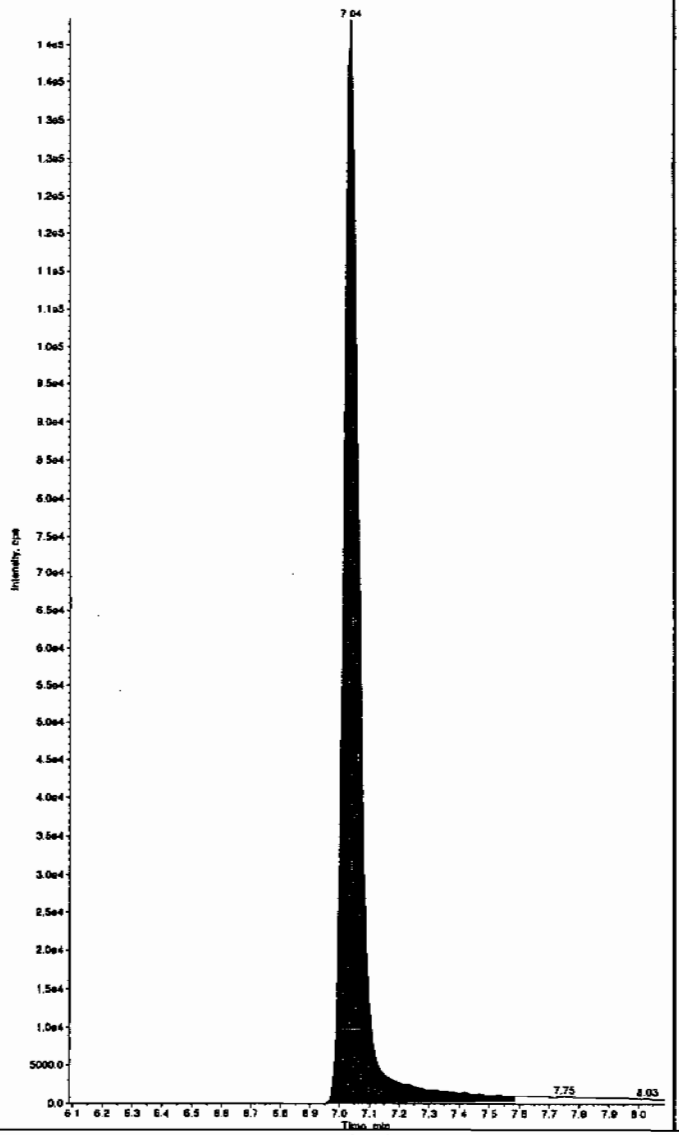

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260099.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 448. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:33:07 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.27 min
Area: 4.13e+006 counts
Height: 1114206.808 cps
Start Time: 8.20 min
End Time: 8.37 min

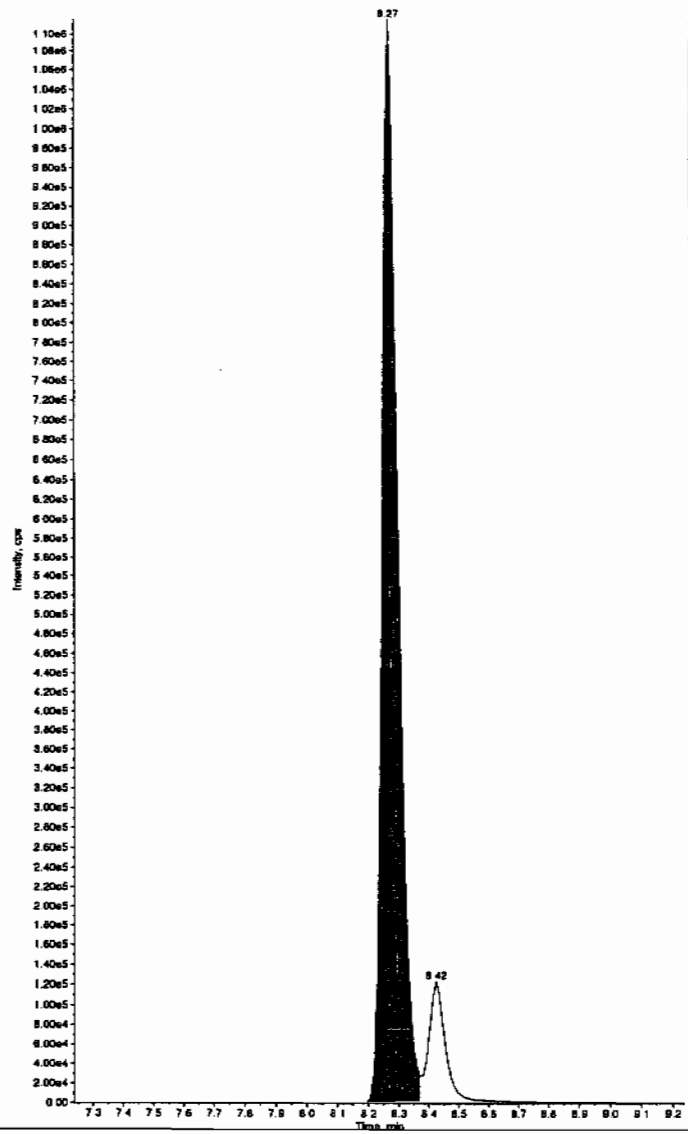

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260099.wif"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         250.     ng/mL
culated Conc:       212.     ng/mL
. Date:          2/27/2010
. Time:          4:33:07 PM

lified:             No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
oothing Width:  3        points
Window:          15.0     sec
ected RT:         8.46    min
Relative RT:      No

. Type:          Valley
ention Time:      8.42    min
a:            2.94e+006   counts
ght:          811372.314  cps
rt Time:          8.35    min
. Time:           8.75    min
```

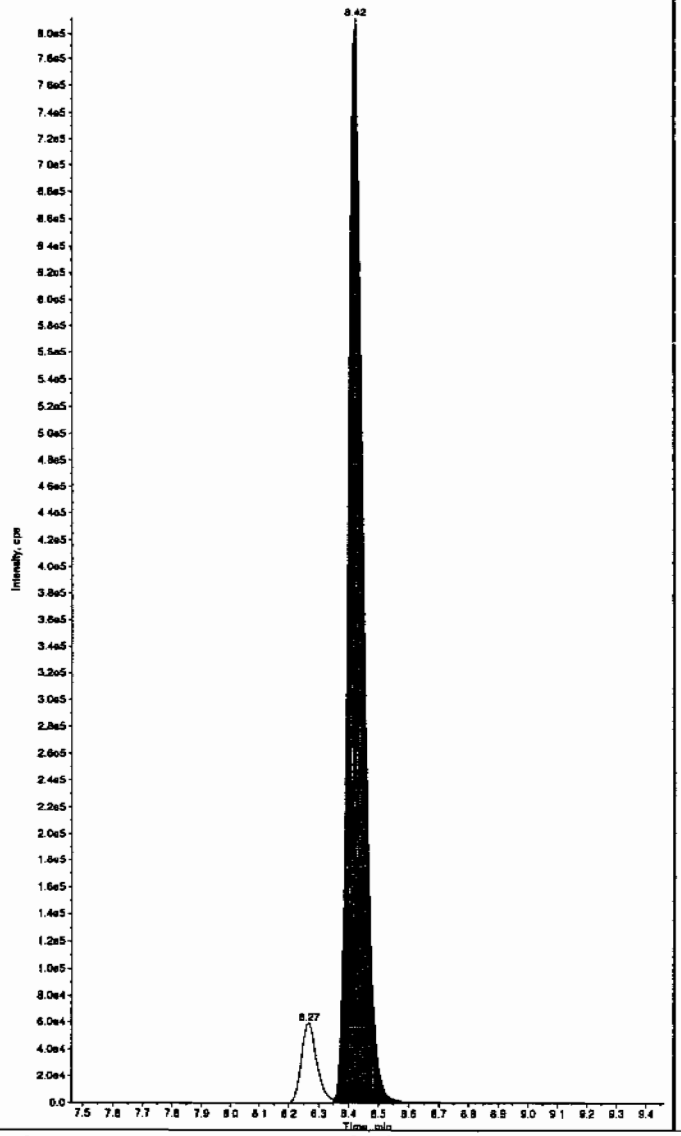

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260099.wif"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       480.     ng/mL
Acq. Date:          2/27/2010
Acq. Time:          4:33:07 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        5.12    min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:     5.06    min
Area:          1.06e+006   counts
Height:        263584.412  cps
Start Time:         4.97    min
End Time:           5.36    min
```

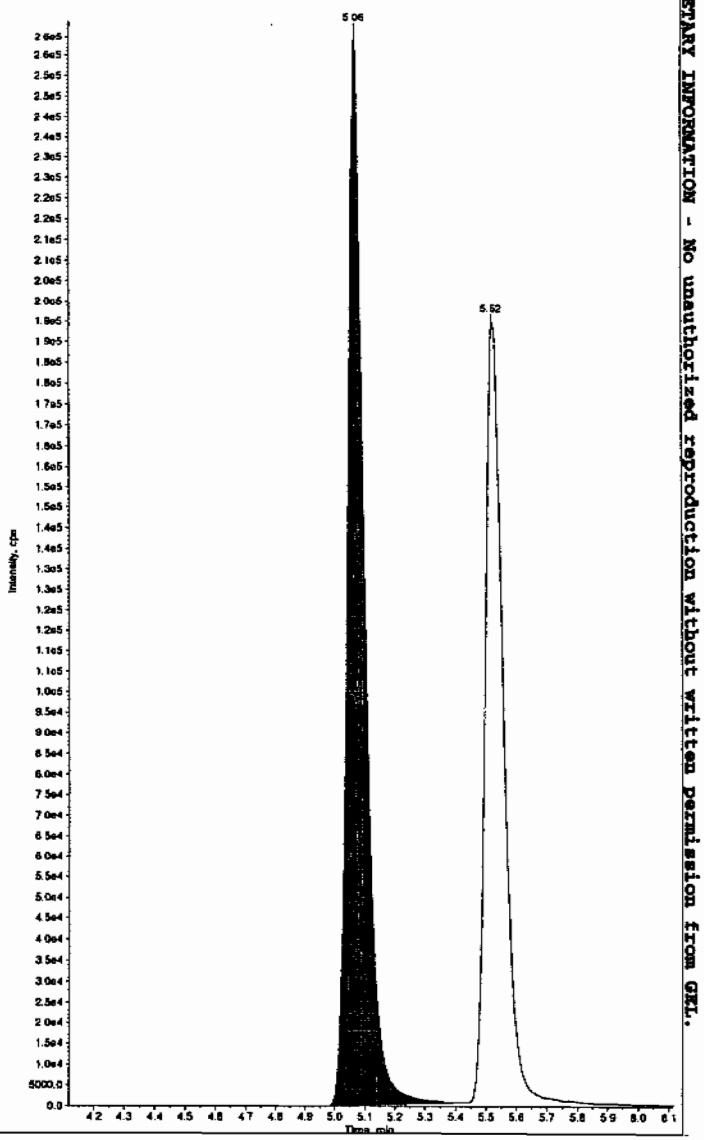

ample Name: "WXX100226-26CCV" Sample ID: "]1]LER" File: "EXS02260099.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 504. ng/mL
. Date: 2/27/2010
. Time: 4:33:07 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 5.57 min
. Relative RT: No

. Type: Valley
ention Time: 5.52 min
a: 8.06e+005 counts
ght: 191906.830 cps
rt Time: 5.44 min
Time: 6.08 min

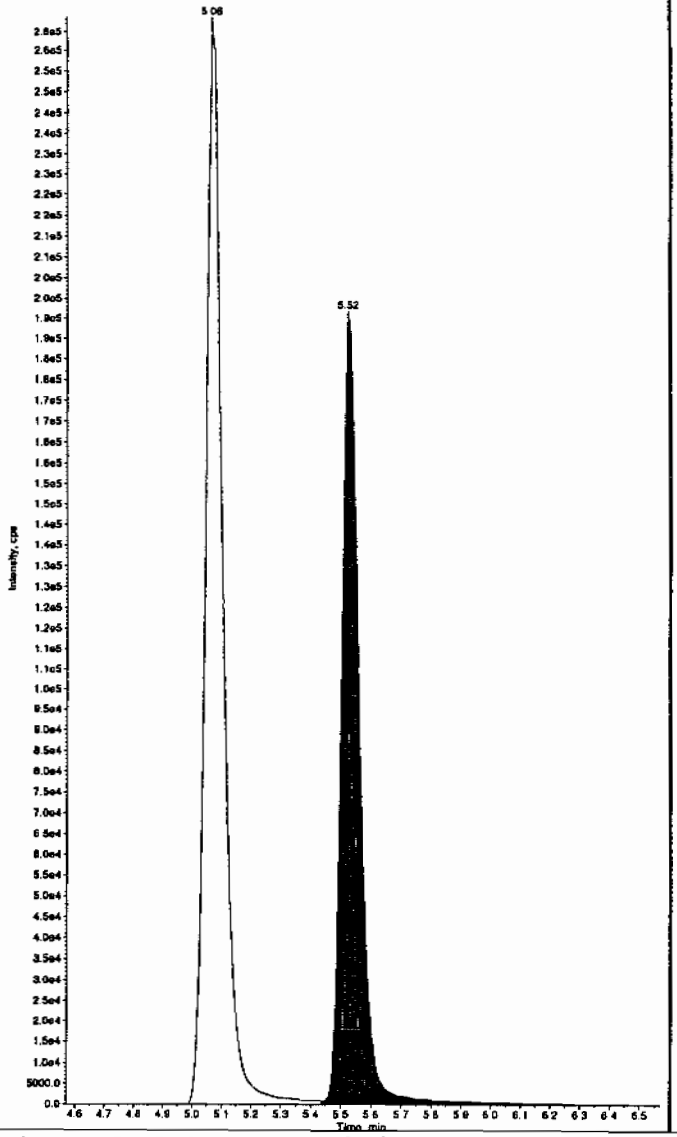

Sample Name: "WXX100226-26CCV" Sample ID: "]1]LER" File: "EXS02260099.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 4:33:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.55e+006 counts
Height: 1963935.791 cps
Start Time: 10.8 min
End Time: 11.2 min

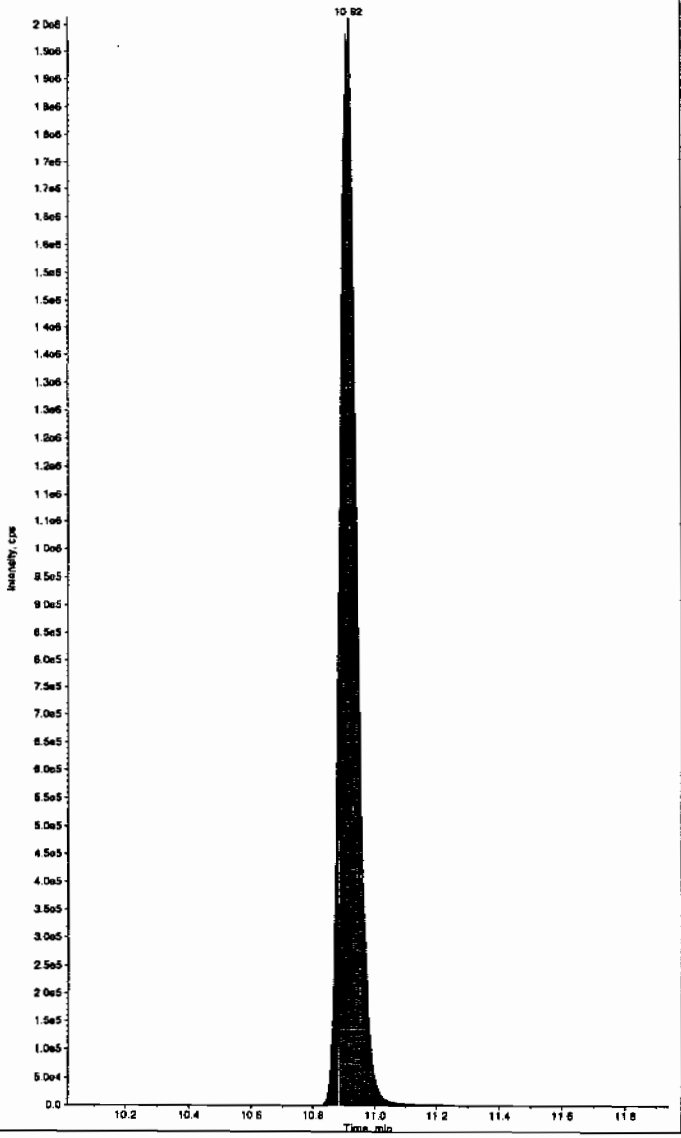

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260101.wiff

Analysis Date: 27–FEB–10 17:04

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	109	109	
2,6–Diamino–4–nitrotoluene	100	101	101	
3,4–Dinitrotoluene	50	43.3	87	
3,5–Dinitroaniline	100	85.9	86	
TATB	100	99.7	100	
tris(o–cresyl) phosphate	100	101	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260101.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
ncentration: 100. ng/mL
lculated Conc: 99.7 ng/mL
. Date: 2/27/2010
. Time: 5:04:32 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

. Type: Valley
ention Time: 7.03 min
a: 1.02e+005 counts
ght: 27516.521 cps
rt Time: 6.93 min
Time: 7.29 min

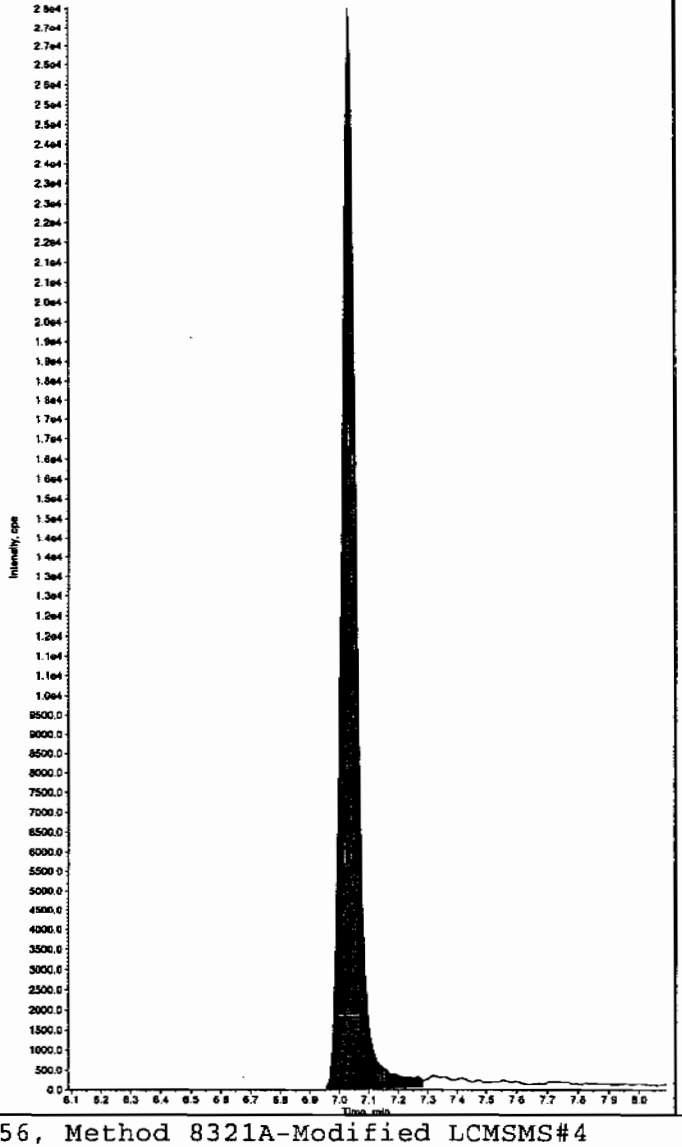

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 83.4 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:04:32 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.26 min
Area: 8.45e+005 counts
Height: 245172.485 cps
Start Time: 8.19 min
End Time: 8.37 min

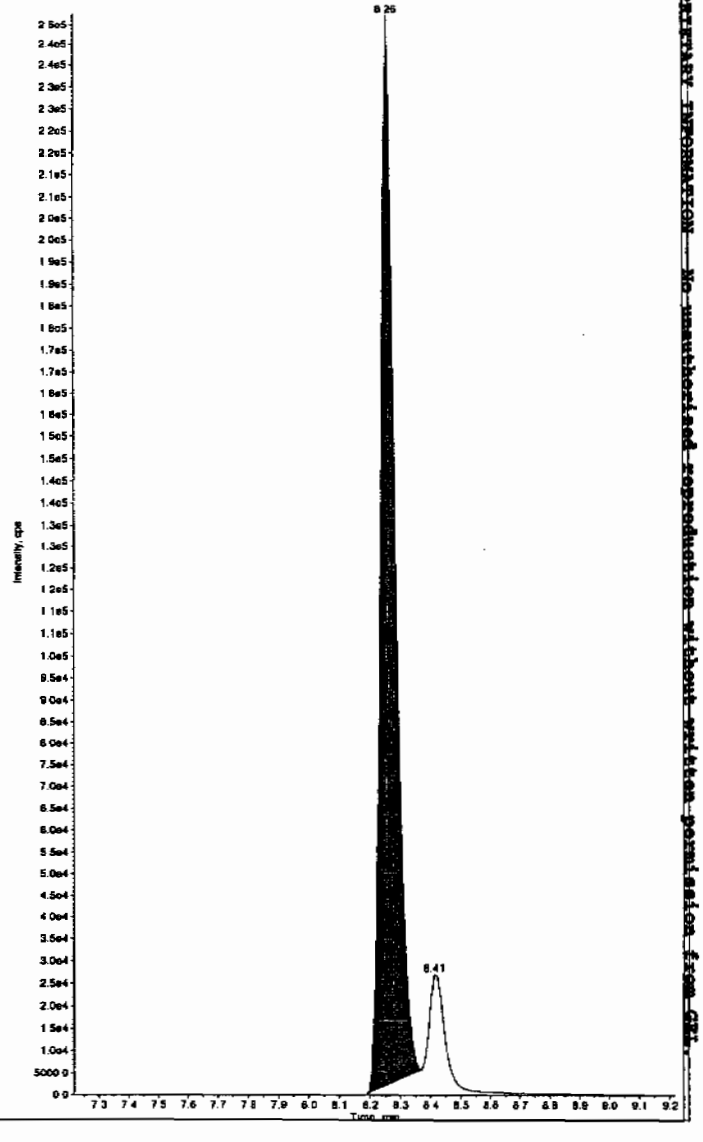

HMM 03/01/10

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after Sken 3/1/10

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260101.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: "

mple Index:	1	
mple Type:	QC	
ncentration:	100.	ng/mL
lculated Conc:	99.7	ng/mL
q. Date:	2/27/2010	
q. Time:	5:04:32 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	7.09	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	7.03	min
ea:	1.02e+005	counts
ight:	27516.521	cps
rt Time:	6.93	min
d Time:	7.29	min

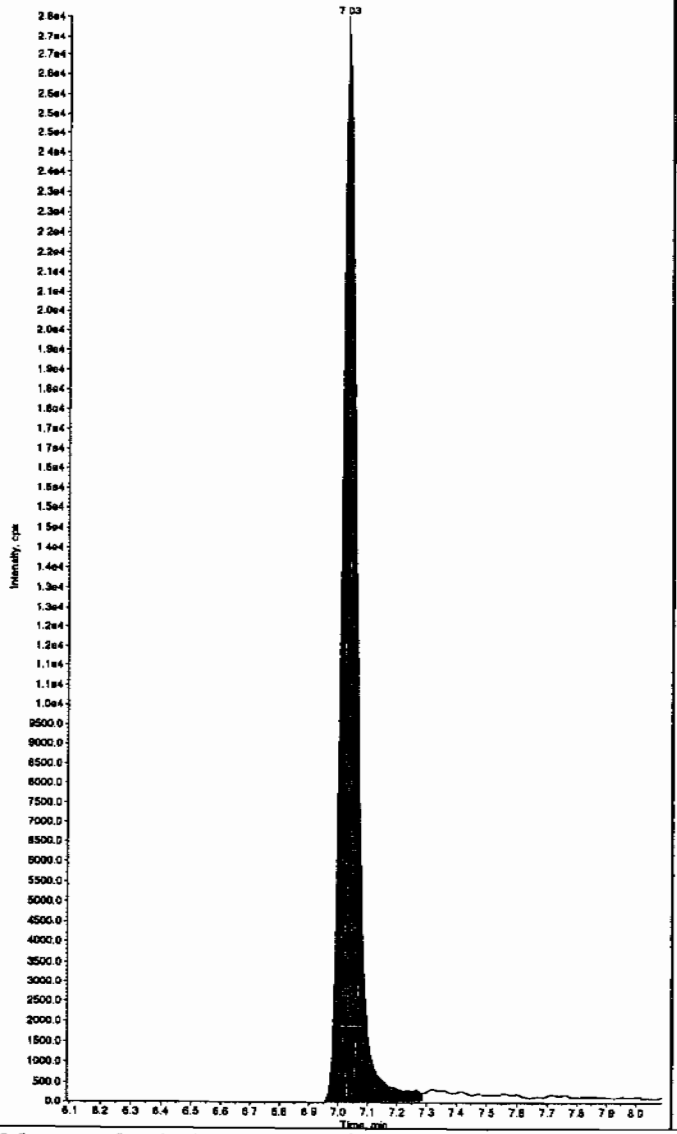

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	85.9	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	5:04:32 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.22	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.26	min
Area:	8.69e+005	counts
Height:	247263.054	cps
Start Time:	8.20	min
End Time:	8.36	min

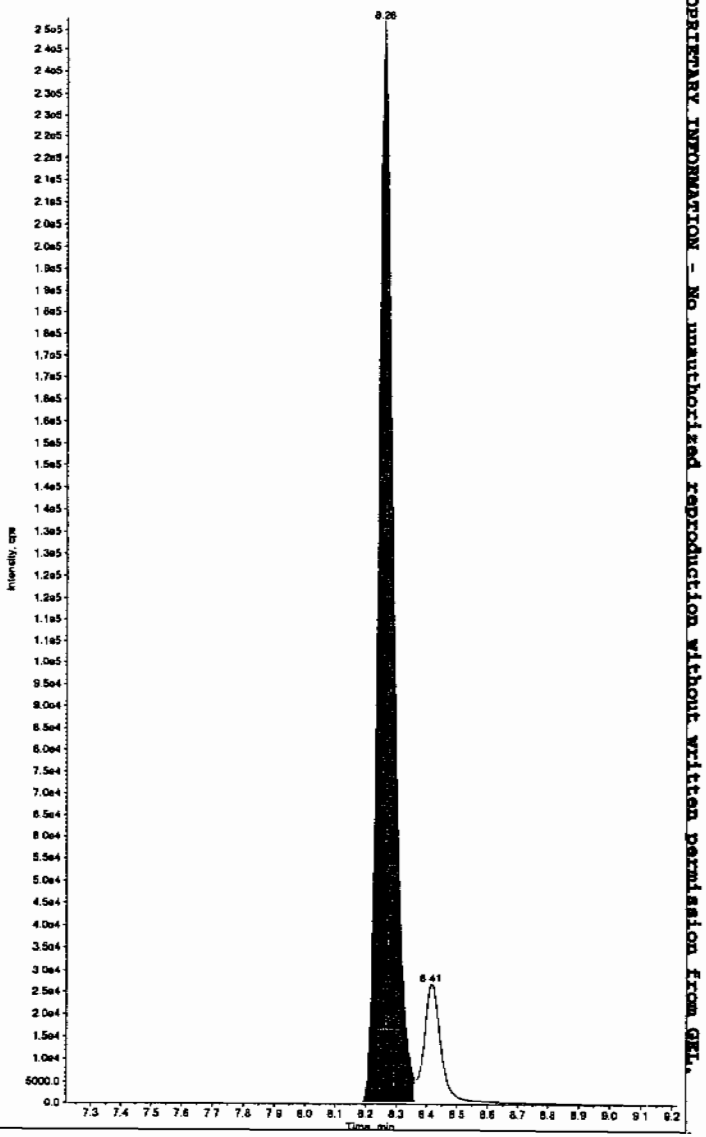

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260101.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 50.0 ng/mL
lculated Conc: 43.3 ng/mL
q. Date: 2/27/2010
q. Time: 5:04:32 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.46 min
e Relative RT: No

t. Type: Valley
tention Time: 8.41 min
ea: 6.27e+005 counts
ight: 183851.471 cps
art Time: 8.34 min
d Time: 8.73 min

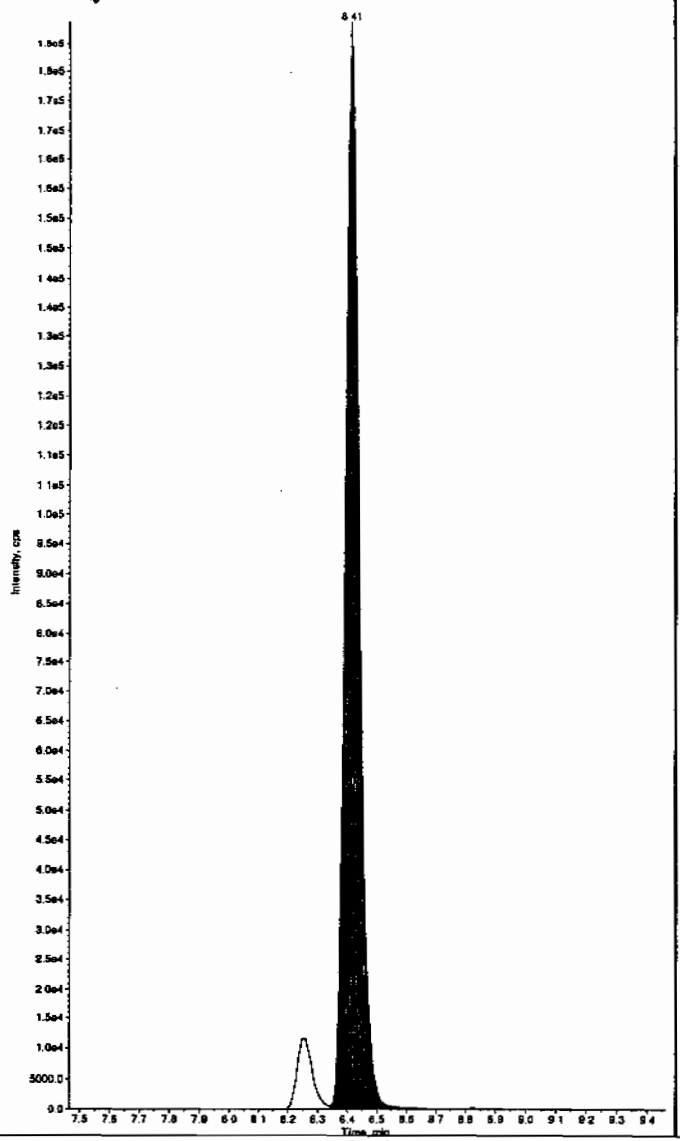

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260101.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 5:04:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 2.21e+005 counts
Height: 53787.304 cps
Start Time: 4.95 min
End Time: 5.36 min

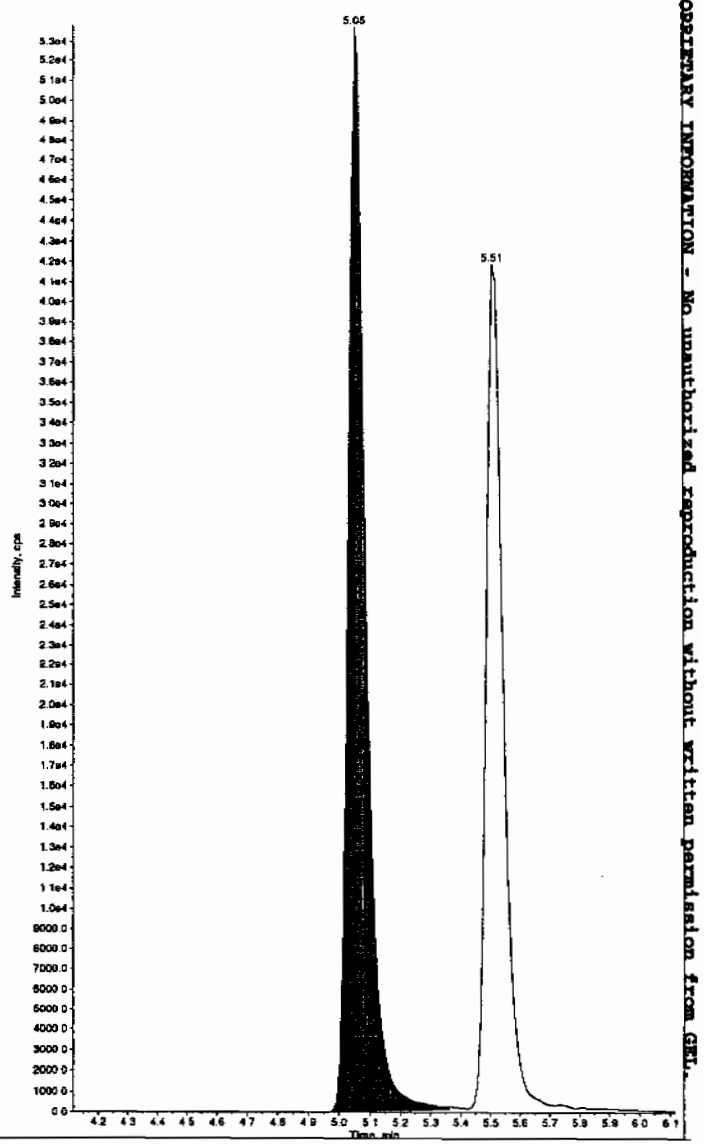

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ample Name: "WXX100226-27CRI" Sample ID: "]1|LER" File: "EXS02260101.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
mple Index:        1
mple Type:        QC
ncentration:      100.    ng/mL
lculated Conc:    109.    ng/mL
q. Date:       2/27/2010
q. Time:       5:04:32 PM

ified:            No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3        points
Window:          30.0    sec
pected RT:        5.57   min
e Relative RT:    No

. Type:        Valley
tention Time:     5.51   min
ea:          1.66e+005   counts
ight:        41780.853   cps
art Time:         5.43   min
d Time:           5.85   min
```

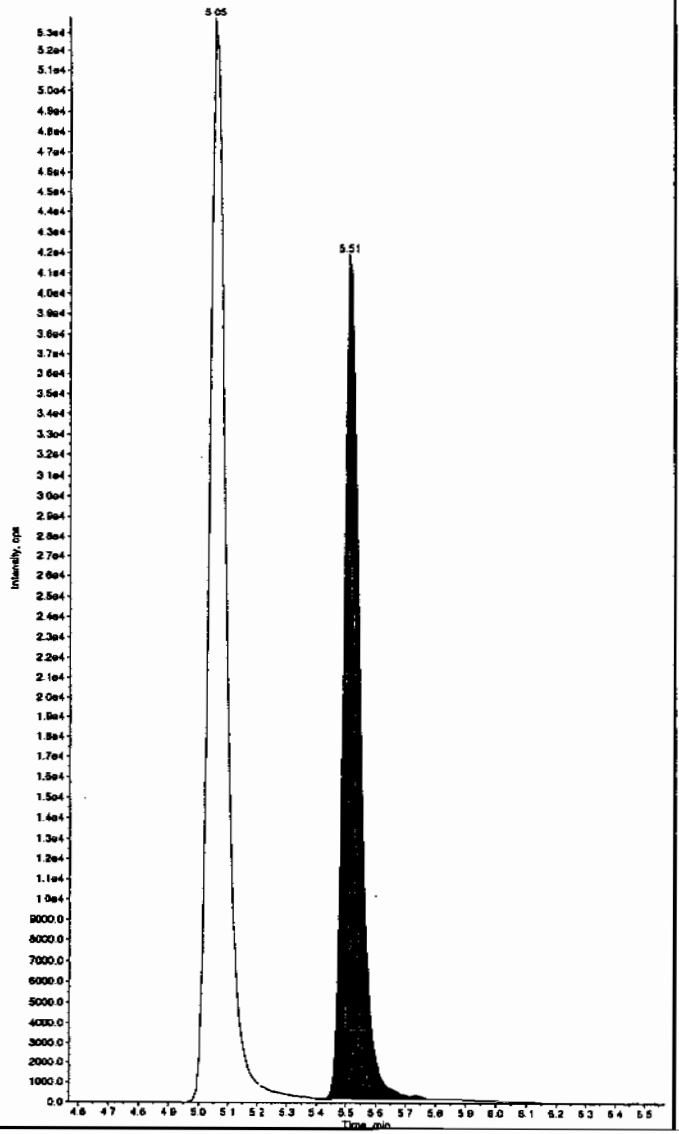

Sample Name: "WXX100226-27CRI" Sample ID: "]1|LER" File: "EXS02260101.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      100.    ng/mL
Calculated Conc:    101.    ng/mL
Acq. Date:       2/27/2010
Acq. Time:       5:04:32 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9   min
Area:          1.73e+006   counts
Height:        497241.821  cps
Start Time:         10.8   min
End Time:           11.2   min
```

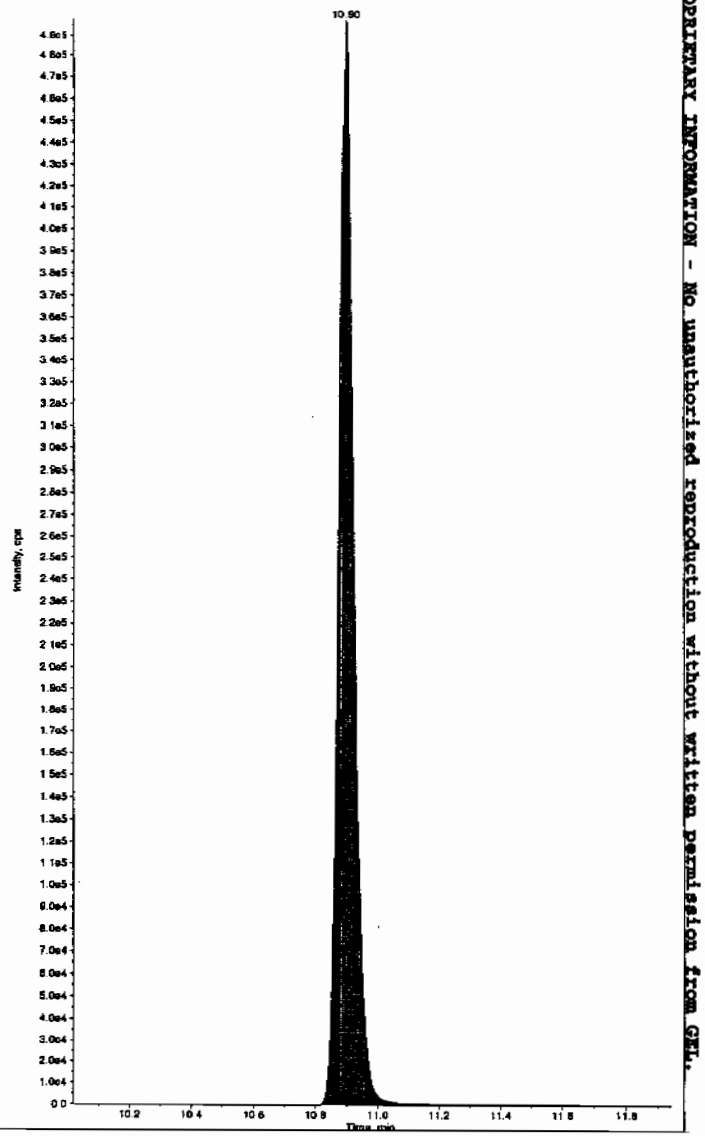

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260112.wiff

Analysis Date: 27–FEB–10 19:57

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	505	101	
2,6–Diamino–4–nitrotoluene	500	501	100	
3,4–Dinitrotoluene	250	206	82	
3,5–Dinitroaniline	500	444	89	
TATB	500	473	95	
tris(o–cresyl) phosphate	500	495	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260112.wif"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1
mple Type:	QC
ncentration:	500. ng/mL
lculated Conc:	473. ng/mL
q. Date:	2/27/2010
q. Time:	7:57:13 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	7.09 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.04 min
ea:	5.58e+005 counts
ight:	143699.112 cps
art Time:	6.96 min
d Time:	7.65 min

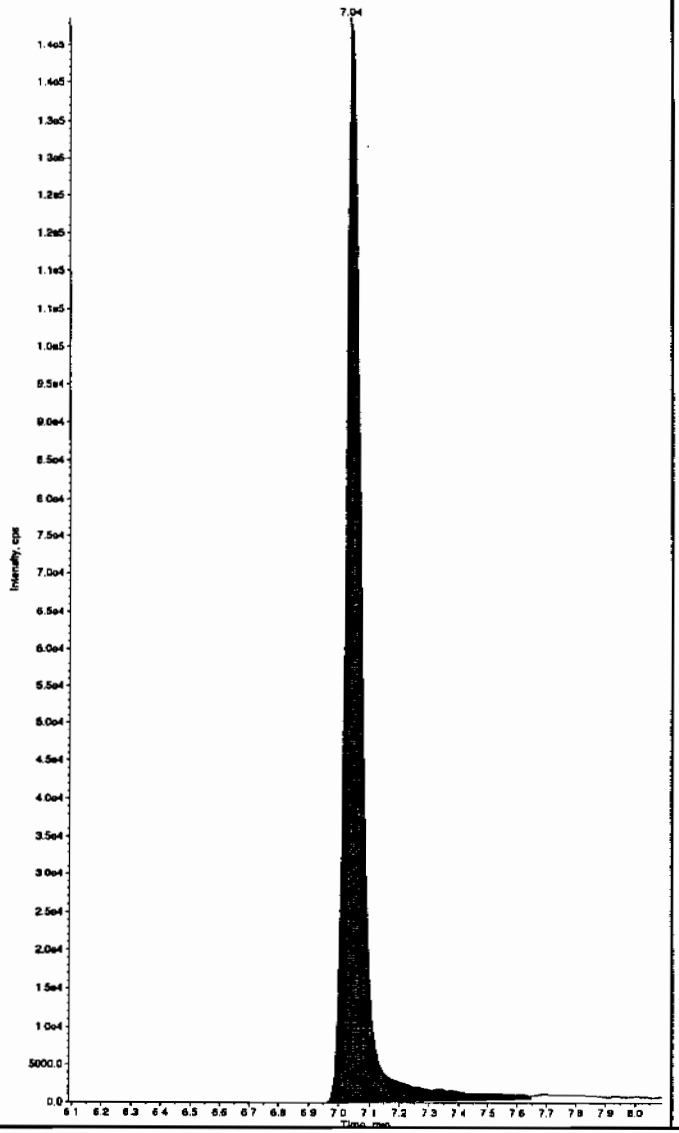

Sample Name: "WXX100226-26CCV" Sample ID: "|1|LER" File: "EXS02260112.wif"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	428. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	7:57:13 PM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.24 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.27 min
Area:	3.96e+006 counts
Height:	1098096.313 cps
Start Time:	8.21 min
End Time:	8.37 min

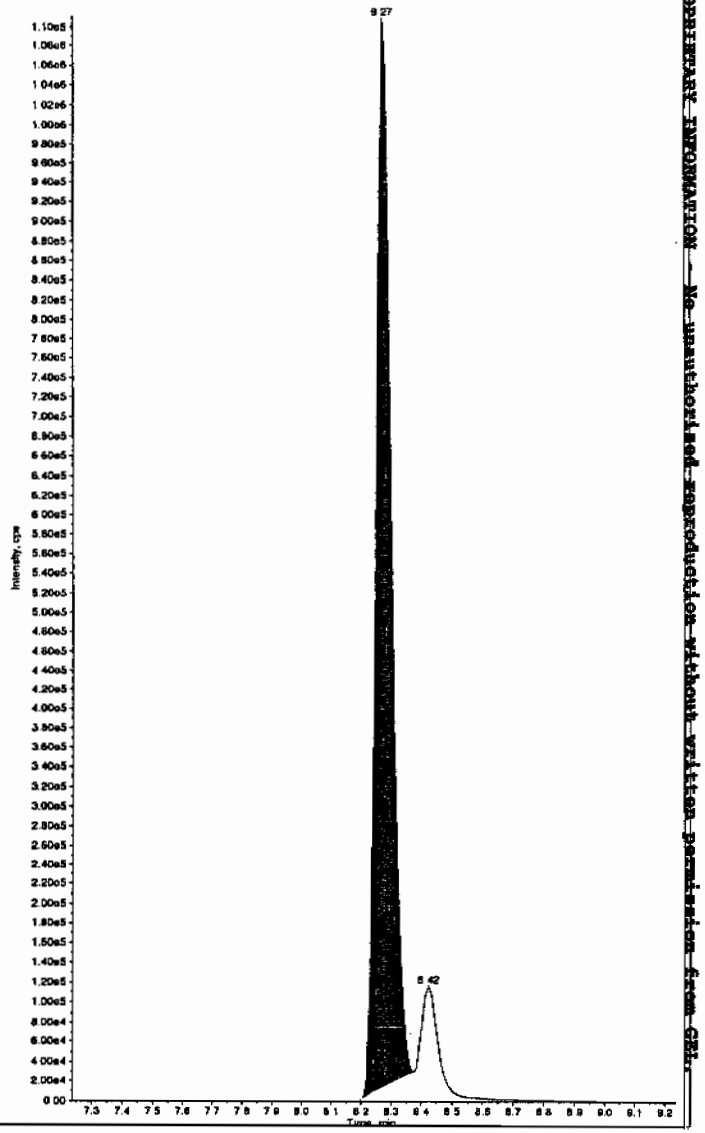

Hnm 03/01/10

after Scan 3/1/10

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index:	1
ple Type:	QC
centration:	500. ng/mL
culated Conc:	473. ng/mL
. Date:	2/27/2010
. Time:	7:57:13 PM
ified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	2500.00 cps
. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
ected RT:	7.09 min
Relative RT:	No
. Type:	Valley
ention Time:	7.04 min
a:	5.58e+005 counts
ght:	143699.112 cps
rt Time:	6.96 min
Time:	7.65 min

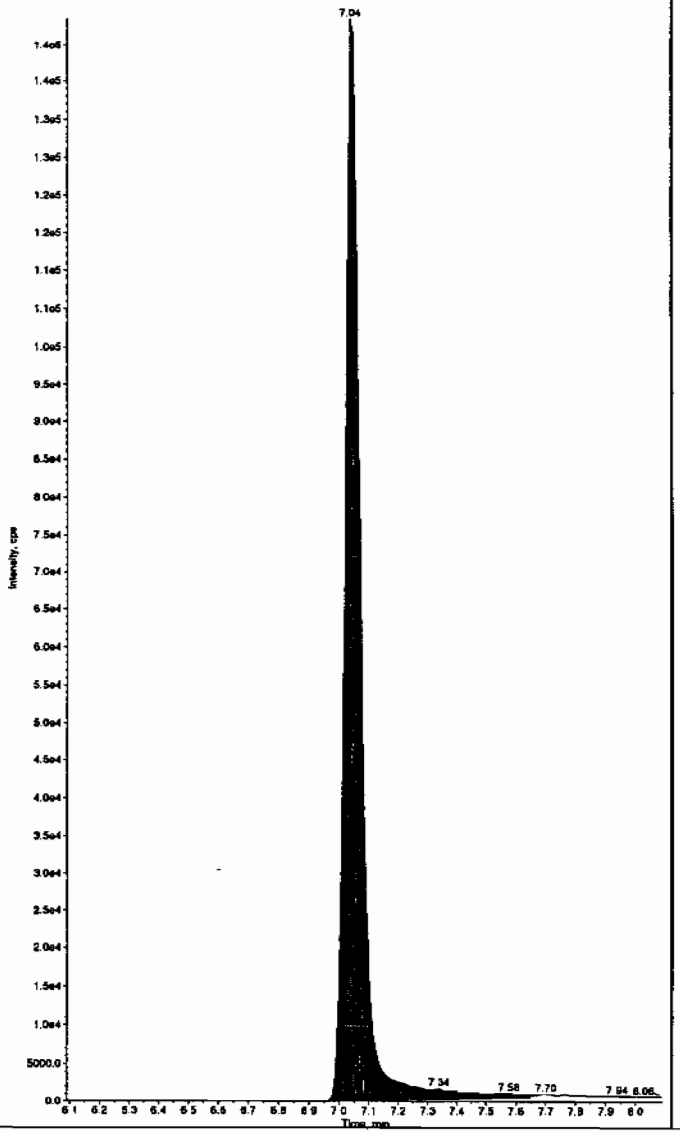

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	444. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	7:57:13 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.24 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.27 min
Area:	4.10e+006 counts
Height:	1118318.652 cps
Start Time:	8.21 min
End Time:	8.37 min

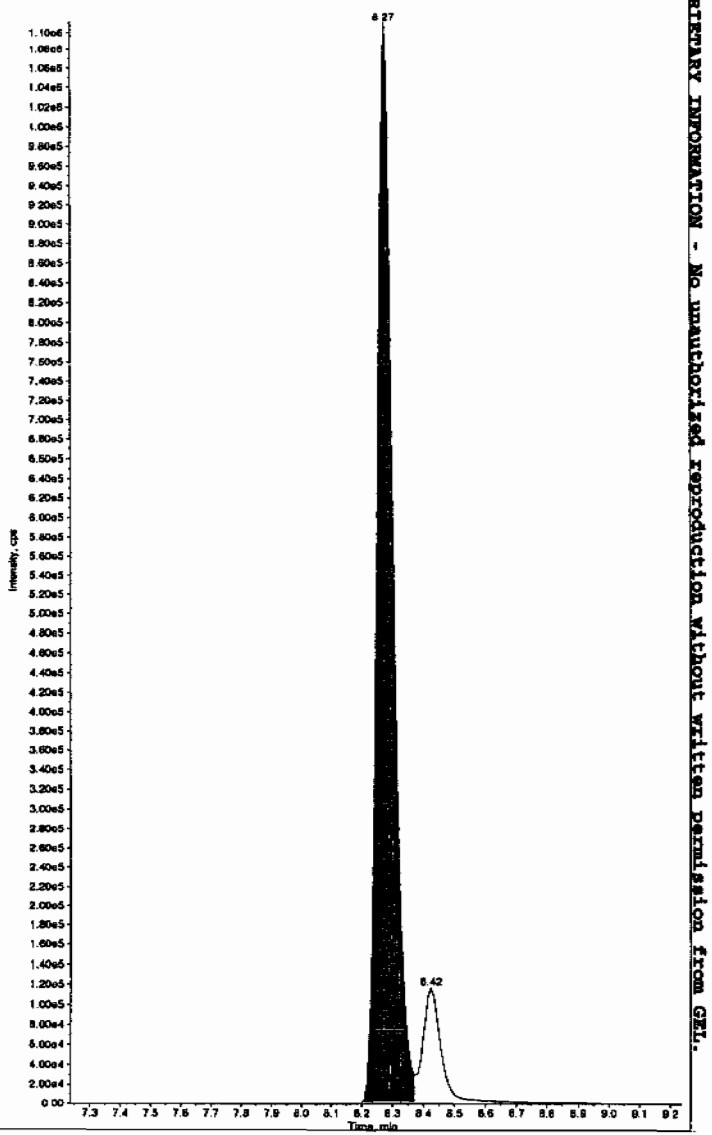

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ample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
mple Index: 1
mple Type: QC
ncentration: 250. ng/mL
lculated Conc: 206. ng/mL
q. Date: 2/27/2010
q. Time: 7:57:13 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.46 min
e Relative RT: No

t. Type: Valley
etention Time: 8.41 min
ea: 2.86e+006 counts
eight: 791284.790 cps
art Time: 8.35 min
d Time: 8.74 min

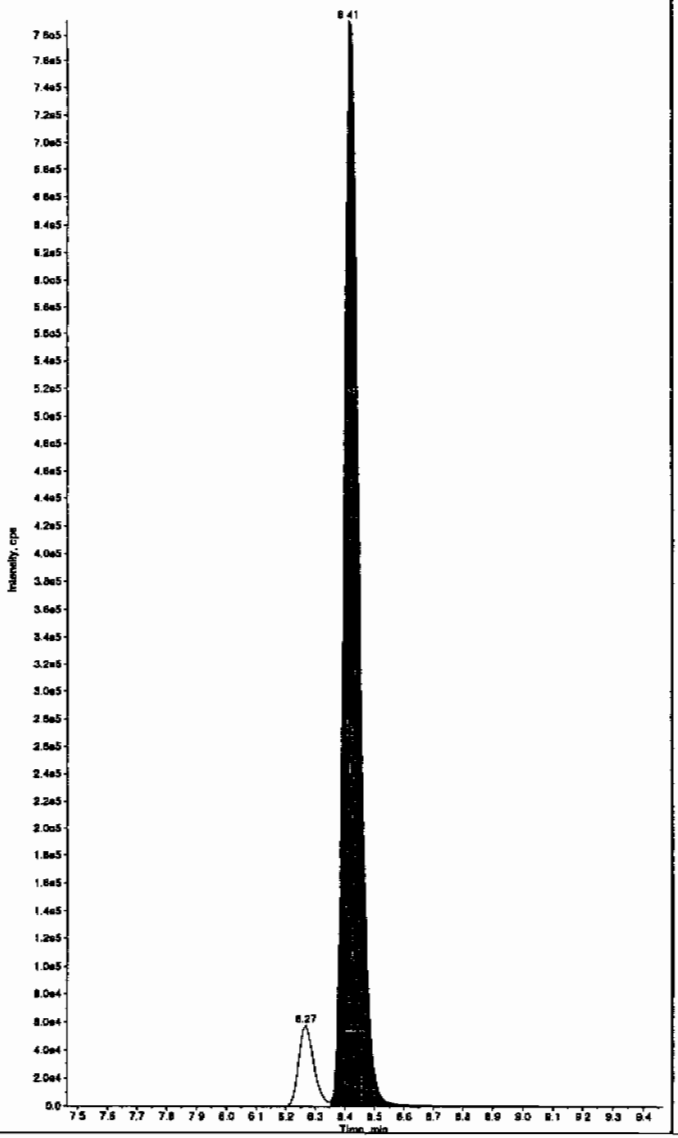

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:57:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.06 min
Area: 1.10e+006 counts
Height: 265248.596 cps
Start Time: 4.97 min
End Time: 5.37 min

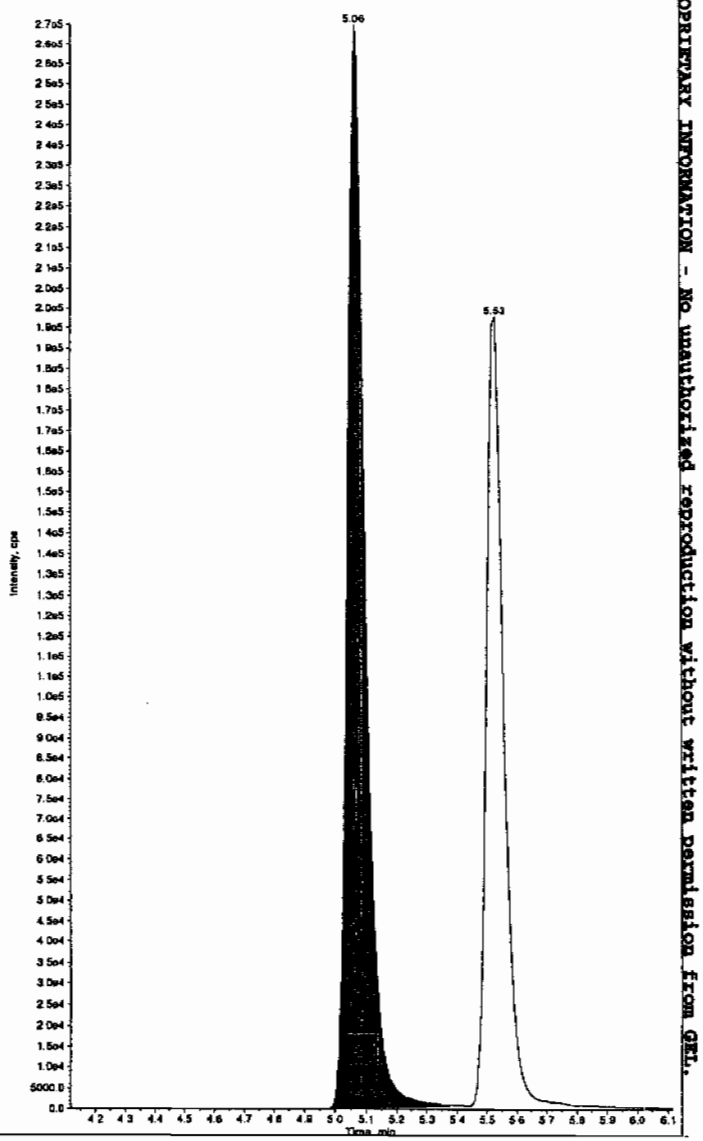

ample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 505. ng/mL
. Date: 2/27/2010
. Time: 7:57:13 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.57 min
Relative RT: No

. Type: Valley
ention Time: 5.53 min
a: 8.06e+005 counts
ght: 193222.031 cps
rt Time: 5.44 min
Time: 6.32 min

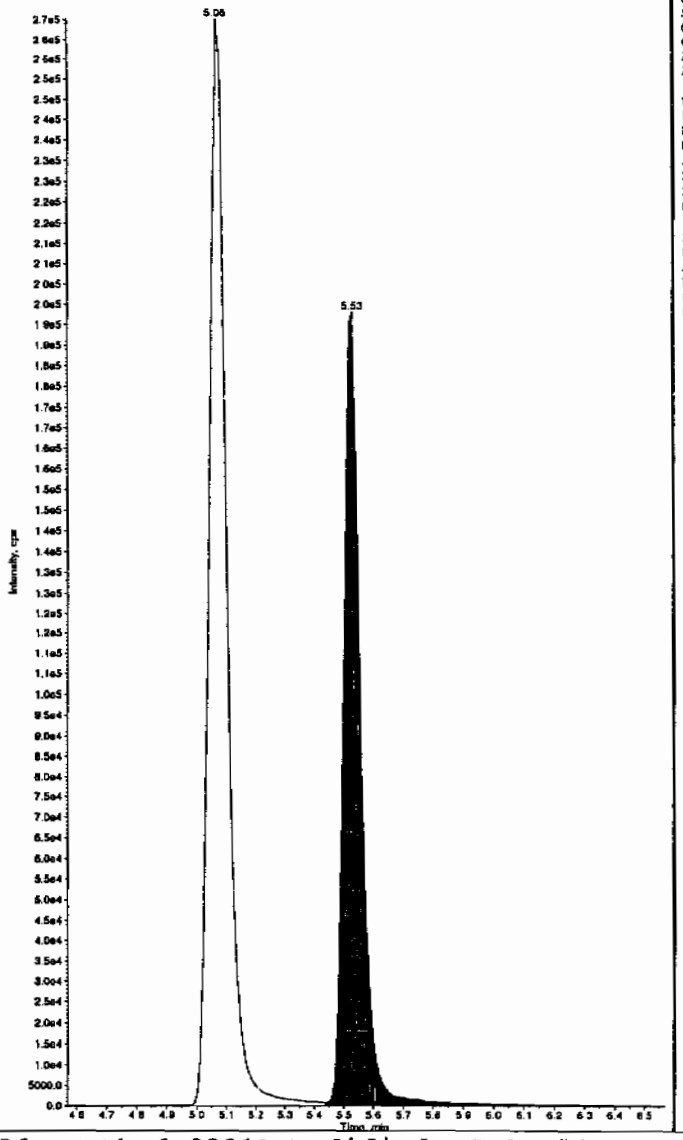

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260112.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 495. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 7:57:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.65e+006 counts
Height: 2057594.482 cps
Start Time: 10.8 min
End Time: 11.2 min

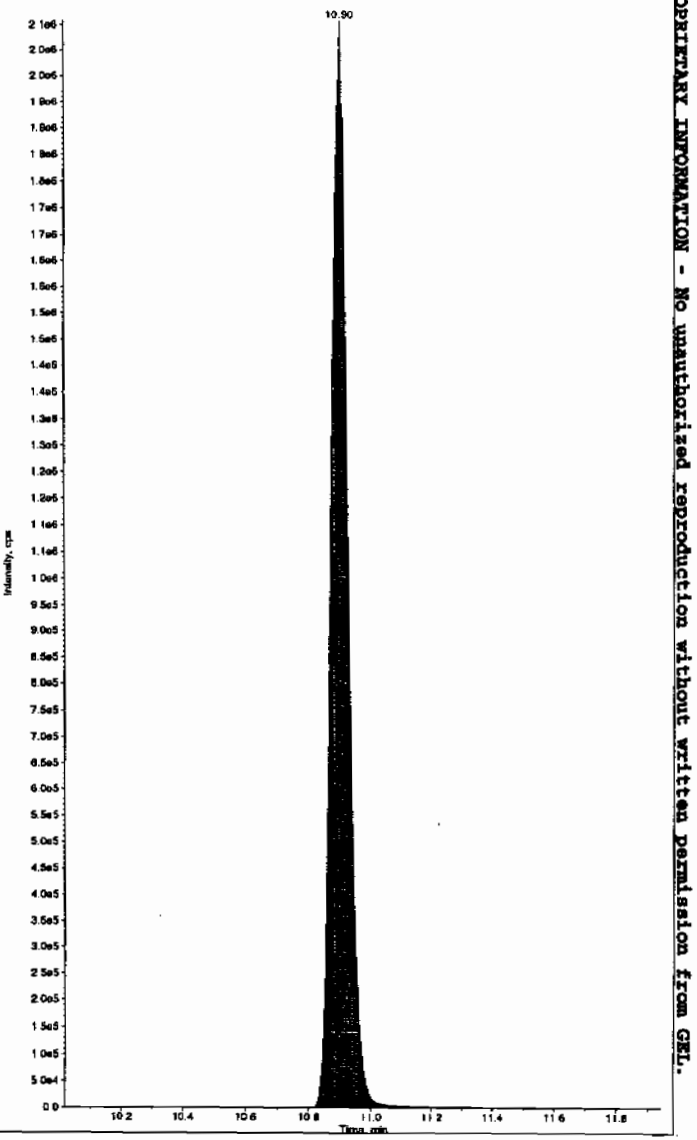

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260114.wiff

Analysis Date: 27-FEB-10 20:28

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	98	98	
3,4-Dinitrotoluene	50	43.6	87	
3,5-Dinitroaniline	100	84.7	85	
TATB	100	97.3	97	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260114.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 97.3 ng/mL
. Date: 2/27/2010
. Time: 8:28:37 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

. Type: Valley
ention Time: 7.04 min
a: 9.89e+004 counts
ght: 24904.774 cps
rt Time: 6.94 min
Time: 7.39 min

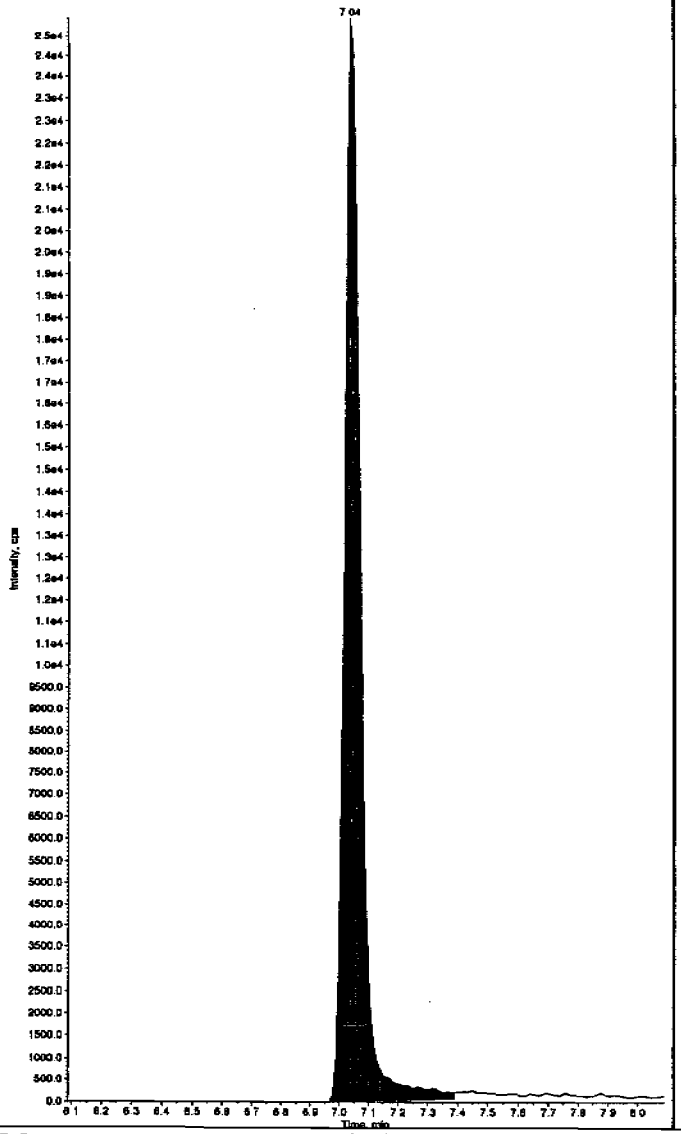

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260114.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 64.7 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:28:37 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 8.58e+005 counts
Height: 224756.836 cps
Start Time: 8.17 min
End Time: 8.37 min

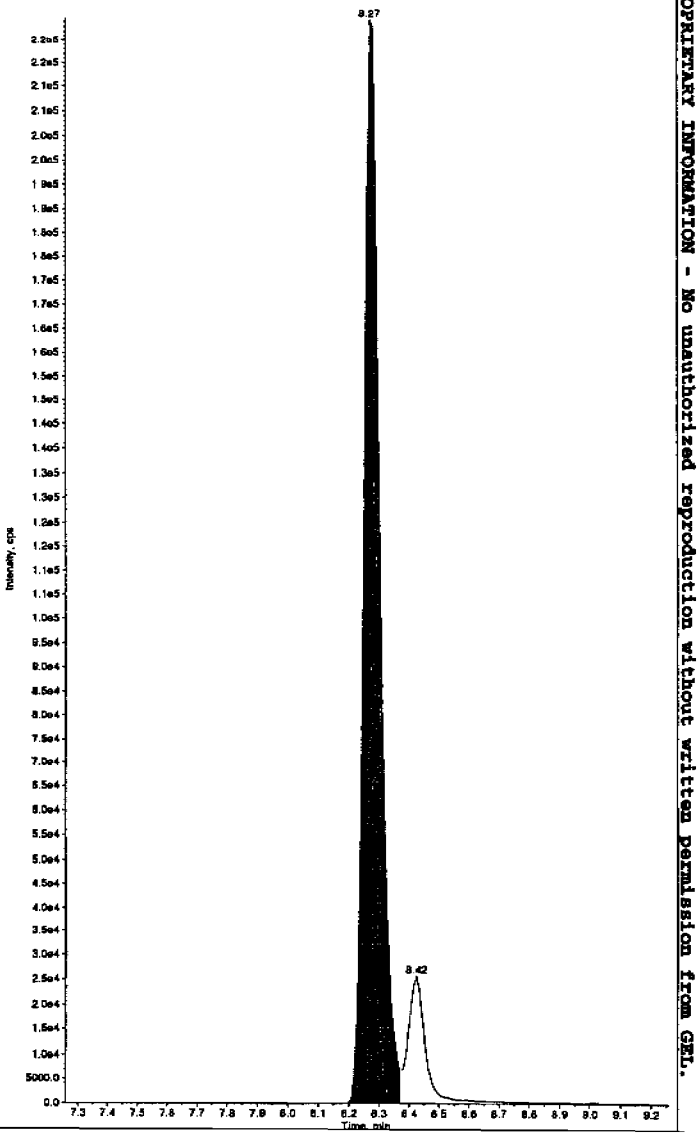

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "WXX100226-27CR" Sample ID: "|1|LER" File: "EXS02260114.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
ncentration: 50.0 ng/mL
culated Conc: 43.6 ng/mL
. Date: 2/27/2010
. Time: 8:28:37 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1450.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.46 min
Relative RT: No

. Type: Valley
ention Time: 8.41 min
a: 6.31e+005 counts
ght: 183688.278 cps
rt Time: 8.35 min
Time: 8.71 min

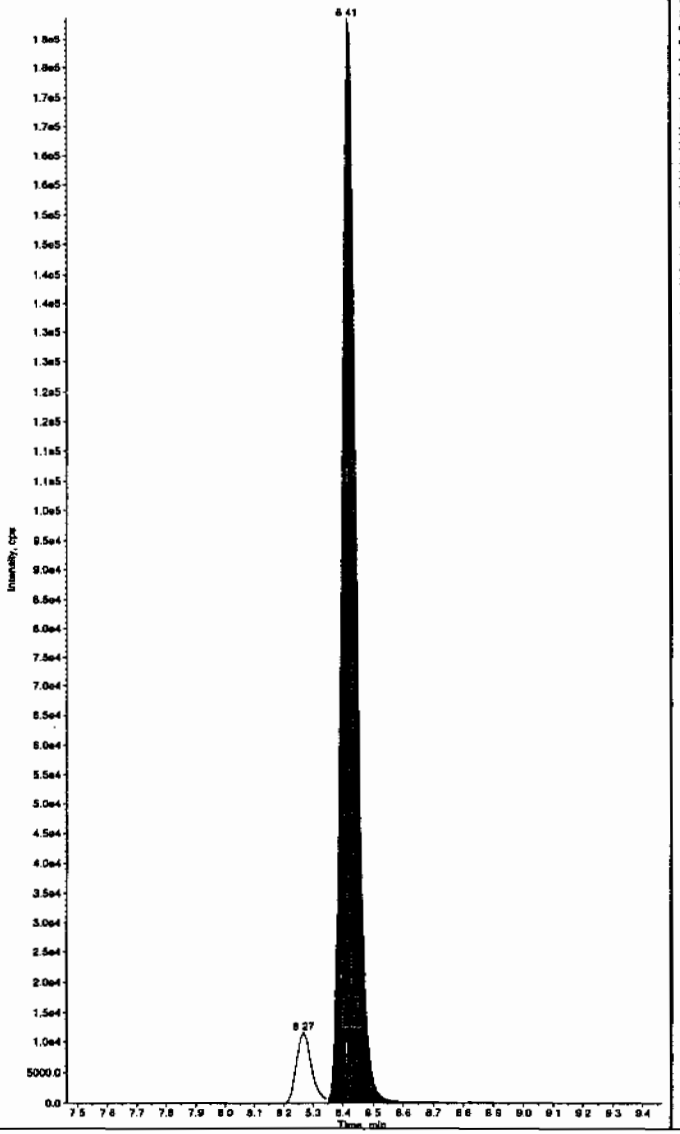

Sample Name: "WXX100226-27CR" Sample ID: "|1|LER" File: "EXS02260114.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.0 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 8:28:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.06 min
Area: 2.13e+005 counts
Height: 50756.393 cps
Start Time: 4.93 min
End Time: 5.37 min

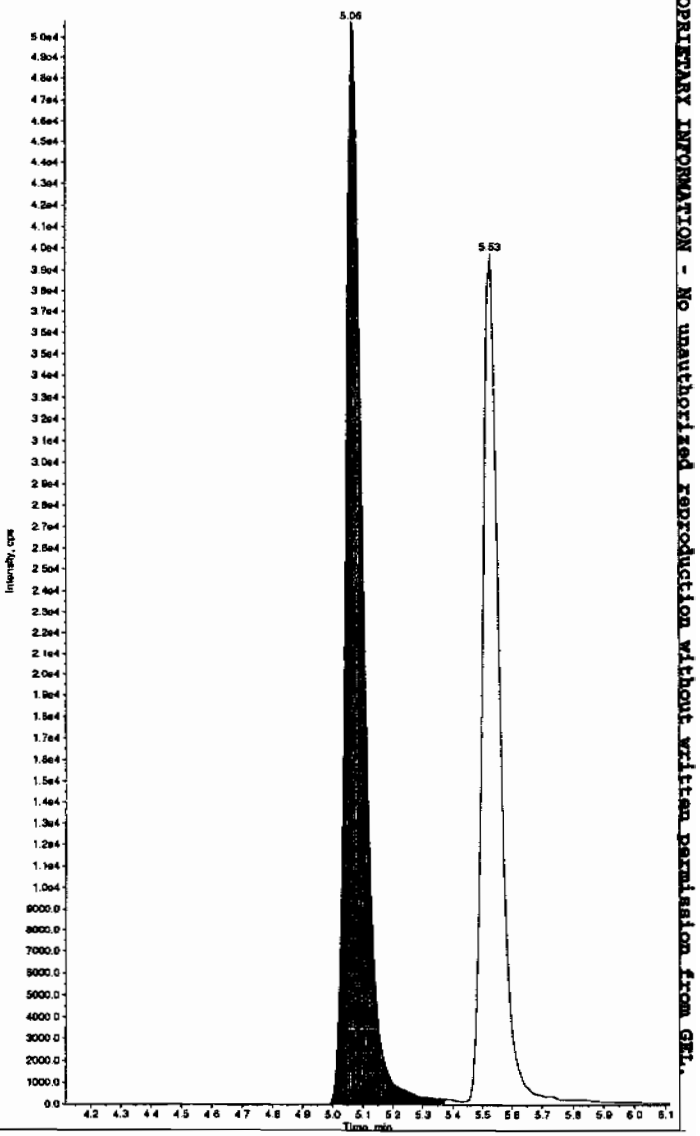

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260114.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1
mple Type:	QC
ncentration:	100. ng/mL
lculated Conc:	103. ng/mL
q. Date:	2/27/2010
q. Time:	8:28:37 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	350.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	5.57 min
e Relative RT:	No
t. Type:	Valley
tention Time:	5.53 min
ea:	1.57e+005 counts
ight:	39637.032 cps
art Time:	5.45 min
d Time:	6.12 min

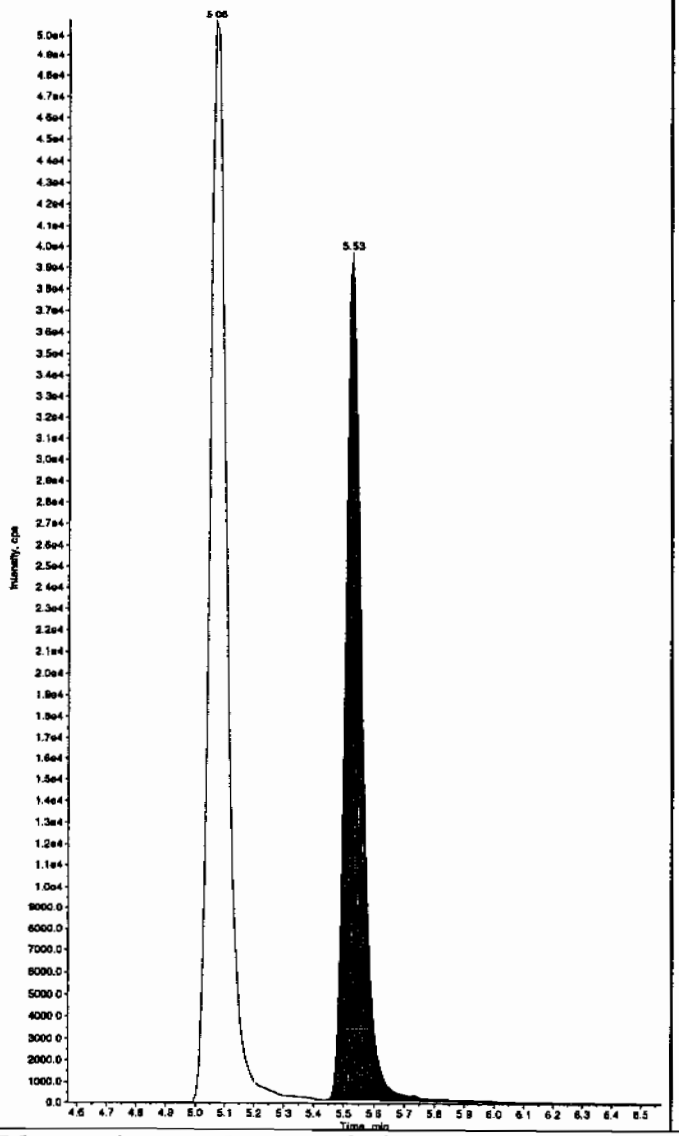

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260114.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	101. ng/mL
Acq. Date:	2/27/2010
Acq. Time:	8:28:37 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	1.73e+006 counts
Height:	498755.157 cps
Start Time:	10.8 min
End Time:	11.2 min

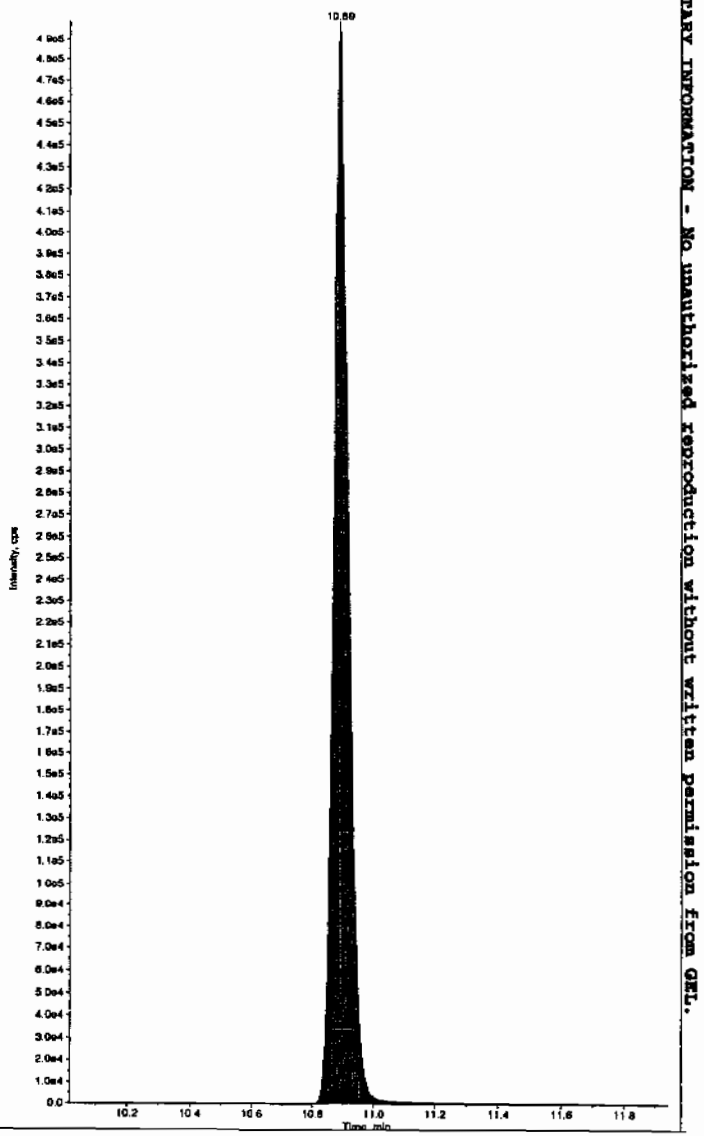

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260123.wiff

Analysis Date: 27–FEB–10 22:49

LCMSMS ID: 1358

Column ID JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	507	101	
2,6–Diamino–4–nitrotoluene	500	489	98	
3,4–Dinitrotoluene	250	209	84	
3,5–Dinitroaniline	500	447	89	
TATB	500	473	95	
tris(o–cresyl) phosphate	500	484	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ample Name: "WXX100226-25CCV" Sample ID: "[1]LER" File: "EXS02260123.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
ncentration: 500. ng/mL
culated Conc: 473. ng/mL
. Date: 2/27/2010
. Time: 10:49:52 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

. Type: Valley
ention Time: 7.06 min
a: 5.58e+005 counts
ght: 140523.590 cps
rt Time: 6.96 min
Time: 7.68 min

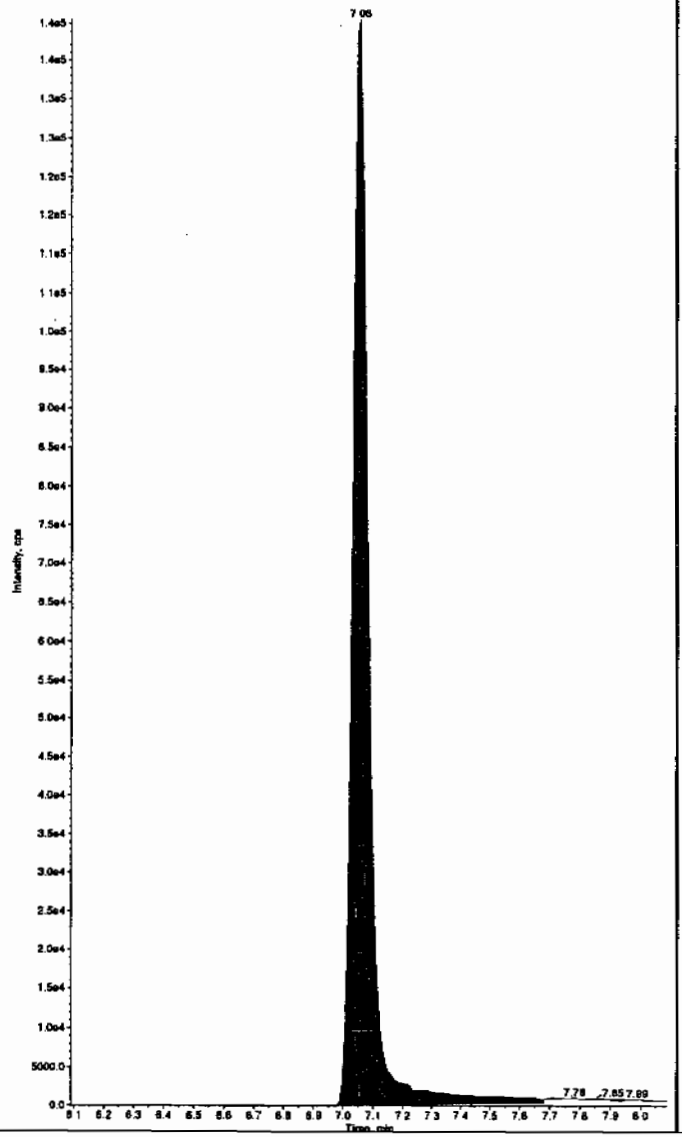

Sample Name: "WXX100225-26CCV" Sample ID: "[1]LER" File: "EXS02260123.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 447. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 10:49:52 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 4.13e+006 counts
Height: 1099061.768 cps
Start Time: 8.20 min
End Time: 8.39 min

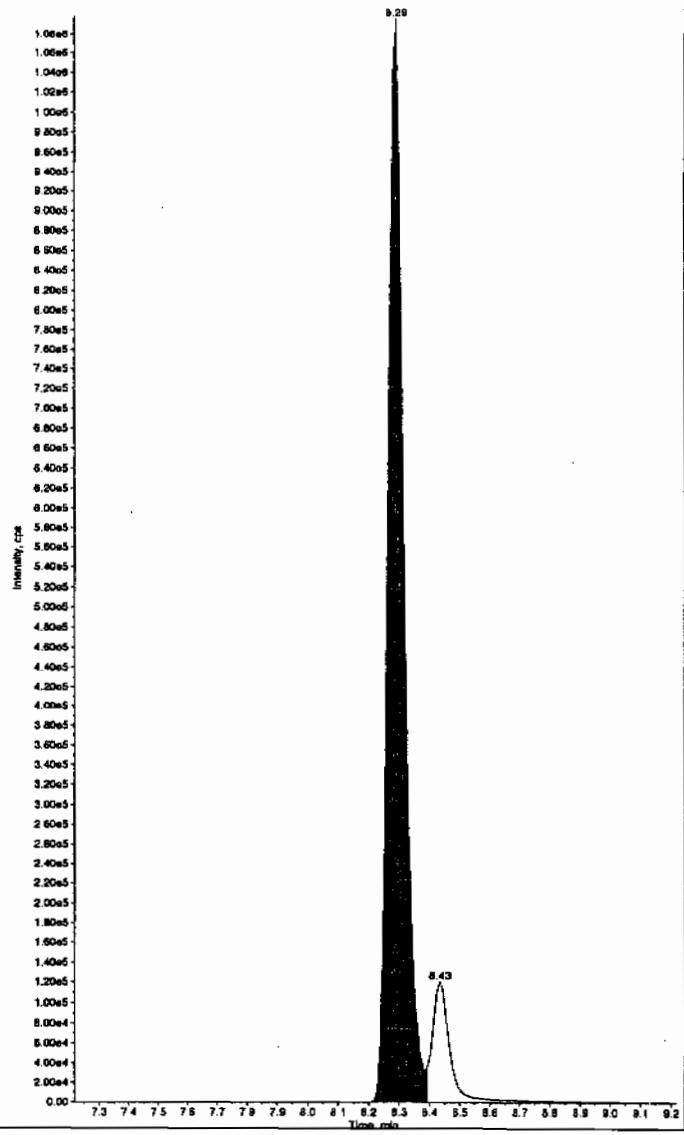

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ample Name: "WXX100226-25CCV" Sample ID: "|1|LER" File: "EXS02260123.wiff"
'eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
icentration:        250.     ng/mL
culated Conc:       209.     ng/mL
. Date:         2/27/2010
. Time:         10:49:52 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:    0.00    sec
othing Width:  3         points
 Window:        15.0     sec
ected RT:        8.46    min
 Relative RT:    No

. Type:         Valley
ention Time:     8.43    min
a:          2.91e+006    counts
ght:          840913.330  cps
rt Time:         8.36    min
 Time:           8.74    min
```

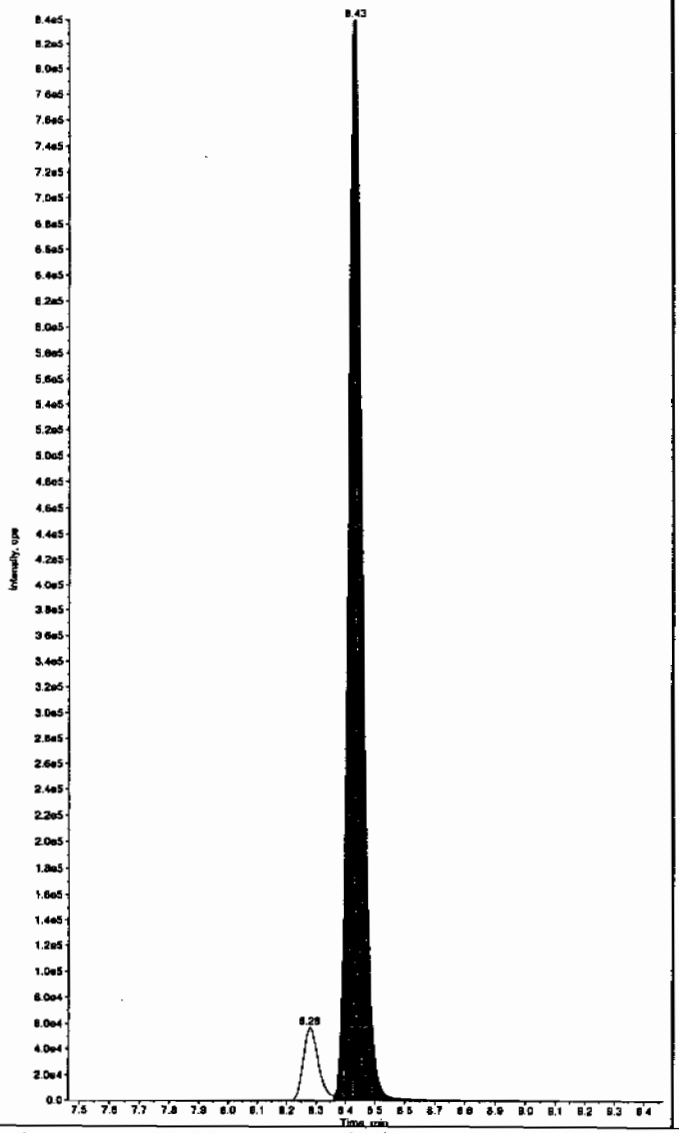

Sample Name: "WXX100226-25CCV" Sample ID: "|1|LER" File: "EXS02260123.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       489.     ng/mL
Acq. Date:         2/27/2010
Acq. Time:         10:49:52 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        5.12    min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:     5.07    min
Area:          1.08e+006    counts
Height:        259045.990   cps
Start Time:         4.98    min
End Time:           5.38    min
```

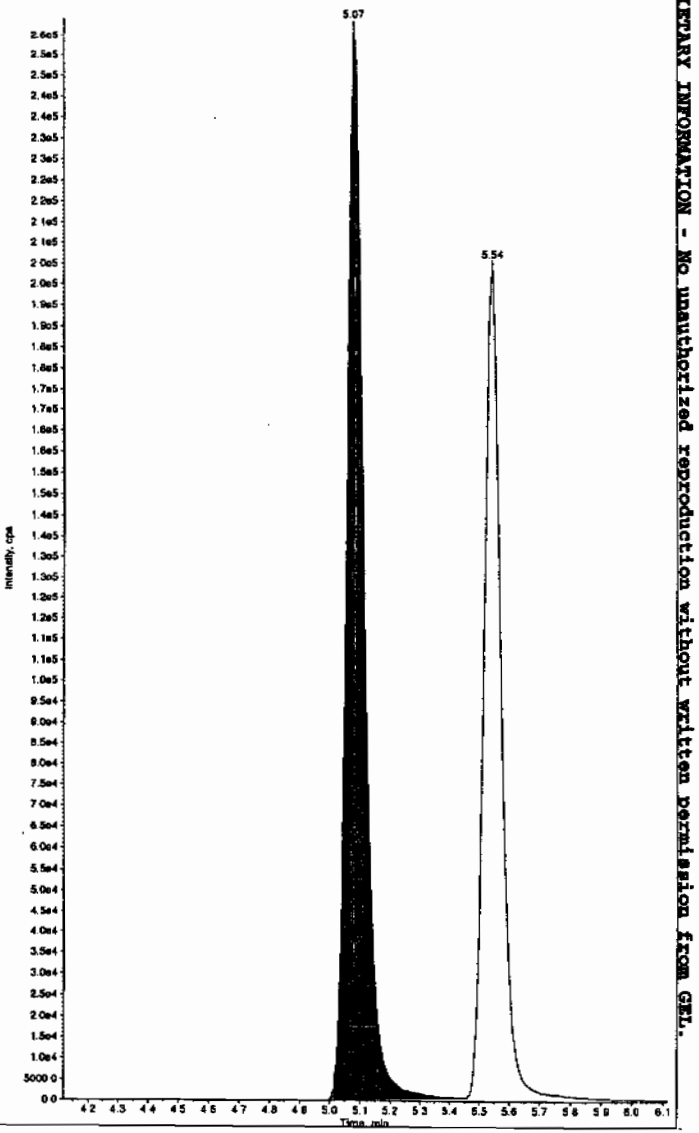

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ample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260123.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         500.     ng/mL
culated Conc:       507.     ng/mL
. Date:         2/27/2010
. Time:         10:49:52 PM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:          30.0    sec
ected RT:         5.57   min
 Relative RT:     No

. Type:         Valley
ention Time:      5.54   min
a:          8.10e+005   counts
ght:          201070.770  cps
rt Time:          5.45   min
 Time:            6.26   min
```

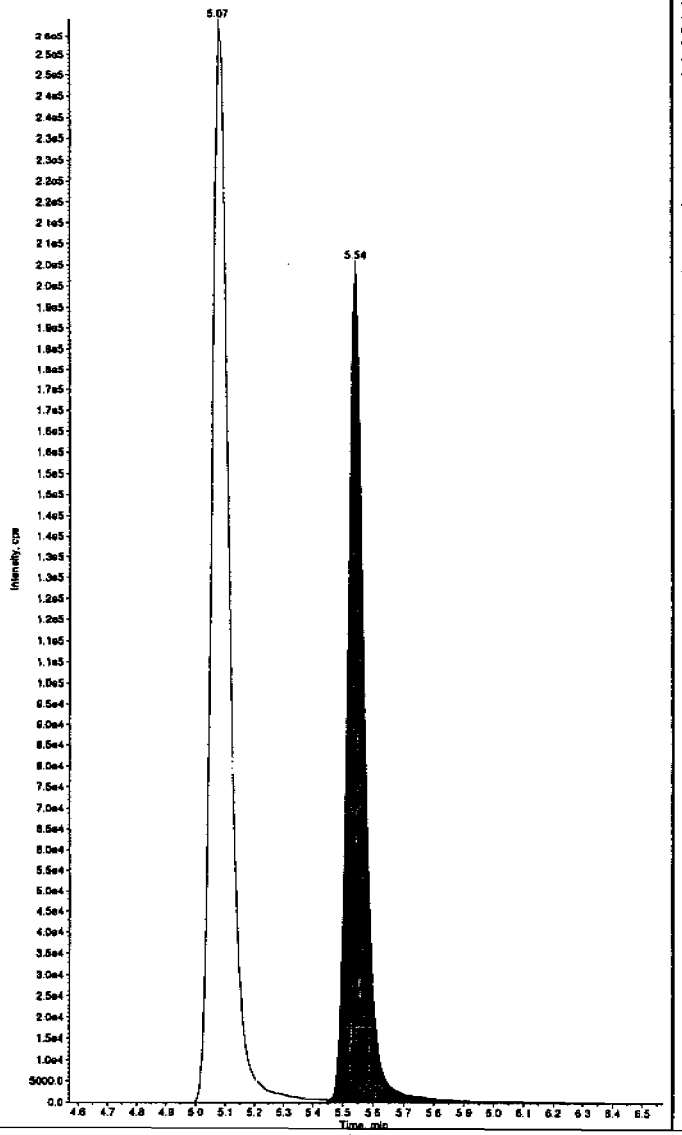

Sample Name: "WXX100226-26CCV" Sample ID: "[1]LER" File: "EXS02260123.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       484.     ng/mL
Acq. Date:         2/27/2010
Acq. Time:         10:49:52 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9    min
Area:          7.50e+006   counts
Height:        2081064.453  cps
Start Time:         10.8    min
End Time:           11.2    min
```

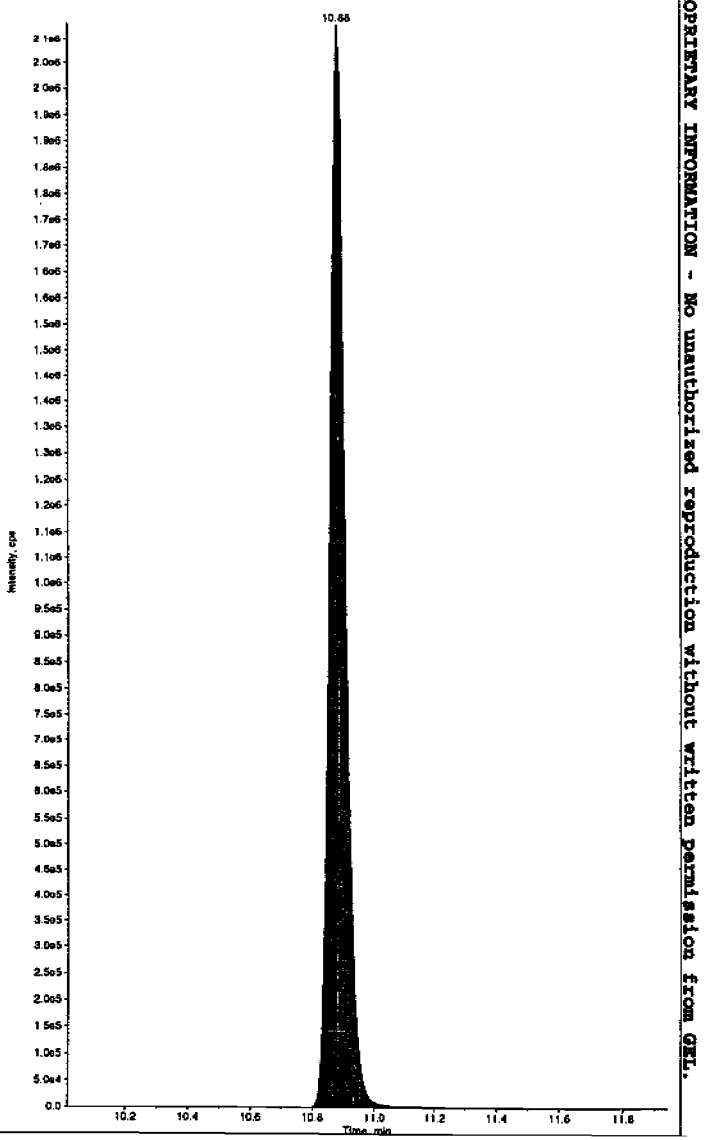

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260125.wiff

Analysis Date: 27-FEB-10 23:21

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,5-Dinitroaniline	100	86.1	86	
TATB	100	101	101	
tris(o-cresyl) phosphate	100	102	102	
2,4-Diamino-6-nitrotoluene	100	116	116	
2,6-Diamino-4-nitrotoluene	100	113	113	
3,4-Dinitrotoluene	50	42.9	86	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	101.	ng/mL
. Date:	2/27/2010	
. Time:	11:21:16 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	7.09	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.06	min
a:	1.03e+005	counts
ght:	26872.643	cps
rt Time:	6.97	min
Time:	7.69	min

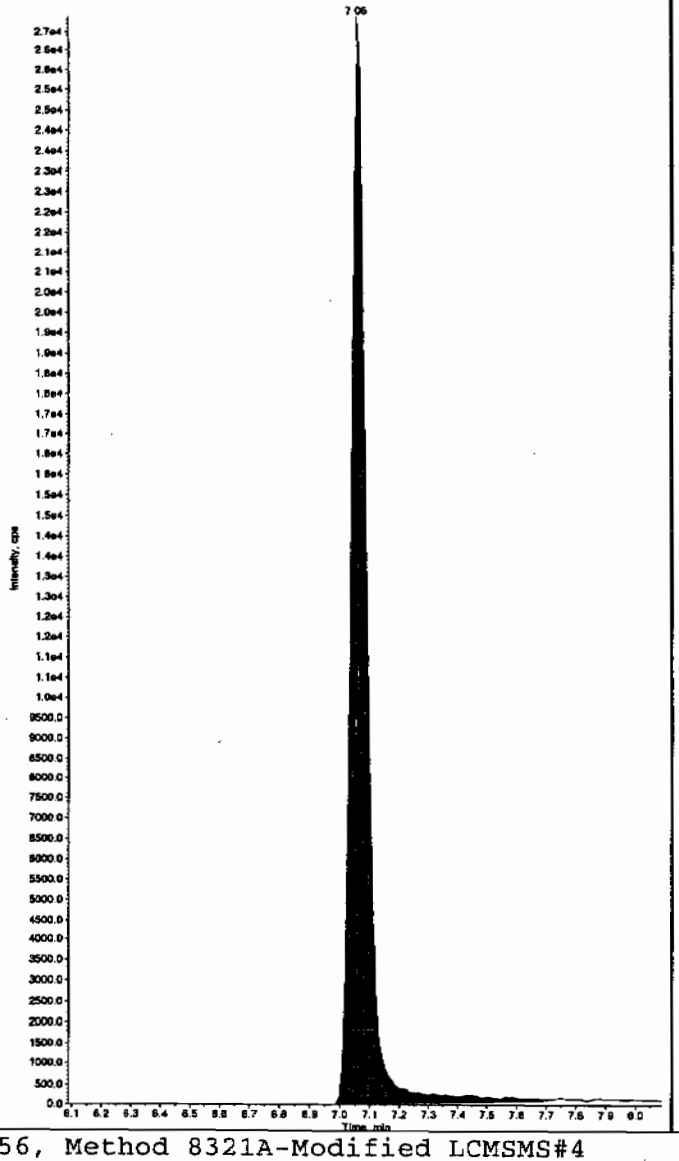

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	86.1	ng/mL
Acq. Date:	2/27/2010	
Acq. Time:	11:21:16 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.24	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.29	min
Area:	8.71e+005	counts
Height:	240817.032	cps
Start Time:	8.20	min
End Time:	8.39	min

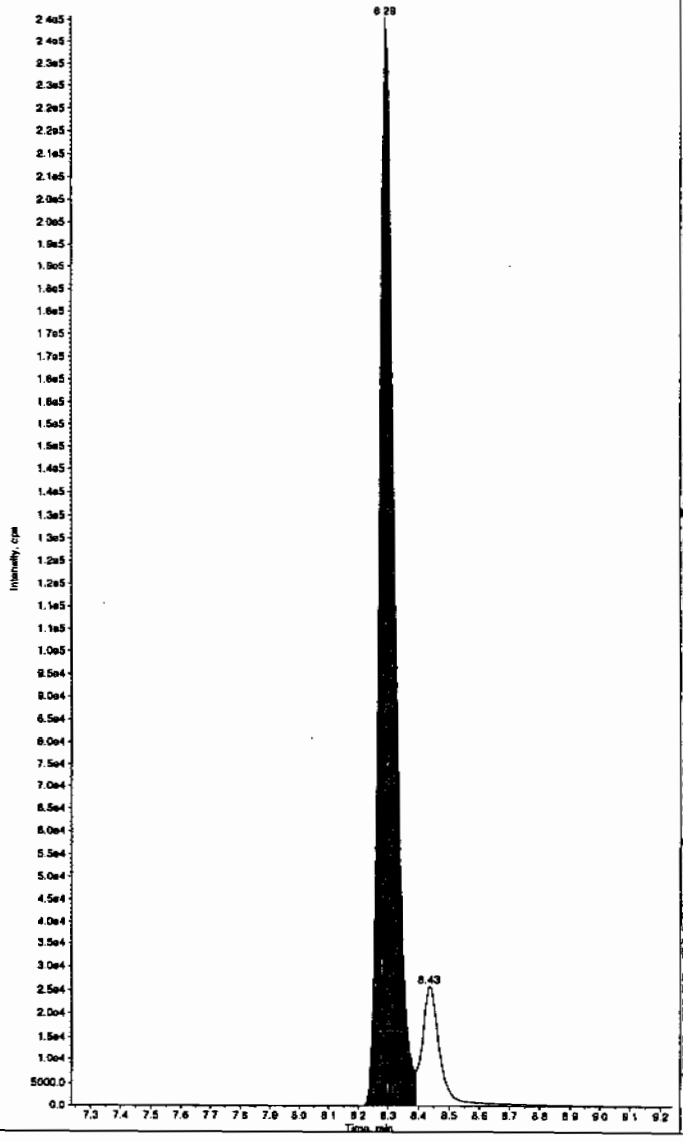

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ample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260125.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
ncentration: 50.0 ng/mL
lculated Conc: 42.9 ng/mL
q. Date: 2/27/2010
q. Time: 11:21:16 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.46 min
e Relative RT: No

:. Type: Valley
tention Time: 8.43 min
ea: 6.21e+005 counts
ight: 182975.998 cps
rt Time: 8.36 min
1 Time: 8.74 min

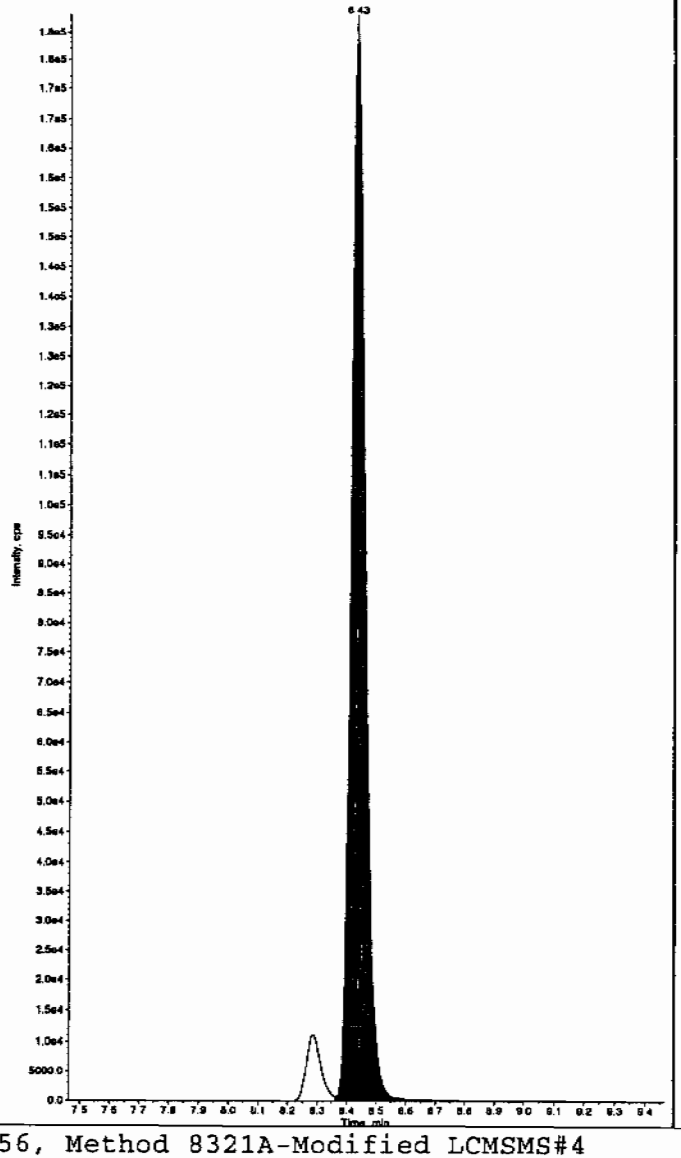

Sample Name: "WXX100226-27CRI" Sample ID: "|1|LER" File: "EXS02260125.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:21:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 2.47e+005 counts
Height: 60243.855 cps
Start Time: 4.93 min
End Time: 5.38 min

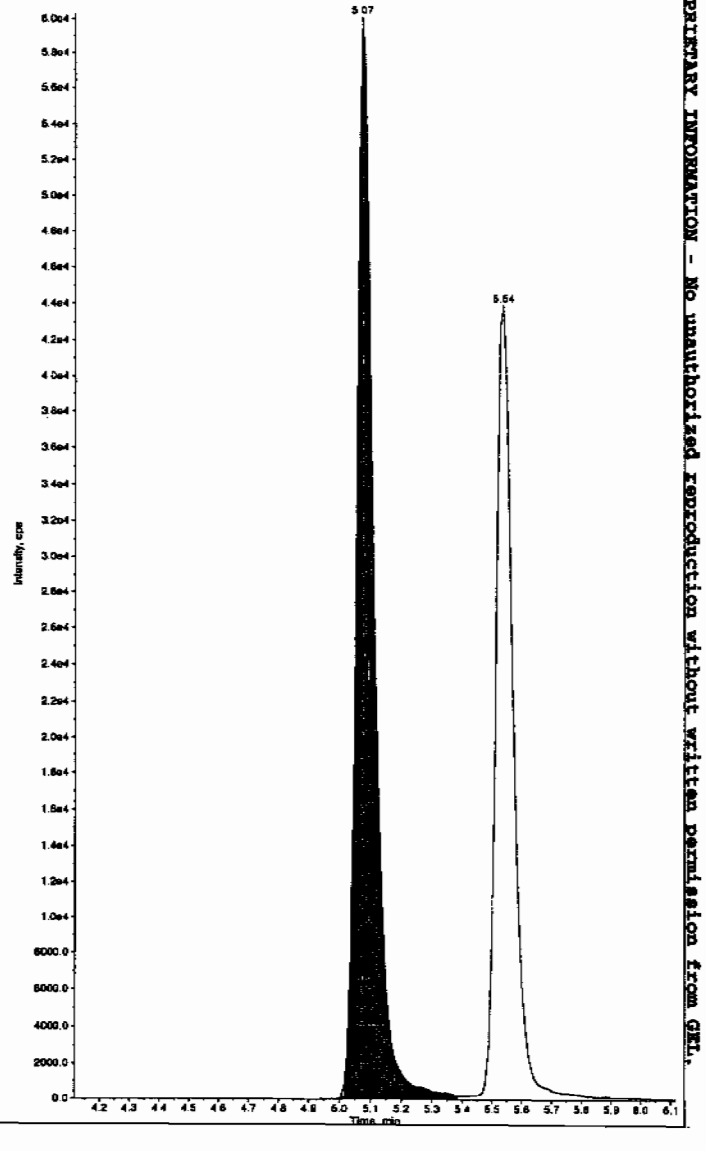

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Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index: 1
nple Type: QC
ncentration: 100. ng/mL
lculated Conc: 116. ng/mL
q. Date: 2/27/2010
q. Time: 11:21:16 PM

ified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.57 min
Relative RT: No

. Type: Valley
tention Time: 5.54 min
ea: 1.77e+005 counts
ight: 43947.105 cps
art Time: 5.39 min
d Time: 5.86 min

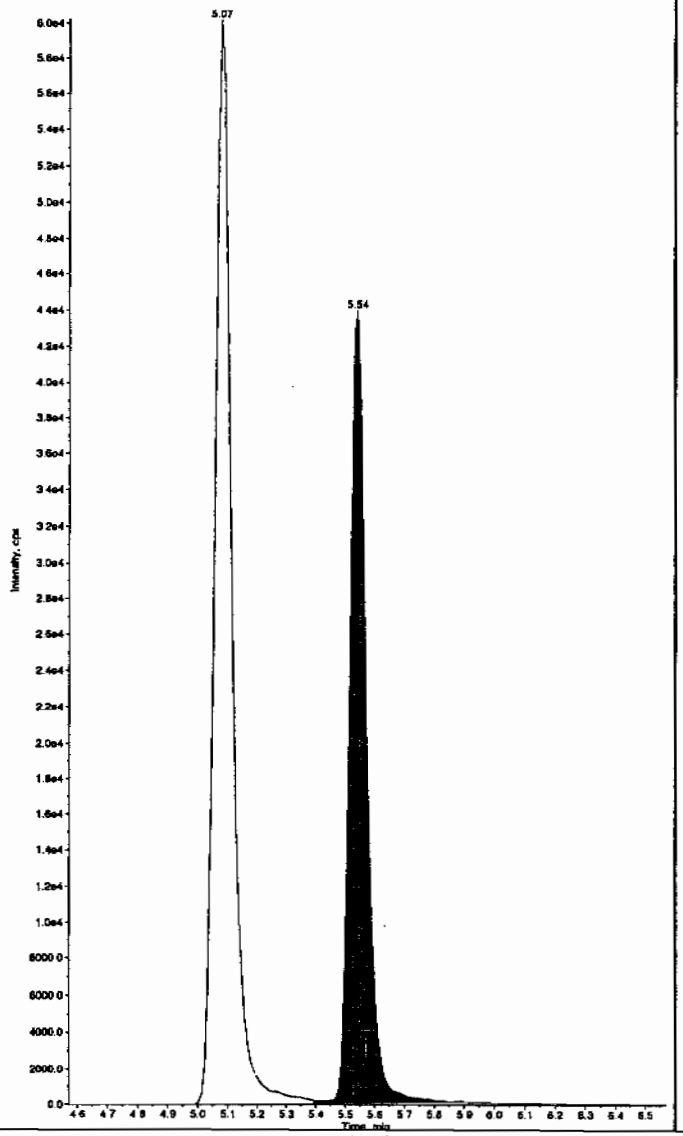

Sample Name: "WXX100226-27CRI" Sample ID: "[1]LER" File: "EXS02260125.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:21:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.75e+006 counts
Height: 484998.596 cps
Start Time: 10.8 min
End Time: 11.2 min

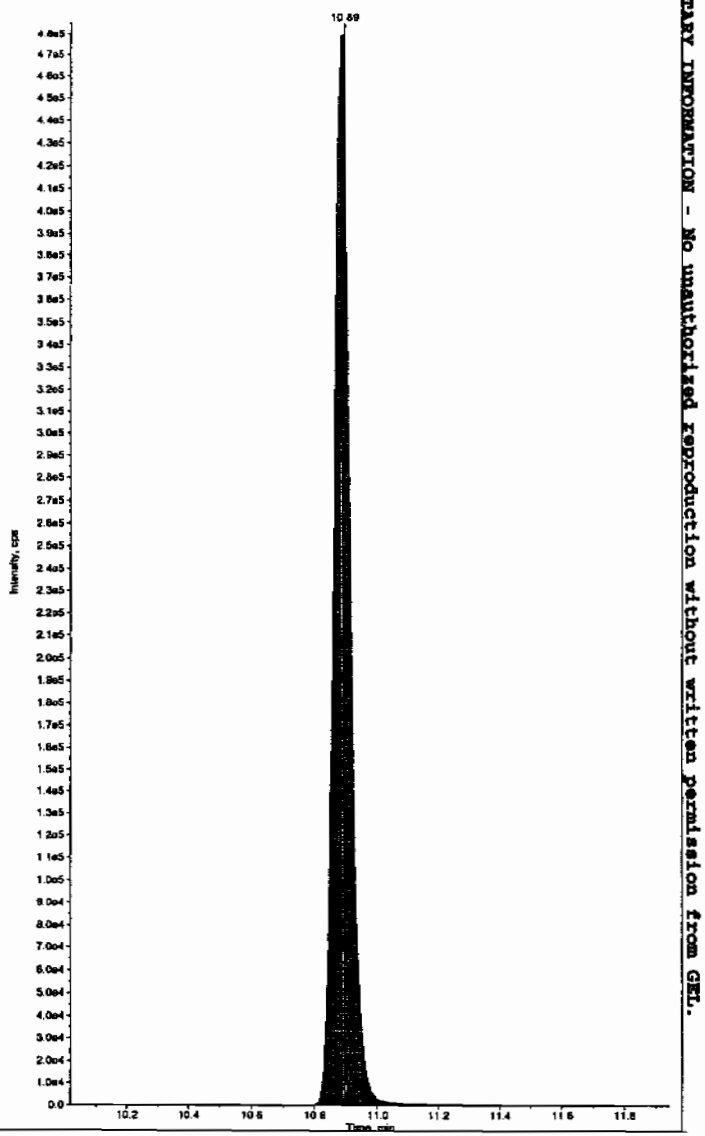

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260136.wiff

Analysis Date: 28–FEB–10 02:14

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	642	128	
2,6–Diamino–4–nitrotoluene	500	647	129	
3,4–Dinitrotoluene	250	213	85	
3,5–Dinitroaniline	500	439	88	
TATB	500	513	103	
tris(o–cresyl) phosphate	500	493	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 3/1/10

ample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02260136.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
ncentration: 500. ng/mL
culated Conc: 513. ng/mL
. Date: 2/28/2010
. Time: 2:14:05 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

.. Type: Valley
ention Time: 7.06 min
a: 6.07e+005 counts
ght: 152302.231 cps
rt Time: 6.97 min
Time: 7.95 min

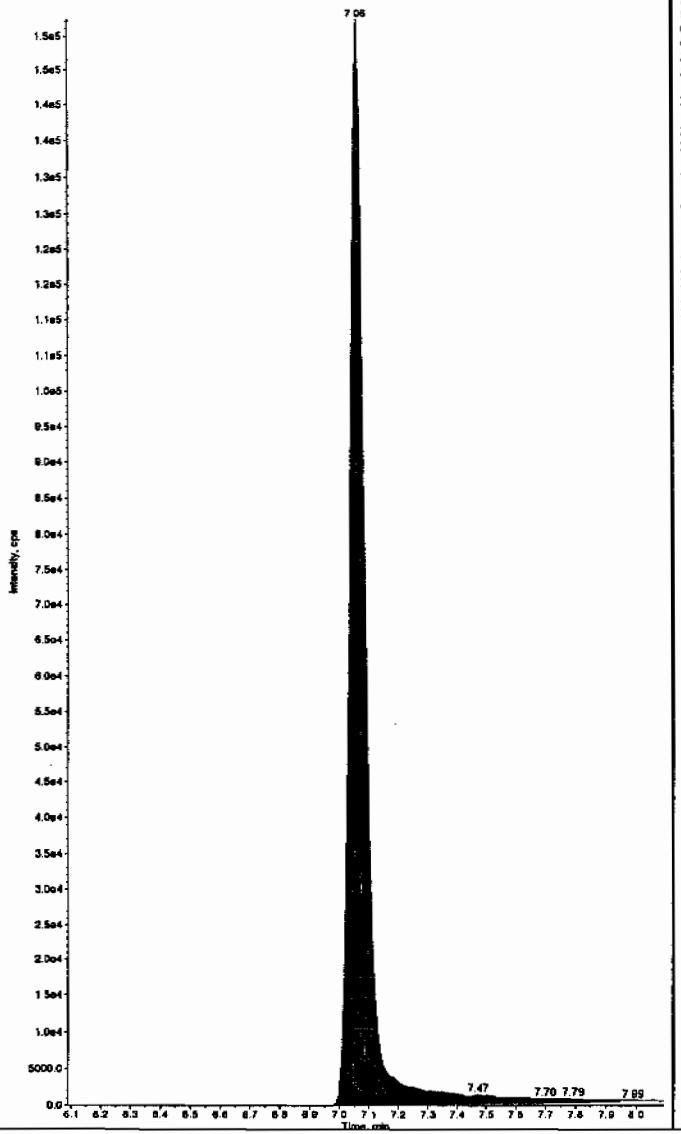

Sample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02260136.wiff"
Peak Name: "3S-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 439. ng/mL
Acq. Date: 2/28/2010
Acq. Time: 2:14:05 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 4.05e+006 counts
Height: 1063914.185 cps
Start Time: 8.20 min
End Time: 8.39 min

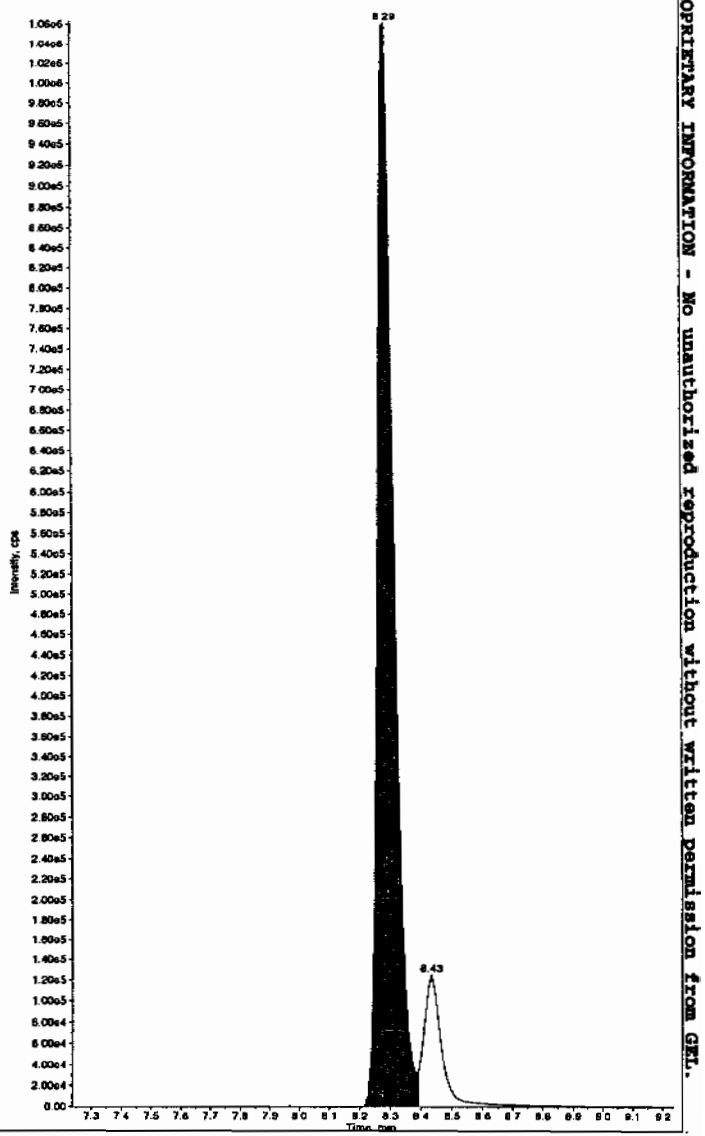

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Sample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02250135.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1
mple Type:	QC
ncentration:	250. ng/mL
lculated Conc:	213. ng/mL
q. Date:	2/26/2010
q. Time:	2:14:05 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.46 min
e Relative RT:	No
t. Type:	Valley
tention Time:	8.42 min
ea:	2.96e+006 counts
ight:	846698.059 cps
art Time:	8.36 min
d Time:	8.74 min

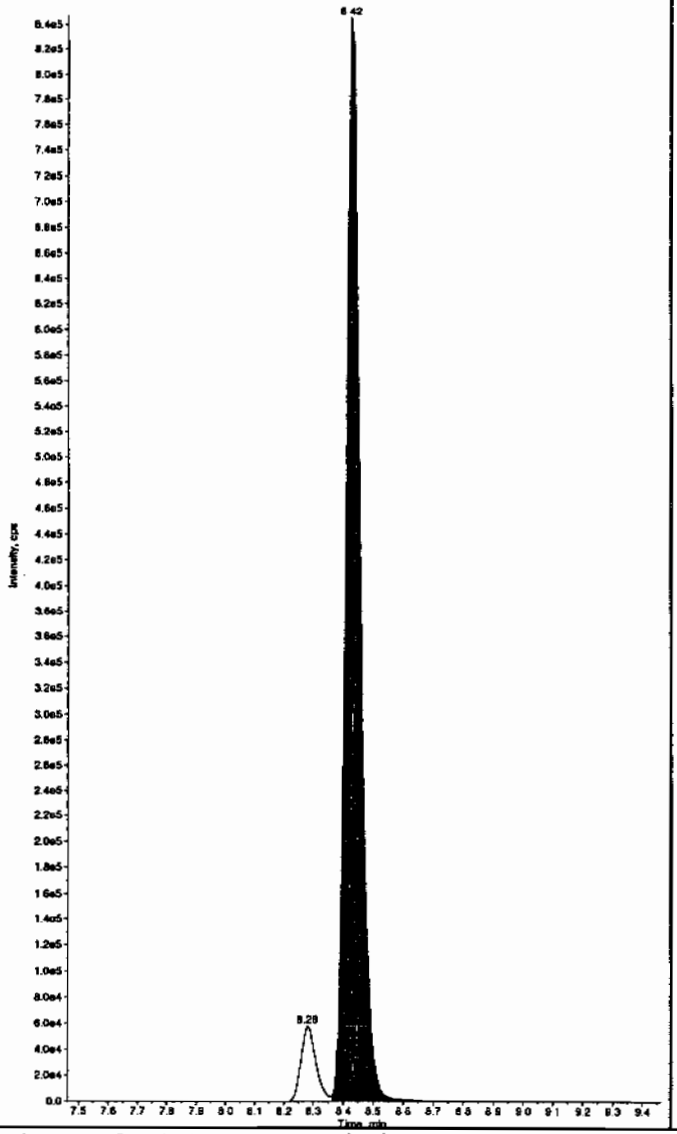

Sample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02250135.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	647. ng/mL
Acq. Date:	2/28/2010
Acq. Time:	2:14:05 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.12 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.08 min
Area:	1.42e+006 counts
Height:	343963.593 cps
Start Time:	4.99 min
End Time:	5.36 min

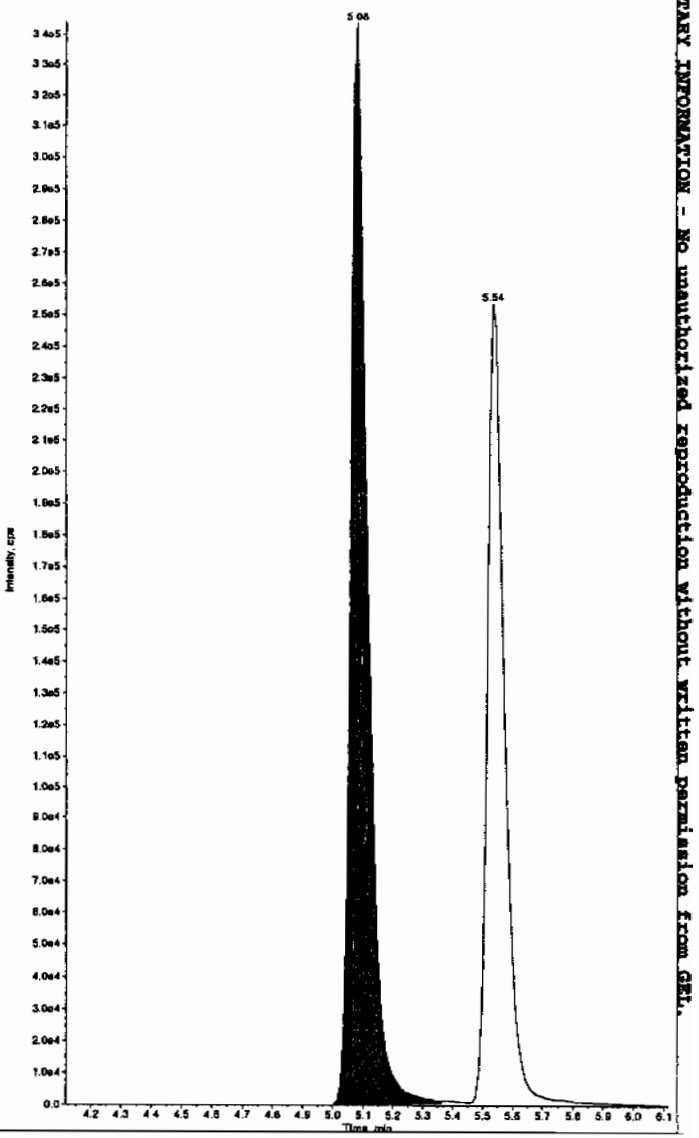

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

ample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02260136.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	642.	ng/mL
. Date:	2/28/2010	
. Time:	2:14:05 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.57	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.54	min
a:	1.03e+006	counts
ght:	253787.354	cps
rt Time:	5.46	min
Time:	6.05	min

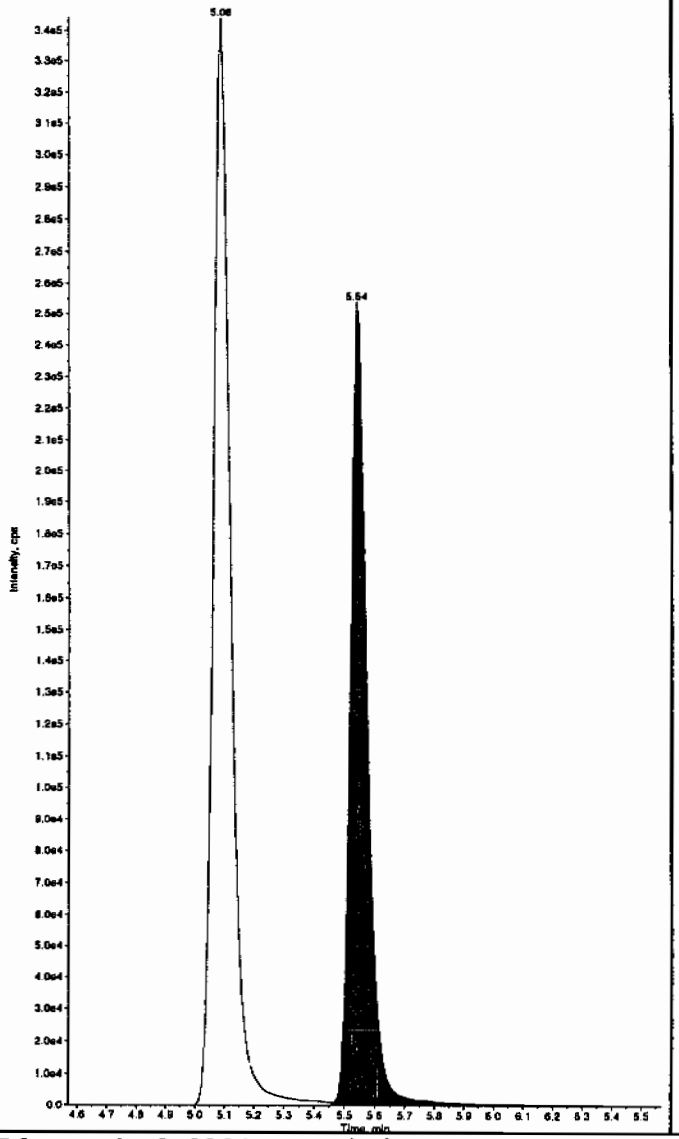

Sample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02260136.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	493.	ng/mL
Acq. Date:	2/28/2010	
Acq. Time:	2:14:05 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	7.62e+006	counts
Height:	2072898.193	cps
Start Time:	10.8	min
End Time:	11.2	min

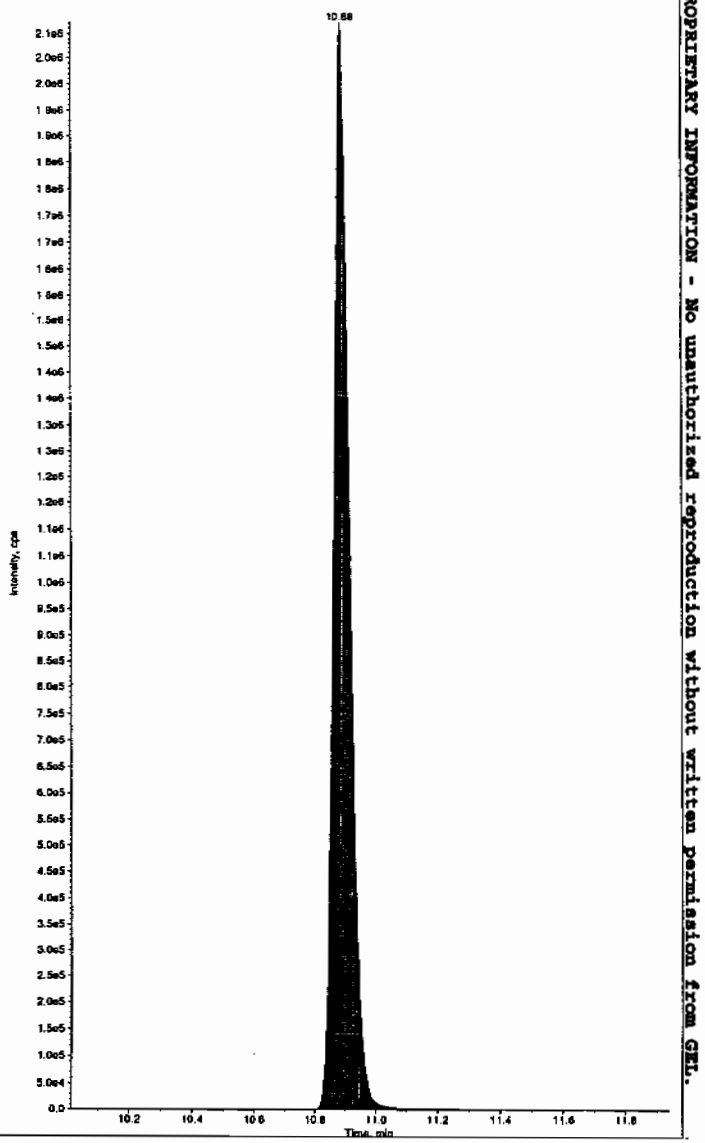

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS02260138.wiff

Analysis Date: 28–FEB–10 02:45

LCMSMS ID: 1358

Column ID: ISphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	134	134	
2,6–Diamino–4–nitrotoluene	100	135	135	
3,4–Dinitrotoluene	50	44.3	89	
3,5–Dinitroaniline	100	87.8	88	
TATB	100	105	105	
tris(o–cresyl) phosphate	100	98.5	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rev 3/1/10

ample Name: "WXX100227-27CRI" Sample ID: "|1|LER" File: "EXS02260136.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 105. ng/mL
. Date: 2/28/2010
. Time: 2:45:40 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

. Type: Valley
ention Time: 7.06 min
a: 1.08e+005 counts
ght: 27944.248 cps
rt Time: 6.97 min
Time: 7.48 min

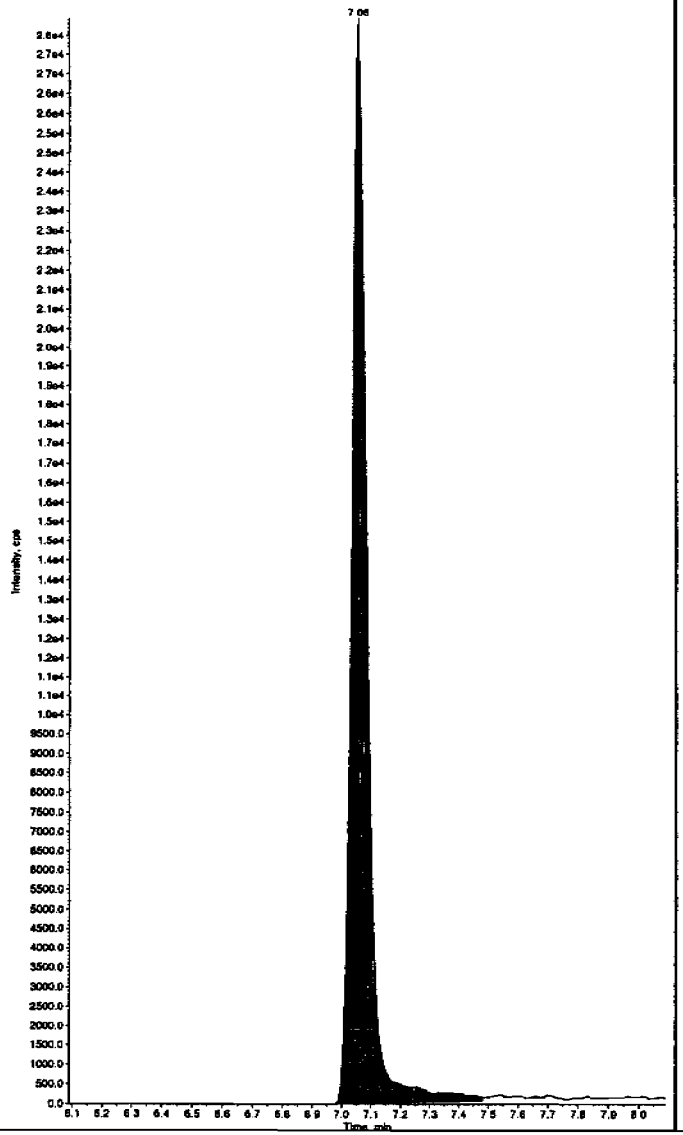

Sample Name: "WXX100227-27CRI" Sample ID: "|1|LER" File: "EXS02260136.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.8 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 2:45:40 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.24 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 8.87e+005 counts
Height: 236931.213 cps
Start Time: 8.20 min
End Time: 8.38 min

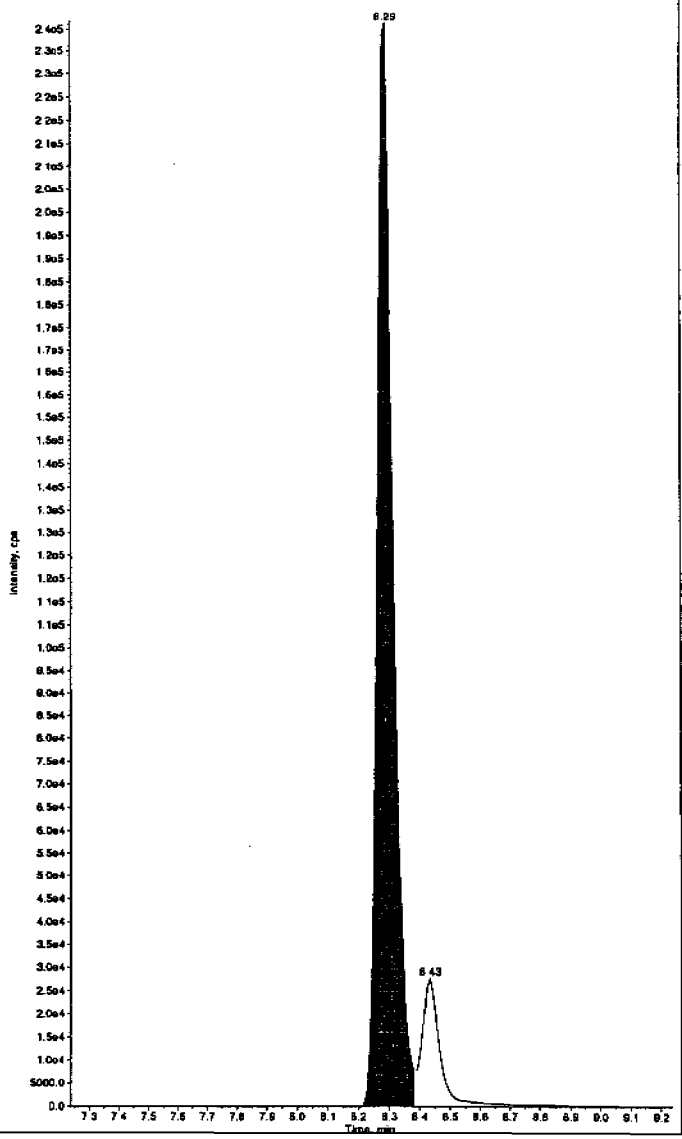

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ample Name: "WXX100227-27CRI" Sample ID: "[1][LER" File: "EXS02260139.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         50.0     ng/mL
culated Conc:       44.3     ng/mL
. Date:         2/28/2010
. Time:         2:45:40 AM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  3        points
Window:           15.0    sec
ected RT:         8.46    min
 Relative RT:     No

. Type:         Valley
ention Time:      8.42    min
a:          6.41e+005    counts
ght:          186274.155  cps
rt Time:          8.36    min
 Time:            8.76    min
```

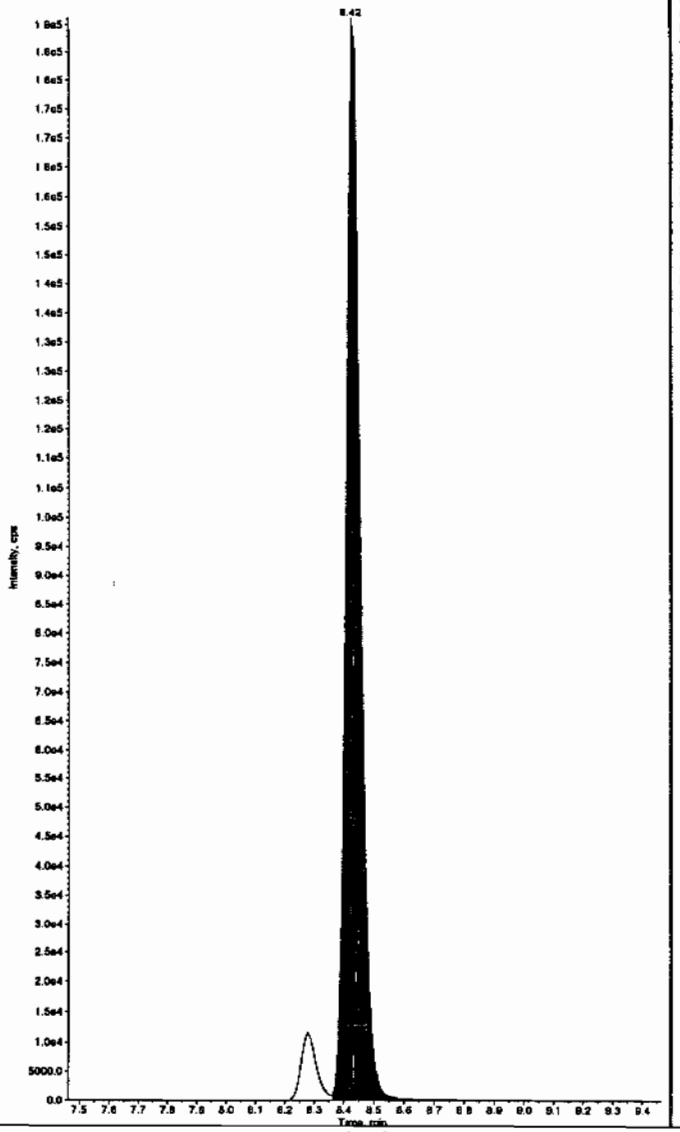

Sample Name: "WXX100227-27CRI" Sample ID: "[1][LER" File: "EXS02260138.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       135.     ng/mL
Acq. Date:         2/28/2010
Acq. Time:         2:45:40 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        5.12    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.08    min
Area:          2.95e+005    counts
Height:        71304.848    cps
Start Time:         4.99    min
End Time:           5.38    min
```

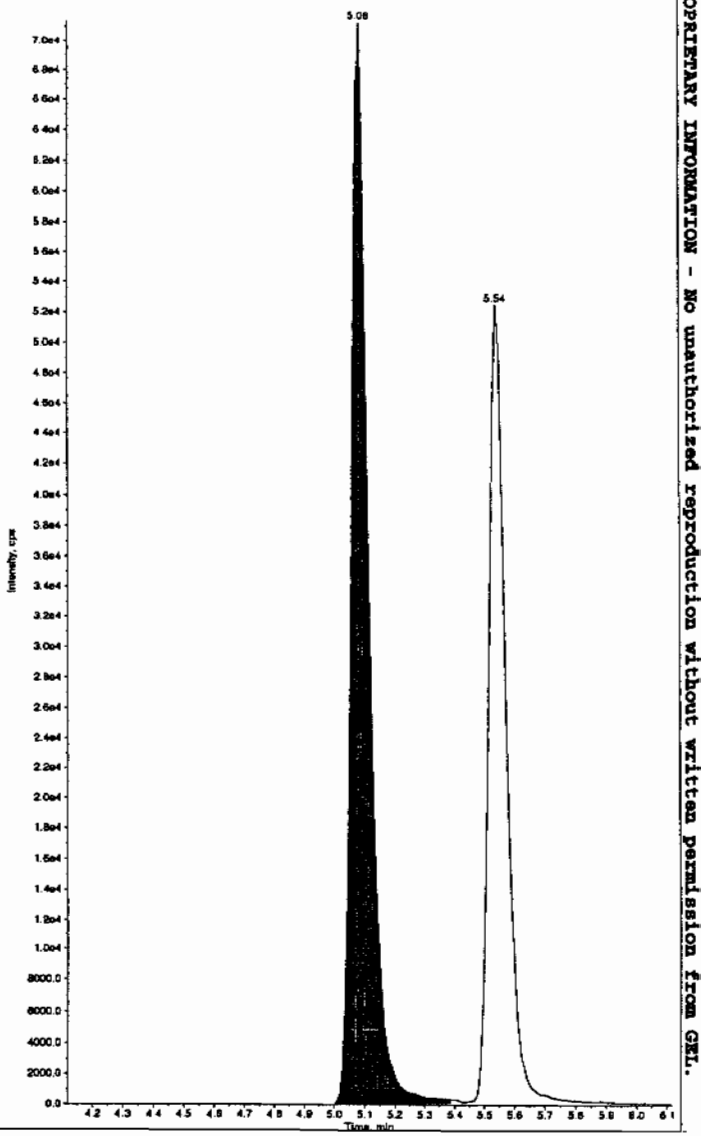

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Sample Name: "WXX100227-27CRI" Sample ID: "[1]LER" File: "EXS02260138.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index: 1
mple Type: QC
ncentration: 100. ng/mL
lculated Conc: 134. ng/mL
q. Date: 2/28/2010
q. Time: 2:45:40 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.57 min
e Relative RT: No

t. Type: Valley
tention Time: 5.54 min
ea: 2.06e+005 counts
ight: 52367.104 cps
art Time: 5.44 min
d Time: 5.84 min

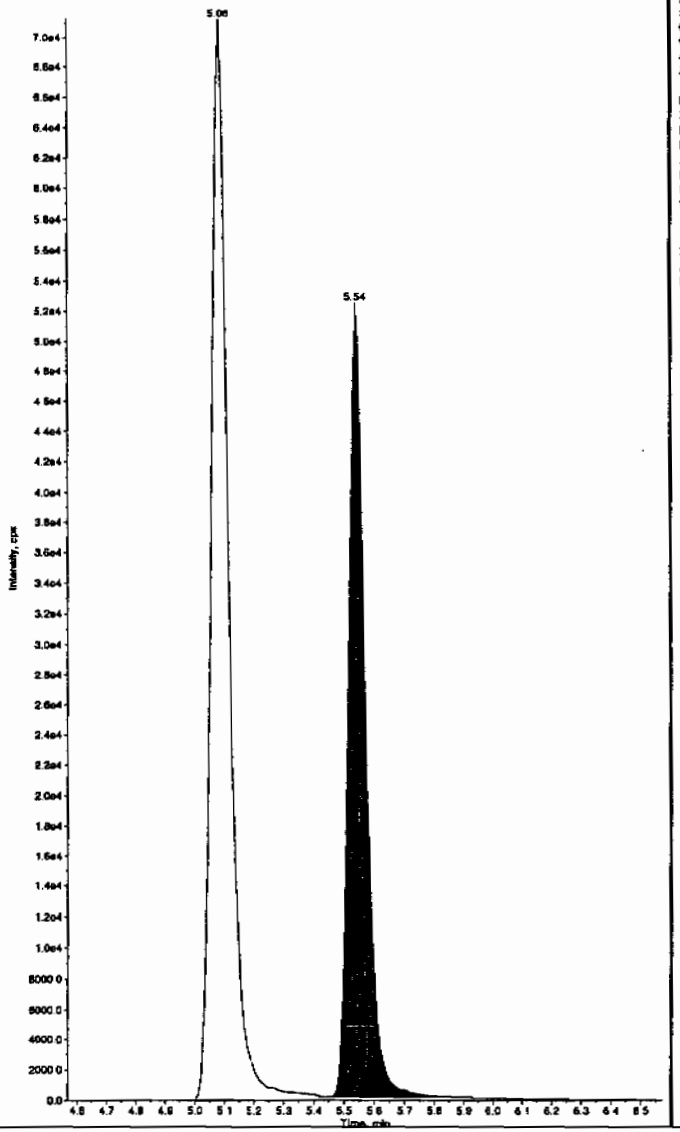

Sample Name: "WXX100227-27CRI" Sample ID: "[1]LER" File: "EXS02260138.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.5 ng/mL
Acq. Date: 2/28/2010
Acq. Time: 2:45:40 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.69e+006 counts
Height: 513895.264 cps
Start Time: 10.8 min
End Time: 11.2 min

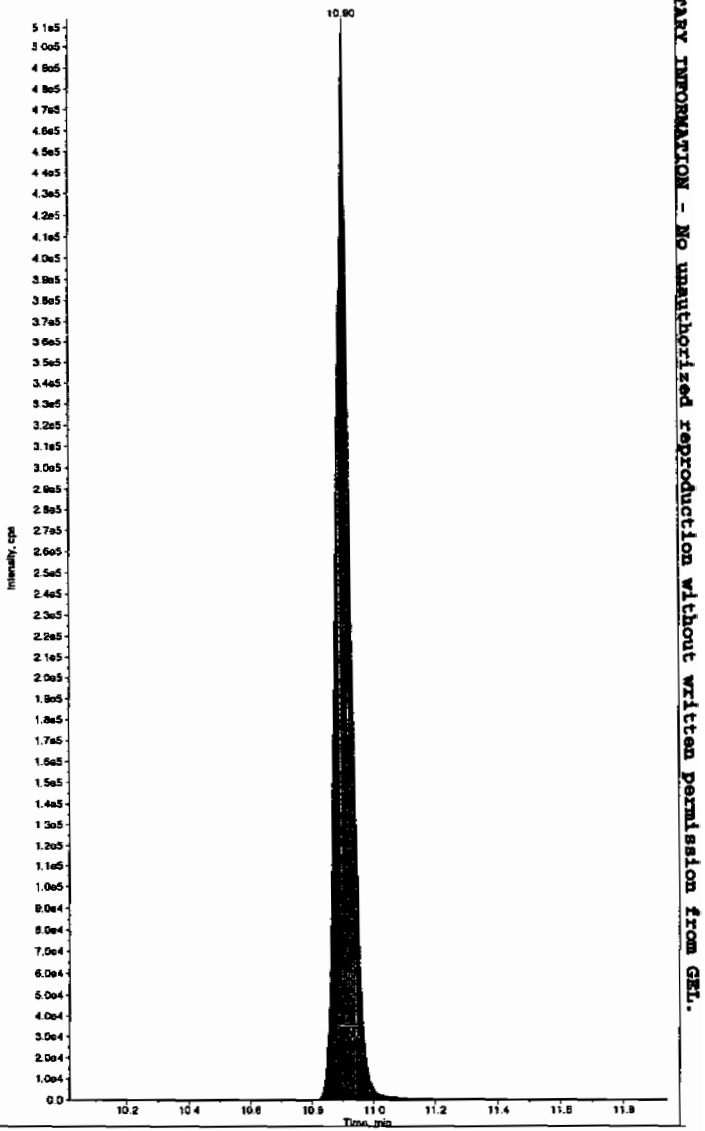

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1545

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS02260149.wiff

Analysis Date: 28–FEB–10 05:38

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,6–Diamino–4–nitrotoluene	500	560	112	
3,4–Dinitrotoluene	250	220	88	
3,5–Dinitroaniline	500	456	91	
TATB	500	492	98	
tris(o–cresyl) phosphate	500	515	103	
2,4–Diamino–6–nitrotoluene	500	571	114	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ler 3/1/10

ample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02260149.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 492. ng/mL
. Date: 2/28/2010
. Time: 5:38:51 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.09 min
Relative RT: No

. Type: Valley
ention Time: 7.06 min
a: 5.81e+005 counts
ght: 144837.997 cps
rt Time: 6.96 min
Time: 7.79 min

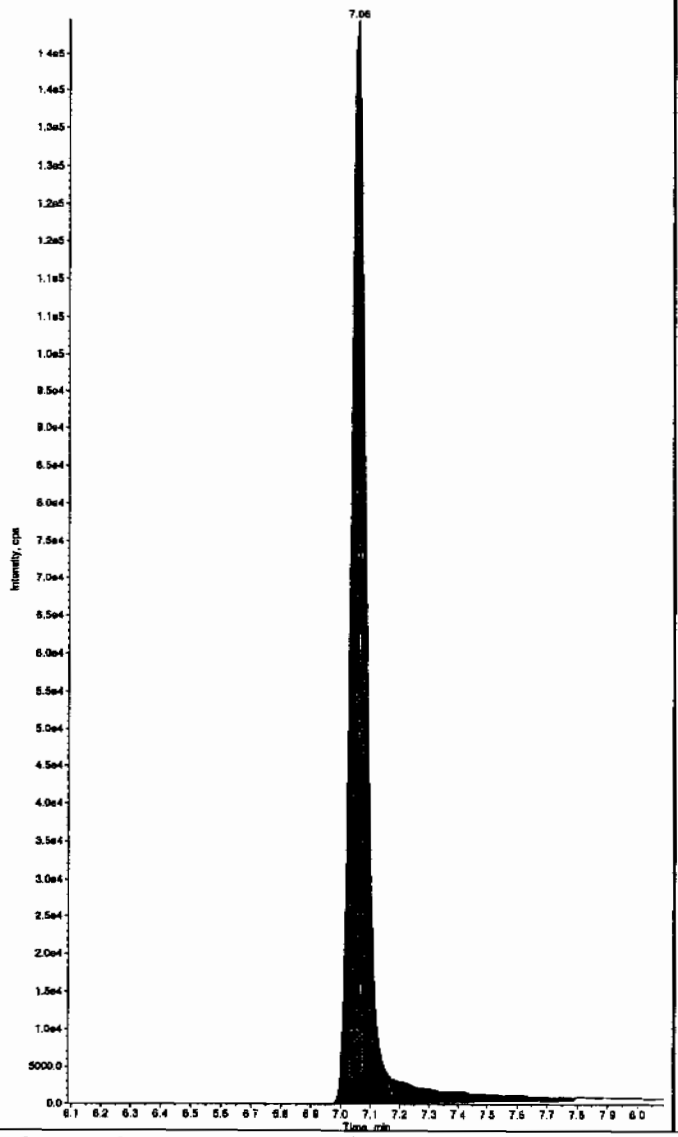

Sample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02260149.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 456. ng/mL
Acq. Date: 2/28/2010
Acq. Time: 5:38:51 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.28 min
Area: 4.20e+006 counts
Height: 1130288.940 cps
Start Time: 8.19 min
End Time: 8.38 min

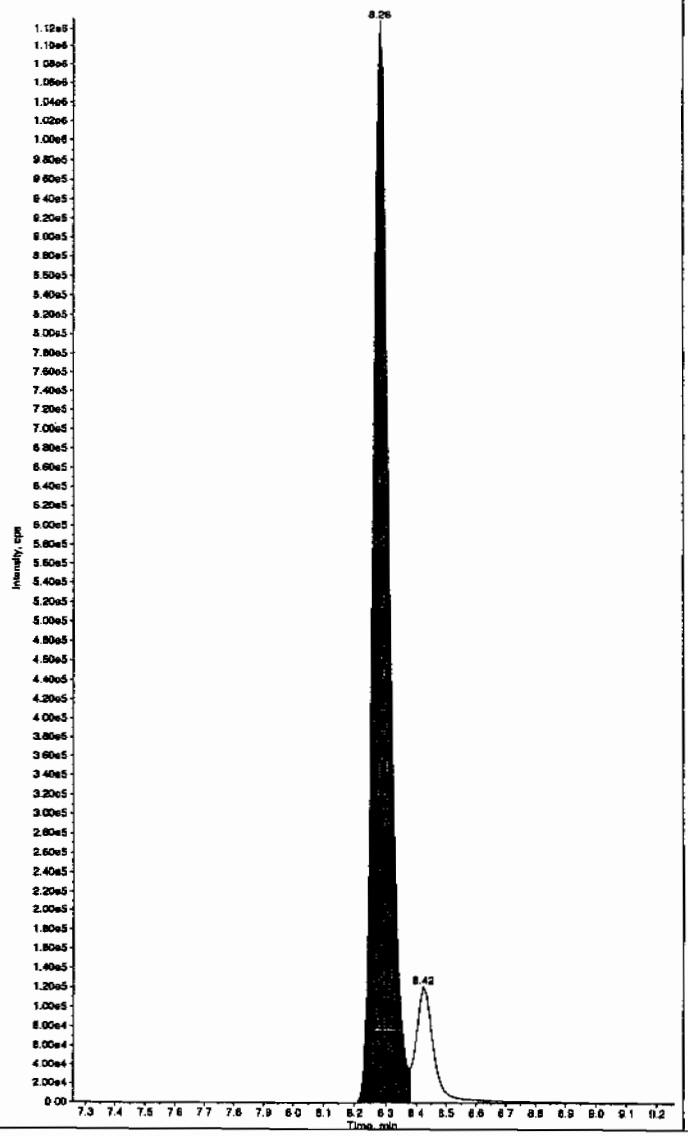

MM 03/01/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02260149.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 220. ng/mL
. Date: 2/28/2010
. Time: 5:38:51 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.46 min
Relative RT: No

. Type: Valley
ention Time: 8.42 min
a: 3.05e+006 counts
ght: 879856.262 cps
rt Time: 8.35 min
. Time: 8.74 min

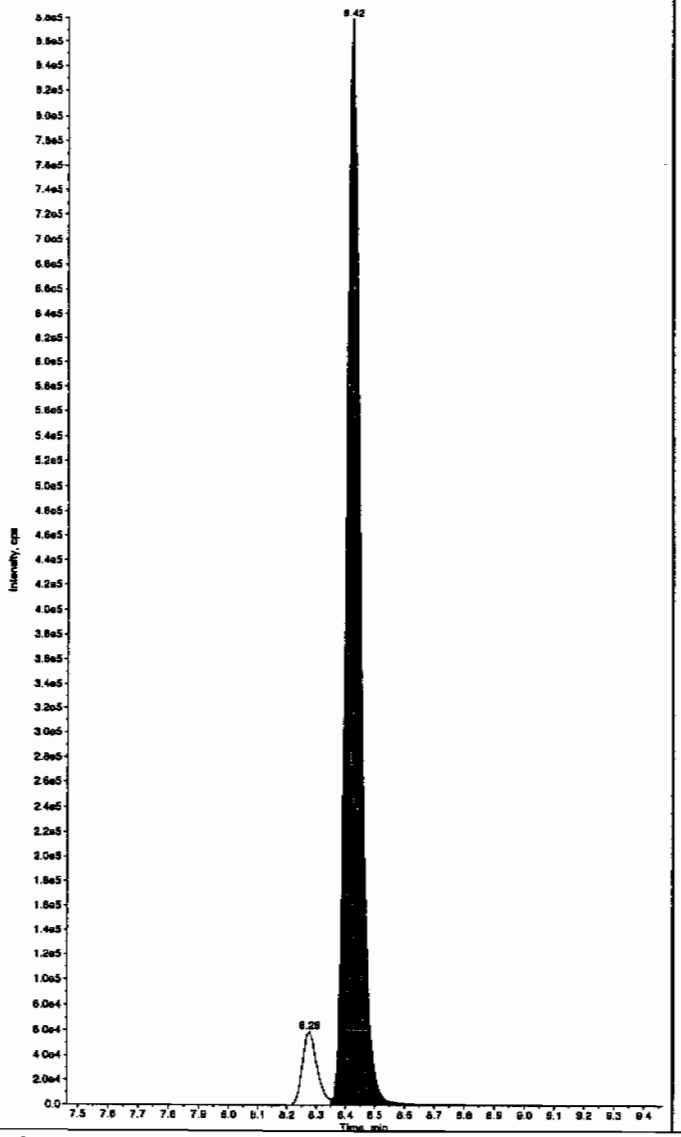

Sample Name: "WXX100227-26CCV" Sample ID: "[1]LER" File: "EXS02260149.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 560. ng/mL
Acq. Date: 2/28/2010
Acq. Time: 5:38:51 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.08 min
Area: 1.23e+006 counts
Height: 299708.374 cps
Start Time: 4.99 min
End Time: 5.38 min

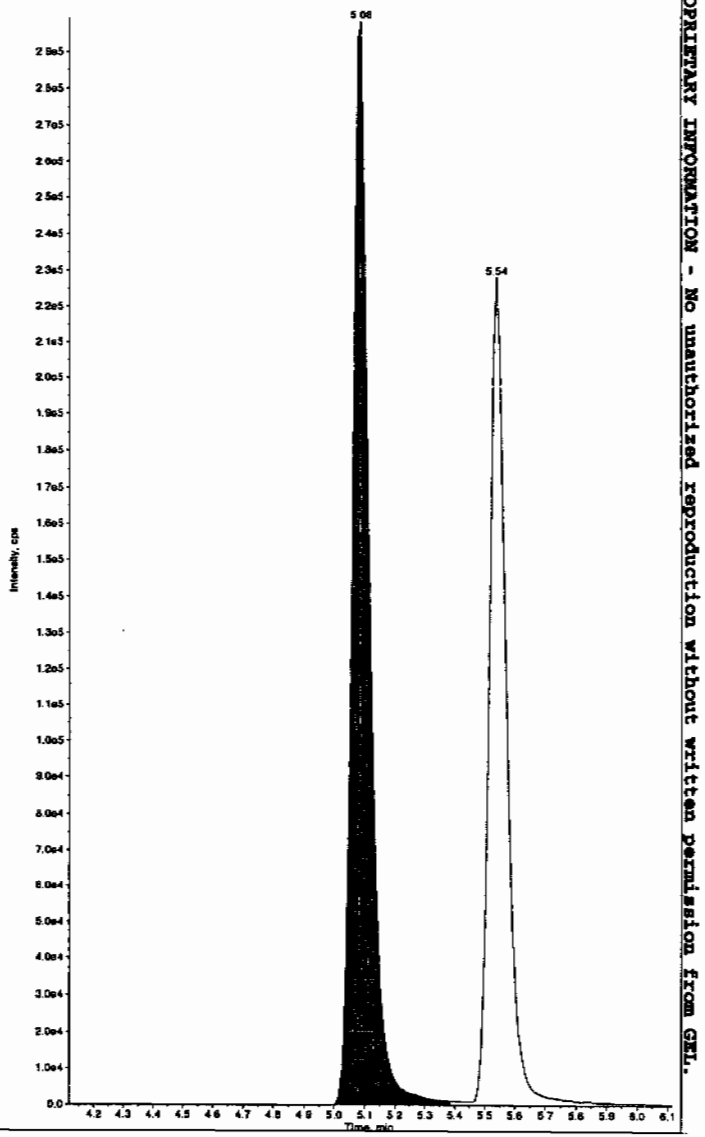

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ample Name: "WXX100227-26CCV" Sample ID: "|1|LER" File: "EXS02260149.wiff"
eak Name: "24-Diamino-5-nitrotoluene" Mass(es): "165.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1
ple Type:	QC
centration:	500. ng/mL
culated Conc:	571. ng/mL
. Date:	2/28/2010
. Time:	5:38:51 AM
ified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	350.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	30.0 sec
ected RT:	5.57 min
Relative RT:	No
. Type:	Valley
ention Time:	5.54 min
a:	9.13e+005 counts
ght:	228668.228 cps
rt Time:	5.44 min
Time:	6.20 min

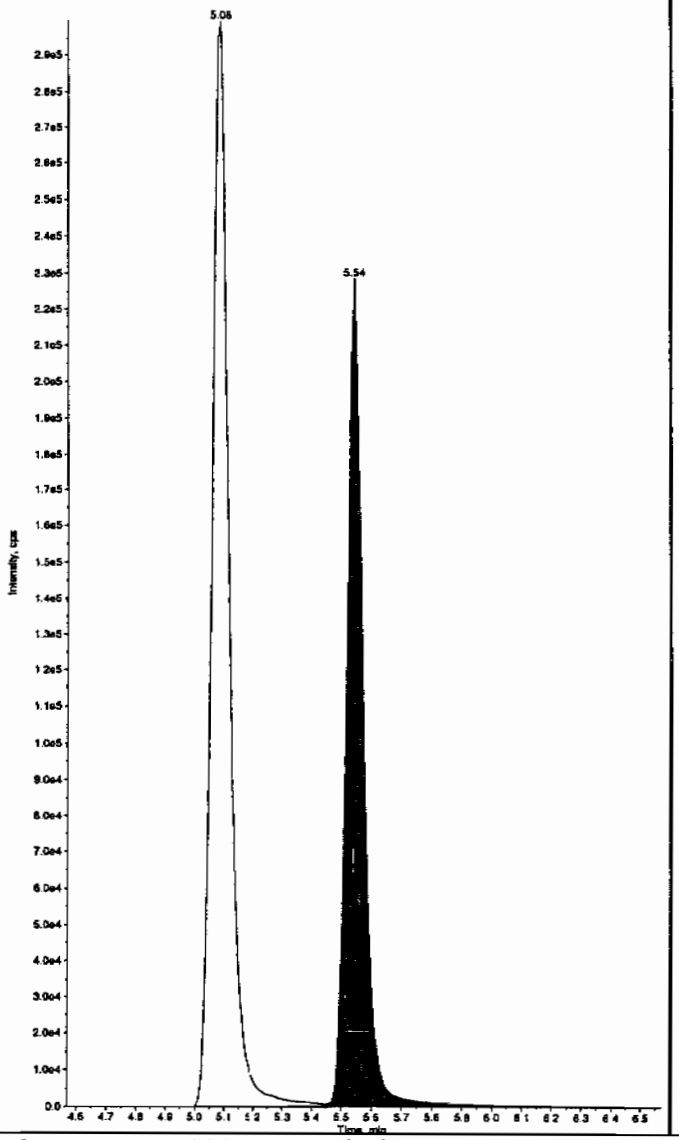

Sample Name: "WXX100227-26CCV" Sample ID: "|1|LER" File: "EXS02260149.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	515. ng/mL
Acq. Date:	2/28/2010
Acq. Time:	5:38:51 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	7.92e+006 counts
Height:	2098227.783 cps
Start Time:	10.8 min
End Time:	11.2 min

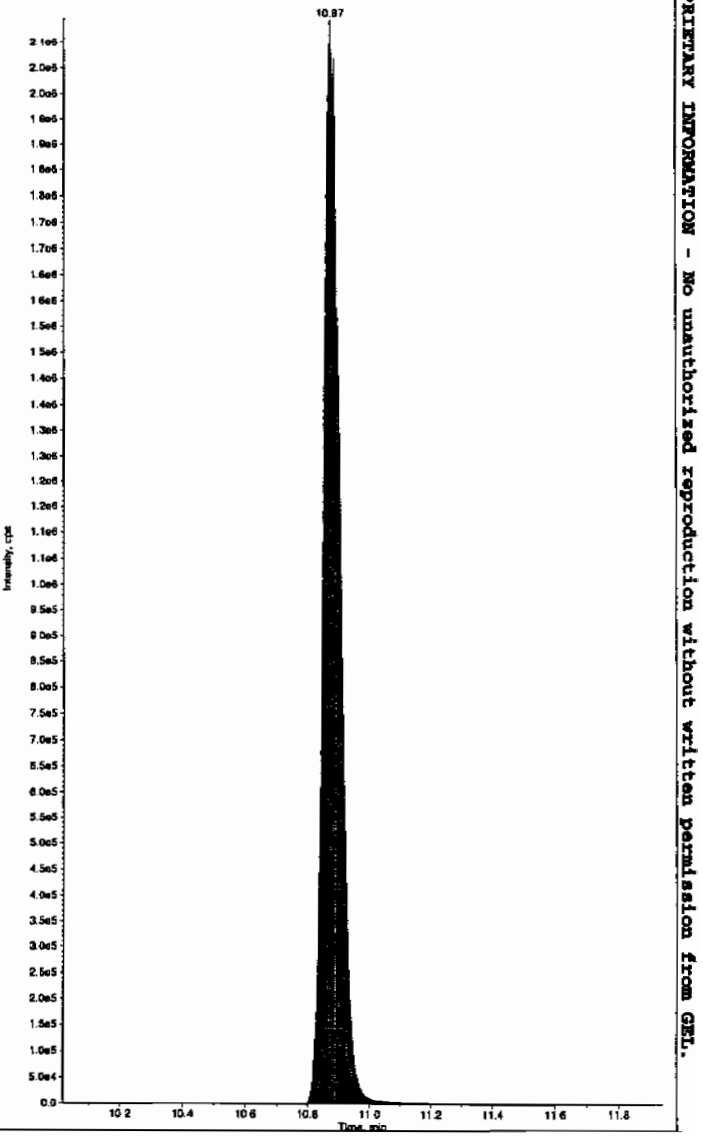

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1545

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS02260151.wiff

Analysis Date: 28-FEB-10 06:10

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	123	123	
2,6-Diamino-4-nitrotoluene	100	114	114	
3,4-Dinitrotoluene	50	43.5	87	
3,5-Dinitroaniline	100	87.7	88	
TATB	100	102	102	
tris(o-cresyl) phosphate	100	105	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/1/10

nple Name: "WXX100227-27CRI" Sample ID: "[1]LER" File: "EXS02260151.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index:	1
le Type:	QC
entration:	100. ng/mL
ulated Conc:	102. ng/mL
Date:	2/28/2010
Time:	6:10:24 AM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	2500.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
Window:	30.0 sec
cted RT:	7.09 min
Relative RT:	No
Type:	Valley
ntion Time:	7.05 min
:	1.05e+005 counts
ght:	27239.624 cps
t Time:	6.93 min
Time:	7.51 min

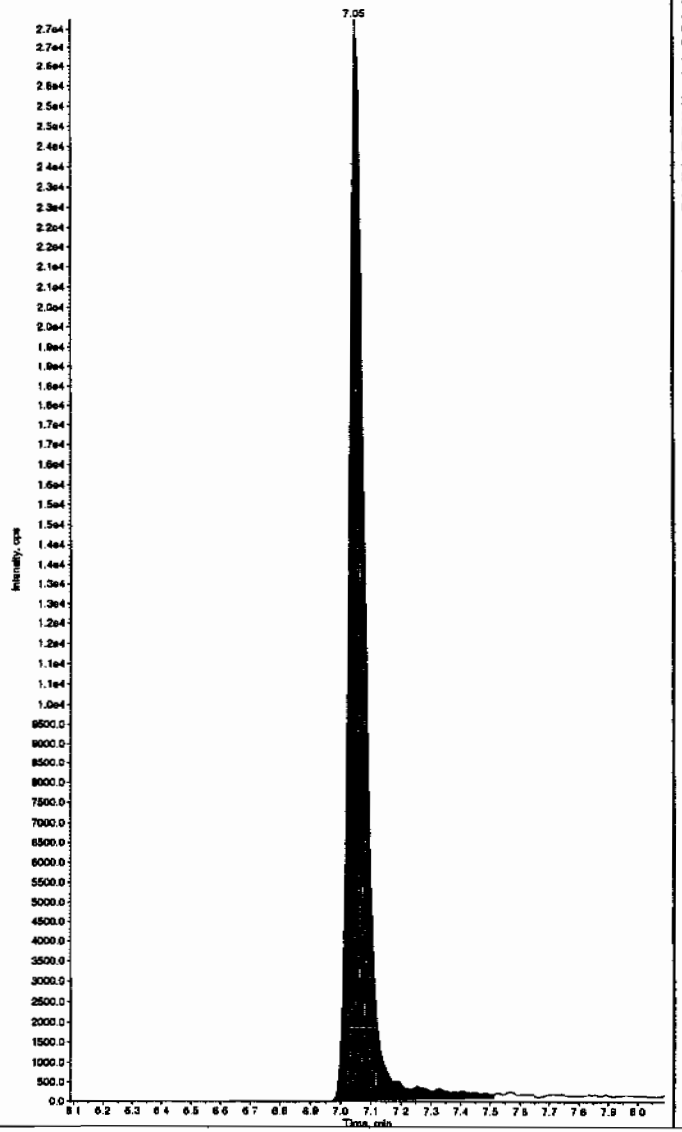

Sample Name: "WXX100227-27CRI" Sample ID: "[1]LER" File: "EXS02260151.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	87.7 ng/mL
Acq. Date:	2/28/2010
Acq. Time:	6:10:24 AM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.23 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.28 min
Area:	8.86e+005 counts
Height:	240583.374 cps
Start Time:	8.19 min
End Time:	8.38 min

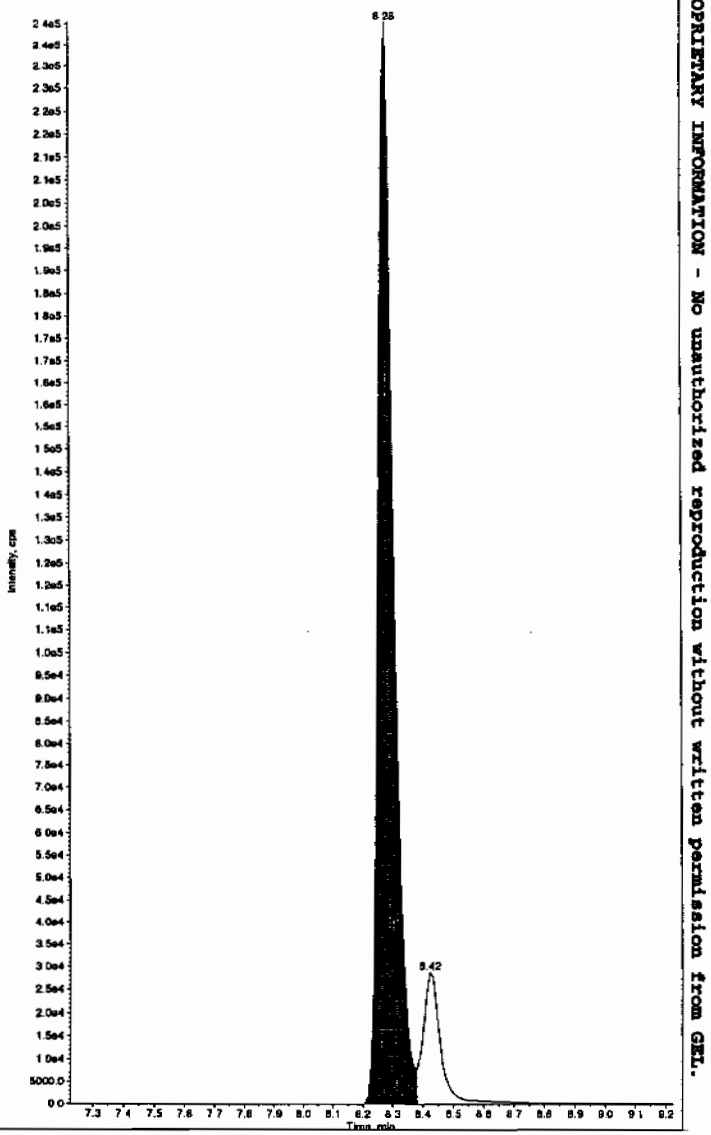

4/1/10 03/01/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "WXX100227-27CRI" Sample ID: "[1]LER" File: "EXS02260151.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:       50.0     ng/mL
culated Conc:     43.5     ng/mL
. Date:        2/28/2010
. Time:        6:10:24 AM

lified:             No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00   cps
. Peak Width:     0.00   sec
othing Width:  3        points
Window:          15.0   sec
ected RT:         8.46  min
Relative RT:      No

. Type:         Valley
ention Time:      8.42  min
a:          6.29e+005   counts
ght:          180015.884  cps
rt Time:          8.35  min
. Time:           8.72  min
```

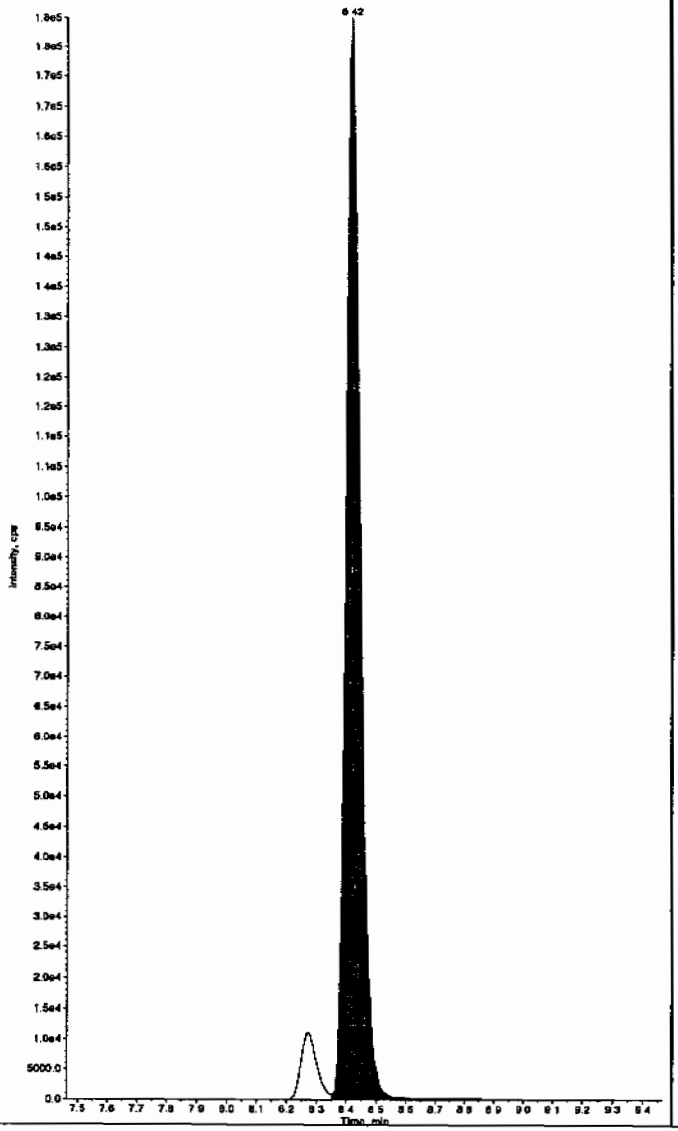

Sample Name: "WXX100227-27CRI" Sample ID: "[1]LER" File: "EXS02260151.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.     ng/mL
Calculated Conc:     114.     ng/mL
Acq. Date:        2/28/2010
Acq. Time:        6:10:24 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.12   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     5.08   min
Area:          2.50e+005   counts
Height:        60249.897   cps
Start Time:         4.97   min
End Time:           5.38   min
```

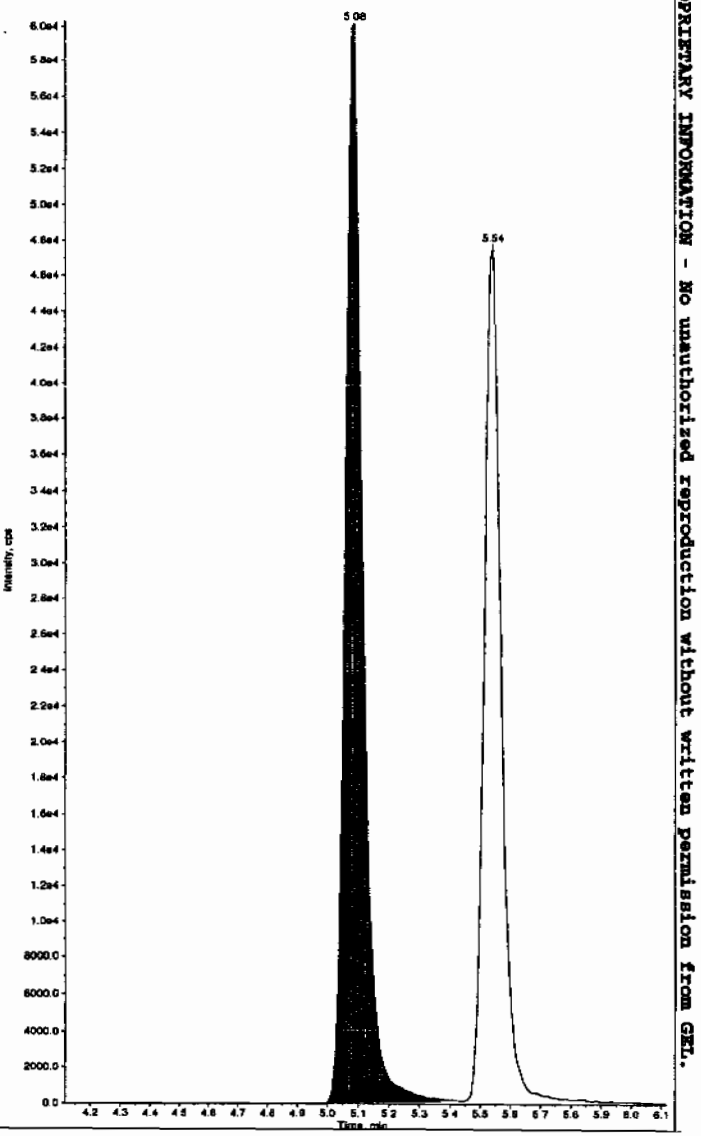

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mple Name: "WXX100227-27CRI" Sample ID: "1|LER" File: "EXS02260151.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index:	1
le Type:	QC
entration:	100. ng/mL
ulated Conc:	123. ng/mL
Date:	2/28/2010
Time:	6:10:24 AM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	350.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
Window:	30.0 sec
cted RT:	5.57 min
Relative RT:	No
Type:	Valley
ntion Time:	5.54 min
:	1.89e+005 counts
ht:	47773.445 cps
t Time:	5.44 min
Time:	5.90 min

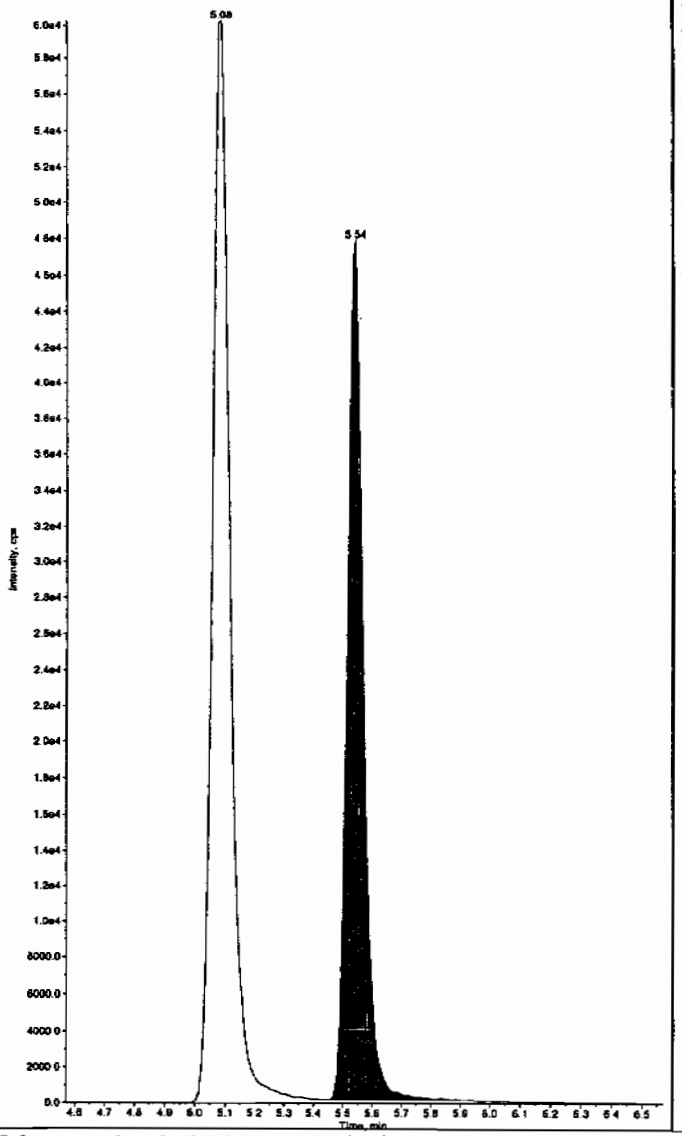

Sample Name: "WXX100227-27CRI" Sample ID: "1|LER" File: "EXS02260151.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	105. ng/mL
Acq. Date:	2/28/2010
Acq. Time:	6:10:24 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	1.79e+006 counts
Height:	517056.763 cps
Start Time:	10.8 min
End Time:	11.2 min

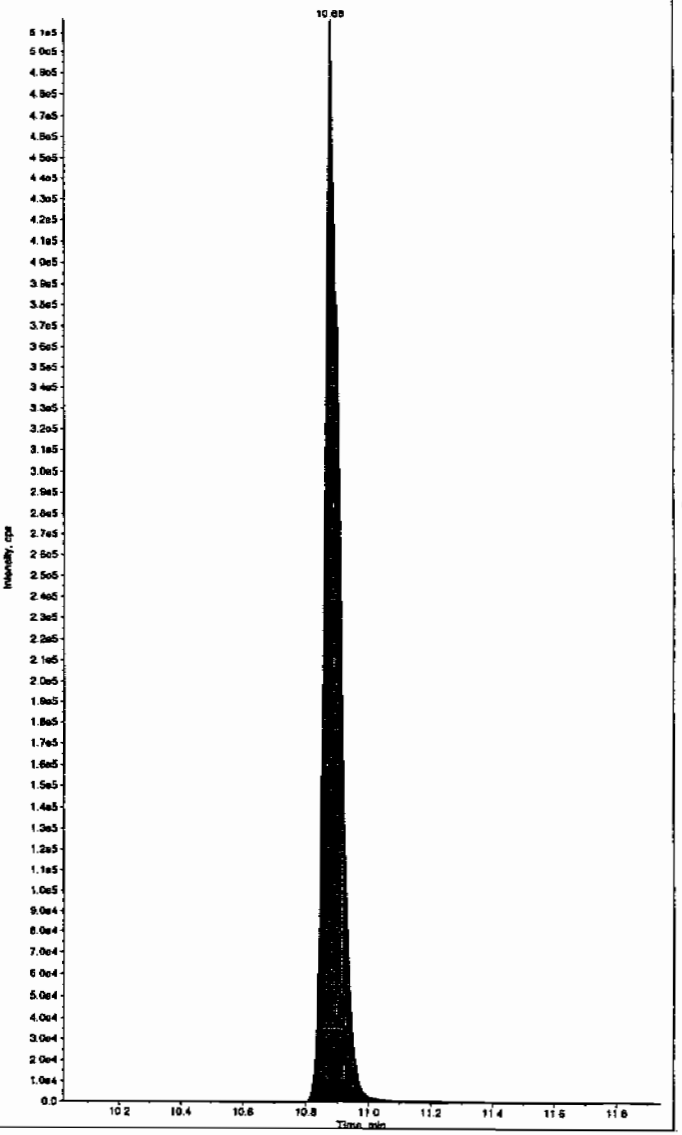

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948892

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 1202032884

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304180a

Date Analyzed: 08-MAR-10 07:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304180a
Date: 08-Mar-2010
Time: 07:17:27
ID: 1202032884 | LANL | 948893 | Soil | MB | 2 |
Vial: 4:5,A

MM 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.356e+003

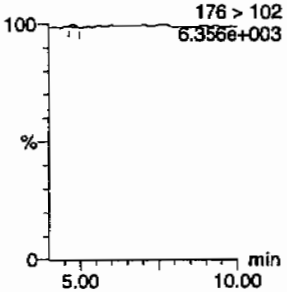

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.356e+003

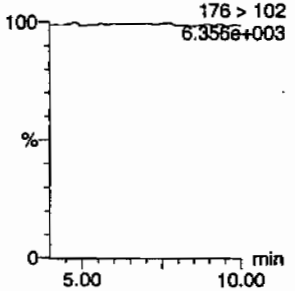

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.305e+003

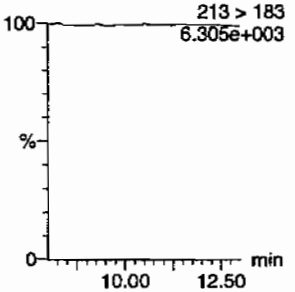

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.523e+004

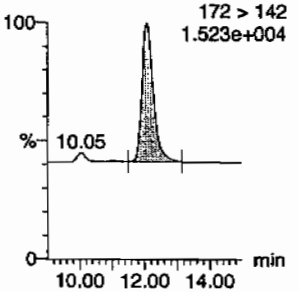

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.305e+003

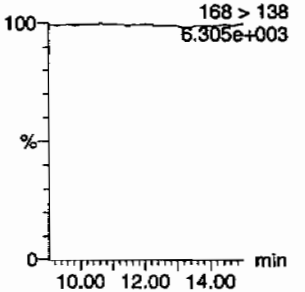

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.298e+003

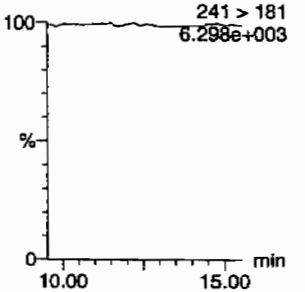

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.312e+003

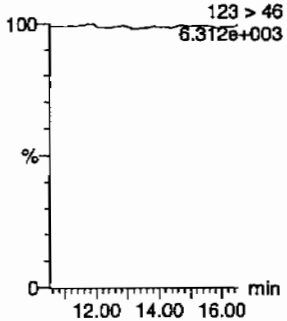

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.296e+003

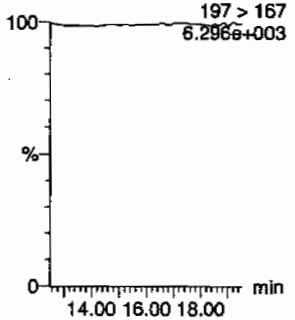

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.313e+003

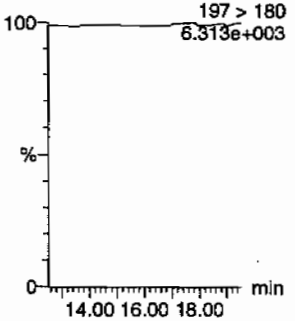

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.301e+003

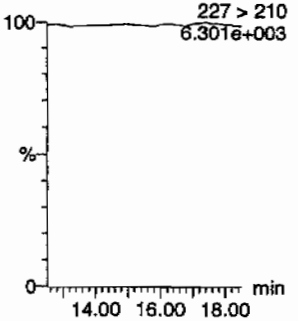

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.794e+004

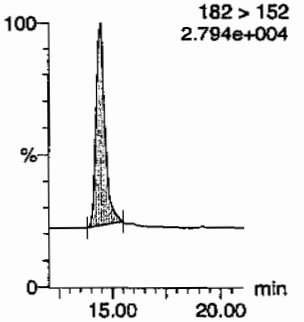

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43
182 > 152
2.794e+004

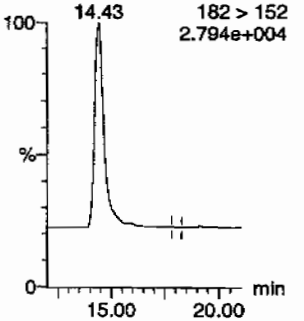

MM 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.43 182 > 152
2.794e+004

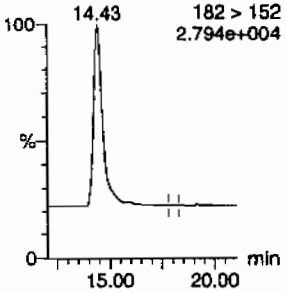

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.532e+004

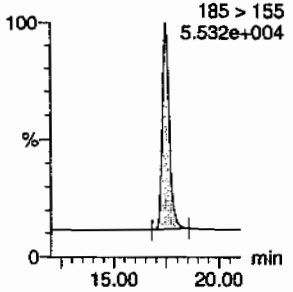

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.326e+003

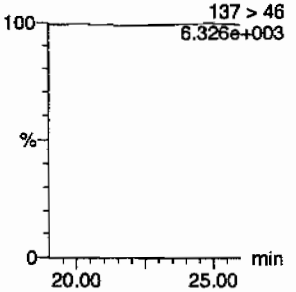

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.326e+003

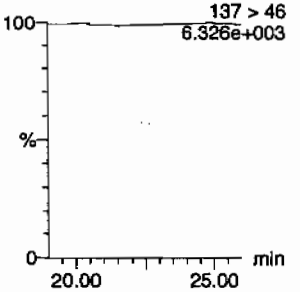

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.326e+003

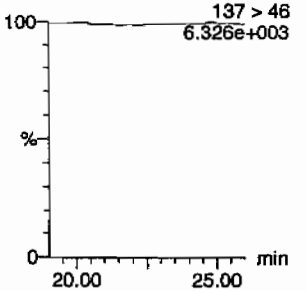

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.293e+003

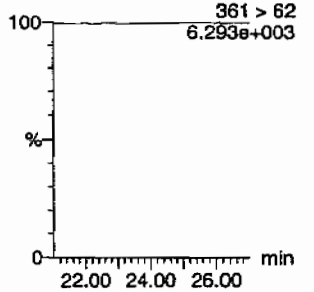

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
202032884	HMX	176 > 102			3658.135			MM-	08-Mar-10	11:14:35				
202032884	RDX	176 > 102			3658.135									
202032884	135-Trinitrobenzene	213 > 183			3658.135									
202032884	13-Dinitrobenzene-d4	172 > 142	12.07	3658.135		3658.135	3658.135	bb			520.8364	104.2	4.2	268.1
202032884	13-Dinitrobenzene	168 > 138			3658.135									
202032884	Tetryl	241 > 181			3658.135									
202032884	Nitrobenzene	123 > 46			3658.135									
202032884	4-Amino-26-dinitrotoluene	197 > 167			19488.932									
202032884	2-Amino-46-dinitrotoluene	197 > 180			19488.932									
202032884	246-Trinitrotoluene	227 > 210			19488.932									
202032884	34-dinitrotoluene	182 > 152	14.43	10252.231	19488.932	10252.231	263.027	bb			272.1532	108.9	8.9	620.7
202032884	26-dinitrotoluene	182 > 152			19488.932			MM-	08-Mar-10	11:49:48				
202032884	24-dinitrotoluene	182 > 152			19488.932			MM-	08-Mar-10	11:57:11				
202032884	26-dinitrotoluene-d3	185 > 155	17.47	19488.932		19488.932	19488.932	bb			473.9392	94.8	-5.2	2817.8
202032884	2-Nitrotoluene	137 > 46			19488.932									
202032884	4-Nitrotoluene	137 > 46			19488.932									
202032884	3-Nitrotoluene	137 > 46			19488.932									
202032884	PETN	361 > 62			19488.932									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 948892

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 1202032884

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260126.wiff

Date Analyzed: 27-FEB-10 23:36

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Lan 3/1/10

ple Name: "1202032884" Sample ID: "948693|2|LER" File: "EXS02260126.wiff"
: Name. "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCX83212S" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 11:36:57 PM

ied: No

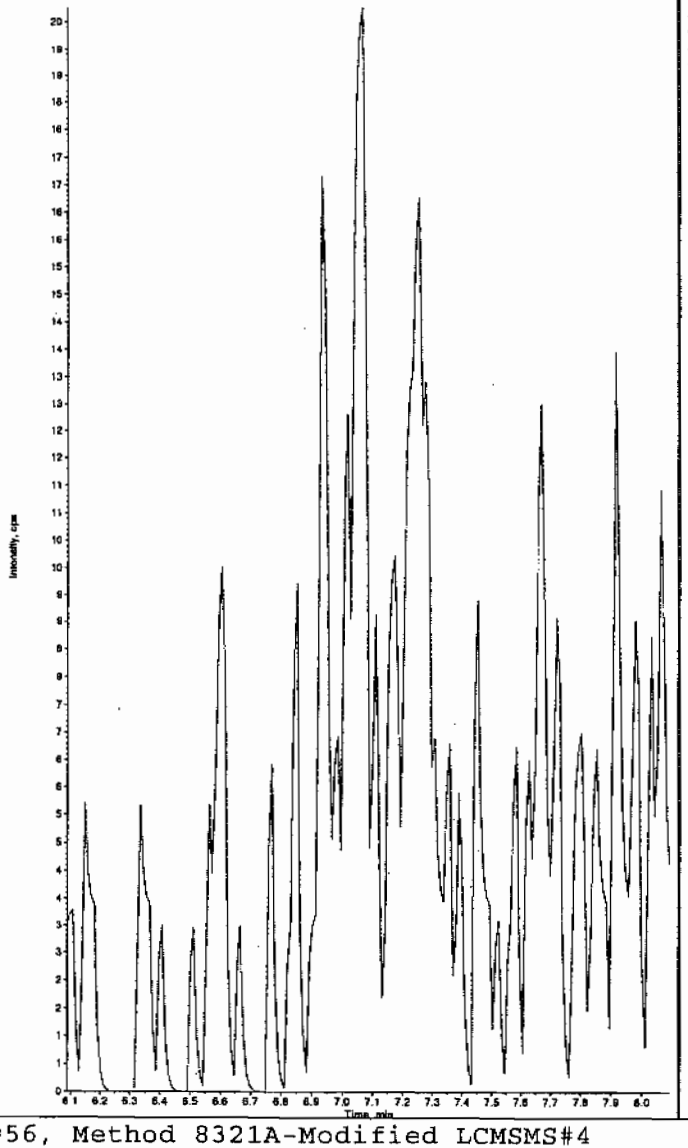

Sample Name: "1202032884" Sample ID: "948693|2|LER" File: "EXS02260126.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:36:57 PM

Modified: Yes

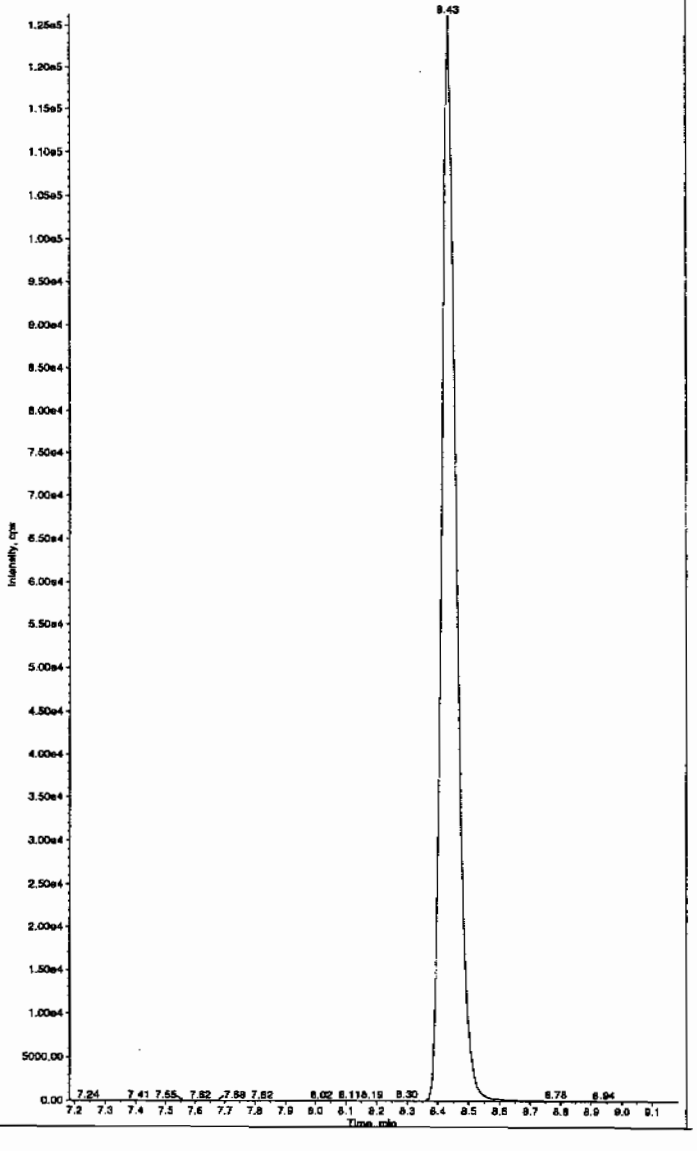

HMK 03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "1202032884" Sample ID: "946893|2|LER" File: "EXS02250126.wiff"
lame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCX83212S" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ted Conc: 237. ng/mL
te: 2/27/2010
me: 11:36:57 PM

ed: No
lgorithm: IntelliQuan - IQA
ak Height: 1460.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 15.0 sec
d RT: 8.46 min
ative RT: No

pe: Valley
on Time: 8.42 min
3.26e+006 counts
953118.042 cps
ime: 8.34 min
e: 8.74 min

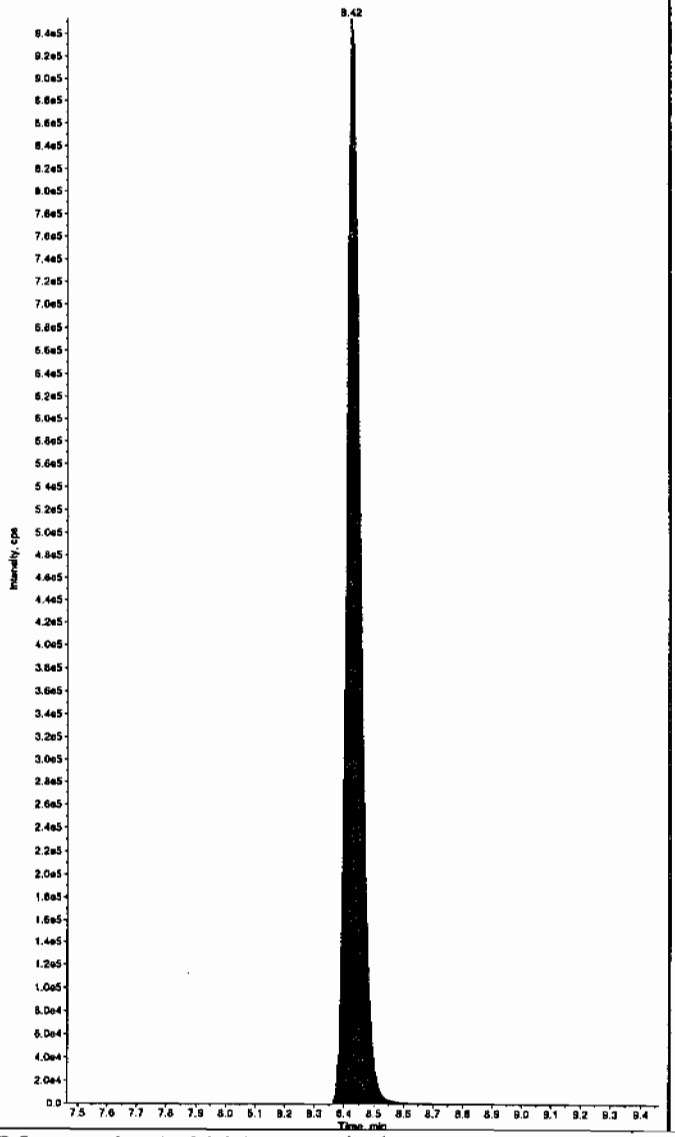

Sample Name: "1202032884" Sample ID: "946893|2|LER" File: "EXS02250126.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:36:57 PM

Modified: No

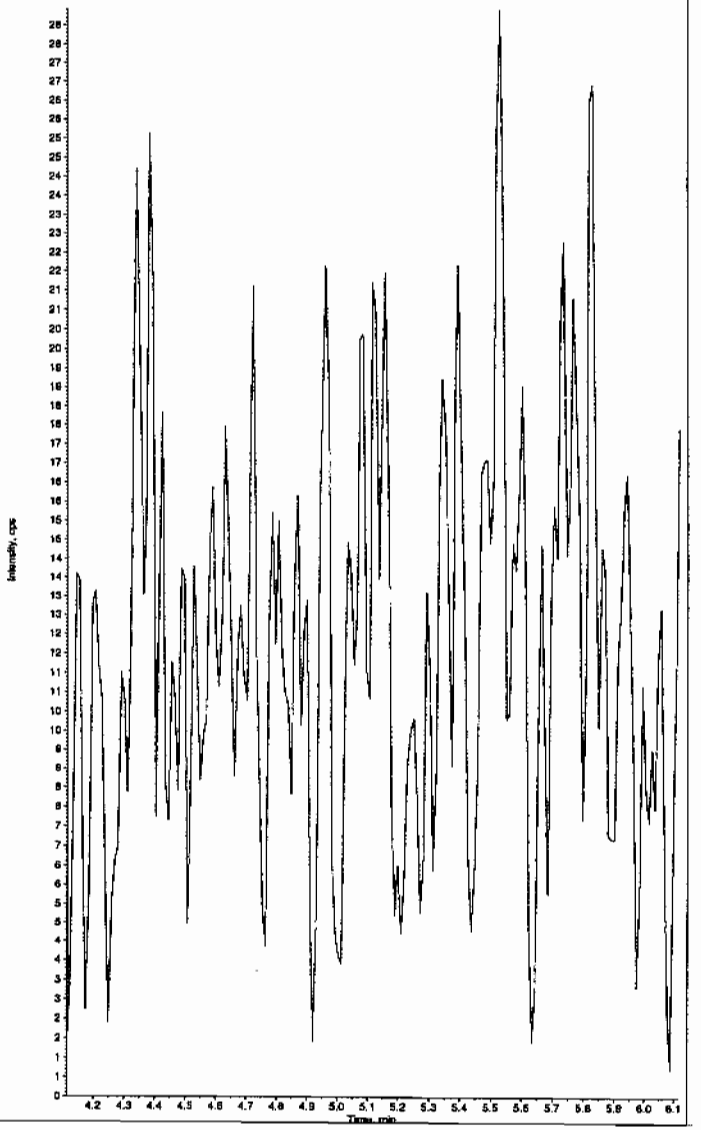

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le Name: "1202032884" Sample ID: "948893|2|LER" File: "EXS02260126.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
ment: "LCX83212S" Annotation: "
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 2/27/2010
Time: 11:36:57 PM

ied: No

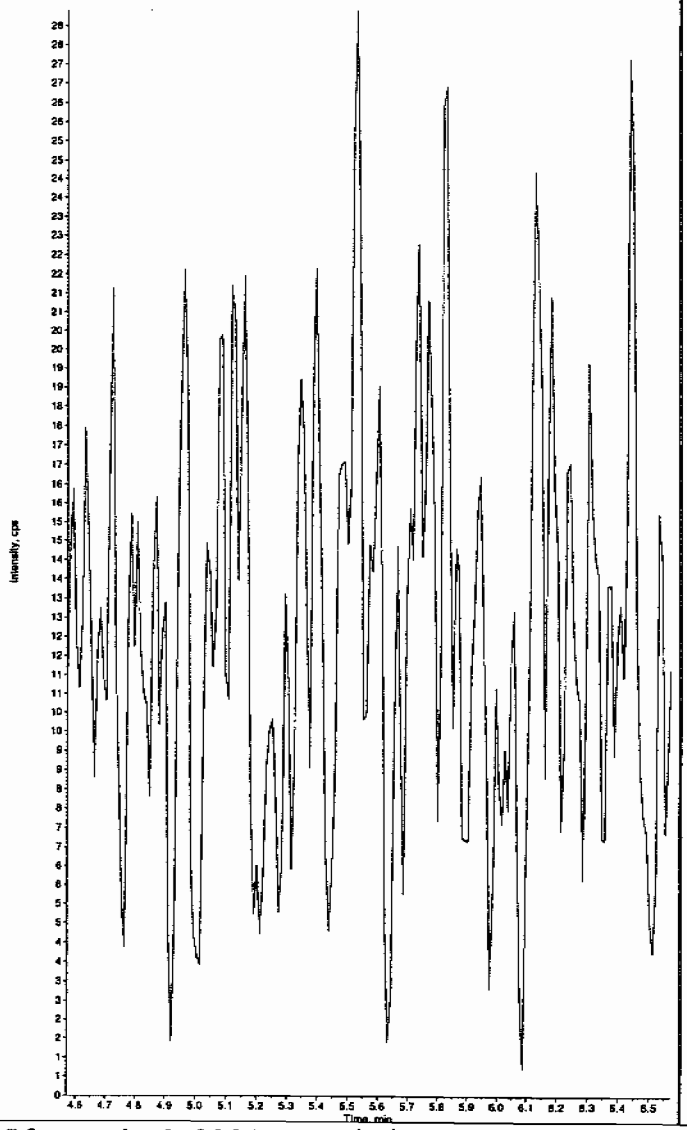

Sample Name: "1202032884" Sample ID: "948893|2|LER" File: "EXS02260126.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:36:57 PM

Modified: No

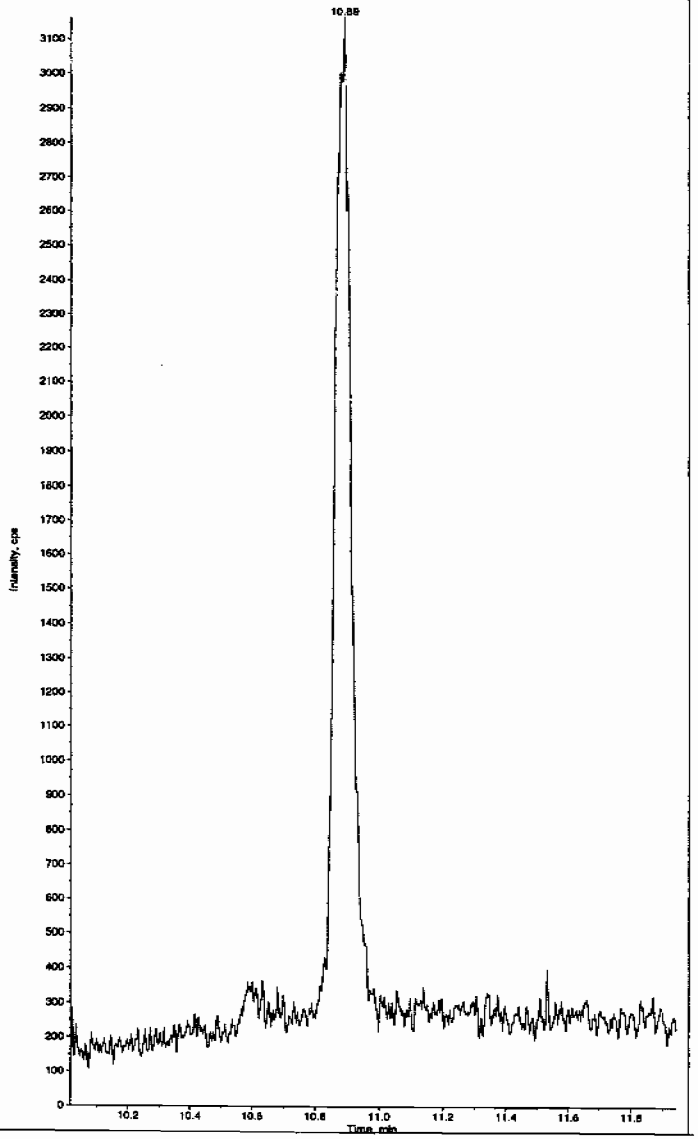

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948892

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 1202032885

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304181a

Date Analyzed: 08-MAR-10 07:47

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4880	
121-14-2	2,4-Dinitrotoluene	4570	
121-82-4	RDX	4730	
19406-51-0	4-Amino-2,6-dinitrotoluene	5480	
2691-41-0	HMX	5530	
35572-78-2	2-Amino-4,6-dinitrotoluene	5550	
479-45-8	Tetryl	2600	
606-20-2	2,6-Dinitrotoluene	4700	
78-11-5	PETN	5130	
88-72-2	o-Nitrotoluene	4970	
98-95-3	Nitrobenzene	4840	
99-08-1	m-Nitrotoluene	4590	
99-35-4	1,3,5-Trinitrobenzene	4280	
99-65-0	m-Dinitrobenzene	4920	
99-99-0	p-Nitrotoluene	5000	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304181a
Date: 08-Mar-2010
Time: 07:47:04
ID: 1202032885 | LANL | 948893 | Soil | LCS | 2 |
Vial: 4:5,B

MAP 3/8/10

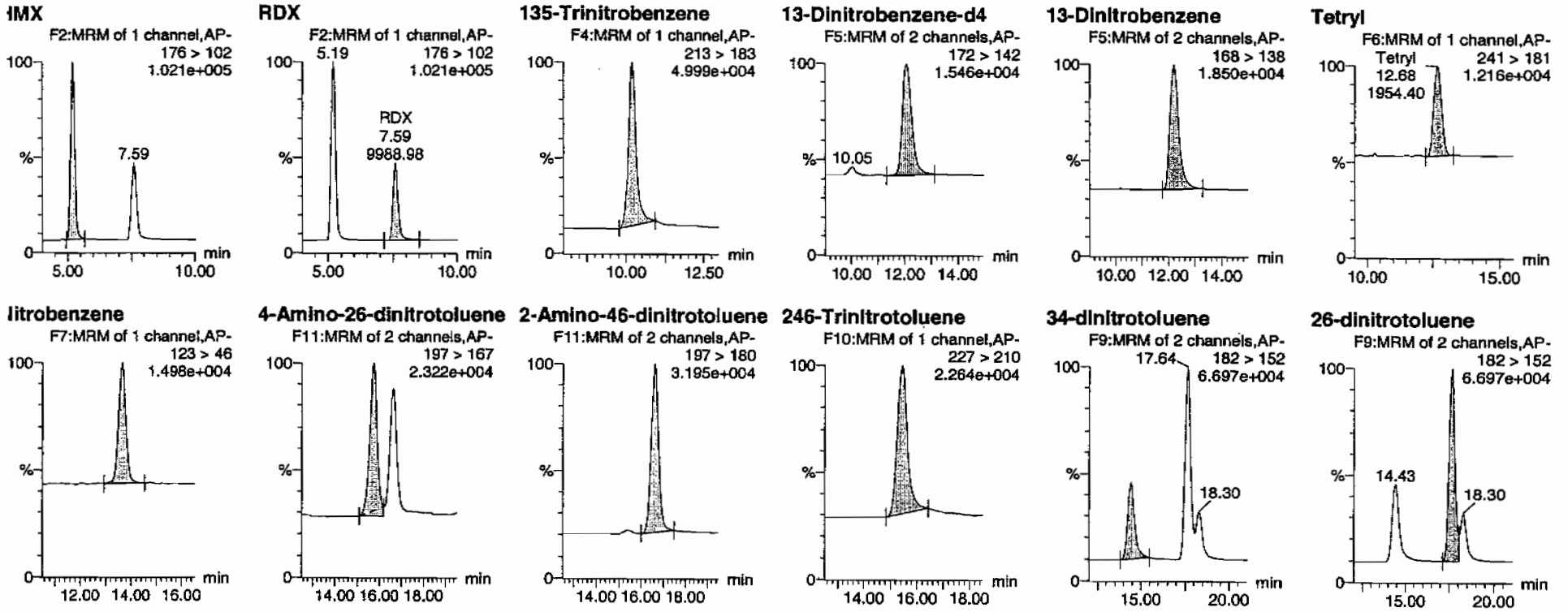

Hmm 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

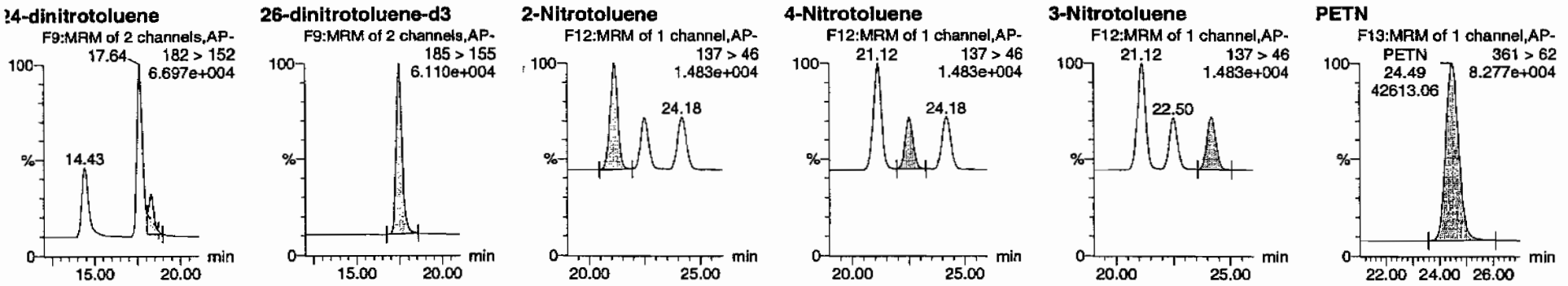

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202032885	HMX	176 > 102	5.19	19041.217	3688.872	19041.217	2580.900	bb			553.3296	110.7	10.7	1714.4
1202032885	RDX	176 > 102	7.59	9988.975	3688.872	9988.975	1353.934	bb			473.1719	94.6	-5.4	747.6
1202032885	135-Trinitrobenzene	213 > 183	10.18	12298.826	3688.872	12298.826	1667.017	bb			428.1193	85.6	-14.4	464.9
1202032885	13-Dinitrobenzene-d4	172 > 142	12.07	3688.872		3688.872	3688.872	bb			525.2127	105.0	5.0	456.1
1202032885	13-Dinitrobenzene	168 > 138	12.20	4597.039	3688.872	4597.039	623.095	bb			491.9969	98.4	-1.6	305.9
1202032885	Tetryl	241 > 181	12.68	1954.403	3688.872	1954.403	264.905	bb			260.3357	52.1	-47.9	332.5
1202032885	Nitrobenzene	123 > 46	13.63	2946.328	3688.872	2946.328	399.354	bb			483.6346	96.7	-3.3	248.3
1202032885	4-Amino-26-dinitrotoluene	197 > 167	15.71	6623.604	21915.803	6623.604	151.115	MM	08-Mar-10	11:35:25	547.8597	109.6	9.6	627.5
1202032885	2-Amino-46-dinitrotoluene	197 > 180	16.60	9851.887	21915.803	9851.887	224.767	bb			554.8391	111.0	11.0	419.0
1202032885	246-Trinitrotoluene	227 > 210	15.45	7032.424	21915.803	7032.424	160.442	bb			488.2482	97.6	-2.4	442.1
1202032885	34-dinitrotoluene	182 > 152	14.43	11278.529	21915.803	11278.529	257.315	bb			266.2430	106.5	6.5	555.4
1202032885	26-dinitrotoluene	182 > 152	17.64	22999.412	21915.803	22999.412	524.722	MM	08-Mar-10	11:49:41	470.3739	94.1	-5.9	1399.1
1202032885	24-dinitrotoluene	182 > 152	18.30	5521.947	21915.803	5521.947	125.981	MM	08-Mar-10	11:57:27	457.0365	91.4	-8.6	325.2
1202032885	26-dinitrotoluene-d3	185 > 155	17.47	21915.803		21915.803	21915.803	bb			532.9567	106.6	6.6	2117.0
1202032885	2-Nitrotoluene	137 > 46	21.12	3371.722	21915.803	3371.722	76.924	bb			496.6109	99.3	-0.7	1135.4
1202032885	4-Nitrotoluene	137 > 46	22.50	1672.307	21915.803	1672.307	38.153	bb			500.2101	100.0	0.0	554.1
1202032885	3-Nitrotoluene	137 > 46	24.18	1899.466	21915.803	1899.466	43.336	bb			459.2840	91.9	-8.1	566.6
1202032885	PETN	361 > 62	24.49	42613.055	21915.803	42613.055	972.199	bb			513.0662	102.6	2.6	5107.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 948892

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 1202032885

Sample Amount 2

Moisture:

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260127.wiff

Date Analyzed: 27-FEB-10 23:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5050	
59229-75-3	2,6-Diamino-4-nitrotoluene	5590	
618-87-1	3,5-Dinitroaniline	4310	
6629-29-4	2,4-Diamino-6-nitrotoluene	5210	
78-30-8	tris(o-cresyl) phosphate	5100	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rev 3/1/10

ple Name: "1202032885" Sample ID: "948893|2|LER" File: "EXS02260127.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCX83212S" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 505. ng/mL
Date: 2/27/2010
Time: 11:52:45 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.09 min
elative RT: No

Type: Valley
tion Time: 7.06 min
5.97e+005 counts
t: 153227.478 cps
Time: 6.97 min
ime: 7.63 min

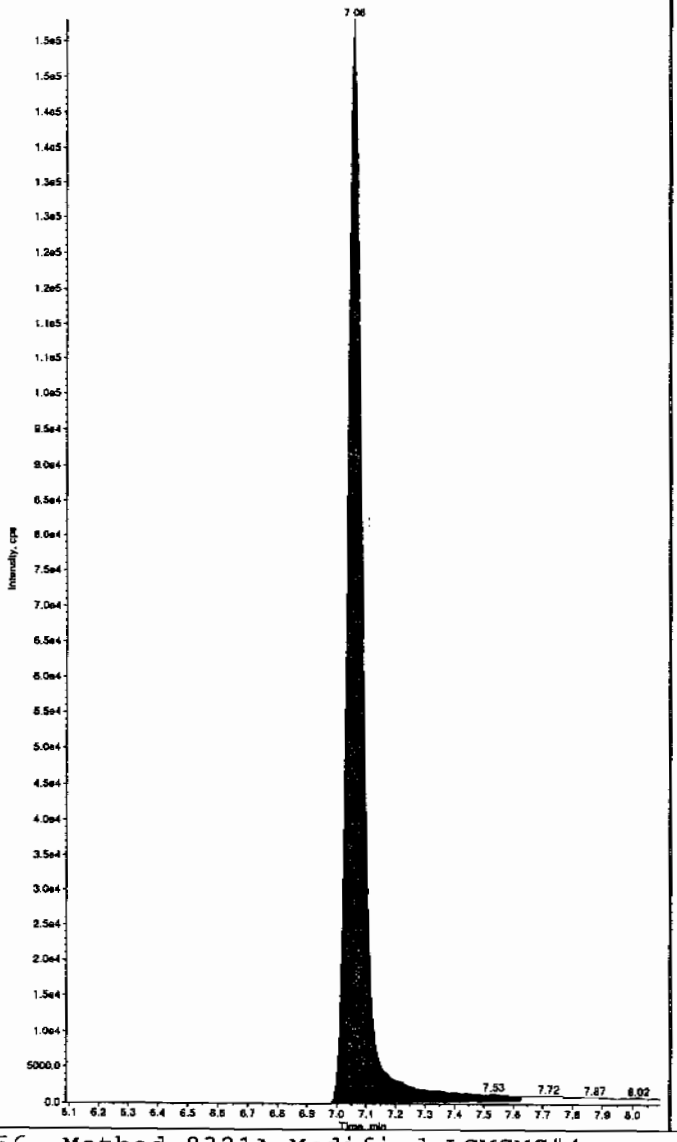

Sample Name: "1202032885" Sample ID: "948893|2|LER" File: "EXS02260127.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 431. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:52:45 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.26 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 3.99e+006 counts
Height: 1095518.921 cps
Start Time: 8.22 min
End Time: 8.38 min

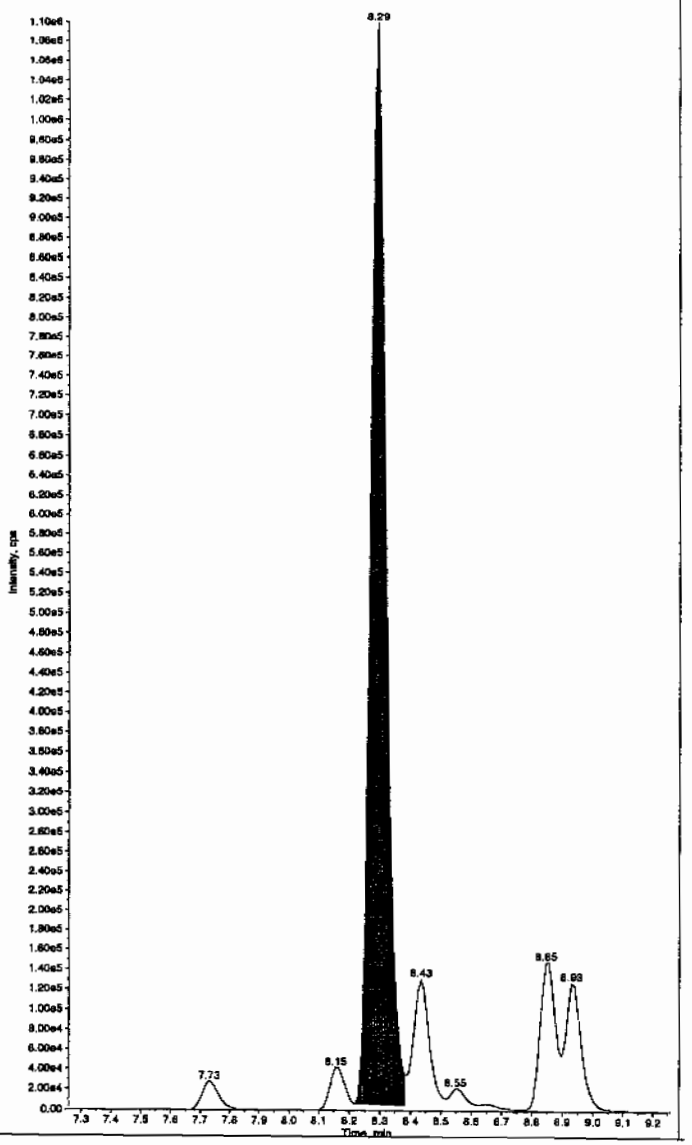

Hmm 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202032885" Sample ID: "948893|2|LER" File: "EXS02260127.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212S" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 223. ng/mL
Date: 2/27/2010
Time: 11:52:45 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
cted RT: 8.46 min
Relative RT: No

Type: Valley
tion Time: 8.42 min
3.09e+006 counts
t: 877412.292 cps
. Time: 8.36 min
Time: 8.61 min

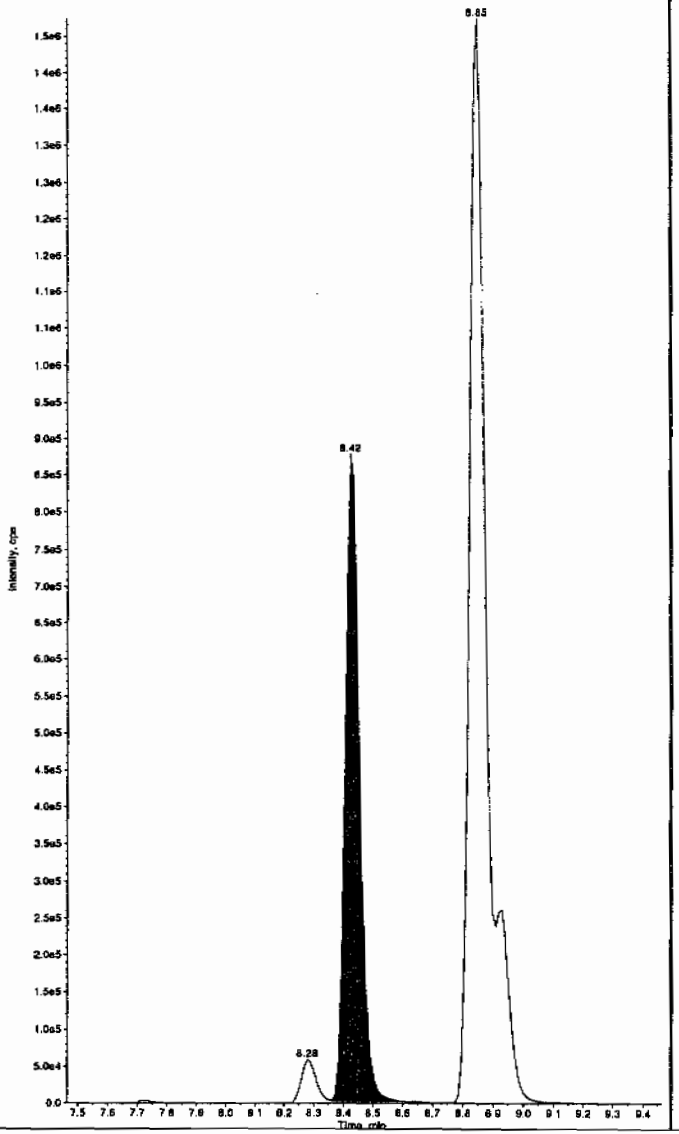

Sample Name: "1202032885" Sample ID: "948893|2|LER" File: "EXS02260127.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 559. ng/mL
Acq. Date: 2/27/2010
Acq. Time: 11:52:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 1.23e+006 counts
Height: 299264.679 cps
Start Time: 4.99 min
End Time: 5.38 min

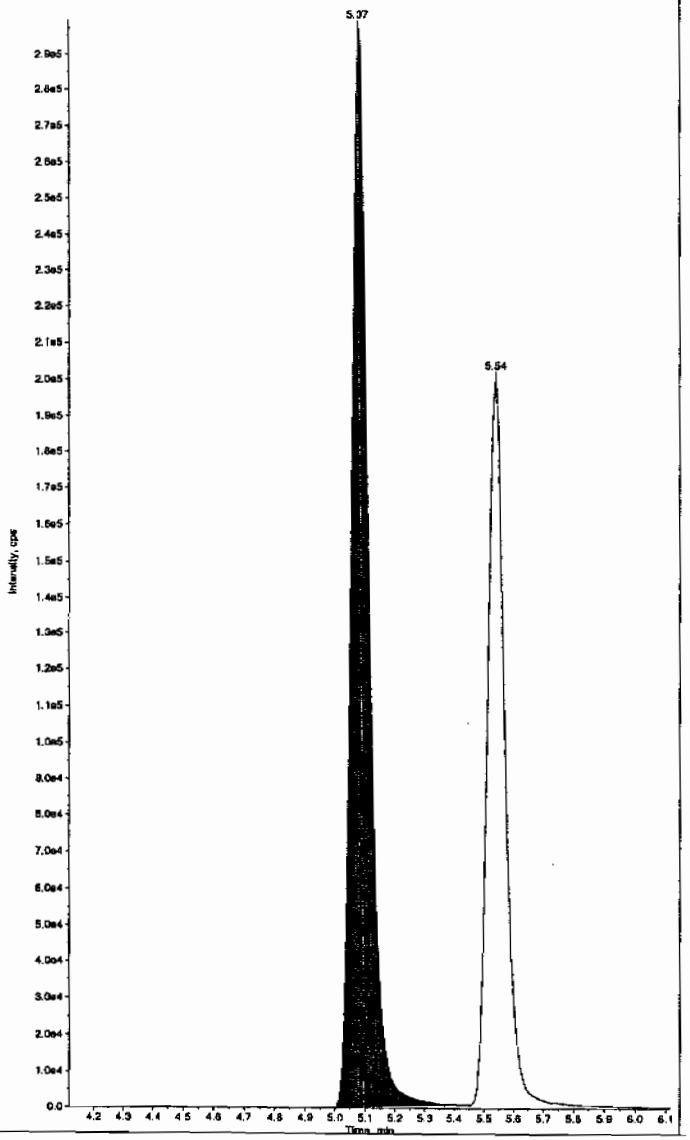

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nple Name: "1202032885" Sample ID: "948893|2|LER" File: "EXS02260127.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCX83212S" Annotation: ""

```
le Index:        1
le Type:      Unknown
entration:      N/A
lated Conc:     521.     ng/mL
 Date:       2/27/2010
 Time:       11:52:45 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
hing Width:  3        points
ndow:          30.0     sec
cted RT:        5.57    min
Relative RT:    No

 Type:        Valley
tion Time:      5.54    min
          8.33e+005    counts
t:         202270.477  cps
 Time:          5.44    min
ime:            6.16    min
```

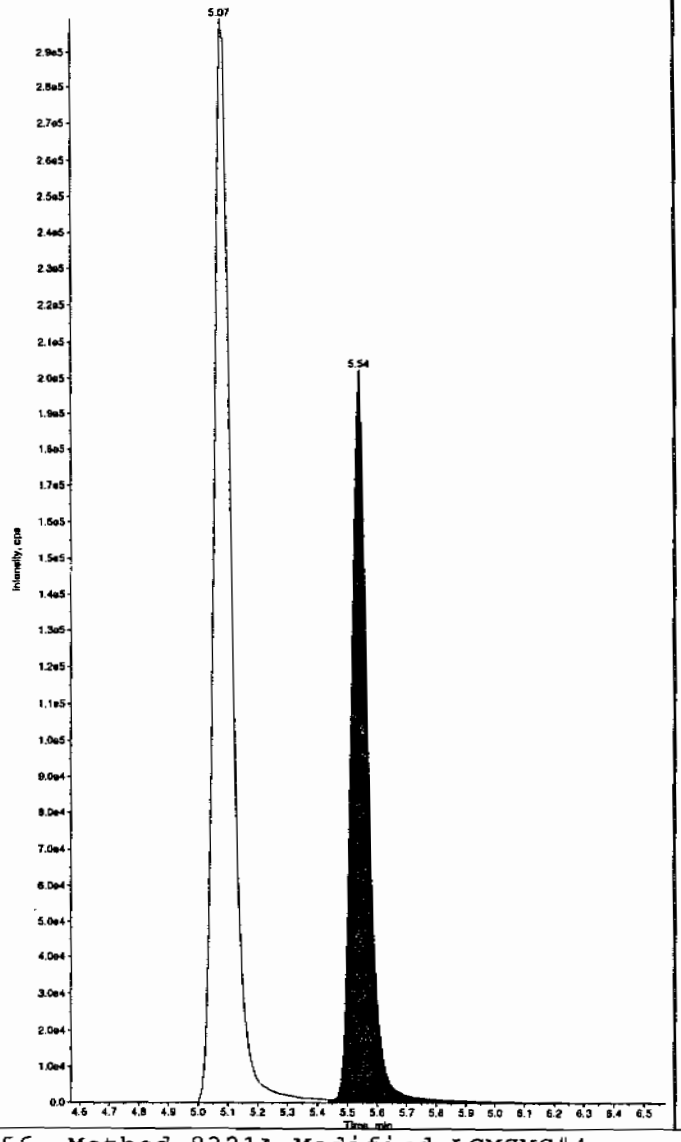

Sample Name: "1202032885" Sample ID: "948893|2|LER" File: "EXS02260127.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:      N/A
Calculated Conc:    510.     ng/mL
Acq. Date:       2/27/2010
Acq. Time:       11:52:45 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9     min
Area:         7.86e+006    counts
Height:       2147578.369  cps
Start Time:         10.8     min
End Time:           11.2     min
```

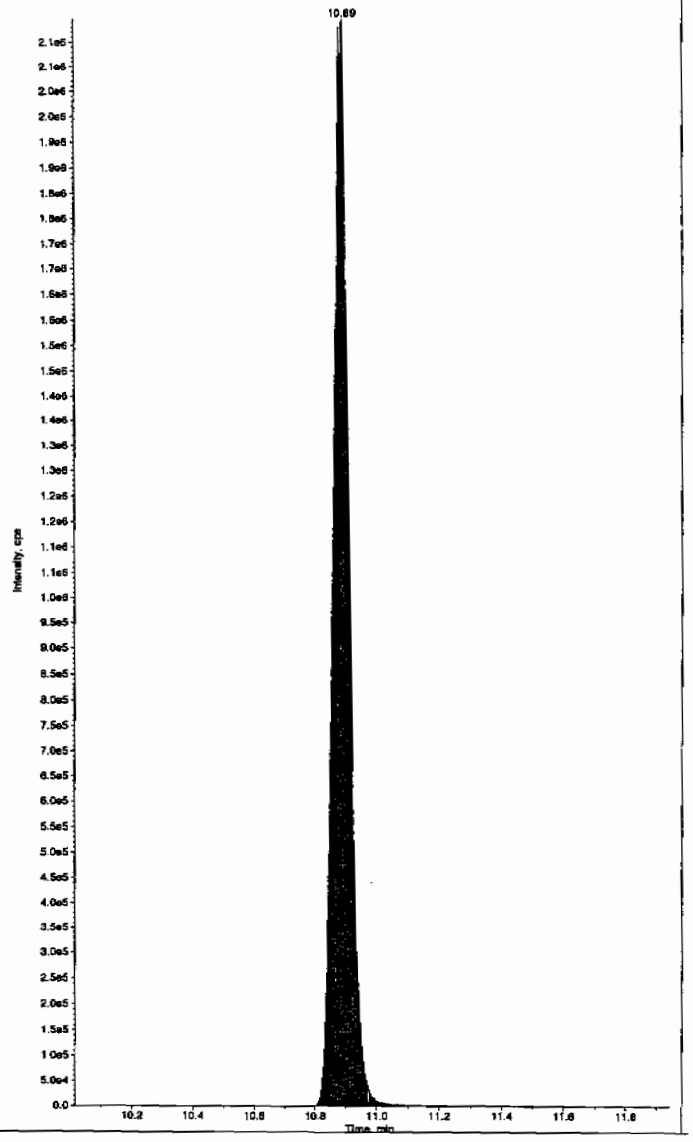

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170(246055001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 1202032886

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304183a

Date Analyzed: 08-MAR-10 08:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5790	
121-14-2	2,4-Dinitrotoluene	4560	
121-82-4	RDX	4610	
19406-51-0	4-Amino-2,6-dinitrotoluene	5950	
2691-41-0	HMX	4350	
35572-78-2	2-Amino-4,6-dinitrotoluene	5580	
479-45-8	Tetryl	3280	
606-20-2	2,6-Dinitrotoluene	4960	
78-11-5	PETN	6870	
88-72-2	o-Nitrotoluene	5350	
98-95-3	Nitrobenzene	4970	
99-08-1	m-Nitrotoluene	4570	
99-35-4	1,3,5-Trinitrobenzene	4420	
99-65-0	m-Dinitrobenzene	4850	
99-99-0	p-Nitrotoluene	4720	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Printed: Mon Mar 08 14:00:40 2010, Page 1 of 3

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\030410expa.mdb, Time: Fri Mar 05 09:18:46 2010
Calibration: C:\MASSLYNX\New_Exp.PRO\CurveDB\030410expa.cdb, Time: Fri Mar 05 10:16:18 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304183a
Date: 08-Mar-2010
Time: 08:46:05
ID: 1202032886 | LANC | 948893 | Solid | 24605500 1mg | 2
Vial: 4:5,D

MAP 3/8/10

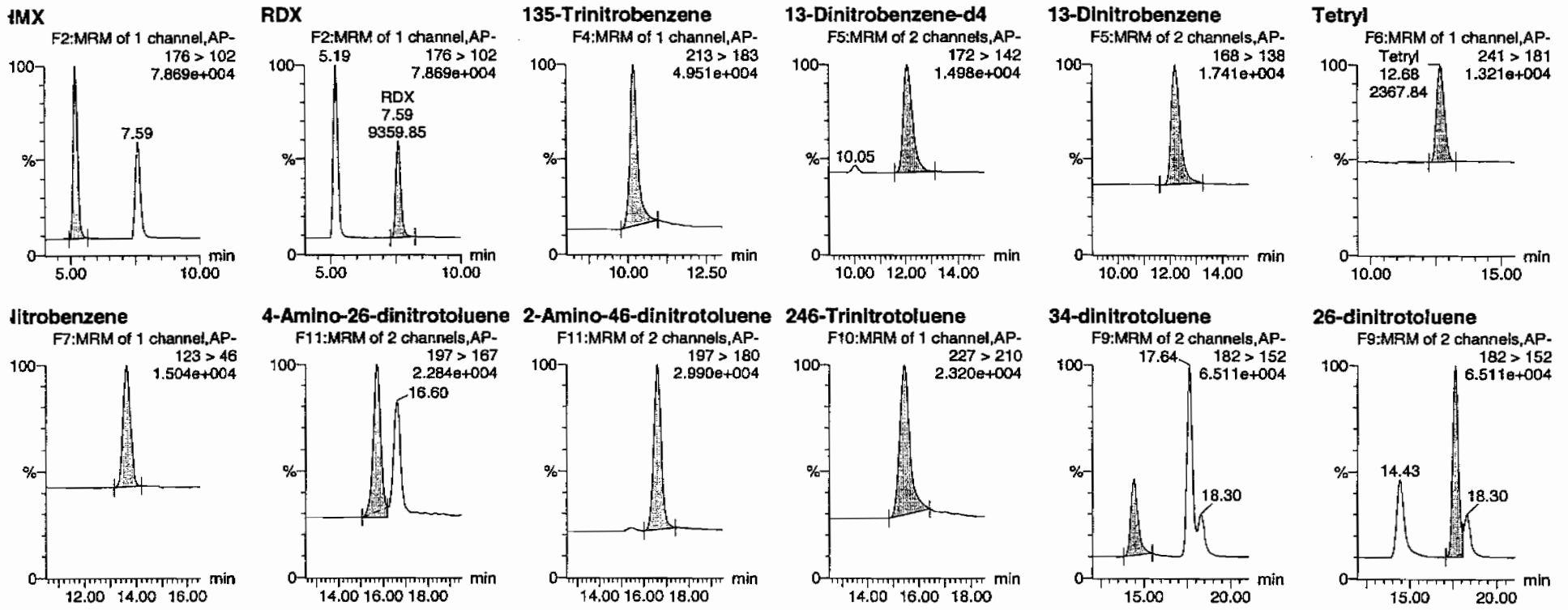

HMM 03/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

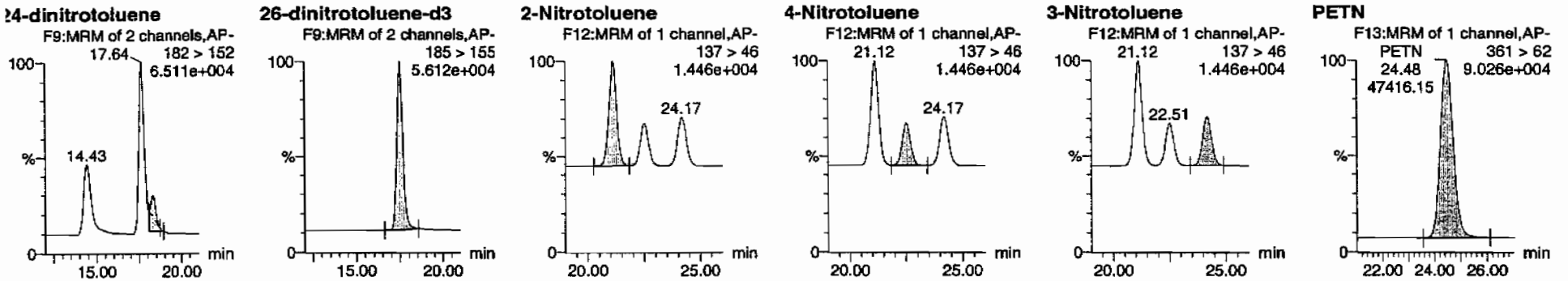

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202032886	HMX	176 > 102	5.19	14389.768	3549.674	14389.768	2026.914	bb			434.5584	86.9	-13.1	2146.8
1202032886	RDX	176 > 102	7.59	9359.852	3549.674	9359.852	1318.410	bb			460.7572	92.2	-7.8	1194.3
1202032886	135-Trinitrobenzene	213 > 183	10.19	12218.730	3549.674	12218.730	1721.106	bb			442.0102	88.4	-11.6	726.9
1202032886	13-Dinitrobenzene-d4	172 > 142	12.07	3549.674		3549.674	3549.674	bb			505.3940	101.1	1.1	411.7
1202032886	13-Dinitrobenzene	168 > 138	12.20	4362.520	3549.674	4362.520	614.496	bb			485.2066	97.0	-3.0	335.4
1202032886	Tetryl	241 > 181	12.68	2367.838	3549.674	2367.838	333.529	bb			327.7757	65.6	-34.4	205.6
1202032886	Nitrobenzene	123 > 46	13.63	2913.710	3549.674	2913.710	410.419	bb			497.0359	99.4	-0.6	231.8
1202032886	4-Amino-26-dinitrotoluene	197 > 167	15.71	6557.153	19988.877	6557.153	164.020	MM	08-Mar-10	11:35:37	594.6472	118.9	18.9	196.2
1202032886	2-Amino-46-dinitrotoluene	197 > 180	16.60	9032.009	19988.877	9032.009	225.926	bb			557.7004	111.5	11.5	505.4
1202032886	246-Trinitrotoluene	227 > 210	15.45	7600.784	19988.877	7600.784	190.125	bb			578.5795	115.7	15.7	881.5
1202032886	34-dinitrotoluene	182 > 152	14.43	11494.786	19988.877	11494.786	287.530	bb			297.5059	119.0	19.0	231.4
1202032886	26-dinitrotoluene	182 > 152	17.64	22114.869	19988.877	22114.869	553.179	MM	08-Mar-10	11:49:33	495.8837	99.2	-0.8	576.9
1202032886	24-dinitrotoluene	182 > 152	18.30	5023.122	19988.877	5023.122	125.648	MM	08-Mar-10	11:57:40	455.8284	91.2	-8.8	120.2
1202032886	26-dinitrotoluene-d3	185 > 155	17.47	19988.877		19988.877	19988.877	bb			486.0970	97.2	-2.8	2077.8
1202032886	2-Nitrotoluene	137 > 46	21.12	3314.336	19988.877	3314.336	82.905	bb			535.2172	107.0	7.0	177.0
202032886	4-Nitrotoluene	137 > 46	22.51	1440.304	19988.877	1440.304	36.028	bb			472.3453	94.5	-5.5	73.0
202032886	3-Nitrotoluene	137 > 46	24.17	1725.306	19988.877	1725.306	43.157	bb			457.3881	91.5	-8.5	83.2
202032886	PETN	361 > 62	24.48	47416.152	19988.877	47416.152	1186.063	bb			686.9500	137.4	37.4	10763.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170(246055001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 1202032886

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260129.wiff

Date Analyzed: 28-FEB-10 00:24

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5460	
59229-75-3	2,6-Diamino-4-nitrotoluene	5760	
618-87-1	3,5-Dinitroaniline	4670	
6629-29-4	2,4-Diamino-6-nitrotoluene	5220	
78-30-8	tris(o-cresyl) phosphate	5150	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Scan 3/1/10

ple Name: "1202032886" Sample ID: "948893|2|LER" File: "EXS02260129.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
ilated Conc: 546. ng/mL
Date: 2/28/2010
Time: 12:24:09 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2000.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 7.09 min
elative RT: No

Type: Valley
tion Time: 7.06 min
6.49e+005 counts
t: 161295.187 cps
Time: 6.96 min
ime: 8.04 min

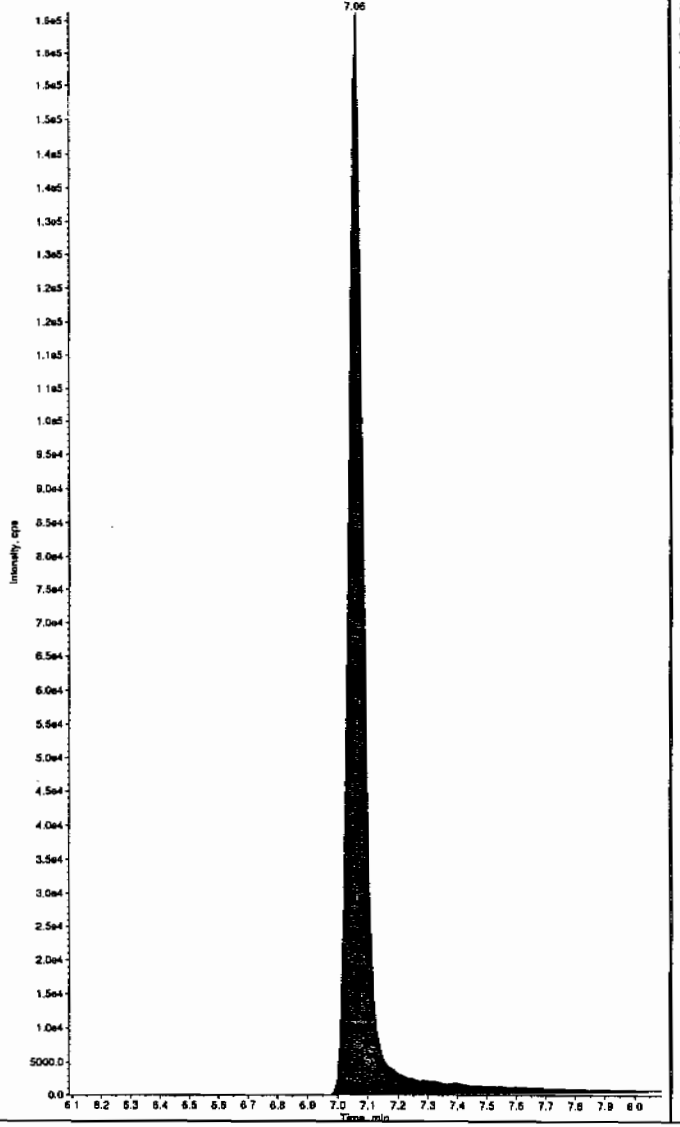

Sample Name: "1202032886" Sample ID: "948893|2|LER" File: "EXS02260129.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 504. ng/mL
Acq. Date: 2/28/2010
Acq. Time: 12:24:09 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 4.60e+006 counts
Height: 1149809.448 cps
Start Time: 8.22 min
End Time: 8.50 min

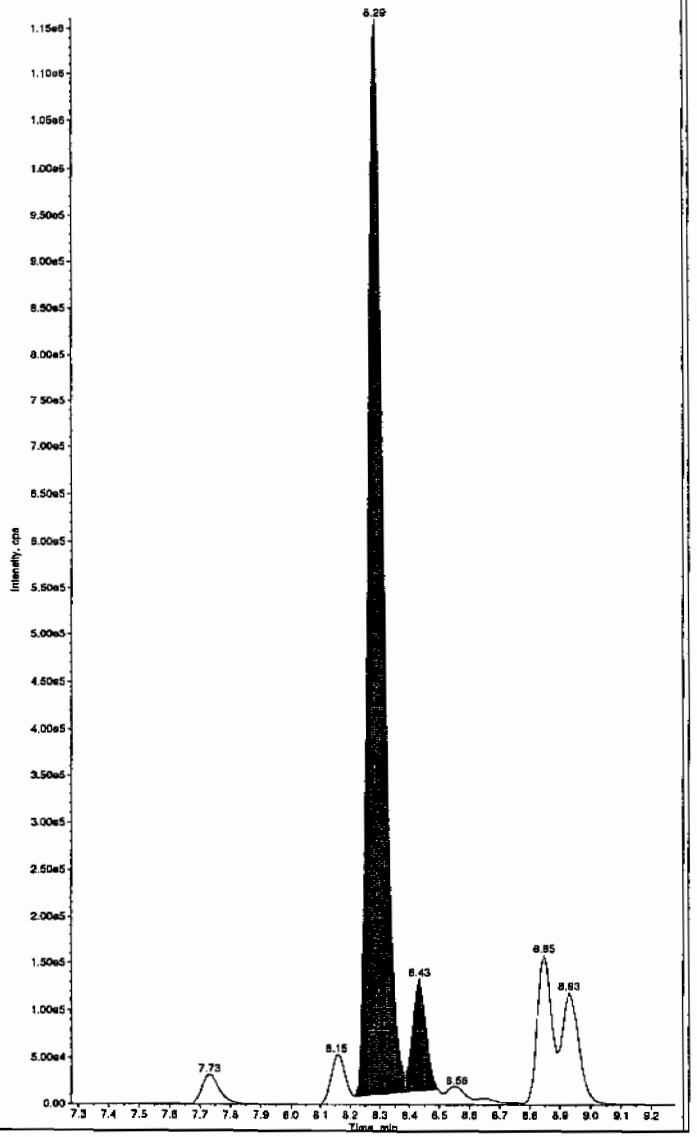

Hnm03/01/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Jan 3/1/10

ple Name: "1202032886" Sample ID: "948893|2|LER" File: "EXS02260129.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCX83212S" Annotation: "
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 546. ng/mL
Date: 2/28/2010
Time: 12:24:09 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ling Width: 3 points
ndow: 30.0 sec
ted RT: 7.09 min
elative RT: No

Type: Valley
tion Time: 7.06 min
6.49e+005 counts
: 161285.187 cps
Time: 6.96 min
ime: 8.04 min

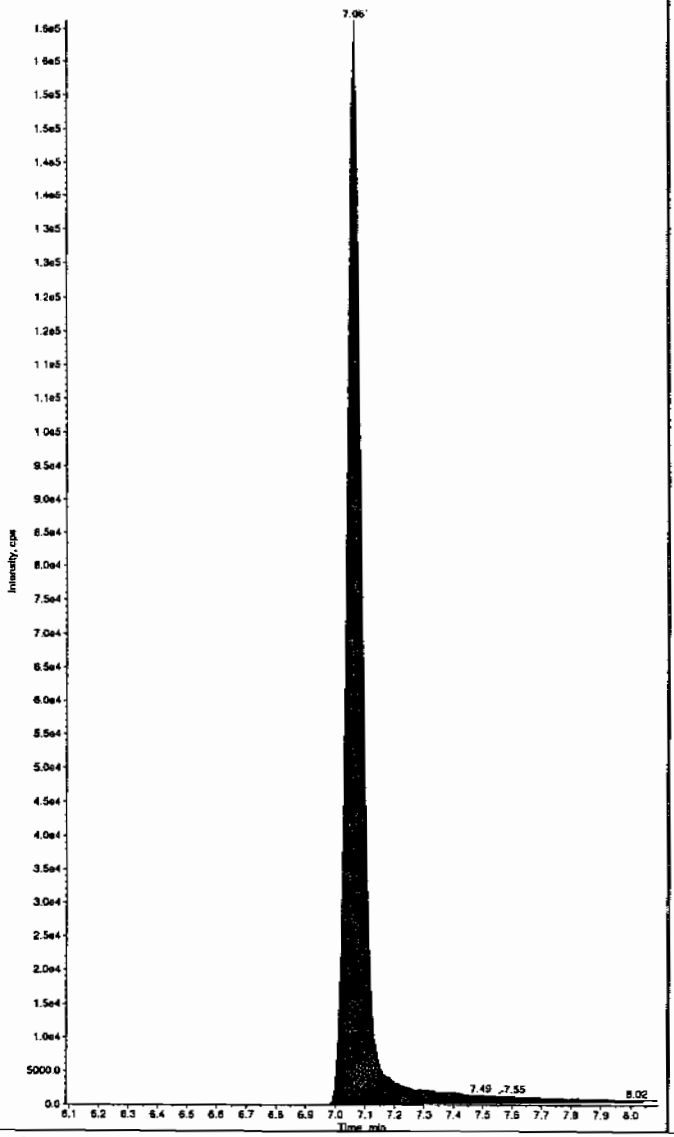

Sample Name: "1202032886" Sample ID: "948893|2|LER" File: "EXS02260129.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 467. ng/mL
Acq. Date: 2/28/2010
Acq. Time: 12:24:09 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.28 min
Area: 4.29e+006 counts
Height: 1171112.372 cps
Start Time: 8.22 min
End Time: 8.38 min

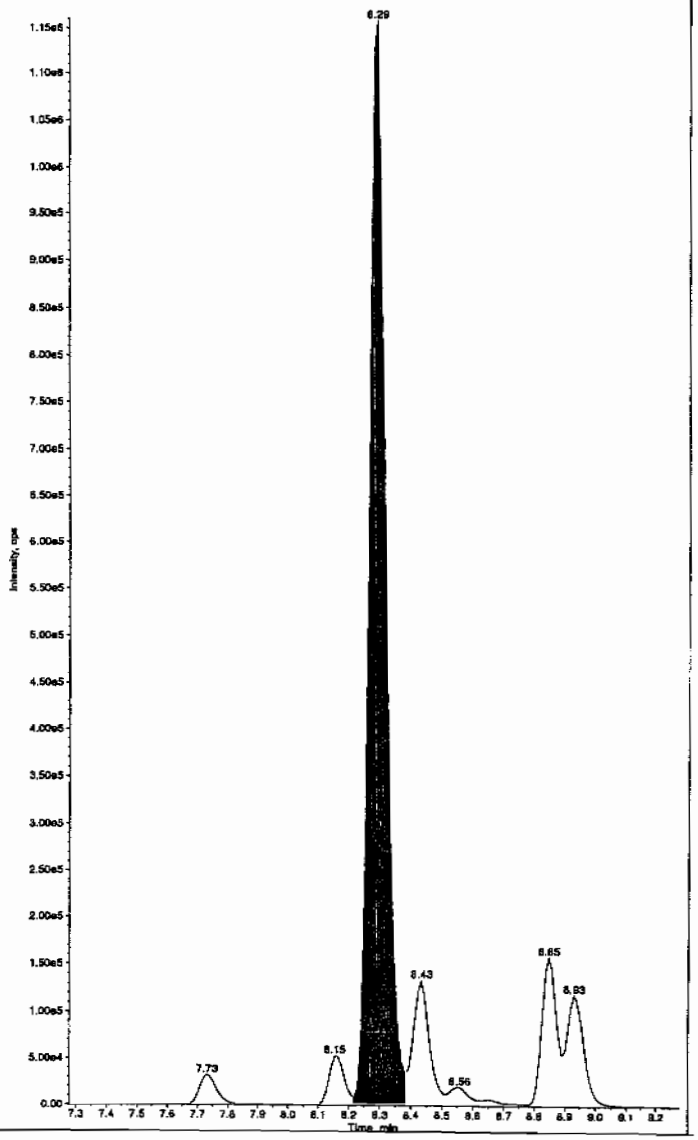

. SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "1202032886" Sample ID: "948893|2|LER" File: "EXS02260129.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCX83212S" Annotation: ""

e Index:	1
e Type:	Unknown
ntration:	N/A
lated Conc:	235. ng/mL
Date:	2/28/2010
Time:	12:24:09 AM
ied:	No
Algorithm:	IntelliQuan - IQA
Peak Height:	1460.00 cps
Peak Width:	0.00 sec
ning Width:	3 points
ndow:	15.0 sec
ed RT:	8.46 min
elative RT:	No
Type:	Valley
ion Time:	8.42 min
	3.25e+006 counts
::	946202.209 cps
Time:	8.35 min
me:	8.62 min

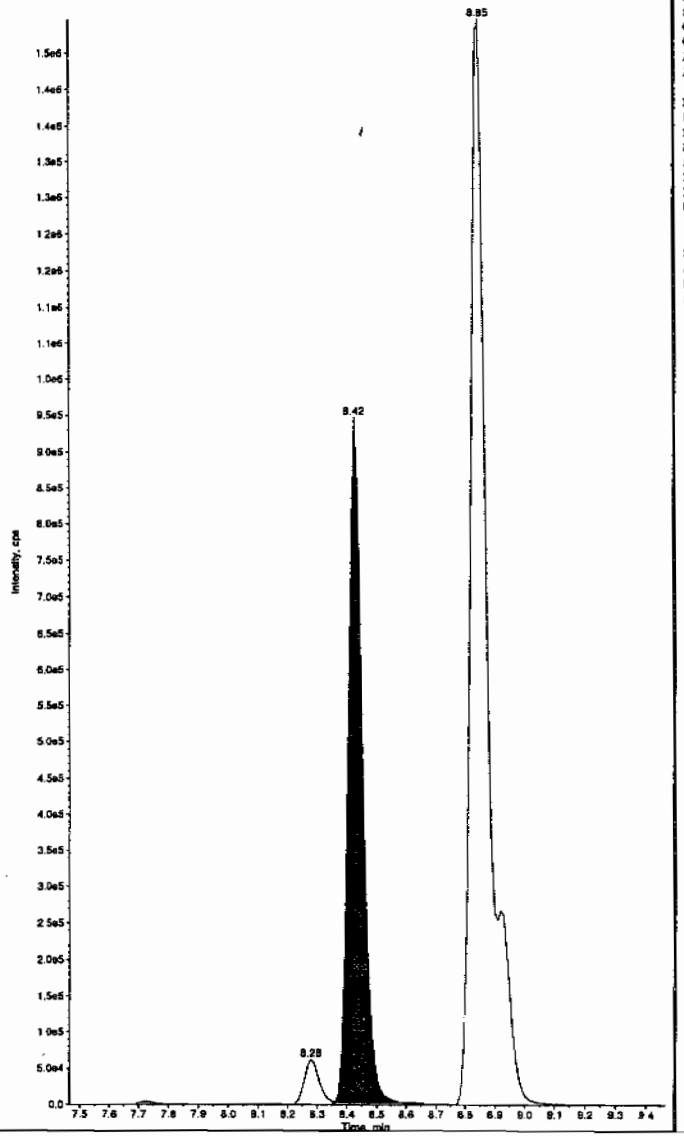

Sample Name: "1202032886" Sample ID: "948893|2|LER" File: "EXS02260129.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	576. ng/mL
Acq. Date:	2/28/2010
Acq. Time:	12:24:09 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.12 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.07 min
Area:	1.27e+006 counts
Height:	303089.935 cps
Start Time:	4.98 min
End Time:	5.38 min

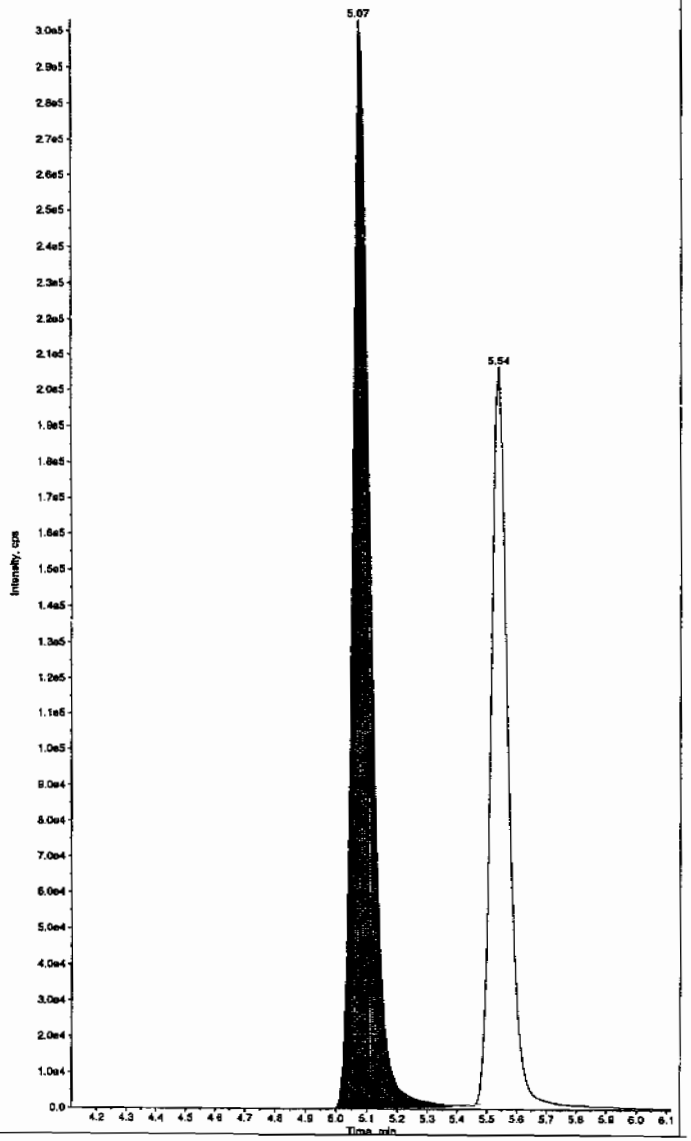

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ple Name: "1202032886" Sample ID: "948893|2|LER" File: "EXS02260128.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCX83212S" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 522. ng/mL
Date: 2/28/2010
Time: 12:24:09 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.57 min
elative RT: No

Type: Valley
tion Time: 5.54 min
8.34e+005 counts
t: 206599.625 cps
Time: 5.44 min
ime: 6.08 min

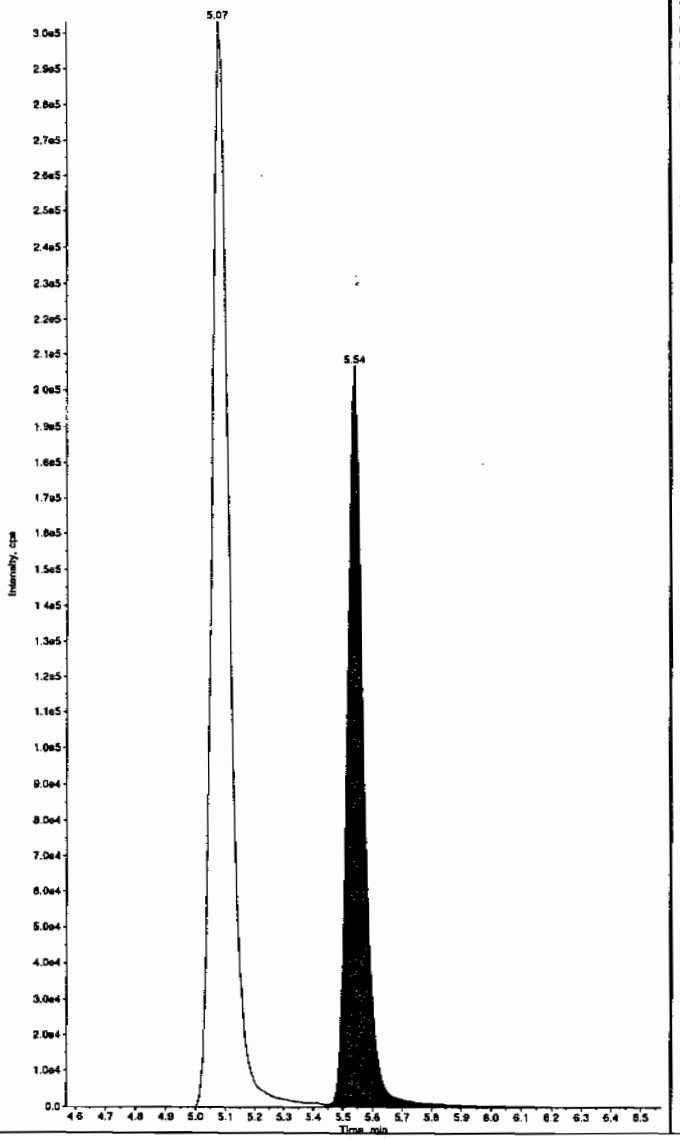

Sample Name: "1202032886" Sample ID: "948893|2|LER" File: "EXS02260129.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 515. ng/mL
Acq. Date: 2/28/2010
Acq. Time: 12:24:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.93e+006 counts
Height: 2244794.922 cps
Start Time: 10.8 min
End Time: 11.2 min

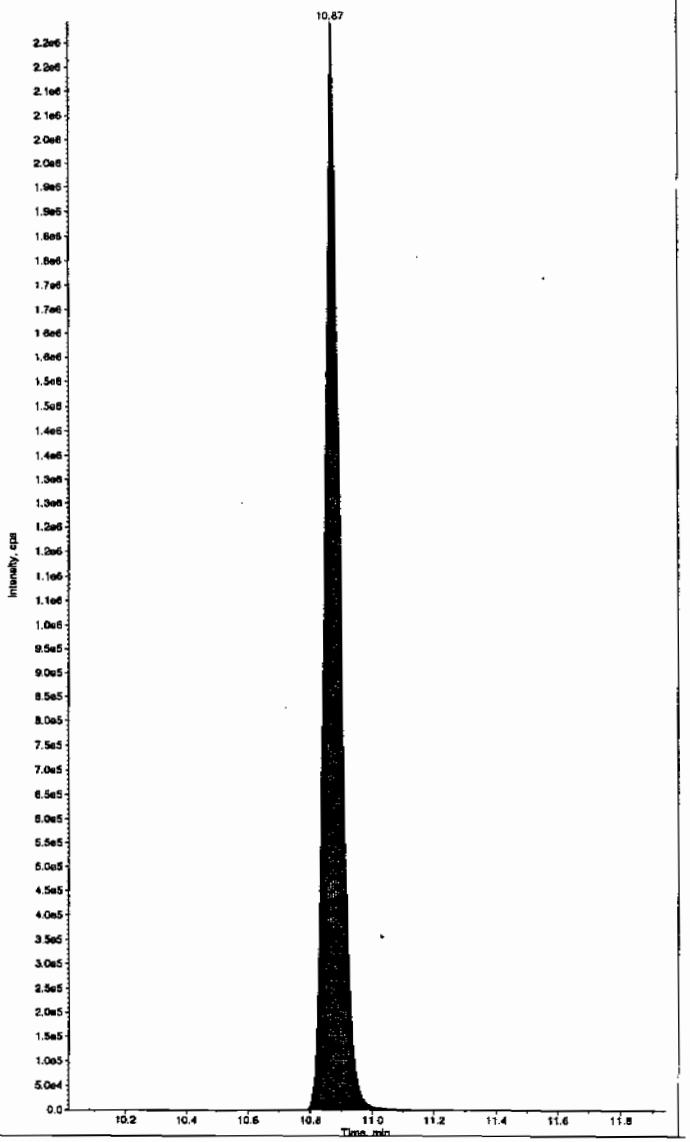

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170(246055001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 1202032887

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0304184a

Date Analyzed: 08-MAR-10 09:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4960	
121-14-2	2,4-Dinitrotoluene	4850	
121-82-4	RDX	4960	
19406-51-0	4-Amino-2,6-dinitrotoluene	5290	
2691-41-0	HMX	4310	
35572-78-2	2-Amino-4,6-dinitrotoluene	5480	
479-45-8	Tetryl	3010	
606-20-2	2,6-Dinitrotoluene	5010	
78-11-5	PETN	6480	
88-72-2	o-Nitrotoluene	4760	
98-95-3	Nitrobenzene	4590	
99-08-1	m-Nitrotoluene	4390	
99-35-4	1,3,5-Trinitrobenzene	5170	
99-65-0	m-Dinitrobenzene	4820	
99-99-0	p-Nitrotoluene	4750	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0304184a
Date: 08-Mar-2010
Time: 09:15:34
ID: 1202032887 | LANC | 943893 | Solid | 246055001 MSD | 2 |
Vial: 4:5,E

MAP 3/8/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.935e+004

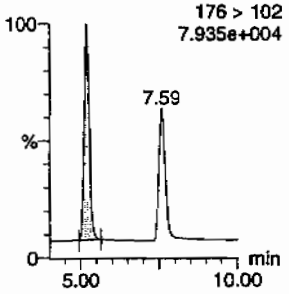

RDX
F2:MRM of 1 channel,AP-
5.19
176 > 102
7.935e+004

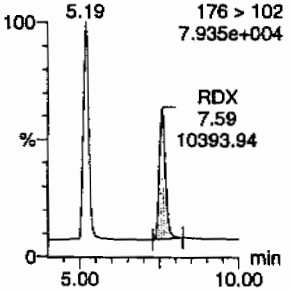

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.748e+004

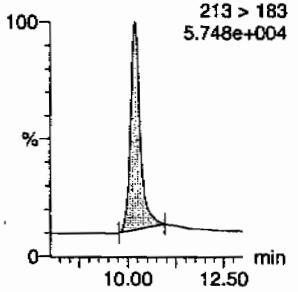

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.463e+004

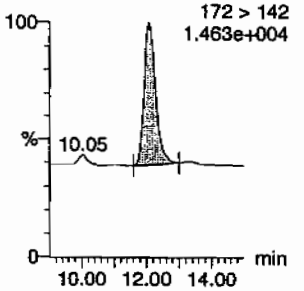

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.712e+004

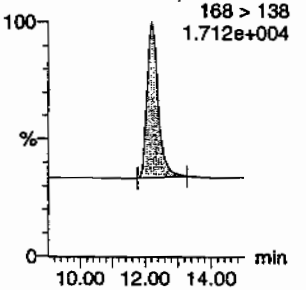

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.68
2238.62
241 > 181
1.221e+004

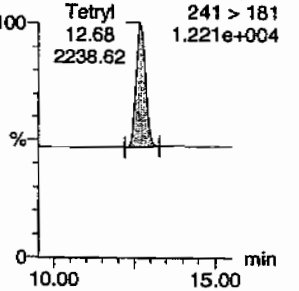

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.364e+004

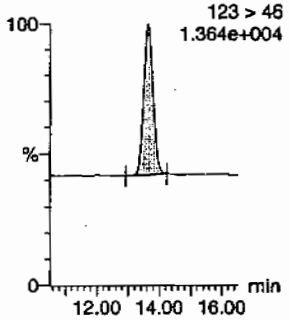

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.033e+004

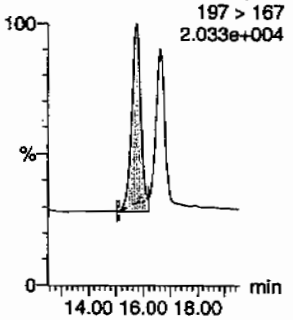

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.807e+004

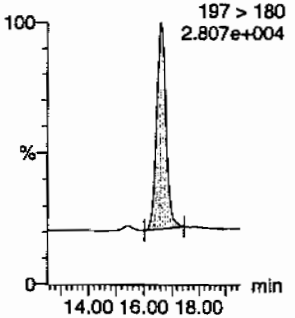

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.027e+004

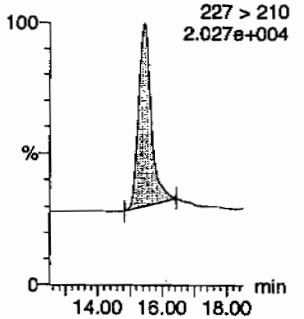

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.64
182 > 152
6.446e+004

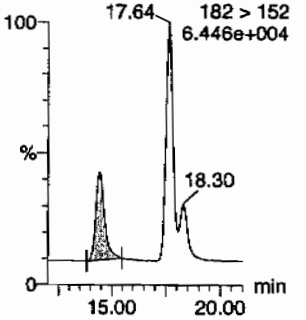

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.446e+004

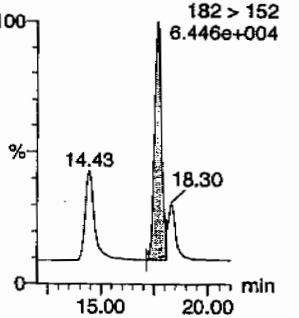

HMM 03/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\030410expA3.qld, Time: Mon Mar 08 11:58:25 2010

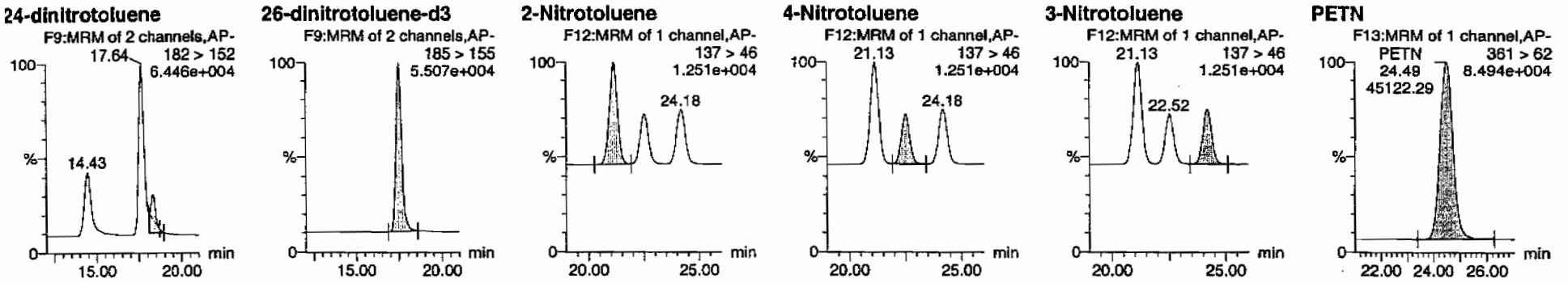

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202032887	HMX	176 > 102	5.19	14693.849	3658.358	14693.849	2008.257	bb			430.5585	86.1	-13.9	969.7
1202032887	RDX	176 > 102	7.59	10393.941	3658.358	10393.941	1420.575	bb			496.4616	99.3	-0.7	590.0
1202032887	135-Trinitrobenzene	213 > 183	10.20	14741.912	3658.358	14741.912	2014.826	bb			517.4428	103.5	3.5	1150.0
1202032887	13-Dinitrobenzene-d4	172 > 142	12.07	3658.358		3658.358	3658.358	bb			520.8682	104.2	4.2	165.1
1202032887	13-Dinitrobenzene	168 > 138	12.20	4463.994	3658.358	4463.994	610.109	bb			481.7427	96.3	-3.7	363.1
1202032887	Tetryl	241 > 181	12.68	2238.616	3658.358	2238.616	305.959	bb			300.6815	60.1	-39.9	158.6
1202032887	Nitrobenzene	123 > 46	13.63	2770.592	3658.358	2770.592	378.666	bb			458.5812	91.7	-8.3	202.9
1202032887	4-Amino-26-dinitrotoluene	197 > 167	15.74	5757.702	19742.031	5757.702	145.823	MM	08-Mar-10	11:35:51	528.6762	105.7	5.7	762.0
1202032887	2-Amino-46-dinitrotoluene	197 > 180	16.60	8768.144	19742.031	8768.144	222.068	bb			548.1771	109.6	9.6	410.3
1202032887	246-Trinitrotoluene	227 > 210	15.45	6436.095	19742.031	6436.095	163.005	bb			496.0479	99.2	-0.8	267.1
1202032887	34-dinitrotoluene	182 > 152	14.43	10508.202	19742.031	10508.202	266.138	bb			275.3719	110.1	10.1	338.7
1202032887	26-dinitrotoluene	182 > 152	17.64	22069.340	19742.031	22069.340	558.943	MM	08-Mar-10	11:48:50	501.0504	100.2	0.2	912.9
1202032887	24-dinitrotoluene	182 > 152	18.30	5274.642	19742.031	5274.642	133.589	MM	08-Mar-10	11:57:56	484.6377	96.9	-3.1	207.1
1202032887	26-dinitrotoluene-d3	185 > 155	17.47	19742.031		19742.031	19742.031	bb			480.0941	96.0	-4.0	1399.2
1202032887	2-Nitrotoluene	137 > 46	21.13	2910.281	19742.031	2910.281	73.708	bb			475.8444	95.2	-4.8	308.0
1202032887	4-Nitrotoluene	137 > 46	22.52	1431.631	19742.031	1431.631	36.258	bb			475.3715	95.1	-4.9	147.7
1202032887	3-Nitrotoluene	137 > 46	24.18	1634.041	19742.031	1634.041	41.385	bb			438.6098	87.7	-12.3	162.0
1202032887	PETN	361 > 62	24.49	45122.293	19742.031	45122.293	1142.798	bb			648.0928	129.6	29.6	7542.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8170(246055001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1545

Matrix: SOIL

GEL Sample ID: 1202032887

Sample Amount 2

Moisture: 17.6

Amount Units g

Date Received: 03-FEB-10

Extraction Type Sonication

Extraction Batch ID: 948892

Concentrated Extract Volume (mL) 10

Date Extracted: 10-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS02260130.wiff

Date Analyzed: 28-FEB-10 00:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5380	
59229-75-3	2,6-Diamino-4-nitrotoluene	6190	
618-87-1	3,5-Dinitroaniline	4470	
6629-29-4	2,4-Diamino-6-nitrotoluene	5600	
78-30-8	tris(o-cresyl) phosphate	5130	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Scan 3/1/10

mple Name: "1202032887" Sample ID: "948893|2|LER" File: "EXS02260130.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 538. ng/mL
Date: 2/28/2010
Time: 12:39:51 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 7.09 min
Relative RT: No

Type: Valley
ntion Time: 7.06 min
: 6.39e+005 counts
ht: 159609.604 cps
t Time: 6.97 min
Time: 7.71 min

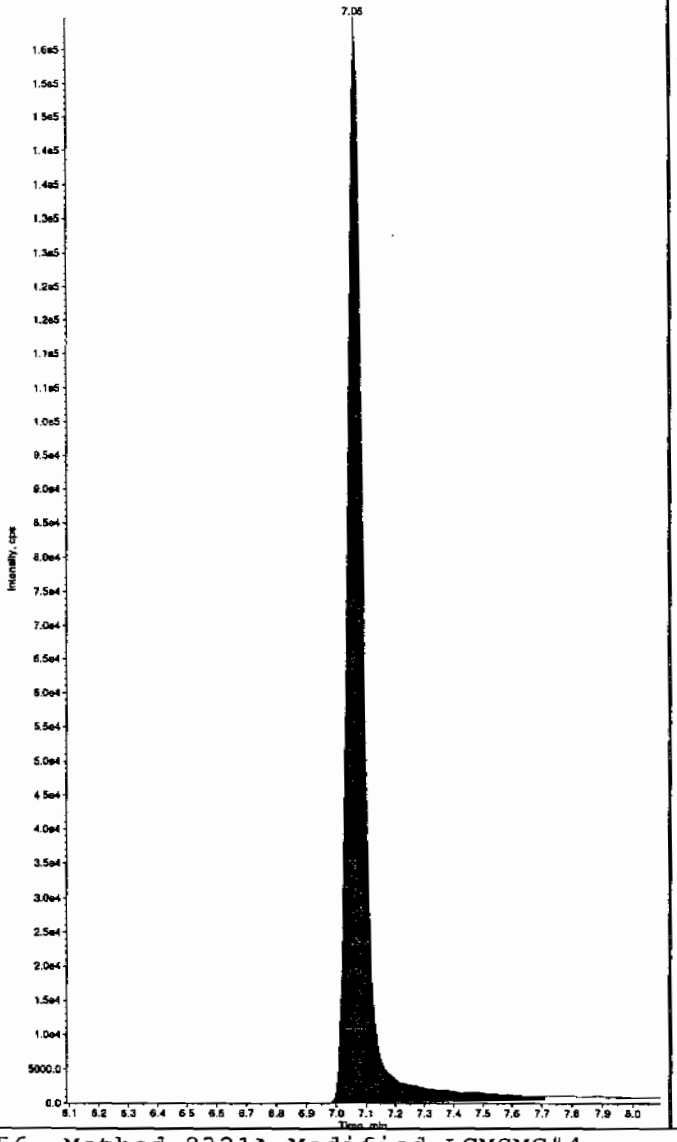

Sample Name: "1202032887" Sample ID: "948893|2|LER" File: "EXS02260130.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 406. ng/mL
Acq. Date: 2/28/2010
Acq. Time: 12:39:51 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.29 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.29 min
Area: 3.79e+006 counts
Height: 1072743.530 cps
Start Time: 8.23 min
End Time: 8.37 min

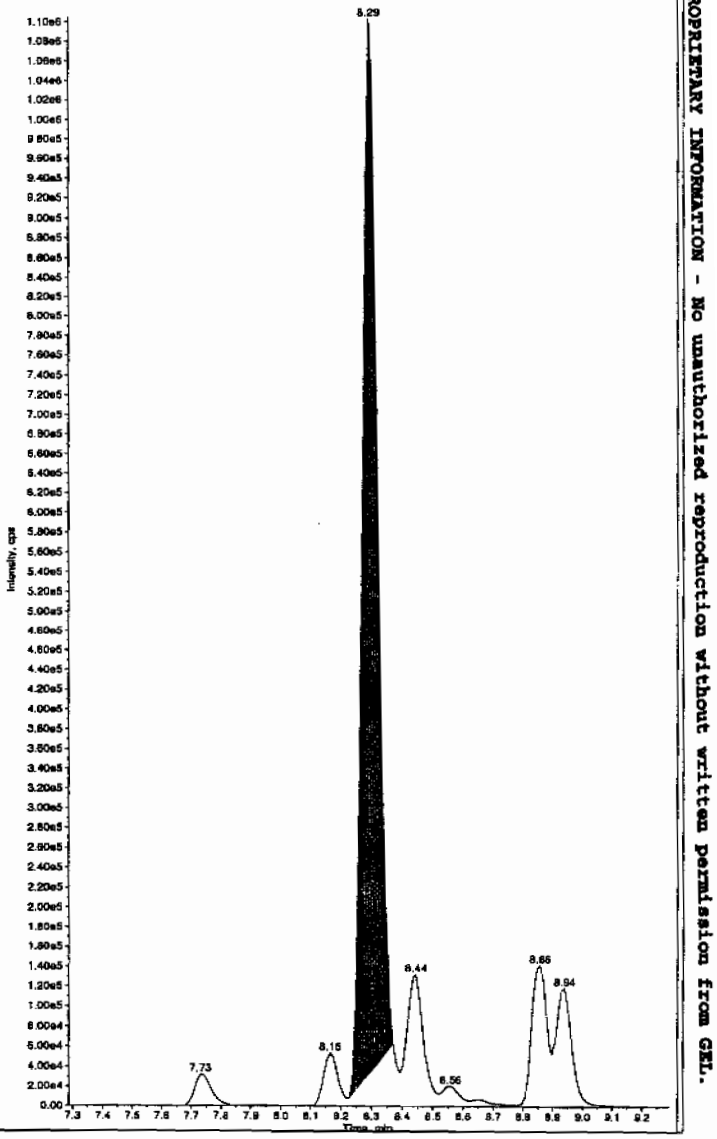

Hm 03/01/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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After Scan 3/1/10

mple Name: "1202032887" Sample ID: "948893|2|LER" File: "EXS02260130.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
entration:	N/A
ulated Conc:	538. ng/mL
Date:	2/28/2010
Time:	12:39:51 AM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	2500.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
Window:	30.0 sec
cted RT:	7.09 min
Relative RT:	No
Type:	Valley
ntion Time:	7.06 min
:	6.39e+005 counts
ht:	159609.604 cps
c Time:	6.97 min
Time:	7.71 min

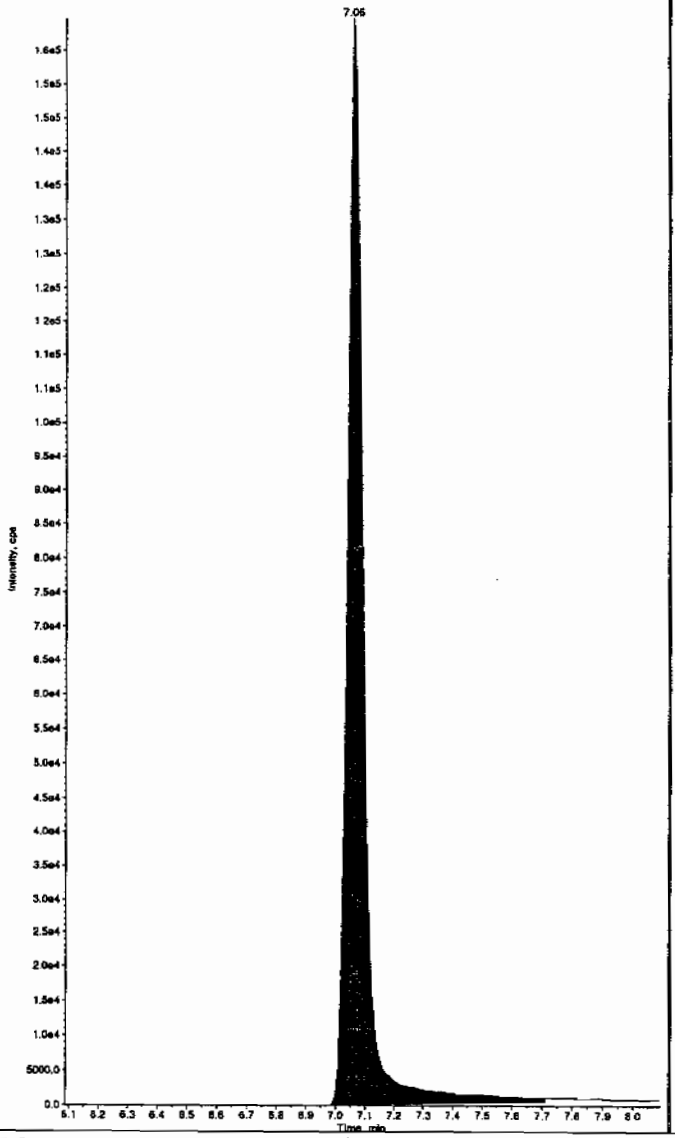

Sample Name: "1202032887" Sample ID: "948893|2|LER" File: "EXS02260130.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	447. ng/mL
Acq. Date:	2/28/2010
Acq. Time:	12:39:51 AM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.29 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.29 min
Area:	4.13e+006 counts
Height:	1109226.327 cps
Start Time:	8.23 min
End Time:	8.39 min

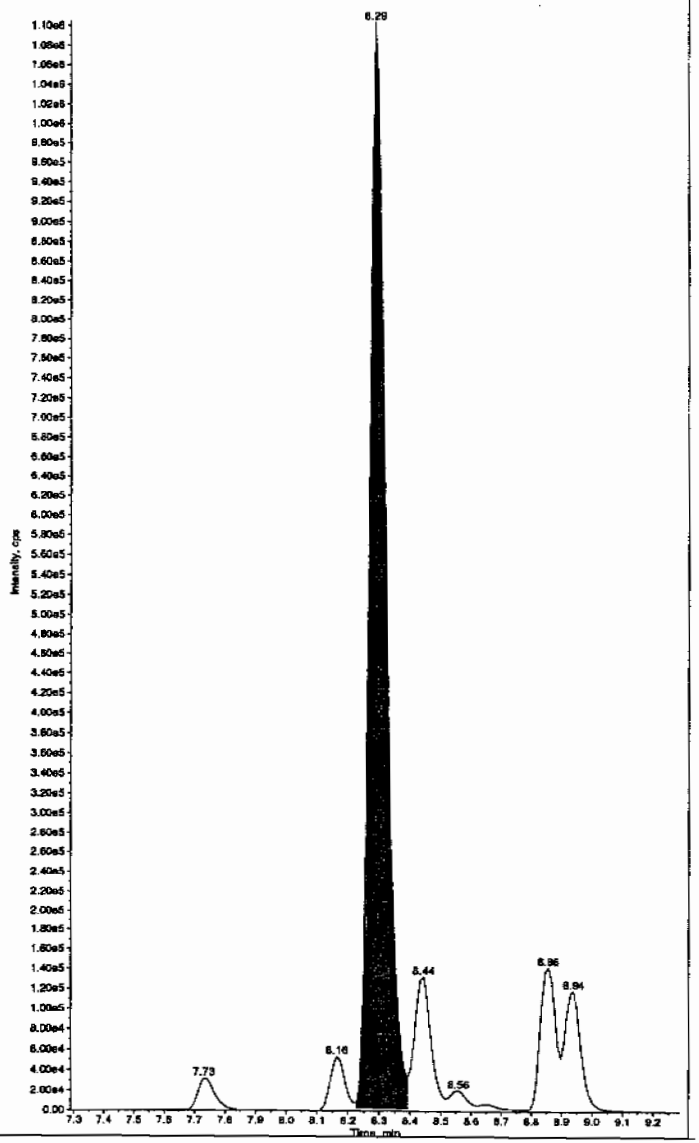

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mple Name: "1202032887" Sample ID: "948893|2|LER" File: "EXS02260130.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
culated Conc:	235. ng/mL
Date:	2/28/2010
Time:	12:39:51 AM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	1460.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
Window:	15.0 sec
cted RT:	8.46 min
Relative RT:	No
Type:	Valley
ntion Time:	8.43 min
:	3.25e+006 counts
ht:	966415.710 cps
t Time:	8.36 min
Time:	8.67 min

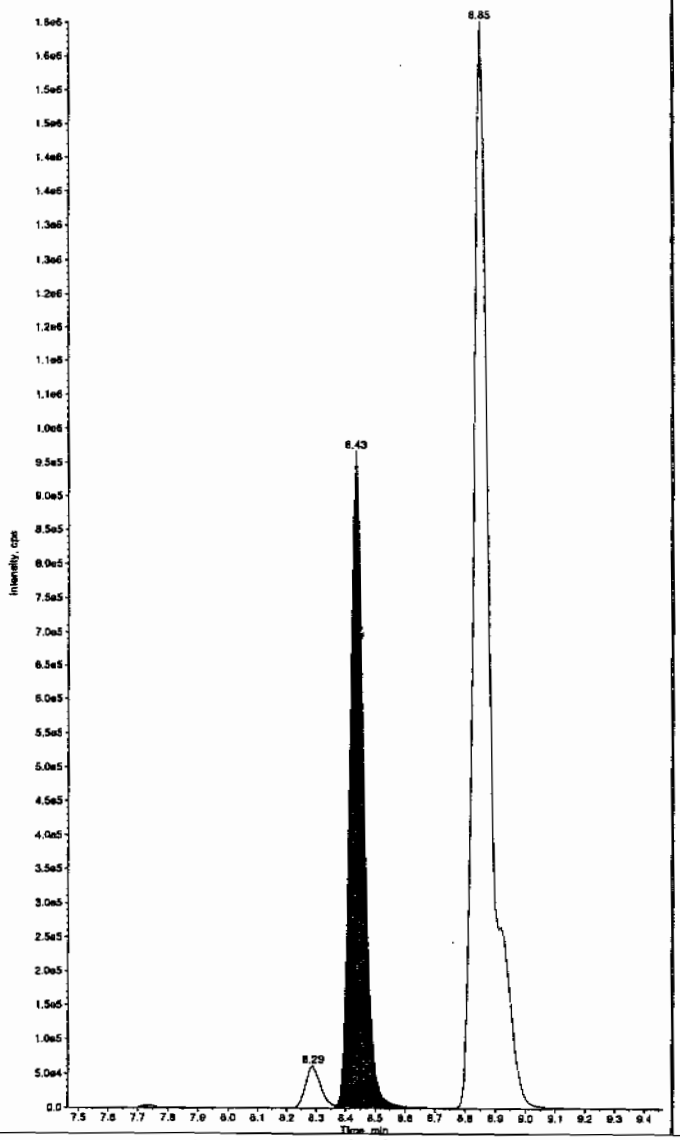

Sample Name: "1202032887" Sample ID: "948893|2|LER" File: "EXS02260130.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	619. ng/mL
Acq. Date:	2/28/2010
Acq. Time:	12:39:51 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.12 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.08 min
Area:	1.36e+006 counts
Height:	325849.457 cps
Start Time:	4.99 min
End Time:	5.38 min

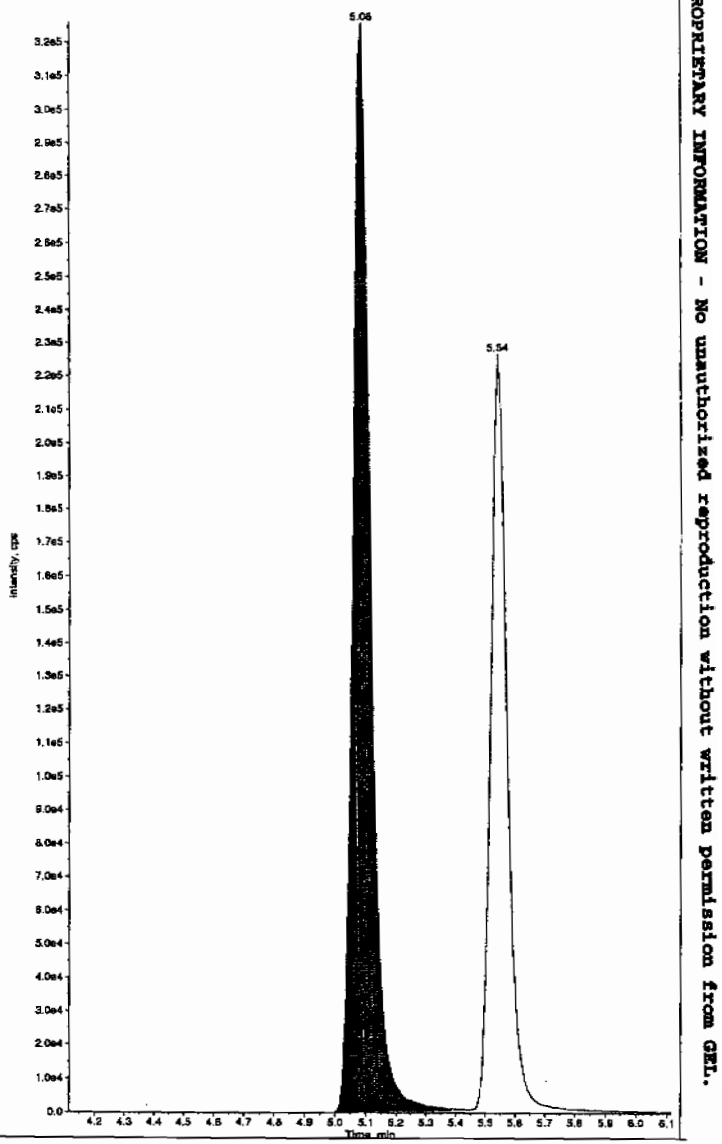

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202032887" Sample ID: "948893|2|LER" File: "EXS02260130.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ple Index:	1
ple Type:	Unknown
centration:	N/A
lculated Conc:	560. ng/mL
q. Date:	2/28/2010
q. Time:	12:39:51 AM
ified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	350.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	5.57 min
Relative RT:	No
. Type:	Valley
ention Time:	5.54 min
a:	8.96e+005 counts
ght:	226568.512 cps
rt Time:	5.45 min
Time:	6.03 min

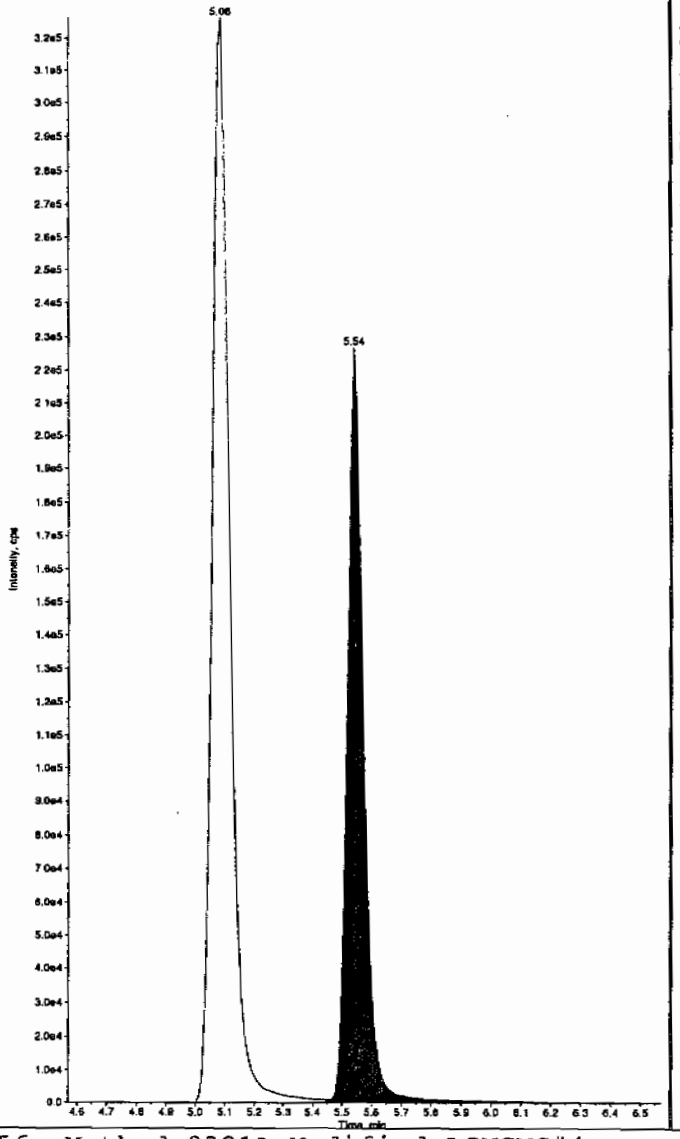

Sample Name: "1202032887" Sample ID: "948893|2|LER" File: "EXS02260130.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	513. ng/mL
Acq. Date:	2/28/2010
Acq. Time:	12:39:51 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	7.91e+006 counts
Height:	2264503.174 cps
Start Time:	10.8 min
End Time:	11.2 min

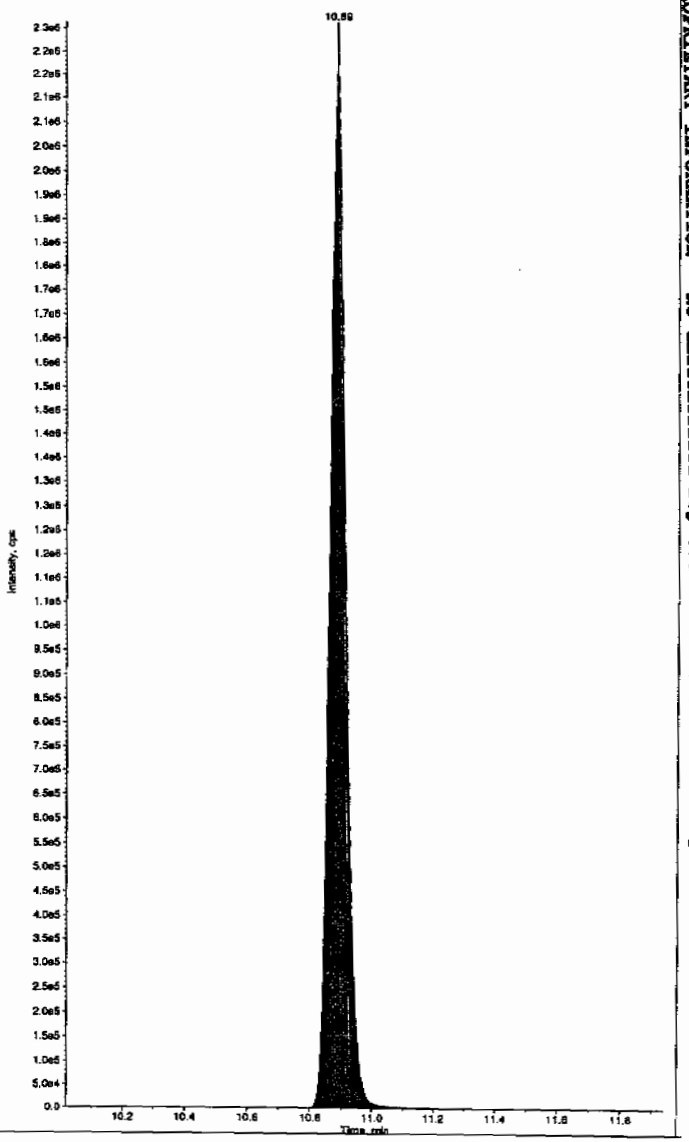

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 948892 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202032884 MB	10-FEB-2010 17:18:00	2	10	5
1202032885 LCS	10-FEB-2010 17:18:00	2	10	5
246055001	10-FEB-2010 17:18:00	2	10	5
1202032886 MS (246055001)	10-FEB-2010 17:18:00	2	10	5
1202032887 MSD (246055001)	10-FEB-2010 17:18:00	2	10	5
246055002	10-FEB-2010 17:18:00	2	10	5
246055003	10-FEB-2010 17:18:00	2	10	5
246055004	10-FEB-2010 17:18:00	2	10	5
246055005	10-FEB-2010 17:18:00	2	10	5
246055006	10-FEB-2010 17:18:00	2	10	5
246055007	10-FEB-2010 17:18:00	2	10	5
246055008	10-FEB-2010 17:18:00	2	10	5
246055009	10-FEB-2010 17:18:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202032885	8321 Explosives LCS	IXX100125-03	.1	mL
LCS	1202032885	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
MS	1202032886	8321 Explosives LCS	IXX100125-03	.1	mL
MS	1202032886	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
MSD	1202032887	8321 Explosives LCS	IXX100125-03	.1	mL
MSD	1202032887	8321 LANL Explosives Mix 10mg/L	UXX100122-01.3	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100204-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date:03/04/10
Extr. Injection Volume: 50uL
Sequence Number: 030410expA
Initial Calibration Date: 03/04/10

Method: SW846 8321A-Modified
Int. Std.: UXX1000220-01
Mobile Phase Lot#: 1277087, 1268566
Standard-Samp Reagent Lot#: 1274562, 1271949

Reviewed BY: HMC
Date: 03/09/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100304-07& WXX100307-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0304001a	XIBLK01	MAP	3/4/10 15:16			1		USE	B
EXP0304002a	XIBLK01	MAP	3/4/10 15:46			1		USE	B
EXP0304003a	WXXICAL-01	MAP	3/4/10 16:15			1		USE	I
EXP0304004a	WXXICAL-02	MAP	3/4/10 16:45			1		USE	I
EXP0304005a	WXXICAL-03	MAP	3/4/10 17:14			1		USE	I
EXP0304006a	WXXICAL-04	MAP	3/4/10 17:44			1		USE	I
EXP0304007a	WXXICAL-05	MAP	3/4/10 18:13			1		USE	I
EXP0304008a	WXXICAL-06	MAP	3/4/10 18:43			1		USE	I
EXP0304009a	XIBLK02	MAP	3/4/10 19:12			1		USE	B
EXP0304010a	WXXICV	MAP	3/4/10 19:41			1		USE	C
EXP0304011a	XIBLK03	MAP	3/4/10 20:11			1		USE	B
EXP0304012a	WXXCRI	MAP	3/4/10 20:40			1		USE	C
EXP0304013a	1202038795	MAP	3/4/10 21:10	951357	Various	2	LANL	USE	S
EXP0304014a	1202038796	MAP	3/4/10 21:39	951357	Various	2	LANL	USE	S
EXP0304015a	246610001	MAP	3/4/10 22:09	951357	10-1701	2	LANL	USE	S
EXP0304016a	1202038797	MAP	3/4/10 22:38	951357	10-1701	2	LANL	USE	S
EXP0304017a	1202038798	MAP	3/4/10 23:08	951357	10-1701	2	LANL	DUSE-RA	S
EXP0304018a	246610002	MAP	3/4/10 23:37	951357	10-1701	2	LANL	USE	S
EXP0304019a	246610003	MAP	3/5/10 0:07	951357	10-1701	2	LANL	USE	S
EXP0304020a	246611001	MAP	3/5/10 0:36	951357	10-1702	2	LANL	USE	S
EXP0304021a	246611002	MAP	3/5/10 1:06	951357	10-1702	2	LANL	USE	S
EXP0304022a	246611003	MAP	3/5/10 1:35	951357	10-1702	2	LANL	USE	S
EXP0304023a	WXXCCV	MAP	3/5/10 2:05			1		USE	C
EXP0304024a	XIBLK04	MAP	3/5/10 2:34			1		USE	B
EXP0304025a	WXXCRI	MAP	3/5/10 3:04			1		USE	C
EXP0304026a	1202038789	MAP	3/5/10 3:33	951353	Various	2	LANL	USE	S
EXP0304027a	1202038790	MAP	3/5/10 4:03	951353	Various	2	LANL	USE	S
EXP0304028a	246588002	MAP	3/5/10 4:32	951353	10-1688	2	LANL	USE	S
EXP0304029a	1202038791	MAP	3/5/10 5:02	951353	10-1688	2	LANL	USE	S

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EXP0304030a	1202038792	MAP	3/5/10 5:31	951353	10-1688	2	LANL	USE	S
EXP0304031a	246588003	MAP	3/5/10 6:01	951353	10-1688	2	LANL	USE	S
EXP0304032a	246588004	MAP	3/5/10 6:30	951353	10-1688	2	LANL	USE	S
EXP0304033a	246588005	MAP	3/5/10 7:00	951353	10-1688	2	LANL	USE	S
EXP0304034a	246588006	MAP	3/5/10 7:29	951353	10-1688	2	LANL	USE	S
EXP0304035a	246588007	MAP	3/5/10 7:59	951353	10-1688	2	LANL	USE	S
EXP0304036a	WXXCCV	MAP	3/5/10 8:28			1		USE	C
EXP0304037a	XIBLK05	MAP	3/5/10 8:58			1		USE	B
EXP0304038a	WXXCRI	MAP	3/5/10 9:27			1		USE	C
EXP0304039a	246588008	MAP	3/5/10 9:57	951353	10-1688	2	LANL	USE	S
EXP0304040a	246588009	MAP	3/5/10 10:26	951353	10-1688	2	LANL	USE	S
EXP0304041a	246588010	MAP	3/5/10 10:56	951353	10-1688	2	LANL	USE	S
EXP0304042a	246588011	MAP	3/5/10 11:25	951353	10-1688	2	LANL	USE	S
EXP0304043a	246588012	MAP	3/5/10 11:55	951353	10-1688	2	LANL	USE	S
EXP0304044a	246605001	MAP	3/5/10 12:24	951353	10-1698-1	2	LANL	USE	S
EXP0304045a	246605002	MAP	3/5/10 12:54	951353	10-1698-1	2	LANL	USE	S
EXP0304046a	246605003	MAP	3/5/10 13:23	951353	10-1698-1	2	LANL	USE	S
EXP0304047a	246605004	MAP	3/5/10 13:53	951353	10-1698-1	2	LANL	USE	S
EXP0304048a	246605005	MAP	3/5/10 14:22	951353	10-1698-1	2	LANL	USE	S
EXP0304049a	WXXCCV	MAP	3/5/10 14:52			1	LANL	USE	C
EXP0304050a	XIBLK06	MAP	3/5/10 15:21			1	LANL	USE	B
EXP0304051a	WXXCRI	MAP	3/5/10 15:51			1	LANL	USE	C
EXP0304052a	246605006	MAP	3/5/10 16:20	951353	10-1698-1	2	LANL	USE	S
EXP0304053a	1202038798	MAP	3/5/10 16:50	951357	10-1701	2	LANL	USE	S
EXP0304054a	XIBLK07	MAP	3/5/10 17:19			1	LANL	USE	B
EXP0304055a	1202041901	MAP	3/5/10 17:49	952679	Various	2	LANL	USE	S
EXP0304056a	1202041902	MAP	3/5/10 18:18	952679	Various	2	LANL	USE	S
EXP0304057a	246721001	MAP	3/5/10 18:48	952679	10-1709	2	LANL	USE	S
EXP0304058a	1202041903	MAP	3/5/10 19:17	952679	10-1709	2	LANL	USE	S
EXP0304059a	1202041904	MAP	3/5/10 19:47	952679	10-1709	2	LANL	USE	S
EXP0304060a	246721002	MAP	3/5/10 20:16	952679	10-1709	2	LANL	USE	S
EXP0304061a	246837001	MAP	3/5/10 20:46	952679	10-1747	2	LANL	USE	S
EXP0304062a	246837002	MAP	3/5/10 21:15	952679	10-1747	2	LANL	USE	S
EXP0304063a	246837003	MAP	3/5/10 21:45	952679	10-1747	2	LANL	USE	S
EXP0304064a	WXXCCV	MAP	3/5/10 22:14			1		USE	C
EXP0304065a	XIBLK08	MAP	3/5/10 22:44			1		USE	B
EXP0304066a	WXXCRI	MAP	3/5/10 23:13			1		USE	C

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EXP0304067a	246837004	MAP	3/5/10 23:43	952679	10-1747	2	LANL	USE	S
EXP0304068a	246837005	MAP	3/6/10 0:13	952679	10-1747	2	LANL	USE	S
EXP0304069a	246837006	MAP	3/6/10 0:42	952679	10-1747	2	LANL	USE	S
EXP0304070a	246841001	MAP	3/6/10 1:11	952679	10-1748	2	LANL	USE	S
EXP0304071a	246841002	MAP	3/6/10 1:41	952679	10-1748	2	LANL	USE	S
EXP0304072a	246841003	MAP	3/6/10 2:11	952679	10-1748	2	LANL	USE	S
EXP0304073a	246843002	MAP	3/6/10 2:40	952679	10-1749	2	LANL	USE	S
EXP0304074a	246843003	MAP	3/6/10 3:10	952679	10-1749	2	LANL	USE	S
EXP0304075a	246843004	MAP	3/6/10 3:39	952679	10-1749	2	LANL	USE	S
EXP0304076a	WXXCCV	MAP	3/6/10 4:08			1		USE	C
EXP0304077a	XIBLK09	MAP	3/6/10 4:38			1		USE	B
EXP0304078a	WXXCRI	MAP	3/6/10 5:08			1		USE	C
EXP0304079a	246846001	MAP	3/6/10 5:37	952679	10-1750	2	LANL	USE	S
EXP0304080a	246846002	MAP	3/6/10 6:07	952679	10-1750	2	LANL	USE	S
EXP0304081a	246847001	MAP	3/6/10 6:36	952679	10-1751	2	LANL	USE	S
EXP0304082a	246847002	MAP	3/6/10 7:06	952679	10-1751	2	LANL	USE	S
EXP0304083a	XIBLK10	MAP	3/6/10 7:35			1		USE	B
EXP0304084a	1202045764	MAP	3/6/10 8:05	954338	Various	2	LANL	USE	S
EXP0304085a	1202045765	MAP	3/6/10 8:34	954338	Various	2	LANL	USE	S
EXP0304086a	247083001	MAP	3/6/10 9:04	954338	10-1827	2	LANL	USE	S
EXP0304087a	1202045766	MAP	3/6/10 9:33	954338	10-1827	2	LANL	USE	S
EXP0304088a	1202045767	MAP	3/6/10 10:03	954338	10-1827	2	LANL	USE	S
EXP0304089a	WXXCCV	MAP	3/6/10 10:32			1		USE	C
EXP0304090a	XIBLK11	MAP	3/6/10 11:02			1		USE	B
EXP0304091a	WXXCRI	MAP	3/6/10 11:31			1		USE	C
EXP0304092a	247083002	MAP	3/6/10 12:01	954338	10-1827	2	LANL	USE	S
EXP0304093a	247083003	MAP	3/6/10 12:30	954338	10-1827	2	LANL	USE	S
EXP0304094a	247083004	MAP	3/6/10 13:00	954338	10-1827	2	LANL	USE	S
EXP0304095a	247084001	MAP	3/6/10 13:29	954338	10-1828	2	LANL	USE	S
EXP0304096a	247084002	MAP	3/6/10 13:59	954338	10-1828	2	LANL	USE	S
EXP0304097a	247086001	MAP	3/6/10 14:28	954338	10-1829	2	LANL	USE	S
EXP0304098a	247088001	MAP	3/6/10 14:58	954338	10-1830	2	LANL	USE	S
EXP0304099a	247088002	MAP	3/6/10 15:27	954338	10-1830	2	LANL	USE	S
EXP0304100a	247088003	MAP	3/6/10 15:57	954338	10-1830	2	LANL	USE	S
EXP0304101a	WXXCCV	MAP	3/6/10 16:26			1		USE	C
EXP0304102a	XIBLK12	MAP	3/6/10 16:56			1		USE	B
EXP0304103a	WXXCRI	MAP	3/6/10 17:25			1		USE	C

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EXP0304104a	247091001	MAP	3/6/10 17:55	954338	10-1831	2	LANL	USE	S
EXP0304105a	247091002	MAP	3/6/10 18:24	954338	10-1831	2	LANL	USE	S
EXP0304106a	247094001	MAP	3/6/10 18:54	954338	10-1832	2	LANL	USE	S
EXP0304107a	247094002	MAP	3/6/10 19:23	954338	10-1832	2	LANL	USE	S
EXP0304108a	247121002	MAP	3/6/10 19:53	954338	10-1846	2	LANL	USE	S
EXP0304109a	247123001	MAP	3/6/10 20:22	954338	10-1848	2	LANL	USE	S
EXP0304110a	247123002	MAP	3/6/10 20:52	954338	10-1848	2	LANL	USE	S
EXP0304111a	247123003	MAP	3/6/10 21:21	954338	10-1848	2	LANL	USE	S
EXP0304112a	247123004	MAP	3/6/10 21:51	954338	10-1848	2	LANL	USE	S
EXP0304113a	WXXCCV	MAP	3/6/10 22:20			1		USE	C
EXP0304114a	XIBLK13	MAP	3/6/10 22:50			1		USE	B
EXP0304115a	WXXCRI	MAP	3/6/10 23:19			1		USE	C
EXP0304116a	1202032878	MAP	3/6/10 23:49	948890	10-1544	2	LANL	USE	S
EXP0304117a	1202032879	MAP	3/7/10 0:18	948890	10-1544	2	LANL	USE	S
EXP0304118a	246070001	MAP	3/7/10 0:48	948890	10-1544	2	LANL	USE	S
EXP0304119a	1202032880	MAP	3/7/10 1:17	948890	10-1544	2	LANL	USE	S
EXP0304120a	1202032881	MAP	3/7/10 1:47	948890	10-1544	2	LANL	USE	S
EXP0304121a	246070002	MAP	3/7/10 2:16	948890	10-1544	2	LANL	USE	S
EXP0304122a	246070003	MAP	3/7/10 2:46	948890	10-1544	2	LANL	USE	S
EXP0304123a	246070004	MAP	3/7/10 3:15	948890	10-1544	2	LANL	USE	S
EXP0304124a	246070005	MAP	3/7/10 3:45	948890	10-1544	2	LANL	USE	S
EXP0304125a	246070006	MAP	3/7/10 4:14	948890	10-1544	2	LANL	USE	S
EXP0304126a	WXXCCV	MAP	3/7/10 4:44			1		USE	C
EXP0304127a	XIBLK14	MAP	3/7/10 5:13			1		USE	B
EXP0304128a	WXXCRI	MAP	3/7/10 5:43			1		USE	C
EXP0304129a	246070007	MAP	3/7/10 6:12	948890	10-1544	2	LANL	USE	S
EXP0304130a	246070008	MAP	3/7/10 6:42	948890	10-1544	2	LANL	USE	S
EXP0304131a	246070009	MAP	3/7/10 7:11	948890	10-1544	2	LANL	USE	S
EXP0304132a	246070010	MAP	3/7/10 7:41	948890	10-1544	2	LANL	USE	S
EXP0304133a	246070011	MAP	3/7/10 8:10	948890	10-1544	2	LANL	USE	S
EXP0304134a	246070012	MAP	3/7/10 8:40	948890	10-1544	2	LANL	USE	S
EXP0304135a	246070013	MAP	3/7/10 9:09	948890	10-1544	2	LANL	USE	S
EXP0304136a	246070014	MAP	3/7/10 9:39	948890	10-1544	2	LANL	USE	S
EXP0304137a	246070015	MAP	3/7/10 10:08	948890	10-1544	2	LANL	USE	S
EXP0304138a	246070016	MAP	3/7/10 10:38	948890	10-1544	2	LANL	USE	S
EXP0304139a	WXXCCV	MAP	3/7/10 11:07			1		USE	C
EXP0304140a	XIBLK15	MAP	3/7/10 11:37			1		USE	B

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EXP0304141a	WXXCRI	MAP	3/7/10 12:06			1		USE	C
EXP0304142a	246070017	MAP	3/7/10 12:36	948890	10-1544	2	LANL	USE	S
EXP0304143a	246070018	MAP	3/7/10 13:05	948890	10-1544	2	LANL	USE	S
EXP0304144a	246070019	MAP	3/7/10 13:35	948890	10-1544	2	LANL	USE	S
EXP0304145a	246070020	MAP	3/7/10 14:05	948890	10-1544	2	LANL	USE	S
EXP0304146a	WXXCCV	MAP	3/7/10 14:34			1		USE	C
EXP0304147a	XIBLK16	MAP	3/7/10 15:04			1		USE	B
EXP0304148a	WXXCRI	MAP	3/7/10 15:33			1		USE	C
EXP0304149a	1202032874	MAP	3/7/10 16:03	948888	10-1543	2	LANL	USE	S
EXP0304150a	1202032875	MAP	3/7/10 16:32	948888	10-1543	2	LANL	USE	S
EXP0304151a	246066001	MAP	3/7/10 17:02	948888	10-1543	2	LANL	USE	S
EXP0304152a	1202032876	MAP	3/7/10 17:31	948888	10-1543	2	LANL	USE	S
EXP0304153a	1202032877	MAP	3/7/10 18:01	948888	10-1543	2	LANL	USE	S
EXP0304154a	246066002	MAP	3/7/10 18:30	948888	10-1543	2	LANL	USE	S
EXP0304155a	246066003	MAP	3/7/10 19:00	948888	10-1543	2	LANL	USE	S
EXP0304156a	246066004	MAP	3/7/10 19:29	948888	10-1543	2	LANL	USE	S
EXP0304157a	246066005	MAP	3/7/10 19:59	948888	10-1543	2	LANL	USE	S
EXP0304158a	246066006	MAP	3/7/10 20:28	948888	10-1543	2	LANL	USE	S
EXP0304159a	WXXCCV	MAP	3/7/10 20:58			1		USE	C
EXP0304160a	XIBLK17	MAP	3/7/10 21:27			1		USE	B
EXP0304161a	WXXCRI	MAP	3/7/10 21:57			1		USE	C
EXP0304162a	246066007	MAP	3/7/10 22:26	948888	10-1543	2	LANL	USE	S
EXP0304163a	246066008	MAP	3/7/10 22:56	948888	10-1543	2	LANL	USE	S
EXP0304164a	246066009	MAP	3/7/10 23:25	948888	10-1543	2	LANL	USE	S
EXP0304165a	246066010	MAP	3/7/10 23:55	948888	10-1543	2	LANL	USE	S
EXP0304166a	246066011	MAP	3/8/10 0:24	948888	10-1543	2	LANL	USE	S
EXP0304167a	246066012	MAP	3/8/10 0:53	948888	10-1543	2	LANL	USE	S
EXP0304168a	246066013	MAP	3/8/10 1:23	948888	10-1543	2	LANL	USE	S
EXP0304169a	246066014	MAP	3/8/10 1:52	948888	10-1543	2	LANL	USE	S
EXP0304170a	246066015	MAP	3/8/10 2:22	948888	10-1543	2	LANL	USE	S
EXP0304171a	246066016	MAP	3/8/10 2:51	948888	10-1543	2	LANL	USE	S
EXP0304172a	WXXCCV	MAP	3/8/10 3:21			1		USE	C
EXP0304173a	XIBLK18	MAP	3/8/10 3:50			1		USE	B
EXP0304174a	WXXCRI	MAP	3/8/10 4:20			1		USE	C
EXP0304175a	246066017	MAP	3/8/10 4:49	948888	10-1543	2	LANL	USE	S
EXP0304176a	246066018	MAP	3/8/10 5:19	948888	10-1543	2	LANL	USE	S
EXP0304177a	246066019	MAP	3/8/10 5:48	948888	10-1543	2	LANL	USE	S

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EXP0304178a	246066020	MAP	3/8/10 6:18	948888	10-1543	2	LANL	USE	S
EXP0304179a	XIBLK19	MAP	3/8/10 6:47			1		USE	B
EXP0304180a	1202032884	MAP	3/8/10 7:17	948893	10-1545	2	LANL	USE	S
EXP0304181a	1202032885	MAP	3/8/10 7:47	948893	10-1545	2	LANL	USE	S
EXP0304182a	246055001	MAP	3/8/10 8:16	948893	10-1545	2	LANL	USE	S
EXP0304183a	1202032886	MAP	3/8/10 8:46	948893	10-1545	2	LANL	USE	S
EXP0304184a	1202032887	MAP	3/8/10 9:15	948893	10-1545	2	LANL	USE	S
EXP0304185a	WXXCCV	MAP	3/8/10 9:45			1		USE	C
EXP0304186a	XIBLK20	MAP	3/8/10 10:14			1		USE	B
EXP0304187a	WXXCRI	MAP	3/8/10 10:44			1		USE	C
EXP0304188a	246055002	MAP	3/8/10 11:13	948893	10-1545	2	LANL	USE	S
EXP0304189a	246055003	MAP	3/8/10 11:43	948893	10-1545	2	LANL	USE	S
EXP0304190a	246055004	MAP	3/8/10 12:12	948893	10-1545	2	LANL	USE	S
EXP0304191a	246055005	MAP	3/8/10 12:42	948893	10-1545	2	LANL	USE	S
EXP0304192a	246055006	MAP	3/8/10 13:11	948893	10-1545	2	LANL	USE	S
EXP0304193a	246055007	MAP	3/8/10 13:41	948893	10-1545	2	LANL	USE	S
EXP0304194a	246055008	MAP	3/8/10 14:10	948893	10-1545	2	LANL	USE	S
EXP0304195a	246055009	MAP	3/8/10 14:40	948893	10-1545	2	LANL	USE	S
EXP0304196a	WXXCCV	MAP	3/8/10 15:09			1	LANL	USE	C
EXP0304197a	XIBLK21	MAP	3/8/10 15:39			1	LANL	USE	B
EXP0304198a	WXXCRI	MAP	3/8/10 16:08			1	LANL	USE	C
EXP0304199a	1202040473	MAP	3/8/10 16:38	952049	Various	2	LANL	USE	S
EXP0304200a	1202040474	MAP	3/8/10 17:07	952049	Various	2	LANL	USE	S
EXP0304201a	246713001	MAP	3/8/10 17:37	952049	10-1728	2	LANL	USE	S
EXP0304202a	1202040475	MAP	3/8/10 18:06	952049	10-1728	2	LANL	USE	S
EXP0304203a	1202040476	MAP	3/8/10 18:36	952049	10-1728	2	LANL	USE	S
EXP0304204a	246713002	MAP	3/8/10 19:05	952049	10-1728	2	LANL	USE	S
EXP0304205a	246713003	MAP	3/8/10 19:35	952049	10-1728	2	LANL	USE	S
EXP0304206a	246713004	MAP	3/8/10 20:04	952049	10-1728	2	LANL	USE	S
EXP0304207a	246713005	MAP	3/8/10 20:34	952049	10-1728	2	LANL	USE	S
EXP0304208a	246713006	MAP	3/8/10 21:03	952049	10-1728	2	LANL	USE	S
EXP0304209a	WXXCCV	MAP	3/8/10 21:33			1		USE	C
EXP0304210a	XIBLK22	MAP	3/8/10 22:02			1		USE	B
EXP0304211a	WXXCRI	MAP	3/8/10 22:32			1		USE	C
EXP0304212a	246713007	MAP	3/8/10 23:01	952049	10-1728	2	LANL	USE	S
EXP0304213a	246713008	MAP	3/8/10 23:30	952049	10-1728	2	LANL	USE	S
EXP0304214a	246734001	MAP	3/9/10 0:00	952049	10-1731-1	2	LANL	USE	S

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EXP0304215a	246736001	MAP	3/9/10 0:29	952049	10-1732	2	LANL	USE	S
EXP0304216a	246736002	MAP	3/9/10 0:59	952049	10-1732	2	LANL	USE	S
EXP0304217a	246739002	MAP	3/9/10 1:28	952049	10-1733	2	LANL	USE	S
EXP0304218a	246739003	MAP	3/9/10 1:58	952049	10-1733	2	LANL	USE	S
EXP0304219a	246739004	MAP	3/9/10 2:27	952049	10-1733	2	LANL	USE	S
EXP0304220a	246739005	MAP	3/9/10 2:57	952049	10-1733	2	LANL	USE	S
EXP0304221a	246739006	MAP	3/9/10 3:26	952049	10-1733	2	LANL	USE	S
EXP0304222a	WXXCCV	MAP	3/9/10 3:56			1		USE	C
EXP0304223a	XIBLK23	MAP	3/9/10 4:25			1		USE	B
EXP0304224a	WXXCRI	MAP	3/9/10 4:55			1		USE	C
EXP0304225a	246739007	MAP	3/9/10 5:24	952049	10-1733	2	LANL	USE	S
EXP0304226a	246739008	MAP	3/9/10 5:54	952049	10-1733	2	LANL	USE	S
EXP0304227a	246739009	MAP	3/9/10 6:23	952049	10-1733	2	LANL	USE	S
EXP0304228a	246739010	MAP	3/9/10 6:53	952049	10-1733	2	LANL	USE	S
EXP0304229a	WXXCCV	MAP	3/9/10 7:22			1		USE	C
EXP0304230a	XIBLK24	MAP	3/9/10 7:52			1		USE	B
EXP0304231a	WXXCRI	MAP	3/9/10 8:21			1		USE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 02/26/10
Extr. Injection Volume: 10uL
Sequence Number: 022610exs
Initial Calibration Date: 022610

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1274562, 1261217

Reviewed By: HMC
Date: 03/01/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100226-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS02260001.wiff	XIBLK01	LER	2/26/2010 14:53			1		USE	B
EXS02260002.wiff	XIBLK01	LER	2/26/2010 15:09			1		USE	B
EXS02260003.wiff	WXXICAL-19	LER	2/26/2010 15:25			1		USE	I
EXS02260004.wiff	WXXICAL-20	LER	2/26/2010 15:41			1		USE	I
EXS02260005.wiff	WXXICAL-21	LER	2/26/2010 15:56			1		USE	I
EXS02260006.wiff	WXXICAL-22	LER	2/26/2010 16:12			1		USE	I
EXS02260007.wiff	WXXICAL-23	LER	2/26/2010 16:28			1		USE	I
EXS02260008.wiff	WXXICAL-24	LER	2/26/2010 16:43			1		USE	I
EXS02260009.wiff	WXXICAL-25	LER	2/26/2010 16:59			1		USE	I
EXS02260010.wiff	XIBLK02	LER	2/26/2010 17:15			1		USE	B
EXS02260011.wiff	WXXICV	LER	2/26/2010 17:31			1		USE	C
EXS02260012.wiff	XIBLK03	LER	2/26/2010 17:46			1		USE	B
EXS02260013.wiff	WXXCRI	LER	2/26/2010 18:02			1		USE	C
EXS02260014.wiff	246837005	LER	2/26/2010 18:18	952679	10-1747	2	LANL	USE	S
EXS02260015.wiff	246837006	LER	2/26/2010 18:33	952679	10-1747	2	LANL	USE	S
EXS02260016.wiff	246841001	LER	2/26/2010 18:49	952679	10-1748	2	LANL	USE	S
EXS02260017.wiff	246841002	LER	2/26/2010 19:05	952679	10-1748	2	LANL	USE	S
EXS02260018.wiff	246841003	LER	2/26/2010 19:21	952679	10-1748	2	LANL	USE	S
EXS02260019.wiff	246843002	LER	2/26/2010 19:36	952679	10-1749	2	LANL	USE	S
EXS02260020.wiff	246843003	LER	2/26/2010 19:52	952679	10-1749	2	LANL	USE	S
EXS02260021.wiff	246843004	LER	2/26/2010 20:08	952679	10-1749	2	LANL	USE	S
EXS02260022.wiff	246846001	LER	2/26/2010 20:23	952679	10-1750	2	LANL	USE	S
EXS02260023.wiff	246846002	LER	2/26/2010 20:39	952679	10-1750	2	LANL	USE	S
EXS02260024.wiff	WXXCCV	LER	2/26/2010 20:55			1		USE	C
EXS02260025.wiff	XIBLK04	LER	2/26/2010 21:10			1		USE	B
EXS02260026.wiff	WXXCRI	LER	2/26/2010 21:26			1		USE	C
EXS02260027.wiff	246847001	LER	2/26/2010 21:42	952679	10-1751	2	LANL	USE	S
EXS02260028.wiff	246847002	LER	2/26/2010 21:58	952679	10-1751	2	LANL	USE	S
EXS02260029.wiff	XIBLK05	LER	2/26/2010 22:13			1		USE	B
EXS02260030.wiff	1202032874	LER	2/26/2010 22:29	948888	10-1543	2	LANL	USE	S

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EXS02260031.wiff	1202032875	LER	2/26/2010 22:45	948888	10-1543	2	LANL	USE	S
EXS02260032.wiff	246066001	LER	2/26/2010 23:01	948888	10-1543	2	LANL	USE	S
EXS02260033.wiff	1202032876	LER	2/26/2010 23:16	948888	10-1543	2	LANL	USE	S
EXS02260034.wiff	1202032877	LER	2/26/2010 23:32	948888	10-1543	2	LANL	USE	S
EXS02260035.wiff	246066002	LER	2/26/2010 23:48	948888	10-1543	2	LANL	USE	S
EXS02260036.wiff	246066003	LER	2/27/2010 0:03	948888	10-1543	2	LANL	USE	S
EXS02260037.wiff	WXXCCV	LER	2/27/2010 0:19			1		USE	C
EXS02260038.wiff	XIBLK06	LER	2/27/2010 0:35			1		USE	B
EXS02260039.wiff	WXXCRI	LER	2/27/2010 0:51			1		USE	C
EXS02260040.wiff	246066004	LER	2/27/2010 1:06	948888	10-1543	2	LANL	USE	S
EXS02260041.wiff	246066005	LER	2/27/2010 1:22	948888	10-1543	2	LANL	USE	S
EXS02260042.wiff	246066006	LER	2/27/2010 1:38	948888	10-1543	2	LANL	USE	S
EXS02260043.wiff	246066007	LER	2/27/2010 1:53	948888	10-1543	2	LANL	USE	S
EXS02260044.wiff	246066008	LER	2/27/2010 2:09	948888	10-1543	2	LANL	USE	S
EXS02260045.wiff	246066009	LER	2/27/2010 2:25	948888	10-1543	2	LANL	USE	S
EXS02260046.wiff	246066010	LER	2/27/2010 2:40	948888	10-1543	2	LANL	USE	S
EXS02260047.wiff	246066011	LER	2/27/2010 2:56	948888	10-1543	2	LANL	USE	S
EXS02260048.wiff	246066012	LER	2/27/2010 3:12	948888	10-1543	2	LANL	USE	S
EXS02260049.wiff	246066013	LER	2/27/2010 3:28	948888	10-1543	2	LANL	USE	S
EXS02260050.wiff	WXXCCV	LER	2/27/2010 3:43			1		USE	C
EXS02260051.wiff	XIBLK07	LER	2/27/2010 3:59			1		USE	B
EXS02260052.wiff	WXXCRI	LER	2/27/2010 4:15			1		USE	C
EXS02260053.wiff	246066014	LER	2/27/2010 4:30	948888	10-1543	2	LANL	USE	S
EXS02260054.wiff	246066015	LER	2/27/2010 4:46	948888	10-1543	2	LANL	USE	S
EXS02260055.wiff	246066016	LER	2/27/2010 5:02	948888	10-1543	2	LANL	USE	S
EXS02260056.wiff	246066017	LER	2/27/2010 5:18	948888	10-1543	2	LANL	USE	S
EXS02260057.wiff	246066018	LER	2/27/2010 5:33	948888	10-1543	2	LANL	USE	S
EXS02260058.wiff	246066019	LER	2/27/2010 5:49	948888	10-1543	2	LANL	USE	S
EXS02260059.wiff	246066020	LER	2/27/2010 6:05	948888	10-1543	2	LANL	USE	S
EXS02260060.wiff	WXXCCV	LER	2/27/2010 6:20			1		USE	C
EXS02260061.wiff	XIBLK08	LER	2/27/2010 6:36			1		USE	B
EXS02260062.wiff	WXXCRI	LER	2/27/2010 6:52			1		USE	C
EXS02260063.wiff	1202045764	LER	2/27/2010 7:07	954338	VARIOUS	2	LANL	USE	S
EXS02260064.wiff	1202045765	LER	2/27/2010 7:23	954338	VARIOUS	2	LANL	USE	S
EXS02260065.wiff	247083001	LER	2/27/2010 7:39	954338	10-1827	2	LANL	USE	S
EXS02260066.wiff	1202045766	LER	2/27/2010 7:55	954338	10-1827	2	LANL	USE	S
EXS02260067.wiff	1202045767	LER	2/27/2010 8:10	954338	10-1827	2	LANL	USE	S

EXS02260068.wiff	247083002	LER	2/27/2010 8:26	954338	10-1827	2	LANL	USE	S
EXS02260069.wiff	247083003	LER	2/27/2010 8:42	954338	10-1827	2	LANL	USE	S
EXS02260070.wiff	247083004	LER	2/27/2010 8:57	954338	10-1827	2	LANL	USE	S
EXS02260071.wiff	247084001	LER	2/27/2010 9:13	954338	10-1828	2	LANL	USE	S
EXS02260072.wiff	247084002	LER	2/27/2010 9:29	954338	10-1828	2	LANL	USE	S
EXS02260073.wiff	WXXCCV	LER	2/27/2010 9:44			1		USE	C
EXS02260074.wiff	XIBLK09	LER	2/27/2010 10:00			1		USE	B
EXS02260075.wiff	WXXCRI	LER	2/27/2010 10:16			1		USE	C
EXS02260076.wiff	247086001	LER	2/27/2010 10:32	954338	10-1829	2	LANL	USE	S
EXS02260077.wiff	247088001	LER	2/27/2010 10:47	954338	10-1830	2	LANL	USE	S
EXS02260078.wiff	247088002	LER	2/27/2010 11:03	954338	10-1830	2	LANL	USE	S
EXS02260079.wiff	247088003	LER	2/27/2010 11:19	954338	10-1830	2	LANL	USE	S
EXS02260080.wiff	247091001	LER	2/27/2010 11:34	954338	10-1831	2	LANL	USE	S
EXS02260081.wiff	247091002	LER	2/27/2010 11:50	954338	10-1831	2	LANL	USE	S
EXS02260082.wiff	247094001	LER	2/27/2010 12:06	954338	10-1832	2	LANL	USE	S
EXS02260083.wiff	247094002	LER	2/27/2010 12:21	954338	10-1832	2	LANL	USE	S
EXS02260084.wiff	247121002	LER	2/27/2010 12:37	954338	10-1846	2	LANL	USE	S
EXS02260085.wiff	247123001	LER	2/27/2010 12:53	954338	10-1848	2	LANL	USE	S
EXS02260086.wiff	WXXCCV	LER	2/27/2010 13:09			1		USE	C
EXS02260087.wiff	XIBLK10	LER	2/27/2010 13:24			1		USE	B
EXS02260088.wiff	WXXCRI	LER	2/27/2010 13:40			1		USE	C
EXS02260089.wiff	247123002	LER	2/27/2010 13:56	954338	10-1848	2	LANL	USE	S
EXS02260090.wiff	247123003	LER	2/27/2010 14:11	954338	10-1848	2	LANL	USE	S
EXS02260091.wiff	247123004	LER	2/27/2010 14:27	954338	10-1848	2	LANL	USE	S
EXS02260092.wiff	XIBLK11	LER	2/27/2010 14:43			1		USE	B
EXS02260093.wiff	1202032878	LER	2/27/2010 14:59	948890	10-1544	2	LANL	USE	S
EXS02260094.wiff	1202032879	LER	2/27/2010 15:14	948890	10-1544	2	LANL	USE	S
EXS02260095.wiff	246070001	LER	2/27/2010 15:30	948890	10-1544	2	LANL	USE	S
EXS02260096.wiff	1202032880	LER	2/27/2010 15:46	948890	10-1544	2	LANL	USE	S
EXS02260097.wiff	1202032881	LER	2/27/2010 16:01	948890	10-1544	2	LANL	USE	S
EXS02260098.wiff	246070002	LER	2/27/2010 16:17	948890	10-1544	2	LANL	USE	S
EXS02260099.wiff	WXXCCV	LER	2/27/2010 16:33			1		USE	C
EXS02260100.wiff	XIBLK12	LER	2/27/2010 16:48			1		USE	B
EXS02260101.wiff	WXXCRI	LER	2/27/2010 17:04			1		USE	C
EXS02260102.wiff	246070003	LER	2/27/2010 17:20	948890	10-1544	2	LANL	USE	S
EXS02260103.wiff	246070004	LER	2/27/2010 17:35	948890	10-1544	2	LANL	USE	S
EXS02260104.wiff	246070005	LER	2/27/2010 17:51	948890	10-1544	2	LANL	USE	S

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EXS02260105.wiff	246070006	LER	2/27/2010 18:07	948890	10-1544	2	LANL	USE	S
EXS02260106.wiff	246070007	LER	2/27/2010 18:23	948890	10-1544	2	LANL	USE	S
EXS02260107.wiff	246070008	LER	2/27/2010 18:38	948890	10-1544	2	LANL	USE	S
EXS02260108.wiff	246070009	LER	2/27/2010 18:54	948890	10-1544	2	LANL	USE	S
EXS02260109.wiff	246070010	LER	2/27/2010 19:10	948890	10-1544	2	LANL	USE	S
EXS02260110.wiff	246070011	LER	2/27/2010 19:25	948890	10-1544	2	LANL	USE	S
EXS02260111.wiff	246070012	LER	2/27/2010 19:41	948890	10-1544	2	LANL	USE	S
EXS02260112.wiff	WXXCCV	LER	2/27/2010 19:57			1		USE	C
EXS02260113.wiff	XIBLK13	LER	2/27/2010 20:12			1		USE	B
EXS02260114.wiff	WXXCRI	LER	2/27/2010 20:28			1		USE	C
EXS02260115.wiff	246070013	LER	2/27/2010 20:44	948890	10-1544	2	LANL	USE	S
EXS02260116.wiff	246070014	LER	2/27/2010 21:00	948890	10-1544	2	LANL	USE	S
EXS02260117.wiff	246070015	LER	2/27/2010 21:15	948890	10-1544	2	LANL	USE	S
EXS02260118.wiff	246070016	LER	2/27/2010 21:31	948890	10-1544	2	LANL	USE	S
EXS02260119.wiff	246070017	LER	2/27/2010 21:47	948890	10-1544	2	LANL	USE	S
EXS02260120.wiff	246070018	LER	2/27/2010 22:02	948890	10-1544	2	LANL	USE	S
EXS02260121.wiff	246070019	LER	2/27/2010 22:18	948890	10-1544	2	LANL	USE	S
EXS02260122.wiff	246070020	LER	2/27/2010 22:34	948890	10-1544	2	LANL	USE	S
EXS02260123.wiff	WXXCCV	LER	2/27/2010 22:49			1		USE	C
EXS02260124.wiff	XIBLK14	LER	2/27/2010 23:05			1		USE	B
EXS02260125.wiff	WXXCRI	LER	2/27/2010 23:21			1		USE	C
EXS02260126.wiff	1202032884	LER	2/27/2010 23:36	948893	10-1545	2	LANL	USE	S
EXS02260127.wiff	1202032885	LER	2/27/2010 23:52	948893	10-1545	2	LANL	USE	S
EXS02260128.wiff	246055001	LER	2/28/2010 0:08	948893	10-1545	2	LANL	USE	S
EXS02260129.wiff	1202032886	LER	2/28/2010 0:24	948893	10-1545	2	LANL	USE	S
EXS02260130.wiff	1202032887	LER	2/28/2010 0:39	948893	10-1545	2	LANL	USE	S
EXS02260131.wiff	246055002	LER	2/28/2010 0:55	948893	10-1545	2	LANL	USE	S
EXS02260132.wiff	246055003	LER	2/28/2010 1:11	948893	10-1545	2	LANL	USE	S
EXS02260133.wiff	246055004	LER	2/28/2010 1:26	948893	10-1545	2	LANL	USE	S
EXS02260134.wiff	246055005	LER	2/28/2010 1:42	948893	10-1545	2	LANL	USE	S
EXS02260135.wiff	246055006	LER	2/28/2010 1:58	948893	10-1545	2	LANL	USE	S
EXS02260136.wiff	WXXCCV	LER	2/28/2010 2:14			1		USE	C
EXS02260137.wiff	XIBLK15	LER	2/28/2010 2:29			1		USE	B
EXS02260138.wiff	WXXCRI	LER	2/28/2010 2:45			1		USE	C
EXS02260139.wiff	246055007	LER	2/28/2010 3:01	948893	10-1545	2	LANL	USE	S
EXS02260140.wiff	246055008	LER	2/28/2010 3:17	948893	10-1545	2	LANL	USE	S
EXS02260141.wiff	246055009	LER	2/28/2010 3:32	948893	10-1545	2	LANL	USE	S

EXS02260142.wiff	UXX100122-01.3	LER	2/28/2010 3:48	SCREEN	SOLID	2	O2SI	USE	S
EXS02260143.wiff	XIBLK16	LER	2/28/2010 4:04			1		USE	B
EXS02260144.wiff	1202040473	LER	2/28/2010 4:20	952049	VARIOUS	2	LANL	USE	S
EXS02260145.wiff	1202040474	LER	2/28/2010 4:36	952049	VARIOUS	2	LANL	USE	S
EXS02260146.wiff	246713001	LER	2/28/2010 4:51	952049	10-1728	2	LANL	USE	S
EXS02260147.wiff	1202040475	LER	2/28/2010 5:07	952049	10-1728	2	LANL	USE	S
EXS02260148.wiff	1202040476	LER	2/28/2010 5:23	952049	10-1728	2	LANL	USE	S
EXS02260149.wiff	WXXCCV	LER	2/28/2010 5:38			1		USE	C
EXS02260150.wiff	XIBLK17	LER	2/28/2010 5:54			1		USE	B
EXS02260151.wiff	WXXCRI	LER	2/28/2010 6:10			1		USE	C
EXS02260152.wiff	246713002	LER	2/28/2010 6:26	952049	10-1728	2	LANL	USE	S
EXS02260153.wiff	246713003	LER	2/28/2010 6:41	952049	10-1728	2	LANL	USE	S
EXS02260154.wiff	246713004	LER	2/28/2010 6:57	952049	10-1728	2	LANL	USE	S
EXS02260155.wiff	246713005	LER	2/28/2010 7:13	952049	10-1728	2	LANL	USE	S
EXS02260156.wiff	246713006	LER	2/28/2010 7:29	952049	10-1728	2	LANL	USE	S
EXS02260157.wiff	246713007	LER	2/28/2010 7:44	952049	10-1728	2	LANL	USE	S
EXS02260158.wiff	246713008	LER	2/28/2010 8:00	952049	10-1728	2	LANL	USE	S
EXS02260159.wiff	246734001	LER	2/28/2010 8:16	952049	10-1731-1	2	LANL	USE	S
EXS02260160.wiff	246736001	LER	2/28/2010 8:31	952049	10-1732	2	LANL	USE	S
EXS02260161.wiff	246736002	LER	2/28/2010 8:47	952049	10-1732	2	LANL	USE	S
EXS02260162.wiff	WXXCCV	LER	2/28/2010 9:03			1		USE	C
EXS02260163.wiff	XIBLK18	LER	2/28/2010 9:19			1		USE	B
EXS02260164.wiff	WXXCRI	LER	2/28/2010 9:34			1		USE	C
EXS02260165.wiff	246739002	LER	2/28/2010 9:50	952049	10-1733	2	LANL	USE	S
EXS02260166.wiff	246739003	LER	2/28/2010 10:06	952049	10-1733	2	LANL	USE	S
EXS02260167.wiff	246739004	LER	2/28/2010 10:22	952049	10-1733	2	LANL	USE	S
EXS02260168.wiff	246739005	LER	2/28/2010 10:37	952049	10-1733	2	LANL	USE	S
EXS02260169.wiff	246739006	LER	2/28/2010 10:53	952049	10-1733	2	LANL	USE	S
EXS02260170.wiff	246739007	LER	2/28/2010 11:09	952049	10-1733	2	LANL	USE	S
EXS02260171.wiff	246739008	LER	2/28/2010 11:25	952049	10-1733	2	LANL	USE	S
EXS02260172.wiff	246739009	LER	2/28/2010 11:40	952049	10-1733	2	LANL	USE	S
EXS02260173.wiff	246739010	LER	2/28/2010 11:56	952049	10-1733	2	LANL	USE	S
EXS02260174.wiff	WXXCCV	LER	2/28/2010 12:12			1		USE	C
EXS02260175.wiff	XIBLK19	LER	2/28/2010 12:28			1		USE	B
EXS02260176.wiff	WXXCRI	LER	2/28/2010 12:43			1		USE	C
EXS02260177.wiff	1202040477	LER	2/28/2010 12:59	952051	VARIOUS	2	LANL	USE	S
EXS02260178.wiff	1202040478	LER	2/28/2010 13:15	952051	VARIOUS	2	LANL	USE	S

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EXS02260179.wiff	246732002	LER	2/28/2010 13:30	952051	10-1742	2	LANL	USE	S
EXS02260180.wiff	246732003	LER	2/28/2010 13:46	952051	10-1742	2	LANL	USE	S
EXS02260181.wiff	246732004	LER	2/28/2010 14:02	952051	10-1742	2	LANL	USE	S
EXS02260182.wiff	246732005	LER	2/28/2010 14:18	952051	10-1742	2	LANL	USE	S
EXS02260183.wiff	246732006	LER	2/28/2010 14:33	952051	10-1742	2	LANL	USE	S
EXS02260184.wiff	246744002	LER	2/28/2010 14:49	952051	10-1736	2	LANL	USE	S
EXS02260185.wiff	1202040479	LER	2/28/2010 15:05	952051	10-1736	2	LANL	USE	S
EXS02260186.wiff	1202040480	LER	2/28/2010 15:20	952051	10-1736	2	LANL	USE	S
EXS02260187.wiff	WXXCCV	LER	2/28/2010 15:36			1		USE	C
EXS02260188.wiff	XIBLK20	LER	2/28/2010 15:52			1		USE	B
EXS02260189.wiff	WXXCRI	LER	2/28/2010 16:08			1		USE	C
EXS02260190.wiff	246744003	LER	2/28/2010 16:23	952051	10-1736	2	LANL	DUSE-RA	S
EXS02260191.wiff	246744004	LER	2/28/2010 16:39	952051	10-1736	2	LANL	DUSE-RA	S
EXS02260192.wiff	246752002	LER	2/28/2010 16:55	952051	10-1745	2	LANL	DUSE-RA	S
EXS02260193.wiff	246752003	LER	2/28/2010 17:11	952051	10-1745	2	LANL	DUSE-RA	S
EXS02260194.wiff	246760001	LER	2/28/2010 17:27	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260195.wiff	246760002	LER	2/28/2010 17:42	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260196.wiff	246760003	LER	2/28/2010 17:58	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260197.wiff	246760004	LER	2/28/2010 18:14	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260198.wiff	246760005	LER	2/28/2010 18:29	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260199.wiff	246760006	LER	2/28/2010 18:45	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260200.wiff	WXXCCV	LER	2/28/2010 19:01			1		DUSE-RA	C
EXS02260201.wiff	XIBLK21	LER	2/28/2010 19:17			1		DUSE-RA	B
EXS02260202.wiff	WXXCRI	LER	2/28/2010 19:32			1		DUSE-RA	C
EXS02260203.wiff	246760007	LER	2/28/2010 19:48	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260204.wiff	246760008	LER	2/28/2010 20:04	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260205.wiff	246760009	LER	2/28/2010 20:20	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260206.wiff	246760010	LER	2/28/2010 20:35	952051	10-1739	2	LANL	DUSE-RA	S
EXS02260207.wiff	XIBLK22	LER	2/28/2010 20:51			1		DUSE-RA	B
EXS02260208.wiff	1202040457	LER	2/28/2010 21:07	952043	VARIOUS	2	LANL	DUSE-RA	S
EXS02260209.wiff	1202040458	LER	2/28/2010 21:23	952043	VARIOUS	2	LANL	DUSE-RA	S
EXS02260210.wiff	246677001	LER	2/28/2010 21:38	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260211.wiff	1202040459	LER	2/28/2010 21:54	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260212.wiff	1202040460	LER	2/28/2010 22:10	952043	10-1703	2	LANL	DUSE-RA	S
EXS02260213.wiff	WXXCCV	LER	2/28/2010 22:26			1		USE	C
EXS02260214.wiff	XIBLK23	LER	2/28/2010 22:41			1		USE	B
EXS02260215.wiff	WXXCRI	LER	2/28/2010 22:57			1		USE	C

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EXS02260216.wiff	246677002	LER	2/28/2010 23:13	952043	10-1703	2	LANL	USE	S
EXS02260217.wiff	246677003	LER	2/28/2010 23:29	952043	10-1703	2	LANL	USE	S
EXS02260218.wiff	246677004	LER	2/28/2010 23:44	952043	10-1703	2	LANL	USE	S
EXS02260219.wiff	246677005	LER	3/1/2010 0:00	952043	10-1703	2	LANL	USE	S
EXS02260220.wiff	246677006	LER	3/1/2010 0:16	952043	10-1703	2	LANL	USE	S
EXS02260221.wiff	246677007	LER	3/1/2010 0:31	952043	10-1703	2	LANL	USE	S
EXS02260222.wiff	246677008	LER	3/1/2010 0:47	952043	10-1703	2	LANL	USE	S
EXS02260223.wiff	246682002	LER	3/1/2010 1:03	952043	10-1706	2	LANL	USE	S
EXS02260224.wiff	WXXCCV	LER	3/1/2010 1:19			1		USE	C
EXS02260225.wiff	XIBLK24	LER	3/1/2010 1:34			1		USE	B
EXS02260226.wiff	WXXCRI	LER	3/1/2010 1:50			1		USE	C
EXS02260227.wiff	246682003	LER	3/1/2010 2:06	952043	10-1706	2	LANL	USE	S
EXS02260228.wiff	246682004	LER	3/1/2010 2:22	952043	10-1706	2	LANL	USE	S
EXS02260229.wiff	246682005	LER	3/1/2010 2:37	952043	10-1706	2	LANL	USE	S
EXS02260230.wiff	246682006	LER	3/1/2010 2:53	952043	10-1706	2	LANL	USE	S
EXS02260231.wiff	246682007	LER	3/1/2010 3:09	952043	10-1706	2	LANL	USE	S
EXS02260232.wiff	246682008	LER	3/1/2010 3:24	952043	10-1706	2	LANL	USE	S
EXS02260233.wiff	246682009	LER	3/1/2010 3:40	952043	10-1706	2	LANL	USE	S
EXS02260234.wiff	WXXCCV	LER	3/1/2010 3:56			1		USE	C
EXS02260235.wiff	XIBLK25	LER	3/1/2010 4:12			1		USE	B
EXS02260236.wiff	WXXCRI	LER	3/1/2010 4:27			1		USE	C
EXS02260237.wiff	UXX100210-02.3	LER	3/1/2010 4:43	SCREEN	SOLID	2	O2SI	USE	S
EXS02260238.wiff	XIBLK26	LER	3/1/2010 4:59			1		USE	B
EXS02260239.wiff	1202032038	LER	3/1/2010 5:15	948558	VARIOUS	2	LANL	USE	S
EXS02260240.wiff	1202032039	LER	3/1/2010 5:31	948558	VARIOUS	2	LANL	USE	S
EXS02260241.wiff	1202032154	LER	3/1/2010 5:46	948558	VARIOUS	2	LANL	USE	S
EXS02260242.wiff	245928018	LER	3/1/2010 6:02	948558	10-1495	2	LANL	USE	S
EXS02260243.wiff	245928025	LER	3/1/2010 6:18	948558	10-1495	2	LANL	USE	S
EXS02260244.wiff	245932006	LER	3/1/2010 6:33	948558	10-1501	2	LANL	USE	S
EXS02260245.wiff	1202032040	LER	3/1/2010 6:49	948558	10-1501	2	LANL	USE	S
EXS02260246.wiff	1202032041	LER	3/1/2010 7:05	948558	10-1501	2	LANL	USE	S
EXS02260247.wiff	WXXCCV	LER	3/1/2010 7:21			1		USE	C
EXS02260248.wiff	XIBLK27	LER	3/1/2010 7:36			1		USE	B
EXS02260249.wiff	WXXCRI	LER	3/1/2010 7:52			1		USE	C

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1545

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	951946
Prep Batch Number:	951941

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
246055005	RE15-10-8222
1202040223	Method Blank (MB)
1202040224	Laboratory Control Sample (LCS)
1202040225	246575003(WST15-10-11621) Matrix Spike (MS)
1202040226	246575003(WST15-10-11621) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1675) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign

and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing docs not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 3/2/10

Roadmap for LANL 10-1545 PCB

This roadmap was analyzed by jen01212 on 02-15-2010, 12:05.
This roadmap was reviewed by jim01140 on 02-18-2010, 11:06.
This roadmap was packaged by yml on 03-01-2010, 17:13.
This roadmap was validated by jim01140 on 03-02-2010, 09:22.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/014f1401.d	246055005	sample	12-FEB-2010	09:30	10-1545.sub	RE15 10-8222	1.00000	951946	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/014b1401.d	246055005	sample	12-FEB-2010	09:30	10-1545.sub	RE15-10-8222	1.00000	951946	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/012f1201-1.d	1202040223	mb	12-FEB-2010	09:05	10-1545.sub	PBLK01	1.00000	951946	
☐	N	/chem/ecd8a.i/021210.b/013f1301-1.d	1202040224	lcs	12-FEB-2010	09:18	10-1545.sub	PBLK01LCS	1.00000	951946	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/012b1201-1.d	1202040223	mb	12-FEB-2010	09:05	10-1545.sub	PBLK01	1.00000	951946	
☐	N	/chem/ecd8a.i/021210.b/013b1301-1.d	1202040224	lcs	12-FEB-2010	09:18	10-1545.sub	PBLK01LCS	1.00000	951946	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1545**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246055005**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**25.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8222**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:30**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	4.46	ug/kg	1.49	4.46	1
11104-28-2	Aroclor-1221	U	4.46	ug/kg	1.49	4.46	1
11141-16-5	Aroclor-1232	U	4.46	ug/kg	1.49	4.46	1
53469-21-9	Aroclor-1242	U	4.46	ug/kg	1.49	4.46	1
12672-29-6	Aroclor-1248	U	4.46	ug/kg	1.49	4.46	1
11097-69-1	Aroclor-1254		33.2	ug/kg	1.49	4.46	2
11096-82-5	Aroclor-1260		10.3	ug/kg	1.49	4.46	2

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1545

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202040223	MB for batch 951941	64	64	67	70
1202040224	LCS for batch 951941	60	61	64	66
246055005	RE15-10-8222	60	54	61	64

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1545
Client ID: LCS for batch 951941
Lab Sample ID: 1202040224
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/12/2010 09:18
Dilution: 1
Prep Batch ID: 951941
Batch ID: 951946

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	18.6	56	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	22.7	68	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1675
Client ID: WST15-10-11621MS
Lab Sample ID: 1202040225
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 6.6
Analysis Date: 02/12/2010 14:02
Prep Batch ID: 951941
Batch ID: 951946

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	35.6	0.00	U	19.0	53	23-119
11096-82-5	MS	Aroclor-1260	35.6	0.00	U	23.1	65	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1675
Client ID: WST15-10-11621MSD
Lab Sample ID: 1202040226
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 6.6
Analysis Date: 02/12/2010 14:14
Prep Batch ID: 951941
Batch ID: 951946
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	35.6	0.00	U	19.4	54	23-119	2	0-28
11096-82-5	MSD Aroclor-1260	35.6	0.00	U	23.0	65	28-124	0	0-30

Method Blank Summary

SDG Number:	10-1545	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 951941	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202040223				
Column:	CLP2 CLP1	Prep Date:	02/11/2010 22:01	Analyzed:	02/12/10 09:05
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 951941	1202040224	013f1301-1.d 013b1301-1.d	02/12/10	0918
02 RE15-10-8222	246055005	014f1401.d 014b1401.d	02/12/10	0930

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1545**	**Date Collected:**	**01/29/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246055005**	**Date Received:**	**02/03/2010 08:55**	**%Moisture:**	**25.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8222**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:30**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.18 g**	**Final Volume:**	**1 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	4.46	ug/kg	1.49	4.46	1
11104–28–2	Aroclor–1221	U	4.46	ug/kg	1.49	4.46	1
11141–16–5	Aroclor–1232	U	4.46	ug/kg	1.49	4.46	1
53469–21–9	Aroclor–1242	U	4.46	ug/kg	1.49	4.46	1
12672–29–6	Aroclor–1248	U	4.46	ug/kg	1.49	4.46	1
11097–69–1	Aroclor–1254		33.2	ug/kg	1.49	4.46	2
11096–82–5	Aroclor–1260		10.3	ug/kg	1.49	4.46	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/014f1401.d
Lab Smp Id: 246055005 Client Smp ID: RE15-10-8222
Inj Date : 12-FEB-2010 09:30
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246055005|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8222|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1545.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	25.75380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	15806309	120.286	5.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12104166	121.064	5.4	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.837	3.837	0.000	5001822	1045.32	46.6	80.00- 120.00	100.00
4.024	4.025	-0.001	5826807	886.962	39.6	115.47- 155.47	116.49
4.219	4.220	-0.001	4024385	783.240	35.0	82.45- 122.45	80.46
4.305	4.306	-0.001	4572938	519.812	23.2	157.78- 197.78	91.43
4.501	4.501	0.000	2793371	404.038	18.0	118.51- 158.51	55.85

Average of Peak Concentrations = 32.5

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.435	-0.001	2704936	401.387	17.9	80.00- 120.00	100.00
4.632	4.631	0.001	4588789	447.259	20.0	131.83- 171.83	169.65
4.906	4.906	0.000	440879	71.9233	3.2	72.34- 112.34	16.30
5.078	5.078	0.000	519960	81.4236	3.6	79.25- 119.25	19.22
5.489	5.490	-0.001	717016	104.525	4.7	91.49- 131.49	26.51
Average of Peak Concentrations =					9.9		

Data File: /chem/ecd8a.i/021210.b/014f1401.d
Date : 12-FEB-2010 09:30
Client ID: RE15-10-8222
Sample Info: |246055005|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

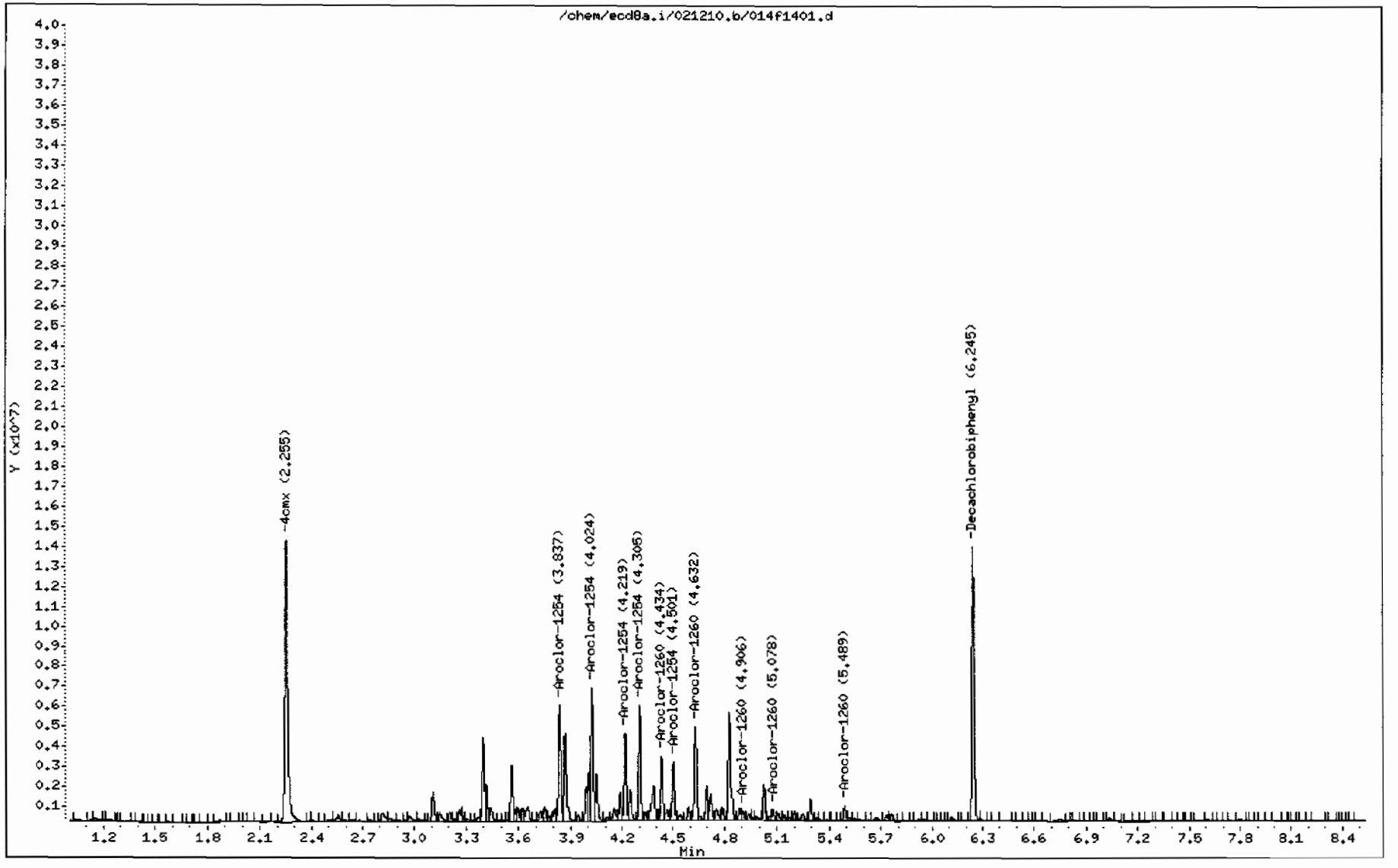

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/014b1401.d
Lab Smp Id: 246055005 Client Smp ID: RE15-10-8222
Inj Date : 12-FEB-2010 09:30
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246055005|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-8222|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1545.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.18000	Weight of sample extracted (g)
M	25.75380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	9435601	108.651	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	8266725	127.487	5.7	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
4.313	4.313	0.000	3673388	1064.73	47.5	80.00- 120.00	100.00
4.452	4.451	0.001	3440024	879.778	39.3	92.68- 132.68	93.65
4.780	4.780	0.000	3832089	696.749	31.1	140.87- 180.87	104.32
4.943	4.942	0.001	1543986	384.964	17.2	96.68- 136.68	42.03
5.068	5.068	0.000	1778667	697.826	31.1	53.90- 93.90	48.42

Average of Peak Concentrations = 33.2

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	2033879	497.961	22.2	80.00- 120.00	100.00
5.068	5.068	0.000	1778667	357.960	16.0	101.70- 141.70	87.45
5.390	5.384	0.006	592669	156.442	7.0	73.49- 113.49	29.14
5.592	5.591	0.001	311777	78.8689	3.5	76.84- 116.84	15.33
6.025	6.023	0.002	424694	68.1972	3.0	135.34- 175.34	20.88

Average of Peak Concentrations = 10.3

Data File: /chem/ecd8a.i/021210.b/014b1401.d
Date : 12-FEB-2010 09:30
Client ID: RE15-10-8222
Sample Info: |246055005|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

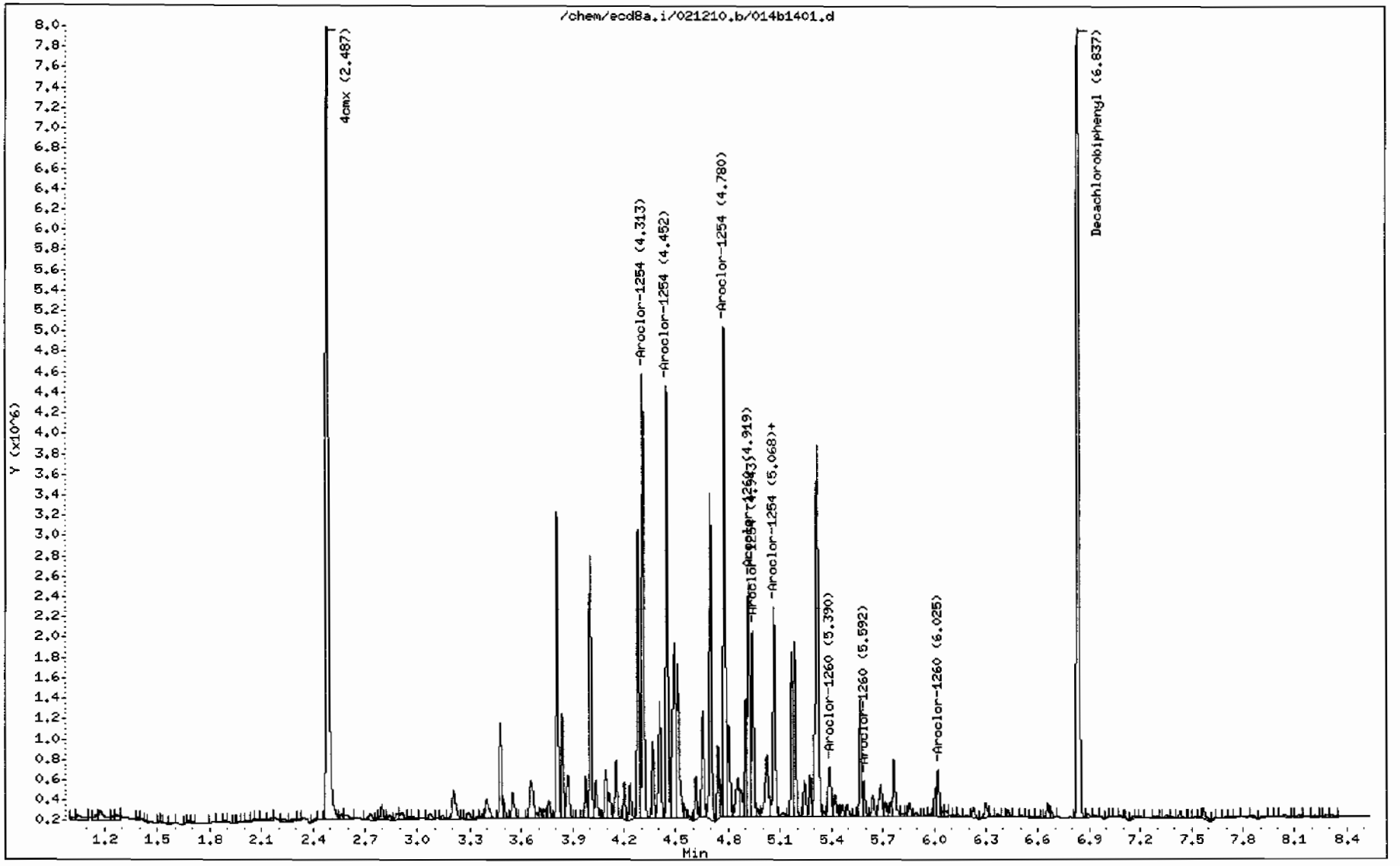

STANDARDS DATA

Report Date: 15-Feb-2010 11:17

Calibration History

Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020f2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008f0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021f2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009f0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022f2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010f1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027f2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023f2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011f1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024f2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012f1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 15:04	AR1660	/chem/ecd8a.i/021210.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 13:25	AR1660	/chem/ecd8a.i/021210.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 10:56	AR1660	/chem/ecd8a.i/021210.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:28	AR1268	/chem/ecd8a.i/021210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:16	AR1262	/chem/ecd8a.i/021210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:03	AR1221	/chem/ecd8a.i/021210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:51	AR1232	/chem/ecd8a.i/021210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:38	AR1248	/chem/ecd8a.i/021210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:26	AR1242	/chem/ecd8a.i/021210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:14	AR1254	/chem/ecd8a.i/021210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:02	AR1660	/chem/ecd8a.i/021210.b/002f0201.d

Report Date: 15-Feb-2010 11:17

Calibration History

Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020b2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008b0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021b2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009b0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022b2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010b1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027b2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023b2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011b1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024b2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012b1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 15:04	AR1660	/chem/ecd8a.i/021210.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 13:25	AR1660	/chem/ecd8a.i/021210.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 10:56	AR1660	/chem/ecd8a.i/021210.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:28	AR1268	/chem/ecd8a.i/021210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:16	AR1262	/chem/ecd8a.i/021210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:03	AR1221	/chem/ecd8a.i/021210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:51	AR1232	/chem/ecd8a.i/021210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:38	AR1248	/chem/ecd8a.i/021210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:26	AR1242	/chem/ecd8a.i/021210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:14	AR1254	/chem/ecd8a.i/021210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:02	AR1660	/chem/ecd8a.i/021210.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Feb-2010 06:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.811	2.781-2.841	4.665e+03
	3.163	3.133-3.193	5.770e+03
	3.306	3.276-3.336	2.454e+03
	3.399	3.369-3.429	2.198e+03
	3.561	3.531-3.591	3.142e+03
2 Aroclor-1221	1.855	1.825-1.885	1.100e+03
	2.394	2.364-2.424	1.460e+03
	2.541	2.511-2.571	3.385e+03
3 Aroclor-1232	2.541	2.511-2.571	2.601e+03
	2.812	2.782-2.842	2.261e+03
	3.308	3.278-3.338	1.243e+03
	3.562	3.532-3.592	1.479e+03
	3.624	3.594-3.654	9.227e+02
4 Aroclor-1242	2.812	2.782-2.842	3.974e+03
	3.164	3.134-3.194	4.796e+03
	3.400	3.369-3.430	1.805e+03
	3.417	3.387-3.447	1.889e+03
	3.562	3.532-3.592	2.645e+03
5 Aroclor-1248	3.148	3.118-3.178	2.990e+03
	3.399	3.369-3.429	3.823e+03
	3.562	3.532-3.592	5.000e+03
	3.867	3.837-3.897	5.990e+03
	4.027	3.997-4.057	4.826e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.837	3.807-3.867	4.785e+03
		4.025	3.995-4.055	6.569e+03
		4.220	4.190-4.250	5.138e+03
		4.306	4.276-4.336	8.797e+03
		4.501	4.471-4.531	6.914e+03
	7 Aroclor-1260	4.435	4.405-4.465	6.739e+03
		4.631	4.601-4.661	1.026e+04
		4.906	4.876-4.936	6.130e+03
		5.078	5.048-5.108	6.386e+03
		5.490	5.460-5.520	6.860e+03
	8 Aroclor-1262	4.337	4.307-4.367	3.367e+03
		4.436	4.406-4.466	5.243e+03
		4.631	4.601-4.661	7.103e+03
		4.906	4.876-4.936	8.580e+03
		5.079	5.049-5.109	7.966e+03
	9 Aroclor-1268	5.514	5.484-5.544	1.632e+04
		5.541	5.511-5.571	1.572e+04
		5.673	5.643-5.703	1.207e+04
		5.919	5.889-5.949	6.023e+03
		6.116	6.086-6.146	3.601e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.252	2.222-2.282	1.314e+05
$	12 Decachlorobiphenyl	6.245	6.215-6.275	9.998e+04
	13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
	14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
	15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Feb-2010 06:49 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.558	3.528-3.588	3.766e+03
	3.658	3.628-3.688	2.494e+03
	3.734	3.704-3.764	1.515e+03
	3.809	3.779-3.839	1.493e+03
	4.006	3.976-4.036	2.036e+03
2 Aroclor-1221	2.727	2.697-2.757	8.949e+02
	2.839	2.809-2.869	5.569e+02
	2.888	2.858-2.918	2.060e+03
3 Aroclor-1232	3.207	3.177-3.237	1.515e+03
	3.560	3.530-3.590	1.744e+03
	3.659	3.629-3.689	1.176e+03
	3.735	3.705-3.765	7.101e+02
	3.810	3.780-3.840	6.182e+02
4 Aroclor-1242	3.206	3.176-3.236	2.677e+03
	3.559	3.530-3.590	3.126e+03
	3.659	3.629-3.689	2.127e+03
	4.006	3.976-4.036	1.703e+03
	4.096	4.066-4.126	1.567e+03
5 Aroclor-1248	3.657	3.627-3.687	1.427e+03
	3.810	3.780-3.840	2.467e+03
	4.006	3.976-4.036	3.089e+03
	4.284	4.254-4.314	3.647e+03
	4.317	4.287-4.347	4.004e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.313	4.283-4.343	3.450e+03
	4.451	4.421-4.481	3.910e+03
	4.780	4.750-4.810	5.500e+03
	4.942	4.912-4.972	4.011e+03
	5.068	5.038-5.098	2.549e+03
7 Aroclor-1260	4.919	4.889-4.949	4.084e+03
	5.068	5.038-5.098	4.969e+03
	5.384	5.354-5.414	3.788e+03
	5.591	5.561-5.621	3.953e+03
	6.023	5.993-6.053	6.227e+03
8 Aroclor-1262	4.920	4.890-4.950	3.276e+03
	5.068	5.038-5.098	3.827e+03
	5.386	5.356-5.416	5.446e+03
	5.592	5.562-5.622	5.047e+03
	6.021	5.991-6.051	7.196e+03
9 Aroclor-1268	6.018	5.988-6.048	1.138e+04
	6.051	6.021-6.081	1.041e+04
	6.230	6.200-6.260	8.192e+03
	6.427	6.397-6.457	4.057e+03
	6.656	6.626-6.686	2.464e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.486	2.456-2.516	8.684e+04
$ 12 Decachlorobiphenyl	6.836	6.806-6.866	6.484e+04
13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Cal Date : 15-Feb-2010 06:50 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028f2801.d
Level 2: /chem/ecd8a.i/020310a.b/029f2901.d
Level 3: /chem/ecd8a.i/020310a.b/030f3001.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/020310a.b/032f3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5614	5138	4704	4321	3545	4665	16.943
(2)	6383	6264	5935	5475	4791	5770	11.275
(3)	2817	2639	2454	2319	2042	2454	12.124
(4)	2629	2406	2216	2019	1720	2198	15.914
(5)	3708	3411	3117	2938	2537	3142	14.248
2 Aroclor-1221(1)	+++++	+++++	+++++	1100	+++++	1100	0.000
(2)	+++++	+++++	+++++	1460	+++++	1460	0.000
(3)	+++++	+++++	+++++	3385	+++++	3385	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3599	3150	2999	2805	2397	2990	14.793
(2)	4688	4030	3804	3549	3043	3823	15.884
(3)	6028	5281	4903	4737	4053	5000	14.533
(4)	7068	6330	5909	5676	4965	5990	13.024
(5)	5743	5075	4737	4591	3986	4826	13.394
6 Aroclor-1254(1)	5857	5096	4715	4450	3806	4785	15.921
(2)	7961	7038	6468	6172	5208	6569	15.558
(3)	6032	5571	5105	4741	4242	5138	13.582
(4)	10107	9649	8877	8173	7180	8797	13.271
(5)	7953	7619	6996	6322	5678	6914	13.452

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Cal Date : 15-Feb-2010 06:50 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	7706	7225	6868	6425	5470	6739	12.628
(2)	11735	10983	10481	9771	8329	10260	12.630
(3)	7075	6577	6171	5792	5035	6130	12.657
(4)	7317	6857	6397	6058	5301	6386	12.066
(5)	7655	7335	6855	6540	5914	6860	9.924
8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
(2)	5935	5551	5239	5102	4386	5243	10.995
(3)	7996	7523	7022	6963	6012	7103	10.414
(4)	9555	9028	8567	8433	7318	8580	9.694
(5)	8875	8357	7946	7802	6850	7966	9.421
9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$ 11 4cmx	141196	137660	133177	129355	115643	131406	7.521
$ 12 Decachlorobiphenyl	111693	106508	99006	96244	86457	99981	9.718

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Cal Date : 15-Feb-2010 06:49 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028b2801.d
Level 2: /chem/ecd8a.i/020310a.b/029b2901.d
Level 3: /chem/ecd8a.i/020310a.b/030b3001.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/020310a.b/032b3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3955	3879	3768	3829	3401	3766	5.726
(2)	2683	2623	2522	2463	2181	2494	7.814
(3)	1588	1565	1522	1510	1392	1515	5.000
(4)	1644	1573	1498	1453	1297	1493	8.812
(5)	2161	2107	2068	2025	1817	2036	6.473
2 Aroclor-1221(1)	+++++	+++++	+++++	895	+++++	895	0.000
(2)	+++++	+++++	+++++	557	+++++	557	0.000
(3)	+++++	+++++	+++++	2060	+++++	2060	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1621	1511	1422	1366	1213	1427	10.773
(2)	2779	2594	2491	2383	2090	2467	10.392
(3)	3403	3233	3131	3022	2657	3089	9.043
(4)	3964	3788	3692	3588	3204	3647	7.785
(5)	4333	4155	4060	3948	3526	4004	7.553
6 Aroclor-1254(1)	3700	3695	3475	3389	2993	3450	8.395
(2)	4204	4194	3940	3836	3377	3910	8.648
(3)	5766	5885	5570	5452	4827	5500	7.494
(4)	4254	4252	4044	3942	3562	4011	7.104
(5)	2775	2711	2546	2462	2250	2549	8.187

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Cal Date : 15-Feb-2010 06:49 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	4328	4278	4140	4064	3611	4084	6.976
(2)	5221	5198	5036	4963	4428	4969	6.467
(3)	3970	3947	3809	3790	3427	3788	5.744
(4)	4121	4108	3975	3957	3605	3953	5.268
(5)	6395	6455	6249	6250	5789	6227	4.190
8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
(2)	4038	3929	3844	3825	3498	3827	5.277
(3)	5683	5613	5515	5463	4958	5446	5.255
(4)	5266	5178	5090	5067	4633	5047	4.838
(5)	7327	7356	7286	7270	6740	7196	3.572
9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$ 11 4cmx	86244	88409	88291	88885	82388	86843	3.097
$ 12 Decachlorobiphenyl	68541	67257	64616	64263	59541	64844	5.342

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0702

Lab File ID: 002F0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4548.503	0.01	-2.5	15.0
(2)	5769.588	5603.764	0.01	-2.9	15.0
(3)	2454.201	2323.075	0.01	-5.3	15.0
(4)	2198.179	2073.021	0.01	-5.7	15.0
(5)	3142.156	2985.422	0.01	-5.0	15.0
Aroclor-1260	6738.969	6360.304	0.01	-5.6	15.0
(2)	10259.796	9595.648	0.01	-6.5	15.0
(3)	6129.851	5825.535	0.01	-5.0	15.0
(4)	6385.867	6234.879	0.01	-2.4	15.0
(5)	6859.759	6996.429	0.01	2.0	15.0
4cmx	131406.10	139136.78	0.01	5.9	15.0
Decachlorobiphenyl	99981.358	97993.400	0.01	-2.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0702

Lab File ID: 002B0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3777.022	0.01	0.3	15.0
(2)	2494.427	2504.931	0.01	0.4	15.0
(3)	1515.492	1469.542	0.01	-3.0	15.0
(4)	1493.163	1424.438	0.01	-4.6	15.0
(5)	2035.618	1995.101	0.01	-2.0	15.0
Aroclor-1260	4084.417	4339.858	0.01	6.2	15.0
(2)	4968.902	5272.238	0.01	6.1	15.0
(3)	3788.418	4034.101	0.01	6.5	15.0
(4)	3953.106	4196.512	0.01	6.2	15.0
(5)	6227.437	6650.370	0.01	6.8	15.0
4cmx	86843.352	91859.720	0.01	5.8	15.0
Decachlorobiphenyl	64843.758	65029.570	0.01	0.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0714

Lab File ID: 003F0301 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1139 1228

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	4784.971	4792.956	0.01	0.2	15.0
(2)	6569.400	6493.193	0.01	-1.2	15.0
(3)	5138.123	4910.433	0.01	-4.4	15.0
(4)	8797.294	8520.921	0.01	-3.1	15.0
(5)	6913.634	6638.642	0.01	-4.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0714

Lab File ID: 003B0301 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1139 1228

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1254	3450.063	3619.477	0.01	4.9	15.0
(2)	3910.106	4078.317	0.01	4.3	15.0
(3)	5499.957	5822.784	0.01	5.9	15.0
(4)	4010.730	4223.179	0.01	5.3	15.0
(5)	2548.871	2674.832	0.01	4.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 1056

Lab File ID: 021F2101 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4427.289	0.01	-5.1	15.0
(2)	5769.588	5231.669	0.01	-9.3	15.0
(3)	2454.201	2257.198	0.01	-8.0	15.0
(4)	2198.179	2027.637	0.01	-7.8	15.0
(5)	3142.156	2907.902	0.01	-7.4	15.0
Aroclor-1260	6738.969	6210.653	0.01	-7.8	15.0
(2)	10259.796	9429.792	0.01	-8.1	15.0
(3)	6129.851	5734.817	0.01	-6.4	15.0
(4)	6385.867	6164.329	0.01	-3.5	15.0
(5)	6859.759	6924.069	0.01	0.9	15.0
4cmx	131406.10	134284.87	0.01	2.2	15.0
Decachlorobiphenyl	99981.358	96393.950	0.01	-3.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 1056

Lab File ID: 021B2101 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3579.581	0.01	-5.0	15.0
(2)	2494.427	2425.109	0.01	-2.8	15.0
(3)	1515.492	1415.842	0.01	-6.6	15.0
(4)	1493.163	1374.673	0.01	-7.9	15.0
(5)	2035.618	1929.912	0.01	-5.2	15.0
Aroclor-1260	4084.417	4222.628	0.01	3.4	15.0
(2)	4968.902	5138.981	0.01	3.4	15.0
(3)	3788.418	3947.606	0.01	4.2	15.0
(4)	3953.106	4089.217	0.01	3.4	15.0
(5)	6227.437	6559.427	0.01	5.3	15.0
4cmx	86843.352	88065.490	0.01	1.4	15.0
Decachlorobiphenyl	64843.758	63780.140	0.01	-1.6	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 12-FEB-2010 07:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.252	2.252	0.000	13913678	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	9799340	100.000	98.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.811	2.811	0.000	4548503	1000.00	975	80.00- 120.00	100.00
3.163	3.163	0.000	5603763	1000.00	971	98.17- 138.17	123.20
3.306	3.306	0.000	2323075	1000.00	946	30.98- 70.98	51.07
3.399	3.399	0.000	2073020	1000.00	943	25.80- 65.80	45.58
3.561	3.561	0.000	2985421	1000.00	950	45.68- 85.68	65.64
Average of Peak Amounts =					957		
7 Aroclor-1260					CAS #: 11096-82-5		
4.435	4.435	0.000	6360304	1000.00	944	80.00- 120.00	100.00
4.631	4.631	0.000	9595648	1000.00	935	131.83- 171.83	150.87
4.906	4.906	0.000	5825535	1000.00	950	72.34- 112.34	91.59
5.078	5.078	0.000	6234878	1000.00	976	79.25- 119.25	98.03
5.490	5.490	0.000	6996429	1000.00	1020	91.49- 131.49	110.00
Average of Peak Amounts =					965		

Data File: /chem/ecd8a.i/021210.b/002f0201.d
Date : 12-FEB-2010 07:02
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

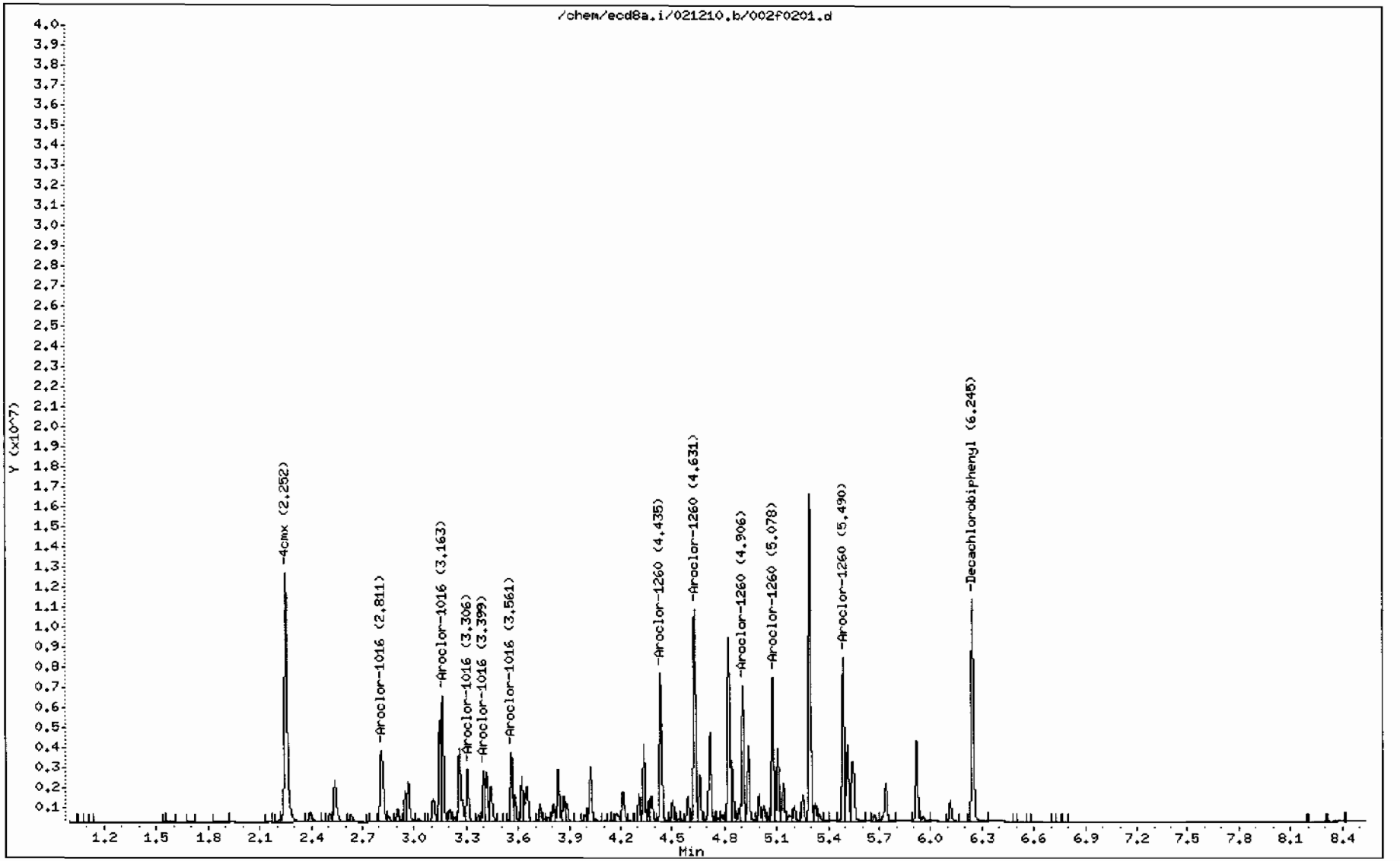

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 12-FEB-2010 07:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	9185972	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	6502957	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.558	3.558	0.000	3777022	1000.00	1000	80.00- 120.00	100.00
3.658	3.658	0.000	2504931	1000.00	1000	47.75- 87.75	66.32
3.734	3.734	0.000	1469541	1000.00	970	19.55- 59.55	38.91
3.809	3.809	0.000	1424437	1000.00	954	18.40- 58.40	37.71
4.006	4.006	0.000	1995100	1000.00	980	33.91- 73.91	52.82
Average of Peak Amounts =					982		
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	4339858	1000.00	1060	80.00- 120.00	100.00
5.068	5.068	0.000	5272237	1000.00	1060	101.70- 141.70	121.48
5.384	5.384	0.000	4034100	1000.00	1060	73.49- 113.49	92.95
5.591	5.591	0.000	4196512	1000.00	1060	76.84- 116.84	96.70
6.023	6.023	0.000	6650370	1000.00	1070	135.34- 175.34	153.24
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/021210.b/002b0201.d
Date : 12-FEB-2010 07:02
Client ID: AR166001
Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

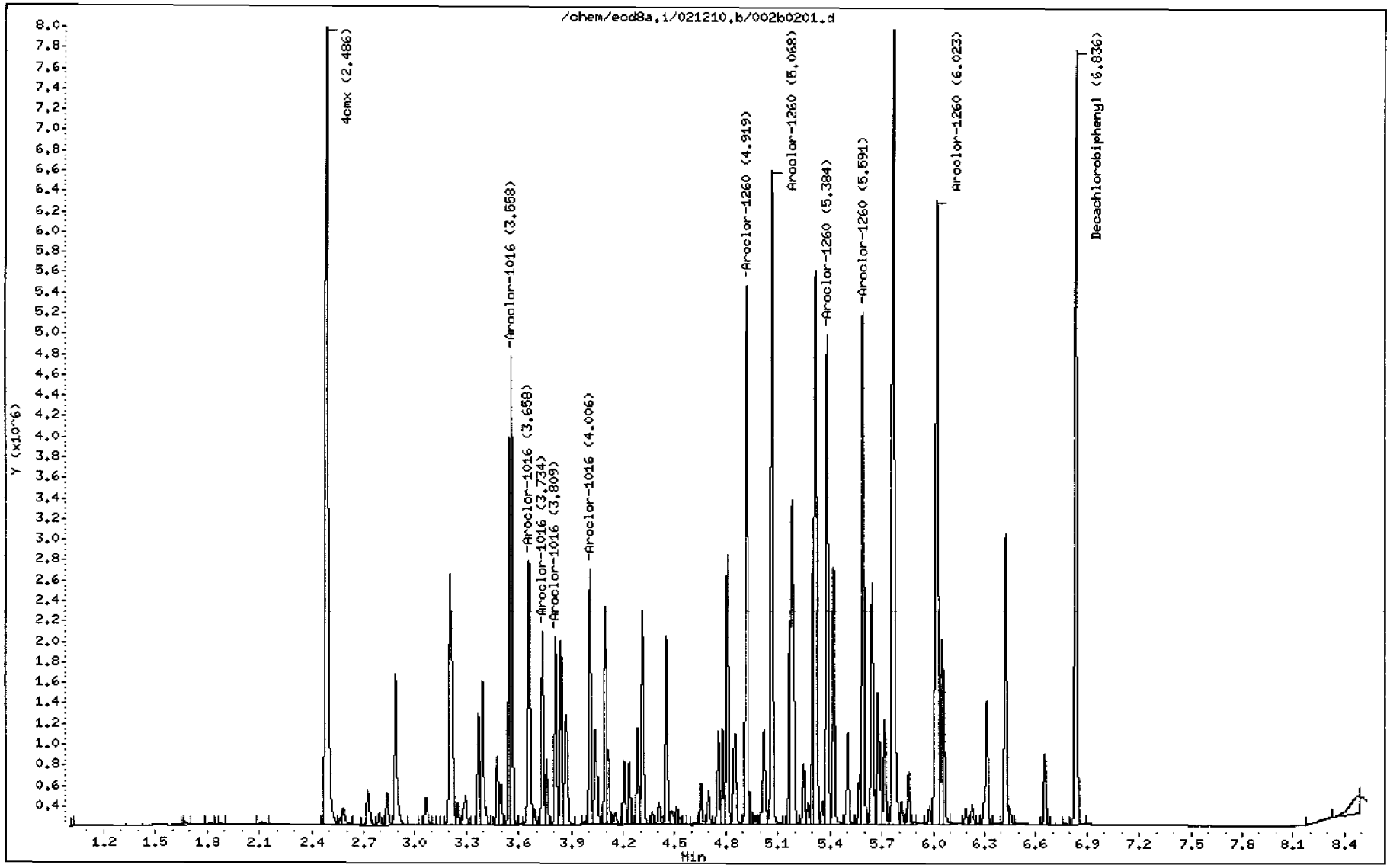

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/003f0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 12-FEB-2010 07:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.837	3.837	0.000	4792955	1000.00	1000	80.00- 120.00	100.00
4.025	4.025	0.000	6493192	1000.00	988	115.47- 155.47	135.47
4.220	4.220	0.000	4910432	1000.00	956	82.45- 122.45	102.45
4.306	4.306	0.000	8520921	1000.00	968	157.78- 197.78	177.78
4.501	4.501	0.000	6638641	1000.00	960	118.51- 158.51	138.51
Average of Peak Amounts					975		

Data File: /chem/ecd8a.i/021210.b/003f0301.d

Date : 12-FEB-2010 07:14

Client ID: AR125401

Sample Info: IWAR100201-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

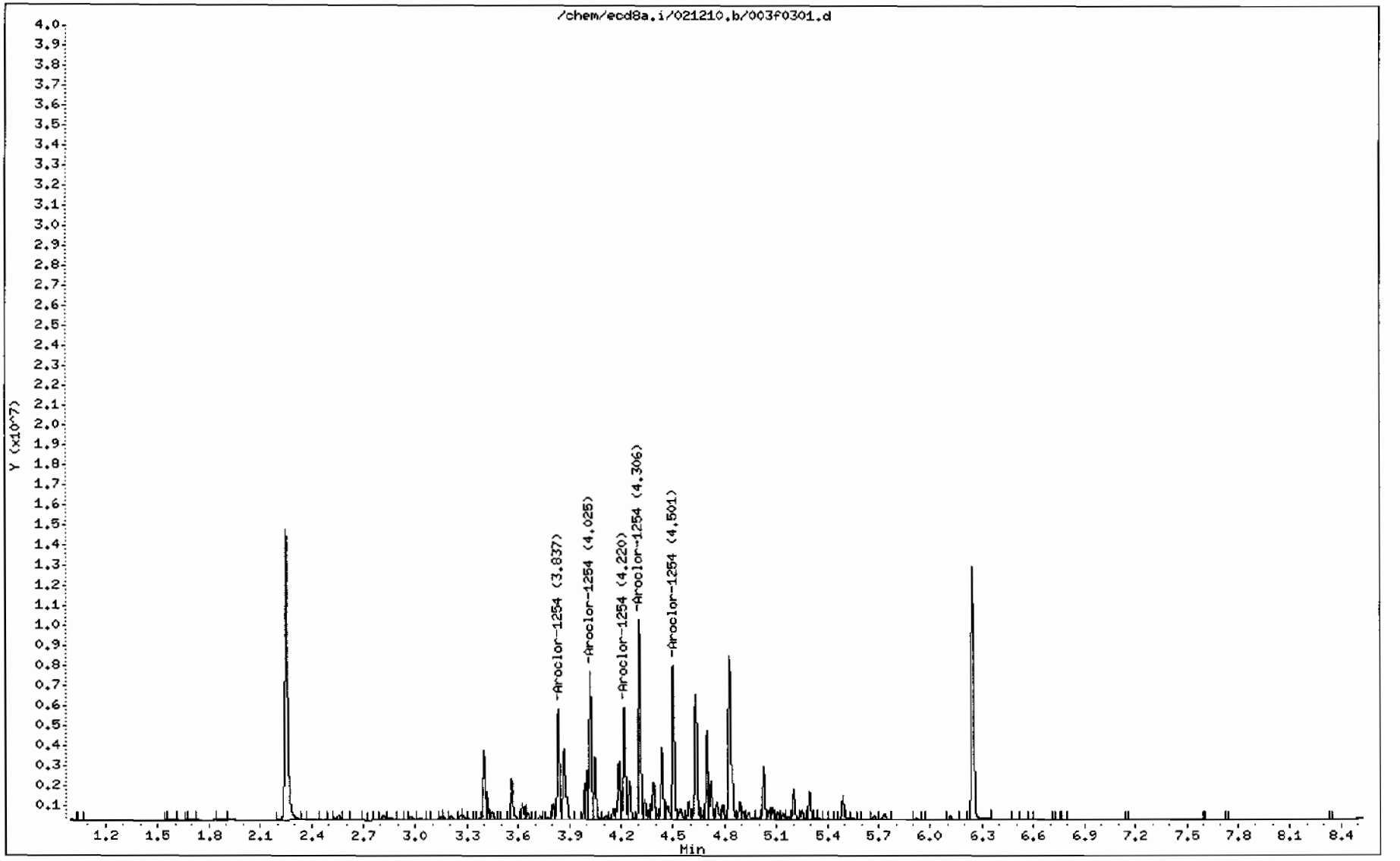

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/003b0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 12-FEB-2010 07:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.313	4.313	0.000	3619477	1000.00	1050	80.00- 120.00	100.00
4.451	4.451	0.000	4078317	1000.00	1040	92.68- 132.68	112.68
4.780	4.780	0.000	5822783	1000.00	1060	140.87- 180.87	160.87
4.942	4.942	0.000	4223178	1000.00	1050	96.68- 136.68	116.68
5.068	5.068	0.000	2674832	1000.00	1050	53.90- 93.90	73.90

Average of Peak Amounts 1.05e+03

Data File: /chem/ecd8a.i/021210.b/003b0301.d
Date : 12-FEB-2010 07:14
Client ID: AR125401
Sample Info: IWAR100201-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JADC
Column diameter: 0.25

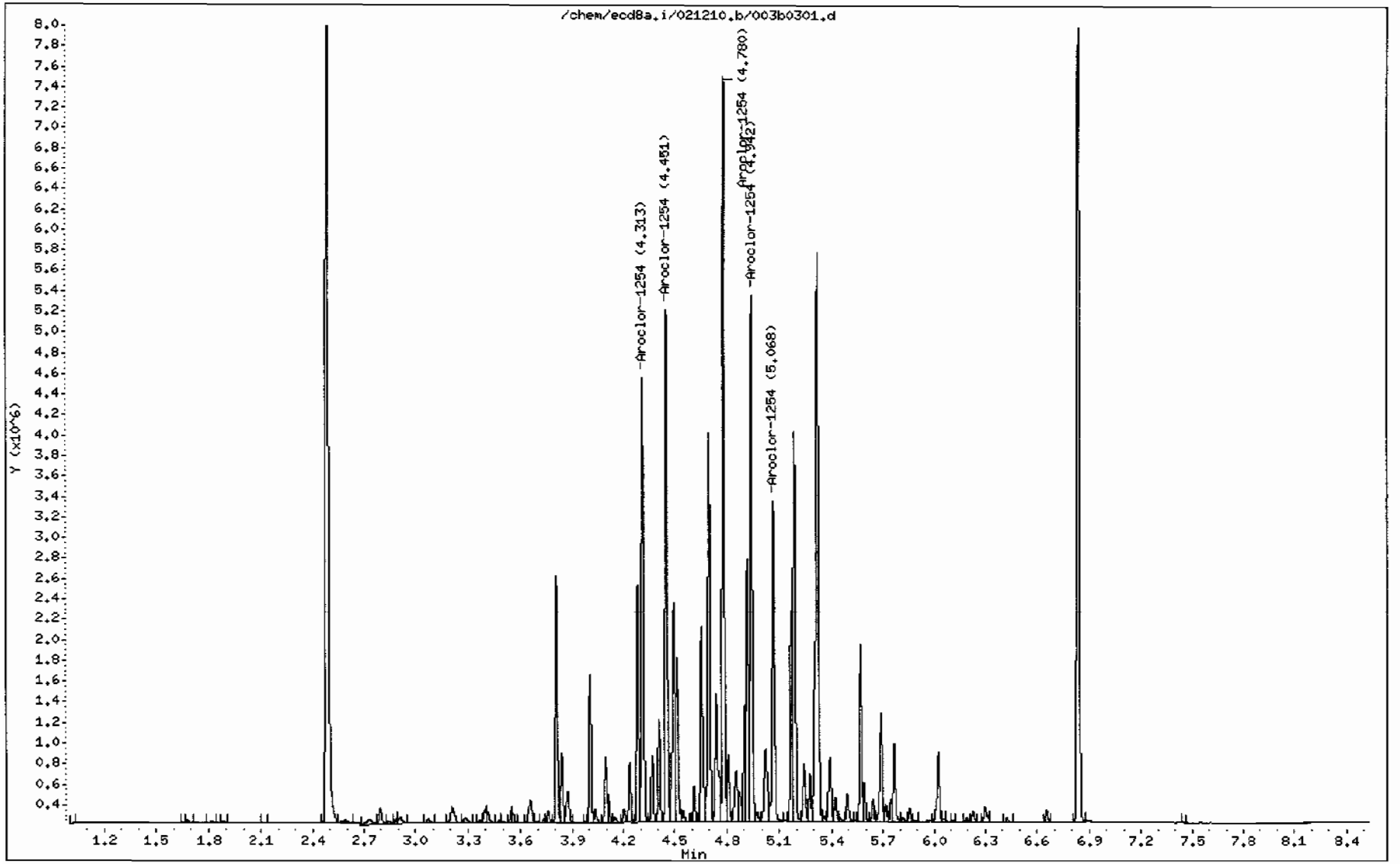

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 12-FEB-2010 07:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.812	2.812	0.000	3721427	1000.00	936	80.00- 120.00	100.00
3.164	3.164	0.000	4447831	1000.00	927	99.52- 139.52	119.52
3.400	3.400	0.000	1643502	1000.00	910	24.16- 64.16	44.16
3.417	3.417	0.000	1688795	1000.00	894	25.38- 65.38	45.38
3.562	3.562	0.000	2416012	1000.00	913	44.92- 84.92	64.92
		Average of Peak Amounts =			916		

Data File: /chem/ecd8a.i/021210.b/004f0401.d
Date : 12-FEB-2010 07:26
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

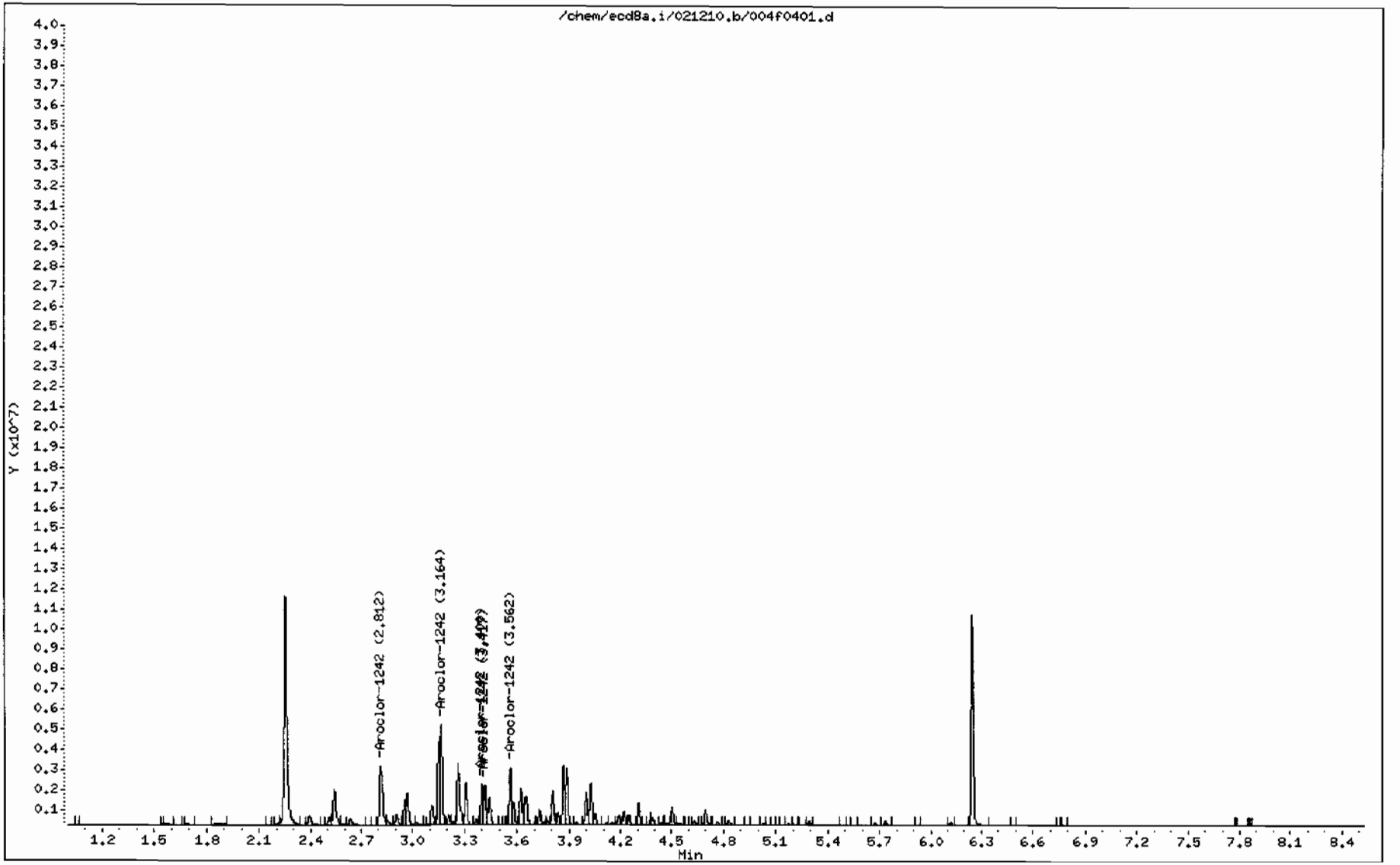

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 12-FEB-2010 07:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.206	3.206	0.000	2518361	1000.00	941	80.00- 120.00	100.00
3.559	3.559	0.000	2915172	1000.00	933	95.76- 135.76	115.76
3.659	3.659	0.000	2010413	1000.00	945	59.83- 99.83	79.83
4.006	4.006	0.000	1576801	1000.00	926	42.61- 82.61	62.61
4.096	4.096	0.000	1486237	1000.00	949	39.02- 79.02	59.02
Average of Peak Amounts =					939		

Data File: /chem/ecd8a.i/021210.b/004b0401.d
Date : 12-FEB-2010 07:26
Client ID: AR124201
Sample Info: |WAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JADC
Column diameter: 0.25

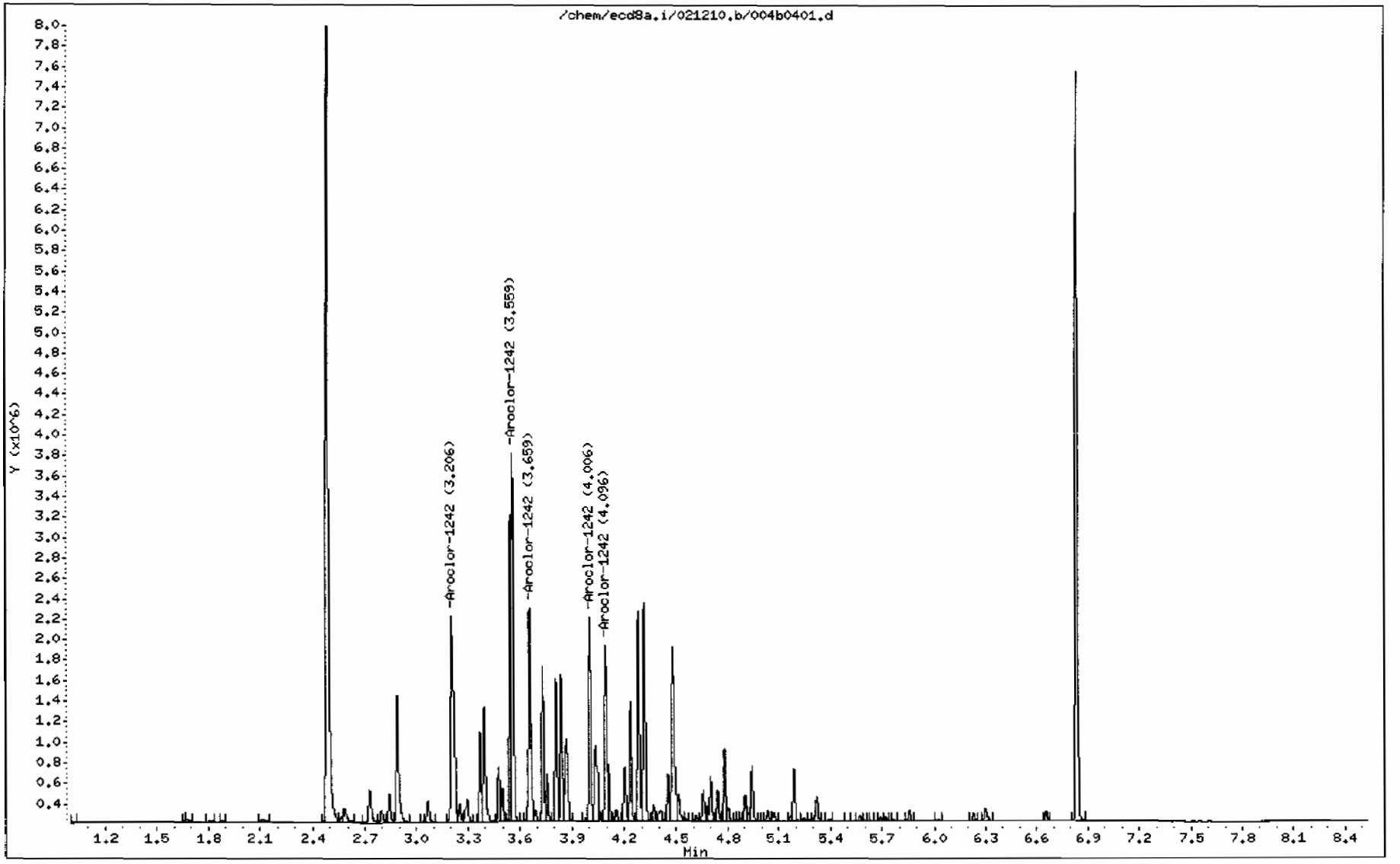

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 12-FEB-2010 07:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.148	3.148	0.000	2353370	1000.00	787	80.00- 120.00	100.00
3.399	3.399	0.000	3094483	1000.00	809	111.49- 151.49	131.49
3.562	3.562	0.000	4049295	1000.00	810	152.06- 192.06	172.06
3.867	3.867	0.000	4836876	1000.00	808	185.53- 225.53	205.53
4.027	4.027	0.000	3828514	1000.00	793	142.68- 182.68	162.68

Average of Peak Amounts = 801

Data File: /chem/ecd8a.i/021210.b/005f0501.d
Date : 12-FEB-2010 07:38
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

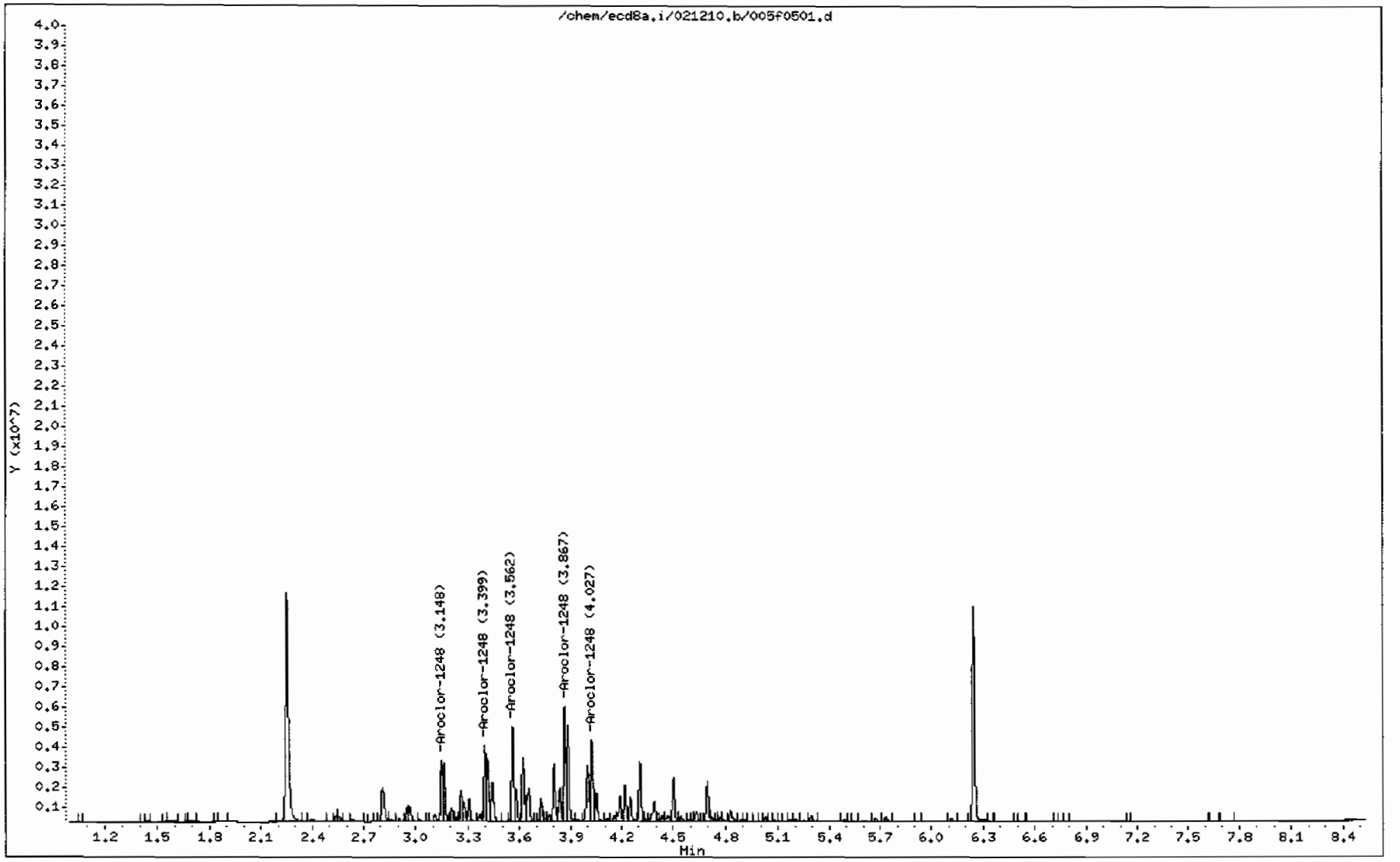

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 12-FEB-2010 07:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.657	3.657	0.000	1278541	1000.00	896	80.00- 120.00	100.00
3.810	3.810	0.000	2151154	1000.00	872	148.25- 188.25	168.25
4.006	4.006	0.000	2705822	1000.00	876	191.63- 231.63	211.63
4.284	4.284	0.000	3187472	1000.00	874	229.31- 269.31	249.31
4.317	4.317	0.000	3516359	1000.00	878	255.03- 295.03	275.03
Average of Peak Amounts =					879		

Data File: /chem/ecd8a.i/021210.b/005b0501.d
Date : 12-FEB-2010 07:38
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

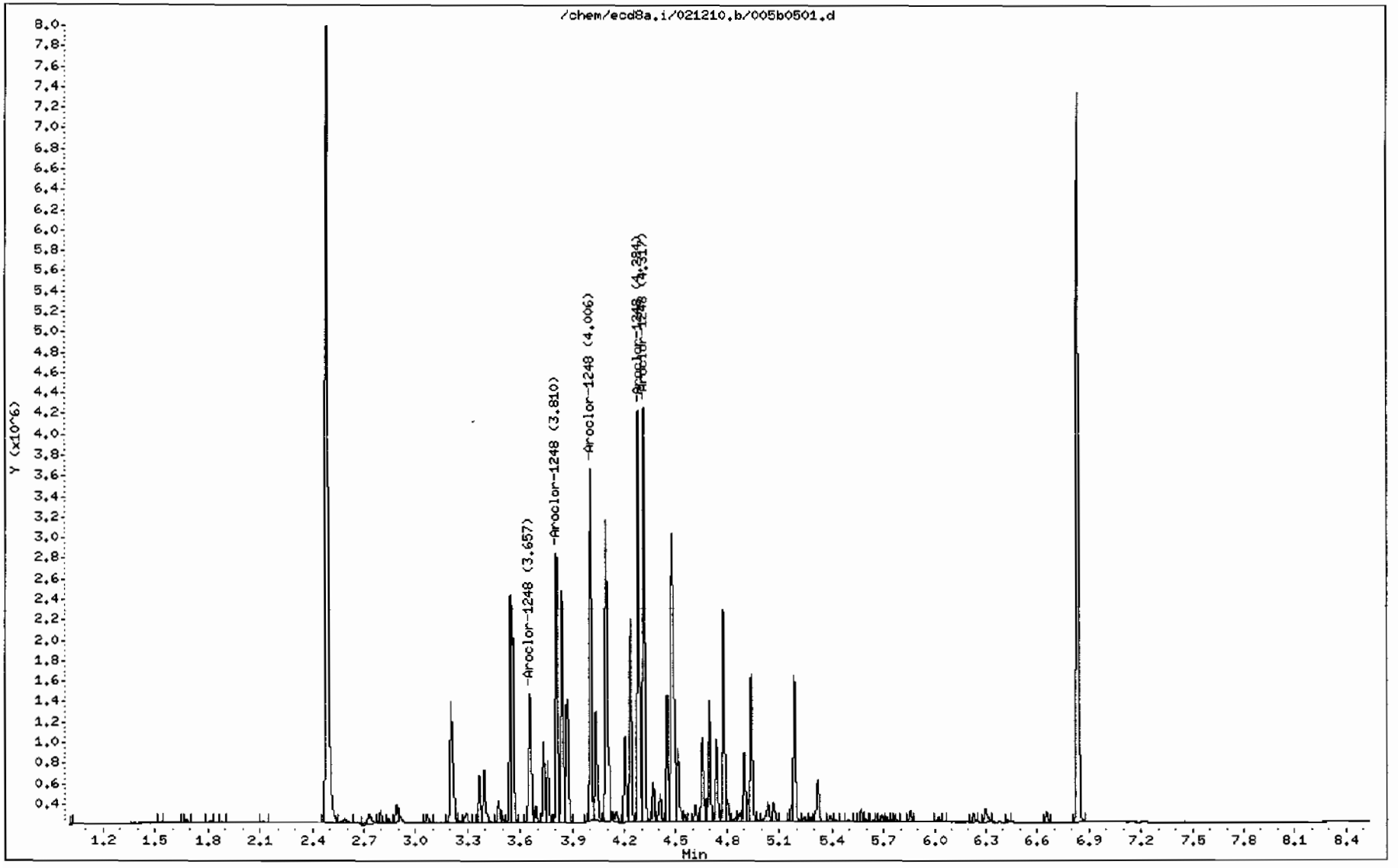

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 12-FEB-2010 07:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.541	2.541	0.000	2439278	1000.00	938	80.00- 120.00	100.00
2.812	2.812	0.000	2151380	1000.00	952	68.20- 108.20	88.20
3.308	3.308	0.000	1097887	1000.00	883	25.01- 65.01	45.01
3.562	3.562	0.000	1342194	1000.00	908	35.02- 75.02	55.02
3.624	3.624	0.000	820349	1000.00	889	13.63- 53.63	33.63
Average of Peak Amounts =					914		

Data File: /chem/ecd8a.i/021210.b/006f0601.d
Date : 12-FEB-2010 07:51
Client ID: AR123201
Sample Info: |WAR100104-32

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

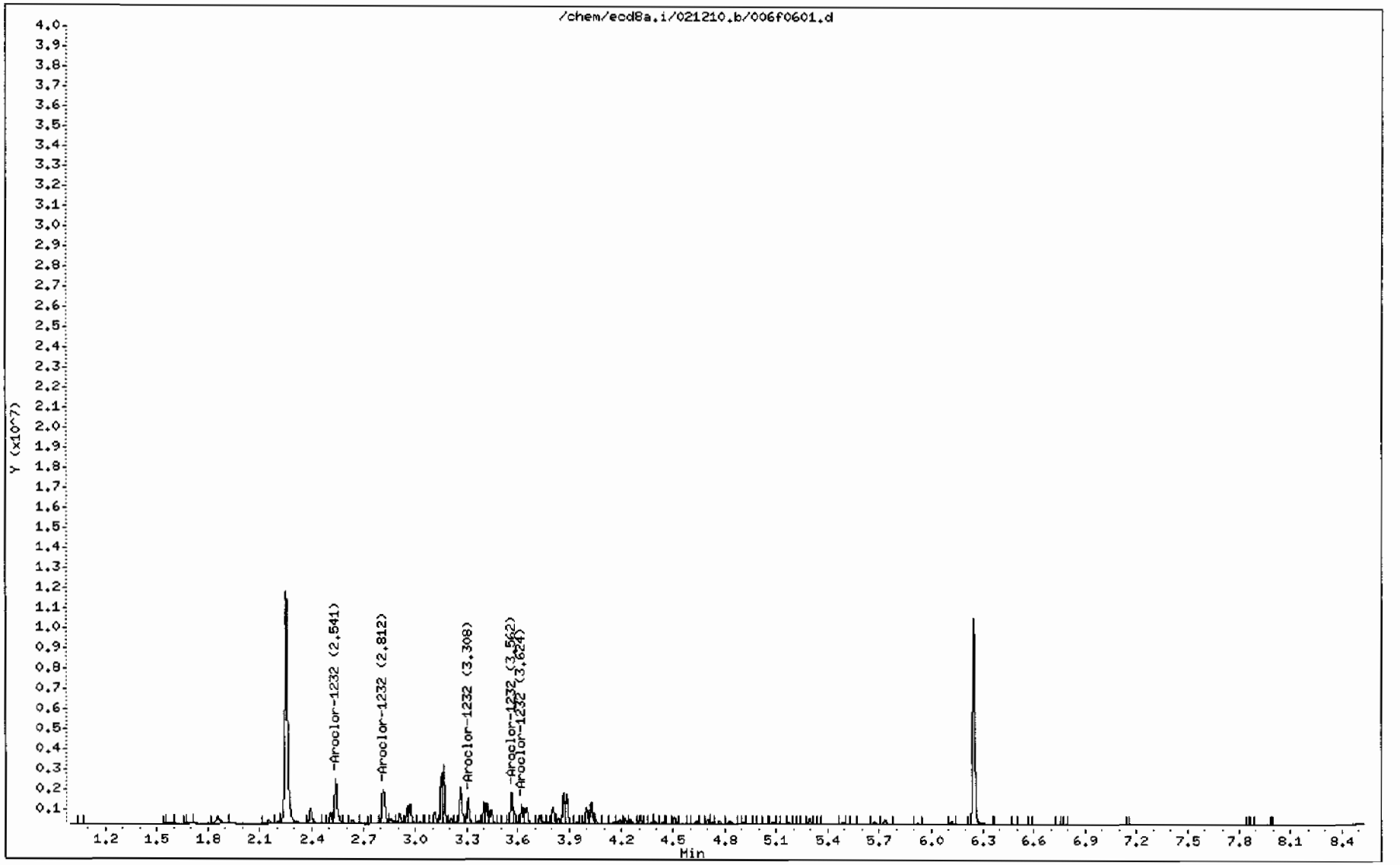

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 12-FEB-2010 07:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.207	3.207	0.000	1484066	1000.00	980	80.00- 120.00	100.00
3.560	3.560	0.000	1629700	1000.00	934	89.81- 129.81	109.81
3.659	3.659	0.000	1148925	1000.00	976	57.42- 97.42	77.42
3.735	3.735	0.000	677509	1000.00	954	25.65- 65.65	45.65
3.810	3.810	0.000	592816	1000.00	959	19.95- 59.95	39.95
Average of Peak Amounts =					961		

Data File: /chem/ecd8a.i/021210.b/006b0601.d

Date : 12-FEB-2010 07:51

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

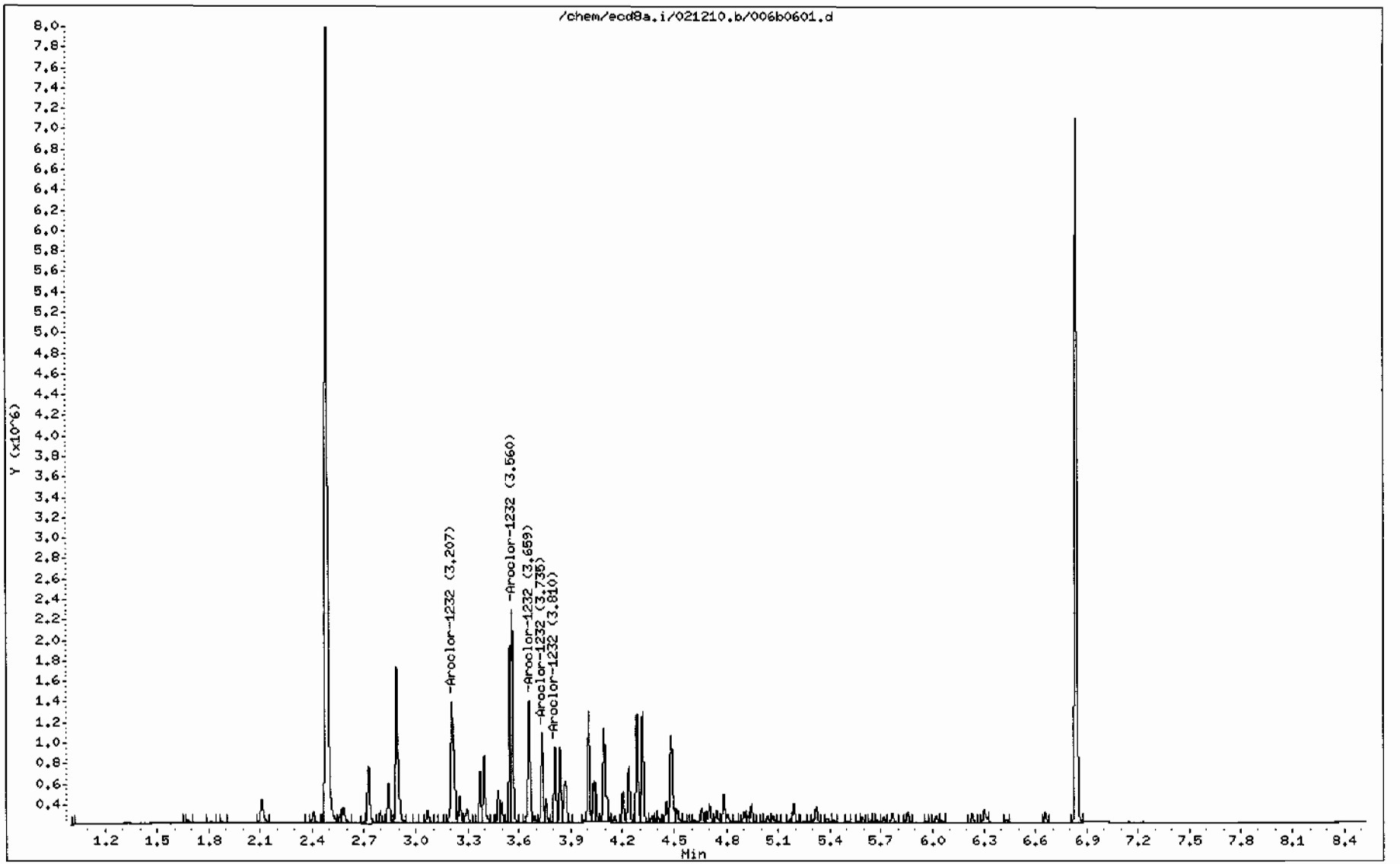

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 12-FEB-2010 08:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
1.855	1.855	0.000	1199847	1000.00	1090	80.00- 120.00	100.00
2.394	2.394	0.000	1489304	1000.00	1020	104.12- 144.12	124.12
2.541	2.541	0.000	3334932	1000.00	985	257.95- 297.95	277.95
Average of Peak Amounts					1.03e+03		

Data File: /chem/ecd8a.i/021210.b/007f0701.d

Date : 12-FEB-2010 08:03

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

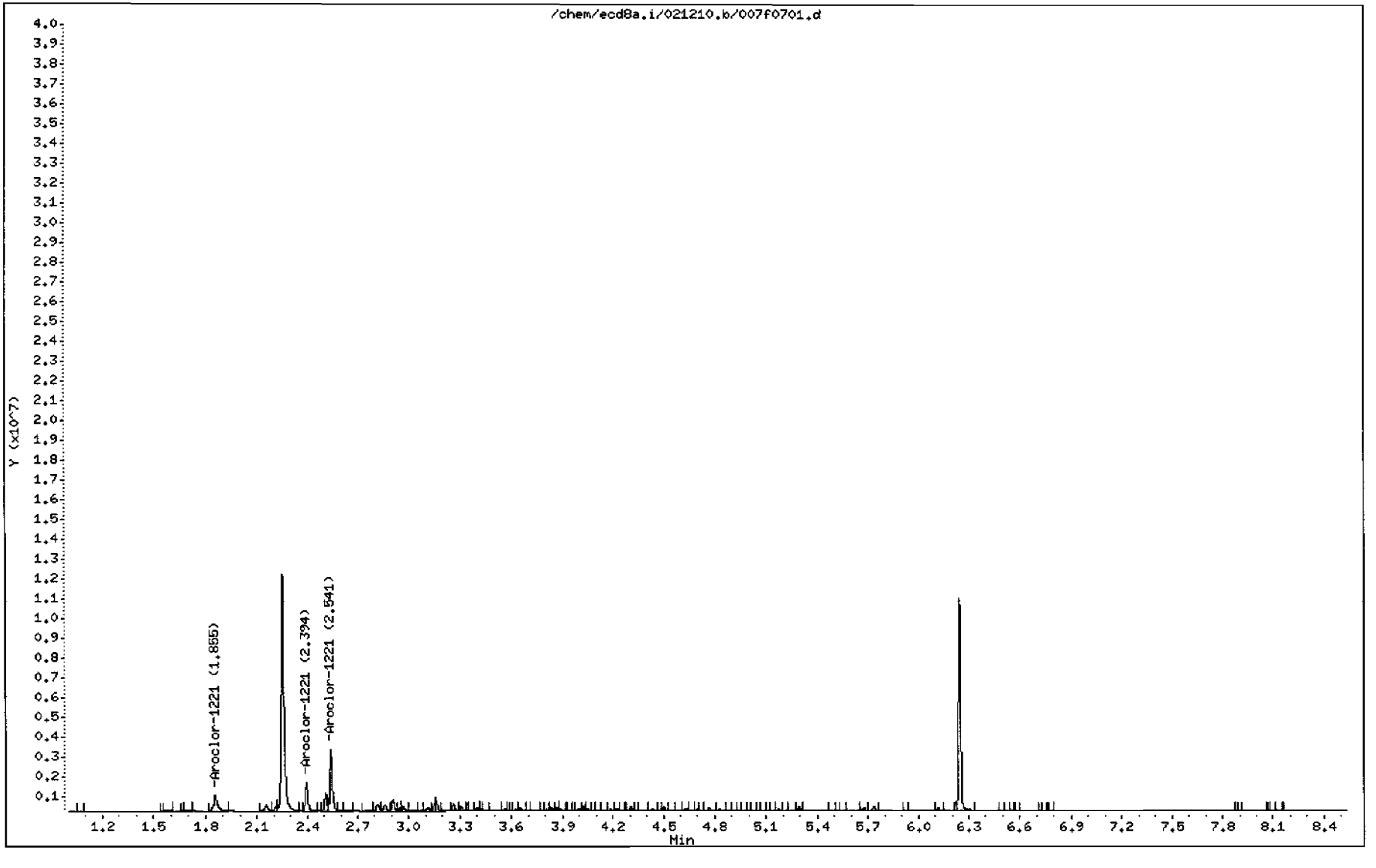

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 12-FEB-2010 08:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.727	2.727	0.000	978372	1000.00	1090	80.00- 120.00	100.00
2.839	2.839	0.000	583525	1000.00	1050	39.64- 79.64	59.64
2.888	2.888	0.000	2087832	1000.00	1010	193.40- 233.40	213.40

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/021210.b/007b0701.d
Date : 12-FEB-2010 08:03
Client ID: AR122101
Sample Info: WAR100104-21

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

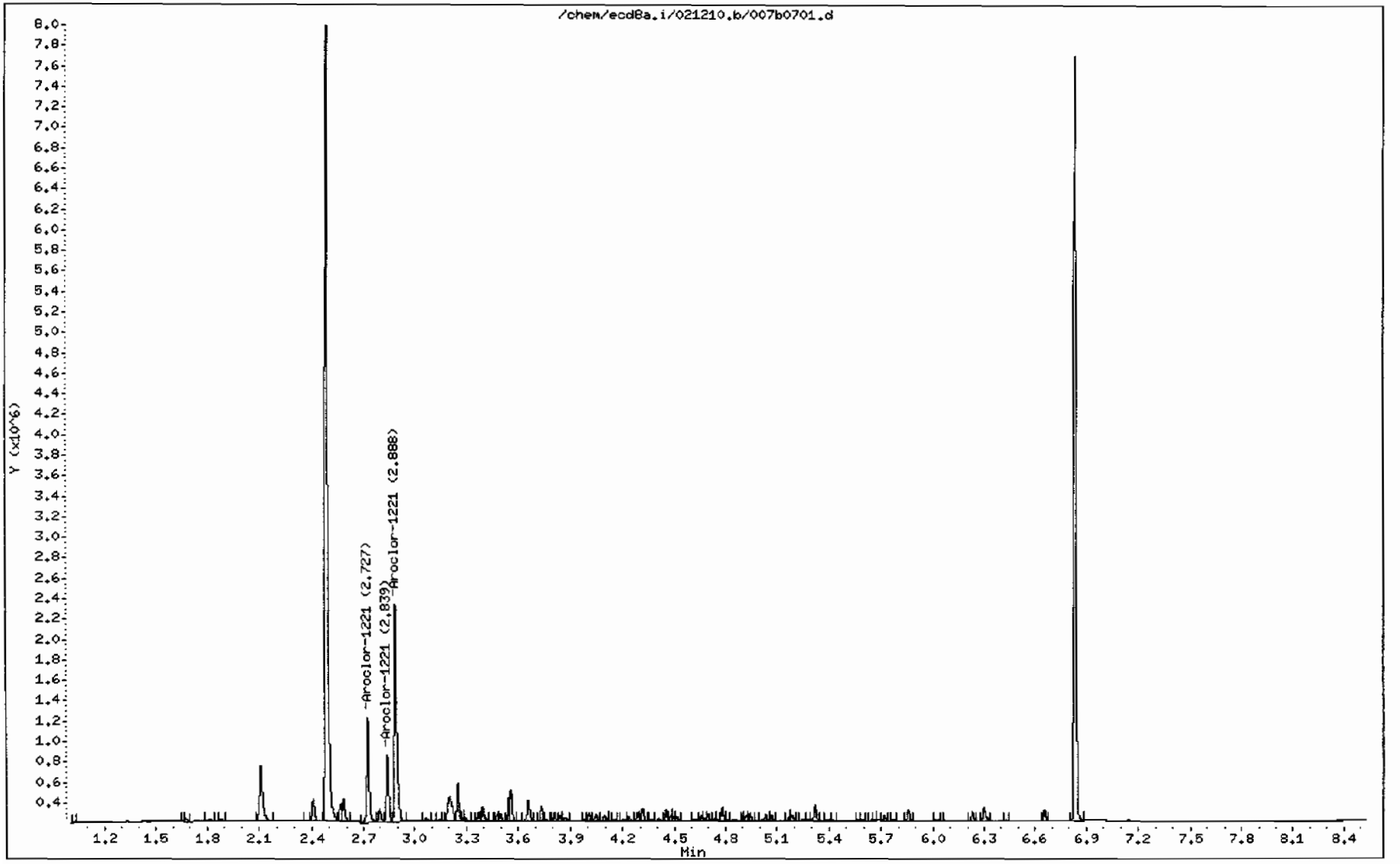

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/021f2101.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 12-FEB-2010 10:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	13428487	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.245	0.002	9639395	100.000	96.4	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.811	0.002	4427289	1000.00	949	80.00- 120.00	100.00
3.164	3.163	0.001	5231669	1000.00	907	98.17- 138.17	118.17
3.308	3.306	0.002	2257198	1000.00	920	30.98- 70.98	50.98
3.399	3.399	0.000	2027637	1000.00	922	25.80- 65.80	45.80
3.562	3.561	0.001	2907902	1000.00	925	45.68- 85.68	65.68
Average of Peak Amounts =					925		
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.435	0.001	6210653	1000.00	922	80.00- 120.00	100.00(M)
4.632	4.631	0.001	9429792	1000.00	919	131.83- 171.83	151.83
4.907	4.906	0.001	5734817	1000.00	936	72.34- 112.34	92.34
5.079	5.078	0.001	6164329	1000.00	965	79.25- 119.25	99.25
5.490	5.490	0.000	6924069	1000.00	1010	91.49- 131.49	111.49
Average of Peak Amounts =					950		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/021210.b/021f2101.d

Date : 12-FEB-2010 10:56

Client ID: AR166002

Sample Info: IWAR100203-60 02

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

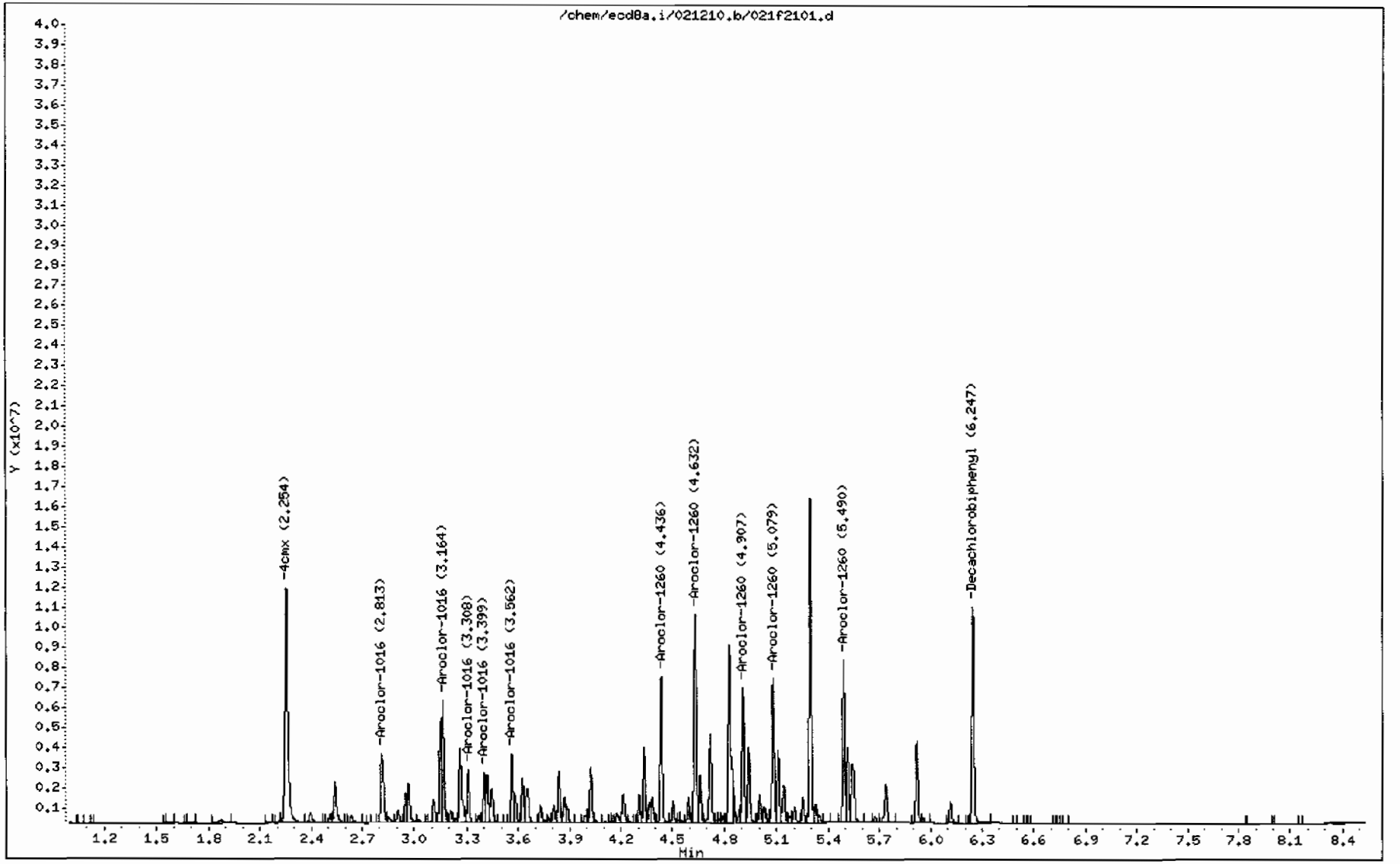

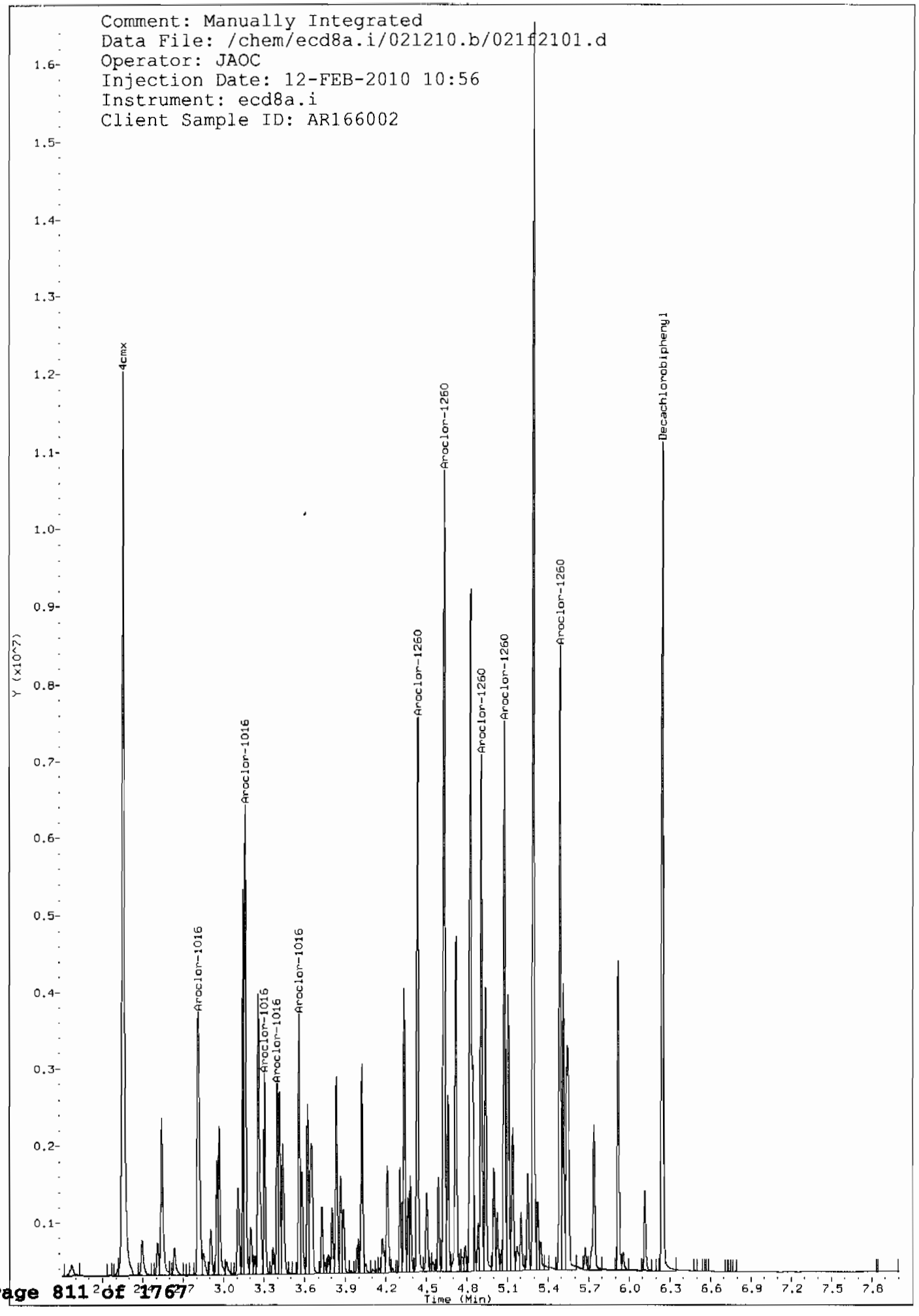
Comment: Manually Integrated
Data File: /chem/ecd8a.i/021210.b/021f2101.d
Operator: JAOC
Injection Date: 12-FEB-2010 10:56
Instrument: ecd8a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd8a.i/021210.b/orig-021f2101.d
Operator: JAOC
Injection Date: 12-FEB-2010 10:56
Instrument: ecd8a.i
Client Sample ID: AR166002

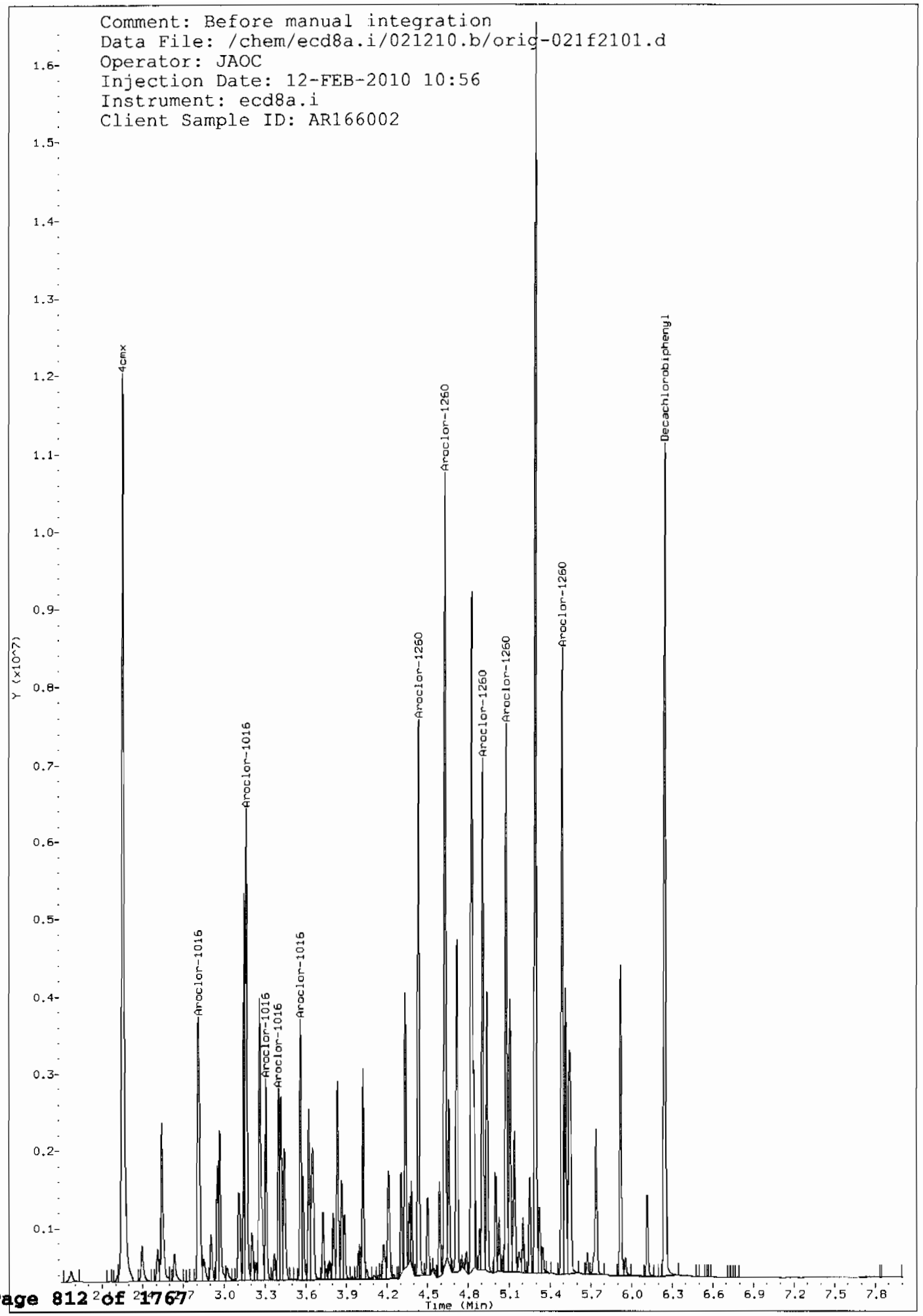

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/021b2101.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 12-FEB-2010 10:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	8806549	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	6378014	100.000	98.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	3579581	1000.00	950	80.00- 120.00	100.00
3.659	3.658	0.001	2425108	1000.00	972	47.75- 87.75	67.75
3.735	3.734	0.001	1415841	1000.00	934	19.55- 59.55	39.55
3.809	3.809	0.000	1374673	1000.00	921	18.40- 58.40	38.40
4.006	4.006	0.000	1929912	1000.00	948	33.91- 73.91	53.91
Average of Peak Amounts =					945		
7 Aroclor-1260					CAS #: 11096-82-5		
4.920	4.919	0.001	4222628	1000.00	1030	80.00- 120.00	100.00
5.069	5.068	0.001	5138980	1000.00	1030	101.70- 141.70	121.70
5.385	5.384	0.001	3947606	1000.00	1040	73.49- 113.49	93.49
5.592	5.591	0.001	4089217	1000.00	1030	76.84- 116.84	96.84
6.024	6.023	0.001	6559427	1000.00	1050	135.34- 175.34	155.34
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd8a.i/021210.b/021b2101.d
Date : 12-FEB-2010 10:56
Client ID: AR166002
Sample Info: WAR100203-60 02

Column phase: CLP2

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

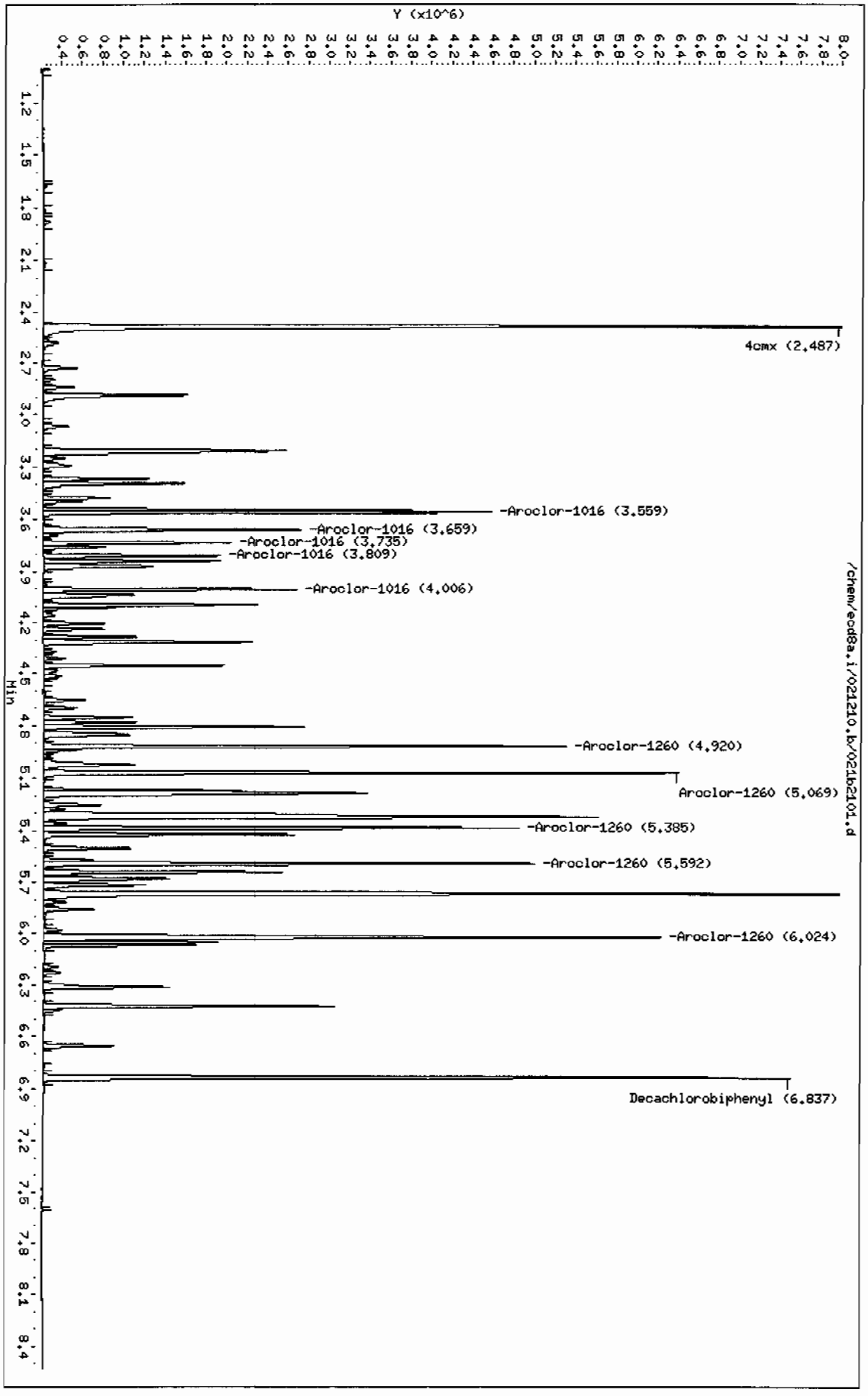

Page 1

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.25	6.24
02	AR166001	WAR100203-01	02/03/10	1024	2.26	6.25
03	AR166002	WAR100203-02	02/03/10	1037	2.26	6.25
04	AR166003	WAR100203-03	02/03/10	1049	2.26	6.25
05	AR166004	WAR100203-04	02/03/10	1101	2.26	6.25
06	AR166005	IAR100104-01	02/03/10	1114	2.26	6.25
07	AR166001	WAR100203-60	02/03/10	1126	2.26	6.25
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.26	6.25
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.26	6.25
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.26	6.25
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.26	6.25
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.26	6.25
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.26	6.25
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.26	6.25
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.26	6.25
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.26	6.25
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.26	6.25
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.26	6.25
16	AR166002	WAR100203-60	02/03/10	1954	2.26	6.25
17	PIBLK03	WAR091130-99	02/03/10	2006	2.26	6.25
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.26	6.25
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.26	6.25
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.26	6.25
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.26	6.25
22	AR166003	WAR100203-60	02/03/10	2108	2.26	6.25
23	PIBLK04	WAR091130-99	02/03/10	2120	2.26	6.25
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.26	6.25
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.26	6.25
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.26	6.25
27	AR166004	WAR100203-60	02/03/10	2210	2.26	6.25
28	PIBLK05	WAR091130-99	02/03/10	2222	2.26	6.25
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.26	6.25
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.26	6.25
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.49	6.84
02	AR166001	WAR100203-01	02/03/10	1024	2.49	6.84
03	AR166002	WAR100203-02	02/03/10	1037	2.49	6.84
04	AR166003	WAR100203-03	02/03/10	1049	2.49	6.84
05	AR166004	WAR100203-04	02/03/10	1101	2.49	6.84
06	AR166005	IAR100104-01	02/03/10	1114	2.49	6.84
07	AR166001	WAR100203-60	02/03/10	1126	2.49	6.84
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobipheny1 (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.49	6.84
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.49	6.84
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.49	6.84
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.49	6.84
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.49	6.84
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.49	6.84
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.49	6.84
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.49	6.84
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.49	6.84
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.49	6.84
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.49	6.84
16	AR166002	WAR100203-60	02/03/10	1954	2.49	6.84
17	PIBLK03	WAR091130-99	02/03/10	2006	2.49	6.84
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.49	6.84
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.49	6.84
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.49	6.84
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.49	6.84
22	AR166003	WAR100203-60	02/03/10	2108	2.49	6.84
23	PIBLK04	WAR091130-99	02/03/10	2120	2.49	6.84
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.49	6.84
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.49	6.84
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.49	6.84
27	AR166004	WAR100203-60	02/03/10	2210	2.49	6.84
28	PIBLK05	WAR091130-99	02/03/10	2222	2.49	6.84
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.49	6.84
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.49	6.84
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/12/10	0649	2.25	6.24
02	AR166001	WAR100203-60	02/12/10	0702	2.25	6.24
03	AR125401	WAR100201-54	02/12/10	0714		
04	AR124201	WAR091217-42	02/12/10	0726		
05	AR124801	WAR091217-48	02/12/10	0738		
06	AR123201	WAR100104-32	02/12/10	0751		
07	AR122101	WAR100104-21	02/12/10	0803		
08	AR126201	WAR100104-62	02/12/10	0816		
09	AR126801	WAR100107-68	02/12/10	0828		
10	DDTANALOGSTD	WAR091219-DD	02/12/10	0840		
11	PIBLK02	WAR100105-99	02/12/10	0853	2.25	6.25
12	PBLK01	1202040223	02/12/10	0905	2.25	6.25
13	PBLK01LCS	1202040224	02/12/10	0918	2.25	6.25
14	RE15-10-8222	246055005	02/12/10	0930	2.26	6.25
15	ZZZZZ	ZZZZZ	02/12/10	0942	2.26	6.25
16	ZZZZZ	ZZZZZ	02/12/10	0955	2.25	6.25
17	ZZZZZ	ZZZZZ	02/12/10	1007	2.25	6.24
18	ZZZZZ	ZZZZZ	02/12/10	1019	2.25	6.25
19	ZZZZZ	ZZZZZ	02/12/10	1032	2.25	6.25
20	ZZZZZ	ZZZZZ	02/12/10	1044	2.25	6.25
21	AR166002	WAR100203-60	02/12/10	1056	2.25	6.25
22	PIBLK03	WAR100105-99	02/12/10	1109	2.26	6.25
23	ZZZZZ	ZZZZZ	02/12/10	1121	2.25	6.25
24	ZZZZZ	ZZZZZ	02/12/10	1134	2.26	6.25
25	ZZZZZ	ZZZZZ	02/12/10	1146	2.25	6.25
26	ZZZZZ	ZZZZZ	02/12/10	1158	2.25	6.24
27	ZZZZZ	ZZZZZ	02/12/10	1211	2.25	6.25
28	ZZZZZ	ZZZZZ	02/12/10	1223	2.25	6.25
29	ZZZZZ	ZZZZZ	02/12/10	1235	2.25	6.25
30	ZZZZZ	ZZZZZ	02/12/10	1248	2.25	6.25
31	ZZZZZ	ZZZZZ	02/12/10	1300	2.25	6.25
32	ZZZZZ	ZZZZZ	02/12/10	1313	2.25	6.25

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1545

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/12/10	0649	2.48	6.83
02	AR166001	WAR100203-60	02/12/10	0702	2.49	6.84
03	AR125401	WAR100201-54	02/12/10	0714		
04	AR124201	WAR091217-42	02/12/10	0726		
05	AR124801	WAR091217-48	02/12/10	0738		
06	AR123201	WAR100104-32	02/12/10	0751		
07	AR122101	WAR100104-21	02/12/10	0803		
08	AR126201	WAR100104-62	02/12/10	0816		
09	AR126801	WAR100107-68	02/12/10	0828		
10	DDTANALOGSTD	WAR091219-DD	02/12/10	0840		
11	PIBLK02	WAR100105-99	02/12/10	0853	2.49	6.84
12	PBLK01	1202040223	02/12/10	0905	2.49	6.84
13	PBLK01LCS	1202040224	02/12/10	0918	2.49	6.84
14	RE15-10-8222	246055005	02/12/10	0930	2.49	6.84
15	ZZZZZ	ZZZZZ	02/12/10	0942	2.49	6.84
16	ZZZZZ	ZZZZZ	02/12/10	0955	2.49	6.84
17	ZZZZZ	ZZZZZ	02/12/10	1007	2.49	6.84
18	ZZZZZ	ZZZZZ	02/12/10	1019	2.49	6.84
19	ZZZZZ	ZZZZZ	02/12/10	1032	2.49	6.84
20	ZZZZZ	ZZZZZ	02/12/10	1044	2.49	6.84
21	AR166002	WAR100203-60	02/12/10	1056	2.49	6.84
22	PIBLK03	WAR100105-99	02/12/10	1109	2.49	6.84
23	ZZZZZ	ZZZZZ	02/12/10	1121	2.49	6.84
24	ZZZZZ	ZZZZZ	02/12/10	1134	2.49	6.84
25	ZZZZZ	ZZZZZ	02/12/10	1146	2.49	6.84
26	ZZZZZ	ZZZZZ	02/12/10	1158	2.49	6.84
27	ZZZZZ	ZZZZZ	02/12/10	1211	2.49	6.84
28	ZZZZZ	ZZZZZ	02/12/10	1223	2.49	6.84
29	ZZZZZ	ZZZZZ	02/12/10	1235	2.49	6.84
30	ZZZZZ	ZZZZZ	02/12/10	1248	2.49	6.84
31	ZZZZZ	ZZZZZ	02/12/10	1300	2.49	6.84
32	ZZZZZ	ZZZZZ	02/12/10	1313	2.49	6.84

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10-1545 **Client ID:** LCS for batch 951941

Lab Sample ID: 1202040224

Data File: 013f1301.d **Data File:** 013b1301.d

Inst: ECD8A.I_1 **Inst:** ECD8A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 12-FEB-10 09:18 **Analyzed:** 12-FEB-10 09:18

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							.119
Column 1	1	2.81	2.78 – 2.84	19.3		ug/kg	
	2	3.16	3.13 – 3.19	18.6		ug/kg	
	3	3.31	3.28 – 3.34	17.8		ug/kg	
	4	3.4	3.37 – 3.43	18.8		ug/kg	
	5	3.56	3.53 – 3.59	18.4		ug/kg	
					18.6		
Column 2	1	3.56	3.53 – 3.59	18.3		ug/kg	
	2	3.66	3.63 – 3.69	19.4		ug/kg	
	3	3.73	3.7 – 3.76	17.8		ug/kg	
	4	3.81	3.78 – 3.84	18.6		ug/kg	
	5	4.01	3.98 – 4.04	18.7		ug/kg	
					18.6		
Aroclor-1260							8.76
Column 1	1	4.44	4.4 – 4.46	19.6		ug/kg	
	2	4.63	4.6 – 4.66	20		ug/kg	
	3	4.91	4.88 – 4.94	20.8		ug/kg	
	4	5.08	5.05 – 5.11	21.1		ug/kg	
	5	5.49	5.46 – 5.52	22.7		ug/kg	
					20.8		
Column 2	1	4.92	4.89 – 4.95	21.9		ug/kg	
	2	5.07	5.04 – 5.1	22.5		ug/kg	
	3	5.38	5.35 – 5.41	23		ug/kg	
	4	5.59	5.56 – 5.62	22.6		ug/kg	
	5	6.02	5.99 – 6.05	23.7		ug/kg	
					22.8		

Identification Summary

SDG Number: 10–1545 **Client ID:** RE15–10–8222

Lab Sample ID: 246055005

Data File:	014f1401.d	**Data File:**	014b1401.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	12–FEB–10 09:30	**Analyzed:**	12–FEB–10 09:30

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1254							2.3
Column 1	1	3.84	3.81 – 3.87	46.6		ug/kg	
	2	4.02	3.99 – 4.05	39.6		ug/kg	
	3	4.22	4.19 – 4.25	34.9		ug/kg	
	4	4.31	4.28 – 4.34	23.2		ug/kg	
	5	4.5	4.47 – 4.53	18		ug/kg	
					32.5		
Column 2	1	4.31	4.28 – 4.34	47.5		ug/kg	
	2	4.45	4.42 – 4.48	39.3		ug/kg	
	3	4.78	4.75 – 4.81	31.1		ug/kg	
	4	4.94	4.91 – 4.97	17.2		ug/kg	
	5	5.07	5.04 – 5.1	31.1		ug/kg	
					33.2		
Aroclor–1260							4.67
Column 1	1	4.43	4.4 – 4.46	17.9		ug/kg	
	2	4.63	4.6 – 4.66	20		ug/kg	
	3	4.91	4.88 – 4.94	3.21		ug/kg	
	4	5.08	5.05 – 5.11	3.63		ug/kg	
	5	5.49	5.46 – 5.52	4.66		ug/kg	
					9.87		
Column 2	1	4.92	4.89 – 4.95	22.2		ug/kg	
	2	5.07	5.04 – 5.1	16		ug/kg	
	3	5.39	5.35 – 5.41	6.98		ug/kg	
	4	5.59	5.56 – 5.62	3.52		ug/kg	
	5	6.03	5.99 – 6.05	3.04		ug/kg	
					10.3		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1545**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202040223**				
Client Sample:	**QC for batch 951941**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 951941**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:05**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/012f1201-1.d
Lab Smp Id: 1202040223 Client Smp ID: PBLK01
Inj Date : 12-FEB-2010 09:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040223|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1545.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	16792727	127.793	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	13359652	133.621	4.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/012f1201-1.d
Date : 12-FEB-2010 09:05
Client ID: PBLK01
Sample Info: |1202040223|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

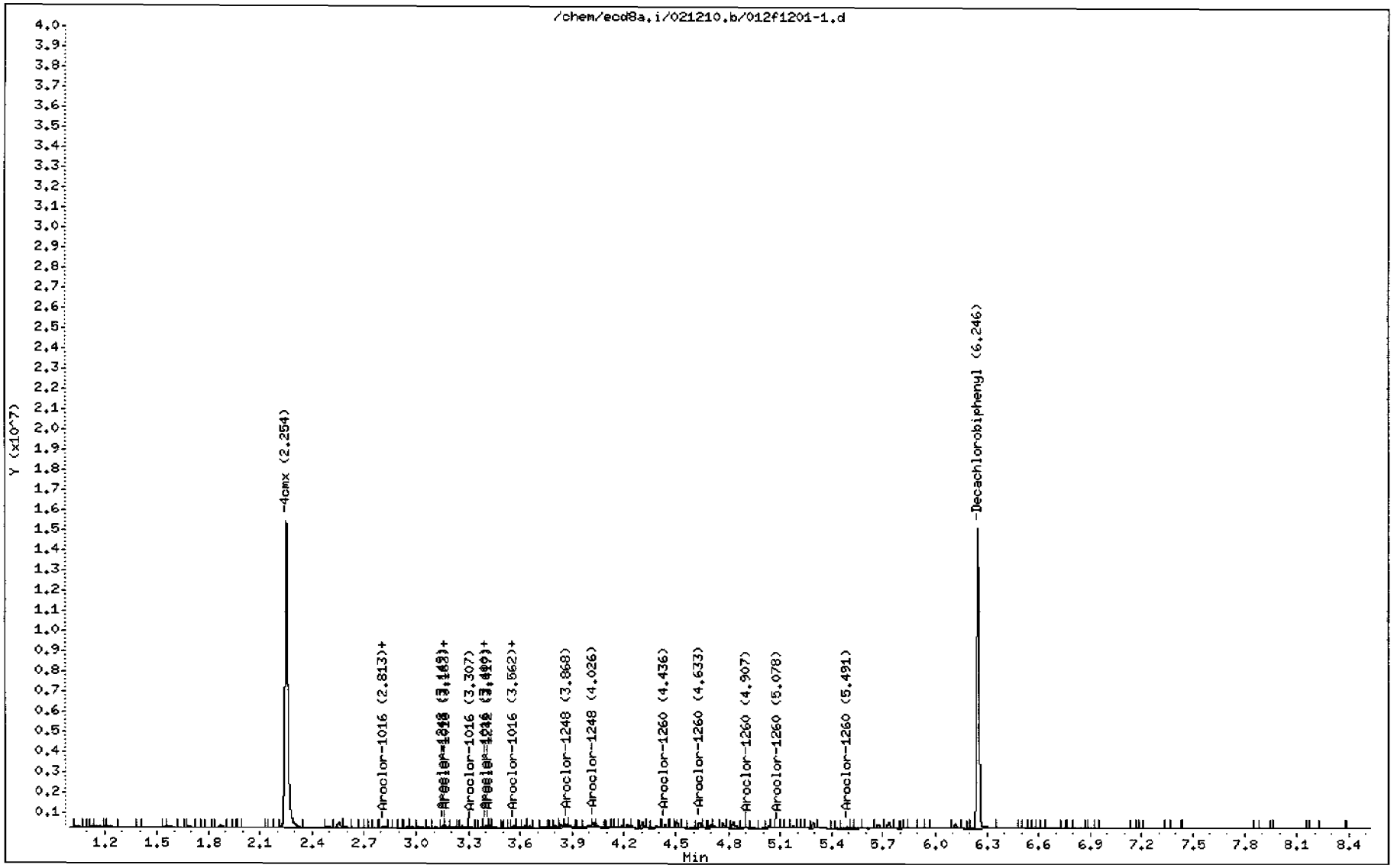

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/012b1201-1.d
Lab Smp Id: 1202040223 Client Smp ID: PBLK01
Inj Date : 12-FEB-2010 09:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040223|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1545.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	11165707	128.573	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	9020376	139.109	4.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/012b1201-1.d
Date : 12-FEB-2010 09:05
Client ID: PBLK01
Sample Info: |1202040223|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

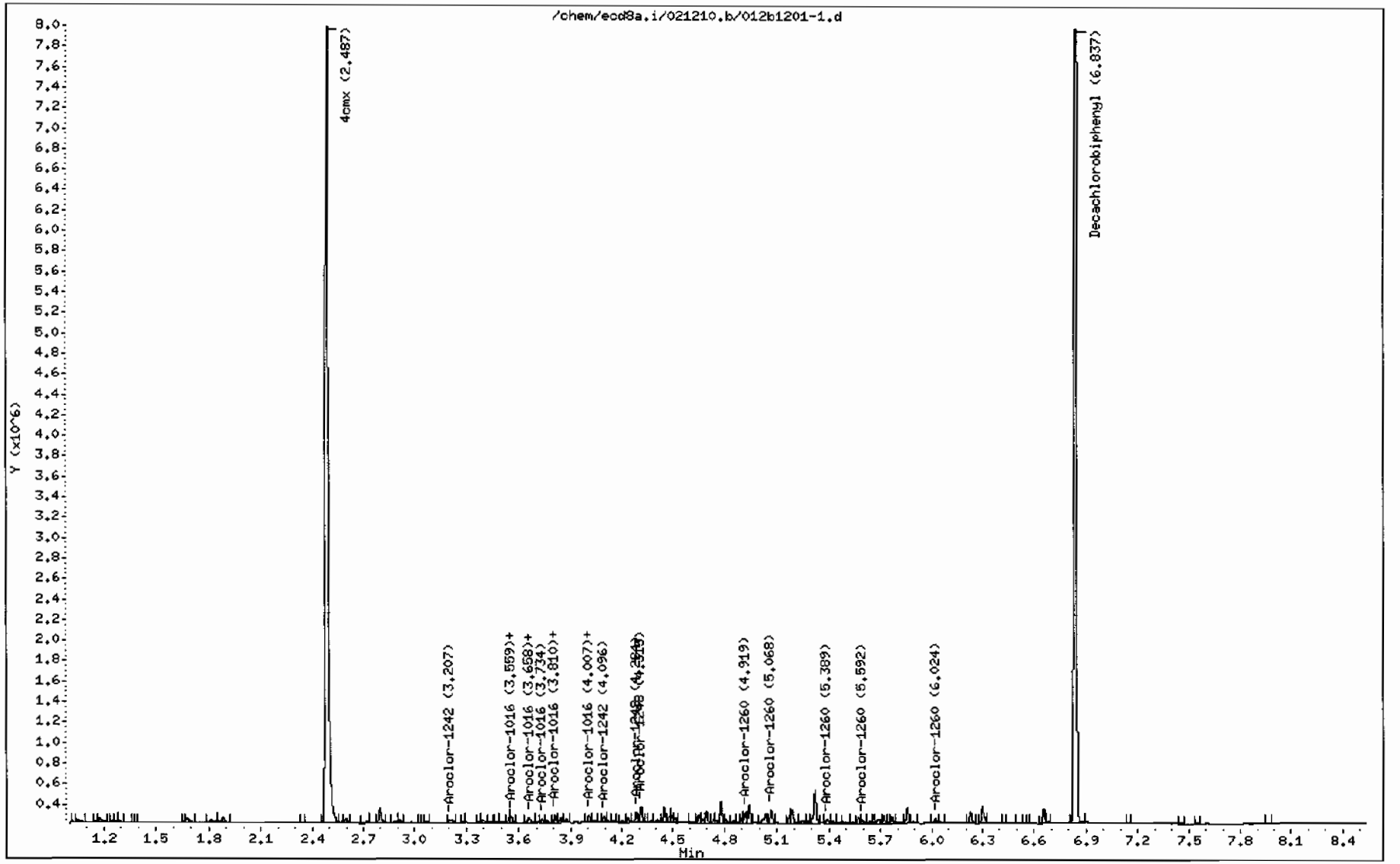

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1545**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202040224**				
Client Sample:	**QC for batch 951941**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 951941**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:18**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		18.6	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		22.7	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/013f1301-1.d
Lab Smp Id: 1202040224 Client Smp ID: PBLK01LCS
Inj Date : 12-FEB-2010 09:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040224|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1545.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	15865945	120.740	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12800089	128.025	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.811	0.001	2707124	580.352	19.3	80.00- 120.00	100.00
3.164	3.163	0.001	3212095	556.729	18.6	98.17- 138.17	118.65
3.307	3.306	0.001	1314074	535.439	17.8	30.98- 70.98	48.54
3.399	3.399	0.000	1238665	563.496	18.8	25.80- 65.80	45.76

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.562	3.561	0.001	1733760	551.774	18.4	45.68- 85.68	64.04
Average of Peak Concentrations =					18.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.435	4.435	0.000	3969225	588.996	19.6	80.00- 120.00	100.00
4.631	4.631	0.000	6164661	600.856	20.0	131.83- 171.83	155.31
4.906	4.906	0.000	3821768	623.468	20.8	72.34- 112.34	96.28
5.079	5.078	0.001	4049290	634.102	21.1	79.25- 119.25	102.02
5.489	5.490	-0.001	4662565	679.698	22.6	91.49- 131.49	117.47
Average of Peak Concentrations =					20.8		

Data File: /chem/ecd8a.i/021210.b/013f1301-1.d
Date : 12-FEB-2010 09:18
Client ID: PBLK01LCS
Sample Info: |120204022411|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

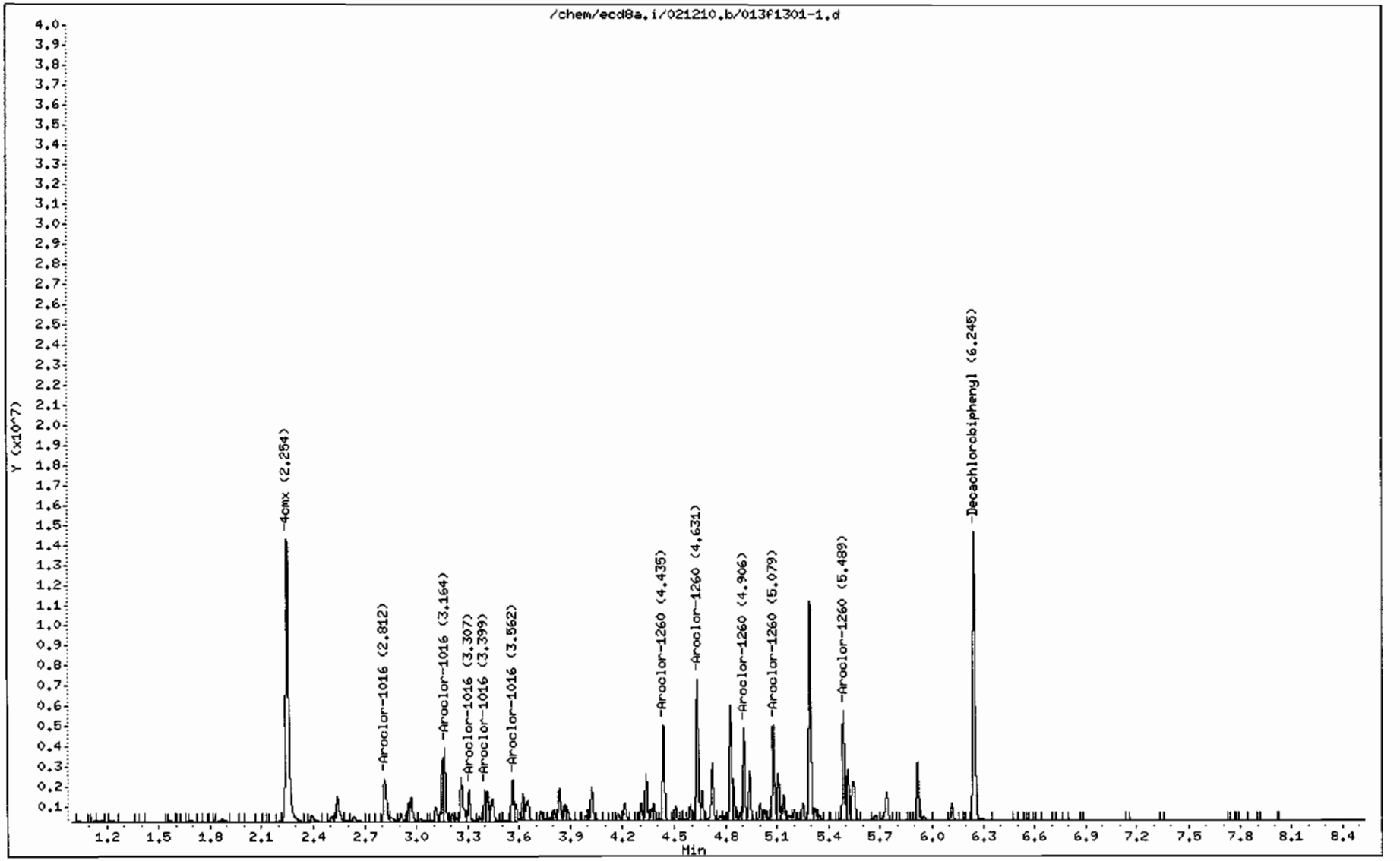

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/013b1301-1.d
Lab Smp Id: 1202040224 Client Smp ID: PBLK01LCS
Inj Date : 12-FEB-2010 09:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040224|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1545.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	10544249	121.417	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8619569	132.928	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2069472	549.456	18.3	80.00- 120.00	100.00
3.659	3.658	0.001	1448200	580.574	19.4	47.75- 87.75	69.98
3.734	3.734	0.000	810130	534.566	17.8	19.55- 59.55	39.15
3.809	3.809	0.000	835367	559.461	18.6	18.40- 58.40	40.37

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
4.006	4.006	0.000	1140786	560.413	18.7	33.91- 73.91	55.12
Average of Peak Concentrations =					18.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	2684257	657.195	21.9	80.00- 120.00	100.00
5.068	5.068	0.000	3352987	674.794	22.5	101.70- 141.70	124.91
5.384	5.384	0.000	2616685	690.706	23.0	73.49- 113.49	97.48
5.592	5.591	0.001	2686088	679.488	22.6	76.84- 116.84	100.07
6.023	6.023	0.000	4430734	711.486	23.7	135.34- 175.34	165.06
Average of Peak Concentrations =					22.7		

Data File: /chem/ecd8a.i/021210.b/013b1301-1.d
Date : 12-FEB-2010 09:18
Client ID: PBLK01LCS
Sample Info: |1202040224|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

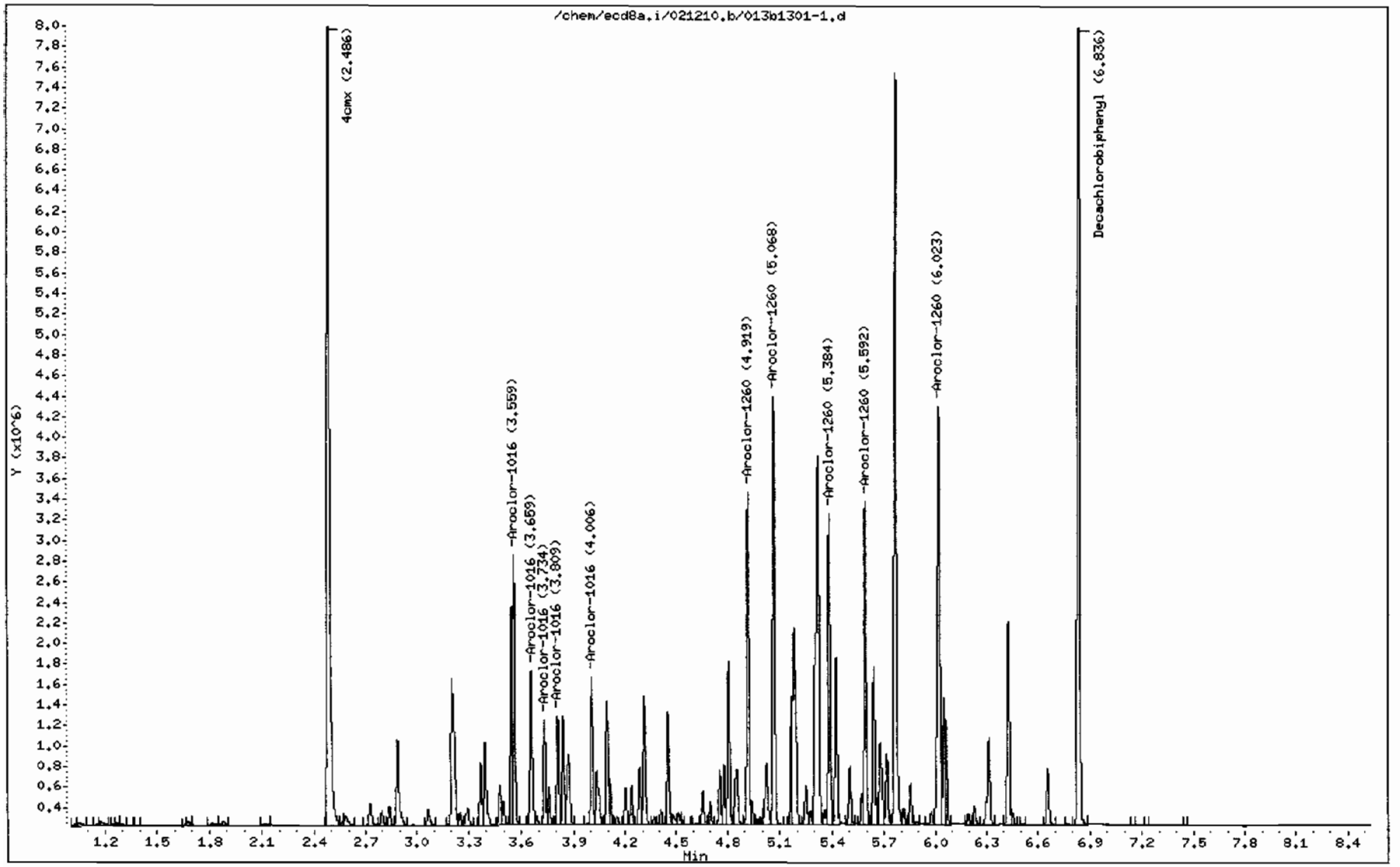

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/04/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/020310a.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	03-FEB-2010 10:12		020310a	1.0		CLEAN
002f0201.d	WAR100203-01 60	JAOC	03-FEB-2010 10:24		020310a	1.0		1660 LEVEL 1
003f0301.d	WAR100203-02 60	JAOC	03-FEB-2010 10:37		020310a	1.0		1660 LEVEL 2
004f0401.d	WAR100203-03 60	JAOC	03-FEB-2010 10:49		020310a	1.0		1660 LEVEL 3
005f0501.d	WAR100203-04 60	JAOC	03-FEB-2010 11:01		020310a	1.0		1660 LEVEL 4
006f0601.d	IAR100104-01 60	JAOC	03-FEB-2010 11:14		020310a	1.0		1660 LEVEL 5
007f0701.d	WAR100203-60 01	JAOC	03-FEB-2010 11:26		020310a	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100203-05 54	JAOC	03-FEB-2010 11:39		020310a	1.0		1254 LEVEL 1
009f0901.d	WAR100203-06 54	JAOC	03-FEB-2010 11:51		020310a	1.0		1254 LEVEL 2
010f1001.d	WAR100203-07 54	JAOC	03-FEB-2010 12:03		020310a	1.0		1254 LEVEL 3
011f1101.d	WAR100203-08 54	JAOC	03-FEB-2010 12:16		020310a	1.0		1254 LEVEL 4
012f1201.d	IAR091027-01 54	JAOC	03-FEB-2010 12:28		020310a	1.0		1254 LEVEL 5
013f1301.d	WAR100201-54	JAOC	03-FEB-2010 12:40		020310a	1.0		PASSES BOTH COLUMNS
014f1401.d	WAR100203-09 42	JAOC	03-FEB-2010 12:53		020310a	1.0		1242 LEVEL 1
015f1501.d	WAR100203-10 42	JAOC	03-FEB-2010 13:05		020310a	1.0		1242 LEVEL 2

Instrument Batch: /chem/ecd8a.i/020310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100203-11 42	JAOC	03-FEB-2010 13:18		020310a	1.0		1242 LEVEL 3
017f1701.d	WAR100203-12 42	JAOC	03-FEB-2010 13:30		020310a	1.0		1242 LEVEL 4

018f1801.d	IAR091111-01 42	JAOC	03-FEB-2010 13:42		020310a		1.0	1242 LEVEL 5
019f1901.d	WAR091217-42	JAOC	03-FEB-2010 13:55		020310a		1.0	PASSES BOTH COLUMNS
020f2001.d	WAR100203-13 48	JAOC	03-FEB-2010 14:07		020310a		1.0	1248 LEVEL 1
021f2101.d	WAR100203-14 48	JAOC	03-FEB-2010 14:19		020310a		1.0	1248 LEVEL 2
022f2201.d	WAR100203-15 48	JAOC	03-FEB-2010 14:32		020310a		1.0	1248 LEVEL 3
023f2301.d	WAR100203-16 48	JAOC	03-FEB-2010 14:44		020310a		1.0	1248 LEVEL 4
024f2401.d	IAR091027-02 48	JAOC	03-FEB-2010 14:57		020310a		1.0	1248 LEVEL 5
025f2501.d	WAR091217-48	JAOC	03-FEB-2010 15:09		020310a		1.0	DUSE RE-RUN
026f2601.d	WAR100104-32	JAOC	03-FEB-2010 15:21		020310a		1.0	PATTERN ONLY
027f2701.d	WAR100104-21	JAOC	03-FEB-2010 15:34		020310a		1.0	PATTERN ONLY
028f2801.d	WAR100203-17 62	JAOC	03-FEB-2010 15:46		020310a		1.0	1262 LEVEL 1
029f2901.d	WAR100203-18 62	JAOC	03-FEB-2010 15:58		020310a		1.0	1262 LEVEL 2
030f3001.d	WAR100203-19 62	JAOC	03-FEB-2010 16:11		020310a		1.0	1262 LEVEL 3
031f3101.d	WAR100203-20 62	JAOC	03-FEB-2010 16:23		020310a		1.0	1262 LEVEL 4
032f3201.d	IAR100104-04 62	JAOC	03-FEB-2010 16:36		020310a		1.0	1262 LEVEL 5
033f3301.d	WAR100104-62	JAOC	03-FEB-2010 16:48		020310a		1.0	PASSES BOTH COLUMNS
034f3401.d	WAR091107-68	JAOC	03-FEB-2010 17:00		020310a		1.0	PATTERN ONLY
035f3501.d	WAR091217-48	JAOC	03-FEB-2010 17:13		020310a		1.0	PASSES BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091219-DDT	JAOC	03-FEB-2010 17:25		020310a	1.0		DDT
037f3701.d	WAR091130-99 C2	JAOC	03-FEB-2010 17:38		020310a	1.0		CLEAN
038f3801.d	1202026314	JAOC	03-FEB-2010 17:50	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
039f3901.d	1202026315	JAOC	03-FEB-2010 18:02	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
040f4001.d	243859001	JAOC	03-FEB-2010 18:15	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
041f4101.d	243859002	JAOC	03-FEB-2010 18:27	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH

042f4201.d	243859003	JAOC	03-FEB-2010 18:39	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
043f4301.d	243859004	JAOC	03-FEB-2010 18:52	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
044f4401.d	243859005	JAOC	03-FEB-2010 19:04	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
045f4501.d	243859006	JAOC	03-FEB-2010 19:16	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
046f4601.d	243859007	JAOC	03-FEB-2010 19:29	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
047f4701.d	243859008	JAOC	03-FEB-2010 19:41	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
048f4801.d	WAR100203-60 02	JAOC	03-FEB-2010 19:54		020310a	1.0		PASSES BOTH COLUMNS
049f4901.d	WAR091130-99 03	JAOC	03-FEB-2010 20:06		020310a	1.0		CLEAN
050f5001.d	243865001	JAOC	03-FEB-2010 20:18	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
051f5101.d	243865002	JAOC	03-FEB-2010 20:31	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
052f5201.d	243865003	JAOC	03-FEB-2010 20:43	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
053f5301.d	243865004	JAOC	03-FEB-2010 20:55	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
054f5401.d	WAR100203-60 03	JAOC	03-FEB-2010 21:08		020310a	1.0		PASSES BOTH COLUMNS
055f5501.d	WAR091130-99 04	JAOC	03-FEB-2010 21:20		020310a	1.0		CLEAN

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245679008	JAOC	03-FEB-2010 21:33	947574	10-1449	5.0	LANL	UPLOAD BOTH, USE HIGHER
057f5701.d	245679011	JAOC	03-FEB-2010 21:45	947574	10-1449	10.0	LANL	UPLOAD BOTH, USE HIGHER
058f5801.d	245686001	JAOC	03-FEB-2010 21:57	947574	10-1432	1.0	LANL	UPLOAD BOTH, USE HIGHER
059f5901.d	WAR100203-60 04	JAOC	03-FEB-2010 22:10		020310a	1.0		PASSES BOTH COLUMNS
060f6001.d	WAR091130-99 05	JAOC	03-FEB-2010 22:22		020310a	1.0		CLEAN
061f6101.d	1202030643	JAOC	03-FEB-2010 22:34	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
062f6201.d	1202030644	JAOC	03-FEB-2010 22:47	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
063f6301.d	245873001	JAOC	03-FEB-2010 22:59	947944	245873	50.0	GEEL	UPLOAD BOTH, USE HIGHER
064f6401.d	1202030645	JAOC	03-FEB-2010 23:12	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
065f6501.d	1202030646	JAOC	03-FEB-2010 23:24	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
066f6601.d	245873002	JAOC	03-FEB-2010 23:36	947944	245873	1.0	GEEL	UPLOAD BOTH, USE HIGHER

067f6701.d	WAR100203-60 05	JAOC	03-FEB-2010 23:49	020310a	1.0	PASSES BOTH COLUMNS
068f6801.d	WAR091130-99 06	JAOC	04-FEB-2010 00:01	020310a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/15/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/021210.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	JAOC	12-FEB-2010 06:49		021210	1.0		CLEAN
002f0201.d	WAR100203-60 01	JAOC	12-FEB-2010 07:02		021210	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100201-54	JAOC	12-FEB-2010 07:14		021210	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	12-FEB-2010 07:26		021210	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	12-FEB-2010 07:38		021210	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	12-FEB-2010 07:51		021210	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	12-FEB-2010 08:03		021210	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	12-FEB-2010 08:16		021210	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	12-FEB-2010 08:28		021210	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	12-FEB-2010 08:40		021210	1.0		DDT
011f1101.d	WAR100105-99 02	JAOC	12-FEB-2010 08:53		021210	1.0		CLEAN
012f1201.d	1202040223	JAOC	12-FEB-2010 09:05	951946	10-1543	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202040224	JAOC	12-FEB-2010 09:18	951946	10-1543	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	246055005	JAOC	12-FEB-2010 09:30	951946	10-1545	1.0	LANL	UPLOAD BOTH, USE HIGHER
015f1501.d	246066001	JAOC	12-FEB-2010 09:42	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/021210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	246066002	JAOC	12-FEB-2010 09:55	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
017f1701.d	246066003	JAOC	12-FEB-2010 10:07	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER

018f1801.d	246066004	JAOC	12-FEB-2010 10:19	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
019f1901.d	246066005	JAOC	12-FEB-2010 10:32	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
020f2001.d	246066006	JAOC	12-FEB-2010 10:44	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
021f2101.d	WAR100203-60 02	JAOC	12-FEB-2010 10:56		021210	1.0		PASSES BOTH COLUMNS
022f2201.d	WAR100105-99 03	JAOC	12-FEB-2010 11:09		021210	1.0		CLEAN
023f2301.d	246318001	JAOC	12-FEB-2010 11:21	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
024f2401.d	246318002	JAOC	12-FEB-2010 11:34	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	246318003	JAOC	12-FEB-2010 11:46	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	246330008	JAOC	12-FEB-2010 11:58	951946	10-1567	1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	246330009	JAOC	12-FEB-2010 12:11	951946	10-1567	1.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	246463002	JAOC	12-FEB-2010 12:23	951946	10-1634	1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	246463003	JAOC	12-FEB-2010 12:35	951946	10-1634	5.0	LANL	DUSE, NEEDS A 5X
030f3001.d	246463004	JAOC	12-FEB-2010 12:48	951946	10-1634	1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	246463005	JAOC	12-FEB-2010 13:00	951946	10-1634	5.0	LANL	UPLOAD BOTH, USE HIGHER
032f3201.d	246477002	JAOC	12-FEB-2010 13:13	951946	10-1647	1.0	LANL	DUSE, NEEDS A 10X
033f3301.d	WAR100203-60 03	JAOC	12-FEB-2010 13:25		021210	1.0		PASSES BOTH COLUMNS
034f3401.d	WAR100105-99 04	JAOC	12-FEB-2010 13:37		021210	1.0		CLEAN
035f3501.d	246575003	JAOC	12-FEB-2010 13:50	951946	10-1675	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/021210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202040225	JAOC	12-FEB-2010 14:02	951946	10-1675	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202040226	JAOC	12-FEB-2010 14:14	951946	10-1675	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	246575004	JAOC	12-FEB-2010 14:27	951946	10-1675	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	246463003	JAOC	12-FEB-2010 14:39	951946	10-1634	25.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	246477002	JAOC	12-FEB-2010 14:51	951946	10-1647	10.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	WAR100203-60 04	JAOC	12-FEB-2010 15:04		021210	1.0		PASSES BOTH COLUMNS

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/036b3601.d
Lab Smp Id: 1202040225 Client Smp ID: WST15-10-11621MS
Inj Date : 12-FEB-2010 14:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040225|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	7818097	90.0253	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8399553	129.535	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2136861	567.348	20.2	80.00- 120.00	100.00
3.658	3.658	0.000	1333132	534.444	19.0	45.12- 85.12	62.39
3.735	3.734	0.001	838835	553.507	19.7	19.91- 59.91	39.26
3.810	3.809	0.001	886981	594.028	21.1	18.22- 58.22	41.51
4.006	4.006	0.000	1183238	581.267	20.7	33.52- 73.52	55.37
Average of Peak Concentrations =					20.1		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.918	4.919	-0.001	2738229	670.409	23.9	80.00- 120.00	100.00
5.066	5.068	-0.002	3114317	626.762	22.3	102.34- 142.34	113.73
5.384	5.384	0.000	2651239	699.827	24.9	74.38- 114.38	96.82
5.591	5.591	0.000	2645273	669.163	23.8	77.60- 117.60	96.61
6.023	6.023	0.000	4408302	707.884	25.2	139.44- 179.44	160.99
			Average of Peak Concentrations =		24.0		

Data File: /chem/ecd8a.i/021210.b/036b3601.d
Date : 12-FEB-2010 14:02
Client ID: WST15-10-11621MS
Sample Info: |1202040225|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

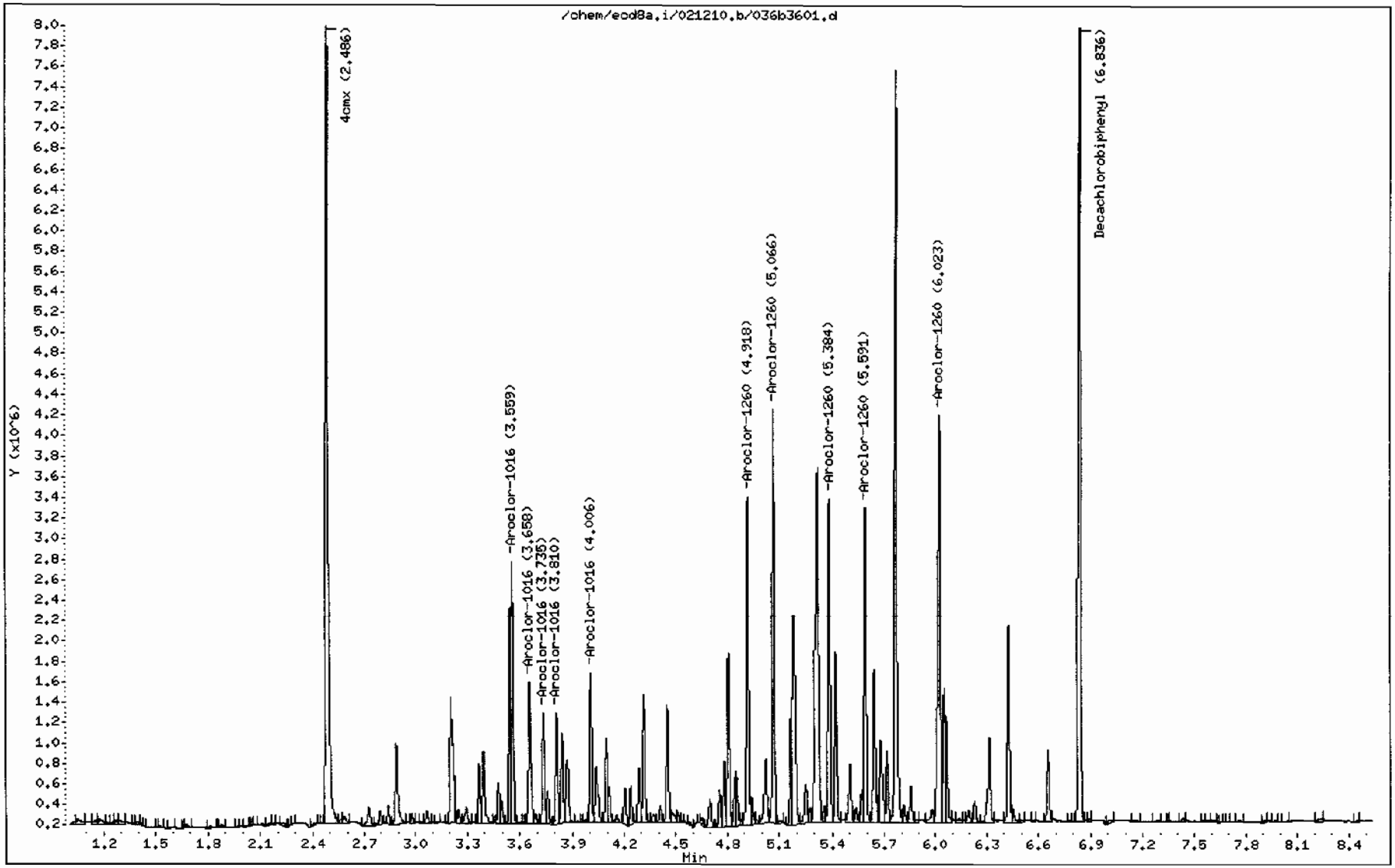

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/036f3601.d
Lab Smp Id: 1202040225 Client Smp ID: WST15-10-11621MS
Inj Date : 12-FEB-2010 14:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040225|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	15651204	119.106	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12370057	123.724	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.811	0.001	2650281	568.166	20.2	80.00- 120.00	100.00
3.164	3.163	0.001	3250319	563.354	20.0	110.21- 150.21	122.64
3.308	3.306	0.002	1225834	499.484	17.8	32.76- 72.76	46.25
3.400	3.399	0.001	1272487	578.882	20.6	26.33- 66.33	48.01
3.562	3.561	0.001	1448968	461.138	16.4	47.15- 87.15	54.67

Average of Peak Concentrations = 19.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.435	-0.001	4026930	597.559	21.3	80.00- 120.00	100.00
4.630	4.631	-0.001	6495755	633.127	22.5	131.14- 171.14	161.31
4.906	4.906	0.000	4108716	670.280	23.8	71.88- 111.88	102.03
5.077	5.078	-0.001	4204853	658.462	23.4	78.48- 118.48	104.42
5.489	5.490	-0.001	4689455	683.618	24.3	91.90- 131.90	116.45
			Average of Peak Concentrations =		23.1		

Data File: /chem/ecd8a.i/021210.b/036f3601.d

Date : 12-FEB-2010 14:02

Client ID: WST15-10-11621MS

Sample Info: |1202040225|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

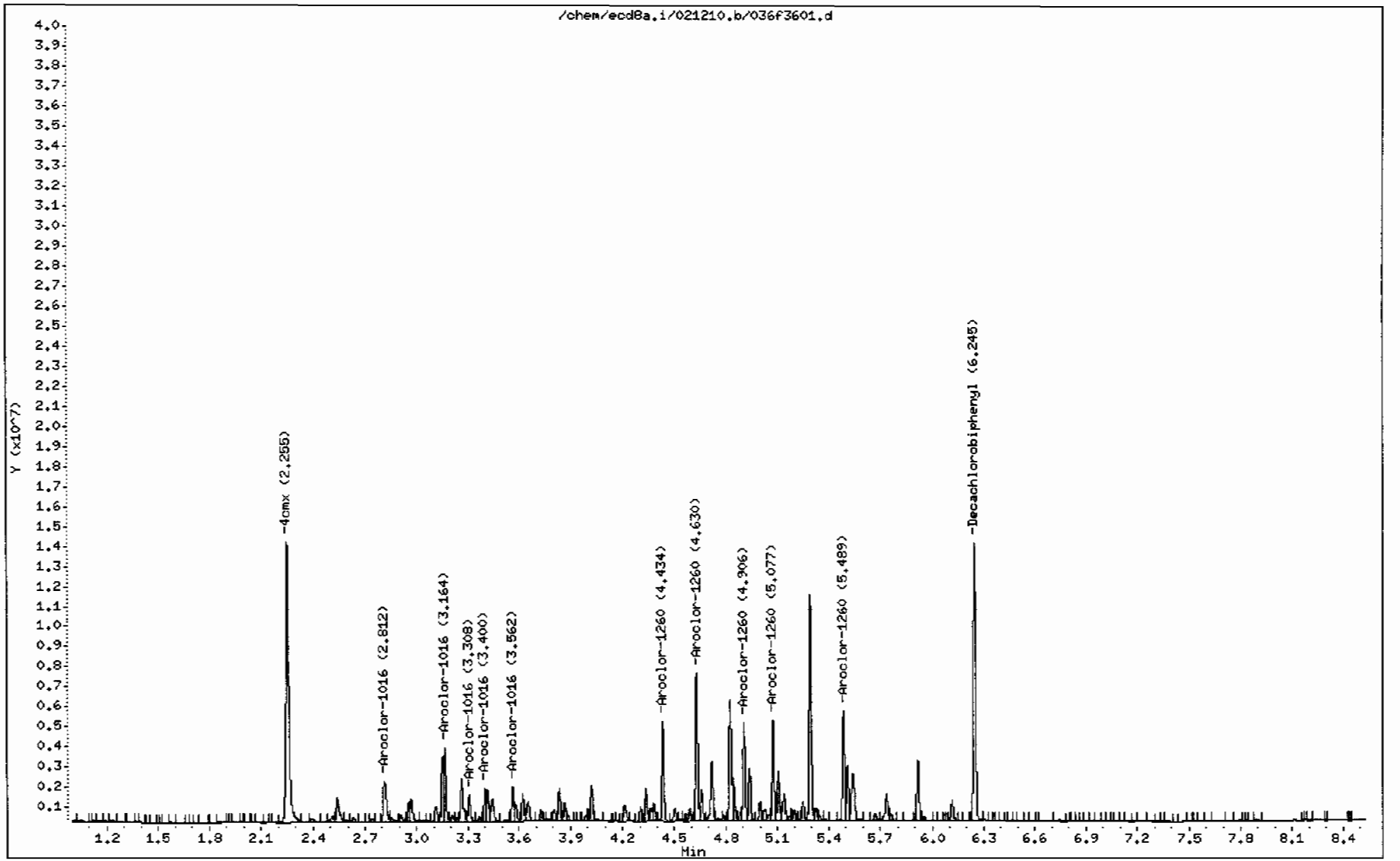

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/037b3701.d
Lab Smp Id: 1202040226 Client Smp ID: WST15-10-11621MSD
Inj Date : 12-FEB-2010 14:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040226|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	7915555	91.1475	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8112348	125.106	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2159261	573.296	20.4	80.00- 120.00	100.00
3.659	3.658	0.001	1431513	573.884	20.4	45.12- 85.12	66.30
3.734	3.734	0.000	873605	576.450	20.5	19.91- 59.91	40.46
3.809	3.809	0.000	891892	597.317	21.3	18.22- 58.22	41.31
4.006	4.006	0.000	1205896	592.398	21.1	33.52- 73.52	55.85

Average of Peak Concentrations = 20.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	2742802	671.528	23.9	80.00- 120.00	100.00
5.067	5.068	-0.001	3222183	648.470	23.1	102.34- 142.34	117.48
5.384	5.384	0.000	2633939	695.261	24.8	74.38- 114.38	96.03
5.591	5.591	0.000	2702363	683.605	24.4	77.60- 117.60	98.53
6.024	6.023	0.001	4396008	705.910	25.2	139.44- 179.44	160.27
			Average of Peak Concentrations =		24.3		

Data File: /chem/ecd8a.i/021210.b/037b3701.d
Date : 12-FEB-2010 14:14
Client ID: WST15-10-11621MSD
Sample Info: |1202040226|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

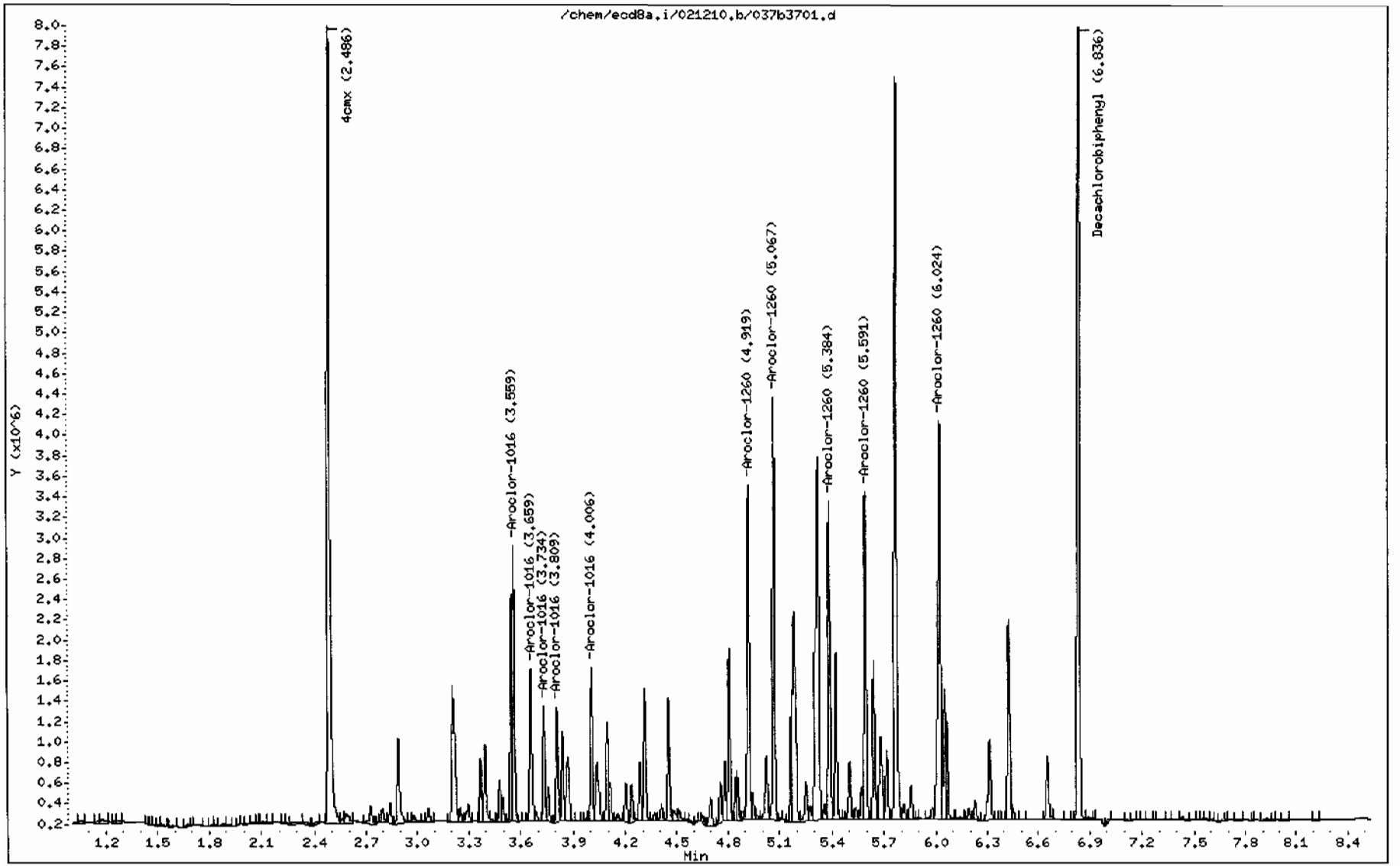

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/037f3701.d
Lab Smp Id: 1202040226 Client Smp ID: WST15-10-11621MSD
Inj Date : 12-FEB-2010 14:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040226|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	14945127	113.732	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12312625	123.149	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.811	0.002	2629777	563.770	20.1	80.00- 120.00	100.00
3.164	3.163	0.001	3389389	587.458	20.9	110.21- 150.21	128.89
3.307	3.306	0.001	1250969	509.726	18.2	32.76- 72.76	47.57
3.399	3.399	0.000	1315163	598.296	21.3	26.33- 66.33	50.01
3.562	3.561	0.001	1458448	464.155	16.5	47.15- 87.15	55.46

Average of Peak Concentrations = 19.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.435	-0.001	4029047	597.873	21.3	80.00- 120.00	100.00
4.630	4.631	-0.001	6356744	619.578	22.1	131.14- 171.14	157.77
4.906	4.906	0.000	3997986	652.216	23.2	71.88- 111.88	99.23
5.079	5.078	0.001	4228363	662.144	23.6	78.48- 118.48	104.95
5.489	5.490	-0.001	4730617	689.619	24.6	91.90- 131.90	117.41
			Average of Peak Concentrations =		23.0		

Data File: /chem/ecd8a.i/021210.b/037f3701.d
Date : 12-FEB-2010 14:14
Client ID: WST15-10-11621MSD
Sample Info: |1202040226|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

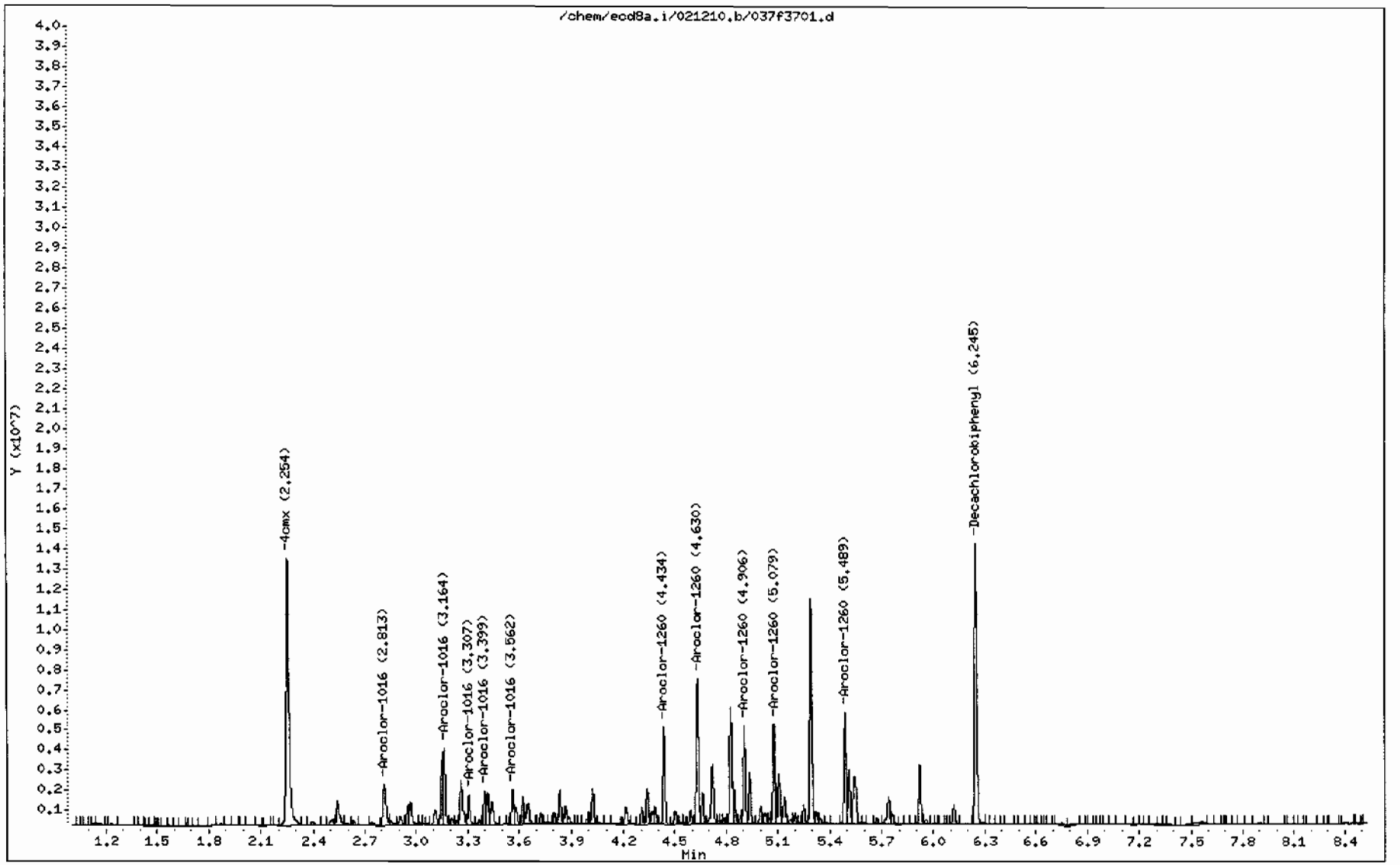

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 951941 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202040223 MB	11-FEB-2010 22:01:00	30	H2SO4/KMn2		2	9	1	0.03333
1202040224 LCS	11-FEB-2010 22:01:00	30	H2SO4/KMn2		2	9	1	0.03333
246055005	11-FEB-2010 22:01:00	30.18	H2SO4/KMn2		2	9	1	0.03313
246066001	11-FEB-2010 22:01:00	30.02	H2SO4/KMn2		2	9	1	0.03331
246066002	11-FEB-2010 22:01:00	30.11	H2SO4/KMn2		2	9	1	0.03321
246066003	11-FEB-2010 22:01:00	30.06	H2SO4/KMn2		2	9	1	0.03327
246066004	11-FEB-2010 22:01:00	30.04	H2SO4/KMn2		2	9	1	0.03329
246066005	11-FEB-2010 22:01:00	30.12	H2SO4/KMn2		2	9	1	0.0332
246066006	11-FEB-2010 22:01:00	30.14	H2SO4/KMn2		2	9	1	0.03318
246318001	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246318002	11-FEB-2010 22:01:00	30.06	H2SO4/KMn2		2	9	1	0.03327
246318003	11-FEB-2010 22:01:00	30.07	H2SO4/KMn2		2	9	1	0.03326
246330008	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246330009	11-FEB-2010 22:01:00	30.13	H2SO4/KMn2		2	9	1	0.03319
246463002	11-FEB-2010 22:01:00	30.06	H2SO4/KMn2		2	9	1	0.03327
246463003	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246463004	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246463005	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246477002	11-FEB-2010 22:01:00	30.02	H2SO4/KMn2		2	9	1	0.03331
246575003	11-FEB-2010 22:01:00	30.01	H2SO4/KMn2		2	9	1	0.03332
1202040225 MS (246575003)	11-FEB-2010 22:01:00	30.07	H2SO4/KMn2		2	9	1	0.03326
1202040226 MSD (246575003)	11-FEB-2010 22:01:00	30.03	H2SO4/KMn2		2	9	1	0.0333
246575004	11-FEB-2010 22:01:00	30.12	H2SO4/KMn2		2	9	1	0.0332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202040224	PCB Laboratory Control	WE100126-07	1	mL
MS	1202040225	PCB Laboratory Control	WE100126-07	1	mL
MSD	1202040226	PCB Laboratory Control	WE100126-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100127-15	1	mL
REGNT	All	Acetone	100211-B1	150	mL
REGNT	All	Hexane	100211-B2	150	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/11/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1545

Sample Analysis

Sample ID	Client ID
246055001	RE15-10-8170
246055002	RE15-10-8169
246055003	RE15-10-8171
246055004	RE15-10-8168
246055005	RE15-10-8222
246055006	RE15-10-8221
246055007	RE15-10-8220
246055008	RE15-10-8223
246055009	RE15-10-8224
1202033898	Method Blank (MB) **ICP**
1202033903	Laboratory Control Sample (LCS)
1202033900	246055001(RE15-10-8170L) Serial Dilution (SD)
1202033899	246055001(RE15-10-8170D) Sample Duplicate (DUP)
1202033901	246055001(RE15-10-8170S) Matrix Spike (MS)
1202033902	246055001(RE15-10-8170SD) Matrix Spike Duplicate (MSD)
1202033908	Method Blank (MB) **ICP-MS**
1202033913	Laboratory Control Sample (LCS)
1202033910	246055001(RE15-10-8170L) Serial Dilution (SD)
1202033909	246055001(RE15-10-8170D) Sample Duplicate (DUP)
1202033911	246055001(RE15-10-8170S) Matrix Spike (MS)

1202033912	246055001(RE15-10-8170SD) Matrix Spike Duplicate (MSD)
1202039278	Method Blank (MB) **CVAA**
1202039279	Laboratory Control Sample (LCS)
1202039282	246055001(RE15-10-8170L) Serial Dilution (SD)
1202039280	246055001(RE15-10-8170D) Sample Duplicate (DUP)
1202039281	246055001(RE15-10-8170S) Matrix Spike (MS)
1202039283	246055001(RE15-10-8170SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	949334, 949336 and 951546
Prep Batch :	949333, 949335 and 951544
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-

7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verification (CCV) bracketing this SDG met the established acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 246055001 (RE15-10-8170).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of barium, calcium, magnesium, manganese, potassium and zinc, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, manganese, mercury and zinc, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exceptions of aluminum, antimony, iron, manganese, zinc and mercury, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of aluminum, antimony, barium, calcium, chromium, lead, magnesium, manganese, potassium, silver and vanadium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS. The samples 246055001 (RE15-10-8170) and 246055009 (RE15-10-8224) required dilutions for lead in order to bring over range concentrations within the linear calibration range of the instrument. Dilutions were required for 246055002 (RE15-10-8169) and 246055006 (RE15-10-8221) in order to minimize selenium suppression due to matrix interferences.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 794041 and 797668. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/2/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055001 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8170 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 82

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3200000	ug/kg	*	8090	23800	23800	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-36-0	Antimony	243000	ug/kg	*	393	1190	1190	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-38-2	Arsenic	3630	ug/kg		234	1170	1170	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-39-3	Barium	49500	ug/kg	*N	119	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-41-7	Beryllium	470	ug/kg		23.4	117	117	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-43-9	Cadmium	313	ug/kg	J	119	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-70-2	Calcium	1550000	ug/kg	*N	9520	29700	29700	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-47-3	Chromium	6340	ug/kg	*	178	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-48-4	Cobalt	2210	ug/kg		178	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-50-8	Copper	9110	ug/kg		357	1190	1190	1	P	HSC	02/25/10 00:01	022410-1	949334
7439-89-6	Iron	10500000	ug/kg	*	9520	29700	29700	1	P	HSC	02/25/10 00:01	022410-1	949334
7439-92-1	Lead	63700000	ug/kg	*	14900	59500	59500	50	P	HSC	03/01/10 20:10	030110A-2	949334
7439-95-4	Magnesium	749000	ug/kg	*N	10100	35700	35700	1	P	HSC	02/25/10 00:01	022410-1	949334
7439-96-5	Manganese	177000	ug/kg	*N	238	1190	1190	1	P	HSC	02/25/10 00:01	022410-1	949334
7439-97-6	Mercury	14.3	ug/kg	*N	4.14	12.2	12.2	1	AV	JXL1	02/22/10 10:24	022210S1-4	951546
7440-02-0	Nickel	5230	ug/kg		117	468	468	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-09-7	Potassium	726000	ug/kg	*N	7610	29700	29700	1	P	HSC	02/25/10 00:01	022410-1	949334
7782-49-2	Selenium	1170	ug/kg	U	586	1170	1170	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-22-4	Silver	743	ug/kg	*	119	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-23-5	Sodium	116000	ug/kg		8330	29700	29700	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-28-0	Thallium	107	ug/kg	J	70.3	234	234	2	MS	RMJ	02/26/10 01:23	100225-3	949336
7440-62-2	Vanadium	9990	ug/kg	*	119	595	595	1	P	HSC	02/25/10 00:01	022410-1	949334
7440-66-6	Zinc	206000	ug/kg	*N	393	1190	1190	1	P	HSC	02/25/10 00:01	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.51	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.518	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.598	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055002 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8169 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 85

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	13900000	ug/kg	*	6910	20300	20300	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-36-0	Antimony	1760	ug/kg	*	335	1020	1020	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-38-2	Arsenic	3280	ug/kg		211	1050	1050	2	MS	RMJ	02/26/10 01:44	100225-3	949336
7440-39-3	Barium	173000	ug/kg	*N	102	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-41-7	Beryllium	1560	ug/kg		21.1	105	105	2	MS	RMJ	02/26/10 01:44	100225-3	949336
7440-43-9	Cadmium	226	ug/kg	J	102	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-70-2	Calcium	2480000	ug/kg	*N	8130	25400	25400	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-47-3	Chromium	17400	ug/kg	*	152	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-48-4	Cobalt	5160	ug/kg		152	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-50-8	Copper	8100	ug/kg		305	1020	1020	1	P	HSC	02/25/10 00:51	022410-1	949334
7439-89-6	Iron	12500000	ug/kg	*	8130	25400	25400	1	P	HSC	02/25/10 00:51	022410-1	949334
7439-92-1	Lead	180000	ug/kg	*	254	1020	1020	1	P	HSC	03/01/10 20:58	030110A-2	949334
7439-95-4	Magnesium	1890000	ug/kg	*N	8640	30500	30500	1	P	HSC	02/25/10 00:51	022410-1	949334
7439-96-5	Manganese	282000	ug/kg	*N	203	1020	1020	1	P	HSC	02/25/10 00:51	022410-1	949334
7439-97-6	Mercury	18.8	ug/kg	*N	4.38	12.9	12.9	1	AV	JXL1	02/22/10 10:35	022210S1-4	951546
7440-02-0	Nickel	11500	ug/kg		105	421	421	2	MS	RMJ	02/26/10 01:44	100225-3	949336
7440-09-7	Potassium	1690000	ug/kg	*N	6510	25400	25400	1	P	HSC	02/25/10 00:51	022410-1	949334
7782-49-2	Selenium	2110	ug/kg	U	1050	2110	2110	4	MS	RMJ	02/26/10 02:28	100225-3	949336
7440-22-4	Silver	508	ug/kg	U*	102	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-23-5	Sodium	71900	ug/kg		7110	25400	25400	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-28-0	Thallium	278	ug/kg		63.2	211	211	2	MS	RMJ	02/26/10 01:44	100225-3	949336
7440-62-2	Vanadium	26600	ug/kg	*	102	508	508	1	P	HSC	02/25/10 00:51	022410-1	949334
7440-66-6	Zinc	24500	ug/kg	*N	335	1020	1020	1	P	HSC	02/25/10 00:51	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.578	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.558	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.547	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055003 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8171 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 88

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	15100000	ug/kg	*	7000	20600	20600	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-36-0	Antimony	414	ug/kg	J*	340	1030	1030	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-38-2	Arsenic	2720	ug/kg		211	1050	1050	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-39-3	Barium	180000	ug/kg	*N	103	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-41-7	Beryllium	1130	ug/kg		21.1	105	105	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-43-9	Cadmium	159	ug/kg	J	103	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-70-2	Calcium	2240000	ug/kg	*N	8230	25700	25700	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-47-3	Chromium	15500	ug/kg	*	154	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-48-4	Cobalt	6750	ug/kg		154	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-50-8	Copper	8990	ug/kg		309	1030	1030	1	P	HSC	02/25/10 00:58	022410-1	949334
7439-89-6	Iron	14700000	ug/kg	*	8230	25700	25700	1	P	HSC	02/25/10 00:58	022410-1	949334
7439-92-1	Lead	90600	ug/kg	*	257	1030	1030	1	P	HSC	03/01/10 21:05	030110A-2	949334
7439-95-4	Magnesium	2400000	ug/kg	*N	8750	30900	30900	1	P	HSC	02/25/10 00:58	022410-1	949334
7439-96-5	Manganese	364000	ug/kg	*N	206	1030	1030	1	P	HSC	02/25/10 00:58	022410-1	949334
7439-97-6	Mercury	19.2	ug/kg	*N	4.39	12.9	12.9	1	AV	JXL1	02/22/10 10:37	022210S1-4	951546
7440-02-0	Nickel	9150	ug/kg		105	422	422	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-09-7	Potassium	2060000	ug/kg	*N	6590	25700	25700	1	P	HSC	02/25/10 00:58	022410-1	949334
7782-49-2	Selenium	1050	ug/kg	U	527	1050	1050	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-22-4	Silver	515	ug/kg	U*	103	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-23-5	Sodium	1030000	ug/kg		7200	25700	25700	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-28-0	Thallium	223	ug/kg		63.2	211	211	2	MS	RMJ	02/26/10 01:48	100225-3	949336
7440-62-2	Vanadium	30900	ug/kg	*	103	515	515	1	P	HSC	02/25/10 00:58	022410-1	949334
7440-66-6	Zinc	37200	ug/kg	*N	340	1030	1030	1	P	HSC	02/25/10 00:58	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.552	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.539	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.528	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055004 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8168 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 79

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	4640000	ug/kg	*	7860	23100	23100	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-36-0	Antimony	1160	ug/kg	U*	381	1160	1160	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-38-2	Arsenic	1270	ug/kg		245	1230	1230	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-39-3	Barium	83300	ug/kg	*N	116	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-41-7	Beryllium	423	ug/kg		24.5	123	123	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-43-9	Cadmium	122	ug/kg	J	116	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-70-2	Calcium	3110000	ug/kg	*N	9240	28900	28900	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-47-3	Chromium	12800	ug/kg	*	173	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-48-4	Cobalt	3140	ug/kg		173	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-50-8	Copper	6580	ug/kg		347	1160	1160	1	P	HSC	02/25/10 01:05	022410-1	949334
7439-89-6	Iron	8740000	ug/kg	*	9240	28900	28900	1	P	HSC	02/25/10 01:05	022410-1	949334
7439-92-1	Lead	45900	ug/kg	*	289	1160	1160	1	P	HSC	03/01/10 21:12	030110A-2	949334
7439-95-4	Magnesium	1240000	ug/kg	*N	9820	34700	34700	1	P	HSC	02/25/10 01:05	022410-1	949334
7439-96-5	Manganese	242000	ug/kg	*N	231	1160	1160	1	P	HSC	02/25/10 01:05	022410-1	949334
7439-97-6	Mercury	14.4	ug/kg	U*N	4.91	14.4	14.4	1	AV	JXL1	02/22/10 10:39	022210S1-4	951546
7440-02-0	Nickel	4940	ug/kg		123	491	491	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-09-7	Potassium	1090000	ug/kg	*N	7390	28900	28900	1	P	HSC	02/25/10 01:05	022410-1	949334
7782-49-2	Selenium	1230	ug/kg	U	614	1230	1230	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-22-4	Silver	578	ug/kg	U*	116	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-23-5	Sodium	83000	ug/kg		8090	28900	28900	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-28-0	Thallium	84.2	ug/kg	J	73.6	245	245	2	MS	RMJ	02/26/10 02:00	100225-3	949336
7440-62-2	Vanadium	18800	ug/kg	*	116	578	578	1	P	HSC	02/25/10 01:05	022410-1	949334
7440-66-6	Zinc	23500	ug/kg	*N	381	1160	1160	1	P	HSC	02/25/10 01:05	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.545	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.513	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.523	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055005 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8222 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 74

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	12900000	ug/kg	*	8670	25500	25500	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-36-0	Antimony	1280	ug/kg	U*	421	1280	1280	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-38-2	Arsenic	5360	ug/kg		264	1320	1320	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-39-3	Barium	168000	ug/kg	*N	128	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-41-7	Beryllium	998	ug/kg		26.4	132	132	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-43-9	Cadmium	140	ug/kg	J	128	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-70-2	Calcium	2350000	ug/kg	*N	10200	31900	31900	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-47-3	Chromium	11900	ug/kg	*	191	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-48-4	Cobalt	5810	ug/kg		191	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-50-8	Copper	8950	ug/kg		383	1280	1280	1	P	HSC	02/25/10 01:12	022410-1	949334
7439-89-6	Iron	13700000	ug/kg	*	10200	31900	31900	1	P	HSC	02/25/10 01:12	022410-1	949334
7439-92-1	Lead	72900	ug/kg	*	319	1280	1280	1	P	HSC	03/01/10 21:19	030110A-2	949334
7439-95-4	Magnesium	2180000	ug/kg	*N	10800	38300	38300	1	P	HSC	02/25/10 01:12	022410-1	949334
7439-96-5	Manganese	332000	ug/kg	*N	255	1280	1280	1	P	HSC	02/25/10 01:12	022410-1	949334
7439-97-6	Mercury	15.7	ug/kg	*N	4.66	13.7	13.7	1	AV	JXL1	02/22/10 10:40	022210S1-4	951546
7440-02-0	Nickel	9020	ug/kg		132	528	528	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-09-7	Potassium	2080000	ug/kg	*N	8160	31900	31900	1	P	HSC	02/25/10 01:12	022410-1	949334
7782-49-2	Selenium	1320	ug/kg	U	660	1320	1320	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-22-4	Silver	638	ug/kg	U*	128	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-23-5	Sodium	106000	ug/kg		8930	31900	31900	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-28-0	Thallium	200	ug/kg	J	79.2	264	264	2	MS	RMJ	02/26/10 02:04	100225-3	949336
7440-62-2	Vanadium	29000	ug/kg	*	128	638	638	1	P	HSC	02/25/10 01:12	022410-1	949334
7440-66-6	Zinc	30800	ug/kg	*N	421	1280	1280	1	P	HSC	02/25/10 01:12	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.528	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.51	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.59	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055006 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8221 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 87

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	16900000	ug/kg	*	7210	21200	21200	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-36-0	Antimony	1060	ug/kg	U*	350	1060	1060	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-38-2	Arsenic	2830	ug/kg		221	1110	1110	2	MS	RMJ	02/26/10 02:08	100225-3	949336
7440-39-3	Barium	190000	ug/kg	*N	106	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-41-7	Beryllium	1590	ug/kg		22.1	111	111	2	MS	RMJ	02/26/10 02:08	100225-3	949336
7440-43-9	Cadmium	214	ug/kg	J	106	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-70-2	Calcium	2650000	ug/kg	*N	8480	26500	26500	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-47-3	Chromium	14800	ug/kg	*	159	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-48-4	Cobalt	5660	ug/kg		159	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-50-8	Copper	8100	ug/kg		318	1060	1060	1	P	HSC	02/25/10 01:19	022410-1	949334
7439-89-6	Iron	13600000	ug/kg	*	8480	26500	26500	1	P	HSC	02/25/10 01:19	022410-1	949334
7439-92-1	Lead	45700	ug/kg	*	265	1060	1060	1	P	HSC	03/01/10 21:26	030110A-2	949334
7439-95-4	Magnesium	2370000	ug/kg	*N	9010	31800	31800	1	P	HSC	02/25/10 01:19	022410-1	949334
7439-96-5	Manganese	290000	ug/kg	*N	212	1060	1060	1	P	HSC	02/25/10 01:19	022410-1	949334
7439-97-6	Mercury	19.1	ug/kg	*N	4.47	13.2	13.2	1	AV	JXL1	02/22/10 10:42	022210S1-4	951546
7440-02-0	Nickel	11500	ug/kg		111	443	443	2	MS	RMJ	02/26/10 02:08	100225-3	949336
7440-09-7	Potassium	2210000	ug/kg	*N	6790	26500	26500	1	P	HSC	02/25/10 01:19	022410-1	949334
7782-49-2	Selenium	2210	ug/kg	U	1110	2210	2210	4	MS	RMJ	02/26/10 02:32	100225-3	949336
7440-22-4	Silver	530	ug/kg	U*	106	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-23-5	Sodium	97100	ug/kg		7420	26500	26500	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-28-0	Thallium	273	ug/kg		66.4	221	221	2	MS	RMJ	02/26/10 02:08	100225-3	949336
7440-62-2	Vanadium	30000	ug/kg	*	106	530	530	1	P	HSC	02/25/10 01:19	022410-1	949334
7440-66-6	Zinc	27400	ug/kg	*N	350	1060	1060	1	P	HSC	02/25/10 01:19	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.541	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.518	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.523	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055007 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8220 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 91.3

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	10200000	ug/kg	*	7000	20600	20600	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-36-0	Antimony	1030	ug/kg	U*	340	1030	1030	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-38-2	Arsenic	2100	ug/kg		201	1000	1000	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-39-3	Barium	123000	ug/kg	*N	103	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-41-7	Beryllium	888	ug/kg		20.1	100	100	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-43-9	Cadmium	118	ug/kg	J	103	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-70-2	Calcium	1600000	ug/kg	*N	8240	25700	25700	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-47-3	Chromium	14500	ug/kg	*	154	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-48-4	Cobalt	3710	ug/kg		154	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-50-8	Copper	5820	ug/kg		309	1030	1030	1	P	HSC	02/25/10 01:27	022410-1	949334
7439-89-6	Iron	11600000	ug/kg	*	8240	25700	25700	1	P	HSC	02/25/10 01:27	022410-1	949334
7439-92-1	Lead	41200	ug/kg	*	257	1030	1030	1	P	HSC	03/01/10 21:33	030110A-2	949334
7439-95-4	Magnesium	1610000	ug/kg	*N	8750	30900	30900	1	P	HSC	02/25/10 01:27	022410-1	949334
7439-96-5	Manganese	292000	ug/kg	*N	206	1030	1030	1	P	HSC	02/25/10 01:27	022410-1	949334
7439-97-6	Mercury	12	ug/kg	J*N	4.15	12.2	12.2	1	AV	JX1.1	02/22/10 10:44	022210S1-4	951546
7440-02-0	Nickel	7790	ug/kg		100	402	402	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-09-7	Potassium	1210000	ug/kg	*N	6590	25700	25700	1	P	HSC	02/25/10 01:27	022410-1	949334
7782-49-2	Selenium	1000	ug/kg	U	502	1000	1000	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-22-4	Silver	515	ug/kg	U*	103	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-23-5	Sodium	102000	ug/kg		7210	25700	25700	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-28-0	Thallium	166	ug/kg	J	60.3	201	201	2	MS	RMJ	02/26/10 02:12	100225-3	949336
7440-62-2	Vanadium	19800	ug/kg	*	103	515	515	1	P	HSC	02/25/10 01:27	022410-1	949334
7440-66-6	Zinc	34800	ug/kg	*N	340	1030	1030	1	P	HSC	02/25/10 01:27	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.532	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.545	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.539	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055008 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8223 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 81

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	7670000	ug/kg	*	8120	23900	23900	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-36-0	Antimony	1190	ug/kg	U*	394	1190	1190	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-38-2	Arsenic	1900	ug/kg		243	1210	1210	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-39-3	Barium	128000	ug/kg	*N	119	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-41-7	Beryllium	754	ug/kg		24.3	121	121	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-43-9	Cadmium	191	ug/kg	J	119	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-70-2	Calcium	2810000	ug/kg	*N	9550	29900	29900	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-47-3	Chromium	9860	ug/kg	*	179	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-48-4	Cobalt	4110	ug/kg		179	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-50-8	Copper	8380	ug/kg		358	1190	1190	1	P	HSC	02/25/10 01:34	022410-1	949334
7439-89-6	Iron	10700000	ug/kg	*	9550	29900	29900	1	P	HSC	02/25/10 01:34	022410-1	949334
7439-92-1	Lead	48200	ug/kg	*	299	1190	1190	1	P	HSC	03/01/10 21:40	030110A-2	949334
7439-95-4	Magnesium	1570000	ug/kg	*N	10200	35800	35800	1	P	HSC	02/25/10 01:34	022410-1	949334
7439-96-5	Manganese	293000	ug/kg	*N	239	1190	1190	1	P	HSC	02/25/10 01:34	022410-1	949334
7439-97-6	Mercury	9.51	ug/kg	J*N	4.49	13.2	13.2	1	AV	JXL1	02/22/10 10:45	022210S1-4	951546
7440-02-0	Nickel	7060	ug/kg		121	485	485	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-09-7	Potassium	1710000	ug/kg	*N	7640	29900	29900	1	P	HSC	02/25/10 01:34	022410-1	949334
7782-49-2	Selenium	1210	ug/kg	U	607	1210	1210	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-22-4	Silver	164	ug/kg	J*	119	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-23-5	Sodium	55100	ug/kg		8360	29900	29900	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-28-0	Thallium	150	ug/kg	J	72.8	243	243	2	MS	RMJ	02/26/10 02:16	100225-3	949336
7440-62-2	Vanadium	21400	ug/kg	*	119	597	597	1	P	HSC	02/25/10 01:34	022410-1	949334
7440-66-6	Zinc	30300	ug/kg	*N	394	1190	1190	1	P	HSC	02/25/10 01:34	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.52	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.512	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.564	g	30	mL	02/19/10	TXB3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246055009 **BASIS:** Dry Weight **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8224 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: SOIL **%SOLIDS:** 84

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3060000	ug/kg	*	7930	23300	23300	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-36-0	Antimony	176000	ug/kg	*	385	1170	1170	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-38-2	Arsenic	4000	ug/kg		230	1150	1150	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-39-3	Barium	52900	ug/kg	*N	117	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-41-7	Beryllium	460	ug/kg		23	115	115	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-43-9	Cadmium	273	ug/kg	J	117	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-70-2	Calcium	1430000	ug/kg	*N	9330	29200	29200	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-47-3	Chromium	5950	ug/kg	*	175	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-48-4	Cobalt	1910	ug/kg		175	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-50-8	Copper	7440	ug/kg		350	1170	1170	1	P	HSC	02/25/10 01:41	022410-1	949334
7439-89-6	Iron	7910000	ug/kg	*	9330	29200	29200	1	P	HSC	02/25/10 01:41	022410-1	949334
7439-92-1	Lead	66500000	ug/kg	*	29200	117000	117000	100	P	HSC	03/01/10 21:47	030110A-2	949334
7439-95-4	Magnesium	660000	ug/kg	*N	9910	35000	35000	1	P	HSC	02/25/10 01:41	022410-1	949334
7439-96-5	Manganese	200000	ug/kg	*N	233	1170	1170	1	P	HSC	02/25/10 01:41	022410-1	949334
7439-97-6	Mercury	18.2	ug/kg	*N	4.24	12.5	12.5	1	AV	JXL1	02/22/10 10:50	022210S1-4	951546
7440-02-0	Nickel	4590	ug/kg		115	459	459	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-09-7	Potassium	717000	ug/kg	*N	7460	29200	29200	1	P	HSC	02/25/10 01:41	022410-1	949334
7782-49-2	Selenium	1150	ug/kg	U	574	1150	1150	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-22-4	Silver	411	ug/kg	J*	117	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-23-5	Sodium	135000	ug/kg		8160	29200	29200	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-28-0	Thallium	112	ug/kg	J	68.9	230	230	2	MS	RMJ	02/26/10 02:20	100225-3	949336
7440-62-2	Vanadium	10100	ug/kg	*	117	583	583	1	P	HSC	02/25/10 01:41	022410-1	949334
7440-66-6	Zinc	194000	ug/kg	*N	385	1170	1170	1	P	HSC	02/25/10 01:41	022410-1	949334

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949334	949333	SW846 3050B	0.51	g	50	mL	02/16/10	AXG2
949336	949335	SW846 3050B	0.518	g	50	mL	02/16/10	AXG2
951546	951544	SW846 7471A Prep	0.572	g	30	mL	02/19/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.15	ug/L	5	ug/L	103	90.0 – 110.0	AV	22–FEB–10 09:22	022210S1–4
	Aluminum	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Barium	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Calcium	5250	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Chromium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Copper	524	ug/L	500	ug/L	104.7	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Iron	5310	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Manganese	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Potassium	2540	ug/L	2500	ug/L	101.7	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Silver	253	ug/L	250	ug/L	101.3	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Sodium	2600	ug/L	2500	ug/L	103.8	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Vanadium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	24–FEB–10 13:14	022410–1
	Arsenic	47.7	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	26–FEB–10 00:39	100225–3
	Beryllium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	26–FEB–10 00:39	100225–3
	Nickel	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	26–FEB–10 00:39	100225–3
	Selenium	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	26–FEB–10 00:39	100225–3
	Thallium	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	26–FEB–10 00:39	100225–3
	Lead	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	01–MAR–10 12:04	030110A–2
CCV01										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	22–FEB–10 09:27	022210S1–4
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Antimony	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Cadmium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24–FEB–10 14:02	022410–1
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	24–FEB–10 14:02	022410–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Cobalt	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Copper	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Iron	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Magnesium	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Potassium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Silver	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Zinc	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	24-FEB-10 14:02	022410-1
	Arsenic	46.9	ug/L	50	ug/L	93.9	90.0 – 110.0	MS	26-FEB-10 00:59	100225-3
	Beryllium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	26-FEB-10 00:59	100225-3
	Nickel	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	26-FEB-10 00:59	100225-3
	Selenium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	26-FEB-10 00:59	100225-3
	Thallium	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	26-FEB-10 00:59	100225-3
	Lead	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	01-MAR-10 12:51	030110A-2
CCV02										
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	22-FEB-10 09:47	022210S1-4
	Aluminum	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Antimony	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Barium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Cadmium	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Calcium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Chromium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Copper	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 14:39	022410-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Silver	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Sodium	10300	ug/L	10000	ug/L	103	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Zinc	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24-FEB-10 14:39	022410-1
	Arsenic	46.2	ug/L	50	ug/L	92.5	90.0 – 110.0	MS	26-FEB-10 01:15	100225-3
	Beryllium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	26-FEB-10 01:15	100225-3
	Nickel	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	26-FEB-10 01:15	100225-3
	Selenium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	26-FEB-10 01:15	100225-3
	Thallium	48.5	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	26-FEB-10 01:15	100225-3
	Lead	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	01-MAR-10 13:12	030110A-2
CCV03										
	Mercury	5.04	ug/L	5	ug/L	100.8	80.0 – 120.0	AV	22-FEB-10 10:07	022210S1-4
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Antimony	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Cadmium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Calcium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Chromium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Copper	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Silver	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Vanadium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	24-FEB-10 16:03	022410-1
	Arsenic	47	ug/L	50	ug/L	94	90.0 – 110.0	MS	26-FEB-10 01:52	100225-3

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	49.2	ug/L	50	ug/L	98.4	90.0 - 110.0	MS	26-FEB-10 01:52	100225-3
	Nickel	51.5	ug/L	50	ug/L	102.9	90.0 - 110.0	MS	26-FEB-10 01:52	100225-3
	Selenium	47.6	ug/L	50	ug/L	95.2	90.0 - 110.0	MS	26-FEB-10 01:52	100225-3
	Thallium	48.4	ug/L	50	ug/L	96.9	90.0 - 110.0	MS	26-FEB-10 01:52	100225-3
	Lead	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	01-MAR-10 14:20	030110A-2
CCV04										
	Mercury	5.11	ug/L	5	ug/L	102.3	80.0 - 120.0	AV	22-FEB-10 10:27	022210S1-4
	Aluminum	5080	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Antimony	502	ug/L	500	ug/L	100.3	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Barium	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Cadmium	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Calcium	5220	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Chromium	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Cobalt	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Iron	5080	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Potassium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Silver	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Sodium	10500	ug/L	10000	ug/L	104.6	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Vanadium	494	ug/L	500	ug/L	98.9	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	24-FEB-10 16:32	022410-1
	Arsenic	47.7	ug/L	50	ug/L	95.4	90.0 - 110.0	MS	26-FEB-10 02:36	100225-3
	Beryllium	49.2	ug/L	50	ug/L	98.5	90.0 - 110.0	MS	26-FEB-10 02:36	100225-3
	Nickel	52.1	ug/L	50	ug/L	104.1	90.0 - 110.0	MS	26-FEB-10 02:36	100225-3
	Selenium	48.1	ug/L	50	ug/L	96.2	90.0 - 110.0	MS	26-FEB-10 02:36	100225-3
	Thallium	49.4	ug/L	50	ug/L	98.7	90.0 - 110.0	MS	26-FEB-10 02:36	100225-3
	Lead	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	01-MAR-10 15:27	030110A-2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	5.2	ug/L	5	ug/L	103.9	80.0 - 120.0	AV	22-FEB-10 10:47	022210S1-4
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Antimony	495	ug/L	500	ug/L	98.9	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Barium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Cadmium	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Calcium	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Chromium	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Cobalt	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Copper	476	ug/L	500	ug/L	95.3	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Iron	4890	ug/L	5000	ug/L	97.7	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Magnesium	4960	ug/L	5000	ug/L	99.3	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Manganese	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Silver	483	ug/L	500	ug/L	96.6	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Vanadium	485	ug/L	500	ug/L	97	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Zinc	480	ug/L	500	ug/L	96	90.0 - 110.0	P	24-FEB-10 16:52	022410-1
	Arsenic	46.8	ug/L	50	ug/L	93.6	90.0 - 110.0	MS	26-FEB-10 02:48	100225-3
	Beryllium	49.2	ug/L	50	ug/L	98.3	90.0 - 110.0	MS	26-FEB-10 02:48	100225-3
	Nickel	51.9	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	26-FEB-10 02:48	100225-3
	Selenium	48.5	ug/L	50	ug/L	97	90.0 - 110.0	MS	26-FEB-10 02:48	100225-3
	Thallium	48.4	ug/L	50	ug/L	96.8	90.0 - 110.0	MS	26-FEB-10 02:48	100225-3
	Lead	515	ug/L	500	ug/L	103	90.0 - 110.0	P	01-MAR-10 16:37	030110A-2
CCV06										
	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 - 120.0	AV	22-FEB-10 11:07	022210S1-4
	Aluminum	4930	ug/L	5000	ug/L	98.5	90.0 - 110.0	P	24-FEB-10 18:15	022410-1
	Antimony	517	ug/L	500	ug/L	103.5	90.0 - 110.0	P	24-FEB-10 18:15	022410-1
	Barium	510	ug/L	500	ug/L	102	90.0 - 110.0	P	24-FEB-10 18:15	022410-1
	Cadmium	514	ug/L	500	ug/L	102.8	90.0 - 110.0	P	24-FEB-10 18:15	022410-1
	Calcium	5080	ug/L	5000	ug/L	101.5	90.0 - 110.0	P	24-FEB-10 18:15	022410-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Cobalt	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Iron	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Manganese	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Silver	505	ug/L	500	ug/L	101	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Sodium	10200	ug/L	10000	ug/L	102	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Zinc	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	24–FEB–10 18:15	022410–1
	Lead	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	01–MAR–10 17:48	030110A–2
CCV07										
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Antimony	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Barium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Cadmium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Calcium	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Iron	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Magnesium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Potassium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Silver	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Sodium	9990	ug/L	10000	ug/L	99.9	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Vanadium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Zinc	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24–FEB–10 19:39	022410–1
	Lead	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	01–MAR–10 18:22	030110A–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV08										
	Aluminum	5050	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Antimony	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Cadmium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Calcium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Chromium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Iron	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Silver	490	ug/L	500	ug/L	98	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Sodium	9520	ug/L	10000	ug/L	95.2	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Vanadium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Zinc	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	24–FEB–10 21:01	022410–1
	Lead	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	01–MAR–10 19:43	030110A–2
CCV09										
	Aluminum	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Barium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Cadmium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Calcium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Chromium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Copper	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Iron	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Magnesium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Manganese	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Potassium	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	24–FEB–10 22:16	022410–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silver	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Sodium	10600	ug/L	10000	ug/L	105.7	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Vanadium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24–FEB–10 22:16	022410–1
	Lead	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	01–MAR–10 20:44	030110A–2
CCV10										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Antimony	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Cadmium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Chromium	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Cobalt	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Copper	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Iron	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Magnesium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Manganese	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Potassium	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Silver	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Sodium	9890	ug/L	10000	ug/L	98.9	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Vanadium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Zinc	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	24–FEB–10 23:34	022410–1
	Lead	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	01–MAR–10 21:54	030110A–2
CCV11										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	25–FEB–10 00:37	022410–1
	Antimony	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	25–FEB–10 00:37	022410–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25–FEB–10 00:37	022410–1
	Cadmium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	25–FEB–10 00:37	022410–1
	Calcium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	25–FEB–10 00:37	022410–1
	Chromium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	25–FEB–10 00:37	022410–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Iron	4720	ug/L	5000	ug/L	94.4	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Manganese	500	ug/L	500	ug/L	100	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Potassium	5050	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Silver	500	ug/L	500	ug/L	100	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Sodium	10100	ug/L	10000	ug/L	101.4	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	25-FEB-10 00:37	022410-1
CCV12										
	Aluminum	5370	ug/L	5000	ug/L	107.3	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Antimony	523	ug/L	500	ug/L	104.6	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Barium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Cadmium	510	ug/L	500	ug/L	102.1	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Calcium	5310	ug/L	5000	ug/L	106.3	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Chromium	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Cobalt	510	ug/L	500	ug/L	102	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Copper	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Magnesium	5230	ug/L	5000	ug/L	104.5	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Manganese	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Potassium	5380	ug/L	5000	ug/L	107.6	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Silver	508	ug/L	500	ug/L	101.7	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Sodium	10400	ug/L	10000	ug/L	103.9	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Vanadium	511	ug/L	500	ug/L	102.3	90.0 - 110.0	P	25-FEB-10 01:48	022410-1
	Zinc	504	ug/L	500	ug/L	100.8	90.0 - 110.0	P	25-FEB-10 01:48	022410-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-1545

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.151	ug/L	.2	ug/L	75.5	70.0 – 130.0	AV	22-FEB-10 09:25	022210S1-4
	Nickel	2.31	ug/L	2	ug/L	115.5	70.0 – 130.0	MS	26-FEB-10 00:47	100225-3
	Thallium	1.11	ug/L	1	ug/L	111.3	70.0 – 130.0	MS	26-FEB-10 00:47	100225-3
	Arsenic	5.72	ug/L	5	ug/L	114.5	70.0 – 130.0	MS	26-FEB-10 00:47	100225-3
	Selenium	6.04	ug/L	5	ug/L	120.8	70.0 – 130.0	MS	26-FEB-10 00:47	100225-3
	Beryllium	.615	ug/L	.5	ug/L	123	70.0 – 130.0	MS	26-FEB-10 00:47	100225-3
PQL01										
	Magnesium	253	ug/L	300	ug/L	84.5	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Manganese	10.4	ug/L	10	ug/L	104.3	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Potassium	162	ug/L	150	ug/L	107.9	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Silver	4.97	ug/L	5	ug/L	99.4	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Sodium	317	ug/L	300	ug/L	105.8	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Antimony	11.4	ug/L	10	ug/L	114.3	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Barium	5.11	ug/L	5	ug/L	102.3	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Iron	103	ug/L	100	ug/L	103.2	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Aluminum	204	ug/L	200	ug/L	102.1	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Cadmium	5.3	ug/L	5	ug/L	106	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Chromium	4.81	ug/L	5	ug/L	96.3	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Cobalt	5.02	ug/L	5	ug/L	100.4	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Copper	9.61	ug/L	10	ug/L	96.1	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Vanadium	5.28	ug/L	5	ug/L	105.6	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Zinc	9.96	ug/L	10	ug/L	99.6	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Calcium	209	ug/L	200	ug/L	104.4	70.0 – 130.0	P	24-FEB-10 13:28	022410-1
	Lead	10.8	ug/L	10	ug/L	107.7	70.0 – 130.0	P	01-MAR-10 12:18	030110A-2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 09:23	022210S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 13:21	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 13:21	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 13:21	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 13:21	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 13:21	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 13:21	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 13:21	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 13:21	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 00:43	100225–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–FEB–10 00:43	100225–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	26–FEB–10 00:43	100225–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 00:43	100225–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 00:43	100225–3
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 12:11	030110A–2
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 09:28	022210S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 14:09	022410–1
	Antimony	7.02	+/–10	J	3.3	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 14:09	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 14:09	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 14:09	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 14:09	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Potassium	110.64	+/–250	J	64.0	250	SOL	P	24–FEB–10 14:09	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 14:09	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:09	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 14:09	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 01:03	100225–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–FEB–10 01:03	100225–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	26–FEB–10 01:03	100225–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 01:03	100225–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 01:03	100225–3
	Lead	6.08	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 12:58	030110A–2
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 09:48	022210S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 14:46	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 14:46	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 14:46	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 14:46	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 14:46	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:46	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 14:46	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 14:46	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 14:46	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 01:19	100225–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–FEB–10 01:19	100225–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	26–FEB–10 01:19	100225–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 01:19	100225–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 01:19	100225–3
	Lead	2.54	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 13:19	030110A–2
CCB03										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 10:09	022210S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 16:10	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 16:10	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 16:10	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 16:10	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 16:10	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 16:10	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 16:10	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 16:10	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 01:56	100225–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–FEB–10 01:56	100225–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	26–FEB–10 01:56	100225–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 01:56	100225–3

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1545

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 01:56	100225-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-MAR-10 14:27	030110A-2
CCB04										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	22-FEB-10 10:29	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 16:39	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 16:39	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:39	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:39	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 16:39	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 16:39	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 16:39	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 16:39	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 16:39	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 16:39	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 16:39	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 16:39	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:39	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 16:39	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 16:39	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 16:39	022410-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	26-FEB-10 02:40	100225-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	26-FEB-10 02:40	100225-3
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	26-FEB-10 02:40	100225-3
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	26-FEB-10 02:40	100225-3
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	26-FEB-10 02:40	100225-3
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	01-MAR-10 15:34	030110A-2
CCB05										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	22-FEB-10 10:49	022210S1-4
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 17:00	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 17:00	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 17:00	022410-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 17:00	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 17:00	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 17:00	022410–1
	Magnesium	–136.6	+/–300	J	85.0	300	SOL	P	24–FEB–10 17:00	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 17:00	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 17:00	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 17:00	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 17:00	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 17:00	022410–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	26–FEB–10 02:52	100225–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	26–FEB–10 02:52	100225–3
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	26–FEB–10 02:52	100225–3
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	26–FEB–10 02:52	100225–3
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	26–FEB–10 02:52	100225–3
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 16:44	030110A–2
CCB06										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	22–FEB–10 11:09	022210S1–4
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 18:22	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 18:22	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 18:22	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 18:22	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 18:22	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 18:22	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545

Contract: LANL01004 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 18:22	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 18:22	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 18:22	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 18:22	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 18:22	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 17:55	030110A–2
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 19:46	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 19:46	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 19:46	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 19:46	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 19:46	022410–1
	Magnesium	–85.33	+/–300	J	85.0	300	SOL	P	24–FEB–10 19:46	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 19:46	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 19:46	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 19:46	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 19:46	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 19:46	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 18:29	030110A–2
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 21:08	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 21:08	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 21:08	022410–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 21:08	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 21:08	022410–1
	Magnesium	–134.18	+/–300	J	85.0	300	SOL	P	24–FEB–10 21:08	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 21:08	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 21:08	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 21:08	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 21:08	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 21:08	022410–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	01–MAR–10 19:50	030110A–2
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	24–FEB–10 22:23	022410–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 22:23	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 22:23	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	24–FEB–10 22:23	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	24–FEB–10 22:23	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	24–FEB–10 22:23	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	24–FEB–10 22:23	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	24–FEB–10 22:23	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	24–FEB–10 22:23	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	24–FEB–10 22:23	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	24–FEB–10 22:23	022410–1
	Lead	6.12	+/–10	J	2.5	10.0	SOL	P	01–MAR–10 20:51	030110A–2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1545

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	24-FEB-10 23:41	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 23:41	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 23:41	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 23:41	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 23:41	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 23:41	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	24-FEB-10 23:41	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	24-FEB-10 23:41	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	24-FEB-10 23:41	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	24-FEB-10 23:41	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	24-FEB-10 23:41	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	24-FEB-10 23:41	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 23:41	022410-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	24-FEB-10 23:41	022410-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	24-FEB-10 23:41	022410-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	24-FEB-10 23:41	022410-1
	Lead	4.72	+/-10	J	2.5	10.0	SOL	P	01-MAR-10 22:01	030110A-2
CCB11										
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	25-FEB-10 00:44	022410-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	25-FEB-10 00:44	022410-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 00:44	022410-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 00:44	022410-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 00:44	022410-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 00:44	022410-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	25-FEB-10 00:44	022410-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	25-FEB-10 00:44	022410-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	25-FEB-10 00:44	022410-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	25-FEB-10 00:44	022410-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	25-FEB-10 00:44	022410-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	25-FEB-10 00:44	022410-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	25-FEB-10 00:44	022410-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 00:44	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 00:44	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 00:44	022410–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	25–FEB–10 01:55	022410–1
	Antimony	3.34	+/–10	J	3.3	10.0	SOL	P	25–FEB–10 01:55	022410–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 01:55	022410–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	25–FEB–10 01:55	022410–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	25–FEB–10 01:55	022410–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	25–FEB–10 01:55	022410–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	25–FEB–10 01:55	022410–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	25–FEB–10 01:55	022410–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	25–FEB–10 01:55	022410–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	25–FEB–10 01:55	022410–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	25–FEB–10 01:55	022410–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1545

Contract: LANL01004

Matrix: SOIL

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202033898								
	Aluminum	5460	ug/kg	+/–16100	U	P	5460	16100
	Antimony	265	ug/kg	+/–803	U	P	265	803
	Barium	80.3	ug/kg	+/–401	U	P	80.3	401
	Cadmium	80.3	ug/kg	+/–401	U	P	80.3	401
	Calcium	6420	ug/kg	+/–20100	U	P	6420	20100
	Chromium	120	ug/kg	+/–401	U	P	120	401
	Cobalt	120	ug/kg	+/–401	U	P	120	401
	Copper	241	ug/kg	+/–803	U	P	241	803
	Iron	6420	ug/kg	+/–20100	U	P	6420	20100
	Lead	201	ug/kg	+/–803	U	P	201	803
	Magnesium	6820	ug/kg	+/–24100	U	P	6820	24100
	Manganese	161	ug/kg	+/–803	U	P	161	803
	Potassium	5140	ug/kg	+/–20100	U	P	5140	20100
	Silver	80.3	ug/kg	+/–401	U	P	80.3	401
	Sodium	5620	ug/kg	+/–20100	U	P	5620	20100
	Vanadium	80.3	ug/kg	+/–401	U	P	80.3	401
	Zinc	265	ug/kg	+/–803	U	P	265	803
1202033908								
	Arsenic	193	ug/kg	+/–965	U	MS	193	965
	Beryllium	19.3	ug/kg	+/–96.5	U	MS	19.3	96.5
	Nickel	96.5	ug/kg	+/–386	U	MS	96.5	386
	Selenium	483	ug/kg	+/–965	U	MS	483	965
	Thallium	57.9	ug/kg	+/–193	U	MS	57.9	193
1202039278								
	Mercury	3.92	ug/kg	+/–11.5	U	AV	3.92	11.5

METALS
–4–
Interference Check Sample

SDG No: 10–1545

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	520000	ug/L	500000	ug/L	104	80.0 – 120.0	24–FEB–10 13:35	022410–1
	Antimony	–5.41	ug/L					24–FEB–10 13:35	022410–1
	Barium	1.08	ug/L					24–FEB–10 13:35	022410–1
	Cadmium	–1.24	ug/L					24–FEB–10 13:35	022410–1
	Calcium	487000	ug/L	500000	ug/L	97.5	80.0 – 120.0	24–FEB–10 13:35	022410–1
	Chromium	3.41	ug/L					24–FEB–10 13:35	022410–1
	Cobalt	–1.42	ug/L					24–FEB–10 13:35	022410–1
	Copper	3.17	ug/L					24–FEB–10 13:35	022410–1
	Iron	190000	ug/L	200000	ug/L	95.1	80.0 – 120.0	24–FEB–10 13:35	022410–1
	Magnesium	501000	ug/L	500000	ug/L	100	80.0 – 120.0	24–FEB–10 13:35	022410–1
	Manganese	–0.422	ug/L					24–FEB–10 13:35	022410–1
	Potassium	–180.0	ug/L					24–FEB–10 13:35	022410–1
	Silver	–1.2	ug/L					24–FEB–10 13:35	022410–1
	Sodium	64.0	ug/L					24–FEB–10 13:35	022410–1
	Vanadium	–0.642	ug/L					24–FEB–10 13:35	022410–1
	Zinc	–2.44	ug/L					24–FEB–10 13:35	022410–1
ICSAB01									
	Aluminum	518000	ug/L	500000	ug/L	104	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Antimony	536	ug/L	500	ug/L	107	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Barium	485	ug/L	500	ug/L	97	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Cadmium	447	ug/L	500	ug/L	89.4	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Calcium	483000	ug/L	500000	ug/L	96.7	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Chromium	475	ug/L	500	ug/L	95.1	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Cobalt	428	ug/L	500	ug/L	85.6	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Copper	538	ug/L	500	ug/L	108	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Iron	187000	ug/L	200000	ug/L	93.5	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Magnesium	493000	ug/L	500000	ug/L	98.7	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Manganese	472	ug/L	500	ug/L	94.5	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Potassium	5440	ug/L	5000	ug/L	109	80.0 – 120.0	24–FEB–10 13:41	022410–1

METALS
–4–
Interference Check Sample

SDG No: 10–1545

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	266	ug/L	250	ug/L	107	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Sodium	5520	ug/L	5000	ug/L	110	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Vanadium	499	ug/L	500	ug/L	99.9	80.0 – 120.0	24–FEB–10 13:41	022410–1
	Zinc	479	ug/L	500	ug/L	95.9	80.0 – 120.0	24–FEB–10 13:41	022410–1

METALS
–4–
Interference Check Sample

SDG No: 10–1545

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	9.4	ug/L					01–MAR–10 12:25	030110A–2
ICSAB01									
	Lead	485	ug/L	500	ug/L	97.1	80.0 – 120.0	01–MAR–10 12:31	030110A–2

METALS
–4–
Interference Check Sample

SDG No: 10–1545

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.33	ug/L					26–FEB–10 00:51	100225–3
	Beryllium	0.125	ug/L					26–FEB–10 00:51	100225–3
	Nickel	4.65	ug/L					26–FEB–10 00:51	100225–3
	Selenium	–2.4	ug/L					26–FEB–10 00:51	100225–3
	Thallium	0.014	ug/L					26–FEB–10 00:51	100225–3
ICSAB01									
	Arsenic	24.0	ug/L	20	ug/L	120	80.0 – 120.0	26–FEB–10 00:55	100225–3
	Beryllium	22.2	ug/L	20	ug/L	111	80.0 – 120.0	26–FEB–10 00:55	100225–3
	Nickel	25.2	ug/L	23.31	ug/L	108	80.0 – 120.0	26–FEB–10 00:55	100225–3
	Selenium	21.6	ug/L	20	ug/L	108	80.0 – 120.0	26–FEB–10 00:55	100225–3
	Thallium	20.5	ug/L	20	ug/L	103	80.0 – 120.0	26–FEB–10 00:55	100225–3

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1545 **Client ID** RE15–10–8170S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246055001 **Spike ID:** 1202033901

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		7900000		3200000		590000	797	N/A	P
Antimony	ug/kg		526000		243000		59000	479	N/A	P
Barium	ug/kg	75–125	128000		49500		59000	133	N	P
Cadmium	ug/kg	75–125	58700		313	J	59000	98.9		P
Calcium	ug/kg	75–125	2390000		1550000		590000	142	N	P
Chromium	ug/kg	75–125	67300		6340		59000	103		P
Cobalt	ug/kg	75–125	59300		2210		59000	96.7		P
Copper	ug/kg	75–125	77000		9110		59000	115		P
Iron	ug/kg		11000000		10500000		590000	79.7	N/A	P
Lead	ug/kg		83500000		63700000		59000	33500	N/A	P
Magnesium	ug/kg	75–125	1700000		749000		590000	161	N	P
Manganese	ug/kg	75–125	273000		177000		59000	162	N	P
Potassium	ug/kg	75–125	1640000		726000		590000	155	N	P
Silver	ug/kg	75–125	59600		743		59000	99.7		P
Sodium	ug/kg	75–125	744000		116000		590000	106		P
Vanadium	ug/kg	75–125	74200		9990		59000	109		P
Zinc	ug/kg	75–125	470000		206000		59000	447	N	P

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1545 **Client ID** RE15-10-8170SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246055001 **Spike ID:** 1202033902

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		6210000		3200000		580000	518	N/A	P
Antimony	ug/kg		2020000		243000		58000	3060	N/A	P
Barium	ug/kg	75-125	105000		49500		58000	96.2		P
Cadmium	ug/kg	75-125	58000		313	J	58000	99.4		P
Calcium	ug/kg	75-125	1980000		1550000		580000	73.9	N	P
Chromium	ug/kg	75-125	64700		6340		58000	101		P
Cobalt	ug/kg	75-125	57900		2210		58000	96.1		P
Copper	ug/kg	75-125	70600		9110		58000	106		P
Iron	ug/kg		7460000		10500000		580000	-525	N/A	P
Lead	ug/kg		92300000		63700000		58000	49200	N/A	P
Magnesium	ug/kg	75-125	1420000		749000		580000	115		P
Manganese	ug/kg	75-125	216000		177000		58000	67.1	N	P
Potassium	ug/kg	75-125	1400000		726000		580000	116		P
Silver	ug/kg	75-125	58400		743		58000	99.4		P
Sodium	ug/kg	75-125	661000		116000		580000	93.9		P
Vanadium	ug/kg	75-125	68800		9990		58000	101		P
Zinc	ug/kg	75-125	588000		206000		58000	658	N	P

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1545 **Client ID** RE15-10-8170S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246055001 **Spike ID:** 1202033911

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75-125	13100		3630		9460	100		MS
Beryllium	ug/kg	75-125	6370		470		5910	99.8		MS
Nickel	ug/kg	75-125	12300		5230		5910	120		MS
Selenium	ug/kg	75-125	2070		586	U	2370	86.8		MS
Thallium	ug/kg	75-125	11200		107	J	11800	93.6		MS

METALS
-5a-

Matrix Spike Duplicate Summary

SDG NO. 10-1545 **Client ID** RE15-10-8170SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246055001 **Spike ID:** 1202033912

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75-125	13500		3630		9460	105		MS
Beryllium	ug/kg	75-125	6390		470		5910	100		MS
Nickel	ug/kg	75-125	11700		5230		5910	109		MS
Selenium	ug/kg	75-125	1840		586	U	2370	77		MS
Thallium	ug/kg	75-125	11000		107	J	11800	92.4		MS

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1545 **Client ID** RE15-10-8170S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246055001 **Spike ID:** 1202039281

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	156		14.3		143	99.2		AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1545 **Client ID** RE15-10-8170SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 82

Sample ID: 246055001 **Spike ID:** 1202039283

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	87		14.3		127	57.1	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8170D

Sample ID: 246055001 **Duplicate ID:** 1202033899 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3200000		4360000		30.6	*	P
Antimony	ug/kg	+/–1180	243000		4710		192	*	P
Barium	ug/kg	+/–20%	49500		64400		26.1	*	P
Cadmium	ug/kg	+/–591	313	J	324	J	3.33		P
Calcium	ug/kg	+/–20%	1550000		2020000		26.2	*	P
Chromium	ug/kg	+/–20%	6340		8830		32.8	*	P
Cobalt	ug/kg	+/–591	2210		2680		19.1		P
Copper	ug/kg	+/–20%	9110		10200		11.2		P
Iron	ug/kg	+/–20%	10500000		9610000		8.89		P
Lead	ug/kg	+/–20%	63700000		3840000		177	*	P
Magnesium	ug/kg	+/–20%	749000		1030000		31.1	*	P
Manganese	ug/kg	+/–20%	177000		233000		27.6	*	P
Potassium	ug/kg	+/–20%	726000		970000		28.7	*	P
Silver	ug/kg	+/–591	743		118	U	216	*	P
Sodium	ug/kg	+/–29600	116000		136000		16.1		P
Vanadium	ug/kg	+/–20%	9990		15000		39.9	*	P
Zinc	ug/kg	+/–20%	206000		247000		17.9		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1545

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15-10-8170SD

Sample ID: 1202033901 **Duplicate ID:** 1202033902 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20	7900000		6210000		24.1	*	P
Antimony	ug/kg	+/-20	526000		2020000		117	*	P
Barium	ug/kg	+/-20	128000		105000		19.6		P
Cadmium	ug/kg	+/-20	58700		58000		1.22		P
Calcium	ug/kg	+/-20	2390000		1980000		18.6		P
Chromium	ug/kg	+/-20	67300		64700		3.98		P
Cobalt	ug/kg	+/-20	59300		57900		2.32		P
Copper	ug/kg	+/-20	77000		70600		8.77		P
Iron	ug/kg	+/-20	11000000		7460000		38.2	*	P
Lead	ug/kg	+/-20	83500000		92300000		9.98		P
Magnesium	ug/kg	+/-20	1700000		1420000		18.1		P
Manganese	ug/kg	+/-20	273000		216000		23.3	*	P
Potassium	ug/kg	+/-20	1640000		1400000		16.1		P
Silver	ug/kg	+/-20	59600		58400		1.99		P
Sodium	ug/kg	+/-20	744000		661000		11.8		P
Vanadium	ug/kg	+/-20	74200		68800		7.61		P
Zinc	ug/kg	+/-20	470000		588000		22.2	*	P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8170D

Sample ID: 246055001 **Duplicate ID:** 1202033909 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1170	3630		3740		3.01		MS
Beryllium	ug/kg	+/–117	470		470		.106		MS
Nickel	ug/kg	+/–20%	5230		5440		3.98		MS
Selenium	ug/kg		586	U	587	U			MS
Thallium	ug/kg	+/–235	107	J	111	J	3.64		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8170SD

Sample ID: 1202033911 **Duplicate ID:** 1202033912 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	13100		13500		3.18		MS
Beryllium	ug/kg	+/–20	6370		6390		.308		MS
Nickel	ug/kg	+/–20	12300		11700		5.29		MS
Selenium	ug/kg	+/–20	2070		1840		11.8		MS
Thallium	ug/kg	+/–20	11200		11000		1.28		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8170D

Sample ID: 246055001 **Duplicate ID:** 1202039280 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–13.7	14.3		5.35	J	91.2		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1545

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** RE15–10–8170SD

Sample ID: 1202039281 **Duplicate ID:** 1202039283 **Percent Solids for Dup:** 82

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	156		87		56.7	*	AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1545

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033903								
	Aluminum	ug/kg	10500000	8880000		84.5	56-144	P
	Antimony	ug/kg	173000	161000		93.1	71-130	P
	Barium	ug/kg	198000	183000		92.6	80-120	P
	Cadmium	ug/kg	60700	58200		96	81-120	P
	Calcium	ug/kg	9870000	9770000		99	83-117	P
	Chromium	ug/kg	236000	236000		100	80-120	P
	Cobalt	ug/kg	91200	89300		97.9	81-120	P
	Copper	ug/kg	174000	183000		105	81-118	P
	Iron	ug/kg	18000000	17000000		94.5	51-149	P
	Lead	ug/kg	86000	80500		93.6	79-121	P
	Magnesium	ug/kg	4000000	3740000		93.6	79-122	P
	Manganese	ug/kg	558000	522000		93.6	81-119	P
	Potassium	ug/kg	4300000	4200000		97.7	74-127	P
	Silver	ug/kg	30100	29800		98.9	66-134	P
	Sodium	ug/kg	1020000	1030000		101	74-127	P
	Vanadium	ug/kg	115000	119000		103	79-121	P
	Zinc	ug/kg	594000	571000		96.2	80-121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1545

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033913								
	Arsenic	ug/kg	104000	105000		101	78–123	MS
	Beryllium	ug/kg	77600	82500		106	84–116	MS
	Nickel	ug/kg	134000	143000		107	78–123	MS
	Selenium	ug/kg	286000	283000		98.9	77–123	MS
	Thallium	ug/kg	121000	126000		104	78–122	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1545

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202039279								
	Mercury	ug/kg	5150	5470		106	71.6–128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1545 **Client ID** RE15-10-8170L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246055001 **Serial Dilution ID:** 1202033900

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	26900		26400		1.86		10	P
Antimony	2040		2030		.735		10	P
Barium	417		416		.24		10	P
Cadmium	2.63	J	5	U	100			P
Calcium	13100		12800		2.67		10	P
Chromium	53.3		54.5		2.25			P
Cobalt	18.6		18.9	J	1.34			P
Copper	76.6		72.5		5.35			P
Iron	88300		87000		1.47		10	P
Lead	10700		10800		.935		10	P
Magnesium	6300		6250		.794		10	P
Manganese	1490		1500		.671		10	P
Potassium	6110		6150		.655		10	P
Silver	6.25		5	U	100			P
Sodium	976		910	J	6.76			P
Vanadium	84		84.5		.595		10	P
Zinc	1740		1750		.575		10	P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1545 **Client ID** RE15-10-8170L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246055001 **Serial Dilution ID:** 1202033910

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	15.5		15.7	J	.968			MS
Beryllium	2.01		2.17	J	7.96			MS
Nickel	22.3		23.1		3.59			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.456	J	1.5	U	100			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1545 **Client ID** RE15-10-8170L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 246055001 **Serial Dilution ID:** 1202039282

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.235		.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1545 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949333						
1202033898	MB for batch 949333	MB	S	16-FEB-10	.623g	50mL	
1202033903	LCS for batch 949333	LCS	S	16-FEB-10	.521g	50mL	
1202033901	RE15-10-8170S	MS	S	16-FEB-10	.514g	50mL	
1202033902	RE15-10-8170SD	MSD	S	16-FEB-10	.523g	50mL	
1202033899	RE15-10-8170D	DUP	S	16-FEB-10	.513g	50mL	
246055001	RE15-10-8170	SAMPLE	S	16-FEB-10	.51g	50mL	
246055002	RE15-10-8169	SAMPLE	S	16-FEB-10	.578g	50mL	
246055003	RE15-10-8171	SAMPLE	S	16-FEB-10	.552g	50mL	
246055004	RE15-10-8168	SAMPLE	S	16-FEB-10	.545g	50mL	
246055005	RE15-10-8222	SAMPLE	S	16-FEB-10	.528g	50mL	
246055006	RE15-10-8221	SAMPLE	S	16-FEB-10	.541g	50mL	
246055007	RE15-10-8220	SAMPLE	S	16-FEB-10	.532g	50mL	
246055008	RE15-10-8223	SAMPLE	S	16-FEB-10	.52g	50mL	
246055009	RE15-10-8224	SAMPLE	S	16-FEB-10	.51g	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1545 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949335						
1202033908	MB for batch 949335	MB	S	16–FEB–10	.518g	50mL	
1202033913	LCS for batch 949335	LCS	S	16–FEB–10	.518g	50mL	
1202033911	RE15–10–8170S	MS	S	16–FEB–10	.513g	50mL	
1202033912	RE15–10–8170SD	MSD	S	16–FEB–10	.513g	50mL	
1202033909	RE15–10–8170D	DUP	S	16–FEB–10	.517g	50mL	
246055001	RE15–10–8170	SAMPLE	S	16–FEB–10	.518g	50mL	
246055002	RE15–10–8169	SAMPLE	S	16–FEB–10	.558g	50mL	
246055003	RE15–10–8171	SAMPLE	S	16–FEB–10	.539g	50mL	
246055004	RE15–10–8168	SAMPLE	S	16–FEB–10	.513g	50mL	
246055005	RE15–10–8222	SAMPLE	S	16–FEB–10	.51g	50mL	
246055006	RE15–10–8221	SAMPLE	S	16–FEB–10	.518g	50mL	
246055007	RE15–10–8220	SAMPLE	S	16–FEB–10	.545g	50mL	
246055008	RE15–10–8223	SAMPLE	S	16–FEB–10	.512g	50mL	
246055009	RE15–10–8224	SAMPLE	S	16–FEB–10	.518g	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1545 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	951544						
1202039278	MB for batch 951544	MB	S	19-FEB-10	.521g	30mL	
1202039279	LCS for batch 951544	LCS	S	19-FEB-10	.202g	30mL	
1202039281	RE15-10-8170S	MS	S	19-FEB-10	.51g	30mL	
1202039283	RE15-10-8170SD	MSD	S	19-FEB-10	.572g	30mL	
1202039280	RE15-10-8170D	DUP	S	19-FEB-10	.531g	30mL	
246055001	RE15-10-8170	SAMPLE	S	19-FEB-10	.598g	30mL	
246055002	RE15-10-8169	SAMPLE	S	19-FEB-10	.547g	30mL	
246055003	RE15-10-8171	SAMPLE	S	19-FEB-10	.528g	30mL	
246055004	RE15-10-8168	SAMPLE	S	19-FEB-10	.523g	30mL	
246055005	RE15-10-8222	SAMPLE	S	19-FEB-10	.59g	30mL	
246055006	RE15-10-8221	SAMPLE	S	19-FEB-10	.523g	30mL	
246055007	RE15-10-8220	SAMPLE	S	19-FEB-10	.539g	30mL	
246055008	RE15-10-8223	SAMPLE	S	19-FEB-10	.564g	30mL	
246055009	RE15-10-8224	SAMPLE	S	19-FEB-10	.572g	30mL	

Metals
--14--
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 26-FEB-10 **End Date:** 26-FEB-10

Client Sdg: 10-1545
Method MS
Data File: 100225-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	00:27			X		X											X		X			X		
S10	1	00:31			X		X											X		X			X		
S100	1	00:35			X		X											X		X			X		
ICV01	1	00:39			X		X											X		X			X		
ICB01	1	00:43			X		X											X		X			X		
CRDL01	1	00:47			X		X											X		X			X		
ICSA01	1	00:51			X		X											X		X			X		
ICSAB01	1	00:55			X		X											X		X			X		
CCV01	1	00:59			X		X											X		X			X		
CCB01	1	01:03			X		X											X		X			X		
1202033908	2	01:07			X		X											X		X			X		
1202033913	40	01:11			X		X											X		X			X		
CCV02	1	01:15			X		X											X		X			X		
CCB02	1	01:19			X		X											X		X			X		
246055001	2	01:23			X		X											X		X			X		
ZZZZZZ	2	01:28																							
1202033911	2	01:32			X		X											X		X			X		
1202033912	2	01:36			X		X											X		X			X		
1202033910	10	01:40			X		X											X		X			X		
246055002	2	01:44			X		X											X					X		
246055003	2	01:48			X		X											X		X			X		
CCV03	1	01:52			X		X											X		X			X		
CCB03	1	01:56			X		X											X		X			X		
246055004	2	02:00			X		X											X		X			X		
246055005	2	02:04			X		X											X		X			X		
246055006	2	02:08			X		X											X					X		
246055007	2	02:12			X		X											X		X			X		
246055008	2	02:16			X		X											X		X			X		
246055009	2	02:20			X		X											X		X			X		
246055002	4	02:28																		X					
246055006	4	02:32																		X					
CCV04	1	02:36			X		X											X		X			X		
CCB04	1	02:40			X		X											X		X			X		
1202033909	2	02:44			X		X											X		X			X		
CCV05	1	02:48			X		X											X		X			X		
CCB05	1	02:52			X		X											X		X			X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 24-FEB-10 **End Date:** 25-FEB-10

Client Sdg: 10-1545
Method P
Data File: 022410-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	12:41	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
S0.1	1	12:47		X		X		X		X	X	X				X			X		X			X	X
S0.5	1	12:54	X	X		X		X	X	X	X	X			X	X			X		X			X	X
SCAL	1	13:01	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
S10	1	13:09	X						X				X		X							X			
ICV01	1	13:14	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ICB01	1	13:21	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
PQL01	1	13:28	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ICSA01	1	13:35	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ICSAB01	1	13:41	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
LR01	1	13:48	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
LR02	1	13:55	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCV01	1	14:02	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB01	1	14:09	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
LR03	1	14:25	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
LR04	1	14:32	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCV02	1	14:39	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB02	1	14:46	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ZZZZZZ	1	14:55																							
ZZZZZZ	1	15:01																							
ZZZZZZ	1	15:08																							
ZZZZZZ	1	15:15																							
ZZZZZZ	1	15:22																							
ZZZZZZ	1	15:29																							
ZZZZZZ	1	15:36																							
ZZZZZZ	1	15:43																							
ZZZZZZ	1	15:49																							
ZZZZZZ	1	15:56																							
CCV03	1	16:03	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB03	1	16:10	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ZZZZZZ	1	16:18																							
ZZZZZZ	1	16:25																							
CCV04	1	16:32	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB04	1	16:39	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCV05	1	16:52	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB05	1	17:00	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ZZZZZZ	1	17:07																							
ZZZZZZ	1	17:14																							
ZZZZZZ	1	17:20																							
ZZZZZZ	1	17:27																							

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	17:34																						
ZZZZZZ	1	17:41																						
ZZZZZZ	1	17:48																						
ZZZZZZ	1	17:55																						
ZZZZZZ	1	18:01																						
ZZZZZZ	1	18:08																						
CCV06	1	18:15	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB06	1	18:22	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ZZZZZZ	1	18:29																						
ZZZZZZ	1	18:36																						
ZZZZZZ	1	18:43																						
ZZZZZZ	1	18:50																						
ZZZZZZ	1	18:57																						
ZZZZZZ	1	19:04																						
ZZZZZZ	1	19:11																						
ZZZZZZ	1	19:18																						
ZZZZZZ	1	19:25																						
ZZZZZZ	1	19:32																						
CCV07	1	19:39	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB07	1	19:46	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ZZZZZZ	1	19:53																						
ZZZZZZ	1	19:59																						
ZZZZZZ	1	20:06																						
ZZZZZZ	1	20:13																						
ZZZZZZ	1	20:20																						
ZZZZZZ	1	20:27																						
ZZZZZZ	1	20:34																						
ZZZZZZ	1	20:40																						
ZZZZZZ	1	20:47																						
ZZZZZZ	1	20:54																						
CCV08	1	21:01	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB08	1	21:08	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ZZZZZZ	1	21:15																						
ZZZZZZ	1	21:22																						
ZZZZZZ	1	21:28																						
ZZZZZZ	1	21:35																						
ZZZZZZ	1	21:42																						
ZZZZZZ	1	21:49																						
ZZZZZZ	1	21:56																						
ZZZZZZ	1	22:03																						

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	5	22:10																							
CCV09	1	22:16	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB09	1	22:23	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
ZZZZZZ	1	22:30																							
ZZZZZZ	1	22:37																							
ZZZZZZ	1	22:45																							
ZZZZZZ	1	22:52																							
ZZZZZZ	1	22:59																							
ZZZZZZ	1	23:06																							
ZZZZZZ	1	23:13																							
ZZZZZZ	1	23:20																							
ZZZZZZ	1	23:27																							
CCV10	1	23:34	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB10	1	23:41	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
1202033898	1	23:48	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
1202033903	1	23:55	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055001	1	00:01	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
1202033899	1	00:08	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
1202033901	1	00:15	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
1202033902	1	00:23	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
1202033900	5	00:30	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCV11	1	00:37	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB11	1	00:44	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055002	1	00:51	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055003	1	00:58	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055004	1	01:05	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055005	1	01:12	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055006	1	01:19	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055007	1	01:27	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055008	1	01:34	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
246055009	1	01:41	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCV12	1	01:48	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X
CCB12	1	01:55	X	X		X		X	X	X	X	X	X		X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 01–MAR–10 **End Date:** 01–MAR–10

Client Sdg: 10–1545
Method P
Data File: 030110A–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	11:32												X											
S0.1	1	11:38												X											
S0.5	1	11:44												X											
SCAL	1	11:52												X											
S10	1	11:59																							
ICV01	1	12:04												X											
ICB01	1	12:11												X											
PQL01	1	12:18												X											
ICSA01	1	12:25												X											
ICSAB01	1	12:31												X											
LR01	1	12:37												X											
LR02	1	12:44												X											
CCV01	1	12:51												X											
CCB01	1	12:58												X											
LR03	1	13:05												X											
CCV02	1	13:12												X											
CCB02	1	13:19												X											
ZZZZZZ	1	13:31																							
ZZZZZZ	1	13:38																							
ZZZZZZ	1	13:45																							
ZZZZZZ	1	13:52																							
ZZZZZZ	1	13:59																							
ZZZZZZ	1	14:06																							
ZZZZZZ	1	14:13																							
CCV03	1	14:20												X											
CCB03	1	14:27												X											
ZZZZZZ	1	14:32																							
ZZZZZZ	1	14:38																							
ZZZZZZ	1	14:45																							
ZZZZZZ	1	14:52																							
ZZZZZZ	1	14:59																							
ZZZZZZ	1	15:06																							
ZZZZZZ	5	15:13																							
ZZZZZZ	1	15:20																							
CCV04	1	15:27												X											
CCB04	1	15:34												X											
ZZZZZZ	1	15:40																							
ZZZZZZ	1	15:48																							
ZZZZZZ	1	15:55																							
ZZZZZZ	1	16:02																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
ZZZZZZ	1	16:09																						
ZZZZZZ	1	16:16																						
ZZZZZZ	1	16:23																						
ZZZZZZ	1	16:30																						
CCV05	1	16:37											X											
CCB05	1	16:44											X											
ZZZZZZ	1	16:51																						
ZZZZZZ	1	16:58																						
ZZZZZZ	1	17:05																						
ZZZZZZ	1	17:12																						
ZZZZZZ	1	17:20																						
ZZZZZZ	1	17:27																						
ZZZZZZ	1	17:34																						
ZZZZZZ	1	17:40																						
CCV06	1	17:48											X											
CCB06	1	17:55											X											
CCV07	1	18:22											X											
CCB07	1	18:29											X											
ZZZZZZ	1	18:35																						
ZZZZZZ	1	18:42																						
ZZZZZZ	1	18:49																						
ZZZZZZ	1	18:56																						
ZZZZZZ	1	19:03																						
ZZZZZZ	1	19:09																						
ZZZZZZ	1	19:16																						
ZZZZZZ	1	19:23																						
ZZZZZZ	1	19:30																						
ZZZZZZ	1	19:36																						
CCV08	1	19:43											X											
CCB08	1	19:50											X											
1202033898	1	19:57											X											
1202033903	1	20:04											X											
246055001	50	20:10											X											
1202033899	50	20:17											X											
1202033901	50	20:24											X											
1202033902	50	20:30											X											
1202033900	250	20:37											X											
CCV09	1	20:44											X											
CCB09	1	20:51											X											
246055002	1	20:58											X											

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
246055003	1	21:05												X											
246055004	1	21:12												X											
246055005	1	21:19												X											
246055006	1	21:26												X											
246055007	1	21:33												X											
246055008	1	21:40												X											
246055009	100	21:47												X											
CCV10	1	21:54												X											
CCB10	1	22:01												X											

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 22–FEB–10 **End Date:** 22–FEB–10

Client Sdg: 10–1545
Method AV
Data File: 022210S1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:12															X								
S0.2	1	09:13															X								
S0.5	1	09:15															X								
S2.0	1	09:17															X								
S5.0	1	09:18															X								
S10.0	1	09:20															X								
ICV01	1	09:22															X								
ICB01	1	09:23															X								
CRDL01	1	09:25															X								
CCV01	1	09:27															X								
CCB01	1	09:28															X								
ZZZZZZ	1	09:30																							
ZZZZZZ	10	09:32																							
ZZZZZZ	1	09:34																							
ZZZZZZ	1	09:35																							
ZZZZZZ	1	09:37																							
ZZZZZZ	1	09:38																							
ZZZZZZ	1	09:40																							
ZZZZZZ	1	09:42																							
ZZZZZZ	1	09:43																							
ZZZZZZ	1	09:45																							
CCV02	1	09:47															X								
CCB02	1	09:48															X								
ZZZZZZ	1	09:50																							
ZZZZZZ	1	09:52																							
ZZZZZZ	1	09:54																							
ZZZZZZ	1	09:55																							
ZZZZZZ	1	09:57																							
ZZZZZZ	1	09:59																							
ZZZZZZ	1	10:00																							
ZZZZZZ	5	10:02																							
ZZZZZZ	1	10:04																							
ZZZZZZ	1	10:05																							
CCV03	1	10:07															X								
CCB03	1	10:09															X								
ZZZZZZ	1	10:10																							
ZZZZZZ	1	10:12																							
ZZZZZZ	1	10:14																							
ZZZZZZ	1	10:15																							
ZZZZZZ	1	10:17																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	10:19																							
1202039278	1	10:20														X									
1202039279	10	10:22														X									
246055001	1	10:24														X									
1202039280	1	10:25														X									
CCV04	1	10:27														X									
CCB04	1	10:29														X									
1202039281	1	10:30														X									
1202039283	1	10:32														X									
1202039282	5	10:34														X									
246055002	1	10:35														X									
246055003	1	10:37														X									
246055004	1	10:39														X									
246055005	1	10:40														X									
246055006	1	10:42														X									
246055007	1	10:44														X									
246055008	1	10:45														X									
CCV05	1	10:47														X									
CCB05	1	10:49														X									
246055009	1	10:50														X									
ZZZZZZ	1	10:52																							
ZZZZZZ	10	10:54																							
ZZZZZZ	1	10:56																							
ZZZZZZ	1	10:57																							
ZZZZZZ	1	10:59																							
ZZZZZZ	1	11:01																							
ZZZZZZ	5	11:02																							
ZZZZZZ	1	11:04																							
ZZZZZZ	1	11:06																							
CCV06	1	11:07														X									
CCB06	1	11:09														X									

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1545

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1545

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15-JUN-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1545

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1545
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1545
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1545

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1545

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 030110

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

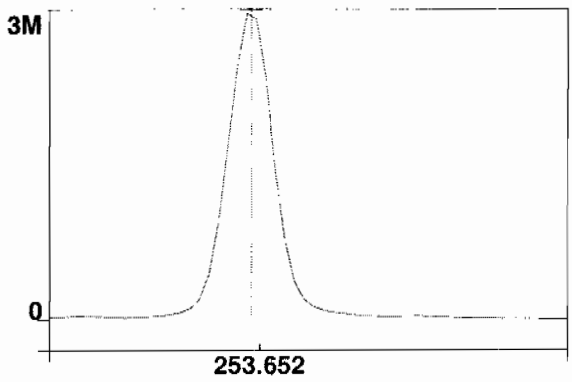

Intensity: 3188246.6 cps
Conc:

1

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Analysis Begun

Start Time: 2/24/2010 12:41:03 **Plasma On Time: 00:00:00**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 2/24/2010 12:41:05**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3896.6	3896.6	99.4	%	12:43:18
1	Y RADIAL	4390.8	4390.8	99.54	%	12:42:58
1	Al 396.153Radial†	-128.6	-129.3	[0.00]	ug/L	12:42:58
1	Ca 317.933Radial†	18.8	18.9	[0.00]	ug/L	12:43:18
1	Fe 238.204 Radial†	11.3	11.3	[0.00]	ug/L	12:43:18
1	K 766.490 Radial†	2645.3	2660.3	[0.00]	ug/L	12:42:58
1	Mg 279.077 IEC†	3.1	3.1	[0.00]	ug/L	12:43:18
1	Na 589.592 Radial†	-826.1	-830.8	[0.00]	ug/L	12:42:58
1	Sr 421.552†	71.0	71.4	[0.00]	ug/L	12:42:58
1	Sc 361.383	877876.1	877876.1	100.07	%	12:44:14
1	Y 371.029	757025.6	757025.6	100.16	%	12:44:14
1	Ag 328.068†	216.3	216.1	[0.00]	ug/L	12:44:14
1	As 188.979†	-23.1	-23.1	[0.00]	ug/L	12:44:34
1	B 249.677†	-385.0	-384.7	[0.00]	ug/L	12:44:34
1	Ba 233.527†	0.0	0.0	[0.00]	ug/L	12:44:34
1	Be 313.107†	-3714.2	-3711.5	[0.00]	ug/L	12:44:14
1	Cd 226.502†	-194.6	-194.4	[0.00]	ug/L	12:44:34
1	Co 228.616†	-57.4	-57.3	[0.00]	ug/L	12:44:34
1	Cr 267.716†	72.2	72.1	[0.00]	ug/L	12:44:34
1	Cu 324.752†	6029.5	6025.1	[0.00]	ug/L	12:44:14
1	Mn 257.610†	440.8	440.4	[0.00]	ug/L	12:44:34
1	Mo 202.031†	15.1	15.1	[0.00]	ug/L	12:44:34
1	Ni 231.604†	63.6	63.5	[0.00]	ug/L	12:44:34
1	P 214.914†	215.4	215.2	[0.00]	ug/L	12:44:34
1	Pb 220.353†	-56.7	-56.7	[0.00]	ug/L	12:44:34
1	S 181.975 Axial†	38.6	38.6	[0.00]	ug/L	12:44:34
1	Sb 206.836†	37.5	37.5	[0.00]	ug/L	12:44:34
1	Se 196.026†	-32.0	-31.9	[0.00]	ug/L	12:44:34
1	Si 251.611†	557.4	557.0	[0.00]	ug/L	12:44:34
1	Sn 189.927†	17.3	17.3	[0.00]	ug/L	12:44:34
1	Ti 334.940†	-1321.0	-1320.1	[0.00]	ug/L	12:44:14
1	Tl 190.801†	-31.5	-31.4	[0.00]	ug/L	12:44:34
1	U 409.014†	-2936.7	-2934.6	[0.00]	ug/L	12:44:14
1	V 292.402†	-1480.7	-1479.6	[0.00]	ug/L	12:44:14
1	Zn 213.857†	606.9	606.4	[0.00]	ug/L	12:44:34
1	SiO2†	548.2	547.8	[0.00]	ug/L	12:45:30
2	Sc Radial	3933.1	3933.1	100	%	12:43:43
2	Y RADIAL	4456.7	4456.7	101.0	%	12:43:23
2	Al 396.153Radial†	-92.2	-91.8	[0.00]	ug/L	12:43:23
2	Ca 317.933Radial†	20.4	20.4	[0.00]	ug/L	12:43:43
2	Fe 238.204 Radial†	10.6	10.6	[0.00]	ug/L	12:43:43
2	K 766.490 Radial†	2597.3	2587.9	[0.00]	ug/L	12:43:23
2	Mg 279.077 IEC†	5.5	5.4	[0.00]	ug/L	12:43:43
2	Na 589.592 Radial†	-800.9	-798.0	[0.00]	ug/L	12:43:23
2	Sr 421.552†	21.6	21.6	[0.00]	ug/L	12:43:23
2	Sc 361.383	880112.3	880112.3	100.33	%	12:44:40
2	Y 371.029	760544.3	760544.3	100.62	%	12:44:40

2	Ag 328.068†	279.3	278.4	[0.00] ug/L	12:44:40
2	As 188.979†	-17.2	-17.2	[0.00] ug/L	12:45:00
2	B 249.677†	-387.2	-385.9	[0.00] ug/L	12:45:00
2	Ba 233.527†	2.1	2.1	[0.00] ug/L	12:45:00
2	Be 313.107†	-3758.8	-3746.5	[0.00] ug/L	12:44:40
2	Cd 226.502†	-206.9	-206.2	[0.00] ug/L	12:45:00
2	Co 228.616†	-66.3	-66.0	[0.00] ug/L	12:45:00
2	Cr 267.716†	88.2	87.9	[0.00] ug/L	12:45:00
2	Cu 324.752†	6059.3	6039.5	[0.00] ug/L	12:44:40
2	Mn 257.610†	467.5	466.0	[0.00] ug/L	12:45:00
2	Mo 202.031†	5.7	5.7	[0.00] ug/L	12:45:00
2	Ni 231.604†	64.4	64.2	[0.00] ug/L	12:45:00
2	P 214.914†	222.5	221.8	[0.00] ug/L	12:45:00
2	Pb 220.353†	-54.4	-54.3	[0.00] ug/L	12:45:00
2	S 181.975 Axial†	43.0	42.8	[0.00] ug/L	12:45:00
2	Sb 206.836†	34.3	34.2	[0.00] ug/L	12:45:00
2	Se 196.026†	-28.5	-28.4	[0.00] ug/L	12:45:00
2	Si 251.611†	547.2	545.4	[0.00] ug/L	12:45:00
2	Sn 189.927†	5.6	5.6	[0.00] ug/L	12:45:00
2	Ti 334.940†	-1450.8	-1446.1	[0.00] ug/L	12:44:40
2	Tl 190.801†	-33.6	-33.5	[0.00] ug/L	12:45:00
2	U 409.014†	-2845.2	-2835.9	[0.00] ug/L	12:44:40
2	V 292.402†	-1518.7	-1513.8	[0.00] ug/L	12:44:40
2	Zn 213.857†	610.6	608.6	[0.00] ug/L	12:45:00
2	SiO2†	580.4	578.5	[0.00] ug/L	12:45:35
3	Sc Radial	3926.7	3926.7	100 %	12:44:08
3	Y RADIAL	4385.1	4385.1	99.42 %	12:43:48
3	Al 396.153Radial†	-116.4	-116.1	[0.00] ug/L	12:43:48
3	Ca 317.933Radial†	19.8	19.8	[0.00] ug/L	12:44:08
3	Fe 238.204 Radial†	12.0	12.0	[0.00] ug/L	12:44:08
3	K 766.490 Radial†	2676.0	2670.6	[0.00] ug/L	12:43:48
3	Mg 279.077 IEC†	3.7	3.7	[0.00] ug/L	12:44:08
3	Na 589.592 Radial†	-832.2	-830.5	[0.00] ug/L	12:43:48
3	Sr 421.552†	14.3	14.2	[0.00] ug/L	12:43:48
3	Sc 361.383	873705.1	873705.1	99.598 %	12:45:05
3	Y 371.029	749962.1	749962.1	99.222 %	12:45:05
3	Ag 328.068†	225.8	226.8	[0.00] ug/L	12:45:05
3	As 188.979†	-14.4	-14.5	[0.00] ug/L	12:45:25
3	B 249.677†	-422.3	-424.0	[0.00] ug/L	12:45:25
3	Ba 233.527†	-6.3	-6.4	[0.00] ug/L	12:45:25
3	Be 313.107†	-3813.2	-3828.6	[0.00] ug/L	12:45:05
3	Cd 226.502†	-187.4	-188.2	[0.00] ug/L	12:45:25
3	Co 228.616†	-75.9	-76.2	[0.00] ug/L	12:45:25
3	Cr 267.716†	72.7	73.0	[0.00] ug/L	12:45:25
3	Cu 324.752†	5884.0	5907.8	[0.00] ug/L	12:45:05
3	Mn 257.610†	467.9	469.8	[0.00] ug/L	12:45:25
3	Mo 202.031†	9.6	9.6	[0.00] ug/L	12:45:25
3	Ni 231.604†	59.4	59.6	[0.00] ug/L	12:45:25
3	P 214.914†	193.8	194.5	[0.00] ug/L	12:45:25
3	Pb 220.353†	-63.1	-63.4	[0.00] ug/L	12:45:25
3	S 181.975 Axial†	40.8	41.0	[0.00] ug/L	12:45:25
3	Sb 206.836†	38.3	38.4	[0.00] ug/L	12:45:25
3	Se 196.026†	-22.8	-22.9	[0.00] ug/L	12:45:25
3	Si 251.611†	570.2	572.5	[0.00] ug/L	12:45:25
3	Sn 189.927†	8.5	8.6	[0.00] ug/L	12:45:25
3	Ti 334.940†	-1350.6	-1356.1	[0.00] ug/L	12:45:05
3	Tl 190.801†	-32.7	-32.8	[0.00] ug/L	12:45:25
3	U 409.014†	-2877.8	-2889.4	[0.00] ug/L	12:45:05
3	V 292.402†	-1517.6	-1523.7	[0.00] ug/L	12:45:05
3	Zn 213.857†	600.7	603.1	[0.00] ug/L	12:45:25
3	SiO2†	534.7	536.9	[0.00] ug/L	12:45:41

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	877231.2	3251.90	0.37%	100.00	%
Sc Radial	3918.8	19.47	0.50%	100	%
Y 371.029	755844.0	5389.12	0.71%	100.00	%
Y RADIAL	4410.9	39.77	0.90%	100.0	%
Ag 328.068†	240.4	33.31	13.85%	[0.00]	ug/L

Al 396.153Radial†	-112.4	19.01	16.91%	[0.00]	ug/L
As 188.979†	-18.2	4.39	24.06%	[0.00]	ug/L
B 249.677†	-398.2	22.32	5.61%	[0.00]	ug/L
Ba 233.527†	-1.4	4.39	310.28%	[0.00]	ug/L
Be 313.107†	-3762.2	60.09	1.60%	[0.00]	ug/L
Ca 317.933Radial†	19.7	0.74	3.76%	[0.00]	ug/L
Cd 226.502†	-196.3	9.16	4.67%	[0.00]	ug/L
Co 228.616†	-66.5	9.45	14.20%	[0.00]	ug/L
Cr 267.716†	77.7	8.87	11.42%	[0.00]	ug/L
Cu 324.752†	5990.8	72.25	1.21%	[0.00]	ug/L
Fe 238.204 Radial†	11.3	0.71	6.25%	[0.00]	ug/L
K 766.490 Radial†	2639.6	45.10	1.71%	[0.00]	ug/L
Mg 279.077 IEC†	4.1	1.22	29.95%	[0.00]	ug/L
Mn 257.610†	458.7	15.96	3.48%	[0.00]	ug/L
Mo 202.031†	10.1	4.73	46.62%	[0.00]	ug/L
Na 589.592 Radial†	-819.8	18.85	2.30%	[0.00]	ug/L
Ni 231.604†	62.4	2.49	3.99%	[0.00]	ug/L
P 214.914†	210.5	14.20	6.75%	[0.00]	ug/L
Pb 220.353†	-58.1	4.73	8.14%	[0.00]	ug/L
S 181.975 Axial†	40.8	2.13	5.23%	[0.00]	ug/L
Sb 206.836†	36.7	2.22	6.05%	[0.00]	ug/L
Se 196.026†	-27.7	4.54	16.36%	[0.00]	ug/L
Si 251.611†	558.3	13.60	2.44%	[0.00]	ug/L
Sn 189.927†	10.5	6.10	58.21%	[0.00]	ug/L
Sr 421.552†	35.7	31.09	87.02%	[0.00]	ug/L
Ti 334.940†	-1374.1	64.90	4.72%	[0.00]	ug/L
Tl 190.801†	-32.6	1.05	3.21%	[0.00]	ug/L
U 409.014†	-2886.6	49.42	1.71%	[0.00]	ug/L
V 292.402†	-1505.7	23.15	1.54%	[0.00]	ug/L
Zn 213.857†	606.0	2.76	0.46%	[0.00]	ug/L
SiO2†	554.4	21.58	3.89%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/24/2010 12:47:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4005.8	4005.8	102	%	12:50:03
1	Y RADIAL	4421.1	4421.1	100.2	%	12:50:03
1	K 766.490 Radial†	7828.1	5018.5	[1000]	ug/L	12:49:43
1	Sr 421.552†	14342.5	13995.4	[100]	ug/L	12:50:03
1	Sc 361.383	912251.6	912251.6	103.99	%	12:51:00
1	Y 371.029	767312.1	767312.1	101.52	%	12:51:00
1	Ag 328.068†	21835.8	20757.1	[100]	ug/L	12:51:05
1	As 188.979†	198.9	209.5	[100]	ug/L	12:51:25
1	B 249.677†	3460.9	3726.2	[100]	ug/L	12:51:05
1	Ba 233.527†	12816.7	12326.1	[100]	ug/L	12:51:05
1	Be 313.107†	261235.4	254969.0	[100]	ug/L	12:51:00
1	Cd 226.502†	8472.7	8343.7	[100]	ug/L	12:51:05
1	Co 228.616†	4664.2	4551.7	[100]	ug/L	12:51:25
1	Cr 267.716†	9056.1	8630.8	[100]	ug/L	12:51:05
1	Cu 324.752†	38425.7	30959.8	[100]	ug/L	12:51:05
1	Mn 257.610†	89289.5	85403.0	[100]	ug/L	12:51:05
1	Mo 202.031†	1368.6	1305.9	[100]	ug/L	12:51:25
1	Ni 231.604†	3925.6	3712.5	[100]	ug/L	12:51:25
1	P 214.914†	1032.8	782.6	[500]	ug/L	12:51:25
1	Pb 220.353†	757.9	786.9	[100]	ug/L	12:51:25
1	S 181.975 Axial†	173.6	126.2	[200]	ug/L	12:51:25
1	Sb 206.836†	319.8	270.9	[100]	ug/L	12:51:25
1	Se 196.026†	114.7	138.1	[100]	ug/L	12:51:25
1	Si 251.611†	15820.1	14654.5	[500]	ug/L	12:51:05
1	Sn 189.927†	563.2	531.1	[100]	ug/L	12:51:25
1	Ti 334.940†	62252.0	61236.3	[100]	ug/L	12:51:05
1	Tl 190.801†	284.5	306.2	[100]	ug/L	12:51:25
1	U 409.014†	823.0	3678.0	[100]	ug/L	12:51:00
1	V 292.402†	12731.0	13747.9	[100]	ug/L	12:51:05
1	Zn 213.857†	10501.6	9492.4	[100]	ug/L	12:51:05
1	SiO2†	15859.3	14696.0	[1069.5]	ug/L	12:52:31
2	Sc Radial	4014.4	4014.4	102	%	12:50:28
2	Y RADIAL	4429.4	4429.4	100.4	%	12:50:28
2	K 766.490 Radial†	7827.2	5001.2	[1000]	ug/L	12:50:08
2	Sr 421.552†	14370.6	13992.6	[100]	ug/L	12:50:28
2	Sc 361.383	913537.5	913537.5	104.14	%	12:51:31
2	Y 371.029	770025.1	770025.1	101.88	%	12:51:31
2	Ag 328.068†	22061.3	20944.1	[100]	ug/L	12:51:36
2	As 188.979†	191.0	201.6	[100]	ug/L	12:51:56
2	B 249.677†	3542.8	3800.2	[100]	ug/L	12:51:36
2	Ba 233.527†	12960.8	12447.1	[100]	ug/L	12:51:36
2	Be 313.107†	262476.2	255807.0	[100]	ug/L	12:51:31
2	Cd 226.502†	8580.1	8435.4	[100]	ug/L	12:51:36
2	Co 228.616†	4674.2	4555.0	[100]	ug/L	12:51:56
2	Cr 267.716†	9092.1	8653.1	[100]	ug/L	12:51:36
2	Cu 324.752†	38833.0	31298.9	[100]	ug/L	12:51:36
2	Mn 257.610†	90310.7	86262.8	[100]	ug/L	12:51:36
2	Mo 202.031†	1386.0	1320.7	[100]	ug/L	12:51:56
2	Ni 231.604†	3948.1	3728.8	[100]	ug/L	12:51:56
2	P 214.914†	1023.5	772.3	[500]	ug/L	12:51:56
2	Pb 220.353†	753.7	781.9	[100]	ug/L	12:51:56
2	S 181.975 Axial†	178.6	130.7	[200]	ug/L	12:51:56
2	Sb 206.836†	328.6	278.8	[100]	ug/L	12:51:56
2	Se 196.026†	131.5	154.0	[100]	ug/L	12:51:56
2	Si 251.611†	15981.8	14788.3	[500]	ug/L	12:51:36
2	Sn 189.927†	567.0	534.0	[100]	ug/L	12:51:56
2	Ti 334.940†	62812.3	61690.1	[100]	ug/L	12:51:36
2	Tl 190.801†	288.1	309.2	[100]	ug/L	12:51:56
2	U 409.014†	775.5	3631.3	[100]	ug/L	12:51:31

2	V 292.402†	12904.7	13897.5	[100]	ug/L	12:51:36
2	Zn 213.857†	10628.4	9600.0	[100]	ug/L	12:51:36
2	SiO2†	15791.1	14609.1	[1069.5]	ug/L	12:52:37
3	Sc Radial	4034.1	4034.1	103	%	12:50:53
3	Y RADIAL	4460.1	4460.1	101.1	%	12:50:53
3	K 766.490 Radial†	7747.9	4886.8	[1000]	ug/L	12:50:33
3	Sr 421.552†	14406.4	13958.9	[100]	ug/L	12:50:53
3	Sc 361.383	917853.3	917853.3	104.63	%	12:52:01
3	Y 371.029	772132.1	772132.1	102.15	%	12:52:01
3	Ag 328.068†	21942.6	20731.0	[100]	ug/L	12:52:06
3	As 188.979†	203.5	212.7	[100]	ug/L	12:52:26
3	B 249.677†	3497.8	3741.2	[100]	ug/L	12:52:06
3	Ba 233.527†	12850.1	12282.8	[100]	ug/L	12:52:06
3	Be 313.107†	263723.4	255813.8	[100]	ug/L	12:52:01
3	Cd 226.502†	8478.9	8299.9	[100]	ug/L	12:52:06
3	Co 228.616†	4695.0	4553.8	[100]	ug/L	12:52:26
3	Cr 267.716†	9036.4	8558.7	[100]	ug/L	12:52:06
3	Cu 324.752†	38599.7	30900.6	[100]	ug/L	12:52:06
3	Mn 257.610†	89449.5	85031.9	[100]	ug/L	12:52:06
3	Mo 202.031†	1376.6	1305.6	[100]	ug/L	12:52:26
3	Ni 231.604†	3946.9	3709.8	[100]	ug/L	12:52:26
3	P 214.914†	1025.1	769.2	[500]	ug/L	12:52:26
3	Pb 220.353†	759.5	784.0	[100]	ug/L	12:52:26
3	S 181.975 Axial†	177.3	128.6	[200]	ug/L	12:52:26
3	Sb 206.836†	318.4	267.6	[100]	ug/L	12:52:26
3	Se 196.026†	122.0	144.4	[100]	ug/L	12:52:26
3	Si 251.611†	15853.0	14593.1	[500]	ug/L	12:52:06
3	Sn 189.927†	568.3	532.7	[100]	ug/L	12:52:26
3	Ti 334.940†	62266.2	60884.5	[100]	ug/L	12:52:06
3	Tl 190.801†	284.5	304.5	[100]	ug/L	12:52:26
3	U 409.014†	873.3	3721.2	[100]	ug/L	12:52:01
3	V 292.402†	12660.5	13605.9	[100]	ug/L	12:52:06
3	Zn 213.857†	10587.7	9513.1	[100]	ug/L	12:52:06
3	SiO2†	15645.8	14399.0	[1069.5]	ug/L	12:52:42

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	914547.5	2934.26	0.32%	104.25	%
Sc Radial	4018.1	14.52	0.36%	103	%
Y 371.029	769823.1	2416.34	0.31%	101.85	%
Y RADIAL	4436.9	20.55	0.46%	100.6	%
Ag 328.068†	20810.8	116.25	0.56%	[100]	ug/L
As 188.979†	208.0	5.71	2.75%	[100]	ug/L
B 249.677†	3755.9	39.08	1.04%	[100]	ug/L
Ba 233.527†	12352.0	85.16	0.69%	[100]	ug/L
Be 313.107†	255529.9	485.76	0.19%	[100]	ug/L
Cd 226.502†	8359.7	69.12	0.83%	[100]	ug/L
Co 228.616†	4553.5	1.67	0.04%	[100]	ug/L
Cr 267.716†	8614.2	49.31	0.57%	[100]	ug/L
Cu 324.752†	31053.1	214.93	0.69%	[100]	ug/L
K 766.490 Radial†	4968.8	71.55	1.44%	[1000]	ug/L
Mn 257.610†	85565.9	631.38	0.74%	[100]	ug/L
Mo 202.031†	1310.7	8.66	0.66%	[100]	ug/L
Ni 231.604†	3717.0	10.29	0.28%	[100]	ug/L
P 214.914†	774.7	7.02	0.91%	[500]	ug/L
Pb 220.353†	784.3	2.54	0.32%	[100]	ug/L
S 181.975 Axial†	128.5	2.26	1.76%	[200]	ug/L
Sb 206.836†	272.4	5.80	2.13%	[100]	ug/L
Se 196.026†	145.5	8.02	5.51%	[100]	ug/L
Si 251.611†	14678.6	99.81	0.68%	[500]	ug/L
Sn 189.927†	532.6	1.47	0.28%	[100]	ug/L
Sr 421.552†	13982.3	20.28	0.15%	[100]	ug/L
Ti 334.940†	61270.3	403.85	0.66%	[100]	ug/L
Tl 190.801†	306.6	2.39	0.78%	[100]	ug/L
U 409.014†	3676.8	45.00	1.22%	[100]	ug/L
V 292.402†	13750.4	145.82	1.06%	[100]	ug/L
Zn 213.857†	9535.2	57.07	0.60%	[100]	ug/L
SiO2†	14568.0	152.72	1.05%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/24/2010 12:54:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3959.7	3959.7	101	%	12:57:04
1	Y RADIAL	4531.2	4531.2	102.7	%	12:56:44
1	Al 396.153Radial†	5299.7	5357.4	[5000]	ug/L	12:56:44
1	Ca 317.933Radial†	2504.8	2459.2	[5000]	ug/L	12:57:04
1	K 766.490 Radial†	28970.2	26031.7	[5000]	ug/L	12:56:44
1	Mg 279.077 IEC†	114.3	109.0	[5000]	ug/L	12:57:04
1	Sr 421.552†	74496.5	73692.2	[500]	ug/L	12:56:44
1	Sc 361.383	897125.4	897125.4	102.27	%	12:58:02
1	Y 371.029	748525.9	748525.9	99.032	%	12:58:02
1	Ag 328.068†	107053.3	104438.9	[500]	ug/L	12:58:07
1	As 188.979†	1070.9	1065.4	[500]	ug/L	12:58:27
1	B 249.677†	19759.8	19719.9	[500]	ug/L	12:58:07
1	Ba 233.527†	63021.1	61625.0	[500]	ug/L	12:58:07
1	Be 313.107†	1311064.9	1285753.6	[500]	ug/L	12:58:02
1	Cd 226.502†	42580.3	41832.3	[500]	ug/L	12:58:07
1	Co 228.616†	23629.3	23171.9	[500]	ug/L	12:58:07
1	Cr 267.716†	44167.4	43110.3	[500]	ug/L	12:58:07
1	Cu 324.752†	168199.0	158478.3	[500]	ug/L	12:58:07
1	Mn 257.610†	435613.3	425494.6	[500]	ug/L	12:58:02
1	Mo 202.031†	6724.4	6565.1	[500]	ug/L	12:58:27
1	Ni 231.604†	19643.7	19145.6	[500]	ug/L	12:58:07
1	P 214.914†	4299.3	3993.5	[2500]	ug/L	12:58:27
1	Pb 220.353†	3963.4	3933.6	[500]	ug/L	12:58:27
1	S 181.975 Axial†	723.9	667.0	[1000]	ug/L	12:58:27
1	Sb 206.836†	1435.8	1367.3	[500]	ug/L	12:58:27
1	Se 196.026†	731.1	742.6	[500]	ug/L	12:58:27
1	Si 251.611†	76752.3	74491.9	[2500]	ug/L	12:58:07
1	Sn 189.927†	2742.3	2671.0	[500]	ug/L	12:58:27
1	Ti 334.940†	312680.9	307121.1	[500]	ug/L	12:58:07
1	Tl 190.801†	1515.9	1514.9	[500]	ug/L	12:58:27
1	U 409.014†	15062.9	17615.5	[500]	ug/L	12:58:07
1	V 292.402†	69312.6	69281.2	[500]	ug/L	12:58:07
1	Zn 213.857†	49818.2	48107.4	[500]	ug/L	12:58:07
1	SiO2†	76507.0	74256.1	[5347.5]	ug/L	12:59:34
2	Sc Radial	3933.2	3933.2	100	%	12:57:29
2	Y RADIAL	4459.3	4459.3	101.1	%	12:57:09
2	Al 396.153Radial†	5244.5	5337.7	[5000]	ug/L	12:57:09
2	Ca 317.933Radial†	2485.6	2456.8	[5000]	ug/L	12:57:29
2	K 766.490 Radial†	28957.5	26211.9	[5000]	ug/L	12:57:09
2	Mg 279.077 IEC†	114.5	110.0	[5000]	ug/L	12:57:29
2	Sr 421.552†	73720.2	73414.8	[500]	ug/L	12:57:09
2	Sc 361.383	905003.4	905003.4	103.17	%	12:58:33
2	Y 371.029	755053.0	755053.0	99.895	%	12:58:33
2	Ag 328.068†	107573.6	104032.0	[500]	ug/L	12:58:38
2	As 188.979†	1079.9	1065.0	[500]	ug/L	12:58:58
2	B 249.677†	19869.0	19657.5	[500]	ug/L	12:58:38
2	Ba 233.527†	63498.4	61551.2	[500]	ug/L	12:58:38
2	Be 313.107†	1324029.2	1287160.3	[500]	ug/L	12:58:33
2	Cd 226.502†	42949.2	41827.5	[500]	ug/L	12:58:38
2	Co 228.616†	23774.0	23111.0	[500]	ug/L	12:58:38
2	Cr 267.716†	44412.4	42971.8	[500]	ug/L	12:58:38
2	Cu 324.752†	168924.0	157749.4	[500]	ug/L	12:58:38
2	Mn 257.610†	439858.6	425901.7	[500]	ug/L	12:58:33
2	Mo 202.031†	6721.4	6505.0	[500]	ug/L	12:58:58
2	Ni 231.604†	19793.6	19123.7	[500]	ug/L	12:58:38
2	P 214.914†	4301.9	3959.3	[2500]	ug/L	12:58:58
2	Pb 220.353†	3958.2	3894.8	[500]	ug/L	12:58:58
2	S 181.975 Axial†	735.7	672.3	[1000]	ug/L	12:58:58
2	Sb 206.836†	1436.7	1355.9	[500]	ug/L	12:58:58

2	Se 196.026†	726.6	732.0	[500]	ug/L	12:58:58
2	Si 251.611†	77292.3	74362.0	[2500]	ug/L	12:58:38
2	Sn 189.927†	2746.6	2651.9	[500]	ug/L	12:58:58
2	Ti 334.940†	314167.7	305900.8	[500]	ug/L	12:58:38
2	Tl 190.801†	1521.2	1507.1	[500]	ug/L	12:58:58
2	U 409.014†	15023.8	17449.3	[500]	ug/L	12:58:38
2	V 292.402†	69648.6	69017.0	[500]	ug/L	12:58:38
2	Zn 213.857†	50222.2	48075.0	[500]	ug/L	12:58:38
2	SiO2†	76326.3	73429.6	[5347.5]	ug/L	12:59:40
3	Sc Radial	3958.2	3958.2	101	%	12:57:55
3	Y RADIAL	4421.5	4421.5	100.2	%	12:57:35
3	Al 396.153Radial†	5185.2	5246.0	[5000]	ug/L	12:57:35
3	Ca 317.933Radial†	2501.0	2456.4	[5000]	ug/L	12:57:55
3	K 766.490 Radial†	28377.0	25454.7	[5000]	ug/L	12:57:35
3	Mg 279.077 IEC†	113.2	108.0	[5000]	ug/L	12:57:55
3	Sr 421.552†	72815.9	72054.9	[500]	ug/L	12:57:35
3	Sc 361.383	899796.5	899796.5	102.57	%	12:59:04
3	Y 371.029	750250.2	750250.2	99.260	%	12:59:04
3	Ag 328.068†	107424.7	104490.3	[500]	ug/L	12:59:09
3	As 188.979†	1092.1	1082.9	[500]	ug/L	12:59:29
3	B 249.677†	19835.0	19735.8	[500]	ug/L	12:59:09
3	Ba 233.527†	63425.2	61836.0	[500]	ug/L	12:59:09
3	Be 313.107†	1311646.2	1282514.5	[500]	ug/L	12:59:04
3	Cd 226.502†	42936.9	42056.3	[500]	ug/L	12:59:09
3	Co 228.616†	23728.0	23199.5	[500]	ug/L	12:59:09
3	Cr 267.716†	44364.5	43174.2	[500]	ug/L	12:59:09
3	Cu 324.752†	167878.7	157677.8	[500]	ug/L	12:59:09
3	Mn 257.610†	436632.8	425224.0	[500]	ug/L	12:59:04
3	Mo 202.031†	6787.8	6607.4	[500]	ug/L	12:59:29
3	Ni 231.604†	19669.6	19113.8	[500]	ug/L	12:59:09
3	P 214.914†	4317.1	3998.3	[2500]	ug/L	12:59:29
3	Pb 220.353†	3990.8	3948.8	[500]	ug/L	12:59:29
3	S 181.975 Axial†	729.2	670.1	[1000]	ug/L	12:59:29
3	Sb 206.836†	1442.2	1369.4	[500]	ug/L	12:59:29
3	Se 196.026†	729.7	739.2	[500]	ug/L	12:59:29
3	Si 251.611†	77120.7	74628.3	[2500]	ug/L	12:59:09
3	Sn 189.927†	2757.9	2678.2	[500]	ug/L	12:59:29
3	Ti 334.940†	313399.4	306913.9	[500]	ug/L	12:59:09
3	Tl 190.801†	1530.3	1524.5	[500]	ug/L	12:59:29
3	U 409.014†	14852.9	17367.0	[500]	ug/L	12:59:09
3	V 292.402†	69433.5	69197.9	[500]	ug/L	12:59:09
3	Zn 213.857†	50097.8	48235.4	[500]	ug/L	12:59:09
3	SiO2†	76717.8	74239.4	[5347.5]	ug/L	12:59:45

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	900641.8	4006.45	0.44%	102.67	%
Sc Radial	3950.4	14.89	0.38%	101	%
Y 371.029	751276.3	3382.41	0.45%	99.396	%
Y RADIAL	4470.7	55.69	1.25%	101.4	%
Ag 328.068†	104320.4	251.07	0.24%	[500]	ug/L
Al 396.153Radial†	5313.7	59.46	1.12%	[5000]	ug/L
As 188.979†	1071.1	10.25	0.96%	[500]	ug/L
B 249.677†	19704.4	41.40	0.21%	[500]	ug/L
Ba 233.527†	61670.7	147.80	0.24%	[500]	ug/L
Be 313.107†	1285142.8	2382.35	0.19%	[500]	ug/L
Ca 317.933Radial†	2457.5	1.55	0.06%	[5000]	ug/L
Cd 226.502†	41905.4	130.75	0.31%	[500]	ug/L
Co 228.616†	23160.8	45.28	0.20%	[500]	ug/L
Cr 267.716†	43085.4	103.50	0.24%	[500]	ug/L
Cu 324.752†	157968.5	442.96	0.28%	[500]	ug/L
K 766.490 Radial†	25899.5	395.55	1.53%	[5000]	ug/L
Mg 279.077 IEC†	109.0	1.01	0.92%	[5000]	ug/L
Mn 257.610†	425540.1	341.15	0.08%	[500]	ug/L
Mo 202.031†	6559.2	51.47	0.78%	[500]	ug/L
Ni 231.604†	19127.7	16.28	0.09%	[500]	ug/L
P 214.914†	3983.7	21.24	0.53%	[2500]	ug/L
Pb 220.353†	3925.8	27.83	0.71%	[500]	ug/L
S 181.975 Axial†	669.8	2.64	0.39%	[1000]	ug/L

Sb 206.836†	1364.2	7.24	0.53%	[500]	ug/L
Se 196.026†	737.9	5.41	0.73%	[500]	ug/L
Si 251.611†	74494.1	133.14	0.18%	[2500]	ug/L
Sn 189.927†	2667.0	13.62	0.51%	[500]	ug/L
Sr 421.552†	73054.0	876.27	1.20%	[500]	ug/L
Ti 334.940†	306645.3	653.00	0.21%	[500]	ug/L
Tl 190.801†	1515.5	8.69	0.57%	[500]	ug/L
U 409.014†	17477.3	126.58	0.72%	[500]	ug/L
V 292.402†	69165.3	135.09	0.20%	[500]	ug/L
Zn 213.857†	48139.3	84.84	0.18%	[500]	ug/L
SiO2†	73975.0	472.42	0.64%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/24/2010 13:01:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3880.9	3880.9	99.0	%	13:04:09
1	Y RADIAL	4366.3	4366.3	98.99	%	13:03:49
1	Al 396.153Radial†	10508.7	10723.7	[10000]	ug/L	13:03:49
1	Ca 317.933Radial†	4948.7	4977.4	[10000]	ug/L	13:03:49
1	Fe 238.204 Radial†	739.4	735.3	[10000]	ug/L	13:04:09
1	K 766.490 Radial†	54503.6	52395.8	[10000]	ug/L	13:03:49
1	Mg 279.077 IEC†	217.4	215.4	[10000]	ug/L	13:04:09
1	Na 589.592 Radial†	31922.6	33053.9	[10000]	ug/L	13:03:49
1	Sr 421.552†	143109.9	144470.8	[1000]	ug/L	13:03:49
1	Sc 361.383	862098.1	862098.1	98.275	%	13:05:12
1	Y 371.029	730592.8	730592.8	96.659	%	13:05:12
1	Ag 328.068†	213991.6	217507.6	[1000]	ug/L	13:05:12
1	As 188.979†	2199.7	2256.5	[1000]	ug/L	13:05:32
1	B 249.677†	40577.2	41687.7	[1000]	ug/L	13:05:12
1	Ba 233.527†	126278.9	128497.0	[1000]	ug/L	13:05:12
1	Be 313.107†	2643845.8	2694017.5	[1000]	ug/L	13:05:07
1	Cd 226.502†	85249.3	86942.0	[1000]	ug/L	13:05:12
1	Co 228.616†	47146.8	48040.9	[1000]	ug/L	13:05:12
1	Cr 267.716†	88467.4	89942.6	[1000]	ug/L	13:05:12
1	Cu 324.752†	331740.6	331573.1	[1000]	ug/L	13:05:12
1	Mn 257.610†	873120.1	887987.9	[1000]	ug/L	13:05:07
1	Mo 202.031†	13513.2	13740.3	[1000]	ug/L	13:05:32
1	Ni 231.604†	39004.7	39626.9	[1000]	ug/L	13:05:12
1	P 214.914†	8438.2	8375.9	[5000]	ug/L	13:05:32
1	Pb 220.353†	8018.1	8217.0	[1000]	ug/L	13:05:32
1	S 181.975 Axial†	1417.0	1401.1	[2000]	ug/L	13:05:32
1	Sb 206.836†	2869.6	2883.3	[1000]	ug/L	13:05:32
1	Se 196.026†	1473.1	1526.7	[1000]	ug/L	13:05:32
1	Si 251.611†	153638.7	155777.3	[5000]	ug/L	13:05:12
1	Sn 189.927†	5532.1	5618.7	[1000]	ug/L	13:05:32
1	Ti 334.940†	629710.8	642138.6	[1000]	ug/L	13:05:12
1	Tl 190.801†	3059.8	3146.1	[1000]	ug/L	13:05:32
1	U 409.014†	33013.1	36479.2	[1000]	ug/L	13:05:12
1	V 292.402†	140898.6	144877.6	[1000]	ug/L	13:05:12
1	Zn 213.857†	98955.1	100086.1	[1000]	ug/L	13:05:12
1	SiO2†	154057.4	156207.2	[10695]	ug/L	13:06:41
2	Sc Radial	3870.6	3870.6	98.8	%	13:04:34
2	Y RADIAL	4379.4	4379.4	99.29	%	13:04:14
2	Al 396.153Radial†	10539.9	10783.7	[10000]	ug/L	13:04:14
2	Ca 317.933Radial†	4960.3	5002.4	[10000]	ug/L	13:04:14
2	Fe 238.204 Radial†	735.6	733.4	[10000]	ug/L	13:04:34
2	K 766.490 Radial†	54665.8	52707.5	[10000]	ug/L	13:04:14
2	Mg 279.077 IEC†	221.2	219.8	[10000]	ug/L	13:04:34
2	Na 589.592 Radial†	32289.0	33511.2	[10000]	ug/L	13:04:14
2	Sr 421.552†	144136.6	145897.3	[1000]	ug/L	13:04:14
2	Sc 361.383	862519.3	862519.3	98.323	%	13:05:44
2	Y 371.029	730370.7	730370.7	96.630	%	13:05:44
2	Ag 328.068†	214513.9	217932.4	[1000]	ug/L	13:05:44
2	As 188.979†	2212.0	2268.0	[1000]	ug/L	13:06:04
2	B 249.677†	40609.6	41700.5	[1000]	ug/L	13:05:44
2	Ba 233.527†	126652.9	128814.6	[1000]	ug/L	13:05:44
2	Be 313.107†	2629012.2	2677617.0	[1000]	ug/L	13:05:38
2	Cd 226.502†	85562.0	87217.7	[1000]	ug/L	13:05:44
2	Co 228.616†	47342.7	48216.7	[1000]	ug/L	13:05:44
2	Cr 267.716†	88487.6	89919.2	[1000]	ug/L	13:05:44
2	Cu 324.752†	332651.7	332334.9	[1000]	ug/L	13:05:44
2	Mn 257.610†	868761.6	883121.1	[1000]	ug/L	13:05:38
2	Mo 202.031†	13507.4	13727.7	[1000]	ug/L	13:06:04
2	Ni 231.604†	39139.1	39744.2	[1000]	ug/L	13:05:44

2	P 214.914†	8465.6	8399.4	[5000]	ug/L	13:06:04
2	Pb 220.353†	7995.5	8190.0	[1000]	ug/L	13:06:04
2	S 181.975 Axial†	1420.9	1404.3	[2000]	ug/L	13:06:04
2	Sb 206.836†	2875.8	2888.2	[1000]	ug/L	13:06:04
2	Se 196.026†	1486.2	1539.3	[1000]	ug/L	13:06:04
2	Si 251.611†	154172.3	156243.7	[5000]	ug/L	13:05:44
2	Sn 189.927†	5555.0	5639.2	[1000]	ug/L	13:06:04
2	Ti 334.940†	631308.0	643450.1	[1000]	ug/L	13:05:44
2	Tl 190.801†	3069.3	3154.2	[1000]	ug/L	13:06:04
2	U 409.014†	33087.8	36538.8	[1000]	ug/L	13:05:44
2	V 292.402†	140835.9	144743.8	[1000]	ug/L	13:05:44
2	Zn 213.857†	99266.4	100353.5	[1000]	ug/L	13:05:44
2	SiO2†	151317.5	153344.1	[10695]	ug/L	13:06:46
3	Sc Radial	3888.1	3888.1	99.2	%	13:04:59
3	Y RADIAL	4297.5	4297.5	97.43	%	13:04:39
3	Al 396.153Radial†	10402.0	10596.6	[10000]	ug/L	13:04:39
3	Ca 317.933Radial†	4857.0	4875.7	[10000]	ug/L	13:04:39
3	Fe 238.204 Radial†	737.7	732.2	[10000]	ug/L	13:04:59
3	K 766.490 Radial†	53748.1	51533.5	[10000]	ug/L	13:04:39
3	Mg 279.077 IEC†	220.0	217.7	[10000]	ug/L	13:04:59
3	Na 589.592 Radial†	31437.0	32505.4	[10000]	ug/L	13:04:39
3	Sr 421.552†	141054.9	142134.5	[1000]	ug/L	13:04:39
3	Sc 361.383	859586.0	859586.0	97.989	%	13:06:15
3	Y 371.029	727059.1	727059.1	96.192	%	13:06:15
3	Ag 328.068†	213575.5	217719.3	[1000]	ug/L	13:06:15
3	As 188.979†	2207.6	2271.2	[1000]	ug/L	13:06:35
3	B 249.677†	40605.4	41837.2	[1000]	ug/L	13:06:15
3	Ba 233.527†	125588.7	128168.1	[1000]	ug/L	13:06:15
3	Be 313.107†	2624977.6	2682624.1	[1000]	ug/L	13:06:10
3	Cd 226.502†	84961.5	86901.8	[1000]	ug/L	13:06:15
3	Co 228.616†	47045.8	48078.0	[1000]	ug/L	13:06:15
3	Cr 267.716†	87921.2	89648.3	[1000]	ug/L	13:06:15
3	Cu 324.752†	331178.0	331985.5	[1000]	ug/L	13:06:15
3	Mn 257.610†	869310.7	886696.8	[1000]	ug/L	13:06:10
3	Mo 202.031†	13519.7	13787.1	[1000]	ug/L	13:06:35
3	Ni 231.604†	38715.6	39447.9	[1000]	ug/L	13:06:15
3	P 214.914†	8449.3	8412.3	[5000]	ug/L	13:06:35
3	Pb 220.353†	7981.9	8203.9	[1000]	ug/L	13:06:35
3	S 181.975 Axial†	1416.6	1404.9	[2000]	ug/L	13:06:35
3	Sb 206.836†	2891.6	2914.3	[1000]	ug/L	13:06:35
3	Se 196.026†	1494.8	1553.2	[1000]	ug/L	13:06:35
3	Si 251.611†	153322.8	155911.9	[5000]	ug/L	13:06:15
3	Sn 189.927†	5545.6	5648.9	[1000]	ug/L	13:06:35
3	Ti 334.940†	627308.7	641559.9	[1000]	ug/L	13:06:15
3	Tl 190.801†	3061.7	3157.1	[1000]	ug/L	13:06:35
3	U 409.014†	32986.5	36550.2	[1000]	ug/L	13:06:15
3	V 292.402†	140217.5	144601.5	[1000]	ug/L	13:06:15
3	Zn 213.857†	98578.6	99996.2	[1000]	ug/L	13:06:15
3	SiO2†	154226.8	156838.3	[10695]	ug/L	13:06:51

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	861401.1	1586.02	0.18%	98.195	%
Sc Radial	3879.9	8.80	0.23%	99.0	%
Y 371.029	729340.9	1979.20	0.27%	96.494	%
Y RADIAL	4347.7	43.98	1.01%	98.57	%
Ag 328.068†	217719.8	212.42	0.10%	[1000]	ug/L
Al 396.153Radial†	10701.3	95.53	0.89%	[10000]	ug/L
As 188.979†	2265.2	7.71	0.34%	[1000]	ug/L
B 249.677†	41741.8	82.83	0.20%	[1000]	ug/L
Ba 233.527†	128493.2	323.24	0.25%	[1000]	ug/L
Be 313.107†	2684752.8	8404.92	0.31%	[1000]	ug/L
Ca 317.933Radial†	4951.8	67.11	1.36%	[10000]	ug/L
Cd 226.502†	87020.5	171.97	0.20%	[1000]	ug/L
Co 228.616†	48111.9	92.67	0.19%	[1000]	ug/L
Cr 267.716†	89836.7	163.59	0.18%	[1000]	ug/L
Cu 324.752†	331964.5	381.32	0.11%	[1000]	ug/L
Fe 238.204 Radial†	733.7	1.59	0.22%	[10000]	ug/L
K 766.490 Radial†	52212.3	608.15	1.16%	[10000]	ug/L

Mg 279.077 IEC†	217.6	2.22	1.02%	[10000]	ug/L
Mn 257.610†	885935.3	2521.17	0.28%	[1000]	ug/L
Mo 202.031†	13751.7	31.30	0.23%	[1000]	ug/L
Na 589.592 Radial†	33023.5	503.61	1.53%	[10000]	ug/L
Ni 231.604†	39606.3	149.23	0.38%	[1000]	ug/L
P 214.914†	8395.9	18.47	0.22%	[5000]	ug/L
Pb 220.353†	8203.6	13.53	0.16%	[1000]	ug/L
S 181.975 Axial†	1403.4	2.07	0.15%	[2000]	ug/L
Sb 206.836†	2895.2	16.67	0.58%	[1000]	ug/L
Se 196.026†	1539.7	13.25	0.86%	[1000]	ug/L
Si 251.611†	155977.6	240.04	0.15%	[5000]	ug/L
Sn 189.927†	5635.6	15.44	0.27%	[1000]	ug/L
Sr 421.552†	144167.5	1899.60	1.32%	[1000]	ug/L
Ti 334.940†	642382.9	968.50	0.15%	[1000]	ug/L
Tl 190.801†	3152.5	5.73	0.18%	[1000]	ug/L
U 409.014†	36522.7	38.15	0.10%	[1000]	ug/L
V 292.402†	144741.0	138.09	0.10%	[1000]	ug/L
Zn 213.857†	100145.3	185.88	0.19%	[1000]	ug/L
SiO2†	155463.2	1862.13	1.20%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/24/2010 13:09:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	3780.3	3780.3	96.5	%	13:11:16
1	Y RADIAL	4156.9	4156.9	94.24	%	13:11:16
1	Al 396.153Radial†	52348.5	54379.2	[50000]	ug/L	13:10:56
1	Ca 317.933Radial†	23503.8	24345.4	[50000]	ug/L	13:10:56
1	Fe 238.204 Radial†	1374.2	1413.2	[20000]	ug/L	13:11:16
1	Mg 279.077 IEC†	1004.5	1037.2	[50000]	ug/L	13:11:16
1	Na 589.592 Radial†	62730.7	65849.2	[20000]	ug/L	13:10:56
1	Sc 361.383	860273.3	860273.3	98.067	%	13:12:13
1	Y 371.029	713382.4	713382.4	94.382	%	13:12:13
2	Sc Radial	3848.6	3848.6	98.2	%	13:11:41
2	Y RADIAL	4208.0	4208.0	95.40	%	13:11:41
2	Al 396.153Radial†	52279.8	53346.7	[50000]	ug/L	13:11:21
2	Ca 317.933Radial†	23456.6	23865.2	[50000]	ug/L	13:11:21
2	Fe 238.204 Radial†	1390.5	1404.5	[20000]	ug/L	13:11:41
2	Mg 279.077 IEC†	1013.0	1027.4	[50000]	ug/L	13:11:41
2	Na 589.592 Radial†	62730.1	64695.1	[20000]	ug/L	13:11:21
2	Sc 361.383	871844.5	871844.5	99.386	%	13:12:19
2	Y 371.029	722628.9	722628.9	95.606	%	13:12:19
3	Sc Radial	3854.8	3854.8	98.4	%	13:12:06
3	Y RADIAL	4211.5	4211.5	95.48	%	13:12:06
3	Al 396.153Radial†	51229.1	52192.0	[50000]	ug/L	13:11:46
3	Ca 317.933Radial†	23058.4	23421.6	[50000]	ug/L	13:11:46
3	Fe 238.204 Radial†	1383.5	1395.1	[20000]	ug/L	13:12:06
3	Mg 279.077 IEC†	1007.7	1020.4	[50000]	ug/L	13:12:06
3	Na 589.592 Radial†	61330.9	63168.9	[20000]	ug/L	13:11:46
3	Sc 361.383	865956.5	865956.5	98.715	%	13:12:24
3	Y 371.029	717851.7	717851.7	94.974	%	13:12:24

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	866024.8	5785.90	0.67%	98.723	%
Sc Radial	3827.9	41.34	1.08%	97.7	%
Y 371.029	717954.3	4624.13	0.64%	94.987	%
Y RADIAL	4192.1	30.56	0.73%	95.04	%
Al 396.153Radial†	53306.0	1094.15	2.05%	[50000]	ug/L
Ca 317.933Radial†	23877.4	462.04	1.94%	[50000]	ug/L
Fe 238.204 Radial†	1404.3	9.05	0.64%	[20000]	ug/L
Mg 279.077 IEC†	1028.3	8.45	0.82%	[50000]	ug/L
Na 589.592 Radial†	64571.1	1344.43	2.08%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	215.8	0.00000	0.999854	
Al 396.153Radial	3	Lin Thru 0	0.0	1.066	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.239	0.00000	0.999740	
B 249.677	3	Lin Thru 0	0.0	41.25	0.00000	0.999714	
Ba 233.527	3	Lin Thru 0	0.0	127.4	0.00000	0.999867	
Be 313.107	3	Lin Thru 0	0.0	2661	0.00000	0.999847	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.4784	0.00000	0.999971	
Cd 226.502	3	Lin Thru 0	0.0	86.36	0.00000	0.999886	
Co 228.616	3	Lin Thru 0	0.0	47.74	0.00000	0.999880	
Cr 267.716	3	Lin Thru 0	0.0	89.08	0.00000	0.999861	
Cu 324.752	3	Lin Thru 0	0.0	328.6	0.00000	0.999799	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0708	0.00000	0.999842	
K 766.490 Radial	3	Lin Thru 0	0.0	5.211	0.00000	0.999986	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0206	0.00000	0.999923
Mn 257.610	3	Lin Thru 0	0.0	878.8	0.00000	0.999872
Mo 202.031	3	Lin Thru 0	0.0	13.62	0.00000	0.999823
Na 589.592 Radia	2	Lin Thru 0	0.0	3.243	0.00000	0.999959
Ni 231.604	3	Lin Thru 0	0.0	39.32	0.00000	0.999894
P 214.914	3	Lin Thru 0	0.0	1.661	0.00000	0.999771
Pb 220.353	3	Lin Thru 0	0.0	8.131	0.00000	0.999846
S 181.975 Axial	3	Lin Thru 0	0.0	0.6949	0.00000	0.999810
Sb 206.836	3	Lin Thru 0	0.0	2.861	0.00000	0.999721
Se 196.026	3	Lin Thru 0	0.0	1.526	0.00000	0.999852
Si 251.611	3	Lin Thru 0	0.0	30.90	0.00000	0.999828
Sn 189.927	3	Lin Thru 0	0.0	5.573	0.00000	0.999760
Sr 421.552	3	Lin Thru 0	0.0	144.5	0.00000	0.999981
Ti 334.940	3	Lin Thru 0	0.0	636.4	0.00000	0.999829
Tl 190.801	3	Lin Thru 0	0.0	3.128	0.00000	0.999879
U 409.014	3	Lin Thru 0	0.0	36.21	0.00000	0.999850
V 292.402	3	Lin Thru 0	0.0	143.4	0.00000	0.999835
Zn 213.857	3	Lin Thru 0	0.0	99.34	0.00000	0.999873
SiO2	3	Lin Thru 0	0.0	14.39	0.00000	0.999800

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/24/2010 13:14:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4002.5	4002.5	102	%			13:16:28
1	Y RADIAL	4387.7	4387.7	99.47	%			13:16:28
1	Al 396.153Radial†	5568.5	5564.5	5193.6	ug/L	5193.6	ppb	13:16:28
1	Ca 317.933Radial†	2581.1	2507.4	5241.7	ug/L	5241.7	ppb	13:16:49
1	Fe 238.204 Radial†	390.7	371.2	5255.5	ug/L	5255.5	ppb	13:16:49
1	K 766.490 Radial†	16204.1	13225.5	2534.4	ug/L	2534.4	ppb	13:16:28
1	Mg 279.077 IEC†	115.3	108.8	5276.4	ug/L	5276.4	ppb	13:16:49
1	Na 589.592 Radial†	7802.4	8459.0	2608.1	ug/L	2608.1	ppb	13:16:28
1	Sr 421.552†	79385.6	77689.3	537.54	ug/L	537.54	ppb	13:16:28
1	Sc 361.383	910091.3	910091.3	103.75	%			13:17:46
1	Y 371.029	762006.8	762006.8	100.82	%			13:17:46
1	Ag 328.068†	56217.1	53946.9	253.08	ug/L	253.08	ppb	13:17:46
1	As 188.979†	1087.5	1066.5	480.49	ug/L	480.49	ppb	13:18:06
1	B 249.677†	22056.9	21658.7	522.80	ug/L	522.80	ppb	13:17:46
1	Ba 233.527†	69368.8	66865.6	525.97	ug/L	525.97	ppb	13:17:46
1	Be 313.107†	698166.4	676720.3	255.43	ug/L	255.43	ppb	13:17:46
1	Cd 226.502†	44207.9	42807.9	495.57	ug/L	495.57	ppb	13:18:06
1	Co 228.616†	25271.8	24425.8	511.81	ug/L	511.81	ppb	13:18:06
1	Cr 267.716†	46315.4	44565.5	501.29	ug/L	501.29	ppb	13:17:46
1	Cu 324.752†	184507.5	171854.9	522.98	ug/L	522.98	ppb	13:17:46
1	Mn 257.610†	459927.2	442862.2	504.25	ug/L	504.25	ppb	13:17:46
1	Mo 202.031†	7354.4	7078.7	520.16	ug/L	520.16	ppb	13:18:06
1	Ni 231.604†	19739.1	18964.0	482.00	ug/L	482.00	ppb	13:18:06
1	P 214.914†	4633.2	4255.4	2459.8	ug/L	2459.8	ppb	13:18:06
1	Pb 220.353†	4263.1	4167.3	514.11	ug/L	514.11	ppb	13:18:06
1	S 181.975 Axial†	1781.8	1676.7	2411.8	ug/L	2411.8	ppb	13:18:06
1	Sb 206.836†	1471.8	1382.0	501.73	ug/L	501.73	ppb	13:18:06
1	Se 196.026†	4059.6	3940.8	2599.6	ug/L	2599.6	ppb	13:18:06
1	Si 251.611†	156795.7	150576.0	4866.1	ug/L	4866.1	ppb	13:17:46
1	Sn 189.927†	3008.1	2889.0	518.99	ug/L	518.99	ppb	13:18:06
1	Ti 334.940†	324728.6	314377.8	493.89	ug/L	493.89	ppb	13:17:46
1	Tl 190.801†	1627.4	1601.2	515.28	ug/L	515.28	ppb	13:18:06
1	U 409.014†	15221.6	17558.6	483.15	ug/L	483.15	ppb	13:17:46
1	V 292.402†	72012.9	70918.4	501.41	ug/L	501.41	ppb	13:17:46
1	Zn 213.857†	51785.9	49310.1	491.81	ug/L	491.81	ppb	13:17:46
1	SiO2†	153306.5	147216.7	10217	ug/L	10217	ppb	13:19:04
2	Sc Radial	4016.6	4016.6	102	%			13:16:54
2	Y RADIAL	4409.0	4409.0	99.96	%			13:16:54
2	Al 396.153Radial†	5568.1	5544.9	5175.0	ug/L	5175.0	ppb	13:16:54
2	Ca 317.933Radial†	2593.7	2510.8	5248.9	ug/L	5248.9	ppb	13:17:14
2	Fe 238.204 Radial†	396.0	375.0	5308.8	ug/L	5308.8	ppb	13:17:14
2	K 766.490 Radial†	16360.7	13322.6	2553.0	ug/L	2553.0	ppb	13:16:54
2	Mg 279.077 IEC†	112.8	106.0	5140.6	ug/L	5140.6	ppb	13:17:14
2	Na 589.592 Radial†	7843.2	8472.0	2612.1	ug/L	2612.1	ppb	13:16:54
2	Sr 421.552†	79566.0	77592.3	536.86	ug/L	536.86	ppb	13:16:54
2	Sc 361.383	897996.3	897996.3	102.37	%			13:18:12
2	Y 371.029	751687.1	751687.1	99.450	%			13:18:12
2	Ag 328.068†	55639.3	54112.3	253.87	ug/L	253.87	ppb	13:18:12
2	As 188.979†	1097.5	1090.3	491.16	ug/L	491.16	ppb	13:18:32
2	B 249.677†	21785.1	21679.6	523.29	ug/L	523.29	ppb	13:18:12
2	Ba 233.527†	68356.1	66776.9	525.27	ug/L	525.27	ppb	13:18:12
2	Be 313.107†	688510.6	676351.8	255.29	ug/L	255.29	ppb	13:18:12
2	Cd 226.502†	44012.9	43191.5	500.01	ug/L	500.01	ppb	13:18:32
2	Co 228.616†	25177.8	24662.1	516.77	ug/L	516.77	ppb	13:18:32
2	Cr 267.716†	45780.1	44643.8	502.18	ug/L	502.18	ppb	13:18:12
2	Cu 324.752†	182271.7	172066.1	523.62	ug/L	523.62	ppb	13:18:12
2	Mn 257.610†	453911.4	442956.5	504.37	ug/L	504.37	ppb	13:18:12
2	Mo 202.031†	7316.1	7136.8	524.43	ug/L	524.43	ppb	13:18:32
2	Ni 231.604†	19677.9	19160.4	486.99	ug/L	486.99	ppb	13:18:32

2	P 214.914†	4596.9	4280.1	2474.5 ug/L	2474.5 ppb	13:18:32
2	Pb 220.353†	4237.4	4197.5	517.83 ug/L	517.83 ppb	13:18:32
2	S 181.975 Axial†	1757.4	1676.0	2410.8 ug/L	2410.8 ppb	13:18:32
2	Sb 206.836†	1461.5	1391.0	505.04 ug/L	505.04 ppb	13:18:32
2	Se 196.026†	4056.1	3990.0	2632.1 ug/L	2632.1 ppb	13:18:32
2	Si 251.611†	154707.8	150572.1	4865.9 ug/L	4865.9 ppb	13:18:12
2	Sn 189.927†	2993.6	2913.9	523.46 ug/L	523.46 ppb	13:18:32
2	Ti 334.940†	320615.0	314575.2	494.22 ug/L	494.22 ppb	13:18:12
2	Tl 190.801†	1619.2	1614.3	519.45 ug/L	519.45 ppb	13:18:32
2	U 409.014†	14892.7	17434.9	479.72 ug/L	479.72 ppb	13:18:12
2	V 292.402†	71135.6	70996.3	502.00 ug/L	502.00 ppb	13:18:12
2	Zn 213.857†	51226.3	49435.7	493.04 ug/L	493.04 ppb	13:18:12
2	SiO2†	153714.0	149605.1	10383 ug/L	10383 ppb	13:19:09
3	Sc Radial	3969.6	3969.6	101 %		13:17:19
3	Y RADIAL	4372.6	4372.6	99.13 %		13:17:19
3	Al 396.153Radial†	5517.9	5559.6	5189.2 ug/L	5189.2 ppb	13:17:19
3	Ca 317.933Radial†	2573.3	2520.7	5269.5 ug/L	5269.5 ppb	13:17:39
3	Fe 238.204 Radial†	394.6	378.2	5354.1 ug/L	5354.1 ppb	13:17:39
3	K 766.490 Radial†	16096.4	13250.7	2539.2 ug/L	2539.2 ppb	13:17:19
3	Mg 279.077 IEC†	111.9	106.4	5156.7 ug/L	5156.7 ppb	13:17:39
3	Na 589.592 Radial†	7604.2	8326.6	2567.3 ug/L	2567.3 ppb	13:17:19
3	Sr 421.552†	78330.9	77292.4	534.79 ug/L	534.79 ppb	13:17:19
3	Sc 361.383	909994.2	909994.2	103.73 %		13:18:38
3	Y 371.029	760463.9	760463.9	100.61 %		13:18:38
3	Ag 328.068†	56219.3	53954.8	253.15 ug/L	253.15 ppb	13:18:38
3	As 188.979†	1095.7	1074.5	484.12 ug/L	484.12 ppb	13:18:58
3	B 249.677†	22183.4	21782.9	525.80 ug/L	525.80 ppb	13:18:38
3	Ba 233.527†	69189.4	66699.8	524.67 ug/L	524.67 ppb	13:18:38
3	Be 313.107†	696913.9	675584.7	255.00 ug/L	255.00 ppb	13:18:38
3	Cd 226.502†	44019.2	42630.7	493.51 ug/L	493.51 ppb	13:18:58
3	Co 228.616†	25198.2	24357.5	510.37 ug/L	510.37 ppb	13:18:58
3	Cr 267.716†	46286.1	44542.0	501.04 ug/L	501.04 ppb	13:18:38
3	Cu 324.752†	184903.4	172255.5	524.20 ug/L	524.20 ppb	13:18:38
3	Mn 257.610†	459425.8	442426.1	503.77 ug/L	503.77 ppb	13:18:38
3	Mo 202.031†	7310.3	7036.9	517.10 ug/L	517.10 ppb	13:18:58
3	Ni 231.604†	19679.0	18908.1	480.58 ug/L	480.58 ppb	13:18:58
3	P 214.914†	4580.5	4205.0	2429.1 ug/L	2429.1 ppb	13:18:58
3	Pb 220.353†	4232.3	4138.0	510.49 ug/L	510.49 ppb	13:18:58
3	S 181.975 Axial†	1777.9	1673.1	2406.6 ug/L	2406.6 ppb	13:18:58
3	Sb 206.836†	1475.7	1385.9	502.96 ug/L	502.96 ppb	13:18:58
3	Se 196.026†	4052.3	3934.1	2595.6 ug/L	2595.6 ppb	13:18:58
3	Si 251.611†	156929.5	150721.2	4870.8 ug/L	4870.8 ppb	13:18:38
3	Sn 189.927†	2978.9	2861.2	514.00 ug/L	514.00 ppb	13:18:58
3	Ti 334.940†	324622.4	314309.0	493.80 ug/L	493.80 ppb	13:18:38
3	Tl 190.801†	1629.4	1603.3	515.94 ug/L	515.94 ppb	13:18:58
3	U 409.014†	15231.2	17569.5	483.44 ug/L	483.44 ppb	13:18:38
3	V 292.402†	71959.9	70874.7	501.05 ug/L	501.05 ppb	13:18:38
3	Zn 213.857†	51795.2	49324.3	491.95 ug/L	491.95 ppb	13:18:38
3	SiO2†	155095.5	148957.1	10338 ug/L	10338 ppb	13:19:14

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906027.3	103.28	%	0.793				0.77%
Sc Radial	3996.3	102	%	0.6				0.60%
Y 371.029	758052.6	100.29	%	0.736				0.73%
Y RADIAL	4389.8	99.52	%	0.415				0.42%
Ag 328.068†	54004.6	253.36	ug/L	0.437	253.36	ppb	0.437	0.17%
QC value within limits for Ag 328.068 Recovery = 101.35%								
Al 396.153Radial†	5556.3	5185.9	ug/L	9.69	5185.9	ppb	9.69	0.19%
QC value within limits for Al 396.153Radial Recovery = 103.72%								
As 188.979†	1077.1	485.26	ug/L	5.424	485.26	ppb	5.424	1.12%
QC value within limits for As 188.979 Recovery = 97.05%								
B 249.677†	21707.1	523.96	ug/L	1.611	523.96	ppb	1.611	0.31%
QC value within limits for B 249.677 Recovery = 104.79%								
Ba 233.527†	66780.7	525.30	ug/L	0.650	525.30	ppb	0.650	0.12%
QC value within limits for Ba 233.527 Recovery = 105.06%								
Be 313.107†	676218.9	255.24	ug/L	0.218	255.24	ppb	0.218	0.09%
QC value within limits for Be 313.107 Recovery = 102.10%								
Ca 317.933Radial†	2513.0	5253.4	ug/L	14.44	5253.4	ppb	14.44	0.27%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.07%
Cd 226.502†            42876.7      496.36 ug/L         3.322      496.36 ppb          3.322   0.67%
   QC value within limits for Cd 226.502  Recovery = 99.27%
Co 228.616†            24481.8      512.99 ug/L         3.356      512.99 ppb          3.356   0.65%
   QC value within limits for Co 228.616  Recovery = 102.60%
Cr 267.716†            44583.7      501.50 ug/L         0.599      501.50 ppb          0.599   0.12%
   QC value within limits for Cr 267.716  Recovery = 100.30%
Cu 324.752†           172058.8      523.60 ug/L         0.612      523.60 ppb          0.612   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.72%
Fe 238.204 Radial†       374.8      5306.1 ug/L         49.34      5306.1 ppb          49.34   0.93%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.12%
K 766.490 Radial†      13266.3      2542.2 ug/L          9.66      2542.2 ppb           9.66   0.38%
   QC value within limits for K 766.490 Radial  Recovery = 101.69%
Mg 279.077 IEC†          107.1      5191.2 ug/L         74.19      5191.2 ppb          74.19   1.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.82%
Mn 257.610†           442748.2      504.13 ug/L         0.318      504.13 ppb          0.318   0.06%
   QC value within limits for Mn 257.610  Recovery = 100.83%
Mo 202.031†             7084.1      520.57 ug/L         3.680      520.57 ppb          3.680   0.71%
   QC value within limits for Mo 202.031  Recovery = 104.11%
Na 589.592 Radial†      8419.2      2595.9 ug/L         24.81      2595.9 ppb          24.81   0.96%
   QC value within limits for Na 589.592 Radial  Recovery = 103.83%
Ni 231.604†            19010.8      483.19 ug/L         3.368      483.19 ppb          3.368   0.70%
   QC value within limits for Ni 231.604  Recovery = 96.64%
P 214.914†              4246.9      2454.5 ug/L         23.18      2454.5 ppb          23.18   0.94%
   QC value within limits for P 214.914  Recovery = 98.18%
Pb 220.353†             4167.6      514.15 ug/L         3.669      514.15 ppb          3.669   0.71%
   QC value within limits for Pb 220.353  Recovery = 102.83%
S 181.975 Axial†        1675.2      2409.7 ug/L          2.73      2409.7 ppb           2.73   0.11%
   QC value within limits for S 181.975 Axial  Recovery = 96.39%
Sb 206.836†             1386.3      503.25 ug/L         1.671      503.25 ppb          1.671   0.33%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†             3955.0      2609.1 ug/L         20.01      2609.1 ppb          20.01   0.77%
   QC value within limits for Se 196.026  Recovery = 104.36%
Si 251.611†           150623.1      4867.6 ug/L          2.79      4867.6 ppb           2.79   0.06%
   QC value within limits for Si 251.611  Recovery = 97.35%
Sn 189.927†             2888.0      518.82 ug/L         4.734      518.82 ppb          4.734   0.91%
   QC value within limits for Sn 189.927  Recovery = 103.76%
Sr 421.552†            77524.7      536.40 ug/L         1.432      536.40 ppb          1.432   0.27%
   QC value within limits for Sr 421.552  Recovery = 107.28%
Ti 334.940†           314420.7      493.97 ug/L         0.219      493.97 ppb          0.219   0.04%
   QC value within limits for Ti 334.940  Recovery = 98.79%
Tl 190.801†             1606.3      516.89 ug/L         2.239      516.89 ppb          2.239   0.43%
   QC value within limits for Tl 190.801  Recovery = 103.38%
U 409.014†             17521.0      482.10 ug/L         2.065      482.10 ppb          2.065   0.43%
   QC value within limits for U 409.014  Recovery = 96.42%
V 292.402†             70929.8      501.49 ug/L         0.479      501.49 ppb          0.479   0.10%
   QC value within limits for V 292.402  Recovery = 100.30%
Zn 213.857†            49356.7      492.27 ug/L         0.671      492.27 ppb          0.671   0.14%
   QC value within limits for Zn 213.857  Recovery = 98.45%
SiO2†                 148593.0       10312 ug/L          85.8       10312 ppb           85.8   0.83%
   QC value within limits for SiO2  Recovery = 96.42%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/24/2010 13:21:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3888.0	3888.0	99.2	%			13:23:38
1	Y RADIAL	4425.2	4425.2	100.3	%			13:23:18
1	Al 396.153Radial†	-125.8	-14.4	-13.548	ug/L	-13.548	ppb	13:23:18
1	Ca 317.933Radial†	15.2	-4.4	-9.1159	ug/L	-9.1159	ppb	13:23:38
1	Fe 238.204 Radial†	10.0	-1.2	-17.144	ug/L	-17.144	ppb	13:23:38
1	K 766.490 Radial†	2698.9	80.7	15.469	ug/L	15.469	ppb	13:23:18
1	Mg 279.077 IEC†	3.2	-0.8	-39.302	ug/L	-39.302	ppb	13:23:38
1	Na 589.592 Radial†	-711.1	103.0	31.763	ug/L	31.763	ppb	13:23:18
1	Sr 421.552†	28.0	-7.5	-0.0519	ug/L	-0.0519	ppb	13:23:18
1	Sc 361.383	889352.7	889352.7	101.38	%			13:24:35
1	Y 371.029	752996.9	752996.9	99.623	%			13:24:35
1	Ag 328.068†	285.8	41.5	0.1870	ug/L	0.1870	ppb	13:24:35
1	As 188.979†	-14.8	3.7	1.6321	ug/L	1.6321	ppb	13:24:55
1	B 249.677†	-200.2	200.8	4.8708	ug/L	4.8708	ppb	13:24:55
1	Ba 233.527†	6.7	8.0	0.0622	ug/L	0.0622	ppb	13:24:55
1	Be 313.107†	-3638.6	173.2	0.0648	ug/L	0.0648	ppb	13:24:35
1	Cd 226.502†	-192.8	6.0	0.0718	ug/L	0.0718	ppb	13:24:55
1	Co 228.616†	-65.4	2.1	0.0444	ug/L	0.0444	ppb	13:24:55
1	Cr 267.716†	63.8	-14.8	-0.1677	ug/L	-0.1677	ppb	13:24:55
1	Cu 324.752†	5979.5	-92.8	-0.2829	ug/L	-0.2829	ppb	13:24:35
1	Mn 257.610†	471.7	6.5	0.0073	ug/L	0.0073	ppb	13:24:55
1	Mo 202.031†	14.3	4.0	0.2904	ug/L	0.2904	ppb	13:24:55
1	Ni 231.604†	64.6	1.2	0.0317	ug/L	0.0317	ppb	13:24:55
1	P 214.914†	210.3	-3.1	-1.7875	ug/L	-1.7875	ppb	13:24:55
1	Pb 220.353†	-39.7	19.0	2.3329	ug/L	2.3329	ppb	13:24:55
1	S 181.975 Axial†	33.4	-7.9	-11.298	ug/L	-11.298	ppb	13:24:55
1	Sb 206.836†	42.2	4.9	1.7528	ug/L	1.7528	ppb	13:24:55
1	Se 196.026†	-26.3	1.8	1.1257	ug/L	1.1257	ppb	13:24:55
1	Si 251.611†	587.7	21.4	0.6887	ug/L	0.6887	ppb	13:24:55
1	Sn 189.927†	17.1	6.4	1.1457	ug/L	1.1457	ppb	13:24:55
1	Ti 334.940†	-1475.1	-81.0	-0.1250	ug/L	-0.1250	ppb	13:24:35
1	Tl 190.801†	-27.6	5.4	1.7165	ug/L	1.7165	ppb	13:24:55
1	U 409.014†	-2941.4	-14.7	-0.4036	ug/L	-0.4036	ppb	13:24:35
1	V 292.402†	-1540.9	-14.3	-0.0942	ug/L	-0.0942	ppb	13:24:35
1	Zn 213.857†	618.7	4.2	0.0455	ug/L	0.0455	ppb	13:24:55
1	SiO2†	612.6	49.8	3.4541	ug/L	3.4541	ppb	13:25:51
2	Sc Radial	3974.7	3974.7	101	%			13:24:03
2	Y RADIAL	4459.8	4459.8	101.1	%			13:23:43
2	Al 396.153Radial†	-95.5	18.3	17.171	ug/L	17.171	ppb	13:23:43
2	Ca 317.933Radial†	16.0	-3.9	-8.2566	ug/L	-8.2566	ppb	13:24:03
2	Fe 238.204 Radial†	11.2	-0.3	-4.1237	ug/L	-4.1237	ppb	13:24:03
2	K 766.490 Radial†	2661.5	-15.5	-2.9732	ug/L	-2.9732	ppb	13:23:43
2	Mg 279.077 IEC†	1.8	-2.3	-110.94	ug/L	-110.94	ppb	13:24:03
2	Na 589.592 Radial†	-764.7	65.9	20.305	ug/L	20.305	ppb	13:23:43
2	Sr 421.552†	32.3	-3.9	-0.0266	ug/L	-0.0266	ppb	13:23:43
2	Sc 361.383	894802.7	894802.7	102.00	%			13:25:00
2	Y 371.029	757537.6	757537.6	100.22	%			13:25:00
2	Ag 328.068†	246.6	1.4	0.0092	ug/L	0.0092	ppb	13:25:00
2	As 188.979†	-18.4	0.2	0.0777	ug/L	0.0777	ppb	13:25:21
2	B 249.677†	-214.2	188.2	4.5643	ug/L	4.5643	ppb	13:25:21
2	Ba 233.527†	16.1	17.2	0.1359	ug/L	0.1359	ppb	13:25:21
2	Be 313.107†	-3693.5	141.2	0.0526	ug/L	0.0526	ppb	13:25:00
2	Cd 226.502†	-188.1	11.9	0.1374	ug/L	0.1374	ppb	13:25:21
2	Co 228.616†	-61.7	6.1	0.1270	ug/L	0.1270	ppb	13:25:21
2	Cr 267.716†	71.7	-7.4	-0.0817	ug/L	-0.0817	ppb	13:25:21
2	Cu 324.752†	5911.2	-195.6	-0.5940	ug/L	-0.5940	ppb	13:25:00
2	Mn 257.610†	450.9	-16.7	-0.0148	ug/L	-0.0148	ppb	13:25:21
2	Mo 202.031†	8.4	-1.9	-0.1378	ug/L	-0.1378	ppb	13:25:21
2	Ni 231.604†	72.1	8.2	0.2083	ug/L	0.2083	ppb	13:25:21

2	P 214.914†	213.4	-1.3	-0.6319	ug/L	-0.6319 ppb	13:25:21
2	Pb 220.353†	-37.2	21.6	2.6617	ug/L	2.6617 ppb	13:25:21
2	S 181.975 Axial†	39.8	-1.8	-2.6215	ug/L	-2.6215 ppb	13:25:21
2	Sb 206.836†	46.4	8.8	3.1197	ug/L	3.1197 ppb	13:25:21
2	Se 196.026†	-15.5	12.6	8.2171	ug/L	8.2171 ppb	13:25:21
2	Si 251.611†	599.1	29.0	0.9412	ug/L	0.9412 ppb	13:25:21
2	Sn 189.927†	25.4	14.4	2.5852	ug/L	2.5852 ppb	13:25:21
2	Ti 334.940†	-1531.3	-127.1	-0.1906	ug/L	-0.1906 ppb	13:25:00
2	Tl 190.801†	-27.7	5.5	1.7437	ug/L	1.7437 ppb	13:25:21
2	U 409.014†	-3046.0	-99.6	-2.7487	ug/L	-2.7487 ppb	13:25:00
2	V 292.402†	-1472.3	62.3	0.4260	ug/L	0.4260 ppb	13:25:00
2	Zn 213.857†	627.0	8.6	0.0869	ug/L	0.0869 ppb	13:25:21
2	SiO2†	578.2	12.5	0.8715	ug/L	0.8715 ppb	13:25:56
3	Sc Radial	3920.0	3920.0	100	%		13:24:29
3	Y RADIAL	4491.9	4491.9	101.8	%		13:24:08
3	Al 396.153Radial†	-113.0	-0.5	-0.4953	ug/L	-0.4953 ppb	13:24:08
3	Ca 317.933Radial†	18.1	-1.6	-3.2438	ug/L	-3.2438 ppb	13:24:29
3	Fe 238.204 Radial†	9.2	-2.2	-30.471	ug/L	-30.471 ppb	13:24:29
3	K 766.490 Radial†	2722.4	82.0	15.724	ug/L	15.724 ppb	13:24:08
3	Mg 279.077 IEC†	4.2	0.1	6.6210	ug/L	6.6210 ppb	13:24:29
3	Na 589.592 Radial†	-783.4	36.6	11.299	ug/L	11.299 ppb	13:24:08
3	Sr 421.552†	33.5	-2.2	-0.0152	ug/L	-0.0152 ppb	13:24:08
3	Sc 361.383	878206.7	878206.7	100.11	%		13:25:26
3	Y 371.029	743925.8	743925.8	98.423	%		13:25:26
3	Ag 328.068†	260.2	19.5	0.0848	ug/L	0.0848 ppb	13:25:26
3	As 188.979†	-21.9	-3.6	-1.6279	ug/L	-1.6279 ppb	13:25:46
3	B 249.677†	-188.0	210.5	5.1077	ug/L	5.1077 ppb	13:25:46
3	Ba 233.527†	8.6	10.0	0.0774	ug/L	0.0774 ppb	13:25:46
3	Be 313.107†	-3636.2	130.1	0.0489	ug/L	0.0489 ppb	13:25:26
3	Cd 226.502†	-193.6	2.8	0.0353	ug/L	0.0353 ppb	13:25:46
3	Co 228.616†	-62.8	3.8	0.0815	ug/L	0.0815 ppb	13:25:46
3	Cr 267.716†	52.0	-25.7	-0.2899	ug/L	-0.2899 ppb	13:25:46
3	Cu 324.752†	5930.1	-67.2	-0.2035	ug/L	-0.2035 ppb	13:25:26
3	Mn 257.610†	460.3	1.1	-0.0021	ug/L	-0.0021 ppb	13:25:46
3	Mo 202.031†	12.2	2.0	0.1472	ug/L	0.1472 ppb	13:25:46
3	Ni 231.604†	72.8	10.2	0.2605	ug/L	0.2605 ppb	13:25:46
3	P 214.914†	197.3	-13.4	-7.9870	ug/L	-7.9870 ppb	13:25:46
3	Pb 220.353†	-64.7	-6.5	-0.7917	ug/L	-0.7917 ppb	13:25:46
3	S 181.975 Axial†	35.9	-4.9	-7.0867	ug/L	-7.0867 ppb	13:25:46
3	Sb 206.836†	32.9	-3.9	-1.3173	ug/L	-1.3173 ppb	13:25:46
3	Se 196.026†	-19.3	8.5	5.4677	ug/L	5.4677 ppb	13:25:46
3	Si 251.611†	616.0	57.0	1.8421	ug/L	1.8421 ppb	13:25:46
3	Sn 189.927†	22.1	11.5	2.0730	ug/L	2.0730 ppb	13:25:46
3	Ti 334.940†	-1381.2	-5.5	-0.0075	ug/L	-0.0075 ppb	13:25:26
3	Tl 190.801†	-39.0	-6.4	-2.0518	ug/L	-2.0518 ppb	13:25:46
3	U 409.014†	-3063.6	-173.6	-4.7906	ug/L	-4.7906 ppb	13:25:26
3	V 292.402†	-1519.0	-11.7	-0.0838	ug/L	-0.0838 ppb	13:25:26
3	Zn 213.857†	612.3	5.6	0.0593	ug/L	0.0593 ppb	13:25:46
3	SiO2†	572.9	17.9	1.2380	ug/L	1.2380 ppb	13:26:01

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887454.0	101.17	%	0.964				0.95%
Sc Radial	3927.6	100	%	1.1				1.12%
Y 371.029	751486.8	99.424	%	0.9169				0.92%
Y RADIAL	4459.0	101.1	%	0.76				0.75%
Ag 328.068†	20.8	0.0937	ug/L	0.08922	0.0937	ppb	0.08922	95.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.1	1.0426	ug/L	15.41673	1.0426	ppb	15.41673	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.0273	ug/L	1.63058	0.0273	ppb	1.63058	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	199.8	4.8476	ug/L	0.27246	4.8476	ppb	0.27246	5.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.7	0.0918	ug/L	0.03894	0.0918	ppb	0.03894	42.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	148.1	0.0554	ug/L	0.00833	0.0554	ppb	0.00833	15.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.3	-6.8721	ug/L	3.17145	-6.8721	ppb	3.17145	46.15%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.9      0.0815 ug/L       0.05175      0.0815 ppb        0.05175  63.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.0      0.0843 ug/L       0.04140      0.0843 ppb        0.04140  49.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -16.0     -0.1798 ug/L       0.10464     -0.1798 ppb        0.10464  58.21%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -118.5     -0.3601 ug/L       0.20638     -0.3601 ppb        0.20638  57.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.2     -17.246 ug/L       13.1738     -17.246 ppb        13.1738  76.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          49.1      9.4068 ug/L      10.72214      9.4068 ppb       10.72214 113.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0     -47.873 ug/L       59.2467     -47.873 ppb        59.2467 123.76%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -3.0     -0.0032 ug/L       0.01112     -0.0032 ppb        0.01112 347.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.4      0.0999 ug/L       0.21798      0.0999 ppb        0.21798 218.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         68.5      21.122 ug/L       10.2562      21.122 ppb        10.2562  48.56%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.6      0.1668 ug/L       0.11988      0.1668 ppb        0.11988  71.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.9     -3.4688 ug/L       3.95530     -3.4688 ppb        3.95530 114.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                11.4      1.4010 ug/L       1.90603      1.4010 ppb        1.90603 136.05%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.9     -7.0019 ug/L       4.33863     -7.0019 ppb        4.33863  61.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.3      1.1850 ug/L       2.27230      1.1850 ppb        2.27230 191.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.6      4.9368 ug/L       3.57535      4.9368 ppb        3.57535  72.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                35.8      1.1574 ug/L       0.60631      1.1574 ppb        0.60631  52.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.8      1.9346 ug/L       0.72965      1.9346 ppb        0.72965  37.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.5     -0.0313 ug/L       0.01879     -0.0313 ppb        0.01879  60.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -71.2     -0.1077 ug/L       0.09277     -0.1077 ppb        0.09277  86.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.5      0.4695 ug/L       2.18352      0.4695 ppb        2.18352 465.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -96.0     -2.6476 ug/L       2.19521     -2.6476 ppb        2.19521  82.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 12.1      0.0827 ug/L       0.29738      0.0827 ppb        0.29738 359.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 6.1      0.0639 ug/L       0.02108      0.0639 ppb        0.02108  32.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      26.7      1.8545 ug/L       1.39736      1.8545 ppb        1.39736  75.35%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 2/24/2010 13:28:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3886.9	3886.9	99.2	%			13:30:26
1	Y RADIAL	4390.7	4390.7	99.54	%			13:30:06
1	Al 396.153Radial†	106.1	219.4	205.29	ug/L	205.29	ppb	13:30:06
1	Ca 317.933Radial†	120.0	101.3	211.78	ug/L	211.78	ppb	13:30:26
1	Fe 238.204 Radial†	17.0	5.8	82.580	ug/L	82.580	ppb	13:30:26
1	K 766.490 Radial†	3487.9	877.0	168.08	ug/L	168.08	ppb	13:30:06
1	Mg 279.077 IEC†	11.6	7.7	371.90	ug/L	371.90	ppb	13:30:26
1	Na 589.592 Radial†	168.2	989.4	305.06	ug/L	305.06	ppb	13:30:06
1	Sr 421.552†	744.5	714.9	4.9454	ug/L	4.9454	ppb	13:30:06
1	Sc 361.383	884473.5	884473.5	100.83	%			13:31:23
1	Y 371.029	750126.1	750126.1	99.244	%			13:31:23
1	Ag 328.068†	1296.3	1045.3	4.8408	ug/L	4.8408	ppb	13:31:23
1	As 188.979†	41.1	59.1	26.412	ug/L	26.412	ppb	13:31:43
1	B 249.677†	1615.1	2000.1	48.463	ug/L	48.463	ppb	13:31:23
1	Ba 233.527†	663.7	659.7	5.1902	ug/L	5.1902	ppb	13:31:43
1	Be 313.107†	9757.7	13439.9	5.0621	ug/L	5.0621	ppb	13:31:23
1	Cd 226.502†	267.8	461.9	5.3541	ug/L	5.3541	ppb	13:31:43
1	Co 228.616†	182.3	247.4	5.1947	ug/L	5.1947	ppb	13:31:43
1	Cr 267.716†	514.9	433.0	4.8546	ug/L	4.8546	ppb	13:31:43
1	Cu 324.752†	9250.5	3184.0	9.6636	ug/L	9.6636	ppb	13:31:23
1	Mn 257.610†	9733.2	9194.7	10.456	ug/L	10.456	ppb	13:31:23
1	Mo 202.031†	151.4	140.1	10.292	ug/L	10.292	ppb	13:31:43
1	Ni 231.604†	279.6	214.8	5.4604	ug/L	5.4604	ppb	13:31:43
1	P 214.914†	449.7	235.5	139.92	ug/L	139.92	ppb	13:31:43
1	Pb 220.353†	32.5	90.4	11.173	ug/L	11.173	ppb	13:31:43
1	S 181.975 Axial†	107.6	65.9	94.759	ug/L	94.759	ppb	13:31:43
1	Sb 206.836†	63.8	26.6	9.6596	ug/L	9.6596	ppb	13:31:43
1	Se 196.026†	26.5	54.0	35.666	ug/L	35.666	ppb	13:31:43
1	Si 251.611†	3725.9	3137.1	101.39	ug/L	101.39	ppb	13:31:23
1	Sn 189.927†	65.4	54.4	9.7926	ug/L	9.7926	ppb	13:31:43
1	Ti 334.940†	1839.9	3198.9	4.9993	ug/L	4.9993	ppb	13:31:23
1	Tl 190.801†	35.9	68.2	21.869	ug/L	21.869	ppb	13:31:43
1	U 409.014†	-935.5	1958.7	54.068	ug/L	54.068	ppb	13:31:23
1	V 292.402†	-811.4	700.9	5.1240	ug/L	5.1240	ppb	13:31:23
1	Zn 213.857†	1628.5	1009.1	10.098	ug/L	10.098	ppb	13:31:43
1	SiO2†	3713.8	3129.0	217.17	ug/L	217.17	ppb	13:32:39
2	Sc Radial	3953.9	3953.9	101	%			13:30:51
2	Y RADIAL	4543.6	4543.6	103.0	%			13:30:31
2	Al 396.153Radial†	110.7	222.1	207.83	ug/L	207.83	ppb	13:30:31
2	Ca 317.933Radial†	119.3	98.6	206.13	ug/L	206.13	ppb	13:30:51
2	Fe 238.204 Radial†	19.5	8.0	113.72	ug/L	113.72	ppb	13:30:51
2	K 766.490 Radial†	3515.0	844.2	161.80	ug/L	161.80	ppb	13:30:31
2	Mg 279.077 IEC†	7.2	3.1	148.44	ug/L	148.44	ppb	13:30:51
2	Na 589.592 Radial†	245.5	1063.1	327.79	ug/L	327.79	ppb	13:30:31
2	Sr 421.552†	781.2	738.6	5.1092	ug/L	5.1092	ppb	13:30:31
2	Sc 361.383	890366.7	890366.7	101.50	%			13:31:48
2	Y 371.029	754202.4	754202.4	99.783	%			13:31:48
2	Ag 328.068†	1343.0	1082.8	5.0298	ug/L	5.0298	ppb	13:31:48
2	As 188.979†	48.7	66.3	29.639	ug/L	29.639	ppb	13:32:08
2	B 249.677†	1596.7	1971.4	47.764	ug/L	47.764	ppb	13:31:48
2	Ba 233.527†	661.8	653.5	5.1424	ug/L	5.1424	ppb	13:32:08
2	Be 313.107†	9826.4	13443.6	5.0636	ug/L	5.0636	ppb	13:31:48
2	Cd 226.502†	267.4	459.7	5.3248	ug/L	5.3248	ppb	13:32:08
2	Co 228.616†	166.8	230.9	4.8486	ug/L	4.8486	ppb	13:32:08
2	Cr 267.716†	498.5	413.4	4.6399	ug/L	4.6399	ppb	13:32:08
2	Cu 324.752†	9281.3	3153.6	9.5760	ug/L	9.5760	ppb	13:31:48
2	Mn 257.610†	9753.0	9150.4	10.418	ug/L	10.418	ppb	13:31:48
2	Mo 202.031†	147.4	135.1	9.9289	ug/L	9.9289	ppb	13:32:08
2	Ni 231.604†	274.1	207.6	5.2770	ug/L	5.2770	ppb	13:32:08

2	P 214.914†	457.1	239.9	142.58 ug/L	142.58 ppb	13:32:08
2	Pb 220.353†	32.5	90.1	11.136 ug/L	11.136 ppb	13:32:08
2	S 181.975 Axial†	116.1	73.6	105.92 ug/L	105.92 ppb	13:32:08
2	Sb 206.836†	72.9	35.1	12.645 ug/L	12.645 ppb	13:32:08
2	Se 196.026†	19.7	47.2	31.285 ug/L	31.285 ppb	13:32:08
2	Si 251.611†	3700.9	3088.0	99.802 ug/L	99.802 ppb	13:31:48
2	Sn 189.927†	72.8	61.3	11.024 ug/L	11.024 ppb	13:32:08
2	Ti 334.940†	1876.9	3223.3	5.0579 ug/L	5.0579 ppb	13:31:48
2	Tl 190.801†	32.2	64.3	20.608 ug/L	20.608 ppb	13:32:08
2	U 409.014†	-1166.5	1737.3	47.952 ug/L	47.952 ppb	13:31:48
2	V 292.402†	-797.0	720.5	5.2349 ug/L	5.2349 ppb	13:31:48
2	Zn 213.857†	1611.9	982.1	9.8224 ug/L	9.8224 ppb	13:32:08
2	SiO2†	3770.4	3160.4	219.36 ug/L	219.36 ppb	13:32:44
3	Sc Radial	3892.5	3892.5	99.3 %		13:31:16
3	Y RADIAL	4435.2	4435.2	100.6 %		13:30:56
3	Al 396.153Radial†	99.9	213.0	199.28 ug/L	199.28 ppb	13:30:56
3	Ca 317.933Radial†	118.6	99.7	208.46 ug/L	208.46 ppb	13:31:16
3	Fe 238.204 Radial†	19.2	8.0	113.34 ug/L	113.34 ppb	13:31:16
3	K 766.490 Radial†	3428.5	812.1	155.64 ug/L	155.64 ppb	13:30:56
3	Mg 279.077 IEC†	9.0	4.9	239.90 ug/L	239.90 ppb	13:31:16
3	Na 589.592 Radial†	213.9	1035.1	319.16 ug/L	319.16 ppb	13:30:56
3	Sr 421.552†	747.3	716.6	4.9573 ug/L	4.9573 ppb	13:30:56
3	Sc 361.383	883324.4	883324.4	100.69 %		13:32:13
3	Y 371.029	748072.9	748072.9	98.972 %		13:32:13
3	Ag 328.068†	1334.7	1085.0	5.0386 ug/L	5.0386 ppb	13:32:13
3	As 188.979†	47.1	65.0	29.068 ug/L	29.068 ppb	13:32:33
3	B 249.677†	1640.0	2026.9	49.109 ug/L	49.109 ppb	13:32:13
3	Ba 233.527†	639.5	636.5	5.0101 ug/L	5.0101 ppb	13:32:33
3	Be 313.107†	9556.6	13252.9	4.9918 ug/L	4.9918 ppb	13:32:13
3	Cd 226.502†	255.9	450.4	5.2179 ug/L	5.2179 ppb	13:32:33
3	Co 228.616†	173.6	238.9	5.0151 ug/L	5.0151 ppb	13:32:33
3	Cr 267.716†	522.3	441.0	4.9489 ug/L	4.9489 ppb	13:32:33
3	Cu 324.752†	9210.2	3155.9	9.5813 ug/L	9.5813 ppb	13:32:13
3	Mn 257.610†	9689.8	9164.2	10.430 ug/L	10.430 ppb	13:32:13
3	Mo 202.031†	138.0	126.9	9.3305 ug/L	9.3305 ppb	13:32:33
3	Ni 231.604†	290.7	226.3	5.7517 ug/L	5.7517 ppb	13:32:33
3	P 214.914†	438.2	224.6	133.37 ug/L	133.37 ppb	13:32:33
3	Pb 220.353†	29.9	87.8	10.850 ug/L	10.850 ppb	13:32:33
3	S 181.975 Axial†	106.6	65.1	93.592 ug/L	93.592 ppb	13:32:33
3	Sb 206.836†	70.5	33.3	11.987 ug/L	11.987 ppb	13:32:33
3	Se 196.026†	29.4	57.0	37.703 ug/L	37.703 ppb	13:32:33
3	Si 251.611†	3660.2	3076.6	99.441 ug/L	99.441 ppb	13:32:13
3	Sn 189.927†	68.2	57.2	10.302 ug/L	10.302 ppb	13:32:33
3	Ti 334.940†	1836.3	3197.7	5.0090 ug/L	5.0090 ppb	13:32:13
3	Tl 190.801†	29.7	62.1	19.913 ug/L	19.913 ppb	13:32:33
3	U 409.014†	-1043.1	1850.7	51.082 ug/L	51.082 ppb	13:32:13
3	V 292.402†	-755.6	755.3	5.4770 ug/L	5.4770 ppb	13:32:13
3	Zn 213.857†	1612.7	995.5	9.9546 ug/L	9.9546 ppb	13:32:33
3	SiO2†	3695.2	3115.3	216.25 ug/L	216.25 ppb	13:32:49

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	886054.8	101.01	%	0.431				0.43%
Sc Radial	3911.1	99.8	%	0.95				0.95%
Y 371.029	750800.5	99.333	%	0.4128				0.42%
Y RADIAL	4456.5	101.0	%	1.78				1.76%
Ag 328.068†	1071.0	4.9697	ug/L	0.11176	4.9697	ppb	0.11176	2.25%
QC value within limits for Ag 328.068 Recovery = 99.39%								
Al 396.153Radial†	218.2	204.13	ug/L	4.392	204.13	ppb	4.392	2.15%
QC value within limits for Al 396.153Radial Recovery = 102.07%								
As 188.979†	63.4	28.373	ug/L	1.7222	28.373	ppb	1.7222	6.07%
QC value within limits for As 188.979 Recovery = 94.58%								
B 249.677†	1999.4	48.445	ug/L	0.6727	48.445	ppb	0.6727	1.39%
QC value within limits for B 249.677 Recovery = 96.89%								
Ba 233.527†	649.9	5.1142	ug/L	0.09327	5.1142	ppb	0.09327	1.82%
QC value within limits for Ba 233.527 Recovery = 102.28%								
Be 313.107†	13378.8	5.0392	ug/L	0.04101	5.0392	ppb	0.04101	0.81%
QC value within limits for Be 313.107 Recovery = 100.78%								
Ca 317.933Radial†	99.9	208.79	ug/L	2.840	208.79	ppb	2.840	1.36%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.40%
Cd 226.502†              457.4      5.2989 ug/L       0.07172      5.2989 ppb        0.07172   1.35%
   QC value within limits for Cd 226.502  Recovery = 105.98%
Co 228.616†              239.1      5.0195 ug/L       0.17310      5.0195 ppb        0.17310   3.45%
   QC value within limits for Co 228.616  Recovery = 100.39%
Cr 267.716†              429.2      4.8145 ug/L       0.15835      4.8145 ppb        0.15835   3.29%
   QC value within limits for Cr 267.716  Recovery = 96.29%
Cu 324.752†             3164.5      9.6070 ug/L       0.04909      9.6070 ppb        0.04909   0.51%
   QC value within limits for Cu 324.752  Recovery = 96.07%
Fe 238.204 Radial†        7.3      103.21 ug/L        17.871      103.21 ppb         17.871  17.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.21%
K 766.490 Radial†        844.4      161.84 ug/L         6.222      161.84 ppb          6.222   3.84%
   QC value within limits for K 766.490 Radial  Recovery = 107.89%
Mg 279.077 IEC†           5.2      253.41 ug/L       112.343      253.41 ppb        112.343  44.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 84.47%
Mn 257.610†             9169.8      10.434 ug/L        0.0196      10.434 ppb         0.0196   0.19%
   QC value within limits for Mn 257.610  Recovery = 104.34%
Mo 202.031†              134.0      9.8503 ug/L       0.48540      9.8503 ppb        0.48540   4.93%
   QC value within limits for Mo 202.031  Recovery = 98.50%
Na 589.592 Radial†      1029.2      317.34 ug/L        11.472      317.34 ppb         11.472   3.62%
   QC value within limits for Na 589.592 Radial  Recovery = 105.78%
Ni 231.604†              216.2      5.4964 ug/L       0.23936      5.4964 ppb        0.23936   4.35%
   QC value within limits for Ni 231.604  Recovery = 109.93%
P 214.914†               233.3      138.62 ug/L         4.736      138.62 ppb          4.736   3.42%
   QC value within limits for P 214.914  Recovery = 92.41%
Pb 220.353†               89.4      11.053 ug/L        0.1771      11.053 ppb         0.1771   1.60%
   QC value within limits for Pb 220.353  Recovery = 110.53%
S 181.975 Axial†          68.2      98.091 ug/L        6.8062      98.091 ppb         6.8062   6.94%
   QC value within limits for S 181.975 Axial  Recovery = 98.09%
Sb 206.836†               31.7      11.430 ug/L        1.5685      11.430 ppb         1.5685  13.72%
   QC value within limits for Sb 206.836  Recovery = 114.30%
Se 196.026†               52.7      34.884 ug/L        3.2797      34.884 ppb         3.2797   9.40%
   QC value within limits for Se 196.026  Recovery = 116.28%
Si 251.611†             3100.6      100.21 ug/L         1.034      100.21 ppb          1.034   1.03%
   QC value within limits for Si 251.611  Recovery = 100.21%
Sn 189.927†               57.6      10.373 ug/L        0.6188      10.373 ppb         0.6188   5.97%
   QC value within limits for Sn 189.927  Recovery = 103.73%
Sr 421.552†              723.4      5.0040 ug/L       0.09134      5.0040 ppb        0.09134   1.83%
   QC value within limits for Sr 421.552  Recovery = 100.08%
Ti 334.940†             3206.6      5.0221 ug/L       0.03144      5.0221 ppb        0.03144   0.63%
   QC value within limits for Ti 334.940  Recovery = 100.44%
Tl 190.801†               64.9      20.797 ug/L        0.9919      20.797 ppb         0.9919   4.77%
   QC value within limits for Tl 190.801  Recovery = 103.98%
U 409.014†              1848.9      51.034 ug/L        3.0584      51.034 ppb         3.0584   5.99%
   QC value within limits for U 409.014  Recovery = 102.07%
V 292.402†               725.5      5.2786 ug/L       0.18053      5.2786 ppb        0.18053   3.42%
   QC value within limits for V 292.402  Recovery = 105.57%
Zn 213.857†              995.6      9.9583 ug/L       0.13788      9.9583 ppb        0.13788   1.38%
   QC value within limits for Zn 213.857  Recovery = 99.58%
SiO2†                   3134.9      217.59 ug/L         1.601      217.59 ppb          1.601   0.74%
   QC value within limits for SiO2  Recovery = 102.16%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 2/24/2010 13:35:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3579.0	3579.0	91.3	%			13:37:14
1	Y RADIAL	3936.7	3936.7	89.25	%			13:37:14
1	Al 396.153Radial†	498697.7	546158.2	512230	ug/L	512230	ppb	13:36:54
1	Ca 317.933Radial†	210027.0	229948.0	480710	ug/L	480710	ppb	13:36:54
1	Fe 238.204 Radial†	12266.0	13419.2	189420	ug/L	189420	ppb	13:37:14
1	K 766.490 Radial†	2317.6	-102.0	-180.37	ug/L	-180.37	ppb	13:36:54
1	Mg 279.077 IEC†	9430.8	10322.2	500290	ug/L	500290	ppb	13:37:14
1	Na 589.592 Radial†	-578.6	186.2	57.412	ug/L	57.412	ppb	13:37:14
1	Sr 421.552†	540.5	556.0	0.2581	ug/L	0.2581	ppb	13:37:14
1	Sc 361.383	752109.3	752109.3	85.737	%			13:38:11
1	Y 371.029	620836.9	620836.9	82.138	%			13:38:11
1	Ag 328.068†	-9722.3	-11580.1	-1.9309	ug/L	-1.9309	ppb	13:38:11
1	As 188.979†	-83.7	-79.4	8.7794	ug/L	8.7794	ppb	13:38:31
1	B 249.677†	453.9	927.7	-8.2727	ug/L	-8.2727	ppb	13:38:11
1	Ba 233.527†	-512.4	-596.3	1.1226	ug/L	1.1226	ppb	13:38:31
1	Be 313.107†	-3937.2	-830.0	-0.3618	ug/L	-0.3618	ppb	13:38:11
1	Cd 226.502†	1201.2	1597.3	-1.0580	ug/L	-1.0580	ppb	13:38:31
1	Co 228.616†	1.0	67.6	-1.3196	ug/L	-1.3196	ppb	13:38:31
1	Cr 267.716†	-1035.5	-1285.5	3.5901	ug/L	3.5901	ppb	13:38:31
1	Cu 324.752†	3172.2	-2290.8	3.0294	ug/L	3.0294	ppb	13:38:11
1	Mn 257.610†	1340.3	1104.6	-0.4986	ug/L	-0.4986	ppb	13:38:11
1	Mo 202.031†	-246.5	-297.6	-1.4261	ug/L	-1.4261	ppb	13:38:31
1	Ni 231.604†	174.0	140.4	3.5711	ug/L	3.5711	ppb	13:38:31
1	P 214.914†	184.9	5.1	-21.112	ug/L	-21.112	ppb	13:38:31
1	Pb 220.353†	-770.5	-840.6	-10.497	ug/L	-10.497	ppb	13:38:31
1	S 181.975 Axial†	67.8	38.3	-40.887	ug/L	-40.887	ppb	13:38:31
1	Sb 206.836†	62.4	36.1	-4.8098	ug/L	-4.8098	ppb	13:38:31
1	Se 196.026†	-795.8	-900.4	-4.1061	ug/L	-4.1061	ppb	13:38:31
1	Si 251.611†	487.9	10.8	0.6173	ug/L	0.6173	ppb	13:38:31
1	Sn 189.927†	-358.6	-428.7	-2.3916	ug/L	-2.3916	ppb	13:38:31
1	Ti 334.940†	-13166.7	-13983.0	1.6088	ug/L	1.6088	ppb	13:38:11
1	Tl 190.801†	-84.7	-66.2	-21.395	ug/L	-21.395	ppb	13:38:31
1	U 409.014†	-1052.0	1659.6	24.268	ug/L	24.268	ppb	13:38:11
1	V 292.402†	875.7	2527.1	-0.4927	ug/L	-0.4927	ppb	13:38:31
1	Zn 213.857†	2741.2	2591.2	-2.2750	ug/L	-2.2750	ppb	13:38:31
1	SiO2†	512.4	43.2	3.5965	ug/L	3.5965	ppb	13:39:28
2	Sc Radial	3527.7	3527.7	90.0	%			13:37:39
2	Y RADIAL	3875.7	3875.7	87.87	%			13:37:39
2	Al 396.153Radial†	496990.4	552197.0	517890	ug/L	517890	ppb	13:37:19
2	Ca 317.933Radial†	208493.4	231586.4	484130	ug/L	484130	ppb	13:37:19
2	Fe 238.204 Radial†	12191.7	13531.9	191010	ug/L	191010	ppb	13:37:39
2	K 766.490 Radial†	2326.8	-54.9	-172.49	ug/L	-172.49	ppb	13:37:19
2	Mg 279.077 IEC†	9342.6	10374.2	502810	ug/L	502810	ppb	13:37:39
2	Na 589.592 Radial†	-541.5	218.2	67.285	ug/L	67.285	ppb	13:37:39
2	Sr 421.552†	552.6	578.1	0.3851	ug/L	0.3851	ppb	13:37:39
2	Sc 361.383	757243.3	757243.3	86.322	%			13:38:37
2	Y 371.029	625612.2	625612.2	82.770	%			13:38:37
2	Ag 328.068†	-9548.5	-11302.0	-0.1941	ug/L	-0.1941	ppb	13:38:37
2	As 188.979†	-94.6	-91.3	3.8179	ug/L	3.8179	ppb	13:38:57
2	B 249.677†	422.3	887.5	-9.5048	ug/L	-9.5048	ppb	13:38:37
2	Ba 233.527†	-507.3	-586.2	1.2494	ug/L	1.2494	ppb	13:38:57
2	Be 313.107†	-3887.3	-741.0	-0.3277	ug/L	-0.3277	ppb	13:38:37
2	Cd 226.502†	1205.8	1593.1	-1.2718	ug/L	-1.2718	ppb	13:38:57
2	Co 228.616†	-4.2	61.7	-1.4662	ug/L	-1.4662	ppb	13:38:57
2	Cr 267.716†	-1051.2	-1295.5	3.6318	ug/L	3.6318	ppb	13:38:57
2	Cu 324.752†	3191.0	-2294.1	3.1082	ug/L	3.1082	ppb	13:38:37
2	Mn 257.610†	1313.4	1062.8	-0.4924	ug/L	-0.4924	ppb	13:38:37
2	Mo 202.031†	-240.9	-289.2	-0.6460	ug/L	-0.6460	ppb	13:38:57
2	Ni 231.604†	183.0	149.5	3.8021	ug/L	3.8021	ppb	13:38:57

2	P 214.914†	168.6	-15.2	-33.149	ug/L	-33.149 ppb	13:38:57
2	Pb 220.353†	-795.0	-862.8	-12.176	ug/L	-12.176 ppb	13:38:57
2	S 181.975 Axial†	62.0	31.0	-52.486	ug/L	-52.486 ppb	13:38:57
2	Sb 206.836†	56.6	28.9	-7.4361	ug/L	-7.4361 ppb	13:38:57
2	Se 196.026†	-793.2	-891.2	6.8776	ug/L	6.8776 ppb	13:38:57
2	Si 251.611†	497.2	17.7	0.8340	ug/L	0.8340 ppb	13:38:57
2	Sn 189.927†	-337.7	-401.7	2.9641	ug/L	2.9641 ppb	13:38:57
2	Ti 334.940†	-13091.6	-13791.9	2.1660	ug/L	2.1660 ppb	13:38:37
2	Tl 190.801†	-64.3	-41.9	-13.609	ug/L	-13.609 ppb	13:38:57
2	U 409.014†	-1323.7	1353.1	15.623	ug/L	15.623 ppb	13:38:37
2	V 292.402†	857.6	2499.2	-0.8777	ug/L	-0.8777 ppb	13:38:57
2	Zn 213.857†	2774.9	2608.6	-2.3394	ug/L	-2.3394 ppb	13:38:57
2	SiO2†	495.7	19.9	1.9590	ug/L	1.9590 ppb	13:39:33
3	Sc Radial	3526.0	3526.0	90.0	%		13:38:05
3	Y RADIAL	3875.8	3875.8	87.87	%		13:38:05
3	Al 396.153Radial†	509370.4	566227.4	531050	ug/L	531050 ppb	13:37:45
3	Ca 317.933Radial†	214024.4	237847.4	497220	ug/L	497220 ppb	13:37:45
3	Fe 238.204 Radial†	12116.2	13454.6	189920	ug/L	189920 ppb	13:38:05
3	K 766.490 Radial†	2276.8	-109.1	-187.27	ug/L	-187.27 ppb	13:37:45
3	Mg 279.077 IEC†	9289.7	10320.5	500210	ug/L	500210 ppb	13:38:05
3	Na 589.592 Radial†	-541.2	218.2	67.291	ug/L	67.291 ppb	13:38:05
3	Sr 421.552†	548.3	573.6	0.2566	ug/L	0.2566 ppb	13:38:05
3	Sc 361.383	755740.9	755740.9	86.151	%		13:39:02
3	Y 371.029	623884.9	623884.9	82.541	%		13:39:02
3	Ag 328.068†	-9673.4	-11468.9	-1.4795	ug/L	-1.4795 ppb	13:39:02
3	As 188.979†	-75.6	-69.5	13.323	ug/L	13.323 ppb	13:39:22
3	B 249.677†	399.9	862.4	-9.9362	ug/L	-9.9362 ppb	13:39:02
3	Ba 233.527†	-543.3	-629.2	0.8794	ug/L	0.8794 ppb	13:39:22
3	Be 313.107†	-3936.8	-807.5	-0.3540	ug/L	-0.3540 ppb	13:39:02
3	Cd 226.502†	1186.2	1573.2	-1.3897	ug/L	-1.3897 ppb	13:39:22
3	Co 228.616†	-5.4	60.2	-1.4823	ug/L	-1.4823 ppb	13:39:22
3	Cr 267.716†	-1089.8	-1342.7	2.9988	ug/L	2.9988 ppb	13:39:22
3	Cu 324.752†	3272.9	-2191.7	3.3624	ug/L	3.3624 ppb	13:39:02
3	Mn 257.610†	1475.6	1254.0	-0.2761	ug/L	-0.2761 ppb	13:39:02
3	Mo 202.031†	-251.3	-301.8	-1.5005	ug/L	-1.5005 ppb	13:39:22
3	Ni 231.604†	196.4	165.5	4.2092	ug/L	4.2092 ppb	13:39:22
3	P 214.914†	155.1	-30.4	-38.275	ug/L	-38.275 ppb	13:39:22
3	Pb 220.353†	-774.0	-840.4	-6.3731	ug/L	-6.3731 ppb	13:39:22
3	S 181.975 Axial†	64.8	34.4	-50.051	ug/L	-50.051 ppb	13:39:22
3	Sb 206.836†	66.0	39.9	-3.9982	ug/L	-3.9982 ppb	13:39:22
3	Se 196.026†	-801.0	-902.0	-3.7489	ug/L	-3.7489 ppb	13:39:22
3	Si 251.611†	461.6	-22.5	-0.4560	ug/L	-0.4560 ppb	13:39:22
3	Sn 189.927†	-360.8	-429.3	0.3998	ug/L	0.3998 ppb	13:39:22
3	Ti 334.940†	-13393.6	-14172.7	3.5363	ug/L	3.5363 ppb	13:39:02
3	Tl 190.801†	-85.7	-66.9	-21.615	ug/L	-21.615 ppb	13:39:22
3	U 409.014†	-1336.9	1334.8	15.241	ug/L	15.241 ppb	13:39:02
3	V 292.402†	884.0	2531.8	-0.5548	ug/L	-0.5548 ppb	13:39:22
3	Zn 213.857†	2725.5	2557.6	-2.6931	ug/L	-2.6931 ppb	13:39:22
3	SiO2†	452.6	-29.1	-1.4188	ug/L	-1.4188 ppb	13:39:38

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	755031.2	86.070	%	0.3009				0.35%
Sc Radial	3544.3	90.4	%	0.77				0.85%
Y 371.029	623444.7	82.483	%	0.3199				0.39%
Y RADIAL	3896.1	88.33	%	0.797				0.90%
Ag 328.068†	-11450.3	-1.2015	ug/L	0.90116	-1.2015	ppb	0.90116	75.00%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	554860.9	520390	ug/L	9656.7	520390	ppb	9656.7	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.08%								
As 188.979†	-80.1	8.6402	ug/L	4.75425	8.6402	ppb	4.75425	55.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	892.5	-9.2379	ug/L	0.86328	-9.2379	ppb	0.86328	9.34%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-603.9	1.0838	ug/L	0.18798	1.0838	ppb	0.18798	17.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-792.8	-0.3478	ug/L	0.01788	-0.3478	ppb	0.01788	5.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	233127.3	487350	ug/L	8715.4	487350	ppb	8715.4	1.79%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.47%
Cd 226.502†            1587.8     -1.2399 ug/L       0.16812     -1.2399 ppb       0.16812  13.56%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              63.2     -1.4227 ug/L       0.08966     -1.4227 ppb       0.08966   6.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1307.9      3.4069 ug/L       0.35405      3.4069 ppb       0.35405  10.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2258.9      3.1667 ug/L       0.17402      3.1667 ppb       0.17402   5.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    13468.6      190110 ug/L         812.9      190110 ppb         812.9   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.06%
K 766.490 Radial†       -88.7     -180.04 ug/L         7.397     -180.04 ppb         7.397   4.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       10339.0      501100 ug/L        1479.9      501100 ppb        1479.9   0.30%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.22%
Mn 257.610†            1140.5     -0.4224 ug/L       0.12673     -0.4224 ppb       0.12673  30.01%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -296.2     -1.1909 ug/L       0.47334     -1.1909 ppb       0.47334  39.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      207.6      63.996 ug/L        5.7020      63.996 ppb        5.7020   8.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             151.8      3.8608 ug/L       0.32308      3.8608 ppb       0.32308   8.37%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.5     -30.845 ug/L        8.8106     -30.845 ppb        8.8106  28.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -847.9     -9.6820 ug/L       2.98596     -9.6820 ppb       2.98596  30.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         34.6     -47.808 ug/L        6.1164     -47.808 ppb        6.1164  12.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              35.0     -5.4147 ug/L       1.79698     -5.4147 ppb       1.79698  33.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -897.9     -0.3258 ug/L       6.24089     -0.3258 ppb       6.24089 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               2.0      0.3318 ug/L       0.69081      0.3318 ppb       0.69081 208.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -419.9      0.3241 ug/L       2.67867      0.3241 ppb       2.67867 826.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             569.3      0.2999 ug/L       0.07378      0.2999 ppb       0.07378  24.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13982.5      2.4370 ug/L       0.99191      2.4370 ppb       0.99191  40.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -58.4     -18.873 ug/L        4.5599     -18.873 ppb        4.5599  24.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1449.2      18.377 ug/L        5.1050      18.377 ppb        5.1050  27.78%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2519.3     -0.6417 ug/L       0.20670     -0.6417 ppb       0.20670  32.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2585.8     -2.4358 ug/L       0.22510     -2.4358 ppb       0.22510   9.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    11.3      1.3789 ug/L       2.55748      1.3789 ppb       2.55748 185.47%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 2/24/2010 13:41:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3544.0	3544.0	90.4	%			13:44:03
1	Y RADIAL	3889.0	3889.0	88.17	%			13:44:03
1	Al 396.153Radial†	502369.0	555616.9	521080	ug/L	521080	ppb	13:43:43
1	Ca 317.933Radial†	210391.1	232624.5	486300	ug/L	486300	ppb	13:43:43
1	Fe 238.204 Radial†	11970.1	13224.8	186680	ug/L	186680	ppb	13:44:03
1	K 766.490 Radial†	28907.3	29325.2	5462.0	ug/L	5462.0	ppb	13:43:43
1	Mg 279.077 IEC†	9207.4	10177.2	493270	ug/L	493270	ppb	13:44:03
1	Na 589.592 Radial†	15629.9	18102.9	5581.6	ug/L	5581.6	ppb	13:43:43
1	Sr 421.552†	66679.5	73696.4	506.31	ug/L	506.31	ppb	13:43:43
1	Sc 361.383	771349.2	771349.2	87.930	%			13:45:01
1	Y 371.029	635031.0	635031.0	84.016	%			13:45:01
1	Ag 328.068†	40762.5	46117.5	266.06	ug/L	266.06	ppb	13:45:01
1	As 188.979†	906.5	1049.2	515.34	ug/L	515.34	ppb	13:45:21
1	B 249.677†	18899.9	21892.5	499.24	ug/L	499.24	ppb	13:45:01
1	Ba 233.527†	53585.0	60941.9	485.03	ug/L	485.03	ppb	13:45:01
1	Be 313.107†	560557.9	641267.1	242.09	ug/L	242.09	ppb	13:45:01
1	Cd 226.502†	35237.2	40270.4	447.42	ug/L	447.42	ppb	13:45:21
1	Co 228.616†	18018.5	20558.3	428.05	ug/L	428.05	ppb	13:45:21
1	Cr 267.716†	35779.9	40613.6	474.19	ug/L	474.19	ppb	13:45:01
1	Cu 324.752†	158407.7	174161.4	539.58	ug/L	539.58	ppb	13:45:01
1	Mn 257.610†	366309.0	416133.0	471.80	ug/L	471.80	ppb	13:45:01
1	Mo 202.031†	5509.0	6255.1	479.51	ug/L	479.51	ppb	13:45:21
1	Ni 231.604†	15024.1	17024.0	432.71	ug/L	432.71	ppb	13:45:21
1	P 214.914†	3798.5	4109.4	2352.0	ug/L	2352.0	ppb	13:45:21
1	Pb 220.353†	2439.7	2832.7	444.38	ug/L	444.38	ppb	13:45:21
1	S 181.975 Axial†	1669.9	1858.4	2576.6	ug/L	2576.6	ppb	13:45:21
1	Sb 206.836†	1362.0	1512.3	528.40	ug/L	528.40	ppb	13:45:21
1	Se 196.026†	2531.7	2907.0	2483.1	ug/L	2483.1	ppb	13:45:21
1	Si 251.611†	140010.4	158671.1	5128.7	ug/L	5128.7	ppb	13:45:01
1	Sn 189.927†	2002.9	2267.3	482.49	ug/L	482.49	ppb	13:45:21
1	Ti 334.940†	270764.6	309306.2	510.57	ug/L	510.57	ppb	13:45:01
1	Tl 190.801†	1146.4	1336.3	430.70	ug/L	430.70	ppb	13:45:21
1	U 409.014†	14157.0	18986.9	502.00	ug/L	502.00	ppb	13:45:01
1	V 292.402†	62854.5	72988.1	498.09	ug/L	498.09	ppb	13:45:01
1	Zn 213.857†	45128.8	50717.5	479.13	ug/L	479.13	ppb	13:45:01
1	SiO2†	140658.7	159412.3	11066	ug/L	11066	ppb	13:46:19
2	Sc Radial	3552.5	3552.5	90.7	%			13:44:29
2	Y RADIAL	3877.9	3877.9	87.92	%			13:44:29
2	Al 396.153Radial†	508992.0	561586.1	526680	ug/L	526680	ppb	13:44:08
2	Ca 317.933Radial†	212481.2	234370.2	489950	ug/L	489950	ppb	13:44:08
2	Fe 238.204 Radial†	12008.0	13234.8	186820	ug/L	186820	ppb	13:44:29
2	K 766.490 Radial†	29295.8	29676.8	5528.2	ug/L	5528.2	ppb	13:44:08
2	Mg 279.077 IEC†	9219.7	10166.2	492740	ug/L	492740	ppb	13:44:29
2	Na 589.592 Radial†	15603.6	18032.2	5559.8	ug/L	5559.8	ppb	13:44:08
2	Sr 421.552†	67349.1	74257.7	510.17	ug/L	510.17	ppb	13:44:08
2	Sc 361.383	768844.9	768844.9	87.645	%			13:45:27
2	Y 371.029	633977.1	633977.1	83.877	%			13:45:27
2	Ag 328.068†	40655.2	46146.1	266.20	ug/L	266.20	ppb	13:45:27
2	As 188.979†	901.6	1046.9	514.36	ug/L	514.36	ppb	13:45:47
2	B 249.677†	18586.9	21605.3	492.26	ug/L	492.26	ppb	13:45:27
2	Ba 233.527†	53366.3	60890.9	484.64	ug/L	484.64	ppb	13:45:27
2	Be 313.107†	560843.3	643669.2	242.99	ug/L	242.99	ppb	13:45:27
2	Cd 226.502†	34895.0	40010.5	444.40	ug/L	444.40	ppb	13:45:47
2	Co 228.616†	17845.7	20428.0	425.31	ug/L	425.31	ppb	13:45:47
2	Cr 267.716†	35787.6	40755.0	475.79	ug/L	475.79	ppb	13:45:27
2	Cu 324.752†	156939.6	173073.0	536.28	ug/L	536.28	ppb	13:45:27
2	Mn 257.610†	365173.9	416194.7	471.90	ug/L	471.90	ppb	13:45:27
2	Mo 202.031†	5466.6	6227.1	477.50	ug/L	477.50	ppb	13:45:47
2	Ni 231.604†	14898.0	16935.8	430.47	ug/L	430.47	ppb	13:45:47

2	P 214.914†	3761.0	4080.7	2336.6 ug/L	2336.6 ppb	13:45:47
2	Pb 220.353†	2428.1	2828.5	445.06 ug/L	445.06 ppb	13:45:47
2	S 181.975 Axial†	1619.7	1807.2	2502.0 ug/L	2502.0 ppb	13:45:47
2	Sb 206.836†	1383.5	1541.8	538.47 ug/L	538.47 ppb	13:45:47
2	Se 196.026†	2472.8	2849.1	2445.6 ug/L	2445.6 ppb	13:45:47
2	Si 251.611†	139473.1	158576.7	5125.7 ug/L	5125.7 ppb	13:45:27
2	Sn 189.927†	1978.4	2246.8	479.46 ug/L	479.46 ppb	13:45:47
2	Ti 334.940†	269310.3	308649.8	510.07 ug/L	510.07 ppb	13:45:27
2	Tl 190.801†	1146.6	1340.8	432.13 ug/L	432.13 ppb	13:45:47
2	U 409.014†	13819.2	18653.9	492.79 ug/L	492.79 ppb	13:45:27
2	V 292.402†	62858.7	73225.7	499.67 ug/L	499.67 ppb	13:45:27
2	Zn 213.857†	44974.0	50708.1	479.04 ug/L	479.04 ppb	13:45:27
2	SiO2†	140832.5	160131.6	11116 ug/L	11116 ppb	13:46:24
3	Sc Radial	3562.2	3562.2	90.9 %		13:44:54
3	Y RADIAL	3908.3	3908.3	88.61 %		13:44:54
3	Al 396.153Radial†	491528.9	540851.0	507230 ug/L	507230 ppb	13:44:34
3	Ca 317.933Radial†	206193.9	226817.4	474160 ug/L	474160 ppb	13:44:34
3	Fe 238.204 Radial†	12072.2	13269.5	187310 ug/L	187310 ppb	13:44:54
3	K 766.490 Radial†	28351.1	28549.9	5317.3 ug/L	5317.3 ppb	13:44:34
3	Mg 279.077 IEC†	9271.3	10195.5	494150 ug/L	494150 ppb	13:44:54
3	Na 589.592 Radial†	15205.4	17547.5	5410.4 ug/L	5410.4 ppb	13:44:34
3	Sr 421.552†	65002.1	71474.1	491.03 ug/L	491.03 ppb	13:44:34
3	Sc 361.383	773529.9	773529.9	88.179 %		13:45:53
3	Y 371.029	636974.7	636974.7	84.273 %		13:45:53
3	Ag 328.068†	40958.4	46209.0	266.85 ug/L	266.85 ppb	13:45:53
3	As 188.979†	908.4	1048.5	515.17 ug/L	515.17 ppb	13:46:13
3	B 249.677†	18901.7	21833.9	497.71 ug/L	497.71 ppb	13:45:53
3	Ba 233.527†	53818.9	61035.4	485.79 ug/L	485.79 ppb	13:45:53
3	Be 313.107†	564385.8	643810.9	243.05 ug/L	243.05 ppb	13:45:53
3	Cd 226.502†	35486.2	40439.8	449.32 ug/L	449.32 ppb	13:46:13
3	Co 228.616†	18169.6	20671.9	430.42 ug/L	430.42 ppb	13:46:13
3	Cr 267.716†	35994.8	40742.6	475.70 ug/L	475.70 ppb	13:45:53
3	Cu 324.752†	158602.6	173874.4	538.74 ug/L	538.74 ppb	13:45:53
3	Mn 257.610†	368718.0	417690.4	473.59 ug/L	473.59 ppb	13:45:53
3	Mo 202.031†	5549.3	6283.1	481.47 ug/L	481.47 ppb	13:46:13
3	Ni 231.604†	15178.9	17151.4	435.95 ug/L	435.95 ppb	13:46:13
3	P 214.914†	3790.8	4088.4	2335.6 ug/L	2335.6 ppb	13:46:13
3	Pb 220.353†	2482.3	2873.2	446.25 ug/L	446.25 ppb	13:46:13
3	S 181.975 Axial†	1671.0	1854.2	2573.2 ug/L	2573.2 ppb	13:46:13
3	Sb 206.836†	1397.3	1548.0	541.30 ug/L	541.30 ppb	13:46:13
3	Se 196.026†	2539.2	2907.3	2485.4 ug/L	2485.4 ppb	13:46:13
3	Si 251.611†	140631.7	158926.7	5137.0 ug/L	5137.0 ppb	13:45:53
3	Sn 189.927†	2009.9	2268.8	480.57 ug/L	480.57 ppb	13:46:13
3	Ti 334.940†	271430.4	309193.1	508.69 ug/L	508.69 ppb	13:45:53
3	Tl 190.801†	1173.2	1363.1	439.26 ug/L	439.26 ppb	13:46:13
3	U 409.014†	14112.1	18890.7	499.27 ug/L	499.27 ppb	13:45:53
3	V 292.402†	63290.8	73281.4	500.09 ug/L	500.09 ppb	13:45:53
3	Zn 213.857†	45344.3	50817.2	480.02 ug/L	480.02 ppb	13:45:53
3	SiO2†	140723.0	159034.3	11040 ug/L	11040 ppb	13:46:29

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	771241.4	87.918	%	0.2672				0.30%
Sc Radial	3552.9	90.7	%	0.23				0.26%
Y 371.029	635327.6	84.055	%	0.2012				0.24%
Y RADIAL	3891.8	88.23	%	0.348				0.39%
Ag 328.068†	46157.5	266.37	ug/L	0.423	266.37	ppb	0.423	0.16%
QC value within limits for Ag 328.068 Recovery = 106.55%								
Al 396.153Radial†	552684.7	518330	ug/L	10011.0	518330	ppb	10011.0	1.93%
QC value within limits for Al 396.153Radial Recovery = 103.67%								
As 188.979†	1048.2	514.96	ug/L	0.524	514.96	ppb	0.524	0.10%
QC value within limits for As 188.979 Recovery = 102.99%								
B 249.677†	21777.3	496.40	ug/L	3.668	496.40	ppb	3.668	0.74%
QC value within limits for B 249.677 Recovery = 99.28%								
Ba 233.527†	60956.1	485.15	ug/L	0.585	485.15	ppb	0.585	0.12%
QC value within limits for Ba 233.527 Recovery = 97.03%								
Be 313.107†	642915.7	242.71	ug/L	0.536	242.71	ppb	0.536	0.22%
QC value within limits for Be 313.107 Recovery = 97.08%								
Ca 317.933Radial†	231270.7	483470	ug/L	8266.3	483470	ppb	8266.3	1.71%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.69%
Cd 226.502†            40240.2      447.05 ug/L         2.484      447.05 ppb          2.484   0.56%
   QC value within limits for Cd 226.502  Recovery = 89.41%
Co 228.616†            20552.8      427.93 ug/L         2.558      427.93 ppb          2.558   0.60%
   QC value within limits for Co 228.616  Recovery = 85.59%
Cr 267.716†            40703.7      475.23 ug/L         0.901      475.23 ppb          0.901   0.19%
   QC value within limits for Cr 267.716  Recovery = 95.05%
Cu 324.752†           173702.9      538.20 ug/L         1.715      538.20 ppb          1.715   0.32%
   QC value within limits for Cu 324.752  Recovery = 107.64%
Fe 238.204 Radial†     13243.0      186940 ug/L         331.0      186940 ppb          331.0   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.47%
K 766.490 Radial†      29184.0      5435.8 ug/L        107.86      5435.8 ppb         107.86   1.98%
   QC value within limits for K 766.490 Radial  Recovery = 108.72%
Mg 279.077 IEC†        10179.6      493390 ug/L         716.2      493390 ppb          716.2   0.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.68%
Mn 257.610†           416672.7      472.43 ug/L         1.009      472.43 ppb          1.009   0.21%
   QC value within limits for Mn 257.610  Recovery = 94.49%
Mo 202.031†             6255.1      479.49 ug/L         1.982      479.49 ppb          1.982   0.41%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†     17894.2      5517.3 ug/L         93.22      5517.3 ppb          93.22   1.69%
   QC value within limits for Na 589.592 Radial  Recovery = 110.35%
Ni 231.604†            17037.1      433.04 ug/L         2.755      433.04 ppb          2.755   0.64%
   QC value within limits for Ni 231.604  Recovery = 86.61%
P 214.914†              4092.9      2341.4 ug/L          9.19      2341.4 ppb           9.19   0.39%
   QC value within limits for P 214.914  Recovery = 93.66%
Pb 220.353†             2844.8      445.23 ug/L         0.943      445.23 ppb          0.943   0.21%
   QC value within limits for Pb 220.353  Recovery = 89.05%
S 181.975 Axial†        1839.9      2550.6 ug/L         42.14      2550.6 ppb          42.14   1.65%
   QC value within limits for S 181.975 Axial  Recovery = 102.02%
Sb 206.836†             1534.0      536.06 ug/L         6.780      536.06 ppb          6.780   1.26%
   QC value within limits for Sb 206.836  Recovery = 107.21%
Se 196.026†             2887.8      2471.4 ug/L         22.39      2471.4 ppb          22.39   0.91%
   QC value within limits for Se 196.026  Recovery = 98.86%
Si 251.611†           158724.9      5130.5 ug/L          5.84      5130.5 ppb           5.84   0.11%
   QC value within limits for Si 251.611  Recovery = 102.61%
Sn 189.927†             2261.0      480.84 ug/L         1.536      480.84 ppb          1.536   0.32%
   QC value within limits for Sn 189.927  Recovery = 96.17%
Sr 421.552†            73142.7      502.50 ug/L        10.124      502.50 ppb         10.124   2.01%
   QC value within limits for Sr 421.552  Recovery = 100.50%
Ti 334.940†           309049.7      509.78 ug/L         0.973      509.78 ppb          0.973   0.19%
   QC value within limits for Ti 334.940  Recovery = 101.96%
Tl 190.801†             1346.7      434.03 ug/L         4.587      434.03 ppb          4.587   1.06%
   QC value within limits for Tl 190.801  Recovery = 86.81%
U 409.014†             18843.8      498.02 ug/L         4.732      498.02 ppb          4.732   0.95%
   QC value within limits for U 409.014  Recovery = 99.60%
V 292.402†             73165.1      499.28 ug/L         1.052      499.28 ppb          1.052   0.21%
   QC value within limits for V 292.402  Recovery = 99.86%
Zn 213.857†            50747.6      479.40 ug/L         0.544      479.40 ppb          0.544   0.11%
   QC value within limits for Zn 213.857  Recovery = 95.88%
SiO2†                 159526.1       11074 ug/L          38.8       11074 ppb           38.8   0.35%
   QC value within limits for SiO2  Recovery = 103.54%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 2/24/2010 13:48:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3468.7	3468.7	88.5	%			13:50:52
1	Y RADIAL	3837.9	3837.9	87.01	%			13:50:52
1	Al 396.153Radial†	488307.2	551778.7	517500	ug/L	517500	ppb	13:50:32
1	Ca 317.933Radial†	203936.0	230377.5	481610	ug/L	481610	ppb	13:50:32
1	Fe 238.204 Radial†	27514.6	31073.4	438610	ug/L	438610	ppb	13:50:52
1	K 766.490 Radial†	2419.3	93.6	-346.34	ug/L	-346.34	ppb	13:50:32
1	Mg 279.077 IEC†	9016.2	10182.1	493240	ug/L	493240	ppb	13:50:52
1	Na 589.592 Radial†	1495172.9	1689995.2	521070	ug/L	521070	ppb	13:50:32
1	Sr 421.552†	754.1	816.3	2.0521	ug/L	2.0521	ppb	13:50:52
1	Sc 361.383	750786.8	750786.8	85.586	%			13:51:50
1	Y 371.029	622054.4	622054.4	82.299	%			13:51:50
1	Ag 328.068†	-23006.2	-27121.2	-8.3338	ug/L	-8.3338	ppb	13:51:50
1	As 188.979†	-192.1	-206.2	10.666	ug/L	10.666	ppb	13:52:11
1	B 249.677†	1496.8	2147.1	-19.189	ug/L	-19.189	ppb	13:51:50
1	Ba 233.527†	-1560.8	-1822.2	-0.8859	ug/L	-0.8859	ppb	13:52:11
1	Be 313.107†	-9848.1	-7744.5	-2.9341	ug/L	-2.9341	ppb	13:51:50
1	Cd 226.502†	3079.5	3794.4	1.2798	ug/L	1.2798	ppb	13:52:11
1	Co 228.616†	208.2	309.8	0.0800	ug/L	0.0800	ppb	13:52:11
1	Cr 267.716†	-994.7	-1239.9	22.458	ug/L	22.458	ppb	13:52:11
1	Cu 324.752†	373.2	-5554.8	-1.1997	ug/L	-1.1997	ppb	13:51:50
1	Mn 257.610†	-19933.2	-23749.0	-3.8910	ug/L	-3.8910	ppb	13:51:50
1	Mo 202.031†	-468.7	-557.8	-1.1730	ug/L	-1.1730	ppb	13:52:11
1	Ni 231.604†	253.9	234.2	5.9514	ug/L	5.9514	ppb	13:52:11
1	P 214.914†	512.3	388.1	12.004	ug/L	12.004	ppb	13:52:11
1	Pb 220.353†	-538.6	-571.1	-3.2250	ug/L	-3.2250	ppb	13:52:11
1	S 181.975 Axial†	74.0	45.7	-31.241	ug/L	-31.241	ppb	13:52:11
1	Sb 206.836†	104.7	85.6	9.1558	ug/L	9.1558	ppb	13:52:11
1	Se 196.026†	-1910.7	-2204.7	-81.423	ug/L	-81.423	ppb	13:52:11
1	Si 251.611†	-490.0	-1130.8	-36.087	ug/L	-36.087	ppb	13:52:11
1	Sn 189.927†	-368.8	-441.4	-18.820	ug/L	-18.820	ppb	13:52:11
1	Ti 334.940†	-6880.1	-6664.7	7.8453	ug/L	7.8453	ppb	13:51:50
1	Tl 190.801†	-88.5	-70.8	-22.942	ug/L	-22.942	ppb	13:52:11
1	U 409.014†	418077.4	491374.9	13519	ug/L	13519	ppb	13:51:50
1	V 292.402†	2566.6	4504.5	2.4700	ug/L	2.4700	ppb	13:52:11
1	Zn 213.857†	5217.9	5490.6	-10.382	ug/L	-10.382	ppb	13:52:11
1	SiO2†	-432.6	-1059.8	-72.538	ug/L	-72.538	ppb	13:53:07
2	Sc Radial	3478.3	3478.3	88.8	%			13:51:18
2	Y RADIAL	3838.2	3838.2	87.02	%			13:51:18
2	Al 396.153Radial†	487020.0	548813.7	514720	ug/L	514720	ppb	13:50:58
2	Ca 317.933Radial†	203394.4	229134.7	479010	ug/L	479010	ppb	13:50:58
2	Fe 238.204 Radial†	27553.2	31031.5	438020	ug/L	438020	ppb	13:51:18
2	K 766.490 Radial†	2572.8	259.0	-312.90	ug/L	-312.90	ppb	13:50:58
2	Mg 279.077 IEC†	9021.2	10159.7	492150	ug/L	492150	ppb	13:51:18
2	Na 589.592 Radial†	1493113.0	1683036.1	518920	ug/L	518920	ppb	13:50:58
2	Sr 421.552†	740.4	798.4	1.9480	ug/L	1.9480	ppb	13:51:18
2	Sc 361.383	742911.5	742911.5	84.688	%			13:52:16
2	Y 371.029	615612.6	615612.6	81.447	%			13:52:16
2	Ag 328.068†	-22744.4	-27097.1	-8.3287	ug/L	-8.3287	ppb	13:52:16
2	As 188.979†	-191.1	-207.4	9.9744	ug/L	9.9744	ppb	13:52:36
2	B 249.677†	1338.8	1979.1	-23.168	ug/L	-23.168	ppb	13:52:16
2	Ba 233.527†	-1541.5	-1818.8	-0.8785	ug/L	-0.8785	ppb	13:52:36
2	Be 313.107†	-9714.6	-7708.9	-2.9234	ug/L	-2.9234	ppb	13:52:16
2	Cd 226.502†	3043.1	3789.6	1.2751	ug/L	1.2751	ppb	13:52:36
2	Co 228.616†	206.2	310.0	0.0929	ug/L	0.0929	ppb	13:52:36
2	Cr 267.716†	-1010.1	-1270.4	22.080	ug/L	22.080	ppb	13:52:36
2	Cu 324.752†	371.4	-5552.2	-1.1944	ug/L	-1.1944	ppb	13:52:16
2	Mn 257.610†	-19556.0	-23550.5	-3.6791	ug/L	-3.6791	ppb	13:52:16
2	Mo 202.031†	-483.7	-581.3	-2.9767	ug/L	-2.9767	ppb	13:52:36
2	Ni 231.604†	248.5	230.9	5.8697	ug/L	5.8697	ppb	13:52:36

2	P 214.914†	502.1	382.4	8.3391	ug/L	8.3391 ppb	13:52:36
2	Pb 220.353†	-576.5	-622.7	-10.118	ug/L	-10.118 ppb	13:52:36
2	S 181.975 Axial†	77.4	50.6	-23.588	ug/L	-23.588 ppb	13:52:36
2	Sb 206.836†	57.5	31.1	-9.8311	ug/L	-9.8311 ppb	13:52:36
2	Se 196.026†	-1874.9	-2186.1	-71.076	ug/L	-71.076 ppb	13:52:36
2	Si 251.611†	-430.8	-1067.0	-34.001	ug/L	-34.001 ppb	13:52:36
2	Sn 189.927†	-360.6	-436.3	-18.333	ug/L	-18.333 ppb	13:52:36
2	Ti 334.940†	-7442.4	-7413.9	6.4309	ug/L	6.4309 ppb	13:52:16
2	Tl 190.801†	-104.1	-90.4	-29.202	ug/L	-29.202 ppb	13:52:36
2	U 409.014†	412102.3	489497.7	13467	ug/L	13467 ppb	13:52:16
2	V 292.402†	2453.3	4402.5	1.7016	ug/L	1.7016 ppb	13:52:36
2	Zn 213.857†	5168.7	5497.2	-10.227	ug/L	-10.227 ppb	13:52:36
2	SiO2†	-492.2	-1135.6	-77.760	ug/L	-77.760 ppb	13:53:12
3	Sc Radial	3489.1	3489.1	89.0	%		13:51:43
3	Y RADIAL	3863.1	3863.1	87.58	%		13:51:43
3	Al 396.153Radial†	487601.6	547765.9	513740	ug/L	513740 ppb	13:51:23
3	Ca 317.933Radial†	203078.5	228069.5	476780	ug/L	476780 ppb	13:51:23
3	Fe 238.204 Radial†	27513.9	30891.1	436040	ug/L	436040 ppb	13:51:43
3	K 766.490 Radial†	2457.1	120.1	-337.68	ug/L	-337.68 ppb	13:51:23
3	Mg 279.077 IEC†	8999.2	10103.5	489430	ug/L	489430 ppb	13:51:43
3	Na 589.592 Radial†	1489428.8	1673683.2	516040	ug/L	516040 ppb	13:51:23
3	Sr 421.552†	767.1	825.9	2.1544	ug/L	2.1544 ppb	13:51:43
3	Sc 361.383	756603.2	756603.2	86.249	%		13:52:42
3	Y 371.029	626649.0	626649.0	82.907	%		13:52:42
3	Ag 328.068†	-23278.8	-27230.7	-9.5249	ug/L	-9.5249 ppb	13:52:42
3	As 188.979†	-196.8	-210.0	8.3641	ug/L	8.3641 ppb	13:53:02
3	B 249.677†	1443.2	2071.6	-20.604	ug/L	-20.604 ppb	13:52:42
3	Ba 233.527†	-1573.6	-1823.0	-0.9702	ug/L	-0.9702 ppb	13:53:02
3	Be 313.107†	-9779.0	-7575.9	-2.8781	ug/L	-2.8781 ppb	13:52:42
3	Cd 226.502†	3081.5	3769.1	1.2428	ug/L	1.2428 ppb	13:53:02
3	Co 228.616†	210.2	310.3	0.1318	ug/L	0.1318 ppb	13:53:02
3	Cr 267.716†	-1020.1	-1260.4	22.004	ug/L	22.004 ppb	13:53:02
3	Cu 324.752†	389.6	-5539.0	-1.2604	ug/L	-1.2604 ppb	13:52:42
3	Mn 257.610†	-19815.4	-23433.4	-3.6302	ug/L	-3.6302 ppb	13:52:42
3	Mo 202.031†	-488.9	-577.0	-2.8368	ug/L	-2.8368 ppb	13:53:02
3	Ni 231.604†	247.1	224.0	5.6939	ug/L	5.6939 ppb	13:53:02
3	P 214.914†	504.5	374.4	4.9145	ug/L	4.9145 ppb	13:53:02
3	Pb 220.353†	-530.8	-557.3	-2.0945	ug/L	-2.0945 ppb	13:53:02
3	S 181.975 Axial†	75.7	46.9	-28.770	ug/L	-28.770 ppb	13:53:02
3	Sb 206.836†	73.8	48.9	-3.5421	ug/L	-3.5421 ppb	13:53:02
3	Se 196.026†	-1873.7	-2144.7	-50.134	ug/L	-50.134 ppb	13:53:02
3	Si 251.611†	-380.0	-999.0	-31.803	ug/L	-31.803 ppb	13:53:02
3	Sn 189.927†	-359.5	-427.3	-17.006	ug/L	-17.006 ppb	13:53:02
3	Ti 334.940†	-8714.7	-8730.1	4.2858	ug/L	4.2858 ppb	13:52:42
3	Tl 190.801†	-123.5	-110.6	-35.681	ug/L	-35.681 ppb	13:53:02
3	U 409.014†	419759.0	489569.3	13469	ug/L	13469 ppb	13:52:42
3	V 292.402†	2602.8	4523.5	2.7917	ug/L	2.7917 ppb	13:53:02
3	Zn 213.857†	5190.5	5411.9	-10.787	ug/L	-10.787 ppb	13:53:02
3	SiO2†	-420.5	-1042.0	-71.260	ug/L	-71.260 ppb	13:53:18

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	750100.5	85.508	%	0.7833				0.92%
Sc Radial	3478.7	88.8	%	0.26				0.29%
Y 371.029	621438.7	82.218	%	0.7335				0.89%
Y RADIAL	3846.4	87.20	%	0.328				0.38%
Ag 328.068†	-27149.6	-8.7291	ug/L	0.68915	-8.7291	ppb	0.68915	7.89%
Al 396.153Radial†	549452.8	515320	ug/L	1952.0	515320	ppb	1952.0	0.38%
QC value within limits for Al 396.153Radial Recovery = 103.06%								
As 188.979†	-207.9	9.6682	ug/L	1.18114	9.6682	ppb	1.18114	12.22%
B 249.677†	2065.9	-20.987	ug/L	2.0170	-20.987	ppb	2.0170	9.61%
Ba 233.527†	-1821.4	-0.9115	ug/L	0.05096	-0.9115	ppb	0.05096	5.59%
Be 313.107†	-7676.4	-2.9119	ug/L	0.02973	-2.9119	ppb	0.02973	1.02%
Ca 317.933Radial†	229193.9	479130	ug/L	2414.8	479130	ppb	2414.8	0.50%
QC value within limits for Ca 317.933Radial Recovery = 95.83%								
Cd 226.502†	3784.4	1.2659	ug/L	0.02015	1.2659	ppb	0.02015	1.59%
Co 228.616†	310.0	0.1016	ug/L	0.02695	0.1016	ppb	0.02695	26.53%
Cr 267.716†	-1256.9	22.181	ug/L	0.2434	22.181	ppb	0.2434	1.10%
Cu 324.752†	-5548.7	-1.2182	ug/L	0.03668	-1.2182	ppb	0.03668	3.01%

Fe 238.204 Radial†	30998.7	437550	ug/L	1347.6	437550	ppb	1347.6	0.31%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.51%								
K 766.490 Radial†	157.6	-332.31	ug/L	17.357	-332.31	ppb	17.357	5.22%
Mg 279.077 IEC†	10148.4	491610	ug/L	1961.9	491610	ppb	1961.9	0.40%
QC value within limits for Mg 279.077 IEC Recovery = 98.32%								
Mn 257.610†	-23577.6	-3.7334	ug/L	0.13866	-3.7334	ppb	0.13866	3.71%
Mo 202.031†	-572.0	-2.3288	ug/L	1.00344	-2.3288	ppb	1.00344	43.09%
Na 589.592 Radial†	1682238.2	518680	ug/L	2523.7	518680	ppb	2523.7	0.49%
QC value within limits for Na 589.592 Radial Recovery = 103.74%								
Ni 231.604†	229.7	5.8383	ug/L	0.13156	5.8383	ppb	0.13156	2.25%
P 214.914†	381.6	8.4194	ug/L	3.54567	8.4194	ppb	3.54567	42.11%
Pb 220.353†	-583.7	-5.1458	ug/L	4.34301	-5.1458	ppb	4.34301	84.40%
S 181.975 Axial†	47.7	-27.866	ug/L	3.9058	-27.866	ppb	3.9058	14.02%
Sb 206.836†	55.2	-1.4058	ug/L	9.67201	-1.4058	ppb	9.67201	688.00%
Se 196.026†	-2178.5	-67.544	ug/L	15.9409	-67.544	ppb	15.9409	23.60%
Si 251.611†	-1065.6	-33.964	ug/L	2.1422	-33.964	ppb	2.1422	6.31%
Sn 189.927†	-435.0	-18.053	ug/L	0.9387	-18.053	ppb	0.9387	5.20%
Sr 421.552†	813.5	2.0515	ug/L	0.10322	2.0515	ppb	0.10322	5.03%
Ti 334.940†	-7602.9	6.1874	ug/L	1.79220	6.1874	ppb	1.79220	28.97%
Tl 190.801†	-90.6	-29.275	ug/L	6.3698	-29.275	ppb	6.3698	21.76%
U 409.014†	490147.3	13485	ug/L	29.3	13485	ppb	29.3	0.22%
QC value less than the lower limit for U 409.014 Recovery = 89.90%								
V 292.402†	4476.8	2.3211	ug/L	0.56011	2.3211	ppb	0.56011	24.13%
Zn 213.857†	5466.6	-10.465	ug/L	0.2894	-10.465	ppb	0.2894	2.77%
SiO2†	-1079.2	-73.852	ug/L	3.4436	-73.852	ppb	3.4436	4.66%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 2/24/2010 13:55:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3755.1	3755.1	95.8	%			13:57:46
1	Y RADIAL	4233.7	4233.7	95.98	%			13:57:26
1	Al 396.153Radial†	373.7	502.4	12.258	ug/L	12.258	ppb	13:57:26
1	Ca 317.933Radial†	30.3	12.0	25.045	ug/L	25.045	ppb	13:57:46
1	Fe 238.204 Radial†	-7.0	-18.6	9.4874	ug/L	9.4874	ppb	13:57:46
1	K 766.490 Radial†	1536547.3	1600901.5	307200	ug/L	307200	ppb	13:57:21
1	Mg 279.077 IEC†	-4.6	-8.9	-332.35	ug/L	-332.35	ppb	13:57:46
1	Na 589.592 Radial†	-207.8	602.9	185.88	ug/L	185.88	ppb	13:57:26
1	Sr 421.552†	1357129.4	1416264.8	9799.9	ug/L	9799.9	ppb	13:57:21
1	Sc 361.383	867704.4	867704.4	98.914	%			13:59:03
1	Y 371.029	715999.5	715999.5	94.728	%			13:59:03
1	Ag 328.068†	-8007.1	-8335.4	0.7870	ug/L	0.7870	ppb	13:59:08
1	As 188.979†	20923.1	21171.1	9515.8	ug/L	9515.8	ppb	13:59:08
1	B 249.677†	197438.5	200004.5	4823.1	ug/L	4823.1	ppb	13:59:08
1	Ba 233.527†	1631925.0	1649843.7	12968	ug/L	12968	ppb	13:59:03
1	Be 313.107†	7328086.3	7412305.2	2807.7	ug/L	2807.7	ppb	13:58:56
1	Cd 226.502†	802576.9	811584.9	9404.0	ug/L	9404.0	ppb	13:59:03
1	Co 228.616†	429667.2	434451.1	9098.6	ug/L	9098.6	ppb	13:59:08
1	Cr 267.716†	2048510.5	2070923.9	23262	ug/L	23262	ppb	13:59:03
1	Cu 324.752†	6395075.1	6459297.3	19656	ug/L	19656	ppb	13:58:56
1	Mn 257.610†	8000483.7	8087864.0	9203.5	ug/L	9203.5	ppb	13:58:56
1	Mo 202.031†	127518.1	128908.0	9464.0	ug/L	9464.0	ppb	13:59:08
1	Ni 231.604†	361475.3	365381.6	9287.3	ug/L	9287.3	ppb	13:59:08
1	P 214.914†	29896.6	30014.4	14259	ug/L	14259	ppb	13:59:08
1	Pb 220.353†	191166.1	193323.1	23789	ug/L	23789	ppb	13:59:08
1	S 181.975 Axial†	35706.3	36057.5	51888	ug/L	51888	ppb	13:59:08
1	Sb 206.836†	29721.4	30011.1	10844	ug/L	10844	ppb	13:59:08
1	Se 196.026†	14821.8	15012.2	9863.3	ug/L	9863.3	ppb	13:59:08
1	Si 251.611†	1415805.2	1430791.3	46182	ug/L	46182	ppb	13:59:03
1	Sn 189.927†	55584.4	56184.2	10081	ug/L	10081	ppb	13:59:08
1	Ti 334.940†	6151049.1	6219956.9	9765.7	ug/L	9765.7	ppb	13:58:56
1	Tl 190.801†	28932.1	29282.4	9429.1	ug/L	9429.1	ppb	13:59:08
1	U 409.014†	-1761.6	1105.6	-21.464	ug/L	-21.464	ppb	13:59:08
1	V 292.402†	1384474.8	1401180.9	9885.2	ug/L	9885.2	ppb	13:59:03
1	Zn 213.857†	1348344.9	1362542.6	13630	ug/L	13630	ppb	13:59:03
1	SiO2†	1424198.9	1439281.1	99766	ug/L	99766	ppb	13:59:53
2	Sc Radial	3762.7	3762.7	96.0	%			13:58:16
2	Y RADIAL	4105.6	4105.6	93.08	%			13:57:56
2	Al 396.153Radial†	361.4	488.8	-0.2516	ug/L	-0.2516	ppb	13:57:56
2	Ca 317.933Radial†	28.2	9.7	20.219	ug/L	20.219	ppb	13:58:16
2	Fe 238.204 Radial†	-7.7	-19.3	-0.5570	ug/L	-0.5570	ppb	13:58:16
2	K 766.490 Radial†	1554297.3	1616159.3	310130	ug/L	310130	ppb	13:57:51
2	Mg 279.077 IEC†	-2.6	-6.7	-227.63	ug/L	-227.63	ppb	13:58:16
2	Na 589.592 Radial†	-264.2	544.7	167.93	ug/L	167.93	ppb	13:57:56
2	Sr 421.552†	1369933.4	1426748.5	9872.5	ug/L	9872.5	ppb	13:57:51
2	Sc 361.383	861919.3	861919.3	98.255	%			13:59:22
2	Y 371.029	711492.0	711492.0	94.132	%			13:59:22
2	Ag 328.068†	-8021.4	-8404.3	0.5572	ug/L	0.5572	ppb	13:59:27
2	As 188.979†	20787.2	21174.7	9519.1	ug/L	9519.1	ppb	13:59:27
2	B 249.677†	196145.7	200028.4	4823.7	ug/L	4823.7	ppb	13:59:27
2	Ba 233.527†	1628256.0	1657183.1	13026	ug/L	13026	ppb	13:59:22
2	Be 313.107†	7432593.3	7568394.2	2866.8	ug/L	2866.8	ppb	13:59:16
2	Cd 226.502†	801317.0	815748.5	9452.2	ug/L	9452.2	ppb	13:59:22
2	Co 228.616†	427144.6	434799.3	9105.4	ug/L	9105.4	ppb	13:59:27
2	Cr 267.716†	2042538.8	2078746.4	23350	ug/L	23350	ppb	13:59:22
2	Cu 324.752†	6475808.6	6584859.4	20038	ug/L	20038	ppb	13:59:16
2	Mn 257.610†	8104106.2	8247615.4	9385.3	ug/L	9385.3	ppb	13:59:16
2	Mo 202.031†	126598.8	128837.6	9458.8	ug/L	9458.8	ppb	13:59:27
2	Ni 231.604†	359202.1	365520.8	9290.8	ug/L	9290.8	ppb	13:59:27

2	P 214.914†	29727.0	30044.6	14202 ug/L	14202 ppb		13:59:27
2	Pb 220.353†	190171.6	193608.1	23824 ug/L	23824 ppb		13:59:27
2	S 181.975 Axial†	35472.2	36061.6	51894 ug/L	51894 ppb		13:59:27
2	Sb 206.836†	29516.1	30003.7	10841 ug/L	10841 ppb		13:59:27
2	Se 196.026†	14688.4	14977.1	9840.2 ug/L	9840.2 ppb		13:59:27
2	Si 251.611†	1408873.0	1433343.0	46265 ug/L	46265 ppb		13:59:22
2	Sn 189.927†	55282.5	56254.1	10093 ug/L	10093 ppb		13:59:27
2	Ti 334.940†	6228525.0	6340547.7	9955.1 ug/L	9955.1 ppb		13:59:16
2	Tl 190.801†	28737.0	29280.0	9430.7 ug/L	9430.7 ppb		13:59:27
2	U 409.014†	-1701.3	1155.1	-20.294 ug/L	-20.294 ppb		13:59:27
2	V 292.402†	1378505.8	1404500.4	9908.1 ug/L	9908.1 ppb		13:59:22
2	Zn 213.857†	1345230.6	1368522.3	13690 ug/L	13690 ppb		13:59:22
2	SiO2†	1411018.3	1435530.4	99505 ug/L	99505 ppb		13:59:59
3	Sc Radial	3788.7	3788.7	96.7 %			13:58:47
3	Y RADIAL	4223.7	4223.7	95.76 %			13:58:27
3	Al 396.153Radial†	370.8	495.9	-2.2803 ug/L	-2.2803 ppb		13:58:27
3	Ca 317.933Radial†	25.3	6.5	13.519 ug/L	13.519 ppb		13:58:47
3	Fe 238.204 Radial†	-7.2	-18.8	11.971 ug/L	11.971 ppb		13:58:47
3	K 766.490 Radial†	1559142.3	1610028.7	308950 ug/L	308950 ppb		13:58:22
3	Mg 279.077 IEC†	-3.0	-7.2	-247.42 ug/L	-247.42 ppb		13:58:47
3	Na 589.592 Radial†	-221.0	591.1	182.27 ug/L	182.27 ppb		13:58:27
3	Sr 421.552†	1373522.5	1420640.4	9830.2 ug/L	9830.2 ppb		13:58:22
3	Sc 361.383	860982.1	860982.1	98.148 %			13:59:42
3	Y 371.029	709940.5	709940.5	93.927 %			13:59:42
3	Ag 328.068†	-8138.1	-8532.1	-0.0355 ug/L	-0.0355 ppb		13:59:47
3	As 188.979†	21300.3	21720.6	9762.6 ug/L	9762.6 ppb		13:59:47
3	B 249.677†	200239.4	204416.6	4929.6 ug/L	4929.6 ppb		13:59:47
3	Ba 233.527†	1627336.3	1658049.8	13033 ug/L	13033 ppb		13:59:42
3	Be 313.107†	7439530.6	7583696.5	2872.6 ug/L	2872.6 ppb		13:59:35
3	Cd 226.502†	801403.9	816724.8	9463.7 ug/L	9463.7 ppb		13:59:42
3	Co 228.616†	434713.0	442983.7	9277.3 ug/L	9277.3 ppb		13:59:47
3	Cr 267.716†	2039723.8	2078141.1	23343 ug/L	23343 ppb		13:59:42
3	Cu 324.752†	6458784.5	6574688.1	20007 ug/L	20007 ppb		13:59:35
3	Mn 257.610†	8121943.3	8274767.2	9416.2 ug/L	9416.2 ppb		13:59:35
3	Mo 202.031†	128860.9	131282.8	9638.3 ug/L	9638.3 ppb		13:59:47
3	Ni 231.604†	365882.0	372724.8	9473.9 ug/L	9473.9 ppb		13:59:47
3	P 214.914†	30446.3	30810.4	14671 ug/L	14671 ppb		13:59:47
3	Pb 220.353†	193738.8	197453.3	24297 ug/L	24297 ppb		13:59:47
3	S 181.975 Axial†	36311.7	36956.2	53181 ug/L	53181 ppb		13:59:47
3	Sb 206.836†	30113.5	30645.1	11072 ug/L	11072 ppb		13:59:47
3	Se 196.026†	15158.0	15471.8	10165 ug/L	10165 ppb		13:59:47
3	Si 251.611†	1412452.1	1438550.5	46431 ug/L	46431 ppb		13:59:42
3	Sn 189.927†	56386.5	57440.2	10306 ug/L	10306 ppb		13:59:47
3	Ti 334.940†	6231589.1	6350569.8	9970.9 ug/L	9970.9 ppb		13:59:35
3	Tl 190.801†	29248.4	29833.0	9607.1 ug/L	9607.1 ppb		13:59:47
3	U 409.014†	-1667.4	1187.7	-19.379 ug/L	-19.379 ppb		13:59:47
3	V 292.402†	1376930.5	1404422.5	9910.1 ug/L	9910.1 ppb		13:59:42
3	Zn 213.857†	1346478.4	1371284.0	13717 ug/L	13717 ppb		13:59:42
3	SiO2†	1395286.9	1421065.3	98495 ug/L	98495 ppb		14:00:05

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863535.3	98.439	%	0.4150				0.42%
Sc Radial	3768.8	96.2	%	0.45				0.47%
Y 371.029	712477.3	94.262	%	0.4164				0.44%
Y RADIAL	4187.7	94.94	%	1.614				1.70%
Ag 328.068†	-8424.0	0.4362	ug/L	0.42440	0.4362	ppb	0.42440	97.29%
Al 396.153Radial†	495.7	3.2420	ug/L	7.87361	3.2420	ppb	7.87361	242.86%
As 188.979†	21355.5	9599.2	ug/L	141.52	9599.2	ppb	141.52	1.47%
QC value within limits for As 188.979 Recovery = 95.99%								
B 249.677†	201483.2	4858.8	ug/L	61.31	4858.8	ppb	61.31	1.26%
QC value within limits for B 249.677 Recovery = 97.18%								
Ba 233.527†	1655025.6	13009	ug/L	35.4	13009	ppb	35.4	0.27%
QC value less than the lower limit for Ba 233.527 Recovery = 86.73%								
Be 313.107†	7521465.3	2849.0	ug/L	35.90	2849.0	ppb	35.90	1.26%
QC value within limits for Be 313.107 Recovery = 94.97%								
Ca 317.933Radial†	9.4	19.594	ug/L	5.7887	19.594	ppb	5.7887	29.54%
Cd 226.502†	814686.1	9440.0	ug/L	31.65	9440.0	ppb	31.65	0.34%
QC value within limits for Cd 226.502 Recovery = 94.40%								

Co 228.616†	437411.4	9160.4 ug/L	101.26	9160.4 ppb	101.26	1.11%
QC value within limits for Co 228.616 Recovery = 91.60%						
Cr 267.716†	2075937.2	23318 ug/L	48.9	23318 ppb	48.9	0.21%
QC value within limits for Cr 267.716 Recovery = 93.27%						
Cu 324.752†	6539615.0	19901 ug/L	212.2	19901 ppb	212.2	1.07%
QC value within limits for Cu 324.752 Recovery = 99.50%						
Fe 238.204 Radial†	-18.9	6.9670 ug/L	6.63327	6.9670 ppb	6.63327	95.21%
K 766.490 Radial†	1609029.8	308760 ug/L	1473.3	308760 ppb	1473.3	0.48%
QC value within limits for K 766.490 Radial Recovery = 102.92%						
Mg 279.077 IEC†	-7.6	-269.13 ug/L	55.636	-269.13 ppb	55.636	20.67%
Mn 257.610†	8203415.5	9335.0 ug/L	114.92	9335.0 ppb	114.92	1.23%
QC value within limits for Mn 257.610 Recovery = 93.35%						
Mo 202.031†	129676.1	9520.4 ug/L	102.18	9520.4 ppb	102.18	1.07%
QC value within limits for Mo 202.031 Recovery = 95.20%						
Na 589.592 Radial†	579.6	178.69 ug/L	9.494	178.69 ppb	9.494	5.31%
Ni 231.604†	367875.7	9350.7 ug/L	106.76	9350.7 ppb	106.76	1.14%
QC value within limits for Ni 231.604 Recovery = 93.51%						
P 214.914†	30289.8	14377 ug/L	255.9	14377 ppb	255.9	1.78%
QC value within limits for P 214.914 Recovery = 95.85%						
Pb 220.353†	194794.8	23970 ug/L	283.9	23970 ppb	283.9	1.18%
QC value within limits for Pb 220.353 Recovery = 95.88%						
S 181.975 Axial†	36358.4	52321 ug/L	745.0	52321 ppb	745.0	1.42%
QC value within limits for S 181.975 Axial Recovery = 104.64%						
Sb 206.836†	30220.0	10919 ug/L	132.7	10919 ppb	132.7	1.22%
QC value within limits for Sb 206.836 Recovery = 109.19%						
Se 196.026†	15153.7	9956.2 ug/L	181.18	9956.2 ppb	181.18	1.82%
QC value within limits for Se 196.026 Recovery = 99.56%						
Si 251.611†	1434228.3	46293 ug/L	126.8	46293 ppb	126.8	0.27%
QC value within limits for Si 251.611 Recovery = 92.59%						
Sn 189.927†	56626.2	10160 ug/L	126.6	10160 ppb	126.6	1.25%
QC value within limits for Sn 189.927 Recovery = 101.60%						
Sr 421.552†	1421217.9	9834.2 ug/L	36.44	9834.2 ppb	36.44	0.37%
QC value within limits for Sr 421.552 Recovery = 98.34%						
Ti 334.940†	6303691.5	9897.2 ug/L	114.20	9897.2 ppb	114.20	1.15%
QC value within limits for Ti 334.940 Recovery = 98.97%						
Tl 190.801†	29465.1	9489.0 ug/L	102.27	9489.0 ppb	102.27	1.08%
QC value within limits for Tl 190.801 Recovery = 94.89%						
U 409.014†	1149.5	-20.379 ug/L	1.0450	-20.379 ppb	1.0450	5.13%
V 292.402†	1403367.9	9901.1 ug/L	13.80	9901.1 ppb	13.80	0.14%
QC value within limits for V 292.402 Recovery = 99.01%						
Zn 213.857†	1367449.6	13679 ug/L	44.2	13679 ppb	44.2	0.32%
QC value within limits for Zn 213.857 Recovery = 91.19%						
SiO2†	1431958.9	99255 ug/L	671.2	99255 ppb	671.2	0.68%
QC value within limits for SiO2 Recovery = 92.76%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 14:02:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3833.5	3833.5	97.8	%			14:04:28
1	Y RADIAL	4288.4	4288.4	97.22	%			14:04:08
1	Al 396.153Radial†	5161.8	5389.1	5030.7	ug/L	5030.7	ppb	14:04:08
1	Ca 317.933Radial†	2438.7	2473.3	5170.5	ug/L	5170.5	ppb	14:04:28
1	Fe 238.204 Radial†	358.5	355.2	5028.5	ug/L	5028.5	ppb	14:04:28
1	K 766.490 Radial†	29347.8	27361.6	5244.2	ug/L	5244.2	ppb	14:04:08
1	Mg 279.077 IEC†	108.8	107.1	5193.3	ug/L	5193.3	ppb	14:04:28
1	Na 589.592 Radial†	32043.9	33577.1	10353	ug/L	10353	ppb	14:04:08
1	Sr 421.552†	71002.9	72548.1	501.96	ug/L	501.96	ppb	14:04:08
1	Sc 361.383	889079.5	889079.5	101.35	%			14:05:25
1	Y 371.029	740429.7	740429.7	97.961	%			14:05:25
1	Ag 328.068†	107283.0	105612.9	492.35	ug/L	492.35	ppb	14:05:30
1	As 188.979†	1165.0	1167.7	525.67	ug/L	525.67	ppb	14:05:50
1	B 249.677†	21245.2	21360.3	515.65	ug/L	515.65	ppb	14:05:30
1	Ba 233.527†	63506.2	62661.3	492.95	ug/L	492.95	ppb	14:05:30
1	Be 313.107†	1313103.7	1299366.8	489.40	ug/L	489.40	ppb	14:05:25
1	Cd 226.502†	43099.5	42721.4	494.60	ug/L	494.60	ppb	14:05:30
1	Co 228.616†	23840.3	23589.1	494.22	ug/L	494.22	ppb	14:05:30
1	Cr 267.716†	44460.3	43790.1	492.55	ug/L	492.55	ppb	14:05:30
1	Cu 324.752†	167969.2	159740.0	486.10	ug/L	486.10	ppb	14:05:30
1	Mn 257.610†	437818.1	431524.8	491.33	ug/L	491.33	ppb	14:05:25
1	Mo 202.031†	6739.0	6639.1	487.87	ug/L	487.87	ppb	14:05:50
1	Ni 231.604†	19747.3	19421.7	493.65	ug/L	493.65	ppb	14:05:30
1	P 214.914†	4296.1	4028.3	2330.3	ug/L	2330.3	ppb	14:05:50
1	Pb 220.353†	4047.6	4051.8	499.83	ug/L	499.83	ppb	14:05:50
1	S 181.975 Axial†	743.1	692.4	995.41	ug/L	995.41	ppb	14:05:50
1	Sb 206.836†	1481.6	1425.2	515.75	ug/L	515.75	ppb	14:05:50
1	Se 196.026†	727.5	745.5	505.50	ug/L	505.50	ppb	14:05:50
1	Si 251.611†	77428.7	75838.5	2448.0	ug/L	2448.0	ppb	14:05:30
1	Sn 189.927†	2773.6	2726.2	489.78	ug/L	489.78	ppb	14:05:50
1	Ti 334.940†	312897.5	310101.7	487.17	ug/L	487.17	ppb	14:05:30
1	Tl 190.801†	1510.5	1522.9	490.21	ug/L	490.21	ppb	14:05:50
1	U 409.014†	15037.5	17723.7	487.75	ug/L	487.75	ppb	14:05:30
1	V 292.402†	69425.5	70006.0	494.64	ug/L	494.64	ppb	14:05:30
1	Zn 213.857†	50577.8	49297.7	491.70	ug/L	491.70	ppb	14:05:30
1	SiO2†	77322.4	75737.6	5250.1	ug/L	5250.1	ppb	14:06:58
2	Sc Radial	3795.3	3795.3	96.8	%			14:04:53
2	Y RADIAL	4344.0	4344.0	98.48	%			14:04:33
2	Al 396.153Radial†	5215.6	5497.7	5132.5	ug/L	5132.5	ppb	14:04:33
2	Ca 317.933Radial†	2425.2	2484.4	5193.6	ug/L	5193.6	ppb	14:04:53
2	Fe 238.204 Radial†	356.9	357.2	5056.7	ug/L	5056.7	ppb	14:04:53
2	K 766.490 Radial†	29771.1	28100.0	5385.8	ug/L	5385.8	ppb	14:04:33
2	Mg 279.077 IEC†	109.5	109.0	5285.0	ug/L	5285.0	ppb	14:04:53
2	Na 589.592 Radial†	32466.0	34341.9	10589	ug/L	10589	ppb	14:04:33
2	Sr 421.552†	71942.8	74247.5	513.72	ug/L	513.72	ppb	14:04:33
2	Sc 361.383	896321.6	896321.6	102.18	%			14:05:56
2	Y 371.029	747444.8	747444.8	98.889	%			14:05:56
2	Ag 328.068†	107173.2	104650.2	487.89	ug/L	487.89	ppb	14:06:01
2	As 188.979†	1153.5	1147.2	516.49	ug/L	516.49	ppb	14:06:21
2	B 249.677†	21168.3	21115.7	509.74	ug/L	509.74	ppb	14:06:01
2	Ba 233.527†	63467.3	62116.9	488.68	ug/L	488.68	ppb	14:06:01
2	Be 313.107†	1321919.5	1297526.6	488.70	ug/L	488.70	ppb	14:05:56
2	Cd 226.502†	43082.9	42361.5	490.43	ug/L	490.43	ppb	14:06:01
2	Co 228.616†	23765.2	23325.6	488.70	ug/L	488.70	ppb	14:06:01
2	Cr 267.716†	44397.2	43373.9	487.88	ug/L	487.88	ppb	14:06:01
2	Cu 324.752†	167536.0	157976.9	480.74	ug/L	480.74	ppb	14:06:01
2	Mn 257.610†	439584.9	429763.6	489.33	ug/L	489.33	ppb	14:05:56
2	Mo 202.031†	6775.7	6621.2	486.56	ug/L	486.56	ppb	14:06:21
2	Ni 231.604†	19775.7	19292.1	490.36	ug/L	490.36	ppb	14:06:01

2	P 214.914†	4344.4	4041.4	2339.2 ug/L	2339.2 ppb	14:06:21
2	Pb 220.353†	4056.8	4028.5	496.99 ug/L	496.99 ppb	14:06:21
2	S 181.975 Axial†	752.7	695.9	1000.4 ug/L	1000.4 ppb	14:06:21
2	Sb 206.836†	1480.8	1412.5	511.27 ug/L	511.27 ppb	14:06:21
2	Se 196.026†	742.9	754.8	511.68 ug/L	511.68 ppb	14:06:21
2	Si 251.611†	77312.0	75107.1	2424.4 ug/L	2424.4 ppb	14:06:01
2	Sn 189.927†	2786.4	2716.5	488.05 ug/L	488.05 ppb	14:06:21
2	Ti 334.940†	312816.0	307527.5	483.13 ug/L	483.13 ppb	14:06:01
2	Tl 190.801†	1531.3	1531.3	492.88 ug/L	492.88 ppb	14:06:21
2	U 409.014†	14962.7	17530.6	482.43 ug/L	482.43 ppb	14:06:01
2	V 292.402†	69546.2	69570.6	491.58 ug/L	491.58 ppb	14:06:01
2	Zn 213.857†	50377.3	48698.3	485.69 ug/L	485.69 ppb	14:06:01
2	SiO2†	76690.7	74502.9	5164.4 ug/L	5164.4 ppb	14:07:03
3	Sc Radial	3784.2	3784.2	96.6 %		14:05:18
3	Y RADIAL	4338.3	4338.3	98.35 %		14:04:58
3	Al 396.153Radial†	5230.2	5528.6	5161.4 ug/L	5161.4 ppb	14:04:58
3	Ca 317.933Radial†	2411.6	2477.7	5179.6 ug/L	5179.6 ppb	14:05:18
3	Fe 238.204 Radial†	357.4	358.8	5078.9 ug/L	5078.9 ppb	14:05:18
3	K 766.490 Radial†	29550.1	27961.3	5359.2 ug/L	5359.2 ppb	14:04:58
3	Mg 279.077 IEC†	108.6	108.3	5253.0 ug/L	5253.0 ppb	14:05:18
3	Na 589.592 Radial†	32234.9	34201.0	10545 ug/L	10545 ppb	14:04:58
3	Sr 421.552†	71668.6	74181.4	513.26 ug/L	513.26 ppb	14:04:58
3	Sc 361.383	894225.6	894225.6	101.94 %		14:06:27
3	Y 371.029	746441.3	746441.3	98.756 %		14:06:27
3	Ag 328.068†	107579.6	105294.7	490.90 ug/L	490.90 ppb	14:06:32
3	As 188.979†	1168.7	1164.8	524.35 ug/L	524.35 ppb	14:06:53
3	B 249.677†	21172.1	21168.0	510.99 ug/L	510.99 ppb	14:06:32
3	Ba 233.527†	63649.9	62441.6	491.23 ug/L	491.23 ppb	14:06:32
3	Be 313.107†	1322527.0	1301155.0	490.07 ug/L	490.07 ppb	14:06:27
3	Cd 226.502†	43299.7	42673.0	494.03 ug/L	494.03 ppb	14:06:32
3	Co 228.616†	23872.3	23485.2	492.05 ug/L	492.05 ppb	14:06:32
3	Cr 267.716†	44612.2	43686.7	491.40 ug/L	491.40 ppb	14:06:32
3	Cu 324.752†	167868.2	158687.2	482.90 ug/L	482.90 ppb	14:06:32
3	Mn 257.610†	439438.9	430628.8	490.32 ug/L	490.32 ppb	14:06:27
3	Mo 202.031†	6797.4	6658.1	489.27 ug/L	489.27 ppb	14:06:53
3	Ni 231.604†	19835.6	19396.2	493.01 ug/L	493.01 ppb	14:06:32
3	P 214.914†	4359.8	4066.4	2353.9 ug/L	2353.9 ppb	14:06:53
3	Pb 220.353†	4077.3	4057.9	500.62 ug/L	500.62 ppb	14:06:53
3	S 181.975 Axial†	742.6	687.7	988.69 ug/L	988.69 ppb	14:06:53
3	Sb 206.836†	1500.0	1434.8	519.16 ug/L	519.16 ppb	14:06:53
3	Se 196.026†	749.0	762.5	516.80 ug/L	516.80 ppb	14:06:53
3	Si 251.611†	77715.2	75679.9	2442.9 ug/L	2442.9 ppb	14:06:32
3	Sn 189.927†	2802.8	2739.0	492.08 ug/L	492.08 ppb	14:06:53
3	Ti 334.940†	313382.3	308800.7	485.13 ug/L	485.13 ppb	14:06:32
3	Tl 190.801†	1529.6	1533.1	493.46 ug/L	493.46 ppb	14:06:53
3	U 409.014†	14645.9	17254.1	474.78 ug/L	474.78 ppb	14:06:32
3	V 292.402†	69568.2	69751.8	492.86 ug/L	492.86 ppb	14:06:32
3	Zn 213.857†	50536.9	48970.4	488.40 ug/L	488.40 ppb	14:06:32
3	SiO2†	76671.2	74659.7	5175.2 ug/L	5175.2 ppb	14:07:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893208.9	101.82	%	0.425				0.42%
Sc Radial	3804.4	97.1	%	0.66				0.68%
Y 371.029	744771.9	98.535	%	0.5019				0.51%
Y RADIAL	4323.5	98.02	%	0.694				0.71%
Ag 328.068†	105185.9	490.38	ug/L	2.274	490.38	ppb	2.274	0.46%
QC value within limits for Ag 328.068 Recovery = 98.08%								
Al 396.153Radial†	5471.8	5108.2	ug/L	68.69	5108.2	ppb	68.69	1.34%
QC value within limits for Al 396.153Radial Recovery = 102.16%								
As 188.979†	1159.9	522.17	ug/L	4.961	522.17	ppb	4.961	0.95%
QC value within limits for As 188.979 Recovery = 104.43%								
B 249.677†	21214.7	512.13	ug/L	3.119	512.13	ppb	3.119	0.61%
QC value within limits for B 249.677 Recovery = 102.43%								
Ba 233.527†	62406.6	490.95	ug/L	2.152	490.95	ppb	2.152	0.44%
QC value within limits for Ba 233.527 Recovery = 98.19%								
Be 313.107†	1299349.5	489.39	ug/L	0.684	489.39	ppb	0.684	0.14%
QC value within limits for Be 313.107 Recovery = 97.88%								
Ca 317.933Radial†	2478.5	5181.2	ug/L	11.62	5181.2	ppb	11.62	0.22%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.62%
Cd 226.502†            42585.3      493.02 ug/L         2.263      493.02 ppb          2.263   0.46%
   QC value within limits for Cd 226.502  Recovery = 98.60%
Co 228.616†            23466.6      491.65 ug/L         2.779      491.65 ppb          2.779   0.57%
   QC value within limits for Co 228.616  Recovery = 98.33%
Cr 267.716†            43616.9      490.61 ug/L         2.433      490.61 ppb          2.433   0.50%
   QC value within limits for Cr 267.716  Recovery = 98.12%
Cu 324.752†           158801.4      483.24 ug/L         2.697      483.24 ppb          2.697   0.56%
   QC value within limits for Cu 324.752  Recovery = 96.65%
Fe 238.204 Radial†       357.1      5054.7 ug/L        25.24      5054.7 ppb          25.24   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.09%
K 766.490 Radial†      27807.6      5329.7 ug/L        75.26      5329.7 ppb          75.26   1.41%
   QC value within limits for K 766.490 Radial  Recovery = 106.59%
Mg 279.077 IEC†          108.2      5243.8 ug/L        46.57      5243.8 ppb          46.57   0.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.88%
Mn 257.610†           430639.0      490.33 ug/L         1.003      490.33 ppb          1.003   0.20%
   QC value within limits for Mn 257.610  Recovery = 98.07%
Mo 202.031†             6639.5      487.90 ug/L         1.354      487.90 ppb          1.354   0.28%
   QC value within limits for Mo 202.031  Recovery = 97.58%
Na 589.592 Radial†     34040.0       10495 ug/L        125.5       10495 ppb          125.5   1.20%
   QC value within limits for Na 589.592 Radial  Recovery = 104.95%
Ni 231.604†            19370.0      492.34 ug/L         1.745      492.34 ppb          1.745   0.35%
   QC value within limits for Ni 231.604  Recovery = 98.47%
P 214.914†              4045.4      2341.1 ug/L        11.91      2341.1 ppb          11.91   0.51%
   QC value within limits for P 214.914  Recovery = 93.64%
Pb 220.353†             4046.1      499.15 ug/L         1.906      499.15 ppb          1.906   0.38%
   QC value within limits for Pb 220.353  Recovery = 99.83%
S 181.975 Axial†         692.0      994.83 ug/L         5.874      994.83 ppb          5.874   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 99.48%
Sb 206.836†             1424.2      515.39 ug/L         3.959      515.39 ppb          3.959   0.77%
   QC value within limits for Sb 206.836  Recovery = 103.08%
Se 196.026†              754.3      511.33 ug/L         5.660      511.33 ppb          5.660   1.11%
   QC value within limits for Se 196.026  Recovery = 102.27%
Si 251.611†            75541.8      2438.4 ug/L        12.44      2438.4 ppb          12.44   0.51%
   QC value within limits for Si 251.611  Recovery = 97.54%
Sn 189.927†             2727.2      489.97 ug/L         2.021      489.97 ppb          2.021   0.41%
   QC value within limits for Sn 189.927  Recovery = 97.99%
Sr 421.552†            73659.0      509.65 ug/L         6.661      509.65 ppb          6.661   1.31%
   QC value within limits for Sr 421.552  Recovery = 101.93%
Ti 334.940†           308810.0      485.14 ug/L         2.023      485.14 ppb          2.023   0.42%
   QC value within limits for Ti 334.940  Recovery = 97.03%
Tl 190.801†             1529.1      492.19 ug/L         1.732      492.19 ppb          1.732   0.35%
   QC value within limits for Tl 190.801  Recovery = 98.44%
U 409.014†             17502.8      481.65 ug/L         6.520      481.65 ppb          6.520   1.35%
   QC value within limits for U 409.014  Recovery = 96.33%
V 292.402†             69776.1      493.03 ug/L         1.537      493.03 ppb          1.537   0.31%
   QC value within limits for V 292.402  Recovery = 98.61%
Zn 213.857†            48988.8      488.60 ug/L         3.009      488.60 ppb          3.009   0.62%
   QC value within limits for Zn 213.857  Recovery = 97.72%
SiO2†                  74966.7      5196.6 ug/L        46.71      5196.6 ppb          46.71   0.90%
   QC value within limits for SiO2  Recovery = 97.18%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 14:09:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3915.0	3915.0	99.9	%			14:11:32
1	Y RADIAL	4487.3	4487.3	101.7	%			14:11:12
1	Al 396.153Radial†	-103.6	8.8	8.1442	ug/L	8.1442	ppb	14:11:12
1	Ca 317.933Radial†	18.1	-1.6	-3.2969	ug/L	-3.2969	ppb	14:11:32
1	Fe 238.204 Radial†	9.2	-2.1	-29.731	ug/L	-29.731	ppb	14:11:32
1	K 766.490 Radial†	3144.3	507.7	97.413	ug/L	97.413	ppb	14:11:12
1	Mg 279.077 IEC†	3.0	-1.1	-51.712	ug/L	-51.712	ppb	14:11:32
1	Na 589.592 Radial†	-618.1	201.1	62.009	ug/L	62.009	ppb	14:11:12
1	Sr 421.552†	55.2	19.5	0.1352	ug/L	0.1352	ppb	14:11:12
1	Sc 361.383	875131.7	875131.7	99.761	%			14:12:28
1	Y 371.029	751129.4	751129.4	99.376	%			14:12:28
1	Ag 328.068†	295.7	56.0	0.2515	ug/L	0.2515	ppb	14:12:28
1	As 188.979†	3.0	21.3	9.4927	ug/L	9.4927	ppb	14:12:48
1	B 249.677†	301.4	700.3	16.985	ug/L	16.985	ppb	14:12:28
1	Ba 233.527†	21.8	23.3	0.1822	ug/L	0.1822	ppb	14:12:48
1	Be 313.107†	-3672.0	81.3	0.0302	ug/L	0.0302	ppb	14:12:28
1	Cd 226.502†	-137.0	58.9	0.6853	ug/L	0.6853	ppb	14:12:48
1	Co 228.616†	-64.3	2.1	0.0471	ug/L	0.0471	ppb	14:12:48
1	Cr 267.716†	96.4	19.0	0.2107	ug/L	0.2107	ppb	14:12:48
1	Cu 324.752†	6170.2	194.2	0.5899	ug/L	0.5899	ppb	14:12:28
1	Mn 257.610†	503.6	46.1	0.0516	ug/L	0.0516	ppb	14:12:48
1	Mo 202.031†	27.6	17.5	1.2836	ug/L	1.2836	ppb	14:12:48
1	Ni 231.604†	66.6	4.4	0.1106	ug/L	0.1106	ppb	14:12:48
1	P 214.914†	208.0	-2.0	-1.2717	ug/L	-1.2717	ppb	14:12:48
1	Pb 220.353†	-13.6	44.5	5.4815	ug/L	5.4815	ppb	14:12:48
1	S 181.975 Axial†	37.1	-3.6	-5.2194	ug/L	-5.2194	ppb	14:12:48
1	Sb 206.836†	55.8	19.2	6.7557	ug/L	6.7557	ppb	14:12:48
1	Se 196.026†	-15.5	12.2	7.9006	ug/L	7.9006	ppb	14:12:48
1	Si 251.611†	686.7	130.0	4.1915	ug/L	4.1915	ppb	14:12:48
1	Sn 189.927†	18.3	7.8	1.4029	ug/L	1.4029	ppb	14:12:48
1	Ti 334.940†	-1483.4	-112.9	-0.1734	ug/L	-0.1734	ppb	14:12:28
1	Tl 190.801†	-29.0	3.5	1.1061	ug/L	1.1061	ppb	14:12:48
1	U 409.014†	-2906.3	-26.6	-0.7325	ug/L	-0.7325	ppb	14:12:28
1	V 292.402†	-1476.5	25.6	0.1990	ug/L	0.1990	ppb	14:12:28
1	Zn 213.857†	771.9	167.7	1.6913	ug/L	1.6913	ppb	14:12:48
1	SiO2†	677.2	124.5	8.6144	ug/L	8.6144	ppb	14:13:45
2	Sc Radial	3899.3	3899.3	99.5	%			14:11:57
2	Y RADIAL	4476.7	4476.7	101.5	%			14:11:37
2	Al 396.153Radial†	-132.6	-20.9	-19.589	ug/L	-19.589	ppb	14:11:37
2	Ca 317.933Radial†	21.3	1.7	3.5520	ug/L	3.5520	ppb	14:11:57
2	Fe 238.204 Radial†	12.8	1.6	21.930	ug/L	21.930	ppb	14:11:57
2	K 766.490 Radial†	3272.7	649.5	124.62	ug/L	124.62	ppb	14:11:37
2	Mg 279.077 IEC†	2.9	-1.2	-56.011	ug/L	-56.011	ppb	14:11:57
2	Na 589.592 Radial†	-685.1	131.2	40.466	ug/L	40.466	ppb	14:11:37
2	Sr 421.552†	48.2	12.7	0.0882	ug/L	0.0882	ppb	14:11:37
2	Sc 361.383	878637.4	878637.4	100.16	%			14:12:54
2	Y 371.029	758602.1	758602.1	100.36	%			14:12:54
2	Ag 328.068†	209.1	-31.7	-0.1422	ug/L	-0.1422	ppb	14:12:54
2	As 188.979†	-0.1	18.2	8.1167	ug/L	8.1167	ppb	14:13:14
2	B 249.677†	348.6	746.2	18.088	ug/L	18.088	ppb	14:12:54
2	Ba 233.527†	14.5	15.9	0.1238	ug/L	0.1238	ppb	14:13:14
2	Be 313.107†	-3699.0	69.1	0.0256	ug/L	0.0256	ppb	14:12:54
2	Cd 226.502†	-147.0	49.6	0.5717	ug/L	0.5717	ppb	14:13:14
2	Co 228.616†	-57.3	9.3	0.1957	ug/L	0.1957	ppb	14:13:14
2	Cr 267.716†	83.4	5.6	0.0639	ug/L	0.0639	ppb	14:13:14
2	Cu 324.752†	5936.0	-64.2	-0.1942	ug/L	-0.1942	ppb	14:12:54
2	Mn 257.610†	494.5	34.9	0.0442	ug/L	0.0442	ppb	14:13:14
2	Mo 202.031†	17.0	6.9	0.5056	ug/L	0.5056	ppb	14:13:14
2	Ni 231.604†	75.9	13.4	0.3401	ug/L	0.3401	ppb	14:13:14

2	P 214.914†	205.6	-5.3	-3.1380	ug/L	-3.1380 ppb	14:13:14
2	Pb 220.353†	-7.5	50.6	6.2233	ug/L	6.2233 ppb	14:13:14
2	S 181.975 Axial†	49.5	8.6	12.352	ug/L	12.352 ppb	14:13:14
2	Sb 206.836†	56.8	20.0	7.0381	ug/L	7.0381 ppb	14:13:14
2	Se 196.026†	-19.0	8.8	5.8099	ug/L	5.8099 ppb	14:13:14
2	Si 251.611†	699.6	140.1	4.5277	ug/L	4.5277 ppb	14:13:14
2	Sn 189.927†	22.0	11.5	2.0645	ug/L	2.0645 ppb	14:13:14
2	Ti 334.940†	-1462.5	-86.1	-0.1302	ug/L	-0.1302 ppb	14:12:54
2	Tl 190.801†	-25.3	7.4	2.3529	ug/L	2.3529 ppb	14:13:14
2	U 409.014†	-2896.0	-4.8	-0.1345	ug/L	-0.1345 ppb	14:12:54
2	V 292.402†	-1587.8	-79.6	-0.5521	ug/L	-0.5521 ppb	14:12:54
2	Zn 213.857†	788.1	180.9	1.8154	ug/L	1.8154 ppb	14:13:14
2	SiO2†	723.3	167.8	11.646	ug/L	11.646 ppb	14:13:50
3	Sc Radial	3841.4	3841.4	98.0	%		14:12:22
3	Y RADIAL	4383.9	4383.9	99.39	%		14:12:02
3	Al 396.153Radial†	-96.4	14.1	13.186	ug/L	13.186 ppb	14:12:02
3	Ca 317.933Radial†	22.3	3.1	6.5002	ug/L	6.5002 ppb	14:12:22
3	Fe 238.204 Radial†	11.6	0.5	7.4480	ug/L	7.4480 ppb	14:12:22
3	K 766.490 Radial†	3148.9	572.7	109.88	ug/L	109.88 ppb	14:12:02
3	Mg 279.077 IEC†	3.3	-0.7	-31.994	ug/L	-31.994 ppb	14:12:22
3	Na 589.592 Radial†	-650.0	156.7	48.306	ug/L	48.306 ppb	14:12:02
3	Sr 421.552†	74.8	40.6	0.2808	ug/L	0.2808 ppb	14:12:02
3	Sc 361.383	872334.1	872334.1	99.442	%		14:13:19
3	Y 371.029	751244.0	751244.0	99.391	%		14:13:19
3	Ag 328.068†	253.4	14.4	0.0742	ug/L	0.0742 ppb	14:13:19
3	As 188.979†	5.6	23.8	10.641	ug/L	10.641 ppb	14:13:39
3	B 249.677†	326.7	726.7	17.619	ug/L	17.619 ppb	14:13:19
3	Ba 233.527†	10.8	12.2	0.0960	ug/L	0.0960 ppb	14:13:39
3	Be 313.107†	-3587.8	154.3	0.0575	ug/L	0.0575 ppb	14:13:19
3	Cd 226.502†	-170.7	24.7	0.2833	ug/L	0.2833 ppb	14:13:39
3	Co 228.616†	-68.1	-1.9	-0.0376	ug/L	-0.0376 ppb	14:13:39
3	Cr 267.716†	96.7	19.5	0.2225	ug/L	0.2225 ppb	14:13:39
3	Cu 324.752†	5973.1	15.9	0.0525	ug/L	0.0525 ppb	14:13:19
3	Mn 257.610†	487.8	31.8	0.0382	ug/L	0.0382 ppb	14:13:39
3	Mo 202.031†	23.3	13.3	0.9794	ug/L	0.9794 ppb	14:13:39
3	Ni 231.604†	57.8	-4.3	-0.1092	ug/L	-0.1092 ppb	14:13:39
3	P 214.914†	192.1	-17.4	-10.454	ug/L	-10.454 ppb	14:13:39
3	Pb 220.353†	-17.9	40.2	4.9428	ug/L	4.9428 ppb	14:13:39
3	S 181.975 Axial†	39.0	-1.6	-2.3318	ug/L	-2.3318 ppb	14:13:39
3	Sb 206.836†	57.1	20.7	7.2786	ug/L	7.2786 ppb	14:13:39
3	Se 196.026†	-16.2	11.5	7.5398	ug/L	7.5398 ppb	14:13:39
3	Si 251.611†	674.1	119.6	3.8565	ug/L	3.8565 ppb	14:13:39
3	Sn 189.927†	21.3	10.9	1.9641	ug/L	1.9641 ppb	14:13:39
3	Ti 334.940†	-1498.1	-132.5	-0.2017	ug/L	-0.2017 ppb	14:13:19
3	Tl 190.801†	-38.8	-6.5	-2.0738	ug/L	-2.0738 ppb	14:13:39
3	U 409.014†	-3119.6	-250.5	-6.9178	ug/L	-6.9178 ppb	14:13:19
3	V 292.402†	-1511.1	-13.9	-0.0980	ug/L	-0.0980 ppb	14:13:19
3	Zn 213.857†	791.7	190.1	1.9135	ug/L	1.9135 ppb	14:13:39
3	SiO2†	679.9	129.3	8.9599	ug/L	8.9599 ppb	14:13:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875367.7	99.788	%	0.3600				0.36%
Sc Radial	3885.3	99.1	%	0.99				1.00%
Y 371.029	753658.5	99.711	%	0.5665				0.57%
Y RADIAL	4449.3	100.9	%	1.29				1.28%
Ag 328.068†	12.9	0.0612	ug/L	0.19715	0.0612	ppb	0.19715	322.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.7	0.5802	ug/L	17.64831	0.5802	ppb	17.64831	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	21.1	9.4167	ug/L	1.26369	9.4167	ppb	1.26369	13.42%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	724.4	17.564	ug/L	0.5539	17.564	ppb	0.5539	3.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.1	0.1340	ug/L	0.04400	0.1340	ppb	0.04400	32.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	101.6	0.0378	ug/L	0.01723	0.0378	ppb	0.01723	45.63%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.1	2.2518	ug/L	5.02630	2.2518	ppb	5.02630	223.21%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                44.4      0.5134 ug/L       0.20725      0.5134 ppb        0.20725  40.37%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.1      0.0684 ug/L       0.11807      0.0684 ppb        0.11807 172.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                14.7      0.1657 ug/L       0.08840      0.1657 ppb        0.08840  53.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                48.6      0.1494 ug/L       0.40095      0.1494 ppb        0.40095 268.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.1176 ug/L      26.64871     -0.1176 ppb       26.64871 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         576.6      110.64 ug/L        13.619      110.64 ppb         13.619  12.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0     -46.572 ug/L       12.8072     -46.572 ppb        12.8072  27.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                37.6      0.0447 ug/L       0.00673      0.0447 ppb        0.00673  15.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.6      0.9229 ug/L       0.39207      0.9229 ppb        0.39207  42.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        163.0      50.260 ug/L       10.9036      50.260 ppb        10.9036  21.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.5      0.1138 ug/L       0.22467      0.1138 ppb        0.22467 197.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.2     -4.9545 ug/L       4.85312     -4.9545 ppb        4.85312  97.95%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                45.1      5.5492 ug/L       0.64290      5.5492 ppb        0.64290  11.59%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.1      1.6001 ug/L       9.42233      1.6001 ppb        9.42233 588.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                20.0      7.0241 ug/L       0.26176      7.0241 ppb        0.26176   3.73%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                10.8      7.0834 ug/L       1.11755      7.0834 ppb        1.11755  15.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               129.9      4.1919 ug/L       0.33561      4.1919 ppb        0.33561   8.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.1      1.8105 ug/L       0.35656      1.8105 ppb        0.35656  19.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                24.3      0.1681 ug/L       0.10046      0.1681 ppb        0.10046  59.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -110.5     -0.1684 ug/L       0.03603     -0.1684 ppb        0.03603  21.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.4      0.4617 ug/L       2.28263      0.4617 ppb        2.28263 494.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -94.0     -2.5949 ug/L       3.75567     -2.5949 ppb        3.75567 144.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -22.6     -0.1504 ug/L       0.37829     -0.1504 ppb        0.37829 251.59%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               179.6      1.8067 ug/L       0.11135      1.8067 ppb        0.11135   6.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     140.5      9.7401 ug/L       1.65962      9.7401 ppb        1.65962  17.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/24/2010 14:25:36 **Plasma On Time: 00:00:00**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 2/24/2010 12:00:19**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 36**
Sample ID: LR1 **Date Collected: 2/24/2010 14:25:37**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3815.2	3815.2	97.4	%			14:27:31
1	Y RADIAL	4260.9	4260.9	96.60	%			14:27:31
1	Al 396.153Radial†	-126.4	-17.5	-15.092	ug/L	-15.092	ppb	14:27:31

1	Ca 317.933Radial†	22.0	2.9	6.0589 ug/L	6.0589 ppb	14:27:51
1	Fe 238.204 Radial†	25520.2	26201.8	369850 ug/L	369850 ppb	14:27:31
1	K 766.490 Radial†	2681.6	114.8	22.061 ug/L	22.061 ppb	14:27:31
1	Mg 279.077 IEC†	12.4	8.7	32.450 ug/L	32.450 ppb	14:27:51
1	Na 589.592 Radial†	-637.2	165.3	50.954 ug/L	50.954 ppb	14:27:31
1	Sr 421.552†	139.2	107.3	0.7424 ug/L	0.7424 ppb	14:27:31
1	Sc 361.383	868251.3	868251.3	98.976 %		14:28:48
1	Y 371.029	730637.8	730637.8	96.665 %		14:28:48
1	Ag 328.068†	-25133.1	-25633.5	-4.9088 ug/L	-4.9088 ppb	14:28:48
1	As 188.979†	-197.8	-181.6	5.6062 ug/L	5.6062 ppb	14:29:08
1	B 249.677†	2055.0	2474.5	-0.1135 ug/L	-0.1135 ppb	14:28:48
1	Ba 233.527†	-1749.1	-1765.7	-2.4777 ug/L	-2.4777 ppb	14:28:48
1	Be 313.107†	-3624.2	100.5	0.0375 ug/L	0.0375 ppb	14:28:48
1	Cd 226.502†	2941.5	3168.2	-1.4997 ug/L	-1.4997 ppb	14:28:48
1	Co 228.616†	716.8	790.7	11.158 ug/L	11.158 ppb	14:29:08
1	Cr 267.716†	-602.7	-686.7	27.516 ug/L	27.516 ppb	14:28:48
1	Cu 324.752†	-898.4	-6898.5	-1.4577 ug/L	-1.4577 ppb	14:28:48
1	Mn 257.610†	-32391.6	-33185.4	-1.2521 ug/L	-1.2521 ppb	14:28:48
1	Mo 202.031†	-344.3	-358.0	2.4277 ug/L	2.4277 ppb	14:28:48
1	Ni 231.604†	133.9	72.9	1.8435 ug/L	1.8435 ppb	14:29:08
1	P 214.914†	664.5	460.8	-16.342 ug/L	-16.342 ppb	14:29:08
1	Pb 220.353†	213.4	273.8	-6.3651 ug/L	-6.3651 ppb	14:29:08
1	S 181.975 Axial†	54.7	14.5	20.860 ug/L	20.860 ppb	14:29:08
1	Sb 206.836†	33.2	-3.2	-5.6674 ug/L	-5.6674 ppb	14:29:08
1	Se 196.026†	-1671.2	-1660.7	65.515 ug/L	65.515 ppb	14:29:08
1	Si 251.611†	-527.3	-1091.0	-34.981 ug/L	-34.981 ppb	14:28:48
1	Sn 189.927†	-14.1	-24.7	-25.668 ug/L	-25.668 ppb	14:29:08
1	Ti 334.940†	-1423.0	-63.7	-0.1632 ug/L	-0.1632 ppb	14:28:48
1	Tl 190.801†	-43.2	-11.1	-3.8950 ug/L	-3.8950 ppb	14:29:08
1	U 409.014†	-202.3	2682.2	31.921 ug/L	31.921 ppb	14:28:48
1	V 292.402†	6640.4	8214.7	3.1969 ug/L	3.1969 ppb	14:28:48
1	Zn 213.857†	4062.2	3498.2	-20.117 ug/L	-20.117 ppb	14:29:08
1	SiO2†	-463.0	-1022.2	-70.320 ug/L	-70.320 ppb	14:30:05
2	Sc Radial	3865.8	3865.8	98.6 %		14:27:56
2	Y RADIAL	4274.0	4274.0	96.90 %		14:27:56
2	Al 396.153Radial†	-128.4	-17.8	-15.426 ug/L	-15.426 ppb	14:27:56
2	Ca 317.933Radial†	20.0	0.6	1.2557 ug/L	1.2557 ppb	14:28:16
2	Fe 238.204 Radial†	25670.8	26011.6	367160 ug/L	367160 ppb	14:27:56
2	K 766.490 Radial†	2652.8	49.5	9.5321 ug/L	9.5321 ppb	14:27:56
2	Mg 279.077 IEC†	9.9	5.9	-97.232 ug/L	-97.232 ppb	14:28:16
2	Na 589.592 Radial†	-642.2	168.8	52.030 ug/L	52.030 ppb	14:27:56
2	Sr 421.552†	140.2	106.4	0.7363 ug/L	0.7363 ppb	14:27:56
2	Sc 361.383	868044.1	868044.1	98.953 %		14:29:14
2	Y 371.029	729533.9	729533.9	96.519 %		14:29:14
2	Ag 328.068†	-25207.2	-25714.4	-6.1038 ug/L	-6.1038 ppb	14:29:14
2	As 188.979†	-192.0	-175.8	7.5739 ug/L	7.5739 ppb	14:29:34
2	B 249.677†	2100.3	2520.7	1.4424 ug/L	1.4424 ppb	14:29:14
2	Ba 233.527†	-1821.8	-1839.7	-3.1400 ug/L	-3.1400 ppb	14:29:14
2	Be 313.107†	-3663.9	59.5	0.0217 ug/L	0.0217 ppb	14:29:14
2	Cd 226.502†	2956.7	3184.3	-1.0372 ug/L	-1.0372 ppb	14:29:14
2	Co 228.616†	712.9	787.0	11.121 ug/L	11.121 ppb	14:29:34
2	Cr 267.716†	-562.2	-645.8	27.721 ug/L	27.721 ppb	14:29:14
2	Cu 324.752†	-881.3	-6881.4	-1.5443 ug/L	-1.5443 ppb	14:29:14
2	Mn 257.610†	-32193.8	-32993.3	-1.2932 ug/L	-1.2932 ppb	14:29:14
2	Mo 202.031†	-329.9	-343.5	3.2835 ug/L	3.2835 ppb	14:29:14
2	Ni 231.604†	127.8	66.7	1.6856 ug/L	1.6856 ppb	14:29:34
2	P 214.914†	653.2	449.6	-20.948 ug/L	-20.948 ppb	14:29:34
2	Pb 220.353†	210.9	271.2	-6.3836 ug/L	-6.3836 ppb	14:29:34
2	S 181.975 Axial†	38.7	-1.7	-2.4662 ug/L	-2.4662 ppb	14:29:34
2	Sb 206.836†	33.5	-2.9	-5.5268 ug/L	-5.5268 ppb	14:29:34
2	Se 196.026†	-1674.4	-1664.4	54.714 ug/L	54.714 ppb	14:29:34
2	Si 251.611†	-573.4	-1137.8	-36.507 ug/L	-36.507 ppb	14:29:14
2	Sn 189.927†	-18.0	-28.7	-26.218 ug/L	-26.218 ppb	14:29:34
2	Ti 334.940†	-1558.5	-200.9	-0.3661 ug/L	-0.3661 ppb	14:29:14
2	Tl 190.801†	-43.0	-10.9	-3.8401 ug/L	-3.8401 ppb	14:29:34
2	U 409.014†	-430.1	2452.0	25.867 ug/L	25.867 ppb	14:29:14
2	V 292.402†	6631.4	8207.2	3.5360 ug/L	3.5360 ppb	14:29:14
2	Zn 213.857†	4092.5	3529.8	-19.396 ug/L	-19.396 ppb	14:29:34
2	SiO2†	-527.4	-1087.3	-74.878 ug/L	-74.878 ppb	14:30:11
3	Sc Radial	3918.9	3918.9	100 %		14:28:21
3	Y RADIAL	4324.4	4324.4	98.04 %		14:28:21

3	Al 396.153Radial†	-135.1	-22.7	-19.994 ug/L	-19.994 ppb	14:28:21
3	Ca 317.933Radial†	14.8	-4.9	-10.250 ug/L	-10.250 ppb	14:28:41
3	Fe 238.204 Radial†	25752.7	25740.7	363340 ug/L	363340 ppb	14:28:21
3	K 766.490 Radial†	2662.1	22.5	4.3457 ug/L	4.3457 ppb	14:28:21
3	Mg 279.077 IEC†	10.3	6.2	-79.162 ug/L	-79.162 ppb	14:28:41
3	Na 589.592 Radial†	-709.0	110.7	34.146 ug/L	34.146 ppb	14:28:21
3	Sr 421.552†	100.3	64.6	0.4471 ug/L	0.4471 ppb	14:28:21
3	Sc 361.383	868469.9	868469.9	99.001 %		14:29:40
3	Y 371.029	729469.5	729469.5	96.511 %		14:29:40
3	Ag 328.068†	-25196.2	-25690.8	-7.1714 ug/L	-7.1714 ppb	14:29:40
3	As 188.979†	-208.3	-192.2	-0.6545 ug/L	-0.6545 ppb	14:30:00
3	B 249.677†	2130.9	2550.6	2.7890 ug/L	2.7890 ppb	14:29:40
3	Ba 233.527†	-1770.5	-1787.0	-2.8428 ug/L	-2.8428 ppb	14:29:40
3	Be 313.107†	-3638.3	87.2	0.0323 ug/L	0.0323 ppb	14:29:40
3	Cd 226.502†	2939.0	3164.9	-0.8661 ug/L	-0.8661 ppb	14:29:40
3	Co 228.616†	718.7	792.5	11.287 ug/L	11.287 ppb	14:30:00
3	Cr 267.716†	-606.6	-690.4	26.857 ug/L	26.857 ppb	14:29:40
3	Cu 324.752†	-923.9	-6923.9	-1.8769 ug/L	-1.8769 ppb	14:29:40
3	Mn 257.610†	-32222.7	-33006.5	-1.6865 ug/L	-1.6865 ppb	14:29:40
3	Mo 202.031†	-354.9	-368.6	1.1440 ug/L	1.1440 ppb	14:29:40
3	Ni 231.604†	147.5	86.6	2.1913 ug/L	2.1913 ppb	14:30:00
3	P 214.914†	673.5	469.8	-5.7264 ug/L	-5.7264 ppb	14:30:00
3	Pb 220.353†	215.6	275.8	-5.4080 ug/L	-5.4080 ppb	14:30:00
3	S 181.975 Axial†	51.8	11.5	16.524 ug/L	16.524 ppb	14:30:00
3	Sb 206.836†	24.8	-11.7	-8.5985 ug/L	-8.5985 ppb	14:30:00
3	Se 196.026†	-1661.9	-1650.9	51.625 ug/L	51.625 ppb	14:30:00
3	Si 251.611†	-456.1	-1019.1	-32.643 ug/L	-32.643 ppb	14:29:40
3	Sn 189.927†	-20.8	-31.5	-26.506 ug/L	-26.506 ppb	14:30:00
3	Ti 334.940†	-1501.2	-142.2	-0.2770 ug/L	-0.2770 ppb	14:29:40
3	Tl 190.801†	-46.3	-14.1	-4.8844 ug/L	-4.8844 ppb	14:30:00
3	U 409.014†	-384.8	2497.9	27.574 ug/L	27.574 ppb	14:29:40
3	V 292.402†	6607.1	8179.5	3.8763 ug/L	3.8763 ppb	14:29:40
3	Zn 213.857†	4037.0	3471.7	-19.411 ug/L	-19.411 ppb	14:30:00
3	SiO2†	-570.3	-1130.4	-77.824 ug/L	-77.824 ppb	14:30:16

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868255.1	98.977	%	0.0243				0.02%
Sc Radial	3866.6	98.7	%	1.32				1.34%
Y 371.029	729880.4	96.565	%	0.0869				0.09%
Y RADIAL	4286.4	97.18	%	0.761				0.78%
Ag 328.068†	-25679.6	-6.0613	ug/L	1.13191	-6.0613	ppb	1.13191	18.67%
Al 396.153Radial†	-19.3	-16.837	ug/L	2.7385	-16.837	ppb	2.7385	16.26%
As 188.979†	-183.2	4.1752	ug/L	4.29678	4.1752	ppb	4.29678	102.91%
B 249.677†	2515.3	1.3726	ug/L	1.45253	1.3726	ppb	1.45253	105.82%
Ba 233.527†	-1797.5	-2.8202	ug/L	0.33174	-2.8202	ppb	0.33174	11.76%
Be 313.107†	82.4	0.0305	ug/L	0.00809	0.0305	ppb	0.00809	26.54%
Ca 317.933Radial†	-0.5	-0.9785	ug/L	8.38093	-0.9785	ppb	8.38093	856.47%
Cd 226.502†	3172.4	-1.1343	ug/L	0.32777	-1.1343	ppb	0.32777	28.90%
Co 228.616†	790.0	11.189	ug/L	0.0872	11.189	ppb	0.0872	0.78%
Cr 267.716†	-674.3	27.365	ug/L	0.4519	27.365	ppb	0.4519	1.65%
Cu 324.752†	-6901.3	-1.6263	ug/L	0.22129	-1.6263	ppb	0.22129	13.61%
Fe 238.204 Radial†	25984.7	366780	ug/L	3270.9	366780	ppb	3270.9	0.89%
K 766.490 Radial†	62.3	11.980	ug/L	9.1077	11.980	ppb	9.1077	76.03%
Mg 279.077 IEC†	6.9	-47.981	ug/L	70.2390	-47.981	ppb	70.2390	146.39%
Mn 257.610†	-33061.7	-1.4106	ug/L	0.23983	-1.4106	ppb	0.23983	17.00%
Mo 202.031†	-356.7	2.2850	ug/L	1.07689	2.2850	ppb	1.07689	47.13%
Na 589.592 Radial†	148.3	45.710	ug/L	10.0293	45.710	ppb	10.0293	21.94%
Ni 231.604†	75.4	1.9068	ug/L	0.25871	1.9068	ppb	0.25871	13.57%
P 214.914†	460.1	-14.339	ug/L	7.8061	-14.339	ppb	7.8061	54.44%
Pb 220.353†	273.6	-6.0522	ug/L	0.55801	-6.0522	ppb	0.55801	9.22%
S 181.975 Axial†	8.1	11.639	ug/L	12.4064	11.639	ppb	12.4064	106.59%
Sb 206.836†	-5.9	-6.5975	ug/L	1.73429	-6.5975	ppb	1.73429	26.29%
Se 196.026†	-1658.7	57.285	ug/L	7.2930	57.285	ppb	7.2930	12.73%
Si 251.611†	-1082.6	-34.710	ug/L	1.9464	-34.710	ppb	1.9464	5.61%
Sn 189.927†	-28.3	-26.131	ug/L	0.4257	-26.131	ppb	0.4257	1.63%
Sr 421.552†	92.8	0.6419	ug/L	0.16875	0.6419	ppb	0.16875	26.29%
Ti 334.940†	-135.6	-0.2688	ug/L	0.10169	-0.2688	ppb	0.10169	37.83%
Tl 190.801†	-12.0	-4.2065	ug/L	0.58771	-4.2065	ppb	0.58771	13.97%

U 409.014†	2544.0	28.454 ug/L	3.1211	28.454 ppb	3.1211	10.97%
V 292.402†	8200.5	3.5364 ug/L	0.33968	3.5364 ppb	0.33968	9.61%
Zn 213.857†	3499.9	-19.641 ug/L	0.4119	-19.641 ppb	0.4119	2.10%
SiO2†	-1080.0	-74.341 ug/L	3.7807	-74.341 ppb	3.7807	5.09%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 2/24/2010 14:32:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3829.7	3829.7	97.7	%			14:34:41
1	Y RADIAL	4261.6	4261.6	96.62	%			14:34:21
1	Al 396.153Radial†	-126.7	-17.2	-16.187	ug/L	-16.187	ppb	14:34:21
1	Ca 317.933Radial†	20.6	1.4	2.8867	ug/L	2.8867	ppb	14:34:41
1	Fe 238.204 Radial†	10.3	-0.8	-11.290	ug/L	-11.290	ppb	14:34:41
1	K 766.490 Radial†	2831.9	258.2	49.543	ug/L	49.543	ppb	14:34:21
1	Mg 279.077 IEC†	-0.6	-4.7	-227.51	ug/L	-227.51	ppb	14:34:41
1	Na 589.592 Radial†	-766.7	35.3	10.880	ug/L	10.880	ppb	14:34:21
1	Sr 421.552†	47.1	12.4	0.0859	ug/L	0.0859	ppb	14:34:21
1	Sc 361.383	902919.9	902919.9	102.93	%			14:35:38
1	Y 371.029	764651.5	764651.5	101.17	%			14:35:38
1	Ag 328.068†	242.6	-4.7	-0.0105	ug/L	-0.0105	ppb	14:35:43
1	As 188.979†	-8.4	10.1	4.5036	ug/L	4.5036	ppb	14:36:03
1	B 249.677†	-240.7	164.3	3.9979	ug/L	3.9979	ppb	14:36:03
1	Ba 233.527†	1268344.7	1232260.8	9670.0	ug/L	9670.0	ppb	14:35:38
1	Be 313.107†	-3678.8	188.0	0.0706	ug/L	0.0706	ppb	14:35:43
1	Cd 226.502†	-165.8	35.2	0.4052	ug/L	0.4052	ppb	14:36:03
1	Co 228.616†	-274.0	-199.7	0.4738	ug/L	0.4738	ppb	14:36:03
1	Cr 267.716†	92.8	12.4	0.1459	ug/L	0.1459	ppb	14:36:03
1	Cu 324.752†	6070.7	-92.8	-0.2730	ug/L	-0.2730	ppb	14:35:43
1	Mn 257.610†	478.4	6.0	0.0150	ug/L	0.0150	ppb	14:36:03
1	Mo 202.031†	13.1	2.6	0.1894	ug/L	0.1894	ppb	14:36:03
1	Ni 231.604†	59.7	-4.5	-0.1111	ug/L	-0.1111	ppb	14:36:03
1	P 214.914†	218.6	1.9	1.2048	ug/L	1.2048	ppb	14:36:03
1	Pb 220.353†	-67.9	-7.9	-0.9689	ug/L	-0.9689	ppb	14:36:03
1	S 181.975 Axial†	40.0	-1.9	-2.7547	ug/L	-2.7547	ppb	14:36:03
1	Sb 206.836†	41.4	3.6	1.2606	ug/L	1.2606	ppb	14:36:03
1	Se 196.026†	-21.2	7.1	4.6308	ug/L	4.6308	ppb	14:36:03
1	Si 251.611†	608.5	32.9	1.0610	ug/L	1.0610	ppb	14:36:03
1	Sn 189.927†	16.0	5.1	0.9165	ug/L	0.9165	ppb	14:36:03
1	Ti 334.940†	-1428.4	-13.7	0.0054	ug/L	0.0054	ppb	14:35:43
1	Tl 190.801†	-39.0	-5.3	-1.6870	ug/L	-1.6870	ppb	14:36:03
1	U 409.014†	-3647.6	-657.2	-18.146	ug/L	-18.146	ppb	14:35:38
1	V 292.402†	-1548.5	1.2	-0.0263	ug/L	-0.0263	ppb	14:35:43
1	Zn 213.857†	623.8	0.0	0.0031	ug/L	0.0031	ppb	14:36:03
1	SiO2†	590.1	18.9	1.3113	ug/L	1.3113	ppb	14:37:09
2	Sc Radial	3860.9	3860.9	98.5	%			14:35:06
2	Y RADIAL	4356.5	4356.5	98.77	%			14:34:46
2	Al 396.153Radial†	-107.2	3.6	3.3425	ug/L	3.3425	ppb	14:34:46
2	Ca 317.933Radial†	24.5	5.2	10.883	ug/L	10.883	ppb	14:35:06
2	Fe 238.204 Radial†	11.8	0.7	9.2609	ug/L	9.2609	ppb	14:35:06
2	K 766.490 Radial†	2981.7	386.8	74.218	ug/L	74.218	ppb	14:34:46
2	Mg 279.077 IEC†	0.1	-3.9	-190.26	ug/L	-190.26	ppb	14:35:06
2	Na 589.592 Radial†	-742.8	65.9	20.305	ug/L	20.305	ppb	14:34:46
2	Sr 421.552†	54.5	19.6	0.1358	ug/L	0.1358	ppb	14:34:46
2	Sc 361.383	901041.5	901041.5	102.71	%			14:36:08
2	Y 371.029	761397.1	761397.1	100.73	%			14:36:08
2	Ag 328.068†	272.3	24.7	0.1317	ug/L	0.1317	ppb	14:36:13
2	As 188.979†	-11.5	7.0	3.1307	ug/L	3.1307	ppb	14:36:33
2	B 249.677†	-247.4	157.4	3.8264	ug/L	3.8264	ppb	14:36:33
2	Ba 233.527†	1270090.4	1236529.3	9703.5	ug/L	9703.5	ppb	14:36:08
2	Be 313.107†	-3645.0	213.5	0.0798	ug/L	0.0798	ppb	14:36:13
2	Cd 226.502†	-168.8	31.9	0.3656	ug/L	0.3656	ppb	14:36:33
2	Co 228.616†	-280.0	-206.1	0.3553	ug/L	0.3553	ppb	14:36:33
2	Cr 267.716†	87.8	7.8	0.0950	ug/L	0.0950	ppb	14:36:33
2	Cu 324.752†	5880.9	-265.3	-0.7980	ug/L	-0.7980	ppb	14:36:13
2	Mn 257.610†	451.9	-18.8	-0.0127	ug/L	-0.0127	ppb	14:36:33
2	Mo 202.031†	12.7	2.2	0.1645	ug/L	0.1645	ppb	14:36:33
2	Ni 231.604†	80.2	15.6	0.3997	ug/L	0.3997	ppb	14:36:33

2	P 214.914†	205.8	-10.1	-5.9263	ug/L	-5.9263 ppb	14:36:33
2	Pb 220.353†	-40.3	18.9	2.3272	ug/L	2.3272 ppb	14:36:33
2	S 181.975 Axial†	40.0	-1.8	-2.6595	ug/L	-2.6595 ppb	14:36:33
2	Sb 206.836†	40.1	2.4	0.8471	ug/L	0.8471 ppb	14:36:33
2	Se 196.026†	-22.7	5.7	3.7529	ug/L	3.7529 ppb	14:36:33
2	Si 251.611†	561.2	-11.9	-0.3886	ug/L	-0.3886 ppb	14:36:33
2	Sn 189.927†	15.4	4.5	0.8111	ug/L	0.8111 ppb	14:36:33
2	Ti 334.940†	-1533.4	-118.8	-0.1628	ug/L	-0.1628 ppb	14:36:13
2	Tl 190.801†	-32.0	1.4	0.4730	ug/L	0.4730 ppb	14:36:33
2	U 409.014†	-3552.7	-572.2	-15.803	ug/L	-15.803 ppb	14:36:08
2	V 292.402†	-1491.4	53.7	0.3417	ug/L	0.3417 ppb	14:36:13
2	Zn 213.857†	625.0	2.5	0.0222	ug/L	0.0222 ppb	14:36:33
2	SiO2†	641.3	70.0	4.8600	ug/L	4.8600 ppb	14:37:15
3	Sc Radial	3860.5	3860.5	98.5	%		14:35:31
3	Y RADIAL	4376.3	4376.3	99.22	%		14:35:11
3	Al 396.153Radial†	-134.0	-23.6	-22.081	ug/L	-22.081 ppb	14:35:11
3	Ca 317.933Radial†	19.7	0.3	0.6806	ug/L	0.6806 ppb	14:35:31
3	Fe 238.204 Radial†	12.2	1.1	15.397	ug/L	15.397 ppb	14:35:31
3	K 766.490 Radial†	2735.9	137.6	26.405	ug/L	26.405 ppb	14:35:11
3	Mg 279.077 IEC†	2.5	-1.5	-73.448	ug/L	-73.448 ppb	14:35:31
3	Na 589.592 Radial†	-747.7	60.7	18.724	ug/L	18.724 ppb	14:35:11
3	Sr 421.552†	27.4	-7.9	-0.0544	ug/L	-0.0544 ppb	14:35:11
3	Sc 361.383	900331.6	900331.6	102.63	%		14:36:39
3	Y 371.029	760478.0	760478.0	100.61	%		14:36:39
3	Ag 328.068†	245.9	-0.8	0.0182	ug/L	0.0182 ppb	14:36:44
3	As 188.979†	-20.5	-1.7	-0.7568	ug/L	-0.7568 ppb	14:37:04
3	B 249.677†	-231.9	172.3	4.1865	ug/L	4.1865 ppb	14:37:04
3	Ba 233.527†	1266018.5	1233536.9	9680.0	ug/L	9680.0 ppb	14:36:39
3	Be 313.107†	-3728.4	129.4	0.0485	ug/L	0.0485 ppb	14:36:44
3	Cd 226.502†	-153.7	46.5	0.5336	ug/L	0.5336 ppb	14:37:04
3	Co 228.616†	-277.3	-203.6	0.3944	ug/L	0.3944 ppb	14:37:04
3	Cr 267.716†	106.7	26.3	0.3047	ug/L	0.3047 ppb	14:37:04
3	Cu 324.752†	6125.7	-22.3	-0.0572	ug/L	-0.0572 ppb	14:36:44
3	Mn 257.610†	465.5	-5.2	-0.0014	ug/L	-0.0014 ppb	14:37:04
3	Mo 202.031†	6.6	-3.7	-0.2735	ug/L	-0.2735 ppb	14:37:04
3	Ni 231.604†	70.2	5.9	0.1529	ug/L	0.1529 ppb	14:37:04
3	P 214.914†	208.8	-7.1	-4.2655	ug/L	-4.2655 ppb	14:37:04
3	Pb 220.353†	-41.4	17.8	2.1849	ug/L	2.1849 ppb	14:37:04
3	S 181.975 Axial†	38.6	-3.2	-4.6504	ug/L	-4.6504 ppb	14:37:04
3	Sb 206.836†	31.2	-6.3	-2.2044	ug/L	-2.2044 ppb	14:37:04
3	Se 196.026†	-19.9	8.4	5.5368	ug/L	5.5368 ppb	14:37:04
3	Si 251.611†	572.9	-0.1	-0.0003	ug/L	-0.0003 ppb	14:37:04
3	Sn 189.927†	11.8	1.0	0.1836	ug/L	0.1836 ppb	14:37:04
3	Ti 334.940†	-1436.3	-25.4	-0.0261	ug/L	-0.0261 ppb	14:36:44
3	Tl 190.801†	-40.2	-6.6	-2.0880	ug/L	-2.0880 ppb	14:37:04
3	U 409.014†	-3616.7	-637.3	-17.600	ug/L	-17.600 ppb	14:36:39
3	V 292.402†	-1445.9	96.9	0.6341	ug/L	0.6341 ppb	14:36:44
3	Zn 213.857†	640.2	17.8	0.1756	ug/L	0.1756 ppb	14:37:04
3	SiO2†	586.1	16.7	1.1660	ug/L	1.1660 ppb	14:37:20

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901431.0	102.76	%	0.152				0.15%
Sc Radial	3850.4	98.3	%	0.46				0.46%
Y 371.029	762175.5	100.84	%	0.290				0.29%
Y RADIAL	4331.5	98.20	%	1.390				1.42%
Ag 328.068†	6.4	0.0465	ug/L	0.07523	0.0465	ppb	0.07523	161.94%
Al 396.153Radial†	-12.4	-11.642	ug/L	13.3074	-11.642	ppb	13.3074	114.31%
As 188.979†	5.1	2.2925	ug/L	2.72852	2.2925	ppb	2.72852	119.02%
B 249.677†	164.7	4.0036	ug/L	0.18013	4.0036	ppb	0.18013	4.50%
Ba 233.527†	1234109.0	9684.5	ug/L	17.19	9684.5	ppb	17.19	0.18%
Be 313.107†	177.0	0.0663	ug/L	0.01607	0.0663	ppb	0.01607	24.23%
Ca 317.933Radial†	2.3	4.8168	ug/L	5.36809	4.8168	ppb	5.36809	111.45%
Cd 226.502†	37.9	0.4348	ug/L	0.08779	0.4348	ppb	0.08779	20.19%
Co 228.616†	-203.1	0.4078	ug/L	0.06035	0.4078	ppb	0.06035	14.80%
Cr 267.716†	15.5	0.1818	ug/L	0.10938	0.1818	ppb	0.10938	60.15%
Cu 324.752†	-126.8	-0.3761	ug/L	0.38102	-0.3761	ppb	0.38102	101.32%
Fe 238.204 Radial†	0.3	4.4561	ug/L	13.97703	4.4561	ppb	13.97703	313.66%
K 766.490 Radial†	260.9	50.056	ug/L	23.9107	50.056	ppb	23.9107	47.77%

Mg 279.077 IEC†	-3.4	-163.74	ug/L	80.383	-163.74	ppb	80.383 49.09%
Mn 257.610†	-6.0	0.0003	ug/L	0.01395	0.0003	ppb	0.01395 >999.9%
Mo 202.031†	0.4	0.0268	ug/L	0.26038	0.0268	ppb	0.26038 971.71%
Na 589.592 Radial†	54.0	16.636	ug/L	5.0473	16.636	ppb	5.0473 30.34%
Ni 231.604†	5.7	0.1472	ug/L	0.25546	0.1472	ppb	0.25546 173.58%
P 214.914†	-5.1	-2.9957	ug/L	3.73127	-2.9957	ppb	3.73127 124.56%
Pb 220.353†	9.6	1.1811	ug/L	1.86330	1.1811	ppb	1.86330 157.76%
S 181.975 Axial†	-2.3	-3.3548	ug/L	1.12297	-3.3548	ppb	1.12297 33.47%
Sb 206.836†	-0.1	-0.0322	ug/L	1.89244	-0.0322	ppb	1.89244 >999.9%
Se 196.026†	7.1	4.6402	ug/L	0.89196	4.6402	ppb	0.89196 19.22%
Si 251.611†	6.9	0.2241	ug/L	0.75039	0.2241	ppb	0.75039 334.91%
Sn 189.927†	3.5	0.6371	ug/L	0.39622	0.6371	ppb	0.39622 62.19%
Sr 421.552†	8.1	0.0558	ug/L	0.09862	0.0558	ppb	0.09862 176.89%
Ti 334.940†	-52.6	-0.0612	ug/L	0.08943	-0.0612	ppb	0.08943 146.15%
Tl 190.801†	-3.5	-1.1007	ug/L	1.37751	-1.1007	ppb	1.37751 125.15%
U 409.014†	-622.2	-17.183	ug/L	1.2262	-17.183	ppb	1.2262 7.14%
V 292.402†	50.6	0.3165	ug/L	0.33093	0.3165	ppb	0.33093 104.56%
Zn 213.857†	6.8	0.0670	ug/L	0.09459	0.0670	ppb	0.09459 141.20%
SiO2†	35.2	2.4458	ug/L	2.09207	2.4458	ppb	2.09207 85.54%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 14:39:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3813.6	3813.6	97.3	%			14:41:43
1	Y RADIAL	4271.0	4271.0	96.83	%			14:41:23
1	Al 396.153Radial†	5208.5	5464.7	5101.7	ug/L	5101.7	ppb	14:41:23
1	Ca 317.933Radial†	2425.6	2472.9	5169.5	ug/L	5169.5	ppb	14:41:43
1	Fe 238.204 Radial†	357.8	356.3	5044.2	ug/L	5044.2	ppb	14:41:43
1	K 766.490 Radial†	28527.0	26674.4	5112.3	ug/L	5112.3	ppb	14:41:23
1	Mg 279.077 IEC†	105.5	104.3	5058.9	ug/L	5058.9	ppb	14:41:43
1	Na 589.592 Radial†	31800.0	33497.1	10328	ug/L	10328	ppb	14:41:23
1	Sr 421.552†	71096.1	73021.8	505.24	ug/L	505.24	ppb	14:41:23
1	Sc 361.383	897318.0	897318.0	102.29	%			14:42:40
1	Y 371.029	748412.4	748412.4	99.017	%			14:42:40
1	Ag 328.068†	107466.1	104820.0	488.68	ug/L	488.68	ppb	14:42:45
1	As 188.979†	1091.7	1085.5	488.93	ug/L	488.93	ppb	14:43:05
1	B 249.677†	19987.5	19938.3	481.19	ug/L	481.19	ppb	14:42:45
1	Ba 233.527†	63683.8	62259.6	489.80	ug/L	489.80	ppb	14:42:45
1	Be 313.107†	1334439.9	1308330.1	492.77	ug/L	492.77	ppb	14:42:40
1	Cd 226.502†	43040.7	42273.4	489.41	ug/L	489.41	ppb	14:42:45
1	Co 228.616†	23858.7	23391.2	490.07	ug/L	490.07	ppb	14:42:45
1	Cr 267.716†	44493.9	43420.2	488.40	ug/L	488.40	ppb	14:42:45
1	Cu 324.752†	168486.9	158724.5	483.01	ug/L	483.01	ppb	14:42:45
1	Mn 257.610†	443160.9	432781.8	492.77	ug/L	492.77	ppb	14:42:40
1	Mo 202.031†	6762.2	6600.7	485.05	ug/L	485.05	ppb	14:43:05
1	Ni 231.604†	19832.5	19326.1	491.23	ug/L	491.23	ppb	14:42:45
1	P 214.914†	4313.8	4006.8	2317.9	ug/L	2317.9	ppb	14:43:05
1	Pb 220.353†	4001.0	3969.5	489.73	ug/L	489.73	ppb	14:43:05
1	S 181.975 Axial†	741.7	684.3	983.78	ug/L	983.78	ppb	14:43:05
1	Sb 206.836†	1426.6	1358.0	492.08	ug/L	492.08	ppb	14:43:05
1	Se 196.026†	730.5	741.9	503.19	ug/L	503.19	ppb	14:43:05
1	Si 251.611†	77333.7	75044.2	2422.4	ug/L	2422.4	ppb	14:42:45
1	Sn 189.927†	2752.7	2680.6	481.60	ug/L	481.60	ppb	14:43:05
1	Ti 334.940†	313933.6	308280.1	484.32	ug/L	484.32	ppb	14:42:45
1	Tl 190.801†	1524.2	1522.7	490.16	ug/L	490.16	ppb	14:43:05
1	U 409.014†	14843.8	17398.1	478.77	ug/L	478.77	ppb	14:42:45
1	V 292.402†	69782.5	69726.1	492.63	ug/L	492.63	ppb	14:42:45
1	Zn 213.857†	50248.6	48517.7	483.86	ug/L	483.86	ppb	14:42:45
1	SiO2†	76980.2	74702.6	5178.3	ug/L	5178.3	ppb	14:44:13
2	Sc Radial	3801.6	3801.6	97.0	%			14:42:08
2	Y RADIAL	4267.4	4267.4	96.75	%			14:41:48
2	Al 396.153Radial†	5185.3	5457.6	5094.9	ug/L	5094.9	ppb	14:41:48
2	Ca 317.933Radial†	2420.4	2475.3	5174.7	ug/L	5174.7	ppb	14:42:08
2	Fe 238.204 Radial†	356.8	356.5	5046.7	ug/L	5046.7	ppb	14:42:08
2	K 766.490 Radial†	28525.8	26765.4	5129.8	ug/L	5129.8	ppb	14:41:48
2	Mg 279.077 IEC†	110.3	109.6	5316.2	ug/L	5316.2	ppb	14:42:08
2	Na 589.592 Radial†	31683.7	33480.1	10323	ug/L	10323	ppb	14:41:48
2	Sr 421.552†	70922.6	73072.9	505.59	ug/L	505.59	ppb	14:41:48
2	Sc 361.383	897850.4	897850.4	102.35	%			14:43:11
2	Y 371.029	747514.0	747514.0	98.898	%			14:43:11
2	Ag 328.068†	107690.3	104976.8	489.40	ug/L	489.40	ppb	14:43:16
2	As 188.979†	1097.8	1090.8	491.30	ug/L	491.30	ppb	14:43:36
2	B 249.677†	20055.8	19993.5	482.52	ug/L	482.52	ppb	14:43:16
2	Ba 233.527†	63750.8	62288.1	490.02	ug/L	490.02	ppb	14:43:16
2	Be 313.107†	1336788.7	1309851.4	493.34	ug/L	493.34	ppb	14:43:11
2	Cd 226.502†	43138.2	42343.8	490.22	ug/L	490.22	ppb	14:43:16
2	Co 228.616†	23940.2	23456.9	491.45	ug/L	491.45	ppb	14:43:16
2	Cr 267.716†	44587.4	43485.8	489.14	ug/L	489.14	ppb	14:43:16
2	Cu 324.752†	168542.3	158681.0	482.88	ug/L	482.88	ppb	14:43:16
2	Mn 257.610†	444660.3	433989.9	494.13	ug/L	494.13	ppb	14:43:11
2	Mo 202.031†	6792.1	6626.0	486.91	ug/L	486.91	ppb	14:43:36
2	Ni 231.604†	19773.0	19256.4	489.45	ug/L	489.45	ppb	14:43:16

2	P 214.914†	4360.6	4049.9	2343.9 ug/L	2343.9 ppb	14:43:36
2	Pb 220.353†	4021.3	3987.1	491.89 ug/L	491.89 ppb	14:43:36
2	S 181.975 Axial†	742.4	684.6	984.14 ug/L	984.14 ppb	14:43:36
2	Sb 206.836†	1453.3	1383.2	501.03 ug/L	501.03 ppb	14:43:36
2	Se 196.026†	748.6	759.2	514.51 ug/L	514.51 ppb	14:43:36
2	Si 251.611†	77481.0	75143.4	2425.6 ug/L	2425.6 ppb	14:43:16
2	Sn 189.927†	2795.1	2720.4	488.75 ug/L	488.75 ppb	14:43:36
2	Ti 334.940†	313873.3	308039.3	483.92 ug/L	483.92 ppb	14:43:16
2	Tl 190.801†	1531.9	1529.3	492.26 ug/L	492.26 ppb	14:43:36
2	U 409.014†	14953.9	17497.1	481.50 ug/L	481.50 ppb	14:43:16
2	V 292.402†	69592.1	69499.6	491.09 ug/L	491.09 ppb	14:43:16
2	Zn 213.857†	50418.8	48654.8	485.25 ug/L	485.25 ppb	14:43:16
2	SiO2†	76690.2	74374.6	5155.5 ug/L	5155.5 ppb	14:44:18
3	Sc Radial	3795.4	3795.4	96.9 %		14:42:33
3	Y RADIAL	4265.4	4265.4	96.70 %		14:42:13
3	Al 396.153Radial†	5173.9	5454.6	5092.0 ug/L	5092.0 ppb	14:42:13
3	Ca 317.933Radial†	2424.4	2483.5	5191.9 ug/L	5191.9 ppb	14:42:33
3	Fe 238.204 Radial†	355.3	355.5	5032.9 ug/L	5032.9 ppb	14:42:33
3	K 766.490 Radial†	28354.5	26637.0	5105.1 ug/L	5105.1 ppb	14:42:13
3	Mg 279.077 IEC†	105.9	105.2	5102.2 ug/L	5102.2 ppb	14:42:33
3	Na 589.592 Radial†	31397.3	33238.1	10248 ug/L	10248 ppb	14:42:13
3	Sr 421.552†	70498.2	72755.1	503.39 ug/L	503.39 ppb	14:42:13
3	Sc 361.383	888451.7	888451.7	101.28 %		14:43:42
3	Y 371.029	740912.2	740912.2	98.024 %		14:43:42
3	Ag 328.068†	107485.0	105887.1	493.63 ug/L	493.63 ppb	14:43:47
3	As 188.979†	1102.4	1106.8	498.45 ug/L	498.45 ppb	14:44:08
3	B 249.677†	19977.4	20123.3	485.67 ug/L	485.67 ppb	14:43:47
3	Ba 233.527†	63409.9	62610.5	492.56 ug/L	492.56 ppb	14:43:47
3	Be 313.107†	1315040.4	1302194.5	490.47 ug/L	490.47 ppb	14:43:42
3	Cd 226.502†	42954.6	42608.4	493.29 ug/L	493.29 ppb	14:43:47
3	Co 228.616†	23716.2	23483.3	492.00 ug/L	492.00 ppb	14:43:47
3	Cr 267.716†	44432.6	43793.8	492.60 ug/L	492.60 ppb	14:43:47
3	Cu 324.752†	168005.5	159892.9	486.57 ug/L	486.57 ppb	14:43:47
3	Mn 257.610†	438325.3	432330.8	492.25 ug/L	492.25 ppb	14:43:42
3	Mo 202.031†	6776.8	6681.1	490.95 ug/L	490.95 ppb	14:44:08
3	Ni 231.604†	19707.0	19395.7	492.99 ug/L	492.99 ppb	14:43:47
3	P 214.914†	4353.0	4087.5	2365.8 ug/L	2365.8 ppb	14:44:08
3	Pb 220.353†	3999.9	4007.5	494.41 ug/L	494.41 ppb	14:44:08
3	S 181.975 Axial†	736.1	686.0	986.27 ug/L	986.27 ppb	14:44:08
3	Sb 206.836†	1447.1	1392.1	504.21 ug/L	504.21 ppb	14:44:08
3	Se 196.026†	740.1	758.5	514.01 ug/L	514.01 ppb	14:44:08
3	Si 251.611†	77186.3	75653.2	2442.0 ug/L	2442.0 ppb	14:43:47
3	Sn 189.927†	2764.6	2719.2	488.52 ug/L	488.52 ppb	14:44:08
3	Ti 334.940†	313106.9	310526.6	487.85 ug/L	487.85 ppb	14:43:47
3	Tl 190.801†	1532.7	1545.9	497.60 ug/L	497.60 ppb	14:44:08
3	U 409.014†	14747.7	17448.0	480.14 ug/L	480.14 ppb	14:43:47
3	V 292.402†	69442.5	70071.2	495.12 ug/L	495.12 ppb	14:43:47
3	Zn 213.857†	50140.7	48901.4	487.71 ug/L	487.71 ppb	14:43:47
3	SiO2†	76994.2	75467.4	5231.3 ug/L	5231.3 ppb	14:44:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894540.0	101.97	%	0.602				0.59%
Sc Radial	3803.5	97.1	%	0.24				0.24%
Y 371.029	745612.9	98.646	%	0.5419				0.55%
Y RADIAL	4267.9	96.76	%	0.065				0.07%
Ag 328.068†	105228.0	490.57	ug/L	2.674	490.57	ppb	2.674	0.55%
QC value within limits for Ag 328.068 Recovery = 98.11%								
Al 396.153Radial†	5458.9	5096.2	ug/L	4.98	5096.2	ppb	4.98	0.10%
QC value within limits for Al 396.153Radial Recovery = 101.92%								
As 188.979†	1094.3	492.89	ug/L	4.955	492.89	ppb	4.955	1.01%
QC value within limits for As 188.979 Recovery = 98.58%								
B 249.677†	20018.4	483.13	ug/L	2.301	483.13	ppb	2.301	0.48%
QC value within limits for B 249.677 Recovery = 96.63%								
Ba 233.527†	62386.1	490.79	ug/L	1.533	490.79	ppb	1.533	0.31%
QC value within limits for Ba 233.527 Recovery = 98.16%								
Be 313.107†	1306792.0	492.19	ug/L	1.518	492.19	ppb	1.518	0.31%
QC value within limits for Be 313.107 Recovery = 98.44%								
Ca 317.933Radial†	2477.2	5178.7	ug/L	11.69	5178.7	ppb	11.69	0.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.57%
Cd 226.502†            42408.6      490.97 ug/L         2.047      490.97 ppb          2.047   0.42%
   QC value within limits for Cd 226.502  Recovery = 98.19%
Co 228.616†            23443.8      491.18 ug/L         0.997      491.18 ppb          0.997   0.20%
   QC value within limits for Co 228.616  Recovery = 98.24%
Cr 267.716†            43566.6      490.05 ug/L         2.241      490.05 ppb          2.241   0.46%
   QC value within limits for Cr 267.716  Recovery = 98.01%
Cu 324.752†           159099.5      484.15 ug/L         2.092      484.15 ppb          2.092   0.43%
   QC value within limits for Cu 324.752  Recovery = 96.83%
Fe 238.204 Radial†       356.1      5041.3 ug/L          7.36      5041.3 ppb           7.36   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      26692.3      5115.7 ug/L         12.67      5115.7 ppb          12.67   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 102.31%
Mg 279.077 IEC†          106.4      5159.1 ug/L        137.75      5159.1 ppb         137.75   2.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.18%
Mn 257.610†           433034.1      493.05 ug/L         0.972      493.05 ppb          0.972   0.20%
   QC value within limits for Mn 257.610  Recovery = 98.61%
Mo 202.031†             6635.9      487.64 ug/L         3.017      487.64 ppb          3.017   0.62%
   QC value within limits for Mo 202.031  Recovery = 97.53%
Na 589.592 Radial†     33405.1       10300 ug/L          44.7       10300 ppb           44.7   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 103.00%
Ni 231.604†            19326.1      491.22 ug/L         1.771      491.22 ppb          1.771   0.36%
   QC value within limits for Ni 231.604  Recovery = 98.24%
P 214.914†              4048.1      2342.5 ug/L         24.01      2342.5 ppb          24.01   1.03%
   QC value within limits for P 214.914  Recovery = 93.70%
Pb 220.353†             3988.0      492.01 ug/L         2.345      492.01 ppb          2.345   0.48%
   QC value within limits for Pb 220.353  Recovery = 98.40%
S 181.975 Axial†         685.0      984.73 ug/L         1.346      984.73 ppb          1.346   0.14%
   QC value within limits for S 181.975 Axial  Recovery = 98.47%
Sb 206.836†             1377.8      499.10 ug/L         6.292      499.10 ppb          6.292   1.26%
   QC value within limits for Sb 206.836  Recovery = 99.82%
Se 196.026†              753.2      510.57 ug/L         6.397      510.57 ppb          6.397   1.25%
   QC value within limits for Se 196.026  Recovery = 102.11%
Si 251.611†            75280.3      2430.0 ug/L         10.54      2430.0 ppb          10.54   0.43%
   QC value within limits for Si 251.611  Recovery = 97.20%
Sn 189.927†             2706.7      486.29 ug/L         4.066      486.29 ppb          4.066   0.84%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†            72949.9      504.74 ug/L         1.181      504.74 ppb          1.181   0.23%
   QC value within limits for Sr 421.552  Recovery = 100.95%
Ti 334.940†           308948.7      485.37 ug/L         2.161      485.37 ppb          2.161   0.45%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†             1532.6      493.34 ug/L         3.838      493.34 ppb          3.838   0.78%
   QC value within limits for Tl 190.801  Recovery = 98.67%
U 409.014†             17447.7      480.13 ug/L         1.366      480.13 ppb          1.366   0.28%
   QC value within limits for U 409.014  Recovery = 96.03%
V 292.402†             69765.6      492.95 ug/L         2.035      492.95 ppb          2.035   0.41%
   QC value within limits for V 292.402  Recovery = 98.59%
Zn 213.857†            48691.3      485.61 ug/L         1.948      485.61 ppb          1.948   0.40%
   QC value within limits for Zn 213.857  Recovery = 97.12%
SiO2†                  74848.2      5188.3 ug/L         38.90      5188.3 ppb          38.90   0.75%
   QC value within limits for SiO2  Recovery = 97.02%
All analyte(s) passed QC.
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Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 14:46:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3682.8	3682.8	94.0	%			14:48:46
1	Y RADIAL	4067.2	4067.2	92.21	%			14:48:26
1	Al 396.153Radial†	-98.8	7.2	6.7744	ug/L	6.7744	ppb	14:48:26
1	Ca 317.933Radial†	16.7	-1.9	-3.9722	ug/L	-3.9722	ppb	14:48:46
1	Fe 238.204 Radial†	9.7	-1.0	-14.139	ug/L	-14.139	ppb	14:48:46
1	K 766.490 Radial†	2748.3	284.9	54.664	ug/L	54.664	ppb	14:48:26
1	Mg 279.077 IEC†	2.9	-1.0	-49.993	ug/L	-49.993	ppb	14:48:46
1	Na 589.592 Radial†	-718.7	55.0	16.959	ug/L	16.959	ppb	14:48:26
1	Sr 421.552†	41.3	8.2	0.0570	ug/L	0.0570	ppb	14:48:26
1	Sc 361.383	895247.1	895247.1	102.05	%			14:49:43
1	Y 371.029	758562.0	758562.0	100.36	%			14:49:43
1	Ag 328.068†	198.4	-46.0	-0.2156	ug/L	-0.2156	ppb	14:49:43
1	As 188.979†	-17.6	1.0	0.4478	ug/L	0.4478	ppb	14:50:03
1	B 249.677†	-209.5	193.0	4.6808	ug/L	4.6808	ppb	14:50:03
1	Ba 233.527†	29.4	30.2	0.2380	ug/L	0.2380	ppb	14:50:03
1	Be 313.107†	-3586.5	247.9	0.0933	ug/L	0.0933	ppb	14:49:43
1	Cd 226.502†	-179.4	20.5	0.2394	ug/L	0.2394	ppb	14:50:03
1	Co 228.616†	-64.7	3.1	0.0665	ug/L	0.0665	ppb	14:50:03
1	Cr 267.716†	73.5	-5.7	-0.0646	ug/L	-0.0646	ppb	14:50:03
1	Cu 324.752†	5986.4	-124.8	-0.3813	ug/L	-0.3813	ppb	14:49:43
1	Mn 257.610†	448.7	-19.1	-0.0211	ug/L	-0.0211	ppb	14:50:03
1	Mo 202.031†	16.9	6.4	0.4684	ug/L	0.4684	ppb	14:50:03
1	Ni 231.604†	74.2	10.2	0.2604	ug/L	0.2604	ppb	14:50:03
1	P 214.914†	206.4	-8.3	-4.8584	ug/L	-4.8584	ppb	14:50:03
1	Pb 220.353†	-61.6	-2.3	-0.2752	ug/L	-0.2752	ppb	14:50:03
1	S 181.975 Axial†	35.4	-6.1	-8.8491	ug/L	-8.8491	ppb	14:50:03
1	Sb 206.836†	42.3	4.7	1.6931	ug/L	1.6931	ppb	14:50:03
1	Se 196.026†	-28.5	-0.2	-0.1591	ug/L	-0.1591	ppb	14:50:03
1	Si 251.611†	578.2	8.3	0.2613	ug/L	0.2613	ppb	14:50:03
1	Sn 189.927†	23.4	12.5	2.2394	ug/L	2.2394	ppb	14:50:03
1	Ti 334.940†	-1358.1	43.3	0.0710	ug/L	0.0710	ppb	14:49:43
1	Tl 190.801†	-31.9	1.4	0.4307	ug/L	0.4307	ppb	14:50:03
1	U 409.014†	-2900.2	44.8	1.2389	ug/L	1.2389	ppb	14:49:43
1	V 292.402†	-1430.6	103.9	0.7346	ug/L	0.7346	ppb	14:49:43
1	Zn 213.857†	661.7	42.3	0.4268	ug/L	0.4268	ppb	14:50:03
1	SiO2†	627.2	60.2	4.1714	ug/L	4.1714	ppb	14:50:59
2	Sc Radial	3902.0	3902.0	99.6	%			14:49:11
2	Y RADIAL	4377.1	4377.1	99.24	%			14:48:51
2	Al 396.153Radial†	-126.9	-15.0	-14.101	ug/L	-14.101	ppb	14:48:51
2	Ca 317.933Radial†	21.8	2.2	4.5475	ug/L	4.5475	ppb	14:49:11
2	Fe 238.204 Radial†	12.5	1.2	16.803	ug/L	16.803	ppb	14:49:11
2	K 766.490 Radial†	2756.1	128.4	24.634	ug/L	24.634	ppb	14:48:51
2	Mg 279.077 IEC†	0.6	-3.5	-168.77	ug/L	-168.77	ppb	14:49:11
2	Na 589.592 Radial†	-774.7	41.8	12.877	ug/L	12.877	ppb	14:48:51
2	Sr 421.552†	25.9	-9.8	-0.0676	ug/L	-0.0676	ppb	14:48:51
2	Sc 361.383	889931.0	889931.0	101.45	%			14:50:08
2	Y 371.029	753903.0	753903.0	99.743	%			14:50:08
2	Ag 328.068†	289.7	45.2	0.2204	ug/L	0.2204	ppb	14:50:08
2	As 188.979†	-23.1	-4.5	-1.9988	ug/L	-1.9988	ppb	14:50:28
2	B 249.677†	-228.0	173.5	4.2030	ug/L	4.2030	ppb	14:50:28
2	Ba 233.527†	32.9	33.8	0.2675	ug/L	0.2675	ppb	14:50:28
2	Be 313.107†	-3670.0	144.6	0.0540	ug/L	0.0540	ppb	14:50:08
2	Cd 226.502†	-167.9	30.8	0.3542	ug/L	0.3542	ppb	14:50:28
2	Co 228.616†	-62.3	5.1	0.1074	ug/L	0.1074	ppb	14:50:28
2	Cr 267.716†	74.3	-4.4	-0.0454	ug/L	-0.0454	ppb	14:50:28
2	Cu 324.752†	6105.8	27.9	0.0878	ug/L	0.0878	ppb	14:50:08
2	Mn 257.610†	444.9	-20.2	-0.0144	ug/L	-0.0144	ppb	14:50:28
2	Mo 202.031†	13.3	3.0	0.2214	ug/L	0.2214	ppb	14:50:28
2	Ni 231.604†	57.9	-5.4	-0.1370	ug/L	-0.1370	ppb	14:50:28

2	P 214.914†	197.6	-15.7	-9.4878 ug/L	-9.4878 ppb	14:50:28
2	Pb 220.353†	-48.9	9.9	1.2151 ug/L	1.2151 ppb	14:50:28
2	S 181.975 Axial†	37.6	-3.7	-5.3510 ug/L	-5.3510 ppb	14:50:28
2	Sb 206.836†	48.0	10.6	3.7416 ug/L	3.7416 ppb	14:50:28
2	Se 196.026†	-21.0	7.1	4.6764 ug/L	4.6764 ppb	14:50:28
2	Si 251.611†	586.1	19.4	0.6263 ug/L	0.6263 ppb	14:50:28
2	Sn 189.927†	25.9	15.0	2.6994 ug/L	2.6994 ppb	14:50:28
2	Ti 334.940†	-1498.5	-103.0	-0.1459 ug/L	-0.1459 ppb	14:50:08
2	Tl 190.801†	-35.5	-2.4	-0.7751 ug/L	-0.7751 ppb	14:50:28
2	U 409.014†	-3065.5	-135.2	-3.7348 ug/L	-3.7348 ppb	14:50:08
2	V 292.402†	-1421.2	104.7	0.7206 ug/L	0.7206 ppb	14:50:08
2	Zn 213.857†	662.5	47.0	0.4714 ug/L	0.4714 ppb	14:50:28
2	SiO2†	619.8	56.5	3.9239 ug/L	3.9239 ppb	14:51:04
3	Sc Radial	3896.8	3896.8	99.4 %		14:49:36
3	Y RADIAL	4548.4	4548.4	103.1 %		14:49:16
3	Al 396.153Radial†	-99.8	12.1	11.328 ug/L	11.328 ppb	14:49:16
3	Ca 317.933Radial†	19.9	0.4	0.7604 ug/L	0.7604 ppb	14:49:36
3	Fe 238.204 Radial†	10.7	-0.6	-8.1655 ug/L	-8.1655 ppb	14:49:36
3	K 766.490 Radial†	2738.7	114.5	21.975 ug/L	21.975 ppb	14:49:16
3	Mg 279.077 IEC†	4.7	0.7	32.689 ug/L	32.689 ppb	14:49:36
3	Na 589.592 Radial†	-766.2	49.2	15.174 ug/L	15.174 ppb	14:49:16
3	Sr 421.552†	66.1	30.7	0.2127 ug/L	0.2127 ppb	14:49:16
3	Sc 361.383	900462.2	900462.2	102.65 %		14:50:33
3	Y 371.029	761741.5	761741.5	100.78 %		14:50:33
3	Ag 328.068†	290.7	42.8	0.1976 ug/L	0.1976 ppb	14:50:33
3	As 188.979†	-23.4	-4.5	-2.0280 ug/L	-2.0280 ppb	14:50:53
3	B 249.677†	-241.7	162.7	3.9456 ug/L	3.9456 ppb	14:50:53
3	Ba 233.527†	33.7	34.2	0.2693 ug/L	0.2693 ppb	14:50:53
3	Be 313.107†	-3760.7	98.5	0.0369 ug/L	0.0369 ppb	14:50:33
3	Cd 226.502†	-173.8	27.0	0.3130 ug/L	0.3130 ppb	14:50:53
3	Co 228.616†	-53.8	14.1	0.2956 ug/L	0.2956 ppb	14:50:53
3	Cr 267.716†	92.9	12.8	0.1433 ug/L	0.1433 ppb	14:50:53
3	Cu 324.752†	6036.2	-110.3	-0.3361 ug/L	-0.3361 ppb	14:50:33
3	Mn 257.610†	439.1	-30.9	-0.0373 ug/L	-0.0373 ppb	14:50:53
3	Mo 202.031†	9.9	-0.5	-0.0345 ug/L	-0.0345 ppb	14:50:53
3	Ni 231.604†	63.2	-0.9	-0.0223 ug/L	-0.0223 ppb	14:50:53
3	P 214.914†	200.8	-14.9	-8.8541 ug/L	-8.8541 ppb	14:50:53
3	Pb 220.353†	-56.3	3.2	0.4003 ug/L	0.4003 ppb	14:50:53
3	S 181.975 Axial†	38.4	-3.4	-4.9324 ug/L	-4.9324 ppb	14:50:53
3	Sb 206.836†	50.0	12.0	4.2034 ug/L	4.2034 ppb	14:50:53
3	Se 196.026†	-24.1	4.2	2.7418 ug/L	2.7418 ppb	14:50:53
3	Si 251.611†	568.1	-4.9	-0.1587 ug/L	-0.1587 ppb	14:50:53
3	Sn 189.927†	16.6	5.6	1.0137 ug/L	1.0137 ppb	14:50:53
3	Ti 334.940†	-1433.9	-22.8	-0.0384 ug/L	-0.0384 ppb	14:50:33
3	Tl 190.801†	-28.3	5.0	1.5859 ug/L	1.5859 ppb	14:50:53
3	U 409.014†	-2971.3	-8.1	-0.2222 ug/L	-0.2222 ppb	14:50:33
3	V 292.402†	-1486.5	57.5	0.4017 ug/L	0.4017 ppb	14:50:33
3	Zn 213.857†	665.1	41.9	0.4237 ug/L	0.4237 ppb	14:50:53
3	SiO2†	602.1	32.2	2.2358 ug/L	2.2358 ppb	14:51:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895213.4	102.05	%	0.600				0.59%
Sc Radial	3827.2	97.7	%	3.19				3.27%
Y 371.029	758068.8	100.29	%	0.522				0.52%
Y RADIAL	4330.9	98.19	%	5.530				5.63%
Ag 328.068†	14.0	0.0675	ug/L	0.24541	0.0675	ppb	0.24541	363.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	1.3337	ug/L	13.55939	1.3337	ppb	13.55939	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.7	-1.1930	ug/L	1.42102	-1.1930	ppb	1.42102	119.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	176.4	4.2765	ug/L	0.37307	4.2765	ppb	0.37307	8.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	32.7	0.2583	ug/L	0.01757	0.2583	ppb	0.01757	6.80%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	163.6	0.0614	ug/L	0.02891	0.0614	ppb	0.02891	47.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.2	0.4452	ug/L	4.26860	0.4452	ppb	4.26860	958.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                26.1      0.3022 ug/L       0.05816      0.3022 ppb        0.05816  19.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.4      0.1565 ug/L       0.12221      0.1565 ppb        0.12221  78.10%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.9      0.0111 ug/L       0.11487      0.0111 ppb        0.11487 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.1     -0.2099 ug/L       0.25882     -0.2099 ppb        0.25882 123.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.1     -1.8337 ug/L      16.41405     -1.8337 ppb       16.41405 895.15%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         175.9      33.758 ug/L       18.1542      33.758 ppb        18.1542  53.78%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.3     -62.024 ug/L      101.2660     -62.024 ppb       101.2660 163.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -23.4     -0.0243 ug/L       0.01179     -0.0243 ppb        0.01179  48.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.0      0.2184 ug/L       0.25146      0.2184 ppb        0.25146 115.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         48.7      15.003 ug/L        2.0464      15.003 ppb         2.0464  13.64%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.3      0.0337 ug/L       0.20455      0.0337 ppb        0.20455 606.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.9     -7.7335 ug/L       2.50992     -7.7335 ppb        2.50992  32.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.6      0.4468 ug/L       0.74623      0.4468 ppb        0.74623 167.03%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.4     -6.3775 ug/L       2.15070     -6.3775 ppb        2.15070  33.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.1      3.2127 ug/L       1.33610      3.2127 ppb        1.33610  41.59%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.7      2.4197 ug/L       2.43378      2.4197 ppb        2.43378 100.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 7.6      0.2430 ug/L       0.39286      0.2430 ppb        0.39286 161.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                11.1      1.9842 ug/L       0.87138      1.9842 ppb        0.87138  43.92%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.7      0.0674 ug/L       0.14043      0.0674 ppb        0.14043 208.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -27.5     -0.0377 ug/L       0.10845     -0.0377 ppb        0.10845 287.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.3      0.4138 ug/L       1.18060      0.4138 ppb        1.18060 285.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -32.8     -0.9060 ug/L       2.55637     -0.9060 ppb        2.55637 282.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 88.7      0.6190 ug/L       0.18828      0.6190 ppb        0.18828  30.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                43.7      0.4406 ug/L       0.02666      0.4406 ppb        0.02666   6.05%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      49.6      3.4437 ug/L       1.05336      3.4437 ppb        1.05336  30.59%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 16:03:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3841.1	3841.1	98.0	%			16:05:54
1	Y RADIAL	4330.5	4330.5	98.18	%			16:05:34
1	Al 396.153Radial†	5213.3	5431.1	5070.2	ug/L	5070.2	ppb	16:05:34
1	Ca 317.933Radial†	2445.7	2475.5	5175.1	ug/L	5175.1	ppb	16:05:54
1	Fe 238.204 Radial†	358.5	354.4	5017.6	ug/L	5017.6	ppb	16:05:54
1	K 766.490 Radial†	28720.2	26661.5	5109.8	ug/L	5109.8	ppb	16:05:34
1	Mg 279.077 IEC†	105.2	103.3	5007.4	ug/L	5007.4	ppb	16:05:54
1	Na 589.592 Radial†	32199.8	33670.9	10382	ug/L	10382	ppb	16:05:34
1	Sr 421.552†	71792.3	73208.6	506.53	ug/L	506.53	ppb	16:05:34
1	Sc 361.383	902357.4	902357.4	102.86	%			16:06:51
1	Y 371.029	751235.4	751235.4	99.390	%			16:06:51
1	Ag 328.068†	107390.8	104160.1	485.60	ug/L	485.60	ppb	16:06:56
1	As 188.979†	1088.0	1075.9	484.63	ug/L	484.63	ppb	16:07:16
1	B 249.677†	19507.4	19362.5	467.24	ug/L	467.24	ppb	16:06:56
1	Ba 233.527†	63509.9	61742.9	485.73	ug/L	485.73	ppb	16:06:56
1	Be 313.107†	1340459.0	1306896.0	492.22	ug/L	492.22	ppb	16:06:51
1	Cd 226.502†	42994.2	41993.3	486.16	ug/L	486.16	ppb	16:06:56
1	Co 228.616†	23824.9	23228.0	486.66	ug/L	486.66	ppb	16:06:56
1	Cr 267.716†	44373.9	43060.6	484.36	ug/L	484.36	ppb	16:06:56
1	Cu 324.752†	167995.8	157327.2	478.76	ug/L	478.76	ppb	16:06:56
1	Mn 257.610†	447043.3	434136.6	494.31	ug/L	494.31	ppb	16:06:51
1	Mo 202.031†	6800.2	6600.7	485.05	ug/L	485.05	ppb	16:07:16
1	Ni 231.604†	19731.3	19119.4	485.97	ug/L	485.97	ppb	16:06:56
1	P 214.914†	4336.4	4005.2	2317.8	ug/L	2317.8	ppb	16:07:16
1	Pb 220.353†	3989.6	3936.7	485.68	ug/L	485.68	ppb	16:07:16
1	S 181.975 Axial†	721.1	660.3	949.18	ug/L	949.18	ppb	16:07:16
1	Sb 206.836†	1439.3	1362.5	493.67	ug/L	493.67	ppb	16:07:16
1	Se 196.026†	733.5	740.9	502.41	ug/L	502.41	ppb	16:07:16
1	Si 251.611†	77075.7	74371.2	2400.6	ug/L	2400.6	ppb	16:06:56
1	Sn 189.927†	2771.5	2683.8	482.18	ug/L	482.18	ppb	16:07:16
1	Ti 334.940†	313695.9	306335.0	481.27	ug/L	481.27	ppb	16:06:56
1	Tl 190.801†	1512.6	1503.1	483.89	ug/L	483.89	ppb	16:07:16
1	U 409.014†	15037.1	17505.0	481.73	ug/L	481.73	ppb	16:06:56
1	V 292.402†	69513.5	69083.5	488.17	ug/L	488.17	ppb	16:06:56
1	Zn 213.857†	50103.7	48102.5	479.73	ug/L	479.73	ppb	16:06:56
1	SiO2†	77571.6	74857.2	5189.0	ug/L	5189.0	ppb	16:08:24
2	Sc Radial	3834.5	3834.5	97.8	%			16:06:19
2	Y RADIAL	4298.3	4298.3	97.45	%			16:05:59
2	Al 396.153Radial†	5173.1	5399.2	5040.4	ug/L	5040.4	ppb	16:05:59
2	Ca 317.933Radial†	2451.7	2485.9	5196.8	ug/L	5196.8	ppb	16:06:19
2	Fe 238.204 Radial†	364.8	361.5	5116.5	ug/L	5116.5	ppb	16:06:19
2	K 766.490 Radial†	28536.2	26523.8	5083.4	ug/L	5083.4	ppb	16:05:59
2	Mg 279.077 IEC†	105.5	103.7	5028.3	ug/L	5028.3	ppb	16:06:19
2	Na 589.592 Radial†	31734.1	33251.4	10252	ug/L	10252	ppb	16:05:59
2	Sr 421.552†	70979.7	72503.9	501.66	ug/L	501.66	ppb	16:05:59
2	Sc 361.383	900895.4	900895.4	102.70	%			16:07:22
2	Y 371.029	750805.6	750805.6	99.333	%			16:07:22
2	Ag 328.068†	107666.1	104597.6	487.66	ug/L	487.66	ppb	16:07:27
2	As 188.979†	1089.6	1079.2	486.15	ug/L	486.15	ppb	16:07:47
2	B 249.677†	19683.4	19564.6	472.13	ug/L	472.13	ppb	16:07:27
2	Ba 233.527†	63487.9	61821.7	486.35	ug/L	486.35	ppb	16:07:27
2	Be 313.107†	1336402.5	1305060.8	491.53	ug/L	491.53	ppb	16:07:22
2	Cd 226.502†	42944.5	42012.7	486.38	ug/L	486.38	ppb	16:07:27
2	Co 228.616†	23767.9	23210.1	486.27	ug/L	486.27	ppb	16:07:27
2	Cr 267.716†	44293.0	43051.9	484.27	ug/L	484.27	ppb	16:07:27
2	Cu 324.752†	168429.2	158014.2	480.85	ug/L	480.85	ppb	16:07:27
2	Mn 257.610†	444761.5	432620.0	492.59	ug/L	492.59	ppb	16:07:22
2	Mo 202.031†	6757.0	6569.4	482.76	ug/L	482.76	ppb	16:07:47
2	Ni 231.604†	19703.6	19123.5	486.08	ug/L	486.08	ppb	16:07:27

2	P 214.914†	4327.9	4003.7	2316.4 ug/L	2316.4 ppb	16:07:47
2	Pb 220.353†	3987.1	3940.5	486.13 ug/L	486.13 ppb	16:07:47
2	S 181.975 Axial†	730.7	670.7	964.20 ug/L	964.20 ppb	16:07:47
2	Sb 206.836†	1447.9	1373.1	497.31 ug/L	497.31 ppb	16:07:47
2	Se 196.026†	732.3	740.8	502.70 ug/L	502.70 ppb	16:07:47
2	Si 251.611†	77198.1	74612.0	2408.4 ug/L	2408.4 ppb	16:07:27
2	Sn 189.927†	2768.1	2684.9	482.38 ug/L	482.38 ppb	16:07:47
2	Ti 334.940†	313857.3	306987.1	482.30 ug/L	482.30 ppb	16:07:27
2	Tl 190.801†	1523.9	1516.4	488.15 ug/L	488.15 ppb	16:07:47
2	U 409.014†	14941.6	17435.7	479.81 ug/L	479.81 ppb	16:07:27
2	V 292.402†	69460.5	69141.6	488.52 ug/L	488.52 ppb	16:07:27
2	Zn 213.857†	49985.0	48066.0	479.34 ug/L	479.34 ppb	16:07:27
2	SiO2†	78536.4	75919.0	5262.9 ug/L	5262.9 ppb	16:08:29
3	Sc Radial	3779.8	3779.8	96.5 %		16:06:44
3	Y RADIAL	4247.4	4247.4	96.29 %		16:06:24
3	Al 396.153Radial†	5109.2	5409.5	5049.9 ug/L	5049.9 ppb	16:06:24
3	Ca 317.933Radial†	2420.0	2489.4	5204.0 ug/L	5204.0 ppb	16:06:44
3	Fe 238.204 Radial†	354.6	356.4	5044.7 ug/L	5044.7 ppb	16:06:44
3	K 766.490 Radial†	28088.4	26481.6	5075.3 ug/L	5075.3 ppb	16:06:24
3	Mg 279.077 IEC†	109.6	109.6	5313.2 ug/L	5313.2 ppb	16:06:44
3	Na 589.592 Radial†	31453.5	33429.9	10307 ug/L	10307 ppb	16:06:24
3	Sr 421.552†	70139.8	72683.3	502.90 ug/L	502.90 ppb	16:06:24
3	Sc 361.383	897093.6	897093.6	102.26 %		16:07:53
3	Y 371.029	748254.4	748254.4	98.996 %		16:07:53
3	Ag 328.068†	107614.9	104991.8	489.47 ug/L	489.47 ppb	16:07:58
3	As 188.979†	1084.3	1078.6	485.86 ug/L	485.86 ppb	16:08:18
3	B 249.677†	19676.2	19638.7	473.93 ug/L	473.93 ppb	16:07:58
3	Ba 233.527†	63449.4	62046.0	488.12 ug/L	488.12 ppb	16:07:58
3	Be 313.107†	1337824.5	1311966.1	494.13 ug/L	494.13 ppb	16:07:53
3	Cd 226.502†	42925.9	42171.7	488.23 ug/L	488.23 ppb	16:07:58
3	Co 228.616†	23790.7	23330.5	488.80 ug/L	488.80 ppb	16:07:58
3	Cr 267.716†	44526.3	43462.8	488.88 ug/L	488.88 ppb	16:07:58
3	Cu 324.752†	168129.0	158415.7	482.07 ug/L	482.07 ppb	16:07:58
3	Mn 257.610†	444244.4	433949.7	494.09 ug/L	494.09 ppb	16:07:53
3	Mo 202.031†	6755.4	6595.7	484.69 ug/L	484.69 ppb	16:08:18
3	Ni 231.604†	19698.0	19199.4	488.00 ug/L	488.00 ppb	16:07:58
3	P 214.914†	4341.5	4034.9	2335.0 ug/L	2335.0 ppb	16:08:18
3	Pb 220.353†	3982.6	3952.5	487.62 ug/L	487.62 ppb	16:08:18
3	S 181.975 Axial†	739.8	682.7	981.43 ug/L	981.43 ppb	16:08:18
3	Sb 206.836†	1439.1	1370.5	496.50 ug/L	496.50 ppb	16:08:18
3	Se 196.026†	737.3	748.7	507.62 ug/L	507.62 ppb	16:08:18
3	Si 251.611†	77059.1	74794.6	2414.3 ug/L	2414.3 ppb	16:07:58
3	Sn 189.927†	2772.3	2700.5	485.17 ug/L	485.17 ppb	16:08:18
3	Ti 334.940†	314103.5	308523.0	484.69 ug/L	484.69 ppb	16:07:58
3	Tl 190.801†	1518.4	1517.3	488.45 ug/L	488.45 ppb	16:08:18
3	U 409.014†	14995.9	17550.5	482.97 ug/L	482.97 ppb	16:07:58
3	V 292.402†	69613.4	69577.7	491.61 ug/L	491.61 ppb	16:07:58
3	Zn 213.857†	50031.8	48318.0	481.87 ug/L	481.87 ppb	16:07:58
3	SiO2†	77394.1	75126.1	5207.7 ug/L	5207.7 ppb	16:08:34

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900115.5	102.61	%	0.310				0.30%
Sc Radial	3818.5	97.4	%	0.86				0.88%
Y 371.029	750098.5	99.240	%	0.2132				0.21%
Y RADIAL	4292.0	97.31	%	0.950				0.98%
Ag 328.068†	104583.2	487.57	ug/L	1.938	487.57	ppb	1.938	0.40%
QC value within limits for Ag 328.068 Recovery = 97.51%								
Al 396.153Radial†	5413.3	5053.5	ug/L	15.26	5053.5	ppb	15.26	0.30%
QC value within limits for Al 396.153Radial Recovery = 101.07%								
As 188.979†	1077.9	485.55	ug/L	0.809	485.55	ppb	0.809	0.17%
QC value within limits for As 188.979 Recovery = 97.11%								
B 249.677†	19521.9	471.10	ug/L	3.460	471.10	ppb	3.460	0.73%
QC value within limits for B 249.677 Recovery = 94.22%								
Ba 233.527†	61870.2	486.73	ug/L	1.238	486.73	ppb	1.238	0.25%
QC value within limits for Ba 233.527 Recovery = 97.35%								
Be 313.107†	1307974.3	492.63	ug/L	1.348	492.63	ppb	1.348	0.27%
QC value within limits for Be 313.107 Recovery = 98.53%								
Ca 317.933Radial†	2483.6	5192.0	ug/L	15.06	5192.0	ppb	15.06	0.29%

```
   QC value within limits for Ca 317.933Radial  Recovery = 103.84%
Cd 226.502†            42059.2      486.92 ug/L         1.136      486.92 ppb          1.136   0.23%
   QC value within limits for Cd 226.502  Recovery = 97.38%
Co 228.616†            23256.2      487.24 ug/L         1.358      487.24 ppb          1.358   0.28%
   QC value within limits for Co 228.616  Recovery = 97.45%
Cr 267.716†            43191.8      485.84 ug/L         2.636      485.84 ppb          2.636   0.54%
   QC value within limits for Cr 267.716  Recovery = 97.17%
Cu 324.752†           157919.0      480.56 ug/L         1.676      480.56 ppb          1.676   0.35%
   QC value within limits for Cu 324.752  Recovery = 96.11%
Fe 238.204 Radial†       357.4      5059.6 ug/L        51.12      5059.6 ppb         51.12   1.01%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.19%
K 766.490 Radial†      26555.6      5089.5 ug/L        18.03      5089.5 ppb         18.03   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 101.79%
Mg 279.077 IEC†          105.5      5116.3 ug/L       170.84      5116.3 ppb        170.84   3.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.33%
Mn 257.610†           433568.7      493.67 ug/L         0.934      493.67 ppb          0.934   0.19%
   QC value within limits for Mn 257.610  Recovery = 98.73%
Mo 202.031†             6588.6      484.17 ug/L         1.232      484.17 ppb          1.232   0.25%
   QC value within limits for Mo 202.031  Recovery = 96.83%
Na 589.592 Radial†     33450.7       10314 ug/L          64.9       10314 ppb           64.9   0.63%
   QC value within limits for Na 589.592 Radial  Recovery = 103.14%
Ni 231.604†            19147.5      486.68 ug/L         1.145      486.68 ppb          1.145   0.24%
   QC value within limits for Ni 231.604  Recovery = 97.34%
P 214.914†              4014.6      2323.0 ug/L        10.39      2323.0 ppb         10.39   0.45%
   QC value within limits for P 214.914  Recovery = 92.92%
Pb 220.353†             3943.2      486.48 ug/L         1.014      486.48 ppb          1.014   0.21%
   QC value within limits for Pb 220.353  Recovery = 97.30%
S 181.975 Axial†         671.2      964.94 ug/L        16.136      964.94 ppb         16.136   1.67%
   QC value within limits for S 181.975 Axial  Recovery = 96.49%
Sb 206.836†             1368.7      495.83 ug/L         1.913      495.83 ppb          1.913   0.39%
   QC value within limits for Sb 206.836  Recovery = 99.17%
Se 196.026†              743.5      504.24 ug/L         2.923      504.24 ppb          2.923   0.58%
   QC value within limits for Se 196.026  Recovery = 100.85%
Si 251.611†            74592.6      2407.8 ug/L          6.88      2407.8 ppb          6.88   0.29%
   QC value within limits for Si 251.611  Recovery = 96.31%
Sn 189.927†             2689.7      483.24 ug/L         1.670      483.24 ppb          1.670   0.35%
   QC value within limits for Sn 189.927  Recovery = 96.65%
Sr 421.552†            72798.6      503.69 ug/L         2.534      503.69 ppb          2.534   0.50%
   QC value within limits for Sr 421.552  Recovery = 100.74%
Ti 334.940†           307281.7      482.75 ug/L         1.752      482.75 ppb          1.752   0.36%
   QC value within limits for Ti 334.940  Recovery = 96.55%
Tl 190.801†             1512.3      486.83 ug/L         2.549      486.83 ppb          2.549   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.37%
U 409.014†             17497.1      481.50 ug/L         1.596      481.50 ppb          1.596   0.33%
   QC value within limits for U 409.014  Recovery = 96.30%
V 292.402†             69267.6      489.43 ug/L         1.892      489.43 ppb          1.892   0.39%
   QC value within limits for V 292.402  Recovery = 97.89%
Zn 213.857†            48162.2      480.31 ug/L         1.365      480.31 ppb          1.365   0.28%
   QC value within limits for Zn 213.857  Recovery = 96.06%
SiO2†                  75300.8      5219.9 ug/L        38.40      5219.9 ppb         38.40   0.74%
   QC value within limits for SiO2  Recovery = 97.61%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 16:10:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3909.4	3909.4	99.8	%			16:12:57
1	Y RADIAL	4434.3	4434.3	100.5	%			16:12:37
1	Al 396.153Radial†	-128.8	-16.7	-15.623	ug/L	-15.623	ppb	16:12:37
1	Ca 317.933Radial†	17.3	-2.3	-4.8296	ug/L	-4.8296	ppb	16:12:57
1	Fe 238.204 Radial†	8.7	-2.6	-37.022	ug/L	-37.022	ppb	16:12:57
1	K 766.490 Radial†	2699.8	66.7	12.793	ug/L	12.793	ppb	16:12:37
1	Mg 279.077 IEC†	5.3	1.2	59.058	ug/L	59.058	ppb	16:12:57
1	Na 589.592 Radial†	-721.7	96.3	29.691	ug/L	29.691	ppb	16:12:37
1	Sr 421.552†	49.5	13.9	0.0963	ug/L	0.0963	ppb	16:12:37
1	Sc 361.383	888069.3	888069.3	101.24	%			16:13:54
1	Y 371.029	752015.1	752015.1	99.493	%			16:13:54
1	Ag 328.068†	309.0	64.8	0.2892	ug/L	0.2892	ppb	16:13:54
1	As 188.979†	-18.0	0.4	0.1817	ug/L	0.1817	ppb	16:14:14
1	B 249.677†	-407.6	-4.5	-0.1026	ug/L	-0.1026	ppb	16:14:14
1	Ba 233.527†	25.7	26.8	0.2091	ug/L	0.2091	ppb	16:14:14
1	Be 313.107†	-3718.2	89.3	0.0334	ug/L	0.0334	ppb	16:13:54
1	Cd 226.502†	-192.5	6.2	0.0751	ug/L	0.0751	ppb	16:14:14
1	Co 228.616†	-55.1	12.1	0.2528	ug/L	0.2528	ppb	16:14:14
1	Cr 267.716†	65.5	-13.0	-0.1491	ug/L	-0.1491	ppb	16:14:14
1	Cu 324.752†	5932.4	-130.8	-0.3995	ug/L	-0.3995	ppb	16:13:54
1	Mn 257.610†	458.0	-6.3	-0.0133	ug/L	-0.0133	ppb	16:14:14
1	Mo 202.031†	5.3	-4.9	-0.3632	ug/L	-0.3632	ppb	16:14:14
1	Ni 231.604†	71.0	7.7	0.1951	ug/L	0.1951	ppb	16:14:14
1	P 214.914†	224.9	11.6	7.0984	ug/L	7.0984	ppb	16:14:14
1	Pb 220.353†	-53.1	5.7	0.7017	ug/L	0.7017	ppb	16:14:14
1	S 181.975 Axial†	34.8	-6.4	-9.2214	ug/L	-9.2214	ppb	16:14:14
1	Sb 206.836†	38.3	1.2	0.4075	ug/L	0.4075	ppb	16:14:14
1	Se 196.026†	-17.7	10.2	6.5978	ug/L	6.5978	ppb	16:14:14
1	Si 251.611†	554.1	-11.0	-0.3501	ug/L	-0.3501	ppb	16:14:14
1	Sn 189.927†	12.7	2.1	0.3714	ug/L	0.3714	ppb	16:14:14
1	Ti 334.940†	-1438.0	-46.4	-0.0779	ug/L	-0.0779	ppb	16:13:54
1	Tl 190.801†	-19.5	13.3	4.2655	ug/L	4.2655	ppb	16:14:14
1	U 409.014†	-2954.2	-31.6	-0.8671	ug/L	-0.8671	ppb	16:13:54
1	V 292.402†	-1540.4	-15.9	-0.1111	ug/L	-0.1111	ppb	16:13:54
1	Zn 213.857†	628.9	15.2	0.1576	ug/L	0.1576	ppb	16:14:14
1	SiO2†	542.1	-18.9	-1.3044	ug/L	-1.3044	ppb	16:15:10
2	Sc Radial	3921.9	3921.9	100	%			16:13:22
2	Y RADIAL	4392.9	4392.9	99.59	%			16:13:02
2	Al 396.153Radial†	-102.0	10.4	9.8029	ug/L	9.8029	ppb	16:13:02
2	Ca 317.933Radial†	20.5	0.8	1.6838	ug/L	1.6838	ppb	16:13:22
2	Fe 238.204 Radial†	13.3	2.0	27.919	ug/L	27.919	ppb	16:13:22
2	K 766.490 Radial†	2735.2	93.5	17.924	ug/L	17.924	ppb	16:13:02
2	Mg 279.077 IEC†	2.2	-1.8	-89.541	ug/L	-89.541	ppb	16:13:22
2	Na 589.592 Radial†	-750.1	70.3	21.673	ug/L	21.673	ppb	16:13:02
2	Sr 421.552†	71.6	35.8	0.2475	ug/L	0.2475	ppb	16:13:02
2	Sc 361.383	879313.6	879313.6	100.24	%			16:14:19
2	Y 371.029	744024.7	744024.7	98.436	%			16:14:19
2	Ag 328.068†	352.9	111.7	0.5289	ug/L	0.5289	ppb	16:14:19
2	As 188.979†	-11.5	6.8	3.0231	ug/L	3.0231	ppb	16:14:39
2	B 249.677†	-415.8	-16.6	-0.4061	ug/L	-0.4061	ppb	16:14:39
2	Ba 233.527†	-7.0	-5.6	-0.0421	ug/L	-0.0421	ppb	16:14:39
2	Be 313.107†	-3658.2	112.6	0.0420	ug/L	0.0420	ppb	16:14:19
2	Cd 226.502†	-184.2	12.5	0.1414	ug/L	0.1414	ppb	16:14:39
2	Co 228.616†	-69.1	-2.4	-0.0504	ug/L	-0.0504	ppb	16:14:39
2	Cr 267.716†	69.3	-8.6	-0.0922	ug/L	-0.0922	ppb	16:14:39
2	Cu 324.752†	5898.0	-106.7	-0.3227	ug/L	-0.3227	ppb	16:14:19
2	Mn 257.610†	466.7	6.9	0.0142	ug/L	0.0142	ppb	16:14:39
2	Mo 202.031†	9.3	-0.9	-0.0624	ug/L	-0.0624	ppb	16:14:39
2	Ni 231.604†	62.8	0.2	0.0060	ug/L	0.0060	ppb	16:14:39

2	P 214.914†	195.7	-15.2	-9.1169 ug/L	-9.1169 ppb	16:14:39
2	Pb 220.353†	-64.1	-5.9	-0.7229 ug/L	-0.7229 ppb	16:14:39
2	S 181.975 Axial†	41.0	0.1	0.1469 ug/L	0.1469 ppb	16:14:39
2	Sb 206.836†	50.0	13.2	4.6398 ug/L	4.6398 ppb	16:14:39
2	Se 196.026†	-19.5	8.3	5.4936 ug/L	5.4936 ppb	16:14:39
2	Si 251.611†	559.5	-0.1	-0.0025 ug/L	-0.0025 ppb	16:14:39
2	Sn 189.927†	18.7	8.2	1.4718 ug/L	1.4718 ppb	16:14:39
2	Ti 334.940†	-1469.0	-91.4	-0.1356 ug/L	-0.1356 ppb	16:14:19
2	Tl 190.801†	-27.0	5.6	1.7947 ug/L	1.7947 ppb	16:14:39
2	U 409.014†	-2938.0	-44.5	-1.2310 ug/L	-1.2310 ppb	16:14:19
2	V 292.402†	-1441.9	67.1	0.4594 ug/L	0.4594 ppb	16:14:19
2	Zn 213.857†	627.3	19.8	0.1953 ug/L	0.1953 ppb	16:14:39
2	SiO2†	535.3	-20.4	-1.4163 ug/L	-1.4163 ppb	16:15:15
3	Sc Radial	3903.4	3903.4	99.6 %		16:13:47
3	Y RADIAL	4392.0	4392.0	99.57 %		16:13:27
3	Al 396.153Radial†	-130.4	-18.5	-17.375 ug/L	-17.375 ppb	16:13:27
3	Ca 317.933Radial†	16.2	-3.4	-7.1550 ug/L	-7.1550 ppb	16:13:47
3	Fe 238.204 Radial†	11.4	0.2	2.3723 ug/L	2.3723 ppb	16:13:47
3	K 766.490 Radial†	2730.8	102.0	19.569 ug/L	19.569 ppb	16:13:27
3	Mg 279.077 IEC†	0.3	-3.8	-185.31 ug/L	-185.31 ppb	16:13:47
3	Na 589.592 Radial†	-759.8	57.0	17.572 ug/L	17.572 ppb	16:13:27
3	Sr 421.552†	79.2	43.8	0.3033 ug/L	0.3033 ppb	16:13:27
3	Sc 361.383	898768.4	898768.4	102.46 %		16:14:44
3	Y 371.029	761250.3	761250.3	100.72 %		16:14:44
3	Ag 328.068†	368.1	118.9	0.5555 ug/L	0.5555 ppb	16:14:44
3	As 188.979†	-29.5	-10.6	-4.7208 ug/L	-4.7208 ppb	16:15:04
3	B 249.677†	-431.5	-23.0	-0.5572 ug/L	-0.5572 ppb	16:15:04
3	Ba 233.527†	12.7	13.9	0.1116 ug/L	0.1116 ppb	16:15:04
3	Be 313.107†	-3665.7	184.3	0.0691 ug/L	0.0691 ppb	16:14:44
3	Cd 226.502†	-177.7	22.9	0.2651 ug/L	0.2651 ppb	16:15:04
3	Co 228.616†	-62.1	5.9	0.1236 ug/L	0.1236 ppb	16:15:04
3	Cr 267.716†	71.9	-7.5	-0.0826 ug/L	-0.0826 ppb	16:15:04
3	Cu 324.752†	6104.8	-32.3	-0.0989 ug/L	-0.0989 ppb	16:14:44
3	Mn 257.610†	454.2	-15.4	-0.0098 ug/L	-0.0098 ppb	16:15:04
3	Mo 202.031†	9.4	-1.0	-0.0711 ug/L	-0.0711 ppb	16:15:04
3	Ni 231.604†	80.5	16.1	0.4089 ug/L	0.4089 ppb	16:15:04
3	P 214.914†	201.5	-13.9	-8.3280 ug/L	-8.3280 ppb	16:15:04
3	Pb 220.353†	-58.8	0.7	0.0831 ug/L	0.0831 ppb	16:15:04
3	S 181.975 Axial†	41.7	-0.1	-0.0892 ug/L	-0.0892 ppb	16:15:04
3	Sb 206.836†	37.3	-0.3	-0.0662 ug/L	-0.0662 ppb	16:15:04
3	Se 196.026†	-26.9	1.5	0.9995 ug/L	0.9995 ppb	16:15:04
3	Si 251.611†	543.4	-28.0	-0.9037 ug/L	-0.9037 ppb	16:15:04
3	Sn 189.927†	18.8	7.9	1.4164 ug/L	1.4164 ppb	16:15:04
3	Ti 334.940†	-1457.8	-48.7	-0.0630 ug/L	-0.0630 ppb	16:14:44
3	Tl 190.801†	-28.5	4.8	1.5278 ug/L	1.5278 ppb	16:15:04
3	U 409.014†	-2907.2	49.1	1.3562 ug/L	1.3562 ppb	16:14:44
3	V 292.402†	-1356.3	181.9	1.2661 ug/L	1.2661 ppb	16:14:44
3	Zn 213.857†	632.2	11.0	0.1083 ug/L	0.1083 ppb	16:15:04
3	SiO2†	600.6	31.8	2.2124 ug/L	2.2124 ppb	16:15:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888717.1	101.31	%	1.111				1.10%
Sc Radial	3911.6	99.8	%	0.24				0.24%
Y 371.029	752430.0	99.548	%	1.1405				1.15%
Y RADIAL	4406.4	99.90	%	0.548				0.55%
Ag 328.068†	98.5	0.4579	ug/L	0.14672	0.4579	ppb	0.14672	32.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.3	-7.7317	ug/L	15.21069	-7.7317	ppb	15.21069	196.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.5053	ug/L	3.91738	-0.5053	ppb	3.91738	775.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-14.7	-0.3553	ug/L	0.23149	-0.3553	ppb	0.23149	65.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.7	0.0929	ug/L	0.12665	0.0929	ppb	0.12665	136.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	128.7	0.0482	ug/L	0.01862	0.0482	ppb	0.01862	38.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.6	-3.4336	ug/L	4.58179	-3.4336	ppb	4.58179	133.44%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.8      0.1605 ug/L       0.09644      0.1605 ppb        0.09644  60.07%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 5.2      0.1087 ug/L       0.15217      0.1087 ppb        0.15217 140.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -9.7     -0.1079 ug/L       0.03595     -0.1079 ppb        0.03595  33.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -89.9     -0.2737 ug/L       0.15619     -0.2737 ppb        0.15619  57.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.2     -2.2437 ug/L      32.71547     -2.2437 ppb       32.71547 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          87.4      16.762 ug/L        3.5344      16.762 ppb         3.5344  21.09%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.5     -71.931 ug/L      123.1320     -71.931 ppb      123.1320 171.18%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -5.0     -0.0029 ug/L       0.01498     -0.0029 ppb        0.01498 508.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.3     -0.1656 ug/L       0.17119     -0.1656 ppb        0.17119 103.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         74.5      22.979 ug/L        6.1638      22.979 ppb         6.1638  26.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.0      0.2033 ug/L       0.20159      0.2033 ppb        0.20159  99.14%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.8     -3.4489 ug/L       9.14267     -3.4489 ppb        9.14267 265.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.2      0.0206 ug/L       0.71433      0.0206 ppb        0.71433 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -3.0546 ug/L       5.34192     -3.0546 ppb        5.34192 174.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.7      1.6604 ug/L       2.59115      1.6604 ppb        2.59115 156.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.7      4.3636 ug/L       2.96529      4.3636 ppb        2.96529  67.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -13.0     -0.4188 ug/L       0.45452     -0.4188 ppb        0.45452 108.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.1      1.0865 ug/L       0.61997      1.0865 ppb        0.61997  57.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.2      0.2157 ug/L       0.10710      0.2157 ppb        0.10710  49.65%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -62.2     -0.0922 ug/L       0.03832     -0.0922 ppb        0.03832  41.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.9      2.5293 ug/L       1.50950      2.5293 ppb        1.50950  59.68%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -9.0     -0.2473 ug/L       1.40053     -0.2473 ppb        1.40053 566.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 77.7      0.5381 ug/L       0.69197      0.5381 ppb        0.69197 128.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                15.3      0.1537 ug/L       0.04364      0.1537 ppb        0.04364  28.39%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -2.5     -0.1694 ug/L       2.06350     -0.1694 ppb        2.06350 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/24/2010 16:32:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3853.4	3853.4	98.3	%			16:34:22
1	Y RADIAL	4424.2	4424.2	100.3	%			16:34:02
1	Al 396.153Radial†	5304.3	5506.8	5141.0	ug/L	5141.0	ppb	16:34:02
1	Ca 317.933Radial†	2466.3	2488.5	5202.2	ug/L	5202.2	ppb	16:34:22
1	Fe 238.204 Radial†	365.6	360.4	5102.3	ug/L	5102.3	ppb	16:34:22
1	K 766.490 Radial†	29180.7	27036.7	5181.7	ug/L	5181.7	ppb	16:34:02
1	Mg 279.077 IEC†	111.6	109.4	5303.4	ug/L	5303.4	ppb	16:34:22
1	Na 589.592 Radial†	33016.6	34397.1	10606	ug/L	10606	ppb	16:34:02
1	Sr 421.552†	72921.7	74124.3	512.87	ug/L	512.87	ppb	16:34:02
1	Sc 361.383	901308.0	901308.0	102.74	%			16:35:19
1	Y 371.029	750322.1	750322.1	99.269	%			16:35:19
1	Ag 328.068†	107679.0	104562.1	487.49	ug/L	487.49	ppb	16:35:24
1	As 188.979†	1114.6	1103.1	496.79	ug/L	496.79	ppb	16:35:44
1	B 249.677†	19767.7	19637.8	473.90	ug/L	473.90	ppb	16:35:24
1	Ba 233.527†	63808.6	62105.5	488.58	ug/L	488.58	ppb	16:35:24
1	Be 313.107†	1335058.8	1303157.3	490.82	ug/L	490.82	ppb	16:35:19
1	Cd 226.502†	43267.4	42307.9	489.80	ug/L	489.80	ppb	16:35:24
1	Co 228.616†	23882.2	23310.8	488.40	ug/L	488.40	ppb	16:35:24
1	Cr 267.716†	44640.8	43370.6	487.85	ug/L	487.85	ppb	16:35:24
1	Cu 324.752†	168309.1	157822.3	480.27	ug/L	480.27	ppb	16:35:24
1	Mn 257.610†	444999.6	432653.5	492.62	ug/L	492.62	ppb	16:35:19
1	Mo 202.031†	6849.3	6656.2	489.13	ug/L	489.13	ppb	16:35:44
1	Ni 231.604†	19833.2	19241.0	489.06	ug/L	489.06	ppb	16:35:24
1	P 214.914†	4400.2	4072.1	2357.8	ug/L	2357.8	ppb	16:35:44
1	Pb 220.353†	4052.5	4002.4	493.78	ug/L	493.78	ppb	16:35:44
1	S 181.975 Axial†	754.6	693.6	997.20	ug/L	997.20	ppb	16:35:44
1	Sb 206.836†	1452.5	1377.0	498.90	ug/L	498.90	ppb	16:35:44
1	Se 196.026†	754.3	761.9	516.46	ug/L	516.46	ppb	16:35:44
1	Si 251.611†	77439.0	74812.0	2414.8	ug/L	2414.8	ppb	16:35:24
1	Sn 189.927†	2800.2	2715.0	487.77	ug/L	487.77	ppb	16:35:44
1	Ti 334.940†	314411.8	307386.9	482.90	ug/L	482.90	ppb	16:35:24
1	Tl 190.801†	1548.9	1540.1	495.73	ug/L	495.73	ppb	16:35:44
1	U 409.014†	14982.1	17468.5	480.70	ug/L	480.70	ppb	16:35:24
1	V 292.402†	69674.2	69318.7	489.85	ug/L	489.85	ppb	16:35:24
1	Zn 213.857†	50309.0	48359.0	482.27	ug/L	482.27	ppb	16:35:24
1	SiO2†	77254.5	74636.4	5173.6	ug/L	5173.6	ppb	16:36:52
2	Sc Radial	3866.7	3866.7	98.7	%			16:34:47
2	Y RADIAL	4351.8	4351.8	98.66	%			16:34:27
2	Al 396.153Radial†	5255.4	5438.7	5077.2	ug/L	5077.2	ppb	16:34:27
2	Ca 317.933Radial†	2498.1	2512.1	5251.6	ug/L	5251.6	ppb	16:34:47
2	Fe 238.204 Radial†	367.8	361.4	5116.1	ug/L	5116.1	ppb	16:34:47
2	K 766.490 Radial†	28697.8	26445.0	5068.2	ug/L	5068.2	ppb	16:34:27
2	Mg 279.077 IEC†	106.7	104.1	5047.5	ug/L	5047.5	ppb	16:34:47
2	Na 589.592 Radial†	32554.4	33812.9	10425	ug/L	10425	ppb	16:34:27
2	Sr 421.552†	71796.4	72728.4	503.21	ug/L	503.21	ppb	16:34:27
2	Sc 361.383	900354.2	900354.2	102.64	%			16:35:50
2	Y 371.029	750012.2	750012.2	99.228	%			16:35:50
2	Ag 328.068†	108731.7	105698.8	492.78	ug/L	492.78	ppb	16:35:55
2	As 188.979†	1098.6	1088.7	490.40	ug/L	490.40	ppb	16:36:15
2	B 249.677†	20067.6	19950.4	481.46	ug/L	481.46	ppb	16:35:55
2	Ba 233.527†	64499.6	62844.5	494.40	ug/L	494.40	ppb	16:35:55
2	Be 313.107†	1336059.5	1305508.8	491.72	ug/L	491.72	ppb	16:35:50
2	Cd 226.502†	43705.3	42779.1	495.26	ug/L	495.26	ppb	16:35:55
2	Co 228.616†	24163.0	23609.0	494.63	ug/L	494.63	ppb	16:35:55
2	Cr 267.716†	45019.4	43785.6	492.51	ug/L	492.51	ppb	16:35:55
2	Cu 324.752†	170258.0	159894.7	486.57	ug/L	486.57	ppb	16:35:55
2	Mn 257.610†	444794.7	432912.7	492.93	ug/L	492.93	ppb	16:35:50
2	Mo 202.031†	6798.7	6614.0	486.04	ug/L	486.04	ppb	16:36:15
2	Ni 231.604†	20052.8	19475.4	495.02	ug/L	495.02	ppb	16:35:55

2	P 214.914†	4378.9	4056.0	2346.8 ug/L	2346.8 ppb	16:36:15
2	Pb 220.353†	4027.4	3982.1	491.26 ug/L	491.26 ppb	16:36:15
2	S 181.975 Axial†	741.9	682.1	980.55 ug/L	980.55 ppb	16:36:15
2	Sb 206.836†	1461.6	1387.4	502.49 ug/L	502.49 ppb	16:36:15
2	Se 196.026†	743.1	751.7	509.85 ug/L	509.85 ppb	16:36:15
2	Si 251.611†	78425.0	75852.6	2448.5 ug/L	2448.5 ppb	16:35:55
2	Sn 189.927†	2808.4	2725.8	489.72 ug/L	489.72 ppb	16:36:15
2	Ti 334.940†	317758.5	310971.9	488.56 ug/L	488.56 ppb	16:35:55
2	Tl 190.801†	1535.5	1528.6	492.06 ug/L	492.06 ppb	16:36:15
2	U 409.014†	15128.6	17626.6	485.06 ug/L	485.06 ppb	16:35:55
2	V 292.402†	70473.6	70169.4	495.73 ug/L	495.73 ppb	16:35:55
2	Zn 213.857†	50906.2	48992.8	488.61 ug/L	488.61 ppb	16:35:55
2	SiO2†	77229.7	74691.8	5177.5 ug/L	5177.5 ppb	16:36:57
3	Sc Radial	3865.6	3865.6	98.6 %		16:35:12
3	Y RADIAL	4300.0	4300.0	97.49 %		16:34:52
3	Al 396.153Radial†	5207.1	5391.1	5032.5 ug/L	5032.5 ppb	16:34:52
3	Ca 317.933Radial†	2482.6	2497.1	5220.2 ug/L	5220.2 ppb	16:35:12
3	Fe 238.204 Radial†	362.1	355.7	5036.1 ug/L	5036.1 ppb	16:35:12
3	K 766.490 Radial†	28576.3	26329.8	5046.1 ug/L	5046.1 ppb	16:34:52
3	Mg 279.077 IEC†	108.7	106.1	5145.5 ug/L	5145.5 ppb	16:35:12
3	Na 589.592 Radial†	32323.8	33588.2	10356 ug/L	10356 ppb	16:34:52
3	Sr 421.552†	71283.5	72228.4	499.75 ug/L	499.75 ppb	16:34:52
3	Sc 361.383	902180.9	902180.9	102.84 %		16:36:21
3	Y 371.029	749784.8	749784.8	99.198 %		16:36:21
3	Ag 328.068†	109651.1	106378.3	495.91 ug/L	495.91 ppb	16:36:26
3	As 188.979†	1112.2	1099.7	495.31 ug/L	495.31 ppb	16:36:46
3	B 249.677†	20203.0	20042.6	483.69 ug/L	483.69 ppb	16:36:26
3	Ba 233.527†	64876.6	63083.8	496.27 ug/L	496.27 ppb	16:36:26
3	Be 313.107†	1335885.2	1302703.6	490.67 ug/L	490.67 ppb	16:36:21
3	Cd 226.502†	44068.7	43046.3	498.36 ug/L	498.36 ppb	16:36:26
3	Co 228.616†	24377.4	23769.7	497.99 ug/L	497.99 ppb	16:36:26
3	Cr 267.716†	45340.8	44009.2	495.02 ug/L	495.02 ppb	16:36:26
3	Cu 324.752†	171734.6	160994.5	489.91 ug/L	489.91 ppb	16:36:26
3	Mn 257.610†	446112.7	433316.8	493.37 ug/L	493.37 ppb	16:36:21
3	Mo 202.031†	6840.8	6641.4	488.04 ug/L	488.04 ppb	16:36:46
3	Ni 231.604†	20175.0	19554.6	497.03 ug/L	497.03 ppb	16:36:26
3	P 214.914†	4406.9	4074.5	2357.3 ug/L	2357.3 ppb	16:36:46
3	Pb 220.353†	4060.2	4006.1	494.21 ug/L	494.21 ppb	16:36:46
3	S 181.975 Axial†	745.9	684.4	983.98 ug/L	983.98 ppb	16:36:46
3	Sb 206.836†	1467.9	1390.6	503.62 ug/L	503.62 ppb	16:36:46
3	Se 196.026†	744.1	751.3	509.31 ug/L	509.31 ppb	16:36:46
3	Si 251.611†	79050.2	76305.8	2463.2 ug/L	2463.2 ppb	16:36:26
3	Sn 189.927†	2807.8	2719.7	488.62 ug/L	488.62 ppb	16:36:46
3	Ti 334.940†	320019.6	312543.6	491.02 ug/L	491.02 ppb	16:36:26
3	Tl 190.801†	1542.0	1531.9	493.12 ug/L	493.12 ppb	16:36:46
3	U 409.014†	15277.4	17741.5	488.24 ug/L	488.24 ppb	16:36:26
3	V 292.402†	70853.3	70399.5	497.38 ug/L	497.38 ppb	16:36:26
3	Zn 213.857†	51225.1	49202.4	490.71 ug/L	490.71 ppb	16:36:26
3	SiO2†	77939.4	75229.6	5214.8 ug/L	5214.8 ppb	16:37:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901281.0	102.74	%	0.104				0.10%
Sc Radial	3861.9	98.5	%	0.19				0.19%
Y 371.029	750039.7	99.232	%	0.0357				0.04%
Y RADIAL	4358.6	98.82	%	1.414				1.43%
Ag 328.068†	105546.4	492.06	ug/L	4.255	492.06	ppb	4.255	0.86%
QC value within limits for Ag 328.068 Recovery = 98.41%								
Al 396.153Radial†	5445.5	5083.6	ug/L	54.50	5083.6	ppb	54.50	1.07%
QC value within limits for Al 396.153Radial Recovery = 101.67%								
As 188.979†	1097.1	494.17	ug/L	3.344	494.17	ppb	3.344	0.68%
QC value within limits for As 188.979 Recovery = 98.83%								
B 249.677†	19876.9	479.68	ug/L	5.133	479.68	ppb	5.133	1.07%
QC value within limits for B 249.677 Recovery = 95.94%								
Ba 233.527†	62678.0	493.08	ug/L	4.010	493.08	ppb	4.010	0.81%
QC value within limits for Ba 233.527 Recovery = 98.62%								
Be 313.107†	1303789.9	491.07	ug/L	0.567	491.07	ppb	0.567	0.12%
QC value within limits for Be 313.107 Recovery = 98.21%								
Ca 317.933Radial†	2499.2	5224.7	ug/L	25.01	5224.7	ppb	25.01	0.48%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.49%
Cd 226.502†          42711.1      494.48 ug/L        4.336      494.48 ppb        4.336   0.88%
   QC value within limits for Cd 226.502  Recovery = 98.90%
Co 228.616†          23563.2      493.67 ug/L        4.869      493.67 ppb        4.869   0.99%
   QC value within limits for Co 228.616  Recovery = 98.73%
Cr 267.716†          43721.8      491.79 ug/L        3.639      491.79 ppb        3.639   0.74%
   QC value within limits for Cr 267.716  Recovery = 98.36%
Cu 324.752†         159570.5      485.59 ug/L        4.898      485.59 ppb        4.898   1.01%
   QC value within limits for Cu 324.752  Recovery = 97.12%
Fe 238.204 Radial†     359.2      5084.9 ug/L       42.74      5084.9 ppb       42.74   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.70%
K 766.490 Radial†    26603.8      5098.7 ug/L       72.73      5098.7 ppb       72.73   1.43%
   QC value within limits for K 766.490 Radial  Recovery = 101.97%
Mg 279.077 IEC†        106.5      5165.5 ug/L      129.08      5165.5 ppb      129.08   2.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.31%
Mn 257.610†         432961.0      492.97 ug/L        0.380      492.97 ppb        0.380   0.08%
   QC value within limits for Mn 257.610  Recovery = 98.59%
Mo 202.031†          6637.2      487.74 ug/L        1.571      487.74 ppb        1.571   0.32%
   QC value within limits for Mo 202.031  Recovery = 97.55%
Na 589.592 Radial†   33932.7       10462 ug/L      128.7        10462 ppb      128.7   1.23%
   QC value within limits for Na 589.592 Radial  Recovery = 104.62%
Ni 231.604†          19423.6      493.70 ug/L        4.144      493.70 ppb        4.144   0.84%
   QC value within limits for Ni 231.604  Recovery = 98.74%
P 214.914†            4067.5      2354.0 ug/L        6.22      2354.0 ppb         6.22   0.26%
   QC value within limits for P 214.914  Recovery = 94.16%
Pb 220.353†           3996.8      493.08 ug/L        1.596      493.08 ppb        1.596   0.32%
   QC value within limits for Pb 220.353  Recovery = 98.62%
S 181.975 Axial†       686.7      987.24 ug/L        8.790      987.24 ppb        8.790   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 98.72%
Sb 206.836†           1385.0      501.67 ug/L        2.468      501.67 ppb        2.468   0.49%
   QC value within limits for Sb 206.836  Recovery = 100.33%
Se 196.026†            755.0      511.87 ug/L        3.980      511.87 ppb        3.980   0.78%
   QC value within limits for Se 196.026  Recovery = 102.37%
Si 251.611†          75656.8      2442.2 ug/L       24.79      2442.2 ppb       24.79   1.02%
   QC value within limits for Si 251.611  Recovery = 97.69%
Sn 189.927†           2720.1      488.70 ug/L        0.978      488.70 ppb        0.978   0.20%
   QC value within limits for Sn 189.927  Recovery = 97.74%
Sr 421.552†          73027.0      505.28 ug/L        6.799      505.28 ppb        6.799   1.35%
   QC value within limits for Sr 421.552  Recovery = 101.06%
Ti 334.940†         310300.8      487.49 ug/L        4.160      487.49 ppb        4.160   0.85%
   QC value within limits for Ti 334.940  Recovery = 97.50%
Tl 190.801†           1533.6      493.64 ug/L        1.890      493.64 ppb        1.890   0.38%
   QC value within limits for Tl 190.801  Recovery = 98.73%
U 409.014†           17612.2      484.67 ug/L        3.781      484.67 ppb        3.781   0.78%
   QC value within limits for U 409.014  Recovery = 96.93%
V 292.402†           69962.5      494.32 ug/L        3.959      494.32 ppb        3.959   0.80%
   QC value within limits for V 292.402  Recovery = 98.86%
Zn 213.857†          48851.4      487.20 ug/L        4.391      487.20 ppb        4.391   0.90%
   QC value within limits for Zn 213.857  Recovery = 97.44%
SiO2†                74852.6      5188.6 ug/L       22.77      5188.6 ppb       22.77   0.44%
   QC value within limits for SiO2  Recovery = 97.03%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/24/2010 16:39:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3847.2	3847.2	98.2	%			16:41:25
1	Y RADIAL	4338.5	4338.5	98.36	%			16:41:05
1	Al 396.153Radial†	-107.9	2.5	2.3419	ug/L	2.3419	ppb	16:41:05
1	Ca 317.933Radial†	26.6	7.4	15.478	ug/L	15.478	ppb	16:41:25
1	Fe 238.204 Radial†	11.4	0.3	3.5917	ug/L	3.5917	ppb	16:41:25
1	K 766.490 Radial†	2656.1	65.9	12.634	ug/L	12.634	ppb	16:41:05
1	Mg 279.077 IEC†	5.4	1.4	68.977	ug/L	68.977	ppb	16:41:25
1	Na 589.592 Radial†	-767.7	37.7	11.635	ug/L	11.635	ppb	16:41:05
1	Sr 421.552†	87.5	53.4	0.3694	ug/L	0.3694	ppb	16:41:05
1	Sc 361.383	882214.3	882214.3	100.57	%			16:42:22
1	Y 371.029	746032.5	746032.5	98.702	%			16:42:22
1	Ag 328.068†	229.8	-11.9	-0.0508	ug/L	-0.0508	ppb	16:42:22
1	As 188.979†	-27.7	-9.3	-4.1508	ug/L	-4.1508	ppb	16:42:42
1	B 249.677†	-422.9	-22.3	-0.5418	ug/L	-0.5418	ppb	16:42:42
1	Ba 233.527†	0.8	2.2	0.0188	ug/L	0.0188	ppb	16:42:42
1	Be 313.107†	-3723.1	60.1	0.0224	ug/L	0.0224	ppb	16:42:22
1	Cd 226.502†	-192.4	5.0	0.0570	ug/L	0.0570	ppb	16:42:42
1	Co 228.616†	-69.1	-2.2	-0.0466	ug/L	-0.0466	ppb	16:42:42
1	Cr 267.716†	65.5	-12.5	-0.1389	ug/L	-0.1389	ppb	16:42:42
1	Cu 324.752†	5968.2	-56.3	-0.1701	ug/L	-0.1701	ppb	16:42:22
1	Mn 257.610†	447.4	-13.8	-0.0182	ug/L	-0.0182	ppb	16:42:42
1	Mo 202.031†	7.2	-3.0	-0.2222	ug/L	-0.2222	ppb	16:42:42
1	Ni 231.604†	54.7	-8.1	-0.2059	ug/L	-0.2059	ppb	16:42:42
1	P 214.914†	202.5	-9.1	-5.4517	ug/L	-5.4517	ppb	16:42:42
1	Pb 220.353†	-42.1	16.3	1.9991	ug/L	1.9991	ppb	16:42:42
1	S 181.975 Axial†	47.9	6.8	9.7815	ug/L	9.7815	ppb	16:42:42
1	Sb 206.836†	47.0	10.0	3.5256	ug/L	3.5256	ppb	16:42:42
1	Se 196.026†	-22.4	5.5	3.6271	ug/L	3.6271	ppb	16:42:42
1	Si 251.611†	546.0	-15.4	-0.4943	ug/L	-0.4943	ppb	16:42:42
1	Sn 189.927†	18.0	7.5	1.3400	ug/L	1.3400	ppb	16:42:42
1	Ti 334.940†	-1428.9	-46.8	-0.0762	ug/L	-0.0762	ppb	16:42:22
1	Tl 190.801†	-39.1	-6.3	-2.0129	ug/L	-2.0129	ppb	16:42:42
1	U 409.014†	-2972.9	-69.5	-1.9188	ug/L	-1.9188	ppb	16:42:22
1	V 292.402†	-1444.1	69.7	0.4801	ug/L	0.4801	ppb	16:42:22
1	Zn 213.857†	630.8	21.2	0.2144	ug/L	0.2144	ppb	16:42:42
1	SiO2†	563.6	6.0	0.4238	ug/L	0.4238	ppb	16:43:38
2	Sc Radial	3840.5	3840.5	98.0	%			16:41:50
2	Y RADIAL	4332.1	4332.1	98.21	%			16:41:30
2	Al 396.153Radial†	-118.7	-8.7	-8.1576	ug/L	-8.1576	ppb	16:41:30
2	Ca 317.933Radial†	24.4	5.2	10.948	ug/L	10.948	ppb	16:41:50
2	Fe 238.204 Radial†	12.2	1.1	15.961	ug/L	15.961	ppb	16:41:50
2	K 766.490 Radial†	2839.3	257.6	49.429	ug/L	49.429	ppb	16:41:30
2	Mg 279.077 IEC†	3.3	-0.7	-32.415	ug/L	-32.415	ppb	16:41:50
2	Na 589.592 Radial†	-829.3	-26.4	-8.1372	ug/L	-8.1372	ppb	16:41:30
2	Sr 421.552†	49.5	14.8	0.1022	ug/L	0.1022	ppb	16:41:30
2	Sc 361.383	907960.1	907960.1	103.50	%			16:42:47
2	Y 371.029	768066.0	768066.0	101.62	%			16:42:47
2	Ag 328.068†	339.1	87.2	0.4113	ug/L	0.4113	ppb	16:42:47
2	As 188.979†	-21.2	-2.3	-1.0083	ug/L	-1.0083	ppb	16:43:07
2	B 249.677†	-347.9	62.1	1.5044	ug/L	1.5044	ppb	16:43:07
2	Ba 233.527†	95.8	94.0	0.7400	ug/L	0.7400	ppb	16:43:07
2	Be 313.107†	-3863.4	29.5	0.0113	ug/L	0.0113	ppb	16:42:47
2	Cd 226.502†	-187.6	15.0	0.1725	ug/L	0.1725	ppb	16:43:07
2	Co 228.616†	-76.2	-7.1	-0.1471	ug/L	-0.1471	ppb	16:43:07
2	Cr 267.716†	72.6	-7.5	-0.0820	ug/L	-0.0820	ppb	16:43:07
2	Cu 324.752†	6100.4	-96.8	-0.2946	ug/L	-0.2946	ppb	16:42:47
2	Mn 257.610†	529.5	52.8	0.0630	ug/L	0.0630	ppb	16:43:07
2	Mo 202.031†	14.7	4.1	0.3023	ug/L	0.3023	ppb	16:43:07
2	Ni 231.604†	68.9	4.2	0.1061	ug/L	0.1061	ppb	16:43:07

2	P 214.914†	208.5	-9.1	-5.4381 ug/L	-5.4381 ppb	16:43:07
2	Pb 220.353†	-47.7	12.0	1.4725 ug/L	1.4725 ppb	16:43:07
2	S 181.975 Axial†	40.9	-1.2	-1.7952 ug/L	-1.7952 ppb	16:43:07
2	Sb 206.836†	40.4	2.4	0.8321 ug/L	0.8321 ppb	16:43:07
2	Se 196.026†	-27.2	1.5	1.0025 ug/L	1.0025 ppb	16:43:07
2	Si 251.611†	607.3	28.4	0.9148 ug/L	0.9148 ppb	16:43:07
2	Sn 189.927†	11.4	0.5	0.0913 ug/L	0.0913 ppb	16:43:07
2	Ti 334.940†	-1367.6	52.8	0.0863 ug/L	0.0863 ppb	16:42:47
2	Tl 190.801†	-28.4	5.1	1.6415 ug/L	1.6415 ppb	16:43:07
2	U 409.014†	-2926.4	59.2	1.6333 ug/L	1.6333 ppb	16:42:47
2	V 292.402†	-1421.1	132.7	0.9293 ug/L	0.9293 ppb	16:42:47
2	Zn 213.857†	654.5	26.3	0.2623 ug/L	0.2623 ppb	16:43:07
2	SiO2†	548.9	-24.1	-1.6825 ug/L	-1.6825 ppb	16:43:43
3	Sc Radial	3854.5	3854.5	98.4 %		16:42:15
3	Y RADIAL	4387.9	4387.9	99.48 %		16:41:55
3	Al 396.153Radial†	-123.6	-13.3	-12.481 ug/L	-12.481 ppb	16:41:55
3	Ca 317.933Radial†	23.6	4.3	8.9288 ug/L	8.9288 ppb	16:42:15
3	Fe 238.204 Radial†	10.7	-0.4	-5.9007 ug/L	-5.9007 ppb	16:42:15
3	K 766.490 Radial†	2772.7	179.3	34.404 ug/L	34.404 ppb	16:41:55
3	Mg 279.077 IEC†	2.2	-1.9	-90.064 ug/L	-90.064 ppb	16:42:15
3	Na 589.592 Radial†	-748.1	59.2	18.254 ug/L	18.254 ppb	16:41:55
3	Sr 421.552†	50.4	15.5	0.1073 ug/L	0.1073 ppb	16:41:55
3	Sc 361.383	890931.8	890931.8	101.56 %		16:43:12
3	Y 371.029	754044.7	754044.7	99.762 %		16:43:12
3	Ag 328.068†	298.4	53.4	0.2538 ug/L	0.2538 ppb	16:43:12
3	As 188.979†	-29.4	-10.7	-4.7749 ug/L	-4.7749 ppb	16:43:32
3	B 249.677†	-376.7	27.3	0.6627 ug/L	0.6627 ppb	16:43:32
3	Ba 233.527†	22.4	23.4	0.1852 ug/L	0.1852 ppb	16:43:32
3	Be 313.107†	-3661.4	157.1	0.0591 ug/L	0.0591 ppb	16:43:12
3	Cd 226.502†	-173.9	25.0	0.2890 ug/L	0.2890 ppb	16:43:32
3	Co 228.616†	-71.4	-3.8	-0.0789 ug/L	-0.0789 ppb	16:43:32
3	Cr 267.716†	81.4	2.5	0.0308 ug/L	0.0308 ppb	16:43:32
3	Cu 324.752†	6028.7	-54.8	-0.1632 ug/L	-0.1632 ppb	16:43:12
3	Mn 257.610†	472.9	6.9	0.0109 ug/L	0.0109 ppb	16:43:32
3	Mo 202.031†	16.8	6.4	0.4686 ug/L	0.4686 ppb	16:43:32
3	Ni 231.604†	75.8	12.2	0.3108 ug/L	0.3108 ppb	16:43:32
3	P 214.914†	210.3	-3.4	-2.0373 ug/L	-2.0373 ppb	16:43:32
3	Pb 220.353†	-61.0	-1.9	-0.2377 ug/L	-0.2377 ppb	16:43:32
3	S 181.975 Axial†	43.8	2.4	3.4054 ug/L	3.4054 ppb	16:43:32
3	Sb 206.836†	40.8	3.4	1.2035 ug/L	1.2035 ppb	16:43:32
3	Se 196.026†	-25.5	2.6	1.6989 ug/L	1.6989 ppb	16:43:32
3	Si 251.611†	556.5	-10.3	-0.3401 ug/L	-0.3401 ppb	16:43:32
3	Sn 189.927†	8.4	-2.2	-0.3951 ug/L	-0.3951 ppb	16:43:32
3	Ti 334.940†	-1373.1	22.1	0.0463 ug/L	0.0463 ppb	16:43:12
3	Tl 190.801†	-32.9	0.2	0.0615 ug/L	0.0615 ppb	16:43:32
3	U 409.014†	-3188.9	-253.3	-6.9938 ug/L	-6.9938 ppb	16:43:12
3	V 292.402†	-1436.0	91.8	0.6321 ug/L	0.6321 ppb	16:43:12
3	Zn 213.857†	636.3	20.5	0.2053 ug/L	0.2053 ppb	16:43:32
3	SiO2†	579.6	16.3	1.1216 ug/L	1.1216 ppb	16:43:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893702.1	101.88	%	1.493				1.47%
Sc Radial	3847.4	98.2	%	0.18				0.18%
Y 371.029	756047.7	100.03	%	1.475				1.48%
Y RADIAL	4352.8	98.68	%	0.692				0.70%
Ag 328.068†	42.9	0.2048	ug/L	0.23492	0.2048	ppb	0.23492	114.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.5	-6.0990	ug/L	7.62303	-6.0990	ppb	7.62303	124.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.4	-3.3113	ug/L	2.01876	-3.3113	ppb	2.01876	60.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	22.4	0.5417	ug/L	1.02842	0.5417	ppb	1.02842	189.84%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	39.9	0.3147	ug/L	0.37765	0.3147	ppb	0.37765	120.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	82.2	0.0309	ug/L	0.02502	0.0309	ppb	0.02502	80.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.6	11.785	ug/L	3.3536	11.785	ppb	3.3536	28.46%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                15.0      0.1729 ug/L       0.11604      0.1729 ppb        0.11604  67.13%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.4     -0.0909 ug/L       0.05127     -0.0909 ppb        0.05127  56.43%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -5.9     -0.0634 ug/L       0.08641     -0.0634 ppb        0.08641 136.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.3     -0.2093 ug/L       0.07399     -0.2093 ppb        0.07399  35.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.3      4.5508 ug/L      10.96251      4.5508 ppb       10.96251 240.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         167.6      32.156 ug/L       18.5000      32.156 ppb        18.5000  57.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -17.834 ug/L       80.5169     -17.834 ppb        80.5169 451.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.3      0.0186 ug/L       0.04115      0.0186 ppb        0.04115 221.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.5      0.1829 ug/L       0.36053      0.1829 ppb        0.36053 197.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         23.5      7.2507 ug/L      13.73103      7.2507 ppb       13.73103 189.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.8      0.0703 ug/L       0.26023      0.0703 ppb        0.26023 370.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.2     -4.3090 ug/L       1.96737     -4.3090 ppb        1.96737  45.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.8      1.0780 ug/L       1.16941      1.0780 ppb        1.16941 108.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      3.7972 ug/L       5.79828      3.7972 ppb        5.79828 152.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.3      1.8537 ug/L       1.45977      1.8537 ppb        1.45977  78.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.2      2.1095 ug/L       1.35961      2.1095 ppb        1.35961  64.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 0.9      0.0268 ug/L       0.77289      0.0268 ppb        0.77289 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.3454 ug/L       0.89502      0.3454 ppb        0.89502 259.14%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                27.9      0.1930 ug/L       0.15281      0.1930 ppb        0.15281  79.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 9.4      0.0188 ug/L       0.08466      0.0188 ppb        0.08466 449.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.1033 ug/L       1.83278     -0.1033 ppb        1.83278 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -87.9     -2.4264 ug/L       4.33588     -2.4264 ppb        4.33588 178.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 98.0      0.6805 ug/L       0.22849      0.6805 ppb        0.22849  33.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                22.7      0.2273 ug/L       0.03064      0.2273 ppb        0.03064  13.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -0.6     -0.0457 ug/L       1.45981     -0.0457 ppb        1.45981 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/24/2010 16:52:57 **Plasma On Time: 00:00:00**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\022410.sif
Batch ID:
Results Data Set: 022410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 2/24/2010 16:52:58**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3874.5	3874.5	98.9	%			16:54:51
1	Y RADIAL	4228.4	4228.4	95.86	%			16:54:51
1	Al 396.153Radial†	5087.0	5257.7	4907.9	ug/L	4907.9	ppb	16:54:51
1	Ca 317.933Radial†	2422.1	2430.1	5080.2	ug/L	5080.2	ppb	16:55:11
1	Fe 238.204 Radial†	358.6	351.4	4974.4	ug/L	4974.4	ppb	16:55:11
1	K 766.490 Radial†	28051.4	25733.0	4931.9	ug/L	4931.9	ppb	16:54:51
1	Mg 279.077 IEC†	104.0	101.1	4902.6	ug/L	4902.6	ppb	16:55:11
1	Na 589.592 Radial†	30584.6	31754.6	9790.8	ug/L	9790.8	ppb	16:54:51
1	Sr 421.552†	68864.7	69617.5	481.68	ug/L	481.68	ppb	16:54:51
1	Sc 361.383	900794.5	900794.5	102.69	%			16:56:08
1	Y 371.029	747978.0	747978.0	98.959	%			16:56:08
1	Ag 328.068†	105774.9	102767.5	479.11	ug/L	479.11	ppb	16:56:14
1	As 188.979†	1082.4	1072.3	483.11	ug/L	483.11	ppb	16:56:34
1	B 249.677†	19361.3	19253.1	464.61	ug/L	464.61	ppb	16:56:14
1	Ba 233.527†	62708.4	61069.4	480.43	ug/L	480.43	ppb	16:56:14
1	Be 313.107†	1318956.9	1288217.3	485.22	ug/L	485.22	ppb	16:56:08
1	Cd 226.502†	42591.0	41673.2	482.46	ug/L	482.46	ppb	16:56:14
1	Co 228.616†	23606.0	23055.1	483.00	ug/L	483.00	ppb	16:56:14
1	Cr 267.716†	43734.7	42512.9	478.20	ug/L	478.20	ppb	16:56:14
1	Cu 324.752†	165690.3	155365.4	472.79	ug/L	472.79	ppb	16:56:14
1	Mn 257.610†	440704.6	428717.7	488.15	ug/L	488.15	ppb	16:56:08
1	Mo 202.031†	6682.9	6497.9	477.50	ug/L	477.50	ppb	16:56:34
1	Ni 231.604†	19517.2	18944.2	481.52	ug/L	481.52	ppb	16:56:14
1	P 214.914†	4323.8	4000.2	2315.9	ug/L	2315.9	ppb	16:56:34
1	Pb 220.353†	3980.4	3934.4	485.35	ug/L	485.35	ppb	16:56:34
1	S 181.975 Axial†	731.5	671.6	965.50	ug/L	965.50	ppb	16:56:34
1	Sb 206.836†	1432.1	1357.9	491.83	ug/L	491.83	ppb	16:56:34
1	Se 196.026†	725.3	734.0	497.79	ug/L	497.79	ppb	16:56:34
1	Si 251.611†	76328.8	73773.8	2381.4	ug/L	2381.4	ppb	16:56:14
1	Sn 189.927†	2759.7	2677.0	480.94	ug/L	480.94	ppb	16:56:34
1	Ti 334.940†	319498.4	312514.9	490.99	ug/L	490.99	ppb	16:56:08
1	Tl 190.801†	1514.1	1507.0	485.23	ug/L	485.23	ppb	16:56:34
1	U 409.014†	14604.0	17108.6	470.80	ug/L	470.80	ppb	16:56:14
1	V 292.402†	68353.2	68070.9	480.97	ug/L	480.97	ppb	16:56:14
1	Zn 213.857†	49584.7	47681.6	475.53	ug/L	475.53	ppb	16:56:14
1	SiO2†	75891.3	73351.7	5084.6	ug/L	5084.6	ppb	16:57:42
2	Sc Radial	3897.9	3897.9	99.5	%			16:55:16
2	Y RADIAL	4283.1	4283.1	97.10	%			16:55:16
2	Al 396.153Radial†	5112.2	5252.1	4902.6	ug/L	4902.6	ppb	16:55:16
2	Ca 317.933Radial†	2426.7	2420.0	5059.1	ug/L	5059.1	ppb	16:55:36
2	Fe 238.204 Radial†	352.7	343.3	4860.0	ug/L	4860.0	ppb	16:55:36
2	K 766.490 Radial†	28235.2	25747.2	4934.6	ug/L	4934.6	ppb	16:55:16
2	Mg 279.077 IEC†	108.5	105.0	5093.3	ug/L	5093.3	ppb	16:55:36
2	Na 589.592 Radial†	30796.8	31782.0	9799.2	ug/L	9799.2	ppb	16:55:16
2	Sr 421.552†	69281.5	69617.9	481.69	ug/L	481.69	ppb	16:55:16
2	Sc 361.383	896537.7	896537.7	102.20	%			16:56:40
2	Y 371.029	745698.4	745698.4	98.658	%			16:56:40

2	Ag 328.068†	106225.4	103697.4	483.40 ug/L	483.40 ppb	16:56:45
2	As 188.979†	1082.0	1076.9	485.12 ug/L	485.12 ppb	16:57:05
2	B 249.677†	19604.5	19580.6	472.55 ug/L	472.55 ppb	16:56:45
2	Ba 233.527†	63095.5	61738.2	485.68 ug/L	485.68 ppb	16:56:45
2	Be 313.107†	1312700.1	1288193.9	485.21 ug/L	485.21 ppb	16:56:40
2	Cd 226.502†	42788.6	42063.4	486.99 ug/L	486.99 ppb	16:56:45
2	Co 228.616†	23694.6	23250.9	487.11 ug/L	487.11 ppb	16:56:45
2	Cr 267.716†	44056.5	43030.0	484.00 ug/L	484.00 ppb	16:56:45
2	Cu 324.752†	166290.3	156718.6	476.90 ug/L	476.90 ppb	16:56:45
2	Mn 257.610†	437477.9	427598.2	486.85 ug/L	486.85 ppb	16:56:40
2	Mo 202.031†	6684.4	6530.3	479.87 ug/L	479.87 ppb	16:57:05
2	Ni 231.604†	19572.9	19088.9	485.19 ug/L	485.19 ppb	16:56:45
2	P 214.914†	4324.1	4020.5	2327.4 ug/L	2327.4 ppb	16:57:05
2	Pb 220.353†	3967.1	3939.8	486.04 ug/L	486.04 ppb	16:57:05
2	S 181.975 Axial†	732.2	675.6	971.30 ug/L	971.30 ppb	16:57:05
2	Sb 206.836†	1427.2	1359.8	492.58 ug/L	492.58 ppb	16:57:05
2	Se 196.026†	726.0	738.1	500.07 ug/L	500.07 ppb	16:57:05
2	Si 251.611†	76736.4	74525.6	2405.7 ug/L	2405.7 ppb	16:56:45
2	Sn 189.927†	2759.1	2689.2	483.13 ug/L	483.13 ppb	16:57:05
2	Ti 334.940†	316820.6	311372.1	489.17 ug/L	489.17 ppb	16:56:40
2	Tl 190.801†	1525.1	1524.9	490.88 ug/L	490.88 ppb	16:57:05
2	U 409.014†	14523.9	17097.7	470.50 ug/L	470.50 ppb	16:56:45
2	V 292.402†	68650.1	68677.5	485.26 ug/L	485.26 ppb	16:56:45
2	Zn 213.857†	49793.9	48115.5	479.89 ug/L	479.89 ppb	16:56:45
2	SiO2†	76285.1	74087.9	5135.7 ug/L	5135.7 ppb	16:57:47
3	Sc Radial	3889.2	3889.2	99.2 %		16:55:41
3	Y RADIAL	4279.8	4279.8	97.03 %		16:55:41
3	Al 396.153Radial†	5112.7	5264.0	4913.5 ug/L	4913.5 ppb	16:55:41
3	Ca 317.933Radial†	2391.8	2390.4	4997.1 ug/L	4997.1 ppb	16:56:01
3	Fe 238.204 Radial†	349.1	340.5	4820.6 ug/L	4820.6 ppb	16:56:01
3	K 766.490 Radial†	28327.7	25903.6	4964.6 ug/L	4964.6 ppb	16:55:41
3	Mg 279.077 IEC†	104.3	101.0	4895.9 ug/L	4895.9 ppb	16:56:01
3	Na 589.592 Radial†	30968.1	32023.4	9873.7 ug/L	9873.7 ppb	16:55:41
3	Sr 421.552†	69314.1	69805.5	482.99 ug/L	482.99 ppb	16:55:41
3	Sc 361.383	887434.2	887434.2	101.16 %		16:57:11
3	Y 371.029	737924.1	737924.1	97.629 %		16:57:11
3	Ag 328.068†	105879.3	104421.6	486.76 ug/L	486.76 ppb	16:57:16
3	As 188.979†	1085.1	1090.9	491.37 ug/L	491.37 ppb	16:57:36
3	B 249.677†	19499.3	19673.3	474.80 ug/L	474.80 ppb	16:57:16
3	Ba 233.527†	62800.9	62080.3	488.37 ug/L	488.37 ppb	16:57:16
3	Be 313.107†	1302369.7	1291158.3	486.33 ug/L	486.33 ppb	16:57:11
3	Cd 226.502†	42781.2	42485.6	491.89 ug/L	491.89 ppb	16:57:16
3	Co 228.616†	23644.5	23439.1	491.06 ug/L	491.06 ppb	16:57:16
3	Cr 267.716†	43894.5	43312.1	487.17 ug/L	487.17 ppb	16:57:16
3	Cu 324.752†	165499.8	157606.3	479.60 ug/L	479.60 ppb	16:57:16
3	Mn 257.610†	435384.8	429920.4	489.50 ug/L	489.50 ppb	16:57:11
3	Mo 202.031†	6671.3	6584.4	483.84 ug/L	483.84 ppb	16:57:36
3	Ni 231.604†	19565.8	19278.4	490.01 ug/L	490.01 ppb	16:57:16
3	P 214.914†	4311.6	4051.5	2345.6 ug/L	2345.6 ppb	16:57:36
3	Pb 220.353†	3950.2	3962.9	488.89 ug/L	488.89 ppb	16:57:36
3	S 181.975 Axial†	732.3	683.1	982.04 ug/L	982.04 ppb	16:57:36
3	Sb 206.836†	1432.1	1378.9	499.40 ug/L	499.40 ppb	16:57:36
3	Se 196.026†	727.7	747.1	505.86 ug/L	505.86 ppb	16:57:36
3	Si 251.611†	76288.7	74853.3	2416.2 ug/L	2416.2 ppb	16:57:16
3	Sn 189.927†	2748.0	2705.9	486.13 ug/L	486.13 ppb	16:57:36
3	Ti 334.940†	314858.3	312612.4	491.13 ug/L	491.13 ppb	16:57:11
3	Tl 190.801†	1507.3	1522.6	490.16 ug/L	490.16 ppb	16:57:36
3	U 409.014†	14397.3	17118.4	471.07 ug/L	471.07 ppb	16:57:16
3	V 292.402†	68487.9	69206.1	489.00 ug/L	489.00 ppb	16:57:16
3	Zn 213.857†	49701.0	48523.5	483.97 ug/L	483.97 ppb	16:57:16
3	SiO2†	77026.9	75586.9	5239.8 ug/L	5239.8 ppb	16:57:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894922.1	102.02	%	0.778				0.76%
Sc Radial	3887.2	99.2	%	0.30				0.30%
Y 371.029	743866.8	98.415	%	0.6974				0.71%
Y RADIAL	4263.8	96.67	%	0.696				0.72%
Ag 328.068†	103628.8	483.09	ug/L	3.834	483.09	ppb	3.834	0.79%

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   QC value within limits for Ag 328.068  Recovery = 96.62%
Al 396.153Radial†       5257.9      4908.0 ug/L          5.47      4908.0 ppb          5.47   0.11%
   QC value within limits for Al 396.153Radial  Recovery = 98.16%
As 188.979†             1080.0      486.53 ug/L         4.309      486.53 ppb         4.309   0.89%
   QC value within limits for As 188.979  Recovery = 97.31%
B 249.677†             19502.3      470.65 ug/L         5.354      470.65 ppb         5.354   1.14%
   QC value within limits for B 249.677  Recovery = 94.13%
Ba 233.527†            61629.3      484.83 ug/L         4.041      484.83 ppb         4.041   0.83%
   QC value within limits for Ba 233.527  Recovery = 96.97%
Be 313.107†          1289189.8      485.59 ug/L         0.642      485.59 ppb         0.642   0.13%
   QC value within limits for Be 313.107  Recovery = 97.12%
Ca 317.933Radial†       2413.5      5045.4 ug/L         43.21      5045.4 ppb         43.21   0.86%
   QC value within limits for Ca 317.933Radial  Recovery = 100.91%
Cd 226.502†            42074.1      487.11 ug/L         4.716      487.11 ppb         4.716   0.97%
   QC value within limits for Cd 226.502  Recovery = 97.42%
Co 228.616†            23248.4      487.06 ug/L         4.031      487.06 ppb         4.031   0.83%
   QC value within limits for Co 228.616  Recovery = 97.41%
Cr 267.716†            42951.7      483.12 ug/L         4.548      483.12 ppb         4.548   0.94%
   QC value within limits for Cr 267.716  Recovery = 96.62%
Cu 324.752†           156563.4      476.43 ug/L         3.430      476.43 ppb         3.430   0.72%
   QC value within limits for Cu 324.752  Recovery = 95.29%
Fe 238.204 Radial†       345.0      4885.0 ug/L         79.92      4885.0 ppb         79.92   1.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.70%
K 766.490 Radial†      25794.6      4943.7 ug/L         18.16      4943.7 ppb         18.16   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 98.87%
Mg 279.077 IEC†          102.4      4963.9 ug/L        112.06      4963.9 ppb        112.06   2.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.28%
Mn 257.610†           428745.4      488.17 ug/L         1.323      488.17 ppb         1.323   0.27%
   QC value within limits for Mn 257.610  Recovery = 97.63%
Mo 202.031†             6537.5      480.40 ug/L         3.203      480.40 ppb         3.203   0.67%
   QC value within limits for Mo 202.031  Recovery = 96.08%
Na 589.592 Radial†     31853.3      9821.2 ug/L         45.61      9821.2 ppb         45.61   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 98.21%
Ni 231.604†            19103.8      485.57 ug/L         4.261      485.57 ppb         4.261   0.88%
   QC value within limits for Ni 231.604  Recovery = 97.11%
P 214.914†              4024.1      2329.7 ug/L         14.98      2329.7 ppb         14.98   0.64%
   QC value within limits for P 214.914  Recovery = 93.19%
Pb 220.353†             3945.7      486.76 ug/L         1.877      486.76 ppb         1.877   0.39%
   QC value within limits for Pb 220.353  Recovery = 97.35%
S 181.975 Axial†         676.8      972.95 ug/L         8.392      972.95 ppb         8.392   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 97.29%
Sb 206.836†             1365.5      494.60 ug/L         4.171      494.60 ppb         4.171   0.84%
   QC value within limits for Sb 206.836  Recovery = 98.92%
Se 196.026†              739.7      501.24 ug/L         4.159      501.24 ppb         4.159   0.83%
   QC value within limits for Se 196.026  Recovery = 100.25%
Si 251.611†            74384.3      2401.1 ug/L         17.87      2401.1 ppb         17.87   0.74%
   QC value within limits for Si 251.611  Recovery = 96.04%
Sn 189.927†             2690.7      483.40 ug/L         2.602      483.40 ppb         2.602   0.54%
   QC value within limits for Sn 189.927  Recovery = 96.68%
Sr 421.552†            69680.3      482.12 ug/L         0.751      482.12 ppb         0.751   0.16%
   QC value within limits for Sr 421.552  Recovery = 96.42%
Ti 334.940†           312166.4      490.43 ug/L         1.091      490.43 ppb         1.091   0.22%
   QC value within limits for Ti 334.940  Recovery = 98.09%
Tl 190.801†             1518.2      488.76 ug/L         3.077      488.76 ppb         3.077   0.63%
   QC value within limits for Tl 190.801  Recovery = 97.75%
U 409.014†             17108.2      470.79 ug/L         0.284      470.79 ppb         0.284   0.06%
   QC value within limits for U 409.014  Recovery = 94.16%
V 292.402†             68651.5      485.08 ug/L         4.016      485.08 ppb         4.016   0.83%
   QC value within limits for V 292.402  Recovery = 97.02%
Zn 213.857†            48106.9      479.80 ug/L         4.218      479.80 ppb         4.218   0.88%
   QC value within limits for Zn 213.857  Recovery = 95.96%
SiO2†                  74342.2      5153.4 ug/L         79.07      5153.4 ppb         79.07   1.53%
   QC value within limits for SiO2  Recovery = 96.37%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 17:00:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3852.2	3852.2	98.3	%			17:02:13
1	Y RADIAL	4377.8	4377.8	99.25	%			17:01:53
1	Al 396.153Radial†	-110.2	0.3	0.2697	ug/L	0.2697	ppb	17:01:53
1	Ca 317.933Radial†	24.1	4.8	10.091	ug/L	10.091	ppb	17:02:13
1	Fe 238.204 Radial†	11.8	0.7	9.7941	ug/L	9.7941	ppb	17:02:13
1	K 766.490 Radial†	2757.5	165.6	31.763	ug/L	31.763	ppb	17:01:53
1	Mg 279.077 IEC†	0.3	-3.7	-181.48	ug/L	-181.48	ppb	17:02:13
1	Na 589.592 Radial†	-777.0	29.3	9.0403	ug/L	9.0403	ppb	17:01:53
1	Sr 421.552†	76.4	42.0	0.2907	ug/L	0.2907	ppb	17:01:53
1	Sc 361.383	900409.9	900409.9	102.64	%			17:03:10
1	Y 371.029	760595.5	760595.5	100.63	%			17:03:10
1	Ag 328.068†	340.0	90.8	0.4225	ug/L	0.4225	ppb	17:03:15
1	As 188.979†	-24.7	-5.8	-2.5798	ug/L	-2.5798	ppb	17:03:35
1	B 249.677†	-362.4	45.1	1.0929	ug/L	1.0929	ppb	17:03:35
1	Ba 233.527†	-5.1	-3.5	-0.0274	ug/L	-0.0274	ppb	17:03:35
1	Be 313.107†	-3767.8	91.4	0.0342	ug/L	0.0342	ppb	17:03:15
1	Cd 226.502†	-182.4	18.5	0.2142	ug/L	0.2142	ppb	17:03:35
1	Co 228.616†	-74.8	-6.3	-0.1327	ug/L	-0.1327	ppb	17:03:35
1	Cr 267.716†	74.4	-5.2	-0.0575	ug/L	-0.0575	ppb	17:03:35
1	Cu 324.752†	6038.4	-107.8	-0.3282	ug/L	-0.3282	ppb	17:03:15
1	Mn 257.610†	467.6	-3.2	0.0048	ug/L	0.0048	ppb	17:03:35
1	Mo 202.031†	8.8	-1.6	-0.1154	ug/L	-0.1154	ppb	17:03:35
1	Ni 231.604†	82.5	17.9	0.4558	ug/L	0.4558	ppb	17:03:35
1	P 214.914†	211.6	-4.3	-2.5174	ug/L	-2.5174	ppb	17:03:35
1	Pb 220.353†	-62.4	-2.6	-0.3254	ug/L	-0.3254	ppb	17:03:35
1	S 181.975 Axial†	43.8	1.8	2.6235	ug/L	2.6235	ppb	17:03:35
1	Sb 206.836†	40.3	2.6	0.9401	ug/L	0.9401	ppb	17:03:35
1	Se 196.026†	-22.3	6.1	3.9981	ug/L	3.9981	ppb	17:03:35
1	Si 251.611†	569.3	-3.7	-0.1183	ug/L	-0.1183	ppb	17:03:35
1	Sn 189.927†	29.3	18.0	3.2339	ug/L	3.2339	ppb	17:03:35
1	Ti 334.940†	-1438.0	-26.9	-0.0266	ug/L	-0.0266	ppb	17:03:15
1	Tl 190.801†	-28.1	5.2	1.6536	ug/L	1.6536	ppb	17:03:35
1	U 409.014†	-2916.7	45.0	1.2410	ug/L	1.2410	ppb	17:03:10
1	V 292.402†	-1552.0	-6.4	-0.0485	ug/L	-0.0485	ppb	17:03:15
1	Zn 213.857†	838.0	210.3	2.1135	ug/L	2.1135	ppb	17:03:35
1	SiO2†	569.5	0.5	0.0351	ug/L	0.0351	ppb	17:04:41
2	Sc Radial	3844.3	3844.3	98.1	%			17:02:38
2	Y RADIAL	4449.9	4449.9	100.9	%			17:02:18
2	Al 396.153Radial†	-116.9	-6.8	-6.3661	ug/L	-6.3661	ppb	17:02:18
2	Ca 317.933Radial†	16.2	-3.2	-6.6141	ug/L	-6.6141	ppb	17:02:38
2	Fe 238.204 Radial†	10.8	-0.3	-4.1409	ug/L	-4.1409	ppb	17:02:38
2	K 766.490 Radial†	2663.2	75.2	14.419	ug/L	14.419	ppb	17:02:18
2	Mg 279.077 IEC†	1.9	-2.2	-105.81	ug/L	-105.81	ppb	17:02:38
2	Na 589.592 Radial†	-750.4	54.8	16.909	ug/L	16.909	ppb	17:02:18
2	Sr 421.552†	27.9	-7.3	-0.0503	ug/L	-0.0503	ppb	17:02:18
2	Sc 361.383	901998.5	901998.5	102.82	%			17:03:40
2	Y 371.029	761476.1	761476.1	100.75	%			17:03:40
2	Ag 328.068†	326.6	77.3	0.3584	ug/L	0.3584	ppb	17:03:45
2	As 188.979†	-27.2	-8.2	-3.6601	ug/L	-3.6601	ppb	17:04:06
2	B 249.677†	-390.4	18.5	0.4488	ug/L	0.4488	ppb	17:04:06
2	Ba 233.527†	6.5	7.7	0.0618	ug/L	0.0618	ppb	17:04:06
2	Be 313.107†	-3797.5	68.9	0.0255	ug/L	0.0255	ppb	17:03:45
2	Cd 226.502†	-182.6	18.7	0.2169	ug/L	0.2169	ppb	17:04:06
2	Co 228.616†	-53.7	14.3	0.3013	ug/L	0.3013	ppb	17:04:06
2	Cr 267.716†	65.5	-14.0	-0.1568	ug/L	-0.1568	ppb	17:04:06
2	Cu 324.752†	6039.0	-117.6	-0.3586	ug/L	-0.3586	ppb	17:03:45
2	Mn 257.610†	467.4	-4.2	-0.0009	ug/L	-0.0009	ppb	17:04:06
2	Mo 202.031†	17.9	7.3	0.5340	ug/L	0.5340	ppb	17:04:06
2	Ni 231.604†	84.5	19.7	0.5017	ug/L	0.5017	ppb	17:04:06

2	P 214.914†	214.8	-1.6	-0.9130 ug/L	-0.9130 ppb	17:04:06
2	Pb 220.353†	-59.5	0.2	0.0301 ug/L	0.0301 ppb	17:04:06
2	S 181.975 Axial†	38.5	-3.3	-4.7860 ug/L	-4.7860 ppb	17:04:06
2	Sb 206.836†	56.7	18.4	6.4562 ug/L	6.4562 ppb	17:04:06
2	Se 196.026†	-24.3	4.1	2.6565 ug/L	2.6565 ppb	17:04:06
2	Si 251.611†	562.5	-11.3	-0.3708 ug/L	-0.3708 ppb	17:04:06
2	Sn 189.927†	13.3	2.4	0.4323 ug/L	0.4323 ppb	17:04:06
2	Ti 334.940†	-1522.1	-106.2	-0.1594 ug/L	-0.1594 ppb	17:03:45
2	Tl 190.801†	-38.9	-5.2	-1.6802 ug/L	-1.6802 ppb	17:04:06
2	U 409.014†	-2936.9	30.4	0.8394 ug/L	0.8394 ppb	17:03:40
2	V 292.402†	-1462.2	83.6	0.5912 ug/L	0.5912 ppb	17:03:45
2	Zn 213.857†	834.6	205.6	2.0681 ug/L	2.0681 ppb	17:04:06
2	SiO2†	601.4	30.5	2.1033 ug/L	2.1033 ppb	17:04:46
3	Sc Radial	3832.9	3832.9	97.8 %		17:03:04
3	Y RADIAL	4350.0	4350.0	98.62 %		17:02:44
3	Al 396.153Radial†	-123.5	-13.8	-12.957 ug/L	-12.957 ppb	17:02:44
3	Ca 317.933Radial†	20.2	0.9	1.9596 ug/L	1.9596 ppb	17:03:04
3	Fe 238.204 Radial†	12.6	1.6	22.079 ug/L	22.079 ppb	17:03:04
3	K 766.490 Radial†	2846.6	270.7	51.962 ug/L	51.962 ppb	17:02:44
3	Mg 279.077 IEC†	1.5	-2.5	-122.52 ug/L	-122.52 ppb	17:03:04
3	Na 589.592 Radial†	-889.2	-89.3	-27.540 ug/L	-27.540 ppb	17:02:44
3	Sr 421.552†	29.9	-5.2	-0.0357 ug/L	-0.0357 ppb	17:02:44
3	Sc 361.383	903980.0	903980.0	103.05 %		17:04:11
3	Y 371.029	762638.1	762638.1	100.90 %		17:04:11
3	Ag 328.068†	344.8	94.2	0.4434 ug/L	0.4434 ppb	17:04:16
3	As 188.979†	-21.5	-2.6	-1.1479 ug/L	-1.1479 ppb	17:04:36
3	B 249.677†	-397.4	12.6	0.3017 ug/L	0.3017 ppb	17:04:36
3	Ba 233.527†	12.6	13.6	0.1076 ug/L	0.1076 ppb	17:04:36
3	Be 313.107†	-3797.5	77.1	0.0289 ug/L	0.0289 ppb	17:04:16
3	Cd 226.502†	-189.2	12.6	0.1438 ug/L	0.1438 ppb	17:04:36
3	Co 228.616†	-67.4	1.1	0.0226 ug/L	0.0226 ppb	17:04:36
3	Cr 267.716†	79.4	-0.6	-0.0048 ug/L	-0.0048 ppb	17:04:36
3	Cu 324.752†	6022.9	-146.1	-0.4436 ug/L	-0.4436 ppb	17:04:16
3	Mn 257.610†	504.4	30.7	0.0421 ug/L	0.0421 ppb	17:04:36
3	Mo 202.031†	11.1	0.6	0.0449 ug/L	0.0449 ppb	17:04:36
3	Ni 231.604†	57.6	-6.6	-0.1673 ug/L	-0.1673 ppb	17:04:36
3	P 214.914†	214.8	-2.1	-1.1683 ug/L	-1.1683 ppb	17:04:36
3	Pb 220.353†	-40.0	19.3	2.3688 ug/L	2.3688 ppb	17:04:36
3	S 181.975 Axial†	39.7	-2.3	-3.2499 ug/L	-3.2499 ppb	17:04:36
3	Sb 206.836†	38.6	0.7	0.2578 ug/L	0.2578 ppb	17:04:36
3	Se 196.026†	-23.3	5.2	3.4507 ug/L	3.4507 ppb	17:04:36
3	Si 251.611†	567.9	-7.2	-0.2350 ug/L	-0.2350 ppb	17:04:36
3	Sn 189.927†	14.3	3.4	0.6142 ug/L	0.6142 ppb	17:04:36
3	Ti 334.940†	-1437.6	-21.0	-0.0229 ug/L	-0.0229 ppb	17:04:16
3	Tl 190.801†	-32.5	1.0	0.3191 ug/L	0.3191 ppb	17:04:36
3	U 409.014†	-2967.8	6.7	0.1816 ug/L	0.1816 ppb	17:04:11
3	V 292.402†	-1537.0	14.2	0.0943 ug/L	0.0943 ppb	17:04:16
3	Zn 213.857†	815.8	185.6	1.8668 ug/L	1.8668 ppb	17:04:36
3	SiO2†	572.6	1.2	0.0855 ug/L	0.0855 ppb	17:04:51

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902129.5	102.84	%	0.204				0.20%
Sc Radial	3843.2	98.1	%	0.25				0.25%
Y 371.029	761569.9	100.76	%	0.136				0.13%
Y RADIAL	4392.5	99.58	%	1.169				1.17%
Ag 328.068†	87.4	0.4081	ug/L	0.04427	0.4081	ppb	0.04427	10.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.8	-6.3511	ug/L	6.61330	-6.3511	ppb	6.61330	104.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.5	-2.4626	ug/L	1.26019	-2.4626	ppb	1.26019	51.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	25.4	0.6145	ug/L	0.42084	0.6145	ppb	0.42084	68.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.9	0.0473	ug/L	0.06867	0.0473	ppb	0.06867	145.08%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.1	0.0296	ug/L	0.00440	0.0296	ppb	0.00440	14.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	1.8121	ug/L	8.35340	1.8121	ppb	8.35340	460.98%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              16.6      0.1916 ug/L       0.04145      0.1916 ppb        0.04145  21.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.0      0.0637 ug/L       0.21988      0.0637 ppb        0.21988 344.96%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.6     -0.0730 ug/L       0.07716     -0.0730 ppb        0.07716 105.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -123.8     -0.3768 ug/L       0.05982     -0.3768 ppb        0.05982  15.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.7      9.2439 ug/L      13.11841      9.2439 ppb       13.11841 141.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       170.5     32.715 ug/L       18.7895     32.715 ppb        18.7895  57.43%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.8    -136.60 ug/L        39.756    -136.60 ppb         39.756  29.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               7.8      0.0154 ug/L       0.02337      0.0154 ppb        0.02337 152.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.1      0.1545 ug/L       0.33830      0.1545 ppb        0.33830 218.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -1.7     -0.5305 ug/L      23.71980     -0.5305 ppb       23.71980 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.4      0.2634 ug/L       0.37373      0.2634 ppb        0.37373 141.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.7     -1.5329 ug/L       0.86212     -1.5329 ppb        0.86212  56.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               5.6      0.6912 ug/L       1.46373      0.6912 ppb        1.46373 211.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.3     -1.8042 ug/L       3.91063     -1.8042 ppb        3.91063 216.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.2      2.5514 ug/L       3.39886      2.5514 ppb        3.39886 133.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.1      3.3684 ug/L       0.67455      3.3684 ppb        0.67455  20.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -7.4     -0.2414 ug/L       0.12639     -0.2414 ppb        0.12639  52.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               8.0      1.4268 ug/L       1.56764      1.4268 ppb        1.56764 109.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               9.9      0.0682 ug/L       0.19277      0.0682 ppb        0.19277 282.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -51.4     -0.0696 ug/L       0.07779     -0.0696 ppb        0.07779 111.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.3      0.0975 ug/L       1.67795      0.0975 ppb        1.67795 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               27.3      0.7540 ug/L       0.53483      0.7540 ppb        0.53483  70.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               30.5      0.2123 ug/L       0.33577      0.2123 ppb        0.33577 158.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             200.5      2.0161 ug/L       0.13130      2.0161 ppb        0.13130   6.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    10.7      0.7413 ug/L       1.17979      0.7413 ppb        1.17979 159.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 18:15:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4007.2	4007.2	102	%			18:17:17
1	Y RADIAL	4427.1	4427.1	100.4	%			18:17:17
1	Al 396.153Radial†	5205.1	5202.8	4856.0	ug/L	4856.0	ppb	18:17:17
1	Ca 317.933Radial†	2451.6	2377.8	4970.9	ug/L	4970.9	ppb	18:17:37
1	Fe 238.204 Radial†	363.8	344.5	4878.0	ug/L	4878.0	ppb	18:17:37
1	K 766.490 Radial†	28844.7	25569.2	4900.4	ug/L	4900.4	ppb	18:17:17
1	Mg 279.077 IEC†	109.2	102.7	4979.4	ug/L	4979.4	ppb	18:17:37
1	Na 589.592 Radial†	32811.6	32908.0	10146	ug/L	10146	ppb	18:17:17
1	Sr 421.552†	71918.3	70297.0	486.39	ug/L	486.39	ppb	18:17:17
1	Sc 361.383	900772.2	900772.2	102.68	%			18:18:35
1	Y 371.029	746520.2	746520.2	98.766	%			18:18:35
1	Ag 328.068†	110303.0	107179.9	499.61	ug/L	499.61	ppb	18:18:40
1	As 188.979†	1110.8	1100.0	495.49	ug/L	495.49	ppb	18:19:00
1	B 249.677†	20331.5	20198.4	487.47	ug/L	487.47	ppb	18:18:40
1	Ba 233.527†	65882.3	64162.0	504.75	ug/L	504.75	ppb	18:18:40
1	Be 313.107†	1345256.2	1313861.1	494.88	ug/L	494.88	ppb	18:18:35
1	Cd 226.502†	44997.0	44017.3	509.63	ug/L	509.63	ppb	18:18:40
1	Co 228.616†	24898.3	24314.2	509.38	ug/L	509.38	ppb	18:18:40
1	Cr 267.716†	46063.9	44782.4	503.69	ug/L	503.69	ppb	18:18:40
1	Cu 324.752†	173440.5	162916.9	495.76	ug/L	495.76	ppb	18:18:40
1	Mn 257.610†	451130.3	438881.6	499.70	ug/L	499.70	ppb	18:18:35
1	Mo 202.031†	6811.9	6623.7	486.73	ug/L	486.73	ppb	18:19:00
1	Ni 231.604†	20620.4	20019.1	508.84	ug/L	508.84	ppb	18:18:40
1	P 214.914†	4436.6	4110.1	2377.7	ug/L	2377.7	ppb	18:19:00
1	Pb 220.353†	4061.1	4013.1	495.04	ug/L	495.04	ppb	18:19:00
1	S 181.975 Axial†	747.2	686.9	987.54	ug/L	987.54	ppb	18:19:00
1	Sb 206.836†	1470.0	1394.9	505.23	ug/L	505.23	ppb	18:19:00
1	Se 196.026†	741.3	749.7	507.74	ug/L	507.74	ppb	18:19:00
1	Si 251.611†	80233.3	77578.1	2504.3	ug/L	2504.3	ppb	18:18:40
1	Sn 189.927†	2842.8	2758.1	495.47	ug/L	495.47	ppb	18:19:00
1	Ti 334.940†	324453.0	317347.7	498.54	ug/L	498.54	ppb	18:18:40
1	Tl 190.801†	1553.9	1545.9	497.61	ug/L	497.61	ppb	18:19:00
1	U 409.014†	15252.1	17740.1	488.20	ug/L	488.20	ppb	18:18:40
1	V 292.402†	71727.8	71358.9	504.06	ug/L	504.06	ppb	18:18:40
1	Zn 213.857†	52252.8	50281.2	501.51	ug/L	501.51	ppb	18:18:40
1	SiO2†	78244.6	75645.3	5243.8	ug/L	5243.8	ppb	18:20:07
2	Sc Radial	3906.6	3906.6	99.7	%			18:17:42
2	Y RADIAL	4280.9	4280.9	97.05	%			18:17:42
2	Al 396.153Radial†	5145.4	5273.9	4922.6	ug/L	4922.6	ppb	18:17:42
2	Ca 317.933Radial†	2469.9	2458.0	5138.4	ug/L	5138.4	ppb	18:18:02
2	Fe 238.204 Radial†	363.6	353.4	5003.1	ug/L	5003.1	ppb	18:18:02
2	K 766.490 Radial†	28194.8	25643.5	4914.5	ug/L	4914.5	ppb	18:17:42
2	Mg 279.077 IEC†	109.5	105.7	5127.1	ug/L	5127.1	ppb	18:18:02
2	Na 589.592 Radial†	32140.8	33061.3	10194	ug/L	10194	ppb	18:17:42
2	Sr 421.552†	70756.3	70942.4	490.85	ug/L	490.85	ppb	18:17:42
2	Sc 361.383	904006.0	904006.0	103.05	%			18:19:06
2	Y 371.029	749349.6	749349.6	99.141	%			18:19:06
2	Ag 328.068†	108179.6	104735.1	488.28	ug/L	488.28	ppb	18:19:11
2	As 188.979†	1118.4	1103.5	496.96	ug/L	496.96	ppb	18:19:31
2	B 249.677†	19877.4	19686.9	475.08	ug/L	475.08	ppb	18:19:11
2	Ba 233.527†	64530.8	62620.9	492.63	ug/L	492.63	ppb	18:19:11
2	Be 313.107†	1339035.3	1303138.0	490.82	ug/L	490.82	ppb	18:19:06
2	Cd 226.502†	44007.8	42900.6	496.68	ug/L	496.68	ppb	18:19:11
2	Co 228.616†	24371.3	23716.0	496.88	ug/L	496.88	ppb	18:19:11
2	Cr 267.716†	44890.2	43482.9	489.10	ug/L	489.10	ppb	18:19:11
2	Cu 324.752†	169242.2	158238.9	481.54	ug/L	481.54	ppb	18:19:11
2	Mn 257.610†	448671.0	434923.5	495.20	ug/L	495.20	ppb	18:19:06
2	Mo 202.031†	6855.6	6642.4	488.11	ug/L	488.11	ppb	18:19:31
2	Ni 231.604†	20115.7	19457.5	494.56	ug/L	494.56	ppb	18:19:11

2	P 214.914†	4463.4	4120.7	2386.8 ug/L	2386.8 ppb	18:19:31
2	Pb 220.353†	4098.9	4035.6	497.83 ug/L	497.83 ppb	18:19:31
2	S 181.975 Axial†	754.1	691.0	993.38 ug/L	993.38 ppb	18:19:31
2	Sb 206.836†	1497.1	1416.0	512.60 ug/L	512.60 ppb	18:19:31
2	Se 196.026†	737.4	743.3	503.95 ug/L	503.95 ppb	18:19:31
2	Si 251.611†	78408.5	75527.8	2438.0 ug/L	2438.0 ppb	18:19:11
2	Sn 189.927†	2836.5	2742.0	492.62 ug/L	492.62 ppb	18:19:31
2	Ti 334.940†	316707.3	308701.2	484.98 ug/L	484.98 ppb	18:19:11
2	Tl 190.801†	1565.5	1551.7	499.43 ug/L	499.43 ppb	18:19:31
2	U 409.014†	14653.4	17106.0	470.70 ug/L	470.70 ppb	18:19:11
2	V 292.402†	70012.4	69444.4	490.70 ug/L	490.70 ppb	18:19:11
2	Zn 213.857†	51078.0	48959.1	488.29 ug/L	488.29 ppb	18:19:11
2	SiO2†	78790.6	75902.6	5261.6 ug/L	5261.6 ppb	18:20:13
3	Sc Radial	3918.5	3918.5	100.0 %		18:18:08
3	Y RADIAL	4310.4	4310.4	97.72 %		18:18:08
3	Al 396.153Radial†	5243.1	5356.0	4998.1 ug/L	4998.1 ppb	18:18:08
3	Ca 317.933Radial†	2467.6	2448.1	5117.8 ug/L	5117.8 ppb	18:18:28
3	Fe 238.204 Radial†	364.3	353.1	4999.5 ug/L	4999.5 ppb	18:18:28
3	K 766.490 Radial†	28596.9	25959.7	4975.2 ug/L	4975.2 ppb	18:18:08
3	Mg 279.077 IEC†	109.4	105.3	5106.4 ug/L	5106.4 ppb	18:18:28
3	Na 589.592 Radial†	32437.9	33260.5	10255 ug/L	10255 ppb	18:18:08
3	Sr 421.552†	71686.1	71656.5	495.79 ug/L	495.79 ppb	18:18:08
3	Sc 361.383	846314.1	846314.1	96.476 %		18:19:37
3	Y 371.029	702011.8	702011.8	92.878 %		18:19:37
3	Ag 328.068†	109395.2	113151.1	527.40 ug/L	527.40 ppb	18:19:42
3	As 188.979†	1108.4	1167.2	525.67 ug/L	525.67 ppb	18:20:02
3	B 249.677†	20208.9	21345.4	515.18 ug/L	515.18 ppb	18:19:42
3	Ba 233.527†	65352.4	67741.2	532.89 ug/L	532.89 ppb	18:19:42
3	Be 313.107†	1345878.2	1398807.2	526.86 ug/L	526.86 ppb	18:19:37
3	Cd 226.502†	44497.7	46319.5	536.30 ug/L	536.30 ppb	18:19:42
3	Co 228.616†	24653.6	25620.7	536.77 ug/L	536.77 ppb	18:19:42
3	Cr 267.716†	45547.9	47134.2	530.13 ug/L	530.13 ppb	18:19:42
3	Cu 324.752†	171682.2	171963.2	523.28 ug/L	523.28 ppb	18:19:42
3	Mn 257.610†	450107.7	466092.0	530.67 ug/L	530.67 ppb	18:19:37
3	Mo 202.031†	6810.2	7048.8	517.95 ug/L	517.95 ppb	18:20:02
3	Ni 231.604†	20259.6	20937.3	532.17 ug/L	532.17 ppb	18:19:42
3	P 214.914†	4432.7	4384.2	2537.4 ug/L	2537.4 ppb	18:20:02
3	Pb 220.353†	4035.0	4240.5	523.10 ug/L	523.10 ppb	18:20:02
3	S 181.975 Axial†	743.7	730.1	1049.7 ug/L	1049.7 ppb	18:20:02
3	Sb 206.836†	1459.4	1476.1	534.65 ug/L	534.65 ppb	18:20:02
3	Se 196.026†	761.1	816.7	552.12 ug/L	552.12 ppb	18:20:02
3	Si 251.611†	79523.7	81870.5	2642.9 ug/L	2642.9 ppb	18:19:42
3	Sn 189.927†	2812.6	2904.9	521.84 ug/L	521.84 ppb	18:20:02
3	Ti 334.940†	321086.3	334190.1	525.00 ug/L	525.00 ppb	18:19:42
3	Tl 190.801†	1537.0	1625.8	523.35 ug/L	523.35 ppb	18:20:02
3	U 409.014†	15003.5	18438.2	507.40 ug/L	507.40 ppb	18:19:42
3	V 292.402†	71004.7	75104.3	530.61 ug/L	530.61 ppb	18:19:42
3	Zn 213.857†	51669.4	52950.9	528.18 ug/L	528.18 ppb	18:19:42
3	SiO2†	78130.5	80430.3	5575.5 ug/L	5575.5 ppb	18:20:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	883697.4	100.74	%	3.695				3.67%
Sc Radial	3944.1	101	%	1.4				1.39%
Y 371.029	732627.2	96.928	%	3.5128				3.62%
Y RADIAL	4339.5	98.38	%	1.753				1.78%
Ag 328.068†	108355.4	505.09	ug/L	20.129	505.09	ppb	20.129	3.99%
QC value within limits for Ag 328.068 Recovery = 101.02%								
Al 396.153Radial†	5277.6	4925.6	ug/L	71.12	4925.6	ppb	71.12	1.44%
QC value within limits for Al 396.153Radial Recovery = 98.51%								
As 188.979†	1123.5	506.04	ug/L	17.020	506.04	ppb	17.020	3.36%
QC value within limits for As 188.979 Recovery = 101.21%								
B 249.677†	20410.3	492.57	ug/L	20.530	492.57	ppb	20.530	4.17%
QC value within limits for B 249.677 Recovery = 98.51%								
Ba 233.527†	64841.4	510.09	ug/L	20.659	510.09	ppb	20.659	4.05%
QC value within limits for Ba 233.527 Recovery = 102.02%								
Be 313.107†	1338602.1	504.18	ug/L	19.742	504.18	ppb	19.742	3.92%
QC value within limits for Be 313.107 Recovery = 100.84%								
Ca 317.933Radial†	2428.0	5075.7	ug/L	91.34	5075.7	ppb	91.34	1.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.51%
Cd 226.502†            44412.5      514.20 ug/L        20.202      514.20 ppb         20.202   3.93%
   QC value within limits for Cd 226.502  Recovery = 102.84%
Co 228.616†            24550.3      514.34 ug/L        20.402      514.34 ppb         20.402   3.97%
   QC value within limits for Co 228.616  Recovery = 102.87%
Cr 267.716†            45133.2      507.64 ug/L        20.798      507.64 ppb         20.798   4.10%
   QC value within limits for Cr 267.716  Recovery = 101.53%
Cu 324.752†           164373.0      500.19 ug/L        21.222      500.19 ppb         21.222   4.24%
   QC value within limits for Cu 324.752  Recovery = 100.04%
Fe 238.204 Radial†       350.3      4960.2 ug/L         71.22      4960.2 ppb          71.22   1.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.20%
K 766.490 Radial†      25724.2      4930.0 ug/L         39.73      4930.0 ppb          39.73   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 98.60%
Mg 279.077 IEC†          104.6      5071.0 ug/L         80.01      5071.0 ppb          80.01   1.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.42%
Mn 257.610†           446632.4      508.52 ug/L        19.311      508.52 ppb         19.311   3.80%
   QC value within limits for Mn 257.610  Recovery = 101.70%
Mo 202.031†            6771.6      497.60 ug/L        17.639      497.60 ppb         17.639   3.54%
   QC value within limits for Mo 202.031  Recovery = 99.52%
Na 589.592 Radial†     33076.6       10198 ug/L          54.5       10198 ppb           54.5   0.53%
   QC value within limits for Na 589.592 Radial  Recovery = 101.98%
Ni 231.604†            20138.0      511.86 ug/L        18.987      511.86 ppb         18.987   3.71%
   QC value within limits for Ni 231.604  Recovery = 102.37%
P 214.914†              4205.0      2434.0 ug/L         89.69      2434.0 ppb          89.69   3.69%
   QC value within limits for P 214.914  Recovery = 97.36%
Pb 220.353†             4096.4      505.32 ug/L        15.456      505.32 ppb         15.456   3.06%
   QC value within limits for Pb 220.353  Recovery = 101.06%
S 181.975 Axial†         702.7      1010.2 ug/L         34.33      1010.2 ppb          34.33   3.40%
   QC value within limits for S 181.975 Axial  Recovery = 101.02%
Sb 206.836†             1429.0      517.49 ug/L        15.305      517.49 ppb         15.305   2.96%
   QC value within limits for Sb 206.836  Recovery = 103.50%
Se 196.026†              769.9      521.27 ug/L        26.782      521.27 ppb         26.782   5.14%
   QC value within limits for Se 196.026  Recovery = 104.25%
Si 251.611†            78325.5      2528.4 ug/L        104.53      2528.4 ppb         104.53   4.13%
   QC value within limits for Si 251.611  Recovery = 101.14%
Sn 189.927†             2801.7      503.31 ug/L        16.109      503.31 ppb         16.109   3.20%
   QC value within limits for Sn 189.927  Recovery = 100.66%
Sr 421.552†            70965.3      491.01 ug/L         4.705      491.01 ppb          4.705   0.96%
   QC value within limits for Sr 421.552  Recovery = 98.20%
Ti 334.940†           320079.7      502.84 ug/L        20.354      502.84 ppb         20.354   4.05%
   QC value within limits for Ti 334.940  Recovery = 100.57%
Tl 190.801†             1574.5      506.80 ug/L        14.362      506.80 ppb         14.362   2.83%
   QC value within limits for Tl 190.801  Recovery = 101.36%
U 409.014†             17761.5      488.77 ug/L        18.354      488.77 ppb         18.354   3.76%
   QC value within limits for U 409.014  Recovery = 97.75%
V 292.402†             71969.2      508.46 ug/L        20.310      508.46 ppb         20.310   3.99%
   QC value within limits for V 292.402  Recovery = 101.69%
Zn 213.857†            50730.4      505.99 ug/L        20.319      505.99 ppb         20.319   4.02%
   QC value within limits for Zn 213.857  Recovery = 101.20%
SiO2†                  77326.1      5360.3 ug/L        186.56      5360.3 ppb         186.56   3.48%
   QC value within limits for SiO2  Recovery = 100.24%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 18:22:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3866.6	3866.6	98.7	%			18:24:39
1	Y RADIAL	4306.0	4306.0	97.62	%			18:24:19
1	Al 396.153Radial†	-103.1	7.9	7.4068	ug/L	7.4068	ppb	18:24:19
1	Ca 317.933Radial†	20.5	1.1	2.3703	ug/L	2.3703	ppb	18:24:39
1	Fe 238.204 Radial†	10.7	-0.5	-7.4116	ug/L	-7.4116	ppb	18:24:39
1	K 766.490 Radial†	2776.0	173.9	33.366	ug/L	33.366	ppb	18:24:19
1	Mg 279.077 IEC†	5.0	1.0	46.301	ug/L	46.301	ppb	18:24:39
1	Na 589.592 Radial†	-775.2	34.1	10.522	ug/L	10.522	ppb	18:24:19
1	Sr 421.552†	40.9	5.7	0.0395	ug/L	0.0395	ppb	18:24:19
1	Sc 361.383	912740.2	912740.2	104.05	%			18:25:36
1	Y 371.029	767528.5	767528.5	101.55	%			18:25:36
1	Ag 328.068†	335.8	82.4	0.3785	ug/L	0.3785	ppb	18:25:41
1	As 188.979†	-24.0	-4.8	-2.1542	ug/L	-2.1542	ppb	18:26:01
1	B 249.677†	-471.9	-55.3	-1.3401	ug/L	-1.3401	ppb	18:26:01
1	Ba 233.527†	14.2	15.1	0.1196	ug/L	0.1196	ppb	18:26:01
1	Be 313.107†	-3792.0	117.7	0.0441	ug/L	0.0441	ppb	18:25:41
1	Cd 226.502†	-190.6	13.1	0.1534	ug/L	0.1534	ppb	18:26:01
1	Co 228.616†	-66.4	2.8	0.0579	ug/L	0.0579	ppb	18:26:01
1	Cr 267.716†	90.0	8.8	0.0970	ug/L	0.0970	ppb	18:26:01
1	Cu 324.752†	5923.7	-297.6	-0.9081	ug/L	-0.9081	ppb	18:25:41
1	Mn 257.610†	447.8	-28.3	-0.0349	ug/L	-0.0349	ppb	18:26:01
1	Mo 202.031†	9.8	-0.8	-0.0570	ug/L	-0.0570	ppb	18:26:01
1	Ni 231.604†	73.3	8.0	0.2045	ug/L	0.2045	ppb	18:26:01
1	P 214.914†	214.0	-4.8	-2.6866	ug/L	-2.6866	ppb	18:26:01
1	Pb 220.353†	-57.5	2.9	0.3576	ug/L	0.3576	ppb	18:26:01
1	S 181.975 Axial†	44.9	2.3	3.3471	ug/L	3.3471	ppb	18:26:01
1	Sb 206.836†	41.6	3.3	1.1617	ug/L	1.1617	ppb	18:26:01
1	Se 196.026†	-21.8	6.8	4.4580	ug/L	4.4580	ppb	18:26:01
1	Si 251.611†	580.6	-0.3	-0.0085	ug/L	-0.0085	ppb	18:26:01
1	Sn 189.927†	20.0	8.8	1.5755	ug/L	1.5755	ppb	18:26:01
1	Ti 334.940†	-1479.5	-47.9	-0.0805	ug/L	-0.0805	ppb	18:25:41
1	Tl 190.801†	-44.9	-10.6	-3.3780	ug/L	-3.3780	ppb	18:26:01
1	U 409.014†	-2857.0	140.7	3.8867	ug/L	3.8867	ppb	18:25:36
1	V 292.402†	-1477.5	85.7	0.6062	ug/L	0.6062	ppb	18:25:41
1	Zn 213.857†	807.9	170.4	1.7163	ug/L	1.7163	ppb	18:26:01
1	SiO2†	570.9	-5.7	-0.3975	ug/L	-0.3975	ppb	18:27:07
2	Sc Radial	3849.9	3849.9	98.2	%			18:25:04
2	Y RADIAL	4397.0	4397.0	99.69	%			18:24:44
2	Al 396.153Radial†	-115.7	-5.3	-4.9982	ug/L	-4.9982	ppb	18:24:44
2	Ca 317.933Radial†	18.8	-0.5	-1.0274	ug/L	-1.0274	ppb	18:25:04
2	Fe 238.204 Radial†	13.8	2.8	38.959	ug/L	38.959	ppb	18:25:04
2	K 766.490 Radial†	2723.9	133.1	25.535	ug/L	25.535	ppb	18:24:44
2	Mg 279.077 IEC†	2.3	-1.8	-86.396	ug/L	-86.396	ppb	18:25:04
2	Na 589.592 Radial†	-799.8	5.7	1.7573	ug/L	1.7573	ppb	18:24:44
2	Sr 421.552†	28.9	-6.3	-0.0437	ug/L	-0.0437	ppb	18:24:44
2	Sc 361.383	908778.7	908778.7	103.60	%			18:26:06
2	Y 371.029	764914.1	764914.1	101.20	%			18:26:06
2	Ag 328.068†	373.1	119.8	0.5667	ug/L	0.5667	ppb	18:26:11
2	As 188.979†	-21.9	-2.9	-1.2848	ug/L	-1.2848	ppb	18:26:31
2	B 249.677†	-473.4	-58.7	-1.4304	ug/L	-1.4304	ppb	18:26:31
2	Ba 233.527†	-5.9	-4.3	-0.0320	ug/L	-0.0320	ppb	18:26:31
2	Be 313.107†	-3831.2	64.0	0.0237	ug/L	0.0237	ppb	18:26:11
2	Cd 226.502†	-183.1	19.5	0.2218	ug/L	0.2218	ppb	18:26:31
2	Co 228.616†	-64.1	4.7	0.0974	ug/L	0.0974	ppb	18:26:31
2	Cr 267.716†	55.3	-24.3	-0.2698	ug/L	-0.2698	ppb	18:26:31
2	Cu 324.752†	5966.5	-231.4	-0.7029	ug/L	-0.7029	ppb	18:26:11
2	Mn 257.610†	487.0	11.4	0.0203	ug/L	0.0203	ppb	18:26:31
2	Mo 202.031†	11.3	0.8	0.0601	ug/L	0.0601	ppb	18:26:31
2	Ni 231.604†	58.6	-5.9	-0.1502	ug/L	-0.1502	ppb	18:26:31

2	P 214.914†	216.0	-2.0	-1.0630 ug/L	-1.0630 ppb	18:26:31
2	Pb 220.353†	-64.2	-3.9	-0.4845 ug/L	-0.4845 ppb	18:26:31
2	S 181.975 Axial†	43.5	1.2	1.6986 ug/L	1.6986 ppb	18:26:31
2	Sb 206.836†	44.3	6.1	2.1669 ug/L	2.1669 ppb	18:26:31
2	Se 196.026†	-23.9	4.7	3.2101 ug/L	3.2101 ppb	18:26:31
2	Si 251.611†	551.1	-26.3	-0.8519 ug/L	-0.8519 ppb	18:26:31
2	Sn 189.927†	28.0	16.5	2.9653 ug/L	2.9653 ppb	18:26:31
2	Ti 334.940†	-1516.2	-89.5	-0.1343 ug/L	-0.1343 ppb	18:26:11
2	Tl 190.801†	-34.2	-0.5	-0.1567 ug/L	-0.1567 ppb	18:26:31
2	U 409.014†	-2936.3	52.3	1.4398 ug/L	1.4398 ppb	18:26:06
2	V 292.402†	-1524.4	34.2	0.2346 ug/L	0.2346 ppb	18:26:11
2	Zn 213.857†	830.3	195.5	1.9639 ug/L	1.9639 ppb	18:26:31
2	SiO2†	591.7	16.8	1.1651 ug/L	1.1651 ppb	18:27:12
3	Sc Radial	3831.7	3831.7	97.8 %		18:25:29
3	Y RADIAL	4372.3	4372.3	99.13 %		18:25:09
3	Al 396.153Radial†	-141.4	-32.2	-30.227 ug/L	-30.227 ppb	18:25:09
3	Ca 317.933Radial†	17.5	-1.8	-3.6608 ug/L	-3.6608 ppb	18:25:29
3	Fe 238.204 Radial†	11.1	-0.0	-0.1367 ug/L	-0.1367 ppb	18:25:29
3	K 766.490 Radial†	2801.4	225.5	43.271 ug/L	43.271 ppb	18:25:09
3	Mg 279.077 IEC†	1.3	-2.7	-132.68 ug/L	-132.68 ppb	18:25:29
3	Na 589.592 Radial†	-762.7	39.7	12.251 ug/L	12.251 ppb	18:25:09
3	Sr 421.552†	56.8	22.3	0.1546 ug/L	0.1546 ppb	18:25:09
3	Sc 361.383	905741.5	905741.5	103.25 %		18:26:36
3	Y 371.029	763648.4	763648.4	101.03 %		18:26:36
3	Ag 328.068†	313.9	63.6	0.2958 ug/L	0.2958 ppb	18:26:42
3	As 188.979†	-25.0	-6.0	-2.6860 ug/L	-2.6860 ppb	18:27:02
3	B 249.677†	-475.0	-61.9	-1.4997 ug/L	-1.4997 ppb	18:27:02
3	Ba 233.527†	-0.8	0.6	0.0058 ug/L	0.0058 ppb	18:27:02
3	Be 313.107†	-3892.6	-7.9	-0.0032 ug/L	-0.0032 ppb	18:26:42
3	Cd 226.502†	-205.0	-2.3	-0.0271 ug/L	-0.0271 ppb	18:27:02
3	Co 228.616†	-66.7	1.9	0.0418 ug/L	0.0418 ppb	18:27:02
3	Cr 267.716†	69.5	-10.4	-0.1160 ug/L	-0.1160 ppb	18:27:02
3	Cu 324.752†	6023.7	-156.7	-0.4770 ug/L	-0.4770 ppb	18:26:42
3	Mn 257.610†	481.4	7.5	0.0140 ug/L	0.0140 ppb	18:27:02
3	Mo 202.031†	16.3	5.6	0.4113 ug/L	0.4113 ppb	18:27:02
3	Ni 231.604†	44.0	-19.8	-0.5034 ug/L	-0.5034 ppb	18:27:02
3	P 214.914†	217.1	-0.3	-0.0499 ug/L	-0.0499 ppb	18:27:02
3	Pb 220.353†	-56.9	3.0	0.3693 ug/L	0.3693 ppb	18:27:02
3	S 181.975 Axial†	51.3	8.8	12.722 ug/L	12.722 ppb	18:27:02
3	Sb 206.836†	43.9	5.8	2.0753 ug/L	2.0753 ppb	18:27:02
3	Se 196.026†	-33.1	-4.4	-2.8544 ug/L	-2.8544 ppb	18:27:02
3	Si 251.611†	571.6	-4.8	-0.1588 ug/L	-0.1588 ppb	18:27:02
3	Sn 189.927†	22.2	11.0	1.9694 ug/L	1.9694 ppb	18:27:02
3	Ti 334.940†	-1476.5	-56.0	-0.0778 ug/L	-0.0778 ppb	18:26:42
3	Tl 190.801†	-24.4	8.9	2.8458 ug/L	2.8458 ppb	18:27:02
3	U 409.014†	-2961.9	17.9	0.4958 ug/L	0.4958 ppb	18:26:36
3	V 292.402†	-1501.5	51.4	0.3628 ug/L	0.3628 ppb	18:26:42
3	Zn 213.857†	832.3	200.0	2.0176 ug/L	2.0176 ppb	18:27:02
3	SiO2†	603.2	29.8	2.0593 ug/L	2.0593 ppb	18:27:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909086.8	103.63	%	0.400				0.39%
Sc Radial	3849.4	98.2	%	0.45				0.45%
Y 371.029	765363.7	101.26	%	0.262				0.26%
Y RADIAL	4358.4	98.81	%	1.068				1.08%
Ag 328.068†	88.6	0.4137	ug/L	0.13885	0.4137	ppb	0.13885	33.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-9.9	-9.2730	ug/L	19.17786	-9.2730	ppb	19.17786	206.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.6	-2.0417	ug/L	0.70734	-2.0417	ppb	0.70734	34.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-58.6	-1.4234	ug/L	0.08000	-1.4234	ppb	0.08000	5.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.8	0.0311	ug/L	0.07889	0.0311	ppb	0.07889	253.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	57.9	0.0215	ug/L	0.02369	0.0215	ppb	0.02369	109.93%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-0.7726	ug/L	3.02359	-0.7726	ppb	3.02359	391.34%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                10.1      0.1160 ug/L       0.12856      0.1160 ppb        0.12856 110.79%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.1      0.0657 ug/L       0.02863      0.0657 ppb        0.02863  43.56%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -8.6     -0.0963 ug/L       0.18422     -0.0963 ppb        0.18422 191.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -228.5     -0.6960 ug/L       0.21563     -0.6960 ppb        0.21563  30.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      10.470 ug/L       24.9388      10.470 ppb        24.9388 238.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         177.5      34.057 ug/L        8.8879      34.057 ppb         8.8879  26.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2     -57.593 ug/L       92.9040     -57.593 ppb        92.9040 161.31%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -3.2     -0.0002 ug/L       0.03019     -0.0002 ppb        0.03019 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.9      0.1382 ug/L       0.24371      0.1382 ppb        0.24371 176.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         26.5      8.1769 ug/L       5.62635      8.1769 ppb        5.62635  68.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.9     -0.1497 ug/L       0.35396     -0.1497 ppb        0.35396 236.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.3     -1.2665 ug/L       1.33007     -1.2665 ppb        1.33007 105.02%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.7      0.0808 ug/L       0.48960      0.0808 ppb        0.48960 605.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.1      5.9226 ug/L       5.94605      5.9226 ppb        5.94605 100.40%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.0      1.8013 ug/L       0.55582      1.8013 ppb        0.55582  30.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.4      1.6046 ug/L       3.91166      1.6046 ppb        3.91166 243.78%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -10.4     -0.3397 ug/L       0.44983     -0.3397 ppb        0.44983 132.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                12.1      2.1700 ug/L       0.71630      2.1700 ppb        0.71630  33.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.2      0.0501 ug/L       0.09956      0.0501 ppb        0.09956 198.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -64.5     -0.0975 ug/L       0.03188     -0.0975 ppb        0.03188  32.68%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.7     -0.2296 ug/L       3.11254     -0.2296 ppb        3.11254 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 70.3      1.9408 ug/L       1.75006      1.9408 ppb        1.75006  90.17%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 57.1      0.4012 ug/L       0.18874      0.4012 ppb        0.18874  47.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               188.6      1.8993 ug/L       0.16069      1.8993 ppb        0.16069   8.46%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      13.6      0.9423 ug/L       1.24345      0.9423 ppb        1.24345 131.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 19:39:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4022.1	4022.1	103	%			19:41:01
1	Y RADIAL	4407.0	4407.0	99.91	%			19:41:01
1	Al 396.153Radial†	5328.8	5304.4	4951.0	ug/L	4951.0	ppb	19:41:01
1	Ca 317.933Radial†	2477.1	2393.8	5004.3	ug/L	5004.3	ppb	19:41:21
1	Fe 238.204 Radial†	365.4	344.7	4880.4	ug/L	4880.4	ppb	19:41:21
1	K 766.490 Radial†	29126.9	25739.4	4933.1	ug/L	4933.1	ppb	19:41:01
1	Mg 279.077 IEC†	109.6	102.7	4980.0	ug/L	4980.0	ppb	19:41:21
1	Na 589.592 Radial†	32398.5	32386.4	9985.6	ug/L	9985.6	ppb	19:41:01
1	Sr 421.552†	72276.7	70385.2	487.00	ug/L	487.00	ppb	19:41:01
1	Sc 361.383	901596.9	901596.9	102.78	%			19:42:18
1	Y 371.029	748196.3	748196.3	98.988	%			19:42:18
1	Ag 328.068†	108458.1	105286.6	490.80	ug/L	490.80	ppb	19:42:24
1	As 188.979†	1117.3	1105.3	497.78	ug/L	497.78	ppb	19:42:44
1	B 249.677†	19931.8	19791.3	477.62	ug/L	477.62	ppb	19:42:24
1	Ba 233.527†	64643.9	62898.3	494.81	ug/L	494.81	ppb	19:42:24
1	Be 313.107†	1346231.1	1313611.4	494.76	ug/L	494.76	ppb	19:42:18
1	Cd 226.502†	44054.0	43059.7	498.53	ug/L	498.53	ppb	19:42:24
1	Co 228.616†	24420.4	23827.0	499.21	ug/L	499.21	ppb	19:42:24
1	Cr 267.716†	45041.5	43746.6	492.06	ug/L	492.06	ppb	19:42:24
1	Cu 324.752†	169860.7	159279.5	484.69	ug/L	484.69	ppb	19:42:24
1	Mn 257.610†	450768.3	438127.5	498.84	ug/L	498.84	ppb	19:42:18
1	Mo 202.031†	6885.2	6689.0	491.52	ug/L	491.52	ppb	19:42:44
1	Ni 231.604†	20223.6	19614.6	498.56	ug/L	498.56	ppb	19:42:24
1	P 214.914†	4491.3	4159.4	2409.6	ug/L	2409.6	ppb	19:42:44
1	Pb 220.353†	4102.2	4049.4	499.55	ug/L	499.55	ppb	19:42:44
1	S 181.975 Axial†	756.7	695.4	999.79	ug/L	999.79	ppb	19:42:44
1	Sb 206.836†	1476.5	1399.9	507.06	ug/L	507.06	ppb	19:42:44
1	Se 196.026†	759.7	766.9	519.04	ug/L	519.04	ppb	19:42:44
1	Si 251.611†	78554.5	75873.3	2449.1	ug/L	2449.1	ppb	19:42:24
1	Sn 189.927†	2837.2	2750.1	494.04	ug/L	494.04	ppb	19:42:44
1	Ti 334.940†	317840.6	310625.0	487.99	ug/L	487.99	ppb	19:42:24
1	Tl 190.801†	1561.3	1551.7	499.45	ug/L	499.45	ppb	19:42:44
1	U 409.014†	14712.4	17201.4	473.34	ug/L	473.34	ppb	19:42:24
1	V 292.402†	70268.0	69874.7	493.77	ug/L	493.77	ppb	19:42:24
1	Zn 213.857†	51139.7	49151.6	490.22	ug/L	490.22	ppb	19:42:24
1	SiO2†	79027.1	76337.0	5291.7	ug/L	5291.7	ppb	19:43:51
2	Sc Radial	4019.7	4019.7	103	%			19:41:26
2	Y RADIAL	4423.9	4423.9	100.3	%			19:41:26
2	Al 396.153Radial†	5264.8	5245.1	4895.6	ug/L	4895.6	ppb	19:41:26
2	Ca 317.933Radial†	2470.9	2389.3	4994.8	ug/L	4994.8	ppb	19:41:46
2	Fe 238.204 Radial†	361.0	340.7	4823.2	ug/L	4823.2	ppb	19:41:46
2	K 766.490 Radial†	28982.2	25615.5	4909.4	ug/L	4909.4	ppb	19:41:26
2	Mg 279.077 IEC†	108.8	102.0	4944.4	ug/L	4944.4	ppb	19:41:46
2	Na 589.592 Radial†	31761.6	31784.5	9800.0	ug/L	9800.0	ppb	19:41:26
2	Sr 421.552†	70977.5	69160.9	478.53	ug/L	478.53	ppb	19:41:26
2	Sc 361.383	912302.5	912302.5	104.00	%			19:42:49
2	Y 371.029	757281.3	757281.3	100.19	%			19:42:49
2	Ag 328.068†	107959.2	103568.5	482.81	ug/L	482.81	ppb	19:42:55
2	As 188.979†	1114.0	1089.5	490.61	ug/L	490.61	ppb	19:43:15
2	B 249.677†	19809.4	19446.1	469.29	ug/L	469.29	ppb	19:42:55
2	Ba 233.527†	64444.9	61968.9	487.50	ug/L	487.50	ppb	19:42:55
2	Be 313.107†	1344485.9	1296562.4	488.33	ug/L	488.33	ppb	19:42:49
2	Cd 226.502†	43930.4	42437.8	491.33	ug/L	491.33	ppb	19:42:55
2	Co 228.616†	24252.6	23386.8	490.00	ug/L	490.00	ppb	19:42:55
2	Cr 267.716†	44948.8	43143.2	485.27	ug/L	485.27	ppb	19:42:55
2	Cu 324.752†	169034.2	156545.3	476.38	ug/L	476.38	ppb	19:42:55
2	Mn 257.610†	449773.9	432024.6	491.89	ug/L	491.89	ppb	19:42:49
2	Mo 202.031†	6903.2	6627.7	487.02	ug/L	487.02	ppb	19:43:15
2	Ni 231.604†	20115.1	19279.3	490.04	ug/L	490.04	ppb	19:42:55

2	P 214.914†	4506.7	4123.0	2389.4 ug/L	2389.4 ppb	19:43:15
2	Pb 220.353†	4108.2	4008.4	494.49 ug/L	494.49 ppb	19:43:15
2	S 181.975 Axial†	755.3	685.5	985.53 ug/L	985.53 ppb	19:43:15
2	Sb 206.836†	1485.4	1391.6	504.04 ug/L	504.04 ppb	19:43:15
2	Se 196.026†	766.0	764.3	517.17 ug/L	517.17 ppb	19:43:15
2	Si 251.611†	78286.8	74718.9	2411.8 ug/L	2411.8 ppb	19:42:55
2	Sn 189.927†	2862.2	2741.7	492.54 ug/L	492.54 ppb	19:43:15
2	Ti 334.940†	316161.6	305381.5	479.76 ug/L	479.76 ppb	19:42:55
2	Tl 190.801†	1559.9	1532.5	493.26 ug/L	493.26 ppb	19:43:15
2	U 409.014†	14517.3	16845.8	463.55 ug/L	463.55 ppb	19:42:55
2	V 292.402†	70052.2	68864.9	486.66 ug/L	486.66 ppb	19:42:55
2	Zn 213.857†	51008.2	48441.2	483.14 ug/L	483.14 ppb	19:42:55
2	SiO2†	79371.5	75765.9	5252.1 ug/L	5252.1 ppb	19:43:56
3	Sc Radial	3895.9	3895.9	99.4 %		19:41:51
3	Y RADIAL	4289.0	4289.0	97.24 %		19:41:51
3	Al 396.153Radial†	5216.5	5359.6	5003.0 ug/L	5003.0 ppb	19:41:51
3	Ca 317.933Radial†	2474.7	2469.6	5162.7 ug/L	5162.7 ppb	19:42:11
3	Fe 238.204 Radial†	359.6	350.4	4960.8 ug/L	4960.8 ppb	19:42:11
3	K 766.490 Radial†	28817.2	26347.1	5049.6 ug/L	5049.6 ppb	19:41:51
3	Mg 279.077 IEC†	106.5	103.0	4995.5 ug/L	4995.5 ppb	19:42:11
3	Na 589.592 Radial†	32020.1	33028.3	10184 ug/L	10184 ppb	19:41:51
3	Sr 421.552†	71150.6	71533.5	494.94 ug/L	494.94 ppb	19:41:51
3	Sc 361.383	903666.2	903666.2	103.01 %		19:43:20
3	Y 371.029	749820.8	749820.8	99.203 %		19:43:20
3	Ag 328.068†	109605.0	106158.3	494.88 ug/L	494.88 ppb	19:43:26
3	As 188.979†	1116.5	1102.1	496.38 ug/L	496.38 ppb	19:43:46
3	B 249.677†	20272.1	20077.3	484.54 ug/L	484.54 ppb	19:43:26
3	Ba 233.527†	65320.9	63411.5	498.85 ug/L	498.85 ppb	19:43:26
3	Be 313.107†	1347492.1	1311835.9	494.10 ug/L	494.10 ppb	19:43:20
3	Cd 226.502†	44676.7	43566.0	504.39 ug/L	504.39 ppb	19:43:26
3	Co 228.616†	24633.8	23979.7	502.39 ug/L	502.39 ppb	19:43:26
3	Cr 267.716†	45624.4	44212.1	497.29 ug/L	497.29 ppb	19:43:26
3	Cu 324.752†	171509.2	160501.3	488.41 ug/L	488.41 ppb	19:43:26
3	Mn 257.610†	450845.0	437197.6	497.79 ug/L	497.79 ppb	19:43:20
3	Mo 202.031†	6836.4	6626.3	486.93 ug/L	486.93 ppb	19:43:46
3	Ni 231.604†	20434.7	19774.5	502.62 ug/L	502.62 ppb	19:43:26
3	P 214.914†	4440.0	4099.6	2372.8 ug/L	2372.8 ppb	19:43:46
3	Pb 220.353†	4067.2	4006.4	494.25 ug/L	494.25 ppb	19:43:46
3	S 181.975 Axial†	746.5	683.9	983.21 ug/L	983.21 ppb	19:43:46
3	Sb 206.836†	1468.0	1388.4	502.92 ug/L	502.92 ppb	19:43:46
3	Se 196.026†	735.6	741.8	502.87 ug/L	502.87 ppb	19:43:46
3	Si 251.611†	79512.4	76628.1	2473.6 ug/L	2473.6 ppb	19:43:26
3	Sn 189.927†	2839.6	2746.0	493.34 ug/L	493.34 ppb	19:43:46
3	Ti 334.940†	320934.7	312920.5	491.62 ug/L	491.62 ppb	19:43:26
3	Tl 190.801†	1560.9	1547.8	498.19 ug/L	498.19 ppb	19:43:46
3	U 409.014†	14949.1	17398.4	478.76 ug/L	478.76 ppb	19:43:26
3	V 292.402†	71043.9	70471.3	497.86 ug/L	497.86 ppb	19:43:26
3	Zn 213.857†	51746.7	49626.9	494.96 ug/L	494.96 ppb	19:43:26
3	SiO2†	78594.9	75741.3	5250.4 ug/L	5250.4 ppb	19:44:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	905855.2	103.26	%	0.647				0.63%
Sc Radial	3979.2	102	%	1.8				1.81%
Y 371.029	751766.1	99.460	%	0.6410				0.64%
Y RADIAL	4373.3	99.15	%	1.666				1.68%
Ag 328.068†	105004.5	489.50	ug/L	6.141	489.50	ppb	6.141	1.25%
QC value within limits for Ag 328.068 Recovery = 97.90%								
Al 396.153Radial†	5303.0	4949.9	ug/L	53.70	4949.9	ppb	53.70	1.08%
QC value within limits for Al 396.153Radial Recovery = 99.00%								
As 188.979†	1099.0	494.93	ug/L	3.798	494.93	ppb	3.798	0.77%
QC value within limits for As 188.979 Recovery = 98.99%								
B 249.677†	19771.6	477.15	ug/L	7.634	477.15	ppb	7.634	1.60%
QC value within limits for B 249.677 Recovery = 95.43%								
Ba 233.527†	62759.6	493.72	ug/L	5.753	493.72	ppb	5.753	1.17%
QC value within limits for Ba 233.527 Recovery = 98.74%								
Be 313.107†	1307336.6	492.40	ug/L	3.535	492.40	ppb	3.535	0.72%
QC value within limits for Be 313.107 Recovery = 98.48%								
Ca 317.933Radial†	2417.6	5053.9	ug/L	94.33	5053.9	ppb	94.33	1.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.08%
Cd 226.502†            43021.2      498.09 ug/L         6.542      498.09 ppb          6.542   1.31%
   QC value within limits for Cd 226.502  Recovery = 99.62%
Co 228.616†            23731.2      497.20 ug/L         6.437      497.20 ppb          6.437   1.29%
   QC value within limits for Co 228.616  Recovery = 99.44%
Cr 267.716†            43700.6      491.54 ug/L         6.028      491.54 ppb          6.028   1.23%
   QC value within limits for Cr 267.716  Recovery = 98.31%
Cu 324.752†           158775.3      483.16 ug/L         6.163      483.16 ppb          6.163   1.28%
   QC value within limits for Cu 324.752  Recovery = 96.63%
Fe 238.204 Radial†       345.2      4888.1 ug/L        69.14      4888.1 ppb          69.14   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.76%
K 766.490 Radial†      25900.7      4964.0 ug/L        75.04      4964.0 ppb          75.04   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 99.28%
Mg 279.077 IEC†          102.6      4973.3 ug/L        26.21      4973.3 ppb          26.21   0.53%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.47%
Mn 257.610†           435783.3      496.17 ug/L         3.746      496.17 ppb          3.746   0.75%
   QC value within limits for Mn 257.610  Recovery = 99.23%
Mo 202.031†            6647.7       488.49 ug/L         2.629      488.49 ppb          2.629   0.54%
   QC value within limits for Mo 202.031  Recovery = 97.70%
Na 589.592 Radial†     32399.7      9989.7 ug/L       191.78      9989.7 ppb         191.78   1.92%
   QC value within limits for Na 589.592 Radial  Recovery = 99.90%
Ni 231.604†            19556.1      497.07 ug/L         6.423      497.07 ppb          6.423   1.29%
   QC value within limits for Ni 231.604  Recovery = 99.41%
P 214.914†              4127.3      2390.6 ug/L        18.45      2390.6 ppb          18.45   0.77%
   QC value within limits for P 214.914  Recovery = 95.62%
Pb 220.353†             4021.4      496.10 ug/L         2.995      496.10 ppb          2.995   0.60%
   QC value within limits for Pb 220.353  Recovery = 99.22%
S 181.975 Axial†         688.3      989.51 ug/L         8.982      989.51 ppb          8.982   0.91%
   QC value within limits for S 181.975 Axial  Recovery = 98.95%
Sb 206.836†             1393.3      504.67 ug/L         2.141      504.67 ppb          2.141   0.42%
   QC value within limits for Sb 206.836  Recovery = 100.93%
Se 196.026†              757.7      513.03 ug/L         8.844      513.03 ppb          8.844   1.72%
   QC value within limits for Se 196.026  Recovery = 102.61%
Si 251.611†            75740.1      2444.8 ug/L        31.11      2444.8 ppb          31.11   1.27%
   QC value within limits for Si 251.611  Recovery = 97.79%
Sn 189.927†             2745.9      493.31 ug/L         0.751      493.31 ppb          0.751   0.15%
   QC value within limits for Sn 189.927  Recovery = 98.66%
Sr 421.552†            70359.9      486.82 ug/L         8.209      486.82 ppb          8.209   1.69%
   QC value within limits for Sr 421.552  Recovery = 97.36%
Ti 334.940†           309642.3      486.46 ug/L         6.074      486.46 ppb          6.074   1.25%
   QC value within limits for Ti 334.940  Recovery = 97.29%
Tl 190.801†             1544.0      496.97 ug/L         3.270      496.97 ppb          3.270   0.66%
   QC value within limits for Tl 190.801  Recovery = 99.39%
U 409.014†             17148.5      471.89 ug/L         7.712      471.89 ppb          7.712   1.63%
   QC value within limits for U 409.014  Recovery = 94.38%
V 292.402†             69737.0      492.76 ug/L         5.664      492.76 ppb          5.664   1.15%
   QC value within limits for V 292.402  Recovery = 98.55%
Zn 213.857†            49073.2      489.44 ug/L         5.948      489.44 ppb          5.948   1.22%
   QC value within limits for Zn 213.857  Recovery = 97.89%
SiO2†                  75948.0      5264.8 ug/L        23.35      5264.8 ppb          23.35   0.44%
   QC value within limits for SiO2  Recovery = 98.45%
All analyte(s) passed QC.
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Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 19:46:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4019.3	4019.3	103	%			19:48:03
1	Y RADIAL	4457.9	4457.9	101.1	%			19:48:03
1	Al 396.153Radial†	-113.6	1.6	1.5545	ug/L	1.5545	ppb	19:48:03
1	Ca 317.933Radial†	23.0	2.8	5.8395	ug/L	5.8395	ppb	19:48:23
1	Fe 238.204 Radial†	12.7	1.1	15.023	ug/L	15.023	ppb	19:48:23
1	K 766.490 Radial†	2671.1	-35.3	-6.7737	ug/L	-6.7737	ppb	19:48:03
1	Mg 279.077 IEC†	3.0	-1.1	-54.278	ug/L	-54.278	ppb	19:48:23
1	Na 589.592 Radial†	-819.9	20.4	6.2805	ug/L	6.2805	ppb	19:48:03
1	Sr 421.552†	33.8	-2.7	-0.0189	ug/L	-0.0189	ppb	19:48:03
1	Sc 361.383	903727.8	903727.8	103.02	%			19:49:20
1	Y 371.029	761295.1	761295.1	100.72	%			19:49:20
1	Ag 328.068†	282.7	34.0	0.1624	ug/L	0.1624	ppb	19:49:25
1	As 188.979†	-28.2	-9.2	-4.0843	ug/L	-4.0843	ppb	19:49:45
1	B 249.677†	-476.8	-64.6	-1.5689	ug/L	-1.5689	ppb	19:49:45
1	Ba 233.527†	6.6	7.8	0.0616	ug/L	0.0616	ppb	19:49:45
1	Be 313.107†	-3844.3	30.6	0.0112	ug/L	0.0112	ppb	19:49:25
1	Cd 226.502†	-174.3	27.0	0.3114	ug/L	0.3114	ppb	19:49:45
1	Co 228.616†	-76.7	-8.0	-0.1670	ug/L	-0.1670	ppb	19:49:45
1	Cr 267.716†	66.1	-13.5	-0.1504	ug/L	-0.1504	ppb	19:49:45
1	Cu 324.752†	5894.2	-269.4	-0.8182	ug/L	-0.8182	ppb	19:49:25
1	Mn 257.610†	463.3	-9.1	-0.0066	ug/L	-0.0066	ppb	19:49:45
1	Mo 202.031†	7.1	-3.2	-0.2368	ug/L	-0.2368	ppb	19:49:45
1	Ni 231.604†	64.2	-0.1	-0.0032	ug/L	-0.0032	ppb	19:49:45
1	P 214.914†	206.9	-9.7	-5.6603	ug/L	-5.6603	ppb	19:49:45
1	Pb 220.353†	-75.3	-15.0	-1.8471	ug/L	-1.8471	ppb	19:49:45
1	S 181.975 Axial†	41.1	-0.9	-1.2792	ug/L	-1.2792	ppb	19:49:45
1	Sb 206.836†	28.7	-8.8	-3.0810	ug/L	-3.0810	ppb	19:49:45
1	Se 196.026†	-29.0	-0.4	-0.2003	ug/L	-0.2003	ppb	19:49:45
1	Si 251.611†	555.0	-19.6	-0.6301	ug/L	-0.6301	ppb	19:49:45
1	Sn 189.927†	16.6	5.7	1.0153	ug/L	1.0153	ppb	19:49:45
1	Ti 334.940†	-1505.1	-86.9	-0.1307	ug/L	-0.1307	ppb	19:49:25
1	Tl 190.801†	-33.0	0.5	0.1676	ug/L	0.1676	ppb	19:49:45
1	U 409.014†	-3020.8	-45.6	-1.2606	ug/L	-1.2606	ppb	19:49:20
1	V 292.402†	-1579.6	-27.6	-0.2016	ug/L	-0.2016	ppb	19:49:25
1	Zn 213.857†	830.4	200.0	2.0121	ug/L	2.0121	ppb	19:49:45
1	SiO2†	564.6	-6.4	-0.4380	ug/L	-0.4380	ppb	19:50:51
2	Sc Radial	3955.1	3955.1	101	%			19:48:28
2	Y RADIAL	4385.2	4385.2	99.42	%			19:48:28
2	Al 396.153Radial†	-124.9	-11.3	-10.640	ug/L	-10.640	ppb	19:48:28
2	Ca 317.933Radial†	17.8	-2.0	-4.2251	ug/L	-4.2251	ppb	19:48:48
2	Fe 238.204 Radial†	10.5	-0.9	-12.950	ug/L	-12.950	ppb	19:48:48
2	K 766.490 Radial†	2714.5	50.0	9.5871	ug/L	9.5871	ppb	19:48:28
2	Mg 279.077 IEC†	2.4	-1.7	-84.438	ug/L	-84.438	ppb	19:48:48
2	Na 589.592 Radial†	-786.5	40.4	12.468	ug/L	12.468	ppb	19:48:28
2	Sr 421.552†	47.9	11.7	0.0810	ug/L	0.0810	ppb	19:48:28
2	Sc 361.383	921254.5	921254.5	105.02	%			19:49:50
2	Y 371.029	775340.2	775340.2	102.58	%			19:49:50
2	Ag 328.068†	227.7	-23.6	-0.1156	ug/L	-0.1156	ppb	19:49:55
2	As 188.979†	-19.7	-0.5	-0.2467	ug/L	-0.2467	ppb	19:50:15
2	B 249.677†	-486.9	-65.4	-1.5835	ug/L	-1.5835	ppb	19:50:15
2	Ba 233.527†	-1.5	-0.0	0.0004	ug/L	0.0004	ppb	19:50:15
2	Be 313.107†	-3875.8	71.6	0.0269	ug/L	0.0269	ppb	19:49:55
2	Cd 226.502†	-183.5	21.6	0.2517	ug/L	0.2517	ppb	19:50:15
2	Co 228.616†	-70.2	-0.4	-0.0064	ug/L	-0.0064	ppb	19:50:15
2	Cr 267.716†	65.5	-15.3	-0.1746	ug/L	-0.1746	ppb	19:50:15
2	Cu 324.752†	5988.8	-288.1	-0.8802	ug/L	-0.8802	ppb	19:49:55
2	Mn 257.610†	472.5	-8.8	-0.0078	ug/L	-0.0078	ppb	19:50:15
2	Mo 202.031†	15.8	4.9	0.3593	ug/L	0.3593	ppb	19:50:15
2	Ni 231.604†	56.9	-8.3	-0.2109	ug/L	-0.2109	ppb	19:50:15

2	P 214.914†	211.8	-8.8	-5.1297 ug/L	-5.1297 ppb	19:50:15
2	Pb 220.353†	-67.3	-6.0	-0.7323 ug/L	-0.7323 ppb	19:50:15
2	S 181.975 Axial†	41.2	-1.5	-2.2136 ug/L	-2.2136 ppb	19:50:15
2	Sb 206.836†	48.9	9.8	3.4557 ug/L	3.4557 ppb	19:50:15
2	Se 196.026†	-35.1	-5.6	-3.7342 ug/L	-3.7342 ppb	19:50:15
2	Si 251.611†	587.8	1.4	0.0421 ug/L	0.0421 ppb	19:50:15
2	Sn 189.927†	13.7	2.5	0.4572 ug/L	0.4572 ppb	19:50:15
2	Ti 334.940†	-1455.2	-11.6	-0.0139 ug/L	-0.0139 ppb	19:49:55
2	Tl 190.801†	-36.2	-1.9	-0.6217 ug/L	-0.6217 ppb	19:50:15
2	U 409.014†	-2848.4	174.4	4.8170 ug/L	4.8170 ppb	19:49:50
2	V 292.402†	-1514.1	63.9	0.4604 ug/L	0.4604 ppb	19:49:55
2	Zn 213.857†	822.0	176.7	1.7828 ug/L	1.7828 ppb	19:50:15
2	SiO2†	606.0	22.7	1.5652 ug/L	1.5652 ppb	19:50:56
3	Sc Radial	3920.9	3920.9	100 %		19:48:53
3	Y RADIAL	4339.7	4339.7	98.39 %		19:48:53
3	Al 396.153Radial†	-106.8	5.7	5.3103 ug/L	5.3103 ppb	19:48:53
3	Ca 317.933Radial†	23.4	3.7	7.6982 ug/L	7.6982 ppb	19:49:14
3	Fe 238.204 Radial†	10.2	-1.1	-15.373 ug/L	-15.373 ppb	19:49:14
3	K 766.490 Radial†	2811.1	170.0	32.620 ug/L	32.620 ppb	19:48:53
3	Mg 279.077 IEC†	1.7	-2.4	-117.26 ug/L	-117.26 ppb	19:49:14
3	Na 589.592 Radial†	-802.1	18.1	5.5653 ug/L	5.5653 ppb	19:48:53
3	Sr 421.552†	57.1	21.3	0.1475 ug/L	0.1475 ppb	19:48:53
3	Sc 361.383	908750.7	908750.7	103.59 %		19:50:21
3	Y 371.029	765115.4	765115.4	101.23 %		19:50:21
3	Ag 328.068†	252.8	3.7	0.0125 ug/L	0.0125 ppb	19:50:26
3	As 188.979†	-31.5	-12.1	-5.4158 ug/L	-5.4158 ppb	19:50:46
3	B 249.677†	-509.8	-93.9	-2.2723 ug/L	-2.2723 ppb	19:50:46
3	Ba 233.527†	4.8	6.1	0.0475 ug/L	0.0475 ppb	19:50:46
3	Be 313.107†	-3847.0	48.6	0.0179 ug/L	0.0179 ppb	19:50:26
3	Cd 226.502†	-170.7	31.5	0.3664 ug/L	0.3664 ppb	19:50:46
3	Co 228.616†	-88.1	-18.5	-0.3847 ug/L	-0.3847 ppb	19:50:46
3	Cr 267.716†	76.8	-3.6	-0.0417 ug/L	-0.0417 ppb	19:50:46
3	Cu 324.752†	6021.7	-177.9	-0.5426 ug/L	-0.5426 ppb	19:50:26
3	Mn 257.610†	474.6	-0.6	0.0026 ug/L	0.0026 ppb	19:50:46
3	Mo 202.031†	19.7	8.9	0.6535 ug/L	0.6535 ppb	19:50:46
3	Ni 231.604†	76.1	11.0	0.2811 ug/L	0.2811 ppb	19:50:46
3	P 214.914†	197.4	-20.0	-11.882 ug/L	-11.882 ppb	19:50:46
3	Pb 220.353†	-49.3	10.6	1.3036 ug/L	1.3036 ppb	19:50:46
3	S 181.975 Axial†	41.4	-0.9	-1.2586 ug/L	-1.2586 ppb	19:50:46
3	Sb 206.836†	43.1	4.9	1.7445 ug/L	1.7445 ppb	19:50:46
3	Se 196.026†	-31.3	-2.4	-1.6425 ug/L	-1.6425 ppb	19:50:46
3	Si 251.611†	584.8	6.2	0.1918 ug/L	0.1918 ppb	19:50:46
3	Sn 189.927†	16.4	5.4	0.9633 ug/L	0.9633 ppb	19:50:46
3	Ti 334.940†	-1545.1	-117.4	-0.1741 ug/L	-0.1741 ppb	19:50:26
3	Tl 190.801†	-31.9	1.7	0.5585 ug/L	0.5585 ppb	19:50:46
3	U 409.014†	-2967.3	22.2	0.6148 ug/L	0.6148 ppb	19:50:21
3	V 292.402†	-1528.1	30.6	0.2239 ug/L	0.2239 ppb	19:50:26
3	Zn 213.857†	811.2	177.0	1.7831 ug/L	1.7831 ppb	19:50:46
3	SiO2†	600.1	24.9	1.7135 ug/L	1.7135 ppb	19:51:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911244.4	103.88	%	1.029				0.99%
Sc Radial	3965.1	101	%	1.3				1.26%
Y 371.029	767250.3	101.51	%	0.961				0.95%
Y RADIAL	4394.3	99.62	%	1.352				1.36%
Ag 328.068†	4.7	0.0198	ug/L	0.13912	0.0198	ppb	0.13912	703.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.2584	ug/L	8.33889	-1.2584	ppb	8.33889	662.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-7.3	-3.2489	ug/L	2.68390	-3.2489	ppb	2.68390	82.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-74.6	-1.8083	ug/L	0.40197	-1.8083	ppb	0.40197	22.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.6	0.0365	ug/L	0.03203	0.0365	ppb	0.03203	87.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	50.3	0.0186	ug/L	0.00787	0.0186	ppb	0.00787	42.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	3.1042	ug/L	6.41502	3.1042	ppb	6.41502	206.66%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                26.7      0.3098 ug/L       0.05734      0.3098 ppb        0.05734  18.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -8.9     -0.1861 ug/L       0.18984     -0.1861 ppb        0.18984 102.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -10.8     -0.1222 ug/L       0.07081     -0.1222 ppb        0.07081  57.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -245.1     -0.7470 ug/L       0.17970     -0.7470 ppb        0.17970  24.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -4.4333 ug/L      16.89277     -4.4333 ppb       16.89277 381.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          61.6      11.811 ug/L       19.7909      11.811 ppb        19.7909 167.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.8     -85.326 ug/L       31.5006     -85.326 ppb        31.5006  36.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -6.1     -0.0039 ug/L       0.00571     -0.0039 ppb        0.00571 144.74%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.5      0.2587 ug/L       0.45357      0.2587 ppb        0.45357 175.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         26.3      8.1046 ug/L       3.79559      8.1046 ppb        3.79559  46.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.9      0.0223 ug/L       0.24701      0.0223 ppb        0.24701 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.8     -7.5573 ug/L       3.75467     -7.5573 ppb        3.75467  49.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.5     -0.4252 ug/L       1.59764     -0.4252 ppb        1.59764 375.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.1     -1.5838 ug/L       0.54551     -1.5838 ppb        0.54551  34.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.0      0.7064 ug/L       3.38975      0.7064 ppb        3.38975 479.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.8     -1.8590 ug/L       1.77687     -1.8590 ppb        1.77687  95.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -4.0     -0.1321 ug/L       0.43776     -0.1321 ppb        0.43776 331.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.5      0.8119 ug/L       0.30833      0.8119 ppb        0.30833  37.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.1      0.0699 ug/L       0.08374      0.0699 ppb        0.08374 119.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -72.0     -0.1063 ug/L       0.08288     -0.1063 ppb        0.08288  78.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.1      0.0348 ug/L       0.60123      0.0348 ppb        0.60123 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 50.3      1.3904 ug/L       3.11214      1.3904 ppb        3.11214 223.84%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 22.3      0.1609 ug/L       0.33545      0.1609 ppb        0.33545 208.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               184.6      1.8593 ug/L       0.13232      1.8593 ppb        0.13232   7.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      13.7      0.9469 ug/L       1.20162      0.9469 ppb        1.20162 126.90%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 21:01:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3858.0	3858.0	98.4	%			21:03:18
1	Y RADIAL	4233.7	4233.7	95.98	%			21:03:18
1	Al 396.153Radial†	5186.6	5380.8	5022.6	ug/L	5022.6	ppb	21:03:18
1	Ca 317.933Radial†	2413.8	2432.2	5084.5	ug/L	5084.5	ppb	21:03:38
1	Fe 238.204 Radial†	342.7	336.7	4767.9	ug/L	4767.9	ppb	21:03:38
1	K 766.490 Radial†	28347.6	26155.1	5013.0	ug/L	5013.0	ppb	21:03:18
1	Mg 279.077 IEC†	106.8	104.4	5061.6	ug/L	5061.6	ppb	21:03:38
1	Na 589.592 Radial†	29637.4	30924.7	9534.9	ug/L	9534.9	ppb	21:03:18
1	Sr 421.552†	68707.9	69756.0	482.64	ug/L	482.64	ppb	21:03:18
1	Sc 361.383	896787.2	896787.2	102.23	%			21:04:36
1	Y 371.029	744443.2	744443.2	98.492	%			21:04:36
1	Ag 328.068†	106580.8	104016.2	484.87	ug/L	484.87	ppb	21:04:41
1	As 188.979†	1138.0	1131.4	509.31	ug/L	509.31	ppb	21:05:01
1	B 249.677†	19369.9	19345.7	466.86	ug/L	466.86	ppb	21:04:41
1	Ba 233.527†	63470.6	62088.0	488.43	ug/L	488.43	ppb	21:04:41
1	Be 313.107†	1340598.8	1315126.9	495.31	ug/L	495.31	ppb	21:04:36
1	Cd 226.502†	43391.9	42641.9	493.70	ug/L	493.70	ppb	21:04:41
1	Co 228.616†	23916.2	23461.2	491.57	ug/L	491.57	ppb	21:04:41
1	Cr 267.716†	44335.1	43290.6	486.92	ug/L	486.92	ppb	21:04:41
1	Cu 324.752†	166346.0	156727.8	476.93	ug/L	476.93	ppb	21:04:41
1	Mn 257.610†	447548.3	437330.0	497.92	ug/L	497.92	ppb	21:04:36
1	Mo 202.031†	6875.4	6715.3	493.44	ug/L	493.44	ppb	21:05:01
1	Ni 231.604†	19794.7	19300.6	490.58	ug/L	490.58	ppb	21:04:41
1	P 214.914†	4474.5	4166.4	2415.5	ug/L	2415.5	ppb	21:05:01
1	Pb 220.353†	4098.3	4067.0	501.76	ug/L	501.76	ppb	21:05:01
1	S 181.975 Axial†	758.7	701.3	1008.3	ug/L	1008.3	ppb	21:05:01
1	Sb 206.836†	1473.5	1404.7	508.79	ug/L	508.79	ppb	21:05:01
1	Se 196.026†	756.3	767.6	519.15	ug/L	519.15	ppb	21:05:01
1	Si 251.611†	77038.5	74800.2	2414.4	ug/L	2414.4	ppb	21:04:41
1	Sn 189.927†	2829.5	2757.3	495.36	ug/L	495.36	ppb	21:05:01
1	Ti 334.940†	311388.1	305971.8	480.69	ug/L	480.69	ppb	21:04:41
1	Tl 190.801†	1554.3	1553.0	499.83	ug/L	499.83	ppb	21:05:01
1	U 409.014†	14381.9	16954.9	466.56	ug/L	466.56	ppb	21:04:41
1	V 292.402†	69168.2	69165.5	488.87	ug/L	488.87	ppb	21:04:41
1	Zn 213.857†	50298.5	48595.6	484.70	ug/L	484.70	ppb	21:04:41
1	SiO2†	77483.3	75239.2	5215.4	ug/L	5215.4	ppb	21:06:08
2	Sc Radial	3806.9	3806.9	97.1	%			21:03:43
2	Y RADIAL	4214.9	4214.9	95.56	%			21:03:43
2	Al 396.153Radial†	5182.2	5446.9	5084.8	ug/L	5084.8	ppb	21:03:43
2	Ca 317.933Radial†	2408.8	2459.9	5142.4	ug/L	5142.4	ppb	21:04:03
2	Fe 238.204 Radial†	343.5	342.3	4846.2	ug/L	4846.2	ppb	21:04:03
2	K 766.490 Radial†	28222.4	26412.4	5062.3	ug/L	5062.3	ppb	21:03:43
2	Mg 279.077 IEC†	108.5	107.6	5215.9	ug/L	5215.9	ppb	21:04:03
2	Na 589.592 Radial†	29409.2	31093.4	9586.9	ug/L	9586.9	ppb	21:03:43
2	Sr 421.552†	68252.7	70223.2	485.87	ug/L	485.87	ppb	21:03:43
2	Sc 361.383	899900.0	899900.0	102.58	%			21:05:07
2	Y 371.029	747247.5	747247.5	98.863	%			21:05:07
2	Ag 328.068†	108993.2	106007.2	494.14	ug/L	494.14	ppb	21:05:12
2	As 188.979†	1112.5	1102.7	496.63	ug/L	496.63	ppb	21:05:32
2	B 249.677†	20072.8	19965.4	481.84	ug/L	481.84	ppb	21:05:12
2	Ba 233.527†	64998.3	63362.4	498.45	ug/L	498.45	ppb	21:05:12
2	Be 313.107†	1346836.2	1316671.1	495.91	ug/L	495.91	ppb	21:05:07
2	Cd 226.502†	44217.7	43300.1	501.32	ug/L	501.32	ppb	21:05:12
2	Co 228.616†	24498.1	23947.5	501.73	ug/L	501.73	ppb	21:05:12
2	Cr 267.716†	45203.1	43986.7	494.75	ug/L	494.75	ppb	21:05:12
2	Cu 324.752†	170725.7	160434.3	488.20	ug/L	488.20	ppb	21:05:12
2	Mn 257.610†	450137.9	438340.1	499.07	ug/L	499.07	ppb	21:05:07
2	Mo 202.031†	6837.9	6655.5	489.06	ug/L	489.06	ppb	21:05:32
2	Ni 231.604†	20246.1	19673.7	500.06	ug/L	500.06	ppb	21:05:12

2	P 214.914†	4450.2	4127.6	2389.8 ug/L	2389.8 ppb	21:05:32
2	Pb 220.353†	4059.1	4015.0	495.34 ug/L	495.34 ppb	21:05:32
2	S 181.975 Axial†	752.1	692.4	995.39 ug/L	995.39 ppb	21:05:32
2	Sb 206.836†	1473.6	1399.8	506.95 ug/L	506.95 ppb	21:05:32
2	Se 196.026†	747.5	756.5	512.10 ug/L	512.10 ppb	21:05:32
2	Si 251.611†	79016.0	76467.3	2468.4 ug/L	2468.4 ppb	21:05:12
2	Sn 189.927†	2829.6	2747.8	493.66 ug/L	493.66 ppb	21:05:32
2	Ti 334.940†	318823.6	312166.4	490.41 ug/L	490.41 ppb	21:05:12
2	Tl 190.801†	1544.2	1537.9	495.03 ug/L	495.03 ppb	21:05:32
2	U 409.014†	14837.4	17350.2	477.45 ug/L	477.45 ppb	21:05:12
2	V 292.402†	70439.7	70171.0	495.81 ug/L	495.81 ppb	21:05:12
2	Zn 213.857†	51420.1	49518.7	493.91 ug/L	493.91 ppb	21:05:12
2	SiO2†	78157.9	75634.7	5243.0 ug/L	5243.0 ppb	21:06:13
3	Sc Radial	3883.5	3883.5	99.1 %		21:04:08
3	Y RADIAL	4270.0	4270.0	96.81 %		21:04:08
3	Al 396.153Radial†	5252.3	5412.5	5052.4 ug/L	5052.4 ppb	21:04:08
3	Ca 317.933Radial†	2439.8	2442.4	5105.8 ug/L	5105.8 ppb	21:04:28
3	Fe 238.204 Radial†	347.7	339.5	4807.2 ug/L	4807.2 ppb	21:04:28
3	K 766.490 Radial†	28536.0	26156.1	5013.2 ug/L	5013.2 ppb	21:04:08
3	Mg 279.077 IEC†	111.1	108.1	5240.8 ug/L	5240.8 ppb	21:04:28
3	Na 589.592 Radial†	29516.4	30604.8	9436.3 ug/L	9436.3 ppb	21:04:08
3	Sr 421.552†	68898.4	69489.7	480.80 ug/L	480.80 ppb	21:04:08
3	Sc 361.383	897279.5	897279.5	102.29 %		21:05:38
3	Y 371.029	744168.1	744168.1	98.455 %		21:05:38
3	Ag 328.068†	107879.4	105228.6	490.51 ug/L	490.51 ppb	21:05:43
3	As 188.979†	1119.0	1112.3	500.85 ug/L	500.85 ppb	21:06:03
3	B 249.677†	19811.0	19766.5	477.05 ug/L	477.05 ppb	21:05:43
3	Ba 233.527†	64059.2	62629.4	492.69 ug/L	492.69 ppb	21:05:43
3	Be 313.107†	1340467.4	1314278.9	495.01 ug/L	495.01 ppb	21:05:38
3	Cd 226.502†	43570.8	42793.5	495.46 ug/L	495.46 ppb	21:05:43
3	Co 228.616†	24110.3	23638.2	495.26 ug/L	495.26 ppb	21:05:43
3	Cr 267.716†	44674.2	43598.3	490.38 ug/L	490.38 ppb	21:05:43
3	Cu 324.752†	168898.9	159134.4	484.25 ug/L	484.25 ppb	21:05:43
3	Mn 257.610†	448556.4	438075.3	498.76 ug/L	498.76 ppb	21:05:38
3	Mo 202.031†	6855.6	6692.3	491.76 ug/L	491.76 ppb	21:06:03
3	Ni 231.604†	19978.7	19469.8	494.88 ug/L	494.88 ppb	21:05:43
3	P 214.914†	4466.2	4155.9	2407.7 ug/L	2407.7 ppb	21:06:03
3	Pb 220.353†	4066.1	4033.3	497.60 ug/L	497.60 ppb	21:06:03
3	S 181.975 Axial†	754.1	696.4	1001.2 ug/L	1001.2 ppb	21:06:03
3	Sb 206.836†	1468.1	1398.6	506.62 ug/L	506.62 ppb	21:06:03
3	Se 196.026†	745.6	756.7	512.14 ug/L	512.14 ppb	21:06:03
3	Si 251.611†	77901.8	75602.9	2440.4 ug/L	2440.4 ppb	21:05:43
3	Sn 189.927†	2835.0	2761.2	496.06 ug/L	496.06 ppb	21:06:03
3	Ti 334.940†	315218.2	309549.2	486.30 ug/L	486.30 ppb	21:05:43
3	Tl 190.801†	1550.4	1548.3	498.36 ug/L	498.36 ppb	21:06:03
3	U 409.014†	14672.4	17231.1	474.18 ug/L	474.18 ppb	21:05:43
3	V 292.402†	69817.2	69762.9	493.01 ug/L	493.01 ppb	21:05:43
3	Zn 213.857†	50735.0	48995.4	488.68 ug/L	488.68 ppb	21:05:43
3	SiO2†	79150.3	76827.4	5325.8 ug/L	5325.8 ppb	21:06:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897988.9	102.37	%	0.191				0.19%
Sc Radial	3849.5	98.2	%	0.99				1.01%
Y 371.029	745286.2	98.603	%	0.2254				0.23%
Y RADIAL	4239.5	96.12	%	0.636				0.66%
Ag 328.068†	105084.0	489.84	ug/L	4.670	489.84	ppb	4.670	0.95%
QC value within limits for Ag 328.068 Recovery = 97.97%								
Al 396.153Radial†	5413.4	5053.3	ug/L	31.11	5053.3	ppb	31.11	0.62%
QC value within limits for Al 396.153Radial Recovery = 101.07%								
As 188.979†	1115.5	502.26	ug/L	6.460	502.26	ppb	6.460	1.29%
QC value within limits for As 188.979 Recovery = 100.45%								
B 249.677†	19692.5	475.25	ug/L	7.652	475.25	ppb	7.652	1.61%
QC value within limits for B 249.677 Recovery = 95.05%								
Ba 233.527†	62693.2	493.19	ug/L	5.028	493.19	ppb	5.028	1.02%
QC value within limits for Ba 233.527 Recovery = 98.64%								
Be 313.107†	1315359.0	495.41	ug/L	0.462	495.41	ppb	0.462	0.09%
QC value within limits for Be 313.107 Recovery = 99.08%								
Ca 317.933Radial†	2444.8	5110.9	ug/L	29.31	5110.9	ppb	29.31	0.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.22%
Cd 226.502†            42911.8      496.83 ug/L         3.991      496.83 ppb          3.991   0.80%
   QC value within limits for Cd 226.502  Recovery = 99.37%
Co 228.616†            23682.3      496.18 ug/L         5.142      496.18 ppb          5.142   1.04%
   QC value within limits for Co 228.616  Recovery = 99.24%
Cr 267.716†            43625.2      490.68 ug/L         3.923      490.68 ppb          3.923   0.80%
   QC value within limits for Cr 267.716  Recovery = 98.14%
Cu 324.752†           158765.5      483.13 ug/L         5.722      483.13 ppb          5.722   1.18%
   QC value within limits for Cu 324.752  Recovery = 96.63%
Fe 238.204 Radial†       339.5      4807.1 ug/L        39.13      4807.1 ppb          39.13   0.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.14%
K 766.490 Radial†      26241.2      5029.5 ug/L        28.42      5029.5 ppb          28.42   0.57%
   QC value within limits for K 766.490 Radial  Recovery = 100.59%
Mg 279.077 IEC†          106.7      5172.7 ug/L        97.06      5172.7 ppb          97.06   1.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.45%
Mn 257.610†           437915.1      498.58 ug/L         0.596      498.58 ppb          0.596   0.12%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†             6687.7      491.42 ug/L         2.211      491.42 ppb          2.211   0.45%
   QC value within limits for Mo 202.031  Recovery = 98.28%
Na 589.592 Radial†     30874.3      9519.4 ug/L        76.51      9519.4 ppb          76.51   0.80%
   QC value within limits for Na 589.592 Radial  Recovery = 95.19%
Ni 231.604†            19481.4      495.17 ug/L         4.748      495.17 ppb          4.748   0.96%
   QC value within limits for Ni 231.604  Recovery = 99.03%
P 214.914†              4150.0      2404.3 ug/L        13.17      2404.3 ppb          13.17   0.55%
   QC value within limits for P 214.914  Recovery = 96.17%
Pb 220.353†             4038.5      498.23 ug/L         3.253      498.23 ppb          3.253   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.65%
S 181.975 Axial†         696.7      1001.6 ug/L         6.45      1001.6 ppb           6.45   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 100.16%
Sb 206.836†             1401.0      507.45 ug/L         1.168      507.45 ppb          1.168   0.23%
   QC value within limits for Sb 206.836  Recovery = 101.49%
Se 196.026†              760.2      514.46 ug/L         4.061      514.46 ppb          4.061   0.79%
   QC value within limits for Se 196.026  Recovery = 102.89%
Si 251.611†            75623.5      2441.0 ug/L        27.01      2441.0 ppb          27.01   1.11%
   QC value within limits for Si 251.611  Recovery = 97.64%
Sn 189.927†             2755.4      495.03 ug/L         1.234      495.03 ppb          1.234   0.25%
   QC value within limits for Sn 189.927  Recovery = 99.01%
Sr 421.552†            69823.0      483.11 ug/L         2.569      483.11 ppb          2.569   0.53%
   QC value within limits for Sr 421.552  Recovery = 96.62%
Ti 334.940†           309229.1      485.80 ug/L         4.880      485.80 ppb          4.880   1.00%
   QC value within limits for Ti 334.940  Recovery = 97.16%
Tl 190.801†             1546.4      497.74 ug/L         2.458      497.74 ppb          2.458   0.49%
   QC value within limits for Tl 190.801  Recovery = 99.55%
U 409.014†             17178.8      472.73 ug/L         5.587      472.73 ppb          5.587   1.18%
   QC value within limits for U 409.014  Recovery = 94.55%
V 292.402†             69699.8      492.56 ug/L         3.496      492.56 ppb          3.496   0.71%
   QC value within limits for V 292.402  Recovery = 98.51%
Zn 213.857†            49036.6      489.10 ug/L         4.617      489.10 ppb          4.617   0.94%
   QC value within limits for Zn 213.857  Recovery = 97.82%
SiO2†                  75900.4      5261.4 ug/L        57.47      5261.4 ppb          57.47   1.09%
   QC value within limits for SiO2  Recovery = 98.39%
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 21:08:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3831.7	3831.7	97.8	%			21:10:40
1	Y RADIAL	4302.3	4302.3	97.54	%			21:10:20
1	Al 396.153Radial†	-116.2	-6.4	-5.9973	ug/L	-5.9973	ppb	21:10:20
1	Ca 317.933Radial†	10.9	-8.5	-17.804	ug/L	-17.804	ppb	21:10:40
1	Fe 238.204 Radial†	11.6	0.5	6.9759	ug/L	6.9759	ppb	21:10:40
1	K 766.490 Radial†	2755.0	178.0	34.163	ug/L	34.163	ppb	21:10:20
1	Mg 279.077 IEC†	1.6	-2.5	-120.62	ug/L	-120.62	ppb	21:10:40
1	Na 589.592 Radial†	-818.6	-17.4	-5.3608	ug/L	-5.3608	ppb	21:10:20
1	Sr 421.552†	34.5	-0.4	-0.0029	ug/L	-0.0029	ppb	21:10:20
1	Sc 361.383	917543.4	917543.4	104.60	%			21:11:37
1	Y 371.029	774367.1	774367.1	102.45	%			21:11:37
1	Ag 328.068†	226.1	-24.2	-0.1128	ug/L	-0.1128	ppb	21:11:42
1	As 188.979†	-25.4	-6.0	-2.6739	ug/L	-2.6739	ppb	21:12:02
1	B 249.677†	-441.6	-24.0	-0.5821	ug/L	-0.5821	ppb	21:12:02
1	Ba 233.527†	16.6	17.2	0.1363	ug/L	0.1363	ppb	21:12:02
1	Be 313.107†	-3792.7	136.2	0.0508	ug/L	0.0508	ppb	21:11:42
1	Cd 226.502†	-183.1	21.2	0.2457	ug/L	0.2457	ppb	21:12:02
1	Co 228.616†	-66.0	3.5	0.0725	ug/L	0.0725	ppb	21:12:02
1	Cr 267.716†	85.0	3.6	0.0397	ug/L	0.0397	ppb	21:12:02
1	Cu 324.752†	6027.1	-228.4	-0.6977	ug/L	-0.6977	ppb	21:11:42
1	Mn 257.610†	477.5	-2.2	0.0031	ug/L	0.0031	ppb	21:12:02
1	Mo 202.031†	9.2	-1.4	-0.1015	ug/L	-0.1015	ppb	21:12:02
1	Ni 231.604†	74.0	8.3	0.2119	ug/L	0.2119	ppb	21:12:02
1	P 214.914†	211.4	-8.4	-4.9457	ug/L	-4.9457	ppb	21:12:02
1	Pb 220.353†	-67.3	-6.3	-0.7730	ug/L	-0.7730	ppb	21:12:02
1	S 181.975 Axial†	41.5	-1.2	-1.6659	ug/L	-1.6659	ppb	21:12:02
1	Sb 206.836†	43.1	4.5	1.5437	ug/L	1.5437	ppb	21:12:02
1	Se 196.026†	-23.0	5.8	3.8248	ug/L	3.8248	ppb	21:12:02
1	Si 251.611†	575.1	-8.5	-0.2722	ug/L	-0.2722	ppb	21:12:02
1	Sn 189.927†	2.2	-8.3	-1.5008	ug/L	-1.5008	ppb	21:12:02
1	Ti 334.940†	-1551.6	-109.3	-0.1667	ug/L	-0.1667	ppb	21:11:42
1	Tl 190.801†	-27.9	5.9	1.8704	ug/L	1.8704	ppb	21:12:02
1	U 409.014†	-2818.0	192.4	5.3119	ug/L	5.3119	ppb	21:11:37
1	V 292.402†	-1523.5	49.1	0.3477	ug/L	0.3477	ppb	21:11:42
1	Zn 213.857†	818.3	176.3	1.7730	ug/L	1.7730	ppb	21:12:02
1	SiO2†	584.5	4.4	0.3098	ug/L	0.3098	ppb	21:13:08
2	Sc Radial	3844.7	3844.7	98.1	%			21:11:05
2	Y RADIAL	4390.6	4390.6	99.54	%			21:10:45
2	Al 396.153Radial†	-113.3	-3.0	-2.8759	ug/L	-2.8759	ppb	21:10:45
2	Ca 317.933Radial†	20.6	1.3	2.7728	ug/L	2.7728	ppb	21:11:05
2	Fe 238.204 Radial†	10.0	-1.1	-16.198	ug/L	-16.198	ppb	21:11:05
2	K 766.490 Radial†	2764.6	178.2	34.197	ug/L	34.197	ppb	21:10:45
2	Mg 279.077 IEC†	1.8	-2.3	-109.25	ug/L	-109.25	ppb	21:11:05
2	Na 589.592 Radial†	-793.7	10.8	3.3209	ug/L	3.3209	ppb	21:10:45
2	Sr 421.552†	17.6	-17.8	-0.1231	ug/L	-0.1231	ppb	21:10:45
2	Sc 361.383	907310.6	907310.6	103.43	%			21:12:07
2	Y 371.029	764712.4	764712.4	101.17	%			21:12:07
2	Ag 328.068†	278.1	28.5	0.1286	ug/L	0.1286	ppb	21:12:12
2	As 188.979†	-16.7	2.1	0.9348	ug/L	0.9348	ppb	21:12:32
2	B 249.677†	-471.3	-57.4	-1.3902	ug/L	-1.3902	ppb	21:12:32
2	Ba 233.527†	11.6	12.6	0.0991	ug/L	0.0991	ppb	21:12:32
2	Be 313.107†	-3804.5	83.8	0.0316	ug/L	0.0316	ppb	21:12:12
2	Cd 226.502†	-182.3	20.0	0.2336	ug/L	0.2336	ppb	21:12:32
2	Co 228.616†	-68.7	0.1	0.0040	ug/L	0.0040	ppb	21:12:32
2	Cr 267.716†	74.4	-5.7	-0.0651	ug/L	-0.0651	ppb	21:12:32
2	Cu 324.752†	6011.4	-178.7	-0.5440	ug/L	-0.5440	ppb	21:12:12
2	Mn 257.610†	467.9	-6.4	-0.0044	ug/L	-0.0044	ppb	21:12:32
2	Mo 202.031†	17.5	6.7	0.4929	ug/L	0.4929	ppb	21:12:32
2	Ni 231.604†	63.1	-1.5	-0.0373	ug/L	-0.0373	ppb	21:12:32

2	P 214.914†	208.6	-8.8	-5.1796 ug/L	-5.1796 ppb	21:12:32
2	Pb 220.353†	-54.4	5.5	0.6791 ug/L	0.6791 ppb	21:12:32
2	S 181.975 Axial†	44.3	2.1	2.9851 ug/L	2.9851 ppb	21:12:32
2	Sb 206.836†	38.3	0.4	0.1480 ug/L	0.1480 ppb	21:12:32
2	Se 196.026†	-26.0	2.6	1.6778 ug/L	1.6778 ppb	21:12:32
2	Si 251.611†	564.7	-12.3	-0.4050 ug/L	-0.4050 ppb	21:12:32
2	Sn 189.927†	14.3	3.4	0.6089 ug/L	0.6089 ppb	21:12:32
2	Ti 334.940†	-1407.9	12.8	0.0300 ug/L	0.0300 ppb	21:12:12
2	Tl 190.801†	-35.7	-1.9	-0.6133 ug/L	-0.6133 ppb	21:12:32
2	U 409.014†	-3026.8	-39.9	-1.0992 ug/L	-1.0992 ppb	21:12:07
2	V 292.402†	-1532.4	24.1	0.1730 ug/L	0.1730 ppb	21:12:12
2	Zn 213.857†	817.9	184.7	1.8631 ug/L	1.8631 ppb	21:12:32
2	SiO2†	599.3	25.0	1.7254 ug/L	1.7254 ppb	21:13:13
3	Sc Radial	3825.4	3825.4	97.6 %		21:11:30
3	Y RADIAL	4320.6	4320.6	97.95 %		21:11:10
3	Al 396.153Radial†	-95.9	14.2	13.291 ug/L	13.291 ppb	21:11:10
3	Ca 317.933Radial†	14.3	-5.0	-10.424 ug/L	-10.424 ppb	21:11:30
3	Fe 238.204 Radial†	7.9	-3.2	-44.934 ug/L	-44.934 ppb	21:11:30
3	K 766.490 Radial†	2769.4	197.4	37.895 ug/L	37.895 ppb	21:11:10
3	Mg 279.077 IEC†	0.5	-3.6	-172.68 ug/L	-172.68 ppb	21:11:30
3	Na 589.592 Radial†	-888.4	-90.4	-27.865 ug/L	-27.865 ppb	21:11:10
3	Sr 421.552†	26.8	-8.2	-0.0568 ug/L	-0.0568 ppb	21:11:10
3	Sc 361.383	895442.5	895442.5	102.08 %		21:12:37
3	Y 371.029	755161.9	755161.9	99.910 %		21:12:37
3	Ag 328.068†	265.8	20.0	0.0753 ug/L	0.0753 ppb	21:12:42
3	As 188.979†	-18.0	0.6	0.2589 ug/L	0.2589 ppb	21:13:02
3	B 249.677†	-459.0	-51.4	-1.2389 ug/L	-1.2389 ppb	21:13:02
3	Ba 233.527†	-5.4	-3.9	-0.0322 ug/L	-0.0322 ppb	21:13:02
3	Be 313.107†	-3732.3	105.8	0.0397 ug/L	0.0397 ppb	21:12:42
3	Cd 226.502†	-186.2	13.8	0.1656 ug/L	0.1656 ppb	21:13:02
3	Co 228.616†	-69.0	-1.1	-0.0221 ug/L	-0.0221 ppb	21:13:02
3	Cr 267.716†	82.9	3.5	0.0334 ug/L	0.0334 ppb	21:13:02
3	Cu 324.752†	6037.3	-76.3	-0.2370 ug/L	-0.2370 ppb	21:12:42
3	Mn 257.610†	471.3	2.9	0.0060 ug/L	0.0060 ppb	21:13:02
3	Mo 202.031†	8.4	-1.9	-0.1434 ug/L	-0.1434 ppb	21:13:02
3	Ni 231.604†	65.7	1.9	0.0478 ug/L	0.0478 ppb	21:13:02
3	P 214.914†	203.5	-11.1	-6.6160 ug/L	-6.6160 ppb	21:13:02
3	Pb 220.353†	-68.9	-9.4	-1.1472 ug/L	-1.1472 ppb	21:13:02
3	S 181.975 Axial†	37.2	-4.3	-6.2514 ug/L	-6.2514 ppb	21:13:02
3	Sb 206.836†	41.9	4.3	1.5156 ug/L	1.5156 ppb	21:13:02
3	Se 196.026†	-24.9	3.3	2.0248 ug/L	2.0248 ppb	21:13:02
3	Si 251.611†	568.9	-1.0	-0.0313 ug/L	-0.0313 ppb	21:13:02
3	Sn 189.927†	14.9	4.1	0.7372 ug/L	0.7372 ppb	21:13:02
3	Ti 334.940†	-1418.1	-15.2	-0.0131 ug/L	-0.0131 ppb	21:12:42
3	Tl 190.801†	-34.4	-1.1	-0.3611 ug/L	-0.3611 ppb	21:13:02
3	U 409.014†	-2783.1	160.1	4.4273 ug/L	4.4273 ppb	21:12:37
3	V 292.402†	-1538.9	-1.9	-0.0036 ug/L	-0.0036 ppb	21:12:42
3	Zn 213.857†	808.4	186.0	1.8787 ug/L	1.8787 ppb	21:13:02
3	SiO2†	558.7	-7.1	-0.4888 ug/L	-0.4888 ppb	21:13:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906765.5	103.37	%	1.261				1.22%
Sc Radial	3833.9	97.8	%	0.25				0.26%
Y 371.029	764747.1	101.18	%	1.270				1.26%
Y RADIAL	4337.8	98.34	%	1.056				1.07%
Ag 328.068†	8.1	0.0304	ug/L	0.12684	0.0304	ppb	0.12684	417.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.6	1.4725	ug/L	10.35311	1.4725	ppb	10.35311	703.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.4934	ug/L	1.91838	-0.4934	ppb	1.91838	388.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-44.3	-1.0704	ug/L	0.42958	-1.0704	ppb	0.42958	40.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.7	0.0677	ug/L	0.08849	0.0677	ppb	0.08849	130.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	108.6	0.0407	ug/L	0.00965	0.0407	ppb	0.00965	23.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.1	-8.4851	ug/L	10.42446	-8.4851	ppb	10.42446	122.86%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.3      0.2149 ug/L       0.04319      0.2149 ppb        0.04319  20.09%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.8      0.0181 ug/L       0.04885      0.0181 ppb        0.04885 269.18%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.5      0.0027 ug/L       0.05877      0.0027 ppb        0.05877 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -161.1     -0.4929 ug/L       0.23456     -0.4929 ppb        0.23456  47.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.3     -18.052 ug/L       26.0046     -18.052 ppb        26.0046 144.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         184.5      35.418 ug/L        2.1451      35.418 ppb         2.1451   6.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.8     -134.18 ug/L        33.819     -134.18 ppb         33.819  25.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -1.9      0.0016 ug/L       0.00536      0.0016 ppb        0.00536 342.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.1      0.0827 ug/L       0.35590      0.0827 ppb        0.35590 430.54%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -32.3     -9.9682 ug/L      16.09529     -9.9682 ppb       16.09529 161.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.9      0.0742 ug/L       0.12666      0.0742 ppb        0.12666 170.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.5     -5.5805 ug/L       0.90441     -5.5805 ppb        0.90441  16.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.4     -0.4137 ug/L       0.96472     -0.4137 ppb        0.96472 233.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.1     -1.6440 ug/L       4.61830     -1.6440 ppb        4.61830 280.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.1      1.0691 ug/L       0.79783      1.0691 ppb        0.79783  74.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.9      2.5091 ug/L       1.15258      2.5091 ppb        1.15258  45.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -7.3     -0.2362 ug/L       0.18946     -0.2362 ppb        0.18946  80.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.3     -0.0516 ug/L       1.25674     -0.0516 ppb        1.25674 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -8.8     -0.0609 ug/L       0.06024     -0.0609 ppb        0.06024  98.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -37.2     -0.0499 ug/L       0.10336     -0.0499 ppb        0.10336 206.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.2987 ug/L       1.36699      0.2987 ppb        1.36699 457.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                104.2      2.8800 ug/L       3.47433      2.8800 ppb        3.47433 120.64%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 23.7      0.1724 ug/L       0.17566      0.1724 ppb        0.17566 101.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               182.3      1.8383 ug/L       0.05704      1.8383 ppb        0.05704   3.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       7.5      0.5155 ug/L       1.12137      0.5155 ppb        1.12137 217.54%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 48
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 22:16:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3810.4	3810.4	97.2	%			22:19:02
1	Y RADIAL	4133.5	4133.5	93.71	%			22:18:42
1	Al 396.153Radial†	5311.6	5575.2	5204.9	ug/L	5204.9	ppb	22:18:42
1	Ca 317.933Radial†	2469.3	2519.9	5267.8	ug/L	5267.8	ppb	22:19:02
1	Fe 238.204 Radial†	357.4	356.3	5043.5	ug/L	5043.5	ppb	22:19:02
1	K 766.490 Radial†	29031.9	27218.3	5216.5	ug/L	5216.5	ppb	22:18:42
1	Mg 279.077 IEC†	108.0	107.0	5188.7	ug/L	5188.7	ppb	22:19:02
1	Na 589.592 Radial†	32927.6	34684.1	10694	ug/L	10694	ppb	22:18:42
1	Sr 421.552†	72851.9	74888.9	518.16	ug/L	518.16	ppb	22:18:42
1	Sc 361.383	891177.9	891177.9	101.59	%			22:20:00
1	Y 371.029	741068.6	741068.6	98.045	%			22:20:00
1	Ag 328.068†	107477.3	105554.9	492.10	ug/L	492.10	ppb	22:20:05
1	As 188.979†	1111.7	1112.6	501.04	ug/L	501.04	ppb	22:20:25
1	B 249.677†	19769.8	19858.6	479.24	ug/L	479.24	ppb	22:20:05
1	Ba 233.527†	63878.8	62880.6	494.67	ug/L	494.67	ppb	22:20:05
1	Be 313.107†	1318940.3	1302061.3	490.42	ug/L	490.42	ppb	22:20:00
1	Cd 226.502†	43583.8	43098.0	498.96	ug/L	498.96	ppb	22:20:05
1	Co 228.616†	23981.7	23673.0	495.98	ug/L	495.98	ppb	22:20:05
1	Cr 267.716†	44503.7	43729.5	491.88	ug/L	491.88	ppb	22:20:05
1	Cu 324.752†	167613.3	158999.4	483.85	ug/L	483.85	ppb	22:20:05
1	Mn 257.610†	441011.5	433651.0	493.75	ug/L	493.75	ppb	22:20:00
1	Mo 202.031†	6822.6	6705.7	492.76	ug/L	492.76	ppb	22:20:25
1	Ni 231.604†	19906.8	19532.8	496.48	ug/L	496.48	ppb	22:20:05
1	P 214.914†	4414.3	4134.7	2394.9	ug/L	2394.9	ppb	22:20:25
1	Pb 220.353†	4046.9	4041.7	498.64	ug/L	498.64	ppb	22:20:25
1	S 181.975 Axial†	737.2	684.9	984.56	ug/L	984.56	ppb	22:20:25
1	Sb 206.836†	1458.2	1398.7	506.66	ug/L	506.66	ppb	22:20:25
1	Se 196.026†	758.2	774.1	524.29	ug/L	524.29	ppb	22:20:25
1	Si 251.611†	77952.9	76174.6	2458.9	ug/L	2458.9	ppb	22:20:05
1	Sn 189.927†	2812.2	2757.7	495.45	ug/L	495.45	ppb	22:20:25
1	Ti 334.940†	313787.8	310251.1	487.42	ug/L	487.42	ppb	22:20:05
1	Tl 190.801†	1556.4	1564.6	503.56	ug/L	503.56	ppb	22:20:25
1	U 409.014†	14614.1	17272.0	475.28	ug/L	475.28	ppb	22:20:05
1	V 292.402†	69577.6	69994.4	494.61	ug/L	494.61	ppb	22:20:05
1	Zn 213.857†	50452.8	49057.2	489.26	ug/L	489.26	ppb	22:20:05
1	SiO2†	78410.5	76629.0	5312.0	ug/L	5312.0	ppb	22:21:32
2	Sc Radial	3840.5	3840.5	98.0	%			22:19:27
2	Y RADIAL	4329.4	4329.4	98.15	%			22:19:07
2	Al 396.153Radial†	5213.6	5432.4	5072.2	ug/L	5072.2	ppb	22:19:07
2	Ca 317.933Radial†	2453.9	2484.2	5193.3	ug/L	5193.3	ppb	22:19:27
2	Fe 238.204 Radial†	361.7	357.7	5063.4	ug/L	5063.4	ppb	22:19:27
2	K 766.490 Radial†	28672.0	26617.2	5101.3	ug/L	5101.3	ppb	22:19:07
2	Mg 279.077 IEC†	108.5	106.7	5171.4	ug/L	5171.4	ppb	22:19:27
2	Na 589.592 Radial†	32391.6	33872.1	10444	ug/L	10444	ppb	22:19:07
2	Sr 421.552†	71524.7	72947.9	504.73	ug/L	504.73	ppb	22:19:07
2	Sc 361.383	940275.3	940275.3	107.19	%			22:20:31
2	Y 371.029	782720.1	782720.1	103.56	%			22:20:31
2	Ag 328.068†	108052.7	100567.5	468.92	ug/L	468.92	ppb	22:20:36
2	As 188.979†	1116.0	1059.4	477.17	ug/L	477.17	ppb	22:20:56
2	B 249.677†	20019.5	19075.4	460.31	ug/L	460.31	ppb	22:20:36
2	Ba 233.527†	64174.4	59873.0	471.02	ug/L	471.02	ppb	22:20:36
2	Be 313.107†	1327038.3	1241824.4	467.73	ug/L	467.73	ppb	22:20:31
2	Cd 226.502†	43674.4	40942.3	473.98	ug/L	473.98	ppb	22:20:36
2	Co 228.616†	24088.6	22540.0	472.25	ug/L	472.25	ppb	22:20:36
2	Cr 267.716†	44683.9	41610.2	468.07	ug/L	468.07	ppb	22:20:36
2	Cu 324.752†	169016.0	151692.9	461.63	ug/L	461.63	ppb	22:20:36
2	Mn 257.610†	442501.0	412373.2	469.54	ug/L	469.54	ppb	22:20:31
2	Mo 202.031†	6864.9	6394.5	469.91	ug/L	469.91	ppb	22:20:56
2	Ni 231.604†	19941.9	18542.3	471.30	ug/L	471.30	ppb	22:20:36

2	P 214.914†	4458.3	3948.9	2287.2 ug/L	2287.2 ppb	22:20:56
2	Pb 220.353†	4060.4	3846.2	474.53 ug/L	474.53 ppb	22:20:56
2	S 181.975 Axial†	752.1	660.8	949.99 ug/L	949.99 ppb	22:20:56
2	Sb 206.836†	1466.1	1331.1	482.18 ug/L	482.18 ppb	22:20:56
2	Se 196.026†	755.1	732.2	496.84 ug/L	496.84 ppb	22:20:56
2	Si 251.611†	78523.3	72700.1	2346.7 ug/L	2346.7 ppb	22:20:36
2	Sn 189.927†	2822.2	2622.4	471.17 ug/L	471.17 ppb	22:20:56
2	Ti 334.940†	315407.5	295634.0	464.46 ug/L	464.46 ppb	22:20:36
2	Tl 190.801†	1546.6	1475.5	474.90 ug/L	474.90 ppb	22:20:56
2	U 409.014†	14645.5	16550.2	455.39 ug/L	455.39 ppb	22:20:36
2	V 292.402†	69775.3	66602.6	470.62 ug/L	470.62 ppb	22:20:36
2	Zn 213.857†	50757.9	46748.6	466.21 ug/L	466.21 ppb	22:20:36
2	SiO2†	78336.2	72529.4	5027.7 ug/L	5027.7 ppb	22:21:37
3	Sc Radial	3852.8	3852.8	98.3 %		22:19:52
3	Y RADIAL	4362.4	4362.4	98.90 %		22:19:32
3	Al 396.153Radial†	5285.0	5488.0	5123.5 ug/L	5123.5 ppb	22:19:32
3	Ca 317.933Radial†	2460.0	2482.4	5189.6 ug/L	5189.6 ppb	22:19:52
3	Fe 238.204 Radial†	360.9	355.7	5036.3 ug/L	5036.3 ppb	22:19:52
3	K 766.490 Radial†	28971.3	26828.1	5141.7 ug/L	5141.7 ppb	22:19:32
3	Mg 279.077 IEC†	105.8	103.5	5018.4 ug/L	5018.4 ppb	22:19:52
3	Na 589.592 Radial†	32943.2	34327.4	10584 ug/L	10584 ppb	22:19:32
3	Sr 421.552†	72590.8	73798.8	510.62 ug/L	510.62 ppb	22:19:32
3	Sc 361.383	898053.4	898053.4	102.37 %		22:21:02
3	Y 371.029	744982.0	744982.0	98.563 %		22:21:02
3	Ag 328.068†	109058.7	106289.7	495.51 ug/L	495.51 ppb	22:21:07
3	As 188.979†	1098.2	1091.0	491.46 ug/L	491.46 ppb	22:21:27
3	B 249.677†	20265.7	20194.0	487.35 ug/L	487.35 ppb	22:21:07
3	Ba 233.527†	64899.7	63396.4	498.73 ug/L	498.73 ppb	22:21:07
3	Be 313.107†	1339381.5	1312088.9	494.20 ug/L	494.20 ppb	22:21:02
3	Cd 226.502†	44166.0	43338.3	501.75 ug/L	501.75 ppb	22:21:07
3	Co 228.616†	24466.7	23966.0	502.10 ug/L	502.10 ppb	22:21:07
3	Cr 267.716†	45233.2	44106.8	496.12 ug/L	496.12 ppb	22:21:07
3	Cu 324.752†	170696.8	160748.3	489.17 ug/L	489.17 ppb	22:21:07
3	Mn 257.610†	447756.8	436916.4	497.48 ug/L	497.48 ppb	22:21:02
3	Mo 202.031†	6785.0	6617.5	486.29 ug/L	486.29 ppb	22:21:27
3	Ni 231.604†	20309.6	19776.3	502.67 ug/L	502.67 ppb	22:21:07
3	P 214.914†	4405.1	4092.5	2368.3 ug/L	2368.3 ppb	22:21:27
3	Pb 220.353†	4049.9	4014.1	495.21 ug/L	495.21 ppb	22:21:27
3	S 181.975 Axial†	739.4	681.4	979.62 ug/L	979.62 ppb	22:21:27
3	Sb 206.836†	1471.2	1400.4	507.05 ug/L	507.05 ppb	22:21:27
3	Se 196.026†	741.0	751.6	509.51 ug/L	509.51 ppb	22:21:27
3	Si 251.611†	79313.1	76915.9	2482.9 ug/L	2482.9 ppb	22:21:07
3	Sn 189.927†	2800.4	2725.0	489.56 ug/L	489.56 ppb	22:21:27
3	Ti 334.940†	319127.9	313102.7	491.90 ug/L	491.90 ppb	22:21:07
3	Tl 190.801†	1538.1	1535.0	494.12 ug/L	494.12 ppb	22:21:27
3	U 409.014†	14929.2	17469.6	480.73 ug/L	480.73 ppb	22:21:07
3	V 292.402†	70510.9	70381.7	497.22 ug/L	497.22 ppb	22:21:07
3	Zn 213.857†	51302.3	49506.8	493.74 ug/L	493.74 ppb	22:21:07
3	SiO2†	77938.1	75576.6	5239.0 ug/L	5239.0 ppb	22:21:43

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909835.5	103.72	%	3.031				2.92%
Sc Radial	3834.6	97.9	%	0.56				0.57%
Y 371.029	756256.9	100.05	%	3.043				3.04%
Y RADIAL	4275.1	96.92	%	2.806				2.89%
Ag 328.068†	104137.4	485.51	ug/L	14.467	485.51	ppb	14.467	2.98%
QC value within limits for Ag 328.068 Recovery = 97.10%								
Al 396.153Radial†	5498.5	5133.5	ug/L	66.96	5133.5	ppb	66.96	1.30%
QC value within limits for Al 396.153Radial Recovery = 102.67%								
As 188.979†	1087.7	489.89	ug/L	12.012	489.89	ppb	12.012	2.45%
QC value within limits for As 188.979 Recovery = 97.98%								
B 249.677†	19709.4	475.64	ug/L	13.875	475.64	ppb	13.875	2.92%
QC value within limits for B 249.677 Recovery = 95.13%								
Ba 233.527†	62050.0	488.14	ug/L	14.964	488.14	ppb	14.964	3.07%
QC value within limits for Ba 233.527 Recovery = 97.63%								
Be 313.107†	1285324.9	484.11	ug/L	14.315	484.11	ppb	14.315	2.96%
QC value within limits for Be 313.107 Recovery = 96.82%								
Ca 317.933Radial†	2495.5	5216.9	ug/L	44.11	5216.9	ppb	44.11	0.85%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.34%
Cd 226.502†            42459.5      491.56 ug/L        15.293      491.56 ppb        15.293   3.11%
   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†            23393.0      490.11 ug/L        15.770      490.11 ppb        15.770   3.22%
   QC value within limits for Co 228.616  Recovery = 98.02%
Cr 267.716†            43148.8      485.35 ug/L        15.121      485.35 ppb        15.121   3.12%
   QC value within limits for Cr 267.716  Recovery = 97.07%
Cu 324.752†           157146.9      478.22 ug/L        14.609      478.22 ppb        14.609   3.05%
   QC value within limits for Cu 324.752  Recovery = 95.64%
Fe 238.204 Radial†       356.6      5047.8 ug/L         14.05      5047.8 ppb         14.05   0.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.96%
K 766.490 Radial†      26887.9      5153.2 ug/L         58.45      5153.2 ppb         58.45   1.13%
   QC value within limits for K 766.490 Radial  Recovery = 103.06%
Mg 279.077 IEC†          105.7      5126.2 ug/L         93.72      5126.2 ppb         93.72   1.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.52%
Mn 257.610†           427646.9      486.92 ug/L        15.167      486.92 ppb        15.167   3.11%
   QC value within limits for Mn 257.610  Recovery = 97.38%
Mo 202.031†             6572.6      482.99 ug/L        11.777      482.99 ppb        11.777   2.44%
   QC value within limits for Mo 202.031  Recovery = 96.60%
Na 589.592 Radial†     34294.6       10574 ug/L         125.5       10574 ppb         125.5   1.19%
   QC value within limits for Na 589.592 Radial  Recovery = 105.74%
Ni 231.604†            19283.8      490.15 ug/L        16.613      490.15 ppb        16.613   3.39%
   QC value within limits for Ni 231.604  Recovery = 98.03%
P 214.914†              4058.7      2350.1 ug/L         56.11      2350.1 ppb         56.11   2.39%
   QC value within limits for P 214.914  Recovery = 94.00%
Pb 220.353†             3967.3      489.46 ug/L        13.045      489.46 ppb        13.045   2.67%
   QC value within limits for Pb 220.353  Recovery = 97.89%
S 181.975 Axial†         675.7      971.39 ug/L        18.694      971.39 ppb        18.694   1.92%
   QC value within limits for S 181.975 Axial  Recovery = 97.14%
Sb 206.836†             1376.7      498.63 ug/L        14.249      498.63 ppb        14.249   2.86%
   QC value within limits for Sb 206.836  Recovery = 99.73%
Se 196.026†              752.6      510.21 ug/L        13.738      510.21 ppb        13.738   2.69%
   QC value within limits for Se 196.026  Recovery = 102.04%
Si 251.611†            75263.5      2429.5 ug/L         72.70      2429.5 ppb         72.70   2.99%
   QC value within limits for Si 251.611  Recovery = 97.18%
Sn 189.927†             2701.7      485.39 ug/L        12.666      485.39 ppb        12.666   2.61%
   QC value within limits for Sn 189.927  Recovery = 97.08%
Sr 421.552†            73878.5      511.17 ug/L         6.732      511.17 ppb         6.732   1.32%
   QC value within limits for Sr 421.552  Recovery = 102.23%
Ti 334.940†           306329.3      481.26 ug/L        14.721      481.26 ppb        14.721   3.06%
   QC value within limits for Ti 334.940  Recovery = 96.25%
Tl 190.801†             1525.0      490.86 ug/L        14.606      490.86 ppb        14.606   2.98%
   QC value within limits for Tl 190.801  Recovery = 98.17%
U 409.014†             17097.3      470.47 ug/L        13.333      470.47 ppb        13.333   2.83%
   QC value within limits for U 409.014  Recovery = 94.09%
V 292.402†             68992.9      487.48 ug/L        14.658      487.48 ppb        14.658   3.01%
   QC value within limits for V 292.402  Recovery = 97.50%
Zn 213.857†            48437.5      483.07 ug/L        14.773      483.07 ppb        14.773   3.06%
   QC value within limits for Zn 213.857  Recovery = 96.61%
SiO2†                  74911.7      5192.9 ug/L        147.65      5192.9 ppb        147.65   2.84%
   QC value within limits for SiO2  Recovery = 97.11%
All analyte(s) passed QC.
```

Sequence No.: 49
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 22:23:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3810.6	3810.6	97.2	%			22:26:05
1	Y RADIAL	4397.6	4397.6	99.70	%			22:25:45
1	Al 396.153Radial†	-104.7	4.7	4.4551	ug/L	4.4551	ppb	22:25:45
1	Ca 317.933Radial†	23.8	4.8	10.068	ug/L	10.068	ppb	22:26:05
1	Fe 238.204 Radial†	11.6	0.6	8.0666	ug/L	8.0666	ppb	22:26:05
1	K 766.490 Radial†	2762.9	201.7	38.709	ug/L	38.709	ppb	22:25:45
1	Mg 279.077 IEC†	2.3	-1.7	-83.085	ug/L	-83.085	ppb	22:26:05
1	Na 589.592 Radial†	-815.9	-19.3	-5.9415	ug/L	-5.9415	ppb	22:25:45
1	Sr 421.552†	58.1	24.0	0.1663	ug/L	0.1663	ppb	22:25:45
1	Sc 361.383	890284.6	890284.6	101.49	%			22:27:01
1	Y 371.029	751075.4	751075.4	99.369	%			22:27:01
1	Ag 328.068†	168.6	-74.3	-0.3393	ug/L	-0.3393	ppb	22:27:06
1	As 188.979†	-11.6	6.9	3.0670	ug/L	3.0670	ppb	22:27:26
1	B 249.677†	-358.5	45.0	1.0900	ug/L	1.0900	ppb	22:27:26
1	Ba 233.527†	-11.1	-9.5	-0.0724	ug/L	-0.0724	ppb	22:27:26
1	Be 313.107†	-3815.2	2.9	0.0009	ug/L	0.0009	ppb	22:27:06
1	Cd 226.502†	-168.6	30.1	0.3481	ug/L	0.3481	ppb	22:27:26
1	Co 228.616†	-77.4	-9.7	-0.2058	ug/L	-0.2058	ppb	22:27:26
1	Cr 267.716†	64.6	-14.0	-0.1559	ug/L	-0.1559	ppb	22:27:26
1	Cu 324.752†	6067.4	-12.3	-0.0377	ug/L	-0.0377	ppb	22:27:06
1	Mn 257.610†	527.6	61.1	0.0737	ug/L	0.0737	ppb	22:27:26
1	Mo 202.031†	0.3	-9.8	-0.7223	ug/L	-0.7223	ppb	22:27:26
1	Ni 231.604†	57.4	-5.9	-0.1496	ug/L	-0.1496	ppb	22:27:26
1	P 214.914†	211.8	-1.8	-1.0715	ug/L	-1.0715	ppb	22:27:26
1	Pb 220.353†	-63.4	-4.3	-0.5363	ug/L	-0.5363	ppb	22:27:26
1	S 181.975 Axial†	37.7	-3.7	-5.2704	ug/L	-5.2704	ppb	22:27:26
1	Sb 206.836†	40.4	3.1	1.1055	ug/L	1.1055	ppb	22:27:26
1	Se 196.026†	-21.8	6.3	4.1466	ug/L	4.1466	ppb	22:27:26
1	Si 251.611†	760.5	191.1	6.1916	ug/L	6.1916	ppb	22:27:26
1	Sn 189.927†	21.6	10.8	1.9452	ug/L	1.9452	ppb	22:27:26
1	Ti 334.940†	-1461.6	-66.1	-0.0963	ug/L	-0.0963	ppb	22:27:06
1	Tl 190.801†	-28.4	4.6	1.4728	ug/L	1.4728	ppb	22:27:26
1	U 409.014†	-2884.4	44.5	1.2292	ug/L	1.2292	ppb	22:27:01
1	V 292.402†	-1401.3	124.9	0.8605	ug/L	0.8605	ppb	22:27:06
1	Zn 213.857†	831.6	213.3	2.1473	ug/L	2.1473	ppb	22:27:26
1	SiO2†	791.9	225.9	15.717	ug/L	15.717	ppb	22:28:32
2	Sc Radial	3807.4	3807.4	97.2	%			22:26:30
2	Y RADIAL	4284.6	4284.6	97.14	%			22:26:10
2	Al 396.153Radial†	-129.0	-20.3	-19.055	ug/L	-19.055	ppb	22:26:10
2	Ca 317.933Radial†	19.2	0.1	0.1254	ug/L	0.1254	ppb	22:26:30
2	Fe 238.204 Radial†	11.2	0.2	3.0851	ug/L	3.0851	ppb	22:26:30
2	K 766.490 Radial†	2826.0	269.1	51.636	ug/L	51.636	ppb	22:26:10
2	Mg 279.077 IEC†	4.4	0.4	21.619	ug/L	21.619	ppb	22:26:30
2	Na 589.592 Radial†	-826.7	-31.2	-9.6056	ug/L	-9.6056	ppb	22:26:10
2	Sr 421.552†	49.0	14.7	0.1018	ug/L	0.1018	ppb	22:26:10
2	Sc 361.383	907108.3	907108.3	103.41	%			22:27:32
2	Y 371.029	764442.6	764442.6	101.14	%			22:27:32
2	Ag 328.068†	240.7	-7.6	-0.0335	ug/L	-0.0335	ppb	22:27:37
2	As 188.979†	-19.0	-0.2	-0.0712	ug/L	-0.0712	ppb	22:27:57
2	B 249.677†	-362.6	47.6	1.1533	ug/L	1.1533	ppb	22:27:57
2	Ba 233.527†	-18.4	-16.4	-0.1284	ug/L	-0.1284	ppb	22:27:57
2	Be 313.107†	-3759.3	126.7	0.0475	ug/L	0.0475	ppb	22:27:37
2	Cd 226.502†	-189.0	13.4	0.1550	ug/L	0.1550	ppb	22:27:57
2	Co 228.616†	-67.3	1.5	0.0301	ug/L	0.0301	ppb	22:27:57
2	Cr 267.716†	93.2	12.4	0.1402	ug/L	0.1402	ppb	22:27:57
2	Cu 324.752†	6026.5	-162.7	-0.4946	ug/L	-0.4946	ppb	22:27:37
2	Mn 257.610†	513.2	37.6	0.0422	ug/L	0.0422	ppb	22:27:57
2	Mo 202.031†	8.0	-2.4	-0.1791	ug/L	-0.1791	ppb	22:27:57
2	Ni 231.604†	48.8	-15.2	-0.3874	ug/L	-0.3874	ppb	22:27:57

2	P 214.914†	194.5	-22.4	-13.376	ug/L	-13.376 ppb	22:27:57
2	Pb 220.353†	-68.2	-7.9	-0.9746	ug/L	-0.9746 ppb	22:27:57
2	S 181.975 Axial†	47.0	4.6	6.6842	ug/L	6.6842 ppb	22:27:57
2	Sb 206.836†	34.0	-3.8	-1.3246	ug/L	-1.3246 ppb	22:27:57
2	Se 196.026†	-21.5	7.0	4.5760	ug/L	4.5760 ppb	22:27:57
2	Si 251.611†	767.1	183.6	5.9419	ug/L	5.9419 ppb	22:27:57
2	Sn 189.927†	15.7	4.7	0.8500	ug/L	0.8500 ppb	22:27:57
2	Ti 334.940†	-1456.5	-34.4	-0.0556	ug/L	-0.0556 ppb	22:27:37
2	Tl 190.801†	-28.7	4.8	1.5347	ug/L	1.5347 ppb	22:27:57
2	U 409.014†	-3010.7	-25.0	-0.6897	ug/L	-0.6897 ppb	22:27:32
2	V 292.402†	-1543.1	13.4	0.0894	ug/L	0.0894 ppb	22:27:37
2	Zn 213.857†	843.0	209.2	2.1090	ug/L	2.1090 ppb	22:27:57
2	SiO2†	765.6	186.0	12.929	ug/L	12.929 ppb	22:28:37
3	Sc Radial	3811.0	3811.0	97.2	%		22:26:55
3	Y RADIAL	4274.0	4274.0	96.90	%		22:26:35
3	Al 396.153Radial†	-125.7	-16.8	-15.798	ug/L	-15.798 ppb	22:26:35
3	Ca 317.933Radial†	18.3	-0.8	-1.7318	ug/L	-1.7318 ppb	22:26:55
3	Fe 238.204 Radial†	11.5	0.5	7.0417	ug/L	7.0417 ppb	22:26:55
3	K 766.490 Radial†	2626.1	60.7	11.657	ug/L	11.657 ppb	22:26:35
3	Mg 279.077 IEC†	3.9	-0.1	-3.4089	ug/L	-3.4089 ppb	22:26:55
3	Na 589.592 Radial†	-799.0	-1.8	-0.5630	ug/L	-0.5630 ppb	22:26:35
3	Sr 421.552†	45.3	10.8	0.0750	ug/L	0.0750 ppb	22:26:35
3	Sc 361.383	908326.4	908326.4	103.54	%		22:28:02
3	Y 371.029	765068.3	765068.3	101.22	%		22:28:02
3	Ag 328.068†	233.0	-15.4	-0.0730	ug/L	-0.0730 ppb	22:28:07
3	As 188.979†	-25.8	-6.7	-2.9978	ug/L	-2.9978 ppb	22:28:27
3	B 249.677†	-331.2	78.3	1.8989	ug/L	1.8989 ppb	22:28:27
3	Ba 233.527†	16.0	16.9	0.1332	ug/L	0.1332 ppb	22:28:27
3	Be 313.107†	-3785.9	105.9	0.0398	ug/L	0.0398 ppb	22:28:07
3	Cd 226.502†	-186.5	16.2	0.1876	ug/L	0.1876 ppb	22:28:27
3	Co 228.616†	-79.4	-10.1	-0.2114	ug/L	-0.2114 ppb	22:28:27
3	Cr 267.716†	75.8	-4.4	-0.0513	ug/L	-0.0513 ppb	22:28:27
3	Cu 324.752†	6032.0	-165.3	-0.5060	ug/L	-0.5060 ppb	22:28:07
3	Mn 257.610†	496.0	20.3	0.0240	ug/L	0.0240 ppb	22:28:27
3	Mo 202.031†	16.2	5.5	0.4055	ug/L	0.4055 ppb	22:28:27
3	Ni 231.604†	67.7	2.9	0.0745	ug/L	0.0745 ppb	22:28:27
3	P 214.914†	205.0	-12.6	-7.4574	ug/L	-7.4574 ppb	22:28:27
3	Pb 220.353†	-56.9	3.1	0.3836	ug/L	0.3836 ppb	22:28:27
3	S 181.975 Axial†	49.2	6.7	9.6140	ug/L	9.6140 ppb	22:28:27
3	Sb 206.836†	40.0	1.9	0.6909	ug/L	0.6909 ppb	22:28:27
3	Se 196.026†	-19.2	9.2	6.0305	ug/L	6.0305 ppb	22:28:27
3	Si 251.611†	759.8	175.5	5.6726	ug/L	5.6726 ppb	22:28:27
3	Sn 189.927†	19.6	8.4	1.5129	ug/L	1.5129 ppb	22:28:27
3	Ti 334.940†	-1431.2	-8.1	-0.0154	ug/L	-0.0154 ppb	22:28:07
3	Tl 190.801†	-32.2	1.5	0.4801	ug/L	0.4801 ppb	22:28:27
3	U 409.014†	-2756.9	224.1	6.1875	ug/L	6.1875 ppb	22:28:02
3	V 292.402†	-1512.1	45.4	0.3327	ug/L	0.3327 ppb	22:28:07
3	Zn 213.857†	843.2	208.3	2.0957	ug/L	2.0957 ppb	22:28:27
3	SiO2†	766.0	185.4	12.874	ug/L	12.874 ppb	22:28:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901906.4	102.81	%	1.149				1.12%
Sc Radial	3809.7	97.2	%	0.05				0.05%
Y 371.029	760195.4	100.58	%	1.046				1.04%
Y RADIAL	4318.8	97.91	%	1.553				1.59%
Ag 328.068†	-32.4	-0.1486	ug/L	0.16628	-0.1486	ppb	0.16628	111.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.8	-10.133	ug/L	12.7378	-10.133	ppb	12.7378	125.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0007	ug/L	3.03305	-0.0007	ppb	3.03305	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	57.0	1.3807	ug/L	0.44987	1.3807	ppb	0.44987	32.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0225	ug/L	0.13777	-0.0225	ppb	0.13777	611.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	78.5	0.0294	ug/L	0.02499	0.0294	ppb	0.02499	85.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.3	2.8205	ug/L	6.34473	2.8205	ppb	6.34473	224.95%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                19.9      0.2302 ug/L       0.10336      0.2302 ppb        0.10336  44.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.1     -0.1290 ug/L       0.13786     -0.1290 ppb        0.13786 106.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.0     -0.0223 ug/L       0.15017     -0.0223 ppb        0.15017 673.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -113.4     -0.3461 ug/L       0.26715     -0.3461 ppb        0.26715  77.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      6.0645 ug/L       2.63059      6.0645 ppb        2.63059  43.38%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         177.2      34.000 ug/L       20.4013      34.000 ppb        20.4013  60.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -21.625 ug/L       54.6772     -21.625 ppb        54.6772 252.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                39.7      0.0466 ug/L       0.02517      0.0466 ppb        0.02517  54.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.3     -0.1653 ug/L       0.56403     -0.1653 ppb        0.56403 341.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -17.4     -5.3700 ug/L       4.54834     -5.3700 ppb        4.54834  84.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.1     -0.1542 ug/L       0.23096     -0.1542 ppb        0.23096 149.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -12.3     -7.3017 ug/L       6.15378     -7.3017 ppb        6.15378  84.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.0     -0.3758 ug/L       0.69319     -0.3758 ppb        0.69319 184.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.6      3.6759 ug/L       7.88500      3.6759 ppb        7.88500 214.50%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1573 ug/L       1.29998      0.1573 ppb        1.29998 826.60%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.5      4.9177 ug/L       0.98736      4.9177 ppb        0.98736  20.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               183.4      5.9354 ug/L       0.25953      5.9354 ppb        0.25953   4.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.0      1.4360 ug/L       0.55164      1.4360 ppb        0.55164  38.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                16.5      0.1144 ug/L       0.04690      0.1144 ppb        0.04690  41.01%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -36.2     -0.0557 ug/L       0.04044     -0.0557 ppb        0.04044  72.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.6      1.1625 ug/L       0.59180      1.1625 ppb        0.59180  50.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 81.2      2.2424 ug/L       3.54878      2.2424 ppb        3.54878 158.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 61.2      0.4276 ug/L       0.39419      0.4276 ppb        0.39419  92.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               210.3      2.1173 ug/L       0.02678      2.1173 ppb        0.02678   1.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     199.1      13.840 ug/L        1.6257      13.840 ppb         1.6257  11.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 59
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/24/2010 23:34:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3861.9	3861.9	98.5	%			23:36:39
1	Y RADIAL	4265.2	4265.2	96.70	%			23:36:39
1	Al 396.153Radial†	5231.1	5420.6	5060.1	ug/L	5060.1	ppb	23:36:39
1	Ca 317.933Radial†	2459.6	2476.2	5176.5	ug/L	5176.5	ppb	23:36:59
1	Fe 238.204 Radial†	354.7	348.6	4936.0	ug/L	4936.0	ppb	23:36:59
1	K 766.490 Radial†	28383.3	26162.4	5014.2	ug/L	5014.2	ppb	23:36:39
1	Mg 279.077 IEC†	106.5	104.0	5042.7	ug/L	5042.7	ppb	23:36:59
1	Na 589.592 Radial†	31056.7	32334.6	9969.6	ug/L	9969.6	ppb	23:36:39
1	Sr 421.552†	70201.6	71201.4	492.64	ug/L	492.64	ppb	23:36:39
1	Sc 361.383	901214.8	901214.8	102.73	%			23:37:56
1	Y 371.029	749764.9	749764.9	99.196	%			23:37:56
1	Ag 328.068†	107960.0	104846.5	488.77	ug/L	488.77	ppb	23:38:02
1	As 188.979†	1121.5	1109.9	499.80	ug/L	499.80	ppb	23:38:22
1	B 249.677†	19598.8	19475.5	469.98	ug/L	469.98	ppb	23:38:02
1	Ba 233.527†	63969.9	62268.9	489.86	ug/L	489.86	ppb	23:38:02
1	Be 313.107†	1343428.8	1311438.9	493.93	ug/L	493.93	ppb	23:37:56
1	Cd 226.502†	43643.1	42677.9	494.11	ug/L	494.11	ppb	23:38:02
1	Co 228.616†	24038.2	23465.1	491.63	ug/L	491.63	ppb	23:38:02
1	Cr 267.716†	44781.1	43511.7	489.42	ug/L	489.42	ppb	23:38:02
1	Cu 324.752†	168385.4	157913.5	480.54	ug/L	480.54	ppb	23:38:02
1	Mn 257.610†	447827.0	435450.4	495.80	ug/L	495.80	ppb	23:37:56
1	Mo 202.031†	6883.7	6690.4	491.63	ug/L	491.63	ppb	23:38:22
1	Ni 231.604†	20019.4	19424.2	493.72	ug/L	493.72	ppb	23:38:02
1	P 214.914†	4459.9	4130.7	2393.1	ug/L	2393.1	ppb	23:38:22
1	Pb 220.353†	4105.6	4054.5	500.19	ug/L	500.19	ppb	23:38:22
1	S 181.975 Axial†	747.0	686.3	986.70	ug/L	986.70	ppb	23:38:22
1	Sb 206.836†	1489.3	1413.0	511.60	ug/L	511.60	ppb	23:38:22
1	Se 196.026†	753.7	761.4	515.62	ug/L	515.62	ppb	23:38:22
1	Si 251.611†	77972.2	75338.8	2431.8	ug/L	2431.8	ppb	23:38:02
1	Sn 189.927†	2825.6	2739.9	492.25	ug/L	492.25	ppb	23:38:22
1	Ti 334.940†	315308.0	308290.9	484.34	ug/L	484.34	ppb	23:38:02
1	Tl 190.801†	1545.3	1536.7	494.66	ug/L	494.66	ppb	23:38:22
1	U 409.014†	14971.7	17459.9	480.48	ug/L	480.48	ppb	23:38:02
1	V 292.402†	69981.8	69625.1	492.04	ug/L	492.04	ppb	23:38:02
1	Zn 213.857†	50731.5	48775.4	486.46	ug/L	486.46	ppb	23:38:02
1	SiO2†	79023.2	76365.8	5293.7	ug/L	5293.7	ppb	23:39:29
2	Sc Radial	3941.0	3941.0	101	%			23:37:04
2	Y RADIAL	4324.0	4324.0	98.03	%			23:37:04
2	Al 396.153Radial†	5306.6	5389.1	5030.9	ug/L	5030.9	ppb	23:37:04
2	Ca 317.933Radial†	2460.1	2426.6	5072.8	ug/L	5072.8	ppb	23:37:24
2	Fe 238.204 Radial†	356.8	343.5	4863.0	ug/L	4863.0	ppb	23:37:24
2	K 766.490 Radial†	28903.2	26100.9	5002.5	ug/L	5002.5	ppb	23:37:04
2	Mg 279.077 IEC†	113.2	108.5	5258.5	ug/L	5258.5	ppb	23:37:24
2	Na 589.592 Radial†	31430.7	32073.5	9889.1	ug/L	9889.1	ppb	23:37:04
2	Sr 421.552†	71135.6	70699.4	489.17	ug/L	489.17	ppb	23:37:04
2	Sc 361.383	919929.9	919929.9	104.87	%			23:38:27
2	Y 371.029	763583.0	763583.0	101.02	%			23:38:27
2	Ag 328.068†	109292.8	103979.5	484.73	ug/L	484.73	ppb	23:38:33
2	As 188.979†	1130.6	1096.3	493.71	ug/L	493.71	ppb	23:38:53
2	B 249.677†	20108.6	19573.4	472.37	ug/L	472.37	ppb	23:38:33
2	Ba 233.527†	65121.1	62099.9	488.53	ug/L	488.53	ppb	23:38:33
2	Be 313.107†	1371644.8	1311741.8	494.04	ug/L	494.04	ppb	23:38:27
2	Cd 226.502†	44416.4	42551.1	492.64	ug/L	492.64	ppb	23:38:33
2	Co 228.616†	24531.9	23459.8	491.51	ug/L	491.51	ppb	23:38:33
2	Cr 267.716†	45497.5	43308.0	487.13	ug/L	487.13	ppb	23:38:33
2	Cu 324.752†	171084.5	157152.8	478.22	ug/L	478.22	ppb	23:38:33
2	Mn 257.610†	458267.0	436537.7	497.02	ug/L	497.02	ppb	23:38:27
2	Mo 202.031†	6915.4	6584.3	483.83	ug/L	483.83	ppb	23:38:53
2	Ni 231.604†	20297.9	19293.3	490.39	ug/L	490.39	ppb	23:38:33

2	P 214.914†	4463.1	4045.4	2342.2 ug/L	2342.2 ppb	23:38:53
2	Pb 220.353†	4093.5	3961.6	488.76 ug/L	488.76 ppb	23:38:53
2	S 181.975 Axial†	748.0	672.5	966.83 ug/L	966.83 ppb	23:38:53
2	Sb 206.836†	1469.3	1364.4	494.30 ug/L	494.30 ppb	23:38:53
2	Se 196.026†	752.7	745.5	504.95 ug/L	504.95 ppb	23:38:53
2	Si 251.611†	79259.9	75022.7	2421.7 ug/L	2421.7 ppb	23:38:33
2	Sn 189.927†	2829.2	2687.4	482.81 ug/L	482.81 ppb	23:38:53
2	Ti 334.940†	320011.7	306532.4	481.55 ug/L	481.55 ppb	23:38:33
2	Tl 190.801†	1557.7	1518.0	488.66 ug/L	488.66 ppb	23:38:53
2	U 409.014†	14850.8	17048.1	469.12 ug/L	469.12 ppb	23:38:33
2	V 292.402†	71009.2	69219.0	489.10 ug/L	489.10 ppb	23:38:33
2	Zn 213.857†	51578.4	48578.3	484.51 ug/L	484.51 ppb	23:38:33
2	SiO2†	79362.0	75124.0	5207.6 ug/L	5207.6 ppb	23:39:34
3	Sc Radial	3907.0	3907.0	99.7 %		23:37:29
3	Y RADIAL	4286.3	4286.3	97.18 %		23:37:29
3	Al 396.153Radial†	5264.4	5392.7	5033.8 ug/L	5033.8 ppb	23:37:29
3	Ca 317.933Radial†	2433.2	2420.9	5060.9 ug/L	5060.9 ppb	23:37:49
3	Fe 238.204 Radial†	349.2	338.9	4798.5 ug/L	4798.5 ppb	23:37:49
3	K 766.490 Radial†	28498.9	25945.3	4972.6 ug/L	4972.6 ppb	23:37:29
3	Mg 279.077 IEC†	102.4	98.6	4781.7 ug/L	4781.7 ppb	23:37:49
3	Na 589.592 Radial†	30923.6	31836.7	9816.1 ug/L	9816.1 ppb	23:37:29
3	Sr 421.552†	70551.2	70728.4	489.37 ug/L	489.37 ppb	23:37:29
3	Sc 361.383	898849.8	898849.8	102.46 %		23:38:58
3	Y 371.029	746977.6	746977.6	98.827 %		23:38:58
3	Ag 328.068†	108084.7	105244.7	490.58 ug/L	490.58 ppb	23:39:04
3	As 188.979†	1108.7	1100.3	495.49 ug/L	495.49 ppb	23:39:24
3	B 249.677†	19715.1	19639.2	473.96 ug/L	473.96 ppb	23:39:04
3	Ba 233.527†	64176.9	62634.8	492.74 ug/L	492.74 ppb	23:39:04
3	Be 313.107†	1336376.7	1307997.2	492.65 ug/L	492.65 ppb	23:38:58
3	Cd 226.502†	43719.4	42864.1	496.28 ug/L	496.28 ppb	23:39:04
3	Co 228.616†	24121.7	23608.1	494.63 ug/L	494.63 ppb	23:39:04
3	Cr 267.716†	44943.0	43784.4	492.47 ug/L	492.47 ppb	23:39:04
3	Cu 324.752†	168733.1	158684.1	482.88 ug/L	482.88 ppb	23:39:04
3	Mn 257.610†	446146.1	434956.9	495.23 ug/L	495.23 ppb	23:38:58
3	Mo 202.031†	6863.2	6688.0	491.44 ug/L	491.44 ppb	23:39:24
3	Ni 231.604†	20088.9	19543.2	496.75 ug/L	496.75 ppb	23:39:04
3	P 214.914†	4437.3	4120.0	2386.3 ug/L	2386.3 ppb	23:39:24
3	Pb 220.353†	4058.1	4018.6	495.79 ug/L	495.79 ppb	23:39:24
3	S 181.975 Axial†	748.4	689.6	991.35 ug/L	991.35 ppb	23:39:24
3	Sb 206.836†	1462.7	1390.8	503.80 ug/L	503.80 ppb	23:39:24
3	Se 196.026†	743.9	753.8	510.20 ug/L	510.20 ppb	23:39:24
3	Si 251.611†	78236.0	75796.0	2446.6 ug/L	2446.6 ppb	23:39:04
3	Sn 189.927†	2798.5	2720.7	488.79 ug/L	488.79 ppb	23:39:24
3	Ti 334.940†	315790.0	309568.9	486.36 ug/L	486.36 ppb	23:39:04
3	Tl 190.801†	1540.9	1536.4	494.56 ug/L	494.56 ppb	23:39:24
3	U 409.014†	14687.8	17221.1	473.90 ug/L	473.90 ppb	23:39:04
3	V 292.402†	69991.1	69813.4	493.35 ug/L	493.35 ppb	23:39:04
3	Zn 213.857†	50780.5	48953.1	488.25 ug/L	488.25 ppb	23:39:04
3	SiO2†	79845.2	77370.4	5363.5 ug/L	5363.5 ppb	23:39:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906664.8	103.36	%	1.316				1.27%
Sc Radial	3903.3	99.6	%	1.01				1.02%
Y 371.029	753441.8	99.682	%	1.1765				1.18%
Y RADIAL	4291.8	97.30	%	0.676				0.69%
Ag 328.068†	104690.2	488.03	ug/L	2.997	488.03	ppb	2.997	0.61%
QC value within limits for Ag 328.068 Recovery = 97.61%								
Al 396.153Radial†	5400.8	5041.6	ug/L	16.06	5041.6	ppb	16.06	0.32%
QC value within limits for Al 396.153Radial Recovery = 100.83%								
As 188.979†	1102.2	496.33	ug/L	3.131	496.33	ppb	3.131	0.63%
QC value within limits for As 188.979 Recovery = 99.27%								
B 249.677†	19562.7	472.10	ug/L	2.005	472.10	ppb	2.005	0.42%
QC value within limits for B 249.677 Recovery = 94.42%								
Ba 233.527†	62334.5	490.38	ug/L	2.149	490.38	ppb	2.149	0.44%
QC value within limits for Ba 233.527 Recovery = 98.08%								
Be 313.107†	1310392.6	493.54	ug/L	0.777	493.54	ppb	0.777	0.16%
QC value within limits for Be 313.107 Recovery = 98.71%								
Ca 317.933Radial†	2441.2	5103.4	ug/L	63.56	5103.4	ppb	63.56	1.25%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.07%
Cd 226.502†            42697.7      494.34 ug/L         1.830      494.34 ppb          1.830   0.37%
   QC value within limits for Cd 226.502  Recovery = 98.87%
Co 228.616†            23511.0      492.59 ug/L         1.764      492.59 ppb          1.764   0.36%
   QC value within limits for Co 228.616  Recovery = 98.52%
Cr 267.716†            43534.7      489.67 ug/L         2.682      489.67 ppb          2.682   0.55%
   QC value within limits for Cr 267.716  Recovery = 97.93%
Cu 324.752†           157916.8      480.55 ug/L         2.327      480.55 ppb          2.327   0.48%
   QC value within limits for Cu 324.752  Recovery = 96.11%
Fe 238.204 Radial†       343.7      4865.8 ug/L        68.78      4865.8 ppb         68.78   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.32%
K 766.490 Radial†      26069.5      4996.4 ug/L        21.42      4996.4 ppb         21.42   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 99.93%
Mg 279.077 IEC†          103.7      5027.6 ug/L       238.77      5027.6 ppb        238.77   4.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.55%
Mn 257.610†           435648.3      496.02 ug/L         0.913      496.02 ppb          0.913   0.18%
   QC value within limits for Mn 257.610  Recovery = 99.20%
Mo 202.031†             6654.2      488.97 ug/L         4.449      488.97 ppb          4.449   0.91%
   QC value within limits for Mo 202.031  Recovery = 97.79%
Na 589.592 Radial†     32081.6      9891.6 ug/L        76.79      9891.6 ppb         76.79   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 98.92%
Ni 231.604†            19420.3      493.62 ug/L         3.178      493.62 ppb          3.178   0.64%
   QC value within limits for Ni 231.604  Recovery = 98.72%
P 214.914†              4098.7      2373.9 ug/L        27.63      2373.9 ppb         27.63   1.16%
   QC value within limits for P 214.914  Recovery = 94.96%
Pb 220.353†             4011.6      494.92 ug/L         5.767      494.92 ppb          5.767   1.17%
   QC value within limits for Pb 220.353  Recovery = 98.98%
S 181.975 Axial†         682.8      981.63 ug/L        13.021      981.63 ppb         13.021   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†             1389.4      503.23 ug/L         8.666      503.23 ppb          8.666   1.72%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†              753.5      510.26 ug/L         5.336      510.26 ppb          5.336   1.05%
   QC value within limits for Se 196.026  Recovery = 102.05%
Si 251.611†            75385.8      2433.4 ug/L        12.54      2433.4 ppb         12.54   0.52%
   QC value within limits for Si 251.611  Recovery = 97.34%
Sn 189.927†             2716.0      487.95 ug/L         4.774      487.95 ppb          4.774   0.98%
   QC value within limits for Sn 189.927  Recovery = 97.59%
Sr 421.552†            70876.4      490.39 ug/L         1.950      490.39 ppb          1.950   0.40%
   QC value within limits for Sr 421.552  Recovery = 98.08%
Ti 334.940†           308130.7      484.08 ug/L         2.413      484.08 ppb          2.413   0.50%
   QC value within limits for Ti 334.940  Recovery = 96.82%
Tl 190.801†             1530.4      492.62 ug/L         3.435      492.62 ppb          3.435   0.70%
   QC value within limits for Tl 190.801  Recovery = 98.52%
U 409.014†             17243.0      474.50 ug/L         5.704      474.50 ppb          5.704   1.20%
   QC value within limits for U 409.014  Recovery = 94.90%
V 292.402†             69552.5      491.50 ug/L         2.179      491.50 ppb          2.179   0.44%
   QC value within limits for V 292.402  Recovery = 98.30%
Zn 213.857†            48768.9      486.41 ug/L         1.869      486.41 ppb          1.869   0.38%
   QC value within limits for Zn 213.857  Recovery = 97.28%
SiO2†                  76286.7      5288.3 ug/L        78.10      5288.3 ppb         78.10   1.48%
   QC value within limits for SiO2  Recovery = 98.89%
All analyte(s) passed QC.
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Sequence No.: 60
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/24/2010 23:41:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3861.2	3861.2	98.5	%			23:44:01
1	Y RADIAL	4266.9	4266.9	96.74	%			23:43:41
1	Al 396.153Radial†	-102.0	8.9	8.2760	ug/L	8.2760	ppb	23:43:41
1	Ca 317.933Radial†	17.4	-2.0	-4.2512	ug/L	-4.2512	ppb	23:44:01
1	Fe 238.204 Radial†	9.2	-1.9	-27.494	ug/L	-27.494	ppb	23:44:01
1	K 766.490 Radial†	2739.7	141.0	27.060	ug/L	27.060	ppb	23:43:41
1	Mg 279.077 IEC†	5.1	1.1	51.068	ug/L	51.068	ppb	23:44:01
1	Na 589.592 Radial†	-822.4	-14.9	-4.6061	ug/L	-4.6061	ppb	23:43:41
1	Sr 421.552†	44.2	9.1	0.0629	ug/L	0.0629	ppb	23:43:41
1	Sc 361.383	892687.0	892687.0	101.76	%			23:44:58
1	Y 371.029	754727.0	754727.0	99.852	%			23:44:58
1	Ag 328.068†	155.4	-87.7	-0.4105	ug/L	-0.4105	ppb	23:44:58
1	As 188.979†	-28.6	-9.9	-4.4270	ug/L	-4.4270	ppb	23:45:18
1	B 249.677†	-496.8	-90.0	-2.1781	ug/L	-2.1781	ppb	23:45:18
1	Ba 233.527†	6.1	7.4	0.0579	ug/L	0.0579	ppb	23:45:18
1	Be 313.107†	-3683.5	142.5	0.0533	ug/L	0.0533	ppb	23:44:58
1	Cd 226.502†	-183.9	15.5	0.1819	ug/L	0.1819	ppb	23:45:18
1	Co 228.616†	-67.4	0.3	0.0090	ug/L	0.0090	ppb	23:45:18
1	Cr 267.716†	61.9	-16.8	-0.1894	ug/L	-0.1894	ppb	23:45:18
1	Cu 324.752†	5950.3	-143.5	-0.4357	ug/L	-0.4357	ppb	23:44:58
1	Mn 257.610†	496.4	29.0	0.0282	ug/L	0.0282	ppb	23:45:18
1	Mo 202.031†	17.7	7.3	0.5302	ug/L	0.5302	ppb	23:45:18
1	Ni 231.604†	52.5	-10.8	-0.2752	ug/L	-0.2752	ppb	23:45:18
1	P 214.914†	215.6	1.4	0.9500	ug/L	0.9500	ppb	23:45:18
1	Pb 220.353†	-72.2	-12.9	-1.5753	ug/L	-1.5753	ppb	23:45:18
1	S 181.975 Axial†	36.6	-4.8	-6.9570	ug/L	-6.9570	ppb	23:45:18
1	Sb 206.836†	34.5	-2.8	-0.9509	ug/L	-0.9509	ppb	23:45:18
1	Se 196.026†	-24.2	3.9	2.4986	ug/L	2.4986	ppb	23:45:18
1	Si 251.611†	641.6	72.2	2.3295	ug/L	2.3295	ppb	23:45:18
1	Sn 189.927†	13.6	2.9	0.5185	ug/L	0.5185	ppb	23:45:18
1	Ti 334.940†	-1466.0	-66.6	-0.1075	ug/L	-0.1075	ppb	23:44:58
1	Tl 190.801†	-39.5	-6.2	-1.9828	ug/L	-1.9828	ppb	23:45:18
1	U 409.014†	-3091.6	-151.4	-4.1784	ug/L	-4.1784	ppb	23:44:58
1	V 292.402†	-1499.2	32.4	0.2309	ug/L	0.2309	ppb	23:44:58
1	Zn 213.857†	839.1	218.5	2.2062	ug/L	2.2062	ppb	23:45:18
1	SiO2†	680.6	114.4	7.9354	ug/L	7.9354	ppb	23:46:14
2	Sc Radial	3889.2	3889.2	99.2	%			23:44:26
2	Y RADIAL	4521.5	4521.5	102.5	%			23:44:06
2	Al 396.153Radial†	-121.4	-9.9	-9.2769	ug/L	-9.2769	ppb	23:44:06
2	Ca 317.933Radial†	17.6	-1.9	-4.0132	ug/L	-4.0132	ppb	23:44:26
2	Fe 238.204 Radial†	10.3	-1.0	-14.065	ug/L	-14.065	ppb	23:44:26
2	K 766.490 Radial†	2761.7	143.1	27.466	ug/L	27.466	ppb	23:44:06
2	Mg 279.077 IEC†	3.2	-0.8	-40.636	ug/L	-40.636	ppb	23:44:26
2	Na 589.592 Radial†	-867.5	-54.3	-16.755	ug/L	-16.755	ppb	23:44:06
2	Sr 421.552†	31.9	-3.6	-0.0250	ug/L	-0.0250	ppb	23:44:06
2	Sc 361.383	898607.6	898607.6	102.44	%			23:45:23
2	Y 371.029	759669.5	759669.5	100.51	%			23:45:23
2	Ag 328.068†	278.6	31.6	0.1492	ug/L	0.1492	ppb	23:45:23
2	As 188.979†	-24.2	-5.4	-2.4145	ug/L	-2.4145	ppb	23:45:43
2	B 249.677†	-471.7	-62.2	-1.5062	ug/L	-1.5062	ppb	23:45:43
2	Ba 233.527†	-9.5	-7.9	-0.0608	ug/L	-0.0608	ppb	23:45:43
2	Be 313.107†	-3778.1	74.0	0.0279	ug/L	0.0279	ppb	23:45:23
2	Cd 226.502†	-193.5	7.3	0.0851	ug/L	0.0851	ppb	23:45:43
2	Co 228.616†	-64.1	3.9	0.0816	ug/L	0.0816	ppb	23:45:43
2	Cr 267.716†	63.9	-15.3	-0.1697	ug/L	-0.1697	ppb	23:45:43
2	Cu 324.752†	6024.9	-109.2	-0.3299	ug/L	-0.3299	ppb	23:45:23
2	Mn 257.610†	527.0	55.8	0.0637	ug/L	0.0637	ppb	23:45:43
2	Mo 202.031†	7.4	-3.0	-0.2184	ug/L	-0.2184	ppb	23:45:43
2	Ni 231.604†	54.5	-9.3	-0.2357	ug/L	-0.2357	ppb	23:45:43

2	P 214.914†	215.9	0.3	0.2565 ug/L	0.2565 ppb	23:45:43
2	Pb 220.353†	-59.6	-0.1	-0.0085 ug/L	-0.0085 ppb	23:45:43
2	S 181.975 Axial†	39.5	-2.2	-3.1953 ug/L	-3.1953 ppb	23:45:43
2	Sb 206.836†	41.4	3.7	1.2870 ug/L	1.2870 ppb	23:45:43
2	Se 196.026†	-24.7	3.7	2.3641 ug/L	2.3641 ppb	23:45:43
2	Si 251.611†	646.3	72.6	2.3519 ug/L	2.3519 ppb	23:45:43
2	Sn 189.927†	12.9	2.1	0.3768 ug/L	0.3768 ppb	23:45:43
2	Ti 334.940†	-1385.4	21.6	0.0393 ug/L	0.0393 ppb	23:45:23
2	Tl 190.801†	-39.5	-6.0	-1.9077 ug/L	-1.9077 ppb	23:45:43
2	U 409.014†	-3172.7	-210.6	-5.8139 ug/L	-5.8139 ppb	23:45:23
2	V 292.402†	-1450.4	89.8	0.6134 ug/L	0.6134 ppb	23:45:23
2	Zn 213.857†	839.2	213.2	2.1501 ug/L	2.1501 ppb	23:45:43
2	SiO2†	649.7	79.8	5.5539 ug/L	5.5539 ppb	23:46:19
3	Sc Radial	3895.0	3895.0	99.4 %		23:44:51
3	Y RADIAL	4413.6	4413.6	100.1 %		23:44:31
3	Al 396.153Radial†	-147.5	-36.0	-33.797 ug/L	-33.797 ppb	23:44:31
3	Ca 317.933Radial†	18.0	-1.5	-3.1918 ug/L	-3.1918 ppb	23:44:51
3	Fe 238.204 Radial†	8.5	-2.8	-39.059 ug/L	-39.059 ppb	23:44:51
3	K 766.490 Radial†	2739.8	117.0	22.458 ug/L	22.458 ppb	23:44:31
3	Mg 279.077 IEC†	2.1	-2.0	-95.317 ug/L	-95.317 ppb	23:44:51
3	Na 589.592 Radial†	-873.1	-58.7	-18.105 ug/L	-18.105 ppb	23:44:31
3	Sr 421.552†	55.5	20.1	0.1392 ug/L	0.1392 ppb	23:44:31
3	Sc 361.383	893412.1	893412.1	101.84 %		23:45:49
3	Y 371.029	754487.6	754487.6	99.821 %		23:45:49
3	Ag 328.068†	242.9	-1.9	-0.0215 ug/L	-0.0215 ppb	23:45:49
3	As 188.979†	-21.3	-2.7	-1.2155 ug/L	-1.2155 ppb	23:46:09
3	B 249.677†	-481.8	-74.9	-1.8088 ug/L	-1.8088 ppb	23:46:09
3	Ba 233.527†	0.3	1.7	0.0121 ug/L	0.0121 ppb	23:46:09
3	Be 313.107†	-3788.1	42.7	0.0161 ug/L	0.0161 ppb	23:45:49
3	Cd 226.502†	-198.1	1.7	0.0240 ug/L	0.0240 ppb	23:46:09
3	Co 228.616†	-66.9	0.8	0.0185 ug/L	0.0185 ppb	23:46:09
3	Cr 267.716†	55.4	-23.3	-0.2656 ug/L	-0.2656 ppb	23:46:09
3	Cu 324.752†	6069.2	-31.5	-0.0982 ug/L	-0.0982 ppb	23:45:49
3	Mn 257.610†	514.4	46.3	0.0528 ug/L	0.0528 ppb	23:46:09
3	Mo 202.031†	12.9	2.6	0.1855 ug/L	0.1855 ppb	23:46:09
3	Ni 231.604†	68.3	4.6	0.1172 ug/L	0.1172 ppb	23:46:09
3	P 214.914†	207.8	-6.4	-3.8186 ug/L	-3.8186 ppb	23:46:09
3	Pb 220.353†	-55.0	4.1	0.5074 ug/L	0.5074 ppb	23:46:09
3	S 181.975 Axial†	43.0	1.4	2.0914 ug/L	2.0914 ppb	23:46:09
3	Sb 206.836†	38.9	1.5	0.5412 ug/L	0.5412 ppb	23:46:09
3	Se 196.026†	-29.1	-0.8	-0.6668 ug/L	-0.6668 ppb	23:46:09
3	Si 251.611†	625.4	55.8	1.8032 ug/L	1.8032 ppb	23:46:09
3	Sn 189.927†	16.7	6.0	1.0698 ug/L	1.0698 ppb	23:46:09
3	Ti 334.940†	-1391.9	7.4	0.0189 ug/L	0.0189 ppb	23:45:49
3	Tl 190.801†	-32.4	0.7	0.2337 ug/L	0.2337 ppb	23:46:09
3	U 409.014†	-2924.3	15.3	0.4279 ug/L	0.4279 ppb	23:45:49
3	V 292.402†	-1552.8	-19.0	-0.1249 ug/L	-0.1249 ppb	23:45:49
3	Zn 213.857†	819.2	198.3	2.0012 ug/L	2.0012 ppb	23:46:09
3	SiO2†	697.8	130.8	9.0854 ug/L	9.0854 ppb	23:46:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894902.2	102.01	%	0.368				0.36%
Sc Radial	3881.8	99.1	%	0.46				0.47%
Y 371.029	756294.7	100.06	%	0.387				0.39%
Y RADIAL	4400.7	99.77	%	2.897				2.90%
Ag 328.068†	-19.3	-0.0943	ug/L	0.28684	-0.0943	ppb	0.28684	304.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.4	-11.599	ug/L	21.1322	-11.599	ppb	21.1322	182.19%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.0	-2.6857	ug/L	1.62282	-2.6857	ppb	1.62282	60.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-75.7	-1.8310	ug/L	0.33649	-1.8310	ppb	0.33649	18.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.4	0.0031	ug/L	0.05991	0.0031	ppb	0.05991	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	86.4	0.0324	ug/L	0.01904	0.0324	ppb	0.01904	58.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.8	-3.8187	ug/L	0.55583	-3.8187	ppb	0.55583	14.56%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.2      0.0970 ug/L       0.07960      0.0970 ppb        0.07960  82.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.7      0.0364 ug/L       0.03948      0.0364 ppb        0.03948 108.59%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -18.5     -0.2082 ug/L       0.05068     -0.2082 ppb        0.05068  24.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -94.7     -0.2879 ug/L       0.17265     -0.2879 ppb        0.17265  59.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.9     -26.873 ug/L      12.5090     -26.873 ppb       12.5090  46.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         133.7      25.661 ug/L       2.7815      25.661 ppb        2.7815  10.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -28.295 ug/L      73.9688     -28.295 ppb       73.9688 261.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                43.7      0.0482 ug/L       0.01818      0.0482 ppb        0.01818  37.68%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.3      0.1658 ug/L       0.37468      0.1658 ppb        0.37468 226.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -42.7     -13.156 ug/L       7.4348     -13.156 ppb        7.4348  56.51%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.2     -0.1312 ug/L       0.21604     -0.1312 ppb        0.21604 164.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.6     -0.8707 ug/L       2.57641     -0.8707 ppb        2.57641 295.90%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.9     -0.3588 ug/L       1.08464     -0.3588 ppb        1.08464 302.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.9     -2.6870 ug/L       4.54554     -2.6870 ppb        4.54554 169.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.8      0.2924 ug/L       1.13948      0.2924 ppb        1.13948 389.64%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.3986 ug/L       1.78999      1.3986 ppb        1.78999 127.98%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                66.9      2.1615 ug/L       0.31056      2.1615 ppb        0.31056  14.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.6      0.6550 ug/L       0.36614      0.6550 ppb        0.36614  55.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.5      0.0590 ug/L       0.08217      0.0590 ppb        0.08217 139.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -12.5     -0.0164 ug/L       0.07951     -0.0164 ppb        0.07951 484.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.8     -1.2189 ug/L       1.25858     -1.2189 ppb        1.25858 103.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -115.6     -3.1881 ug/L       3.23658     -3.1881 ppb        3.23658 101.52%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                34.4      0.2398 ug/L       0.36922      0.2398 ppb        0.36922 153.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              210.0      2.1192 ug/L       0.10593      2.1192 ppb        0.10593   5.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    108.3      7.5249 ug/L       1.80117      7.5249 ppb        1.80117  23.94%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: 1202033898|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 86
Date Collected: 2/24/2010 23:48:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033898|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3942.2	3942.2	101	%			23:50:28
1	Y RADIAL	4415.5	4415.5	100.1	%			23:50:28
1	Al 396.153Radial†	-112.8	0.3	0.2246	ug/L	0.2246	ppb	23:50:28
1	Ca 317.933Radial†	25.5	5.6	11.768	ug/L	11.768	ppb	23:50:48
1	Fe 238.204 Radial†	16.4	5.0	70.447	ug/L	70.447	ppb	23:50:48
1	K 766.490 Radial†	2824.6	168.3	32.284	ug/L	32.284	ppb	23:50:28
1	Mg 279.077 IEC†	1.8	-2.3	-109.63	ug/L	-109.63	ppb	23:50:48
1	Na 589.592 Radial†	-784.3	40.2	12.383	ug/L	12.383	ppb	23:50:28
1	Sr 421.552†	67.1	31.0	0.2145	ug/L	0.2145	ppb	23:50:28
1	Sc 361.383	901853.3	901853.3	102.81	%			23:51:44
1	Y 371.029	760869.4	760869.4	100.66	%			23:51:44
1	Ag 328.068†	246.9	-0.2	0.0185	ug/L	0.0185	ppb	23:51:49
1	As 188.979†	-29.8	-10.8	-4.7967	ug/L	-4.7967	ppb	23:52:09
1	B 249.677†	-507.9	-95.8	-2.3349	ug/L	-2.3349	ppb	23:52:09
1	Ba 233.527†	44.5	44.7	0.3542	ug/L	0.3542	ppb	23:52:09
1	Be 313.107†	-3598.5	262.0	0.0994	ug/L	0.0994	ppb	23:51:49
1	Cd 226.502†	-182.5	18.7	0.2106	ug/L	0.2106	ppb	23:52:09
1	Co 228.616†	-59.4	8.7	0.1818	ug/L	0.1818	ppb	23:52:09
1	Cr 267.716†	162.4	80.3	0.9068	ug/L	0.9068	ppb	23:52:09
1	Cu 324.752†	6084.0	-72.9	-0.2207	ug/L	-0.2207	ppb	23:51:49
1	Mn 257.610†	1332.4	837.3	0.9642	ug/L	0.9642	ppb	23:52:09
1	Mo 202.031†	15.6	5.0	0.3729	ug/L	0.3729	ppb	23:52:09
1	Ni 231.604†	81.0	16.4	0.4162	ug/L	0.4162	ppb	23:52:09
1	P 214.914†	197.2	-18.7	-11.241	ug/L	-11.241	ppb	23:52:09
1	Pb 220.353†	-54.9	4.7	0.5711	ug/L	0.5711	ppb	23:52:09
1	S 181.975 Axial†	46.8	4.7	6.7348	ug/L	6.7348	ppb	23:52:09
1	Sb 206.836†	39.8	2.1	0.7751	ug/L	0.7751	ppb	23:52:09
1	Se 196.026†	-32.3	-3.7	-2.1800	ug/L	-2.1800	ppb	23:52:09
1	Si 251.611†	1194.9	604.0	19.540	ug/L	19.540	ppb	23:52:09
1	Sn 189.927†	29.5	18.2	3.2700	ug/L	3.2700	ppb	23:52:09
1	Ti 334.940†	-1135.4	269.7	0.4318	ug/L	0.4318	ppb	23:51:49
1	Tl 190.801†	-45.1	-11.3	-3.5958	ug/L	-3.5958	ppb	23:52:09
1	U 409.014†	-2787.6	175.1	4.8259	ug/L	4.8259	ppb	23:51:44
1	V 292.402†	-1475.8	70.2	0.4905	ug/L	0.4905	ppb	23:51:49
1	Zn 213.857†	950.0	318.0	3.1887	ug/L	3.1887	ppb	23:52:09
1	SiO2†	1289.2	699.6	48.606	ug/L	48.606	ppb	23:53:15
2	Sc Radial	4020.1	4020.1	103	%			23:50:53
2	Y RADIAL	4455.4	4455.4	101.0	%			23:50:53
2	Al 396.153Radial†	-100.9	14.1	13.216	ug/L	13.216	ppb	23:50:53
2	Ca 317.933Radial†	22.8	2.5	5.3205	ug/L	5.3205	ppb	23:51:13
2	Fe 238.204 Radial†	18.0	6.2	88.028	ug/L	88.028	ppb	23:51:13
2	K 766.490 Radial†	2717.6	9.6	1.8305	ug/L	1.8305	ppb	23:50:53
2	Mg 279.077 IEC†	3.0	-1.1	-53.738	ug/L	-53.738	ppb	23:51:13
2	Na 589.592 Radial†	-766.5	72.5	22.364	ug/L	22.364	ppb	23:50:53
2	Sr 421.552†	43.1	6.3	0.0432	ug/L	0.0432	ppb	23:50:53
2	Sc 361.383	909883.0	909883.0	103.72	%			23:52:15
2	Y 371.029	766313.6	766313.6	101.39	%			23:52:15
2	Ag 328.068†	267.4	17.4	0.1041	ug/L	0.1041	ppb	23:52:20
2	As 188.979†	-23.8	-4.7	-2.0880	ug/L	-2.0880	ppb	23:52:40
2	B 249.677†	-511.3	-94.8	-2.3131	ug/L	-2.3131	ppb	23:52:40
2	Ba 233.527†	49.8	49.4	0.3916	ug/L	0.3916	ppb	23:52:40
2	Be 313.107†	-3716.1	179.5	0.0689	ug/L	0.0689	ppb	23:52:20
2	Cd 226.502†	-184.3	18.5	0.2073	ug/L	0.2073	ppb	23:52:40
2	Co 228.616†	-50.1	18.2	0.3772	ug/L	0.3772	ppb	23:52:40
2	Cr 267.716†	152.0	68.9	0.7799	ug/L	0.7799	ppb	23:52:40
2	Cu 324.752†	6116.4	-93.9	-0.2848	ug/L	-0.2848	ppb	23:52:20
2	Mn 257.610†	1288.8	783.8	0.9028	ug/L	0.9028	ppb	23:52:40
2	Mo 202.031†	2.6	-7.6	-0.5546	ug/L	-0.5546	ppb	23:52:40
2	Ni 231.604†	82.7	17.3	0.4395	ug/L	0.4395	ppb	23:52:40

2	P 214.914†	206.6	-11.3	-6.8324 ug/L	-6.8324 ppb	23:52:40
2	Pb 220.353†	-76.2	-15.3	-1.8951 ug/L	-1.8951 ppb	23:52:40
2	S 181.975 Axial†	43.1	0.8	1.0895 ug/L	1.0895 ppb	23:52:40
2	Sb 206.836†	40.4	2.3	0.7962 ug/L	0.7962 ppb	23:52:40
2	Se 196.026†	-29.0	-0.2	0.1155 ug/L	0.1155 ppb	23:52:40
2	Si 251.611†	1213.8	612.0	19.809 ug/L	19.809 ppb	23:52:40
2	Sn 189.927†	15.3	4.2	0.7584 ug/L	0.7584 ppb	23:52:40
2	Ti 334.940†	-1008.1	402.2	0.6338 ug/L	0.6338 ppb	23:52:20
2	Tl 190.801†	-36.7	-2.8	-0.8895 ug/L	-0.8895 ppb	23:52:40
2	U 409.014†	-2738.8	246.1	6.7845 ug/L	6.7845 ppb	23:52:15
2	V 292.402†	-1482.7	76.2	0.5216 ug/L	0.5216 ppb	23:52:20
2	Zn 213.857†	959.8	319.3	3.1988 ug/L	3.1988 ppb	23:52:40
2	SiO2†	1262.3	662.6	46.064 ug/L	46.064 ppb	23:53:21
3	Sc Radial	4000.9	4000.9	102 %		23:51:18
3	Y RADIAL	4406.5	4406.5	99.90 %		23:51:18
3	Al 396.153Radial†	-102.8	11.8	11.010 ug/L	11.010 ppb	23:51:18
3	Ca 317.933Radial†	24.0	3.8	8.0350 ug/L	8.0350 ppb	23:51:38
3	Fe 238.204 Radial†	15.6	4.0	55.887 ug/L	55.887 ppb	23:51:38
3	K 766.490 Radial†	2857.2	158.9	30.494 ug/L	30.494 ppb	23:51:18
3	Mg 279.077 IEC†	4.1	-0.0	-0.8996 ug/L	-0.8996 ppb	23:51:38
3	Na 589.592 Radial†	-791.7	44.3	13.663 ug/L	13.663 ppb	23:51:18
3	Sr 421.552†	45.8	9.1	0.0629 ug/L	0.0629 ppb	23:51:18
3	Sc 361.383	903175.1	903175.1	102.96 %		23:52:45
3	Y 371.029	760538.6	760538.6	100.62 %		23:52:45
3	Ag 328.068†	275.0	26.7	0.1445 ug/L	0.1445 ppb	23:52:50
3	As 188.979†	-24.9	-6.0	-2.6400 ug/L	-2.6400 ppb	23:53:10
3	B 249.677†	-550.3	-136.3	-3.3144 ug/L	-3.3144 ppb	23:53:10
3	Ba 233.527†	42.6	42.8	0.3396 ug/L	0.3396 ppb	23:53:10
3	Be 313.107†	-3761.9	108.3	0.0423 ug/L	0.0423 ppb	23:52:50
3	Cd 226.502†	-171.2	30.0	0.3421 ug/L	0.3421 ppb	23:53:10
3	Co 228.616†	-62.8	5.6	0.1147 ug/L	0.1147 ppb	23:53:10
3	Cr 267.716†	145.4	63.6	0.7202 ug/L	0.7202 ppb	23:53:10
3	Cu 324.752†	6111.3	-55.0	-0.1644 ug/L	-0.1644 ppb	23:52:50
3	Mn 257.610†	1330.8	833.8	0.9544 ug/L	0.9544 ppb	23:53:10
3	Mo 202.031†	14.2	3.6	0.2716 ug/L	0.2716 ppb	23:53:10
3	Ni 231.604†	80.0	15.2	0.3869 ug/L	0.3869 ppb	23:53:10
3	P 214.914†	213.4	-3.3	-1.9610 ug/L	-1.9610 ppb	23:53:10
3	Pb 220.353†	-68.0	-7.9	-0.9761 ug/L	-0.9761 ppb	23:53:10
3	S 181.975 Axial†	45.8	3.7	5.3555 ug/L	5.3555 ppb	23:53:10
3	Sb 206.836†	39.0	1.2	0.4347 ug/L	0.4347 ppb	23:53:10
3	Se 196.026†	-25.9	2.6	1.9023 ug/L	1.9023 ppb	23:53:10
3	Si 251.611†	1192.1	599.5	19.396 ug/L	19.396 ppb	23:53:10
3	Sn 189.927†	17.9	6.9	1.2356 ug/L	1.2356 ppb	23:53:10
3	Ti 334.940†	-951.7	449.7	0.7077 ug/L	0.7077 ppb	23:52:50
3	Tl 190.801†	-21.3	11.9	3.8107 ug/L	3.8107 ppb	23:53:10
3	U 409.014†	-2981.6	-9.3	-0.2654 ug/L	-0.2654 ppb	23:52:45
3	V 292.402†	-1426.2	120.4	0.8339 ug/L	0.8339 ppb	23:52:50
3	Zn 213.857†	974.6	340.6	3.4175 ug/L	3.4175 ppb	23:53:10
3	SiO2†	1230.5	640.8	44.525 ug/L	44.525 ppb	23:53:26

Mean Data: 1202033898|949334|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904970.5	103.16	%	0.491				0.48%
Sc Radial	3987.7	102	%	1.0				1.02%
Y 371.029	762573.9	100.89	%	0.429				0.43%
Y RADIAL	4425.8	100.3	%	0.59				0.59%
Ag 328.068†	14.6	0.0890	ug/L	0.06438	0.0890	ppb	0.06438	72.30%
Al 396.153Radial†	8.7	8.1502	ug/L	6.95183	8.1502	ppb	6.95183	85.30%
As 188.979†	-7.2	-3.1749	ug/L	1.43142	-3.1749	ppb	1.43142	45.09%
B 249.677†	-109.0	-2.6541	ug/L	0.57192	-2.6541	ppb	0.57192	21.55%
Ba 233.527†	45.7	0.3618	ug/L	0.02680	0.3618	ppb	0.02680	7.41%
Be 313.107†	183.3	0.0702	ug/L	0.02857	0.0702	ppb	0.02857	40.69%
Ca 317.933Radial†	4.0	8.3745	ug/L	3.23716	8.3745	ppb	3.23716	38.66%
Cd 226.502†	22.4	0.2533	ug/L	0.07689	0.2533	ppb	0.07689	30.35%
Co 228.616†	10.8	0.2246	ug/L	0.13639	0.2246	ppb	0.13639	60.74%
Cr 267.716†	70.9	0.8023	ug/L	0.09529	0.8023	ppb	0.09529	11.88%
Cu 324.752†	-73.9	-0.2233	ug/L	0.06026	-0.2233	ppb	0.06026	26.99%
Fe 238.204 Radial†	5.1	71.454	ug/L	16.0945	71.454	ppb	16.0945	22.52%
K 766.490 Radial†	112.3	21.536	ug/L	17.0889	21.536	ppb	17.0889	79.35%

Mg 279.077 IEC†	-1.1	-54.757	ug/L	54.3736	-54.757	ppb	54.3736	99.30%
Mn 257.610†	818.3	0.9405	ug/L	0.03296	0.9405	ppb	0.03296	3.50%
Mo 202.031†	0.3	0.0300	ug/L	0.50880	0.0300	ppb	0.50880	>999.9%
Na 589.592 Radial†	52.3	16.137	ug/L	5.4312	16.137	ppb	5.4312	33.66%
Ni 231.604†	16.3	0.4142	ug/L	0.02639	0.4142	ppb	0.02639	6.37%
P 214.914†	-11.1	-6.6781	ug/L	4.64184	-6.6781	ppb	4.64184	69.51%
Pb 220.353†	-6.2	-0.7667	ug/L	1.24637	-0.7667	ppb	1.24637	162.57%
S 181.975 Axial†	3.1	4.3933	ug/L	2.94312	4.3933	ppb	2.94312	66.99%
Sb 206.836†	1.8	0.6687	ug/L	0.20290	0.6687	ppb	0.20290	30.34%
Se 196.026†	-0.4	-0.0541	ug/L	2.04641	-0.0541	ppb	2.04641	>999.9%
Si 251.611†	605.2	19.582	ug/L	0.2097	19.582	ppb	0.2097	1.07%
Sn 189.927†	9.8	1.7547	ug/L	1.33386	1.7547	ppb	1.33386	76.02%
Sr 421.552†	15.5	0.1069	ug/L	0.09370	0.1069	ppb	0.09370	87.68%
Ti 334.940†	373.9	0.5911	ug/L	0.14282	0.5911	ppb	0.14282	24.16%
Tl 190.801†	-0.7	-0.2249	ug/L	3.74770	-0.2249	ppb	3.74770	>999.9%
U 409.014†	137.3	3.7817	ug/L	3.63912	3.7817	ppb	3.63912	96.23%
V 292.402†	88.9	0.6153	ug/L	0.18990	0.6153	ppb	0.18990	30.86%
Zn 213.857†	326.0	3.2683	ug/L	0.12931	3.2683	ppb	0.12931	3.96%
SiO2†	667.7	46.398	ug/L	2.0610	46.398	ppb	2.0610	4.44%

Sequence No.: 62
Sample ID: 1202033903|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 87
Date Collected: 2/24/2010 23:55:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033903|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4038.4	4038.4	103	%			23:57:50
1	Y RADIAL	4859.7	4859.7	110.2	%			23:57:50
1	Al 396.153Radial†	100376.7	97517.2	91435	ug/L	91435	ppb	23:57:30
1	Ca 317.933Radial†	49844.5	48349.1	101070	ug/L	101070	ppb	23:57:30
1	Fe 238.204 Radial†	12961.3	12566.3	177400	ug/L	177400	ppb	23:57:50
1	K 766.490 Radial†	235548.4	225934.8	43316	ug/L	43316	ppb	23:57:30
1	Mg 279.077 IEC†	837.6	808.7	39033	ug/L	39033	ppb	23:57:50
1	Na 589.592 Radial†	34749.1	34540.0	10650	ug/L	10650	ppb	23:57:30
1	Sr 421.552†	346569.4	336272.6	2326.1	ug/L	2326.1	ppb	23:57:30
1	Sc 361.383	910092.7	910092.7	103.75	%			23:58:51
1	Y 371.029	825476.3	825476.3	109.21	%			23:58:51
1	Ag 328.068†	56705.7	54417.8	310.49	ug/L	310.49	ppb	23:58:51
1	As 188.979†	2362.3	2295.2	1115.4	ug/L	1115.4	ppb	23:58:56
1	B 249.677†	65742.5	63766.9	1514.5	ug/L	1514.5	ppb	23:58:51
1	Ba 233.527†	251226.5	242156.6	1908.5	ug/L	1908.5	ppb	23:58:51
1	Be 313.107†	2243260.1	2166022.9	827.11	ug/L	827.11	ppb	23:58:51
1	Cd 226.502†	55589.4	53778.5	605.26	ug/L	605.26	ppb	23:58:56
1	Co 228.616†	46498.5	44886.1	926.61	ug/L	926.61	ppb	23:58:56
1	Cr 267.716†	225494.9	217275.1	2457.8	ug/L	2457.8	ppb	23:58:51
1	Cu 324.752†	655295.2	625643.1	1913.3	ug/L	1913.3	ppb	23:58:51
1	Mn 257.610†	4945550.4	4766518.2	5439.9	ug/L	5439.9	ppb	23:58:51
1	Mo 202.031†	7043.6	6779.1	512.67	ug/L	512.67	ppb	23:58:56
1	Ni 231.604†	55150.9	53097.1	1349.9	ug/L	1349.9	ppb	23:58:56
1	P 214.914†	14322.6	13594.9	7695.6	ug/L	7695.6	ppb	23:58:56
1	Pb 220.353†	6882.6	6692.2	824.48	ug/L	824.48	ppb	23:58:56
1	S 181.975 Axial†	2887.2	2742.2	3928.9	ug/L	3928.9	ppb	23:58:56
1	Sb 206.836†	4966.9	4750.9	1668.1	ug/L	1668.1	ppb	23:58:56
1	Se 196.026†	4031.5	3913.7	3117.9	ug/L	3117.9	ppb	23:58:56
1	Si 251.611†	674930.1	650001.5	21027	ug/L	21027	ppb	23:58:51
1	Sn 189.927†	6006.3	5779.0	1044.7	ug/L	1044.7	ppb	23:58:56
1	Ti 334.940†	3814367.2	3678012.5	5789.2	ug/L	5789.2	ppb	23:58:51
1	Tl 190.801†	3766.2	3662.8	1238.5	ug/L	1238.5	ppb	23:58:56
1	U 409.014†	-8175.6	-4993.8	-163.58	ug/L	-163.58	ppb	23:58:51
1	V 292.402†	186608.8	181376.5	1239.4	ug/L	1239.4	ppb	23:58:51
1	Zn 213.857†	617678.1	594769.0	5949.5	ug/L	5949.5	ppb	23:58:51
1	SiO2†	674839.2	649917.8	45153	ug/L	45153	ppb	23:59:31
2	Sc Radial	4019.0	4019.0	103	%			23:58:15
2	Y RADIAL	4843.7	4843.7	109.8	%			23:58:15
2	Al 396.153Radial†	102384.8	99943.9	93710	ug/L	93710	ppb	23:57:55
2	Ca 317.933Radial†	50469.7	49191.4	102840	ug/L	102840	ppb	23:57:55
2	Fe 238.204 Radial†	12888.9	12556.1	177260	ug/L	177260	ppb	23:58:15
2	K 766.490 Radial†	239905.1	231282.6	44342	ug/L	44342	ppb	23:57:55
2	Mg 279.077 IEC†	831.7	806.9	38943	ug/L	38943	ppb	23:58:15
2	Na 589.592 Radial†	35400.2	35337.2	10895	ug/L	10895	ppb	23:57:55
2	Sr 421.552†	354054.3	345189.0	2387.8	ug/L	2387.8	ppb	23:57:55
2	Sc 361.383	909341.2	909341.2	103.66	%			23:59:05
2	Y 371.029	824717.6	824717.6	109.11	%			23:59:05
2	Ag 328.068†	56653.0	54412.1	310.41	ug/L	310.41	ppb	23:59:05
2	As 188.979†	2393.3	2327.1	1129.6	ug/L	1129.6	ppb	23:59:10
2	B 249.677†	65814.4	63888.6	1517.5	ug/L	1517.5	ppb	23:59:05
2	Ba 233.527†	251742.7	242854.7	1913.9	ug/L	1913.9	ppb	23:59:05
2	Be 313.107†	2244745.7	2169243.0	828.33	ug/L	828.33	ppb	23:59:05
2	Cd 226.502†	55711.3	53940.3	607.15	ug/L	607.15	ppb	23:59:10
2	Co 228.616†	46654.0	45073.1	930.54	ug/L	930.54	ppb	23:59:10
2	Cr 267.716†	225627.9	217583.0	2461.3	ug/L	2461.3	ppb	23:59:05
2	Cu 324.752†	654101.9	625013.9	1911.4	ug/L	1911.4	ppb	23:59:05
2	Mn 257.610†	4950108.3	4774854.7	5449.4	ug/L	5449.4	ppb	23:59:05
2	Mo 202.031†	7103.9	6842.9	517.37	ug/L	517.37	ppb	23:59:10
2	Ni 231.604†	55275.9	53261.6	1354.0	ug/L	1354.0	ppb	23:59:10

2	P 214.914†	14349.4	13632.2	7719.1	ug/L	7719.1 ppb	23:59:10
2	Pb 220.353†	6850.7	6666.9	821.91	ug/L	821.91 ppb	23:59:10
2	S 181.975 Axial†	2876.2	2733.8	3916.4	ug/L	3916.4 ppb	23:59:10
2	Sb 206.836†	5007.8	4794.2	1683.3	ug/L	1683.3 ppb	23:59:10
2	Se 196.026†	4012.7	3898.7	3107.7	ug/L	3107.7 ppb	23:59:10
2	Si 251.611†	675743.5	651323.8	21070	ug/L	21070 ppb	23:59:05
2	Sn 189.927†	6016.3	5793.3	1047.6	ug/L	1047.6 ppb	23:59:10
2	Ti 334.940†	3814504.9	3681183.8	5794.4	ug/L	5794.4 ppb	23:59:05
2	Tl 190.801†	3804.0	3702.3	1251.2	ug/L	1251.2 ppb	23:59:10
2	U 409.014†	-8506.0	-5319.0	-172.55	ug/L	-172.55 ppb	23:59:05
2	V 292.402†	186569.3	181487.0	1240.2	ug/L	1240.2 ppb	23:59:05
2	Zn 213.857†	618570.9	596122.3	5963.1	ug/L	5963.1 ppb	23:59:05
2	SiO2†	664275.5	640264.7	44482	ug/L	44482 ppb	23:59:37
3	Sc Radial	4025.6	4025.6	103	%		23:58:40
3	Y RADIAL	4847.1	4847.1	109.9	%		23:58:40
3	Al 396.153Radial†	101014.1	98447.0	92307	ug/L	92307 ppb	23:58:20
3	Ca 317.933Radial†	49847.2	48505.3	101400	ug/L	101400 ppb	23:58:20
3	Fe 238.204 Radial†	12894.7	12541.3	177050	ug/L	177050 ppb	23:58:40
3	K 766.490 Radial†	236549.2	227634.8	43643	ug/L	43643 ppb	23:58:20
3	Mg 279.077 IEC†	835.9	809.6	39076	ug/L	39076 ppb	23:58:40
3	Na 589.592 Radial†	34389.1	34296.7	10575	ug/L	10575 ppb	23:58:20
3	Sr 421.552†	347458.8	338206.2	2339.5	ug/L	2339.5 ppb	23:58:20
3	Sc 361.383	900161.6	900161.6	102.61	%		23:59:20
3	Y 371.029	816182.3	816182.3	107.98	%		23:59:20
3	Ag 328.068†	56001.6	54334.6	309.99	ug/L	309.99 ppb	23:59:20
3	As 188.979†	2346.0	2304.5	1119.4	ug/L	1119.4 ppb	23:59:25
3	B 249.677†	65024.9	63766.7	1514.6	ug/L	1514.6 ppb	23:59:20
3	Ba 233.527†	248691.3	242357.7	1910.0	ug/L	1910.0 ppb	23:59:20
3	Be 313.107†	2213719.8	2161090.5	825.24	ug/L	825.24 ppb	23:59:20
3	Cd 226.502†	55257.7	54046.3	608.40	ug/L	608.40 ppb	23:59:25
3	Co 228.616†	46330.6	45217.0	933.57	ug/L	933.57 ppb	23:59:25
3	Cr 267.716†	223012.3	217253.6	2457.5	ug/L	2457.5 ppb	23:59:20
3	Cu 324.752†	646063.5	623615.1	1907.2	ug/L	1907.2 ppb	23:59:20
3	Mn 257.610†	4889940.5	4764917.1	5438.1	ug/L	5438.1 ppb	23:59:20
3	Mo 202.031†	6996.9	6808.6	514.81	ug/L	514.81 ppb	23:59:25
3	Ni 231.604†	54802.9	53344.5	1356.1	ug/L	1356.1 ppb	23:59:25
3	P 214.914†	14216.7	13644.0	7726.9	ug/L	7726.9 ppb	23:59:25
3	Pb 220.353†	6838.1	6722.0	828.39	ug/L	828.39 ppb	23:59:25
3	S 181.975 Axial†	2842.9	2729.6	3910.7	ug/L	3910.7 ppb	23:59:25
3	Sb 206.836†	4952.2	4789.3	1681.7	ug/L	1681.7 ppb	23:59:25
3	Se 196.026†	4007.1	3932.8	3129.3	ug/L	3129.3 ppb	23:59:25
3	Si 251.611†	666783.6	649239.9	21002	ug/L	21002 ppb	23:59:20
3	Sn 189.927†	5961.5	5799.1	1048.4	ug/L	1048.4 ppb	23:59:25
3	Ti 334.940†	3768922.3	3674288.2	5783.4	ug/L	5783.4 ppb	23:59:20
3	Tl 190.801†	3739.1	3676.4	1242.7	ug/L	1242.7 ppb	23:59:25
3	U 409.014†	-8277.7	-5180.2	-168.69	ug/L	-168.69 ppb	23:59:20
3	V 292.402†	184225.4	181038.2	1237.1	ug/L	1237.1 ppb	23:59:20
3	Zn 213.857†	610902.4	594734.4	5949.2	ug/L	5949.2 ppb	23:59:20
3	SiO2†	675754.9	657986.5	45713	ug/L	45713 ppb	23:59:43

Mean Data: 1202033903|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906531.8	103.34	%	0.630				0.61%
Sc Radial	4027.7	103	%	0.3				0.24%
Y 371.029	822125.4	108.77	%	0.683				0.63%
Y RADIAL	4850.2	110.0	%	0.19				0.17%
Ag 328.068†	54388.2	310.30	ug/L	0.270	310.30	ppb	0.270	0.09%
Al 396.153Radial†	98636.0	92484	ug/L	1148.2	92484	ppb	1148.2	1.24%
As 188.979†	2308.9	1121.4	ug/L	7.33	1121.4	ppb	7.33	0.65%
B 249.677†	63807.4	1515.5	ug/L	1.70	1515.5	ppb	1.70	0.11%
Ba 233.527†	242456.3	1910.8	ug/L	2.82	1910.8	ppb	2.82	0.15%
Be 313.107†	2165452.1	826.89	ug/L	1.555	826.89	ppb	1.555	0.19%
Ca 317.933Radial†	48681.9	101770	ug/L	936.7	101770	ppb	936.7	0.92%
Cd 226.502†	53921.7	606.94	ug/L	1.581	606.94	ppb	1.581	0.26%
Co 228.616†	45058.7	930.24	ug/L	3.487	930.24	ppb	3.487	0.37%
Cr 267.716†	217370.6	2458.9	ug/L	2.07	2458.9	ppb	2.07	0.08%
Cu 324.752†	624757.4	1910.6	ug/L	3.17	1910.6	ppb	3.17	0.17%
Fe 238.204 Radial†	12554.6	177240	ug/L	177.1	177240	ppb	177.1	0.10%
K 766.490 Radial†	228284.0	43767	ug/L	524.0	43767	ppb	524.0	1.20%

Mg 279.077 IEC†	808.4	39018	ug/L	67.8	39018	ppb	67.8	0.17%
Mn 257.610†	4768763.3	5442.5	ug/L	6.08	5442.5	ppb	6.08	0.11%
Mo 202.031†	6810.2	514.95	ug/L	2.350	514.95	ppb	2.350	0.46%
Na 589.592 Radial†	34724.6	10707	ug/L	167.8	10707	ppb	167.8	1.57%
Ni 231.604†	53234.4	1353.3	ug/L	3.20	1353.3	ppb	3.20	0.24%
P 214.914†	13623.7	7713.9	ug/L	16.30	7713.9	ppb	16.30	0.21%
Pb 220.353†	6693.7	824.93	ug/L	3.262	824.93	ppb	3.262	0.40%
S 181.975 Axial†	2735.2	3918.7	ug/L	9.29	3918.7	ppb	9.29	0.24%
Sb 206.836†	4778.1	1677.7	ug/L	8.34	1677.7	ppb	8.34	0.50%
Se 196.026†	3915.1	3118.3	ug/L	10.84	3118.3	ppb	10.84	0.35%
Si 251.611†	650188.4	21033	ug/L	34.1	21033	ppb	34.1	0.16%
Sn 189.927†	5790.5	1046.9	ug/L	1.95	1046.9	ppb	1.95	0.19%
Sr 421.552†	339889.2	2351.1	ug/L	32.45	2351.1	ppb	32.45	1.38%
Ti 334.940†	3677828.2	5789.0	ug/L	5.52	5789.0	ppb	5.52	0.10%
Tl 190.801†	3680.5	1244.1	ug/L	6.46	1244.1	ppb	6.46	0.52%
U 409.014†	-5164.3	-168.27	ug/L	4.500	-168.27	ppb	4.500	2.67%
V 292.402†	181300.5	1238.9	ug/L	1.61	1238.9	ppb	1.61	0.13%
Zn 213.857†	595208.6	5953.9	ug/L	7.96	5953.9	ppb	7.96	0.13%
SiO2†	649389.7	45116	ug/L	616.7	45116	ppb	616.7	1.37%

Sequence No.: 63
Sample ID: 246055001|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 88
Date Collected: 2/25/2010 00:01:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055001|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3875.6	3875.6	98.9	%			00:04:08
1	Y RADIAL	4769.5	4769.5	108.1	%			00:03:48
1	Al 396.153Radial†	28720.6	29153.5	27342	ug/L	27342	ppb	00:03:48
1	Ca 317.933Radial†	6304.1	6354.8	13285	ug/L	13285	ppb	00:03:48
1	Fe 238.204 Radial†	6296.6	6355.6	89711	ug/L	89711	ppb	00:03:48
1	K 766.490 Radial†	34642.5	32389.5	6210.2	ug/L	6210.2	ppb	00:03:48
1	Mg 279.077 IEC†	133.3	130.7	6242.4	ug/L	6242.4	ppb	00:04:08
1	Na 589.592 Radial†	2332.4	3178.2	979.91	ug/L	979.91	ppb	00:03:48
1	Sr 421.552†	18767.3	18941.0	130.96	ug/L	130.96	ppb	00:03:48
1	Sc 361.383	909391.0	909391.0	103.67	%			00:05:07
1	Y 371.029	809916.4	809916.4	107.15	%			00:05:07
1	Ag 328.068†	-4480.5	-4562.4	6.7280	ug/L	6.7280	ppb	00:05:27
1	As 188.979†	1420.8	1388.8	659.06	ug/L	659.06	ppb	00:05:27
1	B 249.677†	1110.0	1469.0	20.979	ug/L	20.979	ppb	00:05:07
1	Ba 233.527†	54650.1	52718.8	416.65	ug/L	416.65	ppb	00:05:07
1	Be 313.107†	-8865.8	-4790.0	2.8806	ug/L	2.8806	ppb	00:05:07
1	Cd 226.502†	847.6	1013.9	2.4815	ug/L	2.4815	ppb	00:05:27
1	Co 228.616†	1116.9	1144.0	18.524	ug/L	18.524	ppb	00:05:27
1	Cr 267.716†	4181.3	3955.8	53.114	ug/L	53.114	ppb	00:05:27
1	Cu 324.752†	30869.9	23787.5	77.187	ug/L	77.187	ppb	00:05:07
1	Mn 257.610†	1346431.6	1298357.4	1486.1	ug/L	1486.1	ppb	00:05:07
1	Mo 202.031†	-15.3	-24.9	5.2942	ug/L	5.2942	ppb	00:05:27
1	Ni 231.604†	1688.1	1566.0	39.813	ug/L	39.813	ppb	00:05:27
1	P 214.914†	2382.4	2087.6	1176.8	ug/L	1176.8	ppb	00:05:27
1	Pb 220.353†	3437160.5	3315666.4	407780	ug/L	407780	ppb	00:05:07
1	S 181.975 Axial†	563.7	503.0	718.69	ug/L	718.69	ppb	00:05:27
1	Sb 206.836†	6080.5	5828.7	2029.0	ug/L	2029.0	ppb	00:05:27
1	Se 196.026†	-422.6	-380.0	30.625	ug/L	30.625	ppb	00:05:27
1	Si 251.611†	488779.8	470936.2	15239	ug/L	15239	ppb	00:05:07
1	Sn 189.927†	-46.8	-55.7	-12.778	ug/L	-12.778	ppb	00:05:27
1	Ti 334.940†	1358717.9	1312042.0	2063.0	ug/L	2063.0	ppb	00:05:07
1	Tl 190.801†	-128.4	-91.3	-5.3147	ug/L	-5.3147	ppb	00:05:27
1	U 409.014†	-6461.3	-3346.2	-102.73	ug/L	-102.73	ppb	00:05:07
1	V 292.402†	13008.7	14054.3	82.653	ug/L	82.653	ppb	00:05:27
1	Zn 213.857†	180654.5	173659.8	1734.4	ug/L	1734.4	ppb	00:05:07
1	SiO2†	487030.2	469252.4	32611	ug/L	32611	ppb	00:06:27
2	Sc Radial	3926.0	3926.0	100	%			00:04:33
2	Y RADIAL	4692.4	4692.4	106.4	%			00:04:13
2	Al 396.153Radial†	28099.2	28160.4	26411	ug/L	26411	ppb	00:04:13
2	Ca 317.933Radial†	6153.3	6122.4	12799	ug/L	12799	ppb	00:04:13
2	Fe 238.204 Radial†	6164.2	6141.6	86691	ug/L	86691	ppb	00:04:13
2	K 766.490 Radial†	34051.3	31349.7	6010.8	ug/L	6010.8	ppb	00:04:13
2	Mg 279.077 IEC†	135.5	131.2	6270.2	ug/L	6270.2	ppb	00:04:33
2	Na 589.592 Radial†	2325.6	3141.1	968.48	ug/L	968.48	ppb	00:04:13
2	Sr 421.552†	18358.5	18289.3	126.46	ug/L	126.46	ppb	00:04:13
2	Sc 361.383	905833.5	905833.5	103.26	%			00:05:34
2	Y 371.029	807201.8	807201.8	106.79	%			00:05:34
2	Ag 328.068†	-4498.8	-4597.1	5.6528	ug/L	5.6528	ppb	00:05:54
2	As 188.979†	1431.8	1404.8	665.49	ug/L	665.49	ppb	00:05:54
2	B 249.677†	1037.9	1403.3	19.877	ug/L	19.877	ppb	00:05:34
2	Ba 233.527†	54359.7	52644.6	415.98	ug/L	415.98	ppb	00:05:34
2	Be 313.107†	-8941.9	-4897.4	2.8365	ug/L	2.8365	ppb	00:05:34
2	Cd 226.502†	835.8	1005.7	2.6989	ug/L	2.6989	ppb	00:05:54
2	Co 228.616†	1114.4	1145.8	18.609	ug/L	18.609	ppb	00:05:54
2	Cr 267.716†	4228.6	4017.4	53.521	ug/L	53.521	ppb	00:05:54
2	Cu 324.752†	30533.1	23578.2	76.391	ug/L	76.391	ppb	00:05:34
2	Mn 257.610†	1340114.1	1297340.3	1484.6	ug/L	1484.6	ppb	00:05:34
2	Mo 202.031†	-10.6	-20.4	5.3822	ug/L	5.3822	ppb	00:05:54
2	Ni 231.604†	1716.0	1599.3	40.661	ug/L	40.661	ppb	00:05:54

2	P 214.914†	2405.0	2118.5	1197.8	ug/L	1197.8 ppb	00:05:54
2	Pb 220.353†	3426351.2	3318219.8	408100	ug/L	408100 ppb	00:05:34
2	S 181.975 Axial†	567.0	508.3	726.54	ug/L	726.54 ppb	00:05:54
2	Sb 206.836†	6114.0	5884.3	2048.5	ug/L	2048.5 ppb	00:05:54
2	Se 196.026†	-408.4	-367.8	29.207	ug/L	29.207 ppb	00:05:54
2	Si 251.611†	486200.3	470289.9	15218	ug/L	15218 ppb	00:05:34
2	Sn 189.927†	-46.5	-55.6	-12.672	ug/L	-12.672 ppb	00:05:54
2	Ti 334.940†	1352311.6	1310985.4	2061.3	ug/L	2061.3 ppb	00:05:34
2	Tl 190.801†	-121.4	-85.0	-3.3201	ug/L	-3.3201 ppb	00:05:54
2	U 409.014†	-6513.7	-3421.4	-104.46	ug/L	-104.46 ppb	00:05:34
2	V 292.402†	13163.7	14253.7	84.486	ug/L	84.486 ppb	00:05:54
2	Zn 213.857†	180096.6	173803.9	1736.3	ug/L	1736.3 ppb	00:05:34
2	SiO2†	486897.1	470968.6	32730	ug/L	32730 ppb	00:06:32
3	Sc Radial	3938.1	3938.1	100	%		00:04:58
3	Y RADIAL	4822.1	4822.1	109.3	%		00:04:38
3	Al 396.153Radial†	28811.7	28782.9	26995	ug/L	26995 ppb	00:04:38
3	Ca 317.933Radial†	6305.9	6255.3	13077	ug/L	13077 ppb	00:04:38
3	Fe 238.204 Radial†	6320.5	6278.2	88619	ug/L	88619 ppb	00:04:38
3	K 766.490 Radial†	34625.1	31815.7	6100.1	ug/L	6100.1 ppb	00:04:38
3	Mg 279.077 IEC†	138.3	133.6	6384.0	ug/L	6384.0 ppb	00:04:58
3	Na 589.592 Radial†	2371.6	3179.8	980.41	ug/L	980.41 ppb	00:04:38
3	Sr 421.552†	18789.7	18661.8	129.03	ug/L	129.03 ppb	00:04:38
3	Sc 361.383	902798.4	902798.4	102.91	%		00:06:01
3	Y 371.029	804199.9	804199.9	106.40	%		00:06:01
3	Ag 328.068†	-4459.0	-4573.1	6.3556	ug/L	6.3556 ppb	00:06:21
3	As 188.979†	1433.7	1411.3	668.84	ug/L	668.84 ppb	00:06:21
3	B 249.677†	939.1	1310.7	17.319	ug/L	17.319 ppb	00:06:01
3	Ba 233.527†	54289.4	52753.3	416.89	ug/L	416.89 ppb	00:06:01
3	Be 313.107†	-8798.5	-4787.1	2.8745	ug/L	2.8745 ppb	00:06:01
3	Cd 226.502†	852.1	1024.2	2.7141	ug/L	2.7141 ppb	00:06:21
3	Co 228.616†	1114.8	1149.8	18.669	ug/L	18.669 ppb	00:06:21
3	Cr 267.716†	4183.7	3987.5	53.370	ug/L	53.370 ppb	00:06:21
3	Cu 324.752†	30338.0	23488.0	76.219	ug/L	76.219 ppb	00:06:01
3	Mn 257.610†	1336601.9	1298290.6	1485.9	ug/L	1485.9 ppb	00:06:01
3	Mo 202.031†	-11.0	-20.8	5.5068	ug/L	5.5068 ppb	00:06:21
3	Ni 231.604†	1727.5	1616.2	41.090	ug/L	41.090 ppb	00:06:21
3	P 214.914†	2385.0	2107.0	1189.4	ug/L	1189.4 ppb	00:06:21
3	Pb 220.353†	3421243.1	3324411.7	408860	ug/L	408860 ppb	00:06:01
3	S 181.975 Axial†	564.6	507.8	725.69	ug/L	725.69 ppb	00:06:21
3	Sb 206.836†	6117.0	5907.0	2056.5	ug/L	2056.5 ppb	00:06:21
3	Se 196.026†	-407.8	-368.5	34.699	ug/L	34.699 ppb	00:06:21
3	Si 251.611†	484116.8	469848.3	15204	ug/L	15204 ppb	00:06:01
3	Sn 189.927†	-47.6	-56.8	-12.950	ug/L	-12.950 ppb	00:06:21
3	Ti 334.940†	1346784.8	1310017.9	2059.8	ug/L	2059.8 ppb	00:06:01
3	Tl 190.801†	-122.9	-86.8	-3.9179	ug/L	-3.9179 ppb	00:06:21
3	U 409.014†	-6498.7	-3428.0	-104.86	ug/L	-104.86 ppb	00:06:01
3	V 292.402†	13211.5	14343.0	84.831	ug/L	84.831 ppb	00:06:21
3	Zn 213.857†	179390.0	173703.7	1735.0	ug/L	1735.0 ppb	00:06:01
3	SiO2†	484461.1	470186.7	32676	ug/L	32676 ppb	00:06:37

Mean Data: 246055001|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906007.6	103.28	%	0.376				0.36%
Sc Radial	3913.2	99.9	%	0.85				0.85%
Y 371.029	807106.0	106.78	%	0.378				0.35%
Y RADIAL	4761.3	107.9	%	1.48				1.37%
Ag 328.068†	-4577.6	6.2455	ug/L	0.54598	6.2455	ppb	0.54598	8.74%
Al 396.153Radial†	28699.0	26916	ug/L	470.7	26916	ppb	470.7	1.75%
As 188.979†	1401.7	664.47	ug/L	4.973	664.47	ppb	4.973	0.75%
B 249.677†	1394.4	19.392	ug/L	1.8779	19.392	ppb	1.8779	9.68%
Ba 233.527†	52705.6	416.51	ug/L	0.473	416.51	ppb	0.473	0.11%
Be 313.107†	-4824.8	2.8639	ug/L	0.02389	2.8639	ppb	0.02389	0.83%
Ca 317.933Radial†	6244.2	13053	ug/L	243.7	13053	ppb	243.7	1.87%
Cd 226.502†	1014.6	2.6315	ug/L	0.13011	2.6315	ppb	0.13011	4.94%
Co 228.616†	1146.5	18.601	ug/L	0.0728	18.601	ppb	0.0728	0.39%
Cr 267.716†	3986.9	53.335	ug/L	0.2059	53.335	ppb	0.2059	0.39%
Cu 324.752†	23617.9	76.599	ug/L	0.5162	76.599	ppb	0.5162	0.67%
Fe 238.204 Radial†	6258.5	88341	ug/L	1529.2	88341	ppb	1529.2	1.73%
K 766.490 Radial†	31851.6	6107.0	ug/L	99.87	6107.0	ppb	99.87	1.64%

Mg 279.077 IEC†	131.8	6298.9	ug/L	75.01	6298.9	ppb	75.01	1.19%
Mn 257.610†	1297996.1	1485.5	ug/L	0.79	1485.5	ppb	0.79	0.05%
Mo 202.031†	-22.0	5.3944	ug/L	0.10684	5.3944	ppb	0.10684	1.98%
Na 589.592 Radial†	3166.3	976.27	ug/L	6.747	976.27	ppb	6.747	0.69%
Ni 231.604†	1593.8	40.521	ug/L	0.6496	40.521	ppb	0.6496	1.60%
P 214.914†	2104.4	1188.0	ug/L	10.54	1188.0	ppb	10.54	0.89%
Pb 220.353†	3319432.6	408250	ug/L	553.1	408250	ppb	553.1	0.14%
S 181.975 Axial†	506.4	723.64	ug/L	4.310	723.64	ppb	4.310	0.60%
Sb 206.836†	5873.3	2044.7	ug/L	14.11	2044.7	ppb	14.11	0.69%
Se 196.026†	-372.1	31.511	ug/L	2.8511	31.511	ppb	2.8511	9.05%
Si 251.611†	470358.1	15220	ug/L	17.7	15220	ppb	17.7	0.12%
Sn 189.927†	-56.0	-12.800	ug/L	0.1404	-12.800	ppb	0.1404	1.10%
Sr 421.552†	18630.7	128.82	ug/L	2.261	128.82	ppb	2.261	1.75%
Ti 334.940†	1311015.1	2061.4	ug/L	1.61	2061.4	ppb	1.61	0.08%
Tl 190.801†	-87.7	-4.1842	ug/L	1.02364	-4.1842	ppb	1.02364	24.46%
U 409.014†	-3398.6	-104.02	ug/L	1.134	-104.02	ppb	1.134	1.09%
V 292.402†	14217.0	83.990	ug/L	1.1707	83.990	ppb	1.1707	1.39%
Zn 213.857†	173722.4	1735.2	ug/L	0.97	1735.2	ppb	0.97	0.06%
SiO2†	470135.9	32672	ug/L	59.7	32672	ppb	59.7	0.18%

Sequence No.: 64
Sample ID: 1202033899|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 89
Date Collected: 2/25/2010 00:08:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033899|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3867.6	3867.6	98.7	%			00:11:03
1	Y RADIAL	4797.0	4797.0	108.8	%			00:10:43
1	Al 396.153Radial†	39018.6	39647.9	37185	ug/L	37185	ppb	00:10:43
1	Ca 317.933Radial†	8162.4	8250.9	17249	ug/L	17249	ppb	00:10:43
1	Fe 238.204 Radial†	5741.8	5806.6	81962	ug/L	81962	ppb	00:10:43
1	K 766.490 Radial†	45326.7	43287.6	8299.9	ug/L	8299.9	ppb	00:10:43
1	Mg 279.077 IEC†	184.6	182.9	8783.6	ug/L	8783.6	ppb	00:11:03
1	Na 589.592 Radial†	2915.7	3774.1	1163.7	ug/L	1163.7	ppb	00:10:43
1	Sr 421.552†	22055.5	22311.9	154.26	ug/L	154.26	ppb	00:10:43
1	Sc 361.383	915698.5	915698.5	104.39	%			00:12:00
1	Y 371.029	827041.6	827041.6	109.42	%			00:12:00
1	Ag 328.068†	-5542.2	-5549.8	-0.1047	ug/L	-0.1047	ppb	00:12:06
1	As 188.979†	-10.7	8.0	45.914	ug/L	45.914	ppb	00:12:26
1	B 249.677†	1147.9	1497.9	22.922	ug/L	22.922	ppb	00:12:06
1	Ba 233.527†	72177.3	69146.7	545.42	ug/L	545.42	ppb	00:12:06
1	Be 313.107†	-11383.3	-7142.9	3.3823	ug/L	3.3823	ppb	00:12:06
1	Cd 226.502†	814.3	976.3	2.8509	ug/L	2.8509	ppb	00:12:26
1	Co 228.616†	1388.9	1397.0	22.709	ug/L	22.709	ppb	00:12:26
1	Cr 267.716†	6332.5	5988.8	75.262	ug/L	75.262	ppb	00:12:06
1	Cu 324.752†	34620.0	27174.9	87.085	ug/L	87.085	ppb	00:12:06
1	Mn 257.610†	1814648.4	1737958.5	1985.4	ug/L	1985.4	ppb	00:12:00
1	Mo 202.031†	-25.1	-34.2	4.0581	ug/L	4.0581	ppb	00:12:26
1	Ni 231.604†	1968.5	1823.3	46.355	ug/L	46.355	ppb	00:12:26
1	P 214.914†	2556.3	2238.4	1274.2	ug/L	1274.2	ppb	00:12:26
1	Pb 220.353†	271431.6	260087.2	31987	ug/L	31987	ppb	00:12:06
1	S 181.975 Axial†	812.3	737.4	1054.1	ug/L	1054.1	ppb	00:12:26
1	Sb 206.836†	185.0	140.6	38.603	ug/L	38.603	ppb	00:12:26
1	Se 196.026†	-398.7	-354.2	23.235	ug/L	23.235	ppb	00:12:26
1	Si 251.611†	803740.4	769418.0	24897	ug/L	24897	ppb	00:12:00
1	Sn 189.927†	-53.5	-61.7	-12.716	ug/L	-12.716	ppb	00:12:26
1	Ti 334.940†	1773657.5	1700522.4	2673.8	ug/L	2673.8	ppb	00:12:00
1	Tl 190.801†	-139.3	-100.8	-1.0103	ug/L	-1.0103	ppb	00:12:26
1	U 409.014†	-6529.5	-3368.6	-102.51	ug/L	-102.51	ppb	00:12:06
1	V 292.402†	19643.5	20324.0	126.88	ug/L	126.88	ppb	00:12:06
1	Zn 213.857†	218893.1	209091.6	2092.1	ug/L	2092.1	ppb	00:12:06
1	SiO2†	805199.0	770819.1	53569	ug/L	53569	ppb	00:13:34
2	Sc Radial	3841.6	3841.6	98.0	%			00:11:28
2	Y RADIAL	4705.1	4705.1	106.7	%			00:11:08
2	Al 396.153Radial†	38395.2	39279.4	36839	ug/L	36839	ppb	00:11:08
2	Ca 317.933Radial†	8015.8	8157.2	17053	ug/L	17053	ppb	00:11:08
2	Fe 238.204 Radial†	5660.0	5762.4	81339	ug/L	81339	ppb	00:11:08
2	K 766.490 Radial†	44462.0	42716.2	8190.3	ug/L	8190.3	ppb	00:11:08
2	Mg 279.077 IEC†	180.5	180.0	8644.3	ug/L	8644.3	ppb	00:11:28
2	Na 589.592 Radial†	2911.3	3789.6	1168.4	ug/L	1168.4	ppb	00:11:08
2	Sr 421.552†	21697.6	22098.0	152.78	ug/L	152.78	ppb	00:11:08
2	Sc 361.383	915201.3	915201.3	104.33	%			00:12:32
2	Y 371.029	826869.2	826869.2	109.40	%			00:12:32
2	Ag 328.068†	-5530.0	-5540.9	-0.2485	ug/L	-0.2485	ppb	00:12:37
2	As 188.979†	-26.7	-7.3	38.829	ug/L	38.829	ppb	00:12:57
2	B 249.677†	1162.9	1512.8	23.386	ug/L	23.386	ppb	00:12:37
2	Ba 233.527†	72678.5	69664.6	549.47	ug/L	549.47	ppb	00:12:37
2	Be 313.107†	-11385.9	-7151.3	3.3492	ug/L	3.3492	ppb	00:12:37
2	Cd 226.502†	796.4	959.7	2.7220	ug/L	2.7220	ppb	00:12:57
2	Co 228.616†	1385.6	1394.6	22.698	ug/L	22.698	ppb	00:12:57
2	Cr 267.716†	6318.9	5979.0	75.094	ug/L	75.094	ppb	00:12:37
2	Cu 324.752†	34509.6	27087.1	86.785	ug/L	86.785	ppb	00:12:37
2	Mn 257.610†	1807712.3	1732254.8	1978.9	ug/L	1978.9	ppb	00:12:32
2	Mo 202.031†	-23.2	-32.3	4.1426	ug/L	4.1426	ppb	00:12:57
2	Ni 231.604†	1951.3	1807.9	45.962	ug/L	45.962	ppb	00:12:57

2	P 214.914†	2569.6	2252.5	1283.2 ug/L	1283.2 ppb	00:12:57
2	Pb 220.353†	273179.2	261903.6	32210 ug/L	32210 ppb	00:12:37
2	S 181.975 Axial†	812.7	738.2	1055.4 ug/L	1055.4 ppb	00:12:57
2	Sb 206.836†	194.6	149.8	41.906 ug/L	41.906 ppb	00:12:57
2	Se 196.026†	-405.3	-360.7	17.018 ug/L	17.018 ppb	00:12:57
2	Si 251.611†	800147.4	766392.3	24800 ug/L	24800 ppb	00:12:32
2	Sn 189.927†	-55.6	-63.8	-13.085 ug/L	-13.085 ppb	00:12:57
2	Ti 334.940†	1763941.5	1692132.7	2660.6 ug/L	2660.6 ppb	00:12:32
2	Tl 190.801†	-149.6	-110.9	-4.3554 ug/L	-4.3554 ppb	00:12:57
2	U 409.014†	-6551.9	-3393.5	-103.13 ug/L	-103.13 ppb	00:12:37
2	V 292.402†	19774.1	20459.4	127.93 ug/L	127.93 ppb	00:12:37
2	Zn 213.857†	220151.8	210412.1	2105.5 ug/L	2105.5 ppb	00:12:37
2	SiO2†	791176.5	757797.5	52664 ug/L	52664 ppb	00:13:40
3	Sc Radial	3868.5	3868.5	98.7 %		00:11:53
3	Y RADIAL	4691.8	4691.8	106.4 %		00:11:33
3	Al 396.153Radial†	38346.6	38957.8	36538 ug/L	36538 ppb	00:11:33
3	Ca 317.933Radial†	8028.8	8113.6	16962 ug/L	16962 ppb	00:11:33
3	Fe 238.204 Radial†	5646.7	5708.8	80582 ug/L	80582 ppb	00:11:33
3	K 766.490 Radial†	44424.9	42363.2	8122.6 ug/L	8122.6 ppb	00:11:33
3	Mg 279.077 IEC†	180.6	178.9	8589.9 ug/L	8589.9 ppb	00:11:53
3	Na 589.592 Radial†	2810.5	3666.8	1130.6 ug/L	1130.6 ppb	00:11:33
3	Sr 421.552†	21570.0	21814.9	150.82 ug/L	150.82 ppb	00:11:33
3	Sc 361.383	926063.8	926063.8	105.57 %		00:13:03
3	Y 371.029	833869.3	833869.3	110.32 %		00:13:03
3	Ag 328.068†	-5563.7	-5510.8	-0.3547 ug/L	-0.3547 ppb	00:13:08
3	As 188.979†	-11.0	7.8	45.080 ug/L	45.080 ppb	00:13:28
3	B 249.677†	1218.5	1552.5	24.470 ug/L	24.470 ppb	00:13:08
3	Ba 233.527†	72193.7	68388.2	539.43 ug/L	539.43 ppb	00:13:08
3	Be 313.107†	-11199.7	-6847.0	3.3780 ug/L	3.3780 ppb	00:13:08
3	Cd 226.502†	791.0	945.5	2.6366 ug/L	2.6366 ppb	00:13:28
3	Co 228.616†	1390.3	1383.5	22.551 ug/L	22.551 ppb	00:13:28
3	Cr 267.716†	6270.6	5862.2	73.705 ug/L	73.705 ppb	00:13:08
3	Cu 324.752†	34211.6	26416.8	84.704 ug/L	84.704 ppb	00:13:08
3	Mn 257.610†	1804320.6	1708717.5	1952.0 ug/L	1952.0 ppb	00:13:03
3	Mo 202.031†	-27.6	-36.3	3.7907 ug/L	3.7907 ppb	00:13:28
3	Ni 231.604†	1937.5	1772.9	45.073 ug/L	45.073 ppb	00:13:28
3	P 214.914†	2569.9	2223.9	1266.9 ug/L	1266.9 ppb	00:13:28
3	Pb 220.353†	270981.5	256750.4	31576 ug/L	31576 ppb	00:13:08
3	S 181.975 Axial†	822.5	738.3	1055.7 ug/L	1055.7 ppb	00:13:28
3	Sb 206.836†	187.8	141.1	38.975 ug/L	38.975 ppb	00:13:28
3	Se 196.026†	-386.7	-338.5	29.196 ug/L	29.196 ppb	00:13:28
3	Si 251.611†	799187.5	756486.9	24479 ug/L	24479 ppb	00:13:03
3	Sn 189.927†	-63.3	-70.5	-14.261 ug/L	-14.261 ppb	00:13:28
3	Ti 334.940†	1759532.3	1668123.8	2622.9 ug/L	2622.9 ppb	00:13:03
3	Tl 190.801†	-144.3	-104.1	-2.6362 ug/L	-2.6362 ppb	00:13:28
3	U 409.014†	-6526.6	-3295.8	-100.34 ug/L	-100.34 ppb	00:13:08
3	V 292.402†	19543.2	20018.3	125.00 ug/L	125.00 ppb	00:13:08
3	Zn 213.857†	218531.7	206402.2	2065.3 ug/L	2065.3 ppb	00:13:08
3	SiO2†	804756.3	761766.0	52939 ug/L	52939 ppb	00:13:46

Mean Data: 1202033899|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918987.9	104.76	%	0.699				0.67%
Sc Radial	3859.2	98.5	%	0.39				0.40%
Y 371.029	829260.0	109.71	%	0.528				0.48%
Y RADIAL	4731.3	107.3	%	1.30				1.21%
Ag 328.068†	-5533.8	-0.2360	ug/L	0.12547	-0.2360	ppb	0.12547	53.16%
Al 396.153Radial†	39295.1	36854	ug/L	323.9	36854	ppb	323.9	0.88%
As 188.979†	2.8	43.274	ug/L	3.8722	43.274	ppb	3.8722	8.95%
B 249.677†	1521.1	23.593	ug/L	0.7945	23.593	ppb	0.7945	3.37%
Ba 233.527†	69066.5	544.77	ug/L	5.055	544.77	ppb	5.055	0.93%
Be 313.107†	-7047.1	3.3698	ug/L	0.01798	3.3698	ppb	0.01798	0.53%
Ca 317.933Radial†	8173.9	17088	ug/L	146.6	17088	ppb	146.6	0.86%
Cd 226.502†	960.5	2.7365	ug/L	0.10790	2.7365	ppb	0.10790	3.94%
Co 228.616†	1391.7	22.653	ug/L	0.0885	22.653	ppb	0.0885	0.39%
Cr 267.716†	5943.4	74.687	ug/L	0.8544	74.687	ppb	0.8544	1.14%
Cu 324.752†	26892.9	86.192	ug/L	1.2969	86.192	ppb	1.2969	1.50%
Fe 238.204 Radial†	5759.3	81294	ug/L	691.3	81294	ppb	691.3	0.85%
K 766.490 Radial†	42789.0	8204.3	ug/L	89.46	8204.3	ppb	89.46	1.09%

Mg 279.077 IEC†	180.6	8672.6	ug/L	99.91	8672.6	ppb	99.91	1.15%
Mn 257.610†	1726310.3	1972.1	ug/L	17.70	1972.1	ppb	17.70	0.90%
Mo 202.031†	-34.3	3.9971	ug/L	0.18370	3.9971	ppb	0.18370	4.60%
Na 589.592 Radial†	3743.5	1154.2	ug/L	20.62	1154.2	ppb	20.62	1.79%
Ni 231.604†	1801.4	45.797	ug/L	0.6571	45.797	ppb	0.6571	1.43%
P 214.914†	2238.3	1274.8	ug/L	8.16	1274.8	ppb	8.16	0.64%
Pb 220.353†	259580.4	31924	ug/L	321.4	31924	ppb	321.4	1.01%
S 181.975 Axial†	738.0	1055.1	ug/L	0.82	1055.1	ppb	0.82	0.08%
Sb 206.836†	143.8	39.828	ug/L	1.8092	39.828	ppb	1.8092	4.54%
Se 196.026†	-351.1	23.149	ug/L	6.0896	23.149	ppb	6.0896	26.31%
Si 251.611†	764099.1	24725	ug/L	218.9	24725	ppb	218.9	0.89%
Sn 189.927†	-65.3	-13.354	ug/L	0.8070	-13.354	ppb	0.8070	6.04%
Sr 421.552†	22075.0	152.62	ug/L	1.724	152.62	ppb	1.724	1.13%
Ti 334.940†	1686926.3	2652.4	ug/L	26.43	2652.4	ppb	26.43	1.00%
Tl 190.801†	-105.3	-2.6673	ug/L	1.67276	-2.6673	ppb	1.67276	62.71%
U 409.014†	-3352.6	-102.00	ug/L	1.464	-102.00	ppb	1.464	1.44%
V 292.402†	20267.2	126.61	ug/L	1.482	126.61	ppb	1.482	1.17%
Zn 213.857†	208635.3	2087.6	ug/L	20.49	2087.6	ppb	20.49	0.98%
SiO2†	763460.9	53057	ug/L	463.8	53057	ppb	463.8	0.87%

Sequence No.: 65
Sample ID: 1202033901|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 90
Date Collected: 2/25/2010 00:15:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033901|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3904.0	3904.0	99.6	%			00:18:11
1	Y RADIAL	4780.0	4780.0	108.4	%			00:17:51
1	Al 396.153Radial†	70770.4	71150.7	66708	ug/L	66708	ppb	00:17:51
1	Ca 317.933Radial†	9625.2	9641.9	20156	ug/L	20156	ppb	00:17:51
1	Fe 238.204 Radial†	6573.7	6587.2	92995	ug/L	92995	ppb	00:17:51
1	K 766.490 Radial†	74828.1	72471.6	13897	ug/L	13897	ppb	00:17:51
1	Mg 279.077 IEC†	296.2	293.2	14125	ug/L	14125	ppb	00:18:11
1	Na 589.592 Radial†	19518.3	20412.0	6293.6	ug/L	6293.6	ppb	00:17:51
1	Sr 421.552†	95272.4	95597.2	661.34	ug/L	661.34	ppb	00:17:51
1	Sc 361.383	885412.7	885412.7	100.93	%			00:19:15
1	Y 371.029	791349.3	791349.3	104.70	%			00:19:15
1	Ag 328.068†	103398.5	102202.7	504.06	ug/L	504.06	ppb	00:19:15
1	As 188.979†	3771.6	3755.0	1728.3	ug/L	1728.3	ppb	00:19:35
1	B 249.677†	21989.1	22184.2	521.32	ug/L	521.32	ppb	00:19:15
1	Ba 233.527†	138740.1	137459.5	1082.9	ug/L	1082.9	ppb	00:19:15
1	Be 313.107†	1358126.3	1349339.0	515.14	ug/L	515.14	ppb	00:19:10
1	Cd 226.502†	43790.1	43581.7	495.48	ug/L	495.48	ppb	00:19:15
1	Co 228.616†	24178.6	24021.7	495.80	ug/L	495.80	ppb	00:19:35
1	Cr 267.716†	50424.7	49881.0	569.54	ug/L	569.54	ppb	00:19:15
1	Cu 324.752†	220752.6	212722.0	652.02	ug/L	652.02	ppb	00:19:15
1	Mn 257.610†	2020665.2	2001534.8	2286.2	ug/L	2286.2	ppb	00:19:10
1	Mo 202.031†	6486.5	6416.4	478.53	ug/L	478.53	ppb	00:19:35
1	Ni 231.604†	20815.0	20560.2	522.60	ug/L	522.60	ppb	00:19:35
1	P 214.914†	5545.1	5283.4	2998.3	ug/L	2998.3	ppb	00:19:35
1	Pb 220.353†	4693336.1	4650026.1	571900	ug/L	571900	ppb	00:19:10
1	S 181.975 Axial†	4395.2	4313.8	6195.1	ug/L	6195.1	ppb	00:19:35
1	Sb 206.836†	12758.1	12603.5	4410.5	ug/L	4410.5	ppb	00:19:35
1	Se 196.026†	252.7	278.1	473.02	ug/L	473.02	ppb	00:19:35
1	Si 251.611†	771232.9	763548.1	24702	ug/L	24702	ppb	00:19:10
1	Sn 189.927†	2744.5	2708.6	484.24	ug/L	484.24	ppb	00:19:35
1	Ti 334.940†	2280891.5	2261189.3	3554.4	ug/L	3554.4	ppb	00:19:10
1	Tl 190.801†	1386.4	1406.2	486.55	ug/L	486.55	ppb	00:19:35
1	U 409.014†	12187.8	14961.8	401.30	ug/L	401.30	ppb	00:19:15
1	V 292.402†	90829.6	91495.9	628.20	ug/L	628.20	ppb	00:19:15
1	Zn 213.857†	400774.8	396465.4	3972.9	ug/L	3972.9	ppb	00:19:15
1	SiO2†	769549.6	761884.3	52935	ug/L	52935	ppb	00:20:46
2	Sc Radial	3903.1	3903.1	99.6	%			00:18:36
2	Y RADIAL	4727.8	4727.8	107.2	%			00:18:16
2	Al 396.153Radial†	70758.7	71155.5	66712	ug/L	66712	ppb	00:18:16
2	Ca 317.933Radial†	9637.1	9656.2	20186	ug/L	20186	ppb	00:18:16
2	Fe 238.204 Radial†	6551.4	6566.4	92702	ug/L	92702	ppb	00:18:16
2	K 766.490 Radial†	74664.0	72324.5	13868	ug/L	13868	ppb	00:18:16
2	Mg 279.077 IEC†	304.4	301.6	14530	ug/L	14530	ppb	00:18:36
2	Na 589.592 Radial†	19558.5	20456.9	6307.4	ug/L	6307.4	ppb	00:18:16
2	Sr 421.552†	95301.9	95649.2	661.70	ug/L	661.70	ppb	00:18:16
2	Sc 361.383	862988.3	862988.3	98.376	%			00:19:48
2	Y 371.029	774607.8	774607.8	102.48	%			00:19:48
2	Ag 328.068†	100740.7	102162.9	503.79	ug/L	503.79	ppb	00:19:48
2	As 188.979†	3775.9	3856.5	1773.9	ug/L	1773.9	ppb	00:20:08
2	B 249.677†	21358.7	22109.4	519.51	ug/L	519.51	ppb	00:19:48
2	Ba 233.527†	135752.9	137994.8	1087.1	ug/L	1087.1	ppb	00:19:48
2	Be 313.107†	1339707.4	1365580.3	521.36	ug/L	521.36	ppb	00:19:42
2	Cd 226.502†	42851.7	43755.2	497.53	ug/L	497.53	ppb	00:19:48
2	Co 228.616†	24304.3	24772.0	511.44	ug/L	511.44	ppb	00:20:08
2	Cr 267.716†	49207.0	49941.4	570.19	ug/L	570.19	ppb	00:19:48
2	Cu 324.752†	214710.3	212263.1	650.61	ug/L	650.61	ppb	00:19:48
2	Mn 257.610†	1998857.2	2031387.9	2320.2	ug/L	2320.2	ppb	00:19:42
2	Mo 202.031†	6473.2	6569.8	489.77	ug/L	489.77	ppb	00:20:08
2	Ni 231.604†	20896.2	21178.6	538.32	ug/L	538.32	ppb	00:20:08

2	P 214.914†	5558.3	5439.5	3093.0 ug/L	3093.0 ppb	00:20:08
2	Pb 220.353†	4645944.7	4722680.3	580840 ug/L	580840 ppb	00:19:42
2	S 181.975 Axial†	4394.5	4426.2	6357.0 ug/L	6357.0 ppb	00:20:08
2	Sb 206.836†	12777.7	12951.9	4532.6 ug/L	4532.6 ppb	00:20:08
2	Se 196.026†	239.5	271.2	467.59 ug/L	467.59 ppb	00:20:08
2	Si 251.611†	763810.2	775857.9	25100 ug/L	25100 ppb	00:19:42
2	Sn 189.927†	2748.8	2783.6	497.72 ug/L	497.72 ppb	00:20:08
2	Ti 334.940†	2254980.3	2293570.9	3605.3 ug/L	3605.3 ppb	00:19:42
2	Tl 190.801†	1372.3	1427.6	493.90 ug/L	493.90 ppb	00:20:08
2	U 409.014†	11661.6	14740.7	395.23 ug/L	395.23 ppb	00:19:48
2	V 292.402†	88598.4	91566.3	628.84 ug/L	628.84 ppb	00:19:48
2	Zn 213.857†	391925.0	397787.4	3986.1 ug/L	3986.1 ppb	00:19:48
2	SiO2†	766395.9	778490.2	54088 ug/L	54088 ppb	00:20:51
3	Sc Radial	3852.6	3852.6	98.3 %		00:19:02
3	Y RADIAL	4700.7	4700.7	106.6 %		00:18:41
3	Al 396.153Radial†	70655.3	71982.5	67488 ug/L	67488 ppb	00:18:41
3	Ca 317.933Radial†	9604.7	9750.1	20383 ug/L	20383 ppb	00:18:41
3	Fe 238.204 Radial†	6512.3	6613.0	93359 ug/L	93359 ppb	00:18:41
3	K 766.490 Radial†	74414.9	73054.7	14009 ug/L	14009 ppb	00:18:41
3	Mg 279.077 IEC†	300.9	302.0	14552 ug/L	14552 ppb	00:19:02
3	Na 589.592 Radial†	19314.1	20466.0	6310.2 ug/L	6310.2 ppb	00:18:41
3	Sr 421.552†	94671.7	96263.7	665.95 ug/L	665.95 ppb	00:18:41
3	Sc 361.383	880738.1	880738.1	100.40 %		00:20:20
3	Y 371.029	787370.4	787370.4	104.17 %		00:20:20
3	Ag 328.068†	103434.2	102781.9	506.86 ug/L	506.86 ppb	00:20:20
3	As 188.979†	3809.4	3812.5	1754.5 ug/L	1754.5 ppb	00:20:40
3	B 249.677†	22031.9	22342.4	525.08 ug/L	525.08 ppb	00:20:20
3	Ba 233.527†	138816.5	138265.2	1089.3 ug/L	1089.3 ppb	00:20:20
3	Be 313.107†	1366698.8	1365019.1	521.16 ug/L	521.16 ppb	00:20:15
3	Cd 226.502†	43840.4	43862.1	498.69 ug/L	498.69 ppb	00:20:20
3	Co 228.616†	24252.7	24222.6	499.89 ug/L	499.89 ppb	00:20:40
3	Cr 267.716†	50256.8	49979.0	570.67 ug/L	570.67 ppb	00:20:20
3	Cu 324.752†	220650.0	213780.7	655.26 ug/L	655.26 ppb	00:20:20
3	Mn 257.610†	2040288.9	2031706.2	2320.6 ug/L	2320.6 ppb	00:20:15
3	Mo 202.031†	6468.7	6432.8	479.76 ug/L	479.76 ppb	00:20:40
3	Ni 231.604†	20854.2	20708.7	526.38 ug/L	526.38 ppb	00:20:40
3	P 214.914†	5570.5	5337.8	3030.4 ug/L	3030.4 ppb	00:20:40
3	Pb 220.353†	4726970.5	4708206.8	579060 ug/L	579060 ppb	00:20:15
3	S 181.975 Axial†	4379.5	4321.2	6205.7 ug/L	6205.7 ppb	00:20:40
3	Sb 206.836†	12722.9	12635.6	4421.6 ug/L	4421.6 ppb	00:20:40
3	Se 196.026†	230.3	257.1	460.39 ug/L	460.39 ppb	00:20:40
3	Si 251.611†	780930.0	777262.2	25145 ug/L	25145 ppb	00:20:15
3	Sn 189.927†	2776.4	2754.9	492.56 ug/L	492.56 ppb	00:20:40
3	Ti 334.940†	2303536.8	2295738.6	3608.7 ug/L	3608.7 ppb	00:20:15
3	Tl 190.801†	1392.0	1419.0	491.25 ug/L	491.25 ppb	00:20:40
3	U 409.014†	12085.6	14924.1	400.22 ug/L	400.22 ppb	00:20:20
3	V 292.402†	90636.0	91780.8	630.10 ug/L	630.10 ppb	00:20:20
3	Zn 213.857†	400834.1	398632.0	3994.6 ug/L	3994.6 ppb	00:20:20
3	SiO2†	768951.6	765335.3	53174 ug/L	53174 ppb	00:20:57

Mean Data: 1202033901|949334|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	876379.7	99.903	%	1.3486				1.35%
Sc Radial	3886.6	99.2	%	0.75				0.76%
Y 371.029	784442.5	103.78	%	1.157				1.11%
Y RADIAL	4736.2	107.4	%	0.91				0.85%
Ag 328.068†	102382.5	504.90	ug/L	1.700	504.90	ppb	1.700	0.34%
Al 396.153Radial†	71429.6	66969	ug/L	449.3	66969	ppb	449.3	0.67%
As 188.979†	3808.0	1752.2	ug/L	22.91	1752.2	ppb	22.91	1.31%
B 249.677†	22212.0	521.97	ug/L	2.844	521.97	ppb	2.844	0.54%
Ba 233.527†	137906.5	1086.4	ug/L	3.22	1086.4	ppb	3.22	0.30%
Be 313.107†	1359979.4	519.22	ug/L	3.533	519.22	ppb	3.533	0.68%
Ca 317.933Radial†	9682.7	20242	ug/L	122.9	20242	ppb	122.9	0.61%
Cd 226.502†	43733.0	497.23	ug/L	1.626	497.23	ppb	1.626	0.33%
Co 228.616†	24338.8	502.38	ug/L	8.112	502.38	ppb	8.112	1.61%
Cr 267.716†	49933.8	570.13	ug/L	0.571	570.13	ppb	0.571	0.10%
Cu 324.752†	212921.9	652.63	ug/L	2.385	652.63	ppb	2.385	0.37%
Fe 238.204 Radial†	6588.9	93019	ug/L	329.1	93019	ppb	329.1	0.35%
K 766.490 Radial†	72617.0	13925	ug/L	74.1	13925	ppb	74.1	0.53%

Mg 279.077 IEC†	298.9	14402	ug/L	240.1	14402	ppb	240.1	1.67%
Mn 257.610†	2021543.0	2309.0	ug/L	19.71	2309.0	ppb	19.71	0.85%
Mo 202.031†	6473.0	482.69	ug/L	6.165	482.69	ppb	6.165	1.28%
Na 589.592 Radial†	20444.9	6303.7	ug/L	8.91	6303.7	ppb	8.91	0.14%
Ni 231.604†	20815.8	529.10	ug/L	8.206	529.10	ppb	8.206	1.55%
P 214.914†	5353.6	3040.6	ug/L	48.13	3040.6	ppb	48.13	1.58%
Pb 220.353†	4693637.7	577270	ug/L	4729.6	577270	ppb	4729.6	0.82%
S 181.975 Axial†	4353.7	6252.6	ug/L	90.53	6252.6	ppb	90.53	1.45%
Sb 206.836†	12730.3	4454.9	ug/L	67.49	4454.9	ppb	67.49	1.51%
Se 196.026†	268.8	467.00	ug/L	6.335	467.00	ppb	6.335	1.36%
Si 251.611†	772222.8	24982	ug/L	244.1	24982	ppb	244.1	0.98%
Sn 189.927†	2749.0	491.51	ug/L	6.804	491.51	ppb	6.804	1.38%
Sr 421.552†	95836.7	663.00	ug/L	2.564	663.00	ppb	2.564	0.39%
Ti 334.940†	2283499.6	3589.4	ug/L	30.40	3589.4	ppb	30.40	0.85%
Tl 190.801†	1417.6	490.57	ug/L	3.721	490.57	ppb	3.721	0.76%
U 409.014†	14875.5	398.92	ug/L	3.239	398.92	ppb	3.239	0.81%
V 292.402†	91614.3	629.05	ug/L	0.967	629.05	ppb	0.967	0.15%
Zn 213.857†	397628.3	3984.5	ug/L	10.95	3984.5	ppb	10.95	0.27%
SiO2†	768570.0	53399	ug/L	608.8	53399	ppb	608.8	1.14%

Sequence No.: 66
Sample ID: 1202033902|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 91
Date Collected: 2/25/2010 00:23:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033902|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3947.6	3947.6	101	%			00:25:01
1	Y RADIAL	4673.2	4673.2	105.9	%			00:25:01
1	Al 396.153Radial†	57797.3	57488.0	53893	ug/L	53893	ppb	00:25:01
1	Ca 317.933Radial†	8298.1	8217.8	17179	ug/L	17179	ppb	00:25:01
1	Fe 238.204 Radial†	4632.3	4587.2	64765	ug/L	64765	ppb	00:25:01
1	K 766.490 Radial†	66307.5	63184.1	12116	ug/L	12116	ppb	00:25:01
1	Mg 279.077 IEC†	259.1	253.2	12212	ug/L	12212	ppb	00:25:21
1	Na 589.592 Radial†	17952.9	18641.7	5747.7	ug/L	5747.7	ppb	00:25:01
1	Sr 421.552†	87082.7	86411.6	597.80	ug/L	597.80	ppb	00:25:01
1	Sc 361.383	917204.0	917204.0	104.56	%			00:26:20
1	Y 371.029	798476.4	798476.4	105.64	%			00:26:25
1	Ag 328.068†	109343.8	104338.1	505.16	ug/L	505.16	ppb	00:26:25
1	As 188.979†	17072.4	16346.6	7337.9	ug/L	7337.9	ppb	00:26:45
1	B 249.677†	22238.9	21668.0	513.37	ug/L	513.37	ppb	00:26:25
1	Ba 233.527†	120706.4	115447.3	909.25	ug/L	909.25	ppb	00:26:25
1	Be 313.107†	1381312.5	1324875.5	504.22	ug/L	504.22	ppb	00:26:20
1	Cd 226.502†	45632.3	43839.8	501.39	ug/L	501.39	ppb	00:26:25
1	Co 228.616†	25385.7	24345.9	504.53	ug/L	504.53	ppb	00:26:45
1	Cr 267.716†	51497.6	49175.6	558.88	ug/L	558.88	ppb	00:26:25
1	Cu 324.752†	215003.1	199642.2	610.73	ug/L	610.73	ppb	00:26:25
1	Mn 257.610†	1703467.4	1628769.6	1859.3	ug/L	1859.3	ppb	00:26:20
1	Mo 202.031†	6845.1	6536.6	485.13	ug/L	485.13	ppb	00:26:45
1	Ni 231.604†	21693.3	20685.4	525.78	ug/L	525.78	ppb	00:26:45
1	P 214.914†	3701.9	3330.0	1873.7	ug/L	1873.7	ppb	00:26:45
1	Pb 220.353†	5657361.2	5410865.0	665480	ug/L	665480	ppb	00:26:20
1	S 181.975 Axial†	4523.3	4285.4	6156.6	ug/L	6156.6	ppb	00:26:45
1	Sb 206.836†	52074.4	49768.2	17444	ug/L	17444	ppb	00:26:25
1	Se 196.026†	358.7	370.8	445.86	ug/L	445.86	ppb	00:26:45
1	Si 251.611†	849997.2	812395.1	26282	ug/L	26282	ppb	00:26:20
1	Sn 189.927†	17669.4	16888.9	3029.6	ug/L	3029.6	ppb	00:26:45
1	Ti 334.940†	1855773.5	1776270.9	2792.2	ug/L	2792.2	ppb	00:26:20
1	Tl 190.801†	1491.6	1459.2	495.19	ug/L	495.19	ppb	00:26:45
1	U 409.014†	12666.4	15001.0	405.62	ug/L	405.62	ppb	00:26:25
1	V 292.402†	88363.2	86017.9	595.02	ug/L	595.02	ppb	00:26:25
1	Zn 213.857†	529780.4	506085.9	5080.6	ug/L	5080.6	ppb	00:26:25
1	SiO2†	878773.7	839921.4	58358	ug/L	58358	ppb	00:27:56
2	Sc Radial	3875.6	3875.6	98.9	%			00:25:26
2	Y RADIAL	4512.7	4512.7	102.3	%			00:25:26
2	Al 396.153Radial†	55998.2	56734.5	53187	ug/L	53187	ppb	00:25:26
2	Ca 317.933Radial†	8037.6	8107.5	16949	ug/L	16949	ppb	00:25:26
2	Fe 238.204 Radial†	4493.0	4531.7	63982	ug/L	63982	ppb	00:25:26
2	K 766.490 Radial†	64418.7	62496.8	11984	ug/L	11984	ppb	00:25:26
2	Mg 279.077 IEC†	254.8	253.6	12235	ug/L	12235	ppb	00:25:46
2	Na 589.592 Radial†	17297.3	18309.7	5645.4	ug/L	5645.4	ppb	00:25:26
2	Sr 421.552†	84113.4	85014.8	588.14	ug/L	588.14	ppb	00:25:26
2	Sc 361.383	934237.8	934237.8	106.50	%			00:26:52
2	Y 371.029	808621.4	808621.4	106.98	%			00:26:58
2	Ag 328.068†	111005.3	103991.4	503.30	ug/L	503.30	ppb	00:26:58
2	As 188.979†	17114.2	16088.2	7222.3	ug/L	7222.3	ppb	00:27:18
2	B 249.677†	22626.1	21643.7	512.93	ug/L	512.93	ppb	00:26:58
2	Ba 233.527†	122831.7	115338.0	908.36	ug/L	908.36	ppb	00:26:58
2	Be 313.107†	1401716.0	1319946.3	502.37	ug/L	502.37	ppb	00:26:52
2	Cd 226.502†	46199.9	43577.1	498.42	ug/L	498.42	ppb	00:26:58
2	Co 228.616†	25390.2	23907.5	495.35	ug/L	495.35	ppb	00:27:18
2	Cr 267.716†	52152.8	48892.8	555.62	ug/L	555.62	ppb	00:26:58
2	Cu 324.752†	218634.1	199302.4	609.64	ug/L	609.64	ppb	00:26:58
2	Mn 257.610†	1732626.5	1626443.9	1856.6	ug/L	1856.6	ppb	00:26:52
2	Mo 202.031†	6852.1	6423.8	476.78	ug/L	476.78	ppb	00:27:18
2	Ni 231.604†	21740.3	20351.3	517.29	ug/L	517.29	ppb	00:27:18

2	P 214.914†	3694.1	3258.2	1830.7 ug/L	1830.7 ppb	00:27:18
2	Pb 220.353†	5726806.7	5377418.3	661360 ug/L	661360 ppb	00:26:52
2	S 181.975 Axial†	4543.0	4225.0	6069.9 ug/L	6069.9 ppb	00:27:18
2	Sb 206.836†	52888.5	49624.6	17393 ug/L	17393 ppb	00:26:58
2	Se 196.026†	372.4	377.5	447.74 ug/L	447.74 ppb	00:27:18
2	Si 251.611†	863940.1	810664.6	26226 ug/L	26226 ppb	00:26:52
2	Sn 189.927†	17735.2	16642.5	2985.4 ug/L	2985.4 ppb	00:27:18
2	Ti 334.940†	1890021.3	1776067.4	2791.8 ug/L	2791.8 ppb	00:26:52
2	Tl 190.801†	1508.7	1449.2	492.02 ug/L	492.02 ppb	00:27:18
2	U 409.014†	13295.0	15370.3	415.92 ug/L	415.92 ppb	00:26:58
2	V 292.402†	89682.0	85715.3	592.93 ug/L	592.93 ppb	00:26:58
2	Zn 213.857†	537781.6	504360.4	5063.4 ug/L	5063.4 ppb	00:26:58
2	SiO2†	872006.2	818242.4	56851 ug/L	56851 ppb	00:28:02
3	Sc Radial	3978.0	3978.0	102 %		00:25:51
3	Y RADIAL	4671.0	4671.0	105.9 %		00:25:51
3	Al 396.153Radial†	57710.0	56963.5	53402 ug/L	53402 ppb	00:25:51
3	Ca 317.933Radial†	8333.1	8189.4	17120 ug/L	17120 ppb	00:25:51
3	Fe 238.204 Radial†	4628.0	4547.8	64209 ug/L	64209 ppb	00:25:51
3	K 766.490 Radial†	66567.6	62937.1	12068 ug/L	12068 ppb	00:25:51
3	Mg 279.077 IEC†	261.3	253.3	12219 ug/L	12219 ppb	00:26:11
3	Na 589.592 Radial†	17942.8	18495.5	5702.7 ug/L	5702.7 ppb	00:25:51
3	Sr 421.552†	86591.0	85266.4	589.88 ug/L	589.88 ppb	00:25:51
3	Sc 361.383	925684.9	925684.9	105.52 %		00:27:25
3	Y 371.029	800830.3	800830.3	105.95 %		00:27:30
3	Ag 328.068†	109768.0	103781.9	502.39 ug/L	502.39 ppb	00:27:30
3	As 188.979†	17055.3	16180.8	7263.7 ug/L	7263.7 ppb	00:27:50
3	B 249.677†	22213.6	21449.1	508.17 ug/L	508.17 ppb	00:27:30
3	Ba 233.527†	121473.2	115116.2	906.62 ug/L	906.62 ppb	00:27:30
3	Be 313.107†	1393619.3	1324434.3	504.05 ug/L	504.05 ppb	00:27:25
3	Cd 226.502†	45888.4	43682.7	499.62 ug/L	499.62 ppb	00:27:30
3	Co 228.616†	25316.2	24057.5	498.49 ug/L	498.49 ppb	00:27:50
3	Cr 267.716†	51896.1	49102.0	557.99 ug/L	557.99 ppb	00:27:30
3	Cu 324.752†	214834.7	197598.7	604.48 ug/L	604.48 ppb	00:27:30
3	Mn 257.610†	1720424.8	1629912.7	1860.6 ug/L	1860.6 ppb	00:27:25
3	Mo 202.031†	6818.0	6451.0	478.80 ug/L	478.80 ppb	00:27:50
3	Ni 231.604†	21632.8	20438.0	519.50 ug/L	519.50 ppb	00:27:50
3	P 214.914†	3661.3	3259.2	1832.4 ug/L	1832.4 ppb	00:27:50
3	Pb 220.353†	5735019.5	5434885.4	668430 ug/L	668430 ppb	00:27:25
3	S 181.975 Axial†	4529.8	4251.9	6108.6 ug/L	6108.6 ppb	00:27:50
3	Sb 206.836†	52275.4	49502.4	17351 ug/L	17351 ppb	00:27:30
3	Se 196.026†	367.6	376.1	447.59 ug/L	447.59 ppb	00:27:50
3	Si 251.611†	857299.4	811866.8	26265 ug/L	26265 ppb	00:27:25
3	Sn 189.927†	17708.9	16771.4	3008.6 ug/L	3008.6 ppb	00:27:50
3	Ti 334.940†	1870658.0	1774114.9	2788.8 ug/L	2788.8 ppb	00:27:25
3	Tl 190.801†	1473.0	1428.4	485.38 ug/L	485.38 ppb	00:27:50
3	U 409.014†	12828.1	15043.2	406.85 ug/L	406.85 ppb	00:27:30
3	V 292.402†	88648.9	85514.3	591.50 ug/L	591.50 ppb	00:27:30
3	Zn 213.857†	532695.9	504206.6	5061.8 ug/L	5061.8 ppb	00:27:30
3	SiO2†	876115.7	829702.2	57648 ug/L	57648 ppb	00:28:08

Mean Data: 1202033902|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925708.9	105.53	%	0.971				0.92%
Sc Radial	3933.8	100	%	1.3				1.34%
Y 371.029	802642.7	106.19	%	0.702				0.66%
Y RADIAL	4619.0	104.7	%	2.09				1.99%
Ag 328.068†	104037.1	503.62	ug/L	1.409	503.62	ppb	1.409	0.28%
Al 396.153Radial†	57062.0	53494	ug/L	362.1	53494	ppb	362.1	0.68%
As 188.979†	16205.2	7274.6	ug/L	58.56	7274.6	ppb	58.56	0.80%
B 249.677†	21586.9	511.49	ug/L	2.884	511.49	ppb	2.884	0.56%
Ba 233.527†	115300.5	908.08	ug/L	1.334	908.08	ppb	1.334	0.15%
Be 313.107†	1323085.4	503.55	ug/L	1.023	503.55	ppb	1.023	0.20%
Ca 317.933Radial†	8171.6	17083	ug/L	119.7	17083	ppb	119.7	0.70%
Cd 226.502†	43699.9	499.81	ug/L	1.491	499.81	ppb	1.491	0.30%
Co 228.616†	24103.6	499.46	ug/L	4.670	499.46	ppb	4.670	0.94%
Cr 267.716†	49056.8	557.50	ug/L	1.684	557.50	ppb	1.684	0.30%
Cu 324.752†	198847.8	608.28	ug/L	3.340	608.28	ppb	3.340	0.55%
Fe 238.204 Radial†	4555.6	64318	ug/L	402.9	64318	ppb	402.9	0.63%
K 766.490 Radial†	62872.7	12056	ug/L	66.7	12056	ppb	66.7	0.55%

Mg 279.077 IEC†	253.4	12222	ug/L	11.6	12222	ppb	11.6	0.10%
Mn 257.610†	1628375.4	1858.8	ug/L	2.03	1858.8	ppb	2.03	0.11%
Mo 202.031†	6470.5	480.23	ug/L	4.354	480.23	ppb	4.354	0.91%
Na 589.592 Radial†	18482.3	5698.6	ug/L	51.30	5698.6	ppb	51.30	0.90%
Ni 231.604†	20491.6	520.86	ug/L	4.407	520.86	ppb	4.407	0.85%
P 214.914†	3282.5	1845.6	ug/L	24.35	1845.6	ppb	24.35	1.32%
Pb 220.353†	5407722.9	665090	ug/L	3549.7	665090	ppb	3549.7	0.53%
S 181.975 Axial†	4254.1	6111.7	ug/L	43.46	6111.7	ppb	43.46	0.71%
Sb 206.836†	49631.8	17396	ug/L	46.7	17396	ppb	46.7	0.27%
Se 196.026†	374.8	447.06	ug/L	1.047	447.06	ppb	1.047	0.23%
Si 251.611†	811642.2	26258	ug/L	28.6	26258	ppb	28.6	0.11%
Sn 189.927†	16767.6	3007.9	ug/L	22.11	3007.9	ppb	22.11	0.73%
Sr 421.552†	85564.3	591.94	ug/L	5.151	591.94	ppb	5.151	0.87%
Ti 334.940†	1775484.4	2790.9	ug/L	1.87	2790.9	ppb	1.87	0.07%
Tl 190.801†	1445.6	490.86	ug/L	5.009	490.86	ppb	5.009	1.02%
U 409.014†	15138.2	409.46	ug/L	5.622	409.46	ppb	5.622	1.37%
V 292.402†	85749.2	593.15	ug/L	1.767	593.15	ppb	1.767	0.30%
Zn 213.857†	504884.3	5068.6	ug/L	10.42	5068.6	ppb	10.42	0.21%
SiO2†	829288.7	57619	ug/L	753.6	57619	ppb	753.6	1.31%

Sequence No.: 67
Sample ID: 1202033900|949334|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 92
Date Collected: 2/25/2010 00:30:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033900|949334|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3773.1	3773.1	96.3	%			00:32:33
1	Y RADIAL	4356.6	4356.6	98.77	%			00:32:13
1	Al 396.153Radial†	5362.5	5682.0	5329.0	ug/L	5329.0	ppb	00:32:13
1	Ca 317.933Radial†	1201.3	1228.0	2567.1	ug/L	2567.1	ppb	00:32:33
1	Fe 238.204 Radial†	1199.5	1234.5	17425	ug/L	17425	ppb	00:32:33
1	K 766.490 Radial†	8780.5	6480.0	1242.5	ug/L	1242.5	ppb	00:32:13
1	Mg 279.077 IEC†	28.1	25.1	1200.4	ug/L	1200.4	ppb	00:32:33
1	Na 589.592 Radial†	-198.0	614.1	189.34	ug/L	189.34	ppb	00:32:13
1	Sr 421.552†	3631.0	3735.5	25.829	ug/L	25.829	ppb	00:32:13
1	Sc 361.383	895893.1	895893.1	102.13	%			00:33:30
1	Y 371.029	760196.6	760196.6	100.58	%			00:33:30
1	Ag 328.068†	-731.0	-956.2	0.9838	ug/L	0.9838	ppb	00:33:35
1	As 188.979†	255.5	268.4	127.46	ug/L	127.46	ppb	00:33:55
1	B 249.677†	4.1	402.2	6.9088	ug/L	6.9088	ppb	00:33:35
1	Ba 233.527†	10698.8	10477.3	82.793	ug/L	82.793	ppb	00:33:35
1	Be 313.107†	-4693.2	-833.2	0.6100	ug/L	0.6100	ppb	00:33:35
1	Cd 226.502†	43.5	238.9	0.9680	ug/L	0.9680	ppb	00:33:55
1	Co 228.616†	168.2	231.2	3.7753	ug/L	3.7753	ppb	00:33:55
1	Cr 267.716†	938.1	840.8	11.130	ug/L	11.130	ppb	00:33:35
1	Cu 324.752†	10692.8	4479.3	14.562	ug/L	14.562	ppb	00:33:35
1	Mn 257.610†	267976.7	261935.8	299.74	ug/L	299.74	ppb	00:33:30
1	Mo 202.031†	9.3	-1.0	1.3080	ug/L	1.3080	ppb	00:33:55
1	Ni 231.604†	373.5	303.3	7.7107	ug/L	7.7107	ppb	00:33:55
1	P 214.914†	636.3	412.6	232.94	ug/L	232.94	ppb	00:33:55
1	Pb 220.353†	738174.0	722855.6	88902	ug/L	88902	ppb	00:33:30
1	S 181.975 Axial†	137.1	93.5	133.53	ug/L	133.53	ppb	00:33:55
1	Sb 206.836†	1239.2	1176.7	409.69	ug/L	409.69	ppb	00:33:55
1	Se 196.026†	-96.0	-66.2	10.921	ug/L	10.921	ppb	00:33:55
1	Si 251.611†	94315.1	91792.2	2970.3	ug/L	2970.3	ppb	00:33:35
1	Sn 189.927†	2.5	-8.0	-1.9809	ug/L	-1.9809	ppb	00:33:55
1	Ti 334.940†	262862.8	258761.3	406.87	ug/L	406.87	ppb	00:33:30
1	Tl 190.801†	-55.9	-22.2	-2.3606	ug/L	-2.3606	ppb	00:33:55
1	U 409.014†	-3511.0	-551.3	-17.231	ug/L	-17.231	ppb	00:33:30
1	V 292.402†	1366.7	2844.0	16.852	ug/L	16.852	ppb	00:33:35
1	Zn 213.857†	36288.0	34926.1	348.91	ug/L	348.91	ppb	00:33:35
1	SiO2†	93727.0	91220.2	6339.4	ug/L	6339.4	ppb	00:35:02
2	Sc Radial	3751.6	3751.6	95.7	%			00:32:58
2	Y RADIAL	4406.2	4406.2	99.89	%			00:32:38
2	Al 396.153Radial†	5337.4	5687.8	5334.4	ug/L	5334.4	ppb	00:32:38
2	Ca 317.933Radial†	1190.2	1223.6	2558.0	ug/L	2558.0	ppb	00:32:58
2	Fe 238.204 Radial†	1191.4	1233.2	17407	ug/L	17407	ppb	00:32:58
2	K 766.490 Radial†	8666.7	6413.4	1229.7	ug/L	1229.7	ppb	00:32:38
2	Mg 279.077 IEC†	30.4	27.7	1322.5	ug/L	1322.5	ppb	00:32:58
2	Na 589.592 Radial†	-223.2	586.7	180.88	ug/L	180.88	ppb	00:32:38
2	Sr 421.552†	3536.8	3658.7	25.297	ug/L	25.297	ppb	00:32:38
2	Sc 361.383	897556.9	897556.9	102.32	%			00:34:00
2	Y 371.029	761512.7	761512.7	100.75	%			00:34:00
2	Ag 328.068†	-775.5	-998.4	0.7816	ug/L	0.7816	ppb	00:34:05
2	As 188.979†	247.6	260.3	123.84	ug/L	123.84	ppb	00:34:26
2	B 249.677†	-136.1	265.2	3.5891	ug/L	3.5891	ppb	00:34:05
2	Ba 233.527†	10696.3	10455.5	82.620	ug/L	82.620	ppb	00:34:05
2	Be 313.107†	-4779.4	-908.9	0.5830	ug/L	0.5830	ppb	00:34:05
2	Cd 226.502†	19.9	215.7	0.7017	ug/L	0.7017	ppb	00:34:26
2	Co 228.616†	156.3	219.3	3.5241	ug/L	3.5241	ppb	00:34:26
2	Cr 267.716†	890.2	792.3	10.584	ug/L	10.584	ppb	00:34:05
2	Cu 324.752†	10526.0	4296.8	14.006	ug/L	14.006	ppb	00:34:05
2	Mn 257.610†	268923.3	262374.6	300.23	ug/L	300.23	ppb	00:34:00
2	Mo 202.031†	3.3	-7.0	0.8706	ug/L	0.8706	ppb	00:34:26
2	Ni 231.604†	385.4	314.2	7.9887	ug/L	7.9887	ppb	00:34:26

2	P 214.914†	634.2	409.3	231.09	ug/L	231.09 ppb	00:34:26
2	Pb 220.353†	740597.3	723884.1	89028	ug/L	89028 ppb	00:34:00
2	S 181.975 Axial†	152.9	108.6	155.33	ug/L	155.33 ppb	00:34:26
2	Sb 206.836†	1207.1	1143.0	397.90	ug/L	397.90 ppb	00:34:26
2	Se 196.026†	-107.3	-77.1	3.7075	ug/L	3.7075 ppb	00:34:26
2	Si 251.611†	93688.1	91008.2	2944.9	ug/L	2944.9 ppb	00:34:05
2	Sn 189.927†	-0.6	-11.1	-2.5340	ug/L	-2.5340 ppb	00:34:26
2	Ti 334.940†	263766.6	259167.5	407.49	ug/L	407.49 ppb	00:34:00
2	Tl 190.801†	-38.6	-5.1	3.1062	ug/L	3.1062 ppb	00:34:26
2	U 409.014†	-3546.0	-579.1	-17.996	ug/L	-17.996 ppb	00:34:00
2	V 292.402†	1308.9	2784.9	16.437	ug/L	16.437 ppb	00:34:05
2	Zn 213.857†	36076.3	34653.3	346.16	ug/L	346.16 ppb	00:34:05
2	SiO2†	94875.4	92172.5	6405.6	ug/L	6405.6 ppb	00:35:07
3	Sc Radial	3781.2	3781.2	96.5	%		00:33:23
3	Y RADIAL	4308.1	4308.1	97.67	%		00:33:03
3	Al 396.153Radial†	5214.2	5516.4	5173.7	ug/L	5173.7 ppb	00:33:03
3	Ca 317.933Radial†	1190.1	1213.7	2537.2	ug/L	2537.2 ppb	00:33:23
3	Fe 238.204 Radial†	1195.8	1228.0	17334	ug/L	17334 ppb	00:33:23
3	K 766.490 Radial†	8644.5	6319.5	1211.7	ug/L	1211.7 ppb	00:33:03
3	Mg 279.077 IEC†	28.7	25.7	1226.6	ug/L	1226.6 ppb	00:33:23
3	Na 589.592 Radial†	-237.0	574.2	177.04	ug/L	177.04 ppb	00:33:03
3	Sr 421.552†	3456.9	3547.0	24.525	ug/L	24.525 ppb	00:33:03
3	Sc 361.383	885429.9	885429.9	100.93	%		00:34:31
3	Y 371.029	751341.4	751341.4	99.404	%		00:34:31
3	Ag 328.068†	-733.6	-967.2	0.9050	ug/L	0.9050 ppb	00:34:36
3	As 188.979†	254.5	270.4	128.31	ug/L	128.31 ppb	00:34:56
3	B 249.677†	-31.3	367.2	6.0744	ug/L	6.0744 ppb	00:34:36
3	Ba 233.527†	10759.8	10661.6	84.238	ug/L	84.238 ppb	00:34:36
3	Be 313.107†	-4804.6	-997.9	0.5462	ug/L	0.5462 ppb	00:34:36
3	Cd 226.502†	39.2	235.1	0.9343	ug/L	0.9343 ppb	00:34:56
3	Co 228.616†	177.6	242.5	4.0148	ug/L	4.0148 ppb	00:34:56
3	Cr 267.716†	925.6	839.4	11.105	ug/L	11.105 ppb	00:34:36
3	Cu 324.752†	10676.4	4586.7	14.882	ug/L	14.882 ppb	00:34:36
3	Mn 257.610†	264089.9	261185.8	298.88	ug/L	298.88 ppb	00:34:31
3	Mo 202.031†	7.2	-3.0	1.1533	ug/L	1.1533 ppb	00:34:56
3	Ni 231.604†	380.0	314.0	7.9830	ug/L	7.9830 ppb	00:34:56
3	P 214.914†	624.3	408.0	230.15	ug/L	230.15 ppb	00:34:56
3	Pb 220.353†	725961.4	719297.4	88464	ug/L	88464 ppb	00:34:31
3	S 181.975 Axial†	138.0	95.9	137.04	ug/L	137.04 ppb	00:34:56
3	Sb 206.836†	1219.0	1171.0	407.66	ug/L	407.66 ppb	00:34:56
3	Se 196.026†	-102.2	-73.5	5.8621	ug/L	5.8621 ppb	00:34:56
3	Si 251.611†	94652.9	93218.1	3016.4	ug/L	3016.4 ppb	00:34:36
3	Sn 189.927†	-12.0	-22.4	-4.5562	ug/L	-4.5562 ppb	00:34:56
3	Ti 334.940†	259242.3	258215.9	406.00	ug/L	406.00 ppb	00:34:31
3	Tl 190.801†	-46.9	-13.9	0.2760	ug/L	0.2760 ppb	00:34:56
3	U 409.014†	-3354.3	-436.6	-14.054	ug/L	-14.054 ppb	00:34:31
3	V 292.402†	1441.0	2933.4	17.494	ug/L	17.494 ppb	00:34:36
3	Zn 213.857†	36360.3	35417.6	353.87	ug/L	353.87 ppb	00:34:36
3	SiO2†	94903.8	93470.6	6495.8	ug/L	6495.8 ppb	00:35:12

Mean Data: 1202033900|949334|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892960.0	101.79	%	0.749				0.74%
Sc Radial	3768.6	96.2	%	0.39				0.41%
Y 371.029	757683.6	100.24	%	0.732				0.73%
Y RADIAL	4357.0	98.78	%	1.112				1.13%
Ag 328.068†	-973.9	0.8902	ug/L	0.10193	0.8902	ppb	0.10193	11.45%
Al 396.153Radial†	5628.7	5279.0	ug/L	91.27	5279.0	ppb	91.27	1.73%
As 188.979†	266.4	126.54	ug/L	2.373	126.54	ppb	2.373	1.88%
B 249.677†	344.9	5.5241	ug/L	1.72692	5.5241	ppb	1.72692	31.26%
Ba 233.527†	10531.5	83.217	ug/L	0.8881	83.217	ppb	0.8881	1.07%
Be 313.107†	-913.4	0.5797	ug/L	0.03204	0.5797	ppb	0.03204	5.53%
Ca 317.933Radial†	1221.8	2554.1	ug/L	15.30	2554.1	ppb	15.30	0.60%
Cd 226.502†	229.9	0.8680	ug/L	0.14499	0.8680	ppb	0.14499	16.70%
Co 228.616†	231.0	3.7714	ug/L	0.24538	3.7714	ppb	0.24538	6.51%
Cr 267.716†	824.2	10.940	ug/L	0.3084	10.940	ppb	0.3084	2.82%
Cu 324.752†	4454.3	14.483	ug/L	0.4433	14.483	ppb	0.4433	3.06%
Fe 238.204 Radial†	1231.9	17389	ug/L	48.2	17389	ppb	48.2	0.28%
K 766.490 Radial†	6404.3	1227.9	ug/L	15.47	1227.9	ppb	15.47	1.26%

Mg 279.077 IEC†	26.2	1249.8	ug/L	64.30	1249.8	ppb	64.30	5.14%
Mn 257.610†	261832.1	299.62	ug/L	0.686	299.62	ppb	0.686	0.23%
Mo 202.031†	-3.7	1.1106	ug/L	0.22181	1.1106	ppb	0.22181	19.97%
Na 589.592 Radial†	591.6	182.42	ug/L	6.292	182.42	ppb	6.292	3.45%
Ni 231.604†	310.5	7.8942	ug/L	0.15889	7.8942	ppb	0.15889	2.01%
P 214.914†	410.0	231.39	ug/L	1.424	231.39	ppb	1.424	0.62%
Pb 220.353†	722012.4	88798	ug/L	296.0	88798	ppb	296.0	0.33%
S 181.975 Axial†	99.3	141.97	ug/L	11.706	141.97	ppb	11.706	8.25%
Sb 206.836†	1163.6	405.08	ug/L	6.305	405.08	ppb	6.305	1.56%
Se 196.026†	-72.3	6.8304	ug/L	3.70315	6.8304	ppb	3.70315	54.22%
Si 251.611†	92006.2	2977.2	ug/L	36.25	2977.2	ppb	36.25	1.22%
Sn 189.927†	-13.8	-3.0237	ug/L	1.35569	-3.0237	ppb	1.35569	44.84%
Sr 421.552†	3647.1	25.217	ug/L	0.6557	25.217	ppb	0.6557	2.60%
Ti 334.940†	258714.9	406.79	ug/L	0.749	406.79	ppb	0.749	0.18%
Tl 190.801†	-13.8	0.3405	ug/L	2.73398	0.3405	ppb	2.73398	802.94%
U 409.014†	-522.3	-16.427	ug/L	2.0904	-16.427	ppb	2.0904	12.73%
V 292.402†	2854.1	16.928	ug/L	0.5325	16.928	ppb	0.5325	3.15%
Zn 213.857†	34999.0	349.64	ug/L	3.905	349.64	ppb	3.905	1.12%
SiO2†	92287.8	6413.6	ug/L	78.51	6413.6	ppb	78.51	1.22%

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/25/2010 00:37:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3810.9	3810.9	97.2	%			00:39:15
1	Y RADIAL	4201.0	4201.0	95.24	%			00:39:15
1	Al 396.153Radial†	5137.1	5394.9	5035.7	ug/L	5035.7	ppb	00:39:15
1	Ca 317.933Radial†	2378.2	2425.8	5071.2	ug/L	5071.2	ppb	00:39:35
1	Fe 238.204 Radial†	338.1	336.3	4762.3	ug/L	4762.3	ppb	00:39:35
1	K 766.490 Radial†	28167.4	26325.1	5045.4	ug/L	5045.4	ppb	00:39:15
1	Mg 279.077 IEC†	104.2	103.1	4999.7	ug/L	4999.7	ppb	00:39:35
1	Na 589.592 Radial†	31376.0	33083.9	10201	ug/L	10201	ppb	00:39:15
1	Sr 421.552†	69868.8	71810.8	496.86	ug/L	496.86	ppb	00:39:15
1	Sc 361.383	878818.4	878818.4	100.18	%			00:40:32
1	Y 371.029	731972.8	731972.8	96.842	%			00:40:32
1	Ag 328.068†	106234.8	105802.6	493.16	ug/L	493.16	ppb	00:40:37
1	As 188.979†	1092.4	1108.7	499.22	ug/L	499.22	ppb	00:40:57
1	B 249.677†	19447.4	19810.5	478.12	ug/L	478.12	ppb	00:40:37
1	Ba 233.527†	62969.0	62856.7	494.48	ug/L	494.48	ppb	00:40:37
1	Be 313.107†	1313043.2	1314433.9	495.07	ug/L	495.07	ppb	00:40:32
1	Cd 226.502†	42958.6	43077.3	498.75	ug/L	498.75	ppb	00:40:37
1	Co 228.616†	23633.3	23657.1	495.66	ug/L	495.66	ppb	00:40:37
1	Cr 267.716†	44043.2	43885.9	493.61	ug/L	493.61	ppb	00:40:37
1	Cu 324.752†	165545.4	159255.6	484.62	ug/L	484.62	ppb	00:40:37
1	Mn 257.610†	438085.5	436835.5	497.36	ug/L	497.36	ppb	00:40:32
1	Mo 202.031†	6760.4	6738.0	495.11	ug/L	495.11	ppb	00:40:57
1	Ni 231.604†	19647.0	19549.1	496.89	ug/L	496.89	ppb	00:40:37
1	P 214.914†	4385.7	4167.3	2414.5	ug/L	2414.5	ppb	00:40:57
1	Pb 220.353†	5541.8	5589.9	689.06	ug/L	689.06	ppb	00:40:57
1	S 181.975 Axial†	730.2	688.1	989.18	ug/L	989.18	ppb	00:40:57
1	Sb 206.836†	1447.1	1407.8	509.93	ug/L	509.93	ppb	00:40:57
1	Se 196.026†	752.8	779.2	526.77	ug/L	526.77	ppb	00:40:57
1	Si 251.611†	76837.2	76140.1	2457.7	ug/L	2457.7	ppb	00:40:37
1	Sn 189.927†	2782.3	2766.8	497.06	ug/L	497.06	ppb	00:40:57
1	Ti 334.940†	309374.8	310190.1	487.32	ug/L	487.32	ppb	00:40:37
1	Tl 190.801†	1528.4	1558.2	501.52	ug/L	501.52	ppb	00:40:57
1	U 409.014†	14294.6	17155.4	472.08	ug/L	472.08	ppb	00:40:37
1	V 292.402†	68593.0	69974.8	494.53	ug/L	494.53	ppb	00:40:37
1	Zn 213.857†	49998.1	49301.8	491.76	ug/L	491.76	ppb	00:40:37
1	SiO2†	78789.3	78092.6	5413.6	ug/L	5413.6	ppb	00:42:05
2	Sc Radial	3860.5	3860.5	98.5	%			00:39:40
2	Y RADIAL	4286.6	4286.6	97.18	%			00:39:40
2	Al 396.153Radial†	5192.2	5383.1	5024.6	ug/L	5024.6	ppb	00:39:40
2	Ca 317.933Radial†	2382.2	2398.5	5014.0	ug/L	5014.0	ppb	00:40:00
2	Fe 238.204 Radial†	335.5	329.2	4661.9	ug/L	4661.9	ppb	00:40:00
2	K 766.490 Radial†	28455.5	26245.8	5030.2	ug/L	5030.2	ppb	00:39:40
2	Mg 279.077 IEC†	103.0	100.5	4871.2	ug/L	4871.2	ppb	00:40:00
2	Na 589.592 Radial†	31503.2	32798.9	10113	ug/L	10113	ppb	00:39:40
2	Sr 421.552†	70492.0	71521.2	494.86	ug/L	494.86	ppb	00:39:40
2	Sc 361.383	869965.8	869965.8	99.172	%			00:41:03
2	Y 371.029	723572.4	723572.4	95.730	%			00:41:03
2	Ag 328.068†	107870.8	108531.3	505.82	ug/L	505.82	ppb	00:41:08
2	As 188.979†	1087.7	1115.0	502.15	ug/L	502.15	ppb	00:41:28
2	B 249.677†	19943.6	20508.4	495.02	ug/L	495.02	ppb	00:41:08
2	Ba 233.527†	63851.8	64386.5	506.51	ug/L	506.51	ppb	00:41:08
2	Be 313.107†	1316445.0	1331201.2	501.40	ug/L	501.40	ppb	00:41:03
2	Cd 226.502†	43442.4	44001.5	509.47	ug/L	509.47	ppb	00:41:08
2	Co 228.616†	24020.2	24287.3	508.84	ug/L	508.84	ppb	00:41:08
2	Cr 267.716†	44733.8	45029.7	506.45	ug/L	506.45	ppb	00:41:08
2	Cu 324.752†	168744.9	164163.4	499.54	ug/L	499.54	ppb	00:41:08
2	Mn 257.610†	440309.1	443527.6	504.97	ug/L	504.97	ppb	00:41:03
2	Mo 202.031†	6713.4	6759.4	496.67	ug/L	496.67	ppb	00:41:28
2	Ni 231.604†	19895.1	19998.8	508.32	ug/L	508.32	ppb	00:41:08

2	P 214.914†	4299.4	4124.8	2386.0 ug/L	2386.0 ppb	00:41:28
2	Pb 220.353†	5490.5	5594.5	689.62 ug/L	689.62 ppb	00:41:28
2	S 181.975 Axial†	731.1	696.4	1001.3 ug/L	1001.3 ppb	00:41:28
2	Sb 206.836†	1419.0	1394.1	505.15 ug/L	505.15 ppb	00:41:28
2	Se 196.026†	722.3	756.1	511.31 ug/L	511.31 ppb	00:41:28
2	Si 251.611†	77969.0	78061.8	2519.9 ug/L	2519.9 ppb	00:41:08
2	Sn 189.927†	2742.7	2755.1	494.97 ug/L	494.97 ppb	00:41:28
2	Ti 334.940†	314368.5	318368.0	500.16 ug/L	500.16 ppb	00:41:08
2	Tl 190.801†	1524.7	1570.1	505.38 ug/L	505.38 ppb	00:41:28
2	U 409.014†	14557.9	17566.0	483.41 ug/L	483.41 ppb	00:41:08
2	V 292.402†	69764.4	71852.7	507.67 ug/L	507.67 ppb	00:41:08
2	Zn 213.857†	50733.4	50551.0	504.26 ug/L	504.26 ppb	00:41:08
2	SiO2†	78454.8	78555.6	5445.7 ug/L	5445.7 ppb	00:42:10
3	Sc Radial	3786.5	3786.5	96.6 %		00:40:05
3	Y RADIAL	4152.9	4152.9	94.15 %		00:40:05
3	Al 396.153Radial†	5131.9	5423.7	5062.3 ug/L	5062.3 ppb	00:40:05
3	Ca 317.933Radial†	2358.6	2421.4	5061.9 ug/L	5061.9 ppb	00:40:25
3	Fe 238.204 Radial†	333.6	333.9	4728.7 ug/L	4728.7 ppb	00:40:25
3	K 766.490 Radial†	28070.6	26412.0	5062.1 ug/L	5062.1 ppb	00:40:05
3	Mg 279.077 IEC†	101.9	101.4	4917.1 ug/L	4917.1 ppb	00:40:25
3	Na 589.592 Radial†	30904.9	32804.8	10115 ug/L	10115 ppb	00:40:05
3	Sr 421.552†	69192.9	71575.5	495.23 ug/L	495.23 ppb	00:40:05
3	Sc 361.383	875247.0	875247.0	99.774 %		00:41:34
3	Y 371.029	729645.0	729645.0	96.534 %		00:41:34
3	Ag 328.068†	107549.5	107552.9	501.29 ug/L	501.29 ppb	00:41:39
3	As 188.979†	1118.7	1139.5	513.04 ug/L	513.04 ppb	00:41:59
3	B 249.677†	19849.1	20292.3	489.78 ug/L	489.78 ppb	00:41:39
3	Ba 233.527†	63681.9	63827.7	502.12 ug/L	502.12 ppb	00:41:39
3	Be 313.107†	1308613.1	1315341.9	495.43 ug/L	495.43 ppb	00:41:34
3	Cd 226.502†	43392.0	43686.6	505.82 ug/L	505.82 ppb	00:41:39
3	Co 228.616†	23900.6	24021.3	503.30 ug/L	503.30 ppb	00:41:39
3	Cr 267.716†	44652.7	44676.2	502.49 ug/L	502.49 ppb	00:41:39
3	Cu 324.752†	167962.8	162352.8	494.03 ug/L	494.03 ppb	00:41:39
3	Mn 257.610†	435898.9	436428.4	496.89 ug/L	496.89 ppb	00:41:34
3	Mo 202.031†	6876.2	6881.6	505.65 ug/L	505.65 ppb	00:41:59
3	Ni 231.604†	19948.3	19931.1	506.60 ug/L	506.60 ppb	00:41:39
3	P 214.914†	4450.1	4249.7	2462.4 ug/L	2462.4 ppb	00:41:59
3	Pb 220.353†	5513.0	5583.6	688.31 ug/L	688.31 ppb	00:41:59
3	S 181.975 Axial†	743.7	704.6	1013.0 ug/L	1013.0 ppb	00:41:59
3	Sb 206.836†	1476.7	1443.3	522.72 ug/L	522.72 ppb	00:41:59
3	Se 196.026†	751.4	780.8	527.77 ug/L	527.77 ppb	00:41:59
3	Si 251.611†	77762.9	77380.8	2497.7 ug/L	2497.7 ppb	00:41:39
3	Sn 189.927†	2829.8	2825.8	507.65 ug/L	507.65 ppb	00:41:59
3	Ti 334.940†	313931.7	316017.5	496.47 ug/L	496.47 ppb	00:41:39
3	Tl 190.801†	1553.8	1589.9	511.69 ug/L	511.69 ppb	00:41:59
3	U 409.014†	14717.3	17637.3	485.37 ug/L	485.37 ppb	00:41:39
3	V 292.402†	69660.1	71323.7	504.10 ug/L	504.10 ppb	00:41:39
3	Zn 213.857†	50650.4	50159.2	500.32 ug/L	500.32 ppb	00:41:39
3	SiO2†	76820.5	76440.3	5298.5 ug/L	5298.5 ppb	00:42:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	874677.1	99.709	%	0.5077				0.51%
Sc Radial	3819.3	97.5	%	0.96				0.99%
Y 371.029	728396.8	96.369	%	0.5738				0.60%
Y RADIAL	4213.5	95.53	%	1.535				1.61%
Ag 328.068†	107295.6	500.09	ug/L	6.412	500.09	ppb	6.412	1.28%
QC value within limits for Ag 328.068 Recovery = 100.02%								
Al 396.153Radial†	5400.6	5040.9	ug/L	19.35	5040.9	ppb	19.35	0.38%
QC value within limits for Al 396.153Radial Recovery = 100.82%								
As 188.979†	1121.1	504.80	ug/L	7.282	504.80	ppb	7.282	1.44%
QC value within limits for As 188.979 Recovery = 100.96%								
B 249.677†	20203.7	487.64	ug/L	8.651	487.64	ppb	8.651	1.77%
QC value within limits for B 249.677 Recovery = 97.53%								
Ba 233.527†	63690.3	501.03	ug/L	6.088	501.03	ppb	6.088	1.22%
QC value within limits for Ba 233.527 Recovery = 100.21%								
Be 313.107†	1320325.7	497.30	ug/L	3.555	497.30	ppb	3.555	0.71%
QC value within limits for Be 313.107 Recovery = 99.46%								
Ca 317.933Radial†	2415.2	5049.0	ug/L	30.66	5049.0	ppb	30.66	0.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.98%
Cd 226.502†            43588.5      504.68 ug/L         5.451      504.68 ppb          5.451   1.08%
   QC value within limits for Cd 226.502  Recovery = 100.94%
Co 228.616†            23988.6      502.60 ug/L         6.617      502.60 ppb          6.617   1.32%
   QC value within limits for Co 228.616  Recovery = 100.52%
Cr 267.716†            44530.6      500.85 ug/L         6.577      500.85 ppb          6.577   1.31%
   QC value within limits for Cr 267.716  Recovery = 100.17%
Cu 324.752†           161923.9      492.73 ug/L         7.546      492.73 ppb          7.546   1.53%
   QC value within limits for Cu 324.752  Recovery = 98.55%
Fe 238.204 Radial†       333.2      4717.6 ug/L         51.09      4717.6 ppb          51.09   1.08%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.35%
K 766.490 Radial†      26327.6      5045.9 ug/L         15.94      5045.9 ppb          15.94   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 100.92%
Mg 279.077 IEC†          101.7      4929.3 ug/L         65.08      4929.3 ppb          65.08   1.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.59%
Mn 257.610†           438930.5      499.74 ug/L         4.534      499.74 ppb          4.534   0.91%
   QC value within limits for Mn 257.610  Recovery = 99.95%
Mo 202.031†             6793.0      499.15 ug/L         5.688      499.15 ppb          5.688   1.14%
   QC value within limits for Mo 202.031  Recovery = 99.83%
Na 589.592 Radial†     32895.9       10143 ug/L          50.2       10143 ppb           50.2   0.50%
   QC value within limits for Na 589.592 Radial  Recovery = 101.43%
Ni 231.604†            19826.3      503.94 ug/L         6.163      503.94 ppb          6.163   1.22%
   QC value within limits for Ni 231.604  Recovery = 100.79%
P 214.914†              4180.6      2421.0 ug/L         38.59      2421.0 ppb          38.59   1.59%
   QC value within limits for P 214.914  Recovery = 96.84%
Pb 220.353†             5589.4      689.00 ug/L         0.655      689.00 ppb          0.655   0.10%
   QC value greater than the upper limit for Pb 220.353  Recovery = 137.80%
S 181.975 Axial†         696.4      1001.2 ug/L         11.92      1001.2 ppb          11.92   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 100.12%
Sb 206.836†             1415.1      512.60 ug/L         9.088      512.60 ppb          9.088   1.77%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†              772.0      521.95 ug/L         9.227      521.95 ppb          9.227   1.77%
   QC value within limits for Se 196.026  Recovery = 104.39%
Si 251.611†            77194.2      2491.8 ug/L         31.51      2491.8 ppb          31.51   1.26%
   QC value within limits for Si 251.611  Recovery = 99.67%
Sn 189.927†             2782.6      499.89 ug/L         6.798      499.89 ppb          6.798   1.36%
   QC value within limits for Sn 189.927  Recovery = 99.98%
Sr 421.552†            71635.8      495.65 ug/L         1.065      495.65 ppb          1.065   0.21%
   QC value within limits for Sr 421.552  Recovery = 99.13%
Ti 334.940†           314858.5      494.65 ug/L         6.613      494.65 ppb          6.613   1.34%
   QC value within limits for Ti 334.940  Recovery = 98.93%
Tl 190.801†             1572.7      506.19 ug/L         5.135      506.19 ppb          5.135   1.01%
   QC value within limits for Tl 190.801  Recovery = 101.24%
U 409.014†             17452.9      480.29 ug/L         7.173      480.29 ppb          7.173   1.49%
   QC value within limits for U 409.014  Recovery = 96.06%
V 292.402†             71050.4      502.10 ug/L         6.791      502.10 ppb          6.791   1.35%
   QC value within limits for V 292.402  Recovery = 100.42%
Zn 213.857†            50004.0      498.78 ug/L         6.390      498.78 ppb          6.390   1.28%
   QC value within limits for Zn 213.857  Recovery = 99.76%
SiO2†                  77696.1      5385.9 ug/L         77.42      5385.9 ppb          77.42   1.44%
   QC value within limits for SiO2  Recovery = 100.72%
QC Failed.  Continue with analysis.
```

Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/25/2010 00:44:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3793.2	3793.2	96.8	%			00:46:37
1	Y RADIAL	4340.6	4340.6	98.41	%			00:46:17
1	Al 396.153Radial†	-100.2	8.9	8.3036	ug/L	8.3036	ppb	00:46:17
1	Ca 317.933Radial†	15.5	-3.6	-7.6126	ug/L	-7.6126	ppb	00:46:37
1	Fe 238.204 Radial†	11.8	0.9	12.332	ug/L	12.332	ppb	00:46:37
1	K 766.490 Radial†	2772.0	224.1	43.020	ug/L	43.020	ppb	00:46:17
1	Mg 279.077 IEC†	3.9	-0.0	-0.6866	ug/L	-0.6866	ppb	00:46:37
1	Na 589.592 Radial†	-837.2	-45.1	-13.916	ug/L	-13.916	ppb	00:46:17
1	Sr 421.552†	40.5	6.1	0.0426	ug/L	0.0426	ppb	00:46:17
1	Sc 361.383	894458.3	894458.3	101.96	%			00:47:34
1	Y 371.029	753878.7	753878.7	99.740	%			00:47:34
1	Ag 328.068†	272.6	26.9	0.1276	ug/L	0.1276	ppb	00:47:39
1	As 188.979†	-16.4	2.2	0.9872	ug/L	0.9872	ppb	00:47:59
1	B 249.677†	-277.9	125.6	3.0445	ug/L	3.0445	ppb	00:47:59
1	Ba 233.527†	16.7	17.8	0.1396	ug/L	0.1396	ppb	00:47:59
1	Be 313.107†	-3727.1	106.9	0.0400	ug/L	0.0400	ppb	00:47:39
1	Cd 226.502†	-174.3	25.3	0.2921	ug/L	0.2921	ppb	00:47:59
1	Co 228.616†	-76.6	-8.5	-0.1775	ug/L	-0.1775	ppb	00:47:59
1	Cr 267.716†	81.6	2.3	0.0270	ug/L	0.0270	ppb	00:47:59
1	Cu 324.752†	6033.1	-73.9	-0.2244	ug/L	-0.2244	ppb	00:47:39
1	Mn 257.610†	525.4	56.6	0.0656	ug/L	0.0656	ppb	00:47:59
1	Mo 202.031†	19.2	8.7	0.6412	ug/L	0.6412	ppb	00:47:59
1	Ni 231.604†	60.6	-3.1	-0.0775	ug/L	-0.0775	ppb	00:47:59
1	P 214.914†	208.5	-6.1	-3.5959	ug/L	-3.5959	ppb	00:47:59
1	Pb 220.353†	1410.1	1441.1	177.24	ug/L	177.24	ppb	00:47:59
1	S 181.975 Axial†	38.9	-2.7	-3.8791	ug/L	-3.8791	ppb	00:47:59
1	Sb 206.836†	43.0	5.4	1.9458	ug/L	1.9458	ppb	00:47:59
1	Se 196.026†	-20.1	8.1	5.3176	ug/L	5.3176	ppb	00:47:59
1	Si 251.611†	680.4	109.0	3.5183	ug/L	3.5183	ppb	00:47:59
1	Sn 189.927†	22.7	11.8	2.1179	ug/L	2.1179	ppb	00:47:59
1	Ti 334.940†	-1449.2	-47.2	-0.0753	ug/L	-0.0753	ppb	00:47:39
1	Tl 190.801†	-32.2	1.0	0.3167	ug/L	0.3167	ppb	00:47:59
1	U 409.014†	-2927.8	15.2	0.4183	ug/L	0.4183	ppb	00:47:34
1	V 292.402†	-1560.3	-24.6	-0.1631	ug/L	-0.1631	ppb	00:47:39
1	Zn 213.857†	965.3	340.6	3.4280	ug/L	3.4280	ppb	00:47:59
1	SiO2†	673.3	106.0	7.3468	ug/L	7.3468	ppb	00:49:05
2	Sc Radial	3823.9	3823.9	97.6	%			00:47:02
2	Y RADIAL	4348.7	4348.7	98.59	%			00:46:42
2	Al 396.153Radial†	-119.4	-10.0	-9.3726	ug/L	-9.3726	ppb	00:46:42
2	Ca 317.933Radial†	19.6	0.4	0.8983	ug/L	0.8983	ppb	00:47:02
2	Fe 238.204 Radial†	13.5	2.5	35.843	ug/L	35.843	ppb	00:47:02
2	K 766.490 Radial†	2867.2	298.7	57.331	ug/L	57.331	ppb	00:46:42
2	Mg 279.077 IEC†	3.2	-0.8	-36.743	ug/L	-36.743	ppb	00:47:02
2	Na 589.592 Radial†	-889.2	-91.4	-28.196	ug/L	-28.196	ppb	00:46:42
2	Sr 421.552†	46.4	11.9	0.0821	ug/L	0.0821	ppb	00:46:42
2	Sc 361.383	898915.6	898915.6	102.47	%			00:48:04
2	Y 371.029	758223.6	758223.6	100.31	%			00:48:04
2	Ag 328.068†	244.6	-1.8	0.0008	ug/L	0.0008	ppb	00:48:09
2	As 188.979†	-20.7	-2.0	-0.8727	ug/L	-0.8727	ppb	00:48:29
2	B 249.677†	-295.1	110.3	2.6681	ug/L	2.6681	ppb	00:48:29
2	Ba 233.527†	11.0	12.1	0.0960	ug/L	0.0960	ppb	00:48:29
2	Be 313.107†	-3622.4	227.2	0.0853	ug/L	0.0853	ppb	00:48:09
2	Cd 226.502†	-174.9	25.6	0.2931	ug/L	0.2931	ppb	00:48:29
2	Co 228.616†	-80.9	-12.5	-0.2612	ug/L	-0.2612	ppb	00:48:29
2	Cr 267.716†	80.4	0.7	0.0107	ug/L	0.0107	ppb	00:48:29
2	Cu 324.752†	5882.1	-250.5	-0.7618	ug/L	-0.7618	ppb	00:48:09
2	Mn 257.610†	513.0	41.9	0.0527	ug/L	0.0527	ppb	00:48:29
2	Mo 202.031†	11.7	1.2	0.0928	ug/L	0.0928	ppb	00:48:29
2	Ni 231.604†	65.6	1.6	0.0399	ug/L	0.0399	ppb	00:48:29

2	P 214.914†	208.1	-7.4	-4.3339	ug/L	-4.3339 ppb	00:48:29
2	Pb 220.353†	1382.3	1407.1	173.05	ug/L	173.05 ppb	00:48:29
2	S 181.975 Axial†	45.7	3.8	5.4226	ug/L	5.4226 ppb	00:48:29
2	Sb 206.836†	42.1	4.3	1.5614	ug/L	1.5614 ppb	00:48:29
2	Se 196.026†	-25.8	2.5	1.7679	ug/L	1.7679 ppb	00:48:29
2	Si 251.611†	673.6	99.0	3.2024	ug/L	3.2024 ppb	00:48:29
2	Sn 189.927†	25.4	14.3	2.5624	ug/L	2.5624 ppb	00:48:29
2	Ti 334.940†	-1416.0	-7.8	-0.0102	ug/L	-0.0102 ppb	00:48:09
2	Tl 190.801†	-35.4	-2.0	-0.6427	ug/L	-0.6427 ppb	00:48:29
2	U 409.014†	-2867.0	88.7	2.4461	ug/L	2.4461 ppb	00:48:04
2	V 292.402†	-1547.8	-4.8	-0.0332	ug/L	-0.0332 ppb	00:48:09
2	Zn 213.857†	954.9	325.8	3.2752	ug/L	3.2752 ppb	00:48:29
2	SiO2†	689.6	118.5	8.2357	ug/L	8.2357 ppb	00:49:10
3	Sc Radial	3791.0	3791.0	96.7	%		00:47:27
3	Y RADIAL	4415.1	4415.1	100.1	%		00:47:07
3	Al 396.153Radial†	-114.0	-5.4	-5.0747	ug/L	-5.0747 ppb	00:47:07
3	Ca 317.933Radial†	22.0	3.1	6.4381	ug/L	6.4381 ppb	00:47:27
3	Fe 238.204 Radial†	10.9	-0.1	-1.1097	ug/L	-1.1097 ppb	00:47:27
3	K 766.490 Radial†	2799.8	254.6	48.862	ug/L	48.862 ppb	00:47:07
3	Mg 279.077 IEC†	6.6	2.8	134.90	ug/L	134.90 ppb	00:47:27
3	Na 589.592 Radial†	-883.9	-93.9	-28.954	ug/L	-28.954 ppb	00:47:07
3	Sr 421.552†	50.1	16.1	0.1112	ug/L	0.1112 ppb	00:47:07
3	Sc 361.383	907115.8	907115.8	103.41	%		00:48:34
3	Y 371.029	766249.5	766249.5	101.38	%		00:48:34
3	Ag 328.068†	239.6	-8.7	-0.0378	ug/L	-0.0378 ppb	00:48:39
3	As 188.979†	-14.2	4.5	2.0231	ug/L	2.0231 ppb	00:48:59
3	B 249.677†	-305.7	102.6	2.4883	ug/L	2.4883 ppb	00:48:59
3	Ba 233.527†	-0.8	0.6	0.0056	ug/L	0.0056 ppb	00:48:59
3	Be 313.107†	-3661.4	221.5	0.0831	ug/L	0.0831 ppb	00:48:39
3	Cd 226.502†	-181.4	20.8	0.2410	ug/L	0.2410 ppb	00:48:59
3	Co 228.616†	-65.7	3.0	0.0638	ug/L	0.0638 ppb	00:48:59
3	Cr 267.716†	65.1	-14.7	-0.1644	ug/L	-0.1644 ppb	00:48:59
3	Cu 324.752†	5998.8	-189.6	-0.5759	ug/L	-0.5759 ppb	00:48:39
3	Mn 257.610†	513.5	37.9	0.0375	ug/L	0.0375 ppb	00:48:59
3	Mo 202.031†	10.7	0.2	0.0164	ug/L	0.0164 ppb	00:48:59
3	Ni 231.604†	65.6	1.0	0.0250	ug/L	0.0250 ppb	00:48:59
3	P 214.914†	213.6	-4.0	-2.2665	ug/L	-2.2665 ppb	00:48:59
3	Pb 220.353†	1359.0	1372.3	168.78	ug/L	168.78 ppb	00:48:59
3	S 181.975 Axial†	33.7	-8.3	-11.885	ug/L	-11.885 ppb	00:48:59
3	Sb 206.836†	38.3	0.4	0.1667	ug/L	0.1667 ppb	00:48:59
3	Se 196.026†	-18.8	9.6	6.2780	ug/L	6.2780 ppb	00:48:59
3	Si 251.611†	653.1	73.3	2.3707	ug/L	2.3707 ppb	00:48:59
3	Sn 189.927†	23.1	11.9	2.1345	ug/L	2.1345 ppb	00:48:59
3	Ti 334.940†	-1457.5	-35.4	-0.0648	ug/L	-0.0648 ppb	00:48:39
3	Tl 190.801†	-33.5	0.1	0.0436	ug/L	0.0436 ppb	00:48:59
3	U 409.014†	-3063.1	-75.6	-2.0874	ug/L	-2.0874 ppb	00:48:34
3	V 292.402†	-1511.1	44.3	0.3082	ug/L	0.3082 ppb	00:48:39
3	Zn 213.857†	944.1	307.0	3.0911	ug/L	3.0911 ppb	00:48:59
3	SiO2†	664.0	87.8	6.0985	ug/L	6.0985 ppb	00:49:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900163.2	102.61	%	0.732				0.71%
Sc Radial	3802.7	97.0	%	0.47				0.48%
Y 371.029	759450.6	100.48	%	0.830				0.83%
Y RADIAL	4368.1	99.03	%	0.928				0.94%
Ag 328.068†	5.5	0.0302	ug/L	0.08651	0.0302	ppb	0.08651	286.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.2	-2.0479	ug/L	9.21862	-2.0479	ppb	9.21862	450.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.6	0.7125	ug/L	1.46735	0.7125	ppb	1.46735	205.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	112.8	2.7336	ug/L	0.28385	2.7336	ppb	0.28385	10.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.2	0.0804	ug/L	0.06834	0.0804	ppb	0.06834	84.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.2	0.0695	ug/L	0.02556	0.0695	ppb	0.02556	36.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.0	-0.0921	ug/L	7.07752	-0.0921	ppb	7.07752	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              23.9      0.2754 ug/L       0.02979      0.2754 ppb        0.02979  10.81%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -6.0     -0.1250 ug/L       0.16874     -0.1250 ppb        0.16874 135.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.9     -0.0422 ug/L       0.10613     -0.0422 ppb        0.10613 251.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -171.3     -0.5207 ug/L       0.27290     -0.5207 ppb        0.27290  52.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.1      15.688 ug/L       18.7035      15.688 ppb        18.7035 119.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       259.1      49.738 ug/L        7.1958      49.738 ppb         7.1958  14.47%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.7      32.490 ug/L       90.5024      32.490 ppb        90.5024 278.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              45.5      0.0519 ug/L       0.01409      0.0519 ppb        0.01409  27.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.4      0.2501 ug/L       0.34083      0.2501 ppb        0.34083 136.25%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -76.8     -23.689 ug/L        8.4718     -23.689 ppb         8.4718  35.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -0.2     -0.0042 ug/L       0.06393     -0.0042 ppb        0.06393 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -5.8     -3.3988 ug/L       1.04768     -3.3988 ppb        1.04768  30.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            1406.8      173.02 ug/L         4.231      173.02 ppb          4.231   2.45%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.4     -3.4472 ug/L       8.66187     -3.4472 ppb        8.66187 251.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.4      1.2246 ug/L       0.93613      1.2246 ppb        0.93613  76.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.7      4.4545 ug/L       2.37574      4.4545 ppb        2.37574  53.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              93.7      3.0305 ug/L       0.59284      3.0305 ppb        0.59284  19.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              12.7      2.2716 ug/L       0.25197      2.2716 ppb        0.25197  11.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              11.4      0.0786 ug/L       0.03442      0.0786 ppb        0.03442  43.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -30.1     -0.0501 ug/L       0.03496     -0.0501 ppb        0.03496  69.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.3     -0.0942 ug/L       0.49432     -0.0942 ppb        0.49432 524.94%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                9.4      0.2590 ug/L       2.27096      0.2590 ppb        2.27096 876.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                5.0      0.0373 ug/L       0.24342      0.0373 ppb        0.24342 652.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             324.5      3.2648 ug/L       0.16870      3.2648 ppb        0.16870   5.17%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   104.1      7.2270 ug/L       1.07362      7.2270 ppb        1.07362  14.86%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 70
Sample ID: 246055002|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 93
Date Collected: 2/25/2010 00:51:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055002|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4005.3	4005.3	102	%			00:53:39
1	Y RADIAL	4912.6	4912.6	111.4	%			00:53:39
1	Al 396.153Radial†	149270.3	146158.2	137080	ug/L	137080	ppb	00:53:19
1	Ca 317.933Radial†	11979.6	11701.2	24461	ug/L	24461	ppb	00:53:19
1	Fe 238.204 Radial†	8937.3	8732.9	123270	ug/L	123270	ppb	00:53:19
1	K 766.490 Radial†	91656.5	87036.9	16693	ug/L	16693	ppb	00:53:19
1	Mg 279.077 IEC†	398.5	385.8	18578	ug/L	18578	ppb	00:53:39
1	Na 589.592 Radial†	1587.0	2372.5	731.50	ug/L	731.50	ppb	00:53:19
1	Sr 421.552†	37799.6	36947.3	255.48	ug/L	255.48	ppb	00:53:19
1	Sc 361.383	876397.7	876397.7	99.905	%			00:54:42
1	Y 371.029	802880.1	802880.1	106.22	%			00:54:42
1	Ag 328.068†	-8280.2	-8528.5	-0.6811	ug/L	-0.6811	ppb	00:54:42
1	As 188.979†	-66.5	-48.3	56.899	ug/L	56.899	ppb	00:55:02
1	B 249.677†	1428.3	1827.9	24.118	ug/L	24.118	ppb	00:54:42
1	Ba 233.527†	216324.9	216532.0	1703.6	ug/L	1703.6	ppb	00:54:42
1	Be 313.107†	-8307.4	-4553.1	11.282	ug/L	11.282	ppb	00:54:42
1	Cd 226.502†	1087.3	1284.6	2.1832	ug/L	2.1832	ppb	00:55:02
1	Co 228.616†	2965.2	3034.5	50.528	ug/L	50.528	ppb	00:55:02
1	Cr 267.716†	14279.7	14215.6	171.77	ug/L	171.77	ppb	00:55:02
1	Cu 324.752†	30020.0	24057.8	79.816	ug/L	79.816	ppb	00:54:42
1	Mn 257.610†	2447005.0	2448873.5	2798.1	ug/L	2798.1	ppb	00:54:37
1	Mo 202.031†	-86.2	-96.4	2.7824	ug/L	2.7824	ppb	00:55:02
1	Ni 231.604†	4314.7	4256.4	108.21	ug/L	108.21	ppb	00:55:02
1	P 214.914†	1483.8	1274.7	687.54	ug/L	687.54	ppb	00:55:02
1	Pb 220.353†	16342.8	16416.5	2034.5	ug/L	2034.5	ppb	00:55:02
1	S 181.975 Axial†	570.3	530.0	736.99	ug/L	736.99	ppb	00:55:02
1	Sb 206.836†	145.7	109.1	14.635	ug/L	14.635	ppb	00:55:02
1	Se 196.026†	-585.9	-558.7	17.121	ug/L	17.121	ppb	00:55:02
1	Si 251.611†	980632.2	981006.5	31744	ug/L	31744	ppb	00:54:37
1	Sn 189.927†	-85.1	-95.7	-19.904	ug/L	-19.904	ppb	00:55:02
1	Ti 334.940†	3637318.8	3642152.0	5725.0	ug/L	5725.0	ppb	00:54:37
1	Tl 190.801†	-223.2	-190.8	-1.0070	ug/L	-1.0070	ppb	00:55:02
1	U 409.014†	-8206.2	-5327.4	-161.52	ug/L	-161.52	ppb	00:54:42
1	V 292.402†	39409.1	40952.2	261.46	ug/L	261.46	ppb	00:54:42
1	Zn 213.857†	26503.3	25922.5	241.71	ug/L	241.71	ppb	00:55:02
1	SiO2†	987584.5	987969.3	68660	ug/L	68660	ppb	00:56:12
2	Sc Radial	4005.3	4005.3	102	%			00:54:04
2	Y RADIAL	4938.0	4938.0	112.0	%			00:54:04
2	Al 396.153Radial†	148690.8	145591.5	136550	ug/L	136550	ppb	00:53:44
2	Ca 317.933Radial†	11898.8	11622.1	24296	ug/L	24296	ppb	00:53:44
2	Fe 238.204 Radial†	8855.2	8652.6	122130	ug/L	122130	ppb	00:53:44
2	K 766.490 Radial†	90923.0	86319.4	16555	ug/L	16555	ppb	00:53:44
2	Mg 279.077 IEC†	400.5	387.7	18672	ug/L	18672	ppb	00:54:04
2	Na 589.592 Radial†	1437.8	2226.5	686.50	ug/L	686.50	ppb	00:53:44
2	Sr 421.552†	37401.4	36557.8	252.78	ug/L	252.78	ppb	00:53:44
2	Sc 361.383	873866.1	873866.1	99.616	%			00:55:14
2	Y 371.029	800647.9	800647.9	105.93	%			00:55:14
2	Ag 328.068†	-8234.3	-8506.4	-0.9195	ug/L	-0.9195	ppb	00:55:14
2	As 188.979†	-58.9	-40.8	59.938	ug/L	59.938	ppb	00:55:34
2	B 249.677†	1292.0	1695.2	21.084	ug/L	21.084	ppb	00:55:14
2	Ba 233.527†	215290.3	216120.7	1700.3	ug/L	1700.3	ppb	00:55:14
2	Be 313.107†	-8612.9	-4883.9	11.149	ug/L	11.149	ppb	00:55:14
2	Cd 226.502†	1099.7	1300.2	2.4809	ug/L	2.4809	ppb	00:55:34
2	Co 228.616†	2970.7	3048.7	50.847	ug/L	50.847	ppb	00:55:34
2	Cr 267.716†	14354.8	14332.4	172.97	ug/L	172.97	ppb	00:55:34
2	Cu 324.752†	29770.0	23893.9	79.260	ug/L	79.260	ppb	00:55:14
2	Mn 257.610†	2433394.9	2442306.8	2790.5	ug/L	2790.5	ppb	00:55:09
2	Mo 202.031†	-87.0	-97.5	2.6125	ug/L	2.6125	ppb	00:55:34
2	Ni 231.604†	4338.3	4292.6	109.13	ug/L	109.13	ppb	00:55:34

2	P 214.914†	1463.6	1258.7	678.82	ug/L	678.82 ppb	00:55:34
2	Pb 220.353†	16336.9	16457.9	2039.7	ug/L	2039.7 ppb	00:55:34
2	S 181.975 Axial†	559.8	521.1	724.30	ug/L	724.30 ppb	00:55:34
2	Sb 206.836†	153.7	117.6	17.666	ug/L	17.666 ppb	00:55:34
2	Se 196.026†	-592.4	-566.9	8.1874	ug/L	8.1874 ppb	00:55:34
2	Si 251.611†	976361.2	979562.7	31697	ug/L	31697 ppb	00:55:09
2	Sn 189.927†	-81.4	-92.2	-19.238	ug/L	-19.238 ppb	00:55:34
2	Ti 334.940†	3624190.6	3639520.8	5720.9	ug/L	5720.9 ppb	00:55:09
2	Tl 190.801†	-216.7	-185.0	0.7754	ug/L	0.7754 ppb	00:55:34
2	U 409.014†	-8353.4	-5498.9	-166.13	ug/L	-166.13 ppb	00:55:14
2	V 292.402†	39363.8	41021.0	262.10	ug/L	262.10 ppb	00:55:14
2	Zn 213.857†	26595.7	26092.1	243.58	ug/L	243.58 ppb	00:55:34
2	SiO2†	972415.0	975605.2	67800	ug/L	67800 ppb	00:56:18
3	Sc Radial	4004.3	4004.3	102	%		00:54:29
3	Y RADIAL	4922.6	4922.6	111.6	%		00:54:29
3	Al 396.153Radial†	150142.3	147048.5	137910	ug/L	137910 ppb	00:54:09
3	Ca 317.933Radial†	12031.6	11755.0	24574	ug/L	24574 ppb	00:54:09
3	Fe 238.204 Radial†	8927.5	8725.5	123160	ug/L	123160 ppb	00:54:09
3	K 766.490 Radial†	91979.4	87375.7	16758	ug/L	16758 ppb	00:54:09
3	Mg 279.077 IEC†	396.0	383.5	18466	ug/L	18466 ppb	00:54:29
3	Na 589.592 Radial†	1491.6	2279.6	702.85	ug/L	702.85 ppb	00:54:09
3	Sr 421.552†	37735.5	36893.9	255.11	ug/L	255.11 ppb	00:54:09
3	Sc 361.383	886569.2	886569.2	101.06	%		00:55:46
3	Y 371.029	808786.2	808786.2	107.00	%		00:55:46
3	Ag 328.068†	-8332.8	-8485.4	-0.5168	ug/L	-0.5168 ppb	00:55:46
3	As 188.979†	-69.4	-50.4	54.900	ug/L	54.900 ppb	00:56:06
3	B 249.677†	1336.7	1720.8	21.538	ug/L	21.538 ppb	00:55:46
3	Ba 233.527†	218492.3	216192.4	1700.9	ug/L	1700.9 ppb	00:55:46
3	Be 313.107†	-8559.5	-4707.1	10.950	ug/L	10.950 ppb	00:55:46
3	Cd 226.502†	1082.7	1267.6	1.9969	ug/L	1.9969 ppb	00:56:06
3	Co 228.616†	3012.1	3046.9	51.040	ug/L	51.040 ppb	00:56:06
3	Cr 267.716†	14287.3	14059.2	170.00	ug/L	170.00 ppb	00:56:06
3	Cu 324.752†	30443.6	24132.2	80.035	ug/L	80.035 ppb	00:55:46
3	Mn 257.610†	2419903.0	2393956.0	2735.6	ug/L	2735.6 ppb	00:55:40
3	Mo 202.031†	-95.0	-104.1	2.2078	ug/L	2.2078 ppb	00:56:06
3	Ni 231.604†	4322.2	4214.2	107.14	ug/L	107.14 ppb	00:56:06
3	P 214.914†	1481.8	1255.6	676.34	ug/L	676.34 ppb	00:56:06
3	Pb 220.353†	16304.5	16190.9	2007.0	ug/L	2007.0 ppb	00:56:06
3	S 181.975 Axial†	564.9	518.1	719.72	ug/L	719.72 ppb	00:56:06
3	Sb 206.836†	160.4	122.0	19.508	ug/L	19.508 ppb	00:56:06
3	Se 196.026†	-575.4	-541.6	28.001	ug/L	28.001 ppb	00:56:06
3	Si 251.611†	969971.3	959196.5	31038	ug/L	31038 ppb	00:55:40
3	Sn 189.927†	-86.7	-96.3	-19.981	ug/L	-19.981 ppb	00:56:06
3	Ti 334.940†	3601800.6	3565237.7	5604.2	ug/L	5604.2 ppb	00:55:40
3	Tl 190.801†	-209.1	-174.3	2.9467	ug/L	2.9467 ppb	00:56:06
3	U 409.014†	-8155.4	-5182.9	-157.51	ug/L	-157.51 ppb	00:55:46
3	V 292.402†	39924.4	41009.6	262.00	ug/L	262.00 ppb	00:55:46
3	Zn 213.857†	26496.0	25610.9	238.60	ug/L	238.60 ppb	00:56:06
3	SiO2†	980853.6	969968.1	67409	ug/L	67409 ppb	00:56:24

Mean Data: 246055002|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878944.3	100.20	%	0.766				0.76%
Sc Radial	4005.0	102	%	0.0				0.01%
Y 371.029	804104.7	106.39	%	0.556				0.52%
Y RADIAL	4924.4	111.6	%	0.29				0.26%
Ag 328.068†	-8506.8	-0.7058	ug/L	0.20249	-0.7058	ppb	0.20249	28.69%
Al 396.153Radial†	146266.1	137180	ug/L	688.9	137180	ppb	688.9	0.50%
As 188.979†	-46.5	57.246	ug/L	2.5369	57.246	ppb	2.5369	4.43%
B 249.677†	1748.0	22.247	ug/L	1.6366	22.247	ppb	1.6366	7.36%
Ba 233.527†	216281.7	1701.6	ug/L	1.74	1701.6	ppb	1.74	0.10%
Be 313.107†	-4714.7	11.127	ug/L	0.1672	11.127	ppb	0.1672	1.50%
Ca 317.933Radial†	11692.8	24444	ug/L	139.7	24444	ppb	139.7	0.57%
Cd 226.502†	1284.1	2.2203	ug/L	0.24413	2.2203	ppb	0.24413	11.00%
Co 228.616†	3043.3	50.805	ug/L	0.2584	50.805	ppb	0.2584	0.51%
Cr 267.716†	14202.4	171.58	ug/L	1.495	171.58	ppb	1.495	0.87%
Cu 324.752†	24028.0	79.703	ug/L	0.3995	79.703	ppb	0.3995	0.50%
Fe 238.204 Radial†	8703.7	122860	ug/L	627.0	122860	ppb	627.0	0.51%
K 766.490 Radial†	86910.7	16669	ug/L	103.5	16669	ppb	103.5	0.62%

Mg 279.077 IEC†	385.7	18572	ug/L	103.1	18572	ppb	103.1	0.56%
Mn 257.610†	2428378.7	2774.7	ug/L	34.10	2774.7	ppb	34.10	1.23%
Mo 202.031†	-99.3	2.5342	ug/L	0.29518	2.5342	ppb	0.29518	11.65%
Na 589.592 Radial†	2292.9	706.95	ug/L	22.777	706.95	ppb	22.777	3.22%
Ni 231.604†	4254.4	108.16	ug/L	0.998	108.16	ppb	0.998	0.92%
P 214.914†	1263.0	680.90	ug/L	5.884	680.90	ppb	5.884	0.86%
Pb 220.353†	16355.1	2027.1	ug/L	17.57	2027.1	ppb	17.57	0.87%
S 181.975 Axial†	523.1	727.00	ug/L	8.949	727.00	ppb	8.949	1.23%
Sb 206.836†	116.2	17.270	ug/L	2.4608	17.270	ppb	2.4608	14.25%
Se 196.026†	-555.7	17.770	ug/L	9.9226	17.770	ppb	9.9226	55.84%
Si 251.611†	973255.2	31493	ug/L	394.7	31493	ppb	394.7	1.25%
Sn 189.927†	-94.7	-19.708	ug/L	0.4089	-19.708	ppb	0.4089	2.07%
Sr 421.552†	36799.7	254.45	ug/L	1.460	254.45	ppb	1.460	0.57%
Ti 334.940†	3615636.9	5683.4	ug/L	68.60	5683.4	ppb	68.60	1.21%
Tl 190.801†	-183.4	0.9050	ug/L	1.98004	0.9050	ppb	1.98004	218.78%
U 409.014†	-5336.4	-161.72	ug/L	4.311	-161.72	ppb	4.311	2.67%
V 292.402†	40994.3	261.86	ug/L	0.345	261.86	ppb	0.345	0.13%
Zn 213.857†	25875.2	241.30	ug/L	2.519	241.30	ppb	2.519	1.04%
SiO2†	977847.5	67956	ug/L	639.9	67956	ppb	639.9	0.94%

Sequence No.: 71
Sample ID: 246055003|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 94
Date Collected: 2/25/2010 00:58:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055003|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4012.2	4012.2	102	%			01:00:49
1	Y RADIAL	4996.7	4996.7	113.3	%			01:00:49
1	Al 396.153Radial†	160744.3	157115.2	147350	ug/L	147350	ppb	01:00:29
1	Ca 317.933Radial†	10762.1	10492.0	21934	ug/L	21934	ppb	01:00:29
1	Fe 238.204 Radial†	10480.2	10225.0	144330	ug/L	144330	ppb	01:00:29
1	K 766.490 Radial†	110227.8	105022.5	20141	ug/L	20141	ppb	01:00:29
1	Mg 279.077 IEC†	504.7	488.9	23553	ug/L	23553	ppb	01:00:49
1	Na 589.592 Radial†	32835.1	32890.6	10141	ug/L	10141	ppb	01:00:29
1	Sr 421.552†	42584.2	41557.3	287.39	ug/L	287.39	ppb	01:00:29
1	Sc 361.383	892619.4	892619.4	101.75	%			01:01:52
1	Y 371.029	821105.2	821105.2	108.63	%			01:01:52
1	Ag 328.068†	-10123.3	-10189.2	-1.6646	ug/L	-1.6646	ppb	01:01:52
1	As 188.979†	-78.0	-58.4	56.417	ug/L	56.417	ppb	01:02:12
1	B 249.677†	1701.5	2070.3	26.532	ug/L	26.532	ppb	01:01:52
1	Ba 233.527†	225732.4	221842.4	1746.0	ug/L	1746.0	ppb	01:01:52
1	Be 313.107†	-5054.0	-1204.7	12.306	ug/L	12.306	ppb	01:01:52
1	Cd 226.502†	1252.8	1427.4	1.6522	ug/L	1.6522	ppb	01:02:12
1	Co 228.616†	3755.0	3756.8	65.597	ug/L	65.597	ppb	01:02:12
1	Cr 267.716†	12426.9	12135.0	150.49	ug/L	150.49	ppb	01:02:12
1	Cu 324.752†	32764.8	26209.2	87.501	ug/L	87.501	ppb	01:01:52
1	Mn 257.610†	3162949.8	3107963.8	3550.0	ug/L	3550.0	ppb	01:01:47
1	Mo 202.031†	-114.5	-122.7	2.4590	ug/L	2.4590	ppb	01:02:12
1	Ni 231.604†	4304.8	4168.1	105.96	ug/L	105.96	ppb	01:02:12
1	P 214.914†	1637.3	1398.5	746.42	ug/L	746.42	ppb	01:02:12
1	Pb 220.353†	8411.0	8324.1	1039.1	ug/L	1039.1	ppb	01:02:12
1	S 181.975 Axial†	650.9	598.9	834.18	ug/L	834.18	ppb	01:02:12
1	Sb 206.836†	120.6	81.8	5.0140	ug/L	5.0140	ppb	01:02:12
1	Se 196.026†	-704.4	-664.5	13.402	ug/L	13.402	ppb	01:02:12
1	Si 251.611†	969196.3	951929.6	30803	ug/L	30803	ppb	01:01:47
1	Sn 189.927†	-82.2	-91.2	-20.758	ug/L	-20.758	ppb	01:02:12
1	Ti 334.940†	3637785.6	3576446.4	5621.1	ug/L	5621.1	ppb	01:01:47
1	Tl 190.801†	-234.0	-197.4	-0.5387	ug/L	-0.5387	ppb	01:02:12
1	U 409.014†	-9897.9	-6840.6	-205.66	ug/L	-205.66	ppb	01:01:52
1	V 292.402†	46224.0	46932.8	300.20	ug/L	300.20	ppb	01:01:52
1	Zn 213.857†	39387.2	38102.2	361.17	ug/L	361.17	ppb	01:01:52
1	SiO2†	968316.0	951068.4	66095	ug/L	66095	ppb	01:03:22
2	Sc Radial	4020.1	4020.1	103	%			01:01:14
2	Y RADIAL	5012.8	5012.8	113.6	%			01:01:14
2	Al 396.153Radial†	158516.1	154636.3	145030	ug/L	145030	ppb	01:00:54
2	Ca 317.933Radial†	10592.4	10305.9	21545	ug/L	21545	ppb	01:00:54
2	Fe 238.204 Radial†	10287.5	10017.1	141400	ug/L	141400	ppb	01:00:54
2	K 766.490 Radial†	108868.0	103486.6	19847	ug/L	19847	ppb	01:00:54
2	Mg 279.077 IEC†	499.4	482.7	23259	ug/L	23259	ppb	01:01:14
2	Na 589.592 Radial†	32213.0	32221.5	9934.7	ug/L	9934.7	ppb	01:00:54
2	Sr 421.552†	41783.9	40695.8	281.44	ug/L	281.44	ppb	01:00:54
2	Sc 361.383	889985.3	889985.3	101.45	%			01:02:24
2	Y 371.029	819057.6	819057.6	108.36	%			01:02:24
2	Ag 328.068†	-10017.8	-10114.7	-2.2172	ug/L	-2.2172	ppb	01:02:24
2	As 188.979†	-73.7	-54.4	57.320	ug/L	57.320	ppb	01:02:44
2	B 249.677†	1742.8	2116.0	28.116	ug/L	28.116	ppb	01:02:24
2	Ba 233.527†	224876.0	221654.8	1744.4	ug/L	1744.4	ppb	01:02:24
2	Be 313.107†	-5297.6	-1459.4	12.156	ug/L	12.156	ppb	01:02:24
2	Cd 226.502†	1217.7	1396.5	1.5965	ug/L	1.5965	ppb	01:02:44
2	Co 228.616†	3755.7	3768.4	65.934	ug/L	65.934	ppb	01:02:44
2	Cr 267.716†	12381.6	12126.5	150.11	ug/L	150.11	ppb	01:02:44
2	Cu 324.752†	32634.3	26175.8	87.245	ug/L	87.245	ppb	01:02:24
2	Mn 257.610†	3139191.4	3093745.6	3533.5	ug/L	3533.5	ppb	01:02:19
2	Mo 202.031†	-102.3	-111.0	3.0832	ug/L	3.0832	ppb	01:02:44
2	Ni 231.604†	4313.5	4189.3	106.50	ug/L	106.50	ppb	01:02:44

2	P 214.914†	1643.4	1409.3	754.71 ug/L	754.71 ppb	01:02:44
2	Pb 220.353†	8372.9	8311.0	1037.3 ug/L	1037.3 ppb	01:02:44
2	S 181.975 Axial†	654.2	604.0	841.98 ug/L	841.98 ppb	01:02:44
2	Sb 206.836†	109.3	71.1	1.4670 ug/L	1.4670 ppb	01:02:44
2	Se 196.026†	-702.5	-664.7	4.1077 ug/L	4.1077 ppb	01:02:44
2	Si 251.611†	961897.4	947554.4	30662 ug/L	30662 ppb	01:02:19
2	Sn 189.927†	-75.2	-84.6	-19.470 ug/L	-19.470 ppb	01:02:44
2	Ti 334.940†	3611409.9	3561029.7	5596.8 ug/L	5596.8 ppb	01:02:19
2	Tl 190.801†	-226.5	-190.7	1.3350 ug/L	1.3350 ppb	01:02:44
2	U 409.014†	-9976.7	-6947.1	-208.26 ug/L	-208.26 ppb	01:02:24
2	V 292.402†	45961.0	46808.0	299.79 ug/L	299.79 ppb	01:02:24
2	Zn 213.857†	39266.0	38097.2	361.56 ug/L	361.56 ppb	01:02:24
2	SiO2†	969366.2	954920.0	66363 ug/L	66363 ppb	01:03:28
3	Sc Radial	4036.9	4036.9	103 %		01:01:39
3	Y RADIAL	5020.7	5020.7	113.8 %		01:01:39
3	Al 396.153Radial†	161208.6	156607.5	146880 ug/L	146880 ppb	01:01:19
3	Ca 317.933Radial†	10820.4	10484.4	21918 ug/L	21918 ppb	01:01:19
3	Fe 238.204 Radial†	10473.6	10156.0	143360 ug/L	143360 ppb	01:01:19
3	K 766.490 Radial†	110670.0	104794.6	20098 ug/L	20098 ppb	01:01:19
3	Mg 279.077 IEC†	502.0	483.3	23283 ug/L	23283 ppb	01:01:39
3	Na 589.592 Radial†	32841.9	32701.5	10083 ug/L	10083 ppb	01:01:19
3	Sr 421.552†	42570.6	41290.2	285.55 ug/L	285.55 ppb	01:01:19
3	Sc 361.383	885594.2	885594.2	100.95 %		01:02:56
3	Y 371.029	817059.9	817059.9	108.10 %		01:02:56
3	Ag 328.068†	-10091.7	-10236.8	-2.1825 ug/L	-2.1825 ppb	01:02:56
3	As 188.979†	-76.0	-57.0	56.637 ug/L	56.637 ppb	01:03:16
3	B 249.677†	1696.2	2078.4	26.886 ug/L	26.886 ppb	01:02:56
3	Ba 233.527†	223965.7	221852.1	1746.0 ug/L	1746.0 ppb	01:02:56
3	Be 313.107†	-4843.4	-1035.5	12.323 ug/L	12.323 ppb	01:02:56
3	Cd 226.502†	1211.4	1396.3	1.3905 ug/L	1.3905 ppb	01:03:16
3	Co 228.616†	3711.3	3742.8	65.363 ug/L	65.363 ppb	01:03:16
3	Cr 267.716†	12285.2	12091.5	149.91 ug/L	149.91 ppb	01:03:16
3	Cu 324.752†	32455.5	26158.3	87.294 ug/L	87.294 ppb	01:02:56
3	Mn 257.610†	3127165.6	3097175.6	3537.6 ug/L	3537.6 ppb	01:02:50
3	Mo 202.031†	-102.6	-111.8	3.1849 ug/L	3.1849 ppb	01:03:16
3	Ni 231.604†	4201.1	4099.0	104.20 ug/L	104.20 ppb	01:03:16
3	P 214.914†	1628.9	1403.0	749.80 ug/L	749.80 ppb	01:03:16
3	Pb 220.353†	8292.1	8271.9	1032.7 ug/L	1032.7 ppb	01:03:16
3	S 181.975 Axial†	648.3	601.4	837.88 ug/L	837.88 ppb	01:03:16
3	Sb 206.836†	121.0	83.1	5.5928 ug/L	5.5928 ppb	01:03:16
3	Se 196.026†	-698.3	-664.0	10.704 ug/L	10.704 ppb	01:03:16
3	Si 251.611†	957432.1	947832.3	30671 ug/L	30671 ppb	01:02:50
3	Sn 189.927†	-80.7	-90.5	-20.565 ug/L	-20.565 ppb	01:03:16
3	Ti 334.940†	3595843.3	3563260.1	5600.4 ug/L	5600.4 ppb	01:02:50
3	Tl 190.801†	-226.5	-191.8	1.0135 ug/L	1.0135 ppb	01:03:16
3	U 409.014†	-9817.2	-6837.9	-205.47 ug/L	-205.47 ppb	01:02:56
3	V 292.402†	45912.1	46984.2	300.73 ug/L	300.73 ppb	01:02:56
3	Zn 213.857†	39174.6	38198.6	362.30 ug/L	362.30 ppb	01:02:56
3	SiO2†	949005.5	939489.2	65290 ug/L	65290 ppb	01:03:34

Mean Data: 246055003|949334|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889399.7	101.39	%	0.405				0.40%
Sc Radial	4023.0	103	%	0.3				0.31%
Y 371.029	819074.2	108.37	%	0.268				0.25%
Y RADIAL	5010.1	113.6	%	0.28				0.24%
Ag 328.068†	-10180.2	-2.0214	ug/L	0.30952	-2.0214	ppb	0.30952	15.31%
Al 396.153Radial†	156119.7	146420	ug/L	1228.1	146420	ppb	1228.1	0.84%
As 188.979†	-56.6	56.791	ug/L	0.4706	56.791	ppb	0.4706	0.83%
B 249.677†	2088.3	27.178	ug/L	0.8314	27.178	ppb	0.8314	3.06%
Ba 233.527†	221783.1	1745.5	ug/L	0.92	1745.5	ppb	0.92	0.05%
Be 313.107†	-1233.2	12.262	ug/L	0.0922	12.262	ppb	0.0922	0.75%
Ca 317.933Radial†	10427.4	21799	ug/L	220.1	21799	ppb	220.1	1.01%
Cd 226.502†	1406.7	1.5464	ug/L	0.13786	1.5464	ppb	0.13786	8.91%
Co 228.616†	3756.0	65.632	ug/L	0.2870	65.632	ppb	0.2870	0.44%
Cr 267.716†	12117.7	150.17	ug/L	0.294	150.17	ppb	0.294	0.20%
Cu 324.752†	26181.1	87.347	ug/L	0.1355	87.347	ppb	0.1355	0.16%
Fe 238.204 Radial†	10132.7	143030	ug/L	1494.6	143030	ppb	1494.6	1.04%
K 766.490 Radial†	104434.6	20028	ug/L	158.9	20028	ppb	158.9	0.79%

Mg 279.077 IEC†	485.0	23365	ug/L	163.3	23365	ppb	163.3	0.70%
Mn 257.610†	3099628.3	3540.4	ug/L	8.57	3540.4	ppb	8.57	0.24%
Mo 202.031†	-115.1	2.9090	ug/L	0.39305	2.9090	ppb	0.39305	13.51%
Na 589.592 Radial†	32604.5	10053	ug/L	106.4	10053	ppb	106.4	1.06%
Ni 231.604†	4152.1	105.55	ug/L	1.201	105.55	ppb	1.201	1.14%
P 214.914†	1403.6	750.31	ug/L	4.169	750.31	ppb	4.169	0.56%
Pb 220.353†	8302.3	1036.4	ug/L	3.31	1036.4	ppb	3.31	0.32%
S 181.975 Axial†	601.4	838.01	ug/L	3.900	838.01	ppb	3.900	0.47%
Sb 206.836†	78.7	4.0246	ug/L	2.23379	4.0246	ppb	2.23379	55.50%
Se 196.026†	-664.4	9.4048	ug/L	4.78166	9.4048	ppb	4.78166	50.84%
Si 251.611†	949105.4	30712	ug/L	79.3	30712	ppb	79.3	0.26%
Sn 189.927†	-88.8	-20.264	ug/L	0.6946	-20.264	ppb	0.6946	3.43%
Sr 421.552†	41181.1	284.79	ug/L	3.050	284.79	ppb	3.050	1.07%
Ti 334.940†	3566912.1	5606.1	ug/L	13.10	5606.1	ppb	13.10	0.23%
Tl 190.801†	-193.3	0.6032	ug/L	1.00195	0.6032	ppb	1.00195	166.10%
U 409.014†	-6875.2	-206.46	ug/L	1.562	-206.46	ppb	1.562	0.76%
V 292.402†	46908.3	300.24	ug/L	0.473	300.24	ppb	0.473	0.16%
Zn 213.857†	38132.7	361.68	ug/L	0.573	361.68	ppb	0.573	0.16%
SiO2†	948492.6	65916	ug/L	558.2	65916	ppb	558.2	0.85%

Sequence No.: 72
Sample ID: 246055004|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 95
Date Collected: 2/25/2010 01:05:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055004|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3883.2	3883.2	99.1	%			01:07:58
1	Y RADIAL	4656.2	4656.2	105.6	%			01:07:38
1	Al 396.153Radial†	41841.3	42337.8	39708	ug/L	39708	ppb	01:07:38
1	Ca 317.933Radial†	12635.0	12731.3	26615	ug/L	26615	ppb	01:07:38
1	Fe 238.204 Radial†	5263.6	5300.6	74820	ug/L	74820	ppb	01:07:38
1	K 766.490 Radial†	50723.2	48549.2	9306.6	ug/L	9306.6	ppb	01:07:38
1	Mg 279.077 IEC†	221.5	219.4	10561	ug/L	10561	ppb	01:07:58
1	Na 589.592 Radial†	1490.5	2324.0	716.55	ug/L	716.55	ppb	01:07:38
1	Sr 421.552†	21134.7	21293.1	147.14	ug/L	147.14	ppb	01:07:38
1	Sc 361.383	893626.1	893626.1	101.87	%			01:08:55
1	Y 371.029	797779.6	797779.6	105.55	%			01:08:55
1	Ag 328.068†	-4937.5	-5087.3	-0.1400	ug/L	-0.1400	ppb	01:09:01
1	As 188.979†	-59.3	-39.9	28.843	ug/L	28.843	ppb	01:09:21
1	B 249.677†	718.3	1103.3	14.500	ug/L	14.500	ppb	01:09:01
1	Ba 233.527†	93554.4	91839.4	723.36	ug/L	723.36	ppb	01:09:01
1	Be 313.107†	-15304.8	-11261.8	3.4047	ug/L	3.4047	ppb	01:09:01
1	Cd 226.502†	572.6	758.4	1.0758	ug/L	1.0758	ppb	01:09:21
1	Co 228.616†	1638.2	1674.7	27.248	ug/L	27.248	ppb	01:09:21
1	Cr 267.716†	9414.0	9163.6	110.27	ug/L	110.27	ppb	01:09:01
1	Cu 324.752†	23741.6	17315.3	56.704	ug/L	56.704	ppb	01:09:01
1	Mn 257.610†	1864942.9	1830268.9	2089.7	ug/L	2089.7	ppb	01:08:55
1	Mo 202.031†	-39.7	-49.1	2.5199	ug/L	2.5199	ppb	01:09:21
1	Ni 231.604†	2581.3	2471.5	62.836	ug/L	62.836	ppb	01:09:21
1	P 214.914†	2723.0	2462.6	1421.4	ug/L	1421.4	ppb	01:09:21
1	Pb 220.353†	4184.5	4165.9	512.87	ug/L	512.87	ppb	01:09:21
1	S 181.975 Axial†	599.9	548.1	781.34	ug/L	781.34	ppb	01:09:21
1	Sb 206.836†	88.7	50.4	4.6616	ug/L	4.6616	ppb	01:09:21
1	Se 196.026†	-359.0	-324.7	20.260	ug/L	20.260	ppb	01:09:21
1	Si 251.611†	701761.6	688328.3	22273	ug/L	22273	ppb	01:08:55
1	Sn 189.927†	-135.8	-143.8	-25.371	ug/L	-25.371	ppb	01:09:21
1	Ti 334.940†	2179276.7	2140668.5	3366.6	ug/L	3366.6	ppb	01:08:55
1	Tl 190.801†	-160.8	-125.3	-2.6802	ug/L	-2.6802	ppb	01:09:21
1	U 409.014†	-6394.3	-3390.4	-102.38	ug/L	-102.38	ppb	01:09:01
1	V 292.402†	24399.2	25457.3	162.99	ug/L	162.99	ppb	01:09:01
1	Zn 213.857†	22351.1	21335.0	203.10	ug/L	203.10	ppb	01:09:01
1	SiO2†	701555.7	688130.2	47822	ug/L	47822	ppb	01:10:29
2	Sc Radial	3853.9	3853.9	98.3	%			01:08:23
2	Y RADIAL	4725.5	4725.5	107.1	%			01:08:03
2	Al 396.153Radial†	42089.6	42910.5	40245	ug/L	40245	ppb	01:08:03
2	Ca 317.933Radial†	12737.3	12932.1	27035	ug/L	27035	ppb	01:08:03
2	Fe 238.204 Radial†	5296.1	5373.9	75856	ug/L	75856	ppb	01:08:03
2	K 766.490 Radial†	51243.8	49466.7	9482.6	ug/L	9482.6	ppb	01:08:03
2	Mg 279.077 IEC†	226.2	226.0	10877	ug/L	10877	ppb	01:08:23
2	Na 589.592 Radial†	1477.0	2321.6	715.81	ug/L	715.81	ppb	01:08:03
2	Sr 421.552†	21249.0	21570.9	149.06	ug/L	149.06	ppb	01:08:03
2	Sc 361.383	889303.1	889303.1	101.38	%			01:09:26
2	Y 371.029	795612.8	795612.8	105.26	%			01:09:26
2	Ag 328.068†	-4882.6	-5056.7	0.3089	ug/L	0.3089	ppb	01:09:32
2	As 188.979†	-63.3	-44.2	27.179	ug/L	27.179	ppb	01:09:52
2	B 249.677†	604.9	994.9	11.703	ug/L	11.703	ppb	01:09:32
2	Ba 233.527†	92435.0	91181.7	718.23	ug/L	718.23	ppb	01:09:32
2	Be 313.107†	-14918.7	-10954.0	3.5227	ug/L	3.5227	ppb	01:09:32
2	Cd 226.502†	589.7	777.9	1.1957	ug/L	1.1957	ppb	01:09:52
2	Co 228.616†	1635.3	1679.7	27.331	ug/L	27.331	ppb	01:09:52
2	Cr 267.716†	9441.6	9235.7	111.18	ug/L	111.18	ppb	01:09:32
2	Cu 324.752†	23645.2	17333.4	56.813	ug/L	56.813	ppb	01:09:32
2	Mn 257.610†	1857354.3	1831682.6	2091.4	ug/L	2091.4	ppb	01:09:26
2	Mo 202.031†	-43.2	-52.8	2.3341	ug/L	2.3341	ppb	01:09:52
2	Ni 231.604†	2590.1	2492.5	63.370	ug/L	63.370	ppb	01:09:52

2	P 214.914†	2729.9	2482.3	1432.6	ug/L	1432.6 ppb	01:09:52
2	Pb 220.353†	4201.9	4202.9	517.43	ug/L	517.43 ppb	01:09:52
2	S 181.975 Axial†	600.8	551.8	786.52	ug/L	786.52 ppb	01:09:52
2	Sb 206.836†	74.6	36.9	-0.1047	ug/L	-0.1047 ppb	01:09:52
2	Se 196.026†	-363.5	-330.9	19.441	ug/L	19.441 ppb	01:09:52
2	Si 251.611†	697845.2	687813.9	22257	ug/L	22257 ppb	01:09:26
2	Sn 189.927†	-147.7	-156.2	-27.575	ug/L	-27.575 ppb	01:09:52
2	Ti 334.940†	2169398.1	2141323.3	3367.6	ug/L	3367.6 ppb	01:09:26
2	Tl 190.801†	-159.6	-124.8	-2.5150	ug/L	-2.5150 ppb	01:09:52
2	U 409.014†	-6291.3	-3319.3	-100.54	ug/L	-100.54 ppb	01:09:32
2	V 292.402†	24127.0	25305.1	161.78	ug/L	161.78 ppb	01:09:32
2	Zn 213.857†	22226.6	21318.8	202.78	ug/L	202.78 ppb	01:09:32
2	SiO2†	692397.8	682444.4	47427	ug/L	47427 ppb	01:10:34
3	Sc Radial	3842.0	3842.0	98.0	%		01:08:48
3	Y RADIAL	4721.7	4721.7	107.0	%		01:08:28
3	Al 396.153Radial†	42144.8	43099.8	40422	ug/L	40422 ppb	01:08:28
3	Ca 317.933Radial†	12749.3	12984.6	27144	ug/L	27144 ppb	01:08:28
3	Fe 238.204 Radial†	5313.6	5408.5	76343	ug/L	76343 ppb	01:08:28
3	K 766.490 Radial†	51013.2	49393.5	9468.5	ug/L	9468.5 ppb	01:08:28
3	Mg 279.077 IEC†	221.4	221.8	10673	ug/L	10673 ppb	01:08:48
3	Na 589.592 Radial†	1497.6	2347.3	723.74	ug/L	723.74 ppb	01:08:28
3	Sr 421.552†	21304.3	21694.5	149.91	ug/L	149.91 ppb	01:08:28
3	Sc 361.383	900133.5	900133.5	102.61	%		01:09:58
3	Y 371.029	803484.7	803484.7	106.30	%		01:09:58
3	Ag 328.068†	-4892.2	-5008.1	0.6849	ug/L	0.6849 ppb	01:10:03
3	As 188.979†	-63.3	-43.4	27.707	ug/L	27.707 ppb	01:10:23
3	B 249.677†	645.8	1027.5	12.416	ug/L	12.416 ppb	01:10:03
3	Ba 233.527†	94077.5	91685.3	722.20	ug/L	722.20 ppb	01:10:03
3	Be 313.107†	-14966.9	-10823.9	3.5853	ug/L	3.5853 ppb	01:10:03
3	Cd 226.502†	574.4	756.0	0.8908	ug/L	0.8908 ppb	01:10:23
3	Co 228.616†	1637.5	1662.4	26.951	ug/L	26.951 ppb	01:10:23
3	Cr 267.716†	9497.8	9178.4	110.58	ug/L	110.58 ppb	01:10:03
3	Cu 324.752†	24063.0	17460.0	57.224	ug/L	57.224 ppb	01:10:03
3	Mn 257.610†	1884596.6	1836187.4	2096.6	ug/L	2096.6 ppb	01:09:58
3	Mo 202.031†	-43.5	-52.5	2.3927	ug/L	2.3927 ppb	01:10:23
3	Ni 231.604†	2573.6	2445.7	62.180	ug/L	62.180 ppb	01:10:23
3	P 214.914†	2731.9	2451.8	1413.8	ug/L	1413.8 ppb	01:10:23
3	Pb 220.353†	4184.0	4135.7	509.15	ug/L	509.15 ppb	01:10:23
3	S 181.975 Axial†	608.1	551.8	786.46	ug/L	786.46 ppb	01:10:23
3	Sb 206.836†	85.0	46.1	3.0915	ug/L	3.0915 ppb	01:10:23
3	Se 196.026†	-355.5	-318.7	28.908	ug/L	28.908 ppb	01:10:23
3	Si 251.611†	708925.6	690329.9	22338	ug/L	22338 ppb	01:09:58
3	Sn 189.927†	-143.2	-150.0	-26.476	ug/L	-26.476 ppb	01:10:23
3	Ti 334.940†	2199757.9	2145162.8	3373.7	ug/L	3373.7 ppb	01:09:58
3	Tl 190.801†	-150.7	-114.3	0.9222	ug/L	0.9222 ppb	01:10:23
3	U 409.014†	-6380.7	-3331.7	-100.94	ug/L	-100.94 ppb	01:10:03
3	V 292.402†	24509.9	25392.0	162.31	ug/L	162.31 ppb	01:10:03
3	Zn 213.857†	22568.7	21388.4	203.41	ug/L	203.41 ppb	01:10:03
3	SiO2†	697396.8	679098.3	47194	ug/L	47194 ppb	01:10:39

Mean Data: 246055004|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	894354.3	101.95	%	0.621				0.61%
Sc Radial	3859.7	98.5	%	0.54				0.55%
Y 371.029	798959.0	105.70	%	0.538				0.51%
Y RADIAL	4701.1	106.6	%	0.88				0.83%
Ag 328.068†	-5050.7	0.2846	ug/L	0.41294	0.2846	ppb	0.41294	145.10%
Al 396.153Radial†	42782.7	40125	ug/L	372.1	40125	ppb	372.1	0.93%
As 188.979†	-42.5	27.910	ug/L	0.8504	27.910	ppb	0.8504	3.05%
B 249.677†	1041.9	12.873	ug/L	1.4535	12.873	ppb	1.4535	11.29%
Ba 233.527†	91568.8	721.26	ug/L	2.691	721.26	ppb	2.691	0.37%
Be 313.107†	-11013.2	3.5042	ug/L	0.09172	3.5042	ppb	0.09172	2.62%
Ca 317.933Radial†	12882.7	26931	ug/L	279.4	26931	ppb	279.4	1.04%
Cd 226.502†	764.1	1.0541	ug/L	0.15356	1.0541	ppb	0.15356	14.57%
Co 228.616†	1672.3	27.177	ug/L	0.1995	27.177	ppb	0.1995	0.73%
Cr 267.716†	9192.6	110.68	ug/L	0.460	110.68	ppb	0.460	0.42%
Cu 324.752†	17369.6	56.914	ug/L	0.2744	56.914	ppb	0.2744	0.48%
Fe 238.204 Radial†	5361.0	75673	ug/L	778.0	75673	ppb	778.0	1.03%
K 766.490 Radial†	49136.5	9419.2	ug/L	97.76	9419.2	ppb	97.76	1.04%

Mg 279.077 IEC†	222.4	10704	ug/L	160.3	10704	ppb	160.3	1.50%
Mn 257.610†	1832713.0	2092.6	ug/L	3.58	2092.6	ppb	3.58	0.17%
Mo 202.031†	-51.5	2.4156	ug/L	0.09499	2.4156	ppb	0.09499	3.93%
Na 589.592 Radial†	2331.0	718.70	ug/L	4.381	718.70	ppb	4.381	0.61%
Ni 231.604†	2469.9	62.795	ug/L	0.5964	62.795	ppb	0.5964	0.95%
P 214.914†	2465.6	1422.6	ug/L	9.44	1422.6	ppb	9.44	0.66%
Pb 220.353†	4168.2	513.15	ug/L	4.149	513.15	ppb	4.149	0.81%
S 181.975 Axial†	550.6	784.77	ug/L	2.974	784.77	ppb	2.974	0.38%
Sb 206.836†	44.5	2.5495	ug/L	2.42891	2.5495	ppb	2.42891	95.27%
Se 196.026†	-324.8	22.870	ug/L	5.2453	22.870	ppb	5.2453	22.94%
Si 251.611†	688824.0	22290	ug/L	43.0	22290	ppb	43.0	0.19%
Sn 189.927†	-150.0	-26.474	ug/L	1.1019	-26.474	ppb	1.1019	4.16%
Sr 421.552†	21519.5	148.70	ug/L	1.421	148.70	ppb	1.421	0.96%
Ti 334.940†	2142384.9	3369.3	ug/L	3.84	3369.3	ppb	3.84	0.11%
Tl 190.801†	-121.5	-1.4243	ug/L	2.03386	-1.4243	ppb	2.03386	142.79%
U 409.014†	-3347.1	-101.29	ug/L	0.970	-101.29	ppb	0.970	0.96%
V 292.402†	25384.8	162.36	ug/L	0.605	162.36	ppb	0.605	0.37%
Zn 213.857†	21347.4	203.10	ug/L	0.317	203.10	ppb	0.317	0.16%
SiO2†	683224.3	47481	ug/L	317.3	47481	ppb	317.3	0.67%

Sequence No.: 73
Sample ID: 246055005|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 96
Date Collected: 2/25/2010 01:12:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055005|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3940.5	3940.5	101	%			01:15:04
1	Y RADIAL	4722.3	4722.3	107.1	%			01:15:04
1	Al 396.153Radial†	107502.8	107023.6	100380	ug/L	100380	ppb	01:14:44
1	Ca 317.933Radial†	8847.7	8779.3	18353	ug/L	18353	ppb	01:14:44
1	Fe 238.204 Radial†	7613.5	7560.3	106720	ug/L	106720	ppb	01:14:44
1	K 766.490 Radial†	87919.9	84796.4	16265	ug/L	16265	ppb	01:14:44
1	Mg 279.077 IEC†	362.1	356.0	17152	ug/L	17152	ppb	01:15:04
1	Na 589.592 Radial†	1838.4	2648.1	816.47	ug/L	816.47	ppb	01:14:44
1	Sr 421.552†	32118.6	31906.1	220.64	ug/L	220.64	ppb	01:14:44
1	Sc 361.383	898677.7	898677.7	102.44	%			01:16:02
1	Y 371.029	814529.3	814529.3	107.76	%			01:16:02
1	Ag 328.068†	-6984.0	-7057.7	0.9379	ug/L	0.9379	ppb	01:16:07
1	As 188.979†	-74.5	-54.4	40.444	ug/L	40.444	ppb	01:16:27
1	B 249.677†	889.6	1266.6	13.218	ug/L	13.218	ppb	01:16:07
1	Ba 233.527†	167678.0	163677.9	1288.2	ug/L	1288.2	ppb	01:16:07
1	Be 313.107†	-10496.1	-6483.5	7.9776	ug/L	7.9776	ppb	01:16:07
1	Cd 226.502†	858.5	1034.2	0.9705	ug/L	0.9705	ppb	01:16:27
1	Co 228.616†	2666.0	2668.9	45.323	ug/L	45.323	ppb	01:16:27
1	Cr 267.716†	7449.7	7194.3	91.304	ug/L	91.304	ppb	01:16:07
1	Cu 324.752†	27235.6	20594.9	68.390	ug/L	68.390	ppb	01:16:07
1	Mn 257.610†	2312412.4	2256769.0	2577.9	ug/L	2577.9	ppb	01:16:02
1	Mo 202.031†	-94.2	-102.1	1.0039	ug/L	1.0039	ppb	01:16:27
1	Ni 231.604†	2704.9	2577.9	65.531	ug/L	65.531	ppb	01:16:27
1	P 214.914†	1404.9	1160.9	625.29	ug/L	625.29	ppb	01:16:27
1	Pb 220.353†	5332.7	5263.5	656.93	ug/L	656.93	ppb	01:16:27
1	S 181.975 Axial†	495.8	443.2	618.94	ug/L	618.94	ppb	01:16:27
1	Sb 206.836†	94.0	55.0	0.4886	ug/L	0.4886	ppb	01:16:27
1	Se 196.026†	-515.0	-474.9	20.726	ug/L	20.726	ppb	01:16:27
1	Si 251.611†	824687.2	804448.1	26031	ug/L	26031	ppb	01:16:02
1	Sn 189.927†	-92.1	-100.4	-20.883	ug/L	-20.883	ppb	01:16:27
1	Ti 334.940†	2989106.1	2919146.4	4588.2	ug/L	4588.2	ppb	01:16:02
1	Tl 190.801†	-209.0	-171.4	-5.1735	ug/L	-5.1735	ppb	01:16:27
1	U 409.014†	-7632.7	-4564.0	-138.38	ug/L	-138.38	ppb	01:16:07
1	V 292.402†	34116.8	34808.3	222.27	ug/L	222.27	ppb	01:16:07
1	Zn 213.857†	26331.8	25097.4	236.17	ug/L	236.17	ppb	01:16:07
1	SiO2†	831227.6	810836.3	56350	ug/L	56350	ppb	01:17:35
2	Sc Radial	3953.3	3953.3	101	%			01:15:29
2	Y RADIAL	4738.7	4738.7	107.4	%			01:15:29
2	Al 396.153Radial†	109602.3	108758.6	102000	ug/L	102000	ppb	01:15:09
2	Ca 317.933Radial†	9005.9	8907.7	18622	ug/L	18622	ppb	01:15:09
2	Fe 238.204 Radial†	7767.7	7688.6	108530	ug/L	108530	ppb	01:15:09
2	K 766.490 Radial†	89551.0	86130.1	16521	ug/L	16521	ppb	01:15:09
2	Mg 279.077 IEC†	363.1	355.9	17141	ug/L	17141	ppb	01:15:29
2	Na 589.592 Radial†	1973.1	2775.7	855.81	ug/L	855.81	ppb	01:15:09
2	Sr 421.552†	32869.7	32547.2	225.07	ug/L	225.07	ppb	01:15:09
2	Sc 361.383	891105.4	891105.4	101.58	%			01:16:33
2	Y 371.029	808461.8	808461.8	106.96	%			01:16:33
2	Ag 328.068†	-7047.4	-7178.1	0.9677	ug/L	0.9677	ppb	01:16:38
2	As 188.979†	-69.6	-50.3	43.060	ug/L	43.060	ppb	01:16:58
2	B 249.677†	983.8	1366.7	15.350	ug/L	15.350	ppb	01:16:38
2	Ba 233.527†	171017.7	168356.4	1325.0	ug/L	1325.0	ppb	01:16:38
2	Be 313.107†	-10639.9	-6712.0	7.9807	ug/L	7.9807	ppb	01:16:38
2	Cd 226.502†	886.1	1068.6	1.1811	ug/L	1.1811	ppb	01:16:58
2	Co 228.616†	2681.2	2706.0	46.009	ug/L	46.009	ppb	01:16:58
2	Cr 267.716†	7624.5	7428.1	94.113	ug/L	94.113	ppb	01:16:38
2	Cu 324.752†	27852.8	21428.3	71.024	ug/L	71.024	ppb	01:16:38
2	Mn 257.610†	2313744.4	2277261.4	2601.4	ug/L	2601.4	ppb	01:16:33
2	Mo 202.031†	-83.8	-92.7	1.8444	ug/L	1.8444	ppb	01:16:58
2	Ni 231.604†	2720.4	2615.6	66.488	ug/L	66.488	ppb	01:16:58

2	P 214.914†	1434.4	1201.6	648.25 ug/L	648.25 ppb	01:16:58
2	Pb 220.353†	5315.0	5290.4	660.38 ug/L	660.38 ppb	01:16:58
2	S 181.975 Axial†	497.2	448.6	626.49 ug/L	626.49 ppb	01:16:58
2	Sb 206.836†	88.1	50.0	-1.4236 ug/L	-1.4236 ppb	01:16:58
2	Se 196.026†	-530.5	-494.5	13.553 ug/L	13.553 ppb	01:16:58
2	Si 251.611†	825344.0	811935.3	26273 ug/L	26273 ppb	01:16:33
2	Sn 189.927†	-94.1	-103.1	-21.428 ug/L	-21.428 ppb	01:16:58
2	Ti 334.940†	2989278.6	2944110.5	4627.5 ug/L	4627.5 ppb	01:16:33
2	Tl 190.801†	-196.2	-160.6	-1.2993 ug/L	-1.2993 ppb	01:16:58
2	U 409.014†	-7702.7	-4696.2	-142.24 ug/L	-142.24 ppb	01:16:38
2	V 292.402†	34959.5	35920.9	229.72 ug/L	229.72 ppb	01:16:38
2	Zn 213.857†	26889.1	25864.4	243.61 ug/L	243.61 ppb	01:16:38
2	SiO2†	825174.5	811772.4	56415 ug/L	56415 ppb	01:17:41
3	Sc Radial	3973.8	3973.8	101 %		01:15:54
3	Y RADIAL	4751.1	4751.1	107.7 %		01:15:54
3	Al 396.153Radial†	107895.0	106515.6	99899 ug/L	99899 ppb	01:15:34
3	Ca 317.933Radial†	8858.5	8716.4	18222 ug/L	18222 ppb	01:15:34
3	Fe 238.204 Radial†	7633.1	7516.2	106090 ug/L	106090 ppb	01:15:34
3	K 766.490 Radial†	88006.1	84149.8	16141 ug/L	16141 ppb	01:15:34
3	Mg 279.077 IEC†	362.6	353.6	17032 ug/L	17032 ppb	01:15:54
3	Na 589.592 Radial†	1886.9	2680.6	826.49 ug/L	826.49 ppb	01:15:34
3	Sr 421.552†	32293.7	31811.5	219.99 ug/L	219.99 ppb	01:15:34
3	Sc 361.383	889260.6	889260.6	101.37 %		01:17:04
3	Y 371.029	806204.3	806204.3	106.66 %		01:17:04
3	Ag 328.068†	-7101.3	-7245.6	-0.0840 ug/L	-0.0840 ppb	01:17:09
3	As 188.979†	-81.9	-62.6	37.254 ug/L	37.254 ppb	01:17:29
3	B 249.677†	943.0	1328.4	14.819 ug/L	14.819 ppb	01:17:09
3	Ba 233.527†	171745.3	169423.5	1333.3 ug/L	1333.3 ppb	01:17:09
3	Be 313.107†	-10434.2	-6530.9	8.1157 ug/L	8.1157 ppb	01:17:09
3	Cd 226.502†	859.3	1043.9	1.1465 ug/L	1.1465 ppb	01:17:29
3	Co 228.616†	2641.4	2672.2	45.279 ug/L	45.279 ppb	01:17:29
3	Cr 267.716†	7660.3	7479.0	94.455 ug/L	94.455 ppb	01:17:09
3	Cu 324.752†	27865.9	21498.2	71.109 ug/L	71.109 ppb	01:17:09
3	Mn 257.610†	2324238.5	2292338.7	2618.3 ug/L	2618.3 ppb	01:17:04
3	Mo 202.031†	-79.9	-89.0	1.9179 ug/L	1.9179 ppb	01:17:29
3	Ni 231.604†	2732.8	2633.4	66.941 ug/L	66.941 ppb	01:17:29
3	P 214.914†	1412.5	1182.9	638.38 ug/L	638.38 ppb	01:17:29
3	Pb 220.353†	5282.7	5269.4	657.62 ug/L	657.62 ppb	01:17:29
3	S 181.975 Axial†	501.8	454.2	634.89 ug/L	634.89 ppb	01:17:29
3	Sb 206.836†	99.6	61.6	2.5741 ug/L	2.5741 ppb	01:17:29
3	Se 196.026†	-521.7	-486.9	10.973 ug/L	10.973 ppb	01:17:29
3	Si 251.611†	828640.8	816873.1	26433 ug/L	26433 ppb	01:17:04
3	Sn 189.927†	-105.8	-114.9	-23.470 ug/L	-23.470 ppb	01:17:29
3	Ti 334.940†	3002084.0	2962847.6	4656.9 ug/L	4656.9 ppb	01:17:04
3	Tl 190.801†	-197.4	-162.2	-1.4743 ug/L	-1.4743 ppb	01:17:29
3	U 409.014†	-7776.1	-4784.3	-144.40 ug/L	-144.40 ppb	01:17:09
3	V 292.402†	34950.4	35983.3	230.48 ug/L	230.48 ppb	01:17:09
3	Zn 213.857†	26971.6	26000.7	245.34 ug/L	245.34 ppb	01:17:09
3	SiO2†	823641.9	811945.7	56427 ug/L	56427 ppb	01:17:47

Mean Data: 246055005|949334|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893014.6	101.80	%	0.569				0.56%
Sc Radial	3955.9	101	%	0.4				0.42%
Y 371.029	809731.8	107.13	%	0.570				0.53%
Y RADIAL	4737.4	107.4	%	0.33				0.31%
Ag 328.068†	-7160.5	0.6072	ug/L	0.59881	0.6072	ppb	0.59881	98.62%
Al 396.153Radial†	107432.6	100760	ug/L	1103.0	100760	ppb	1103.0	1.09%
As 188.979†	-55.8	40.253	ug/L	2.9080	40.253	ppb	2.9080	7.22%
B 249.677†	1320.6	14.462	ug/L	1.1099	14.462	ppb	1.1099	7.67%
Ba 233.527†	167152.6	1315.5	ug/L	24.00	1315.5	ppb	24.00	1.82%
Be 313.107†	-6575.5	8.0247	ug/L	0.07883	8.0247	ppb	0.07883	0.98%
Ca 317.933Radial†	8801.1	18399	ug/L	203.8	18399	ppb	203.8	1.11%
Cd 226.502†	1048.9	1.0994	ug/L	0.11292	1.0994	ppb	0.11292	10.27%
Co 228.616†	2682.3	45.537	ug/L	0.4095	45.537	ppb	0.4095	0.90%
Cr 267.716†	7367.1	93.291	ug/L	1.7293	93.291	ppb	1.7293	1.85%
Cu 324.752†	21173.8	70.175	ug/L	1.5459	70.175	ppb	1.5459	2.20%
Fe 238.204 Radial†	7588.4	107110	ug/L	1264.4	107110	ppb	1264.4	1.18%
K 766.490 Radial†	85025.4	16309	ug/L	193.7	16309	ppb	193.7	1.19%

Mg 279.077 IEC†	355.2	17108 ug/L	66.2	17108 ppb	66.2	0.39%
Mn 257.610†	2275456.4	2599.2 ug/L	20.30	2599.2 ppb	20.30	0.78%
Mo 202.031†	-94.6	1.5887 ug/L	0.50779	1.5887 ppb	0.50779	31.96%
Na 589.592 Radial†	2701.4	832.92 ug/L	20.446	832.92 ppb	20.446	2.45%
Ni 231.604†	2609.0	66.320 ug/L	0.7202	66.320 ppb	0.7202	1.09%
P 214.914†	1181.8	637.31 ug/L	11.517	637.31 ppb	11.517	1.81%
Pb 220.353†	5274.4	658.31 ug/L	1.825	658.31 ppb	1.825	0.28%
S 181.975 Axial†	448.7	626.78 ug/L	7.981	626.78 ppb	7.981	1.27%
Sb 206.836†	55.5	0.5464 ug/L	1.99948	0.5464 ppb	1.99948	365.97%
Se 196.026†	-485.4	15.084 ug/L	5.0535	15.084 ppb	5.0535	33.50%
Si 251.611†	811085.5	26246 ug/L	202.4	26246 ppb	202.4	0.77%
Sn 189.927†	-106.2	-21.927 ug/L	1.3639	-21.927 ppb	1.3639	6.22%
Sr 421.552†	32088.3	221.90 ug/L	2.768	221.90 ppb	2.768	1.25%
Ti 334.940†	2942034.9	4624.2 ug/L	34.45	4624.2 ppb	34.45	0.75%
Tl 190.801†	-164.7	-2.6490 ug/L	2.18801	-2.6490 ppb	2.18801	82.60%
U 409.014†	-4681.5	-141.67 ug/L	3.050	-141.67 ppb	3.050	2.15%
V 292.402†	35570.8	227.49 ug/L	4.538	227.49 ppb	4.538	1.99%
Zn 213.857†	25654.2	241.71 ug/L	4.874	241.71 ppb	4.874	2.02%
SiO2†	811518.1	56397 ug/L	41.5	56397 ppb	41.5	0.07%

Sequence No.: 74
Sample ID: 246055006|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 97
Date Collected: 2/25/2010 01:19:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055006|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4265.0	4265.0	109	%			01:22:12
1	Y RADIAL	5291.8	5291.8	120.0	%			01:22:12
1	Al 396.153Radial†	172973.8	159044.9	149160	ug/L	149160	ppb	01:21:52
1	Ca 317.933Radial†	12218.5	11207.0	23428	ug/L	23428	ppb	01:21:52
1	Fe 238.204 Radial†	9305.1	8538.4	120520	ug/L	120520	ppb	01:21:52
1	K 766.490 Radial†	113619.4	101756.6	19518	ug/L	19518	ppb	01:21:52
1	Mg 279.077 IEC†	471.5	429.2	20683	ug/L	20683	ppb	01:22:12
1	Na 589.592 Radial†	2187.0	2829.3	872.34	ug/L	872.34	ppb	01:21:52
1	Sr 421.552†	42314.9	38844.2	268.61	ug/L	268.61	ppb	01:21:52
1	Sc 361.383	866058.1	866058.1	98.726	%			01:23:16
1	Y 371.029	834456.4	834456.4	110.40	%			01:23:16
1	Ag 328.068†	-9110.7	-9468.7	-5.7427	ug/L	-5.7427	ppb	01:23:16
1	As 188.979†	-94.2	-77.2	42.222	ug/L	42.222	ppb	01:23:36
1	B 249.677†	1274.7	1689.4	21.199	ug/L	21.199	ppb	01:23:16
1	Ba 233.527†	224625.9	227525.2	1789.8	ug/L	1789.8	ppb	01:23:16
1	Be 313.107†	-2906.7	818.0	13.000	ug/L	13.000	ppb	01:23:16
1	Cd 226.502†	1112.8	1323.4	2.9025	ug/L	2.9025	ppb	01:23:36
1	Co 228.616†	3044.5	3150.3	53.322	ug/L	53.322	ppb	01:23:36
1	Cr 267.716†	11241.0	11308.4	138.92	ug/L	138.92	ppb	01:23:36
1	Cu 324.752†	28432.4	22808.5	75.890	ug/L	75.890	ppb	01:23:16
1	Mn 257.610†	2350021.1	2379880.1	2719.2	ug/L	2719.2	ppb	01:23:10
1	Mo 202.031†	-118.4	-130.1	0.0855	ug/L	0.0855	ppb	01:23:36
1	Ni 231.604†	3907.1	3895.0	99.022	ug/L	99.022	ppb	01:23:36
1	P 214.914†	1504.8	1313.7	716.95	ug/L	716.95	ppb	01:23:36
1	Pb 220.353†	3912.5	4021.1	512.86	ug/L	512.86	ppb	01:23:36
1	S 181.975 Axial†	500.3	465.9	642.49	ug/L	642.49	ppb	01:23:36
1	Sb 206.836†	101.4	66.0	-0.3861	ug/L	-0.3861	ppb	01:23:36
1	Se 196.026†	-642.8	-623.4	-33.938	ug/L	-33.938	ppb	01:23:36
1	Si 251.611†	1110357.3	1124123.8	36375	ug/L	36375	ppb	01:23:10
1	Sn 189.927†	-120.9	-133.0	-26.619	ug/L	-26.619	ppb	01:23:36
1	Ti 334.940†	3511259.2	3557932.2	5592.4	ug/L	5592.4	ppb	01:23:10
1	Tl 190.801†	-215.6	-185.8	-0.9525	ug/L	-0.9525	ppb	01:23:36
1	U 409.014†	-9500.1	-6736.1	-200.03	ug/L	-200.03	ppb	01:23:16
1	V 292.402†	42175.9	44225.7	284.77	ug/L	284.77	ppb	01:23:16
1	Zn 213.857†	27895.8	27649.6	259.57	ug/L	259.57	ppb	01:23:36
1	SiO2†	1116612.1	1130463.2	78562	ug/L	78562	ppb	01:24:46
2	Sc Radial	3877.1	3877.1	98.9	%			01:22:38
2	Y RADIAL	4940.4	4940.4	112.0	%			01:22:38
2	Al 396.153Radial†	169651.5	171590.4	160930	ug/L	160930	ppb	01:22:18
2	Ca 317.933Radial†	12000.2	12109.8	25316	ug/L	25316	ppb	01:22:18
2	Fe 238.204 Radial†	9131.9	9218.9	130130	ug/L	130130	ppb	01:22:18
2	K 766.490 Radial†	111273.7	109832.1	21067	ug/L	21067	ppb	01:22:18
2	Mg 279.077 IEC†	488.2	489.3	23590	ug/L	23590	ppb	01:22:38
2	Na 589.592 Radial†	2114.6	2957.1	911.77	ug/L	911.77	ppb	01:22:18
2	Sr 421.552†	41405.8	41815.9	289.16	ug/L	289.16	ppb	01:22:18
2	Sc 361.383	871288.9	871288.9	99.323	%			01:23:47
2	Y 371.029	839657.8	839657.8	111.09	%			01:23:47
2	Ag 328.068†	-9314.6	-9618.6	-3.5077	ug/L	-3.5077	ppb	01:23:47
2	As 188.979†	-83.3	-65.7	49.819	ug/L	49.819	ppb	01:24:08
2	B 249.677†	1380.9	1788.5	22.041	ug/L	22.041	ppb	01:23:47
2	Ba 233.527†	226658.0	228205.2	1795.4	ug/L	1795.4	ppb	01:23:47
2	Be 313.107†	-2764.9	978.4	13.112	ug/L	13.112	ppb	01:23:47
2	Cd 226.502†	1093.7	1297.4	1.6091	ug/L	1.6091	ppb	01:24:08
2	Co 228.616†	3077.0	3164.6	53.436	ug/L	53.436	ppb	01:24:08
2	Cr 267.716†	11305.3	11304.7	139.79	ug/L	139.79	ppb	01:24:08
2	Cu 324.752†	28706.5	22911.5	76.713	ug/L	76.713	ppb	01:23:47
2	Mn 257.610†	2372773.0	2388496.7	2729.9	ug/L	2729.9	ppb	01:23:42
2	Mo 202.031†	-119.5	-130.5	0.8223	ug/L	0.8223	ppb	01:24:08
2	Ni 231.604†	3921.3	3885.6	98.784	ug/L	98.784	ppb	01:24:08

2	P 214.914†	1500.7	1300.5	704.14 ug/L	704.14 ppb	01:24:08
2	Pb 220.353†	3920.5	4005.4	512.37 ug/L	512.37 ppb	01:24:08
2	S 181.975 Axial†	498.6	461.2	633.47 ug/L	633.47 ppb	01:24:08
2	Sb 206.836†	110.6	74.7	2.1954 ug/L	2.1954 ppb	01:24:08
2	Se 196.026†	-646.7	-623.4	-4.0801 ug/L	-4.0801 ppb	01:24:08
2	Si 251.611†	1122129.2	1129223.9	36540 ug/L	36540 ppb	01:23:42
2	Sn 189.927†	-104.0	-115.2	-23.639 ug/L	-23.639 ppb	01:24:08
2	Ti 334.940†	3546772.1	3572335.3	5615.1 ug/L	5615.1 ppb	01:23:42
2	Tl 190.801†	-217.3	-186.2	-0.8266 ug/L	-0.8266 ppb	01:24:08
2	U 409.014†	-9583.3	-6762.0	-201.85 ug/L	-201.85 ppb	01:23:47
2	V 292.402†	42506.4	44302.0	283.93 ug/L	283.93 ppb	01:23:47
2	Zn 213.857†	27998.0	27582.9	257.46 ug/L	257.46 ppb	01:24:08
2	SiO2†	1098485.6	1105422.9	76822 ug/L	76822 ppb	01:24:52
3	Sc Radial	3972.9	3972.9	101 %		01:23:03
3	Y RADIAL	5032.8	5032.8	114.1 %		01:23:03
3	Al 396.153Radial†	180472.0	178126.3	167060 ug/L	167060 ppb	01:22:43
3	Ca 317.933Radial†	12741.4	12548.2	26232 ug/L	26232 ppb	01:22:43
3	Fe 238.204 Radial†	9669.6	9526.6	134470 ug/L	134470 ppb	01:22:43
3	K 766.490 Radial†	118428.5	114175.8	21900 ug/L	21900 ppb	01:22:43
3	Mg 279.077 IEC†	481.2	470.6	22677 ug/L	22677 ppb	01:23:03
3	Na 589.592 Radial†	2335.7	3123.6	963.10 ug/L	963.10 ppb	01:22:43
3	Sr 421.552†	44278.1	43639.3	301.77 ug/L	301.77 ppb	01:22:43
3	Sc 361.383	864938.6	864938.6	98.599 %		01:24:19
3	Y 371.029	832358.1	832358.1	110.12 %		01:24:19
3	Ag 328.068†	-9096.0	-9465.7	-1.4858 ug/L	-1.4858 ppb	01:24:19
3	As 188.979†	-73.1	-55.9	55.627 ug/L	55.627 ppb	01:24:39
3	B 249.677†	1336.0	1753.2	20.478 ug/L	20.478 ppb	01:24:19
3	Ba 233.527†	223537.9	226716.3	1783.9 ug/L	1783.9 ppb	01:24:19
3	Be 313.107†	-2692.4	1031.5	13.244 ug/L	13.244 ppb	01:24:19
3	Cd 226.502†	1117.5	1329.7	1.5348 ug/L	1.5348 ppb	01:24:39
3	Co 228.616†	3062.7	3172.8	53.439 ug/L	53.439 ppb	01:24:39
3	Cr 267.716†	11236.1	11318.1	140.35 ug/L	140.35 ppb	01:24:39
3	Cu 324.752†	28376.2	22788.7	76.568 ug/L	76.568 ppb	01:24:19
3	Mn 257.610†	2375791.7	2409097.8	2753.8 ug/L	2753.8 ppb	01:24:14
3	Mo 202.031†	-107.2	-118.9	2.0206 ug/L	2.0206 ppb	01:24:39
3	Ni 231.604†	3904.7	3897.7	99.091 ug/L	99.091 ppb	01:24:39
3	P 214.914†	1490.4	1301.1	702.62 ug/L	702.62 ppb	01:24:39
3	Pb 220.353†	3897.9	4011.4	513.93 ug/L	513.93 ppb	01:24:39
3	S 181.975 Axial†	488.4	454.6	622.83 ug/L	622.83 ppb	01:24:39
3	Sb 206.836†	114.8	79.7	3.5489 ug/L	3.5489 ppb	01:24:39
3	Se 196.026†	-650.8	-632.4	3.5132 ug/L	3.5132 ppb	01:24:39
3	Si 251.611†	1124470.3	1139893.0	36886 ug/L	36886 ppb	01:24:14
3	Sn 189.927†	-122.4	-134.6	-27.214 ug/L	-27.214 ppb	01:24:39
3	Ti 334.940†	3551817.7	3603670.3	5664.5 ug/L	5664.5 ppb	01:24:14
3	Tl 190.801†	-207.7	-178.1	2.2825 ug/L	2.2825 ppb	01:24:39
3	U 409.014†	-9457.7	-6705.5	-200.78 ug/L	-200.78 ppb	01:24:19
3	V 292.402†	41939.6	44041.3	281.43 ug/L	281.43 ppb	01:24:19
3	Zn 213.857†	27885.0	27675.3	257.74 ug/L	257.74 ppb	01:24:39
3	SiO2†	1106789.9	1121965.2	77972 ug/L	77972 ppb	01:24:58

Mean Data: 246055006|949334|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867428.6	98.883	%	0.3864				0.39%
Sc Radial	4038.3	103	%	5.2				5.00%
Y 371.029	835490.8	110.54	%	0.497				0.45%
Y RADIAL	5088.3	115.4	%	4.13				3.58%
Ag 328.068†	-9517.7	-3.5788	ug/L	2.12933	-3.5788	ppb	2.12933	59.50%
Al 396.153Radial†	169587.2	159050	ug/L	9094.7	159050	ppb	9094.7	5.72%
As 188.979†	-66.2	49.223	ug/L	6.7224	49.223	ppb	6.7224	13.66%
B 249.677†	1743.7	21.240	ug/L	0.7823	21.240	ppb	0.7823	3.68%
Ba 233.527†	227482.3	1789.7	ug/L	5.78	1789.7	ppb	5.78	0.32%
Be 313.107†	942.6	13.119	ug/L	0.1218	13.119	ppb	0.1218	0.93%
Ca 317.933Radial†	11955.0	24992	ug/L	1429.7	24992	ppb	1429.7	5.72%
Cd 226.502†	1316.8	2.0155	ug/L	0.76905	2.0155	ppb	0.76905	38.16%
Co 228.616†	3162.6	53.399	ug/L	0.0667	53.399	ppb	0.0667	0.12%
Cr 267.716†	11310.4	139.69	ug/L	0.722	139.69	ppb	0.722	0.52%
Cu 324.752†	22836.2	76.390	ug/L	0.4391	76.390	ppb	0.4391	0.57%
Fe 238.204 Radial†	9094.7	128380	ug/L	7137.6	128380	ppb	7137.6	5.56%
K 766.490 Radial†	108588.1	20828	ug/L	1208.9	20828	ppb	1208.9	5.80%

Mg 279.077 IEC†	463.0	22317	ug/L	1486.6	22317	ppb	1486.6	6.66%
Mn 257.610†	2392491.5	2734.3	ug/L	17.69	2734.3	ppb	17.69	0.65%
Mo 202.031†	-126.5	0.9761	ug/L	0.97667	0.9761	ppb	0.97667	100.06%
Na 589.592 Radial†	2970.0	915.74	ug/L	45.510	915.74	ppb	45.510	4.97%
Ni 231.604†	3892.8	98.965	ug/L	0.1611	98.965	ppb	0.1611	0.16%
P 214.914†	1305.1	707.90	ug/L	7.870	707.90	ppb	7.870	1.11%
Pb 220.353†	4012.6	513.05	ug/L	0.802	513.05	ppb	0.802	0.16%
S 181.975 Axial†	460.5	632.93	ug/L	9.844	632.93	ppb	9.844	1.56%
Sb 206.836†	73.5	1.7861	ug/L	1.99916	1.7861	ppb	1.99916	111.93%
Se 196.026†	-626.4	-11.502	ug/L	19.7978	-11.502	ppb	19.7978	172.13%
Si 251.611†	1131080.2	36600	ug/L	260.4	36600	ppb	260.4	0.71%
Sn 189.927†	-127.6	-25.824	ug/L	1.9160	-25.824	ppb	1.9160	7.42%
Sr 421.552†	41433.1	286.51	ug/L	16.737	286.51	ppb	16.737	5.84%
Ti 334.940†	3577979.3	5624.0	ug/L	36.86	5624.0	ppb	36.86	0.66%
Tl 190.801†	-183.4	0.1678	ug/L	1.83244	0.1678	ppb	1.83244	>999.9%
U 409.014†	-6734.5	-200.89	ug/L	0.911	-200.89	ppb	0.911	0.45%
V 292.402†	44189.7	283.38	ug/L	1.739	283.38	ppb	1.739	0.61%
Zn 213.857†	27635.9	258.26	ug/L	1.145	258.26	ppb	1.145	0.44%
SiO2†	1119283.8	77785	ug/L	884.9	77785	ppb	884.9	1.14%

Sequence No.: 75
Sample ID: 246055007|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 98
Date Collected: 2/25/2010 01:27:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055007|949334|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3970.1	3970.1	101	%			01:29:22
1	Y RADIAL	5095.7	5095.7	115.5	%			01:29:22
1	Al 396.153Radial†	107644.7	106367.4	99759	ug/L	99759	ppb	01:29:02
1	Ca 317.933Radial†	7558.2	7441.0	15555	ug/L	15555	ppb	01:29:22
1	Fe 238.204 Radial†	8174.1	8057.3	113730	ug/L	113730	ppb	01:29:02
1	K 766.490 Radial†	65104.8	61624.6	11819	ug/L	11819	ppb	01:29:02
1	Mg 279.077 IEC†	332.4	324.1	15594	ug/L	15594	ppb	01:29:22
1	Na 589.592 Radial†	2463.5	3251.5	1002.5	ug/L	1002.5	ppb	01:29:02
1	Sr 421.552†	28743.8	28337.0	195.96	ug/L	195.96	ppb	01:29:02
1	Sc 361.383	893985.1	893985.1	101.91	%			01:30:21
1	Y 371.029	876308.5	876308.5	115.94	%			01:30:21
1	Ag 328.068†	-8019.0	-8109.1	-1.7656	ug/L	-1.7656	ppb	01:30:26
1	As 188.979†	-74.1	-54.5	44.729	ug/L	44.729	ppb	01:30:46
1	B 249.677†	719.1	1103.8	8.1573	ug/L	8.1573	ppb	01:30:26
1	Ba 233.527†	156987.3	154046.7	1212.8	ug/L	1212.8	ppb	01:30:26
1	Be 313.107†	-10374.1	-6417.5	8.7010	ug/L	8.7010	ppb	01:30:26
1	Cd 226.502†	919.5	1098.6	0.9822	ug/L	0.9822	ppb	01:30:46
1	Co 228.616†	2242.8	2267.2	36.113	ug/L	36.113	ppb	01:30:46
1	Cr 267.716†	11997.2	11694.7	142.49	ug/L	142.49	ppb	01:30:26
1	Cu 324.752†	23402.0	16972.7	57.793	ug/L	57.793	ppb	01:30:26
1	Mn 257.610†	2543547.7	2495421.0	2850.2	ug/L	2850.2	ppb	01:30:21
1	Mo 202.031†	-43.1	-52.5	5.1627	ug/L	5.1627	ppb	01:30:46
1	Ni 231.604†	3348.8	3223.6	81.956	ug/L	81.956	ppb	01:30:46
1	P 214.914†	1358.2	1122.2	598.47	ug/L	598.47	ppb	01:30:46
1	Pb 220.353†	3678.6	3667.7	459.76	ug/L	459.76	ppb	01:30:46
1	S 181.975 Axial†	274.4	228.4	310.04	ug/L	310.04	ppb	01:30:46
1	Sb 206.836†	96.0	57.5	0.3821	ug/L	0.3821	ppb	01:30:46
1	Se 196.026†	-543.9	-506.0	22.267	ug/L	22.267	ppb	01:30:46
1	Si 251.611†	1046582.7	1026410.7	33213	ug/L	33213	ppb	01:30:21
1	Sn 189.927†	-54.9	-64.4	-15.317	ug/L	-15.317	ppb	01:30:46
1	Ti 334.940†	3173074.6	3114983.0	4895.7	ug/L	4895.7	ppb	01:30:21
1	Tl 190.801†	-199.2	-162.8	1.5066	ug/L	1.5066	ppb	01:30:46
1	U 409.014†	-11180.4	-8084.3	-236.50	ug/L	-236.50	ppb	01:30:21
1	V 292.402†	30111.2	31052.5	194.55	ug/L	194.55	ppb	01:30:26
1	Zn 213.857†	37210.8	35907.4	343.85	ug/L	343.85	ppb	01:30:26
1	SiO2†	1040671.7	1020614.3	70928	ug/L	70928	ppb	01:31:56
2	Sc Radial	4048.7	4048.7	103	%			01:29:48
2	Y RADIAL	5186.3	5186.3	117.6	%			01:29:48
2	Al 396.153Radial†	106054.4	102765.8	96382	ug/L	96382	ppb	01:29:27
2	Ca 317.933Radial†	7539.4	7277.9	15215	ug/L	15215	ppb	01:29:48
2	Fe 238.204 Radial†	8042.3	7773.0	109720	ug/L	109720	ppb	01:29:27
2	K 766.490 Radial†	63885.0	59196.7	11353	ug/L	11353	ppb	01:29:27
2	Mg 279.077 IEC†	333.1	318.3	15320	ug/L	15320	ppb	01:29:48
2	Na 589.592 Radial†	2391.9	3135.0	966.61	ug/L	966.61	ppb	01:29:27
2	Sr 421.552†	28244.8	27303.3	188.81	ug/L	188.81	ppb	01:29:27
2	Sc 361.383	909626.0	909626.0	103.69	%			01:30:53
2	Y 371.029	890505.1	890505.1	117.82	%			01:30:53
2	Ag 328.068†	-7789.6	-7752.6	-1.3861	ug/L	-1.3861	ppb	01:30:58
2	As 188.979†	-76.0	-55.1	43.249	ug/L	43.249	ppb	01:31:18
2	B 249.677†	762.5	1133.6	9.5332	ug/L	9.5332	ppb	01:30:58
2	Ba 233.527†	153076.4	147626.2	1162.3	ug/L	1162.3	ppb	01:30:58
2	Be 313.107†	-10240.9	-6114.0	8.7450	ug/L	8.7450	ppb	01:30:58
2	Cd 226.502†	930.9	1094.0	1.3446	ug/L	1.3446	ppb	01:31:18
2	Co 228.616†	2241.5	2228.2	35.394	ug/L	35.394	ppb	01:31:18
2	Cr 267.716†	11762.6	11266.0	137.28	ug/L	137.28	ppb	01:30:58
2	Cu 324.752†	22668.2	15870.1	54.221	ug/L	54.221	ppb	01:30:58
2	Mn 257.610†	2568260.1	2476336.9	2828.1	ug/L	2828.1	ppb	01:30:53
2	Mo 202.031†	-49.4	-57.8	4.4557	ug/L	4.4557	ppb	01:31:18
2	Ni 231.604†	3379.4	3196.6	81.272	ug/L	81.272	ppb	01:31:18

2	P 214.914†	1338.5	1080.3	576.32	ug/L	576.32 ppb	01:31:18
2	Pb 220.353†	3688.4	3615.2	453.02	ug/L	453.02 ppb	01:31:18
2	S 181.975 Axial†	276.9	226.2	307.51	ug/L	307.51 ppb	01:31:18
2	Sb 206.836†	102.2	61.9	2.1162	ug/L	2.1162 ppb	01:31:18
2	Se 196.026†	-560.1	-512.4	5.6151	ug/L	5.6151 ppb	01:31:18
2	Si 251.611†	1057029.8	1018827.1	32968	ug/L	32968 ppb	01:30:53
2	Sn 189.927†	-55.5	-64.0	-15.085	ug/L	-15.085 ppb	01:31:18
2	Ti 334.940†	3208217.1	3095335.7	4864.8	ug/L	4864.8 ppb	01:30:53
2	Tl 190.801†	-211.0	-170.9	-1.4112	ug/L	-1.4112 ppb	01:31:18
2	U 409.014†	-11105.5	-7823.4	-228.83	ug/L	-228.83 ppb	01:30:53
2	V 292.402†	29248.3	29712.4	185.83	ug/L	185.83 ppb	01:30:58
2	Zn 213.857†	36139.0	34246.0	327.73	ug/L	327.73 ppb	01:30:58
2	SiO2†	1049625.7	1011690.6	70308	ug/L	70308 ppb	01:32:02
3	Sc Radial	3947.2	3947.2	101	%		01:30:13
3	Y RADIAL	5102.5	5102.5	115.7	%		01:30:13
3	Al 396.153Radial†	109123.9	108450.4	101710	ug/L	101710 ppb	01:29:53
3	Ca 317.933Radial†	7657.2	7582.4	15851	ug/L	15851 ppb	01:30:13
3	Fe 238.204 Radial†	8224.1	8153.5	115090	ug/L	115090 ppb	01:29:53
3	K 766.490 Radial†	65962.9	62848.3	12054	ug/L	12054 ppb	01:29:53
3	Mg 279.077 IEC†	337.7	331.2	15939	ug/L	15939 ppb	01:30:13
3	Na 589.592 Radial†	2478.4	3280.3	1011.4	ug/L	1011.4 ppb	01:29:53
3	Sr 421.552†	29113.5	28868.2	199.64	ug/L	199.64 ppb	01:29:53
3	Sc 361.383	889071.2	889071.2	101.35	%		01:31:25
3	Y 371.029	871463.4	871463.4	115.30	%		01:31:25
3	Ag 328.068†	-8026.8	-8160.4	-1.5819	ug/L	-1.5819 ppb	01:31:30
3	As 188.979†	-73.9	-54.7	44.668	ug/L	44.668 ppb	01:31:50
3	B 249.677†	733.3	1121.7	8.3700	ug/L	8.3700 ppb	01:31:30
3	Ba 233.527†	156626.8	154542.3	1216.7	ug/L	1216.7 ppb	01:31:30
3	Be 313.107†	-10478.2	-6576.5	8.5632	ug/L	8.5632 ppb	01:31:30
3	Cd 226.502†	936.8	1120.6	1.0982	ug/L	1.0982 ppb	01:31:50
3	Co 228.616†	2250.3	2286.9	36.578	ug/L	36.578 ppb	01:31:50
3	Cr 267.716†	12067.0	11828.6	144.13	ug/L	144.13 ppb	01:31:30
3	Cu 324.752†	23155.2	16856.1	57.510	ug/L	57.510 ppb	01:31:30
3	Mn 257.610†	2509210.4	2475335.7	2827.5	ug/L	2827.5 ppb	01:31:25
3	Mo 202.031†	-40.3	-49.9	5.4615	ug/L	5.4615 ppb	01:31:50
3	Ni 231.604†	3367.3	3260.0	82.882	ug/L	82.882 ppb	01:31:50
3	P 214.914†	1374.1	1145.3	611.84	ug/L	611.84 ppb	01:31:50
3	Pb 220.353†	3681.3	3690.4	462.81	ug/L	462.81 ppb	01:31:50
3	S 181.975 Axial†	282.1	237.5	322.75	ug/L	322.75 ppb	01:31:50
3	Sb 206.836†	94.6	56.7	0.1827	ug/L	0.1827 ppb	01:31:50
3	Se 196.026†	-568.2	-532.9	8.8712	ug/L	8.8712 ppb	01:31:50
3	Si 251.611†	1032896.7	1018583.0	32960	ug/L	32960 ppb	01:31:25
3	Sn 189.927†	-44.5	-54.4	-13.551	ug/L	-13.551 ppb	01:31:50
3	Ti 334.940†	3133460.5	3093105.3	4861.4	ug/L	4861.4 ppb	01:31:25
3	Tl 190.801†	-203.3	-168.0	-0.5454	ug/L	-0.5454 ppb	01:31:50
3	U 409.014†	-11111.7	-8077.1	-236.46	ug/L	-236.46 ppb	01:31:25
3	V 292.402†	30220.5	31323.7	196.29	ug/L	196.29 ppb	01:31:30
3	Zn 213.857†	36993.8	35895.2	343.52	ug/L	343.52 ppb	01:31:30
3	SiO2†	1063690.0	1048970.1	72899	ug/L	72899 ppb	01:32:08

Mean Data: 246055007|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	897560.8	102.32	%	1.224				1.20%
Sc Radial	3988.7	102	%	1.4				1.33%
Y 371.029	879425.7	116.35	%	1.309				1.13%
Y RADIAL	5128.2	116.3	%	1.14				0.98%
Ag 328.068†	-8007.4	-1.5779	ug/L	0.18976	-1.5779	ppb	0.18976	12.03%
Al 396.153Radial†	105861.2	99285	ug/L	2697.2	99285	ppb	2697.2	2.72%
As 188.979†	-54.7	44.215	ug/L	0.8372	44.215	ppb	0.8372	1.89%
B 249.677†	1119.7	8.6868	ug/L	0.74067	8.6868	ppb	0.74067	8.53%
Ba 233.527†	152071.7	1197.3	ug/L	30.37	1197.3	ppb	30.37	2.54%
Be 313.107†	-6369.3	8.6697	ug/L	0.09483	8.6697	ppb	0.09483	1.09%
Ca 317.933Radial†	7433.8	15540	ug/L	318.5	15540	ppb	318.5	2.05%
Cd 226.502†	1104.4	1.1417	ug/L	0.18508	1.1417	ppb	0.18508	16.21%
Co 228.616†	2260.8	36.028	ug/L	0.5965	36.028	ppb	0.5965	1.66%
Cr 267.716†	11596.5	141.30	ug/L	3.575	141.30	ppb	3.575	2.53%
Cu 324.752†	16566.3	56.508	ug/L	1.9854	56.508	ppb	1.9854	3.51%
Fe 238.204 Radial†	7994.6	112850	ug/L	2792.4	112850	ppb	2792.4	2.47%
K 766.490 Radial†	61223.2	11742	ug/L	356.6	11742	ppb	356.6	3.04%

Mg 279.077 IEC†	324.5	15618	ug/L	310.1	15618	ppb	310.1	1.99%
Mn 257.610†	2482364.6	2835.3	ug/L	12.95	2835.3	ppb	12.95	0.46%
Mo 202.031†	-53.4	5.0266	ug/L	0.51654	5.0266	ppb	0.51654	10.28%
Na 589.592 Radial†	3222.3	993.52	ug/L	23.724	993.52	ppb	23.724	2.39%
Ni 231.604†	3226.7	82.037	ug/L	0.8082	82.037	ppb	0.8082	0.99%
P 214.914†	1115.9	595.54	ug/L	17.942	595.54	ppb	17.942	3.01%
Pb 220.353†	3657.8	458.53	ug/L	5.011	458.53	ppb	5.011	1.09%
S 181.975 Axial†	230.7	313.43	ug/L	8.168	313.43	ppb	8.168	2.61%
Sb 206.836†	58.7	0.8936	ug/L	1.06346	0.8936	ppb	1.06346	119.00%
Se 196.026†	-517.1	12.251	ug/L	8.8257	12.251	ppb	8.8257	72.04%
Si 251.611†	1021273.6	33047	ug/L	144.0	33047	ppb	144.0	0.44%
Sn 189.927†	-60.9	-14.651	ug/L	0.9594	-14.651	ppb	0.9594	6.55%
Sr 421.552†	28169.5	194.80	ug/L	5.504	194.80	ppb	5.504	2.83%
Ti 334.940†	3101141.3	4874.0	ug/L	18.92	4874.0	ppb	18.92	0.39%
Tl 190.801†	-167.3	-0.1500	ug/L	1.49856	-0.1500	ppb	1.49856	999.15%
U 409.014†	-7994.9	-233.93	ug/L	4.418	-233.93	ppb	4.418	1.89%
V 292.402†	30696.2	192.22	ug/L	5.606	192.22	ppb	5.606	2.92%
Zn 213.857†	35349.5	338.37	ug/L	9.210	338.37	ppb	9.210	2.72%
SiO2†	1027091.7	71378	ug/L	1352.8	71378	ppb	1352.8	1.90%

Sequence No.: 76
Sample ID: 246055008|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 99
Date Collected: 2/25/2010 01:34:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055008|949334|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3903.7	3903.7	99.6	%			01:36:34
1	Y RADIAL	4785.8	4785.8	108.5	%			01:36:14
1	Al 396.153Radial†	67510.8	67884.0	63667	ug/L	63667	ppb	01:36:14
1	Ca 317.933Radial†	11134.8	11158.1	23326	ug/L	23326	ppb	01:36:14
1	Fe 238.204 Radial†	6283.0	6296.0	88870	ug/L	88870	ppb	01:36:14
1	K 766.490 Radial†	76450.8	74106.4	14212	ug/L	14212	ppb	01:36:14
1	Mg 279.077 IEC†	275.6	272.6	13126	ug/L	13126	ppb	01:36:34
1	Na 589.592 Radial†	687.2	1509.6	465.46	ug/L	465.46	ppb	01:36:14
1	Sr 421.552†	30113.0	30193.5	208.75	ug/L	208.75	ppb	01:36:14
1	Sc 361.383	904563.1	904563.1	103.12	%			01:37:32
1	Y 371.029	827958.4	827958.4	109.54	%			01:37:32
1	Ag 328.068†	-5696.6	-5764.9	1.1558	ug/L	1.1558	ppb	01:37:52
1	As 188.979†	-55.5	-35.5	39.018	ug/L	39.018	ppb	01:37:52
1	B 249.677†	966.6	1335.6	17.825	ug/L	17.825	ppb	01:37:32
1	Ba 233.527†	140591.9	136345.2	1073.1	ug/L	1073.1	ppb	01:37:32
1	Be 313.107†	-12464.3	-8325.5	5.7961	ug/L	5.7961	ppb	01:37:32
1	Cd 226.502†	756.0	929.5	1.5988	ug/L	1.5988	ppb	01:37:52
1	Co 228.616†	2071.5	2075.4	34.430	ug/L	34.430	ppb	01:37:52
1	Cr 267.716†	6880.0	6594.4	82.791	ug/L	82.791	ppb	01:37:52
1	Cu 324.752†	28358.3	21510.7	70.210	ug/L	70.210	ppb	01:37:32
1	Mn 257.610†	2215680.0	2148273.1	2452.8	ug/L	2452.8	ppb	01:37:32
1	Mo 202.031†	-49.1	-57.8	2.9336	ug/L	2.9336	ppb	01:37:52
1	Ni 231.604†	2099.0	1973.2	50.157	ug/L	50.157	ppb	01:37:52
1	P 214.914†	2834.2	2538.0	1459.0	ug/L	1459.0	ppb	01:37:52
1	Pb 220.353†	3816.6	3759.3	466.29	ug/L	466.29	ppb	01:37:52
1	S 181.975 Axial†	900.4	832.4	1185.9	ug/L	1185.9	ppb	01:37:52
1	Sb 206.836†	87.2	47.9	1.2150	ug/L	1.2150	ppb	01:37:52
1	Se 196.026†	-436.3	-395.4	17.516	ug/L	17.516	ppb	01:37:52
1	Si 251.611†	996688.2	966014.3	31259	ug/L	31259	ppb	01:37:32
1	Sn 189.927†	-113.5	-120.6	-22.592	ug/L	-22.592	ppb	01:37:52
1	Ti 334.940†	2578228.8	2501700.0	3933.2	ug/L	3933.2	ppb	01:37:32
1	Tl 190.801†	-168.0	-130.3	2.0759	ug/L	2.0759	ppb	01:37:52
1	U 409.014†	-6159.9	-3087.2	-95.546	ug/L	-95.546	ppb	01:37:32
1	V 292.402†	27568.3	28240.9	179.82	ug/L	179.82	ppb	01:37:32
1	Zn 213.857†	28132.6	26676.5	254.83	ug/L	254.83	ppb	01:37:52
1	SiO2†	990931.8	960435.8	66746	ug/L	66746	ppb	01:38:52
2	Sc Radial	3881.8	3881.8	99.1	%			01:36:59
2	Y RADIAL	4903.6	4903.6	111.2	%			01:36:39
2	Al 396.153Radial†	68977.0	69746.5	65414	ug/L	65414	ppb	01:36:39
2	Ca 317.933Radial†	11353.3	11441.7	23919	ug/L	23919	ppb	01:36:39
2	Fe 238.204 Radial†	6395.8	6445.4	90980	ug/L	90980	ppb	01:36:39
2	K 766.490 Radial†	77944.1	76046.9	14584	ug/L	14584	ppb	01:36:39
2	Mg 279.077 IEC†	274.4	273.0	13140	ug/L	13140	ppb	01:36:59
2	Na 589.592 Radial†	711.7	1538.2	474.28	ug/L	474.28	ppb	01:36:39
2	Sr 421.552†	30859.5	31117.7	215.14	ug/L	215.14	ppb	01:36:39
2	Sc 361.383	906030.2	906030.2	103.28	%			01:37:59
2	Y 371.029	829870.6	829870.6	109.79	%			01:37:59
2	Ag 328.068†	-5716.7	-5775.4	1.7433	ug/L	1.7433	ppb	01:38:19
2	As 188.979†	-58.2	-38.1	38.396	ug/L	38.396	ppb	01:38:19
2	B 249.677†	859.2	1230.1	14.925	ug/L	14.925	ppb	01:37:59
2	Ba 233.527†	140621.8	136153.5	1071.6	ug/L	1071.6	ppb	01:37:59
2	Be 313.107†	-12801.6	-8632.5	5.6907	ug/L	5.6907	ppb	01:37:59
2	Cd 226.502†	773.7	945.3	1.5656	ug/L	1.5656	ppb	01:38:19
2	Co 228.616†	2081.0	2081.4	34.517	ug/L	34.517	ppb	01:38:19
2	Cr 267.716†	6859.6	6563.8	82.647	ug/L	82.647	ppb	01:38:19
2	Cu 324.752†	28318.4	21427.5	70.066	ug/L	70.066	ppb	01:37:59
2	Mn 257.610†	2218727.5	2147744.3	2452.5	ug/L	2452.5	ppb	01:37:59
2	Mo 202.031†	-34.4	-43.4	4.1604	ug/L	4.1604	ppb	01:38:19
2	Ni 231.604†	2105.7	1976.3	50.236	ug/L	50.236	ppb	01:38:19

2	P 214.914†	2820.6	2520.4	1447.1 ug/L	1447.1 ppb	01:38:19
2	Pb 220.353†	3799.6	3737.0	463.68 ug/L	463.68 ppb	01:38:19
2	S 181.975 Axial†	907.5	837.8	1193.4 ug/L	1193.4 ppb	01:38:19
2	Sb 206.836†	71.5	32.5	-4.2416 ug/L	-4.2416 ppb	01:38:19
2	Se 196.026†	-430.2	-388.8	28.445 ug/L	28.445 ppb	01:38:19
2	Si 251.611†	998288.2	965998.3	31259 ug/L	31259 ppb	01:37:59
2	Sn 189.927†	-125.7	-132.2	-24.685 ug/L	-24.685 ppb	01:38:19
2	Ti 334.940†	2585284.3	2504482.6	3937.7 ug/L	3937.7 ppb	01:37:59
2	Tl 190.801†	-172.6	-134.6	0.7562 ug/L	0.7562 ppb	01:38:19
2	U 409.014†	-6033.2	-2954.8	-92.132 ug/L	-92.132 ppb	01:37:59
2	V 292.402†	27562.7	28192.2	179.19 ug/L	179.19 ppb	01:37:59
2	Zn 213.857†	28037.0	26539.8	253.14 ug/L	253.14 ppb	01:38:19
2	SiO2†	999825.7	967490.8	67236 ug/L	67236 ppb	01:38:58
3	Sc Radial	3908.3	3908.3	99.7 %		01:37:24
3	Y RADIAL	4803.5	4803.5	108.9 %		01:37:04
3	Al 396.153Radial†	67577.9	67872.6	63656 ug/L	63656 ppb	01:37:04
3	Ca 317.933Radial†	11123.9	11134.2	23276 ug/L	23276 ppb	01:37:04
3	Fe 238.204 Radial†	6260.2	6265.8	88444 ug/L	88444 ppb	01:37:04
3	K 766.490 Radial†	76551.6	74118.4	14214 ug/L	14214 ppb	01:37:04
3	Mg 279.077 IEC†	276.2	272.9	13140 ug/L	13140 ppb	01:37:24
3	Na 589.592 Radial†	618.7	1440.1	444.03 ug/L	444.03 ppb	01:37:04
3	Sr 421.552†	30127.1	30172.6	208.61 ug/L	208.61 ppb	01:37:04
3	Sc 361.383	897738.1	897738.1	102.34 %		01:38:26
3	Y 371.029	823966.9	823966.9	109.01 %		01:38:26
3	Ag 328.068†	-5606.9	-5719.2	1.2276 ug/L	1.2276 ppb	01:38:46
3	As 188.979†	-52.3	-32.9	40.061 ug/L	40.061 ppb	01:38:46
3	B 249.677†	890.6	1268.5	16.268 ug/L	16.268 ppb	01:38:26
3	Ba 233.527†	139048.9	135874.0	1069.4 ug/L	1069.4 ppb	01:38:26
3	Be 313.107†	-12808.6	-8753.9	5.6247 ug/L	5.6247 ppb	01:38:26
3	Cd 226.502†	750.2	929.3	1.6421 ug/L	1.6421 ppb	01:38:46
3	Co 228.616†	2047.2	2067.0	34.270 ug/L	34.270 ppb	01:38:46
3	Cr 267.716†	6771.0	6538.7	82.121 ug/L	82.121 ppb	01:38:46
3	Cu 324.752†	28163.6	21529.5	70.241 ug/L	70.241 ppb	01:38:26
3	Mn 257.610†	2192058.6	2141526.8	2445.1 ug/L	2445.1 ppb	01:38:26
3	Mo 202.031†	-35.6	-45.0	3.8415 ug/L	3.8415 ppb	01:38:46
3	Ni 231.604†	2081.8	1971.8	50.122 ug/L	50.122 ppb	01:38:46
3	P 214.914†	2792.8	2518.5	1447.6 ug/L	1447.6 ppb	01:38:46
3	Pb 220.353†	3765.2	3737.3	463.63 ug/L	463.63 ppb	01:38:46
3	S 181.975 Axial†	889.2	828.1	1179.8 ug/L	1179.8 ppb	01:38:46
3	Sb 206.836†	74.9	36.5	-2.7173 ug/L	-2.7173 ppb	01:38:46
3	Se 196.026†	-442.1	-404.3	10.394 ug/L	10.394 ppb	01:38:46
3	Si 251.611†	988204.8	965073.0	31229 ug/L	31229 ppb	01:38:26
3	Sn 189.927†	-107.9	-115.9	-21.743 ug/L	-21.743 ppb	01:38:46
3	Ti 334.940†	2555783.5	2498776.0	3928.6 ug/L	3928.6 ppb	01:38:26
3	Tl 190.801†	-159.9	-123.6	4.1425 ug/L	4.1425 ppb	01:38:46
3	U 409.014†	-5856.8	-2836.4	-88.572 ug/L	-88.572 ppb	01:38:26
3	V 292.402†	27220.0	28103.9	178.96 ug/L	178.96 ppb	01:38:26
3	Zn 213.857†	27799.0	26557.9	253.70 ug/L	253.70 ppb	01:38:46
3	SiO2†	994615.7	971341.4	67504 ug/L	67504 ppb	01:39:04

Mean Data: 246055008|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902777.1	102.91	%	0.504				0.49%
Sc Radial	3898.0	99.5	%	0.36				0.36%
Y 371.029	827265.3	109.45	%	0.399				0.36%
Y RADIAL	4831.0	109.5	%	1.44				1.32%
Ag 328.068†	-5753.2	1.3756	ug/L	0.32048	1.3756	ppb	0.32048	23.30%
Al 396.153Radial†	68501.0	64246	ug/L	1011.6	64246	ppb	1011.6	1.57%
As 188.979†	-35.5	39.158	ug/L	0.8412	39.158	ppb	0.8412	2.15%
B 249.677†	1278.1	16.339	ug/L	1.4512	16.339	ppb	1.4512	8.88%
Ba 233.527†	136124.2	1071.4	ug/L	1.87	1071.4	ppb	1.87	0.17%
Be 313.107†	-8570.6	5.7038	ug/L	0.08647	5.7038	ppb	0.08647	1.52%
Ca 317.933Radial†	11244.7	23507	ug/L	357.6	23507	ppb	357.6	1.52%
Cd 226.502†	934.7	1.6022	ug/L	0.03839	1.6022	ppb	0.03839	2.40%
Co 228.616†	2074.6	34.406	ug/L	0.1255	34.406	ppb	0.1255	0.36%
Cr 267.716†	6565.6	82.520	ug/L	0.3528	82.520	ppb	0.3528	0.43%
Cu 324.752†	21489.2	70.172	ug/L	0.0931	70.172	ppb	0.0931	0.13%
Fe 238.204 Radial†	6335.7	89431	ug/L	1357.8	89431	ppb	1357.8	1.52%
K 766.490 Radial†	74757.2	14337	ug/L	214.2	14337	ppb	214.2	1.49%

Mg 279.077 IEC†	272.8	13135	ug/L	8.4	13135	ppb	8.4	0.06%
Mn 257.610†	2145848.1	2450.1	ug/L	4.35	2450.1	ppb	4.35	0.18%
Mo 202.031†	-48.7	3.6452	ug/L	0.63650	3.6452	ppb	0.63650	17.46%
Na 589.592 Radial†	1496.0	461.25	ug/L	15.555	461.25	ppb	15.555	3.37%
Ni 231.604†	1973.7	50.172	ug/L	0.0586	50.172	ppb	0.0586	0.12%
P 214.914†	2525.7	1451.2	ug/L	6.71	1451.2	ppb	6.71	0.46%
Pb 220.353†	3744.5	464.53	ug/L	1.521	464.53	ppb	1.521	0.33%
S 181.975 Axial†	832.8	1186.3	ug/L	6.82	1186.3	ppb	6.82	0.57%
Sb 206.836†	39.0	-1.9146	ug/L	2.81550	-1.9146	ppb	2.81550	147.05%
Se 196.026†	-396.1	18.785	ug/L	9.0918	18.785	ppb	9.0918	48.40%
Si 251.611†	965695.2	31249	ug/L	17.4	31249	ppb	17.4	0.06%
Sn 189.927†	-122.9	-23.007	ug/L	1.5140	-23.007	ppb	1.5140	6.58%
Sr 421.552†	30494.6	210.83	ug/L	3.732	210.83	ppb	3.732	1.77%
Ti 334.940†	2501652.9	3933.2	ug/L	4.53	3933.2	ppb	4.53	0.12%
Tl 190.801†	-129.5	2.3248	ug/L	1.70681	2.3248	ppb	1.70681	73.42%
U 409.014†	-2959.5	-92.083	ug/L	3.4868	-92.083	ppb	3.4868	3.79%
V 292.402†	28179.0	179.32	ug/L	0.446	179.32	ppb	0.446	0.25%
Zn 213.857†	26591.4	253.89	ug/L	0.862	253.89	ppb	0.862	0.34%
SiO2†	966422.7	67162	ug/L	384.3	67162	ppb	384.3	0.57%

Sequence No.: 77
Sample ID: 246055009|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 2/25/2010 01:41:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055009|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4019.7	4019.7	103	%			01:43:10
1	Y RADIAL	4825.5	4825.5	109.4	%			01:43:10
1	Al 396.153Radial†	28569.8	27965.1	26228	ug/L	26228	ppb	01:43:10
1	Ca 317.933Radial†	6038.2	5867.0	12265	ug/L	12265	ppb	01:43:10
1	Fe 238.204 Radial†	4939.4	4804.1	67811	ug/L	67811	ppb	01:43:10
1	K 766.490 Radial†	35734.3	32197.8	6173.6	ug/L	6173.6	ppb	01:43:10
1	Mg 279.077 IEC†	125.5	118.3	5663.8	ug/L	5663.8	ppb	01:43:30
1	Na 589.592 Radial†	3049.5	3792.8	1169.4	ug/L	1169.4	ppb	01:43:10
1	Sr 421.552†	16627.7	16174.6	111.83	ug/L	111.83	ppb	01:43:10
1	Sc 361.383	900750.0	900750.0	102.68	%			01:44:28
1	Y 371.029	816821.2	816821.2	108.07	%			01:44:28
1	Ag 328.068†	-3655.2	-3800.2	3.5066	ug/L	3.5066	ppb	01:44:48
1	As 188.979†	1073.9	1064.1	512.26	ug/L	512.26	ppb	01:44:48
1	B 249.677†	378.1	766.4	7.5062	ug/L	7.5062	ppb	01:44:28
1	Ba 233.527†	59208.1	57663.5	454.79	ug/L	454.79	ppb	01:44:28
1	Be 313.107†	-8687.1	-4698.1	3.7933	ug/L	3.7933	ppb	01:44:28
1	Cd 226.502†	618.5	798.6	2.2562	ug/L	2.2562	ppb	01:44:48
1	Co 228.616†	1031.3	1070.9	16.521	ug/L	16.521	ppb	01:44:48
1	Cr 267.716†	4116.3	3931.1	50.736	ug/L	50.736	ppb	01:44:48
1	Cu 324.752†	26465.9	19784.1	63.819	ug/L	63.819	ppb	01:44:28
1	Mn 257.610†	1541613.9	1500903.2	1714.4	ug/L	1714.4	ppb	01:44:28
1	Mo 202.031†	-7.0	-16.9	4.1672	ug/L	4.1672	ppb	01:44:48
1	Ni 231.604†	1446.8	1346.6	34.234	ug/L	34.234	ppb	01:44:48
1	P 214.914†	2807.4	2523.6	1459.1	ug/L	1459.1	ppb	01:44:48
1	Pb 220.353†	3622802.8	3528268.4	433930	ug/L	433930	ppb	01:44:28
1	S 181.975 Axial†	580.3	524.4	749.69	ug/L	749.69	ppb	01:44:48
1	Sb 206.836†	4471.1	4317.7	1499.8	ug/L	1499.8	ppb	01:44:48
1	Se 196.026†	-346.7	-309.9	8.1954	ug/L	8.1954	ppb	01:44:48
1	Si 251.611†	578256.4	562599.6	18205	ug/L	18205	ppb	01:44:28
1	Sn 189.927†	-61.6	-70.4	-14.351	ug/L	-14.351	ppb	01:44:48
1	Ti 334.940†	1598535.8	1558171.7	2449.7	ug/L	2449.7	ppb	01:44:28
1	Tl 190.801†	-133.1	-97.1	-2.8480	ug/L	-2.8480	ppb	01:44:48
1	U 409.014†	-4685.9	-1676.9	-54.136	ug/L	-54.136	ppb	01:44:28
1	V 292.402†	12969.9	14137.0	86.094	ug/L	86.094	ppb	01:44:48
1	Zn 213.857†	171772.4	166681.3	1667.4	ug/L	1667.4	ppb	01:44:28
1	SiO2†	565455.0	550136.4	38232	ug/L	38232	ppb	01:45:48
2	Sc Radial	4005.5	4005.5	102	%			01:43:35
2	Y RADIAL	4783.8	4783.8	108.5	%			01:43:35
2	Al 396.153Radial†	28326.4	27826.0	26097	ug/L	26097	ppb	01:43:35
2	Ca 317.933Radial†	5957.7	5809.1	12144	ug/L	12144	ppb	01:43:35
2	Fe 238.204 Radial†	4902.0	4784.6	67537	ug/L	67537	ppb	01:43:35
2	K 766.490 Radial†	35231.4	31829.5	6102.9	ug/L	6102.9	ppb	01:43:35
2	Mg 279.077 IEC†	124.8	118.0	5652.2	ug/L	5652.2	ppb	01:43:55
2	Na 589.592 Radial†	2995.3	3750.3	1156.3	ug/L	1156.3	ppb	01:43:35
2	Sr 421.552†	16346.3	15956.9	110.32	ug/L	110.32	ppb	01:43:35
2	Sc 361.383	894763.2	894763.2	102.00	%			01:44:55
2	Y 371.029	812174.9	812174.9	107.45	%			01:44:55
2	Ag 328.068†	-3632.1	-3801.3	3.4292	ug/L	3.4292	ppb	01:45:15
2	As 188.979†	1084.6	1081.6	520.04	ug/L	520.04	ppb	01:45:15
2	B 249.677†	312.7	704.8	6.0554	ug/L	6.0554	ppb	01:44:55
2	Ba 233.527†	58826.5	57675.2	454.87	ug/L	454.87	ppb	01:44:55
2	Be 313.107†	-8714.8	-4781.8	3.7616	ug/L	3.7616	ppb	01:44:55
2	Cd 226.502†	648.2	831.7	2.6680	ug/L	2.6680	ppb	01:45:15
2	Co 228.616†	1025.8	1072.2	16.550	ug/L	16.550	ppb	01:45:15
2	Cr 267.716†	4165.5	4006.2	51.558	ug/L	51.558	ppb	01:45:15
2	Cu 324.752†	26322.6	19816.0	63.905	ug/L	63.905	ppb	01:44:55
2	Mn 257.610†	1530488.2	1500041.0	1713.4	ug/L	1713.4	ppb	01:44:55
2	Mo 202.031†	-17.3	-27.2	3.3937	ug/L	3.3937	ppb	01:45:15
2	Ni 231.604†	1480.3	1388.8	35.309	ug/L	35.309	ppb	01:45:15

2	P 214.914†	2841.9	2575.7	1490.6	ug/L	1490.6 ppb	01:45:15
2	Pb 220.353†	3599478.1	3529007.9	434020	ug/L	434020 ppb	01:44:55
2	S 181.975 Axial†	584.2	532.0	760.65	ug/L	760.65 ppb	01:45:15
2	Sb 206.836†	4512.1	4387.0	1524.0	ug/L	1524.0 ppb	01:45:15
2	Se 196.026†	-346.2	-311.6	6.2300	ug/L	6.2300 ppb	01:45:15
2	Si 251.611†	573335.5	561543.2	18171	ug/L	18171 ppb	01:44:55
2	Sn 189.927†	-58.0	-67.3	-13.802	ug/L	-13.802 ppb	01:45:15
2	Ti 334.940†	1587871.5	1558132.8	2449.6	ug/L	2449.6 ppb	01:44:55
2	Tl 190.801†	-149.5	-114.0	-8.2712	ug/L	-8.2712 ppb	01:45:15
2	U 409.014†	-4842.4	-1860.9	-59.187	ug/L	-59.187 ppb	01:44:55
2	V 292.402†	13117.9	14366.5	87.714	ug/L	87.714 ppb	01:45:15
2	Zn 213.857†	170540.9	166593.3	1666.6	ug/L	1666.6 ppb	01:44:55
2	SiO2†	574624.3	562810.7	39113	ug/L	39113 ppb	01:45:54
3	Sc Radial	3942.3	3942.3	101	%		01:44:00
3	Y RADIAL	4745.0	4745.0	107.6	%		01:44:00
3	Al 396.153Radial†	28102.0	28046.8	26305	ug/L	26305 ppb	01:44:00
3	Ca 317.933Radial†	5913.7	5858.8	12248	ug/L	12248 ppb	01:44:00
3	Fe 238.204 Radial†	4871.3	4830.9	68190	ug/L	68190 ppb	01:44:00
3	K 766.490 Radial†	34966.8	32118.6	6158.4	ug/L	6158.4 ppb	01:44:00
3	Mg 279.077 IEC†	122.9	118.1	5655.6	ug/L	5655.6 ppb	01:44:20
3	Na 589.592 Radial†	2902.2	3704.7	1142.2	ug/L	1142.2 ppb	01:44:00
3	Sr 421.552†	16184.7	16052.4	110.98	ug/L	110.98 ppb	01:44:00
3	Sc 361.383	902668.8	902668.8	102.90	%		01:45:22
3	Y 371.029	819727.6	819727.6	108.45	%		01:45:22
3	Ag 328.068†	-3662.2	-3799.4	3.6273	ug/L	3.6273 ppb	01:45:42
3	As 188.979†	1067.7	1055.8	508.62	ug/L	508.62 ppb	01:45:42
3	B 249.677†	319.8	709.0	6.0541	ug/L	6.0541 ppb	01:45:22
3	Ba 233.527†	59008.9	57347.4	452.32	ug/L	452.32 ppb	01:45:22
3	Be 313.107†	-8947.1	-4932.7	3.6898	ug/L	3.6898 ppb	01:45:22
3	Cd 226.502†	609.5	788.6	2.1016	ug/L	2.1016 ppb	01:45:42
3	Co 228.616†	1016.6	1054.5	16.182	ug/L	16.182 ppb	01:45:42
3	Cr 267.716†	4117.9	3924.2	50.695	ug/L	50.695 ppb	01:45:42
3	Cu 324.752†	26438.8	19703.0	63.594	ug/L	63.594 ppb	01:45:22
3	Mn 257.610†	1536437.4	1492681.2	1705.1	ug/L	1705.1 ppb	01:45:22
3	Mo 202.031†	-17.3	-26.9	3.4638	ug/L	3.4638 ppb	01:45:42
3	Ni 231.604†	1473.3	1369.3	34.813	ug/L	34.813 ppb	01:45:42
3	P 214.914†	2801.9	2512.5	1452.1	ug/L	1452.1 ppb	01:45:42
3	Pb 220.353†	3605375.4	3503832.3	430930	ug/L	430930 ppb	01:45:22
3	S 181.975 Axial†	572.9	515.9	737.47	ug/L	737.47 ppb	01:45:42
3	Sb 206.836†	4467.3	4304.7	1495.3	ug/L	1495.3 ppb	01:45:42
3	Se 196.026†	-346.9	-309.4	9.7424	ug/L	9.7424 ppb	01:45:42
3	Si 251.611†	576843.6	560029.6	18122	ug/L	18122 ppb	01:45:22
3	Sn 189.927†	-60.5	-69.3	-14.169	ug/L	-14.169 ppb	01:45:42
3	Ti 334.940†	1597526.6	1553881.6	2443.0	ug/L	2443.0 ppb	01:45:22
3	Tl 190.801†	-127.8	-91.7	-1.2098	ug/L	-1.2098 ppb	01:45:42
3	U 409.014†	-4770.4	-1749.4	-56.179	ug/L	-56.179 ppb	01:45:22
3	V 292.402†	12955.5	14096.1	85.747	ug/L	85.747 ppb	01:45:42
3	Zn 213.857†	171171.8	165742.1	1657.9	ug/L	1657.9 ppb	01:45:22
3	SiO2†	577910.3	561070.1	38992	ug/L	38992 ppb	01:45:59

Mean Data: 246055009|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899394.0	102.53	%	0.470				0.46%
Sc Radial	3989.2	102	%	1.1				1.03%
Y 371.029	816241.2	107.99	%	0.504				0.47%
Y RADIAL	4784.7	108.5	%	0.91				0.84%
Ag 328.068†	-3800.3	3.5210	ug/L	0.09985	3.5210	ppb	0.09985	2.84%
Al 396.153Radial†	27946.0	26210	ug/L	104.7	26210	ppb	104.7	0.40%
As 188.979†	1067.2	513.64	ug/L	5.833	513.64	ppb	5.833	1.14%
B 249.677†	726.8	6.5386	ug/L	0.83804	6.5386	ppb	0.83804	12.82%
Ba 233.527†	57562.1	453.99	ug/L	1.452	453.99	ppb	1.452	0.32%
Be 313.107†	-4804.2	3.7482	ug/L	0.05303	3.7482	ppb	0.05303	1.41%
Ca 317.933Radial†	5844.9	12219	ug/L	65.5	12219	ppb	65.5	0.54%
Cd 226.502†	806.3	2.3419	ug/L	0.29276	2.3419	ppb	0.29276	12.50%
Co 228.616†	1065.9	16.418	ug/L	0.2048	16.418	ppb	0.2048	1.25%
Cr 267.716†	3953.8	50.996	ug/L	0.4866	50.996	ppb	0.4866	0.95%
Cu 324.752†	19767.7	63.773	ug/L	0.1608	63.773	ppb	0.1608	0.25%
Fe 238.204 Radial†	4806.5	67846	ug/L	328.1	67846	ppb	328.1	0.48%
K 766.490 Radial†	32048.7	6145.0	ug/L	37.18	6145.0	ppb	37.18	0.61%

Mg 279.077 IEC†	118.1	5657.2	ug/L	5.95	5657.2	ppb	5.95	0.11%
Mn 257.610†	1497875.1	1711.0	ug/L	5.11	1711.0	ppb	5.11	0.30%
Mo 202.031†	-23.7	3.6749	ug/L	0.42780	3.6749	ppb	0.42780	11.64%
Na 589.592 Radial†	3749.2	1156.0	ug/L	13.59	1156.0	ppb	13.59	1.18%
Ni 231.604†	1368.3	34.785	ug/L	0.5378	34.785	ppb	0.5378	1.55%
P 214.914†	2537.3	1467.2	ug/L	20.52	1467.2	ppb	20.52	1.40%
Pb 220.353†	3520369.5	432960	ug/L	1762.0	432960	ppb	1762.0	0.41%
S 181.975 Axial†	524.1	749.27	ug/L	11.596	749.27	ppb	11.596	1.55%
Sb 206.836†	4336.4	1506.4	ug/L	15.46	1506.4	ppb	15.46	1.03%
Se 196.026†	-310.3	8.0559	ug/L	1.76033	8.0559	ppb	1.76033	21.85%
Si 251.611†	561390.8	18166	ug/L	41.8	18166	ppb	41.8	0.23%
Sn 189.927†	-69.0	-14.108	ug/L	0.2797	-14.108	ppb	0.2797	1.98%
Sr 421.552†	16061.3	111.05	ug/L	0.755	111.05	ppb	0.755	0.68%
Ti 334.940†	1556728.7	2447.4	ug/L	3.87	2447.4	ppb	3.87	0.16%
Tl 190.801†	-100.9	-4.1097	ug/L	3.69593	-4.1097	ppb	3.69593	89.93%
U 409.014†	-1762.4	-56.501	ug/L	2.5405	-56.501	ppb	2.5405	4.50%
V 292.402†	14199.9	86.518	ug/L	1.0499	86.518	ppb	1.0499	1.21%
Zn 213.857†	166338.9	1664.0	ug/L	5.26	1664.0	ppb	5.26	0.32%
SiO2†	558005.7	38779	ug/L	477.5	38779	ppb	477.5	1.23%

Sequence No.: 78
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/25/2010 01:48:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3751.5	3751.5	95.7	%			01:50:23
1	Y RADIAL	4178.2	4178.2	94.72	%			01:50:03
1	Al 396.153Radial†	5311.3	5660.6	5284.6	ug/L	5284.6	ppb	01:50:03
1	Ca 317.933Radial†	2454.1	2543.9	5318.0	ug/L	5318.0	ppb	01:50:23
1	Fe 238.204 Radial†	343.3	347.3	4916.7	ug/L	4916.7	ppb	01:50:23
1	K 766.490 Radial†	29141.5	27801.7	5328.6	ug/L	5328.6	ppb	01:50:03
1	Mg 279.077 IEC†	106.6	107.3	5201.9	ug/L	5201.9	ppb	01:50:23
1	Na 589.592 Radial†	31291.4	33506.9	10331	ug/L	10331	ppb	01:50:03
1	Sr 421.552†	71387.4	74535.9	515.72	ug/L	515.72	ppb	01:50:03
1	Sc 361.383	893450.3	893450.3	101.85	%			01:51:20
1	Y 371.029	742912.7	742912.7	98.289	%			01:51:20
1	Ag 328.068†	109836.4	107602.1	501.57	ug/L	501.57	ppb	01:51:26
1	As 188.979†	1141.3	1138.8	512.77	ug/L	512.77	ppb	01:51:46
1	B 249.677†	19904.4	19941.3	481.24	ug/L	481.24	ppb	01:51:26
1	Ba 233.527†	65002.3	63823.7	502.09	ug/L	502.09	ppb	01:51:26
1	Be 313.107†	1372437.5	1351285.4	508.94	ug/L	508.94	ppb	01:51:20
1	Cd 226.502†	44130.0	43525.2	503.93	ug/L	503.93	ppb	01:51:26
1	Co 228.616†	24419.2	24042.4	503.73	ug/L	503.73	ppb	01:51:26
1	Cr 267.716†	45420.6	44518.4	500.73	ug/L	500.73	ppb	01:51:26
1	Cu 324.752†	171346.6	162245.3	493.71	ug/L	493.71	ppb	01:51:26
1	Mn 257.610†	457591.3	448825.8	511.01	ug/L	511.01	ppb	01:51:20
1	Mo 202.031†	6969.2	6832.5	502.06	ug/L	502.06	ppb	01:51:46
1	Ni 231.604†	20230.3	19800.6	503.29	ug/L	503.29	ppb	01:51:26
1	P 214.914†	4464.1	4172.5	2415.8	ug/L	2415.8	ppb	01:51:46
1	Pb 220.353†	5442.5	5401.8	665.97	ug/L	665.97	ppb	01:51:46
1	S 181.975 Axial†	750.5	696.1	1000.7	ug/L	1000.7	ppb	01:51:46
1	Sb 206.836†	1497.3	1433.4	519.04	ug/L	519.04	ppb	01:51:46
1	Se 196.026†	760.1	774.0	523.87	ug/L	523.87	ppb	01:51:46
1	Si 251.611†	79292.3	77294.6	2495.0	ug/L	2495.0	ppb	01:51:26
1	Sn 189.927†	2842.4	2780.3	499.53	ug/L	499.53	ppb	01:51:46
1	Ti 334.940†	320493.1	316049.1	496.53	ug/L	496.53	ppb	01:51:26
1	Tl 190.801†	1572.3	1576.3	507.40	ug/L	507.40	ppb	01:51:46
1	U 409.014†	15147.8	17759.5	488.73	ug/L	488.73	ppb	01:51:26
1	V 292.402†	71059.4	71275.1	503.70	ug/L	503.70	ppb	01:51:26
1	Zn 213.857†	51472.1	49931.7	498.02	ug/L	498.02	ppb	01:51:26
1	SiO2†	80686.3	78667.1	5453.3	ug/L	5453.3	ppb	01:52:53
2	Sc Radial	3789.7	3789.7	96.7	%			01:50:48
2	Y RADIAL	4263.3	4263.3	96.65	%			01:50:28
2	Al 396.153Radial†	5431.5	5729.0	5348.6	ug/L	5348.6	ppb	01:50:28
2	Ca 317.933Radial†	2472.4	2536.9	5303.5	ug/L	5303.5	ppb	01:50:48
2	Fe 238.204 Radial†	345.5	346.0	4898.7	ug/L	4898.7	ppb	01:50:48
2	K 766.490 Radial†	29501.6	27867.3	5341.2	ug/L	5341.2	ppb	01:50:28
2	Mg 279.077 IEC†	110.0	109.6	5315.9	ug/L	5315.9	ppb	01:50:48
2	Na 589.592 Radial†	31572.3	33468.0	10319	ug/L	10319	ppb	01:50:28
2	Sr 421.552†	72571.3	75008.6	518.99	ug/L	518.99	ppb	01:50:28
2	Sc 361.383	894788.0	894788.0	102.00	%			01:51:51
2	Y 371.029	744407.6	744407.6	98.487	%			01:51:51
2	Ag 328.068†	110561.7	108151.9	504.12	ug/L	504.12	ppb	01:51:57
2	As 188.979†	1140.0	1135.9	511.49	ug/L	511.49	ppb	01:52:17
2	B 249.677†	20105.9	20109.7	485.32	ug/L	485.32	ppb	01:51:57
2	Ba 233.527†	65433.0	64150.6	504.66	ug/L	504.66	ppb	01:51:57
2	Be 313.107†	1378804.9	1355513.2	510.53	ug/L	510.53	ppb	01:51:51
2	Cd 226.502†	44339.2	43665.5	505.55	ug/L	505.55	ppb	01:51:57
2	Co 228.616†	24574.4	24158.7	506.16	ug/L	506.16	ppb	01:51:57
2	Cr 267.716†	45759.3	44783.8	503.71	ug/L	503.71	ppb	01:51:57
2	Cu 324.752†	172514.9	163139.2	496.43	ug/L	496.43	ppb	01:51:57
2	Mn 257.610†	459182.8	449714.3	512.01	ug/L	512.01	ppb	01:51:51
2	Mo 202.031†	7008.7	6861.0	504.15	ug/L	504.15	ppb	01:52:17
2	Ni 231.604†	20350.7	19888.9	505.53	ug/L	505.53	ppb	01:51:57

2	P 214.914†	4498.2	4199.4	2431.5 ug/L	2431.5 ppb	01:52:17
2	Pb 220.353†	5402.1	5354.2	660.13 ug/L	660.13 ppb	01:52:17
2	S 181.975 Axial†	763.0	707.2	1016.7 ug/L	1016.7 ppb	01:52:17
2	Sb 206.836†	1496.2	1430.2	517.99 ug/L	517.99 ppb	01:52:17
2	Se 196.026†	767.3	780.0	527.72 ug/L	527.72 ppb	01:52:17
2	Si 251.611†	79742.2	77619.2	2505.5 ug/L	2505.5 ppb	01:51:57
2	Sn 189.927†	2853.1	2786.7	500.66 ug/L	500.66 ppb	01:52:17
2	Ti 334.940†	323054.1	318089.4	499.73 ug/L	499.73 ppb	01:51:57
2	Tl 190.801†	1591.1	1592.4	512.57 ug/L	512.57 ppb	01:52:17
2	U 409.014†	15122.9	17712.7	487.44 ug/L	487.44 ppb	01:51:57
2	V 292.402†	71660.4	71760.0	507.11 ug/L	507.11 ppb	01:51:57
2	Zn 213.857†	51610.1	49991.4	498.61 ug/L	498.61 ppb	01:51:57
2	SiO2†	80393.2	78261.4	5425.1 ug/L	5425.1 ppb	01:52:58
3	Sc Radial	3711.3	3711.3	94.7 %		01:51:13
3	Y RADIAL	4245.6	4245.6	96.25 %		01:50:53
3	Al 396.153Radial†	5434.8	5851.0	5462.6 ug/L	5462.6 ppb	01:50:53
3	Ca 317.933Radial†	2430.1	2546.3	5323.0 ug/L	5323.0 ppb	01:51:13
3	Fe 238.204 Radial†	339.7	347.4	4919.0 ug/L	4919.0 ppb	01:51:13
3	K 766.490 Radial†	29530.0	28541.2	5470.4 ug/L	5470.4 ppb	01:50:53
3	Mg 279.077 IEC†	104.7	106.5	5163.1 ug/L	5163.1 ppb	01:51:13
3	Na 589.592 Radial†	31563.7	34148.0	10529 ug/L	10529 ppb	01:50:53
3	Sr 421.552†	72483.8	76500.1	529.31 ug/L	529.31 ppb	01:50:53
3	Sc 361.383	880564.6	880564.6	100.38 %		01:52:22
3	Y 371.029	733791.9	733791.9	97.082 %		01:52:22
3	Ag 328.068†	112054.0	111389.4	519.18 ug/L	519.18 ppb	01:52:28
3	As 188.979†	1154.7	1168.6	526.19 ug/L	526.19 ppb	01:52:48
3	B 249.677†	20514.2	20834.8	502.86 ug/L	502.86 ppb	01:52:28
3	Ba 233.527†	66402.8	66152.9	520.41 ug/L	520.41 ppb	01:52:28
3	Be 313.107†	1354270.1	1352905.6	509.59 ug/L	509.59 ppb	01:52:22
3	Cd 226.502†	45006.9	45032.8	521.40 ug/L	521.40 ppb	01:52:28
3	Co 228.616†	24846.4	24818.8	519.99 ug/L	519.99 ppb	01:52:28
3	Cr 267.716†	46538.8	46285.0	520.58 ug/L	520.58 ppb	01:52:28
3	Cu 324.752†	175449.2	168794.2	513.63 ug/L	513.63 ppb	01:52:28
3	Mn 257.610†	450004.9	447842.7	509.89 ug/L	509.89 ppb	01:52:22
3	Mo 202.031†	7054.5	7017.7	515.66 ug/L	515.66 ppb	01:52:48
3	Ni 231.604†	20658.2	20517.5	521.51 ug/L	521.51 ppb	01:52:28
3	P 214.914†	4517.1	4289.5	2482.5 ug/L	2482.5 ppb	01:52:48
3	Pb 220.353†	5373.8	5411.6	667.23 ug/L	667.23 ppb	01:52:48
3	S 181.975 Axial†	764.1	720.4	1035.7 ug/L	1035.7 ppb	01:52:48
3	Sb 206.836†	1509.4	1467.0	531.29 ug/L	531.29 ppb	01:52:48
3	Se 196.026†	780.4	805.2	544.35 ug/L	544.35 ppb	01:52:48
3	Si 251.611†	80834.2	79969.9	2581.4 ug/L	2581.4 ppb	01:52:28
3	Sn 189.927†	2882.4	2861.0	514.01 ug/L	514.01 ppb	01:52:48
3	Ti 334.940†	327691.7	327825.3	515.03 ug/L	515.03 ppb	01:52:28
3	Tl 190.801†	1591.0	1617.6	520.64 ug/L	520.64 ppb	01:52:48
3	U 409.014†	15537.5	18365.3	505.42 ug/L	505.42 ppb	01:52:28
3	V 292.402†	72801.4	74031.5	523.12 ug/L	523.12 ppb	01:52:28
3	Zn 213.857†	52424.5	51620.0	514.88 ug/L	514.88 ppb	01:52:28
3	SiO2†	79202.4	78348.1	5430.8 ug/L	5430.8 ppb	01:53:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889601.0	101.41	%	0.895				0.88%
Sc Radial	3750.8	95.7	%	1.00				1.04%
Y 371.029	740370.8	97.953	%	0.7602				0.78%
Y RADIAL	4229.0	95.88	%	1.018				1.06%
Ag 328.068†	109047.8	508.29	ug/L	9.516	508.29	ppb	9.516	1.87%
QC value within limits for Ag 328.068 Recovery = 101.66%								
Al 396.153Radial†	5746.9	5365.3	ug/L	90.13	5365.3	ppb	90.13	1.68%
QC value within limits for Al 396.153Radial Recovery = 107.31%								
As 188.979†	1147.7	516.82	ug/L	8.141	516.82	ppb	8.141	1.58%
QC value within limits for As 188.979 Recovery = 103.36%								
B 249.677†	20295.3	489.81	ug/L	11.486	489.81	ppb	11.486	2.34%
QC value within limits for B 249.677 Recovery = 97.96%								
Ba 233.527†	64709.0	509.05	ug/L	9.919	509.05	ppb	9.919	1.95%
QC value within limits for Ba 233.527 Recovery = 101.81%								
Be 313.107†	1353234.8	509.69	ug/L	0.803	509.69	ppb	0.803	0.16%
QC value within limits for Be 313.107 Recovery = 101.94%								
Ca 317.933Radial†	2542.4	5314.8	ug/L	10.14	5314.8	ppb	10.14	0.19%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.30%
Cd 226.502†            44074.5      510.29 ug/L         9.653      510.29 ppb          9.653   1.89%
   QC value within limits for Cd 226.502  Recovery = 102.06%
Co 228.616†            24340.0      509.96 ug/L         8.768      509.96 ppb          8.768   1.72%
   QC value within limits for Co 228.616  Recovery = 101.99%
Cr 267.716†            45195.7      508.34 ug/L        10.705      508.34 ppb         10.705   2.11%
   QC value within limits for Cr 267.716  Recovery = 101.67%
Cu 324.752†           164726.2      501.26 ug/L        10.801      501.26 ppb         10.801   2.15%
   QC value within limits for Cu 324.752  Recovery = 100.25%
Fe 238.204 Radial†       346.9      4911.5 ug/L        11.13      4911.5 ppb          11.13   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.23%
K 766.490 Radial†      28070.1      5380.0 ug/L        78.49      5380.0 ppb          78.49   1.46%
   QC value within limits for K 766.490 Radial  Recovery = 107.60%
Mg 279.077 IEC†          107.8      5227.0 ug/L        79.44      5227.0 ppb          79.44   1.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.54%
Mn 257.610†           448794.2      510.97 ug/L         1.061      510.97 ppb          1.061   0.21%
   QC value within limits for Mn 257.610  Recovery = 102.19%
Mo 202.031†             6903.7      507.29 ug/L         7.320      507.29 ppb          7.320   1.44%
   QC value within limits for Mo 202.031  Recovery = 101.46%
Na 589.592 Radial†     33707.6       10393 ug/L        117.7       10393 ppb          117.7   1.13%
   QC value within limits for Na 589.592 Radial  Recovery = 103.93%
Ni 231.604†            20069.0      510.11 ug/L         9.937      510.11 ppb          9.937   1.95%
   QC value within limits for Ni 231.604  Recovery = 102.02%
P 214.914†              4220.5      2443.3 ug/L        34.82      2443.3 ppb          34.82   1.43%
   QC value within limits for P 214.914  Recovery = 97.73%
Pb 220.353†             5389.2      664.44 ug/L         3.787      664.44 ppb          3.787   0.57%
   QC value greater than the upper limit for Pb 220.353  Recovery = 132.89%
S 181.975 Axial†         707.9      1017.7 ug/L        17.51      1017.7 ppb          17.51   1.72%
   QC value within limits for S 181.975 Axial  Recovery = 101.77%
Sb 206.836†             1443.5      522.77 ug/L         7.395      522.77 ppb          7.395   1.41%
   QC value within limits for Sb 206.836  Recovery = 104.55%
Se 196.026†              786.4      531.98 ug/L        10.884      531.98 ppb         10.884   2.05%
   QC value within limits for Se 196.026  Recovery = 106.40%
Si 251.611†            78294.6      2527.3 ug/L        47.15      2527.3 ppb          47.15   1.87%
   QC value within limits for Si 251.611  Recovery = 101.09%
Sn 189.927†             2809.3      504.73 ug/L         8.052      504.73 ppb          8.052   1.60%
   QC value within limits for Sn 189.927  Recovery = 100.95%
Sr 421.552†            75348.2      521.34 ug/L         7.094      521.34 ppb          7.094   1.36%
   QC value within limits for Sr 421.552  Recovery = 104.27%
Ti 334.940†           320654.6      503.76 ug/L         9.886      503.76 ppb          9.886   1.96%
   QC value within limits for Ti 334.940  Recovery = 100.75%
Tl 190.801†             1595.4      513.54 ug/L         6.676      513.54 ppb          6.676   1.30%
   QC value within limits for Tl 190.801  Recovery = 102.71%
U 409.014†             17945.8      493.86 ug/L        10.027      493.86 ppb         10.027   2.03%
   QC value within limits for U 409.014  Recovery = 98.77%
V 292.402†             72355.5      511.31 ug/L        10.367      511.31 ppb         10.367   2.03%
   QC value within limits for V 292.402  Recovery = 102.26%
Zn 213.857†            50514.4      503.84 ug/L         9.565      503.84 ppb          9.565   1.90%
   QC value within limits for Zn 213.857  Recovery = 100.77%
SiO2†                  78425.5      5436.4 ug/L        14.94      5436.4 ppb          14.94   0.27%
   QC value within limits for SiO2  Recovery = 101.66%
QC Failed.  Continue with analysis.
```

Sequence No.: 79
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/25/2010 01:55:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3904.2	3904.2	99.6	%			01:57:26
1	Y RADIAL	4278.1	4278.1	96.99	%			01:57:06
1	Al 396.153Radial†	-92.0	20.1	18.802	ug/L	18.802	ppb	01:57:06
1	Ca 317.933Radial†	19.9	0.3	0.5597	ug/L	0.5597	ppb	01:57:26
1	Fe 238.204 Radial†	11.8	0.5	7.5867	ug/L	7.5867	ppb	01:57:26
1	K 766.490 Radial†	2841.1	212.1	40.688	ug/L	40.688	ppb	01:57:06
1	Mg 279.077 IEC†	3.7	-0.3	-15.760	ug/L	-15.760	ppb	01:57:26
1	Na 589.592 Radial†	-757.7	59.2	18.252	ug/L	18.252	ppb	01:57:06
1	Sr 421.552†	26.9	-8.7	-0.0601	ug/L	-0.0601	ppb	01:57:06
1	Sc 361.383	878431.0	878431.0	100.14	%			01:58:23
1	Y 371.029	741529.1	741529.1	98.106	%			01:58:23
1	Ag 328.068†	260.7	20.0	0.0981	ug/L	0.0981	ppb	01:58:23
1	As 188.979†	-23.1	-4.8	-2.1303	ug/L	-2.1303	ppb	01:58:43
1	B 249.677†	-456.4	-57.6	-1.3977	ug/L	-1.3977	ppb	01:58:43
1	Ba 233.527†	19.4	20.8	0.1634	ug/L	0.1634	ppb	01:58:43
1	Be 313.107†	-3735.2	32.1	0.0118	ug/L	0.0118	ppb	01:58:23
1	Cd 226.502†	-181.3	15.2	0.1751	ug/L	0.1751	ppb	01:58:43
1	Co 228.616†	-59.4	7.2	0.1522	ug/L	0.1522	ppb	01:58:43
1	Cr 267.716†	82.7	4.9	0.0570	ug/L	0.0570	ppb	01:58:43
1	Cu 324.752†	5947.6	-51.3	-0.1540	ug/L	-0.1540	ppb	01:58:23
1	Mn 257.610†	525.9	66.4	0.0770	ug/L	0.0770	ppb	01:58:43
1	Mo 202.031†	14.0	3.8	0.2804	ug/L	0.2804	ppb	01:58:43
1	Ni 231.604†	63.8	1.2	0.0315	ug/L	0.0315	ppb	01:58:43
1	P 214.914†	203.1	-7.7	-4.6008	ug/L	-4.6008	ppb	01:58:43
1	Pb 220.353†	849.2	906.1	111.45	ug/L	111.45	ppb	01:58:43
1	S 181.975 Axial†	41.5	0.7	0.9818	ug/L	0.9818	ppb	01:58:43
1	Sb 206.836†	52.1	15.3	5.3843	ug/L	5.3843	ppb	01:58:43
1	Se 196.026†	-25.9	1.9	1.2899	ug/L	1.2899	ppb	01:58:43
1	Si 251.611†	611.0	51.8	1.6739	ug/L	1.6739	ppb	01:58:43
1	Sn 189.927†	16.1	5.6	1.0023	ug/L	1.0023	ppb	01:58:43
1	Ti 334.940†	-1439.6	-63.6	-0.0971	ug/L	-0.0971	ppb	01:58:23
1	Tl 190.801†	-27.7	4.9	1.5635	ug/L	1.5635	ppb	01:58:43
1	U 409.014†	-3005.7	-115.0	-3.1775	ug/L	-3.1775	ppb	01:58:23
1	V 292.402†	-1486.9	20.8	0.1416	ug/L	0.1416	ppb	01:58:23
1	Zn 213.857†	780.0	172.9	1.7390	ug/L	1.7390	ppb	01:58:43
1	SiO2†	615.9	60.6	4.2068	ug/L	4.2068	ppb	01:59:39
2	Sc Radial	3807.5	3807.5	97.2	%			01:57:51
2	Y RADIAL	4388.9	4388.9	99.50	%			01:57:31
2	Al 396.153Radial†	-109.2	0.0	0.0381	ug/L	0.0381	ppb	01:57:31
2	Ca 317.933Radial†	19.1	0.0	0.0552	ug/L	0.0552	ppb	01:57:51
2	Fe 238.204 Radial†	10.2	-0.8	-11.336	ug/L	-11.336	ppb	01:57:51
2	K 766.490 Radial†	2689.5	128.6	24.682	ug/L	24.682	ppb	01:57:31
2	Mg 279.077 IEC†	1.6	-2.5	-118.97	ug/L	-118.97	ppb	01:57:51
2	Na 589.592 Radial†	-858.8	-64.1	-19.777	ug/L	-19.777	ppb	01:57:31
2	Sr 421.552†	4.4	-31.2	-0.2156	ug/L	-0.2156	ppb	01:57:31
2	Sc 361.383	891701.1	891701.1	101.65	%			01:58:48
2	Y 371.029	753557.3	753557.3	99.697	%			01:58:48
2	Ag 328.068†	251.7	7.2	0.0327	ug/L	0.0327	ppb	01:58:48
2	As 188.979†	-24.2	-5.5	-2.4633	ug/L	-2.4633	ppb	01:59:08
2	B 249.677†	-450.7	-45.2	-1.0939	ug/L	-1.0939	ppb	01:59:08
2	Ba 233.527†	0.3	1.7	0.0121	ug/L	0.0121	ppb	01:59:08
2	Be 313.107†	-3785.2	38.4	0.0146	ug/L	0.0146	ppb	01:58:48
2	Cd 226.502†	-178.4	20.8	0.2406	ug/L	0.2406	ppb	01:59:08
2	Co 228.616†	-62.7	4.8	0.1009	ug/L	0.1009	ppb	01:59:08
2	Cr 267.716†	96.0	16.8	0.1888	ug/L	0.1888	ppb	01:59:08
2	Cu 324.752†	6037.9	-50.8	-0.1526	ug/L	-0.1526	ppb	01:58:48
2	Mn 257.610†	523.9	56.7	0.0682	ug/L	0.0682	ppb	01:59:08
2	Mo 202.031†	8.4	-1.8	-0.1366	ug/L	-0.1366	ppb	01:59:08
2	Ni 231.604†	59.7	-3.7	-0.0943	ug/L	-0.0943	ppb	01:59:08

2	P 214.914†	211.8	-2.2	-1.2692	ug/L	-1.2692	ppb	01:59:08
2	Pb 220.353†	831.1	875.8	107.71	ug/L	107.71	ppb	01:59:08
2	S 181.975 Axial†	41.2	-0.2	-0.3414	ug/L	-0.3414	ppb	01:59:08
2	Sb 206.836†	38.2	0.9	0.3113	ug/L	0.3113	ppb	01:59:08
2	Se 196.026†	-26.9	1.3	0.7834	ug/L	0.7834	ppb	01:59:08
2	Si 251.611†	607.6	39.4	1.2774	ug/L	1.2774	ppb	01:59:08
2	Sn 189.927†	11.6	0.9	0.1665	ug/L	0.1665	ppb	01:59:08
2	Ti 334.940†	-1337.0	58.8	0.1042	ug/L	0.1042	ppb	01:58:48
2	Tl 190.801†	-31.6	1.5	0.4837	ug/L	0.4837	ppb	01:59:08
2	U 409.014†	-3111.5	-174.4	-4.8146	ug/L	-4.8146	ppb	01:58:48
2	V 292.402†	-1576.8	-45.6	-0.3297	ug/L	-0.3297	ppb	01:58:48
2	Zn 213.857†	797.4	178.4	1.7982	ug/L	1.7982	ppb	01:59:08
2	SiO2†	629.4	64.8	4.5044	ug/L	4.5044	ppb	01:59:44
3	Sc Radial	3794.1	3794.1	96.8	%			01:58:16
3	Y RADIAL	4276.4	4276.4	96.95	%			01:57:56
3	Al 396.153Radial†	-102.8	6.3	5.8953	ug/L	5.8953	ppb	01:57:56
3	Ca 317.933Radial†	23.1	4.2	8.7458	ug/L	8.7458	ppb	01:58:16
3	Fe 238.204 Radial†	10.3	-0.7	-10.062	ug/L	-10.062	ppb	01:58:16
3	K 766.490 Radial†	2770.7	222.2	42.646	ug/L	42.646	ppb	01:57:56
3	Mg 279.077 IEC†	1.6	-2.4	-116.03	ug/L	-116.03	ppb	01:58:16
3	Na 589.592 Radial†	-833.1	-40.7	-12.548	ug/L	-12.548	ppb	01:57:56
3	Sr 421.552†	75.3	42.0	0.2907	ug/L	0.2907	ppb	01:57:56
3	Sc 361.383	900277.4	900277.4	102.63	%			01:59:13
3	Y 371.029	761244.3	761244.3	100.71	%			01:59:13
3	Ag 328.068†	219.0	-27.0	-0.1230	ug/L	-0.1230	ppb	01:59:13
3	As 188.979†	-19.2	-0.4	-0.1866	ug/L	-0.1866	ppb	01:59:33
3	B 249.677†	-459.8	-49.8	-1.2058	ug/L	-1.2058	ppb	01:59:33
3	Ba 233.527†	-1.7	-0.3	-0.0013	ug/L	-0.0013	ppb	01:59:33
3	Be 313.107†	-3731.5	126.2	0.0474	ug/L	0.0474	ppb	01:59:13
3	Cd 226.502†	-164.8	35.6	0.4132	ug/L	0.4132	ppb	01:59:33
3	Co 228.616†	-54.8	13.2	0.2751	ug/L	0.2751	ppb	01:59:33
3	Cr 267.716†	69.9	-9.6	-0.1066	ug/L	-0.1066	ppb	01:59:33
3	Cu 324.752†	6073.0	-73.2	-0.2213	ug/L	-0.2213	ppb	01:59:13
3	Mn 257.610†	524.9	52.8	0.0638	ug/L	0.0638	ppb	01:59:33
3	Mo 202.031†	6.1	-4.2	-0.3073	ug/L	-0.3073	ppb	01:59:33
3	Ni 231.604†	72.2	7.9	0.2020	ug/L	0.2020	ppb	01:59:33
3	P 214.914†	206.1	-9.7	-5.7786	ug/L	-5.7786	ppb	01:59:33
3	Pb 220.353†	799.8	837.4	102.99	ug/L	102.99	ppb	01:59:33
3	S 181.975 Axial†	41.5	-0.4	-0.5192	ug/L	-0.5192	ppb	01:59:33
3	Sb 206.836†	50.4	12.4	4.3208	ug/L	4.3208	ppb	01:59:33
3	Se 196.026†	-26.4	2.0	1.2824	ug/L	1.2824	ppb	01:59:33
3	Si 251.611†	613.2	39.2	1.2724	ug/L	1.2724	ppb	01:59:33
3	Sn 189.927†	5.0	-5.6	-0.9990	ug/L	-0.9990	ppb	01:59:33
3	Ti 334.940†	-1416.7	-6.3	0.0024	ug/L	0.0024	ppb	01:59:13
3	Tl 190.801†	-28.0	5.3	1.7054	ug/L	1.7054	ppb	01:59:33
3	U 409.014†	-3103.6	-137.5	-3.7954	ug/L	-3.7954	ppb	01:59:13
3	V 292.402†	-1463.3	79.8	0.5442	ug/L	0.5442	ppb	01:59:13
3	Zn 213.857†	789.1	162.9	1.6404	ug/L	1.6404	ppb	01:59:33
3	SiO2†	606.5	36.6	2.5493	ug/L	2.5493	ppb	01:59:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890136.5	101.47	%	1.255				1.24%
Sc Radial	3835.3	97.9	%	1.53				1.57%
Y 371.029	752110.2	99.506	%	1.3147				1.32%
Y RADIAL	4314.5	97.81	%	1.462				1.49%
Ag 328.068†	0.1	0.0026	ug/L	0.11359	0.0026	ppb	0.11359	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.8	8.2452	ug/L	9.60018	8.2452	ppb	9.60018	116.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.6	-1.5934	ug/L	1.22964	-1.5934	ppb	1.22964	77.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-50.8	-1.2325	ug/L	0.15366	-1.2325	ppb	0.15366	12.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.4	0.0581	ug/L	0.09149	0.0581	ppb	0.09149	157.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.6	0.0246	ug/L	0.01978	0.0246	ppb	0.01978	80.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	3.1202	ug/L	4.87843	3.1202	ppb	4.87843	156.35%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.9      0.2763 ug/L       0.12298      0.2763 ppb        0.12298  44.51%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.4      0.1761 ug/L       0.08956      0.1761 ppb        0.08956  50.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.0      0.0464 ug/L       0.14801      0.0464 ppb        0.14801 319.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -58.5     -0.1760 ug/L       0.03928     -0.1760 ppb        0.03928  22.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -4.6036 ug/L      10.57633     -4.6036 ppb       10.57633 229.74%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         187.6      36.005 ug/L        9.8552      36.005 ppb         9.8552  27.37%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.7     -83.589 ug/L       58.7599     -83.589 ppb        58.7599  70.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                58.6      0.0697 ug/L       0.00670      0.0697 ppb        0.00670   9.62%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.7     -0.0545 ug/L       0.30231     -0.0545 ppb        0.30231 554.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -15.2     -4.6910 ug/L      20.19557     -4.6910 ppb       20.19557 430.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.8      0.0464 ug/L       0.14870      0.0464 ppb        0.14870 320.29%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.5     -3.8829 ug/L       2.33884     -3.8829 ppb        2.33884  60.23%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               873.1      107.38 ug/L         4.238      107.38 ppb          4.238   3.95%
   QC value greater than the upper limit for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.0      0.0404 ug/L       0.82010      0.0404 ppb        0.82010 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.6      3.3388 ug/L       2.67528      3.3388 ppb        2.67528  80.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7      1.1185 ug/L       0.29028      1.1185 ppb        0.29028  25.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                43.5      1.4079 ug/L       0.23037      1.4079 ppb        0.23037  16.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.3      0.0566 ug/L       1.00515      0.0566 ppb        1.00515 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.7      0.0050 ug/L       0.25935      0.0050 ppb        0.25935 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -3.7      0.0032 ug/L       0.10067      0.0032 ppb        0.10067 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.9      1.2509 ug/L       0.66819      1.2509 ppb        0.66819  53.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -142.3     -3.9292 ug/L       0.82674     -3.9292 ppb        0.82674  21.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                18.3      0.1187 ug/L       0.43742      0.1187 ppb        0.43742 368.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               171.4      1.7259 ug/L       0.07971      1.7259 ppb        0.07971   4.62%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     54.0      3.7535 ug/L       1.05345      3.7535 ppb        1.05345  28.07%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 030110
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 030110A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/1/2010 13:26:24**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/1/2010 11:32:10**
Analyst: **Data Type: Reprocessed on 3/1/2010 13:29:20**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	771077.3	771077.3	100.41	%	11:35:20
1	Sc Radial	4720.0	4720.0	100	%	11:34:03
1	Y 371.029	691300.5	691300.5	100.33	%	11:35:20
1	Y RADIAL	5001.3	5001.3	100.3	%	11:34:03
1	Ag 328.068†	250.1	249.0	[0.00]	ug/L	11:35:20

1	Al 396.153Radial†	-83.3	-83.0	[0.00]	ug/L	11:34:23
1	As 188.979†	-21.8	-21.8	[0.00]	ug/L	11:35:40
1	B 249.677†	-446.4	-444.5	[0.00]	ug/L	11:35:40
1	Ba 233.527†	3.2	3.2	[0.00]	ug/L	11:35:40
1	Be 313.107†	-8975.1	-8938.6	[0.00]	ug/L	11:35:20
1	Ca 317.933Radial†	22.4	22.3	[0.00]	ug/L	11:34:23
1	Cd 226.502†	-194.3	-193.5	[0.00]	ug/L	11:35:40
1	Co 228.616†	-48.1	-47.9	[0.00]	ug/L	11:35:40
1	Cr 267.716†	76.3	76.0	[0.00]	ug/L	11:35:40
1	Cu 324.752†	7463.3	7433.0	[0.00]	ug/L	11:35:20
1	Fe 238.204 Radial†	5.7	5.6	[0.00]	ug/L	11:34:23
1	K 766.490 Radial†	2178.5	2172.4	[0.00]	ug/L	11:34:03
1	Mg 279.077 IEC†	2.6	2.6	[0.00]	ug/L	11:34:23
1	Mn 257.610†	457.0	455.2	[0.00]	ug/L	11:35:40
1	Mo 202.031†	15.5	15.4	[0.00]	ug/L	11:35:40
1	Na 589.592 Radial†	-839.3	-836.9	[0.00]	ug/L	11:34:03
1	Ni 231.604†	92.4	92.0	[0.00]	ug/L	11:35:40
1	P 214.914†	189.2	188.5	[0.00]	ug/L	11:35:40
1	Pb 220.353†	-69.6	-69.3	[0.00]	ug/L	11:35:40
1	S 181.975 Axial†	44.5	44.3	[0.00]	ug/L	11:35:40
1	Sb 206.836†	42.1	41.9	[0.00]	ug/L	11:35:40
1	Se 196.026†	-20.4	-20.3	[0.00]	ug/L	11:35:40
1	Si 251.611†	573.0	570.6	[0.00]	ug/L	11:35:40
1	Sn 189.927†	7.1	7.0	[0.00]	ug/L	11:35:40
1	Sr 421.552†	7.2	7.1	[0.00]	ug/L	11:34:03
1	Ti 334.940†	-1385.7	-1380.1	[0.00]	ug/L	11:35:20
1	Tl 190.801†	-30.6	-30.5	[0.00]	ug/L	11:35:40
1	U 409.014†	-2567.7	-2557.2	[0.00]	ug/L	11:35:20
1	V 292.402†	-1650.4	-1643.7	[0.00]	ug/L	11:35:20
1	Zn 213.857†	709.8	706.9	[0.00]	ug/L	11:35:40
1	SiO2†	599.2	596.8	[0.00]	ug/L	11:36:36
2	Sc 361.383	771656.5	771656.5	100.48	%	11:35:45
2	Sc Radial	4764.1	4764.1	101	%	11:34:28
2	Y 371.029	692601.0	692601.0	100.52	%	11:35:45
2	Y RADIAL	5064.2	5064.2	101.6	%	11:34:28
2	Ag 328.068†	275.0	273.7	[0.00]	ug/L	11:35:45
2	Al 396.153Radial†	-85.9	-84.8	[0.00]	ug/L	11:34:48
2	As 188.979†	-26.2	-26.1	[0.00]	ug/L	11:36:05
2	B 249.677†	-458.7	-456.5	[0.00]	ug/L	11:36:05
2	Ba 233.527†	14.1	14.1	[0.00]	ug/L	11:36:05
2	Be 313.107†	-9023.6	-8980.1	[0.00]	ug/L	11:35:45
2	Ca 317.933Radial†	18.8	18.5	[0.00]	ug/L	11:34:48
2	Cd 226.502†	-180.2	-179.4	[0.00]	ug/L	11:36:05
2	Co 228.616†	-71.9	-71.5	[0.00]	ug/L	11:36:05
2	Cr 267.716†	75.3	74.9	[0.00]	ug/L	11:36:05
2	Cu 324.752†	7571.0	7534.5	[0.00]	ug/L	11:35:45
2	Fe 238.204 Radial†	8.4	8.3	[0.00]	ug/L	11:34:48
2	K 766.490 Radial†	2281.5	2254.0	[0.00]	ug/L	11:34:28
2	Mg 279.077 IEC†	3.6	3.6	[0.00]	ug/L	11:34:48
2	Mn 257.610†	459.1	456.9	[0.00]	ug/L	11:36:05
2	Mo 202.031†	15.8	15.7	[0.00]	ug/L	11:36:05
2	Na 589.592 Radial†	-873.6	-863.0	[0.00]	ug/L	11:34:28
2	Ni 231.604†	106.1	105.6	[0.00]	ug/L	11:36:05
2	P 214.914†	206.2	205.2	[0.00]	ug/L	11:36:05
2	Pb 220.353†	-80.9	-80.5	[0.00]	ug/L	11:36:05
2	S 181.975 Axial†	37.6	37.4	[0.00]	ug/L	11:36:05
2	Sb 206.836†	19.0	18.9	[0.00]	ug/L	11:36:05
2	Se 196.026†	-12.0	-12.0	[0.00]	ug/L	11:36:05
2	Si 251.611†	602.2	599.3	[0.00]	ug/L	11:36:05
2	Sn 189.927†	8.1	8.1	[0.00]	ug/L	11:36:05
2	Sr 421.552†	-8.0	-7.9	[0.00]	ug/L	11:34:28
2	Ti 334.940†	-1287.1	-1280.9	[0.00]	ug/L	11:35:45
2	Tl 190.801†	-22.7	-22.6	[0.00]	ug/L	11:36:05
2	U 409.014†	-2503.9	-2491.8	[0.00]	ug/L	11:35:45
2	V 292.402†	-1592.0	-1584.3	[0.00]	ug/L	11:35:45
2	Zn 213.857†	715.3	711.8	[0.00]	ug/L	11:36:05
2	SiO2†	612.8	609.9	[0.00]	ug/L	11:36:41
3	Sc 361.383	761083.0	761083.0	99.107	%	11:36:11
3	Sc Radial	4635.9	4635.9	98.5	%	11:34:53
3	Y 371.029	683202.5	683202.5	99.154	%	11:36:11
3	Y RADIAL	4890.8	4890.8	98.10	%	11:34:53

3	Ag 328.068†	242.1	244.3	[0.00]	ug/L	11:36:11
3	Al 396.153Radial†	-92.1	-93.5	[0.00]	ug/L	11:35:13
3	As 188.979†	-27.0	-27.2	[0.00]	ug/L	11:36:31
3	B 249.677†	-455.2	-459.3	[0.00]	ug/L	11:36:31
3	Ba 233.527†	-10.0	-10.1	[0.00]	ug/L	11:36:31
3	Be 313.107†	-8948.7	-9029.3	[0.00]	ug/L	11:36:11
3	Ca 317.933Radial†	25.2	25.6	[0.00]	ug/L	11:35:13
3	Cd 226.502†	-185.4	-187.1	[0.00]	ug/L	11:36:31
3	Co 228.616†	-52.5	-53.0	[0.00]	ug/L	11:36:31
3	Cr 267.716†	75.2	75.9	[0.00]	ug/L	11:36:31
3	Cu 324.752†	7572.7	7641.0	[0.00]	ug/L	11:36:11
3	Fe 238.204 Radial†	7.9	8.0	[0.00]	ug/L	11:35:13
3	K 766.490 Radial†	2323.1	2358.5	[0.00]	ug/L	11:34:53
3	Mg 279.077 IEC†	2.5	2.5	[0.00]	ug/L	11:35:13
3	Mn 257.610†	467.2	471.4	[0.00]	ug/L	11:36:31
3	Mo 202.031†	11.9	12.1	[0.00]	ug/L	11:36:31
3	Na 589.592 Radial†	-830.7	-843.4	[0.00]	ug/L	11:34:53
3	Ni 231.604†	105.5	106.4	[0.00]	ug/L	11:36:31
3	P 214.914†	190.7	192.4	[0.00]	ug/L	11:36:31
3	Pb 220.353†	-61.8	-62.3	[0.00]	ug/L	11:36:31
3	S 181.975 Axial†	45.4	45.8	[0.00]	ug/L	11:36:31
3	Sb 206.836†	29.0	29.2	[0.00]	ug/L	11:36:31
3	Se 196.026†	-26.9	-27.1	[0.00]	ug/L	11:36:31
3	Si 251.611†	592.3	597.7	[0.00]	ug/L	11:36:31
3	Sn 189.927†	9.0	9.1	[0.00]	ug/L	11:36:31
3	Sr 421.552†	-0.6	-0.7	[0.00]	ug/L	11:34:53
3	Ti 334.940†	-1231.1	-1242.1	[0.00]	ug/L	11:36:11
3	Tl 190.801†	-40.2	-40.5	[0.00]	ug/L	11:36:31
3	U 409.014†	-2538.6	-2561.4	[0.00]	ug/L	11:36:11
3	V 292.402†	-1641.2	-1655.9	[0.00]	ug/L	11:36:11
3	Zn 213.857†	705.7	712.1	[0.00]	ug/L	11:36:31
3	SiO2†	577.5	582.7	[0.00]	ug/L	11:36:46

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	767938.9	5944.49	0.77%	100.00	%
Sc Radial	4706.6	65.13	1.38%	100	%
Y 371.029	689034.7	5092.47	0.74%	100.000	%
Y RADIAL	4985.4	87.80	1.76%	100.0	%
Ag 328.068†	255.7	15.78	6.17%	[0.00]	ug/L
Al 396.153Radial†	-87.1	5.59	6.42%	[0.00]	ug/L
As 188.979†	-25.0	2.87	11.48%	[0.00]	ug/L
B 249.677†	-453.4	7.84	1.73%	[0.00]	ug/L
Ba 233.527†	2.4	12.08	503.84%	[0.00]	ug/L
Be 313.107†	-8982.7	45.41	0.51%	[0.00]	ug/L
Ca 317.933Radial†	22.2	3.54	15.98%	[0.00]	ug/L
Cd 226.502†	-186.6	7.06	3.78%	[0.00]	ug/L
Co 228.616†	-57.5	12.42	21.61%	[0.00]	ug/L
Cr 267.716†	75.6	0.58	0.77%	[0.00]	ug/L
Cu 324.752†	7536.1	104.01	1.38%	[0.00]	ug/L
Fe 238.204 Radial†	7.3	1.46	19.98%	[0.00]	ug/L
K 766.490 Radial†	2261.6	93.32	4.13%	[0.00]	ug/L
Mg 279.077 IEC†	2.9	0.58	19.93%	[0.00]	ug/L
Mn 257.610†	461.1	8.91	1.93%	[0.00]	ug/L
Mo 202.031†	14.4	2.02	14.03%	[0.00]	ug/L
Na 589.592 Radial†	-847.8	13.58	1.60%	[0.00]	ug/L
Ni 231.604†	101.3	8.11	8.00%	[0.00]	ug/L
P 214.914†	195.4	8.75	4.48%	[0.00]	ug/L
Pb 220.353†	-70.7	9.15	12.94%	[0.00]	ug/L
S 181.975 Axial†	42.5	4.49	10.57%	[0.00]	ug/L
Sb 206.836†	30.0	11.49	38.28%	[0.00]	ug/L
Se 196.026†	-19.8	7.60	38.38%	[0.00]	ug/L
Si 251.611†	589.2	16.10	2.73%	[0.00]	ug/L
Sn 189.927†	8.1	1.02	12.57%	[0.00]	ug/L
Sr 421.552†	-0.5	7.54	>999.9%	[0.00]	ug/L
Ti 334.940†	-1301.0	71.15	5.47%	[0.00]	ug/L
Tl 190.801†	-31.2	9.00	28.84%	[0.00]	ug/L
U 409.014†	-2536.8	39.04	1.54%	[0.00]	ug/L
V 292.402†	-1628.0	38.29	2.35%	[0.00]	ug/L

Zn 213.857†	710.3	2.91	0.41%	[0.00]	ug/L
SiO2†	596.4	13.60	2.28%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/1/2010 11:38:57
Data Type: Reprocessed on 3/1/2010 13:29:22

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	778142.1	778142.1	101.33	%	11:41:22
1	Sc Radial	4713.9	4713.9	100	%	11:40:55
1	Y 371.029	696918.7	696918.7	101.14	%	11:41:22
1	Y RADIAL	4985.6	4985.6	100.0	%	11:40:55
1	Ag 328.068†	19692.1	19178.2	[100]	ug/L	11:41:22
1	As 188.979†	198.5	220.9	[100]	ug/L	11:41:42
1	B 249.677†	3443.4	3851.7	[100]	ug/L	11:41:22
1	Ba 233.527†	8531.0	8416.8	[100]	ug/L	11:41:22
1	Be 313.107†	242750.5	248550.2	[100]	ug/L	11:41:22
1	Cd 226.502†	6779.8	6877.6	[100]	ug/L	11:41:42
1	Co 228.616†	3281.4	3295.8	[100]	ug/L	11:41:42
1	Cr 267.716†	7523.2	7348.9	[100]	ug/L	11:41:22
1	Cu 324.752†	33895.6	25915.0	[100]	ug/L	11:41:22
1	K 766.490 Radial†	7290.4	5017.6	[1000]	ug/L	11:40:50
1	Mn 257.610†	64656.4	63347.5	[100]	ug/L	11:41:22
1	Mo 202.031†	1119.9	1090.8	[100]	ug/L	11:41:42
1	Ni 231.604†	3233.3	3089.5	[100]	ug/L	11:41:42
1	P 214.914†	1086.5	876.8	[500]	ug/L	11:41:42
1	Pb 220.353†	545.6	609.2	[100]	ug/L	11:41:42
1	S 181.975 Axial†	195.3	150.2	[200]	ug/L	11:41:42
1	Sb 206.836†	267.7	234.2	[100]	ug/L	11:41:42
1	Se 196.026†	141.5	159.5	[100]	ug/L	11:41:42
1	Si 251.611†	14319.0	13542.1	[500]	ug/L	11:41:22
1	Sn 189.927†	428.2	414.5	[100]	ug/L	11:41:42
1	Sr 421.552†	13640.7	13620.3	[100]	ug/L	11:40:55
1	Ti 334.940†	49216.9	49872.6	[100]	ug/L	11:41:22
1	Tl 190.801†	183.0	211.9	[100]	ug/L	11:41:42
1	U 409.014†	482.0	3012.5	[100]	ug/L	11:41:22
1	V 292.402†	10893.8	12378.9	[100]	ug/L	11:41:22
1	Zn 213.857†	9808.8	8969.9	[100]	ug/L	11:41:22
1	SiO2†	14406.9	13621.6	[1069.5]	ug/L	11:42:38
2	Sc 361.383	773296.3	773296.3	100.70	%	11:41:47
2	Sc Radial	4723.0	4723.0	100	%	11:41:05
2	Y 371.029	692513.1	692513.1	100.50	%	11:41:47
2	Y RADIAL	4999.7	4999.7	100.3	%	11:41:05
2	Ag 328.068†	19573.1	19181.8	[100]	ug/L	11:41:47
2	As 188.979†	199.3	223.0	[100]	ug/L	11:42:07
2	B 249.677†	3373.9	3804.0	[100]	ug/L	11:41:47
2	Ba 233.527†	8516.8	8455.4	[100]	ug/L	11:41:47
2	Be 313.107†	241861.3	249168.4	[100]	ug/L	11:41:47
2	Cd 226.502†	6779.2	6918.9	[100]	ug/L	11:42:07
2	Co 228.616†	3298.5	3333.1	[100]	ug/L	11:42:07
2	Cr 267.716†	7432.1	7305.0	[100]	ug/L	11:41:47
2	Cu 324.752†	33649.0	25879.8	[100]	ug/L	11:41:47
2	K 766.490 Radial†	7257.0	4970.2	[1000]	ug/L	11:41:00
2	Mn 257.610†	64411.1	63503.7	[100]	ug/L	11:41:47
2	Mo 202.031†	1106.3	1084.2	[100]	ug/L	11:42:07
2	Ni 231.604†	3232.0	3108.3	[100]	ug/L	11:42:07
2	P 214.914†	1089.5	886.6	[500]	ug/L	11:42:07
2	Pb 220.353†	553.9	620.8	[100]	ug/L	11:42:07
2	S 181.975 Axial†	199.4	155.5	[200]	ug/L	11:42:07
2	Sb 206.836†	273.7	241.8	[100]	ug/L	11:42:07
2	Se 196.026†	140.9	159.7	[100]	ug/L	11:42:07
2	Si 251.611†	14283.1	13594.9	[500]	ug/L	11:41:47
2	Sn 189.927†	424.2	413.2	[100]	ug/L	11:42:07
2	Sr 421.552†	13667.2	13620.3	[100]	ug/L	11:41:05
2	Ti 334.940†	48811.0	49773.9	[100]	ug/L	11:41:47
2	Tl 190.801†	184.2	214.1	[100]	ug/L	11:42:07

2	U 409.014†	517.4	3050.7	[100]	ug/L	11:41:47
2	V 292.402†	10815.8	12368.9	[100]	ug/L	11:41:47
2	Zn 213.857†	9815.8	9037.5	[100]	ug/L	11:41:47
2	SiO2†	14287.5	13592.1	[1069.5]	ug/L	11:42:43
3	Sc 361.383	771392.6	771392.6	100.45	%	11:42:13
3	Sc Radial	4684.6	4684.6	99.5	%	11:41:15
3	Y 371.029	689472.4	689472.4	100.06	%	11:42:13
3	Y RADIAL	4931.4	4931.4	98.92	%	11:41:15
3	Ag 328.068†	19554.4	19211.2	[100]	ug/L	11:42:13
3	As 188.979†	195.4	219.5	[100]	ug/L	11:42:33
3	B 249.677†	3421.3	3859.4	[100]	ug/L	11:42:13
3	Ba 233.527†	8545.6	8504.9	[100]	ug/L	11:42:13
3	Be 313.107†	240812.5	248717.0	[100]	ug/L	11:42:13
3	Cd 226.502†	6764.8	6921.1	[100]	ug/L	11:42:33
3	Co 228.616†	3279.8	3322.6	[100]	ug/L	11:42:33
3	Cr 267.716†	7461.9	7352.9	[100]	ug/L	11:42:13
3	Cu 324.752†	33538.9	25852.6	[100]	ug/L	11:42:13
3	K 766.490 Radial†	7330.3	5103.1	[1000]	ug/L	11:41:10
3	Mn 257.610†	64366.7	63617.4	[100]	ug/L	11:42:13
3	Mo 202.031†	1090.9	1071.7	[100]	ug/L	11:42:33
3	Ni 231.604†	3225.7	3110.0	[100]	ug/L	11:42:33
3	P 214.914†	1080.6	880.3	[500]	ug/L	11:42:33
3	Pb 220.353†	551.5	619.7	[100]	ug/L	11:42:33
3	S 181.975 Axial†	199.5	156.1	[200]	ug/L	11:42:33
3	Sb 206.836†	271.9	240.7	[100]	ug/L	11:42:33
3	Se 196.026†	144.0	163.2	[100]	ug/L	11:42:33
3	Si 251.611†	14287.1	13633.9	[500]	ug/L	11:42:13
3	Sn 189.927†	429.0	419.0	[100]	ug/L	11:42:33
3	Sr 421.552†	13646.5	13711.1	[100]	ug/L	11:41:15
3	Ti 334.940†	48626.0	49709.3	[100]	ug/L	11:42:13
3	Tl 190.801†	186.0	216.4	[100]	ug/L	11:42:33
3	U 409.014†	412.8	2947.7	[100]	ug/L	11:42:13
3	V 292.402†	10813.4	12393.0	[100]	ug/L	11:42:13
3	Zn 213.857†	9811.2	9057.0	[100]	ug/L	11:42:13
3	SiO2†	14311.4	13650.9	[1069.5]	ug/L	11:42:48

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	774277.0	3480.00	0.45%	100.83	%
Sc Radial	4707.2	20.05	0.43%	100	%
Y 371.029	692968.1	3743.96	0.54%	100.57	%
Y RADIAL	4972.2	36.05	0.73%	99.73	%
Ag 328.068†	19190.4	18.08	0.09%	[100]	ug/L
As 188.979†	221.1	1.73	0.78%	[100]	ug/L
B 249.677†	3838.4	30.02	0.78%	[100]	ug/L
Ba 233.527†	8459.0	44.17	0.52%	[100]	ug/L
Be 313.107†	248811.8	319.84	0.13%	[100]	ug/L
Cd 226.502†	6905.9	24.53	0.36%	[100]	ug/L
Co 228.616†	3317.2	19.19	0.58%	[100]	ug/L
Cr 267.716†	7335.6	26.60	0.36%	[100]	ug/L
Cu 324.752†	25882.5	31.29	0.12%	[100]	ug/L
K 766.490 Radial†	5030.3	67.36	1.34%	[1000]	ug/L
Mn 257.610†	63489.5	135.52	0.21%	[100]	ug/L
Mo 202.031†	1082.2	9.73	0.90%	[100]	ug/L
Ni 231.604†	3102.6	11.33	0.37%	[100]	ug/L
P 214.914†	881.3	4.93	0.56%	[500]	ug/L
Pb 220.353†	616.5	6.42	1.04%	[100]	ug/L
S 181.975 Axial†	153.9	3.27	2.12%	[200]	ug/L
Sb 206.836†	238.9	4.10	1.72%	[100]	ug/L
Se 196.026†	160.8	2.06	1.28%	[100]	ug/L
Si 251.611†	13590.3	46.10	0.34%	[500]	ug/L
Sn 189.927†	415.6	3.08	0.74%	[100]	ug/L
Sr 421.552†	13650.5	52.40	0.38%	[100]	ug/L
Ti 334.940†	49785.3	82.23	0.17%	[100]	ug/L
Tl 190.801†	214.1	2.28	1.07%	[100]	ug/L
U 409.014†	3003.6	52.03	1.73%	[100]	ug/L
V 292.402†	12380.3	12.11	0.10%	[100]	ug/L
Zn 213.857†	9021.5	45.70	0.51%	[100]	ug/L
SiO2†	13621.5	29.42	0.22%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/1/2010 11:44:59
Data Type: Reprocessed on 3/1/2010 13:29:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	790109.5	790109.5	102.89	%	11:48:08
1	Sc Radial	4632.9	4632.9	98.4	%	11:46:51
1	Y 371.029	699903.0	699903.0	101.58	%	11:48:08
1	Y RADIAL	4914.6	4914.6	98.58	%	11:46:51
1	Ag 328.068†	97511.0	94519.2	[500]	ug/L	11:48:14
1	Al 396.153Radial†	5188.1	5357.8	[5000]	ug/L	11:46:51
1	As 188.979†	1107.8	1101.7	[500]	ug/L	11:48:34
1	B 249.677†	19417.9	19326.4	[500]	ug/L	11:48:14
1	Ba 233.527†	42572.9	41375.9	[500]	ug/L	11:48:14
1	Be 313.107†	1263820.9	1237340.6	[500]	ug/L	11:48:08
1	Ca 317.933Radial†	2804.8	2827.2	[5000]	ug/L	11:47:11
1	Cd 226.502†	35370.6	34564.8	[500]	ug/L	11:48:14
1	Co 228.616†	16446.3	16042.3	[500]	ug/L	11:48:34
1	Cr 267.716†	36946.9	35834.6	[500]	ug/L	11:48:14
1	Cu 324.752†	140635.4	129153.0	[500]	ug/L	11:48:14
1	K 766.490 Radial†	27232.8	25404.3	[5000]	ug/L	11:46:51
1	Mg 279.077 IEC†	133.4	132.6	[5000]	ug/L	11:47:11
1	Mn 257.610†	314138.7	304862.8	[500]	ug/L	11:48:14
1	Mo 202.031†	5445.4	5278.2	[500]	ug/L	11:48:34
1	Ni 231.604†	16123.9	15570.2	[500]	ug/L	11:48:14
1	P 214.914†	4676.0	4349.4	[2500]	ug/L	11:48:34
1	Pb 220.353†	3034.6	3020.1	[500]	ug/L	11:48:34
1	S 181.975 Axial†	813.3	748.0	[1000]	ug/L	11:48:34
1	Sb 206.836†	1254.5	1189.3	[500]	ug/L	11:48:34
1	Se 196.026†	800.3	797.7	[500]	ug/L	11:48:34
1	Si 251.611†	68794.6	66275.0	[2500]	ug/L	11:48:14
1	Sn 189.927†	2106.7	2039.5	[500]	ug/L	11:48:34
1	Sr 421.552†	68297.0	69383.9	[500]	ug/L	11:46:51
1	Ti 334.940†	246507.0	240891.1	[500]	ug/L	11:48:14
1	Tl 190.801†	1050.3	1052.0	[500]	ug/L	11:48:34
1	U 409.014†	12315.1	14506.4	[500]	ug/L	11:48:14
1	V 292.402†	61427.8	61332.1	[500]	ug/L	11:48:14
1	Zn 213.857†	46350.5	44339.6	[500]	ug/L	11:48:14
1	SiO2†	68687.1	66163.3	[5347.5]	ug/L	11:49:41
2	Sc 361.383	790740.8	790740.8	102.97	%	11:48:39
2	Sc Radial	4662.2	4662.2	99.1	%	11:47:16
2	Y 371.029	699967.4	699967.4	101.59	%	11:48:39
2	Y RADIAL	4898.5	4898.5	98.26	%	11:47:16
2	Ag 328.068†	98433.1	95339.0	[500]	ug/L	11:48:44
2	Al 396.153Radial†	5177.9	5314.4	[5000]	ug/L	11:47:16
2	As 188.979†	1104.4	1097.5	[500]	ug/L	11:49:04
2	B 249.677†	19693.8	19579.4	[500]	ug/L	11:48:44
2	Ba 233.527†	43001.0	41758.6	[500]	ug/L	11:48:44
2	Be 313.107†	1263373.0	1235924.9	[500]	ug/L	11:48:39
2	Ca 317.933Radial†	2802.7	2807.2	[5000]	ug/L	11:47:36
2	Cd 226.502†	35805.4	34959.5	[500]	ug/L	11:48:44
2	Co 228.616†	16656.2	16233.3	[500]	ug/L	11:49:04
2	Cr 267.716†	37284.3	36133.5	[500]	ug/L	11:48:44
2	Cu 324.752†	142165.2	130529.6	[500]	ug/L	11:48:44
2	K 766.490 Radial†	27213.5	25211.5	[5000]	ug/L	11:47:16
2	Mg 279.077 IEC†	131.8	130.2	[5000]	ug/L	11:47:36
2	Mn 257.610†	317713.4	308090.7	[500]	ug/L	11:48:44
2	Mo 202.031†	5517.3	5343.8	[500]	ug/L	11:49:04
2	Ni 231.604†	16230.5	15661.1	[500]	ug/L	11:48:44
2	P 214.914†	4727.1	4395.4	[2500]	ug/L	11:49:04
2	Pb 220.353†	3079.3	3061.2	[500]	ug/L	11:49:04
2	S 181.975 Axial†	823.9	757.7	[1000]	ug/L	11:49:04
2	Sb 206.836†	1291.3	1224.0	[500]	ug/L	11:49:04

2	Se 196.026†	808.8	805.2	[500]	ug/L	11:49:04
2	Si 251.611†	69551.7	66956.9	[2500]	ug/L	11:48:44
2	Sn 189.927†	2136.7	2067.0	[500]	ug/L	11:49:04
2	Sr 421.552†	68378.5	69031.3	[500]	ug/L	11:47:16
2	Ti 334.940†	248868.0	242992.6	[500]	ug/L	11:48:44
2	Tl 190.801†	1071.9	1072.2	[500]	ug/L	11:49:04
2	U 409.014†	12438.0	14616.1	[500]	ug/L	11:48:44
2	V 292.402†	62019.9	61859.5	[500]	ug/L	11:48:44
2	Zn 213.857†	46860.7	44799.2	[500]	ug/L	11:48:44
2	SiO2†	68889.7	66306.7	[5347.5]	ug/L	11:49:46
3	Sc 361.383	782342.0	782342.0	101.88	%	11:49:10
3	Sc Radial	4768.5	4768.5	101	%	11:47:41
3	Y 371.029	693075.9	693075.9	100.59	%	11:49:10
3	Y RADIAL	5014.8	5014.8	100.6	%	11:47:41
3	Ag 328.068†	98042.5	95981.8	[500]	ug/L	11:49:15
3	Al 396.153Radial†	5274.4	5293.1	[5000]	ug/L	11:47:41
3	As 188.979†	1097.5	1102.3	[500]	ug/L	11:49:35
3	B 249.677†	19586.2	19679.1	[500]	ug/L	11:49:15
3	Ba 233.527†	42805.1	42014.7	[500]	ug/L	11:49:15
3	Be 313.107†	1250417.1	1236379.4	[500]	ug/L	11:49:10
3	Ca 317.933Radial†	2810.5	2751.9	[5000]	ug/L	11:48:01
3	Cd 226.502†	35501.0	35034.0	[500]	ug/L	11:49:15
3	Co 228.616†	16417.7	16172.9	[500]	ug/L	11:49:35
3	Cr 267.716†	37022.2	36265.0	[500]	ug/L	11:49:15
3	Cu 324.752†	141604.8	131461.7	[500]	ug/L	11:49:15
3	K 766.490 Radial†	27791.7	25169.7	[5000]	ug/L	11:47:41
3	Mg 279.077 IEC†	137.0	132.3	[5000]	ug/L	11:48:01
3	Mn 257.610†	315616.6	309344.9	[500]	ug/L	11:49:15
3	Mo 202.031†	5467.8	5352.7	[500]	ug/L	11:49:35
3	Ni 231.604†	16114.0	15716.0	[500]	ug/L	11:49:15
3	P 214.914†	4674.3	4392.9	[2500]	ug/L	11:49:35
3	Pb 220.353†	3023.0	3038.0	[500]	ug/L	11:49:35
3	S 181.975 Axial†	817.5	759.9	[1000]	ug/L	11:49:35
3	Sb 206.836†	1247.7	1194.7	[500]	ug/L	11:49:35
3	Se 196.026†	797.5	802.6	[500]	ug/L	11:49:35
3	Si 251.611†	69130.1	67268.1	[2500]	ug/L	11:49:15
3	Sn 189.927†	2096.6	2049.9	[500]	ug/L	11:49:35
3	Sr 421.552†	70108.2	69199.4	[500]	ug/L	11:47:41
3	Ti 334.940†	247878.1	244615.7	[500]	ug/L	11:49:15
3	Tl 190.801†	1067.6	1079.2	[500]	ug/L	11:49:35
3	U 409.014†	12484.0	14791.0	[500]	ug/L	11:49:15
3	V 292.402†	61750.0	62241.1	[500]	ug/L	11:49:15
3	Zn 213.857†	46561.7	44994.2	[500]	ug/L	11:49:15
3	SiO2†	68604.0	66744.6	[5347.5]	ug/L	11:49:51

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	787730.8	4677.50	0.59%	102.58	%
Sc Radial	4687.9	71.33	1.52%	99.6	%
Y 371.029	697648.8	3960.38	0.57%	101.25	%
Y RADIAL	4942.6	63.03	1.28%	99.14	%
Ag 328.068†	95280.0	733.09	0.77%	[500]	ug/L
Al 396.153Radial†	5321.7	32.96	0.62%	[5000]	ug/L
As 188.979†	1100.5	2.60	0.24%	[500]	ug/L
B 249.677†	19528.3	181.79	0.93%	[500]	ug/L
Ba 233.527†	41716.4	321.48	0.77%	[500]	ug/L
Be 313.107†	1236548.3	722.81	0.06%	[500]	ug/L
Ca 317.933Radial†	2795.5	39.05	1.40%	[5000]	ug/L
Cd 226.502†	34852.8	252.19	0.72%	[500]	ug/L
Co 228.616†	16149.5	97.65	0.60%	[500]	ug/L
Cr 267.716†	36077.7	220.58	0.61%	[500]	ug/L
Cu 324.752†	130381.4	1161.43	0.89%	[500]	ug/L
K 766.490 Radial†	25261.8	125.16	0.50%	[5000]	ug/L
Mg 279.077 IEC†	131.7	1.32	1.00%	[5000]	ug/L
Mn 257.610†	307432.8	2312.33	0.75%	[500]	ug/L
Mo 202.031†	5324.9	40.70	0.76%	[500]	ug/L
Ni 231.604†	15649.1	73.67	0.47%	[500]	ug/L
P 214.914†	4379.2	25.87	0.59%	[2500]	ug/L
Pb 220.353†	3039.8	20.61	0.68%	[500]	ug/L

S 181.975 Axial†	755.2	6.34	0.84%	[1000]	ug/L
Sb 206.836†	1202.7	18.67	1.55%	[500]	ug/L
Se 196.026†	801.8	3.85	0.48%	[500]	ug/L
Si 251.611†	66833.4	507.96	0.76%	[2500]	ug/L
Sn 189.927†	2052.1	13.87	0.68%	[500]	ug/L
Sr 421.552†	69204.9	176.36	0.25%	[500]	ug/L
Ti 334.940†	242833.1	1867.41	0.77%	[500]	ug/L
Tl 190.801†	1067.8	14.10	1.32%	[500]	ug/L
U 409.014†	14637.8	143.55	0.98%	[500]	ug/L
V 292.402†	61810.9	456.44	0.74%	[500]	ug/L
Zn 213.857†	44711.0	336.06	0.75%	[500]	ug/L
SiO2†	66404.9	302.81	0.46%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/1/2010 11:52:01
Data Type: Reprocessed on 3/1/2010 13:29:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	764373.9	764373.9	99.536	%	11:55:17
1	Sc Radial	4594.5	4594.5	97.6	%	11:53:54
1	Y 371.029	678498.0	678498.0	98.471	%	11:55:17
1	Y RADIAL	4835.7	4835.7	97.00	%	11:53:54
1	Ag 328.068†	194905.6	195558.9	[1000]	ug/L	11:55:17
1	Al 396.153Radial†	10324.1	10663.1	[10000]	ug/L	11:53:54
1	As 188.979†	2217.4	2252.8	[1000]	ug/L	11:55:37
1	B 249.677†	39539.4	40177.2	[1000]	ug/L	11:55:17
1	Ba 233.527†	84709.4	85102.0	[1000]	ug/L	11:55:17
1	Be 313.107†	2496774.2	2517401.8	[1000]	ug/L	11:55:11
1	Ca 317.933Radial†	5522.2	5634.7	[10000]	ug/L	11:53:54
1	Cd 226.502†	70329.3	70844.0	[1000]	ug/L	11:55:17
1	Co 228.616†	33153.7	33365.8	[1000]	ug/L	11:55:37
1	Cr 267.716†	73226.0	73491.9	[1000]	ug/L	11:55:17
1	Cu 324.752†	275147.3	268894.4	[1000]	ug/L	11:55:17
1	Fe 238.204 Radial†	977.3	993.9	[10000]	ug/L	11:54:14
1	K 766.490 Radial†	51251.7	50240.4	[10000]	ug/L	11:53:54
1	Mg 279.077 IEC†	255.7	259.1	[10000]	ug/L	11:54:14
1	Mn 257.610†	625097.1	627551.4	[1000]	ug/L	11:55:17
1	Mo 202.031†	10936.9	10973.5	[1000]	ug/L	11:55:37
1	Na 589.592 Radial†	27964.2	29494.3	[10000]	ug/L	11:53:54
1	Ni 231.604†	31284.4	31329.0	[1000]	ug/L	11:55:37
1	P 214.914†	9171.0	9018.4	[5000]	ug/L	11:55:37
1	Pb 220.353†	6157.2	6256.6	[1000]	ug/L	11:55:37
1	S 181.975 Axial†	1587.3	1552.2	[2000]	ug/L	11:55:37
1	Sb 206.836†	2501.1	2482.7	[1000]	ug/L	11:55:37
1	Se 196.026†	1617.2	1644.6	[1000]	ug/L	11:55:37
1	Si 251.611†	137914.9	137968.9	[5000]	ug/L	11:55:17
1	Sn 189.927†	4281.5	4293.4	[1000]	ug/L	11:55:37
1	Sr 421.552†	134424.0	137703.9	[1000]	ug/L	11:53:54
1	Ti 334.940†	495663.3	499276.1	[1000]	ug/L	11:55:17
1	Tl 190.801†	2150.4	2191.7	[1000]	ug/L	11:55:37
1	U 409.014†	27272.9	29936.9	[1000]	ug/L	11:55:17
1	V 292.402†	124028.5	126234.9	[1000]	ug/L	11:55:17
1	Zn 213.857†	91300.7	91016.3	[1000]	ug/L	11:55:17
1	SiO2†	137615.6	137661.0	[10695]	ug/L	11:56:45
2	Sc 361.383	760055.8	760055.8	98.973	%	11:55:48
2	Sc Radial	4648.4	4648.4	98.8	%	11:54:19
2	Y 371.029	673845.2	673845.2	97.796	%	11:55:48
2	Y RADIAL	4896.3	4896.3	98.21	%	11:54:19
2	Ag 328.068†	193600.0	195352.3	[1000]	ug/L	11:55:48
2	Al 396.153Radial†	10430.5	10648.3	[10000]	ug/L	11:54:19
2	As 188.979†	2224.8	2272.9	[1000]	ug/L	11:56:08
2	B 249.677†	39308.2	40169.3	[1000]	ug/L	11:55:48
2	Ba 233.527†	84410.6	85283.7	[1000]	ug/L	11:55:48
2	Be 313.107†	2500143.8	2535057.6	[1000]	ug/L	11:55:42
2	Ca 317.933Radial†	5612.1	5660.2	[10000]	ug/L	11:54:19
2	Cd 226.502†	70124.0	71037.9	[1000]	ug/L	11:55:48
2	Co 228.616†	33014.1	33414.0	[1000]	ug/L	11:56:08
2	Cr 267.716†	72996.6	73678.1	[1000]	ug/L	11:55:48
2	Cu 324.752†	272480.3	267770.3	[1000]	ug/L	11:55:48
2	Fe 238.204 Radial†	978.2	983.2	[10000]	ug/L	11:54:39
2	K 766.490 Radial†	51829.1	50216.5	[10000]	ug/L	11:54:19
2	Mg 279.077 IEC†	258.4	258.8	[10000]	ug/L	11:54:39
2	Mn 257.610†	622130.2	628121.7	[1000]	ug/L	11:55:48
2	Mo 202.031†	10909.8	11008.6	[1000]	ug/L	11:56:08
2	Na 589.592 Radial†	28443.5	29647.4	[10000]	ug/L	11:54:19
2	Ni 231.604†	31196.1	31418.4	[1000]	ug/L	11:56:08

2	P 214.914†	9144.6	9044.1	[5000]	ug/L	11:56:08
2	Pb 220.353†	6123.9	6258.1	[1000]	ug/L	11:56:08
2	S 181.975 Axial†	1578.8	1552.6	[2000]	ug/L	11:56:08
2	Sb 206.836†	2495.6	2491.5	[1000]	ug/L	11:56:08
2	Se 196.026†	1605.7	1642.1	[1000]	ug/L	11:56:08
2	Si 251.611†	137090.1	137922.7	[5000]	ug/L	11:55:48
2	Sn 189.927†	4258.4	4294.5	[1000]	ug/L	11:56:08
2	Sr 421.552†	135779.9	137480.6	[1000]	ug/L	11:54:19
2	Ti 334.940†	492315.4	498722.7	[1000]	ug/L	11:55:48
2	Tl 190.801†	2144.1	2197.5	[1000]	ug/L	11:56:08
2	U 409.014†	27067.1	29884.6	[1000]	ug/L	11:55:48
2	V 292.402†	123262.1	126168.5	[1000]	ug/L	11:55:48
2	Zn 213.857†	90887.3	91119.7	[1000]	ug/L	11:55:48
2	SiO2†	138658.0	139499.7	[10695]	ug/L	11:56:50
3	Sc 361.383	763813.6	763813.6	99.463	%	11:56:19
3	Sc Radial	4595.7	4595.7	97.6	%	11:54:44
3	Y 371.029	677242.1	677242.1	98.289	%	11:56:19
3	Y RADIAL	4859.4	4859.4	97.47	%	11:54:44
3	Ag 328.068†	194810.4	195606.9	[1000]	ug/L	11:56:19
3	Al 396.153Radial†	10282.6	10617.8	[10000]	ug/L	11:54:44
3	As 188.979†	2201.3	2238.2	[1000]	ug/L	11:56:39
3	B 249.677†	39491.5	40158.3	[1000]	ug/L	11:56:19
3	Ba 233.527†	84390.4	84843.8	[1000]	ug/L	11:56:19
3	Be 313.107†	2505418.6	2527933.1	[1000]	ug/L	11:56:14
3	Ca 317.933Radial†	5509.7	5620.5	[10000]	ug/L	11:54:44
3	Cd 226.502†	69846.3	70410.2	[1000]	ug/L	11:56:19
3	Co 228.616†	32838.2	33073.1	[1000]	ug/L	11:56:39
3	Cr 267.716†	72876.8	73194.8	[1000]	ug/L	11:56:19
3	Cu 324.752†	275543.0	269495.1	[1000]	ug/L	11:56:19
3	Fe 238.204 Radial†	962.4	978.3	[10000]	ug/L	11:55:04
3	K 766.490 Radial†	51059.4	50029.8	[10000]	ug/L	11:54:44
3	Mg 279.077 IEC†	260.6	264.0	[10000]	ug/L	11:55:04
3	Mn 257.610†	622791.6	625694.1	[1000]	ug/L	11:56:19
3	Mo 202.031†	10850.7	10894.9	[1000]	ug/L	11:56:39
3	Na 589.592 Radial†	27728.1	29245.0	[10000]	ug/L	11:54:44
3	Ni 231.604†	31028.9	31095.2	[1000]	ug/L	11:56:39
3	P 214.914†	9096.7	8950.5	[5000]	ug/L	11:56:39
3	Pb 220.353†	6078.9	6182.4	[1000]	ug/L	11:56:39
3	S 181.975 Axial†	1581.0	1547.1	[2000]	ug/L	11:56:39
3	Sb 206.836†	2484.0	2467.4	[1000]	ug/L	11:56:39
3	Se 196.026†	1605.8	1634.3	[1000]	ug/L	11:56:39
3	Si 251.611†	137568.5	137722.3	[5000]	ug/L	11:56:19
3	Sn 189.927†	4245.6	4260.5	[1000]	ug/L	11:56:39
3	Sr 421.552†	133510.6	136732.7	[1000]	ug/L	11:54:44
3	Ti 334.940†	494757.9	498731.2	[1000]	ug/L	11:56:19
3	Tl 190.801†	2133.6	2176.3	[1000]	ug/L	11:56:39
3	U 409.014†	27519.3	30204.8	[1000]	ug/L	11:56:19
3	V 292.402†	123543.8	125839.0	[1000]	ug/L	11:56:19
3	Zn 213.857†	91057.2	90838.7	[1000]	ug/L	11:56:19
3	SiO2†	137947.6	138096.2	[10695]	ug/L	11:56:55

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	762747.7	2348.09	0.31%	99.324	%
Sc Radial	4612.9	30.77	0.67%	98.0	%
Y 371.029	676528.4	2407.10	0.36%	98.185	%
Y RADIAL	4863.8	30.56	0.63%	97.56	%
Ag 328.068†	195506.1	135.29	0.07%	[1000]	ug/L
Al 396.153Radial†	10643.0	23.08	0.22%	[10000]	ug/L
As 188.979†	2254.6	17.46	0.77%	[1000]	ug/L
B 249.677†	40168.3	9.53	0.02%	[1000]	ug/L
Ba 233.527†	85076.5	221.08	0.26%	[1000]	ug/L
Be 313.107†	2526797.5	8882.47	0.35%	[1000]	ug/L
Ca 317.933Radial†	5638.5	20.11	0.36%	[10000]	ug/L
Cd 226.502†	70764.0	321.42	0.45%	[1000]	ug/L
Co 228.616†	33284.3	184.52	0.55%	[1000]	ug/L
Cr 267.716†	73455.0	243.79	0.33%	[1000]	ug/L
Cu 324.752†	268719.9	875.55	0.33%	[1000]	ug/L
Fe 238.204 Radial†	985.1	7.96	0.81%	[10000]	ug/L

K 766.490 Radial†	50162.2	115.29	0.23%	[10000]	ug/L
Mg 279.077 IEC†	260.6	2.93	1.12%	[10000]	ug/L
Mn 257.610†	627122.4	1269.35	0.20%	[1000]	ug/L
Mo 202.031†	10959.0	58.21	0.53%	[1000]	ug/L
Na 589.592 Radial†	29462.2	203.12	0.69%	[10000]	ug/L
Ni 231.604†	31280.8	166.87	0.53%	[1000]	ug/L
P 214.914†	9004.3	48.36	0.54%	[5000]	ug/L
Pb 220.353†	6232.4	43.27	0.69%	[1000]	ug/L
S 181.975 Axial†	1550.6	3.08	0.20%	[2000]	ug/L
Sb 206.836†	2480.5	12.19	0.49%	[1000]	ug/L
Se 196.026†	1640.3	5.41	0.33%	[1000]	ug/L
Si 251.611†	137871.3	131.08	0.10%	[5000]	ug/L
Sn 189.927†	4282.8	19.32	0.45%	[1000]	ug/L
Sr 421.552†	137305.7	508.66	0.37%	[1000]	ug/L
Ti 334.940†	498910.0	317.08	0.06%	[1000]	ug/L
Tl 190.801†	2188.5	10.94	0.50%	[1000]	ug/L
U 409.014†	30008.8	171.74	0.57%	[1000]	ug/L
V 292.402†	126080.8	212.01	0.17%	[1000]	ug/L
Zn 213.857†	90991.6	142.12	0.16%	[1000]	ug/L
SiO2†	138419.0	960.93	0.69%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/1/2010 11:59:07
Data Type: Reprocessed on 3/1/2010 13:29:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	770445.5	770445.5	100.33	%	12:02:17
1	Sc Radial	4543.4	4543.4	96.5	%	12:01:20
1	Y 371.029	678491.0	678491.0	98.470	%	12:02:17
1	Y RADIAL	4785.7	4785.7	95.99	%	12:01:20
1	Al 396.153Radial†	51636.6	53578.6	[50000]	ug/L	12:01:00
1	Ca 317.933Radial†	26617.7	27551.7	[50000]	ug/L	12:01:00
1	Fe 238.204 Radial†	1858.9	1918.3	[20000]	ug/L	12:01:20
1	Mg 279.077 IEC†	1216.6	1257.4	[50000]	ug/L	12:01:20
1	Na 589.592 Radial†	56343.4	59215.1	[20000]	ug/L	12:01:00
2	Sc 361.383	765160.6	765160.6	99.638	%	12:02:23
2	Sc Radial	4573.4	4573.4	97.2	%	12:01:45
2	Y 371.029	673725.2	673725.2	97.778	%	12:02:23
2	Y RADIAL	4797.4	4797.4	96.23	%	12:01:45
2	Al 396.153Radial†	51907.2	53506.7	[50000]	ug/L	12:01:25
2	Ca 317.933Radial†	26783.4	27541.7	[50000]	ug/L	12:01:25
2	Fe 238.204 Radial†	1867.4	1914.5	[20000]	ug/L	12:01:45
2	Mg 279.077 IEC†	1226.8	1259.6	[50000]	ug/L	12:01:45
2	Na 589.592 Radial†	56031.4	58511.8	[20000]	ug/L	12:01:25
3	Sc 361.383	768716.6	768716.6	100.10	%	12:02:28
3	Sc Radial	4539.8	4539.8	96.5	%	12:02:10
3	Y 371.029	676808.4	676808.4	98.226	%	12:02:28
3	Y RADIAL	4768.2	4768.2	95.64	%	12:02:10
3	Al 396.153Radial†	51332.8	53306.6	[50000]	ug/L	12:01:50
3	Ca 317.933Radial†	26420.1	27369.0	[50000]	ug/L	12:01:50
3	Fe 238.204 Radial†	1857.5	1918.5	[20000]	ug/L	12:02:10
3	Mg 279.077 IEC†	1212.2	1253.9	[50000]	ug/L	12:02:10
3	Na 589.592 Radial†	55271.5	58150.7	[20000]	ug/L	12:01:50

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	768107.6	2694.59	0.35%	100.02	%
Sc Radial	4552.2	18.44	0.41%	96.7	%
Y 371.029	676341.5	2416.96	0.36%	98.158	%
Y RADIAL	4783.8	14.71	0.31%	95.96	%
Al 396.153Radial†	53464.0	140.93	0.26%	[50000]	ug/L
Ca 317.933Radial†	27487.5	102.68	0.37%	[50000]	ug/L
Fe 238.204 Radial†	1917.1	2.27	0.12%	[20000]	ug/L
Mg 279.077 IEC†	1257.0	2.91	0.23%	[50000]	ug/L
Na 589.592 Radial†	58625.9	541.29	0.92%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	194.5	0.00000	0.999948	
Al 396.153Radial	3	Lin Thru 0	0.0	1.069	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.244	0.00000	0.999954	
B 249.677	3	Lin Thru 0	0.0	39.93	0.00000	0.999932	
Ba 233.527	3	Lin Thru 0	0.0	84.75	0.00000	0.999970	
Be 313.107	3	Lin Thru 0	0.0	2516	0.00000	0.999963	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5504	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	70.54	0.00000	0.999980	
Co 228.616	3	Lin Thru 0	0.0	33.09	0.00000	0.999930	
Cr 267.716	3	Lin Thru 0	0.0	73.20	0.00000	0.999975	
Cu 324.752	3	Lin Thru 0	0.0	267.1	0.00000	0.999926	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0964	0.00000	0.999939	

K 766.490 Radial	3	Lin Thru 0	0.0	5.024	0.00000	0.999996
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0252	0.00000	0.999965
Mn 257.610	3	Lin Thru 0	0.0	624.8	0.00000	0.999968
Mo 202.031	3	Lin Thru 0	0.0	10.90	0.00000	0.999936
Na 589.592 Radia	2	Lin Thru 0	0.0	2.934	0.00000	0.999998
Ni 231.604	3	Lin Thru 0	0.0	31.28	0.00000	1.000000
P 214.914	3	Lin Thru 0	0.0	1.791	0.00000	0.999939
Pb 220.353	3	Lin Thru 0	0.0	6.202	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.7713	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	2.465	0.00000	0.999922
Se 196.026	3	Lin Thru 0	0.0	1.633	0.00000	0.999959
Si 251.611	3	Lin Thru 0	0.0	27.40	0.00000	0.999925
Sn 189.927	3	Lin Thru 0	0.0	4.246	0.00000	0.999858
Sr 421.552	3	Lin Thru 0	0.0	137.5	0.00000	0.999995
Ti 334.940	3	Lin Thru 0	0.0	496.3	0.00000	0.999943
Tl 190.801	3	Lin Thru 0	0.0	2.178	0.00000	0.999952
U 409.014	3	Lin Thru 0	0.0	29.86	0.00000	0.999952
V 292.402	3	Lin Thru 0	0.0	125.6	0.00000	0.999969
Zn 213.857	3	Lin Thru 0	0.0	90.67	0.00000	0.999976
SiO2	3	Lin Thru 0	0.0	12.84	0.00000	0.999867

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/1/2010 12:04:40
Data Type: Reprocessed on 3/1/2010 13:29:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	784981.8	784981.8	102.22	%			12:07:50
1	Sc Radial	4649.6	4649.6	98.8	%			12:06:32
1	Y 371.029	695335.6	695335.6	100.91	%			12:07:50
1	Y RADIAL	4903.6	4903.6	98.36	%			12:06:32
1	Ag 328.068†	51531.9	50157.4	261.07	ug/L	261.07	ppb	12:07:50
1	Al 396.153Radial†	5284.2	5436.1	5059.3	ug/L	5059.3	ppb	12:06:32
1	As 188.979†	1048.7	1050.9	472.71	ug/L	472.71	ppb	12:08:10
1	B 249.677†	20755.0	20757.8	517.52	ug/L	517.52	ppb	12:07:50
1	Ba 233.527†	43949.7	42993.1	508.60	ug/L	508.60	ppb	12:07:50
1	Be 313.107†	657976.6	652673.8	260.57	ug/L	260.57	ppb	12:07:50
1	Ca 317.933Radial†	2793.0	2805.0	5096.6	ug/L	5096.6	ppb	12:06:53
1	Cd 226.502†	34855.5	34285.3	485.92	ug/L	485.92	ppb	12:08:10
1	Co 228.616†	17128.9	16814.4	508.31	ug/L	508.31	ppb	12:08:10
1	Cr 267.716†	36537.1	35668.2	487.92	ug/L	487.92	ppb	12:07:50
1	Cu 324.752†	145500.6	134805.5	504.77	ug/L	504.77	ppb	12:07:50
1	Fe 238.204 Radial†	499.2	498.0	5182.3	ug/L	5182.3	ppb	12:06:53
1	K 766.490 Radial†	14710.2	12628.9	2510.5	ug/L	2510.5	ppb	12:06:32
1	Mg 279.077 IEC†	136.4	135.2	5368.3	ug/L	5368.3	ppb	12:06:53
1	Mn 257.610†	334228.8	326511.2	522.92	ug/L	522.92	ppb	12:07:50
1	Mo 202.031†	5924.1	5781.1	531.01	ug/L	531.01	ppb	12:08:10
1	Na 589.592 Radial†	6277.5	7202.2	2454.5	ug/L	2454.5	ppb	12:06:32
1	Ni 231.604†	16276.4	15821.7	505.47	ug/L	505.47	ppb	12:08:10
1	P 214.914†	4739.1	4440.9	2381.7	ug/L	2381.7	ppb	12:08:10
1	Pb 220.353†	3062.8	3067.0	496.47	ug/L	496.47	ppb	12:08:10
1	S 181.975 Axial†	1984.6	1899.0	2461.2	ug/L	2461.2	ppb	12:08:10
1	Sb 206.836†	1283.6	1225.7	516.38	ug/L	516.38	ppb	12:08:10
1	Se 196.026†	4171.1	4100.4	2524.9	ug/L	2524.9	ppb	12:08:10
1	Si 251.611†	136009.9	132467.8	4827.3	ug/L	4827.3	ppb	12:07:50
1	Sn 189.927†	2314.6	2256.3	531.96	ug/L	531.96	ppb	12:08:10
1	Sr 421.552†	71138.6	72011.1	523.61	ug/L	523.61	ppb	12:06:32
1	Ti 334.940†	254476.2	250252.3	504.12	ug/L	504.12	ppb	12:07:50
1	Tl 190.801†	1131.0	1137.7	525.94	ug/L	525.94	ppb	12:08:10
1	U 409.014†	12389.3	14657.1	489.12	ug/L	489.12	ppb	12:07:50
1	V 292.402†	64046.6	64284.1	518.99	ug/L	518.99	ppb	12:07:50
1	Zn 213.857†	48398.4	46637.4	509.66	ug/L	509.66	ppb	12:07:50
1	SiO2†	137020.9	133449.6	10381	ug/L	10381	ppb	12:09:08
2	Sc 361.383	788850.1	788850.1	102.72	%			12:08:16
2	Sc Radial	4754.2	4754.2	101	%			12:06:58
2	Y 371.029	700164.8	700164.8	101.62	%			12:08:16
2	Y RADIAL	5055.9	5055.9	101.4	%			12:06:58
2	Ag 328.068†	51408.5	49790.1	259.14	ug/L	259.14	ppb	12:08:16
2	Al 396.153Radial†	5402.3	5435.4	5058.7	ug/L	5058.7	ppb	12:06:58
2	As 188.979†	1048.2	1045.4	470.18	ug/L	470.18	ppb	12:08:36
2	B 249.677†	20691.6	20596.5	513.50	ug/L	513.50	ppb	12:08:16
2	Ba 233.527†	43858.5	42693.5	505.05	ug/L	505.05	ppb	12:08:16
2	Be 313.107†	658498.4	650025.4	259.51	ug/L	259.51	ppb	12:08:16
2	Ca 317.933Radial†	2784.9	2734.9	4969.1	ug/L	4969.1	ppb	12:07:18
2	Cd 226.502†	34942.2	34202.6	484.76	ug/L	484.76	ppb	12:08:36
2	Co 228.616†	17162.6	16765.1	506.82	ug/L	506.82	ppb	12:08:36
2	Cr 267.716†	36417.9	35376.9	483.94	ug/L	483.94	ppb	12:08:16
2	Cu 324.752†	145750.1	134350.3	503.06	ug/L	503.06	ppb	12:08:16
2	Fe 238.204 Radial†	498.7	486.4	5061.0	ug/L	5061.0	ppb	12:07:18
2	K 766.490 Radial†	15123.7	12710.8	2526.8	ug/L	2526.8	ppb	12:06:58
2	Mg 279.077 IEC†	136.6	132.4	5255.8	ug/L	5255.8	ppb	12:07:18
2	Mn 257.610†	333515.9	324213.8	519.23	ug/L	519.23	ppb	12:08:16
2	Mo 202.031†	5951.1	5779.0	530.80	ug/L	530.80	ppb	12:08:36
2	Na 589.592 Radial†	6399.9	7183.7	2448.2	ug/L	2448.2	ppb	12:06:58
2	Ni 231.604†	16270.8	15738.2	502.80	ug/L	502.80	ppb	12:08:36

2	P 214.914†	4771.8	4450.0	2387.1	ug/L	2387.1 ppb	12:08:36
2	Pb 220.353†	3039.0	3029.2	490.39	ug/L	490.39 ppb	12:08:36
2	S 181.975 Axial†	1992.8	1897.5	2459.2	ug/L	2459.2 ppb	12:08:36
2	Sb 206.836†	1293.2	1228.9	517.63	ug/L	517.63 ppb	12:08:36
2	Se 196.026†	4189.2	4097.9	2523.2	ug/L	2523.2 ppb	12:08:36
2	Si 251.611†	135544.0	131361.7	4786.9	ug/L	4786.9 ppb	12:08:16
2	Sn 189.927†	2311.8	2242.5	528.68	ug/L	528.68 ppb	12:08:36
2	Sr 421.552†	72988.6	72259.2	525.41	ug/L	525.41 ppb	12:06:58
2	Ti 334.940†	254195.8	248758.5	501.10	ug/L	501.10 ppb	12:08:16
2	Tl 190.801†	1134.2	1135.4	524.83	ug/L	524.83 ppb	12:08:36
2	U 409.014†	12481.0	14687.0	490.15	ug/L	490.15 ppb	12:08:16
2	V 292.402†	64051.9	63982.0	516.60	ug/L	516.60 ppb	12:08:16
2	Zn 213.857†	48251.5	46262.1	505.56	ug/L	505.56 ppb	12:08:16
2	SiO2†	136513.5	132298.3	10292	ug/L	10292 ppb	12:09:13
3	Sc 361.383	792006.3	792006.3	103.13	%		12:08:42
3	Sc Radial	4646.4	4646.4	98.7	%		12:07:23
3	Y 371.029	703352.1	703352.1	102.08	%		12:08:42
3	Y RADIAL	4906.2	4906.2	98.41	%		12:07:23
3	Ag 328.068†	51696.9	49870.2	259.60	ug/L	259.60 ppb	12:08:42
3	Al 396.153Radial†	5301.8	5457.6	5079.4	ug/L	5079.4 ppb	12:07:23
3	As 188.979†	1054.9	1047.9	471.32	ug/L	471.32 ppb	12:09:02
3	B 249.677†	20800.1	20621.5	514.10	ug/L	514.10 ppb	12:08:42
3	Ba 233.527†	44036.7	42696.1	505.09	ug/L	505.09 ppb	12:08:42
3	Be 313.107†	662340.7	651196.3	259.98	ug/L	259.98 ppb	12:08:42
3	Ca 317.933Radial†	2791.5	2805.5	5097.5	ug/L	5097.5 ppb	12:07:43
3	Cd 226.502†	35234.9	34350.8	486.85	ug/L	486.85 ppb	12:09:02
3	Co 228.616†	17314.9	16846.2	509.27	ug/L	509.27 ppb	12:09:02
3	Cr 267.716†	36654.9	35465.4	485.15	ug/L	485.15 ppb	12:08:42
3	Cu 324.752†	146661.2	134668.4	504.26	ug/L	504.26 ppb	12:08:42
3	Fe 238.204 Radial†	501.3	500.4	5207.3	ug/L	5207.3 ppb	12:07:43
3	K 766.490 Radial†	14756.8	12686.5	2521.9	ug/L	2521.9 ppb	12:07:23
3	Mg 279.077 IEC†	135.6	134.5	5339.2	ug/L	5339.2 ppb	12:07:43
3	Mn 257.610†	335113.8	324469.2	519.65	ug/L	519.65 ppb	12:08:42
3	Mo 202.031†	5985.5	5789.3	531.76	ug/L	531.76 ppb	12:09:02
3	Na 589.592 Radial†	6221.9	7150.4	2436.8	ug/L	2436.8 ppb	12:07:23
3	Ni 231.604†	16398.4	15798.8	504.73	ug/L	504.73 ppb	12:09:02
3	P 214.914†	4793.8	4452.8	2388.4	ug/L	2388.4 ppb	12:09:02
3	Pb 220.353†	3094.4	3071.1	497.14	ug/L	497.14 ppb	12:09:02
3	S 181.975 Axial†	2018.2	1914.4	2481.1	ug/L	2481.1 ppb	12:09:02
3	Sb 206.836†	1307.4	1237.7	521.28	ug/L	521.28 ppb	12:09:02
3	Se 196.026†	4219.9	4111.5	2531.8	ug/L	2531.8 ppb	12:09:02
3	Si 251.611†	136519.5	131781.7	4802.3	ug/L	4802.3 ppb	12:08:42
3	Sn 189.927†	2341.9	2262.6	533.44	ug/L	533.44 ppb	12:09:02
3	Sr 421.552†	71578.4	72506.9	527.21	ug/L	527.21 ppb	12:07:23
3	Ti 334.940†	255503.9	249040.7	501.68	ug/L	501.68 ppb	12:08:42
3	Tl 190.801†	1134.3	1131.0	522.84	ug/L	522.84 ppb	12:09:02
3	U 409.014†	12405.1	14565.0	486.04	ug/L	486.04 ppb	12:08:42
3	V 292.402†	64392.4	64063.7	517.24	ug/L	517.24 ppb	12:08:42
3	Zn 213.857†	48556.1	46370.3	506.72	ug/L	506.72 ppb	12:08:42
3	SiO2†	135032.5	130332.7	10139	ug/L	10139 ppb	12:09:18

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	788612.7	102.69	%	0.458				0.45%
Sc Radial	4683.4	99.5	%	1.30				1.31%
Y 371.029	699617.5	101.54	%	0.586				0.58%
Y RADIAL	4955.2	99.39	%	1.749				1.76%
Ag 328.068†	49939.2	259.94	ug/L	1.010	259.94	ppb	1.010	0.39%
QC value within limits for Ag 328.068 Recovery = 103.97%								
Al 396.153Radial†	5443.0	5065.8	ug/L	11.79	5065.8	ppb	11.79	0.23%
QC value within limits for Al 396.153Radial Recovery = 101.32%								
As 188.979†	1048.1	471.40	ug/L	1.265	471.40	ppb	1.265	0.27%
QC value within limits for As 188.979 Recovery = 94.28%								
B 249.677†	20658.6	515.04	ug/L	2.168	515.04	ppb	2.168	0.42%
QC value within limits for B 249.677 Recovery = 103.01%								
Ba 233.527†	42794.2	506.25	ug/L	2.036	506.25	ppb	2.036	0.40%
QC value within limits for Ba 233.527 Recovery = 101.25%								
Be 313.107†	651298.5	260.02	ug/L	0.531	260.02	ppb	0.531	0.20%
QC value within limits for Be 313.107 Recovery = 104.01%								

Ca 317.933Radial†	2781.8	5054.4 ug/L	73.87	5054.4 ppb	73.87	1.46%
QC value within limits for Ca 317.933Radial Recovery = 101.09%						
Cd 226.502†	34279.6	485.84 ug/L	1.046	485.84 ppb	1.046	0.22%
QC value within limits for Cd 226.502 Recovery = 97.17%						
Co 228.616†	16808.6	508.13 ug/L	1.233	508.13 ppb	1.233	0.24%
QC value within limits for Co 228.616 Recovery = 101.63%						
Cr 267.716†	35503.5	485.67 ug/L	2.043	485.67 ppb	2.043	0.42%
QC value within limits for Cr 267.716 Recovery = 97.13%						
Cu 324.752†	134608.1	504.03 ug/L	0.879	504.03 ppb	0.879	0.17%
QC value within limits for Cu 324.752 Recovery = 100.81%						
Fe 238.204 Radial†	494.9	5150.2 ug/L	78.23	5150.2 ppb	78.23	1.52%
QC value within limits for Fe 238.204 Radial Recovery = 103.00%						
K 766.490 Radial†	12675.4	2519.7 ug/L	8.39	2519.7 ppb	8.39	0.33%
QC value within limits for K 766.490 Radial Recovery = 100.79%						
Mg 279.077 IEC†	134.0	5321.1 ug/L	58.40	5321.1 ppb	58.40	1.10%
QC value within limits for Mg 279.077 IEC Recovery = 106.42%						
Mn 257.610†	325064.7	520.60 ug/L	2.017	520.60 ppb	2.017	0.39%
QC value within limits for Mn 257.610 Recovery = 104.12%						
Mo 202.031†	5783.1	531.19 ug/L	0.503	531.19 ppb	0.503	0.09%
QC value within limits for Mo 202.031 Recovery = 106.24%						
Na 589.592 Radial†	7178.8	2446.5 ug/L	8.95	2446.5 ppb	8.95	0.37%
QC value within limits for Na 589.592 Radial Recovery = 97.86%						
Ni 231.604†	15786.2	504.33 ug/L	1.379	504.33 ppb	1.379	0.27%
QC value within limits for Ni 231.604 Recovery = 100.87%						
P 214.914†	4447.9	2385.7 ug/L	3.58	2385.7 ppb	3.58	0.15%
QC value within limits for P 214.914 Recovery = 95.43%						
Pb 220.353†	3055.7	494.67 ug/L	3.722	494.67 ppb	3.722	0.75%
QC value within limits for Pb 220.353 Recovery = 98.93%						
S 181.975 Axial†	1903.6	2467.2 ug/L	12.10	2467.2 ppb	12.10	0.49%
QC value within limits for S 181.975 Axial Recovery = 98.69%						
Sb 206.836†	1230.8	518.43 ug/L	2.547	518.43 ppb	2.547	0.49%
QC value within limits for Sb 206.836 Recovery = 103.69%						
Se 196.026†	4103.2	2526.6 ug/L	4.55	2526.6 ppb	4.55	0.18%
QC value within limits for Se 196.026 Recovery = 101.06%						
Si 251.611†	131870.4	4805.5 ug/L	20.37	4805.5 ppb	20.37	0.42%
QC value within limits for Si 251.611 Recovery = 96.11%						
Sn 189.927†	2253.8	531.36 ug/L	2.435	531.36 ppb	2.435	0.46%
QC value within limits for Sn 189.927 Recovery = 106.27%						
Sr 421.552†	72259.0	525.41 ug/L	1.803	525.41 ppb	1.803	0.34%
QC value within limits for Sr 421.552 Recovery = 105.08%						
Ti 334.940†	249350.5	502.30 ug/L	1.601	502.30 ppb	1.601	0.32%
QC value within limits for Ti 334.940 Recovery = 100.46%						
Tl 190.801†	1134.7	524.54 ug/L	1.569	524.54 ppb	1.569	0.30%
QC value within limits for Tl 190.801 Recovery = 104.91%						
U 409.014†	14636.4	488.44 ug/L	2.137	488.44 ppb	2.137	0.44%
QC value within limits for U 409.014 Recovery = 97.69%						
V 292.402†	64109.9	517.61 ug/L	1.236	517.61 ppb	1.236	0.24%
QC value within limits for V 292.402 Recovery = 103.52%						
Zn 213.857†	46423.3	507.31 ug/L	2.114	507.31 ppb	2.114	0.42%
QC value within limits for Zn 213.857 Recovery = 101.46%						
SiO2†	132026.9	10271 ug/L	122.8	10271 ppb	122.8	1.20%
QC value within limits for SiO2 Recovery = 96.03%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/1/2010 12:11:29
Data Type: Reprocessed on 3/1/2010 13:29:35
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	758808.1	758808.1	98.811	%			12:14:39
1	Sc Radial	4656.0	4656.0	98.9	%			12:13:22
1	Y 371.029	678679.2	678679.2	98.497	%			12:14:39
1	Y RADIAL	4939.4	4939.4	99.08	%			12:13:22
1	Ag 328.068†	241.0	-11.7	-0.0650	ug/L	-0.0650	ppb	12:14:39
1	Al 396.153Radial†	-83.2	3.0	2.8298	ug/L	2.8298	ppb	12:13:42
1	As 188.979†	-34.5	-9.9	-4.4161	ug/L	-4.4161	ppb	12:14:59
1	B 249.677†	-140.5	311.3	7.7971	ug/L	7.7971	ppb	12:14:59
1	Ba 233.527†	11.9	9.7	0.1142	ug/L	0.1142	ppb	12:14:59
1	Be 313.107†	-8966.4	-91.6	-0.0368	ug/L	-0.0368	ppb	12:14:39
1	Ca 317.933Radial†	18.4	-3.6	-6.5093	ug/L	-6.5093	ppb	12:13:42
1	Cd 226.502†	-186.6	-2.2	-0.0295	ug/L	-0.0295	ppb	12:14:59
1	Co 228.616†	-66.6	-9.9	-0.2994	ug/L	-0.2994	ppb	12:14:59
1	Cr 267.716†	70.4	-4.4	-0.0616	ug/L	-0.0616	ppb	12:14:59
1	Cu 324.752†	7353.6	-94.0	-0.3546	ug/L	-0.3546	ppb	12:14:39
1	Fe 238.204 Radial†	6.7	-0.5	-5.3824	ug/L	-5.3824	ppb	12:13:42
1	K 766.490 Radial†	2274.4	37.4	7.4499	ug/L	7.4499	ppb	12:13:22
1	Mg 279.077 IEC†	3.1	0.2	8.3929	ug/L	8.3929	ppb	12:13:42
1	Mn 257.610†	444.4	-11.4	-0.0191	ug/L	-0.0191	ppb	12:14:59
1	Mo 202.031†	17.3	3.2	0.2894	ug/L	0.2894	ppb	12:14:59
1	Na 589.592 Radial†	-787.4	51.8	17.655	ug/L	17.655	ppb	12:13:22
1	Ni 231.604†	96.7	-3.5	-0.1109	ug/L	-0.1109	ppb	12:14:59
1	P 214.914†	196.4	3.4	1.9905	ug/L	1.9905	ppb	12:14:59
1	Pb 220.353†	-68.2	1.7	0.2737	ug/L	0.2737	ppb	12:14:59
1	S 181.975 Axial†	46.3	4.3	5.5891	ug/L	5.5891	ppb	12:14:59
1	Sb 206.836†	43.0	13.5	5.4900	ug/L	5.4900	ppb	12:14:59
1	Se 196.026†	-26.0	-6.5	-3.9688	ug/L	-3.9688	ppb	12:14:59
1	Si 251.611†	582.5	0.3	0.0073	ug/L	0.0073	ppb	12:14:59
1	Sn 189.927†	11.4	3.5	0.8176	ug/L	0.8176	ppb	12:14:59
1	Sr 421.552†	19.4	20.1	0.1460	ug/L	0.1460	ppb	12:13:22
1	Ti 334.940†	-1376.3	-91.8	-0.1883	ug/L	-0.1883	ppb	12:14:39
1	Tl 190.801†	-34.8	-4.0	-1.8601	ug/L	-1.8601	ppb	12:14:59
1	U 409.014†	-2387.3	120.8	4.0454	ug/L	4.0454	ppb	12:14:39
1	V 292.402†	-1601.3	7.4	0.0720	ug/L	0.0720	ppb	12:14:39
1	Zn 213.857†	616.6	-86.2	-0.9491	ug/L	-0.9491	ppb	12:14:59
1	SiO2†	632.6	43.8	3.4057	ug/L	3.4057	ppb	12:15:55
2	Sc 361.383	775920.5	775920.5	101.04	%			12:15:04
2	Sc Radial	4685.8	4685.8	99.6	%			12:13:47
2	Y 371.029	694648.1	694648.1	100.81	%			12:15:04
2	Y RADIAL	5001.0	5001.0	100.3	%			12:13:47
2	Ag 328.068†	254.2	-4.1	-0.0242	ug/L	-0.0242	ppb	12:15:04
2	Al 396.153Radial†	-82.5	4.3	3.9611	ug/L	3.9611	ppb	12:14:07
2	As 188.979†	-18.3	6.9	3.0791	ug/L	3.0791	ppb	12:15:24
2	B 249.677†	-175.2	280.0	7.0126	ug/L	7.0126	ppb	12:15:24
2	Ba 233.527†	0.6	-1.8	-0.0209	ug/L	-0.0209	ppb	12:15:24
2	Be 313.107†	-9071.7	4.3	0.0024	ug/L	0.0024	ppb	12:15:04
2	Ca 317.933Radial†	22.7	0.7	1.2181	ug/L	1.2181	ppb	12:14:07
2	Cd 226.502†	-200.3	-11.6	-0.1629	ug/L	-0.1629	ppb	12:15:24
2	Co 228.616†	-51.9	6.1	0.1869	ug/L	0.1869	ppb	12:15:24
2	Cr 267.716†	60.8	-15.4	-0.2113	ug/L	-0.2113	ppb	12:15:24
2	Cu 324.752†	7519.2	-94.3	-0.3542	ug/L	-0.3542	ppb	12:15:04
2	Fe 238.204 Radial†	6.6	-0.7	-6.8362	ug/L	-6.8362	ppb	12:14:07
2	K 766.490 Radial†	2207.8	-44.0	-8.7572	ug/L	-8.7572	ppb	12:13:47
2	Mg 279.077 IEC†	3.0	0.1	4.5344	ug/L	4.5344	ppb	12:14:07
2	Mn 257.610†	452.3	-13.4	-0.0224	ug/L	-0.0224	ppb	12:15:24
2	Mo 202.031†	24.6	10.0	0.9186	ug/L	0.9186	ppb	12:15:24
2	Na 589.592 Radial†	-862.6	-18.6	-6.3517	ug/L	-6.3517	ppb	12:13:47
2	Ni 231.604†	103.5	1.1	0.0341	ug/L	0.0341	ppb	12:15:24

2	P 214.914†	198.4	1.0	0.6627	ug/L	0.6627 ppb	12:15:24
2	Pb 220.353†	-63.5	7.8	1.2656	ug/L	1.2656 ppb	12:15:24
2	S 181.975 Axial†	36.2	-6.7	-8.6998	ug/L	-8.6998 ppb	12:15:24
2	Sb 206.836†	41.5	11.0	4.5298	ug/L	4.5298 ppb	12:15:24
2	Se 196.026†	-27.2	-7.1	-4.3642	ug/L	-4.3642 ppb	12:15:24
2	Si 251.611†	586.5	-8.8	-0.3317	ug/L	-0.3317 ppb	12:15:24
2	Sn 189.927†	19.8	11.5	2.7088	ug/L	2.7088 ppb	12:15:24
2	Sr 421.552†	10.3	10.9	0.0790	ug/L	0.0790 ppb	12:13:47
2	Ti 334.940†	-1172.8	140.3	0.2819	ug/L	0.2819 ppb	12:15:04
2	Tl 190.801†	-42.2	-10.6	-4.8462	ug/L	-4.8462 ppb	12:15:24
2	U 409.014†	-2516.9	45.8	1.5350	ug/L	1.5350 ppb	12:15:04
2	V 292.402†	-1631.4	13.3	0.1229	ug/L	0.1229 ppb	12:15:04
2	Zn 213.857†	618.0	-98.6	-1.0866	ug/L	-1.0866 ppb	12:15:24
2	SiO2†	593.3	-9.3	-0.7477	ug/L	-0.7477 ppb	12:16:00
3	Sc 361.383	768099.9	768099.9	100.02	%		12:15:30
3	Sc Radial	4626.1	4626.1	98.3	%		12:14:12
3	Y 371.029	688037.7	688037.7	99.855	%		12:15:30
3	Y RADIAL	4875.4	4875.4	97.79	%		12:14:12
3	Ag 328.068†	290.8	35.0	0.1764	ug/L	0.1764 ppb	12:15:30
3	Al 396.153Radial†	-80.1	5.7	5.3322	ug/L	5.3322 ppb	12:14:32
3	As 188.979†	-19.7	5.3	2.3529	ug/L	2.3529 ppb	12:15:50
3	B 249.677†	-176.9	276.5	6.9230	ug/L	6.9230 ppb	12:15:50
3	Ba 233.527†	2.7	0.3	0.0032	ug/L	0.0032 ppb	12:15:50
3	Be 313.107†	-8947.7	36.8	0.0146	ug/L	0.0146 ppb	12:15:30
3	Ca 317.933Radial†	19.4	-2.4	-4.4249	ug/L	-4.4249 ppb	12:14:32
3	Cd 226.502†	-182.9	3.7	0.0531	ug/L	0.0531 ppb	12:15:50
3	Co 228.616†	-54.3	3.2	0.0948	ug/L	0.0948 ppb	12:15:50
3	Cr 267.716†	69.5	-6.1	-0.0864	ug/L	-0.0864 ppb	12:15:50
3	Cu 324.752†	7437.2	-100.5	-0.3798	ug/L	-0.3798 ppb	12:15:30
3	Fe 238.204 Radial†	8.2	1.0	10.690	ug/L	10.690 ppb	12:14:32
3	K 766.490 Radial†	2304.9	83.4	16.595	ug/L	16.595 ppb	12:14:12
3	Mg 279.077 IEC†	4.0	1.2	45.673	ug/L	45.673 ppb	12:14:32
3	Mn 257.610†	432.8	-28.4	-0.0463	ug/L	-0.0463 ppb	12:15:50
3	Mo 202.031†	7.2	-7.2	-0.6569	ug/L	-0.6569 ppb	12:15:50
3	Na 589.592 Radial†	-834.4	-1.1	-0.3818	ug/L	-0.3818 ppb	12:14:12
3	Ni 231.604†	83.8	-17.6	-0.5619	ug/L	-0.5619 ppb	12:15:50
3	P 214.914†	196.5	1.1	0.6780	ug/L	0.6780 ppb	12:15:50
3	Pb 220.353†	-71.8	-1.1	-0.1835	ug/L	-0.1835 ppb	12:15:50
3	S 181.975 Axial†	45.5	3.0	3.9028	ug/L	3.9028 ppb	12:15:50
3	Sb 206.836†	37.5	7.4	3.0112	ug/L	3.0112 ppb	12:15:50
3	Se 196.026†	-13.9	5.9	3.6451	ug/L	3.6451 ppb	12:15:50
3	Si 251.611†	602.4	13.1	0.4853	ug/L	0.4853 ppb	12:15:50
3	Sn 189.927†	12.9	4.8	1.1347	ug/L	1.1347 ppb	12:15:50
3	Sr 421.552†	3.6	4.2	0.0304	ug/L	0.0304 ppb	12:14:12
3	Ti 334.940†	-1312.3	-11.0	-0.0297	ug/L	-0.0297 ppb	12:15:30
3	Tl 190.801†	-33.9	-2.6	-1.2156	ug/L	-1.2156 ppb	12:15:50
3	U 409.014†	-2311.6	225.7	7.5562	ug/L	7.5562 ppb	12:15:30
3	V 292.402†	-1657.2	-28.9	-0.2252	ug/L	-0.2252 ppb	12:15:30
3	Zn 213.857†	616.0	-94.4	-1.0390	ug/L	-1.0390 ppb	12:15:50
3	SiO2†	588.8	-7.8	-0.5890	ug/L	-0.5890 ppb	12:16:05

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	767609.5	99.957	%	1.1155				1.12%
Sc Radial	4656.0	98.9	%	0.63				0.64%
Y 371.029	687121.7	99.722	%	1.1645				1.17%
Y RADIAL	4938.6	99.06	%	1.259				1.27%
Ag 328.068†	6.4	0.0291	ug/L	0.12921	0.0291	ppb	0.12921	444.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	4.0410	ug/L	1.25313	4.0410	ppb	1.25313	31.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.3386	ug/L	4.13372	0.3386	ppb	4.13372	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	289.3	7.2442	ug/L	0.48092	7.2442	ppb	0.48092	6.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0322	ug/L	0.07204	0.0322	ppb	0.07204	223.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-16.8	-0.0066	ug/L	0.02687	-0.0066	ppb	0.02687	404.73%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -1.8     -3.2387 ug/L       3.99792     -3.2387 ppb        3.99792 123.44%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.3     -0.0464 ug/L       0.10898     -0.0464 ppb        0.10898 234.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.2     -0.0059 ug/L       0.25833     -0.0059 ppb        0.25833 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -8.6     -0.1198 ug/L       0.08025     -0.1198 ppb        0.08025  67.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -96.3     -0.3629 ug/L       0.01469     -0.3629 ppb        0.01469   4.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.5095 ug/L       9.72638     -0.5095 ppb        9.72638 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          25.6      5.0957 ug/L      12.83879      5.0957 ppb       12.83879 251.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.5      19.533 ug/L       22.7196      19.533 ppb        22.7196 116.31%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -17.7     -0.0293 ug/L       0.01487     -0.0293 ppb        0.01487  50.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.0      0.1837 ug/L       0.79307      0.1837 ppb        0.79307 431.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.7      3.6404 ug/L      12.49850      3.6404 ppb       12.49850 343.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.7     -0.2129 ug/L       0.31082     -0.2129 ppb        0.31082 146.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.8      1.1104 ug/L       0.76223      1.1104 ppb        0.76223  68.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.8      0.4519 ug/L       0.74082      0.4519 ppb        0.74082 163.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.2      0.2640 ug/L       7.80858      0.2640 ppb        7.80858 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.6      4.3437 ug/L       1.24985      4.3437 ppb        1.24985  28.77%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.6     -1.5626 ug/L       4.51434     -1.5626 ppb        4.51434 288.90%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 1.5      0.0536 ug/L       0.41047      0.0536 ppb        0.41047 765.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.6      1.5537 ug/L       1.01284      1.5537 ppb        1.01284  65.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.7      0.0851 ug/L       0.05805      0.0851 ppb        0.05805  68.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.5      0.0213 ug/L       0.23924      0.0213 ppb        0.23924 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.8     -2.6406 ug/L       1.93707     -2.6406 ppb        1.93707  73.36%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                130.8      4.3789 ug/L       3.02443      4.3789 ppb        3.02443  69.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -2.7     -0.0101 ug/L       0.18805     -0.0101 ppb        0.18805 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -93.1     -1.0249 ug/L       0.06982     -1.0249 ppb        0.06982   6.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       8.9      0.6896 ug/L       2.35349      0.6896 ppb        2.35349 341.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/1/2010 12:18:17
Data Type: Reprocessed on 3/1/2010 13:29:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	781108.3	781108.3	101.71	%			12:21:27
1	Sc Radial	4645.8	4645.8	98.7	%			12:20:10
1	Y 371.029	698977.5	698977.5	101.44	%			12:21:27
1	Y RADIAL	4932.5	4932.5	98.94	%			12:20:10
1	Ag 328.068†	1071.2	797.5	4.1043	ug/L	4.1043	ppb	12:21:27
1	Al 396.153Radial†	127.3	216.1	201.66	ug/L	201.66	ppb	12:20:30
1	As 188.979†	30.9	55.4	24.736	ug/L	24.736	ppb	12:21:47
1	B 249.677†	1608.3	2034.7	50.921	ug/L	50.921	ppb	12:21:27
1	Ba 233.527†	420.4	410.9	4.8632	ug/L	4.8632	ppb	12:21:47
1	Be 313.107†	3192.6	12121.5	4.8295	ug/L	4.8295	ppb	12:21:27
1	Ca 317.933Radial†	125.4	104.9	190.61	ug/L	190.61	ppb	12:20:30
1	Cd 226.502†	166.3	350.1	4.9664	ug/L	4.9664	ppb	12:21:47
1	Co 228.616†	99.6	155.4	4.7063	ug/L	4.7063	ppb	12:21:47
1	Cr 267.716†	425.7	342.9	4.6715	ug/L	4.6715	ppb	12:21:47
1	Cu 324.752†	10229.2	2520.5	9.4125	ug/L	9.4125	ppb	12:21:27
1	Fe 238.204 Radial†	17.0	9.9	102.61	ug/L	102.61	ppb	12:20:30
1	K 766.490 Radial†	3046.7	825.0	164.02	ug/L	164.02	ppb	12:20:10
1	Mg 279.077 IEC†	5.6	2.8	111.94	ug/L	111.94	ppb	12:20:30
1	Mn 257.610†	6914.8	6337.1	10.149	ug/L	10.149	ppb	12:21:27
1	Mo 202.031†	115.7	99.3	9.1255	ug/L	9.1255	ppb	12:21:47
1	Na 589.592 Radial†	68.9	917.6	312.71	ug/L	312.71	ppb	12:20:10
1	Ni 231.604†	246.7	141.2	4.5097	ug/L	4.5097	ppb	12:21:47
1	P 214.914†	471.9	268.6	148.17	ug/L	148.17	ppb	12:21:47
1	Pb 220.353†	-4.7	66.0	10.708	ug/L	10.708	ppb	12:21:47
1	S 181.975 Axial†	115.8	71.3	92.468	ug/L	92.468	ppb	12:21:47
1	Sb 206.836†	53.9	23.0	9.6362	ug/L	9.6362	ppb	12:21:47
1	Se 196.026†	25.8	45.1	27.917	ug/L	27.917	ppb	12:21:47
1	Si 251.611†	3178.0	2535.2	92.399	ug/L	92.399	ppb	12:21:47
1	Sn 189.927†	45.7	36.8	8.7009	ug/L	8.7009	ppb	12:21:47
1	Sr 421.552†	667.8	677.0	4.9214	ug/L	4.9214	ppb	12:20:10
1	Ti 334.940†	1215.3	2495.8	5.0193	ug/L	5.0193	ppb	12:21:27
1	Tl 190.801†	7.3	38.4	17.696	ug/L	17.696	ppb	12:21:47
1	U 409.014†	-881.1	1670.6	55.919	ug/L	55.919	ppb	12:21:27
1	V 292.402†	-994.3	650.5	5.3959	ug/L	5.3959	ppb	12:21:27
1	Zn 213.857†	1537.8	801.6	8.7837	ug/L	8.7837	ppb	12:21:47
1	SiO2†	3293.5	2641.5	205.53	ug/L	205.53	ppb	12:22:43
2	Sc 361.383	764797.2	764797.2	99.591	%			12:21:52
2	Sc Radial	4643.6	4643.6	98.7	%			12:20:35
2	Y 371.029	683958.2	683958.2	99.263	%			12:21:52
2	Y RADIAL	4937.3	4937.3	99.03	%			12:20:35
2	Ag 328.068†	1132.9	881.9	4.5372	ug/L	4.5372	ppb	12:21:52
2	Al 396.153Radial†	121.4	210.1	196.11	ug/L	196.11	ppb	12:20:55
2	As 188.979†	29.7	54.8	24.476	ug/L	24.476	ppb	12:22:12
2	B 249.677†	1589.8	2049.8	51.299	ug/L	51.299	ppb	12:21:52
2	Ba 233.527†	411.2	410.5	4.8581	ug/L	4.8581	ppb	12:22:12
2	Be 313.107†	3087.7	12083.0	4.8140	ug/L	4.8140	ppb	12:21:52
2	Ca 317.933Radial†	125.0	104.6	190.03	ug/L	190.03	ppb	12:20:55
2	Cd 226.502†	157.0	344.3	4.8847	ug/L	4.8847	ppb	12:22:12
2	Co 228.616†	106.6	164.5	4.9828	ug/L	4.9828	ppb	12:22:12
2	Cr 267.716†	444.7	370.9	5.0547	ug/L	5.0547	ppb	12:22:12
2	Cu 324.752†	9987.7	2492.6	9.3082	ug/L	9.3082	ppb	12:21:52
2	Fe 238.204 Radial†	16.6	9.5	99.114	ug/L	99.114	ppb	12:20:55
2	K 766.490 Radial†	3010.2	789.4	156.95	ug/L	156.95	ppb	12:20:35
2	Mg 279.077 IEC†	10.5	7.8	308.17	ug/L	308.17	ppb	12:20:55
2	Mn 257.610†	6721.0	6287.5	10.061	ug/L	10.061	ppb	12:21:52
2	Mo 202.031†	118.8	104.9	9.6350	ug/L	9.6350	ppb	12:22:12
2	Na 589.592 Radial†	29.4	877.6	299.07	ug/L	299.07	ppb	12:20:35
2	Ni 231.604†	257.5	157.2	5.0231	ug/L	5.0231	ppb	12:22:12

2	P 214.914†	467.5	274.1	151.25 ug/L	151.25 ppb	12:22:12
2	Pb 220.353†	-12.7	57.9	9.4032 ug/L	9.4032 ppb	12:22:12
2	S 181.975 Axial†	111.8	69.8	90.410 ug/L	90.410 ppb	12:22:12
2	Sb 206.836†	63.6	33.8	14.073 ug/L	14.073 ppb	12:22:12
2	Se 196.026†	36.0	55.9	34.528 ug/L	34.528 ppb	12:22:12
2	Si 251.611†	3157.6	2581.4	94.078 ug/L	94.078 ppb	12:22:12
2	Sn 189.927†	50.0	42.2	9.9563 ug/L	9.9563 ppb	12:22:12
2	Sr 421.552†	678.1	687.8	5.0000 ug/L	5.0000 ppb	12:20:35
2	Ti 334.940†	1149.4	2455.2	4.9215 ug/L	4.9215 ppb	12:21:52
2	Tl 190.801†	9.1	40.4	18.597 ug/L	18.597 ppb	12:22:12
2	U 409.014†	-891.1	1642.0	54.962 ug/L	54.962 ppb	12:21:52
2	V 292.402†	-1003.4	620.5	5.1665 ug/L	5.1665 ppb	12:21:52
2	Zn 213.857†	1526.9	822.8	9.0153 ug/L	9.0153 ppb	12:22:12
2	SiO2†	3255.5	2672.5	207.93 ug/L	207.93 ppb	12:22:48
3	Sc 361.383	769305.9	769305.9	100.18 %		12:22:17
3	Sc Radial	4649.0	4649.0	98.8 %		12:21:00
3	Y 371.029	689181.3	689181.3	100.02 %		12:22:17
3	Y RADIAL	4939.7	4939.7	99.08 %		12:21:00
3	Ag 328.068†	1152.2	894.5	4.6045 ug/L	4.6045 ppb	12:22:17
3	Al 396.153Radial†	132.6	221.4	206.59 ug/L	206.59 ppb	12:21:20
3	As 188.979†	26.1	51.1	22.805 ug/L	22.805 ppb	12:22:37
3	B 249.677†	1559.9	2010.5	50.316 ug/L	50.316 ppb	12:22:17
3	Ba 233.527†	452.4	449.2	5.3150 ug/L	5.3150 ppb	12:22:37
3	Be 313.107†	3138.9	12116.0	4.8274 ug/L	4.8274 ppb	12:22:17
3	Ca 317.933Radial†	128.2	107.6	195.48 ug/L	195.48 ppb	12:21:20
3	Cd 226.502†	163.1	349.5	4.9567 ug/L	4.9567 ppb	12:22:37
3	Co 228.616†	96.4	153.6	4.6546 ug/L	4.6546 ppb	12:22:37
3	Cr 267.716†	438.7	362.3	4.9364 ug/L	4.9364 ppb	12:22:37
3	Cu 324.752†	9981.6	2427.8	9.0656 ug/L	9.0656 ppb	12:22:17
3	Fe 238.204 Radial†	17.6	10.5	109.01 ug/L	109.01 ppb	12:21:20
3	K 766.490 Radial†	3044.2	820.3	163.09 ug/L	163.09 ppb	12:21:00
3	Mg 279.077 IEC†	7.0	4.2	167.98 ug/L	167.98 ppb	12:21:20
3	Mn 257.610†	6813.4	6340.1	10.152 ug/L	10.152 ppb	12:22:17
3	Mo 202.031†	120.8	106.2	9.7546 ug/L	9.7546 ppb	12:22:37
3	Na 589.592 Radial†	40.2	888.5	302.79 ug/L	302.79 ppb	12:21:00
3	Ni 231.604†	245.4	143.7	4.5895 ug/L	4.5895 ppb	12:22:37
3	P 214.914†	465.0	268.8	148.35 ug/L	148.35 ppb	12:22:37
3	Pb 220.353†	4.5	75.2	12.195 ug/L	12.195 ppb	12:22:37
3	S 181.975 Axial†	121.0	78.3	101.44 ug/L	101.44 ppb	12:22:37
3	Sb 206.836†	55.7	25.6	10.712 ug/L	10.712 ppb	12:22:37
3	Se 196.026†	30.5	50.2	31.056 ug/L	31.056 ppb	12:22:37
3	Si 251.611†	3207.2	2612.3	95.203 ug/L	95.203 ppb	12:22:37
3	Sn 189.927†	46.7	38.5	9.1059 ug/L	9.1059 ppb	12:22:37
3	Sr 421.552†	671.2	680.0	4.9431 ug/L	4.9431 ppb	12:21:00
3	Ti 334.940†	1206.0	2504.9	5.0337 ug/L	5.0337 ppb	12:22:17
3	Tl 190.801†	16.5	47.7	21.979 ug/L	21.979 ppb	12:22:37
3	U 409.014†	-882.4	1656.0	55.428 ug/L	55.428 ppb	12:22:17
3	V 292.402†	-1016.2	613.6	5.1105 ug/L	5.1105 ppb	12:22:17
3	Zn 213.857†	1533.5	820.5	8.9910 ug/L	8.9910 ppb	12:22:37
3	SiO2†	3271.5	2669.3	207.67 ug/L	207.67 ppb	12:22:53

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	771737.1	100.49	%	1.097				1.09%
Sc Radial	4646.1	98.7	%	0.06				0.06%
Y 371.029	690705.6	100.24	%	1.107				1.10%
Y RADIAL	4936.5	99.02	%	0.074				0.07%
Ag 328.068†	858.0	4.4153	ug/L	0.27144	4.4153	ppb	0.27144	6.15%
QC value within limits for Ag 328.068 Recovery = 88.31%								
Al 396.153Radial†	215.9	201.45	ug/L	5.244	201.45	ppb	5.244	2.60%
QC value within limits for Al 396.153Radial Recovery = 100.73%								
As 188.979†	53.8	24.005	ug/L	1.0479	24.005	ppb	1.0479	4.37%
QC value within limits for As 188.979 Recovery = 80.02%								
B 249.677†	2031.7	50.846	ug/L	0.4959	50.846	ppb	0.4959	0.98%
QC value within limits for B 249.677 Recovery = 101.69%								
Ba 233.527†	423.6	5.0121	ug/L	0.26238	5.0121	ppb	0.26238	5.23%
QC value within limits for Ba 233.527 Recovery = 100.24%								
Be 313.107†	12106.8	4.8236	ug/L	0.00839	4.8236	ppb	0.00839	0.17%
QC value within limits for Be 313.107 Recovery = 96.47%								

Ca 317.933Radial†	105.7	192.04 ug/L	2.992	192.04 ppb	2.992	1.56%
QC value within limits for Ca 317.933Radial Recovery = 96.02%						
Cd 226.502†	348.0	4.9360 ug/L	0.04465	4.9360 ppb	0.04465	0.90%
QC value within limits for Cd 226.502 Recovery = 98.72%						
Co 228.616†	157.9	4.7812 ug/L	0.17647	4.7812 ppb	0.17647	3.69%
QC value within limits for Co 228.616 Recovery = 95.62%						
Cr 267.716†	358.7	4.8875 ug/L	0.19625	4.8875 ppb	0.19625	4.02%
QC value within limits for Cr 267.716 Recovery = 97.75%						
Cu 324.752†	2480.3	9.2621 ug/L	0.17795	9.2621 ppb	0.17795	1.92%
QC value within limits for Cu 324.752 Recovery = 92.62%						
Fe 238.204 Radial†	10.0	103.58 ug/L	5.018	103.58 ppb	5.018	4.85%
QC value within limits for Fe 238.204 Radial Recovery = 103.58%						
K 766.490 Radial†	811.6	161.35 ug/L	3.839	161.35 ppb	3.839	2.38%
QC value within limits for K 766.490 Radial Recovery = 107.57%						
Mg 279.077 IEC†	4.9	196.03 ug/L	101.077	196.03 ppb	101.077	51.56%
QC value less than the lower limit for Mg 279.077 IEC Recovery = 65.34%						
Mn 257.610†	6321.6	10.121 ug/L	0.0516	10.121 ppb	0.0516	0.51%
QC value within limits for Mn 257.610 Recovery = 101.21%						
Mo 202.031†	103.5	9.5050 ug/L	0.33404	9.5050 ppb	0.33404	3.51%
QC value within limits for Mo 202.031 Recovery = 95.05%						
Na 589.592 Radial†	894.5	304.86 ug/L	7.050	304.86 ppb	7.050	2.31%
QC value within limits for Na 589.592 Radial Recovery = 101.62%						
Ni 231.604†	147.3	4.7074 ug/L	0.27627	4.7074 ppb	0.27627	5.87%
QC value within limits for Ni 231.604 Recovery = 94.15%						
P 214.914†	270.5	149.26 ug/L	1.726	149.26 ppb	1.726	1.16%
QC value within limits for P 214.914 Recovery = 99.50%						
Pb 220.353†	66.4	10.769 ug/L	1.3968	10.769 ppb	1.3968	12.97%
QC value within limits for Pb 220.353 Recovery = 107.69%						
S 181.975 Axial†	73.1	94.774 ug/L	5.8678	94.774 ppb	5.8678	6.19%
QC value within limits for S 181.975 Axial Recovery = 94.77%						
Sb 206.836†	27.5	11.474 ug/L	2.3145	11.474 ppb	2.3145	20.17%
QC value within limits for Sb 206.836 Recovery = 114.74%						
Se 196.026†	50.4	31.167 ug/L	3.3067	31.167 ppb	3.3067	10.61%
QC value within limits for Se 196.026 Recovery = 103.89%						
Si 251.611†	2576.3	93.893 ug/L	1.4115	93.893 ppb	1.4115	1.50%
QC value within limits for Si 251.611 Recovery = 93.89%						
Sn 189.927†	39.2	9.2544 ug/L	0.64074	9.2544 ppb	0.64074	6.92%
QC value within limits for Sn 189.927 Recovery = 92.54%						
Sr 421.552†	681.6	4.9548 ug/L	0.04062	4.9548 ppb	0.04062	0.82%
QC value within limits for Sr 421.552 Recovery = 99.10%						
Ti 334.940†	2485.3	4.9915 ug/L	0.06104	4.9915 ppb	0.06104	1.22%
QC value within limits for Ti 334.940 Recovery = 99.83%						
Tl 190.801†	42.2	19.424 ug/L	2.2580	19.424 ppb	2.2580	11.62%
QC value within limits for Tl 190.801 Recovery = 97.12%						
U 409.014†	1656.2	55.436 ug/L	0.4786	55.436 ppb	0.4786	0.86%
QC value within limits for U 409.014 Recovery = 110.87%						
V 292.402†	628.2	5.2243 ug/L	0.15122	5.2243 ppb	0.15122	2.89%
QC value within limits for V 292.402 Recovery = 104.49%						
Zn 213.857†	815.0	8.9300 ug/L	0.12725	8.9300 ppb	0.12725	1.42%
QC value within limits for Zn 213.857 Recovery = 89.30%						
SiO2†	2661.1	207.04 ug/L	1.318	207.04 ppb	1.318	0.64%
QC value within limits for SiO2 Recovery = 97.20%						

QC Failed. Continue with analysis.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/1/2010 12:25:05
Data Type: Reprocessed on 3/1/2010 13:29:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	692739.2	692739.2	90.208	%			12:27:30
1	Sc Radial	4213.4	4213.4	89.5	%			12:27:03
1	Y 371.029	606235.6	606235.6	87.983	%			12:27:30
1	Y RADIAL	4424.5	4424.5	88.75	%			12:27:03
1	Ag 328.068†	-9846.6	-11171.1	-7.2296	ug/L	-7.2296	ppb	12:27:30
1	Al 396.153Radial†	498573.5	557024.9	521050	ug/L	521050	ppb	12:26:58
1	As 188.979†	-77.3	-60.6	16.042	ug/L	16.042	ppb	12:27:51
1	B 249.677†	331.1	820.5	-9.4216	ug/L	-9.4216	ppb	12:27:30
1	Ba 233.527†	-502.3	-559.2	-0.9524	ug/L	-0.9524	ppb	12:27:51
1	Be 313.107†	-9213.7	-1231.3	-0.5420	ug/L	-0.5420	ppb	12:27:30
1	Ca 317.933Radial†	236617.8	264294.7	480210	ug/L	480210	ppb	12:26:58
1	Cd 226.502†	1103.5	1409.9	0.9377	ug/L	0.9377	ppb	12:27:51
1	Co 228.616†	-33.9	19.9	-2.0592	ug/L	-2.0592	ppb	12:27:51
1	Cr 267.716†	-4.7	-80.8	2.4331	ug/L	2.4331	ppb	12:27:51
1	Cu 324.752†	4937.9	-2062.2	2.0156	ug/L	2.0156	ppb	12:27:30
1	Fe 238.204 Radial†	15929.1	17786.5	184530	ug/L	184530	ppb	12:27:03
1	K 766.490 Radial†	2201.2	197.2	-121.37	ug/L	-121.37	ppb	12:27:03
1	Mg 279.077 IEC†	10950.5	12229.5	485380	ug/L	485380	ppb	12:27:03
1	Mn 257.610†	-668.0	-1201.6	-3.5511	ug/L	-3.5511	ppb	12:27:30
1	Mo 202.031†	-156.9	-188.3	2.7540	ug/L	2.7540	ppb	12:27:51
1	Na 589.592 Radial†	-650.8	120.8	41.167	ug/L	41.167	ppb	12:27:03
1	Ni 231.604†	157.3	73.0	2.3338	ug/L	2.3338	ppb	12:27:51
1	P 214.914†	181.1	5.4	-14.933	ug/L	-14.933	ppb	12:27:51
1	Pb 220.353†	-673.5	-675.9	9.7170	ug/L	9.7170	ppb	12:27:51
1	S 181.975 Axial†	57.3	21.0	-70.396	ug/L	-70.396	ppb	12:27:51
1	Sb 206.836†	58.4	34.8	-3.4957	ug/L	-3.4957	ppb	12:27:51
1	Se 196.026†	-734.2	-794.1	-23.568	ug/L	-23.568	ppb	12:27:51
1	Si 251.611†	535.4	4.3	0.3708	ug/L	0.3708	ppb	12:27:51
1	Sn 189.927†	-302.1	-343.0	-6.0541	ug/L	-6.0541	ppb	12:27:51
1	Sr 421.552†	454.9	508.6	0.1125	ug/L	0.1125	ppb	12:27:03
1	Ti 334.940†	-11551.5	-11504.4	1.5431	ug/L	1.5431	ppb	12:27:30
1	Tl 190.801†	-55.8	-30.6	-14.280	ug/L	-14.280	ppb	12:27:51
1	U 409.014†	-832.4	1614.1	33.014	ug/L	33.014	ppb	12:27:30
1	V 292.402†	169.3	1815.7	-3.1552	ug/L	-3.1552	ppb	12:27:51
1	Zn 213.857†	2801.3	2395.2	-1.2049	ug/L	-1.2049	ppb	12:27:51
1	SiO2†	533.5	-5.1	0.0768	ug/L	0.0768	ppb	12:28:47
2	Sc 361.383	694839.9	694839.9	90.481	%			12:27:56
2	Sc Radial	4240.1	4240.1	90.1	%			12:27:13
2	Y 371.029	608131.1	608131.1	88.258	%			12:27:56
2	Y RADIAL	4457.5	4457.5	89.41	%			12:27:13
2	Ag 328.068†	-9940.6	-11242.0	-7.4057	ug/L	-7.4057	ppb	12:27:56
2	Al 396.153Radial†	491658.2	545840.9	510590	ug/L	510590	ppb	12:27:08
2	As 188.979†	-94.3	-79.2	7.8009	ug/L	7.8009	ppb	12:28:16
2	B 249.677†	235.1	713.3	-12.137	ug/L	-12.137	ppb	12:27:56
2	Ba 233.527†	-492.9	-547.2	-0.8042	ug/L	-0.8042	ppb	12:28:16
2	Be 313.107†	-9312.3	-1309.4	-0.5736	ug/L	-0.5736	ppb	12:27:56
2	Ca 317.933Radial†	233334.1	258984.9	470560	ug/L	470560	ppb	12:27:08
2	Cd 226.502†	1124.9	1429.9	1.2033	ug/L	1.2033	ppb	12:28:16
2	Co 228.616†	-13.5	42.6	-1.3759	ug/L	-1.3759	ppb	12:28:16
2	Cr 267.716†	-93.3	-178.7	1.1009	ug/L	1.1009	ppb	12:28:16
2	Cu 324.752†	4943.6	-2072.5	1.9880	ug/L	1.9880	ppb	12:27:56
2	Fe 238.204 Radial†	16045.2	17803.3	184710	ug/L	184710	ppb	12:27:13
2	K 766.490 Radial†	2285.4	275.2	-102.62	ug/L	-102.62	ppb	12:27:13
2	Mg 279.077 IEC†	11078.4	12294.5	487950	ug/L	487950	ppb	12:27:13
2	Mn 257.610†	-776.9	-1319.8	-3.8285	ug/L	-3.8285	ppb	12:27:56
2	Mo 202.031†	-163.6	-195.2	2.0250	ug/L	2.0250	ppb	12:28:16
2	Na 589.592 Radial†	-617.5	162.4	55.338	ug/L	55.338	ppb	12:27:13
2	Ni 231.604†	180.5	98.1	3.1356	ug/L	3.1356	ppb	12:28:16

2	P 214.914†	183.8	7.7	-16.351 ug/L	-16.351 ppb	12:28:16
2	Pb 220.353†	-660.8	-659.6	9.6532 ug/L	9.6532 ppb	12:28:16
2	S 181.975 Axial†	58.5	22.2	-66.935 ug/L	-66.935 ppb	12:28:16
2	Sb 206.836†	53.6	29.2	-5.4814 ug/L	-5.4814 ppb	12:28:16
2	Se 196.026†	-750.4	-809.5	-33.622 ug/L	-33.622 ppb	12:28:16
2	Si 251.611†	542.8	10.7	0.6098 ug/L	0.6098 ppb	12:28:16
2	Sn 189.927†	-301.7	-341.6	-7.4405 ug/L	-7.4405 ppb	12:28:16
2	Sr 421.552†	458.3	509.3	0.1895 ug/L	0.1895 ppb	12:27:13
2	Ti 334.940†	-11693.2	-11622.3	-0.1974 ug/L	-0.1974 ppb	12:27:56
2	Tl 190.801†	-61.5	-36.8	-17.137 ug/L	-17.137 ppb	12:28:16
2	U 409.014†	-903.2	1538.5	30.467 ug/L	30.467 ppb	12:27:56
2	V 292.402†	221.7	1873.0	-2.6869 ug/L	-2.6869 ppb	12:28:16
2	Zn 213.857†	2766.3	2347.1	-1.7663 ug/L	-1.7663 ppb	12:28:16
2	SiO2†	512.5	-30.1	-1.8545 ug/L	-1.8545 ppb	12:28:52
3	Sc 361.383	698608.7	698608.7	90.972 %		12:28:21
3	Sc Radial	4199.1	4199.1	89.2 %		12:27:24
3	Y 371.029	610888.9	610888.9	88.659 %		12:28:21
3	Y RADIAL	4439.7	4439.7	89.05 %		12:27:24
3	Ag 328.068†	-9991.8	-11239.1	-7.2188 ug/L	-7.2188 ppb	12:28:21
3	Al 396.153Radial†	485919.6	544744.6	509560 ug/L	509560 ppb	12:27:19
3	As 188.979†	-79.2	-62.1	15.580 ug/L	15.580 ppb	12:28:41
3	B 249.677†	297.5	780.5	-10.550 ug/L	-10.550 ppb	12:28:21
3	Ba 233.527†	-511.7	-564.8	-0.9955 ug/L	-0.9955 ppb	12:28:41
3	Be 313.107†	-9408.4	-1359.4	-0.5935 ug/L	-0.5935 ppb	12:28:21
3	Ca 317.933Radial†	231332.5	259273.8	471090 ug/L	471090 ppb	12:27:19
3	Cd 226.502†	1108.3	1404.9	0.7890 ug/L	0.7890 ppb	12:28:41
3	Co 228.616†	-15.4	40.5	-1.4499 ug/L	-1.4499 ppb	12:28:41
3	Cr 267.716†	-30.0	-108.6	2.0689 ug/L	2.0689 ppb	12:28:41
3	Cu 324.752†	5085.6	-1945.8	2.4932 ug/L	2.4932 ppb	12:28:21
3	Fe 238.204 Radial†	15940.3	17859.8	185290 ug/L	185290 ppb	12:27:24
3	K 766.490 Radial†	2168.8	169.3	-123.86 ug/L	-123.86 ppb	12:27:24
3	Mg 279.077 IEC†	10977.9	12302.0	488250 ug/L	488250 ppb	12:27:24
3	Mn 257.610†	-750.9	-1286.6	-3.7297 ug/L	-3.7297 ppb	12:28:21
3	Mo 202.031†	-174.5	-206.2	1.0638 ug/L	1.0638 ppb	12:28:41
3	Na 589.592 Radial†	-660.2	107.8	36.735 ug/L	36.735 ppb	12:27:24
3	Ni 231.604†	202.2	121.0	3.8664 ug/L	3.8664 ppb	12:28:41
3	P 214.914†	168.3	-10.3	-27.273 ug/L	-27.273 ppb	12:28:41
3	Pb 220.353†	-667.4	-663.0	8.8179 ug/L	8.8179 ppb	12:28:41
3	S 181.975 Axial†	63.5	27.3	-60.061 ug/L	-60.061 ppb	12:28:41
3	Sb 206.836†	55.5	30.9	-4.7868 ug/L	-4.7868 ppb	12:28:41
3	Se 196.026†	-744.5	-798.5	-25.701 ug/L	-25.701 ppb	12:28:41
3	Si 251.611†	540.2	4.6	0.4000 ug/L	0.4000 ppb	12:28:41
3	Sn 189.927†	-306.9	-345.4	-8.2867 ug/L	-8.2867 ppb	12:28:41
3	Sr 421.552†	460.2	516.3	0.2370 ug/L	0.2370 ppb	12:27:24
3	Ti 334.940†	-11744.9	-11609.4	-0.1259 ug/L	-0.1259 ppb	12:28:21
3	Tl 190.801†	-57.7	-32.2	-15.024 ug/L	-15.024 ppb	12:28:41
3	U 409.014†	-908.7	1537.9	30.376 ug/L	30.376 ppb	12:28:21
3	V 292.402†	179.1	1824.8	-3.1653 ug/L	-3.1653 ppb	12:28:41
3	Zn 213.857†	2821.7	2391.4	-1.3707 ug/L	-1.3707 ppb	12:28:41
3	SiO2†	546.0	3.8	0.8110 ug/L	0.8110 ppb	12:28:57

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	695395.9	90.554	%	0.3873				0.43%
Sc Radial	4217.5	89.6	%	0.44				0.49%
Y 371.029	608418.5	88.300	%	0.3396				0.38%
Y RADIAL	4440.6	89.07	%	0.331				0.37%
Ag 328.068†	-11217.4	-7.2847	ug/L	0.10491	-7.2847	ppb	0.10491	1.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	549203.4	513730	ug/L	6356.8	513730	ppb	6356.8	1.24%
QC value within limits for Al 396.153Radial Recovery = 102.75%								
As 188.979†	-67.3	13.141	ug/L	4.6305	13.141	ppb	4.6305	35.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	771.4	-10.703	ug/L	1.3639	-10.703	ppb	1.3639	12.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-557.1	-0.9174	ug/L	0.10036	-0.9174	ppb	0.10036	10.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1300.0	-0.5697	ug/L	0.02593	-0.5697	ppb	0.02593	4.55%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     260851.1      473950 ug/L        5424.8      473950 ppb        5424.8   1.14%
   QC value within limits for Ca 317.933Radial  Recovery = 94.79%
Cd 226.502†             1414.9      0.9767 ug/L       0.20984      0.9767 ppb       0.20984  21.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               34.3     -1.6283 ug/L       0.37495     -1.6283 ppb       0.37495  23.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -122.7      1.8676 ug/L       0.68852      1.8676 ppb       0.68852  36.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2026.8      2.1656 ug/L       0.28403      2.1656 ppb       0.28403  13.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     17816.5      184850 ug/L         398.7      184850 ppb         398.7   0.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.42%
K 766.490 Radial†        213.9     -115.95 ug/L        11.610     -115.95 ppb        11.610  10.01%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        12275.3      487200 ug/L        1582.3      487200 ppb        1582.3   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.44%
Mn 257.610†            -1269.3     -3.7031 ug/L       0.14056     -3.7031 ppb       0.14056   3.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -196.6      1.9476 ug/L       0.84777      1.9476 ppb       0.84777  43.53%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       130.3      44.413 ug/L        9.7171      44.413 ppb        9.7171  21.88%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               97.4      3.1119 ug/L       0.76662      3.1119 ppb       0.76662  24.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.9     -19.519 ug/L        6.7523     -19.519 ppb        6.7523  34.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -666.2      9.3960 ug/L       0.50171      9.3960 ppb       0.50171   5.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          23.5     -65.798 ug/L        5.2607     -65.798 ppb        5.2607   8.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               31.6     -4.5880 ug/L       1.00768     -4.5880 ppb       1.00768  21.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -800.7     -27.630 ug/L        5.2975     -27.630 ppb        5.2975  19.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                6.5      0.4602 ug/L       0.13038      0.4602 ppb       0.13038  28.33%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -343.3     -7.2604 ug/L       1.12715     -7.2604 ppb       1.12715  15.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              511.4      0.1797 ug/L       0.06279      0.1797 ppb       0.06279  34.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -11578.7      0.4066 ug/L       0.98488      0.4066 ppb       0.98488 242.20%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -33.2     -15.480 ug/L        1.4822     -15.480 ppb        1.4822   9.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1563.5      31.286 ug/L        1.4971      31.286 ppb        1.4971   4.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1837.8     -3.0025 ug/L       0.27335     -3.0025 ppb       0.27335   9.10%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2377.9     -1.4473 ug/L       0.28840     -1.4473 ppb       0.28840  19.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -10.4     -0.3222 ug/L       1.37684     -0.3222 ppb       1.37684 427.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/1/2010 12:31:09
Data Type: Reprocessed on 3/1/2010 13:29:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	704340.1	704340.1	91.718	%			12:34:20
1	Sc Radial	4225.3	4225.3	89.8	%			12:33:21
1	Y 371.029	616031.0	616031.0	89.405	%			12:34:20
1	Y RADIAL	4471.3	4471.3	89.69	%			12:33:21
1	Ag 328.068†	38036.6	41215.5	263.83	ug/L	263.83	ppb	12:34:20
1	Al 396.153Radial†	493154.2	549415.5	513910	ug/L	513910	ppb	12:33:01
1	As 188.979†	946.3	1056.8	517.37	ug/L	517.37	ppb	12:34:40
1	B 249.677†	18925.1	21087.4	496.75	ug/L	496.75	ppb	12:34:20
1	Ba 233.527†	38107.9	41546.5	496.98	ug/L	496.98	ppb	12:34:20
1	Be 313.107†	535444.0	592774.9	236.72	ug/L	236.72	ppb	12:34:20
1	Ca 317.933Radial†	234604.4	261305.6	474780	ug/L	474780	ppb	12:33:01
1	Cd 226.502†	30187.9	33100.4	450.56	ug/L	450.56	ppb	12:34:40
1	Co 228.616†	14038.6	15363.7	461.74	ug/L	461.74	ppb	12:34:40
1	Cr 267.716†	31729.1	34518.4	475.63	ug/L	475.63	ppb	12:34:20
1	Cu 324.752†	145564.9	151172.7	575.53	ug/L	575.53	ppb	12:34:20
1	Fe 238.204 Radial†	15986.5	17800.2	184690	ug/L	184690	ppb	12:33:21
1	K 766.490 Radial†	26360.5	27101.5	5233.4	ug/L	5233.4	ppb	12:33:01
1	Mg 279.077 IEC†	11111.9	12374.8	491150	ug/L	491150	ppb	12:33:21
1	Mn 257.610†	283824.2	308991.1	492.73	ug/L	492.73	ppb	12:34:20
1	Mo 202.031†	4589.3	4989.3	477.86	ug/L	477.86	ppb	12:34:40
1	Na 589.592 Radial†	12952.5	15275.7	5205.9	ug/L	5205.9	ppb	12:33:01
1	Ni 231.604†	13064.0	14142.3	451.81	ug/L	451.81	ppb	12:34:40
1	P 214.914†	4284.3	4475.8	2370.1	ug/L	2370.1	ppb	12:34:40
1	Pb 220.353†	2037.4	2292.0	487.34	ug/L	487.34	ppb	12:34:40
1	S 181.975 Axial†	1853.4	1978.2	2468.5	ug/L	2468.5	ppb	12:34:40
1	Sb 206.836†	1276.2	1361.4	552.34	ug/L	552.34	ppb	12:34:40
1	Se 196.026†	3049.4	3344.5	2512.2	ug/L	2512.2	ppb	12:34:40
1	Si 251.611†	133993.5	145503.3	5303.9	ug/L	5303.9	ppb	12:34:20
1	Sn 189.927†	1602.0	1738.6	483.17	ug/L	483.17	ppb	12:34:40
1	Sr 421.552†	61221.6	68195.7	492.36	ug/L	492.36	ppb	12:33:01
1	Ti 334.940†	219311.1	240414.9	507.58	ug/L	507.58	ppb	12:34:20
1	Tl 190.801†	935.6	1051.3	486.15	ug/L	486.15	ppb	12:34:40
1	U 409.014†	12541.6	16210.8	520.72	ug/L	520.72	ppb	12:34:20
1	V 292.402†	56887.3	63651.9	496.30	ug/L	496.30	ppb	12:34:20
1	Zn 213.857†	43887.7	47140.3	488.61	ug/L	488.61	ppb	12:34:20
1	SiO2†	131981.8	143302.7	11151	ug/L	11151	ppb	12:35:37
2	Sc 361.383	696859.8	696859.8	90.744	%			12:34:46
2	Sc Radial	4208.5	4208.5	89.4	%			12:33:47
2	Y 371.029	609654.8	609654.8	88.480	%			12:34:46
2	Y RADIAL	4449.6	4449.6	89.25	%			12:33:47
2	Ag 328.068†	37638.7	41222.2	263.88	ug/L	263.88	ppb	12:34:46
2	Al 396.153Radial†	492018.9	550339.1	514770	ug/L	514770	ppb	12:33:27
2	As 188.979†	954.2	1076.6	526.18	ug/L	526.18	ppb	12:35:06
2	B 249.677†	18678.6	21037.3	495.45	ug/L	495.45	ppb	12:34:46
2	Ba 233.527†	37631.3	41467.2	496.04	ug/L	496.04	ppb	12:34:46
2	Be 313.107†	528866.4	591793.0	236.33	ug/L	236.33	ppb	12:34:46
2	Ca 317.933Radial†	233297.6	260887.5	474020	ug/L	474020	ppb	12:33:27
2	Cd 226.502†	30372.6	33657.3	458.45	ug/L	458.45	ppb	12:35:06
2	Co 228.616†	14147.0	15647.5	470.33	ug/L	470.33	ppb	12:35:06
2	Cr 267.716†	31537.7	34678.9	477.82	ug/L	477.82	ppb	12:34:46
2	Cu 324.752†	143499.5	150600.2	573.39	ug/L	573.39	ppb	12:34:46
2	Fe 238.204 Radial†	15930.7	17808.9	184780	ug/L	184780	ppb	12:33:47
2	K 766.490 Radial†	26323.0	27176.8	5248.6	ug/L	5248.6	ppb	12:33:27
2	Mg 279.077 IEC†	11061.7	12368.0	490880	ug/L	490880	ppb	12:33:47
2	Mn 257.610†	280620.7	308782.6	492.42	ug/L	492.42	ppb	12:34:46
2	Mo 202.031†	4608.4	5064.1	484.73	ug/L	484.73	ppb	12:35:06
2	Na 589.592 Radial†	12874.8	15246.4	5196.0	ug/L	5196.0	ppb	12:33:27
2	Ni 231.604†	13173.5	14415.8	460.55	ug/L	460.55	ppb	12:35:06

2	P 214.914†	4313.6	4558.2	2416.8	ug/L	2416.8 ppb	12:35:06
2	Pb 220.353†	2040.3	2319.1	491.91	ug/L	491.91 ppb	12:35:06
2	S 181.975 Axial†	1870.3	2018.6	2520.7	ug/L	2520.7 ppb	12:35:06
2	Sb 206.836†	1294.0	1395.9	566.58	ug/L	566.58 ppb	12:35:06
2	Se 196.026†	3067.2	3399.9	2546.4	ug/L	2546.4 ppb	12:35:06
2	Si 251.611†	132325.6	145233.5	5293.9	ug/L	5293.9 ppb	12:34:46
2	Sn 189.927†	1615.0	1771.7	490.82	ug/L	490.82 ppb	12:35:06
2	Sr 421.552†	61000.5	68220.7	492.54	ug/L	492.54 ppb	12:33:27
2	Ti 334.940†	217190.8	240645.1	507.96	ug/L	507.96 ppb	12:34:46
2	Tl 190.801†	928.9	1054.9	487.78	ug/L	487.78 ppb	12:35:06
2	U 409.014†	12713.3	16546.9	531.96	ug/L	531.96 ppb	12:34:46
2	V 292.402†	56175.0	63532.8	495.45	ug/L	495.45 ppb	12:34:46
2	Zn 213.857†	43390.4	47105.9	488.16	ug/L	488.16 ppb	12:34:46
2	SiO2†	132995.2	145964.2	11358	ug/L	11358 ppb	12:35:42
3	Sc 361.383	711334.7	711334.7	92.629	%		12:35:12
3	Sc Radial	4245.6	4245.6	90.2	%		12:34:12
3	Y 371.029	620828.2	620828.2	90.101	%		12:35:12
3	Y RADIAL	4479.2	4479.2	89.85	%		12:34:12
3	Ag 328.068†	38184.6	40967.4	262.55	ug/L	262.55 ppb	12:35:12
3	Al 396.153Radial†	490418.7	543766.7	508630	ug/L	508630 ppb	12:33:52
3	As 188.979†	942.0	1042.0	510.73	ug/L	510.73 ppb	12:35:32
3	B 249.677†	19191.0	21171.6	498.90	ug/L	498.90 ppb	12:35:12
3	Ba 233.527†	38418.5	41473.3	496.10	ug/L	496.10 ppb	12:35:12
3	Be 313.107†	537296.8	589034.7	235.23	ug/L	235.23 ppb	12:35:12
3	Ca 317.933Radial†	233252.0	258561.7	469790	ug/L	469790 ppb	12:33:52
3	Cd 226.502†	30167.6	32754.8	445.67	ug/L	445.67 ppb	12:35:32
3	Co 228.616†	13958.9	15127.2	454.59	ug/L	454.59 ppb	12:35:32
3	Cr 267.716†	32066.5	34542.6	475.95	ug/L	475.95 ppb	12:35:12
3	Cu 324.752†	146988.8	151149.2	575.43	ug/L	575.43 ppb	12:35:12
3	Fe 238.204 Radial†	16048.8	17784.4	184530	ug/L	184530 ppb	12:34:12
3	K 766.490 Radial†	26138.4	26715.5	5158.2	ug/L	5158.2 ppb	12:33:52
3	Mg 279.077 IEC†	11161.3	12370.6	490980	ug/L	490980 ppb	12:34:12
3	Mn 257.610†	285976.0	308271.4	491.57	ug/L	491.57 ppb	12:35:12
3	Mo 202.031†	4590.3	4941.1	473.37	ug/L	473.37 ppb	12:35:32
3	Na 589.592 Radial†	12800.0	15037.9	5124.9	ug/L	5124.9 ppb	12:33:52
3	Ni 231.604†	13042.8	13979.4	446.60	ug/L	446.60 ppb	12:35:32
3	P 214.914†	4266.0	4410.1	2332.2	ug/L	2332.2 ppb	12:35:32
3	Pb 220.353†	2003.0	2233.1	476.47	ug/L	476.47 ppb	12:35:32
3	S 181.975 Axial†	1846.6	1951.0	2434.3	ug/L	2434.3 ppb	12:35:32
3	Sb 206.836†	1279.2	1351.0	548.09	ug/L	548.09 ppb	12:35:32
3	Se 196.026†	3008.7	3267.9	2464.4	ug/L	2464.4 ppb	12:35:32
3	Si 251.611†	134990.8	145143.5	5290.8	ug/L	5290.8 ppb	12:35:12
3	Sn 189.927†	1598.8	1718.0	477.44	ug/L	477.44 ppb	12:35:32
3	Sr 421.552†	60729.3	67325.2	486.06	ug/L	486.06 ppb	12:33:52
3	Ti 334.940†	221304.6	240215.9	506.52	ug/L	506.52 ppb	12:35:12
3	Tl 190.801†	918.7	1023.0	473.22	ug/L	473.22 ppb	12:35:32
3	U 409.014†	12848.6	16407.9	527.34	ug/L	527.34 ppb	12:35:12
3	V 292.402†	57099.5	63271.1	493.24	ug/L	493.24 ppb	12:35:12
3	Zn 213.857†	44289.2	47103.3	488.25	ug/L	488.25 ppb	12:35:12
3	SiO2†	131154.4	140994.6	10971	ug/L	10971 ppb	12:35:47

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	704178.2	91.697	%	0.9426				1.03%
Sc Radial	4226.5	89.8	%	0.39				0.44%
Y 371.029	615504.7	89.329	%	0.8135				0.91%
Y RADIAL	4466.7	89.60	%	0.307				0.34%
Ag 328.068†	41135.0	263.42	ug/L	0.754	263.42	ppb	0.754	0.29%
QC value within limits for Ag 328.068 Recovery = 105.37%								
Al 396.153Radial†	547840.5	512440	ug/L	3328.0	512440	ppb	3328.0	0.65%
QC value within limits for Al 396.153Radial Recovery = 102.49%								
As 188.979†	1058.4	518.09	ug/L	7.754	518.09	ppb	7.754	1.50%
QC value within limits for As 188.979 Recovery = 103.62%								
B 249.677†	21098.7	497.03	ug/L	1.742	497.03	ppb	1.742	0.35%
QC value within limits for B 249.677 Recovery = 99.41%								
Ba 233.527†	41495.7	496.38	ug/L	0.524	496.38	ppb	0.524	0.11%
QC value within limits for Ba 233.527 Recovery = 99.28%								
Be 313.107†	591200.9	236.09	ug/L	0.771	236.09	ppb	0.771	0.33%
QC value within limits for Be 313.107 Recovery = 94.44%								

Ca 317.933Radial†	260251.6	472860 ug/L	2686.1	472860 ppb	2686.1	0.57%
QC value within limits for Ca 317.933Radial Recovery = 94.57%						
Cd 226.502†	33170.8	451.56 ug/L	6.447	451.56 ppb	6.447	1.43%
QC value within limits for Cd 226.502 Recovery = 90.31%						
Co 228.616†	15379.4	462.22 ug/L	7.883	462.22 ppb	7.883	1.71%
QC value within limits for Co 228.616 Recovery = 92.44%						
Cr 267.716†	34580.0	476.46 ug/L	1.182	476.46 ppb	1.182	0.25%
QC value within limits for Cr 267.716 Recovery = 95.29%						
Cu 324.752†	150974.0	574.78 ug/L	1.211	574.78 ppb	1.211	0.21%
QC value within limits for Cu 324.752 Recovery = 114.96%						
Fe 238.204 Radial†	17797.8	184670 ug/L	129.1	184670 ppb	129.1	0.07%
QC value within limits for Fe 238.204 Radial Recovery = 92.33%						
K 766.490 Radial†	26997.9	5213.4 ug/L	48.39	5213.4 ppb	48.39	0.93%
QC value within limits for K 766.490 Radial Recovery = 104.27%						
Mg 279.077 IEC†	12371.1	491000 ug/L	134.9	491000 ppb	134.9	0.03%
QC value within limits for Mg 279.077 IEC Recovery = 98.20%						
Mn 257.610†	308681.7	492.24 ug/L	0.601	492.24 ppb	0.601	0.12%
QC value within limits for Mn 257.610 Recovery = 98.45%						
Mo 202.031†	4998.2	478.65 ug/L	5.719	478.65 ppb	5.719	1.19%
QC value within limits for Mo 202.031 Recovery = 95.73%						
Na 589.592 Radial†	15186.7	5175.6 ug/L	44.19	5175.6 ppb	44.19	0.85%
QC value within limits for Na 589.592 Radial Recovery = 103.51%						
Ni 231.604†	14179.2	452.98 ug/L	7.046	452.98 ppb	7.046	1.56%
QC value within limits for Ni 231.604 Recovery = 90.60%						
P 214.914†	4481.4	2373.1 ug/L	42.35	2373.1 ppb	42.35	1.78%
QC value within limits for P 214.914 Recovery = 94.92%						
Pb 220.353†	2281.4	485.24 ug/L	7.932	485.24 ppb	7.932	1.63%
QC value within limits for Pb 220.353 Recovery = 97.05%						
S 181.975 Axial†	1982.6	2474.5 ug/L	43.52	2474.5 ppb	43.52	1.76%
QC value within limits for S 181.975 Axial Recovery = 98.98%						
Sb 206.836†	1369.4	555.67 ug/L	9.684	555.67 ppb	9.684	1.74%
QC value within limits for Sb 206.836 Recovery = 111.13%						
Se 196.026†	3337.4	2507.6 ug/L	41.19	2507.6 ppb	41.19	1.64%
QC value within limits for Se 196.026 Recovery = 100.31%						
Si 251.611†	145293.4	5296.2 ug/L	6.83	5296.2 ppb	6.83	0.13%
QC value within limits for Si 251.611 Recovery = 105.92%						
Sn 189.927†	1742.7	483.81 ug/L	6.713	483.81 ppb	6.713	1.39%
QC value within limits for Sn 189.927 Recovery = 96.76%						
Sr 421.552†	67913.9	490.32 ug/L	3.689	490.32 ppb	3.689	0.75%
QC value within limits for Sr 421.552 Recovery = 98.06%						
Ti 334.940†	240425.3	507.35 ug/L	0.745	507.35 ppb	0.745	0.15%
QC value within limits for Ti 334.940 Recovery = 101.47%						
Tl 190.801†	1043.1	482.38 ug/L	7.980	482.38 ppb	7.980	1.65%
QC value within limits for Tl 190.801 Recovery = 96.48%						
U 409.014†	16388.5	526.67 ug/L	5.648	526.67 ppb	5.648	1.07%
QC value within limits for U 409.014 Recovery = 105.33%						
V 292.402†	63485.3	494.99 ug/L	1.580	494.99 ppb	1.580	0.32%
QC value within limits for V 292.402 Recovery = 99.00%						
Zn 213.857†	47116.5	488.34 ug/L	0.234	488.34 ppb	0.234	0.05%
QC value within limits for Zn 213.857 Recovery = 97.67%						
SiO2†	143420.5	11160 ug/L	193.6	11160 ppb	193.6	1.73%
QC value within limits for SiO2 Recovery = 104.35%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/1/2010 12:37:57
Data Type: Reprocessed on 3/1/2010 13:29:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	686767.6	686767.6	89.430	%			12:41:08
1	Sc Radial	4122.0	4122.0	87.6	%			12:40:10
1	Y 371.029	601213.8	601213.8	87.255	%			12:41:08
1	Y RADIAL	4361.2	4361.2	87.48	%			12:40:10
1	Ag 328.068†	-20956.2	-23688.7	-10.393	ug/L	-10.393	ppb	12:41:08
1	Al 396.153Radial†	480771.6	549041.9	513580	ug/L	513580	ppb	12:39:50
1	As 188.979†	-141.7	-133.4	39.576	ug/L	39.576	ppb	12:41:29
1	B 249.677†	909.2	1470.1	-31.931	ug/L	-31.931	ppb	12:41:08
1	Ba 233.527†	-1256.2	-1407.1	-3.6801	ug/L	-3.6801	ppb	12:41:29
1	Be 313.107†	-14739.2	-7498.6	-3.0284	ug/L	-3.0284	ppb	12:41:08
1	Ca 317.933Radial†	229140.4	261615.0	475340	ug/L	475340	ppb	12:39:50
1	Cd 226.502†	3021.3	3565.1	9.7623	ug/L	9.7623	ppb	12:41:29
1	Co 228.616†	125.5	197.8	-0.1878	ug/L	-0.1878	ppb	12:41:29
1	Cr 267.716†	13.3	-60.7	1.3378	ug/L	1.3378	ppb	12:41:29
1	Cu 324.752†	2512.7	-4726.5	-3.6433	ug/L	-3.6433	ppb	12:41:08
1	Fe 238.204 Radial†	35732.5	40792.8	423220	ug/L	423220	ppb	12:40:10
1	K 766.490 Radial†	3769.7	2042.7	57.081	ug/L	57.081	ppb	12:39:50
1	Mg 279.077 IEC†	10832.4	12365.8	490540	ug/L	490540	ppb	12:40:10
1	Mn 257.610†	-19567.0	-22340.8	-14.034	ug/L	-14.034	ppb	12:41:08
1	Mo 202.031†	-368.1	-426.0	-0.5878	ug/L	-0.5878	ppb	12:41:29
1	Na 589.592 Radial†	1254868.7	1433682.2	488600	ug/L	488600	ppb	12:39:50
1	Ni 231.604†	227.3	152.9	4.8834	ug/L	4.8834	ppb	12:41:29
1	P 214.914†	491.6	354.4	-12.244	ug/L	-12.244	ppb	12:41:29
1	Pb 220.353†	-508.5	-497.9	17.358	ug/L	17.358	ppb	12:41:29
1	S 181.975 Axial†	75.3	41.7	-42.221	ug/L	-42.221	ppb	12:41:29
1	Sb 206.836†	55.2	31.7	-7.7022	ug/L	-7.7022	ppb	12:41:29
1	Se 196.026†	-1821.2	-2016.7	-238.73	ug/L	-238.73	ppb	12:41:29
1	Si 251.611†	-295.1	-919.2	-33.061	ug/L	-33.061	ppb	12:41:29
1	Sn 189.927†	-319.9	-365.8	-25.996	ug/L	-25.996	ppb	12:41:29
1	Sr 421.552†	1457.0	1664.2	8.5520	ug/L	8.5520	ppb	12:40:10
1	Ti 334.940†	-10515.5	-10457.4	-4.0393	ug/L	-4.0393	ppb	12:41:08
1	Tl 190.801†	-87.8	-66.9	-31.150	ug/L	-31.150	ppb	12:41:29
1	U 409.014†	400386.5	450246.4	15029	ug/L	15029	ppb	12:41:08
1	V 292.402†	928.2	2665.9	-2.6029	ug/L	-2.6029	ppb	12:41:29
1	Zn 213.857†	5023.9	4907.4	-9.2212	ug/L	-9.2212	ppb	12:41:29
1	SiO2†	-297.9	-929.5	-71.347	ug/L	-71.347	ppb	12:42:25
2	Sc 361.383	698587.1	698587.1	90.969	%			12:41:34
2	Sc Radial	4111.8	4111.8	87.4	%			12:40:36
2	Y 371.029	611197.6	611197.6	88.703	%			12:41:34
2	Y RADIAL	4353.6	4353.6	87.33	%			12:40:36
2	Ag 328.068†	-21331.8	-23705.1	-10.229	ug/L	-10.229	ppb	12:41:34
2	Al 396.153Radial†	481893.3	551691.8	516060	ug/L	516060	ppb	12:40:16
2	As 188.979†	-162.4	-153.5	30.815	ug/L	30.815	ppb	12:41:54
2	B 249.677†	1044.8	1602.0	-28.754	ug/L	-28.754	ppb	12:41:34
2	Ba 233.527†	-1298.2	-1429.5	-3.9206	ug/L	-3.9206	ppb	12:41:54
2	Be 313.107†	-15028.9	-7538.2	-3.0428	ug/L	-3.0428	ppb	12:41:34
2	Ca 317.933Radial†	229225.9	262363.8	476700	ug/L	476700	ppb	12:40:16
2	Cd 226.502†	2974.3	3456.2	8.1325	ug/L	8.1325	ppb	12:41:54
2	Co 228.616†	134.8	205.6	0.0344	ug/L	0.0344	ppb	12:41:54
2	Cr 267.716†	95.5	29.4	2.5996	ug/L	2.5996	ppb	12:41:54
2	Cu 324.752†	2468.3	-4822.8	-3.9426	ug/L	-3.9426	ppb	12:41:34
2	Fe 238.204 Radial†	35707.9	40866.1	423980	ug/L	423980	ppb	12:40:36
2	K 766.490 Radial†	3807.8	2097.0	67.154	ug/L	67.154	ppb	12:40:16
2	Mg 279.077 IEC†	10811.2	12372.3	490790	ug/L	490790	ppb	12:40:36
2	Mn 257.610†	-19964.4	-22407.5	-14.076	ug/L	-14.076	ppb	12:41:34
2	Mo 202.031†	-376.0	-427.7	-0.6620	ug/L	-0.6620	ppb	12:41:54
2	Na 589.592 Radial†	1253696.5	1435905.8	489360	ug/L	489360	ppb	12:40:16
2	Ni 231.604†	221.7	142.4	4.5481	ug/L	4.5481	ppb	12:41:54

2	P 214.914†	500.0	354.3	-12.162 ug/L	-12.162 ppb	12:41:54
2	Pb 220.353†	-509.8	-489.8	19.237 ug/L	19.237 ppb	12:41:54
2	S 181.975 Axial†	81.0	46.5	-36.378 ug/L	-36.378 ppb	12:41:54
2	Sb 206.836†	19.3	-8.8	-24.136 ug/L	-24.136 ppb	12:41:54
2	Se 196.026†	-1799.7	-1958.6	-201.24 ug/L	-201.24 ppb	12:41:54
2	Si 251.611†	-276.4	-893.0	-32.104 ug/L	-32.104 ppb	12:41:54
2	Sn 189.927†	-306.6	-345.1	-20.930 ug/L	-20.930 ppb	12:41:54
2	Sr 421.552†	1473.2	1686.8	8.7066 ug/L	8.7066 ppb	12:40:36
2	Ti 334.940†	-10433.7	-10168.5	-3.2793 ug/L	-3.2793 ppb	12:41:34
2	Tl 190.801†	-93.1	-71.1	-33.081 ug/L	-33.081 ppb	12:41:54
2	U 409.014†	406236.9	449102.7	14990 ug/L	14990 ppb	12:41:34
2	V 292.402†	983.3	2708.9	-2.4425 ug/L	-2.4425 ppb	12:41:54
2	Zn 213.857†	5022.5	4810.8	-10.398 ug/L	-10.398 ppb	12:41:54
2	SiO2†	-358.4	-990.4	-76.088 ug/L	-76.088 ppb	12:42:30
3	Sc 361.383	689597.3	689597.3	89.798 %		12:42:00
3	Sc Radial	4087.4	4087.4	86.8 %		12:41:01
3	Y 371.029	602594.6	602594.6	87.455 %		12:42:00
3	Y RADIAL	4345.6	4345.6	87.17 %		12:41:01
3	Ag 328.068†	-21229.9	-23897.4	-11.215 ug/L	-11.215 ppb	12:42:00
3	Al 396.153Radial†	478076.8	550594.4	515040 ug/L	515040 ppb	12:40:41
3	As 188.979†	-167.3	-161.3	27.351 ug/L	27.351 ppb	12:42:20
3	B 249.677†	880.0	1433.4	-32.969 ug/L	-32.969 ppb	12:42:00
3	Ba 233.527†	-1265.4	-1411.5	-3.7087 ug/L	-3.7087 ppb	12:42:20
3	Be 313.107†	-15003.2	-7725.0	-3.1166 ug/L	-3.1166 ppb	12:42:00
3	Ca 317.933Radial†	227420.5	261853.4	475770 ug/L	475770 ppb	12:40:41
3	Cd 226.502†	2972.8	3497.1	8.7172 ug/L	8.7172 ppb	12:42:20
3	Co 228.616†	119.8	190.9	-0.4170 ug/L	-0.4170 ppb	12:42:20
3	Cr 267.716†	75.5	8.5	2.3123 ug/L	2.3123 ppb	12:42:20
3	Cu 324.752†	2406.4	-4856.4	-4.0718 ug/L	-4.0718 ppb	12:42:00
3	Fe 238.204 Radial†	35493.6	40863.6	423960 ug/L	423960 ppb	12:41:01
3	K 766.490 Radial†	3660.3	1953.3	39.706 ug/L	39.706 ppb	12:40:41
3	Mg 279.077 IEC†	10734.3	12357.7	490220 ug/L	490220 ppb	12:41:01
3	Mn 257.610†	-19381.1	-22044.0	-13.473 ug/L	-13.473 ppb	12:42:00
3	Mo 202.031†	-393.4	-452.5	-2.9511 ug/L	-2.9511 ppb	12:42:20
3	Na 589.592 Radial†	1240645.9	1429456.2	487160 ug/L	487160 ppb	12:40:41
3	Ni 231.604†	240.6	166.6	5.3210 ug/L	5.3210 ppb	12:42:20
3	P 214.914†	499.7	361.1	-8.6219 ug/L	-8.6219 ppb	12:42:20
3	Pb 220.353†	-491.5	-476.6	21.087 ug/L	21.087 ppb	12:42:20
3	S 181.975 Axial†	67.9	33.1	-53.672 ug/L	-53.672 ppb	12:42:20
3	Sb 206.836†	60.3	37.1	-5.6258 ug/L	-5.6258 ppb	12:42:20
3	Se 196.026†	-1787.0	-1970.2	-208.53 ug/L	-208.53 ppb	12:42:20
3	Si 251.611†	-312.3	-937.0	-33.680 ug/L	-33.680 ppb	12:42:20
3	Sn 189.927†	-325.1	-370.1	-26.966 ug/L	-26.966 ppb	12:42:20
3	Sr 421.552†	1458.4	1679.8	8.6627 ug/L	8.6627 ppb	12:41:01
3	Ti 334.940†	-10216.9	-10076.6	-3.1731 ug/L	-3.1731 ppb	12:42:00
3	Tl 190.801†	-87.3	-66.0	-30.702 ug/L	-30.702 ppb	12:42:20
3	U 409.014†	401117.0	449222.7	14994 ug/L	14994 ppb	12:42:00
3	V 292.402†	999.5	2741.1	-2.2187 ug/L	-2.2187 ppb	12:42:20
3	Zn 213.857†	5001.3	4859.2	-9.8651 ug/L	-9.8651 ppb	12:42:20
3	SiO2†	-347.8	-983.8	-75.505 ug/L	-75.505 ppb	12:42:36

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	691650.7	90.066	%	0.8036				0.89%
Sc Radial	4107.1	87.3	%	0.38				0.43%
Y 371.029	605002.0	87.804	%	0.7851				0.89%
Y RADIAL	4353.5	87.32	%	0.156				0.18%
Ag 328.068†	-23763.7	-10.612	ug/L	0.5283	-10.612	ppb	0.5283	4.98%
Al 396.153Radial†	550442.7	514890	ug/L	1245.5	514890	ppb	1245.5	0.24%
QC value within limits for Al 396.153Radial Recovery = 102.98%								
As 188.979†	-149.4	32.581	ug/L	6.3010	32.581	ppb	6.3010	19.34%
B 249.677†	1501.9	-31.218	ug/L	2.1962	-31.218	ppb	2.1962	7.03%
Ba 233.527†	-1416.0	-3.7698	ug/L	0.13141	-3.7698	ppb	0.13141	3.49%
Be 313.107†	-7587.3	-3.0626	ug/L	0.04734	-3.0626	ppb	0.04734	1.55%
Ca 317.933Radial†	261944.1	475940	ug/L	695.1	475940	ppb	695.1	0.15%
QC value within limits for Ca 317.933Radial Recovery = 95.19%								
Cd 226.502†	3506.1	8.8707	ug/L	0.82563	8.8707	ppb	0.82563	9.31%
Co 228.616†	198.1	-0.1901	ug/L	0.22570	-0.1901	ppb	0.22570	118.70%
Cr 267.716†	-7.6	2.0832	ug/L	0.66134	2.0832	ppb	0.66134	31.75%

Cu 324.752†	-4801.9	-3.8859 ug/L	0.21982	-3.8859 ppb	0.21982	5.66%
Fe 238.204 Radial†	40840.8	423720 ug/L	432.1	423720 ppb	432.1	0.10%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 84.74%						
K 766.490 Radial†	2031.0	54.647 ug/L	13.8847	54.647 ppb	13.8847	25.41%
Mg 279.077 IEC†	12365.3	490520 ug/L	288.9	490520 ppb	288.9	0.06%
QC value within limits for Mg 279.077 IEC Recovery = 98.10%						
Mn 257.610†	-22264.1	-13.861 ug/L	0.3366	-13.861 ppb	0.3366	2.43%
Mo 202.031†	-435.4	-1.4003 ug/L	1.34357	-1.4003 ppb	1.34357	95.95%
Na 589.592 Radial†	1433014.8	488370 ug/L	1116.5	488370 ppb	1116.5	0.23%
QC value within limits for Na 589.592 Radial Recovery = 97.67%						
Ni 231.604†	153.9	4.9175 ug/L	0.38760	4.9175 ppb	0.38760	7.88%
P 214.914†	356.6	-11.009 ug/L	2.0680	-11.009 ppb	2.0680	18.78%
Pb 220.353†	-488.1	19.228 ug/L	1.8645	19.228 ppb	1.8645	9.70%
S 181.975 Axial†	40.4	-44.090 ug/L	8.7975	-44.090 ppb	8.7975	19.95%
Sb 206.836†	20.0	-12.488 ug/L	10.1408	-12.488 ppb	10.1408	81.20%
Se 196.026†	-1981.8	-216.17 ug/L	19.881	-216.17 ppb	19.881	9.20%
Si 251.611†	-916.4	-32.948 ug/L	0.7939	-32.948 ppb	0.7939	2.41%
Sn 189.927†	-360.3	-24.630 ug/L	3.2411	-24.630 ppb	3.2411	13.16%
Sr 421.552†	1676.9	8.6405 ug/L	0.07972	8.6405 ppb	0.07972	0.92%
Ti 334.940†	-10234.1	-3.4973 ug/L	0.47244	-3.4973 ppb	0.47244	13.51%
Tl 190.801†	-68.0	-31.644 ug/L	1.2645	-31.644 ppb	1.2645	4.00%
U 409.014†	449523.9	15004 ug/L	21.1	15004 ppb	21.1	0.14%
QC value within limits for U 409.014 Recovery = 100.03%						
V 292.402†	2705.3	-2.4214 ug/L	0.19300	-2.4214 ppb	0.19300	7.97%
Zn 213.857†	4859.1	-9.8281 ug/L	0.58917	-9.8281 ppb	0.58917	5.99%
SiO2†	-967.9	-74.313 ug/L	2.5855	-74.313 ppb	2.5855	3.48%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/1/2010 12:44:45
Data Type: Reprocessed on 3/1/2010 13:29:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	782532.9	782532.9	101.90	%			12:48:21
1	Sc Radial	4642.2	4642.2	98.6	%			12:46:43
1	Y 371.029	684711.6	684711.6	99.373	%			12:48:21
1	Y RADIAL	4828.2	4828.2	96.85	%			12:46:43
1	Ag 328.068†	-6161.1	-6301.9	7.2805	ug/L	7.2805	ppb	12:48:26
1	Al 396.153Radial†	409.5	502.3	5.5185	ug/L	5.5185	ppb	12:46:43
1	As 188.979†	21598.3	21220.5	9517.6	ug/L	9517.6	ppb	12:48:26
1	B 249.677†	200037.2	196760.0	4899.5	ug/L	4899.5	ppb	12:48:21
1	Ba 233.527†	1207446.3	1184925.5	14004	ug/L	14004	ppb	12:48:21
1	Be 313.107†	6921766.5	6801660.8	2725.2	ug/L	2725.2	ppb	12:48:14
1	Ca 317.933Radial†	33.0	11.3	20.516	ug/L	20.516	ppb	12:47:03
1	Cd 226.502†	692804.5	680070.6	9647.1	ug/L	9647.1	ppb	12:48:21
1	Co 228.616†	327054.1	321012.1	9700.2	ug/L	9700.2	ppb	12:48:26
1	Cr 267.716†	1776350.6	1743146.8	23829	ug/L	23829	ppb	12:48:21
1	Cu 324.752†	5513657.3	5403293.6	20232	ug/L	20232	ppb	12:48:14
1	Fe 238.204 Radial†	-17.1	-24.7	34.458	ug/L	34.458	ppb	12:47:03
1	K 766.490 Radial†	1449010.1	1466853.5	291980	ug/L	291980	ppb	12:46:38
1	Mg 279.077 IEC†	-2.9	-5.9	-133.00	ug/L	-133.00	ppb	12:47:03
1	Mn 257.610†	5985441.4	5873354.0	9401.1	ug/L	9401.1	ppb	12:48:14
1	Mo 202.031†	106340.9	104343.3	9575.8	ug/L	9575.8	ppb	12:48:26
1	Na 589.592 Radial†	-65.4	781.5	266.32	ug/L	266.32	ppb	12:46:43
1	Ni 231.604†	312178.7	306255.3	9784.2	ug/L	9784.2	ppb	12:48:26
1	P 214.914†	30822.0	30051.8	12858	ug/L	12858	ppb	12:48:26
1	Pb 220.353†	154527.6	151716.5	24477	ug/L	24477	ppb	12:48:26
1	S 181.975 Axial†	39401.6	38624.2	50078	ug/L	50078	ppb	12:48:26
1	Sb 206.836†	26528.1	26003.3	10908	ug/L	10908	ppb	12:48:26
1	Se 196.026†	16594.0	16304.3	10014	ug/L	10014	ppb	12:48:26
1	Si 251.611†	1299129.9	1274312.4	46383	ug/L	46383	ppb	12:48:21
1	Sn 189.927†	43970.3	43142.2	10160	ug/L	10160	ppb	12:48:26
1	Sr 421.552†	1306985.7	1325120.6	9635.9	ug/L	9635.9	ppb	12:46:38
1	Ti 334.940†	4832677.1	4743850.6	9550.3	ug/L	9550.3	ppb	12:48:14
1	Tl 190.801†	22457.7	22070.1	10198	ug/L	10198	ppb	12:48:26
1	U 409.014†	-1171.6	1387.1	-6.8173	ug/L	-6.8173	ppb	12:48:26
1	V 292.402†	1257655.0	1235828.2	9957.9	ug/L	9957.9	ppb	12:48:21
1	Zn 213.857†	1274909.2	1250422.3	13701	ug/L	13701	ppb	12:48:21
1	SiO2†	1276728.6	1252321.6	97297	ug/L	97297	ppb	12:49:12
2	Sc 361.383	777689.9	777689.9	101.27	%			12:48:40
2	Sc Radial	4601.6	4601.6	97.8	%			12:47:14
2	Y 371.029	680527.1	680527.1	98.765	%			12:48:40
2	Y RADIAL	4806.9	4806.9	96.42	%			12:47:14
2	Ag 328.068†	-6103.3	-6282.4	7.1415	ug/L	7.1415	ppb	12:48:46
2	Al 396.153Radial†	410.5	507.0	12.459	ug/L	12.459	ppb	12:47:14
2	As 188.979†	21355.1	21112.4	9471.9	ug/L	9471.9	ppb	12:48:46
2	B 249.677†	197412.6	195390.8	4865.4	ug/L	4865.4	ppb	12:48:40
2	Ba 233.527†	1193882.5	1178910.8	13933	ug/L	13933	ppb	12:48:40
2	Be 313.107†	7068217.4	6988576.2	2800.1	ug/L	2800.1	ppb	12:48:34
2	Ca 317.933Radial†	33.7	12.3	22.341	ug/L	22.341	ppb	12:47:34
2	Cd 226.502†	685092.6	676689.3	9599.2	ug/L	9599.2	ppb	12:48:40
2	Co 228.616†	323493.1	319494.5	9653.7	ug/L	9653.7	ppb	12:48:46
2	Cr 267.716†	1756735.6	1734633.4	23712	ug/L	23712	ppb	12:48:40
2	Cu 324.752†	5628722.1	5550611.1	20784	ug/L	20784	ppb	12:48:34
2	Fe 238.204 Radial†	-16.4	-24.1	39.221	ug/L	39.221	ppb	12:47:34
2	K 766.490 Radial†	1448208.3	1479004.1	294400	ug/L	294400	ppb	12:47:09
2	Mg 279.077 IEC†	-4.3	-7.3	-188.67	ug/L	-188.67	ppb	12:47:34
2	Mn 257.610†	6123112.2	6045877.2	9677.2	ug/L	9677.2	ppb	12:48:34
2	Mo 202.031†	105089.6	103757.6	9522.0	ug/L	9522.0	ppb	12:48:46
2	Na 589.592 Radial†	-125.0	720.0	245.36	ug/L	245.36	ppb	12:47:14
2	Ni 231.604†	308881.1	304906.9	9741.1	ug/L	9741.1	ppb	12:48:46

2	P 214.914†	30500.6	29922.8	12676	ug/L	12676	ppb	12:48:46
2	Pb 220.353†	152893.2	151046.8	24368	ug/L	24368	ppb	12:48:46
2	S 181.975 Axial†	38908.3	38378.0	49759	ug/L	49759	ppb	12:48:46
2	Sb 206.836†	26191.2	25832.8	10835	ug/L	10835	ppb	12:48:46
2	Se 196.026†	16333.3	16148.3	9918.7	ug/L	9918.7	ppb	12:48:46
2	Si 251.611†	1284144.0	1267453.8	46133	ug/L	46133	ppb	12:48:40
2	Sn 189.927†	43436.1	42883.4	10099	ug/L	10099	ppb	12:48:46
2	Sr 421.552†	1303990.6	1333756.6	9698.7	ug/L	9698.7	ppb	12:47:09
2	Ti 334.940†	4935183.4	4874605.3	9813.8	ug/L	9813.8	ppb	12:48:34
2	Tl 190.801†	22100.6	21854.7	10103	ug/L	10103	ppb	12:48:46
2	U 409.014†	-1159.3	1392.1	-6.3906	ug/L	-6.3906	ppb	12:48:46
2	V 292.402†	1242294.0	1228345.7	9897.3	ug/L	9897.3	ppb	12:48:40
2	Zn 213.857†	1262211.2	1245674.8	13648	ug/L	13648	ppb	12:48:40
2	SiO2†	1273958.1	1257388.3	97693	ug/L	97693	ppb	12:49:18
3	Sc 361.383	780596.0	780596.0	101.65	%			12:49:00
3	Sc Radial	4673.4	4673.4	99.3	%			12:47:44
3	Y 371.029	683014.5	683014.5	99.126	%			12:49:00
3	Y RADIAL	4901.1	4901.1	98.31	%			12:47:44
3	Ag 328.068†	-6012.2	-6170.4	7.7025	ug/L	7.7025	ppb	12:49:05
3	Al 396.153Radial†	389.4	479.3	-5.2635	ug/L	-5.2635	ppb	12:47:44
3	As 188.979†	20985.6	20670.4	9274.5	ug/L	9274.5	ppb	12:49:05
3	B 249.677†	198627.6	195860.4	4877.6	ug/L	4877.6	ppb	12:49:00
3	Ba 233.527†	1196921.8	1177511.8	13916	ug/L	13916	ppb	12:49:00
3	Be 313.107†	7026646.0	6921694.7	2773.3	ug/L	2773.3	ppb	12:48:54
3	Ca 317.933Radial†	37.0	15.1	27.403	ug/L	27.403	ppb	12:48:04
3	Cd 226.502†	685216.7	674292.9	9565.1	ug/L	9565.1	ppb	12:49:00
3	Co 228.616†	318810.6	313698.7	9478.4	ug/L	9478.4	ppb	12:49:05
3	Cr 267.716†	1759386.5	1730783.2	23660	ug/L	23660	ppb	12:49:00
3	Cu 324.752†	5591149.3	5492955.1	20568	ug/L	20568	ppb	12:48:54
3	Fe 238.204 Radial†	-19.7	-27.2	1.9320	ug/L	1.9320	ppb	12:48:04
3	K 766.490 Radial†	1473685.9	1481895.8	294980	ug/L	294980	ppb	12:47:39
3	Mg 279.077 IEC†	-11.1	-14.0	-458.65	ug/L	-458.65	ppb	12:48:04
3	Mn 257.610†	6091386.4	5992156.1	9591.2	ug/L	9591.2	ppb	12:48:54
3	Mo 202.031†	103625.2	101930.6	9354.3	ug/L	9354.3	ppb	12:49:05
3	Na 589.592 Radial†	-195.6	650.8	221.78	ug/L	221.78	ppb	12:47:44
3	Ni 231.604†	304752.8	299710.0	9575.1	ug/L	9575.1	ppb	12:49:05
3	P 214.914†	29959.8	29278.7	12358	ug/L	12358	ppb	12:49:05
3	Pb 220.353†	150873.8	148498.1	23957	ug/L	23957	ppb	12:49:05
3	S 181.975 Axial†	38400.4	37735.3	48926	ug/L	48926	ppb	12:49:05
3	Sb 206.836†	25783.6	25335.5	10628	ug/L	10628	ppb	12:49:05
3	Se 196.026†	15988.1	15748.6	9673.3	ug/L	9673.3	ppb	12:49:05
3	Si 251.611†	1291751.4	1270217.0	46236	ug/L	46236	ppb	12:49:00
3	Sn 189.927†	42953.4	42248.8	9949.4	ug/L	9949.4	ppb	12:49:05
3	Sr 421.552†	1323486.9	1332891.7	9692.5	ug/L	9692.5	ppb	12:47:39
3	Ti 334.940†	4907763.8	4829487.5	9723.0	ug/L	9723.0	ppb	12:48:54
3	Tl 190.801†	21724.9	21403.8	9895.5	ug/L	9895.5	ppb	12:49:05
3	U 409.014†	-1401.8	1157.7	-14.117	ug/L	-14.117	ppb	12:49:05
3	V 292.402†	1246575.0	1227990.3	9892.2	ug/L	9892.2	ppb	12:49:00
3	Zn 213.857†	1263738.1	1242536.8	13615	ug/L	13615	ppb	12:49:00
3	SiO2†	1298149.9	1276504.6	99187	ug/L	99187	ppb	12:49:24

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	780272.9	101.61	%	0.317				0.31%
Sc Radial	4639.1	98.6	%	0.77				0.78%
Y 371.029	682751.1	99.088	%	0.3055				0.31%
Y RADIAL	4845.4	97.19	%	0.991				1.02%
Ag 328.068†	-6251.6	7.3749	ug/L	0.29217	7.3749	ppb	0.29217	3.96%
Al 396.153Radial†	496.2	4.2380	ug/L	8.93035	4.2380	ppb	8.93035	210.72%
As 188.979†	21001.1	9421.3	ug/L	129.22	9421.3	ppb	129.22	1.37%
QC value within limits for As 188.979 Recovery = 94.21%								
B 249.677†	196003.8	4880.8	ug/L	17.30	4880.8	ppb	17.30	0.35%
QC value within limits for B 249.677 Recovery = 97.62%								
Ba 233.527†	1180449.4	13951	ug/L	46.6	13951	ppb	46.6	0.33%
QC value within limits for Ba 233.527 Recovery = 93.01%								
Be 313.107†	6903977.2	2766.2	ug/L	37.95	2766.2	ppb	37.95	1.37%
QC value within limits for Be 313.107 Recovery = 92.21%								
Ca 317.933Radial†	12.9	23.420	ug/L	3.5683	23.420	ppb	3.5683	15.24%
Cd 226.502†	677017.6	9603.8	ug/L	41.21	9603.8	ppb	41.21	0.43%

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   QC value within limits for Cd 226.502  Recovery = 96.04%
Co 228.616†          318068.4      9610.8 ug/L        117.00      9610.8 ppb        117.00   1.22%
   QC value within limits for Co 228.616  Recovery = 96.11%
Cr 267.716†         1736187.8       23733 ug/L          86.5       23733 ppb          86.5   0.36%
   QC value within limits for Cr 267.716  Recovery = 94.93%
Cu 324.752†         5482286.6       20528 ug/L         278.0       20528 ppb         278.0   1.35%
   QC value within limits for Cu 324.752  Recovery = 102.64%
Fe 238.204 Radial†       -25.3      25.204 ug/L       20.2941      25.204 ppb       20.2941  80.52%
K 766.490 Radial†    1475917.8      293790 ug/L        1589.0      293790 ppb        1589.0   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 97.93%
Mg 279.077 IEC†           -9.1     -260.10 ug/L       174.182     -260.10 ppb       174.182  66.97%
Mn 257.610†          5970462.5      9556.5 ug/L        141.31      9556.5 ppb        141.31   1.48%
   QC value within limits for Mn 257.610  Recovery = 95.57%
Mo 202.031†           103343.8      9484.0 ug/L        115.49      9484.0 ppb        115.49   1.22%
   QC value within limits for Mo 202.031  Recovery = 94.84%
Na 589.592 Radial†       717.4      244.49 ug/L        22.281      244.49 ppb        22.281   9.11%
Ni 231.604†           303624.1      9700.1 ug/L        110.41      9700.1 ppb        110.41   1.14%
   QC value within limits for Ni 231.604  Recovery = 97.00%
P 214.914†             29751.1       12631 ug/L         253.2       12631 ppb         253.2   2.00%
   QC value less than the lower limit for P 214.914  Recovery = 84.20%
Pb 220.353†           150420.5       24267 ug/L         274.2       24267 ppb         274.2   1.13%
   QC value within limits for Pb 220.353  Recovery = 97.07%
S 181.975 Axial†       38245.8       49588 ug/L         595.1       49588 ppb         595.1   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 99.18%
Sb 206.836†            25723.9       10790 ug/L         145.1       10790 ppb         145.1   1.35%
   QC value within limits for Sb 206.836  Recovery = 107.90%
Se 196.026†            16067.1      9868.8 ug/L        175.92      9868.8 ppb        175.92   1.78%
   QC value within limits for Se 196.026  Recovery = 98.69%
Si 251.611†          1270661.1       46251 ug/L         125.4       46251 ppb         125.4   0.27%
   QC value within limits for Si 251.611  Recovery = 92.50%
Sn 189.927†            42758.1       10069 ug/L         108.2       10069 ppb         108.2   1.08%
   QC value within limits for Sn 189.927  Recovery = 100.69%
Sr 421.552†          1330589.6      9675.7 ug/L        34.58      9675.7 ppb         34.58   0.36%
   QC value within limits for Sr 421.552  Recovery = 96.76%
Ti 334.940†          4815981.1      9695.7 ug/L       133.86      9695.7 ppb        133.86   1.38%
   QC value within limits for Ti 334.940  Recovery = 96.96%
Tl 190.801†            21776.2       10066 ug/L         154.7       10066 ppb         154.7   1.54%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†              1312.3     -9.1083 ug/L       4.34296     -9.1083 ppb       4.34296  47.68%
V 292.402†           1230721.4      9915.8 ug/L        36.54      9915.8 ppb        36.54   0.37%
   QC value within limits for V 292.402  Recovery = 99.16%
Zn 213.857†          1246211.3       13654 ug/L         43.4       13654 ppb         43.4   0.32%
   QC value within limits for Zn 213.857  Recovery = 91.03%
SiO2†                1262071.5       98059 ug/L        996.7       98059 ppb        996.7   1.02%
   QC value within limits for SiO2  Recovery = 91.64%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 12:51:34
Data Type: Reprocessed on 3/1/2010 13:29:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	822882.6	822882.6	107.15	%			12:54:43
1	Sc Radial	4809.3	4809.3	102	%			12:53:26
1	Y 371.029	728740.1	728740.1	105.76	%			12:54:43
1	Y RADIAL	5065.3	5065.3	101.6	%			12:53:26
1	Ag 328.068†	102975.6	95844.3	495.91	ug/L	495.91	ppb	12:54:48
1	Al 396.153Radial†	5501.9	5471.6	5094.4	ug/L	5094.4	ppb	12:53:26
1	As 188.979†	1234.4	1177.0	528.91	ug/L	528.91	ppb	12:55:08
1	B 249.677†	22207.5	21178.2	528.05	ug/L	528.05	ppb	12:54:48
1	Ba 233.527†	45158.0	42140.4	498.50	ug/L	498.50	ppb	12:54:48
1	Be 313.107†	1327236.4	1247599.9	497.02	ug/L	497.02	ppb	12:54:43
1	Ca 317.933Radial†	2946.9	2861.9	5199.9	ug/L	5199.9	ppb	12:53:46
1	Cd 226.502†	37567.8	35246.0	499.54	ug/L	499.54	ppb	12:54:48
1	Co 228.616†	17860.7	16725.6	505.54	ug/L	505.54	ppb	12:54:48
1	Cr 267.716†	39093.8	36407.9	498.00	ug/L	498.00	ppb	12:54:48
1	Cu 324.752†	149252.5	131750.8	493.33	ug/L	493.33	ppb	12:54:48
1	Fe 238.204 Radial†	519.5	501.1	5214.2	ug/L	5214.2	ppb	12:53:46
1	K 766.490 Radial†	29938.5	27037.9	5376.0	ug/L	5376.0	ppb	12:53:26
1	Mg 279.077 IEC†	141.8	135.9	5393.9	ug/L	5393.9	ppb	12:53:46
1	Mn 257.610†	332636.2	309965.0	496.43	ug/L	496.43	ppb	12:54:48
1	Mo 202.031†	5749.3	5351.1	491.54	ug/L	491.54	ppb	12:55:08
1	Na 589.592 Radial†	28044.9	28294.2	9642.6	ug/L	9642.6	ppb	12:53:26
1	Ni 231.604†	17043.8	15804.4	504.92	ug/L	504.92	ppb	12:54:48
1	P 214.914†	4924.0	4399.8	2360.7	ug/L	2360.7	ppb	12:55:08
1	Pb 220.353†	3273.5	3125.7	505.86	ug/L	505.86	ppb	12:55:08
1	S 181.975 Axial†	861.9	761.9	986.84	ug/L	986.84	ppb	12:55:08
1	Sb 206.836†	1385.7	1263.2	530.23	ug/L	530.23	ppb	12:55:08
1	Se 196.026†	857.3	819.8	515.74	ug/L	515.74	ppb	12:55:08
1	Si 251.611†	73316.3	67831.8	2469.2	ug/L	2469.2	ppb	12:54:48
1	Sn 189.927†	2267.6	2108.2	497.09	ug/L	497.09	ppb	12:55:08
1	Sr 421.552†	69652.3	68166.3	495.65	ug/L	495.65	ppb	12:53:26
1	Ti 334.940†	261113.4	244980.0	493.49	ug/L	493.49	ppb	12:54:48
1	Tl 190.801†	1118.1	1074.7	496.83	ug/L	496.83	ppb	12:55:08
1	U 409.014†	13419.9	15060.6	502.61	ug/L	502.61	ppb	12:54:48
1	V 292.402†	65036.2	62321.7	502.84	ug/L	502.84	ppb	12:54:48
1	Zn 213.857†	49138.2	45147.0	493.24	ug/L	493.24	ppb	12:54:48
1	SiO2†	72354.7	66927.1	5200.4	ug/L	5200.4	ppb	12:56:15
2	Sc 361.383	817634.9	817634.9	106.47	%			12:55:14
2	Sc Radial	4813.6	4813.6	102	%			12:53:51
2	Y 371.029	723758.5	723758.5	105.04	%			12:55:14
2	Y RADIAL	5082.9	5082.9	102.0	%			12:53:51
2	Ag 328.068†	102723.2	96224.0	497.86	ug/L	497.86	ppb	12:55:19
2	Al 396.153Radial†	5489.1	5454.3	5078.1	ug/L	5078.1	ppb	12:53:51
2	As 188.979†	1225.4	1175.9	528.43	ug/L	528.43	ppb	12:55:39
2	B 249.677†	22096.5	21206.9	528.75	ug/L	528.75	ppb	12:55:19
2	Ba 233.527†	45029.9	42290.6	500.28	ug/L	500.28	ppb	12:55:19
2	Be 313.107†	1316819.1	1245765.3	496.29	ug/L	496.29	ppb	12:55:14
2	Ca 317.933Radial†	2930.4	2843.1	5165.8	ug/L	5165.8	ppb	12:54:11
2	Cd 226.502†	37458.6	35368.5	501.28	ug/L	501.28	ppb	12:55:19
2	Co 228.616†	17920.1	16888.4	510.47	ug/L	510.47	ppb	12:55:19
2	Cr 267.716†	38967.4	36523.3	499.58	ug/L	499.58	ppb	12:55:19
2	Cu 324.752†	148589.3	132021.8	494.34	ug/L	494.34	ppb	12:55:19
2	Fe 238.204 Radial†	519.6	500.7	5210.4	ug/L	5210.4	ppb	12:54:11
2	K 766.490 Radial†	29656.3	26735.8	5315.8	ug/L	5315.8	ppb	12:53:51
2	Mg 279.077 IEC†	141.8	135.7	5389.4	ug/L	5389.4	ppb	12:54:11
2	Mn 257.610†	331860.9	311229.2	498.46	ug/L	498.46	ppb	12:55:19
2	Mo 202.031†	5743.4	5379.9	494.19	ug/L	494.19	ppb	12:55:39
2	Na 589.592 Radial†	28298.1	28517.1	9718.6	ug/L	9718.6	ppb	12:53:51
2	Ni 231.604†	16958.9	15826.8	505.63	ug/L	505.63	ppb	12:55:19

2	P 214.914†	4909.8	4416.0	2369.5 ug/L	2369.5 ppb	12:55:39
2	Pb 220.353†	3253.2	3126.2	505.94 ug/L	505.94 ppb	12:55:39
2	S 181.975 Axial†	867.7	772.4	1000.6 ug/L	1000.6 ppb	12:55:39
2	Sb 206.836†	1376.8	1263.1	530.27 ug/L	530.27 ppb	12:55:39
2	Se 196.026†	851.8	819.8	515.71 ug/L	515.71 ppb	12:55:39
2	Si 251.611†	72997.4	67971.4	2474.2 ug/L	2474.2 ppb	12:55:19
2	Sn 189.927†	2258.0	2112.7	498.15 ug/L	498.15 ppb	12:55:39
2	Sr 421.552†	70069.5	68513.1	498.17 ug/L	498.17 ppb	12:53:51
2	Ti 334.940†	260009.9	245507.5	494.55 ug/L	494.55 ppb	12:55:19
2	Tl 190.801†	1117.5	1080.8	499.64 ug/L	499.64 ppb	12:55:39
2	U 409.014†	13322.1	15049.2	502.22 ug/L	502.22 ppb	12:55:19
2	V 292.402†	64734.1	62427.6	503.71 ug/L	503.71 ppb	12:55:19
2	Zn 213.857†	49045.6	45354.3	495.52 ug/L	495.52 ppb	12:55:19
2	SiO2†	73690.7	68615.4	5331.8 ug/L	5331.8 ppb	12:56:21
3	Sc 361.383	813886.2	813886.2	105.98 %		12:55:45
3	Sc Radial	4829.5	4829.5	103 %		12:54:16
3	Y 371.029	719850.0	719850.0	104.47 %		12:55:45
3	Y RADIAL	5079.5	5079.5	101.9 %		12:54:16
3	Ag 328.068†	102643.6	96593.3	499.75 ug/L	499.75 ppb	12:55:50
3	Al 396.153Radial†	5521.5	5468.2	5091.0 ug/L	5091.0 ppb	12:54:16
3	As 188.979†	1222.4	1178.4	529.51 ug/L	529.51 ppb	12:56:10
3	B 249.677†	22055.0	21263.3	530.18 ug/L	530.18 ppb	12:55:50
3	Ba 233.527†	44920.6	42382.3	501.36 ug/L	501.36 ppb	12:55:50
3	Be 313.107†	1310616.1	1245609.1	496.24 ug/L	496.24 ppb	12:55:45
3	Ca 317.933Radial†	2924.3	2827.7	5137.9 ug/L	5137.9 ppb	12:54:36
3	Cd 226.502†	37476.3	35547.2	503.82 ug/L	503.82 ppb	12:55:50
3	Co 228.616†	17812.9	16864.8	509.76 ug/L	509.76 ppb	12:55:50
3	Cr 267.716†	38851.6	36582.7	500.39 ug/L	500.39 ppb	12:55:50
3	Cu 324.752†	148529.8	132608.5	496.54 ug/L	496.54 ppb	12:55:50
3	Fe 238.204 Radial†	513.6	493.2	5132.3 ug/L	5132.3 ppb	12:54:36
3	K 766.490 Radial†	29760.8	26742.3	5317.2 ug/L	5317.2 ppb	12:54:16
3	Mg 279.077 IEC†	140.0	133.6	5302.4 ug/L	5302.4 ppb	12:54:36
3	Mn 257.610†	331356.1	312188.6	499.99 ug/L	499.99 ppb	12:55:50
3	Mo 202.031†	5746.6	5407.8	496.75 ug/L	496.75 ppb	12:56:10
3	Na 589.592 Radial†	28279.4	28408.0	9681.4 ug/L	9681.4 ppb	12:54:16
3	Ni 231.604†	16997.8	15936.9	509.15 ug/L	509.15 ppb	12:55:50
3	P 214.914†	4934.1	4460.2	2393.8 ug/L	2393.8 ppb	12:56:10
3	Pb 220.353†	3246.2	3133.6	507.15 ug/L	507.15 ppb	12:56:10
3	S 181.975 Axial†	873.3	781.5	1012.3 ug/L	1012.3 ppb	12:56:10
3	Sb 206.836†	1377.0	1269.2	532.84 ug/L	532.84 ppb	12:56:10
3	Se 196.026†	845.5	817.6	514.21 ug/L	514.21 ppb	12:56:10
3	Si 251.611†	72871.7	68168.6	2481.4 ug/L	2481.4 ppb	12:55:50
3	Sn 189.927†	2261.8	2126.1	501.30 ug/L	501.30 ppb	12:56:10
3	Sr 421.552†	70036.8	68256.1	496.30 ug/L	496.30 ppb	12:54:16
3	Ti 334.940†	259985.2	246609.1	496.78 ug/L	496.78 ppb	12:55:50
3	Tl 190.801†	1107.0	1075.7	497.34 ug/L	497.34 ppb	12:56:10
3	U 409.014†	13085.7	14883.7	496.69 ug/L	496.69 ppb	12:55:50
3	V 292.402†	64604.1	62584.9	505.00 ug/L	505.00 ppb	12:55:50
3	Zn 213.857†	48922.5	45450.3	496.57 ug/L	496.57 ppb	12:55:50
3	SiO2†	73204.9	68475.7	5320.9 ug/L	5320.9 ppb	12:56:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818134.5	106.54	%	0.588				0.55%
Sc Radial	4817.4	102	%	0.2				0.22%
Y 371.029	724116.2	105.09	%	0.647				0.62%
Y RADIAL	5075.9	101.8	%	0.19				0.18%
Ag 328.068†	96220.5	497.84	ug/L	1.920	497.84	ppb	1.920	0.39%
QC value within limits for Ag 328.068 Recovery = 99.57%								
Al 396.153Radial†	5464.7	5087.8	ug/L	8.59	5087.8	ppb	8.59	0.17%
QC value within limits for Al 396.153Radial Recovery = 101.76%								
As 188.979†	1177.1	528.95	ug/L	0.539	528.95	ppb	0.539	0.10%
QC value within limits for As 188.979 Recovery = 105.79%								
B 249.677†	21216.1	528.99	ug/L	1.087	528.99	ppb	1.087	0.21%
QC value within limits for B 249.677 Recovery = 105.80%								
Ba 233.527†	42271.1	500.05	ug/L	1.442	500.05	ppb	1.442	0.29%
QC value within limits for Ba 233.527 Recovery = 100.01%								
Be 313.107†	1246324.8	496.52	ug/L	0.437	496.52	ppb	0.437	0.09%
QC value within limits for Be 313.107 Recovery = 99.30%								

Ca 317.933Radial†	2844.3	5167.9 ug/L	31.06	5167.9 ppb	31.06	0.60%
QC value within limits for Ca 317.933Radial Recovery = 103.36%						
Cd 226.502†	35387.3	501.54 ug/L	2.152	501.54 ppb	2.152	0.43%
QC value within limits for Cd 226.502 Recovery = 100.31%						
Co 228.616†	16826.3	508.59 ug/L	2.661	508.59 ppb	2.661	0.52%
QC value within limits for Co 228.616 Recovery = 101.72%						
Cr 267.716†	36504.6	499.32 ug/L	1.216	499.32 ppb	1.216	0.24%
QC value within limits for Cr 267.716 Recovery = 99.86%						
Cu 324.752†	132127.0	494.74 ug/L	1.641	494.74 ppb	1.641	0.33%
QC value within limits for Cu 324.752 Recovery = 98.95%						
Fe 238.204 Radial†	498.4	5185.6 ug/L	46.21	5185.6 ppb	46.21	0.89%
QC value within limits for Fe 238.204 Radial Recovery = 103.71%						
K 766.490 Radial†	26838.7	5336.3 ug/L	34.37	5336.3 ppb	34.37	0.64%
QC value within limits for K 766.490 Radial Recovery = 106.73%						
Mg 279.077 IEC†	135.1	5361.9 ug/L	51.55	5361.9 ppb	51.55	0.96%
QC value within limits for Mg 279.077 IEC Recovery = 107.24%						
Mn 257.610†	311127.6	498.29 ug/L	1.783	498.29 ppb	1.783	0.36%
QC value within limits for Mn 257.610 Recovery = 99.66%						
Mo 202.031†	5379.6	494.16 ug/L	2.601	494.16 ppb	2.601	0.53%
QC value within limits for Mo 202.031 Recovery = 98.83%						
Na 589.592 Radial†	28406.5	9680.9 ug/L	37.99	9680.9 ppb	37.99	0.39%
QC value within limits for Na 589.592 Radial Recovery = 96.81%						
Ni 231.604†	15856.1	506.56 ug/L	2.266	506.56 ppb	2.266	0.45%
QC value within limits for Ni 231.604 Recovery = 101.31%						
P 214.914†	4425.3	2374.7 ug/L	17.17	2374.7 ppb	17.17	0.72%
QC value within limits for P 214.914 Recovery = 94.99%						
Pb 220.353†	3128.5	506.32 ug/L	0.725	506.32 ppb	0.725	0.14%
QC value within limits for Pb 220.353 Recovery = 101.26%						
S 181.975 Axial†	771.9	999.89 ug/L	12.726	999.89 ppb	12.726	1.27%
QC value within limits for S 181.975 Axial Recovery = 99.99%						
Sb 206.836†	1265.2	531.12 ug/L	1.496	531.12 ppb	1.496	0.28%
QC value within limits for Sb 206.836 Recovery = 106.22%						
Se 196.026†	819.1	515.22 ug/L	0.875	515.22 ppb	0.875	0.17%
QC value within limits for Se 196.026 Recovery = 103.04%						
Si 251.611†	67990.6	2474.9 ug/L	6.14	2474.9 ppb	6.14	0.25%
QC value within limits for Si 251.611 Recovery = 99.00%						
Sn 189.927†	2115.6	498.84 ug/L	2.193	498.84 ppb	2.193	0.44%
QC value within limits for Sn 189.927 Recovery = 99.77%						
Sr 421.552†	68311.9	496.71 ug/L	1.309	496.71 ppb	1.309	0.26%
QC value within limits for Sr 421.552 Recovery = 99.34%						
Ti 334.940†	245698.8	494.94 ug/L	1.676	494.94 ppb	1.676	0.34%
QC value within limits for Ti 334.940 Recovery = 98.99%						
Tl 190.801†	1077.1	497.94 ug/L	1.499	497.94 ppb	1.499	0.30%
QC value within limits for Tl 190.801 Recovery = 99.59%						
U 409.014†	14997.8	500.51 ug/L	3.311	500.51 ppb	3.311	0.66%
QC value within limits for U 409.014 Recovery = 100.10%						
V 292.402†	62444.7	503.85 ug/L	1.088	503.85 ppb	1.088	0.22%
QC value within limits for V 292.402 Recovery = 100.77%						
Zn 213.857†	45317.2	495.11 ug/L	1.701	495.11 ppb	1.701	0.34%
QC value within limits for Zn 213.857 Recovery = 99.02%						
SiO2†	68006.1	5284.3 ug/L	72.93	5284.3 ppb	72.93	1.38%
QC value within limits for SiO2 Recovery = 98.82%						

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 12:58:36
Data Type: Reprocessed on 3/1/2010 13:29:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	801042.3	801042.3	104.31	%			13:01:45
1	Sc Radial	4860.2	4860.2	103	%			13:00:29
1	Y 371.029	720663.8	720663.8	104.59	%			13:01:45
1	Y RADIAL	5132.1	5132.1	102.9	%			13:00:29
1	Ag 328.068†	218.3	-46.4	-0.2407	ug/L	-0.2407	ppb	13:01:45
1	Al 396.153Radial†	-79.4	10.2	9.5181	ug/L	9.5181	ppb	13:00:49
1	As 188.979†	-1.0	24.1	10.725	ug/L	10.725	ppb	13:02:05
1	B 249.677†	580.1	1009.5	25.279	ug/L	25.279	ppb	13:02:05
1	Ba 233.527†	25.8	22.4	0.2631	ug/L	0.2631	ppb	13:02:05
1	Be 313.107†	-9173.5	188.2	0.0754	ug/L	0.0754	ppb	13:01:45
1	Ca 317.933Radial†	28.1	5.1	9.2452	ug/L	9.2452	ppb	13:00:49
1	Cd 226.502†	-193.7	1.0	0.0138	ug/L	0.0138	ppb	13:02:05
1	Co 228.616†	-53.6	6.1	0.1849	ug/L	0.1849	ppb	13:02:05
1	Cr 267.716†	99.4	19.7	0.2678	ug/L	0.2678	ppb	13:02:05
1	Cu 324.752†	7791.8	-66.3	-0.2498	ug/L	-0.2498	ppb	13:01:45
1	Fe 238.204 Radial†	8.4	0.8	8.2681	ug/L	8.2681	ppb	13:00:49
1	K 766.490 Radial†	2775.3	425.9	84.760	ug/L	84.760	ppb	13:00:29
1	Mg 279.077 IEC†	3.2	0.2	7.4569	ug/L	7.4569	ppb	13:00:49
1	Mn 257.610†	481.9	0.8	0.0019	ug/L	0.0019	ppb	13:02:05
1	Mo 202.031†	17.3	2.2	0.2014	ug/L	0.2014	ppb	13:02:05
1	Na 589.592 Radial†	-681.4	188.0	64.060	ug/L	64.060	ppb	13:00:29
1	Ni 231.604†	109.4	3.6	0.1147	ug/L	0.1147	ppb	13:02:05
1	P 214.914†	196.8	-6.7	-3.6663	ug/L	-3.6663	ppb	13:02:05
1	Pb 220.353†	-32.6	39.4	6.3560	ug/L	6.3560	ppb	13:02:05
1	S 181.975 Axial†	43.7	-0.6	-0.8071	ug/L	-0.8071	ppb	13:02:05
1	Sb 206.836†	45.8	13.9	5.6621	ug/L	5.6621	ppb	13:02:05
1	Se 196.026†	-15.6	4.9	3.0021	ug/L	3.0021	ppb	13:02:05
1	Si 251.611†	692.9	75.0	2.7361	ug/L	2.7361	ppb	13:02:05
1	Sn 189.927†	12.7	4.1	0.9588	ug/L	0.9588	ppb	13:02:05
1	Sr 421.552†	47.3	46.2	0.3362	ug/L	0.3362	ppb	13:00:29
1	Ti 334.940†	-1216.3	135.0	0.2711	ug/L	0.2711	ppb	13:01:45
1	Tl 190.801†	-34.9	-2.3	-1.0317	ug/L	-1.0317	ppb	13:02:05
1	U 409.014†	-2546.6	95.5	3.1959	ug/L	3.1959	ppb	13:01:45
1	V 292.402†	-1758.8	-58.2	-0.4556	ug/L	-0.4556	ppb	13:01:45
1	Zn 213.857†	763.7	21.8	0.2389	ug/L	0.2389	ppb	13:02:05
1	SiO2†	688.1	63.2	4.9216	ug/L	4.9216	ppb	13:03:01
2	Sc 361.383	801808.8	801808.8	104.41	%			13:02:11
2	Sc Radial	4879.3	4879.3	104	%			13:00:54
2	Y 371.029	721183.9	721183.9	104.67	%			13:02:11
2	Y RADIAL	5127.6	5127.6	102.9	%			13:00:54
2	Ag 328.068†	194.9	-69.0	-0.3594	ug/L	-0.3594	ppb	13:02:11
2	Al 396.153Radial†	-81.0	9.0	8.4529	ug/L	8.4529	ppb	13:01:14
2	As 188.979†	-12.0	13.5	6.0097	ug/L	6.0097	ppb	13:02:31
2	B 249.677†	515.7	947.4	23.725	ug/L	23.725	ppb	13:02:31
2	Ba 233.527†	24.5	21.1	0.2489	ug/L	0.2489	ppb	13:02:31
2	Be 313.107†	-9270.9	103.4	0.0414	ug/L	0.0414	ppb	13:02:11
2	Ca 317.933Radial†	31.2	8.0	14.486	ug/L	14.486	ppb	13:01:14
2	Cd 226.502†	-175.5	18.6	0.2638	ug/L	0.2638	ppb	13:02:31
2	Co 228.616†	-63.2	-3.1	-0.0940	ug/L	-0.0940	ppb	13:02:31
2	Cr 267.716†	73.4	-5.4	-0.0753	ug/L	-0.0753	ppb	13:02:31
2	Cu 324.752†	7821.8	-44.7	-0.1705	ug/L	-0.1705	ppb	13:02:11
2	Fe 238.204 Radial†	7.5	-0.0	-0.4398	ug/L	-0.4398	ppb	13:01:14
2	K 766.490 Radial†	2782.1	422.0	83.980	ug/L	83.980	ppb	13:00:54
2	Mg 279.077 IEC†	0.7	-2.2	-87.558	ug/L	-87.558	ppb	13:01:14
2	Mn 257.610†	454.2	-26.1	-0.0383	ug/L	-0.0383	ppb	13:02:31
2	Mo 202.031†	13.3	-1.7	-0.1537	ug/L	-0.1537	ppb	13:02:31
2	Na 589.592 Radial†	-727.7	145.8	49.704	ug/L	49.704	ppb	13:00:54
2	Ni 231.604†	91.1	-14.1	-0.4511	ug/L	-0.4511	ppb	13:02:31

2	P 214.914†	204.9	0.9	0.5662	ug/L	0.5662 ppb	13:02:31
2	Pb 220.353†	-40.4	32.0	5.1682	ug/L	5.1682 ppb	13:02:31
2	S 181.975 Axial†	51.3	6.6	8.5889	ug/L	8.5889 ppb	13:02:31
2	Sb 206.836†	53.9	21.6	8.7842	ug/L	8.7842 ppb	13:02:31
2	Se 196.026†	-15.4	5.1	3.1128	ug/L	3.1128 ppb	13:02:31
2	Si 251.611†	729.1	109.1	3.9823	ug/L	3.9823 ppb	13:02:31
2	Sn 189.927†	20.1	11.2	2.6364	ug/L	2.6364 ppb	13:02:31
2	Sr 421.552†	50.2	48.9	0.3556	ug/L	0.3556 ppb	13:00:54
2	Ti 334.940†	-1292.3	63.4	0.1344	ug/L	0.1344 ppb	13:02:11
2	Tl 190.801†	-29.8	2.7	1.2231	ug/L	1.2231 ppb	13:02:31
2	U 409.014†	-2480.3	161.3	5.4021	ug/L	5.4021 ppb	13:02:11
2	V 292.402†	-1698.8	0.9	0.0139	ug/L	0.0139 ppb	13:02:11
2	Zn 213.857†	766.9	24.2	0.2698	ug/L	0.2698 ppb	13:02:31
2	SiO2†	702.2	76.1	5.9342	ug/L	5.9342 ppb	13:03:07
3	Sc 361.383	802421.1	802421.1	104.49	%		13:02:36
3	Sc Radial	4984.7	4984.7	106	%		13:01:19
3	Y 371.029	720635.8	720635.8	104.59	%		13:02:36
3	Y RADIAL	5262.4	5262.4	105.6	%		13:01:19
3	Ag 328.068†	218.6	-46.4	-0.2424	ug/L	-0.2424 ppb	13:02:36
3	Al 396.153Radial†	-75.3	16.0	14.904	ug/L	14.904 ppb	13:01:39
3	As 188.979†	-5.2	20.0	8.9136	ug/L	8.9136 ppb	13:02:56
3	B 249.677†	455.9	889.8	22.278	ug/L	22.278 ppb	13:02:56
3	Ba 233.527†	16.4	13.3	0.1587	ug/L	0.1587 ppb	13:02:56
3	Be 313.107†	-9310.5	72.3	0.0291	ug/L	0.0291 ppb	13:02:36
3	Ca 317.933Radial†	31.6	7.7	14.027	ug/L	14.027 ppb	13:01:39
3	Cd 226.502†	-178.9	15.5	0.2204	ug/L	0.2204 ppb	13:02:56
3	Co 228.616†	-45.3	14.1	0.4286	ug/L	0.4286 ppb	13:02:56
3	Cr 267.716†	85.1	5.8	0.0766	ug/L	0.0766 ppb	13:02:56
3	Cu 324.752†	7786.8	-84.0	-0.3203	ug/L	-0.3203 ppb	13:02:36
3	Fe 238.204 Radial†	8.7	0.9	9.5950	ug/L	9.5950 ppb	13:01:39
3	K 766.490 Radial†	2681.9	270.6	53.842	ug/L	53.842 ppb	13:01:19
3	Mg 279.077 IEC†	0.0	-2.9	-113.77	ug/L	-113.77 ppb	13:01:39
3	Mn 257.610†	480.8	-1.0	0.0039	ug/L	0.0039 ppb	13:02:56
3	Mo 202.031†	29.8	14.1	1.2981	ug/L	1.2981 ppb	13:02:56
3	Na 589.592 Radial†	-699.5	187.3	63.846	ug/L	63.846 ppb	13:01:19
3	Ni 231.604†	107.4	1.4	0.0453	ug/L	0.0453 ppb	13:02:56
3	P 214.914†	208.2	3.9	2.2321	ug/L	2.2321 ppb	13:02:56
3	Pb 220.353†	-30.4	41.6	6.7188	ug/L	6.7188 ppb	13:02:56
3	S 181.975 Axial†	51.5	6.8	8.8228	ug/L	8.8228 ppb	13:02:56
3	Sb 206.836†	48.5	16.3	6.6726	ug/L	6.6726 ppb	13:02:56
3	Se 196.026†	-14.5	5.9	3.6674	ug/L	3.6674 ppb	13:02:56
3	Si 251.611†	643.8	27.0	0.9678	ug/L	0.9678 ppb	13:02:56
3	Sn 189.927†	12.4	3.8	0.8994	ug/L	0.8994 ppb	13:02:56
3	Sr 421.552†	30.9	29.7	0.2158	ug/L	0.2158 ppb	13:01:19
3	Ti 334.940†	-1266.2	89.3	0.1860	ug/L	0.1860 ppb	13:02:36
3	Tl 190.801†	-23.8	8.4	3.8648	ug/L	3.8648 ppb	13:02:56
3	U 409.014†	-2295.2	340.2	11.392	ug/L	11.392 ppb	13:02:36
3	V 292.402†	-1605.2	91.7	0.7669	ug/L	0.7669 ppb	13:02:36
3	Zn 213.857†	762.4	19.4	0.2123	ug/L	0.2123 ppb	13:02:56
3	SiO2†	670.4	45.2	3.4842	ug/L	3.4842 ppb	13:03:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	801757.4	104.40	%	0.090				0.09%
Sc Radial	4908.1	104	%	1.4				1.37%
Y 371.029	720827.8	104.61	%	0.045				0.04%
Y RADIAL	5174.0	103.8	%	1.54				1.48%
Ag 328.068†	-53.9	-0.2808	ug/L	0.06804	-0.2808	ppb	0.06804	24.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.7	10.958	ug/L	3.4582	10.958	ppb	3.4582	31.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	19.2	8.5495	ug/L	2.37877	8.5495	ppb	2.37877	27.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	948.9	23.761	ug/L	1.5006	23.761	ppb	1.5006	6.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.9	0.2236	ug/L	0.05663	0.2236	ppb	0.05663	25.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	121.3	0.0486	ug/L	0.02400	0.0486	ppb	0.02400	49.33%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          6.9      12.586 ug/L        2.9022      12.586 ppb        2.9022  23.06%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               11.7       0.1660 ug/L       0.13359       0.1660 ppb       0.13359  80.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.7       0.1732 ug/L       0.26151       0.1732 ppb       0.26151 150.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.7       0.0897 ug/L       0.17192       0.0897 ppb       0.17192 191.73%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -65.0      -0.2468 ug/L       0.07496      -0.2468 ppb       0.07496  30.37%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.6       5.8078 ug/L       5.45111       5.8078 ppb       5.45111  93.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        372.9      74.194 ug/L       17.6298      74.194 ppb       17.6298  23.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.6     -64.623 ug/L       63.7835     -64.623 ppb       63.7835  98.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -8.8      -0.0108 ug/L       0.02379      -0.0108 ppb       0.02379 219.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.9       0.4486 ug/L       0.75680       0.4486 ppb       0.75680 168.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       173.7      59.203 ug/L        8.2277      59.203 ppb        8.2277  13.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.0      -0.0970 ug/L       0.30861      -0.0970 ppb       0.30861 318.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.6      -0.2893 ug/L       3.04083      -0.2893 ppb       3.04083 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               37.7       6.0810 ug/L       0.81105       6.0810 ppb       0.81105  13.34%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.3       5.5349 ug/L       5.49352       5.5349 ppb       5.49352  99.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               17.3       7.0396 ug/L       1.59305       7.0396 ppb       1.59305  22.63%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.3       3.2608 ug/L       0.35649       3.2608 ppb       0.35649  10.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               70.4       2.5621 ug/L       1.51474       2.5621 ppb       1.51474  59.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.4       1.4982 ug/L       0.98615       1.4982 ppb       0.98615  65.82%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               41.6       0.3025 ug/L       0.07575       0.3025 ppb       0.07575  25.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               95.9       0.1972 ug/L       0.06901       0.1972 ppb       0.06901  35.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.9       1.3520 ug/L       2.45081       1.3520 ppb       2.45081 181.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               199.0       6.6632 ug/L       4.24084       6.6632 ppb       4.24084  63.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                11.5       0.1084 ug/L       0.61669       0.1084 ppb       0.61669 568.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               21.8       0.2403 ug/L       0.02876       0.2403 ppb       0.02876  11.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     61.5       4.7800 ug/L       1.23111       4.7800 ppb       1.23111  25.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 3/1/2010 13:05:17
Data Type: Reprocessed on 3/1/2010 13:29:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	812300.2	812300.2	105.78	%			13:08:28
1	Sc Radial	4755.7	4755.7	101	%			13:07:10
1	Y 371.029	723774.4	723774.4	105.04	%			13:08:28
1	Y RADIAL	5069.1	5069.1	101.7	%			13:07:10
1	Ag 328.068†	-22401.9	-21434.2	4.1408	ug/L	4.1408	ppb	13:08:28
1	Al 396.153Radial†	-117.7	-29.3	-26.040	ug/L	-26.040	ppb	13:07:30
1	As 188.979†	-163.5	-129.5	29.374	ug/L	29.374	ppb	13:08:48
1	B 249.677†	1509.6	1880.6	-13.289	ug/L	-13.289	ppb	13:08:28
1	Ba 233.527†	-1484.1	-1405.5	-5.1702	ug/L	-5.1702	ppb	13:08:28
1	Be 313.107†	-9274.1	215.0	0.0858	ug/L	0.0858	ppb	13:08:28
1	Ca 317.933Radial†	19.1	-3.2	-5.9044	ug/L	-5.9044	ppb	13:07:30
1	Cd 226.502†	2669.8	2710.6	0.0647	ug/L	0.0647	ppb	13:08:28
1	Co 228.616†	506.4	536.2	10.767	ug/L	10.767	ppb	13:08:48
1	Cr 267.716†	-425.4	-477.8	0.6391	ug/L	0.6391	ppb	13:08:48
1	Cu 324.752†	1326.9	-6281.7	-3.8952	ug/L	-3.8952	ppb	13:08:28
1	Fe 238.204 Radial†	36191.5	35810.8	371530	ug/L	371530	ppb	13:07:10
1	K 766.490 Radial†	2181.4	-102.7	-20.418	ug/L	-20.418	ppb	13:07:10
1	Mg 279.077 IEC†	11.4	8.4	-57.254	ug/L	-57.254	ppb	13:07:30
1	Mn 257.610†	-28426.4	-27335.2	-7.0721	ug/L	-7.0721	ppb	13:08:28
1	Mo 202.031†	-313.7	-310.9	0.3065	ug/L	0.3065	ppb	13:08:28
1	Na 589.592 Radial†	-665.5	189.2	64.484	ug/L	64.484	ppb	13:07:10
1	Ni 231.604†	155.8	46.0	1.4604	ug/L	1.4604	ppb	13:08:48
1	P 214.914†	603.9	375.6	-84.913	ug/L	-84.913	ppb	13:08:48
1	Pb 220.353†	161.1	223.0	6.1224	ug/L	6.1224	ppb	13:08:48
1	S 181.975 Axial†	60.1	14.3	18.519	ug/L	18.519	ppb	13:08:48
1	Sb 206.836†	38.8	6.6	-1.9799	ug/L	-1.9799	ppb	13:08:48
1	Se 196.026†	-1479.5	-1378.9	-12.765	ug/L	-12.765	ppb	13:08:48
1	Si 251.611†	-190.6	-769.4	-27.725	ug/L	-27.725	ppb	13:08:28
1	Sn 189.927†	-18.8	-25.8	-27.414	ug/L	-27.414	ppb	13:08:48
1	Sr 421.552†	69.6	69.4	0.5044	ug/L	0.5044	ppb	13:07:10
1	Ti 334.940†	-1295.8	76.0	0.0966	ug/L	0.0966	ppb	13:08:28
1	Tl 190.801†	-36.8	-3.6	-2.0113	ug/L	-2.0113	ppb	13:08:48
1	U 409.014†	-447.2	2114.1	28.450	ug/L	28.450	ppb	13:08:28
1	V 292.402†	4922.8	6281.9	-4.3450	ug/L	-4.3450	ppb	13:08:28
1	Zn 213.857†	3652.0	2742.3	-25.334	ug/L	-25.334	ppb	13:08:48
1	SiO2†	-213.0	-797.8	-61.371	ug/L	-61.371	ppb	13:09:45
2	Sc 361.383	796825.3	796825.3	103.76	%			13:08:54
2	Sc Radial	4763.9	4763.9	101	%			13:07:35
2	Y 371.029	709451.5	709451.5	102.96	%			13:08:54
2	Y RADIAL	5057.6	5057.6	101.4	%			13:07:35
2	Ag 328.068†	-22071.9	-21527.4	3.6128	ug/L	3.6128	ppb	13:08:54
2	Al 396.153Radial†	-120.5	-32.0	-28.690	ug/L	-28.690	ppb	13:07:55
2	As 188.979†	-156.2	-125.5	31.118	ug/L	31.118	ppb	13:09:14
2	B 249.677†	1545.9	1943.3	-11.695	ug/L	-11.695	ppb	13:08:54
2	Ba 233.527†	-1438.7	-1389.0	-4.9795	ug/L	-4.9795	ppb	13:08:54
2	Be 313.107†	-9114.4	198.7	0.0792	ug/L	0.0792	ppb	13:08:54
2	Ca 317.933Radial†	18.7	-3.7	-6.6481	ug/L	-6.6481	ppb	13:07:55
2	Cd 226.502†	2684.2	2773.5	0.9721	ug/L	0.9721	ppb	13:08:54
2	Co 228.616†	510.3	549.2	11.172	ug/L	11.172	ppb	13:09:14
2	Cr 267.716†	-445.0	-504.4	0.2703	ug/L	0.2703	ppb	13:09:14
2	Cu 324.752†	1205.1	-6374.7	-4.2540	ug/L	-4.2540	ppb	13:08:54
2	Fe 238.204 Radial†	36239.1	35796.5	371390	ug/L	371390	ppb	13:07:35
2	K 766.490 Radial†	2339.3	49.5	9.8927	ug/L	9.8927	ppb	13:07:35
2	Mg 279.077 IEC†	9.2	6.2	-144.14	ug/L	-144.14	ppb	13:07:55
2	Mn 257.610†	-27751.5	-27206.6	-6.8774	ug/L	-6.8774	ppb	13:08:54
2	Mo 202.031†	-268.3	-273.0	3.7794	ug/L	3.7794	ppb	13:08:54
2	Na 589.592 Radial†	-739.4	117.3	39.971	ug/L	39.971	ppb	13:07:35
2	Ni 231.604†	141.7	35.2	1.1157	ug/L	1.1157	ppb	13:09:14

2	P 214.914†	609.4	392.0	-75.560	ug/L	-75.560 ppb	13:09:14
2	Pb 220.353†	162.0	226.8	6.7588	ug/L	6.7588 ppb	13:09:14
2	S 181.975 Axial†	53.0	8.6	11.113	ug/L	11.113 ppb	13:09:14
2	Sb 206.836†	21.5	-9.3	-8.3688	ug/L	-8.3688 ppb	13:09:14
2	Se 196.026†	-1481.4	-1407.8	-30.833	ug/L	-30.833 ppb	13:09:14
2	Si 251.611†	-139.9	-724.1	-26.113	ug/L	-26.113 ppb	13:08:54
2	Sn 189.927†	-14.0	-21.6	-26.402	ug/L	-26.402 ppb	13:09:14
2	Sr 421.552†	96.5	95.8	0.6967	ug/L	0.6967 ppb	13:07:35
2	Ti 334.940†	-1295.4	52.6	0.0544	ug/L	0.0544 ppb	13:08:54
2	Tl 190.801†	-33.9	-1.4	-1.0302	ug/L	-1.0302 ppb	13:09:14
2	U 409.014†	-285.3	2261.8	33.416	ug/L	33.416 ppb	13:08:54
2	V 292.402†	4855.5	6307.4	-4.0630	ug/L	-4.0630 ppb	13:08:54
2	Zn 213.857†	3703.4	2858.9	-24.024	ug/L	-24.024 ppb	13:09:14
2	SiO2†	-297.0	-882.7	-68.078	ug/L	-68.078 ppb	13:09:50
3	Sc 361.383	797370.0	797370.0	103.83	%		13:09:20
3	Sc Radial	4772.0	4772.0	101	%		13:08:00
3	Y 371.029	709955.2	709955.2	103.04	%		13:09:20
3	Y RADIAL	5050.4	5050.4	101.3	%		13:08:00
3	Ag 328.068†	-22095.9	-21536.0	2.8813	ug/L	2.8813 ppb	13:09:20
3	Al 396.153Radial†	-115.8	-27.1	-24.221	ug/L	-24.221 ppb	13:08:20
3	As 188.979†	-144.6	-114.2	35.607	ug/L	35.607 ppb	13:09:40
3	B 249.677†	1380.0	1782.5	-15.362	ug/L	-15.362 ppb	13:09:20
3	Ba 233.527†	-1528.7	-1474.6	-6.0580	ug/L	-6.0580 ppb	13:09:20
3	Be 313.107†	-9262.9	61.6	0.0243	ug/L	0.0243 ppb	13:09:20
3	Ca 317.933Radial†	17.1	-5.3	-9.6166	ug/L	-9.6166 ppb	13:08:20
3	Cd 226.502†	2696.8	2783.9	1.3503	ug/L	1.3503 ppb	13:09:20
3	Co 228.616†	537.1	574.8	11.980	ug/L	11.980 ppb	13:09:40
3	Cr 267.716†	-410.6	-471.0	0.6830	ug/L	0.6830 ppb	13:09:40
3	Cu 324.752†	1301.5	-6282.7	-4.0297	ug/L	-4.0297 ppb	13:09:20
3	Fe 238.204 Radial†	36083.0	35581.7	369160	ug/L	369160 ppb	13:08:00
3	K 766.490 Radial†	2313.2	19.9	3.9864	ug/L	3.9864 ppb	13:08:00
3	Mg 279.077 IEC†	9.2	6.1	-142.68	ug/L	-142.68 ppb	13:08:20
3	Mn 257.610†	-27718.6	-27156.6	-7.0174	ug/L	-7.0174 ppb	13:09:20
3	Mo 202.031†	-245.2	-250.5	5.6684	ug/L	5.6684 ppb	13:09:20
3	Na 589.592 Radial†	-751.9	106.1	36.175	ug/L	36.175 ppb	13:08:00
3	Ni 231.604†	118.9	13.2	0.4100	ug/L	0.4100 ppb	13:09:40
3	P 214.914†	587.4	370.3	-85.919	ug/L	-85.919 ppb	13:09:40
3	Pb 220.353†	159.1	223.9	6.4788	ug/L	6.4788 ppb	13:09:40
3	S 181.975 Axial†	50.8	6.4	8.3546	ug/L	8.3546 ppb	13:09:40
3	Sb 206.836†	31.6	0.4	-4.3721	ug/L	-4.3721 ppb	13:09:40
3	Se 196.026†	-1466.2	-1392.3	-26.291	ug/L	-26.291 ppb	13:09:40
3	Si 251.611†	-195.3	-777.3	-28.081	ug/L	-28.081 ppb	13:09:20
3	Sn 189.927†	-20.1	-27.4	-27.653	ug/L	-27.653 ppb	13:09:40
3	Sr 421.552†	74.7	74.1	0.5392	ug/L	0.5392 ppb	13:08:00
3	Ti 334.940†	-1388.2	-36.0	-0.1263	ug/L	-0.1263 ppb	13:09:20
3	Tl 190.801†	-29.1	3.2	1.0833	ug/L	1.0833 ppb	13:09:40
3	U 409.014†	-164.7	2378.1	37.563	ug/L	37.563 ppb	13:09:20
3	V 292.402†	4878.9	6326.8	-3.5477	ug/L	-3.5477 ppb	13:09:20
3	Zn 213.857†	3671.2	2825.4	-24.055	ug/L	-24.055 ppb	13:09:40
3	SiO2†	-288.3	-874.1	-67.468	ug/L	-67.468 ppb	13:09:55

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	802165.1	104.46	%	1.144				1.09%
Sc Radial	4763.8	101	%	0.2				0.17%
Y 371.029	714393.7	103.68	%	1.180				1.14%
Y RADIAL	5059.0	101.5	%	0.19				0.19%
Ag 328.068†	-21499.2	3.5450	ug/L	0.63250	3.5450	ppb	0.63250	17.84%
Al 396.153Radial†	-29.5	-26.317	ug/L	2.2473	-26.317	ppb	2.2473	8.54%
As 188.979†	-123.1	32.033	ug/L	3.2155	32.033	ppb	3.2155	10.04%
B 249.677†	1868.8	-13.449	ug/L	1.8391	-13.449	ppb	1.8391	13.67%
Ba 233.527†	-1423.0	-5.4026	ug/L	0.57556	-5.4026	ppb	0.57556	10.65%
Be 313.107†	158.4	0.0631	ug/L	0.03375	0.0631	ppb	0.03375	53.47%
Ca 317.933Radial†	-4.1	-7.3897	ug/L	1.96406	-7.3897	ppb	1.96406	26.58%
Cd 226.502†	2756.0	0.7957	ug/L	0.66070	0.7957	ppb	0.66070	83.04%
Co 228.616†	553.4	11.306	ug/L	0.6175	11.306	ppb	0.6175	5.46%
Cr 267.716†	-484.4	0.5308	ug/L	0.22664	0.5308	ppb	0.22664	42.70%
Cu 324.752†	-6313.0	-4.0597	ug/L	0.18125	-4.0597	ppb	0.18125	4.46%
Fe 238.204 Radial†	35729.7	370690	ug/L	1331.1	370690	ppb	1331.1	0.36%

K 766.490 Radial†	-11.1	-2.1797	ug/L	16.06862	-2.1797	ppb	16.06862 737.20%
Mg 279.077 IEC†	6.9	-114.69	ug/L	49.747	-114.69	ppb	49.747 43.37%
Mn 257.610†	-27232.8	-6.9890	ug/L	0.10041	-6.9890	ppb	0.10041 1.44%
Mo 202.031†	-278.1	3.2514	ug/L	2.71969	3.2514	ppb	2.71969 83.65%
Na 589.592 Radial†	137.5	46.876	ug/L	15.3661	46.876	ppb	15.3661 32.78%
Ni 231.604†	31.5	0.9953	ug/L	0.53546	0.9953	ppb	0.53546 53.80%
P 214.914†	379.3	-82.131	ug/L	5.7127	-82.131	ppb	5.7127 6.96%
Pb 220.353†	224.6	6.4533	ug/L	0.31893	6.4533	ppb	0.31893 4.94%
S 181.975 Axial†	9.8	12.662	ug/L	5.2564	12.662	ppb	5.2564 41.51%
Sb 206.836†	-0.8	-4.9069	ug/L	3.22782	-4.9069	ppb	3.22782 65.78%
Se 196.026†	-1393.0	-23.296	ug/L	9.3990	-23.296	ppb	9.3990 40.35%
Si 251.611†	-756.9	-27.306	ug/L	1.0485	-27.306	ppb	1.0485 3.84%
Sn 189.927†	-24.9	-27.156	ug/L	0.6640	-27.156	ppb	0.6640 2.45%
Sr 421.552†	79.8	0.5801	ug/L	0.10244	0.5801	ppb	0.10244 17.66%
Ti 334.940†	30.9	0.0082	ug/L	0.11840	0.0082	ppb	0.11840 >999.9%
Tl 190.801†	-0.6	-0.6527	ug/L	1.58142	-0.6527	ppb	1.58142 242.28%
U 409.014†	2251.3	33.143	ug/L	4.5629	33.143	ppb	4.5629 13.77%
V 292.402†	6305.4	-3.9853	ug/L	0.40429	-3.9853	ppb	0.40429 10.14%
Zn 213.857†	2808.9	-24.471	ug/L	0.7475	-24.471	ppb	0.7475 3.05%
SiO2†	-851.5	-65.639	ug/L	3.7086	-65.639	ppb	3.7086 5.65%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 13:12:07
Data Type: Reprocessed on 3/1/2010 13:29:45

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	812020.3	812020.3	105.74	%			13:15:17
1	Sc Radial	4863.6	4863.6	103	%			13:13:59
1	Y 371.029	719915.3	719915.3	104.48	%			13:15:17
1	Y RADIAL	5099.8	5099.8	102.3	%			13:13:59
1	Ag 328.068†	102563.9	96740.4	500.54	ug/L	500.54	ppb	13:15:22
1	Al 396.153Radial†	5533.1	5441.6	5066.2	ug/L	5066.2	ppb	13:13:59
1	As 188.979†	1168.9	1130.5	508.20	ug/L	508.20	ppb	13:15:42
1	B 249.677†	20941.1	20257.8	504.98	ug/L	504.98	ppb	13:15:22
1	Ba 233.527†	44881.5	42442.6	502.08	ug/L	502.08	ppb	13:15:22
1	Be 313.107†	1307756.2	1245745.9	496.29	ug/L	496.29	ppb	13:15:17
1	Ca 317.933Radial†	2944.6	2827.4	5137.2	ug/L	5137.2	ppb	13:14:19
1	Cd 226.502†	37379.9	35537.3	503.67	ug/L	503.67	ppb	13:15:22
1	Co 228.616†	17841.0	16930.0	511.72	ug/L	511.72	ppb	13:15:22
1	Cr 267.716†	38994.1	36801.7	503.39	ug/L	503.39	ppb	13:15:22
1	Cu 324.752†	148770.2	133157.9	498.60	ug/L	498.60	ppb	13:15:22
1	Fe 238.204 Radial†	526.2	501.9	5222.5	ug/L	5222.5	ppb	13:14:19
1	K 766.490 Radial†	28898.2	25703.7	5110.3	ug/L	5110.3	ppb	13:13:59
1	Mg 279.077 IEC†	137.4	130.0	5163.1	ug/L	5163.1	ppb	13:14:19
1	Mn 257.610†	331243.1	312800.1	500.98	ug/L	500.98	ppb	13:15:22
1	Mo 202.031†	5719.9	5395.0	495.57	ug/L	495.57	ppb	13:15:42
1	Na 589.592 Radial†	29528.5	29423.1	10027	ug/L	10027	ppb	13:13:59
1	Ni 231.604†	16931.6	15911.1	508.32	ug/L	508.32	ppb	13:15:22
1	P 214.914†	4912.9	4450.8	2388.0	ug/L	2388.0	ppb	13:15:42
1	Pb 220.353†	3189.5	3087.0	499.62	ug/L	499.62	ppb	13:15:42
1	S 181.975 Axial†	860.8	771.6	999.46	ug/L	999.46	ppb	13:15:42
1	Sb 206.836†	1334.2	1231.7	517.47	ug/L	517.47	ppb	13:15:42
1	Se 196.026†	846.2	820.0	515.88	ug/L	515.88	ppb	13:15:42
1	Si 251.611†	72800.9	68259.6	2484.7	ug/L	2484.7	ppb	13:15:22
1	Sn 189.927†	2219.7	2091.2	493.07	ug/L	493.07	ppb	13:15:42
1	Sr 421.552†	71418.0	69113.0	502.53	ug/L	502.53	ppb	13:13:59
1	Ti 334.940†	260272.1	247444.0	498.47	ug/L	498.47	ppb	13:15:22
1	Tl 190.801†	1102.3	1073.7	496.38	ug/L	496.38	ppb	13:15:42
1	U 409.014†	13062.6	14890.3	496.89	ug/L	496.89	ppb	13:15:22
1	V 292.402†	64813.9	62923.4	507.66	ug/L	507.66	ppb	13:15:22
1	Zn 213.857†	48794.6	45435.4	496.39	ug/L	496.39	ppb	13:15:22
1	SiO2†	72942.2	68386.1	5313.9	ug/L	5313.9	ppb	13:16:49
2	Sc 361.383	813811.3	813811.3	105.97	%			13:15:47
2	Sc Radial	4865.8	4865.8	103	%			13:14:24
2	Y 371.029	720903.6	720903.6	104.63	%			13:15:47
2	Y RADIAL	5108.9	5108.9	102.5	%			13:14:24
2	Ag 328.068†	101911.1	95911.0	496.26	ug/L	496.26	ppb	13:15:53
2	Al 396.153Radial†	5473.4	5381.4	5009.9	ug/L	5009.9	ppb	13:14:24
2	As 188.979†	1160.9	1120.5	503.70	ug/L	503.70	ppb	13:16:13
2	B 249.677†	20791.7	20073.1	500.36	ug/L	500.36	ppb	13:15:53
2	Ba 233.527†	44701.5	42179.4	498.97	ug/L	498.97	ppb	13:15:53
2	Be 313.107†	1314042.1	1248955.8	497.56	ug/L	497.56	ppb	13:15:47
2	Ca 317.933Radial†	2945.2	2826.7	5135.9	ug/L	5135.9	ppb	13:14:44
2	Cd 226.502†	37205.6	35295.0	500.23	ug/L	500.23	ppb	13:15:53
2	Co 228.616†	17802.6	16856.6	509.51	ug/L	509.51	ppb	13:15:53
2	Cr 267.716†	38619.8	36367.3	497.45	ug/L	497.45	ppb	13:15:53
2	Cu 324.752†	147549.5	131696.4	493.13	ug/L	493.13	ppb	13:15:53
2	Fe 238.204 Radial†	527.6	503.0	5233.9	ug/L	5233.9	ppb	13:14:44
2	K 766.490 Radial†	28858.3	25652.7	5100.1	ug/L	5100.1	ppb	13:14:24
2	Mg 279.077 IEC†	139.3	131.9	5236.0	ug/L	5236.0	ppb	13:14:44
2	Mn 257.610†	329381.0	310353.6	497.06	ug/L	497.06	ppb	13:15:53
2	Mo 202.031†	5731.3	5393.8	495.47	ug/L	495.47	ppb	13:16:13
2	Na 589.592 Radial†	29341.6	29229.6	9961.4	ug/L	9961.4	ppb	13:14:24
2	Ni 231.604†	16871.9	15819.5	505.39	ug/L	505.39	ppb	13:15:53

2	P 214.914†	4927.2	4454.1	2390.9 ug/L	2390.9 ppb	13:16:13
2	Pb 220.353†	3211.0	3100.7	501.81 ug/L	501.81 ppb	13:16:13
2	S 181.975 Axial†	861.5	770.4	997.93 ug/L	997.93 ppb	13:16:13
2	Sb 206.836†	1348.4	1242.3	521.80 ug/L	521.80 ppb	13:16:13
2	Se 196.026†	857.7	829.2	521.51 ug/L	521.51 ppb	13:16:13
2	Si 251.611†	72316.4	67650.9	2462.5 ug/L	2462.5 ppb	13:15:53
2	Sn 189.927†	2226.1	2092.5	493.39 ug/L	493.39 ppb	13:16:13
2	Sr 421.552†	71143.7	68817.0	500.38 ug/L	500.38 ppb	13:14:24
2	Ti 334.940†	258466.2	245198.2	493.94 ug/L	493.94 ppb	13:15:53
2	Tl 190.801†	1114.1	1082.5	500.41 ug/L	500.41 ppb	13:16:13
2	U 409.014†	13006.7	14810.4	494.23 ug/L	494.23 ppb	13:15:53
2	V 292.402†	64402.0	62399.8	503.49 ug/L	503.49 ppb	13:15:53
2	Zn 213.857†	48693.6	45238.6	494.25 ug/L	494.25 ppb	13:15:53
2	SiO2†	72357.4	67682.4	5259.1 ug/L	5259.1 ppb	13:16:54
3	Sc 361.383	826056.0	826056.0	107.57 %		13:16:18
3	Sc Radial	4827.1	4827.1	103 %		13:14:50
3	Y 371.029	729803.6	729803.6	105.92 %		13:16:18
3	Y RADIAL	5073.6	5073.6	101.8 %		13:14:50
3	Ag 328.068†	102086.2	94648.2	489.74 ug/L	489.74 ppb	13:16:23
3	Al 396.153Radial†	5507.4	5457.0	5081.0 ug/L	5081.0 ppb	13:14:50
3	As 188.979†	1149.1	1093.2	491.53 ug/L	491.53 ppb	13:16:43
3	B 249.677†	20848.5	19835.2	494.43 ug/L	494.43 ppb	13:16:23
3	Ba 233.527†	44848.9	41691.2	493.19 ug/L	493.19 ppb	13:16:23
3	Be 313.107†	1328033.0	1243582.0	495.41 ug/L	495.41 ppb	13:16:18
3	Ca 317.933Radial†	2936.0	2840.5	5161.1 ug/L	5161.1 ppb	13:15:10
3	Cd 226.502†	37177.5	34748.5	492.48 ug/L	492.48 ppb	13:16:23
3	Co 228.616†	17794.4	16599.9	501.75 ug/L	501.75 ppb	13:16:23
3	Cr 267.716†	38712.8	35913.6	491.24 ug/L	491.24 ppb	13:16:23
3	Cu 324.752†	147458.5	129547.9	485.09 ug/L	485.09 ppb	13:16:23
3	Fe 238.204 Radial†	521.3	501.0	5213.0 ug/L	5213.0 ppb	13:15:10
3	K 766.490 Radial†	28625.2	25649.0	5099.4 ug/L	5099.4 ppb	13:14:50
3	Mg 279.077 IEC†	139.1	132.8	5270.6 ug/L	5270.6 ppb	13:15:10
3	Mn 257.610†	329726.2	306067.2	490.20 ug/L	490.20 ppb	13:16:23
3	Mo 202.031†	5713.1	5296.8	486.56 ug/L	486.56 ppb	13:16:43
3	Na 589.592 Radial†	29108.6	29229.8	9961.5 ug/L	9961.5 ppb	13:14:50
3	Ni 231.604†	16821.7	15536.9	496.36 ug/L	496.36 ppb	13:16:23
3	P 214.914†	4912.6	4371.6	2346.5 ug/L	2346.5 ppb	13:16:43
3	Pb 220.353†	3191.7	3037.8	491.68 ug/L	491.68 ppb	13:16:43
3	S 181.975 Axial†	857.3	754.5	977.26 ug/L	977.26 ppb	13:16:43
3	Sb 206.836†	1333.5	1209.6	508.24 ug/L	508.24 ppb	13:16:43
3	Se 196.026†	829.0	790.4	497.72 ug/L	497.72 ppb	13:16:43
3	Si 251.611†	72262.7	66589.4	2423.9 ug/L	2423.9 ppb	13:16:23
3	Sn 189.927†	2230.2	2065.2	486.97 ug/L	486.97 ppb	13:16:43
3	Sr 421.552†	70763.1	68997.1	501.69 ug/L	501.69 ppb	13:14:50
3	Ti 334.940†	258767.4	241862.9	487.23 ug/L	487.23 ppb	13:16:23
3	Tl 190.801†	1102.1	1055.8	488.10 ug/L	488.10 ppb	13:16:43
3	U 409.014†	13109.0	14723.5	491.34 ug/L	491.34 ppb	13:16:23
3	V 292.402†	64389.0	61486.9	496.10 ug/L	496.10 ppb	13:16:23
3	Zn 213.857†	48575.3	44447.5	485.59 ug/L	485.59 ppb	13:16:23
3	SiO2†	73293.1	67540.1	5248.2 ug/L	5248.2 ppb	13:16:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	817295.9	106.43	%	0.995				0.93%
Sc Radial	4852.2	103	%	0.5				0.45%
Y 371.029	723540.8	105.01	%	0.790				0.75%
Y RADIAL	5094.1	102.2	%	0.37				0.36%
Ag 328.068†	95766.5	495.51	ug/L	5.440	495.51	ppb	5.440	1.10%
QC value within limits for Ag 328.068 Recovery = 99.10%								
Al 396.153Radial†	5426.7	5052.3	ug/L	37.52	5052.3	ppb	37.52	0.74%
QC value within limits for Al 396.153Radial Recovery = 101.05%								
As 188.979†	1114.7	501.14	ug/L	8.624	501.14	ppb	8.624	1.72%
QC value within limits for As 188.979 Recovery = 100.23%								
B 249.677†	20055.4	499.92	ug/L	5.290	499.92	ppb	5.290	1.06%
QC value within limits for B 249.677 Recovery = 99.98%								
Ba 233.527†	42104.4	498.08	ug/L	4.512	498.08	ppb	4.512	0.91%
QC value within limits for Ba 233.527 Recovery = 99.62%								
Be 313.107†	1246094.6	496.42	ug/L	1.081	496.42	ppb	1.081	0.22%
QC value within limits for Be 313.107 Recovery = 99.28%								

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Ca 317.933Radial†        2831.5      5144.7 ug/L         14.18      5144.7 ppb          14.18   0.28%
   QC value within limits for Ca 317.933Radial  Recovery = 102.89%
Cd 226.502†             35193.6      498.79 ug/L          5.732      498.79 ppb           5.732  1.15%
   QC value within limits for Cd 226.502  Recovery = 99.76%
Co 228.616†             16795.5      507.66 ug/L          5.238      507.66 ppb           5.238  1.03%
   QC value within limits for Co 228.616  Recovery = 101.53%
Cr 267.716†             36360.8      497.36 ug/L          6.074      497.36 ppb           6.074  1.22%
   QC value within limits for Cr 267.716  Recovery = 99.47%
Cu 324.752†            131467.4      492.27 ug/L          6.798      492.27 ppb           6.798  1.38%
   QC value within limits for Cu 324.752  Recovery = 98.45%
Fe 238.204 Radial†        502.0      5223.1 ug/L         10.45      5223.1 ppb          10.45   0.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.46%
K 766.490 Radial†       25668.4      5103.3 ug/L          6.07      5103.3 ppb           6.07   0.12%
   QC value within limits for K 766.490 Radial  Recovery = 102.07%
Mg 279.077 IEC†           131.6      5223.2 ug/L         54.89      5223.2 ppb          54.89   1.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.46%
Mn 257.610†            309740.3      496.08 ug/L          5.458      496.08 ppb           5.458  1.10%
   QC value within limits for Mn 257.610  Recovery = 99.22%
Mo 202.031†             5361.9      492.54 ug/L          5.172      492.54 ppb           5.172  1.05%
   QC value within limits for Mo 202.031  Recovery = 98.51%
Na 589.592 Radial†      29294.2      9983.4 ug/L         38.04      9983.4 ppb          38.04   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 99.83%
Ni 231.604†             15755.8      503.36 ug/L          6.233      503.36 ppb           6.233  1.24%
   QC value within limits for Ni 231.604  Recovery = 100.67%
P 214.914†               4425.5      2375.1 ug/L         24.87      2375.1 ppb          24.87   1.05%
   QC value within limits for P 214.914  Recovery = 95.01%
Pb 220.353†              3075.2      497.71 ug/L          5.332      497.71 ppb           5.332  1.07%
   QC value within limits for Pb 220.353  Recovery = 99.54%
S 181.975 Axial†          765.5      991.55 ug/L         12.401      991.55 ppb          12.401  1.25%
   QC value within limits for S 181.975 Axial  Recovery = 99.15%
Sb 206.836†              1227.9      515.84 ug/L          6.927      515.84 ppb           6.927  1.34%
   QC value within limits for Sb 206.836  Recovery = 103.17%
Se 196.026†               813.2      511.70 ug/L         12.435      511.70 ppb          12.435  2.43%
   QC value within limits for Se 196.026  Recovery = 102.34%
Si 251.611†             67500.0      2457.1 ug/L         30.78      2457.1 ppb          30.78   1.25%
   QC value within limits for Si 251.611  Recovery = 98.28%
Sn 189.927†              2083.0      491.14 ug/L          3.622      491.14 ppb           3.622  0.74%
   QC value within limits for Sn 189.927  Recovery = 98.23%
Sr 421.552†             68975.7      501.54 ug/L          1.085      501.54 ppb           1.085  0.22%
   QC value within limits for Sr 421.552  Recovery = 100.31%
Ti 334.940†            244835.0      493.21 ug/L          5.658      493.21 ppb           5.658  1.15%
   QC value within limits for Ti 334.940  Recovery = 98.64%
Tl 190.801†              1070.7      494.96 ug/L          6.277      494.96 ppb           6.277  1.27%
   QC value within limits for Tl 190.801  Recovery = 98.99%
U 409.014†              14808.0      494.15 ug/L          2.779      494.15 ppb           2.779  0.56%
   QC value within limits for U 409.014  Recovery = 98.83%
V 292.402†              62270.0      502.42 ug/L          5.853      502.42 ppb           5.853  1.16%
   QC value within limits for V 292.402  Recovery = 100.48%
Zn 213.857†             45040.5      492.08 ug/L          5.717      492.08 ppb           5.717  1.16%
   QC value within limits for Zn 213.857  Recovery = 98.42%
SiO2†                   67869.5      5273.7 ug/L         35.20      5273.7 ppb          35.20   0.67%
   QC value within limits for SiO2  Recovery = 98.62%
All analyte(s) passed QC.
```

Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 13:19:10
Data Type: Reprocessed on 3/1/2010 13:29:46

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	810277.2	810277.2	105.51	%			13:22:19
1	Sc Radial	4862.4	4862.4	103	%			13:21:02
1	Y 371.029	730937.1	730937.1	106.08	%			13:22:19
1	Y RADIAL	5156.5	5156.5	103.4	%			13:21:02
1	Ag 328.068†	194.7	-71.2	-0.3643	ug/L	-0.3643	ppb	13:22:19
1	Al 396.153Radial†	-78.9	10.7	10.042	ug/L	10.042	ppb	13:21:22
1	As 188.979†	-31.1	-4.4	-1.9674	ug/L	-1.9674	ppb	13:22:39
1	B 249.677†	-33.5	421.7	10.556	ug/L	10.556	ppb	13:22:39
1	Ba 233.527†	19.4	16.0	0.1900	ug/L	0.1900	ppb	13:22:39
1	Be 313.107†	-9262.9	203.7	0.0817	ug/L	0.0817	ppb	13:22:19
1	Ca 317.933Radial†	30.9	7.7	14.063	ug/L	14.063	ppb	13:21:22
1	Cd 226.502†	-192.9	3.8	0.0532	ug/L	0.0532	ppb	13:22:39
1	Co 228.616†	-58.1	2.4	0.0721	ug/L	0.0721	ppb	13:22:39
1	Cr 267.716†	90.6	10.2	0.1388	ug/L	0.1388	ppb	13:22:39
1	Cu 324.752†	7847.5	-98.7	-0.3715	ug/L	-0.3715	ppb	13:22:19
1	Fe 238.204 Radial†	9.1	1.5	15.345	ug/L	15.345	ppb	13:21:22
1	K 766.490 Radial†	2382.5	44.6	8.8454	ug/L	8.8454	ppb	13:21:02
1	Mg 279.077 IEC†	1.1	-1.8	-71.376	ug/L	-71.376	ppb	13:21:22
1	Mn 257.610†	447.3	-37.2	-0.0552	ug/L	-0.0552	ppb	13:22:39
1	Mo 202.031†	14.0	-1.1	-0.1034	ug/L	-0.1034	ppb	13:22:39
1	Na 589.592 Radial†	-714.9	155.8	53.086	ug/L	53.086	ppb	13:21:02
1	Ni 231.604†	110.2	3.1	0.0990	ug/L	0.0990	ppb	13:22:39
1	P 214.914†	213.8	7.3	4.1503	ug/L	4.1503	ppb	13:22:39
1	Pb 220.353†	-61.1	12.8	2.0625	ug/L	2.0625	ppb	13:22:39
1	S 181.975 Axial†	46.4	1.5	1.9452	ug/L	1.9452	ppb	13:22:39
1	Sb 206.836†	43.0	10.8	4.3950	ug/L	4.3950	ppb	13:22:39
1	Se 196.026†	-8.9	11.4	7.0057	ug/L	7.0057	ppb	13:22:39
1	Si 251.611†	629.3	7.2	0.2636	ug/L	0.2636	ppb	13:22:39
1	Sn 189.927†	17.3	8.3	1.9670	ug/L	1.9670	ppb	13:22:39
1	Sr 421.552†	13.0	13.1	0.0952	ug/L	0.0952	ppb	13:21:02
1	Ti 334.940†	-1209.9	154.3	0.3165	ug/L	0.3165	ppb	13:22:19
1	Tl 190.801†	-30.7	2.1	0.9794	ug/L	0.9794	ppb	13:22:39
1	U 409.014†	-2521.8	146.8	4.9130	ug/L	4.9130	ppb	13:22:19
1	V 292.402†	-1680.2	35.6	0.2874	ug/L	0.2874	ppb	13:22:19
1	Zn 213.857†	772.4	21.7	0.2371	ug/L	0.2371	ppb	13:22:39
1	SiO2†	612.1	-16.4	-1.2714	ug/L	-1.2714	ppb	13:23:35
2	Sc 361.383	814797.3	814797.3	106.10	%			13:22:44
2	Sc Radial	4967.9	4967.9	106	%			13:21:27
2	Y 371.029	734106.6	734106.6	106.54	%			13:22:44
2	Y RADIAL	5264.3	5264.3	105.6	%			13:21:27
2	Ag 328.068†	194.8	-72.1	-0.3747	ug/L	-0.3747	ppb	13:22:44
2	Al 396.153Radial†	-71.0	19.8	18.547	ug/L	18.547	ppb	13:21:47
2	As 188.979†	-24.6	1.8	0.8228	ug/L	0.8228	ppb	13:23:04
2	B 249.677†	-28.9	426.2	10.672	ug/L	10.672	ppb	13:23:04
2	Ba 233.527†	11.2	8.2	0.0978	ug/L	0.0978	ppb	13:23:04
2	Be 313.107†	-9362.0	159.0	0.0638	ug/L	0.0638	ppb	13:22:44
2	Ca 317.933Radial†	31.1	7.3	13.318	ug/L	13.318	ppb	13:21:47
2	Cd 226.502†	-197.0	1.0	0.0144	ug/L	0.0144	ppb	13:23:04
2	Co 228.616†	-63.8	-2.6	-0.0812	ug/L	-0.0812	ppb	13:23:04
2	Cr 267.716†	77.9	-2.2	-0.0331	ug/L	-0.0331	ppb	13:23:04
2	Cu 324.752†	7860.4	-127.7	-0.4832	ug/L	-0.4832	ppb	13:22:44
2	Fe 238.204 Radial†	8.4	0.7	6.9292	ug/L	6.9292	ppb	13:21:47
2	K 766.490 Radial†	2417.9	29.1	5.7731	ug/L	5.7731	ppb	13:21:27
2	Mg 279.077 IEC†	-0.8	-3.6	-143.72	ug/L	-143.72	ppb	13:21:47
2	Mn 257.610†	433.3	-52.7	-0.0779	ug/L	-0.0779	ppb	13:23:04
2	Mo 202.031†	11.6	-3.5	-0.3167	ug/L	-0.3167	ppb	13:23:04
2	Na 589.592 Radial†	-699.1	185.5	63.207	ug/L	63.207	ppb	13:21:27
2	Ni 231.604†	93.7	-13.0	-0.4163	ug/L	-0.4163	ppb	13:23:04

2	P 214.914†	196.5	-10.1	-5.5656	ug/L	-5.5656 ppb	13:23:04
2	Pb 220.353†	-51.9	21.7	3.5099	ug/L	3.5099 ppb	13:23:04
2	S 181.975 Axial†	42.6	-2.4	-3.1100	ug/L	-3.1100 ppb	13:23:04
2	Sb 206.836†	39.3	7.0	2.8282	ug/L	2.8282 ppb	13:23:04
2	Se 196.026†	-24.6	-3.3	-2.0299	ug/L	-2.0299 ppb	13:23:04
2	Si 251.611†	618.5	-6.2	-0.2238	ug/L	-0.2238 ppb	13:23:04
2	Sn 189.927†	10.0	1.4	0.3266	ug/L	0.3266 ppb	13:23:04
2	Sr 421.552†	51.0	48.8	0.3546	ug/L	0.3546 ppb	13:21:27
2	Ti 334.940†	-1237.5	134.7	0.2809	ug/L	0.2809 ppb	13:22:44
2	Tl 190.801†	-38.4	-5.0	-2.3044	ug/L	-2.3044 ppb	13:23:04
2	U 409.014†	-2390.9	283.4	9.4882	ug/L	9.4882 ppb	13:22:44
2	V 292.402†	-1673.9	50.4	0.4107	ug/L	0.4107 ppb	13:22:44
2	Zn 213.857†	760.3	6.3	0.0721	ug/L	0.0721 ppb	13:23:04
2	SiO2†	610.5	-21.1	-1.6327	ug/L	-1.6327 ppb	13:23:40
3	Sc 361.383	804933.5	804933.5	104.82	%		13:23:09
3	Sc Radial	4961.0	4961.0	105	%		13:21:52
3	Y 371.029	724081.2	724081.2	105.09	%		13:23:09
3	Y RADIAL	5272.6	5272.6	105.8	%		13:21:52
3	Ag 328.068†	244.9	-22.0	-0.1231	ug/L	-0.1231 ppb	13:23:09
3	Al 396.153Radial†	-83.4	8.0	7.4930	ug/L	7.4930 ppb	13:22:12
3	As 188.979†	-29.4	-3.0	-1.3442	ug/L	-1.3442 ppb	13:23:30
3	B 249.677†	-52.9	402.9	10.093	ug/L	10.093 ppb	13:23:30
3	Ba 233.527†	12.4	9.5	0.1119	ug/L	0.1119 ppb	13:23:30
3	Be 313.107†	-9348.5	63.8	0.0257	ug/L	0.0257 ppb	13:23:09
3	Ca 317.933Radial†	31.8	8.0	14.549	ug/L	14.549 ppb	13:22:12
3	Cd 226.502†	-197.9	-2.2	-0.0285	ug/L	-0.0285 ppb	13:23:30
3	Co 228.616†	-68.1	-7.5	-0.2254	ug/L	-0.2254 ppb	13:23:30
3	Cr 267.716†	77.6	-1.5	-0.0245	ug/L	-0.0245 ppb	13:23:30
3	Cu 324.752†	7766.6	-126.5	-0.4791	ug/L	-0.4791 ppb	13:23:09
3	Fe 238.204 Radial†	6.5	-1.1	-11.602	ug/L	-11.602 ppb	13:22:12
3	K 766.490 Radial†	2405.0	20.1	3.9680	ug/L	3.9680 ppb	13:21:52
3	Mg 279.077 IEC†	2.7	-0.3	-12.789	ug/L	-12.789 ppb	13:22:12
3	Mn 257.610†	432.0	-49.0	-0.0790	ug/L	-0.0790 ppb	13:23:30
3	Mo 202.031†	15.7	0.6	0.0514	ug/L	0.0514 ppb	13:23:30
3	Na 589.592 Radial†	-721.3	163.5	55.725	ug/L	55.725 ppb	13:21:52
3	Ni 231.604†	95.3	-10.4	-0.3321	ug/L	-0.3321 ppb	13:23:30
3	P 214.914†	208.0	3.0	1.7986	ug/L	1.7986 ppb	13:23:30
3	Pb 220.353†	-60.9	12.6	2.0348	ug/L	2.0348 ppb	13:23:30
3	S 181.975 Axial†	41.6	-2.8	-3.6233	ug/L	-3.6233 ppb	13:23:30
3	Sb 206.836†	44.5	12.4	5.0231	ug/L	5.0231 ppb	13:23:30
3	Se 196.026†	-11.6	8.7	5.3236	ug/L	5.3236 ppb	13:23:30
3	Si 251.611†	598.2	-18.6	-0.6777	ug/L	-0.6777 ppb	13:23:30
3	Sn 189.927†	8.3	-0.2	-0.0374	ug/L	-0.0374 ppb	13:23:30
3	Sr 421.552†	20.2	19.7	0.1430	ug/L	0.1430 ppb	13:21:52
3	Ti 334.940†	-1280.3	79.6	0.1595	ug/L	0.1595 ppb	13:23:09
3	Tl 190.801†	-29.6	3.0	1.3776	ug/L	1.3776 ppb	13:23:30
3	U 409.014†	-2382.8	263.5	8.8255	ug/L	8.8255 ppb	13:23:09
3	V 292.402†	-1669.3	35.4	0.3009	ug/L	0.3009 ppb	13:23:09
3	Zn 213.857†	752.1	7.3	0.0847	ug/L	0.0847 ppb	13:23:30
3	SiO2†	638.4	12.6	0.9782	ug/L	0.9782 ppb	13:23:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	810002.7	105.48	%	0.643				0.61%
Sc Radial	4930.4	105	%	1.3				1.20%
Y 371.029	729708.3	105.90	%	0.744				0.70%
Y RADIAL	5231.1	104.9	%	1.30				1.24%
Ag 328.068†	-55.1	-0.2874	ug/L	0.14233	-0.2874	ppb	0.14233	49.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.9	12.027	ug/L	5.7882	12.027	ppb	5.7882	48.13%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.8296	ug/L	1.46457	-0.8296	ppb	1.46457	176.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	416.9	10.440	ug/L	0.3065	10.440	ppb	0.3065	2.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.2	0.1333	ug/L	0.04967	0.1333	ppb	0.04967	37.27%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	142.2	0.0571	ug/L	0.02859	0.0571	ppb	0.02859	50.09%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          7.7      13.977 ug/L        0.6201      13.977 ppb        0.6201   4.44%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.8       0.0131 ug/L       0.04087      0.0131 ppb       0.04087 313.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -2.6      -0.0782 ug/L       0.14876     -0.0782 ppb       0.14876 190.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                2.2       0.0270 ug/L       0.09684      0.0270 ppb       0.09684 357.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -117.6      -0.4446 ug/L       0.06337     -0.4446 ppb       0.06337  14.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.3       3.5571 ug/L      13.78636      3.5571 ppb      13.78636 387.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         31.3       6.1955 ug/L       2.46600      6.1955 ppb       2.46600  39.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.9     -75.961 ug/L       65.5845     -75.961 ppb       65.5845  86.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -46.3      -0.0707 ug/L       0.01345     -0.0707 ppb       0.01345  19.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.3      -0.1229 ug/L       0.18481     -0.1229 ppb       0.18481 150.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       168.3      57.340 ug/L        5.2500      57.340 ppb        5.2500   9.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -6.8      -0.2165 ug/L       0.27642     -0.2165 ppb       0.27642 127.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.1       0.1278 ug/L       5.06885      0.1278 ppb       5.06885 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               15.7       2.5357 ug/L       0.84374      2.5357 ppb       0.84374  33.27%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2      -1.5960 ug/L       3.07750     -1.5960 ppb       3.07750 192.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               10.0       4.0821 ug/L       1.13043      4.0821 ppb       1.13043  27.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.6       3.4331 ug/L       4.80533      3.4331 ppb       4.80533 139.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -5.9      -0.2126 ug/L       0.47075     -0.2126 ppb       0.47075 221.40%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.2       0.7521 ug/L       1.06777      0.7521 ppb       1.06777 141.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               27.2       0.1976 ug/L       0.13806      0.1976 ppb       0.13806  69.86%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              122.9       0.2523 ug/L       0.08231      0.2523 ppb       0.08231  32.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.0       0.0175 ug/L       2.02068      0.0175 ppb       2.02068 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               231.2       7.7422 ug/L       2.47252      7.7422 ppb       2.47252  31.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                40.5       0.3330 ug/L       0.06763      0.3330 ppb       0.06763  20.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               11.8       0.1313 ug/L       0.09183      0.1313 ppb       0.09183  69.94%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -8.3      -0.6420 ug/L       1.41470     -0.6420 ppb       1.41470 220.37%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 14:20:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5106.5	5106.5	108	%			14:21:59
1	Y RADIAL	5370.5	5370.5	107.7	%			14:21:59
1	Al 396.153Radial†	5786.0	5420.0	5045.8	ug/L	5045.8	ppb	14:21:59
1	Ca 317.933Radial†	3030.2	2770.8	5034.4	ug/L	5034.4	ppb	14:22:19
1	Fe 238.204 Radial†	542.1	492.3	5122.9	ug/L	5122.9	ppb	14:22:19
1	K 766.490 Radial†	29833.1	25235.4	5017.1	ug/L	5017.1	ppb	14:21:59
1	Mg 279.077 IEC†	145.0	130.8	5191.4	ug/L	5191.4	ppb	14:22:19
1	Na 589.592 Radial†	30899.7	29327.9	9994.9	ug/L	9994.9	ppb	14:21:59
1	Sr 421.552†	74979.2	69108.5	502.50	ug/L	502.50	ppb	14:21:59
1	Sc 361.383	826727.5	826727.5	107.66	%			14:23:17
1	Y 371.029	729362.4	729362.4	105.85	%			14:23:17
1	Ag 328.068†	104560.7	96869.8	501.16	ug/L	501.16	ppb	14:23:22
1	As 188.979†	1187.5	1128.0	507.10	ug/L	507.10	ppb	14:23:42
1	B 249.677†	20897.5	19864.9	495.15	ug/L	495.15	ppb	14:23:22
1	Ba 233.527†	45864.8	42601.0	503.95	ug/L	503.95	ppb	14:23:22
1	Be 313.107†	1348946.3	1262005.5	502.76	ug/L	502.76	ppb	14:23:17
1	Cd 226.502†	38090.1	35568.2	504.12	ug/L	504.12	ppb	14:23:22
1	Co 228.616†	18229.1	16990.3	513.55	ug/L	513.55	ppb	14:23:22
1	Cr 267.716†	39521.4	36635.4	501.11	ug/L	501.11	ppb	14:23:22
1	Cu 324.752†	152344.6	133975.3	501.65	ug/L	501.65	ppb	14:23:22
1	Mn 257.610†	338312.0	313793.5	502.56	ug/L	502.56	ppb	14:23:22
1	Mo 202.031†	5874.9	5442.8	499.95	ug/L	499.95	ppb	14:23:42
1	Ni 231.604†	17162.4	15840.6	506.07	ug/L	506.07	ppb	14:23:22
1	P 214.914†	5041.7	4487.8	2408.2	ug/L	2408.2	ppb	14:23:42
1	Pb 220.353†	3262.9	3101.6	501.98	ug/L	501.98	ppb	14:23:42
1	S 181.975 Axial†	887.9	782.2	1013.3	ug/L	1013.3	ppb	14:23:42
1	Sb 206.836†	1366.6	1239.4	520.76	ug/L	520.76	ppb	14:23:42
1	Se 196.026†	866.9	825.0	518.74	ug/L	518.74	ppb	14:23:42
1	Si 251.611†	74504.2	68617.0	2497.7	ug/L	2497.7	ppb	14:23:22
1	Sn 189.927†	2281.9	2111.6	497.87	ug/L	497.87	ppb	14:23:42
1	Ti 334.940†	266197.5	248569.3	500.72	ug/L	500.72	ppb	14:23:22
1	Tl 190.801†	1134.6	1085.1	501.65	ug/L	501.65	ppb	14:23:42
1	U 409.014†	13786.7	15343.1	512.07	ug/L	512.07	ppb	14:23:22
1	V 292.402†	65975.8	62912.3	507.68	ug/L	507.68	ppb	14:23:22
1	Zn 213.857†	49751.0	45502.9	497.16	ug/L	497.16	ppb	14:23:22
1	SiO2†	74476.3	68583.9	5329.2	ug/L	5329.2	ppb	14:24:49
2	Sc Radial	4922.9	4922.9	105	%			14:22:25
2	Y RADIAL	5179.3	5179.3	103.9	%			14:22:25
2	Al 396.153Radial†	5689.1	5526.3	5145.4	ug/L	5145.4	ppb	14:22:25
2	Ca 317.933Radial†	3022.8	2867.8	5210.7	ug/L	5210.7	ppb	14:22:45
2	Fe 238.204 Radial†	546.5	515.2	5360.3	ug/L	5360.3	ppb	14:22:45
2	K 766.490 Radial†	29347.0	25796.2	5128.6	ug/L	5128.6	ppb	14:22:25
2	Mg 279.077 IEC†	144.3	135.1	5362.4	ug/L	5362.4	ppb	14:22:45
2	Na 589.592 Radial†	30283.4	29800.9	10156	ug/L	10156	ppb	14:22:25
2	Sr 421.552†	73566.0	70334.9	511.42	ug/L	511.42	ppb	14:22:25
2	Sc 361.383	827747.3	827747.3	107.79	%			14:23:47
2	Y 371.029	732457.2	732457.2	106.30	%			14:23:47
2	Ag 328.068†	104699.6	96878.9	501.28	ug/L	501.28	ppb	14:23:53
2	As 188.979†	1183.3	1122.8	504.82	ug/L	504.82	ppb	14:24:13
2	B 249.677†	20929.2	19870.4	495.26	ug/L	495.26	ppb	14:23:53
2	Ba 233.527†	46007.2	42680.6	504.89	ug/L	504.89	ppb	14:23:53
2	Be 313.107†	1345459.0	1257226.4	500.86	ug/L	500.86	ppb	14:23:47
2	Cd 226.502†	38045.1	35482.8	502.88	ug/L	502.88	ppb	14:23:53
2	Co 228.616†	18208.5	16950.3	512.33	ug/L	512.33	ppb	14:23:53
2	Cr 267.716†	39574.4	36639.3	501.17	ug/L	501.17	ppb	14:23:53
2	Cu 324.752†	152379.4	133833.1	501.13	ug/L	501.13	ppb	14:23:53
2	Mn 257.610†	338226.6	313327.2	501.83	ug/L	501.83	ppb	14:23:53
2	Mo 202.031†	5846.1	5409.3	496.90	ug/L	496.90	ppb	14:24:13
2	Ni 231.604†	17221.9	15876.2	507.20	ug/L	507.20	ppb	14:23:53

2	P 214.914†	5035.5	4476.3	2401.7 ug/L	2401.7 ppb	14:24:13
2	Pb 220.353†	3257.7	3093.0	500.59 ug/L	500.59 ppb	14:24:13
2	S 181.975 Axial†	876.8	770.9	998.55 ug/L	998.55 ppb	14:24:13
2	Sb 206.836†	1362.0	1233.5	518.27 ug/L	518.27 ppb	14:24:13
2	Se 196.026†	875.3	831.8	523.44 ug/L	523.44 ppb	14:24:13
2	Si 251.611†	74525.3	68551.3	2495.4 ug/L	2495.4 ppb	14:23:53
2	Sn 189.927†	2274.1	2101.7	495.57 ug/L	495.57 ppb	14:24:13
2	Ti 334.940†	266227.9	248292.9	500.17 ug/L	500.17 ppb	14:23:53
2	Tl 190.801†	1146.7	1095.0	506.21 ug/L	506.21 ppb	14:24:13
2	U 409.014†	13694.6	15242.0	508.66 ug/L	508.66 ppb	14:23:53
2	V 292.402†	66061.4	62916.1	507.63 ug/L	507.63 ppb	14:23:53
2	Zn 213.857†	49748.1	45443.3	496.46 ug/L	496.46 ppb	14:23:53
2	SiO2†	74098.9	68148.4	5295.4 ug/L	5295.4 ppb	14:24:54
3	Sc Radial	4997.1	4997.1	106 %		14:22:50
3	Y RADIAL	5257.7	5257.7	105.5 %		14:22:50
3	Al 396.153Radial†	5759.9	5512.2	5132.0 ug/L	5132.0 ppb	14:22:50
3	Ca 317.933Radial†	3025.9	2827.8	5138.0 ug/L	5138.0 ppb	14:23:10
3	Fe 238.204 Radial†	542.6	503.7	5241.7 ug/L	5241.7 ppb	14:23:10
3	K 766.490 Radial†	29692.0	25704.5	5110.4 ug/L	5110.4 ppb	14:22:50
3	Mg 279.077 IEC†	144.4	133.2	5286.6 ug/L	5286.6 ppb	14:23:10
3	Na 589.592 Radial†	30661.5	29727.0	10131 ug/L	10131 ppb	14:22:50
3	Sr 421.552†	74595.9	70260.3	510.88 ug/L	510.88 ppb	14:22:50
3	Sc 361.383	828096.0	828096.0	107.83 %		14:24:18
3	Y 371.029	732734.7	732734.7	106.34 %		14:24:18
3	Ag 328.068†	105136.8	97243.5	503.13 ug/L	503.13 ppb	14:24:24
3	As 188.979†	1195.9	1134.1	509.81 ug/L	509.81 ppb	14:24:44
3	B 249.677†	21085.8	20007.5	498.70 ug/L	498.70 ppb	14:24:24
3	Ba 233.527†	45960.5	42619.3	504.17 ug/L	504.17 ppb	14:24:24
3	Be 313.107†	1346591.1	1257750.6	501.07 ug/L	501.07 ppb	14:24:18
3	Cd 226.502†	38249.0	35657.0	505.37 ug/L	505.37 ppb	14:24:24
3	Co 228.616†	18343.5	17068.4	515.91 ug/L	515.91 ppb	14:24:24
3	Cr 267.716†	39643.9	36688.3	501.84 ug/L	501.84 ppb	14:24:24
3	Cu 324.752†	152708.4	134078.7	502.04 ug/L	502.04 ppb	14:24:24
3	Mn 257.610†	339250.8	314144.7	503.13 ug/L	503.13 ppb	14:24:24
3	Mo 202.031†	5877.3	5436.0	499.34 ug/L	499.34 ppb	14:24:44
3	Ni 231.604†	17346.3	15984.8	510.67 ug/L	510.67 ppb	14:24:24
3	P 214.914†	5050.0	4487.8	2408.0 ug/L	2408.0 ppb	14:24:44
3	Pb 220.353†	3269.9	3103.0	502.22 ug/L	502.22 ppb	14:24:44
3	S 181.975 Axial†	891.0	783.8	1015.3 ug/L	1015.3 ppb	14:24:44
3	Sb 206.836†	1381.4	1251.0	525.41 ug/L	525.41 ppb	14:24:44
3	Se 196.026†	870.5	827.0	520.24 ug/L	520.24 ppb	14:24:44
3	Si 251.611†	74682.0	68667.5	2499.6 ug/L	2499.6 ppb	14:24:24
3	Sn 189.927†	2274.4	2101.1	495.42 ug/L	495.42 ppb	14:24:44
3	Ti 334.940†	266619.9	248552.3	500.69 ug/L	500.69 ppb	14:24:24
3	Tl 190.801†	1154.8	1102.2	509.48 ug/L	509.48 ppb	14:24:44
3	U 409.014†	13704.4	15245.7	508.79 ug/L	508.79 ppb	14:24:24
3	V 292.402†	66211.2	63029.3	508.58 ug/L	508.58 ppb	14:24:24
3	Zn 213.857†	49976.7	45635.8	498.58 ug/L	498.58 ppb	14:24:24
3	SiO2†	74184.0	68198.4	5299.2 ug/L	5299.2 ppb	14:24:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	827523.6	107.76	%	0.093				0.09%
Sc Radial	5008.8	106	%	2.0				1.84%
Y 371.029	731518.1	106.17	%	0.272				0.26%
Y RADIAL	5269.1	105.7	%	1.93				1.82%
Ag 328.068†	96997.4	501.86	ug/L	1.100	501.86	ppb	1.100	0.22%
QC value within limits for Ag 328.068 Recovery = 100.37%								
Al 396.153Radial†	5486.2	5107.7	ug/L	54.07	5107.7	ppb	54.07	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.15%								
As 188.979†	1128.3	507.24	ug/L	2.499	507.24	ppb	2.499	0.49%
QC value within limits for As 188.979 Recovery = 101.45%								
B 249.677†	19914.3	496.37	ug/L	2.017	496.37	ppb	2.017	0.41%
QC value within limits for B 249.677 Recovery = 99.27%								
Ba 233.527†	42633.6	504.34	ug/L	0.495	504.34	ppb	0.495	0.10%
QC value within limits for Ba 233.527 Recovery = 100.87%								
Be 313.107†	1258994.2	501.56	ug/L	1.042	501.56	ppb	1.042	0.21%
QC value within limits for Be 313.107 Recovery = 100.31%								
Ca 317.933Radial†	2822.2	5127.7	ug/L	88.62	5127.7	ppb	88.62	1.73%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.55%
Cd 226.502†            35569.3      504.12 ug/L         1.242      504.12 ppb          1.242   0.25%
   QC value within limits for Cd 226.502  Recovery = 100.82%
Co 228.616†            17003.0      513.93 ug/L         1.818      513.93 ppb          1.818   0.35%
   QC value within limits for Co 228.616  Recovery = 102.79%
Cr 267.716†            36654.4      501.37 ug/L         0.404      501.37 ppb          0.404   0.08%
   QC value within limits for Cr 267.716  Recovery = 100.27%
Cu 324.752†           133962.4      501.61 ug/L         0.458      501.61 ppb          0.458   0.09%
   QC value within limits for Cu 324.752  Recovery = 100.32%
Fe 238.204 Radial†       503.7      5241.6 ug/L        118.67      5241.6 ppb         118.67   2.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.83%
K 766.490 Radial†      25578.7      5085.4 ug/L         59.82      5085.4 ppb          59.82   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 101.71%
Mg 279.077 IEC†          133.0      5280.1 ug/L         85.70      5280.1 ppb          85.70   1.62%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.60%
Mn 257.610†           313755.1      502.51 ug/L         0.652      502.51 ppb          0.652   0.13%
   QC value within limits for Mn 257.610  Recovery = 100.50%
Mo 202.031†             5429.4      498.73 ug/L         1.613      498.73 ppb          1.613   0.32%
   QC value within limits for Mo 202.031  Recovery = 99.75%
Na 589.592 Radial†     29618.6       10094 ug/L          86.7       10094 ppb           86.7   0.86%
   QC value within limits for Na 589.592 Radial  Recovery = 100.94%
Ni 231.604†            15900.5      507.98 ug/L         2.400      507.98 ppb          2.400   0.47%
   QC value within limits for Ni 231.604  Recovery = 101.60%
P 214.914†              4484.0      2406.0 ug/L         3.72      2406.0 ppb           3.72   0.15%
   QC value within limits for P 214.914  Recovery = 96.24%
Pb 220.353†             3099.2      501.60 ug/L         0.878      501.60 ppb          0.878   0.18%
   QC value within limits for Pb 220.353  Recovery = 100.32%
S 181.975 Axial†         779.0      1009.0 ug/L         9.13      1009.0 ppb           9.13   0.90%
   QC value within limits for S 181.975 Axial  Recovery = 100.90%
Sb 206.836†             1241.3      521.48 ug/L         3.622      521.48 ppb          3.622   0.69%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              828.0      520.80 ug/L         2.400      520.80 ppb          2.400   0.46%
   QC value within limits for Se 196.026  Recovery = 104.16%
Si 251.611†            68612.0      2497.6 ug/L         2.11      2497.6 ppb           2.11   0.08%
   QC value within limits for Si 251.611  Recovery = 99.90%
Sn 189.927†             2104.8      496.29 ug/L         1.375      496.29 ppb          1.375   0.28%
   QC value within limits for Sn 189.927  Recovery = 99.26%
Sr 421.552†            69901.2      508.27 ug/L         4.999      508.27 ppb          4.999   0.98%
   QC value within limits for Sr 421.552  Recovery = 101.65%
Ti 334.940†           248471.5      500.52 ug/L         0.308      500.52 ppb          0.308   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.10%
Tl 190.801†             1094.1      505.78 ug/L         3.930      505.78 ppb          3.930   0.78%
   QC value within limits for Tl 190.801  Recovery = 101.16%
U 409.014†             15276.9      509.84 ug/L         1.934      509.84 ppb          1.934   0.38%
   QC value within limits for U 409.014  Recovery = 101.97%
V 292.402†             62952.6      507.96 ug/L         0.535      507.96 ppb          0.535   0.11%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            45527.3      497.40 ug/L         1.079      497.40 ppb          1.079   0.22%
   QC value within limits for Zn 213.857  Recovery = 99.48%
SiO2†                  68310.3      5307.9 ug/L        18.53      5307.9 ppb          18.53   0.35%
   QC value within limits for SiO2  Recovery = 99.26%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 14:27:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5218.0	5218.0	111	%			14:29:02
1	Y RADIAL	5544.9	5544.9	111.2	%			14:29:02
1	Al 396.153Radial†	-77.7	17.1	15.981	ug/L	15.981	ppb	14:29:22
1	Ca 317.933Radial†	26.4	1.6	2.9394	ug/L	2.9394	ppb	14:29:22
1	Fe 238.204 Radial†	6.9	-1.1	-11.400	ug/L	-11.400	ppb	14:29:22
1	K 766.490 Radial†	2305.6	-182.0	-36.259	ug/L	-36.259	ppb	14:29:02
1	Mg 279.077 IEC†	0.6	-2.4	-94.447	ug/L	-94.447	ppb	14:29:22
1	Na 589.592 Radial†	-704.6	212.2	72.333	ug/L	72.333	ppb	14:29:02
1	Sr 421.552†	28.1	25.8	0.1875	ug/L	0.1875	ppb	14:29:02
1	Sc 361.383	818015.8	818015.8	106.52	%			14:30:19
1	Y 371.029	730161.0	730161.0	105.97	%			14:30:19
1	Ag 328.068†	171.6	-94.6	-0.4967	ug/L	-0.4967	ppb	14:30:19
1	As 188.979†	-32.1	-5.1	-2.2835	ug/L	-2.2835	ppb	14:30:39
1	B 249.677†	-275.0	195.3	4.8931	ug/L	4.8931	ppb	14:30:39
1	Ba 233.527†	33.1	28.6	0.3385	ug/L	0.3385	ppb	14:30:39
1	Be 313.107†	-9561.3	6.7	0.0033	ug/L	0.0033	ppb	14:30:19
1	Cd 226.502†	-194.1	4.4	0.0659	ug/L	0.0659	ppb	14:30:39
1	Co 228.616†	-60.4	0.8	0.0227	ug/L	0.0227	ppb	14:30:39
1	Cr 267.716†	76.3	-4.0	-0.0578	ug/L	-0.0578	ppb	14:30:39
1	Cu 324.752†	7961.1	-62.4	-0.2399	ug/L	-0.2399	ppb	14:30:19
1	Mn 257.610†	462.2	-27.3	-0.0409	ug/L	-0.0409	ppb	14:30:39
1	Mo 202.031†	10.4	-4.6	-0.4211	ug/L	-0.4211	ppb	14:30:39
1	Ni 231.604†	92.0	-15.0	-0.4788	ug/L	-0.4788	ppb	14:30:39
1	P 214.914†	203.0	-4.8	-2.6490	ug/L	-2.6490	ppb	14:30:39
1	Pb 220.353†	-70.8	4.2	0.6871	ug/L	0.6871	ppb	14:30:39
1	S 181.975 Axial†	48.0	2.5	3.3025	ug/L	3.3025	ppb	14:30:39
1	Sb 206.836†	34.9	2.7	1.0817	ug/L	1.0817	ppb	14:30:39
1	Se 196.026†	-20.6	0.5	0.2706	ug/L	0.2706	ppb	14:30:39
1	Si 251.611†	641.9	13.4	0.4936	ug/L	0.4936	ppb	14:30:39
1	Sn 189.927†	1.4	-6.7	-1.5826	ug/L	-1.5826	ppb	14:30:39
1	Ti 334.940†	-1226.9	149.3	0.3043	ug/L	0.3043	ppb	14:30:19
1	Tl 190.801†	-32.6	0.6	0.2786	ug/L	0.2786	ppb	14:30:39
1	U 409.014†	-2367.3	314.4	10.530	ug/L	10.530	ppb	14:30:19
1	V 292.402†	-1671.2	59.0	0.4840	ug/L	0.4840	ppb	14:30:19
1	Zn 213.857†	768.6	11.3	0.1294	ug/L	0.1294	ppb	14:30:39
1	SiO2†	941.4	287.3	22.396	ug/L	22.396	ppb	14:31:35
2	Sc Radial	4894.3	4894.3	104	%			14:29:27
2	Y RADIAL	5151.7	5151.7	103.3	%			14:29:27
2	Al 396.153Radial†	-72.5	17.4	16.310	ug/L	16.310	ppb	14:29:47
2	Ca 317.933Radial†	30.3	7.0	12.674	ug/L	12.674	ppb	14:29:47
2	Fe 238.204 Radial†	7.3	-0.3	-2.8340	ug/L	-2.8340	ppb	14:29:47
2	K 766.490 Radial†	2376.3	23.5	4.6600	ug/L	4.6600	ppb	14:29:27
2	Mg 279.077 IEC†	-1.5	-4.3	-171.82	ug/L	-171.82	ppb	14:29:47
2	Na 589.592 Radial†	-730.3	145.5	49.591	ug/L	49.591	ppb	14:29:27
2	Sr 421.552†	47.6	46.2	0.3361	ug/L	0.3361	ppb	14:29:27
2	Sc 361.383	826087.4	826087.4	107.57	%			14:30:44
2	Y 371.029	736765.2	736765.2	106.93	%			14:30:44
2	Ag 328.068†	286.3	10.5	0.0460	ug/L	0.0460	ppb	14:30:44
2	As 188.979†	-26.6	0.3	0.1195	ug/L	0.1195	ppb	14:31:04
2	B 249.677†	-282.8	190.5	4.7711	ug/L	4.7711	ppb	14:31:04
2	Ba 233.527†	24.2	20.1	0.2383	ug/L	0.2383	ppb	14:31:04
2	Be 313.107†	-9617.7	41.9	0.0173	ug/L	0.0173	ppb	14:30:44
2	Cd 226.502†	-184.9	14.8	0.2112	ug/L	0.2112	ppb	14:31:04
2	Co 228.616†	-57.8	3.8	0.1138	ug/L	0.1138	ppb	14:31:04
2	Cr 267.716†	68.8	-11.6	-0.1624	ug/L	-0.1624	ppb	14:31:04
2	Cu 324.752†	8077.0	-27.6	-0.1094	ug/L	-0.1094	ppb	14:30:44
2	Mn 257.610†	457.6	-35.7	-0.0505	ug/L	-0.0505	ppb	14:31:04
2	Mo 202.031†	15.1	-0.4	-0.0350	ug/L	-0.0350	ppb	14:31:04
2	Ni 231.604†	82.9	-24.2	-0.7749	ug/L	-0.7749	ppb	14:31:04

2	P 214.914†	209.6	-0.5	-0.2668 ug/L	-0.2668 ppb	14:31:04
2	Pb 220.353†	-65.5	9.8	1.5802 ug/L	1.5802 ppb	14:31:04
2	S 181.975 Axial†	47.6	1.7	2.2181 ug/L	2.2181 ppb	14:31:04
2	Sb 206.836†	40.9	8.0	3.2413 ug/L	3.2413 ppb	14:31:04
2	Se 196.026†	-18.5	2.6	1.5708 ug/L	1.5708 ppb	14:31:04
2	Si 251.611†	616.6	-16.0	-0.5841 ug/L	-0.5841 ppb	14:31:04
2	Sn 189.927†	8.8	0.1	0.0315 ug/L	0.0315 ppb	14:31:04
2	Ti 334.940†	-1256.3	133.1	0.2795 ug/L	0.2795 ppb	14:30:44
2	Tl 190.801†	-31.6	1.8	0.8279 ug/L	0.8279 ppb	14:31:04
2	U 409.014†	-2397.0	308.5	10.332 ug/L	10.332 ppb	14:30:44
2	V 292.402†	-1694.5	52.7	0.4359 ug/L	0.4359 ppb	14:30:44
2	Zn 213.857†	775.3	10.4	0.1202 ug/L	0.1202 ppb	14:31:04
2	SiO2†	920.1	258.9	20.171 ug/L	20.171 ppb	14:31:40
3	Sc Radial	5105.8	5105.8	108 %		14:29:52
3	Y RADIAL	5352.2	5352.2	107.4 %		14:29:52
3	Al 396.153Radial†	-71.6	21.1	19.753 ug/L	19.753 ppb	14:30:12
3	Ca 317.933Radial†	28.4	4.0	7.3248 ug/L	7.3248 ppb	14:30:12
3	Fe 238.204 Radial†	7.6	-0.3	-3.2048 ug/L	-3.2048 ppb	14:30:12
3	K 766.490 Radial†	2357.6	-88.3	-17.604 ug/L	-17.604 ppb	14:29:52
3	Mg 279.077 IEC†	2.6	-0.5	-21.163 ug/L	-21.163 ppb	14:30:12
3	Na 589.592 Radial†	-717.6	186.3	63.493 ug/L	63.493 ppb	14:29:52
3	Sr 421.552†	26.4	24.8	0.1805 ug/L	0.1805 ppb	14:29:52
3	Sc 361.383	828191.4	828191.4	107.85 %		14:31:10
3	Y 371.029	738495.9	738495.9	107.18 %		14:31:10
3	Ag 328.068†	235.0	-37.7	-0.2027 ug/L	-0.2027 ppb	14:31:10
3	As 188.979†	-27.5	-0.4	-0.1939 ug/L	-0.1939 ppb	14:31:30
3	B 249.677†	-243.9	227.3	5.6914 ug/L	5.6914 ppb	14:31:30
3	Ba 233.527†	31.0	26.3	0.3114 ug/L	0.3114 ppb	14:31:30
3	Be 313.107†	-9667.4	18.6	0.0084 ug/L	0.0084 ppb	14:31:10
3	Cd 226.502†	-185.7	14.5	0.2072 ug/L	0.2072 ppb	14:31:30
3	Co 228.616†	-56.4	5.1	0.1535 ug/L	0.1535 ppb	14:31:30
3	Cr 267.716†	55.6	-24.0	-0.3321 ug/L	-0.3321 ppb	14:31:30
3	Cu 324.752†	8025.1	-94.9	-0.3621 ug/L	-0.3621 ppb	14:31:10
3	Mn 257.610†	526.6	27.2	0.0440 ug/L	0.0440 ppb	14:31:30
3	Mo 202.031†	10.0	-5.1	-0.4724 ug/L	-0.4724 ppb	14:31:30
3	Ni 231.604†	94.5	-13.7	-0.4386 ug/L	-0.4386 ppb	14:31:30
3	P 214.914†	202.3	-7.8	-4.2895 ug/L	-4.2895 ppb	14:31:30
3	Pb 220.353†	-68.3	7.4	1.1910 ug/L	1.1910 ppb	14:31:30
3	S 181.975 Axial†	41.9	-3.6	-4.6868 ug/L	-4.6868 ppb	14:31:30
3	Sb 206.836†	36.9	4.2	1.6841 ug/L	1.6841 ppb	14:31:30
3	Se 196.026†	-12.9	7.8	4.7720 ug/L	4.7720 ppb	14:31:30
3	Si 251.611†	677.7	39.2	1.4351 ug/L	1.4351 ppb	14:31:30
3	Sn 189.927†	6.8	-1.8	-0.4216 ug/L	-0.4216 ppb	14:31:30
3	Ti 334.940†	-1153.1	231.9	0.4648 ug/L	0.4648 ppb	14:31:10
3	Tl 190.801†	-37.2	-3.3	-1.5222 ug/L	-1.5222 ppb	14:31:30
3	U 409.014†	-2354.5	353.6	11.843 ug/L	11.843 ppb	14:31:10
3	V 292.402†	-1686.9	63.8	0.5238 ug/L	0.5238 ppb	14:31:10
3	Zn 213.857†	767.6	1.5	0.0198 ug/L	0.0198 ppb	14:31:30
3	SiO2†	850.9	192.6	15.014 ug/L	15.014 ppb	14:31:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	824098.2	107.31	%	0.699				0.65%
Sc Radial	5072.7	108	%	3.5				3.24%
Y 371.029	735140.7	106.69	%	0.638				0.60%
Y RADIAL	5349.6	107.3	%	3.94				3.67%
Ag 328.068†	-40.6	-0.2178	ug/L	0.27163	-0.2178	ppb	0.27163	124.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.5	17.348	ug/L	2.0891	17.348	ppb	2.0891	12.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-0.7860	ug/L	1.30634	-0.7860	ppb	1.30634	166.21%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	204.4	5.1185	ug/L	0.49985	5.1185	ppb	0.49985	9.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.0	0.2961	ug/L	0.05185	0.2961	ppb	0.05185	17.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	22.4	0.0097	ug/L	0.00705	0.0097	ppb	0.00705	72.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.2	7.6459	ug/L	4.87507	7.6459	ppb	4.87507	63.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.2      0.1614 ug/L       0.08279      0.1614 ppb        0.08279  51.28%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.2      0.0967 ug/L       0.06705      0.0967 ppb        0.06705  69.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -13.2     -0.1841 ug/L       0.13844     -0.1841 ppb        0.13844  75.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -61.6     -0.2371 ug/L       0.12639     -0.2371 ppb        0.12639  53.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -5.8130 ug/L       4.84221     -5.8130 ppb        4.84221  83.30%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -82.3     -16.401 ug/L       20.4862     -16.401 ppb        20.4862 124.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -2.4     -95.811 ug/L       75.3398     -95.811 ppb        75.3398  78.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -12.0     -0.0158 ug/L       0.05201     -0.0158 ppb        0.05201 329.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.4     -0.3095 ug/L       0.23909     -0.3095 ppb        0.23909  77.24%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        181.4      61.806 ug/L       11.4646      61.806 ppb        11.4646  18.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -17.6     -0.5641 ug/L       0.18364     -0.5641 ppb        0.18364  32.55%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.4     -2.4018 ug/L       2.02272     -2.4018 ppb        2.02272  84.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 7.1      1.1528 ug/L       0.44776      1.1528 ppb        0.44776  38.84%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.2      0.2779 ug/L       4.33364      0.2779 ppb        4.33364 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.0      2.0024 ug/L       1.11439      2.0024 ppb        1.11439  55.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.6      2.2045 ug/L       2.31661      2.2045 ppb        2.31661 105.09%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                12.2      0.4482 ug/L       1.01036      0.4482 ppb        1.01036 225.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.8     -0.6576 ug/L       0.83250     -0.6576 ppb        0.83250 126.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                32.3      0.2347 ug/L       0.08787      0.2347 ppb        0.08787  37.43%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               171.4      0.3496 ug/L       0.10060      0.3496 ppb        0.10060  28.78%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.1386 ug/L       1.22934     -0.1386 ppb        1.22934 887.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                325.5      10.902 ug/L        0.8213      10.902 ppb         0.8213   7.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 58.5      0.4812 ug/L       0.04400      0.4812 ppb        0.04400   9.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 7.7      0.0898 ug/L       0.06078      0.0898 ppb        0.06078  67.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     246.3      19.193 ug/L        3.7872      19.193 ppb         3.7872  19.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 15:27:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4801.6	4801.6	102	%			15:29:00
1	Y RADIAL	5070.2	5070.2	101.7	%			15:29:00
1	Al 396.153Radial†	5642.5	5618.0	5230.8	ug/L	5230.8	ppb	15:29:00
1	Ca 317.933Radial†	2986.5	2905.3	5278.7	ug/L	5278.7	ppb	15:29:20
1	Fe 238.204 Radial†	509.6	492.2	5121.6	ug/L	5121.6	ppb	15:29:20
1	K 766.490 Radial†	28651.7	25823.2	5134.5	ug/L	5134.5	ppb	15:29:00
1	Mg 279.077 IEC†	136.6	131.0	5201.6	ug/L	5201.6	ppb	15:29:20
1	Na 589.592 Radial†	25533.2	25875.8	8818.5	ug/L	8818.5	ppb	15:29:00
1	Sr 421.552†	67617.1	66279.8	481.93	ug/L	481.93	ppb	15:29:00
1	Sc 361.383	822556.0	822556.0	107.11	%			15:30:17
1	Y 371.029	727631.3	727631.3	105.60	%			15:30:17
1	Ag 328.068†	105703.6	98429.3	509.20	ug/L	509.20	ppb	15:30:22
1	As 188.979†	1190.4	1136.4	510.88	ug/L	510.88	ppb	15:30:42
1	B 249.677†	21110.4	20162.2	502.63	ug/L	502.63	ppb	15:30:22
1	Ba 233.527†	46249.5	43176.2	510.75	ug/L	510.75	ppb	15:30:22
1	Be 313.107†	1341298.8	1261220.3	502.47	ug/L	502.47	ppb	15:30:17
1	Cd 226.502†	38393.7	36031.1	510.69	ug/L	510.69	ppb	15:30:22
1	Co 228.616†	17776.8	16653.9	503.38	ug/L	503.38	ppb	15:30:42
1	Cr 267.716†	39826.5	37106.4	507.55	ug/L	507.55	ppb	15:30:22
1	Cu 324.752†	153452.9	135727.6	508.21	ug/L	508.21	ppb	15:30:22
1	Mn 257.610†	340811.0	317720.3	508.85	ug/L	508.85	ppb	15:30:22
1	Mo 202.031†	5891.9	5486.3	503.95	ug/L	503.95	ppb	15:30:42
1	Ni 231.604†	17366.5	16112.1	514.75	ug/L	514.75	ppb	15:30:22
1	P 214.914†	5058.7	4527.4	2429.1	ug/L	2429.1	ppb	15:30:42
1	Pb 220.353†	3268.4	3122.1	505.35	ug/L	505.35	ppb	15:30:42
1	S 181.975 Axial†	887.1	785.7	1017.8	ug/L	1017.8	ppb	15:30:42
1	Sb 206.836†	1382.5	1260.7	529.54	ug/L	529.54	ppb	15:30:42
1	Se 196.026†	869.8	831.9	522.97	ug/L	522.97	ppb	15:30:42
1	Si 251.611†	75208.7	69625.7	2534.5	ug/L	2534.5	ppb	15:30:22
1	Sn 189.927†	2292.3	2132.0	502.72	ug/L	502.72	ppb	15:30:42
1	Ti 334.940†	268455.2	251931.0	507.52	ug/L	507.52	ppb	15:30:22
1	Tl 190.801†	1144.1	1099.4	508.33	ug/L	508.33	ppb	15:30:42
1	U 409.014†	13959.4	15569.3	519.63	ug/L	519.63	ppb	15:30:22
1	V 292.402†	66706.9	63905.6	515.65	ug/L	515.65	ppb	15:30:22
1	Zn 213.857†	50195.6	46152.4	504.26	ug/L	504.26	ppb	15:30:22
1	SiO2†	74630.6	69078.8	5367.6	ug/L	5367.6	ppb	15:31:49
2	Sc Radial	4837.8	4837.8	103	%			15:29:25
2	Y RADIAL	5090.4	5090.4	102.1	%			15:29:25
2	Al 396.153Radial†	5668.8	5602.2	5216.4	ug/L	5216.4	ppb	15:29:25
2	Ca 317.933Radial†	2961.1	2858.6	5194.0	ug/L	5194.0	ppb	15:29:45
2	Fe 238.204 Radial†	509.8	488.6	5084.2	ug/L	5084.2	ppb	15:29:45
2	K 766.490 Radial†	28904.9	25859.6	5141.8	ug/L	5141.8	ppb	15:29:25
2	Mg 279.077 IEC†	139.3	132.6	5266.1	ug/L	5266.1	ppb	15:29:45
2	Na 589.592 Radial†	25698.2	25849.3	8809.4	ug/L	8809.4	ppb	15:29:25
2	Sr 421.552†	68146.4	66299.5	482.07	ug/L	482.07	ppb	15:29:25
2	Sc 361.383	838776.6	838776.6	109.22	%			15:30:48
2	Y 371.029	741833.5	741833.5	107.66	%			15:30:48
2	Ag 328.068†	104827.8	95719.0	495.22	ug/L	495.22	ppb	15:30:53
2	As 188.979†	1188.7	1113.3	500.47	ug/L	500.47	ppb	15:31:13
2	B 249.677†	20992.5	19673.0	490.41	ug/L	490.41	ppb	15:30:53
2	Ba 233.527†	45983.5	42097.6	497.99	ug/L	497.99	ppb	15:30:53
2	Be 313.107†	1359130.3	1253329.6	499.30	ug/L	499.30	ppb	15:30:48
2	Cd 226.502†	38214.7	35173.9	498.53	ug/L	498.53	ppb	15:30:53
2	Co 228.616†	17755.0	16313.0	493.09	ug/L	493.09	ppb	15:31:13
2	Cr 267.716†	39700.5	36272.1	496.14	ug/L	496.14	ppb	15:30:53
2	Cu 324.752†	152286.2	131888.9	493.84	ug/L	493.84	ppb	15:30:53
2	Mn 257.610†	338804.1	309729.8	496.05	ug/L	496.05	ppb	15:30:53
2	Mo 202.031†	5910.4	5396.8	495.73	ug/L	495.73	ppb	15:31:13
2	Ni 231.604†	17323.1	15758.8	503.46	ug/L	503.46	ppb	15:30:53

2	P 214.914†	5073.0	4449.2	2388.2 ug/L	2388.2 ppb	15:31:13
2	Pb 220.353†	3277.7	3071.6	497.18 ug/L	497.18 ppb	15:31:13
2	S 181.975 Axial†	883.2	766.1	992.31 ug/L	992.31 ppb	15:31:13
2	Sb 206.836†	1383.6	1236.7	519.46 ug/L	519.46 ppb	15:31:13
2	Se 196.026†	876.5	822.3	516.95 ug/L	516.95 ppb	15:31:13
2	Si 251.611†	74662.4	67767.7	2466.8 ug/L	2466.8 ppb	15:30:53
2	Sn 189.927†	2278.9	2078.4	490.08 ug/L	490.08 ppb	15:31:13
2	Ti 334.940†	266477.0	245273.1	494.10 ug/L	494.10 ppb	15:30:53
2	Tl 190.801†	1146.3	1080.7	499.64 ug/L	499.64 ppb	15:31:13
2	U 409.014†	13588.9	14978.1	499.86 ug/L	499.86 ppb	15:30:53
2	V 292.402†	66251.0	62283.9	502.61 ug/L	502.61 ppb	15:30:53
2	Zn 213.857†	49879.3	44956.5	491.17 ug/L	491.17 ppb	15:30:53
2	SiO2†	74730.2	67822.5	5270.0 ug/L	5270.0 ppb	15:31:54
3	Sc Radial	4902.5	4902.5	104 %		15:29:50
3	Y RADIAL	5171.3	5171.3	103.7 %		15:29:50
3	Al 396.153Radial†	5673.2	5533.7	5151.8 ug/L	5151.8 ppb	15:29:50
3	Ca 317.933Radial†	2992.0	2850.3	5178.8 ug/L	5178.8 ppb	15:30:10
3	Fe 238.204 Radial†	510.6	482.8	5024.6 ug/L	5024.6 ppb	15:30:10
3	K 766.490 Radial†	29135.8	25710.3	5112.0 ug/L	5112.0 ppb	15:29:50
3	Mg 279.077 IEC†	143.0	134.4	5336.1 ug/L	5336.1 ppb	15:30:10
3	Na 589.592 Radial†	25947.8	25759.2	8778.7 ug/L	8778.7 ppb	15:29:50
3	Sr 421.552†	68568.7	65830.3	478.66 ug/L	478.66 ppb	15:29:50
3	Sc 361.383	822814.3	822814.3	107.15 %		15:31:18
3	Y 371.029	728686.5	728686.5	105.75 %		15:31:18
3	Ag 328.068†	106159.5	98823.8	511.21 ug/L	511.21 ppb	15:31:24
3	As 188.979†	1197.3	1142.5	513.57 ug/L	513.57 ppb	15:31:44
3	B 249.677†	21320.3	20351.9	507.38 ug/L	507.38 ppb	15:31:24
3	Ba 233.527†	46537.4	43431.3	513.76 ug/L	513.76 ppb	15:31:24
3	Be 313.107†	1341588.7	1261097.7	502.42 ug/L	502.42 ppb	15:31:18
3	Cd 226.502†	38639.4	36249.1	513.79 ug/L	513.79 ppb	15:31:24
3	Co 228.616†	17881.3	16746.2	506.17 ug/L	506.17 ppb	15:31:44
3	Cr 267.716†	40120.6	37369.2	511.14 ug/L	511.14 ppb	15:31:24
3	Cu 324.752†	154209.7	136389.0	510.68 ug/L	510.68 ppb	15:31:24
3	Mn 257.610†	342521.9	319217.2	511.23 ug/L	511.23 ppb	15:31:24
3	Mo 202.031†	5930.7	5520.8	507.10 ug/L	507.10 ppb	15:31:44
3	Ni 231.604†	17489.5	16221.7	518.25 ug/L	518.25 ppb	15:31:24
3	P 214.914†	5124.5	4587.4	2462.2 ug/L	2462.2 ppb	15:31:44
3	Pb 220.353†	3286.8	3138.3	507.95 ug/L	507.95 ppb	15:31:44
3	S 181.975 Axial†	895.4	793.2	1027.4 ug/L	1027.4 ppb	15:31:44
3	Sb 206.836†	1383.8	1261.5	529.97 ug/L	529.97 ppb	15:31:44
3	Se 196.026†	874.9	836.4	525.48 ug/L	525.48 ppb	15:31:44
3	Si 251.611†	75446.0	69825.1	2541.7 ug/L	2541.7 ppb	15:31:24
3	Sn 189.927†	2306.0	2144.1	505.57 ug/L	505.57 ppb	15:31:44
3	Ti 334.940†	269531.0	252856.4	509.36 ug/L	509.36 ppb	15:31:24
3	Tl 190.801†	1147.4	1102.1	509.57 ug/L	509.57 ppb	15:31:44
3	U 409.014†	13914.5	15523.3	518.10 ug/L	518.10 ppb	15:31:24
3	V 292.402†	66891.2	64058.1	516.92 ug/L	516.92 ppb	15:31:24
3	Zn 213.857†	50453.9	46378.8	506.75 ug/L	506.75 ppb	15:31:24
3	SiO2†	74915.8	69323.1	5386.6 ug/L	5386.6 ppb	15:31:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828049.0	107.83	%	1.210				1.12%
Sc Radial	4847.3	103	%	1.1				1.05%
Y 371.029	732717.1	106.34	%	1.148				1.08%
Y RADIAL	5110.6	102.5	%	1.07				1.05%
Ag 328.068†	97657.4	505.21	ug/L	8.709	505.21	ppb	8.709	1.72%
QC value within limits for Ag 328.068 Recovery = 101.04%								
Al 396.153Radial†	5584.6	5199.6	ug/L	42.07	5199.6	ppb	42.07	0.81%
QC value within limits for Al 396.153Radial Recovery = 103.99%								
As 188.979†	1130.7	508.31	ug/L	6.915	508.31	ppb	6.915	1.36%
QC value within limits for As 188.979 Recovery = 101.66%								
B 249.677†	20062.4	500.14	ug/L	8.754	500.14	ppb	8.754	1.75%
QC value within limits for B 249.677 Recovery = 100.03%								
Ba 233.527†	42901.7	507.50	ug/L	8.370	507.50	ppb	8.370	1.65%
QC value within limits for Ba 233.527 Recovery = 101.50%								
Be 313.107†	1258549.2	501.39	ug/L	1.816	501.39	ppb	1.816	0.36%
QC value within limits for Be 313.107 Recovery = 100.28%								
Ca 317.933Radial†	2871.4	5217.2	ug/L	53.84	5217.2	ppb	53.84	1.03%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.34%
Cd 226.502†            35818.0      507.67 ug/L         8.066      507.67 ppb          8.066   1.59%
   QC value within limits for Cd 226.502  Recovery = 101.53%
Co 228.616†            16571.0      500.88 ug/L         6.892      500.88 ppb          6.892   1.38%
   QC value within limits for Co 228.616  Recovery = 100.18%
Cr 267.716†            36915.9      504.95 ug/L         7.833      504.95 ppb          7.833   1.55%
   QC value within limits for Cr 267.716  Recovery = 100.99%
Cu 324.752†           134668.5      504.24 ug/L         9.092      504.24 ppb          9.092   1.80%
   QC value within limits for Cu 324.752  Recovery = 100.85%
Fe 238.204 Radial†       487.9      5076.8 ug/L        48.93      5076.8 ppb          48.93   0.96%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.54%
K 766.490 Radial†      25797.7      5129.4 ug/L        15.49      5129.4 ppb          15.49   0.30%
   QC value within limits for K 766.490 Radial  Recovery = 102.59%
Mg 279.077 IEC†          132.7      5267.9 ug/L        67.27      5267.9 ppb          67.27   1.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.36%
Mn 257.610†           315555.8      505.37 ug/L         8.162      505.37 ppb          8.162   1.62%
   QC value within limits for Mn 257.610  Recovery = 101.07%
Mo 202.031†             5468.0      502.26 ug/L         5.870      502.26 ppb          5.870   1.17%
   QC value within limits for Mo 202.031  Recovery = 100.45%
Na 589.592 Radial†     25828.1      8802.2 ug/L        20.84      8802.2 ppb          20.84   0.24%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 88.02%
Ni 231.604†            16030.9      512.16 ug/L         7.730      512.16 ppb          7.730   1.51%
   QC value within limits for Ni 231.604  Recovery = 102.43%
P 214.914†              4521.3      2426.5 ug/L        37.07      2426.5 ppb          37.07   1.53%
   QC value within limits for P 214.914  Recovery = 97.06%
Pb 220.353†             3110.7      503.49 ug/L         5.618      503.49 ppb          5.618   1.12%
   QC value within limits for Pb 220.353  Recovery = 100.70%
S 181.975 Axial†         781.7      1012.5 ug/L        18.13      1012.5 ppb          18.13   1.79%
   QC value within limits for S 181.975 Axial  Recovery = 101.25%
Sb 206.836†             1252.9      526.32 ug/L         5.948      526.32 ppb          5.948   1.13%
   QC value within limits for Sb 206.836  Recovery = 105.26%
Se 196.026†              830.2      521.80 ug/L         4.383      521.80 ppb          4.383   0.84%
   QC value within limits for Se 196.026  Recovery = 104.36%
Si 251.611†            69072.8      2514.3 ug/L        41.33      2514.3 ppb          41.33   1.64%
   QC value within limits for Si 251.611  Recovery = 100.57%
Sn 189.927†             2118.2      499.46 ug/L         8.241      499.46 ppb          8.241   1.65%
   QC value within limits for Sn 189.927  Recovery = 99.89%
Sr 421.552†            66136.5      480.89 ug/L         1.930      480.89 ppb          1.930   0.40%
   QC value within limits for Sr 421.552  Recovery = 96.18%
Ti 334.940†           250020.2      503.66 ug/L         8.330      503.66 ppb          8.330   1.65%
   QC value within limits for Ti 334.940  Recovery = 100.73%
Tl 190.801†             1094.0      505.85 ug/L         5.415      505.85 ppb          5.415   1.07%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†             15356.9      512.53 ug/L        10.997      512.53 ppb         10.997   2.15%
   QC value within limits for U 409.014  Recovery = 102.51%
V 292.402†             63415.8      511.72 ug/L         7.922      511.72 ppb          7.922   1.55%
   QC value within limits for V 292.402  Recovery = 102.34%
Zn 213.857†            45829.2      500.72 ug/L         8.369      500.72 ppb          8.369   1.67%
   QC value within limits for Zn 213.857  Recovery = 100.14%
SiO2†                  68741.5      5341.4 ug/L        62.56      5341.4 ppb          62.56   1.17%
   QC value within limits for SiO2  Recovery = 99.89%
QC Failed.  Continue with analysis.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 15:34:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4944.1	4944.1	105	%			15:36:02
1	Y RADIAL	5213.5	5213.5	104.6	%			15:36:02
1	Al 396.153Radial†	-67.3	23.0	21.558	ug/L	21.558	ppb	15:36:22
1	Ca 317.933Radial†	31.1	7.5	13.594	ug/L	13.594	ppb	15:36:22
1	Fe 238.204 Radial†	7.9	0.2	1.7148	ug/L	1.7148	ppb	15:36:22
1	K 766.490 Radial†	2200.8	-166.6	-33.181	ug/L	-33.181	ppb	15:36:02
1	Mg 279.077 IEC†	4.6	1.5	57.937	ug/L	57.937	ppb	15:36:22
1	Na 589.592 Radial†	-727.5	155.3	52.913	ug/L	52.913	ppb	15:36:02
1	Sr 421.552†	29.0	28.1	0.2040	ug/L	0.2040	ppb	15:36:02
1	Sc 361.383	805254.2	805254.2	104.86	%			15:37:19
1	Y 371.029	724298.2	724298.2	105.12	%			15:37:19
1	Ag 328.068†	222.3	-43.7	-0.2332	ug/L	-0.2332	ppb	15:37:19
1	As 188.979†	-27.1	-0.8	-0.3630	ug/L	-0.3630	ppb	15:37:39
1	B 249.677†	-243.3	221.4	5.5438	ug/L	5.5438	ppb	15:37:39
1	Ba 233.527†	17.3	14.1	0.1668	ug/L	0.1668	ppb	15:37:39
1	Be 313.107†	-9377.4	39.8	0.0166	ug/L	0.0166	ppb	15:37:19
1	Cd 226.502†	-192.2	3.4	0.0499	ug/L	0.0499	ppb	15:37:39
1	Co 228.616†	-53.8	6.2	0.1850	ug/L	0.1850	ppb	15:37:39
1	Cr 267.716†	78.6	-0.7	-0.0135	ug/L	-0.0135	ppb	15:37:39
1	Cu 324.752†	7769.0	-127.2	-0.4829	ug/L	-0.4829	ppb	15:37:19
1	Mn 257.610†	465.1	-17.6	-0.0304	ug/L	-0.0304	ppb	15:37:39
1	Mo 202.031†	7.2	-7.5	-0.6882	ug/L	-0.6882	ppb	15:37:39
1	Ni 231.604†	92.6	-13.1	-0.4177	ug/L	-0.4177	ppb	15:37:39
1	P 214.914†	208.2	3.2	1.8848	ug/L	1.8848	ppb	15:37:39
1	Pb 220.353†	-61.5	12.0	1.9461	ug/L	1.9461	ppb	15:37:39
1	S 181.975 Axial†	44.9	0.3	0.3998	ug/L	0.3998	ppb	15:37:39
1	Sb 206.836†	34.9	3.2	1.2801	ug/L	1.2801	ppb	15:37:39
1	Se 196.026†	-14.9	5.6	3.4245	ug/L	3.4245	ppb	15:37:39
1	Si 251.611†	614.9	-2.8	-0.0948	ug/L	-0.0948	ppb	15:37:39
1	Sn 189.927†	6.4	-1.9	-0.4515	ug/L	-0.4515	ppb	15:37:39
1	Ti 334.940†	-1194.9	161.5	0.3172	ug/L	0.3172	ppb	15:37:19
1	Tl 190.801†	-23.7	8.6	3.9587	ug/L	3.9587	ppb	15:37:39
1	U 409.014†	-2282.4	360.2	12.061	ug/L	12.061	ppb	15:37:19
1	V 292.402†	-1678.5	27.3	0.2311	ug/L	0.2311	ppb	15:37:19
1	Zn 213.857†	766.5	20.7	0.2312	ug/L	0.2312	ppb	15:37:39
1	SiO2†	632.6	6.8	0.5505	ug/L	0.5505	ppb	15:38:35
2	Sc Radial	4836.5	4836.5	103	%			15:36:27
2	Y RADIAL	5126.6	5126.6	102.8	%			15:36:27
2	Al 396.153Radial†	-72.1	16.9	15.834	ug/L	15.834	ppb	15:36:48
2	Ca 317.933Radial†	27.3	4.4	8.0472	ug/L	8.0472	ppb	15:36:48
2	Fe 238.204 Radial†	8.0	0.5	5.1872	ug/L	5.1872	ppb	15:36:48
2	K 766.490 Radial†	2370.7	45.4	9.0223	ug/L	9.0223	ppb	15:36:27
2	Mg 279.077 IEC†	3.7	0.7	28.603	ug/L	28.603	ppb	15:36:48
2	Na 589.592 Radial†	-704.7	162.1	55.231	ug/L	55.231	ppb	15:36:27
2	Sr 421.552†	3.5	3.9	0.0281	ug/L	0.0281	ppb	15:36:27
2	Sc 361.383	810766.0	810766.0	105.58	%			15:37:45
2	Y 371.029	731028.7	731028.7	106.09	%			15:37:45
2	Ag 328.068†	255.7	-13.5	-0.0782	ug/L	-0.0782	ppb	15:37:45
2	As 188.979†	-32.5	-5.8	-2.5812	ug/L	-2.5812	ppb	15:38:05
2	B 249.677†	-277.8	190.3	4.7638	ug/L	4.7638	ppb	15:38:05
2	Ba 233.527†	-8.1	-10.1	-0.1184	ug/L	-0.1184	ppb	15:38:05
2	Be 313.107†	-9420.6	59.7	0.0246	ug/L	0.0246	ppb	15:37:45
2	Cd 226.502†	-183.3	13.0	0.1860	ug/L	0.1860	ppb	15:38:05
2	Co 228.616†	-56.1	4.3	0.1295	ug/L	0.1295	ppb	15:38:05
2	Cr 267.716†	67.1	-12.1	-0.1702	ug/L	-0.1702	ppb	15:38:05
2	Cu 324.752†	7830.9	-118.9	-0.4521	ug/L	-0.4521	ppb	15:37:45
2	Mn 257.610†	459.2	-26.2	-0.0426	ug/L	-0.0426	ppb	15:38:05
2	Mo 202.031†	11.4	-3.6	-0.3290	ug/L	-0.3290	ppb	15:38:05
2	Ni 231.604†	75.8	-29.6	-0.9448	ug/L	-0.9448	ppb	15:38:05

2	P 214.914†	211.1	4.6	2.6403	ug/L	2.6403 ppb	15:38:05
2	Pb 220.353†	-70.1	4.3	0.6935	ug/L	0.6935 ppb	15:38:05
2	S 181.975 Axial†	40.6	-4.0	-5.2264	ug/L	-5.2264 ppb	15:38:05
2	Sb 206.836†	39.8	7.7	3.0765	ug/L	3.0765 ppb	15:38:05
2	Se 196.026†	-16.8	3.9	2.4270	ug/L	2.4270 ppb	15:38:05
2	Si 251.611†	608.3	-13.0	-0.4713	ug/L	-0.4713 ppb	15:38:05
2	Sn 189.927†	2.0	-6.2	-1.4509	ug/L	-1.4509 ppb	15:38:05
2	Ti 334.940†	-1183.1	180.4	0.3566	ug/L	0.3566 ppb	15:37:45
2	Tl 190.801†	-28.6	4.1	1.8840	ug/L	1.8840 ppb	15:38:05
2	U 409.014†	-2259.9	396.3	13.271	ug/L	13.271 ppb	15:37:45
2	V 292.402†	-1700.8	17.1	0.1560	ug/L	0.1560 ppb	15:37:45
2	Zn 213.857†	779.1	27.6	0.3105	ug/L	0.3105 ppb	15:38:05
2	SiO2†	621.9	-7.4	-0.5681	ug/L	-0.5681 ppb	15:38:40
3	Sc Radial	4983.4	4983.4	106	%		15:36:53
3	Y RADIAL	5296.6	5296.6	106.2	%		15:36:53
3	Al 396.153Radial†	-71.1	20.0	18.691	ug/L	18.691 ppb	15:37:13
3	Ca 317.933Radial†	27.5	3.8	6.9040	ug/L	6.9040 ppb	15:37:13
3	Fe 238.204 Radial†	8.4	0.6	6.5314	ug/L	6.5314 ppb	15:37:13
3	K 766.490 Radial†	2155.9	-225.5	-44.908	ug/L	-44.908 ppb	15:36:53
3	Mg 279.077 IEC†	1.1	-1.8	-72.404	ug/L	-72.404 ppb	15:37:13
3	Na 589.592 Radial†	-695.0	191.4	65.213	ug/L	65.213 ppb	15:36:53
3	Sr 421.552†	24.7	23.8	0.1731	ug/L	0.1731 ppb	15:36:53
3	Sc 361.383	806979.5	806979.5	105.08	%		15:38:10
3	Y 371.029	725892.3	725892.3	105.35	%		15:38:10
3	Ag 328.068†	189.7	-75.2	-0.3892	ug/L	-0.3892 ppb	15:38:10
3	As 188.979†	-28.2	-1.8	-0.7959	ug/L	-0.7959 ppb	15:38:30
3	B 249.677†	-261.3	204.8	5.1269	ug/L	5.1269 ppb	15:38:30
3	Ba 233.527†	13.9	10.8	0.1287	ug/L	0.1287 ppb	15:38:30
3	Be 313.107†	-9310.1	122.9	0.0492	ug/L	0.0492 ppb	15:38:10
3	Cd 226.502†	-190.3	5.5	0.0794	ug/L	0.0794 ppb	15:38:30
3	Co 228.616†	-51.3	8.6	0.2615	ug/L	0.2615 ppb	15:38:30
3	Cr 267.716†	78.5	-0.9	-0.0141	ug/L	-0.0141 ppb	15:38:30
3	Cu 324.752†	7761.5	-150.1	-0.5659	ug/L	-0.5659 ppb	15:38:10
3	Mn 257.610†	498.7	13.5	0.0252	ug/L	0.0252 ppb	15:38:30
3	Mo 202.031†	19.2	3.9	0.3558	ug/L	0.3558 ppb	15:38:30
3	Ni 231.604†	106.3	-0.2	-0.0063	ug/L	-0.0063 ppb	15:38:30
3	P 214.914†	199.6	-5.4	-2.9000	ug/L	-2.9000 ppb	15:38:30
3	Pb 220.353†	-60.0	13.6	2.1959	ug/L	2.1959 ppb	15:38:30
3	S 181.975 Axial†	44.0	-0.7	-0.8773	ug/L	-0.8773 ppb	15:38:30
3	Sb 206.836†	30.9	-0.6	-0.2455	ug/L	-0.2455 ppb	15:38:30
3	Se 196.026†	-19.3	1.4	0.8864	ug/L	0.8864 ppb	15:38:30
3	Si 251.611†	602.2	-16.2	-0.5937	ug/L	-0.5937 ppb	15:38:30
3	Sn 189.927†	7.7	-0.8	-0.1771	ug/L	-0.1771 ppb	15:38:30
3	Ti 334.940†	-1293.6	70.0	0.1446	ug/L	0.1446 ppb	15:38:10
3	Tl 190.801†	-30.0	2.7	1.2377	ug/L	1.2377 ppb	15:38:30
3	U 409.014†	-2431.4	223.0	7.4673	ug/L	7.4673 ppb	15:38:10
3	V 292.402†	-1658.6	49.7	0.4122	ug/L	0.4122 ppb	15:38:10
3	Zn 213.857†	777.0	29.2	0.3214	ug/L	0.3214 ppb	15:38:30
3	SiO2†	627.2	0.4	0.0238	ug/L	0.0238 ppb	15:38:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807666.5	105.17	%	0.367				0.35%
Sc Radial	4921.3	105	%	1.6				1.55%
Y 371.029	727073.1	105.52	%	0.510				0.48%
Y RADIAL	5212.2	104.5	%	1.71				1.63%
Ag 328.068†	-44.1	-0.2335	ug/L	0.15546	-0.2335	ppb	0.15546	66.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.0	18.694	ug/L	2.8623	18.694	ppb	2.8623	15.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.2467	ug/L	1.17579	-1.2467	ppb	1.17579	94.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	205.5	5.1448	ug/L	0.39033	5.1448	ppb	0.39033	7.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.9	0.0591	ug/L	0.15484	0.0591	ppb	0.15484	262.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	74.1	0.0301	ug/L	0.01701	0.0301	ppb	0.01701	56.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.2	9.5150	ug/L	3.57827	9.5150	ppb	3.57827	37.61%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.3      0.1051 ug/L       0.07159      0.1051 ppb        0.07159  68.12%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.4      0.1920 ug/L       0.06630      0.1920 ppb        0.06630  34.53%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -4.5     -0.0659 ug/L       0.09030     -0.0659 ppb        0.09030 136.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -132.1     -0.5003 ug/L       0.05884     -0.5003 ppb        0.05884  11.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.4      4.4778 ug/L       2.48545      4.4778 ppb        2.48545  55.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -115.5     -23.022 ug/L       28.3639     -23.022 ppb        28.3639 123.20%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.1      4.7118 ug/L      68.37614      4.7118 ppb       68.37614 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -10.1     -0.0160 ug/L       0.03614     -0.0160 ppb        0.03614 226.56%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -2.4     -0.2204 ug/L       0.53041     -0.2204 ppb        0.53041 240.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       169.6      57.786 ug/L        6.5356      57.786 ppb         6.5356  11.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.3     -0.4563 ug/L       0.47043     -0.4563 ppb        0.47043 103.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.8      0.5417 ug/L       3.00443      0.5417 ppb        3.00443 554.65%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               10.0      1.6119 ug/L       0.80503      1.6119 ppb        0.80503  49.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.5     -1.9013 ug/L       2.94957     -1.9013 ppb        2.94957 155.13%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.4      1.3704 ug/L       1.66281      1.3704 ppb        1.66281 121.34%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.6      2.2460 ug/L       1.27874      2.2460 ppb        1.27874  56.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -10.7     -0.3866 ug/L       0.26004     -0.3866 ppb        0.26004  67.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.9     -0.6931 ug/L       0.67043     -0.6931 ppb        0.67043  96.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               18.6      0.1350 ug/L       0.09392      0.1350 ppb        0.09392  69.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              137.3      0.2728 ug/L       0.11274      0.2728 ppb        0.11274  41.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.1      2.3601 ug/L       1.42158      2.3601 ppb        1.42158  60.23%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               326.5      10.933 ug/L        3.0618      10.933 ppb         3.0618  28.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                31.3      0.2664 ug/L       0.13170      0.2664 ppb        0.13170  49.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               25.8      0.2877 ug/L       0.04920      0.2877 ppb        0.04920  17.10%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -0.1      0.0020 ug/L       0.55963      0.0020 ppb        0.55963 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 16:37:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4963.4	4963.4	105	%			16:39:36
1	Y RADIAL	5241.2	5241.2	105.1	%			16:39:36
1	Al 396.153Radial†	5697.0	5489.4	5110.2	ug/L	5110.2	ppb	16:39:36
1	Ca 317.933Radial†	3020.5	2842.1	5164.0	ug/L	5164.0	ppb	16:39:56
1	Fe 238.204 Radial†	534.8	499.8	5201.7	ug/L	5201.7	ppb	16:39:56
1	K 766.490 Radial†	29336.9	25557.9	5081.3	ug/L	5081.3	ppb	16:39:36
1	Mg 279.077 IEC†	146.6	136.1	5405.1	ug/L	5405.1	ppb	16:39:56
1	Na 589.592 Radial†	29502.5	28824.4	9823.3	ug/L	9823.3	ppb	16:39:36
1	Sr 421.552†	72525.2	68774.6	500.07	ug/L	500.07	ppb	16:39:36
1	Sc 361.383	820799.0	820799.0	106.88	%			16:40:53
1	Y 371.029	727017.8	727017.8	105.51	%			16:40:53
1	Ag 328.068†	107664.2	100474.9	519.79	ug/L	519.79	ppb	16:40:58
1	As 188.979†	1193.5	1141.6	513.29	ug/L	513.29	ppb	16:41:18
1	B 249.677†	21347.4	20426.0	509.14	ug/L	509.14	ppb	16:40:58
1	Ba 233.527†	47150.2	44111.3	521.81	ug/L	521.81	ppb	16:40:58
1	Be 313.107†	1358559.4	1280049.8	509.97	ug/L	509.97	ppb	16:40:53
1	Cd 226.502†	39110.1	36778.0	521.28	ug/L	521.28	ppb	16:40:58
1	Co 228.616†	18693.6	17547.2	530.37	ug/L	530.37	ppb	16:40:58
1	Cr 267.716†	40719.8	38021.8	520.08	ug/L	520.08	ppb	16:40:58
1	Cu 324.752†	156357.9	138752.2	519.53	ug/L	519.53	ppb	16:40:58
1	Mn 257.610†	347203.3	324382.0	519.51	ug/L	519.51	ppb	16:40:58
1	Mo 202.031†	5958.9	5560.8	510.79	ug/L	510.79	ppb	16:41:18
1	Ni 231.604†	17683.6	16443.4	525.33	ug/L	525.33	ppb	16:40:58
1	P 214.914†	5110.4	4585.9	2459.4	ug/L	2459.4	ppb	16:41:18
1	Pb 220.353†	3316.2	3173.4	513.58	ug/L	513.58	ppb	16:41:18
1	S 181.975 Axial†	886.7	787.1	1019.5	ug/L	1019.5	ppb	16:41:18
1	Sb 206.836†	1390.6	1271.0	533.91	ug/L	533.91	ppb	16:41:18
1	Se 196.026†	875.6	839.0	527.50	ug/L	527.50	ppb	16:41:18
1	Si 251.611†	76459.3	70946.0	2582.6	ug/L	2582.6	ppb	16:40:58
1	Sn 189.927†	2290.5	2134.9	503.38	ug/L	503.38	ppb	16:41:18
1	Ti 334.940†	273384.7	257079.5	517.85	ug/L	517.85	ppb	16:40:58
1	Tl 190.801†	1140.8	1098.5	507.93	ug/L	507.93	ppb	16:41:18
1	U 409.014†	14120.7	15748.1	525.58	ug/L	525.58	ppb	16:40:58
1	V 292.402†	68114.7	65356.0	527.28	ug/L	527.28	ppb	16:40:58
1	Zn 213.857†	51091.3	47090.7	514.51	ug/L	514.51	ppb	16:40:58
1	SiO2†	74325.3	68942.3	5356.8	ug/L	5356.8	ppb	16:42:25
2	Sc Radial	4977.3	4977.3	106	%			16:40:01
2	Y RADIAL	5243.9	5243.9	105.2	%			16:40:01
2	Al 396.153Radial†	5735.1	5510.4	5129.4	ug/L	5129.4	ppb	16:40:01
2	Ca 317.933Radial†	3035.9	2848.7	5175.9	ug/L	5175.9	ppb	16:40:21
2	Fe 238.204 Radial†	539.4	502.8	5232.4	ug/L	5232.4	ppb	16:40:21
2	K 766.490 Radial†	29460.6	25597.1	5089.1	ug/L	5089.1	ppb	16:40:01
2	Mg 279.077 IEC†	142.7	132.0	5241.9	ug/L	5241.9	ppb	16:40:21
2	Na 589.592 Radial†	29624.4	28861.5	9836.0	ug/L	9836.0	ppb	16:40:01
2	Sr 421.552†	72779.9	68823.2	500.43	ug/L	500.43	ppb	16:40:01
2	Sc 361.383	808760.3	808760.3	105.32	%			16:41:24
2	Y 371.029	716988.4	716988.4	104.06	%			16:41:24
2	Ag 328.068†	106072.4	100462.8	519.74	ug/L	519.74	ppb	16:41:29
2	As 188.979†	1192.5	1157.4	520.31	ug/L	520.31	ppb	16:41:49
2	B 249.677†	21085.7	20474.9	510.35	ug/L	510.35	ppb	16:41:29
2	Ba 233.527†	46610.5	44255.5	523.52	ug/L	523.52	ppb	16:41:29
2	Be 313.107†	1344452.2	1285575.0	512.17	ug/L	512.17	ppb	16:41:24
2	Cd 226.502†	38764.7	36994.7	524.35	ug/L	524.35	ppb	16:41:29
2	Co 228.616†	18536.5	17658.3	533.74	ug/L	533.74	ppb	16:41:29
2	Cr 267.716†	40330.4	38219.1	522.78	ug/L	522.78	ppb	16:41:29
2	Cu 324.752†	154006.7	138697.2	519.33	ug/L	519.33	ppb	16:41:29
2	Mn 257.610†	343391.2	325597.8	521.46	ug/L	521.46	ppb	16:41:29
2	Mo 202.031†	5949.6	5634.9	517.60	ug/L	517.60	ppb	16:41:49
2	Ni 231.604†	17519.2	16533.6	528.21	ug/L	528.21	ppb	16:41:29

2	P 214.914†	5126.3	4672.2	2507.7 ug/L	2507.7 ppb	16:41:49
2	Pb 220.353†	3294.6	3199.0	517.74 ug/L	517.74 ppb	16:41:49
2	S 181.975 Axial†	891.2	803.7	1041.1 ug/L	1041.1 ppb	16:41:49
2	Sb 206.836†	1381.3	1281.5	538.49 ug/L	538.49 ppb	16:41:49
2	Se 196.026†	874.6	850.2	534.47 ug/L	534.47 ppb	16:41:49
2	Si 251.611†	75494.7	71095.0	2587.9 ug/L	2587.9 ppb	16:41:29
2	Sn 189.927†	2312.3	2187.5	515.76 ug/L	515.76 ppb	16:41:49
2	Ti 334.940†	269828.7	257510.4	518.74 ug/L	518.74 ppb	16:41:29
2	Tl 190.801†	1159.1	1131.8	523.20 ug/L	523.20 ppb	16:41:49
2	U 409.014†	13746.5	15589.5	520.26 ug/L	520.26 ppb	16:41:29
2	V 292.402†	67241.7	65475.7	528.31 ug/L	528.31 ppb	16:41:29
2	Zn 213.857†	50654.6	47387.6	517.77 ug/L	517.77 ppb	16:41:29
2	SiO2†	75893.0	71466.0	5553.2 ug/L	5553.2 ppb	16:42:30
3	Sc Radial	4959.5	4959.5	105 %		16:40:26
3	Y RADIAL	5212.3	5212.3	104.6 %		16:40:26
3	Al 396.153Radial†	5710.2	5506.2	5125.8 ug/L	5125.8 ppb	16:40:26
3	Ca 317.933Radial†	3036.1	2859.2	5195.0 ug/L	5195.0 ppb	16:40:46
3	Fe 238.204 Radial†	542.7	507.7	5283.0 ug/L	5283.0 ppb	16:40:46
3	K 766.490 Radial†	29375.5	25616.3	5092.9 ug/L	5092.9 ppb	16:40:26
3	Mg 279.077 IEC†	143.8	133.6	5305.2 ug/L	5305.2 ppb	16:40:46
3	Na 589.592 Radial†	29753.4	29084.3	9911.9 ug/L	9911.9 ppb	16:40:26
3	Sr 421.552†	72982.9	69262.7	503.62 ug/L	503.62 ppb	16:40:26
3	Sc 361.383	816327.2	816327.2	106.30 %		16:41:55
3	Y 371.029	721896.3	721896.3	104.77 %		16:41:55
3	Ag 328.068†	104916.9	98442.2	509.33 ug/L	509.33 ppb	16:42:00
3	As 188.979†	1203.5	1157.2	520.16 ug/L	520.16 ppb	16:42:20
3	B 249.677†	20841.6	20059.6	499.98 ug/L	499.98 ppb	16:42:00
3	Ba 233.527†	46125.0	43388.5	513.26 ug/L	513.26 ppb	16:42:00
3	Be 313.107†	1349906.8	1278872.9	509.48 ug/L	509.48 ppb	16:41:55
3	Cd 226.502†	38399.1	36309.6	514.62 ug/L	514.62 ppb	16:42:00
3	Co 228.616†	18320.2	17291.8	522.67 ug/L	522.67 ppb	16:42:00
3	Cr 267.716†	39761.9	37329.4	510.61 ug/L	510.61 ppb	16:42:00
3	Cu 324.752†	151204.8	134705.9	504.39 ug/L	504.39 ppb	16:42:00
3	Mn 257.610†	338997.0	318441.6	510.01 ug/L	510.01 ppb	16:42:00
3	Mo 202.031†	5932.5	5566.5	511.32 ug/L	511.32 ppb	16:42:20
3	Ni 231.604†	17290.7	16164.5	516.41 ug/L	516.41 ppb	16:42:00
3	P 214.914†	5095.0	4597.6	2469.0 ug/L	2469.0 ppb	16:42:20
3	Pb 220.353†	3301.6	3176.6	514.12 ug/L	514.12 ppb	16:42:20
3	S 181.975 Axial†	890.8	795.5	1030.4 ug/L	1030.4 ppb	16:42:20
3	Sb 206.836†	1376.3	1264.7	531.44 ug/L	531.44 ppb	16:42:20
3	Se 196.026†	887.6	854.8	537.35 ug/L	537.35 ppb	16:42:20
3	Si 251.611†	74307.9	69314.0	2523.0 ug/L	2523.0 ppb	16:42:00
3	Sn 189.927†	2299.6	2155.3	508.17 ug/L	508.17 ppb	16:42:20
3	Ti 334.940†	266240.5	251760.0	507.15 ug/L	507.15 ppb	16:42:00
3	Tl 190.801†	1144.6	1107.9	512.17 ug/L	512.17 ppb	16:42:20
3	U 409.014†	13565.0	15297.7	510.51 ug/L	510.51 ppb	16:42:00
3	V 292.402†	66352.0	64046.9	516.84 ug/L	516.84 ppb	16:42:00
3	Zn 213.857†	50029.6	46353.8	506.45 ug/L	506.45 ppb	16:42:00
3	SiO2†	74574.5	69557.6	5404.7 ug/L	5404.7 ppb	16:42:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	815295.5	106.17	%	0.792				0.75%
Sc Radial	4966.7	106	%	0.2				0.19%
Y 371.029	721967.5	104.78	%	0.728				0.69%
Y RADIAL	5232.5	105.0	%	0.35				0.33%
Ag 328.068†	99793.3	516.29	ug/L	6.024	516.29	ppb	6.024	1.17%
QC value within limits for Ag 328.068 Recovery = 103.26%								
Al 396.153Radial†	5502.0	5121.8	ug/L	10.24	5121.8	ppb	10.24	0.20%
QC value within limits for Al 396.153Radial Recovery = 102.44%								
As 188.979†	1152.1	517.92	ug/L	4.009	517.92	ppb	4.009	0.77%
QC value within limits for As 188.979 Recovery = 103.58%								
B 249.677†	20320.2	506.49	ug/L	5.673	506.49	ppb	5.673	1.12%
QC value within limits for B 249.677 Recovery = 101.30%								
Ba 233.527†	43918.4	519.53	ug/L	5.494	519.53	ppb	5.494	1.06%
QC value within limits for Ba 233.527 Recovery = 103.91%								
Be 313.107†	1281499.2	510.54	ug/L	1.432	510.54	ppb	1.432	0.28%
QC value within limits for Be 313.107 Recovery = 102.11%								
Ca 317.933Radial†	2850.0	5178.3	ug/L	15.63	5178.3	ppb	15.63	0.30%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.57%
Cd 226.502†            36694.1      520.08 ug/L         4.973      520.08 ppb          4.973   0.96%
   QC value within limits for Cd 226.502  Recovery = 104.02%
Co 228.616†            17499.1      528.93 ug/L         5.674      528.93 ppb          5.674   1.07%
   QC value within limits for Co 228.616  Recovery = 105.79%
Cr 267.716†            37856.8      517.82 ug/L         6.390      517.82 ppb          6.390   1.23%
   QC value within limits for Cr 267.716  Recovery = 103.56%
Cu 324.752†           137385.1      514.42 ug/L         8.683      514.42 ppb          8.683   1.69%
   QC value within limits for Cu 324.752  Recovery = 102.88%
Fe 238.204 Radial†       503.4      5239.0 ug/L        41.02      5239.0 ppb         41.02   0.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.78%
K 766.490 Radial†      25590.4      5087.7 ug/L         5.91      5087.7 ppb          5.91   0.12%
   QC value within limits for K 766.490 Radial  Recovery = 101.75%
Mg 279.077 IEC†          133.9      5317.4 ug/L        82.28      5317.4 ppb         82.28   1.55%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.35%
Mn 257.610†           322807.1      516.99 ug/L         6.126      516.99 ppb          6.126   1.18%
   QC value within limits for Mn 257.610  Recovery = 103.40%
Mo 202.031†             5587.4      513.23 ug/L         3.786      513.23 ppb          3.786   0.74%
   QC value within limits for Mo 202.031  Recovery = 102.65%
Na 589.592 Radial†     28923.4      9857.1 ug/L        47.91      9857.1 ppb         47.91   0.49%
   QC value within limits for Na 589.592 Radial  Recovery = 98.57%
Ni 231.604†            16380.5      523.32 ug/L         6.148      523.32 ppb          6.148   1.17%
   QC value within limits for Ni 231.604  Recovery = 104.66%
P 214.914†              4618.6      2478.7 ug/L        25.59      2478.7 ppb         25.59   1.03%
   QC value within limits for P 214.914  Recovery = 99.15%
Pb 220.353†             3183.0      515.15 ug/L         2.261      515.15 ppb          2.261   0.44%
   QC value within limits for Pb 220.353  Recovery = 103.03%
S 181.975 Axial†         795.4      1030.3 ug/L        10.81      1030.3 ppb         10.81   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 103.03%
Sb 206.836†             1272.4      534.61 ug/L         3.581      534.61 ppb          3.581   0.67%
   QC value within limits for Sb 206.836  Recovery = 106.92%
Se 196.026†              848.0      533.11 ug/L         5.064      533.11 ppb          5.064   0.95%
   QC value within limits for Se 196.026  Recovery = 106.62%
Si 251.611†            70451.7      2564.5 ug/L        36.03      2564.5 ppb         36.03   1.40%
   QC value within limits for Si 251.611  Recovery = 102.58%
Sn 189.927†             2159.2      509.10 ug/L         6.243      509.10 ppb          6.243   1.23%
   QC value within limits for Sn 189.927  Recovery = 101.82%
Sr 421.552†            68953.5      501.37 ug/L         1.955      501.37 ppb          1.955   0.39%
   QC value within limits for Sr 421.552  Recovery = 100.27%
Ti 334.940†           255450.0      514.58 ug/L         6.446      514.58 ppb          6.446   1.25%
   QC value within limits for Ti 334.940  Recovery = 102.92%
Tl 190.801†             1112.7      514.43 ug/L         7.882      514.43 ppb          7.882   1.53%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†             15545.1      518.79 ug/L         7.642      518.79 ppb          7.642   1.47%
   QC value within limits for U 409.014  Recovery = 103.76%
V 292.402†             64959.5      524.14 ug/L         6.349      524.14 ppb          6.349   1.21%
   QC value within limits for V 292.402  Recovery = 104.83%
Zn 213.857†            46944.0      512.91 ug/L         5.825      512.91 ppb          5.825   1.14%
   QC value within limits for Zn 213.857  Recovery = 102.58%
SiO2†                  69988.6      5438.3 ug/L       102.41      5438.3 ppb        102.41   1.88%
   QC value within limits for SiO2  Recovery = 101.70%
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 16:44:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4926.9	4926.9	105	%			16:46:38
1	Y RADIAL	5199.1	5199.1	104.3	%			16:46:38
1	Al 396.153Radial†	-73.8	16.6	15.558	ug/L	15.558	ppb	16:46:58
1	Ca 317.933Radial†	29.0	5.6	10.115	ug/L	10.115	ppb	16:46:58
1	Fe 238.204 Radial†	9.2	1.5	15.058	ug/L	15.058	ppb	16:46:58
1	K 766.490 Radial†	2335.1	-30.9	-6.1852	ug/L	-6.1852	ppb	16:46:38
1	Mg 279.077 IEC†	0.1	-2.8	-109.51	ug/L	-109.51	ppb	16:46:58
1	Na 589.592 Radial†	-708.1	171.4	58.399	ug/L	58.399	ppb	16:46:38
1	Sr 421.552†	26.2	25.5	0.1852	ug/L	0.1852	ppb	16:46:38
1	Sc 361.383	814753.1	814753.1	106.10	%			16:47:55
1	Y 371.029	734452.6	734452.6	106.59	%			16:47:55
1	Ag 328.068†	248.7	-21.2	-0.1096	ug/L	-0.1096	ppb	16:47:55
1	As 188.979†	-29.3	-2.6	-1.1579	ug/L	-1.1579	ppb	16:48:15
1	B 249.677†	-361.3	112.9	2.8243	ug/L	2.8243	ppb	16:48:15
1	Ba 233.527†	21.8	18.2	0.2169	ug/L	0.2169	ppb	16:48:15
1	Be 313.107†	-9551.2	-19.7	-0.0068	ug/L	-0.0068	ppb	16:47:55
1	Cd 226.502†	-197.4	0.6	0.0083	ug/L	0.0083	ppb	16:48:15
1	Co 228.616†	-57.8	3.0	0.0882	ug/L	0.0882	ppb	16:48:15
1	Cr 267.716†	77.4	-2.7	-0.0395	ug/L	-0.0395	ppb	16:48:15
1	Cu 324.752†	7890.3	-99.2	-0.3764	ug/L	-0.3764	ppb	16:47:55
1	Mn 257.610†	501.2	11.3	0.0240	ug/L	0.0240	ppb	16:48:15
1	Mo 202.031†	9.6	-5.3	-0.4886	ug/L	-0.4886	ppb	16:48:15
1	Ni 231.604†	90.0	-16.5	-0.5288	ug/L	-0.5288	ppb	16:48:15
1	P 214.914†	203.5	-3.6	-1.9057	ug/L	-1.9057	ppb	16:48:15
1	Pb 220.353†	-48.0	25.4	4.1022	ug/L	4.1022	ppb	16:48:15
1	S 181.975 Axial†	45.9	0.8	1.0187	ug/L	1.0187	ppb	16:48:15
1	Sb 206.836†	27.3	-4.3	-1.7190	ug/L	-1.7190	ppb	16:48:15
1	Se 196.026†	-14.8	5.9	3.6430	ug/L	3.6430	ppb	16:48:15
1	Si 251.611†	624.5	-0.6	-0.0157	ug/L	-0.0157	ppb	16:48:15
1	Sn 189.927†	15.1	6.1	1.4478	ug/L	1.4478	ppb	16:48:15
1	Ti 334.940†	-1146.3	220.6	0.4504	ug/L	0.4504	ppb	16:47:55
1	Tl 190.801†	-39.1	-5.6	-2.5762	ug/L	-2.5762	ppb	16:48:15
1	U 409.014†	-2364.7	308.0	10.312	ug/L	10.312	ppb	16:47:55
1	V 292.402†	-1613.0	107.7	0.8656	ug/L	0.8656	ppb	16:47:55
1	Zn 213.857†	772.9	18.2	0.2025	ug/L	0.2025	ppb	16:48:15
1	SiO2†	620.5	-11.5	-0.8860	ug/L	-0.8860	ppb	16:49:11
2	Sc Radial	4911.1	4911.1	104	%			16:47:03
2	Y RADIAL	5199.3	5199.3	104.3	%			16:47:03
2	Al 396.153Radial†	-76.0	14.3	13.378	ug/L	13.378	ppb	16:47:23
2	Ca 317.933Radial†	28.3	4.9	8.9689	ug/L	8.9689	ppb	16:47:23
2	Fe 238.204 Radial†	6.9	-0.7	-7.5516	ug/L	-7.5516	ppb	16:47:23
2	K 766.490 Radial†	2263.0	-92.8	-18.508	ug/L	-18.508	ppb	16:47:03
2	Mg 279.077 IEC†	0.6	-2.4	-93.554	ug/L	-93.554	ppb	16:47:23
2	Na 589.592 Radial†	-707.3	170.0	57.920	ug/L	57.920	ppb	16:47:03
2	Sr 421.552†	-5.5	-4.8	-0.0350	ug/L	-0.0350	ppb	16:47:03
2	Sc 361.383	798560.3	798560.3	103.99	%			16:48:20
2	Y 371.029	717916.1	717916.1	104.19	%			16:48:20
2	Ag 328.068†	235.8	-28.9	-0.1556	ug/L	-0.1556	ppb	16:48:20
2	As 188.979†	-32.7	-6.4	-2.8586	ug/L	-2.8586	ppb	16:48:41
2	B 249.677†	-364.3	103.1	2.5816	ug/L	2.5816	ppb	16:48:41
2	Ba 233.527†	-10.9	-12.9	-0.1506	ug/L	-0.1506	ppb	16:48:41
2	Be 313.107†	-9274.6	63.7	0.0261	ug/L	0.0261	ppb	16:48:20
2	Cd 226.502†	-178.0	15.5	0.2219	ug/L	0.2219	ppb	16:48:41
2	Co 228.616†	-47.2	12.1	0.3657	ug/L	0.3657	ppb	16:48:41
2	Cr 267.716†	76.1	-2.4	-0.0354	ug/L	-0.0354	ppb	16:48:41
2	Cu 324.752†	7771.7	-62.4	-0.2391	ug/L	-0.2391	ppb	16:48:20
2	Mn 257.610†	511.8	31.1	0.0528	ug/L	0.0528	ppb	16:48:41
2	Mo 202.031†	14.8	-0.1	-0.0125	ug/L	-0.0125	ppb	16:48:41
2	Ni 231.604†	96.6	-8.4	-0.2700	ug/L	-0.2700	ppb	16:48:41

2	P 214.914†	194.7	-8.2	-4.4960 ug/L	-4.4960 ppb	16:48:41
2	Pb 220.353†	-55.9	16.9	2.7351 ug/L	2.7351 ppb	16:48:41
2	S 181.975 Axial†	41.9	-2.2	-2.8833 ug/L	-2.8833 ppb	16:48:41
2	Sb 206.836†	44.3	12.6	5.1064 ug/L	5.1064 ppb	16:48:41
2	Se 196.026†	-26.1	-5.3	-3.2693 ug/L	-3.2693 ppb	16:48:41
2	Si 251.611†	619.5	6.6	0.2397 ug/L	0.2397 ppb	16:48:41
2	Sn 189.927†	9.6	1.1	0.2701 ug/L	0.2701 ppb	16:48:41
2	Ti 334.940†	-1177.9	168.3	0.3441 ug/L	0.3441 ppb	16:48:20
2	Tl 190.801†	-34.6	-2.1	-0.9622 ug/L	-0.9622 ppb	16:48:41
2	U 409.014†	-2363.1	264.3	8.8523 ug/L	8.8523 ppb	16:48:20
2	V 292.402†	-1611.4	78.4	0.6400 ug/L	0.6400 ppb	16:48:20
2	Zn 213.857†	772.4	32.5	0.3619 ug/L	0.3619 ppb	16:48:41
2	SiO2†	605.7	-13.9	-1.0852 ug/L	-1.0852 ppb	16:49:16
3	Sc Radial	4955.6	4955.6	105 %		16:47:28
3	Y RADIAL	5248.9	5248.9	105.3 %		16:47:28
3	Al 396.153Radial†	-74.6	16.3	15.195 ug/L	15.195 ppb	16:47:48
3	Ca 317.933Radial†	30.9	7.2	13.079 ug/L	13.079 ppb	16:47:48
3	Fe 238.204 Radial†	8.0	0.3	2.6756 ug/L	2.6756 ppb	16:47:48
3	K 766.490 Radial†	2317.1	-61.0	-12.171 ug/L	-12.171 ppb	16:47:28
3	Mg 279.077 IEC†	1.5	-1.4	-57.035 ug/L	-57.035 ppb	16:47:48
3	Na 589.592 Radial†	-671.7	209.9	71.520 ug/L	71.520 ppb	16:47:28
3	Sr 421.552†	7.8	7.9	0.0573 ug/L	0.0573 ppb	16:47:28
3	Sc 361.383	812872.8	812872.8	105.85 %		16:48:46
3	Y 371.029	730747.6	730747.6	106.05 %		16:48:46
3	Ag 328.068†	152.4	-111.7	-0.5777 ug/L	-0.5777 ppb	16:48:46
3	As 188.979†	-22.6	3.6	1.6156 ug/L	1.6156 ppb	16:49:06
3	B 249.677†	-374.2	100.0	2.5033 ug/L	2.5033 ppb	16:49:06
3	Ba 233.527†	-10.5	-12.3	-0.1455 ug/L	-0.1455 ppb	16:49:06
3	Be 313.107†	-9523.7	-14.6	-0.0053 ug/L	-0.0053 ppb	16:48:46
3	Cd 226.502†	-181.4	15.3	0.2173 ug/L	0.2173 ppb	16:49:06
3	Co 228.616†	-68.1	-6.9	-0.2078 ug/L	-0.2078 ppb	16:49:06
3	Cr 267.716†	62.9	-16.2	-0.2233 ug/L	-0.2233 ppb	16:49:06
3	Cu 324.752†	7787.6	-179.0	-0.6728 ug/L	-0.6728 ppb	16:48:46
3	Mn 257.610†	508.2	19.0	0.0330 ug/L	0.0330 ppb	16:49:06
3	Mo 202.031†	16.7	1.4	0.1285 ug/L	0.1285 ppb	16:49:06
3	Ni 231.604†	94.7	-11.8	-0.3780 ug/L	-0.3780 ppb	16:49:06
3	P 214.914†	198.9	-7.5	-4.0525 ug/L	-4.0525 ppb	16:49:06
3	Pb 220.353†	-78.3	-3.2	-0.5157 ug/L	-0.5157 ppb	16:49:06
3	S 181.975 Axial†	42.9	-2.0	-2.5539 ug/L	-2.5539 ppb	16:49:06
3	Sb 206.836†	32.7	0.9	0.3329 ug/L	0.3329 ppb	16:49:06
3	Se 196.026†	-13.5	7.0	4.3143 ug/L	4.3143 ppb	16:49:06
3	Si 251.611†	605.3	-17.4	-0.6356 ug/L	-0.6356 ppb	16:49:06
3	Sn 189.927†	-1.1	-9.1	-2.1511 ug/L	-2.1511 ppb	16:49:06
3	Ti 334.940†	-1259.9	110.8	0.2277 ug/L	0.2277 ppb	16:48:46
3	Tl 190.801†	-41.6	-8.1	-3.6937 ug/L	-3.6937 ppb	16:49:06
3	U 409.014†	-2533.3	143.6	4.8081 ug/L	4.8081 ppb	16:48:46
3	V 292.402†	-1731.8	-8.1	-0.0551 ug/L	-0.0551 ppb	16:48:46
3	Zn 213.857†	764.3	11.7	0.1323 ug/L	0.1323 ppb	16:49:06
3	SiO2†	646.2	14.0	1.0896 ug/L	1.0896 ppb	16:49:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808728.7	105.31	%	1.153				1.10%
Sc Radial	4931.2	105	%	0.5				0.46%
Y 371.029	727705.5	105.61	%	1.259				1.19%
Y RADIAL	5215.8	104.6	%	0.57				0.55%
Ag 328.068†	-53.9	-0.2810	ug/L	0.25802	-0.2810	ppb	0.25802	91.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.7	14.710	ug/L	1.1681	14.710	ppb	1.1681	7.94%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-0.8003	ug/L	2.25841	-0.8003	ppb	2.25841	282.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	105.3	2.6364	ug/L	0.16736	2.6364	ppb	0.16736	6.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.3	-0.0264	ug/L	0.21069	-0.0264	ppb	0.21069	798.10%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	9.8	0.0047	ug/L	0.01858	0.0047	ppb	0.01858	399.37%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.9	10.721	ug/L	2.1211	10.721	ppb	2.1211	19.78%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              10.5      0.1492 ug/L       0.12199      0.1492 ppb        0.12199  81.78%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               2.7      0.0820 ug/L       0.28681      0.0820 ppb        0.28681 349.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -7.1     -0.0994 ug/L       0.10731     -0.0994 ppb        0.10731 107.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -113.6     -0.4295 ug/L       0.22166     -0.4295 ppb        0.22166  51.61%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      3.3940 ug/L      11.32194      3.3940 ppb       11.32194 333.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -61.6     -12.288 ug/L        6.1621     -12.288 ppb        6.1621  50.15%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.2     -86.701 ug/L       26.9014     -86.701 ppb       26.9014  31.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              20.4      0.0366 ug/L       0.01471      0.0366 ppb        0.01471  40.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.4     -0.1242 ug/L       0.32336     -0.1242 ppb        0.32336 260.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      183.7      62.613 ug/L        7.7170      62.613 ppb        7.7170  12.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -12.3     -0.3923 ug/L       0.12995     -0.3923 ppb        0.12995  33.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.4     -3.4847 ug/L       1.38533     -3.4847 ppb        1.38533  39.75%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              13.0      2.1072 ug/L       2.37211      2.1072 ppb        2.37211 112.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.1     -1.4728 ug/L       2.16401     -1.4728 ppb        2.16401 146.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.1      1.2401 ug/L       3.50193      1.2401 ppb        3.50193 282.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.5      1.5627 ug/L       4.19807      1.5627 ppb        4.19807 268.65%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -3.8     -0.1372 ug/L       0.45014     -0.1372 ppb        0.45014 328.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.1444 ug/L       1.83488     -0.1444 ppb        1.83488 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               9.5      0.0692 ug/L       0.11057      0.0692 ppb        0.11057 159.82%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             166.6      0.3407 ug/L       0.11139      0.3407 ppb        0.11139  32.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -5.3     -2.4107 ug/L       1.37326     -2.4107 ppb        1.37326  56.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              238.6      7.9907 ug/L       2.85118      7.9907 ppb        2.85118  35.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               59.3      0.4835 ug/L       0.47988      0.4835 ppb        0.47988  99.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              20.8      0.2322 ug/L       0.11762      0.2322 ppb        0.11762  50.65%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -3.8     -0.2939 ug/L       1.20224     -0.2939 ppb        1.20224 409.08%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/1/2010 17:48:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4939.2	4939.2	105	%			17:49:53
1	Y RADIAL	5178.9	5178.9	103.9	%			17:49:53
1	Al 396.153Radial†	5629.3	5451.3	5074.9	ug/L	5074.9	ppb	17:49:53
1	Ca 317.933Radial†	2995.5	2832.3	5146.2	ug/L	5146.2	ppb	17:50:13
1	Fe 238.204 Radial†	528.5	496.3	5164.8	ug/L	5164.8	ppb	17:50:13
1	K 766.490 Radial†	29381.8	25736.7	5116.9	ug/L	5116.9	ppb	17:49:53
1	Mg 279.077 IEC†	144.0	134.3	5332.2	ug/L	5332.2	ppb	17:50:13
1	Na 589.592 Radial†	29196.0	28669.2	9770.4	ug/L	9770.4	ppb	17:49:53
1	Sr 421.552†	72310.8	68906.6	501.03	ug/L	501.03	ppb	17:49:53
1	Sc 361.383	817806.6	817806.6	106.49	%			17:51:11
1	Y 371.029	725093.1	725093.1	105.23	%			17:51:11
1	Ag 328.068†	105025.5	98365.7	508.90	ug/L	508.90	ppb	17:51:16
1	As 188.979†	1183.5	1136.4	510.88	ug/L	510.88	ppb	17:51:36
1	B 249.677†	20928.6	20105.8	501.16	ug/L	501.16	ppb	17:51:16
1	Ba 233.527†	46118.6	43304.0	512.26	ug/L	512.26	ppb	17:51:16
1	Be 313.107†	1331354.5	1259154.8	501.64	ug/L	501.64	ppb	17:51:11
1	Cd 226.502†	38356.1	36203.9	513.13	ug/L	513.13	ppb	17:51:16
1	Co 228.616†	18260.9	17204.9	520.03	ug/L	520.03	ppb	17:51:16
1	Cr 267.716†	39805.8	37302.9	510.24	ug/L	510.24	ppb	17:51:16
1	Cu 324.752†	152572.7	135733.0	508.23	ug/L	508.23	ppb	17:51:16
1	Mn 257.610†	339742.2	318564.5	510.20	ug/L	510.20	ppb	17:51:16
1	Mo 202.031†	5840.8	5470.2	502.48	ug/L	502.48	ppb	17:51:36
1	Ni 231.604†	17378.3	16217.3	518.10	ug/L	518.10	ppb	17:51:16
1	P 214.914†	4996.6	4496.5	2411.7	ug/L	2411.7	ppb	17:51:36
1	Pb 220.353†	3260.3	3132.2	506.92	ug/L	506.92	ppb	17:51:36
1	S 181.975 Axial†	868.8	773.3	1001.7	ug/L	1001.7	ppb	17:51:36
1	Sb 206.836†	1360.1	1247.2	523.92	ug/L	523.92	ppb	17:51:36
1	Se 196.026†	861.1	828.4	520.92	ug/L	520.92	ppb	17:51:36
1	Si 251.611†	75035.6	69870.9	2543.5	ug/L	2543.5	ppb	17:51:16
1	Sn 189.927†	2242.1	2097.3	494.53	ug/L	494.53	ppb	17:51:36
1	Ti 334.940†	266907.9	251933.7	507.49	ug/L	507.49	ppb	17:51:16
1	Tl 190.801†	1135.9	1097.8	507.55	ug/L	507.55	ppb	17:51:36
1	U 409.014†	13772.1	15469.2	516.27	ug/L	516.27	ppb	17:51:16
1	V 292.402†	66522.2	64093.9	517.12	ug/L	517.12	ppb	17:51:16
1	Zn 213.857†	50106.1	46340.5	506.31	ug/L	506.31	ppb	17:51:16
1	SiO2†	73235.0	68172.9	5297.1	ug/L	5297.1	ppb	17:52:43
2	Sc Radial	4932.1	4932.1	105	%			17:50:18
2	Y RADIAL	5179.9	5179.9	103.9	%			17:50:18
2	Al 396.153Radial†	5665.7	5493.8	5114.8	ug/L	5114.8	ppb	17:50:18
2	Ca 317.933Radial†	2987.8	2829.0	5140.2	ug/L	5140.2	ppb	17:50:39
2	Fe 238.204 Radial†	530.1	498.6	5188.0	ug/L	5188.0	ppb	17:50:39
2	K 766.490 Radial†	29536.7	25924.9	5154.4	ug/L	5154.4	ppb	17:50:18
2	Mg 279.077 IEC†	140.9	131.6	5224.8	ug/L	5224.8	ppb	17:50:39
2	Na 589.592 Radial†	29469.9	28970.6	9873.2	ug/L	9873.2	ppb	17:50:18
2	Sr 421.552†	72616.2	69297.3	503.87	ug/L	503.87	ppb	17:50:18
2	Sc 361.383	822013.5	822013.5	107.04	%			17:51:41
2	Y 371.029	727307.2	727307.2	105.55	%			17:51:41
2	Ag 328.068†	103326.9	96274.0	498.12	ug/L	498.12	ppb	17:51:47
2	As 188.979†	1176.0	1123.6	505.10	ug/L	505.10	ppb	17:52:07
2	B 249.677†	20567.4	19667.9	490.22	ug/L	490.22	ppb	17:51:47
2	Ba 233.527†	45328.3	42344.1	500.91	ug/L	500.91	ppb	17:51:47
2	Be 313.107†	1329224.3	1250766.5	498.28	ug/L	498.28	ppb	17:51:41
2	Cd 226.502†	37797.2	35497.5	503.11	ug/L	503.11	ppb	17:51:47
2	Co 228.616†	18028.8	16900.3	510.83	ug/L	510.83	ppb	17:51:47
2	Cr 267.716†	39222.9	36567.1	500.18	ug/L	500.18	ppb	17:51:47
2	Cu 324.752†	149396.3	132032.4	494.38	ug/L	494.38	ppb	17:51:47
2	Mn 257.610†	334268.5	311818.1	499.40	ug/L	499.40	ppb	17:51:47
2	Mo 202.031†	5832.9	5434.8	499.23	ug/L	499.23	ppb	17:52:07
2	Ni 231.604†	17037.1	15815.0	505.25	ug/L	505.25	ppb	17:51:47

2	P 214.914†	5002.0	4477.6	2403.9 ug/L	2403.9 ppb	17:52:07
2	Pb 220.353†	3242.5	3099.9	501.72 ug/L	501.72 ppb	17:52:07
2	S 181.975 Axial†	870.7	770.9	998.60 ug/L	998.60 ppb	17:52:07
2	Sb 206.836†	1344.2	1225.7	515.20 ug/L	515.20 ppb	17:52:07
2	Se 196.026†	868.0	830.7	522.37 ug/L	522.37 ppb	17:52:07
2	Si 251.611†	73602.2	68171.2	2481.5 ug/L	2481.5 ppb	17:51:47
2	Sn 189.927†	2266.7	2109.5	497.40 ug/L	497.40 ppb	17:52:07
2	Ti 334.940†	262336.1	246379.9	496.32 ug/L	496.32 ppb	17:51:47
2	Tl 190.801†	1130.7	1087.5	502.72 ug/L	502.72 ppb	17:52:07
2	U 409.014†	13391.6	15047.4	502.17 ug/L	502.17 ppb	17:51:47
2	V 292.402†	65361.3	62689.6	505.87 ug/L	505.87 ppb	17:51:47
2	Zn 213.857†	49236.1	45286.9	494.78 ug/L	494.78 ppb	17:51:47
2	SiO2†	74637.5	69131.2	5371.8 ug/L	5371.8 ppb	17:52:48
3	Sc Radial	4914.7	4914.7	104 %		17:50:44
3	Y RADIAL	5157.0	5157.0	103.4 %		17:50:44
3	Al 396.153Radial†	5612.4	5461.9	5085.1 ug/L	5085.1 ppb	17:50:44
3	Ca 317.933Radial†	3010.2	2860.6	5197.6 ug/L	5197.6 ppb	17:51:04
3	Fe 238.204 Radial†	533.5	503.6	5240.5 ug/L	5240.5 ppb	17:51:04
3	K 766.490 Radial†	29091.7	25598.6	5089.4 ug/L	5089.4 ppb	17:50:44
3	Mg 279.077 IEC†	145.4	136.4	5414.2 ug/L	5414.2 ppb	17:51:04
3	Na 589.592 Radial†	29216.1	28827.1	9824.3 ug/L	9824.3 ppb	17:50:44
3	Sr 421.552†	72104.6	69052.8	502.10 ug/L	502.10 ppb	17:50:44
3	Sc 361.383	823539.4	823539.4	107.24 %		17:52:12
3	Y 371.029	728257.9	728257.9	105.69 %		17:52:12
3	Ag 328.068†	105130.5	97777.1	505.88 ug/L	505.88 ppb	17:52:17
3	As 188.979†	1184.7	1129.7	507.91 ug/L	507.91 ppb	17:52:37
3	B 249.677†	20927.7	19968.2	497.71 ug/L	497.71 ppb	17:52:17
3	Ba 233.527†	46059.8	42947.7	508.05 ug/L	508.05 ppb	17:52:17
3	Be 313.107†	1335261.6	1254095.5	499.63 ug/L	499.63 ppb	17:52:12
3	Cd 226.502†	38311.9	35912.0	508.98 ug/L	508.98 ppb	17:52:17
3	Co 228.616†	18341.9	17161.0	518.70 ug/L	518.70 ppb	17:52:17
3	Cr 267.716†	39750.9	36991.6	505.98 ug/L	505.98 ppb	17:52:17
3	Cu 324.752†	152481.0	134650.2	504.18 ug/L	504.18 ppb	17:52:17
3	Mn 257.610†	339766.9	316366.8	506.68 ug/L	506.68 ppb	17:52:17
3	Mo 202.031†	5824.9	5417.3	497.62 ug/L	497.62 ppb	17:52:37
3	Ni 231.604†	17304.4	16034.8	512.27 ug/L	512.27 ppb	17:52:17
3	P 214.914†	4992.9	4460.4	2392.3 ug/L	2392.3 ppb	17:52:37
3	Pb 220.353†	3253.6	3104.7	502.47 ug/L	502.47 ppb	17:52:37
3	S 181.975 Axial†	877.4	775.6	1004.7 ug/L	1004.7 ppb	17:52:37
3	Sb 206.836†	1358.8	1237.0	519.67 ug/L	519.67 ppb	17:52:37
3	Se 196.026†	860.6	822.3	517.32 ug/L	517.32 ppb	17:52:37
3	Si 251.611†	75072.3	69414.7	2526.9 ug/L	2526.9 ppb	17:52:17
3	Sn 189.927†	2255.0	2094.7	493.92 ug/L	493.92 ppb	17:52:37
3	Ti 334.940†	266901.6	250183.0	503.97 ug/L	503.97 ppb	17:52:17
3	Tl 190.801†	1136.9	1091.4	504.55 ug/L	504.55 ppb	17:52:37
3	U 409.014†	13808.9	15413.4	514.40 ug/L	514.40 ppb	17:52:17
3	V 292.402†	66340.2	63489.3	512.22 ug/L	512.22 ppb	17:52:17
3	Zn 213.857†	50031.3	45943.2	501.96 ug/L	501.96 ppb	17:52:17
3	SiO2†	73209.3	67670.2	5258.1 ug/L	5258.1 ppb	17:52:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	821119.8	106.93	%	0.387				0.36%
Sc Radial	4928.7	105	%	0.3				0.26%
Y 371.029	726886.1	105.49	%	0.236				0.22%
Y RADIAL	5171.9	103.7	%	0.26				0.25%
Ag 328.068†	97472.3	504.30	ug/L	5.561	504.30	ppb	5.561	1.10%
QC value within limits for Ag 328.068 Recovery = 100.86%								
Al 396.153Radial†	5469.0	5091.6	ug/L	20.74	5091.6	ppb	20.74	0.41%
QC value within limits for Al 396.153Radial Recovery = 101.83%								
As 188.979†	1129.9	507.96	ug/L	2.889	507.96	ppb	2.889	0.57%
QC value within limits for As 188.979 Recovery = 101.59%								
B 249.677†	19914.0	496.36	ug/L	5.595	496.36	ppb	5.595	1.13%
QC value within limits for B 249.677 Recovery = 99.27%								
Ba 233.527†	42865.3	507.08	ug/L	5.738	507.08	ppb	5.738	1.13%
QC value within limits for Ba 233.527 Recovery = 101.42%								
Be 313.107†	1254672.3	499.85	ug/L	1.691	499.85	ppb	1.691	0.34%
QC value within limits for Be 313.107 Recovery = 99.97%								
Ca 317.933Radial†	2840.7	5161.3	ug/L	31.56	5161.3	ppb	31.56	0.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.23%
Cd 226.502†            35871.1      508.41 ug/L         5.039      508.41 ppb          5.039   0.99%
   QC value within limits for Cd 226.502  Recovery = 101.68%
Co 228.616†            17088.7      516.52 ug/L         4.968      516.52 ppb          4.968   0.96%
   QC value within limits for Co 228.616  Recovery = 103.30%
Cr 267.716†            36953.8      505.47 ug/L         5.051      505.47 ppb          5.051   1.00%
   QC value within limits for Cr 267.716  Recovery = 101.09%
Cu 324.752†           134138.6      502.26 ug/L         7.120      502.26 ppb          7.120   1.42%
   QC value within limits for Cu 324.752  Recovery = 100.45%
Fe 238.204 Radial†       499.5      5197.8 ug/L        38.82      5197.8 ppb          38.82   0.75%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.96%
K 766.490 Radial†      25753.4      5120.2 ug/L        32.61      5120.2 ppb          32.61   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          134.1      5323.7 ug/L        95.00      5323.7 ppb          95.00   1.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.47%
Mn 257.610†           315583.1      505.43 ug/L         5.504      505.43 ppb          5.504   1.09%
   QC value within limits for Mn 257.610  Recovery = 101.09%
Mo 202.031†             5440.8      499.77 ug/L         2.474      499.77 ppb          2.474   0.49%
   QC value within limits for Mo 202.031  Recovery = 99.95%
Na 589.592 Radial†     28822.3      9822.6 ug/L        51.39      9822.6 ppb          51.39   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 98.23%
Ni 231.604†            16022.4      511.88 ug/L         6.436      511.88 ppb          6.436   1.26%
   QC value within limits for Ni 231.604  Recovery = 102.38%
P 214.914†              4478.2      2402.6 ug/L         9.77      2402.6 ppb           9.77   0.41%
   QC value within limits for P 214.914  Recovery = 96.10%
Pb 220.353†             3112.2      503.71 ug/L         2.812      503.71 ppb          2.812   0.56%
   QC value within limits for Pb 220.353  Recovery = 100.74%
S 181.975 Axial†         773.3      1001.7 ug/L         3.05      1001.7 ppb           3.05   0.30%
   QC value within limits for S 181.975 Axial  Recovery = 100.17%
Sb 206.836†             1236.6      519.60 ug/L         4.363      519.60 ppb          4.363   0.84%
   QC value within limits for Sb 206.836  Recovery = 103.92%
Se 196.026†              827.1      520.21 ug/L         2.600      520.21 ppb          2.600   0.50%
   QC value within limits for Se 196.026  Recovery = 104.04%
Si 251.611†            69152.3      2517.3 ug/L        32.09      2517.3 ppb          32.09   1.27%
   QC value within limits for Si 251.611  Recovery = 100.69%
Sn 189.927†             2100.5      495.28 ug/L         1.860      495.28 ppb          1.860   0.38%
   QC value within limits for Sn 189.927  Recovery = 99.06%
Sr 421.552†            69085.5      502.33 ug/L         1.435      502.33 ppb          1.435   0.29%
   QC value within limits for Sr 421.552  Recovery = 100.47%
Ti 334.940†           249498.8      502.59 ug/L         5.712      502.59 ppb          5.712   1.14%
   QC value within limits for Ti 334.940  Recovery = 100.52%
Tl 190.801†             1092.2      504.94 ug/L         2.439      504.94 ppb          2.439   0.48%
   QC value within limits for Tl 190.801  Recovery = 100.99%
U 409.014†             15310.0      510.94 ug/L         7.660      510.94 ppb          7.660   1.50%
   QC value within limits for U 409.014  Recovery = 102.19%
V 292.402†             63424.2      511.74 ug/L         5.639      511.74 ppb          5.639   1.10%
   QC value within limits for V 292.402  Recovery = 102.35%
Zn 213.857†            45856.9      501.02 ug/L         5.818      501.02 ppb          5.818   1.16%
   QC value within limits for Zn 213.857  Recovery = 100.20%
SiO2†                  68324.8      5309.0 ug/L        57.81      5309.0 ppb          57.81   1.09%
   QC value within limits for SiO2  Recovery = 99.28%
All analyte(s) passed QC.
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Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/1/2010 17:55:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5004.8	5004.8	106	%			17:56:56
1	Y RADIAL	5280.9	5280.9	105.9	%			17:56:56
1	Al 396.153Radial†	-61.3	29.5	27.624	ug/L	27.624	ppb	17:57:16
1	Ca 317.933Radial†	32.9	8.8	15.955	ug/L	15.955	ppb	17:57:16
1	Fe 238.204 Radial†	8.5	0.6	6.6145	ug/L	6.6145	ppb	17:57:16
1	K 766.490 Radial†	2344.9	-56.4	-11.258	ug/L	-11.258	ppb	17:56:56
1	Mg 279.077 IEC†	2.9	-0.1	-5.8188	ug/L	-5.8188	ppb	17:57:16
1	Na 589.592 Radial†	-732.7	158.7	54.089	ug/L	54.089	ppb	17:56:56
1	Sr 421.552†	34.1	32.6	0.2367	ug/L	0.2367	ppb	17:56:56
1	Sc 361.383	807716.8	807716.8	105.18	%			17:58:13
1	Y 371.029	722275.5	722275.5	104.82	%			17:58:13
1	Ag 328.068†	200.3	-65.3	-0.3361	ug/L	-0.3361	ppb	17:58:13
1	As 188.979†	-36.4	-9.6	-4.2834	ug/L	-4.2834	ppb	17:58:33
1	B 249.677†	-365.0	106.4	2.6637	ug/L	2.6637	ppb	17:58:33
1	Ba 233.527†	-3.3	-5.5	-0.0639	ug/L	-0.0639	ppb	17:58:33
1	Be 313.107†	-9404.8	41.1	0.0166	ug/L	0.0166	ppb	17:58:13
1	Cd 226.502†	-177.9	17.5	0.2479	ug/L	0.2479	ppb	17:58:33
1	Co 228.616†	-62.6	-2.1	-0.0650	ug/L	-0.0650	ppb	17:58:33
1	Cr 267.716†	76.5	-2.9	-0.0410	ug/L	-0.0410	ppb	17:58:33
1	Cu 324.752†	7666.4	-247.3	-0.9284	ug/L	-0.9284	ppb	17:58:13
1	Mn 257.610†	483.1	-1.8	-0.0020	ug/L	-0.0020	ppb	17:58:33
1	Mo 202.031†	5.3	-9.3	-0.8564	ug/L	-0.8564	ppb	17:58:33
1	Ni 231.604†	91.1	-14.8	-0.4715	ug/L	-0.4715	ppb	17:58:33
1	P 214.914†	199.0	-6.2	-3.2627	ug/L	-3.2627	ppb	17:58:33
1	Pb 220.353†	-66.2	7.8	1.2550	ug/L	1.2550	ppb	17:58:33
1	S 181.975 Axial†	40.7	-3.8	-4.9723	ug/L	-4.9723	ppb	17:58:33
1	Sb 206.836†	42.1	10.0	4.0202	ug/L	4.0202	ppb	17:58:33
1	Se 196.026†	-28.3	-7.1	-4.3127	ug/L	-4.3127	ppb	17:58:33
1	Si 251.611†	598.2	-20.4	-0.7352	ug/L	-0.7352	ppb	17:58:33
1	Sn 189.927†	2.2	-6.0	-1.4095	ug/L	-1.4095	ppb	17:58:33
1	Ti 334.940†	-1305.1	60.2	0.1217	ug/L	0.1217	ppb	17:58:13
1	Tl 190.801†	-33.0	-0.1	-0.0678	ug/L	-0.0678	ppb	17:58:33
1	U 409.014†	-2505.5	154.7	5.1793	ug/L	5.1793	ppb	17:58:13
1	V 292.402†	-1649.5	59.7	0.4718	ug/L	0.4718	ppb	17:58:13
1	Zn 213.857†	790.5	41.3	0.4587	ug/L	0.4587	ppb	17:58:33
1	SiO2†	613.3	-13.4	-1.0189	ug/L	-1.0189	ppb	17:59:29
2	Sc Radial	5007.4	5007.4	106	%			17:57:21
2	Y RADIAL	5287.9	5287.9	106.1	%			17:57:21
2	Al 396.153Radial†	-80.7	11.3	10.562	ug/L	10.562	ppb	17:57:41
2	Ca 317.933Radial†	28.2	4.4	7.9139	ug/L	7.9139	ppb	17:57:41
2	Fe 238.204 Radial†	7.9	0.1	1.4009	ug/L	1.4009	ppb	17:57:41
2	K 766.490 Radial†	2197.8	-195.9	-39.011	ug/L	-39.011	ppb	17:57:21
2	Mg 279.077 IEC†	1.1	-1.9	-73.518	ug/L	-73.518	ppb	17:57:41
2	Na 589.592 Radial†	-738.2	154.0	52.469	ug/L	52.469	ppb	17:57:21
2	Sr 421.552†	30.0	28.7	0.2088	ug/L	0.2088	ppb	17:57:21
2	Sc 361.383	806824.0	806824.0	105.06	%			17:58:38
2	Y 371.029	721011.8	721011.8	104.64	%			17:58:38
2	Ag 328.068†	272.1	3.4	0.0073	ug/L	0.0073	ppb	17:58:38
2	As 188.979†	-25.6	0.6	0.2817	ug/L	0.2817	ppb	17:58:59
2	B 249.677†	-370.4	100.9	2.5255	ug/L	2.5255	ppb	17:58:59
2	Ba 233.527†	13.5	10.5	0.1240	ug/L	0.1240	ppb	17:58:59
2	Be 313.107†	-9361.5	72.3	0.0292	ug/L	0.0292	ppb	17:58:38
2	Cd 226.502†	-200.4	-4.1	-0.0558	ug/L	-0.0558	ppb	17:58:59
2	Co 228.616†	-59.4	1.0	0.0298	ug/L	0.0298	ppb	17:58:59
2	Cr 267.716†	65.1	-13.6	-0.1910	ug/L	-0.1910	ppb	17:58:59
2	Cu 324.752†	7692.3	-214.6	-0.8108	ug/L	-0.8108	ppb	17:58:38
2	Mn 257.610†	482.7	-1.7	0.0004	ug/L	0.0004	ppb	17:58:59
2	Mo 202.031†	18.1	2.9	0.2643	ug/L	0.2643	ppb	17:58:59
2	Ni 231.604†	84.2	-21.2	-0.6768	ug/L	-0.6768	ppb	17:58:59

2	P 214.914†	207.9	2.5	1.5342 ug/L	1.5342 ppb		17:58:59
2	Pb 220.353†	-65.8	8.1	1.3110 ug/L	1.3110 ppb		17:58:59
2	S 181.975 Axial†	44.7	0.1	0.0648 ug/L	0.0648 ppb		17:58:59
2	Sb 206.836†	37.9	6.0	2.4261 ug/L	2.4261 ppb		17:58:59
2	Se 196.026†	-18.5	2.2	1.3439 ug/L	1.3439 ppb		17:58:59
2	Si 251.611†	599.5	-18.6	-0.6834 ug/L	-0.6834 ppb		17:58:59
2	Sn 189.927†	-0.9	-8.9	-2.0928 ug/L	-2.0928 ppb		17:58:59
2	Ti 334.940†	-1265.4	96.6	0.1961 ug/L	0.1961 ppb		17:58:38
2	Tl 190.801†	-36.8	-3.8	-1.7415 ug/L	-1.7415 ppb		17:58:59
2	U 409.014†	-2255.2	390.3	13.069 ug/L	13.069 ppb		17:58:38
2	V 292.402†	-1699.6	10.3	0.1087 ug/L	0.1087 ppb		17:58:38
2	Zn 213.857†	784.4	36.3	0.4056 ug/L	0.4056 ppb		17:58:59
2	SiO2†	648.7	21.0	1.6272 ug/L	1.6272 ppb		17:59:34
3	Sc Radial	4987.8	4987.8	106 %			17:57:46
3	Y RADIAL	5274.6	5274.6	105.8 %			17:57:46
3	Al 396.153Radial†	-75.2	16.1	15.144 ug/L	15.144 ppb		17:58:06
3	Ca 317.933Radial†	33.6	9.5	17.272 ug/L	17.272 ppb		17:58:06
3	Fe 238.204 Radial†	10.6	2.7	27.956 ug/L	27.956 ppb		17:58:06
3	K 766.490 Radial†	2348.1	-45.9	-9.1600 ug/L	-9.1600 ppb		17:57:46
3	Mg 279.077 IEC†	1.5	-1.5	-57.883 ug/L	-57.883 ppb		17:58:06
3	Na 589.592 Radial†	-702.0	185.4	63.181 ug/L	63.181 ppb		17:57:46
3	Sr 421.552†	9.6	9.5	0.0689 ug/L	0.0689 ppb		17:57:46
3	Sc 361.383	811978.0	811978.0	105.73 %			17:59:04
3	Y 371.029	725369.6	725369.6	105.27 %			17:59:04
3	Ag 328.068†	154.8	-109.3	-0.5614 ug/L	-0.5614 ppb		17:59:04
3	As 188.979†	-27.1	-0.6	-0.2765 ug/L	-0.2765 ppb		17:59:24
3	B 249.677†	-382.7	91.5	2.2876 ug/L	2.2876 ppb		17:59:24
3	Ba 233.527†	10.6	7.7	0.0910 ug/L	0.0910 ppb		17:59:24
3	Be 313.107†	-9460.8	35.0	0.0147 ug/L	0.0147 ppb		17:59:04
3	Cd 226.502†	-193.8	3.3	0.0460 ug/L	0.0460 ppb		17:59:24
3	Co 228.616†	-64.7	-3.7	-0.1140 ug/L	-0.1140 ppb		17:59:24
3	Cr 267.716†	45.7	-32.3	-0.4452 ug/L	-0.4452 ppb		17:59:24
3	Cu 324.752†	7714.3	-240.2	-0.9031 ug/L	-0.9031 ppb		17:59:04
3	Mn 257.610†	498.7	10.5	0.0219 ug/L	0.0219 ppb		17:59:24
3	Mo 202.031†	5.8	-8.9	-0.8170 ug/L	-0.8170 ppb		17:59:24
3	Ni 231.604†	98.4	-8.2	-0.2634 ug/L	-0.2634 ppb		17:59:24
3	P 214.914†	208.1	1.5	0.9801 ug/L	0.9801 ppb		17:59:24
3	Pb 220.353†	-52.0	21.5	3.4685 ug/L	3.4685 ppb		17:59:24
3	S 181.975 Axial†	41.4	-3.4	-4.3757 ug/L	-4.3757 ppb		17:59:24
3	Sb 206.836†	28.5	-3.0	-1.2475 ug/L	-1.2475 ppb		17:59:24
3	Se 196.026†	-27.4	-6.1	-3.6800 ug/L	-3.6800 ppb		17:59:24
3	Si 251.611†	603.5	-18.5	-0.6645 ug/L	-0.6645 ppb		17:59:24
3	Sn 189.927†	8.5	-0.1	-0.0111 ug/L	-0.0111 ppb		17:59:24
3	Ti 334.940†	-1192.7	173.0	0.3517 ug/L	0.3517 ppb		17:59:04
3	Tl 190.801†	-26.1	6.6	3.0193 ug/L	3.0193 ppb		17:59:24
3	U 409.014†	-2389.5	276.9	9.2703 ug/L	9.2703 ppb		17:59:04
3	V 292.402†	-1731.6	-9.7	-0.0761 ug/L	-0.0761 ppb		17:59:04
3	Zn 213.857†	786.8	33.9	0.3723 ug/L	0.3723 ppb		17:59:24
3	SiO2†	590.1	-38.4	-2.9675 ug/L	-2.9675 ppb		17:59:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808839.6	105.33	%	0.359				0.34%
Sc Radial	5000.0	106	%	0.2				0.21%
Y 371.029	722885.6	104.91	%	0.325				0.31%
Y RADIAL	5281.1	105.9	%	0.13				0.13%
Ag 328.068†	-57.1	-0.2968	ug/L	0.28638	-0.2968	ppb	0.28638	96.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.0	17.777	ug/L	8.8304	17.777	ppb	8.8304	49.67%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-1.4261	ug/L	2.49023	-1.4261	ppb	2.49023	174.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	99.6	2.4923	ug/L	0.19020	2.4923	ppb	0.19020	7.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.2	0.0504	ug/L	0.10031	0.0504	ppb	0.10031	199.05%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	49.5	0.0202	ug/L	0.00788	0.0202	ppb	0.00788	39.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.5	13.714	ug/L	5.0656	13.714	ppb	5.0656	36.94%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.6      0.0793 ug/L       0.15459      0.0793 ppb        0.15459 194.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -1.6     -0.0497 ug/L       0.07308     -0.0497 ppb        0.07308 146.94%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -16.3     -0.2257 ug/L       0.20430     -0.2257 ppb        0.20430  90.50%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -234.0     -0.8807 ug/L       0.06190     -0.8807 ppb        0.06190   7.03%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.2      11.990 ug/L       14.0702      11.990 ppb        14.0702 117.34%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -99.4     -19.810 ug/L       16.6619     -19.810 ppb        16.6619  84.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.2     -45.740 ug/L       35.4454     -45.740 ppb        35.4454  77.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.3      0.0068 ug/L       0.01319      0.0068 ppb        0.01319 194.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -5.1     -0.4697 ug/L       0.63595     -0.4697 ppb        0.63595 135.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       166.0      56.580 ug/L        5.7741      56.580 ppb         5.7741  10.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.7     -0.4706 ug/L       0.20671     -0.4706 ppb        0.20671  43.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -0.7     -0.2494 ug/L       2.62421     -0.2494 ppb        2.62421 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               12.5      2.0115 ug/L       1.26211      2.0115 ppb        1.26211  62.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -3.0944 ug/L       2.75214     -3.0944 ppb        2.75214  88.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.3      1.7329 ug/L       2.70138      1.7329 ppb        2.70138 155.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.7     -2.2163 ug/L       3.09934     -2.2163 ppb        3.09934 139.85%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -19.2     -0.6944 ug/L       0.03662     -0.6944 ppb        0.03662   5.27%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -5.0     -1.1711 ug/L       1.06112     -1.1711 ppb        1.06112  90.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               23.6      0.1715 ug/L       0.08989      0.1715 ppb        0.08989  52.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              109.9      0.2232 ug/L       0.11736      0.2232 ppb        0.11736  52.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.9      0.4034 ug/L       2.41512      0.4034 ppb        2.41512 598.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               274.0      9.1727 ug/L       3.94559      9.1727 ppb        3.94559  43.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.1      0.1681 ug/L       0.27875      0.1681 ppb        0.27875 165.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               37.2      0.4122 ug/L       0.04360      0.4122 ppb        0.04360  10.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -10.3     -0.7864 ug/L       2.30616     -0.7864 ppb        2.30616 293.25%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/1/2010 18:22:02 **Plasma On Time: 3/1/2010 06:57:40**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030110.sif
Batch ID:
Results Data Set: 030110A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/1/2010 18:22:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4848.9	4848.9	103	%			18:23:55
1	Y RADIAL	5099.4	5099.4	102.3	%			18:23:55
1	Al 396.153Radial†	5538.9	5463.5	5086.9	ug/L	5086.9	ppb	18:23:55
1	Ca 317.933Radial†	2972.2	2862.8	5201.6	ug/L	5201.6	ppb	18:24:15
1	Fe 238.204 Radial†	531.3	508.4	5289.6	ug/L	5289.6	ppb	18:24:15
1	K 766.490 Radial†	28912.7	25803.0	5130.0	ug/L	5130.0	ppb	18:23:55
1	Mg 279.077 IEC†	141.9	134.9	5355.2	ug/L	5355.2	ppb	18:24:15
1	Na 589.592 Radial†	29722.0	29697.9	10121	ug/L	10121	ppb	18:23:55
1	Sr 421.552†	72381.2	70258.4	510.86	ug/L	510.86	ppb	18:23:55
1	Sc 361.383	823743.9	823743.9	107.27	%			18:25:12
1	Y 371.029	729086.6	729086.6	105.81	%			18:25:12
1	Ag 328.068†	103603.7	96329.3	498.42	ug/L	498.42	ppb	18:25:17
1	As 188.979†	1162.0	1108.3	498.32	ug/L	498.32	ppb	18:25:38
1	B 249.677†	20665.4	19718.9	491.48	ug/L	491.48	ppb	18:25:17
1	Ba 233.527†	45511.5	42425.9	501.88	ug/L	501.88	ppb	18:25:17
1	Be 313.107†	1304868.4	1225452.0	488.22	ug/L	488.22	ppb	18:25:12
1	Cd 226.502†	37637.7	35274.6	499.94	ug/L	499.94	ppb	18:25:17
1	Co 228.616†	17962.7	16803.3	507.88	ug/L	507.88	ppb	18:25:17
1	Cr 267.716†	39112.8	36387.5	497.72	ug/L	497.72	ppb	18:25:17
1	Cu 324.752†	151112.4	133339.0	499.27	ug/L	499.27	ppb	18:25:17
1	Mn 257.610†	334728.4	311590.9	499.05	ug/L	499.05	ppb	18:25:17
1	Mo 202.031†	5754.1	5349.9	491.45	ug/L	491.45	ppb	18:25:38
1	Ni 231.604†	17034.6	15779.3	504.11	ug/L	504.11	ppb	18:25:17
1	P 214.914†	4951.0	4420.2	2370.7	ug/L	2370.7	ppb	18:25:38
1	Pb 220.353†	3205.5	3059.0	495.10	ug/L	495.10	ppb	18:25:38
1	S 181.975 Axial†	855.5	755.1	978.04	ug/L	978.04	ppb	18:25:38
1	Sb 206.836†	1333.8	1213.4	509.88	ug/L	509.88	ppb	18:25:38
1	Se 196.026†	854.0	815.9	513.51	ug/L	513.51	ppb	18:25:38
1	Si 251.611†	74370.7	68743.2	2502.4	ug/L	2502.4	ppb	18:25:17
1	Sn 189.927†	2229.0	2069.9	488.08	ug/L	488.08	ppb	18:25:38
1	Ti 334.940†	263123.2	246598.8	496.76	ug/L	496.76	ppb	18:25:17
1	Tl 190.801†	1125.3	1080.3	499.43	ug/L	499.43	ppb	18:25:38
1	U 409.014†	13745.2	15350.8	512.32	ug/L	512.32	ppb	18:25:17
1	V 292.402†	65375.2	62574.3	504.85	ug/L	504.85	ppb	18:25:17
1	Zn 213.857†	49329.6	45277.5	494.67	ug/L	494.67	ppb	18:25:17
1	SiO2†	73360.0	67793.8	5267.9	ug/L	5267.9	ppb	18:26:45
2	Sc Radial	4788.2	4788.2	102	%			18:24:20
2	Y RADIAL	5011.5	5011.5	100.5	%			18:24:20
2	Al 396.153Radial†	5659.7	5650.4	5261.4	ug/L	5261.4	ppb	18:24:20
2	Ca 317.933Radial†	2945.0	2872.7	5219.4	ug/L	5219.4	ppb	18:24:40
2	Fe 238.204 Radial†	527.7	511.4	5321.4	ug/L	5321.4	ppb	18:24:40
2	K 766.490 Radial†	29436.1	26673.0	5303.0	ug/L	5303.0	ppb	18:24:20
2	Mg 279.077 IEC†	137.3	132.1	5242.8	ug/L	5242.8	ppb	18:24:40
2	Na 589.592 Radial†	30423.8	30753.3	10481	ug/L	10481	ppb	18:24:20
2	Sr 421.552†	73908.4	72649.9	528.25	ug/L	528.25	ppb	18:24:20
2	Sc 361.383	814108.0	814108.0	106.01	%			18:25:43
2	Y 371.029	720459.4	720459.4	104.56	%			18:25:43

2	Ag 328.068†	102915.8	96823.7	501.00 ug/L	501.00 ppb	18:25:48
2	As 188.979†	1172.5	1131.0	508.48 ug/L	508.48 ppb	18:26:08
2	B 249.677†	20537.5	19826.2	494.15 ug/L	494.15 ppb	18:25:48
2	Ba 233.527†	45359.5	42784.7	506.12 ug/L	506.12 ppb	18:25:48
2	Be 313.107†	1301861.6	1237014.0	492.83 ug/L	492.83 ppb	18:25:43
2	Cd 226.502†	37747.5	35793.5	507.29 ug/L	507.29 ppb	18:25:48
2	Co 228.616†	18022.3	17057.7	515.58 ug/L	515.58 ppb	18:25:48
2	Cr 267.716†	39124.2	36829.8	503.78 ug/L	503.78 ppb	18:25:48
2	Cu 324.752†	149591.7	133572.0	500.15 ug/L	500.15 ppb	18:25:48
2	Mn 257.610†	333785.3	314394.8	503.54 ug/L	503.54 ppb	18:25:48
2	Mo 202.031†	5766.3	5424.9	498.33 ug/L	498.33 ppb	18:26:08
2	Ni 231.604†	17028.0	15961.0	509.91 ug/L	509.91 ppb	18:25:48
2	P 214.914†	4977.6	4500.0	2415.2 ug/L	2415.2 ppb	18:26:08
2	Pb 220.353†	3205.4	3094.3	500.85 ug/L	500.85 ppb	18:26:08
2	S 181.975 Axial†	869.9	778.0	1007.8 ug/L	1007.8 ppb	18:26:08
2	Sb 206.836†	1344.6	1238.3	520.24 ug/L	520.24 ppb	18:26:08
2	Se 196.026†	865.9	836.6	526.28 ug/L	526.28 ppb	18:26:08
2	Si 251.611†	74008.1	69221.8	2519.8 ug/L	2519.8 ppb	18:25:48
2	Sn 189.927†	2238.4	2103.4	495.95 ug/L	495.95 ppb	18:26:08
2	Ti 334.940†	261782.4	248237.4	500.07 ug/L	500.07 ppb	18:25:48
2	Tl 190.801†	1125.4	1092.8	505.17 ug/L	505.17 ppb	18:26:08
2	U 409.014†	13364.2	15143.1	505.35 ug/L	505.35 ppb	18:25:48
2	V 292.402†	65143.5	63077.1	508.92 ug/L	508.92 ppb	18:25:48
2	Zn 213.857†	49083.5	45589.6	498.07 ug/L	498.07 ppb	18:25:48
2	SiO2†	72273.2	67578.1	5250.9 ug/L	5250.9 ppb	18:26:50
3	Sc Radial	4714.0	4714.0	100 %		18:24:45
3	Y RADIAL	4940.6	4940.6	99.10 %		18:24:45
3	Al 396.153Radial†	5539.3	5617.8	5231.0 ug/L	5231.0 ppb	18:24:45
3	Ca 317.933Radial†	2967.4	2940.6	5342.9 ug/L	5342.9 ppb	18:25:05
3	Fe 238.204 Radial†	533.0	524.8	5460.5 ug/L	5460.5 ppb	18:25:05
3	K 766.490 Radial†	28919.1	26612.2	5290.9 ug/L	5290.9 ppb	18:24:45
3	Mg 279.077 IEC†	142.9	139.8	5550.2 ug/L	5550.2 ppb	18:25:05
3	Na 589.592 Radial†	29742.9	30544.1	10409 ug/L	10409 ppb	18:24:45
3	Sr 421.552†	72603.5	72490.3	527.09 ug/L	527.09 ppb	18:24:45
3	Sc 361.383	821751.5	821751.5	107.01 %		18:26:14
3	Y 371.029	726701.4	726701.4	105.47 %		18:26:14
3	Ag 328.068†	102757.0	95772.3	495.61 ug/L	495.61 ppb	18:26:19
3	As 188.979†	1158.6	1107.7	498.09 ug/L	498.09 ppb	18:26:39
3	B 249.677†	20592.3	19697.3	490.91 ug/L	490.91 ppb	18:26:19
3	Ba 233.527†	45223.0	42259.1	499.91 ug/L	499.91 ppb	18:26:19
3	Be 313.107†	1312086.8	1235147.2	492.07 ug/L	492.07 ppb	18:26:14
3	Cd 226.502†	37586.9	35312.1	500.45 ug/L	500.45 ppb	18:26:19
3	Co 228.616†	17994.5	16873.6	510.02 ug/L	510.02 ppb	18:26:19
3	Cr 267.716†	38941.5	36315.8	496.75 ug/L	496.75 ppb	18:26:19
3	Cu 324.752†	149380.4	132062.1	494.51 ug/L	494.51 ppb	18:26:19
3	Mn 257.610†	333088.8	310815.2	497.81 ug/L	497.81 ppb	18:26:19
3	Mo 202.031†	5768.9	5376.7	493.92 ug/L	493.92 ppb	18:26:39
3	Ni 231.604†	17035.5	15818.6	505.36 ug/L	505.36 ppb	18:26:19
3	P 214.914†	4972.0	4451.1	2388.8 ug/L	2388.8 ppb	18:26:39
3	Pb 220.353†	3198.9	3060.1	495.30 ug/L	495.30 ppb	18:26:39
3	S 181.975 Axial†	865.7	766.5	992.83 ug/L	992.83 ppb	18:26:39
3	Sb 206.836†	1350.2	1231.7	517.42 ug/L	517.42 ppb	18:26:39
3	Se 196.026†	849.8	814.0	512.74 ug/L	512.74 ppb	18:26:39
3	Si 251.611†	73922.9	68492.8	2493.3 ug/L	2493.3 ppb	18:26:19
3	Sn 189.927†	2237.7	2083.1	491.19 ug/L	491.19 ppb	18:26:39
3	Ti 334.940†	261236.0	245430.0	494.41 ug/L	494.41 ppb	18:26:19
3	Tl 190.801†	1121.7	1079.5	499.02 ug/L	499.02 ppb	18:26:39
3	U 409.014†	13283.0	14949.9	498.88 ug/L	498.88 ppb	18:26:19
3	V 292.402†	64932.8	62308.6	502.72 ug/L	502.72 ppb	18:26:19
3	Zn 213.857†	48961.8	45045.3	492.08 ug/L	492.08 ppb	18:26:19
3	SiO2†	72599.3	67248.7	5225.3 ug/L	5225.3 ppb	18:26:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	819867.8	106.76	%	0.662				0.62%
Sc Radial	4783.7	102	%	1.4				1.41%
Y 371.029	725415.8	105.28	%	0.647				0.61%
Y RADIAL	5017.2	100.6	%	1.60				1.59%
Ag 328.068†	96308.4	498.34	ug/L	2.693	498.34	ppb	2.693	0.54%

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   QC value within limits for Ag 328.068  Recovery = 99.67%
Al 396.153Radial†       5577.3      5193.1 ug/L         93.25      5193.1 ppb          93.25   1.80%
   QC value within limits for Al 396.153Radial  Recovery = 103.86%
As 188.979†             1115.7      501.63 ug/L         5.931      501.63 ppb          5.931   1.18%
   QC value within limits for As 188.979  Recovery = 100.33%
B 249.677†             19747.5      492.18 ug/L         1.727      492.18 ppb          1.727   0.35%
   QC value within limits for B 249.677  Recovery = 98.44%
Ba 233.527†            42489.9      502.64 ug/L         3.174      502.64 ppb          3.174   0.63%
   QC value within limits for Ba 233.527  Recovery = 100.53%
Be 313.107†          1232537.8      491.04 ug/L         2.469      491.04 ppb          2.469   0.50%
   QC value within limits for Be 313.107  Recovery = 98.21%
Ca 317.933Radial†       2892.0      5254.6 ug/L         76.96      5254.6 ppb          76.96   1.46%
   QC value within limits for Ca 317.933Radial  Recovery = 105.09%
Cd 226.502†            35460.0      502.56 ug/L         4.106      502.56 ppb          4.106   0.82%
   QC value within limits for Cd 226.502  Recovery = 100.51%
Co 228.616†            16911.5      511.16 ug/L         3.975      511.16 ppb          3.975   0.78%
   QC value within limits for Co 228.616  Recovery = 102.23%
Cr 267.716†            36511.0      499.42 ug/L         3.807      499.42 ppb          3.807   0.76%
   QC value within limits for Cr 267.716  Recovery = 99.88%
Cu 324.752†           132991.0      497.98 ug/L         3.036      497.98 ppb          3.036   0.61%
   QC value within limits for Cu 324.752  Recovery = 99.60%
Fe 238.204 Radial†       514.9      5357.1 ug/L         90.89      5357.1 ppb          90.89   1.70%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.14%
K 766.490 Radial†      26362.7      5241.3 ug/L         96.59      5241.3 ppb          96.59   1.84%
   QC value within limits for K 766.490 Radial  Recovery = 104.83%
Mg 279.077 IEC†          135.6      5382.7 ug/L        155.56      5382.7 ppb         155.56   2.89%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.65%
Mn 257.610†           312267.0      500.13 ug/L         3.015      500.13 ppb          3.015   0.60%
   QC value within limits for Mn 257.610  Recovery = 100.03%
Mo 202.031†             5383.9      494.57 ug/L         3.487      494.57 ppb          3.487   0.71%
   QC value within limits for Mo 202.031  Recovery = 98.91%
Na 589.592 Radial†     30331.8       10337 ug/L         190.4       10337 ppb          190.4   1.84%
   QC value within limits for Na 589.592 Radial  Recovery = 103.37%
Ni 231.604†            15852.9      506.46 ug/L         3.055      506.46 ppb          3.055   0.60%
   QC value within limits for Ni 231.604  Recovery = 101.29%
P 214.914†              4457.1      2391.6 ug/L         22.36      2391.6 ppb          22.36   0.93%
   QC value within limits for P 214.914  Recovery = 95.66%
Pb 220.353†             3071.1      497.08 ug/L         3.264      497.08 ppb          3.264   0.66%
   QC value within limits for Pb 220.353  Recovery = 99.42%
S 181.975 Axial†         766.5      992.88 ug/L        14.866      992.88 ppb         14.866   1.50%
   QC value within limits for S 181.975 Axial  Recovery = 99.29%
Sb 206.836†             1227.8      515.85 ug/L         5.353      515.85 ppb          5.353   1.04%
   QC value within limits for Sb 206.836  Recovery = 103.17%
Se 196.026†              822.2      517.51 ug/L         7.605      517.51 ppb          7.605   1.47%
   QC value within limits for Se 196.026  Recovery = 103.50%
Si 251.611†            68819.3      2505.2 ug/L         13.48      2505.2 ppb          13.48   0.54%
   QC value within limits for Si 251.611  Recovery = 100.21%
Sn 189.927†             2085.4      491.74 ug/L         3.966      491.74 ppb          3.966   0.81%
   QC value within limits for Sn 189.927  Recovery = 98.35%
Sr 421.552†            71799.5      522.07 ug/L         9.722      522.07 ppb          9.722   1.86%
   QC value within limits for Sr 421.552  Recovery = 104.41%
Ti 334.940†           246755.4      497.08 ug/L         2.844      497.08 ppb          2.844   0.57%
   QC value within limits for Ti 334.940  Recovery = 99.42%
Tl 190.801†             1084.2      501.21 ug/L         3.441      501.21 ppb          3.441   0.69%
   QC value within limits for Tl 190.801  Recovery = 100.24%
U 409.014†             15148.0      505.51 ug/L         6.722      505.51 ppb          6.722   1.33%
   QC value within limits for U 409.014  Recovery = 101.10%
V 292.402†             62653.3      505.50 ug/L         3.151      505.50 ppb          3.151   0.62%
   QC value within limits for V 292.402  Recovery = 101.10%
Zn 213.857†            45304.1      494.94 ug/L         3.003      494.94 ppb          3.003   0.61%
   QC value within limits for Zn 213.857  Recovery = 98.99%
SiO2†                  67540.2      5248.0 ug/L         21.41      5248.0 ppb          21.41   0.41%
   QC value within limits for SiO2  Recovery = 98.14%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 18:29:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4989.1	4989.1	106	%			18:30:56
1	Y RADIAL	5274.7	5274.7	105.8	%			18:30:56
1	Al 396.153Radial†	-95.3	-2.8	-2.5721	ug/L	-2.5721	ppb	18:31:16
1	Ca 317.933Radial†	19.6	-3.7	-6.6941	ug/L	-6.6941	ppb	18:31:16
1	Fe 238.204 Radial†	5.5	-2.2	-22.353	ug/L	-22.353	ppb	18:31:16
1	K 766.490 Radial†	2224.7	-162.9	-32.455	ug/L	-32.455	ppb	18:30:56
1	Mg 279.077 IEC†	2.5	-0.5	-20.708	ug/L	-20.708	ppb	18:31:16
1	Na 589.592 Radial†	-719.8	168.7	57.502	ug/L	57.502	ppb	18:30:56
1	Sr 421.552†	50.9	48.5	0.3529	ug/L	0.3529	ppb	18:30:56
1	Sc 361.383	803091.4	803091.4	104.58	%			18:32:13
1	Y 371.029	720271.0	720271.0	104.53	%			18:32:13
1	Ag 328.068†	183.4	-80.3	-0.4303	ug/L	-0.4303	ppb	18:32:13
1	As 188.979†	-32.3	-5.9	-2.6279	ug/L	-2.6279	ppb	18:32:33
1	B 249.677†	-346.5	122.1	3.0616	ug/L	3.0616	ppb	18:32:33
1	Ba 233.527†	0.9	-1.6	-0.0194	ug/L	-0.0194	ppb	18:32:33
1	Be 313.107†	-9584.6	-182.5	-0.0721	ug/L	-0.0721	ppb	18:32:13
1	Cd 226.502†	-182.5	12.1	0.1757	ug/L	0.1757	ppb	18:32:33
1	Co 228.616†	-71.1	-10.5	-0.3185	ug/L	-0.3185	ppb	18:32:33
1	Cr 267.716†	60.1	-18.2	-0.2535	ug/L	-0.2535	ppb	18:32:33
1	Cu 324.752†	7756.0	-119.6	-0.4560	ug/L	-0.4560	ppb	18:32:13
1	Mn 257.610†	446.3	-34.4	-0.0564	ug/L	-0.0564	ppb	18:32:33
1	Mo 202.031†	11.2	-3.7	-0.3416	ug/L	-0.3416	ppb	18:32:33
1	Ni 231.604†	87.8	-17.4	-0.5558	ug/L	-0.5558	ppb	18:32:33
1	P 214.914†	217.3	12.4	7.0548	ug/L	7.0548	ppb	18:32:33
1	Pb 220.353†	-50.2	22.7	3.6638	ug/L	3.6638	ppb	18:32:33
1	S 181.975 Axial†	38.3	-5.9	-7.6824	ug/L	-7.6824	ppb	18:32:33
1	Sb 206.836†	30.7	-0.7	-0.2932	ug/L	-0.2932	ppb	18:32:33
1	Se 196.026†	-20.5	0.2	0.0472	ug/L	0.0472	ppb	18:32:33
1	Si 251.611†	560.5	-53.3	-1.9395	ug/L	-1.9395	ppb	18:32:33
1	Sn 189.927†	10.0	1.5	0.3600	ug/L	0.3600	ppb	18:32:33
1	Ti 334.940†	-1271.1	85.6	0.1678	ug/L	0.1678	ppb	18:32:13
1	Tl 190.801†	-33.5	-0.9	-0.3927	ug/L	-0.3927	ppb	18:32:33
1	U 409.014†	-2261.1	374.6	12.548	ug/L	12.548	ppb	18:32:13
1	V 292.402†	-1712.1	-9.2	-0.0512	ug/L	-0.0512	ppb	18:32:13
1	Zn 213.857†	738.8	-3.9	-0.0351	ug/L	-0.0351	ppb	18:32:33
1	SiO2†	545.1	-75.2	-5.8485	ug/L	-5.8485	ppb	18:33:29
2	Sc Radial	5012.1	5012.1	106	%			18:31:21
2	Y RADIAL	5271.4	5271.4	105.7	%			18:31:21
2	Al 396.153Radial†	-84.3	8.0	7.4737	ug/L	7.4737	ppb	18:31:41
2	Ca 317.933Radial†	16.4	-6.7	-12.219	ug/L	-12.219	ppb	18:31:41
2	Fe 238.204 Radial†	6.2	-1.5	-15.893	ug/L	-15.893	ppb	18:31:41
2	K 766.490 Radial†	2360.5	-45.0	-8.9714	ug/L	-8.9714	ppb	18:31:21
2	Mg 279.077 IEC†	2.6	-0.4	-17.768	ug/L	-17.768	ppb	18:31:41
2	Na 589.592 Radial†	-710.7	180.4	61.495	ug/L	61.495	ppb	18:31:21
2	Sr 421.552†	46.2	43.9	0.3191	ug/L	0.3191	ppb	18:31:21
2	Sc 361.383	795327.1	795327.1	103.57	%			18:32:38
2	Y 371.029	713569.6	713569.6	103.56	%			18:32:38
2	Ag 328.068†	279.5	14.2	0.0567	ug/L	0.0567	ppb	18:32:38
2	As 188.979†	-32.2	-6.1	-2.7120	ug/L	-2.7120	ppb	18:32:58
2	B 249.677†	-367.2	98.9	2.4781	ug/L	2.4781	ppb	18:32:58
2	Ba 233.527†	-15.2	-17.1	-0.2022	ug/L	-0.2022	ppb	18:32:58
2	Be 313.107†	-9662.9	-347.5	-0.1379	ug/L	-0.1379	ppb	18:32:38
2	Cd 226.502†	-204.3	-10.6	-0.1461	ug/L	-0.1461	ppb	18:32:58
2	Co 228.616†	-50.7	8.5	0.2568	ug/L	0.2568	ppb	18:32:58
2	Cr 267.716†	56.7	-20.8	-0.2903	ug/L	-0.2903	ppb	18:32:58
2	Cu 324.752†	7818.8	13.4	0.0412	ug/L	0.0412	ppb	18:32:38
2	Mn 257.610†	478.8	1.2	0.0011	ug/L	0.0011	ppb	18:32:58
2	Mo 202.031†	15.8	0.8	0.0763	ug/L	0.0763	ppb	18:32:58
2	Ni 231.604†	85.9	-18.3	-0.5867	ug/L	-0.5867	ppb	18:32:58

2	P 214.914†	218.1	15.3	8.5297	ug/L	8.5297 ppb	18:32:58
2	Pb 220.353†	-68.7	4.3	0.7031	ug/L	0.7031 ppb	18:32:58
2	S 181.975 Axial†	42.1	-1.9	-2.4610	ug/L	-2.4610 ppb	18:32:58
2	Sb 206.836†	45.5	13.9	5.6604	ug/L	5.6604 ppb	18:32:58
2	Se 196.026†	-14.8	5.5	3.3627	ug/L	3.3627 ppb	18:32:58
2	Si 251.611†	587.9	-21.6	-0.7886	ug/L	-0.7886 ppb	18:32:58
2	Sn 189.927†	9.6	1.2	0.2849	ug/L	0.2849 ppb	18:32:58
2	Ti 334.940†	-1283.0	62.3	0.1189	ug/L	0.1189 ppb	18:32:38
2	Tl 190.801†	-31.3	1.0	0.4576	ug/L	0.4576 ppb	18:32:58
2	U 409.014†	-2176.2	435.6	14.588	ug/L	14.588 ppb	18:32:38
2	V 292.402†	-1669.8	15.7	0.1562	ug/L	0.1562 ppb	18:32:38
2	Zn 213.857†	742.4	6.5	0.0779	ug/L	0.0779 ppb	18:32:58
2	SiO2†	616.5	-1.2	-0.0935	ug/L	-0.0935 ppb	18:33:34
3	Sc Radial	5011.8	5011.8	106	%		18:31:46
3	Y RADIAL	5336.2	5336.2	107.0	%		18:31:46
3	Al 396.153Radial†	-82.3	9.8	9.1879	ug/L	9.1879 ppb	18:32:06
3	Ca 317.933Radial†	20.9	-2.6	-4.6623	ug/L	-4.6623 ppb	18:32:06
3	Fe 238.204 Radial†	7.9	0.1	0.9742	ug/L	0.9742 ppb	18:32:06
3	K 766.490 Radial†	2342.9	-61.4	-12.245	ug/L	-12.245 ppb	18:31:46
3	Mg 279.077 IEC†	1.7	-1.3	-49.688	ug/L	-49.688 ppb	18:32:06
3	Na 589.592 Radial†	-703.1	187.5	63.913	ug/L	63.913 ppb	18:31:46
3	Sr 421.552†	-13.7	-12.3	-0.0897	ug/L	-0.0897 ppb	18:31:46
3	Sc 361.383	789366.6	789366.6	102.79	%		18:33:04
3	Y 371.029	706943.5	706943.5	102.60	%		18:33:04
3	Ag 328.068†	230.9	-31.1	-0.1614	ug/L	-0.1614 ppb	18:33:04
3	As 188.979†	-33.3	-7.4	-3.2919	ug/L	-3.2919 ppb	18:33:24
3	B 249.677†	-389.2	74.8	1.8740	ug/L	1.8740 ppb	18:33:24
3	Ba 233.527†	-0.7	-3.1	-0.0350	ug/L	-0.0350 ppb	18:33:24
3	Be 313.107†	-9606.4	-363.0	-0.1435	ug/L	-0.1435 ppb	18:33:04
3	Cd 226.502†	-195.7	-3.8	-0.0534	ug/L	-0.0534 ppb	18:33:24
3	Co 228.616†	-69.2	-9.8	-0.2984	ug/L	-0.2984 ppb	18:33:24
3	Cr 267.716†	50.5	-26.5	-0.3629	ug/L	-0.3629 ppb	18:33:24
3	Cu 324.752†	7632.8	-110.6	-0.4167	ug/L	-0.4167 ppb	18:33:04
3	Mn 257.610†	473.6	-0.4	0.0015	ug/L	0.0015 ppb	18:33:24
3	Mo 202.031†	8.8	-5.9	-0.5372	ug/L	-0.5372 ppb	18:33:24
3	Ni 231.604†	72.6	-30.7	-0.9812	ug/L	-0.9812 ppb	18:33:24
3	P 214.914†	219.1	17.8	10.011	ug/L	10.011 ppb	18:33:24
3	Pb 220.353†	-70.9	1.7	0.2812	ug/L	0.2812 ppb	18:33:24
3	S 181.975 Axial†	38.6	-4.9	-6.3870	ug/L	-6.3870 ppb	18:33:24
3	Sb 206.836†	44.3	13.0	5.2909	ug/L	5.2909 ppb	18:33:24
3	Se 196.026†	-24.5	-4.1	-2.4900	ug/L	-2.4900 ppb	18:33:24
3	Si 251.611†	568.5	-36.2	-1.3137	ug/L	-1.3137 ppb	18:33:24
3	Sn 189.927†	11.5	3.1	0.7308	ug/L	0.7308 ppb	18:33:24
3	Ti 334.940†	-1153.0	179.4	0.3629	ug/L	0.3629 ppb	18:33:04
3	Tl 190.801†	-30.5	1.6	0.7264	ug/L	0.7264 ppb	18:33:24
3	U 409.014†	-2460.6	143.0	4.7888	ug/L	4.7888 ppb	18:33:04
3	V 292.402†	-1612.8	59.0	0.4698	ug/L	0.4698 ppb	18:33:04
3	Zn 213.857†	750.5	19.8	0.2251	ug/L	0.2251 ppb	18:33:24
3	SiO2†	611.8	-1.3	-0.0849	ug/L	-0.0849 ppb	18:33:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	795928.4	103.64	%	0.896				0.86%
Sc Radial	5004.4	106	%	0.3				0.26%
Y 371.029	713594.7	103.56	%	0.967				0.93%
Y RADIAL	5294.1	106.2	%	0.73				0.69%
Ag 328.068†	-32.4	-0.1784	ug/L	0.24396	-0.1784	ppb	0.24396	136.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.0	4.6965	ug/L	6.35290	4.6965	ppb	6.35290	135.27%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-6.5	-2.8773	ug/L	0.36156	-2.8773	ppb	0.36156	12.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	98.6	2.4713	ug/L	0.59386	2.4713	ppb	0.59386	24.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.2	-0.0855	ug/L	0.10134	-0.0855	ppb	0.10134	118.48%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-297.7	-0.1178	ug/L	0.03966	-0.1178	ppb	0.03966	33.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.3	-7.8585	ug/L	3.91062	-7.8585	ppb	3.91062	49.76%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -0.8     -0.0079 ug/L       0.16563     -0.0079 ppb        0.16563 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -3.9     -0.1200 ug/L       0.32647     -0.1200 ppb        0.32647 271.98%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -21.8     -0.3022 ug/L       0.05565     -0.3022 ppb        0.05565  18.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -72.3     -0.2772 ug/L       0.27641     -0.2772 ppb        0.27641  99.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.2     -12.424 ug/L       12.0445     -12.424 ppb        12.0445  96.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -89.8     -17.891 ug/L       12.7193     -17.891 ppb        12.7193  71.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -29.388 ug/L       17.6418     -29.388 ppb        17.6418  60.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -11.2     -0.0179 ug/L       0.03333     -0.0179 ppb        0.03333 185.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -2.9     -0.2675 ug/L       0.31342     -0.2675 ppb        0.31342 117.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      178.9      60.970 ug/L        3.2377      60.970 ppb         3.2377   5.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -22.1     -0.7079 ug/L       0.23720     -0.7079 ppb        0.23720  33.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               15.2      8.5318 ug/L       1.47805      8.5318 ppb        1.47805  17.32%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.6      1.5494 ug/L       1.84324      1.5494 ppb        1.84324 118.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -4.2     -5.5102 ug/L       2.71890     -5.5102 ppb        2.71890  49.34%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               8.8      3.5527 ug/L       3.33575      3.5527 ppb        3.33575  93.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.5      0.3066 ug/L       2.93493      0.3066 ppb        2.93493 957.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -37.0     -1.3473 ug/L       0.57615     -1.3473 ppb        0.57615  42.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.0      0.4585 ug/L       0.23876      0.4585 ppb        0.23876  52.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.7      0.1941 ug/L       0.24635      0.1941 ppb        0.24635 126.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             109.1      0.2165 ug/L       0.12906      0.2165 ppb        0.12906  59.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.6      0.2638 ug/L       0.58418      0.2638 ppb        0.58418 221.48%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              317.7      10.642 ug/L        5.1702      10.642 ppb         5.1702  48.58%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               21.8      0.1916 ug/L       0.26230      0.1916 ppb        0.26230 136.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               7.5      0.0893 ug/L       0.13049      0.0893 ppb        0.13049 146.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -25.9     -2.0090 ug/L       3.32516     -2.0090 ppb        3.32516 165.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/1/2010 19:43:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5258.2	5258.2	112	%			19:45:36
1	Y RADIAL	5514.4	5514.4	110.6	%			19:45:36
1	Al 396.153Radial†	5435.5	4952.4	4608.5	ug/L	4608.5	ppb	19:45:36
1	Ca 317.933Radial†	2936.2	2606.1	4735.1	ug/L	4735.1	ppb	19:45:56
1	Fe 238.204 Radial†	521.8	459.7	4785.1	ug/L	4785.1	ppb	19:45:56
1	K 766.490 Radial†	28379.1	23140.4	4600.6	ug/L	4600.6	ppb	19:45:36
1	Mg 279.077 IEC†	140.5	122.8	4877.6	ug/L	4877.6	ppb	19:45:56
1	Na 589.592 Radial†	28372.3	26243.7	8943.8	ug/L	8943.8	ppb	19:45:36
1	Sr 421.552†	70270.1	62899.0	457.35	ug/L	457.35	ppb	19:45:36
1	Sc 361.383	817652.6	817652.6	106.47	%			19:46:53
1	Y 371.029	721883.8	721883.8	104.77	%			19:46:53
1	Ag 328.068†	103478.5	96931.2	501.38	ug/L	501.38	ppb	19:46:58
1	As 188.979†	1172.1	1125.8	506.06	ug/L	506.06	ppb	19:47:19
1	B 249.677†	20544.9	19749.2	492.30	ug/L	492.30	ppb	19:46:58
1	Ba 233.527†	45582.3	42808.5	506.38	ug/L	506.38	ppb	19:46:58
1	Be 313.107†	1314161.5	1243242.5	495.31	ug/L	495.31	ppb	19:46:53
1	Cd 226.502†	37664.0	35560.6	504.05	ug/L	504.05	ppb	19:46:58
1	Co 228.616†	18103.7	17060.5	515.67	ug/L	515.67	ppb	19:46:58
1	Cr 267.716†	39068.3	36617.3	500.86	ug/L	500.86	ppb	19:46:58
1	Cu 324.752†	150882.8	134172.9	502.37	ug/L	502.37	ppb	19:46:58
1	Mn 257.610†	335325.6	314476.5	503.63	ug/L	503.63	ppb	19:46:58
1	Mo 202.031†	5770.2	5405.0	496.45	ug/L	496.45	ppb	19:47:19
1	Ni 231.604†	17103.1	15961.9	509.94	ug/L	509.94	ppb	19:46:58
1	P 214.914†	4959.7	4462.8	2394.2	ug/L	2394.2	ppb	19:47:19
1	Pb 220.353†	3216.1	3091.3	500.23	ug/L	500.23	ppb	19:47:19
1	S 181.975 Axial†	857.4	762.8	988.10	ug/L	988.10	ppb	19:47:19
1	Sb 206.836†	1358.4	1245.8	523.27	ug/L	523.27	ppb	19:47:19
1	Se 196.026†	862.0	829.4	520.60	ug/L	520.60	ppb	19:47:19
1	Si 251.611†	74456.8	69340.6	2524.2	ug/L	2524.2	ppb	19:46:58
1	Sn 189.927†	2248.9	2104.1	496.08	ug/L	496.08	ppb	19:47:19
1	Ti 334.940†	263621.9	248894.6	501.36	ug/L	501.36	ppb	19:46:58
1	Tl 190.801†	1107.5	1071.4	495.35	ug/L	495.35	ppb	19:47:19
1	U 409.014†	13605.2	15314.8	511.16	ug/L	511.16	ppb	19:46:58
1	V 292.402†	65218.1	62880.8	507.42	ug/L	507.42	ppb	19:46:58
1	Zn 213.857†	49333.3	45623.5	498.52	ug/L	498.52	ppb	19:46:58
1	SiO2†	73401.9	68342.6	5310.5	ug/L	5310.5	ppb	19:48:26
2	Sc Radial	4926.1	4926.1	105	%			19:46:01
2	Y RADIAL	5155.6	5155.6	103.4	%			19:46:01
2	Al 396.153Radial†	5543.0	5383.1	5011.5	ug/L	5011.5	ppb	19:46:01
2	Ca 317.933Radial†	2964.8	2810.6	5106.7	ug/L	5106.7	ppb	19:46:21
2	Fe 238.204 Radial†	523.5	492.9	5128.7	ug/L	5128.7	ppb	19:46:21
2	K 766.490 Radial†	28687.4	25147.4	4999.7	ug/L	4999.7	ppb	19:46:01
2	Mg 279.077 IEC†	136.5	127.5	5062.4	ug/L	5062.4	ppb	19:46:21
2	Na 589.592 Radial†	28800.7	28365.1	9666.8	ug/L	9666.8	ppb	19:46:01
2	Sr 421.552†	71499.3	68313.8	496.72	ug/L	496.72	ppb	19:46:01
2	Sc 361.383	816523.1	816523.1	106.33	%			19:47:24
2	Y 371.029	722213.5	722213.5	104.82	%			19:47:24
2	Ag 328.068†	102668.6	96304.0	498.25	ug/L	498.25	ppb	19:47:29
2	As 188.979†	1164.7	1120.4	503.66	ug/L	503.66	ppb	19:47:49
2	B 249.677†	20444.4	19681.3	490.57	ug/L	490.57	ppb	19:47:29
2	Ba 233.527†	44900.5	42226.4	499.52	ug/L	499.52	ppb	19:47:29
2	Be 313.107†	1315474.0	1246184.3	496.46	ug/L	496.46	ppb	19:47:24
2	Cd 226.502†	37176.3	35150.9	498.20	ug/L	498.20	ppb	19:47:29
2	Co 228.616†	17843.0	16838.8	508.97	ug/L	508.97	ppb	19:47:29
2	Cr 267.716†	38682.8	36305.5	496.60	ug/L	496.60	ppb	19:47:29
2	Cu 324.752†	149352.6	132929.8	497.74	ug/L	497.74	ppb	19:47:29
2	Mn 257.610†	331022.1	310864.7	497.88	ug/L	497.88	ppb	19:47:29
2	Mo 202.031†	5747.8	5391.4	495.24	ug/L	495.24	ppb	19:47:49
2	Ni 231.604†	16908.3	15800.9	504.80	ug/L	504.80	ppb	19:47:29

2	P 214.914†	4942.3	4452.9	2389.4 ug/L	2389.4 ppb	19:47:49
2	Pb 220.353†	3176.1	3057.8	494.90 ug/L	494.90 ppb	19:47:49
2	S 181.975 Axial†	862.2	768.4	995.34 ug/L	995.34 ppb	19:47:49
2	Sb 206.836†	1352.9	1242.4	521.80 ug/L	521.80 ppb	19:47:49
2	Se 196.026†	848.6	817.9	514.38 ug/L	514.38 ppb	19:47:49
2	Si 251.611†	73523.1	68559.2	2495.7 ug/L	2495.7 ppb	19:47:29
2	Sn 189.927†	2234.7	2093.6	493.65 ug/L	493.65 ppb	19:47:49
2	Ti 334.940†	260600.8	246395.8	496.36 ug/L	496.36 ppb	19:47:29
2	Tl 190.801†	1102.4	1068.0	493.78 ug/L	493.78 ppb	19:47:49
2	U 409.014†	13333.6	15077.0	503.17 ug/L	503.17 ppb	19:47:29
2	V 292.402†	64677.2	62456.8	503.97 ug/L	503.97 ppb	19:47:29
2	Zn 213.857†	48777.2	45164.6	493.44 ug/L	493.44 ppb	19:47:29
2	SiO2†	74238.1	69224.4	5379.2 ug/L	5379.2 ppb	19:48:31
3	Sc Radial	4932.9	4932.9	105 %		19:46:26
3	Y RADIAL	5206.7	5206.7	104.4 %		19:46:26
3	Al 396.153Radial†	5571.6	5403.2	5030.3 ug/L	5030.3 ppb	19:46:26
3	Ca 317.933Radial†	2983.5	2824.5	5132.0 ug/L	5132.0 ppb	19:46:46
3	Fe 238.204 Radial†	526.7	495.2	5152.9 ug/L	5152.9 ppb	19:46:46
3	K 766.490 Radial†	28953.3	25363.6	5042.7 ug/L	5042.7 ppb	19:46:26
3	Mg 279.077 IEC†	138.5	129.3	5131.9 ug/L	5131.9 ppb	19:46:46
3	Na 589.592 Radial†	29149.8	28660.6	9767.5 ug/L	9767.5 ppb	19:46:26
3	Sr 421.552†	71956.2	68656.1	499.21 ug/L	499.21 ppb	19:46:26
3	Sc 361.383	822719.6	822719.6	107.13 %		19:47:55
3	Y 371.029	727811.7	727811.7	105.63 %		19:47:55
3	Ag 328.068†	104367.2	97162.3	502.68 ug/L	502.68 ppb	19:48:00
3	As 188.979†	1159.1	1106.9	497.73 ug/L	497.73 ppb	19:48:20
3	B 249.677†	20967.5	20024.8	499.15 ug/L	499.15 ppb	19:48:00
3	Ba 233.527†	45808.6	42756.0	505.78 ug/L	505.78 ppb	19:48:00
3	Be 313.107†	1322789.4	1243694.3	495.49 ug/L	495.49 ppb	19:47:55
3	Cd 226.502†	37922.9	35584.5	504.35 ug/L	504.35 ppb	19:48:00
3	Co 228.616†	18192.8	17038.9	515.00 ug/L	515.00 ppb	19:48:00
3	Cr 267.716†	39421.2	36720.7	502.28 ug/L	502.28 ppb	19:48:00
3	Cu 324.752†	152244.7	134571.4	503.88 ug/L	503.88 ppb	19:48:00
3	Mn 257.610†	337419.7	314491.5	503.68 ug/L	503.68 ppb	19:48:00
3	Mo 202.031†	5785.6	5386.0	494.74 ug/L	494.74 ppb	19:48:20
3	Ni 231.604†	17189.0	15943.1	509.34 ug/L	509.34 ppb	19:48:00
3	P 214.914†	4971.5	4445.1	2383.8 ug/L	2383.8 ppb	19:48:20
3	Pb 220.353†	3223.6	3079.7	498.43 ug/L	498.43 ppb	19:48:20
3	S 181.975 Axial†	855.6	756.1	979.43 ug/L	979.43 ppb	19:48:20
3	Sb 206.836†	1358.2	1237.8	519.88 ug/L	519.88 ppb	19:48:20
3	Se 196.026†	869.2	831.2	522.54 ug/L	522.54 ppb	19:48:20
3	Si 251.611†	74951.6	69371.7	2525.3 ug/L	2525.3 ppb	19:48:00
3	Sn 189.927†	2237.7	2080.6	490.59 ug/L	490.59 ppb	19:48:20
3	Ti 334.940†	265417.9	249046.1	501.70 ug/L	501.70 ppb	19:48:00
3	Tl 190.801†	1127.0	1083.2	500.78 ug/L	500.78 ppb	19:48:20
3	U 409.014†	13613.7	15244.1	508.75 ug/L	508.75 ppb	19:48:00
3	V 292.402†	65707.5	62960.4	507.97 ug/L	507.97 ppb	19:48:00
3	Zn 213.857†	49570.0	45559.1	497.75 ug/L	497.75 ppb	19:48:00
3	SiO2†	73615.7	68117.5	5293.0 ug/L	5293.0 ppb	19:48:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818965.1	106.64	%	0.430				0.40%
Sc Radial	5039.1	107	%	4.0				3.77%
Y 371.029	723969.7	105.07	%	0.483				0.46%
Y RADIAL	5292.2	106.2	%	3.89				3.67%
Ag 328.068†	96799.2	500.77	ug/L	2.278	500.77	ppb	2.278	0.45%
QC value within limits for Ag 328.068 Recovery = 100.15%								
Al 396.153Radial†	5246.2	4883.4	ug/L	238.27	4883.4	ppb	238.27	4.88%
QC value within limits for Al 396.153Radial Recovery = 97.67%								
As 188.979†	1117.7	502.48	ug/L	4.289	502.48	ppb	4.289	0.85%
QC value within limits for As 188.979 Recovery = 100.50%								
B 249.677†	19818.5	494.01	ug/L	4.537	494.01	ppb	4.537	0.92%
QC value within limits for B 249.677 Recovery = 98.80%								
Ba 233.527†	42597.0	503.89	ug/L	3.801	503.89	ppb	3.801	0.75%
QC value within limits for Ba 233.527 Recovery = 100.78%								
Be 313.107†	1244373.7	495.75	ug/L	0.623	495.75	ppb	0.623	0.13%
QC value within limits for Be 313.107 Recovery = 99.15%								
Ca 317.933Radial†	2747.0	4991.2	ug/L	222.21	4991.2	ppb	222.21	4.45%

QC value within limits for Ca 317.933Radial Recovery = 99.82%

Cd 226.502†	35432.0	502.20 ug/L	3.467	502.20 ppb	3.467	0.69%
QC value within limits for Cd 226.502 Recovery = 100.44%						
Co 228.616†	16979.4	513.21 ug/L	3.691	513.21 ppb	3.691	0.72%
QC value within limits for Co 228.616 Recovery = 102.64%						
Cr 267.716†	36547.8	499.91 ug/L	2.954	499.91 ppb	2.954	0.59%
QC value within limits for Cr 267.716 Recovery = 99.98%						
Cu 324.752†	133891.3	501.33 ug/L	3.202	501.33 ppb	3.202	0.64%
QC value within limits for Cu 324.752 Recovery = 100.27%						
Fe 238.204 Radial†	482.6	5022.2 ug/L	205.73	5022.2 ppb	205.73	4.10%
QC value within limits for Fe 238.204 Radial Recovery = 100.44%						
K 766.490 Radial†	24550.5	4881.0 ug/L	243.79	4881.0 ppb	243.79	4.99%
QC value within limits for K 766.490 Radial Recovery = 97.62%						
Mg 279.077 IEC†	126.5	5024.0 ug/L	131.45	5024.0 ppb	131.45	2.62%
QC value within limits for Mg 279.077 IEC Recovery = 100.48%						
Mn 257.610†	313277.6	501.73 ug/L	3.337	501.73 ppb	3.337	0.67%
QC value within limits for Mn 257.610 Recovery = 100.35%						
Mo 202.031†	5394.1	495.48 ug/L	0.880	495.48 ppb	0.880	0.18%
QC value within limits for Mo 202.031 Recovery = 99.10%						
Na 589.592 Radial†	27756.5	9459.4 ug/L	449.31	9459.4 ppb	449.31	4.75%
QC value within limits for Na 589.592 Radial Recovery = 94.59%						
Ni 231.604†	15902.0	508.03 ug/L	2.811	508.03 ppb	2.811	0.55%
QC value within limits for Ni 231.604 Recovery = 101.61%						
P 214.914†	4453.6	2389.1 ug/L	5.22	2389.1 ppb	5.22	0.22%
QC value within limits for P 214.914 Recovery = 95.57%						
Pb 220.353†	3076.3	497.85 ug/L	2.711	497.85 ppb	2.711	0.54%
QC value within limits for Pb 220.353 Recovery = 99.57%						
S 181.975 Axial†	762.4	987.62 ug/L	7.965	987.62 ppb	7.965	0.81%
QC value within limits for S 181.975 Axial Recovery = 98.76%						
Sb 206.836†	1242.0	521.65 ug/L	1.702	521.65 ppb	1.702	0.33%
QC value within limits for Sb 206.836 Recovery = 104.33%						
Se 196.026†	826.2	519.17 ug/L	4.260	519.17 ppb	4.260	0.82%
QC value within limits for Se 196.026 Recovery = 103.83%						
Si 251.611†	69090.5	2515.1 ug/L	16.80	2515.1 ppb	16.80	0.67%
QC value within limits for Si 251.611 Recovery = 100.60%						
Sn 189.927†	2092.8	493.44 ug/L	2.750	493.44 ppb	2.750	0.56%
QC value within limits for Sn 189.927 Recovery = 98.69%						
Sr 421.552†	66623.0	484.43 ug/L	23.483	484.43 ppb	23.483	4.85%
QC value within limits for Sr 421.552 Recovery = 96.89%						
Ti 334.940†	248112.2	499.80 ug/L	2.987	499.80 ppb	2.987	0.60%
QC value within limits for Ti 334.940 Recovery = 99.96%						
Tl 190.801†	1074.2	496.64 ug/L	3.672	496.64 ppb	3.672	0.74%
QC value within limits for Tl 190.801 Recovery = 99.33%						
U 409.014†	15211.9	507.69 ug/L	4.099	507.69 ppb	4.099	0.81%
QC value within limits for U 409.014 Recovery = 101.54%						
V 292.402†	62766.0	506.45 ug/L	2.169	506.45 ppb	2.169	0.43%
QC value within limits for V 292.402 Recovery = 101.29%						
Zn 213.857†	45449.1	496.57 ug/L	2.735	496.57 ppb	2.735	0.55%
QC value within limits for Zn 213.857 Recovery = 99.31%						
SiO2†	68561.5	5327.6 ug/L	45.57	5327.6 ppb	45.57	0.86%
QC value within limits for SiO2 Recovery = 99.63%						

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 19:50:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5098.3	5098.3	108	%			19:52:37
1	Y RADIAL	5360.2	5360.2	107.5	%			19:52:37
1	Al 396.153Radial†	-95.5	-1.1	-1.0300	ug/L	-1.0300	ppb	19:52:57
1	Ca 317.933Radial†	27.7	3.4	6.2222	ug/L	6.2222	ppb	19:52:57
1	Fe 238.204 Radial†	8.8	0.8	8.6908	ug/L	8.6908	ppb	19:52:57
1	K 766.490 Radial†	2225.7	-206.9	-41.212	ug/L	-41.212	ppb	19:52:37
1	Mg 279.077 IEC†	-0.9	-3.7	-146.90	ug/L	-146.90	ppb	19:52:57
1	Na 589.592 Radial†	-724.1	179.3	61.116	ug/L	61.116	ppb	19:52:37
1	Sr 421.552†	10.3	10.0	0.0727	ug/L	0.0727	ppb	19:52:37
1	Sc 361.383	809198.9	809198.9	105.37	%			19:53:54
1	Y 371.029	726387.2	726387.2	105.42	%			19:53:54
1	Ag 328.068†	232.7	-34.8	-0.1837	ug/L	-0.1837	ppb	19:53:54
1	As 188.979†	-33.6	-6.9	-3.0745	ug/L	-3.0745	ppb	19:54:14
1	B 249.677†	-275.8	191.7	4.8001	ug/L	4.8001	ppb	19:54:14
1	Ba 233.527†	4.3	1.7	0.0216	ug/L	0.0216	ppb	19:54:14
1	Be 313.107†	-9677.4	-201.3	-0.0793	ug/L	-0.0793	ppb	19:53:54
1	Cd 226.502†	-190.7	5.7	0.0814	ug/L	0.0814	ppb	19:54:14
1	Co 228.616†	-72.8	-11.7	-0.3519	ug/L	-0.3519	ppb	19:54:14
1	Cr 267.716†	52.9	-25.4	-0.3513	ug/L	-0.3513	ppb	19:54:14
1	Cu 324.752†	7861.9	-75.1	-0.2876	ug/L	-0.2876	ppb	19:53:54
1	Mn 257.610†	430.3	-52.8	-0.0776	ug/L	-0.0776	ppb	19:54:14
1	Mo 202.031†	21.6	6.1	0.5640	ug/L	0.5640	ppb	19:54:14
1	Ni 231.604†	92.2	-13.9	-0.4433	ug/L	-0.4433	ppb	19:54:14
1	P 214.914†	209.9	3.8	2.1760	ug/L	2.1760	ppb	19:54:14
1	Pb 220.353†	-72.1	2.2	0.3603	ug/L	0.3603	ppb	19:54:14
1	S 181.975 Axial†	43.6	-1.1	-1.4395	ug/L	-1.4395	ppb	19:54:14
1	Sb 206.836†	32.2	0.5	0.2111	ug/L	0.2111	ppb	19:54:14
1	Se 196.026†	-21.6	-0.7	-0.3977	ug/L	-0.3977	ppb	19:54:14
1	Si 251.611†	566.3	-51.8	-1.8977	ug/L	-1.8977	ppb	19:54:14
1	Sn 189.927†	5.6	-2.7	-0.6469	ug/L	-0.6469	ppb	19:54:14
1	Ti 334.940†	-1204.4	158.0	0.3260	ug/L	0.3260	ppb	19:53:54
1	Tl 190.801†	-37.1	-4.0	-1.8469	ug/L	-1.8469	ppb	19:54:14
1	U 409.014†	-2287.4	366.0	12.256	ug/L	12.256	ppb	19:53:54
1	V 292.402†	-1625.4	85.5	0.7079	ug/L	0.7079	ppb	19:53:54
1	Zn 213.857†	774.2	24.5	0.2716	ug/L	0.2716	ppb	19:54:14
1	SiO2†	565.2	-60.1	-4.6949	ug/L	-4.6949	ppb	19:55:10
2	Sc Radial	5013.8	5013.8	107	%			19:53:02
2	Y RADIAL	5282.8	5282.8	106.0	%			19:53:02
2	Al 396.153Radial†	-84.6	7.7	7.2409	ug/L	7.2409	ppb	19:53:22
2	Ca 317.933Radial†	17.7	-5.5	-10.026	ug/L	-10.026	ppb	19:53:22
2	Fe 238.204 Radial†	5.9	-1.7	-18.125	ug/L	-18.125	ppb	19:53:22
2	K 766.490 Radial†	2367.3	-39.4	-7.8501	ug/L	-7.8501	ppb	19:53:02
2	Mg 279.077 IEC†	-1.8	-4.6	-181.52	ug/L	-181.52	ppb	19:53:22
2	Na 589.592 Radial†	-745.7	147.8	50.373	ug/L	50.373	ppb	19:53:02
2	Sr 421.552†	5.2	5.4	0.0391	ug/L	0.0391	ppb	19:53:02
2	Sc 361.383	811656.1	811656.1	105.69	%			19:54:19
2	Y 371.029	728765.3	728765.3	105.77	%			19:54:19
2	Ag 328.068†	225.8	-42.0	-0.2247	ug/L	-0.2247	ppb	19:54:19
2	As 188.979†	-19.3	6.7	2.9993	ug/L	2.9993	ppb	19:54:39
2	B 249.677†	-320.1	150.6	3.7740	ug/L	3.7740	ppb	19:54:39
2	Ba 233.527†	4.3	1.7	0.0208	ug/L	0.0208	ppb	19:54:39
2	Be 313.107†	-9604.9	-104.9	-0.0413	ug/L	-0.0413	ppb	19:54:19
2	Cd 226.502†	-193.1	3.9	0.0587	ug/L	0.0587	ppb	19:54:39
2	Co 228.616†	-60.1	0.6	0.0196	ug/L	0.0196	ppb	19:54:39
2	Cr 267.716†	72.3	-7.2	-0.1004	ug/L	-0.1004	ppb	19:54:39
2	Cu 324.752†	7858.3	-101.1	-0.3833	ug/L	-0.3833	ppb	19:54:19
2	Mn 257.610†	434.4	-50.1	-0.0746	ug/L	-0.0746	ppb	19:54:39
2	Mo 202.031†	15.5	0.3	0.0282	ug/L	0.0282	ppb	19:54:39
2	Ni 231.604†	80.4	-25.2	-0.8067	ug/L	-0.8067	ppb	19:54:39

2	P 214.914†	200.8	-5.4	-2.9387 ug/L	-2.9387 ppb	19:54:39
2	Pb 220.353†	-71.0	3.5	0.5747 ug/L	0.5747 ppb	19:54:39
2	S 181.975 Axial†	47.9	2.8	3.5836 ug/L	3.5836 ppb	19:54:39
2	Sb 206.836†	33.4	1.5	0.6259 ug/L	0.6259 ppb	19:54:39
2	Se 196.026†	-15.9	4.7	2.8543 ug/L	2.8543 ppb	19:54:39
2	Si 251.611†	549.9	-68.9	-2.5159 ug/L	-2.5159 ppb	19:54:39
2	Sn 189.927†	9.6	1.0	0.2389 ug/L	0.2389 ppb	19:54:39
2	Ti 334.940†	-1286.2	84.1	0.1799 ug/L	0.1799 ppb	19:54:19
2	Tl 190.801†	-29.3	3.5	1.5886 ug/L	1.5886 ppb	19:54:39
2	U 409.014†	-2462.8	206.7	6.9222 ug/L	6.9222 ppb	19:54:19
2	V 292.402†	-1644.9	71.7	0.5835 ug/L	0.5835 ppb	19:54:19
2	Zn 213.857†	750.7	0.0	0.0086 ug/L	0.0086 ppb	19:54:39
2	SiO2†	585.8	-42.2	-3.2855 ug/L	-3.2855 ppb	19:55:15
3	Sc Radial	4969.6	4969.6	106 %		19:53:27
3	Y RADIAL	5232.0	5232.0	104.9 %		19:53:27
3	Al 396.153Radial†	-79.7	11.7	10.912 ug/L	10.912 ppb	19:53:47
3	Ca 317.933Radial†	19.5	-3.7	-6.6605 ug/L	-6.6605 ppb	19:53:47
3	Fe 238.204 Radial†	8.7	0.9	9.7216 ug/L	9.7216 ppb	19:53:47
3	K 766.490 Radial†	2313.3	-70.8	-14.101 ug/L	-14.101 ppb	19:53:27
3	Mg 279.077 IEC†	1.6	-1.4	-54.255 ug/L	-54.255 ppb	19:53:47
3	Na 589.592 Radial†	-763.6	124.6	42.468 ug/L	42.468 ppb	19:53:27
3	Sr 421.552†	-5.1	-4.4	-0.0318 ug/L	-0.0318 ppb	19:53:27
3	Sc 361.383	817019.0	817019.0	106.39 %		19:54:44
3	Y 371.029	735068.1	735068.1	106.68 %		19:54:44
3	Ag 328.068†	215.7	-53.0	-0.2734 ug/L	-0.2734 ppb	19:54:44
3	As 188.979†	-35.3	-8.2	-3.6355 ug/L	-3.6355 ppb	19:55:05
3	B 249.677†	-317.1	155.4	3.8897 ug/L	3.8897 ppb	19:55:05
3	Ba 233.527†	-2.5	-4.8	-0.0543 ug/L	-0.0543 ppb	19:55:05
3	Be 313.107†	-9648.7	-86.4	-0.0336 ug/L	-0.0336 ppb	19:54:44
3	Cd 226.502†	-199.1	-0.5	-0.0059 ug/L	-0.0059 ppb	19:55:05
3	Co 228.616†	-59.4	1.6	0.0484 ug/L	0.0484 ppb	19:55:05
3	Cr 267.716†	68.1	-11.6	-0.1613 ug/L	-0.1613 ppb	19:55:05
3	Cu 324.752†	7896.2	-114.3	-0.4326 ug/L	-0.4326 ppb	19:54:44
3	Mn 257.610†	472.2	-17.3	-0.0244 ug/L	-0.0244 ppb	19:55:05
3	Mo 202.031†	17.9	2.4	0.2234 ug/L	0.2234 ppb	19:55:05
3	Ni 231.604†	98.4	-8.8	-0.2818 ug/L	-0.2818 ppb	19:55:05
3	P 214.914†	204.2	-3.4	-1.8227 ug/L	-1.8227 ppb	19:55:05
3	Pb 220.353†	-62.0	12.4	2.0036 ug/L	2.0036 ppb	19:55:05
3	S 181.975 Axial†	51.2	5.7	7.3357 ug/L	7.3357 ppb	19:55:05
3	Sb 206.836†	45.6	12.8	5.2063 ug/L	5.2063 ppb	19:55:05
3	Se 196.026†	-23.5	-2.3	-1.3558 ug/L	-1.3558 ppb	19:55:05
3	Si 251.611†	557.1	-65.6	-2.3953 ug/L	-2.3953 ppb	19:55:05
3	Sn 189.927†	9.8	1.2	0.2744 ug/L	0.2744 ppb	19:55:05
3	Ti 334.940†	-1219.7	154.6	0.3111 ug/L	0.3111 ppb	19:54:44
3	Tl 190.801†	-31.5	1.6	0.7328 ug/L	0.7328 ppb	19:55:05
3	U 409.014†	-2400.1	280.9	9.4041 ug/L	9.4041 ppb	19:54:44
3	V 292.402†	-1616.3	108.8	0.8846 ug/L	0.8846 ppb	19:54:44
3	Zn 213.857†	741.5	-13.4	-0.1464 ug/L	-0.1464 ppb	19:55:05
3	SiO2†	575.6	-55.5	-4.3265 ug/L	-4.3265 ppb	19:55:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	812624.7	105.82	%	0.521				0.49%
Sc Radial	5027.2	107	%	1.4				1.30%
Y 371.029	730073.6	105.96	%	0.651				0.61%
Y RADIAL	5291.7	106.1	%	1.30				1.22%
Ag 328.068†	-43.3	-0.2273	ug/L	0.04494	-0.2273	ppb	0.04494	19.77%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.1	5.7077	ug/L	6.11690	5.7077	ppb	6.11690	107.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.2369	ug/L	3.67937	-1.2369	ppb	3.67937	297.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	165.9	4.1546	ug/L	0.56199	4.1546	ppb	0.56199	13.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.5	-0.0039	ug/L	0.04359	-0.0039	ppb	0.04359	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-130.9	-0.0514	ug/L	0.02444	-0.0514	ppb	0.02444	47.53%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-3.4880	ug/L	8.57595	-3.4880	ppb	8.57595	245.87%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.0      0.0447 ug/L       0.04530      0.0447 ppb        0.04530 101.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -3.1     -0.0946 ug/L       0.22324     -0.0946 ppb        0.22324 235.97%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.8     -0.2043 ug/L       0.13088     -0.2043 ppb        0.13088  64.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -96.8     -0.3678 ug/L       0.07371     -0.3678 ppb        0.07371  20.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.0959 ug/L      15.78781      0.0959 ppb       15.78781 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -105.7     -21.054 ug/L       17.7344     -21.054 ppb        17.7344  84.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -3.2     -127.56 ug/L        65.798     -127.56 ppb         65.798  51.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -40.0     -0.0589 ug/L       0.02986     -0.0589 ppb        0.02986  50.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.0      0.2719 ug/L       0.27119      0.2719 ppb        0.27119  99.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       150.6      51.319 ug/L        9.3597      51.319 ppb         9.3597  18.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -16.0     -0.5106 ug/L       0.26886     -0.5106 ppb        0.26886  52.65%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.7     -0.8618 ug/L       2.68930     -0.8618 ppb        2.68930 312.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.1      0.9796 ug/L       0.89334      0.9796 ppb        0.89334  91.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.4      3.1600 ug/L       4.40291      3.1600 ppb        4.40291 139.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.0      2.0144 ug/L       2.77201      2.0144 ppb        2.77201 137.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.6      0.3669 ug/L       2.20672      0.3669 ppb        2.20672 601.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -62.1     -2.2696 ug/L       0.32771     -2.2696 ppb        0.32771  14.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.2     -0.0445 ug/L       0.52199     -0.0445 ppb        0.52199 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                3.7      0.0267 ug/L       0.05336      0.0267 ppb        0.05336 199.94%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              132.3      0.2723 ug/L       0.08038      0.2723 ppb        0.08038  29.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.3      0.1582 ug/L       1.78842      0.1582 ppb        1.78842 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               284.5      9.5273 ug/L       2.66884      9.5273 ppb        2.66884  28.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                88.6      0.7253 ug/L       0.15129      0.7253 ppb        0.15129  20.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                3.7      0.0446 ug/L       0.21132      0.0446 ppb        0.21132 473.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -52.6     -4.1023 ug/L       0.73095     -4.1023 ppb        0.73095  17.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: 1202033898|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 3/1/2010 19:57:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033898|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5129.4	5129.4	109	%			19:59:23
1	Y RADIAL	5456.1	5456.1	109.4	%			19:59:23
1	Al 396.153Radial†	-71.7	21.3	19.958	ug/L	19.958	ppb	19:59:43
1	Ca 317.933Radial†	28.3	3.8	6.9885	ug/L	6.9885	ppb	19:59:43
1	Fe 238.204 Radial†	14.6	6.1	63.221	ug/L	63.221	ppb	19:59:43
1	K 766.490 Radial†	2302.3	-149.1	-29.703	ug/L	-29.703	ppb	19:59:23
1	Mg 279.077 IEC†	0.0	-2.9	-113.49	ug/L	-113.49	ppb	19:59:43
1	Na 589.592 Radial†	-684.9	219.4	74.769	ug/L	74.769	ppb	19:59:23
1	Sr 421.552†	44.7	41.5	0.3019	ug/L	0.3019	ppb	19:59:23
1	Sc 361.383	795983.9	795983.9	103.65	%			20:00:40
1	Y 371.029	712101.2	712101.2	103.35	%			20:00:40
1	Ag 328.068†	241.6	-22.6	-0.1049	ug/L	-0.1049	ppb	20:00:40
1	As 188.979†	-30.4	-4.3	-1.9138	ug/L	-1.9138	ppb	20:01:00
1	B 249.677†	-369.9	96.6	2.4092	ug/L	2.4092	ppb	20:01:00
1	Ba 233.527†	18.6	15.6	0.1873	ug/L	0.1873	ppb	20:01:00
1	Be 313.107†	-9561.7	-242.2	-0.0944	ug/L	-0.0944	ppb	20:00:40
1	Cd 226.502†	-178.3	14.6	0.2036	ug/L	0.2036	ppb	20:01:00
1	Co 228.616†	-74.6	-14.5	-0.4403	ug/L	-0.4403	ppb	20:01:00
1	Cr 267.716†	145.9	65.2	0.8873	ug/L	0.8873	ppb	20:01:00
1	Cu 324.752†	7735.4	-73.3	-0.2789	ug/L	-0.2789	ppb	20:00:40
1	Mn 257.610†	958.5	463.6	0.7529	ug/L	0.7529	ppb	20:01:00
1	Mo 202.031†	14.4	-0.5	-0.0423	ug/L	-0.0423	ppb	20:01:00
1	Ni 231.604†	98.8	-6.0	-0.1924	ug/L	-0.1924	ppb	20:01:00
1	P 214.914†	218.0	15.0	8.4036	ug/L	8.4036	ppb	20:01:00
1	Pb 220.353†	-56.4	16.3	2.6298	ug/L	2.6298	ppb	20:01:00
1	S 181.975 Axial†	41.7	-2.3	-2.9377	ug/L	-2.9377	ppb	20:01:00
1	Sb 206.836†	37.7	6.3	2.5985	ug/L	2.5985	ppb	20:01:00
1	Se 196.026†	-27.2	-6.4	-3.7863	ug/L	-3.7863	ppb	20:01:00
1	Si 251.611†	1176.1	545.5	19.905	ug/L	19.905	ppb	20:01:00
1	Sn 189.927†	20.2	11.4	2.6907	ug/L	2.6907	ppb	20:01:00
1	Ti 334.940†	-920.3	413.1	0.8363	ug/L	0.8363	ppb	20:00:40
1	Tl 190.801†	-28.9	3.4	1.5605	ug/L	1.5605	ppb	20:01:00
1	U 409.014†	-2202.7	411.7	13.776	ug/L	13.776	ppb	20:00:40
1	V 292.402†	-1580.1	103.5	0.8374	ug/L	0.8374	ppb	20:00:40
1	Zn 213.857†	785.1	47.1	0.5118	ug/L	0.5118	ppb	20:01:00
1	SiO2†	1238.3	598.2	46.604	ug/L	46.604	ppb	20:01:56
2	Sc Radial	5004.8	5004.8	106	%			19:59:48
2	Y RADIAL	5297.3	5297.3	106.3	%			19:59:48
2	Al 396.153Radial†	-79.6	12.3	11.465	ug/L	11.465	ppb	20:00:09
2	Ca 317.933Radial†	27.7	3.9	7.0699	ug/L	7.0699	ppb	20:00:09
2	Fe 238.204 Radial†	16.0	7.8	80.574	ug/L	80.574	ppb	20:00:09
2	K 766.490 Radial†	2303.6	-95.3	-18.995	ug/L	-18.995	ppb	19:59:48
2	Mg 279.077 IEC†	1.6	-1.4	-56.719	ug/L	-56.719	ppb	20:00:09
2	Na 589.592 Radial†	-661.4	225.8	76.965	ug/L	76.965	ppb	19:59:48
2	Sr 421.552†	38.0	36.2	0.2631	ug/L	0.2631	ppb	19:59:48
2	Sc 361.383	810643.8	810643.8	105.56	%			20:01:06
2	Y 371.029	727416.6	727416.6	105.57	%			20:01:06
2	Ag 328.068†	337.0	63.5	0.3436	ug/L	0.3436	ppb	20:01:06
2	As 188.979†	-33.9	-7.1	-3.1524	ug/L	-3.1524	ppb	20:01:26
2	B 249.677†	-338.5	132.8	3.3120	ug/L	3.3120	ppb	20:01:26
2	Ba 233.527†	17.1	13.8	0.1662	ug/L	0.1662	ppb	20:01:26
2	Be 313.107†	-9419.6	59.3	0.0255	ug/L	0.0255	ppb	20:01:06
2	Cd 226.502†	-189.0	7.6	0.1023	ug/L	0.1023	ppb	20:01:26
2	Co 228.616†	-57.4	3.1	0.0911	ug/L	0.0911	ppb	20:01:26
2	Cr 267.716†	114.6	32.9	0.4471	ug/L	0.4471	ppb	20:01:26
2	Cu 324.752†	7813.4	-134.3	-0.5054	ug/L	-0.5054	ppb	20:01:06
2	Mn 257.610†	958.1	446.5	0.7249	ug/L	0.7249	ppb	20:01:26
2	Mo 202.031†	18.7	3.3	0.3094	ug/L	0.3094	ppb	20:01:26
2	Ni 231.604†	109.7	2.6	0.0835	ug/L	0.0835	ppb	20:01:26

2	P 214.914†	212.5	6.0	3.3750 ug/L	3.3750 ppb	20:01:26
2	Pb 220.353†	-72.2	2.3	0.3644 ug/L	0.3644 ppb	20:01:26
2	S 181.975 Axial†	46.8	1.8	2.3242 ug/L	2.3242 ppb	20:01:26
2	Sb 206.836†	42.8	10.5	4.2801 ug/L	4.2801 ppb	20:01:26
2	Se 196.026†	-23.9	-2.8	-1.5448 ug/L	-1.5448 ppb	20:01:26
2	Si 251.611†	1201.1	548.6	20.014 ug/L	20.014 ppb	20:01:26
2	Sn 189.927†	9.9	1.3	0.3089 ug/L	0.3089 ppb	20:01:26
2	Ti 334.940†	-938.0	412.5	0.8312 ug/L	0.8312 ppb	20:01:06
2	Tl 190.801†	-28.5	4.2	1.9590 ug/L	1.9590 ppb	20:01:26
2	U 409.014†	-2299.1	358.8	12.006 ug/L	12.006 ppb	20:01:06
2	V 292.402†	-1649.5	65.4	0.5343 ug/L	0.5343 ppb	20:01:06
2	Zn 213.857†	791.7	39.7	0.4257 ug/L	0.4257 ppb	20:01:26
2	SiO2†	1264.7	601.6	46.860 ug/L	46.860 ppb	20:02:01
3	Sc Radial	4949.4	4949.4	105 %		20:00:14
3	Y RADIAL	5236.1	5236.1	105.0 %		20:00:14
3	Al 396.153Radial†	-67.6	22.9	21.345 ug/L	21.345 ppb	20:00:34
3	Ca 317.933Radial†	29.5	5.9	10.669 ug/L	10.669 ppb	20:00:34
3	Fe 238.204 Radial†	14.3	6.2	64.816 ug/L	64.816 ppb	20:00:34
3	K 766.490 Radial†	2337.3	-39.0	-7.7890 ug/L	-7.7890 ppb	20:00:14
3	Mg 279.077 IEC†	1.1	-1.8	-71.674 ug/L	-71.674 ppb	20:00:34
3	Na 589.592 Radial†	-681.9	199.3	67.937 ug/L	67.937 ppb	20:00:14
3	Sr 421.552†	30.7	29.7	0.2157 ug/L	0.2157 ppb	20:00:14
3	Sc 361.383	798883.6	798883.6	104.03 %		20:01:31
3	Y 371.029	716561.9	716561.9	104.00 %		20:01:31
3	Ag 328.068†	252.6	-12.8	-0.0525 ug/L	-0.0525 ppb	20:01:31
3	As 188.979†	-31.4	-5.1	-2.2665 ug/L	-2.2665 ppb	20:01:51
3	B 249.677†	-402.7	66.3	1.6513 ug/L	1.6513 ppb	20:01:51
3	Ba 233.527†	32.9	29.2	0.3487 ug/L	0.3487 ppb	20:01:51
3	Be 313.107†	-9329.3	14.7	0.0075 ug/L	0.0075 ppb	20:01:31
3	Cd 226.502†	-185.7	8.1	0.1105 ug/L	0.1105 ppb	20:01:51
3	Co 228.616†	-73.8	-13.4	-0.4067 ug/L	-0.4067 ppb	20:01:51
3	Cr 267.716†	123.5	43.1	0.5867 ug/L	0.5867 ppb	20:01:51
3	Cu 324.752†	7604.8	-226.0	-0.8491 ug/L	-0.8491 ppb	20:01:31
3	Mn 257.610†	957.9	459.7	0.7451 ug/L	0.7451 ppb	20:01:51
3	Mo 202.031†	24.4	9.1	0.8397 ug/L	0.8397 ppb	20:01:51
3	Ni 231.604†	90.1	-14.7	-0.4693 ug/L	-0.4693 ppb	20:01:51
3	P 214.914†	201.5	-1.7	-0.8212 ug/L	-0.8212 ppb	20:01:51
3	Pb 220.353†	-66.3	6.9	1.1232 ug/L	1.1232 ppb	20:01:51
3	S 181.975 Axial†	51.9	7.4	9.5763 ug/L	9.5763 ppb	20:01:51
3	Sb 206.836†	38.6	7.1	2.9311 ug/L	2.9311 ppb	20:01:51
3	Se 196.026†	-26.3	-5.5	-3.2314 ug/L	-3.2314 ppb	20:01:51
3	Si 251.611†	1197.7	562.1	20.502 ug/L	20.502 ppb	20:01:51
3	Sn 189.927†	16.3	7.6	1.7862 ug/L	1.7862 ppb	20:01:51
3	Ti 334.940†	-967.7	370.8	0.7491 ug/L	0.7491 ppb	20:01:31
3	Tl 190.801†	-27.7	4.6	2.1365 ug/L	2.1365 ppb	20:01:51
3	U 409.014†	-2279.2	345.9	11.572 ug/L	11.572 ppb	20:01:31
3	V 292.402†	-1596.2	93.7	0.7679 ug/L	0.7679 ppb	20:01:31
3	Zn 213.857†	812.3	70.6	0.7728 ug/L	0.7728 ppb	20:01:51
3	SiO2†	1209.7	566.4	44.100 ug/L	44.100 ppb	20:02:06

Mean Data: 1202033898|949334|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	801837.1	104.41	%	1.011				0.97%
Sc Radial	5027.9	107	%	2.0				1.83%
Y 371.029	718693.2	104.30	%	1.143				1.10%
Y RADIAL	5329.8	106.9	%	2.28				2.13%
Ag 328.068†	9.4	0.0621	ug/L	0.24522	0.0621	ppb	0.24522	394.94%
Al 396.153Radial†	18.8	17.589	ug/L	5.3486	17.589	ppb	5.3486	30.41%
As 188.979†	-5.5	-2.4442	ug/L	0.63814	-2.4442	ppb	0.63814	26.11%
B 249.677†	98.6	2.4575	ug/L	0.83139	2.4575	ppb	0.83139	33.83%
Ba 233.527†	19.5	0.2341	ug/L	0.09986	0.2341	ppb	0.09986	42.66%
Be 313.107†	-56.1	-0.0205	ug/L	0.06463	-0.0205	ppb	0.06463	315.92%
Ca 317.933Radial†	4.5	8.2423	ug/L	2.10164	8.2423	ppb	2.10164	25.50%
Cd 226.502†	10.1	0.1388	ug/L	0.05627	0.1388	ppb	0.05627	40.54%
Co 228.616†	-8.3	-0.2520	ug/L	0.29755	-0.2520	ppb	0.29755	118.09%
Cr 267.716†	47.1	0.6404	ug/L	0.22494	0.6404	ppb	0.22494	35.13%
Cu 324.752†	-144.5	-0.5444	ug/L	0.28710	-0.5444	ppb	0.28710	52.73%
Fe 238.204 Radial†	6.7	69.537	ug/L	9.5917	69.537	ppb	9.5917	13.79%
K 766.490 Radial†	-94.4	-18.829	ug/L	10.9580	-18.829	ppb	10.9580	58.20%

Mg 279.077 IEC†	-2.0	-80.628	ug/L	29.4259	-80.628	ppb	29.4259 36.50%
Mn 257.610†	456.6	0.7410	ug/L	0.01446	0.7410	ppb	0.01446 1.95%
Mo 202.031†	4.0	0.3690	ug/L	0.44403	0.3690	ppb	0.44403 120.35%
Na 589.592 Radial†	214.9	73.224	ug/L	4.7078	73.224	ppb	4.7078 6.43%
Ni 231.604†	-6.0	-0.1928	ug/L	0.27638	-0.1928	ppb	0.27638 143.39%
P 214.914†	6.4	3.6525	ug/L	4.61865	3.6525	ppb	4.61865 126.45%
Pb 220.353†	8.5	1.3724	ug/L	1.15308	1.3724	ppb	1.15308 84.02%
S 181.975 Axial†	2.3	2.9876	ug/L	6.28335	2.9876	ppb	6.28335 210.31%
Sb 206.836†	8.0	3.2699	ug/L	0.89052	3.2699	ppb	0.89052 27.23%
Se 196.026†	-4.9	-2.8542	ug/L	1.16743	-2.8542	ppb	1.16743 40.90%
Si 251.611†	552.1	20.140	ug/L	0.3181	20.140	ppb	0.3181 1.58%
Sn 189.927†	6.8	1.5952	ug/L	1.20233	1.5952	ppb	1.20233 75.37%
Sr 421.552†	35.8	0.2603	ug/L	0.04321	0.2603	ppb	0.04321 16.60%
Ti 334.940†	398.8	0.8055	ug/L	0.04893	0.8055	ppb	0.04893 6.07%
Tl 190.801†	4.1	1.8854	ug/L	0.29498	1.8854	ppb	0.29498 15.65%
U 409.014†	372.1	12.451	ug/L	1.1674	12.451	ppb	1.1674 9.38%
V 292.402†	87.5	0.7132	ug/L	0.15883	0.7132	ppb	0.15883 22.27%
Zn 213.857†	52.5	0.5701	ug/L	0.18078	0.5701	ppb	0.18078 31.71%
SiO2†	588.8	45.855	ug/L	1.5252	45.855	ppb	1.5252 3.33%

Sequence No.: 16
Sample ID: 1202033903|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 3/1/2010 20:04:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033903|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5092.8	5092.8	108	%			20:06:31
1	Y RADIAL	5841.6	5841.6	117.2	%			20:06:31
1	Al 396.153Radial†	112447.0	104008.7	97267	ug/L	97267	ppb	20:06:11
1	Ca 317.933Radial†	60507.2	55897.5	101560	ug/L	101560	ppb	20:06:11
1	Fe 238.204 Radial†	19668.1	18169.6	188540	ug/L	188540	ppb	20:06:11
1	K 766.490 Radial†	239452.7	219036.3	43561	ug/L	43561	ppb	20:06:11
1	Mg 279.077 IEC†	1089.3	1003.8	39665	ug/L	39665	ppb	20:06:31
1	Na 589.592 Radial†	32049.2	30467.1	10383	ug/L	10383	ppb	20:06:11
1	Sr 421.552†	349130.1	322660.4	2345.5	ug/L	2345.5	ppb	20:06:11
1	Sc 361.383	834778.3	834778.3	108.70	%			20:07:33
1	Y 371.029	803930.6	803930.6	116.67	%			20:07:33
1	Ag 328.068†	53950.8	49375.3	315.64	ug/L	315.64	ppb	20:07:33
1	As 188.979†	2518.7	2342.0	1137.7	ug/L	1137.7	ppb	20:07:38
1	B 249.677†	66563.5	61687.3	1511.3	ug/L	1511.3	ppb	20:07:33
1	Ba 233.527†	179232.9	164879.6	1954.1	ug/L	1954.1	ppb	20:07:33
1	Be 313.107†	2140241.3	1977858.3	799.49	ug/L	799.49	ppb	20:07:33
1	Cd 226.502†	47799.6	44159.0	607.40	ug/L	607.40	ppb	20:07:38
1	Co 228.616†	35800.6	32991.6	983.08	ug/L	983.08	ppb	20:07:38
1	Cr 267.716†	192826.3	177311.4	2427.9	ug/L	2427.9	ppb	20:07:33
1	Cu 324.752†	582424.4	528254.4	1988.1	ug/L	1988.1	ppb	20:07:33
1	Mn 257.610†	3801067.3	3496260.8	5613.2	ug/L	5613.2	ppb	20:07:33
1	Mo 202.031†	5856.0	5372.7	508.91	ug/L	508.91	ppb	20:07:38
1	Ni 231.604†	47630.2	43715.2	1396.8	ug/L	1396.8	ppb	20:07:38
1	P 214.914†	16049.6	14569.2	7624.7	ug/L	7624.7	ppb	20:07:38
1	Pb 220.353†	5529.8	5157.7	841.76	ug/L	841.76	ppb	20:07:38
1	S 181.975 Axial†	3293.6	2987.4	3855.0	ug/L	3855.0	ppb	20:07:38
1	Sb 206.836†	3717.1	3389.4	1381.7	ug/L	1381.7	ppb	20:07:38
1	Se 196.026†	4769.2	4407.1	3131.9	ug/L	3131.9	ppb	20:07:38
1	Si 251.611†	1074150.8	987556.0	36030	ug/L	36030	ppb	20:07:33
1	Sn 189.927†	4740.5	4352.9	1032.3	ug/L	1032.3	ppb	20:07:38
1	Ti 334.940†	3165047.1	2912927.9	5879.2	ug/L	5879.2	ppb	20:07:33
1	Tl 190.801†	2894.0	2693.5	1305.6	ug/L	1305.6	ppb	20:07:38
1	U 409.014†	-7368.6	-4241.8	-168.95	ug/L	-168.95	ppb	20:07:33
1	V 292.402†	170273.2	158267.7	1233.2	ug/L	1233.2	ppb	20:07:33
1	Zn 213.857†	581797.6	534503.7	5855.0	ug/L	5855.0	ppb	20:07:33
1	SiO2†	1095955.7	1007607.8	78481	ug/L	78481	ppb	20:08:13
2	Sc Radial	5123.0	5123.0	109	%			20:06:57
2	Y RADIAL	5899.7	5899.7	118.3	%			20:06:57
2	Al 396.153Radial†	111780.6	102784.0	96122	ug/L	96122	ppb	20:06:37
2	Ca 317.933Radial†	60279.2	55358.5	100580	ug/L	100580	ppb	20:06:37
2	Fe 238.204 Radial†	19544.2	17948.6	186250	ug/L	186250	ppb	20:06:37
2	K 766.490 Radial†	238102.8	216492.0	43055	ug/L	43055	ppb	20:06:37
2	Mg 279.077 IEC†	1092.0	1000.3	39528	ug/L	39528	ppb	20:06:57
2	Na 589.592 Radial†	31748.3	30016.1	10229	ug/L	10229	ppb	20:06:37
2	Sr 421.552†	346484.3	318328.1	2314.1	ug/L	2314.1	ppb	20:06:37
2	Sc 361.383	839716.3	839716.3	109.35	%			20:07:47
2	Y 371.029	808945.3	808945.3	117.40	%			20:07:47
2	Ag 328.068†	54270.1	49375.6	314.94	ug/L	314.94	ppb	20:07:47
2	As 188.979†	2537.7	2345.8	1138.8	ug/L	1138.8	ppb	20:07:52
2	B 249.677†	66977.9	61706.2	1512.2	ug/L	1512.2	ppb	20:07:47
2	Ba 233.527†	179946.8	164562.9	1950.3	ug/L	1950.3	ppb	20:07:47
2	Be 313.107†	2151681.4	1976742.3	799.04	ug/L	799.04	ppb	20:07:47
2	Cd 226.502†	47506.3	43632.2	600.16	ug/L	600.16	ppb	20:07:52
2	Co 228.616†	35491.8	32515.5	968.71	ug/L	968.71	ppb	20:07:52
2	Cr 267.716†	193842.7	177197.7	2426.3	ug/L	2426.3	ppb	20:07:47
2	Cu 324.752†	586766.3	529074.5	1991.0	ug/L	1991.0	ppb	20:07:47
2	Mn 257.610†	3816387.3	3489708.5	5602.5	ug/L	5602.5	ppb	20:07:47
2	Mo 202.031†	5827.0	5314.5	503.38	ug/L	503.38	ppb	20:07:52
2	Ni 231.604†	47248.4	43108.4	1377.5	ug/L	1377.5	ppb	20:07:52

2	P 214.914†	15998.1	14435.3	7550.9	ug/L	7550.9 ppb	20:07:52
2	Pb 220.353†	5538.1	5135.4	838.05	ug/L	838.05 ppb	20:07:52
2	S 181.975 Axial†	3271.5	2949.4	3806.0	ug/L	3806.0 ppb	20:07:52
2	Sb 206.836†	3698.7	3352.5	1366.6	ug/L	1366.6 ppb	20:07:52
2	Se 196.026†	4746.4	4360.5	3098.1	ug/L	3098.1 ppb	20:07:52
2	Si 251.611†	1080849.2	987871.0	36042	ug/L	36042 ppb	20:07:47
2	Sn 189.927†	4771.8	4355.9	1033.0	ug/L	1033.0 ppb	20:07:52
2	Ti 334.940†	3183419.8	2912608.0	5878.4	ug/L	5878.4 ppb	20:07:47
2	Tl 190.801†	2818.1	2608.4	1266.5	ug/L	1266.5 ppb	20:07:52
2	U 409.014†	-7216.8	-4063.1	-162.70	ug/L	-162.70 ppb	20:07:47
2	V 292.402†	171048.7	158055.7	1231.8	ug/L	1231.8 ppb	20:07:47
2	Zn 213.857†	583772.3	533162.2	5840.7	ug/L	5840.7 ppb	20:07:47
2	SiO2†	1086640.4	993160.0	77355	ug/L	77355 ppb	20:08:19
3	Sc Radial	5145.4	5145.4	109	%		20:07:22
3	Y RADIAL	5910.6	5910.6	118.6	%		20:07:22
3	Al 396.153Radial†	111365.5	101957.0	95349	ug/L	95349 ppb	20:07:02
3	Ca 317.933Radial†	60029.1	54888.6	99729	ug/L	99729 ppb	20:07:02
3	Fe 238.204 Radial†	19464.4	17797.5	184680	ug/L	184680 ppb	20:07:02
3	K 766.490 Radial†	236335.9	213923.0	42544	ug/L	42544 ppb	20:07:02
3	Mg 279.077 IEC†	1100.5	1003.7	39665	ug/L	39665 ppb	20:07:22
3	Na 589.592 Radial†	31553.4	29710.8	10125	ug/L	10125 ppb	20:07:02
3	Sr 421.552†	344183.7	314837.3	2288.7	ug/L	2288.7 ppb	20:07:02
3	Sc 361.383	839284.4	839284.4	109.29	%		20:08:01
3	Y 371.029	809311.3	809311.3	117.46	%		20:08:01
3	Ag 328.068†	54287.2	49416.7	314.68	ug/L	314.68 ppb	20:08:01
3	As 188.979†	2513.5	2324.8	1129.1	ug/L	1129.1 ppb	20:08:06
3	B 249.677†	66950.7	61712.9	1512.6	ug/L	1512.6 ppb	20:08:01
3	Ba 233.527†	180065.8	164756.5	1952.5	ug/L	1952.5 ppb	20:08:01
3	Be 313.107†	2152533.5	1978534.7	799.76	ug/L	799.76 ppb	20:08:01
3	Cd 226.502†	47724.5	43854.2	603.47	ug/L	603.47 ppb	20:08:06
3	Co 228.616†	35673.6	32698.6	974.26	ug/L	974.26 ppb	20:08:06
3	Cr 267.716†	193907.7	177348.5	2428.3	ug/L	2428.3 ppb	20:08:01
3	Cu 324.752†	586604.6	529202.7	1991.4	ug/L	1991.4 ppb	20:08:01
3	Mn 257.610†	3814359.0	3489648.7	5602.3	ug/L	5602.3 ppb	20:08:01
3	Mo 202.031†	5797.7	5290.5	501.04	ug/L	501.04 ppb	20:08:06
3	Ni 231.604†	47421.3	43288.8	1383.2	ug/L	1383.2 ppb	20:08:06
3	P 214.914†	16072.7	14511.1	7594.1	ug/L	7594.1 ppb	20:08:06
3	Pb 220.353†	5518.8	5120.4	835.54	ug/L	835.54 ppb	20:08:06
3	S 181.975 Axial†	3283.5	2961.9	3822.3	ug/L	3822.3 ppb	20:08:06
3	Sb 206.836†	3698.7	3354.3	1367.3	ug/L	1367.3 ppb	20:08:06
3	Se 196.026†	4721.9	4340.3	3082.2	ug/L	3082.2 ppb	20:08:06
3	Si 251.611†	1080310.3	987886.6	36043	ug/L	36043 ppb	20:08:01
3	Sn 189.927†	4746.7	4335.1	1028.0	ug/L	1028.0 ppb	20:08:06
3	Ti 334.940†	3181814.3	2912637.2	5878.3	ug/L	5878.3 ppb	20:08:01
3	Tl 190.801†	2868.7	2656.0	1288.4	ug/L	1288.4 ppb	20:08:06
3	U 409.014†	-7357.3	-4195.1	-166.95	ug/L	-166.95 ppb	20:08:01
3	V 292.402†	170796.9	157905.9	1230.8	ug/L	1230.8 ppb	20:08:01
3	Zn 213.857†	583474.6	533164.6	5840.9	ug/L	5840.9 ppb	20:08:01
3	SiO2†	1067256.4	975935.1	76014	ug/L	76014 ppb	20:08:24

Mean Data: 1202033903|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	837926.3	109.11	%	0.356				0.33%
Sc Radial	5120.4	109	%	0.6				0.52%
Y 371.029	807395.7	117.18	%	0.436				0.37%
Y RADIAL	5884.0	118.0	%	0.74				0.63%
Ag 328.068†	49389.2	315.08	ug/L	0.498	315.08	ppb	0.498	0.16%
Al 396.153Radial†	102916.6	96246	ug/L	965.4	96246	ppb	965.4	1.00%
As 188.979†	2337.5	1135.2	ug/L	5.30	1135.2	ppb	5.30	0.47%
B 249.677†	61702.1	1512.0	ug/L	0.66	1512.0	ppb	0.66	0.04%
Ba 233.527†	164733.0	1952.3	ug/L	1.91	1952.3	ppb	1.91	0.10%
Be 313.107†	1977711.8	799.43	ug/L	0.360	799.43	ppb	0.360	0.05%
Ca 317.933Radial†	55381.5	100630	ug/L	917.3	100630	ppb	917.3	0.91%
Cd 226.502†	43881.8	603.67	ug/L	3.626	603.67	ppb	3.626	0.60%
Co 228.616†	32735.2	975.35	ug/L	7.245	975.35	ppb	7.245	0.74%
Cr 267.716†	177285.9	2427.5	ug/L	1.07	2427.5	ppb	1.07	0.04%
Cu 324.752†	528843.9	1990.2	ug/L	1.83	1990.2	ppb	1.83	0.09%
Fe 238.204 Radial†	17971.9	186490	ug/L	1942.0	186490	ppb	1942.0	1.04%
K 766.490 Radial†	216483.8	43054	ug/L	508.6	43054	ppb	508.6	1.18%

Mg 279.077 IEC†	1002.6	39620	ug/L	79.2	39620	ppb	79.2	0.20%
Mn 257.610†	3491872.7	5606.0	ug/L	6.26	5606.0	ppb	6.26	0.11%
Mo 202.031†	5325.9	504.44	ug/L	4.041	504.44	ppb	4.041	0.80%
Na 589.592 Radial†	30064.7	10246	ug/L	129.7	10246	ppb	129.7	1.27%
Ni 231.604†	43370.8	1385.8	ug/L	9.96	1385.8	ppb	9.96	0.72%
P 214.914†	14505.2	7589.9	ug/L	37.09	7589.9	ppb	37.09	0.49%
Pb 220.353†	5137.8	838.45	ug/L	3.128	838.45	ppb	3.128	0.37%
S 181.975 Axial†	2966.2	3827.8	ug/L	24.96	3827.8	ppb	24.96	0.65%
Sb 206.836†	3365.4	1371.9	ug/L	8.50	1371.9	ppb	8.50	0.62%
Se 196.026†	4369.3	3104.1	ug/L	25.41	3104.1	ppb	25.41	0.82%
Si 251.611†	987771.2	36038	ug/L	6.9	36038	ppb	6.9	0.02%
Sn 189.927†	4348.0	1031.1	ug/L	2.69	1031.1	ppb	2.69	0.26%
Sr 421.552†	318608.6	2316.1	ug/L	28.49	2316.1	ppb	28.49	1.23%
Ti 334.940†	2912724.4	5878.6	ug/L	0.46	5878.6	ppb	0.46	0.01%
Tl 190.801†	2652.7	1286.8	ug/L	19.57	1286.8	ppb	19.57	1.52%
U 409.014†	-4166.7	-166.20	ug/L	3.191	-166.20	ppb	3.191	1.92%
V 292.402†	158076.4	1232.0	ug/L	1.22	1232.0	ppb	1.22	0.10%
Zn 213.857†	533610.2	5845.5	ug/L	8.21	5845.5	ppb	8.21	0.14%
SiO2†	992234.3	77283	ug/L	1235.2	77283	ppb	1235.2	1.60%

Sequence No.: 17
Sample ID: 246055001|949334|50
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 3/1/2010 20:10:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055001|949334|50

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5185.9	5185.9	110	%			20:12:29
1	Y RADIAL	5436.8	5436.8	109.1	%			20:12:29
1	Al 396.153Radial†	571.4	605.7	566.64	ug/L	566.64	ppb	20:12:29
1	Ca 317.933Radial†	172.4	134.3	243.97	ug/L	243.97	ppb	20:12:49
1	Fe 238.204 Radial†	200.0	174.2	1807.2	ug/L	1807.2	ppb	20:12:49
1	K 766.490 Radial†	2937.3	404.2	80.326	ug/L	80.326	ppb	20:12:29
1	Mg 279.077 IEC†	6.5	3.0	117.76	ug/L	117.76	ppb	20:12:49
1	Na 589.592 Radial†	-611.8	292.5	99.685	ug/L	99.685	ppb	20:12:29
1	Sr 421.552†	376.0	341.7	2.4833	ug/L	2.4833	ppb	20:12:29
1	Sc 361.383	817335.3	817335.3	106.43	%			20:13:46
1	Y 371.029	734617.3	734617.3	106.62	%			20:13:46
1	Ag 328.068†	120.6	-142.4	-0.1779	ug/L	-0.1779	ppb	20:13:46
1	As 188.979†	23.0	46.6	21.544	ug/L	21.544	ppb	20:14:06
1	B 249.677†	23.9	475.9	11.624	ug/L	11.624	ppb	20:14:06
1	Ba 233.527†	765.9	717.2	8.5234	ug/L	8.5234	ppb	20:14:06
1	Be 313.107†	-9748.9	-177.0	0.0209	ug/L	0.0209	ppb	20:13:46
1	Cd 226.502†	-162.3	34.1	0.2990	ug/L	0.2990	ppb	20:14:06
1	Co 228.616†	-45.3	14.9	0.3415	ug/L	0.3415	ppb	20:14:06
1	Cr 267.716†	162.7	77.3	1.0895	ug/L	1.0895	ppb	20:14:06
1	Cu 324.752†	8407.6	363.4	1.4502	ug/L	1.4502	ppb	20:13:46
1	Mn 257.610†	21047.3	19314.1	31.088	ug/L	31.088	ppb	20:13:46
1	Mo 202.031†	9.8	-5.2	-0.3311	ug/L	-0.3311	ppb	20:14:06
1	Ni 231.604†	114.6	6.4	0.2032	ug/L	0.2032	ppb	20:14:06
1	P 214.914†	256.2	45.3	23.730	ug/L	23.730	ppb	20:14:06
1	Pb 220.353†	70607.5	66411.0	10709	ug/L	10709	ppb	20:13:46
1	S 181.975 Axial†	54.6	8.8	11.280	ug/L	11.280	ppb	20:14:06
1	Sb 206.836†	160.7	121.0	48.918	ug/L	48.918	ppb	20:14:06
1	Se 196.026†	-28.0	-6.5	0.1128	ug/L	0.1128	ppb	20:14:06
1	Si 251.611†	15954.7	14401.2	525.52	ug/L	525.52	ppb	20:13:46
1	Sn 189.927†	8.8	0.2	-0.0155	ug/L	-0.0155	ppb	20:14:06
1	Ti 334.940†	19851.2	19952.5	40.223	ug/L	40.223	ppb	20:13:46
1	Tl 190.801†	-34.3	-1.0	0.0259	ug/L	0.0259	ppb	20:14:06
1	U 409.014†	-2355.5	323.7	10.630	ug/L	10.630	ppb	20:13:46
1	V 292.402†	-1378.7	332.6	2.3590	ug/L	2.3590	ppb	20:13:46
1	Zn 213.857†	4056.5	3101.0	33.926	ug/L	33.926	ppb	20:14:06
1	SiO2†	15696.2	14151.1	1102.4	ug/L	1102.4	ppb	20:15:02
2	Sc Radial	5069.5	5069.5	108	%			20:12:54
2	Y RADIAL	5289.6	5289.6	106.1	%			20:12:54
2	Al 396.153Radial†	563.8	610.6	571.14	ug/L	571.14	ppb	20:12:54
2	Ca 317.933Radial†	176.6	141.8	257.68	ug/L	257.68	ppb	20:13:14
2	Fe 238.204 Radial†	201.6	179.9	1866.4	ug/L	1866.4	ppb	20:13:14
2	K 766.490 Radial†	2943.3	470.9	93.615	ug/L	93.615	ppb	20:12:54
2	Mg 279.077 IEC†	2.0	-1.0	-41.972	ug/L	-41.972	ppb	20:13:14
2	Na 589.592 Radial†	-630.8	262.2	89.343	ug/L	89.343	ppb	20:12:54
2	Sr 421.552†	403.4	375.0	2.7247	ug/L	2.7247	ppb	20:12:54
2	Sc 361.383	808528.2	808528.2	105.29	%			20:14:11
2	Y 371.029	725135.1	725135.1	105.24	%			20:14:11
2	Ag 328.068†	177.6	-87.0	0.1265	ug/L	0.1265	ppb	20:14:11
2	As 188.979†	11.6	36.0	16.841	ug/L	16.841	ppb	20:14:31
2	B 249.677†	11.1	464.0	11.315	ug/L	11.315	ppb	20:14:31
2	Ba 233.527†	767.7	726.8	8.6393	ug/L	8.6393	ppb	20:14:31
2	Be 313.107†	-9740.8	-269.1	-0.0159	ug/L	-0.0159	ppb	20:14:11
2	Cd 226.502†	-163.7	31.1	0.2505	ug/L	0.2505	ppb	20:14:31
2	Co 228.616†	-54.8	5.4	0.0545	ug/L	0.0545	ppb	20:14:31
2	Cr 267.716†	133.4	51.1	0.7337	ug/L	0.7337	ppb	20:14:31
2	Cu 324.752†	8415.5	456.9	1.8039	ug/L	1.8039	ppb	20:14:11
2	Mn 257.610†	20879.2	19369.9	31.190	ug/L	31.190	ppb	20:14:11
2	Mo 202.031†	9.5	-5.3	-0.3399	ug/L	-0.3399	ppb	20:14:31
2	Ni 231.604†	109.0	2.2	0.0709	ug/L	0.0709	ppb	20:14:31

2	P 214.914†	266.2	57.5	30.393	ug/L	30.393	ppb	20:14:31
2	Pb 220.353†	70535.5	67065.2	10814	ug/L	10814	ppb	20:14:11
2	S 181.975 Axial†	59.0	13.5	17.376	ug/L	17.376	ppb	20:14:31
2	Sb 206.836†	155.6	117.7	47.597	ug/L	47.597	ppb	20:14:31
2	Se 196.026†	-30.2	-8.9	-1.1977	ug/L	-1.1977	ppb	20:14:31
2	Si 251.611†	15836.1	14451.9	527.36	ug/L	527.36	ppb	20:14:11
2	Sn 189.927†	7.8	-0.7	-0.2185	ug/L	-0.2185	ppb	20:14:31
2	Ti 334.940†	19579.6	19897.7	40.127	ug/L	40.127	ppb	20:14:11
2	Tl 190.801†	-26.9	5.6	3.0577	ug/L	3.0577	ppb	20:14:31
2	U 409.014†	-2347.5	307.2	10.072	ug/L	10.072	ppb	20:14:11
2	V 292.402†	-1314.8	379.2	2.7171	ug/L	2.7171	ppb	20:14:11
2	Zn 213.857†	4046.0	3132.6	34.266	ug/L	34.266	ppb	20:14:31
2	SiO2†	15897.4	14502.9	1129.8	ug/L	1129.8	ppb	20:15:07
3	Sc Radial	4980.0	4980.0	106	%			20:13:19
3	Y RADIAL	5254.5	5254.5	105.4	%			20:13:19
3	Al 396.153Radial†	541.2	598.6	560.00	ug/L	560.00	ppb	20:13:19
3	Ca 317.933Radial†	175.7	143.9	261.42	ug/L	261.42	ppb	20:13:39
3	Fe 238.204 Radial†	204.7	186.1	1931.1	ug/L	1931.1	ppb	20:13:39
3	K 766.490 Radial†	2981.6	556.3	110.62	ug/L	110.62	ppb	20:13:19
3	Mg 279.077 IEC†	4.9	1.7	65.577	ug/L	65.577	ppb	20:13:39
3	Na 589.592 Radial†	-701.7	184.6	62.923	ug/L	62.923	ppb	20:13:19
3	Sr 421.552†	368.7	349.0	2.5356	ug/L	2.5356	ppb	20:13:19
3	Sc 361.383	814452.6	814452.6	106.06	%			20:14:37
3	Y 371.029	730763.3	730763.3	106.06	%			20:14:37
3	Ag 328.068†	104.3	-157.3	-0.2194	ug/L	-0.2194	ppb	20:14:37
3	As 188.979†	12.4	36.7	17.164	ug/L	17.164	ppb	20:14:57
3	B 249.677†	-11.5	442.6	10.768	ug/L	10.768	ppb	20:14:57
3	Ba 233.527†	763.5	717.5	8.5315	ug/L	8.5315	ppb	20:14:57
3	Be 313.107†	-9847.5	-302.5	-0.0300	ug/L	-0.0300	ppb	20:14:37
3	Cd 226.502†	-190.5	7.0	-0.0973	ug/L	-0.0973	ppb	20:14:57
3	Co 228.616†	-36.4	23.1	0.5909	ug/L	0.5909	ppb	20:14:57
3	Cr 267.716†	134.6	51.3	0.7357	ug/L	0.7357	ppb	20:14:57
3	Cu 324.752†	8350.0	337.0	1.3562	ug/L	1.3562	ppb	20:14:37
3	Mn 257.610†	20674.7	19032.8	30.653	ug/L	30.653	ppb	20:14:37
3	Mo 202.031†	11.5	-3.5	-0.1696	ug/L	-0.1696	ppb	20:14:57
3	Ni 231.604†	112.8	5.0	0.1608	ug/L	0.1608	ppb	20:14:57
3	P 214.914†	238.7	29.7	14.897	ug/L	14.897	ppb	20:14:57
3	Pb 220.353†	69855.9	65937.1	10632	ug/L	10632	ppb	20:14:37
3	S 181.975 Axial†	63.3	17.2	22.213	ug/L	22.213	ppb	20:14:57
3	Sb 206.836†	157.6	118.6	47.914	ug/L	47.914	ppb	20:14:57
3	Se 196.026†	-27.7	-6.3	0.5258	ug/L	0.5258	ppb	20:14:57
3	Si 251.611†	15754.2	14265.3	520.55	ug/L	520.55	ppb	20:14:37
3	Sn 189.927†	2.3	-5.9	-1.4589	ug/L	-1.4589	ppb	20:14:57
3	Ti 334.940†	19530.3	19716.0	39.751	ug/L	39.751	ppb	20:14:37
3	Tl 190.801†	-31.8	1.2	1.0177	ug/L	1.0177	ppb	20:14:57
3	U 409.014†	-2238.2	426.4	14.057	ug/L	14.057	ppb	20:14:37
3	V 292.402†	-1361.9	343.9	2.4391	ug/L	2.4391	ppb	20:14:37
3	Zn 213.857†	4026.7	3086.4	33.747	ug/L	33.747	ppb	20:14:57
3	SiO2†	15885.7	14382.1	1120.4	ug/L	1120.4	ppb	20:15:12

Mean Data: 246055001|949334|50

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	813438.7	105.92	%	0.585				0.55%
Sc Radial	5078.5	108	%	2.2				2.03%
Y 371.029	730171.9	105.97	%	0.692				0.65%
Y RADIAL	5326.9	106.9	%	1.94				1.82%
Ag 328.068†	-128.9	-0.0903	ug/L	0.18888	-0.0903	ppb	0.18888	209.27%
Al 396.153Radial†	605.0	565.93	ug/L	5.608	565.93	ppb	5.608	0.99%
As 188.979†	39.8	18.516	ug/L	2.6268	18.516	ppb	2.6268	14.19%
B 249.677†	460.8	11.235	ug/L	0.4335	11.235	ppb	0.4335	3.86%
Ba 233.527†	720.5	8.5647	ug/L	0.06468	8.5647	ppb	0.06468	0.76%
Be 313.107†	-249.5	-0.0084	ug/L	0.02631	-0.0084	ppb	0.02631	314.87%
Ca 317.933Radial†	140.0	254.36	ug/L	9.184	254.36	ppb	9.184	3.61%
Cd 226.502†	24.1	0.1507	ug/L	0.21616	0.1507	ppb	0.21616	143.40%
Co 228.616†	14.5	0.3290	ug/L	0.26840	0.3290	ppb	0.26840	81.59%
Cr 267.716†	59.9	0.8529	ug/L	0.20486	0.8529	ppb	0.20486	24.02%
Cu 324.752†	385.7	1.5368	ug/L	0.23602	1.5368	ppb	0.23602	15.36%
Fe 238.204 Radial†	180.1	1868.2	ug/L	62.01	1868.2	ppb	62.01	3.32%
K 766.490 Radial†	477.2	94.854	ug/L	15.1859	94.854	ppb	15.1859	16.01%

Mg 279.077 IEC†	1.2	47.122	ug/L	81.4502	47.122	ppb	81.4502 172.85%
Mn 257.610†	19238.9	30.977	ug/L	0.2856	30.977	ppb	0.2856 0.92%
Mo 202.031†	-4.7	-0.2802	ug/L	0.09587	-0.2802	ppb	0.09587 34.21%
Na 589.592 Radial†	246.4	83.984	ug/L	18.9577	83.984	ppb	18.9577 22.57%
Ni 231.604†	4.5	0.1450	ug/L	0.06753	0.1450	ppb	0.06753 46.59%
P 214.914†	44.2	23.007	ug/L	7.7733	23.007	ppb	7.7733 33.79%
Pb 220.353†	66471.1	10718	ug/L	91.3	10718	ppb	91.3 0.85%
S 181.975 Axial†	13.2	16.956	ug/L	5.4785	16.956	ppb	5.4785 32.31%
Sb 206.836†	119.1	48.143	ug/L	0.6895	48.143	ppb	0.6895 1.43%
Se 196.026†	-7.2	-0.1863	ug/L	0.89986	-0.1863	ppb	0.89986 482.91%
Si 251.611†	14372.8	524.48	ug/L	3.522	524.48	ppb	3.522 0.67%
Sn 189.927†	-2.1	-0.5643	ug/L	0.78138	-0.5643	ppb	0.78138 138.47%
Sr 421.552†	355.2	2.5812	ug/L	0.12702	2.5812	ppb	0.12702 4.92%
Ti 334.940†	19855.4	40.034	ug/L	0.2493	40.034	ppb	0.2493 0.62%
Tl 190.801†	1.9	1.3671	ug/L	1.54582	1.3671	ppb	1.54582 113.08%
U 409.014†	352.4	11.586	ug/L	2.1576	11.586	ppb	2.1576 18.62%
V 292.402†	351.9	2.5050	ug/L	0.18794	2.5050	ppb	0.18794 7.50%
Zn 213.857†	3106.7	33.980	ug/L	0.2638	33.980	ppb	0.2638 0.78%
SiO2†	14345.4	1117.5	ug/L	13.92	1117.5	ppb	13.92 1.25%

Sequence No.: 18
Sample ID: 1202033899|949334|50
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 51
Date Collected: 3/1/2010 20:17:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033899|949334|50

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5194.2	5194.2	110	%			20:19:16
1	Y RADIAL	5458.7	5458.7	109.5	%			20:19:16
1	Al 396.153Radial†	801.7	813.6	761.03	ug/L	761.03	ppb	20:19:16
1	Ca 317.933Radial†	227.7	184.1	334.56	ug/L	334.56	ppb	20:19:36
1	Fe 238.204 Radial†	196.0	170.3	1766.9	ug/L	1766.9	ppb	20:19:36
1	K 766.490 Radial†	3217.4	653.8	129.98	ug/L	129.98	ppb	20:19:16
1	Mg 279.077 IEC†	8.1	4.5	176.15	ug/L	176.15	ppb	20:19:36
1	Na 589.592 Radial†	-692.4	220.4	75.119	ug/L	75.119	ppb	20:19:16
1	Sr 421.552†	522.6	474.0	3.4442	ug/L	3.4442	ppb	20:19:16
1	Sc 361.383	817786.2	817786.2	106.49	%			20:20:33
1	Y 371.029	734909.0	734909.0	106.66	%			20:20:33
1	Ag 328.068†	33.1	-224.6	-0.6134	ug/L	-0.6134	ppb	20:20:33
1	As 188.979†	-28.6	-1.8	0.0730	ug/L	0.0730	ppb	20:20:53
1	B 249.677†	-215.9	250.7	5.9897	ug/L	5.9897	ppb	20:20:53
1	Ba 233.527†	1019.3	954.8	11.327	ug/L	11.327	ppb	20:20:53
1	Be 313.107†	-9752.5	-175.4	0.0542	ug/L	0.0542	ppb	20:20:33
1	Cd 226.502†	-172.5	24.7	0.1696	ug/L	0.1696	ppb	20:20:53
1	Co 228.616†	-50.1	10.4	0.1796	ug/L	0.1796	ppb	20:20:53
1	Cr 267.716†	175.2	88.9	1.2478	ug/L	1.2478	ppb	20:20:53
1	Cu 324.752†	8241.4	202.9	0.8469	ug/L	0.8469	ppb	20:20:33
1	Mn 257.610†	27965.1	25799.4	41.463	ug/L	41.463	ppb	20:20:33
1	Mo 202.031†	13.4	-1.8	-0.0251	ug/L	-0.0251	ppb	20:20:53
1	Ni 231.604†	117.5	9.0	0.2881	ug/L	0.2881	ppb	20:20:53
1	P 214.914†	274.0	61.9	33.195	ug/L	33.195	ppb	20:20:53
1	Pb 220.353†	4213.7	4027.6	649.49	ug/L	649.49	ppb	20:20:53
1	S 181.975 Axial†	62.7	16.4	21.084	ug/L	21.084	ppb	20:20:53
1	Sb 206.836†	46.2	13.3	5.2240	ug/L	5.2240	ppb	20:20:53
1	Se 196.026†	-20.4	0.7	4.4514	ug/L	4.4514	ppb	20:20:53
1	Si 251.611†	20755.7	18901.3	689.72	ug/L	689.72	ppb	20:20:33
1	Sn 189.927†	15.5	6.5	1.4860	ug/L	1.4860	ppb	20:20:53
1	Ti 334.940†	27454.5	27082.1	54.596	ug/L	54.596	ppb	20:20:33
1	Tl 190.801†	-35.5	-2.1	-0.3366	ug/L	-0.3366	ppb	20:20:53
1	U 409.014†	-2337.0	342.3	11.257	ug/L	11.257	ppb	20:20:33
1	V 292.402†	-1324.6	384.1	2.7664	ug/L	2.7664	ppb	20:20:33
1	Zn 213.857†	4764.2	3763.5	41.238	ug/L	41.238	ppb	20:20:53
1	SiO2†	20538.3	18690.0	1456.0	ug/L	1456.0	ppb	20:21:49
2	Sc Radial	5057.9	5057.9	107	%			20:19:41
2	Y RADIAL	5338.0	5338.0	107.1	%			20:19:41
2	Al 396.153Radial†	759.5	793.8	742.62	ug/L	742.62	ppb	20:19:41
2	Ca 317.933Radial†	224.9	187.1	340.03	ug/L	340.03	ppb	20:20:01
2	Fe 238.204 Radial†	196.2	175.3	1818.7	ug/L	1818.7	ppb	20:20:01
2	K 766.490 Radial†	3179.2	696.8	138.55	ug/L	138.55	ppb	20:19:41
2	Mg 279.077 IEC†	5.0	1.7	66.488	ug/L	66.488	ppb	20:20:01
2	Na 589.592 Radial†	-682.7	212.5	72.413	ug/L	72.413	ppb	20:19:41
2	Sr 421.552†	475.4	442.9	3.2179	ug/L	3.2179	ppb	20:19:41
2	Sc 361.383	819278.8	819278.8	106.69	%			20:20:58
2	Y 371.029	735682.9	735682.9	106.77	%			20:20:58
2	Ag 328.068†	44.9	-213.6	-0.5444	ug/L	-0.5444	ppb	20:20:58
2	As 188.979†	-29.6	-2.7	-0.3113	ug/L	-0.3113	ppb	20:21:18
2	B 249.677†	-253.1	216.2	5.1170	ug/L	5.1170	ppb	20:21:18
2	Ba 233.527†	1004.7	939.4	11.146	ug/L	11.146	ppb	20:21:18
2	Be 313.107†	-9908.0	-304.5	0.0031	ug/L	0.0031	ppb	20:20:58
2	Cd 226.502†	-181.0	16.9	0.0554	ug/L	0.0554	ppb	20:21:18
2	Co 228.616†	-46.1	14.2	0.2911	ug/L	0.2911	ppb	20:21:18
2	Cr 267.716†	163.0	77.2	1.0878	ug/L	1.0878	ppb	20:21:18
2	Cu 324.752†	8293.2	237.3	0.9765	ug/L	0.9765	ppb	20:20:58
2	Mn 257.610†	27964.7	25751.1	41.395	ug/L	41.395	ppb	20:20:58
2	Mo 202.031†	3.6	-11.0	-0.8631	ug/L	-0.8631	ppb	20:21:18
2	Ni 231.604†	116.5	7.8	0.2503	ug/L	0.2503	ppb	20:21:18

2	P 214.914†	249.3	38.3	19.893	ug/L	19.893 ppb	20:21:18
2	Pb 220.353†	4204.1	4011.4	646.87	ug/L	646.87 ppb	20:21:18
2	S 181.975 Axial†	63.0	16.6	21.368	ug/L	21.368 ppb	20:21:18
2	Sb 206.836†	27.4	-4.4	-2.0315	ug/L	-2.0315 ppb	20:21:18
2	Se 196.026†	-28.0	-6.4	0.2198	ug/L	0.2198 ppb	20:21:18
2	Si 251.611†	20868.3	18971.4	692.29	ug/L	692.29 ppb	20:20:58
2	Sn 189.927†	0.1	-8.0	-1.9185	ug/L	-1.9185 ppb	20:21:18
2	Ti 334.940†	27566.5	27140.1	54.721	ug/L	54.721 ppb	20:20:58
2	Tl 190.801†	-31.8	1.4	1.3071	ug/L	1.3071 ppb	20:21:18
2	U 409.014†	-2220.7	455.3	15.035	ug/L	15.035 ppb	20:20:58
2	V 292.402†	-1348.2	364.2	2.5936	ug/L	2.5936 ppb	20:20:58
2	Zn 213.857†	4739.2	3731.9	40.883	ug/L	40.883 ppb	20:21:18
2	SiO2†	20620.3	18731.7	1459.3	ug/L	1459.3 ppb	20:21:54
3	Sc Radial	5057.4	5057.4	107	%		20:20:06
3	Y RADIAL	5349.0	5349.0	107.3	%		20:20:06
3	Al 396.153Radial†	749.3	784.4	733.83	ug/L	733.83 ppb	20:20:06
3	Ca 317.933Radial†	223.8	186.1	338.21	ug/L	338.21 ppb	20:20:26
3	Fe 238.204 Radial†	202.1	180.7	1875.1	ug/L	1875.1 ppb	20:20:26
3	K 766.490 Radial†	3077.2	602.2	119.72	ug/L	119.72 ppb	20:20:06
3	Mg 279.077 IEC†	6.5	3.2	124.06	ug/L	124.06 ppb	20:20:26
3	Na 589.592 Radial†	-660.6	233.0	79.406	ug/L	79.406 ppb	20:20:06
3	Sr 421.552†	509.4	474.5	3.4482	ug/L	3.4482 ppb	20:20:06
3	Sc 361.383	809778.3	809778.3	105.45	%		20:21:24
3	Y 371.029	726725.8	726725.8	105.47	%		20:21:24
3	Ag 328.068†	52.6	-205.8	-0.4815	ug/L	-0.4815 ppb	20:21:24
3	As 188.979†	-28.1	-1.7	0.1692	ug/L	0.1692 ppb	20:21:44
3	B 249.677†	-244.5	221.6	5.2432	ug/L	5.2432 ppb	20:21:44
3	Ba 233.527†	1018.5	963.5	11.433	ug/L	11.433 ppb	20:21:44
3	Be 313.107†	-9750.1	-263.7	0.0194	ug/L	0.0194 ppb	20:21:24
3	Cd 226.502†	-174.2	21.4	0.1123	ug/L	0.1123 ppb	20:21:44
3	Co 228.616†	-34.6	24.6	0.6058	ug/L	0.6058 ppb	20:21:44
3	Cr 267.716†	156.2	72.5	1.0270	ug/L	1.0270 ppb	20:21:44
3	Cu 324.752†	8178.4	219.7	0.9163	ug/L	0.9163 ppb	20:21:24
3	Mn 257.610†	27618.4	25730.3	41.365	ug/L	41.365 ppb	20:21:24
3	Mo 202.031†	3.8	-10.8	-0.8427	ug/L	-0.8427 ppb	20:21:44
3	Ni 231.604†	108.2	1.3	0.0412	ug/L	0.0412 ppb	20:21:44
3	P 214.914†	270.2	60.9	32.508	ug/L	32.508 ppb	20:21:44
3	Pb 220.353†	4172.1	4027.3	649.43	ug/L	649.43 ppb	20:21:44
3	S 181.975 Axial†	59.8	14.2	18.261	ug/L	18.261 ppb	20:21:44
3	Sb 206.836†	28.6	-2.9	-1.4223	ug/L	-1.4223 ppb	20:21:44
3	Se 196.026†	-22.1	-1.1	3.5719	ug/L	3.5719 ppb	20:21:44
3	Si 251.611†	20492.4	18844.4	687.66	ug/L	687.66 ppb	20:21:24
3	Sn 189.927†	0.4	-7.7	-1.8566	ug/L	-1.8566 ppb	20:21:44
3	Ti 334.940†	27260.4	27152.9	54.744	ug/L	54.744 ppb	20:21:24
3	Tl 190.801†	-43.3	-9.9	-3.8980	ug/L	-3.8980 ppb	20:21:44
3	U 409.014†	-2360.1	298.7	9.7854	ug/L	9.7854 ppb	20:21:24
3	V 292.402†	-1289.2	405.4	2.9042	ug/L	2.9042 ppb	20:21:24
3	Zn 213.857†	4743.4	3788.0	41.494	ug/L	41.494 ppb	20:21:44
3	SiO2†	20777.4	19107.5	1488.5	ug/L	1488.5 ppb	20:21:59

Mean Data: 1202033899|949334|50

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	815614.4	106.21	%	0.665				0.63%
Sc Radial	5103.1	108	%	1.7				1.54%
Y 371.029	732439.2	106.30	%	0.720				0.68%
Y RADIAL	5381.9	108.0	%	1.34				1.24%
Ag 328.068†	-214.7	-0.5464	ug/L	0.06598	-0.5464	ppb	0.06598	12.07%
Al 396.153Radial†	797.3	745.83	ug/L	13.881	745.83	ppb	13.881	1.86%
As 188.979†	-2.1	-0.0230	ug/L	0.25426	-0.0230	ppb	0.25426	>999.9%
B 249.677†	229.5	5.4499	ug/L	0.47168	5.4499	ppb	0.47168	8.65%
Ba 233.527†	952.5	11.302	ug/L	0.1451	11.302	ppb	0.1451	1.28%
Be 313.107†	-247.8	0.0256	ug/L	0.02608	0.0256	ppb	0.02608	101.97%
Ca 317.933Radial†	185.8	337.60	ug/L	2.784	337.60	ppb	2.784	0.82%
Cd 226.502†	21.0	0.1124	ug/L	0.05708	0.1124	ppb	0.05708	50.77%
Co 228.616†	16.4	0.3588	ug/L	0.22101	0.3588	ppb	0.22101	61.59%
Cr 267.716†	79.5	1.1209	ug/L	0.11406	1.1209	ppb	0.11406	10.18%
Cu 324.752†	220.0	0.9132	ug/L	0.06486	0.9132	ppb	0.06486	7.10%
Fe 238.204 Radial†	175.4	1820.2	ug/L	54.16	1820.2	ppb	54.16	2.98%
K 766.490 Radial†	650.9	129.42	ug/L	9.431	129.42	ppb	9.431	7.29%

Mg 279.077 IEC†	3.1	122.24	ug/L	54.856	122.24	ppb	54.856	44.88%
Mn 257.610†	25760.3	41.407	ug/L	0.0501	41.407	ppb	0.0501	0.12%
Mo 202.031†	-7.9	-0.5770	ug/L	0.47805	-0.5770	ppb	0.47805	82.86%
Na 589.592 Radial†	222.0	75.646	ug/L	3.5262	75.646	ppb	3.5262	4.66%
Ni 231.604†	6.1	0.1932	ug/L	0.13300	0.1932	ppb	0.13300	68.85%
P 214.914†	53.7	28.532	ug/L	7.4895	28.532	ppb	7.4895	26.25%
Pb 220.353†	4022.1	648.60	ug/L	1.495	648.60	ppb	1.495	0.23%
S 181.975 Axial†	15.7	20.238	ug/L	1.7176	20.238	ppb	1.7176	8.49%
Sb 206.836†	2.0	0.5901	ug/L	4.02466	0.5901	ppb	4.02466	682.08%
Se 196.026†	-2.3	2.7477	ug/L	2.23294	2.7477	ppb	2.23294	81.27%
Si 251.611†	18905.7	689.89	ug/L	2.321	689.89	ppb	2.321	0.34%
Sn 189.927†	-3.1	-0.7631	ug/L	1.94795	-0.7631	ppb	1.94795	255.28%
Sr 421.552†	463.8	3.3701	ug/L	0.13187	3.3701	ppb	0.13187	3.91%
Ti 334.940†	27125.0	54.687	ug/L	0.0797	54.687	ppb	0.0797	0.15%
Tl 190.801†	-3.5	-0.9759	ug/L	2.66078	-0.9759	ppb	2.66078	272.66%
U 409.014†	365.4	12.026	ug/L	2.7078	12.026	ppb	2.7078	22.52%
V 292.402†	384.6	2.7547	ug/L	0.15563	2.7547	ppb	0.15563	5.65%
Zn 213.857†	3761.1	41.205	ug/L	0.3070	41.205	ppb	0.3070	0.74%
SiO2†	18843.0	1467.9	ug/L	17.92	1467.9	ppb	17.92	1.22%

Sequence No.: 19
Sample ID: 1202033901|949334|50
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 52
Date Collected: 3/1/2010 20:24:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033901|949334|50

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4989.4	4989.4	106	%			20:26:03
1	Y RADIAL	5221.3	5221.3	104.7	%			20:26:03
1	Al 396.153Radial†	1448.5	1453.5	1359.2	ug/L	1359.2	ppb	20:26:03
1	Ca 317.933Radial†	274.4	236.7	430.12	ug/L	430.12	ppb	20:26:23
1	Fe 238.204 Radial†	230.9	210.5	2184.3	ug/L	2184.3	ppb	20:26:23
1	K 766.490 Radial†	3709.2	1237.4	246.08	ug/L	246.08	ppb	20:26:03
1	Mg 279.077 IEC†	12.8	9.2	363.13	ug/L	363.13	ppb	20:26:23
1	Na 589.592 Radial†	-336.8	530.1	180.66	ug/L	180.66	ppb	20:26:03
1	Sr 421.552†	1989.0	1876.8	13.644	ug/L	13.644	ppb	20:26:03
1	Sc 361.383	799354.5	799354.5	104.09	%			20:27:20
1	Y 371.029	716057.4	716057.4	103.92	%			20:27:20
1	Ag 328.068†	2080.1	1742.7	9.6659	ug/L	9.6659	ppb	20:27:20
1	As 188.979†	53.5	76.4	35.205	ug/L	35.205	ppb	20:27:40
1	B 249.677†	50.7	502.1	12.190	ug/L	12.190	ppb	20:27:40
1	Ba 233.527†	1999.3	1918.3	22.732	ug/L	22.732	ppb	20:27:40
1	Be 313.107†	17052.7	25365.1	10.251	ug/L	10.251	ppb	20:27:20
1	Cd 226.502†	592.3	755.7	10.497	ug/L	10.497	ppb	20:27:40
1	Co 228.616†	305.7	351.2	10.454	ug/L	10.454	ppb	20:27:40
1	Cr 267.716†	928.1	816.0	11.202	ug/L	11.202	ppb	20:27:40
1	Cu 324.752†	11273.8	3294.6	12.443	ug/L	12.443	ppb	20:27:20
1	Mn 257.610†	32789.6	31039.8	49.884	ug/L	49.884	ppb	20:27:20
1	Mo 202.031†	122.1	103.0	9.6237	ug/L	9.6237	ppb	20:27:40
1	Ni 231.604†	459.0	339.6	10.850	ug/L	10.850	ppb	20:27:40
1	P 214.914†	320.9	112.9	59.253	ug/L	59.253	ppb	20:27:40
1	Pb 220.353†	91062.7	87554.5	14118	ug/L	14118	ppb	20:27:20
1	S 181.975 Axial†	138.8	90.9	117.58	ug/L	117.58	ppb	20:27:40
1	Sb 206.836†	287.5	246.2	99.968	ug/L	99.968	ppb	20:27:40
1	Se 196.026†	-7.1	13.0	12.980	ug/L	12.980	ppb	20:27:40
1	Si 251.611†	19840.3	18471.3	673.91	ug/L	673.91	ppb	20:27:20
1	Sn 189.927†	51.2	41.1	9.6238	ug/L	9.6238	ppb	20:27:40
1	Ti 334.940†	37165.1	37005.5	74.583	ug/L	74.583	ppb	20:27:20
1	Tl 190.801†	-15.6	16.3	8.2591	ug/L	8.2591	ppb	20:27:40
1	U 409.014†	-2109.0	510.7	16.826	ug/L	16.826	ppb	20:27:20
1	V 292.402†	57.7	1683.4	13.178	ug/L	13.178	ppb	20:27:20
1	Zn 213.857†	8770.9	7715.9	84.682	ug/L	84.682	ppb	20:27:20
1	SiO2†	19520.7	18157.1	1414.2	ug/L	1414.2	ppb	20:28:36
2	Sc Radial	5010.6	5010.6	106	%			20:26:28
2	Y RADIAL	5295.7	5295.7	106.2	%			20:26:28
2	Al 396.153Radial†	1456.8	1455.6	1361.1	ug/L	1361.1	ppb	20:26:28
2	Ca 317.933Radial†	267.3	228.9	415.91	ug/L	415.91	ppb	20:26:48
2	Fe 238.204 Radial†	226.2	205.1	2128.5	ug/L	2128.5	ppb	20:26:48
2	K 766.490 Radial†	3927.9	1428.0	284.03	ug/L	284.03	ppb	20:26:28
2	Mg 279.077 IEC†	11.2	7.6	301.59	ug/L	301.59	ppb	20:26:48
2	Na 589.592 Radial†	-321.9	545.4	185.87	ug/L	185.87	ppb	20:26:28
2	Sr 421.552†	1964.2	1845.5	13.417	ug/L	13.417	ppb	20:26:28
2	Sc 361.383	805688.0	805688.0	104.92	%			20:27:45
2	Y 371.029	721180.8	721180.8	104.67	%			20:27:45
2	Ag 328.068†	2226.7	1866.7	10.285	ug/L	10.285	ppb	20:27:45
2	As 188.979†	39.7	62.8	29.120	ug/L	29.120	ppb	20:28:05
2	B 249.677†	71.7	521.8	12.689	ug/L	12.689	ppb	20:28:05
2	Ba 233.527†	1993.6	1897.8	22.488	ug/L	22.488	ppb	20:28:05
2	Be 313.107†	16732.3	24931.0	10.077	ug/L	10.077	ppb	20:27:45
2	Cd 226.502†	597.3	756.0	10.507	ug/L	10.507	ppb	20:28:05
2	Co 228.616†	324.2	366.4	10.916	ug/L	10.916	ppb	20:28:05
2	Cr 267.716†	940.4	820.7	11.265	ug/L	11.265	ppb	20:28:05
2	Cu 324.752†	11227.3	3165.1	11.954	ug/L	11.954	ppb	20:27:45
2	Mn 257.610†	32634.7	30644.6	49.249	ug/L	49.249	ppb	20:27:45
2	Mo 202.031†	118.7	98.7	9.2321	ug/L	9.2321	ppb	20:28:05
2	Ni 231.604†	446.7	324.4	10.365	ug/L	10.365	ppb	20:28:05

2	P 214.914†	333.8	122.8	64.946	ug/L	64.946 ppb	20:28:05
2	Pb 220.353†	90547.5	86375.7	13928	ug/L	13928 ppb	20:27:45
2	S 181.975 Axial†	145.2	95.9	124.02	ug/L	124.02 ppb	20:28:05
2	Sb 206.836†	288.3	244.8	99.367	ug/L	99.367 ppb	20:28:05
2	Se 196.026†	-12.7	7.7	9.6145	ug/L	9.6145 ppb	20:28:05
2	Si 251.611†	19764.4	18249.2	665.81	ug/L	665.81 ppb	20:27:45
2	Sn 189.927†	47.2	36.9	8.6372	ug/L	8.6372 ppb	20:28:05
2	Ti 334.940†	37080.3	36644.0	73.857	ug/L	73.857 ppb	20:27:45
2	Tl 190.801†	-6.6	25.0	12.238	ug/L	12.238 ppb	20:28:05
2	U 409.014†	-2097.6	537.5	17.729	ug/L	17.729 ppb	20:27:45
2	V 292.402†	41.0	1667.1	13.051	ug/L	13.051 ppb	20:27:45
2	Zn 213.857†	8726.9	7607.7	83.501	ug/L	83.501 ppb	20:27:45
2	SiO2†	19714.8	18194.6	1417.1	ug/L	1417.1 ppb	20:28:41
3	Sc Radial	5212.5	5212.5	111	%		20:26:53
3	Y RADIAL	5528.9	5528.9	110.9	%		20:26:53
3	Al 396.153Radial†	1427.8	1376.4	1287.0	ug/L	1287.0 ppb	20:26:53
3	Ca 317.933Radial†	274.2	225.5	409.66	ug/L	409.66 ppb	20:27:13
3	Fe 238.204 Radial†	229.6	200.0	2075.2	ug/L	2075.2 ppb	20:27:13
3	K 766.490 Radial†	3816.1	1184.1	235.48	ug/L	235.48 ppb	20:26:53
3	Mg 279.077 IEC†	11.6	7.6	297.90	ug/L	297.90 ppb	20:27:13
3	Na 589.592 Radial†	-362.2	520.8	177.47	ug/L	177.47 ppb	20:26:53
3	Sr 421.552†	1970.5	1779.8	12.939	ug/L	12.939 ppb	20:26:53
3	Sc 361.383	771960.2	771960.2	100.52	%		20:28:11
3	Y 371.029	690367.6	690367.6	100.19	%		20:28:11
3	Ag 328.068†	2118.7	1852.0	10.196	ug/L	10.196 ppb	20:28:11
3	As 188.979†	54.3	79.1	36.353	ug/L	36.353 ppb	20:28:31
3	B 249.677†	73.5	526.5	12.816	ug/L	12.816 ppb	20:28:31
3	Ba 233.527†	1984.2	1971.5	23.356	ug/L	23.356 ppb	20:28:31
3	Be 313.107†	16761.6	25656.9	10.371	ug/L	10.371 ppb	20:28:11
3	Cd 226.502†	590.1	773.7	10.763	ug/L	10.763 ppb	20:28:31
3	Co 228.616†	317.7	373.5	11.130	ug/L	11.130 ppb	20:28:31
3	Cr 267.716†	925.5	845.1	11.598	ug/L	11.598 ppb	20:28:31
3	Cu 324.752†	10997.8	3404.4	12.848	ug/L	12.848 ppb	20:28:11
3	Mn 257.610†	32278.0	31648.8	50.851	ug/L	50.851 ppb	20:28:11
3	Mo 202.031†	126.3	111.3	10.376	ug/L	10.376 ppb	20:28:31
3	Ni 231.604†	453.4	349.7	11.172	ug/L	11.172 ppb	20:28:31
3	P 214.914†	320.4	123.3	65.080	ug/L	65.080 ppb	20:28:31
3	Pb 220.353†	89737.5	89340.7	14406	ug/L	14406 ppb	20:28:11
3	S 181.975 Axial†	150.9	107.6	139.27	ug/L	139.27 ppb	20:28:31
3	Sb 206.836†	280.1	248.6	100.95	ug/L	100.95 ppb	20:28:31
3	Se 196.026†	-8.8	11.0	11.549	ug/L	11.549 ppb	20:28:31
3	Si 251.611†	19488.4	18797.6	685.81	ug/L	685.81 ppb	20:28:11
3	Sn 189.927†	51.4	43.1	10.096	ug/L	10.096 ppb	20:28:31
3	Ti 334.940†	36586.9	37697.4	75.980	ug/L	75.980 ppb	20:28:11
3	Tl 190.801†	-6.2	25.0	12.301	ug/L	12.301 ppb	20:28:31
3	U 409.014†	-2072.5	475.1	15.646	ug/L	15.646 ppb	20:28:11
3	V 292.402†	70.1	1697.7	13.313	ug/L	13.313 ppb	20:28:11
3	Zn 213.857†	8598.2	7843.2	86.099	ug/L	86.099 ppb	20:28:11
3	SiO2†	19549.6	18851.3	1468.3	ug/L	1468.3 ppb	20:28:46

Mean Data: 1202033901|949334|50

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	792334.2	103.18	%	2.334				2.26%
Sc Radial	5070.8	108	%	2.6				2.43%
Y 371.029	709201.9	102.93	%	2.396				2.33%
Y RADIAL	5348.6	107.3	%	3.22				3.00%
Ag 328.068†	1820.5	10.049	ug/L	0.3347	10.049	ppb	0.3347	3.33%
Al 396.153Radial†	1428.5	1335.8	ug/L	42.27	1335.8	ppb	42.27	3.16%
As 188.979†	72.8	33.559	ug/L	3.8872	33.559	ppb	3.8872	11.58%
B 249.677†	516.8	12.565	ug/L	0.3311	12.565	ppb	0.3311	2.64%
Ba 233.527†	1929.2	22.858	ug/L	0.4478	22.858	ppb	0.4478	1.96%
Be 313.107†	25317.7	10.233	ug/L	0.1476	10.233	ppb	0.1476	1.44%
Ca 317.933Radial†	230.4	418.57	ug/L	10.484	418.57	ppb	10.484	2.50%
Cd 226.502†	761.8	10.589	ug/L	0.1510	10.589	ppb	0.1510	1.43%
Co 228.616†	363.7	10.833	ug/L	0.3455	10.833	ppb	0.3455	3.19%
Cr 267.716†	827.2	11.355	ug/L	0.2127	11.355	ppb	0.2127	1.87%
Cu 324.752†	3288.0	12.415	ug/L	0.4477	12.415	ppb	0.4477	3.61%
Fe 238.204 Radial†	205.2	2129.3	ug/L	54.55	2129.3	ppb	54.55	2.56%
K 766.490 Radial†	1283.2	255.19	ug/L	25.526	255.19	ppb	25.526	10.00%

Mg 279.077 IEC†	8.1	320.87	ug/L	36.644	320.87	ppb	36.644	11.42%
Mn 257.610†	31111.0	49.994	ug/L	0.8068	49.994	ppb	0.8068	1.61%
Mo 202.031†	104.3	9.7438	ug/L	0.58117	9.7438	ppb	0.58117	5.96%
Na 589.592 Radial†	532.1	181.33	ug/L	4.239	181.33	ppb	4.239	2.34%
Ni 231.604†	337.9	10.795	ug/L	0.4063	10.795	ppb	0.4063	3.76%
P 214.914†	119.7	63.093	ug/L	3.3260	63.093	ppb	3.3260	5.27%
Pb 220.353†	87757.0	14151	ug/L	240.7	14151	ppb	240.7	1.70%
S 181.975 Axial†	98.1	126.96	ug/L	11.141	126.96	ppb	11.141	8.78%
Sb 206.836†	246.5	100.09	ug/L	0.799	100.09	ppb	0.799	0.80%
Se 196.026†	10.5	11.381	ug/L	1.6892	11.381	ppb	1.6892	14.84%
Si 251.611†	18506.0	675.18	ug/L	10.059	675.18	ppb	10.059	1.49%
Sn 189.927†	40.3	9.4525	ug/L	0.74456	9.4525	ppb	0.74456	7.88%
Sr 421.552†	1834.0	13.333	ug/L	0.3599	13.333	ppb	0.3599	2.70%
Ti 334.940†	37115.6	74.807	ug/L	1.0790	74.807	ppb	1.0790	1.44%
Tl 190.801†	22.1	10.933	ug/L	2.3156	10.933	ppb	2.3156	21.18%
U 409.014†	507.7	16.734	ug/L	1.0450	16.734	ppb	1.0450	6.25%
V 292.402†	1682.7	13.181	ug/L	0.1309	13.181	ppb	0.1309	0.99%
Zn 213.857†	7722.3	84.761	ug/L	1.3008	84.761	ppb	1.3008	1.53%
SiO2†	18401.0	1433.2	ug/L	30.40	1433.2	ppb	30.40	2.12%

Sequence No.: 20
Sample ID: 1202033902|949334|50
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 53
Date Collected: 3/1/2010 20:30:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033902|949334|50

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5275.8	5275.8	112	%			20:32:50
1	Y RADIAL	5571.3	5571.3	111.8	%			20:32:50
1	Al 396.153Radial†	1158.6	1120.7	1047.8	ug/L	1047.8	ppb	20:32:50
1	Ca 317.933Radial†	232.4	185.2	336.42	ug/L	336.42	ppb	20:33:10
1	Fe 238.204 Radial†	155.3	131.2	1361.9	ug/L	1361.9	ppb	20:33:10
1	K 766.490 Radial†	3535.0	892.1	177.37	ug/L	177.37	ppb	20:32:50
1	Mg 279.077 IEC†	9.7	5.7	226.17	ug/L	226.17	ppb	20:33:10
1	Na 589.592 Radial†	-388.6	501.1	170.78	ug/L	170.78	ppb	20:32:50
1	Sr 421.552†	1849.2	1650.2	11.997	ug/L	11.997	ppb	20:32:50
1	Sc 361.383	808537.3	808537.3	105.29	%			20:34:07
1	Y 371.029	725465.5	725465.5	105.29	%			20:34:07
1	Ag 328.068†	2146.5	1783.0	9.6160	ug/L	9.6160	ppb	20:34:07
1	As 188.979†	317.7	326.7	146.42	ug/L	146.42	ppb	20:34:27
1	B 249.677†	9.3	462.3	11.325	ug/L	11.325	ppb	20:34:27
1	Ba 233.527†	1668.6	1582.5	18.741	ug/L	18.741	ppb	20:34:27
1	Be 313.107†	16849.7	24986.3	10.064	ug/L	10.064	ppb	20:34:07
1	Cd 226.502†	566.1	724.3	10.138	ug/L	10.138	ppb	20:34:27
1	Co 228.616†	301.3	343.6	10.272	ug/L	10.272	ppb	20:34:27
1	Cr 267.716†	934.7	812.2	11.132	ug/L	11.132	ppb	20:34:27
1	Cu 324.752†	11187.7	3089.8	11.632	ug/L	11.632	ppb	20:34:07
1	Mn 257.610†	26609.4	24812.1	39.840	ug/L	39.840	ppb	20:34:07
1	Mo 202.031†	137.0	115.8	10.735	ug/L	10.735	ppb	20:34:27
1	Ni 231.604†	457.9	333.6	10.658	ug/L	10.658	ppb	20:34:27
1	P 214.914†	273.9	64.8	33.630	ug/L	33.630	ppb	20:34:27
1	Pb 220.353†	103822.3	98679.9	15912	ug/L	15912	ppb	20:34:07
1	S 181.975 Axial†	135.9	86.5	112.01	ug/L	112.01	ppb	20:34:27
1	Sb 206.836†	987.7	908.1	369.41	ug/L	369.41	ppb	20:34:27
1	Se 196.026†	-12.6	7.9	8.0070	ug/L	8.0070	ppb	20:34:27
1	Si 251.611†	19602.4	18028.9	657.75	ug/L	657.75	ppb	20:34:07
1	Sn 189.927†	291.4	268.7	63.257	ug/L	63.257	ppb	20:34:27
1	Ti 334.940†	29185.0	29020.6	58.492	ug/L	58.492	ppb	20:34:07
1	Tl 190.801†	-6.1	25.4	12.269	ug/L	12.269	ppb	20:34:27
1	U 409.014†	-2103.4	539.0	17.870	ug/L	17.870	ppb	20:34:07
1	V 292.402†	-100.0	1533.0	12.132	ug/L	12.132	ppb	20:34:07
1	Zn 213.857†	10926.7	9667.8	106.33	ug/L	106.33	ppb	20:34:07
1	SiO2†	19535.7	17958.3	1398.7	ug/L	1398.7	ppb	20:35:23
2	Sc Radial	5045.6	5045.6	107	%			20:33:15
2	Y RADIAL	5316.4	5316.4	106.6	%			20:33:15
2	Al 396.153Radial†	1159.7	1168.9	1093.0	ug/L	1093.0	ppb	20:33:15
2	Ca 317.933Radial†	230.9	193.2	351.03	ug/L	351.03	ppb	20:33:35
2	Fe 238.204 Radial†	157.4	139.5	1447.4	ug/L	1447.4	ppb	20:33:35
2	K 766.490 Radial†	3513.4	1015.8	201.99	ug/L	201.99	ppb	20:33:15
2	Mg 279.077 IEC†	10.6	7.0	278.23	ug/L	278.23	ppb	20:33:35
2	Na 589.592 Radial†	-333.7	536.5	182.83	ug/L	182.83	ppb	20:33:15
2	Sr 421.552†	1844.1	1720.7	12.510	ug/L	12.510	ppb	20:33:15
2	Sc 361.383	812900.4	812900.4	105.85	%			20:34:32
2	Y 371.029	728919.5	728919.5	105.79	%			20:34:32
2	Ag 328.068†	2233.7	1854.5	10.009	ug/L	10.009	ppb	20:34:32
2	As 188.979†	314.3	321.9	144.30	ug/L	144.30	ppb	20:34:52
2	B 249.677†	-3.6	450.0	11.004	ug/L	11.004	ppb	20:34:52
2	Ba 233.527†	1656.2	1562.2	18.506	ug/L	18.506	ppb	20:34:52
2	Be 313.107†	16805.1	24858.3	10.014	ug/L	10.014	ppb	20:34:32
2	Cd 226.502†	570.6	725.7	10.149	ug/L	10.149	ppb	20:34:52
2	Co 228.616†	310.3	350.6	10.477	ug/L	10.477	ppb	20:34:52
2	Cr 267.716†	925.7	798.9	10.951	ug/L	10.951	ppb	20:34:52
2	Cu 324.752†	11085.2	2935.9	11.058	ug/L	11.058	ppb	20:34:32
2	Mn 257.610†	26857.2	24910.6	40.004	ug/L	40.004	ppb	20:34:32
2	Mo 202.031†	117.5	96.6	8.9838	ug/L	8.9838	ppb	20:34:52
2	Ni 231.604†	455.6	329.1	10.513	ug/L	10.513	ppb	20:34:52

2	P 214.914†	273.7	63.2	32.812 ug/L	32.812 ppb	20:34:52
2	Pb 220.353†	104697.7	98977.6	15960 ug/L	15960 ppb	20:34:32
2	S 181.975 Axial†	144.2	93.7	121.30 ug/L	121.30 ppb	20:34:52
2	Sb 206.836†	980.4	896.1	364.51 ug/L	364.51 ppb	20:34:52
2	Se 196.026†	-5.0	15.1	12.607 ug/L	12.607 ppb	20:34:52
2	Si 251.611†	19794.4	18110.3	660.75 ug/L	660.75 ppb	20:34:32
2	Sn 189.927†	289.3	265.2	62.438 ug/L	62.438 ppb	20:34:52
2	Ti 334.940†	29398.2	29073.2	58.594 ug/L	58.594 ppb	20:34:32
2	Tl 190.801†	-3.2	28.2	13.566 ug/L	13.566 ppb	20:34:52
2	U 409.014†	-2013.0	635.1	21.078 ug/L	21.078 ppb	20:34:32
2	V 292.402†	-34.5	1595.4	12.599 ug/L	12.599 ppb	20:34:32
2	Zn 213.857†	11008.3	9689.1	106.56 ug/L	106.56 ppb	20:34:32
2	SiO2†	19274.0	17611.5	1371.7 ug/L	1371.7 ppb	20:35:28
3	Sc Radial	5178.0	5178.0	110 %		20:33:40
3	Y RADIAL	5468.7	5468.7	109.7 %		20:33:40
3	Al 396.153Radial†	1198.9	1176.9	1100.4 ug/L	1100.4 ppb	20:33:40
3	Ca 317.933Radial†	233.6	190.1	345.47 ug/L	345.47 ppb	20:34:00
3	Fe 238.204 Radial†	160.9	138.9	1441.8 ug/L	1441.8 ppb	20:34:00
3	K 766.490 Radial†	3504.2	923.6	183.64 ug/L	183.64 ppb	20:33:40
3	Mg 279.077 IEC†	12.6	8.6	339.24 ug/L	339.24 ppb	20:34:00
3	Na 589.592 Radial†	-371.6	510.1	173.83 ug/L	173.83 ppb	20:33:40
3	Sr 421.552†	1857.0	1688.5	12.276 ug/L	12.276 ppb	20:33:40
3	Sc 361.383	805174.4	805174.4	104.85 %		20:34:58
3	Y 371.029	721017.5	721017.5	104.64 %		20:34:58
3	Ag 328.068†	2148.7	1793.6	9.6939 ug/L	9.6939 ppb	20:34:58
3	As 188.979†	310.8	321.5	144.09 ug/L	144.09 ppb	20:35:18
3	B 249.677†	-7.3	446.5	10.917 ug/L	10.917 ppb	20:35:18
3	Ba 233.527†	1633.8	1555.9	18.431 ug/L	18.431 ppb	20:35:18
3	Be 313.107†	16480.5	24701.0	9.9504 ug/L	9.9504 ppb	20:34:58
3	Cd 226.502†	574.0	734.0	10.268 ug/L	10.268 ppb	20:35:18
3	Co 228.616†	307.8	351.0	10.494 ug/L	10.494 ppb	20:35:18
3	Cr 267.716†	903.1	785.8	10.772 ug/L	10.772 ppb	20:35:18
3	Cu 324.752†	10960.4	2917.4	10.988 ug/L	10.988 ppb	20:34:58
3	Mn 257.610†	26403.6	24721.4	39.698 ug/L	39.698 ppb	20:34:58
3	Mo 202.031†	129.6	109.3	10.143 ug/L	10.143 ppb	20:35:18
3	Ni 231.604†	444.2	322.3	10.297 ug/L	10.297 ppb	20:35:18
3	P 214.914†	279.7	71.4	37.354 ug/L	37.354 ppb	20:35:18
3	Pb 220.353†	103076.9	98380.8	15864 ug/L	15864 ppb	20:34:58
3	S 181.975 Axial†	140.2	91.2	118.05 ug/L	118.05 ppb	20:35:18
3	Sb 206.836†	968.2	893.4	363.40 ug/L	363.40 ppb	20:35:18
3	Se 196.026†	-16.2	4.3	6.0128 ug/L	6.0128 ppb	20:35:18
3	Si 251.611†	19463.4	17974.1	655.76 ug/L	655.76 ppb	20:34:58
3	Sn 189.927†	276.5	255.6	60.170 ug/L	60.170 ppb	20:35:18
3	Ti 334.940†	28932.3	28895.4	58.229 ug/L	58.229 ppb	20:34:58
3	Tl 190.801†	-3.3	28.1	13.511 ug/L	13.511 ppb	20:35:18
3	U 409.014†	-1956.9	670.4	22.260 ug/L	22.260 ppb	20:34:58
3	V 292.402†	-13.8	1614.9	12.775 ug/L	12.775 ppb	20:34:58
3	Zn 213.857†	10803.5	9593.6	105.51 ug/L	105.51 ppb	20:34:58
3	SiO2†	19728.2	18219.4	1419.0 ug/L	1419.0 ppb	20:35:33

Mean Data: 1202033902|949334|50

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808870.7	105.33	%	0.504				0.48%
Sc Radial	5166.4	110	%	2.5				2.24%
Y 371.029	725134.2	105.24	%	0.575				0.55%
Y RADIAL	5452.2	109.4	%	2.57				2.35%
Ag 328.068†	1810.4	9.7729	ug/L	0.20797	9.7729	ppb	0.20797	2.13%
Al 396.153Radial†	1155.5	1080.4	ug/L	28.44	1080.4	ppb	28.44	2.63%
As 188.979†	323.4	144.94	ug/L	1.290	144.94	ppb	1.290	0.89%
B 249.677†	452.9	11.082	ug/L	0.2146	11.082	ppb	0.2146	1.94%
Ba 233.527†	1566.9	18.560	ug/L	0.1616	18.560	ppb	0.1616	0.87%
Be 313.107†	24848.5	10.009	ug/L	0.0571	10.009	ppb	0.0571	0.57%
Ca 317.933Radial†	189.5	344.31	ug/L	7.376	344.31	ppb	7.376	2.14%
Cd 226.502†	728.0	10.185	ug/L	0.0721	10.185	ppb	0.0721	0.71%
Co 228.616†	348.4	10.414	ug/L	0.1232	10.414	ppb	0.1232	1.18%
Cr 267.716†	798.9	10.952	ug/L	0.1802	10.952	ppb	0.1802	1.65%
Cu 324.752†	2981.0	11.226	ug/L	0.3531	11.226	ppb	0.3531	3.15%
Fe 238.204 Radial†	136.6	1417.0	ug/L	47.82	1417.0	ppb	47.82	3.37%
K 766.490 Radial†	943.8	187.67	ug/L	12.794	187.67	ppb	12.794	6.82%

Mg 279.077 IEC†	7.1	281.21 ug/L	56.596	281.21 ppb	56.596	20.13%
Mn 257.610†	24814.7	39.848 ug/L	0.1531	39.848 ppb	0.1531	0.38%
Mo 202.031†	107.2	9.9538 ug/L	0.89065	9.9538 ppb	0.89065	8.95%
Na 589.592 Radial†	515.9	175.81 ug/L	6.264	175.81 ppb	6.264	3.56%
Ni 231.604†	328.3	10.489 ug/L	0.1815	10.489 ppb	0.1815	1.73%
P 214.914†	66.5	34.599 ug/L	2.4210	34.599 ppb	2.4210	7.00%
Pb 220.353†	98679.4	15912 ug/L	48.1	15912 ppb	48.1	0.30%
S 181.975 Axial†	90.5	117.12 ug/L	4.711	117.12 ppb	4.711	4.02%
Sb 206.836†	899.2	365.77 ug/L	3.196	365.77 ppb	3.196	0.87%
Se 196.026†	9.1	8.8755 ug/L	3.38162	8.8755 ppb	3.38162	38.10%
Si 251.611†	18037.8	658.09 ug/L	2.509	658.09 ppb	2.509	0.38%
Sn 189.927†	263.2	61.955 ug/L	1.5992	61.955 ppb	1.5992	2.58%
Sr 421.552†	1686.4	12.261 ug/L	0.2564	12.261 ppb	0.2564	2.09%
Ti 334.940†	28996.4	58.438 ug/L	0.1880	58.438 ppb	0.1880	0.32%
Tl 190.801†	27.2	13.115 ug/L	0.7333	13.115 ppb	0.7333	5.59%
U 409.014†	614.8	20.402 ug/L	2.2716	20.402 ppb	2.2716	11.13%
V 292.402†	1581.1	12.502 ug/L	0.3323	12.502 ppb	0.3323	2.66%
Zn 213.857†	9650.2	106.13 ug/L	0.553	106.13 ppb	0.553	0.52%
SiO2†	17929.7	1396.5 ug/L	23.74	1396.5 ppb	23.74	1.70%

Sequence No.: 21
Sample ID: 1202033900|949334|250
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 54
Date Collected: 3/1/2010 20:37:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033900|949334|250

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4951.0	4951.0	105	%			20:39:37
1	Y RADIAL	5269.3	5269.3	105.7	%			20:39:37
1	Al 396.153Radial†	48.1	132.9	124.33	ug/L	124.33	ppb	20:39:57
1	Ca 317.933Radial†	53.3	28.5	51.789	ug/L	51.789	ppb	20:39:57
1	Fe 238.204 Radial†	44.9	35.3	366.72	ug/L	366.72	ppb	20:39:57
1	K 766.490 Radial†	2472.5	88.9	17.649	ug/L	17.649	ppb	20:39:37
1	Mg 279.077 IEC†	1.4	-1.5	-60.462	ug/L	-60.462	ppb	20:39:57
1	Na 589.592 Radial†	-735.9	148.2	50.502	ug/L	50.502	ppb	20:39:37
1	Sr 421.552†	117.4	112.1	0.8147	ug/L	0.8147	ppb	20:39:37
1	Sc 361.383	813199.8	813199.8	105.89	%			20:40:54
1	Y 371.029	727116.2	727116.2	105.53	%			20:40:54
1	Ag 328.068†	197.3	-69.3	-0.2540	ug/L	-0.2540	ppb	20:40:54
1	As 188.979†	-25.2	1.3	0.7200	ug/L	0.7200	ppb	20:41:14
1	B 249.677†	-456.3	22.5	0.5044	ug/L	0.5044	ppb	20:41:14
1	Ba 233.527†	153.7	142.7	1.6966	ug/L	1.6966	ppb	20:41:14
1	Be 313.107†	-9512.1	-0.0	0.0188	ug/L	0.0188	ppb	20:40:54
1	Cd 226.502†	-193.3	4.1	0.0223	ug/L	0.0223	ppb	20:41:14
1	Co 228.616†	-54.9	5.6	0.1466	ug/L	0.1466	ppb	20:41:14
1	Cr 267.716†	70.4	-9.1	-0.1230	ug/L	-0.1230	ppb	20:41:14
1	Cu 324.752†	7858.5	-115.0	-0.4199	ug/L	-0.4199	ppb	20:40:54
1	Mn 257.610†	4457.0	3747.8	6.0375	ug/L	6.0375	ppb	20:40:54
1	Mo 202.031†	10.0	-4.9	-0.4196	ug/L	-0.4196	ppb	20:41:14
1	Ni 231.604†	96.2	-10.5	-0.3348	ug/L	-0.3348	ppb	20:41:14
1	P 214.914†	220.7	13.0	7.0709	ug/L	7.0709	ppb	20:41:14
1	Pb 220.353†	14070.8	13358.4	2154.0	ug/L	2154.0	ppb	20:40:54
1	S 181.975 Axial†	43.0	-1.9	-2.5334	ug/L	-2.5334	ppb	20:41:14
1	Sb 206.836†	52.5	19.6	7.8781	ug/L	7.8781	ppb	20:41:14
1	Se 196.026†	-19.2	1.7	1.8534	ug/L	1.8534	ppb	20:41:14
1	Si 251.611†	3441.4	2660.7	97.095	ug/L	97.095	ppb	20:41:14
1	Sn 189.927†	3.5	-4.8	-1.1451	ug/L	-1.1451	ppb	20:41:14
1	Ti 334.940†	2964.6	4100.6	8.2680	ug/L	8.2680	ppb	20:40:54
1	Tl 190.801†	-30.4	2.5	1.2271	ug/L	1.2271	ppb	20:41:14
1	U 409.014†	-2200.8	458.5	15.310	ug/L	15.310	ppb	20:40:54
1	V 292.402†	-1628.2	90.4	0.6795	ug/L	0.6795	ppb	20:40:54
1	Zn 213.857†	1322.9	538.9	5.8915	ug/L	5.8915	ppb	20:41:14
1	SiO2†	3619.2	2821.4	219.80	ug/L	219.80	ppb	20:42:10
2	Sc Radial	4993.9	4993.9	106	%			20:40:02
2	Y RADIAL	5270.3	5270.3	105.7	%			20:40:02
2	Al 396.153Radial†	52.3	136.5	127.65	ug/L	127.65	ppb	20:40:22
2	Ca 317.933Radial†	56.6	31.2	56.683	ug/L	56.683	ppb	20:40:22
2	Fe 238.204 Radial†	45.2	35.3	366.47	ug/L	366.47	ppb	20:40:22
2	K 766.490 Radial†	2450.6	48.0	9.5002	ug/L	9.5002	ppb	20:40:02
2	Mg 279.077 IEC†	1.8	-1.2	-48.597	ug/L	-48.597	ppb	20:40:22
2	Na 589.592 Radial†	-693.8	193.9	66.076	ug/L	66.076	ppb	20:40:02
2	Sr 421.552†	101.6	96.2	0.6995	ug/L	0.6995	ppb	20:40:02
2	Sc 361.383	813704.4	813704.4	105.96	%			20:41:19
2	Y 371.029	726495.2	726495.2	105.44	%			20:41:19
2	Ag 328.068†	217.8	-50.1	-0.1483	ug/L	-0.1483	ppb	20:41:19
2	As 188.979†	-19.8	6.3	2.9785	ug/L	2.9785	ppb	20:41:39
2	B 249.677†	-436.6	41.4	0.9768	ug/L	0.9768	ppb	20:41:39
2	Ba 233.527†	159.1	147.8	1.7557	ug/L	1.7557	ppb	20:41:39
2	Be 313.107†	-9492.0	24.6	0.0281	ug/L	0.0281	ppb	20:41:19
2	Cd 226.502†	-195.3	2.4	-0.0037	ug/L	-0.0037	ppb	20:41:39
2	Co 228.616†	-61.2	-0.2	-0.0290	ug/L	-0.0290	ppb	20:41:39
2	Cr 267.716†	73.9	-5.9	-0.0747	ug/L	-0.0747	ppb	20:41:39
2	Cu 324.752†	7782.7	-191.2	-0.6995	ug/L	-0.6995	ppb	20:41:19
2	Mn 257.610†	4479.3	3766.3	6.0666	ug/L	6.0666	ppb	20:41:19
2	Mo 202.031†	13.9	-1.3	-0.0884	ug/L	-0.0884	ppb	20:41:39
2	Ni 231.604†	86.3	-19.8	-0.6342	ug/L	-0.6342	ppb	20:41:39

2	P 214.914†	203.4	-3.4	-2.0254	ug/L	-2.0254 ppb	20:41:39
2	Pb 220.353†	14170.4	13444.1	2167.9	ug/L	2167.9 ppb	20:41:19
2	S 181.975 Axial†	47.9	2.7	3.5276	ug/L	3.5276 ppb	20:41:39
2	Sb 206.836†	57.6	24.3	9.8230	ug/L	9.8230 ppb	20:41:39
2	Se 196.026†	-19.6	1.3	1.6164	ug/L	1.6164 ppb	20:41:39
2	Si 251.611†	3477.5	2692.7	98.261	ug/L	98.261 ppb	20:41:39
2	Sn 189.927†	6.3	-2.1	-0.5137	ug/L	-0.5137 ppb	20:41:39
2	Ti 334.940†	2858.0	3998.3	8.0659	ug/L	8.0659 ppb	20:41:19
2	Tl 190.801†	-21.8	10.6	4.9809	ug/L	4.9809 ppb	20:41:39
2	U 409.014†	-2520.9	157.7	5.2393	ug/L	5.2393 ppb	20:41:19
2	V 292.402†	-1663.7	57.9	0.4064	ug/L	0.4064 ppb	20:41:19
2	Zn 213.857†	1326.7	541.8	5.9251	ug/L	5.9251 ppb	20:41:39
2	SiO2†	3552.8	2756.5	214.74	ug/L	214.74 ppb	20:42:15
3	Sc Radial	4962.4	4962.4	105	%		20:40:27
3	Y RADIAL	5275.6	5275.6	105.8	%		20:40:27
3	Al 396.153Radial†	41.9	126.8	118.63	ug/L	118.63 ppb	20:40:47
3	Ca 317.933Radial†	52.3	27.4	49.818	ug/L	49.818 ppb	20:40:47
3	Fe 238.204 Radial†	44.1	34.5	358.12	ug/L	358.12 ppb	20:40:47
3	K 766.490 Radial†	2351.5	-31.4	-6.2860	ug/L	-6.2860 ppb	20:40:27
3	Mg 279.077 IEC†	3.2	0.1	5.2146	ug/L	5.2146 ppb	20:40:47
3	Na 589.592 Radial†	-713.8	170.8	58.198	ug/L	58.198 ppb	20:40:27
3	Sr 421.552†	98.6	94.0	0.6833	ug/L	0.6833 ppb	20:40:27
3	Sc 361.383	821808.5	821808.5	107.01	%		20:41:45
3	Y 371.029	732710.1	732710.1	106.34	%		20:41:45
3	Ag 328.068†	200.9	-67.9	-0.2489	ug/L	-0.2489 ppb	20:41:45
3	As 188.979†	-22.5	3.9	1.9119	ug/L	1.9119 ppb	20:42:05
3	B 249.677†	-495.0	-9.1	-0.2869	ug/L	-0.2869 ppb	20:42:05
3	Ba 233.527†	154.0	141.5	1.6826	ug/L	1.6826 ppb	20:42:05
3	Be 313.107†	-9718.5	-98.8	-0.0205	ug/L	-0.0205 ppb	20:41:45
3	Cd 226.502†	-184.4	14.4	0.1690	ug/L	0.1690 ppb	20:42:05
3	Co 228.616†	-48.9	11.8	0.3345	ug/L	0.3345 ppb	20:42:05
3	Cr 267.716†	95.5	13.7	0.1886	ug/L	0.1886 ppb	20:42:05
3	Cu 324.752†	8002.0	-58.7	-0.2087	ug/L	-0.2087 ppb	20:41:45
3	Mn 257.610†	4504.4	3748.0	6.0344	ug/L	6.0344 ppb	20:41:45
3	Mo 202.031†	15.9	0.5	0.0732	ug/L	0.0732 ppb	20:42:05
3	Ni 231.604†	81.1	-25.6	-0.8174	ug/L	-0.8174 ppb	20:42:05
3	P 214.914†	216.3	6.8	3.5539	ug/L	3.5539 ppb	20:42:05
3	Pb 220.353†	14247.6	13384.4	2158.2	ug/L	2158.2 ppb	20:41:45
3	S 181.975 Axial†	36.7	-8.2	-10.677	ug/L	-10.677 ppb	20:42:05
3	Sb 206.836†	64.4	30.2	12.179	ug/L	12.179 ppb	20:42:05
3	Se 196.026†	-25.6	-4.1	-1.7025	ug/L	-1.7025 ppb	20:42:05
3	Si 251.611†	3476.9	2659.7	97.055	ug/L	97.055 ppb	20:42:05
3	Sn 189.927†	2.1	-6.1	-1.4453	ug/L	-1.4453 ppb	20:42:05
3	Ti 334.940†	3005.5	4109.5	8.2806	ug/L	8.2806 ppb	20:41:45
3	Tl 190.801†	-34.9	-1.4	-0.5392	ug/L	-0.5392 ppb	20:42:05
3	U 409.014†	-2255.3	429.4	14.336	ug/L	14.336 ppb	20:41:45
3	V 292.402†	-1652.0	84.3	0.6386	ug/L	0.6386 ppb	20:41:45
3	Zn 213.857†	1326.3	529.1	5.7869	ug/L	5.7869 ppb	20:42:05
3	SiO2†	3594.0	2761.9	215.16	ug/L	215.16 ppb	20:42:20

Mean Data: 1202033900|949334|250

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	816237.6	106.29	%	0.629				0.59%
Sc Radial	4969.1	106	%	0.5				0.45%
Y 371.029	728773.8	105.77	%	0.497				0.47%
Y RADIAL	5271.7	105.7	%	0.07				0.06%
Ag 328.068†	-62.5	-0.2170	ug/L	0.05958	-0.2170	ppb	0.05958	27.45%
Al 396.153Radial†	132.1	123.53	ug/L	4.561	123.53	ppb	4.561	3.69%
As 188.979†	3.8	1.8702	ug/L	1.12982	1.8702	ppb	1.12982	60.41%
B 249.677†	18.3	0.3981	ug/L	0.63853	0.3981	ppb	0.63853	160.40%
Ba 233.527†	144.0	1.7116	ug/L	0.03881	1.7116	ppb	0.03881	2.27%
Be 313.107†	-24.8	0.0088	ug/L	0.02576	0.0088	ppb	0.02576	293.60%
Ca 317.933Radial†	29.0	52.763	ug/L	3.5346	52.763	ppb	3.5346	6.70%
Cd 226.502†	6.9	0.0625	ug/L	0.09309	0.0625	ppb	0.09309	148.85%
Co 228.616†	5.7	0.1507	ug/L	0.18176	0.1507	ppb	0.18176	120.61%
Cr 267.716†	-0.5	-0.0030	ug/L	0.16770	-0.0030	ppb	0.16770	>999.9%
Cu 324.752†	-121.6	-0.4427	ug/L	0.24616	-0.4427	ppb	0.24616	55.61%
Fe 238.204 Radial†	35.1	363.77	ug/L	4.894	363.77	ppb	4.894	1.35%
K 766.490 Radial†	35.1	6.9544	ug/L	12.16879	6.9544	ppb	12.16879	174.98%

Mg 279.077 IEC†	-0.9	-34.615	ug/L	34.9998	-34.615	ppb	34.9998 101.11%
Mn 257.610†	3754.0	6.0461	ug/L	0.01775	6.0461	ppb	0.01775 0.29%
Mo 202.031†	-1.9	-0.1449	ug/L	0.25122	-0.1449	ppb	0.25122 173.35%
Na 589.592 Radial†	170.9	58.259	ug/L	7.7876	58.259	ppb	7.7876 13.37%
Ni 231.604†	-18.6	-0.5955	ug/L	0.24364	-0.5955	ppb	0.24364 40.92%
P 214.914†	5.5	2.8665	ug/L	4.58695	2.8665	ppb	4.58695 160.02%
Pb 220.353†	13395.6	2160.1	ug/L	7.09	2160.1	ppb	7.09 0.33%
S 181.975 Axial†	-2.5	-3.2276	ug/L	7.12779	-3.2276	ppb	7.12779 220.84%
Sb 206.836†	24.7	9.9602	ug/L	2.15392	9.9602	ppb	2.15392 21.63%
Se 196.026†	-0.4	0.5891	ug/L	1.98811	0.5891	ppb	1.98811 337.47%
Si 251.611†	2671.0	97.470	ug/L	0.6849	97.470	ppb	0.6849 0.70%
Sn 189.927†	-4.3	-1.0347	ug/L	0.47552	-1.0347	ppb	0.47552 45.96%
Sr 421.552†	100.8	0.7325	ug/L	0.07162	0.7325	ppb	0.07162 9.78%
Ti 334.940†	4069.5	8.2048	ug/L	0.12051	8.2048	ppb	0.12051 1.47%
Tl 190.801†	3.9	1.8896	ug/L	2.81904	1.8896	ppb	2.81904 149.19%
U 409.014†	348.5	11.629	ug/L	5.5546	11.629	ppb	5.5546 47.77%
V 292.402†	77.5	0.5748	ug/L	0.14729	0.5748	ppb	0.14729 25.62%
Zn 213.857†	536.6	5.8678	ug/L	0.07211	5.8678	ppb	0.07211 1.23%
SiO2†	2779.9	216.57	ug/L	2.809	216.57	ppb	2.809 1.30%

Sequence No.: 22
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/1/2010 20:44:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4955.3	4955.3	105	%			20:46:23
1	Y RADIAL	5216.5	5216.5	104.6	%			20:46:23
1	Al 396.153Radial†	5530.9	5340.5	4971.5	ug/L	4971.5	ppb	20:46:23
1	Ca 317.933Radial†	2981.9	2810.1	5105.8	ug/L	5105.8	ppb	20:46:43
1	Fe 238.204 Radial†	530.0	496.1	5162.5	ug/L	5162.5	ppb	20:46:43
1	K 766.490 Radial†	28735.5	25031.7	4976.5	ug/L	4976.5	ppb	20:46:23
1	Mg 279.077 IEC†	142.5	132.4	5257.9	ug/L	5257.9	ppb	20:46:43
1	Na 589.592 Radial†	30146.9	29481.7	10047	ug/L	10047	ppb	20:46:23
1	Sr 421.552†	72753.2	69102.4	502.46	ug/L	502.46	ppb	20:46:23
1	Sc 361.383	818841.5	818841.5	106.63	%			20:47:40
1	Y 371.029	725332.2	725332.2	105.27	%			20:47:40
1	Ag 328.068†	102995.3	96337.0	498.42	ug/L	498.42	ppb	20:47:46
1	As 188.979†	1169.6	1121.9	504.32	ug/L	504.32	ppb	20:48:06
1	B 249.677†	20483.8	19663.9	490.13	ug/L	490.13	ppb	20:47:46
1	Ba 233.527†	45020.1	42219.0	499.43	ug/L	499.43	ppb	20:47:46
1	Be 313.107†	1315047.5	1242281.3	494.91	ug/L	494.91	ppb	20:47:40
1	Cd 226.502†	37426.5	35286.5	500.12	ug/L	500.12	ppb	20:47:46
1	Co 228.616†	17883.3	16829.1	508.68	ug/L	508.68	ppb	20:47:46
1	Cr 267.716†	38856.1	36365.0	497.41	ug/L	497.41	ppb	20:47:46
1	Cu 324.752†	149317.2	132498.8	496.13	ug/L	496.13	ppb	20:47:46
1	Mn 257.610†	331754.3	310670.0	497.56	ug/L	497.56	ppb	20:47:46
1	Mo 202.031†	5776.1	5402.6	496.27	ug/L	496.27	ppb	20:48:06
1	Ni 231.604†	16954.0	15798.7	504.73	ug/L	504.73	ppb	20:47:46
1	P 214.914†	4982.1	4477.1	2403.2	ug/L	2403.2	ppb	20:48:06
1	Pb 220.353†	3268.4	3135.9	507.49	ug/L	507.49	ppb	20:48:06
1	S 181.975 Axial†	868.6	772.1	1000.2	ug/L	1000.2	ppb	20:48:06
1	Sb 206.836†	1333.6	1220.7	513.02	ug/L	513.02	ppb	20:48:06
1	Se 196.026†	862.9	829.0	521.26	ug/L	521.26	ppb	20:48:06
1	Si 251.611†	73537.2	68376.6	2489.0	ug/L	2489.0	ppb	20:47:46
1	Sn 189.927†	2239.5	2092.2	493.31	ug/L	493.31	ppb	20:48:06
1	Ti 334.940†	260825.7	245912.7	495.37	ug/L	495.37	ppb	20:47:46
1	Tl 190.801†	1118.2	1079.9	499.23	ug/L	499.23	ppb	20:48:06
1	U 409.014†	13342.1	15049.5	502.24	ug/L	502.24	ppb	20:47:46
1	V 292.402†	64737.1	62340.8	503.06	ug/L	503.06	ppb	20:47:46
1	Zn 213.857†	48862.8	45115.0	492.89	ug/L	492.89	ppb	20:47:46
1	SiO2†	73818.2	68632.9	5333.1	ug/L	5333.1	ppb	20:49:13
2	Sc Radial	5017.5	5017.5	107	%			20:46:48
2	Y RADIAL	5219.2	5219.2	104.7	%			20:46:48
2	Al 396.153Radial†	5559.1	5301.8	4935.6	ug/L	4935.6	ppb	20:46:48
2	Ca 317.933Radial†	3010.9	2802.2	5091.5	ug/L	5091.5	ppb	20:47:08
2	Fe 238.204 Radial†	538.0	497.4	5175.3	ug/L	5175.3	ppb	20:47:08
2	K 766.490 Radial†	28842.7	24793.9	4929.2	ug/L	4929.2	ppb	20:46:48
2	Mg 279.077 IEC†	142.5	130.8	5192.3	ug/L	5192.3	ppb	20:47:08
2	Na 589.592 Radial†	30254.1	29227.3	9960.7	ug/L	9960.7	ppb	20:46:48
2	Sr 421.552†	72983.2	68461.6	497.80	ug/L	497.80	ppb	20:46:48
2	Sc 361.383	821062.7	821062.7	106.92	%			20:48:11
2	Y 371.029	726323.4	726323.4	105.41	%			20:48:11
2	Ag 328.068†	102390.9	95510.4	494.17	ug/L	494.17	ppb	20:48:16
2	As 188.979†	1152.4	1102.8	495.81	ug/L	495.81	ppb	20:48:37
2	B 249.677†	20439.9	19570.9	487.80	ug/L	487.80	ppb	20:48:16
2	Ba 233.527†	44946.5	42036.0	497.27	ug/L	497.27	ppb	20:48:16
2	Be 313.107†	1314649.6	1238572.8	493.43	ug/L	493.43	ppb	20:48:11
2	Cd 226.502†	37367.3	35136.2	497.99	ug/L	497.99	ppb	20:48:16
2	Co 228.616†	17843.2	16746.2	506.17	ug/L	506.17	ppb	20:48:16
2	Cr 267.716†	38716.6	36136.0	494.28	ug/L	494.28	ppb	20:48:16
2	Cu 324.752†	148595.4	131444.9	492.18	ug/L	492.18	ppb	20:48:16
2	Mn 257.610†	331036.1	309156.5	495.14	ug/L	495.14	ppb	20:48:16
2	Mo 202.031†	5719.9	5335.5	490.11	ug/L	490.11	ppb	20:48:37
2	Ni 231.604†	16931.5	15734.6	502.68	ug/L	502.68	ppb	20:48:16

2	P 214.914†	4918.2	4404.7	2363.5 ug/L	2363.5 ppb	20:48:37
2	Pb 220.353†	3250.0	3110.4	503.36 ug/L	503.36 ppb	20:48:37
2	S 181.975 Axial†	870.5	771.7	999.56 ug/L	999.56 ppb	20:48:37
2	Sb 206.836†	1329.4	1213.4	509.87 ug/L	509.87 ppb	20:48:37
2	Se 196.026†	847.0	812.0	510.86 ug/L	510.86 ppb	20:48:37
2	Si 251.611†	73320.7	67987.6	2474.9 ug/L	2474.9 ppb	20:48:16
2	Sn 189.927†	2229.0	2076.7	489.65 ug/L	489.65 ppb	20:48:37
2	Ti 334.940†	259779.9	244272.9	492.07 ug/L	492.07 ppb	20:48:16
2	Tl 190.801†	1108.4	1067.9	493.70 ug/L	493.70 ppb	20:48:37
2	U 409.014†	13394.0	15064.2	502.74 ug/L	502.74 ppb	20:48:16
2	V 292.402†	64573.2	62023.2	500.44 ug/L	500.44 ppb	20:48:16
2	Zn 213.857†	48729.1	44866.0	490.16 ug/L	490.16 ppb	20:48:16
2	SiO2†	74174.8	68779.2	5344.7 ug/L	5344.7 ppb	20:49:18
3	Sc Radial	4975.9	4975.9	106 %		20:47:13
3	Y RADIAL	5234.1	5234.1	105.0 %		20:47:13
3	Al 396.153Radial†	5545.5	5332.5	4964.2 ug/L	4964.2 ppb	20:47:13
3	Ca 317.933Radial†	3002.1	2817.5	5119.2 ug/L	5119.2 ppb	20:47:33
3	Fe 238.204 Radial†	533.6	497.4	5175.7 ug/L	5175.7 ppb	20:47:33
3	K 766.490 Radial†	28618.8	24808.6	4932.1 ug/L	4932.1 ppb	20:47:13
3	Mg 279.077 IEC†	141.3	130.8	5192.8 ug/L	5192.8 ppb	20:47:33
3	Na 589.592 Radial†	29982.9	29208.3	9954.2 ug/L	9954.2 ppb	20:47:13
3	Sr 421.552†	72795.7	68857.3	500.67 ug/L	500.67 ppb	20:47:13
3	Sc 361.383	822590.8	822590.8	107.12 %		20:48:42
3	Y 371.029	727105.4	727105.4	105.53 %		20:48:42
3	Ag 328.068†	103098.9	95993.5	496.66 ug/L	496.66 ppb	20:48:47
3	As 188.979†	1166.9	1114.4	500.99 ug/L	500.99 ppb	20:49:07
3	B 249.677†	20666.7	19747.1	492.21 ug/L	492.21 ppb	20:48:47
3	Ba 233.527†	45128.4	42127.7	498.35 ug/L	498.35 ppb	20:48:47
3	Be 313.107†	1314512.6	1236160.7	492.48 ug/L	492.48 ppb	20:48:42
3	Cd 226.502†	37523.2	35216.8	499.13 ug/L	499.13 ppb	20:48:47
3	Co 228.616†	17897.7	16766.1	506.77 ug/L	506.77 ppb	20:48:47
3	Cr 267.716†	39024.4	36356.1	497.29 ug/L	497.29 ppb	20:48:47
3	Cu 324.752†	149979.0	132478.5	496.05 ug/L	496.05 ppb	20:48:47
3	Mn 257.610†	333180.4	310583.2	497.43 ug/L	497.43 ppb	20:48:47
3	Mo 202.031†	5762.0	5364.8	492.80 ug/L	492.80 ppb	20:49:07
3	Ni 231.604†	17000.7	15769.8	503.81 ug/L	503.81 ppb	20:48:47
3	P 214.914†	4952.8	4428.4	2376.0 ug/L	2376.0 ppb	20:49:07
3	Pb 220.353†	3249.5	3104.3	502.38 ug/L	502.38 ppb	20:49:07
3	S 181.975 Axial†	860.6	760.9	985.61 ug/L	985.61 ppb	20:49:07
3	Sb 206.836†	1345.2	1225.8	514.97 ug/L	514.97 ppb	20:49:07
3	Se 196.026†	859.7	822.4	517.23 ug/L	517.23 ppb	20:49:07
3	Si 251.611†	73953.3	68450.7	2491.8 ug/L	2491.8 ppb	20:48:47
3	Sn 189.927†	2232.5	2076.1	489.52 ug/L	489.52 ppb	20:49:07
3	Ti 334.940†	262019.5	245912.3	495.38 ug/L	495.38 ppb	20:48:47
3	Tl 190.801†	1116.9	1073.9	496.50 ug/L	496.50 ppb	20:49:07
3	U 409.014†	13367.1	15015.8	501.12 ug/L	501.12 ppb	20:48:47
3	V 292.402†	64956.2	62268.6	502.43 ug/L	502.43 ppb	20:48:47
3	Zn 213.857†	49082.1	45110.8	492.85 ug/L	492.85 ppb	20:48:47
3	SiO2†	74158.0	68634.6	5333.3 ug/L	5333.3 ppb	20:49:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	820831.7	106.89	%	0.246				0.23%
Sc Radial	4982.9	106	%	0.7				0.64%
Y 371.029	726253.7	105.40	%	0.129				0.12%
Y RADIAL	5223.3	104.8	%	0.19				0.18%
Ag 328.068†	95947.0	496.42	ug/L	2.139	496.42	ppb	2.139	0.43%
QC value within limits for Ag 328.068 Recovery = 99.28%								
Al 396.153Radial†	5324.9	4957.1	ug/L	18.96	4957.1	ppb	18.96	0.38%
QC value within limits for Al 396.153Radial Recovery = 99.14%								
As 188.979†	1113.0	500.37	ug/L	4.286	500.37	ppb	4.286	0.86%
QC value within limits for As 188.979 Recovery = 100.07%								
B 249.677†	19660.6	490.05	ug/L	2.206	490.05	ppb	2.206	0.45%
QC value within limits for B 249.677 Recovery = 98.01%								
Ba 233.527†	42127.6	498.35	ug/L	1.082	498.35	ppb	1.082	0.22%
QC value within limits for Ba 233.527 Recovery = 99.67%								
Be 313.107†	1239004.9	493.60	ug/L	1.226	493.60	ppb	1.226	0.25%
QC value within limits for Be 313.107 Recovery = 98.72%								
Ca 317.933Radial†	2809.9	5105.5	ug/L	13.85	5105.5	ppb	13.85	0.27%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.11%
Cd 226.502†            35213.2      499.08 ug/L         1.068      499.08 ppb          1.068   0.21%
   QC value within limits for Cd 226.502  Recovery = 99.82%
Co 228.616†            16780.4      507.20 ug/L         1.312      507.20 ppb          1.312   0.26%
   QC value within limits for Co 228.616  Recovery = 101.44%
Cr 267.716†            36285.7      496.33 ug/L         1.775      496.33 ppb          1.775   0.36%
   QC value within limits for Cr 267.716  Recovery = 99.27%
Cu 324.752†           132140.7      494.79 ug/L         2.257      494.79 ppb          2.257   0.46%
   QC value within limits for Cu 324.752  Recovery = 98.96%
Fe 238.204 Radial†       497.0      5171.2 ug/L          7.54      5171.2 ppb           7.54   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.42%
K 766.490 Radial†      24878.1      4945.9 ug/L         26.50      4945.9 ppb          26.50   0.54%
   QC value within limits for K 766.490 Radial  Recovery = 98.92%
Mg 279.077 IEC†          131.3      5214.4 ug/L         37.72      5214.4 ppb          37.72   0.72%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.29%
Mn 257.610†           310136.5      496.71 ug/L         1.359      496.71 ppb          1.359   0.27%
   QC value within limits for Mn 257.610  Recovery = 99.34%
Mo 202.031†             5367.6      493.06 ug/L         3.090      493.06 ppb          3.090   0.63%
   QC value within limits for Mo 202.031  Recovery = 98.61%
Na 589.592 Radial†     29305.8      9987.4 ug/L         52.02      9987.4 ppb          52.02   0.52%
   QC value within limits for Na 589.592 Radial  Recovery = 99.87%
Ni 231.604†            15767.7      503.74 ug/L         1.025      503.74 ppb          1.025   0.20%
   QC value within limits for Ni 231.604  Recovery = 100.75%
P 214.914†              4436.7      2380.9 ug/L         20.30      2380.9 ppb          20.30   0.85%
   QC value within limits for P 214.914  Recovery = 95.24%
Pb 220.353†             3116.9      504.41 ug/L         2.713      504.41 ppb          2.713   0.54%
   QC value within limits for Pb 220.353  Recovery = 100.88%
S 181.975 Axial†         768.2      995.12 ug/L         8.237      995.12 ppb          8.237   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 99.51%
Sb 206.836†             1220.0      512.62 ug/L         2.573      512.62 ppb          2.573   0.50%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†              821.2      516.45 ug/L         5.245      516.45 ppb          5.245   1.02%
   QC value within limits for Se 196.026  Recovery = 103.29%
Si 251.611†            68271.6      2485.2 ug/L          9.05      2485.2 ppb           9.05   0.36%
   QC value within limits for Si 251.611  Recovery = 99.41%
Sn 189.927†             2081.6      490.83 ug/L         2.152      490.83 ppb          2.152   0.44%
   QC value within limits for Sn 189.927  Recovery = 98.17%
Sr 421.552†            68807.1      500.31 ug/L         2.351      500.31 ppb          2.351   0.47%
   QC value within limits for Sr 421.552  Recovery = 100.06%
Ti 334.940†           245366.0      494.27 ug/L         1.907      494.27 ppb          1.907   0.39%
   QC value within limits for Ti 334.940  Recovery = 98.85%
Tl 190.801†             1073.9      496.48 ug/L         2.764      496.48 ppb          2.764   0.56%
   QC value within limits for Tl 190.801  Recovery = 99.30%
U 409.014†             15043.2      502.03 ug/L         0.833      502.03 ppb          0.833   0.17%
   QC value within limits for U 409.014  Recovery = 100.41%
V 292.402†             62210.9      501.98 ug/L         1.364      501.98 ppb          1.364   0.27%
   QC value within limits for V 292.402  Recovery = 100.40%
Zn 213.857†            45030.6      491.97 ug/L         1.564      491.97 ppb          1.564   0.32%
   QC value within limits for Zn 213.857  Recovery = 98.39%
SiO2†                  68682.2      5337.0 ug/L          6.61      5337.0 ppb           6.61   0.12%
   QC value within limits for SiO2  Recovery = 99.80%
All analyte(s) passed QC.
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Sequence No.: 23
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 20:51:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5140.4	5140.4	109	%			20:53:25
1	Y RADIAL	5445.0	5445.0	109.2	%			20:53:25
1	Al 396.153Radial†	-92.6	2.3	2.2059	ug/L	2.2059	ppb	20:53:45
1	Ca 317.933Radial†	21.7	-2.2	-4.0799	ug/L	-4.0799	ppb	20:53:45
1	Fe 238.204 Radial†	7.5	-0.5	-4.7746	ug/L	-4.7746	ppb	20:53:45
1	K 766.490 Radial†	2105.5	-333.8	-66.474	ug/L	-66.474	ppb	20:53:25
1	Mg 279.077 IEC†	0.6	-2.3	-92.264	ug/L	-92.264	ppb	20:53:45
1	Na 589.592 Radial†	-738.6	171.6	58.466	ug/L	58.466	ppb	20:53:25
1	Sr 421.552†	21.5	20.2	0.1469	ug/L	0.1469	ppb	20:53:25
1	Sc 361.383	820422.2	820422.2	106.83	%			20:54:42
1	Y 371.029	739637.5	739637.5	107.34	%			20:54:42
1	Ag 328.068†	225.1	-45.0	-0.2376	ug/L	-0.2376	ppb	20:54:42
1	As 188.979†	-20.6	5.8	2.5671	ug/L	2.5671	ppb	20:55:02
1	B 249.677†	-303.2	169.7	4.2499	ug/L	4.2499	ppb	20:55:02
1	Ba 233.527†	-1.3	-3.6	-0.0416	ug/L	-0.0416	ppb	20:55:02
1	Be 313.107†	-9639.5	-40.2	-0.0155	ug/L	-0.0155	ppb	20:54:42
1	Cd 226.502†	-183.9	14.5	0.2072	ug/L	0.2072	ppb	20:55:02
1	Co 228.616†	-59.9	1.4	0.0395	ug/L	0.0395	ppb	20:55:02
1	Cr 267.716†	53.3	-25.7	-0.3540	ug/L	-0.3540	ppb	20:55:02
1	Cu 324.752†	7987.9	-59.2	-0.2266	ug/L	-0.2266	ppb	20:54:42
1	Mn 257.610†	431.7	-57.0	-0.0880	ug/L	-0.0880	ppb	20:55:02
1	Mo 202.031†	7.6	-7.3	-0.6667	ug/L	-0.6667	ppb	20:55:02
1	Ni 231.604†	98.1	-9.5	-0.3042	ug/L	-0.3042	ppb	20:55:02
1	P 214.914†	207.9	-0.8	-0.3938	ug/L	-0.3938	ppb	20:55:02
1	Pb 220.353†	-31.4	41.3	6.6597	ug/L	6.6597	ppb	20:55:02
1	S 181.975 Axial†	47.5	2.0	2.5349	ug/L	2.5349	ppb	20:55:02
1	Sb 206.836†	30.8	-1.2	-0.4889	ug/L	-0.4889	ppb	20:55:02
1	Se 196.026†	-20.9	0.2	0.1304	ug/L	0.1304	ppb	20:55:02
1	Si 251.611†	556.7	-68.1	-2.4772	ug/L	-2.4772	ppb	20:55:02
1	Sn 189.927†	6.4	-2.1	-0.4842	ug/L	-0.4842	ppb	20:55:02
1	Ti 334.940†	-1273.9	108.6	0.2223	ug/L	0.2223	ppb	20:54:42
1	Tl 190.801†	-30.6	2.5	1.1709	ug/L	1.1709	ppb	20:55:02
1	U 409.014†	-2442.8	250.3	8.3830	ug/L	8.3830	ppb	20:54:42
1	V 292.402†	-1673.5	61.5	0.4954	ug/L	0.4954	ppb	20:54:42
1	Zn 213.857†	759.5	0.6	0.0098	ug/L	0.0098	ppb	20:55:02
1	SiO2†	560.1	-72.2	-5.6068	ug/L	-5.6068	ppb	20:55:58
2	Sc Radial	5007.8	5007.8	106	%			20:53:50
2	Y RADIAL	5267.2	5267.2	105.7	%			20:53:50
2	Al 396.153Radial†	-90.3	2.3	2.1517	ug/L	2.1517	ppb	20:54:10
2	Ca 317.933Radial†	21.7	-1.8	-3.2381	ug/L	-3.2381	ppb	20:54:10
2	Fe 238.204 Radial†	6.7	-1.0	-10.709	ug/L	-10.709	ppb	20:54:10
2	K 766.490 Radial†	2297.3	-102.4	-20.408	ug/L	-20.408	ppb	20:53:50
2	Mg 279.077 IEC†	0.5	-2.4	-94.770	ug/L	-94.770	ppb	20:54:10
2	Na 589.592 Radial†	-739.9	152.4	51.948	ug/L	51.948	ppb	20:53:50
2	Sr 421.552†	42.0	40.0	0.2906	ug/L	0.2906	ppb	20:53:50
2	Sc 361.383	813000.7	813000.7	105.87	%			20:55:07
2	Y 371.029	731605.8	731605.8	106.18	%			20:55:07
2	Ag 328.068†	205.6	-61.5	-0.3269	ug/L	-0.3269	ppb	20:55:07
2	As 188.979†	-24.6	1.7	0.7798	ug/L	0.7798	ppb	20:55:27
2	B 249.677†	-301.1	169.0	4.2355	ug/L	4.2355	ppb	20:55:27
2	Ba 233.527†	-1.8	-4.1	-0.0466	ug/L	-0.0466	ppb	20:55:27
2	Be 313.107†	-9573.6	-60.3	-0.0234	ug/L	-0.0234	ppb	20:55:07
2	Cd 226.502†	-195.0	2.5	0.0378	ug/L	0.0378	ppb	20:55:27
2	Co 228.616†	-69.2	-7.9	-0.2386	ug/L	-0.2386	ppb	20:55:27
2	Cr 267.716†	67.1	-12.2	-0.1712	ug/L	-0.1712	ppb	20:55:27
2	Cu 324.752†	7909.0	-65.5	-0.2531	ug/L	-0.2531	ppb	20:55:07
2	Mn 257.610†	454.3	-32.0	-0.0484	ug/L	-0.0484	ppb	20:55:27
2	Mo 202.031†	13.8	-1.4	-0.1268	ug/L	-0.1268	ppb	20:55:27
2	Ni 231.604†	71.5	-33.8	-1.0796	ug/L	-1.0796	ppb	20:55:27

2	P 214.914†	215.1	7.8	4.4102	ug/L	4.4102 ppb	20:55:27
2	Pb 220.353†	-37.1	35.7	5.7555	ug/L	5.7555 ppb	20:55:27
2	S 181.975 Axial†	40.9	-3.9	-5.0770	ug/L	-5.0770 ppb	20:55:27
2	Sb 206.836†	39.6	7.3	2.9549	ug/L	2.9549 ppb	20:55:27
2	Se 196.026†	-19.2	1.7	1.0251	ug/L	1.0251 ppb	20:55:27
2	Si 251.611†	583.7	-37.9	-1.3811	ug/L	-1.3811 ppb	20:55:27
2	Sn 189.927†	3.4	-4.9	-1.1479	ug/L	-1.1479 ppb	20:55:27
2	Ti 334.940†	-1239.5	130.3	0.2642	ug/L	0.2642 ppb	20:55:07
2	Tl 190.801†	-46.8	-13.0	-5.9678	ug/L	-5.9678 ppb	20:55:27
2	U 409.014†	-2280.3	382.9	12.824	ug/L	12.824 ppb	20:55:07
2	V 292.402†	-1630.2	88.1	0.7242	ug/L	0.7242 ppb	20:55:07
2	Zn 213.857†	752.7	0.6	0.0160	ug/L	0.0160 ppb	20:55:27
2	SiO2†	606.2	-23.9	-1.8558	ug/L	-1.8558 ppb	20:56:03
3	Sc Radial	5000.7	5000.7	106	%		20:54:15
3	Y RADIAL	5303.6	5303.6	106.4	%		20:54:15
3	Al 396.153Radial†	-93.6	-0.9	-0.8691	ug/L	-0.8691 ppb	20:54:35
3	Ca 317.933Radial†	19.1	-4.2	-7.6059	ug/L	-7.6059 ppb	20:54:35
3	Fe 238.204 Radial†	4.8	-2.8	-28.726	ug/L	-28.726 ppb	20:54:35
3	K 766.490 Radial†	2343.6	-55.9	-11.133	ug/L	-11.133 ppb	20:54:15
3	Mg 279.077 IEC†	3.5	0.4	17.486	ug/L	17.486 ppb	20:54:35
3	Na 589.592 Radial†	-794.3	100.2	34.151	ug/L	34.151 ppb	20:54:15
3	Sr 421.552†	7.0	7.1	0.0518	ug/L	0.0518 ppb	20:54:15
3	Sc 361.383	813556.3	813556.3	105.94	%		20:55:33
3	Y 371.029	731926.4	731926.4	106.22	%		20:55:33
3	Ag 328.068†	204.7	-62.4	-0.3418	ug/L	-0.3418 ppb	20:55:33
3	As 188.979†	-30.8	-4.1	-1.8159	ug/L	-1.8159 ppb	20:55:53
3	B 249.677†	-325.5	146.2	3.6648	ug/L	3.6648 ppb	20:55:53
3	Ba 233.527†	-0.1	-2.5	-0.0303	ug/L	-0.0303 ppb	20:55:53
3	Be 313.107†	-9502.0	13.5	0.0059	ug/L	0.0059 ppb	20:55:33
3	Cd 226.502†	-194.0	3.5	0.0557	ug/L	0.0557 ppb	20:55:53
3	Co 228.616†	-41.2	18.6	0.5610	ug/L	0.5610 ppb	20:55:53
3	Cr 267.716†	61.8	-17.2	-0.2420	ug/L	-0.2420 ppb	20:55:53
3	Cu 324.752†	7928.3	-52.4	-0.2063	ug/L	-0.2063 ppb	20:55:33
3	Mn 257.610†	443.8	-42.2	-0.0711	ug/L	-0.0711 ppb	20:55:53
3	Mo 202.031†	13.9	-1.3	-0.1193	ug/L	-0.1193 ppb	20:55:53
3	Ni 231.604†	96.7	-10.1	-0.3220	ug/L	-0.3220 ppb	20:55:53
3	P 214.914†	212.7	5.4	3.0981	ug/L	3.0981 ppb	20:55:53
3	Pb 220.353†	-35.8	36.9	5.9573	ug/L	5.9573 ppb	20:55:53
3	S 181.975 Axial†	48.1	2.9	3.7984	ug/L	3.7984 ppb	20:55:53
3	Sb 206.836†	40.1	7.8	3.1815	ug/L	3.1815 ppb	20:55:53
3	Se 196.026†	-19.4	1.5	0.8751	ug/L	0.8751 ppb	20:55:53
3	Si 251.611†	570.7	-50.5	-1.8414	ug/L	-1.8414 ppb	20:55:53
3	Sn 189.927†	15.3	6.4	1.5067	ug/L	1.5067 ppb	20:55:53
3	Ti 334.940†	-1245.6	125.3	0.2431	ug/L	0.2431 ppb	20:55:33
3	Tl 190.801†	-35.3	-2.1	-0.9590	ug/L	-0.9590 ppb	20:55:53
3	U 409.014†	-2189.9	469.7	15.732	ug/L	15.732 ppb	20:55:33
3	V 292.402†	-1700.6	22.7	0.2137	ug/L	0.2137 ppb	20:55:33
3	Zn 213.857†	747.8	-4.5	-0.0426	ug/L	-0.0426 ppb	20:55:53
3	SiO2†	603.4	-26.9	-2.0909	ug/L	-2.0909 ppb	20:56:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	815659.8	106.21	%	0.538				0.51%
Sc Radial	5049.6	107	%	1.7				1.56%
Y 371.029	734389.9	106.58	%	0.660				0.62%
Y RADIAL	5338.6	107.1	%	1.88				1.76%
Ag 328.068†	-56.3	-0.3021	ug/L	0.05632	-0.3021	ppb	0.05632	18.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.2	1.1628	ug/L	1.75994	1.1628	ppb	1.75994	151.35%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	0.5103	ug/L	2.20388	0.5103	ppb	2.20388	431.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	161.7	4.0501	ug/L	0.33376	4.0501	ppb	0.33376	8.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.4	-0.0395	ug/L	0.00833	-0.0395	ppb	0.00833	21.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-29.0	-0.0110	ug/L	0.01516	-0.0110	ppb	0.01516	138.11%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.7	-4.9746	ug/L	2.31729	-4.9746	ppb	2.31729	46.58%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                6.8      0.1003 ug/L       0.09306      0.1003 ppb        0.09306  92.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.0      0.1207 ug/L       0.40591      0.1207 ppb        0.40591 336.43%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -18.4     -0.2557 ug/L       0.09215     -0.2557 ppb        0.09215  36.03%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -59.0     -0.2287 ug/L       0.02345     -0.2287 ppb        0.02345  10.26%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.4     -14.736 ug/L       12.4732     -14.736 ppb        12.4732  84.64%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -164.0     -32.672 ug/L       29.6384     -32.672 ppb        29.6384  90.72%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.4     -56.516 ug/L       64.1002     -56.516 ppb        64.1002 113.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -43.7     -0.0692 ug/L       0.01985     -0.0692 ppb        0.01985  28.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -3.3     -0.3043 ug/L       0.31392     -0.3043 ppb        0.31392 103.18%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       141.4      48.188 ug/L       12.5863      48.188 ppb        12.5863  26.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -17.8     -0.5686 ug/L       0.44261     -0.5686 ppb        0.44261  77.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 4.1      2.3715 ug/L       2.48302      2.3715 ppb        2.48302 104.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               38.0      6.1242 ug/L       0.47463      6.1242 ppb        0.47463   7.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.3      0.4188 ug/L       4.80124      0.4188 ppb        4.80124 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.7      1.8825 ug/L       2.05683      1.8825 ppb        2.05683 109.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.2      0.6769 ug/L       0.47914      0.6769 ppb        0.47914  70.79%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -52.2     -1.8999 ug/L       0.55039     -1.8999 ppb        0.55039  28.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.2     -0.0418 ug/L       1.38151     -0.0418 ppb        1.38151 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               22.4      0.1631 ug/L       0.12023      0.1631 ppb        0.12023  73.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              121.4      0.2432 ug/L       0.02094      0.2432 ppb        0.02094   8.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -4.2     -1.9186 ug/L       3.66480     -1.9186 ppb        3.66480 191.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               367.6      12.313 ug/L        3.7011      12.313 ppb         3.7011  30.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                57.5      0.4778 ug/L       0.25572      0.4778 ppb        0.25572  53.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -1.1     -0.0056 ug/L       0.03214     -0.0056 ppb        0.03214 573.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -41.0     -3.1845 ug/L       2.10106     -3.1845 ppb        2.10106  65.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: 246055002|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 55
Date Collected: 3/1/2010 20:58:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055002|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5124.0	5124.0	109	%			21:00:31
1	Y RADIAL	5977.6	5977.6	119.9	%			21:00:31
1	Al 396.153Radial†	167302.5	153763.5	143830	ug/L	143830	ppb	21:00:11
1	Ca 317.933Radial†	14720.3	13499.2	24527	ug/L	24527	ppb	21:00:11
1	Fe 238.204 Radial†	13812.0	12679.8	131550	ug/L	131550	ppb	21:00:11
1	K 766.490 Radial†	94910.6	84918.8	16895	ug/L	16895	ppb	21:00:11
1	Mg 279.077 IEC†	539.2	492.4	19412	ug/L	19412	ppb	21:00:31
1	Na 589.592 Radial†	1565.4	2285.7	778.98	ug/L	778.98	ppb	21:00:11
1	Sr 421.552†	37820.0	34740.2	252.44	ug/L	252.44	ppb	21:00:11
1	Sc 361.383	860515.6	860515.6	112.06	%			21:01:29
1	Y 371.029	844030.6	844030.6	122.49	%			21:01:29
1	Ag 328.068†	-7329.2	-6796.4	6.3807	ug/L	6.3807	ppb	21:01:49
1	As 188.979†	-16.7	10.1	82.064	ug/L	82.064	ppb	21:01:49
1	B 249.677†	1145.8	1476.0	15.419	ug/L	15.419	ppb	21:01:29
1	Ba 233.527†	156637.9	139783.9	1654.0	ug/L	1654.0	ppb	21:01:29
1	Be 313.107†	-16643.8	-5870.6	9.9157	ug/L	9.9157	ppb	21:01:29
1	Cd 226.502†	1049.2	1122.9	2.3697	ug/L	2.3697	ppb	21:01:49
1	Co 228.616†	2260.6	2074.8	50.212	ug/L	50.212	ppb	21:01:49
1	Cr 267.716†	12767.9	11318.7	157.60	ug/L	157.60	ppb	21:01:49
1	Cu 324.752†	29220.4	18540.7	76.466	ug/L	76.466	ppb	21:01:29
1	Mn 257.610†	1875132.1	1672939.1	2690.0	ug/L	2690.0	ppb	21:01:29
1	Mo 202.031†	-69.7	-76.6	3.4735	ug/L	3.4735	ppb	21:01:49
1	Ni 231.604†	3785.3	3276.8	104.71	ug/L	104.71	ppb	21:01:49
1	P 214.914†	1653.0	1279.8	630.63	ug/L	630.63	ppb	21:01:49
1	Pb 220.353†	11993.4	10773.9	1762.1	ug/L	1762.1	ppb	21:01:49
1	S 181.975 Axial†	653.2	540.5	673.77	ug/L	673.77	ppb	21:01:49
1	Sb 206.836†	114.8	72.4	6.7249	ug/L	6.7249	ppb	21:01:49
1	Se 196.026†	-539.6	-461.8	25.411	ug/L	25.411	ppb	21:01:49
1	Si 251.611†	1272183.1	1134729.0	41407	ug/L	41407	ppb	21:01:29
1	Sn 189.927†	-53.2	-55.5	-16.270	ug/L	-16.270	ppb	21:01:49
1	Ti 334.940†	2998973.5	2677636.7	5397.2	ug/L	5397.2	ppb	21:01:29
1	Tl 190.801†	-183.4	-132.4	-4.0280	ug/L	-4.0280	ppb	21:01:49
1	U 409.014†	-7595.4	-4241.5	-157.37	ug/L	-157.37	ppb	21:01:29
1	V 292.402†	36659.0	34343.1	248.56	ug/L	248.56	ppb	21:01:29
1	Zn 213.857†	26299.2	22759.6	230.56	ug/L	230.56	ppb	21:01:49
1	SiO2†	1248628.7	1113701.3	86759	ug/L	86759	ppb	21:02:49
2	Sc Radial	5079.7	5079.7	108	%			21:00:56
2	Y RADIAL	5945.4	5945.4	119.3	%			21:00:56
2	Al 396.153Radial†	167545.1	155327.5	145300	ug/L	145300	ppb	21:00:36
2	Ca 317.933Radial†	14784.7	13676.7	24850	ug/L	24850	ppb	21:00:36
2	Fe 238.204 Radial†	13781.8	12762.4	132410	ug/L	132410	ppb	21:00:36
2	K 766.490 Radial†	94833.2	85606.9	17032	ug/L	17032	ppb	21:00:36
2	Mg 279.077 IEC†	540.7	498.1	19637	ug/L	19637	ppb	21:00:56
2	Na 589.592 Radial†	1557.1	2290.5	780.60	ug/L	780.60	ppb	21:00:36
2	Sr 421.552†	37745.3	34973.8	254.13	ug/L	254.13	ppb	21:00:36
2	Sc 361.383	869173.6	869173.6	113.18	%			21:01:56
2	Y 371.029	851747.6	851747.6	123.61	%			21:01:56
2	Ag 328.068†	-7420.9	-6812.2	6.5475	ug/L	6.5475	ppb	21:02:16
2	As 188.979†	-37.1	-7.8	74.053	ug/L	74.053	ppb	21:02:16
2	B 249.677†	1207.1	1519.9	16.378	ug/L	16.378	ppb	21:01:56
2	Ba 233.527†	157308.9	138984.3	1644.6	ug/L	1644.6	ppb	21:01:56
2	Be 313.107†	-16562.5	-5650.8	9.9379	ug/L	9.9379	ppb	21:01:56
2	Cd 226.502†	1054.4	1118.2	2.2147	ug/L	2.2147	ppb	21:02:16
2	Co 228.616†	2308.1	2096.7	50.916	ug/L	50.916	ppb	21:02:16
2	Cr 267.716†	12917.6	11337.4	157.87	ug/L	157.87	ppb	21:02:16
2	Cu 324.752†	29276.8	18330.7	75.722	ug/L	75.722	ppb	21:01:56
2	Mn 257.610†	1882854.1	1663092.6	2674.3	ug/L	2674.3	ppb	21:01:56
2	Mo 202.031†	-77.5	-82.8	2.9750	ug/L	2.9750	ppb	21:02:16
2	Ni 231.604†	3815.2	3269.5	104.48	ug/L	104.48	ppb	21:02:16

2	P 214.914†	1674.7	1284.3	632.96	ug/L	632.96 ppb	21:02:16
2	Pb 220.353†	12087.3	10750.2	1758.5	ug/L	1758.5 ppb	21:02:16
2	S 181.975 Axial†	653.0	534.5	665.74	ug/L	665.74 ppb	21:02:16
2	Sb 206.836†	118.8	74.9	7.7561	ug/L	7.7561 ppb	21:02:16
2	Se 196.026†	-555.6	-471.1	21.745	ug/L	21.745 ppb	21:02:16
2	Si 251.611†	1278621.7	1129108.5	41202	ug/L	41202 ppb	21:01:56
2	Sn 189.927†	-58.8	-60.1	-17.330	ug/L	-17.330 ppb	21:02:16
2	Ti 334.940†	3013032.0	2663398.3	5368.5	ug/L	5368.5 ppb	21:01:56
2	Tl 190.801†	-178.7	-126.7	-1.7057	ug/L	-1.7057 ppb	21:02:16
2	U 409.014†	-7488.7	-4079.7	-152.05	ug/L	-152.05 ppb	21:01:56
2	V 292.402†	36810.6	34151.1	246.94	ug/L	246.94 ppb	21:01:56
2	Zn 213.857†	26565.1	22760.7	230.44	ug/L	230.44 ppb	21:02:16
2	SiO2†	1276989.2	1127658.9	87847	ug/L	87847 ppb	21:02:55
3	Sc Radial	5352.7	5352.7	114	%		21:01:21
3	Y RADIAL	6210.6	6210.6	124.6	%		21:01:21
3	Al 396.153Radial†	166292.8	146309.4	136860	ug/L	136860 ppb	21:01:01
3	Ca 317.933Radial†	14704.0	12907.2	23452	ug/L	23452 ppb	21:01:01
3	Fe 238.204 Radial†	13688.1	12028.7	124800	ug/L	124800 ppb	21:01:01
3	K 766.490 Radial†	94501.4	80834.0	16082	ug/L	16082 ppb	21:01:01
3	Mg 279.077 IEC†	531.4	464.4	18309	ug/L	18309 ppb	21:01:21
3	Na 589.592 Radial†	1458.6	2130.3	726.02	ug/L	726.02 ppb	21:01:01
3	Sr 421.552†	37436.0	32918.2	239.20	ug/L	239.20 ppb	21:01:01
3	Sc 361.383	836014.2	836014.2	108.86	%		21:02:23
3	Y 371.029	823327.5	823327.5	119.49	%		21:02:23
3	Ag 328.068†	-7279.5	-6942.4	3.5993	ug/L	3.5993 ppb	21:02:43
3	As 188.979†	-13.3	12.8	83.056	ug/L	83.056 ppb	21:02:43
3	B 249.677†	1136.4	1497.3	17.045	ug/L	17.045 ppb	21:02:23
3	Ba 233.527†	156292.1	143563.1	1698.4	ug/L	1698.4 ppb	21:02:23
3	Be 313.107†	-16674.8	-6334.3	10.089	ug/L	10.089 ppb	21:02:23
3	Cd 226.502†	1039.4	1141.4	3.3304	ug/L	3.3304 ppb	21:02:43
3	Co 228.616†	2265.0	2138.0	51.912	ug/L	51.912 ppb	21:02:43
3	Cr 267.716†	12811.0	11692.2	162.58	ug/L	162.58 ppb	21:02:43
3	Cu 324.752†	29118.9	19211.7	78.623	ug/L	78.623 ppb	21:02:23
3	Mn 257.610†	1869702.7	1716994.8	2759.9	ug/L	2759.9 ppb	21:02:23
3	Mo 202.031†	-55.6	-65.4	3.9609	ug/L	3.9609 ppb	21:02:43
3	Ni 231.604†	3777.3	3368.4	107.64	ug/L	107.64 ppb	21:02:43
3	P 214.914†	1657.5	1327.1	660.27	ug/L	660.27 ppb	21:02:43
3	Pb 220.353†	11920.3	11020.3	1800.6	ug/L	1800.6 ppb	21:02:43
3	S 181.975 Axial†	648.6	553.2	691.66	ug/L	691.66 ppb	21:02:43
3	Sb 206.836†	118.0	78.3	8.8725	ug/L	8.8725 ppb	21:02:43
3	Se 196.026†	-539.3	-475.6	1.1656	ug/L	1.1656 ppb	21:02:43
3	Si 251.611†	1270643.0	1166587.5	42570	ug/L	42570 ppb	21:02:23
3	Sn 189.927†	-61.8	-64.9	-18.276	ug/L	-18.276 ppb	21:02:43
3	Ti 334.940†	2998607.9	2755737.4	5554.5	ug/L	5554.5 ppb	21:02:23
3	Tl 190.801†	-181.2	-135.3	-3.7171	ug/L	-3.7171 ppb	21:02:43
3	U 409.014†	-7486.8	-4340.4	-159.93	ug/L	-159.93 ppb	21:02:23
3	V 292.402†	36580.5	35229.8	256.42	ug/L	256.42 ppb	21:02:23
3	Zn 213.857†	26241.4	23394.4	238.55	ug/L	238.55 ppb	21:02:43
3	SiO2†	1276717.3	1172159.9	91313	ug/L	91313 ppb	21:03:01

Mean Data: 246055002|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855234.4	111.37	%	2.240				2.01%
Sc Radial	5185.4	110	%	3.1				2.83%
Y 371.029	839701.9	121.87	%	2.133				1.75%
Y RADIAL	6044.5	121.2	%	2.90				2.39%
Ag 328.068†	-6850.3	5.5092	ug/L	1.65612	5.5092	ppb	1.65612	30.06%
Al 396.153Radial†	151800.1	142000	ug/L	4507.8	142000	ppb	4507.8	3.17%
As 188.979†	5.0	79.724	ug/L	4.9368	79.724	ppb	4.9368	6.19%
B 249.677†	1497.8	16.280	ug/L	0.8172	16.280	ppb	0.8172	5.02%
Ba 233.527†	140777.1	1665.7	ug/L	28.74	1665.7	ppb	28.74	1.73%
Be 313.107†	-5951.9	9.9808	ug/L	0.09409	9.9808	ppb	0.09409	0.94%
Ca 317.933Radial†	13361.1	24276	ug/L	732.1	24276	ppb	732.1	3.02%
Cd 226.502†	1127.5	2.6383	ug/L	0.60439	2.6383	ppb	0.60439	22.91%
Co 228.616†	2103.2	51.013	ug/L	0.8543	51.013	ppb	0.8543	1.67%
Cr 267.716†	11449.4	159.35	ug/L	2.804	159.35	ppb	2.804	1.76%
Cu 324.752†	18694.3	76.937	ug/L	1.5067	76.937	ppb	1.5067	1.96%
Fe 238.204 Radial†	12490.3	129590	ug/L	4169.1	129590	ppb	4169.1	3.22%
K 766.490 Radial†	83786.6	16669	ug/L	513.4	16669	ppb	513.4	3.08%

Mg 279.077 IEC†	485.0	19119	ug/L	710.9	19119	ppb	710.9	3.72%
Mn 257.610†	1684342.2	2708.0	ug/L	45.56	2708.0	ppb	45.56	1.68%
Mo 202.031†	-75.0	3.4698	ug/L	0.49296	3.4698	ppb	0.49296	14.21%
Na 589.592 Radial†	2235.5	761.87	ug/L	31.055	761.87	ppb	31.055	4.08%
Ni 231.604†	3304.9	105.61	ug/L	1.761	105.61	ppb	1.761	1.67%
P 214.914†	1297.1	641.29	ug/L	16.479	641.29	ppb	16.479	2.57%
Pb 220.353†	10848.1	1773.7	ug/L	23.35	1773.7	ppb	23.35	1.32%
S 181.975 Axial†	542.7	677.05	ug/L	13.268	677.05	ppb	13.268	1.96%
Sb 206.836†	75.2	7.7845	ug/L	1.07409	7.7845	ppb	1.07409	13.80%
Se 196.026†	-469.5	16.107	ug/L	13.0690	16.107	ppb	13.0690	81.14%
Si 251.611†	1143475.0	41726	ug/L	737.6	41726	ppb	737.6	1.77%
Sn 189.927†	-60.2	-17.292	ug/L	1.0037	-17.292	ppb	1.0037	5.80%
Sr 421.552†	34210.7	248.59	ug/L	8.179	248.59	ppb	8.179	3.29%
Ti 334.940†	2698924.1	5440.1	ug/L	100.14	5440.1	ppb	100.14	1.84%
Tl 190.801†	-131.5	-3.1503	ug/L	1.26065	-3.1503	ppb	1.26065	40.02%
U 409.014†	-4220.5	-156.45	ug/L	4.017	-156.45	ppb	4.017	2.57%
V 292.402†	34574.7	250.64	ug/L	5.071	250.64	ppb	5.071	2.02%
Zn 213.857†	22971.5	233.18	ug/L	4.646	233.18	ppb	4.646	1.99%
SiO2†	1137840.0	88640	ug/L	2378.3	88640	ppb	2378.3	2.68%

Sequence No.: 25
Sample ID: 246055003|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 56
Date Collected: 3/1/2010 21:05:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055003|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5157.9	5157.9	110	%			21:07:25
1	Y RADIAL	6102.0	6102.0	122.4	%			21:07:25
1	Al 396.153Radial†	178707.3	163159.0	152620	ug/L	152620	ppb	21:07:05
1	Ca 317.933Radial†	13413.3	12217.6	22199	ug/L	22199	ppb	21:07:05
1	Fe 238.204 Radial†	16612.0	15151.3	157200	ug/L	157200	ppb	21:07:05
1	K 766.490 Radial†	114684.0	102388.4	20369	ug/L	20369	ppb	21:07:05
1	Mg 279.077 IEC†	695.7	632.0	24928	ug/L	24928	ppb	21:07:25
1	Na 589.592 Radial†	31436.8	29534.1	10065	ug/L	10065	ppb	21:07:05
1	Sr 421.552†	44328.0	40450.2	293.98	ug/L	293.98	ppb	21:07:05
1	Sc 361.383	856373.3	856373.3	111.52	%			21:08:24
1	Y 371.029	855911.6	855911.6	124.22	%			21:08:24
1	Ag 328.068†	-9459.0	-8737.9	4.5545	ug/L	4.5545	ppb	21:08:24
1	As 188.979†	-37.9	-9.0	80.225	ug/L	80.225	ppb	21:08:44
1	B 249.677†	1578.6	1869.1	21.049	ug/L	21.049	ppb	21:08:24
1	Ba 233.527†	164868.2	147840.5	1750.0	ug/L	1750.0	ppb	21:08:24
1	Be 313.107†	-13359.4	-2997.1	11.224	ug/L	11.224	ppb	21:08:24
1	Cd 226.502†	1188.4	1252.3	1.5423	ug/L	1.5423	ppb	21:08:44
1	Co 228.616†	2882.7	2642.5	66.896	ug/L	66.896	ppb	21:08:44
1	Cr 267.716†	11238.5	10002.3	140.20	ug/L	140.20	ppb	21:08:44
1	Cu 324.752†	31942.5	21107.8	87.468	ug/L	87.468	ppb	21:08:24
1	Mn 257.610†	2449744.5	2196307.9	3530.0	ug/L	3530.0	ppb	21:08:24
1	Mo 202.031†	-82.7	-88.5	4.3411	ug/L	4.3411	ppb	21:08:44
1	Ni 231.604†	3710.5	3226.0	103.08	ug/L	103.08	ppb	21:08:44
1	P 214.914†	1845.9	1459.9	710.85	ug/L	710.85	ppb	21:08:44
1	Pb 220.353†	5865.5	5330.5	884.35	ug/L	884.35	ppb	21:08:44
1	S 181.975 Axial†	762.2	641.0	802.50	ug/L	802.50	ppb	21:08:44
1	Sb 206.836†	76.1	38.2	-7.8453	ug/L	-7.8453	ppb	21:08:44
1	Se 196.026†	-663.4	-575.0	14.268	ug/L	14.268	ppb	21:08:44
1	Si 251.611†	1271237.1	1139372.2	41577	ug/L	41577	ppb	21:08:24
1	Sn 189.927†	-63.8	-65.3	-20.460	ug/L	-20.460	ppb	21:08:44
1	Ti 334.940†	3024986.6	2713909.2	5469.5	ug/L	5469.5	ppb	21:08:24
1	Tl 190.801†	-190.0	-139.2	-2.6944	ug/L	-2.6944	ppb	21:08:44
1	U 409.014†	-9519.5	-5999.6	-219.13	ug/L	-219.13	ppb	21:08:24
1	V 292.402†	43235.2	40398.5	292.96	ug/L	292.96	ppb	21:08:24
1	Zn 213.857†	39274.4	34508.4	356.29	ug/L	356.29	ppb	21:08:24
1	SiO2†	1247963.7	1118494.9	87133	ug/L	87133	ppb	21:09:45
2	Sc Radial	5206.2	5206.2	111	%			21:07:51
2	Y RADIAL	6180.5	6180.5	124.0	%			21:07:51
2	Al 396.153Radial†	176955.7	160063.0	149730	ug/L	149730	ppb	21:07:30
2	Ca 317.933Radial†	13414.6	12105.2	21994	ug/L	21994	ppb	21:07:30
2	Fe 238.204 Radial†	16435.6	14851.2	154080	ug/L	154080	ppb	21:07:30
2	K 766.490 Radial†	113525.1	100370.2	19968	ug/L	19968	ppb	21:07:30
2	Mg 279.077 IEC†	694.8	625.2	24664	ug/L	24664	ppb	21:07:51
2	Na 589.592 Radial†	30799.9	28692.3	9778.3	ug/L	9778.3	ppb	21:07:30
2	Sr 421.552†	43444.8	39276.6	285.45	ug/L	285.45	ppb	21:07:30
2	Sc 361.383	852250.8	852250.8	110.98	%			21:08:51
2	Y 371.029	851251.1	851251.1	123.54	%			21:08:51
2	Ag 328.068†	-9392.2	-8718.7	3.6907	ug/L	3.6907	ppb	21:08:51
2	As 188.979†	-36.9	-8.2	79.731	ug/L	79.731	ppb	21:09:11
2	B 249.677†	1703.2	1988.1	24.536	ug/L	24.536	ppb	21:08:51
2	Ba 233.527†	163816.1	147607.7	1747.1	ug/L	1747.1	ppb	21:08:51
2	Be 313.107†	-13119.7	-2839.2	11.264	ug/L	11.264	ppb	21:08:51
2	Cd 226.502†	1196.6	1264.9	2.0430	ug/L	2.0430	ppb	21:09:11
2	Co 228.616†	2877.5	2650.3	67.198	ug/L	67.198	ppb	21:09:11
2	Cr 267.716†	11157.9	9978.4	139.81	ug/L	139.81	ppb	21:09:11
2	Cu 324.752†	31612.4	20948.9	86.706	ug/L	86.706	ppb	21:08:51
2	Mn 257.610†	2433243.5	2192065.4	3522.9	ug/L	3522.9	ppb	21:08:51
2	Mo 202.031†	-72.0	-79.3	4.9465	ug/L	4.9465	ppb	21:09:11
2	Ni 231.604†	3660.5	3197.1	102.15	ug/L	102.15	ppb	21:09:11

2	P 214.914†	1834.5	1457.6	711.46	ug/L	711.46 ppb	21:09:11
2	Pb 220.353†	5860.4	5351.4	887.26	ug/L	887.26 ppb	21:09:11
2	S 181.975 Axial†	753.6	636.6	797.30	ug/L	797.30 ppb	21:09:11
2	Sb 206.836†	91.8	52.7	-1.7904	ug/L	-1.7904 ppb	21:09:11
2	Se 196.026†	-658.0	-573.1	8.2232	ug/L	8.2232 ppb	21:09:11
2	Si 251.611†	1262808.2	1137291.3	41501	ug/L	41501 ppb	21:08:51
2	Sn 189.927†	-59.0	-61.2	-19.358	ug/L	-19.358 ppb	21:09:11
2	Ti 334.940†	3004988.0	2709010.3	5459.7	ug/L	5459.7 ppb	21:08:51
2	Tl 190.801†	-192.4	-142.2	-4.1721	ug/L	-4.1721 ppb	21:09:11
2	U 409.014†	-9296.7	-5840.2	-213.43	ug/L	-213.43 ppb	21:08:51
2	V 292.402†	42896.0	40280.4	292.50	ug/L	292.50 ppb	21:08:51
2	Zn 213.857†	39050.6	34477.1	356.42	ug/L	356.42 ppb	21:08:51
2	SiO2†	1265424.9	1139642.0	88780	ug/L	88780 ppb	21:09:51
3	Sc Radial	5137.3	5137.3	109	%		21:08:16
3	Y RADIAL	6105.6	6105.6	122.5	%		21:08:16
3	Al 396.153Radial†	179627.8	164657.1	154020	ug/L	154020 ppb	21:07:56
3	Ca 317.933Radial†	13595.4	12433.6	22591	ug/L	22591 ppb	21:07:56
3	Fe 238.204 Radial†	16630.4	15229.0	158000	ug/L	158000 ppb	21:07:56
3	K 766.490 Radial†	114944.6	103047.4	20500	ug/L	20500 ppb	21:07:56
3	Mg 279.077 IEC†	691.5	630.7	24875	ug/L	24875 ppb	21:08:16
3	Na 589.592 Radial†	31154.3	29390.5	10016	ug/L	10016 ppb	21:07:56
3	Sr 421.552†	43973.0	40287.4	292.79	ug/L	292.79 ppb	21:07:56
3	Sc 361.383	862213.3	862213.3	112.28	%		21:09:18
3	Y 371.029	860783.6	860783.6	124.93	%		21:09:18
3	Ag 328.068†	-9400.2	-8628.1	5.3258	ug/L	5.3258 ppb	21:09:18
3	As 188.979†	-37.7	-8.5	79.915	ug/L	79.915 ppb	21:09:38
3	B 249.677†	1601.5	1879.9	21.192	ug/L	21.192 ppb	21:09:18
3	Ba 233.527†	162964.0	145143.1	1718.2	ug/L	1718.2 ppb	21:09:18
3	Be 313.107†	-13313.3	-2875.0	11.094	ug/L	11.094 ppb	21:09:18
3	Cd 226.502†	1171.1	1229.7	1.1401	ug/L	1.1401 ppb	21:09:38
3	Co 228.616†	2858.2	2603.1	65.844	ug/L	65.844 ppb	21:09:38
3	Cr 267.716†	11117.7	9826.5	137.80	ug/L	137.80 ppb	21:09:38
3	Cu 324.752†	31754.6	20746.4	86.149	ug/L	86.149 ppb	21:09:18
3	Mn 257.610†	2423751.4	2158277.3	3469.2	ug/L	3469.2 ppb	21:09:18
3	Mo 202.031†	-90.2	-94.7	3.8456	ug/L	3.8456 ppb	21:09:38
3	Ni 231.604†	3621.5	3124.2	99.823	ug/L	99.823 ppb	21:09:38
3	P 214.914†	1811.2	1417.8	687.24	ug/L	687.24 ppb	21:09:38
3	Pb 220.353†	5791.1	5228.6	868.21	ug/L	868.21 ppb	21:09:38
3	S 181.975 Axial†	736.5	613.5	766.57	ug/L	766.57 ppb	21:09:38
3	Sb 206.836†	92.0	51.9	-2.1159	ug/L	-2.1159 ppb	21:09:38
3	Se 196.026†	-658.9	-567.1	21.097	ug/L	21.097 ppb	21:09:38
3	Si 251.611†	1260633.4	1122206.6	40950	ug/L	40950 ppb	21:09:18
3	Sn 189.927†	-71.0	-71.3	-21.859	ug/L	-21.859 ppb	21:09:38
3	Ti 334.940†	3001740.4	2674831.3	5390.8	ug/L	5390.8 ppb	21:09:18
3	Tl 190.801†	-187.8	-136.1	-2.1964	ug/L	-2.1964 ppb	21:09:38
3	U 409.014†	-9024.2	-5500.7	-202.51	ug/L	-202.51 ppb	21:09:18
3	V 292.402†	42751.6	39705.1	287.42	ug/L	287.42 ppb	21:09:18
3	Zn 213.857†	38891.7	33929.0	349.80	ug/L	349.80 ppb	21:09:18
3	SiO2†	1257813.0	1119687.3	87226	ug/L	87226 ppb	21:09:56

Mean Data: 246055003|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856945.8	111.59	%	0.652				0.58%
Sc Radial	5167.1	110	%	0.8				0.68%
Y 371.029	855982.1	124.23	%	0.692				0.56%
Y RADIAL	6129.4	122.9	%	0.89				0.72%
Ag 328.068†	-8694.9	4.5237	ug/L	0.81796	4.5237	ppb	0.81796	18.08%
Al 396.153Radial†	162626.4	152120	ug/L	2191.6	152120	ppb	2191.6	1.44%
As 188.979†	-8.6	79.957	ug/L	0.2498	79.957	ppb	0.2498	0.31%
B 249.677†	1912.4	22.259	ug/L	1.9732	22.259	ppb	1.9732	8.86%
Ba 233.527†	146863.8	1738.4	ug/L	17.61	1738.4	ppb	17.61	1.01%
Be 313.107†	-2903.8	11.194	ug/L	0.0891	11.194	ppb	0.0891	0.80%
Ca 317.933Radial†	12252.1	22261	ug/L	303.2	22261	ppb	303.2	1.36%
Cd 226.502†	1249.0	1.5751	ug/L	0.45230	1.5751	ppb	0.45230	28.71%
Co 228.616†	2632.0	66.646	ug/L	0.7104	66.646	ppb	0.7104	1.07%
Cr 267.716†	9935.7	139.27	ug/L	1.289	139.27	ppb	1.289	0.93%
Cu 324.752†	20934.4	86.774	ug/L	0.6626	86.774	ppb	0.6626	0.76%
Fe 238.204 Radial†	15077.2	156430	ug/L	2069.8	156430	ppb	2069.8	1.32%
K 766.490 Radial†	101935.4	20279	ug/L	277.5	20279	ppb	277.5	1.37%

Mg 279.077 IEC†	629.3	24822	ug/L	139.9	24822	ppb	139.9	0.56%
Mn 257.610†	2182216.9	3507.4	ug/L	33.24	3507.4	ppb	33.24	0.95%
Mo 202.031†	-87.5	4.3777	ug/L	0.55136	4.3777	ppb	0.55136	12.59%
Na 589.592 Radial†	29205.6	9953.3	ug/L	153.46	9953.3	ppb	153.46	1.54%
Ni 231.604†	3182.4	101.68	ug/L	1.677	101.68	ppb	1.677	1.65%
P 214.914†	1445.1	703.19	ug/L	13.809	703.19	ppb	13.809	1.96%
Pb 220.353†	5303.5	879.94	ug/L	10.264	879.94	ppb	10.264	1.17%
S 181.975 Axial†	630.4	788.79	ug/L	19.420	788.79	ppb	19.420	2.46%
Sb 206.836†	47.6	-3.9172	ug/L	3.40574	-3.9172	ppb	3.40574	86.94%
Se 196.026†	-571.7	14.529	ug/L	6.4411	14.529	ppb	6.4411	44.33%
Si 251.611†	1132956.7	41342	ug/L	341.8	41342	ppb	341.8	0.83%
Sn 189.927†	-66.0	-20.559	ug/L	1.2536	-20.559	ppb	1.2536	6.10%
Sr 421.552†	40004.7	290.74	ug/L	4.622	290.74	ppb	4.622	1.59%
Ti 334.940†	2699250.3	5440.0	ug/L	42.87	5440.0	ppb	42.87	0.79%
Tl 190.801†	-139.1	-3.0210	ug/L	1.02754	-3.0210	ppb	1.02754	34.01%
U 409.014†	-5780.2	-211.69	ug/L	8.447	-211.69	ppb	8.447	3.99%
V 292.402†	40128.0	290.96	ug/L	3.070	290.96	ppb	3.070	1.06%
Zn 213.857†	34304.8	354.17	ug/L	3.783	354.17	ppb	3.783	1.07%
SiO2†	1125941.4	87713	ug/L	925.5	87713	ppb	925.5	1.06%

Sequence No.: 26
Sample ID: 246055004|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 57
Date Collected: 3/1/2010 21:12:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055004|949334|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5066.2	5066.2	108	%			21:14:20
1	Y RADIAL	5668.1	5668.1	113.7	%			21:14:20
1	Al 396.153Radial†	48377.9	45031.8	42124	ug/L	42124	ppb	21:14:00
1	Ca 317.933Radial†	15650.5	14517.6	26378	ug/L	26378	ppb	21:14:00
1	Fe 238.204 Radial†	8074.8	7494.4	77755	ug/L	77755	ppb	21:14:00
1	K 766.490 Radial†	52504.6	46516.9	9249.8	ug/L	9249.8	ppb	21:14:00
1	Mg 279.077 IEC†	306.7	282.0	11116	ug/L	11116	ppb	21:14:20
1	Na 589.592 Radial†	2243.4	2932.0	999.21	ug/L	999.21	ppb	21:14:00
1	Sr 421.552†	22252.0	20673.3	150.13	ug/L	150.13	ppb	21:14:00
1	Sc 361.383	845520.4	845520.4	110.10	%			21:15:18
1	Y 371.029	800673.4	800673.4	116.20	%			21:15:18
1	Ag 328.068†	-4576.0	-4411.8	1.6321	ug/L	1.6321	ppb	21:15:23
1	As 188.979†	-32.9	-4.9	45.792	ug/L	45.792	ppb	21:15:43
1	B 249.677†	678.2	1069.4	14.051	ug/L	14.051	ppb	21:15:23
1	Ba 233.527†	67819.5	61594.3	729.56	ug/L	729.56	ppb	21:15:23
1	Be 313.107†	-22682.9	-11619.0	3.1800	ug/L	3.1800	ppb	21:15:23
1	Cd 226.502†	542.6	679.5	1.6242	ug/L	1.6242	ppb	21:15:43
1	Co 228.616†	1253.2	1195.6	28.113	ug/L	28.113	ppb	21:15:43
1	Cr 267.716†	8417.3	7569.3	105.18	ug/L	105.18	ppb	21:15:23
1	Cu 324.752†	23735.2	14021.2	56.663	ug/L	56.663	ppb	21:15:23
1	Mn 257.610†	1473098.2	1337471.7	2148.0	ug/L	2148.0	ppb	21:15:18
1	Mo 202.031†	-21.7	-34.1	3.2187	ug/L	3.2187	ppb	21:15:43
1	Ni 231.604†	2256.0	1947.7	62.239	ug/L	62.239	ppb	21:15:43
1	P 214.914†	3164.5	2678.8	1433.1	ug/L	1433.1	ppb	21:15:43
1	Pb 220.353†	2582.1	2415.8	393.91	ug/L	393.91	ppb	21:15:43
1	S 181.975 Axial†	717.9	609.6	782.42	ug/L	782.42	ppb	21:15:43
1	Sb 206.836†	68.3	32.0	-0.3181	ug/L	-0.3181	ppb	21:15:43
1	Se 196.026†	-323.2	-273.7	10.455	ug/L	10.455	ppb	21:15:43
1	Si 251.611†	990494.4	899021.5	32806	ug/L	32806	ppb	21:15:18
1	Sn 189.927†	-117.6	-114.9	-26.836	ug/L	-26.836	ppb	21:15:43
1	Ti 334.940†	1875476.5	1704691.5	3437.6	ug/L	3437.6	ppb	21:15:18
1	Tl 190.801†	-136.7	-93.0	-4.4484	ug/L	-4.4484	ppb	21:15:43
1	U 409.014†	-5499.8	-2458.3	-91.414	ug/L	-91.414	ppb	21:15:23
1	V 292.402†	22380.7	21955.1	159.85	ug/L	159.85	ppb	21:15:23
1	Zn 213.857†	21997.5	19268.8	200.40	ug/L	200.40	ppb	21:15:23
1	SiO2†	968695.3	879215.4	68492	ug/L	68492	ppb	21:16:51
2	Sc Radial	5088.1	5088.1	108	%			21:14:45
2	Y RADIAL	5706.9	5706.9	114.5	%			21:14:45
2	Al 396.153Radial†	50206.6	46530.0	43525	ug/L	43525	ppb	21:14:25
2	Ca 317.933Radial†	16221.8	14983.5	27224	ug/L	27224	ppb	21:14:25
2	Fe 238.204 Radial†	8337.9	7705.5	79945	ug/L	79945	ppb	21:14:25
2	K 766.490 Radial†	54242.6	47914.6	9527.8	ug/L	9527.8	ppb	21:14:25
2	Mg 279.077 IEC†	311.6	285.3	11246	ug/L	11246	ppb	21:14:45
2	Na 589.592 Radial†	2271.8	2949.3	1005.1	ug/L	1005.1	ppb	21:14:25
2	Sr 421.552†	23057.7	21329.7	154.90	ug/L	154.90	ppb	21:14:25
2	Sc 361.383	831014.9	831014.9	108.21	%			21:15:49
2	Y 371.029	787609.8	787609.8	114.31	%			21:15:49
2	Ag 328.068†	-4566.8	-4475.9	1.9741	ug/L	1.9741	ppb	21:15:54
2	As 188.979†	-29.6	-2.4	47.384	ug/L	47.384	ppb	21:16:14
2	B 249.677†	668.6	1071.3	13.743	ug/L	13.743	ppb	21:15:54
2	Ba 233.527†	67252.2	62145.2	736.13	ug/L	736.13	ppb	21:15:54
2	Be 313.107†	-22478.5	-11789.7	3.0960	ug/L	3.0960	ppb	21:15:54
2	Cd 226.502†	566.4	710.1	1.8325	ug/L	1.8325	ppb	21:16:14
2	Co 228.616†	1221.2	1186.0	27.804	ug/L	27.804	ppb	21:16:14
2	Cr 267.716†	8395.1	7682.3	106.77	ug/L	106.77	ppb	21:15:54
2	Cu 324.752†	23537.6	14214.9	57.504	ug/L	57.504	ppb	21:15:54
2	Mn 257.610†	1443882.5	1333827.4	2142.4	ug/L	2142.4	ppb	21:15:49
2	Mo 202.031†	-34.6	-46.4	2.2746	ug/L	2.2746	ppb	21:16:14
2	Ni 231.604†	2258.3	1985.6	63.451	ug/L	63.451	ppb	21:16:14

2	P 214.914†	3105.1	2674.0	1428.8	ug/L	1428.8 ppb	21:16:14
2	Pb 220.353†	2555.0	2431.8	396.66	ug/L	396.66 ppb	21:16:14
2	S 181.975 Axial†	704.4	608.4	780.71	ug/L	780.71 ppb	21:16:14
2	Sb 206.836†	66.8	31.7	-0.4772	ug/L	-0.4772 ppb	21:16:14
2	Se 196.026†	-314.7	-271.0	17.125	ug/L	17.125 ppb	21:16:14
2	Si 251.611†	970077.2	895856.9	32690	ug/L	32690 ppb	21:15:49
2	Sn 189.927†	-113.2	-112.7	-26.292	ug/L	-26.292 ppb	21:16:14
2	Ti 334.940†	1839483.4	1701163.5	3430.6	ug/L	3430.6 ppb	21:15:49
2	Tl 190.801†	-127.9	-87.0	-1.8000	ug/L	-1.8000 ppb	21:16:14
2	U 409.014†	-5448.4	-2498.0	-92.997	ug/L	-92.997 ppb	21:15:54
2	V 292.402†	22293.6	22229.4	161.71	ug/L	161.71 ppb	21:15:54
2	Zn 213.857†	21833.5	19466.0	202.24	ug/L	202.24 ppb	21:15:54
2	SiO2†	974293.8	899746.2	70092	ug/L	70092 ppb	21:16:57
3	Sc Radial	5049.2	5049.2	107	%		21:15:10
3	Y RADIAL	5671.2	5671.2	113.8	%		21:15:10
3	Al 396.153Radial†	50171.5	46854.5	43829	ug/L	43829 ppb	21:14:50
3	Ca 317.933Radial†	16196.0	15074.9	27390	ug/L	27390 ppb	21:14:50
3	Fe 238.204 Radial†	8317.2	7745.5	80361	ug/L	80361 ppb	21:14:50
3	K 766.490 Radial†	54109.4	48176.5	9579.8	ug/L	9579.8 ppb	21:14:50
3	Mg 279.077 IEC†	313.7	289.6	11413	ug/L	11413 ppb	21:15:10
3	Na 589.592 Radial†	2261.5	2955.8	1007.4	ug/L	1007.4 ppb	21:14:50
3	Sr 421.552†	22922.6	21367.8	155.18	ug/L	155.18 ppb	21:14:50
3	Sc 361.383	833545.5	833545.5	108.54	%		21:16:20
3	Y 371.029	791092.9	791092.9	114.81	%		21:16:20
3	Ag 328.068†	-4456.9	-4361.8	2.6735	ug/L	2.6735 ppb	21:16:25
3	As 188.979†	-35.0	-7.3	45.237	ug/L	45.237 ppb	21:16:45
3	B 249.677†	617.1	1022.0	12.440	ug/L	12.440 ppb	21:16:25
3	Ba 233.527†	66504.2	61267.4	725.78	ug/L	725.78 ppb	21:16:25
3	Be 313.107†	-22434.2	-11685.8	3.1250	ug/L	3.1250 ppb	21:16:25
3	Cd 226.502†	541.7	685.7	1.4451	ug/L	1.4451 ppb	21:16:45
3	Co 228.616†	1233.1	1193.5	28.034	ug/L	28.034 ppb	21:16:45
3	Cr 267.716†	8251.3	7526.2	104.64	ug/L	104.64 ppb	21:16:25
3	Cu 324.752†	23385.1	14008.4	56.751	ug/L	56.751 ppb	21:16:25
3	Mn 257.610†	1444013.3	1329897.0	2136.1	ug/L	2136.1 ppb	21:16:20
3	Mo 202.031†	-22.9	-35.4	3.3115	ug/L	3.3115 ppb	21:16:45
3	Ni 231.604†	2293.1	2011.2	64.272	ug/L	64.272 ppb	21:16:45
3	P 214.914†	3160.6	2716.5	1452.4	ug/L	1452.4 ppb	21:16:45
3	Pb 220.353†	2591.0	2457.8	400.90	ug/L	400.90 ppb	21:16:45
3	S 181.975 Axial†	701.4	603.7	774.55	ug/L	774.55 ppb	21:16:45
3	Sb 206.836†	75.8	39.8	2.7871	ug/L	2.7871 ppb	21:16:45
3	Se 196.026†	-328.2	-282.6	11.023	ug/L	11.023 ppb	21:16:45
3	Si 251.611†	970622.7	893637.8	32609	ug/L	32609 ppb	21:16:20
3	Sn 189.927†	-127.4	-125.4	-29.288	ug/L	-29.288 ppb	21:16:45
3	Ti 334.940†	1842175.4	1698482.7	3425.2	ug/L	3425.2 ppb	21:16:20
3	Tl 190.801†	-117.7	-77.2	2.6291	ug/L	2.6291 ppb	21:16:45
3	U 409.014†	-5347.2	-2389.6	-89.407	ug/L	-89.407 ppb	21:16:25
3	V 292.402†	22040.2	21933.5	159.32	ug/L	159.32 ppb	21:16:25
3	Zn 213.857†	21629.2	19216.5	199.42	ug/L	199.42 ppb	21:16:25
3	SiO2†	977181.7	899673.4	70086	ug/L	70086 ppb	21:17:03

Mean Data: 246055004|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	836693.6	108.95	%	1.009				0.93%
Sc Radial	5067.8	108	%	0.4				0.38%
Y 371.029	793125.4	115.11	%	0.982				0.85%
Y RADIAL	5682.1	114.0	%	0.43				0.38%
Ag 328.068†	-4416.5	2.0932	ug/L	0.53086	2.0932	ppb	0.53086	25.36%
Al 396.153Radial†	46138.8	43159	ug/L	909.5	43159	ppb	909.5	2.11%
As 188.979†	-4.8	46.137	ug/L	1.1143	46.137	ppb	1.1143	2.42%
B 249.677†	1054.3	13.411	ug/L	0.8551	13.411	ppb	0.8551	6.38%
Ba 233.527†	61669.0	730.49	ug/L	5.238	730.49	ppb	5.238	0.72%
Be 313.107†	-11698.1	3.1337	ug/L	0.04265	3.1337	ppb	0.04265	1.36%
Ca 317.933Radial†	14858.7	26997	ug/L	543.0	26997	ppb	543.0	2.01%
Cd 226.502†	691.7	1.6339	ug/L	0.19386	1.6339	ppb	0.19386	11.86%
Co 228.616†	1191.7	27.983	ug/L	0.1607	27.983	ppb	0.1607	0.57%
Cr 267.716†	7592.6	105.53	ug/L	1.106	105.53	ppb	1.106	1.05%
Cu 324.752†	14081.5	56.973	ug/L	0.4625	56.973	ppb	0.4625	0.81%
Fe 238.204 Radial†	7648.5	79354	ug/L	1399.7	79354	ppb	1399.7	1.76%
K 766.490 Radial†	47536.0	9452.5	ug/L	177.44	9452.5	ppb	177.44	1.88%

Mg 279.077 IEC†	285.6	11258	ug/L	148.7	11258	ppb	148.7	1.32%
Mn 257.610†	1333732.0	2142.2	ug/L	5.94	2142.2	ppb	5.94	0.28%
Mo 202.031†	-38.6	2.9349	ug/L	0.57374	2.9349	ppb	0.57374	19.55%
Na 589.592 Radial†	2945.7	1003.9	ug/L	4.21	1003.9	ppb	4.21	0.42%
Ni 231.604†	1981.5	63.320	ug/L	1.0225	63.320	ppb	1.0225	1.61%
P 214.914†	2689.8	1438.1	ug/L	12.57	1438.1	ppb	12.57	0.87%
Pb 220.353†	2435.1	397.15	ug/L	3.519	397.15	ppb	3.519	0.89%
S 181.975 Axial†	607.2	779.23	ug/L	4.138	779.23	ppb	4.138	0.53%
Sb 206.836†	34.5	0.6639	ug/L	1.84042	0.6639	ppb	1.84042	277.21%
Se 196.026†	-275.8	12.867	ug/L	3.6977	12.867	ppb	3.6977	28.74%
Si 251.611†	896172.1	32702	ug/L	98.7	32702	ppb	98.7	0.30%
Sn 189.927†	-117.7	-27.472	ug/L	1.5962	-27.472	ppb	1.5962	5.81%
Sr 421.552†	21123.6	153.40	ug/L	2.835	153.40	ppb	2.835	1.85%
Ti 334.940†	1701445.9	3431.1	ug/L	6.22	3431.1	ppb	6.22	0.18%
Tl 190.801†	-85.7	-1.2064	ug/L	3.57591	-1.2064	ppb	3.57591	296.41%
U 409.014†	-2448.6	-91.273	ug/L	1.7989	-91.273	ppb	1.7989	1.97%
V 292.402†	22039.3	160.29	ug/L	1.253	160.29	ppb	1.253	0.78%
Zn 213.857†	19317.1	200.69	ug/L	1.430	200.69	ppb	1.430	0.71%
SiO2†	892878.3	69557	ug/L	921.8	69557	ppb	921.8	1.33%

Sequence No.: 27
Sample ID: 246055005|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 58
Date Collected: 3/1/2010 21:19:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055005|949334|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5089.1	5089.1	108	%			21:21:27
1	Y RADIAL	5810.8	5810.8	116.6	%			21:21:27
1	Al 396.153Radial†	118050.8	109265.9	102210	ug/L	102210	ppb	21:21:07
1	Ca 317.933Radial†	10800.6	9966.7	18109	ug/L	18109	ppb	21:21:07
1	Fe 238.204 Radial†	11728.5	10839.7	112460	ug/L	112460	ppb	21:21:07
1	K 766.490 Radial†	89444.1	80460.3	16009	ug/L	16009	ppb	21:21:07
1	Mg 279.077 IEC†	493.6	453.6	17892	ug/L	17892	ppb	21:21:27
1	Na 589.592 Radial†	1968.5	2668.3	909.36	ug/L	909.36	ppb	21:21:07
1	Sr 421.552†	32185.8	29767.3	216.33	ug/L	216.33	ppb	21:21:07
1	Sc 361.383	838372.9	838372.9	109.17	%			21:22:25
1	Y 371.029	804617.9	804617.9	116.77	%			21:22:25
1	Ag 328.068†	-6485.3	-6196.1	3.5481	ug/L	3.5481	ppb	21:22:30
1	As 188.979†	-42.4	-13.8	60.396	ug/L	60.396	ppb	21:22:50
1	B 249.677†	875.6	1255.4	13.011	ug/L	13.011	ppb	21:22:30
1	Ba 233.527†	122159.8	111894.4	1324.3	ug/L	1324.3	ppb	21:22:30
1	Be 313.107†	-18150.3	-7642.7	7.4976	ug/L	7.4976	ppb	21:22:30
1	Cd 226.502†	809.7	928.3	1.5636	ug/L	1.5636	ppb	21:22:50
1	Co 228.616†	2009.4	1898.0	46.602	ug/L	46.602	ppb	21:22:50
1	Cr 267.716†	6771.4	6126.9	86.252	ug/L	86.252	ppb	21:22:30
1	Cu 324.752†	26827.5	17037.5	69.811	ug/L	69.811	ppb	21:22:30
1	Mn 257.610†	1789802.0	1638974.7	2633.8	ug/L	2633.8	ppb	21:22:25
1	Mo 202.031†	-54.4	-64.2	3.0517	ug/L	3.0517	ppb	21:22:50
1	Ni 231.604†	2376.6	2075.6	66.317	ug/L	66.317	ppb	21:22:50
1	P 214.914†	1587.4	1258.7	624.95	ug/L	624.95	ppb	21:22:50
1	Pb 220.353†	3681.1	3442.5	571.18	ug/L	571.18	ppb	21:22:50
1	S 181.975 Axial†	573.8	483.1	607.15	ug/L	607.15	ppb	21:22:50
1	Sb 206.836†	80.7	43.9	-1.1811	ug/L	-1.1811	ppb	21:22:50
1	Se 196.026†	-455.4	-397.4	18.150	ug/L	18.150	ppb	21:22:50
1	Si 251.611†	1176616.8	1077176.8	39307	ug/L	39307	ppb	21:22:25
1	Sn 189.927†	-69.4	-71.6	-20.102	ug/L	-20.102	ppb	21:22:50
1	Ti 334.940†	2512824.4	2303016.2	4641.6	ug/L	4641.6	ppb	21:22:25
1	Tl 190.801†	-167.3	-122.0	-5.6851	ug/L	-5.6851	ppb	21:22:50
1	U 409.014†	-6438.0	-3360.3	-125.53	ug/L	-125.53	ppb	21:22:30
1	V 292.402†	31851.2	30803.3	224.02	ug/L	224.02	ppb	21:22:30
1	Zn 213.857†	26277.2	23359.3	240.28	ug/L	240.28	ppb	21:22:30
1	SiO2†	1185305.6	1085128.4	84533	ug/L	84533	ppb	21:23:59
2	Sc Radial	5101.4	5101.4	108	%			21:21:53
2	Y RADIAL	5806.4	5806.4	116.5	%			21:21:53
2	Al 396.153Radial†	119475.7	110317.2	103190	ug/L	103190	ppb	21:21:33
2	Ca 317.933Radial†	10929.4	10061.5	18281	ug/L	18281	ppb	21:21:33
2	Fe 238.204 Radial†	11813.2	10891.8	113000	ug/L	113000	ppb	21:21:33
2	K 766.490 Radial†	90524.9	81258.0	16168	ug/L	16168	ppb	21:21:33
2	Mg 279.077 IEC†	495.9	454.6	17932	ug/L	17932	ppb	21:21:53
2	Na 589.592 Radial†	2010.4	2702.7	921.07	ug/L	921.07	ppb	21:21:33
2	Sr 421.552†	32505.8	29990.8	217.95	ug/L	217.95	ppb	21:21:33
2	Sc 361.383	842281.4	842281.4	109.68	%			21:22:56
2	Y 371.029	810258.1	810258.1	117.59	%			21:22:56
2	Ag 328.068†	-6497.9	-6180.0	3.7929	ug/L	3.7929	ppb	21:23:01
2	As 188.979†	-37.7	-9.4	62.654	ug/L	62.654	ppb	21:23:21
2	B 249.677†	768.1	1153.8	10.377	ug/L	10.377	ppb	21:23:01
2	Ba 233.527†	122332.4	111532.5	1320.0	ug/L	1320.0	ppb	21:23:01
2	Be 313.107†	-18238.7	-7646.3	7.5332	ug/L	7.5332	ppb	21:23:01
2	Cd 226.502†	845.8	957.8	1.9253	ug/L	1.9253	ppb	21:23:21
2	Co 228.616†	2023.6	1902.5	46.694	ug/L	46.694	ppb	21:23:21
2	Cr 267.716†	6786.5	6111.9	86.058	ug/L	86.058	ppb	21:23:01
2	Cu 324.752†	26972.1	17055.3	69.908	ug/L	69.908	ppb	21:23:01
2	Mn 257.610†	1800226.2	1640871.3	2636.9	ug/L	2636.9	ppb	21:22:56
2	Mo 202.031†	-48.2	-58.3	3.6366	ug/L	3.6366	ppb	21:23:21
2	Ni 231.604†	2368.8	2058.4	65.766	ug/L	65.766	ppb	21:23:21

2	P 214.914†	1581.6	1246.7	618.01 ug/L	618.01 ppb	21:23:21
2	Pb 220.353†	3703.8	3447.6	572.20 ug/L	572.20 ppb	21:23:21
2	S 181.975 Axial†	582.1	488.2	613.61 ug/L	613.61 ppb	21:23:21
2	Sb 206.836†	85.4	47.8	0.3295 ug/L	0.3295 ppb	21:23:21
2	Se 196.026†	-469.3	-408.0	12.911 ug/L	12.911 ppb	21:23:21
2	Si 251.611†	1185577.4	1080345.4	39423 ug/L	39423 ppb	21:22:56
2	Sn 189.927†	-74.8	-76.3	-21.196 ug/L	-21.196 ppb	21:23:21
2	Ti 334.940†	2533422.5	2311115.6	4657.9 ug/L	4657.9 ppb	21:22:56
2	Tl 190.801†	-172.0	-125.6	-7.2013 ug/L	-7.2013 ppb	21:23:21
2	U 409.014†	-6556.0	-3440.5	-128.28 ug/L	-128.28 ppb	21:23:01
2	V 292.402†	31878.0	30692.3	223.04 ug/L	223.04 ppb	21:23:01
2	Zn 213.857†	26284.9	23254.6	239.05 ug/L	239.05 ppb	21:23:01
2	SiO2†	1180710.3	1075900.6	83815 ug/L	83815 ppb	21:24:05
3	Sc Radial	5072.6	5072.6	108 %		21:22:18
3	Y RADIAL	5759.4	5759.4	115.5 %		21:22:18
3	Al 396.153Radial†	117211.4	108842.1	101810 ug/L	101810 ppb	21:21:58
3	Ca 317.933Radial†	10746.5	9949.0	18077 ug/L	18077 ppb	21:21:58
3	Fe 238.204 Radial†	11694.8	10843.8	112510 ug/L	112510 ppb	21:21:58
3	K 766.490 Radial†	88828.9	80158.6	15949 ug/L	15949 ppb	21:21:58
3	Mg 279.077 IEC†	491.1	452.7	17858 ug/L	17858 ppb	21:22:18
3	Na 589.592 Radial†	1935.8	2643.9	901.05 ug/L	901.05 ppb	21:21:58
3	Sr 421.552†	31792.0	29498.8	214.37 ug/L	214.37 ppb	21:21:58
3	Sc 361.383	840968.4	840968.4	109.51 %		21:23:27
3	Y 371.029	808181.0	808181.0	117.29 %		21:23:27
3	Ag 328.068†	-6457.1	-6152.0	3.7939 ug/L	3.7939 ppb	21:23:33
3	As 188.979†	-52.3	-22.8	56.264 ug/L	56.264 ppb	21:23:53
3	B 249.677†	947.1	1318.3	14.579 ug/L	14.579 ppb	21:23:33
3	Ba 233.527†	122824.0	112155.6	1327.4 ug/L	1327.4 ppb	21:23:33
3	Be 313.107†	-18395.9	-7815.8	7.3881 ug/L	7.3881 ppb	21:23:33
3	Cd 226.502†	821.6	936.9	1.6812 ug/L	1.6812 ppb	21:23:53
3	Co 228.616†	2022.7	1904.5	46.834 ug/L	46.834 ppb	21:23:53
3	Cr 267.716†	6847.8	6177.5	86.947 ug/L	86.947 ppb	21:23:33
3	Cu 324.752†	27109.5	17219.2	70.494 ug/L	70.494 ppb	21:23:33
3	Mn 257.610†	1787805.2	1632091.5	2622.8 ug/L	2622.8 ppb	21:23:27
3	Mo 202.031†	-62.3	-71.3	2.4092 ug/L	2.4092 ppb	21:23:53
3	Ni 231.604†	2374.8	2067.2	66.049 ug/L	66.049 ppb	21:23:53
3	P 214.914†	1562.4	1231.3	609.39 ug/L	609.39 ppb	21:23:53
3	Pb 220.353†	3693.4	3443.3	571.21 ug/L	571.21 ppb	21:23:53
3	S 181.975 Axial†	572.1	479.9	603.12 ug/L	603.12 ppb	21:23:53
3	Sb 206.836†	86.5	49.0	0.9374 ug/L	0.9374 ppb	21:23:53
3	Se 196.026†	-464.4	-404.3	13.967 ug/L	13.967 ppb	21:23:53
3	Si 251.611†	1175726.5	1073037.5	39156 ug/L	39156 ppb	21:23:27
3	Sn 189.927†	-76.1	-77.6	-21.515 ug/L	-21.515 ppb	21:23:53
3	Ti 334.940†	2510859.2	2294117.9	4623.7 ug/L	4623.7 ppb	21:23:27
3	Tl 190.801†	-159.8	-114.7	-2.5455 ug/L	-2.5455 ppb	21:23:53
3	U 409.014†	-6499.0	-3397.8	-126.79 ug/L	-126.79 ppb	21:23:33
3	V 292.402†	32113.9	30953.2	225.21 ug/L	225.21 ppb	21:23:33
3	Zn 213.857†	26336.3	23339.0	240.05 ug/L	240.05 ppb	21:23:33
3	SiO2†	1188170.1	1084393.3	84476 ug/L	84476 ppb	21:24:11

Mean Data: 246055005|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	840540.9	109.45	%	0.259				0.24%
Sc Radial	5087.7	108	%	0.3				0.28%
Y 371.029	807685.7	117.22	%	0.414				0.35%
Y RADIAL	5792.2	116.2	%	0.57				0.49%
Ag 328.068†	-6176.1	3.7116	ug/L	0.14163	3.7116	ppb	0.14163	3.82%
Al 396.153Radial†	109475.0	102400	ug/L	710.4	102400	ppb	710.4	0.69%
As 188.979†	-15.3	59.771	ug/L	3.2405	59.771	ppb	3.2405	5.42%
B 249.677†	1242.5	12.656	ug/L	2.1234	12.656	ppb	2.1234	16.78%
Ba 233.527†	111860.8	1323.9	ug/L	3.69	1323.9	ppb	3.69	0.28%
Be 313.107†	-7701.6	7.4730	ug/L	0.07563	7.4730	ppb	0.07563	1.01%
Ca 317.933Radial†	9992.4	18156	ug/L	109.9	18156	ppb	109.9	0.61%
Cd 226.502†	941.0	1.7234	ug/L	0.18451	1.7234	ppb	0.18451	10.71%
Co 228.616†	1901.7	46.710	ug/L	0.1168	46.710	ppb	0.1168	0.25%
Cr 267.716†	6138.8	86.419	ug/L	0.4672	86.419	ppb	0.4672	0.54%
Cu 324.752†	17104.0	70.071	ug/L	0.3697	70.071	ppb	0.3697	0.53%
Fe 238.204 Radial†	10858.4	112660	ug/L	300.3	112660	ppb	300.3	0.27%
K 766.490 Radial†	80625.6	16042	ug/L	113.0	16042	ppb	113.0	0.70%

Mg 279.077 IEC†	453.6	17894	ug/L	37.3	17894	ppb	37.3	0.21%
Mn 257.610†	1637312.5	2631.1	ug/L	7.41	2631.1	ppb	7.41	0.28%
Mo 202.031†	-64.6	3.0325	ug/L	0.61393	3.0325	ppb	0.61393	20.24%
Na 589.592 Radial†	2671.6	910.49	ug/L	10.054	910.49	ppb	10.054	1.10%
Ni 231.604†	2067.1	66.044	ug/L	0.2755	66.044	ppb	0.2755	0.42%
P 214.914†	1245.6	617.45	ug/L	7.797	617.45	ppb	7.797	1.26%
Pb 220.353†	3444.5	571.53	ug/L	0.580	571.53	ppb	0.580	0.10%
S 181.975 Axial†	483.7	607.96	ug/L	5.292	607.96	ppb	5.292	0.87%
Sb 206.836†	46.9	0.0286	ug/L	1.09083	0.0286	ppb	1.09083	>999.9%
Se 196.026†	-403.2	15.009	ug/L	2.7707	15.009	ppb	2.7707	18.46%
Si 251.611†	1076853.2	39295	ug/L	133.7	39295	ppb	133.7	0.34%
Sn 189.927†	-75.1	-20.938	ug/L	0.7410	-20.938	ppb	0.7410	3.54%
Sr 421.552†	29752.3	216.22	ug/L	1.791	216.22	ppb	1.791	0.83%
Ti 334.940†	2302749.9	4641.1	ug/L	17.14	4641.1	ppb	17.14	0.37%
Tl 190.801†	-120.8	-5.1440	ug/L	2.37459	-5.1440	ppb	2.37459	46.16%
U 409.014†	-3399.6	-126.87	ug/L	1.374	-126.87	ppb	1.374	1.08%
V 292.402†	30816.3	224.09	ug/L	1.087	224.09	ppb	1.087	0.49%
Zn 213.857†	23317.6	239.79	ug/L	0.655	239.79	ppb	0.655	0.27%
SiO2†	1081807.4	84275	ug/L	399.5	84275	ppb	399.5	0.47%

Sequence No.: 28
Sample ID: 246055006|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 59
Date Collected: 3/1/2010 21:26:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055006|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5128.6	5128.6	109	%			21:28:34
1	Y RADIAL	6161.5	6161.5	123.6	%			21:28:34
1	Al 396.153Radial†	201077.9	184621.1	172700	ug/L	172700	ppb	21:28:14
1	Ca 317.933Radial†	15620.3	14313.0	26006	ug/L	26006	ppb	21:28:14
1	Fe 238.204 Radial†	14978.0	13738.4	142540	ug/L	142540	ppb	21:28:14
1	K 766.490 Radial†	121869.2	109580.6	21803	ug/L	21803	ppb	21:28:14
1	Mg 279.077 IEC†	657.2	600.3	23684	ug/L	23684	ppb	21:28:34
1	Na 589.592 Radial†	2363.6	3016.9	1028.2	ug/L	1028.2	ppb	21:28:14
1	Sr 421.552†	44275.5	40633.2	295.28	ug/L	295.28	ppb	21:28:14
1	Sc 361.383	848022.7	848022.7	110.43	%			21:29:33
1	Y 371.029	856959.4	856959.4	124.37	%			21:29:33
1	Ag 328.068†	-8059.0	-7553.6	5.9600	ug/L	5.9600	ppb	21:29:53
1	As 188.979†	-44.1	-15.0	73.479	ug/L	73.479	ppb	21:29:53
1	B 249.677†	1287.3	1619.2	17.212	ug/L	17.212	ppb	21:29:33
1	Ba 233.527†	162049.8	146744.1	1736.5	ug/L	1736.5	ppb	21:29:33
1	Be 313.107†	-10982.2	-962.4	11.864	ug/L	11.864	ppb	21:29:33
1	Cd 226.502†	1065.7	1151.7	1.6283	ug/L	1.6283	ppb	21:29:53
1	Co 228.616†	2351.4	2186.8	53.490	ug/L	53.490	ppb	21:29:53
1	Cr 267.716†	10059.3	9033.7	126.64	ug/L	126.64	ppb	21:29:53
1	Cu 324.752†	27622.9	17478.2	73.093	ug/L	73.093	ppb	21:29:33
1	Mn 257.610†	1824249.4	1651513.6	2656.6	ug/L	2656.6	ppb	21:29:33
1	Mo 202.031†	-89.7	-95.6	2.5999	ug/L	2.5999	ppb	21:29:53
1	Ni 231.604†	3394.0	2972.2	94.971	ug/L	94.971	ppb	21:29:53
1	P 214.914†	1656.8	1305.0	643.78	ug/L	643.78	ppb	21:29:53
1	Pb 220.353†	2673.8	2492.0	432.76	ug/L	432.76	ppb	21:29:53
1	S 181.975 Axial†	564.4	468.6	575.17	ug/L	575.17	ppb	21:29:53
1	Sb 206.836†	74.9	37.8	-8.2930	ug/L	-8.2930	ppb	21:29:53
1	Se 196.026†	-589.0	-513.6	20.995	ug/L	20.995	ppb	21:29:53
1	Si 251.611†	1470717.7	1331240.0	48578	ug/L	48578	ppb	21:29:33
1	Sn 189.927†	-78.2	-78.9	-22.138	ug/L	-22.138	ppb	21:29:53
1	Ti 334.940†	2954906.4	2677158.2	5396.1	ug/L	5396.1	ppb	21:29:33
1	Tl 190.801†	-184.1	-135.5	-5.6729	ug/L	-5.6729	ppb	21:29:53
1	U 409.014†	-8889.6	-5513.3	-201.14	ug/L	-201.14	ppb	21:29:33
1	V 292.402†	38946.8	36896.8	267.29	ug/L	267.29	ppb	21:29:33
1	Zn 213.857†	27613.6	24295.6	245.92	ug/L	245.92	ppb	21:29:53
1	SiO2†	1457211.4	1319001.9	102750	ug/L	102750	ppb	21:30:53
2	Sc Radial	5139.4	5139.4	109	%			21:29:00
2	Y RADIAL	6170.3	6170.3	123.8	%			21:29:00
2	Al 396.153Radial†	195237.4	178883.7	167330	ug/L	167330	ppb	21:28:40
2	Ca 317.933Radial†	15298.0	13987.6	25415	ug/L	25415	ppb	21:28:40
2	Fe 238.204 Radial†	14608.8	13371.3	138730	ug/L	138730	ppb	21:28:40
2	K 766.490 Radial†	118373.9	106144.0	21120	ug/L	21120	ppb	21:28:40
2	Mg 279.077 IEC†	657.0	598.8	23631	ug/L	23631	ppb	21:29:00
2	Na 589.592 Radial†	2240.2	2899.3	988.09	ug/L	988.09	ppb	21:28:40
2	Sr 421.552†	42712.7	39116.4	284.25	ug/L	284.25	ppb	21:28:40
2	Sc 361.383	846399.9	846399.9	110.22	%			21:30:00
2	Y 371.029	856928.8	856928.8	124.37	%			21:30:00
2	Ag 328.068†	-8159.3	-7658.6	4.2579	ug/L	4.2579	ppb	21:30:20
2	As 188.979†	-54.8	-24.7	68.201	ug/L	68.201	ppb	21:30:20
2	B 249.677†	1192.2	1535.1	15.724	ug/L	15.724	ppb	21:30:00
2	Ba 233.527†	161452.8	146483.7	1733.4	ug/L	1733.4	ppb	21:30:00
2	Be 313.107†	-11108.9	-1096.4	11.798	ug/L	11.798	ppb	21:30:00
2	Cd 226.502†	1078.0	1164.7	2.2074	ug/L	2.2074	ppb	21:30:20
2	Co 228.616†	2360.8	2199.4	53.940	ug/L	53.940	ppb	21:30:20
2	Cr 267.716†	10119.5	9105.8	127.55	ug/L	127.55	ppb	21:30:20
2	Cu 324.752†	27593.8	17499.7	72.972	ug/L	72.972	ppb	21:30:00
2	Mn 257.610†	1816371.5	1647533.4	2649.8	ug/L	2649.8	ppb	21:30:00
2	Mo 202.031†	-66.4	-74.6	4.2257	ug/L	4.2257	ppb	21:30:20
2	Ni 231.604†	3455.4	3033.8	96.941	ug/L	96.941	ppb	21:30:20

2	P 214.914†	1666.9	1317.0	652.22 ug/L	652.22 ppb	21:30:20
2	Pb 220.353†	2666.3	2489.9	431.42 ug/L	431.42 ppb	21:30:20
2	S 181.975 Axial†	576.5	480.5	591.66 ug/L	591.66 ppb	21:30:20
2	Sb 206.836†	76.4	39.3	-7.4729 ug/L	-7.4729 ppb	21:30:20
2	Se 196.026†	-602.7	-527.0	3.7333 ug/L	3.7333 ppb	21:30:20
2	Si 251.611†	1464947.0	1328557.7	48480 ug/L	48480 ppb	21:30:00
2	Sn 189.927†	-91.8	-91.3	-24.954 ug/L	-24.954 ppb	21:30:20
2	Ti 334.940†	2946115.9	2674313.0	5390.3 ug/L	5390.3 ppb	21:30:00
2	Tl 190.801†	-192.6	-143.5	-9.4422 ug/L	-9.4422 ppb	21:30:20
2	U 409.014†	-8910.0	-5547.2	-201.85 ug/L	-201.85 ppb	21:30:00
2	V 292.402†	38843.3	36870.6	267.66 ug/L	267.66 ppb	21:30:00
2	Zn 213.857†	27793.4	24506.7	248.81 ug/L	248.81 ppb	21:30:20
2	SiO2†	1464680.4	1328308.6	103480 ug/L	103480 ppb	21:30:59
3	Sc Radial	5120.4	5120.4	109 %		21:29:25
3	Y RADIAL	6152.3	6152.3	123.4 %		21:29:25
3	Al 396.153Radial†	197703.8	181814.7	170070 ug/L	170070 ppb	21:29:05
3	Ca 317.933Radial†	15401.9	14135.2	25683 ug/L	25683 ppb	21:29:05
3	Fe 238.204 Radial†	14770.5	13569.6	140790 ug/L	140790 ppb	21:29:05
3	K 766.490 Radial†	119681.2	107748.3	21439 ug/L	21439 ppb	21:29:05
3	Mg 279.077 IEC†	659.5	603.3	23805 ug/L	23805 ppb	21:29:25
3	Na 589.592 Radial†	2313.7	2974.5	1013.7 ug/L	1013.7 ppb	21:29:05
3	Sr 421.552†	43425.6	39916.9	290.07 ug/L	290.07 ppb	21:29:05
3	Sc 361.383	845083.9	845083.9	110.05 %		21:30:27
3	Y 371.029	855345.0	855345.0	124.14 %		21:30:27
3	Ag 328.068†	-8148.0	-7659.9	4.8748 ug/L	4.8748 ppb	21:30:47
3	As 188.979†	-44.8	-15.7	72.720 ug/L	72.720 ppb	21:30:47
3	B 249.677†	1336.7	1668.1	18.722 ug/L	18.722 ppb	21:30:27
3	Ba 233.527†	161526.8	146779.2	1736.9 ug/L	1736.9 ppb	21:30:27
3	Be 313.107†	-11122.7	-1124.7	11.796 ug/L	11.796 ppb	21:30:27
3	Cd 226.502†	1071.9	1160.7	1.9385 ug/L	1.9385 ppb	21:30:47
3	Co 228.616†	2336.8	2181.0	53.345 ug/L	53.345 ppb	21:30:47
3	Cr 267.716†	10105.2	9107.1	127.61 ug/L	127.61 ppb	21:30:47
3	Cu 324.752†	27576.5	17523.0	73.166 ug/L	73.166 ppb	21:30:27
3	Mn 257.610†	1817812.5	1651409.2	2656.2 ug/L	2656.2 ppb	21:30:27
3	Mo 202.031†	-69.2	-77.2	4.1459 ug/L	4.1459 ppb	21:30:47
3	Ni 231.604†	3422.6	3008.8	96.144 ug/L	96.144 ppb	21:30:47
3	P 214.914†	1679.5	1330.8	658.92 ug/L	658.92 ppb	21:30:47
3	Pb 220.353†	2635.2	2465.3	427.96 ug/L	427.96 ppb	21:30:47
3	S 181.975 Axial†	553.8	460.8	565.54 ug/L	565.54 ppb	21:30:47
3	Sb 206.836†	78.0	40.8	-6.9631 ug/L	-6.9631 ppb	21:30:47
3	Se 196.026†	-588.2	-514.7	16.149 ug/L	16.149 ppb	21:30:47
3	Si 251.611†	1465003.1	1330678.6	48557 ug/L	48557 ppb	21:30:27
3	Sn 189.927†	-85.4	-85.7	-23.695 ug/L	-23.695 ppb	21:30:47
3	Ti 334.940†	2943750.9	2676326.5	5394.4 ug/L	5394.4 ppb	21:30:27
3	Tl 190.801†	-194.0	-145.1	-10.078 ug/L	-10.078 ppb	21:30:47
3	U 409.014†	-8728.7	-5395.0	-196.98 ug/L	-196.98 ppb	21:30:27
3	V 292.402†	38748.9	36839.6	267.12 ug/L	267.12 ppb	21:30:27
3	Zn 213.857†	27704.5	24465.2	248.05 ug/L	248.05 ppb	21:30:47
3	SiO2†	1468227.0	1333601.0	103890 ug/L	103890 ppb	21:31:05

Mean Data: 246055006|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846502.2	110.23	%	0.192				0.17%
Sc Radial	5129.5	109	%	0.2				0.19%
Y 371.029	856411.1	124.29	%	0.134				0.11%
Y RADIAL	6161.4	123.6	%	0.18				0.15%
Ag 328.068†	-7624.0	5.0309	ug/L	0.86174	5.0309	ppb	0.86174	17.13%
Al 396.153Radial†	181773.2	170030	ug/L	2683.7	170030	ppb	2683.7	1.58%
As 188.979†	-18.4	71.467	ug/L	2.8537	71.467	ppb	2.8537	3.99%
B 249.677†	1607.5	17.219	ug/L	1.4990	17.219	ppb	1.4990	8.71%
Ba 233.527†	146669.0	1735.6	ug/L	1.95	1735.6	ppb	1.95	0.11%
Be 313.107†	-1061.2	11.820	ug/L	0.0389	11.820	ppb	0.0389	0.33%
Ca 317.933Radial†	14145.2	25701	ug/L	296.1	25701	ppb	296.1	1.15%
Cd 226.502†	1159.0	1.9247	ug/L	0.28981	1.9247	ppb	0.28981	15.06%
Co 228.616†	2189.1	53.592	ug/L	0.3104	53.592	ppb	0.3104	0.58%
Cr 267.716†	9082.2	127.27	ug/L	0.543	127.27	ppb	0.543	0.43%
Cu 324.752†	17500.3	73.077	ug/L	0.0976	73.077	ppb	0.0976	0.13%
Fe 238.204 Radial†	13559.8	140680	ug/L	1906.1	140680	ppb	1906.1	1.35%
K 766.490 Radial†	107824.3	21454	ug/L	342.2	21454	ppb	342.2	1.60%

Mg 279.077 IEC†	600.8	23707	ug/L	89.5	23707	ppb	89.5	0.38%
Mn 257.610†	1650152.1	2654.2	ug/L	3.80	2654.2	ppb	3.80	0.14%
Mo 202.031†	-82.5	3.6572	ug/L	0.91650	3.6572	ppb	0.91650	25.06%
Na 589.592 Radial†	2963.6	1010.0	ug/L	20.29	1010.0	ppb	20.29	2.01%
Ni 231.604†	3004.9	96.019	ug/L	0.9908	96.019	ppb	0.9908	1.03%
P 214.914†	1317.6	651.64	ug/L	7.583	651.64	ppb	7.583	1.16%
Pb 220.353†	2482.4	430.71	ug/L	2.478	430.71	ppb	2.478	0.58%
S 181.975 Axial†	470.0	577.46	ug/L	13.213	577.46	ppb	13.213	2.29%
Sb 206.836†	39.3	-7.5763	ug/L	0.67099	-7.5763	ppb	0.67099	8.86%
Se 196.026†	-518.4	13.626	ug/L	8.9031	13.626	ppb	8.9031	65.34%
Si 251.611†	1330158.7	48538	ug/L	51.6	48538	ppb	51.6	0.11%
Sn 189.927†	-85.3	-23.596	ug/L	1.4106	-23.596	ppb	1.4106	5.98%
Sr 421.552†	39888.8	289.87	ug/L	5.516	289.87	ppb	5.516	1.90%
Ti 334.940†	2675932.6	5393.6	ug/L	2.98	5393.6	ppb	2.98	0.06%
Tl 190.801†	-141.4	-8.3977	ug/L	2.38102	-8.3977	ppb	2.38102	28.35%
U 409.014†	-5485.2	-199.99	ug/L	2.627	-199.99	ppb	2.627	1.31%
V 292.402†	36869.0	267.36	ug/L	0.277	267.36	ppb	0.277	0.10%
Zn 213.857†	24422.5	247.59	ug/L	1.495	247.59	ppb	1.495	0.60%
SiO2†	1326970.5	103370	ug/L	575.7	103370	ppb	575.7	0.56%

Sequence No.: 29
Sample ID: 246055007|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 60
Date Collected: 3/1/2010 21:33:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055007|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5029.5	5029.5	107	%			21:35:29
1	Y RADIAL	6182.8	6182.8	124.0	%			21:35:29
1	Al 396.153Radial†	118621.5	111093.5	103920	ug/L	103920	ppb	21:35:09
1	Ca 317.933Radial†	9626.9	8986.7	16328	ug/L	16328	ppb	21:35:09
1	Fe 238.204 Radial†	12883.3	12048.9	125010	ug/L	125010	ppb	21:35:09
1	K 766.490 Radial†	66956.8	60396.7	12016	ug/L	12016	ppb	21:35:09
1	Mg 279.077 IEC†	468.7	435.7	17170	ug/L	17170	ppb	21:35:29
1	Na 589.592 Radial†	2690.8	3365.8	1147.1	ug/L	1147.1	ppb	21:35:09
1	Sr 421.552†	29450.2	27560.1	200.29	ug/L	200.29	ppb	21:35:09
1	Sc 361.383	837398.8	837398.8	109.04	%			21:36:27
1	Y 371.029	868593.7	868593.7	126.06	%			21:36:27
1	Ag 328.068†	-7405.0	-7046.4	3.0001	ug/L	3.0001	ppb	21:36:32
1	As 188.979†	-46.8	-17.9	63.711	ug/L	63.711	ppb	21:36:52
1	B 249.677†	629.7	1030.9	5.3764	ug/L	5.3764	ppb	21:36:32
1	Ba 233.527†	110764.5	101574.5	1202.8	ug/L	1202.8	ppb	21:36:32
1	Be 313.107†	-18142.2	-7654.7	8.0703	ug/L	8.0703	ppb	21:36:32
1	Cd 226.502†	889.8	1002.7	1.3123	ug/L	1.3123	ppb	21:36:52
1	Co 228.616†	1697.1	1613.8	37.223	ug/L	37.223	ppb	21:36:52
1	Cr 267.716†	10542.1	9592.1	133.83	ug/L	133.83	ppb	21:36:32
1	Cu 324.752†	22468.8	13068.9	55.671	ug/L	55.671	ppb	21:36:32
1	Mn 257.610†	1959189.1	1796218.9	2886.7	ug/L	2886.7	ppb	21:36:27
1	Mo 202.031†	-30.2	-42.1	6.0342	ug/L	6.0342	ppb	21:36:52
1	Ni 231.604†	2917.8	2574.4	82.268	ug/L	82.268	ppb	21:36:52
1	P 214.914†	1503.4	1183.4	576.20	ug/L	576.20	ppb	21:36:52
1	Pb 220.353†	2521.8	2383.4	399.79	ug/L	399.79	ppb	21:36:52
1	S 181.975 Axial†	310.4	242.2	294.51	ug/L	294.51	ppb	21:36:52
1	Sb 206.836†	76.5	40.2	-3.6531	ug/L	-3.6531	ppb	21:36:52
1	Se 196.026†	-510.7	-448.6	15.046	ug/L	15.046	ppb	21:36:52
1	Si 251.611†	1339638.9	1227930.5	44808	ug/L	44808	ppb	21:36:27
1	Sn 189.927†	-40.3	-45.0	-14.874	ug/L	-14.874	ppb	21:36:52
1	Ti 334.940†	2647562.0	2429255.4	4895.8	ug/L	4895.8	ppb	21:36:27
1	Tl 190.801†	-175.4	-129.6	-5.7705	ug/L	-5.7705	ppb	21:36:52
1	U 409.014†	-9740.4	-6395.7	-228.71	ug/L	-228.71	ppb	21:36:32
1	V 292.402†	27098.0	26478.3	187.29	ug/L	187.29	ppb	21:36:32
1	Zn 213.857†	35775.5	32097.7	334.69	ug/L	334.69	ppb	21:36:32
1	SiO2†	1357854.0	1244627.5	96959	ug/L	96959	ppb	21:38:01
2	Sc Radial	5089.5	5089.5	108	%			21:35:54
2	Y RADIAL	6256.0	6256.0	125.5	%			21:35:54
2	Al 396.153Radial†	121403.6	112359.0	105100	ug/L	105100	ppb	21:35:34
2	Ca 317.933Radial†	9787.3	9029.0	16405	ug/L	16405	ppb	21:35:34
2	Fe 238.204 Radial†	13166.2	12168.6	126250	ug/L	126250	ppb	21:35:34
2	K 766.490 Radial†	68153.5	60765.4	12089	ug/L	12089	ppb	21:35:34
2	Mg 279.077 IEC†	469.1	431.0	16979	ug/L	16979	ppb	21:35:54
2	Na 589.592 Radial†	2804.1	3441.0	1172.7	ug/L	1172.7	ppb	21:35:34
2	Sr 421.552†	30117.0	27852.1	202.41	ug/L	202.41	ppb	21:35:34
2	Sc 361.383	849210.8	849210.8	110.58	%			21:36:58
2	Y 371.029	881345.5	881345.5	127.91	%			21:36:58
2	Ag 328.068†	-7291.3	-6849.2	4.3876	ug/L	4.3876	ppb	21:37:03
2	As 188.979†	-51.1	-21.2	62.550	ug/L	62.550	ppb	21:37:23
2	B 249.677†	689.5	1077.0	6.3288	ug/L	6.3288	ppb	21:37:03
2	Ba 233.527†	111146.6	100507.2	1190.3	ug/L	1190.3	ppb	21:37:03
2	Be 313.107†	-18352.8	-7613.7	8.0856	ug/L	8.0856	ppb	21:37:03
2	Cd 226.502†	888.3	989.9	1.0035	ug/L	1.0035	ppb	21:37:23
2	Co 228.616†	1713.0	1606.6	36.984	ug/L	36.984	ppb	21:37:23
2	Cr 267.716†	10565.6	9478.8	132.30	ug/L	132.30	ppb	21:37:03
2	Cu 324.752†	22664.3	12959.1	55.324	ug/L	55.324	ppb	21:37:03
2	Mn 257.610†	1986028.4	1795498.7	2885.7	ug/L	2885.7	ppb	21:36:58
2	Mo 202.031†	-18.8	-31.4	7.1171	ug/L	7.1171	ppb	21:37:23
2	Ni 231.604†	2939.4	2556.8	81.703	ug/L	81.703	ppb	21:37:23

2	P 214.914†	1505.3	1165.9	565.82	ug/L	565.82 ppb	21:37:23
2	Pb 220.353†	2541.4	2368.9	397.65	ug/L	397.65 ppb	21:37:23
2	S 181.975 Axial†	313.5	241.0	292.78	ug/L	292.78 ppb	21:37:23
2	Sb 206.836†	78.0	40.5	-3.5432	ug/L	-3.5432 ppb	21:37:23
2	Se 196.026†	-515.7	-446.5	19.179	ug/L	19.179 ppb	21:37:23
2	Si 251.611†	1359656.6	1228944.4	44845	ug/L	44845 ppb	21:36:58
2	Sn 189.927†	-36.8	-41.3	-14.066	ug/L	-14.066 ppb	21:37:23
2	Ti 334.940†	2684653.8	2429025.8	4895.4	ug/L	4895.4 ppb	21:36:58
2	Tl 190.801†	-175.0	-127.0	-4.5823	ug/L	-4.5823 ppb	21:37:23
2	U 409.014†	-9778.1	-6305.5	-225.83	ug/L	-225.83 ppb	21:37:03
2	V 292.402†	27319.4	26332.9	185.96	ug/L	185.96 ppb	21:37:03
2	Zn 213.857†	35886.3	31741.6	330.58	ug/L	330.58 ppb	21:37:03
2	SiO2†	1351041.5	1221146.6	95129	ug/L	95129 ppb	21:38:07
3	Sc Radial	5143.4	5143.4	109	%		21:36:19
3	Y RADIAL	6300.3	6300.3	126.4	%		21:36:19
3	Al 396.153Radial†	119453.1	109397.4	102330	ug/L	102330 ppb	21:35:59
3	Ca 317.933Radial†	9711.1	8864.4	16106	ug/L	16106 ppb	21:35:59
3	Fe 238.204 Radial†	13038.8	11924.4	123720	ug/L	123720 ppb	21:35:59
3	K 766.490 Radial†	67329.1	59350.5	11808	ug/L	11808 ppb	21:35:59
3	Mg 279.077 IEC†	462.5	420.4	16561	ug/L	16561 ppb	21:36:19
3	Na 589.592 Radial†	2716.9	3334.0	1136.2	ug/L	1136.2 ppb	21:35:59
3	Sr 421.552†	29550.3	27041.7	196.52	ug/L	196.52 ppb	21:35:59
3	Sc 361.383	842001.9	842001.9	109.64	%		21:37:29
3	Y 371.029	873201.9	873201.9	126.73	%		21:37:29
3	Ag 328.068†	-7456.6	-7056.4	2.5681	ug/L	2.5681 ppb	21:37:34
3	As 188.979†	-53.6	-23.9	60.289	ug/L	60.289 ppb	21:37:54
3	B 249.677†	695.9	1088.1	7.0178	ug/L	7.0178 ppb	21:37:34
3	Ba 233.527†	112544.2	102642.3	1215.4	ug/L	1215.4 ppb	21:37:34
3	Be 313.107†	-18052.4	-7481.9	8.0171	ug/L	8.0171 ppb	21:37:34
3	Cd 226.502†	877.5	986.9	1.2224	ug/L	1.2224 ppb	21:37:54
3	Co 228.616†	1707.9	1615.2	37.399	ug/L	37.399 ppb	21:37:54
3	Cr 267.716†	10688.5	9672.7	134.91	ug/L	134.91 ppb	21:37:34
3	Cu 324.752†	22842.0	13296.7	56.457	ug/L	56.457 ppb	21:37:34
3	Mn 257.610†	1951295.3	1779197.1	2859.4	ug/L	2859.4 ppb	21:37:29
3	Mo 202.031†	-35.9	-47.1	5.4746	ug/L	5.4746 ppb	21:37:54
3	Ni 231.604†	2947.9	2587.3	82.678	ug/L	82.678 ppb	21:37:54
3	P 214.914†	1519.4	1190.4	580.62	ug/L	580.62 ppb	21:37:54
3	Pb 220.353†	2560.9	2406.3	403.20	ug/L	403.20 ppb	21:37:54
3	S 181.975 Axial†	312.1	242.2	294.79	ug/L	294.79 ppb	21:37:54
3	Sb 206.836†	77.2	40.4	-3.2917	ug/L	-3.2917 ppb	21:37:54
3	Se 196.026†	-504.8	-440.6	16.860	ug/L	16.860 ppb	21:37:54
3	Si 251.611†	1332639.6	1214830.7	44330	ug/L	44330 ppb	21:37:29
3	Sn 189.927†	-25.8	-31.6	-11.687	ug/L	-11.687 ppb	21:37:54
3	Ti 334.940†	2632896.2	2402606.2	4842.1	ug/L	4842.1 ppb	21:37:29
3	Tl 190.801†	-164.6	-118.9	-1.4160	ug/L	-1.4160 ppb	21:37:54
3	U 409.014†	-9877.2	-6471.6	-231.11	ug/L	-231.11 ppb	21:37:34
3	V 292.402†	27636.6	26833.6	190.34	ug/L	190.34 ppb	21:37:34
3	Zn 213.857†	36253.7	32354.5	337.71	ug/L	337.71 ppb	21:37:34
3	SiO2†	1344128.4	1225301.7	95453	ug/L	95453 ppb	21:38:12

Mean Data: 246055007|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	842870.5	109.76	%	0.775				0.71%
Sc Radial	5087.4	108	%	1.2				1.12%
Y 371.029	874380.4	126.90	%	0.937				0.74%
Y RADIAL	6246.4	125.3	%	1.19				0.95%
Ag 328.068†	-6984.0	3.3186	ug/L	0.95066	3.3186	ppb	0.95066	28.65%
Al 396.153Radial†	110950.0	103780	ug/L	1390.0	103780	ppb	1390.0	1.34%
As 188.979†	-21.0	62.183	ug/L	1.7404	62.183	ppb	1.7404	2.80%
B 249.677†	1065.3	6.2410	ug/L	0.82418	6.2410	ppb	0.82418	13.21%
Ba 233.527†	101574.7	1202.8	ug/L	12.56	1202.8	ppb	12.56	1.04%
Be 313.107†	-7583.4	8.0577	ug/L	0.03594	8.0577	ppb	0.03594	0.45%
Ca 317.933Radial†	8960.0	16280	ug/L	155.3	16280	ppb	155.3	0.95%
Cd 226.502†	993.2	1.1794	ug/L	0.15885	1.1794	ppb	0.15885	13.47%
Co 228.616†	1611.8	37.202	ug/L	0.2085	37.202	ppb	0.2085	0.56%
Cr 267.716†	9581.2	133.68	ug/L	1.311	133.68	ppb	1.311	0.98%
Cu 324.752†	13108.2	55.817	ug/L	0.5804	55.817	ppb	0.5804	1.04%
Fe 238.204 Radial†	12047.3	124990	ug/L	1266.9	124990	ppb	1266.9	1.01%
K 766.490 Radial†	60170.9	11971	ug/L	146.1	11971	ppb	146.1	1.22%

Mg 279.077 IEC†	429.0	16903	ug/L	311.8	16903	ppb	311.8	1.84%
Mn 257.610†	1790304.9	2877.3	ug/L	15.50	2877.3	ppb	15.50	0.54%
Mo 202.031†	-40.2	6.2086	ug/L	0.83502	6.2086	ppb	0.83502	13.45%
Na 589.592 Radial†	3380.3	1152.0	ug/L	18.72	1152.0	ppb	18.72	1.62%
Ni 231.604†	2572.8	82.216	ug/L	0.4897	82.216	ppb	0.4897	0.60%
P 214.914†	1179.9	574.21	ug/L	7.601	574.21	ppb	7.601	1.32%
Pb 220.353†	2386.2	400.22	ug/L	2.798	400.22	ppb	2.798	0.70%
S 181.975 Axial†	241.8	294.03	ug/L	1.092	294.03	ppb	1.092	0.37%
Sb 206.836†	40.3	-3.4960	ug/L	0.18527	-3.4960	ppb	0.18527	5.30%
Se 196.026†	-445.2	17.028	ug/L	2.0718	17.028	ppb	2.0718	12.17%
Si 251.611†	1223901.9	44661	ug/L	287.3	44661	ppb	287.3	0.64%
Sn 189.927†	-39.3	-13.542	ug/L	1.6572	-13.542	ppb	1.6572	12.24%
Sr 421.552†	27484.6	199.74	ug/L	2.984	199.74	ppb	2.984	1.49%
Ti 334.940†	2420295.8	4877.8	ug/L	30.87	4877.8	ppb	30.87	0.63%
Tl 190.801†	-125.2	-3.9229	ug/L	2.25092	-3.9229	ppb	2.25092	57.38%
U 409.014†	-6390.9	-228.55	ug/L	2.644	-228.55	ppb	2.644	1.16%
V 292.402†	26548.2	187.86	ug/L	2.243	187.86	ppb	2.243	1.19%
Zn 213.857†	32064.6	334.33	ug/L	3.579	334.33	ppb	3.579	1.07%
SiO2†	1230358.6	95847	ug/L	976.2	95847	ppb	976.2	1.02%

Sequence No.: 30
Sample ID: 246055008|949334|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 61
Date Collected: 3/1/2010 21:40:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055008|949334|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5125.5	5125.5	109	%			21:42:38
1	Y RADIAL	5887.5	5887.5	118.1	%			21:42:38
1	Al 396.153Radial†	78033.6	71743.1	67110	ug/L	67110	ppb	21:42:18
1	Ca 317.933Radial†	14045.1	12875.0	23393	ug/L	23393	ppb	21:42:18
1	Fe 238.204 Radial†	9946.5	9126.3	94686	ug/L	94686	ppb	21:42:18
1	K 766.490 Radial†	79758.7	70978.4	14120	ug/L	14120	ppb	21:42:18
1	Mg 279.077 IEC†	383.1	348.9	13756	ug/L	13756	ppb	21:42:38
1	Na 589.592 Radial†	1217.2	1965.6	669.86	ug/L	669.86	ppb	21:42:18
1	Sr 421.552†	31474.6	28902.7	210.00	ug/L	210.00	ppb	21:42:18
1	Sc 361.383	841207.7	841207.7	109.54	%			21:43:36
1	Y 371.029	818250.0	818250.0	118.75	%			21:43:36
1	Ag 328.068†	-5578.5	-5348.3	2.1485	ug/L	2.1485	ppb	21:43:41
1	As 188.979†	-26.2	1.1	57.514	ug/L	57.514	ppb	21:44:01
1	B 249.677†	996.6	1363.3	18.634	ug/L	18.634	ppb	21:43:41
1	Ba 233.527†	101012.4	92211.9	1091.4	ug/L	1091.4	ppb	21:43:41
1	Be 313.107†	-20757.4	-9966.8	5.1691	ug/L	5.1691	ppb	21:43:41
1	Cd 226.502†	705.1	830.3	2.0084	ug/L	2.0084	ppb	21:44:01
1	Co 228.616†	1556.8	1478.7	35.382	ug/L	35.382	ppb	21:44:01
1	Cr 267.716†	5964.4	5369.3	75.479	ug/L	75.479	ppb	21:44:01
1	Cu 324.752†	27970.4	17998.0	72.443	ug/L	72.443	ppb	21:43:41
1	Mn 257.610†	1722192.9	1571729.7	2524.6	ug/L	2524.6	ppb	21:43:36
1	Mo 202.031†	-18.5	-31.2	4.7622	ug/L	4.7622	ppb	21:44:01
1	Ni 231.604†	1796.5	1538.7	49.160	ug/L	49.160	ppb	21:44:01
1	P 214.914†	3224.2	2748.0	1461.4	ug/L	1461.4	ppb	21:44:01
1	Pb 220.353†	2594.3	2439.0	402.32	ug/L	402.32	ppb	21:44:01
1	S 181.975 Axial†	1069.6	933.9	1198.3	ug/L	1198.3	ppb	21:44:01
1	Sb 206.836†	63.9	28.3	-4.4645	ug/L	-4.4645	ppb	21:44:01
1	Se 196.026†	-382.7	-329.6	16.510	ug/L	16.510	ppb	21:44:01
1	Si 251.611†	1308537.2	1193975.1	43569	ug/L	43569	ppb	21:43:36
1	Sn 189.927†	-86.7	-87.3	-21.827	ug/L	-21.827	ppb	21:44:01
1	Ti 334.940†	2184961.1	1995953.2	4023.9	ug/L	4023.9	ppb	21:43:36
1	Tl 190.801†	-156.1	-111.3	-6.2732	ug/L	-6.2732	ppb	21:44:01
1	U 409.014†	-5060.6	-2083.0	-80.709	ug/L	-80.709	ppb	21:43:41
1	V 292.402†	25573.9	24974.4	180.90	ug/L	180.90	ppb	21:43:41
1	Zn 213.857†	28301.8	25126.4	262.53	ug/L	262.53	ppb	21:43:41
1	SiO2†	1307178.3	1192727.3	92915	ug/L	92915	ppb	21:45:10
2	Sc Radial	5078.9	5078.9	108	%			21:43:03
2	Y RADIAL	5856.2	5856.2	117.5	%			21:43:03
2	Al 396.153Radial†	77918.9	72294.5	67626	ug/L	67626	ppb	21:42:43
2	Ca 317.933Radial†	14046.7	12994.9	23611	ug/L	23611	ppb	21:42:43
2	Fe 238.204 Radial†	9976.1	9237.5	95840	ug/L	95840	ppb	21:42:43
2	K 766.490 Radial†	79863.6	71747.8	14273	ug/L	14273	ppb	21:42:43
2	Mg 279.077 IEC†	377.0	346.5	13656	ug/L	13656	ppb	21:43:03
2	Na 589.592 Radial†	1228.9	1986.6	677.04	ug/L	677.04	ppb	21:42:43
2	Sr 421.552†	31484.2	29176.9	211.99	ug/L	211.99	ppb	21:42:43
2	Sc 361.383	847184.5	847184.5	110.32	%			21:44:07
2	Y 371.029	823892.7	823892.7	119.57	%			21:44:07
2	Ag 328.068†	-5456.7	-5202.0	3.2354	ug/L	3.2354	ppb	21:44:12
2	As 188.979†	-40.1	-11.4	52.216	ug/L	52.216	ppb	21:44:32
2	B 249.677†	1032.8	1389.6	19.108	ug/L	19.108	ppb	21:44:12
2	Ba 233.527†	100493.8	91091.3	1078.2	ug/L	1078.2	ppb	21:44:12
2	Be 313.107†	-20576.0	-9668.7	5.2835	ug/L	5.2835	ppb	21:44:12
2	Cd 226.502†	719.3	838.7	2.0084	ug/L	2.0084	ppb	21:44:32
2	Co 228.616†	1561.4	1472.8	35.185	ug/L	35.185	ppb	21:44:32
2	Cr 267.716†	5963.5	5330.0	74.958	ug/L	74.958	ppb	21:44:32
2	Cu 324.752†	27607.3	17488.7	70.593	ug/L	70.593	ppb	21:44:12
2	Mn 257.610†	1735179.5	1572409.8	2525.8	ug/L	2525.8	ppb	21:44:07
2	Mo 202.031†	-13.0	-26.2	5.3185	ug/L	5.3185	ppb	21:44:32
2	Ni 231.604†	1801.9	1532.0	48.948	ug/L	48.948	ppb	21:44:32

2	P 214.914†	3235.2	2737.2	1454.9	ug/L	1454.9 ppb	21:44:32
2	Pb 220.353†	2624.1	2449.3	404.03	ug/L	404.03 ppb	21:44:32
2	S 181.975 Axial†	1064.5	922.4	1183.3	ug/L	1183.3 ppb	21:44:32
2	Sb 206.836†	73.9	37.0	-0.9821	ug/L	-0.9821 ppb	21:44:32
2	Se 196.026†	-391.3	-334.9	15.906	ug/L	15.906 ppb	21:44:32
2	Si 251.611†	1315670.1	1192013.2	43497	ug/L	43497 ppb	21:44:07
2	Sn 189.927†	-96.4	-95.4	-23.780	ug/L	-23.780 ppb	21:44:32
2	Ti 334.940†	2199503.8	1995063.4	4022.1	ug/L	4022.1 ppb	21:44:07
2	Tl 190.801†	-162.3	-115.9	-8.4035	ug/L	-8.4035 ppb	21:44:32
2	U 409.014†	-4893.0	-1898.5	-74.661	ug/L	-74.661 ppb	21:44:12
2	V 292.402†	25337.6	24595.5	177.73	ug/L	177.73 ppb	21:44:12
2	Zn 213.857†	28073.6	24737.3	258.07	ug/L	258.07 ppb	21:44:12
2	SiO2†	1294764.5	1173055.9	91383	ug/L	91383 ppb	21:45:15
3	Sc Radial	5081.4	5081.4	108	%		21:43:28
3	Y RADIAL	5850.3	5850.3	117.3	%		21:43:28
3	Al 396.153Radial†	77183.1	71577.2	66955	ug/L	66955 ppb	21:43:08
3	Ca 317.933Radial†	13803.6	12763.3	23190	ug/L	23190 ppb	21:43:08
3	Fe 238.204 Radial†	9871.8	9136.3	94790	ug/L	94790 ppb	21:43:08
3	K 766.490 Radial†	79340.3	71226.6	14170	ug/L	14170 ppb	21:43:08
3	Mg 279.077 IEC†	379.1	348.3	13728	ug/L	13728 ppb	21:43:28
3	Na 589.592 Radial†	1157.8	1920.2	654.41	ug/L	654.41 ppb	21:43:08
3	Sr 421.552†	31143.8	28847.1	209.60	ug/L	209.60 ppb	21:43:08
3	Sc 361.383	837453.9	837453.9	109.05	%		21:44:38
3	Y 371.029	814353.9	814353.9	118.19	%		21:44:38
3	Ag 328.068†	-5497.3	-5296.7	2.4413	ug/L	2.4413 ppb	21:44:43
3	As 188.979†	-47.1	-18.2	48.942	ug/L	48.942 ppb	21:45:03
3	B 249.677†	1051.3	1417.5	19.974	ug/L	19.974 ppb	21:44:43
3	Ba 233.527†	100444.3	92104.3	1090.1	ug/L	1090.1 ppb	21:44:43
3	Be 313.107†	-20617.5	-9923.4	5.1815	ug/L	5.1815 ppb	21:44:43
3	Cd 226.502†	718.1	845.1	2.2080	ug/L	2.2080 ppb	21:45:03
3	Co 228.616†	1571.0	1498.1	35.969	ug/L	35.969 ppb	21:45:03
3	Cr 267.716†	5970.0	5398.8	75.881	ug/L	75.881 ppb	21:45:03
3	Cu 324.752†	27699.4	17864.0	71.945	ug/L	71.945 ppb	21:44:43
3	Mn 257.610†	1712800.8	1570164.3	2522.1	ug/L	2522.1 ppb	21:44:38
3	Mo 202.031†	-16.0	-29.0	4.9703	ug/L	4.9703 ppb	21:45:03
3	Ni 231.604†	1802.8	1551.8	49.580	ug/L	49.580 ppb	21:45:03
3	P 214.914†	3240.3	2775.9	1477.0	ug/L	1477.0 ppb	21:45:03
3	Pb 220.353†	2603.5	2458.1	405.36	ug/L	405.36 ppb	21:45:03
3	S 181.975 Axial†	1059.4	929.0	1191.9	ug/L	1191.9 ppb	21:45:03
3	Sb 206.836†	77.1	40.6	0.5769	ug/L	0.5769 ppb	21:45:03
3	Se 196.026†	-385.9	-334.0	14.017	ug/L	14.017 ppb	21:45:03
3	Si 251.611†	1298856.5	1190452.4	43440	ug/L	43440 ppb	21:44:38
3	Sn 189.927†	-84.9	-85.9	-21.557	ug/L	-21.557 ppb	21:45:03
3	Ti 334.940†	2174047.8	1994886.4	4021.7	ug/L	4021.7 ppb	21:44:38
3	Tl 190.801†	-155.8	-111.6	-6.4677	ug/L	-6.4677 ppb	21:45:03
3	U 409.014†	-4940.0	-1993.2	-77.714	ug/L	-77.714 ppb	21:44:43
3	V 292.402†	25292.9	24821.4	179.67	ug/L	179.67 ppb	21:44:43
3	Zn 213.857†	28159.6	25111.9	262.36	ug/L	262.36 ppb	21:44:43
3	SiO2†	1296205.1	1188013.9	92548	ug/L	92548 ppb	21:45:21

Mean Data: 246055008|949334|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841948.7	109.64	%	0.639				0.58%
Sc Radial	5095.3	108	%	0.6				0.51%
Y 371.029	818832.2	118.84	%	0.696				0.59%
Y RADIAL	5864.7	117.6	%	0.40				0.34%
Ag 328.068†	-5282.3	2.6084	ug/L	0.56237	2.6084	ppb	0.56237	21.56%
Al 396.153Radial†	71871.6	67230	ug/L	351.2	67230	ppb	351.2	0.52%
As 188.979†	-9.5	52.891	ug/L	4.3254	52.891	ppb	4.3254	8.18%
B 249.677†	1390.1	19.239	ug/L	0.6794	19.239	ppb	0.6794	3.53%
Ba 233.527†	91802.5	1086.6	ug/L	7.28	1086.6	ppb	7.28	0.67%
Be 313.107†	-9853.0	5.2114	ug/L	0.06279	5.2114	ppb	0.06279	1.20%
Ca 317.933Radial†	12877.7	23398	ug/L	210.4	23398	ppb	210.4	0.90%
Cd 226.502†	838.0	2.0749	ug/L	0.11526	2.0749	ppb	0.11526	5.56%
Co 228.616†	1483.2	35.512	ug/L	0.4080	35.512	ppb	0.4080	1.15%
Cr 267.716†	5366.1	75.439	ug/L	0.4629	75.439	ppb	0.4629	0.61%
Cu 324.752†	17783.6	71.660	ug/L	0.9569	71.660	ppb	0.9569	1.34%
Fe 238.204 Radial†	9166.7	95105	ug/L	638.4	95105	ppb	638.4	0.67%
K 766.490 Radial†	71317.6	14188	ug/L	78.1	14188	ppb	78.1	0.55%

Mg 279.077 IEC†	347.9	13713	ug/L	51.5	13713	ppb	51.5	0.38%
Mn 257.610†	1571434.6	2524.1	ug/L	1.89	2524.1	ppb	1.89	0.07%
Mo 202.031†	-28.8	5.0170	ug/L	0.28107	5.0170	ppb	0.28107	5.60%
Na 589.592 Radial†	1957.5	667.10	ug/L	11.560	667.10	ppb	11.560	1.73%
Ni 231.604†	1540.9	49.230	ug/L	0.3219	49.230	ppb	0.3219	0.65%
P 214.914†	2753.7	1464.4	ug/L	11.33	1464.4	ppb	11.33	0.77%
Pb 220.353†	2448.8	403.90	ug/L	1.521	403.90	ppb	1.521	0.38%
S 181.975 Axial†	928.4	1191.1	ug/L	7.52	1191.1	ppb	7.52	0.63%
Sb 206.836†	35.3	-1.6232	ug/L	2.58109	-1.6232	ppb	2.58109	159.01%
Se 196.026†	-332.8	15.477	ug/L	1.3007	15.477	ppb	1.3007	8.40%
Si 251.611†	1192146.9	43502	ug/L	64.4	43502	ppb	64.4	0.15%
Sn 189.927†	-89.5	-22.388	ug/L	1.2130	-22.388	ppb	1.2130	5.42%
Sr 421.552†	28975.6	210.53	ug/L	1.282	210.53	ppb	1.282	0.61%
Ti 334.940†	1995301.0	4022.6	ug/L	1.15	4022.6	ppb	1.15	0.03%
Tl 190.801†	-112.9	-7.0481	ug/L	1.17779	-7.0481	ppb	1.17779	16.71%
U 409.014†	-1991.6	-77.695	ug/L	3.0244	-77.695	ppb	3.0244	3.89%
V 292.402†	24797.1	179.43	ug/L	1.597	179.43	ppb	1.597	0.89%
Zn 213.857†	24991.9	260.99	ug/L	2.525	260.99	ppb	2.525	0.97%
SiO2†	1184599.0	92282	ug/L	800.1	92282	ppb	800.1	0.87%

Sequence No.: 31
Sample ID: 246055009|949334|100
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 62
Date Collected: 3/1/2010 21:47:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246055009|949334|100

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4991.6	4991.6	106	%			21:49:26
1	Y RADIAL	5268.1	5268.1	105.7	%			21:49:26
1	Al 396.153Radial†	259.4	331.7	310.31	ug/L	310.31	ppb	21:49:46
1	Ca 317.933Radial†	98.3	70.5	128.14	ug/L	128.14	ppb	21:49:46
1	Fe 238.204 Radial†	91.6	79.1	820.21	ug/L	820.21	ppb	21:49:46
1	K 766.490 Radial†	2610.6	199.9	39.709	ug/L	39.709	ppb	21:49:26
1	Mg 279.077 IEC†	3.4	0.4	13.311	ug/L	13.311	ppb	21:49:46
1	Na 589.592 Radial†	-655.1	230.1	78.424	ug/L	78.424	ppb	21:49:26
1	Sr 421.552†	201.5	190.5	1.3842	ug/L	1.3842	ppb	21:49:26
1	Sc 361.383	812902.2	812902.2	105.86	%			21:50:43
1	Y 371.029	732145.9	732145.9	106.26	%			21:50:43
1	Ag 328.068†	171.1	-94.0	-0.2329	ug/L	-0.2329	ppb	21:50:43
1	As 188.979†	-20.4	5.8	2.9941	ug/L	2.9941	ppb	21:51:03
1	B 249.677†	-554.0	-69.9	-1.8845	ug/L	-1.8845	ppb	21:51:03
1	Ba 233.527†	436.3	409.8	4.8645	ug/L	4.8645	ppb	21:51:03
1	Be 313.107†	-9522.0	-12.6	0.0538	ug/L	0.0538	ppb	21:50:43
1	Cd 226.502†	-190.6	6.5	0.0099	ug/L	0.0099	ppb	21:51:03
1	Co 228.616†	-55.7	4.9	0.0843	ug/L	0.0843	ppb	21:51:03
1	Cr 267.716†	92.4	11.7	0.1747	ug/L	0.1747	ppb	21:51:03
1	Cu 324.752†	8015.7	36.2	0.1743	ug/L	0.1743	ppb	21:50:43
1	Mn 257.610†	12626.6	11467.1	18.435	ug/L	18.435	ppb	21:50:43
1	Mo 202.031†	18.5	3.1	0.3539	ug/L	0.3539	ppb	21:51:03
1	Ni 231.604†	115.4	7.7	0.2466	ug/L	0.2466	ppb	21:51:03
1	P 214.914†	233.4	25.1	13.404	ug/L	13.404	ppb	21:51:03
1	Pb 220.353†	37363.3	35367.4	5703.0	ug/L	5703.0	ppb	21:50:43
1	S 181.975 Axial†	51.5	6.2	7.9252	ug/L	7.9252	ppb	21:51:03
1	Sb 206.836†	75.5	41.3	16.657	ug/L	16.657	ppb	21:51:03
1	Se 196.026†	-27.6	-6.3	-1.9900	ug/L	-1.9900	ppb	21:51:03
1	Si 251.611†	9128.1	8034.0	293.16	ug/L	293.16	ppb	21:50:43
1	Sn 189.927†	7.7	-0.8	-0.2151	ug/L	-0.2151	ppb	21:51:03
1	Ti 334.940†	12227.5	12852.2	25.910	ug/L	25.910	ppb	21:50:43
1	Tl 190.801†	-47.7	-13.8	-6.0472	ug/L	-6.0472	ppb	21:51:03
1	U 409.014†	-2416.8	253.7	8.4016	ug/L	8.4016	ppb	21:50:43
1	V 292.402†	-1496.9	213.9	1.5769	ug/L	1.5769	ppb	21:50:43
1	Zn 213.857†	2311.2	1473.0	16.121	ug/L	16.121	ppb	21:51:03
1	SiO2†	9112.7	8012.2	624.15	ug/L	624.15	ppb	21:51:59
2	Sc Radial	5127.1	5127.1	109	%			21:49:51
2	Y RADIAL	5411.0	5411.0	108.5	%			21:49:51
2	Al 396.153Radial†	253.4	319.8	299.16	ug/L	299.16	ppb	21:50:11
2	Ca 317.933Radial†	97.4	67.3	122.27	ug/L	122.27	ppb	21:50:11
2	Fe 238.204 Radial†	89.4	74.7	775.46	ug/L	775.46	ppb	21:50:11
2	K 766.490 Radial†	2643.6	165.2	32.810	ug/L	32.810	ppb	21:49:51
2	Mg 279.077 IEC†	5.7	2.4	92.708	ug/L	92.708	ppb	21:50:11
2	Na 589.592 Radial†	-687.6	216.6	73.802	ug/L	73.802	ppb	21:49:51
2	Sr 421.552†	186.4	171.6	1.2470	ug/L	1.2470	ppb	21:49:51
2	Sc 361.383	810838.2	810838.2	105.59	%			21:51:08
2	Y 371.029	728397.5	728397.5	105.71	%			21:51:08
2	Ag 328.068†	165.3	-99.1	-0.2788	ug/L	-0.2788	ppb	21:51:08
2	As 188.979†	-22.9	3.3	1.8968	ug/L	1.8968	ppb	21:51:28
2	B 249.677†	-549.6	-67.1	-1.8042	ug/L	-1.8042	ppb	21:51:28
2	Ba 233.527†	453.6	427.2	5.0668	ug/L	5.0668	ppb	21:51:28
2	Be 313.107†	-9675.9	-181.3	-0.0130	ug/L	-0.0130	ppb	21:51:08
2	Cd 226.502†	-179.6	16.6	0.1572	ug/L	0.1572	ppb	21:51:28
2	Co 228.616†	-70.0	-8.9	-0.3340	ug/L	-0.3340	ppb	21:51:28
2	Cr 267.716†	100.0	19.1	0.2727	ug/L	0.2727	ppb	21:51:28
2	Cu 324.752†	7978.4	20.1	0.1090	ug/L	0.1090	ppb	21:51:08
2	Mn 257.610†	12657.2	11526.4	18.522	ug/L	18.522	ppb	21:51:08
2	Mo 202.031†	3.3	-11.2	-0.9678	ug/L	-0.9678	ppb	21:51:28
2	Ni 231.604†	101.9	-4.8	-0.1530	ug/L	-0.1530	ppb	21:51:28

2	P 214.914†	239.6	31.6	17.058	ug/L	17.058 ppb	21:51:28
2	Pb 220.353†	37331.4	35427.0	5712.6	ug/L	5712.6 ppb	21:51:08
2	S 181.975 Axial†	52.3	7.0	9.0375	ug/L	9.0375 ppb	21:51:28
2	Sb 206.836†	81.1	46.8	18.853	ug/L	18.853 ppb	21:51:28
2	Se 196.026†	-11.5	9.0	7.2452	ug/L	7.2452 ppb	21:51:28
2	Si 251.611†	9111.2	8039.9	293.39	ug/L	293.39 ppb	21:51:08
2	Sn 189.927†	10.5	1.9	0.4154	ug/L	0.4154 ppb	21:51:28
2	Ti 334.940†	12262.1	12914.4	26.025	ug/L	26.025 ppb	21:51:08
2	Tl 190.801†	-35.8	-2.7	-0.9233	ug/L	-0.9233 ppb	21:51:28
2	U 409.014†	-2252.7	403.3	13.417	ug/L	13.417 ppb	21:51:08
2	V 292.402†	-1547.8	162.1	1.1634	ug/L	1.1634 ppb	21:51:08
2	Zn 213.857†	2323.0	1489.8	16.315	ug/L	16.315 ppb	21:51:28
2	SiO2†	9218.0	8133.9	633.67	ug/L	633.67 ppb	21:52:04
3	Sc Radial	5125.3	5125.3	109	%		21:50:16
3	Y RADIAL	5436.5	5436.5	109.0	%		21:50:16
3	Al 396.153Radial†	262.5	328.2	306.97	ug/L	306.97 ppb	21:50:36
3	Ca 317.933Radial†	104.7	74.0	134.49	ug/L	134.49 ppb	21:50:36
3	Fe 238.204 Radial†	89.7	75.0	778.64	ug/L	778.64 ppb	21:50:36
3	K 766.490 Radial†	2460.9	-1.7	-0.4221	ug/L	-0.4221 ppb	21:50:16
3	Mg 279.077 IEC†	2.7	-0.4	-16.307	ug/L	-16.307 ppb	21:50:36
3	Na 589.592 Radial†	-716.0	190.2	64.834	ug/L	64.834 ppb	21:50:16
3	Sr 421.552†	217.1	199.9	1.4524	ug/L	1.4524 ppb	21:50:16
3	Sc 361.383	820584.0	820584.0	106.86	%		21:51:34
3	Y 371.029	737814.5	737814.5	107.08	%		21:51:34
3	Ag 328.068†	134.8	-129.5	-0.4349	ug/L	-0.4349 ppb	21:51:34
3	As 188.979†	-15.4	10.6	5.1264	ug/L	5.1264 ppb	21:51:54
3	B 249.677†	-541.6	-53.4	-1.4636	ug/L	-1.4636 ppb	21:51:54
3	Ba 233.527†	433.5	403.3	4.7856	ug/L	4.7856 ppb	21:51:54
3	Be 313.107†	-9744.4	-136.6	0.0051	ug/L	0.0051 ppb	21:51:34
3	Cd 226.502†	-180.9	17.4	0.1687	ug/L	0.1687 ppb	21:51:54
3	Co 228.616†	-53.2	7.7	0.1672	ug/L	0.1672 ppb	21:51:54
3	Cr 267.716†	110.2	27.5	0.3870	ug/L	0.3870 ppb	21:51:54
3	Cu 324.752†	8033.6	-17.9	-0.0341	ug/L	-0.0341 ppb	21:51:34
3	Mn 257.610†	12803.4	11520.9	18.518	ug/L	18.518 ppb	21:51:34
3	Mo 202.031†	14.0	-1.3	-0.0535	ug/L	-0.0535 ppb	21:51:54
3	Ni 231.604†	110.7	2.3	0.0731	ug/L	0.0731 ppb	21:51:54
3	P 214.914†	241.2	30.4	16.425	ug/L	16.425 ppb	21:51:54
3	Pb 220.353†	37704.2	35356.0	5701.2	ug/L	5701.2 ppb	21:51:34
3	S 181.975 Axial†	53.3	7.3	9.4536	ug/L	9.4536 ppb	21:51:54
3	Sb 206.836†	69.8	35.3	14.204	ug/L	14.204 ppb	21:51:54
3	Se 196.026†	-23.2	-1.9	0.5981	ug/L	0.5981 ppb	21:51:54
3	Si 251.611†	9282.6	8097.8	295.50	ug/L	295.50 ppb	21:51:34
3	Sn 189.927†	10.1	1.3	0.2939	ug/L	0.2939 ppb	21:51:54
3	Ti 334.940†	12491.9	12991.5	26.191	ug/L	26.191 ppb	21:51:34
3	Tl 190.801†	-19.3	13.1	6.3391	ug/L	6.3391 ppb	21:51:54
3	U 409.014†	-2231.2	448.7	14.936	ug/L	14.936 ppb	21:51:34
3	V 292.402†	-1547.5	179.7	1.3169	ug/L	1.3169 ppb	21:51:34
3	Zn 213.857†	2302.8	1444.8	15.817	ug/L	15.817 ppb	21:51:54
3	SiO2†	9179.5	7994.2	622.76	ug/L	622.76 ppb	21:52:09

Mean Data: 246055009|949334|100

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	814774.8	106.10	%	0.669				0.63%
Sc Radial	5081.3	108	%	1.7				1.53%
Y 371.029	732786.0	106.35	%	0.688				0.65%
Y RADIAL	5371.9	107.8	%	1.82				1.69%
Ag 328.068†	-107.5	-0.3155	ug/L	0.10587	-0.3155	ppb	0.10587	33.55%
Al 396.153Radial†	326.6	305.48	ug/L	5.723	305.48	ppb	5.723	1.87%
As 188.979†	6.6	3.3391	ug/L	1.64222	3.3391	ppb	1.64222	49.18%
B 249.677†	-63.4	-1.7175	ug/L	0.22350	-1.7175	ppb	0.22350	13.01%
Ba 233.527†	413.4	4.9056	ug/L	0.14507	4.9056	ppb	0.14507	2.96%
Be 313.107†	-110.2	0.0153	ug/L	0.03452	0.0153	ppb	0.03452	225.60%
Ca 317.933Radial†	70.6	128.30	ug/L	6.113	128.30	ppb	6.113	4.76%
Cd 226.502†	13.5	0.1119	ug/L	0.08858	0.1119	ppb	0.08858	79.14%
Co 228.616†	1.2	-0.0275	ug/L	0.26865	-0.0275	ppb	0.26865	978.02%
Cr 267.716†	19.5	0.2781	ug/L	0.10626	0.2781	ppb	0.10626	38.21%
Cu 324.752†	12.8	0.0830	ug/L	0.10661	0.0830	ppb	0.10661	128.38%
Fe 238.204 Radial†	76.3	791.44	ug/L	24.968	791.44	ppb	24.968	3.15%
K 766.490 Radial†	121.1	24.032	ug/L	21.4573	24.032	ppb	21.4573	89.28%

Mg 279.077 IEC†	0.8	29.904	ug/L	56.3698	29.904	ppb	56.3698 188.50%
Mn 257.610†	11504.8	18.492	ug/L	0.0493	18.492	ppb	0.0493 0.27%
Mo 202.031†	-3.1	-0.2225	ug/L	0.67689	-0.2225	ppb	0.67689 304.28%
Na 589.592 Radial†	212.3	72.353	ug/L	6.9100	72.353	ppb	6.9100 9.55%
Ni 231.604†	1.7	0.0556	ug/L	0.20035	0.0556	ppb	0.20035 360.42%
P 214.914†	29.0	15.629	ug/L	1.9529	15.629	ppb	1.9529 12.50%
Pb 220.353†	35383.5	5705.6	ug/L	6.15	5705.6	ppb	6.15 0.11%
S 181.975 Axial†	6.8	8.8054	ug/L	0.79021	8.8054	ppb	0.79021 8.97%
Sb 206.836†	41.1	16.571	ug/L	2.3257	16.571	ppb	2.3257 14.03%
Se 196.026†	0.2	1.9511	ug/L	4.76394	1.9511	ppb	4.76394 244.17%
Si 251.611†	8057.2	294.02	ug/L	1.286	294.02	ppb	1.286 0.44%
Sn 189.927†	0.8	0.1647	ug/L	0.33448	0.1647	ppb	0.33448 203.05%
Sr 421.552†	187.3	1.3612	ug/L	0.10460	1.3612	ppb	0.10460 7.68%
Ti 334.940†	12919.4	26.042	ug/L	0.1412	26.042	ppb	0.1412 0.54%
Tl 190.801†	-1.1	-0.2105	ug/L	6.22384	-0.2105	ppb	6.22384 >999.9%
U 409.014†	368.6	12.251	ug/L	3.4194	12.251	ppb	3.4194 27.91%
V 292.402†	185.2	1.3524	ug/L	0.20900	1.3524	ppb	0.20900 15.45%
Zn 213.857†	1469.2	16.085	ug/L	0.2511	16.085	ppb	0.2511 1.56%
SiO2†	8046.7	626.86	ug/L	5.936	626.86	ppb	5.936 0.95%

Sequence No.: 32
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/1/2010 21:54:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4914.6	4914.6	104	%			21:56:12
1	Y RADIAL	5163.5	5163.5	103.6	%			21:56:12
1	Al 396.153Radial†	5715.4	5560.6	5177.9	ug/L	5177.9	ppb	21:56:12
1	Ca 317.933Radial†	2995.1	2846.2	5171.4	ug/L	5171.4	ppb	21:56:32
1	Fe 238.204 Radial†	536.4	506.4	5268.9	ug/L	5268.9	ppb	21:56:32
1	K 766.490 Radial†	29258.3	25758.7	5121.0	ug/L	5121.0	ppb	21:56:12
1	Mg 279.077 IEC†	144.7	135.7	5386.6	ug/L	5386.6	ppb	21:56:32
1	Na 589.592 Radial†	31396.1	30915.5	10536	ug/L	10536	ppb	21:56:12
1	Sr 421.552†	75434.9	72243.5	525.30	ug/L	525.30	ppb	21:56:12
1	Sc 361.383	834131.3	834131.3	108.62	%			21:57:30
1	Y 371.029	738744.7	738744.7	107.21	%			21:57:30
1	Ag 328.068†	104279.9	95749.1	495.43	ug/L	495.43	ppb	21:57:35
1	As 188.979†	1168.5	1100.8	494.95	ug/L	494.95	ppb	21:57:55
1	B 249.677†	20870.4	19667.6	490.21	ug/L	490.21	ppb	21:57:35
1	Ba 233.527†	45596.1	41975.4	496.56	ug/L	496.56	ppb	21:57:35
1	Be 313.107†	1329784.9	1233242.6	491.31	ug/L	491.31	ppb	21:57:30
1	Cd 226.502†	37863.2	35045.2	496.68	ug/L	496.68	ppb	21:57:35
1	Co 228.616†	18091.4	16713.2	505.16	ug/L	505.16	ppb	21:57:35
1	Cr 267.716†	39343.5	36145.8	494.42	ug/L	494.42	ppb	21:57:35
1	Cu 324.752†	151576.5	132012.0	494.31	ug/L	494.31	ppb	21:57:35
1	Mn 257.610†	336247.6	309103.6	495.06	ug/L	495.06	ppb	21:57:35
1	Mo 202.031†	5787.1	5313.5	488.10	ug/L	488.10	ppb	21:57:55
1	Ni 231.604†	17160.3	15697.2	501.49	ug/L	501.49	ppb	21:57:35
1	P 214.914†	5001.2	4409.0	2365.4	ug/L	2365.4	ppb	21:57:55
1	Pb 220.353†	3245.8	3058.9	495.10	ug/L	495.10	ppb	21:57:55
1	S 181.975 Axial†	870.7	759.1	983.22	ug/L	983.22	ppb	21:57:55
1	Sb 206.836†	1344.8	1208.1	507.61	ug/L	507.61	ppb	21:57:55
1	Se 196.026†	863.4	814.7	512.72	ug/L	512.72	ppb	21:57:55
1	Si 251.611†	74691.6	68175.2	2481.8	ug/L	2481.8	ppb	21:57:35
1	Sn 189.927†	2243.5	2057.4	485.13	ug/L	485.13	ppb	21:57:55
1	Ti 334.940†	264613.6	244916.3	493.37	ug/L	493.37	ppb	21:57:35
1	Tl 190.801†	1112.2	1055.2	487.87	ug/L	487.87	ppb	21:57:55
1	U 409.014†	13529.5	14992.7	500.34	ug/L	500.34	ppb	21:57:35
1	V 292.402†	65858.3	62260.1	502.29	ug/L	502.29	ppb	21:57:35
1	Zn 213.857†	49463.8	44828.4	489.74	ug/L	489.74	ppb	21:57:35
1	SiO2†	73671.8	67229.2	5224.0	ug/L	5224.0	ppb	21:59:02
2	Sc Radial	4994.1	4994.1	106	%			21:56:37
2	Y RADIAL	5200.4	5200.4	104.3	%			21:56:37
2	Al 396.153Radial†	5532.2	5300.9	4934.2	ug/L	4934.2	ppb	21:56:37
2	Ca 317.933Radial†	3036.0	2839.1	5158.5	ug/L	5158.5	ppb	21:56:58
2	Fe 238.204 Radial†	544.7	506.0	5264.9	ug/L	5264.9	ppb	21:56:58
2	K 766.490 Radial†	28785.6	24867.1	4943.7	ug/L	4943.7	ppb	21:56:37
2	Mg 279.077 IEC†	141.6	130.6	5184.0	ug/L	5184.0	ppb	21:56:58
2	Na 589.592 Radial†	30352.5	29453.2	10038	ug/L	10038	ppb	21:56:37
2	Sr 421.552†	72885.1	68690.4	499.46	ug/L	499.46	ppb	21:56:37
2	Sc 361.383	813210.4	813210.4	105.90	%			21:58:00
2	Y 371.029	720315.7	720315.7	104.54	%			21:58:00
2	Ag 328.068†	102582.1	96615.7	499.90	ug/L	499.90	ppb	21:58:06
2	As 188.979†	1181.8	1141.0	512.87	ug/L	512.87	ppb	21:58:26
2	B 249.677†	20328.6	19650.3	489.77	ug/L	489.77	ppb	21:58:06
2	Ba 233.527†	44845.9	42346.9	500.95	ug/L	500.95	ppb	21:58:06
2	Be 313.107†	1321101.4	1256538.3	500.58	ug/L	500.58	ppb	21:58:00
2	Cd 226.502†	37304.9	35414.7	501.93	ug/L	501.93	ppb	21:58:06
2	Co 228.616†	17820.3	16885.7	510.40	ug/L	510.40	ppb	21:58:06
2	Cr 267.716†	38787.5	36552.6	499.98	ug/L	499.98	ppb	21:58:06
2	Cu 324.752†	148380.2	132583.7	496.45	ug/L	496.45	ppb	21:58:06
2	Mn 257.610†	330390.4	311536.5	498.96	ug/L	498.96	ppb	21:58:06
2	Mo 202.031†	5813.3	5475.3	502.95	ug/L	502.95	ppb	21:58:26
2	Ni 231.604†	16909.6	15866.9	506.91	ug/L	506.91	ppb	21:58:06

2	P 214.914†	5000.1	4526.4	2430.7 ug/L	2430.7 ppb	21:58:26
2	Pb 220.353†	3252.8	3142.4	508.53 ug/L	508.53 ppb	21:58:26
2	S 181.975 Axial†	870.0	779.0	1009.1 ug/L	1009.1 ppb	21:58:26
2	Sb 206.836†	1353.3	1248.0	524.36 ug/L	524.36 ppb	21:58:26
2	Se 196.026†	850.4	822.9	517.75 ug/L	517.75 ppb	21:58:26
2	Si 251.611†	73340.6	68668.5	2499.6 ug/L	2499.6 ppb	21:58:06
2	Sn 189.927†	2261.2	2127.2	501.56 ug/L	501.56 ppb	21:58:26
2	Ti 334.940†	259609.1	246457.7	496.48 ug/L	496.48 ppb	21:58:06
2	Tl 190.801†	1119.2	1088.1	503.00 ug/L	503.00 ppb	21:58:26
2	U 409.014†	13335.4	15129.8	504.92 ug/L	504.92 ppb	21:58:06
2	V 292.402†	64626.2	62656.5	505.65 ug/L	505.65 ppb	21:58:06
2	Zn 213.857†	48758.2	45333.5	495.27 ug/L	495.27 ppb	21:58:06
2	SiO2†	74438.5	69698.0	5415.9 ug/L	5415.9 ppb	21:59:07
3	Sc Radial	4968.2	4968.2	106 %		21:57:03
3	Y RADIAL	5214.4	5214.4	104.6 %		21:57:03
3	Al 396.153Radial†	5498.2	5295.8	4930.0 ug/L	4930.0 ppb	21:57:03
3	Ca 317.933Radial†	3004.1	2823.8	5130.7 ug/L	5130.7 ppb	21:57:23
3	Fe 238.204 Radial†	539.0	503.3	5237.2 ug/L	5237.2 ppb	21:57:23
3	K 766.490 Radial†	28550.3	24785.4	4927.5 ug/L	4927.5 ppb	21:57:03
3	Mg 279.077 IEC†	144.6	134.1	5325.2 ug/L	5325.2 ppb	21:57:23
3	Na 589.592 Radial†	30091.8	29355.3	10004 ug/L	10004 ppb	21:57:03
3	Sr 421.552†	72593.4	68771.8	500.05 ug/L	500.05 ppb	21:57:03
3	Sc 361.383	819206.7	819206.7	106.68 %		21:58:31
3	Y 371.029	724158.1	724158.1	105.10 %		21:58:31
3	Ag 328.068†	102914.3	96218.0	497.83 ug/L	497.83 ppb	21:58:36
3	As 188.979†	1163.5	1115.7	501.59 ug/L	501.59 ppb	21:58:56
3	B 249.677†	20524.1	19693.1	490.84 ug/L	490.84 ppb	21:58:36
3	Ba 233.527†	45139.8	42312.4	500.53 ug/L	500.53 ppb	21:58:36
3	Be 313.107†	1305600.4	1232875.8	491.17 ug/L	491.17 ppb	21:58:31
3	Cd 226.502†	37499.8	35339.6	500.86 ug/L	500.86 ppb	21:58:36
3	Co 228.616†	17900.5	16837.7	508.93 ug/L	508.93 ppb	21:58:36
3	Cr 267.716†	38791.7	36288.4	496.37 ug/L	496.37 ppb	21:58:36
3	Cu 324.752†	149063.3	132198.5	495.01 ug/L	495.01 ppb	21:58:36
3	Mn 257.610†	332243.9	310990.3	498.08 ug/L	498.08 ppb	21:58:36
3	Mo 202.031†	5727.1	5354.3	491.84 ug/L	491.84 ppb	21:58:56
3	Ni 231.604†	17009.4	15843.5	506.16 ug/L	506.16 ppb	21:58:36
3	P 214.914†	4904.5	4402.2	2361.5 ug/L	2361.5 ppb	21:58:56
3	Pb 220.353†	3229.6	3098.2	501.38 ug/L	501.38 ppb	21:58:56
3	S 181.975 Axial†	847.9	752.3	974.53 ug/L	974.53 ppb	21:58:56
3	Sb 206.836†	1338.1	1224.4	514.37 ug/L	514.37 ppb	21:58:56
3	Se 196.026†	861.9	827.8	520.65 ug/L	520.65 ppb	21:58:56
3	Si 251.611†	73711.0	68508.8	2493.9 ug/L	2493.9 ppb	21:58:36
3	Sn 189.927†	2225.4	2078.1	489.99 ug/L	489.99 ppb	21:58:56
3	Ti 334.940†	260972.8	245941.6	495.43 ug/L	495.43 ppb	21:58:36
3	Tl 190.801†	1125.8	1086.6	502.30 ug/L	502.30 ppb	21:58:56
3	U 409.014†	13418.7	15115.7	504.45 ug/L	504.45 ppb	21:58:36
3	V 292.402†	64794.2	62367.2	503.20 ug/L	503.20 ppb	21:58:36
3	Zn 213.857†	48864.4	45096.1	492.67 ug/L	492.67 ppb	21:58:36
3	SiO2†	73854.2	68635.8	5333.5 ug/L	5333.5 ppb	21:59:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	822182.8	107.06	%	1.403				1.31%
Sc Radial	4959.0	105	%	0.9				0.82%
Y 371.029	727739.5	105.62	%	1.411				1.34%
Y RADIAL	5192.8	104.2	%	0.53				0.51%
Ag 328.068†	96194.3	497.72	ug/L	2.234	497.72	ppb	2.234	0.45%
QC value within limits for Ag 328.068 Recovery = 99.54%								
Al 396.153Radial†	5385.8	5014.0	ug/L	141.92	5014.0	ppb	141.92	2.83%
QC value within limits for Al 396.153Radial Recovery = 100.28%								
As 188.979†	1119.2	503.14	ug/L	9.056	503.14	ppb	9.056	1.80%
QC value within limits for As 188.979 Recovery = 100.63%								
B 249.677†	19670.3	490.27	ug/L	0.542	490.27	ppb	0.542	0.11%
QC value within limits for B 249.677 Recovery = 98.05%								
Ba 233.527†	42211.6	499.35	ug/L	2.424	499.35	ppb	2.424	0.49%
QC value within limits for Ba 233.527 Recovery = 99.87%								
Be 313.107†	1240885.6	494.35	ug/L	5.391	494.35	ppb	5.391	1.09%
QC value within limits for Be 313.107 Recovery = 98.87%								
Ca 317.933Radial†	2836.4	5153.5	ug/L	20.83	5153.5	ppb	20.83	0.40%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.07%
Cd 226.502†            35266.5      499.83 ug/L        2.772      499.83 ppb        2.772   0.55%
   QC value within limits for Cd 226.502  Recovery = 99.97%
Co 228.616†            16812.2      508.16 ug/L        2.703      508.16 ppb        2.703   0.53%
   QC value within limits for Co 228.616  Recovery = 101.63%
Cr 267.716†            36328.9      496.92 ug/L        2.821      496.92 ppb        2.821   0.57%
   QC value within limits for Cr 267.716  Recovery = 99.38%
Cu 324.752†           132264.7      495.26 ug/L        1.091      495.26 ppb        1.091   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.05%
Fe 238.204 Radial†       505.2      5257.0 ug/L       17.27      5257.0 ppb       17.27   0.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.14%
K 766.490 Radial†      25137.1      4997.4 ug/L      107.36      4997.4 ppb      107.36   2.15%
   QC value within limits for K 766.490 Radial  Recovery = 99.95%
Mg 279.077 IEC†          133.5      5298.6 ug/L      103.89      5298.6 ppb      103.89   1.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.97%
Mn 257.610†           310543.4      497.37 ug/L        2.046      497.37 ppb        2.046   0.41%
   QC value within limits for Mn 257.610  Recovery = 99.47%
Mo 202.031†             5381.0      494.29 ug/L        7.725      494.29 ppb        7.725   1.56%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†     29908.0       10193 ug/L      297.8       10193 ppb      297.8   2.92%
   QC value within limits for Na 589.592 Radial  Recovery = 101.93%
Ni 231.604†            15802.6      504.85 ug/L        2.940      504.85 ppb        2.940   0.58%
   QC value within limits for Ni 231.604  Recovery = 100.97%
P 214.914†              4445.9      2385.9 ug/L       38.86      2385.9 ppb       38.86   1.63%
   QC value within limits for P 214.914  Recovery = 95.43%
Pb 220.353†             3099.8      501.67 ug/L        6.721      501.67 ppb        6.721   1.34%
   QC value within limits for Pb 220.353  Recovery = 100.33%
S 181.975 Axial†         763.5      988.96 ug/L       17.993      988.96 ppb       17.993   1.82%
   QC value within limits for S 181.975 Axial  Recovery = 98.90%
Sb 206.836†             1226.8      515.45 ug/L        8.427      515.45 ppb        8.427   1.63%
   QC value within limits for Sb 206.836  Recovery = 103.09%
Se 196.026†              821.8      517.04 ug/L        4.010      517.04 ppb        4.010   0.78%
   QC value within limits for Se 196.026  Recovery = 103.41%
Si 251.611†            68450.8      2491.7 ug/L        9.10      2491.7 ppb        9.10   0.37%
   QC value within limits for Si 251.611  Recovery = 99.67%
Sn 189.927†             2087.6      492.23 ug/L        8.442      492.23 ppb        8.442   1.72%
   QC value within limits for Sn 189.927  Recovery = 98.45%
Sr 421.552†            69901.9      508.27 ug/L       14.749      508.27 ppb       14.749   2.90%
   QC value within limits for Sr 421.552  Recovery = 101.65%
Ti 334.940†           245771.8      495.09 ug/L        1.585      495.09 ppb        1.585   0.32%
   QC value within limits for Ti 334.940  Recovery = 99.02%
Tl 190.801†             1076.6      497.72 ug/L        8.542      497.72 ppb        8.542   1.72%
   QC value within limits for Tl 190.801  Recovery = 99.54%
U 409.014†             15079.4      503.24 ug/L        2.522      503.24 ppb        2.522   0.50%
   QC value within limits for U 409.014  Recovery = 100.65%
V 292.402†             62427.9      503.71 ug/L        1.741      503.71 ppb        1.741   0.35%
   QC value within limits for V 292.402  Recovery = 100.74%
Zn 213.857†            45086.0      492.56 ug/L        2.769      492.56 ppb        2.769   0.56%
   QC value within limits for Zn 213.857  Recovery = 98.51%
SiO2†                  68521.0      5324.4 ug/L       96.28      5324.4 ppb       96.28   1.81%
   QC value within limits for SiO2  Recovery = 99.57%
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/1/2010 22:01:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5014.4	5014.4	107	%			22:03:14
1	Y RADIAL	5308.8	5308.8	106.5	%			22:03:14
1	Al 396.153Radial†	-84.1	8.1	7.6177	ug/L	7.6177	ppb	22:03:34
1	Ca 317.933Radial†	18.9	-4.4	-8.0663	ug/L	-8.0663	ppb	22:03:34
1	Fe 238.204 Radial†	8.8	0.9	9.7285	ug/L	9.7285	ppb	22:03:34
1	K 766.490 Radial†	2343.4	-62.0	-12.370	ug/L	-12.370	ppb	22:03:14
1	Mg 279.077 IEC†	1.6	-1.4	-54.043	ug/L	-54.043	ppb	22:03:34
1	Na 589.592 Radial†	-735.2	157.7	53.751	ug/L	53.751	ppb	22:03:14
1	Sr 421.552†	23.4	22.4	0.1632	ug/L	0.1632	ppb	22:03:14
1	Sc 361.383	814487.0	814487.0	106.06	%			22:04:31
1	Y 371.029	733697.1	733697.1	106.48	%			22:04:31
1	Ag 328.068†	176.1	-89.6	-0.4655	ug/L	-0.4655	ppb	22:04:31
1	As 188.979†	-32.8	-5.9	-2.6231	ug/L	-2.6231	ppb	22:04:51
1	B 249.677†	-353.9	119.8	2.9988	ug/L	2.9988	ppb	22:04:51
1	Ba 233.527†	10.2	7.2	0.0865	ug/L	0.0865	ppb	22:04:51
1	Be 313.107†	-9582.5	-52.2	-0.0200	ug/L	-0.0200	ppb	22:04:31
1	Cd 226.502†	-203.1	-4.9	-0.0681	ug/L	-0.0681	ppb	22:04:51
1	Co 228.616†	-67.9	-6.6	-0.1986	ug/L	-0.1986	ppb	22:04:51
1	Cr 267.716†	65.7	-13.7	-0.1907	ug/L	-0.1907	ppb	22:04:51
1	Cu 324.752†	7794.4	-187.2	-0.7076	ug/L	-0.7076	ppb	22:04:31
1	Mn 257.610†	465.2	-22.5	-0.0329	ug/L	-0.0329	ppb	22:04:51
1	Mo 202.031†	16.6	1.3	0.1164	ug/L	0.1164	ppb	22:04:51
1	Ni 231.604†	86.3	-20.0	-0.6389	ug/L	-0.6389	ppb	22:04:51
1	P 214.914†	209.1	1.8	1.1192	ug/L	1.1192	ppb	22:04:51
1	Pb 220.353†	-36.7	36.1	5.8281	ug/L	5.8281	ppb	22:04:51
1	S 181.975 Axial†	44.3	-0.7	-0.9579	ug/L	-0.9579	ppb	22:04:51
1	Sb 206.836†	33.5	1.5	0.6118	ug/L	0.6118	ppb	22:04:51
1	Se 196.026†	-24.2	-3.0	-1.8058	ug/L	-1.8058	ppb	22:04:51
1	Si 251.611†	584.8	-37.8	-1.3819	ug/L	-1.3819	ppb	22:04:51
1	Sn 189.927†	4.9	-3.5	-0.8153	ug/L	-0.8153	ppb	22:04:51
1	Ti 334.940†	-1219.7	151.0	0.3020	ug/L	0.3020	ppb	22:04:31
1	Tl 190.801†	-24.4	8.2	3.7831	ug/L	3.7831	ppb	22:04:51
1	U 409.014†	-2277.6	389.4	13.038	ug/L	13.038	ppb	22:04:31
1	V 292.402†	-1635.4	86.1	0.7094	ug/L	0.7094	ppb	22:04:31
1	Zn 213.857†	754.3	0.9	0.0130	ug/L	0.0130	ppb	22:04:51
1	SiO2†	583.2	-46.5	-3.6292	ug/L	-3.6292	ppb	22:05:47
2	Sc Radial	5129.8	5129.8	109	%			22:03:39
2	Y RADIAL	5431.0	5431.0	108.9	%			22:03:39
2	Al 396.153Radial†	-90.6	4.0	3.7117	ug/L	3.7117	ppb	22:03:59
2	Ca 317.933Radial†	23.3	-0.8	-1.4574	ug/L	-1.4574	ppb	22:03:59
2	Fe 238.204 Radial†	7.3	-0.7	-6.7488	ug/L	-6.7488	ppb	22:03:59
2	K 766.490 Radial†	2254.9	-192.7	-38.377	ug/L	-38.377	ppb	22:03:39
2	Mg 279.077 IEC†	-0.8	-3.6	-143.46	ug/L	-143.46	ppb	22:03:59
2	Na 589.592 Radial†	-771.2	140.2	47.771	ug/L	47.771	ppb	22:03:39
2	Sr 421.552†	17.3	16.4	0.1189	ug/L	0.1189	ppb	22:03:39
2	Sc 361.383	736947.0	736947.0	95.964	%			22:04:56
2	Y 371.029	659437.4	659437.4	95.705	%			22:04:56
2	Ag 328.068†	277.0	33.0	0.1617	ug/L	0.1617	ppb	22:04:56
2	As 188.979†	-26.7	-2.9	-1.2737	ug/L	-1.2737	ppb	22:05:16
2	B 249.677†	-355.6	82.9	2.0777	ug/L	2.0777	ppb	22:05:16
2	Ba 233.527†	8.6	6.6	0.0755	ug/L	0.0755	ppb	22:05:16
2	Be 313.107†	-9673.6	-1097.7	-0.4363	ug/L	-0.4363	ppb	22:04:56
2	Cd 226.502†	-181.8	-2.8	-0.0384	ug/L	-0.0384	ppb	22:05:16
2	Co 228.616†	-51.2	4.2	0.1253	ug/L	0.1253	ppb	22:05:16
2	Cr 267.716†	72.4	-0.1	-0.0045	ug/L	-0.0045	ppb	22:05:16
2	Cu 324.752†	7848.5	642.4	2.4033	ug/L	2.4033	ppb	22:04:56
2	Mn 257.610†	453.4	11.3	0.0233	ug/L	0.0233	ppb	22:05:16
2	Mo 202.031†	12.1	-1.8	-0.1625	ug/L	-0.1625	ppb	22:05:16
2	Ni 231.604†	89.9	-7.6	-0.2431	ug/L	-0.2431	ppb	22:05:16

2	P 214.914†	205.8	19.1	10.196 ug/L	10.196 ppb	22:05:16
2	Pb 220.353†	-39.0	30.0	4.8414 ug/L	4.8414 ppb	22:05:16
2	S 181.975 Axial†	47.7	7.2	9.3865 ug/L	9.3865 ppb	22:05:16
2	Sb 206.836†	33.4	4.8	1.9422 ug/L	1.9422 ppb	22:05:16
2	Se 196.026†	-17.0	2.1	1.2623 ug/L	1.2623 ppb	22:05:16
2	Si 251.611†	576.4	11.4	0.4187 ug/L	0.4187 ppb	22:05:16
2	Sn 189.927†	9.1	1.4	0.3257 ug/L	0.3257 ppb	22:05:16
2	Ti 334.940†	-1238.0	11.0	0.0322 ug/L	0.0322 ppb	22:04:56
2	Tl 190.801†	-34.0	-4.2	-1.9463 ug/L	-1.9463 ppb	22:05:16
2	U 409.014†	-2336.6	102.0	3.4159 ug/L	3.4159 ppb	22:04:56
2	V 292.402†	-1653.4	-94.9	-0.7534 ug/L	-0.7534 ppb	22:04:56
2	Zn 213.857†	755.8	77.3	0.8522 ug/L	0.8522 ppb	22:05:16
2	SiO2†	564.0	-8.7	-0.6737 ug/L	-0.6737 ppb	22:05:52
3	Sc Radial	4919.6	4919.6	105 %		22:04:04
3	Y RADIAL	5169.6	5169.6	103.7 %		22:04:04
3	Al 396.153Radial†	-93.4	-2.2	-2.0692 ug/L	-2.0692 ppb	22:04:24
3	Ca 317.933Radial†	18.4	-4.6	-8.2681 ug/L	-8.2681 ppb	22:04:24
3	Fe 238.204 Radial†	6.1	-1.5	-15.527 ug/L	-15.527 ppb	22:04:24
3	K 766.490 Radial†	2352.6	-10.9	-2.1814 ug/L	-2.1814 ppb	22:04:04
3	Mg 279.077 IEC†	1.0	-1.9	-75.673 ug/L	-75.673 ppb	22:04:24
3	Na 589.592 Radial†	-782.7	99.0	33.739 ug/L	33.739 ppb	22:04:04
3	Sr 421.552†	-4.5	-3.8	-0.0277 ug/L	-0.0277 ppb	22:04:04
3	Sc 361.383	817138.7	817138.7	106.41 %		22:05:22
3	Y 371.029	735183.8	735183.8	106.70 %		22:05:22
3	Ag 328.068†	202.5	-65.4	-0.3506 ug/L	-0.3506 ppb	22:05:22
3	As 188.979†	-25.4	1.1	0.4961 ug/L	0.4961 ppb	22:05:42
3	B 249.677†	-365.2	110.2	2.7621 ug/L	2.7621 ppb	22:05:42
3	Ba 233.527†	-3.6	-5.8	-0.0676 ug/L	-0.0676 ppb	22:05:42
3	Be 313.107†	-9532.8	23.8	0.0106 ug/L	0.0106 ppb	22:05:22
3	Cd 226.502†	-199.7	-1.0	-0.0103 ug/L	-0.0103 ppb	22:05:42
3	Co 228.616†	-60.7	0.4	0.0123 ug/L	0.0123 ppb	22:05:42
3	Cr 267.716†	57.6	-21.5	-0.2985 ug/L	-0.2985 ppb	22:05:42
3	Cu 324.752†	7876.3	-134.1	-0.5109 ug/L	-0.5109 ppb	22:05:22
3	Mn 257.610†	486.5	-4.0	-0.0048 ug/L	-0.0048 ppb	22:05:42
3	Mo 202.031†	16.1	0.8	0.0686 ug/L	0.0686 ppb	22:05:42
3	Ni 231.604†	90.8	-16.0	-0.5116 ug/L	-0.5116 ppb	22:05:42
3	P 214.914†	205.6	-2.2	-1.1081 ug/L	-1.1081 ppb	22:05:42
3	Pb 220.353†	-52.3	21.6	3.4801 ug/L	3.4801 ppb	22:05:42
3	S 181.975 Axial†	41.8	-3.2	-4.1784 ug/L	-4.1784 ppb	22:05:42
3	Sb 206.836†	39.9	7.5	3.0113 ug/L	3.0113 ppb	22:05:42
3	Se 196.026†	-20.4	0.6	0.3452 ug/L	0.3452 ppb	22:05:42
3	Si 251.611†	586.6	-37.9	-1.3842 ug/L	-1.3842 ppb	22:05:42
3	Sn 189.927†	0.6	-7.5	-1.7759 ug/L	-1.7759 ppb	22:05:42
3	Ti 334.940†	-1109.4	258.5	0.5197 ug/L	0.5197 ppb	22:05:22
3	Tl 190.801†	-33.7	-0.4	-0.1894 ug/L	-0.1894 ppb	22:05:42
3	U 409.014†	-2244.6	427.4	14.314 ug/L	14.314 ppb	22:05:22
3	V 292.402†	-1675.0	53.9	0.4577 ug/L	0.4577 ppb	22:05:22
3	Zn 213.857†	758.4	2.5	0.0336 ug/L	0.0336 ppb	22:05:42
3	SiO2†	603.9	-28.9	-2.2546 ug/L	-2.2546 ppb	22:05:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	789524.2	102.81	%	5.932				5.77%
Sc Radial	5021.3	107	%	2.2				2.10%
Y 371.029	709439.4	102.96	%	6.286				6.10%
Y RADIAL	5303.1	106.4	%	2.62				2.47%
Ag 328.068†	-40.7	-0.2181	ug/L	0.33395	-0.2181	ppb	0.33395	153.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	3.3	3.0868	ug/L	4.87361	3.0868	ppb	4.87361	157.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.5	-1.1335	ug/L	1.56434	-1.1335	ppb	1.56434	138.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	104.3	2.6129	ug/L	0.47833	2.6129	ppb	0.47833	18.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0315	ug/L	0.08598	0.0315	ppb	0.08598	273.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-375.4	-0.1486	ug/L	0.24964	-0.1486	ppb	0.24964	168.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.3	-5.9306	ug/L	3.87519	-5.9306	ppb	3.87519	65.34%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -2.9     -0.0389 ug/L       0.02889     -0.0389 ppb        0.02889  74.18%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.7     -0.0203 ug/L       0.16442     -0.0203 ppb        0.16442 808.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -11.8     -0.1646 ug/L       0.14873     -0.1646 ppb        0.14873  90.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             107.0      0.3949 ug/L       1.74209      0.3949 ppb        1.74209 441.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.4     -4.1823 ug/L      12.82167     -4.1823 ppb       12.82167 306.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -88.6     -17.643 ug/L       18.6653     -17.643 ppb        18.6653 105.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -2.3     -91.059 ug/L       46.6515     -91.059 ppb        46.6515  51.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -5.1     -0.0048 ug/L       0.02808     -0.0048 ppb        0.02808 585.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               0.1      0.0075 ug/L       0.14918      0.0075 ppb        0.14918 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      132.3      45.087 ug/L       10.2726      45.087 ppb        10.2726  22.78%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -14.5     -0.4645 ug/L       0.20207     -0.4645 ppb        0.20207  43.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                6.2      3.4025 ug/L       5.98819      3.4025 ppb        5.98819 175.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              29.2      4.7165 ug/L       1.17894      4.7165 ppb        1.17894  25.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.1      1.4167 ug/L       7.08737      1.4167 ppb        7.08737 500.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.6      1.8551 ug/L       1.20212      1.8551 ppb        1.20212  64.80%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.1     -0.0661 ug/L       1.57485     -0.0661 ppb        1.57485 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -21.4     -0.7825 ug/L       1.04026     -0.7825 ppb        1.04026 132.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.2     -0.7552 ug/L       1.05210     -0.7552 ppb        1.05210 139.32%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              11.7      0.0848 ug/L       0.09990      0.0848 ppb        0.09990 117.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             140.2      0.2846 ug/L       0.24422      0.2846 ppb        0.24422  85.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.2      0.5491 ug/L       2.93524      0.5491 ppb        2.93524 534.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              306.3      10.256 ug/L        5.9579      10.256 ppb         5.9579  58.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               15.0      0.1379 ug/L       0.78206      0.1379 ppb        0.78206 567.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              26.9      0.2996 ug/L       0.47869      0.2996 ppb        0.47869 159.77%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -28.1     -2.1858 ug/L       1.47897     -2.1858 ppb        1.47897  67.66%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, February 25, 2010 21:10:56
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1673
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4426.7	4426.686	125.624	2.8
	Mg	24.0	33968.1	33968.140	360.627	1.1
	Co	58.9	55712.4	55712.441	767.844	1.4
	Rh	102.9	102017.2	102017.216	1333.173	1.3
	In	114.9	112334.6	112334.589	1361.480	1.2
	Pb	208.0	82895.7	82895.659	1277.395	1.5
⌈>	Ba	137.9	106971.7	106971.669	1685.235	1.6
⌊	Ba++	69.0	2397.2	0.022	0.001	3.1
⌈>	Ce	139.9	138161.7	138161.712	925.788	0.7
⌊	CeO	155.9	2844.6	0.021	0.000	1.6
	Bkgd	220.0	6.4	6.400	1.817	28.4

Current Optimization File Data

Current Value	Description
0.80	Nebulizer Gas Flow
4.75	Lens Voltage
1450.00	ICP RF Power
-1800.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
25.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	5.3	4785.5
Co	59	11	6.0	51167.5
In	115	11	6.8	111813.5

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.638
Be	9.0	9.0	2035	2080	0.652
Mg	24.0	24.0	5692	2124	0.597
Mg	25.0	25.1	5932	2080	0.693
Mg	26.0	26.1	6174	2120	0.666
Co	58.9	59.0	14165	2170	0.619
Rh	102.9	102.9	24868	2230	0.691
In	114.9	114.9	27795	2260	0.675
Ce	139.9	139.9	33858	2280	0.745
Pb	206.0	206.0	49960	2428	0.744
Pb	207.0	207.0	50135	2385	0.687
Pb	208.0	208.0	50463	2430	0.733
U	238.1	238.0	57717	2470	0.741

Report Date/Time: Thursday, February 25, 2010 21:07:47

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, February 26, 2010 00:27:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\Blank.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		11	
>	Sc	45		ug/L		1229591	
	Ni	60		ug/L		79	
>	Ge	74		ug/L		277580	
	As	75		ug/L		245	
	Se	77		ug/L		5032	
	Se	82		ug/L		-3	
	Kr	83		ug/L		91	
>	Lu	175		ug/L		197016	
	Tl	205		ug/L		131	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, February 26, 2010 00:31:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\Standard 1.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	0.826	4577	0.004
>	Sc	45		ug/L		1238858	1238857.584
	Ni	60	10.000	ug/L	0.976	10496	0.008
>	Ge	74		ug/L		277318	277317.714
	As	75	10.000	ug/L	4.053	8837	0.031
	Se	77		ug/L		5695	0.002
	Se	82	10.000	ug/L	5.319	804	0.003
	Kr	83		ug/L		92	0.000
>	Lu	175		ug/L		197650	197650.392
	Tl	205	10.000	ug/L	0.726	69956	0.353

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, February 26, 2010 00:35:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100225\Standard 2.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	100.014	ug/L	0.572	42759	0.037
>	Sc	45		ug/L		1143032	1143031.876
	Ni	60	100.016	ug/L	1.180	97807	0.086
>	Ge	74		ug/L		262663	262663.042
	As	75	100.066	ug/L	0.970	87417	0.332
	Se	77		ug/L		10756	0.023
	Se	82	100.009	ug/L	1.287	7717	0.029
	Kr	83		ug/L		91	0.000
>	Lu	175		ug/L		190908	190907.728
	Tl	205	99.993	ug/L	1.244	669989	3.509

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, February 26, 2010 00:39:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 1.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.152**	**ug/L**	0.868	22848	0.020
>	Sc	45		**ug/L**		1171148	1171148.490
	Ni	60	**50.659**	**ug/L**	0.168	50796	0.043
>	Ge	74		**ug/L**		264440	264440.086
	As	75	**47.652**	**ug/L**	0.781	42032	0.158
	Se	77		**ug/L**		8150	0.013
	Se	82	**50.733**	**ug/L**	2.599	3940	0.015
	Kr	83		**ug/L**		78	-0.000
>	Lu	175		**ug/L**		192194	192194.306
	Tl	205	**50.057**	**ug/L**	0.236	337742	1.757

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	104.303				
>	Sc	45		95.2			
	Ni	60	101.319				
>	Ge	74		95.3			
	As	75	95.303				
	Se	77					
	Se	82	101.467				
	Kr	83					
>	Lu	175		97.6			
	Tl	205	100.115				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, February 26, 2010 00:43:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 2.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.000	ug/L	3356.713	10	-0.000
>	Sc	45		ug/L		1207694	1207693.582
	Ni	60	0.021	ug/L	45.116	99	0.000
>	Ge	74		ug/L		271084	271084.302
	As	75	0.080	ug/L	487.046	312	0.000
	Se	77		ug/L		5185	0.001
	Se	82	0.150	ug/L	120.546	9	0.000
	Kr	83		ug/L		80	-0.000
>	Lu	175		ug/L		196791	196791.154
	Tl	205	0.015	ug/L	35.592	232	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.2			
	Ni	60					
>	Ge	74		97.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, February 26, 2010 00:47:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 3.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.615**	**ug/L**	4.533	290	0.000
>	Sc	45		**ug/L**		1214448	1214448.252
	Ni	60	**2.309**	**ug/L**	1.961	2475	0.002
>	Ge	74		**ug/L**		271968	271968.466
	As	75	**5.724**	**ug/L**	7.295	5405	0.019
	Se	77		**ug/L**		5595	0.002
	Se	82	**6.040**	**ug/L**	3.648	479	0.002
	Kr	83		**ug/L**		71	-0.000
>	Lu	175		**ug/L**		196309	196309.392
	Tl	205	**1.113**	**ug/L**	2.696	7792	0.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	122.900				
>	Sc	45		98.8			
	Ni	60	115.459				
>	Ge	74		98.0			
	As	75	114.482				
	Se	77					
	Se	82	120.800				
	Kr	83					
>	Lu	175		99.6			
	Tl	205	111.251				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, February 26, 2010 00:51:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 4.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.125**	**ug/L**	3.067	53	0.000
>	Sc	45		**ug/L**		949073	949073.192
	Ni	60	**4.653**	**ug/L**	1.106	3836	0.004
>	Ge	74		**ug/L**		216916	216916.354
	As	75	**0.330**	**ug/L**	114.912	431	0.001
	Se	77		**ug/L**		6755	0.013
	Se	82	**-2.401**	**ug/L**	11.871	-156	-0.001
	Kr	83		**ug/L**		279	0.001
>	Lu	175		**ug/L**		172378	172377.527
	Tl	205	**0.014**	**ug/L**	7.033	197	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		77.2			
	Ni	60	172.347				
>	Ge	74		78.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		87.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, February 26, 2010 00:55:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 5.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.169**	**ug/L**	1.442	7996	0.008
>	Sc	45		**ug/L**		963487	963487.375
	Ni	60	**25.171**	**ug/L**	1.856	20794	0.022
>	Ge	74		**ug/L**		220499	220498.512
	As	75	**23.976**	**ug/L**	1.440	17732	0.080
	Se	77		**ug/L**		7612	0.016
	Se	82	**21.594**	**ug/L**	2.849	1397	0.006
	Kr	83		**ug/L**		279	0.001
>	Lu	175		**ug/L**		176108	176108.044
	Tl	205	**20.508**	**ug/L**	1.436	126844	0.720

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	110.847				
>	Sc	45		78.4			
	Ni	60	110.884				
>	Ge	74		79.4			
	As	75	119.880				
	Se	77					
	Se	82	107.971				
	Kr	83					
>	Lu	175		89.4			
	Tl	205	102.540				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for QC	Sc	45	
	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 00:59:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.452**	**ug/L**	0.116	22274	0.019
>	Sc	45		**ug/L**		1157143	1157143.273
	Ni	60	**50.820**	**ug/L**	1.268	50345	0.043
>	Ge	74		**ug/L**		262786	262785.979
	As	75	**46.923**	**ug/L**	1.862	41132	0.156
	Se	77		**ug/L**		8147	0.013
	Se	82	**49.447**	**ug/L**	3.963	3815	0.015
	Kr	83		**ug/L**		88	0.000
>	Lu	175		**ug/L**		195941	195940.596
	Tl	205	**48.277**	**ug/L**	1.720	332102	1.694

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	102.904				
>	Sc	45		94.1			
	Ni	60	101.639				
>	Ge	74		94.7			
	As	75	93.847				
	Se	77					
	Se	82	98.894				
	Kr	83					
>	Lu	175		99.5			
	Tl	205	96.554				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 01:03:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.000**	**ug/L**	699.181	11	0.000
>	Sc	45		**ug/L**		1204842	1204841.646
	Ni	60	**0.004**	**ug/L**	77.514	82	0.000
>	Ge	74		**ug/L**		272544	272544.025
	As	75	**0.155**	**ug/L**	141.648	380	0.001
	Se	77		**ug/L**		5469	0.002
	Se	82	**-0.004**	**ug/L**	3370.835	-4	-0.000
	Kr	83		**ug/L**		89	-0.000
>	Lu	175		**ug/L**		198554	198553.731
	Tl	205	**0.010**	**ug/L**	25.553	200	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.0			
	Ni	60					
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033908
Sample Date/Time: Friday, February 26, 2010 01:07:41
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\1202033908.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	61.774	8	-0.000
>	Sc	45		ug/L		1223352	1223351.761
	Ni	60	0.057	ug/L	15.240	138	0.000
>	Ge	74		ug/L		271961	271960.904
	As	75	-0.109	ug/L	234.465	142	-0.000
	Se	77		ug/L		3923	-0.004
	Se	82	0.000	ug/L	11851.641	-3	0.000
	Kr	83		ug/L		75	-0.000
>	Lu	175		ug/L		211155	211154.628
	Tl	205	0.018	ug/L	15.941	274	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.5			
	Ni	60					
>	Ge	74		98.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		107.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033913
Sample Date/Time: Friday, February 26, 2010 01:11:46
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949336|40|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\1202033913.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**21.363**	**ug/L**	0.558	9767	0.008
>	Sc	45		**ug/L**		1221369	1221368.511
	Ni	60	**37.128**	**ug/L**	1.835	38840	0.032
>	Ge	74		**ug/L**		274652	274652.147
	As	75	**27.270**	**ug/L**	2.970	25085	0.090
	Se	77		**ug/L**		9647	0.017
	Se	82	**73.223**	**ug/L**	1.686	5908	0.022
	Kr	83		**ug/L**		94	0.000
>	Lu	175		**ug/L**		199666	199666.187
	Tl	205	**32.738**	**ug/L**	3.155	229448	1.149

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.3			
	Ni	60					
>	Ge	74		98.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 01:15:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.777**	**ug/L**	0.691	23246	0.019
>	Sc	45		**ug/L**		1200134	1200133.991
	Ni	60	**50.205**	**ug/L**	2.110	51580	0.043
>	Ge	74		**ug/L**		268929	268928.725
	As	75	**46.224**	**ug/L**	2.390	41470	0.153
	Se	77		**ug/L**		8031	0.012
	Se	82	**48.862**	**ug/L**	1.843	3859	0.014
	Kr	83		**ug/L**		76	-0.000
>	Lu	175		**ug/L**		194718	194718.320
	Tl	205	**48.537**	**ug/L**	1.118	331791	1.703

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.554				
>	Sc	45		97.6			
	Ni	60	100.410				
>	Ge	74		96.9			
	As	75	92.447				
	Se	77					
	Se	82	97.723				
	Kr	83					
>	Lu	175		98.8			
	Tl	205	97.074				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 01:19:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.004**	**ug/L**	154.908	9	-0.000
>	Sc	45		**ug/L**		1234375	1234375.068
	Ni	60	**0.006**	**ug/L**	156.827	86	0.000
>	Ge	74		**ug/L**		274280	274279.664
	As	75	**-0.330**	**ug/L**	54.550	-56	-0.001
	Se	77		**ug/L**		5374	0.001
	Se	82	**-0.095**	**ug/L**	88.438	-11	-0.000
	Kr	83		**ug/L**		85	-0.000
>	Lu	175		**ug/L**		201858	201857.548
	Tl	205	**0.012**	**ug/L**	18.612	218	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.4			
	Ni	60					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055001
Sample Date/Time: Friday, February 26, 2010 01:23:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055001.056

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.007**	**ug/L**	2.801	872	0.001
>	Sc	45		**ug/L**		1148050	1148050.398
	Ni	60	**22.336**	**ug/L**	1.106	21995	0.019
>	Ge	74		**ug/L**		247430	247430.166
	As	75	**15.512**	**ug/L**	2.909	12951	0.051
	Se	77		**ug/L**		3485	-0.004
	Se	82	**0.078**	**ug/L**	277.488	3	0.000
	Kr	83		**ug/L**		163	0.000
>	Lu	175		**ug/L**		192935	192934.712
	Tl	205	**0.456**	**ug/L**	1.884	3213	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.4			
	Ni	60					
>	Ge	74		89.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033911
Sample Date/Time: Friday, February 26, 2010 01:32:05
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949336|2|rm|
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\1202033911.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**26.944**	**ug/L**	1.387	10354	0.010
>	Sc	45		**ug/L**		1026779	1026778.758
	Ni	60	**52.143**	**ug/L**	1.765	45831	0.045
>	Ge	74		**ug/L**		224197	224196.538
	As	75	**55.385**	**ug/L**	0.918	41386	0.184
	Se	77		**ug/L**		3366	-0.003
	Se	82	**8.754**	**ug/L**	5.529	574	0.003
	Kr	83		**ug/L**		171	0.000
>	Lu	175		**ug/L**		185201	185200.651
	Tl	205	**47.246**	**ug/L**	0.563	307176	1.658

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.5			
	Ni	60					
>	Ge	74		80.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033912
Sample Date/Time: Friday, February 26, 2010 01:36:10
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\1202033912.059

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**27.027**	**ug/L**	2.017	10057	0.010
>	Sc	45		**ug/L**		994346	994345.991
	Ni	60	**49.457**	**ug/L**	0.377	42105	0.042
>	Ge	74		**ug/L**		218801	218801.371
	As	75	**57.177**	**ug/L**	0.608	41692	0.190
	Se	77		**ug/L**		3101	-0.004
	Se	82	**7.781**	**ug/L**	7.290	498	0.002
	Kr	83		**ug/L**		161	0.000
>	Lu	175		**ug/L**		184140	184139.887
	Tl	205	**46.647**	**ug/L**	1.759	301493	1.637

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		80.9			
	Ni	60					
>	Ge	74		78.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033910
Sample Date/Time: Friday, February 26, 2010 01:40:15
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949336|10|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\1202033910.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.434**	**ug/L**	14.018	188	0.000
>	Sc	45		**ug/L**		1102564	1102564.250
	Ni	60	**4.618**	**ug/L**	1.392	4423	0.004
>	Ge	74		**ug/L**		249483	249482.568
	As	75	**3.127**	**ug/L**	6.458	2807	0.010
	Se	77		**ug/L**		3970	-0.002
	Se	82	**0.242**	**ug/L**	52.053	15	0.000
	Kr	83		**ug/L**		83	0.000
>	Lu	175		**ug/L**		194243	194243.019
	Tl	205	**0.192**	**ug/L**	4.881	1438	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		89.7			
	Ni	60					
>	Ge	74		89.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055002
Sample Date/Time: Friday, February 26, 2010 01:44:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055002.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	7.427	ug/L	2.300	2938	0.003
>	Sc	45		ug/L		1054602	1054602.308
	Ni	60	54.469	ug/L	0.540	49176	0.047
>	Ge	74		ug/L		224650	224650.350
	As	75	15.590	ug/L	2.028	11818	0.052
	Se	77		ug/L		3407	-0.003
	Se	82	-5.808	ug/L	14.204	-386	-0.002
	Kr	83		ug/L		594	0.002
>	Lu	175		ug/L		184412	184411.898
	Tl	205	1.319	ug/L	1.637	8658	0.046

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		85.8			
	Ni	60					
>	Ge	74		80.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Se	82	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246055003
Sample Date/Time: Friday, February 26, 2010 01:48:25
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055003.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**5.377**	**ug/L**	1.187	2023	0.002
>	Sc	45		**ug/L**		1001664	1001663.691
	Ni	60	**43.401**	**ug/L**	1.162	37229	0.037
>	Ge	74		**ug/L**		214177	214176.568
	As	75	**12.898**	**ug/L**	2.082	9352	0.043
	Se	77		**ug/L**		3211	-0.003
	Se	82	**-3.508**	**ug/L**	10.321	-223	-0.001
	Kr	83		**ug/L**		415	0.002
>	Lu	175		**ug/L**		186991	186990.760
	Tl	205	**1.059**	**ug/L**	2.384	7076	0.037

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		81.5			
	Ni	60					
>	Ge	74		77.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 01:52:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.220**	**ug/L**	1.280	18854	0.018
>	Sc	45		**ug/L**		1023913	1023912.566
	Ni	60	**51.465**	**ug/L**	0.558	45116	0.044
>	Ge	74		**ug/L**		234047	234046.707
	As	75	**47.000**	**ug/L**	0.673	36698	0.156
	Se	77		**ug/L**		8037	0.016
	Se	82	**47.593**	**ug/L**	1.154	3271	0.014
	Kr	83		**ug/L**		74	-0.000
>	Lu	175		**ug/L**		188513	188512.522
	Tl	205	**48.423**	**ug/L**	1.476	320466	1.699

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.439				
>	Sc	45		83.3			
	Ni	60	102.929				
>	Ge	74		84.3			
	As	75	94.000				
	Se	77					
	Se	82	95.185				
	Kr	83					
>	Lu	175		95.7			
	Tl	205	96.845				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 01:56:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	951.596	9	-0.000
>	Sc	45		ug/L		1124276	1124275.603
	Ni	60	0.008	ug/L	239.747	80	0.000
>	Ge	74		ug/L		255760	255760.180
	As	75	-0.004	ug/L	3198.691	221	-0.000
	Se	77		ug/L		5930	0.005
	Se	82	0.065	ug/L	266.834	2	0.000
	Kr	83		ug/L		82	-0.000
>	Lu	175		ug/L		194926	194926.247
	Tl	205	0.018	ug/L	13.329	254	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.4			
	Ni	60					
>	Ge	74		92.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055004
Sample Date/Time: Friday, February 26, 2010 02:00:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055004.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.724**	**ug/L**	3.106	715	0.001
>	Sc	45		**ug/L**		1093637	1093637.113
	Ni	60	**20.126**	**ug/L**	1.353	18887	0.017
>	Ge	74		**ug/L**		240496	240495.503
	As	75	**5.192**	**ug/L**	7.442	4354	0.017
	Se	77		**ug/L**		3493	-0.004
	Se	82	**-0.579**	**ug/L**	42.392	-44	-0.000
	Kr	83		**ug/L**		182	0.000
>	Lu	175		**ug/L**		201692	201692.237
	Tl	205	**0.343**	**ug/L**	0.998	2562	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.9			
	Ni	60					
>	Ge	74		86.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055005
Sample Date/Time: Friday, February 26, 2010 02:04:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rm|
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055005.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.780**	**ug/L**	2.610	1504	0.001
>	Sc	45		**ug/L**		1057389	1057388.798
	Ni	60	**34.162**	**ug/L**	1.235	30948	0.029
>	Ge	74		**ug/L**		231319	231319.400
	As	75	**20.281**	**ug/L**	0.981	15766	0.067
	Se	77		**ug/L**		3218	-0.004
	Se	82	**-2.274**	**ug/L**	16.378	-157	-0.001
	Kr	83		**ug/L**		323	0.001
>	Lu	175		**ug/L**		200597	200597.369
	Tl	205	**0.759**	**ug/L**	3.265	5473	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.0			
	Ni	60					
>	Ge	74		83.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055006
Sample Date/Time: Friday, February 26, 2010 02:08:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055006.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**7.194**	**ug/L**	2.359	2712	0.003
>	Sc	45		**ug/L**		1004613	1004612.604
	Ni	60	**52.089**	**ug/L**	0.481	44801	0.045
>	Ge	74		**ug/L**		209977	209976.745
	As	75	**12.766**	**ug/L**	1.914	9076	0.042
	Se	77		**ug/L**		2899	-0.004
	Se	82	**-5.717**	**ug/L**	3.658	-356	-0.002
	Kr	83		**ug/L**		556	0.002
>	Lu	175		**ug/L**		196476	196475.533
	Tl	205	**1.232**	**ug/L**	1.292	8625	0.043

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		81.7			
	Ni	60					
>	Ge	74		75.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
	Se	82	Sample is out of limits (<-PQL)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: 246055007
Sample Date/Time: Friday, February 26, 2010 02:12:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniasseti.mth
Dataset File: C:\elandata\Dataset\100225\246055007.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.416**	**ug/L**	2.053	1599	0.002
>	Sc	45		**ug/L**		963528	963527.880
	Ni	60	**38.762**	**ug/L**	1.172	31991	0.033
>	Ge	74		**ug/L**		207890	207890.451
	As	75	**10.433**	**ug/L**	3.991	7378	0.035
	Se	77		**ug/L**		2944	-0.004
	Se	82	**-2.803**	**ug/L**	10.429	-174	-0.001
	Kr	83		**ug/L**		367	0.001
>	Lu	175		**ug/L**		195214	195213.713
	Tl	205	**0.826**	**ug/L**	2.943	5789	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		78.4			
	Ni	60					
>	Ge	74		74.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055008
Sample Date/Time: Friday, February 26, 2010 02:16:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055008.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.109**	**ug/L**	6.984	1123	0.001
>	Sc	45		**ug/L**		958710	958709.637
	Ni	60	**29.116**	**ug/L**	0.470	23925	0.025
>	Ge	74		**ug/L**		210665	210664.502
	As	75	**7.822**	**ug/L**	6.436	5650	0.026
	Se	77		**ug/L**		2897	-0.004
	Se	82	**-0.917**	**ug/L**	25.020	-59	-0.000
	Kr	83		**ug/L**		226	0.001
>	Lu	175		**ug/L**		198356	198355.503
	Tl	205	**0.620**	**ug/L**	2.299	4450	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		78.0			
	Ni	60					
>	Ge	74		75.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055009
Sample Date/Time: Friday, February 26, 2010 02:20:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055009.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.001**	**ug/L**	3.546	681	0.001
>	Sc	45		**ug/L**		899112	899112.451
	Ni	60	**19.982**	**ug/L**	0.243	15417	0.017
>	Ge	74		**ug/L**		199632	199632.185
	As	75	**17.401**	**ug/L**	0.792	11699	0.058
	Se	77		**ug/L**		2602	-0.005
	Se	82	**0.099**	**ug/L**	342.398	3	0.000
	Kr	83		**ug/L**		144	0.000
>	Lu	175		**ug/L**		183091	183090.676
	Tl	205	**0.489**	**ug/L**	1.960	3263	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		73.1			
	Ni	60					
>	Ge	74		71.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		92.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055002
Sample Date/Time: Friday, February 26, 2010 02:28:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|4|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055002.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**3.770**	**ug/L**	2.590	1426	0.001
>	Sc	45		**ug/L**		1005097	1005097.015
	Ni	60	**28.185**	**ug/L**	1.482	24284	0.024
>	Ge	74		**ug/L**		221305	221304.513
	As	75	**7.708**	**ug/L**	4.710	5854	0.026
	Se	77		**ug/L**		4179	0.001
	Se	82	**-2.474**	**ug/L**	18.654	-164	-0.001
	Kr	83		**ug/L**		310	0.001
>	Lu	175		**ug/L**		185996	185996.272
	Tl	205	**0.637**	**ug/L**	1.825	4280	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		81.7			
	Ni	60					
>	Ge	74		79.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 246055006
Sample Date/Time: Friday, February 26, 2010 02:32:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949336|4|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\246055006.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**4.206**	**ug/L**	0.375	1517	0.002
>	Sc	45		**ug/L**		959097	959096.876
	Ni	60	**30.876**	**ug/L**	0.452	25377	0.026
>	Ge	74		**ug/L**		209554	209554.280
	As	75	**7.340**	**ug/L**	6.946	5286	0.024
	Se	77		**ug/L**		3647	-0.001
	Se	82	**-2.940**	**ug/L**	18.159	-184	-0.001
	Kr	83		**ug/L**		330	0.001
>	Lu	175		**ug/L**		185740	185739.911
	Tl	205	**0.683**	**ug/L**	2.802	4579	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		78.0			
	Ni	60					
>	Ge	74		75.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 02:36:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.229**	**ug/L**	1.232	18204	0.018
>	Sc	45		**ug/L**		988456	988456.118
	Ni	60	**52.065**	**ug/L**	1.093	44059	0.045
>	Ge	74		**ug/L**		227113	227113.343
	As	75	**47.708**	**ug/L**	0.663	36142	0.158
	Se	77		**ug/L**		7638	0.016
	Se	82	**48.119**	**ug/L**	2.929	3209	0.014
	Kr	83		**ug/L**		79	0.000
>	Lu	175		**ug/L**		188025	188024.886
	Tl	205	**49.361**	**ug/L**	0.934	325821	1.732

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.457				
>	Sc	45		80.4			
	Ni	60	104.131				
>	Ge	74		81.8			
	As	75	95.416				
	Se	77					
	Se	82	96.237				
	Kr	83					
>	Lu	175		95.4			
	Tl	205	98.722				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 02:40:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	584.104	9	-0.000
>	Sc	45		ug/L		1086755	1086755.046
	Ni	60	0.015	ug/L	75.318	83	0.000
>	Ge	74		ug/L		247963	247962.635
	As	75	-0.077	ug/L	724.053	157	-0.000
	Se	77		ug/L		5783	0.005
	Se	82	-0.035	ug/L	449.557	-6	-0.000
	Kr	83		ug/L		81	-0.000
>	Lu	175		ug/L		198388	198388.244
	Tl	205	0.012	ug/L	13.388	216	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		88.4			
	Ni	60					
>	Ge	74		89.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202033909
Sample Date/Time: Friday, February 26, 2010 02:44:31
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949336|2|rmj
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\1202033909.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**2.001**	**ug/L**	3.644	742	0.001
>	Sc	45		**ug/L**		980285	980284.731
	Ni	60	**23.198**	**ug/L**	1.237	19504	0.020
>	Ge	74		**ug/L**		215701	215701.065
	As	75	**15.955**	**ug/L**	0.606	11606	0.053
	Se	77		**ug/L**		3177	-0.003
	Se	82	**-0.185**	**ug/L**	158.098	-14	-0.000
	Kr	83		**ug/L**		163	0.000
>	Lu	175		**ug/L**		185806	185805.768
	Tl	205	**0.472**	**ug/L**	2.420	3199	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		79.7			
	Ni	60					
>	Ge	74		77.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, February 26, 2010 02:48:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\beniassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 6.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.146**	**ug/L**	0.276	18920	0.018
>	Sc	45		**ug/L**		1028990	1028989.931
	Ni	60	**51.925**	**ug/L**	2.000	45743	0.044
>	Ge	74		**ug/L**		236326	236325.745
	As	75	**46.801**	**ug/L**	2.736	36895	0.155
	Se	77		**ug/L**		7652	0.014
	Se	82	**48.479**	**ug/L**	2.585	3364	0.014
	Kr	83		**ug/L**		75	-0.000
>	Lu	175		**ug/L**		191260	191259.706
	Tl	205	**48.422**	**ug/L**	0.993	325121	1.699

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.293				
>	Sc	45		83.7			
	Ni	60	103.851				
>	Ge	74		85.1			
	As	75	93.602				
	Se	77					
	Se	82	96.957				
	Kr	83					
>	Lu	175		97.1			
	Tl	205	96.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, February 26, 2010 02:52:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\benlassetl.mth
Dataset File: C:\elandata\Dataset\100225\QC Std 7.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.005	ug/L	56.869	12	0.000
>	Sc	45		ug/L		1108241	1108241.100
	Ni	60	0.005	ug/L	93.344	75	0.000
>	Ge	74		ug/L		250470	250469.512
	As	75	0.284	ug/L	177.667	457	0.001
	Se	77		ug/L		5538	0.004
	Se	82	0.178	ug/L	32.883	10	0.000
	Kr	83		ug/L		76	-0.000
>	Lu	175		ug/L		195616	195615.803
	Tl	205	0.012	ug/L	24.467	211	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Ni	60					
>	Ge	74		90.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		99.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\022210S1.SIF
Batch ID:
Results Data Set: 022210S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 1/4/2010 13:53:20**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/22/2010 09:10:53**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0004	0.0039	0.0004	09:11:45	Yes
2		[0.00]	0.0002	0.0015	0.0002	09:12:15	Yes
Mean:		[0.00]	0.0003				
SD:		0.00	0.0002				
%RSD:		0.00	53.64				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/22/2010 09:12:34**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0025	0.0130	0.0028	09:13:24	Yes
2		[0.2]	0.0024	0.0118	0.0027	09:13:54	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0001				
%RSD:		0.0	2.95				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01227 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/22/2010 09:14:13**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0296	0.0067	09:15:04	Yes
2		[0.5]	0.0064	0.0296	0.0067	09:15:34	Yes
Mean:		[0.5]	0.0064				
SD:		0.0	0.0000				
%RSD:		0.0	0.76				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999833 Slope: 0.01281 Intercept: -0.00004

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/22/2010 09:15:53**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0266	0.1214	0.0270	09:16:44	Yes
2		[2.0]	0.0268	0.1221	0.0271	09:17:14	Yes
Mean:		[2.0]	0.0267				
SD:		0.0	0.0001				
%RSD:		0.0	0.39				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999935 Slope: 0.01342 Intercept: -0.00017

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/22/2010 09:17:34**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0658	0.2999	0.0661	09:18:25	Yes
2		[5.0]	0.0654	0.2990	0.0657	09:18:55	Yes
Mean:		[5.0]	0.0656				
SD:		0.0	0.0003				
%RSD:		0.0	0.39				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999956 Slope: 0.01315 Intercept: -0.00003

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/22/2010 09:19:16**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1267	0.5827	0.1270	09:20:06	Yes
2		[10.0]	0.1264	0.5788	0.1267	09:20:36	Yes
Mean:		[10.0]	0.1266				
SD:		0.0	0.0002				
%RSD:		0.0	0.18				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999803 Slope: 0.01270 Intercept: 0.00049

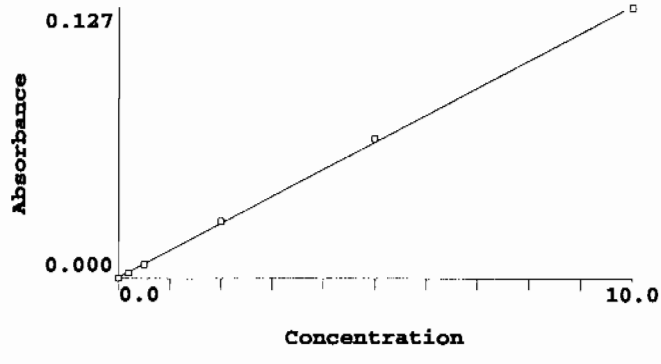

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.038	0.00	53.6
S0.2	0.0025	0.2	0.155	0.00	2.9
S0.5	0.0064	0.5	0.465	0.00	0.8
S2.0	0.0267	2.0	2.066	0.00	0.4

S5.0	0.0656	5.0	5.126	0.00	0.4
S10.0	0.1266	10.0	9.926	0.00	0.2

Correlation Coef.: 0.999803 Slope: 0.01270 Intercept: 0.00049

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/22/2010 09:20:55**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.163	5.163	0.0661	0.3028	0.0664	09:21:46	Yes
2	5.137	5.137	0.0657	0.3006	0.0660	09:22:15	Yes
Mean:	5.150	5.150	0.0659				
SD:	0.019	0.019	0.0002				
%RSD:	0.366	0.366	0.36				

QC value within limits for Hg 253.7 Recovery = 103.00%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/22/2010 09:22:35**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.059	-0.059	-0.0003	-0.0018	0.0001	09:23:26	Yes
2	-0.054	-0.054	-0.0002	-0.0015	0.0001	09:23:56	Yes
Mean:	-0.056	-0.056	-0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	6.211	6.211	19.49				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/22/2010 09:24:16**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.155	0.155	0.0025	0.0117	0.0028	09:25:07	Yes
2	0.147	0.147	0.0024	0.0106	0.0027	09:25:37	Yes
Mean:	0.151	0.151	0.0024				
SD:	0.006	0.006	0.0001				
%RSD:	3.846	3.846	3.07				

QC value within limits for Hg 253.7 Recovery = 75.56%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 09:25:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.065	5.065	0.0648	0.2977	0.0651	09:26:47	Yes
2	5.044	5.044	0.0645	0.2946	0.0649	09:27:17	Yes
Mean:	5.055	5.055	0.0647				
SD:	0.015	0.015	0.0002				
%RSD:	0.296	0.296	0.29				

QC value within limits for Hg 253.7 Recovery = 101.09%
All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/22/2010 09:27:36
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.057	-0.057	-0.0002	-0.0011	0.0001	09:28:26	Yes
2	-0.063	-0.063	-0.0003	-0.0019	0.0000	09:28:56	Yes
Mean:	-0.060	-0.060	-0.0003				
SD:	0.004	0.004	0.0000				
%RSD:	6.512	6.512	17.97				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 12
Sample ID: 1202039119|951482|1 Date Collected: 2/22/2010 09:29:16
Analyst: JXL Data Type: Original

Replicate Data: 1202039119|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.060	-0.060	-0.0003	-0.0016	0.0000	09:30:08	Yes
2	-0.057	-0.057	-0.0002	-0.0007	0.0001	09:30:37	Yes
Mean:	-0.058	-0.058	-0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	4.517	4.517	13.10				

Sequence No.: 13 Autosampler Location: 13
Sample ID: 1202039120|951482|10 Date Collected: 2/22/2010 09:30:58
Analyst: JXL Data Type: Original

Replicate Data: 1202039120|951482|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.981	3.981	0.0510	0.2348	0.0514	09:31:50	Yes
2	3.964	3.964	0.0508	0.2328	0.0511	09:32:20	Yes
Mean:	3.972	3.972	0.0509				
SD:	0.012	0.012	0.0002				
%RSD:	0.302	0.302	0.30				

Sequence No.: 14 Autosampler Location: 14
Sample ID: 246354001|951482|1 Date Collected: 2/22/2010 09:32:40
Analyst: JXL Data Type: Original

Replicate Data: 246354001|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.212	0.212	0.0032	0.0151	0.0035	09:33:31	Yes
2	0.210	0.210	0.0031	0.0144	0.0035	09:34:01	Yes
Mean:	0.211	0.211	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.960	0.960	0.81				

Sequence No.: 15 Autosampler Location: 15
Sample ID: 246354002|951482|1 Date Collected: 2/22/2010 09:34:20
Analyst: JXL Data Type: Original

Replicate Data: 246354002|951482|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 246354007|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.215	0.215	0.0032	0.0155	0.0035	09:43:28	Yes
2	0.217	0.217	0.0032	0.0156	0.0036	09:43:58	Yes
Mean:	0.216	0.216	0.0032				
SD:	0.002	0.002	0.0000				
%RSD:	0.955	0.955	0.81				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 246354008|951482|1 **Date Collected: 2/22/2010 09:44:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 246354008|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.193	0.193	0.0029	0.0149	0.0032	09:45:08	Yes
2	0.196	0.196	0.0030	0.0157	0.0033	09:45:38	Yes
Mean:	0.195	0.195	0.0030				
SD:	0.003	0.003	0.0000				
%RSD:	1.377	1.377	1.15				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 09:45:58**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.013	5.013	0.0641	0.2931	0.0645	09:46:48	Yes
2	4.982	4.982	0.0638	0.2911	0.0641	09:47:18	Yes
Mean:	4.997	4.997	0.0639				
SD:	0.022	0.022	0.0003				
%RSD:	0.441	0.441	0.44				

QC value within limits for Hg 253.7 Recovery = 99.94%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/22/2010 09:47:37**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0001	0.0008	0.0002	09:48:28	Yes
2	-0.048	-0.048	-0.0001	0.0011	0.0002	09:48:58	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	2.111	2.111	9.57				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 246354009|951482|1 **Date Collected: 2/22/2010 09:49:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 246354009|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.192	0.192	0.0029	0.0145	0.0032	09:50:09	Yes
2	0.189	0.189	0.0029	0.0142	0.0032	09:50:39	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0283	0.1317	0.0286	09:58:34	Yes
2	2.176	2.176	0.0281	0.1305	0.0284	09:59:04	Yes
Mean:	2.181	2.181	0.0282				
SD:	0.008	0.008	0.0001				
%RSD:	0.344	0.344	0.34				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202039129|951482|1 **Date Collected: 2/22/2010 09:59:23**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039129|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.225	2.225	0.0287	0.1337	0.0291	10:00:14	Yes
2	2.228	2.228	0.0288	0.1333	0.0291	10:00:44	Yes
Mean:	2.227	2.227	0.0288				
SD:	0.002	0.002	0.0000				
%RSD:	0.072	0.072	0.07				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202039128|951482|5 **Date Collected: 2/22/2010 10:01:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039128|951482|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0003	0.0020	0.0006	10:01:54	Yes
2	-0.008	-0.008	0.0004	0.0029	0.0007	10:02:23	Yes
Mean:	-0.011	-0.011	0.0003				
SD:	0.003	0.003	0.0000				
%RSD:	30.67	30.67	12.01				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 246452002|951482|1 **Date Collected: 2/22/2010 10:02:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 246452002|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.266	0.266	0.0039	0.0191	0.0042	10:03:33	Yes
2	0.265	0.265	0.0038	0.0189	0.0042	10:04:03	Yes
Mean:	0.266	0.266	0.0039				
SD:	0.001	0.001	0.0000				
%RSD:	0.492	0.492	0.43				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246452003|951482|1 **Date Collected: 2/22/2010 10:04:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 246452003|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.614	0.614	0.0083	0.0391	0.0086	10:05:13	Yes
2	0.615	0.615	0.0083	0.0390	0.0086	10:05:43	Yes
Mean:	0.615	0.615	0.0083				
SD:	0.001	0.001	0.0000				
%RSD:	0.120	0.120	0.11				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 10:06:02**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.056	5.056	0.0647	0.2940	0.0650	10:06:53	Yes
2	5.026	5.026	0.0643	0.2919	0.0646	10:07:23	Yes
Mean:	5.041	5.041	0.0645				
SD:	0.021	0.021	0.0003				
%RSD:	0.413	0.413	0.41				

QC value within limits for Hg 253.7 Recovery = 100.82%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/22/2010 10:07:42
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	-0.0001	0.0014	0.0002	10:08:32	Yes
2	-0.052	-0.052	-0.0002	0.0004	0.0001	10:09:02	Yes
Mean:	-0.049	-0.049	-0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	10.34	10.34	49.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246452004|951482|1 Date Collected: 2/22/2010 10:09:21
Analyst: JXL Data Type: Original

Replicate Data: 246452004|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.312	0.312	0.0044	0.0217	0.0048	10:10:13	Yes
2	0.306	0.306	0.0044	0.0208	0.0047	10:10:43	Yes
Mean:	0.309	0.309	0.0044				
SD:	0.004	0.004	0.0000				
%RSD:	1.188	1.188	1.06				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246452005|951482|1 Date Collected: 2/22/2010 10:11:02
Analyst: JXL Data Type: Original

Replicate Data: 246452005|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.291	0.291	0.0042	0.0201	0.0045	10:11:53	Yes
2	0.292	0.292	0.0042	0.0201	0.0045	10:12:23	Yes
Mean:	0.291	0.291	0.0042				
SD:	0.001	0.001	0.0000				
%RSD:	0.301	0.301	0.27				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 246452006|951482|1 Date Collected: 2/22/2010 10:12:43
Analyst: JXL Data Type: Original

Replicate Data: 246452006|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.195	0.195	0.0030	0.0152	0.0033	10:13:34	Yes

2	0.189	0.189	0.0029	0.0146	0.0032	10:14:04	Yes
Mean:	0.192	0.192	0.0029				
SD:	0.005	0.005	0.0001				
%RSD:	2.413	2.413	2.01				

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 246452007|951482|1 **Date Collected: 2/22/2010 10:14:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 246452007|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.515	0.515	0.0070	0.0340	0.0073	10:15:15	Yes
2	0.516	0.516	0.0070	0.0339	0.0074	10:15:45	Yes
Mean:	0.515	0.515	0.0070				
SD:	0.001	0.001	0.0000				
%RSD:	0.180	0.180	0.17				

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 246452008|951482|1 **Date Collected: 2/22/2010 10:16:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 246452008|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.119	0.119	0.0020	0.0110	0.0023	10:16:56	Yes
2	0.121	0.121	0.0020	0.0108	0.0023	10:17:26	Yes
Mean:	0.120	0.120	0.0020				
SD:	0.001	0.001	0.0000				
%RSD:	0.912	0.912	0.69				

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 246452009|951482|1 **Date Collected: 2/22/2010 10:17:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 246452009|951482|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.320	0.320	0.0046	0.0229	0.0049	10:18:38	Yes
2	0.320	0.320	0.0046	0.0236	0.0049	10:19:08	Yes
Mean:	0.320	0.320	0.0046				
SD:	0.000	0.000	0.0000				
%RSD:	0.002	0.002	0.00				

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 1202039278|951546|1 **Date Collected: 2/22/2010 10:19:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039278|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.028	-0.028	0.0001	0.0040	0.0004	10:20:19	Yes
2	-0.041	-0.041	-0.0000	0.0024	0.0003	10:20:49	Yes
Mean:	-0.034	-0.034	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	26.77	26.77	242.68				

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 1202039279|951546|10 **Date Collected: 2/22/2010 10:21:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039279|951546|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.679	3.679	0.0472	0.2153	0.0475	10:21:59	Yes
2	3.681	3.681	0.0472	0.2140	0.0476	10:22:29	Yes
Mean:	3.680	3.680	0.0472				
SD:	0.002	0.002	0.0000				
%RSD:	0.043	0.043	0.04				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 246055001|951546|1 **Date Collected: 2/22/2010 10:22:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055001|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0035	0.0168	0.0038	10:23:39	Yes
2	0.234	0.234	0.0035	0.0169	0.0038	10:24:09	Yes
Mean:	0.235	0.235	0.0035				
SD:	0.000	0.000	0.0000				
%RSD:	0.079	0.079	0.07				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202039280|951546|1 **Date Collected: 2/22/2010 10:24:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039280|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.078	0.078	0.0015	0.0080	0.0018	10:25:20	Yes
2	0.078	0.078	0.0015	0.0078	0.0018	10:25:50	Yes
Mean:	0.078	0.078	0.0015				
SD:	0.000	0.000	0.0000				
%RSD:	0.484	0.484	0.33				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 10:26:09**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.123	5.123	0.0656	0.2977	0.0659	10:27:00	Yes
2	5.104	5.104	0.0653	0.2968	0.0656	10:27:30	Yes
Mean:	5.114	5.114	0.0654				
SD:	0.014	0.014	0.0002				
%RSD:	0.275	0.275	0.27				

QC value within limits for Hg 253.7 Recovery = 102.27%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 2/22/2010 10:27:49**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0002	0.0007	0.0002	10:28:39	Yes
2	-0.052	-0.052	-0.0002	0.0004	0.0001	10:29:09	Yes
Mean:	-0.051	-0.051	-0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	1.698	1.698	6.85				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 1202039281|951546|1 **Date Collected: 2/22/2010 10:29:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039281|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.190	2.190	0.0283	0.1303	0.0286	10:30:20	Yes
2	2.179	2.179	0.0282	0.1298	0.0285	10:30:50	Yes
Mean:	2.184	2.184	0.0282				
SD:	0.008	0.008	0.0001				
%RSD:	0.355	0.355	0.35				

==========

Sequence No.: 49 **Autosampler Location: 43**
Sample ID: 1202039283|951546|1 **Date Collected: 2/22/2010 10:31:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039283|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.372	1.372	0.0179	0.0835	0.0182	10:32:00	Yes
2	1.362	1.362	0.0178	0.0821	0.0181	10:32:30	Yes
Mean:	1.367	1.367	0.0178				
SD:	0.007	0.007	0.0001				
%RSD:	0.515	0.515	0.50				

==========

Sequence No.: 50 **Autosampler Location: 44**
Sample ID: 1202039282|951546|5 **Date Collected: 2/22/2010 10:32:50**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039282|951546|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.025	0.025	0.0008	0.0078	0.0011	10:33:41	Yes
2	0.028	0.028	0.0008	0.0076	0.0012	10:34:11	Yes
Mean:	0.026	0.026	0.0008				
SD:	0.002	0.002	0.0000				
%RSD:	6.995	6.995	2.86				

==========

Sequence No.: 51 **Autosampler Location: 45**
Sample ID: 246055002|951546|1 **Date Collected: 2/22/2010 10:34:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055002|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.295	0.295	0.0042	0.0211	0.0045	10:35:22	Yes
2	0.288	0.288	0.0041	0.0204	0.0045	10:35:52	Yes
Mean:	0.291	0.291	0.0042				
SD:	0.005	0.005	0.0001				
%RSD:	1.796	1.796	1.59				

==========

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 246055003|951546|1 **Date Collected: 2/22/2010 10:36:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055003|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	0.296	0.296	0.0042	0.0206	0.0046	10:37:02	Yes
2	0.300	0.300	0.0043	0.0210	0.0046	10:37:32	Yes
Mean:	0.298	0.298	0.0043				
SD:	0.003	0.003	0.0000				
%RSD:	0.858	0.858	0.76				

==========

Sequence No.: 53 **Autosampler Location: 47**
Sample ID: 246055004|951546|1 **Date Collected: 2/22/2010 10:37:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055004|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.052	0.052	0.0011	0.0066	0.0015	10:38:44	Yes
2	0.049	0.049	0.0011	0.0064	0.0014	10:39:14	Yes
Mean:	0.051	0.051	0.0011				
SD:	0.001	0.001	0.0000				
%RSD:	2.908	2.908	1.65				

==========

Sequence No.: 54 **Autosampler Location: 48**
Sample ID: 246055005|951546|1 **Date Collected: 2/22/2010 10:39:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055005|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.229	0.229	0.0034	0.0167	0.0037	10:40:25	Yes
2	0.230	0.230	0.0034	0.0170	0.0037	10:40:55	Yes
Mean:	0.229	0.229	0.0034				
SD:	0.001	0.001	0.0000				
%RSD:	0.268	0.268	0.23				

==========

Sequence No.: 55 **Autosampler Location: 49**
Sample ID: 246055006|951546|1 **Date Collected: 2/22/2010 10:41:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055006|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.293	0.293	0.0042	0.0203	0.0045	10:42:07	Yes
2	0.289	0.289	0.0042	0.0201	0.0045	10:42:37	Yes
Mean:	0.291	0.291	0.0042				
SD:	0.003	0.003	0.0000				
%RSD:	0.971	0.971	0.86				

==========

Sequence No.: 56 **Autosampler Location: 50**
Sample ID: 246055007|951546|1 **Date Collected: 2/22/2010 10:42:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055007|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.195	0.195	0.0030	0.0150	0.0033	10:43:48	Yes
2	0.199	0.199	0.0030	0.0149	0.0033	10:44:18	Yes
Mean:	0.197	0.197	0.0030				
SD:	0.002	0.002	0.0000				
%RSD:	1.250	1.250	1.05				

==========

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 246055008|951546|1 **Date Collected: 2/22/2010 10:44:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 246055008|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.143	0.143	0.0023	0.0118	0.0026	10:45:29	Yes
2	0.146	0.146	0.0023	0.0124	0.0027	10:45:59	Yes
Mean:	0.144	0.144	0.0023				
SD:	0.002	0.002	0.0000				
%RSD:	1.723	1.723	1.36				

Sequence No.: 58
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 2/22/2010 10:46:18
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.173	5.173	0.0662	0.2986	0.0665	10:47:08	Yes
2	5.219	5.219	0.0668	0.2990	0.0671	10:47:38	Yes
Mean:	5.196	5.196	0.0665				
SD:	0.033	0.033	0.0004				
%RSD:	0.630	0.630	0.63				

QC value within limits for Hg 253.7 Recovery = 103.92%
All analyte(s) passed QC.

Sequence No.: 59
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/22/2010 10:47:57
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0001	0.0014	0.0002	10:48:48	Yes
2	-0.049	-0.049	-0.0001	0.0010	0.0002	10:49:18	Yes
Mean:	-0.048	-0.048	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	3.335	3.335	16.87				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60
Sample ID: 246055009|951546|1
Analyst: JXL
Autosampler Location: 52
Date Collected: 2/22/2010 10:49:37
Data Type: Original

Replicate Data: 246055009|951546|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.293	0.293	0.0042	0.0202	0.0045	10:50:28	Yes
2	0.291	0.291	0.0042	0.0196	0.0045	10:50:58	Yes
Mean:	0.292	0.292	0.0042				
SD:	0.002	0.002	0.0000				
%RSD:	0.666	0.666	0.59				

Sequence No.: 61
Sample ID: 1202039295|951551|1
Analyst: JXL
Autosampler Location: 53
Date Collected: 2/22/2010 10:51:17
Data Type: Original

Replicate Data: 1202039295|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0001	0.0009	0.0002	10:52:08	Yes
2	-0.047	-0.047	-0.0001	0.0014	0.0002	10:52:38	Yes
Mean:	-0.049	-0.049	-0.0001				

#	ug/L	ug/L	Signal	Area	Height		Stored
1	2.421	2.421	0.0312	0.1398	0.0315	11:00:33	Yes
2	2.409	2.409	0.0311	0.1392	0.0314	11:01:03	Yes
Mean:	2.415	2.415	0.0312				
SD:	0.008	0.008	0.0001				
%RSD:	0.333	0.333	0.33				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 1202039299|951551|5 **Date Collected: 2/22/2010 11:01:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202039299|951551|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0005	0.0034	0.0008	11:02:14	Yes
2	0.003	0.003	0.0005	0.0034	0.0008	11:02:44	Yes
Mean:	0.001	0.001	0.0005				
SD:	0.002	0.002	0.0000				
%RSD:	149.8	149.8	5.53				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 246066002|951551|1 **Date Collected: 2/22/2010 11:03:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066002|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.208	0.208	0.0031	0.0155	0.0034	11:03:56	Yes
2	0.208	0.208	0.0031	0.0152	0.0034	11:04:26	Yes
Mean:	0.208	0.208	0.0031				
SD:	0.000	0.000	0.0000				
%RSD:	0.196	0.196	0.17				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 246066003|951551|1 **Date Collected: 2/22/2010 11:04:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 246066003|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.196	0.196	0.0030	0.0147	0.0033	11:05:38	Yes
2	0.189	0.189	0.0029	0.0144	0.0032	11:06:08	Yes
Mean:	0.193	0.193	0.0029				
SD:	0.005	0.005	0.0001				
%RSD:	2.670	2.670	2.23				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/22/2010 11:06:28**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.198	5.198	0.0665	0.2949	0.0668	11:07:18	Yes
2	5.157	5.157	0.0660	0.2914	0.0663	11:07:48	Yes
Mean:	5.177	5.177	0.0662				
SD:	0.029	0.029	0.0004				
%RSD:	0.555	0.555	0.55				

QC value within limits for Hg 253.7 Recovery = 103.54%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB
Analyst:
Date Collected: 2/22/2010 11:08:07
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.051	-0.051	-0.0002	0.0008	0.0002	11:08:58	Yes
2	-0.059	-0.059	-0.0003	-0.0005	0.0001	11:09:28	Yes
Mean:	-0.055	-0.055	-0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	10.73	10.73	35.82				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72
Sample ID: 246066004|951551|1
Analyst: JXL
Autosampler Location: 62
Date Collected: 2/22/2010 11:09:47
Data Type: Original

Replicate Data: 246066004|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.397	0.397	0.0055	0.0260	0.0058	11:10:38	Yes
2	0.396	0.396	0.0055	0.0259	0.0058	11:11:08	Yes
Mean:	0.397	0.397	0.0055				
SD:	0.001	0.001	0.0000				
%RSD:	0.217	0.217	0.20				

Sequence No.: 73
Sample ID: 246066005|951551|1
Analyst: JXL
Autosampler Location: 63
Date Collected: 2/22/2010 11:11:28
Data Type: Original

Replicate Data: 246066005|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.055	0.055	0.0012	0.0065	0.0015	11:12:19	Yes
2	0.058	0.058	0.0012	0.0067	0.0015	11:12:49	Yes
Mean:	0.056	0.056	0.0012				
SD:	0.002	0.002	0.0000				
%RSD:	3.337	3.337	1.99				

Sequence No.: 74
Sample ID: 246066006|951551|1
Analyst: JXL
Autosampler Location: 64
Date Collected: 2/22/2010 11:13:09
Data Type: Original

Replicate Data: 246066006|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.544	0.544	0.0074	0.0341	0.0077	11:14:00	Yes
2	0.536	0.536	0.0073	0.0334	0.0076	11:14:29	Yes
Mean:	0.540	0.540	0.0073				
SD:	0.005	0.005	0.0001				
%RSD:	0.997	0.997	0.93				

Sequence No.: 75
Sample ID: 246066007|951551|1
Analyst: JXL
Autosampler Location: 65
Date Collected: 2/22/2010 11:14:49
Data Type: Original

Replicate Data: 246066007|951551|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0005	0.0037	0.0008	11:15:40	Yes
2	-0.006	-0.006	0.0004	0.0030	0.0007	11:16:10	Yes

Miscellaneous

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 949333

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033903	UI062540-I	.521	g
MS	1202033901	UI100120-01	.25	mL
MS	1202033901	UI100120-06	.25	mL
MSD	1202033902	UI100120-01	.25	mL
MSD	1202033902	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033898		SW846 3050B	16-FEB-2010 07:00	0.623 g	50 mL	80.25682	SOIL
LCS	1202033903		SW846 3050B	16-FEB-2010 07:00	0.521 g	50 mL	95.96929	SOIL
SAMPLE	246055001		SW846 3050B	16-FEB-2010 07:00	0.51 g	50 mL	98.03922	SOIL
DUP	1202033899	246055001	SW846 3050B	16-FEB-2010 07:00	0.513 g	50 mL	97.46589	SOIL
SDILT	1202033900	246055001	SW846 3050B	16-FEB-2010 07:00	0.51 g	50 mL	98.03922	SOIL
MS	1202033901	246055001	SW846 3050B	16-FEB-2010 07:00	0.514 g	50 mL	97.27626	SOIL
MSD	1202033902	246055001	SW846 3050B	16-FEB-2010 07:00	0.523 g	50 mL	95.60229	SOIL
SAMPLE	246055002		SW846 3050B	16-FEB-2010 07:00	0.578 g	50 mL	86.50519	SOIL
SAMPLE	246055003		SW846 3050B	16-FEB-2010 07:00	0.552 g	50 mL	90.57971	SOIL
SAMPLE	246055004		SW846 3050B	16-FEB-2010 07:00	0.545 g	50 mL	91.74312	SOIL
SAMPLE	246055005		SW846 3050B	16-FEB-2010 07:00	0.528 g	50 mL	94.69697	SOIL
SAMPLE	246055006		SW846 3050B	16-FEB-2010 07:00	0.541 g	50 mL	92.42144	SOIL
SAMPLE	246055007		SW846 3050B	16-FEB-2010 07:00	0.532 g	50 mL	93.98496	SOIL
SAMPLE	246055008		SW846 3050B	16-FEB-2010 07:00	0.52 g	50 mL	96.15385	SOIL
SAMPLE	246055009		SW846 3050B	16-FEB-2010 07:00	0.51 g	50 mL	98.03922	SOIL

Reagent/Solvent Lot ID	Amount	Description
1265209	10 mL	HYDROCHLORIC ACID
1268732	1.25 mL	Nitric Acid CONC.

Comments: Sample 246055001 consist of black, clumpy soil.

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 949335

Lab SOP: GL-MA-E-009 REV# 19

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033913	UI062540-MS	.518	g
MS	1202033911	UI091015-A	.5	mL
MS	1202033911	UI091015-B	.5	mL
MSD	1202033912	UI091015-A	.5	mL
MSD	1202033912	UI091015-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033908		SW846 3050B	16-FEB-2010 07:00	0.518 g	50 mL	96.5251	SOIL
LCS	1202033913		SW846 3050B	16-FEB-2010 07:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	246055001		SW846 3050B	16-FEB-2010 07:00	0.518 g	50 mL	96.5251	SOIL
DUP	1202033909	246055001	SW846 3050B	16-FEB-2010 07:00	0.517 g	50 mL	96.7118	SOIL
SDILT	1202033910	246055001	SW846 3050B	16-FEB-2010 07:00	0.518 g	50 mL	96.5251	SOIL
MS	1202033911	246055001	SW846 3050B	16-FEB-2010 07:00	0.513 g	50 mL	97.46589	SOIL
MSD	1202033912	246055001	SW846 3050B	16-FEB-2010 07:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	246055002		SW846 3050B	16-FEB-2010 07:00	0.558 g	50 mL	89.60573	SOIL
SAMPLE	246055003		SW846 3050B	16-FEB-2010 07:00	0.539 g	50 mL	92.76438	SOIL
SAMPLE	246055004		SW846 3050B	16-FEB-2010 07:00	0.513 g	50 mL	97.46589	SOIL
SAMPLE	246055005		SW846 3050B	16-FEB-2010 07:00	0.51 g	50 mL	98.03922	SOIL
SAMPLE	246055006		SW846 3050B	16-FEB-2010 07:00	0.518 g	50 mL	96.5251	SOIL
SAMPLE	246055007		SW846 3050B	16-FEB-2010 07:00	0.545 g	50 mL	91.74312	SOIL
SAMPLE	246055008		SW846 3050B	16-FEB-2010 07:00	0.512 g	50 mL	97.65625	SOIL
SAMPLE	246055009		SW846 3050B	16-FEB-2010 07:00	0.518 g	50 mL	96.5251	SOIL

Reagent/Solvent Lot ID	Amount	Description
1250038-02	1.5 mL	Hydrogen Peroxide 30%
1268732	5 mL	Nitric Acid CONC.

Comments Sample 246055001 consist of black, clumpy soil.

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 951544

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202039279	UI031809A	.202	g
MS	1202039281	WHG100219-14	.3	mL
MSD	1202039283	WHG100219-14	.3	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202039278		SW846 7471A Prep	19-FEB-2010 12:25	0.521 g	30 mL	57.58157	SOIL
LCS	1202039279		SW846 7471A Prep	19-FEB-2010 12:25	0.202 g	30 mL	148.51485	SOIL
SAMPLE	246055001		SW846 7471A Prep	19-FEB-2010 12:25	0.598 g	30 mL	50.16722	SOIL
DUP	1202039280	246055001	SW846 7471A Prep	19-FEB-2010 12:25	0.531 g	30 mL	56.49718	SOIL
MS	1202039281	246055001	SW846 7471A Prep	19-FEB-2010 12:25	0.51 g	30 mL	58.82353	SOIL
MSD	1202039283	246055001	SW846 7471A Prep	19-FEB-2010 12:25	0.572 g	30 mL	52.44755	SOIL
SDILT	1202039282	246055001	SW846 7471A Prep	19-FEB-2010 12:25	0.598 g	30 mL	50.16722	SOIL
SAMPLE	246055002		SW846 7471A Prep	19-FEB-2010 12:25	0.547 g	30 mL	54.84461	SOIL
SAMPLE	246055003		SW846 7471A Prep	19-FEB-2010 12:25	0.528 g	30 mL	56.81818	SOIL
SAMPLE	246055004		SW846 7471A Prep	19-FEB-2010 12:25	0.523 g	30 mL	57.36138	SOIL
SAMPLE	246055005		SW846 7471A Prep	19-FEB-2010 12:25	0.59 g	30 mL	50.84746	SOIL
SAMPLE	246055006		SW846 7471A Prep	19-FEB-2010 12:25	0.523 g	30 mL	57.36138	SOIL
SAMPLE	246055007		SW846 7471A Prep	19-FEB-2010 12:25	0.539 g	30 mL	55.65863	SOIL
SAMPLE	246055008		SW846 7471A Prep	19-FEB-2010 12:25	0.564 g	30 mL	53.19149	SOIL
SAMPLE	246055009		SW846 7471A Prep	19-FEB-2010 12:25	0.572 g	30 mL	52.44755	SOIL

Reagent/Solvent Lot ID	Amount	Description
1264796-A	1.125 mL	Hydrochloric Acid Conc.
1257474-1	.375 mL	NITRIC ACID
1264984-C	7.5 mL	5% KMnO4 solution
1255532-C	2 mL	Hg reducing agent
WHG100219-07	30 uL	Mercury Working Standard 1st Source CAL S 0.2/CRA
WHG100219-08	75 uL	Mercury Working Standard 1st Source CAL S 0.5
WHG100219-11	1.5 mL	Mercury Working 1st Source CAL S 10.0
WHG100219-09	300 uL	Mercury Working 1st Source CAL S 2.0
WHG100219-10	750 uL	Mercury Working 1st Source CAL S 5.0/CCV
WHG100219-12	750 uL	Mercury Working 2nd Source S 5.0/ICV

Comments Sample 246055001 is a moist clumpy soil.
Digestion Start Date: 19-FEB-10 12:25
Digestion End Date: 19-FEB-10 12:55

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
MERCURY	SW846 7471A	Solid	LANL
Batch ID:	**Sample Numbers:**		
951546	See Below		

Potentially affected work order(s)(SDG): 246055(10-1545)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:

1. Failed RPD for MS/MSD, or PS/PSD:

   QC 1202039283MSD

2. Failed Recovery for MSD/PSD:

   QC 1202039283MSD

DER Disposition:

1. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for Hg due to possible matrix interferences and/or sample non-homogeneity. Sample is a moist, clumpy soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

2. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Sample is a moist, clumpy soil. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 22-FEB-10

Data Validator/Group Leader:

Bryan Davis 22-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
02-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
949334	See Below		

Potentially affected work order(s)(SDG): 246055(10-1545)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202033901MS 2. Failed RPD for DUP: QC 1202033899DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202033902MSD 4. Failed Recovery for MSD/PSD: QC 1202033902MSD	1. The matrix spike recovery failed outside of the control limits for barium,calcium,magnesium,manganese,potassium and zinc due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for aluminum,antimony,barium,calcium,chromium,magnesium, manganese,potassium,zinc and lead due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for aluminum,antimony,iron,manganese and zinc due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 4. The matrix spike duplicate recovery failed outside of the control limits for calcium,manganese and zinc due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 02-MAR-10

Data Validator/Group Leader:

Christopher Louviere 02-MAR-10

Standard Logbook

Serial ID:	UHG1167639-01	**Opened:**	13-AUG-09	**Amount :**	125 mL
Name:	MHGSTOCK1	**Received:**	13-AUG-09	**Catalog Number :**	PLHG4-2Y
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	15-37HG
Employee:	Bryan Davis			**Solvent :**	10% HNO3
Supplier:	Spex				
Description:	Mercury Source Standard #1 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID:	UHG1167641-02	**Opened:**	13-AUG-09	**Amount :**	100 mL
Name:	MHGSTOCK2	**Received:**	13-AUG-09	**Catalog Number :**	AHG1KN-100
Type:	Source Material	**Expires:**	13-AUG-10	**Lot Number :**	4905530
Employee:	Bryan Davis			**Solvent :**	3% HNO3
Supplier:	Ricca Chemical Company				
Description:	Mercury Source Standard #2 1,000 mg/L				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID:	UI031809A	**Opened:**	18-MAR-09	**Catalog Number :**	540
Name:	METALSOILSRM	**Received:**	18-MAR-09	**Lot Number :**	D061-540
Type:	Source Material	**Expires:**	10-OCT-10		
Employee:	Jamie Johnson				
Supplier:	ERA				
Description:	Metals LCS Soil SRM				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 01-MAR-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID:	UI100210-48	**Opened:**	11-FEB-10	**Amount :**	1000 mL
Name:	Trace ICP ICSA	**Received:**	10-FEB-10	**Catalog Number :**	160005-02
Type:	Source Material	**Expires:**	11-FEB-11	**Lot Number :**	1018807
Employee:	Helen Camello			**Solvent :**	3% HCl + 1% HNO3
Supplier:	o2si				

Description: Trace ICP Interferent Check Standard A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID:	UI100211-40	**Opened:**	11-FEB-10	**Amount :**	500 mL
Name:	ICP HIGH RANGE STD-A	**Received:**	10-FEB-10	**Catalog Number :**	160211-05-03
Type:	Source Material	**Expires:**	11-FEB-11	**Lot Number :**	1018409
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3
Supplier:	02SI				

Description: ICP HIGH RANGE STD SOLUTION A

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID:	UI100211-41	**Opened:**	11-FEB-10	**Amount :**	500 mL
Name:	ICP HIGH RANGE STD B	**Received:**	10-FEB-10	**Catalog Number :**	160211-05-03
Type:	Source Material	**Expires:**	11-FEB-11	**Lot Number :**	1018409
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3
Supplier:	02SI				

Description: ICP HIGH RANGE STD SOLUTION B

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L

Analyte	Concentration	Analyte	Concentration
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100226-40 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI100226-41 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100219-01 **Opened:** 19-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 19-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 20-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100219-02 **Opened:** 19-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 20-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100219-07 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100219-08 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100219-09 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100219-10 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100219-11 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Standard Logbook

Serial ID: WHG100219-12 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100219-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100219-14 **Opened:** 19-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 19-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 26-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100224-42 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Carnello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100224-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100224-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100224-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100224-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100224-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100224-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100224-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100224-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100224-43 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100224-44 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1272839
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100224-45 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1272839
Employee: Helen Carnello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100224-46 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1272839
Employee: Helen Carnello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100224-47 **Opened:** 24-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-FEB-10 **Solvent :** 3%HCL &1%HNO3-1272839
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100301-42 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 01-MAR-10 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Carnello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100301-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100301-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100301-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100301-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100301-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100301-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100301-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100301-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100301-43 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100301-44 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1276974
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100301-45 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100301-46 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1276974
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100301-47 **Opened:** 01-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 02-MAR-10 **Solvent :** 3%HCL &1%HNO3-1276974
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100225-04AB **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 25-FEB-10 **Pipet Id :** 3541598
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100225-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100225-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100225-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100225-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100225-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100225-04B **Opened:** 25-FEB-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 25-FEB-10 **Balance Id :** 40245216
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1272768
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100225-05B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 25-FEB-10 **Pipet Id :** 1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100225-06B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 25-FEB-10 **Pipet Id :** 3820544
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins **Verified:** 23-FEB-10
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100225-07B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 25-FEB-10 **Lot Number :** 1010773
Type: Working **Expires:** 26-FEB-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1272768
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100225-08B **Opened:** 25-FEB-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 25-FEB-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 26-FEB-10 **Solvent :** 2%HNO3/1%HCl - 1272768
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201

Name: I-HCL **Received:** 02-FEB-10

Type: Reagent/Solvent **Expires:** 02-FEB-11

Employee: Francena Armstrong

Supplier: J.T. BAKER

Description: HYDROCHLORIC ACID

Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1264796-A **Opened:** 04-FEB-10 **Lot Number :** 200930201
Name: B-HCl-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Tara Griffin
Supplier: Aristar
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1268732 **Opened:** 11-FEB-10 **Lot Number :** H12022 L
Name: I-HNO3 **Received:** 11-FEB-10
Type: Reagent/Solvent **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1272768 **Opened:** 22-FEB-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 22-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1272839 **Opened:** 22-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1276974 **Opened:** 01-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 25-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 07-MAR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1545-1

Sample Analysis

Sample ID	Client ID
246056001	RE15-10-8233
246056002	RE15-10-8231
246056003	RE15-10-8230
246056004	RE15-10-8232
1202033915	Method Blank (MB) **ICP**
1202033916	Laboratory Control Sample (LCS)
1202033919	246056001(RE15-10-8233L) Serial Dilution (SD)
1202033917	246056001(RE15-10-8233D) Sample Duplicate (DUP)
1202033918	246056001(RE15-10-8233S) Matrix Spike (MS)
1202034073	Method Blank (MB) **ICP-MS**
1202034074	Laboratory Control Sample (LCS)
1202034077	246056001(RE15-10-8233L) Serial Dilution (SD)
1202034075	246056001(RE15-10-8233D) Sample Duplicate (DUP)
1202034076	246056001(RE15-10-8233S) Matrix Spike (MS)
1202033203	Method Blank (MB) **CVAA**
1202033204	Laboratory Control Sample (LCS)
1202033207	246056001(RE15-10-8233L) Serial Dilution (SD)
1202033205	246056001(RE15-10-8233D) Sample Duplicate (DUP)
1202033206	246056001(RE15-10-8233S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	949338, 949400 and 949020
Prep Batch :	949337, 949399 and 949018
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 and SW846 7470A
Prep Method :	SW846 3005A and SW846 7470A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen

carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 246056001 (RE15-10-8233).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A DER was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 3/2/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246056001 **BASIS:** As Received **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8233 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	103	ug/L	J	68	200	200	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/02/10 05:58	100301-3	949400
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-39-3	Barium	1.47	ug/L	J	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/02/10 05:58	100301-3	949400
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/02/10 05:58	100301-3	949400
7440-70-2	Calcium	53.6	ug/L	J	50	200	200	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-47-3	Chromium	2.5	ug/L	J	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:21	021110B-1	949338
7439-89-6	Iron	75.1	ug/L	J	30	100	100	1	P	HSC	02/11/10 20:21	021110B-1	949338
7439-92-1	Lead	1.21	ug/L	J	0.5	2	2	1	MS	PRB	03/02/10 14:56	100302-2	949400
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:21	021110B-1	949338
7439-96-5	Manganese	3	ug/L	J	1	5	5	1	MS	BAJ	03/02/10 05:58	100301-3	949400
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:14	020510W1-4	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-09-7	Potassium	174	ug/L		50	150	150	1	P	HSC	02/11/10 20:21	021110B-1	949338
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-23-5	Sodium	171	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/02/10 14:56	100302-2	949400
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:21	021110B-1	949338
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:21	021110B-1	949338

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3
949338	949337	SW846 3005A	50	mL	50	mL	02/10/10	BXA1
949400	949399	SW846 3005A	50	mL	50	mL	02/10/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246056002 **BASIS:** As Received **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8231 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/02/10 06:22	100301-3	949400
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/02/10 06:22	100301-3	949400
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/02/10 06:22	100301-3	949400
7440-70-2	Calcium	53.1	ug/L	J	50	200	200	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:35	021110B-1	949338
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 20:35	021110B-1	949338
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	03/02/10 14:45	100302-2	949400
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:35	021110B-1	949338
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	03/02/10 06:22	100301-3	949400
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:22	020510W1-4	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-09-7	Potassium	159	ug/L		50	150	150	1	P	HSC	02/11/10 20:35	021110B-1	949338
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-23-5	Sodium	126	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-28-0	Thallium	0.413	ug/L	J	0.3	1	1	1	MS	PRB	03/02/10 14:45	100302-2	949400
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:35	021110B-1	949338
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:35	021110B-1	949338

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3
949338	949337	SW846 3005A	50	mL	50	mL	02/10/10	BXA1
949400	949399	SW846 3005A	50	mL	50	mL	02/10/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246056003 **BASIS:** As Received **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8230 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	265	ug/L		68	200	200	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/02/10 06:29	100301-3	949400
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-39-3	Barium	2.15	ug/L	J	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/02/10 06:29	100301-3	949400
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/02/10 06:29	100301-3	949400
7440-70-2	Calcium	109	ug/L	J	50	200	200	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:39	021110B-1	949338
7439-89-6	Iron	153	ug/L		30	100	100	1	P	HSC	02/11/10 20:39	021110B-1	949338
7439-92-1	Lead	2	ug/L	U	0.5	2	2	1	MS	PRB	03/02/10 14:47	100302-2	949400
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:39	021110B-1	949338
7439-96-5	Manganese	2.91	ug/L	J	1	5	5	1	MS	BAJ	03/02/10 06:29	100301-3	949400
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:24	020510W1-4	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-09-7	Potassium	203	ug/L		50	150	150	1	P	HSC	02/11/10 20:39	021110B-1	949338
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-23-5	Sodium	186	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/02/10 14:47	100302-2	949400
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:39	021110B-1	949338
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:39	021110B-1	949338

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3
949338	949337	SW846 3005A	50	mL	50	mL	02/10/10	BXA1
949400	949399	SW846 3005A	50	mL	50	mL	02/10/10	BXA1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1545-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 246056004 **BASIS:** As Received **DATE COLLECTED** 29-JAN-10

CLIENT ID: RE15-10-8232 **LEVEL:** Low **DATE RECEIVED** 03-FEB-10

MATRIX: WATER **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	200	ug/L	U	68	200	200	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-36-0	Antimony	3	ug/L	U	1	3	3	1	MS	BAJ	03/02/10 06:35	100301-3	949400
7440-38-2	Arsenic	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-39-3	Barium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-41-7	Beryllium	0.50	ug/L	U	0.1	0.5	0.5	1	MS	BAJ	03/02/10 06:35	100301-3	949400
7440-43-9	Cadmium	1	ug/L	U	0.11	1	1	1	MS	BAJ	03/02/10 06:35	100301-3	949400
7440-70-2	Calcium	200	ug/L	U	50	200	200	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-47-3	Chromium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-48-4	Cobalt	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-50-8	Copper	10	ug/L	U	3	10	10	1	P	HSC	02/11/10 20:42	021110B-1	949338
7439-89-6	Iron	100	ug/L	U	30	100	100	1	P	HSC	02/11/10 20:42	021110B-1	949338
7439-92-1	Lead	3.14	ug/L		0.5	2	2	1	MS	PRB	03/02/10 14:49	100302-2	949400
7439-95-4	Magnesium	300	ug/L	U	85	300	300	1	P	HSC	02/11/10 20:42	021110B-1	949338
7439-96-5	Manganese	5	ug/L	U	1	5	5	1	MS	BAJ	03/02/10 06:35	100301-3	949400
7439-97-6	Mercury	0.20	ug/L	U	0.066	0.2	0.2	1	AV	JXL1	02/05/10 10:26	020510W1-4	949020
7440-02-0	Nickel	5	ug/L	U	1.5	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-09-7	Potassium	142	ug/L	J	50	150	150	1	P	HSC	02/11/10 20:42	021110B-1	949338
7782-49-2	Selenium	30	ug/L	U	5	30	30	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-22-4	Silver	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-23-5	Sodium	117	ug/L	J	100	300	300	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-28-0	Thallium	1	ug/L	U	0.3	1	1	1	MS	PRB	03/02/10 14:49	100302-2	949400
7440-62-2	Vanadium	5	ug/L	U	1	5	5	1	P	HSC	02/11/10 20:42	021110B-1	949338
7440-66-6	Zinc	10	ug/L	U	3.3	10	10	1	P	HSC	02/11/10 20:42	021110B-1	949338

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
949020	949018	SW846 7470A Prep	20	mL	20	mL	02/04/10	TXB3
949338	949337	SW846 3005A	50	mL	50	mL	02/10/10	BXA1
949400	949399	SW846 3005A	50	mL	50	mL	02/10/10	BXA1

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	4.96	ug/L	5	ug/L	99.1	90.0 - 110.0	AV	05-FEB-10 09:17	020510W1-4
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Arsenic	450	ug/L	500	ug/L	89.9	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Barium	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Calcium	4880	ug/L	5000	ug/L	97.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Chromium	473	ug/L	500	ug/L	94.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Cobalt	491	ug/L	500	ug/L	98.3	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Copper	491	ug/L	500	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Nickel	485	ug/L	500	ug/L	97	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Potassium	2410	ug/L	2500	ug/L	96.3	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Selenium	2440	ug/L	2500	ug/L	97.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Silver	253	ug/L	250	ug/L	101.2	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Sodium	2390	ug/L	2500	ug/L	95.6	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Zinc	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	11-FEB-10 14:26	021110B-1
	Antimony	51.3	ug/L	50	ug/L	102.6	90.0 - 110.0	MS	02-MAR-10 04:45	100301-3
	Beryllium	52.2	ug/L	50	ug/L	104.4	90.0 - 110.0	MS	02-MAR-10 04:45	100301-3
	Cadmium	51.5	ug/L	50	ug/L	103	90.0 - 110.0	MS	02-MAR-10 04:45	100301-3
	Manganese	53.9	ug/L	50	ug/L	107.7	90.0 - 110.0	MS	02-MAR-10 04:45	100301-3
	Lead	50.9	ug/L	50	ug/L	101.9	90.0 - 110.0	MS	02-MAR-10 14:17	100302-2
	Thallium	49.6	ug/L	50	ug/L	99.2	90.0 - 110.0	MS	02-MAR-10 14:17	100302-2
CCV01										
	Mercury	4.99	ug/L	5	ug/L	99.9	80.0 - 120.0	AV	05-FEB-10 09:22	020510W1-4
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Arsenic	495	ug/L	500	ug/L	99	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Barium	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Calcium	4830	ug/L	5000	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1
	Chromium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	11-FEB-10 14:49	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Copper	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Magnesium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Nickel	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Potassium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Selenium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Silver	485	ug/L	500	ug/L	97	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Sodium	9810	ug/L	10000	ug/L	98.1	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Zinc	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	11-FEB-10 14:49	021110B-1
	Antimony	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	02-MAR-10 05:15	100301-3
	Beryllium	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	02-MAR-10 05:15	100301-3
	Cadmium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	02-MAR-10 05:15	100301-3
	Manganese	54.7	ug/L	50	ug/L	109.3	90.0 – 110.0	MS	02-MAR-10 05:15	100301-3
	Lead	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	02-MAR-10 14:27	100302-2
	Thallium	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	02-MAR-10 14:27	100302-2
CCV02										
	Mercury	4.93	ug/L	5	ug/L	98.5	80.0 – 120.0	AV	05-FEB-10 09:45	020510W1-4
	Aluminum	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Arsenic	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Barium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Calcium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Chromium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Cobalt	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Copper	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Magnesium	5300	ug/L	5000	ug/L	106.1	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Nickel	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Potassium	5230	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	517	ug/L	500	ug/L	103.5	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Silver	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Sodium	10500	ug/L	10000	ug/L	105	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Vanadium	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Zinc	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	11-FEB-10 15:15	021110B-1
	Antimony	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	02-MAR-10 05:34	100301-3
	Beryllium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	02-MAR-10 05:34	100301-3
	Cadmium	52.8	ug/L	50	ug/L	105.6	90.0 – 110.0	MS	02-MAR-10 05:34	100301-3
	Manganese	54.5	ug/L	50	ug/L	109	90.0 – 110.0	MS	02-MAR-10 05:34	100301-3
	Lead	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	02-MAR-10 14:51	100302-2
	Thallium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	02-MAR-10 14:51	100302-2
CCV03										
	Mercury	5.05	ug/L	5	ug/L	101	80.0 – 120.0	AV	05-FEB-10 10:08	020510W1-4
	Aluminum	4750	ug/L	5000	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Arsenic	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Barium	468	ug/L	500	ug/L	93.6	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Calcium	4780	ug/L	5000	ug/L	95.6	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Chromium	467	ug/L	500	ug/L	93.4	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Cobalt	470	ug/L	500	ug/L	94	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Copper	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Iron	4750	ug/L	5000	ug/L	95.1	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Nickel	467	ug/L	500	ug/L	93.5	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Selenium	475	ug/L	500	ug/L	94.9	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Silver	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Sodium	9790	ug/L	10000	ug/L	98	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Vanadium	471	ug/L	500	ug/L	94.1	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Zinc	466	ug/L	500	ug/L	93.2	90.0 – 110.0	P	11-FEB-10 15:57	021110B-1
	Antimony	50	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	02-MAR-10 06:41	100301-3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1545–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	51.5	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	02–MAR–10 06:41	100301–3
	Cadmium	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	02–MAR–10 06:41	100301–3
	Manganese	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	02–MAR–10 06:41	100301–3
	Lead	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	02–MAR–10 15:04	100302–2
	Thallium	49.1	ug/L	50	ug/L	98.2	90.0 – 110.0	MS	02–MAR–10 15:04	100302–2
CCV04										
	Mercury	5.1	ug/L	5	ug/L	102	80.0 – 120.0	AV	05–FEB–10 10:32	020510W1–4
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Arsenic	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Barium	460	ug/L	500	ug/L	92.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Calcium	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Chromium	459	ug/L	500	ug/L	91.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Cobalt	462	ug/L	500	ug/L	92.3	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Copper	455	ug/L	500	ug/L	91.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Iron	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Nickel	461	ug/L	500	ug/L	92.1	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Potassium	4800	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Selenium	461	ug/L	500	ug/L	92.2	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Silver	465	ug/L	500	ug/L	93	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Vanadium	462	ug/L	500	ug/L	92.4	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
	Zinc	458	ug/L	500	ug/L	91.6	90.0 – 110.0	P	11–FEB–10 16:37	021110B–1
CCV05										
	Aluminum	4730	ug/L	5000	ug/L	94.5	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Arsenic	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Barium	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Calcium	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Chromium	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 16:58	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Iron	4780	ug/L	5000	ug/L	95.5	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Magnesium	4850	ug/L	5000	ug/L	97	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Nickel	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Potassium	4750	ug/L	5000	ug/L	94.9	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Selenium	489	ug/L	500	ug/L	97.7	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Silver	480	ug/L	500	ug/L	95.9	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Vanadium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
	Zinc	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 16:58	021110B-1
CCV06										
	Aluminum	4740	ug/L	5000	ug/L	94.8	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Arsenic	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Barium	469	ug/L	500	ug/L	93.9	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Chromium	468	ug/L	500	ug/L	93.7	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Cobalt	472	ug/L	500	ug/L	94.4	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Copper	467	ug/L	500	ug/L	93.3	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Iron	4780	ug/L	5000	ug/L	95.6	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Magnesium	4870	ug/L	5000	ug/L	97.4	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Nickel	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Potassium	4740	ug/L	5000	ug/L	94.7	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Selenium	476	ug/L	500	ug/L	95.2	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Silver	466	ug/L	500	ug/L	93.3	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Sodium	9440	ug/L	10000	ug/L	94.4	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Vanadium	473	ug/L	500	ug/L	94.5	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
	Zinc	469	ug/L	500	ug/L	93.9	90.0 - 110.0	P	11-FEB-10 17:27	021110B-1
CCV07										
	Aluminum	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Arsenic	479	ug/L	500	ug/L	95.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	484	ug/L	500	ug/L	96.9	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Calcium	4810	ug/L	5000	ug/L	96.2	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Chromium	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Copper	480	ug/L	500	ug/L	96	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Magnesium	4900	ug/L	5000	ug/L	97.9	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Nickel	486	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Potassium	4790	ug/L	5000	ug/L	95.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Selenium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Silver	479	ug/L	500	ug/L	95.8	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Sodium	9540	ug/L	10000	ug/L	95.4	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Vanadium	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
	Zinc	483	ug/L	500	ug/L	96.7	90.0 - 110.0	P	11-FEB-10 18:03	021110B-1
CCV08										
	Aluminum	5050	ug/L	5000	ug/L	101	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Arsenic	495	ug/L	500	ug/L	99.1	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Barium	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Chromium	499	ug/L	500	ug/L	99.7	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Copper	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Magnesium	5150	ug/L	5000	ug/L	103.1	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Nickel	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Potassium	5010	ug/L	5000	ug/L	100.3	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Selenium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Silver	495	ug/L	500	ug/L	99	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Sodium	10000	ug/L	10000	ug/L	100.4	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1
	Vanadium	503	ug/L	500	ug/L	100.5	90.0 - 110.0	P	11-FEB-10 18:32	021110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1545–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11–FEB–10 18:32	021110B–1
CCV09										
	Aluminum	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Arsenic	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Barium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Calcium	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Magnesium	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Nickel	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Selenium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Silver	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Sodium	10100	ug/L	10000	ug/L	101	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
	Zinc	490	ug/L	500	ug/L	98	90.0 – 110.0	P	11–FEB–10 19:12	021110B–1
CCV10										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Arsenic	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Barium	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Calcium	4850	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Chromium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Cobalt	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Magnesium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Nickel	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1
	Potassium	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	11–FEB–10 19:41	021110B–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Silver	490	ug/L	500	ug/L	98	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Sodium	9820	ug/L	10000	ug/L	98.2	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Vanadium	486	ug/L	500	ug/L	97.2	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 - 110.0	P	11-FEB-10 19:41	021110B-1
CCV11										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Arsenic	470	ug/L	500	ug/L	94	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Barium	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Calcium	4770	ug/L	5000	ug/L	95.3	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Chromium	471	ug/L	500	ug/L	94.2	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Cobalt	473	ug/L	500	ug/L	94.6	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Copper	472	ug/L	500	ug/L	94.3	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Iron	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Magnesium	4910	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Nickel	472	ug/L	500	ug/L	94.5	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Potassium	4800	ug/L	5000	ug/L	96	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Selenium	480	ug/L	500	ug/L	96	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Silver	479	ug/L	500	ug/L	95.9	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Vanadium	475	ug/L	500	ug/L	94.9	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
	Zinc	470	ug/L	500	ug/L	93.9	90.0 - 110.0	P	11-FEB-10 20:06	021110B-1
CCV12										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	11-FEB-10 20:46	021110B-1
	Arsenic	484	ug/L	500	ug/L	96.8	90.0 - 110.0	P	11-FEB-10 20:46	021110B-1
	Barium	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	11-FEB-10 20:46	021110B-1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 - 110.0	P	11-FEB-10 20:46	021110B-1
	Chromium	488	ug/L	500	ug/L	97.6	90.0 - 110.0	P	11-FEB-10 20:46	021110B-1
	Cobalt	490	ug/L	500	ug/L	98.1	90.0 - 110.0	P	11-FEB-10 20:46	021110B-1
	Copper	489	ug/L	500	ug/L	97.8	90.0 - 110.0	P	11-FEB-10 20:46	021110B-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1545–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1
	Magnesium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1
	Nickel	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1
	Selenium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1
	Silver	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1
	Sodium	9900	ug/L	10000	ug/L	99	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1
	Vanadium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	11–FEB–10 20:46	021110B–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1545–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.191	ug/L	.2	ug/L	95.5	70.0 – 130.0	AV	05–FEB–10 09:20	020510W1–4
	Manganese	6.24	ug/L	5	ug/L	124.8	70.0 – 130.0	MS	02–MAR–10 04:57	100301–3
	Antimony	3.23	ug/L	3	ug/L	107.6	70.0 – 130.0	MS	02–MAR–10 04:57	100301–3
	Cadmium	1.14	ug/L	1	ug/L	113.5	70.0 – 130.0	MS	02–MAR–10 04:57	100301–3
	Beryllium	.597	ug/L	.5	ug/L	119.4	70.0 – 130.0	MS	02–MAR–10 04:57	100301–3
	Lead	2.23	ug/L	2	ug/L	111.3	70.0 – 130.0	MS	02–MAR–10 14:21	100302–2
	Thallium	1.13	ug/L	1	ug/L	112.9	70.0 – 130.0	MS	02–MAR–10 14:21	100302–2
PQL01										
	Aluminum	201	ug/L	200	ug/L	100.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Iron	119	ug/L	100	ug/L	118.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Magnesium	304	ug/L	300	ug/L	101.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Nickel	4.56	ug/L	5	ug/L	91.2	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Barium	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Cobalt	4.65	ug/L	5	ug/L	93.1	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Vanadium	5.04	ug/L	5	ug/L	100.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Calcium	200	ug/L	200	ug/L	100	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Selenium	28.7	ug/L	30	ug/L	95.7	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Zinc	9.38	ug/L	10	ug/L	93.8	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Copper	9.86	ug/L	10	ug/L	98.6	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Chromium	4.99	ug/L	5	ug/L	99.9	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Arsenic	28.6	ug/L	30	ug/L	95.5	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Potassium	185	ug/L	150	ug/L	123.1	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Silver	5.04	ug/L	5	ug/L	100.7	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1
	Sodium	294	ug/L	300	ug/L	98	70.0 – 130.0	P	11–FEB–10 14:33	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:18	020510W1–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:30	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 14:30	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 14:30	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 14:30	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 14:30	021110B–1
	Antimony	1.0	+/–3	U	1.0	3.0	LIQ	MS	02–MAR–10 04:51	100301–3
	Beryllium	0.1	+/–.5	U	0.1	0.5	LIQ	MS	02–MAR–10 04:51	100301–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	02–MAR–10 04:51	100301–3
	Manganese	1.0	+/–5	U	1.0	5.0	LIQ	MS	02–MAR–10 04:51	100301–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–MAR–10 14:19	100302–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	02–MAR–10 14:19	100302–2
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–FEB–10 09:24	020510W1–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 14:53	021110B–1
	Chromium	1.23	+/–5	J	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 14:53	021110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1545-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Iron	39.3	+/-100	J	30.0	100	LIQ	P	11-FEB-10 14:53	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 14:53	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Potassium	77.71	+/-150	J	50.0	150	LIQ	P	11-FEB-10 14:53	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 14:53	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 14:53	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	02-MAR-10 05:21	100301-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	02-MAR-10 05:21	100301-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-MAR-10 05:21	100301-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	02-MAR-10 05:21	100301-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-MAR-10 14:29	100302-2
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	02-MAR-10 14:29	100302-2
CCB02										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 09:47	020510W1-4
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 15:19	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 15:19	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 15:19	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 15:19	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Potassium	56.33	+/-150	J	50.0	150	LIQ	P	11-FEB-10 15:19	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1545-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 15:19	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 15:19	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	02-MAR-10 05:40	100301-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	02-MAR-10 05:40	100301-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-MAR-10 05:40	100301-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	02-MAR-10 05:40	100301-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-MAR-10 14:54	100302-2
	Thallium	0.401	+/-1	J	0.3	1.0	LIQ	MS	02-MAR-10 14:54	100302-2
CCB03										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 10:10	020510W1-4
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 16:01	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 16:01	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 16:01	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 16:01	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 16:01	021110B-1
	Selenium	-5.29	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Sodium	186.28	+/-300	J	100	300	LIQ	P	11-FEB-10 16:01	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 16:01	021110B-1
	Antimony	1.0	+/-3	U	1.0	3.0	LIQ	MS	02-MAR-10 06:47	100301-3
	Beryllium	0.1	+/-.5	U	0.1	0.5	LIQ	MS	02-MAR-10 06:47	100301-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-MAR-10 06:47	100301-3
	Manganese	1.0	+/-5	U	1.0	5.0	LIQ	MS	02-MAR-10 06:47	100301-3

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1545-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-MAR-10 15:07	100302-2
	Thallium	0.622	+/-1	J	0.3	1.0	LIQ	MS	02-MAR-10 15:07	100302-2
CCB04										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-FEB-10 10:34	020510W1-4
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 16:41	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 16:41	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 16:41	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 16:41	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 16:41	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Sodium	121.62	+/-300	J	100	300	LIQ	P	11-FEB-10 16:41	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 16:41	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 16:41	021110B-1
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 17:02	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 17:02	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 17:02	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 17:02	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 17:02	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 17:02	021110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 17:02	021110B–1
	Selenium	–6.0	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 17:02	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:02	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 17:02	021110B–1
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 17:31	021110B–1
	Arsenic	–8.04	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 17:31	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 17:31	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 17:31	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 17:31	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 17:31	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 17:31	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 17:31	021110B–1
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 18:07	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 18:07	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 18:07	021110B–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 18:07	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 18:07	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 18:07	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 18:07	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:07	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 18:07	021110B–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 18:36	021110B–1
	Arsenic	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 18:36	021110B–1
	Chromium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	11–FEB–10 18:36	021110B–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Nickel	1.5	+/–5	U	1.5	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	11–FEB–10 18:36	021110B–1
	Selenium	5.0	+/–30	U	5.0	30.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Silver	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Sodium	100	+/–300	U	100	300	LIQ	P	11–FEB–10 18:36	021110B–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 18:36	021110B–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 18:36	021110B–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	11–FEB–10 19:16	021110B–1
	Arsenic	–6.17	+/–30	J	5.0	30.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	11–FEB–10 19:16	021110B–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	11–FEB–10 19:16	021110B–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1545-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 19:16	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 19:16	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 19:16	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 19:16	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:16	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 19:16	021110B-1
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 19:45	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 19:45	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 19:45	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 19:45	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 19:45	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 19:45	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 19:45	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 19:45	021110B-1
CCB11										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 20:10	021110B-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1545-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Arsenic	-6.48	+/-30	J	5.0	30.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 20:10	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 20:10	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 20:10	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 20:10	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 20:10	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:10	021110B-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	11-FEB-10 20:10	021110B-1
CCB12										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	11-FEB-10 20:50	021110B-1
	Arsenic	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 20:50	021110B-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:50	021110B-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	11-FEB-10 20:50	021110B-1
	Chromium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:50	021110B-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:50	021110B-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	11-FEB-10 20:50	021110B-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	11-FEB-10 20:50	021110B-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	11-FEB-10 20:50	021110B-1
	Nickel	1.5	+/-5	U	1.5	5.0	LIQ	P	11-FEB-10 20:50	021110B-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	11-FEB-10 20:50	021110B-1
	Selenium	5.0	+/-30	U	5.0	30.0	LIQ	P	11-FEB-10 20:50	021110B-1
	Silver	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:50	021110B-1
	Sodium	100	+/-300	U	100	300	LIQ	P	11-FEB-10 20:50	021110B-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	11-FEB-10 20:50	021110B-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1545–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	11–FEB–10 20:50	021110B–1

METALS
-3b-
PREPARATION BLANK SUMMARY

SDG NO. 10-1545-1

Contract: LANL01004

Matrix: WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202033203								
	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2
1202033915								
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Arsenic	5	ug/L	+/-30	U	P	5	30
	Barium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Potassium	50	ug/L	+/-150	U	P	50	150
	Silver	1	ug/L	+/-5	U	P	1	5
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
	Sodium	100	ug/L	+/-300	U	P	100	300
	Selenium	-8.01	ug/L	+/-30	J	P	5	30
	Nickel	1.5	ug/L	+/-5	U	P	1.5	5
	Iron	30	ug/L	+/-100	U	P	30	100
	Chromium	1	ug/L	+/-5	U	P	1	5
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Copper	3	ug/L	+/-10	U	P	3	10
1202034073								
	Antimony	1	ug/L	+/-3	U	MS	1	3
	Beryllium	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Manganese	1	ug/L	+/-5	U	MS	1	5
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1

METALS
-4-
Interference Check Sample

SDG No: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA1

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	492000	ug/L	500000	ug/L	98.5	80.0 - 120.0	11-FEB-10 14:37	021110B-1
	Arsenic	-47.9	ug/L					11-FEB-10 14:37	021110B-1
	Barium	7.7	ug/L					11-FEB-10 14:37	021110B-1
	Calcium	469000	ug/L	500000	ug/L	93.9	80.0 - 120.0	11-FEB-10 14:37	021110B-1
	Chromium	-0.331	ug/L					11-FEB-10 14:37	021110B-1
	Cobalt	1.88	ug/L					11-FEB-10 14:37	021110B-1
	Copper	-2.75	ug/L					11-FEB-10 14:37	021110B-1
	Iron	180000	ug/L	200000	ug/L	90.2	80.0 - 120.0	11-FEB-10 14:37	021110B-1
	Magnesium	469000	ug/L	500000	ug/L	93.8	80.0 - 120.0	11-FEB-10 14:37	021110B-1
	Nickel	-5.64	ug/L					11-FEB-10 14:37	021110B-1
	Potassium	-12.0	ug/L					11-FEB-10 14:37	021110B-1
	Selenium	-29.8	ug/L					11-FEB-10 14:37	021110B-1
	Silver	-8.02	ug/L					11-FEB-10 14:37	021110B-1
	Sodium	25.0	ug/L					11-FEB-10 14:37	021110B-1
	Vanadium	0.707	ug/L					11-FEB-10 14:37	021110B-1
	Zinc	-9.27	ug/L					11-FEB-10 14:37	021110B-1
ICSAB01									
	Aluminum	493000	ug/L	500000	ug/L	98.5	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Arsenic	460	ug/L	500	ug/L	92	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Barium	479	ug/L	500	ug/L	95.8	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Calcium	467000	ug/L	500000	ug/L	93.5	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Chromium	467	ug/L	500	ug/L	93.3	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Cobalt	417	ug/L	500	ug/L	83.3	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Copper	516	ug/L	500	ug/L	103	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Iron	181000	ug/L	200000	ug/L	90.5	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Magnesium	472000	ug/L	500000	ug/L	94.3	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Nickel	412	ug/L	500	ug/L	82.4	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Potassium	4870	ug/L	5000	ug/L	97.4	80.0 - 120.0	11-FEB-10 14:40	021110B-1
	Selenium	2240	ug/L	2500	ug/L	89.5	80.0 - 120.0	11-FEB-10 14:40	021110B-1

METALS
–4–
Interference Check Sample

SDG No: 10–1545–1

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silver	244	ug/L	250	ug/L	97.7	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Sodium	4900	ug/L	5000	ug/L	98.1	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Vanadium	496	ug/L	500	ug/L	99.1	80.0 – 120.0	11–FEB–10 14:40	021110B–1
	Zinc	442	ug/L	500	ug/L	88.4	80.0 – 120.0	11–FEB–10 14:40	021110B–1

METALS
-4-
Interference Check Sample

SDG No: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	0.214	ug/L					02-MAR-10 14:23	100302-2
	Thallium	0.036	ug/L					02-MAR-10 14:23	100302-2
ICSAB01									
	Lead	19.6	ug/L	20.19	ug/L	97.1	80.0 - 120.0	02-MAR-10 14:25	100302-2
	Thallium	19.0	ug/L	20	ug/L	95.1	80.0 - 120.0	02-MAR-10 14:25	100302-2

METALS
–4–
Interference Check Sample

SDG No: 10–1545–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.193	ug/L					02–MAR–10 05:03	100301–3
	Beryllium	0.096	ug/L					02–MAR–10 05:03	100301–3
	Cadmium	0.464	ug/L					02–MAR–10 05:03	100301–3
	Manganese	6.17	ug/L					02–MAR–10 05:03	100301–3
ICSAB01									
	Antimony	22.1	ug/L	20	ug/L	110	80.0 – 120.0	02–MAR–10 05:09	100301–3
	Beryllium	19.3	ug/L	20	ug/L	96.3	80.0 – 120.0	02–MAR–10 05:09	100301–3
	Cadmium	20.6	ug/L	20.44	ug/L	101	80.0 – 120.0	02–MAR–10 05:09	100301–3
	Manganese	27.8	ug/L	25.8	ug/L	108	80.0 – 120.0	02–MAR–10 05:09	100301–3

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-1545-1 **Client ID** RE15-10-8233S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246056001 **Spike ID:** 1202033206

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	1.5		0.066	U	2	75		AV

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-1545-1 **Client ID** RE15-10-8233S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246056001 **Spike ID:** 1202033918

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75-125	5130		103	J	5000	101		P
Arsenic	ug/L	75-125	490		5	U	500	98		P
Barium	ug/L	75-125	493		1.47	J	500	98.4		P
Calcium	ug/L	75-125	4910		53.6	J	5000	97.1		P
Chromium	ug/L	75-125	489		2.5	J	500	97.2		P
Cobalt	ug/L	75-125	481		1	U	500	96.1		P
Copper	ug/L	75-125	492		3	U	500	98.3		P
Iron	ug/L	75-125	5050		75.1	J	5000	99.6		P
Magnesium	ug/L	75-125	5050		85	U	5000	101		P
Nickel	ug/L	75-125	488		1.5	U	500	97.6		P
Potassium	ug/L	75-125	5120		174		5000	98.9		P
Selenium	ug/L	75-125	476		5	U	500	95.2		P
Silver	ug/L	75-125	488		1	U	500	97.4		P
Sodium	ug/L	75-125	5170		171	J	5000	100		P
Vanadium	ug/L	75-125	493		1	U	500	98.4		P
Zinc	ug/L	75-125	474		3.3	U	500	94.5		P

METALS
-5a-
Matrix Spike Summary

SDG NO. 10–1545–1 **Client ID** RE15–10–8233S

Contract: LANL01004 **Level:** Low

Matrix: WATER **% Solids:**

Sample ID: 246056001 **Spike ID:** 1202034076

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	215		1	U	200	107		MS
Beryllium	ug/L	75–125	56.4		0.1	U	50	113		MS
Cadmium	ug/L	75–125	11.5		0.11	U	10	115		MS
Lead	ug/L	75–125	43.8		1.21	J	40	106		MS
Manganese	ug/L	75–125	63.8		3	J	50	122		MS
Thallium	ug/L	75–125	96		0.3	U	100	95.9		MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1545-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15-10-8233D

Sample ID: 246056001 **Duplicate ID:** 1202033205 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1545–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8233D

Sample ID: 246056001 **Duplicate ID:** 1202033917 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/–200	103	J	106	J	2.48		P
Arsenic	ug/L		5	U	5	U			P
Barium	ug/L	+/–5	1.47	J	1.49	J	1.23		P
Calcium	ug/L		53.6	J	50	U	200		P
Chromium	ug/L	+/–5	2.5	J	1.74	J	36.1		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	75.1	J	73	J	2.93		P
Magnesium	ug/L		85	U	85	U			P
Nickel	ug/L		1.5	U	1.5	U			P
Potassium	ug/L	+/–150	174		166		4.75		P
Selenium	ug/L		5	U	5	U			P
Silver	ug/L		1	U	1	U			P
Sodium	ug/L	+/–300	171	J	165	J	3.81		P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1545–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** RE15–10–8233D

Sample ID: 246056001 **Duplicate ID:** 1202034075 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		1	U	1	U			MS
Beryllium	ug/L		0.1	U	0.1	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Lead	ug/L	+/–2	1.21	J	1.09	J	10.3		MS
Manganese	ug/L	+/--5	3	J	2.68	J	11.4		MS
Thallium	ug/L		0.3	U	0.3	U			MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1545-1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033204								
	Mercury	ug/L	2	2.01		100	80-120	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1545–1

Contract: LANL01004

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202033916								
	Aluminum	ug/L	5000	5040		101	80–120	P
	Arsenic	ug/L	500	503		101	80–120	P
	Barium	ug/L	500	499		99.8	80–120	P
	Calcium	ug/L	5000	4950		99	80–120	P
	Chromium	ug/L	500	493		98.6	80–120	P
	Cobalt	ug/L	500	489		97.8	80–120	P
	Copper	ug/L	500	496		99.3	80–120	P
	Iron	ug/L	5000	5020		100	80–120	P
	Magnesium	ug/L	5000	5090		102	80–120	P
	Nickel	ug/L	500	495		98.9	80–120	P
	Potassium	ug/L	5000	5010		100	80–120	P
	Selenium	ug/L	500	488		97.6	80–120	P
	Silver	ug/L	500	495		99.1	80–120	P
	Sodium	ug/L	5000	5030		101	80–120	P
	Vanadium	ug/L	500	500		99.9	80–120	P
	Zinc	ug/L	500	483		96.5	80–120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1545-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202034074								
	Antimony	ug/L	50	56.9		114	80-120	MS
	Beryllium	ug/L	50	54.9		110	80-120	MS
	Cadmium	ug/L	50	52.6		105	80-120	MS
	Lead	ug/L	50	52		104	80-120	MS
	Manganese	ug/L	50	56.2		112	80-120	MS
	Thallium	ug/L	50	48.3		96.7	80-120	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1545-1 **Client ID** RE15-10-8233L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246056001 **Serial Dilution ID:** 1202033207

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1545–1 **Client ID** RE15–10–8233L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246056001 **Serial Dilution ID:** 1202033919

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	103	J	340	U	100			P
Arsenic	5	U	25	U				P
Barium	1.47	J	5	U	100			P
Calcium	53.6	J	250	U	100			P
Chromium	2.5	J	5	U	100			P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	75.1	J	150	U	100			P
Magnesium	85	U	425	U				P
Nickel	1.5	U	7.5	U				P
Potassium	174		250	U	100			P
Selenium	5	U	25	U				P
Silver	1	U	5	U				P
Sodium	171	J	500	U	100			P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1545-1 **Client ID** RE15-10-8233L

Contract: LANL01004

Matrix: LIQUID **Level:** Low

Sample ID: 246056001 **Serial Dilution ID:** 1202034077

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	1	U	5	U				MS
Beryllium	.1	U	.5	U				MS
Cadmium	.11	U	.55	U				MS
Lead	1.21	J	2.5	U	100			MS
Manganese	3	J	5	U	100			MS
Thallium	.3	U	7.65					MS

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1545-1 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 949337							
1202033915	MB for batch 949337	MB	W	10-FEB-10	50mL	50mL	
1202033916	LCS for batch 949337	LCS	W	10-FEB-10	50mL	50mL	
1202033918	RE15-10-8233S	MS	W	10-FEB-10	50mL	50mL	
1202033917	RE15-10-8233D	DUP	W	10-FEB-10	50mL	50mL	
246056001	RE15-10-8233	SAMPLE	W	10-FEB-10	50mL	50mL	
246056002	RE15-10-8231	SAMPLE	W	10-FEB-10	50mL	50mL	
246056003	RE15-10-8230	SAMPLE	W	10-FEB-10	50mL	50mL	
246056004	RE15-10-8232	SAMPLE	W	10-FEB-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1545-1 **Method Type:** MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 949399							
1202034073	MB for batch 949399	MB	W	10-FEB-10	50mL	50mL	
1202034074	LCS for batch 949399	LCS	W	10-FEB-10	50mL	50mL	
1202034076	RE15-10-8233S	MS	W	10-FEB-10	50mL	50mL	
1202034075	RE15-10-8233D	DUP	W	10-FEB-10	50mL	50mL	
246056001	RE15-10-8233	SAMPLE	W	10-FEB-10	50mL	50mL	
246056002	RE15-10-8231	SAMPLE	W	10-FEB-10	50mL	50mL	
246056003	RE15-10-8230	SAMPLE	W	10-FEB-10	50mL	50mL	
246056004	RE15-10-8232	SAMPLE	W	10-FEB-10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1545-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	949018						
1202033203	MB for batch 949018	MB	W	04-FEB-10	20mL	20mL	
1202033204	LCS for batch 949018	LCS	W	04-FEB-10	20mL	20mL	
1202033206	RE15-10-8233S	MS	W	04-FEB-10	20mL	20mL	
1202033205	RE15-10-8233D	DUP	W	04-FEB-10	20mL	20mL	
246056001	RE15-10-8233	SAMPLE	W	04-FEB-10	20mL	20mL	
246056002	RE15-10-8231	SAMPLE	W	04-FEB-10	20mL	20mL	
246056003	RE15-10-8230	SAMPLE	W	04-FEB-10	20mL	20mL	
246056004	RE15-10-8232	SAMPLE	W	04-FEB-10	20mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 02-MAR-10 **End Date:** 02-MAR-10

Client Sdg: 10-1545-1
Method MS
Data File: 100301-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	04:26		X			X	X								X									
S10	1	04:33		X			X	X								X									
S100	1	04:39		X			X	X								X									
ICV01	1	04:45		X			X	X								X									
ICB01	1	04:51		X			X	X								X									
CRDL01	1	04:57		X			X	X								X									
ICSA01	1	05:03		X			X	X								X									
ICSAB01	1	05:09		X			X	X								X									
CCV01	1	05:15		X			X	X								X									
CCB01	1	05:21		X			X	X								X									
LR01	1	05:27		X			X	X								X									
CCV02	1	05:34		X			X	X								X									
CCB02	1	05:40		X			X	X								X									
1202034073	1	05:46		X			X	X								X									
1202034074	1	05:52		X			X	X								X									
246056001	1	05:58		X			X	X								X									
1202034075	1	06:04		X			X	X								X									
1202034076	1	06:10		X			X	X								X									
1202034077	5	06:16		X			X	X								X									
246056002	1	06:22		X			X	X								X									
246056003	1	06:29		X			X	X								X									
246056004	1	06:35		X			X	X								X									
CCV03	1	06:41		X			X	X								X									
CCB03	1	06:47		X			X	X								X									

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 05–FEB–10 **End Date:** 05–FEB–10

Client Sdg: 10–1545–1
Method AV
Data File: 020510W1–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:05															X								
S0.2	1	09:07															X								
S0.5	1	09:09															X								
S2.0	1	09:11															X								
S5.0	1	09:13															X								
S10.0	1	09:15															X								
ICV01	1	09:17															X								
ICB01	1	09:18															X								
CRDL01	1	09:20															X								
CCV01	1	09:22															X								
CCB01	1	09:24															X								
ZZZZZZ	1	09:26																							
ZZZZZZ	1	09:28																							
ZZZZZZ	1	09:30																							
ZZZZZZ	1	09:32																							
ZZZZZZ	1	09:34																							
ZZZZZZ	1	09:36																							
ZZZZZZ	1	09:38																							
ZZZZZZ	1	09:40																							
ZZZZZZ	5	09:42																							
1202033203	1	09:43															X								
CCV02	1	09:45															X								
CCB02	1	09:47															X								
1202033204	1	09:49															X								
ZZZZZZ	1	09:51																							
ZZZZZZ	1	09:53																							
ZZZZZZ	1	09:55																							
ZZZZZZ	1	09:57																							
ZZZZZZ	1	09:59																							
ZZZZZZ	1	10:01																							
ZZZZZZ	1	10:03																							
ZZZZZZ	1	10:05																							
ZZZZZZ	1	10:07																							
CCV03	1	10:08															X								
CCB03	1	10:10															X								
ZZZZZZ	1	10:12																							
246056001	1	10:14															X								
1202033205	1	10:16															X								
1202033206	1	10:18															X								
1202033207	5	10:20															X								

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																						
246056002	1	10:22														X								
246056003	1	10:24														X								
246056004	1	10:26														X								
ZZZZZZ	1	10:28																						
ZZZZZZ	1	10:30																						
CCV04	1	10:32														X								
CCB04	1	10:34														X								

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 02–MAR–10 **End Date:** 02–MAR–10

Client Sdg: 10–1545–1
Method MS
Data File: 100302–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	14:11												X									X		
S10	1	14:13												X									X		
S100	1	14:15												X									X		
ICV01	1	14:17												X									X		
ICB01	1	14:19												X									X		
CRDL01	1	14:21												X									X		
ICSA01	1	14:23												X									X		
ICSAB01	1	14:25												X									X		
CCV01	1	14:27												X									X		
CCB01	1	14:29												X									X		
1202034073	1	14:32												X									X		
1202034074	1	14:34												X									X		
ZZZZZZ	1	14:37																							
ZZZZZZ	1	14:39																							
ZZZZZZ	1	14:41																							
ZZZZZZ	5	14:43																							
246056002	1	14:45												X									X		
246056003	1	14:47												X									X		
246056004	1	14:49												X									X		
CCV02	1	14:51												X									X		
CCB02	1	14:54												X									X		
246056001	1	14:56												X									X		
1202034075	1	14:58												X									X		
1202034076	1	15:00												X									X		
1202034077	5	15:02												X									X		
CCV03	1	15:04												X									X		
CCB03	1	15:07												X									X		

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA1
Start Date: 11-FEB-10 **End Date:** 11-FEB-10

Client Sdg: 10-1545-1
Method P
Data File: 021110B-1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	14:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
S0.1	1	14:14			X	X				X	X	X						X	X	X	X			X	X
S0.5	1	14:17	X		X	X			X	X	X	X			X			X	X	X	X			X	X
SCAL	1	14:20	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
S10	1	14:24	X						X				X		X							X			
ICV01	1	14:26	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICB01	1	14:30	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
PQL01	1	14:33	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICSA01	1	14:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ICSAB01	1	14:40	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR01	1	14:43	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR02	1	14:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV01	1	14:49	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB01	1	14:53	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR03	1	15:08	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
LR04	1	15:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV02	1	15:15	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB02	1	15:19	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	15:23																							
ZZZZZZ	1	15:26																							
ZZZZZZ	1	15:30																							
ZZZZZZ	1	15:34																							
ZZZZZZ	1	15:38																							
ZZZZZZ	5	15:42																							
ZZZZZZ	1	15:45																							
ZZZZZZ	1	15:49																							
ZZZZZZ	1	15:53																							
CCV03	1	15:57	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB03	1	16:01	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	16:04																							
ZZZZZZ	1	16:08																							
ZZZZZZ	1	16:12																							
ZZZZZZ	1	16:16																							
ZZZZZZ	1	16:20																							
ZZZZZZ	1	16:24																							
ZZZZZZ	1	16:28																							
ZZZZZZ	1	16:31																							
ZZZZZZ	1	16:34																							
CCV04	1	16:37	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB04	1	16:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	16:58	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB05	1	17:02	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	17:06																							
ZZZZZZ	1	17:09																							
ZZZZZZ	1	17:13																							
ZZZZZZ	1	17:16																							
ZZZZZZ	1	17:20																							
ZZZZZZ	5	17:24																							
CCV06	1	17:27	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB06	1	17:31	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	17:35																							
ZZZZZZ	1	17:38																							
ZZZZZZ	1	17:42																							
ZZZZZZ	1	17:45																							
ZZZZZZ	1	17:49																							
ZZZZZZ	1	17:53																							
ZZZZZZ	1	17:56																							
ZZZZZZ	1	18:00																							
CCV07	1	18:03	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB07	1	18:07	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	18:11																							
ZZZZZZ	1	18:14																							
ZZZZZZ	1	18:18																							
ZZZZZZ	1	18:21																							
ZZZZZZ	1	18:25																							
ZZZZZZ	5	18:29																							
CCV08	1	18:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB08	1	18:36	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	18:40																							
ZZZZZZ	1	18:43																							
ZZZZZZ	1	18:47																							
ZZZZZZ	1	18:50																							
ZZZZZZ	1	18:54																							
ZZZZZZ	1	18:58																							
ZZZZZZ	1	19:01																							
ZZZZZZ	1	19:05																							
ZZZZZZ	1	19:08																							
CCV09	1	19:12	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB09	1	19:16	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	19:19																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
ZZZZZZ	1	19:23																							
ZZZZZZ	1	19:27																							
ZZZZZZ	1	19:30																							
ZZZZZZ	1	19:34																							
ZZZZZZ	5	19:37																							
CCV10	1	19:41	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB10	1	19:45	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
ZZZZZZ	1	19:48																							
ZZZZZZ	1	19:52																							
ZZZZZZ	1	19:55																							
ZZZZZZ	1	19:59																							
ZZZZZZ	1	20:03																							
CCV11	1	20:06	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB11	1	20:10	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202033915	1	20:14	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202033916	1	20:17	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
246056001	1	20:21	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202033917	1	20:24	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202033918	1	20:28	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
1202033919	5	20:32	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
246056002	1	20:35	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
246056003	1	20:39	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
246056004	1	20:42	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCV12	1	20:46	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X
CCB12	1	20:50	X		X	X			X	X	X	X	X		X			X	X	X	X	X		X	X

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1545-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		15.0	30
	Antimony		1.0	3
	Arsenic		1.6	5
	Barium		0.6	2
	Beryllium		0.1	.5
	Cadmium		0.11	1
	Calcium		65.0	200
	Chromium		2.0	10
	Cobalt		0.1	1
	Copper		0.33	1
	Iron		33.0	100
	Lead		0.5	2
	Magnesium		5.2	15
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		3.0	10
	Zinc		3.0	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1545-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1545–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.05500	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.28800	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.04600	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1545-1
Contract: LANL01004
Instrument: OPTIMA1
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	11.3250	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	-1.59900	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-21.2250	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.68400
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	1.19100	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	105.59
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	3.36300	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-2.30400	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.61100

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	20.5430
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-16.3320
Arsenic	188.979	-0.05800	0.00000	0.00000	0.00000	1.97700
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.13300	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	-0.90500
Copper	324.752	-0.13900	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.03800	-2.87600	0.00000	0.00000	0.00000
Magnesium	279.077	1.07300	0.00000	0.00000	0.00000	-16.8110
Manganese	257.61	-0.13900	0.00000	0.04000	0.00000	0.00000
Molybdenum	202.031	-0.03800	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	-0.01300	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.81200	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.88200	0.00000	0.28200	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	-0.06300	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.03900	0.00000	0.00000	-4.11700	0.00000
Tin	189.927	-0.09200	0.00000	-0.19600	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.07900	0.00000	0.00000
Uranium	409.014	0.13900	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	-0.05300	0.00000	0.00000	0.00000	-7.71400
Zinc	213.857	0.14460	0.00000	0.02030	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Selenium	Silicon	Silver
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.99900	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	4.41600	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Sulfur	Thallium	Tin	Titanium	Uranium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.38100	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	2.08700	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	1.04000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	-14.8110	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-8.68900	-1.22400
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	-1.03900
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA1
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1545-1
Effective Dates: 01-FEB-10

Parmname	Wavelength	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000
Antimony	206.836	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000
Barium	233.527	-1.80500	0.00000
Beryllium	313.107	0.00000	0.00000
Boron	249.677	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000
Chromium	267.716	-0.63000	0.00000
Cobalt	228.616	0.00000	0.00000
Copper	324.752	0.00000	0.00000
Iron	238.204	0.00000	0.00000
Lead	220.353	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000
Manganese	257.61	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000
Nickel	231.604	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000
Selenium	196.026	0.00000	0.00000
Silicon	251.611	0.00000	0.00000
Silver	328.068	-6.59800	0.00000
Sulfur	181.975	0.00000	0.00000
Thallium	190.801	0.00000	0.00000
Tin	189.927	0.00000	0.00000
Titanium	334.94	0.00000	0.00000
Uranium	409.014	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000
Zinc	213.857	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-1545-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
-12-
Linear Ranges

SDG NO. 10-1545-1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-FEB-10
Antimony	1000	250	ug/L	01-FEB-10
Arsenic	1000	1000	ug/L	01-FEB-10
Barium	1000	1000	ug/L	01-FEB-10
Beryllium	1000	1000	ug/L	01-FEB-10
Cadmium	1000	1000	ug/L	01-FEB-10
Calcium	500	50000	ug/L	01-FEB-10
Chromium	1000	1000	ug/L	01-FEB-10
Cobalt	1000	1000	ug/L	01-FEB-10
Copper	1000	1000	ug/L	01-FEB-10
Iron	500	50000	ug/L	01-FEB-10
Lead	1000	5000	ug/L	01-FEB-10
Magnesium	1	50000	ug/L	01-FEB-10
Manganese	1000	1000	ug/L	01-FEB-10
Nickel	1000	1000	ug/L	01-FEB-10
Potassium	1	50000	ug/L	01-FEB-10
Selenium	1000	500	ug/L	01-FEB-10
Silver	1000	250	ug/L	01-FEB-10
Sodium	1	50000	ug/L	01-FEB-10
Thallium	1000	500	ug/L	01-FEB-10
Vanadium	1000	100	ug/L	01-FEB-10
Zinc	1000	2500	ug/L	01-FEB-10

METALS
–12–
Linear Ranges

SDG NO. 10–1545–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA1

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Spectra

Method: Hg_ReAlign
Result: 030210

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

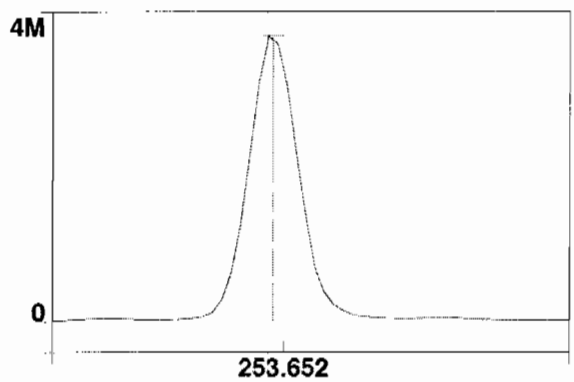

Intensity: 3690569.1 cps
Conc:

1

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Analysis Begun

Start Time: 2/11/2010 14:10:46
Plasma On Time: 2/8/2010 03:37:33
Logged In Analyst: optima
Technique: ICP Continuous
Spectrometer Model: Optima 4300 DV, S/N 077N1030502 **Autosampler Model:** AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Sequence No.: 1
Autosampler Location: 8
Sample ID: S0
Date Collected: 2/11/2010 14:10:48
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54739.4	54739.4	100	%	14:11:23
1	Al 396.153Radial†	-13.9	-13.8	[0.00]	µg/L	14:11:23
1	Ca 317.933Radial†	181.9	181.3	[0.00]	µg/L	14:11:43
1	Fe 238.204 Radial†	15.3	15.3	[0.00]	µg/L	14:11:43
1	K 766.490 Radial†	133.4	133.0	[0.00]	µg/L	14:11:23
1	Mg 279.077 IEC†	7.8	7.8	[0.00]	µg/L	14:11:43
1	Na 589.592 Radial†	544.1	542.5	[0.00]	µg/L	14:11:23
1	Sr 421.552†	47.1	46.9	[0.00]	µg/L	14:11:23
1	Sc 361.383	1911885.3	1911885.3	100.11	%	14:12:45
1	Y 371.029	1310700.1	1310700.1	100.06	%	14:12:45
1	Ag 328.068†	-547.3	-546.7	[0.00]	µg/L	14:12:50
1	As 188.979†	3.5	3.5	[0.00]	µg/L	14:13:11
1	B 249.677†	353.5	353.1	[0.00]	µg/L	14:13:11
1	Ba 233.527†	-32.2	-32.2	[0.00]	µg/L	14:13:11
1	Be 313.107†	-3446.9	-3443.2	[0.00]	µg/L	14:12:50
1	Cd 226.502†	-153.7	-153.5	[0.00]	µg/L	14:13:11
1	Co 228.616†	-1.3	-1.3	[0.00]	µg/L	14:13:11
1	Cr 267.716†	-55.4	-55.3	[0.00]	µg/L	14:12:50
1	Cu 324.752†	2504.0	2501.3	[0.00]	µg/L	14:12:50
1	Mn 257.610†	-239.6	-239.4	[0.00]	µg/L	14:13:11
1	Mo 202.031†	-2.8	-2.8	[0.00]	µg/L	14:13:11
1	Ni 231.604†	307.9	307.6	[0.00]	µg/L	14:13:11
1	P 214.914†	26.2	26.2	[0.00]	µg/L	14:13:11
1	Pb 220.353†	91.7	91.6	[0.00]	µg/L	14:13:11
1	S 181.975 Axial†	15.4	15.3	[0.00]	µg/L	14:13:11
1	Sb 206.836†	28.4	28.4	[0.00]	µg/L	14:13:11
1	Se 196.026†	16.7	16.7	[0.00]	µg/L	14:13:11
1	SiO2†	1235.3	1234.0	[0.00]	µg/L	14:12:50
1	Si 251.611†	309.0	308.7	[0.00]	µg/L	14:13:11
1	Sn 189.927†	-0.7	-0.7	[0.00]	µg/L	14:13:11
1	Ti 334.940†	89.4	89.3	[0.00]	µg/L	14:12:50
1	Tl 190.801†	-23.5	-23.5	[0.00]	µg/L	14:13:11
1	U 409.014†	-77.0	-76.9	[0.00]	µg/L	14:12:50
1	V 292.402†	-41.9	-41.9	[0.00]	µg/L	14:12:50
1	Zn 213.857†	474.5	474.0	[0.00]	µg/L	14:13:11
2	Sc RADIAL	54665.4	54665.4	100	%	14:11:49
2	Al 396.153Radial†	-1.2	-1.2	[0.00]	µg/L	14:11:49
2	Ca 317.933Radial†	175.4	175.1	[0.00]	µg/L	14:12:09
2	Fe 238.204 Radial†	14.9	14.8	[0.00]	µg/L	14:12:09
2	K 766.490 Radial†	144.1	143.8	[0.00]	µg/L	14:11:49
2	Mg 279.077 IEC†	11.1	11.1	[0.00]	µg/L	14:12:09
2	Na 589.592 Radial†	552.5	551.5	[0.00]	µg/L	14:11:49
2	Sr 421.552†	33.2	33.1	[0.00]	µg/L	14:11:49
2	Sc 361.383	1909838.0	1909838.0	100.000	%	14:13:17
2	Y 371.029	1310179.5	1310179.5	100.02	%	14:13:17
2	Ag 328.068†	-580.2	-580.2	[0.00]	µg/L	14:13:23
2	As 188.979†	-0.5	-0.5	[0.00]	µg/L	14:13:43

2	B 249.677†	311.8	311.8	[0.00]	µg/L	14:13:43
2	Ba 233.527†	-19.4	-19.4	[0.00]	µg/L	14:13:43
2	Be 313.107†	-3440.2	-3440.2	[0.00]	µg/L	14:13:23
2	Cd 226.502†	-136.8	-136.8	[0.00]	µg/L	14:13:43
2	Co 228.616†	-8.2	-8.2	[0.00]	µg/L	14:13:43
2	Cr 267.716†	-44.6	-44.6	[0.00]	µg/L	14:13:23
2	Cu 324.752†	2529.2	2529.2	[0.00]	µg/L	14:13:23
2	Mn 257.610†	-247.4	-247.4	[0.00]	µg/L	14:13:43
2	Mo 202.031†	-8.7	-8.7	[0.00]	µg/L	14:13:43
2	Ni 231.604†	295.5	295.5	[0.00]	µg/L	14:13:43
2	P 214.914†	27.9	27.9	[0.00]	µg/L	14:13:43
2	Pb 220.353†	98.3	98.3	[0.00]	µg/L	14:13:43
2	S 181.975 Axial†	16.8	16.8	[0.00]	µg/L	14:13:43
2	Sb 206.836†	27.6	27.6	[0.00]	µg/L	14:13:43
2	Se 196.026†	12.1	12.1	[0.00]	µg/L	14:13:43
2	SiO2†	1235.5	1235.5	[0.00]	µg/L	14:13:23
2	Si 251.611†	316.0	316.0	[0.00]	µg/L	14:13:43
2	Sn 189.927†	-2.2	-2.2	[0.00]	µg/L	14:13:43
2	Ti 334.940†	132.2	132.2	[0.00]	µg/L	14:13:23
2	Tl 190.801†	-27.5	-27.5	[0.00]	µg/L	14:13:43
2	U 409.014†	-52.6	-52.6	[0.00]	µg/L	14:13:23
2	V 292.402†	-46.9	-46.9	[0.00]	µg/L	14:13:23
2	Zn 213.857†	476.6	476.6	[0.00]	µg/L	14:13:43
3	Sc RADIAL	54318.4	54318.4	99.5	%	14:12:15
3	Al 396.153Radial†	-15.3	-15.3	[0.00]	µg/L	14:12:15
3	Ca 317.933Radial†	180.2	181.0	[0.00]	µg/L	14:12:35
3	Fe 238.204 Radial†	13.3	13.4	[0.00]	µg/L	14:12:35
3	K 766.490 Radial†	107.9	108.4	[0.00]	µg/L	14:12:15
3	Mg 279.077 IEC†	14.9	15.0	[0.00]	µg/L	14:12:35
3	Na 589.592 Radial†	529.1	531.6	[0.00]	µg/L	14:12:15
3	Sr 421.552†	38.4	38.6	[0.00]	µg/L	14:12:15
3	Sc 361.383	1907796.9	1907796.9	99.893	%	14:13:49
3	Y 371.029	1308876.2	1308876.2	99.920	%	14:13:49
3	Ag 328.068†	-566.0	-566.6	[0.00]	µg/L	14:13:55
3	As 188.979†	0.4	0.4	[0.00]	µg/L	14:14:15
3	B 249.677†	329.2	329.5	[0.00]	µg/L	14:14:15
3	Ba 233.527†	-26.4	-26.4	[0.00]	µg/L	14:14:15
3	Be 313.107†	-3434.3	-3437.9	[0.00]	µg/L	14:13:55
3	Cd 226.502†	-135.9	-136.0	[0.00]	µg/L	14:14:15
3	Co 228.616†	-17.0	-17.0	[0.00]	µg/L	14:14:15
3	Cr 267.716†	-57.1	-57.2	[0.00]	µg/L	14:13:55
3	Cu 324.752†	2425.2	2427.8	[0.00]	µg/L	14:13:55
3	Mn 257.610†	-245.3	-245.6	[0.00]	µg/L	14:14:15
3	Mo 202.031†	-11.1	-11.1	[0.00]	µg/L	14:14:15
3	Ni 231.604†	303.1	303.5	[0.00]	µg/L	14:14:15
3	P 214.914†	28.8	28.8	[0.00]	µg/L	14:14:15
3	Pb 220.353†	101.6	101.7	[0.00]	µg/L	14:14:15
3	S 181.975 Axial†	12.3	12.3	[0.00]	µg/L	14:14:15
3	Sb 206.836†	24.9	25.0	[0.00]	µg/L	14:14:15
3	Se 196.026†	18.7	18.7	[0.00]	µg/L	14:14:15
3	SiO2†	1279.2	1280.6	[0.00]	µg/L	14:13:55
3	Si 251.611†	313.6	313.9	[0.00]	µg/L	14:14:15
3	Sn 189.927†	0.3	0.3	[0.00]	µg/L	14:14:15
3	Ti 334.940†	126.8	126.9	[0.00]	µg/L	14:13:55
3	Tl 190.801†	-21.9	-21.9	[0.00]	µg/L	14:14:15
3	U 409.014†	-31.2	-31.3	[0.00]	µg/L	14:13:55
3	V 292.402†	-43.8	-43.9	[0.00]	µg/L	14:13:55
3	Zn 213.857†	475.5	476.0	[0.00]	µg/L	14:14:15

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1909840.1	2044.21	0.11%	100.00	%
Sc RADIAL	54574.4	224.80	0.41%	100	%
Y 371.029	1309918.6	939.52	0.07%	100.00	%
Ag 328.068†	-564.5	16.85	2.98%	[0.00]	µg/L
Al 396.153Radial†	-10.1	7.73	76.30%	[0.00]	µg/L
As 188.979†	1.1	2.09	182.38%	[0.00]	µg/L
B 249.677†	331.5	20.73	6.25%	[0.00]	µg/L
Ba 233.527†	-26.0	6.39	24.57%	[0.00]	µg/L

Be 313.107†	-3440.4	2.66	0.08%	[0.00]	µg/L
Ca 317.933Radial†	179.2	3.51	1.96%	[0.00]	µg/L
Cd 226.502†	-142.1	9.89	6.96%	[0.00]	µg/L
Co 228.616†	-8.8	7.85	88.83%	[0.00]	µg/L
Cr 267.716†	-52.4	6.82	13.02%	[0.00]	µg/L
Cu 324.752†	2486.1	52.42	2.11%	[0.00]	µg/L
Fe 238.204 Radial†	14.5	1.00	6.90%	[0.00]	µg/L
K 766.490 Radial†	128.4	18.15	14.13%	[0.00]	µg/L
Mg 279.077 IEC†	11.3	3.62	32.14%	[0.00]	µg/L
Mn 257.610†	-244.1	4.19	1.72%	[0.00]	µg/L
Mo 202.031†	-7.5	4.31	57.15%	[0.00]	µg/L
Na 589.592 Radial†	541.9	9.97	1.84%	[0.00]	µg/L
Ni 231.604†	302.2	6.13	2.03%	[0.00]	µg/L
P 214.914†	27.6	1.32	4.77%	[0.00]	µg/L
Pb 220.353†	97.2	5.13	5.27%	[0.00]	µg/L
S 181.975 Axial†	14.8	2.33	15.71%	[0.00]	µg/L
Sb 206.836†	27.0	1.78	6.62%	[0.00]	µg/L
Se 196.026†	15.8	3.37	21.27%	[0.00]	µg/L
SiO2†	1250.0	26.45	2.12%	[0.00]	µg/L
Si 251.611†	312.9	3.77	1.21%	[0.00]	µg/L
Sn 189.927†	-0.9	1.29	148.06%	[0.00]	µg/L
Sr 421.552†	39.6	6.94	17.54%	[0.00]	µg/L
Ti 334.940†	116.1	23.40	20.15%	[0.00]	µg/L
Tl 190.801†	-24.3	2.88	11.85%	[0.00]	µg/L
U 409.014†	-53.6	22.84	42.60%	[0.00]	µg/L
V 292.402†	-44.2	2.52	5.69%	[0.00]	µg/L
Zn 213.857†	475.5	1.38	0.29%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 2/11/2010 14:14:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55015.9	55015.9	101	%	14:15:00
1	K 766.490 Radial†	1529.6	1388.9	[1000]	µg/L	14:15:00
1	Sr 421.552†	9551.7	9435.5	[100]	µg/L	14:15:00
1	Sc 361.383	1906987.6	1906987.6	99.851	%	14:15:21
1	Y 371.029	1308080.3	1308080.3	99.860	%	14:15:21
1	Ag 328.068†	12337.2	12920.2	[100]	µg/L	14:15:27
1	As 188.979†	60.2	59.1	[100]	µg/L	14:15:48
1	B 249.677†	2597.7	2270.1	[100]	µg/L	14:15:27
1	Ba 233.527†	3962.5	3994.4	[100]	µg/L	14:15:27
1	Be 313.107†	151975.4	155643.2	[100]	µg/L	14:15:21
1	Cd 226.502†	3678.8	3826.5	[100]	µg/L	14:15:27
1	Co 228.616†	2095.6	2107.6	[100]	µg/L	14:15:48
1	Cr 267.716†	4700.6	4760.0	[100]	µg/L	14:15:27
1	Cu 324.752†	17516.6	15056.7	[100]	µg/L	14:15:27
1	Mn 257.610†	30035.0	30324.0	[100]	µg/L	14:15:27
1	Mo 202.031†	993.1	1002.1	[100]	µg/L	14:15:48
1	Ni 231.604†	2238.0	1939.1	[100]	µg/L	14:15:27
1	P 214.914†	275.5	248.3	[500]	µg/L	14:15:48
1	Pb 220.353†	495.9	399.5	[100]	µg/L	14:15:48
1	S 181.975 Axial†	61.0	46.2	[200]	µg/L	14:15:48
1	Sb 206.836†	127.3	100.5	[100]	µg/L	14:15:48
1	Se 196.026†	83.6	67.8	[100]	µg/L	14:15:48
1	SiO2†	6362.3	5121.8	[1069.5]	µg/L	14:15:27
1	Si 251.611†	6526.8	6223.6	[500]	µg/L	14:15:27
1	Sn 189.927†	236.7	237.9	[100]	µg/L	14:15:48
1	Ti 334.940†	41818.8	41765.2	[100]	µg/L	14:15:27
1	Tl 190.801†	52.7	77.0	[100]	µg/L	14:15:48
1	U 409.014†	1125.7	1181.0	[100]	µg/L	14:15:27
1	V 292.402†	9619.3	9677.9	[100]	µg/L	14:15:27
1	Zn 213.857†	4700.1	4231.6	[100]	µg/L	14:15:27
2	Sc RADIAL	55171.2	55171.2	101	%	14:15:05
2	K 766.490 Radial†	1577.1	1431.6	[1000]	µg/L	14:15:05
2	Sr 421.552†	9725.8	9581.1	[100]	µg/L	14:15:05
2	Sc 361.383	1919566.1	1919566.1	100.51	%	14:15:54
2	Y 371.029	1316225.3	1316225.3	100.48	%	14:15:54
2	Ag 328.068†	12296.8	12799.1	[100]	µg/L	14:16:00
2	As 188.979†	55.3	53.9	[100]	µg/L	14:16:20
2	B 249.677†	2620.3	2275.6	[100]	µg/L	14:16:00
2	Ba 233.527†	3925.8	3931.9	[100]	µg/L	14:16:00
2	Be 313.107†	153476.8	156139.6	[100]	µg/L	14:15:54
2	Cd 226.502†	3613.9	3737.7	[100]	µg/L	14:16:00
2	Co 228.616†	2078.6	2076.9	[100]	µg/L	14:16:20
2	Cr 267.716†	4668.3	4697.0	[100]	µg/L	14:16:00
2	Cu 324.752†	17487.1	14912.4	[100]	µg/L	14:16:00
2	Mn 257.610†	29867.9	29960.6	[100]	µg/L	14:16:00
2	Mo 202.031†	997.0	999.5	[100]	µg/L	14:16:20
2	Ni 231.604†	2232.7	1919.2	[100]	µg/L	14:16:00
2	P 214.914†	277.4	248.4	[500]	µg/L	14:16:20
2	Pb 220.353†	494.0	394.3	[100]	µg/L	14:16:20
2	S 181.975 Axial†	66.3	51.1	[200]	µg/L	14:16:20
2	Sb 206.836†	134.2	106.6	[100]	µg/L	14:16:20
2	Se 196.026†	81.0	64.7	[100]	µg/L	14:16:20
2	SiO2†	6316.5	5034.4	[1069.5]	µg/L	14:16:00
2	Si 251.611†	6524.6	6178.6	[500]	µg/L	14:16:00
2	Sn 189.927†	229.9	229.6	[100]	µg/L	14:16:20
2	Ti 334.940†	41713.2	41385.8	[100]	µg/L	14:16:00
2	Tl 190.801†	46.9	70.9	[100]	µg/L	14:16:20
2	U 409.014†	1094.4	1142.5	[100]	µg/L	14:16:00
2	V 292.402†	9634.9	9630.3	[100]	µg/L	14:16:00

2	Zn 213.857†	4683.2	4183.9	[100]	µg/L	14:16:00
3	Sc RADIAL	54696.3	54696.3	100	%	14:15:11
3	K 766.490 Radial†	1613.5	1481.5	[1000]	µg/L	14:15:11
3	Sr 421.552†	9663.0	9601.9	[100]	µg/L	14:15:11
3	Sc 361.383	1914175.0	1914175.0	100.23	%	14:16:26
3	Y 371.029	1314459.8	1314459.8	100.35	%	14:16:26
3	Ag 328.068†	12311.6	12848.2	[100]	µg/L	14:16:32
3	As 188.979†	52.2	51.0	[100]	µg/L	14:16:53
3	B 249.677†	2607.8	2270.5	[100]	µg/L	14:16:32
3	Ba 233.527†	3927.0	3944.1	[100]	µg/L	14:16:32
3	Be 313.107†	152121.7	155217.6	[100]	µg/L	14:16:26
3	Cd 226.502†	3649.8	3783.7	[100]	µg/L	14:16:32
3	Co 228.616†	2092.3	2096.4	[100]	µg/L	14:16:53
3	Cr 267.716†	4695.0	4736.7	[100]	µg/L	14:16:32
3	Cu 324.752†	17403.9	14878.4	[100]	µg/L	14:16:32
3	Mn 257.610†	29812.0	29988.6	[100]	µg/L	14:16:32
3	Mo 202.031†	994.2	999.5	[100]	µg/L	14:16:53
3	Ni 231.604†	2238.0	1930.8	[100]	µg/L	14:16:32
3	P 214.914†	276.9	248.7	[500]	µg/L	14:16:53
3	Pb 220.353†	496.4	398.1	[100]	µg/L	14:16:53
3	S 181.975 Axial†	63.6	48.7	[200]	µg/L	14:16:53
3	Sb 206.836†	131.7	104.5	[100]	µg/L	14:16:53
3	Se 196.026†	85.1	69.1	[100]	µg/L	14:16:53
3	SiO2†	6274.4	5010.2	[1069.5]	µg/L	14:16:32
3	Si 251.611†	6506.8	6179.2	[500]	µg/L	14:16:32
3	Sn 189.927†	233.2	233.5	[100]	µg/L	14:16:53
3	Ti 334.940†	41628.8	41418.4	[100]	µg/L	14:16:32
3	Tl 190.801†	52.0	76.1	[100]	µg/L	14:16:53
3	U 409.014†	1167.9	1218.9	[100]	µg/L	14:16:32
3	V 292.402†	9645.5	9667.9	[100]	µg/L	14:16:32
3	Zn 213.857†	4697.5	4211.3	[100]	µg/L	14:16:32

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1913576.2	6310.61	0.33%	100.20	%
Sc RADIAL	54961.1	242.12	0.44%	101	%
Y 371.029	1312921.8	4284.80	0.33%	100.23	%
Ag 328.068†	12855.8	60.90	0.47%	[100]	µg/L
As 188.979†	54.7	4.13	7.55%	[100]	µg/L
B 249.677†	2272.1	3.07	0.13%	[100]	µg/L
Ba 233.527†	3956.8	33.13	0.84%	[100]	µg/L
Be 313.107†	155666.8	461.42	0.30%	[100]	µg/L
Cd 226.502†	3782.6	44.38	1.17%	[100]	µg/L
Co 228.616†	2093.6	15.54	0.74%	[100]	µg/L
Cr 267.716†	4731.2	31.87	0.67%	[100]	µg/L
Cu 324.752†	14949.2	94.66	0.63%	[100]	µg/L
K 766.490 Radial†	1434.0	46.37	3.23%	[1000]	µg/L
Mn 257.610†	30091.1	202.22	0.67%	[100]	µg/L
Mo 202.031†	1000.4	1.54	0.15%	[100]	µg/L
Ni 231.604†	1929.7	10.00	0.52%	[100]	µg/L
P 214.914†	248.5	0.19	0.08%	[500]	µg/L
Pb 220.353†	397.3	2.68	0.67%	[100]	µg/L
S 181.975 Axial†	48.7	2.45	5.03%	[200]	µg/L
Sb 206.836†	103.8	3.08	2.97%	[100]	µg/L
Se 196.026†	67.2	2.24	3.33%	[100]	µg/L
SiO2†	5055.5	58.67	1.16%	[1069.5]	µg/L
Si 251.611†	6193.8	25.84	0.42%	[500]	µg/L
Sn 189.927†	233.7	4.16	1.78%	[100]	µg/L
Sr 421.552†	9539.5	90.63	0.95%	[100]	µg/L
Ti 334.940†	41523.1	210.28	0.51%	[100]	µg/L
Tl 190.801†	74.7	3.29	4.41%	[100]	µg/L
U 409.014†	1180.8	38.20	3.23%	[100]	µg/L
V 292.402†	9658.7	25.07	0.26%	[100]	µg/L
Zn 213.857†	4209.0	23.92	0.57%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 2/11/2010 14:17:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	56431.2	56431.2	103	%	14:17:36
1	Al 396.153Radial†	6754.1	6542.0	[5000]	µg/L	14:17:36
1	Ca 317.933Radial†	5471.1	5111.9	[5000]	µg/L	14:17:56
1	K 766.490 Radial†	7121.7	6759.0	[5000]	µg/L	14:17:36
1	Mg 279.077 IEC†	566.8	536.8	[5000]	µg/L	14:17:56
1	Sr 421.552†	48100.9	46478.6	[500]	µg/L	14:17:36
1	Sc 361.383	1949267.7	1949267.7	102.06	%	14:18:59
1	Y 371.029	1332062.2	1332062.2	101.69	%	14:18:59
1	Ag 328.068†	62715.3	62011.3	[500]	µg/L	14:19:05
1	As 188.979†	268.2	261.6	[500]	µg/L	14:19:26
1	B 249.677†	11715.5	11147.1	[500]	µg/L	14:19:05
1	Ba 233.527†	19296.1	18931.8	[500]	µg/L	14:19:05
1	Be 313.107†	765143.4	753107.4	[500]	µg/L	14:18:59
1	Cd 226.502†	18181.3	17955.7	[500]	µg/L	14:19:05
1	Co 228.616†	10302.5	10103.0	[500]	µg/L	14:19:05
1	Cr 267.716†	23080.8	22666.4	[500]	µg/L	14:19:05
1	Cu 324.752†	74689.8	70693.0	[500]	µg/L	14:19:05
1	Mn 257.610†	147455.4	144716.9	[500]	µg/L	14:18:59
1	Mo 202.031†	4948.3	4855.8	[500]	µg/L	14:19:26
1	Ni 231.604†	9587.6	9091.5	[500]	µg/L	14:19:05
1	P 214.914†	1227.3	1174.8	[2500]	µg/L	14:19:26
1	Pb 220.353†	2024.6	1886.4	[500]	µg/L	14:19:26
1	S 181.975 Axial†	257.2	237.2	[1000]	µg/L	14:19:26
1	Sb 206.836†	565.6	527.2	[500]	µg/L	14:19:26
1	Se 196.026†	349.8	326.9	[500]	µg/L	14:19:26
1	SiO2†	26268.6	24487.3	[5347.5]	µg/L	14:19:05
1	Si 251.611†	30925.0	29986.6	[2500]	µg/L	14:19:05
1	Sn 189.927†	1150.8	1128.4	[500]	µg/L	14:19:26
1	Ti 334.940†	210237.3	205868.8	[500]	µg/L	14:18:59
1	Tl 190.801†	342.7	360.1	[500]	µg/L	14:19:26
1	U 409.014†	5574.8	5515.7	[500]	µg/L	14:19:05
1	V 292.402†	47320.5	46407.6	[500]	µg/L	14:19:05
1	Zn 213.857†	20885.0	19987.0	[500]	µg/L	14:19:05
2	Sc RADIAL	56400.3	56400.3	103	%	14:18:02
2	Al 396.153Radial†	6776.8	6567.5	[5000]	µg/L	14:18:02
2	Ca 317.933Radial†	5446.0	5090.5	[5000]	µg/L	14:18:22
2	K 766.490 Radial†	7209.5	6847.7	[5000]	µg/L	14:18:02
2	Mg 279.077 IEC†	558.9	529.5	[5000]	µg/L	14:18:22
2	Sr 421.552†	48009.1	46415.3	[500]	µg/L	14:18:02
2	Sc 361.383	1969776.8	1969776.8	103.14	%	14:19:33
2	Y 371.029	1347212.9	1347212.9	102.85	%	14:19:33
2	Ag 328.068†	63263.2	61902.7	[500]	µg/L	14:19:38
2	As 188.979†	264.1	254.9	[500]	µg/L	14:19:59
2	B 249.677†	11833.7	11142.2	[500]	µg/L	14:19:38
2	Ba 233.527†	19517.7	18949.8	[500]	µg/L	14:19:38
2	Be 313.107†	769998.9	750009.7	[500]	µg/L	14:19:33
2	Cd 226.502†	18459.9	18040.3	[500]	µg/L	14:19:38
2	Co 228.616†	10435.6	10126.9	[500]	µg/L	14:19:38
2	Cr 267.716†	23319.3	22662.1	[500]	µg/L	14:19:38
2	Cu 324.752†	75284.2	70507.3	[500]	µg/L	14:19:38
2	Mn 257.610†	148076.6	143815.0	[500]	µg/L	14:19:33
2	Mo 202.031†	4926.4	4784.1	[500]	µg/L	14:19:59
2	Ni 231.604†	9732.8	9134.4	[500]	µg/L	14:19:38
2	P 214.914†	1225.6	1160.7	[2500]	µg/L	14:19:59
2	Pb 220.353†	2028.4	1869.5	[500]	µg/L	14:19:59
2	S 181.975 Axial†	257.8	235.1	[1000]	µg/L	14:19:59
2	Sb 206.836†	552.2	508.4	[500]	µg/L	14:19:59
2	Se 196.026†	361.1	334.3	[500]	µg/L	14:19:59
2	SiO2†	26477.9	24422.2	[5347.5]	µg/L	14:19:38

2	Si 251.611†	31253.2	29989.4	[2500]	µg/L	14:19:38
2	Sn 189.927†	1150.3	1116.1	[500]	µg/L	14:19:59
2	Ti 334.940†	211105.1	204565.4	[500]	µg/L	14:19:33
2	Tl 190.801†	338.9	352.9	[500]	µg/L	14:19:59
2	U 409.014†	5592.5	5475.9	[500]	µg/L	14:19:38
2	V 292.402†	47778.9	46369.3	[500]	µg/L	14:19:38
2	Zn 213.857†	21066.0	19949.5	[500]	µg/L	14:19:38
3	Sc RADIAL	56116.0	56116.0	103	%	14:18:27
3	Al 396.153Radial†	6776.6	6600.6	[5000]	µg/L	14:18:27
3	Ca 317.933Radial†	5474.8	5145.3	[5000]	µg/L	14:18:48
3	K 766.490 Radial†	7167.4	6842.1	[5000]	µg/L	14:18:27
3	Mg 279.077 IEC†	570.0	543.0	[5000]	µg/L	14:18:48
3	Sr 421.552†	47985.8	46628.0	[500]	µg/L	14:18:27
3	Sc 361.383	1956384.8	1956384.8	102.44	%	14:20:06
3	Y 371.029	1336938.7	1336938.7	102.06	%	14:20:06
3	Ag 328.068†	58992.1	58153.2	[500]	µg/L	14:20:12
3	As 188.979†	227.0	220.5	[500]	µg/L	14:20:32
3	B 249.677†	10983.9	10391.2	[500]	µg/L	14:20:12
3	Ba 233.527†	17692.5	17297.6	[500]	µg/L	14:20:12
3	Be 313.107†	719301.4	705628.8	[500]	µg/L	14:20:06
3	Cd 226.502†	16595.4	16342.7	[500]	µg/L	14:20:12
3	Co 228.616†	9342.2	9128.8	[500]	µg/L	14:20:12
3	Cr 267.716†	20357.4	19925.5	[500]	µg/L	14:20:12
3	Cu 324.752†	68152.8	64045.2	[500]	µg/L	14:20:12
3	Mn 257.610†	138782.6	135724.9	[500]	µg/L	14:20:06
3	Mo 202.031†	4112.2	4021.9	[500]	µg/L	14:20:32
3	Ni 231.604†	8700.9	8191.7	[500]	µg/L	14:20:12
3	P 214.914†	1052.8	1000.2	[2500]	µg/L	14:20:32
3	Pb 220.353†	1780.7	1641.2	[500]	µg/L	14:20:32
3	S 181.975 Axial†	220.4	200.3	[1000]	µg/L	14:20:32
3	Sb 206.836†	483.7	445.3	[500]	µg/L	14:20:32
3	Se 196.026†	314.2	290.9	[500]	µg/L	14:20:32
3	SiO2†	24349.5	22520.2	[5347.5]	µg/L	14:20:12
3	Si 251.611†	28634.1	27640.0	[2500]	µg/L	14:20:12
3	Sn 189.927†	946.2	924.5	[500]	µg/L	14:20:32
3	Ti 334.940†	196408.6	191619.7	[500]	µg/L	14:20:06
3	Tl 190.801†	311.8	328.7	[500]	µg/L	14:20:32
3	U 409.014†	4970.2	4905.6	[500]	µg/L	14:20:12
3	V 292.402†	42533.9	41566.2	[500]	µg/L	14:20:12
3	Zn 213.857†	18957.2	18030.7	[500]	µg/L	14:20:12

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1958476.4	10413.33	0.53%	102.55	%
Sc RADIAL	56315.8	173.75	0.31%	103	%
Y 371.029	1338737.9	7733.97	0.58%	102.20	%
Ag 328.068†	60689.0	2196.81	3.62%	[500]	µg/L
Al 396.153Radial†	6570.0	29.39	0.45%	[5000]	µg/L
As 188.979†	245.7	22.07	8.99%	[500]	µg/L
B 249.677†	10893.5	435.04	3.99%	[500]	µg/L
Ba 233.527†	18393.1	948.76	5.16%	[500]	µg/L
Be 313.107†	736248.6	26562.75	3.61%	[500]	µg/L
Ca 317.933Radial†	5115.9	27.60	0.54%	[5000]	µg/L
Cd 226.502†	17446.2	956.62	5.48%	[500]	µg/L
Co 228.616†	9786.2	569.47	5.82%	[500]	µg/L
Cr 267.716†	21751.3	1581.21	7.27%	[500]	µg/L
Cu 324.752†	68415.2	3785.63	5.53%	[500]	µg/L
K 766.490 Radial†	6816.2	49.68	0.73%	[5000]	µg/L
Mg 279.077 IEC†	536.5	6.79	1.26%	[5000]	µg/L
Mn 257.610†	141419.0	4951.74	3.50%	[500]	µg/L
Mo 202.031†	4553.9	462.10	10.15%	[500]	µg/L
Ni 231.604†	8805.9	532.32	6.04%	[500]	µg/L
P 214.914†	1111.9	97.02	8.73%	[2500]	µg/L
Pb 220.353†	1799.0	136.97	7.61%	[500]	µg/L
S 181.975 Axial†	224.2	20.73	9.24%	[1000]	µg/L
Sb 206.836†	493.6	42.92	8.69%	[500]	µg/L
Se 196.026†	317.4	23.20	7.31%	[500]	µg/L
SiO2†	23809.9	1117.40	4.69%	[5347.5]	µg/L
Si 251.611†	29205.3	1355.64	4.64%	[2500]	µg/L

Sn 189.927†	1056.3	114.33	10.82%	[500] µg/L
Sr 421.552†	46507.3	109.22	0.23%	[500] µg/L
Ti 334.940†	200684.6	7877.46	3.93%	[500] µg/L
Tl 190.801†	347.2	16.45	4.74%	[500] µg/L
U 409.014†	5299.1	341.35	6.44%	[500] µg/L
V 292.402†	44781.0	2784.22	6.22%	[500] µg/L
Zn 213.857†	19322.4	1118.82	5.79%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 2/11/2010 14:20:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	54624.1	54624.1	100	%	14:21:14
1	Al 396.153Radial†	13945.5	13943.0	[10000]	µg/L	14:21:14
1	Ca 317.933Radial†	11091.0	10901.8	[10000]	µg/L	14:21:34
1	Fe 238.204 Radial†	1237.7	1222.1	[10000]	µg/L	14:21:34
1	K 766.490 Radial†	14553.2	14411.5	[10000]	µg/L	14:21:14
1	Mg 279.077 IEC†	1145.5	1133.2	[10000]	µg/L	14:21:34
1	Na 589.592 Radial†	32001.3	31430.3	[10000]	µg/L	14:21:14
1	Sr 421.552†	98763.5	98634.1	[1000]	µg/L	14:21:14
1	Sc 361.383	1918837.7	1918837.7	100.47	%	14:22:38
1	Y 371.029	1309873.4	1309873.4	99.997	%	14:22:38
1	Ag 328.068†	129789.4	129745.3	[1000]	µg/L	14:22:44
1	As 188.979†	545.1	541.4	[1000]	µg/L	14:23:05
1	B 249.677†	24100.3	23655.8	[1000]	µg/L	14:22:44
1	Ba 233.527†	40021.0	39859.3	[1000]	µg/L	14:22:44
1	Be 313.107†	1583359.7	1579375.6	[1000]	µg/L	14:22:38
1	Cd 226.502†	37676.7	37642.1	[1000]	µg/L	14:22:44
1	Co 228.616†	21224.5	21133.9	[1000]	µg/L	14:22:44
1	Cr 267.716†	47864.2	47692.2	[1000]	µg/L	14:22:44
1	Cu 324.752†	152208.7	149008.9	[1000]	µg/L	14:22:44
1	Mn 257.610†	300264.6	299100.8	[1000]	µg/L	14:22:44
1	Mo 202.031†	10059.0	10019.4	[1000]	µg/L	14:23:05
1	Ni 231.604†	19417.1	19023.9	[1000]	µg/L	14:22:44
1	P 214.914†	2522.7	2483.2	[5000]	µg/L	14:23:05
1	Pb 220.353†	4095.0	3978.6	[1000]	µg/L	14:23:05
1	S 181.975 Axial†	497.7	480.5	[2000]	µg/L	14:23:05
1	Sb 206.836†	1108.7	1076.5	[1000]	µg/L	14:23:05
1	Se 196.026†	705.0	685.9	[1000]	µg/L	14:23:05
1	SiO2†	52879.3	51381.3	[10695]	µg/L	14:22:44
1	Si 251.611†	63553.1	62942.2	[5000]	µg/L	14:22:44
1	Sn 189.927†	2343.4	2333.3	[1000]	µg/L	14:23:05
1	Ti 334.940†	431168.6	429030.7	[1000]	µg/L	14:22:38
1	Tl 190.801†	726.4	747.3	[1000]	µg/L	14:23:05
1	U 409.014†	11460.5	11460.4	[1000]	µg/L	14:22:44
1	V 292.402†	98389.1	97972.0	[1000]	µg/L	14:22:44
1	Zn 213.857†	42248.3	41574.6	[1000]	µg/L	14:22:44
2	Sc RADIAL	55757.6	55757.6	102	%	14:21:40
2	Al 396.153Radial†	13857.6	13573.7	[10000]	µg/L	14:21:40
2	Ca 317.933Radial†	11113.5	10698.5	[10000]	µg/L	14:22:00
2	Fe 238.204 Radial†	1242.3	1201.4	[10000]	µg/L	14:22:00
2	K 766.490 Radial†	14434.4	13999.7	[10000]	µg/L	14:21:40
2	Mg 279.077 IEC†	1155.1	1119.3	[10000]	µg/L	14:22:00
2	Na 589.592 Radial†	31736.9	30521.6	[10000]	µg/L	14:21:40
2	Sr 421.552†	98177.9	96055.0	[1000]	µg/L	14:21:40
2	Sc 361.383	1912891.8	1912891.8	100.16	%	14:23:11
2	Y 371.029	1304958.7	1304958.7	99.621	%	14:23:11
2	Ag 328.068†	130617.7	130973.8	[1000]	µg/L	14:23:17
2	As 188.979†	550.1	548.1	[1000]	µg/L	14:23:38
2	B 249.677†	24305.4	23935.1	[1000]	µg/L	14:23:17
2	Ba 233.527†	40326.4	40288.1	[1000]	µg/L	14:23:17
2	Be 313.107†	1586929.2	1587837.9	[1000]	µg/L	14:23:11
2	Cd 226.502†	37959.2	38040.8	[1000]	µg/L	14:23:17
2	Co 228.616†	21379.4	21354.1	[1000]	µg/L	14:23:17
2	Cr 267.716†	48340.5	48315.7	[1000]	µg/L	14:23:17
2	Cu 324.752†	153521.9	150790.9	[1000]	µg/L	14:23:17
2	Mn 257.610†	303225.9	302986.3	[1000]	µg/L	14:23:17
2	Mo 202.031†	10012.5	10004.1	[1000]	µg/L	14:23:38
2	Ni 231.604†	19568.5	19235.1	[1000]	µg/L	14:23:17
2	P 214.914†	2513.0	2481.4	[5000]	µg/L	14:23:38
2	Pb 220.353†	4075.3	3971.6	[1000]	µg/L	14:23:38

2	S 181.975 Axial†	494.3	478.7	[2000]	µg/L	14:23:38
2	Sb 206.836†	1106.5	1077.8	[1000]	µg/L	14:23:38
2	Se 196.026†	715.1	698.1	[1000]	µg/L	14:23:38
2	SiO2†	53340.3	52005.2	[10695]	µg/L	14:23:17
2	Si 251.611†	64000.9	63585.9	[5000]	µg/L	14:23:17
2	Sn 189.927†	2345.0	2342.2	[1000]	µg/L	14:23:38
2	Ti 334.940†	432325.2	431519.3	[1000]	µg/L	14:23:11
2	Tl 190.801†	726.1	749.2	[1000]	µg/L	14:23:38
2	U 409.014†	11741.1	11776.0	[1000]	µg/L	14:23:17
2	V 292.402†	99181.6	99067.5	[1000]	µg/L	14:23:17
2	Zn 213.857†	42614.4	42070.9	[1000]	µg/L	14:23:17
3	Sc RADIAL	54875.2	54875.2	101	%	14:22:06
3	Al 396.153Radial†	13886.4	13820.4	[10000]	µg/L	14:22:06
3	Ca 317.933Radial†	11079.2	10839.4	[10000]	µg/L	14:22:26
3	Fe 238.204 Radial†	1232.3	1211.0	[10000]	µg/L	14:22:26
3	K 766.490 Radial†	14321.1	14114.2	[10000]	µg/L	14:22:06
3	Mg 279.077 IEC†	1147.7	1130.1	[10000]	µg/L	14:22:26
3	Na 589.592 Radial†	31806.0	31089.8	[10000]	µg/L	14:22:06
3	Sr 421.552†	97911.9	97335.8	[1000]	µg/L	14:22:06
3	Sc 361.383	1943388.7	1943388.7	101.76	%	14:23:44
3	Y 371.029	1326037.1	1326037.1	101.23	%	14:23:44
3	Ag 328.068†	122308.3	120761.4	[1000]	µg/L	14:23:50
3	As 188.979†	468.8	459.6	[1000]	µg/L	14:24:11
3	B 249.677†	22603.8	21882.1	[1000]	µg/L	14:23:50
3	Ba 233.527†	36855.9	36245.6	[1000]	µg/L	14:23:50
3	Be 313.107†	1492194.6	1469875.4	[1000]	µg/L	14:23:44
3	Cd 226.502†	34480.3	34027.2	[1000]	µg/L	14:23:50
3	Co 228.616†	19338.4	19013.4	[1000]	µg/L	14:23:50
3	Cr 267.716†	42475.6	41794.7	[1000]	µg/L	14:23:50
3	Cu 324.752†	139121.1	134233.4	[1000]	µg/L	14:23:50
3	Mn 257.610†	272803.2	268337.9	[1000]	µg/L	14:23:50
3	Mo 202.031†	8402.4	8264.9	[1000]	µg/L	14:24:11
3	Ni 231.604†	17696.7	17089.1	[1000]	µg/L	14:23:50
3	P 214.914†	2160.3	2095.4	[5000]	µg/L	14:24:11
3	Pb 220.353†	3557.4	3398.8	[1000]	µg/L	14:24:11
3	S 181.975 Axial†	437.7	415.3	[2000]	µg/L	14:24:11
3	Sb 206.836†	957.8	914.3	[1000]	µg/L	14:24:11
3	Se 196.026†	625.8	599.2	[1000]	µg/L	14:24:11
3	SiO2†	49204.0	47104.6	[10695]	µg/L	14:23:50
3	Si 251.611†	59050.8	57718.6	[5000]	µg/L	14:23:50
3	Sn 189.927†	1920.9	1888.6	[1000]	µg/L	14:24:11
3	Ti 334.940†	404515.4	397416.1	[1000]	µg/L	14:23:44
3	Tl 190.801†	655.3	668.3	[1000]	µg/L	14:24:11
3	U 409.014†	10336.6	10211.8	[1000]	µg/L	14:23:50
3	V 292.402†	89071.2	87577.8	[1000]	µg/L	14:23:50
3	Zn 213.857†	38626.6	37484.3	[1000]	µg/L	14:23:50

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1925039.4	16166.66	0.84%	100.80	%
Sc RADIAL	55085.6	595.31	1.08%	101	%
Y 371.029	1313623.1	11028.13	0.84%	100.28	%
Ag 328.068†	127160.2	5575.45	4.38%	[1000]	µg/L
Al 396.153Radial†	13779.0	188.09	1.37%	[10000]	µg/L
As 188.979†	516.3	49.27	9.54%	[1000]	µg/L
B 249.677†	23157.7	1113.46	4.81%	[1000]	µg/L
Ba 233.527†	38797.7	2220.52	5.72%	[1000]	µg/L
Be 313.107†	1545696.3	65799.01	4.26%	[1000]	µg/L
Ca 317.933Radial†	10813.2	104.13	0.96%	[10000]	µg/L
Cd 226.502†	36570.0	2211.18	6.05%	[1000]	µg/L
Co 228.616†	20500.4	1292.54	6.30%	[1000]	µg/L
Cr 267.716†	45934.2	3598.42	7.83%	[1000]	µg/L
Cu 324.752†	144677.7	9088.85	6.28%	[1000]	µg/L
Fe 238.204 Radial†	1211.5	10.32	0.85%	[10000]	µg/L
K 766.490 Radial†	14175.1	212.58	1.50%	[10000]	µg/L
Mg 279.077 IEC†	1127.5	7.31	0.65%	[10000]	µg/L
Mn 257.610†	290141.7	18982.26	6.54%	[1000]	µg/L
Mo 202.031†	9429.5	1008.55	10.70%	[1000]	µg/L
Na 589.592 Radial†	31013.9	459.06	1.48%	[10000]	µg/L

Ni 231.604†	18449.4	1182.78	6.41%	[1000]	µg/L
P 214.914†	2353.3	223.38	9.49%	[5000]	µg/L
Pb 220.353†	3783.0	332.79	8.80%	[1000]	µg/L
S 181.975 Axial†	458.2	37.14	8.10%	[2000]	µg/L
Sb 206.836†	1022.9	94.00	9.19%	[1000]	µg/L
Se 196.026†	661.1	53.94	8.16%	[1000]	µg/L
SiO2†	50163.7	2667.59	5.32%	[10695]	µg/L
Si 251.611†	61415.6	3217.81	5.24%	[5000]	µg/L
Sn 189.927†	2188.0	259.31	11.85%	[1000]	µg/L
Sr 421.552†	97341.6	1289.53	1.32%	[1000]	µg/L
Ti 334.940†	419322.0	19011.87	4.53%	[1000]	µg/L
Tl 190.801†	721.6	46.19	6.40%	[1000]	µg/L
U 409.014†	11149.4	827.15	7.42%	[1000]	µg/L
V 292.402†	94872.5	6341.05	6.68%	[1000]	µg/L
Zn 213.857†	40376.6	2517.08	6.23%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 2/11/2010 14:24:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc RADIAL	55734.1	55734.1	102	%	14:24:53
1	Al 396.153Radial†	68477.1	67062.5	[50000]	µg/L	14:24:53
1	Ca 317.933Radial†	54301.8	52992.8	[50000]	µg/L	14:24:53
1	Fe 238.204 Radial†	2420.6	2355.7	[20000]	µg/L	14:25:13
1	Mg 279.077 IEC†	5505.9	5380.1	[50000]	µg/L	14:25:13
1	Na 589.592 Radial†	62235.4	60398.5	[20000]	µg/L	14:24:53
1	Sc 361.383	1922257.7	1922257.7	100.65	%	14:26:17
1	Y 371.029	1306511.6	1306511.6	99.740	%	14:26:17
2	Sc RADIAL	55997.4	55997.4	103	%	14:25:19
2	Al 396.153Radial†	68696.2	66960.7	[50000]	µg/L	14:25:19
2	Ca 317.933Radial†	54670.5	53102.1	[50000]	µg/L	14:25:19
2	Fe 238.204 Radial†	2419.7	2343.7	[20000]	µg/L	14:25:39
2	Mg 279.077 IEC†	5512.9	5361.5	[50000]	µg/L	14:25:39
2	Na 589.592 Radial†	62504.6	60374.4	[20000]	µg/L	14:25:19
2	Sc 361.383	1943938.9	1943938.9	101.79	%	14:26:25
2	Y 371.029	1321297.0	1321297.0	100.87	%	14:26:25
3	Sc RADIAL	56208.4	56208.4	103	%	14:25:45
3	Al 396.153Radial†	69051.1	67053.9	[50000]	µg/L	14:25:45
3	Ca 317.933Radial†	54933.8	53157.7	[50000]	µg/L	14:25:45
3	Fe 238.204 Radial†	2417.0	2332.2	[20000]	µg/L	14:26:05
3	Mg 279.077 IEC†	5516.6	5344.9	[50000]	µg/L	14:26:05
3	Na 589.592 Radial†	62899.5	60529.1	[20000]	µg/L	14:25:45
3	Sc 361.383	1959647.9	1959647.9	102.61	%	14:26:33
3	Y 371.029	1332766.9	1332766.9	101.74	%	14:26:33

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1941948.2	18774.43	0.97%	101.68	%
Sc RADIAL	55979.9	237.64	0.42%	103	%
Y 371.029	1320191.8	13162.49	1.00%	100.78	%
Al 396.153Radial†	67025.7	56.44	0.08%	[50000]	µg/L
Ca 317.933Radial†	53084.2	83.91	0.16%	[50000]	µg/L
Fe 238.204 Radial†	2343.9	11.76	0.50%	[20000]	µg/L
Mg 279.077 IEC†	5362.2	17.57	0.33%	[50000]	µg/L
Na 589.592 Radial†	60434.0	83.23	0.14%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	126.0	0.00000	0.999831	
Al 396.153Radial	3	Lin Thru 0	0.0	1.342	0.00000	0.999984	
As 188.979	3	Lin Thru 0	0.0	0.5116	0.00000	0.999791	
B 249.677	3	Lin Thru 0	0.0	22.88	0.00000	0.999715	
Ba 233.527	3	Lin Thru 0	0.0	38.40	0.00000	0.999779	
Be 313.107	3	Lin Thru 0	0.0	1531	0.00000	0.999818	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.062	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	36.25	0.00000	0.999822	
Co 228.616	3	Lin Thru 0	0.0	20.32	0.00000	0.999831	
Cr 267.716	3	Lin Thru 0	0.0	45.46	0.00000	0.999766	
Cu 324.752	3	Lin Thru 0	0.0	143.2	0.00000	0.999754	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1180	0.00000	0.999910	
K 766.490 Radial	3	Lin Thru 0	0.0	1.407	0.00000	0.999880	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.1075	0.00000	0.999952	
Mn 257.610	3	Lin Thru 0	0.0	288.8	0.00000	0.999942	
Mo 202.031	3	Lin Thru 0	0.0	9.370	0.00000	0.999888	
Na 589.592 Radia	2	Lin Thru 0	0.0	3.038	0.00000	0.999945	

Ni 231.604	3	Lin Thru 0	0.0	18.29	0.00000	0.999821
P 214.914	3	Lin Thru 0	0.0	0.4657	0.00000	0.999737
Pb 220.353	3	Lin Thru 0	0.0	3.748	0.00000	0.999792
S 181.975 Axial	3	Lin Thru 0	0.0	0.2282	0.00000	0.999946
Sb 206.836	3	Lin Thru 0	0.0	1.016	0.00000	0.999901
Se 196.026	3	Lin Thru 0	0.0	0.6559	0.00000	0.999870
SiO2	3	Lin Thru 0	0.0	4.643	0.00000	0.999791
Si 251.611	3	Lin Thru 0	0.0	12.16	0.00000	0.999805
Sn 189.927	3	Lin Thru 0	0.0	2.174	0.00000	0.999882
Sr 421.552	3	Lin Thru 0	0.0	96.47	0.00000	0.999840
Ti 334.940	3	Lin Thru 0	0.0	415.7	0.00000	0.999852
Tl 190.801	3	Lin Thru 0	0.0	0.7164	0.00000	0.999879
U 409.014	3	Lin Thru 0	0.0	11.05	0.00000	0.999783
V 292.402	3	Lin Thru 0	0.0	93.83	0.00000	0.999742
Zn 213.857	3	Lin Thru 0	0.0	40.05	0.00000	0.999841

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 2/11/2010 14:26:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56175.2	56175.2	103	%			14:27:15
1	Al 396.153Radial†	6827.4	6643.0	4939.9	µg/L	4939.9	ppb	14:27:35
1	Ca 317.933Radial†	5504.7	5168.7	4866.7	µg/L	4866.7	ppb	14:27:35
1	Fe 238.204 Radial†	619.4	587.3	4988.2	µg/L	4988.2	ppb	14:27:35
1	K 766.490 Radial†	3573.7	3343.4	2376.5	µg/L	2376.5	ppb	14:27:15
1	Mg 279.077 IEC†	579.7	551.9	5140.1	µg/L	5140.1	ppb	14:27:35
1	Na 589.592 Radial†	7985.2	7215.8	2375.5	µg/L	2375.5	ppb	14:27:15
1	Sr 421.552†	49736.5	48279.6	500.47	µg/L	500.47	ppb	14:27:15
1	Sc 361.383	1963746.6	1963746.6	102.82	%			14:28:38
1	Y 371.029	1343456.9	1343456.9	102.56	%			14:28:38
1	Ag 328.068†	32402.4	32077.4	258.20	µg/L	258.20	ppb	14:28:44
1	As 188.979†	252.0	244.0	475.79	µg/L	475.79	ppb	14:29:05
1	B 249.677†	12299.6	11630.5	506.47	µg/L	506.47	ppb	14:28:44
1	Ba 233.527†	19805.3	19287.7	503.14	µg/L	503.14	ppb	14:28:44
1	Be 313.107†	400944.5	393378.7	256.71	µg/L	256.71	ppb	14:28:38
1	Cd 226.502†	18448.5	18084.2	498.85	µg/L	498.85	ppb	14:28:44
1	Co 228.616†	10564.7	10283.6	505.57	µg/L	505.57	ppb	14:28:44
1	Cr 267.716†	22885.3	22309.5	491.04	µg/L	491.04	ppb	14:28:44
1	Cu 324.752†	76882.1	72285.6	505.62	µg/L	505.62	ppb	14:28:44
1	Mn 257.610†	151694.6	147774.6	512.18	µg/L	512.18	ppb	14:28:38
1	Mo 202.031†	5332.7	5193.9	554.49	µg/L	554.49	ppb	14:29:05
1	Ni 231.604†	9713.9	9145.0	499.47	µg/L	499.47	ppb	14:28:44
1	P 214.914†	1269.4	1206.9	2543.7	µg/L	2543.7	ppb	14:29:05
1	Pb 220.353†	2051.9	1898.4	506.85	µg/L	506.85	ppb	14:29:05
1	S 181.975 Axial†	610.0	578.4	2534.1	µg/L	2534.1	ppb	14:29:05
1	Sb 206.836†	565.9	523.4	518.27	µg/L	518.27	ppb	14:29:05
1	Se 196.026†	1740.7	1677.1	2564.5	µg/L	2564.5	ppb	14:29:05
1	SiO2†	50702.0	48060.2	10350	µg/L	10350	ppb	14:28:44
1	Si 251.611†	60656.9	58679.0	4823.7	µg/L	4823.7	ppb	14:28:44
1	Sn 189.927†	1247.6	1214.2	558.50	µg/L	558.50	ppb	14:29:05
1	Ti 334.940†	209346.8	203483.9	489.14	µg/L	489.14	ppb	14:28:38
1	Tl 190.801†	364.1	378.4	534.06	µg/L	534.06	ppb	14:29:05
1	U 409.014†	5596.2	5496.2	496.62	µg/L	496.62	ppb	14:28:44
1	V 292.402†	48924.8	47626.0	514.07	µg/L	514.07	ppb	14:28:44
1	Zn 213.857†	21567.2	20499.6	508.35	µg/L	508.35	ppb	14:28:44
2	Sc RADIAL	56033.1	56033.1	103	%			14:27:40
2	Al 396.153Radial†	6802.0	6635.1	4934.1	µg/L	4934.1	ppb	14:28:01
2	Ca 317.933Radial†	5475.3	5153.6	4852.4	µg/L	4852.4	ppb	14:28:01
2	Fe 238.204 Radial†	614.3	583.8	4958.8	µg/L	4958.8	ppb	14:28:01
2	K 766.490 Radial†	3641.5	3418.3	2429.7	µg/L	2429.7	ppb	14:27:40
2	Mg 279.077 IEC†	579.8	553.4	5154.4	µg/L	5154.4	ppb	14:28:01
2	Na 589.592 Radial†	8029.7	7278.8	2396.2	µg/L	2396.2	ppb	14:27:40
2	Sr 421.552†	50111.3	48767.2	505.53	µg/L	505.53	ppb	14:27:40
2	Sc 361.383	1959108.8	1959108.8	102.58	%			14:29:12
2	Y 371.029	1337906.1	1337906.1	102.14	%			14:29:12
2	Ag 328.068†	32371.7	32122.1	258.56	µg/L	258.56	ppb	14:29:17
2	As 188.979†	250.3	242.8	473.56	µg/L	473.56	ppb	14:29:38
2	B 249.677†	12349.9	11707.8	509.86	µg/L	509.86	ppb	14:29:17
2	Ba 233.527†	19859.1	19385.7	505.69	µg/L	505.69	ppb	14:29:17
2	Be 313.107†	397767.3	391204.5	255.29	µg/L	255.29	ppb	14:29:12
2	Cd 226.502†	18445.9	18124.1	499.96	µg/L	499.96	ppb	14:29:17
2	Co 228.616†	10616.9	10358.7	509.26	µg/L	509.26	ppb	14:29:17
2	Cr 267.716†	22880.0	22357.0	492.09	µg/L	492.09	ppb	14:29:17
2	Cu 324.752†	76966.8	72545.1	507.43	µg/L	507.43	ppb	14:29:17
2	Mn 257.610†	150503.7	146962.9	509.37	µg/L	509.37	ppb	14:29:12
2	Mo 202.031†	5249.3	5124.9	547.12	µg/L	547.12	ppb	14:29:38
2	Ni 231.604†	9710.9	9164.5	500.53	µg/L	500.53	ppb	14:29:17
2	P 214.914†	1234.6	1175.9	2476.8	µg/L	2476.8	ppb	14:29:38
2	Pb 220.353†	2014.2	1866.4	498.27	µg/L	498.27	ppb	14:29:38

2	S 181.975 Axial†	603.9	573.9	2514.5 µg/L	2514.5 ppb	14:29:38
2	Sb 206.836†	552.1	511.3	506.22 µg/L	506.22 ppb	14:29:38
2	Se 196.026†	1718.6	1659.6	2537.7 µg/L	2537.7 ppb	14:29:38
2	SiO2†	50804.5	48276.9	10397 µg/L	10397 ppb	14:29:17
2	Si 251.611†	60707.2	58867.6	4839.2 µg/L	4839.2 ppb	14:29:17
2	Sn 189.927†	1227.9	1197.9	551.01 µg/L	551.01 ppb	14:29:38
2	Ti 334.940†	208068.6	202719.9	487.30 µg/L	487.30 ppb	14:29:12
2	Tl 190.801†	356.4	371.7	524.72 µg/L	524.72 ppb	14:29:38
2	U 409.014†	5657.2	5568.6	503.18 µg/L	503.18 ppb	14:29:17
2	V 292.402†	48911.7	47725.9	515.09 µg/L	515.09 ppb	14:29:17
2	Zn 213.857†	21491.7	20475.7	507.74 µg/L	507.74 ppb	14:29:17
3	Sc RADIAL	55710.7	55710.7	102 %		14:28:06
3	Al 396.153Radial†	6837.6	6708.3	4990.5 µg/L	4990.5 ppb	14:28:27
3	Ca 317.933Radial†	5503.3	5211.9	4907.4 µg/L	4907.4 ppb	14:28:27
3	Fe 238.204 Radial†	619.1	592.0	5027.4 µg/L	5027.4 ppb	14:28:27
3	K 766.490 Radial†	3604.3	3402.4	2418.4 µg/L	2418.4 ppb	14:28:06
3	Mg 279.077 IEC†	577.0	553.9	5157.4 µg/L	5157.4 ppb	14:28:27
3	Na 589.592 Radial†	7999.1	7294.1	2401.2 µg/L	2401.2 ppb	14:28:06
3	Sr 421.552†	49756.2	48701.8	504.85 µg/L	504.85 ppb	14:28:06
3	Sc 361.383	1966591.1	1966591.1	102.97 %		14:29:45
3	Y 371.029	1344829.1	1344829.1	102.67 %		14:29:45
3	Ag 328.068†	30447.1	30133.0	242.44 µg/L	242.44 ppb	14:29:51
3	As 188.979†	212.1	204.8	399.46 µg/L	399.46 ppb	14:30:11
3	B 249.677†	11543.9	10879.3	473.52 µg/L	473.52 ppb	14:29:51
3	Ba 233.527†	18235.3	17735.1	462.62 µg/L	462.62 ppb	14:29:51
3	Be 313.107†	376544.4	369118.7	240.88 µg/L	240.88 ppb	14:29:45
3	Cd 226.502†	16808.4	16465.5	454.14 µg/L	454.14 ppb	14:29:51
3	Co 228.616†	9616.6	9347.9	459.50 µg/L	459.50 ppb	14:29:51
3	Cr 267.716†	20282.2	19749.2	434.69 µg/L	434.69 ppb	14:29:51
3	Cu 324.752†	70054.3	65546.6	458.56 µg/L	458.56 ppb	14:29:51
3	Mn 257.610†	142833.7	138956.0	481.65 µg/L	481.65 ppb	14:29:45
3	Mo 202.031†	4404.7	4285.1	457.51 µg/L	457.51 ppb	14:30:11
3	Ni 231.604†	8886.0	8327.4	454.82 µg/L	454.82 ppb	14:29:51
3	P 214.914†	1057.7	999.5	2101.9 µg/L	2101.9 ppb	14:30:11
3	Pb 220.353†	1779.9	1631.4	435.46 µg/L	435.46 ppb	14:30:11
3	S 181.975 Axial†	527.5	497.5	2179.7 µg/L	2179.7 ppb	14:30:11
3	Sb 206.836†	492.5	451.4	446.41 µg/L	446.41 ppb	14:30:11
3	Se 196.026†	1501.7	1442.5	2207.0 µg/L	2207.0 ppb	14:30:11
3	SiO2†	47105.5	44496.1	9582.5 µg/L	9582.5 ppb	14:29:51
3	Si 251.611†	56262.5	54326.1	4465.9 µg/L	4465.9 ppb	14:29:51
3	Sn 189.927†	1018.6	990.0	455.40 µg/L	455.40 ppb	14:30:11
3	Ti 334.940†	196112.8	190337.3	457.51 µg/L	457.51 ppb	14:29:45
3	Tl 190.801†	328.3	343.2	484.58 µg/L	484.58 ppb	14:30:11
3	U 409.014†	4922.5	4834.1	436.66 µg/L	436.66 ppb	14:29:51
3	V 292.402†	44109.1	42880.5	462.56 µg/L	462.56 ppb	14:29:51
3	Zn 213.857†	19646.9	18604.4	461.29 µg/L	461.29 ppb	14:29:51

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1963148.8	102.79	%	0.198				0.19%
Sc RADIAL	55973.0	103	%	0.4				0.43%
Y 371.029	1342064.0	102.45	%	0.280				0.27%
Ag 328.068†	31444.2	253.06	µg/L	9.205	253.06	ppb	9.205	3.64%
QC value within limits for Ag 328.068 Recovery = 101.23%								
Al 396.153Radial†	6662.1	4954.8	µg/L	31.04	4954.8	ppb	31.04	0.63%
QC value within limits for Al 396.153Radial Recovery = 99.10%								
As 188.979†	230.5	449.61	µg/L	43.438	449.61	ppb	43.438	9.66%
QC value less than the lower limit for As 188.979 Recovery = 89.92%								
B 249.677†	11405.9	496.62	µg/L	20.071	496.62	ppb	20.071	4.04%
QC value within limits for B 249.677 Recovery = 99.32%								
Ba 233.527†	18802.8	490.48	µg/L	24.164	490.48	ppb	24.164	4.93%
QC value within limits for Ba 233.527 Recovery = 98.10%								
Be 313.107†	384567.3	250.96	µg/L	8.759	250.96	ppb	8.759	3.49%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	5178.1	4875.5	µg/L	28.51	4875.5	ppb	28.51	0.58%
QC value within limits for Ca 317.933Radial Recovery = 97.51%								
Cd 226.502†	17558.0	484.32	µg/L	26.137	484.32	ppb	26.137	5.40%
QC value within limits for Cd 226.502 Recovery = 96.86%								
Co 228.616†	9996.7	491.44	µg/L	27.727	491.44	ppb	27.727	5.64%

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   QC value within limits for Co 228.616  Recovery = 98.29%
Cr 267.716†          21471.9      472.61 µg/L       32.838      472.61 ppb        32.838   6.95%
   QC value within limits for Cr 267.716  Recovery = 94.52%
Cu 324.752†          70125.8      490.54 µg/L       27.712      490.54 ppb        27.712   5.65%
   QC value within limits for Cu 324.752  Recovery = 98.11%
Fe 238.204 Radial†     587.7      4991.5 µg/L        34.44      4991.5 ppb         34.44   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.83%
K 766.490 Radial†     3388.1      2408.2 µg/L        28.04      2408.2 ppb         28.04   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 96.33%
Mg 279.077 IEC†        553.1      5150.6 µg/L         9.21      5150.6 ppb          9.21   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.01%
Mn 257.610†         144564.5      501.06 µg/L       16.874      501.06 ppb        16.874   3.37%
   QC value within limits for Mn 257.610  Recovery = 100.21%
Mo 202.031†          4868.0      519.70 µg/L       53.991      519.70 ppb        53.991  10.39%
   QC value within limits for Mo 202.031  Recovery = 103.94%
Na 589.592 Radial†   7262.9      2391.0 µg/L        13.66      2391.0 ppb         13.66   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 95.64%
Ni 231.604†          8879.0      484.94 µg/L       26.089      484.94 ppb        26.089   5.38%
   QC value within limits for Ni 231.604  Recovery = 96.99%
P 214.914†           1127.4      2374.2 µg/L       238.13      2374.2 ppb        238.13  10.03%
   QC value within limits for P 214.914  Recovery = 94.97%
Pb 220.353†          1798.7      480.19 µg/L       38.976      480.19 ppb        38.976   8.12%
   QC value within limits for Pb 220.353  Recovery = 96.04%
S 181.975 Axial†      549.9      2409.5 µg/L       199.20      2409.5 ppb        199.20   8.27%
   QC value within limits for S 181.975 Axial  Recovery = 96.38%
Sb 206.836†           495.4      490.30 µg/L       38.486      490.30 ppb        38.486   7.85%
   QC value within limits for Sb 206.836  Recovery = 98.06%
Se 196.026†          1593.1      2436.4 µg/L       199.13      2436.4 ppb        199.13   8.17%
   QC value within limits for Se 196.026  Recovery = 97.46%
SiO2†               46944.4       10110 µg/L        457.2       10110 ppb         457.2   4.52%
   QC value within limits for SiO2  Recovery = 94.53%
Si 251.611†         57290.9      4709.6 µg/L       211.21      4709.6 ppb        211.21   4.48%
   QC value within limits for Si 251.611  Recovery = 94.19%
Sn 189.927†          1134.1      521.64 µg/L       57.487      521.64 ppb        57.487  11.02%
   QC value within limits for Sn 189.927  Recovery = 104.33%
Sr 421.552†         48582.8      503.62 µg/L        2.743      503.62 ppb         2.743   0.54%
   QC value within limits for Sr 421.552  Recovery = 100.72%
Ti 334.940†        198847.0      477.98 µg/L       17.751      477.98 ppb        17.751   3.71%
   QC value within limits for Ti 334.940  Recovery = 95.60%
Tl 190.801†           364.4      514.45 µg/L       26.290      514.45 ppb        26.290   5.11%
   QC value within limits for Tl 190.801  Recovery = 102.89%
U 409.014†           5299.6      478.82 µg/L       36.655      478.82 ppb        36.655   7.66%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†          46077.4      497.24 µg/L       30.036      497.24 ppb        30.036   6.04%
   QC value within limits for V 292.402  Recovery = 99.45%
Zn 213.857†         19859.9      492.46 µg/L       26.995      492.46 ppb        26.995   5.48%
   QC value within limits for Zn 213.857  Recovery = 98.49%
QC Failed.  Continue with analysis.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 2/11/2010 14:30:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55908.8	55908.8	102	%			14:30:53
1	Al 396.153Radial†	-5.0	5.2	3.8899	µg/L	3.8899	ppb	14:30:53
1	Ca 317.933Radial†	192.7	9.0	8.4299	µg/L	8.4299	ppb	14:31:14
1	Fe 238.204 Radial†	14.3	-0.6	-4.9645	µg/L	-4.9645	ppb	14:31:14
1	K 766.490 Radial†	107.9	-23.1	-16.426	µg/L	-16.426	ppb	14:30:53
1	Mg 279.077 IEC†	15.7	4.0	37.295	µg/L	37.295	ppb	14:31:14
1	Na 589.592 Radial†	574.2	18.7	6.1420	µg/L	6.1420	ppb	14:30:53
1	Sr 421.552†	57.3	16.3	0.1694	µg/L	0.1694	ppb	14:30:53
1	Sc 361.383	1944300.1	1944300.1	101.80	%			14:32:16
1	Y 371.029	1332393.9	1332393.9	101.72	%			14:32:16
1	Ag 328.068†	-508.2	65.3	0.5177	µg/L	0.5177	ppb	14:32:21
1	As 188.979†	2.4	1.2	2.3247	µg/L	2.3247	ppb	14:32:42
1	B 249.677†	341.3	3.8	0.1701	µg/L	0.1701	ppb	14:32:42
1	Ba 233.527†	-14.2	12.0	0.3135	µg/L	0.3135	ppb	14:32:42
1	Be 313.107†	-3420.4	80.6	0.0526	µg/L	0.0526	ppb	14:32:21
1	Cd 226.502†	-141.7	2.9	0.0816	µg/L	0.0816	ppb	14:32:42
1	Co 228.616†	-8.8	0.2	0.0094	µg/L	0.0094	ppb	14:32:42
1	Cr 267.716†	-52.4	0.9	0.0196	µg/L	0.0196	ppb	14:32:21
1	Cu 324.752†	2516.4	-14.3	-0.1006	µg/L	-0.1006	ppb	14:32:21
1	Mn 257.610†	-222.7	25.3	0.0856	µg/L	0.0856	ppb	14:32:42
1	Mo 202.031†	-0.2	7.3	0.7799	µg/L	0.7799	ppb	14:32:42
1	Ni 231.604†	301.0	-6.6	-0.3591	µg/L	-0.3591	ppb	14:32:42
1	P 214.914†	32.4	4.2	8.9740	µg/L	8.9740	ppb	14:32:42
1	Pb 220.353†	88.6	-10.1	-2.7035	µg/L	-2.7035	ppb	14:32:42
1	S 181.975 Axial†	16.5	1.4	6.0966	µg/L	6.0966	ppb	14:32:42
1	Sb 206.836†	22.8	-4.6	-4.5144	µg/L	-4.5144	ppb	14:32:42
1	Se 196.026†	21.7	5.5	8.3158	µg/L	8.3158	ppb	14:32:42
1	SiO2†	1261.7	-10.7	-2.2937	µg/L	-2.2937	ppb	14:32:21
1	Si 251.611†	339.4	20.5	1.6875	µg/L	1.6875	ppb	14:32:42
1	Sn 189.927†	1.1	2.0	0.9031	µg/L	0.9031	ppb	14:32:42
1	Ti 334.940†	148.3	29.6	0.0683	µg/L	0.0683	ppb	14:32:21
1	Tl 190.801†	-21.8	2.8	3.9713	µg/L	3.9713	ppb	14:32:42
1	U 409.014†	-33.0	21.2	1.9223	µg/L	1.9223	ppb	14:32:21
1	V 292.402†	-53.1	-7.9	-0.0767	µg/L	-0.0767	ppb	14:32:21
1	Zn 213.857†	482.8	-1.3	-0.0325	µg/L	-0.0325	ppb	14:32:42
2	Sc RADIAL	55881.3	55881.3	102	%			14:31:19
2	Al 396.153Radial†	-15.6	-5.1	-3.7901	µg/L	-3.7901	ppb	14:31:19
2	Ca 317.933Radial†	181.6	-1.8	-1.6610	µg/L	-1.6610	ppb	14:31:40
2	Fe 238.204 Radial†	14.4	-0.5	-4.0234	µg/L	-4.0234	ppb	14:31:40
2	K 766.490 Radial†	165.7	33.4	23.714	µg/L	23.714	ppb	14:31:19
2	Mg 279.077 IEC†	9.4	-2.1	-19.910	µg/L	-19.910	ppb	14:31:40
2	Na 589.592 Radial†	521.5	-32.6	-10.727	µg/L	-10.727	ppb	14:31:19
2	Sr 421.552†	60.7	19.7	0.2040	µg/L	0.2040	ppb	14:31:19
2	Sc 361.383	1964760.3	1964760.3	102.88	%			14:32:48
2	Y 371.029	1347613.8	1347613.8	102.88	%			14:32:48
2	Ag 328.068†	-518.5	60.5	0.4799	µg/L	0.4799	ppb	14:32:53
2	As 188.979†	-1.3	-2.4	-4.7694	µg/L	-4.7694	ppb	14:33:14
2	B 249.677†	344.7	3.6	0.1600	µg/L	0.1600	ppb	14:33:14
2	Ba 233.527†	-16.3	10.1	0.2637	µg/L	0.2637	ppb	14:33:14
2	Be 313.107†	-3298.7	234.0	0.1527	µg/L	0.1527	ppb	14:32:53
2	Cd 226.502†	-133.3	12.6	0.3477	µg/L	0.3477	ppb	14:33:14
2	Co 228.616†	-4.9	4.1	0.2028	µg/L	0.2028	ppb	14:33:14
2	Cr 267.716†	-12.9	39.8	0.8752	µg/L	0.8752	ppb	14:32:53
2	Cu 324.752†	2529.4	-27.4	-0.1918	µg/L	-0.1918	ppb	14:32:53
2	Mn 257.610†	-202.1	47.7	0.1654	µg/L	0.1654	ppb	14:33:14
2	Mo 202.031†	1.2	8.7	0.9303	µg/L	0.9303	ppb	14:33:14
2	Ni 231.604†	305.7	-5.0	-0.2753	µg/L	-0.2753	ppb	14:33:14
2	P 214.914†	24.2	-4.1	-8.8167	µg/L	-8.8167	ppb	14:33:14
2	Pb 220.353†	97.8	-2.1	-0.5597	µg/L	-0.5597	ppb	14:33:14

2	S 181.975 Axial†	15.1	-0.1	-0.5770 µg/L	-0.5770 ppb	14:33:14
2	Sb 206.836†	27.2	-0.5	-0.4890 µg/L	-0.4890 ppb	14:33:14
2	Se 196.026†	14.7	-1.6	-2.3575 µg/L	-2.3575 ppb	14:33:14
2	SiO2†	1242.8	-41.9	-9.0338 µg/L	-9.0338 ppb	14:32:53
2	Si 251.611†	360.2	37.3	3.0664 µg/L	3.0664 ppb	14:33:14
2	Sn 189.927†	0.7	1.6	0.7280 µg/L	0.7280 ppb	14:33:14
2	Ti 334.940†	261.8	138.4	0.3344 µg/L	0.3344 ppb	14:32:53
2	Tl 190.801†	-26.1	-1.1	-1.5598 µg/L	-1.5598 ppb	14:33:14
2	U 409.014†	-15.1	39.0	3.5273 µg/L	3.5273 ppb	14:32:53
2	V 292.402†	-42.6	2.8	0.0426 µg/L	0.0426 ppb	14:32:53
2	Zn 213.857†	491.7	2.4	0.0627 µg/L	0.0627 ppb	14:33:14
3	Sc RADIAL	56329.8	56329.8	103 %		14:31:45
3	Al 396.153Radial†	2.8	12.8	9.5317 µg/L	9.5317 ppb	14:31:45
3	Ca 317.933Radial†	174.0	-10.6	-9.9765 µg/L	-9.9765 ppb	14:32:05
3	Fe 238.204 Radial†	15.1	0.1	1.1942 µg/L	1.1942 ppb	14:32:05
3	K 766.490 Radial†	116.0	-16.0	-11.375 µg/L	-11.375 ppb	14:31:45
3	Mg 279.077 IEC†	9.4	-2.1	-19.858 µg/L	-19.858 ppb	14:32:05
3	Na 589.592 Radial†	536.5	-22.1	-7.2800 µg/L	-7.2800 ppb	14:31:45
3	Sr 421.552†	17.2	-22.9	-0.2369 µg/L	-0.2369 ppb	14:31:45
3	Sc 361.383	1963041.8	1963041.8	102.79 %		14:33:20
3	Y 371.029	1346546.9	1346546.9	102.80 %		14:33:20
3	Ag 328.068†	-542.7	36.6	0.2929 µg/L	0.2929 ppb	14:33:26
3	As 188.979†	1.8	0.6	1.1689 µg/L	1.1689 ppb	14:33:46
3	B 249.677†	343.0	2.2	0.0978 µg/L	0.0978 ppb	14:33:46
3	Ba 233.527†	-18.5	8.0	0.2082 µg/L	0.2082 ppb	14:33:46
3	Be 313.107†	-3230.6	297.4	0.1942 µg/L	0.1942 ppb	14:33:26
3	Cd 226.502†	-130.1	15.5	0.4281 µg/L	0.4281 ppb	14:33:46
3	Co 228.616†	-21.8	-12.4	-0.6104 µg/L	-0.6104 ppb	14:33:46
3	Cr 267.716†	-41.2	12.3	0.2708 µg/L	0.2708 ppb	14:33:26
3	Cu 324.752†	2546.0	-9.1	-0.0637 µg/L	-0.0637 ppb	14:33:26
3	Mn 257.610†	-170.0	78.8	0.2737 µg/L	0.2737 ppb	14:33:46
3	Mo 202.031†	0.3	7.9	0.8413 µg/L	0.8413 ppb	14:33:46
3	Ni 231.604†	307.9	-2.6	-0.1428 µg/L	-0.1428 ppb	14:33:46
3	P 214.914†	31.7	3.2	7.0023 µg/L	7.0023 ppb	14:33:46
3	Pb 220.353†	97.7	-2.1	-0.5651 µg/L	-0.5651 ppb	14:33:46
3	S 181.975 Axial†	14.0	-1.2	-5.1565 µg/L	-5.1565 ppb	14:33:46
3	Sb 206.836†	18.5	-9.0	-8.8540 µg/L	-8.8540 ppb	14:33:46
3	Se 196.026†	7.7	-8.4	-12.762 µg/L	-12.762 ppb	14:33:46
3	SiO2†	1231.2	-52.2	-11.239 µg/L	-11.239 ppb	14:33:26
3	Si 251.611†	338.7	16.6	1.3655 µg/L	1.3655 ppb	14:33:46
3	Sn 189.927†	2.7	3.5	1.5931 µg/L	1.5931 ppb	14:33:46
3	Ti 334.940†	206.7	84.9	0.2057 µg/L	0.2057 ppb	14:33:26
3	Tl 190.801†	-23.5	1.4	1.9821 µg/L	1.9821 ppb	14:33:46
3	U 409.014†	-82.4	-26.6	-2.4037 µg/L	-2.4037 ppb	14:33:26
3	V 292.402†	-5.0	39.3	0.4238 µg/L	0.4238 ppb	14:33:26
3	Zn 213.857†	490.6	1.7	0.0448 µg/L	0.0448 ppb	14:33:46

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1957367.4	102.49	%	0.594				0.58%
Sc RADIAL	56040.0	103	%	0.5				0.45%
Y 371.029	1342184.9	102.46	%	0.649				0.63%
Ag 328.068†	54.1	0.4302	µg/L	0.12036	0.4302	ppb	0.12036	27.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.3	3.2105	µg/L	6.68686	3.2105	ppb	6.68686	208.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.2	-0.4253	µg/L	3.80624	-0.4253	ppb	3.80624	895.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	3.2	0.1426	µg/L	0.03915	0.1426	ppb	0.03915	27.45%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.0	0.2618	µg/L	0.05266	0.2618	ppb	0.05266	20.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	204.0	0.1331	µg/L	0.07275	0.1331	ppb	0.07275	54.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.1	-1.0692	µg/L	9.21745	-1.0692	ppb	9.21745	862.10%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.4	0.2858	µg/L	0.18136	0.2858	ppb	0.18136	63.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.7	-0.1327	µg/L	0.42483	-0.1327	ppb	0.42483	320.06%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              17.7      0.3886 µg/L       0.43975      0.3886 ppb        0.43975 113.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -16.9     -0.1187 µg/L       0.06593     -0.1187 ppb        0.06593  55.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.3     -2.5979 µg/L       3.31761     -2.5979 ppb        3.31761 127.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -1.9     -1.3625 µg/L      21.86298     -1.3625 ppb       21.86298 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.1     -0.8244 µg/L      33.01203     -0.8244 ppb       33.01203 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              50.6      0.1749 µg/L       0.09441      0.1749 ppb        0.09441  53.98%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.0      0.8505 µg/L       0.07561      0.8505 ppb        0.07561   8.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -12.0     -3.9548 µg/L       8.91231     -3.9548 ppb        8.91231 225.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.7     -0.2590 µg/L       0.10906     -0.2590 ppb        0.10906  42.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.1      2.3865 µg/L       9.75229      2.3865 ppb        9.75229 408.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.8     -1.2761 µg/L       1.23617     -1.2761 ppb        1.23617  96.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.0      0.1210 µg/L       5.65896      0.1210 ppb        5.65896 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.7     -4.6191 µg/L       4.18349     -4.6191 ppb        4.18349  90.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.5     -2.2678 µg/L      10.53912     -2.2678 ppb       10.53912 464.73%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -34.9     -7.5220 µg/L       4.66014     -7.5220 ppb        4.66014  61.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              24.8      2.0398 µg/L       0.90350      2.0398 ppb        0.90350  44.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.3      1.0747 µg/L       0.45737      1.0747 ppb        0.45737  42.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               4.4      0.0455 µg/L       0.24518      0.0455 ppb        0.24518 539.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              84.3      0.2028 µg/L       0.13307      0.2028 ppb        0.13307  65.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      1.4645 µg/L       2.80164      1.4645 ppb        2.80164 191.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               11.2      1.0153 µg/L       3.06778      1.0153 ppb        3.06778 302.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               11.4      0.1299 µg/L       0.26143      0.1299 ppb        0.26143 201.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               0.9      0.0250 µg/L       0.05061      0.0250 ppb        0.05061 202.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 2/11/2010 14:33:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54747.4	54747.4	100	%			14:34:28
1	Al 396.153Radial†	273.1	282.4	210.27	µg/L	210.27	ppb	14:34:28
1	Ca 317.933Radial†	397.1	216.7	204.01	µg/L	204.01	ppb	14:34:49
1	Fe 238.204 Radial†	30.8	16.2	137.25	µg/L	137.25	ppb	14:34:49
1	K 766.490 Radial†	363.7	234.1	166.40	µg/L	166.40	ppb	14:34:28
1	Mg 279.077 IEC†	45.5	34.1	317.43	µg/L	317.43	ppb	14:34:49
1	Na 589.592 Radial†	1424.0	877.6	288.92	µg/L	288.92	ppb	14:34:28
1	Sr 421.552†	486.3	445.2	4.6152	µg/L	4.6152	ppb	14:34:28
1	Sc 361.383	1940350.4	1940350.4	101.60	%			14:35:51
1	Y 371.029	1331501.6	1331501.6	101.65	%			14:35:51
1	Ag 328.068†	65.6	629.1	5.0332	µg/L	5.0332	ppb	14:35:56
1	As 188.979†	15.0	13.6	26.557	µg/L	26.557	ppb	14:36:17
1	B 249.677†	1481.9	1127.1	49.194	µg/L	49.194	ppb	14:35:56
1	Ba 233.527†	167.0	190.4	4.9664	µg/L	4.9664	ppb	14:36:17
1	Be 313.107†	4123.9	7499.6	4.8957	µg/L	4.8957	ppb	14:35:56
1	Cd 226.502†	43.2	184.7	5.0837	µg/L	5.0837	ppb	14:36:17
1	Co 228.616†	90.6	98.0	4.8213	µg/L	4.8213	ppb	14:36:17
1	Cr 267.716†	181.4	230.9	5.0824	µg/L	5.0824	ppb	14:36:17
1	Cu 324.752†	4005.0	1456.0	10.189	µg/L	10.189	ppb	14:35:56
1	Mn 257.610†	2747.7	2948.6	10.216	µg/L	10.216	ppb	14:35:56
1	Mo 202.031†	89.7	95.8	10.232	µg/L	10.232	ppb	14:36:17
1	Ni 231.604†	390.7	82.4	4.5019	µg/L	4.5019	ppb	14:36:17
1	P 214.914†	110.5	81.1	173.12	µg/L	173.12	ppb	14:36:17
1	Pb 220.353†	141.4	42.0	11.169	µg/L	11.169	ppb	14:36:17
1	S 181.975 Axial†	37.1	21.7	95.029	µg/L	95.029	ppb	14:36:17
1	Sb 206.836†	32.7	5.2	5.2344	µg/L	5.2344	ppb	14:36:17
1	Se 196.026†	25.6	9.4	14.367	µg/L	14.367	ppb	14:36:17
1	SiO2†	2267.0	981.4	211.34	µg/L	211.34	ppb	14:35:56
1	Si 251.611†	1501.7	1165.2	95.786	µg/L	95.786	ppb	14:36:17
1	Sn 189.927†	16.7	17.3	7.9752	µg/L	7.9752	ppb	14:36:17
1	Ti 334.940†	2212.8	2061.9	4.9379	µg/L	4.9379	ppb	14:35:56
1	Tl 190.801†	-5.1	19.2	27.011	µg/L	27.011	ppb	14:36:17
1	U 409.014†	558.4	603.3	54.587	µg/L	54.587	ppb	14:35:56
1	V 292.402†	425.6	463.2	5.0996	µg/L	5.0996	ppb	14:35:56
1	Zn 213.857†	892.7	403.1	10.006	µg/L	10.006	ppb	14:36:17
2	Sc RADIAL	54832.7	54832.7	100	%			14:34:54
2	Al 396.153Radial†	256.5	265.4	197.60	µg/L	197.60	ppb	14:34:54
2	Ca 317.933Radial†	389.1	208.2	196.00	µg/L	196.00	ppb	14:35:15
2	Fe 238.204 Radial†	27.3	12.7	107.86	µg/L	107.86	ppb	14:35:15
2	K 766.490 Radial†	367.8	237.7	168.93	µg/L	168.93	ppb	14:34:54
2	Mg 279.077 IEC†	46.2	34.7	322.64	µg/L	322.64	ppb	14:35:15
2	Na 589.592 Radial†	1434.3	885.7	291.57	µg/L	291.57	ppb	14:34:54
2	Sr 421.552†	510.9	468.9	4.8611	µg/L	4.8611	ppb	14:34:54
2	Sc 361.383	1945380.3	1945380.3	101.86	%			14:36:23
2	Y 371.029	1334631.9	1334631.9	101.89	%			14:36:23
2	Ag 328.068†	83.1	646.1	5.1667	µg/L	5.1667	ppb	14:36:29
2	As 188.979†	13.7	12.3	23.962	µg/L	23.962	ppb	14:36:49
2	B 249.677†	1439.6	1081.8	47.230	µg/L	47.230	ppb	14:36:29
2	Ba 233.527†	163.8	186.8	4.8734	µg/L	4.8734	ppb	14:36:49
2	Be 313.107†	4161.3	7525.8	4.9129	µg/L	4.9129	ppb	14:36:29
2	Cd 226.502†	40.3	181.7	5.0056	µg/L	5.0056	ppb	14:36:49
2	Co 228.616†	95.9	103.0	5.0691	µg/L	5.0691	ppb	14:36:49
2	Cr 267.716†	184.6	233.6	5.1411	µg/L	5.1411	ppb	14:36:49
2	Cu 324.752†	3976.5	1417.8	9.9186	µg/L	9.9186	ppb	14:36:29
2	Mn 257.610†	2754.8	2948.6	10.212	µg/L	10.212	ppb	14:36:29
2	Mo 202.031†	93.7	99.6	10.631	µg/L	10.631	ppb	14:36:49
2	Ni 231.604†	392.3	82.9	4.5279	µg/L	4.5279	ppb	14:36:49
2	P 214.914†	107.2	77.6	165.67	µg/L	165.67	ppb	14:36:49
2	Pb 220.353†	143.7	43.9	11.669	µg/L	11.669	ppb	14:36:49

2	S 181.975 Axial†	37.9	22.4	98.282 µg/L	98.282 ppb	14:36:49
2	Sb 206.836†	37.0	9.4	9.3125 µg/L	9.3125 ppb	14:36:49
2	Se 196.026†	40.5	23.9	36.431 µg/L	36.431 ppb	14:36:49
2	SiO2†	2237.3	946.4	203.81 µg/L	203.81 ppb	14:36:29
2	Si 251.611†	1509.6	1169.2	96.111 µg/L	96.111 ppb	14:36:49
2	Sn 189.927†	28.9	29.3	13.482 µg/L	13.482 ppb	14:36:49
2	Ti 334.940†	2191.1	2034.9	4.8725 µg/L	4.8725 ppb	14:36:29
2	Tl 190.801†	-12.7	11.8	16.671 µg/L	16.671 ppb	14:36:49
2	U 409.014†	565.8	609.0	55.113 µg/L	55.113 ppb	14:36:29
2	V 292.402†	429.8	466.2	5.1319 µg/L	5.1319 ppb	14:36:29
2	Zn 213.857†	888.5	396.7	9.8472 µg/L	9.8472 ppb	14:36:49
3	Sc RADIAL	54719.3	54719.3	100 %		14:35:20
3	Al 396.153Radial†	252.3	261.8	194.95 µg/L	194.95 ppb	14:35:20
3	Ca 317.933Radial†	392.4	212.2	199.82 µg/L	199.82 ppb	14:35:41
3	Fe 238.204 Radial†	27.7	13.1	111.51 µg/L	111.51 ppb	14:35:41
3	K 766.490 Radial†	437.0	307.5	218.53 µg/L	218.53 ppb	14:35:20
3	Mg 279.077 IEC†	40.7	29.3	272.95 µg/L	272.95 ppb	14:35:41
3	Na 589.592 Radial†	1460.8	915.0	301.22 µg/L	301.22 ppb	14:35:20
3	Sr 421.552†	523.6	482.7	5.0036 µg/L	5.0036 ppb	14:35:20
3	Sc 361.383	1939953.9	1939953.9	101.58 %		14:36:55
3	Y 371.029	1330294.0	1330294.0	101.56 %		14:36:55
3	Ag 328.068†	50.3	614.0	4.9107 µg/L	4.9107 ppb	14:37:01
3	As 188.979†	19.6	18.1	35.385 µg/L	35.385 ppb	14:37:21
3	B 249.677†	1372.3	1019.5	44.505 µg/L	44.505 ppb	14:37:01
3	Ba 233.527†	145.4	169.2	4.4133 µg/L	4.4133 ppb	14:37:21
3	Be 313.107†	3478.0	6864.4	4.4811 µg/L	4.4811 ppb	14:37:01
3	Cd 226.502†	11.9	153.8	4.2359 µg/L	4.2359 ppb	14:37:21
3	Co 228.616†	75.0	82.7	4.0666 µg/L	4.0666 ppb	14:37:21
3	Cr 267.716†	166.3	216.1	4.7559 µg/L	4.7559 ppb	14:37:21
3	Cu 324.752†	3902.1	1355.5	9.4837 µg/L	9.4837 ppb	14:37:01
3	Mn 257.610†	2548.1	2752.7	9.5360 µg/L	9.5360 ppb	14:37:01
3	Mo 202.031†	79.0	85.3	9.1080 µg/L	9.1080 ppb	14:37:21
3	Ni 231.604†	393.4	85.1	4.6522 µg/L	4.6522 ppb	14:37:21
3	P 214.914†	100.3	71.1	151.77 µg/L	151.77 ppb	14:37:21
3	Pb 220.353†	126.2	27.0	7.1738 µg/L	7.1738 ppb	14:37:21
3	S 181.975 Axial†	34.7	19.3	84.720 µg/L	84.720 ppb	14:37:21
3	Sb 206.836†	29.4	2.0	2.0741 µg/L	2.0741 ppb	14:37:21
3	Se 196.026†	39.6	23.1	35.285 µg/L	35.285 ppb	14:37:21
3	SiO2†	2171.3	887.6	191.15 µg/L	191.15 ppb	14:37:01
3	Si 251.611†	1361.3	1027.3	84.447 µg/L	84.447 ppb	14:37:21
3	Sn 189.927†	21.9	22.4	10.338 µg/L	10.338 ppb	14:37:21
3	Ti 334.940†	2058.9	1910.8	4.5779 µg/L	4.5779 ppb	14:37:01
3	Tl 190.801†	-4.2	20.2	28.271 µg/L	28.271 ppb	14:37:21
3	U 409.014†	515.1	560.7	50.740 µg/L	50.740 ppb	14:37:01
3	V 292.402†	407.9	445.8	4.8980 µg/L	4.8980 ppb	14:37:01
3	Zn 213.857†	822.6	334.3	8.2901 µg/L	8.2901 ppb	14:37:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941894.9	101.68	%	0.158				0.16%
Sc RADIAL	54766.5	100	%	0.1				0.11%
Y 371.029	1332142.5	101.70	%	0.171				0.17%
Ag 328.068†	629.8	5.0369	µg/L	0.12806	5.0369	ppb	0.12806	2.54%
QC value within limits for Ag 328.068 Recovery = 100.74%								
Al 396.153Radial†	269.9	200.94	µg/L	8.187	200.94	ppb	8.187	4.07%
QC value within limits for Al 396.153Radial Recovery = 100.47%								
As 188.979†	14.7	28.634	µg/L	5.9881	28.634	ppb	5.9881	20.91%
QC value within limits for As 188.979 Recovery = 95.45%								
B 249.677†	1076.2	46.976	µg/L	2.3545	46.976	ppb	2.3545	5.01%
QC value within limits for B 249.677 Recovery = 93.95%								
Ba 233.527†	182.1	4.7510	µg/L	0.29615	4.7510	ppb	0.29615	6.23%
QC value within limits for Ba 233.527 Recovery = 95.02%								
Be 313.107†	7296.6	4.7633	µg/L	0.24448	4.7633	ppb	0.24448	5.13%
QC value within limits for Be 313.107 Recovery = 95.27%								
Ca 317.933Radial†	212.4	199.94	µg/L	4.009	199.94	ppb	4.009	2.00%
QC value within limits for Ca 317.933Radial Recovery = 99.97%								
Cd 226.502†	173.4	4.7751	µg/L	0.46856	4.7751	ppb	0.46856	9.81%
QC value within limits for Cd 226.502 Recovery = 95.50%								
Co 228.616†	94.6	4.6523	µg/L	0.52218	4.6523	ppb	0.52218	11.22%

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   QC value within limits for Co 228.616  Recovery = 93.05%
Cr 267.716†              226.9      4.9931 µg/L       0.20751      4.9931 ppb        0.20751   4.16%
   QC value within limits for Cr 267.716  Recovery = 99.86%
Cu 324.752†             1409.7      9.8638 µg/L       0.35593      9.8638 ppb        0.35593   3.61%
   QC value within limits for Cu 324.752  Recovery = 98.64%
Fe 238.204 Radial†        14.0      118.87 µg/L        16.021      118.87 ppb         16.021  13.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 118.87%
K 766.490 Radial†        259.7      184.62 µg/L        29.396      184.62 ppb         29.396  15.92%
   QC value within limits for K 766.490 Radial  Recovery = 123.08%
Mg 279.077 IEC†           32.7      304.34 µg/L        27.307      304.34 ppb         27.307   8.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.45%
Mn 257.610†             2883.3      9.9880 µg/L       0.39151      9.9880 ppb        0.39151   3.92%
   QC value within limits for Mn 257.610  Recovery = 99.88%
Mo 202.031†               93.6      9.9904 µg/L       0.78979      9.9904 ppb        0.78979   7.91%
   QC value within limits for Mo 202.031  Recovery = 99.90%
Na 589.592 Radial†       892.8      293.90 µg/L         6.477      293.90 ppb          6.477   2.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.97%
Ni 231.604†               83.5      4.5606 µg/L       0.08032      4.5606 ppb        0.08032   1.76%
   QC value within limits for Ni 231.604  Recovery = 91.21%
P 214.914†                76.6      163.52 µg/L        10.837      163.52 ppb         10.837   6.63%
   QC value within limits for P 214.914  Recovery = 109.01%
Pb 220.353†               37.6      10.004 µg/L        2.4639      10.004 ppb         2.4639  24.63%
   QC value within limits for Pb 220.353  Recovery = 100.04%
S 181.975 Axial†          21.2      92.677 µg/L        7.0801      92.677 ppb         7.0801   7.64%
   QC value within limits for S 181.975 Axial  Recovery = 92.68%
Sb 206.836†                5.5      5.5403 µg/L       3.62890      5.5403 ppb        3.62890  65.50%
   QC value less than the lower limit for Sb 206.836  Recovery = 55.40%
Se 196.026†               18.8      28.694 µg/L       12.4212      28.694 ppb        12.4212  43.29%
   QC value within limits for Se 196.026  Recovery = 95.65%
SiO2†                    938.5      202.10 µg/L        10.205      202.10 ppb         10.205   5.05%
   QC value within limits for SiO2  Recovery = 94.88%
Si 251.611†             1120.6      92.115 µg/L        6.6423      92.115 ppb         6.6423   7.21%
   QC value within limits for Si 251.611  Recovery = 92.11%
Sn 189.927†               23.0      10.598 µg/L        2.7624      10.598 ppb         2.7624  26.06%
   QC value within limits for Sn 189.927  Recovery = 105.98%
Sr 421.552†              465.6      4.8266 µg/L       0.19650      4.8266 ppb        0.19650   4.07%
   QC value within limits for Sr 421.552  Recovery = 96.53%
Ti 334.940†             2002.5      4.7961 µg/L       0.19174      4.7961 ppb        0.19174   4.00%
   QC value within limits for Ti 334.940  Recovery = 95.92%
Tl 190.801†               17.1      23.984 µg/L        6.3650      23.984 ppb         6.3650  26.54%
   QC value within limits for Tl 190.801  Recovery = 119.92%
U 409.014†               591.0      53.480 µg/L        2.3877      53.480 ppb         2.3877   4.46%
   QC value within limits for U 409.014  Recovery = 106.96%
V 292.402†               458.4      5.0431 µg/L       0.12672      5.0431 ppb        0.12672   2.51%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†              378.0      9.3810 µg/L       0.94809      9.3810 ppb        0.94809  10.11%
   QC value within limits for Zn 213.857  Recovery = 93.81%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 2/11/2010 14:37:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54929.8	54929.8	101	%			14:38:12
1	Al 396.153Radial†	662864.4	658585.8	490860	µg/L	490860	ppb	14:38:07
1	Ca 317.933Radial†	501017.0	497596.3	468520	µg/L	468520	ppb	14:38:07
1	Fe 238.204 Radial†	21302.2	21149.9	179260	µg/L	179260	ppb	14:38:12
1	K 766.490 Radial†	133.6	4.3	3.0615	µg/L	3.0615	ppb	14:38:12
1	Mg 279.077 IEC†	50419.1	50081.6	465880	µg/L	465880	ppb	14:38:12
1	Na 589.592 Radial†	588.4	42.7	14.053	µg/L	14.053	ppb	14:38:12
1	Sr 421.552†	369.2	327.3	3.3927	µg/L	3.3927	ppb	14:38:12
1	Sc 361.383	1857257.4	1857257.4	97.247	%			14:38:45
1	Y 371.029	1267408.3	1267408.3	96.755	%			14:38:45
1	Ag 328.068†	-2882.1	-2399.2	-7.8752	µg/L	-7.8752	ppb	14:38:51
1	As 188.979†	-10.9	-12.4	-38.129	µg/L	-38.129	ppb	14:39:11
1	B 249.677†	826.3	518.2	-70.891	µg/L	-70.891	ppb	14:38:51
1	Ba 233.527†	265.1	298.7	7.7406	µg/L	7.7406	ppb	14:39:11
1	Be 313.107†	-4111.4	-787.4	-0.5240	µg/L	-0.5240	ppb	14:38:51
1	Cd 226.502†	352.3	504.4	-6.3482	µg/L	-6.3482	ppb	14:39:11
1	Co 228.616†	33.3	43.1	2.0584	µg/L	2.0584	ppb	14:39:11
1	Cr 267.716†	-59.0	-8.3	-0.1945	µg/L	-0.1945	ppb	14:39:11
1	Cu 324.752†	-1400.3	-3926.0	-2.5072	µg/L	-2.5072	ppb	14:38:51
1	Mn 257.610†	37.6	282.8	6.1777	µg/L	6.1777	ppb	14:38:51
1	Mo 202.031†	-107.0	-102.5	-4.1257	µg/L	-4.1257	ppb	14:39:11
1	Ni 231.604†	157.1	-140.7	-5.3633	µg/L	-5.3633	ppb	14:39:11
1	P 214.914†	101.4	76.6	162.80	µg/L	162.80	ppb	14:39:11
1	Pb 220.353†	54.2	-41.5	9.1341	µg/L	9.1341	ppb	14:39:11
1	S 181.975 Axial†	32.3	18.4	80.756	µg/L	80.756	ppb	14:39:11
1	Sb 206.836†	58.1	32.8	-8.6501	µg/L	-8.6501	ppb	14:39:11
1	Se 196.026†	34.1	19.3	-25.969	µg/L	-25.969	ppb	14:39:11
1	SiO2†	1033.7	-187.0	-40.276	µg/L	-40.276	ppb	14:39:11
1	Si 251.611†	428.1	127.4	10.470	µg/L	10.470	ppb	14:39:11
1	Sn 189.927†	-61.0	-61.9	5.0665	µg/L	5.0665	ppb	14:39:11
1	Ti 334.940†	10534.2	10716.3	-3.5463	µg/L	-3.5463	ppb	14:38:51
1	Tl 190.801†	-30.9	-7.5	8.6675	µg/L	8.6675	ppb	14:39:11
1	U 409.014†	-29.2	23.6	-51.357	µg/L	-51.357	ppb	14:38:51
1	V 292.402†	-1857.1	-1865.5	1.1351	µg/L	1.1351	ppb	14:38:51
1	Zn 213.857†	1452.2	1017.8	-9.4487	µg/L	-9.4487	ppb	14:39:11
2	Sc RADIAL	55009.9	55009.9	101	%			14:38:23
2	Al 396.153Radial†	661057.1	655833.6	488810	µg/L	488810	ppb	14:38:18
2	Ca 317.933Radial†	498837.3	494708.8	465800	µg/L	465800	ppb	14:38:18
2	Fe 238.204 Radial†	21470.3	21285.8	180410	µg/L	180410	ppb	14:38:23
2	K 766.490 Radial†	106.0	-23.2	-16.506	µg/L	-16.506	ppb	14:38:23
2	Mg 279.077 IEC†	50738.3	50325.3	468150	µg/L	468150	ppb	14:38:23
2	Na 589.592 Radial†	648.0	101.0	33.250	µg/L	33.250	ppb	14:38:23
2	Sr 421.552†	361.1	318.7	3.3032	µg/L	3.3032	ppb	14:38:23
2	Sc 361.383	1846098.6	1846098.6	96.662	%			14:39:17
2	Y 371.029	1260367.6	1260367.6	96.217	%			14:39:17
2	Ag 328.068†	-2932.2	-2468.9	-8.3594	µg/L	-8.3594	ppb	14:39:23
2	As 188.979†	-14.6	-16.3	-45.537	µg/L	-45.537	ppb	14:39:43
2	B 249.677†	858.5	556.6	-69.813	µg/L	-69.813	ppb	14:39:23
2	Ba 233.527†	262.3	297.4	7.7059	µg/L	7.7059	ppb	14:39:43
2	Be 313.107†	-4105.1	-806.4	-0.5367	µg/L	-0.5367	ppb	14:39:23
2	Cd 226.502†	337.6	491.4	-6.8376	µg/L	-6.8376	ppb	14:39:43
2	Co 228.616†	17.7	27.1	1.2707	µg/L	1.2707	ppb	14:39:43
2	Cr 267.716†	-53.0	-2.4	-0.0661	µg/L	-0.0661	ppb	14:39:43
2	Cu 324.752†	-1461.5	-3998.0	-2.8500	µg/L	-2.8500	ppb	14:39:23
2	Mn 257.610†	43.7	289.4	6.2629	µg/L	6.2629	ppb	14:39:23
2	Mo 202.031†	-104.0	-100.0	-3.8203	µg/L	-3.8203	ppb	14:39:43
2	Ni 231.604†	142.4	-154.9	-6.1246	µg/L	-6.1246	ppb	14:39:43
2	P 214.914†	112.7	89.0	187.84	µg/L	187.84	ppb	14:39:43
2	Pb 220.353†	58.0	-37.2	10.116	µg/L	10.116	ppb	14:39:43

2	S 181.975 Axial†	36.2	22.6	98.941 µg/L	98.941 ppb	14:39:43
2	Sb 206.836†	53.9	28.8	-12.353 µg/L	-12.353 ppb	14:39:43
2	Se 196.026†	26.7	11.8	-35.549 µg/L	-35.549 ppb	14:39:43
2	SiO2†	1052.3	-161.4	-34.761 µg/L	-34.761 ppb	14:39:43
2	Si 251.611†	458.0	160.9	13.230 µg/L	13.230 ppb	14:39:43
2	Sn 189.927†	-63.6	-65.0	3.8069 µg/L	3.8069 ppb	14:39:43
2	Ti 334.940†	10748.6	11003.6	-3.0781 µg/L	-3.0781 ppb	14:39:23
2	Tl 190.801†	-35.3	-12.3	2.2973 µg/L	2.2973 ppb	14:39:43
2	U 409.014†	-80.2	-29.4	-56.150 µg/L	-56.150 ppb	14:39:23
2	V 292.402†	-1894.8	-1916.0	0.7299 µg/L	0.7299 ppb	14:39:23
2	Zn 213.857†	1462.8	1037.8	-9.1272 µg/L	-9.1272 ppb	14:39:43
3	Sc RADIAL	54631.5	54631.5	100 %		14:38:35
3	Al 396.153Radial†	667869.4	667182.1	497270 µg/L	497270 ppb	14:38:29
3	Ca 317.933Radial†	503599.4	502894.4	473510 µg/L	473510 ppb	14:38:29
3	Fe 238.204 Radial†	21467.0	21430.1	181630 µg/L	181630 ppb	14:38:35
3	K 766.490 Radial†	96.7	-31.8	-22.617 µg/L	-22.617 ppb	14:38:35
3	Mg 279.077 IEC†	50895.3	50830.8	472850 µg/L	472850 ppb	14:38:35
3	Na 589.592 Radial†	627.0	84.4	27.800 µg/L	27.800 ppb	14:38:35
3	Sr 421.552†	372.9	333.0	3.4514 µg/L	3.4514 ppb	14:38:35
3	Sc 361.383	1825493.4	1825493.4	95.584 %		14:39:49
3	Y 371.029	1244094.0	1244094.0	94.975 %		14:39:49
3	Ag 328.068†	-2843.3	-2410.2	-7.8207 µg/L	-7.8207 ppb	14:39:55
3	As 188.979†	-21.3	-23.4	-59.893 µg/L	-59.893 ppb	14:40:16
3	B 249.677†	774.3	478.6	-73.863 µg/L	-73.863 ppb	14:39:55
3	Ba 233.527†	257.2	295.1	7.6465 µg/L	7.6465 ppb	14:40:16
3	Be 313.107†	-4046.5	-793.0	-0.5281 µg/L	-0.5281 ppb	14:39:55
3	Cd 226.502†	377.7	537.3	-5.7094 µg/L	-5.7094 ppb	14:40:16
3	Co 228.616†	37.6	48.2	2.3043 µg/L	2.3043 ppb	14:40:16
3	Cr 267.716†	-81.4	-32.7	-0.7334 µg/L	-0.7334 ppb	14:40:16
3	Cu 324.752†	-1475.8	-4030.1	-2.9042 µg/L	-2.9042 ppb	14:39:55
3	Mn 257.610†	50.9	297.4	6.2652 µg/L	6.2652 ppb	14:39:55
3	Mo 202.031†	-108.7	-106.2	-4.4310 µg/L	-4.4310 ppb	14:40:16
3	Ni 231.604†	152.6	-142.5	-5.4329 µg/L	-5.4329 ppb	14:40:16
3	P 214.914†	105.4	82.6	175.78 µg/L	175.78 ppb	14:40:16
3	Pb 220.353†	72.0	-21.8	14.642 µg/L	14.642 ppb	14:40:16
3	S 181.975 Axial†	29.0	15.5	67.783 µg/L	67.783 ppb	14:40:16
3	Sb 206.836†	45.6	20.7	-20.949 µg/L	-20.949 ppb	14:40:16
3	Se 196.026†	33.1	18.8	-27.759 µg/L	-27.759 ppb	14:40:16
3	SiO2†	1033.4	-168.9	-36.378 µg/L	-36.378 ppb	14:40:16
3	Si 251.611†	441.5	149.0	12.252 µg/L	12.252 ppb	14:40:16
3	Sn 189.927†	-53.7	-55.3	8.6518 µg/L	8.6518 ppb	14:40:16
3	Ti 334.940†	10848.2	11233.3	-2.7738 µg/L	-2.7738 ppb	14:39:55
3	Tl 190.801†	-26.7	-3.6	14.470 µg/L	14.470 ppb	14:40:16
3	U 409.014†	-83.2	-33.5	-57.162 µg/L	-57.162 ppb	14:39:55
3	V 292.402†	-1928.3	-1973.2	0.2572 µg/L	0.2572 ppb	14:39:55
3	Zn 213.857†	1454.4	1046.1	-9.2482 µg/L	-9.2482 ppb	14:40:16

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1842949.8	96.498	%	0.8438				0.87%
Sc RADIAL	54857.1	101	%	0.4				0.36%
Y 371.029	1257290.0	95.982	%	0.9129				0.95%
Ag 328.068†	-2426.1	-8.0184	µg/L	0.29656	-8.0184	ppb	0.29656	3.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660533.8	492320	µg/L	4412.2	492320	ppb	4412.2	0.90%
QC value within limits for Al 396.153Radial Recovery = 98.46%								
As 188.979†	-17.4	-47.853	µg/L	11.0657	-47.853	ppb	11.0657	23.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	517.8	-71.522	µg/L	2.0977	-71.522	ppb	2.0977	2.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	297.0	7.6977	µg/L	0.04758	7.6977	ppb	0.04758	0.62%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-795.6	-0.5296	µg/L	0.00649	-0.5296	ppb	0.00649	1.23%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	498399.8	469270	µg/L	3908.9	469270	ppb	3908.9	0.83%
QC value within limits for Ca 317.933Radial Recovery = 93.85%								
Cd 226.502†	511.0	-6.2984	µg/L	0.56575	-6.2984	ppb	0.56575	8.98%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	39.5	1.8778	µg/L	0.53996	1.8778	ppb	0.53996	28.75%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -14.5     -0.3313 µg/L       0.35406     -0.3313 ppb        0.35406 106.86%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3984.7     -2.7538 µg/L       0.21524     -2.7538 ppb        0.21524   7.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21288.6      180430 µg/L        1187.5      180430 ppb         1187.5   0.66%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.22%
K 766.490 Radial†        -16.9     -12.020 µg/L       13.4139     -12.020 ppb        13.4139 111.59%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        50412.6      468960 µg/L        3555.4      468960 ppb         3555.4   0.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.79%
Mn 257.610†              289.9      6.2353 µg/L       0.04986      6.2353 ppb        0.04986   0.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -102.9     -4.1257 µg/L       0.30534     -4.1257 ppb        0.30534   7.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        76.0      25.034 µg/L        9.8929      25.034 ppb         9.8929  39.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -146.0     -5.6403 µg/L       0.42090     -5.6403 ppb        0.42090   7.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                82.7      175.47 µg/L        12.518      175.47 ppb         12.518   7.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -33.5      11.297 µg/L        2.9376      11.297 ppb         2.9376  26.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          18.8      82.493 µg/L       15.6511      82.493 ppb        15.6511  18.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               27.4     -13.984 µg/L        6.3094     -13.984 ppb         6.3094  45.12%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               16.6     -29.759 µg/L        5.0935     -29.759 ppb         5.0935  17.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -172.5     -37.139 µg/L        2.8350     -37.139 ppb         2.8350   7.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              145.8      11.984 µg/L        1.3994      11.984 ppb         1.3994  11.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -60.7      5.8417 µg/L       2.51374      5.8417 ppb        2.51374  43.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              326.3      3.3825 µg/L       0.07464      3.3825 ppb        0.07464   2.21%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            10984.4     -3.1328 µg/L       0.38914     -3.1328 ppb        0.38914  12.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -7.8      8.4783 µg/L       6.08871      8.4783 ppb        6.08871  71.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -13.1     -54.890 µg/L        3.1009     -54.890 ppb         3.1009   5.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -1918.2      0.7074 µg/L       0.43934      0.7074 ppb        0.43934  62.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             1033.9     -9.2747 µg/L       0.16235     -9.2747 ppb        0.16235   1.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 2/11/2010 14:40:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54743.7	54743.7	100	%			14:41:04
1	Al 396.153Radial†	662601.8	660562.7	492330	µg/L	492330	ppb	14:40:59
1	Ca 317.933Radial†	498259.5	496539.4	467520	µg/L	467520	ppb	14:40:59
1	Fe 238.204 Radial†	21341.6	21261.1	180210	µg/L	180210	ppb	14:41:04
1	K 766.490 Radial†	6958.5	6808.5	4839.5	µg/L	4839.5	ppb	14:41:04
1	Mg 279.077 IEC†	50755.9	50587.7	470600	µg/L	470600	ppb	14:41:04
1	Na 589.592 Radial†	15455.3	14865.6	4893.8	µg/L	4893.8	ppb	14:41:04
1	Sr 421.552†	46875.8	46691.2	484.01	µg/L	484.01	ppb	14:41:04
1	Sc 361.383	1846856.3	1846856.3	96.702	%			14:41:38
1	Y 371.029	1258300.6	1258300.6	96.059	%			14:41:38
1	Ag 328.068†	27332.2	28828.8	243.20	µg/L	243.20	ppb	14:41:44
1	As 188.979†	237.2	244.2	462.48	µg/L	462.48	ppb	14:42:04
1	B 249.677†	11716.6	11784.7	421.73	µg/L	421.73	ppb	14:41:44
1	Ba 233.527†	17712.8	18342.8	478.47	µg/L	478.47	ppb	14:41:44
1	Be 313.107†	339671.1	354695.4	231.45	µg/L	231.45	ppb	14:41:38
1	Cd 226.502†	15868.9	16552.3	436.70	µg/L	436.70	ppb	14:41:44
1	Co 228.616†	8171.6	8459.1	415.69	µg/L	415.69	ppb	14:42:04
1	Cr 267.716†	20395.5	21143.4	465.37	µg/L	465.37	ppb	14:41:44
1	Cu 324.752†	70107.6	70012.4	514.10	µg/L	514.10	ppb	14:41:44
1	Mn 257.610†	126842.6	131412.5	460.20	µg/L	460.20	ppb	14:41:44
1	Mo 202.031†	4309.3	4463.8	483.23	µg/L	483.23	ppb	14:42:04
1	Ni 231.604†	7535.7	7490.5	411.39	µg/L	411.39	ppb	14:42:04
1	P 214.914†	1206.8	1220.3	2570.8	µg/L	2570.8	ppb	14:42:04
1	Pb 220.353†	1703.5	1664.4	464.39	µg/L	464.39	ppb	14:42:04
1	S 181.975 Axial†	587.6	592.8	2597.2	µg/L	2597.2	ppb	14:42:04
1	Sb 206.836†	550.1	541.9	495.21	µg/L	495.21	ppb	14:42:04
1	Se 196.026†	1471.2	1505.6	2238.6	µg/L	2238.6	ppb	14:42:04
1	SiO2†	47866.2	48248.6	10391	µg/L	10391	ppb	14:41:44
1	Si 251.611†	57854.9	59515.0	4892.4	µg/L	4892.4	ppb	14:41:44
1	Sn 189.927†	962.7	996.5	492.28	µg/L	492.28	ppb	14:42:04
1	Ti 334.940†	201101.7	207843.8	470.24	µg/L	470.24	ppb	14:41:44
1	Tl 190.801†	278.9	312.7	461.24	µg/L	461.24	ppb	14:42:04
1	U 409.014†	5055.9	5282.0	424.65	µg/L	424.65	ppb	14:41:44
1	V 292.402†	42477.1	43969.9	495.05	µg/L	495.05	ppb	14:41:44
1	Zn 213.857†	19021.9	19195.0	441.47	µg/L	441.47	ppb	14:41:44
2	Sc RADIAL	55060.7	55060.7	101	%			14:41:16
2	Al 396.153Radial†	664887.8	659025.8	491180	µg/L	491180	ppb	14:41:10
2	Ca 317.933Radial†	499367.7	494778.3	465860	µg/L	465860	ppb	14:41:10
2	Fe 238.204 Radial†	21754.5	21547.8	182640	µg/L	182640	ppb	14:41:16
2	K 766.490 Radial†	7103.8	6912.7	4913.5	µg/L	4913.5	ppb	14:41:16
2	Mg 279.077 IEC†	51410.3	50945.0	473920	µg/L	473920	ppb	14:41:16
2	Na 589.592 Radial†	15635.7	14955.7	4923.5	µg/L	4923.5	ppb	14:41:16
2	Sr 421.552†	47418.4	46960.1	486.80	µg/L	486.80	ppb	14:41:16
2	Sc 361.383	1837075.1	1837075.1	96.190	%			14:42:10
2	Y 371.029	1253427.6	1253427.6	95.687	%			14:42:10
2	Ag 328.068†	27052.1	28688.2	242.21	µg/L	242.21	ppb	14:42:16
2	As 188.979†	226.7	234.5	443.77	µg/L	443.77	ppb	14:42:37
2	B 249.677†	11617.2	11745.8	418.76	µg/L	418.76	ppb	14:42:16
2	Ba 233.527†	17456.8	18174.2	474.07	µg/L	474.07	ppb	14:42:16
2	Be 313.107†	337736.8	354554.8	231.36	µg/L	231.36	ppb	14:42:10
2	Cd 226.502†	15582.5	16341.8	430.62	µg/L	430.62	ppb	14:42:16
2	Co 228.616†	8172.6	8505.1	417.96	µg/L	417.96	ppb	14:42:37
2	Cr 267.716†	20089.6	20937.7	460.84	µg/L	460.84	ppb	14:42:16
2	Cu 324.752†	69141.0	69393.5	510.12	µg/L	510.12	ppb	14:42:16
2	Mn 257.610†	124994.1	130189.1	456.15	µg/L	456.15	ppb	14:42:16
2	Mo 202.031†	4295.8	4473.5	484.36	µg/L	484.36	ppb	14:42:37
2	Ni 231.604†	7541.0	7537.5	413.99	µg/L	413.99	ppb	14:42:37
2	P 214.914†	1237.1	1258.5	2651.1	µg/L	2651.1	ppb	14:42:37
2	Pb 220.353†	1701.2	1671.4	466.10	µg/L	466.10	ppb	14:42:37

2	S 181.975 Axial†	598.3	607.2	2660.4 µg/L	2660.4 ppb	14:42:37
2	Sb 206.836†	550.2	545.1	498.59 µg/L	498.59 ppb	14:42:37
2	Se 196.026†	1466.3	1508.6	2247.3 µg/L	2247.3 ppb	14:42:37
2	SiO2†	47231.2	47852.0	10305 µg/L	10305 ppb	14:42:16
2	Si 251.611†	57079.6	59027.6	4852.4 µg/L	4852.4 ppb	14:42:16
2	Sn 189.927†	972.7	1012.1	499.64 µg/L	499.64 ppb	14:42:37
2	Ti 334.940†	198343.7	206083.8	465.72 µg/L	465.72 ppb	14:42:16
2	Tl 190.801†	259.5	294.1	435.56 µg/L	435.56 ppb	14:42:37
2	U 409.014†	4974.7	5225.3	419.28 µg/L	419.28 ppb	14:42:16
2	V 292.402†	41844.6	43546.2	490.82 µg/L	490.82 ppb	14:42:16
2	Zn 213.857†	18719.4	18985.3	435.92 µg/L	435.92 ppb	14:42:16
3	Sc RADIAL	54836.5	54836.5	100 %		14:41:27
3	Al 396.153Radial†	666707.4	663530.3	494540 µg/L	494540 ppb	14:41:21
3	Ca 317.933Radial†	500342.9	497771.9	468680 µg/L	468680 ppb	14:41:21
3	Fe 238.204 Radial†	21386.7	21269.9	180290 µg/L	180290 ppb	14:41:27
3	K 766.490 Radial†	6994.6	6832.8	4856.7 µg/L	4856.7 ppb	14:41:27
3	Mg 279.077 IEC†	50805.9	50551.7	470260 µg/L	470260 ppb	14:41:27
3	Na 589.592 Radial†	15470.0	14854.1	4890.0 µg/L	4890.0 ppb	14:41:27
3	Sr 421.552†	46844.7	46581.2	482.87 µg/L	482.87 ppb	14:41:27
3	Sc 361.383	1833431.9	1833431.9	95.999 %		14:42:43
3	Y 371.029	1252123.0	1252123.0	95.588 %		14:42:43
3	Ag 328.068†	27588.4	29302.7	247.00 µg/L	247.00 ppb	14:42:49
3	As 188.979†	241.1	250.0	473.71 µg/L	473.71 ppb	14:43:09
3	B 249.677†	11855.2	12017.8	431.89 µg/L	431.89 ppb	14:42:49
3	Ba 233.527†	17813.9	18582.3	484.71 µg/L	484.71 ppb	14:42:49
3	Be 313.107†	338767.0	356325.5	232.51 µg/L	232.51 ppb	14:42:43
3	Cd 226.502†	15965.4	16772.9	442.77 µg/L	442.77 ppb	14:42:49
3	Co 228.616†	8119.3	8466.6	416.04 µg/L	416.04 ppb	14:43:09
3	Cr 267.716†	20600.1	21511.0	473.46 µg/L	473.46 ppb	14:42:49
3	Cu 324.752†	70720.9	71182.1	522.28 µg/L	522.28 ppb	14:42:49
3	Mn 257.610†	127685.2	133250.6	466.59 µg/L	466.59 ppb	14:42:49
3	Mo 202.031†	4277.4	4463.2	483.17 µg/L	483.17 ppb	14:43:09
3	Ni 231.604†	7478.0	7487.4	411.22 µg/L	411.22 ppb	14:43:09
3	P 214.914†	1197.0	1219.3	2568.4 µg/L	2568.4 ppb	14:43:09
3	Pb 220.353†	1703.7	1677.5	467.96 µg/L	467.96 ppb	14:43:09
3	S 181.975 Axial†	585.7	595.2	2608.0 µg/L	2608.0 ppb	14:43:09
3	Sb 206.836†	542.2	537.9	491.06 µg/L	491.06 ppb	14:43:09
3	Se 196.026†	1453.1	1497.9	2227.0 µg/L	2227.0 ppb	14:43:09
3	SiO2†	48266.6	49028.1	10558 µg/L	10558 ppb	14:42:49
3	Si 251.611†	58341.2	60459.7	4970.1 µg/L	4970.1 ppb	14:42:49
3	Sn 189.927†	964.4	1005.4	496.36 µg/L	496.36 ppb	14:43:09
3	Ti 334.940†	202865.6	211203.9	478.37 µg/L	478.37 ppb	14:42:49
3	Tl 190.801†	278.4	314.2	463.55 µg/L	463.55 ppb	14:43:09
3	U 409.014†	5159.4	5428.1	437.79 µg/L	437.79 ppb	14:42:49
3	V 292.402†	42697.4	44521.1	500.97 µg/L	500.97 ppb	14:42:49
3	Zn 213.857†	19157.2	19480.1	448.59 µg/L	448.59 ppb	14:42:49

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1839121.1	96.297	%	0.3635				0.38%
Sc RADIAL	54880.3	101	%	0.3				0.30%
Y 371.029	1254617.1	95.778	%	0.2486				0.26%
Ag 328.068†	28939.9	244.14	µg/L	2.532	244.14	ppb	2.532	1.04%
QC value within limits for Ag 328.068 Recovery = 97.66%								
Al 396.153Radial†	661039.6	492680	µg/L	1706.7	492680	ppb	1706.7	0.35%
QC value within limits for Al 396.153Radial Recovery = 98.54%								
As 188.979†	242.9	459.99	µg/L	15.123	459.99	ppb	15.123	3.29%
QC value within limits for As 188.979 Recovery = 92.00%								
B 249.677†	11849.4	424.12	µg/L	6.887	424.12	ppb	6.887	1.62%
QC value within limits for B 249.677 Recovery = 84.82%								
Ba 233.527†	18366.5	479.08	µg/L	5.348	479.08	ppb	5.348	1.12%
QC value within limits for Ba 233.527 Recovery = 95.82%								
Be 313.107†	355191.9	231.77	µg/L	0.640	231.77	ppb	0.640	0.28%
QC value within limits for Be 313.107 Recovery = 92.71%								
Ca 317.933Radial†	496363.2	467360	µg/L	1416.6	467360	ppb	1416.6	0.30%
QC value within limits for Ca 317.933Radial Recovery = 93.47%								
Cd 226.502†	16555.7	436.70	µg/L	6.077	436.70	ppb	6.077	1.39%
QC value within limits for Cd 226.502 Recovery = 87.34%								
Co 228.616†	8476.9	416.56	µg/L	1.225	416.56	ppb	1.225	0.29%

```
   QC value within limits for Co 228.616  Recovery = 83.31%
Cr 267.716†            21197.4      466.55 µg/L        6.392      466.55 ppb        6.392   1.37%
   QC value within limits for Cr 267.716  Recovery = 93.31%
Cu 324.752†            70196.0      515.50 µg/L        6.202      515.50 ppb        6.202   1.20%
   QC value within limits for Cu 324.752  Recovery = 103.10%
Fe 238.204 Radial†     21359.6      181050 µg/L       1382.0      181050 ppb       1382.0   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.52%
K 766.490 Radial†       6851.3      4869.9 µg/L        38.72      4869.9 ppb        38.72   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 97.40%
Mg 279.077 IEC†        50694.8      471600 µg/L       2021.9      471600 ppb       2021.9   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 94.32%
Mn 257.610†           131617.4      460.98 µg/L        5.261      460.98 ppb        5.261   1.14%
   QC value within limits for Mn 257.610  Recovery = 92.20%
Mo 202.031†             4466.8      483.58 µg/L        0.671      483.58 ppb        0.671   0.14%
   QC value within limits for Mo 202.031  Recovery = 96.72%
Na 589.592 Radial†     14891.8      4902.4 µg/L        18.32      4902.4 ppb        18.32   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.05%
Ni 231.604†             7505.2      412.20 µg/L        1.552      412.20 ppb        1.552   0.38%
   QC value within limits for Ni 231.604  Recovery = 82.44%
P 214.914†              1232.7      2596.7 µg/L        47.05      2596.7 ppb        47.05   1.81%
   QC value within limits for P 214.914  Recovery = 103.87%
Pb 220.353†             1671.1      466.15 µg/L        1.785      466.15 ppb        1.785   0.38%
   QC value within limits for Pb 220.353  Recovery = 93.23%
S 181.975 Axial†         598.4      2621.9 µg/L        33.79      2621.9 ppb        33.79   1.29%
   QC value within limits for S 181.975 Axial  Recovery = 104.87%
Sb 206.836†              541.6      494.95 µg/L        3.768      494.95 ppb        3.768   0.76%
   QC value within limits for Sb 206.836  Recovery = 98.99%
Se 196.026†             1504.0      2237.7 µg/L        10.19      2237.7 ppb        10.19   0.46%
   QC value within limits for Se 196.026  Recovery = 89.51%
SiO2†                  48376.2       10418 µg/L        128.9       10418 ppb        128.9   1.24%
   QC value within limits for SiO2  Recovery = 97.41%
Si 251.611†            59667.4      4905.0 µg/L        59.86      4905.0 ppb        59.86   1.22%
   QC value within limits for Si 251.611  Recovery = 98.10%
Sn 189.927†             1004.7      496.10 µg/L        3.686      496.10 ppb        3.686   0.74%
   QC value within limits for Sn 189.927  Recovery = 99.22%
Sr 421.552†            46744.2      484.56 µg/L        2.020      484.56 ppb        2.020   0.42%
   QC value within limits for Sr 421.552  Recovery = 96.91%
Ti 334.940†           208377.1      471.44 µg/L        6.410      471.44 ppb        6.410   1.36%
   QC value within limits for Ti 334.940  Recovery = 94.29%
Tl 190.801†              307.0      453.45 µg/L       15.538      453.45 ppb       15.538   3.43%
   QC value within limits for Tl 190.801  Recovery = 90.69%
U 409.014†              5311.8      427.24 µg/L        9.525      427.24 ppb        9.525   2.23%
   QC value within limits for U 409.014  Recovery = 85.45%
V 292.402†             44012.4      495.61 µg/L        5.099      495.61 ppb        5.099   1.03%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            19220.1      441.99 µg/L        6.349      441.99 ppb        6.349   1.44%
   QC value within limits for Zn 213.857  Recovery = 88.40%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 2/11/2010 14:43:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54698.7	54698.7	100	%			14:43:59
1	Al 396.153Radial†	649050.7	647585.6	482670	µg/L	482670	ppb	14:43:54
1	Ca 317.933Radial†	489494.3	488202.6	459670	µg/L	459670	ppb	14:43:54
1	Fe 238.204 Radial†	51606.4	51474.6	436280	µg/L	436280	ppb	14:43:59
1	K 766.490 Radial†	59.9	-68.6	-48.776	µg/L	-48.776	ppb	14:43:59
1	Mg 279.077 IEC†	49787.3	49662.9	461710	µg/L	461710	ppb	14:43:59
1	Na 589.592 Radial†	1412387.5	1408635.5	463730	µg/L	463730	ppb	14:43:54
1	Sr 421.552†	535.1	494.4	5.1247	µg/L	5.1247	ppb	14:43:59
1	Sc 361.383	1832827.1	1832827.1	95.968	%			14:44:34
1	Y 371.029	1243371.2	1243371.2	94.920	%			14:44:34
1	Ag 328.068†	-5331.8	-4991.3	-12.516	µg/L	-12.516	ppb	14:44:40
1	As 188.979†	-25.3	-27.5	-52.401	µg/L	-52.401	ppb	14:45:01
1	B 249.677†	1493.7	1225.0	-174.11	µg/L	-174.11	ppb	14:44:40
1	Ba 233.527†	574.9	625.1	16.169	µg/L	16.169	ppb	14:45:01
1	Be 313.107†	-11067.4	-8092.0	-5.2972	µg/L	-5.2972	ppb	14:44:40
1	Cd 226.502†	1038.3	1224.0	-15.542	µg/L	-15.542	ppb	14:44:40
1	Co 228.616†	189.5	206.3	10.066	µg/L	10.066	ppb	14:45:01
1	Cr 267.716†	137.7	195.9	4.2704	µg/L	4.2704	ppb	14:45:01
1	Cu 324.752†	-8795.2	-11650.9	-20.741	µg/L	-20.741	ppb	14:44:40
1	Mn 257.610†	-7006.5	-7056.8	15.101	µg/L	15.101	ppb	14:44:34
1	Mo 202.031†	-203.3	-204.2	-5.2185	µg/L	-5.2185	ppb	14:45:01
1	Ni 231.604†	92.3	-206.0	-5.6060	µg/L	-5.6060	ppb	14:45:01
1	P 214.914†	278.7	262.7	357.28	µg/L	357.28	ppb	14:45:01
1	Pb 220.353†	191.0	101.8	23.594	µg/L	23.594	ppb	14:45:01
1	S 181.975 Axial†	34.6	21.2	93.001	µg/L	93.001	ppb	14:45:01
1	Sb 206.836†	60.3	35.8	-5.1147	µg/L	-5.1147	ppb	14:45:01
1	Se 196.026†	-124.6	-145.7	431.09	µg/L	431.09	ppb	14:45:01
1	SiO2†	971.9	-237.3	-51.105	µg/L	-51.105	ppb	14:45:01
1	Si 251.611†	-251.2	-574.6	-47.235	µg/L	-47.235	ppb	14:45:01
1	Sn 189.927†	-32.5	-33.0	-9.5042	µg/L	-9.5042	ppb	14:45:01
1	Ti 334.940†	13370.7	13816.4	4.0770	µg/L	4.0770	ppb	14:44:40
1	Tl 190.801†	-49.5	-27.3	33.449	µg/L	33.449	ppb	14:45:01
1	U 409.014†	138681.8	144562.6	13000	µg/L	13000	ppb	14:44:40
1	V 292.402†	-5434.6	-5618.7	4.9101	µg/L	4.9101	ppb	14:44:40
1	Zn 213.857†	2732.6	2371.8	12.479	µg/L	12.479	ppb	14:45:01
2	Sc RADIAL	54113.0	54113.0	99.2	%			14:44:11
2	Al 396.153Radial†	645987.5	651505.9	485590	µg/L	485590	ppb	14:44:06
2	Ca 317.933Radial†	485663.6	489625.6	461010	µg/L	461010	ppb	14:44:06
2	Fe 238.204 Radial†	51235.5	51657.9	437830	µg/L	437830	ppb	14:44:11
2	K 766.490 Radial†	83.9	-43.8	-31.167	µg/L	-31.167	ppb	14:44:11
2	Mg 279.077 IEC†	49624.6	50036.5	465180	µg/L	465180	ppb	14:44:11
2	Na 589.592 Radial†	1405673.5	1417117.7	466520	µg/L	466520	ppb	14:44:06
2	Sr 421.552†	505.9	470.7	4.8794	µg/L	4.8794	ppb	14:44:11
2	Sc 361.383	1837825.9	1837825.9	96.229	%			14:45:07
2	Y 371.029	1247268.6	1247268.6	95.217	%			14:45:07
2	Ag 328.068†	-5248.4	-4889.5	-11.624	µg/L	-11.624	ppb	14:45:13
2	As 188.979†	-21.7	-23.6	-44.761	µg/L	-44.761	ppb	14:45:33
2	B 249.677†	1467.3	1193.4	-176.30	µg/L	-176.30	ppb	14:45:13
2	Ba 233.527†	558.0	605.8	15.663	µg/L	15.663	ppb	14:45:33
2	Be 313.107†	-10966.6	-7955.9	-5.2083	µg/L	-5.2083	ppb	14:45:13
2	Cd 226.502†	1019.9	1202.0	-16.327	µg/L	-16.327	ppb	14:45:13
2	Co 228.616†	178.5	194.3	9.4767	µg/L	9.4767	ppb	14:45:33
2	Cr 267.716†	83.6	139.3	3.0246	µg/L	3.0246	ppb	14:45:33
2	Cu 324.752†	-8717.3	-11545.0	-19.786	µg/L	-19.786	ppb	14:45:13
2	Mn 257.610†	-6988.4	-7018.1	15.303	µg/L	15.303	ppb	14:45:07
2	Mo 202.031†	-191.4	-191.4	-3.7840	µg/L	-3.7840	ppb	14:45:33
2	Ni 231.604†	81.9	-217.1	-6.1913	µg/L	-6.1913	ppb	14:45:33
2	P 214.914†	298.0	282.1	398.14	µg/L	398.14	ppb	14:45:33
2	Pb 220.353†	188.3	98.5	22.919	µg/L	22.919	ppb	14:45:33

2	S 181.975 Axial†	34.5	21.1	92.318 µg/L	92.318 ppb	14:45:33
2	Sb 206.836†	49.5	24.4	-16.430 µg/L	-16.430 ppb	14:45:33
2	Se 196.026†	-135.7	-156.8	414.89 µg/L	414.89 ppb	14:45:33
2	SiO2†	995.7	-215.3	-46.357 µg/L	-46.357 ppb	14:45:33
2	Si 251.611†	-242.1	-564.4	-46.400 µg/L	-46.400 ppb	14:45:33
2	Sn 189.927†	-48.8	-49.9	-17.017 µg/L	-17.017 ppb	14:45:33
2	Ti 334.940†	13350.9	13757.9	3.6830 µg/L	3.6830 ppb	14:45:13
2	Tl 190.801†	-50.6	-28.2	32.395 µg/L	32.395 ppb	14:45:33
2	U 409.014†	138028.8	143491.0	12902 µg/L	12902 ppb	14:45:13
2	V 292.402†	-5635.2	-5811.8	2.9425 µg/L	2.9425 ppb	14:45:13
2	Zn 213.857†	2709.5	2340.1	11.417 µg/L	11.417 ppb	14:45:33
3	Sc RADIAL	54398.5	54398.5	99.7 %		14:44:23
3	Al 396.153Radial†	647423.4	649527.5	484110 µg/L	484110 ppb	14:44:18
3	Ca 317.933Radial†	488211.3	489611.2	461000 µg/L	461000 ppb	14:44:18
3	Fe 238.204 Radial†	51015.9	51166.4	433670 µg/L	433670 ppb	14:44:23
3	K 766.490 Radial†	138.6	10.6	7.5591 µg/L	7.5591 ppb	14:44:23
3	Mg 279.077 IEC†	49363.7	49512.1	460310 µg/L	460310 ppb	14:44:23
3	Na 589.592 Radial†	1412371.3	1416397.4	466280 µg/L	466280 ppb	14:44:18
3	Sr 421.552†	507.2	469.3	4.8646 µg/L	4.8646 ppb	14:44:23
3	Sc 361.383	1837461.1	1837461.1	96.210 %		14:45:40
3	Y 371.029	1245635.1	1245635.1	95.093 %		14:45:40
3	Ag 328.068†	-5107.3	-4744.0	-10.729 µg/L	-10.729 ppb	14:45:45
3	As 188.979†	-16.7	-18.5	-34.960 µg/L	-34.960 ppb	14:46:06
3	B 249.677†	1484.3	1211.3	-173.35 µg/L	-173.35 ppb	14:45:45
3	Ba 233.527†	553.8	601.6	15.554 µg/L	15.554 ppb	14:46:06
3	Be 313.107†	-10842.7	-7829.4	-5.1258 µg/L	-5.1258 ppb	14:45:45
3	Cd 226.502†	1000.6	1182.1	-16.404 µg/L	-16.404 ppb	14:45:45
3	Co 228.616†	166.8	182.2	8.8812 µg/L	8.8812 ppb	14:46:06
3	Cr 267.716†	114.6	171.5	3.7340 µg/L	3.7340 ppb	14:46:06
3	Cu 324.752†	-8778.8	-11610.6	-20.823 µg/L	-20.823 ppb	14:45:45
3	Mn 257.610†	-6849.7	-6875.4	15.438 µg/L	15.438 ppb	14:45:40
3	Mo 202.031†	-180.2	-179.7	-2.7014 µg/L	-2.7014 ppb	14:46:06
3	Ni 231.604†	78.6	-220.5	-6.4261 µg/L	-6.4261 ppb	14:46:06
3	P 214.914†	292.5	276.4	389.07 µg/L	389.07 ppb	14:46:06
3	Pb 220.353†	166.9	76.3	17.067 µg/L	17.067 ppb	14:46:06
3	S 181.975 Axial†	27.8	14.1	61.607 µg/L	61.607 ppb	14:46:06
3	Sb 206.836†	44.0	18.8	-21.940 µg/L	-21.940 ppb	14:46:06
3	Se 196.026†	-130.2	-151.2	416.38 µg/L	416.38 ppb	14:46:06
3	SiO2†	1012.2	-197.9	-42.626 µg/L	-42.626 ppb	14:46:06
3	Si 251.611†	-265.6	-588.9	-48.410 µg/L	-48.410 ppb	14:46:06
3	Sn 189.927†	-42.0	-42.7	-13.864 µg/L	-13.864 ppb	14:46:06
3	Ti 334.940†	13514.7	13930.9	4.4846 µg/L	4.4846 ppb	14:45:45
3	Tl 190.801†	-39.7	-17.0	47.407 µg/L	47.407 ppb	14:46:06
3	U 409.014†	138148.6	143644.0	12917 µg/L	12917 ppb	14:45:45
3	V 292.402†	-5603.1	-5779.6	2.8210 µg/L	2.8210 ppb	14:45:45
3	Zn 213.857†	2726.7	2358.5	12.353 µg/L	12.353 ppb	14:46:06

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1836038.0	96.136	%	0.1459				0.15%
Sc RADIAL	54403.4	99.7	%	0.54				0.54%
Y 371.029	1245425.0	95.077	%	0.1494				0.16%
Ag 328.068†	-4875.0	-11.623	µg/L	0.8935	-11.623	ppb	0.8935	7.69%
Al 396.153Radial†	649539.7	484120	µg/L	1461.0	484120	ppb	1461.0	0.30%
QC value within limits for Al 396.153Radial Recovery = 96.82%								
As 188.979†	-23.2	-44.041	µg/L	8.7426	-44.041	ppb	8.7426	19.85%
B 249.677†	1209.9	-174.59	µg/L	1.536	-174.59	ppb	1.536	0.88%
Ba 233.527†	610.9	15.795	µg/L	0.3282	15.795	ppb	0.3282	2.08%
Be 313.107†	-7959.1	-5.2104	µg/L	0.08573	-5.2104	ppb	0.08573	1.65%
Ca 317.933Radial†	489146.5	460560	µg/L	769.6	460560	ppb	769.6	0.17%
QC value within limits for Ca 317.933Radial Recovery = 92.11%								
Cd 226.502†	1202.7	-16.091	µg/L	0.4769	-16.091	ppb	0.4769	2.96%
Co 228.616†	194.3	9.4746	µg/L	0.59237	9.4746	ppb	0.59237	6.25%
Cr 267.716†	168.9	3.6764	µg/L	0.62486	3.6764	ppb	0.62486	17.00%
Cu 324.752†	-11602.2	-20.450	µg/L	0.5769	-20.450	ppb	0.5769	2.82%
Fe 238.204 Radial†	51433.0	435930	µg/L	2105.0	435930	ppb	2105.0	0.48%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.19%								
K 766.490 Radial†	-33.9	-24.128	µg/L	28.8197	-24.128	ppb	28.8197	119.44%
Mg 279.077 IEC†	49737.1	462400	µg/L	2510.3	462400	ppb	2510.3	0.54%

QC value within limits for Mg 279.077 IEC Recovery = 92.48%

Mn 257.610†	-6983.5	15.281 µg/L	0.1695	15.281 ppb	0.1695	1.11%
Mo 202.031†	-191.8	-3.9013 µg/L	1.26264	-3.9013 ppb	1.26264	32.36%
Na 589.592 Radial†	1414050.2	465510 µg/L	1548.3	465510 ppb	1548.3	0.33%

QC value within limits for Na 589.592 Radial Recovery = 93.10%

Ni 231.604†	-214.5	-6.0745 µg/L	0.42234	-6.0745 ppb	0.42234	6.95%
P 214.914†	273.7	381.50 µg/L	21.461	381.50 ppb	21.461	5.63%
Pb 220.353†	92.2	21.194 µg/L	3.5893	21.194 ppb	3.5893	16.94%
S 181.975 Axial†	18.8	82.309 µg/L	17.9317	82.309 ppb	17.9317	21.79%
Sb 206.836†	26.4	-14.495 µg/L	8.5779	-14.495 ppb	8.5779	59.18%
Se 196.026†	-151.2	420.79 µg/L	8.956	420.79 ppb	8.956	2.13%
SiO2†	-216.8	-46.696 µg/L	4.2500	-46.696 ppb	4.2500	9.10%
Si 251.611†	-576.0	-47.348 µg/L	1.0098	-47.348 ppb	1.0098	2.13%
Sn 189.927†	-41.9	-13.462 µg/L	3.7726	-13.462 ppb	3.7726	28.02%
Sr 421.552†	478.1	4.9562 µg/L	0.14608	4.9562 ppb	0.14608	2.95%
Ti 334.940†	13835.1	4.0815 µg/L	0.40078	4.0815 ppb	0.40078	9.82%
Tl 190.801†	-24.2	37.750 µg/L	8.3798	37.750 ppb	8.3798	22.20%
U 409.014†	143899.2	12939 µg/L	52.5	12939 ppb	52.5	0.41%

QC value less than the lower limit for U 409.014 Recovery = 86.26%

V 292.402†	-5736.7	3.5579 µg/L	1.17264	3.5579 ppb	1.17264	32.96%
Zn 213.857†	2356.8	12.083 µg/L	0.5800	12.083 ppb	0.5800	4.80%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 2/11/2010 14:46:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55399.0	55399.0	102	%			14:46:58
1	Al 396.153Radial†	399.7	403.8	92.521	µg/L	92.521	ppb	14:46:58
1	Ca 317.933Radial†	334.1	149.9	141.18	µg/L	141.18	ppb	14:47:18
1	Fe 238.204 Radial†	7.1	-7.5	138.28	µg/L	138.28	ppb	14:47:18
1	K 766.490 Radial†	420398.0	414012.0	294280	µg/L	294280	ppb	14:46:52
1	Mg 279.077 IEC†	6.8	-4.5	128.44	µg/L	128.44	ppb	14:47:18
1	Na 589.592 Radial†	1342.1	780.2	256.86	µg/L	256.86	ppb	14:46:58
1	Sr 421.552†	951196.0	936997.9	9713.1	µg/L	9713.1	ppb	14:46:52
1	Sc 361.383	1973675.2	1973675.2	103.34	%			14:48:49
1	Y 371.029	1341693.6	1341693.6	102.43	%			14:48:49
1	Ag 328.068†	-7295.5	-6495.0	14.834	µg/L	14.834	ppb	14:48:55
1	As 188.979†	5210.7	5041.0	9833.2	µg/L	9833.2	ppb	14:48:55
1	B 249.677†	116645.4	112541.3	4957.2	µg/L	4957.2	ppb	14:48:49
1	Ba 233.527†	564583.2	546348.7	14244	µg/L	14244	ppb	14:48:49
1	Be 313.107†	4590165.2	4445144.6	2899.1	µg/L	2899.1	ppb	14:48:39
1	Cd 226.502†	360765.0	349238.8	9644.6	µg/L	9644.6	ppb	14:48:49
1	Co 228.616†	199452.7	193010.6	9487.0	µg/L	9487.0	ppb	14:48:49
1	Cr 267.716†	1141741.3	1104866.0	24309	µg/L	24309	ppb	14:48:49
1	Cu 324.752†	2993464.1	2894159.5	20216	µg/L	20216	ppb	14:48:49
1	Mn 257.610†	2858381.7	2766176.3	9578.9	µg/L	9578.9	ppb	14:48:49
1	Mo 202.031†	98264.3	95093.6	10148	µg/L	10148	ppb	14:48:49
1	Ni 231.604†	183070.7	176847.4	9657.8	µg/L	9657.8	ppb	14:48:49
1	P 214.914†	7469.6	7200.4	13482	µg/L	13482	ppb	14:48:55
1	Pb 220.353†	97644.4	94389.0	25180	µg/L	25180	ppb	14:48:49
1	S 181.975 Axial†	12516.5	12096.9	53001	µg/L	53001	ppb	14:48:55
1	Sb 206.836†	11239.2	10848.7	10569	µg/L	10569	ppb	14:48:55
1	Se 196.026†	6584.9	6356.1	9690.0	µg/L	9690.0	ppb	14:48:55
1	SiO2†	476520.0	459857.7	99033	µg/L	99033	ppb	14:48:49
1	Si 251.611†	580361.7	561278.0	46140	µg/L	46140	ppb	14:48:49
1	Sn 189.927†	23760.5	22992.8	10575	µg/L	10575	ppb	14:48:55
1	Ti 334.940†	4290484.1	4151599.7	9986.4	µg/L	9986.4	ppb	14:48:39
1	Tl 190.801†	7036.0	6832.7	9632.0	µg/L	9632.0	ppb	14:48:55
1	U 409.014†	835.4	862.0	78.046	µg/L	78.046	ppb	14:48:49
1	V 292.402†	975452.7	943947.6	10194	µg/L	10194	ppb	14:48:49
1	Zn 213.857†	598917.9	579071.4	14385	µg/L	14385	ppb	14:48:49
2	Sc RADIAL	55030.3	55030.3	101	%			14:47:30
2	Al 396.153Radial†	384.6	391.5	90.444	µg/L	90.444	ppb	14:47:30
2	Ca 317.933Radial†	398.0	215.6	202.97	µg/L	202.97	ppb	14:47:50
2	Fe 238.204 Radial†	10.5	-4.0	160.36	µg/L	160.36	ppb	14:47:50
2	K 766.490 Radial†	423060.2	419427.1	298130	µg/L	298130	ppb	14:47:24
2	Mg 279.077 IEC†	11.3	-0.0	164.54	µg/L	164.54	ppb	14:47:50
2	Na 589.592 Radial†	1212.5	660.6	217.48	µg/L	217.48	ppb	14:47:30
2	Sr 421.552†	957912.4	949937.4	9847.2	µg/L	9847.2	ppb	14:47:24
2	Sc 361.383	1973904.3	1973904.3	103.35	%			14:49:14
2	Y 371.029	1342735.7	1342735.7	102.51	%			14:49:14
2	Ag 328.068†	-6836.3	-6049.9	16.075	µg/L	16.075	ppb	14:49:19
2	As 188.979†	5005.3	4841.7	9444.3	µg/L	9444.3	ppb	14:49:19
2	B 249.677†	114403.0	110358.5	4860.1	µg/L	4860.1	ppb	14:49:14
2	Ba 233.527†	548071.4	530309.5	13826	µg/L	13826	ppb	14:49:14
2	Be 313.107†	4469193.3	4327583.5	2822.5	µg/L	2822.5	ppb	14:49:04
2	Cd 226.502†	349367.5	338170.7	9338.9	µg/L	9338.9	ppb	14:49:14
2	Co 228.616†	192536.9	186296.8	9156.8	µg/L	9156.8	ppb	14:49:14
2	Cr 267.716†	1093055.4	1057632.1	23270	µg/L	23270	ppb	14:49:14
2	Cu 324.752†	2898656.7	2802093.0	19573	µg/L	19573	ppb	14:49:14
2	Mn 257.610†	2761508.2	2672125.9	9253.2	µg/L	9253.2	ppb	14:49:14
2	Mo 202.031†	94921.3	91848.1	9802.1	µg/L	9802.1	ppb	14:49:14
2	Ni 231.604†	176871.2	170828.6	9329.1	µg/L	9329.1	ppb	14:49:14
2	P 214.914†	7023.8	6768.2	12612	µg/L	12612	ppb	14:49:19
2	Pb 220.353†	95131.3	91946.6	24529	µg/L	24529	ppb	14:49:14

2	S 181.975 Axial†	12036.4	11630.9	50959	µg/L	50959 ppb	14:49:19
2	Sb 206.836†	10693.6	10319.6	10054	µg/L	10054 ppb	14:49:19
2	Se 196.026†	6359.9	6137.7	9357.1	µg/L	9357.1 ppb	14:49:19
2	SiO2†	465181.8	448834.1	96659	µg/L	96659 ppb	14:49:14
2	Si 251.611†	566752.0	548044.9	45052	µg/L	45052 ppb	14:49:14
2	Sn 189.927†	22166.4	21447.8	9864.4	µg/L	9864.4 ppb	14:49:19
2	Ti 334.940†	4180020.8	4044239.7	9728.1	µg/L	9728.1 ppb	14:49:04
2	Tl 190.801†	6890.0	6690.7	9431.4	µg/L	9431.4 ppb	14:49:19
2	U 409.014†	947.2	970.1	87.818	µg/L	87.818 ppb	14:49:14
2	V 292.402†	941864.4	911339.9	9841.7	µg/L	9841.7 ppb	14:49:14
2	Zn 213.857†	579745.6	560454.1	13922	µg/L	13922 ppb	14:49:14
3	Sc RADIAL	56038.9	56038.9	103	%		14:48:02
3	Al 396.153Radial†	479.5	477.1	179.56	µg/L	179.56 ppb	14:48:02
3	Ca 317.933Radial†	383.6	194.4	183.07	µg/L	183.07 ppb	14:48:22
3	Fe 238.204 Radial†	9.4	-5.4	124.22	µg/L	124.22 ppb	14:48:22
3	K 766.490 Radial†	428756.3	417423.2	296700	µg/L	296700 ppb	14:47:56
3	Mg 279.077 IEC†	6.3	-5.2	95.926	µg/L	95.926 ppb	14:48:22
3	Na 589.592 Radial†	1260.6	685.8	225.77	µg/L	225.77 ppb	14:48:02
3	Sr 421.552†	974533.2	949026.3	9837.8	µg/L	9837.8 ppb	14:47:56
3	Sc 361.383	1967182.2	1967182.2	103.00	%		14:49:39
3	Y 371.029	1337106.2	1337106.2	102.08	%		14:49:39
3	Ag 328.068†	-5873.5	-5137.8	14.957	µg/L	14.957 ppb	14:49:44
3	As 188.979†	4335.2	4207.7	8207.5	µg/L	8207.5 ppb	14:49:44
3	B 249.677†	103256.6	99915.3	4398.2	µg/L	4398.2 ppb	14:49:39
3	Ba 233.527†	483121.0	469064.3	12229	µg/L	12229 ppb	14:49:39
3	Be 313.107†	4064814.3	3949767.9	2576.0	µg/L	2576.0 ppb	14:49:28
3	Cd 226.502†	306350.7	297562.9	8217.4	µg/L	8217.4 ppb	14:49:39
3	Co 228.616†	167417.3	162546.1	7988.6	µg/L	7988.6 ppb	14:49:39
3	Cr 267.716†	928569.1	901554.3	19836	µg/L	19836 ppb	14:49:39
3	Cu 324.752†	2527919.1	2451745.7	17126	µg/L	17126 ppb	14:49:39
3	Mn 257.610†	2402081.4	2332306.4	8076.5	µg/L	8076.5 ppb	14:49:39
3	Mo 202.031†	82713.5	80310.0	8570.8	µg/L	8570.8 ppb	14:49:39
3	Ni 231.604†	153785.8	149000.9	8137.1	µg/L	8137.1 ppb	14:49:39
3	P 214.914†	6020.9	5817.7	10807	µg/L	10807 ppb	14:49:44
3	Pb 220.353†	84806.2	82236.9	21938	µg/L	21938 ppb	14:49:39
3	S 181.975 Axial†	10412.0	10093.6	44224	µg/L	44224 ppb	14:49:44
3	Sb 206.836†	9221.8	8926.1	8701.4	µg/L	8701.4 ppb	14:49:44
3	Se 196.026†	5513.0	5336.4	8135.5	µg/L	8135.5 ppb	14:49:44
3	SiO2†	415353.7	401996.4	86572	µg/L	86572 ppb	14:49:39
3	Si 251.611†	505959.6	490898.3	40354	µg/L	40354 ppb	14:49:39
3	Sn 189.927†	18682.4	18138.7	8342.5	µg/L	8342.5 ppb	14:49:44
3	Ti 334.940†	3801346.2	3690423.2	8877.0	µg/L	8877.0 ppb	14:49:28
3	Tl 190.801†	6155.2	6000.1	8459.0	µg/L	8459.0 ppb	14:49:44
3	U 409.014†	834.8	864.1	78.225	µg/L	78.225 ppb	14:49:39
3	V 292.402†	816284.9	792534.9	8558.2	µg/L	8558.2 ppb	14:49:39
3	Zn 213.857†	507712.5	492437.5	12233	µg/L	12233 ppb	14:49:39

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1971587.2	103.23	%	0.200				0.19%
Sc RADIAL	55489.4	102	%	0.9				0.92%
Y 371.029	1340511.8	102.34	%	0.229				0.22%
Ag 328.068†	-5894.2	15.288	µg/L	0.6836	15.288	ppb	0.6836	4.47%
Al 396.153Radial†	424.2	120.84	µg/L	50.861	120.84	ppb	50.861	42.09%
As 188.979†	4696.8	9161.7	µg/L	848.90	9161.7	ppb	848.90	9.27%
QC value within limits for As 188.979 Recovery = 91.62%								
B 249.677†	107605.0	4738.5	µg/L	298.66	4738.5	ppb	298.66	6.30%
QC value within limits for B 249.677 Recovery = 94.77%								
Ba 233.527†	515240.8	13433	µg/L	1063.5	13433	ppb	1063.5	7.92%
QC value less than the lower limit for Ba 233.527 Recovery = 89.55%								
Be 313.107†	4240832.0	2765.9	µg/L	168.81	2765.9	ppb	168.81	6.10%
QC value within limits for Be 313.107 Recovery = 92.20%								
Ca 317.933Radial†	186.6	175.74	µg/L	31.540	175.74	ppb	31.540	17.95%
Cd 226.502†	328324.1	9067.0	µg/L	751.45	9067.0	ppb	751.45	8.29%
QC value within limits for Cd 226.502 Recovery = 90.67%								
Co 228.616†	180617.8	8877.5	µg/L	787.27	8877.5	ppb	787.27	8.87%
QC value less than the lower limit for Co 228.616 Recovery = 88.77%								
Cr 267.716†	1021350.8	22472	µg/L	2340.9	22472	ppb	2340.9	10.42%
QC value less than the lower limit for Cr 267.716 Recovery = 89.89%								

Cu 324.752†	2715999.4	18972 µg/L	1630.6	18972 ppb	1630.6	8.59%
QC value within limits for Cu 324.752 Recovery = 94.86%						
Fe 238.204 Radial†	-5.6	140.95 µg/L	18.221	140.95 ppb	18.221	12.93%
K 766.490 Radial†	416954.1	296370 µg/L	1946.1	296370 ppb	1946.1	0.66%
QC value within limits for K 766.490 Radial Recovery = 98.79%						
Mg 279.077 IEC†	-3.2	129.64 µg/L	34.323	129.64 ppb	34.323	26.48%
Mn 257.610†	2590202.9	8969.5 µg/L	790.37	8969.5 ppb	790.37	8.81%
QC value less than the lower limit for Mn 257.610 Recovery = 89.70%						
Mo 202.031†	89083.9	9507.1 µg/L	829.20	9507.1 ppb	829.20	8.72%
QC value within limits for Mo 202.031 Recovery = 95.07%						
Na 589.592 Radial†	708.9	233.37 µg/L	20.762	233.37 ppb	20.762	8.90%
Ni 231.604†	165559.0	9041.3 µg/L	800.17	9041.3 ppb	800.17	8.85%
QC value within limits for Ni 231.604 Recovery = 90.41%						
P 214.914†	6595.5	12300 µg/L	1364.7	12300 ppb	1364.7	11.09%
QC value less than the lower limit for P 214.914 Recovery = 82.00%						
Pb 220.353†	89524.2	23882 µg/L	1714.8	23882 ppb	1714.8	7.18%
QC value within limits for Pb 220.353 Recovery = 95.53%						
S 181.975 Axial†	11273.8	49394 µg/L	4592.8	49394 ppb	4592.8	9.30%
QC value within limits for S 181.975 Axial Recovery = 98.79%						
Sb 206.836†	10031.5	9774.9 µg/L	964.64	9774.9 ppb	964.64	9.87%
QC value within limits for Sb 206.836 Recovery = 97.75%						
Se 196.026†	5943.4	9060.9 µg/L	818.48	9060.9 ppb	818.48	9.03%
QC value within limits for Se 196.026 Recovery = 90.61%						
SiO2†	436896.1	94088 µg/L	6616.3	94088 ppb	6616.3	7.03%
QC value less than the lower limit for SiO2 Recovery = 87.93%						
Si 251.611†	533407.1	43849 µg/L	3074.8	43849 ppb	3074.8	7.01%
QC value less than the lower limit for Si 251.611 Recovery = 87.70%						
Sn 189.927†	20859.8	9594.0 µg/L	1140.59	9594.0 ppb	1140.59	11.89%
QC value within limits for Sn 189.927 Recovery = 95.94%						
Sr 421.552†	945320.6	9799.4 µg/L	74.86	9799.4 ppb	74.86	0.76%
QC value within limits for Sr 421.552 Recovery = 97.99%						
Ti 334.940†	3962087.5	9530.5 µg/L	580.46	9530.5 ppb	580.46	6.09%
QC value within limits for Ti 334.940 Recovery = 95.30%						
Tl 190.801†	6507.8	9174.1 µg/L	627.37	9174.1 ppb	627.37	6.84%
QC value within limits for Tl 190.801 Recovery = 91.74%						
U 409.014†	898.7	81.363 µg/L	5.5909	81.363 ppb	5.5909	6.87%
V 292.402†	882607.5	9531.4 µg/L	861.08	9531.4 ppb	861.08	9.03%
QC value within limits for V 292.402 Recovery = 95.31%						
Zn 213.857†	543987.7	13513 µg/L	1132.6	13513 ppb	1132.6	8.38%
QC value within limits for Zn 213.857 Recovery = 90.09%						

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 14:49:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56804.1	56804.1	104	%			14:50:31
1	Al 396.153Radial†	6842.1	6583.7	4896.3	µg/L	4896.3	ppb	14:50:31
1	Ca 317.933Radial†	5575.3	5177.3	4874.7	µg/L	4874.7	ppb	14:50:52
1	Fe 238.204 Radial†	620.0	581.2	4936.5	µg/L	4936.5	ppb	14:50:52
1	K 766.490 Radial†	7520.1	7096.5	5044.1	µg/L	5044.1	ppb	14:50:31
1	Mg 279.077 IEC†	574.4	540.6	5034.2	µg/L	5034.2	ppb	14:50:52
1	Na 589.592 Radial†	31573.0	29791.8	9807.5	µg/L	9807.5	ppb	14:50:31
1	Sr 421.552†	48614.5	46666.6	483.75	µg/L	483.75	ppb	14:50:31
1	Sc 361.383	1985086.2	1985086.2	103.94	%			14:51:55
1	Y 371.029	1355705.3	1355705.3	103.50	%			14:51:55
1	Ag 328.068†	63419.1	61579.6	492.20	µg/L	492.20	ppb	14:52:00
1	As 188.979†	283.1	271.2	529.04	µg/L	529.04	ppb	14:52:21
1	B 249.677†	12082.8	11293.3	491.77	µg/L	491.77	ppb	14:52:00
1	Ba 233.527†	19621.7	18904.0	493.12	µg/L	493.12	ppb	14:52:00
1	Be 313.107†	773609.6	747725.8	488.12	µg/L	488.12	ppb	14:51:55
1	Cd 226.502†	18494.8	17935.8	494.76	µg/L	494.76	ppb	14:52:00
1	Co 228.616†	10503.4	10114.1	497.19	µg/L	497.19	ppb	14:52:00
1	Cr 267.716†	23548.0	22707.7	499.79	µg/L	499.79	ppb	14:52:00
1	Cu 324.752†	76174.0	70800.5	495.24	µg/L	495.24	ppb	14:52:00
1	Mn 257.610†	149145.1	143735.7	498.19	µg/L	498.19	ppb	14:51:55
1	Mo 202.031†	5080.3	4895.3	522.62	µg/L	522.62	ppb	14:52:21
1	Ni 231.604†	9759.2	9087.1	496.31	µg/L	496.31	ppb	14:52:00
1	P 214.914†	1255.3	1180.1	2486.8	µg/L	2486.8	ppb	14:52:21
1	Pb 220.353†	2124.3	1946.6	519.63	µg/L	519.63	ppb	14:52:21
1	S 181.975 Axial†	258.7	234.1	1025.7	µg/L	1025.7	ppb	14:52:21
1	Sb 206.836†	589.1	539.9	533.84	µg/L	533.84	ppb	14:52:21
1	Se 196.026†	360.1	330.7	511.73	µg/L	511.73	ppb	14:52:21
1	SiO2†	26768.3	24503.7	5277.0	µg/L	5277.0	ppb	14:52:00
1	Si 251.611†	31600.0	30089.3	2473.5	µg/L	2473.5	ppb	14:52:00
1	Sn 189.927†	1182.0	1138.1	523.47	µg/L	523.47	ppb	14:52:21
1	Ti 334.940†	213092.8	204899.2	492.55	µg/L	492.55	ppb	14:51:55
1	Tl 190.801†	347.4	358.5	506.37	µg/L	506.37	ppb	14:52:21
1	U 409.014†	5696.3	5534.0	500.04	µg/L	500.04	ppb	14:52:00
1	V 292.402†	48064.4	46286.7	499.57	µg/L	499.57	ppb	14:52:00
1	Zn 213.857†	21219.3	19939.4	494.39	µg/L	494.39	ppb	14:52:00
2	Sc RADIAL	56818.7	56818.7	104	%			14:50:57
2	Al 396.153Radial†	6864.1	6603.1	4910.8	µg/L	4910.8	ppb	14:50:57
2	Ca 317.933Radial†	5535.1	5137.3	4837.1	µg/L	4837.1	ppb	14:51:17
2	Fe 238.204 Radial†	615.6	576.8	4899.1	µg/L	4899.1	ppb	14:51:17
2	K 766.490 Radial†	7426.8	7005.0	4979.1	µg/L	4979.1	ppb	14:50:57
2	Mg 279.077 IEC†	575.7	541.7	5044.4	µg/L	5044.4	ppb	14:51:17
2	Na 589.592 Radial†	31604.5	29814.2	9814.9	µg/L	9814.9	ppb	14:50:57
2	Sr 421.552†	48545.6	46588.5	482.94	µg/L	482.94	ppb	14:50:57
2	Sc 361.383	1982851.3	1982851.3	103.82	%			14:52:28
2	Y 371.029	1354649.3	1354649.3	103.41	%			14:52:28
2	Ag 328.068†	64081.0	62286.0	497.83	µg/L	497.83	ppb	14:52:34
2	As 188.979†	276.6	265.3	517.47	µg/L	517.47	ppb	14:52:54
2	B 249.677†	12111.5	11334.1	493.59	µg/L	493.59	ppb	14:52:34
2	Ba 233.527†	19855.9	19150.8	499.56	µg/L	499.56	ppb	14:52:34
2	Be 313.107†	767601.6	742777.9	484.89	µg/L	484.89	ppb	14:52:28
2	Cd 226.502†	18724.1	18176.8	501.42	µg/L	501.42	ppb	14:52:34
2	Co 228.616†	10623.9	10241.5	503.47	µg/L	503.47	ppb	14:52:34
2	Cr 267.716†	23965.4	23135.3	509.20	µg/L	509.20	ppb	14:52:34
2	Cu 324.752†	76944.2	71624.9	501.00	µg/L	501.00	ppb	14:52:34
2	Mn 257.610†	147951.6	142747.9	494.77	µg/L	494.77	ppb	14:52:28
2	Mo 202.031†	5059.8	4881.0	521.09	µg/L	521.09	ppb	14:52:54
2	Ni 231.604†	9897.9	9231.3	504.18	µg/L	504.18	ppb	14:52:34
2	P 214.914†	1254.5	1180.6	2487.4	µg/L	2487.4	ppb	14:52:54
2	Pb 220.353†	2113.7	1938.7	517.51	µg/L	517.51	ppb	14:52:54

2	S 181.975 Axial†	253.9	229.7	1006.6 µg/L	1006.6 ppb	14:52:54
2	Sb 206.836†	570.0	522.0	516.18 µg/L	516.18 ppb	14:52:54
2	Se 196.026†	357.5	328.5	508.28 µg/L	508.28 ppb	14:52:54
2	SiO2†	27016.3	24771.5	5334.7 µg/L	5334.7 ppb	14:52:34
2	Si 251.611†	31927.7	30439.2	2502.3 µg/L	2502.3 ppb	14:52:34
2	Sn 189.927†	1183.2	1140.5	524.61 µg/L	524.61 ppb	14:52:54
2	Ti 334.940†	211586.4	203679.4	489.61 µg/L	489.61 ppb	14:52:28
2	Tl 190.801†	345.3	356.8	503.93 µg/L	503.93 ppb	14:52:54
2	U 409.014†	5694.5	5538.4	500.46 µg/L	500.46 ppb	14:52:34
2	V 292.402†	48494.6	46753.2	504.55 µg/L	504.55 ppb	14:52:34
2	Zn 213.857†	21488.9	20222.1	501.41 µg/L	501.41 ppb	14:52:34
3	Sc RADIAL	57349.9	57349.9	105 %		14:51:23
3	Al 396.153Radial†	6954.4	6628.0	4931.1 µg/L	4931.1 ppb	14:51:23
3	Ca 317.933Radial†	5532.3	5085.5	4788.3 µg/L	4788.3 ppb	14:51:43
3	Fe 238.204 Radial†	617.1	572.8	4864.4 µg/L	4864.4 ppb	14:51:43
3	K 766.490 Radial†	7512.2	7020.2	4989.9 µg/L	4989.9 ppb	14:51:23
3	Mg 279.077 IEC†	569.2	530.4	4937.8 µg/L	4937.8 ppb	14:51:43
3	Na 589.592 Radial†	31885.8	29800.8	9810.5 µg/L	9810.5 ppb	14:51:23
3	Sr 421.552†	49101.8	46686.0	483.95 µg/L	483.95 ppb	14:51:23
3	Sc 361.383	1990626.4	1990626.4	104.23 %		14:53:01
3	Y 371.029	1359542.7	1359542.7	103.79 %		14:53:01
3	Ag 328.068†	60113.1	58238.1	465.39 µg/L	465.39 ppb	14:53:07
3	As 188.979†	235.3	224.6	438.16 µg/L	438.16 ppb	14:53:28
3	B 249.677†	11347.7	10555.7	459.50 µg/L	459.50 ppb	14:53:07
3	Ba 233.527†	18299.9	17583.2	458.65 µg/L	458.65 ppb	14:53:07
3	Be 313.107†	726470.7	700428.5	457.24 µg/L	457.24 ppb	14:53:01
3	Cd 226.502†	17137.6	16584.2	457.44 µg/L	457.44 ppb	14:53:07
3	Co 228.616†	9675.2	9291.3	456.68 µg/L	456.68 ppb	14:53:07
3	Cr 267.716†	21632.8	20807.2	457.96 µg/L	457.96 ppb	14:53:07
3	Cu 324.752†	71181.3	65806.4	460.35 µg/L	460.35 ppb	14:53:07
3	Mn 257.610†	140886.2	135412.6	469.36 µg/L	469.36 ppb	14:53:01
3	Mo 202.031†	4241.7	4077.1	435.30 µg/L	435.30 ppb	14:53:28
3	Ni 231.604†	9011.2	8343.3	455.69 µg/L	455.69 ppb	14:53:07
3	P 214.914†	1075.3	1004.1	2111.2 µg/L	2111.2 ppb	14:53:28
3	Pb 220.353†	1866.0	1693.1	451.84 µg/L	451.84 ppb	14:53:28
3	S 181.975 Axial†	232.5	208.2	912.40 µg/L	912.40 ppb	14:53:28
3	Sb 206.836†	504.7	457.3	451.62 µg/L	451.62 ppb	14:53:28
3	Se 196.026†	310.0	281.6	436.86 µg/L	436.86 ppb	14:53:28
3	SiO2†	25184.9	22912.8	4934.4 µg/L	4934.4 ppb	14:53:07
3	Si 251.611†	29623.3	28108.2	2310.6 µg/L	2310.6 ppb	14:53:07
3	Sn 189.927†	974.4	935.7	430.40 µg/L	430.40 ppb	14:53:28
3	Ti 334.940†	200395.3	192146.5	461.88 µg/L	461.88 ppb	14:53:01
3	Tl 190.801†	314.8	326.3	461.00 µg/L	461.00 ppb	14:53:28
3	U 409.014†	5084.0	4931.3	445.50 µg/L	445.50 ppb	14:53:07
3	V 292.402†	43900.0	42162.6	454.79 µg/L	454.79 ppb	14:53:07
3	Zn 213.857†	19753.8	18476.6	458.11 µg/L	458.11 ppb	14:53:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1986188.0	104.00	%	0.210				0.20%
Sc RADIAL	56990.9	104	%	0.6				0.55%
Y 371.029	1356632.4	103.57	%	0.197				0.19%
Ag 328.068†	60701.2	485.14	µg/L	17.336	485.14	ppb	17.336	3.57%
QC value within limits for Ag 328.068 Recovery = 97.03%								
Al 396.153Radial†	6604.9	4912.7	µg/L	17.49	4912.7	ppb	17.49	0.36%
QC value within limits for Al 396.153Radial Recovery = 98.25%								
As 188.979†	253.7	494.89	µg/L	49.467	494.89	ppb	49.467	10.00%
QC value within limits for As 188.979 Recovery = 98.98%								
B 249.677†	11061.0	481.62	µg/L	19.175	481.62	ppb	19.175	3.98%
QC value within limits for B 249.677 Recovery = 96.32%								
Ba 233.527†	18546.0	483.78	µg/L	21.996	483.78	ppb	21.996	4.55%
QC value within limits for Ba 233.527 Recovery = 96.76%								
Be 313.107†	730310.7	476.75	µg/L	16.971	476.75	ppb	16.971	3.56%
QC value within limits for Be 313.107 Recovery = 95.35%								
Ca 317.933Radial†	5133.4	4833.4	µg/L	43.35	4833.4	ppb	43.35	0.90%
QC value within limits for Ca 317.933Radial Recovery = 96.67%								
Cd 226.502†	17565.6	484.54	µg/L	23.706	484.54	ppb	23.706	4.89%
QC value within limits for Cd 226.502 Recovery = 96.91%								
Co 228.616†	9882.3	485.78	µg/L	25.392	485.78	ppb	25.392	5.23%

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   QC value within limits for Co 228.616  Recovery = 97.16%
Cr 267.716†            22216.8      488.98 µg/L        27.276      488.98 ppb         27.276   5.58%
   QC value within limits for Cr 267.716  Recovery = 97.80%
Cu 324.752†            69410.6      485.53 µg/L        21.996      485.53 ppb         21.996   4.53%
   QC value within limits for Cu 324.752  Recovery = 97.11%
Fe 238.204 Radial†       576.9      4900.0 µg/L         36.10      4900.0 ppb          36.10   0.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.00%
K 766.490 Radial†       7040.6      5004.4 µg/L         34.84      5004.4 ppb          34.84   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 100.09%
Mg 279.077 IEC†          537.5      5005.5 µg/L         58.81      5005.5 ppb          58.81   1.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.11%
Mn 257.610†           140632.1      487.44 µg/L        15.748      487.44 ppb         15.748   3.23%
   QC value within limits for Mn 257.610  Recovery = 97.49%
Mo 202.031†             4617.8      493.00 µg/L        49.981      493.00 ppb         49.981  10.14%
   QC value within limits for Mo 202.031  Recovery = 98.60%
Na 589.592 Radial†     29802.3      9811.0 µg/L          3.72      9811.0 ppb           3.72   0.04%
   QC value within limits for Na 589.592 Radial  Recovery = 98.11%
Ni 231.604†             8887.2      485.39 µg/L        26.026      485.39 ppb         26.026   5.36%
   QC value within limits for Ni 231.604  Recovery = 97.08%
P 214.914†              1121.6      2361.8 µg/L       217.03      2361.8 ppb         217.03   9.19%
   QC value within limits for P 214.914  Recovery = 94.47%
Pb 220.353†             1859.5      496.33 µg/L        38.539      496.33 ppb         38.539   7.76%
   QC value within limits for Pb 220.353  Recovery = 99.27%
S 181.975 Axial†         224.0      981.57 µg/L        60.664      981.57 ppb         60.664   6.18%
   QC value within limits for S 181.975 Axial  Recovery = 98.16%
Sb 206.836†              506.4      500.55 µg/L        43.281      500.55 ppb         43.281   8.65%
   QC value within limits for Sb 206.836  Recovery = 100.11%
Se 196.026†              313.6      485.62 µg/L        42.263      485.62 ppb         42.263   8.70%
   QC value within limits for Se 196.026  Recovery = 97.12%
SiO2†                  24062.6      5182.0 µg/L       216.38      5182.0 ppb         216.38   4.18%
   QC value within limits for SiO2  Recovery = 96.91%
Si 251.611†            29545.6      2428.8 µg/L       103.33      2428.8 ppb         103.33   4.25%
   QC value within limits for Si 251.611  Recovery = 97.15%
Sn 189.927†             1071.4      492.83 µg/L        54.065      492.83 ppb         54.065  10.97%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†            46647.0      483.55 µg/L         0.535      483.55 ppb          0.535   0.11%
   QC value within limits for Sr 421.552  Recovery = 96.71%
Ti 334.940†           200241.7      481.35 µg/L        16.923      481.35 ppb         16.923   3.52%
   QC value within limits for Ti 334.940  Recovery = 96.27%
Tl 190.801†              347.2      490.43 µg/L        25.519      490.43 ppb         25.519   5.20%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†              5334.6      482.00 µg/L        31.611      482.00 ppb         31.611   6.56%
   QC value within limits for U 409.014  Recovery = 96.40%
V 292.402†             45067.5      486.30 µg/L        27.408      486.30 ppb         27.408   5.64%
   QC value within limits for V 292.402  Recovery = 97.26%
Zn 213.857†            19546.0      484.64 µg/L        23.239      484.64 ppb         23.239   4.80%
   QC value within limits for Zn 213.857  Recovery = 96.93%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 14:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56199.9	56199.9	103	%			14:54:10
1	Al 396.153Radial†	38.0	47.1	35.072	µg/L	35.072	ppb	14:54:10
1	Ca 317.933Radial†	231.4	45.6	42.930	µg/L	42.930	ppb	14:54:31
1	Fe 238.204 Radial†	23.4	8.2	69.822	µg/L	69.822	ppb	14:54:31
1	K 766.490 Radial†	243.5	108.1	76.828	µg/L	76.828	ppb	14:54:10
1	Mg 279.077 IEC†	18.5	6.7	62.643	µg/L	62.643	ppb	14:54:31
1	Na 589.592 Radial†	743.1	179.7	59.159	µg/L	59.159	ppb	14:54:10
1	Sr 421.552†	105.8	63.2	0.6552	µg/L	0.6552	ppb	14:54:10
1	Sc 361.383	1982476.6	1982476.6	103.80	%			14:55:33
1	Y 371.029	1357413.1	1357413.1	103.63	%			14:55:33
1	Ag 328.068†	-522.2	61.5	0.4946	µg/L	0.4946	ppb	14:55:38
1	As 188.979†	1.8	0.6	1.0901	µg/L	1.0901	ppb	14:55:59
1	B 249.677†	408.1	61.7	2.6625	µg/L	2.6625	ppb	14:55:59
1	Ba 233.527†	2.5	28.5	0.7415	µg/L	0.7415	ppb	14:55:59
1	Be 313.107†	-3213.4	344.8	0.2250	µg/L	0.2250	ppb	14:55:38
1	Cd 226.502†	-134.6	12.5	0.3368	µg/L	0.3368	ppb	14:55:59
1	Co 228.616†	-7.7	1.4	0.0712	µg/L	0.0712	ppb	14:55:59
1	Cr 267.716†	4.1	56.4	1.2401	µg/L	1.2401	ppb	14:55:59
1	Cu 324.752†	2752.9	165.9	1.1688	µg/L	1.1688	ppb	14:55:38
1	Mn 257.610†	-137.5	111.6	0.3934	µg/L	0.3934	ppb	14:55:59
1	Mo 202.031†	2.7	10.2	1.0859	µg/L	1.0859	ppb	14:55:59
1	Ni 231.604†	309.2	-4.3	-0.2339	µg/L	-0.2339	ppb	14:55:59
1	P 214.914†	25.1	-3.5	-7.5860	µg/L	-7.5860	ppb	14:55:59
1	Pb 220.353†	124.3	22.6	6.0147	µg/L	6.0147	ppb	14:55:59
1	S 181.975 Axial†	16.6	1.2	5.2644	µg/L	5.2644	ppb	14:55:59
1	Sb 206.836†	32.4	4.3	4.2069	µg/L	4.2069	ppb	14:55:59
1	Se 196.026†	17.5	1.0	1.6734	µg/L	1.6734	ppb	14:55:59
1	SiO2†	1299.2	1.6	0.3503	µg/L	0.3503	ppb	14:55:38
1	Si 251.611†	379.1	52.3	4.3027	µg/L	4.3027	ppb	14:55:59
1	Sn 189.927†	7.8	8.4	3.8780	µg/L	3.8780	ppb	14:55:59
1	Ti 334.940†	271.8	145.7	0.3462	µg/L	0.3462	ppb	14:55:38
1	Tl 190.801†	-19.8	5.2	7.2432	µg/L	7.2432	ppb	14:55:59
1	U 409.014†	-9.7	44.3	3.9980	µg/L	3.9980	ppb	14:55:38
1	V 292.402†	-10.8	33.8	0.3839	µg/L	0.3839	ppb	14:55:38
1	Zn 213.857†	539.3	44.0	1.0899	µg/L	1.0899	ppb	14:55:59
2	Sc RADIAL	56663.5	56663.5	104	%			14:54:36
2	Al 396.153Radial†	53.4	61.6	45.892	µg/L	45.892	ppb	14:54:36
2	Ca 317.933Radial†	224.0	36.6	34.458	µg/L	34.458	ppb	14:54:57
2	Fe 238.204 Radial†	18.3	3.1	26.399	µg/L	26.399	ppb	14:54:57
2	K 766.490 Radial†	257.1	119.2	84.727	µg/L	84.727	ppb	14:54:36
2	Mg 279.077 IEC†	17.6	5.7	53.162	µg/L	53.162	ppb	14:54:57
2	Na 589.592 Radial†	788.5	217.6	71.620	µg/L	71.620	ppb	14:54:36
2	Sr 421.552†	88.8	46.0	0.4764	µg/L	0.4764	ppb	14:54:36
2	Sc 361.383	1976808.7	1976808.7	103.51	%			14:56:05
2	Y 371.029	1355511.3	1355511.3	103.48	%			14:56:05
2	Ag 328.068†	-510.0	71.8	0.5752	µg/L	0.5752	ppb	14:56:10
2	As 188.979†	1.2	0.0	0.0279	µg/L	0.0279	ppb	14:56:31
2	B 249.677†	396.3	51.4	2.2364	µg/L	2.2364	ppb	14:56:31
2	Ba 233.527†	2.6	28.5	0.7438	µg/L	0.7438	ppb	14:56:31
2	Be 313.107†	-3268.6	282.6	0.1844	µg/L	0.1844	ppb	14:56:10
2	Cd 226.502†	-122.2	24.1	0.6618	µg/L	0.6618	ppb	14:56:31
2	Co 228.616†	-10.0	-0.8	-0.0395	µg/L	-0.0395	ppb	14:56:31
2	Cr 267.716†	5.1	57.3	1.2611	µg/L	1.2611	ppb	14:56:31
2	Cu 324.752†	2702.2	124.6	0.8738	µg/L	0.8738	ppb	14:56:10
2	Mn 257.610†	-107.9	139.8	0.4856	µg/L	0.4856	ppb	14:56:31
2	Mo 202.031†	-1.1	6.4	0.6888	µg/L	0.6888	ppb	14:56:31
2	Ni 231.604†	302.7	-9.7	-0.5298	µg/L	-0.5298	ppb	14:56:31
2	P 214.914†	20.2	-8.1	-17.441	µg/L	-17.441	ppb	14:56:31
2	Pb 220.353†	118.9	17.7	4.7183	µg/L	4.7183	ppb	14:56:31

2	S 181.975 Axial†	14.4	-0.9	-4.1582 µg/L	-4.1582 ppb	14:56:31
2	Sb 206.836†	28.3	0.4	0.3915 µg/L	0.3915 ppb	14:56:31
2	Se 196.026†	9.3	-6.9	-10.429 µg/L	-10.429 ppb	14:56:31
2	SiO2†	1222.9	-68.6	-14.765 µg/L	-14.765 ppb	14:56:10
2	Si 251.611†	359.0	34.0	2.7936 µg/L	2.7936 ppb	14:56:31
2	Sn 189.927†	7.1	7.7	3.5568 µg/L	3.5568 ppb	14:56:31
2	Ti 334.940†	232.6	108.6	0.2576 µg/L	0.2576 ppb	14:56:10
2	Tl 190.801†	-24.5	0.6	0.8244 µg/L	0.8244 ppb	14:56:31
2	U 409.014†	-107.5	-50.2	-4.5523 µg/L	-4.5523 ppb	14:56:10
2	V 292.402†	15.1	58.8	0.6333 µg/L	0.6333 ppb	14:56:10
2	Zn 213.857†	534.3	40.7	1.0126 µg/L	1.0126 ppb	14:56:31
3	Sc RADIAL	56320.6	56320.6	103 %		14:55:02
3	Al 396.153Radial†	8.5	18.4	13.663 µg/L	13.663 ppb	14:55:02
3	Ca 317.933Radial†	216.9	31.1	29.241 µg/L	29.241 ppb	14:55:23
3	Fe 238.204 Radial†	17.6	2.6	21.668 µg/L	21.668 ppb	14:55:23
3	K 766.490 Radial†	236.5	100.7	71.584 µg/L	71.584 ppb	14:55:02
3	Mg 279.077 IEC†	12.2	0.5	5.0859 µg/L	5.0859 ppb	14:55:23
3	Na 589.592 Radial†	760.7	195.3	64.287 µg/L	64.287 ppb	14:55:02
3	Sr 421.552†	71.7	29.9	0.3097 µg/L	0.3097 ppb	14:55:02
3	Sc 361.383	1993913.4	1993913.4	104.40 %		14:56:37
3	Y 371.029	1367504.2	1367504.2	104.40 %		14:56:37
3	Ag 328.068†	-498.3	87.2	0.6944 µg/L	0.6944 ppb	14:56:43
3	As 188.979†	0.4	-0.8	-1.5138 µg/L	-1.5138 ppb	14:57:03
3	B 249.677†	385.9	38.1	1.6564 µg/L	1.6564 ppb	14:57:03
3	Ba 233.527†	1.2	27.2	0.7082 µg/L	0.7082 ppb	14:57:03
3	Be 313.107†	-3126.9	445.4	0.2907 µg/L	0.2907 ppb	14:56:43
3	Cd 226.502†	-117.4	29.7	0.8162 µg/L	0.8162 ppb	14:57:03
3	Co 228.616†	-8.6	0.6	0.0304 µg/L	0.0304 ppb	14:57:03
3	Cr 267.716†	2.0	54.3	1.1938 µg/L	1.1938 ppb	14:57:03
3	Cu 324.752†	2701.6	101.6	0.7126 µg/L	0.7126 ppb	14:56:43
3	Mn 257.610†	-86.5	161.3	0.5611 µg/L	0.5611 ppb	14:57:03
3	Mo 202.031†	5.2	12.5	1.3355 µg/L	1.3355 ppb	14:57:03
3	Ni 231.604†	315.6	0.1	0.0043 µg/L	0.0043 ppb	14:57:03
3	P 214.914†	33.2	4.1	8.8077 µg/L	8.8077 ppb	14:57:03
3	Pb 220.353†	109.3	7.5	2.0114 µg/L	2.0114 ppb	14:57:03
3	S 181.975 Axial†	10.6	-4.7	-20.521 µg/L	-20.521 ppb	14:57:03
3	Sb 206.836†	25.8	-2.2	-2.1813 µg/L	-2.1813 ppb	14:57:03
3	Se 196.026†	17.8	1.2	1.8776 µg/L	1.8776 ppb	14:57:03
3	SiO2†	1292.2	-12.3	-2.6550 µg/L	-2.6550 ppb	14:56:43
3	Si 251.611†	371.3	42.8	3.5163 µg/L	3.5163 ppb	14:57:03
3	Sn 189.927†	-2.0	-1.0	-0.4777 µg/L	-0.4777 ppb	14:57:03
3	Ti 334.940†	313.8	184.5	0.4438 µg/L	0.4438 ppb	14:56:43
3	Tl 190.801†	-24.1	1.2	1.6892 µg/L	1.6892 ppb	14:57:03
3	U 409.014†	-22.6	31.9	2.8863 µg/L	2.8863 ppb	14:56:43
3	V 292.402†	-34.6	11.0	0.1363 µg/L	0.1363 ppb	14:56:43
3	Zn 213.857†	532.5	34.5	0.8590 µg/L	0.8590 ppb	14:57:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1984399.6	103.90	%	0.456				0.44%
Sc RADIAL	56394.7	103	%	0.4				0.43%
Y 371.029	1360142.9	103.83	%	0.492				0.47%
Ag 328.068†	73.5	0.5881	µg/L	0.10050	0.5881	ppb	0.10050	17.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.3	31.542	µg/L	16.4016	31.542	ppb	16.4016	52.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.1319	µg/L	1.30928	-0.1319	ppb	1.30928	992.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	50.4	2.1851	µg/L	0.50501	2.1851	ppb	0.50501	23.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	28.1	0.7312	µg/L	0.01993	0.7312	ppb	0.01993	2.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	357.6	0.2334	µg/L	0.05362	0.2334	ppb	0.05362	22.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	37.7	35.543	µg/L	6.9088	35.543	ppb	6.9088	19.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	22.1	0.6049	µg/L	0.24471	0.6049	ppb	0.24471	40.45%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.4	0.0207	µg/L	0.05597	0.0207	ppb	0.05597	270.39%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              56.0      1.2317 µg/L       0.03444      1.2317 ppb        0.03444   2.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             130.7      0.9184 µg/L       0.23134      0.9184 ppb        0.23134  25.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        4.6     39.296 µg/L      26.5417     39.296 ppb       26.5417  67.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       109.3     77.713 µg/L       6.6157     77.713 ppb        6.6157   8.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           4.3     40.297 µg/L      30.8602     40.297 ppb       30.8602  76.58%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             137.6      0.4800 µg/L       0.08402      0.4800 ppb        0.08402  17.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.7      1.0367 µg/L       0.32615      1.0367 ppb        0.32615  31.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      197.5     65.022 µg/L       6.2628     65.022 ppb        6.2628   9.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -4.6     -0.2531 µg/L      0.26755     -0.2531 ppb        0.26755 105.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.5     -5.4063 µg/L     13.25932     -5.4063 ppb       13.25932 245.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              15.9      4.2482 µg/L      2.04263      4.2482 ppb        2.04263  48.08%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.5     -6.4715 µg/L     13.04721     -6.4715 ppb       13.04721 201.61%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.8      0.8057 µg/L      3.21418      0.8057 ppb        3.21418 398.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.5     -2.2926 µg/L      7.04698     -2.2926 ppb        7.04698 307.37%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -26.4     -5.6898 µg/L      8.00142     -5.6898 ppb        8.00142 140.63%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              43.0      3.5375 µg/L      0.75475      3.5375 ppb        0.75475  21.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.0      2.3190 µg/L      2.42737      2.3190 ppb        2.42737 104.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              46.3      0.4804 µg/L      0.17278      0.4804 ppb        0.17278  35.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             146.3      0.3492 µg/L      0.09310      0.3492 ppb        0.09310  26.66%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      3.2523 µg/L      3.48319      3.2523 ppb        3.48319 107.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                8.7      0.7773 µg/L      4.64898      0.7773 ppb        4.64898 598.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.6      0.3845 µg/L      0.24848      0.3845 ppb        0.24848  64.62%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              39.7      0.9871 µg/L      0.11756      0.9871 ppb        0.11756  11.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 2/11/2010 15:08:34 **Plasma On Time: 2/8/2010 03:37:33**
Logged In Analyst: optima **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N1030502Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 2/11/2010 13:51:13**
IEC File: 011510.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 113**
Sample ID: LR1 **Date Collected: 2/11/2010 15:08:34**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55775.1	55775.1	102	%			15:09:19
1	Al 396.153Radial†	-12.5	-2.1	-1.5477	µg/L	-1.5477	ppb	15:09:19
1	Ca 317.933Radial†	109.7	-71.8	-67.596	µg/L	-67.596	ppb	15:09:39
1	Fe 238.204 Radial†	12.5	-2.2	-18.859	µg/L	-18.859	ppb	15:09:39

1	K 766.490 Radial†	153.1	21.4	15.223 µg/L	15.223 ppb	15:09:19
1	Mg 279.077 IEC†	21.3	9.6	89.132 µg/L	89.132 ppb	15:09:39
1	Na 589.592 Radial†	561.6	7.7	2.5239 µg/L	2.5239 ppb	15:09:19
1	Sr 421.552†	60.6	19.8	0.2050 µg/L	0.2050 ppb	15:09:19
1	Sc 361.383	1979575.8	1979575.8	103.65 %		15:10:41
1	Y 371.029	1359463.7	1359463.7	103.78 %		15:10:41
1	Ag 328.068†	-475.7	105.6	0.7790 µg/L	0.7790 ppb	15:10:47
1	As 188.979†	3.5	2.2	4.2811 µg/L	4.2811 ppb	15:11:08
1	B 249.677†	236.6	-103.2	-4.4890 µg/L	-4.4890 ppb	15:10:47
1	Ba 233.527†	-43.0	-15.5	-0.4185 µg/L	-0.4185 ppb	15:11:08
1	Be 313.107†	-9167.3	-5403.9	-3.5311 µg/L	-3.5311 ppb	15:10:47
1	Cd 226.502†	-304.4	-151.6	-4.1785 µg/L	-4.1785 ppb	15:11:08
1	Co 228.616†	19.8	27.9	1.3617 µg/L	1.3617 ppb	15:11:08
1	Cr 267.716†	233.0	277.1	6.0903 µg/L	6.0903 ppb	15:10:47
1	Cu 324.752†	1310.7	-1221.6	-8.5355 µg/L	-8.5355 ppb	15:10:47
1	Mn 257.610†	14.0	257.6	0.8861 µg/L	0.8861 ppb	15:10:47
1	Mo 202.031†	-13.4	-5.4	-0.5763 µg/L	-0.5763 ppb	15:11:08
1	Ni 231.604†	324.2	10.6	0.5789 µg/L	0.5789 ppb	15:11:08
1	P 214.914†	39.4	10.4	23.307 µg/L	23.307 ppb	15:11:08
1	Pb 220.353†	132.9	31.0	-2.3589 µg/L	-2.3589 ppb	15:11:08
1	S 181.975 Axial†	17.0	1.6	6.9914 µg/L	6.9914 ppb	15:11:08
1	Sb 206.836†	24.0	-3.8	-3.8211 µg/L	-3.8211 ppb	15:11:08
1	Se 196.026†	11.2	-5.0	-7.7508 µg/L	-7.7508 ppb	15:11:08
1	SiO2†	1260.6	-33.8	-7.2860 µg/L	-7.2860 ppb	15:10:47
1	Si 251.611†	175.4	-143.6	-11.809 µg/L	-11.809 ppb	15:11:08
1	Sn 189.927†	6.2	6.9	3.1737 µg/L	3.1737 ppb	15:11:08
1	Ti 334.940†	2413.3	2212.1	5.3130 µg/L	5.3130 ppb	15:10:47
1	Tl 190.801†	-31.2	-5.9	4.3972 µg/L	4.3972 ppb	15:11:08
1	U 409.014†	117155.1	113081.6	10238 µg/L	10238 ppb	15:10:41
1	V 292.402†	-897.2	-821.4	1.8907 µg/L	1.8907 ppb	15:10:47
1	Zn 213.857†	499.8	6.6	0.1728 µg/L	0.1728 ppb	15:11:08
2	Sc RADIAL	55251.0	55251.0	101 %		15:09:44
2	Al 396.153Radial†	-27.7	-17.2	-12.820 µg/L	-12.820 ppb	15:09:44
2	Ca 317.933Radial†	107.7	-72.8	-68.561 µg/L	-68.561 ppb	15:10:05
2	Fe 238.204 Radial†	14.6	-0.1	-0.7560 µg/L	-0.7560 ppb	15:10:05
2	K 766.490 Radial†	163.9	33.5	23.798 µg/L	23.798 ppb	15:09:44
2	Mg 279.077 IEC†	21.5	10.0	92.921 µg/L	92.921 ppb	15:10:05
2	Na 589.592 Radial†	549.7	1.1	0.3683 µg/L	0.3683 ppb	15:09:44
2	Sr 421.552†	65.4	25.1	0.2600 µg/L	0.2600 ppb	15:09:44
2	Sc 361.383	1991488.7	1991488.7	104.28 %		15:11:14
2	Y 371.029	1367480.0	1367480.0	104.39 %		15:11:14
2	Ag 328.068†	-460.8	122.6	0.9153 µg/L	0.9153 ppb	15:11:20
2	As 188.979†	3.4	2.1	4.1976 µg/L	4.1976 ppb	15:11:40
2	B 249.677†	245.3	-96.3	-4.1987 µg/L	-4.1987 ppb	15:11:20
2	Ba 233.527†	-30.4	-3.2	-0.0984 µg/L	-0.0984 ppb	15:11:40
2	Be 313.107†	-9053.1	-5241.5	-3.4251 µg/L	-3.4251 ppb	15:11:20
2	Cd 226.502†	-307.5	-152.7	-4.2119 µg/L	-4.2119 ppb	15:11:40
2	Co 228.616†	2.2	10.9	0.5250 µg/L	0.5250 ppb	15:11:40
2	Cr 267.716†	184.1	229.0	5.0309 µg/L	5.0309 ppb	15:11:20
2	Cu 324.752†	1378.2	-1164.4	-8.1337 µg/L	-8.1337 ppb	15:11:20
2	Mn 257.610†	56.5	298.3	1.0291 µg/L	1.0291 ppb	15:11:20
2	Mo 202.031†	-9.4	-1.5	-0.1584 µg/L	-0.1584 ppb	15:11:40
2	Ni 231.604†	337.2	21.2	1.1562 µg/L	1.1562 ppb	15:11:40
2	P 214.914†	47.1	17.5	38.462 µg/L	38.462 ppb	15:11:40
2	Pb 220.353†	140.3	37.4	-0.6060 µg/L	-0.6060 ppb	15:11:40
2	S 181.975 Axial†	16.6	1.1	4.9128 µg/L	4.9128 ppb	15:11:40
2	Sb 206.836†	18.1	-9.6	-9.5490 µg/L	-9.5490 ppb	15:11:40
2	Se 196.026†	12.7	-3.7	-5.6705 µg/L	-5.6705 ppb	15:11:40
2	SiO2†	1277.1	-25.3	-5.4423 µg/L	-5.4423 ppb	15:11:20
2	Si 251.611†	186.7	-133.8	-10.999 µg/L	-10.999 ppb	15:11:40
2	Sn 189.927†	5.7	6.3	2.9120 µg/L	2.9120 ppb	15:11:40
2	Ti 334.940†	2507.4	2288.5	5.4964 µg/L	5.4964 ppb	15:11:20
2	Tl 190.801†	-28.7	-3.2	8.0207 µg/L	8.0207 ppb	15:11:40
2	U 409.014†	117240.7	112487.6	10184 µg/L	10184 ppb	15:11:14
2	V 292.402†	-895.5	-814.6	1.9102 µg/L	1.9102 ppb	15:11:20
2	Zn 213.857†	510.6	14.1	0.3551 µg/L	0.3551 ppb	15:11:40
3	Sc RADIAL	56112.5	56112.5	103 %		15:10:10
3	Al 396.153Radial†	-19.4	-8.8	-6.5548 µg/L	-6.5548 ppb	15:10:10
3	Ca 317.933Radial†	114.8	-67.5	-63.545 µg/L	-63.545 ppb	15:10:31
3	Fe 238.204 Radial†	16.7	1.7	14.838 µg/L	14.838 ppb	15:10:31
3	K 766.490 Radial†	156.5	23.8	16.907 µg/L	16.907 ppb	15:10:10

3	Mg 279.077 IEC†	18.3	6.5	60.273 µg/L	60.273 ppb	15:10:31
3	Na 589.592 Radial†	544.2	-12.6	-4.1463 µg/L	-4.1463 ppb	15:10:10
3	Sr 421.552†	60.1	18.9	0.1962 µg/L	0.1962 ppb	15:10:10
3	Sc 361.383	1998454.5	1998454.5	104.64 %		15:11:47
3	Y 371.029	1371253.2	1371253.2	104.68 %		15:11:47
3	Ag 328.068†	-504.4	82.5	0.6071 µg/L	0.6071 ppb	15:11:53
3	As 188.979†	2.1	0.9	1.6782 µg/L	1.6782 ppb	15:12:13
3	B 249.677†	284.2	-59.9	-2.6163 µg/L	-2.6163 ppb	15:11:53
3	Ba 233.527†	-15.1	11.6	0.2883 µg/L	0.2883 ppb	15:12:13
3	Be 313.107†	-8272.3	-4465.0	-2.9180 µg/L	-2.9180 ppb	15:11:53
3	Cd 226.502†	-264.9	-111.0	-3.0636 µg/L	-3.0636 ppb	15:12:13
3	Co 228.616†	14.5	22.7	1.1081 µg/L	1.1081 ppb	15:12:13
3	Cr 267.716†	231.8	273.9	6.0206 µg/L	6.0206 ppb	15:11:53
3	Cu 324.752†	1499.3	-1053.3	-7.3552 µg/L	-7.3552 ppb	15:11:53
3	Mn 257.610†	138.5	376.5	1.3032 µg/L	1.3032 ppb	15:11:53
3	Mo 202.031†	-2.6	5.1	0.5398 µg/L	0.5398 ppb	15:12:13
3	Ni 231.604†	337.9	20.7	1.1315 µg/L	1.1315 ppb	15:12:13
3	P 214.914†	49.3	19.5	42.611 µg/L	42.611 ppb	15:12:13
3	Pb 220.353†	138.7	35.4	-0.5823 µg/L	-0.5823 ppb	15:12:13
3	S 181.975 Axial†	15.8	0.3	1.1838 µg/L	1.1838 ppb	15:12:13
3	Sb 206.836†	21.8	-6.1	-6.0924 µg/L	-6.0924 ppb	15:12:13
3	Se 196.026†	12.8	-3.6	-5.5591 µg/L	-5.5591 ppb	15:12:13
3	SiO2†	1308.9	0.8	0.1805 µg/L	0.1805 ppb	15:11:53
3	Si 251.611†	268.0	-56.8	-4.6690 µg/L	-4.6690 ppb	15:12:13
3	Sn 189.927†	4.1	4.8	2.1976 µg/L	2.1976 ppb	15:12:13
3	Ti 334.940†	2521.6	2293.7	5.5115 µg/L	5.5115 ppb	15:11:53
3	Tl 190.801†	-25.5	-0.1	11.785 µg/L	11.785 ppb	15:12:13
3	U 409.014†	111497.5	106607.2	9651.9 µg/L	9651.9 ppb	15:11:47
3	V 292.402†	-762.7	-684.7	2.7514 µg/L	2.7514 ppb	15:11:53
3	Zn 213.857†	523.6	24.8	0.6223 µg/L	0.6223 ppb	15:12:13

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1989839.7	104.19	%	0.500				0.48%
Sc RADIAL	55712.9	102	%	0.8				0.78%
Y 371.029	1366065.6	104.29	%	0.460				0.44%
Ag 328.068†	103.5	0.7671	µg/L	0.15443	0.7671	ppb	0.15443	20.13%
Al 396.153Radial†	-9.4	-6.9743	µg/L	5.64801	-6.9743	ppb	5.64801	80.98%
As 188.979†	1.7	3.3856	µg/L	1.47930	3.3856	ppb	1.47930	43.69%
B 249.677†	-86.4	-3.7680	µg/L	1.00792	-3.7680	ppb	1.00792	26.75%
Ba 233.527†	-2.4	-0.0762	µg/L	0.35392	-0.0762	ppb	0.35392	464.36%
Be 313.107†	-5036.8	-3.2914	µg/L	0.32768	-3.2914	ppb	0.32768	9.96%
Ca 317.933Radial†	-70.7	-66.567	µg/L	2.6618	-66.567	ppb	2.6618	4.00%
Cd 226.502†	-138.4	-3.8180	µg/L	0.65352	-3.8180	ppb	0.65352	17.12%
Co 228.616†	20.5	0.9983	µg/L	0.42901	0.9983	ppb	0.42901	42.97%
Cr 267.716†	260.0	5.7139	µg/L	0.59254	5.7139	ppb	0.59254	10.37%
Cu 324.752†	-1146.4	-8.0081	µg/L	0.60007	-8.0081	ppb	0.60007	7.49%
Fe 238.204 Radial†	-0.2	-1.5922	µg/L	16.86410	-1.5922	ppb	16.86410	>999.9%
K 766.490 Radial†	26.2	18.643	µg/L	4.5435	18.643	ppb	4.5435	24.37%
Mg 279.077 IEC†	8.7	80.775	µg/L	17.8566	80.775	ppb	17.8566	22.11%
Mn 257.610†	310.8	1.0728	µg/L	0.21196	1.0728	ppb	0.21196	19.76%
Mo 202.031†	-0.6	-0.0649	µg/L	0.56388	-0.0649	ppb	0.56388	868.32%
Na 589.592 Radial†	-1.3	-0.4181	µg/L	3.40391	-0.4181	ppb	3.40391	814.20%
Ni 231.604†	17.5	0.9555	µg/L	0.32641	0.9555	ppb	0.32641	34.16%
P 214.914†	15.8	34.793	µg/L	10.1611	34.793	ppb	10.1611	29.20%
Pb 220.353†	34.6	-1.1824	µg/L	1.01895	-1.1824	ppb	1.01895	86.18%
S 181.975 Axial†	1.0	4.3627	µg/L	2.94264	4.3627	ppb	2.94264	67.45%
Sb 206.836†	-6.5	-6.4875	µg/L	2.88435	-6.4875	ppb	2.88435	44.46%
Se 196.026†	-4.1	-6.3268	µg/L	1.23447	-6.3268	ppb	1.23447	19.51%
SiO2†	-19.4	-4.1826	µg/L	3.88938	-4.1826	ppb	3.88938	92.99%
Si 251.611†	-111.4	-9.1588	µg/L	3.90936	-9.1588	ppb	3.90936	42.68%
Sn 189.927†	6.0	2.7611	µg/L	0.50522	2.7611	ppb	0.50522	18.30%
Sr 421.552†	21.3	0.2204	µg/L	0.03458	0.2204	ppb	0.03458	15.69%
Ti 334.940†	2264.8	5.4403	µg/L	0.11049	5.4403	ppb	0.11049	2.03%
Tl 190.801†	-3.0	8.0675	µg/L	3.69388	8.0675	ppb	3.69388	45.79%
U 409.014†	110725.5	10025	µg/L	324.0	10025	ppb	324.0	3.23%
V 292.402†	-773.6	2.1841	µg/L	0.49139	2.1841	ppb	0.49139	22.50%
Zn 213.857†	15.2	0.3834	µg/L	0.22607	0.3834	ppb	0.22607	58.97%

Sequence No.: 2
Sample ID: LR2
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 114
Date Collected: 2/11/2010 15:12:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53713.3	53713.3	98.4	%			15:12:55
1	Al 396.153Radial†	-16.2	-6.3	-4.7161	µg/L	-4.7161	ppb	15:12:55
1	Ca 317.933Radial†	188.0	11.9	11.198	µg/L	11.198	ppb	15:13:15
1	Fe 238.204 Radial†	4.2	-10.3	23.498	µg/L	23.498	ppb	15:13:15
1	K 766.490 Radial†	165.7	39.9	28.393	µg/L	28.393	ppb	15:12:55
1	Mg 279.077 IEC†	10.1	-1.1	-9.7514	µg/L	-9.7514	ppb	15:13:15
1	Na 589.592 Radial†	614.8	82.8	27.252	µg/L	27.252	ppb	15:12:55
1	Sr 421.552†	64.3	25.8	0.2675	µg/L	0.2675	ppb	15:12:55
1	Sc 361.383	1941418.8	1941418.8	101.65	%			15:14:18
1	Y 371.029	1323859.1	1323859.1	101.06	%			15:14:18
1	Ag 328.068†	-525.2	47.9	0.3781	µg/L	0.3781	ppb	15:14:24
1	As 188.979†	-3.1	-4.2	-8.1869	µg/L	-8.1869	ppb	15:14:45
1	B 249.677†	750.9	407.3	17.845	µg/L	17.845	ppb	15:14:24
1	Ba 233.527†	-16.3	10.0	0.2610	µg/L	0.2610	ppb	15:14:45
1	Be 313.107†	-3458.2	38.5	0.0250	µg/L	0.0250	ppb	15:14:24
1	Cd 226.502†	-114.7	29.2	0.8189	µg/L	0.8189	ppb	15:14:45
1	Co 228.616†	107569.3	105828.5	5208.2	µg/L	5208.2	ppb	15:14:24
1	Cr 267.716†	-25.9	26.9	0.5925	µg/L	0.5925	ppb	15:14:45
1	Cu 324.752†	1814.1	-701.5	-4.9124	µg/L	-4.9124	ppb	15:14:24
1	Mn 257.610†	-161.2	85.5	0.2849	µg/L	0.2849	ppb	15:14:45
1	Mo 202.031†	-1.5	6.0	0.6418	µg/L	0.6418	ppb	15:14:45
1	Ni 231.604†	346.8	39.0	-4.0742	µg/L	-4.0742	ppb	15:14:45
1	P 214.914†	5345.7	5231.1	11233	µg/L	11233	ppb	15:14:24
1	Pb 220.353†	111.4	12.4	3.3090	µg/L	3.3090	ppb	15:14:45
1	S 181.975 Axial†	16.5	1.4	5.9830	µg/L	5.9830	ppb	15:14:45
1	Sb 206.836†	21.7	-5.6	-5.5036	µg/L	-5.5036	ppb	15:14:45
1	Se 196.026†	12.6	-3.4	-5.4894	µg/L	-5.4894	ppb	15:14:45
1	SiO2†	400045.4	392288.3	84482	µg/L	84482	ppb	15:14:18
1	Si 251.611†	483396.1	475220.4	39066	µg/L	39066	ppb	15:14:18
1	Sn 189.927†	3.3	4.1	1.8920	µg/L	1.8920	ppb	15:14:45
1	Ti 334.940†	305.9	184.8	0.4456	µg/L	0.4456	ppb	15:14:24
1	Tl 190.801†	-3.7	20.7	11.360	µg/L	11.360	ppb	15:14:45
1	U 409.014†	25.3	78.5	7.1194	µg/L	7.1194	ppb	15:14:24
1	V 292.402†	5.9	50.0	0.5361	µg/L	0.5361	ppb	15:14:24
1	Zn 213.857†	522.6	38.6	0.9665	µg/L	0.9665	ppb	15:14:45
2	Sc RADIAL	54832.8	54832.8	100	%			15:13:21
2	Al 396.153Radial†	1.7	11.8	8.7929	µg/L	8.7929	ppb	15:13:21
2	Ca 317.933Radial†	190.7	10.6	10.005	µg/L	10.005	ppb	15:13:42
2	Fe 238.204 Radial†	3.0	-11.5	14.135	µg/L	14.135	ppb	15:13:42
2	K 766.490 Radial†	204.4	75.0	53.328	µg/L	53.328	ppb	15:13:21
2	Mg 279.077 IEC†	11.2	-0.1	-0.6600	µg/L	-0.6600	ppb	15:13:42
2	Na 589.592 Radial†	630.7	85.9	28.272	µg/L	28.272	ppb	15:13:21
2	Sr 421.552†	34.5	-5.2	-0.0538	µg/L	-0.0538	ppb	15:13:21
2	Sc 361.383	1946646.9	1946646.9	101.93	%			15:14:51
2	Y 371.029	1327034.0	1327034.0	101.31	%			15:14:51
2	Ag 328.068†	-584.6	-9.0	-0.0733	µg/L	-0.0733	ppb	15:14:57
2	As 188.979†	-0.2	-1.3	-2.6409	µg/L	-2.6409	ppb	15:15:17
2	B 249.677†	783.8	437.5	19.174	µg/L	19.174	ppb	15:14:57
2	Ba 233.527†	-20.0	6.4	0.1666	µg/L	0.1666	ppb	15:15:17
2	Be 313.107†	-3481.4	24.9	0.0161	µg/L	0.0161	ppb	15:14:57
2	Cd 226.502†	-101.1	42.9	1.1972	µg/L	1.1972	ppb	15:15:17
2	Co 228.616†	108800.7	106752.3	5253.6	µg/L	5253.6	ppb	15:14:57
2	Cr 267.716†	-17.5	35.2	0.7745	µg/L	0.7745	ppb	15:15:17
2	Cu 324.752†	1718.5	-800.1	-5.6024	µg/L	-5.6024	ppb	15:14:57
2	Mn 257.610†	-163.9	83.3	0.2757	µg/L	0.2757	ppb	15:15:17
2	Mo 202.031†	-3.8	3.8	0.4036	µg/L	0.4036	ppb	15:15:17
2	Ni 231.604†	346.9	38.2	-4.1724	µg/L	-4.1724	ppb	15:15:17
2	P 214.914†	5358.7	5229.8	11230	µg/L	11230	ppb	15:14:57
2	Pb 220.353†	113.9	14.6	3.8918	µg/L	3.8918	ppb	15:15:17

2	S 181.975 Axial†	13.2	-1.8	-7.9889 µg/L	-7.9889 ppb	15:15:17
2	Sb 206.836†	30.6	3.1	3.0533 µg/L	3.0533 ppb	15:15:17
2	Se 196.026†	12.9	-3.2	-5.1244 µg/L	-5.1244 ppb	15:15:17
2	SiO2†	401576.7	392733.7	84577 µg/L	84577 ppb	15:14:51
2	Si 251.611†	485309.6	475820.6	39115 µg/L	39115 ppb	15:14:51
2	Sn 189.927†	3.1	3.9	1.7899 µg/L	1.7899 ppb	15:15:17
2	Ti 334.940†	323.3	201.1	0.4839 µg/L	0.4839 ppb	15:14:57
2	Tl 190.801†	-4.0	20.4	10.781 µg/L	10.781 ppb	15:15:17
2	U 409.014†	85.0	137.0	12.417 µg/L	12.417 ppb	15:14:57
2	V 292.402†	14.9	58.8	0.6334 µg/L	0.6334 ppb	15:14:57
2	Zn 213.857†	510.4	25.2	0.6333 µg/L	0.6333 ppb	15:15:17
3	Sc RADIAL	54620.7	54620.7	100 %		15:13:47
3	Al 396.153Radial†	15.7	25.8	19.227 µg/L	19.227 ppb	15:13:47
3	Ca 317.933Radial†	200.8	21.5	20.218 µg/L	20.218 ppb	15:14:07
3	Fe 238.204 Radial†	4.8	-9.7	21.721 µg/L	21.721 ppb	15:14:07
3	K 766.490 Radial†	161.9	33.3	23.669 µg/L	23.669 ppb	15:13:47
3	Mg 279.077 IEC†	10.5	-0.8	-6.9228 µg/L	-6.9228 ppb	15:14:07
3	Na 589.592 Radial†	616.0	73.6	24.220 µg/L	24.220 ppb	15:13:47
3	Sr 421.552†	73.7	34.1	0.3532 µg/L	0.3532 ppb	15:13:47
3	Sc 361.383	1935972.8	1935972.8	101.37 %		15:15:24
3	Y 371.029	1321116.1	1321116.1	100.85 %		15:15:24
3	Ag 328.068†	-522.4	49.2	0.3871 µg/L	0.3871 ppb	15:15:29
3	As 188.979†	-0.6	-1.7	-3.3886 µg/L	-3.3886 ppb	15:15:50
3	B 249.677†	727.0	385.8	16.903 µg/L	16.903 ppb	15:15:29
3	Ba 233.527†	-11.4	14.8	0.3862 µg/L	0.3862 ppb	15:15:50
3	Be 313.107†	-3553.1	-64.7	-0.0425 µg/L	-0.0425 ppb	15:15:29
3	Cd 226.502†	-114.3	29.4	0.8217 µg/L	0.8217 ppb	15:15:50
3	Co 228.616†	100765.6	99414.3	4892.5 µg/L	4892.5 ppb	15:15:29
3	Cr 267.716†	-15.7	36.9	0.8110 µg/L	0.8110 ppb	15:15:50
3	Cu 324.752†	1744.4	-765.3	-5.3569 µg/L	-5.3569 ppb	15:15:29
3	Mn 257.610†	-168.6	77.8	0.2588 µg/L	0.2588 ppb	15:15:50
3	Mo 202.031†	0.8	8.3	0.8836 µg/L	0.8836 ppb	15:15:50
3	Ni 231.604†	347.2	40.4	-3.6217 µg/L	-3.6217 ppb	15:15:50
3	P 214.914†	4995.9	4900.9	10524 µg/L	10524 ppb	15:15:29
3	Pb 220.353†	111.9	13.2	3.5300 µg/L	3.5300 ppb	15:15:50
3	S 181.975 Axial†	14.6	-0.4	-1.9121 µg/L	-1.9121 ppb	15:15:50
3	Sb 206.836†	26.4	-0.9	-0.9265 µg/L	-0.9265 ppb	15:15:50
3	Se 196.026†	6.2	-9.7	-15.059 µg/L	-15.059 ppb	15:15:50
3	SiO2†	389837.5	383325.3	82551 µg/L	82551 ppb	15:15:24
3	Si 251.611†	470845.5	464176.9	38158 µg/L	38158 ppb	15:15:24
3	Sn 189.927†	2.7	3.6	1.6476 µg/L	1.6476 ppb	15:15:50
3	Ti 334.940†	325.3	204.8	0.4935 µg/L	0.4935 ppb	15:15:29
3	Tl 190.801†	-3.6	20.7	12.467 µg/L	12.467 ppb	15:15:50
3	U 409.014†	27.1	80.3	7.2810 µg/L	7.2810 ppb	15:15:29
3	V 292.402†	-16.9	27.5	0.3000 µg/L	0.3000 ppb	15:15:29
3	Zn 213.857†	508.1	25.7	0.6443 µg/L	0.6443 ppb	15:15:50

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1941346.1	101.65	%	0.279				0.27%
Sc RADIAL	54388.9	99.7	%	1.09				1.09%
Y 371.029	1324003.1	101.08	%	0.226				0.22%
Ag 328.068†	29.4	0.2306	µg/L	0.26325	0.2306	ppb	0.26325	114.16%
Al 396.153Radial†	10.4	7.7681	µg/L	12.00458	7.7681	ppb	12.00458	154.54%
As 188.979†	-2.4	-4.7388	µg/L	3.00947	-4.7388	ppb	3.00947	63.51%
B 249.677†	410.2	17.974	µg/L	1.1410	17.974	ppb	1.1410	6.35%
Ba 233.527†	10.4	0.2713	µg/L	0.11018	0.2713	ppb	0.11018	40.61%
Be 313.107†	-0.4	-0.0005	µg/L	0.03663	-0.0005	ppb	0.03663	>999.9%
Ca 317.933Radial†	14.7	13.807	µg/L	5.5841	13.807	ppb	5.5841	40.44%
Cd 226.502†	33.8	0.9459	µg/L	0.21761	0.9459	ppb	0.21761	23.01%
Co 228.616†	103998.4	5118.1	µg/L	196.69	5118.1	ppb	196.69	3.84%
Cr 267.716†	33.0	0.7260	µg/L	0.11700	0.7260	ppb	0.11700	16.12%
Cu 324.752†	-755.6	-5.2906	µg/L	0.34975	-5.2906	ppb	0.34975	6.61%
Fe 238.204 Radial†	-10.5	19.785	µg/L	4.9725	19.785	ppb	4.9725	25.13%
K 766.490 Radial†	49.4	35.130	µg/L	15.9357	35.130	ppb	15.9357	45.36%
Mg 279.077 IEC†	-0.6	-5.7780	µg/L	4.65251	-5.7780	ppb	4.65251	80.52%
Mn 257.610†	82.2	0.2731	µg/L	0.01325	0.2731	ppb	0.01325	4.85%
Mo 202.031†	6.1	0.6430	µg/L	0.24004	0.6430	ppb	0.24004	37.33%
Na 589.592 Radial†	80.7	26.581	µg/L	2.1079	26.581	ppb	2.1079	7.93%

Ni 231.604†	39.2	-3.9561	µg/L	0.29375	-3.9561	ppb	0.29375 7.43%
P 214.914†	5120.6	10995	µg/L	408.6	10995	ppb	408.6 3.72%
Pb 220.353†	13.4	3.5769	µg/L	0.29424	3.5769	ppb	0.29424 8.23%
S 181.975 Axial†	-0.3	-1.3060	µg/L	7.00565	-1.3060	ppb	7.00565 536.41%
Sb 206.836†	-1.1	-1.1256	µg/L	4.28189	-1.1256	ppb	4.28189 380.41%
Se 196.026†	-5.5	-8.5576	µg/L	5.63334	-8.5576	ppb	5.63334 65.83%
SiO2†	389449.1	83870	µg/L	1143.1	83870	ppb	1143.1 1.36%
Si 251.611†	471739.3	38779	µg/L	538.9	38779	ppb	538.9 1.39%
Sn 189.927†	3.8	1.7765	µg/L	0.12277	1.7765	ppb	0.12277 6.91%
Sr 421.552†	18.2	0.1890	µg/L	0.21456	0.1890	ppb	0.21456 113.55%
Ti 334.940†	196.9	0.4743	µg/L	0.02534	0.4743	ppb	0.02534 5.34%
Tl 190.801†	20.6	11.536	µg/L	0.8566	11.536	ppb	0.8566 7.43%
U 409.014†	98.6	8.9390	µg/L	3.01276	8.9390	ppb	3.01276 33.70%
V 292.402†	45.5	0.4899	µg/L	0.17143	0.4899	ppb	0.17143 35.00%
Zn 213.857†	29.8	0.7480	µg/L	0.18929	0.7480	ppb	0.18929 25.31%

Sequence No.: 3
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:15:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54231.5	54231.5	99.4	%			15:16:36
1	Al 396.153Radial†	7106.2	7161.2	5326.1	µg/L	5326.1	ppb	15:16:36
1	Ca 317.933Radial†	5688.9	5545.7	5221.6	µg/L	5221.6	ppb	15:16:56
1	Fe 238.204 Radial†	634.7	624.2	5302.1	µg/L	5302.1	ppb	15:16:56
1	K 766.490 Radial†	7456.0	7374.7	5241.9	µg/L	5241.9	ppb	15:16:36
1	Mg 279.077 IEC†	577.6	570.0	5308.0	µg/L	5308.0	ppb	15:16:56
1	Na 589.592 Radial†	32401.3	32064.3	10556	µg/L	10556	ppb	15:16:36
1	Sr 421.552†	50354.2	50633.0	524.87	µg/L	524.87	ppb	15:16:36
1	Sc 361.383	1899310.9	1899310.9	99.449	%			15:17:59
1	Y 371.029	1297484.4	1297484.4	99.051	%			15:17:59
1	Ag 328.068†	65095.3	66020.7	527.69	µg/L	527.69	ppb	15:18:05
1	As 188.979†	283.8	284.2	554.43	µg/L	554.43	ppb	15:18:26
1	B 249.677†	12153.8	11889.7	517.70	µg/L	517.70	ppb	15:18:05
1	Ba 233.527†	20078.6	20215.9	527.34	µg/L	527.34	ppb	15:18:05
1	Be 313.107†	797857.7	805721.3	525.98	µg/L	525.98	ppb	15:17:59
1	Cd 226.502†	18953.5	19200.7	529.65	µg/L	529.65	ppb	15:18:05
1	Co 228.616†	10779.9	10848.5	533.28	µg/L	533.28	ppb	15:18:05
1	Cr 267.716†	24091.2	24277.1	534.33	µg/L	534.33	ppb	15:18:05
1	Cu 324.752†	77848.6	75794.1	530.18	µg/L	530.18	ppb	15:18:05
1	Mn 257.610†	153606.0	154701.7	536.20	µg/L	536.20	ppb	15:17:59
1	Mo 202.031†	5175.2	5211.4	556.37	µg/L	556.37	ppb	15:18:26
1	Ni 231.604†	10008.1	9761.4	533.14	µg/L	533.14	ppb	15:18:05
1	P 214.914†	1295.2	1274.7	2686.7	µg/L	2686.7	ppb	15:18:26
1	Pb 220.353†	2124.5	2039.1	544.31	µg/L	544.31	ppb	15:18:26
1	S 181.975 Axial†	260.7	247.3	1083.6	µg/L	1083.6	ppb	15:18:26
1	Sb 206.836†	587.4	563.7	557.41	µg/L	557.41	ppb	15:18:26
1	Se 196.026†	370.9	357.1	552.71	µg/L	552.71	ppb	15:18:26
1	SiO2†	27461.3	26363.5	5677.5	µg/L	5677.5	ppb	15:18:05
1	Si 251.611†	32393.9	32260.7	2652.0	µg/L	2652.0	ppb	15:18:05
1	Sn 189.927†	1213.6	1221.2	561.69	µg/L	561.69	ppb	15:18:26
1	Ti 334.940†	219433.8	220534.1	530.14	µg/L	530.14	ppb	15:17:59
1	Tl 190.801†	358.1	384.4	542.92	µg/L	542.92	ppb	15:18:26
1	U 409.014†	5858.6	5944.7	537.16	µg/L	537.16	ppb	15:18:05
1	V 292.402†	49239.4	49556.6	534.84	µg/L	534.84	ppb	15:18:05
1	Zn 213.857†	21646.0	21290.4	527.88	µg/L	527.88	ppb	15:18:05
2	Sc RADIAL	54850.6	54850.6	101	%			15:17:02
2	Al 396.153Radial†	7137.6	7111.8	5289.4	µg/L	5289.4	ppb	15:17:02
2	Ca 317.933Radial†	5661.7	5454.1	5135.3	µg/L	5135.3	ppb	15:17:22
2	Fe 238.204 Radial†	627.5	609.8	5179.7	µg/L	5179.7	ppb	15:17:22
2	K 766.490 Radial†	7509.6	7343.3	5219.6	µg/L	5219.6	ppb	15:17:02
2	Mg 279.077 IEC†	583.7	569.5	5303.7	µg/L	5303.7	ppb	15:17:22
2	Na 589.592 Radial†	32499.9	31794.4	10467	µg/L	10467	ppb	15:17:02
2	Sr 421.552†	50507.4	50213.6	520.52	µg/L	520.52	ppb	15:17:02
2	Sc 361.383	1912998.8	1912998.8	100.17	%			15:18:33
2	Y 371.029	1306161.3	1306161.3	99.713	%			15:18:33
2	Ag 328.068†	65237.5	65694.3	525.07	µg/L	525.07	ppb	15:18:38
2	As 188.979†	280.6	279.0	544.24	µg/L	544.24	ppb	15:18:59
2	B 249.677†	12200.8	11849.2	515.98	µg/L	515.98	ppb	15:18:38
2	Ba 233.527†	20133.5	20126.3	525.01	µg/L	525.01	ppb	15:18:38
2	Be 313.107†	793302.5	795433.1	519.26	µg/L	519.26	ppb	15:18:33
2	Cd 226.502†	18921.4	19032.3	525.02	µg/L	525.02	ppb	15:18:38
2	Co 228.616†	10784.1	10775.1	529.68	µg/L	529.68	ppb	15:18:38
2	Cr 267.716†	24047.5	24060.2	529.56	µg/L	529.56	ppb	15:18:38
2	Cu 324.752†	77783.7	75169.2	525.79	µg/L	525.79	ppb	15:18:38
2	Mn 257.610†	152510.0	152502.3	528.57	µg/L	528.57	ppb	15:18:33
2	Mo 202.031†	5149.2	5148.2	549.62	µg/L	549.62	ppb	15:18:59
2	Ni 231.604†	10009.6	9690.9	529.28	µg/L	529.28	ppb	15:18:38
2	P 214.914†	1298.8	1269.0	2674.9	µg/L	2674.9	ppb	15:18:59
2	Pb 220.353†	2130.1	2029.4	541.73	µg/L	541.73	ppb	15:18:59

2	S 181.975 Axial†	263.5	248.2	1087.5 µg/L	1087.5 ppb	15:18:59
2	Sb 206.836†	579.7	551.8	545.70 µg/L	545.70 ppb	15:18:59
2	Se 196.026†	360.4	343.9	532.32 µg/L	532.32 ppb	15:18:59
2	SiO2†	27531.6	26236.1	5650.1 µg/L	5650.1 ppb	15:18:38
2	Si 251.611†	32505.0	32138.5	2641.9 µg/L	2641.9 ppb	15:18:38
2	Sn 189.927†	1205.3	1204.2	553.89 µg/L	553.89 ppb	15:18:59
2	Ti 334.940†	218053.7	217577.6	523.03 µg/L	523.03 ppb	15:18:33
2	Tl 190.801†	351.0	374.7	529.24 µg/L	529.24 ppb	15:18:59
2	U 409.014†	5767.6	5811.7	525.14 µg/L	525.14 ppb	15:18:38
2	V 292.402†	49305.2	49268.0	531.68 µg/L	531.68 ppb	15:18:38
2	Zn 213.857†	21685.0	21173.7	524.99 µg/L	524.99 ppb	15:18:38
3	Sc RADIAL	55041.7	55041.7	101 %		15:17:27
3	Al 396.153Radial†	7150.5	7100.0	5282.4 µg/L	5282.4 ppb	15:17:27
3	Ca 317.933Radial†	5679.0	5451.7	5133.1 µg/L	5133.1 ppb	15:17:48
3	Fe 238.204 Radial†	630.1	610.3	5182.9 µg/L	5182.9 ppb	15:17:48
3	K 766.490 Radial†	7530.7	7338.3	5216.0 µg/L	5216.0 ppb	15:17:27
3	Mg 279.077 IEC†	585.8	569.6	5302.7 µg/L	5302.7 ppb	15:17:48
3	Na 589.592 Radial†	32646.4	31827.3	10478 µg/L	10478 ppb	15:17:27
3	Sr 421.552†	50673.8	50204.0	520.42 µg/L	520.42 ppb	15:17:27
3	Sc 361.383	1908268.1	1908268.1	99.918 %		15:19:06
3	Y 371.029	1302480.0	1302480.0	99.432 %		15:19:06
3	Ag 328.068†	61722.8	62338.2	498.13 µg/L	498.13 ppb	15:19:11
3	As 188.979†	239.2	238.3	464.88 µg/L	464.88 ppb	15:19:32
3	B 249.677†	11534.0	11212.0	488.05 µg/L	488.05 ppb	15:19:11
3	Ba 233.527†	18616.9	18658.3	486.70 µg/L	486.70 ppb	15:19:11
3	Be 313.107†	758183.0	762248.0	497.60 µg/L	497.60 ppb	15:19:06
3	Cd 226.502†	17482.4	17638.9	486.53 µg/L	486.53 ppb	15:19:11
3	Co 228.616†	9936.5	9953.5	489.22 µg/L	489.22 ppb	15:19:11
3	Cr 267.716†	21502.9	21573.0	474.82 µg/L	474.82 ppb	15:19:11
3	Cu 324.752†	71603.1	69176.0	483.93 µg/L	483.93 ppb	15:19:11
3	Mn 257.610†	146044.9	146409.3	507.47 µg/L	507.47 ppb	15:19:06
3	Mo 202.031†	4268.9	4280.0	456.96 µg/L	456.96 ppb	15:19:32
3	Ni 231.604†	9195.7	8901.1	486.15 µg/L	486.15 ppb	15:19:11
3	P 214.914†	1105.2	1078.5	2268.7 µg/L	2268.7 ppb	15:19:32
3	Pb 220.353†	1828.3	1732.6	462.41 µg/L	462.41 ppb	15:19:32
3	S 181.975 Axial†	232.1	217.5	952.80 µg/L	952.80 ppb	15:19:32
3	Sb 206.836†	493.7	467.1	461.46 µg/L	461.46 ppb	15:19:32
3	Se 196.026†	316.9	301.3	467.33 µg/L	467.33 ppb	15:19:32
3	SiO2†	25842.8	24614.0	5300.8 µg/L	5300.8 ppb	15:19:11
3	Si 251.611†	30435.2	30147.4	2478.3 µg/L	2478.3 ppb	15:19:11
3	Sn 189.927†	977.2	978.9	450.28 µg/L	450.28 ppb	15:19:32
3	Ti 334.940†	207237.8	207292.4	498.29 µg/L	498.29 ppb	15:19:06
3	Tl 190.801†	318.0	342.6	484.22 µg/L	484.22 ppb	15:19:32
3	U 409.014†	5210.6	5268.5	475.96 µg/L	475.96 ppb	15:19:11
3	V 292.402†	44791.7	44872.9	483.94 µg/L	483.94 ppb	15:19:11
3	Zn 213.857†	19890.6	19431.5	481.75 µg/L	481.75 ppb	15:19:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1906859.3	99.844	%	0.3640				0.36%
Sc RADIAL	54707.9	100	%	0.8				0.77%
Y 371.029	1302041.9	99.399	%	0.3325				0.33%
Ag 328.068†	64684.4	516.97	µg/L	16.362	516.97	ppb	16.362	3.16%
QC value within limits for Ag 328.068 Recovery = 103.39%								
Al 396.153Radial†	7124.3	5299.3	µg/L	23.43	5299.3	ppb	23.43	0.44%
QC value within limits for Al 396.153Radial Recovery = 105.99%								
As 188.979†	267.2	521.18	µg/L	49.028	521.18	ppb	49.028	9.41%
QC value within limits for As 188.979 Recovery = 104.24%								
B 249.677†	11650.3	507.24	µg/L	16.645	507.24	ppb	16.645	3.28%
QC value within limits for B 249.677 Recovery = 101.45%								
Ba 233.527†	19666.8	513.02	µg/L	22.823	513.02	ppb	22.823	4.45%
QC value within limits for Ba 233.527 Recovery = 102.60%								
Be 313.107†	787800.8	514.28	µg/L	14.831	514.28	ppb	14.831	2.88%
QC value within limits for Be 313.107 Recovery = 102.86%								
Ca 317.933Radial†	5483.8	5163.4	µg/L	50.50	5163.4	ppb	50.50	0.98%
QC value within limits for Ca 317.933Radial Recovery = 103.27%								
Cd 226.502†	18623.9	513.73	µg/L	23.671	513.73	ppb	23.671	4.61%
QC value within limits for Cd 226.502 Recovery = 102.75%								
Co 228.616†	10525.7	517.39	µg/L	24.470	517.39	ppb	24.470	4.73%

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   QC value within limits for Co 228.616  Recovery = 103.48%
Cr 267.716†            23303.5      512.91 µg/L        33.067      512.91 ppb        33.067   6.45%
   QC value within limits for Cr 267.716  Recovery = 102.58%
Cu 324.752†            73379.7      513.30 µg/L        25.529      513.30 ppb        25.529   4.97%
   QC value within limits for Cu 324.752  Recovery = 102.66%
Fe 238.204 Radial†       614.8      5221.6 µg/L         69.73      5221.6 ppb         69.73   1.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.43%
K 766.490 Radial†       7352.1      5225.8 µg/L         14.03      5225.8 ppb         14.03   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 104.52%
Mg 279.077 IEC†          569.7      5304.8 µg/L          2.78      5304.8 ppb          2.78   0.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.10%
Mn 257.610†           151204.4      524.08 µg/L        14.882      524.08 ppb        14.882   2.84%
   QC value within limits for Mn 257.610  Recovery = 104.82%
Mo 202.031†             4879.9      520.98 µg/L        55.549      520.98 ppb        55.549  10.66%
   QC value within limits for Mo 202.031  Recovery = 104.20%
Na 589.592 Radial†     31895.3       10500 µg/L          48.5       10500 ppb          48.5   0.46%
   QC value within limits for Na 589.592 Radial  Recovery = 105.00%
Ni 231.604†             9451.1      516.19 µg/L        26.085      516.19 ppb        26.085   5.05%
   QC value within limits for Ni 231.604  Recovery = 103.24%
P 214.914†              1207.4      2543.4 µg/L        237.97      2543.4 ppb        237.97   9.36%
   QC value within limits for P 214.914  Recovery = 101.74%
Pb 220.353†             1933.7      516.15 µg/L        46.558      516.15 ppb        46.558   9.02%
   QC value within limits for Pb 220.353  Recovery = 103.23%
S 181.975 Axial†         237.7      1041.3 µg/L         76.67      1041.3 ppb         76.67   7.36%
   QC value within limits for S 181.975 Axial  Recovery = 104.13%
Sb 206.836†              527.5      521.52 µg/L        52.346      521.52 ppb        52.346  10.04%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              334.1      517.45 µg/L        44.586      517.45 ppb        44.586   8.62%
   QC value within limits for Se 196.026  Recovery = 103.49%
SiO2†                  25737.9      5542.8 µg/L        210.05      5542.8 ppb        210.05   3.79%
   QC value within limits for SiO2  Recovery = 103.65%
Si 251.611†            31515.5      2590.7 µg/L         97.53      2590.7 ppb         97.53   3.76%
   QC value within limits for Si 251.611  Recovery = 103.63%
Sn 189.927†             1134.8      521.95 µg/L        62.194      521.95 ppb        62.194  11.92%
   QC value within limits for Sn 189.927  Recovery = 104.39%
Sr 421.552†            50350.2      521.94 µg/L         2.539      521.94 ppb         2.539   0.49%
   QC value within limits for Sr 421.552  Recovery = 104.39%
Ti 334.940†           215134.7      517.15 µg/L        16.720      517.15 ppb        16.720   3.23%
   QC value within limits for Ti 334.940  Recovery = 103.43%
Tl 190.801†              367.2      518.79 µg/L        30.715      518.79 ppb        30.715   5.92%
   QC value within limits for Tl 190.801  Recovery = 103.76%
U 409.014†              5675.0      512.76 µg/L        32.426      512.76 ppb        32.426   6.32%
   QC value within limits for U 409.014  Recovery = 102.55%
V 292.402†             47899.1      516.82 µg/L        28.516      516.82 ppb        28.516   5.52%
   QC value within limits for V 292.402  Recovery = 103.36%
Zn 213.857†            20631.8      511.54 µg/L        25.841      511.54 ppb        25.841   5.05%
   QC value within limits for Zn 213.857  Recovery = 102.31%
All analyte(s) passed QC.
```

Sequence No.: 4
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 15:19:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	53966.4	53966.4	98.9	%			15:20:14
1	Al 396.153Radial†	-26.0	-16.1	-12.005	µg/L	-12.005	ppb	15:20:14
1	Ca 317.933Radial†	184.6	7.5	7.0536	µg/L	7.0536	ppb	15:20:34
1	Fe 238.204 Radial†	14.2	-0.1	-0.8468	µg/L	-0.8468	ppb	15:20:34
1	K 766.490 Radial†	181.9	55.5	39.479	µg/L	39.479	ppb	15:20:14
1	Mg 279.077 IEC†	12.1	1.0	9.1967	µg/L	9.1967	ppb	15:20:34
1	Na 589.592 Radial†	657.2	122.7	40.408	µg/L	40.408	ppb	15:20:14
1	Sr 421.552†	65.1	26.3	0.2722	µg/L	0.2722	ppb	15:20:14
1	Sc 361.383	1911106.6	1911106.6	100.07	%			15:21:36
1	Y 371.029	1309549.6	1309549.6	99.972	%			15:21:36
1	Ag 328.068†	-559.4	5.5	0.0442	µg/L	0.0442	ppb	15:21:42
1	As 188.979†	-3.0	-4.1	-8.0395	µg/L	-8.0395	ppb	15:22:02
1	B 249.677†	346.9	15.2	0.6669	µg/L	0.6669	ppb	15:22:02
1	Ba 233.527†	-26.7	-0.7	-0.0185	µg/L	-0.0185	ppb	15:22:02
1	Be 313.107†	-3454.2	-11.4	-0.0075	µg/L	-0.0075	ppb	15:21:42
1	Cd 226.502†	-139.0	3.2	0.0893	µg/L	0.0893	ppb	15:22:02
1	Co 228.616†	-9.2	-0.3	-0.0170	µg/L	-0.0170	ppb	15:22:02
1	Cr 267.716†	-37.5	14.9	0.3282	µg/L	0.3282	ppb	15:21:42
1	Cu 324.752†	2557.0	69.2	0.4835	µg/L	0.4835	ppb	15:21:42
1	Mn 257.610†	-212.1	32.2	0.1110	µg/L	0.1110	ppb	15:22:02
1	Mo 202.031†	-8.5	-0.9	-0.1000	µg/L	-0.1000	ppb	15:22:02
1	Ni 231.604†	310.7	8.3	0.4558	µg/L	0.4558	ppb	15:22:02
1	P 214.914†	28.4	0.8	1.6386	µg/L	1.6386	ppb	15:22:02
1	Pb 220.353†	104.0	6.7	1.8057	µg/L	1.8057	ppb	15:22:02
1	S 181.975 Axial†	16.5	1.7	7.4394	µg/L	7.4394	ppb	15:22:02
1	Sb 206.836†	29.0	2.0	1.9993	µg/L	1.9993	ppb	15:22:02
1	Se 196.026†	21.9	6.0	9.1749	µg/L	9.1749	ppb	15:22:02
1	SiO2†	1293.6	42.7	9.2028	µg/L	9.2028	ppb	15:21:42
1	Si 251.611†	353.1	40.0	3.2887	µg/L	3.2887	ppb	15:22:02
1	Sn 189.927†	4.9	5.8	2.6719	µg/L	2.6719	ppb	15:22:02
1	Ti 334.940†	159.7	43.4	0.1039	µg/L	0.1039	ppb	15:21:42
1	Tl 190.801†	-23.8	0.5	0.6768	µg/L	0.6768	ppb	15:22:02
1	U 409.014†	-184.4	-130.7	-11.830	µg/L	-11.830	ppb	15:21:42
1	V 292.402†	-35.9	8.3	0.0760	µg/L	0.0760	ppb	15:21:42
1	Zn 213.857†	494.3	18.4	0.4572	µg/L	0.4572	ppb	15:22:02
2	Sc RADIAL	54869.8	54869.8	101	%			15:20:40
2	Al 396.153Radial†	13.7	23.8	17.738	µg/L	17.738	ppb	15:20:40
2	Ca 317.933Radial†	187.7	7.5	7.0950	µg/L	7.0950	ppb	15:21:00
2	Fe 238.204 Radial†	15.7	1.1	9.3064	µg/L	9.3064	ppb	15:21:00
2	K 766.490 Radial†	257.4	127.6	90.719	µg/L	90.719	ppb	15:20:40
2	Mg 279.077 IEC†	16.3	4.9	45.809	µg/L	45.809	ppb	15:21:00
2	Na 589.592 Radial†	606.0	60.8	20.024	µg/L	20.024	ppb	15:20:40
2	Sr 421.552†	22.5	-17.2	-0.1781	µg/L	-0.1781	ppb	15:20:40
2	Sc 361.383	1897412.4	1897412.4	99.349	%			15:22:08
2	Y 371.029	1298760.9	1298760.9	99.148	%			15:22:08
2	Ag 328.068†	-542.2	18.8	0.1523	µg/L	0.1523	ppb	15:22:14
2	As 188.979†	-3.1	-4.3	-8.3435	µg/L	-8.3435	ppb	15:22:34
2	B 249.677†	336.8	7.5	0.3241	µg/L	0.3241	ppb	15:22:34
2	Ba 233.527†	-16.5	9.4	0.2467	µg/L	0.2467	ppb	15:22:34
2	Be 313.107†	-3415.0	3.0	0.0019	µg/L	0.0019	ppb	15:22:14
2	Cd 226.502†	-128.8	12.5	0.3432	µg/L	0.3432	ppb	15:22:34
2	Co 228.616†	-5.7	3.1	0.1511	µg/L	0.1511	ppb	15:22:34
2	Cr 267.716†	-15.6	36.7	0.8074	µg/L	0.8074	ppb	15:22:14
2	Cu 324.752†	2549.9	80.5	0.5637	µg/L	0.5637	ppb	15:22:14
2	Mn 257.610†	-177.5	65.4	0.2260	µg/L	0.2260	ppb	15:22:34
2	Mo 202.031†	-7.3	0.2	0.0178	µg/L	0.0178	ppb	15:22:34
2	Ni 231.604†	306.5	6.3	0.3468	µg/L	0.3468	ppb	15:22:34
2	P 214.914†	31.7	4.3	9.0650	µg/L	9.0650	ppb	15:22:34
2	Pb 220.353†	106.2	9.7	2.5827	µg/L	2.5827	ppb	15:22:34

2	S 181.975 Axial†	17.2	2.5	10.929 µg/L	10.929 ppb	15:22:34
2	Sb 206.836†	25.7	-1.1	-1.0721 µg/L	-1.0721 ppb	15:22:34
2	Se 196.026†	18.6	2.9	4.4089 µg/L	4.4089 ppb	15:22:34
2	SiO2†	1247.0	5.2	1.1103 µg/L	1.1103 ppb	15:22:14
2	Si 251.611†	359.1	48.5	3.9904 µg/L	3.9904 ppb	15:22:34
2	Sn 189.927†	-1.6	-0.8	-0.3440 µg/L	-0.3440 ppb	15:22:34
2	Ti 334.940†	171.3	56.3	0.1319 µg/L	0.1319 ppb	15:22:14
2	Tl 190.801†	-21.8	2.3	3.2311 µg/L	3.2311 ppb	15:22:34
2	U 409.014†	-98.3	-45.3	-4.1055 µg/L	-4.1055 ppb	15:22:14
2	V 292.402†	-5.8	38.4	0.4080 µg/L	0.4080 ppb	15:22:14
2	Zn 213.857†	499.6	27.3	0.6761 µg/L	0.6761 ppb	15:22:34
3	Sc RADIAL	54385.0	54385.0	99.7 %		15:21:06
3	Al 396.153Radial†	-13.7	-3.6	-2.7248 µg/L	-2.7248 ppb	15:21:06
3	Ca 317.933Radial†	185.2	6.7	6.3429 µg/L	6.3429 ppb	15:21:26
3	Fe 238.204 Radial†	16.3	1.8	15.415 µg/L	15.415 ppb	15:21:26
3	K 766.490 Radial†	182.4	54.6	38.797 µg/L	38.797 ppb	15:21:06
3	Mg 279.077 IEC†	9.2	-2.0	-18.753 µg/L	-18.753 ppb	15:21:26
3	Na 589.592 Radial†	592.4	52.6	17.324 µg/L	17.324 ppb	15:21:06
3	Sr 421.552†	-3.5	-43.1	-0.4464 µg/L	-0.4464 ppb	15:21:06
3	Sc 361.383	1884488.6	1884488.6	98.673 %		15:22:40
3	Y 371.029	1291927.9	1291927.9	98.627 %		15:22:40
3	Ag 328.068†	-522.7	34.8	0.2806 µg/L	0.2806 ppb	15:22:46
3	As 188.979†	2.4	1.3	2.4649 µg/L	2.4649 ppb	15:23:06
3	B 249.677†	335.7	8.8	0.3768 µg/L	0.3768 ppb	15:23:06
3	Ba 233.527†	-11.8	14.1	0.3676 µg/L	0.3676 ppb	15:23:06
3	Be 313.107†	-3127.8	270.6	0.1766 µg/L	0.1766 ppb	15:22:46
3	Cd 226.502†	-124.4	16.0	0.4414 µg/L	0.4414 ppb	15:23:06
3	Co 228.616†	7.6	16.5	0.8149 µg/L	0.8149 ppb	15:23:06
3	Cr 267.716†	-23.5	28.6	0.6295 µg/L	0.6295 ppb	15:22:46
3	Cu 324.752†	2622.5	171.7	1.2017 µg/L	1.2017 ppb	15:22:46
3	Mn 257.610†	-142.0	100.2	0.3497 µg/L	0.3497 ppb	15:23:06
3	Mo 202.031†	3.2	10.8	1.1512 µg/L	1.1512 ppb	15:23:06
3	Ni 231.604†	306.2	8.2	0.4462 µg/L	0.4462 ppb	15:23:06
3	P 214.914†	29.6	2.4	5.0144 µg/L	5.0144 ppb	15:23:06
3	Pb 220.353†	103.4	7.6	2.0339 µg/L	2.0339 ppb	15:23:06
3	S 181.975 Axial†	18.5	3.9	17.268 µg/L	17.268 ppb	15:23:06
3	Sb 206.836†	29.4	2.8	2.8126 µg/L	2.8126 ppb	15:23:06
3	Se 196.026†	10.8	-4.9	-7.3717 µg/L	-7.3717 ppb	15:23:06
3	SiO2†	1294.7	62.1	13.372 µg/L	13.372 ppb	15:22:46
3	Si 251.611†	373.7	65.9	5.4177 µg/L	5.4177 ppb	15:23:06
3	Sn 189.927†	0.7	1.6	0.7177 µg/L	0.7177 ppb	15:23:06
3	Ti 334.940†	234.9	122.0	0.2950 µg/L	0.2950 ppb	15:22:46
3	Tl 190.801†	-24.9	-0.9	-1.2684 µg/L	-1.2684 ppb	15:23:06
3	U 409.014†	-88.3	-35.9	-3.2543 µg/L	-3.2543 ppb	15:22:46
3	V 292.402†	2.7	46.9	0.5091 µg/L	0.5091 ppb	15:22:46
3	Zn 213.857†	512.3	43.6	1.0859 µg/L	1.0859 ppb	15:23:06

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1897669.2	99.363	%	0.6970				0.70%
Sc RADIAL	54407.1	99.7	%	0.83				0.83%
Y 371.029	1300079.5	99.249	%	0.6782				0.68%
Ag 328.068†	19.7	0.1590	µg/L	0.11838	0.1590	ppb	0.11838	74.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	1.0028	µg/L	15.21758	1.0028	ppb	15.21758	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-4.6394	µg/L	6.15437	-4.6394	ppb	6.15437	132.66%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	10.5	0.4560	µg/L	0.18460	0.4560	ppb	0.18460	40.49%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1986	µg/L	0.19747	0.1986	ppb	0.19747	99.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	87.4	0.0570	µg/L	0.10368	0.0570	ppb	0.10368	181.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.3	6.8305	µg/L	0.42277	6.8305	ppb	0.42277	6.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.6	0.2913	µg/L	0.18170	0.2913	ppb	0.18170	62.37%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	6.4	0.3163	µg/L	0.43987	0.3163	ppb	0.43987	139.05%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                26.7      0.5884 µg/L       0.24227      0.5884 ppb        0.24227  41.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               107.2      0.7496 µg/L       0.39354      0.7496 ppb        0.39354  52.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      7.9581 µg/L       8.21418      7.9581 ppb        8.21418 103.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          79.3      56.332 µg/L       29.7823      56.332 ppb        29.7823  52.87%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3      12.084 µg/L       32.3776      12.084 ppb        32.3776 267.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                65.9      0.2289 µg/L       0.11938      0.2289 ppb        0.11938  52.15%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.3      0.3563 µg/L       0.69086      0.3563 ppb        0.69086 193.88%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         78.7      25.918 µg/L       12.6205      25.918 ppb        12.6205  48.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.6      0.4162 µg/L       0.06037      0.4162 ppb        0.06037  14.50%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  2.5      5.2393 µg/L       3.71831      5.2393 ppb        3.71831  70.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.0      2.1408 µg/L       0.39934      2.1408 ppb        0.39934  18.65%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.7      11.879 µg/L        4.9829      11.879 ppb         4.9829  41.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.3      1.2466 µg/L       2.04884      1.2466 ppb        2.04884 164.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.4      2.0707 µg/L       8.51747      2.0707 ppb        8.51747 411.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      36.7      7.8950 µg/L       6.23447      7.8950 ppb        6.23447  78.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                51.5      4.2323 µg/L       1.08494      4.2323 ppb        1.08494  25.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.2      1.0152 µg/L       1.52977      1.0152 ppb        1.52977 150.68%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.3     -0.1174 µg/L       0.36313     -0.1174 ppb        0.36313 309.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                73.9      0.1769 µg/L       0.10323      0.1769 ppb        0.10323  58.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.6      0.8799 µg/L       2.25661      0.8799 ppb        2.25661 256.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -70.6     -6.3965 µg/L       4.72449     -6.3965 ppb        4.72449  73.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 31.2      0.3310 µg/L       0.22659      0.3310 ppb        0.22659  68.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                29.8      0.7397 µg/L       0.31916      0.7397 ppb        0.31916  43.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 15:57:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57410.8	57410.8	105	%			15:58:05
1	Al 396.153Radial†	6675.8	6356.1	4727.0	µg/L	4727.0	ppb	15:58:25
1	Ca 317.933Radial†	5505.2	5054.0	4758.7	µg/L	4758.7	ppb	15:58:25
1	Fe 238.204 Radial†	598.7	554.6	4711.3	µg/L	4711.3	ppb	15:58:25
1	K 766.490 Radial†	7251.0	6764.3	4808.0	µg/L	4808.0	ppb	15:58:05
1	Mg 279.077 IEC†	563.5	524.3	4883.2	µg/L	4883.2	ppb	15:58:25
1	Na 589.592 Radial†	31835.2	29720.5	9784.1	µg/L	9784.1	ppb	15:58:05
1	Sr 421.552†	47847.7	45444.2	471.08	µg/L	471.08	ppb	15:58:05
1	Sc 361.383	1983693.6	1983693.6	103.87	%			15:59:29
1	Y 371.029	1353410.2	1353410.2	103.32	%			15:59:29
1	Ag 328.068†	62797.6	61024.1	487.72	µg/L	487.72	ppb	15:59:34
1	As 188.979†	269.1	257.9	503.15	µg/L	503.15	ppb	15:59:55
1	B 249.677†	11717.3	10949.6	476.85	µg/L	476.85	ppb	15:59:34
1	Ba 233.527†	19343.1	18649.0	486.47	µg/L	486.47	ppb	15:59:34
1	Be 313.107†	754921.5	730256.0	476.72	µg/L	476.72	ppb	15:59:29
1	Cd 226.502†	18224.6	17688.2	487.95	µg/L	487.95	ppb	15:59:34
1	Co 228.616†	10367.0	9989.9	491.09	µg/L	491.09	ppb	15:59:34
1	Cr 267.716†	23052.3	22246.4	489.64	µg/L	489.64	ppb	15:59:34
1	Cu 324.752†	74680.1	69413.7	485.52	µg/L	485.52	ppb	15:59:34
1	Mn 257.610†	145483.3	140311.0	486.31	µg/L	486.31	ppb	15:59:29
1	Mo 202.031†	4926.8	4750.9	507.20	µg/L	507.20	ppb	15:59:55
1	Ni 231.604†	9598.3	8938.8	488.20	µg/L	488.20	ppb	15:59:34
1	P 214.914†	1237.2	1163.5	2452.0	µg/L	2452.0	ppb	15:59:55
1	Pb 220.353†	2038.1	1865.0	497.83	µg/L	497.83	ppb	15:59:55
1	S 181.975 Axial†	250.1	226.0	990.17	µg/L	990.17	ppb	15:59:55
1	Sb 206.836†	555.0	507.4	501.78	µg/L	501.78	ppb	15:59:55
1	Se 196.026†	350.7	321.8	497.82	µg/L	497.82	ppb	15:59:55
1	SiO2†	26261.5	24033.7	5175.8	µg/L	5175.8	ppb	15:59:34
1	Si 251.611†	31015.9	29548.3	2429.0	µg/L	2429.0	ppb	15:59:34
1	Sn 189.927†	1145.1	1103.3	507.48	µg/L	507.48	ppb	15:59:55
1	Ti 334.940†	207638.9	199792.4	480.28	µg/L	480.28	ppb	15:59:29
1	Tl 190.801†	339.0	350.7	495.21	µg/L	495.21	ppb	15:59:55
1	U 409.014†	5639.1	5482.7	495.44	µg/L	495.44	ppb	15:59:34
1	V 292.402†	47231.1	45516.9	491.19	µg/L	491.19	ppb	15:59:34
1	Zn 213.857†	20861.0	19608.8	486.21	µg/L	486.21	ppb	15:59:34
2	Sc RADIAL	56826.1	56826.1	104	%			15:58:31
2	Al 396.153Radial†	6645.2	6392.0	4754.0	µg/L	4754.0	ppb	15:58:51
2	Ca 317.933Radial†	5486.3	5089.8	4792.3	µg/L	4792.3	ppb	15:58:51
2	Fe 238.204 Radial†	599.8	561.5	4769.4	µg/L	4769.4	ppb	15:58:51
2	K 766.490 Radial†	7153.6	6741.7	4791.9	µg/L	4791.9	ppb	15:58:31
2	Mg 279.077 IEC†	560.2	526.7	4905.2	µg/L	4905.2	ppb	15:58:51
2	Na 589.592 Radial†	31532.3	29741.0	9790.8	µg/L	9790.8	ppb	15:58:31
2	Sr 421.552†	47455.8	45535.8	472.03	µg/L	472.03	ppb	15:58:31
2	Sc 361.383	1995410.5	1995410.5	104.48	%			16:00:02
2	Y 371.029	1361782.3	1361782.3	103.96	%			16:00:02
2	Ag 328.068†	62246.7	60141.9	480.68	µg/L	480.68	ppb	16:00:08
2	As 188.979†	257.7	245.5	478.82	µg/L	478.82	ppb	16:00:28
2	B 249.677†	11628.5	10798.3	470.20	µg/L	470.20	ppb	16:00:08
2	Ba 233.527†	19125.6	18331.5	478.19	µg/L	478.19	ppb	16:00:08
2	Be 313.107†	755807.0	726835.7	474.48	µg/L	474.48	ppb	16:00:02
2	Cd 226.502†	17996.1	17366.5	479.06	µg/L	479.06	ppb	16:00:08
2	Co 228.616†	10237.6	9807.4	482.11	µg/L	482.11	ppb	16:00:08
2	Cr 267.716†	22930.0	21999.0	484.19	µg/L	484.19	ppb	16:00:08
2	Cu 324.752†	74042.3	68381.0	478.32	µg/L	478.32	ppb	16:00:08
2	Mn 257.610†	145292.8	139306.3	482.84	µg/L	482.84	ppb	16:00:02
2	Mo 202.031†	4851.2	4650.7	496.51	µg/L	496.51	ppb	16:00:28
2	Ni 231.604†	9492.2	8782.9	479.69	µg/L	479.69	ppb	16:00:08
2	P 214.914†	1221.3	1141.3	2405.0	µg/L	2405.0	ppb	16:00:28
2	Pb 220.353†	1997.7	1814.9	484.45	µg/L	484.45	ppb	16:00:28

2	S 181.975 Axial†	253.2	227.5	996.93 µg/L	996.93 ppb	16:00:28
2	Sb 206.836†	551.9	501.3	495.60 µg/L	495.60 ppb	16:00:28
2	Se 196.026†	351.2	320.3	495.61 µg/L	495.61 ppb	16:00:28
2	SiO2†	26072.1	23704.0	5104.8 µg/L	5104.8 ppb	16:00:08
2	Si 251.611†	30669.0	29040.9	2387.3 µg/L	2387.3 ppb	16:00:08
2	Sn 189.927†	1132.5	1084.8	498.96 µg/L	498.96 ppb	16:00:28
2	Ti 334.940†	207816.1	198788.1	477.86 µg/L	477.86 ppb	16:00:02
2	Tl 190.801†	338.3	348.1	491.58 µg/L	491.58 ppb	16:00:28
2	U 409.014†	5511.6	5328.9	481.50 µg/L	481.50 ppb	16:00:08
2	V 292.402†	46887.0	44920.6	484.74 µg/L	484.74 ppb	16:00:08
2	Zn 213.857†	20639.1	19278.4	478.01 µg/L	478.01 ppb	16:00:08
3	Sc RADIAL	56910.2	56910.2	104 %		15:58:57
3	Al 396.153Radial†	6656.6	6393.5	4756.8 µg/L	4756.8 ppb	15:59:17
3	Ca 317.933Radial†	5495.6	5090.9	4793.4 µg/L	4793.4 ppb	15:59:17
3	Fe 238.204 Radial†	602.2	563.0	4781.1 µg/L	4781.1 ppb	15:59:17
3	K 766.490 Radial†	7220.2	6795.5	4830.2 µg/L	4830.2 ppb	15:58:57
3	Mg 279.077 IEC†	560.3	526.1	4897.6 µg/L	4897.6 ppb	15:59:17
3	Na 589.592 Radial†	31637.3	29796.9	9809.2 µg/L	9809.2 ppb	15:58:57
3	Sr 421.552†	47653.8	45658.4	473.30 µg/L	473.30 ppb	15:58:57
3	Sc 361.383	1998435.1	1998435.1	104.64 %		16:00:35
3	Y 371.029	1364968.8	1364968.8	104.20 %		16:00:35
3	Ag 328.068†	58612.3	56578.4	452.09 µg/L	452.09 ppb	16:00:41
3	As 188.979†	224.3	213.2	415.95 µg/L	415.95 ppb	16:01:01
3	B 249.677†	10895.6	10081.1	438.76 µg/L	438.76 ppb	16:00:41
3	Ba 233.527†	17588.9	16835.1	439.14 µg/L	439.14 ppb	16:00:41
3	Be 313.107†	714187.6	685966.5	447.80 µg/L	447.80 ppb	16:00:35
3	Cd 226.502†	16474.5	15886.3	438.17 µg/L	438.17 ppb	16:00:41
3	Co 228.616†	9303.8	8900.2	437.44 µg/L	437.44 ppb	16:00:41
3	Cr 267.716†	20256.0	19410.4	427.22 µg/L	427.22 ppb	16:00:41
3	Cu 324.752†	67621.8	62137.9	434.71 µg/L	434.71 ppb	16:00:41
3	Mn 257.610†	137721.9	131860.5	457.05 µg/L	457.05 ppb	16:00:35
3	Mo 202.031†	4037.0	3865.6	412.72 µg/L	412.72 ppb	16:01:01
3	Ni 231.604†	8629.5	7944.8	433.92 µg/L	433.92 ppb	16:00:41
3	P 214.914†	1036.7	963.1	2025.7 µg/L	2025.7 ppb	16:01:01
3	Pb 220.353†	1739.6	1565.3	417.74 µg/L	417.74 ppb	16:01:01
3	S 181.975 Axial†	221.7	197.0	863.32 µg/L	863.32 ppb	16:01:01
3	Sb 206.836†	474.2	426.2	421.04 µg/L	421.04 ppb	16:01:01
3	Se 196.026†	306.7	277.3	430.08 µg/L	430.08 ppb	16:01:01
3	SiO2†	24196.5	21873.8	4710.6 µg/L	4710.6 ppb	16:00:41
3	Si 251.611†	28513.0	26936.1	2214.3 µg/L	2214.3 ppb	16:00:41
3	Sn 189.927†	924.9	884.8	406.97 µg/L	406.97 ppb	16:01:01
3	Ti 334.940†	195303.4	186529.0	448.37 µg/L	448.37 ppb	16:00:35
3	Tl 190.801†	301.0	311.9	440.85 µg/L	440.85 ppb	16:01:01
3	U 409.014†	4905.4	4741.6	428.33 µg/L	428.33 ppb	16:00:41
3	V 292.402†	42233.7	40405.6	435.79 µg/L	435.79 ppb	16:00:41
3	Zn 213.857†	18819.8	17509.9	434.12 µg/L	434.12 ppb	16:00:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992513.1	104.33	%	0.408				0.39%
Sc RADIAL	57049.0	105	%	0.6				0.55%
Y 371.029	1360053.7	103.83	%	0.456				0.44%
Ag 328.068†	59248.1	473.50	µg/L	18.871	473.50	ppb	18.871	3.99%
QC value within limits for Ag 328.068 Recovery = 94.70%								
Al 396.153Radial†	6380.5	4745.9	µg/L	16.44	4745.9	ppb	16.44	0.35%
QC value within limits for Al 396.153Radial Recovery = 94.92%								
As 188.979†	238.9	465.97	µg/L	44.997	465.97	ppb	44.997	9.66%
QC value within limits for As 188.979 Recovery = 93.19%								
B 249.677†	10609.7	461.94	µg/L	20.345	461.94	ppb	20.345	4.40%
QC value within limits for B 249.677 Recovery = 92.39%								
Ba 233.527†	17938.5	467.93	µg/L	25.276	467.93	ppb	25.276	5.40%
QC value within limits for Ba 233.527 Recovery = 93.59%								
Be 313.107†	714352.7	466.33	µg/L	16.086	466.33	ppb	16.086	3.45%
QC value within limits for Be 313.107 Recovery = 93.27%								
Ca 317.933Radial†	5078.2	4781.5	µg/L	19.75	4781.5	ppb	19.75	0.41%
QC value within limits for Ca 317.933Radial Recovery = 95.63%								
Cd 226.502†	16980.3	468.39	µg/L	26.545	468.39	ppb	26.545	5.67%
QC value within limits for Cd 226.502 Recovery = 93.68%								
Co 228.616†	9565.8	470.21	µg/L	28.733	470.21	ppb	28.733	6.11%

```
   QC value within limits for Co 228.616  Recovery = 94.04%
Cr 267.716†            21218.6      467.02 µg/L        34.571      467.02 ppb         34.571   7.40%
   QC value within limits for Cr 267.716  Recovery = 93.40%
Cu 324.752†            66644.2      466.19 µg/L        27.494      466.19 ppb         27.494   5.90%
   QC value within limits for Cu 324.752  Recovery = 93.24%
Fe 238.204 Radial†       559.7      4753.9 µg/L         37.39      4753.9 ppb          37.39   0.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.08%
K 766.490 Radial†       6767.2      4810.1 µg/L         19.19      4810.1 ppb          19.19   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 96.20%
Mg 279.077 IEC†          525.7      4895.3 µg/L         11.18      4895.3 ppb          11.18   0.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.91%
Mn 257.610†           137159.3      475.40 µg/L        15.982      475.40 ppb         15.982   3.36%
   QC value within limits for Mn 257.610  Recovery = 95.08%
Mo 202.031†             4422.4      472.14 µg/L        51.737      472.14 ppb         51.737  10.96%
   QC value within limits for Mo 202.031  Recovery = 94.43%
Na 589.592 Radial†     29752.8      9794.7 µg/L         13.02      9794.7 ppb          13.02   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 97.95%
Ni 231.604†             8555.5      467.27 µg/L        29.194      467.27 ppb         29.194   6.25%
   QC value within limits for Ni 231.604  Recovery = 93.45%
P 214.914†              1089.3      2294.2 µg/L        233.77      2294.2 ppb         233.77  10.19%
   QC value within limits for P 214.914  Recovery = 91.77%
Pb 220.353†             1748.4      466.67 µg/L        42.900      466.67 ppb         42.900   9.19%
   QC value within limits for Pb 220.353  Recovery = 93.33%
S 181.975 Axial†         216.9      950.14 µg/L        75.264      950.14 ppb         75.264   7.92%
   QC value within limits for S 181.975 Axial  Recovery = 95.01%
Sb 206.836†              478.3      472.81 µg/L        44.937      472.81 ppb         44.937   9.50%
   QC value within limits for Sb 206.836  Recovery = 94.56%
Se 196.026†              306.5      474.50 µg/L        38.486      474.50 ppb         38.486   8.11%
   QC value within limits for Se 196.026  Recovery = 94.90%
SiO2†                  23203.8      4997.1 µg/L        250.58      4997.1 ppb         250.58   5.01%
   QC value within limits for SiO2  Recovery = 93.45%
Si 251.611†            28508.4      2343.5 µg/L        113.86      2343.5 ppb         113.86   4.86%
   QC value within limits for Si 251.611  Recovery = 93.74%
Sn 189.927†             1024.3      471.14 µg/L        55.734      471.14 ppb         55.734  11.83%
   QC value within limits for Sn 189.927  Recovery = 94.23%
Sr 421.552†            45546.1      472.14 µg/L         1.114      472.14 ppb          1.114   0.24%
   QC value within limits for Sr 421.552  Recovery = 94.43%
Ti 334.940†           195036.5      468.84 µg/L        17.764      468.84 ppb         17.764   3.79%
   QC value within limits for Ti 334.940  Recovery = 93.77%
Tl 190.801†              336.9      475.88 µg/L        30.390      475.88 ppb         30.390   6.39%
   QC value within limits for Tl 190.801  Recovery = 95.18%
U 409.014†              5184.4      468.43 µg/L        35.417      468.43 ppb         35.417   7.56%
   QC value within limits for U 409.014  Recovery = 93.69%
V 292.402†             43614.3      470.57 µg/L        30.297      470.57 ppb         30.297   6.44%
   QC value within limits for V 292.402  Recovery = 94.11%
Zn 213.857†            18799.0      466.11 µg/L        28.010      466.11 ppb         28.010   6.01%
   QC value within limits for Zn 213.857  Recovery = 93.22%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:01:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55658.0	55658.0	102	%			16:01:44
1	Al 396.153Radial†	-23.0	-12.4	-9.2620	µg/L	-9.2620	ppb	16:01:44
1	Ca 317.933Radial†	208.0	24.8	23.363	µg/L	23.363	ppb	16:02:05
1	Fe 238.204 Radial†	15.4	0.6	5.4204	µg/L	5.4204	ppb	16:02:05
1	K 766.490 Radial†	204.3	71.9	51.110	µg/L	51.110	ppb	16:01:44
1	Mg 279.077 IEC†	10.5	-1.0	-9.0434	µg/L	-9.0434	ppb	16:02:05
1	Na 589.592 Radial†	1039.6	477.5	157.20	µg/L	157.20	ppb	16:01:44
1	Sr 421.552†	56.9	16.2	0.1684	µg/L	0.1684	ppb	16:01:44
1	Sc 361.383	1982189.6	1982189.6	103.79	%			16:03:07
1	Y 371.029	1359337.0	1359337.0	103.77	%			16:03:07
1	Ag 328.068†	-578.1	7.5	0.0622	µg/L	0.0622	ppb	16:03:12
1	As 188.979†	-1.3	-2.4	-4.6084	µg/L	-4.6084	ppb	16:03:33
1	B 249.677†	325.8	-17.5	-0.7693	µg/L	-0.7693	ppb	16:03:33
1	Ba 233.527†	-23.3	3.6	0.0946	µg/L	0.0946	ppb	16:03:33
1	Be 313.107†	-3422.1	143.2	0.0935	µg/L	0.0935	ppb	16:03:12
1	Cd 226.502†	-146.3	1.2	0.0321	µg/L	0.0321	ppb	16:03:33
1	Co 228.616†	-12.7	-3.4	-0.1679	µg/L	-0.1679	ppb	16:03:33
1	Cr 267.716†	-41.9	12.0	0.2649	µg/L	0.2649	ppb	16:03:33
1	Cu 324.752†	2411.8	-162.3	-1.1332	µg/L	-1.1332	ppb	16:03:12
1	Mn 257.610†	-218.3	33.8	0.1180	µg/L	0.1180	ppb	16:03:33
1	Mo 202.031†	-10.7	-2.7	-0.2926	µg/L	-0.2926	ppb	16:03:33
1	Ni 231.604†	299.4	-13.7	-0.7472	µg/L	-0.7472	ppb	16:03:33
1	P 214.914†	42.9	13.7	29.528	µg/L	29.528	ppb	16:03:33
1	Pb 220.353†	92.5	-8.1	-2.1696	µg/L	-2.1696	ppb	16:03:33
1	S 181.975 Axial†	17.6	2.1	9.2574	µg/L	9.2574	ppb	16:03:33
1	Sb 206.836†	23.2	-4.6	-4.4961	µg/L	-4.4961	ppb	16:03:33
1	Se 196.026†	12.0	-4.3	-6.4748	µg/L	-6.4748	ppb	16:03:33
1	SiO2†	1238.2	-57.1	-12.288	µg/L	-12.288	ppb	16:03:12
1	Si 251.611†	320.8	-3.8	-0.3112	µg/L	-0.3112	ppb	16:03:33
1	Sn 189.927†	0.5	1.4	0.6395	µg/L	0.6395	ppb	16:03:33
1	Ti 334.940†	134.1	13.1	0.0325	µg/L	0.0325	ppb	16:03:12
1	Tl 190.801†	-24.9	0.3	0.4630	µg/L	0.4630	ppb	16:03:33
1	U 409.014†	-12.1	41.9	3.7948	µg/L	3.7948	ppb	16:03:12
1	V 292.402†	-10.2	34.4	0.3695	µg/L	0.3695	ppb	16:03:12
1	Zn 213.857†	479.7	-13.4	-0.3280	µg/L	-0.3280	ppb	16:03:33
2	Sc RADIAL	55313.8	55313.8	101	%			16:02:10
2	Al 396.153Radial†	-3.9	6.3	4.7164	µg/L	4.7164	ppb	16:02:10
2	Ca 317.933Radial†	201.6	19.8	18.599	µg/L	18.599	ppb	16:02:30
2	Fe 238.204 Radial†	15.1	0.4	3.5581	µg/L	3.5581	ppb	16:02:30
2	K 766.490 Radial†	165.7	35.0	24.913	µg/L	24.913	ppb	16:02:10
2	Mg 279.077 IEC†	9.2	-2.2	-20.801	µg/L	-20.801	ppb	16:02:30
2	Na 589.592 Radial†	1009.9	454.5	149.64	µg/L	149.64	ppb	16:02:10
2	Sr 421.552†	43.0	2.9	0.0298	µg/L	0.0298	ppb	16:02:10
2	Sc 361.383	2000056.5	2000056.5	104.72	%			16:03:39
2	Y 371.029	1371413.4	1371413.4	104.69	%			16:03:39
2	Ag 328.068†	-539.4	49.5	0.3929	µg/L	0.3929	ppb	16:03:44
2	As 188.979†	2.0	0.8	1.5259	µg/L	1.5259	ppb	16:04:05
2	B 249.677†	333.1	-13.4	-0.5861	µg/L	-0.5861	ppb	16:04:05
2	Ba 233.527†	-19.7	7.2	0.1863	µg/L	0.1863	ppb	16:04:05
2	Be 313.107†	-3284.4	304.2	0.1986	µg/L	0.1986	ppb	16:03:44
2	Cd 226.502†	-141.7	6.9	0.1883	µg/L	0.1883	ppb	16:04:05
2	Co 228.616†	-14.8	-5.3	-0.2603	µg/L	-0.2603	ppb	16:04:05
2	Cr 267.716†	-34.1	19.8	0.4350	µg/L	0.4350	ppb	16:04:05
2	Cu 324.752†	2452.1	-144.6	-1.0097	µg/L	-1.0097	ppb	16:03:44
2	Mn 257.610†	-201.5	51.7	0.1804	µg/L	0.1804	ppb	16:04:05
2	Mo 202.031†	-5.9	1.9	0.2060	µg/L	0.2060	ppb	16:04:05
2	Ni 231.604†	302.4	-13.4	-0.7317	µg/L	-0.7317	ppb	16:04:05
2	P 214.914†	22.4	-6.2	-13.288	µg/L	-13.288	ppb	16:04:05
2	Pb 220.353†	100.3	-1.4	-0.3652	µg/L	-0.3652	ppb	16:04:05

2	S 181.975 Axial†	18.4	2.7	12.047 µg/L	12.047 ppb	16:04:05
2	Sb 206.836†	25.7	-2.4	-2.3521 µg/L	-2.3521 ppb	16:04:05
2	Se 196.026†	11.2	-5.1	-7.8216 µg/L	-7.8216 ppb	16:04:05
2	SiO2†	1221.5	-83.6	-18.000 µg/L	-18.000 ppb	16:03:44
2	Si 251.611†	319.3	-8.0	-0.6538 µg/L	-0.6538 ppb	16:04:05
2	Sn 189.927†	1.8	2.6	1.1983 µg/L	1.1983 ppb	16:04:05
2	Ti 334.940†	170.3	46.5	0.1138 µg/L	0.1138 ppb	16:03:44
2	Tl 190.801†	-24.1	1.2	1.7367 µg/L	1.7367 ppb	16:04:05
2	U 409.014†	-68.4	-11.7	-1.0610 µg/L	-1.0610 ppb	16:03:44
2	V 292.402†	-47.0	-0.7	-0.0056 µg/L	-0.0056 ppb	16:03:44
2	Zn 213.857†	481.8	-15.5	-0.3808 µg/L	-0.3808 ppb	16:04:05
3	Sc RADIAL	56238.4	56238.4	103 %		16:02:36
3	Al 396.153Radial†	-4.5	5.7	4.2549 µg/L	4.2549 ppb	16:02:36
3	Ca 317.933Radial†	217.1	31.6	29.725 µg/L	29.725 ppb	16:02:56
3	Fe 238.204 Radial†	15.6	0.7	5.5166 µg/L	5.5166 ppb	16:02:56
3	K 766.490 Radial†	152.3	19.4	13.755 µg/L	13.755 ppb	16:02:36
3	Mg 279.077 IEC†	9.8	-1.7	-16.008 µg/L	-16.008 ppb	16:02:56
3	Na 589.592 Radial†	1347.3	765.5	252.01 µg/L	252.01 ppb	16:02:36
3	Sr 421.552†	41.3	0.5	0.0055 µg/L	0.0055 ppb	16:02:36
3	Sc 361.383	1997138.2	1997138.2	104.57 %		16:04:11
3	Y 371.029	1369234.6	1369234.6	104.53 %		16:04:11
3	Ag 328.068†	-498.6	87.7	0.6980 µg/L	0.6980 ppb	16:04:16
3	As 188.979†	2.9	1.6	3.1103 µg/L	3.1103 ppb	16:04:37
3	B 249.677†	327.9	-17.9	-0.7818 µg/L	-0.7818 ppb	16:04:37
3	Ba 233.527†	-15.6	11.1	0.2887 µg/L	0.2887 ppb	16:04:37
3	Be 313.107†	-3097.4	478.5	0.3124 µg/L	0.3124 ppb	16:04:16
3	Cd 226.502†	-131.7	16.2	0.4453 µg/L	0.4453 ppb	16:04:37
3	Co 228.616†	-2.6	6.4	0.3136 µg/L	0.3136 ppb	16:04:37
3	Cr 267.716†	-14.7	38.4	0.8440 µg/L	0.8440 ppb	16:04:37
3	Cu 324.752†	2433.5	-159.0	-1.1099 µg/L	-1.1099 ppb	16:04:16
3	Mn 257.610†	-172.9	78.8	0.2743 µg/L	0.2743 ppb	16:04:37
3	Mo 202.031†	-1.7	5.9	0.6314 µg/L	0.6314 ppb	16:04:37
3	Ni 231.604†	302.9	-12.6	-0.6873 µg/L	-0.6873 ppb	16:04:37
3	P 214.914†	28.9	0.0	0.1351 µg/L	0.1351 ppb	16:04:37
3	Pb 220.353†	98.8	-2.7	-0.7118 µg/L	-0.7118 ppb	16:04:37
3	S 181.975 Axial†	19.3	3.6	15.780 µg/L	15.780 ppb	16:04:37
3	Sb 206.836†	32.5	4.1	4.0170 µg/L	4.0170 ppb	16:04:37
3	Se 196.026†	15.5	-1.0	-1.5777 µg/L	-1.5777 ppb	16:04:37
3	SiO2†	1280.0	-25.9	-5.5874 µg/L	-5.5874 ppb	16:04:16
3	Si 251.611†	323.6	-3.4	-0.2805 µg/L	-0.2805 ppb	16:04:37
3	Sn 189.927†	1.4	2.2	1.0236 µg/L	1.0236 ppb	16:04:37
3	Ti 334.940†	204.8	79.7	0.1935 µg/L	0.1935 ppb	16:04:16
3	Tl 190.801†	-25.7	-0.3	-0.3909 µg/L	-0.3909 ppb	16:04:37
3	U 409.014†	-62.9	-6.5	-0.5917 µg/L	-0.5917 ppb	16:04:16
3	V 292.402†	-21.9	23.3	0.2547 µg/L	0.2547 ppb	16:04:16
3	Zn 213.857†	484.0	-12.7	-0.3127 µg/L	-0.3127 ppb	16:04:37

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1993128.1	104.36	%	0.502				0.48%
Sc RADIAL	55736.7	102	%	0.9				0.84%
Y 371.029	1366661.7	104.33	%	0.491				0.47%
Ag 328.068†	48.2	0.3844	µg/L	0.31802	0.3844	ppb	0.31802	82.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.1	-0.0969	µg/L	7.94054	-0.0969	ppb	7.94054	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.0	0.0093	µg/L	4.07671	0.0093	ppb	4.07671	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-16.3	-0.7124	µg/L	0.10959	-0.7124	ppb	0.10959	15.38%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.3	0.1899	µg/L	0.09711	0.1899	ppb	0.09711	51.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	308.6	0.2015	µg/L	0.10946	0.2015	ppb	0.10946	54.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	25.4	23.896	µg/L	5.5823	23.896	ppb	5.5823	23.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.1	0.2219	µg/L	0.20862	0.2219	ppb	0.20862	94.02%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-0.8	-0.0382	µg/L	0.30817	-0.0382	ppb	0.30817	806.94%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              23.4      0.5146 µg/L       0.29767      0.5146 ppb        0.29767  57.84%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -155.3     -1.0843 µg/L       0.06563     -1.0843 ppb        0.06563   6.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.6      4.8317 µg/L       1.10403      4.8317 ppb        1.10403  22.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.1      29.926 µg/L       19.1758      29.926 ppb        19.1758  64.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.6     -15.284 µg/L        5.9121     -15.284 ppb         5.9121  38.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              54.8      0.1909 µg/L       0.07866      0.1909 ppb        0.07866  41.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.7      0.1816 µg/L       0.46249      0.1816 ppb        0.46249 254.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       565.9      186.28 µg/L        57.047      186.28 ppb         57.047  30.62%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -13.2     -0.7220 µg/L       0.03109     -0.7220 ppb        0.03109   4.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.5      5.4583 µg/L      21.89861      5.4583 ppb       21.89861 401.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.1     -1.0822 µg/L       0.95750     -1.0822 ppb        0.95750  88.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.8      12.362 µg/L        3.2727      12.362 ppb         3.2727  26.48%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.0     -0.9437 µg/L       4.42784     -0.9437 ppb        4.42784 469.19%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.5     -5.2914 µg/L       3.28586     -5.2914 ppb        3.28586  62.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -55.5     -11.958 µg/L        6.2126     -11.958 ppb         6.2126  51.95%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -5.1     -0.4151 µg/L       0.20723     -0.4151 ppb        0.20723  49.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.1      0.9538 µg/L       0.28585      0.9538 ppb        0.28585  29.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               6.6      0.0679 µg/L       0.08784      0.0679 ppb        0.08784 129.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              46.4      0.1133 µg/L       0.08046      0.1133 ppb        0.08046  71.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.4      0.6030 µg/L       1.07067      0.6030 ppb        1.07067 177.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                7.9      0.7140 µg/L       2.67833      0.7140 ppb        2.67833 375.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               19.0      0.2062 µg/L       0.19224      0.2062 ppb        0.19224  93.23%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -13.9     -0.3405 µg/L       0.03570     -0.3405 ppb        0.03570  10.49%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 16:37:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57270.5	57270.5	105	%			16:38:25
1	Al 396.153Radial†	6958.1	6640.6	4939.3	µg/L	4939.3	ppb	16:38:25
1	Ca 317.933Radial†	5712.0	5263.9	4956.3	µg/L	4956.3	ppb	16:38:46
1	Fe 238.204 Radial†	619.2	575.5	4888.0	µg/L	4888.0	ppb	16:38:46
1	K 766.490 Radial†	7274.3	6803.4	4835.8	µg/L	4835.8	ppb	16:38:25
1	Mg 279.077 IEC†	580.4	541.8	5044.9	µg/L	5044.9	ppb	16:38:46
1	Na 589.592 Radial†	31721.9	29686.7	9772.9	µg/L	9772.9	ppb	16:38:25
1	Sr 421.552†	48411.5	46092.9	477.81	µg/L	477.81	ppb	16:38:25
1	Sc 361.383	2050041.7	2050041.7	107.34	%			16:39:49
1	Y 371.029	1400914.7	1400914.7	106.95	%			16:39:49
1	Ag 328.068†	63102.9	59351.9	474.38	µg/L	474.38	ppb	16:39:55
1	As 188.979†	273.7	253.8	495.14	µg/L	495.14	ppb	16:40:15
1	B 249.677†	11802.0	10663.4	464.23	µg/L	464.23	ppb	16:39:55
1	Ba 233.527†	19451.3	18147.1	473.37	µg/L	473.37	ppb	16:39:55
1	Be 313.107†	769937.6	720722.3	470.49	µg/L	470.49	ppb	16:39:49
1	Cd 226.502†	18413.9	17296.7	477.11	µg/L	477.11	ppb	16:39:55
1	Co 228.616†	10377.6	9676.7	475.69	µg/L	475.69	ppb	16:39:55
1	Cr 267.716†	23222.4	21686.6	477.32	µg/L	477.32	ppb	16:39:55
1	Cu 324.752†	74708.1	67112.7	469.48	µg/L	469.48	ppb	16:39:55
1	Mn 257.610†	148224.3	138331.4	479.47	µg/L	479.47	ppb	16:39:49
1	Mo 202.031†	4976.6	4643.8	495.78	µg/L	495.78	ppb	16:40:15
1	Ni 231.604†	9664.7	8701.5	475.25	µg/L	475.25	ppb	16:39:55
1	P 214.914†	1251.0	1137.8	2398.4	µg/L	2398.4	ppb	16:40:15
1	Pb 220.353†	2064.6	1826.2	487.49	µg/L	487.49	ppb	16:40:15
1	S 181.975 Axial†	253.0	220.8	967.55	µg/L	967.55	ppb	16:40:15
1	Sb 206.836†	561.9	496.5	490.97	µg/L	490.97	ppb	16:40:15
1	Se 196.026†	348.6	308.9	478.47	µg/L	478.47	ppb	16:40:15
1	SiO2†	26407.2	23351.2	5028.8	µg/L	5028.8	ppb	16:39:55
1	Si 251.611†	31109.3	28668.8	2356.7	µg/L	2356.7	ppb	16:39:55
1	Sn 189.927†	1168.8	1089.7	501.23	µg/L	501.23	ppb	16:40:15
1	Ti 334.940†	210704.4	196178.3	471.57	µg/L	471.57	ppb	16:39:49
1	Tl 190.801†	345.6	346.3	489.05	µg/L	489.05	ppb	16:40:15
1	U 409.014†	5635.8	5304.0	479.22	µg/L	479.22	ppb	16:39:55
1	V 292.402†	47452.9	44251.8	477.60	µg/L	477.60	ppb	16:39:55
1	Zn 213.857†	20929.0	19022.1	471.63	µg/L	471.63	ppb	16:39:55
2	Sc RADIAL	57824.5	57824.5	106	%			16:38:51
2	Al 396.153Radial†	6951.6	6571.0	4887.5	µg/L	4887.5	ppb	16:38:51
2	Ca 317.933Radial†	5692.9	5193.8	4890.3	µg/L	4890.3	ppb	16:39:12
2	Fe 238.204 Radial†	614.8	565.7	4804.8	µg/L	4804.8	ppb	16:39:12
2	K 766.490 Radial†	7297.3	6758.7	4804.0	µg/L	4804.0	ppb	16:38:51
2	Mg 279.077 IEC†	578.6	534.8	4980.5	µg/L	4980.5	ppb	16:39:12
2	Na 589.592 Radial†	31791.5	29462.7	9699.2	µg/L	9699.2	ppb	16:38:51
2	Sr 421.552†	48548.0	45779.7	474.56	µg/L	474.56	ppb	16:38:51
2	Sc 361.383	2050967.6	2050967.6	107.39	%			16:40:22
2	Y 371.029	1401478.7	1401478.7	106.99	%			16:40:22
2	Ag 328.068†	63066.7	59291.5	473.89	µg/L	473.89	ppb	16:40:28
2	As 188.979†	260.8	241.7	471.43	µg/L	471.43	ppb	16:40:49
2	B 249.677†	11773.8	10632.2	462.91	µg/L	462.91	ppb	16:40:28
2	Ba 233.527†	19468.8	18155.2	473.58	µg/L	473.58	ppb	16:40:28
2	Be 313.107†	769423.9	719920.1	469.97	µg/L	469.97	ppb	16:40:22
2	Cd 226.502†	18369.5	17247.6	475.77	µg/L	475.77	ppb	16:40:28
2	Co 228.616†	10387.8	9681.8	475.93	µg/L	475.93	ppb	16:40:28
2	Cr 267.716†	23230.7	21684.6	477.27	µg/L	477.27	ppb	16:40:28
2	Cu 324.752†	74607.6	66987.7	468.59	µg/L	468.59	ppb	16:40:28
2	Mn 257.610†	147653.6	137737.6	477.41	µg/L	477.41	ppb	16:40:22
2	Mo 202.031†	4936.1	4604.0	491.53	µg/L	491.53	ppb	16:40:49
2	Ni 231.604†	9650.2	8684.0	474.29	µg/L	474.29	ppb	16:40:28
2	P 214.914†	1239.1	1126.2	2373.7	µg/L	2373.7	ppb	16:40:49
2	Pb 220.353†	2036.6	1799.3	480.30	µg/L	480.30	ppb	16:40:49

2	S 181.975 Axial†	251.7	219.6	962.01 µg/L	962.01 ppb	16:40:49
2	Sb 206.836†	560.6	495.1	489.53 µg/L	489.53 ppb	16:40:49
2	Se 196.026†	352.8	312.7	484.04 µg/L	484.04 ppb	16:40:49
2	SiO2†	26423.9	23355.6	5029.8 µg/L	5029.8 ppb	16:40:28
2	Si 251.611†	31116.7	28662.7	2356.2 µg/L	2356.2 ppb	16:40:28
2	Sn 189.927†	1158.0	1079.2	496.40 µg/L	496.40 ppb	16:40:49
2	Ti 334.940†	210552.3	195948.0	471.02 µg/L	471.02 ppb	16:40:22
2	Tl 190.801†	346.0	346.5	489.25 µg/L	489.25 ppb	16:40:49
2	U 409.014†	5584.5	5253.8	474.70 µg/L	474.70 ppb	16:40:28
2	V 292.402†	47503.1	44278.6	477.84 µg/L	477.84 ppb	16:40:28
2	Zn 213.857†	20951.2	19034.0	471.94 µg/L	471.94 ppb	16:40:28
3	Sc RADIAL	57919.3	57919.3	106 %		16:39:17
3	Al 396.153Radial†	6873.3	6486.5	4826.1 µg/L	4826.1 ppb	16:39:17
3	Ca 317.933Radial†	5675.3	5168.4	4866.3 µg/L	4866.3 ppb	16:39:38
3	Fe 238.204 Radial†	612.6	562.7	4778.5 µg/L	4778.5 ppb	16:39:38
3	K 766.490 Radial†	7223.5	6677.9	4746.6 µg/L	4746.6 ppb	16:39:17
3	Mg 279.077 IEC†	577.0	532.4	4956.6 µg/L	4956.6 ppb	16:39:38
3	Na 589.592 Radial†	31537.3	29174.1	9604.2 µg/L	9604.2 ppb	16:39:17
3	Sr 421.552†	47945.0	45136.6	467.89 µg/L	467.89 ppb	16:39:17
3	Sc 361.383	2047169.0	2047169.0	107.19 %		16:40:56
3	Y 371.029	1398213.9	1398213.9	106.74 %		16:40:56
3	Ag 328.068†	59282.1	55869.9	446.44 µg/L	446.44 ppb	16:41:01
3	As 188.979†	231.4	214.7	418.91 µg/L	418.91 ppb	16:41:22
3	B 249.677†	11101.6	10025.4	436.32 µg/L	436.32 ppb	16:41:01
3	Ba 233.527†	17825.1	16655.3	434.45 µg/L	434.45 ppb	16:41:01
3	Be 313.107†	720453.0	675563.8	441.01 µg/L	441.01 ppb	16:40:56
3	Cd 226.502†	16836.0	15848.7	437.13 µg/L	437.13 ppb	16:41:01
3	Co 228.616†	9439.7	8815.3	433.29 µg/L	433.29 ppb	16:41:01
3	Cr 267.716†	20551.5	19225.2	423.15 µg/L	423.15 ppb	16:41:01
3	Cu 324.752†	68186.1	61125.9	427.64 µg/L	427.64 ppb	16:41:01
3	Mn 257.610†	138984.9	129905.6	450.28 µg/L	450.28 ppb	16:40:56
3	Mo 202.031†	4143.4	3873.0	413.51 µg/L	413.51 ppb	16:41:22
3	Ni 231.604†	8808.1	7915.1	432.30 µg/L	432.30 ppb	16:41:01
3	P 214.914†	1067.2	968.0	2036.9 µg/L	2036.9 ppb	16:41:22
3	Pb 220.353†	1797.4	1579.7	421.60 µg/L	421.60 ppb	16:41:22
3	S 181.975 Axial†	226.2	196.2	859.46 µg/L	859.46 ppb	16:41:22
3	Sb 206.836†	485.7	426.1	420.98 µg/L	420.98 ppb	16:41:22
3	Se 196.026†	307.9	271.4	421.09 µg/L	421.09 ppb	16:41:22
3	SiO2†	24533.6	21637.8	4659.8 µg/L	4659.8 ppb	16:41:01
3	Si 251.611†	28891.7	26640.7	2190.0 µg/L	2190.0 ppb	16:41:01
3	Sn 189.927†	954.7	891.5	410.08 µg/L	410.08 ppb	16:41:22
3	Ti 334.940†	196335.7	183048.9	440.00 µg/L	440.00 ppb	16:40:56
3	Tl 190.801†	308.7	312.2	441.18 µg/L	441.18 ppb	16:41:22
3	U 409.014†	5011.7	4729.1	427.20 µg/L	427.20 ppb	16:41:01
3	V 292.402†	42781.7	39956.1	430.99 µg/L	430.99 ppb	16:41:01
3	Zn 213.857†	19123.4	17365.0	430.51 µg/L	430.51 ppb	16:41:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2049392.8	107.31	%	0.104				0.10%
Sc RADIAL	57671.4	106	%	0.6				0.61%
Y 371.029	1400202.5	106.89	%	0.133				0.12%
Ag 328.068†	58171.1	464.90	µg/L	15.993	464.90	ppb	15.993	3.44%
QC value within limits for Ag 328.068 Recovery = 92.98%								
Al 396.153Radial†	6566.1	4884.3	µg/L	56.67	4884.3	ppb	56.67	1.16%
QC value within limits for Al 396.153Radial Recovery = 97.69%								
As 188.979†	236.7	461.83	µg/L	39.012	461.83	ppb	39.012	8.45%
QC value within limits for As 188.979 Recovery = 92.37%								
B 249.677†	10440.3	454.49	µg/L	15.747	454.49	ppb	15.747	3.46%
QC value within limits for B 249.677 Recovery = 90.90%								
Ba 233.527†	17652.5	460.47	µg/L	22.535	460.47	ppb	22.535	4.89%
QC value within limits for Ba 233.527 Recovery = 92.09%								
Be 313.107†	705402.1	460.49	µg/L	16.871	460.49	ppb	16.871	3.66%
QC value within limits for Be 313.107 Recovery = 92.10%								
Ca 317.933Radial†	5208.7	4904.3	µg/L	46.59	4904.3	ppb	46.59	0.95%
QC value within limits for Ca 317.933Radial Recovery = 98.09%								
Cd 226.502†	16797.7	463.34	µg/L	22.703	463.34	ppb	22.703	4.90%
QC value within limits for Cd 226.502 Recovery = 92.67%								
Co 228.616†	9391.3	461.63	µg/L	24.552	461.63	ppb	24.552	5.32%

QC value within limits for Co 228.616 Recovery = 92.33%

Cr 267.716†	20865.4	459.24 µg/L	31.262	459.24 ppb	31.262	6.81%

QC value within limits for Cr 267.716 Recovery = 91.85%

Cu 324.752†	65075.5	455.24 µg/L	23.902	455.24 ppb	23.902	5.25%

QC value within limits for Cu 324.752 Recovery = 91.05%

Fe 238.204 Radial†	568.0	4823.8 µg/L	57.17	4823.8 ppb	57.17	1.19%

QC value within limits for Fe 238.204 Radial Recovery = 96.48%

K 766.490 Radial†	6746.7	4795.5 µg/L	45.22	4795.5 ppb	45.22	0.94%

QC value within limits for K 766.490 Radial Recovery = 95.91%

Mg 279.077 IEC†	536.3	4994.0 µg/L	45.66	4994.0 ppb	45.66	0.91%

QC value within limits for Mg 279.077 IEC Recovery = 99.88%

Mn 257.610†	135324.9	469.05 µg/L	16.289	469.05 ppb	16.289	3.47%

QC value within limits for Mn 257.610 Recovery = 93.81%

Mo 202.031†	4373.6	466.94 µg/L	46.322	466.94 ppb	46.322	9.92%

QC value within limits for Mo 202.031 Recovery = 93.39%

Na 589.592 Radial†	29441.2	9692.1 µg/L	84.60	9692.1 ppb	84.60	0.87%

QC value within limits for Na 589.592 Radial Recovery = 96.92%

Ni 231.604†	8433.5	460.62 µg/L	24.525	460.62 ppb	24.525	5.32%

QC value within limits for Ni 231.604 Recovery = 92.12%

P 214.914†	1077.3	2269.6 µg/L	201.96	2269.6 ppb	201.96	8.90%

QC value within limits for P 214.914 Recovery = 90.79%

Pb 220.353†	1735.0	463.13 µg/L	36.146	463.13 ppb	36.146	7.80%

QC value within limits for Pb 220.353 Recovery = 92.63%

S 181.975 Axial†	212.2	929.67 µg/L	60.871	929.67 ppb	60.871	6.55%

QC value within limits for S 181.975 Axial Recovery = 92.97%

Sb 206.836†	472.6	467.16 µg/L	39.999	467.16 ppb	39.999	8.56%

QC value within limits for Sb 206.836 Recovery = 93.43%

Se 196.026†	297.7	461.20 µg/L	34.847	461.20 ppb	34.847	7.56%

QC value within limits for Se 196.026 Recovery = 92.24%

SiO2†	22781.6	4906.1 µg/L	213.31	4906.1 ppb	213.31	4.35%

QC value within limits for SiO2 Recovery = 91.75%

Si 251.611†	27990.8	2301.0 µg/L	96.11	2301.0 ppb	96.11	4.18%

QC value within limits for Si 251.611 Recovery = 92.04%

Sn 189.927†	1020.1	469.24 µg/L	51.288	469.24 ppb	51.288	10.93%

QC value within limits for Sn 189.927 Recovery = 93.85%

Sr 421.552†	45669.7	473.42 µg/L	5.054	473.42 ppb	5.054	1.07%

QC value within limits for Sr 421.552 Recovery = 94.68%

Ti 334.940†	191725.1	460.86 µg/L	18.074	460.86 ppb	18.074	3.92%

QC value within limits for Ti 334.940 Recovery = 92.17%

Tl 190.801†	335.0	473.16 µg/L	27.695	473.16 ppb	27.695	5.85%

QC value within limits for Tl 190.801 Recovery = 94.63%

U 409.014†	5095.6	460.37 µg/L	28.818	460.37 ppb	28.818	6.26%

QC value within limits for U 409.014 Recovery = 92.07%

V 292.402†	42828.8	462.14 µg/L	26.978	462.14 ppb	26.978	5.84%

QC value within limits for V 292.402 Recovery = 92.43%

Zn 213.857†	18473.7	458.03 µg/L	23.826	458.03 ppb	23.826	5.20%

QC value within limits for Zn 213.857 Recovery = 91.61%

All analyte(s) passed QC.

Sequence No.: 26
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 16:41:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58584.5	58584.5	107	%			16:42:04
1	Al 396.153Radial†	51.2	57.8	43.068	µg/L	43.068	ppb	16:42:04
1	Ca 317.933Radial†	241.7	46.0	43.344	µg/L	43.344	ppb	16:42:24
1	Fe 238.204 Radial†	14.5	-1.0	-8.1938	µg/L	-8.1938	ppb	16:42:24
1	K 766.490 Radial†	158.2	19.0	13.495	µg/L	13.495	ppb	16:42:04
1	Mg 279.077 IEC†	19.4	6.8	63.641	µg/L	63.641	ppb	16:42:24
1	Na 589.592 Radial†	1003.5	392.9	129.35	µg/L	129.35	ppb	16:42:04
1	Sr 421.552†	45.5	2.9	0.0298	µg/L	0.0298	ppb	16:42:04
1	Sc 361.383	2059865.1	2059865.1	107.86	%			16:43:26
1	Y 371.029	1412010.5	1412010.5	107.79	%			16:43:26
1	Ag 328.068†	-580.2	26.6	0.2127	µg/L	0.2127	ppb	16:43:32
1	As 188.979†	-2.2	-3.1	-6.1457	µg/L	-6.1457	ppb	16:43:52
1	B 249.677†	314.7	-39.7	-1.7298	µg/L	-1.7298	ppb	16:43:52
1	Ba 233.527†	-34.6	-6.1	-0.1574	µg/L	-0.1574	ppb	16:43:52
1	Be 313.107†	-3476.5	217.1	0.1418	µg/L	0.1418	ppb	16:43:32
1	Cd 226.502†	-142.5	10.0	0.2771	µg/L	0.2771	ppb	16:43:52
1	Co 228.616†	-11.6	-1.9	-0.0950	µg/L	-0.0950	ppb	16:43:52
1	Cr 267.716†	-40.1	15.2	0.3343	µg/L	0.3343	ppb	16:43:32
1	Cu 324.752†	2513.6	-155.6	-1.0878	µg/L	-1.0878	ppb	16:43:32
1	Mn 257.610†	-238.3	23.1	0.0765	µg/L	0.0765	ppb	16:43:52
1	Mo 202.031†	-4.7	3.2	0.3434	µg/L	0.3434	ppb	16:43:52
1	Ni 231.604†	310.9	-14.0	-0.7640	µg/L	-0.7640	ppb	16:43:52
1	P 214.914†	32.2	2.3	4.9663	µg/L	4.9663	ppb	16:43:52
1	Pb 220.353†	102.0	-2.6	-0.7002	µg/L	-0.7002	ppb	16:43:52
1	S 181.975 Axial†	19.3	3.1	13.368	µg/L	13.368	ppb	16:43:52
1	Sb 206.836†	23.2	-5.4	-5.3618	µg/L	-5.3618	ppb	16:43:52
1	Se 196.026†	20.8	3.4	5.1089	µg/L	5.1089	ppb	16:43:52
1	SiO2†	1256.8	-84.7	-18.250	µg/L	-18.250	ppb	16:43:32
1	Si 251.611†	299.6	-35.1	-2.8840	µg/L	-2.8840	ppb	16:43:52
1	Sn 189.927†	-1.9	-0.9	-0.4213	µg/L	-0.4213	ppb	16:43:52
1	Ti 334.940†	103.7	-20.0	-0.0524	µg/L	-0.0524	ppb	16:43:32
1	Tl 190.801†	-18.7	7.0	9.7650	µg/L	9.7650	ppb	16:43:52
1	U 409.014†	8.9	61.9	5.6031	µg/L	5.6031	ppb	16:43:32
1	V 292.402†	-13.8	31.5	0.3435	µg/L	0.3435	ppb	16:43:32
1	Zn 213.857†	488.8	-22.3	-0.5552	µg/L	-0.5552	ppb	16:43:52
2	Sc RADIAL	57826.0	57826.0	106	%			16:42:30
2	Al 396.153Radial†	36.0	44.1	32.860	µg/L	32.860	ppb	16:42:30
2	Ca 317.933Radial†	243.6	50.8	47.787	µg/L	47.787	ppb	16:42:50
2	Fe 238.204 Radial†	18.8	3.3	27.831	µg/L	27.831	ppb	16:42:50
2	K 766.490 Radial†	189.0	49.9	35.479	µg/L	35.479	ppb	16:42:30
2	Mg 279.077 IEC†	19.0	6.7	61.954	µg/L	61.954	ppb	16:42:50
2	Na 589.592 Radial†	991.6	394.0	129.71	µg/L	129.71	ppb	16:42:30
2	Sr 421.552†	62.3	19.3	0.1997	µg/L	0.1997	ppb	16:42:30
2	Sc 361.383	2019733.9	2019733.9	105.75	%			16:43:58
2	Y 371.029	1384706.2	1384706.2	105.71	%			16:43:58
2	Ag 328.068†	-558.4	36.5	0.2916	µg/L	0.2916	ppb	16:44:04
2	As 188.979†	-1.6	-2.7	-5.2610	µg/L	-5.2610	ppb	16:44:24
2	B 249.677†	316.8	-31.9	-1.4069	µg/L	-1.4069	ppb	16:44:24
2	Ba 233.527†	-28.3	-0.8	-0.0199	µg/L	-0.0199	ppb	16:44:24
2	Be 313.107†	-3437.1	190.3	0.1243	µg/L	0.1243	ppb	16:44:04
2	Cd 226.502†	-144.6	5.4	0.1447	µg/L	0.1447	ppb	16:44:24
2	Co 228.616†	-10.6	-1.2	-0.0595	µg/L	-0.0595	ppb	16:44:24
2	Cr 267.716†	-44.1	10.7	0.2350	µg/L	0.2350	ppb	16:44:04
2	Cu 324.752†	2441.7	-177.3	-1.2343	µg/L	-1.2343	ppb	16:44:04
2	Mn 257.610†	-221.2	34.9	0.1222	µg/L	0.1222	ppb	16:44:24
2	Mo 202.031†	-2.8	4.9	0.5203	µg/L	0.5203	ppb	16:44:24
2	Ni 231.604†	305.8	-13.1	-0.7134	µg/L	-0.7134	ppb	16:44:24
2	P 214.914†	32.5	3.1	6.8494	µg/L	6.8494	ppb	16:44:24
2	Pb 220.353†	110.5	7.3	1.9444	µg/L	1.9444	ppb	16:44:24

2	S 181.975 Axial†	18.0	2.2	9.5789	µg/L	9.5789 ppb	16:44:24
2	Sb 206.836†	26.9	-1.5	-1.5033	µg/L	-1.5033 ppb	16:44:24
2	Se 196.026†	9.1	-7.3	-11.082	µg/L	-11.082 ppb	16:44:24
2	SiO2†	1234.9	-82.3	-17.728	µg/L	-17.728 ppb	16:44:04
2	Si 251.611†	315.8	-14.3	-1.1723	µg/L	-1.1723 ppb	16:44:24
2	Sn 189.927†	-0.9	0.0	0.0122	µg/L	0.0122 ppb	16:44:24
2	Ti 334.940†	107.0	-14.9	-0.0400	µg/L	-0.0400 ppb	16:44:04
2	Tl 190.801†	-22.2	3.3	4.6398	µg/L	4.6398 ppb	16:44:24
2	U 409.014†	11.6	64.6	5.8396	µg/L	5.8396 ppb	16:44:04
2	V 292.402†	-47.1	-0.3	0.0106	µg/L	0.0106 ppb	16:44:04
2	Zn 213.857†	485.9	-16.1	-0.4022	µg/L	-0.4022 ppb	16:44:24
3	Sc RADIAL	58203.8	58203.8	107	%		16:42:56
3	Al 396.153Radial†	16.5	25.6	19.057	µg/L	19.057 ppb	16:42:56
3	Ca 317.933Radial†	234.3	40.6	38.198	µg/L	38.198 ppb	16:43:16
3	Fe 238.204 Radial†	16.0	0.5	4.0830	µg/L	4.0830 ppb	16:43:16
3	K 766.490 Radial†	180.9	41.2	29.300	µg/L	29.300 ppb	16:42:56
3	Mg 279.077 IEC†	18.0	5.6	52.283	µg/L	52.283 ppb	16:43:16
3	Na 589.592 Radial†	920.7	321.4	105.80	µg/L	105.80 ppb	16:42:56
3	Sr 421.552†	52.3	9.5	0.0985	µg/L	0.0985 ppb	16:42:56
3	Sc 361.383	1997484.6	1997484.6	104.59	%		16:44:31
3	Y 371.029	1369124.4	1369124.4	104.52	%		16:44:31
3	Ag 328.068†	-544.9	43.6	0.3481	µg/L	0.3481 ppb	16:44:36
3	As 188.979†	3.1	1.8	3.4746	µg/L	3.4746 ppb	16:44:57
3	B 249.677†	317.2	-28.2	-1.2336	µg/L	-1.2336 ppb	16:44:57
3	Ba 233.527†	-26.0	1.1	0.0301	µg/L	0.0301 ppb	16:44:57
3	Be 313.107†	-3380.0	208.8	0.1363	µg/L	0.1363 ppb	16:44:36
3	Cd 226.502†	-138.7	9.5	0.2617	µg/L	0.2617 ppb	16:44:57
3	Co 228.616†	-17.3	-7.7	-0.3772	µg/L	-0.3772 ppb	16:44:57
3	Cr 267.716†	-57.1	-2.2	-0.0487	µg/L	-0.0487 ppb	16:44:36
3	Cu 324.752†	2481.2	-113.8	-0.7943	µg/L	-0.7943 ppb	16:44:36
3	Mn 257.610†	-222.0	31.9	0.1088	µg/L	0.1088 ppb	16:44:57
3	Mo 202.031†	-5.2	2.6	0.2766	µg/L	0.2766 ppb	16:44:57
3	Ni 231.604†	300.3	-15.1	-0.8254	µg/L	-0.8254 ppb	16:44:57
3	P 214.914†	30.5	1.5	3.4004	µg/L	3.4004 ppb	16:44:57
3	Pb 220.353†	108.4	6.5	1.7342	µg/L	1.7342 ppb	16:44:57
3	S 181.975 Axial†	15.4	-0.1	-0.3301	µg/L	-0.3301 ppb	16:44:57
3	Sb 206.836†	27.4	-0.8	-0.7588	µg/L	-0.7588 ppb	16:44:57
3	Se 196.026†	19.0	2.4	3.5402	µg/L	3.5402 ppb	16:44:57
3	SiO2†	1246.0	-58.7	-12.639	µg/L	-12.639 ppb	16:44:36
3	Si 251.611†	309.0	-17.4	-1.4306	µg/L	-1.4306 ppb	16:44:57
3	Sn 189.927†	-0.1	0.8	0.3816	µg/L	0.3816 ppb	16:44:57
3	Ti 334.940†	122.3	0.8	-0.0015	µg/L	-0.0015 ppb	16:44:36
3	Tl 190.801†	-19.4	5.7	7.9510	µg/L	7.9510 ppb	16:44:57
3	U 409.014†	-119.0	-60.2	-5.4508	µg/L	-5.4508 ppb	16:44:36
3	V 292.402†	-13.3	31.5	0.3324	µg/L	0.3324 ppb	16:44:36
3	Zn 213.857†	491.8	-5.3	-0.1315	µg/L	-0.1315 ppb	16:44:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2025694.5	106.07	%	1.655				1.56%
Sc RADIAL	58204.8	107	%	0.7				0.65%
Y 371.029	1388613.7	106.01	%	1.657				1.56%
Ag 328.068†	35.6	0.2841	µg/L	0.06799	0.2841	ppb	0.06799	23.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	42.5	31.661	µg/L	12.0501	31.661	ppb	12.0501	38.06%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-2.6440	µg/L	5.31733	-2.6440	ppb	5.31733	201.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-33.2	-1.4568	µg/L	0.25185	-1.4568	ppb	0.25185	17.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.9	-0.0491	µg/L	0.09709	-0.0491	ppb	0.09709	197.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	205.4	0.1341	µg/L	0.00896	0.1341	ppb	0.00896	6.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	45.8	43.110	µg/L	4.7990	43.110	ppb	4.7990	11.13%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	8.3	0.2278	µg/L	0.07242	0.2278	ppb	0.07242	31.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.6	-0.1772	µg/L	0.17409	-0.1772	ppb	0.17409	98.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.9      0.1735 µg/L       0.19876      0.1735 ppb        0.19876 114.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -148.9     -1.0388 µg/L       0.22407     -1.0388 ppb        0.22407  21.57%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.9      7.9067 µg/L      18.31420      7.9067 ppb       18.31420 231.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         36.7      26.091 µg/L       11.3376      26.091 ppb        11.3376  43.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            6.4      59.293 µg/L        6.1293      59.293 ppb         6.1293  10.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               30.0      0.1025 µg/L       0.02350      0.1025 ppb        0.02350  22.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.6      0.3801 µg/L       0.12595      0.3801 ppb        0.12595  33.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       369.4      121.62 µg/L        13.704      121.62 ppb         13.704  11.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.0     -0.7676 µg/L       0.05609     -0.7676 ppb        0.05609   7.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.3      5.0720 µg/L       1.72695      5.0720 ppb        1.72695  34.05%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                3.7      0.9928 µg/L       1.46997      0.9928 ppb        1.46997 148.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.7      7.5391 µg/L       7.07334      7.5391 ppb        7.07334  93.82%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.6     -2.5413 µg/L       2.47086     -2.5413 ppb        2.47086  97.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.5     -0.8111 µg/L       8.92964     -0.8111 ppb        8.92964 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    -75.3     -16.206 µg/L        3.0998     -16.206 ppb         3.0998  19.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -22.2     -1.8290 µg/L       0.92279     -1.8290 ppb        0.92279  50.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.0     -0.0092 µg/L       0.40185     -0.0092 ppb        0.40185 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.5      0.1093 µg/L       0.08548      0.1093 ppb        0.08548  78.18%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -11.4     -0.0313 µg/L       0.02652     -0.0313 ppb        0.02652  84.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.3      7.4520 µg/L       2.59879      7.4520 ppb        2.59879  34.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                22.1      1.9973 µg/L       6.45136      1.9973 ppb        6.45136 323.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                20.9      0.2288 µg/L       0.18906      0.2288 ppb        0.18906  82.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -14.6     -0.3630 µg/L       0.21454     -0.3630 ppb        0.21454  59.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 2/11/2010 16:58:42
Logged In Analyst: optima
Spectrometer Model: Optima 4300 DV, S/N 077N1030502

Plasma On Time: 2/8/2010 03:37:33
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\optima1\Sample Information\021110.sif
Batch ID:
Results Data Set: 021110B
Results Library: c:\pe\optima1\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 16:58:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	58304.7	58304.7	107	%			16:59:20
1	Al 396.153Radial†	6786.5	6362.5	4732.0	µg/L	4732.0	ppb	16:59:20
1	Ca 317.933Radial†	5536.9	5003.5	4711.1	µg/L	4711.1	ppb	16:59:40
1	Fe 238.204 Radial†	610.2	556.6	4728.2	µg/L	4728.2	ppb	16:59:40
1	K 766.490 Radial†	7283.7	6689.2	4754.7	µg/L	4754.7	ppb	16:59:20
1	Mg 279.077 IEC†	569.3	521.6	4857.3	µg/L	4857.3	ppb	16:59:40
1	Na 589.592 Radial†	31197.2	28659.4	9434.8	µg/L	9434.8	ppb	16:59:20
1	Sr 421.552†	48428.4	45290.4	469.49	µg/L	469.49	ppb	16:59:20
1	Sc 361.383	2048192.0	2048192.0	107.24	%			17:00:43
1	Y 371.029	1396873.4	1396873.4	106.64	%			17:00:43
1	Ag 328.068†	62792.0	59115.0	472.54	µg/L	472.54	ppb	17:00:49
1	As 188.979†	276.2	256.4	500.17	µg/L	500.17	ppb	17:01:09
1	B 249.677†	11976.6	10836.1	471.87	µg/L	471.87	ppb	17:00:49
1	Ba 233.527†	19779.6	18469.6	481.79	µg/L	481.79	ppb	17:00:49
1	Be 313.107†	782023.1	732639.2	478.28	µg/L	478.28	ppb	17:00:43
1	Cd 226.502†	18757.9	17632.9	486.42	µg/L	486.42	ppb	17:00:49
1	Co 228.616†	10618.7	9910.3	487.18	µg/L	487.18	ppb	17:00:49
1	Cr 267.716†	23605.9	22063.7	485.62	µg/L	485.62	ppb	17:00:49
1	Cu 324.752†	75656.1	68059.5	476.07	µg/L	476.07	ppb	17:00:49
1	Mn 257.610†	150274.2	140367.5	486.51	µg/L	486.51	ppb	17:00:43
1	Mo 202.031†	4970.8	4642.6	495.64	µg/L	495.64	ppb	17:01:09
1	Ni 231.604†	9869.6	8900.8	486.13	µg/L	486.13	ppb	17:00:49
1	P 214.914†	1275.8	1162.0	2449.8	µg/L	2449.8	ppb	17:01:09
1	Pb 220.353†	2092.9	1854.3	494.97	µg/L	494.97	ppb	17:01:09
1	S 181.975 Axial†	258.0	225.7	989.09	µg/L	989.09	ppb	17:01:09
1	Sb 206.836†	558.6	493.9	488.34	µg/L	488.34	ppb	17:01:09
1	Se 196.026†	360.2	320.1	495.20	µg/L	495.20	ppb	17:01:09
1	SiO2†	26598.5	23551.8	5072.0	µg/L	5072.0	ppb	17:00:49
1	Si 251.611†	31394.2	28960.7	2380.7	µg/L	2380.7	ppb	17:00:49
1	Sn 189.927†	1171.7	1093.4	502.93	µg/L	502.93	ppb	17:01:09
1	Ti 334.940†	209687.5	195407.3	469.73	µg/L	469.73	ppb	17:00:43
1	Tl 190.801†	351.0	351.5	496.34	µg/L	496.34	ppb	17:01:09
1	U 409.014†	5705.8	5374.0	485.60	µg/L	485.60	ppb	17:00:49
1	V 292.402†	48262.6	45046.7	486.08	µg/L	486.08	ppb	17:00:49
1	Zn 213.857†	21405.2	19483.8	483.11	µg/L	483.11	ppb	17:00:49
2	Sc RADIAL	57809.4	57809.4	106	%			16:59:45
2	Al 396.153Radial†	6713.1	6347.6	4720.4	µg/L	4720.4	ppb	16:59:45
2	Ca 317.933Radial†	5573.2	5082.2	4785.2	µg/L	4785.2	ppb	17:00:06
2	Fe 238.204 Radial†	613.9	565.0	4800.0	µg/L	4800.0	ppb	17:00:06
2	K 766.490 Radial†	7246.0	6712.1	4770.9	µg/L	4770.9	ppb	16:59:45
2	Mg 279.077 IEC†	566.2	523.3	4873.4	µg/L	4873.4	ppb	17:00:06
2	Na 589.592 Radial†	31072.8	28792.1	9478.5	µg/L	9478.5	ppb	16:59:45
2	Sr 421.552†	48008.7	45282.6	469.41	µg/L	469.41	ppb	16:59:45
2	Sc 361.383	1951160.7	1951160.7	102.16	%			17:01:16
2	Y 371.029	1331856.8	1331856.8	101.67	%			17:01:16
2	Ag 328.068†	64120.5	63327.2	506.22	µg/L	506.22	ppb	17:01:22
2	As 188.979†	277.7	270.7	528.08	µg/L	528.08	ppb	17:01:43

2	B 249.677†	12297.9	11706.0	509.91 µg/L	509.91 ppb	17:01:22
2	Ba 233.527†	20306.8	19902.8	519.17 µg/L	519.17 ppb	17:01:22
2	Be 313.107†	802212.2	788663.9	514.85 µg/L	514.85 ppb	17:01:16
2	Cd 226.502†	19256.8	18991.1	523.92 µg/L	523.92 ppb	17:01:22
2	Co 228.616†	10882.2	10660.6	524.05 µg/L	524.05 ppb	17:01:22
2	Cr 267.716†	24198.0	23738.0	522.47 µg/L	522.47 ppb	17:01:22
2	Cu 324.752†	77364.3	73239.8	512.26 µg/L	512.26 ppb	17:01:22
2	Mn 257.610†	154462.4	151435.4	524.84 µg/L	524.84 ppb	17:01:16
2	Mo 202.031†	4974.0	4876.2	520.57 µg/L	520.57 ppb	17:01:43
2	Ni 231.604†	10143.4	9626.4	525.76 µg/L	525.76 ppb	17:01:22
2	P 214.914†	1278.9	1224.2	2579.9 µg/L	2579.9 ppb	17:01:43
2	Pb 220.353†	2103.7	1962.0	523.68 µg/L	523.68 ppb	17:01:43
2	S 181.975 Axial†	261.1	240.7	1054.7 µg/L	1054.7 ppb	17:01:43
2	Sb 206.836†	565.0	526.1	520.02 µg/L	520.02 ppb	17:01:43
2	Se 196.026†	363.5	340.0	525.72 µg/L	525.72 ppb	17:01:43
2	SiO2†	27321.6	25493.0	5490.1 µg/L	5490.1 ppb	17:01:22
2	Si 251.611†	32162.6	31168.6	2562.2 µg/L	2562.2 ppb	17:01:22
2	Sn 189.927†	1172.7	1148.8	528.40 µg/L	528.40 ppb	17:01:43
2	Ti 334.940†	216025.0	211334.0	508.04 µg/L	508.04 ppb	17:01:16
2	Tl 190.801†	350.8	367.7	519.30 µg/L	519.30 ppb	17:01:43
2	U 409.014†	5846.6	5776.4	522.02 µg/L	522.02 ppb	17:01:22
2	V 292.402†	49557.7	48552.4	523.76 µg/L	523.76 ppb	17:01:22
2	Zn 213.857†	21845.1	20906.9	518.41 µg/L	518.41 ppb	17:01:22
3	Sc RADIAL	58043.7	58043.7	106 %		17:00:11
3	Al 396.153Radial†	6748.6	6355.4	4728.2 µg/L	4728.2 ppb	17:00:11
3	Ca 317.933Radial†	5566.3	5054.5	4759.1 µg/L	4759.1 ppb	17:00:32
3	Fe 238.204 Radial†	616.6	565.2	4800.6 µg/L	4800.6 ppb	17:00:32
3	K 766.490 Radial†	7187.1	6629.1	4711.9 µg/L	4711.9 ppb	17:00:11
3	Mg 279.077 IEC†	562.5	517.6	4819.1 µg/L	4819.1 ppb	17:00:32
3	Na 589.592 Radial†	31179.2	28773.8	9472.4 µg/L	9472.4 ppb	17:00:11
3	Sr 421.552†	48277.8	45352.7	470.13 µg/L	470.13 ppb	17:00:11
3	Sc 361.383	2003631.8	2003631.8	104.91 %		17:01:50
3	Y 371.029	1367447.8	1367447.8	104.39 %		17:01:50
3	Ag 328.068†	59826.0	57590.0	460.26 µg/L	460.26 ppb	17:01:56
3	As 188.979†	236.7	224.5	438.03 µg/L	438.03 ppb	17:02:16
3	B 249.677†	11388.2	10523.6	458.12 µg/L	458.12 ppb	17:01:56
3	Ba 233.527†	18491.5	17651.9	460.45 µg/L	460.45 ppb	17:01:56
3	Be 313.107†	746381.1	714882.8	466.69 µg/L	466.69 ppb	17:01:50
3	Cd 226.502†	17452.2	16777.4	462.78 µg/L	462.78 ppb	17:01:56
3	Co 228.616†	9792.8	9343.2	459.24 µg/L	459.24 ppb	17:01:56
3	Cr 267.716†	21341.5	20394.9	448.89 µg/L	448.89 ppb	17:01:56
3	Cu 324.752†	70171.6	64400.7	450.52 µg/L	450.52 ppb	17:01:56
3	Mn 257.610†	143677.7	137196.1	475.54 µg/L	475.54 ppb	17:01:50
3	Mo 202.031†	4142.0	3955.7	422.34 µg/L	422.34 ppb	17:02:16
3	Ni 231.604†	9135.9	8406.0	459.11 µg/L	459.11 ppb	17:01:56
3	P 214.914†	1088.5	1009.9	2124.6 µg/L	2124.6 ppb	17:02:16
3	Pb 220.353†	1832.8	1649.8	440.26 µg/L	440.26 ppb	17:02:16
3	S 181.975 Axial†	227.5	202.0	885.22 µg/L	885.22 ppb	17:02:16
3	Sb 206.836†	480.8	431.3	425.93 µg/L	425.93 ppb	17:02:16
3	Se 196.026†	317.8	287.1	445.21 µg/L	445.21 ppb	17:02:16
3	SiO2†	25159.1	22731.4	4895.3 µg/L	4895.3 ppb	17:01:56
3	Si 251.611†	29597.8	27899.4	2293.5 µg/L	2293.5 ppb	17:01:56
3	Sn 189.927†	953.9	910.2	418.64 µg/L	418.64 ppb	17:02:16
3	Ti 334.940†	199390.2	189940.4	456.58 µg/L	456.58 ppb	17:01:50
3	Tl 190.801†	316.4	325.9	460.38 µg/L	460.38 ppb	17:02:16
3	U 409.014†	5187.8	4998.6	451.60 µg/L	451.60 ppb	17:01:56
3	V 292.402†	44415.7	42380.8	456.99 µg/L	456.99 ppb	17:01:56
3	Zn 213.857†	19887.4	18480.9	458.23 µg/L	458.23 ppb	17:01:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2000994.9	104.77	%	2.543				2.43%
Sc RADIAL	58052.6	106	%	0.5				0.43%
Y 371.029	1365392.6	104.23	%	2.485				2.38%
Ag 328.068†	60010.7	479.67	µg/L	23.794	479.67	ppb	23.794	4.96%
QC value within limits for Ag 328.068 Recovery = 95.93%								
Al 396.153Radial†	6355.1	4726.8	µg/L	5.90	4726.8	ppb	5.90	0.12%
QC value within limits for Al 396.153Radial Recovery = 94.54%								
As 188.979†	250.5	488.76	µg/L	46.092	488.76	ppb	46.092	9.43%

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   QC value within limits for As 188.979  Recovery = 97.75%
B 249.677†            11021.9      479.97 µg/L        26.827      479.97 ppb        26.827   5.59%
   QC value within limits for B 249.677  Recovery = 95.99%
Ba 233.527†           18674.8      487.13 µg/L        29.727      487.13 ppb        29.727   6.10%
   QC value within limits for Ba 233.527  Recovery = 97.43%
Be 313.107†          745395.3      486.60 µg/L        25.138      486.60 ppb        25.138   5.17%
   QC value within limits for Be 313.107  Recovery = 97.32%
Ca 317.933Radial†      5046.7      4751.8 µg/L         37.61      4751.8 ppb         37.61   0.79%
   QC value within limits for Ca 317.933Radial  Recovery = 95.04%
Cd 226.502†           17800.5      491.04 µg/L        30.831      491.04 ppb        30.831   6.28%
   QC value within limits for Cd 226.502  Recovery = 98.21%
Co 228.616†            9971.4      490.16 µg/L        32.508      490.16 ppb        32.508   6.63%
   QC value within limits for Co 228.616  Recovery = 98.03%
Cr 267.716†           22065.5      485.66 µg/L        36.788      485.66 ppb        36.788   7.57%
   QC value within limits for Cr 267.716  Recovery = 97.13%
Cu 324.752†           68566.7      479.62 µg/L        31.024      479.62 ppb        31.024   6.47%
   QC value within limits for Cu 324.752  Recovery = 95.92%
Fe 238.204 Radial†      562.3      4776.3 µg/L         41.61      4776.3 ppb         41.61   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.53%
K 766.490 Radial†      6676.8      4745.8 µg/L         30.47      4745.8 ppb         30.47   0.64%
   QC value within limits for K 766.490 Radial  Recovery = 94.92%
Mg 279.077 IEC†         520.8      4849.9 µg/L         27.89      4849.9 ppb         27.89   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.00%
Mn 257.610†          142999.7      495.63 µg/L        25.888      495.63 ppb        25.888   5.22%
   QC value within limits for Mn 257.610  Recovery = 99.13%
Mo 202.031†            4491.5      479.52 µg/L        51.064      479.52 ppb        51.064  10.65%
   QC value within limits for Mo 202.031  Recovery = 95.90%
Na 589.592 Radial†    28741.7      9461.9 µg/L         23.68      9461.9 ppb         23.68   0.25%
   QC value within limits for Na 589.592 Radial  Recovery = 94.62%
Ni 231.604†            8977.7      490.33 µg/L        33.521      490.33 ppb        33.521   6.84%
   QC value within limits for Ni 231.604  Recovery = 98.07%
P 214.914†             1132.0      2384.7 µg/L        234.53      2384.7 ppb        234.53   9.83%
   QC value within limits for P 214.914  Recovery = 95.39%
Pb 220.353†            1822.0      486.30 µg/L        42.376      486.30 ppb        42.376   8.71%
   QC value within limits for Pb 220.353  Recovery = 97.26%
S 181.975 Axial†        222.8      976.34 µg/L        85.462      976.34 ppb        85.462   8.75%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†             483.8      478.10 µg/L        47.873      478.10 ppb        47.873  10.01%
   QC value within limits for Sb 206.836  Recovery = 95.62%
Se 196.026†             315.7      488.71 µg/L        40.646      488.71 ppb        40.646   8.32%
   QC value within limits for Se 196.026  Recovery = 97.74%
SiO2†                  23925.4      5152.5 µg/L        305.42      5152.5 ppb        305.42   5.93%
   QC value within limits for SiO2  Recovery = 96.35%
Si 251.611†            29342.9      2412.1 µg/L        137.10      2412.1 ppb        137.10   5.68%
   QC value within limits for Si 251.611  Recovery = 96.49%
Sn 189.927†            1050.8      483.32 µg/L        57.445      483.32 ppb        57.445  11.89%
   QC value within limits for Sn 189.927  Recovery = 96.66%
Sr 421.552†           45308.6      469.68 µg/L         0.398      469.68 ppb         0.398   0.08%
   QC value within limits for Sr 421.552  Recovery = 93.94%
Ti 334.940†          198893.9      478.12 µg/L        26.734      478.12 ppb        26.734   5.59%
   QC value within limits for Ti 334.940  Recovery = 95.62%
Tl 190.801†             348.4      492.01 µg/L        29.696      492.01 ppb        29.696   6.04%
   QC value within limits for Tl 190.801  Recovery = 98.40%
U 409.014†             5383.0      486.40 µg/L        35.218      486.40 ppb        35.218   7.24%
   QC value within limits for U 409.014  Recovery = 97.28%
V 292.402†            45326.6      488.94 µg/L        33.478      488.94 ppb        33.478   6.85%
   QC value within limits for V 292.402  Recovery = 97.79%
Zn 213.857†           19623.9      486.59 µg/L        30.241      486.59 ppb        30.241   6.21%
   QC value within limits for Zn 213.857  Recovery = 97.32%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:02:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56368.9	56368.9	103	%			17:03:01
1	Al 396.153Radial†	-30.7	-19.6	-14.585	µg/L	-14.585	ppb	17:03:01
1	Ca 317.933Radial†	198.1	12.6	11.864	µg/L	11.864	ppb	17:03:21
1	Fe 238.204 Radial†	17.2	2.2	18.515	µg/L	18.515	ppb	17:03:21
1	K 766.490 Radial†	209.8	74.8	53.133	µg/L	53.133	ppb	17:03:01
1	Mg 279.077 IEC†	16.1	4.3	39.936	µg/L	39.936	ppb	17:03:21
1	Na 589.592 Radial†	774.1	207.6	68.329	µg/L	68.329	ppb	17:03:01
1	Sr 421.552†	33.0	-7.6	-0.0789	µg/L	-0.0789	ppb	17:03:01
1	Sc 361.383	2029236.5	2029236.5	106.25	%			17:04:24
1	Y 371.029	1388942.8	1388942.8	106.03	%			17:04:24
1	Ag 328.068†	-592.1	7.2	0.0607	µg/L	0.0607	ppb	17:04:29
1	As 188.979†	-0.6	-1.7	-3.3695	µg/L	-3.3695	ppb	17:04:50
1	B 249.677†	324.7	-25.9	-1.1417	µg/L	-1.1417	ppb	17:04:50
1	Ba 233.527†	-22.4	4.9	0.1278	µg/L	0.1278	ppb	17:04:50
1	Be 313.107†	-3566.1	84.2	0.0549	µg/L	0.0549	ppb	17:04:29
1	Cd 226.502†	-151.8	-0.8	-0.0243	µg/L	-0.0243	ppb	17:04:50
1	Co 228.616†	-13.1	-3.5	-0.1727	µg/L	-0.1727	ppb	17:04:50
1	Cr 267.716†	-46.3	8.8	0.1931	µg/L	0.1931	ppb	17:04:50
1	Cu 324.752†	2496.7	-136.3	-0.9495	µg/L	-0.9495	ppb	17:04:29
1	Mn 257.610†	-248.9	9.9	0.0351	µg/L	0.0351	ppb	17:04:50
1	Mo 202.031†	-5.8	2.1	0.2273	µg/L	0.2273	ppb	17:04:50
1	Ni 231.604†	303.7	-16.3	-0.8932	µg/L	-0.8932	ppb	17:04:50
1	P 214.914†	32.7	3.2	6.8843	µg/L	6.8843	ppb	17:04:50
1	Pb 220.353†	96.4	-6.5	-1.7203	µg/L	-1.7203	ppb	17:04:50
1	S 181.975 Axial†	20.6	4.6	20.049	µg/L	20.049	ppb	17:04:50
1	Sb 206.836†	26.8	-1.7	-1.7124	µg/L	-1.7124	ppb	17:04:50
1	Se 196.026†	16.1	-0.6	-0.9715	µg/L	-0.9715	ppb	17:04:50
1	SiO2†	1235.6	-87.2	-18.769	µg/L	-18.769	ppb	17:04:29
1	Si 251.611†	286.6	-43.1	-3.5447	µg/L	-3.5447	ppb	17:04:50
1	Sn 189.927†	-4.0	-2.9	-1.3291	µg/L	-1.3291	ppb	17:04:50
1	Ti 334.940†	152.5	27.4	0.0631	µg/L	0.0631	ppb	17:04:29
1	Tl 190.801†	-22.1	3.5	4.9105	µg/L	4.9105	ppb	17:04:50
1	U 409.014†	-71.0	-13.2	-1.1992	µg/L	-1.1992	ppb	17:04:29
1	V 292.402†	-14.4	30.7	0.3301	µg/L	0.3301	ppb	17:04:29
1	Zn 213.857†	481.1	-22.7	-0.5654	µg/L	-0.5654	ppb	17:04:50
2	Sc RADIAL	56481.9	56481.9	103	%			17:03:27
2	Al 396.153Radial†	9.3	19.1	14.233	µg/L	14.233	ppb	17:03:27
2	Ca 317.933Radial†	192.6	6.9	6.5217	µg/L	6.5217	ppb	17:03:47
2	Fe 238.204 Radial†	14.6	-0.3	-2.9604	µg/L	-2.9604	ppb	17:03:47
2	K 766.490 Radial†	162.5	28.6	20.329	µg/L	20.329	ppb	17:03:27
2	Mg 279.077 IEC†	13.0	1.3	11.979	µg/L	11.979	ppb	17:03:47
2	Na 589.592 Radial†	797.1	228.3	75.169	µg/L	75.169	ppb	17:03:27
2	Sr 421.552†	46.5	5.4	0.0561	µg/L	0.0561	ppb	17:03:27
2	Sc 361.383	2012770.6	2012770.6	105.39	%			17:04:56
2	Y 371.029	1377597.1	1377597.1	105.17	%			17:04:56
2	Ag 328.068†	-578.5	15.6	0.1231	µg/L	0.1231	ppb	17:05:01
2	As 188.979†	2.2	1.0	1.9088	µg/L	1.9088	ppb	17:05:22
2	B 249.677†	310.5	-36.9	-1.6105	µg/L	-1.6105	ppb	17:05:22
2	Ba 233.527†	-26.6	0.8	0.0202	µg/L	0.0202	ppb	17:05:22
2	Be 313.107†	-3607.4	17.5	0.0114	µg/L	0.0114	ppb	17:05:01
2	Cd 226.502†	-140.3	9.0	0.2482	µg/L	0.2482	ppb	17:05:22
2	Co 228.616†	-20.8	-10.9	-0.5380	µg/L	-0.5380	ppb	17:05:22
2	Cr 267.716†	-50.1	4.9	0.1067	µg/L	0.1067	ppb	17:05:22
2	Cu 324.752†	2459.5	-152.4	-1.0650	µg/L	-1.0650	ppb	17:05:01
2	Mn 257.610†	-250.9	6.1	0.0201	µg/L	0.0201	ppb	17:05:22
2	Mo 202.031†	-3.2	4.5	0.4823	µg/L	0.4823	ppb	17:05:22
2	Ni 231.604†	300.2	-17.4	-0.9488	µg/L	-0.9488	ppb	17:05:22
2	P 214.914†	25.9	-3.0	-6.3600	µg/L	-6.3600	ppb	17:05:22
2	Pb 220.353†	99.5	-2.8	-0.7298	µg/L	-0.7298	ppb	17:05:22

2	S 181.975 Axial†	20.2	4.3	19.053 µg/L	19.053 ppb	17:05:22
2	Sb 206.836†	24.6	-3.6	-3.5810 µg/L	-3.5810 ppb	17:05:22
2	Se 196.026†	10.7	-5.7	-8.7427 µg/L	-8.7427 ppb	17:05:22
2	SiO2†	1253.5	-60.7	-13.065 µg/L	-13.065 ppb	17:05:01
2	Si 251.611†	291.0	-36.8	-3.0237 µg/L	-3.0237 ppb	17:05:22
2	Sn 189.927†	-0.9	-0.0	-0.0009 µg/L	-0.0009 ppb	17:05:22
2	Ti 334.940†	142.1	18.7	0.0441 µg/L	0.0441 ppb	17:05:01
2	Tl 190.801†	-21.2	4.2	5.8568 µg/L	5.8568 ppb	17:05:22
2	U 409.014†	-66.1	-9.1	-0.8270 µg/L	-0.8270 ppb	17:05:01
2	V 292.402†	-52.0	-5.1	-0.0519 µg/L	-0.0519 ppb	17:05:01
2	Zn 213.857†	477.8	-22.2	-0.5493 µg/L	-0.5493 ppb	17:05:22
3	Sc RADIAL	56062.3	56062.3	103 %		17:03:53
3	Al 396.153Radial†	-13.3	-2.8	-2.1100 µg/L	-2.1100 ppb	17:03:53
3	Ca 317.933Radial†	193.5	9.2	8.6834 µg/L	8.6834 ppb	17:04:13
3	Fe 238.204 Radial†	13.9	-1.0	-8.5236 µg/L	-8.5236 ppb	17:04:13
3	K 766.490 Radial†	145.6	13.3	9.4734 µg/L	9.4734 ppb	17:03:53
3	Mg 279.077 IEC†	12.4	0.8	7.7063 µg/L	7.7063 ppb	17:04:13
3	Na 589.592 Radial†	762.5	200.4	65.960 µg/L	65.960 ppb	17:03:53
3	Sr 421.552†	41.6	1.0	0.0099 µg/L	0.0099 ppb	17:03:53
3	Sc 361.383	1996457.8	1996457.8	104.54 %		17:05:28
3	Y 371.029	1367454.7	1367454.7	104.39 %		17:05:28
3	Ag 328.068†	-552.2	36.3	0.2878 µg/L	0.2878 ppb	17:05:33
3	As 188.979†	-1.4	-2.4	-4.7806 µg/L	-4.7806 ppb	17:05:54
3	B 249.677†	316.6	-28.6	-1.2466 µg/L	-1.2466 ppb	17:05:54
3	Ba 233.527†	-26.5	0.6	0.0163 µg/L	0.0163 ppb	17:05:54
3	Be 313.107†	-3498.2	94.1	0.0615 µg/L	0.0615 ppb	17:05:33
3	Cd 226.502†	-139.5	8.7	0.2407 µg/L	0.2407 ppb	17:05:54
3	Co 228.616†	-2.0	6.9	0.3417 µg/L	0.3417 ppb	17:05:54
3	Cr 267.716†	-37.2	16.7	0.3684 µg/L	0.3684 ppb	17:05:54
3	Cu 324.752†	2465.1	-128.0	-0.8950 µg/L	-0.8950 ppb	17:05:33
3	Mn 257.610†	-235.5	18.8	0.0637 µg/L	0.0637 ppb	17:05:54
3	Mo 202.031†	0.7	8.2	0.8795 µg/L	0.8795 ppb	17:05:54
3	Ni 231.604†	298.8	-16.4	-0.8963 µg/L	-0.8963 ppb	17:05:54
3	P 214.914†	31.0	2.0	4.4888 µg/L	4.4888 ppb	17:05:54
3	Pb 220.353†	112.9	10.8	2.8917 µg/L	2.8917 ppb	17:05:54
3	S 181.975 Axial†	16.6	1.1	4.7192 µg/L	4.7192 ppb	17:05:54
3	Sb 206.836†	24.2	-3.9	-3.7807 µg/L	-3.7807 ppb	17:05:54
3	Se 196.026†	10.9	-5.4	-8.2970 µg/L	-8.2970 ppb	17:05:54
3	SiO2†	1240.9	-63.0	-13.561 µg/L	-13.561 ppb	17:05:33
3	Si 251.611†	299.0	-26.9	-2.2074 µg/L	-2.2074 ppb	17:05:54
3	Sn 189.927†	0.3	1.1	0.5288 µg/L	0.5288 ppb	17:05:54
3	Ti 334.940†	59.1	-59.6	-0.1438 µg/L	-0.1438 ppb	17:05:33
3	Tl 190.801†	-24.5	0.9	1.2389 µg/L	1.2389 ppb	17:05:54
3	U 409.014†	-14.3	40.0	3.6190 µg/L	3.6190 ppb	17:05:33
3	V 292.402†	-38.2	7.6	0.0916 µg/L	0.0916 ppb	17:05:33
3	Zn 213.857†	475.0	-21.1	-0.5227 µg/L	-0.5227 ppb	17:05:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012821.6	105.39	%	0.858				0.81%
Sc RADIAL	56304.4	103	%	0.4				0.39%
Y 371.029	1377998.2	105.20	%	0.821				0.78%
Ag 328.068†	19.7	0.1572	µg/L	0.11730	0.1572	ppb	0.11730	74.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.1	-0.8207	µg/L	14.45235	-0.8207	ppb	14.45235	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-2.0804	µg/L	3.52609	-2.0804	ppb	3.52609	169.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-30.5	-1.3329	µg/L	0.24603	-1.3329	ppb	0.24603	18.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0547	µg/L	0.06331	0.0547	ppb	0.06331	115.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.3	0.0426	µg/L	0.02720	0.0426	ppb	0.02720	63.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	9.0232	µg/L	2.68752	9.0232	ppb	2.68752	29.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.7	0.1549	µg/L	0.15521	0.1549	ppb	0.15521	100.22%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.5	-0.1230	µg/L	0.44196	-0.1230	ppb	0.44196	359.31%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              10.1      0.2228 µg/L       0.13336      0.2228 ppb        0.13336  59.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -138.9     -0.9698 µg/L       0.08678     -0.9698 ppb        0.08678   8.95%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      2.3437 µg/L      14.27846      2.3437 ppb       14.27846 609.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        38.9     27.645 µg/L       22.7308     27.645 ppb        22.7308  82.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1     19.874 µg/L       17.5054     19.874 ppb        17.5054  88.08%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.6      0.0396 µg/L       0.02217      0.0396 ppb        0.02217  55.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.0      0.5297 µg/L       0.32865      0.5297 ppb        0.32865  62.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      212.1     69.819 µg/L        4.7822     69.819 ppb         4.7822   6.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -16.7     -0.9128 µg/L       0.03120     -0.9128 ppb        0.03120   3.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.7      1.6710 µg/L       7.05748      1.6710 ppb        7.05748 422.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.5      0.1472 µg/L       2.42781      0.1472 ppb        2.42781 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.3     14.607 µg/L        8.5775     14.607 ppb         8.5775  58.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.1     -3.0247 µg/L       1.14085     -3.0247 ppb        1.14085  37.72%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.9     -6.0037 µg/L       4.36372     -6.0037 ppb        4.36372  72.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -70.3    -15.131 µg/L        3.1599     -15.131 ppb         3.1599  20.88%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -35.6     -2.9252 µg/L       0.67407     -2.9252 ppb        0.67407  23.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.2671 µg/L       0.95712     -0.2671 ppb        0.95712 358.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -0.4     -0.0043 µg/L       0.06861     -0.0043 ppb        0.06861 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -4.5     -0.0122 µg/L       0.11438     -0.0122 ppb        0.11438 935.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.9      4.0021 µg/L       2.43930      4.0021 ppb        2.43930  60.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                5.9      0.5309 µg/L       2.68081      0.5309 ppb        2.68081 504.91%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               11.1      0.1233 µg/L       0.19295      0.1233 ppb        0.19295 156.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.0     -0.5458 µg/L       0.02154     -0.5458 ppb        0.02154   3.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 17:27:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	59035.7	59035.7	108	%			17:28:20
1	Al 396.153Radial†	6783.5	6281.0	4671.2	µg/L	4671.2	ppb	17:28:41
1	Ca 317.933Radial†	5601.2	4998.8	4706.7	µg/L	4706.7	ppb	17:28:41
1	Fe 238.204 Radial†	616.0	555.0	4714.2	µg/L	4714.2	ppb	17:28:41
1	K 766.490 Radial†	7145.2	6476.8	4603.7	µg/L	4603.7	ppb	17:28:20
1	Mg 279.077 IEC†	569.6	515.2	4798.3	µg/L	4798.3	ppb	17:28:41
1	Na 589.592 Radial†	30872.0	27997.1	9216.7	µg/L	9216.7	ppb	17:28:20
1	Sr 421.552†	47604.8	43967.8	455.78	µg/L	455.78	ppb	17:28:20
1	Sc 361.383	2041194.6	2041194.6	106.88	%			17:29:44
1	Y 371.029	1394791.7	1394791.7	106.48	%			17:29:44
1	Ag 328.068†	63072.7	59578.4	476.23	µg/L	476.23	ppb	17:29:50
1	As 188.979†	267.6	249.3	486.27	µg/L	486.27	ppb	17:30:10
1	B 249.677†	11989.2	10886.2	474.07	µg/L	474.07	ppb	17:29:50
1	Ba 233.527†	19747.0	18502.3	482.64	µg/L	482.64	ppb	17:29:50
1	Be 313.107†	767703.3	721740.7	471.16	µg/L	471.16	ppb	17:29:44
1	Cd 226.502†	18704.8	17643.2	486.70	µg/L	486.70	ppb	17:29:50
1	Co 228.616†	10605.3	9931.7	488.25	µg/L	488.25	ppb	17:29:50
1	Cr 267.716†	23632.0	22163.6	487.82	µg/L	487.82	ppb	17:29:50
1	Cu 324.752†	76228.6	68837.1	481.50	µg/L	481.50	ppb	17:29:50
1	Mn 257.610†	148178.1	138886.7	481.38	µg/L	481.38	ppb	17:29:44
1	Mo 202.031†	4955.0	4643.6	495.75	µg/L	495.75	ppb	17:30:10
1	Ni 231.604†	9868.1	8930.9	487.78	µg/L	487.78	ppb	17:29:50
1	P 214.914†	1270.5	1161.1	2447.3	µg/L	2447.3	ppb	17:30:10
1	Pb 220.353†	2082.6	1851.4	494.18	µg/L	494.18	ppb	17:30:10
1	S 181.975 Axial†	249.9	219.0	959.68	µg/L	959.68	ppb	17:30:10
1	Sb 206.836†	563.4	500.2	494.49	µg/L	494.49	ppb	17:30:10
1	Se 196.026†	362.5	323.3	500.24	µg/L	500.24	ppb	17:30:10
1	SiO2†	26645.9	23681.2	5099.9	µg/L	5099.9	ppb	17:29:50
1	Si 251.611†	31439.9	29103.8	2392.5	µg/L	2392.5	ppb	17:29:50
1	Sn 189.927†	1158.8	1085.1	499.11	µg/L	499.11	ppb	17:30:10
1	Ti 334.940†	206788.8	193365.5	464.82	µg/L	464.82	ppb	17:29:44
1	Tl 190.801†	353.5	355.1	501.20	µg/L	501.20	ppb	17:30:10
1	U 409.014†	5796.1	5476.7	494.90	µg/L	494.90	ppb	17:29:50
1	V 292.402†	48354.5	45287.0	488.65	µg/L	488.65	ppb	17:29:50
1	Zn 213.857†	21383.2	19531.6	484.30	µg/L	484.30	ppb	17:29:50
2	Sc RADIAL	57479.6	57479.6	105	%			17:28:46
2	Al 396.153Radial†	6775.5	6443.2	4792.2	µg/L	4792.2	ppb	17:29:07
2	Ca 317.933Radial†	5568.2	5107.6	4809.2	µg/L	4809.2	ppb	17:29:07
2	Fe 238.204 Radial†	613.4	567.9	4823.2	µg/L	4823.2	ppb	17:29:07
2	K 766.490 Radial†	7368.3	6867.5	4881.4	µg/L	4881.4	ppb	17:28:46
2	Mg 279.077 IEC†	569.1	529.1	4927.1	µg/L	4927.1	ppb	17:29:07
2	Na 589.592 Radial†	31686.3	29543.0	9725.6	µg/L	9725.6	ppb	17:28:46
2	Sr 421.552†	49060.1	46540.9	482.45	µg/L	482.45	ppb	17:28:46
2	Sc 361.383	2046028.0	2046028.0	107.13	%			17:30:18
2	Y 371.029	1397859.6	1397859.6	106.71	%			17:30:18
2	Ag 328.068†	62181.8	58607.4	468.48	µg/L	468.48	ppb	17:30:23
2	As 188.979†	270.5	251.3	490.33	µg/L	490.33	ppb	17:30:44
2	B 249.677†	11883.0	10760.6	468.51	µg/L	468.51	ppb	17:30:23
2	Ba 233.527†	19447.6	18179.1	474.21	µg/L	474.21	ppb	17:30:23
2	Be 313.107†	766991.4	719379.3	469.62	µg/L	469.62	ppb	17:30:18
2	Cd 226.502†	18417.3	17333.6	478.14	µg/L	478.14	ppb	17:30:23
2	Co 228.616†	10411.2	9727.0	478.18	µg/L	478.18	ppb	17:30:23
2	Cr 267.716†	23232.1	21738.1	478.45	µg/L	478.45	ppb	17:30:23
2	Cu 324.752†	75095.1	67610.5	472.94	µg/L	472.94	ppb	17:30:23
2	Mn 257.610†	147694.9	138108.1	478.69	µg/L	478.69	ppb	17:30:18
2	Mo 202.031†	4924.2	4604.0	491.52	µg/L	491.52	ppb	17:30:44
2	Ni 231.604†	9689.5	8742.4	477.48	µg/L	477.48	ppb	17:30:23
2	P 214.914†	1255.9	1144.7	2412.6	µg/L	2412.6	ppb	17:30:44
2	Pb 220.353†	2059.1	1824.8	487.10	µg/L	487.10	ppb	17:30:44

2	S 181.975 Axial†	252.0	220.4	965.86 µg/L	965.86 ppb	17:30:44
2	Sb 206.836†	552.5	488.7	483.25 µg/L	483.25 ppb	17:30:44
2	Se 196.026†	360.1	320.3	495.71 µg/L	495.71 ppb	17:30:44
2	SiO2†	26270.0	23271.4	5011.6 µg/L	5011.6 ppb	17:30:23
2	Si 251.611†	31001.1	28624.7	2353.1 µg/L	2353.1 ppb	17:30:23
2	Sn 189.927†	1147.6	1072.1	493.14 µg/L	493.14 ppb	17:30:44
2	Ti 334.940†	206329.6	192479.8	462.68 µg/L	462.68 ppb	17:30:18
2	Tl 190.801†	343.3	344.8	486.80 µg/L	486.80 ppb	17:30:44
2	U 409.014†	5690.4	5365.3	484.79 µg/L	484.79 ppb	17:30:23
2	V 292.402†	47623.9	44498.2	480.19 µg/L	480.19 ppb	17:30:23
2	Zn 213.857†	21043.3	19167.1	475.24 µg/L	475.24 ppb	17:30:23
3	Sc RADIAL	58545.2	58545.2	107 %		17:29:12
3	Al 396.153Radial†	6838.5	6384.8	4750.3 µg/L	4750.3 ppb	17:29:33
3	Ca 317.933Radial†	5643.2	5081.3	4784.4 µg/L	4784.4 ppb	17:29:33
3	Fe 238.204 Radial†	621.5	564.8	4796.6 µg/L	4796.6 ppb	17:29:33
3	K 766.490 Radial†	7265.1	6643.9	4722.5 µg/L	4722.5 ppb	17:29:12
3	Mg 279.077 IEC†	574.9	524.6	4884.3 µg/L	4884.3 ppb	17:29:33
3	Na 589.592 Radial†	31113.3	28461.2	9369.5 µg/L	9369.5 ppb	17:29:12
3	Sr 421.552†	48089.7	44788.5	464.29 µg/L	464.29 ppb	17:29:12
3	Sc 361.383	2017377.3	2017377.3	105.63 %		17:30:51
3	Y 371.029	1378304.1	1378304.1	105.22 %		17:30:51
3	Ag 328.068†	59471.1	56865.5	454.46 µg/L	454.46 ppb	17:30:57
3	As 188.979†	229.9	216.5	422.47 µg/L	422.47 ppb	17:31:17
3	B 249.677†	11339.4	10403.4	452.85 µg/L	452.85 ppb	17:30:57
3	Ba 233.527†	18247.7	17301.0	451.29 µg/L	451.29 ppb	17:30:57
3	Be 313.107†	738207.7	702297.7	458.47 µg/L	458.47 ppb	17:30:51
3	Cd 226.502†	17185.8	16411.8	452.68 µg/L	452.68 ppb	17:30:57
3	Co 228.616†	9649.4	9143.9	449.43 µg/L	449.43 ppb	17:30:57
3	Cr 267.716†	20989.9	19923.4	438.52 µg/L	438.52 ppb	17:30:57
3	Cu 324.752†	69862.4	63652.3	445.29 µg/L	445.29 ppb	17:30:57
3	Mn 257.610†	142669.2	135308.3	469.00 µg/L	469.00 ppb	17:30:51
3	Mo 202.031†	4082.7	3872.6	413.47 µg/L	413.47 ppb	17:31:17
3	Ni 231.604†	8980.8	8199.9	447.86 µg/L	447.86 ppb	17:30:57
3	P 214.914†	1067.7	983.2	2067.7 µg/L	2067.7 ppb	17:31:17
3	Pb 220.353†	1798.7	1605.6	428.46 µg/L	428.46 ppb	17:31:17
3	S 181.975 Axial†	223.6	196.9	862.47 µg/L	862.47 ppb	17:31:17
3	Sb 206.836†	480.2	427.6	422.29 µg/L	422.29 ppb	17:31:17
3	Se 196.026†	311.3	278.8	432.49 µg/L	432.49 ppb	17:31:17
3	SiO2†	24862.0	22286.7	4799.6 µg/L	4799.6 ppb	17:30:57
3	Si 251.611†	29262.2	27389.5	2251.6 µg/L	2251.6 ppb	17:30:57
3	Sn 189.927†	942.0	892.7	410.61 µg/L	410.61 ppb	17:31:17
3	Ti 334.940†	197920.3	187254.0	450.12 µg/L	450.12 ppb	17:30:51
3	Tl 190.801†	315.4	322.9	456.18 µg/L	456.18 ppb	17:31:17
3	U 409.014†	5127.6	4907.9	443.39 µg/L	443.39 ppb	17:30:57
3	V 292.402†	43917.4	41620.5	448.79 µg/L	448.79 ppb	17:30:57
3	Zn 213.857†	19595.2	18075.2	448.15 µg/L	448.15 ppb	17:30:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2034866.6	106.55	%	0.803				0.75%
Sc RADIAL	58353.5	107	%	1.5				1.36%
Y 371.029	1390318.5	106.14	%	0.803				0.76%
Ag 328.068†	58350.4	466.39	µg/L	11.039	466.39	ppb	11.039	2.37%
QC value within limits for Ag 328.068 Recovery = 93.28%								
Al 396.153Radial†	6369.7	4737.9	µg/L	61.46	4737.9	ppb	61.46	1.30%
QC value within limits for Al 396.153Radial Recovery = 94.76%								
As 188.979†	239.1	466.36	µg/L	38.059	466.36	ppb	38.059	8.16%
QC value within limits for As 188.979 Recovery = 93.27%								
B 249.677†	10683.4	465.15	µg/L	11.003	465.15	ppb	11.003	2.37%
QC value within limits for B 249.677 Recovery = 93.03%								
Ba 233.527†	17994.1	469.38	µg/L	16.223	469.38	ppb	16.223	3.46%
QC value within limits for Ba 233.527 Recovery = 93.88%								
Be 313.107†	714472.6	466.42	µg/L	6.926	466.42	ppb	6.926	1.48%
QC value within limits for Be 313.107 Recovery = 93.28%								
Ca 317.933Radial†	5062.6	4766.7	µg/L	53.48	4766.7	ppb	53.48	1.12%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17129.5	472.51	µg/L	17.696	472.51	ppb	17.696	3.75%
QC value within limits for Cd 226.502 Recovery = 94.50%								
Co 228.616†	9600.9	471.95	µg/L	20.142	471.95	ppb	20.142	4.27%

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   QC value within limits for Co 228.616  Recovery = 94.39%
Cr 267.716†            21275.0      468.26 µg/L        26.182      468.26 ppb        26.182   5.59%
   QC value within limits for Cr 267.716  Recovery = 93.65%
Cu 324.752†            66699.9      466.58 µg/L        18.924      466.58 ppb        18.924   4.06%
   QC value within limits for Cu 324.752  Recovery = 93.32%
Fe 238.204 Radial†       562.6      4778.0 µg/L         56.85      4778.0 ppb         56.85   1.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.56%
K 766.490 Radial†       6662.7      4735.8 µg/L        139.33      4735.8 ppb        139.33   2.94%
   QC value within limits for K 766.490 Radial  Recovery = 94.72%
Mg 279.077 IEC†          523.0      4869.9 µg/L         65.60      4869.9 ppb         65.60   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†           137434.4      476.36 µg/L         6.514      476.36 ppb         6.514   1.37%
   QC value within limits for Mn 257.610  Recovery = 95.27%
Mo 202.031†             4373.4      466.91 µg/L        46.335      466.91 ppb        46.335   9.92%
   QC value within limits for Mo 202.031  Recovery = 93.38%
Na 589.592 Radial†     28667.1      9437.3 µg/L        261.13      9437.3 ppb        261.13   2.77%
   QC value within limits for Na 589.592 Radial  Recovery = 94.37%
Ni 231.604†             8624.4      471.04 µg/L        20.725      471.04 ppb        20.725   4.40%
   QC value within limits for Ni 231.604  Recovery = 94.21%
P 214.914†              1096.3      2309.2 µg/L        209.89      2309.2 ppb        209.89   9.09%
   QC value within limits for P 214.914  Recovery = 92.37%
Pb 220.353†             1760.6      469.91 µg/L        36.070      469.91 ppb        36.070   7.68%
   QC value within limits for Pb 220.353  Recovery = 93.98%
S 181.975 Axial†         212.1      929.34 µg/L        57.991      929.34 ppb        57.991   6.24%
   QC value within limits for S 181.975 Axial  Recovery = 92.93%
Sb 206.836†              472.2      466.68 µg/L        38.846      466.68 ppb        38.846   8.32%
   QC value within limits for Sb 206.836  Recovery = 93.34%
Se 196.026†              307.5      476.15 µg/L        37.872      476.15 ppb        37.872   7.95%
   QC value within limits for Se 196.026  Recovery = 95.23%
SiO2†                  23079.8      4970.4 µg/L        154.36      4970.4 ppb        154.36   3.11%
   QC value within limits for SiO2  Recovery = 92.95%
Si 251.611†            28372.7      2332.4 µg/L         72.71      2332.4 ppb         72.71   3.12%
   QC value within limits for Si 251.611  Recovery = 93.30%
Sn 189.927†             1016.6      467.62 µg/L        49.463      467.62 ppb        49.463  10.58%
   QC value within limits for Sn 189.927  Recovery = 93.52%
Sr 421.552†            45099.0      467.50 µg/L        13.625      467.50 ppb        13.625   2.91%
   QC value within limits for Sr 421.552  Recovery = 93.50%
Ti 334.940†           191033.1      459.21 µg/L         7.946      459.21 ppb         7.946   1.73%
   QC value within limits for Ti 334.940  Recovery = 91.84%
Tl 190.801†              340.9      481.40 µg/L        22.992      481.40 ppb        22.992   4.78%
   QC value within limits for Tl 190.801  Recovery = 96.28%
U 409.014†              5250.0      474.36 µg/L        27.295      474.36 ppb        27.295   5.75%
   QC value within limits for U 409.014  Recovery = 94.87%
V 292.402†             43801.9      472.54 µg/L        21.006      472.54 ppb        21.006   4.45%
   QC value within limits for V 292.402  Recovery = 94.51%
Zn 213.857†            18924.6      469.23 µg/L        18.806      469.23 ppb        18.806   4.01%
   QC value within limits for Zn 213.857  Recovery = 93.85%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 17:31:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57249.4	57249.4	105	%			17:32:01
1	Al 396.153Radial†	-19.1	-8.1	-6.0314	µg/L	-6.0314	ppb	17:32:01
1	Ca 317.933Radial†	186.6	-1.3	-1.1941	µg/L	-1.1941	ppb	17:32:21
1	Fe 238.204 Radial†	16.2	0.9	8.0275	µg/L	8.0275	ppb	17:32:21
1	K 766.490 Radial†	205.8	67.8	48.166	µg/L	48.166	ppb	17:32:01
1	Mg 279.077 IEC†	11.8	-0.0	-0.3578	µg/L	-0.3578	ppb	17:32:21
1	Na 589.592 Radial†	713.1	137.9	45.390	µg/L	45.390	ppb	17:32:01
1	Sr 421.552†	47.1	5.3	0.0553	µg/L	0.0553	ppb	17:32:01
1	Sc 361.383	2021263.0	2021263.0	105.83	%			17:33:23
1	Y 371.029	1385458.4	1385458.4	105.77	%			17:33:23
1	Ag 328.068†	-548.3	46.5	0.3696	µg/L	0.3696	ppb	17:33:29
1	As 188.979†	-3.1	-4.1	-8.0437	µg/L	-8.0437	ppb	17:33:50
1	B 249.677†	328.8	-20.8	-0.9109	µg/L	-0.9109	ppb	17:33:50
1	Ba 233.527†	-23.9	3.4	0.0895	µg/L	0.0895	ppb	17:33:50
1	Be 313.107†	-3534.2	101.1	0.0660	µg/L	0.0660	ppb	17:33:29
1	Cd 226.502†	-135.6	14.0	0.3833	µg/L	0.3833	ppb	17:33:50
1	Co 228.616†	-7.8	1.5	0.0715	µg/L	0.0715	ppb	17:33:50
1	Cr 267.716†	-39.7	14.9	0.3275	µg/L	0.3275	ppb	17:33:29
1	Cu 324.752†	2441.6	-179.0	-1.2495	µg/L	-1.2495	ppb	17:33:29
1	Mn 257.610†	-227.7	28.9	0.1013	µg/L	0.1013	ppb	17:33:50
1	Mo 202.031†	-11.3	-3.1	-0.3352	µg/L	-0.3352	ppb	17:33:50
1	Ni 231.604†	297.1	-21.4	-1.1721	µg/L	-1.1721	ppb	17:33:50
1	P 214.914†	29.1	-0.1	-0.1206	µg/L	-0.1206	ppb	17:33:50
1	Pb 220.353†	93.1	-9.2	-2.4716	µg/L	-2.4716	ppb	17:33:50
1	S 181.975 Axial†	17.0	1.2	5.2600	µg/L	5.2600	ppb	17:33:50
1	Sb 206.836†	21.2	-7.0	-6.8579	µg/L	-6.8579	ppb	17:33:50
1	Se 196.026†	17.1	0.4	0.5587	µg/L	0.5587	ppb	17:33:50
1	SiO2†	1257.7	-61.7	-13.286	µg/L	-13.286	ppb	17:33:29
1	Si 251.611†	315.2	-15.0	-1.2350	µg/L	-1.2350	ppb	17:33:50
1	Sn 189.927†	-0.7	0.2	0.0875	µg/L	0.0875	ppb	17:33:50
1	Ti 334.940†	99.4	-22.2	-0.0533	µg/L	-0.0533	ppb	17:33:29
1	Tl 190.801†	-25.0	0.6	0.8769	µg/L	0.8769	ppb	17:33:50
1	U 409.014†	-2.8	50.9	4.6107	µg/L	4.6107	ppb	17:33:29
1	V 292.402†	-42.3	4.3	0.0496	µg/L	0.0496	ppb	17:33:29
1	Zn 213.857†	478.9	-23.0	-0.5682	µg/L	-0.5682	ppb	17:33:50
2	Sc RADIAL	57058.0	57058.0	105	%			17:32:27
2	Al 396.153Radial†	-2.2	8.1	5.9887	µg/L	5.9887	ppb	17:32:27
2	Ca 317.933Radial†	185.4	-1.8	-1.6973	µg/L	-1.6973	ppb	17:32:47
2	Fe 238.204 Radial†	16.9	1.6	13.808	µg/L	13.808	ppb	17:32:47
2	K 766.490 Radial†	159.2	23.8	16.947	µg/L	16.947	ppb	17:32:27
2	Mg 279.077 IEC†	16.4	4.4	41.355	µg/L	41.355	ppb	17:32:47
2	Na 589.592 Radial†	724.2	150.8	49.634	µg/L	49.634	ppb	17:32:27
2	Sr 421.552†	-4.4	-43.8	-0.4540	µg/L	-0.4540	ppb	17:32:27
2	Sc 361.383	2001081.9	2001081.9	104.78	%			17:33:56
2	Y 371.029	1372125.9	1372125.9	104.75	%			17:33:56
2	Ag 328.068†	-553.2	36.5	0.2946	µg/L	0.2946	ppb	17:34:01
2	As 188.979†	-0.6	-1.7	-3.3761	µg/L	-3.3761	ppb	17:34:22
2	B 249.677†	320.5	-25.5	-1.1231	µg/L	-1.1231	ppb	17:34:22
2	Ba 233.527†	-11.0	15.5	0.4048	µg/L	0.4048	ppb	17:34:22
2	Be 313.107†	-3526.3	74.9	0.0489	µg/L	0.0489	ppb	17:34:01
2	Cd 226.502†	-133.8	14.4	0.3950	µg/L	0.3950	ppb	17:34:22
2	Co 228.616†	-11.0	-1.6	-0.0801	µg/L	-0.0801	ppb	17:34:22
2	Cr 267.716†	-44.3	10.1	0.2231	µg/L	0.2231	ppb	17:34:01
2	Cu 324.752†	2455.1	-143.0	-0.9967	µg/L	-0.9967	ppb	17:34:01
2	Mn 257.610†	-230.3	24.3	0.0842	µg/L	0.0842	ppb	17:34:22
2	Mo 202.031†	-2.3	5.3	0.5710	µg/L	0.5710	ppb	17:34:22
2	Ni 231.604†	304.4	-11.7	-0.6402	µg/L	-0.6402	ppb	17:34:22
2	P 214.914†	29.3	0.4	0.8548	µg/L	0.8548	ppb	17:34:22
2	Pb 220.353†	101.4	-0.5	-0.1165	µg/L	-0.1165	ppb	17:34:22

2	S 181.975 Axial†	19.4	3.7	16.024 µg/L	16.024 ppb	17:34:22
2	Sb 206.836†	27.6	-0.6	-0.5726 µg/L	-0.5726 ppb	17:34:22
2	Se 196.026†	16.9	0.3	0.5139 µg/L	0.5139 ppb	17:34:22
2	SiO2†	1231.1	-75.1	-16.163 µg/L	-16.163 ppb	17:34:01
2	Si 251.611†	308.3	-18.6	-1.5330 µg/L	-1.5330 ppb	17:34:22
2	Sn 189.927†	-2.5	-1.5	-0.6783 µg/L	-0.6783 ppb	17:34:22
2	Ti 334.940†	155.7	32.5	0.0749 µg/L	0.0749 ppb	17:34:01
2	Tl 190.801†	-24.6	0.8	1.0677 µg/L	1.0677 ppb	17:34:22
2	U 409.014†	-70.7	-13.8	-1.2553 µg/L	-1.2553 ppb	17:34:01
2	V 292.402†	13.1	56.7	0.6099 µg/L	0.6099 ppb	17:34:01
2	Zn 213.857†	482.3	-15.3	-0.3800 µg/L	-0.3800 ppb	17:34:22
3	Sc RADIAL	57391.7	57391.7	105 %		17:32:53
3	Al 396.153Radial†	-24.1	-12.7	-9.5161 µg/L	-9.5161 ppb	17:32:53
3	Ca 317.933Radial†	189.2	0.7	0.6854 µg/L	0.6854 ppb	17:33:13
3	Fe 238.204 Radial†	14.2	-1.0	-8.3318 µg/L	-8.3318 ppb	17:33:13
3	K 766.490 Radial†	170.0	33.2	23.601 µg/L	23.601 ppb	17:32:53
3	Mg 279.077 IEC†	13.6	1.6	15.113 µg/L	15.113 ppb	17:33:13
3	Na 589.592 Radial†	706.7	130.1	42.833 µg/L	42.833 ppb	17:32:53
3	Sr 421.552†	21.4	-19.2	-0.1993 µg/L	-0.1993 ppb	17:32:53
3	Sc 361.383	2035877.5	2035877.5	106.60 %		17:34:28
3	Y 371.029	1396783.1	1396783.1	106.63 %		17:34:28
3	Ag 328.068†	-558.0	41.1	0.3273 µg/L	0.3273 ppb	17:34:33
3	As 188.979†	-5.7	-6.5	-12.714 µg/L	-12.714 ppb	17:34:54
3	B 249.677†	310.2	-40.5	-1.7628 µg/L	-1.7628 ppb	17:34:54
3	Ba 233.527†	-23.8	3.7	0.0975 µg/L	0.0975 ppb	17:34:54
3	Be 313.107†	-3295.5	348.9	0.2278 µg/L	0.2278 ppb	17:34:33
3	Cd 226.502†	-134.4	16.1	0.4439 µg/L	0.4439 ppb	17:34:54
3	Co 228.616†	-16.8	-6.9	-0.3385 µg/L	-0.3385 ppb	17:34:54
3	Cr 267.716†	-31.9	22.4	0.4933 µg/L	0.4933 ppb	17:34:33
3	Cu 324.752†	2431.1	-205.5	-1.4364 µg/L	-1.4364 ppb	17:34:33
3	Mn 257.610†	-224.1	33.9	0.1156 µg/L	0.1156 ppb	17:34:54
3	Mo 202.031†	2.2	9.6	1.0266 µg/L	1.0266 ppb	17:34:54
3	Ni 231.604†	311.7	-9.8	-0.5337 µg/L	-0.5337 ppb	17:34:54
3	P 214.914†	26.4	-2.8	-5.9346 µg/L	-5.9346 ppb	17:34:54
3	Pb 220.353†	98.3	-5.0	-1.3370 µg/L	-1.3370 ppb	17:34:54
3	S 181.975 Axial†	14.7	-1.0	-4.4979 µg/L	-4.4979 ppb	17:34:54
3	Sb 206.836†	25.7	-2.9	-2.8125 µg/L	-2.8125 ppb	17:34:54
3	Se 196.026†	12.1	-4.5	-6.8217 µg/L	-6.8217 ppb	17:34:54
3	SiO2†	1207.8	-117.0	-25.202 µg/L	-25.202 ppb	17:34:33
3	Si 251.611†	320.7	-12.0	-0.9854 µg/L	-0.9854 ppb	17:34:54
3	Sn 189.927†	3.6	4.2	1.9540 µg/L	1.9540 ppb	17:34:54
3	Ti 334.940†	152.2	26.6	0.0629 µg/L	0.0629 ppb	17:34:33
3	Tl 190.801†	-31.1	-4.8	-6.7573 µg/L	-6.7573 ppb	17:34:54
3	U 409.014†	18.4	70.9	6.4223 µg/L	6.4223 ppb	17:34:33
3	V 292.402†	-21.9	23.7	0.2672 µg/L	0.2672 ppb	17:34:33
3	Zn 213.857†	481.8	-23.6	-0.5847 µg/L	-0.5847 ppb	17:34:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	2019407.5	105.74	%	0.915				0.87%
Sc RADIAL	57233.0	105	%	0.3				0.29%
Y 371.029	1384789.1	105.72	%	0.942				0.89%
Ag 328.068†	41.4	0.3305	µg/L	0.03757	0.3305	ppb	0.03757	11.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.3	-3.1863	µg/L	8.13450	-3.1863	ppb	8.13450	255.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-8.0447	µg/L	4.66908	-8.0447	ppb	4.66908	58.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-28.9	-1.2656	µg/L	0.44348	-1.2656	ppb	0.44348	35.04%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.1973	µg/L	0.17977	0.1973	ppb	0.17977	91.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	175.0	0.1143	µg/L	0.09874	0.1143	ppb	0.09874	86.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.8	-0.7353	µg/L	1.25585	-0.7353	ppb	1.25585	170.79%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.8	0.4074	µg/L	0.03216	0.4074	ppb	0.03216	7.89%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-2.4	-0.1157	µg/L	0.20732	-0.1157	ppb	0.20732	179.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.8      0.3480 µg/L       0.13629      0.3480 ppb        0.13629  39.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -175.8     -1.2276 µg/L       0.22068     -1.2276 ppb        0.22068  17.98%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.5      4.5012 µg/L      11.48343      4.5012 ppb       11.48343 255.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        41.6      29.571 µg/L       16.4438      29.571 ppb        16.4438  55.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.0      18.703 µg/L       21.0870      18.703 ppb        21.0870 112.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              29.0      0.1004 µg/L       0.01570      0.1004 ppb        0.01570  15.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.9      0.4208 µg/L       0.69318      0.4208 ppb        0.69318 164.72%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       139.6      45.952 µg/L        3.4354      45.952 ppb         3.4354   7.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.3     -0.7820 µg/L       0.34199     -0.7820 ppb        0.34199  43.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.9     -1.7335 µg/L       3.67082     -1.7335 ppb        3.67082 211.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.9     -1.3084 µg/L       1.17784     -1.3084 ppb        1.17784  90.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.3      5.5955 µg/L      10.26528      5.5955 ppb       10.26528 183.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.5     -3.4143 µg/L       3.18555     -3.4143 ppb        3.18555  93.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3     -1.9164 µg/L       4.24816     -1.9164 ppb        4.24816 221.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -84.6     -18.217 µg/L        6.2180     -18.217 ppb         6.2180  34.13%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -15.2     -1.2511 µg/L       0.27411     -1.2511 ppb        0.27411  21.91%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.0      0.4544 µg/L       1.35398      0.4544 ppb        1.35398 297.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -19.2     -0.1993 µg/L       0.25463     -0.1993 ppb        0.25463 127.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              12.3      0.0282 µg/L       0.07081      0.0282 ppb        0.07081 251.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.2     -1.6042 µg/L       4.46370     -1.6042 ppb        4.46370 278.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               36.0      3.2592 µg/L       4.01326      3.2592 ppb        4.01326 123.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               28.2      0.3089 µg/L       0.28245      0.3089 ppb        0.28245  91.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -20.6     -0.5110 µg/L       0.11370     -0.5110 ppb        0.11370  22.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:03:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57726.1	57726.1	106	%			18:04:22
1	Al 396.153Radial†	6766.7	6407.4	4765.2	µg/L	4765.2	ppb	18:04:22
1	Ca 317.933Radial†	5597.5	5112.8	4814.0	µg/L	4814.0	ppb	18:04:43
1	Fe 238.204 Radial†	618.0	569.7	4839.6	µg/L	4839.6	ppb	18:04:43
1	K 766.490 Radial†	7228.2	6705.1	4766.0	µg/L	4766.0	ppb	18:04:22
1	Mg 279.077 IEC†	567.3	525.0	4889.6	µg/L	4889.6	ppb	18:04:43
1	Na 589.592 Radial†	31079.1	28840.4	9494.4	µg/L	9494.4	ppb	18:04:22
1	Sr 421.552†	47930.5	45274.1	469.32	µg/L	469.32	ppb	18:04:22
1	Sc 361.383	1995865.2	1995865.2	104.50	%			18:05:46
1	Y 371.029	1362757.5	1362757.5	104.03	%			18:05:46
1	Ag 328.068†	63483.9	61312.1	490.10	µg/L	490.10	ppb	18:05:52
1	As 188.979†	273.1	260.2	507.53	µg/L	507.53	ppb	18:06:12
1	B 249.677†	12082.3	11230.0	489.06	µg/L	489.06	ppb	18:05:52
1	Ba 233.527†	19988.9	19153.3	499.62	µg/L	499.62	ppb	18:05:52
1	Be 313.107†	781981.3	751717.1	490.73	µg/L	490.73	ppb	18:05:46
1	Cd 226.502†	18909.7	18236.8	503.08	µg/L	503.08	ppb	18:05:52
1	Co 228.616†	10693.9	10241.8	503.48	µg/L	503.48	ppb	18:05:52
1	Cr 267.716†	23838.7	22863.6	503.22	µg/L	503.22	ppb	18:05:52
1	Cu 324.752†	76544.4	70759.2	494.94	µg/L	494.94	ppb	18:05:52
1	Mn 257.610†	150825.0	144568.3	501.07	µg/L	501.07	ppb	18:05:46
1	Mo 202.031†	4977.2	4770.3	509.27	µg/L	509.27	ppb	18:06:12
1	Ni 231.604†	9935.5	9205.0	502.75	µg/L	502.75	ppb	18:05:52
1	P 214.914†	1265.8	1183.6	2494.1	µg/L	2494.1	ppb	18:06:12
1	Pb 220.353†	2092.9	1905.5	508.60	µg/L	508.60	ppb	18:06:12
1	S 181.975 Axial†	254.0	228.2	999.80	µg/L	999.80	ppb	18:06:12
1	Sb 206.836†	555.5	504.6	498.91	µg/L	498.91	ppb	18:06:12
1	Se 196.026†	366.1	334.5	517.42	µg/L	517.42	ppb	18:06:12
1	SiO2†	26867.3	24459.3	5267.4	µg/L	5267.4	ppb	18:05:52
1	Si 251.611†	31625.0	29949.0	2462.0	µg/L	2462.0	ppb	18:05:52
1	Sn 189.927†	1151.3	1102.5	507.11	µg/L	507.11	ppb	18:06:12
1	Ti 334.940†	210462.3	201274.9	483.84	µg/L	483.84	ppb	18:05:46
1	Tl 190.801†	351.8	360.9	509.62	µg/L	509.62	ppb	18:06:12
1	U 409.014†	5780.2	5584.7	504.65	µg/L	504.65	ppb	18:05:52
1	V 292.402†	48773.6	46715.6	504.04	µg/L	504.04	ppb	18:05:52
1	Zn 213.857†	21610.6	20203.6	500.98	µg/L	500.98	ppb	18:05:52
2	Sc RADIAL	58137.3	58137.3	107	%			18:04:48
2	Al 396.153Radial†	6794.0	6387.8	4750.7	µg/L	4750.7	ppb	18:04:48
2	Ca 317.933Radial†	5592.3	5070.5	4774.2	µg/L	4774.2	ppb	18:05:09
2	Fe 238.204 Radial†	618.1	565.7	4805.7	µg/L	4805.7	ppb	18:05:09
2	K 766.490 Radial†	7287.3	6712.3	4771.1	µg/L	4771.1	ppb	18:04:48
2	Mg 279.077 IEC†	568.2	522.1	4862.2	µg/L	4862.2	ppb	18:05:09
2	Na 589.592 Radial†	31238.6	28782.3	9475.2	µg/L	9475.2	ppb	18:04:48
2	Sr 421.552†	48291.3	45292.3	469.51	µg/L	469.51	ppb	18:04:48
2	Sc 361.383	2007163.9	2007163.9	105.10	%			18:06:19
2	Y 371.029	1370434.0	1370434.0	104.62	%			18:06:19
2	Ag 328.068†	63627.6	61107.0	488.46	µg/L	488.46	ppb	18:06:25
2	As 188.979†	273.7	259.2	505.75	µg/L	505.75	ppb	18:06:46
2	B 249.677†	12114.9	11196.0	487.59	µg/L	487.59	ppb	18:06:25
2	Ba 233.527†	19979.9	19037.1	496.59	µg/L	496.59	ppb	18:06:25
2	Be 313.107†	784264.0	749676.9	489.40	µg/L	489.40	ppb	18:06:19
2	Cd 226.502†	18871.7	18098.7	499.27	µg/L	499.27	ppb	18:06:25
2	Co 228.616†	10694.5	10184.8	500.67	µg/L	500.67	ppb	18:06:25
2	Cr 267.716†	23892.4	22786.3	501.52	µg/L	501.52	ppb	18:06:25
2	Cu 324.752†	76884.7	70670.6	494.32	µg/L	494.32	ppb	18:06:25
2	Mn 257.610†	151108.1	144025.3	499.18	µg/L	499.18	ppb	18:06:19
2	Mo 202.031†	4921.9	4690.8	500.79	µg/L	500.79	ppb	18:06:46
2	Ni 231.604†	9959.3	9174.2	501.07	µg/L	501.07	ppb	18:06:25
2	P 214.914†	1267.5	1178.4	2483.0	µg/L	2483.0	ppb	18:06:46
2	Pb 220.353†	2074.4	1876.6	500.89	µg/L	500.89	ppb	18:06:46

2	S 181.975 Axial†	247.1	220.3	965.20 µg/L	965.20 ppb	18:06:46
2	Sb 206.836†	553.1	499.3	493.56 µg/L	493.56 ppb	18:06:46
2	Se 196.026†	362.2	328.8	508.76 µg/L	508.76 ppb	18:06:46
2	SiO2†	26954.0	24397.1	5254.0 µg/L	5254.0 ppb	18:06:25
2	Si 251.611†	31693.0	29843.4	2453.3 µg/L	2453.3 ppb	18:06:25
2	Sn 189.927†	1148.2	1093.4	502.92 µg/L	502.92 ppb	18:06:46
2	Ti 334.940†	211069.7	200719.2	482.51 µg/L	482.51 ppb	18:06:19
2	Tl 190.801†	350.2	357.5	504.86 µg/L	504.86 ppb	18:06:46
2	U 409.014†	5713.5	5490.1	496.10 µg/L	496.10 ppb	18:06:25
2	V 292.402†	48839.6	46515.7	501.83 µg/L	501.83 ppb	18:06:25
2	Zn 213.857†	21586.8	20064.5	497.52 µg/L	497.52 ppb	18:06:25
3	Sc RADIAL	57420.7	57420.7	105 %		18:05:14
3	Al 396.153Radial†	6887.1	6555.8	4877.6 µg/L	4877.6 ppb	18:05:14
3	Ca 317.933Radial†	5594.0	5137.6	4837.4 µg/L	4837.4 ppb	18:05:34
3	Fe 238.204 Radial†	619.5	574.3	4877.2 µg/L	4877.2 ppb	18:05:34
3	K 766.490 Radial†	7272.3	6783.4	4821.6 µg/L	4821.6 ppb	18:05:14
3	Mg 279.077 IEC†	569.6	530.1	4935.2 µg/L	4935.2 ppb	18:05:34
3	Na 589.592 Radial†	31447.7	29346.9	9661.1 µg/L	9661.1 ppb	18:05:14
3	Sr 421.552†	48895.8	46432.5	481.33 µg/L	481.33 ppb	18:05:14
3	Sc 361.383	2010251.9	2010251.9	105.26 %		18:06:53
3	Y 371.029	1371909.0	1371909.0	104.73 %		18:06:53
3	Ag 328.068†	59865.9	57440.1	459.05 µg/L	459.05 ppb	18:06:58
3	As 188.979†	229.2	216.7	422.67 µg/L	422.67 ppb	18:07:19
3	B 249.677†	11370.0	10470.6	455.76 µg/L	455.76 ppb	18:06:58
3	Ba 233.527†	18395.6	17502.7	456.55 µg/L	456.55 ppb	18:06:58
3	Be 313.107†	741644.3	708039.7	462.22 µg/L	462.22 ppb	18:06:53
3	Cd 226.502†	17275.3	16554.5	456.62 µg/L	456.62 ppb	18:06:58
3	Co 228.616†	9741.1	9263.3	455.31 µg/L	455.31 ppb	18:06:58
3	Cr 267.716†	21256.7	20247.3	445.64 µg/L	445.64 ppb	18:06:58
3	Cu 324.752†	70381.9	64380.2	450.39 µg/L	450.39 ppb	18:06:58
3	Mn 257.610†	143060.5	136158.7	471.95 µg/L	471.95 ppb	18:06:53
3	Mo 202.031†	4127.0	3928.4	419.43 µg/L	419.43 ppb	18:07:19
3	Ni 231.604†	9089.8	8333.5	455.16 µg/L	455.16 ppb	18:06:58
3	P 214.914†	1084.0	1002.2	2108.1 µg/L	2108.1 ppb	18:07:19
3	Pb 220.353†	1818.2	1630.2	435.03 µg/L	435.03 ppb	18:07:19
3	S 181.975 Axial†	224.4	198.4	869.26 µg/L	869.26 ppb	18:07:19
3	Sb 206.836†	480.4	429.5	424.14 µg/L	424.14 ppb	18:07:19
3	Se 196.026†	313.7	282.2	437.85 µg/L	437.85 ppb	18:07:19
3	SiO2†	25019.5	22519.8	4849.8 µg/L	4849.8 ppb	18:06:58
3	Si 251.611†	29405.8	27624.1	2270.8 µg/L	2270.8 ppb	18:06:58
3	Sn 189.927†	955.0	908.2	417.73 µg/L	417.73 ppb	18:07:19
3	Ti 334.940†	198942.9	188889.6	454.05 µg/L	454.05 ppb	18:06:53
3	Tl 190.801†	316.9	325.4	459.73 µg/L	459.73 ppb	18:07:19
3	U 409.014†	5179.0	4973.9	449.35 µg/L	449.35 ppb	18:06:58
3	V 292.402†	44254.0	42087.7	453.84 µg/L	453.84 ppb	18:06:58
3	Zn 213.857†	19673.0	18214.8	451.59 µg/L	451.59 ppb	18:06:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2004427.0	104.95	%	0.397				0.38%
Sc RADIAL	57761.4	106	%	0.7				0.62%
Y 371.029	1368366.8	104.46	%	0.375				0.36%
Ag 328.068†	59953.1	479.20	µg/L	17.470	479.20	ppb	17.470	3.65%
QC value within limits for Ag 328.068 Recovery = 95.84%								
Al 396.153Radial†	6450.3	4797.9	µg/L	69.48	4797.9	ppb	69.48	1.45%
QC value within limits for Al 396.153Radial Recovery = 95.96%								
As 188.979†	245.3	478.65	µg/L	48.486	478.65	ppb	48.486	10.13%
QC value within limits for As 188.979 Recovery = 95.73%								
B 249.677†	10965.6	477.47	µg/L	18.814	477.47	ppb	18.814	3.94%
QC value within limits for B 249.677 Recovery = 95.49%								
Ba 233.527†	18564.4	484.26	µg/L	24.039	484.26	ppb	24.039	4.96%
QC value within limits for Ba 233.527 Recovery = 96.85%								
Be 313.107†	736477.9	480.78	µg/L	16.091	480.78	ppb	16.091	3.35%
QC value within limits for Be 313.107 Recovery = 96.16%								
Ca 317.933Radial†	5106.9	4808.5	µg/L	31.95	4808.5	ppb	31.95	0.66%
QC value within limits for Ca 317.933Radial Recovery = 96.17%								
Cd 226.502†	17630.0	486.32	µg/L	25.796	486.32	ppb	25.796	5.30%
QC value within limits for Cd 226.502 Recovery = 97.26%								
Co 228.616†	9896.7	486.49	µg/L	27.038	486.49	ppb	27.038	5.56%

QC value within limits for Co 228.616 Recovery = 97.30%

Cr 267.716†	21965.7	483.46 µg/L	32.763	483.46 ppb	32.763	6.78%

QC value within limits for Cr 267.716 Recovery = 96.69%

Cu 324.752†	68603.3	479.88 µg/L	25.545	479.88 ppb	25.545	5.32%

QC value within limits for Cu 324.752 Recovery = 95.98%

Fe 238.204 Radial†	569.9	4840.8 µg/L	35.77	4840.8 ppb	35.77	0.74%

QC value within limits for Fe 238.204 Radial Recovery = 96.82%

K 766.490 Radial†	6733.6	4786.2 µg/L	30.77	4786.2 ppb	30.77	0.64%

QC value within limits for K 766.490 Radial Recovery = 95.72%

Mg 279.077 IEC†	525.8	4895.7 µg/L	36.85	4895.7 ppb	36.85	0.75%

QC value within limits for Mg 279.077 IEC Recovery = 97.91%

Mn 257.610†	141584.1	490.73 µg/L	16.295	490.73 ppb	16.295	3.32%

QC value within limits for Mn 257.610 Recovery = 98.15%

Mo 202.031†	4463.2	476.50 µg/L	49.601	476.50 ppb	49.601	10.41%

QC value within limits for Mo 202.031 Recovery = 95.30%

Na 589.592 Radial†	28989.9	9543.6 µg/L	102.24	9543.6 ppb	102.24	1.07%

QC value within limits for Na 589.592 Radial Recovery = 95.44%

Ni 231.604†	8904.3	486.32 µg/L	27.004	486.32 ppb	27.004	5.55%

QC value within limits for Ni 231.604 Recovery = 97.26%

P 214.914†	1121.4	2361.7 µg/L	219.74	2361.7 ppb	219.74	9.30%

QC value within limits for P 214.914 Recovery = 94.47%

Pb 220.353†	1804.1	481.51 µg/L	40.435	481.51 ppb	40.435	8.40%

QC value within limits for Pb 220.353 Recovery = 96.30%

S 181.975 Axial†	215.6	944.76 µg/L	67.630	944.76 ppb	67.630	7.16%

QC value within limits for S 181.975 Axial Recovery = 94.48%

Sb 206.836†	477.8	472.20 µg/L	41.713	472.20 ppb	41.713	8.83%

QC value within limits for Sb 206.836 Recovery = 94.44%

Se 196.026†	315.2	488.01 µg/L	43.651	488.01 ppb	43.651	8.94%

QC value within limits for Se 196.026 Recovery = 97.60%

SiO2†	23792.0	5123.7 µg/L	237.37	5123.7 ppb	237.37	4.63%

QC value within limits for SiO2 Recovery = 95.82%

Si 251.611†	29138.9	2395.4 µg/L	107.92	2395.4 ppb	107.92	4.51%

QC value within limits for Si 251.611 Recovery = 95.81%

Sn 189.927†	1034.7	475.92 µg/L	50.437	475.92 ppb	50.437	10.60%

QC value within limits for Sn 189.927 Recovery = 95.18%

Sr 421.552†	45666.3	473.38 µg/L	6.879	473.38 ppb	6.879	1.45%

QC value within limits for Sr 421.552 Recovery = 94.68%

Ti 334.940†	196961.2	473.47 µg/L	16.830	473.47 ppb	16.830	3.55%

QC value within limits for Ti 334.940 Recovery = 94.69%

Tl 190.801†	348.0	491.40 µg/L	27.532	491.40 ppb	27.532	5.60%

QC value within limits for Tl 190.801 Recovery = 98.28%

U 409.014†	5349.6	483.37 µg/L	29.770	483.37 ppb	29.770	6.16%

QC value within limits for U 409.014 Recovery = 96.67%

V 292.402†	45106.3	486.57 µg/L	28.365	486.57 ppb	28.365	5.83%

QC value within limits for V 292.402 Recovery = 97.31%

Zn 213.857†	19494.3	483.36 µg/L	27.567	483.36 ppb	27.567	5.70%

QC value within limits for Zn 213.857 Recovery = 96.67%

All analyte(s) passed QC.

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:07:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56532.0	56532.0	104	%			18:08:03
1	Al 396.153Radial†	-15.4	-4.8	-3.5570	µg/L	-3.5570	ppb	18:08:03
1	Ca 317.933Radial†	184.3	-1.2	-1.1516	µg/L	-1.1516	ppb	18:08:24
1	Fe 238.204 Radial†	15.7	0.7	5.7821	µg/L	5.7821	ppb	18:08:24
1	K 766.490 Radial†	164.9	30.8	21.873	µg/L	21.873	ppb	18:08:03
1	Mg 279.077 IEC†	16.1	4.2	39.497	µg/L	39.497	ppb	18:08:24
1	Na 589.592 Radial†	629.4	65.8	21.647	µg/L	21.647	ppb	18:08:03
1	Sr 421.552†	25.1	-15.3	-0.1589	µg/L	-0.1589	ppb	18:08:03
1	Sc 361.383	1970116.9	1970116.9	103.16	%			18:09:26
1	Y 371.029	1351478.3	1351478.3	103.17	%			18:09:26
1	Ag 328.068†	-586.1	-3.7	-0.0267	µg/L	-0.0267	ppb	18:09:32
1	As 188.979†	0.4	-0.7	-1.4081	µg/L	-1.4081	ppb	18:09:52
1	B 249.677†	319.9	-21.4	-0.9375	µg/L	-0.9375	ppb	18:09:52
1	Ba 233.527†	-23.6	3.1	0.0818	µg/L	0.0818	ppb	18:09:52
1	Be 313.107†	-3504.0	43.7	0.0286	µg/L	0.0286	ppb	18:09:32
1	Cd 226.502†	-151.5	-4.7	-0.1322	µg/L	-0.1322	ppb	18:09:52
1	Co 228.616†	-11.0	-1.8	-0.0886	µg/L	-0.0886	ppb	18:09:52
1	Cr 267.716†	-63.6	-9.3	-0.2036	µg/L	-0.2036	ppb	18:09:32
1	Cu 324.752†	2393.3	-166.0	-1.1590	µg/L	-1.1590	ppb	18:09:32
1	Mn 257.610†	-254.5	-2.6	-0.0100	µg/L	-0.0100	ppb	18:09:52
1	Mo 202.031†	-8.7	-0.9	-0.0948	µg/L	-0.0948	ppb	18:09:52
1	Ni 231.604†	290.0	-21.0	-1.1506	µg/L	-1.1506	ppb	18:09:52
1	P 214.914†	32.8	4.2	9.1562	µg/L	9.1562	ppb	18:09:52
1	Pb 220.353†	95.7	-4.4	-1.1812	µg/L	-1.1812	ppb	18:09:52
1	S 181.975 Axial†	14.0	-1.2	-5.3162	µg/L	-5.3162	ppb	18:09:52
1	Sb 206.836†	31.3	3.4	3.3775	µg/L	3.3775	ppb	18:09:52
1	Se 196.026†	11.2	-4.9	-7.5535	µg/L	-7.5535	ppb	18:09:52
1	SiO2†	1234.7	-53.1	-11.434	µg/L	-11.434	ppb	18:09:32
1	Si 251.611†	295.0	-26.9	-2.2136	µg/L	-2.2136	ppb	18:09:52
1	Sn 189.927†	1.4	2.3	1.0452	µg/L	1.0452	ppb	18:09:52
1	Ti 334.940†	70.3	-48.0	-0.1186	µg/L	-0.1186	ppb	18:09:32
1	Tl 190.801†	-29.3	-4.1	-5.6836	µg/L	-5.6836	ppb	18:09:52
1	U 409.014†	-64.3	-8.7	-0.7862	µg/L	-0.7862	ppb	18:09:32
1	V 292.402†	-16.1	28.6	0.3039	µg/L	0.3039	ppb	18:09:32
1	Zn 213.857†	475.3	-14.8	-0.3645	µg/L	-0.3645	ppb	18:09:52
2	Sc RADIAL	55658.7	55658.7	102	%			18:08:29
2	Al 396.153Radial†	8.4	18.4	13.722	µg/L	13.722	ppb	18:08:29
2	Ca 317.933Radial†	182.4	-0.3	-0.2942	µg/L	-0.2942	ppb	18:08:50
2	Fe 238.204 Radial†	17.1	2.3	19.276	µg/L	19.276	ppb	18:08:50
2	K 766.490 Radial†	186.5	54.5	38.722	µg/L	38.722	ppb	18:08:29
2	Mg 279.077 IEC†	15.0	3.4	31.500	µg/L	31.500	ppb	18:08:50
2	Na 589.592 Radial†	680.0	124.9	41.106	µg/L	41.106	ppb	18:08:29
2	Sr 421.552†	30.6	-9.6	-0.0993	µg/L	-0.0993	ppb	18:08:29
2	Sc 361.383	2007038.7	2007038.7	105.09	%			18:09:58
2	Y 371.029	1377314.4	1377314.4	105.15	%			18:09:58
2	Ag 328.068†	-493.3	95.1	0.7576	µg/L	0.7576	ppb	18:10:04
2	As 188.979†	-1.7	-2.7	-5.3378	µg/L	-5.3378	ppb	18:10:25
2	B 249.677†	329.1	-18.3	-0.8077	µg/L	-0.8077	ppb	18:10:25
2	Ba 233.527†	-25.2	2.0	0.0533	µg/L	0.0533	ppb	18:10:25
2	Be 313.107†	-3351.2	251.6	0.1643	µg/L	0.1643	ppb	18:10:04
2	Cd 226.502†	-144.2	4.9	0.1335	µg/L	0.1335	ppb	18:10:25
2	Co 228.616†	-14.3	-4.7	-0.2334	µg/L	-0.2334	ppb	18:10:25
2	Cr 267.716†	-47.8	6.9	0.1524	µg/L	0.1524	ppb	18:10:04
2	Cu 324.752†	2466.3	-139.3	-0.9702	µg/L	-0.9702	ppb	18:10:04
2	Mn 257.610†	-245.5	10.5	0.0378	µg/L	0.0378	ppb	18:10:25
2	Mo 202.031†	-7.5	0.4	0.0445	µg/L	0.0445	ppb	18:10:25
2	Ni 231.604†	299.7	-17.0	-0.9313	µg/L	-0.9313	ppb	18:10:25
2	P 214.914†	31.3	2.2	4.7306	µg/L	4.7306	ppb	18:10:25
2	Pb 220.353†	108.5	6.1	1.6290	µg/L	1.6290	ppb	18:10:25

2	S 181.975 Axial†	16.7	1.1	4.8755 µg/L	4.8755 ppb	18:10:25
2	Sb 206.836†	20.8	-7.2	-7.0445 µg/L	-7.0445 ppb	18:10:25
2	Se 196.026†	16.5	-0.1	-0.1477 µg/L	-0.1477 ppb	18:10:25
2	SiO2†	1217.3	-91.6	-19.736 µg/L	-19.736 ppb	18:10:04
2	Si 251.611†	298.1	-29.3	-2.4046 µg/L	-2.4046 ppb	18:10:25
2	Sn 189.927†	0.2	1.0	0.4758 µg/L	0.4758 ppb	18:10:25
2	Ti 334.940†	145.5	22.4	0.0513 µg/L	0.0513 ppb	18:10:04
2	Tl 190.801†	-26.0	-0.5	-0.6548 µg/L	-0.6548 ppb	18:10:25
2	U 409.014†	-106.1	-47.3	-4.2862 µg/L	-4.2862 ppb	18:10:04
2	V 292.402†	-24.2	21.2	0.2243 µg/L	0.2243 ppb	18:10:04
2	Zn 213.857†	472.5	-25.9	-0.6440 µg/L	-0.6440 ppb	18:10:25
3	Sc RADIAL	55952.9	55952.9	103 %		18:08:56
3	Al 396.153Radial†	-23.9	-13.2	-9.8258 µg/L	-9.8258 ppb	18:08:56
3	Ca 317.933Radial†	192.5	8.6	8.1332 µg/L	8.1332 ppb	18:09:16
3	Fe 238.204 Radial†	17.2	2.3	19.451 µg/L	19.451 ppb	18:09:16
3	K 766.490 Radial†	199.1	65.8	46.778 µg/L	46.778 ppb	18:08:56
3	Mg 279.077 IEC†	13.0	1.4	13.321 µg/L	13.321 ppb	18:09:16
3	Na 589.592 Radial†	622.9	65.7	21.628 µg/L	21.628 ppb	18:08:56
3	Sr 421.552†	22.5	-17.6	-0.1825 µg/L	-0.1825 ppb	18:08:56
3	Sc 361.383	1969215.9	1969215.9	103.11 %		18:10:31
3	Y 371.029	1350905.5	1350905.5	103.13 %		18:10:31
3	Ag 328.068†	-575.5	6.4	0.0513 µg/L	0.0513 ppb	18:10:36
3	As 188.979†	-0.8	-1.9	-3.6705 µg/L	-3.6705 ppb	18:10:57
3	B 249.677†	315.0	-25.9	-1.1434 µg/L	-1.1434 ppb	18:10:57
3	Ba 233.527†	-24.5	2.2	0.0583 µg/L	0.0583 ppb	18:10:57
3	Be 313.107†	-3286.5	253.0	0.1652 µg/L	0.1652 ppb	18:10:36
3	Cd 226.502†	-133.6	12.5	0.3430 µg/L	0.3430 ppb	18:10:57
3	Co 228.616†	-14.1	-4.9	-0.2403 µg/L	-0.2403 ppb	18:10:57
3	Cr 267.716†	-66.1	-11.7	-0.2584 µg/L	-0.2584 ppb	18:10:36
3	Cu 324.752†	2477.5	-83.3	-0.5792 µg/L	-0.5792 ppb	18:10:36
3	Mn 257.610†	-225.9	25.1	0.0888 µg/L	0.0888 ppb	18:10:57
3	Mo 202.031†	-9.8	-2.0	-0.2112 µg/L	-0.2112 ppb	18:10:57
3	Ni 231.604†	298.6	-12.6	-0.6902 µg/L	-0.6902 ppb	18:10:57
3	P 214.914†	27.1	-1.4	-2.9216 µg/L	-2.9216 ppb	18:10:57
3	Pb 220.353†	95.5	-4.6	-1.2298 µg/L	-1.2298 ppb	18:10:57
3	S 181.975 Axial†	18.9	3.5	15.355 µg/L	15.355 ppb	18:10:57
3	Sb 206.836†	19.3	-8.3	-8.1417 µg/L	-8.1417 ppb	18:10:57
3	Se 196.026†	11.7	-4.5	-6.8172 µg/L	-6.8172 ppb	18:10:57
3	SiO2†	1221.9	-65.0	-13.993 µg/L	-13.993 ppb	18:10:36
3	Si 251.611†	305.8	-16.3	-1.3398 µg/L	-1.3398 ppb	18:10:57
3	Sn 189.927†	-1.0	-0.1	-0.0571 µg/L	-0.0571 ppb	18:10:57
3	Ti 334.940†	185.2	63.5	0.1517 µg/L	0.1517 ppb	18:10:36
3	Tl 190.801†	-28.1	-3.0	-4.1975 µg/L	-4.1975 ppb	18:10:57
3	U 409.014†	-9.8	44.1	3.9892 µg/L	3.9892 ppb	18:10:36
3	V 292.402†	-52.5	-6.8	-0.0677 µg/L	-0.0677 ppb	18:10:36
3	Zn 213.857†	470.6	-19.2	-0.4765 µg/L	-0.4765 ppb	18:10:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1982123.8	103.78	%	1.130				1.09%
Sc RADIAL	56047.9	103	%	0.8				0.79%
Y 371.029	1359899.4	103.82	%	1.152				1.11%
Ag 328.068†	32.6	0.2608	µg/L	0.43206	0.2608	ppb	0.43206	165.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.1130	µg/L	12.19532	0.1130	ppb	12.19532	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.8	-3.4721	µg/L	1.97235	-3.4721	ppb	1.97235	56.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21.9	-0.9628	µg/L	0.16927	-0.9628	ppb	0.16927	17.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.5	0.0645	µg/L	0.01519	0.0645	ppb	0.01519	23.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	182.7	0.1193	µg/L	0.07861	0.1193	ppb	0.07861	65.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.4	2.2291	µg/L	5.13097	2.2291	ppb	5.13097	230.18%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.3	0.1147	µg/L	0.23817	0.1147	ppb	0.23817	207.57%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-3.8	-0.1875	µg/L	0.08565	-0.1875	ppb	0.08565	45.69%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -4.7     -0.1032 µg/L       0.22302     -0.1032 ppb        0.22302 216.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -129.5     -0.9028 µg/L       0.29572     -0.9028 ppb        0.29572  32.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.8      14.837 µg/L        7.8419      14.837 ppb         7.8419  52.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        50.4      35.791 µg/L       12.7089      35.791 ppb        12.7089  35.51%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.0      28.106 µg/L       13.4141      28.106 ppb        13.4141  47.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.0      0.0389 µg/L       0.04940      0.0389 ppb        0.04940 127.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.8     -0.0872 µg/L       0.12800     -0.0872 ppb        0.12800 146.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       85.4      28.127 µg/L       11.2402      28.127 ppb        11.2402  39.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -16.9     -0.9240 µg/L       0.23026     -0.9240 ppb        0.23026  24.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7      3.6551 µg/L       6.11031      3.6551 ppb        6.11031 167.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -1.0     -0.2607 µg/L       1.63670     -0.2607 ppb        1.63670 627.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.1      4.9715 µg/L      10.33607      4.9715 ppb       10.33607 207.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.0     -3.9362 µg/L       6.35757     -3.9362 ppb        6.35757 161.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.2     -4.8394 µg/L       4.07986     -4.8394 ppb        4.07986  84.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -69.9     -15.054 µg/L        4.2514     -15.054 ppb         4.2514  28.24%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -24.2     -1.9860 µg/L       0.56769     -1.9860 ppb        0.56769  28.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.1      0.4880 µg/L       0.55125      0.4880 ppb        0.55125 112.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -14.2     -0.1469 µg/L       0.04288     -0.1469 ppb        0.04288  29.20%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              12.6      0.0281 µg/L       0.13664      0.0281 ppb        0.13664 485.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.5     -3.5120 µg/L       2.58356     -3.5120 ppb        2.58356  73.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -4.0     -0.3611 µg/L       4.15405     -0.3611 ppb        4.15405 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               14.4      0.1535 µg/L       0.19568      0.1535 ppb        0.19568 127.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -20.0     -0.4950 µg/L       0.14064     -0.4950 ppb        0.14064  28.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 27
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 2/11/2010 18:32:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55441.9	55441.9	102	%			18:33:25
1	Al 396.153Radial†	6917.9	6819.8	5072.2	µg/L	5072.2	ppb	18:33:25
1	Ca 317.933Radial†	5691.9	5423.7	5106.8	µg/L	5106.8	ppb	18:33:45
1	Fe 238.204 Radial†	625.4	601.1	5105.5	µg/L	5105.5	ppb	18:33:45
1	K 766.490 Radial†	7360.4	7116.9	5058.6	µg/L	5058.6	ppb	18:33:25
1	Mg 279.077 IEC†	579.1	558.7	5203.2	µg/L	5203.2	ppb	18:33:45
1	Na 589.592 Radial†	31674.9	30637.4	10086	µg/L	10086	ppb	18:33:25
1	Sr 421.552†	48916.5	48111.6	498.73	µg/L	498.73	ppb	18:33:25
1	Sc 361.383	1949198.7	1949198.7	102.06	%			18:34:49
1	Y 371.029	1332613.7	1332613.7	101.73	%			18:34:49
1	Ag 328.068†	63737.9	63015.4	503.72	µg/L	503.72	ppb	18:34:54
1	As 188.979†	273.4	266.7	520.31	µg/L	520.31	ppb	18:35:15
1	B 249.677†	12085.6	11510.1	501.18	µg/L	501.18	ppb	18:34:54
1	Ba 233.527†	19929.9	19553.5	510.07	µg/L	510.07	ppb	18:34:54
1	Be 313.107†	791453.2	778912.4	508.48	µg/L	508.48	ppb	18:34:49
1	Cd 226.502†	18764.5	18527.7	511.09	µg/L	511.09	ppb	18:34:54
1	Co 228.616†	10683.8	10476.9	515.03	µg/L	515.03	ppb	18:34:54
1	Cr 267.716†	23886.3	23456.4	516.27	µg/L	516.27	ppb	18:34:54
1	Cu 324.752†	77115.4	73072.1	511.13	µg/L	511.13	ppb	18:34:54
1	Mn 257.610†	152507.4	149672.0	518.76	µg/L	518.76	ppb	18:34:49
1	Mo 202.031†	5014.5	4920.8	525.34	µg/L	525.34	ppb	18:35:15
1	Ni 231.604†	9902.4	9400.2	513.41	µg/L	513.41	ppb	18:34:54
1	P 214.914†	1289.3	1235.7	2604.5	µg/L	2604.5	ppb	18:35:15
1	Pb 220.353†	2098.8	1959.2	522.95	µg/L	522.95	ppb	18:35:15
1	S 181.975 Axial†	252.9	233.0	1020.8	µg/L	1020.8	ppb	18:35:15
1	Sb 206.836†	562.5	524.2	518.28	µg/L	518.28	ppb	18:35:15
1	Se 196.026†	361.5	338.4	523.78	µg/L	523.78	ppb	18:35:15
1	SiO2†	26807.5	25016.2	5387.4	µg/L	5387.4	ppb	18:34:54
1	Si 251.611†	31683.4	30730.8	2526.2	µg/L	2526.2	ppb	18:34:54
1	Sn 189.927†	1171.2	1148.4	528.25	µg/L	528.25	ppb	18:35:15
1	Ti 334.940†	213415.9	208990.5	502.38	µg/L	502.38	ppb	18:34:49
1	Tl 190.801†	344.1	361.4	510.53	µg/L	510.53	ppb	18:35:15
1	U 409.014†	5808.1	5744.4	519.06	µg/L	519.06	ppb	18:34:54
1	V 292.402†	48900.4	47957.2	517.47	µg/L	517.47	ppb	18:34:54
1	Zn 213.857†	21532.1	20621.7	511.32	µg/L	511.32	ppb	18:34:54
2	Sc RADIAL	56230.3	56230.3	103	%			18:33:51
2	Al 396.153Radial†	6941.0	6746.8	5018.0	µg/L	5018.0	ppb	18:33:51
2	Ca 317.933Radial†	5664.7	5318.7	5007.9	µg/L	5007.9	ppb	18:34:11
2	Fe 238.204 Radial†	623.7	590.8	5018.6	µg/L	5018.6	ppb	18:34:11
2	K 766.490 Radial†	7345.4	7000.7	4976.0	µg/L	4976.0	ppb	18:33:51
2	Mg 279.077 IEC†	581.5	553.1	5150.5	µg/L	5150.5	ppb	18:34:11
2	Na 589.592 Radial†	31761.7	30284.4	9969.7	µg/L	9969.7	ppb	18:33:51
2	Sr 421.552†	49439.7	47944.2	497.00	µg/L	497.00	ppb	18:33:51
2	Sc 361.383	1968654.4	1968654.4	103.08	%			18:35:22
2	Y 371.029	1345275.7	1345275.7	102.70	%			18:35:22
2	Ag 328.068†	64265.9	62910.5	502.88	µg/L	502.88	ppb	18:35:28
2	As 188.979†	279.7	270.2	527.15	µg/L	527.15	ppb	18:35:48
2	B 249.677†	12199.0	11503.1	500.92	µg/L	500.92	ppb	18:35:28
2	Ba 233.527†	20118.0	19543.0	509.79	µg/L	509.79	ppb	18:35:28
2	Be 313.107†	797156.7	776781.8	507.09	µg/L	507.09	ppb	18:35:22
2	Cd 226.502†	19012.6	18586.7	512.73	µg/L	512.73	ppb	18:35:28
2	Co 228.616†	10795.4	10481.7	515.26	µg/L	515.26	ppb	18:35:28
2	Cr 267.716†	24075.5	23408.6	515.22	µg/L	515.22	ppb	18:35:28
2	Cu 324.752†	77661.1	72854.9	509.61	µg/L	509.61	ppb	18:35:28
2	Mn 257.610†	153284.1	148948.8	516.25	µg/L	516.25	ppb	18:35:22
2	Mo 202.031†	4982.7	4841.3	516.86	µg/L	516.86	ppb	18:35:48
2	Ni 231.604†	10038.8	9436.7	515.40	µg/L	515.40	ppb	18:35:28
2	P 214.914†	1275.2	1209.5	2548.3	µg/L	2548.3	ppb	18:35:48
2	Pb 220.353†	2089.9	1930.2	515.20	µg/L	515.20	ppb	18:35:48

2	S 181.975 Axial†	253.9	231.5	1014.3 µg/L	1014.3 ppb	18:35:48
2	Sb 206.836†	566.6	522.7	516.68 µg/L	516.68 ppb	18:35:48
2	Se 196.026†	362.7	336.1	520.05 µg/L	520.05 ppb	18:35:48
2	SiO2†	27183.9	25121.8	5410.1 µg/L	5410.1 ppb	18:35:28
2	Si 251.611†	31985.4	30716.9	2525.1 µg/L	2525.1 ppb	18:35:28
2	Sn 189.927†	1162.1	1128.3	518.97 µg/L	518.97 ppb	18:35:48
2	Ti 334.940†	214911.2	208374.5	500.90 µg/L	500.90 ppb	18:35:22
2	Tl 190.801†	347.2	361.1	510.11 µg/L	510.11 ppb	18:35:48
2	U 409.014†	5833.8	5713.1	516.25 µg/L	516.25 ppb	18:35:28
2	V 292.402†	49382.2	47951.1	517.33 µg/L	517.33 ppb	18:35:28
2	Zn 213.857†	21765.8	20640.0	511.77 µg/L	511.77 ppb	18:35:28
3	Sc RADIAL	56202.6	56202.6	103 %		18:34:17
3	Al 396.153Radial†	7002.2	6809.5	5066.3 µg/L	5066.3 ppb	18:34:17
3	Ca 317.933Radial†	5645.9	5303.2	4993.3 µg/L	4993.3 ppb	18:34:37
3	Fe 238.204 Radial†	622.2	589.7	5007.8 µg/L	5007.8 ppb	18:34:37
3	K 766.490 Radial†	7390.9	7048.4	5010.0 µg/L	5010.0 ppb	18:34:17
3	Mg 279.077 IEC†	576.6	548.6	5107.8 µg/L	5107.8 ppb	18:34:37
3	Na 589.592 Radial†	31993.1	30524.4	10049 µg/L	10049 ppb	18:34:17
3	Sr 421.552†	49671.5	48193.0	499.58 µg/L	499.58 ppb	18:34:17
3	Sc 361.383	1949854.5	1949854.5	102.10 %		18:35:55
3	Y 371.029	1332440.6	1332440.6	101.72 %		18:35:55
3	Ag 328.068†	60532.1	59854.4	478.35 µg/L	478.35 ppb	18:36:01
3	As 188.979†	230.7	224.8	438.55 µg/L	438.55 ppb	18:36:21
3	B 249.677†	11478.3	10911.2	474.98 µg/L	474.98 ppb	18:36:01
3	Ba 233.527†	18573.8	18218.6	475.23 µg/L	475.23 ppb	18:36:01
3	Be 313.107†	747182.5	735289.5	480.01 µg/L	480.01 ppb	18:35:55
3	Cd 226.502†	17437.8	17222.1	475.04 µg/L	475.04 ppb	18:36:01
3	Co 228.616†	9818.6	9625.9	473.13 µg/L	473.13 ppb	18:36:01
3	Cr 267.716†	21497.4	21108.6	464.60 µg/L	464.60 ppb	18:36:01
3	Cu 324.752†	71198.9	67251.7	470.46 µg/L	470.46 ppb	18:36:01
3	Mn 257.610†	144456.6	141736.2	491.27 µg/L	491.27 ppb	18:35:55
3	Mo 202.031†	4165.5	4087.6	436.42 µg/L	436.42 ppb	18:36:21
3	Ni 231.604†	9187.6	8696.9	475.00 µg/L	475.00 ppb	18:36:01
3	P 214.914†	1084.2	1034.3	2175.1 µg/L	2175.1 ppb	18:36:21
3	Pb 220.353†	1818.3	1683.8	449.34 µg/L	449.34 ppb	18:36:21
3	S 181.975 Axial†	223.4	204.0	893.71 µg/L	893.71 ppb	18:36:21
3	Sb 206.836†	482.5	445.7	440.11 µg/L	440.11 ppb	18:36:21
3	Se 196.026†	316.7	294.4	456.49 µg/L	456.49 ppb	18:36:21
3	SiO2†	25304.0	23534.7	5068.3 µg/L	5068.3 ppb	18:36:01
3	Si 251.611†	29685.2	28763.1	2364.5 µg/L	2364.5 ppb	18:36:01
3	Sn 189.927†	961.6	942.7	433.62 µg/L	433.62 ppb	18:36:21
3	Ti 334.940†	200490.3	196259.8	471.76 µg/L	471.76 ppb	18:35:55
3	Tl 190.801†	316.1	333.9	471.83 µg/L	471.83 ppb	18:36:21
3	U 409.014†	5179.3	5126.6	463.15 µg/L	463.15 ppb	18:36:01
3	V 292.402†	44764.1	43889.7	473.25 µg/L	473.25 ppb	18:36:01
3	Zn 213.857†	19900.8	19016.9	471.49 µg/L	471.49 ppb	18:36:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1955902.5	102.41	%	0.578				0.56%
Sc RADIAL	55958.3	103	%	0.8				0.80%
Y 371.029	1336776.6	102.05	%	0.562				0.55%
Ag 328.068†	61926.8	494.98	µg/L	14.414	494.98	ppb	14.414	2.91%
QC value within limits for Ag 328.068 Recovery = 99.00%								
Al 396.153Radial†	6792.0	5052.2	µg/L	29.77	5052.2	ppb	29.77	0.59%
QC value within limits for Al 396.153Radial Recovery = 101.04%								
As 188.979†	253.9	495.34	µg/L	49.299	495.34	ppb	49.299	9.95%
QC value within limits for As 188.979 Recovery = 99.07%								
B 249.677†	11308.1	492.36	µg/L	15.053	492.36	ppb	15.053	3.06%
QC value within limits for B 249.677 Recovery = 98.47%								
Ba 233.527†	19105.0	498.36	µg/L	20.034	498.36	ppb	20.034	4.02%
QC value within limits for Ba 233.527 Recovery = 99.67%								
Be 313.107†	763661.2	498.53	µg/L	16.055	498.53	ppb	16.055	3.22%
QC value within limits for Be 313.107 Recovery = 99.71%								
Ca 317.933Radial†	5348.5	5036.0	µg/L	61.72	5036.0	ppb	61.72	1.23%
QC value within limits for Ca 317.933Radial Recovery = 100.72%								
Cd 226.502†	18112.2	499.62	µg/L	21.301	499.62	ppb	21.301	4.26%
QC value within limits for Cd 226.502 Recovery = 99.92%								
Co 228.616†	10194.8	501.14	µg/L	24.256	501.14	ppb	24.256	4.84%

QC value within limits for Co 228.616 Recovery = 100.23%

Cr 267.716†	22657.9	498.70 µg/L	29.533	498.70 ppb	29.533	5.92%

QC value within limits for Cr 267.716 Recovery = 99.74%

Cu 324.752†	71059.6	497.07 µg/L	23.052	497.07 ppb	23.052	4.64%

QC value within limits for Cu 324.752 Recovery = 99.41%

Fe 238.204 Radial†	593.9	5044.0 µg/L	53.59	5044.0 ppb	53.59	1.06%

QC value within limits for Fe 238.204 Radial Recovery = 100.88%

K 766.490 Radial†	7055.3	5014.9 µg/L	41.51	5014.9 ppb	41.51	0.83%

QC value within limits for K 766.490 Radial Recovery = 100.30%

Mg 279.077 IEC†	553.5	5153.8 µg/L	47.82	5153.8 ppb	47.82	0.93%

QC value within limits for Mg 279.077 IEC Recovery = 103.08%

Mn 257.610†	146785.7	508.76 µg/L	15.198	508.76 ppb	15.198	2.99%

QC value within limits for Mn 257.610 Recovery = 101.75%

Mo 202.031†	4616.6	492.88 µg/L	49.074	492.88 ppb	49.074	9.96%

QC value within limits for Mo 202.031 Recovery = 98.58%

Na 589.592 Radial†	30482.1	10035 µg/L	59.3	10035 ppb	59.3	0.59%

QC value within limits for Na 589.592 Radial Recovery = 100.35%

Ni 231.604†	9177.9	501.27 µg/L	22.771	501.27 ppb	22.771	4.54%

QC value within limits for Ni 231.604 Recovery = 100.25%

P 214.914†	1159.8	2442.6 µg/L	233.37	2442.6 ppb	233.37	9.55%

QC value within limits for P 214.914 Recovery = 97.71%

Pb 220.353†	1857.7	495.83 µg/L	40.446	495.83 ppb	40.446	8.16%

QC value within limits for Pb 220.353 Recovery = 99.17%

S 181.975 Axial†	222.8	976.27 µg/L	71.572	976.27 ppb	71.572	7.33%

QC value within limits for S 181.975 Axial Recovery = 97.63%

Sb 206.836†	497.5	491.69 µg/L	44.681	491.69 ppb	44.681	9.09%

QC value within limits for Sb 206.836 Recovery = 98.34%

Se 196.026†	322.9	500.11 µg/L	37.818	500.11 ppb	37.818	7.56%

QC value within limits for Se 196.026 Recovery = 100.02%

SiO2†	24557.5	5288.6 µg/L	191.11	5288.6 ppb	191.11	3.61%

QC value within limits for SiO2 Recovery = 98.90%

Si 251.611†	30070.3	2471.9 µg/L	93.06	2471.9 ppb	93.06	3.76%

QC value within limits for Si 251.611 Recovery = 98.88%

Sn 189.927†	1073.1	493.61 µg/L	52.162	493.61 ppb	52.162	10.57%

QC value within limits for Sn 189.927 Recovery = 98.72%

Sr 421.552†	48082.9	498.44 µg/L	1.315	498.44 ppb	1.315	0.26%

QC value within limits for Sr 421.552 Recovery = 99.69%

Ti 334.940†	204541.6	491.68 µg/L	17.266	491.68 ppb	17.266	3.51%

QC value within limits for Ti 334.940 Recovery = 98.34%

Tl 190.801†	352.2	497.49 µg/L	22.222	497.49 ppb	22.222	4.47%

QC value within limits for Tl 190.801 Recovery = 99.50%

U 409.014†	5528.1	499.49 µg/L	31.500	499.49 ppb	31.500	6.31%

QC value within limits for U 409.014 Recovery = 99.90%

V 292.402†	46599.3	502.68 µg/L	25.490	502.68 ppb	25.490	5.07%

QC value within limits for V 292.402 Recovery = 100.54%

Zn 213.857†	20092.9	498.19 µg/L	23.129	498.19 ppb	23.129	4.64%

QC value within limits for Zn 213.857 Recovery = 99.64%

All analyte(s) passed QC.

Sequence No.: 28
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 2/11/2010 18:36:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56577.3	56577.3	104	%			18:37:06
1	Al 396.153Radial†	-31.7	-20.5	-15.254	µg/L	-15.254	ppb	18:37:06
1	Ca 317.933Radial†	178.1	-7.3	-6.9019	µg/L	-6.9019	ppb	18:37:27
1	Fe 238.204 Radial†	15.3	0.2	1.9399	µg/L	1.9399	ppb	18:37:27
1	K 766.490 Radial†	151.5	17.7	12.611	µg/L	12.611	ppb	18:37:06
1	Mg 279.077 IEC†	8.3	-3.3	-30.287	µg/L	-30.287	ppb	18:37:27
1	Na 589.592 Radial†	633.9	69.6	22.897	µg/L	22.897	ppb	18:37:06
1	Sr 421.552†	44.5	3.3	0.0346	µg/L	0.0346	ppb	18:37:06
1	Sc 361.383	1997175.6	1997175.6	104.57	%			18:38:28
1	Y 371.029	1371834.1	1371834.1	104.73	%			18:38:28
1	Ag 328.068†	-518.3	68.9	0.5460	µg/L	0.5460	ppb	18:38:34
1	As 188.979†	-0.7	-1.8	-3.4701	µg/L	-3.4701	ppb	18:38:54
1	B 249.677†	333.0	-13.0	-0.5696	µg/L	-0.5696	ppb	18:38:54
1	Ba 233.527†	-20.3	6.6	0.1716	µg/L	0.1716	ppb	18:38:54
1	Be 313.107†	-3492.3	100.9	0.0658	µg/L	0.0658	ppb	18:38:34
1	Cd 226.502†	-135.3	12.8	0.3518	µg/L	0.3518	ppb	18:38:54
1	Co 228.616†	-16.0	-6.4	-0.3169	µg/L	-0.3169	ppb	18:38:54
1	Cr 267.716†	-59.9	-4.9	-0.1071	µg/L	-0.1071	ppb	18:38:34
1	Cu 324.752†	2440.0	-152.8	-1.0669	µg/L	-1.0669	ppb	18:38:34
1	Mn 257.610†	-253.9	1.3	0.0061	µg/L	0.0061	ppb	18:38:54
1	Mo 202.031†	-12.2	-4.2	-0.4445	µg/L	-0.4445	ppb	18:38:54
1	Ni 231.604†	302.8	-12.6	-0.6910	µg/L	-0.6910	ppb	18:38:54
1	P 214.914†	25.9	-2.9	-6.0063	µg/L	-6.0063	ppb	18:38:54
1	Pb 220.353†	96.6	-4.8	-1.2749	µg/L	-1.2749	ppb	18:38:54
1	S 181.975 Axial†	16.8	1.3	5.5555	µg/L	5.5555	ppb	18:38:54
1	Sb 206.836†	26.1	-2.0	-1.9561	µg/L	-1.9561	ppb	18:38:54
1	Se 196.026†	17.3	0.7	1.1140	µg/L	1.1140	ppb	18:38:54
1	SiO2†	1249.6	-55.1	-11.856	µg/L	-11.856	ppb	18:38:34
1	Si 251.611†	302.7	-23.4	-1.9253	µg/L	-1.9253	ppb	18:38:54
1	Sn 189.927†	1.0	1.9	0.8554	µg/L	0.8554	ppb	18:38:54
1	Ti 334.940†	152.6	29.8	0.0741	µg/L	0.0741	ppb	18:38:34
1	Tl 190.801†	-22.3	3.0	4.1717	µg/L	4.1717	ppb	18:38:54
1	U 409.014†	-116.8	-58.1	-5.2596	µg/L	-5.2596	ppb	18:38:34
1	V 292.402†	-54.7	-8.1	-0.0953	µg/L	-0.0953	ppb	18:38:34
1	Zn 213.857†	472.6	-23.6	-0.5840	µg/L	-0.5840	ppb	18:38:54
2	Sc RADIAL	55383.9	55383.9	101	%			18:37:32
2	Al 396.153Radial†	-17.3	-7.0	-5.1964	µg/L	-5.1964	ppb	18:37:32
2	Ca 317.933Radial†	188.8	6.9	6.4546	µg/L	6.4546	ppb	18:37:52
2	Fe 238.204 Radial†	14.1	-0.6	-4.8767	µg/L	-4.8767	ppb	18:37:52
2	K 766.490 Radial†	126.5	-3.8	-2.6779	µg/L	-2.6779	ppb	18:37:32
2	Mg 279.077 IEC†	12.6	1.1	10.292	µg/L	10.292	ppb	18:37:52
2	Na 589.592 Radial†	623.8	72.8	23.955	µg/L	23.955	ppb	18:37:32
2	Sr 421.552†	31.5	-8.5	-0.0883	µg/L	-0.0883	ppb	18:37:32
2	Sc 361.383	2013350.1	2013350.1	105.42	%			18:39:00
2	Y 371.029	1381993.5	1381993.5	105.50	%			18:39:00
2	Ag 328.068†	-537.9	54.3	0.4351	µg/L	0.4351	ppb	18:39:06
2	As 188.979†	2.2	1.0	1.8812	µg/L	1.8812	ppb	18:39:26
2	B 249.677†	318.3	-29.5	-1.2874	µg/L	-1.2874	ppb	18:39:26
2	Ba 233.527†	-25.9	1.4	0.0380	µg/L	0.0380	ppb	18:39:26
2	Be 313.107†	-3437.1	180.0	0.1176	µg/L	0.1176	ppb	18:39:06
2	Cd 226.502†	-146.1	3.5	0.0976	µg/L	0.0976	ppb	18:39:26
2	Co 228.616†	-6.0	3.1	0.1553	µg/L	0.1553	ppb	18:39:26
2	Cr 267.716†	-56.6	-1.3	-0.0276	µg/L	-0.0276	ppb	18:39:06
2	Cu 324.752†	2488.4	-125.7	-0.8785	µg/L	-0.8785	ppb	18:39:06
2	Mn 257.610†	-244.3	12.4	0.0419	µg/L	0.0419	ppb	18:39:26
2	Mo 202.031†	-1.5	6.1	0.6511	µg/L	0.6511	ppb	18:39:26
2	Ni 231.604†	301.7	-16.0	-0.8752	µg/L	-0.8752	ppb	18:39:26
2	P 214.914†	26.3	-2.6	-5.5596	µg/L	-5.5596	ppb	18:39:26
2	Pb 220.353†	100.7	-1.7	-0.4405	µg/L	-0.4405	ppb	18:39:26

2	S 181.975 Axial†	19.5	3.7	16.100 µg/L	16.100 ppb	18:39:26
2	Sb 206.836†	25.7	-2.6	-2.5687 µg/L	-2.5687 ppb	18:39:26
2	Se 196.026†	18.4	1.6	2.4087 µg/L	2.4087 ppb	18:39:26
2	SiO2†	1290.6	-25.8	-5.5589 µg/L	-5.5589 ppb	18:39:06
2	Si 251.611†	298.6	-29.7	-2.4388 µg/L	-2.4388 ppb	18:39:26
2	Sn 189.927†	1.6	2.4	1.0965 µg/L	1.0965 ppb	18:39:26
2	Ti 334.940†	143.9	20.4	0.0483 µg/L	0.0483 ppb	18:39:06
2	Tl 190.801†	-19.4	5.9	8.2322 µg/L	8.2322 ppb	18:39:26
2	U 409.014†	-143.2	-82.3	-7.4471 µg/L	-7.4471 ppb	18:39:06
2	V 292.402†	19.9	63.0	0.6686 µg/L	0.6686 ppb	18:39:06
2	Zn 213.857†	478.6	-21.5	-0.5326 µg/L	-0.5326 ppb	18:39:26
3	Sc RADIAL	56905.3	56905.3	104 %		18:37:58
3	Al 396.153Radial†	-1.7	8.5	6.3212 µg/L	6.3212 ppb	18:37:58
3	Ca 317.933Radial†	181.4	-5.2	-4.9145 µg/L	-4.9145 ppb	18:38:18
3	Fe 238.204 Radial†	13.2	-1.8	-15.607 µg/L	-15.607 ppb	18:38:18
3	K 766.490 Radial†	186.8	50.7	36.048 µg/L	36.048 ppb	18:37:58
3	Mg 279.077 IEC†	11.5	-0.3	-2.5813 µg/L	-2.5813 ppb	18:38:18
3	Na 589.592 Radial†	645.3	77.0	25.346 µg/L	25.346 ppb	18:37:58
3	Sr 421.552†	17.2	-23.1	-0.2393 µg/L	-0.2393 ppb	18:37:58
3	Sc 361.383	1996384.7	1996384.7	104.53 %		18:39:32
3	Y 371.029	1369220.3	1369220.3	104.53 %		18:39:32
3	Ag 328.068†	-541.0	47.0	0.3741 µg/L	0.3741 ppb	18:39:38
3	As 188.979†	-1.0	-2.1	-4.0939 µg/L	-4.0939 ppb	18:39:59
3	B 249.677†	333.0	-12.9	-0.5555 µg/L	-0.5555 ppb	18:39:59
3	Ba 233.527†	-17.3	9.5	0.2478 µg/L	0.2478 ppb	18:39:59
3	Be 313.107†	-3308.4	275.5	0.1799 µg/L	0.1799 ppb	18:39:38
3	Cd 226.502†	-144.0	4.4	0.1228 µg/L	0.1228 ppb	18:39:59
3	Co 228.616†	-11.0	-1.7	-0.0836 µg/L	-0.0836 ppb	18:39:59
3	Cr 267.716†	-55.8	-1.0	-0.0220 µg/L	-0.0220 ppb	18:39:38
3	Cu 324.752†	2440.9	-151.0	-1.0572 µg/L	-1.0572 ppb	18:39:38
3	Mn 257.610†	-222.1	31.7	0.1077 µg/L	0.1077 ppb	18:39:59
3	Mo 202.031†	-3.2	4.5	0.4771 µg/L	0.4771 ppb	18:39:59
3	Ni 231.604†	303.2	-12.1	-0.6637 µg/L	-0.6637 ppb	18:39:59
3	P 214.914†	30.5	1.6	3.5034 µg/L	3.5034 ppb	18:39:59
3	Pb 220.353†	89.5	-11.6	-3.0790 µg/L	-3.0790 ppb	18:39:59
3	S 181.975 Axial†	17.8	2.2	9.6185 µg/L	9.6185 ppb	18:39:59
3	Sb 206.836†	27.7	-0.5	-0.4700 µg/L	-0.4700 ppb	18:39:59
3	Se 196.026†	15.0	-1.5	-2.2806 µg/L	-2.2806 ppb	18:39:59
3	SiO2†	1247.6	-56.5	-12.175 µg/L	-12.175 ppb	18:39:38
3	Si 251.611†	300.0	-25.8	-2.1244 µg/L	-2.1244 ppb	18:39:59
3	Sn 189.927†	3.2	3.9	1.8070 µg/L	1.8070 ppb	18:39:59
3	Ti 334.940†	156.9	34.0	0.0818 µg/L	0.0818 ppb	18:39:38
3	Tl 190.801†	-23.6	1.7	2.3286 µg/L	2.3286 ppb	18:39:59
3	U 409.014†	-48.9	6.8	0.6203 µg/L	0.6203 ppb	18:39:38
3	V 292.402†	-14.3	30.6	0.3283 µg/L	0.3283 ppb	18:39:38
3	Zn 213.857†	478.7	-17.6	-0.4352 µg/L	-0.4352 ppb	18:39:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2002303.4	104.84	%	0.501				0.48%
Sc RADIAL	56288.9	103	%	1.5				1.42%
Y 371.029	1374349.3	104.92	%	0.515				0.49%
Ag 328.068†	56.7	0.4517	µg/L	0.08717	0.4517	ppb	0.08717	19.30%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.3	-4.7097	µg/L	10.79578	-4.7097	ppb	10.79578	229.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-1.8943	µg/L	3.28450	-1.8943	ppb	3.28450	173.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-18.5	-0.8042	µg/L	0.41854	-0.8042	ppb	0.41854	52.05%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.8	0.1525	µg/L	0.10621	0.1525	ppb	0.10621	69.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.5	0.1211	µg/L	0.05710	0.1211	ppb	0.05710	47.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-1.7872	µg/L	7.20651	-1.7872	ppb	7.20651	403.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.9	0.1907	µg/L	0.14008	0.1907	ppb	0.14008	73.44%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0817	µg/L	0.23614	-0.0817	ppb	0.23614	288.95%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -2.4     -0.0522 µg/L       0.04756     -0.0522 ppb        0.04756  91.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -143.2     -1.0009 µg/L       0.10608     -1.0009 ppb        0.10608  10.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.7     -6.1811 µg/L       8.84567     -6.1811 ppb        8.84567 143.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          21.6      15.327 µg/L      19.5055      15.327 ppb       19.5055 127.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.5253 µg/L      20.73608     -7.5253 ppb       20.73608 275.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                15.1      0.0519 µg/L       0.05154      0.0519 ppb        0.05154  99.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.1      0.2279 µg/L       0.58875      0.2279 ppb        0.58875 258.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         73.1      24.066 µg/L        1.2283      24.066 ppb         1.2283   5.10%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -13.6     -0.7433 µg/L       0.11501     -0.7433 ppb        0.11501  15.47%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.3     -2.6875 µg/L       5.36613     -2.6875 ppb        5.36613 199.67%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.0     -1.5981 µg/L       1.34866     -1.5981 ppb        1.34866  84.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.4      10.425 µg/L        5.3180      10.425 ppb         5.3180  51.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.7     -1.6649 µg/L       1.07918     -1.6649 ppb        1.07918  64.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.4141 µg/L       2.42173      0.4141 ppb        2.42173 584.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -45.8     -9.8634 µg/L       3.73124     -9.8634 ppb        3.73124  37.83%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -26.3     -2.1628 µg/L       0.25893     -2.1628 ppb        0.25893  11.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      1.2530 µg/L       0.49474      1.2530 ppb        0.49474  39.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.4     -0.0977 µg/L       0.13720     -0.0977 ppb        0.13720 140.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.1      0.0681 µg/L       0.01753      0.0681 ppb        0.01753  25.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.5      4.9108 µg/L       3.02042      4.9108 ppb        3.02042  61.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -44.5     -4.0288 µg/L       4.17218     -4.0288 ppb        4.17218 103.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.5      0.3005 µg/L       0.38270      0.3005 ppb        0.38270 127.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -20.9     -0.5173 µg/L       0.07558     -0.5173 ppb        0.07558  14.61%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:12:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55671.1	55671.1	102	%			19:13:03
1	Al 396.153Radial†	7032.4	6904.0	5134.7	µg/L	5134.7	ppb	19:13:03
1	Ca 317.933Radial†	5628.4	5338.4	5026.4	µg/L	5026.4	ppb	19:13:23
1	Fe 238.204 Radial†	628.5	601.6	5110.3	µg/L	5110.3	ppb	19:13:23
1	K 766.490 Radial†	7390.7	7116.7	5058.5	µg/L	5058.5	ppb	19:13:03
1	Mg 279.077 IEC†	581.4	558.7	5202.9	µg/L	5202.9	ppb	19:13:23
1	Na 589.592 Radial†	32145.4	30970.2	10196	µg/L	10196	ppb	19:13:03
1	Sr 421.552†	49522.9	48507.7	502.84	µg/L	502.84	ppb	19:13:03
1	Sc 361.383	1951144.3	1951144.3	102.16	%			19:14:27
1	Y 371.029	1335064.4	1335064.4	101.92	%			19:14:27
1	Ag 328.068†	64845.5	64037.3	511.83	µg/L	511.83	ppb	19:14:32
1	As 188.979†	275.5	268.5	523.78	µg/L	523.78	ppb	19:14:53
1	B 249.677†	12049.2	11462.7	499.11	µg/L	499.11	ppb	19:14:32
1	Ba 233.527†	20008.0	19610.4	511.55	µg/L	511.55	ppb	19:14:32
1	Be 313.107†	795598.6	782196.8	510.62	µg/L	510.62	ppb	19:14:27
1	Cd 226.502†	18839.6	18582.9	512.61	µg/L	512.61	ppb	19:14:32
1	Co 228.616†	10676.1	10458.9	514.13	µg/L	514.13	ppb	19:14:32
1	Cr 267.716†	23927.2	23473.1	516.64	µg/L	516.64	ppb	19:14:32
1	Cu 324.752†	77230.7	73109.7	511.40	µg/L	511.40	ppb	19:14:32
1	Mn 257.610†	153022.2	150027.0	519.99	µg/L	519.99	ppb	19:14:27
1	Mo 202.031†	5147.6	5046.1	538.72	µg/L	538.72	ppb	19:14:53
1	Ni 231.604†	9909.1	9397.1	513.24	µg/L	513.24	ppb	19:14:32
1	P 214.914†	1284.0	1229.2	2590.7	µg/L	2590.7	ppb	19:14:53
1	Pb 220.353†	2100.1	1958.5	522.80	µg/L	522.80	ppb	19:14:53
1	S 181.975 Axial†	260.7	240.4	1053.2	µg/L	1053.2	ppb	19:14:53
1	Sb 206.836†	579.1	539.9	533.92	µg/L	533.92	ppb	19:14:53
1	Se 196.026†	368.4	344.8	533.59	µg/L	533.59	ppb	19:14:53
1	SiO2†	27092.9	25269.3	5441.9	µg/L	5441.9	ppb	19:14:32
1	Si 251.611†	31889.8	30901.8	2540.3	µg/L	2540.3	ppb	19:14:32
1	Sn 189.927†	1200.9	1176.4	541.09	µg/L	541.09	ppb	19:14:53
1	Ti 334.940†	218380.7	213641.7	513.57	µg/L	513.57	ppb	19:14:27
1	Tl 190.801†	350.6	367.5	519.14	µg/L	519.14	ppb	19:14:53
1	U 409.014†	5814.6	5745.1	519.13	µg/L	519.13	ppb	19:14:32
1	V 292.402†	48982.0	47989.3	517.92	µg/L	517.92	ppb	19:14:32
1	Zn 213.857†	21483.0	20552.7	509.59	µg/L	509.59	ppb	19:14:32
2	Sc RADIAL	56100.7	56100.7	103	%			19:13:29
2	Al 396.153Radial†	6945.6	6766.8	5032.6	µg/L	5032.6	ppb	19:13:29
2	Ca 317.933Radial†	5631.2	5298.9	4989.2	µg/L	4989.2	ppb	19:13:49
2	Fe 238.204 Radial†	627.7	596.1	5063.7	µg/L	5063.7	ppb	19:13:49
2	K 766.490 Radial†	7341.2	7013.0	4984.8	µg/L	4984.8	ppb	19:13:29
2	Mg 279.077 IEC†	586.0	558.8	5203.5	µg/L	5203.5	ppb	19:13:49
2	Na 589.592 Radial†	31976.7	30564.8	10062	µg/L	10062	ppb	19:13:29
2	Sr 421.552†	49170.9	47793.6	495.44	µg/L	495.44	ppb	19:13:29
2	Sc 361.383	1954250.3	1954250.3	102.33	%			19:15:00
2	Y 371.029	1335611.5	1335611.5	101.96	%			19:15:00
2	Ag 328.068†	65212.5	64295.1	513.88	µg/L	513.88	ppb	19:15:06
2	As 188.979†	274.4	267.0	520.94	µg/L	520.94	ppb	19:15:26
2	B 249.677†	12164.5	11556.6	503.24	µg/L	503.24	ppb	19:15:06
2	Ba 233.527†	20057.8	19628.0	512.01	µg/L	512.01	ppb	19:15:06
2	Be 313.107†	786582.3	772147.7	504.06	µg/L	504.06	ppb	19:15:00
2	Cd 226.502†	18912.0	18624.4	513.76	µg/L	513.76	ppb	19:15:06
2	Co 228.616†	10732.8	10497.7	516.05	µg/L	516.05	ppb	19:15:06
2	Cr 267.716†	24011.5	23518.2	517.63	µg/L	517.63	ppb	19:15:06
2	Cu 324.752†	77632.9	73382.6	513.30	µg/L	513.30	ppb	19:15:06
2	Mn 257.610†	151747.3	148542.9	514.85	µg/L	514.85	ppb	19:15:00
2	Mo 202.031†	5096.3	4988.0	532.52	µg/L	532.52	ppb	19:15:26
2	Ni 231.604†	9986.9	9457.7	516.55	µg/L	516.55	ppb	19:15:06
2	P 214.914†	1269.9	1213.4	2556.6	µg/L	2556.6	ppb	19:15:26
2	Pb 220.353†	2103.2	1958.2	522.70	µg/L	522.70	ppb	19:15:26

2	S 181.975 Axial†	261.6	240.8	1055.1 µg/L	1055.1 ppb	19:15:26
2	Sb 206.836†	583.1	542.9	536.77 µg/L	536.77 ppb	19:15:26
2	Se 196.026†	358.4	334.4	517.63 µg/L	517.63 ppb	19:15:26
2	SiO2†	27219.9	25351.3	5459.5 µg/L	5459.5 ppb	19:15:06
2	Si 251.611†	32020.8	30980.3	2546.7 µg/L	2546.7 ppb	19:15:06
2	Sn 189.927†	1194.0	1167.7	537.13 µg/L	537.13 ppb	19:15:26
2	Ti 334.940†	216182.4	211153.6	507.58 µg/L	507.58 ppb	19:15:00
2	Tl 190.801†	351.8	368.1	519.85 µg/L	519.85 ppb	19:15:26
2	U 409.014†	5813.7	5735.2	518.24 µg/L	518.24 ppb	19:15:06
2	V 292.402†	49127.5	48055.3	518.57 µg/L	518.57 ppb	19:15:06
2	Zn 213.857†	21549.0	20583.8	510.35 µg/L	510.35 ppb	19:15:06
3	Sc RADIAL	56646.4	56646.4	104 %		19:13:55
3	Al 396.153Radial†	6990.5	6744.9	5018.4 µg/L	5018.4 ppb	19:13:55
3	Ca 317.933Radial†	5597.5	5213.6	4908.9 µg/L	4908.9 ppb	19:14:15
3	Fe 238.204 Radial†	629.8	592.2	5029.2 µg/L	5029.2 ppb	19:14:15
3	K 766.490 Radial†	7441.3	7040.7	5004.5 µg/L	5004.5 ppb	19:13:55
3	Mg 279.077 IEC†	585.3	552.6	5144.3 µg/L	5144.3 ppb	19:14:15
3	Na 589.592 Radial†	32200.7	30481.0	10034 µg/L	10034 ppb	19:13:55
3	Sr 421.552†	49653.3	47797.6	495.48 µg/L	495.48 ppb	19:13:55
3	Sc 361.383	1989206.7	1989206.7	104.16 %		19:15:33
3	Y 371.029	1360871.5	1360871.5	103.89 %		19:15:33
3	Ag 328.068†	60452.0	58604.6	468.29 µg/L	468.29 ppb	19:15:39
3	As 188.979†	231.4	221.0	431.16 µg/L	431.16 ppb	19:15:59
3	B 249.677†	11200.8	10422.4	453.57 µg/L	453.57 ppb	19:15:39
3	Ba 233.527†	18155.6	17457.3	455.37 µg/L	455.37 ppb	19:15:39
3	Be 313.107†	746723.2	720370.4	470.26 µg/L	470.26 ppb	19:15:33
3	Cd 226.502†	17034.9	16497.4	455.02 µg/L	455.02 ppb	19:15:39
3	Co 228.616†	9575.0	9201.8	452.26 µg/L	452.26 ppb	19:15:39
3	Cr 267.716†	20898.9	20117.4	442.78 µg/L	442.78 ppb	19:15:39
3	Cu 324.752†	69759.8	64490.4	451.18 µg/L	451.18 ppb	19:15:39
3	Mn 257.610†	144303.8	138790.3	481.07 µg/L	481.07 ppb	19:15:33
3	Mo 202.031†	4187.5	4027.9	430.06 µg/L	430.06 ppb	19:15:59
3	Ni 231.604†	8969.1	8309.0	453.82 µg/L	453.82 ppb	19:15:39
3	P 214.914†	1074.2	1003.7	2111.2 µg/L	2111.2 ppb	19:15:59
3	Pb 220.353†	1799.2	1630.2	435.08 µg/L	435.08 ppb	19:15:59
3	S 181.975 Axial†	224.9	201.1	880.92 µg/L	880.92 ppb	19:15:59
3	Sb 206.836†	494.9	448.2	442.71 µg/L	442.71 ppb	19:15:59
3	Se 196.026†	304.8	276.8	429.75 µg/L	429.75 ppb	19:15:59
3	SiO2†	24880.7	22637.9	4875.2 µg/L	4875.2 ppb	19:15:39
3	Si 251.611†	29305.2	27823.1	2287.2 µg/L	2287.2 ppb	19:15:39
3	Sn 189.927†	959.0	921.6	423.93 µg/L	423.93 ppb	19:15:59
3	Ti 334.940†	203896.7	195645.3	470.28 µg/L	470.28 ppb	19:15:33
3	Tl 190.801†	305.5	317.6	449.03 µg/L	449.03 ppb	19:15:59
3	U 409.014†	5068.3	4919.7	444.42 µg/L	444.42 ppb	19:15:39
3	V 292.402†	43582.6	41887.9	451.80 µg/L	451.80 ppb	19:15:39
3	Zn 213.857†	19376.0	18127.3	449.39 µg/L	449.39 ppb	19:15:39

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1964867.1	102.88	%	1.107				1.08%
Sc RADIAL	56139.4	103	%	0.9				0.87%
Y 371.029	1343849.1	102.59	%	1.126				1.10%
Ag 328.068†	62312.3	498.00	µg/L	25.750	498.00	ppb	25.750	5.17%
QC value within limits for Ag 328.068 Recovery = 99.60%								
Al 396.153Radial†	6805.2	5061.9	µg/L	63.45	5061.9	ppb	63.45	1.25%
QC value within limits for Al 396.153Radial Recovery = 101.24%								
As 188.979†	252.2	491.96	µg/L	52.673	491.96	ppb	52.673	10.71%
QC value within limits for As 188.979 Recovery = 98.39%								
B 249.677†	11147.2	485.30	µg/L	27.561	485.30	ppb	27.561	5.68%
QC value within limits for B 249.677 Recovery = 97.06%								
Ba 233.527†	18898.6	492.97	µg/L	32.570	492.97	ppb	32.570	6.61%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	758238.3	494.98	µg/L	21.658	494.98	ppb	21.658	4.38%
QC value within limits for Be 313.107 Recovery = 99.00%								
Ca 317.933Radial†	5283.6	4974.8	µg/L	60.06	4974.8	ppb	60.06	1.21%
QC value within limits for Ca 317.933Radial Recovery = 99.50%								
Cd 226.502†	17901.6	493.80	µg/L	33.585	493.80	ppb	33.585	6.80%
QC value within limits for Cd 226.502 Recovery = 98.76%								
Co 228.616†	10052.8	494.14	µg/L	36.289	494.14	ppb	36.289	7.34%

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   QC value within limits for Co 228.616  Recovery = 98.83%
Cr 267.716†            22369.6      492.35 µg/L        42.929      492.35 ppb        42.929   8.72%
   QC value within limits for Cr 267.716  Recovery = 98.47%
Cu 324.752†            70327.6      491.96 µg/L        35.329      491.96 ppb        35.329   7.18%
   QC value within limits for Cu 324.752  Recovery = 98.39%
Fe 238.204 Radial†       596.7      5067.7 µg/L         40.70      5067.7 ppb         40.70   0.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.35%
K 766.490 Radial†       7056.8      5015.9 µg/L         38.15      5015.9 ppb         38.15   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 100.32%
Mg 279.077 IEC†          556.7      5183.6 µg/L         33.98      5183.6 ppb         33.98   0.66%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.67%
Mn 257.610†           145786.8      505.31 µg/L        21.142      505.31 ppb        21.142   4.18%
   QC value within limits for Mn 257.610  Recovery = 101.06%
Mo 202.031†             4687.4      500.43 µg/L        61.026      500.43 ppb        61.026  12.19%
   QC value within limits for Mo 202.031  Recovery = 100.09%
Na 589.592 Radial†     30672.0       10097 µg/L          86.1       10097 ppb          86.1   0.85%
   QC value within limits for Na 589.592 Radial  Recovery = 100.97%
Ni 231.604†             9054.6      494.54 µg/L        35.300      494.54 ppb        35.300   7.14%
   QC value within limits for Ni 231.604  Recovery = 98.91%
P 214.914†              1148.8      2419.5 µg/L        267.56      2419.5 ppb        267.56  11.06%
   QC value within limits for P 214.914  Recovery = 96.78%
Pb 220.353†             1849.0      493.53 µg/L        50.614      493.53 ppb        50.614  10.26%
   QC value within limits for Pb 220.353  Recovery = 98.71%
S 181.975 Axial†         227.4      996.40 µg/L       100.008      996.40 ppb       100.008  10.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.64%
Sb 206.836†              510.3      504.47 µg/L        53.501      504.47 ppb        53.501  10.61%
   QC value within limits for Sb 206.836  Recovery = 100.89%
Se 196.026†              318.7      493.66 µg/L        55.921      493.66 ppb        55.921  11.33%
   QC value within limits for Se 196.026  Recovery = 98.73%
SiO2†                  24419.5      5258.9 µg/L        332.39      5258.9 ppb        332.39   6.32%
   QC value within limits for SiO2  Recovery = 98.34%
Si 251.611†            29901.8      2458.1 µg/L        148.02      2458.1 ppb        148.02   6.02%
   QC value within limits for Si 251.611  Recovery = 98.32%
Sn 189.927†             1088.6      500.71 µg/L        66.525      500.71 ppb        66.525  13.29%
   QC value within limits for Sn 189.927  Recovery = 100.14%
Sr 421.552†            48033.0      497.92 µg/L         4.262      497.92 ppb         4.262   0.86%
   QC value within limits for Sr 421.552  Recovery = 99.58%
Ti 334.940†           206813.5      497.14 µg/L        23.455      497.14 ppb        23.455   4.72%
   QC value within limits for Ti 334.940  Recovery = 99.43%
Tl 190.801†              351.1      496.01 µg/L        40.687      496.01 ppb        40.687   8.20%
   QC value within limits for Tl 190.801  Recovery = 99.20%
U 409.014†              5466.7      493.93 µg/L        42.881      493.93 ppb        42.881   8.68%
   QC value within limits for U 409.014  Recovery = 98.79%
V 292.402†             45977.5      496.10 µg/L        38.364      496.10 ppb        38.364   7.73%
   QC value within limits for V 292.402  Recovery = 99.22%
Zn 213.857†            19754.6      489.78 µg/L        34.976      489.78 ppb        34.976   7.14%
   QC value within limits for Zn 213.857  Recovery = 97.96%
All analyte(s) passed QC.
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Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:16:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55600.7	55600.7	102	%			19:16:41
1	Al 396.153Radial†	-4.5	5.7	4.2256	µg/L	4.2256	ppb	19:16:41
1	Ca 317.933Radial†	176.7	-5.7	-5.4036	µg/L	-5.4036	ppb	19:17:01
1	Fe 238.204 Radial†	16.9	2.1	17.440	µg/L	17.440	ppb	19:17:01
1	K 766.490 Radial†	120.8	-9.9	-7.0161	µg/L	-7.0161	ppb	19:16:41
1	Mg 279.077 IEC†	10.9	-0.6	-5.3345	µg/L	-5.3345	ppb	19:17:01
1	Na 589.592 Radial†	652.7	98.7	32.500	µg/L	32.500	ppb	19:16:41
1	Sr 421.552†	22.7	-17.3	-0.1790	µg/L	-0.1790	ppb	19:16:41
1	Sc 361.383	1934829.6	1934829.6	101.31	%			19:18:03
1	Y 371.029	1327190.7	1327190.7	101.32	%			19:18:03
1	Ag 328.068†	-516.6	54.6	0.4388	µg/L	0.4388	ppb	19:18:09
1	As 188.979†	1.2	0.0	0.0845	µg/L	0.0845	ppb	19:18:29
1	B 249.677†	321.4	-14.2	-0.6284	µg/L	-0.6284	ppb	19:18:29
1	Ba 233.527†	-23.7	2.6	0.0683	µg/L	0.0683	ppb	19:18:29
1	Be 313.107†	-3408.1	76.3	0.0498	µg/L	0.0498	ppb	19:18:09
1	Cd 226.502†	-144.3	-0.3	-0.0100	µg/L	-0.0100	ppb	19:18:29
1	Co 228.616†	-6.0	2.9	0.1456	µg/L	0.1456	ppb	19:18:29
1	Cr 267.716†	-15.9	36.7	0.8069	µg/L	0.8069	ppb	19:18:09
1	Cu 324.752†	2442.5	-75.1	-0.5222	µg/L	-0.5222	ppb	19:18:09
1	Mn 257.610†	-225.9	21.1	0.0756	µg/L	0.0756	ppb	19:18:29
1	Mo 202.031†	-2.6	4.9	0.5275	µg/L	0.5275	ppb	19:18:29
1	Ni 231.604†	310.8	4.6	0.2529	µg/L	0.2529	ppb	19:18:29
1	P 214.914†	22.3	-5.6	-12.052	µg/L	-12.052	ppb	19:18:29
1	Pb 220.353†	97.2	-1.3	-0.3391	µg/L	-0.3391	ppb	19:18:29
1	S 181.975 Axial†	15.8	0.7	3.2436	µg/L	3.2436	ppb	19:18:29
1	Sb 206.836†	30.1	2.8	2.7305	µg/L	2.7305	ppb	19:18:29
1	Se 196.026†	14.9	-1.1	-1.6720	µg/L	-1.6720	ppb	19:18:29
1	SiO2†	1241.8	-24.3	-5.2260	µg/L	-5.2260	ppb	19:18:09
1	Si 251.611†	314.2	-2.7	-0.2249	µg/L	-0.2249	ppb	19:18:29
1	Sn 189.927†	3.0	3.9	1.7687	µg/L	1.7687	ppb	19:18:29
1	Ti 334.940†	129.2	11.4	0.0278	µg/L	0.0278	ppb	19:18:09
1	Tl 190.801†	-22.4	2.2	3.0821	µg/L	3.0821	ppb	19:18:29
1	U 409.014†	-44.2	10.0	0.9045	µg/L	0.9045	ppb	19:18:09
1	V 292.402†	22.3	66.2	0.7146	µg/L	0.7146	ppb	19:18:09
1	Zn 213.857†	480.2	-1.5	-0.0391	µg/L	-0.0391	ppb	19:18:29
2	Sc RADIAL	55841.1	55841.1	102	%			19:17:07
2	Al 396.153Radial†	-0.2	10.0	7.4245	µg/L	7.4245	ppb	19:17:07
2	Ca 317.933Radial†	185.5	2.1	1.9861	µg/L	1.9861	ppb	19:17:27
2	Fe 238.204 Radial†	13.8	-1.1	-8.9579	µg/L	-8.9579	ppb	19:17:27
2	K 766.490 Radial†	118.8	-12.3	-8.7251	µg/L	-8.7251	ppb	19:17:07
2	Mg 279.077 IEC†	12.4	0.9	8.1129	µg/L	8.1129	ppb	19:17:27
2	Na 589.592 Radial†	684.6	127.2	41.869	µg/L	41.869	ppb	19:17:07
2	Sr 421.552†	48.5	7.8	0.0810	µg/L	0.0810	ppb	19:17:07
2	Sc 361.383	1955516.9	1955516.9	102.39	%			19:18:35
2	Y 371.029	1342161.2	1342161.2	102.46	%			19:18:35
2	Ag 328.068†	-513.3	63.2	0.5022	µg/L	0.5022	ppb	19:18:41
2	As 188.979†	-5.0	-6.0	-11.703	µg/L	-11.703	ppb	19:19:01
2	B 249.677†	317.0	-21.8	-0.9495	µg/L	-0.9495	ppb	19:19:01
2	Ba 233.527†	-19.8	6.7	0.1743	µg/L	0.1743	ppb	19:19:01
2	Be 313.107†	-3409.1	110.9	0.0724	µg/L	0.0724	ppb	19:18:41
2	Cd 226.502†	-125.7	19.4	0.5362	µg/L	0.5362	ppb	19:19:01
2	Co 228.616†	-4.9	4.1	0.1998	µg/L	0.1998	ppb	19:19:01
2	Cr 267.716†	-35.7	17.5	0.3848	µg/L	0.3848	ppb	19:18:41
2	Cu 324.752†	2432.5	-110.5	-0.7728	µg/L	-0.7728	ppb	19:18:41
2	Mn 257.610†	-217.1	32.1	0.1097	µg/L	0.1097	ppb	19:19:01
2	Mo 202.031†	-0.2	7.4	0.7857	µg/L	0.7857	ppb	19:19:01
2	Ni 231.604†	307.3	-2.1	-0.1144	µg/L	-0.1144	ppb	19:19:01
2	P 214.914†	26.8	-1.4	-2.9443	µg/L	-2.9443	ppb	19:19:01
2	Pb 220.353†	98.0	-1.5	-0.3841	µg/L	-0.3841	ppb	19:19:01

2	S 181.975 Axial†	16.0	0.8	3.5945 µg/L	3.5945 ppb	19:19:01
2	Sb 206.836†	19.9	-7.6	-7.4359 µg/L	-7.4359 ppb	19:19:01
2	Se 196.026†	24.3	7.9	11.982 µg/L	11.982 ppb	19:19:01
2	SiO2†	1252.6	-26.7	-5.7496 µg/L	-5.7496 ppb	19:18:41
2	Si 251.611†	335.5	14.8	1.2146 µg/L	1.2146 ppb	19:19:01
2	Sn 189.927†	0.8	1.7	0.7658 µg/L	0.7658 ppb	19:19:01
2	Ti 334.940†	159.2	39.3	0.0940 µg/L	0.0940 ppb	19:18:41
2	Tl 190.801†	-19.6	5.1	7.1712 µg/L	7.1712 ppb	19:19:01
2	U 409.014†	-39.3	15.2	1.3764 µg/L	1.3764 ppb	19:18:41
2	V 292.402†	-32.1	12.8	0.1441 µg/L	0.1441 ppb	19:18:41
2	Zn 213.857†	480.1	-6.6	-0.1635 µg/L	-0.1635 ppb	19:19:01
3	Sc RADIAL	54991.0	54991.0	101 %		19:17:32
3	Al 396.153Radial†	-25.8	-15.4	-11.501 µg/L	-11.501 ppb	19:17:32
3	Ca 317.933Radial†	179.1	-1.4	-1.2826 µg/L	-1.2826 ppb	19:17:53
3	Fe 238.204 Radial†	16.1	1.5	12.918 µg/L	12.918 ppb	19:17:53
3	K 766.490 Radial†	157.4	27.8	19.781 µg/L	19.781 ppb	19:17:32
3	Mg 279.077 IEC†	9.1	-2.2	-20.551 µg/L	-20.551 ppb	19:17:53
3	Na 589.592 Radial†	624.4	77.8	25.618 µg/L	25.618 ppb	19:17:32
3	Sr 421.552†	39.8	-0.1	-0.0009 µg/L	-0.0009 ppb	19:17:32
3	Sc 361.383	1967438.1	1967438.1	103.02 %		19:19:07
3	Y 371.029	1348776.4	1348776.4	102.97 %		19:19:07
3	Ag 328.068†	-543.2	37.2	0.2976 µg/L	0.2976 ppb	19:19:13
3	As 188.979†	-2.4	-3.5	-6.8853 µg/L	-6.8853 ppb	19:19:33
3	B 249.677†	305.4	-35.0	-1.5334 µg/L	-1.5334 ppb	19:19:33
3	Ba 233.527†	-26.9	-0.1	-0.0009 µg/L	-0.0009 ppb	19:19:33
3	Be 313.107†	-3287.9	248.8	0.1624 µg/L	0.1624 ppb	19:19:13
3	Cd 226.502†	-133.1	12.9	0.3539 µg/L	0.3539 ppb	19:19:33
3	Co 228.616†	-14.2	-5.0	-0.2450 µg/L	-0.2450 ppb	19:19:33
3	Cr 267.716†	-20.7	32.3	0.7108 µg/L	0.7108 ppb	19:19:13
3	Cu 324.752†	2481.8	-76.9	-0.5355 µg/L	-0.5355 ppb	19:19:13
3	Mn 257.610†	-209.8	40.5	0.1427 µg/L	0.1427 ppb	19:19:33
3	Mo 202.031†	-10.0	-2.2	-0.2320 µg/L	-0.2320 ppb	19:19:33
3	Ni 231.604†	301.2	-9.8	-0.5340 µg/L	-0.5340 ppb	19:19:33
3	P 214.914†	26.0	-2.4	-5.0576 µg/L	-5.0576 ppb	19:19:33
3	Pb 220.353†	96.7	-3.3	-0.8887 µg/L	-0.8887 ppb	19:19:33
3	S 181.975 Axial†	14.9	-0.4	-1.5487 µg/L	-1.5487 ppb	19:19:33
3	Sb 206.836†	32.3	4.4	4.3137 µg/L	4.3137 ppb	19:19:33
3	Se 196.026†	14.2	-2.1	-3.1442 µg/L	-3.1442 ppb	19:19:33
3	SiO2†	1256.2	-30.6	-6.5854 µg/L	-6.5854 ppb	19:19:13
3	Si 251.611†	309.4	-12.5	-1.0288 µg/L	-1.0288 ppb	19:19:33
3	Sn 189.927†	-1.0	-0.1	-0.0403 µg/L	-0.0403 ppb	19:19:33
3	Ti 334.940†	153.9	33.3	0.0816 µg/L	0.0816 ppb	19:19:13
3	Tl 190.801†	-21.2	3.7	5.1463 µg/L	5.1463 ppb	19:19:33
3	U 409.014†	-6.3	47.5	4.3005 µg/L	4.3005 ppb	19:19:13
3	V 292.402†	-20.0	24.8	0.2699 µg/L	0.2699 ppb	19:19:13
3	Zn 213.857†	479.8	-9.8	-0.2409 µg/L	-0.2409 ppb	19:19:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1952594.9	102.24	%	0.864				0.84%
Sc RADIAL	55477.6	102	%	0.8				0.79%
Y 371.029	1339376.1	102.25	%	0.844				0.83%
Ag 328.068†	51.7	0.4129	µg/L	0.10471	0.4129	ppb	0.10471	25.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.1	0.0498	µg/L	10.13010	0.0498	ppb	10.13010	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-6.1678	µg/L	5.92624	-6.1678	ppb	5.92624	96.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.7	-1.0371	µg/L	0.45878	-1.0371	ppb	0.45878	44.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.1	0.0805	µg/L	0.08826	0.0805	ppb	0.08826	109.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.3	0.0949	µg/L	0.05957	0.0949	ppb	0.05957	62.77%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.7	-1.5667	µg/L	3.70306	-1.5667	ppb	3.70306	236.36%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	10.7	0.2934	µg/L	0.27809	0.2934	ppb	0.27809	94.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	0.7	0.0335	µg/L	0.24267	0.0335	ppb	0.24267	724.80%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              28.8      0.6341 µg/L       0.22120      0.6341 ppb        0.22120  34.88%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -87.5     -0.6102 µg/L       0.14102     -0.6102 ppb        0.14102  23.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.8      7.1335 µg/L      14.11778      7.1335 ppb       14.11778 197.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         1.9      1.3465 µg/L      15.98731      1.3465 ppb       15.98731 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.6     -5.9243 µg/L      14.34120     -5.9243 ppb       14.34120 242.07%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              31.2      0.1094 µg/L       0.03354      0.1094 ppb        0.03354  30.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.4      0.3604 µg/L       0.52901      0.3604 ppb        0.52901 146.78%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      101.2      33.329 µg/L        8.1571      33.329 ppb         8.1571  24.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -2.4     -0.1318 µg/L       0.39372     -0.1318 ppb        0.39372 298.69%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -3.1     -6.6846 µg/L       4.76680     -6.6846 ppb        4.76680  71.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.0     -0.5373 µg/L       0.30511     -0.5373 ppb        0.30511  56.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.4      1.7632 µg/L       2.87351      1.7632 ppb        2.87351 162.97%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.1     -0.1306 µg/L       6.37594     -0.1306 ppb        6.37594 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.6      2.3884 µg/L       8.34041      2.3884 ppb        8.34041 349.20%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -27.2     -5.8537 µg/L       0.68563     -5.8537 ppb        0.68563  11.71%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              -0.2     -0.0130 µg/L       1.13664     -0.0130 ppb        1.13664 >999.9%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.8      0.8314 µg/L       0.90630      0.8314 ppb        0.90630 109.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -3.2     -0.0330 µg/L       0.13293     -0.0330 ppb        0.13293 403.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              28.0      0.0678 µg/L       0.03518      0.0678 ppb        0.03518  51.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.7      5.1332 µg/L       2.04457      5.1332 ppb        2.04457  39.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               24.2      2.1938 µg/L       1.83966      2.1938 ppb        1.83966  83.86%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               34.6      0.3762 µg/L       0.29972      0.3762 ppb        0.29972  79.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -6.0     -0.1478 µg/L       0.10182     -0.1478 ppb        0.10182  68.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 19:41:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56419.4	56419.4	103	%			19:42:04
1	Al 396.153Radial†	6864.6	6650.3	4946.1	µg/L	4946.1	ppb	19:42:25
1	Ca 317.933Radial†	5559.4	5198.4	4894.6	µg/L	4894.6	ppb	19:42:25
1	Fe 238.204 Radial†	616.6	581.9	4942.5	µg/L	4942.5	ppb	19:42:25
1	K 766.490 Radial†	7352.0	6983.2	4963.6	µg/L	4963.6	ppb	19:42:04
1	Mg 279.077 IEC†	570.1	540.2	5030.2	µg/L	5030.2	ppb	19:42:25
1	Na 589.592 Radial†	31600.6	30025.3	9884.4	µg/L	9884.4	ppb	19:42:04
1	Sr 421.552†	48468.4	46843.8	485.59	µg/L	485.59	ppb	19:42:04
1	Sc 361.383	2003108.1	2003108.1	104.88	%			19:43:28
1	Y 371.029	1370730.2	1370730.2	104.64	%			19:43:28
1	Ag 328.068†	64726.1	62276.9	497.74	µg/L	497.74	ppb	19:43:34
1	As 188.979†	267.5	253.9	495.37	µg/L	495.37	ppb	19:43:54
1	B 249.677†	12041.2	11149.1	485.46	µg/L	485.46	ppb	19:43:34
1	Ba 233.527†	19842.7	18944.8	494.19	µg/L	494.19	ppb	19:43:34
1	Be 313.107†	766666.1	734409.3	479.43	µg/L	479.43	ppb	19:43:28
1	Cd 226.502†	18686.6	17958.6	495.39	µg/L	495.39	ppb	19:43:34
1	Co 228.616†	10595.4	10110.9	497.04	µg/L	497.04	ppb	19:43:34
1	Cr 267.716†	23720.3	22668.2	498.92	µg/L	498.92	ppb	19:43:34
1	Cu 324.752†	76984.9	70914.3	496.04	µg/L	496.04	ppb	19:43:34
1	Mn 257.610†	147751.2	141115.8	489.12	µg/L	489.12	ppb	19:43:28
1	Mo 202.031†	5026.0	4799.5	512.40	µg/L	512.40	ppb	19:43:54
1	Ni 231.604†	9826.5	9066.7	495.20	µg/L	495.20	ppb	19:43:34
1	P 214.914†	1254.6	1168.6	2461.8	µg/L	2461.8	ppb	19:43:54
1	Pb 220.353†	2050.1	1857.4	495.79	µg/L	495.79	ppb	19:43:54
1	S 181.975 Axial†	255.6	228.9	1003.0	µg/L	1003.0	ppb	19:43:54
1	Sb 206.836†	570.4	516.9	511.09	µg/L	511.09	ppb	19:43:54
1	Se 196.026†	360.0	327.4	506.74	µg/L	506.74	ppb	19:43:54
1	SiO2†	26928.3	24424.4	5259.9	µg/L	5259.9	ppb	19:43:34
1	Si 251.611†	31785.6	29992.7	2465.6	µg/L	2465.6	ppb	19:43:34
1	Sn 189.927†	1167.3	1113.9	512.34	µg/L	512.34	ppb	19:43:54
1	Ti 334.940†	210971.9	201032.6	483.25	µg/L	483.25	ppb	19:43:28
1	Tl 190.801†	351.0	358.9	506.83	µg/L	506.83	ppb	19:43:54
1	U 409.014†	5847.6	5628.9	508.64	µg/L	508.64	ppb	19:43:34
1	V 292.402†	48650.0	46429.0	501.02	µg/L	501.02	ppb	19:43:34
1	Zn 213.857†	21378.5	19907.5	493.60	µg/L	493.60	ppb	19:43:34
2	Sc RADIAL	57083.7	57083.7	105	%			19:42:30
2	Al 396.153Radial†	6804.1	6515.2	4845.3	µg/L	4845.3	ppb	19:42:51
2	Ca 317.933Radial†	5545.5	5122.6	4823.3	µg/L	4823.3	ppb	19:42:51
2	Fe 238.204 Radial†	613.4	571.9	4857.7	µg/L	4857.7	ppb	19:42:51
2	K 766.490 Radial†	7292.4	6843.5	4864.3	µg/L	4864.3	ppb	19:42:30
2	Mg 279.077 IEC†	572.7	536.3	4994.3	µg/L	4994.3	ppb	19:42:51
2	Na 589.592 Radial†	31703.2	29767.7	9799.6	µg/L	9799.6	ppb	19:42:30
2	Sr 421.552†	48760.9	46577.9	482.83	µg/L	482.83	ppb	19:42:30
2	Sc 361.383	1956478.6	1956478.6	102.44	%			19:44:02
2	Y 371.029	1338013.6	1338013.6	102.14	%			19:44:02
2	Ag 328.068†	63625.9	62673.7	500.90	µg/L	500.90	ppb	19:44:07
2	As 188.979†	268.7	261.1	509.35	µg/L	509.35	ppb	19:44:28
2	B 249.677†	11834.0	11220.4	488.63	µg/L	488.63	ppb	19:44:07
2	Ba 233.527†	19447.5	19009.9	495.89	µg/L	495.89	ppb	19:44:07
2	Be 313.107†	783080.7	767854.0	501.26	µg/L	501.26	ppb	19:44:02
2	Cd 226.502†	18262.0	17968.8	495.68	µg/L	495.68	ppb	19:44:07
2	Co 228.616†	10399.7	10160.6	499.45	µg/L	499.45	ppb	19:44:07
2	Cr 267.716†	23262.6	22760.4	500.95	µg/L	500.95	ppb	19:44:07
2	Cu 324.752†	75552.4	71265.3	498.48	µg/L	498.48	ppb	19:44:07
2	Mn 257.610†	151080.8	147723.5	511.99	µg/L	511.99	ppb	19:44:02
2	Mo 202.031†	4987.4	4876.0	520.56	µg/L	520.56	ppb	19:44:28
2	Ni 231.604†	9658.6	9126.2	498.44	µg/L	498.44	ppb	19:44:07
2	P 214.914†	1238.9	1181.7	2490.0	µg/L	2490.0	ppb	19:44:28
2	Pb 220.353†	2049.2	1903.2	508.02	µg/L	508.02	ppb	19:44:28

2	S 181.975 Axial†	249.6	228.9	1002.7 µg/L	1002.7 ppb	19:44:28
2	Sb 206.836†	564.1	523.7	517.93 µg/L	517.93 ppb	19:44:28
2	Se 196.026†	358.2	333.9	516.45 µg/L	516.45 ppb	19:44:28
2	SiO2†	26483.3	24601.9	5298.2 µg/L	5298.2 ppb	19:44:07
2	Si 251.611†	31145.7	30090.4	2473.6 µg/L	2473.6 ppb	19:44:07
2	Sn 189.927†	1159.9	1133.1	521.19 µg/L	521.19 ppb	19:44:28
2	Ti 334.940†	215458.6	210206.4	505.32 µg/L	505.32 ppb	19:44:02
2	Tl 190.801†	341.6	357.7	505.37 µg/L	505.37 ppb	19:44:28
2	U 409.014†	5729.0	5646.0	510.20 µg/L	510.20 ppb	19:44:07
2	V 292.402†	47728.9	46635.3	503.28 µg/L	503.28 ppb	19:44:07
2	Zn 213.857†	20977.4	20001.8	495.95 µg/L	495.95 ppb	19:44:07
3	Sc RADIAL	57202.6	57202.6	105 %		19:42:56
3	Al 396.153Radial†	6841.2	6537.0	4863.4 µg/L	4863.4 ppb	19:43:17
3	Ca 317.933Radial†	5579.2	5143.7	4843.1 µg/L	4843.1 ppb	19:43:17
3	Fe 238.204 Radial†	619.6	576.6	4896.7 µg/L	4896.7 ppb	19:43:17
3	K 766.490 Radial†	7296.8	6833.1	4856.9 µg/L	4856.9 ppb	19:42:56
3	Mg 279.077 IEC†	570.0	532.5	4957.7 µg/L	4957.7 ppb	19:43:17
3	Na 589.592 Radial†	31651.4	29655.3	9762.6 µg/L	9762.6 ppb	19:42:56
3	Sr 421.552†	48633.6	46359.5	480.57 µg/L	480.57 ppb	19:42:56
3	Sc 361.383	1968483.8	1968483.8	103.07 %		19:44:35
3	Y 371.029	1347474.9	1347474.9	102.87 %		19:44:35
3	Ag 328.068†	60287.4	59055.9	471.87 µg/L	471.87 ppb	19:44:40
3	As 188.979†	225.2	217.3	423.99 µg/L	423.99 ppb	19:45:01
3	B 249.677†	11150.7	10487.1	456.47 µg/L	456.47 ppb	19:44:40
3	Ba 233.527†	17981.9	17472.2	455.76 µg/L	455.76 ppb	19:44:40
3	Be 313.107†	731612.9	713257.7	465.62 µg/L	465.62 ppb	19:44:35
3	Cd 226.502†	16841.2	16481.6	454.60 µg/L	454.60 ppb	19:44:40
3	Co 228.616†	9509.8	9235.4	453.92 µg/L	453.92 ppb	19:44:40
3	Cr 267.716†	20728.9	20163.7	443.80 µg/L	443.80 ppb	19:44:40
3	Cu 324.752†	69473.8	64918.0	454.15 µg/L	454.15 ppb	19:44:40
3	Mn 257.610†	141487.4	137516.4	476.65 µg/L	476.65 ppb	19:44:35
3	Mo 202.031†	4166.6	4050.0	432.41 µg/L	432.41 ppb	19:45:01
3	Ni 231.604†	8868.9	8302.5	453.46 µg/L	453.46 ppb	19:44:40
3	P 214.914†	1068.6	1009.2	2122.7 µg/L	2122.7 ppb	19:45:01
3	Pb 220.353†	1791.6	1641.0	437.94 µg/L	437.94 ppb	19:45:01
3	S 181.975 Axial†	225.5	204.0	893.82 µg/L	893.82 ppb	19:45:01
3	Sb 206.836†	488.9	447.4	442.01 µg/L	442.01 ppb	19:45:01
3	Se 196.026†	320.0	294.7	456.84 µg/L	456.84 ppb	19:45:01
3	SiO2†	24830.7	22841.0	4918.9 µg/L	4918.9 ppb	19:44:40
3	Si 251.611†	29062.2	27883.6	2292.2 µg/L	2292.2 ppb	19:44:40
3	Sn 189.927†	952.2	924.7	425.35 µg/L	425.35 ppb	19:45:01
3	Ti 334.940†	200541.4	194450.9	467.42 µg/L	467.42 ppb	19:44:35
3	Tl 190.801†	313.2	328.1	463.67 µg/L	463.67 ppb	19:45:01
3	U 409.014†	5147.7	5048.0	456.05 µg/L	456.05 ppb	19:44:40
3	V 292.402†	43287.8	42042.5	453.47 µg/L	453.47 ppb	19:44:40
3	Zn 213.857†	19269.8	18220.2	451.73 µg/L	451.73 ppb	19:44:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1976023.5	103.47	%	1.268				1.23%
Sc RADIAL	56901.9	104	%	0.8				0.74%
Y 371.029	1352072.9	103.22	%	1.285				1.25%
Ag 328.068†	61335.5	490.17	µg/L	15.926	490.17	ppb	15.926	3.25%
QC value within limits for Ag 328.068 Recovery = 98.03%								
Al 396.153Radial†	6567.5	4884.9	µg/L	53.78	4884.9	ppb	53.78	1.10%
QC value within limits for Al 396.153Radial Recovery = 97.70%								
As 188.979†	244.1	476.24	µg/L	45.784	476.24	ppb	45.784	9.61%
QC value within limits for As 188.979 Recovery = 95.25%								
B 249.677†	10952.2	476.85	µg/L	17.725	476.85	ppb	17.725	3.72%
QC value within limits for B 249.677 Recovery = 95.37%								
Ba 233.527†	18475.6	481.94	µg/L	22.693	481.94	ppb	22.693	4.71%
QC value within limits for Ba 233.527 Recovery = 96.39%								
Be 313.107†	738507.0	482.10	µg/L	17.970	482.10	ppb	17.970	3.73%
QC value within limits for Be 313.107 Recovery = 96.42%								
Ca 317.933Radial†	5154.9	4853.7	µg/L	36.83	4853.7	ppb	36.83	0.76%
QC value within limits for Ca 317.933Radial Recovery = 97.07%								
Cd 226.502†	17469.7	481.89	µg/L	23.632	481.89	ppb	23.632	4.90%
QC value within limits for Cd 226.502 Recovery = 96.38%								
Co 228.616†	9835.6	483.47	µg/L	25.623	483.47	ppb	25.623	5.30%

```
   QC value within limits for Co 228.616  Recovery = 96.69%
Cr 267.716†            21864.1      481.23 µg/L        32.425      481.23 ppb        32.425   6.74%
   QC value within limits for Cr 267.716  Recovery = 96.25%
Cu 324.752†            69032.5      482.89 µg/L        24.920      482.89 ppb        24.920   5.16%
   QC value within limits for Cu 324.752  Recovery = 96.58%
Fe 238.204 Radial†       576.8      4899.0 µg/L         42.44      4899.0 ppb         42.44   0.87%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.98%
K 766.490 Radial†       6886.6      4894.9 µg/L         59.56      4894.9 ppb         59.56   1.22%
   QC value within limits for K 766.490 Radial  Recovery = 97.90%
Mg 279.077 IEC†          536.3      4994.1 µg/L         36.28      4994.1 ppb         36.28   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.88%
Mn 257.610†           142118.5      492.59 µg/L        17.923      492.59 ppb        17.923   3.64%
   QC value within limits for Mn 257.610  Recovery = 98.52%
Mo 202.031†            4575.2      488.46 µg/L        48.709      488.46 ppb        48.709   9.97%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†    29816.1      9815.6 µg/L         62.45      9815.6 ppb         62.45   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 98.16%
Ni 231.604†            8831.8      482.37 µg/L        25.085      482.37 ppb        25.085   5.20%
   QC value within limits for Ni 231.604  Recovery = 96.47%
P 214.914†             1119.8      2358.2 µg/L        204.40      2358.2 ppb        204.40   8.67%
   QC value within limits for P 214.914  Recovery = 94.33%
Pb 220.353†            1800.5      480.58 µg/L        37.434      480.58 ppb        37.434   7.79%
   QC value within limits for Pb 220.353  Recovery = 96.12%
S 181.975 Axial†        220.6      966.52 µg/L        62.959      966.52 ppb        62.959   6.51%
   QC value within limits for S 181.975 Axial  Recovery = 96.65%
Sb 206.836†             496.0      490.35 µg/L        41.996      490.35 ppb        41.996   8.56%
   QC value within limits for Sb 206.836  Recovery = 98.07%
Se 196.026†             318.6      493.35 µg/L        31.983      493.35 ppb        31.983   6.48%
   QC value within limits for Se 196.026  Recovery = 98.67%
SiO2†                  23955.8      5159.0 µg/L        208.79      5159.0 ppb        208.79   4.05%
   QC value within limits for SiO2  Recovery = 96.48%
Si 251.611†            29322.2      2410.4 µg/L        102.50      2410.4 ppb        102.50   4.25%
   QC value within limits for Si 251.611  Recovery = 96.42%
Sn 189.927†            1057.2      486.29 µg/L        52.962      486.29 ppb        52.962  10.89%
   QC value within limits for Sn 189.927  Recovery = 97.26%
Sr 421.552†            46593.7      483.00 µg/L         2.514      483.00 ppb         2.514   0.52%
   QC value within limits for Sr 421.552  Recovery = 96.60%
Ti 334.940†           201896.6      485.33 µg/L        19.033      485.33 ppb        19.033   3.92%
   QC value within limits for Ti 334.940  Recovery = 97.07%
Tl 190.801†             348.3      491.96 µg/L        24.505      491.96 ppb        24.505   4.98%
   QC value within limits for Tl 190.801  Recovery = 98.39%
U 409.014†             5441.0      491.63 µg/L        30.821      491.63 ppb        30.821   6.27%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†             45035.6      485.92 µg/L        28.129      485.92 ppb        28.129   5.79%
   QC value within limits for V 292.402  Recovery = 97.18%
Zn 213.857†            19376.5      480.43 µg/L        24.881      480.43 ppb        24.881   5.18%
   QC value within limits for Zn 213.857  Recovery = 96.09%
All analyte(s) passed QC.
```

Sequence No.: 47
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 19:45:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56376.8	56376.8	103	%			19:45:43
1	Al 396.153Radial†	-19.0	-8.3	-6.1741	µg/L	-6.1741	ppb	19:45:43
1	Ca 317.933Radial†	190.5	5.3	4.9933	µg/L	4.9933	ppb	19:46:03
1	Fe 238.204 Radial†	14.9	-0.1	-0.5495	µg/L	-0.5495	ppb	19:46:03
1	K 766.490 Radial†	145.1	12.1	8.5950	µg/L	8.5950	ppb	19:45:43
1	Mg 279.077 IEC†	10.6	-1.0	-9.5449	µg/L	-9.5449	ppb	19:46:03
1	Na 589.592 Radial†	582.4	21.9	7.2091	µg/L	7.2091	ppb	19:45:43
1	Sr 421.552†	18.5	-21.6	-0.2243	µg/L	-0.2243	ppb	19:45:43
1	Sc 361.383	1992362.0	1992362.0	104.32	%			19:47:05
1	Y 371.029	1368353.4	1368353.4	104.46	%			19:47:05
1	Ag 328.068†	-598.5	-9.1	-0.0730	µg/L	-0.0730	ppb	19:47:10
1	As 188.979†	-0.0	-1.2	-2.2711	µg/L	-2.2711	ppb	19:47:31
1	B 249.677†	346.6	0.7	0.0326	µg/L	0.0326	ppb	19:47:31
1	Ba 233.527†	-24.2	2.9	0.0744	µg/L	0.0744	ppb	19:47:31
1	Be 313.107†	-3339.3	239.4	0.1563	µg/L	0.1563	ppb	19:47:10
1	Cd 226.502†	-124.4	22.9	0.6311	µg/L	0.6311	ppb	19:47:31
1	Co 228.616†	-16.5	-7.0	-0.3445	µg/L	-0.3445	ppb	19:47:31
1	Cr 267.716†	-47.2	7.2	0.1575	µg/L	0.1575	ppb	19:47:31
1	Cu 324.752†	2430.9	-155.9	-1.0892	µg/L	-1.0892	ppb	19:47:10
1	Mn 257.610†	-240.7	13.4	0.0467	µg/L	0.0467	ppb	19:47:31
1	Mo 202.031†	-8.3	-0.4	-0.0415	µg/L	-0.0415	ppb	19:47:31
1	Ni 231.604†	297.2	-17.3	-0.9473	µg/L	-0.9473	ppb	19:47:31
1	P 214.914†	35.0	6.0	12.897	µg/L	12.897	ppb	19:47:31
1	Pb 220.353†	95.0	-6.2	-1.6460	µg/L	-1.6460	ppb	19:47:31
1	S 181.975 Axial†	14.6	-0.8	-3.7140	µg/L	-3.7140	ppb	19:47:31
1	Sb 206.836†	19.5	-8.3	-8.1804	µg/L	-8.1804	ppb	19:47:31
1	Se 196.026†	15.6	-0.9	-1.2950	µg/L	-1.2950	ppb	19:47:31
1	SiO2†	1248.6	-53.2	-11.446	µg/L	-11.446	ppb	19:47:10
1	Si 251.611†	306.0	-19.6	-1.6096	µg/L	-1.6096	ppb	19:47:31
1	Sn 189.927†	-6.1	-5.0	-2.2944	µg/L	-2.2944	ppb	19:47:31
1	Ti 334.940†	214.1	89.1	0.2152	µg/L	0.2152	ppb	19:47:10
1	Tl 190.801†	-21.4	3.7	5.2299	µg/L	5.2299	ppb	19:47:31
1	U 409.014†	10.3	63.5	5.7486	µg/L	5.7486	ppb	19:47:10
1	V 292.402†	-52.5	-6.1	-0.0596	µg/L	-0.0596	ppb	19:47:10
1	Zn 213.857†	478.7	-16.6	-0.4092	µg/L	-0.4092	ppb	19:47:31
2	Sc RADIAL	56044.6	56044.6	103	%			19:46:09
2	Al 396.153Radial†	-6.3	4.0	2.9768	µg/L	2.9768	ppb	19:46:09
2	Ca 317.933Radial†	183.8	-0.2	-0.1847	µg/L	-0.1847	ppb	19:46:29
2	Fe 238.204 Radial†	14.3	-0.6	-4.7213	µg/L	-4.7213	ppb	19:46:29
2	K 766.490 Radial†	167.1	34.3	24.398	µg/L	24.398	ppb	19:46:09
2	Mg 279.077 IEC†	11.1	-0.4	-4.0659	µg/L	-4.0659	ppb	19:46:29
2	Na 589.592 Radial†	618.2	60.1	19.792	µg/L	19.792	ppb	19:46:09
2	Sr 421.552†	69.0	27.6	0.2866	µg/L	0.2866	ppb	19:46:09
2	Sc 361.383	1989518.4	1989518.4	104.17	%			19:47:37
2	Y 371.029	1365606.7	1365606.7	104.25	%			19:47:37
2	Ag 328.068†	-547.2	39.3	0.3111	µg/L	0.3111	ppb	19:47:43
2	As 188.979†	-3.9	-4.9	-9.5988	µg/L	-9.5988	ppb	19:48:03
2	B 249.677†	322.6	-21.8	-0.9478	µg/L	-0.9478	ppb	19:48:03
2	Ba 233.527†	-14.9	11.7	0.3048	µg/L	0.3048	ppb	19:48:03
2	Be 313.107†	-3365.6	209.6	0.1369	µg/L	0.1369	ppb	19:47:43
2	Cd 226.502†	-135.4	12.1	0.3352	µg/L	0.3352	ppb	19:48:03
2	Co 228.616†	-12.8	-3.4	-0.1669	µg/L	-0.1669	ppb	19:48:03
2	Cr 267.716†	-34.1	19.6	0.4310	µg/L	0.4310	ppb	19:48:03
2	Cu 324.752†	2392.5	-189.4	-1.3239	µg/L	-1.3239	ppb	19:47:43
2	Mn 257.610†	-233.6	19.8	0.0682	µg/L	0.0682	ppb	19:48:03
2	Mo 202.031†	1.3	8.8	0.9388	µg/L	0.9388	ppb	19:48:03
2	Ni 231.604†	308.4	-6.2	-0.3371	µg/L	-0.3371	ppb	19:48:03
2	P 214.914†	38.1	8.9	19.315	µg/L	19.315	ppb	19:48:03
2	Pb 220.353†	86.4	-14.2	-3.7968	µg/L	-3.7968	ppb	19:48:03

2	S 181.975 Axial†	18.4	2.9	12.528 µg/L	12.528 ppb	19:48:03
2	Sb 206.836†	29.9	1.8	1.7421 µg/L	1.7421 ppb	19:48:03
2	Se 196.026†	17.4	0.9	1.3573 µg/L	1.3573 ppb	19:48:03
2	SiO2†	1243.9	-56.0	-12.052 µg/L	-12.052 ppb	19:47:43
2	Si 251.611†	297.9	-26.9	-2.2125 µg/L	-2.2125 ppb	19:48:03
2	Sn 189.927†	-3.7	-2.7	-1.2451 µg/L	-1.2451 ppb	19:48:03
2	Ti 334.940†	113.7	-7.0	-0.0165 µg/L	-0.0165 ppb	19:47:43
2	Tl 190.801†	-21.7	3.4	4.7734 µg/L	4.7734 ppb	19:48:03
2	U 409.014†	-37.3	17.8	1.6161 µg/L	1.6161 ppb	19:47:43
2	V 292.402†	-50.7	-4.5	-0.0381 µg/L	-0.0381 ppb	19:47:43
2	Zn 213.857†	476.3	-18.3	-0.4528 µg/L	-0.4528 ppb	19:48:03
3	Sc RADIAL	56131.1	56131.1	103 %		19:46:34
3	Al 396.153Radial†	10.7	20.5	15.284 µg/L	15.284 ppb	19:46:34
3	Ca 317.933Radial†	181.6	-2.5	-2.4004 µg/L	-2.4004 ppb	19:46:55
3	Fe 238.204 Radial†	13.6	-1.3	-10.669 µg/L	-10.669 ppb	19:46:55
3	K 766.490 Radial†	173.8	40.6	28.846 µg/L	28.846 ppb	19:46:34
3	Mg 279.077 IEC†	10.5	-1.0	-9.5132 µg/L	-9.5132 ppb	19:46:55
3	Na 589.592 Radial†	587.6	29.4	9.6947 µg/L	9.6947 ppb	19:46:34
3	Sr 421.552†	41.1	0.4	0.0044 µg/L	0.0044 ppb	19:46:34
3	Sc 361.383	1993278.2	1993278.2	104.37 %		19:48:09
3	Y 371.029	1367625.5	1367625.5	104.41 %		19:48:09
3	Ag 328.068†	-556.8	31.0	0.2472 µg/L	0.2472 ppb	19:48:15
3	As 188.979†	0.5	-0.7	-1.3924 µg/L	-1.3924 ppb	19:48:35
3	B 249.677†	311.8	-32.7	-1.4217 µg/L	-1.4217 ppb	19:48:35
3	Ba 233.527†	-24.9	2.1	0.0565 µg/L	0.0565 ppb	19:48:35
3	Be 313.107†	-3343.9	236.6	0.1544 µg/L	0.1544 ppb	19:48:15
3	Cd 226.502†	-139.6	8.3	0.2308 µg/L	0.2308 ppb	19:48:35
3	Co 228.616†	-13.5	-4.1	-0.2026 µg/L	-0.2026 ppb	19:48:35
3	Cr 267.716†	-29.8	23.8	0.5241 µg/L	0.5241 ppb	19:48:35
3	Cu 324.752†	2398.4	-188.1	-1.3155 µg/L	-1.3155 ppb	19:48:15
3	Mn 257.610†	-235.9	18.1	0.0616 µg/L	0.0616 ppb	19:48:35
3	Mo 202.031†	-7.4	0.5	0.0513 µg/L	0.0513 ppb	19:48:35
3	Ni 231.604†	308.0	-7.0	-0.3852 µg/L	-0.3852 ppb	19:48:35
3	P 214.914†	25.9	-2.8	-5.9057 µg/L	-5.9057 ppb	19:48:35
3	Pb 220.353†	95.4	-5.8	-1.5343 µg/L	-1.5343 ppb	19:48:35
3	S 181.975 Axial†	16.1	0.6	2.8080 µg/L	2.8080 ppb	19:48:35
3	Sb 206.836†	23.7	-4.2	-4.1849 µg/L	-4.1849 ppb	19:48:35
3	Se 196.026†	19.8	3.2	4.8107 µg/L	4.8107 ppb	19:48:35
3	SiO2†	1250.9	-51.4	-11.079 µg/L	-11.079 ppb	19:48:15
3	Si 251.611†	298.1	-27.3	-2.2426 µg/L	-2.2426 ppb	19:48:35
3	Sn 189.927†	2.3	3.1	1.4084 µg/L	1.4084 ppb	19:48:35
3	Ti 334.940†	175.4	51.9	0.1256 µg/L	0.1256 ppb	19:48:15
3	Tl 190.801†	-26.8	-1.4	-1.9510 µg/L	-1.9510 ppb	19:48:35
3	U 409.014†	-48.8	6.9	0.6237 µg/L	0.6237 ppb	19:48:15
3	V 292.402†	-16.2	28.7	0.3071 µg/L	0.3071 ppb	19:48:15
3	Zn 213.857†	476.7	-18.8	-0.4644 µg/L	-0.4644 ppb	19:48:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1991719.6	104.29	%	0.103				0.10%
Sc RADIAL	56184.2	103	%	0.3				0.31%
Y 371.029	1367195.2	104.37	%	0.109				0.10%
Ag 328.068†	20.4	0.1617	µg/L	0.20583	0.1617	ppb	0.20583	127.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	4.0289	µg/L	10.76761	4.0289	ppb	10.76761	267.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.3	-4.4208	µg/L	4.50578	-4.4208	ppb	4.50578	101.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-17.9	-0.7790	µg/L	0.74170	-0.7790	ppb	0.74170	95.22%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.1452	µg/L	0.13851	0.1452	ppb	0.13851	95.38%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	228.6	0.1492	µg/L	0.01069	0.1492	ppb	0.01069	7.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	0.8027	µg/L	3.79444	0.8027	ppb	3.79444	472.69%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.5	0.3990	µg/L	0.20768	0.3990	ppb	0.20768	52.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-4.8	-0.2380	µg/L	0.09392	-0.2380	ppb	0.09392	39.46%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                16.9      0.3709 µg/L       0.19057      0.3709 ppb        0.19057  51.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -177.8     -1.2429 µg/L       0.13310     -1.2429 ppb        0.13310  10.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.6     -5.3132 µg/L       5.08561     -5.3132 ppb        5.08561  95.72%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          29.0      20.613 µg/L       10.6427      20.613 ppb        10.6427  51.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.8     -7.7080 µg/L       3.15418     -7.7080 ppb        3.15418  40.92%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                17.1      0.0589 µg/L       0.01100      0.0589 ppb        0.01100  18.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.0      0.3162 µg/L       0.54117      0.3162 ppb        0.54117 171.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         37.2      12.232 µg/L        6.6641      12.232 ppb         6.6641  54.48%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -10.2     -0.5566 µg/L       0.33928     -0.5566 ppb        0.33928  60.96%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  4.0      8.7689 µg/L      13.10740      8.7689 ppb       13.10740 149.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.7     -2.3257 µg/L       1.27525     -2.3257 ppb        1.27525  54.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.9      3.8739 µg/L       8.17318      3.8739 ppb        8.17318 210.98%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.6     -3.5411 µg/L       4.99248     -3.5411 ppb        4.99248 140.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.1      1.6243 µg/L       3.06159      1.6243 ppb        3.06159 188.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -53.5     -11.526 µg/L        0.4912     -11.526 ppb         0.4912   4.26%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -24.6     -2.0216 µg/L       0.35706     -2.0216 ppb        0.35706  17.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.5     -0.7104 µg/L       1.90848     -0.7104 ppb        1.90848 268.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.1      0.0222 µg/L       0.25591      0.0222 ppb        0.25591 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                44.7      0.1081 µg/L       0.11683      0.1081 ppb        0.11683 108.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.9      2.6841 µg/L       4.02062      2.6841 ppb        4.02062 149.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 29.4      2.6628 µg/L       2.71803      2.6628 ppb        2.71803 102.07%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  6.0      0.0698 µg/L       0.20578      0.0698 ppb        0.20578 294.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -17.9     -0.4421 µg/L       0.02911     -0.4421 ppb        0.02911   6.58%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 53
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 20:06:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56942.5	56942.5	104	%			20:07:20
1	Al 396.153Radial†	6750.2	6479.6	4819.0	µg/L	4819.0	ppb	20:07:41
1	Ca 317.933Radial†	5453.5	5047.5	4752.6	µg/L	4752.6	ppb	20:07:41
1	Fe 238.204 Radial†	600.4	561.0	4764.9	µg/L	4764.9	ppb	20:07:41
1	K 766.490 Radial†	7140.8	6715.4	4773.3	µg/L	4773.3	ppb	20:07:20
1	Mg 279.077 IEC†	558.8	524.3	4882.8	µg/L	4882.8	ppb	20:07:41
1	Na 589.592 Radial†	31379.2	29532.3	9722.1	µg/L	9722.1	ppb	20:07:20
1	Sr 421.552†	47923.4	45890.8	475.71	µg/L	475.71	ppb	20:07:20
1	Sc 361.383	1997110.3	1997110.3	104.57	%			20:08:44
1	Y 371.029	1366245.8	1366245.8	104.30	%			20:08:44
1	Ag 328.068†	63028.6	60838.9	486.24	µg/L	486.24	ppb	20:08:50
1	As 188.979†	264.1	251.4	490.37	µg/L	490.37	ppb	20:09:10
1	B 249.677†	11700.4	10857.6	472.80	µg/L	472.80	ppb	20:08:50
1	Ba 233.527†	19297.5	18480.3	482.07	µg/L	482.07	ppb	20:08:50
1	Be 313.107†	767522.7	737423.7	481.39	µg/L	481.39	ppb	20:08:44
1	Cd 226.502†	18128.7	17478.6	482.15	µg/L	482.15	ppb	20:08:50
1	Co 228.616†	10328.3	9885.8	485.96	µg/L	485.96	ppb	20:08:50
1	Cr 267.716†	23066.4	22110.8	486.65	µg/L	486.65	ppb	20:08:50
1	Cu 324.752†	74922.7	69162.6	483.78	µg/L	483.78	ppb	20:08:50
1	Mn 257.610†	148210.1	141977.7	492.09	µg/L	492.09	ppb	20:08:44
1	Mo 202.031†	4970.4	4760.7	508.25	µg/L	508.25	ppb	20:09:10
1	Ni 231.604†	9599.0	8877.3	484.85	µg/L	484.85	ppb	20:08:50
1	P 214.914†	1239.8	1158.0	2440.4	µg/L	2440.4	ppb	20:09:10
1	Pb 220.353†	2032.4	1846.4	492.88	µg/L	492.88	ppb	20:09:10
1	S 181.975 Axial†	252.7	226.8	993.68	µg/L	993.68	ppb	20:09:10
1	Sb 206.836†	559.2	507.8	502.18	µg/L	502.18	ppb	20:09:10
1	Se 196.026†	353.9	322.6	499.11	µg/L	499.11	ppb	20:09:10
1	SiO2†	26266.3	23868.5	5140.2	µg/L	5140.2	ppb	20:08:50
1	Si 251.611†	30881.9	29219.5	2402.0	µg/L	2402.0	ppb	20:08:50
1	Sn 189.927†	1160.9	1111.0	511.04	µg/L	511.04	ppb	20:09:10
1	Ti 334.940†	211075.5	201735.7	484.95	µg/L	484.95	ppb	20:08:44
1	Tl 190.801†	335.9	345.5	488.04	µg/L	488.04	ppb	20:09:10
1	U 409.014†	5659.0	5465.3	493.86	µg/L	493.86	ppb	20:08:50
1	V 292.402†	47264.8	45243.6	488.29	µg/L	488.29	ppb	20:08:50
1	Zn 213.857†	20837.6	19451.4	482.30	µg/L	482.30	ppb	20:08:50
2	Sc RADIAL	56409.7	56409.7	103	%			20:07:46
2	Al 396.153Radial†	6758.8	6549.0	4870.9	µg/L	4870.9	ppb	20:08:07
2	Ca 317.933Radial†	5494.9	5136.9	4836.7	µg/L	4836.7	ppb	20:08:07
2	Fe 238.204 Radial†	605.0	570.8	4848.5	µg/L	4848.5	ppb	20:08:07
2	K 766.490 Radial†	7175.4	6813.5	4843.0	µg/L	4843.0	ppb	20:07:46
2	Mg 279.077 IEC†	565.5	535.8	4989.7	µg/L	4989.7	ppb	20:08:07
2	Na 589.592 Radial†	31167.2	29611.2	9748.1	µg/L	9748.1	ppb	20:07:46
2	Sr 421.552†	47693.8	46102.5	477.91	µg/L	477.91	ppb	20:07:46
2	Sc 361.383	1996473.0	1996473.0	104.54	%			20:09:17
2	Y 371.029	1365976.8	1365976.8	104.28	%			20:09:17
2	Ag 328.068†	63356.2	61171.5	488.90	µg/L	488.90	ppb	20:09:23
2	As 188.979†	265.4	252.7	492.96	µg/L	492.96	ppb	20:09:43
2	B 249.677†	11790.3	10947.2	476.67	µg/L	476.67	ppb	20:09:23
2	Ba 233.527†	19374.2	18559.5	484.14	µg/L	484.14	ppb	20:09:23
2	Be 313.107†	761432.1	731831.7	477.74	µg/L	477.74	ppb	20:09:17
2	Cd 226.502†	18272.2	17621.4	486.09	µg/L	486.09	ppb	20:09:23
2	Co 228.616†	10339.5	9899.7	486.64	µg/L	486.64	ppb	20:09:23
2	Cr 267.716†	23187.0	22233.3	489.35	µg/L	489.35	ppb	20:09:23
2	Cu 324.752†	75285.0	69532.0	486.37	µg/L	486.37	ppb	20:09:23
2	Mn 257.610†	147018.2	140882.8	488.30	µg/L	488.30	ppb	20:09:17
2	Mo 202.031†	4907.1	4701.7	501.95	µg/L	501.95	ppb	20:09:43
2	Ni 231.604†	9622.8	8903.0	486.25	µg/L	486.25	ppb	20:09:23
2	P 214.914†	1220.2	1139.7	2400.7	µg/L	2400.7	ppb	20:09:43
2	Pb 220.353†	2020.4	1835.5	489.96	µg/L	489.96	ppb	20:09:43

2	S 181.975 Axial†	249.1	223.5	979.20 µg/L	979.20 ppb	20:09:43
2	Sb 206.836†	560.4	509.1	503.33 µg/L	503.33 ppb	20:09:43
2	Se 196.026†	351.0	319.9	495.14 µg/L	495.14 ppb	20:09:43
2	SiO2†	26327.8	23935.4	5154.6 µg/L	5154.6 ppb	20:09:23
2	Si 251.611†	31017.5	29358.7	2413.4 µg/L	2413.4 ppb	20:09:23
2	Sn 189.927†	1146.8	1097.9	505.00 µg/L	505.00 ppb	20:09:43
2	Ti 334.940†	209321.5	200122.3	481.06 µg/L	481.06 ppb	20:09:17
2	Tl 190.801†	343.4	352.8	498.21 µg/L	498.21 ppb	20:09:43
2	U 409.014†	5590.8	5401.8	488.10 µg/L	488.10 ppb	20:09:23
2	V 292.402†	47490.4	45473.8	490.70 µg/L	490.70 ppb	20:09:23
2	Zn 213.857†	20893.3	19511.1	483.77 µg/L	483.77 ppb	20:09:23
3	Sc RADIAL	57472.2	57472.2	105 %		20:08:12
3	Al 396.153Radial†	6740.6	6410.8	4769.5 µg/L	4769.5 ppb	20:08:33
3	Ca 317.933Radial†	5456.3	5002.0	4709.7 µg/L	4709.7 ppb	20:08:33
3	Fe 238.204 Radial†	608.4	563.2	4782.9 µg/L	4782.9 ppb	20:08:33
3	K 766.490 Radial†	7228.0	6735.1	4787.3 µg/L	4787.3 ppb	20:08:12
3	Mg 279.077 IEC†	560.3	520.7	4848.2 µg/L	4848.2 ppb	20:08:33
3	Na 589.592 Radial†	31427.6	29301.1	9646.0 µg/L	9646.0 ppb	20:08:12
3	Sr 421.552†	48320.2	45844.2	475.23 µg/L	475.23 ppb	20:08:12
3	Sc 361.383	1990939.7	1990939.7	104.25 %		20:09:51
3	Y 371.029	1362789.8	1362789.8	104.04 %		20:09:51
3	Ag 328.068†	59813.6	57941.7	462.97 µg/L	462.97 ppb	20:09:56
3	As 188.979†	228.8	218.3	425.89 µg/L	425.89 ppb	20:10:17
3	B 249.677†	11049.5	10268.0	446.94 µg/L	446.94 ppb	20:09:56
3	Ba 233.527†	17851.9	17150.7	447.37 µg/L	447.37 ppb	20:09:56
3	Be 313.107†	719449.8	693583.9	452.78 µg/L	452.78 ppb	20:09:51
3	Cd 226.502†	16778.6	16237.3	447.87 µg/L	447.87 ppb	20:09:56
3	Co 228.616†	9445.5	9069.5	445.78 µg/L	445.78 ppb	20:09:56
3	Cr 267.716†	20616.8	19829.4	436.45 µg/L	436.45 ppb	20:09:56
3	Cu 324.752†	68837.1	63547.0	444.55 µg/L	444.55 ppb	20:09:56
3	Mn 257.610†	138989.4	133571.8	462.98 µg/L	462.98 ppb	20:09:51
3	Mo 202.031†	4137.7	3976.7	424.58 µg/L	424.58 ppb	20:10:17
3	Ni 231.604†	8822.5	8161.0	445.73 µg/L	445.73 ppb	20:09:56
3	P 214.914†	1060.6	989.8	2082.0 µg/L	2082.0 ppb	20:10:17
3	Pb 220.353†	1778.7	1609.0	429.41 µg/L	429.41 ppb	20:10:17
3	S 181.975 Axial†	221.0	197.1	863.74 µg/L	863.74 ppb	20:10:17
3	Sb 206.836†	483.5	436.9	431.61 µg/L	431.61 ppb	20:10:17
3	Se 196.026†	316.1	287.4	445.59 µg/L	445.59 ppb	20:10:17
3	SiO2†	24611.0	22358.5	4815.0 µg/L	4815.0 ppb	20:09:56
3	Si 251.611†	28930.7	27439.4	2255.7 µg/L	2255.7 ppb	20:09:56
3	Sn 189.927†	943.6	906.1	416.76 µg/L	416.76 ppb	20:10:17
3	Ti 334.940†	196865.3	188730.0	453.67 µg/L	453.67 ppb	20:09:51
3	Tl 190.801†	309.3	321.0	453.52 µg/L	453.52 ppb	20:10:17
3	U 409.014†	5049.6	4897.5	442.45 µg/L	442.45 ppb	20:09:56
3	V 292.402†	42971.8	41265.5	445.08 µg/L	445.08 ppb	20:09:56
3	Zn 213.857†	19124.6	17870.0	443.04 µg/L	443.04 ppb	20:09:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1994841.0	104.45	%	0.178				0.17%
Sc RADIAL	56941.5	104	%	1.0				0.93%
Y 371.029	1365004.1	104.21	%	0.147				0.14%
Ag 328.068†	59984.0	479.37	µg/L	14.264	479.37	ppb	14.264	2.98%
QC value within limits for Ag 328.068 Recovery = 95.87%								
Al 396.153Radial†	6479.8	4819.8	µg/L	50.70	4819.8	ppb	50.70	1.05%
QC value within limits for Al 396.153Radial Recovery = 96.40%								
As 188.979†	240.8	469.74	µg/L	37.997	469.74	ppb	37.997	8.09%
QC value within limits for As 188.979 Recovery = 93.95%								
B 249.677†	10690.9	465.47	µg/L	16.165	465.47	ppb	16.165	3.47%
QC value within limits for B 249.677 Recovery = 93.09%								
Ba 233.527†	18063.5	471.19	µg/L	20.654	471.19	ppb	20.654	4.38%
QC value within limits for Ba 233.527 Recovery = 94.24%								
Be 313.107†	720946.5	470.64	µg/L	15.576	470.64	ppb	15.576	3.31%
QC value within limits for Be 313.107 Recovery = 94.13%								
Ca 317.933Radial†	5062.2	4766.3	µg/L	64.62	4766.3	ppb	64.62	1.36%
QC value within limits for Ca 317.933Radial Recovery = 95.33%								
Cd 226.502†	17112.5	472.04	µg/L	21.023	472.04	ppb	21.023	4.45%
QC value within limits for Cd 226.502 Recovery = 94.41%								
Co 228.616†	9618.4	472.79	µg/L	23.399	472.79	ppb	23.399	4.95%

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   QC value within limits for Co 228.616  Recovery = 94.56%
Cr 267.716†            21391.1      470.82 µg/L        29.796      470.82 ppb         29.796   6.33%
   QC value within limits for Cr 267.716  Recovery = 94.16%
Cu 324.752†            67413.9      471.57 µg/L        23.430      471.57 ppb         23.430   4.97%
   QC value within limits for Cu 324.752  Recovery = 94.31%
Fe 238.204 Radial†       565.0      4798.8 µg/L         43.99      4798.8 ppb          43.99   0.92%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.98%
K 766.490 Radial†       6754.7      4801.2 µg/L         36.89      4801.2 ppb          36.89   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.02%
Mg 279.077 IEC†          527.0      4906.9 µg/L         73.74      4906.9 ppb          73.74   1.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.14%
Mn 257.610†           138810.8      481.12 µg/L        15.825      481.12 ppb         15.825   3.29%
   QC value within limits for Mn 257.610  Recovery = 96.22%
Mo 202.031†             4479.7      478.26 µg/L        46.598      478.26 ppb         46.598   9.74%
   QC value within limits for Mo 202.031  Recovery = 95.65%
Na 589.592 Radial†     29481.5      9705.4 µg/L         53.07      9705.4 ppb          53.07   0.55%
   QC value within limits for Na 589.592 Radial  Recovery = 97.05%
Ni 231.604†             8647.1      472.28 µg/L        23.002      472.28 ppb         23.002   4.87%
   QC value within limits for Ni 231.604  Recovery = 94.46%
P 214.914†              1095.8      2307.7 µg/L        196.48      2307.7 ppb         196.48   8.51%
   QC value within limits for P 214.914  Recovery = 92.31%
Pb 220.353†             1763.7      470.75 µg/L        35.831      470.75 ppb         35.831   7.61%
   QC value within limits for Pb 220.353  Recovery = 94.15%
S 181.975 Axial†         215.8      945.54 µg/L        71.212      945.54 ppb         71.212   7.53%
   QC value within limits for S 181.975 Axial  Recovery = 94.55%
Sb 206.836†              484.6      479.04 µg/L        41.080      479.04 ppb         41.080   8.58%
   QC value within limits for Sb 206.836  Recovery = 95.81%
Se 196.026†              310.0      479.95 µg/L        29.823      479.95 ppb         29.823   6.21%
   QC value within limits for Se 196.026  Recovery = 95.99%
SiO2†                  23387.4      5036.6 µg/L        192.04      5036.6 ppb         192.04   3.81%
   QC value within limits for SiO2  Recovery = 94.19%
Si 251.611†            28672.5      2357.0 µg/L         87.98      2357.0 ppb          87.98   3.73%
   QC value within limits for Si 251.611  Recovery = 94.28%
Sn 189.927†             1038.3      477.60 µg/L        52.775      477.60 ppb         52.775  11.05%
   QC value within limits for Sn 189.927  Recovery = 95.52%
Sr 421.552†            45945.8      476.28 µg/L         1.427      476.28 ppb          1.427   0.30%
   QC value within limits for Sr 421.552  Recovery = 95.26%
Ti 334.940†           196862.7      473.23 µg/L        17.050      473.23 ppb         17.050   3.60%
   QC value within limits for Ti 334.940  Recovery = 94.65%
Tl 190.801†              339.7      479.92 µg/L        23.425      479.92 ppb         23.425   4.88%
   QC value within limits for Tl 190.801  Recovery = 95.98%
U 409.014†              5254.9      474.80 µg/L        28.164      474.80 ppb         28.164   5.93%
   QC value within limits for U 409.014  Recovery = 94.96%
V 292.402†             43994.3      474.69 µg/L        25.672      474.69 ppb         25.672   5.41%
   QC value within limits for V 292.402  Recovery = 94.94%
Zn 213.857†            18944.2      469.70 µg/L        23.098      469.70 ppb         23.098   4.92%
   QC value within limits for Zn 213.857  Recovery = 93.94%
All analyte(s) passed QC.
```

Sequence No.: 54
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 20:10:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56659.4	56659.4	104	%			20:10:59
1	Al 396.153Radial†	-34.5	-23.1	-17.229	µg/L	-17.229	ppb	20:10:59
1	Ca 317.933Radial†	185.2	-0.8	-0.7364	µg/L	-0.7364	ppb	20:11:19
1	Fe 238.204 Radial†	15.5	0.4	3.7111	µg/L	3.7111	ppb	20:11:19
1	K 766.490 Radial†	206.6	70.6	50.163	µg/L	50.163	ppb	20:10:59
1	Mg 279.077 IEC†	8.1	-3.5	-32.649	µg/L	-32.649	ppb	20:11:19
1	Na 589.592 Radial†	618.2	53.6	17.641	µg/L	17.641	ppb	20:10:59
1	Sr 421.552†	7.1	-32.7	-0.3390	µg/L	-0.3390	ppb	20:10:59
1	Sc 361.383	1969865.1	1969865.1	103.14	%			20:12:22
1	Y 371.029	1352232.0	1352232.0	103.23	%			20:12:22
1	Ag 328.068†	-590.3	-7.8	-0.0586	µg/L	-0.0586	ppb	20:12:27
1	As 188.979†	-2.7	-3.7	-7.3059	µg/L	-7.3059	ppb	20:12:48
1	B 249.677†	327.3	-14.1	-0.6180	µg/L	-0.6180	ppb	20:12:48
1	Ba 233.527†	-20.7	5.9	0.1552	µg/L	0.1552	ppb	20:12:48
1	Be 313.107†	-3325.3	216.5	0.1414	µg/L	0.1414	ppb	20:12:27
1	Cd 226.502†	-131.0	15.1	0.4157	µg/L	0.4157	ppb	20:12:48
1	Co 228.616†	-10.2	-1.0	-0.0509	µg/L	-0.0509	ppb	20:12:48
1	Cr 267.716†	-35.9	17.6	0.3870	µg/L	0.3870	ppb	20:12:48
1	Cu 324.752†	2456.0	-104.9	-0.7325	µg/L	-0.7325	ppb	20:12:27
1	Mn 257.610†	-254.6	-2.7	-0.0075	µg/L	-0.0075	ppb	20:12:48
1	Mo 202.031†	-3.1	4.5	0.4855	µg/L	0.4855	ppb	20:12:48
1	Ni 231.604†	302.7	-8.8	-0.4785	µg/L	-0.4785	ppb	20:12:48
1	P 214.914†	28.8	0.3	0.6377	µg/L	0.6377	ppb	20:12:48
1	Pb 220.353†	100.4	0.1	0.0373	µg/L	0.0373	ppb	20:12:48
1	S 181.975 Axial†	15.9	0.6	2.7080	µg/L	2.7080	ppb	20:12:48
1	Sb 206.836†	20.6	-7.0	-6.8374	µg/L	-6.8374	ppb	20:12:48
1	Se 196.026†	19.3	2.8	4.3630	µg/L	4.3630	ppb	20:12:48
1	SiO2†	1240.9	-46.9	-10.106	µg/L	-10.106	ppb	20:12:27
1	Si 251.611†	312.6	-9.8	-0.8084	µg/L	-0.8084	ppb	20:12:48
1	Sn 189.927†	-1.6	-0.7	-0.3378	µg/L	-0.3378	ppb	20:12:48
1	Ti 334.940†	146.3	25.8	0.0645	µg/L	0.0645	ppb	20:12:27
1	Tl 190.801†	-19.3	5.6	7.7671	µg/L	7.7671	ppb	20:12:48
1	U 409.014†	-42.1	12.8	1.1542	µg/L	1.1542	ppb	20:12:27
1	V 292.402†	-0.1	44.1	0.4765	µg/L	0.4765	ppb	20:12:27
1	Zn 213.857†	476.2	-13.8	-0.3400	µg/L	-0.3400	ppb	20:12:48
2	Sc RADIAL	56311.6	56311.6	103	%			20:11:25
2	Al 396.153Radial†	-11.1	-0.7	-0.4964	µg/L	-0.4964	ppb	20:11:25
2	Ca 317.933Radial†	182.9	-1.9	-1.7833	µg/L	-1.7833	ppb	20:11:45
2	Fe 238.204 Radial†	16.1	1.1	8.9693	µg/L	8.9693	ppb	20:11:45
2	K 766.490 Radial†	135.0	2.4	1.7375	µg/L	1.7375	ppb	20:11:25
2	Mg 279.077 IEC†	9.0	-2.6	-24.083	µg/L	-24.083	ppb	20:11:45
2	Na 589.592 Radial†	609.7	49.0	16.131	µg/L	16.131	ppb	20:11:25
2	Sr 421.552†	43.9	3.0	0.0309	µg/L	0.0309	ppb	20:11:25
2	Sc 361.383	1993246.1	1993246.1	104.37	%			20:12:54
2	Y 371.029	1369824.9	1369824.9	104.57	%			20:12:54
2	Ag 328.068†	-496.4	88.9	0.7074	µg/L	0.7074	ppb	20:12:59
2	As 188.979†	-2.4	-3.4	-6.6828	µg/L	-6.6828	ppb	20:13:20
2	B 249.677†	317.7	-27.1	-1.1866	µg/L	-1.1866	ppb	20:13:20
2	Ba 233.527†	-24.2	2.8	0.0739	µg/L	0.0739	ppb	20:13:20
2	Be 313.107†	-3271.8	305.5	0.1995	µg/L	0.1995	ppb	20:12:59
2	Cd 226.502†	-139.8	8.1	0.2223	µg/L	0.2223	ppb	20:13:20
2	Co 228.616†	-3.3	5.7	0.2808	µg/L	0.2808	ppb	20:13:20
2	Cr 267.716†	-45.4	8.9	0.1956	µg/L	0.1956	ppb	20:13:20
2	Cu 324.752†	2435.6	-152.4	-1.0631	µg/L	-1.0631	ppb	20:12:59
2	Mn 257.610†	-234.4	19.5	0.0698	µg/L	0.0698	ppb	20:13:20
2	Mo 202.031†	-9.1	-1.2	-0.1266	µg/L	-0.1266	ppb	20:13:20
2	Ni 231.604†	294.8	-19.7	-1.0788	µg/L	-1.0788	ppb	20:13:20
2	P 214.914†	30.0	1.1	2.4718	µg/L	2.4718	ppb	20:13:20
2	Pb 220.353†	93.1	-8.0	-2.1208	µg/L	-2.1208	ppb	20:13:20

2	S 181.975 Axial†	16.5	1.0	4.2685 µg/L	4.2685 ppb	20:13:20
2	Sb 206.836†	17.7	-10.0	-9.8534 µg/L	-9.8534 ppb	20:13:20
2	Se 196.026†	12.6	-3.8	-5.7175 µg/L	-5.7175 ppb	20:13:20
2	SiO2†	1249.7	-52.6	-11.333 µg/L	-11.333 ppb	20:12:59
2	Si 251.611†	320.2	-6.0	-0.4973 µg/L	-0.4973 ppb	20:13:20
2	Sn 189.927†	2.8	3.5	1.6248 µg/L	1.6248 ppb	20:13:20
2	Ti 334.940†	188.9	64.9	0.1579 µg/L	0.1579 ppb	20:12:59
2	Tl 190.801†	-28.5	-3.0	-4.1956 µg/L	-4.1956 ppb	20:13:20
2	U 409.014†	-69.7	-13.1	-1.1905 µg/L	-1.1905 ppb	20:12:59
2	V 292.402†	-23.7	21.5	0.2285 µg/L	0.2285 ppb	20:12:59
2	Zn 213.857†	474.3	-21.1	-0.5199 µg/L	-0.5199 ppb	20:13:20
3	Sc RADIAL	56279.9	56279.9	103 %		20:11:51
3	Al 396.153Radial†	-12.9	-2.4	-1.8112 µg/L	-1.8112 ppb	20:11:51
3	Ca 317.933Radial†	188.4	3.5	3.3406 µg/L	3.3406 ppb	20:12:11
3	Fe 238.204 Radial†	17.4	2.4	20.436 µg/L	20.436 ppb	20:12:11
3	K 766.490 Radial†	198.2	63.7	45.307 µg/L	45.307 ppb	20:11:51
3	Mg 279.077 IEC†	8.4	-3.1	-29.101 µg/L	-29.101 ppb	20:12:11
3	Na 589.592 Radial†	580.8	21.4	7.0316 µg/L	7.0316 ppb	20:11:51
3	Sr 421.552†	36.6	-4.1	-0.0421 µg/L	-0.0421 ppb	20:11:51
3	Sc 361.383	2002874.1	2002874.1	104.87 %		20:13:26
3	Y 371.029	1375774.7	1375774.7	105.03 %		20:13:26
3	Ag 328.068†	-572.9	18.2	0.1450 µg/L	0.1450 ppb	20:13:32
3	As 188.979†	-1.7	-2.8	-5.4427 µg/L	-5.4427 ppb	20:13:52
3	B 249.677†	315.7	-30.5	-1.3417 µg/L	-1.3417 ppb	20:13:52
3	Ba 233.527†	-28.2	-0.8	-0.0221 µg/L	-0.0221 ppb	20:13:52
3	Be 313.107†	-3166.3	421.2	0.2751 µg/L	0.2751 ppb	20:13:32
3	Cd 226.502†	-127.4	20.6	0.5649 µg/L	0.5649 ppb	20:13:52
3	Co 228.616†	-19.4	-9.7	-0.4770 µg/L	-0.4770 ppb	20:13:52
3	Cr 267.716†	-37.3	16.8	0.3689 µg/L	0.3689 ppb	20:13:52
3	Cu 324.752†	2426.7	-172.1	-1.1996 µg/L	-1.1996 ppb	20:13:32
3	Mn 257.610†	-224.6	30.0	0.1076 µg/L	0.1076 ppb	20:13:52
3	Mo 202.031†	-4.1	3.6	0.3852 µg/L	0.3852 ppb	20:13:52
3	Ni 231.604†	290.3	-25.4	-1.3870 µg/L	-1.3870 ppb	20:13:52
3	P 214.914†	33.5	4.4	9.4816 µg/L	9.4816 ppb	20:13:52
3	Pb 220.353†	90.7	-10.7	-2.8672 µg/L	-2.8672 ppb	20:13:52
3	S 181.975 Axial†	18.5	2.8	12.161 µg/L	12.161 ppb	20:13:52
3	Sb 206.836†	24.3	-3.8	-3.7594 µg/L	-3.7594 ppb	20:13:52
3	Se 196.026†	15.9	-0.7	-0.9888 µg/L	-0.9888 ppb	20:13:52
3	SiO2†	1207.7	-98.4	-21.190 µg/L	-21.190 ppb	20:13:32
3	Si 251.611†	302.6	-24.3	-2.0003 µg/L	-2.0003 ppb	20:13:52
3	Sn 189.927†	0.7	1.5	0.6894 µg/L	0.6894 ppb	20:13:52
3	Ti 334.940†	101.8	-19.1	-0.0435 µg/L	-0.0435 ppb	20:13:32
3	Tl 190.801†	-25.1	0.4	0.5052 µg/L	0.5052 ppb	20:13:52
3	U 409.014†	-6.5	47.4	4.2901 µg/L	4.2901 ppb	20:13:32
3	V 292.402†	-56.7	-9.8	-0.0938 µg/L	-0.0938 ppb	20:13:32
3	Zn 213.857†	464.1	-33.0	-0.8147 µg/L	-0.8147 ppb	20:13:52

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1988661.8	104.13	%	0.889				0.85%
Sc RADIAL	56417.0	103	%	0.4				0.37%
Y 371.029	1365943.9	104.28	%	0.935				0.90%
Ag 328.068†	33.1	0.2646	µg/L	0.39674	0.2646	ppb	0.39674	149.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.7	-6.5121	µg/L	9.30422	-6.5121	ppb	9.30422	142.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-6.4771	µg/L	0.94849	-6.4771	ppb	0.94849	14.64%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.9	-1.0488	µg/L	0.38103	-1.0488	ppb	0.38103	36.33%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.6	0.0690	µg/L	0.08875	0.0690	ppb	0.08875	128.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	314.4	0.2053	µg/L	0.06705	0.2053	ppb	0.06705	32.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.3	0.2736	µg/L	2.70720	0.2736	ppb	2.70720	989.37%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	14.6	0.4010	µg/L	0.17178	0.4010	ppb	0.17178	42.84%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-1.7	-0.0824	µg/L	0.37989	-0.0824	ppb	0.37989	461.28%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.4      0.3172 µg/L       0.10569      0.3172 ppb        0.10569  33.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -143.1     -0.9984 µg/L       0.24020     -0.9984 ppb        0.24020  24.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.3      11.039 µg/L        8.5525      11.039 ppb         8.5525  77.48%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        45.6      32.402 µg/L       26.6673      32.402 ppb        26.6673  82.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -3.1     -28.611 µg/L        4.3042     -28.611 ppb         4.3042  15.04%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              15.6      0.0566 µg/L       0.05870      0.0566 ppb        0.05870 103.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.3      0.2480 µg/L       0.32829      0.2480 ppb        0.32829 132.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       41.3      13.602 µg/L        5.7396      13.602 ppb         5.7396  42.20%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -18.0     -0.9814 µg/L       0.46200     -0.9814 ppb        0.46200  47.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.9      4.1970 µg/L       4.66758      4.1970 ppb        4.66758 111.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.2     -1.6502 µg/L       1.50832     -1.6502 ppb        1.50832  91.40%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      6.3791 µg/L       5.06750      6.3791 ppb        5.06750  79.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -6.9     -6.8167 µg/L       3.04704     -6.8167 ppb        3.04704  44.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.5     -0.7811 µg/L       5.04348     -0.7811 ppb        5.04348 645.70%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                   -66.0     -14.210 µg/L        6.0766     -14.210 ppb         6.0766  42.76%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -13.4     -1.1020 µg/L       0.79337     -1.1020 ppb        0.79337  71.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.6588 µg/L       0.98163      0.6588 ppb        0.98163 149.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -11.3     -0.1167 µg/L       0.19593     -0.1167 ppb        0.19593 167.87%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              23.9      0.0596 µg/L       0.10080      0.0596 ppb        0.10080 168.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.0      1.3589 µg/L       6.02688      1.3589 ppb        6.02688 443.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               15.7      1.4179 µg/L       2.74983      1.4179 ppb        2.74983 193.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               18.6      0.2037 µg/L       0.28596      0.2037 ppb        0.28596 140.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -22.6     -0.5582 µg/L       0.23967     -0.5582 ppb        0.23967  42.93%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 55
Sample ID: 1202033915|949338|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 341
Date Collected: 2/11/2010 20:14:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033915|949338|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55874.5	55874.5	102	%			20:14:39
1	Al 396.153Radial†	-8.2	2.1	1.5875	µg/L	1.5875	ppb	20:14:39
1	Ca 317.933Radial†	211.1	27.1	25.496	µg/L	25.496	ppb	20:14:59
1	Fe 238.204 Radial†	18.3	3.3	28.236	µg/L	28.236	ppb	20:14:59
1	K 766.490 Radial†	129.1	-2.3	-1.6448	µg/L	-1.6448	ppb	20:14:39
1	Mg 279.077 IEC†	9.8	-1.7	-15.551	µg/L	-15.551	ppb	20:14:59
1	Na 589.592 Radial†	634.2	77.6	25.531	µg/L	25.531	ppb	20:14:39
1	Sr 421.552†	47.5	6.8	0.0706	µg/L	0.0706	ppb	20:14:39
1	Sc 361.383	1988912.3	1988912.3	104.14	%			20:16:01
1	Y 371.029	1361710.6	1361710.6	103.95	%			20:16:01
1	Ag 328.068†	-556.2	30.4	0.2455	µg/L	0.2455	ppb	20:16:07
1	As 188.979†	3.5	2.2	4.2732	µg/L	4.2732	ppb	20:16:27
1	B 249.677†	318.7	-25.4	-1.1247	µg/L	-1.1247	ppb	20:16:27
1	Ba 233.527†	-20.2	6.6	0.1718	µg/L	0.1718	ppb	20:16:27
1	Be 313.107†	-3488.6	90.5	0.0590	µg/L	0.0590	ppb	20:16:07
1	Cd 226.502†	-133.5	14.0	0.3809	µg/L	0.3809	ppb	20:16:27
1	Co 228.616†	-9.2	0.0	0.0005	µg/L	0.0005	ppb	20:16:27
1	Cr 267.716†	-38.1	15.8	0.3474	µg/L	0.3474	ppb	20:16:07
1	Cu 324.752†	2450.1	-133.4	-0.9277	µg/L	-0.9277	ppb	20:16:07
1	Mn 257.610†	-164.9	85.8	0.3015	µg/L	0.3015	ppb	20:16:27
1	Mo 202.031†	-2.6	5.1	0.5442	µg/L	0.5442	ppb	20:16:27
1	Ni 231.604†	299.3	-14.8	-0.8080	µg/L	-0.8080	ppb	20:16:27
1	P 214.914†	28.6	-0.1	-0.2154	µg/L	-0.2154	ppb	20:16:27
1	Pb 220.353†	96.2	-4.8	-1.2854	µg/L	-1.2854	ppb	20:16:27
1	S 181.975 Axial†	13.7	-1.6	-7.0850	µg/L	-7.0850	ppb	20:16:27
1	Sb 206.836†	13.0	-14.5	-14.275	µg/L	-14.275	ppb	20:16:27
1	Se 196.026†	4.6	-11.4	-17.290	µg/L	-17.290	ppb	20:16:27
1	SiO2†	1327.2	24.4	5.2522	µg/L	5.2522	ppb	20:16:07
1	Si 251.611†	428.6	98.7	8.1131	µg/L	8.1131	ppb	20:16:27
1	Sn 189.927†	1.1	1.9	0.8667	µg/L	0.8667	ppb	20:16:27
1	Ti 334.940†	219.6	94.8	0.2296	µg/L	0.2296	ppb	20:16:07
1	Tl 190.801†	-21.5	3.6	5.0804	µg/L	5.0804	ppb	20:16:27
1	U 409.014†	-78.7	-22.0	-1.9953	µg/L	-1.9953	ppb	20:16:07
1	V 292.402†	-15.2	29.6	0.3214	µg/L	0.3214	ppb	20:16:07
1	Zn 213.857†	564.5	66.5	1.6661	µg/L	1.6661	ppb	20:16:27
2	Sc RADIAL	56075.7	56075.7	103	%			20:15:05
2	Al 396.153Radial†	-2.4	7.8	5.7923	µg/L	5.7923	ppb	20:15:05
2	Ca 317.933Radial†	217.4	32.4	30.548	µg/L	30.548	ppb	20:15:25
2	Fe 238.204 Radial†	17.4	2.4	20.723	µg/L	20.723	ppb	20:15:25
2	K 766.490 Radial†	145.6	13.2	9.4096	µg/L	9.4096	ppb	20:15:05
2	Mg 279.077 IEC†	14.3	2.6	24.624	µg/L	24.624	ppb	20:15:25
2	Na 589.592 Radial†	594.2	36.4	11.991	µg/L	11.991	ppb	20:15:05
2	Sr 421.552†	57.9	16.8	0.1740	µg/L	0.1740	ppb	20:15:05
2	Sc 361.383	1999481.8	1999481.8	104.69	%			20:16:33
2	Y 371.029	1369592.1	1369592.1	104.56	%			20:16:33
2	Ag 328.068†	-572.7	17.5	0.1386	µg/L	0.1386	ppb	20:16:39
2	As 188.979†	1.4	0.2	0.4072	µg/L	0.4072	ppb	20:17:00
2	B 249.677†	318.2	-27.6	-1.2151	µg/L	-1.2151	ppb	20:17:00
2	Ba 233.527†	-15.8	10.9	0.2840	µg/L	0.2840	ppb	20:17:00
2	Be 313.107†	-3410.1	183.2	0.1196	µg/L	0.1196	ppb	20:16:39
2	Cd 226.502†	-138.1	10.2	0.2788	µg/L	0.2788	ppb	20:17:00
2	Co 228.616†	-12.0	-2.7	-0.1309	µg/L	-0.1309	ppb	20:17:00
2	Cr 267.716†	-44.9	9.5	0.2088	µg/L	0.2088	ppb	20:16:39
2	Cu 324.752†	2426.3	-168.6	-1.1747	µg/L	-1.1747	ppb	20:16:39
2	Mn 257.610†	-163.6	87.9	0.3060	µg/L	0.3060	ppb	20:17:00
2	Mo 202.031†	-9.1	-1.2	-0.1254	µg/L	-0.1254	ppb	20:17:00
2	Ni 231.604†	301.5	-14.2	-0.7782	µg/L	-0.7782	ppb	20:17:00
2	P 214.914†	29.6	0.7	1.6224	µg/L	1.6224	ppb	20:17:00
2	Pb 220.353†	93.6	-7.8	-2.0997	µg/L	-2.0997	ppb	20:17:00

2	S 181.975 Axial†	15.8	0.2	1.0821 µg/L	1.0821 ppb	20:17:00
2	Sb 206.836†	21.3	-6.6	-6.5463 µg/L	-6.5463 ppb	20:17:00
2	Se 196.026†	14.8	-1.7	-2.5946 µg/L	-2.5946 ppb	20:17:00
2	SiO2†	1345.7	35.3	7.6065 µg/L	7.6065 ppb	20:16:39
2	Si 251.611†	428.9	96.8	7.9537 µg/L	7.9537 ppb	20:17:00
2	Sn 189.927†	3.6	4.3	1.9852 µg/L	1.9852 ppb	20:17:00
2	Ti 334.940†	177.5	53.4	0.1270 µg/L	0.1270 ppb	20:16:39
2	Tl 190.801†	-23.8	1.6	2.2328 µg/L	2.2328 ppb	20:17:00
2	U 409.014†	55.2	106.3	9.6210 µg/L	9.6210 ppb	20:16:39
2	V 292.402†	-67.2	-20.0	-0.2010 µg/L	-0.2010 ppb	20:16:39
2	Zn 213.857†	562.0	61.3	1.5327 µg/L	1.5327 ppb	20:17:00
3	Sc RADIAL	56267.6	56267.6	103 %		20:15:31
3	Al 396.153Radial†	0.3	10.4	7.7755 µg/L	7.7755 ppb	20:15:31
3	Ca 317.933Radial†	217.5	31.8	29.914 µg/L	29.914 ppb	20:15:51
3	Fe 238.204 Radial†	15.6	0.6	5.4997 µg/L	5.4997 ppb	20:15:51
3	K 766.490 Radial†	111.3	-20.5	-14.563 µg/L	-14.563 ppb	20:15:31
3	Mg 279.077 IEC†	6.0	-5.5	-51.066 µg/L	-51.066 ppb	20:15:51
3	Na 589.592 Radial†	616.5	56.0	18.449 µg/L	18.449 ppb	20:15:31
3	Sr 421.552†	75.9	34.1	0.3534 µg/L	0.3534 ppb	20:15:31
3	Sc 361.383	1987623.0	1987623.0	104.07 %		20:17:06
3	Y 371.029	1363179.9	1363179.9	104.07 %		20:17:06
3	Ag 328.068†	-612.7	-24.2	-0.1919 µg/L	-0.1919 ppb	20:17:11
3	As 188.979†	-0.4	-1.5	-3.0033 µg/L	-3.0033 ppb	20:17:32
3	B 249.677†	322.2	-21.9	-0.9597 µg/L	-0.9597 ppb	20:17:32
3	Ba 233.527†	-20.9	5.9	0.1539 µg/L	0.1539 ppb	20:17:32
3	Be 313.107†	-3442.2	132.9	0.0867 µg/L	0.0867 ppb	20:17:11
3	Cd 226.502†	-138.2	9.3	0.2550 µg/L	0.2550 ppb	20:17:32
3	Co 228.616†	-8.8	0.4	0.0184 µg/L	0.0184 ppb	20:17:32
3	Cr 267.716†	-37.4	16.5	0.3625 µg/L	0.3625 ppb	20:17:11
3	Cu 324.752†	2472.2	-110.7	-0.7722 µg/L	-0.7722 ppb	20:17:11
3	Mn 257.610†	-174.8	76.1	0.2664 µg/L	0.2664 ppb	20:17:32
3	Mo 202.031†	-6.5	1.3	0.1380 µg/L	0.1380 ppb	20:17:32
3	Ni 231.604†	297.0	-16.8	-0.9201 µg/L	-0.9201 ppb	20:17:32
3	P 214.914†	19.5	-8.9	-19.097 µg/L	-19.097 ppb	20:17:32
3	Pb 220.353†	94.3	-6.6	-1.7586 µg/L	-1.7586 ppb	20:17:32
3	S 181.975 Axial†	21.0	5.4	23.467 µg/L	23.467 ppb	20:17:32
3	Sb 206.836†	27.1	-0.9	-0.8949 µg/L	-0.8949 ppb	20:17:32
3	Se 196.026†	13.6	-2.8	-4.1429 µg/L	-4.1429 ppb	20:17:32
3	SiO2†	1352.4	49.5	10.650 µg/L	10.650 ppb	20:17:11
3	Si 251.611†	416.8	87.7	7.2061 µg/L	7.2061 ppb	20:17:32
3	Sn 189.927†	-2.9	-1.9	-0.8663 µg/L	-0.8663 ppb	20:17:32
3	Ti 334.940†	199.2	75.3	0.1856 µg/L	0.1856 ppb	20:17:11
3	Tl 190.801†	-24.6	0.6	0.8935 µg/L	0.8935 ppb	20:17:32
3	U 409.014†	-8.3	45.6	4.1299 µg/L	4.1299 ppb	20:17:11
3	V 292.402†	-51.1	-4.9	-0.0455 µg/L	-0.0455 ppb	20:17:11
3	Zn 213.857†	552.7	55.5	1.3948 µg/L	1.3948 ppb	20:17:32

Mean Data: 1202033915|949338|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1992005.7	104.30	%	0.341				0.33%
Sc RADIAL	56072.6	103	%	0.4				0.35%
Y 371.029	1364827.5	104.19	%	0.320				0.31%
Ag 328.068†	7.9	0.0640	µg/L	0.22801	0.0640	ppb	0.22801	356.02%
Al 396.153Radial†	6.8	5.0517	µg/L	3.15974	5.0517	ppb	3.15974	62.55%
As 188.979†	0.3	0.5590	µg/L	3.64066	0.5590	ppb	3.64066	651.23%
B 249.677†	-25.0	-1.0999	µg/L	0.12950	-1.0999	ppb	0.12950	11.77%
Ba 233.527†	7.8	0.2032	µg/L	0.07053	0.2032	ppb	0.07053	34.70%
Be 313.107†	135.6	0.0885	µg/L	0.03031	0.0885	ppb	0.03031	34.26%
Ca 317.933Radial†	30.4	28.653	µg/L	2.7525	28.653	ppb	2.7525	9.61%
Cd 226.502†	11.2	0.3049	µg/L	0.06692	0.3049	ppb	0.06692	21.95%
Co 228.616†	-0.8	-0.0373	µg/L	0.08152	-0.0373	ppb	0.08152	218.27%
Cr 267.716†	13.9	0.3062	µg/L	0.08474	0.3062	ppb	0.08474	27.67%
Cu 324.752†	-137.5	-0.9582	µg/L	0.20302	-0.9582	ppb	0.20302	21.19%
Fe 238.204 Radial†	2.1	18.153	µg/L	11.5842	18.153	ppb	11.5842	63.81%
K 766.490 Radial†	-3.2	-2.2662	µg/L	11.99851	-2.2662	ppb	11.99851	529.47%
Mg 279.077 IEC†	-1.5	-13.998	µg/L	37.8689	-13.998	ppb	37.8689	270.54%
Mn 257.610†	83.3	0.2913	µg/L	0.02168	0.2913	ppb	0.02168	7.44%
Mo 202.031†	1.7	0.1856	µg/L	0.33735	0.1856	ppb	0.33735	181.77%
Na 589.592 Radial†	56.7	18.657	µg/L	6.7722	18.657	ppb	6.7722	36.30%

Ni 231.604†	-15.3	-0.8354	µg/L	0.07481	-0.8354	ppb	0.07481	8.95%
P 214.914†	-2.8	-5.8966	µg/L	11.46863	-5.8966	ppb	11.46863	194.49%
Pb 220.353†	-6.4	-1.7146	µg/L	0.40894	-1.7146	ppb	0.40894	23.85%
S 181.975 Axial†	1.3	5.8215	µg/L	15.81796	5.8215	ppb	15.81796	271.72%
Sb 206.836†	-7.4	-7.2388	µg/L	6.71707	-7.2388	ppb	6.71707	92.79%
Se 196.026†	-5.3	-8.0093	µg/L	8.07484	-8.0093	ppb	8.07484	100.82%
SiO2†	36.4	7.8362	µg/L	2.70617	7.8362	ppb	2.70617	34.53%
Si 251.611†	94.4	7.7576	µg/L	0.48425	7.7576	ppb	0.48425	6.24%
Sn 189.927†	1.4	0.6619	µg/L	1.43671	0.6619	ppb	1.43671	217.07%
Sr 421.552†	19.2	0.1993	µg/L	0.14306	0.1993	ppb	0.14306	71.77%
Ti 334.940†	74.5	0.1807	µg/L	0.05144	0.1807	ppb	0.05144	28.46%
Tl 190.801†	2.0	2.7356	µg/L	2.13823	2.7356	ppb	2.13823	78.16%
U 409.014†	43.3	3.9185	µg/L	5.81102	3.9185	ppb	5.81102	148.30%
V 292.402†	1.6	0.0249	µg/L	0.26825	0.0249	ppb	0.26825	>999.9%
Zn 213.857†	61.1	1.5312	µg/L	0.13566	1.5312	ppb	0.13566	8.86%

Sequence No.: 56
Sample ID: 1202033916|949338|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 342
Date Collected: 2/11/2010 20:17:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033916|949338|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57137.3	57137.3	105	%			20:18:14
1	Al 396.153Radial†	7205.9	6892.8	5126.9	µg/L	5126.9	ppb	20:18:14
1	Ca 317.933Radial†	5721.9	5286.0	4977.1	µg/L	4977.1	ppb	20:18:34
1	Fe 238.204 Radial†	637.1	594.0	5045.2	µg/L	5045.2	ppb	20:18:34
1	K 766.490 Radial†	7617.2	7147.1	5080.1	µg/L	5080.1	ppb	20:18:14
1	Mg 279.077 IEC†	586.0	548.4	5106.9	µg/L	5106.9	ppb	20:18:34
1	Na 589.592 Radial†	16698.2	15407.3	5072.1	µg/L	5072.1	ppb	20:18:14
1	Sr 421.552†	50524.7	48218.8	499.84	µg/L	499.84	ppb	20:18:14
1	Sc 361.383	1994632.1	1994632.1	104.44	%			20:19:38
1	Y 371.029	1364385.0	1364385.0	104.16	%			20:19:38
1	Ag 328.068†	64390.0	62217.3	497.30	µg/L	497.30	ppb	20:19:43
1	As 188.979†	276.9	264.0	515.03	µg/L	515.03	ppb	20:20:04
1	B 249.677†	12086.2	11241.0	489.42	µg/L	489.42	ppb	20:19:43
1	Ba 233.527†	20170.0	19338.6	504.45	µg/L	504.45	ppb	20:19:43
1	Be 313.107†	788592.5	758509.8	495.16	µg/L	495.16	ppb	20:19:38
1	Cd 226.502†	18613.6	17964.5	495.54	µg/L	495.54	ppb	20:19:43
1	Co 228.616†	10518.0	10079.8	495.49	µg/L	495.49	ppb	20:19:43
1	Cr 267.716†	23642.9	22690.3	499.41	µg/L	499.41	ppb	20:19:43
1	Cu 324.752†	77419.6	71642.4	501.14	µg/L	501.14	ppb	20:19:43
1	Mn 257.610†	151343.9	145154.3	503.12	µg/L	503.12	ppb	20:19:38
1	Mo 202.031†	4986.3	4781.9	510.52	µg/L	510.52	ppb	20:20:04
1	Ni 231.604†	9890.8	9168.1	500.74	µg/L	500.74	ppb	20:19:43
1	P 214.914†	284.5	244.8	478.14	µg/L	478.14	ppb	20:20:04
1	Pb 220.353†	2090.8	1904.7	508.39	µg/L	508.39	ppb	20:20:04
1	S 181.975 Axial†	1232.2	1165.0	5104.4	µg/L	5104.4	ppb	20:20:04
1	Sb 206.836†	570.3	519.1	513.24	µg/L	513.24	ppb	20:20:04
1	Se 196.026†	349.8	319.1	494.27	µg/L	494.27	ppb	20:20:04
1	SiO2†	51590.3	48147.2	10369	µg/L	10369	ppb	20:19:43
1	Si 251.611†	61612.5	58680.5	4823.8	µg/L	4823.8	ppb	20:19:43
1	Sn 189.927†	1228.1	1176.7	541.25	µg/L	541.25	ppb	20:20:04
1	Ti 334.940†	214339.2	205111.5	493.06	µg/L	493.06	ppb	20:19:38
1	Tl 190.801†	353.6	362.8	512.43	µg/L	512.43	ppb	20:20:04
1	U 409.014†	5956.7	5757.1	520.23	µg/L	520.23	ppb	20:19:43
1	V 292.402†	48839.3	46807.4	505.06	µg/L	505.06	ppb	20:19:43
1	Zn 213.857†	20991.1	19623.2	486.46	µg/L	486.46	ppb	20:19:43
2	Sc RADIAL	57901.8	57901.8	106	%			20:18:40
2	Al 396.153Radial†	7061.3	6665.7	4957.7	µg/L	4957.7	ppb	20:18:40
2	Ca 317.933Radial†	5727.2	5218.9	4913.9	µg/L	4913.9	ppb	20:19:00
2	Fe 238.204 Radial†	636.2	585.2	4970.0	µg/L	4970.0	ppb	20:19:00
2	K 766.490 Radial†	7550.0	6987.7	4966.8	µg/L	4966.8	ppb	20:18:40
2	Mg 279.077 IEC†	589.2	544.0	5066.1	µg/L	5066.1	ppb	20:19:00
2	Na 589.592 Radial†	16626.7	15129.4	4980.6	µg/L	4980.6	ppb	20:18:40
2	Sr 421.552†	50230.2	47304.2	490.36	µg/L	490.36	ppb	20:18:40
2	Sc 361.383	2013873.9	2013873.9	105.45	%			20:20:11
2	Y 371.029	1378189.6	1378189.6	105.21	%			20:20:11
2	Ag 328.068†	64481.5	61715.0	493.29	µg/L	493.29	ppb	20:20:17
2	As 188.979†	279.5	263.9	514.86	µg/L	514.86	ppb	20:20:37
2	B 249.677†	12129.8	11171.7	486.43	µg/L	486.43	ppb	20:20:17
2	Ba 233.527†	20147.0	19132.2	499.07	µg/L	499.07	ppb	20:20:17
2	Be 313.107†	788587.5	751290.6	490.45	µg/L	490.45	ppb	20:20:11
2	Cd 226.502†	18596.6	17778.0	490.40	µg/L	490.40	ppb	20:20:17
2	Co 228.616†	10481.8	9949.2	489.07	µg/L	489.07	ppb	20:20:17
2	Cr 267.716†	23674.7	22504.0	495.31	µg/L	495.31	ppb	20:20:17
2	Cu 324.752†	77662.0	71164.0	497.79	µg/L	497.79	ppb	20:20:17
2	Mn 257.610†	151439.8	143860.7	498.63	µg/L	498.63	ppb	20:20:11
2	Mo 202.031†	4993.3	4742.9	506.36	µg/L	506.36	ppb	20:20:37
2	Ni 231.604†	9888.4	9075.4	495.68	µg/L	495.68	ppb	20:20:17
2	P 214.914†	288.8	246.3	481.67	µg/L	481.67	ppb	20:20:37
2	Pb 220.353†	2123.9	1917.0	511.65	µg/L	511.65	ppb	20:20:37

2	S 181.975 Axial†	1239.9	1161.1	5087.0 µg/L	5087.0 ppb	20:20:37
2	Sb 206.836†	578.1	521.3	515.31 µg/L	515.31 ppb	20:20:37
2	Se 196.026†	356.3	322.1	498.75 µg/L	498.75 ppb	20:20:37
2	SiO2†	51611.2	47695.0	10271 µg/L	10271 ppb	20:20:17
2	Si 251.611†	61706.3	58205.7	4784.8 µg/L	4784.8 ppb	20:20:17
2	Sn 189.927†	1227.7	1165.2	535.93 µg/L	535.93 ppb	20:20:37
2	Ti 334.940†	214247.2	203063.4	488.13 µg/L	488.13 ppb	20:20:11
2	Tl 190.801†	351.2	357.3	504.65 µg/L	504.65 ppb	20:20:37
2	U 409.014†	6018.0	5760.7	520.57 µg/L	520.57 ppb	20:20:17
2	V 292.402†	48953.4	46468.8	501.40 µg/L	501.40 ppb	20:20:17
2	Zn 213.857†	21115.3	19548.9	484.64 µg/L	484.64 ppb	20:20:17
3	Sc RADIAL	57252.0	57252.0	105 %		20:19:06
3	Al 396.153Radial†	7090.0	6768.5	5035.2 µg/L	5035.2 ppb	20:19:06
3	Ca 317.933Radial†	5710.3	5264.1	4956.4 µg/L	4956.4 ppb	20:19:26
3	Fe 238.204 Radial†	638.7	594.4	5047.8 µg/L	5047.8 ppb	20:19:26
3	K 766.490 Radial†	7487.4	7008.8	4981.8 µg/L	4981.8 ppb	20:19:06
3	Mg 279.077 IEC†	585.5	546.8	5091.3 µg/L	5091.3 ppb	20:19:26
3	Na 589.592 Radial†	16647.2	15326.7	5045.6 µg/L	5045.6 ppb	20:19:06
3	Sr 421.552†	50351.5	47957.1	497.13 µg/L	497.13 ppb	20:19:06
3	Sc 361.383	1986096.3	1986096.3	103.99 %		20:20:44
3	Y 371.029	1358639.8	1358639.8	103.72 %		20:20:44
3	Ag 328.068†	63881.3	61993.1	495.44 µg/L	495.44 ppb	20:20:50
3	As 188.979†	256.9	245.8	479.65 µg/L	479.65 ppb	20:21:11
3	B 249.677†	11984.0	11192.4	487.28 µg/L	487.28 ppb	20:20:50
3	Ba 233.527†	19664.6	18935.6	493.93 µg/L	493.93 ppb	20:20:50
3	Be 313.107†	776464.6	750092.7	489.67 µg/L	489.67 ppb	20:20:44
3	Cd 226.502†	18144.8	17590.3	485.21 µg/L	485.21 ppb	20:20:50
3	Co 228.616†	10196.4	9813.8	482.37 µg/L	482.37 ppb	20:20:50
3	Cr 267.716†	22808.0	21984.7	483.88 µg/L	483.88 ppb	20:20:50
3	Cu 324.752†	75447.0	70064.1	490.12 µg/L	490.12 ppb	20:20:50
3	Mn 257.610†	149533.7	144036.4	499.25 µg/L	499.25 ppb	20:20:44
3	Mo 202.031†	4526.2	4359.9	465.49 µg/L	465.49 ppb	20:21:11
3	Ni 231.604†	9594.0	8923.5	487.38 µg/L	487.38 ppb	20:20:50
3	P 214.914†	260.5	222.9	431.52 µg/L	431.52 ppb	20:21:11
3	Pb 220.353†	1951.8	1779.7	474.93 µg/L	474.93 ppb	20:21:11
3	S 181.975 Axial†	1152.5	1093.4	4790.5 µg/L	4790.5 ppb	20:21:11
3	Sb 206.836†	529.0	481.8	475.91 µg/L	475.91 ppb	20:21:11
3	Se 196.026†	332.2	303.6	470.77 µg/L	470.77 ppb	20:21:11
3	SiO2†	50752.3	47553.6	10241 µg/L	10241 ppb	20:20:50
3	Si 251.611†	60572.6	57934.0	4762.5 µg/L	4762.5 ppb	20:20:50
3	Sn 189.927†	1099.7	1058.3	486.78 µg/L	486.78 ppb	20:21:11
3	Ti 334.940†	210914.9	202700.7	487.26 µg/L	487.26 ppb	20:20:44
3	Tl 190.801†	325.5	337.3	476.72 µg/L	476.72 ppb	20:21:11
3	U 409.014†	5821.9	5651.9	510.71 µg/L	510.71 ppb	20:20:50
3	V 292.402†	47440.7	45663.4	492.48 µg/L	492.48 ppb	20:20:50
3	Zn 213.857†	20491.7	19229.4	476.70 µg/L	476.70 ppb	20:20:50

Mean Data: 1202033916|949338|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1998200.7	104.63	%	0.745				0.71%
Sc RADIAL	57430.4	105	%	0.8				0.72%
Y 371.029	1367071.5	104.36	%	0.767				0.73%
Ag 328.068†	61975.1	495.34	µg/L	2.009	495.34	ppb	2.009	0.41%
Al 396.153Radial†	6775.7	5040.0	µg/L	84.70	5040.0	ppb	84.70	1.68%
As 188.979†	257.9	503.18	µg/L	20.377	503.18	ppb	20.377	4.05%
B 249.677†	11201.7	487.71	µg/L	1.544	487.71	ppb	1.544	0.32%
Ba 233.527†	19135.5	499.15	µg/L	5.258	499.15	ppb	5.258	1.05%
Be 313.107†	753297.7	491.76	µg/L	2.972	491.76	ppb	2.972	0.60%
Ca 317.933Radial†	5256.3	4949.2	µg/L	32.24	4949.2	ppb	32.24	0.65%
Cd 226.502†	17777.6	490.38	µg/L	5.168	490.38	ppb	5.168	1.05%
Co 228.616†	9947.6	488.98	µg/L	6.560	488.98	ppb	6.560	1.34%
Cr 267.716†	22393.0	492.87	µg/L	8.047	492.87	ppb	8.047	1.63%
Cu 324.752†	70956.8	496.35	µg/L	5.651	496.35	ppb	5.651	1.14%
Fe 238.204 Radial†	591.2	5021.0	µg/L	44.18	5021.0	ppb	44.18	0.88%
K 766.490 Radial†	7047.9	5009.6	µg/L	61.57	5009.6	ppb	61.57	1.23%
Mg 279.077 IEC†	546.4	5088.1	µg/L	20.57	5088.1	ppb	20.57	0.40%
Mn 257.610†	144350.5	500.33	µg/L	2.432	500.33	ppb	2.432	0.49%
Mo 202.031†	4628.2	494.12	µg/L	24.884	494.12	ppb	24.884	5.04%
Na 589.592 Radial†	15287.8	5032.8	µg/L	47.08	5032.8	ppb	47.08	0.94%

Ni 231.604†	9055.7	494.60 µg/L	6.746	494.60 ppb	6.746	1.36%
P 214.914†	238.0	463.78 µg/L	27.988	463.78 ppb	27.988	6.03%
Pb 220.353†	1867.1	498.32 µg/L	20.326	498.32 ppb	20.326	4.08%
S 181.975 Axial†	1139.8	4994.0 µg/L	176.40	4994.0 ppb	176.40	3.53%
Sb 206.836†	507.4	501.49 µg/L	22.178	501.49 ppb	22.178	4.42%
Se 196.026†	314.9	487.93 µg/L	15.026	487.93 ppb	15.026	3.08%
SiO2†	47798.6	10294 µg/L	66.8	10294 ppb	66.8	0.65%
Si 251.611†	58273.4	4790.4 µg/L	31.06	4790.4 ppb	31.06	0.65%
Sn 189.927†	1133.4	521.32 µg/L	30.030	521.32 ppb	30.030	5.76%
Sr 421.552†	47826.7	495.78 µg/L	4.883	495.78 ppb	4.883	0.98%
Ti 334.940†	203625.2	489.48 µg/L	3.126	489.48 ppb	3.126	0.64%
Tl 190.801†	352.5	497.94 µg/L	18.779	497.94 ppb	18.779	3.77%
U 409.014†	5723.3	517.17 µg/L	5.597	517.17 ppb	5.597	1.08%
V 292.402†	46313.2	499.65 µg/L	6.473	499.65 ppb	6.473	1.30%
Zn 213.857†	19467.2	482.60 µg/L	5.188	482.60 ppb	5.188	1.08%

Sequence No.: 57
Sample ID: 246056001|949338|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 343
Date Collected: 2/11/2010 20:21:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246056001|949338|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56296.4	56296.4	103	%			20:21:53
1	Al 396.153Radial†	137.2	143.2	106.70	µg/L	106.70	ppb	20:21:53
1	Ca 317.933Radial†	245.7	59.0	55.591	µg/L	55.591	ppb	20:22:13
1	Fe 238.204 Radial†	23.7	8.5	71.805	µg/L	71.805	ppb	20:22:13
1	K 766.490 Radial†	393.1	252.7	179.61	µg/L	179.61	ppb	20:21:53
1	Mg 279.077 IEC†	9.9	-1.6	-15.253	µg/L	-15.253	ppb	20:22:13
1	Na 589.592 Radial†	1148.5	571.5	188.15	µg/L	188.15	ppb	20:21:53
1	Sr 421.552†	45.9	4.9	0.0512	µg/L	0.0512	ppb	20:21:53
1	Sc 361.383	1999099.5	1999099.5	104.67	%			20:23:15
1	Y 371.029	1369234.7	1369234.7	104.53	%			20:23:15
1	Ag 328.068†	-506.2	81.0	0.6506	µg/L	0.6506	ppb	20:23:21
1	As 188.979†	-1.4	-2.5	-4.8556	µg/L	-4.8556	ppb	20:23:41
1	B 249.677†	927.0	554.1	24.182	µg/L	24.182	ppb	20:23:21
1	Ba 233.527†	39.1	63.3	1.6501	µg/L	1.6501	ppb	20:23:41
1	Be 313.107†	-3284.8	302.3	0.1962	µg/L	0.1962	ppb	20:23:21
1	Cd 226.502†	-138.3	10.0	0.2677	µg/L	0.2677	ppb	20:23:41
1	Co 228.616†	-4.6	4.5	0.2139	µg/L	0.2139	ppb	20:23:41
1	Cr 267.716†	76.0	125.0	2.7501	µg/L	2.7501	ppb	20:23:41
1	Cu 324.752†	2660.4	55.6	0.3981	µg/L	0.3981	ppb	20:23:21
1	Mn 257.610†	516.0	737.0	2.5624	µg/L	2.5624	ppb	20:23:41
1	Mo 202.031†	2.1	9.6	1.0268	µg/L	1.0268	ppb	20:23:41
1	Ni 231.604†	306.7	-9.2	-0.5006	µg/L	-0.5006	ppb	20:23:41
1	P 214.914†	30.9	1.9	4.0684	µg/L	4.0684	ppb	20:23:41
1	Pb 220.353†	95.5	-6.0	-1.5886	µg/L	-1.5886	ppb	20:23:41
1	S 181.975 Axial†	22.4	6.6	28.872	µg/L	28.872	ppb	20:23:41
1	Sb 206.836†	25.5	-2.6	-2.5994	µg/L	-2.5994	ppb	20:23:41
1	Se 196.026†	18.4	1.7	2.8564	µg/L	2.8564	ppb	20:23:41
1	SiO2†	19399.1	17282.9	3722.0	µg/L	3722.0	ppb	20:23:21
1	Si 251.611†	22398.8	21085.8	1733.4	µg/L	1733.4	ppb	20:23:21
1	Sn 189.927†	0.3	1.1	0.5148	µg/L	0.5148	ppb	20:23:41
1	Ti 334.940†	1573.4	1387.0	3.3385	µg/L	3.3385	ppb	20:23:21
1	Tl 190.801†	-24.5	0.9	1.2407	µg/L	1.2407	ppb	20:23:41
1	U 409.014†	-73.6	-16.7	-1.5212	µg/L	-1.5212	ppb	20:23:21
1	V 292.402†	7.1	50.9	0.5641	µg/L	0.5641	ppb	20:23:21
1	Zn 213.857†	573.4	72.2	1.8020	µg/L	1.8020	ppb	20:23:41
2	Sc RADIAL	57057.8	57057.8	105	%			20:22:19
2	Al 396.153Radial†	133.1	137.5	102.45	µg/L	102.45	ppb	20:22:19
2	Ca 317.933Radial†	244.7	54.9	51.704	µg/L	51.704	ppb	20:22:39
2	Fe 238.204 Radial†	24.8	9.3	78.518	µg/L	78.518	ppb	20:22:39
2	K 766.490 Radial†	382.8	237.7	168.97	µg/L	168.97	ppb	20:22:19
2	Mg 279.077 IEC†	13.0	1.2	10.926	µg/L	10.926	ppb	20:22:39
2	Na 589.592 Radial†	1075.2	486.6	160.18	µg/L	160.18	ppb	20:22:19
2	Sr 421.552†	93.1	49.5	0.5134	µg/L	0.5134	ppb	20:22:19
2	Sc 361.383	2009331.3	2009331.3	105.21	%			20:23:47
2	Y 371.029	1376929.5	1376929.5	105.12	%			20:23:47
2	Ag 328.068†	-562.2	30.1	0.2455	µg/L	0.2455	ppb	20:23:53
2	As 188.979†	0.8	-0.4	-0.8316	µg/L	-0.8316	ppb	20:24:13
2	B 249.677†	922.8	545.6	23.807	µg/L	23.807	ppb	20:23:53
2	Ba 233.527†	29.1	53.7	1.3977	µg/L	1.3977	ppb	20:24:13
2	Be 313.107†	-3228.2	372.1	0.2418	µg/L	0.2418	ppb	20:23:53
2	Cd 226.502†	-136.1	12.7	0.3427	µg/L	0.3427	ppb	20:24:13
2	Co 228.616†	-6.0	3.2	0.1493	µg/L	0.1493	ppb	20:24:13
2	Cr 267.716†	61.9	111.2	2.4456	µg/L	2.4456	ppb	20:24:13
2	Cu 324.752†	2686.2	67.1	0.4798	µg/L	0.4798	ppb	20:23:53
2	Mn 257.610†	508.7	727.6	2.5297	µg/L	2.5297	ppb	20:24:13
2	Mo 202.031†	-6.3	1.5	0.1675	µg/L	0.1675	ppb	20:24:13
2	Ni 231.604†	319.7	1.7	0.0937	µg/L	0.0937	ppb	20:24:13
2	P 214.914†	25.9	-3.0	-6.6078	µg/L	-6.6078	ppb	20:24:13
2	Pb 220.353†	99.1	-3.0	-0.8101	µg/L	-0.8101	ppb	20:24:13

2	S 181.975 Axial†	22.8	6.9	30.189 µg/L	30.189 ppb	20:24:13
2	Sb 206.836†	25.8	-2.4	-2.4340 µg/L	-2.4340 ppb	20:24:13
2	Se 196.026†	11.0	-5.4	-8.0417 µg/L	-8.0417 ppb	20:24:13
2	SiO2†	19555.5	17337.2	3733.7 µg/L	3733.7 ppb	20:23:53
2	Si 251.611†	22623.6	21190.5	1742.0 µg/L	1742.0 ppb	20:23:53
2	Sn 189.927†	1.7	2.5	1.1256 µg/L	1.1256 ppb	20:24:13
2	Ti 334.940†	1552.0	1359.0	3.2689 µg/L	3.2689 ppb	20:23:53
2	Tl 190.801†	-20.4	4.9	6.8577 µg/L	6.8577 ppb	20:24:13
2	U 409.014†	-18.7	35.8	3.2301 µg/L	3.2301 ppb	20:23:53
2	V 292.402†	-25.2	20.2	0.2352 µg/L	0.2352 ppb	20:23:53
2	Zn 213.857†	565.1	61.6	1.5331 µg/L	1.5331 ppb	20:24:13
3	Sc RADIAL	56953.5	56953.5	104 %		20:22:45
3	Al 396.153Radial†	129.2	134.0	99.822 µg/L	99.822 ppb	20:22:45
3	Ca 317.933Radial†	246.4	56.9	53.605 µg/L	53.605 ppb	20:23:05
3	Fe 238.204 Radial†	24.4	8.9	75.075 µg/L	75.075 ppb	20:23:05
3	K 766.490 Radial†	389.0	244.3	173.66 µg/L	173.66 ppb	20:22:45
3	Mg 279.077 IEC†	11.1	-0.6	-6.0969 µg/L	-6.0969 ppb	20:23:05
3	Na 589.592 Radial†	1090.9	503.4	165.73 µg/L	165.73 ppb	20:22:45
3	Sr 421.552†	87.2	44.0	0.4559 µg/L	0.4559 ppb	20:22:45
3	Sc 361.383	2016528.2	2016528.2	105.59 %		20:24:19
3	Y 371.029	1380317.1	1380317.1	105.37 %		20:24:19
3	Ag 328.068†	-528.9	63.6	0.5130 µg/L	0.5130 ppb	20:24:25
3	As 188.979†	-1.7	-2.8	-5.4248 µg/L	-5.4248 ppb	20:24:45
3	B 249.677†	918.6	538.5	23.500 µg/L	23.500 ppb	20:24:25
3	Ba 233.527†	28.3	52.8	1.3754 µg/L	1.3754 ppb	20:24:45
3	Be 313.107†	-3258.6	354.3	0.2301 µg/L	0.2301 ppb	20:24:25
3	Cd 226.502†	-133.3	15.9	0.4296 µg/L	0.4296 ppb	20:24:45
3	Co 228.616†	-10.2	-0.8	-0.0463 µg/L	-0.0463 ppb	20:24:45
3	Cr 267.716†	55.5	104.9	2.3077 µg/L	2.3077 ppb	20:24:45
3	Cu 324.752†	2583.6	-39.2	-0.2634 µg/L	-0.2634 ppb	20:24:25
3	Mn 257.610†	450.2	670.5	2.3321 µg/L	2.3321 ppb	20:24:45
3	Mo 202.031†	-0.0	7.5	0.8045 µg/L	0.8045 ppb	20:24:45
3	Ni 231.604†	318.5	-0.6	-0.0310 µg/L	-0.0310 ppb	20:24:45
3	P 214.914†	38.6	8.9	19.181 µg/L	19.181 ppb	20:24:45
3	Pb 220.353†	102.3	-0.3	-0.0696 µg/L	-0.0696 ppb	20:24:45
3	S 181.975 Axial†	22.3	6.3	27.789 µg/L	27.789 ppb	20:24:45
3	Sb 206.836†	29.6	1.1	1.0449 µg/L	1.0449 ppb	20:24:45
3	Se 196.026†	19.9	3.0	4.7336 µg/L	4.7336 ppb	20:24:45
3	SiO2†	18954.3	16701.5	3596.8 µg/L	3596.8 ppb	20:24:25
3	Si 251.611†	21830.5	20362.7	1673.9 µg/L	1673.9 ppb	20:24:25
3	Sn 189.927†	0.5	1.3	0.5938 µg/L	0.5938 ppb	20:24:45
3	Ti 334.940†	1584.6	1384.6	3.3320 µg/L	3.3320 ppb	20:24:25
3	Tl 190.801†	-23.4	2.2	3.0709 µg/L	3.0709 ppb	20:24:45
3	U 409.014†	-96.9	-38.1	-3.4657 µg/L	-3.4657 ppb	20:24:25
3	V 292.402†	7.1	51.0	0.5599 µg/L	0.5599 ppb	20:24:25
3	Zn 213.857†	552.0	47.2	1.1763 µg/L	1.1763 ppb	20:24:45

Mean Data: 246056001|949338|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2008319.7	105.16	%	0.459				0.44%
Sc RADIAL	56769.2	104	%	0.8				0.73%
Y 371.029	1375493.8	105.01	%	0.434				0.41%
Ag 328.068†	58.2	0.4697	µg/L	0.20600	0.4697	ppb	0.20600	43.86%
Al 396.153Radial†	138.2	102.99	µg/L	3.469	102.99	ppb	3.469	3.37%
As 188.979†	-1.9	-3.7040	µg/L	2.50383	-3.7040	ppb	2.50383	67.60%
B 249.677†	546.1	23.830	µg/L	0.3416	23.830	ppb	0.3416	1.43%
Ba 233.527†	56.6	1.4744	µg/L	0.15257	1.4744	ppb	0.15257	10.35%
Be 313.107†	342.9	0.2227	µg/L	0.02369	0.2227	ppb	0.02369	10.64%
Ca 317.933Radial†	57.0	53.634	µg/L	1.9437	53.634	ppb	1.9437	3.62%
Cd 226.502†	12.9	0.3467	µg/L	0.08103	0.3467	ppb	0.08103	23.37%
Co 228.616†	2.3	0.1056	µg/L	0.13548	0.1056	ppb	0.13548	128.28%
Cr 267.716†	113.7	2.5011	µg/L	0.22633	2.5011	ppb	0.22633	9.05%
Cu 324.752†	27.8	0.2048	µg/L	0.40754	0.2048	ppb	0.40754	198.96%
Fe 238.204 Radial†	8.9	75.133	µg/L	3.3565	75.133	ppb	3.3565	4.47%
K 766.490 Radial†	244.9	174.08	µg/L	5.333	174.08	ppb	5.333	3.06%
Mg 279.077 IEC†	-0.4	-3.4749	µg/L	13.28508	-3.4749	ppb	13.28508	382.32%
Mn 257.610†	711.7	2.4748	µg/L	0.12460	2.4748	ppb	0.12460	5.03%
Mo 202.031†	6.2	0.6663	µg/L	0.44606	0.6663	ppb	0.44606	66.95%
Na 589.592 Radial†	520.5	171.35	µg/L	14.809	171.35	ppb	14.809	8.64%

Ni 231.604†	-2.7	-0.1460 µg/L	0.31337	-0.1460 ppb	0.31337	214.71%
P 214.914†	2.6	5.5473 µg/L	12.95797	5.5473 ppb	12.95797	233.59%
Pb 220.353†	-3.1	-0.8228 µg/L	0.75957	-0.8228 ppb	0.75957	92.32%
S 181.975 Axial†	6.6	28.950 µg/L	1.2016	28.950 ppb	1.2016	4.15%
Sb 206.836†	-1.3	-1.3295 µg/L	2.05793	-1.3295 ppb	2.05793	154.79%
Se 196.026†	-0.2	-0.1506 µg/L	6.89807	-0.1506 ppb	6.89807	>999.9%
SiO2†	17107.2	3684.1 µg/L	75.90	3684.1 ppb	75.90	2.06%
Si 251.611†	20879.6	1716.4 µg/L	37.06	1716.4 ppb	37.06	2.16%
Sn 189.927†	1.6	0.7447 µg/L	0.33221	0.7447 ppb	0.33221	44.61%
Sr 421.552†	32.8	0.3402 µg/L	0.25190	0.3402 ppb	0.25190	74.05%
Ti 334.940†	1376.9	3.3132 µg/L	0.03843	3.3132 ppb	0.03843	1.16%
Tl 190.801†	2.6	3.7231 µg/L	2.86477	3.7231 ppb	2.86477	76.95%
U 409.014†	-6.3	-0.5856 µg/L	3.44452	-0.5856 ppb	3.44452	588.18%
V 292.402†	40.7	0.4531 µg/L	0.18872	0.4531 ppb	0.18872	41.65%
Zn 213.857†	60.3	1.5038 µg/L	0.31390	1.5038 ppb	0.31390	20.87%

Sequence No.: 58
Sample ID: 1202033917|949338|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 344
Date Collected: 2/11/2010 20:24:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033917|949338|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56899.2	56899.2	104	%			20:25:27
1	Al 396.153Radial†	141.8	146.1	108.90	µg/L	108.90	ppb	20:25:27
1	Ca 317.933Radial†	244.1	55.0	51.794	µg/L	51.794	ppb	20:25:47
1	Fe 238.204 Radial†	25.0	9.5	80.308	µg/L	80.308	ppb	20:25:47
1	K 766.490 Radial†	402.2	257.3	182.90	µg/L	182.90	ppb	20:25:27
1	Mg 279.077 IEC†	17.0	5.0	46.582	µg/L	46.582	ppb	20:25:47
1	Na 589.592 Radial†	1112.0	524.7	172.73	µg/L	172.73	ppb	20:25:27
1	Sr 421.552†	70.9	28.5	0.2950	µg/L	0.2950	ppb	20:25:27
1	Sc 361.383	1993226.5	1993226.5	104.37	%			20:26:49
1	Y 371.029	1363824.5	1363824.5	104.12	%			20:26:49
1	Ag 328.068†	-550.5	37.0	0.3007	µg/L	0.3007	ppb	20:26:55
1	As 188.979†	-3.5	-4.5	-8.8244	µg/L	-8.8244	ppb	20:27:15
1	B 249.677†	938.6	567.9	24.777	µg/L	24.777	ppb	20:26:55
1	Ba 233.527†	32.5	57.2	1.4893	µg/L	1.4893	ppb	20:27:15
1	Be 313.107†	-3364.5	216.7	0.1390	µg/L	0.1390	ppb	20:26:55
1	Cd 226.502†	-139.6	8.3	0.2205	µg/L	0.2205	ppb	20:27:15
1	Co 228.616†	-2.7	6.3	0.2956	µg/L	0.2956	ppb	20:27:15
1	Cr 267.716†	22.2	73.7	1.6207	µg/L	1.6207	ppb	20:27:15
1	Cu 324.752†	2632.2	36.0	0.2625	µg/L	0.2625	ppb	20:26:55
1	Mn 257.610†	482.1	706.0	2.4536	µg/L	2.4536	ppb	20:27:15
1	Mo 202.031†	-10.1	-2.1	-0.2264	µg/L	-0.2264	ppb	20:27:15
1	Ni 231.604†	303.2	-11.7	-0.6392	µg/L	-0.6392	ppb	20:27:15
1	P 214.914†	28.4	-0.4	-0.8824	µg/L	-0.8824	ppb	20:27:15
1	Pb 220.353†	94.3	-6.9	-1.8331	µg/L	-1.8331	ppb	20:27:15
1	S 181.975 Axial†	21.6	5.9	25.830	µg/L	25.830	ppb	20:27:15
1	Sb 206.836†	26.3	-1.8	-1.7912	µg/L	-1.7912	ppb	20:27:15
1	Se 196.026†	17.5	1.0	1.6197	µg/L	1.6197	ppb	20:27:15
1	SiO2†	19864.7	17783.7	3829.8	µg/L	3829.8	ppb	20:26:55
1	Si 251.611†	23015.4	21739.7	1787.1	µg/L	1787.1	ppb	20:26:55
1	Sn 189.927†	1.1	2.0	0.9002	µg/L	0.9002	ppb	20:27:15
1	Ti 334.940†	2955.6	2715.9	6.5300	µg/L	6.5300	ppb	20:26:55
1	Tl 190.801†	-28.4	-2.9	-3.9373	µg/L	-3.9373	ppb	20:27:15
1	U 409.014†	-25.1	29.6	2.6648	µg/L	2.6648	ppb	20:26:55
1	V 292.402†	-16.6	28.4	0.3164	µg/L	0.3164	ppb	20:26:55
1	Zn 213.857†	543.7	45.4	1.1288	µg/L	1.1288	ppb	20:27:15
2	Sc RADIAL	57701.8	57701.8	106	%			20:25:53
2	Al 396.153Radial†	119.1	122.8	91.515	µg/L	91.515	ppb	20:25:53
2	Ca 317.933Radial†	233.8	42.0	39.550	µg/L	39.550	ppb	20:26:13
2	Fe 238.204 Radial†	23.0	7.2	61.233	µg/L	61.233	ppb	20:26:13
2	K 766.490 Radial†	350.1	202.7	144.07	µg/L	144.07	ppb	20:25:53
2	Mg 279.077 IEC†	16.4	4.2	39.475	µg/L	39.475	ppb	20:26:13
2	Na 589.592 Radial†	1115.6	513.2	168.95	µg/L	168.95	ppb	20:25:53
2	Sr 421.552†	71.3	27.8	0.2885	µg/L	0.2885	ppb	20:25:53
2	Sc 361.383	2032144.2	2032144.2	106.40	%			20:27:21
2	Y 371.029	1391589.3	1391589.3	106.23	%			20:27:21
2	Ag 328.068†	-508.5	86.6	0.6914	µg/L	0.6914	ppb	20:27:27
2	As 188.979†	-1.0	-2.0	-3.9993	µg/L	-3.9993	ppb	20:27:47
2	B 249.677†	950.2	561.5	24.511	µg/L	24.511	ppb	20:27:27
2	Ba 233.527†	31.0	55.2	1.4369	µg/L	1.4369	ppb	20:27:47
2	Be 313.107†	-3417.4	228.7	0.1482	µg/L	0.1482	ppb	20:27:27
2	Cd 226.502†	-144.5	6.3	0.1662	µg/L	0.1662	ppb	20:27:47
2	Co 228.616†	-15.0	-5.2	-0.2631	µg/L	-0.2631	ppb	20:27:47
2	Cr 267.716†	32.6	83.1	1.8269	µg/L	1.8269	ppb	20:27:47
2	Cu 324.752†	2658.7	12.6	0.0965	µg/L	0.0965	ppb	20:27:27
2	Mn 257.610†	482.8	697.9	2.4232	µg/L	2.4232	ppb	20:27:47
2	Mo 202.031†	-4.4	3.4	0.3670	µg/L	0.3670	ppb	20:27:47
2	Ni 231.604†	308.6	-12.2	-0.6647	µg/L	-0.6647	ppb	20:27:47
2	P 214.914†	25.2	-4.0	-8.5791	µg/L	-8.5791	ppb	20:27:47
2	Pb 220.353†	101.4	-1.9	-0.5114	µg/L	-0.5114	ppb	20:27:47

2	S 181.975 Axial†	20.6	4.5	19.915 µg/L	19.915 ppb	20:27:47
2	Sb 206.836†	21.8	-6.4	-6.3504 µg/L	-6.3504 ppb	20:27:47
2	Se 196.026†	17.0	0.1	0.2794 µg/L	0.2794 ppb	20:27:47
2	SiO2†	20053.2	17596.3	3789.5 µg/L	3789.5 ppb	20:27:27
2	Si 251.611†	23243.4	21531.7	1770.0 µg/L	1770.0 ppb	20:27:27
2	Sn 189.927†	-0.3	0.6	0.2639 µg/L	0.2639 ppb	20:27:47
2	Ti 334.940†	1498.9	1292.6	3.1067 µg/L	3.1067 ppb	20:27:27
2	Tl 190.801†	-23.8	1.9	2.7343 µg/L	2.7343 ppb	20:27:47
2	U 409.014†	-91.4	-32.3	-2.9368 µg/L	-2.9368 ppb	20:27:27
2	V 292.402†	-41.5	5.2	0.0668 µg/L	0.0668 ppb	20:27:27
2	Zn 213.857†	547.7	39.2	0.9769 µg/L	0.9769 ppb	20:27:47
3	Sc RADIAL	57723.9	57723.9	106 %		20:26:19
3	Al 396.153Radial†	154.4	156.1	116.34 µg/L	116.34 ppb	20:26:19
3	Ca 317.933Radial†	238.0	45.9	43.187 µg/L	43.187 ppb	20:26:39
3	Fe 238.204 Radial†	25.0	9.1	77.361 µg/L	77.361 ppb	20:26:39
3	K 766.490 Radial†	390.3	240.6	171.03 µg/L	171.03 ppb	20:26:19
3	Mg 279.077 IEC†	11.6	-0.3	-2.6211 µg/L	-2.6211 ppb	20:26:39
3	Na 589.592 Radial†	1065.3	465.3	153.17 µg/L	153.17 ppb	20:26:19
3	Sr 421.552†	87.9	43.6	0.4515 µg/L	0.4515 ppb	20:26:19
3	Sc 361.383	1997268.7	1997268.7	104.58 %		20:27:53
3	Y 371.029	1367305.1	1367305.1	104.38 %		20:27:53
3	Ag 328.068†	-530.9	56.9	0.4587 µg/L	0.4587 ppb	20:27:59
3	As 188.979†	2.9	1.6	3.1253 µg/L	3.1253 ppb	20:28:19
3	B 249.677†	890.5	520.1	22.690 µg/L	22.690 ppb	20:27:59
3	Ba 233.527†	35.1	59.6	1.5515 µg/L	1.5515 ppb	20:28:19
3	Be 313.107†	-3329.3	256.9	0.1666 µg/L	0.1666 ppb	20:27:59
3	Cd 226.502†	-134.0	14.0	0.3765 µg/L	0.3765 ppb	20:28:19
3	Co 228.616†	-14.9	-5.4	-0.2699 µg/L	-0.2699 ppb	20:28:19
3	Cr 267.716†	29.1	80.2	1.7633 µg/L	1.7633 ppb	20:28:19
3	Cu 324.752†	2668.4	65.5	0.4684 µg/L	0.4684 ppb	20:27:59
3	Mn 257.610†	469.1	692.7	2.4090 µg/L	2.4090 ppb	20:28:19
3	Mo 202.031†	1.9	9.3	1.0004 µg/L	1.0004 ppb	20:28:19
3	Ni 231.604†	303.3	-12.1	-0.6620 µg/L	-0.6620 ppb	20:28:19
3	P 214.914†	28.0	-0.8	-1.8252 µg/L	-1.8252 ppb	20:28:19
3	Pb 220.353†	100.3	-1.3	-0.3488 µg/L	-0.3488 ppb	20:28:19
3	S 181.975 Axial†	20.8	5.1	22.372 µg/L	22.372 ppb	20:28:19
3	Sb 206.836†	23.0	-4.9	-4.8566 µg/L	-4.8566 ppb	20:28:19
3	Se 196.026†	11.6	-4.7	-7.0281 µg/L	-7.0281 ppb	20:28:19
3	SiO2†	19350.5	17253.5	3715.6 µg/L	3715.6 ppb	20:27:59
3	Si 251.611†	22381.7	21089.1	1733.6 µg/L	1733.6 ppb	20:27:59
3	Sn 189.927†	4.4	5.1	2.3175 µg/L	2.3175 ppb	20:28:19
3	Ti 334.940†	1468.8	1288.4	3.0999 µg/L	3.0999 ppb	20:27:59
3	Tl 190.801†	-23.0	2.3	3.2580 µg/L	3.2580 ppb	20:28:19
3	U 409.014†	-50.5	5.4	0.4722 µg/L	0.4722 ppb	20:27:59
3	V 292.402†	-9.5	35.1	0.3959 µg/L	0.3959 ppb	20:27:59
3	Zn 213.857†	545.9	46.4	1.1583 µg/L	1.1583 ppb	20:28:19

Mean Data: 1202033917|949338|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2007546.5	105.12	%	1.120				1.07%
Sc RADIAL	57441.7	105	%	0.9				0.82%
Y 371.029	1374239.7	104.91	%	1.155				1.10%
Ag 328.068†	60.2	0.4836	µg/L	0.19650	0.4836	ppb	0.19650	40.63%
Al 396.153Radial†	141.7	105.58	µg/L	12.740	105.58	ppb	12.740	12.07%
As 188.979†	-1.7	-3.2328	µg/L	6.01158	-3.2328	ppb	6.01158	185.96%
B 249.677†	549.8	23.993	µg/L	1.1362	23.993	ppb	1.1362	4.74%
Ba 233.527†	57.3	1.4926	µg/L	0.05735	1.4926	ppb	0.05735	3.84%
Be 313.107†	234.1	0.1513	µg/L	0.01403	0.1513	ppb	0.01403	9.27%
Ca 317.933Radial†	47.6	44.844	µg/L	6.2882	44.844	ppb	6.2882	14.02%
Cd 226.502†	9.5	0.2544	µg/L	0.10920	0.2544	ppb	0.10920	42.92%
Co 228.616†	-1.4	-0.0791	µg/L	0.32452	-0.0791	ppb	0.32452	410.02%
Cr 267.716†	79.0	1.7370	µg/L	0.10563	1.7370	ppb	0.10563	6.08%
Cu 324.752†	38.0	0.2758	µg/L	0.18630	0.2758	ppb	0.18630	67.55%
Fe 238.204 Radial†	8.6	72.967	µg/L	10.2680	72.967	ppb	10.2680	14.07%
K 766.490 Radial†	233.5	166.00	µg/L	19.900	166.00	ppb	19.900	11.99%
Mg 279.077 IEC†	3.0	27.812	µg/L	26.5942	27.812	ppb	26.5942	95.62%
Mn 257.610†	698.8	2.4286	µg/L	0.02278	2.4286	ppb	0.02278	0.94%
Mo 202.031†	3.5	0.3803	µg/L	0.61350	0.3803	ppb	0.61350	161.30%
Na 589.592 Radial†	501.1	164.95	µg/L	10.377	164.95	ppb	10.377	6.29%

Ni 231.604†	-12.0	-0.6553	µg/L	0.01398	-0.6553	ppb	0.01398 2.13%
P 214.914†	-1.7	-3.7622	µg/L	4.19805	-3.7622	ppb	4.19805 111.58%
Pb 220.353†	-3.4	-0.8978	µg/L	0.81407	-0.8978	ppb	0.81407 90.68%
S 181.975 Axial†	5.2	22.706	µg/L	2.9716	22.706	ppb	2.9716 13.09%
Sb 206.836†	-4.4	-4.3328	µg/L	2.32430	-4.3328	ppb	2.32430 53.64%
Se 196.026†	-1.2	-1.7097	µg/L	4.65442	-1.7097	ppb	4.65442 272.24%
SiO2†	17544.5	3778.3	µg/L	57.90	3778.3	ppb	57.90 1.53%
Si 251.611†	21453.5	1763.6	µg/L	27.31	1763.6	ppb	27.31 1.55%
Sn 189.927†	2.5	1.1605	µg/L	1.05125	1.1605	ppb	1.05125 90.58%
Sr 421.552†	33.3	0.3450	µg/L	0.09228	0.3450	ppb	0.09228 26.75%
Ti 334.940†	1765.6	4.2455	µg/L	1.97838	4.2455	ppb	1.97838 46.60%
Tl 190.801†	0.4	0.6850	µg/L	4.01159	0.6850	ppb	4.01159 585.63%
U 409.014†	0.9	0.0668	µg/L	2.82276	0.0668	ppb	2.82276 >999.9%
V 292.402†	22.9	0.2597	µg/L	0.17171	0.2597	ppb	0.17171 66.13%
Zn 213.857†	43.7	1.0880	µg/L	0.09735	1.0880	ppb	0.09735 8.95%

Sequence No.: 59
Sample ID: 1202033918|949338|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 345
Date Collected: 2/11/2010 20:28:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033918|949338|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57118.9	57118.9	105	%			20:29:02
1	Al 396.153Radial†	7277.4	6963.3	5179.7	µg/L	5179.7	ppb	20:29:02
1	Ca 317.933Radial†	5635.9	5205.6	4901.4	µg/L	4901.4	ppb	20:29:22
1	Fe 238.204 Radial†	635.7	592.9	5035.5	µg/L	5035.5	ppb	20:29:22
1	K 766.490 Radial†	7780.6	7305.6	5192.8	µg/L	5192.8	ppb	20:29:02
1	Mg 279.077 IEC†	578.3	541.3	5040.5	µg/L	5040.5	ppb	20:29:22
1	Na 589.592 Radial†	17148.4	15842.6	5215.4	µg/L	5215.4	ppb	20:29:02
1	Sr 421.552†	50433.6	48147.4	499.10	µg/L	499.10	ppb	20:29:02
1	Sc 361.383	2029372.2	2029372.2	106.26	%			20:30:25
1	Y 371.029	1386984.1	1386984.1	105.88	%			20:30:25
1	Ag 328.068†	63499.8	60324.1	482.18	µg/L	482.18	ppb	20:30:31
1	As 188.979†	272.1	254.9	497.35	µg/L	497.35	ppb	20:30:52
1	B 249.677†	12579.6	11507.1	501.04	µg/L	501.04	ppb	20:30:31
1	Ba 233.527†	19915.2	18768.2	489.57	µg/L	489.57	ppb	20:30:31
1	Be 313.107†	788939.4	745910.5	486.94	µg/L	486.94	ppb	20:30:25
1	Cd 226.502†	18250.2	17317.3	477.67	µg/L	477.67	ppb	20:30:31
1	Co 228.616†	10351.9	9751.0	479.31	µg/L	479.31	ppb	20:30:31
1	Cr 267.716†	23453.1	22124.0	486.95	µg/L	486.95	ppb	20:30:31
1	Cu 324.752†	76892.0	69876.9	488.81	µg/L	488.81	ppb	20:30:31
1	Mn 257.610†	152727.9	143976.2	499.04	µg/L	499.04	ppb	20:30:25
1	Mo 202.031†	4988.2	4701.9	501.99	µg/L	501.99	ppb	20:30:52
1	Ni 231.604†	9727.6	8852.4	483.50	µg/L	483.50	ppb	20:30:31
1	P 214.914†	277.5	233.5	455.14	µg/L	455.14	ppb	20:30:52
1	Pb 220.353†	2118.5	1896.5	506.23	µg/L	506.23	ppb	20:30:52
1	S 181.975 Axial†	1228.5	1141.3	5000.4	µg/L	5000.4	ppb	20:30:52
1	Sb 206.836†	577.9	516.9	511.08	µg/L	511.08	ppb	20:30:52
1	Se 196.026†	341.6	305.6	473.79	µg/L	473.79	ppb	20:30:52
1	SiO2†	69252.0	63922.9	13766	µg/L	13766	ppb	20:30:31
1	Si 251.611†	83147.8	77937.4	6406.9	µg/L	6406.9	ppb	20:30:31
1	Sn 189.927†	1227.2	1155.8	531.61	µg/L	531.61	ppb	20:30:52
1	Ti 334.940†	216139.1	203292.2	488.68	µg/L	488.68	ppb	20:30:25
1	Tl 190.801†	355.9	359.2	507.37	µg/L	507.37	ppb	20:30:52
1	U 409.014†	5832.7	5542.7	500.82	µg/L	500.82	ppb	20:30:31
1	V 292.402†	48175.1	45381.7	489.75	µg/L	489.75	ppb	20:30:31
1	Zn 213.857†	20743.0	19045.7	472.14	µg/L	472.14	ppb	20:30:31
2	Sc RADIAL	57669.7	57669.7	106	%			20:29:28
2	Al 396.153Radial†	7198.1	6821.8	5074.3	µg/L	5074.3	ppb	20:29:28
2	Ca 317.933Radial†	5729.8	5243.1	4936.7	µg/L	4936.7	ppb	20:29:48
2	Fe 238.204 Radial†	647.1	597.9	5077.9	µg/L	5077.9	ppb	20:29:48
2	K 766.490 Radial†	7663.1	7123.4	5063.3	µg/L	5063.3	ppb	20:29:28
2	Mg 279.077 IEC†	590.8	547.9	5101.5	µg/L	5101.5	ppb	20:29:48
2	Na 589.592 Radial†	17069.2	15611.2	5139.3	µg/L	5139.3	ppb	20:29:28
2	Sr 421.552†	50046.4	47320.7	490.53	µg/L	490.53	ppb	20:29:28
2	Sc 361.383	2025971.4	2025971.4	106.08	%			20:30:59
2	Y 371.029	1385445.4	1385445.4	105.77	%			20:30:59
2	Ag 328.068†	64076.6	60968.2	487.34	µg/L	487.34	ppb	20:31:04
2	As 188.979†	272.1	255.4	498.21	µg/L	498.21	ppb	20:31:25
2	B 249.677†	12708.3	11648.4	507.20	µg/L	507.20	ppb	20:31:04
2	Ba 233.527†	20163.4	19033.7	496.49	µg/L	496.49	ppb	20:31:04
2	Be 313.107†	784151.3	742643.2	484.80	µg/L	484.80	ppb	20:30:59
2	Cd 226.502†	18466.4	17550.0	484.10	µg/L	484.10	ppb	20:31:04
2	Co 228.616†	10407.2	9819.5	482.68	µg/L	482.68	ppb	20:31:04
2	Cr 267.716†	23732.1	22424.1	493.55	µg/L	493.55	ppb	20:31:04
2	Cu 324.752†	77602.2	70667.9	494.34	µg/L	494.34	ppb	20:31:04
2	Mn 257.610†	151905.4	143442.1	497.19	µg/L	497.19	ppb	20:30:59
2	Mo 202.031†	4936.7	4661.3	497.65	µg/L	497.65	ppb	20:31:25
2	Ni 231.604†	9899.7	9030.0	493.21	µg/L	493.21	ppb	20:31:04
2	P 214.914†	268.8	225.8	437.83	µg/L	437.83	ppb	20:31:25
2	Pb 220.353†	2097.3	1879.9	501.75	µg/L	501.75	ppb	20:31:25

2	S 181.975 Axial†	1220.8	1136.0	4977.4 µg/L	4977.4 ppb	20:31:25
2	Sb 206.836†	577.2	517.2	511.19 µg/L	511.19 ppb	20:31:25
2	Se 196.026†	344.9	309.3	479.41 µg/L	479.41 ppb	20:31:25
2	SiO2†	69875.2	64619.9	13916 µg/L	13916 ppb	20:31:04
2	Si 251.611†	83881.2	78760.1	6474.5 µg/L	6474.5 ppb	20:31:04
2	Sn 189.927†	1214.2	1145.5	526.88 µg/L	526.88 ppb	20:31:25
2	Ti 334.940†	214642.3	202222.6	486.11 µg/L	486.11 ppb	20:30:59
2	Tl 190.801†	350.8	355.0	501.44 µg/L	501.44 ppb	20:31:25
2	U 409.014†	5895.7	5611.4	507.03 µg/L	507.03 ppb	20:31:04
2	V 292.402†	48734.6	45985.3	496.18 µg/L	496.18 ppb	20:31:04
2	Zn 213.857†	20858.1	19186.9	475.61 µg/L	475.61 ppb	20:31:04
3	Sc RADIAL	57562.1	57562.1	105 %		20:29:53
3	Al 396.153Radial†	7270.9	6903.7	5135.9 µg/L	5135.9 ppb	20:29:53
3	Ca 317.933Radial†	5662.0	5189.0	4885.7 µg/L	4885.7 ppb	20:30:14
3	Fe 238.204 Radial†	642.2	594.3	5047.6 µg/L	5047.6 ppb	20:30:14
3	K 766.490 Radial†	7708.8	7180.3	5103.7 µg/L	5103.7 ppb	20:29:53
3	Mg 279.077 IEC†	579.0	537.7	5006.2 µg/L	5006.2 ppb	20:30:14
3	Na 589.592 Radial†	17094.6	15665.4	5157.1 µg/L	5157.1 ppb	20:29:53
3	Sr 421.552†	50093.9	47454.3	491.92 µg/L	491.92 ppb	20:29:53
3	Sc 361.383	1982766.8	1982766.8	103.82 %		20:31:32
3	Y 371.029	1356385.0	1356385.0	103.55 %		20:31:32
3	Ag 328.068†	63496.6	61725.7	493.32 µg/L	493.32 ppb	20:31:38
3	As 188.979†	253.8	243.3	474.75 µg/L	474.75 ppb	20:31:58
3	B 249.677†	12503.7	11712.3	510.00 µg/L	510.00 ppb	20:31:38
3	Ba 233.527†	19632.9	18936.8	493.96 µg/L	493.96 ppb	20:31:38
3	Be 313.107†	770870.5	745958.1	486.97 µg/L	486.97 ppb	20:31:32
3	Cd 226.502†	18088.9	17565.7	484.53 µg/L	484.53 ppb	20:31:38
3	Co 228.616†	10138.0	9773.9	480.41 µg/L	480.41 ppb	20:31:38
3	Cr 267.716†	22848.3	22060.3	485.55 µg/L	485.55 ppb	20:31:38
3	Cu 324.752†	75559.2	70294.0	491.72 µg/L	491.72 ppb	20:31:38
3	Mn 257.610†	149432.1	144180.0	499.75 µg/L	499.75 ppb	20:31:32
3	Mo 202.031†	4526.0	4367.0	466.25 µg/L	466.25 ppb	20:31:58
3	Ni 231.604†	9575.0	8920.7	487.23 µg/L	487.23 ppb	20:31:38
3	P 214.914†	263.2	225.9	438.02 µg/L	438.02 ppb	20:31:58
3	Pb 220.353†	1955.3	1786.2	476.67 µg/L	476.67 ppb	20:31:58
3	S 181.975 Axial†	1163.2	1105.6	4844.2 µg/L	4844.2 ppb	20:31:58
3	Sb 206.836†	529.7	483.2	477.34 µg/L	477.34 ppb	20:31:58
3	Se 196.026†	334.1	306.0	474.42 µg/L	474.42 ppb	20:31:58
3	SiO2†	68637.7	64863.1	13969 µg/L	13969 ppb	20:31:38
3	Si 251.611†	82479.4	79132.9	6505.1 µg/L	6505.1 ppb	20:31:38
3	Sn 189.927†	1119.7	1079.4	496.47 µg/L	496.47 ppb	20:31:58
3	Ti 334.940†	210858.0	202986.4	487.95 µg/L	487.95 ppb	20:31:32
3	Tl 190.801†	330.3	342.5	483.99 µg/L	483.99 ppb	20:31:58
3	U 409.014†	5683.6	5528.2	499.50 µg/L	499.50 ppb	20:31:38
3	V 292.402†	47331.5	45634.9	492.17 µg/L	492.17 ppb	20:31:38
3	Zn 213.857†	20384.9	19159.6	474.96 µg/L	474.96 ppb	20:31:38

Mean Data: 1202033918|949338|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2012703.5	105.39	%	1.360				1.29%
Sc RADIAL	57450.2	105	%	0.5				0.51%
Y 371.029	1376271.5	105.07	%	1.316				1.25%
Ag 328.068†	61006.0	487.61	µg/L	5.575	487.61	ppb	5.575	1.14%
Al 396.153Radial†	6896.3	5130.0	µg/L	52.94	5130.0	ppb	52.94	1.03%
As 188.979†	251.2	490.10	µg/L	13.305	490.10	ppb	13.305	2.71%
B 249.677†	11622.6	506.08	µg/L	4.584	506.08	ppb	4.584	0.91%
Ba 233.527†	18912.9	493.34	µg/L	3.504	493.34	ppb	3.504	0.71%
Be 313.107†	744837.3	486.24	µg/L	1.241	486.24	ppb	1.241	0.26%
Ca 317.933Radial†	5212.6	4908.0	µg/L	26.12	4908.0	ppb	26.12	0.53%
Cd 226.502†	17477.7	482.10	µg/L	3.840	482.10	ppb	3.840	0.80%
Co 228.616†	9781.5	480.80	µg/L	1.721	480.80	ppb	1.721	0.36%
Cr 267.716†	22202.8	488.68	µg/L	4.275	488.68	ppb	4.275	0.87%
Cu 324.752†	70279.6	491.62	µg/L	2.767	491.62	ppb	2.767	0.56%
Fe 238.204 Radial†	595.1	5053.7	µg/L	21.85	5053.7	ppb	21.85	0.43%
K 766.490 Radial†	7203.1	5119.9	µg/L	66.26	5119.9	ppb	66.26	1.29%
Mg 279.077 IEC†	542.3	5049.4	µg/L	48.25	5049.4	ppb	48.25	0.96%
Mn 257.610†	143866.1	498.66	µg/L	1.319	498.66	ppb	1.319	0.26%
Mo 202.031†	4576.8	488.63	µg/L	19.504	488.63	ppb	19.504	3.99%
Na 589.592 Radial†	15706.4	5170.6	µg/L	39.83	5170.6	ppb	39.83	0.77%

Ni 231.604†	8934.4	487.98 µg/L	4.896	487.98 ppb	4.896	1.00%
P 214.914†	228.4	443.66 µg/L	9.943	443.66 ppb	9.943	2.24%
Pb 220.353†	1854.2	494.89 µg/L	15.933	494.89 ppb	15.933	3.22%
S 181.975 Axial†	1127.7	4940.7 µg/L	84.32	4940.7 ppb	84.32	1.71%
Sb 206.836†	505.8	499.87 µg/L	19.513	499.87 ppb	19.513	3.90%
Se 196.026†	306.9	475.88 µg/L	3.078	475.88 ppb	3.078	0.65%
SiO2†	64468.6	13884 µg/L	105.1	13884 ppb	105.1	0.76%
Si 251.611†	78610.2	6462.2 µg/L	50.28	6462.2 ppb	50.28	0.78%
Sn 189.927†	1126.9	518.32 µg/L	19.072	518.32 ppb	19.072	3.68%
Sr 421.552†	47640.8	493.85 µg/L	4.600	493.85 ppb	4.600	0.93%
Ti 334.940†	202833.7	487.58 µg/L	1.328	487.58 ppb	1.328	0.27%
Tl 190.801†	352.2	497.60 µg/L	12.153	497.60 ppb	12.153	2.44%
U 409.014†	5560.8	502.45 µg/L	4.021	502.45 ppb	4.021	0.80%
V 292.402†	45667.3	492.70 µg/L	3.245	492.70 ppb	3.245	0.66%
Zn 213.857†	19130.7	474.24 µg/L	1.845	474.24 ppb	1.845	0.39%

Sequence No.: 60
Sample ID: 1202032560|949338|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 346
Date Collected: 2/11/2010 20:32:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202032560|949338|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56242.3	56242.3	103	%			20:32:40
1	Al 396.153Radial†	-7.5	2.9	2.1521	µg/L	2.1521	ppb	20:32:40
1	Ca 317.933Radial†	197.0	12.0	11.324	µg/L	11.324	ppb	20:33:00
1	Fe 238.204 Radial†	16.7	1.7	14.543	µg/L	14.543	ppb	20:33:00
1	K 766.490 Radial†	220.6	85.7	60.889	µg/L	60.889	ppb	20:32:40
1	Mg 279.077 IEC†	10.7	-0.9	-7.9778	µg/L	-7.9778	ppb	20:33:00
1	Na 589.592 Radial†	705.3	142.5	46.902	µg/L	46.902	ppb	20:32:40
1	Sr 421.552†	19.8	-20.4	-0.2111	µg/L	-0.2111	ppb	20:32:40
1	Sc 361.383	2007389.7	2007389.7	105.11	%			20:34:02
1	Y 371.029	1377633.9	1377633.9	105.17	%			20:34:02
1	Ag 328.068†	-550.2	41.1	0.3277	µg/L	0.3277	ppb	20:34:07
1	As 188.979†	1.3	0.1	0.2221	µg/L	0.2221	ppb	20:34:28
1	B 249.677†	446.9	93.7	4.0871	µg/L	4.0871	ppb	20:34:28
1	Ba 233.527†	-3.5	22.7	0.5911	µg/L	0.5911	ppb	20:34:28
1	Be 313.107†	-3184.3	410.9	0.2680	µg/L	0.2680	ppb	20:34:07
1	Cd 226.502†	-138.2	10.7	0.2916	µg/L	0.2916	ppb	20:34:28
1	Co 228.616†	-22.9	-12.9	-0.6372	µg/L	-0.6372	ppb	20:34:28
1	Cr 267.716†	-23.8	29.7	0.6533	µg/L	0.6533	ppb	20:34:28
1	Cu 324.752†	2472.5	-133.7	-0.9320	µg/L	-0.9320	ppb	20:34:07
1	Mn 257.610†	-86.6	161.7	0.5623	µg/L	0.5623	ppb	20:34:28
1	Mo 202.031†	-2.5	5.2	0.5549	µg/L	0.5549	ppb	20:34:28
1	Ni 231.604†	304.1	-12.8	-0.7000	µg/L	-0.7000	ppb	20:34:28
1	P 214.914†	27.1	-1.9	-3.8906	µg/L	-3.8906	ppb	20:34:28
1	Pb 220.353†	98.7	-3.3	-0.8735	µg/L	-0.8735	ppb	20:34:28
1	S 181.975 Axial†	12.7	-2.8	-12.095	µg/L	-12.095	ppb	20:34:28
1	Sb 206.836†	25.2	-3.0	-2.9402	µg/L	-2.9402	ppb	20:34:28
1	Se 196.026†	14.0	-2.5	-3.8420	µg/L	-3.8420	ppb	20:34:28
1	SiO2†	5020.9	3526.8	759.53	µg/L	759.53	ppb	20:34:07
1	Si 251.611†	4882.0	4331.9	356.11	µg/L	356.11	ppb	20:34:07
1	Sn 189.927†	4.9	5.6	2.5639	µg/L	2.5639	ppb	20:34:28
1	Ti 334.940†	467.1	328.3	0.7905	µg/L	0.7905	ppb	20:34:07
1	Tl 190.801†	-22.8	2.6	3.6700	µg/L	3.6700	ppb	20:34:28
1	U 409.014†	-44.1	11.6	1.0507	µg/L	1.0507	ppb	20:34:07
1	V 292.402†	-32.1	13.6	0.1538	µg/L	0.1538	ppb	20:34:07
1	Zn 213.857†	491.1	-8.4	-0.2044	µg/L	-0.2044	ppb	20:34:28
2	Sc RADIAL	56494.1	56494.1	104	%			20:33:06
2	Al 396.153Radial†	14.4	24.1	17.946	µg/L	17.946	ppb	20:33:06
2	Ca 317.933Radial†	203.2	17.1	16.139	µg/L	16.139	ppb	20:33:26
2	Fe 238.204 Radial†	17.9	2.8	23.549	µg/L	23.549	ppb	20:33:26
2	K 766.490 Radial†	161.7	27.8	19.760	µg/L	19.760	ppb	20:33:06
2	Mg 279.077 IEC†	13.2	1.4	13.398	µg/L	13.398	ppb	20:33:26
2	Na 589.592 Radial†	680.9	115.9	38.139	µg/L	38.139	ppb	20:33:06
2	Sr 421.552†	37.5	-3.3	-0.0344	µg/L	-0.0344	ppb	20:33:06
2	Sc 361.383	1996995.6	1996995.6	104.56	%			20:34:34
2	Y 371.029	1369030.1	1369030.1	104.51	%			20:34:34
2	Ag 328.068†	-488.5	97.3	0.7743	µg/L	0.7743	ppb	20:34:39
2	As 188.979†	0.8	-0.4	-0.7992	µg/L	-0.7992	ppb	20:35:00
2	B 249.677†	440.9	90.2	3.9297	µg/L	3.9297	ppb	20:35:00
2	Ba 233.527†	-7.7	18.6	0.4856	µg/L	0.4856	ppb	20:35:00
2	Be 313.107†	-3370.5	217.0	0.1415	µg/L	0.1415	ppb	20:34:39
2	Cd 226.502†	-138.9	9.3	0.2526	µg/L	0.2526	ppb	20:35:00
2	Co 228.616†	-16.0	-6.5	-0.3210	µg/L	-0.3210	ppb	20:35:00
2	Cr 267.716†	-12.7	40.2	0.8850	µg/L	0.8850	ppb	20:35:00
2	Cu 324.752†	2458.3	-135.1	-0.9404	µg/L	-0.9404	ppb	20:34:39
2	Mn 257.610†	-92.3	155.8	0.5421	µg/L	0.5421	ppb	20:35:00
2	Mo 202.031†	-3.0	4.7	0.4979	µg/L	0.4979	ppb	20:35:00
2	Ni 231.604†	300.7	-14.6	-0.7984	µg/L	-0.7984	ppb	20:35:00
2	P 214.914†	38.7	9.3	20.180	µg/L	20.180	ppb	20:35:00
2	Pb 220.353†	93.2	-8.0	-2.1411	µg/L	-2.1411	ppb	20:35:00

2	S 181.975 Axial†	14.9	-0.5	-2.2892 µg/L	-2.2892 ppb	20:35:00
2	Sb 206.836†	28.8	0.6	0.5973 µg/L	0.5973 ppb	20:35:00
2	Se 196.026†	13.5	-2.9	-4.3469 µg/L	-4.3469 ppb	20:35:00
2	SiO2†	4956.1	3489.8	751.55 µg/L	751.55 ppb	20:34:39
2	Si 251.611†	4896.1	4369.6	359.20 µg/L	359.20 ppb	20:34:39
2	Sn 189.927†	2.5	3.2	1.4877 µg/L	1.4877 ppb	20:35:00
2	Ti 334.940†	420.0	285.6	0.6862 µg/L	0.6862 ppb	20:34:39
2	Tl 190.801†	-26.7	-1.2	-1.7022 µg/L	-1.7022 ppb	20:35:00
2	U 409.014†	-10.3	43.8	3.9611 µg/L	3.9611 ppb	20:34:39
2	V 292.402†	-40.5	5.5	0.0713 µg/L	0.0713 ppb	20:34:39
2	Zn 213.857†	496.0	-1.2	-0.0259 µg/L	-0.0259 ppb	20:35:00
3	Sc RADIAL	56398.2	56398.2	103 %		20:33:31
3	Al 396.153Radial†	10.3	20.1	15.002 µg/L	15.002 ppb	20:33:31
3	Ca 317.933Radial†	202.2	16.5	15.518 µg/L	15.518 ppb	20:33:52
3	Fe 238.204 Radial†	15.6	0.6	4.7587 µg/L	4.7587 ppb	20:33:52
3	K 766.490 Radial†	197.7	62.9	44.729 µg/L	44.729 ppb	20:33:31
3	Mg 279.077 IEC†	12.2	0.5	4.9239 µg/L	4.9239 ppb	20:33:52
3	Na 589.592 Radial†	721.6	156.4	51.494 µg/L	51.494 ppb	20:33:31
3	Sr 421.552†	30.7	-9.8	-0.1021 µg/L	-0.1021 ppb	20:33:31
3	Sc 361.383	2026962.5	2026962.5	106.13 %		20:35:06
3	Y 371.029	1389827.1	1389827.1	106.10 %		20:35:06
3	Ag 328.068†	-504.1	89.5	0.7130 µg/L	0.7130 ppb	20:35:11
3	As 188.979†	-0.7	-1.8	-3.5252 µg/L	-3.5252 ppb	20:35:32
3	B 249.677†	431.2	74.8	3.2682 µg/L	3.2682 ppb	20:35:32
3	Ba 233.527†	-15.3	11.6	0.3035 µg/L	0.3035 ppb	20:35:32
3	Be 313.107†	-3164.9	458.4	0.2991 µg/L	0.2991 ppb	20:35:11
3	Cd 226.502†	-136.2	13.8	0.3788 µg/L	0.3788 ppb	20:35:32
3	Co 228.616†	-16.8	-7.0	-0.3440 µg/L	-0.3440 ppb	20:35:32
3	Cr 267.716†	-27.3	26.7	0.5871 µg/L	0.5871 ppb	20:35:32
3	Cu 324.752†	2455.3	-172.6	-1.2053 µg/L	-1.2053 ppb	20:35:11
3	Mn 257.610†	-103.8	146.3	0.5072 µg/L	0.5072 ppb	20:35:32
3	Mo 202.031†	-8.1	-0.1	-0.0091 µg/L	-0.0091 ppb	20:35:32
3	Ni 231.604†	300.6	-18.9	-1.0341 µg/L	-1.0341 ppb	20:35:32
3	P 214.914†	21.3	-7.6	-16.198 µg/L	-16.198 ppb	20:35:32
3	Pb 220.353†	99.7	-3.2	-0.8563 µg/L	-0.8563 ppb	20:35:32
3	S 181.975 Axial†	18.6	2.7	12.021 µg/L	12.021 ppb	20:35:32
3	Sb 206.836†	26.0	-2.5	-2.4662 µg/L	-2.4662 ppb	20:35:32
3	Se 196.026†	13.3	-3.3	-4.9621 µg/L	-4.9621 ppb	20:35:32
3	SiO2†	4843.7	3313.8	713.65 µg/L	713.65 ppb	20:35:11
3	Si 251.611†	4687.8	4104.1	337.38 µg/L	337.38 ppb	20:35:11
3	Sn 189.927†	-0.2	0.7	0.3038 µg/L	0.3038 ppb	20:35:32
3	Ti 334.940†	469.5	326.2	0.7846 µg/L	0.7846 ppb	20:35:11
3	Tl 190.801†	-19.8	5.6	7.8024 µg/L	7.8024 ppb	20:35:32
3	U 409.014†	-68.5	-10.9	-0.9876 µg/L	-0.9876 ppb	20:35:11
3	V 292.402†	-10.3	34.5	0.3689 µg/L	0.3689 ppb	20:35:11
3	Zn 213.857†	495.7	-8.5	-0.2055 µg/L	-0.2055 ppb	20:35:32

Mean Data: 1202032560|949338|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	2010449.2	105.27	%	0.797				0.76%
Sc RADIAL	56378.2	103	%	0.2				0.23%
Y 371.029	1378830.3	105.26	%	0.798				0.76%
Ag 328.068†	76.0	0.6050	µg/L	0.24212	0.6050	ppb	0.24212	40.02%
Al 396.153Radial†	15.7	11.700	µg/L	8.3985	11.700	ppb	8.3985	71.78%
As 188.979†	-0.7	-1.3674	µg/L	1.93720	-1.3674	ppb	1.93720	141.67%
B 249.677†	86.2	3.7617	µg/L	0.43457	3.7617	ppb	0.43457	11.55%
Ba 233.527†	17.7	0.4601	µg/L	0.14554	0.4601	ppb	0.14554	31.63%
Be 313.107†	362.1	0.2362	µg/L	0.08349	0.2362	ppb	0.08349	35.35%
Ca 317.933Radial†	15.2	14.327	µg/L	2.6192	14.327	ppb	2.6192	18.28%
Cd 226.502†	11.2	0.3076	µg/L	0.06462	0.3076	ppb	0.06462	21.00%
Co 228.616†	-8.8	-0.4341	µg/L	0.17631	-0.4341	ppb	0.17631	40.62%
Cr 267.716†	32.2	0.7085	µg/L	0.15643	0.7085	ppb	0.15643	22.08%
Cu 324.752†	-147.1	-1.0259	µg/L	0.15544	-1.0259	ppb	0.15544	15.15%
Fe 238.204 Radial†	1.7	14.284	µg/L	9.3979	14.284	ppb	9.3979	65.79%
K 766.490 Radial†	58.8	41.793	µg/L	20.7215	41.793	ppb	20.7215	49.58%
Mg 279.077 IEC†	0.4	3.4479	µg/L	10.76396	3.4479	ppb	10.76396	312.18%
Mn 257.610†	154.6	0.5372	µg/L	0.02792	0.5372	ppb	0.02792	5.20%
Mo 202.031†	3.3	0.3479	µg/L	0.31050	0.3479	ppb	0.31050	89.25%
Na 589.592 Radial†	138.2	45.512	µg/L	6.7850	45.512	ppb	6.7850	14.91%

Ni 231.604†	-15.5	-0.8442 µg/L	0.17168	-0.8442 ppb	0.17168	20.34%
P 214.914†	-0.0	0.0304 µg/L	18.50296	0.0304 ppb	18.50296	>999.9%
Pb 220.353†	-4.8	-1.2903 µg/L	0.73684	-1.2903 ppb	0.73684	57.11%
S 181.975 Axial†	-0.2	-0.7875 µg/L	12.12803	-0.7875 ppb	12.12803	>999.9%
Sb 206.836†	-1.6	-1.6031 µg/L	1.92021	-1.6031 ppb	1.92021	119.78%
Se 196.026†	-2.9	-4.3836 µg/L	0.56097	-4.3836 ppb	0.56097	12.80%
SiO2†	3443.5	741.58 µg/L	24.512	741.58 ppb	24.512	3.31%
Si 251.611†	4268.5	350.89 µg/L	11.808	350.89 ppb	11.808	3.37%
Sn 189.927†	3.2	1.4518 µg/L	1.13048	1.4518 ppb	1.13048	77.87%
Sr 421.552†	-11.2	-0.1159 µg/L	0.08916	-0.1159 ppb	0.08916	76.95%
Ti 334.940†	313.4	0.7537 µg/L	0.05861	0.7537 ppb	0.05861	7.78%
Tl 190.801†	2.3	3.2568 µg/L	4.76577	3.2568 ppb	4.76577	146.33%
U 409.014†	14.8	1.3414 µg/L	2.48714	1.3414 ppb	2.48714	185.42%
V 292.402†	17.9	0.1980 µg/L	0.15362	0.1980 ppb	0.15362	77.59%
Zn 213.857†	-6.0	-0.1453 µg/L	0.10340	-0.1453 ppb	0.10340	71.18%

Sequence No.: 61
Sample ID: 1202033919|949338|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 347
Date Collected: 2/11/2010 20:35:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202033919|949338|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	57324.5	57324.5	105	%			20:36:14
1	Al 396.153Radial†	-18.3	-7.3	-5.4289	µg/L	-5.4289	ppb	20:36:14
1	Ca 317.933Radial†	243.5	52.6	49.565	µg/L	49.565	ppb	20:36:34
1	Fe 238.204 Radial†	17.4	2.0	17.265	µg/L	17.265	ppb	20:36:34
1	K 766.490 Radial†	365.0	219.0	155.69	µg/L	155.69	ppb	20:36:14
1	Mg 279.077 IEC†	11.4	-0.5	-4.2800	µg/L	-4.2800	ppb	20:36:34
1	Na 589.592 Radial†	945.4	358.2	117.92	µg/L	117.92	ppb	20:36:14
1	Sr 421.552†	76.5	33.3	0.3450	µg/L	0.3450	ppb	20:36:14
1	Sc 361.383	1998891.5	1998891.5	104.66	%			20:37:36
1	Y 371.029	1369120.9	1369120.9	104.52	%			20:37:36
1	Ag 328.068†	-577.7	12.5	0.1014	µg/L	0.1014	ppb	20:37:42
1	As 188.979†	3.3	2.0	3.8359	µg/L	3.8359	ppb	20:38:02
1	B 249.677†	961.1	586.8	25.635	µg/L	25.635	ppb	20:37:42
1	Ba 233.527†	-18.2	8.6	0.2251	µg/L	0.2251	ppb	20:38:02
1	Be 313.107†	-3361.7	228.5	0.1491	µg/L	0.1491	ppb	20:37:42
1	Cd 226.502†	-134.1	14.0	0.3847	µg/L	0.3847	ppb	20:38:02
1	Co 228.616†	-9.7	-0.4	-0.0217	µg/L	-0.0217	ppb	20:38:02
1	Cr 267.716†	-29.5	24.2	0.5326	µg/L	0.5326	ppb	20:37:42
1	Cu 324.752†	2608.6	6.3	0.0466	µg/L	0.0466	ppb	20:37:42
1	Mn 257.610†	-129.4	120.5	0.4196	µg/L	0.4196	ppb	20:38:02
1	Mo 202.031†	-9.5	-1.6	-0.1674	µg/L	-0.1674	ppb	20:38:02
1	Ni 231.604†	311.0	-5.1	-0.2766	µg/L	-0.2766	ppb	20:38:02
1	P 214.914†	22.2	-6.5	-13.897	µg/L	-13.897	ppb	20:38:02
1	Pb 220.353†	100.4	-1.2	-0.3265	µg/L	-0.3265	ppb	20:38:02
1	S 181.975 Axial†	19.6	3.9	17.244	µg/L	17.244	ppb	20:38:02
1	Sb 206.836†	27.3	-0.8	-0.8373	µg/L	-0.8373	ppb	20:38:02
1	Se 196.026†	16.1	-0.4	-0.6048	µg/L	-0.6048	ppb	20:38:02
1	SiO2†	18678.6	16596.4	3574.1	µg/L	3574.1	ppb	20:37:42
1	Si 251.611†	21454.9	20186.2	1659.4	µg/L	1659.4	ppb	20:37:42
1	Sn 189.927†	-3.9	-2.8	-1.3086	µg/L	-1.3086	ppb	20:38:02
1	Ti 334.940†	212.7	87.1	0.2106	µg/L	0.2106	ppb	20:37:42
1	Tl 190.801†	-24.3	1.1	1.5184	µg/L	1.5184	ppb	20:38:02
1	U 409.014†	-99.8	-41.7	-3.7810	µg/L	-3.7810	ppb	20:37:42
1	V 292.402†	-34.8	11.0	0.1151	µg/L	0.1151	ppb	20:37:42
1	Zn 213.857†	563.6	63.0	1.5733	µg/L	1.5733	ppb	20:38:02
2	Sc RADIAL	56496.0	56496.0	104	%			20:36:40
2	Al 396.153Radial†	28.0	37.2	27.741	µg/L	27.741	ppb	20:36:40
2	Ca 317.933Radial†	246.1	58.6	55.190	µg/L	55.190	ppb	20:37:00
2	Fe 238.204 Radial†	15.9	0.9	7.3734	µg/L	7.3734	ppb	20:37:00
2	K 766.490 Radial†	384.7	243.2	172.83	µg/L	172.83	ppb	20:36:40
2	Mg 279.077 IEC†	16.4	4.6	42.895	µg/L	42.895	ppb	20:37:00
2	Na 589.592 Radial†	961.7	387.1	127.45	µg/L	127.45	ppb	20:36:40
2	Sr 421.552†	63.8	22.1	0.2292	µg/L	0.2292	ppb	20:36:40
2	Sc 361.383	1987427.5	1987427.5	104.06	%			20:38:08
2	Y 371.029	1361732.2	1361732.2	103.96	%			20:38:08
2	Ag 328.068†	-575.7	11.3	0.0888	µg/L	0.0888	ppb	20:38:14
2	As 188.979†	-3.7	-4.7	-9.1775	µg/L	-9.1775	ppb	20:38:34
2	B 249.677†	925.9	558.3	24.397	µg/L	24.397	ppb	20:38:14
2	Ba 233.527†	-12.8	13.7	0.3572	µg/L	0.3572	ppb	20:38:34
2	Be 313.107†	-3457.8	117.6	0.0767	µg/L	0.0767	ppb	20:38:14
2	Cd 226.502†	-142.4	5.3	0.1442	µg/L	0.1442	ppb	20:38:34
2	Co 228.616†	-15.4	-5.9	-0.2929	µg/L	-0.2929	ppb	20:38:34
2	Cr 267.716†	-26.0	27.3	0.6015	µg/L	0.6015	ppb	20:38:14
2	Cu 324.752†	2643.4	54.2	0.3793	µg/L	0.3793	ppb	20:38:14
2	Mn 257.610†	-141.1	108.5	0.3750	µg/L	0.3750	ppb	20:38:34
2	Mo 202.031†	-10.2	-2.3	-0.2452	µg/L	-0.2452	ppb	20:38:34
2	Ni 231.604†	304.5	-9.6	-0.5254	µg/L	-0.5254	ppb	20:38:34
2	P 214.914†	23.7	-4.8	-10.396	µg/L	-10.396	ppb	20:38:34
2	Pb 220.353†	98.5	-2.5	-0.6716	µg/L	-0.6716	ppb	20:38:34

2	S 181.975 Axial†	19.6	4.1	17.756 µg/L	17.756 ppb	20:38:34
2	Sb 206.836†	24.6	-3.3	-3.2895 µg/L	-3.2895 ppb	20:38:34
2	Se 196.026†	15.7	-0.8	-1.2264 µg/L	-1.2264 ppb	20:38:34
2	SiO2†	18507.0	16534.4	3560.8 µg/L	3560.8 ppb	20:38:14
2	Si 251.611†	21397.2	20249.0	1664.6 µg/L	1664.6 ppb	20:38:14
2	Sn 189.927†	-1.1	-0.2	-0.0732 µg/L	-0.0732 ppb	20:38:34
2	Ti 334.940†	220.6	95.8	0.2280 µg/L	0.2280 ppb	20:38:14
2	Tl 190.801†	-22.6	2.6	3.6090 µg/L	3.6090 ppb	20:38:34
2	U 409.014†	-81.4	-24.6	-2.2338 µg/L	-2.2338 ppb	20:38:14
2	V 292.402†	-59.5	-13.0	-0.1401 µg/L	-0.1401 ppb	20:38:14
2	Zn 213.857†	558.0	60.6	1.5131 µg/L	1.5131 ppb	20:38:34
3	Sc RADIAL	56383.9	56383.9	103 %		20:37:06
3	Al 396.153Radial†	-8.8	1.6	1.1774 µg/L	1.1774 ppb	20:37:06
3	Ca 317.933Radial†	245.0	58.0	54.580 µg/L	54.580 ppb	20:37:26
3	Fe 238.204 Radial†	16.5	1.5	12.503 µg/L	12.503 ppb	20:37:26
3	K 766.490 Radial†	346.8	207.3	147.34 µg/L	147.34 ppb	20:37:06
3	Mg 279.077 IEC†	10.3	-1.3	-12.154 µg/L	-12.154 ppb	20:37:26
3	Na 589.592 Radial†	973.4	400.3	131.77 µg/L	131.77 ppb	20:37:06
3	Sr 421.552†	76.9	34.9	0.3614 µg/L	0.3614 ppb	20:37:06
3	Sc 361.383	1987586.3	1987586.3	104.07 %		20:38:40
3	Y 371.029	1361044.1	1361044.1	103.90 %		20:38:40
3	Ag 328.068†	-602.4	-14.3	-0.1130 µg/L	-0.1130 ppb	20:38:46
3	As 188.979†	2.2	1.0	1.8831 µg/L	1.8831 ppb	20:39:06
3	B 249.677†	950.8	582.2	25.436 µg/L	25.436 ppb	20:38:46
3	Ba 233.527†	-10.0	16.4	0.4275 µg/L	0.4275 ppb	20:39:06
3	Be 313.107†	-3378.3	194.3	0.1264 µg/L	0.1264 ppb	20:38:46
3	Cd 226.502†	-146.4	1.5	0.0391 µg/L	0.0391 ppb	20:39:06
3	Co 228.616†	-9.0	0.2	0.0068 µg/L	0.0068 ppb	20:39:06
3	Cr 267.716†	-24.9	28.5	0.6259 µg/L	0.6259 ppb	20:38:46
3	Cu 324.752†	2609.5	21.3	0.1507 µg/L	0.1507 ppb	20:38:46
3	Mn 257.610†	-122.9	126.1	0.4387 µg/L	0.4387 ppb	20:39:06
3	Mo 202.031†	-6.5	1.3	0.1348 µg/L	0.1348 ppb	20:39:06
3	Ni 231.604†	303.2	-10.8	-0.5909 µg/L	-0.5909 ppb	20:39:06
3	P 214.914†	37.2	8.2	17.487 µg/L	17.487 ppb	20:39:06
3	Pb 220.353†	103.6	2.4	0.6250 µg/L	0.6250 ppb	20:39:06
3	S 181.975 Axial†	22.3	6.6	28.814 µg/L	28.814 ppb	20:39:06
3	Sb 206.836†	26.7	-1.3	-1.3017 µg/L	-1.3017 ppb	20:39:06
3	Se 196.026†	8.5	-7.7	-11.706 µg/L	-11.706 ppb	20:39:06
3	SiO2†	18096.8	16138.9	3475.6 µg/L	3475.6 ppb	20:38:46
3	Si 251.611†	20742.7	19618.4	1612.7 µg/L	1612.7 ppb	20:38:46
3	Sn 189.927†	0.3	1.1	0.5255 µg/L	0.5255 ppb	20:39:06
3	Ti 334.940†	690.8	547.6	1.3191 µg/L	1.3191 ppb	20:38:46
3	Tl 190.801†	-19.7	5.4	7.4826 µg/L	7.4826 ppb	20:39:06
3	U 409.014†	-12.6	41.6	3.7570 µg/L	3.7570 ppb	20:38:46
3	V 292.402†	-50.7	-4.5	-0.0403 µg/L	-0.0403 ppb	20:38:46
3	Zn 213.857†	560.2	62.7	1.5681 µg/L	1.5681 ppb	20:39:06

Mean Data: 1202033919|949338|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1991301.8	104.27	%	0.344				0.33%
Sc RADIAL	56734.8	104	%	0.9				0.91%
Y 371.029	1363965.8	104.13	%	0.342				0.33%
Ag 328.068†	3.2	0.0257	µg/L	0.12033	0.0257	ppb	0.12033	467.56%
Al 396.153Radial†	10.5	7.8300	µg/L	17.55733	7.8300	ppb	17.55733	224.23%
As 188.979†	-0.6	-1.1528	µg/L	7.01785	-1.1528	ppb	7.01785	608.76%
B 249.677†	575.8	25.156	µg/L	0.6647	25.156	ppb	0.6647	2.64%
Ba 233.527†	12.9	0.3366	µg/L	0.10278	0.3366	ppb	0.10278	30.53%
Be 313.107†	180.1	0.1174	µg/L	0.03704	0.1174	ppb	0.03704	31.55%
Ca 317.933Radial†	56.4	53.112	µg/L	3.0866	53.112	ppb	3.0866	5.81%
Cd 226.502†	6.9	0.1894	µg/L	0.17717	0.1894	ppb	0.17717	93.56%
Co 228.616†	-2.1	-0.1026	µg/L	0.16541	-0.1026	ppb	0.16541	161.21%
Cr 267.716†	26.7	0.5866	µg/L	0.04835	0.5866	ppb	0.04835	8.24%
Cu 324.752†	27.3	0.1922	µg/L	0.17020	0.1922	ppb	0.17020	88.54%
Fe 238.204 Radial†	1.5	12.380	µg/L	4.9469	12.380	ppb	4.9469	39.96%
K 766.490 Radial†	223.2	158.62	µg/L	12.997	158.62	ppb	12.997	8.19%
Mg 279.077 IEC†	0.9	8.8204	µg/L	29.77109	8.8204	ppb	29.77109	337.53%
Mn 257.610†	118.3	0.4111	µg/L	0.03270	0.4111	ppb	0.03270	7.95%
Mo 202.031†	-0.9	-0.0926	µg/L	0.20074	-0.0926	ppb	0.20074	216.72%
Na 589.592 Radial†	381.9	125.71	µg/L	7.083	125.71	ppb	7.083	5.63%

Ni 231.604†	-8.5	-0.4643	µg/L	0.16582	-0.4643	ppb	0.16582 35.71%
P 214.914†	-1.0	-2.2689	µg/L	17.19830	-2.2689	ppb	17.19830 758.00%
Pb 220.353†	-0.5	-0.1244	µg/L	0.67152	-0.1244	ppb	0.67152 539.86%
S 181.975 Axial†	4.9	21.271	µg/L	6.5369	21.271	ppb	6.5369 30.73%
Sb 206.836†	-1.8	-1.8095	µg/L	1.30257	-1.8095	ppb	1.30257 71.99%
Se 196.026†	-3.0	-4.5125	µg/L	6.23776	-4.5125	ppb	6.23776 138.23%
SiO2†	16423.3	3536.8	µg/L	53.45	3536.8	ppb	53.45 1.51%
Si 251.611†	20017.9	1645.6	µg/L	28.56	1645.6	ppb	28.56 1.74%
Sn 189.927†	-0.6	-0.2855	µg/L	0.93531	-0.2855	ppb	0.93531 327.66%
Sr 421.552†	30.1	0.3119	µg/L	0.07205	0.3119	ppb	0.07205 23.11%
Ti 334.940†	243.5	0.5859	µg/L	0.63501	0.5859	ppb	0.63501 108.38%
Tl 190.801†	3.0	4.2033	µg/L	3.02620	4.2033	ppb	3.02620 72.00%
U 409.014†	-8.3	-0.7526	µg/L	3.98130	-0.7526	ppb	3.98130 529.01%
V 292.402†	-2.2	-0.0218	µg/L	0.12861	-0.0218	ppb	0.12861 590.65%
Zn 213.857†	62.1	1.5515	µg/L	0.03334	1.5515	ppb	0.03334 2.15%

Sequence No.: 62
Sample ID: 246056002|949338|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 348
Date Collected: 2/11/2010 20:39:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246056002|949338|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	55741.4	55741.4	102	%			20:39:49
1	Al 396.153Radial†	357.5	360.1	268.42	µg/L	268.42	ppb	20:39:49
1	Ca 317.933Radial†	306.6	121.0	113.93	µg/L	113.93	ppb	20:40:09
1	Fe 238.204 Radial†	31.7	16.5	140.10	µg/L	140.10	ppb	20:40:09
1	K 766.490 Radial†	463.9	325.8	231.55	µg/L	231.55	ppb	20:39:49
1	Mg 279.077 IEC†	15.5	3.9	35.903	µg/L	35.903	ppb	20:40:09
1	Na 589.592 Radial†	1157.7	591.6	194.75	µg/L	194.75	ppb	20:39:49
1	Sr 421.552†	85.0	43.7	0.4526	µg/L	0.4526	ppb	20:39:49
1	Sc 361.383	1992867.6	1992867.6	104.35	%			20:41:11
1	Y 371.029	1365197.0	1365197.0	104.22	%			20:41:11
1	Ag 328.068†	-537.1	49.8	0.4080	µg/L	0.4080	ppb	20:41:17
1	As 188.979†	-2.2	-3.2	-6.3322	µg/L	-6.3322	ppb	20:41:37
1	B 249.677†	928.2	558.1	24.318	µg/L	24.318	ppb	20:41:17
1	Ba 233.527†	64.2	87.5	2.2793	µg/L	2.2793	ppb	20:41:37
1	Be 313.107†	-3349.6	230.4	0.1487	µg/L	0.1487	ppb	20:41:17
1	Cd 226.502†	-143.0	5.1	0.1241	µg/L	0.1241	ppb	20:41:37
1	Co 228.616†	-13.8	-4.4	-0.2265	µg/L	-0.2265	ppb	20:41:37
1	Cr 267.716†	-6.6	46.1	1.0139	µg/L	1.0139	ppb	20:41:37
1	Cu 324.752†	2630.3	34.7	0.2617	µg/L	0.2617	ppb	20:41:17
1	Mn 257.610†	508.2	731.1	2.5490	µg/L	2.5490	ppb	20:41:37
1	Mo 202.031†	-8.1	-0.2	-0.0155	µg/L	-0.0155	ppb	20:41:37
1	Ni 231.604†	317.5	2.1	0.1144	µg/L	0.1144	ppb	20:41:37
1	P 214.914†	25.4	-3.2	-7.0353	µg/L	-7.0353	ppb	20:41:37
1	Pb 220.353†	100.0	-1.3	-0.3488	µg/L	-0.3488	ppb	20:41:37
1	S 181.975 Axial†	21.0	5.3	23.194	µg/L	23.194	ppb	20:41:37
1	Sb 206.836†	26.5	-1.5	-1.5169	µg/L	-1.5169	ppb	20:41:37
1	Se 196.026†	11.2	-5.1	-7.4707	µg/L	-7.4707	ppb	20:41:37
1	SiO2†	23333.4	21111.2	4546.4	µg/L	4546.4	ppb	20:41:17
1	Si 251.611†	27148.6	25704.7	2113.1	µg/L	2113.1	ppb	20:41:17
1	Sn 189.927†	-1.1	-0.2	-0.1120	µg/L	-0.1120	ppb	20:41:37
1	Ti 334.940†	2158.2	1952.1	4.6947	µg/L	4.6947	ppb	20:41:17
1	Tl 190.801†	-25.0	0.4	0.5740	µg/L	0.5740	ppb	20:41:37
1	U 409.014†	-76.0	-19.3	-1.7701	µg/L	-1.7701	ppb	20:41:17
1	V 292.402†	8.8	52.6	0.5778	µg/L	0.5778	ppb	20:41:17
1	Zn 213.857†	583.8	83.9	2.0863	µg/L	2.0863	ppb	20:41:37
2	Sc RADIAL	56192.0	56192.0	103	%			20:40:15
2	Al 396.153Radial†	361.3	361.1	269.11	µg/L	269.11	ppb	20:40:15
2	Ca 317.933Radial†	302.5	114.6	107.94	µg/L	107.94	ppb	20:40:35
2	Fe 238.204 Radial†	35.2	19.7	167.20	µg/L	167.20	ppb	20:40:35
2	K 766.490 Radial†	421.5	280.9	199.68	µg/L	199.68	ppb	20:40:15
2	Mg 279.077 IEC†	17.4	5.6	51.999	µg/L	51.999	ppb	20:40:35
2	Na 589.592 Radial†	1114.9	540.9	178.07	µg/L	178.07	ppb	20:40:15
2	Sr 421.552†	104.7	62.1	0.6441	µg/L	0.6441	ppb	20:40:15
2	Sc 361.383	2004295.6	2004295.6	104.95	%			20:41:43
2	Y 371.029	1372960.9	1372960.9	104.81	%			20:41:43
2	Ag 328.068†	-544.7	45.5	0.3745	µg/L	0.3745	ppb	20:41:49
2	As 188.979†	-6.6	-7.4	-14.535	µg/L	-14.535	ppb	20:42:09
2	B 249.677†	937.9	562.2	24.485	µg/L	24.485	ppb	20:41:49
2	Ba 233.527†	55.5	78.8	2.0539	µg/L	2.0539	ppb	20:42:09
2	Be 313.107†	-3392.6	207.7	0.1337	µg/L	0.1337	ppb	20:41:49
2	Cd 226.502†	-142.9	5.9	0.1445	µg/L	0.1445	ppb	20:42:09
2	Co 228.616†	-21.2	-11.4	-0.5708	µg/L	-0.5708	ppb	20:42:09
2	Cr 267.716†	-13.1	39.9	0.8782	µg/L	0.8782	ppb	20:42:09
2	Cu 324.752†	2638.8	28.3	0.2212	µg/L	0.2212	ppb	20:41:49
2	Mn 257.610†	504.2	724.6	2.5292	µg/L	2.5292	ppb	20:42:09
2	Mo 202.031†	-5.7	2.1	0.2325	µg/L	0.2325	ppb	20:42:09
2	Ni 231.604†	311.9	-5.0	-0.2701	µg/L	-0.2701	ppb	20:42:09
2	P 214.914†	37.2	7.8	16.629	µg/L	16.629	ppb	20:42:09
2	Pb 220.353†	102.4	0.4	0.1030	µg/L	0.1030	ppb	20:42:09

2	S 181.975 Axial†	21.9	6.1	26.574 µg/L	26.574 ppb	20:42:09
2	Sb 206.836†	23.6	-4.5	-4.4043 µg/L	-4.4043 ppb	20:42:09
2	Se 196.026†	20.0	3.2	5.2593 µg/L	5.2593 ppb	20:42:09
2	SiO2†	23183.0	20840.5	4488.1 µg/L	4488.1 ppb	20:41:49
2	Si 251.611†	27050.5	25462.8	2093.2 µg/L	2093.2 ppb	20:41:49
2	Sn 189.927†	-1.5	-0.5	-0.2527 µg/L	-0.2527 ppb	20:42:09
2	Ti 334.940†	2295.1	2070.8	4.9788 µg/L	4.9788 ppb	20:41:49
2	Tl 190.801†	-21.6	3.7	5.2375 µg/L	5.2375 ppb	20:42:09
2	U 409.014†	-7.8	46.2	4.1496 µg/L	4.1496 ppb	20:41:49
2	V 292.402†	-4.3	40.2	0.4557 µg/L	0.4557 ppb	20:41:49
2	Zn 213.857†	591.9	88.5	2.1992 µg/L	2.1992 ppb	20:42:09
3	Sc RADIAL	56387.3	56387.3	103 %		20:40:40
3	Al 396.153Radial†	345.9	345.0	257.10 µg/L	257.10 ppb	20:40:40
3	Ca 317.933Radial†	301.0	112.2	105.64 µg/L	105.64 ppb	20:41:01
3	Fe 238.204 Radial†	33.6	18.1	153.12 µg/L	153.12 ppb	20:41:01
3	K 766.490 Radial†	392.1	251.1	178.50 µg/L	178.50 ppb	20:40:40
3	Mg 279.077 IEC†	10.7	-0.9	-8.4148 µg/L	-8.4148 ppb	20:41:01
3	Na 589.592 Radial†	1144.8	566.1	186.38 µg/L	186.38 ppb	20:40:40
3	Sr 421.552†	136.6	92.7	0.9607 µg/L	0.9607 ppb	20:40:40
3	Sc 361.383	1988619.2	1988619.2	104.12 %		20:42:15
3	Y 371.029	1361853.4	1361853.4	103.96 %		20:42:15
3	Ag 328.068†	-552.8	33.6	0.2799 µg/L	0.2799 ppb	20:42:21
3	As 188.979†	-2.3	-3.4	-6.5893 µg/L	-6.5893 ppb	20:42:41
3	B 249.677†	899.6	532.5	23.193 µg/L	23.193 ppb	20:42:21
3	Ba 233.527†	57.7	81.4	2.1209 µg/L	2.1209 ppb	20:42:41
3	Be 313.107†	-3424.7	151.4	0.0972 µg/L	0.0972 ppb	20:42:21
3	Cd 226.502†	-136.7	10.9	0.2819 µg/L	0.2819 ppb	20:42:41
3	Co 228.616†	-14.1	-4.7	-0.2381 µg/L	-0.2381 ppb	20:42:41
3	Cr 267.716†	-5.8	46.8	1.0292 µg/L	1.0292 ppb	20:42:41
3	Cu 324.752†	2653.5	62.3	0.4566 µg/L	0.4566 ppb	20:42:21
3	Mn 257.610†	466.1	691.7	2.4160 µg/L	2.4160 ppb	20:42:41
3	Mo 202.031†	-5.1	2.7	0.2909 µg/L	0.2909 ppb	20:42:41
3	Ni 231.604†	303.1	-11.1	-0.6023 µg/L	-0.6023 ppb	20:42:41
3	P 214.914†	25.0	-3.6	-7.7954 µg/L	-7.7954 ppb	20:42:41
3	Pb 220.353†	91.6	-9.2	-2.4556 µg/L	-2.4556 ppb	20:42:41
3	S 181.975 Axial†	22.1	6.4	27.957 µg/L	27.957 ppb	20:42:41
3	Sb 206.836†	22.4	-5.5	-5.4203 µg/L	-5.4203 ppb	20:42:41
3	Se 196.026†	9.5	-6.7	-9.7795 µg/L	-9.7795 ppb	20:42:41
3	SiO2†	22758.2	20606.6	4437.7 µg/L	4437.7 ppb	20:42:21
3	Si 251.611†	26567.8	25202.5	2071.8 µg/L	2071.8 ppb	20:42:21
3	Sn 189.927†	0.4	1.2	0.5455 µg/L	0.5455 ppb	20:42:41
3	Ti 334.940†	2022.4	1826.2	4.3951 µg/L	4.3951 ppb	20:42:21
3	Tl 190.801†	-22.9	2.3	3.2577 µg/L	3.2577 ppb	20:42:41
3	U 409.014†	-69.9	-13.6	-1.2552 µg/L	-1.2552 ppb	20:42:21
3	V 292.402†	10.0	53.8	0.5946 µg/L	0.5946 ppb	20:42:21
3	Zn 213.857†	589.3	90.4	2.2515 µg/L	2.2515 ppb	20:42:41

Mean Data: 246056002|949338|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1995260.8	104.47	%	0.425				0.41%
Sc RADIAL	56106.9	103	%	0.6				0.59%
Y 371.029	1366670.4	104.33	%	0.435				0.42%
Ag 328.068†	43.0	0.3541	µg/L	0.06647	0.3541	ppb	0.06647	18.77%
Al 396.153Radial†	355.4	264.88	µg/L	6.744	264.88	ppb	6.744	2.55%
As 188.979†	-4.7	-9.1520	µg/L	4.66325	-9.1520	ppb	4.66325	50.95%
B 249.677†	550.9	23.999	µg/L	0.7026	23.999	ppb	0.7026	2.93%
Ba 233.527†	82.6	2.1513	µg/L	0.11573	2.1513	ppb	0.11573	5.38%
Be 313.107†	196.5	0.1265	µg/L	0.02648	0.1265	ppb	0.02648	20.93%
Ca 317.933Radial†	115.9	109.17	µg/L	4.282	109.17	ppb	4.282	3.92%
Cd 226.502†	7.3	0.1835	µg/L	0.08583	0.1835	ppb	0.08583	46.78%
Co 228.616†	-6.8	-0.3451	µg/L	0.19553	-0.3451	ppb	0.19553	56.65%
Cr 267.716†	44.3	0.9738	µg/L	0.08311	0.9738	ppb	0.08311	8.54%
Cu 324.752†	41.8	0.3131	µg/L	0.12586	0.3131	ppb	0.12586	40.20%
Fe 238.204 Radial†	18.1	153.47	µg/L	13.552	153.47	ppb	13.552	8.83%
K 766.490 Radial†	285.9	203.24	µg/L	26.704	203.24	ppb	26.704	13.14%
Mg 279.077 IEC†	2.9	26.496	µg/L	31.2862	26.496	ppb	31.2862	118.08%
Mn 257.610†	715.8	2.4981	µg/L	0.07177	2.4981	ppb	0.07177	2.87%
Mo 202.031†	1.5	0.1693	µg/L	0.16268	0.1693	ppb	0.16268	96.10%
Na 589.592 Radial†	566.2	186.40	µg/L	8.343	186.40	ppb	8.343	4.48%

Ni 231.604†	-4.7	-0.2527	µg/L	0.35863	-0.2527	ppb	0.35863 141.94%
P 214.914†	0.3	0.5996	µg/L	13.88738	0.5996	ppb	13.88738 >999.9%
Pb 220.353†	-3.4	-0.9005	µg/L	1.36558	-0.9005	ppb	1.36558 151.65%
S 181.975 Axial†	5.9	25.909	µg/L	2.4503	25.909	ppb	2.4503 9.46%
Sb 206.836†	-3.8	-3.7805	µg/L	2.02508	-3.7805	ppb	2.02508 53.57%
Se 196.026†	-2.9	-3.9970	µg/L	8.09882	-3.9970	ppb	8.09882 202.62%
SiO2†	20852.8	4490.8	µg/L	54.39	4490.8	ppb	54.39 1.21%
Si 251.611†	25456.6	2092.7	µg/L	20.65	2092.7	ppb	20.65 0.99%
Sn 189.927†	0.2	0.0603	µg/L	0.42610	0.0603	ppb	0.42610 707.14%
Sr 421.552†	66.2	0.6858	µg/L	0.25663	0.6858	ppb	0.25663 37.42%
Ti 334.940†	1949.7	4.6895	µg/L	0.29188	4.6895	ppb	0.29188 6.22%
Tl 190.801†	2.1	3.0231	µg/L	2.34057	3.0231	ppb	2.34057 77.42%
U 409.014†	4.4	0.3748	µg/L	3.27920	0.3748	ppb	3.27920 875.04%
V 292.402†	48.9	0.5427	µg/L	0.07583	0.5427	ppb	0.07583 13.97%
Zn 213.857†	87.6	2.1790	µg/L	0.08445	2.1790	ppb	0.08445 3.88%

Sequence No.: 63
Sample ID: 246056003|949338|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 349
Date Collected: 2/11/2010 20:42:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 246056003|949338|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56577.5	56577.5	104	%			20:43:24
1	Al 396.153Radial†	-24.9	-13.9	-10.359	µg/L	-10.359	ppb	20:43:24
1	Ca 317.933Radial†	220.9	33.9	31.931	µg/L	31.931	ppb	20:43:44
1	Fe 238.204 Radial†	13.5	-1.5	-12.505	µg/L	-12.505	ppb	20:43:44
1	K 766.490 Radial†	324.9	185.0	131.49	µg/L	131.49	ppb	20:43:24
1	Mg 279.077 IEC†	9.3	-2.3	-21.131	µg/L	-21.131	ppb	20:43:44
1	Na 589.592 Radial†	929.0	354.2	116.61	µg/L	116.61	ppb	20:43:24
1	Sr 421.552†	39.7	-1.3	-0.0135	µg/L	-0.0135	ppb	20:43:24
1	Sc 361.383	1996748.3	1996748.3	104.55	%			20:44:46
1	Y 371.029	1367998.9	1367998.9	104.43	%			20:44:46
1	Ag 328.068†	-578.5	11.2	0.0872	µg/L	0.0872	ppb	20:44:52
1	As 188.979†	-3.0	-4.0	-7.8671	µg/L	-7.8671	ppb	20:45:12
1	B 249.677†	946.7	574.0	25.094	µg/L	25.094	ppb	20:44:52
1	Ba 233.527†	-13.4	13.2	0.3437	µg/L	0.3437	ppb	20:45:12
1	Be 313.107†	-3363.5	223.3	0.1457	µg/L	0.1457	ppb	20:44:52
1	Cd 226.502†	-138.1	10.0	0.2777	µg/L	0.2777	ppb	20:45:12
1	Co 228.616†	-9.4	-0.2	-0.0087	µg/L	-0.0087	ppb	20:45:12
1	Cr 267.716†	-42.4	11.8	0.2594	µg/L	0.2594	ppb	20:45:12
1	Cu 324.752†	2572.1	-25.9	-0.1828	µg/L	-0.1828	ppb	20:44:52
1	Mn 257.610†	-139.5	110.7	0.3825	µg/L	0.3825	ppb	20:45:12
1	Mo 202.031†	-9.9	-1.9	-0.2037	µg/L	-0.2037	ppb	20:45:12
1	Ni 231.604†	301.5	-13.8	-0.7545	µg/L	-0.7545	ppb	20:45:12
1	P 214.914†	24.7	-4.0	-8.5764	µg/L	-8.5764	ppb	20:45:12
1	Pb 220.353†	110.2	8.2	2.1857	µg/L	2.1857	ppb	20:45:12
1	S 181.975 Axial†	19.8	4.2	18.230	µg/L	18.230	ppb	20:45:12
1	Sb 206.836†	23.7	-4.3	-4.2249	µg/L	-4.2249	ppb	20:45:12
1	Se 196.026†	15.5	-1.0	-1.5257	µg/L	-1.5257	ppb	20:45:12
1	SiO2†	18382.9	16332.8	3517.4	µg/L	3517.4	ppb	20:44:52
1	Si 251.611†	21124.5	19892.2	1635.2	µg/L	1635.2	ppb	20:44:52
1	Sn 189.927†	-2.7	-1.7	-0.7902	µg/L	-0.7902	ppb	20:45:12
1	Ti 334.940†	241.6	115.0	0.2788	µg/L	0.2788	ppb	20:44:52
1	Tl 190.801†	-25.2	0.2	0.2777	µg/L	0.2777	ppb	20:45:12
1	U 409.014†	-141.4	-81.6	-7.3863	µg/L	-7.3863	ppb	20:44:52
1	V 292.402†	-58.4	-11.6	-0.1338	µg/L	-0.1338	ppb	20:44:52
1	Zn 213.857†	542.6	43.5	1.0907	µg/L	1.0907	ppb	20:45:12
2	Sc RADIAL	56270.3	56270.3	103	%			20:43:50
2	Al 396.153Radial†	15.0	24.7	18.396	µg/L	18.396	ppb	20:43:50
2	Ca 317.933Radial†	216.7	31.0	29.173	µg/L	29.173	ppb	20:44:10
2	Fe 238.204 Radial†	14.4	-0.5	-4.2539	µg/L	-4.2539	ppb	20:44:10
2	K 766.490 Radial†	342.7	203.9	144.95	µg/L	144.95	ppb	20:43:50
2	Mg 279.077 IEC†	12.0	0.3	3.1583	µg/L	3.1583	ppb	20:44:10
2	Na 589.592 Radial†	904.4	335.2	110.36	µg/L	110.36	ppb	20:43:50
2	Sr 421.552†	47.2	6.3	0.0648	µg/L	0.0648	ppb	20:43:50
2	Sc 361.383	1989577.5	1989577.5	104.18	%			20:45:18
2	Y 371.029	1364107.6	1364107.6	104.14	%			20:45:18
2	Ag 328.068†	-538.6	47.5	0.3752	µg/L	0.3752	ppb	20:45:24
2	As 188.979†	2.5	1.2	2.3899	µg/L	2.3899	ppb	20:45:45
2	B 249.677†	962.1	592.1	25.878	µg/L	25.878	ppb	20:45:24
2	Ba 233.527†	-14.9	11.7	0.3043	µg/L	0.3043	ppb	20:45:45
2	Be 313.107†	-3364.7	210.6	0.1375	µg/L	0.1375	ppb	20:45:24
2	Cd 226.502†	-134.3	13.2	0.3643	µg/L	0.3643	ppb	20:45:45
2	Co 228.616†	-12.9	-3.5	-0.1734	µg/L	-0.1734	ppb	20:45:45
2	Cr 267.716†	-25.3	28.0	0.6167	µg/L	0.6167	ppb	20:45:45
2	Cu 324.752†	2583.2	-6.4	-0.0454	µg/L	-0.0454	ppb	20:45:24
2	Mn 257.610†	-127.3	121.9	0.4214	µg/L	0.4214	ppb	20:45:45
2	Mo 202.031†	-8.1	-0.2	-0.0259	µg/L	-0.0259	ppb	20:45:45
2	Ni 231.604†	295.3	-18.7	-1.0245	µg/L	-1.0245	ppb	20:45:45
2	P 214.914†	34.9	5.9	12.716	µg/L	12.716	ppb	20:45:45
2	Pb 220.353†	98.9	-2.3	-0.5970	µg/L	-0.5970	ppb	20:45:45

2	S 181.975 Axial†	21.4	5.7	25.010 µg/L	25.010 ppb	20:45:45
2	Sb 206.836†	28.3	0.2	0.1520 µg/L	0.1520 ppb	20:45:45
2	Se 196.026†	14.8	-1.6	-2.4885 µg/L	-2.4885 ppb	20:45:45
2	SiO2†	18308.5	16324.7	3515.6 µg/L	3515.6 ppb	20:45:24
2	Si 251.611†	21020.2	19864.9	1633.0 µg/L	1633.0 ppb	20:45:24
2	Sn 189.927†	0.5	1.3	0.6213 µg/L	0.6213 ppb	20:45:45
2	Ti 334.940†	235.6	110.0	0.2649 µg/L	0.2649 ppb	20:45:24
2	Tl 190.801†	-25.0	0.3	0.4087 µg/L	0.4087 ppb	20:45:45
2	U 409.014†	-127.9	-69.2	-6.2620 µg/L	-6.2620 ppb	20:45:24
2	V 292.402†	-66.6	-19.7	-0.2162 µg/L	-0.2162 ppb	20:45:24
2	Zn 213.857†	544.2	46.8	1.1741 µg/L	1.1741 ppb	20:45:45
3	Sc RADIAL	56516.8	56516.8	104 %		20:44:16
3	Al 396.153Radial†	22.5	31.9	23.754 µg/L	23.754 ppb	20:44:16
3	Ca 317.933Radial†	215.6	29.1	27.359 µg/L	27.359 ppb	20:44:36
3	Fe 238.204 Radial†	17.4	2.3	19.131 µg/L	19.131 ppb	20:44:36
3	K 766.490 Radial†	352.3	211.8	150.54 µg/L	150.54 ppb	20:44:16
3	Mg 279.077 IEC†	9.5	-2.1	-19.473 µg/L	-19.473 ppb	20:44:36
3	Na 589.592 Radial†	947.6	373.2	122.84 µg/L	122.84 ppb	20:44:16
3	Sr 421.552†	59.0	17.4	0.1806 µg/L	0.1806 ppb	20:44:16
3	Sc 361.383	2004035.9	2004035.9	104.93 %		20:45:51
3	Y 371.029	1374463.9	1374463.9	104.93 %		20:45:51
3	Ag 328.068†	-521.7	67.4	0.5337 µg/L	0.5337 ppb	20:45:56
3	As 188.979†	-4.0	-4.9	-9.6004 µg/L	-9.6004 ppb	20:46:17
3	B 249.677†	913.0	538.6	23.529 µg/L	23.529 ppb	20:45:56
3	Ba 233.527†	-10.5	16.0	0.4173 µg/L	0.4173 ppb	20:46:17
3	Be 313.107†	-3507.8	97.5	0.0636 µg/L	0.0636 ppb	20:45:56
3	Cd 226.502†	-146.6	2.4	0.0645 µg/L	0.0645 ppb	20:46:17
3	Co 228.616†	-13.3	-3.8	-0.1890 µg/L	-0.1890 ppb	20:46:17
3	Cr 267.716†	-35.1	18.9	0.4157 µg/L	0.4157 ppb	20:46:17
3	Cu 324.752†	2560.2	-46.2	-0.3202 µg/L	-0.3202 ppb	20:45:56
3	Mn 257.610†	-135.3	115.2	0.4021 µg/L	0.4021 ppb	20:46:17
3	Mo 202.031†	-6.4	1.5	0.1567 µg/L	0.1567 ppb	20:46:17
3	Ni 231.604†	303.8	-12.7	-0.6929 µg/L	-0.6929 ppb	20:46:17
3	P 214.914†	28.7	-0.3	-0.4982 µg/L	-0.4982 ppb	20:46:17
3	Pb 220.353†	103.4	1.3	0.3498 µg/L	0.3498 ppb	20:46:17
3	S 181.975 Axial†	24.4	8.4	36.951 µg/L	36.951 ppb	20:46:17
3	Sb 206.836†	20.0	-7.9	-7.7769 µg/L	-7.7769 ppb	20:46:17
3	Se 196.026†	16.8	0.2	0.3352 µg/L	0.3352 ppb	20:46:17
3	SiO2†	17862.7	15773.0	3396.8 µg/L	3396.8 ppb	20:45:56
3	Si 251.611†	20508.1	19231.3	1580.9 µg/L	1580.9 ppb	20:45:56
3	Sn 189.927†	1.3	2.1	0.9501 µg/L	0.9501 ppb	20:46:17
3	Ti 334.940†	168.9	44.8	0.1098 µg/L	0.1098 ppb	20:45:56
3	Tl 190.801†	-22.4	2.9	4.0991 µg/L	4.0991 ppb	20:46:17
3	U 409.014†	-12.2	42.0	3.7971 µg/L	3.7971 ppb	20:45:56
3	V 292.402†	-77.0	-29.1	-0.3022 µg/L	-0.3022 ppb	20:45:56
3	Zn 213.857†	537.7	36.8	0.9235 µg/L	0.9235 ppb	20:46:17

Mean Data: 246056003|949338|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1996787.2	104.55	%	0.379				0.36%
Sc RADIAL	56454.9	103	%	0.3				0.29%
Y 371.029	1368856.8	104.50	%	0.399				0.38%
Ag 328.068†	42.0	0.3320	µg/L	0.22638	0.3320	ppb	0.22638	68.18%
Al 396.153Radial†	14.2	10.597	µg/L	18.3453	10.597	ppb	18.3453	173.12%
As 188.979†	-2.6	-5.0259	µg/L	6.48042	-5.0259	ppb	6.48042	128.94%
B 249.677†	568.2	24.834	µg/L	1.1956	24.834	ppb	1.1956	4.81%
Ba 233.527†	13.7	0.3551	µg/L	0.05734	0.3551	ppb	0.05734	16.15%
Be 313.107†	177.1	0.1156	µg/L	0.04520	0.1156	ppb	0.04520	39.10%
Ca 317.933Radial†	31.3	29.488	µg/L	2.3023	29.488	ppb	2.3023	7.81%
Cd 226.502†	8.6	0.2355	µg/L	0.15433	0.2355	ppb	0.15433	65.53%
Co 228.616†	-2.5	-0.1237	µg/L	0.09990	-0.1237	ppb	0.09990	80.76%
Cr 267.716†	19.6	0.4306	µg/L	0.17911	0.4306	ppb	0.17911	41.60%
Cu 324.752†	-26.2	-0.1828	µg/L	0.13741	-0.1828	ppb	0.13741	75.16%
Fe 238.204 Radial†	0.1	0.7907	µg/L	16.40990	0.7907	ppb	16.40990	>999.9%
K 766.490 Radial†	200.2	142.33	µg/L	9.791	142.33	ppb	9.791	6.88%
Mg 279.077 IEC†	-1.3	-12.482	µg/L	13.5702	-12.482	ppb	13.5702	108.72%
Mn 257.610†	115.9	0.4020	µg/L	0.01945	0.4020	ppb	0.01945	4.84%
Mo 202.031†	-0.2	-0.0243	µg/L	0.18020	-0.0243	ppb	0.18020	740.89%
Na 589.592 Radial†	354.2	116.61	µg/L	6.239	116.61	ppb	6.239	5.35%

Ni 231.604†	-15.1	-0.8240	µg/L	0.17636	-0.8240	ppb	0.17636 21.40%
P 214.914†	0.6	1.2137	µg/L	10.74876	1.2137	ppb	10.74876 885.62%
Pb 220.353†	2.4	0.6462	µg/L	1.41485	0.6462	ppb	1.41485 218.96%
S 181.975 Axial†	6.1	26.730	µg/L	9.4783	26.730	ppb	9.4783 35.46%
Sb 206.836†	-4.0	-3.9499	µg/L	3.97161	-3.9499	ppb	3.97161 100.55%
Se 196.026†	-0.8	-1.2263	µg/L	1.43548	-1.2263	ppb	1.43548 117.05%
SiO2†	16143.5	3476.6	µg/L	69.10	3476.6	ppb	69.10 1.99%
Si 251.611†	19662.8	1616.4	µg/L	30.74	1616.4	ppb	30.74 1.90%
Sn 189.927†	0.6	0.2604	µg/L	0.92461	0.2604	ppb	0.92461 355.09%
Sr 421.552†	7.5	0.0773	µg/L	0.09762	0.0773	ppb	0.09762 126.27%
Ti 334.940†	90.0	0.2178	µg/L	0.09382	0.2178	ppb	0.09382 43.07%
Tl 190.801†	1.1	1.5952	µg/L	2.16950	1.5952	ppb	2.16950 136.00%
U 409.014†	-36.2	-3.2837	µg/L	6.15788	-3.2837	ppb	6.15788 187.53%
V 292.402†	-20.2	-0.2174	µg/L	0.08421	-0.2174	ppb	0.08421 38.73%
Zn 213.857†	42.4	1.0628	µg/L	0.12761	1.0628	ppb	0.12761 12.01%

Sequence No.: 64
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 2/11/2010 20:46:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	56474.3	56474.3	103	%			20:47:00
1	Al 396.153Radial†	6882.5	6661.1	4953.9	µg/L	4953.9	ppb	20:47:20
1	Ca 317.933Radial†	5576.9	5210.2	4905.7	µg/L	4905.7	ppb	20:47:20
1	Fe 238.204 Radial†	617.9	582.7	4949.1	µg/L	4949.1	ppb	20:47:20
1	K 766.490 Radial†	7295.6	6921.7	4919.9	µg/L	4919.9	ppb	20:47:00
1	Mg 279.077 IEC†	569.9	539.5	5023.9	µg/L	5023.9	ppb	20:47:20
1	Na 589.592 Radial†	31693.2	30085.2	9904.1	µg/L	9904.1	ppb	20:47:00
1	Sr 421.552†	48526.2	46854.1	485.70	µg/L	485.70	ppb	20:47:00
1	Sc 361.383	1969766.4	1969766.4	103.14	%			20:48:24
1	Y 371.029	1349469.7	1349469.7	103.02	%			20:48:24
1	Ag 328.068†	64638.9	63236.9	505.40	µg/L	505.40	ppb	20:48:29
1	As 188.979†	270.9	261.5	510.13	µg/L	510.13	ppb	20:48:50
1	B 249.677†	11951.3	11256.3	490.15	µg/L	490.15	ppb	20:48:29
1	Ba 233.527†	19812.5	19235.8	501.78	µg/L	501.78	ppb	20:48:29
1	Be 313.107†	787697.5	767173.8	500.82	µg/L	500.82	ppb	20:48:24
1	Cd 226.502†	18626.8	18202.3	502.12	µg/L	502.12	ppb	20:48:29
1	Co 228.616†	10610.2	10296.2	506.13	µg/L	506.13	ppb	20:48:29
1	Cr 267.716†	23688.0	23019.7	506.66	µg/L	506.66	ppb	20:48:29
1	Cu 324.752†	76554.2	71739.1	501.80	µg/L	501.80	ppb	20:48:29
1	Mn 257.610†	151751.7	147379.1	510.81	µg/L	510.81	ppb	20:48:24
1	Mo 202.031†	5063.6	4917.1	524.95	µg/L	524.95	ppb	20:48:50
1	Ni 231.604†	9812.3	9211.6	503.10	µg/L	503.10	ppb	20:48:29
1	P 214.914†	1256.8	1191.0	2509.5	µg/L	2509.5	ppb	20:48:50
1	Pb 220.353†	2075.8	1915.5	511.31	µg/L	511.31	ppb	20:48:50
1	S 181.975 Axial†	254.0	231.5	1014.1	µg/L	1014.1	ppb	20:48:50
1	Sb 206.836†	579.8	535.2	529.23	µg/L	529.23	ppb	20:48:50
1	Se 196.026†	357.1	330.4	511.32	µg/L	511.32	ppb	20:48:50
1	SiO2†	26850.8	24783.9	5337.3	µg/L	5337.3	ppb	20:48:29
1	Si 251.611†	31677.4	30400.8	2499.1	µg/L	2499.1	ppb	20:48:29
1	Sn 189.927†	1180.8	1145.7	527.00	µg/L	527.00	ppb	20:48:50
1	Ti 334.940†	216451.7	209750.5	504.22	µg/L	504.22	ppb	20:48:24
1	Tl 190.801†	350.6	364.2	514.43	µg/L	514.43	ppb	20:48:50
1	U 409.014†	5817.1	5693.8	514.51	µg/L	514.51	ppb	20:48:29
1	V 292.402†	48437.0	47007.6	507.31	µg/L	507.31	ppb	20:48:29
1	Zn 213.857†	21306.3	20182.6	500.43	µg/L	500.43	ppb	20:48:29
2	Sc RADIAL	56929.0	56929.0	104	%			20:47:26
2	Al 396.153Radial†	6879.6	6605.2	4912.6	µg/L	4912.6	ppb	20:47:46
2	Ca 317.933Radial†	5572.1	5162.4	4860.8	µg/L	4860.8	ppb	20:47:46
2	Fe 238.204 Radial†	615.7	575.7	4890.2	µg/L	4890.2	ppb	20:47:46
2	K 766.490 Radial†	7442.4	7006.1	4979.9	µg/L	4979.9	ppb	20:47:26
2	Mg 279.077 IEC†	573.0	538.1	5010.8	µg/L	5010.8	ppb	20:47:46
2	Na 589.592 Radial†	31917.4	30055.4	9894.3	µg/L	9894.3	ppb	20:47:26
2	Sr 421.552†	49046.4	46978.2	486.98	µg/L	486.98	ppb	20:47:26
2	Sc 361.383	1986760.5	1986760.5	104.03	%			20:48:57
2	Y 371.029	1360289.6	1360289.6	103.85	%			20:48:57
2	Ag 328.068†	64302.0	62376.9	498.53	µg/L	498.53	ppb	20:49:03
2	As 188.979†	269.0	257.5	502.27	µg/L	502.27	ppb	20:49:23
2	B 249.677†	11933.8	11140.3	485.11	µg/L	485.11	ppb	20:49:03
2	Ba 233.527†	19673.2	18937.6	494.00	µg/L	494.00	ppb	20:49:03
2	Be 313.107†	779149.7	752424.2	491.19	µg/L	491.19	ppb	20:48:57
2	Cd 226.502†	18553.1	17976.9	495.90	µg/L	495.90	ppb	20:49:03
2	Co 228.616†	10504.4	10106.5	496.80	µg/L	496.80	ppb	20:49:03
2	Cr 267.716†	23530.3	22671.7	499.00	µg/L	499.00	ppb	20:49:03
2	Cu 324.752†	76408.8	70964.4	496.38	µg/L	496.38	ppb	20:49:03
2	Mn 257.610†	150339.7	144763.2	501.74	µg/L	501.74	ppb	20:48:57
2	Mo 202.031†	4981.6	4796.2	512.05	µg/L	512.05	ppb	20:49:23
2	Ni 231.604†	9763.3	9083.1	496.09	µg/L	496.09	ppb	20:49:03
2	P 214.914†	1249.1	1173.1	2471.6	µg/L	2471.6	ppb	20:49:23
2	Pb 220.353†	2059.8	1882.9	502.60	µg/L	502.60	ppb	20:49:23

2	S 181.975 Axial†	253.4	228.8	1002.3 µg/L	1002.3 ppb	20:49:23
2	Sb 206.836†	569.1	520.1	514.22 µg/L	514.22 ppb	20:49:23
2	Se 196.026†	365.2	335.2	518.58 µg/L	518.58 ppb	20:49:23
2	SiO2†	26785.2	24498.1	5275.8 µg/L	5275.8 ppb	20:49:03
2	Si 251.611†	31541.2	30007.2	2466.7 µg/L	2466.7 ppb	20:49:03
2	Sn 189.927†	1159.7	1115.7	513.17 µg/L	513.17 ppb	20:49:23
2	Ti 334.940†	214144.4	205737.4	494.57 µg/L	494.57 ppb	20:48:57
2	Tl 190.801†	346.1	357.0	504.21 µg/L	504.21 ppb	20:49:23
2	U 409.014†	5733.9	5565.5	502.91 µg/L	502.91 ppb	20:49:03
2	V 292.402†	48250.8	46426.9	500.98 µg/L	500.98 ppb	20:49:03
2	Zn 213.857†	21239.7	19941.8	494.46 µg/L	494.46 ppb	20:49:03
3	Sc RADIAL	56570.4	56570.4	104 %		20:47:52
3	Al 396.153Radial†	6906.3	6672.8	4964.3 µg/L	4964.3 ppb	20:48:12
3	Ca 317.933Radial†	5590.6	5214.2	4909.5 µg/L	4909.5 ppb	20:48:12
3	Fe 238.204 Radial†	617.4	581.2	4935.7 µg/L	4935.7 ppb	20:48:12
3	K 766.490 Radial†	7331.6	6944.5	4936.1 µg/L	4936.1 ppb	20:47:52
3	Mg 279.077 IEC†	575.4	543.8	5063.1 µg/L	5063.1 ppb	20:48:12
3	Na 589.592 Radial†	31713.1	30052.3	9893.3 µg/L	9893.3 ppb	20:47:52
3	Sr 421.552†	48658.3	46902.0	486.19 µg/L	486.19 ppb	20:47:52
3	Sc 361.383	1944517.1	1944517.1	101.82 %		20:49:30
3	Y 371.029	1331415.3	1331415.3	101.64 %		20:49:30
3	Ag 328.068†	61510.4	60978.0	487.23 µg/L	487.23 ppb	20:49:36
3	As 188.979†	230.8	225.5	439.92 µg/L	439.92 ppb	20:49:56
3	B 249.677†	11371.1	10836.9	471.76 µg/L	471.76 ppb	20:49:36
3	Ba 233.527†	18358.8	18057.4	471.02 µg/L	471.02 ppb	20:49:36
3	Be 313.107†	733933.1	724285.1	472.82 µg/L	472.82 ppb	20:49:30
3	Cd 226.502†	17239.0	17073.7	470.95 µg/L	470.95 ppb	20:49:36
3	Co 228.616†	9685.1	9521.2	467.98 µg/L	467.98 ppb	20:49:36
3	Cr 267.716†	21173.7	20848.5	458.88 µg/L	458.88 ppb	20:49:36
3	Cu 324.752†	70788.1	67039.6	468.97 µg/L	468.97 ppb	20:49:36
3	Mn 257.610†	141701.1	139418.3	483.24 µg/L	483.24 ppb	20:49:30
3	Mo 202.031†	4221.8	4154.0	443.51 µg/L	443.51 ppb	20:49:56
3	Ni 231.604†	9018.0	8555.0	467.25 µg/L	467.25 ppb	20:49:36
3	P 214.914†	1078.2	1031.3	2168.8 µg/L	2168.8 ppb	20:49:56
3	Pb 220.353†	1819.7	1690.1	451.04 µg/L	451.04 ppb	20:49:56
3	S 181.975 Axial†	224.9	206.1	902.90 µg/L	902.90 ppb	20:49:56
3	Sb 206.836†	498.0	462.2	456.55 µg/L	456.55 ppb	20:49:56
3	Se 196.026†	317.7	296.2	459.21 µg/L	459.21 ppb	20:49:56
3	SiO2†	25297.8	23596.6	5081.7 µg/L	5081.7 ppb	20:49:36
3	Si 251.611†	29639.1	28797.7	2367.3 µg/L	2367.3 ppb	20:49:36
3	Sn 189.927†	969.5	953.0	438.37 µg/L	438.37 ppb	20:49:56
3	Ti 334.940†	200950.0	197250.3	474.15 µg/L	474.15 ppb	20:49:30
3	Tl 190.801†	318.5	337.1	476.24 µg/L	476.24 ppb	20:49:56
3	U 409.014†	5106.5	5069.1	457.95 µg/L	457.95 ppb	20:49:36
3	V 292.402†	44222.1	43477.7	468.89 µg/L	468.89 ppb	20:49:36
3	Zn 213.857†	19674.7	18848.3	467.32 µg/L	467.32 ppb	20:49:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1967014.7	102.99	%	1.113				1.08%
Sc RADIAL	56657.9	104	%	0.4				0.42%
Y 371.029	1347058.2	102.84	%	1.114				1.08%
Ag 328.068†	62197.3	497.05	µg/L	9.176	497.05	ppb	9.176	1.85%
QC value within limits for Ag 328.068 Recovery = 99.41%								
Al 396.153Radial†	6646.3	4943.6	µg/L	27.38	4943.6	ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 98.87%								
As 188.979†	248.2	484.11	µg/L	38.466	484.11	ppb	38.466	7.95%
QC value within limits for As 188.979 Recovery = 96.82%								
B 249.677†	11077.8	482.34	µg/L	9.505	482.34	ppb	9.505	1.97%
QC value within limits for B 249.677 Recovery = 96.47%								
Ba 233.527†	18743.6	488.93	µg/L	15.990	488.93	ppb	15.990	3.27%
QC value within limits for Ba 233.527 Recovery = 97.79%								
Be 313.107†	747961.0	488.27	µg/L	14.224	488.27	ppb	14.224	2.91%
QC value within limits for Be 313.107 Recovery = 97.65%								
Ca 317.933Radial†	5195.6	4892.0	µg/L	27.10	4892.0	ppb	27.10	0.55%
QC value within limits for Ca 317.933Radial Recovery = 97.84%								
Cd 226.502†	17751.0	489.65	µg/L	16.497	489.65	ppb	16.497	3.37%
QC value within limits for Cd 226.502 Recovery = 97.93%								
Co 228.616†	9974.7	490.31	µg/L	19.888	490.31	ppb	19.888	4.06%

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   QC value within limits for Co 228.616  Recovery = 98.06%
Cr 267.716†            22179.9      488.18 µg/L        25.663      488.18 ppb         25.663   5.26%
   QC value within limits for Cr 267.716  Recovery = 97.64%
Cu 324.752†            69914.4      489.05 µg/L        17.599      489.05 ppb         17.599   3.60%
   QC value within limits for Cu 324.752  Recovery = 97.81%
Fe 238.204 Radial†       579.8      4925.0 µg/L         30.85      4925.0 ppb          30.85   0.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.50%
K 766.490 Radial†       6957.5      4945.3 µg/L         31.04      4945.3 ppb          31.04   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 98.91%
Mg 279.077 IEC†          540.4      5032.6 µg/L         27.21      5032.6 ppb          27.21   0.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.65%
Mn 257.610†           143853.5      498.60 µg/L        14.052      498.60 ppb         14.052   2.82%
   QC value within limits for Mn 257.610  Recovery = 99.72%
Mo 202.031†             4622.5      493.50 µg/L        43.772      493.50 ppb         43.772   8.87%
   QC value within limits for Mo 202.031  Recovery = 98.70%
Na 589.592 Radial†     30064.3      9897.3 µg/L          5.97      9897.3 ppb          5.97   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 98.97%
Ni 231.604†             8949.9      488.82 µg/L        19.001      488.82 ppb         19.001   3.89%
   QC value within limits for Ni 231.604  Recovery = 97.76%
P 214.914†              1131.8      2383.3 µg/L        186.72      2383.3 ppb         186.72   7.83%
   QC value within limits for P 214.914  Recovery = 95.33%
Pb 220.353†             1829.5      488.32 µg/L        32.571      488.32 ppb         32.571   6.67%
   QC value within limits for Pb 220.353  Recovery = 97.66%
S 181.975 Axial†         222.1      973.11 µg/L        61.093      973.11 ppb         61.093   6.28%
   QC value within limits for S 181.975 Axial  Recovery = 97.31%
Sb 206.836†              505.8      500.00 µg/L        38.372      500.00 ppb         38.372   7.67%
   QC value within limits for Sb 206.836  Recovery = 100.00%
Se 196.026†              320.6      496.37 µg/L        32.386      496.37 ppb         32.386   6.52%
   QC value within limits for Se 196.026  Recovery = 99.27%
SiO2†                  24292.9      5231.6 µg/L        133.45      5231.6 ppb         133.45   2.55%
   QC value within limits for SiO2  Recovery = 97.83%
Si 251.611†            29735.3      2444.4 µg/L         68.68      2444.4 ppb          68.68   2.81%
   QC value within limits for Si 251.611  Recovery = 97.78%
Sn 189.927†             1071.5      492.85 µg/L        47.680      492.85 ppb         47.680   9.67%
   QC value within limits for Sn 189.927  Recovery = 98.57%
Sr 421.552†            46911.4      486.29 µg/L         0.649      486.29 ppb          0.649   0.13%
   QC value within limits for Sr 421.552  Recovery = 97.26%
Ti 334.940†           204246.0      490.98 µg/L        15.354      490.98 ppb         15.354   3.13%
   QC value within limits for Ti 334.940  Recovery = 98.20%
Tl 190.801†              352.8      498.29 µg/L        19.770      498.29 ppb         19.770   3.97%
   QC value within limits for Tl 190.801  Recovery = 99.66%
U 409.014†              5442.8      491.79 µg/L        29.873      491.79 ppb         29.873   6.07%
   QC value within limits for U 409.014  Recovery = 98.36%
V 292.402†             45637.4      492.39 µg/L        20.599      492.39 ppb         20.599   4.18%
   QC value within limits for V 292.402  Recovery = 98.48%
Zn 213.857†            19657.6      487.40 µg/L        17.646      487.40 ppb         17.646   3.62%
   QC value within limits for Zn 213.857  Recovery = 97.48%
All analyte(s) passed QC.
```

Sequence No.: 65
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 2/11/2010 20:50:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	54706.8	54706.8	100	%			20:50:39
1	Al 396.153Radial†	-19.8	-9.6	-7.1597	µg/L	-7.1597	ppb	20:50:39
1	Ca 317.933Radial†	193.4	13.8	12.965	µg/L	12.965	ppb	20:50:59
1	Fe 238.204 Radial†	14.9	0.4	3.4407	µg/L	3.4407	ppb	20:50:59
1	K 766.490 Radial†	190.2	61.4	43.615	µg/L	43.615	ppb	20:50:39
1	Mg 279.077 IEC†	9.5	-1.8	-16.574	µg/L	-16.574	ppb	20:50:59
1	Na 589.592 Radial†	611.6	68.2	22.458	µg/L	22.458	ppb	20:50:39
1	Sr 421.552†	50.1	10.4	0.1083	µg/L	0.1083	ppb	20:50:39
1	Sc 361.383	1948940.3	1948940.3	102.05	%			20:52:01
1	Y 371.029	1338791.3	1338791.3	102.20	%			20:52:01
1	Ag 328.068†	-518.1	56.9	0.4517	µg/L	0.4517	ppb	20:52:07
1	As 188.979†	-3.1	-4.2	-8.2613	µg/L	-8.2613	ppb	20:52:27
1	B 249.677†	321.1	-16.9	-0.7379	µg/L	-0.7379	ppb	20:52:27
1	Ba 233.527†	-19.0	7.4	0.1920	µg/L	0.1920	ppb	20:52:27
1	Be 313.107†	-3344.6	162.9	0.1064	µg/L	0.1064	ppb	20:52:07
1	Cd 226.502†	-137.8	7.1	0.1949	µg/L	0.1949	ppb	20:52:27
1	Co 228.616†	-12.1	-3.0	-0.1485	µg/L	-0.1485	ppb	20:52:27
1	Cr 267.716†	-42.4	10.8	0.2378	µg/L	0.2378	ppb	20:52:27
1	Cu 324.752†	2394.6	-139.5	-0.9740	µg/L	-0.9740	ppb	20:52:07
1	Mn 257.610†	-249.9	-0.8	-0.0017	µg/L	-0.0017	ppb	20:52:27
1	Mo 202.031†	-8.7	-0.9	-0.1000	µg/L	-0.1000	ppb	20:52:27
1	Ni 231.604†	301.5	-6.7	-0.3676	µg/L	-0.3676	ppb	20:52:27
1	P 214.914†	26.4	-1.8	-3.6502	µg/L	-3.6502	ppb	20:52:27
1	Pb 220.353†	98.6	-0.6	-0.1521	µg/L	-0.1521	ppb	20:52:27
1	S 181.975 Axial†	17.7	2.5	11.004	µg/L	11.004	ppb	20:52:27
1	Sb 206.836†	24.9	-2.6	-2.5691	µg/L	-2.5691	ppb	20:52:27
1	Se 196.026†	8.7	-7.3	-11.073	µg/L	-11.073	ppb	20:52:27
1	SiO2†	1238.9	-36.0	-7.7460	µg/L	-7.7460	ppb	20:52:07
1	Si 251.611†	302.0	-17.0	-1.3942	µg/L	-1.3942	ppb	20:52:27
1	Sn 189.927†	9.5	10.2	4.7018	µg/L	4.7018	ppb	20:52:27
1	Ti 334.940†	104.4	-13.8	-0.0316	µg/L	-0.0316	ppb	20:52:07
1	Tl 190.801†	-21.8	3.0	4.1170	µg/L	4.1170	ppb	20:52:27
1	U 409.014†	-88.2	-32.9	-2.9763	µg/L	-2.9763	ppb	20:52:07
1	V 292.402†	-41.1	4.0	0.0394	µg/L	0.0394	ppb	20:52:07
1	Zn 213.857†	463.2	-21.7	-0.5372	µg/L	-0.5372	ppb	20:52:27
2	Sc RADIAL	55545.4	55545.4	102	%			20:51:05
2	Al 396.153Radial†	-16.1	-5.7	-4.2110	µg/L	-4.2110	ppb	20:51:05
2	Ca 317.933Radial†	186.7	4.3	4.0381	µg/L	4.0381	ppb	20:51:25
2	Fe 238.204 Radial†	16.2	1.4	11.802	µg/L	11.802	ppb	20:51:25
2	K 766.490 Radial†	153.7	22.6	16.081	µg/L	16.081	ppb	20:51:05
2	Mg 279.077 IEC†	9.8	-1.6	-15.368	µg/L	-15.368	ppb	20:51:25
2	Na 589.592 Radial†	544.7	-6.7	-2.2003	µg/L	-2.2003	ppb	20:51:05
2	Sr 421.552†	59.3	18.7	0.1934	µg/L	0.1934	ppb	20:51:05
2	Sc 361.383	1967179.8	1967179.8	103.00	%			20:52:34
2	Y 371.029	1351401.4	1351401.4	103.17	%			20:52:34
2	Ag 328.068†	-518.5	61.1	0.4858	µg/L	0.4858	ppb	20:52:39
2	As 188.979†	2.4	1.2	2.4080	µg/L	2.4080	ppb	20:53:00
2	B 249.677†	304.5	-35.8	-1.5724	µg/L	-1.5724	ppb	20:53:00
2	Ba 233.527†	-31.4	-4.5	-0.1163	µg/L	-0.1163	ppb	20:53:00
2	Be 313.107†	-3388.2	151.0	0.0986	µg/L	0.0986	ppb	20:52:39
2	Cd 226.502†	-143.3	3.0	0.0812	µg/L	0.0812	ppb	20:53:00
2	Co 228.616†	-19.1	-9.7	-0.4782	µg/L	-0.4782	ppb	20:53:00
2	Cr 267.716†	-45.2	8.4	0.1859	µg/L	0.1859	ppb	20:53:00
2	Cu 324.752†	2403.2	-152.9	-1.0665	µg/L	-1.0665	ppb	20:52:39
2	Mn 257.610†	-235.5	15.4	0.0556	µg/L	0.0556	ppb	20:53:00
2	Mo 202.031†	-9.6	-1.8	-0.1876	µg/L	-0.1876	ppb	20:53:00
2	Ni 231.604†	301.1	-9.9	-0.5406	µg/L	-0.5406	ppb	20:53:00
2	P 214.914†	31.5	2.9	6.3715	µg/L	6.3715	ppb	20:53:00
2	Pb 220.353†	96.4	-3.6	-0.9646	µg/L	-0.9646	ppb	20:53:00

2	S 181.975 Axial†	17.0	1.7	7.3749 µg/L	7.3749 ppb	20:53:00
2	Sb 206.836†	23.7	-4.0	-3.8982 µg/L	-3.8982 ppb	20:53:00
2	Se 196.026†	13.2	-3.0	-4.6016 µg/L	-4.6016 ppb	20:53:00
2	SiO2†	1267.4	-19.5	-4.2043 µg/L	-4.2043 ppb	20:52:39
2	Si 251.611†	307.1	-14.7	-1.2068 µg/L	-1.2068 ppb	20:53:00
2	Sn 189.927†	-2.7	-1.7	-0.7888 µg/L	-0.7888 ppb	20:53:00
2	Ti 334.940†	114.9	-4.6	-0.0097 µg/L	-0.0097 ppb	20:52:39
2	Tl 190.801†	-25.9	-0.8	-1.1281 µg/L	-1.1281 ppb	20:53:00
2	U 409.014†	-31.0	23.5	2.1267 µg/L	2.1267 ppb	20:52:39
2	V 292.402†	-45.0	0.5	0.0082 µg/L	0.0082 ppb	20:52:39
2	Zn 213.857†	466.4	-22.7	-0.5635 µg/L	-0.5635 ppb	20:53:00
3	Sc RADIAL	55281.5	55281.5	101 %		20:51:31
3	Al 396.153Radial†	-7.4	2.8	2.0809 µg/L	2.0809 ppb	20:51:31
3	Ca 317.933Radial†	186.8	5.2	4.9356 µg/L	4.9356 ppb	20:51:51
3	Fe 238.204 Radial†	12.0	-2.6	-22.268 µg/L	-22.268 ppb	20:51:51
3	K 766.490 Radial†	146.8	16.5	11.758 µg/L	11.758 ppb	20:51:31
3	Mg 279.077 IEC†	12.2	0.8	7.3154 µg/L	7.3154 ppb	20:51:51
3	Na 589.592 Radial†	565.6	16.5	5.4427 µg/L	5.4427 ppb	20:51:31
3	Sr 421.552†	36.3	-3.7	-0.0387 µg/L	-0.0387 ppb	20:51:31
3	Sc 361.383	1964978.1	1964978.1	102.89 %		20:53:06
3	Y 371.029	1348711.1	1348711.1	102.96 %		20:53:06
3	Ag 328.068†	-619.2	-37.3	-0.3009 µg/L	-0.3009 ppb	20:53:11
3	As 188.979†	-1.0	-2.1	-4.0762 µg/L	-4.0762 ppb	20:53:32
3	B 249.677†	324.6	-16.0	-0.6866 µg/L	-0.6866 ppb	20:53:32
3	Ba 233.527†	-26.7	0.1	0.0007 µg/L	0.0007 ppb	20:53:32
3	Be 313.107†	-3356.9	177.8	0.1161 µg/L	0.1161 ppb	20:53:11
3	Cd 226.502†	-138.4	7.6	0.2128 µg/L	0.2128 ppb	20:53:32
3	Co 228.616†	-11.5	-2.3	-0.1147 µg/L	-0.1147 ppb	20:53:32
3	Cr 267.716†	-35.2	18.1	0.3984 µg/L	0.3984 ppb	20:53:32
3	Cu 324.752†	2382.4	-170.5	-1.1944 µg/L	-1.1944 ppb	20:53:11
3	Mn 257.610†	-236.2	14.6	0.0471 µg/L	0.0471 ppb	20:53:32
3	Mo 202.031†	0.3	7.8	0.8326 µg/L	0.8326 ppb	20:53:32
3	Ni 231.604†	304.6	-6.2	-0.3373 µg/L	-0.3373 ppb	20:53:32
3	P 214.914†	22.1	-6.2	-13.070 µg/L	-13.070 ppb	20:53:32
3	Pb 220.353†	100.7	0.7	0.1833 µg/L	0.1833 ppb	20:53:32
3	S 181.975 Axial†	11.7	-3.5	-15.265 µg/L	-15.265 ppb	20:53:32
3	Sb 206.836†	24.9	-2.7	-2.6972 µg/L	-2.6972 ppb	20:53:32
3	Se 196.026†	17.0	0.7	0.9259 µg/L	0.9259 ppb	20:53:32
3	SiO2†	1197.6	-86.0	-18.530 µg/L	-18.530 ppb	20:53:11
3	Si 251.611†	306.8	-14.7	-1.2090 µg/L	-1.2090 ppb	20:53:32
3	Sn 189.927†	0.4	1.2	0.5738 µg/L	0.5738 ppb	20:53:32
3	Ti 334.940†	124.6	5.0	0.0115 µg/L	0.0115 ppb	20:53:11
3	Tl 190.801†	-28.2	-3.1	-4.3588 µg/L	-4.3588 ppb	20:53:32
3	U 409.014†	-57.7	-2.5	-0.2220 µg/L	-0.2220 ppb	20:53:11
3	V 292.402†	-97.5	-50.6	-0.5347 µg/L	-0.5347 ppb	20:53:11
3	Zn 213.857†	466.4	-22.2	-0.5507 µg/L	-0.5507 ppb	20:53:32

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1960366.0	102.65	%	0.521				0.51%
Sc RADIAL	55177.9	101	%	0.8				0.78%
Y 371.029	1346301.3	102.78	%	0.507				0.49%
Ag 328.068†	26.9	0.2122	µg/L	0.44466	0.2122	ppb	0.44466	209.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-3.0966	µg/L	4.72006	-3.0966	ppb	4.72006	152.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.7	-3.3098	µg/L	5.37581	-3.3098	ppb	5.37581	162.42%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-22.9	-0.9990	µg/L	0.49729	-0.9990	ppb	0.49729	49.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.0	0.0254	µg/L	0.15564	0.0254	ppb	0.15564	611.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	163.9	0.1070	µg/L	0.00876	0.1070	ppb	0.00876	8.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.8	7.3128	µg/L	4.91522	7.3128	ppb	4.91522	67.21%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.9	0.1629	µg/L	0.07138	0.1629	ppb	0.07138	43.81%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	-5.0	-0.2471	µg/L	0.20084	-0.2471	ppb	0.20084	81.28%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.5      0.2740 µg/L       0.11079      0.2740 ppb        0.11079  40.43%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -154.3     -1.0783 µg/L       0.11069     -1.0783 ppb        0.11069  10.26%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.3     -2.3417 µg/L      17.75545     -2.3417 ppb       17.75545 758.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          33.5      23.818 µg/L       17.2807      23.818 ppb        17.2807  72.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.9     -8.2086 µg/L      13.45771     -8.2086 ppb       13.45771 163.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 9.7      0.0337 µg/L       0.03095      0.0337 ppb        0.03095  91.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.7      0.1817 µg/L       0.56541      0.1817 ppb        0.56541 311.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         26.0      8.5668 µg/L      12.62253      8.5668 ppb       12.62253 147.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.6     -0.4152 µg/L       0.10971     -0.4152 ppb        0.10971  26.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.7     -3.4496 µg/L       9.72242     -3.4496 ppb        9.72242 281.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.2     -0.3112 µg/L       0.59024     -0.3112 ppb        0.59024 189.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.2      1.0380 µg/L      14.23518      1.0380 ppb       14.23518 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.1     -3.0549 µg/L       0.73318     -3.0549 ppb        0.73318  24.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.2     -4.9162 µg/L       6.00561     -4.9162 ppb        6.00561 122.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -47.2     -10.160 µg/L        7.4615     -10.160 ppb         7.4615  73.44%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               -15.4     -1.2700 µg/L       0.10757     -1.2700 ppb        0.10757   8.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.3      1.4956 µg/L       2.85898      1.4956 ppb        2.85898 191.16%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.5      0.0877 µg/L       0.11742      0.0877 ppb        0.11742 133.92%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -4.5     -0.0100 µg/L       0.02156     -0.0100 ppb        0.02156 216.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.4566 µg/L       4.27758     -0.4566 ppb        4.27758 936.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -3.9     -0.3572 µg/L       2.55415     -0.3572 ppb        2.55415 715.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -15.4     -0.1623 µg/L       0.32282     -0.1623 ppb        0.32282 198.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -22.2     -0.5505 µg/L       0.01313     -0.5505 ppb        0.01313   2.38%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, March 02, 2010 11:39:48
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.6354
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	262.8	262.802	8.871	3.4
	Mg	24.0	5622.7	5622.708	214.590	3.8
	Co	58.9	20267.4	20267.367	110.511	0.5
	Rh	102.9	47250.4	47250.423	640.204	1.4
	In	114.9	58973.3	58973.302	995.807	1.7
	Pb	208.0	40734.2	40734.195	337.700	0.8
⌈>	Ba	137.9	51392.5	51392.459	810.051	1.6
⌊	Ba++	69.0	1577.5	0.031	0.001	3.0
⌈>	Ce	139.9	67080.9	67080.932	484.847	0.7
⌊	CeO	155.9	1309.6	0.020	0.001	3.9
	Bkgd	220.0	3.4	3.400	1.475	43.4

Current Optimization File Data

Current Value	Description
1.02	Nebulizer Gas Flow
7.20	Lens Voltage
1450.00	ICP RF Power
-1855.00	Analog Stage Voltage
1350.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.3	839.7
Co	59	21	9.3	14398.6
In	115	21	10.3	73454.0

ICPMS#3 Instrument Tuning Report

File Name: 100302.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	587	2060	0.644
Be	9.0	9.0	2058	2060	0.608
Mg	24.0	24.0	5708	2110	0.590
Mg	25.0	24.9	5886	2020	0.673
Mg	26.0	26.0	6217	2140	0.658
Co	58.9	58.9	14199	2115	0.662
Rh	102.9	102.9	24906	2165	0.668
In	114.9	114.9	27822	2180	0.663
Ce	139.9	139.9	33907	2220	0.635
Pb	206.0	205.9	49992	2280	0.660
Pb	207.0	206.9	50272	2310	0.706
Pb	208.0	208.0	50474	2300	0.649
U	238.1	238.0	57832	2340	0.685

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, March 02, 2010 14:11:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\Blank.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		109388	
	Se	77		ug/L		1585	
	Se	82		ug/L		4	
	Kr	83		ug/L		34	
>	Lu	175		ug/L		122246	
	Tl	205		ug/L		284	
	Pb	208		ug/L		140	
	U	238		ug/L		62	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, March 02, 2010 14:13:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\Standard 1.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ge	74		ug/L		112607	112607.439
|	Se	77		ug/L		1907	0.002
|	Se	82	10.000	ug/L	10.002	312	0.003
⌊	Kr	83		ug/L		30	-0.000
⌈>	Lu	175		ug/L		124485	124485.085
|	Tl	205	10.000	ug/L	4.412	58301	0.466
|	Pb	208	10.000	ug/L	2.319	68673	0.551
⌊	U	238	10.000	ug/L	1.643	82457	0.662

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Ge	74					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175					
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, March 02, 2010 14:15:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\Standard 2.075

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	74		ug/L		114254	114253.713
Se	77		ug/L		4046	0.021
Se	82	**99.976**	ug/L	3.389	3051	0.027
Kr	83		ug/L		35	-0.000
Lu	175		ug/L		125981	125980.987
Tl	205	**99.979**	ug/L	4.700	574332	4.562
Pb	208	**99.999**	ug/L	3.723	692744	5.503
U	238	**99.985**	ug/L	1.873	820725	6.518

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Ge	74					
Se	77					
Se	82					
Kr	83					
Lu	175					
Tl	205					
Pb	208					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, March 02, 2010 14:17:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 1.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ge	74		ug/L		113942	113941.725
|	Se	77		ug/L		2898	0.011
|	Se	82	**53.014**	ug/L	9.611	1614	0.014
⌊	Kr	83		ug/L		31	-0.000
⌈>	Lu	175		ug/L		128270	128269.983
|	Tl	205	**49.573**	ug/L	4.572	290200	2.262
|	Pb	208	**50.937**	ug/L	3.300	359473	2.803
⌊	U	238	**53.472**	ug/L	1.208	447063	3.486

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Ge	74		104.2			
|	Se	77					
|	Se	82	106.029				
⌊	Kr	83					
⌈>	Lu	175		104.9			
|	Tl	205	99.145				
|	Pb	208	101.874				
⌊	U	238	106.945				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, March 02, 2010 14:19:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 2.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ge	74		ug/L		111750	111749.787
|	Se	77		ug/L		1615	-0.000
|	Se	82	**0.499**	ug/L	37.731	19	0.000
⌊	Kr	83		ug/L		32	-0.000
⌈>	Lu	175		ug/L		124800	124800.325
|	Tl	205	**0.201**	ug/L	14.323	1436	0.009
|	Pb	208	**0.009**	ug/L	13.058	203	0.000
⌊	U	238	**0.013**	ug/L	18.779	166	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Ge	74		102.2			
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		102.1			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, March 02, 2010 14:21:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 3.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		110533	110533.114
	Se	77		ug/L		1765	0.001
	Se	82	**5.978**	ug/L	8.377	181	0.002
	Kr	83		ug/L		31	-0.000
>	Lu	175		ug/L		123007	123007.124
	Tl	205	**1.129**	ug/L	5.877	6617	0.052
	Pb	208	**2.225**	ug/L	3.555	15193	0.122
	U	238	**0.251**	ug/L	1.358	2075	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		101.0			
	Se	77					
	Se	82	119.564				
	Kr	83					
>	Lu	175		100.6			
	Tl	205	112.881				
	Pb	208	111.229				
	U	238	125.522				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, March 02, 2010 14:23:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 4.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		97573	97572.599
	Se	77		ug/L		2065	0.007
	Se	82	**-0.148**	ug/L	220.576	0	-0.000
	Kr	83		ug/L		63	0.000
>	Lu	175		ug/L		111332	111332.024
	Tl	205	**0.036**	ug/L	15.198	441	0.002
	Pb	208	**0.214**	ug/L	4.205	1441	0.012
	U	238	**0.000**	ug/L	417.433	58	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		89.2			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.1			
	Tl	205					
	Pb	208	113.403				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, March 02, 2010 14:25:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 5.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		99347	99347.013
	Se	77		ug/L		2503	0.011
	Se	82	**20.476**	ug/L	5.262	547	0.005
	Kr	83		ug/L		72	0.000
>	Lu	175		ug/L		113314	113313.887
	Tl	205	**19.009**	ug/L	2.226	98512	0.867
	Pb	208	**19.608**	ug/L	5.554	122237	1.079
	U	238	**22.463**	ug/L	0.206	165985	1.464

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		90.8			
	Se	77					
	Se	82	102.382				
	Kr	83					
>	Lu	175		92.7			
	Tl	205	95.047				
	Pb	208	97.120				
	U	238	112.315				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 14:27:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		110174	110174.414
	Se	77		ug/L		2704	0.010
	Se	82	**51.408**	ug/L	4.101	1514	0.014
	Kr	83		ug/L		29	-0.000
>	Lu	175		ug/L		122479	122479.377
	Tl	205	**49.393**	ug/L	3.995	276322	2.254
	Pb	208	**50.166**	ug/L	2.180	338252	2.761
	U	238	**50.469**	ug/L	0.651	403008	3.290

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		100.7			
	Se	77					
	Se	82	102.816				
	Kr	83					
>	Lu	175		100.2			
	Tl	205	98.787				
	Pb	208	100.332				
	U	238	100.938				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 14:29:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ge	74		ug/L		110351	110350.577
|	Se	77		ug/L		1609	0.000
|	Se	82	0.468	ug/L	80.622	18	0.000
⌊	Kr	83		ug/L		30	-0.000
⌈>	Lu	175		ug/L		119726	119726.266
|	Tl	205	0.286	ug/L	11.038	1835	0.013
|	Pb	208	0.010	ug/L	18.796	201	0.001
⌊	U	238	0.013	ug/L	5.370	160	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Ge	74		100.9			
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		97.9			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202034073
Sample Date/Time: Tuesday, March 02, 2010 14:32:52
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949400|1|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\1202034073.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		114331	114330.625
	Se	77		ug/L		4990	0.029
	Se	82	0.095	ug/L	357.347	7	0.000
	Kr	83		ug/L		37	0.000
>	Lu	175		ug/L		119505	119504.809
	Tl	205	0.038	ug/L	25.644	482	0.002
	Pb	208	0.012	ug/L	31.340	213	0.001
	U	238	0.002	ug/L	152.832	72	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		104.5			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202034074
Sample Date/Time: Tuesday, March 02, 2010 14:34:58
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949400|1|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\1202034074.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		122066	122065.703
	Se	77		ug/L		6321	0.037
	Se	82	**50.181**	ug/L	5.476	1637	0.013
	Kr	83		ug/L		36	-0.000
>	Lu	175		ug/L		124567	124566.578
	Tl	205	**48.342**	ug/L	3.070	274972	2.206
	Pb	208	**51.986**	ug/L	3.550	356366	2.861
	U	238	**55.094**	ug/L	1.816	447533	3.591

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		111.6			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246056002
Sample Date/Time: Tuesday, March 02, 2010 14:45:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949400|1|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\246056002.089

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		120800	120800.347
	Se	77		ug/L		6875	0.042
	Se	82	**0.405**	ug/L	86.904	18	0.000
	Kr	83		ug/L		30	-0.000
>	Lu	175		ug/L		119770	119770.355
	Tl	205	**0.413**	ug/L	2.420	2535	0.019
	Pb	208	**0.130**	ug/L	10.564	991	0.007
	U	238	**0.025**	ug/L	11.320	254	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		110.4			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246056003
Sample Date/Time: Tuesday, March 02, 2010 14:47:44
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949400|1|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\246056003.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		120014	120014.102
	Se	77		ug/L		6007	0.036
	Se	82	**0.179**	ug/L	340.310	10	0.000
	Kr	83		ug/L		30	-0.000
>	Lu	175		ug/L		118480	118480.076
	Tl	205	**0.190**	ug/L	10.565	1303	0.009
	Pb	208	**0.458**	ug/L	2.942	3122	0.025
	U	238	**0.143**	ug/L	5.535	1164	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		109.7			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246056004
Sample Date/Time: Tuesday, March 02, 2010 14:49:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949400|1|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\246056004.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		121571	121571.338
	Se	77		ug/L		6340	0.038
	Se	82	**-0.267**	ug/L	154.506	-4	-0.000
	Kr	83		ug/L		38	0.000
>	Lu	175		ug/L		117747	117747.268
	Tl	205	**0.133**	ug/L	7.675	986	0.006
	Pb	208	**3.136**	ug/L	3.909	20445	0.173
	U	238	**0.026**	ug/L	1.955	257	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		111.1			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 14:51:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ge	74		ug/L		114912	114911.825
|	Se	77		ug/L		3234	0.014
|	Se	82	**48.422**	ug/L	10.624	1486	0.013
⌊	Kr	83		ug/L		37	0.000
⌈>	Lu	175		ug/L		122489	122488.787
|	Tl	205	**48.856**	ug/L	2.831	273238	2.229
|	Pb	208	**50.057**	ug/L	5.943	336982	2.755
⌊	U	238	**50.291**	ug/L	0.545	401663	3.278

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Ge	74			105.1		
|	Se	77					
|	Se	82	96.843				
⌊	Kr	83					
⌈>	Lu	175			100.2		
|	Tl	205	97.712				
|	Pb	208	100.113				
⌊	U	238	100.582				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 14:54:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		113316	113316.374
	Se	77		ug/L		1817	0.002
	Se	82	**0.453**	ug/L	58.840	18	0.000
	Kr	83		ug/L		34	-0.000
>	Lu	175		ug/L		120449	120449.431
	Tl	205	**0.401**	ug/L	9.900	2488	0.018
	Pb	208	**0.010**	ug/L	24.782	204	0.001
	U	238	**0.015**	ug/L	4.528	177	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		103.6			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 246056001
Sample Date/Time: Tuesday, March 02, 2010 14:56:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949400|1|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\246056001.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		114588	114587.994
	Se	77		ug/L		5781	0.036
	Se	82	**0.276**	ug/L	59.303	13	0.000
	Kr	83		ug/L		33	-0.000
>	Lu	175		ug/L		115690	115690.083
	Tl	205	**0.122**	ug/L	9.235	910	0.006
	Pb	208	**1.209**	ug/L	4.417	7820	0.067
	U	238	**0.046**	ug/L	4.735	404	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		104.8			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202034075
Sample Date/Time: Tuesday, March 02, 2010 14:58:34
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 949400|1|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\1202034075.095

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		122327	122326.768
	Se	77		ug/L		7576	0.047
	Se	82	**0.109**	ug/L	95.305	8	0.000
	Kr	83		ug/L		31	-0.000
>	Lu	175		ug/L		118903	118902.686
	Tl	205	**0.075**	ug/L	4.848	683	0.003
	Pb	208	**1.091**	ug/L	5.070	7268	0.060
	U	238	**0.034**	ug/L	2.787	321	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		111.8			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202034076
Sample Date/Time: Tuesday, March 02, 2010 15:00:42
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949400|1|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\1202034076.096

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	74		ug/L		124512	124512.292
	Se	77		ug/L		6072	0.034
	Se	82	**19.474**	ug/L	4.483	652	0.005
	Kr	83		ug/L		38	-0.000
>	Lu	175		ug/L		123660	123659.666
	Tl	205	**96.021**	ug/L	3.312	541651	4.381
	Pb	208	**43.778**	ug/L	5.672	297669	2.409
	U	238	**56.687**	ug/L	0.791	456917	3.695

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Ge	74		113.8			
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202034077
Sample Date/Time: Tuesday, March 02, 2010 15:02:50
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949400|5|prb
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\1202034077.097

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ge	74		ug/L		115392	115392.071
|	Se	77		ug/L		3216	0.013
|	Se	82	-0.068	ug/L	395.507	2	-0.000
⌊	Kr	83		ug/L		39	0.000
⌈>	Lu	175		ug/L		121346	121346.470
|	Tl	205	1.533	ug/L	10.263	8781	0.070
|	Pb	208	0.271	ug/L	3.175	1948	0.015
⌊	U	238	0.040	ug/L	15.682	381	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Ge	74		105.5			
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		99.3			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 15:04:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 6.098

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ge	74		ug/L		113341	113340.647
|	Se	77		ug/L		3132	0.013
|	Se	82	**48.944**	ug/L	0.708	1485	0.013
⌊	Kr	83		ug/L		34	-0.000
⌈>	Lu	175		ug/L		121213	121212.889
|	Tl	205	**49.109**	ug/L	3.521	271705	2.241
|	Pb	208	**49.772**	ug/L	3.023	332007	2.739
⌊	U	238	**50.490**	ug/L	1.206	398905	3.291

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Ge	74		103.6			
|	Se	77					
|	Se	82	97.887				
⌊	Kr	83					
⌈>	Lu	175		99.2			
|	Tl	205	98.218				
|	Pb	208	99.543				
⌊	U	238	100.980				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 15:07:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\misc 5.mth
Dataset File: C:\elandata\Dataset\100302\QC Std 7.099

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Ge	74		ug/L		113666	113666.163
|	Se	77		ug/L		1789	0.001
|	Se	82	**0.506**	ug/L	95.745	20	0.000
⌊	Kr	83		ug/L		30	-0.000
⌈>	Lu	175		ug/L		120454	120453.666
|	Tl	205	**0.622**	ug/L	7.720	3694	0.028
|	Pb	208	**0.011**	ug/L	13.192	210	0.001
⌊	U	238	**0.014**	ug/L	14.101	171	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	74	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Ge	74		103.9			
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		98.5			
|	Tl	205					
|	Pb	208					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, March 01, 2010 12:25:26
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.622
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	7525.6	7525.582	135.286	1.8
	Mg	24.0	72300.7	72300.704	497.743	0.7
	Co	58.9	133496.1	133496.074	1093.688	0.8
	Rh	102.9	255466.5	255466.461	1864.846	0.7
	In	114.9	337077.4	337077.383	2800.835	0.8
	Pb	208.0	312424.1	312424.149	2662.214	0.9
⌈>	Ba	137.9	318495.2	318495.162	2411.981	0.8
⌊	Ba++	69.0	5411.1	0.017	0.000	1.1
⌈>	Ce	139.9	391005.4	391005.356	2825.949	0.7
⌊	CeO	155.9	10623.4	0.027	0.000	1.2
	Bkgd	220.0	21.8	21.800	1.643	7.5

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.00	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	11	6.0	7652.4
Co	59	11	6.5	131008.3
In	115	11	7.3	323061.4

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	596	2050	0.668
Be	9.0	9.0	2053	2075	0.630
Mg	24.0	24.0	5687	2080	0.612
Mg	25.0	25.0	5939	2080	0.622
Mg	26.0	26.0	6166	2080	0.632
Co	58.9	59.0	14193	2110	0.618
Rh	102.9	102.9	24880	2160	0.626
In	114.9	114.9	27794	2180	0.626
Ce	139.9	139.9	33866	2200	0.630
Pb	206.0	205.9	49936	2295	0.593
Pb	207.0	207.0	50171	2240	0.630
Pb	208.0	207.9	50439	2265	0.690
U	238.1	238.0	57728	2275	0.727

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, March 02, 2010 04:26:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\Blank.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		98	
	Be	9		ug/L		11	
	B	11		ug/L		495	
	Na	23		ug/L		14675	
	Mg	24		ug/L		1667	
	Al	27		ug/L		3000	
	P	31		ug/L		5465	
	K	39		ug/L		498563	
	Ca	43		ug/L		155	
>	Sc	45		ug/L		954088	
	Ti	47		ug/L		248	
	V	51		ug/L		714	
	Cr	52		ug/L		147	
	Cr	53		ug/L		59674	
	Mn	55		ug/L		1334	
	Fe	57		ug/L		4550	
	Co	59		ug/L		90	
	Ni	60		ug/L		76	
	Cu	63		ug/L		214	
	Cu	65		ug/L		91	
	Zn	66		ug/L		566	
	Zn	67		ug/L		8994	
	Zn	68		ug/L		1240	
>	Ge	74		ug/L		401149	
	As	75		ug/L		117	
	Se	77		ug/L		3041	
	Se	82		ug/L		1	
	Kr	83		ug/L		114	
	Sr	88		ug/L		166	
	Y	89		ug/L		89	
	Mo	98		ug/L		65	
	Ag	107		ug/L		47	
	Cd	111		ug/L		26	
	Cd	114		ug/L		39	
>	In	115		ug/L		271118	
	Sn	120		ug/L		271	
	Sb	121		ug/L		461	
	Sb	123		ug/L		356	
	Ba	135		ug/L		36	
	Ba	137		ug/L		51	
	Ho	165		ug/L		17	
>	Lu	175		ug/L		549592	
	Tl	205		ug/L		607	
	Pb	208		ug/L		474	
	Bi	209		ug/L		218	
	Th	232		ug/L		710	
	U	238		ug/L		405	

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, March 02, 2010 04:33:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\Standard 1.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	1.727	23199	0.024
	Be	9	10.000	ug/L	2.623	4975	0.005
	B	11	20.000	ug/L	4.384	9131	0.009
	Na	23	1000.000	ug/L	4.201	3848739	4.054
	Mg	24	1000.000	ug/L	4.405	2591055	2.736
	Al	27	1000.000	ug/L	10.833	3354156	3.538
	P	31	1000.000	ug/L	2.522	202895	0.209
	K	39	1000.000	ug/L	3.834	4749888	4.497
	Ca	43	1000.000	ug/L	2.288	11511	0.012
>	Sc	45		ug/L		946198	946197.926
	Ti	47	10.000	ug/L	2.647	5772	0.006
	V	51	10.000	ug/L	6.154	65515	0.069
	Cr	52	10.000	ug/L	2.257	49508	0.052
	Cr	53		ug/L		64792	0.006
	Mn	55	10.000	ug/L	1.799	85680	0.089
	Fe	57	1000.000	ug/L	2.274	175101	0.180
	Co	59	10.000	ug/L	1.937	65368	0.069
	Ni	60	10.000	ug/L	2.246	14130	0.015
	Cu	63		ug/L		34050	0.036
	Cu	65	10.000	ug/L	0.456	16805	0.018
	Zn	66	10.000	ug/L	2.597	12743	0.030
	Zn	67		ug/L		10657	0.004
	Zn	68		ug/L		10086	0.022
>	Ge	74		ug/L		399716	399716.143
	As	75	10.000	ug/L	2.611	11476	0.028
	Se	77		ug/L		4080	0.003
	Se	82	10.000	ug/L	2.947	1197	0.003
	Kr	83		ug/L		109	-0.000
	Sr	88	10.000	ug/L	1.753	148917	0.546
	Y	89		ug/L		101	0.000
	Mo	98	10.000	ug/L	2.203	35466	0.130
	Ag	107	10.000	ug/L	2.368	62250	0.228
	Cd	111	10.000	ug/L	3.620	15951	0.058
	Cd	114		ug/L		37894	0.139
>	In	115		ug/L		272684	272683.965
	Sn	120	10.000	ug/L	2.333	69278	0.253
	Sb	121	10.000	ug/L	4.683	55005	0.200
	Sb	123		ug/L		43596	0.159
	Ba	135		ug/L		17907	0.033
	Ba	137	10.000	ug/L	1.511	31618	0.058
	Ho	165		ug/L		19	0.000
>	Lu	175		ug/L		547564	547564.381
	Tl	205	10.000	ug/L	1.485	244118	0.445
	Pb	208	10.000	ug/L	0.810	411532	0.751
	Bi	209		ug/L		282	0.000
	Th	232	10.000	ug/L	2.069	529396	0.966
	U	238	10.000	ug/L	3.157	556142	1.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, March 02, 2010 04:39:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\Standard 2.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.983**	ug/L	0.769	233495	0.240
	Be	9	**99.976**	ug/L	1.559	49791	0.051
	B	11	**200.020**	ug/L	3.628	90204	0.092
	Na	23	**9993.780**	ug/L	1.270	37080326	38.140
	Mg	24	**9999.072**	ug/L	8.069	26346427	27.102
	Al	27	**10004.146**	ug/L	5.074	35896729	36.931
	P	31	**9991.510**	ug/L	0.772	1873917	1.923
	K	39	**10006.882**	ug/L	6.328	47462848	48.322
	Ca	43	**10000.088**	ug/L	1.791	116920	0.120
>	Sc	45		ug/L		971825	971824.647
	Ti	47	**100.001**	ug/L	1.687	57104	0.059
	V	51	**99.948**	ug/L	1.756	633387	0.651
	Cr	52	**99.955**	ug/L	1.228	485097	0.499
	Cr	53		ug/L		118712	0.060
	Mn	55	**99.941**	ug/L	1.227	819361	0.842
	Fe	57	**9988.867**	ug/L	2.473	1579866	1.621
	Co	59	**99.924**	ug/L	2.342	622687	0.641
	Ni	60	**99.939**	ug/L	0.707	136116	0.140
	Cu	63		ug/L		325134	0.334
	Cu	65	**99.943**	ug/L	0.401	162413	0.167
	Zn	66	**99.954**	ug/L	1.896	117629	0.291
	Zn	67		ug/L		27247	0.045
	Zn	68		ug/L		86077	0.211
>	Ge	74		ug/L		401895	401894.698
	As	75	**100.003**	ug/L	2.451	114580	0.285
	Se	77		ug/L		12540	0.024
	Se	82	**99.985**	ug/L	1.028	11856	0.029
	Kr	83		ug/L		191	0.000
	Sr	88	**99.950**	ug/L	2.147	1382707	5.194
	Y	89		ug/L		185	0.000
	Mo	98	**100.008**	ug/L	1.920	348371	1.308
	Ag	107	**99.961**	ug/L	1.703	584487	2.196
	Cd	111	**99.994**	ug/L	1.701	154599	0.581
	Cd	114		ug/L		365294	1.372
>	In	115		ug/L		266224	266223.581
	Sn	120	**99.968**	ug/L	1.870	653179	2.453
	Sb	121	**100.030**	ug/L	1.261	549636	2.063
	Sb	123		ug/L		430165	1.614
	Ba	135		ug/L		172384	0.320
	Ba	137	**99.994**	ug/L	1.184	308840	0.573
	Ho	165		ug/L		24	0.000
>	Lu	175		ug/L		539023	539023.162
	Tl	205	**99.789**	ug/L	0.919	1976252	3.665
	Pb	208	**99.860**	ug/L	1.807	3544809	6.576
	Bi	209		ug/L		854	0.001
	Th	232	**99.826**	ug/L	0.926	4425385	8.209
	U	238	**99.845**	ug/L	0.391	4731447	8.777

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, March 02, 2010 04:45:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 1.219

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.804**	ug/L	0.698	124041	0.124
	Be	9	**52.194**	ug/L	1.385	26646	0.027
	B	11	**108.412**	ug/L	0.642	50337	0.050
	Na	23	**5448.890**	ug/L	3.683	20721358	20.795
	Mg	24	**5307.752**	ug/L	3.035	14327484	14.386
	Al	27	**5138.018**	ug/L	1.110	18894337	18.967
	P	31	**5386.800**	ug/L	2.802	1037850	1.036
	K	39	**5083.509**	ug/L	7.323	24980447	24.548
	Ca	43	**5010.155**	ug/L	1.592	60112	0.060
>	Sc	45		ug/L		996002	996001.589
	Ti	47	**51.530**	ug/L	0.792	30282	0.030
	V	51	**51.149**	ug/L	2.203	332571	0.333
	Cr	52	**52.824**	ug/L	1.180	262796	0.264
	Cr	53		ug/L		93739	0.032
	Mn	55	**53.863**	ug/L	1.063	453187	0.454
	Fe	57	**5311.207**	ug/L	1.856	863043	0.862
	Co	59	**51.999**	ug/L	1.889	332094	0.333
	Ni	60	**53.448**	ug/L	1.654	74633	0.075
	Cu	63		ug/L		179561	0.180
	Cu	65	**53.153**	ug/L	0.809	88565	0.089
	Zn	66	**52.014**	ug/L	1.929	63266	0.152
	Zn	67		ug/L		19184	0.024
	Zn	68		ug/L		46652	0.110
>	Ge	74		ug/L		413505	413505.415
	As	75	**49.365**	ug/L	2.125	58278	0.141
	Se	77		ug/L		8431	0.013
	Se	82	**51.928**	ug/L	0.633	6336	0.015
	Kr	83		ug/L		144	0.000
	Sr	88	**54.086**	ug/L	1.394	772240	2.811
	Y	89		ug/L		124	0.000
	Mo	98	**50.431**	ug/L	0.653	181317	0.660
	Ag	107	**51.781**	ug/L	0.965	312472	1.137
	Cd	111	**51.487**	ug/L	0.989	82155	0.299
	Cd	114		ug/L		196149	0.714
>	In	115		ug/L		274695	274695.272
	Sn	120	**51.786**	ug/L	1.419	349304	1.271
	Sb	121	**51.311**	ug/L	0.341	291156	1.058
	Sb	123		ug/L		228783	0.832
	Ba	135		ug/L		92481	0.168
	Ba	137	**52.226**	ug/L	1.720	164280	0.299
	Ho	165		ug/L		46	0.000
>	Lu	175		ug/L		548963	548962.803
	Tl	205	**54.917**	ug/L	0.905	1107852	2.017
	Pb	208	**55.034**	ug/L	1.694	1989706	3.624
	Bi	209		ug/L		605	0.001
	Th	232	**51.776**	ug/L	2.688	2337577	4.258
	U	238	**54.390**	ug/L	2.884	2624509	4.781

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.609				
	Be	9	104.388				
	B	11	108.412				
	Na	23	108.978				
	Mg	24	106.155				
	Al	27	101.743				
	P	31	107.736				
	K	39	101.670				
	Ca	43	100.203				
>	Sc	45		104.4			
	Ti	47	103.059				
	V	51	102.297				
	Cr	52	105.647				
	Cr	53					
	Mn	55	107.725				
	Fe	57	106.224				
	Co	59	103.998				
	Ni	60	106.896				
	Cu	63					
	Cu	65	106.306				
	Zn	66	104.028				
	Zn	67					
	Zn	68					
>	Ge	74		103.1			
	As	75	98.730				
	Se	77					
	Se	82	103.856				
	Kr	83					
	Sr	88	108.172				
	Y	89					
	Mo	98	100.863				
	Ag	107	103.562				
	Cd	111	102.974				
	Cd	114					
>	In	115		101.3			
	Sn	120	103.572				
	Sb	121	102.623				
	Sb	123					
	Ba	135					
	Ba	137	104.452				
	Ho	165					
>	Lu	175		99.9			
	Tl	205	109.833				
	Pb	208	110.068				
	Bi	209					
	Th	232	103.553				
	U	238	108.779				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, March 02, 2010 04:51:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 2.220

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.013**	ug/L	60.884	128	0.000
	Be	9	**0.013**	ug/L	73.836	18	0.000
	B	11	**5.441**	ug/L	15.458	2899	0.003
	Na	23	**-0.017**	ug/L	4796.377	14674	-0.000
	Mg	24	**0.641**	ug/L	35.182	3334	0.002
	Al	27	**0.285**	ug/L	525.885	4001	0.001
	P	31	**1.131**	ug/L	19.574	5689	0.000
	K	39	**2.225**	ug/L	89.589	510292	0.011
	Ca	43	**0.435**	ug/L	799.408	161	0.000
>	Sc	45		ug/L		956747	956747.264
	Ti	47	**-0.007**	ug/L	426.415	245	-0.000
	V	51	**-0.228**	ug/L	66.083	-711	-0.001
	Cr	52	**0.144**	ug/L	44.281	833	0.001
	Cr	53		ug/L		61732	0.002
	Mn	55	**-0.025**	ug/L	14.632	1139	-0.000
	Fe	57	**0.992**	ug/L	9.118	4717	0.000
	Co	59	**0.005**	ug/L	8.052	122	0.000
	Ni	60	**0.017**	ug/L	39.216	99	0.000
	Cu	63		ug/L		270	0.000
	Cu	65	**0.005**	ug/L	203.858	100	0.000
	Zn	66	**-0.020**	ug/L	121.696	545	-0.000
	Zn	67		ug/L		8927	-0.000
	Zn	68		ug/L		1233	-0.000
>	Ge	74		ug/L		402710	402709.690
	As	75	**-0.155**	ug/L	210.627	-57	-0.000
	Se	77		ug/L		3587	0.001
	Se	82	**0.020**	ug/L	469.174	3	0.000
	Kr	83		ug/L		114	0.000
	Sr	88	**0.002**	ug/L	85.519	188	0.000
	Y	89		ug/L		70	-0.000
	Mo	98	**0.037**	ug/L	18.213	195	0.000
	Ag	107	**0.002**	ug/L	38.356	61	0.000
	Cd	111	**-0.005**	ug/L	109.063	17	-0.000
	Cd	114		ug/L		39	0.000
>	In	115		ug/L		269543	269542.514
	Sn	120	**0.027**	ug/L	21.440	448	0.001
	Sb	121	**0.527**	ug/L	18.087	3390	0.011
	Sb	123		ug/L		2698	0.009
	Ba	135		ug/L		48	0.000
	Ba	137	**0.004**	ug/L	76.039	64	0.000
	Ho	165		ug/L		20	0.000
>	Lu	175		ug/L		539279	539279.113
	Tl	205	**0.047**	ug/L	19.893	1518	0.002
	Pb	208	**0.002**	ug/L	32.979	544	0.000
	Bi	209		ug/L		218	0.000
	Th	232	**0.039**	ug/L	20.557	2427	0.003
	U	238	**0.006**	ug/L	26.936	661	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, March 02, 2010 04:57:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 3.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.781**	**ug/L**	1.624	27474	0.028
	Be	9	**0.597**	**ug/L**	2.277	307	0.000
	B	11	**18.504**	**ug/L**	2.495	8760	0.009
	Na	23	**269.620**	**ug/L**	2.581	1010168	1.029
	Mg	24	**18.093**	**ug/L**	25.382	49087	0.049
	Al	27	**38.395**	**ug/L**	17.329	140028	0.142
	P	31	**64.177**	**ug/L**	3.914	17488	0.012
	K	39	**331.659**	**ug/L**	5.339	2055414	1.602
	Ca	43	**227.911**	**ug/L**	1.432	2806	0.003
>	Sc	45		**ug/L**		967431	967431.196
	Ti	47	**9.519**	**ug/L**	3.064	5639	0.006
	V	51	**11.865**	**ug/L**	4.102	75472	0.077
	Cr	52	**11.866**	**ug/L**	0.453	57458	0.059
	Cr	53		**ug/L**		69814	0.010
	Mn	55	**6.238**	**ug/L**	1.409	52177	0.053
	Fe	57	**128.410**	**ug/L**	2.072	24768	0.021
	Co	59	**1.205**	**ug/L**	1.919	7565	0.008
	Ni	60	**2.414**	**ug/L**	0.756	3348	0.003
	Cu	63		**ug/L**		4327	0.004
	Cu	65	**1.266**	**ug/L**	2.330	2139	0.002
	Zn	66	**11.864**	**ug/L**	0.537	14672	0.035
	Zn	67		**ug/L**		11336	0.005
	Zn	68		**ug/L**		11389	0.025
>	Ge	74		**ug/L**		407647	407647.436
	As	75	**5.791**	**ug/L**	3.614	6846	0.016
	Se	77		**ug/L**		4106	0.002
	Se	82	**5.991**	**ug/L**	1.329	721	0.002
	Kr	83		**ug/L**		105	-0.000
	Sr	88	**12.352**	**ug/L**	2.878	177363	0.642
	Y	89		**ug/L**		87	-0.000
	Mo	98	**0.592**	**ug/L**	1.746	2204	0.008
	Ag	107	**1.092**	**ug/L**	2.560	6673	0.024
	Cd	111	**1.135**	**ug/L**	2.558	1846	0.007
	Cd	114		**ug/L**		4266	0.015
>	In	115		**ug/L**		276087	276086.570
	Sn	120	**5.584**	**ug/L**	1.396	38104	0.137
	Sb	121	**3.229**	**ug/L**	3.118	18858	0.067
	Sb	123		**ug/L**		15006	0.053
	Ba	135		**ug/L**		4065	0.007
	Ba	137	**2.250**	**ug/L**	2.772	7207	0.013
	Ho	165		**ug/L**		24	0.000
>	Lu	175		**ug/L**		555246	555246.175
	Tl	205	**1.324**	**ug/L**	1.577	27605	0.049
	Pb	208	**2.533**	**ug/L**	0.807	93101	0.167
	Bi	209		**ug/L**		230	0.000
	Th	232	**1.333**	**ug/L**	1.537	61595	0.110
	U	238	**0.291**	**ug/L**	0.973	14612	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	117.807				
	Be	9	119.386				
	B	11	123.357				
	Na	23	107.848				
	Mg	24	120.622				
	Al	27	127.983				
	P	31	128.353				
	K	39	110.553				
	Ca	43	113.956				
>	Sc	45		101.4			
	Ti	47	95.194				
	V	51	118.653				
	Cr	52	118.663				
	Cr	53					
	Mn	55	124.760				
	Fe	57	128.410				
	Co	59	120.512				
	Ni	60	120.692				
	Cu	63					
	Cu	65	126.638				
	Zn	66	118.639				
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75	115.820				
	Se	77					
	Se	82	119.817				
	Kr	83					
	Sr	88	123.516				
	Y	89					
	Mo	98	118.363				
	Ag	107	109.249				
	Cd	111	113.520				
	Cd	114					
>	In	115		101.8			
	Sn	120	111.683				
	Sb	121	107.638				
	Sb	123					
	Ba	135					
	Ba	137	112.483				
	Ho	165					
>	Lu	175		101.0			
	Tl	205	132.353				
	Pb	208	126.663				
	Bi	209					
	Th	232	133.335				
	U	238	145.496				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, March 02, 2010 05:03:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 4.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.071**	**ug/L**	10.620	263	0.000
	Be	9	**0.096**	**ug/L**	18.860	59	0.000
	B	11	**2.021**	**ug/L**	12.386	1397	0.001
	Na	23	**104663.921**	**ug/L**	3.766	384825227	399.433
	Mg	24	**97342.298**	**ug/L**	3.364	254165531	263.840
	Al	27	**95673.764**	**ug/L**	0.194	340215264	353.183
	P	31	**102206.985**	**ug/L**	0.558	18949441	19.666
	K	39	**99963.466**	**ug/L**	5.578	465597091	482.711
	Ca	43	**96594.292**	**ug/L**	0.507	1118006	1.161
>	Sc	45		**ug/L**		963266	963266.127
	Ti	47	**1691.855**	**ug/L**	1.150	953565	0.990
	V	51	**0.433**	**ug/L**	105.596	3427	0.003
	Cr	52	**2.498**	**ug/L**	2.176	12159	0.012
	Cr	53		**ug/L**		57594	-0.003
	Mn	55	**6.166**	**ug/L**	1.505	51370	0.052
	Fe	57	**114269.158**	**ug/L**	1.773	17863512	18.541
	Co	59	**0.328**	**ug/L**	4.481	2114	0.002
	Ni	60	**3.403**	**ug/L**	2.125	4668	0.005
	Cu	63		**ug/L**		8684	0.009
	Cu	65	**3.423**	**ug/L**	3.411	5601	0.006
	Zn	66	**3.896**	**ug/L**	3.087	4923	0.011
	Zn	67		**ug/L**		8902	0.001
	Zn	68		**ug/L**		1999	0.002
>	Ge	74		**ug/L**		385633	385632.881
	As	75	**0.118**	**ug/L**	136.208	242	0.000
	Se	77		**ug/L**		5927	0.008
	Se	82	**-1.113**	**ug/L**	10.683	-126	-0.000
	Kr	83		**ug/L**		299	0.000
	Sr	88	**3.371**	**ug/L**	2.829	43796	0.175
	Y	89		**ug/L**		513	0.002
	Mo	98	**1961.619**	**ug/L**	1.385	6394017	25.665
	Ag	107	**0.111**	**ug/L**	0.112	649	0.002
	Cd	111	**0.464**	**ug/L**	17.474	696	0.003
	Cd	114		**ug/L**		9180	0.037
>	In	115		**ug/L**		249155	249154.606
	Sn	120	**0.276**	**ug/L**	4.303	1935	0.007
	Sb	121	**0.193**	**ug/L**	17.807	1416	0.004
	Sb	123		**ug/L**		1111	0.003
	Ba	135		**ug/L**		1314	0.003
	Ba	137	**0.770**	**ug/L**	2.059	2171	0.004
	Ho	165		**ug/L**		10256	0.021
>	Lu	175		**ug/L**		482363	482362.661
	Tl	205	**0.015**	**ug/L**	8.638	790	0.001
	Pb	208	**0.242**	**ug/L**	2.044	8109	0.016
	Bi	209		**ug/L**		6007	0.012
	Th	232	**0.051**	**ug/L**	32.852	2639	0.004
	U	238	**-0.002**	**ug/L**	23.463	262	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	104.664				
	Mg	24	97.342				
	Al	27	95.674				
	P	31	102.207				
	K	39	99.963				
	Ca	43	96.594				
>	Sc	45		101.0			
	Ti	47	84.593				
	V	51					
	Cr	52	75.695				
	Cr	53					
	Mn	55	106.316				
	Fe	57	114.269				
	Co	59	139.371				
	Ni	60	102.818				
	Cu	63					
	Cu	65	102.488				
	Zn	66	103.605				
	Zn	67					
	Zn	68					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	113.900				
	Y	89					
	Mo	98	98.081				
	Ag	107					
	Cd	111	104.586				
	Cd	114					
>	In	115		91.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137	96.429				
	Ho	165					
>	Lu	175		87.8			
	Tl	205					
	Pb	208	128.148				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, March 02, 2010 05:09:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 5.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.773**	**ug/L**	0.436	45014	0.047
	Be	9	**19.268**	**ug/L**	1.376	9347	0.010
	B	11	**20.088**	**ug/L**	1.567	9256	0.009
	Na	23	**103987.511**	**ug/L**	6.284	375321446	396.851
	Mg	24	**102373.777**	**ug/L**	4.494	262431077	277.477
	Al	27	**99143.390**	**ug/L**	2.553	346108756	365.991
	P	31	**102551.866**	**ug/L**	0.833	18666776	19.732
	K	39	**99741.712**	**ug/L**	5.397	455989227	481.640
	Ca	43	**96694.947**	**ug/L**	1.742	1098789	1.162
>	Sc	45		**ug/L**		945712	945712.028
	Ti	47	**1712.423**	**ug/L**	0.425	947619	1.002
	V	51	**22.060**	**ug/L**	1.120	136591	0.144
	Cr	52	**24.185**	**ug/L**	0.729	114327	0.121
	Cr	53		**ug/L**		68809	0.010
	Mn	55	**27.836**	**ug/L**	0.692	223032	0.234
	Fe	57	**116178.934**	**ug/L**	0.957	17831832	18.851
	Co	59	**21.467**	**ug/L**	0.826	130240	0.138
	Ni	60	**23.522**	**ug/L**	0.270	31232	0.033
	Cu	63		**ug/L**		71812	0.076
	Cu	65	**23.007**	**ug/L**	0.589	36451	0.038
	Zn	66	**22.966**	**ug/L**	1.674	26050	0.067
	Zn	67		**ug/L**		11989	0.009
	Zn	68		**ug/L**		17582	0.043
>	Ge	74		**ug/L**		381152	381152.403
	As	75	**21.047**	**ug/L**	2.032	22971	0.060
	Se	77		**ug/L**		7467	0.012
	Se	82	**19.858**	**ug/L**	3.571	2233	0.006
	Kr	83		**ug/L**		298	0.000
	Sr	88	**27.144**	**ug/L**	0.269	349456	1.411
	Y	89		**ug/L**		467	0.002
	Mo	98	**1958.064**	**ug/L**	0.861	6343851	25.619
	Ag	107	**20.314**	**ug/L**	0.398	110534	0.446
	Cd	111	**20.614**	**ug/L**	0.700	29665	0.120
	Cd	114		**ug/L**		78351	0.316
>	In	115		**ug/L**		247629	247628.852
	Sn	120	**22.005**	**ug/L**	1.609	133942	0.540
	Sb	121	**22.080**	**ug/L**	0.744	113182	0.455
	Sb	123		**ug/L**		89331	0.359
	Ba	135		**ug/L**		34295	0.072
	Ba	137	**22.103**	**ug/L**	1.545	60413	0.127
	Ho	165		**ug/L**		10235	0.021
>	Lu	175		**ug/L**		476711	476710.540
	Tl	205	**22.842**	**ug/L**	1.461	400501	0.839
	Pb	208	**22.700**	**ug/L**	0.578	712996	1.495
	Bi	209		**ug/L**		6523	0.013
	Th	232	**25.005**	**ug/L**	0.391	980865	2.056
	U	238	**25.736**	**ug/L**	1.496	1078811	2.262

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	98.866				
	Be	9	96.342				
	B	11	100.440				
	Na	23	103.988				
	Mg	24	102.374				
	Al	27	99.143				
	P	31	102.552				
	K	39	99.742				
	Ca	43	96.695				
>	Sc	45		99.1			
	Ti	47	85.621				
	V	51	110.302				
	Cr	52	103.798				
	Cr	53					
	Mn	55	107.891				
	Fe	57	116.179				
	Co	59	106.089				
	Ni	60	100.908				
	Cu	63					
	Cu	65	98.571				
	Zn	66	96.659				
	Zn	67					
	Zn	68					
>	Ge	74		95.0			
	As	75	105.237				
	Se	77					
	Se	82	99.292				
	Kr	83					
	Sr	88	118.224				
	Y	89					
	Mo	98	97.903				
	Ag	107	101.569				
	Cd	111	100.833				
	Cd	114					
>	In	115		91.3			
	Sn	120	110.024				
	Sb	121	110.402				
	Sb	123					
	Ba	135					
	Ba	137	106.276				
	Ho	165					
>	Lu	175		86.7			
	Tl	205	114.211				
	Pb	208	112.438				
	Bi	209					
	Th	232	125.024				
	U	238	128.680				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Th	232	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, March 02, 2010 05:15:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 6.224

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.785**	**ug/L**	4.132	122700	0.124
	Be	9	**52.164**	**ug/L**	3.496	26359	0.027
	B	11	**100.753**	**ug/L**	2.800	46344	0.046
	Na	23	**4821.267**	**ug/L**	6.179	18165270	18.400
	Mg	24	**5149.524**	**ug/L**	7.839	13762457	13.957
	Al	27	**4843.987**	**ug/L**	12.900	17602345	17.882
	P	31	**5349.226**	**ug/L**	3.104	1020313	1.029
	K	39	**4668.103**	**ug/L**	7.148	22725601	22.542
	Ca	43	**5045.129**	**ug/L**	1.823	59930	0.061
>	Sc	45		**ug/L**		986348	986348.396
	Ti	47	**52.681**	**ug/L**	2.809	30638	0.031
	V	51	**52.095**	**ug/L**	2.888	335255	0.339
	Cr	52	**53.924**	**ug/L**	2.345	265573	0.269
	Cr	53		**ug/L**		94973	0.034
	Mn	55	**54.646**	**ug/L**	3.971	455014	0.460
	Fe	57	**5444.645**	**ug/L**	3.062	875675	0.883
	Co	59	**53.984**	**ug/L**	4.184	341226	0.346
	Ni	60	**54.584**	**ug/L**	3.116	75448	0.076
	Cu	63		**ug/L**		178207	0.181
	Cu	65	**54.192**	**ug/L**	3.502	89369	0.091
	Zn	66	**52.603**	**ug/L**	2.172	63619	0.153
	Zn	67		**ug/L**		18651	0.023
	Zn	68		**ug/L**		46299	0.110
>	Ge	74		**ug/L**		411186	411186.194
	As	75	**50.193**	**ug/L**	1.788	58916	0.143
	Se	77		**ug/L**		8905	0.014
	Se	82	**52.734**	**ug/L**	1.006	6398	0.016
	Kr	83		**ug/L**		111	-0.000
	Sr	88	**54.243**	**ug/L**	2.863	773542	2.819
	Y	89		**ug/L**		159	0.000
	Mo	98	**51.552**	**ug/L**	2.278	185135	0.674
	Ag	107	**52.662**	**ug/L**	4.452	317318	1.157
	Cd	111	**51.890**	**ug/L**	0.901	82722	0.301
	Cd	114		**ug/L**		197022	0.718
>	In	115		**ug/L**		274484	274483.660
	Sn	120	**52.905**	**ug/L**	2.186	356455	1.298
	Sb	121	**51.052**	**ug/L**	3.196	289329	1.053
	Sb	123		**ug/L**		225349	0.820
	Ba	135		**ug/L**		92506	0.169
	Ba	137	**52.614**	**ug/L**	4.889	165069	0.301
	Ho	165		**ug/L**		54	0.000
>	Lu	175		**ug/L**		548316	548316.089
	Tl	205	**56.804**	**ug/L**	5.587	1142544	2.086
	Pb	208	**55.898**	**ug/L**	4.836	2015637	3.681
	Bi	209		**ug/L**		643	0.001
	Th	232	**52.912**	**ug/L**	6.211	2381725	4.351
	U	238	**54.719**	**ug/L**	5.782	2632958	4.810

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.570				
	Be	9	104.329				
	B	11	100.753				
	Na	23	96.425				
	Mg	24	102.990				
	Al	27	95.921				
	P	31	106.985				
	K	39	93.362				
	Ca	43	100.903				
>	Sc	45		103.4			
	Ti	47	105.362				
	V	51	104.190				
	Cr	52	107.848				
	Cr	53					
	Mn	55	109.293				
	Fe	57	108.893				
	Co	59	107.968				
	Ni	60	109.167				
	Cu	63					
	Cu	65	108.385				
	Zn	66	105.205				
	Zn	67					
	Zn	68					
>	Ge	74		102.5			
	As	75	100.387				
	Se	77					
	Se	82	105.467				
	Kr	83					
	Sr	88	108.487				
	Y	89					
	Mo	98	103.104				
	Ag	107	105.323				
	Cd	111	103.781				
	Cd	114					
>	In	115		101.2			
	Sn	120	105.810				
	Sb	121	102.105				
	Sb	123					
	Ba	135					
	Ba	137	105.229				
	Ho	165					
>	Lu	175		99.8			
	Tl	205	113.608				
	Pb	208	111.796				
	Bi	209					
	Th	232	105.824				
	U	238	109.437				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Tl	205	CCV is out of limits (+/- 10%)
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, March 02, 2010 05:21:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 7.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.033	ug/L	7.038	182	0.000
	Be	9	0.005	ug/L	152.458	14	0.000
	B	11	3.049	ug/L	14.403	1913	0.001
	Na	23	2.832	ug/L	57.335	26025	0.011
	Mg	24	1.968	ug/L	101.702	7002	0.005
	Al	27	1.230	ug/L	87.662	7669	0.005
	P	31	-1.851	ug/L	22.943	5341	-0.000
	K	39	-5.743	ug/L	43.039	492001	-0.028
	Ca	43	1.790	ug/L	168.693	183	0.000
>	Sc	45		ug/L		994202	994201.787
	Ti	47	0.092	ug/L	45.860	312	0.000
	V	51	-0.357	ug/L	108.990	-1586	-0.002
	Cr	52	0.089	ug/L	13.389	592	0.000
	Cr	53		ug/L		64408	0.002
	Mn	55	-0.056	ug/L	11.790	922	-0.000
	Fe	57	3.217	ug/L	41.556	5259	0.001
	Co	59	0.000	ug/L	649.293	97	0.000
	Ni	60	0.010	ug/L	51.885	93	0.000
	Cu	63		ug/L		287	0.000
	Cu	65	0.012	ug/L	47.170	115	0.000
	Zn	66	-0.020	ug/L	70.691	567	-0.000
	Zn	67		ug/L		8632	-0.002
	Zn	68		ug/L		1190	-0.000
>	Ge	74		ug/L		419092	419091.641
	As	75	-0.211	ug/L	5.420	-129	-0.001
	Se	77		ug/L		3983	0.002
	Se	82	0.075	ug/L	129.072	10	0.000
	Kr	83		ug/L		109	-0.000
	Sr	88	0.002	ug/L	33.028	205	0.000
	Y	89		ug/L		85	-0.000
	Mo	98	0.074	ug/L	11.328	341	0.001
	Ag	107	0.004	ug/L	46.910	72	0.000
	Cd	111	-0.003	ug/L	99.467	21	-0.000
	Cd	114		ug/L		53	0.000
>	In	115		ug/L		282774	282774.414
	Sn	120	0.020	ug/L	28.899	422	0.000
	Sb	121	0.280	ug/L	25.623	2114	0.006
	Sb	123		ug/L		1698	0.005
	Ba	135		ug/L		37	0.000
	Ba	137	0.005	ug/L	59.363	69	0.000
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		574177	574176.587
	Tl	205	0.063	ug/L	19.243	1959	0.002
	Pb	208	0.001	ug/L	92.874	524	0.000
	Bi	209		ug/L		215	-0.000
	Th	232	0.037	ug/L	15.360	2474	0.003
	U	238	0.003	ug/L	38.233	597	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		104.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Tuesday, March 02, 2010 05:27:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 10.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**895.149**	**ug/L**	1.707	1984578	2.150
	Be	9	**955.841**	**ug/L**	2.181	452008	0.490
	B	11	**2.133**	**ug/L**	10.592	1386	0.001
	Na	23	**50769.277**	**ug/L**	6.476	179013841	193.753
	Mg	24	**48788.970**	**ug/L**	1.451	122088998	132.239
	Al	27	**49769.442**	**ug/L**	2.170	169661155	183.725
	P	31	**25661.032**	**ug/L**	1.273	4562730	4.938
	K	39	**48149.095**	**ug/L**	4.337	215216154	232.506
	Ca	43	**48872.788**	**ug/L**	1.471	542116	0.587
>	Sc	45		**ug/L**		923172	923172.248
	Ti	47	**46.080**	**ug/L**	3.132	25116	0.027
	V	51	**882.706**	**ug/L**	1.370	5307584	5.749
	Cr	52	**902.737**	**ug/L**	2.541	4159240	4.507
	Cr	53		**ug/L**		612256	0.601
	Mn	55	**940.962**	**ug/L**	1.288	7316421	7.925
	Fe	57	**57917.304**	**ug/L**	1.634	8678142	9.398
	Co	59	**880.632**	**ug/L**	2.162	5210522	5.646
	Ni	60	**898.817**	**ug/L**	2.925	1161839	1.259
	Cu	63		**ug/L**		2676848	2.899
	Cu	65	**868.290**	**ug/L**	2.255	1339366	1.451
	Zn	66	**2298.975**	**ug/L**	2.305	2583096	6.701
	Zn	67		**ug/L**		412435	1.048
	Zn	68		**ug/L**		1671839	4.335
>	Ge	74		**ug/L**		385415	385414.631
	As	75	**892.491**	**ug/L**	1.441	980054	2.543
	Se	77		**ug/L**		46681	0.114
	Se	82	**492.787**	**ug/L**	1.310	56028	0.145
	Kr	83		**ug/L**		212	0.000
	Sr	88	**998.130**	**ug/L**	3.581	13160823	51.870
	Y	89		**ug/L**		461	0.001
	Mo	98	**975.753**	**ug/L**	1.567	3239840	12.766
	Ag	107	**226.335**	**ug/L**	2.648	1261527	4.971
	Cd	111	**892.205**	**ug/L**	0.914	1314862	5.181
	Cd	114		**ug/L**		3117880	12.285
>	In	115		**ug/L**		253801	253800.638
	Sn	120	**866.349**	**ug/L**	1.492	5394621	21.257
	Sb	121	**233.742**	**ug/L**	0.475	1223879	4.821
	Sb	123		**ug/L**		982150	3.869
	Ba	135		**ug/L**		1438358	2.798
	Ba	137	**892.865**	**ug/L**	0.187	2630107	5.115
	Ho	165		**ug/L**		146	0.000
>	Lu	175		**ug/L**		514161	514161.425
	Tl	205	**468.372**	**ug/L**	1.933	8845102	17.203
	Pb	208	**4725.749**	**ug/L**	0.999	160001371	311.197
	Bi	209		**ug/L**		4791	0.009
	Th	232	**2514.058**	**ug/L**	0.747	106296336	206.743
	U	238	**5297.744**	**ug/L**	1.129	239432230	465.697

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7	89.515				
|	Be	9	95.584				
|	B	11					
|	Na	23	101.539				
|	Mg	24	97.578				
|	Al	27	99.539				
|	P	31	102.644				
|	K	39	96.298				
|	Ca	43	97.746				
|>	Sc	45		96.8			
|	Ti	47					
|	V	51	88.271				
|	Cr	52	90.274				
|	Cr	53					
|	Mn	55	94.096				
|	Fe	57	115.835				
|	Co	59	88.063				
|	Ni	60	89.882				
|	Cu	63					
⌊	Cu	65	86.829				
⌈	Zn	66	91.959				
|	Zn	67					
|	Zn	68					
|>	Ge	74		96.1			
|	As	75	89.249				
|	Se	77					
|	Se	82	98.557				
⌊	Kr	83					
⌈	Sr	88	99.813				
|	Y	89					
|	Mo	98	97.575				
|	Ag	107	90.534				
|	Cd	111	89.221				
|	Cd	114					
|>	In	115		93.6			
|	Sn	120	86.635				
|	Sb	121	93.497				
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137	89.287				
|	Ho	165					
|>	Lu	175		93.6			
|	Tl	205	93.674				
|	Pb	208	94.515				
|	Bi	209					
|	Th	232	100.562				
⌊	U	238	105.955				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	V	51	LRS is out of limits (+/- 10%)
QC Std 10	Fe	57	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)

QC Std 10	Cd	111LRS is out of limits (+/- 10%)
QC Std 10	Sn	120LRS is out of limits (+/- 10%)
QC Std 10	Ba	137LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Tuesday, March 02, 2010 05:34:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 11.227

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.298**	**ug/L**	1.152	124463	0.126
	Be	9	**52.599**	**ug/L**	1.351	26691	0.027
	B	11	**102.994**	**ug/L**	1.550	47558	0.048
	Na	23	**5581.540**	**ug/L**	13.123	21074342	21.301
	Mg	24	**5431.464**	**ug/L**	6.200	14566948	14.722
	Al	27	**5103.957**	**ug/L**	12.820	18626451	18.841
	P	31	**5415.153**	**ug/L**	1.629	1037116	1.042
	K	39	**4954.887**	**ug/L**	2.912	24211817	23.927
	Ca	43	**5102.096**	**ug/L**	2.759	60843	0.061
>	Sc	45		**ug/L**		990132	990131.619
	Ti	47	**53.128**	**ug/L**	1.795	31024	0.031
	V	51	**53.157**	**ug/L**	3.458	343391	0.346
	Cr	52	**54.183**	**ug/L**	1.526	267930	0.270
	Cr	53		**ug/L**		94881	0.033
	Mn	55	**54.475**	**ug/L**	0.529	455615	0.459
	Fe	57	**5436.328**	**ug/L**	3.275	877756	0.882
	Co	59	**53.838**	**ug/L**	3.704	341661	0.345
	Ni	60	**55.170**	**ug/L**	2.967	76561	0.077
	Cu	63		**ug/L**		182221	0.184
	Cu	65	**54.406**	**ug/L**	0.546	90113	0.091
	Zn	66	**52.914**	**ug/L**	3.103	64296	0.154
	Zn	67		**ug/L**		19518	0.025
	Zn	68		**ug/L**		47457	0.112
>	Ge	74		**ug/L**		413175	413175.255
	As	75	**50.411**	**ug/L**	2.459	59447	0.144
	Se	77		**ug/L**		8430	0.013
	Se	82	**53.041**	**ug/L**	3.108	6464	0.016
	Kr	83		**ug/L**		128	0.000
	Sr	88	**55.452**	**ug/L**	1.961	794228	2.882
	Y	89		**ug/L**		102	0.000
	Mo	98	**52.071**	**ug/L**	2.620	187764	0.681
	Ag	107	**52.934**	**ug/L**	2.609	320377	1.163
	Cd	111	**52.801**	**ug/L**	2.824	84495	0.307
	Cd	114		**ug/L**		199063	0.722
>	In	115		**ug/L**		275636	275636.336
	Sn	120	**53.157**	**ug/L**	3.251	359561	1.304
	Sb	121	**52.879**	**ug/L**	2.629	300937	1.091
	Sb	123		**ug/L**		238210	0.863
	Ba	135		**ug/L**		95020	0.172
	Ba	137	**53.160**	**ug/L**	2.144	168399	0.305
	Ho	165		**ug/L**		47	0.000
>	Lu	175		**ug/L**		552859	552859.191
	Tl	205	**56.746**	**ug/L**	1.433	1152842	2.084
	Pb	208	**55.795**	**ug/L**	1.694	2031524	3.674
	Bi	209		**ug/L**		585	0.001
	Th	232	**54.243**	**ug/L**	0.284	2466801	4.461
	U	238	**56.037**	**ug/L**	1.138	2723700	4.926

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	104.596				
	Be	9	105.197				
	B	11	102.994				
	Na	23	111.631				
	Mg	24	108.629				
	Al	27	101.068				
	P	31	108.303				
	K	39	99.098				
	Ca	43	102.042				
>	Sc	45		103.8			
	Ti	47	106.257				
	V	51	106.314				
	Cr	52	108.366				
	Cr	53					
	Mn	55	108.949				
	Fe	57	108.727				
	Co	59	107.675				
	Ni	60	110.340				
	Cu	63					
	Cu	65	108.811				
	Zn	66	105.829				
	Zn	67					
	Zn	68					
>	Ge	74		103.0			
	As	75	100.822				
	Se	77					
	Se	82	106.083				
	Kr	83					
	Sr	88	110.904				
	Y	89					
	Mo	98	104.142				
	Ag	107	105.869				
	Cd	111	105.602				
	Cd	114					
>	In	115		101.7			
	Sn	120	106.313				
	Sb	121	105.758				
	Sb	123					
	Ba	135					
	Ba	137	106.321				
	Ho	165					
>	Lu	175		100.6			
	Tl	205	113.492				
	Pb	208	111.591				
	Bi	209					
	Th	232	108.487				
	U	238	112.074				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	Ni	60	CCV is out of limits (+/- 10%)
QC Std 11	Sr	88	CCV is out of limits (+/- 10%)
QC Std 11	Tl	205	CCV is out of limits (+/- 10%)
QC Std 11	Pb	208	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Tuesday, March 02, 2010 05:40:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 12.228

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.077**	ug/L	15.134	285	0.000
	Be	9	**0.026**	ug/L	28.722	25	0.000
	B	11	**3.148**	ug/L	18.829	1955	0.001
	Na	23	**1.174**	ug/L	27.967	19680	0.004
	Mg	24	**1.092**	ug/L	19.228	4667	0.003
	Al	27	**0.879**	ug/L	35.366	6335	0.003
	P	31	**-3.028**	ug/L	24.560	5100	-0.001
	K	39	**4.654**	ug/L	193.627	540055	0.022
	Ca	43	**2.807**	ug/L	96.380	195	0.000
>	Sc	45		ug/L		991138	991138.107
	Ti	47	**0.056**	ug/L	95.691	290	0.000
	V	51	**-0.154**	ug/L	333.068	-254	-0.001
	Cr	52	**0.035**	ug/L	68.641	326	0.000
	Cr	53		ug/L		63745	0.002
	Mn	55	**-0.037**	ug/L	12.186	1077	-0.000
	Fe	57	**1.029**	ug/L	16.304	4892	0.000
	Co	59	**0.029**	ug/L	17.652	280	0.000
	Ni	60	**0.033**	ug/L	17.882	125	0.000
	Cu	63		ug/L		413	0.000
	Cu	65	**0.024**	ug/L	8.676	134	0.000
	Zn	66	**-0.013**	ug/L	156.283	572	-0.000
	Zn	67		ug/L		9166	-0.000
	Zn	68		ug/L		1298	0.000
>	Ge	74		ug/L		416845	416845.322
	As	75	**-0.149**	ug/L	90.110	-56	-0.000
	Se	77		ug/L		3662	0.001
	Se	82	**-0.121**	ug/L	128.031	-14	-0.000
	Kr	83		ug/L		132	0.000
	Sr	88	**0.009**	ug/L	24.736	294	0.000
	Y	89		ug/L		66	-0.000
	Mo	98	**0.120**	ug/L	15.464	504	0.002
	Ag	107	**0.003**	ug/L	47.048	69	0.000
	Cd	111	**0.002**	ug/L	357.143	29	0.000
	Cd	114		ug/L		66	0.000
>	In	115		ug/L		278820	278819.610
	Sn	120	**0.135**	ug/L	14.793	1202	0.003
	Sb	121	**0.765**	ug/L	18.041	4864	0.016
	Sb	123		ug/L		3922	0.013
	Ba	135		ug/L		54	0.000
	Ba	137	**0.010**	ug/L	14.463	85	0.000
	Ho	165		ug/L		16	-0.000
>	Lu	175		ug/L		562966	562966.110
	Tl	205	**0.252**	ug/L	11.452	5823	0.009
	Pb	208	**0.038**	ug/L	7.568	1910	0.003
	Bi	209		ug/L		233	0.000
	Th	232	**0.096**	ug/L	9.076	5175	0.008
	U	238	**0.056**	ug/L	8.273	3198	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202034073
Sample Date/Time: Tuesday, March 02, 2010 05:46:18
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 949400|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\1202034073.229

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.178**	**ug/L**	2.693	491	0.000
	Be	9	**0.015**	**ug/L**	96.002	18	0.000
	B	11	**1.427**	**ug/L**	19.304	1089	0.001
	Na	23	**7.132**	**ug/L**	28.867	39389	0.027
	Mg	24	**0.553**	**ug/L**	72.944	3000	0.001
	Al	27	**5.203**	**ug/L**	42.817	20683	0.019
	P	31	**0.338**	**ug/L**	147.950	5359	0.000
	K	39	**18.728**	**ug/L**	13.583	567036	0.090
	Ca	43	**23.941**	**ug/L**	4.561	417	0.000
>	Sc	45		**ug/L**		925078	925078.116
	Ti	47	**0.529**	**ug/L**	13.156	526	0.000
	V	51	**-3.577**	**ug/L**	19.835	-20856	-0.023
	Cr	52	**-0.477**	**ug/L**	24.276	-2060	-0.002
	Cr	53		**ug/L**		177703	0.130
	Mn	55	**0.155**	**ug/L**	8.797	2504	0.001
	Fe	57	**9.720**	**ug/L**	4.594	5871	0.002
	Co	59	**0.025**	**ug/L**	3.487	237	0.000
	Ni	60	**0.126**	**ug/L**	9.209	237	0.000
	Cu	63		**ug/L**		696	0.001
	Cu	65	**0.100**	**ug/L**	10.491	242	0.000
	Zn	66	**1.342**	**ug/L**	1.739	2026	0.004
	Zn	67		**ug/L**		36812	0.074
	Zn	68		**ug/L**		3662	0.007
>	Ge	74		**ug/L**		380677	380677.257
	As	75	**-0.305**	**ug/L**	79.254	-219	-0.001
	Se	77		**ug/L**		11237	0.022
	Se	82	**0.083**	**ug/L**	7.513	10	0.000
	Kr	83		**ug/L**		116	0.000
	Sr	88	**0.102**	**ug/L**	4.041	1542	0.005
	Y	89		**ug/L**		93	0.000
	Mo	98	**0.074**	**ug/L**	11.286	314	0.001
	Ag	107	**0.001**	**ug/L**	304.268	48	0.000
	Cd	111	**0.001**	**ug/L**	547.409	26	0.000
	Cd	114		**ug/L**		33	-0.000
>	In	115		**ug/L**		259899	259898.533
	Sn	120	**0.465**	**ug/L**	20.022	3223	0.011
	Sb	121	**0.507**	**ug/L**	26.229	3159	0.010
	Sb	123		**ug/L**		2519	0.008
	Ba	135		**ug/L**		132	0.000
	Ba	137	**0.053**	**ug/L**	13.178	217	0.000
	Ho	165		**ug/L**		20	0.000
>	Lu	175		**ug/L**		544812	544811.611
	Tl	205	**0.105**	**ug/L**	1.206	2709	0.004
	Pb	208	**0.026**	**ug/L**	11.635	1387	0.002
	Bi	209		**ug/L**		259	0.000
	Th	232	**0.100**	**ug/L**	16.704	5170	0.008
	U	238	**0.023**	**ug/L**	23.025	1490	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202034074
Sample Date/Time: Tuesday, March 02, 2010 05:52:24
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 949400|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\1202034074.230

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.183**	**ug/L**	1.514	115559	0.125
	Be	9	**54.901**	**ug/L**	0.256	25925	0.028
	B	11	**109.245**	**ug/L**	1.355	46913	0.050
	Na	23	**2089.241**	**ug/L**	2.300	7359101	7.973
	Mg	24	**2030.699**	**ug/L**	3.624	5071795	5.504
	Al	27	**2090.713**	**ug/L**	1.230	7112932	7.718
	P	31	**2306.407**	**ug/L**	1.415	414095	0.444
	K	39	**2155.227**	**ug/L**	3.549	10070242	10.407
	Ca	43	**2130.017**	**ug/L**	2.293	23724	0.026
>	Sc	45		**ug/L**		921250	921249.680
	Ti	47	**48.508**	**ug/L**	1.265	26381	0.028
	V	51	**49.946**	**ug/L**	2.993	300388	0.325
	Cr	52	**54.237**	**ug/L**	0.744	249579	0.271
	Cr	53		**ug/L**		217886	0.174
	Mn	55	**56.244**	**ug/L**	0.636	437667	0.474
	Fe	57	**2385.257**	**ug/L**	1.095	360937	0.387
	Co	59	**55.701**	**ug/L**	1.072	329046	0.357
	Ni	60	**56.081**	**ug/L**	1.275	72435	0.079
	Cu	63		**ug/L**		175312	0.190
	Cu	65	**56.369**	**ug/L**	1.207	86873	0.094
	Zn	66	**55.071**	**ug/L**	1.370	61487	0.161
	Zn	67		**ug/L**		50872	0.112
	Zn	68		**ug/L**		45896	0.118
>	Ge	74		**ug/L**		379737	379736.831
	As	75	**52.941**	**ug/L**	3.326	57371	0.151
	Se	77		**ug/L**		16735	0.037
	Se	82	**56.193**	**ug/L**	2.640	6295	0.017
	Kr	83		**ug/L**		132	0.000
	Sr	88	**55.566**	**ug/L**	2.937	748862	2.888
	Y	89		**ug/L**		140	0.000
	Mo	98	**51.897**	**ug/L**	1.199	176157	0.679
	Ag	107	**55.763**	**ug/L**	1.379	317663	1.225
	Cd	111	**52.634**	**ug/L**	1.484	79283	0.306
	Cd	114		**ug/L**		192083	0.741
>	In	115		**ug/L**		259352	259352.448
	Sn	120	**54.209**	**ug/L**	2.453	345156	1.330
	Sb	121	**56.857**	**ug/L**	1.929	304500	1.173
	Sb	123		**ug/L**		241768	0.931
	Ba	135		**ug/L**		90465	0.165
	Ba	137	**50.786**	**ug/L**	3.048	159724	0.291
	Ho	165		**ug/L**		51	0.000
>	Lu	175		**ug/L**		549055	549055.101
	Tl	205	**53.781**	**ug/L**	2.548	1084731	1.975
	Pb	208	**56.242**	**ug/L**	3.212	2033023	3.704
	Bi	209		**ug/L**		1622348	2.955
	Th	232	**52.196**	**ug/L**	1.907	2356822	4.292
	U	238	**54.325**	**ug/L**	2.536	2621377	4.775

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246056001
Sample Date/Time: Tuesday, March 02, 2010 05:58:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949400|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\246056001.231

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.457**	ug/L	3.682	1095	0.001
	Be	9	**0.015**	ug/L	109.326	18	0.000
	B	11	**31.788**	ug/L	1.324	13841	0.015
	Na	23	**200.123**	ug/L	1.868	710235	0.764
	Mg	24	**23.699**	ug/L	7.965	60127	0.064
	Al	27	**135.279**	ug/L	6.537	457905	0.499
	P	31	**3.584**	ug/L	48.782	5850	0.001
	K	39	**175.236**	ug/L	2.137	1247529	0.846
	Ca	43	**73.767**	ug/L	15.771	955	0.001
>	Sc	45		ug/L		911494	911494.318
	Ti	47	**3.631**	ug/L	1.381	2173	0.002
	V	51	**-3.086**	ug/L	78.969	-17632	-0.020
	Cr	52	**1.443**	ug/L	2.405	6706	0.007
	Cr	53		ug/L		189389	0.145
	Mn	55	**2.999**	ug/L	2.564	24299	0.025
	Fe	57	**99.644**	ug/L	1.782	19082	0.016
	Co	59	**0.060**	ug/L	13.071	435	0.000
	Ni	60	**0.409**	ug/L	4.302	594	0.001
	Cu	63		ug/L		6130	0.007
	Cu	65	**1.861**	ug/L	1.389	2922	0.003
	Zn	66	**3.356**	ug/L	2.418	4220	0.010
	Zn	67		ug/L		41600	0.088
	Zn	68		ug/L		5577	0.012
>	Ge	74		ug/L		377005	377004.920
	As	75	**-0.977**	ug/L	35.252	-939	-0.003
	Se	77		ug/L		11794	0.024
	Se	82	**0.049**	ug/L	77.464	6	0.000
	Kr	83		ug/L		105	-0.000
	Sr	88	**0.447**	ug/L	1.402	6175	0.023
	Y	89		ug/L		1008	0.004
	Mo	98	**0.059**	ug/L	0.852	262	0.001
	Ag	107	**0.012**	ug/L	31.060	114	0.000
	Cd	111	**0.014**	ug/L	83.202	45	0.000
	Cd	114		ug/L		28	-0.000
>	In	115		ug/L		259211	259211.304
	Sn	120	**1.341**	ug/L	1.745	8789	0.033
	Sb	121	**0.073**	ug/L	17.103	832	0.002
	Sb	123		ug/L		692	0.001
	Ba	135		ug/L		2878	0.005
	Ba	137	**1.555**	ug/L	0.474	4929	0.009
	Ho	165		ug/L		95	0.000
>	Lu	175		ug/L		547639	547638.687
	Tl	205	**0.616**	ug/L	18.091	12996	0.023
	Pb	208	**1.368**	ug/L	1.424	49787	0.090
	Bi	209		ug/L		791	0.001
	Th	232	**0.091**	ug/L	20.057	4807	0.007
	U	238	**0.054**	ug/L	5.937	2991	0.005

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202034076
Sample Date/Time: Tuesday, March 02, 2010 06:10:43
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 949400|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\1202034076.233

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.556**	**ug/L**	0.877	115033	0.131
	Be	9	**56.406**	**ug/L**	1.458	25357	0.029
	B	11	**139.716**	**ug/L**	3.075	56983	0.064
	Na	23	**2300.258**	**ug/L**	1.805	7714519	8.779
	Mg	24	**2173.050**	**ug/L**	3.230	5171347	5.890
	Al	27	**2180.830**	**ug/L**	4.616	7059913	8.051
	P	31	**2260.844**	**ug/L**	1.504	386556	0.435
	K	39	**2444.682**	**ug/L**	5.033	10805845	11.805
	Ca	43	**2220.772**	**ug/L**	0.397	23547	0.027
>	Sc	45		**ug/L**		877260	877260.428
	Ti	47	**52.371**	**ug/L**	0.942	27100	0.031
	V	51	**47.830**	**ug/L**	4.912	273759	0.312
	Cr	52	**58.480**	**ug/L**	2.575	256183	0.292
	Cr	53		**ug/L**		216055	0.184
	Mn	55	**63.770**	**ug/L**	2.634	472184	0.537
	Fe	57	**4326.658**	**ug/L**	2.470	619805	0.702
	Co	59	**57.492**	**ug/L**	0.935	323366	0.369
	Ni	60	**58.074**	**ug/L**	2.115	71406	0.081
	Cu	63		**ug/L**		178656	0.203
	Cu	65	**59.703**	**ug/L**	1.271	87594	0.100
	Zn	66	**56.211**	**ug/L**	2.141	60051	0.164
	Zn	67		**ug/L**		50163	0.116
	Zn	68		**ug/L**		45426	0.122
>	Ge	74		**ug/L**		363452	363451.732
	As	75	**85.983**	**ug/L**	1.627	89139	0.245
	Se	77		**ug/L**		13854	0.031
	Se	82	**22.845**	**ug/L**	0.320	2450	0.007
	Kr	83		**ug/L**		131	0.000
	Sr	88	**57.705**	**ug/L**	1.364	758457	2.999
	Y	89		**ug/L**		1031	0.004
	Mo	98	**52.572**	**ug/L**	1.820	173980	0.688
	Ag	107	**55.483**	**ug/L**	1.654	308200	1.219
	Cd	111	**11.502**	**ug/L**	2.505	16910	0.067
	Cd	114		**ug/L**		38488	0.152
>	In	115		**ug/L**		252924	252923.663
	Sn	120	**55.751**	**ug/L**	1.344	346155	1.368
	Sb	121	**214.803**	**ug/L**	1.653	1120589	4.430
	Sb	123		**ug/L**		907421	3.587
	Ba	135		**ug/L**		103266	0.188
	Ba	137	**58.113**	**ug/L**	1.087	182820	0.333
	Ho	165		**ug/L**		394	0.001
>	Lu	175		**ug/L**		548965	548964.931
	Tl	205	**101.742**	**ug/L**	3.145	2051672	3.737
	Pb	208	**48.597**	**ug/L**	1.222	1757084	3.200
	Bi	209		**ug/L**		946	0.001
	Th	232	**54.994**	**ug/L**	1.567	2483412	4.522
	U	238	**56.100**	**ug/L**	1.821	2707314	4.931

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202034077
Sample Date/Time: Tuesday, March 02, 2010 06:16:51
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 949400|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\1202034077.234

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.074**	**ug/L**	2.104	252	0.000
	Be	9	**0.008**	**ug/L**	111.715	14	0.000
	B	11	**9.231**	**ug/L**	7.398	4287	0.004
	Na	23	**34.803**	**ug/L**	6.288	132951	0.133
	Mg	24	**5.538**	**ug/L**	34.836	15008	0.015
	Al	27	**27.026**	**ug/L**	9.660	92299	0.100
	P	31	**1.881**	**ug/L**	120.999	5463	0.000
	K	39	**36.075**	**ug/L**	34.792	624764	0.174
	Ca	43	**17.563**	**ug/L**	7.125	335	0.000
>	Sc	45		**ug/L**		896828	896827.959
	Ti	47	**0.874**	**ug/L**	1.472	691	0.001
	V	51	**-1.252**	**ug/L**	62.328	-6661	-0.008
	Cr	52	**0.532**	**ug/L**	7.263	2520	0.003
	Cr	53		**ug/L**		93016	0.041
	Mn	55	**0.582**	**ug/L**	2.949	5649	0.005
	Fe	57	**21.212**	**ug/L**	6.807	7363	0.003
	Co	59	**0.022**	**ug/L**	7.593	209	0.000
	Ni	60	**0.117**	**ug/L**	3.255	219	0.000
	Cu	63		**ug/L**		1638	0.002
	Cu	65	**0.381**	**ug/L**	2.971	656	0.001
	Zn	66	**1.117**	**ug/L**	4.266	1748	0.003
	Zn	67		**ug/L**		14611	0.017
	Zn	68		**ug/L**		2496	0.004
>	Ge	74		**ug/L**		374515	374514.785
	As	75	**-0.273**	**ug/L**	32.839	-181	-0.001
	Se	77		**ug/L**		5849	0.008
	Se	82	**0.059**	**ug/L**	183.629	7	0.000
	Kr	83		**ug/L**		101	-0.000
	Sr	88	**0.091**	**ug/L**	2.456	1397	0.005
	Y	89		**ug/L**		224	0.001
	Mo	98	**0.030**	**ug/L**	12.165	165	0.000
	Ag	107	**0.001**	**ug/L**	153.630	54	0.000
	Cd	111	**-0.005**	**ug/L**	87.825	17	-0.000
	Cd	114		**ug/L**		22	-0.000
>	In	115		**ug/L**		262489	262489.101
	Sn	120	**0.270**	**ug/L**	3.941	1999	0.007
	Sb	121	**0.009**	**ug/L**	137.650	493	0.000
	Sb	123		**ug/L**		403	0.000
	Ba	135		**ug/L**		582	0.001
	Ba	137	**0.304**	**ug/L**	1.289	1001	0.002
	Ho	165		**ug/L**		34	0.000
>	Lu	175		**ug/L**		545356	545355.871
	Tl	205	**1.324**	**ug/L**	16.773	27153	0.049
	Pb	208	**0.276**	**ug/L**	2.986	10384	0.018
	Bi	209		**ug/L**		319	0.000
	Th	232	**0.022**	**ug/L**	18.380	1711	0.002
	U	238	**0.007**	**ug/L**	3.374	738	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246056002
Sample Date/Time: Tuesday, March 02, 2010 06:22:58
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949400|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\246056002.235

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.312**	**ug/L**	1.981	713	0.001
	Be	9	**0.004**	**ug/L**	211.468	12	0.000
	B	11	**30.600**	**ug/L**	3.205	12241	0.014
	Na	23	**149.328**	**ug/L**	7.314	489254	0.570
	Mg	24	**5.984**	**ug/L**	26.583	15008	0.016
	Al	27	**12.312**	**ug/L**	19.735	40726	0.045
	P	31	**2.799**	**ug/L**	21.355	5243	0.001
	K	39	**168.747**	**ug/L**	16.917	1117993	0.815
	Ca	43	**50.333**	**ug/L**	14.026	641	0.001
>	Sc	45		**ug/L**		836523	836523.485
	Ti	47	**1.033**	**ug/L**	2.134	723	0.001
	V	51	**-1.831**	**ug/L**	48.195	-9377	-0.012
	Cr	52	**0.812**	**ug/L**	10.216	3517	0.004
	Cr	53		**ug/L**		179545	0.152
	Mn	55	**0.444**	**ug/L**	2.882	4296	0.004
	Fe	57	**22.020**	**ug/L**	4.626	6977	0.004
	Co	59	**0.020**	**ug/L**	9.488	187	0.000
	Ni	60	**0.158**	**ug/L**	12.313	251	0.000
	Cu	63		**ug/L**		4816	0.006
	Cu	65	**1.505**	**ug/L**	0.230	2184	0.003
	Zn	66	**1.894**	**ug/L**	5.253	2465	0.006
	Zn	67		**ug/L**		37503	0.083
	Zn	68		**ug/L**		4085	0.008
>	Ge	74		**ug/L**		355653	355652.760
	As	75	**-0.091**	**ug/L**	800.956	14	-0.000
	Se	77		**ug/L**		12066	0.026
	Se	82	**0.088**	**ug/L**	138.483	10	0.000
	Kr	83		**ug/L**		94	-0.000
	Sr	88	**0.205**	**ug/L**	4.191	2839	0.011
	Y	89		**ug/L**		137	0.000
	Mo	98	**0.026**	**ug/L**	5.177	147	0.000
	Ag	107	**0.002**	**ug/L**	5.324	56	0.000
	Cd	111	**-0.006**	**ug/L**	61.459	14	-0.000
	Cd	114		**ug/L**		34	-0.000
>	In	115		**ug/L**		251662	251662.361
	Sn	120	**0.305**	**ug/L**	2.817	2135	0.007
	Sb	121	**-0.007**	**ug/L**	58.556	391	-0.000
	Sb	123		**ug/L**		294	-0.000
	Ba	135		**ug/L**		402	0.001
	Ba	137	**0.201**	**ug/L**	4.904	679	0.001
	Ho	165		**ug/L**		23	0.000
>	Lu	175		**ug/L**		544563	544562.741
	Tl	205	**0.453**	**ug/L**	8.585	9663	0.017
	Pb	208	**0.151**	**ug/L**	2.180	5873	0.010
	Bi	209		**ug/L**		247	0.000
	Th	232	**0.016**	**ug/L**	22.296	1437	0.001
	U	238	**0.030**	**ug/L**	4.667	1831	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		87.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		88.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246056003
Sample Date/Time: Tuesday, March 02, 2010 06:29:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949400|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\246056003.236

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.471**	**ug/L**	1.915	1039	0.001
	Be	9	**0.044**	**ug/L**	16.612	29	0.000
	B	11	**28.460**	**ug/L**	1.068	11494	0.013
	Na	23	**209.829**	**ug/L**	8.057	687569	0.801
	Mg	24	**44.799**	**ug/L**	9.411	103711	0.121
	Al	27	**325.828**	**ug/L**	1.496	1015531	1.203
	P	31	**3.024**	**ug/L**	24.702	5313	0.001
	K	39	**236.316**	**ug/L**	5.436	1400854	1.141
	Ca	43	**115.031**	**ug/L**	2.580	1301	0.001
>	Sc	45		**ug/L**		842088	842087.540
	Ti	47	**4.992**	**ug/L**	2.678	2677	0.003
	V	51	**-3.541**	**ug/L**	33.263	-18804	-0.023
	Cr	52	**1.419**	**ug/L**	2.938	6095	0.007
	Cr	53		**ug/L**		181833	0.153
	Mn	55	**2.914**	**ug/L**	2.806	21841	0.025
	Fe	57	**204.268**	**ug/L**	2.583	31922	0.033
	Co	59	**0.094**	**ug/L**	1.988	587	0.001
	Ni	60	**0.501**	**ug/L**	3.534	658	0.001
	Cu	63		**ug/L**		6017	0.007
	Cu	65	**1.950**	**ug/L**	5.784	2823	0.003
	Zn	66	**2.089**	**ug/L**	4.229	2645	0.006
	Zn	67		**ug/L**		38372	0.086
	Zn	68		**ug/L**		4292	0.009
>	Ge	74		**ug/L**		352651	352650.817
	As	75	**-0.796**	**ug/L**	28.780	-697	-0.002
	Se	77		**ug/L**		12300	0.027
	Se	82	**0.050**	**ug/L**	347.111	6	0.000
	Kr	83		**ug/L**		107	0.000
	Sr	88	**0.754**	**ug/L**	2.999	9951	0.039
	Y	89		**ug/L**		2313	0.009
	Mo	98	**0.042**	**ug/L**	3.475	197	0.001
	Ag	107	**0.007**	**ug/L**	22.429	84	0.000
	Cd	111	**0.001**	**ug/L**	103.120	25	0.000
	Cd	114		**ug/L**		28	-0.000
>	In	115		**ug/L**		250256	250255.631
	Sn	120	**0.505**	**ug/L**	3.158	3349	0.012
	Sb	121	**-0.021**	**ug/L**	17.006	315	-0.000
	Sb	123		**ug/L**		264	-0.000
	Ba	135		**ug/L**		3854	0.007
	Ba	137	**2.152**	**ug/L**	4.753	6815	0.012
	Ho	165		**ug/L**		211	0.000
>	Lu	175		**ug/L**		549001	549001.409
	Tl	205	**0.271**	**ug/L**	6.993	6072	0.010
	Pb	208	**0.533**	**ug/L**	2.594	19721	0.035
	Bi	209		**ug/L**		312	0.000
	Th	232	**0.097**	**ug/L**	1.479	5088	0.008
	U	238	**0.170**	**ug/L**	3.155	8626	0.015

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		88.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 246056004
Sample Date/Time: Tuesday, March 02, 2010 06:35:09
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 949400|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\246056004.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.302**	**ug/L**	1.455	686	0.001
	Be	9	**0.021**	**ug/L**	62.914	19	0.000
	B	11	**28.848**	**ug/L**	1.360	11467	0.013
	Na	23	**133.804**	**ug/L**	2.299	436230	0.511
	Mg	24	**7.547**	**ug/L**	28.924	18346	0.020
	Al	27	**13.104**	**ug/L**	13.947	42731	0.048
	P	31	**3.889**	**ug/L**	34.985	5371	0.001
	K	39	**155.724**	**ug/L**	17.638	1055802	0.752
	Ca	43	**50.133**	**ug/L**	2.935	635	0.001
>	Sc	45		**ug/L**		829346	829346.443
	Ti	47	**1.139**	**ug/L**	6.290	768	0.001
	V	51	**-4.482**	**ug/L**	18.277	-23543	-0.029
	Cr	52	**0.922**	**ug/L**	14.718	3942	0.005
	Cr	53		**ug/L**		182611	0.158
	Mn	55	**0.685**	**ug/L**	4.825	5944	0.006
	Fe	57	**23.074**	**ug/L**	7.367	7057	0.004
	Co	59	**0.022**	**ug/L**	8.493	197	0.000
	Ni	60	**0.218**	**ug/L**	11.255	319	0.000
	Cu	63		**ug/L**		4772	0.006
	Cu	65	**1.519**	**ug/L**	2.668	2183	0.003
	Zn	66	**2.822**	**ug/L**	4.098	3364	0.008
	Zn	67		**ug/L**		38459	0.088
	Zn	68		**ug/L**		4701	0.010
>	Ge	74		**ug/L**		349209	349208.751
	As	75	**-0.419**	**ug/L**	192.553	-323	-0.001
	Se	77		**ug/L**		12554	0.028
	Se	82	**0.157**	**ug/L**	107.931	17	0.000
	Kr	83		**ug/L**		86	-0.000
	Sr	88	**0.209**	**ug/L**	1.602	2836	0.011
	Y	89		**ug/L**		225	0.001
	Mo	98	**0.032**	**ug/L**	8.207	164	0.000
	Ag	107	**0.004**	**ug/L**	9.069	65	0.000
	Cd	111	**-0.002**	**ug/L**	437.336	21	-0.000
	Cd	114		**ug/L**		39	0.000
>	In	115		**ug/L**		247670	247669.712
	Sn	120	**1.008**	**ug/L**	1.233	6373	0.025
	Sb	121	**-0.021**	**ug/L**	21.066	316	-0.000
	Sb	123		**ug/L**		247	-0.000
	Ba	135		**ug/L**		722	0.001
	Ba	137	**0.401**	**ug/L**	5.079	1295	0.002
	Ho	165		**ug/L**		31	0.000
>	Lu	175		**ug/L**		541200	541199.996
	Tl	205	**0.190**	**ug/L**	4.076	4365	0.007
	Pb	208	**3.580**	**ug/L**	1.846	128039	0.236
	Bi	209		**ug/L**		464	0.000
	Th	232	**0.005**	**ug/L**	19.691	926	0.000
	U	238	**0.032**	**ug/L**	5.256	1908	0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		86.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Tuesday, March 02, 2010 06:41:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 8.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**53.298**	**ug/L**	1.014	110932	0.128
	Be	9	**51.534**	**ug/L**	1.143	22871	0.026
	B	11	**95.043**	**ug/L**	2.272	38419	0.044
	Na	23	**4590.575**	**ug/L**	3.710	15180732	17.519
	Mg	24	**4566.365**	**ug/L**	4.387	10713998	12.377
	Al	27	**4585.965**	**ug/L**	4.348	14655598	16.929
	P	31	**5063.105**	**ug/L**	1.672	848417	0.974
	K	39	**4996.980**	**ug/L**	6.270	21344470	24.130
	Ca	43	**4992.265**	**ug/L**	1.152	52079	0.060
>	Sc	45		**ug/L**		865871	865870.850
	Ti	47	**51.430**	**ug/L**	2.373	26271	0.030
	V	51	**51.087**	**ug/L**	2.246	288707	0.333
	Cr	52	**52.870**	**ug/L**	2.291	228634	0.264
	Cr	53		**ug/L**		95614	0.048
	Mn	55	**54.119**	**ug/L**	1.946	395800	0.456
	Fe	57	**5468.927**	**ug/L**	1.916	772351	0.887
	Co	59	**53.490**	**ug/L**	2.591	296976	0.343
	Ni	60	**53.867**	**ug/L**	1.680	65396	0.075
	Cu	63		**ug/L**		155280	0.179
	Cu	65	**52.437**	**ug/L**	1.635	75950	0.088
	Zn	66	**51.375**	**ug/L**	3.404	55435	0.150
	Zn	67		**ug/L**		18972	0.029
	Zn	68		**ug/L**		40978	0.109
>	Ge	74		**ug/L**		366868	366868.282
	As	75	**48.797**	**ug/L**	1.872	51101	0.139
	Se	77		**ug/L**		8595	0.016
	Se	82	**53.045**	**ug/L**	2.178	5741	0.016
	Kr	83		**ug/L**		119	0.000
	Sr	88	**53.226**	**ug/L**	1.196	696704	2.766
	Y	89		**ug/L**		132	0.000
	Mo	98	**49.736**	**ug/L**	2.354	163920	0.651
	Ag	107	**52.175**	**ug/L**	1.873	288621	1.146
	Cd	111	**51.554**	**ug/L**	2.855	75401	0.299
	Cd	114		**ug/L**		182038	0.723
>	In	115		**ug/L**		251844	251844.497
	Sn	120	**52.232**	**ug/L**	2.626	322937	1.282
	Sb	121	**49.960**	**ug/L**	3.054	259894	1.030
	Sb	123		**ug/L**		204360	0.810
	Ba	135		**ug/L**		85839	0.159
	Ba	137	**49.232**	**ug/L**	2.505	151872	0.282
	Ho	165		**ug/L**		45	0.000
>	Lu	175		**ug/L**		538357	538356.844
	Tl	205	**55.497**	**ug/L**	1.018	1097978	2.038
	Pb	208	**55.502**	**ug/L**	2.203	1967829	3.655
	Bi	209		**ug/L**		601	0.001
	Th	232	**52.167**	**ug/L**	0.147	2310214	4.290
	U	238	**54.166**	**ug/L**	1.191	2563576	4.761

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	106.597				
	Be	9	103.068				
	B	11	95.043				
	Na	23	91.812				
	Mg	24	91.327				
	Al	27	90.811				
	P	31	101.262				
	K	39	99.940				
	Ca	43	99.845				
>	Sc	45		90.8			
	Ti	47	102.860				
	V	51	102.175				
	Cr	52	105.740				
	Cr	53					
	Mn	55	108.238				
	Fe	57	109.379				
	Co	59	106.979				
	Ni	60	107.735				
	Cu	63					
	Cu	65	104.874				
	Zn	66	102.750				
	Zn	67					
	Zn	68					
>	Ge	74		91.5			
	As	75	97.593				
	Se	77					
	Se	82	106.091				
	Kr	83					
	Sr	88	106.452				
	Y	89					
	Mo	98	99.472				
	Ag	107	104.351				
	Cd	111	103.108				
	Cd	114					
>	In	115		92.9			
	Sn	120	104.463				
	Sb	121	99.920				
	Sb	123					
	Ba	135					
	Ba	137	98.465				
	Ho	165					
>	Lu	175		98.0			
	Tl	205	110.993				
	Pb	208	111.004				
	Bi	209					
	Th	232	104.335				
	U	238	108.332				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Tl	205	CCV is out of limits (+/- 10%)
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Tuesday, March 02, 2010 06:47:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100301\QC Std 9.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.003**	ug/L	203.434	94	0.000
	Be	9	**0.028**	ug/L	38.173	22	0.000
	B	11	**3.201**	ug/L	21.089	1698	0.001
	Na	23	**0.392**	ug/L	376.161	14341	0.001
	Mg	24	**0.079**	ug/L	318.614	1667	0.000
	Al	27	**0.312**	ug/L	208.213	3667	0.001
	P	31	**-2.629**	ug/L	18.923	4440	-0.001
	K	39	**0.773**	ug/L	452.470	447577	0.004
	Ca	43	**2.503**	ug/L	61.321	164	0.000
>	Sc	45		ug/L		850336	850335.672
	Ti	47	**0.181**	ug/L	1.795	311	0.000
	V	51	**-0.024**	ug/L	1300.310	509	-0.000
	Cr	52	**0.206**	ug/L	8.340	1007	0.001
	Cr	53		ug/L		62948	0.011
	Mn	55	**-0.038**	ug/L	6.512	918	-0.000
	Fe	57	**1.245**	ug/L	94.208	4226	0.000
	Co	59	**0.011**	ug/L	13.199	143	0.000
	Ni	60	**0.022**	ug/L	40.229	94	0.000
	Cu	63		ug/L		426	0.000
	Cu	65	**0.012**	ug/L	19.185	97	0.000
	Zn	66	**-0.034**	ug/L	30.556	483	-0.000
	Zn	67		ug/L		8918	0.002
	Zn	68		ug/L		1216	0.000
>	Ge	74		ug/L		367999	367998.880
	As	75	**-0.302**	ug/L	77.212	-207	-0.001
	Se	77		ug/L		3938	0.003
	Se	82	**0.044**	ug/L	84.610	6	0.000
	Kr	83		ug/L		108	0.000
	Sr	88	**0.003**	ug/L	15.744	190	0.000
	Y	89		ug/L		67	-0.000
	Mo	98	**0.036**	ug/L	6.644	179	0.000
	Ag	107	**0.003**	ug/L	26.407	62	0.000
	Cd	111	**-0.001**	ug/L	367.440	22	-0.000
	Cd	114		ug/L		53	0.000
>	In	115		ug/L		252232	252231.529
	Sn	120	**0.033**	ug/L	6.964	457	0.001
	Sb	121	**0.362**	ug/L	21.321	2313	0.007
	Sb	123		ug/L		1801	0.006
	Ba	135		ug/L		35	0.000
	Ba	137	**0.005**	ug/L	67.472	65	0.000
	Ho	165		ug/L		16	-0.000
>	Lu	175		ug/L		536782	536781.941
	Tl	205	**0.175**	ug/L	13.493	4032	0.006
	Pb	208	**0.003**	ug/L	22.824	555	0.000
	Bi	209		ug/L		187	-0.000
	Th	232	**0.045**	ug/L	18.621	2673	0.004
	U	238	**0.006**	ug/L	26.360	668	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\020510W1.SIF
Batch ID:
Results Data Set: 020510W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 2/5/2010 09:03:54**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0003	0.0006	0.0003	09:04:56	Yes
2		[0.00]	0.0002	-0.0003	0.0002	09:05:30	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	20.18				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 2/5/2010 09:05:49**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0019	0.0085	0.0021	09:06:50	Yes
2		[0.2]	0.0019	0.0079	0.0021	09:07:24	Yes
Mean:		[0.2]	0.0019				
SD:		0.0	0.0000				
%RSD:		0.0	0.42				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00933 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 2/5/2010 09:07:43**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0047	0.0201	0.0049	09:08:45	Yes
2		[0.5]	0.0048	0.0214	0.0050	09:09:19	Yes
Mean:		[0.5]	0.0047				
SD:		0.0	0.0001				
%RSD:		0.0	1.87				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999967 Slope: 0.00950 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 2/5/2010 09:09:39**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0191	0.0825	0.0194	09:10:40	Yes
2		[2.0]	0.0190	0.0814	0.0192	09:11:15	Yes
Mean:		[2.0]	0.0190				
SD:		0.0	0.0001				
%RSD:		0.0	0.73				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.00953 Intercept: -0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 2/5/2010 09:11:35**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0473	0.2057	0.0476	09:12:37	Yes
2		[5.0]	0.0469	0.2028	0.0471	09:13:12	Yes
Mean:		[5.0]	0.0471				
SD:		0.0	0.0003				
%RSD:		0.0	0.72				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999989 Slope: 0.00942 Intercept: 0.00004

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 2/5/2010 09:13:32**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0944	0.4143	0.0947	09:14:32	Yes
2		[10.0]	0.0937	0.4076	0.0940	09:15:07	Yes
Mean:		[10.0]	0.0941				
SD:		0.0	0.0005				
%RSD:		0.0	0.53				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

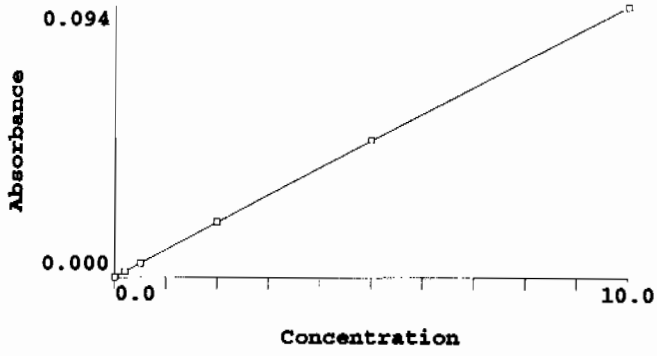

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.006	0.00	20.2
S0.2	0.0019	0.2	0.192	0.00	0.4
S0.5	0.0047	0.5	0.498	0.00	1.9
S2.0	0.0190	2.0	2.019	0.00	0.7

S5.0	0.0471	5.0	5.001	0.00	0.7
S10.0	0.0941	10.0	9.996	0.00	0.5

Correlation Coef.: 0.999997 Slope: 0.00941 Intercept: 0.00006

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 2/5/2010 09:15:26**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.965	4.965	0.0468	0.2021	0.0470	09:16:27	Yes
2	4.945	4.945	0.0466	0.2010	0.0468	09:17:02	Yes
Mean:	4.955	4.955	0.0467				
SD:	0.014	0.014	0.0001				
%RSD:	0.281	0.281	0.28				

QC value within limits for Hg 253.7 Recovery = 99.10%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 2/5/2010 09:17:22**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	-0.0001	-0.0008	0.0002	09:18:23	Yes
2	-0.012	-0.012	-0.0000	-0.0006	0.0002	09:18:58	Yes
Mean:	-0.013	-0.013	-0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	11.89	11.89	23.69				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 2/5/2010 09:19:18**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.191	0.191	0.0019	0.0082	0.0021	09:20:19	Yes
2	0.191	0.191	0.0019	0.0082	0.0021	09:20:54	Yes
Mean:	0.191	0.191	0.0019				
SD:	0.000	0.000	0.0000				
%RSD:	0.034	0.034	0.03				

QC value within limits for Hg 253.7 Recovery = 95.30%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 09:21:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.014	5.014	0.0472	0.2051	0.0475	09:22:14	Yes
2	4.974	4.974	0.0468	0.2038	0.0471	09:22:50	Yes
Mean:	4.994	4.994	0.0470				
SD:	0.029	0.029	0.0003				
%RSD:	0.577	0.577	0.58				

QC value within limits for Hg 253.7 Recovery = 99.88%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/5/2010 09:23:09
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.011	-0.011	-0.0000	-0.0002	0.0002	09:24:10	Yes
2	-0.006	-0.006	0.0000	0.0002	0.0002	09:24:45	Yes
Mean:	-0.009	-0.009	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	42.32	42.32	156.50				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202029931|947628|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 2/5/2010 09:25:04
Data Type: Original

Replicate Data: 1202029931|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.010	-0.010	-0.0000	-0.0005	0.0002	09:26:06	Yes
2	-0.005	-0.005	0.0000	-0.0001	0.0002	09:26:40	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	44.19	44.19	224.20				

Sequence No.: 13
Sample ID: 1202029932|947628|1
Analyst: JXL
Autosampler Location: 13
Date Collected: 2/5/2010 09:27:01
Data Type: Original

Replicate Data: 1202029932|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0191	0.0835	0.0193	09:28:02	Yes
2	2.026	2.026	0.0191	0.0827	0.0193	09:28:37	Yes
Mean:	2.024	2.024	0.0191				
SD:	0.003	0.003	0.0000				
%RSD:	0.144	0.144	0.14				

Sequence No.: 14
Sample ID: 245601001|947628|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 2/5/2010 09:28:58
Data Type: Original

Replicate Data: 245601001|947628|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0002	0.0002	09:29:58	Yes
2	0.002	0.002	0.0001	0.0008	0.0003	09:30:33	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	299.4	299.4	87.21				

Sequence No.: 15
Sample ID: 245614001|947628|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 2/5/2010 09:30:52
Data Type: Original

Replicate Data: 245614001|947628|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 1202029937|947628|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	09:41:26	Yes
2	-0.008	-0.008	-0.0000	-0.0004	0.0002	09:42:01	Yes
Mean:	-0.008	-0.008	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.270	1.270	5.82				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 1202033203|949020|1 Date Collected: 2/5/2010 09:42:20
Analyst: JXL Data Type: Original

Replicate Data: 1202033203|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0006	0.0003	09:43:21	Yes
2	0.003	0.003	0.0001	0.0014	0.0003	09:43:56	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	53.61	53.61	15.02				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 2/5/2010 09:44:15
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.947	4.947	0.0466	0.2056	0.0468	09:45:17	Yes
2	4.906	4.906	0.0462	0.2030	0.0464	09:45:52	Yes
Mean:	4.927	4.927	0.0464				
SD:	0.029	0.029	0.0003				
%RSD:	0.589	0.589	0.59				

QC value within limits for Hg 253.7 Recovery = 98.53%
All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 09:46:11
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	-0.0000	0.0003	0.0002	09:47:12	Yes
2	0.006	0.006	0.0001	0.0006	0.0003	09:47:46	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.009	0.009	0.0001				
%RSD:	>999.9%	>999.9%	153.08				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 Autosampler Location: 22
Sample ID: 1202033204|949020|1 Date Collected: 2/5/2010 09:48:06
Analyst: JXL Data Type: Original

Replicate Data: 1202033204|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.013	2.013	0.0190	0.0852	0.0192	09:49:07	Yes
2	2.004	2.004	0.0189	0.0839	0.0191	09:49:42	Yes

Mean:	2.009	2.009	0.0190
SD:	0.006	0.006	0.0001
%RSD:	0.312	0.312	0.31

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 245911001|949020|1 **Date Collected: 2/5/2010 09:50:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 245911001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.015	0.015	0.0002	0.0022	0.0004	09:51:03	Yes
2	0.017	0.017	0.0002	0.0028	0.0005	09:51:38	Yes
Mean:	0.016	0.016	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	7.972	7.972	5.75				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 245922001|949020|1 **Date Collected: 2/5/2010 09:51:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 245922001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0012	0.0003	09:53:00	Yes
2	0.007	0.007	0.0001	0.0009	0.0004	09:53:35	Yes
Mean:	0.006	0.006	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	44.12	44.12	20.60				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 245939001|949020|1 **Date Collected: 2/5/2010 09:53:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0002	0.0030	0.0005	09:54:57	Yes
2	0.022	0.022	0.0003	0.0034	0.0005	09:55:32	Yes
Mean:	0.020	0.020	0.0002				
SD:	0.003	0.003	0.0000				
%RSD:	14.54	14.54	11.04				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 245939002|949020|1 **Date Collected: 2/5/2010 09:55:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 245939002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0001	0.0010	0.0003	09:56:53	Yes
2	0.006	0.006	0.0001	0.0011	0.0003	09:57:28	Yes
Mean:	0.004	0.004	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	80.46	80.46	31.18				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 245953001|949020|1 **Date Collected: 2/5/2010 09:57:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 245953001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	-0.0001	0.0003	09:58:48	Yes
2	0.005	0.005	0.0001	0.0008	0.0003	09:59:23	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	292.1	292.1	59.58				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 245965001|949020|1 **Date Collected: 2/5/2010 09:59:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 245965001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.007	0.007	0.0001	0.0007	0.0003	10:00:43	Yes
2	0.004	0.004	0.0001	0.0002	0.0003	10:01:18	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	33.02	33.02	15.09				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 245975001|949020|1 **Date Collected: 2/5/2010 10:01:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 245975001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0001	0.0010	0.0003	10:02:38	Yes
2	0.004	0.004	0.0001	0.0015	0.0003	10:03:12	Yes
Mean:	0.002	0.002	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	165.2	165.2	34.46				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 245981001|949020|1 **Date Collected: 2/5/2010 10:03:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 245981001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0002	0.0021	0.0004	10:04:32	Yes
2	0.019	0.019	0.0002	0.0034	0.0005	10:05:07	Yes
Mean:	0.015	0.015	0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	43.49	43.49	30.52				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246000001|949020|1 **Date Collected: 2/5/2010 10:05:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 246000001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.006	0.006	0.0001	0.0018	0.0003	10:06:27	Yes
2	0.012	0.012	0.0002	0.0024	0.0004	10:07:02	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	42.51	42.51	25.13				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 2/5/2010 10:07:22**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.069	5.069	0.0477	0.2135	0.0480	10:08:22	Yes
2	5.033	5.033	0.0474	0.2110	0.0476	10:08:58	Yes
Mean:	5.051	5.051	0.0476				
SD:	0.025	0.025	0.0002				
%RSD:	0.502	0.502	0.50				

QC value within limits for Hg 253.7 Recovery = 101.01%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 2/5/2010 10:09:16
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0004	0.0003	10:10:17	Yes
2	0.005	0.005	0.0001	0.0009	0.0003	10:10:52	Yes
Mean:	0.001	0.001	0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	>999.9%	>999.9%	94.99				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246010001|949020|1 Date Collected: 2/5/2010 10:11:11
Analyst: JXL Data Type: Original

Replicate Data: 246010001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	0.0000	0.0003	0.0002	10:12:12	Yes
2	-0.004	-0.004	0.0000	0.0007	0.0002	10:12:47	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.81	17.81	51.51				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246056001|949020|1 Date Collected: 2/5/2010 10:13:07
Analyst: JXL Data Type: Original

Replicate Data: 246056001|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0000	0.0004	0.0003	10:14:08	Yes
2	0.002	0.002	0.0001	0.0012	0.0003	10:14:43	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	>999.9%	>999.9%	65.75				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202033205|949020|1 Date Collected: 2/5/2010 10:15:03
Analyst: JXL Data Type: Original

Replicate Data: 1202033205|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0008	0.0002	10:16:04	Yes

2	0.005	0.005	0.0001	0.0017	0.0003	10:16:39	Yes
Mean:	0.000	0.000	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	>999.9%	>999.9%	95.21				

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 1202033206|949020|1 **Date Collected: 2/5/2010 10:16:59**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033206|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.503	1.503	0.0142	0.0680	0.0144	10:18:00	Yes
2	1.495	1.495	0.0141	0.0670	0.0143	10:18:35	Yes
Mean:	1.499	1.499	0.0142				
SD:	0.006	0.006	0.0001				
%RSD:	0.393	0.393	0.39				

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 1202033207|949020|5 **Date Collected: 2/5/2010 10:18:55**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202033207|949020|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.008	-0.008	-0.0000	0.0002	0.0002	10:19:57	Yes
2	-0.002	-0.002	0.0000	0.0011	0.0003	10:20:32	Yes
Mean:	-0.005	-0.005	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	84.26	84.26	326.78				

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 246056002|949020|1 **Date Collected: 2/5/2010 10:20:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056002|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0000	0.0010	0.0003	10:21:54	Yes
2	-0.003	-0.003	0.0000	0.0008	0.0003	10:22:29	Yes
Mean:	-0.002	-0.002	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	8.003	8.003	5.22				

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 246056003|949020|1 **Date Collected: 2/5/2010 10:22:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056003|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	0.0002	0.0024	0.0005	10:23:50	Yes
2	0.023	0.023	0.0003	0.0022	0.0005	10:24:25	Yes
Mean:	0.021	0.021	0.0003				
SD:	0.002	0.002	0.0000				
%RSD:	10.47	10.47	8.06				

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 246056004|949020|1 **Date Collected: 2/5/2010 10:24:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 246056004|949020|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0004	0.0044	0.0006	10:25:45	Yes
2	0.016	0.016	0.0002	0.0017	0.0004	10:26:21	Yes
Mean:	0.026	0.026	0.0003				
SD:	0.015	0.015	0.0001				
%RSD:	56.65	56.65	45.73				

Sequence No.: 44
Sample ID: 1202033224|949028|1
Analyst: JXL
Autosampler Location: 40
Date Collected: 2/5/2010 10:26:40
Data Type: Original

Replicate Data: 1202033224|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	0.0003	0.0022	0.0005	10:27:41	Yes
2	0.017	0.017	0.0002	0.0020	0.0005	10:28:17	Yes
Mean:	0.019	0.019	0.0002				
SD:	0.002	0.002	0.0000				
%RSD:	11.82	11.82	8.89				

Sequence No.: 45
Sample ID: 1202033226|949028|1
Analyst: JXL
Autosampler Location: 41
Date Collected: 2/5/2010 10:28:36
Data Type: Original

Replicate Data: 1202033226|949028|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.106	2.106	0.0199	0.0883	0.0201	10:29:37	Yes
2	2.076	2.076	0.0196	0.0876	0.0198	10:30:12	Yes
Mean:	2.091	2.091	0.0197				
SD:	0.022	0.022	0.0002				
%RSD:	1.033	1.033	1.03				

Sequence No.: 46
Sample ID: CCV
Analyst:
Autosampler Location: 7
Date Collected: 2/5/2010 10:30:32
Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.111	5.111	0.0481	0.2129	0.0484	10:31:32	Yes
2	5.088	5.088	0.0479	0.2132	0.0481	10:32:08	Yes
Mean:	5.099	5.099	0.0480				
SD:	0.016	0.016	0.0001				
%RSD:	0.309	0.309	0.31				

QC value within limits for Hg 253.7 Recovery = 101.99%
All analyte(s) passed QC.

Sequence No.: 47
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 2/5/2010 10:32:26
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0000	0.0010	0.0002	10:33:27	Yes
2	-0.005	-0.005	0.0000	0.0011	0.0002	10:34:02	Yes
Mean:	-0.004	-0.004	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	7.051	7.051	16.61				

QC value within limits for Hg 253.7 Recovery = Not calculated

Miscellaneous

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 949337

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033916	UI100120-01	.25	mL
LCS	1202033916	UI100120-06	.25	mL
MS	1202033918	UI100120-01	.25	mL
MS	1202033918	UI100120-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033915		SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER
LCS	1202033916		SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER
SAMPLE	246056001		SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER
DUP	1202033917	246056001	SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER
MS	1202033918	246056001	SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER
SDILT	1202033919	246056001	SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER
SAMPLE	246056002		SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER
SAMPLE	246056003		SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER
SAMPLE	246056004		SW846 3005A	10-FEB-2010 16:40	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 949399

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202034074	UI100120-A	.5	mL
LCS	1202034074	UI100120-B	.5	mL
MS	1202034076	UI090930-A	.5	mL
MS	1202034076	UI090930-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202034073		SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER
LCS	1202034074		SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER
SAMPLE	246056001		SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER
DUP	1202034075	246056001	SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER
MS	1202034076	246056001	SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER
SDILT	1202034077	246056001	SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER
SAMPLE	246056002		SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER
SAMPLE	246056003		SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER
SAMPLE	246056004		SW846 3005A	10-FEB-2010 16:48	<2	50 mL	50 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1265209	2.5 mL	HYDROCHLORIC ACID
1264396	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 949018

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033204	WHG100204-13	.2	mL
MS	1202033206	WHG100204-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033203		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
LCS	1202033204		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245911001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245922001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245939002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245953001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245965001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245975001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	245981001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246000001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246010001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056001		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
DUP	1202033205	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
MS	1202033206	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SDILT	1202033207	246056001	SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056002		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056003		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER
SAMPLE	246056004		SW846 7470A Prep	04-FEB-2010 12:15	<2	20 mL	20 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1257474-1	.5 mL	NITRIC ACID
1261483-C	1.5 mL	5% Potassium Persulfate
1264984-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100204-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100204-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100204-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100204-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100204-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100204-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 04-FEB-10 12:15
Digestion End Date: 04-FEB-10 14:15

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 01-MAR-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID:	UI091102-41	**Opened:**	16-NOV-09	**Amount :**	500 mL
Name:	TRACE CALSTD#1B SOUF	**Received:**	02-NOV-09	**Catalog Number :**	HP2270-2-500
Type:	Source Material	**Expires:**	31-OCT-10	**Lot Number :**	0930216
Employee:	Helen Camello			**Solvent :**	HNO3
Supplier:	Environmental Express				
Description:	Trace Calibration Standard #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID:	UI091102-42	**Opened:**	17-NOV-09	**Amount :**	200 mL
Name:	SILICON	**Received:**	02-NOV-09	**Catalog Number :**	HP100050-4F
Type:	Source Material	**Expires:**	17-NOV-10	**Lot Number :**	0921924
Employee:	Helen Camello			**Solvent :**	H20/tr HF
Supplier:	ENVIRNMENTAL EXPRESS				
Description:	SILICON 1000mg/L H20/tr HF				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID:	UI091217-06	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master A	**Received:**	17-DEC-09	**Catalog Number :**	160055-01
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018209
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV SOLN A - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID:	UI091217-07	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master B	**Received:**	17-DEC-09	**Catalog Number :**	160054-02
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018210
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV Soln B - 10ppm				
Comments:	None				

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100114-48 **Opened:** 22-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-JAN-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 22-JAN-11 **Lot Number :** 1018466
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100114-49.16 **Opened:** 11-FEB-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-JAN-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 12-FEB-10 **Lot Number :** 1018458
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100120-01 **Opened:** 20-JAN-10 **Lot Number :** 1018095
Name: METALSPIKE-1 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100120-06 **Opened:** 20-JAN-10 **Lot Number :** 1018096
Name: METALSPIKE-2 **Received:** 20-JAN-10
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100120-A **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1018097
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100120-B **Opened:** 20-JAN-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 20-JAN-10 **Lot Number :** 1017644
Type: Source Material **Expires:** 20-JAN-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100128-40 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100128-41 **Opened:** 28-JAN-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 28-JAN-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-JAN-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100210-48 **Opened:** 11-FEB-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 10-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018807
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100211-40 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI

Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100211-41 **Opened:** 11-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 10-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-FEB-11 **Lot Number :** 1018409
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100204-01 **Opened:** 04-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-FEB-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Intermediate **Expires:** 05-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100204-01a **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100204-02 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100204-03 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100204-04 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-05 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100204-06 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100204-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100204-13 **Opened:** 04-FEB-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 04-FEB-10 **Solvent :** 2% HNO3-1257474
Type: Working **Expires:** 11-FEB-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100211-42 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100211-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100211-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100211-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100211-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100211-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100211-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100211-43 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100211-44 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1 %HNO3-1266496
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100211-45 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL and 1%HNO3 -1266496
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100211-46 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL AND 1%HNO3-1266496
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100211-47 **Opened:** 11-FEB-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 12-FEB-10 **Solvent :** 3%HCL &1%HNO3-1266496
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100301-04 **Opened:** 01-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 01-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 02-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100301-04A **Opened:** 01-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 01-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 02-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100301-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100301-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100301-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100301-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100301-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100301-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100301-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100301-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100301-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100301-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100301-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100301-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100301-05
Name: ICPMS ICV
Type: Working
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Opened: 01-MAR-10
Received: 01-MAR-10
Expires: 02-MAR-10

Balance Id : 40245216
Pipet Id : 3541598
Solvent : 2%HNO3/1%HCl - 1276824

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100301-06 **Opened:** 01-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 01-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 02-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100301-07 **Opened:** 01-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 01-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 02-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100301-08 **Opened:** 01-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 01-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 02-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100301-70 **Opened:** 01-MAR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 01-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 02-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100302-04 **Opened:** 02-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 02-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 03-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100302-04A **Opened:** 02-MAR-10 **Balance Id :** 4025216

Name: ICPMS Cal Standard 10 **Received:** 02-MAR-10 **Pipet Id :** 3541598

Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824

Employee: Paul Boyd

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100302-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100302-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100302-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100302-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100302-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100302-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100302-05 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 02-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100302-06 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 02-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100302-07 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 02-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 03-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100302-08 **Opened:** 02-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 02-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 03-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1257474-1 **Opened:** 20-JAN-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 20-JAN-10 **Lot Number :** H20053
Type: Reagent/Solvent **Expires:** 20-JAN-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1261483-C **Opened:** 28-JAN-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-JAN-10
Type: Reagent/Solvent **Expires:** 28-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1264396 **Opened:** 03-FEB-10 **Lot Number :** H51025 L
Name: I-HNO3 **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 03-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1264984-C **Opened:** 04-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 04-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Comments: None

Serial ID: 1266496 **Opened:** 08-FEB-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 20-JAN-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 14-FEB-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1276824 **Opened:** 01-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 08-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1545

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948946	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948945	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246055001	RE15-10-8170
246055002	RE15-10-8169
246055003	RE15-10-8171
246055004	RE15-10-8168
246055005	RE15-10-8222
246055006	RE15-10-8221
246055007	RE15-10-8220
246055008	RE15-10-8223
246055009	RE15-10-8224
1202033017	Method Blank (MB)
1202033018	246012007(RE46-10-12028) Sample Duplicate (DUP)
1202033019	246012008(RE46-10-12029) Sample Duplicate (DUP)
1202033020	246012007(RE46-10-12028) Matrix Spike (MS)
1202033021	246012008(RE46-10-12029) Matrix Spike (MS)
1202033022	246012007(RE46-10-12028) Matrix Spike Duplicate (MSD)
1202033023	246012008(RE46-10-12029) Matrix Spike Duplicate (MSD)
1202033024	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246012007 (RE46-10-12028) and 246012008 (RE46-10-12029).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202033020 (RE46-10-12028).

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 1202033024 (LCS).

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 246055009 (RE15-10-8224).

Miscellaneous Information

Data Exception (DER) Documentation
The following DERs were generated for this SDG: 791229 791230 1202033020 (RE46-10-12028).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ **Date:** **02March10**

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1545 GEL Work Order: 246055

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8170	Project:	LANL01004
Sample ID:	246055001	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	17.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	69.9	257	ug/kg	1	AXC2	02/12/10	1256	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8169	Project:	LANL01004
Sample ID:	246055002	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.3	288	ug/kg	1	AXC2 02/12/10	1257	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8171	Project:	LANL01004
Sample ID:	246055003	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	66.6	245	ug/kg	1	AXC2 02/12/10	1258	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8168	Project:	LANL01004
Sample ID:	246055004	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	20.6%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.9	286	ug/kg	1	AXC2 02/12/10	1259	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID: RE15-10-8222
Sample ID: 246055005
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 25.8%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	80.3	295	ug/kg	1	AXC2 02/12/10	1300	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8221	Project:	LANL01004
Sample ID:	246055006	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	12.8%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	78.0	287	ug/kg	1	AXC2 02/12/10	1301	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID: RE15-10-8220
Sample ID: 246055007
Matrix: R
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client
Moisture: 8.71%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	71.6	263	ug/kg	1	AXC2	02/12/10	1302	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8223	Project:	LANL01004
Sample ID:	246055008	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	19.5%		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "Dry Weight Corrected"											
Cyanide, Total	U	ND	72.8	268	ug/kg	1	AXC2	02/12/10	1306	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 23, 2010

Client SDG: 10-1545

Client Sample ID:	RE15-10-8224	Project:	LANL01004
Sample ID:	246055009	Client ID:	LANL010
Matrix:	R		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		
Moisture:	15.9%		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "Dry Weight Corrected"										
Cyanide, Total	U	ND	77.8	286	ug/kg	1	AXC2 02/12/10	1319	948946	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/11/10	1531	948945

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: February 23, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 246055

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 948946											
QC1202033018 246012007 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A			AXC2	02/12/10 12:44
QC1202033019 246012008 DUP											
Cyanide, Total		U	ND	U	ND	ug/kg	N/A				02/12/10 12:48
QC1202033024 LCS											
Cyanide, Total	67900				39300	ug/kg		57.8	(32%-157%)		02/12/10 12:42
QC1202033017 MB											
Cyanide, Total				U	250	ug/kg					02/12/10 12:41
QC1202033020 246012007 MS											
Cyanide, Total	4940	U	ND		3350	ug/kg		67.8	(26%-158%)		02/12/10 12:45
QC1202033021 246012008 MS											
Cyanide, Total	4830	U	ND		4230	ug/kg		87.6	(26%-158%)		02/12/10 12:49
QC1202033022 246012007 MSD											
Cyanide, Total	5030	U	ND		4170	ug/kg	21.9	82.9	(0%-30%)		02/12/10 12:46
QC1202033023 246012008 MSD											
Cyanide, Total	5220	U	ND		4410	ug/kg	4.09	84.5	(0%-30%)		02/12/10 12:49

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based

QC Summary

Workorder: 246055

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

on nearest internal standard response factor

N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-FEB-2010 18:46

GEL Laboratories LLC
Contract: LANL01004
SDG #: 10-1545

Flow Injection Analysis
Method: SW846 9012A Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**12-FEB-2010 12:36:27**	**OM_2-12-2010_12-28-33**	**138**	**150**	**92**	**(90%-110%)**	**Yes**
CCV	12-FEB-2010 12:50:44	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 13:03:08	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 13:15:31	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes
CCV	12-FEB-2010 13:28:04	OM_2-12-2010_12-28-33	102	100	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**12-FEB-2010 12:38:17**	**OM_2-12-2010_12-28-33**	**-1.76**	**10**	**Yes**
CCB	12-FEB-2010 12:52:34	OM_2-12-2010_12-28-33	-1.77	10	Yes
CCB	12-FEB-2010 13:04:59	OM_2-12-2010_12-28-33	-1.83	10	Yes
CCB	12-FEB-2010 13:17:22	OM_2-12-2010_12-28-33	-1.94	10	Yes
CCB	12-FEB-2010 13:29:53	OM_2-12-2010_12-28-33	-1.75	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948945

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033024	URF1200957-01	.25	g
MS	1202033020	URF1184831-02	.025	mL
MS	1202033021	URF1184831-02	.025	mL
MSD	1202033022	URF1184831-02	.025	mL
MSD	1202033023	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033017		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.5 g	25 mL	50	SOIL
LCS	1202033024		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.25 g	25 mL	100	SOIL
SAMPLE	246012007		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
DUP	1202033018	246012007	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
MS	1202033020	246012007	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202033022	246012007	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.53 g	25 mL	47.16981	SOIL
SAMPLE	246012008		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL
DUP	1202033019	246012008	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.55 g	25 mL	45.45455	SOIL
MS	1202033021	246012008	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL
MSD	1202033023	246012008	SW846 9010B Prep	11-FEB-2010 15:31	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246012009		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246012010		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246012011		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL
SAMPLE	246055001		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.59 g	25 mL	42.37288	SOIL
SAMPLE	246055002		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.51 g	25 mL	49.01961	SOIL
SAMPLE	246055003		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246055004		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246055005		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.57 g	25 mL	43.85965	SOIL
SAMPLE	246055006		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.5 g	25 mL	50	SOIL
SAMPLE	246055007		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246055008		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246055009		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246066001		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.55 g	25 mL	45.45455	SOIL
SAMPLE	246066002		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246066003		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.58 g	25 mL	43.10345	SOIL
SAMPLE	246066004		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.52 g	25 mL	48.07692	SOIL
SAMPLE	246066005		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.56 g	25 mL	44.64286	SOIL
SAMPLE	246066006		SW846 9010B Prep	11-FEB-2010 15:31	>12	0.54 g	25 mL	46.2963	SOIL

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
100210-C	25 mL	0.25N Sodium Hydroxide Solution
WCN100211-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1260189-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments.

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/12/2010 12:29:18	OM_2-12-2010_12-28-33
150 ppb		1	axc2	2/12/2010 12:30:11	OM_2-12-2010_12-28-33
100 ppb		1	axc2	2/12/2010 12:31:03	OM_2-12-2010_12-28-33
50 ppb		1	axc2	2/12/2010 12:31:56	OM_2-12-2010_12-28-33
10 ppb		1	axc2	2/12/2010 12:32:49	OM_2-12-2010_12-28-33
CRDL 5.0 ppb		1	axc2	2/12/2010 12:33:43	OM_2-12-2010_12-28-33
ICAL-00		1	axc2	2/12/2010 12:34:37	OM_2-12-2010_12-28-33
ICV		1	axc2	2/12/2010 12:36:27	OM_2-12-2010_12-28-33
ICB		1	axc2	2/12/2010 12:38:17	OM_2-12-2010_12-28-33
		1	axc2	2/12/2010 12:40:07	OM_2-12-2010_12-28-33
1202033017	948946	1	axc2	2/12/2010 12:41:56	OM_2-12-2010_12-28-33
1202033024	948946	25	axc2	2/12/2010 12:42:50	OM_2-12-2010_12-28-33
246012007	948946	1	axc2	2/12/2010 12:43:43	OM_2-12-2010_12-28-33
1202033018	948946	1	axc2	2/12/2010 12:44:36	OM_2-12-2010_12-28-33
1202033020	948946	1	axc2	2/12/2010 12:45:29	OM_2-12-2010_12-28-33
1202033022	948946	1	axc2	2/12/2010 12:46:22	OM_2-12-2010_12-28-33
246012008	948946	1	axc2	2/12/2010 12:47:15	OM_2-12-2010_12-28-33
1202033019	948946	1	axc2	2/12/2010 12:48:07	OM_2-12-2010_12-28-33
1202033021	948946	1	axc2	2/12/2010 12:49:00	OM_2-12-2010_12-28-33
1202033023	948946	1	axc2	2/12/2010 12:49:52	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 12:50:44	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 12:52:34	OM_2-12-2010_12-28-33
246012009	948946	1	axc2	2/12/2010 12:54:22	OM_2-12-2010_12-28-33
246012010	948946	1	axc2	2/12/2010 12:55:14	OM_2-12-2010_12-28-33
246012011	948946	1	axc2	2/12/2010 12:56:06	OM_2-12-2010_12-28-33
246055001	948946	1	axc2	2/12/2010 12:56:58	OM_2-12-2010_12-28-33
246055002	948946	1	axc2	2/12/2010 12:57:50	OM_2-12-2010_12-28-33
246055003	948946	1	axc2	2/12/2010 12:58:43	OM_2-12-2010_12-28-33
246055004	948946	1	axc2	2/12/2010 12:59:37	OM_2-12-2010_12-28-33
246055005	948946	1	axc2	2/12/2010 13:00:30	OM_2-12-2010_12-28-33
246055006	948946	1	axc2	2/12/2010 13:01:23	OM_2-12-2010_12-28-33
246055007	948946	1	axc2	2/12/2010 13:02:16	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:03:08	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:04:59	OM_2-12-2010_12-28-33
246055008	948946	1	axc2	2/12/2010 13:06:48	OM_2-12-2010_12-28-33
246055009*	948946	1	axc2	2/12/2010 13:07:41	OM_2-12-2010_12-28-33
246066001	948946	1	axc2	2/12/2010 13:08:34	OM_2-12-2010_12-28-33
246066002	948946	1	axc2	2/12/2010 13:09:27	OM_2-12-2010_12-28-33
246066003	948946	1	axc2	2/12/2010 13:10:18	OM_2-12-2010_12-28-33
246066004	948946	1	axc2	2/12/2010 13:11:11	OM_2-12-2010_12-28-33
246066005	948946	1	axc2	2/12/2010 13:12:03	OM_2-12-2010_12-28-33
246066006	948946	1	axc2	2/12/2010 13:12:55	OM_2-12-2010_12-28-33
1202036012	950194	1	axc2	2/12/2010 13:13:47	OM_2-12-2010_12-28-33
1202036019	950194	25	axc2	2/12/2010 13:14:39	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:15:31	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:17:22	OM_2-12-2010_12-28-33
246055009	948946	1	axc2	2/12/2010 13:19:11	OM_2-12-2010_12-28-33
246262001	950194	1	axc2	2/12/2010 13:20:05	OM_2-12-2010_12-28-33
246280005	950194	1	axc2	2/12/2010 13:20:59	OM_2-12-2010_12-28-33
246280006	950194	1	axc2	2/12/2010 13:21:52	OM_2-12-2010_12-28-33
1202036013	950194	1	axc2	2/12/2010 13:22:46	OM_2-12-2010_12-28-33
1202036015	950194	1	axc2	2/12/2010 13:23:39	OM_2-12-2010_12-28-33
1202036017	950194	1	axc2	2/12/2010 13:24:32	OM_2-12-2010_12-28-33
246280007	950194	1	axc2	2/12/2010 13:25:25	OM_2-12-2010_12-28-33
1202036014	950194	1	axc2	2/12/2010 13:26:18	OM_2-12-2010_12-28-33
1202036016	950194	1	axc2	2/12/2010 13:27:11	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010 13:28:04	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010 13:29:53	OM_2-12-2010_12-28-33

1202036018	950194	1	axc2	2/12/2010	13:31:43	OM_2-12-2010_12-28-33
246280008	950194	1	axc2	2/12/2010	13:32:35	OM_2-12-2010_12-28-33
246280009	950194	1	axc2	2/12/2010	13:33:28	OM_2-12-2010_12-28-33
246280010	950194	1	axc2	2/12/2010	13:34:20	OM_2-12-2010_12-28-33
246291001	950194	1	axc2	2/12/2010	13:35:12	OM_2-12-2010_12-28-33
246291002	950194	1	axc2	2/12/2010	13:36:04	OM_2-12-2010_12-28-33
246291003	950194	1	axc2	2/12/2010	13:36:58	OM_2-12-2010_12-28-33
246291004	950194	1	axc2	2/12/2010	13:37:52	OM_2-12-2010_12-28-33
246291005	950194	1	axc2	2/12/2010	13:38:46	OM_2-12-2010_12-28-33
246291006	950194	1	axc2	2/12/2010	13:39:40	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	13:40:32	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	13:42:22	OM_2-12-2010_12-28-33
246291007	950194	1	axc2	2/12/2010	13:44:12	OM_2-12-2010_12-28-33
246291008	950194	1	axc2	2/12/2010	13:45:05	OM_2-12-2010_12-28-33
246305001	950194	1	axc2	2/12/2010	13:45:59	OM_2-12-2010_12-28-33
246305002	950194	1	axc2	2/12/2010	13:46:51	OM_2-12-2010_12-28-33
246305003	950194	1	axc2	2/12/2010	13:47:43	OM_2-12-2010_12-28-33
246305004	950194	1	axc2	2/12/2010	13:48:36	OM_2-12-2010_12-28-33
246312001	950194	1	axc2	2/12/2010	13:49:30	OM_2-12-2010_12-28-33
1202036056	950207	1	axc2	2/12/2010	13:50:21	OM_2-12-2010_12-28-33
1202036069	950207	1	axc2	2/12/2010	13:51:14	OM_2-12-2010_12-28-33
246191004	950207	1	axc2	2/12/2010	13:52:06	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	13:52:58	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	13:54:48	OM_2-12-2010_12-28-33
1202036058	950207	1	axc2	2/12/2010	13:56:36	OM_2-12-2010_12-28-33
1202036062	950207	1	axc2	2/12/2010	13:57:30	OM_2-12-2010_12-28-33
1202036066	950207	1	axc2	2/12/2010	13:58:25	OM_2-12-2010_12-28-33
246304002	950207	1	axc2	2/12/2010	13:59:20	OM_2-12-2010_12-28-33
1202036059	950207	1	axc2	2/12/2010	14:00:12	OM_2-12-2010_12-28-33
1202036063	950207	1	axc2	2/12/2010	14:01:07	OM_2-12-2010_12-28-33
1202036067*	950207	1	axc2	2/12/2010	14:01:59	OM_2-12-2010_12-28-33
246304003	950207	1	axc2	2/12/2010	14:02:53	OM_2-12-2010_12-28-33
246352001	950207	1	axc2	2/12/2010	14:03:46	OM_2-12-2010_12-28-33
246352003	950207	1	axc2	2/12/2010	14:04:39	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:05:32	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:07:23	OM_2-12-2010_12-28-33
246364002	950207	1	axc2	2/12/2010	14:09:11	OM_2-12-2010_12-28-33
246364003	950207	1	axc2	2/12/2010	14:10:04	OM_2-12-2010_12-28-33
246419002	950207	1	axc2	2/12/2010	14:10:57	OM_2-12-2010_12-28-33
1202036057	950207	1	axc2	2/12/2010	14:11:49	OM_2-12-2010_12-28-33
1202036061	950207	1	axc2	2/12/2010	14:12:42	OM_2-12-2010_12-28-33
1202036065	950207	1	axc2	2/12/2010	14:13:34	OM_2-12-2010_12-28-33
246431001	950207	1	axc2	2/12/2010	14:14:29	OM_2-12-2010_12-28-33
246431002	950207	1	axc2	2/12/2010	14:15:22	OM_2-12-2010_12-28-33
246431003	950207	1	axc2	2/12/2010	14:16:17	OM_2-12-2010_12-28-33
246431004	950207	1	axc2	2/12/2010	14:17:10	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:18:03	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:19:53	OM_2-12-2010_12-28-33
246472002	950207	1	axc2	2/12/2010	14:21:43	OM_2-12-2010_12-28-33
1202036060	950207	1	axc2	2/12/2010	14:22:36	OM_2-12-2010_12-28-33
1202036064	950207	1	axc2	2/12/2010	14:23:30	OM_2-12-2010_12-28-33
1202036068	950207	1	axc2	2/12/2010	14:24:23	OM_2-12-2010_12-28-33
246474001	950207	1	axc2	2/12/2010	14:25:16	OM_2-12-2010_12-28-33
246476001	950207	1	axc2	2/12/2010	14:26:09	OM_2-12-2010_12-28-33
246480001	950207	1	axc2	2/12/2010	14:27:02	OM_2-12-2010_12-28-33
1202033014	948944	1	axc2	2/12/2010	14:27:55	OM_2-12-2010_12-28-33
1202033015	948944	1	axc2	2/12/2010	14:28:48	OM_2-12-2010_12-28-33
1202033016	948944	1	axc2	2/12/2010	14:29:40	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:30:33	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:32:23	OM_2-12-2010_12-28-33

246114001	948944	1	axc2	2/12/2010	14:34:11	OM_2-12-2010_12-28-33
246114002	948944	1	axc2	2/12/2010	14:35:05	OM_2-12-2010_12-28-33
246114003	948944	1	axc2	2/12/2010	14:36:00	OM_2-12-2010_12-28-33
246114004	948944	1	axc2	2/12/2010	14:36:54	OM_2-12-2010_12-28-33
246114005	948944	1	axc2	2/12/2010	14:37:48	OM_2-12-2010_12-28-33
246114006	948944	1	axc2	2/12/2010	14:38:42	OM_2-12-2010_12-28-33
246114007	948944	1	axc2	2/12/2010	14:39:37	OM_2-12-2010_12-28-33
1202031536	948330	1	axc2	2/12/2010	14:40:30	OM_2-12-2010_12-28-33
1202031540	948330	25	axc2	2/12/2010	14:41:24	OM_2-12-2010_12-28-33
245957001	948330	1	axc2	2/12/2010	14:42:18	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:43:10	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:45:00	OM_2-12-2010_12-28-33
1202031537	948330	1	axc2	2/12/2010	14:46:50	OM_2-12-2010_12-28-33
1202031538	948330	1	axc2	2/12/2010	14:47:43	OM_2-12-2010_12-28-33
1202031539	948330	1	axc2	2/12/2010	14:48:36	OM_2-12-2010_12-28-33
245957002	948330	1	axc2	2/12/2010	14:49:28	OM_2-12-2010_12-28-33
245957003	948330	1	axc2	2/12/2010	14:50:22	OM_2-12-2010_12-28-33
245957004	948330	1	axc2	2/12/2010	14:51:14	OM_2-12-2010_12-28-33
245957005	948330	1	axc2	2/12/2010	14:52:09	OM_2-12-2010_12-28-33
245957006	948330	1	axc2	2/12/2010	14:53:03	OM_2-12-2010_12-28-33
246058001	948330	1	axc2	2/12/2010	14:53:58	OM_2-12-2010_12-28-33
1202033025	948330	1	axc2	2/12/2010	14:54:52	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	14:55:44	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	14:57:35	OM_2-12-2010_12-28-33
1202033026	948330	1	axc2	2/12/2010	14:59:25	OM_2-12-2010_12-28-33
1202033027	948330	1	axc2	2/12/2010	15:00:20	OM_2-12-2010_12-28-33
246058002	948330	1	axc2	2/12/2010	15:01:13	OM_2-12-2010_12-28-33
246058003	948330	1	axc2	2/12/2010	15:02:07	OM_2-12-2010_12-28-33
246060001	948330	1	axc2	2/12/2010	15:03:01	OM_2-12-2010_12-28-33
246060002	948330	1	axc2	2/12/2010	15:03:54	OM_2-12-2010_12-28-33
246062001	948330	1	axc2	2/12/2010	15:04:48	OM_2-12-2010_12-28-33
246062002	948330	1	axc2	2/12/2010	15:05:41	OM_2-12-2010_12-28-33
246066007	948330	1	axc2	2/12/2010	15:06:34	OM_2-12-2010_12-28-33
246066008	948330	1	axc2	2/12/2010	15:07:27	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:08:19	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:10:09	OM_2-12-2010_12-28-33
246066009	948330	1	axc2	2/12/2010	15:11:58	OM_2-12-2010_12-28-33
246066010	948330	1	axc2	2/12/2010	15:12:53	OM_2-12-2010_12-28-33
246066011	948330	1	axc2	2/12/2010	15:13:48	OM_2-12-2010_12-28-33
246066012	948330	1	axc2	2/12/2010	15:14:43	OM_2-12-2010_12-28-33
246066013	948330	1	axc2	2/12/2010	15:15:37	OM_2-12-2010_12-28-33
246114007	948944	5	axc2	2/12/2010	15:16:31	OM_2-12-2010_12-28-33
1202033028	948949	1	axc2	2/12/2010	15:17:25	OM_2-12-2010_12-28-33
1202033035	948949	25	axc2	2/12/2010	15:18:19	OM_2-12-2010_12-28-33
246066014	948949	1	axc2	2/12/2010	15:19:14	OM_2-12-2010_12-28-33
1202033029	948949	1	axc2	2/12/2010	15:20:08	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:21:00	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:22:50	OM_2-12-2010_12-28-33
1202033031	948949	1	axc2	2/12/2010	15:24:40	OM_2-12-2010_12-28-33
1202033033	948949	1	axc2	2/12/2010	15:25:34	OM_2-12-2010_12-28-33
246066015	948949	1	axc2	2/12/2010	15:26:27	OM_2-12-2010_12-28-33
1202033030	948949	1	axc2	2/12/2010	15:27:21	OM_2-12-2010_12-28-33
1202033032	948949	1	axc2	2/12/2010	15:28:14	OM_2-12-2010_12-28-33
1202033034	948949	1	axc2	2/12/2010	15:29:07	OM_2-12-2010_12-28-33
246066016	948949	1	axc2	2/12/2010	15:29:59	OM_2-12-2010_12-28-33
246066017	948949	1	axc2	2/12/2010	15:30:54	OM_2-12-2010_12-28-33
246066018	948949	1	axc2	2/12/2010	15:31:49	OM_2-12-2010_12-28-33
246066019	948949	1	axc2	2/12/2010	15:32:44	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:33:36	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:35:27	OM_2-12-2010_12-28-33

246066020	948949	1	axc2	2/12/2010	15:37:18	OM_2-12-2010_12-28-33
246070001	948949	1	axc2	2/12/2010	15:38:12	OM_2-12-2010_12-28-33
246070002	948949	1	axc2	2/12/2010	15:39:06	OM_2-12-2010_12-28-33
246070003	948949	1	axc2	2/12/2010	15:40:01	OM_2-12-2010_12-28-33
246070004	948949	1	axc2	2/12/2010	15:40:55	OM_2-12-2010_12-28-33
246070005	948949	1	axc2	2/12/2010	15:41:49	OM_2-12-2010_12-28-33
246070006	948949	1	axc2	2/12/2010	15:42:43	OM_2-12-2010_12-28-33
246070007	948949	1	axc2	2/12/2010	15:43:36	OM_2-12-2010_12-28-33
246070008	948949	1	axc2	2/12/2010	15:44:30	OM_2-12-2010_12-28-33
246070009	948949	1	axc2	2/12/2010	15:45:23	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:46:16	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:48:06	OM_2-12-2010_12-28-33
246070010	948949	1	axc2	2/12/2010	15:49:56	OM_2-12-2010_12-28-33
246070011	948949	1	axc2	2/12/2010	15:50:49	OM_2-12-2010_12-28-33
246070012	948949	1	axc2	2/12/2010	15:51:44	OM_2-12-2010_12-28-33
246070013	948949	1	axc2	2/12/2010	15:52:39	OM_2-12-2010_12-28-33
1202036067	950207	1	axc2	2/12/2010	15:53:33	OM_2-12-2010_12-28-33
CCV		1	axc2	2/12/2010	15:54:25	OM_2-12-2010_12-28-33
CCB		1	axc2	2/12/2010	15:56:16	OM_2-12-2010_12-28-33

Author: axc2 Date : 2/15/2010

Original Run Filename: OM_2-12-2010_12-28-33.OMN created 2/12/2010 12:28:33
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-12-2010_12-28-33.OMN last modified 2/12/2010 15:57:21
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100212-01	1	S1	200	9.01	2/12/2010@12:29:18			200 ppb
WCN100212-02	1	S2	150	7.03	2/12/2010@12:30:11			150 ppb
WCN100212-03	1	S3	100	4.55	2/12/2010@12:31:03			100 ppb
WCN100212-04	1	S4	50.0	2.30	2/12/2010@12:31:56			50 ppb
WCN100212-05	1	S5	10.0	0.695	2/12/2010@12:32:49			10 ppb
WCN100212-06	1	S6	5.00	0.468	2/12/2010@12:33:43			CRDL 5.0 ppb
WCN100212-08	1	S7	0.00	0.0810	2/12/2010@12:34:37			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99951 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100212-07	1	S8	138	6.34	2/12/2010@12:36:27			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-7.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-7.8 < 10.0					
		Message	ICV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.76	0.0866	2/12/2010@12:38:17			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.76 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.76 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100212-06	1	S6	6.96	0.476	2/12/2010@12:40:07			
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.96 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.96 > 2.50					
		Message	Pass					
		Action	None					
1202033017|948946|MB	1	1	-3.58	0.00565	2/12/2010@12:41:56			
1202033024||LCS	1	2	15.7	0.864	2/12/2010@12:42:50		25.00	
246012007	1	3	-2.00	0.0759	2/12/2010@12:43:43			
1202033018||DUP	1	4	-2.22	0.0662	2/12/2010@12:44:36			
1202033020||MS	1	5	67.8	3.19	2/12/2010@12:45:29			
1202033022||MSD	1	6	82.9	3.86	2/12/2010@12:46:22			
246012008	1	7	-2.80	0.0402	2/12/2010@12:47:15			
1202033019||DUP	1	8	-3.66	0.00214	2/12/2010@12:48:07			
1202033021||MS	1	9	87.6	4.08	2/12/2010@12:49:00			
1202033023||MSD	1	10	84.5	3.94	2/12/2010@12:49:52			
WCN100212-03	1	S3	102	4.71	2/12/2010@12:50:44			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.8 < 10.0					
		Message	CCV Passed					

		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.77	0.0863	2/12/2010@12:52:34			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.77 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.77 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246012009	1	11	-2.54	0.0522	2/12/2010@12:54:22			
246012010	1	12	-2.33	0.0614	2/12/2010@12:55:14			
246012011	1	13	-0.520	0.142	2/12/2010@12:56:06			
246055001	1	14	-1.07	0.118	2/12/2010@12:56:58			
246055002	1	15	-2.20	0.0671	2/12/2010@12:57:50			
246055003	1	16	-0.671	0.135	2/12/2010@12:58:43			
246055004	1	17	-2.40	0.0584	2/12/2010@12:59:37			
246055005	1	18	-0.466	0.145	2/12/2010@13:00:30			
246055006	1	19	-2.01	0.0756	2/12/2010@13:01:23			
246055007	1	20	-2.73	0.0433	2/12/2010@13:02:16			
WCN100212-03	1	S3	102	4.71	2/12/2010@13:03:08			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.83	0.0834	2/12/2010@13:04:59			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.83 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.83 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246055008	1	21	0.133	0.171	2/12/2010@13:06:48			
246055009	1	22	5.24	0.399	2/12/2010@13:07:41			
246066001	1	23	-1.42	0.102	2/12/2010@13:08:34			
246066002	1	24	-2.08	0.0726	2/12/2010@13:09:27			
246066003	1	25	-1.22	0.111	2/12/2010@13:10:18			
246066004	1	26	-2.10	0.0716	2/12/2010@13:11:11			
246066005	1	27	-2.39	0.0588	2/12/2010@13:12:03			
246066006	1	28	-1.91	0.0800	2/12/2010@13:12:55			
1202036012|950194|MB	1	29	-3.70	2.81e-4	2/12/2010@13:13:47			
1202036019||LCS	1	30	16.1	0.885	2/12/2010@13:14:39		25.00	
WCN100212-03	1	S3	102	4.70	2/12/2010@13:15:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.94	0.0787	2/12/2010@13:17:22			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								

		Result:	-1.94 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.94 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246055009|948946	1	22	-1.69	0.0901	2/12/2010@13:19:11			
246262001|950194|	1	31	-3.04	0.0298	2/12/2010@13:20:05			
246280005	1	32	-3.07	0.0283	2/12/2010@13:20:59			
246280006	1	33	-2.76	0.0423	2/12/2010@13:21:52			
1202036013||DUP	1	34	-2.82	0.0394	2/12/2010@13:22:46			
1202036015||MS	1	35	84.6	3.94	2/12/2010@13:23:39			
1202036017||MSD	1	36	82.4	3.84	2/12/2010@13:24:32			
246280007	1	37	-2.99	0.0317	2/12/2010@13:25:25			
1202036014||DUP	1	38	-2.89	0.0363	2/12/2010@13:26:18			
1202036016||MS	1	39	86.8	4.04	2/12/2010@13:27:11			
WCN100212-03	1	S3	102	4.71	2/12/2010@13:28:04			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.75	0.0870	2/12/2010@13:29:53			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.75 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.75 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202036018||MSD	1	40	81.5	3.80	2/12/2010@13:31:43			
246280008	1	41	-2.69	0.0453	2/12/2010@13:32:35			
246280009	1	42	-2.56	0.0510	2/12/2010@13:33:28			
246280010	1	43	-2.69	0.0454	2/12/2010@13:34:20			
246291001	1	44	-2.74	0.0432	2/12/2010@13:35:12			
246291002	1	45	-3.65	0.00256	2/12/2010@13:36:04			
246291003	1	46	-4.03	-0.0144	2/12/2010@13:36:58			
246291004	1	47	-2.33	0.0612	2/12/2010@13:37:52			
246291005	1	48	-2.37	0.0594	2/12/2010@13:38:46			
246291006	1	49	-3.71	-1.56e-4	2/12/2010@13:39:40			
WCN100212-03	1	S3	102	4.73	2/12/2010@13:40:32			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.78	0.0858	2/12/2010@13:42:22			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246291007	1	50	-3.12	0.0260	2/12/2010@13:44:12			

246291008	1	51	-2.58	0.0501	2/12/2010@13:45:05			
246305001	1	52	-3.71	-1.63e-4	2/12/2010@13:45:59			
246305002	1	53	-3.09	0.0274	2/12/2010@13:46:51			
246305003	1	54	-3.16	0.0243	2/12/2010@13:47:43			
246305004	1	55	-2.73	0.0437	2/12/2010@13:48:36			
246312001	1	56	-3.71	-1.36e-4	2/12/2010@13:49:30			
1202036056|950207|MB	1	57	-3.11	0.0266	2/12/2010@13:50:21			
1202036069||LCS	1	58	49.7	2.38	2/12/2010@13:51:14			
246191004	1	59	20.8	1.10	2/12/2010@13:52:06			
WCN100212-03	1	S3	103	4.74	2/12/2010@13:52:58			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			2.5 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			2.5 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100212-08	1	S7	-1.83	0.0834	2/12/2010@13:54:48			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.83 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.83 > -5.00					
Message			CCB Passed					
Action			Continue					
1202036058||DUP	1	60	19.2	1.02	2/12/2010@13:56:36			
1202036062||MS	1	61	114	5.25	2/12/2010@13:57:30			
1202036066||MSD	1	62	108	4.96	2/12/2010@13:58:25			
246304002	1	63	-2.90	0.0358	2/12/2010@13:59:20			
1202036059||DUP	1	64	-3.87	-0.00751	2/12/2010@14:00:12			
1202036063||MS	1	65	94.0	4.36	2/12/2010@14:01:07			
1202036067||MSD	1	66	61.7	2.92	2/12/2010@14:01:59			
246304003	1	67	-3.22	0.0214	2/12/2010@14:02:53			
246352001	1	68	2.39	0.272	2/12/2010@14:03:46			
246352003	1	69	-3.35	0.0156	2/12/2010@14:04:39			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:05:32			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			2.3 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			2.3 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100212-08	1	S7	-1.78	0.0858	2/12/2010@14:07:23			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.78 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.78 > -5.00					
Message			CCB Passed					
Action			Continue					
246364002	1	70	-2.64	0.0473	2/12/2010@14:09:11			
246364003	1	71	-2.89	0.0362	2/12/2010@14:10:04			
246419002	1	72	-2.96	0.0332	2/12/2010@14:10:57			
1202036057||DUP	1	73	-2.54	0.0519	2/12/2010@14:11:49			
1202036061||MS	1	74	92.0	4.27	2/12/2010@14:12:42			
1202036065||MSD	1	75	95.0	4.40	2/12/2010@14:13:34			
246431001	1	76	-2.82	0.0393	2/12/2010@14:14:29			
246431002	1	77	-3.11	0.0264	2/12/2010@14:15:22			
246431003	1	78	-3.11	0.0264	2/12/2010@14:16:17			

246431004	1	79	-3.68	0.00125	2/12/2010@14:17:10			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:18:03			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-2.11	0.0711	2/12/2010@14:19:53			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.11 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.11 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246472002	1	80	-2.85	0.0382	2/12/2010@14:21:43			
1202036060||DUP	1	81	-2.81	0.0398	2/12/2010@14:22:36			
1202036064||MS	1	82	87.2	4.06	2/12/2010@14:23:30			
1202036068||MSD	1	83	91.2	4.23	2/12/2010@14:24:23			
246474001	1	84	-3.13	0.0258	2/12/2010@14:25:16			
246476001	1	85	-3.29	0.0185	2/12/2010@14:26:09			
246480001	1	86	-3.74	-0.00167	2/12/2010@14:27:02			
1202033014|948944|MB	1	87	-3.05	0.0294	2/12/2010@14:27:55			
1202033015||LCS	1	88	49.2	2.36	2/12/2010@14:28:48			
1202033016||LCSD	1	89	49.0	2.35	2/12/2010@14:29:40			
WCN100212-03	1	S3	102	4.73	2/12/2010@14:30:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.90	0.0803	2/12/2010@14:32:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.90 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.90 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246114001	1	90	175	7.95	2/12/2010@14:34:11			
246114002	1	91	73.9	3.46	2/12/2010@14:35:05			
246114003	1	92	145	6.63	2/12/2010@14:36:00			
246114004	1	93	175	7.96	2/12/2010@14:36:54			
246114005	1	94	110	5.09	2/12/2010@14:37:48			
246114006	1	95	89.4	4.16	2/12/2010@14:38:42			
246114007	1	96	216	9.79	2/12/2010@14:39:37			
1202031536|948330|MB	1	97	-3.71	-1.72e-4	2/12/2010@14:40:30			
1202031540||LCS	1	98	31.2	1.56	2/12/2010@14:41:24		25.00	
245957001	1	99	-1.60	0.0940	2/12/2010@14:42:18			
WCN100212-03	1	S3	102	4.71	2/12/2010@14:43:10			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								

		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	-1.81	0.0845	2/12/2010@14:45:00			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.81 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.81 > -5.00					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202031537||DUP	1	100	-2.50	0.0538	2/12/2010@14:46:50			
1202031538||MS	1	101	92.9	4.31	2/12/2010@14:47:43			
1202031539||MSD	1	102	91.8	4.26	2/12/2010@14:48:36			
245957002	1	103	-3.12	0.0261	2/12/2010@14:49:28			
245957003	1	104	-3.70	2.38e-4	2/12/2010@14:50:22			
245957004	1	105	-2.36	0.0601	2/12/2010@14:51:14			
245957005	1	106	0.227	0.175	2/12/2010@14:52:09			
245957006	1	107	-1.85	0.0829	2/12/2010@14:53:03			
246058001	1	108	-3.71	-1.37e-4	2/12/2010@14:53:58			
1202033025||DUP	1	109	-3.08	0.0280	2/12/2010@14:54:52			
WCN100212-03	1	S3	103	4.76	2/12/2010@14:55:44			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.33	0.225	2/12/2010@14:57:35			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	1.33 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	1.33 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202033026||MS	1	110	103	4.76	2/12/2010@14:59:25			
1202033027||MSD	1	111	94.0	4.36	2/12/2010@15:00:20			
246058002	1	112	1.53	0.234	2/12/2010@15:01:13			
246058003	1	113	-2.59	0.0499	2/12/2010@15:02:07			
246060001	1	114	-2.71	0.0443	2/12/2010@15:03:01			
246060002	1	115	-2.22	0.0664	2/12/2010@15:03:54			
246062001	1	116	-2.63	0.0479	2/12/2010@15:04:48			
246062002	1	117	-2.48	0.0548	2/12/2010@15:05:41			
246066007	1	118	-2.71	0.0443	2/12/2010@15:06:34			
246066008	1	119	-1.12	0.115	2/12/2010@15:07:27			
WCN100212-03	1	S3	102	4.73	2/12/2010@15:08:19			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	2.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.87	0.249	2/12/2010@15:10:09			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	1.87 < 5.00					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.87 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246066009	1	120	-0.539	0.141	2/12/2010@15:11:58			
246066010	1	121	-0.313	0.151	2/12/2010@15:12:53			
246066011	1	122	-1.20	0.112	2/12/2010@15:13:48			
246066012	1	123	-2.18	0.0678	2/12/2010@15:14:43			
246066013	1	124	-0.449	0.145	2/12/2010@15:15:37			
246114007|948944|	1	96	34.1	1.69	2/12/2010@15:16:31		5.00	
1202033028|948949|MB	1	125	-1.73	0.0881	2/12/2010@15:17:25			
1202033035||LCS	1	126	17.3	0.937	2/12/2010@15:18:19		25.00	
246066014	1	127	-0.746	0.132	2/12/2010@15:19:14			
1202033029||DUP	1	128	-1.77	0.0862	2/12/2010@15:20:08			
WCN100212-03	1	S3	101	4.69	2/12/2010@15:21:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	0.945	0.207	2/12/2010@15:22:50			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.945 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.945 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202033031||MS	1	129	50.7	2.43	2/12/2010@15:24:40			
1202033033||MSD	1	130	58.2	2.76	2/12/2010@15:25:34			
246066015	1	131	0.134	0.171	2/12/2010@15:26:27			
1202033030||DUP	1	132	-1.80	0.0851	2/12/2010@15:27:21			
1202033032||MS	1	133	88.9	4.13	2/12/2010@15:28:14			
1202033034||MSD	1	134	91.1	4.23	2/12/2010@15:29:07			
246066016	1	135	0.247	0.176	2/12/2010@15:29:59			
246066017	1	136	-1.83	0.0837	2/12/2010@15:30:54			
246066018	1	137	-2.44	0.0563	2/12/2010@15:31:49			
246066019	1	138	-2.25	0.0648	2/12/2010@15:32:44			
WCN100212-03	1	S3	101	4.67	2/12/2010@15:33:36			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.50	0.232	2/12/2010@15:35:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.50 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.50 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246066020	1	139	1.84	0.247	2/12/2010@15:37:18			
246070001	1	140	-0.620	0.138	2/12/2010@15:38:12			

246070002	1	141	-1.35	0.105	2/12/2010@15:39:06			
246070003	1	142	1.64	0.238	2/12/2010@15:40:01			
246070004	1	143	-1.26	0.109	2/12/2010@15:40:55			
246070005	1	144	-2.53	0.0525	2/12/2010@15:41:49			
246070006	1	145	-1.81	0.0845	2/12/2010@15:42:43			
246070007	1	146	-3.06	0.0285	2/12/2010@15:43:36			
246070008	1	147	-1.95	0.0782	2/12/2010@15:44:30			
246070009	1	148	-2.76	0.0423	2/12/2010@15:45:23			
WCN100212-03	1	S3	101	4.68	2/12/2010@15:46:16			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	1.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.50	0.232	2/12/2010@15:48:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.50 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.50 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246070010	1	149	-2.40	0.0582	2/12/2010@15:49:56			
246070011	1	150	-2.53	0.0525	2/12/2010@15:50:49			
246070012	1	151	-2.54	0.0520	2/12/2010@15:51:44			
246070013	1	152	-2.83	0.0390	2/12/2010@15:52:39			
1202036067|950207|MSD	1	66	86.4	4.02	2/12/2010@15:53:33			
WCN100212-03	1	S3	105	4.84	2/12/2010@15:54:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100212-08	1	S7	1.28	0.222	2/12/2010@15:56:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.28 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.28 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-12-2010_12-28-33.OMN

Property	Channel 1 TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False

Author: axc2 Date : 2/15/2010

Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

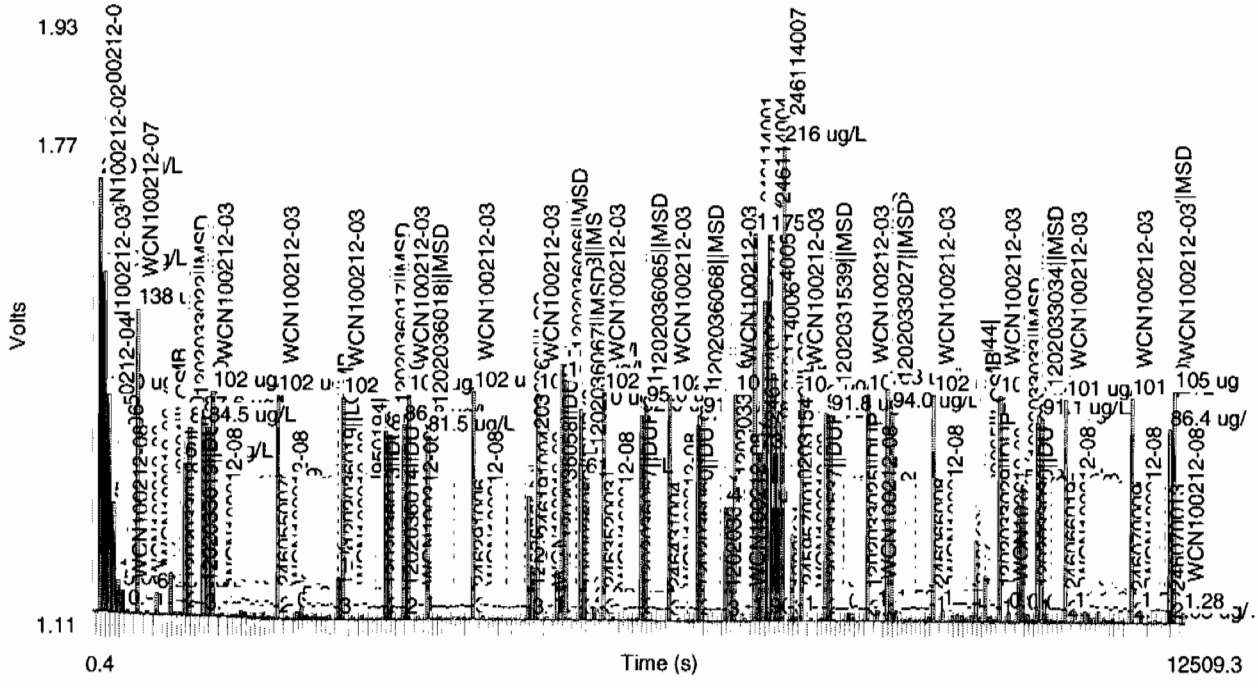

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.01	0.594	0.9	2/12/2010	12:30:21
2	150	1	7.03	0.467	-2.6	2/12/2010	12:31:13
3	100	1	4.55	0.301	1.6	2/12/2010	12:32:06
4	50.0	1	2.30	0.151	4.0	2/12/2010	12:32:59
5	10.0	1	0.695	0.0440	-13.2	2/12/2010	12:33:52
6	5.00	1	0.468	0.0313	-19.5	2/12/2010	12:34:46
7	0.00	1	0.0810	0.00430		2/12/2010	12:35:40

Figure 1: TCYANIDE

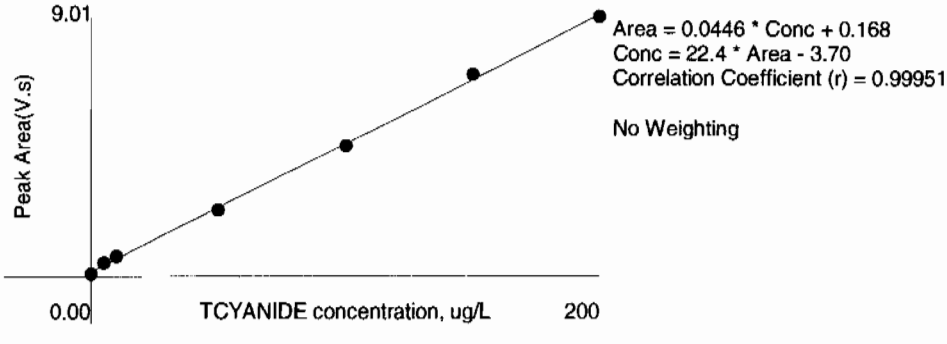

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-FEB-10			

Instrument Type:	Test / Method:	Matrix Type:	Client Code:
	SW846 9012A	Solid	LANL

Batch ID:	Sample Numbers:
948946	See Below

Potentially affected work order(s)(SDG): 246012(10-1523),246055(10-1545),246066(10-1543)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS: QC 1202033020MS	1. The spike recovery falls outside of the client specified acceptance limits. Since both the spike duplicate recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported.

Originator's Name:		Data Validator/Group Leader:	
Ashley Earl	16-FEB-10	Elzbieta Szulc	22-FEB-10

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1545-1

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	948940	**Method:**	SW9012A Cyanide and Total
Prep Batch :	948939	**Method:**	SSW846 9010B Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9012A:

Sample ID	Client ID
246056001	RE15-10-8233
246056002	RE15-10-8231
246056003	RE15-10-8230
246056004	RE15-10-8232
1202033006	Method Blank (MB)
1202033007	246004001(RE16-10-11766) Sample Duplicate (DUP)
1202033008	245926003(CAMO-10-9289) Sample Duplicate (DUP)
1202033009	246004001(RE16-10-11766) Matrix Spike (MS)
1202033010	245926003(CAMO-10-9289) Matrix Spike (MS)
1202033011	246004001(RE16-10-11766) Matrix Spike Duplicate (MSD)
1202033012	245926003(CAMO-10-9289) Matrix Spike Duplicate (MSD)
1202033013	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 245926003 (CAMO-10-9289) and 246004001 (RE16-10-11766).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202033008 (CAMO-10-9289).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: _____ **Date:** 02March10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1545-1 GEL Work Order: 246056

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1545-1

Client Sample ID: RE15-10-8233
Sample ID: 246056001
Matrix: W
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1510	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1545-1

Client Sample ID:	RE15-10-8231	Project:	LANL01004
Sample ID:	246056002	Client ID:	LANL010
Matrix:	W		
Collect Date:	29-JAN-10 12:00		
Receive Date:	03-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/08/10	1511	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1545-1

Client Sample ID: RE15-10-8230
Sample ID: 246056003
Matrix: W
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
SW9012A Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 02/08/10	1512	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL ER Project**

Report Date: February 12, 2010

Client SDG: 10-1545-1

Client Sample ID: RE15-10-8232
Sample ID: 246056004
Matrix: W
Collect Date: 29-JAN-10 12:00
Receive Date: 03-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
SW9012A Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/08/10	1513	948940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9010B Prep	SW846 9010B Prep	AXS5	02/05/10	1408	948939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9012A	

Quality Control Summary

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QC Summary

Report Date: February 12, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 246056

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis										
Batch 948940										
QC1202033007 246004001 DUP										
Cyanide, Total		U	ND	U	ND	ug/L	N/A		AXC2	02/08/10 15:01
QC1202033008 245926003 DUP										
Cyanide, Total		U	ND	U	ND	ug/L	N/A			02/08/10 14:44
QC1202033013 LCS										
Cyanide, Total	50.0				51.4	ug/L	103	(90%-110%)		02/08/10 14:37
QC1202033006 MB										
Cyanide, Total				U	5.00	ug/L				02/08/10 14:36
QC1202033009 246004001 MS										
Cyanide, Total	100	U	ND		96.2	ug/L	96.2	(60%-144%)		02/08/10 15:02
QC1202033010 245926003 MS										
Cyanide, Total	100	U	ND		93.6	ug/L	92.2	(60%-144%)		02/08/10 14:45
QC1202033011 246004001 MSD										
Cyanide, Total	100	U	ND		94.3	ug/L	1.99	94.3 (0%-20%)		02/08/10 15:03
QC1202033012 245926003 MSD										
Cyanide, Total	100	U	ND		94.0	ug/L	0.426	92.6 (0%-20%)		02/08/10 14:46

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.

QC Summary

Workorder: 246056

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 12-FEB-2010 13:10

GEL Laboratories LLC

Contract: LANL01004

SDG #: 10-1545-1

Flow Injection Analysis

Method: SW846 9012A Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-FEB-2010 13:22:34**	**OM_2-8-2010_13-14-40**	**151**	**150**	**101**	**(90%-110%)**	**Yes**
CCV	08-FEB-2010 14:26:41	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:39:11	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 14:51:47	OM_2-8-2010_13-14-40	105	100	105	(90%-110%)	Yes
CCV	08-FEB-2010 15:04:19	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes
CCV	08-FEB-2010 15:16:55	OM_2-8-2010_13-14-40	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-FEB-2010 13:24:24**	**OM_2-8-2010_13-14-40**	**-1.45**	**10**	**Yes**
CCB	08-FEB-2010 14:28:32	OM_2-8-2010_13-14-40	-1.47	10	Yes
CCB	08-FEB-2010 14:41:01	OM_2-8-2010_13-14-40	-1.57	10	Yes
CCB	08-FEB-2010 14:53:37	OM_2-8-2010_13-14-40	-1.83	10	Yes
CCB	08-FEB-2010 15:06:09	OM_2-8-2010_13-14-40	-1.82	10	Yes
CCB	08-FEB-2010 15:18:45	OM_2-8-2010_13-14-40	-1.49	10	Yes

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 948939

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202033013	URF1184831-02	.0125	mL
MS	1202033009	URF1184831-02	.025	mL
MS	1202033010	URF1184831-02	.025	mL
MSD	1202033011	URF1184831-02	.025	mL
MSD	1202033012	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202033006		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
LCS	1202033013		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245926001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926002		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926003		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202033008	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MS	1202033010	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202033012	245926003	EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926004		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926005		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926006		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245926007		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	245939001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245939002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245953001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245965001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245975001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	245981001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246000001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246004001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
DUP	1202033007	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MS	1202033009	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
MSD	1202033011	246004001	SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056001		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056002		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056003		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246056004		SW846 9010B Prep	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER
SAMPLE	246080001		EPA 335.4	05-FEB-2010 14:08	>12	25 mL	25 mL	1	WATER

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
091211-C	25 mL	0.25N Sodium Hydroxide Solution	
WCN100205-07	.0375 mL	150 ppb CN Distilled ICV Standard	
1176724-C	1.25 mL	0.8N H3NO3S	
1260189-C	2.5 mL	50% H2SO4 CN Prep	
1176778-C	1 mL	51% MgCl2 Soln	
1238142-C	1.25 mL	Bismuth Nitrate Solution	

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/8/2010 13:15:25	OM_2-8-2010_13-14-40
150 ppb		1	axc2	2/8/2010 13:16:17	OM_2-8-2010_13-14-40
100 ppb		1	axc2	2/8/2010 13:17:10	OM_2-8-2010_13-14-40
50 ppb		1	axc2	2/8/2010 13:18:03	OM_2-8-2010_13-14-40
10 ppb		1	axc2	2/8/2010 13:18:56	OM_2-8-2010_13-14-40
CRDL 5.0 ppb		1	axc2	2/8/2010 13:19:50	OM_2-8-2010_13-14-40
ICAL-00		1	axc2	2/8/2010 13:20:43	OM_2-8-2010_13-14-40
ICV		1	axc2	2/8/2010 13:22:34	OM_2-8-2010_13-14-40
ICB		1	axc2	2/8/2010 13:24:24	OM_2-8-2010_13-14-40
CRDL		1	axc2	2/8/2010 13:26:14	OM_2-8-2010_13-14-40
1202029242*	947315	1	axc2	2/8/2010 13:28:03	OM_2-8-2010_13-14-40
1202029249	947315	25	axc2	2/8/2010 13:28:57	OM_2-8-2010_13-14-40
245682001	947315	1	axc2	2/8/2010 13:29:50	OM_2-8-2010_13-14-40
245682002	947315	1	axc2	2/8/2010 13:30:43	OM_2-8-2010_13-14-40
245682003	947315	1	axc2	2/8/2010 13:31:36	OM_2-8-2010_13-14-40
245682004	947315	1	axc2	2/8/2010 13:32:29	OM_2-8-2010_13-14-40
245682005	947315	1	axc2	2/8/2010 13:33:21	OM_2-8-2010_13-14-40
245682006	947315	1	axc2	2/8/2010 13:34:14	OM_2-8-2010_13-14-40
245682007	947315	1	axc2	2/8/2010 13:35:07	OM_2-8-2010_13-14-40
245682008	947315	1	axc2	2/8/2010 13:35:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:36:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:38:42	OM_2-8-2010_13-14-40
1202029242	947315	1	axc2	2/8/2010 13:40:30	OM_2-8-2010_13-14-40
245682009	947315	1	axc2	2/8/2010 13:41:23	OM_2-8-2010_13-14-40
245682010	947315	1	axc2	2/8/2010 13:42:15	OM_2-8-2010_13-14-40
245688011	947315	1	axc2	2/8/2010 13:43:06	OM_2-8-2010_13-14-40
1202029243	947315	1	axc2	2/8/2010 13:43:58	OM_2-8-2010_13-14-40
1202029245	947315	1	axc2	2/8/2010 13:44:50	OM_2-8-2010_13-14-40
1202029247	947315	1	axc2	2/8/2010 13:45:44	OM_2-8-2010_13-14-40
245688012	947315	1	axc2	2/8/2010 13:46:37	OM_2-8-2010_13-14-40
1202029244	947315	1	axc2	2/8/2010 13:47:31	OM_2-8-2010_13-14-40
1202029246	947315	1	axc2	2/8/2010 13:48:24	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 13:49:17	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 13:51:07	OM_2-8-2010_13-14-40
1202029248	947315	1	axc2	2/8/2010 13:52:56	OM_2-8-2010_13-14-40
245688013	947315	1	axc2	2/8/2010 13:53:50	OM_2-8-2010_13-14-40
245688014	947315	1	axc2	2/8/2010 13:54:42	OM_2-8-2010_13-14-40
245797001	947315	1	axc2	2/8/2010 13:55:35	OM_2-8-2010_13-14-40
245797002	947315	1	axc2	2/8/2010 13:56:27	OM_2-8-2010_13-14-40
245797003	947315	1	axc2	2/8/2010 13:57:20	OM_2-8-2010_13-14-40
245797004	947315	1	axc2	2/8/2010 13:58:12	OM_2-8-2010_13-14-40
245797005	947315	1	axc2	2/8/2010 13:59:04	OM_2-8-2010_13-14-40
245797006	947315	1	axc2	2/8/2010 13:59:57	OM_2-8-2010_13-14-40
1202029230	947312	1	axc2	2/8/2010 14:00:48	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:01:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:03:31	OM_2-8-2010_13-14-40
1202029237	947312	25	axc2	2/8/2010 14:05:20	OM_2-8-2010_13-14-40
245612007	947312	1	axc2	2/8/2010 14:06:13	OM_2-8-2010_13-14-40
1202029231	947312	1	axc2	2/8/2010 14:07:07	OM_2-8-2010_13-14-40
1202029233	947312	1	axc2	2/8/2010 14:08:01	OM_2-8-2010_13-14-40
1202029235	947312	1	axc2	2/8/2010 14:08:54	OM_2-8-2010_13-14-40
245612008	947312	1	axc2	2/8/2010 14:09:48	OM_2-8-2010_13-14-40
1202029232	947312	1	axc2	2/8/2010 14:10:41	OM_2-8-2010_13-14-40
1202029234	947312	1	axc2	2/8/2010 14:11:33	OM_2-8-2010_13-14-40
1202029236	947312	1	axc2	2/8/2010 14:12:26	OM_2-8-2010_13-14-40
245612009	947312	1	axc2	2/8/2010 14:13:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010 14:14:12	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010 14:16:04	OM_2-8-2010_13-14-40

245612010	947312	1	axc2	2/8/2010	14:17:52	OM_2-8-2010_13-14-40
245612011	947312	1	axc2	2/8/2010	14:18:45	OM_2-8-2010_13-14-40
245612012	947312	1	axc2	2/8/2010	14:19:37	OM_2-8-2010_13-14-40
245612013	947312	1	axc2	2/8/2010	14:20:29	OM_2-8-2010_13-14-40
245612014	947312	1	axc2	2/8/2010	14:21:22	OM_2-8-2010_13-14-40
245612015	947312	1	axc2	2/8/2010	14:22:13	OM_2-8-2010_13-14-40
245612016	947312	1	axc2	2/8/2010	14:23:07	OM_2-8-2010_13-14-40
245688001	947312	1	axc2	2/8/2010	14:24:02	OM_2-8-2010_13-14-40
245688002	947312	1	axc2	2/8/2010	14:24:55	OM_2-8-2010_13-14-40
245688003	947312	1	axc2	2/8/2010	14:25:50	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:26:41	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:28:32	OM_2-8-2010_13-14-40
245688004	947312	1	axc2	2/8/2010	14:30:23	OM_2-8-2010_13-14-40
245688005	947312	1	axc2	2/8/2010	14:31:15	OM_2-8-2010_13-14-40
245688006	947312	1	axc2	2/8/2010	14:32:08	OM_2-8-2010_13-14-40
245688007	947312	1	axc2	2/8/2010	14:33:01	OM_2-8-2010_13-14-40
245688008	947312	1	axc2	2/8/2010	14:33:55	OM_2-8-2010_13-14-40
245688009	947312	1	axc2	2/8/2010	14:34:47	OM_2-8-2010_13-14-40
245688010	947312	1	axc2	2/8/2010	14:35:40	OM_2-8-2010_13-14-40
1202033006	948940	1	axc2	2/8/2010	14:36:34	OM_2-8-2010_13-14-40
1202033013	948940	1	axc2	2/8/2010	14:37:26	OM_2-8-2010_13-14-40
245926001	948940	1	axc2	2/8/2010	14:38:19	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:39:11	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:41:01	OM_2-8-2010_13-14-40
245926002	948940	1	axc2	2/8/2010	14:42:50	OM_2-8-2010_13-14-40
245926003	948940	1	axc2	2/8/2010	14:43:43	OM_2-8-2010_13-14-40
1202033008	948940	1	axc2	2/8/2010	14:44:35	OM_2-8-2010_13-14-40
1202033010	948940	1	axc2	2/8/2010	14:45:29	OM_2-8-2010_13-14-40
1202033012	948940	1	axc2	2/8/2010	14:46:24	OM_2-8-2010_13-14-40
245926004	948940	1	axc2	2/8/2010	14:47:19	OM_2-8-2010_13-14-40
245926005	948940	1	axc2	2/8/2010	14:48:12	OM_2-8-2010_13-14-40
245926006	948940	1	axc2	2/8/2010	14:49:06	OM_2-8-2010_13-14-40
245926007	948940	1	axc2	2/8/2010	14:50:01	OM_2-8-2010_13-14-40
245939001	948940	1	axc2	2/8/2010	14:50:54	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	14:51:47	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	14:53:37	OM_2-8-2010_13-14-40
245939002*	948940	1	axc2	2/8/2010	14:55:27	OM_2-8-2010_13-14-40
245953001*	948940	1	axc2	2/8/2010	14:56:21	OM_2-8-2010_13-14-40
245965001*	948940	1	axc2	2/8/2010	14:57:14	OM_2-8-2010_13-14-40
245975001	948940	1	axc2	2/8/2010	14:58:06	OM_2-8-2010_13-14-40
245981001	948940	1	axc2	2/8/2010	14:59:00	OM_2-8-2010_13-14-40
246000001	948940	1	axc2	2/8/2010	14:59:52	OM_2-8-2010_13-14-40
246004001	948940	1	axc2	2/8/2010	15:00:45	OM_2-8-2010_13-14-40
1202033007	948940	1	axc2	2/8/2010	15:01:38	OM_2-8-2010_13-14-40
1202033009	948940	1	axc2	2/8/2010	15:02:32	OM_2-8-2010_13-14-40
1202033011	948940	1	axc2	2/8/2010	15:03:27	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:04:19	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:06:09	OM_2-8-2010_13-14-40
245939002	948940	1	axc2	2/8/2010	15:07:59	OM_2-8-2010_13-14-40
245953001	948940	1	axc2	2/8/2010	15:08:53	OM_2-8-2010_13-14-40
245965001	948940	1	axc2	2/8/2010	15:09:46	OM_2-8-2010_13-14-40
246056001	948940	1	axc2	2/8/2010	15:10:41	OM_2-8-2010_13-14-40
246056002	948940	1	axc2	2/8/2010	15:11:35	OM_2-8-2010_13-14-40
246056003	948940	1	axc2	2/8/2010	15:12:29	OM_2-8-2010_13-14-40
246056004	948940	1	axc2	2/8/2010	15:13:23	OM_2-8-2010_13-14-40
246080001	948940	1	axc2	2/8/2010	15:14:17	OM_2-8-2010_13-14-40
1202029252	947318	1	axc2	2/8/2010	15:15:10	OM_2-8-2010_13-14-40
1202029259	947318	25	axc2	2/8/2010	15:16:03	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:16:55	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:18:45	OM_2-8-2010_13-14-40

245797007	947318	1	axc2	2/8/2010	15:20:34	OM_2-8-2010_13-14-40
1202029253	947318	1	axc2	2/8/2010	15:21:26	OM_2-8-2010_13-14-40
1202029255	947318	1	axc2	2/8/2010	15:22:20	OM_2-8-2010_13-14-40
1202029257	947318	1	axc2	2/8/2010	15:23:14	OM_2-8-2010_13-14-40
245797008	947318	1	axc2	2/8/2010	15:24:08	OM_2-8-2010_13-14-40
1202029254	947318	1	axc2	2/8/2010	15:25:02	OM_2-8-2010_13-14-40
1202029256	947318	1	axc2	2/8/2010	15:25:56	OM_2-8-2010_13-14-40
1202029258	947318	1	axc2	2/8/2010	15:26:50	OM_2-8-2010_13-14-40
245797009	947318	1	axc2	2/8/2010	15:27:43	OM_2-8-2010_13-14-40
245797010	947318	1	axc2	2/8/2010	15:28:36	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:29:29	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:31:18	OM_2-8-2010_13-14-40
245797011	947318	1	axc2	2/8/2010	15:33:08	OM_2-8-2010_13-14-40
245797012	947318	1	axc2	2/8/2010	15:34:00	OM_2-8-2010_13-14-40
245797013	947318	1	axc2	2/8/2010	15:34:53	OM_2-8-2010_13-14-40
245797014	947318	1	axc2	2/8/2010	15:35:46	OM_2-8-2010_13-14-40
245797015	947318	1	axc2	2/8/2010	15:36:38	OM_2-8-2010_13-14-40
245797016	947318	1	axc2	2/8/2010	15:37:31	OM_2-8-2010_13-14-40
245797017	947318	1	axc2	2/8/2010	15:38:23	OM_2-8-2010_13-14-40
245797018	947318	1	axc2	2/8/2010	15:39:17	OM_2-8-2010_13-14-40
245797019	947318	1	axc2	2/8/2010	15:40:11	OM_2-8-2010_13-14-40
245806001	947318	1	axc2	2/8/2010	15:41:06	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:41:58	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:43:48	OM_2-8-2010_13-14-40
245806002	947318	1	axc2	2/8/2010	15:45:38	OM_2-8-2010_13-14-40
245806003	947318	1	axc2	2/8/2010	15:46:33	OM_2-8-2010_13-14-40
245806004	947318	1	axc2	2/8/2010	15:47:26	OM_2-8-2010_13-14-40
245806005	947318	1	axc2	2/8/2010	15:48:19	OM_2-8-2010_13-14-40
245806006	947318	1	axc2	2/8/2010	15:49:13	OM_2-8-2010_13-14-40
245806007	947318	1	axc2	2/8/2010	15:50:06	OM_2-8-2010_13-14-40
1202034313	949504	1	axc2	2/8/2010	15:51:00	OM_2-8-2010_13-14-40
1202034315	949504	250	axc2	2/8/2010	15:51:53	OM_2-8-2010_13-14-40
246078001	949504	1	axc2	2/8/2010	15:52:47	OM_2-8-2010_13-14-40
1202034314	949504	1	axc2	2/8/2010	15:53:40	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	15:54:33	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	15:56:23	OM_2-8-2010_13-14-40
246078002	949504	1	axc2	2/8/2010	15:58:12	OM_2-8-2010_13-14-40
246078003	949504	1	axc2	2/8/2010	15:59:05	OM_2-8-2010_13-14-40
246078004	949504	1	axc2	2/8/2010	15:59:58	OM_2-8-2010_13-14-40
CCV		1	axc2	2/8/2010	16:00:51	OM_2-8-2010_13-14-40
CCB		1	axc2	2/8/2010	16:02:41	OM_2-8-2010_13-14-40

Author: axc2 Date : 2/8/2010

Original Run Filename: OM_2-8-2010_13-14-40.OMN created 2/8/2010 13:14:40
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-8-2010_13-14-40.OMN last modified 2/8/2010 16:03:46
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100208-01	1	S1	200	8.74	2/8/2010@13:15:25			200 ppb
WCN100208-02	1	S2	150	6.63	2/8/2010@13:16:17			150 ppb
WCN100208-03	1	S3	100	4.52	2/8/2010@13:17:10			100 ppb
WCN100208-04	1	S4	50.0	2.28	2/8/2010@13:18:03			50 ppb
WCN100208-05	1	S5	10.0	0.511	2/8/2010@13:18:56			10 ppb
WCN100208-06	1	S6	5.00	0.321	2/8/2010@13:19:50			CRDL 5.0 ppb
WCN100208-08	1	S7	0.00	0.00906	2/8/2010@13:20:43			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100208-07	1	S8	151	6.65	2/8/2010@13:22:34			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100208-08	1	S7	-1.45	0.0181	2/8/2010@13:24:24			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.45 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.45 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100208-06	1	S6	5.53	0.322	2/8/2010@13:26:14			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.53 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.53 > 2.50					
		Message	CRDL Passed					
		Action	Continue					
1202029242|947315|MB	1	1	441	19.3	2/8/2010@13:28:03			
1202029249||LCS	1	2	26.6	1.24	2/8/2010@13:28:57		25.00	
245682001	1	3	-0.713	0.0500	2/8/2010@13:29:50			
245682002	1	4	-0.651	0.0528	2/8/2010@13:30:43			
245682003	1	5	0.833	0.117	2/8/2010@13:31:36			
245682004	1	6	-1.86	-1.22e-4	2/8/2010@13:32:29			
245682005	1	7	-0.452	0.0614	2/8/2010@13:33:21			
245682006	1	8	-0.944	0.0400	2/8/2010@13:34:14			
245682007	1	9	-1.19	0.0293	2/8/2010@13:35:07			
245682008	1	10	6.00	0.343	2/8/2010@13:35:58			
WCN100208-03	1	S3	105	4.68	2/8/2010@13:36:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.40	0.0203	2/8/2010@13:38:42			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029242|947315|MB	1	1	-1.06	0.0348	2/8/2010@13:40:30			
245682009	1	11	-0.822	0.0453	2/8/2010@13:41:23			
245682010	1	12	1.86	0.162	2/8/2010@13:42:15			
245688011	1	13	-0.777	0.0473	2/8/2010@13:43:06			
1202029243||DUP	1	14	-2.01	-0.00640	2/8/2010@13:43:58			
1202029245||MS	1	15	86.6	3.85	2/8/2010@13:44:50			
1202029247||MSD	1	16	78.4	3.50	2/8/2010@13:45:44			
245688012	1	17	0.261	0.0925	2/8/2010@13:46:37			
1202029244||DUP	1	18	0.738	0.113	2/8/2010@13:47:31			
1202029246||MS	1	19	69.2	3.10	2/8/2010@13:48:24			
WCN100208-03	1	S3	105	4.67	2/8/2010@13:49:17			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.92	-0.00263	2/8/2010@13:51:07			CCB
		Known Conc:	0.00					
		DQM Test: > + Concentration Limit						
		Result:	-1.92 < 5.00					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-1.92 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029248||MSD	1	20	71.4	3.19	2/8/2010@13:52:56			
245688013	1	21	-1.01	0.0373	2/8/2010@13:53:50			
245688014	1	22	0.338	0.0958	2/8/2010@13:54:42			
245797001	1	23	-0.979	0.0385	2/8/2010@13:55:35			
245797002	1	24	-0.863	0.0435	2/8/2010@13:56:27			
245797003	1	25	-0.309	0.0676	2/8/2010@13:57:20			
245797004	1	26	0.938	0.122	2/8/2010@13:58:12			
245797005	1	27	2.23	0.178	2/8/2010@13:59:04			
245797006	1	28	-0.105	0.0766	2/8/2010@13:59:57			
1202029230|947312|MB	1	29	-1.23	0.0277	2/8/2010@14:00:48			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:01:41			CCV
		Known Conc:	100					
		DQM Test: > + Percent Relative Difference						
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Percent Relative Difference						
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	0.00	2/8/2010@14:03:31			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202029237||LCS	1	30	28.0	1.30	2/8/2010@14:05:20		25.00	
245612007	1	31	-0.913	0.0414	2/8/2010@14:06:13			
1202029231||DUP	1	32	-1.27	0.0256	2/8/2010@14:07:07			
1202029233||MS	1	33	89.8	3.99	2/8/2010@14:08:01			
1202029235||MSD	1	34	85.3	3.80	2/8/2010@14:08:54			
245612008	1	35	-0.535	0.0578	2/8/2010@14:09:48			
1202029232||DUP	1	36	-1.07	0.0347	2/8/2010@14:10:41			
1202029234||MS	1	37	86.4	3.85	2/8/2010@14:11:33			
1202029236||MSD	1	38	84.8	3.78	2/8/2010@14:12:26			
245612009	1	39	-0.656	0.0526	2/8/2010@14:13:19			
WCN100208-03	1	S3	105	4.65	2/8/2010@14:14:12			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.95	-0.00373	2/8/2010@14:16:04			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245612010	1	40	-0.280	0.0689	2/8/2010@14:17:52			
245612011	1	41	-1.09	0.0336	2/8/2010@14:18:45			
245612012	1	42	-1.19	0.0295	2/8/2010@14:19:37			
245612013	1	43	1.77	0.158	2/8/2010@14:20:29			
245612014	1	44	-0.868	0.0433	2/8/2010@14:21:22			
245612015	1	45	-0.814	0.0457	2/8/2010@14:22:13			
245612016	1	46	-1.07	0.0344	2/8/2010@14:23:07			
245688001	1	47	0.570	0.106	2/8/2010@14:24:02			
245688002	1	48	-0.480	0.0602	2/8/2010@14:24:55			
245688003	1	49	-0.404	0.0635	2/8/2010@14:25:50			
WCN100208-03	1	S3	105	4.64	2/8/2010@14:26:41			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.47	0.0172	2/8/2010@14:28:32			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.47 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.47 > -5.00					
		Message	CCB Passed					
		Action	Continue					

245688004	1	50	-0.636	0.0534	2/8/2010@14:30:23			
245688005	1	51	-0.336	0.0665	2/8/2010@14:31:15			
245688006	1	52	1.16	0.131	2/8/2010@14:32:08			
245688007	1	53	-0.543	0.0575	2/8/2010@14:33:01			
245688008	1	54	-1.27	0.0259	2/8/2010@14:33:55			
245688009	1	55	-0.570	0.0563	2/8/2010@14:34:47			
245688010	1	56	-0.384	0.0644	2/8/2010@14:35:40			
1202033006|948940|MB	1	85	-1.45	0.0179	2/8/2010@14:36:34			
1202033013||LCS	1	86	51.4	2.32	2/8/2010@14:37:26			
245926001	1	87	14.3	0.704	2/8/2010@14:38:19			
WCN100208-03	1	S3	105	4.67	2/8/2010@14:39:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			5.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.57	0.0127	2/8/2010@14:41:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.57 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.57 > -5.00					
Message			CCB Passed					
Action			Continue					
245926002	1	88	13.4	0.665	2/8/2010@14:42:50			
245926003	1	89	1.37	0.141	2/8/2010@14:43:43			
1202033008||DUP	1	90	-1.19	0.0293	2/8/2010@14:44:35			
1202033010||MS	1	91	93.6	4.16	2/8/2010@14:45:29			
1202033012||MSD	1	92	94.0	4.18	2/8/2010@14:46:24			
245926004	1	93	-1.04	0.0356	2/8/2010@14:47:19			
245926005	1	94	-1.86	-1.28e-4	2/8/2010@14:48:12			
245926006	1	95	-1.99	-0.00557	2/8/2010@14:49:06			
245926007	1	96	-1.18	0.0298	2/8/2010@14:50:01			
245939001	1	97	-1.20	0.0290	2/8/2010@14:50:54			
WCN100208-03	1	S3	105	4.66	2/8/2010@14:51:47			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			5.0 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			5.0 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100208-08	1	S7	-1.83	0.00132	2/8/2010@14:53:37			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.83 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.83 > -5.00					
Message			CCB Passed					
Action			Continue					
245939002	1	98	81.1	3.62	2/8/2010@14:55:27			
245953001	1	99	-11.0	-0.399	2/8/2010@14:56:21			
245965001	1	100	257	11.3	2/8/2010@14:57:14			
245975001	1	101	-1.84	9.46e-4	2/8/2010@14:58:06			
245981001	1	102	-1.72	0.00598	2/8/2010@14:59:00			
246000001	1	103	-1.86	2.83e-4	2/8/2010@14:59:52			
246004001	1	104	-2.03	-0.00731	2/8/2010@15:00:45			
1202033007||DUP	1	105	-1.87	-2.30e-4	2/8/2010@15:01:38			

1202033009||MS	1	106	96.2	4.27	2/8/2010@15:02:32			
1202033011||MSD	1	107	94.3	4.19	2/8/2010@15:03:27			
WCN100208-03	1	S3	104	4.63	2/8/2010@15:04:19			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00202	2/8/2010@15:06:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245939002	1	98	-1.86	1.33e-4	2/8/2010@15:07:59			
245953001	1	99	-1.90	-0.00162	2/8/2010@15:08:53			
245965001	1	100	-1.86	-1.03e-4	2/8/2010@15:09:46			
246056001	1	108	-1.29	0.0251	2/8/2010@15:10:41			
246056002	1	109	-2.00	-0.00595	2/8/2010@15:11:35			
246056003	1	110	-1.42	0.0194	2/8/2010@15:12:29			
246056004	1	111	-2.00	-0.00588	2/8/2010@15:13:23			
246080001	1	112	-1.45	0.0179	2/8/2010@15:14:17			
1202029252|947318|MB	1	57	-1.86	-1.18e-4	2/8/2010@15:15:10			
1202029259||LCS	1	58	29.0	1.35	2/8/2010@15:16:03		25.00	
WCN100208-03	1	S3	104	4.62	2/8/2010@15:16:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.49	0.0161	2/8/2010@15:18:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797007	1	59	-0.787	0.0468	2/8/2010@15:20:34			
1202029253||DUP	1	60	-0.616	0.0543	2/8/2010@15:21:26			
1202029255||MS	1	61	83.5	3.72	2/8/2010@15:22:20			
1202029257||MSD	1	62	84.4	3.76	2/8/2010@15:23:14			
245797008	1	63	3.82	0.248	2/8/2010@15:24:08			
1202029254||DUP	1	64	1.23	0.135	2/8/2010@15:25:02			
1202029256||MS	1	65	89.1	3.96	2/8/2010@15:25:56			
1202029258||MSD	1	66	78.7	3.51	2/8/2010@15:26:50			
245797009	1	67	-0.647	0.0529	2/8/2010@15:27:43			
245797010	1	68	-0.409	0.0633	2/8/2010@15:28:36			
WCN100208-03	1	S3	105	4.66	2/8/2010@15:29:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					

DQM Test: < - Percent Relative Difference								
		Result:	5.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.86	2.47e-4	2/8/2010@15:31:18			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245797011	1	69	1.59	0.150	2/8/2010@15:33:08			
245797012	1	70	-0.296	0.0682	2/8/2010@15:34:00			
245797013	1	71	-0.166	0.0739	2/8/2010@15:34:53			
245797014	1	72	5.34	0.314	2/8/2010@15:35:46			
245797015	1	73	0.400	0.0985	2/8/2010@15:36:38			
245797016	1	74	0.789	0.115	2/8/2010@15:37:31			
245797017	1	75	0.157	0.0880	2/8/2010@15:38:23			
245797018	1	76	3.07	0.215	2/8/2010@15:39:17			
245797019	1	77	-0.779	0.0472	2/8/2010@15:40:11			
245806001	1	78	-1.11	0.0326	2/8/2010@15:41:06			
WCN100208-03	1	S3	105	4.65	2/8/2010@15:41:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.82	0.00186	2/8/2010@15:43:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
245806002	1	79	0.0705	0.0842	2/8/2010@15:45:38			
245806003	1	80	-0.264	0.0696	2/8/2010@15:46:33			
245806004	1	81	-0.767	0.0477	2/8/2010@15:47:26			
245806005	1	82	-0.805	0.0461	2/8/2010@15:48:19			
245806006	1	83	-0.580	0.0559	2/8/2010@15:49:13			
245806007	1	84	0.973	0.124	2/8/2010@15:50:06			
1202034313|949504|MB	1	113	-1.24	0.0270	2/8/2010@15:51:00			
1202034315||LCS	1	114	107	4.74	2/8/2010@15:51:53		250.00	
246078001	1	115	-1.01	0.0370	2/8/2010@15:52:47			
1202034314||DUP	1	116	-1.86	1.40e-4	2/8/2010@15:53:40			
WCN100208-03	1	S3	105	4.67	2/8/2010@15:54:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.93	-0.00287	2/8/2010@15:56:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.93 < 5.00					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.93 > -5.00					
		Message	CCB Passed					
		Action	Continue					
246078002	1	117	-0.783	0.0470	2/8/2010@15:58:12			
246078003	1	118	-1.88	-6.47e-4	2/8/2010@15:59:05			
246078004	1	119	17.8	0.856	2/8/2010@15:59:58			
WCN100208-03	1	S3	105	4.64	2/8/2010@16:00:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100208-08	1	S7	-1.52	0.0147	2/8/2010@16:02:41			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.52 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.52 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_2-8-2010_13-14-40.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 2/8/2010

Channel 1: Current View

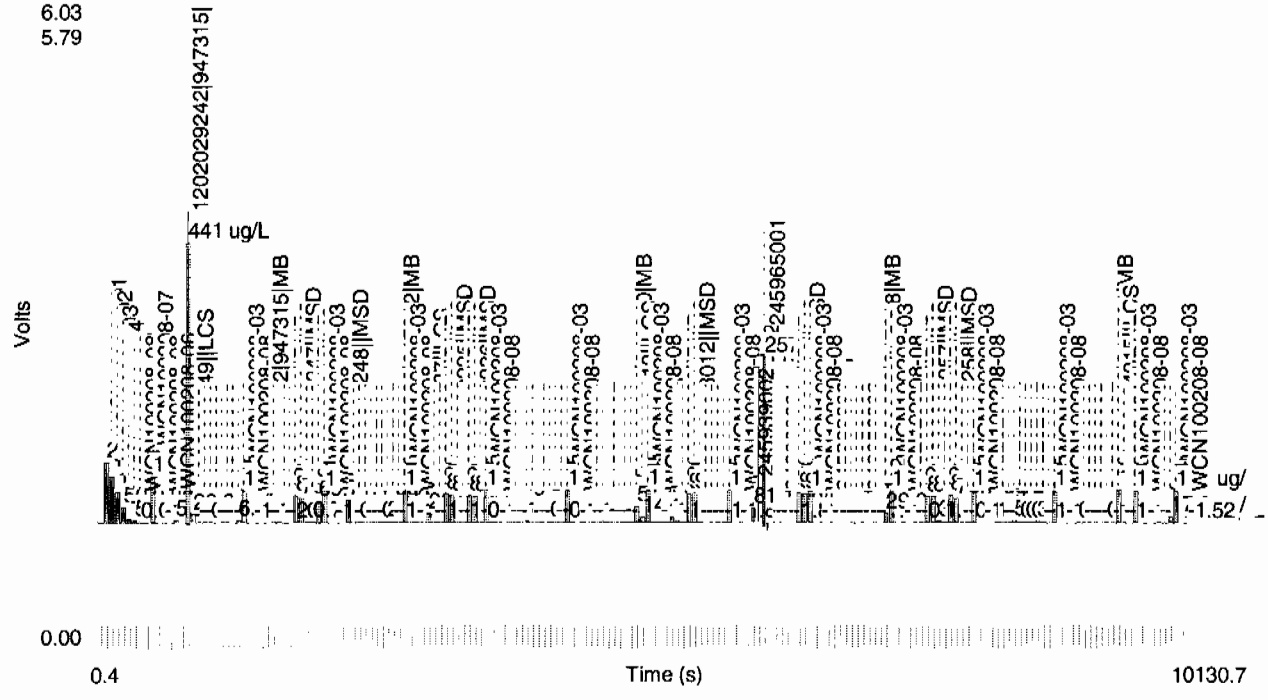

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.74	0.574	0.7	2/8/2010	13:16:28
2	150	1	6.63	0.438	-0.3	2/8/2010	13:17:20
3	100	1	4.52	0.298	-1.8	2/8/2010	13:18:12
4	50.0	1	2.28	0.149	-0.9	2/8/2010	13:19:05
5	10.0	1	0.511	0.0326	1.3	2/8/2010	13:19:59
6	5.00	1	0.321	0.0198	-7.0	2/8/2010	13:20:52
7	0.00	1	0.00906	0.00212		2/8/2010	13:21:47

Figure 1: TCYANIDE

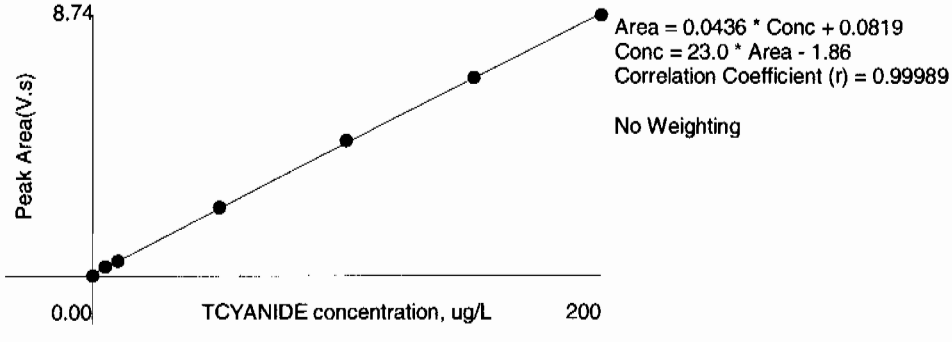

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1564

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1564

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/3/2010

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7332	R	2/1/2010	
		1	RE15-10-7333	R	2/1/2010	
		1	RE15-10-7342	R	2/1/2010	
	SW-846:8321A_MOD	1	RE15-10-7332	R	2/1/2010	
		1	RE15-10-7333	R	2/1/2010	
		1	RE15-10-7334	R	2/1/2010	
		1	RE15-10-7335	R	2/1/2010	
		1	RE15-10-7336	R	2/1/2010	
		1	RE15-10-7337	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1564

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7338	R	2/1/2010	
		1	RE15-10-7339	R	2/1/2010	
		1	RE15-10-7342	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1564

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1564

REQUEST NUMBER: 10-1564

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7332	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7333	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7336	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7337	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7334	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7335	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7338	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7339	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7342	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
Jerry Wes		2/3/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7332 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	QBT3	Alh
TIME COLLECTED (HH:MM)		0850	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(g)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610565	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1/6/10	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brownish gray sand and cobbles

FD: RE15-10-7342

SAMPLE COMMENTS:

NA

LOCATION DESC: 8g-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 5 dpm
Beta/Gamma ≤ 1617 dpm

HE negative

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TL McFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	2/1/10	(Printed Name) Sherri Sherwood	2/1/10
(Signature) R Saunders	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7333 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		0906	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(g)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610565	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	2.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY 1 liter LC 1/6/10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown sand with cobbles and few roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8g-2

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1596 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarlane

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	2/1/10	(Printed Name) Sherri Sherwood	2/1/10
(Signature) R Saunders	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7334 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0910	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(g)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610566	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter LC 1/6/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand and cobbles

SAMPLE COMMENTS: NA

LOCATION DESC: 8g-4 center of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1430 dpm

HE negative
PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	2/1/10 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/1/10 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7335 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	OBT3	ok
TIME COLLECTED (HH:MM)		0920	SUB-MEDIA:	TUFF 1	L
PRS ID:	15-008(g)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610566	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	✓	FIELD PREP:	NA	
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	✓
BOTTOM DEPTH:	0	4.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	R	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter RC 1/6/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	✓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Pinkish gray tuff and brown sand, roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8g-4 center of AOC

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 2080 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	2/1/10	(Printed Name) Sherri Sherwood	2/1/10
(Signature) R Saunders	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7336 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		0916	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(g)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610567	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter RC 1/6/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown sand with cobbles

SAMPLE COMMENTS: NA

LOCATION DESC: 8g-1

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 11 dpm
Beta/Gamma ≤ 1727 dpm

PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	2/1/10	(Printed Name) Sherri Sherwood	2/1/10
(Signature) R Saunders	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7337 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	OBT3	ALLH
TIME COLLECTED (HH:MM)		0928	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(g)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610567	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY liter RC 1/6/10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: brown sand with cobbles

FR RE15-10-7344

SAMPLE COMMENTS:
NA

LOCATION DESC: 8g-1

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 11 **dpm**
Beta/Gamma ≤ 1631 **dpm**

PID Ambient 0.0 / Reading 0.0 **ppm**

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	2/1/10	(Printed Name) Sherri Sherwood	2/1/10
(Signature) R Saunders	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7338 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	QBT3	Alluv
TIME COLLECTED (HH:MM)		0935	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(g)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610568		FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	0.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) / NA

BOREHOLE: YES / (NO) / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1		H3	500 ML POLY	Ice	Y	
1		Met+U+CLO4+CN	1 ~~GAL~~ POLY liter fc 1/6/10	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: Brown sand and cobbles, roots

SAMPLE COMMENTS: NA

LOCATION DESC: 8g-3

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 16 dpm
Beta/Gamma ≤ 1506 dpm

HE negative
PID Ambient 0.0 / Reading 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders	2/1/10 1630	(Printed Name) Sherri Sherwood	2/1/10 1630
(Signature) R Saunders		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7339 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010 ~~02/10/2010~~ TTm 2/01/10	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		BS 02/01/10 ~~02/01/2010~~ 0943	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-008(g)	OK	SAMPLE TECH CODE:	HA	OK
LOCATION ID:	15-610568	↓	FIELD QC TYPE:	NA	↓
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	2.0	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	3.0	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / (NO) NA

BOREHOLE: YES / (NO) NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+ClO4+CN	1 ~~GAL~~ POLY liter LC 1/6/10	Ice	Y	
1	↓	NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: pinkish grey tuff and some brown sand

SAMPLE COMMENTS:
NA

LOCATION DESC: 8g-3

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha ≤ 22 dpm
Beta/Gamma ≤ 1893 dpm

PID Ambient Reading 0.0 / 0.0 ppm

COLLECTED BY (PRINT) R Saunders

REVIEWED BY (PRINT) TLMcFarland

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	2/1/10 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/1/10 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7342 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	QBT3	All h
TIME COLLECTED (HH:MM)		0850	SUB-MEDIA:	TUFF 1	NA
PRS ID:	15-008(g)	ok	SAMPLE TECH CODE:	HA	ok
LOCATION ID:	UNK	15-610565	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	NA	↓
TOP DEPTH:	0	0.0	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	0.5	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	S	EXCAVATED: YES / (NO) / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / (NO) / NA

BOREHOLE: YES / (NO) NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	AM241+GS+ISOPU+ISOU	1 LITER POLY	None	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Met+U+CLO4+CN	1 ~~GAL~~ POLY liter LC 1/6/10	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-7332

Brownish gray sand and cobbles

SAMPLE COMMENTS:

NA

LOCATION DESC: 8g-2

FIELD SCREENING/MEASUREMENT RESULTS: HE negative

Alpha ≤ 5 **dpm**
Beta/Gamma ≤ 1617 **dpm**

PID Ambient Reading 0.0 / 0.0 **ppm**

COLLECTED BY (PRINT) TLMcFarland

REVIEWED BY (PRINT) R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	2/1/10 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/1/10 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2483 **EVENT NAME:** 4th Qtr. FY09 - AOC 15-008(g) - Threemile Canyon

SAMPLE ID: RE15-10-7344 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/01/2010	MEDIA:	NA	ok
TIME COLLECTED (HH:MM)		0936	SUB-MEDIA:	OTHER	
PRS ID:	15-008(g)	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610567	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	ok	FIELD PREP:	UF	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	W		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	METALS+U-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-7337

SAMPLE COMMENTS:
Rinsate

LOCATION DESC:
NA

FIELD SCREENING/MEASUREMENT RESULTS:
NA

COLLECTED BY (PRINT) TLMcFarland **REVIEWED BY (PRINT)** R Saunders

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) R Saunders (Signature) R Saunders	2/1/10 1630	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/1/10 1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7332
7333
7334
7335
7336
7337
7338
7339
7342
8304
8305
8306
8307

RE15-10-8308
8309
8300
8301
8324
7981
7982
7983
7984
7985

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-7344
RE15-10-8328
] rinsate

RE15-10-8332 FTB

Reason:

Print Last Name McFarland Signature [signature] Date 2/01/10

Rad Screening Data Release Form

The Following samples were received at the Field Support Facility (FSF) without screening data (list sample number):

RE15-10-7332
7333
7334
7335
7336
7337
7338
7339
7342
8304
8305
8306
8307

RE15-10-8308
8309
8300
8301
8324
7981
7982
7983
7984
7985

These samples will not be shipped until radiological screening data documentation arrives at the FSF. I understand that it is my responsibility to ensure this information arrives at the FSF in a timely manner. If holding times are missed because screening data does not arrive, I will pick up the samples.

The following samples do not require rad screening data for the reasons stated (list sample numbers):

RE15-10-7344
RE15-10-8328] rinsate

RE15-10-8332 FTB

Reason:

Print Last Name McFarland Signature [signature] Date 2/01/10

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00040	Request or PO Number:	
Client Sample ID:	RE15-10-7332	ARS Sample ID:	ARS2-10-00040-001
Sample Collection Date:	02/01/10 08:50	Date Received:	02/02/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	34.46	29.40	37.46	29.70		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	36.30	15.14	18.46	15.76		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	12.33	6.00	1.59	6.01		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.00	10.40	0.11	10.40		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.17	0.14	0.08	0.14		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	-0.01	13.61	0.07	13.61		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
EU-152	0.00	10.82	0.12	10.82		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	1.10	0.42	0.12	0.43		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
RA-226	2.09	0.85	0.28	0.85		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	2.38	1.04	0.32	1.04		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	2.75	2.70	1.23	2.77		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	-0.01	34.51	0.08	34.51		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 0.94

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00040
Client Sample ID: RE15-10-7333
Sample Collection Date: 02/01/10 09:06
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00040-002
Date Received: 02/02/10 00:00
Report Date: 02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	30.31	25.76	31.30	26.03		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	37.65	14.56	16.49	15.27		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	26.29	8.14	1.46	8.18		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.00	0.53	0.10	0.53		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.07	0.09	0.07	0.09		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	0.06	0.15	0.07	0.15		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
EU-152	0.46	0.42	0.11	0.42		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	0.72	0.37	0.14	0.37		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
RA-228	1.47	0.73	0.25	0.73		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	1.31	0.85	0.44	0.85		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	3.57	2.86	1.15	2.97		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	0.02	0.10	0.06	0.10		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 0.74

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00040	Request or PO Number:	
Client Sample ID:	RE15-10-7334	ARS Sample ID:	ARS2-10-00040-003
Sample Collection Date:	02/01/10 09:10	Date Received:	02/02/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	5.31	13.61	28.72	13.63		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	52.09	16.97	19.14	18.13		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	9.52	4.93	1.37	4.94		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.00	0.98	0.09	0.98		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	0.23	0.18	0.06	0.18		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
BI-212	0.00	47.50	0.11	47.50		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	0.64	0.35	0.14	0.35		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
RA-228	0.97	0.74	0.24	0.74		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	0.79	0.54	0.14	0.54		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	3.45	2.56	1.14	2.68		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	0.28	0.39	0.15	0.39		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 1.99

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00040	Request or PO Number:	
Client Sample ID:	RE15-10-7335	ARS Sample ID:	ARS2-10-00040-004
Sample Collection Date:	02/01/10 09:20	Date Received:	02/02/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	39.13	30.12	37.10	30.50		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	38.36	15.47	18.29	16.16		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	29.28	9.79	1.88	9.83		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.00	12.30	0.12	12.30		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.12	0.14	0.09	0.14		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	0.13	0.16	0.08	0.16		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
EU-152	0.61	0.57	0.14	0.57		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	1.41	0.56	0.18	0.56		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
RA-228	1.23	0.74	0.33	0.74		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	-0.08	69.11	0.19	69.11		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	4.24	4.12	1.66	4.24		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	0.01	0.05	0.07	0.05		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 1.22

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: ARS2-10-00040
Client Sample ID: RE15-10-7236
Sample Collection Date: 02/01/10 09:16
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: ARS2-10-00040-005
Date Received: 02/02/10 00:00
Report Date: 02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	29.51	27.78	37.46	27.98		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	38.83	15.00	18.46	15.63		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	15.60	5.45	1.09	5.47		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.00	7.11	0.07	7.11		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.32	0.21	0.05	0.21		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	0.02	0.05	0.04	0.05		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
EU-152	0.30	0.23	0.08	0.23		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	0.80	0.33	0.11	0.33		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
RA-226	0.59	0.36	0.35	0.36		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	0.20	0.26	0.16	0.26		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	3.07	1.98	0.76	2.10		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	-0.01	23.60	0.05	23.60		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 3.17

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00040	Request or PO Number:	
Client Sample ID:	RE15-10-7337	ARS Sample ID:	ARS2-10-00040-006
Sample Collection Date:	02/01/10 09:28	Date Received:	02/02/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 2s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	30.31	25.76	31.30	26.03		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	35.07	14.26	16.49	14.89		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.00	0.00	0.10	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	21.70	7.58	1.51	7.61		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	0.07	0.11	0.06	0.11		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
EU-152	0.27	0.43	0.23	0.43		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	1.07	0.41	0.12	0.41		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
RA-228	1.35	0.85	0.26	0.86		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	-0.06	88.23	0.20	88.23		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	1.42	1.68	0.85	1.71		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	0.16	0.18	0.06	0.18		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 0.63

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	ARS2-10-00040	Request or PO Number:	
Client Sample ID:	RE15-10-7338	ARS Sample ID:	ARS2-10-00040-007
Sample Collection Date:	02/01/10 09:35	Date Received:	02/02/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 3 σ	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	53.60	32.88	28.72	33.93		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	57.65	18.47	19.14	19.77		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.00	0.00	0.08	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	16.18	5.83	1.20	5.85		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.00	7.83	0.08	7.83		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.05	0.08	0.06	0.08		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	-0.01	10.24	0.05	10.24		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
EU-152	0.21	0.25	0.09	0.25		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	0.80	0.33	0.11	0.33		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
BA-133	0.87	0.58	0.21	0.58		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	1.31	0.87	0.36	0.87		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	6.51	2.87	0.91	3.23		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	0.05	0.10	0.05	0.10		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 1.80

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

ARS AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544
505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group: AR52-10-00040
Client Sample ID: RE15-10-7339
Sample Collection Date: 02/01/10 09:43
Sample Matrix: Soil/Solid

Request or PO Number:
ARS Sample ID: AR52-10-00040-008
Date Received: 02/02/10 00:00
Report Date: 02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	71.28	38.41	37.10	39.39		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	48.53	17.06	18.29	18.06		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.00	0.00	0.12	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	27.94	9.61	1.09	9.65		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.00	12.39	0.13	12.39		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.13	0.12	0.09	0.12		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	0.13	0.16	0.08	0.16		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
EU-152	0.68	0.49	0.14	0.49		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	1.05	0.43	0.11	0.44		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
RA-228	0.89	0.43	0.36	0.43		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	0.31	0.41	0.33	0.41		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	0.96	2.28	1.30	2.29		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	0.56	0.56	0.18	0.56		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 1.43

Quality Assurance Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 30658 NELAP Certificate # E87558

AMERICAN RADIATION SERVICES, INC.

133 State Road 4, White Rock, NM 87544

505-672-2770 FAX 505-672-9534

ARS Sample Delivery Group:	AR52-10-00040	Request or PO Number:	
Client Sample ID:	RE15-10-7342	ARS Sample ID:	AR52-10-00040-009
Sample Collection Date:	02/01/10 08:50	Date Received:	02/02/10 00:00
Sample Matrix:	Soil/Solid	Report Date:	02/03/10 17:20

Analysis Description	Analysis Results	Analysis Error +/- 2 S	MDC	TPU	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
GROSS ALPHA	83.87	42.53	37.46	43.75		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
GROSS BETA	81.34	20.05	18.46	22.39		pCi/g	EPA 900.0M	2/3/2010	ME	N/A
NA-22	0.00	0.00	0.09	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
K-40	13.32	5.98	1.48	5.99		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CO-60	0.06	0.12	0.10	0.12		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-134	0.00	0.00	0.07	0.00		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
CS-137	0.10	0.13	0.06	0.13		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
EU-152	1.30	0.60	0.11	0.60		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
PB-212	0.36	0.37	0.16	0.37		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
RA-228	0.91	0.59	0.26	0.59		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-235	-0.05	86.42	0.19	86.42		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
U-238	4.44	2.92	0.91	2.72		pCi/g	EPA 901.1M	2/3/2010	ME	N/A
AM-241	0.03	0.14	0.08	0.14		pCi/g	EPA 901.1M	2/3/2010	ME	N/A

NOTES: % Moisture: 1.25

Quality Assurance Review

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LELAP Certificate# 30658 NELAP Certificate # EB7558

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1564 VALIDATION DATE: 03/31/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL RRF for p-nitrotoluene was <0.01. The associated sample results were NDs and, thus, were qualified R,HE7b. The ICAL RRFs were <0.05 but ≥0.01 for 2-amino-4,6-dinitrotoluene, PETN, o-nitrotoluene, and m-nitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7b.
2. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.
3. The CCV %Ds were >20% with positive bias for tetryl. The associated sample results were NDs and, thus, were not qualified.
4. It should be noted that the parent QC sample was from another LANL RN. In addition, the raw data for the parent sample were not included in the data package. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/01/10

VALIDATOR'S SIGNATURE: DATE: 03/31/10

DATA VALIDATION COVER SHEET	
5122-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☒	☐	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312079.wiff

Date Analyzed: 13-MAR-10 18:18

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010121.wiff

Date Analyzed: 02-MAR-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	20800	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010079.wiff

Date Analyzed: 02-MAR-10 05:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7333

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318002

Sample Amount 2

Moisture: 5.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312080.wiff

Date Analyzed: 13-MAR-10 18:45

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7333

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318002

Sample Amount 2

Moisture: 5.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010118.wiff

Date Analyzed: 02-MAR-10 15:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	554	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312081.wiff

Date Analyzed: 13-MAR-10 19:11

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010122.wiff

Date Analyzed: 02-MAR-10 16:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	23900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010081.wiff

Date Analyzed: 02-MAR-10 06:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7336

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312082.wiff

Date Analyzed: 13-MAR-10 19:37

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7336

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010119.wiff

Date Analyzed: 02-MAR-10 16:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312083.wiff

Date Analyzed: 13-MAR-10 20:04

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010123.wiff

Date Analyzed: 02-MAR-10 17:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	27300	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010083.wiff

Date Analyzed: 02-MAR-10 06:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7334

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312084.wiff

Date Analyzed: 13-MAR-10 20:30

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7334

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010120.wiff

Date Analyzed: 02-MAR-10 16:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	327	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7335

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312085.wiff

Date Analyzed: 13-MAR-10 20:57

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7335

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010085.wiff

Date Analyzed: 02-MAR-10 07:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5280	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15--10-7338

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312086.wiff

Date Analyzed: 13-MAR-10 21:23

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7338

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010086.wiff

Date Analyzed: 02-MAR-10 07:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7339

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312090.wiff

Date Analyzed: 13-MAR-10 23:09

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl		500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	R,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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3/31/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7339

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010090.wiff

Date Analyzed: 02-MAR-10 08:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	16600	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

SEB
3/31/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1564 VALIDATION DATE: 03/31/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The parent QC sample was from another LANL RN, and the raw data for the parent QC sample were not included in the data package. Since the analysis of an MS/MSD pair was not a client requirement, no sample results were qualified.

Reviewed by: Mary Donivan Level: I Date: 04/01/10

VALIDATOR'S SIGNATURE: [signature] DATE: 03/31/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1947

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1564**	**Date Collected:**	**02/01/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246318001**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**6.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7332**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 11:21**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	023b2301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.56	ug/kg	1.19	3.56	1
11104-28-2	Aroclor-1221	U	3.56	ug/kg	1.19	3.56	1
11141-16-5	Aroclor-1232	U	3.56	ug/kg	1.19	3.56	1
53469-21-9	Aroclor-1242	U	3.56	ug/kg	1.19	3.56	1
12672-29-6	Aroclor-1248	U	3.56	ug/kg	1.19	3.56	1
11097-69-1	Aroclor-1254	U	3.56	ug/kg	1.19	3.56	1
11096-82-5	Aroclor-1260	U	3.56	ug/kg	1.19	3.56	1

SEB
3/31/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1564	**Date Collected:**	02/01/2010 12:00	**Matrix:**	R
Lab Sample ID:	246318002	**Date Received:**	02/05/2010 09:00	**%Moisture:**	5.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7333	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 11:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	024f2401.d	**Column:**	1 CLP1	**Level:**	LOW
	024b2401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.53	ug/kg	1.18	3.53	1
11104-28-2	Aroclor-1221	U	3.53	ug/kg	1.18	3.53	1
11141-16-5	Aroclor-1232	U	3.53	ug/kg	1.18	3.53	1
53469-21-9	Aroclor-1242	U	3.53	ug/kg	1.18	3.53	1
12672-29-6	Aroclor-1248	U	3.53	ug/kg	1.18	3.53	1
11097-69-1	Aroclor-1254	U	3.53	ug/kg	1.18	3.53	1
11096-82-5	Aroclor-1260	U	3.53	ug/kg	1.18	3.53	1

SEB
3/31/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1564	**Date Collected:**	02/01/2010 12:00	**Matrix:**	R
Lab Sample ID:	246318003	**Date Received:**	02/05/2010 09:00	**%Moisture:**	5.6
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7342	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 11:46	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.07 g	**Final Volume:**	1 mL
Data File:	025f2501.d	**Column:**	1 CLP1	**Level:**	LOW
	025b2501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

SEB
3/31/10

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1564

REQUEST NUMBER: 10-1564

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246318°/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7332	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7333	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7336	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7337	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7334	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7335	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7338	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7339	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7342	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
Jeff W S		2/3/10	1400	Patriciae Dover-Dent	P.N. Wint	2/5/10	09:00
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1564

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-1564
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/3/2010
TURNAROUND/REPORT DUE: 3/5/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7332	R	2/1/2010	
		1	RE15-10-7333	R	2/1/2010	
		1	RE15-10-7342	R	2/1/2010	
	SW-846:8321A_MOD	1	RE15-10-7332	R	2/1/2010	
		1	RE15-10-7333	R	2/1/2010	
		1	RE15-10-7334	R	2/1/2010	
		1	RE15-10-7335	R	2/1/2010	
		1	RE15-10-7336	R	2/1/2010	
		1	RE15-10-7337	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1564

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7338	R	2/1/2010	
		1	RE15-10-7339	R	2/1/2010	
		1	RE15-10-7342	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1564

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 10, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL ER Project
Work Order: 246318
SDG: 10-1564

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 05, 2010, and analyzed for Explosives by LCMSMS and GC Semivolatile PCB. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1564
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 246318
SDG: 10-1564

TABLE OF CONTENTS

Case Narrative.....1

Chain of Custody and Supporting Documentation..... 4

Data Review Qualifier Flag Definition Sheet..... 16

LC/MS/MS Explosives Analysis.....18
- Sample Data Summary.....24
- Quality Control Summary.....46
- Sample Data..... 225
- Standards Data.....337
- Quality Control Data.....625
- Miscellaneous Data.....651

GC Semivolatile PCB Analysis.....684
- Sample Data Summary.....690
- Quality Control Summary.....694
- Sample Data..... 700
- Standards Data.....716
- Quality Control Data.....789
- Miscellaneous Data.....802

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 246318
SDG # : 10-1564

February 10, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 05, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
246318001	RE15-10-7332
246318002	RE15-10-7333
246318003	RE15-10-7342
246318004	RE15-10-7336
246318005	RE15-10-7337
246318006	RE15-10-7334
246318007	RE15-10-7335
246318008	RE15-10-7338
246318009	RE15-10-7339

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS and GC Semivolatile PCB.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 10 February 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, February 03, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1564

REQUEST NUMBER: 10-1564

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 246318°/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-7332	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7333	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-7336	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7337	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7334	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7335	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7338	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7339	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-7342	1	AMBER GLASS	8082+NMED-HEXP	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
Jeff Wells		2/3/10	1400	Patricia Dover-Dent	P. W. Dent	2/5/10	09:00
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1564

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1564

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/3/2010

TURNAROUND/REPORT DUE: 3/5/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNT/NR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	1	RE15-10-7332	R	2/1/2010	
		1	RE15-10-7333	R	2/1/2010	
		1	RE15-10-7342	R	2/1/2010	
	SW-846:8321A_MOD	1	RE15-10-7332	R	2/1/2010	
		1	RE15-10-7333	R	2/1/2010	
		1	RE15-10-7334	R	2/1/2010	
		1	RE15-10-7335	R	2/1/2010	
		1	RE15-10-7336	R	2/1/2010	
		1	RE15-10-7337	R	2/1/2010	

Wednesday, February 03, 2010

REQUEST NUMBER: 10-1564

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	RE15-10-7338	R	2/1/2010	
		1	RE15-10-7339	R	2/1/2010	
		1	RE15-10-7342	R	2/1/2010	

Final Page of REQUEST NUMBER 10-1564

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1564**
Received By: Patricia Dover-Dent	**Date Received: February 5, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **3-6** **9-14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7849 9021 3C	**7209 7849 8963 4C**	**7209 7849 8724 6C**	**7209 7849 8665 12C**
7209 7849 9065 3C	**7209 7849 8805 4C**	**7209 7849 9043 6C**	**7209 7849 8676 13C**
7209 7849 9010 3C	**7209 7849 8779 4C**	**7209 7849 8827 6C**	**7209 7849 9000 14C**
7209 7849 8780 4C	**7209 7849 8838 5C**	**7209 7849 9124 6C**	
7209 7849 8735 4C	**7209 7849 8816 5C**	**7209 7849 8941 9C**	
7209 7849 8713 4C	**7209 7849 8790 5C**	**7209 7849 8952 10C**	
7209 7849 8746 4C	**7209 7849 9054 6C**	**7209 7849 8687 11C**	
7209 7849 8974 4C	**7209 7849 8702 6C**	**7209 7849 8698 12C**	

PM (or PMA) review: Initials GRT Date 2-6-10

ORIGIN ID: SAFA (505) 665-9068
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 52.0 LB MAN
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SHIP DATE: 04FEB10
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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
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SHIP DATE: 04FEB10
ACTWGT: 40.0 LB MAN
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ACTWGT: 59.0 LB MAN
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Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
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SHIP DATE: 04FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
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LOS ALAMOS, NM 87545
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Part # 150846-434 NAIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

10

CHARLESTON SC 29407
(843) 556-8171
REF: 58010AMR3A0520A00

FedEx Express

2 of 2
MPS# 0263 7209 7849 8952
Matr# 7209 7849 8941 0201
FRI - 05FEB A1
PRIORITY OVERNIGHT
29407
SC-US
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Part # 150846-434 NAIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

11

CHARLESTON SC 29407
(843) 556-8171
REF: 58010AMR3A0520A00

FedEx Express

1 of 3
TRK# 0201 7209 7849 8687
FRI - 05FEB A1
PRIORITY OVERNIGHT
NN MASTER NN
29407
SC-US
CHS
XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2449
BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

12

CHARLESTON SC 29407
(843) 556-8171
REF: 58010AMR3A0520A00

FedEx Express

2 of 3
MPS# 0263 7209 7849 8698
Matr# 7209 7849 8687 0201
FRI - 05FEB A1
PRIORITY OVERNIGHT
29407
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CAD: 0014176/CAFE2449

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120

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PRIORITY OVERNIGHT

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SC-US
CHS

XX CHSA

ORIGIN ID: SHEM
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0528A00

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FRI - 05FEB
PRIORITY OVERNIGHT

2 of 2
MPS# 7209 7849 8676
0263
Mstr# 7209 7849 8665 0201

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 04FEB10
ACTWGT: 38.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWK0

140

FedEx Express

FRI - 05FEB
PRIORITY OVERNIGHT

2 of 3
MPS# 7209 7849 9000
0263
Mstr# 7209 7849 8996 0201

29407
SC-US
CHS

XX CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1564

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	950081
Prep Batch Number:	950080

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
246318001	RE15-10-7332
246318002	RE15-10-7333
246318003	RE15-10-7342
246318004	RE15-10-7336
246318005	RE15-10-7337
246318006	RE15-10-7334
246318007	RE15-10-7335
246318008	RE15-10-7338
246318009	RE15-10-7339
1202035678	Method Blank (MB)
1202035679	Laboratory Control Sample (LCS)
1202035680	246330002(RE15-10-8304) Matrix Spike (MS)
1202035681	246330002(RE15-10-8304) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

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Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 246330002 (RE15-10-8304) from SDG 10-1567 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 246330002 (RE15-10-8304) from SDG 10-1567 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

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Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. Samples 246318001 (RE15-10-7332), 246318003 (RE15-10-7342) and 246318005 (RE15-10-7337) were further diluted to bring the over range concentrations within the calibration range. The final dilution in each case takes the 1:2 initial dilution into consideration.

Sample Re-extraction/Re-analysis
Samples 246318002 (RE15-10-7333), 246318004 (RE15-10-7336) and 246318006 (RE15-10-7334) were re-analyzed for potential carryover from the previous sample. The re-analysis data are reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K Mauer **Date:** 03/25/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312079.wiff

Date Analyzed: 13-MAR-10 18:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010121.wiff

Date Analyzed: 02-MAR-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	20800	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010079.wiff

Date Analyzed: 02-MAR-10 05:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7333

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318002

Sample Amount 2

Moisture: 5.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312080.wiff

Date Analyzed: 13-MAR-10 18:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7333

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318002

Sample Amount 2

Moisture: 5.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010118.wiff

Date Analyzed: 02-MAR-10 15:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	554	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312081.wiff

Date Analyzed: 13-MAR-10 19:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010122.wiff

Date Analyzed: 02-MAR-10 16:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	23900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEI

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010081.wiff

Date Analyzed: 02-MAR-10 06:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7336

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312082.wiff

Date Analyzed: 13-MAR-10 19:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7336

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010119.wiff

Date Analyzed: 02-MAR-10 16:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312083.wiff

Date Analyzed: 13-MAR-10 20:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010123.wiff

Date Analyzed: 02-MAR-10 17:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	27300	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010083.wiff

Date Analyzed: 02-MAR-10 06:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15--10--7334

Lab Code: GEL

GEL Job No (SDG) 10--1564

Matrix: SOIL

GEL Sample ID: 246318006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05--FEB--10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15--FEB--10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312084.wiff

Date Analyzed: 13--MAR--10 20:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15--10-7334

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010120.wiff

Date Analyzed: 02-MAR-10 16:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	327	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7335

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312085.wiff

Date Analyzed: 13-MAR-10 20:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7335

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010085.wiff

Date Analyzed: 02-MAR-10 07:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5280	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7338

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312086.wiff

Date Analyzed: 13-MAR-10 21:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7338

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010086.wiff

Date Analyzed: 02-MAR-10 07:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7339

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312090.wiff

Date Analyzed: 13-MAR-10 23:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7339

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010090.wiff

Date Analyzed: 02-MAR-10 08:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	16600	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1564

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
246318001	RE15-10-7332	90.4	70 – 144	
246318001	RE15-10-7332	99.2	70 – 144	
246318001	RE15-10-7332	99.2	70 – 144	
246318002	RE15-10-7333	93.6	70 – 144	
246318002	RE15-10-7333	96.4	70 – 144	
246318003	RE15-10-7342	92	70 – 144	
246318003	RE15-10-7342	97.2	70 – 144	
246318003	RE15-10-7342	98.6	70 – 144	
246318004	RE15-10-7336	94.8	70 – 144	
246318004	RE15-10-7336	95.2	70 – 144	
246318005	RE15-10-7337	103	70 – 144	
246318005	RE15-10-7337	98.4	70 – 144	
246318005	RE15-10-7337	102	70 – 144	
246318006	RE15-10-7334	98	70 – 144	
246318006	RE15-10-7334	92.8	70 – 144	
246318007	RE15-10-7335	97.6	70 – 144	
246318007	RE15-10-7335	98.8	70 – 144	
246318008	RE15-10-7338	96.8	70 – 144	
246318008	RE15-10-7338	95.6	70 – 144	
246318009	RE15-10-7339	92	70 – 144	
246318009	RE15-10-7339	99.6	70 – 144	
1202035678	MB for batch 950080	106	70 – 144	
1202035678	MB for batch 950080	105	70 – 144	
1202035679	LCS for batch 950080	75.6	70 – 144	
1202035679	LCS for batch 950080	96	70 – 144	

DNT = 3,4-Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1564

Extract Batch Code: 950080

Date Extracted: 15-FEB-10

GEL LCS ID: 1202035679

GEL LCSDUP ID:

Analysis Date/Time: 13-MAR-10 17:52

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	5000	4220	84.4					69 – 126
2,4,6-Trinitrotoluene	5000	4180	83.6					73 – 149
2,4-Dinitrotoluene	5000	4610	92.2					87 – 137
2,6-Dinitrotoluene	5000	4650	93					89 – 120
2-Amino-4,6-dinitrotoluene	5000	4700	94					90 – 130
4-Amino-2,6-dinitrotoluene	5000	4500	90					84 – 130
HMX	5000	4160	83.2					58 – 138
Nitrobenzene	5000	4670	93.4					71 – 122
PETN	5000	4680	93.6					64 – 137
RDX	5000	4830	96.6					81 – 137
Tetryl	5000	2930	58.6					51 – 112
m-Dinitrobenzene	5000	4390	87.8					83 – 122
m-Nitrotoluene	5000	3680	73.6					73 – 118
o-Nitrotoluene	5000	4420	88.4					72 – 119
p-Nitrotoluene	5000	4000	80					67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEI

GEL Job No (SDG) 10-1564

Extract Batch Code: 950080

Date Extracted: 15-FEB-10

GEL LCS ID: 1202035679

GEL LCSDUP ID:

Analysis Date/Time: 02-MAR-10 05:15

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,6-Diamino-4-nitrotoluene	5000	5440	109					64 – 122
3,5-Dinitroaniline	5000	4980	99.6					70 – 127
TATB	5000	5850	117					28 – 162
2,4-Diamino-6-nitrotoluene	5000	5460	109					52 – 114
tris(o-cresyl) phosphate	5000	4570	91.4					84 – 119

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8304

Lab Code: GEL

GEL Job No (SDG) 10-1564

Extract Batch Code: 950080

Date Extracted: 15-FEB-10

GEL Spike ID: 1202035680

GEL SpikeDup ID: 1202035681

Analysis Date/Time: 14-MAR-10 00:02

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4350	87	4820	96.4	10.3	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	4230	84.6	4480	89.6	5.74	30	76 – 144
2,4-Dinitrotoluene	5000	0	4690	93.8	4980	99.6	6	30	86 – 135
2,6-Dinitrotoluene	5000	0	4880	97.6	5440	109	10.9	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	4660	93.2	4950	99	6.04	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	4850	97	5110	102	5.22	30	72 – 143
HMX	5000	0	4320	86.4	4670	93.4	7.79	30	51 – 144
Nitrobenzene	5000	0	4260	85.2	4770	95.4	11.3	30	70 – 122
PETN	5000	0	5150	103	5320	106	3.25	30	60 – 140
RDX	5000	0	4530	90.6	4890	97.8	7.64	30	59 – 152
Tetryl	5000	0	3220	64.4	4210	84.2	26.6	30	36 – 124
m-Dinitrobenzene	5000	0	4680	93.6	5160	103	9.76	30	85 – 118
m-Nitrotoluene	5000	0	4750	95	4580	91.6	3.64	30	70 – 120
o-Nitrotoluene	5000	0	4500	90	4590	91.8	1.98	30	69 – 123
p-Nitrotoluene	5000	0	4430	88.6	4270	85.4	3.68	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8304

Lab Code: GEL

GEL Job No (SDG) 10-1564

Extract Batch Code: 950080

Date Extracted: 15-FEB-10

GEL Spike ID: 1202035680

GEL SpikeDup ID: 1202035681

Analysis Date/Time: 02-MAR-10 08:55

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	4480	89.6	4430	88.6	1.12	26	34 – 135
2,6-Diamino-4-nitrotoluene	5000	0	5140	103	5310	106	3.25	30	55 – 130
3,5-Dinitroaniline	5000	0	4820	96.4	5000	100	3.67	30	73 – 129
tris(o-cresyl) phosphate	5000	0	4660	93.2	4950	99	6.04	30	72 – 127
TATB	5000	0	5410	108	5310	106	1.87	30	29 – 155

#Column to be used to flag recovery and RPD values with an asterisk

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12-MAR-10 07:58

GEL Data File: EXP0312001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
DNX	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312001.wiff	**Acquisition Date**	3/12/2010 7:58:58 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

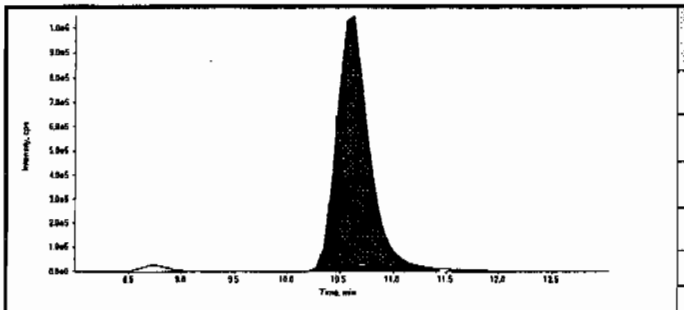

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

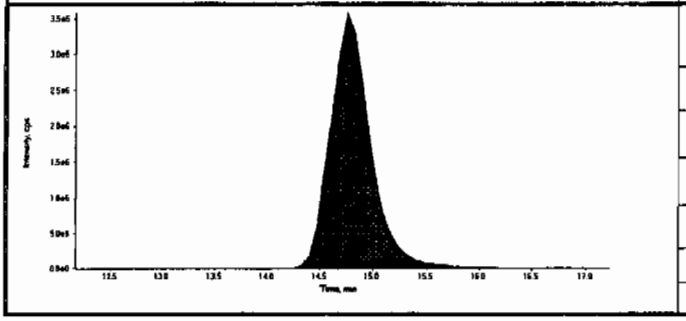

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	95900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

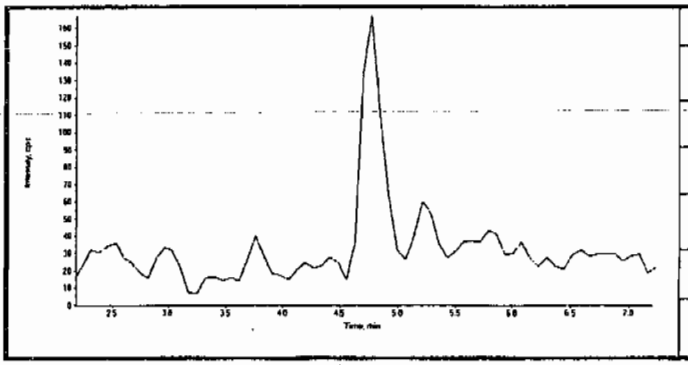

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

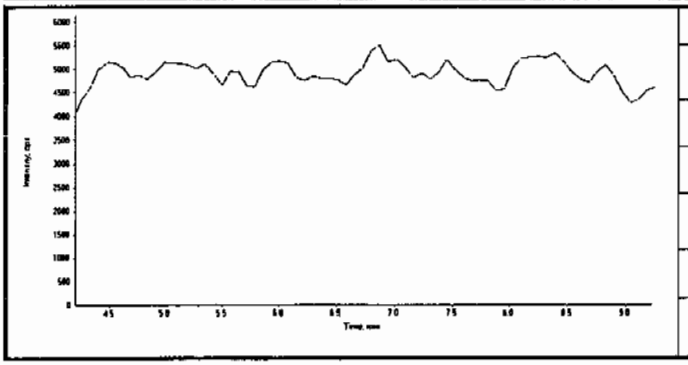

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lar 3/24/10 HMM 03/24/10

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Data File	EXP0312001.wiff	**Acquisition Date**	3/12/2010 7:58:58 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

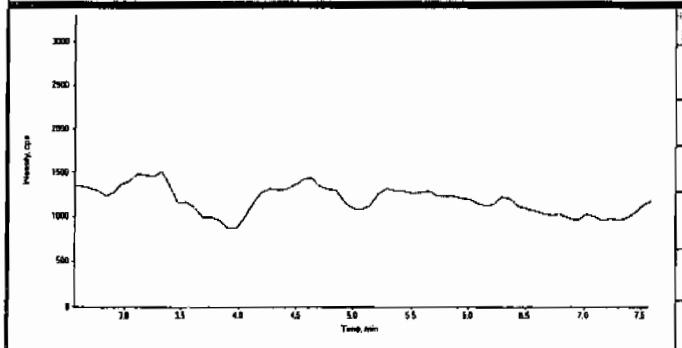

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

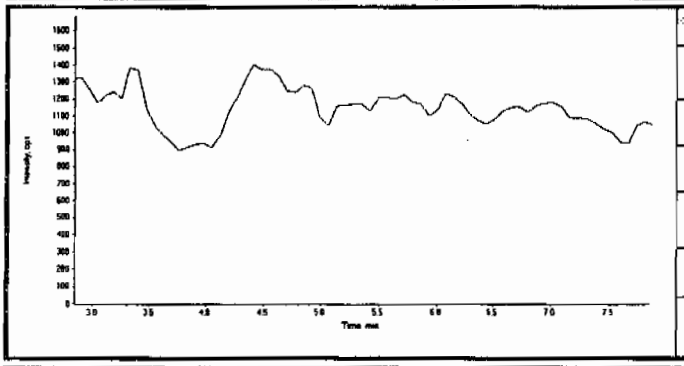

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

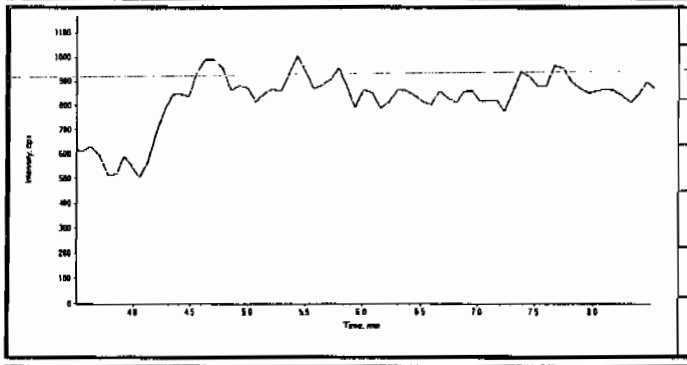

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

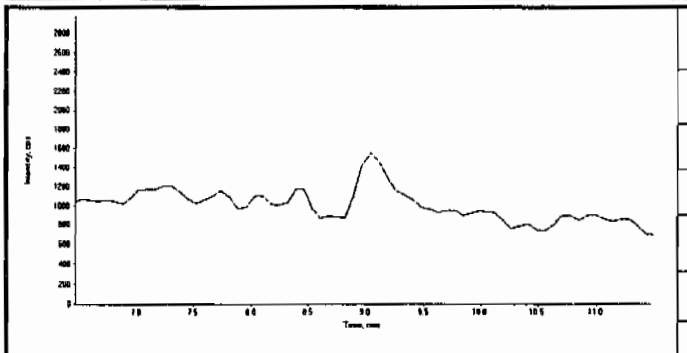

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312001.wiff	**Acquisition Date**	3/12/2010 7:58:58 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

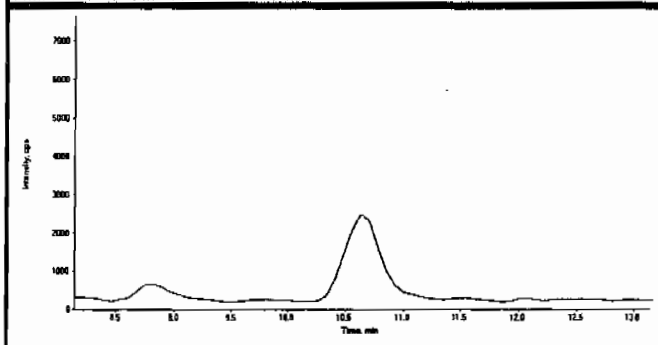

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

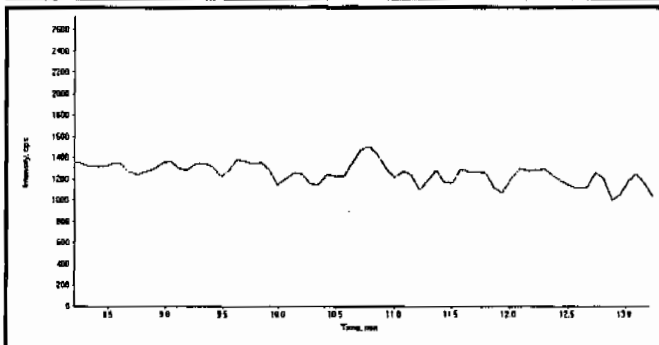

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

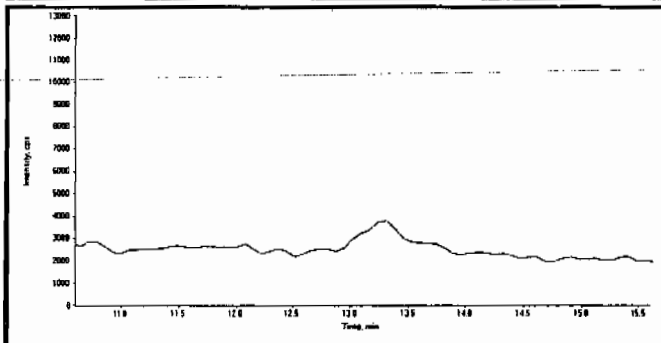

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

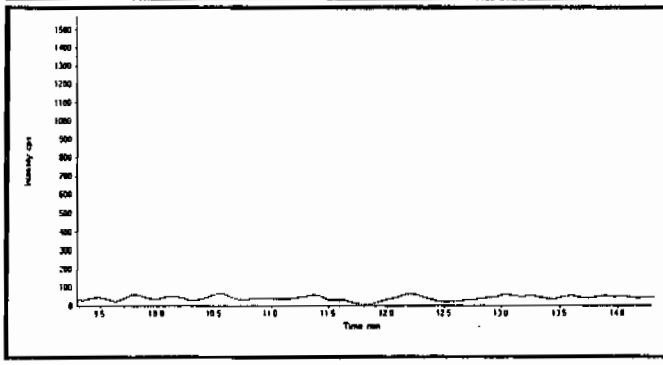

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312001.wiff	**Acquisition Date**	3/12/2010 7:58:58 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

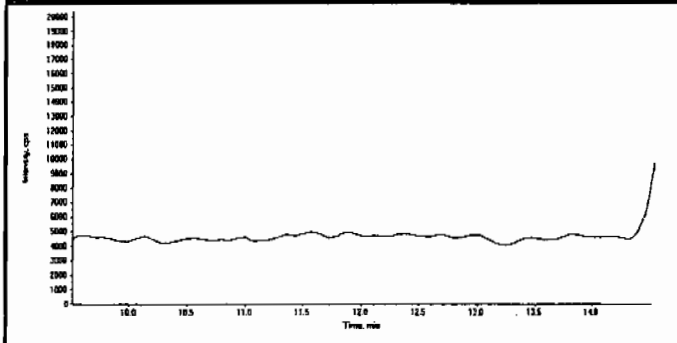

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

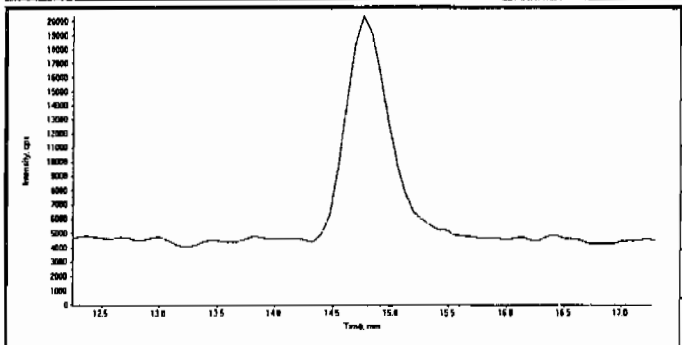

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

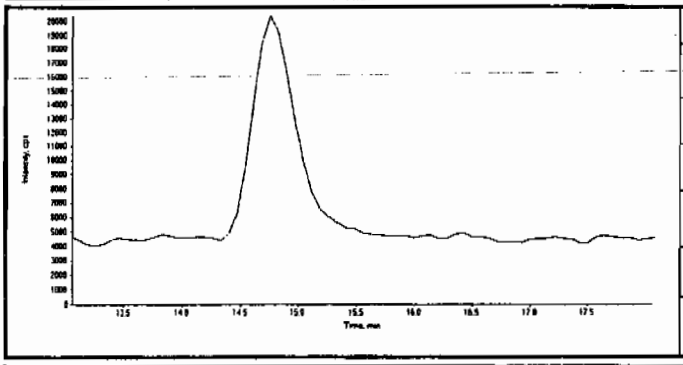

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

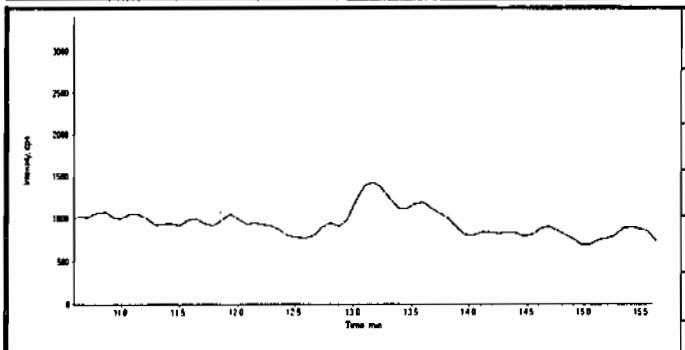

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312001.wiff	**Acquisition Date**	3/12/2010 7:58:58 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

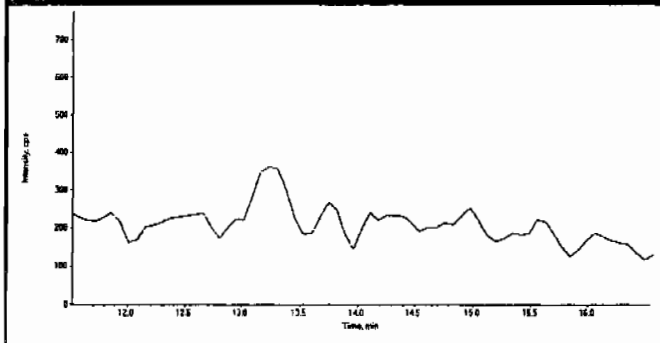

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

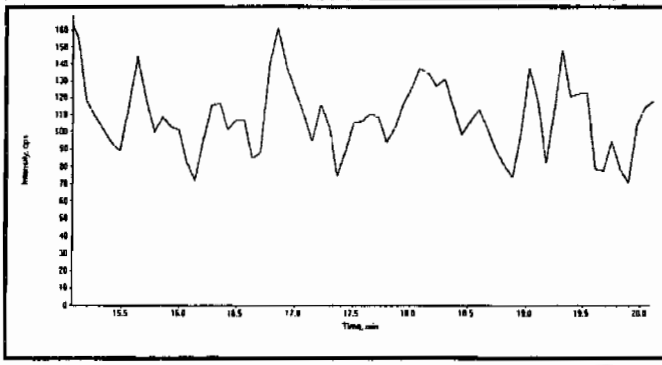

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

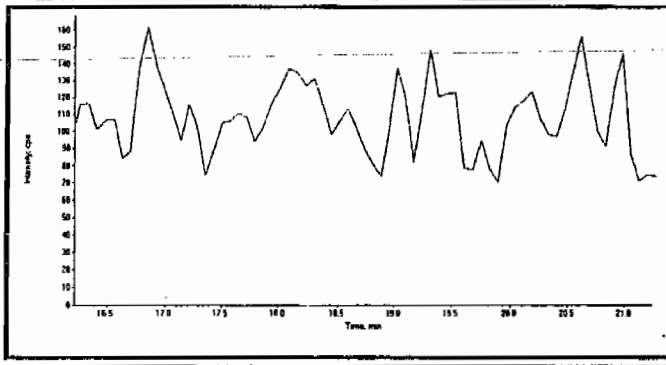

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

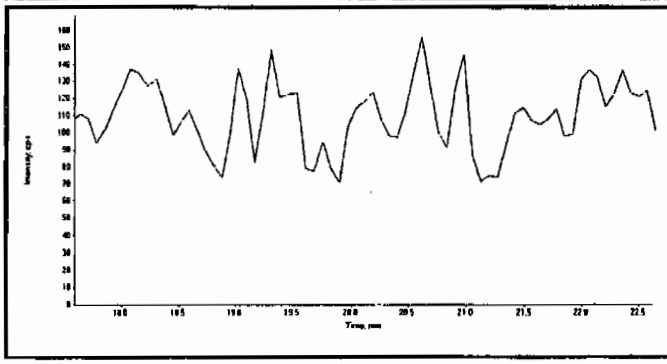

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312001.wiff	**Acquisition Date**	3/12/2010 7:58:58 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

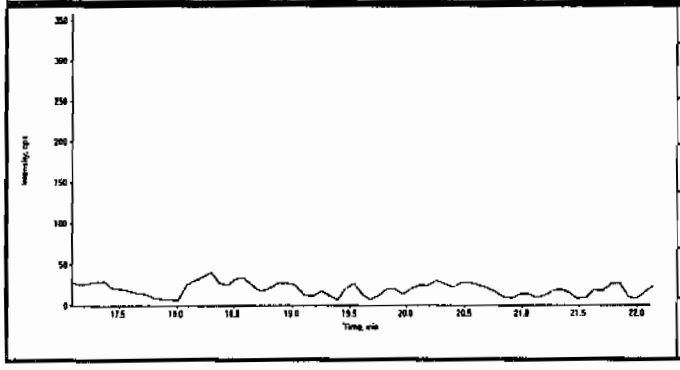

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12-MAR-10 08:25

GEL Data File: EXP0312002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312002.wiff	**Acquisition Date**	3/12/2010 8:25:19 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

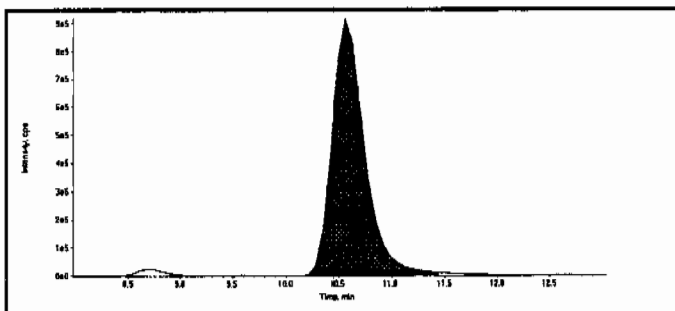

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	20100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

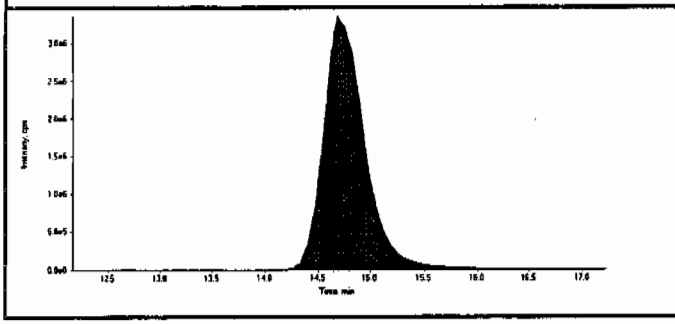

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	93700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

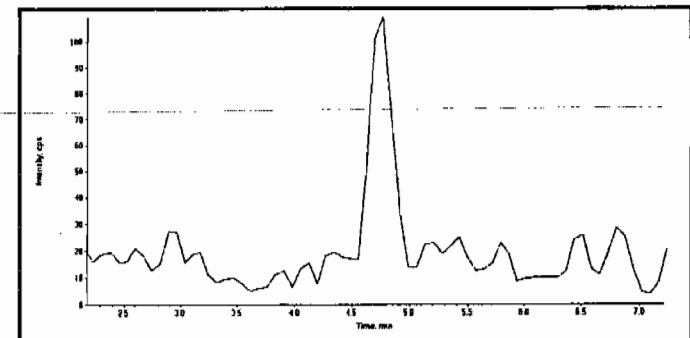

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

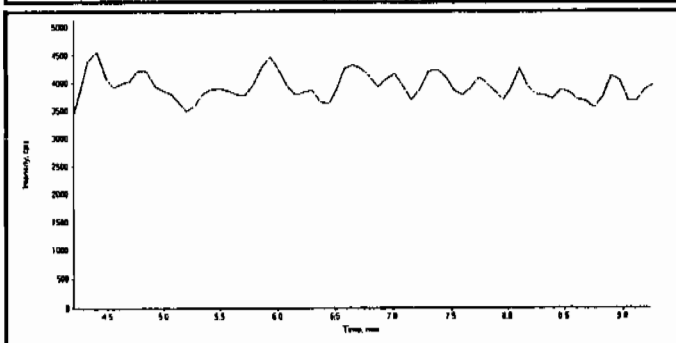

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Kmm 03/24/10

Lan 3/24/10

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Data File	EXP0312002.wiff	**Acquisition Date**	3/12/2010 8:25:19 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

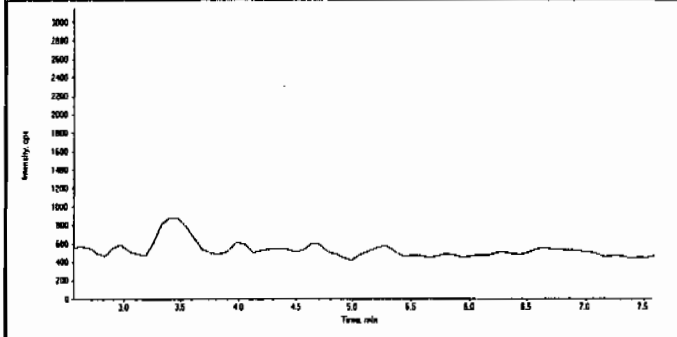

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

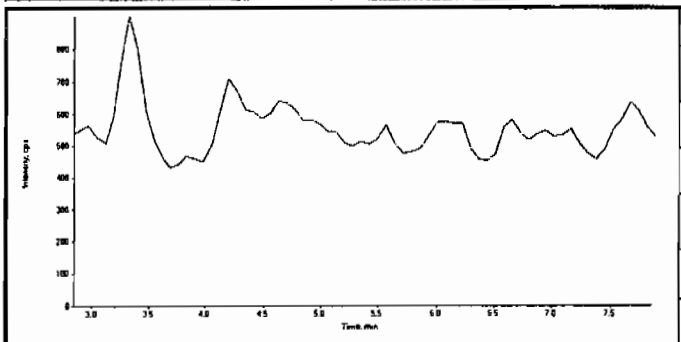

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

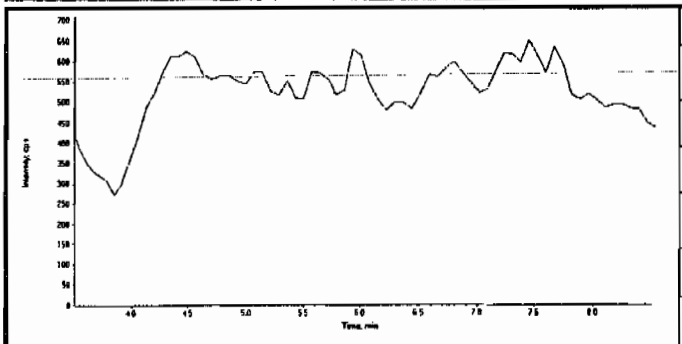

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

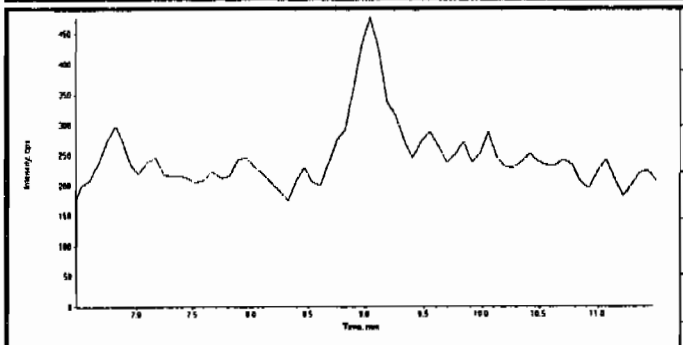

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312002.wiff	**Acquisition Date**	3/12/2010 8:25:19 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

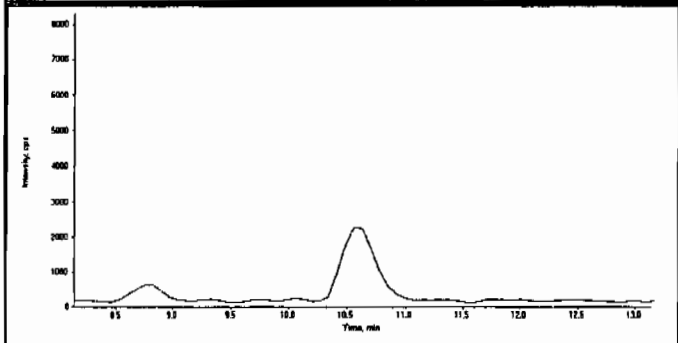

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

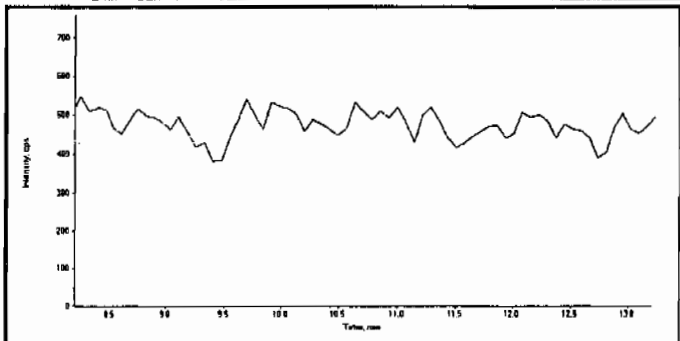

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

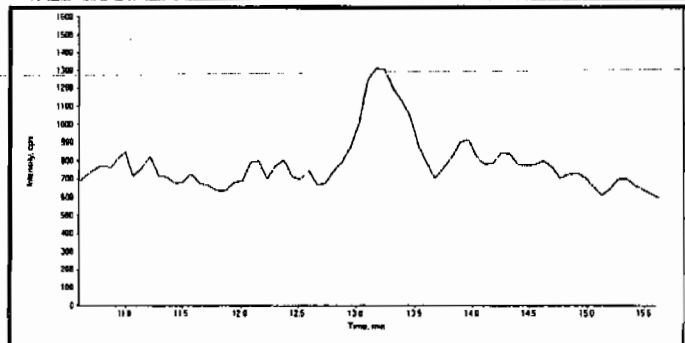

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

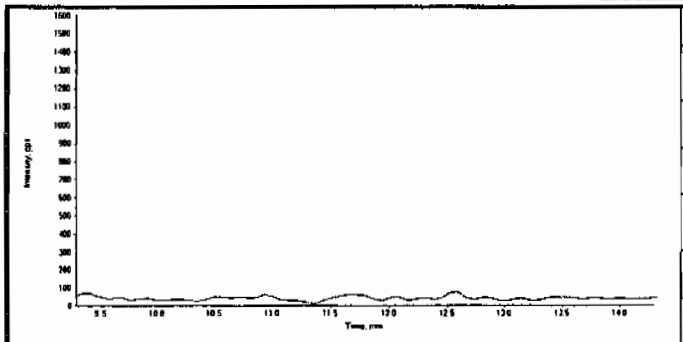

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312002.wiff	**Acquisition Date**	3/12/2010 8:25:19 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

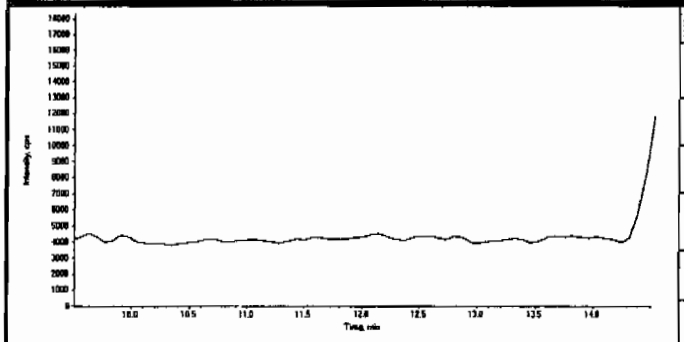

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

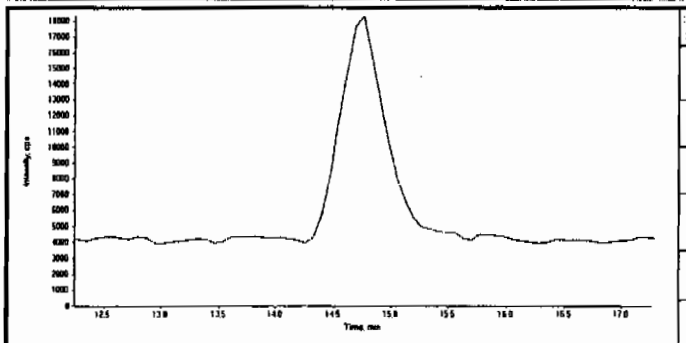

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

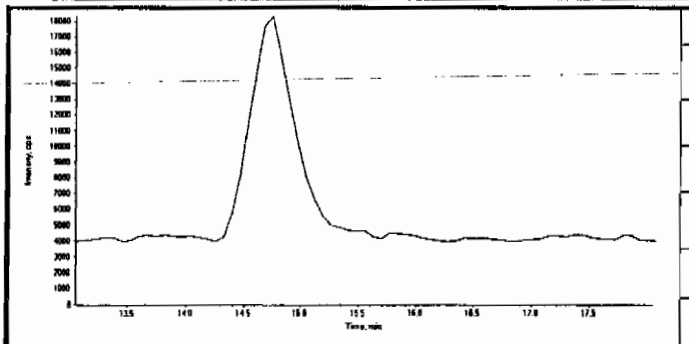

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

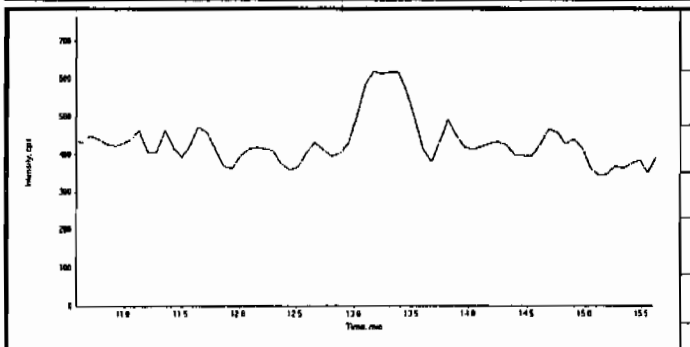

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312002.wiff	**Acquisition Date**	3/12/2010 8:25:19 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

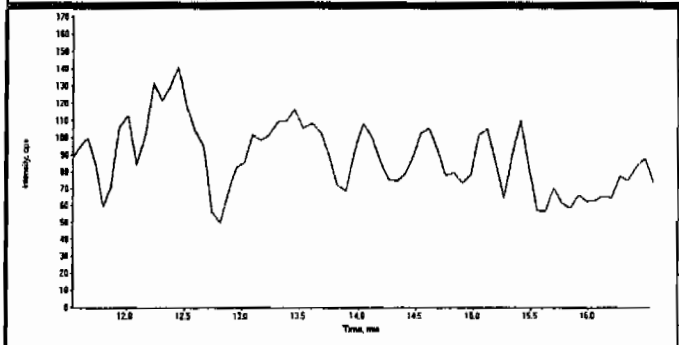

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

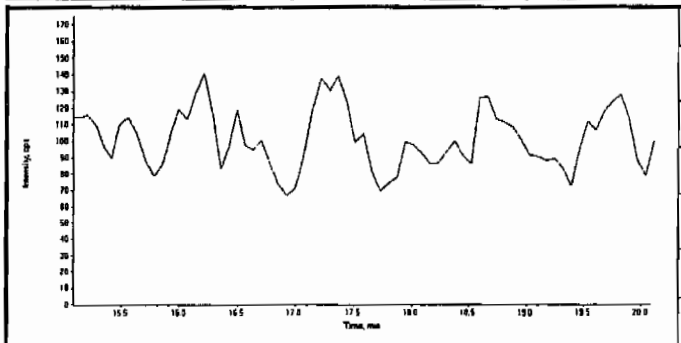

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

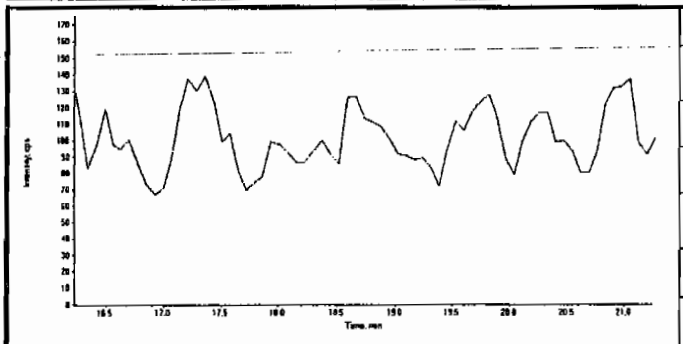

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

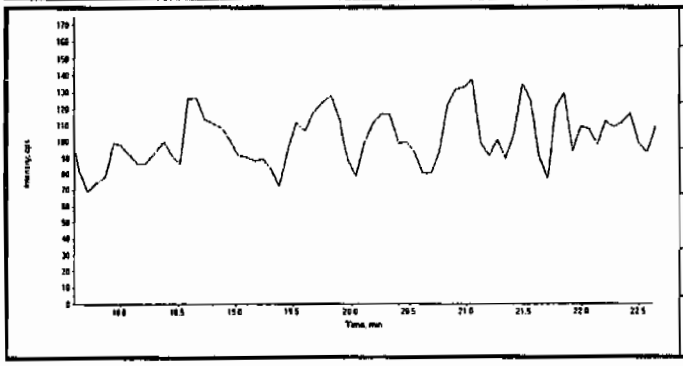

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312002.wiff	**Acquisition Date**	3/12/2010 8:25:19 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

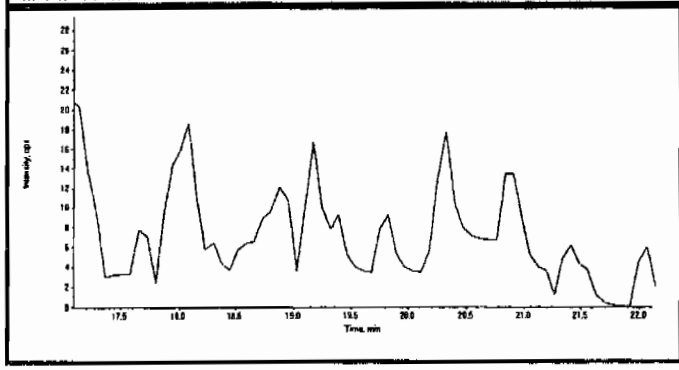

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-MAR-10 09:03

GEL Data File: EXS03010001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

LER 3/3/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03010001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:03:19 AM

Modified: No

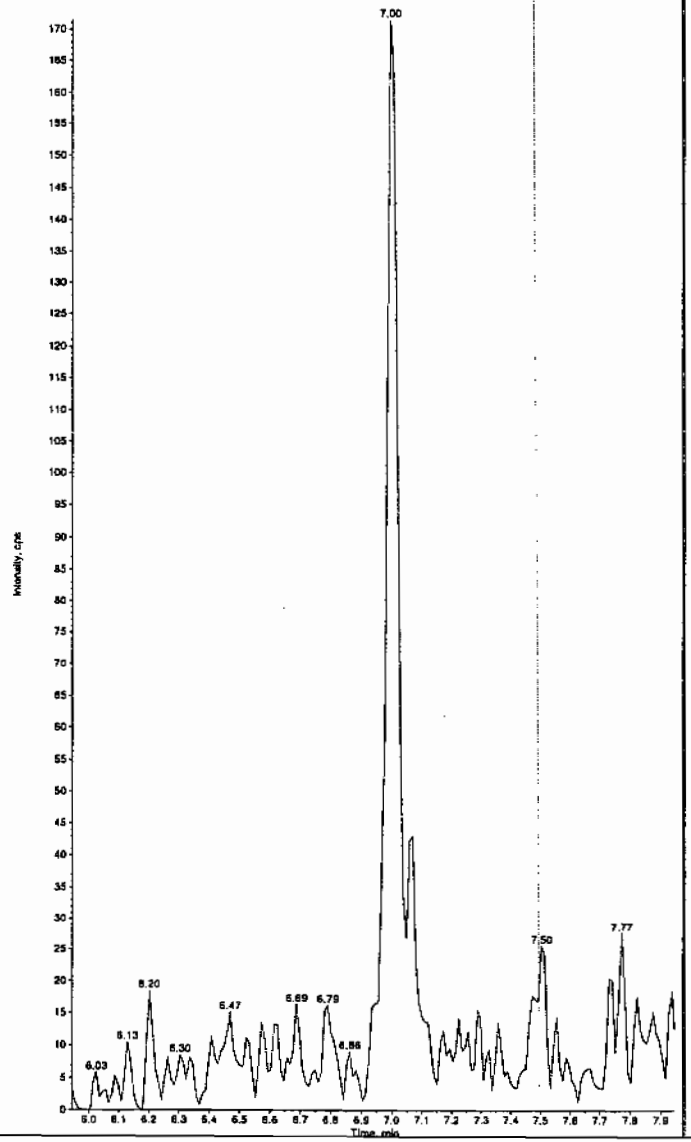

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03010001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:03:19 AM

Modified: No

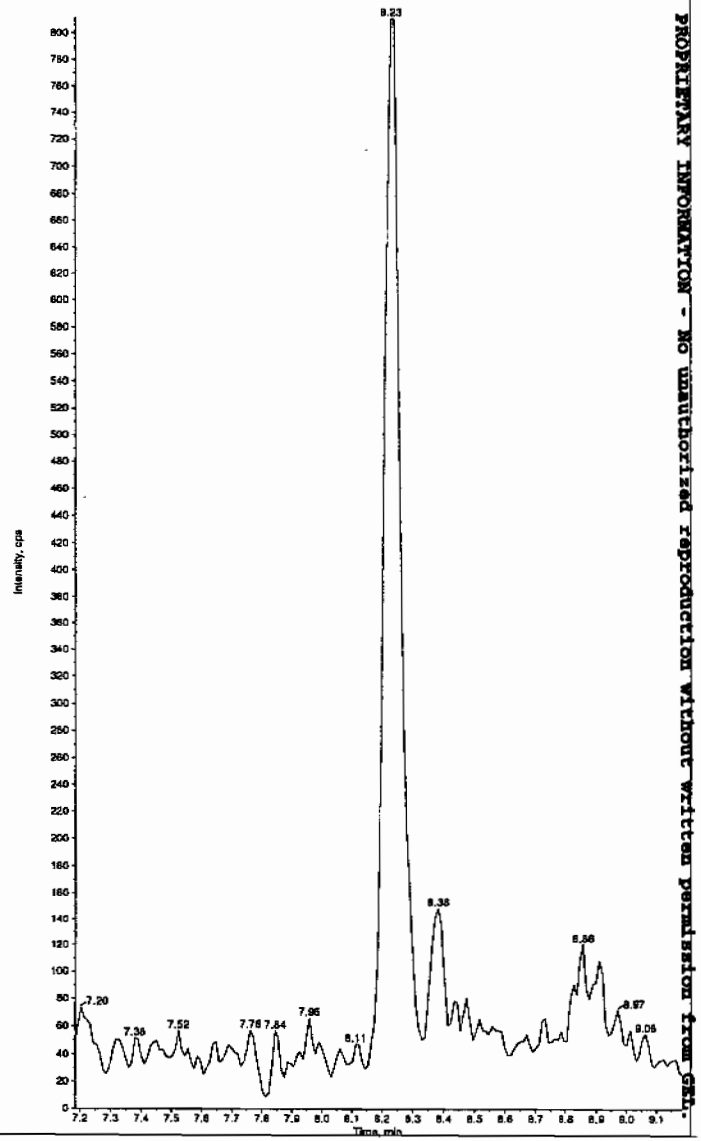

Anne 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03010001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:03:19 AM

Modified: No

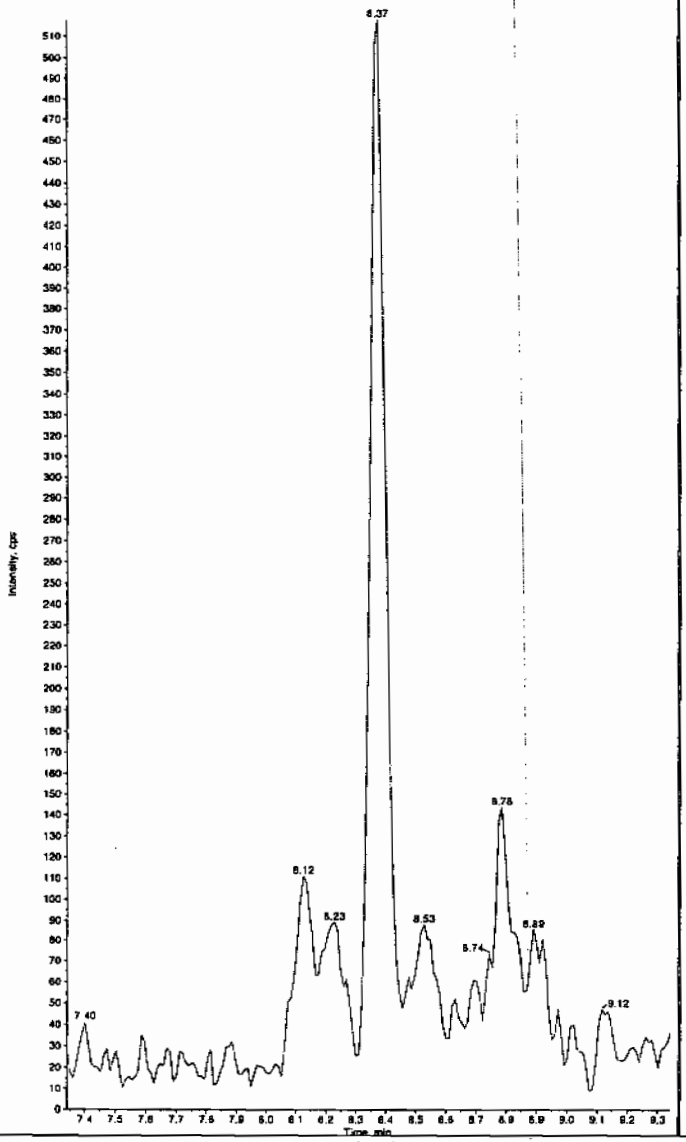

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03010001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:03:19 AM

Modified: No

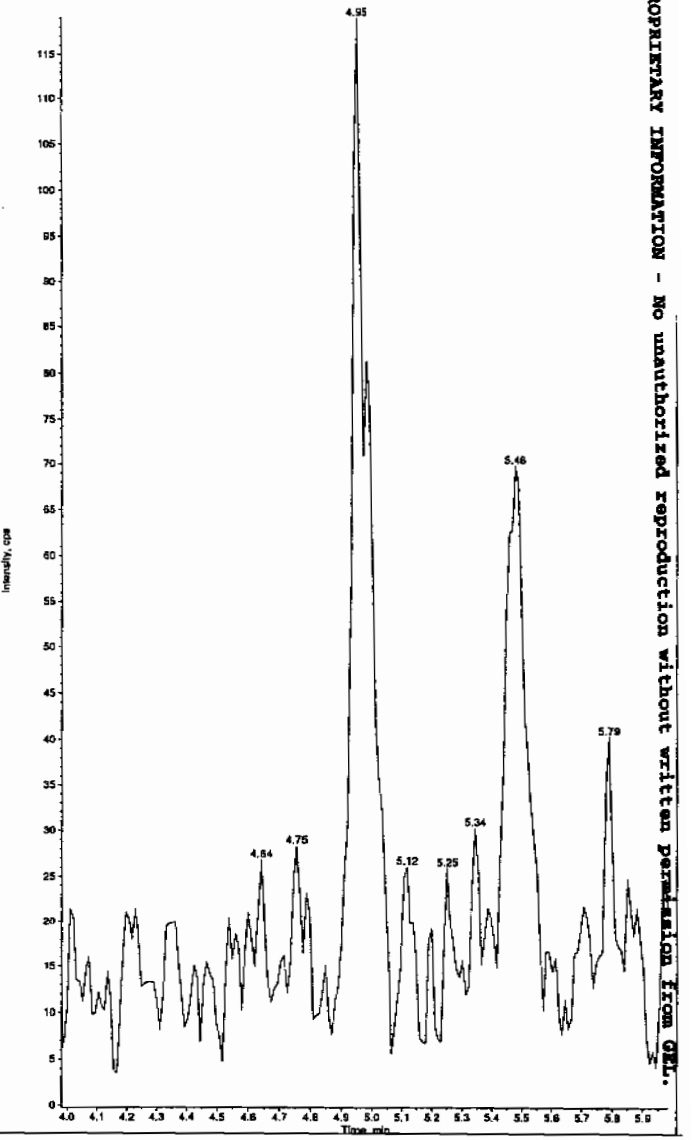

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03010001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:03:19 AM

Modified: No

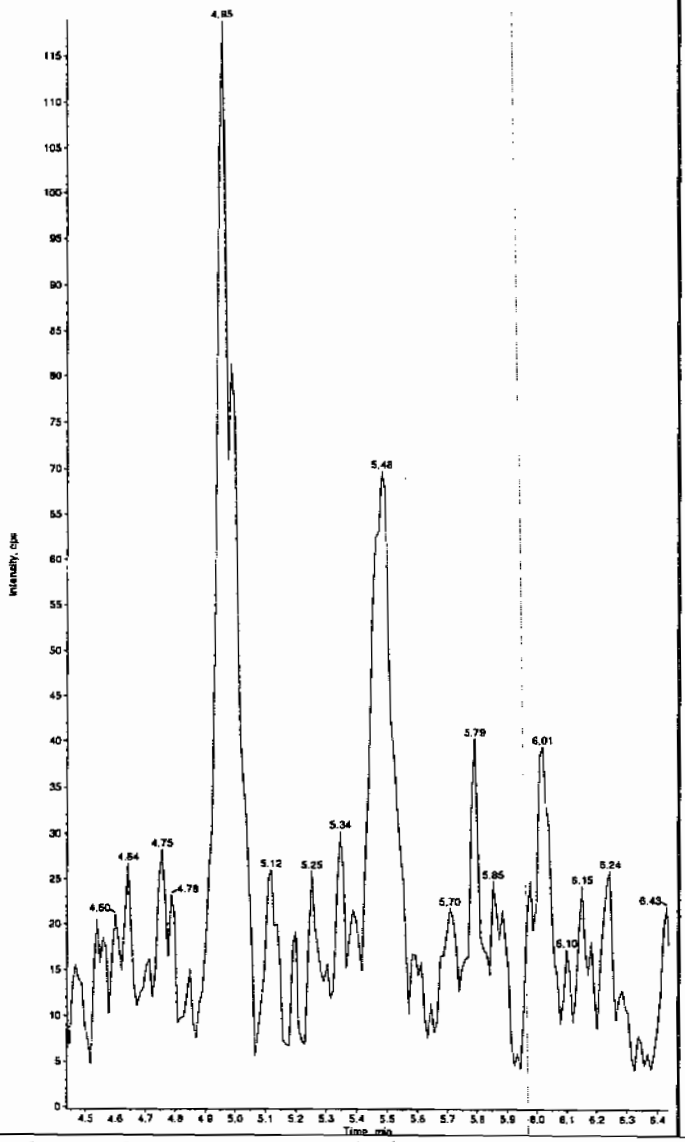

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03010001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/1/2010
Acq. Time: 9:03:19 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.36e+004 counts
Height: 14777.323 cps
Start Time: 10.7 min
End Time: 11.0 min

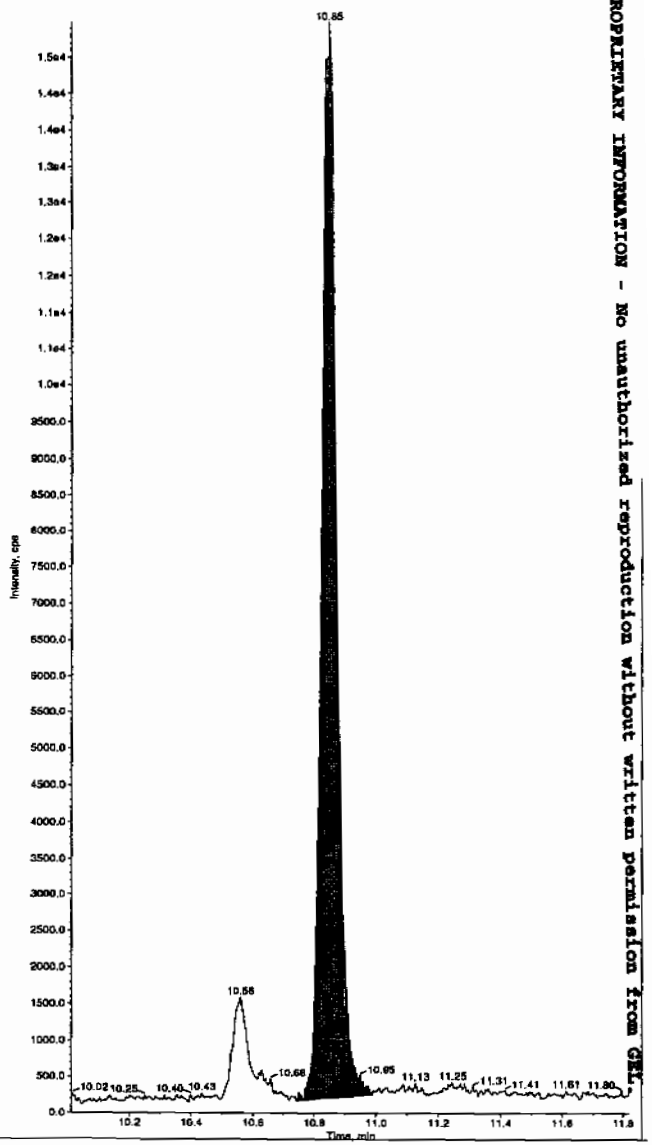

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01-MAR-10 09:19

GEL Data File: EXS03010002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

fcr 3/3/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03010002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:19:07 AM

Modified: No

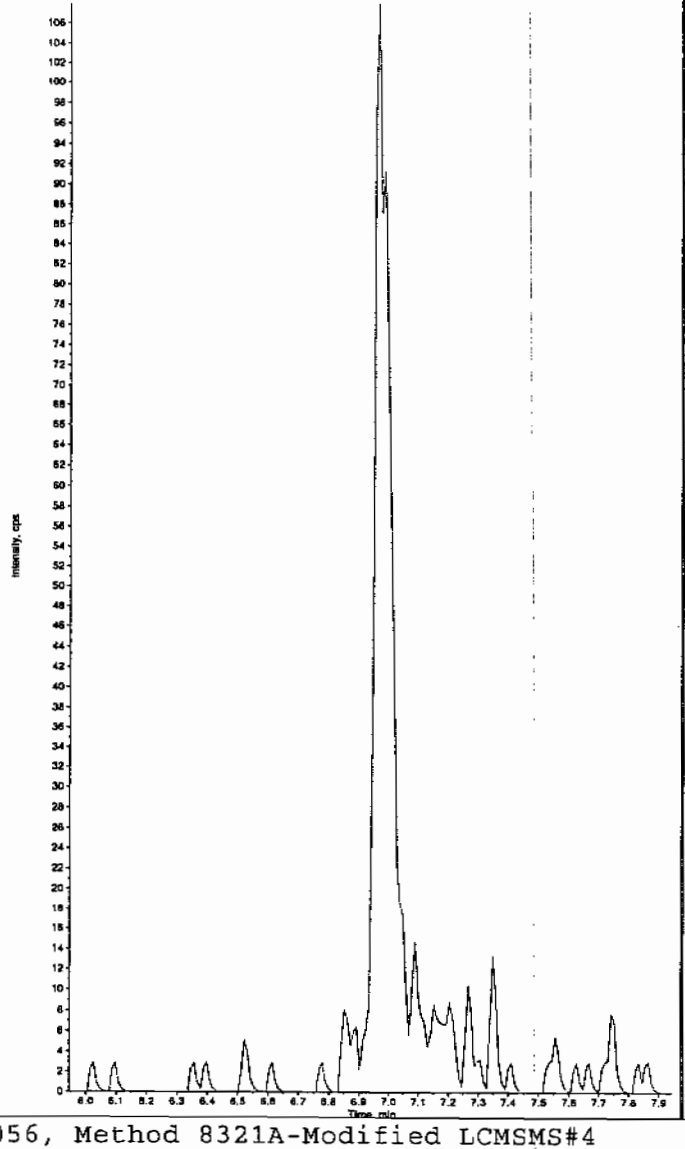

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03010002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:19:07 AM

Modified: No

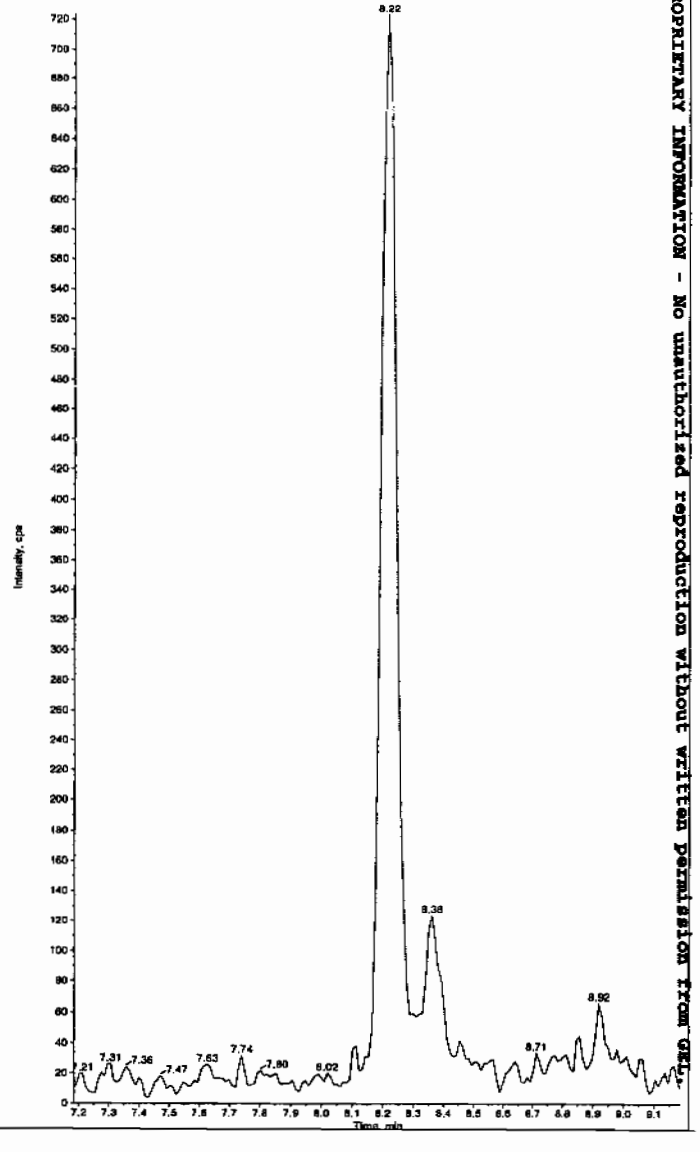

Hmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03010002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:19:07 AM

Modified: No

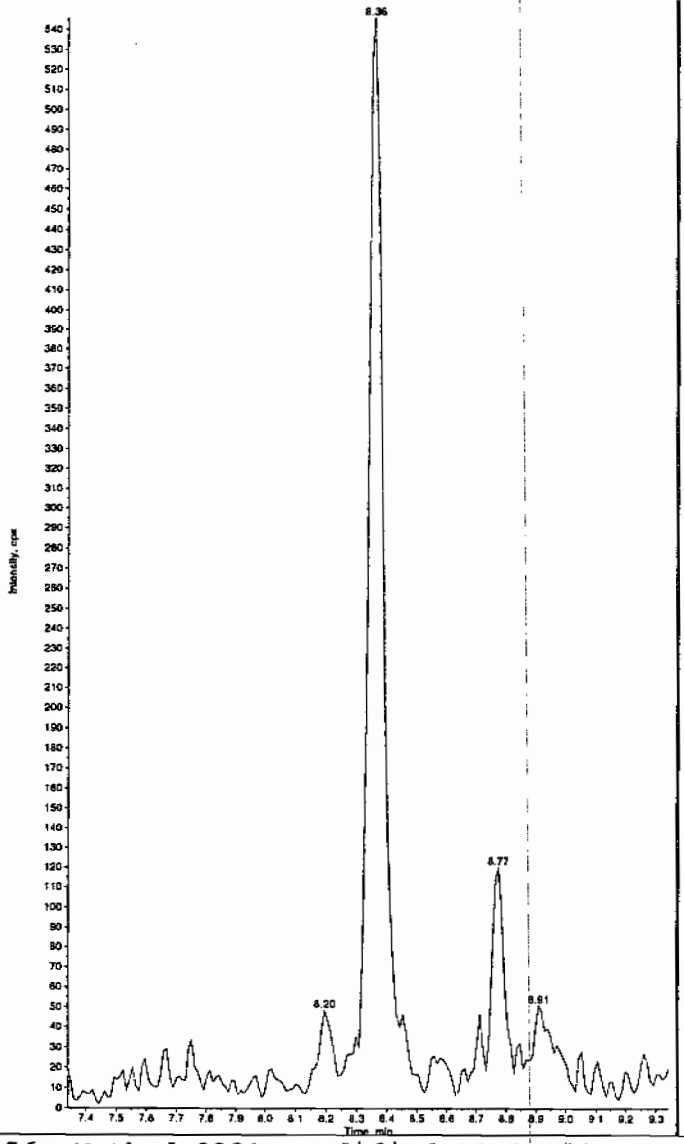

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03010002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:19:07 AM

Modified: No

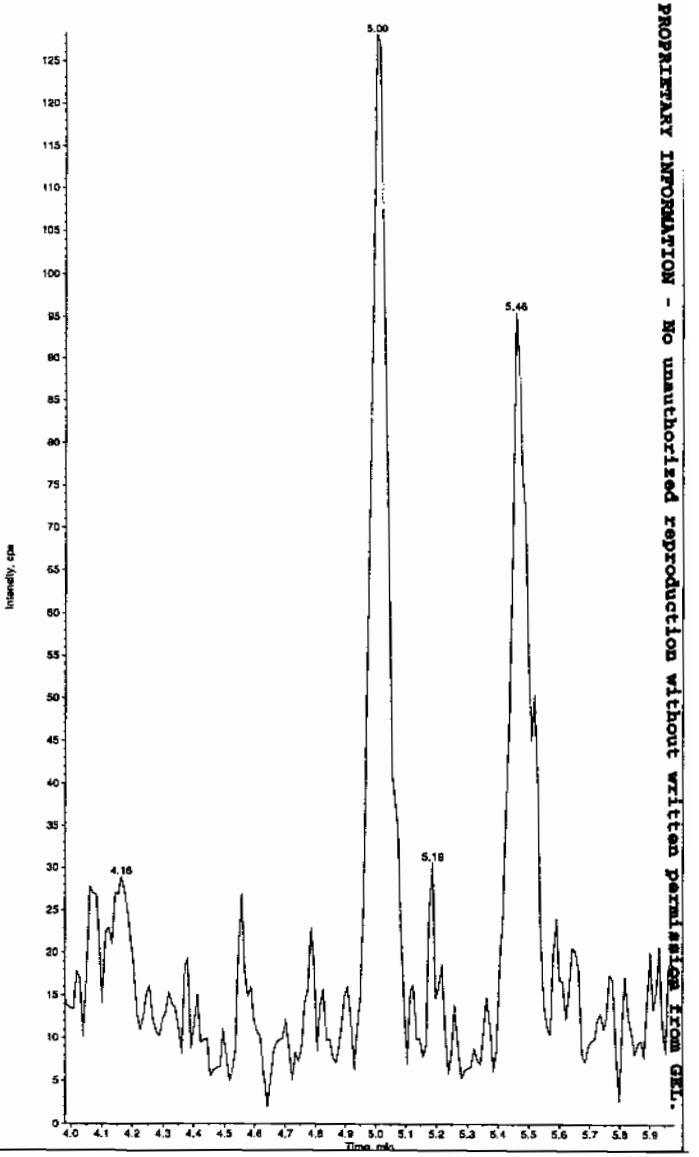

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03010002.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:19:07 AM

Modified: No

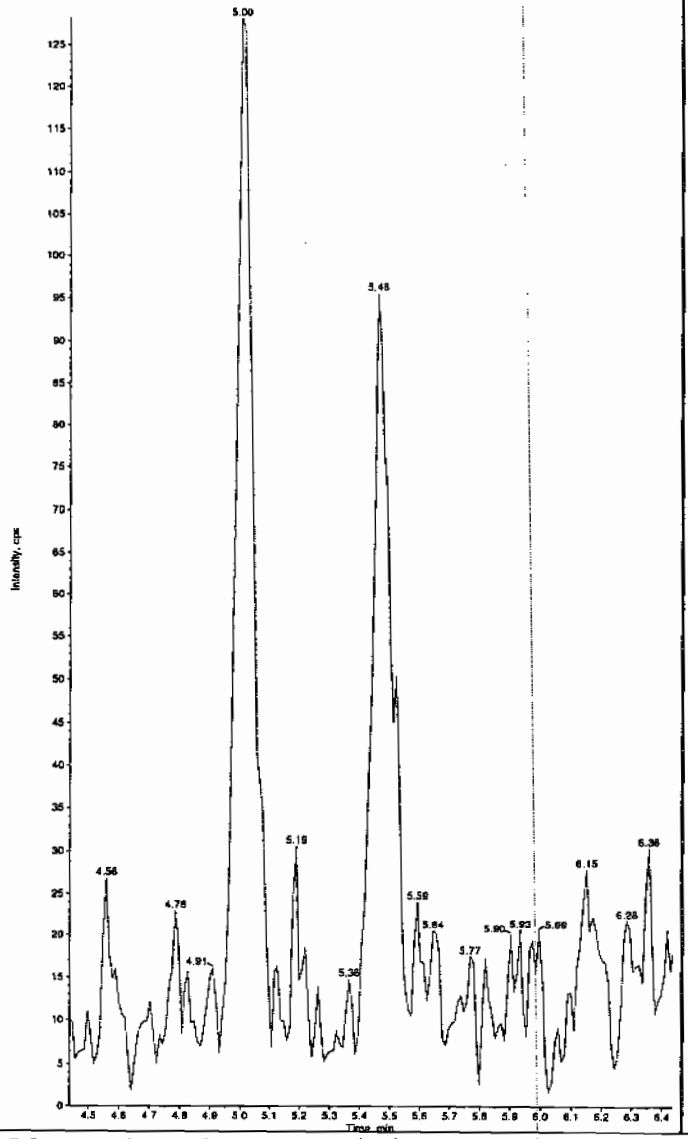

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03010002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/1/2010
Acq. Time: 9:19:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.80e+004 counts
Height: 13586.056 cps
Start Time: 10.8 min
End Time: 11.0 min

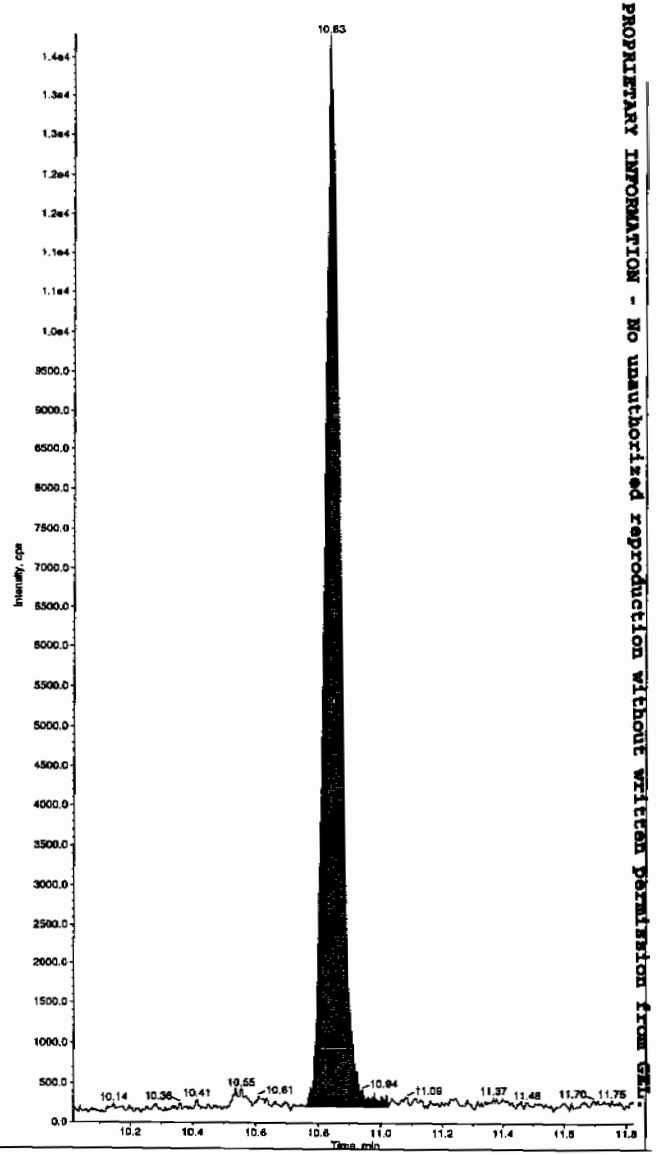

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 12-MAR-10 11:29

GEL Data File: EXP0312009.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312009.wiff	**Acquisition Date**	3/12/2010 11:29:54 AM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

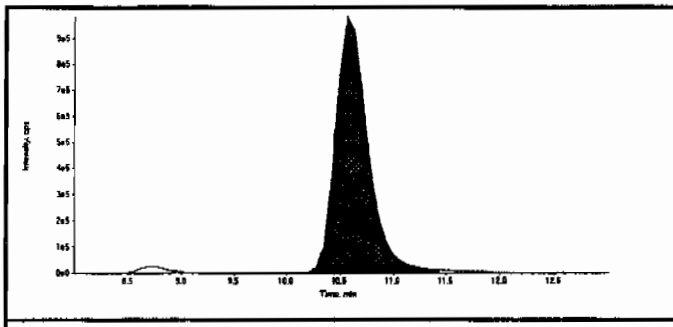

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	21100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

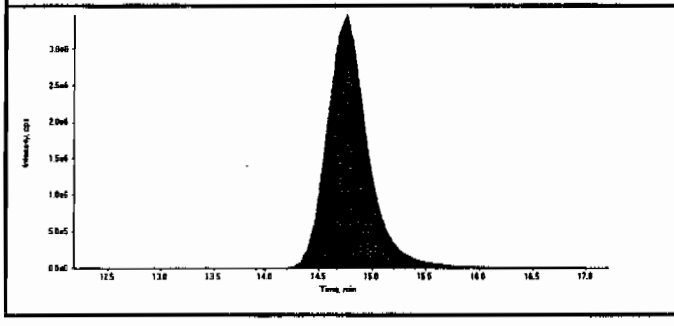

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	92100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

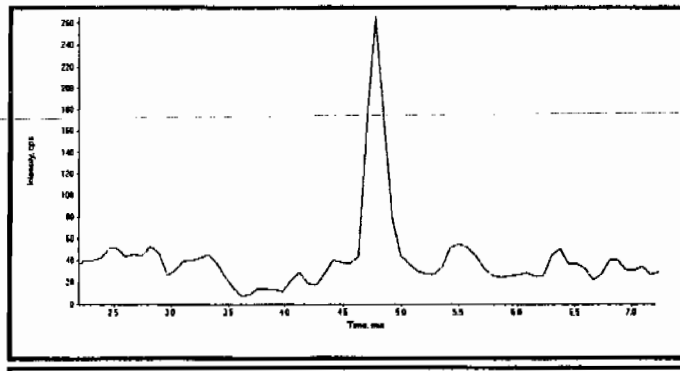

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

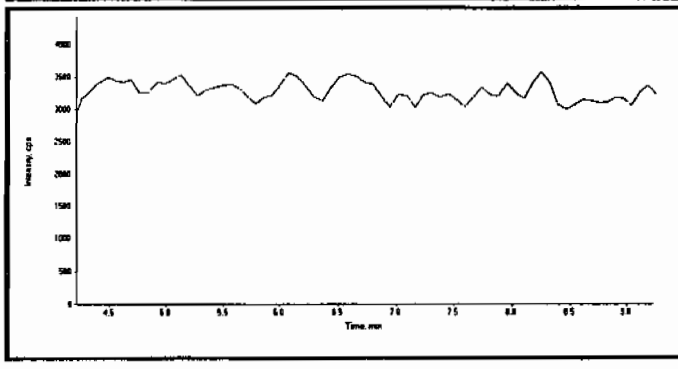

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

kmc 03/24/10

Jan 3/24/10

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Data File	EXP0312009.wiff	Acquisition Date	3/12/2010 11:29:54 AM
Sample Name	XIBLK02	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

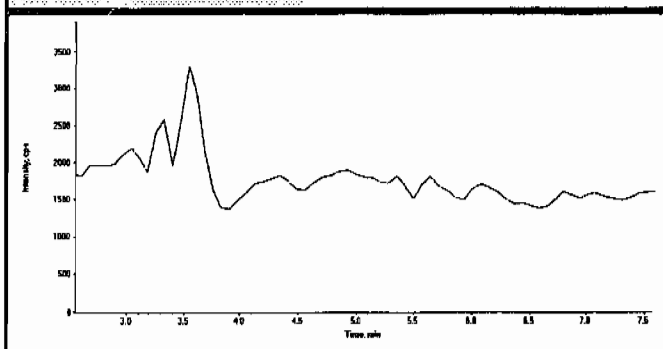

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

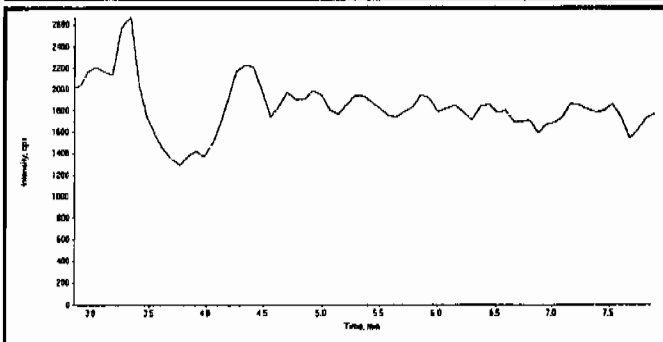

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

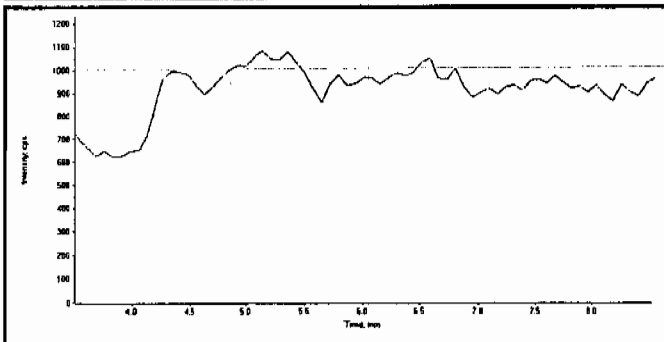

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

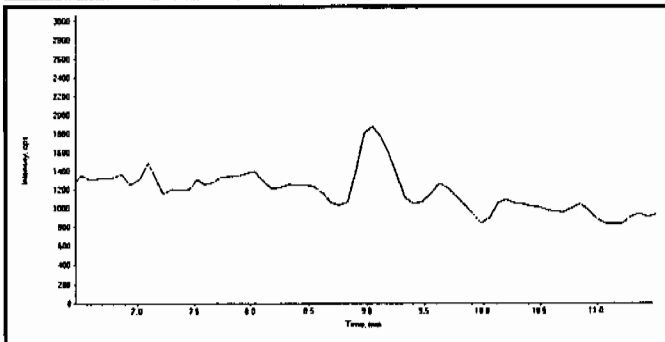

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312009.wiff	**Acquisition Date**	3/12/2010 11:29:54 AM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

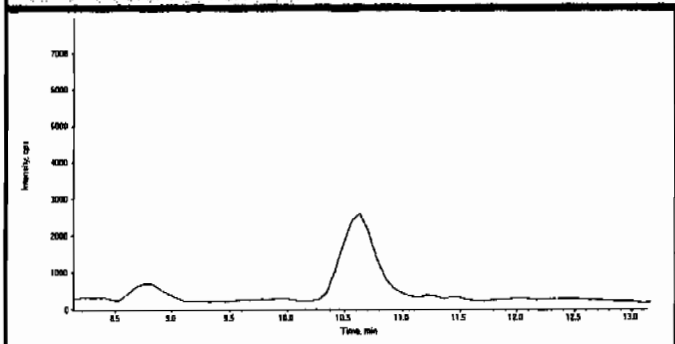

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

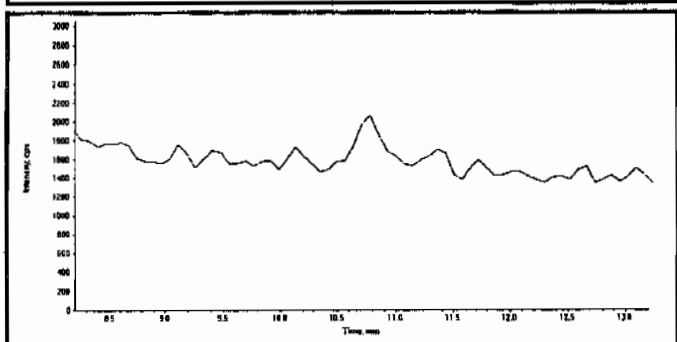

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

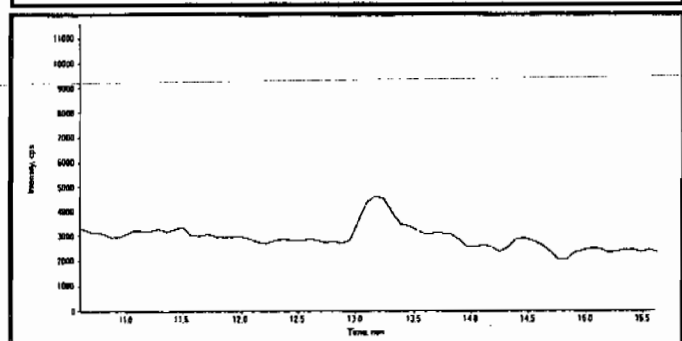

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

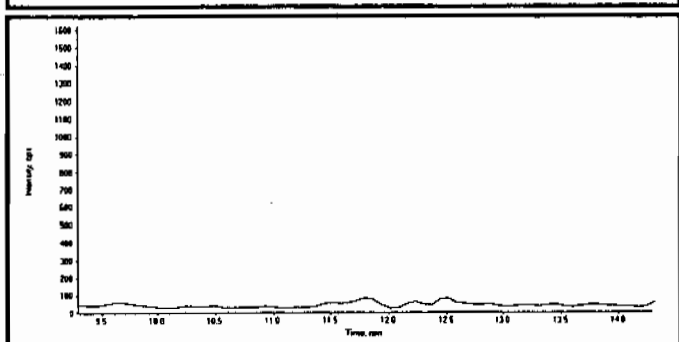

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312009.wiff	Acquisition Date	3/12/2010 11:29:54 AM
Sample Name	XIBLK02	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

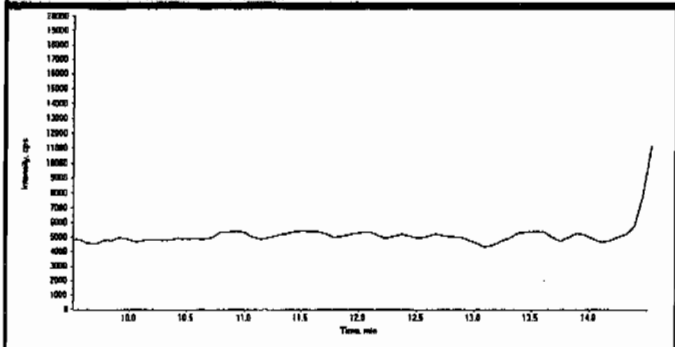

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

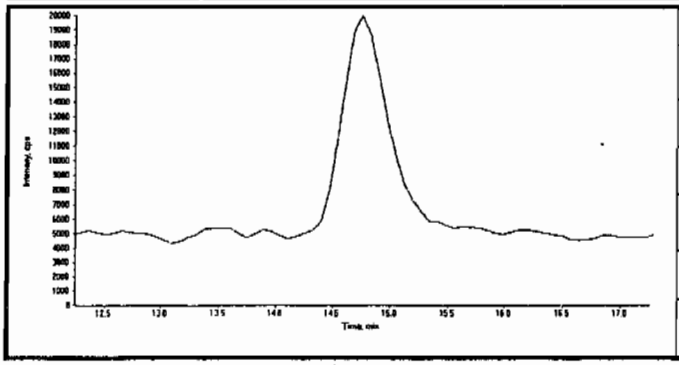

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

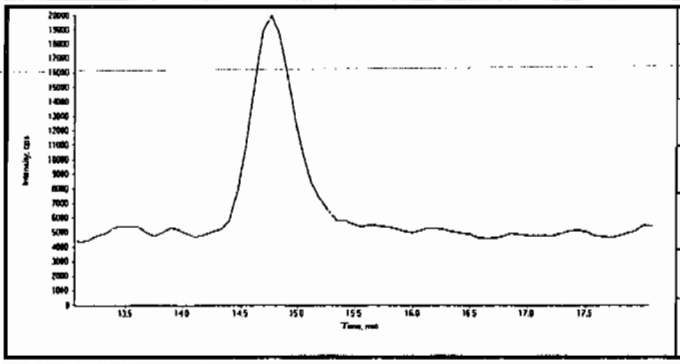

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

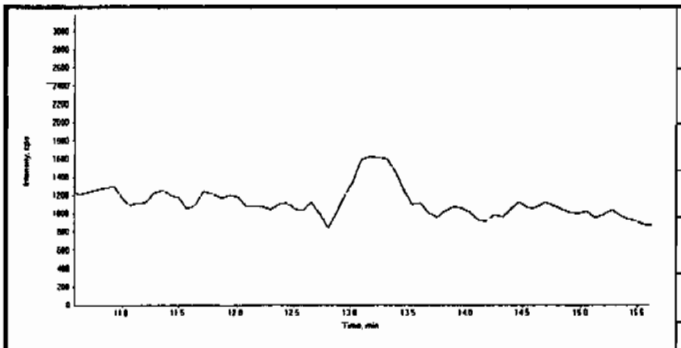

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312009.wiff	**Acquisition Date**	3/12/2010 11:29:54 AM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

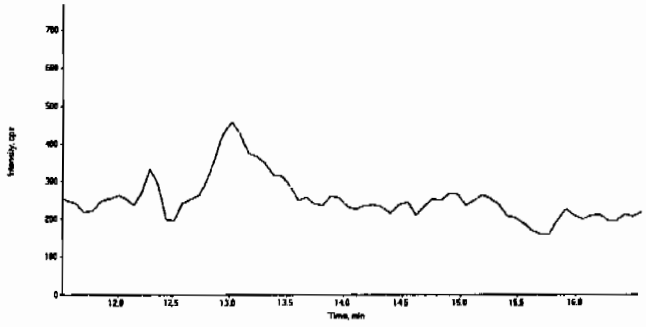

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

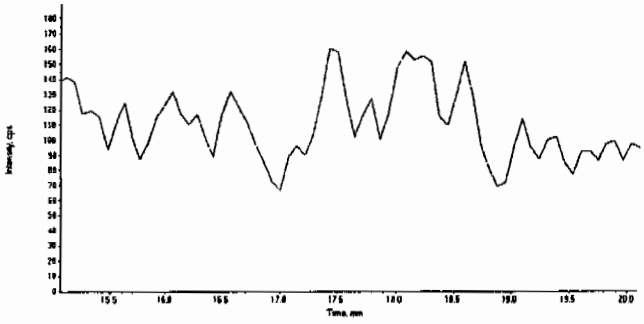

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

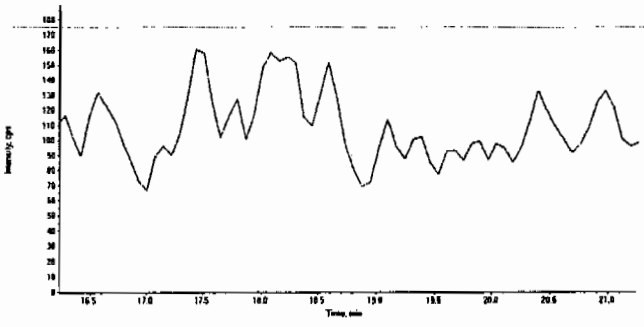

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

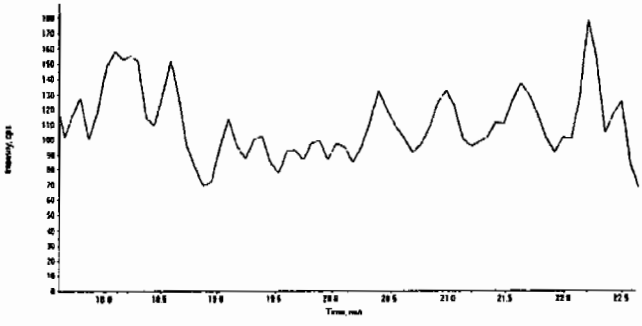

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312009.wiff	**Acquisition Date**	3/12/2010 11:29:54 AM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

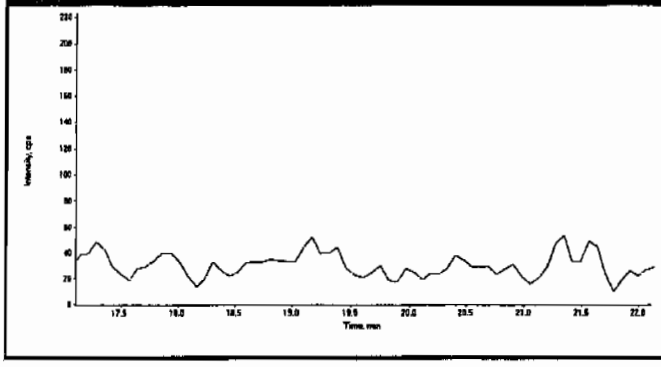

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 12-MAR-10 12:22

GEL Data File: EXP0312011.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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Data File	EXP0312011.wiff	**Acquisition Date**	3/12/2010 12:22:46 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

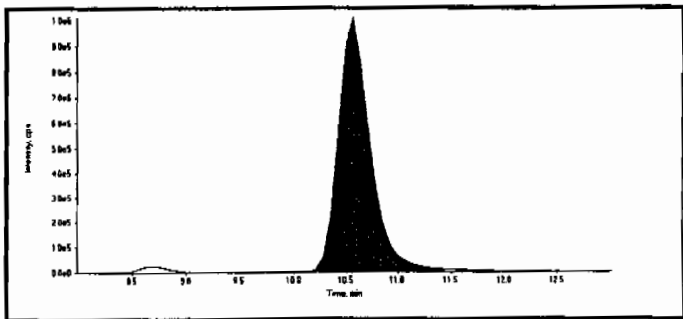

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

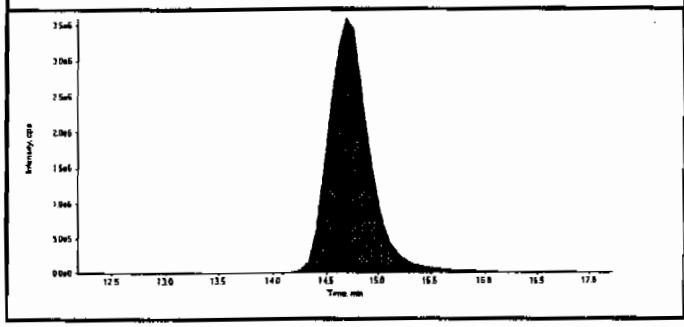

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	100000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

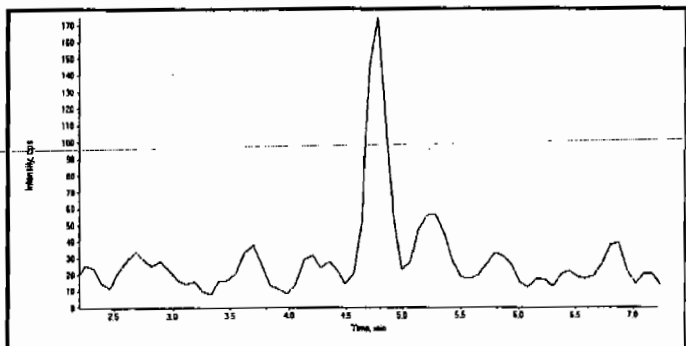

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

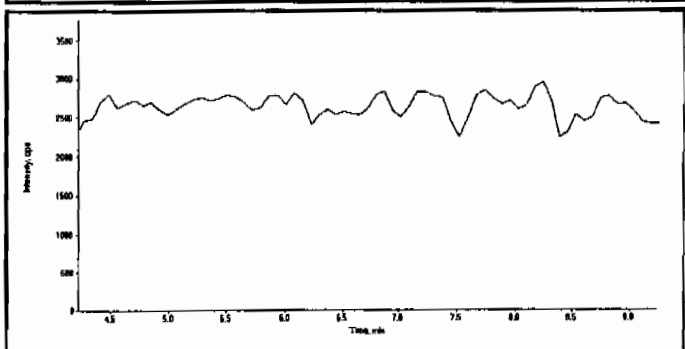

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dhmc 03/24/10 Lan 3/24/10

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Data File	EXP0312011.wiff	**Acquisition Date**	3/12/2010 12:22:46 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

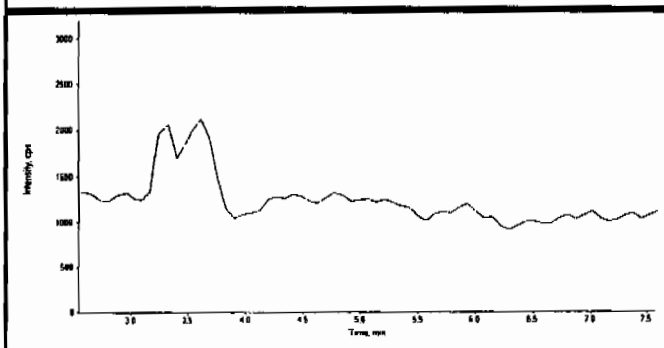

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

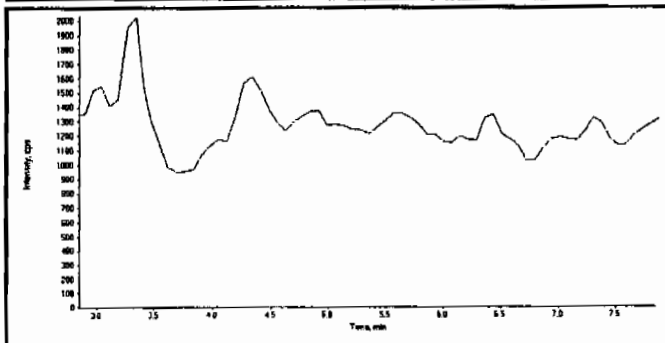

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

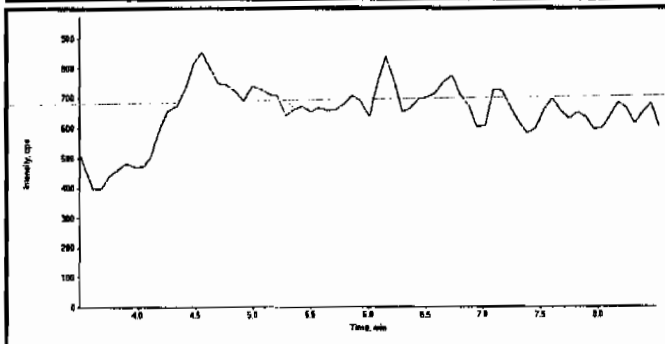

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

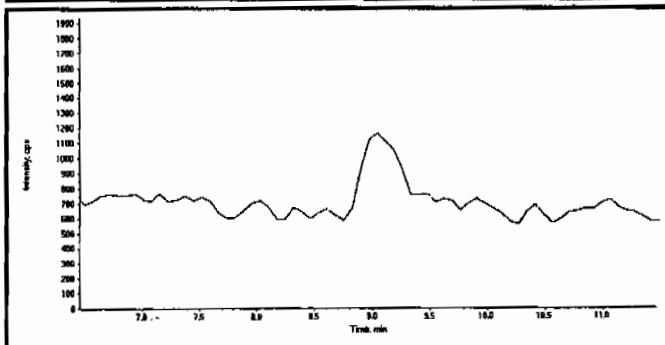

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312011.wiff	**Acquisition Date**	3/12/2010 12:22:46 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

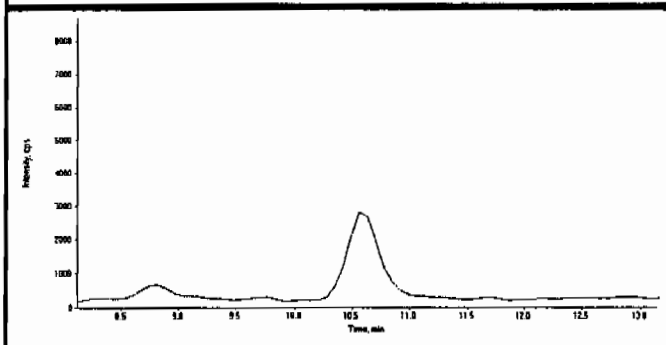

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

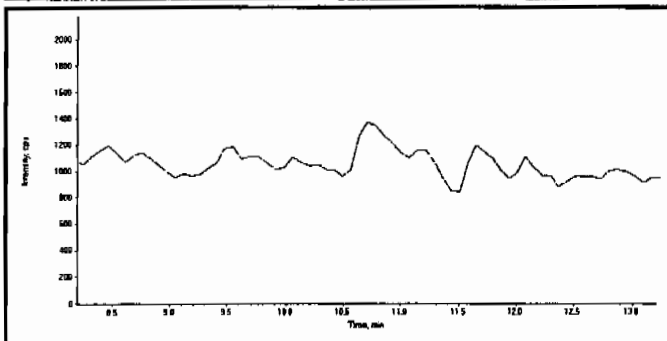

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

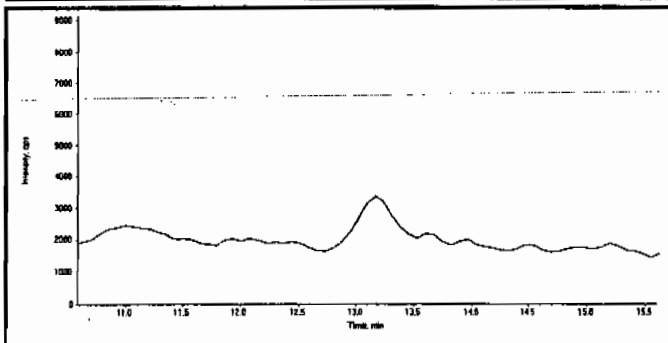

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

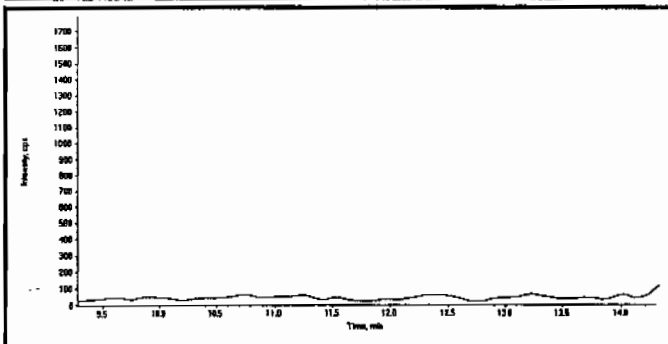

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312011.wiff	**Acquisition Date**	3/12/2010 12:22:46 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

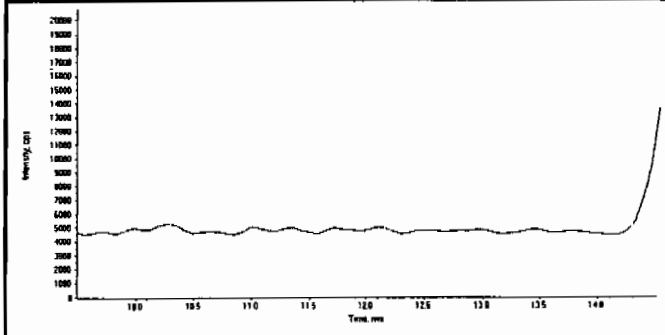

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

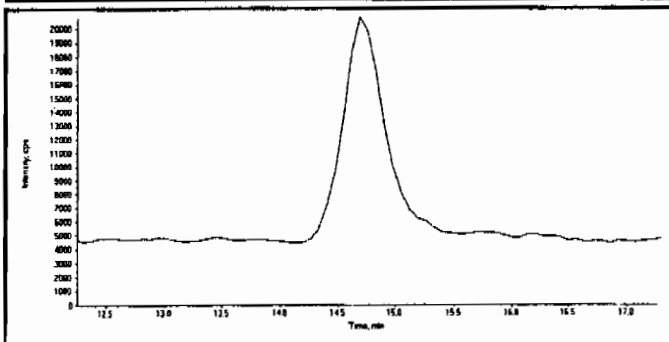

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

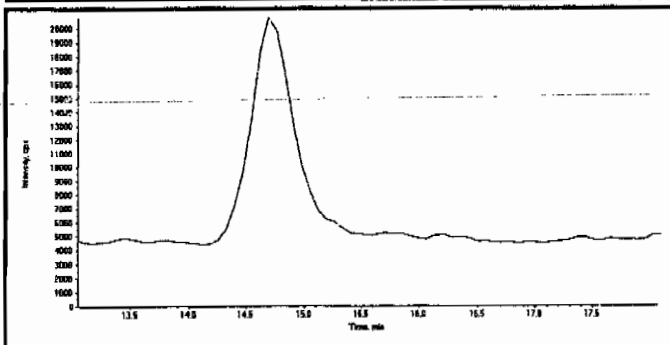

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

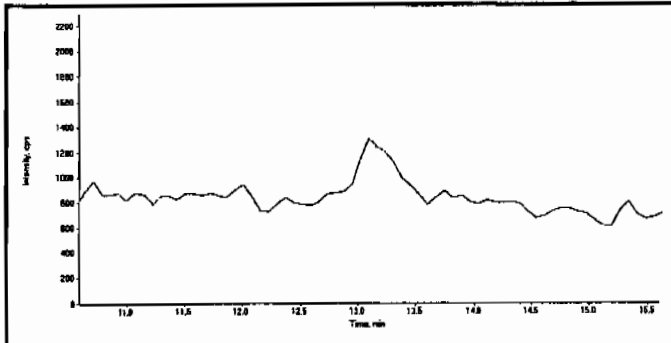

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312011.wiff	**Acquisition Date**	3/12/2010 12:22:46 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

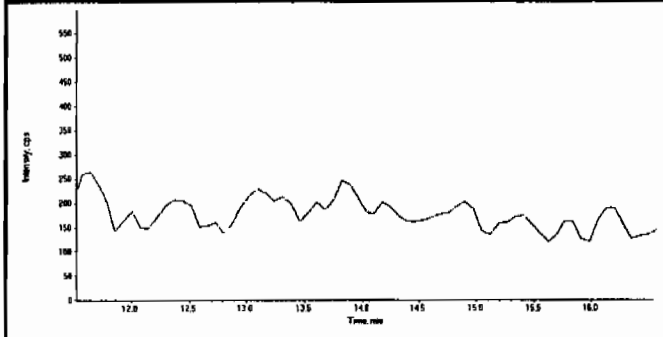

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

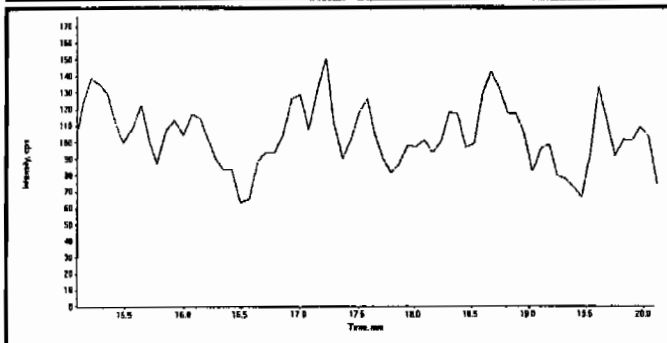

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

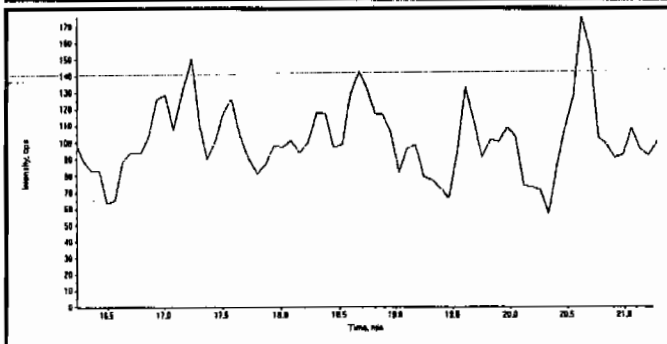

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

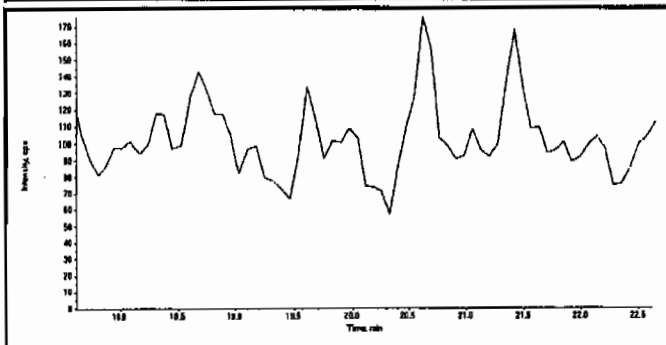

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312011.wiff	**Acquisition Date**	3/12/2010 12:22:46 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

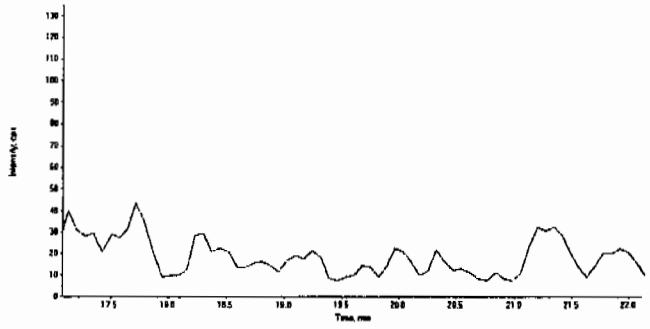

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 12-MAR-10 13:41

GEL Data File: EXP0312014.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312014.wiff	**Acquisition Date**	3/12/2010 1:41:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

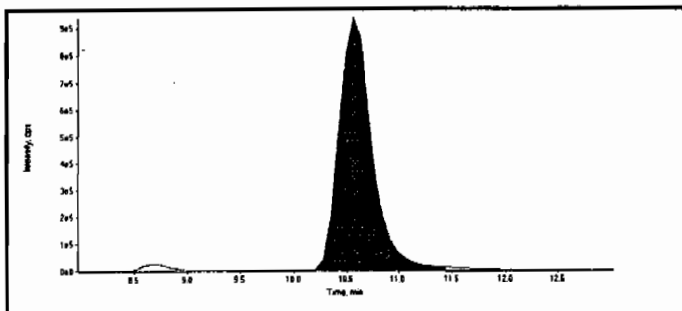

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	21100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

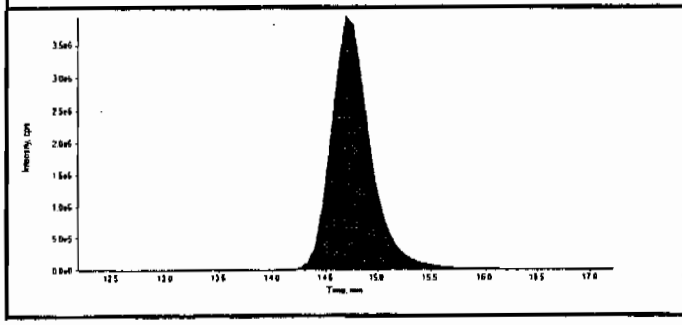

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	104000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

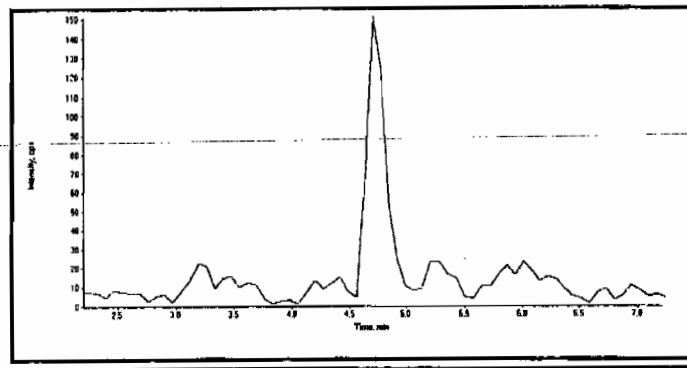

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

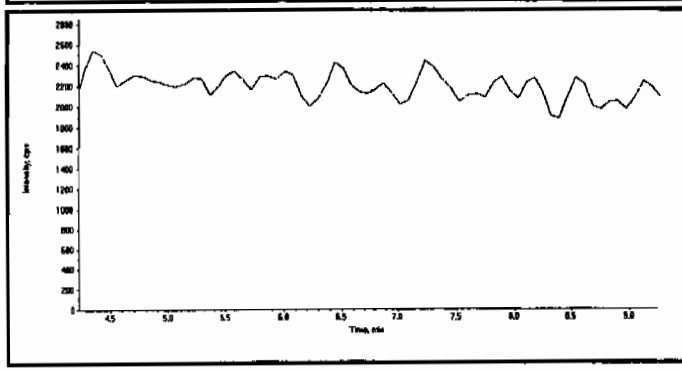

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Amy 03/24/10 Lan 3/24/10

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Data File	EXP0312014.wiff	**Acquisition Date**	3/12/2010 1:41:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

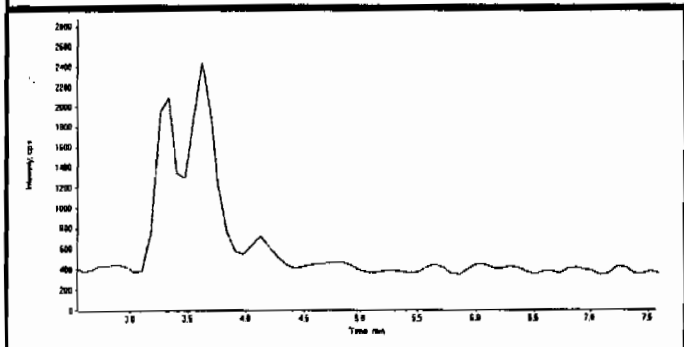

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

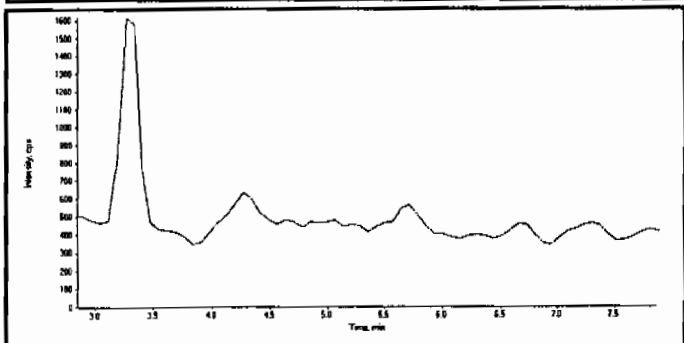

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

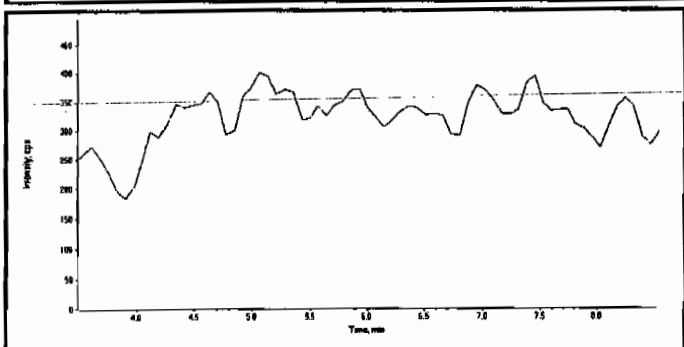

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

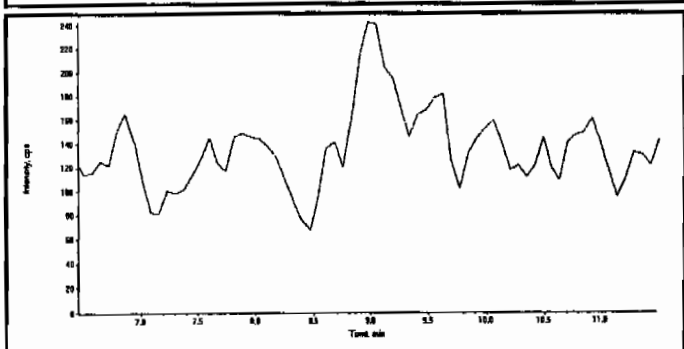

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312014.wiff	**Acquisition Date**	3/12/2010 1:41:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

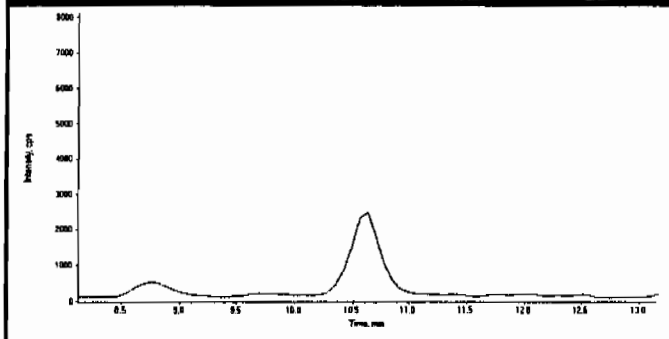

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

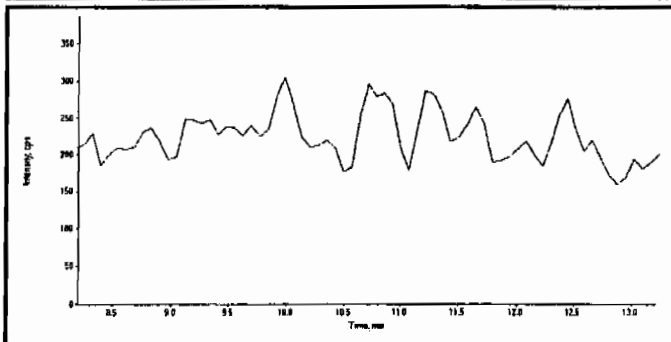

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

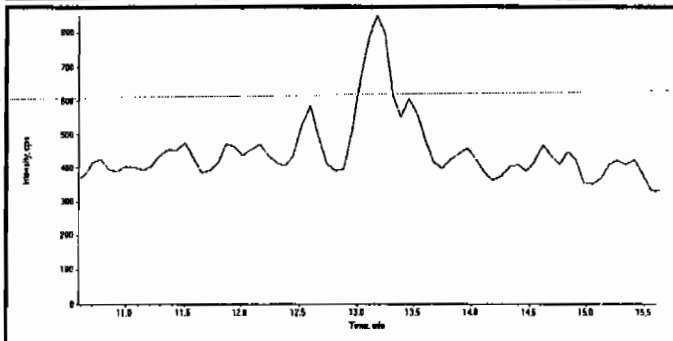

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

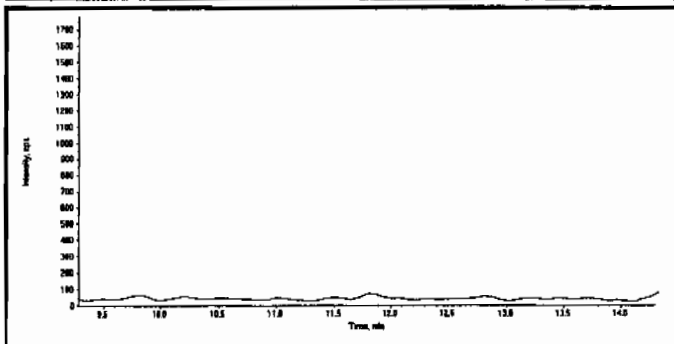

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312014.wiff	**Acquisition Date**	3/12/2010 1:41:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

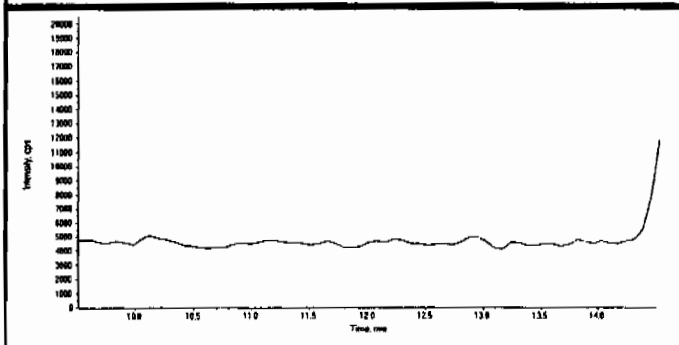

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

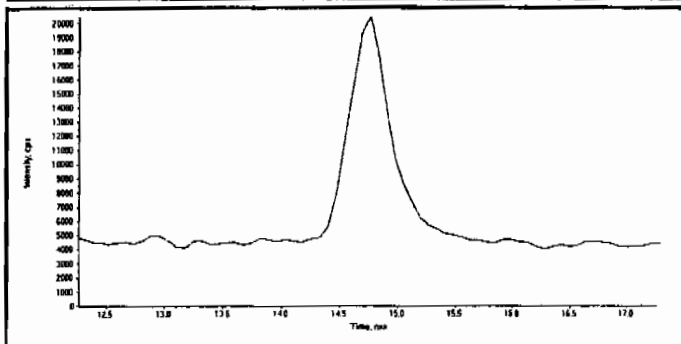

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

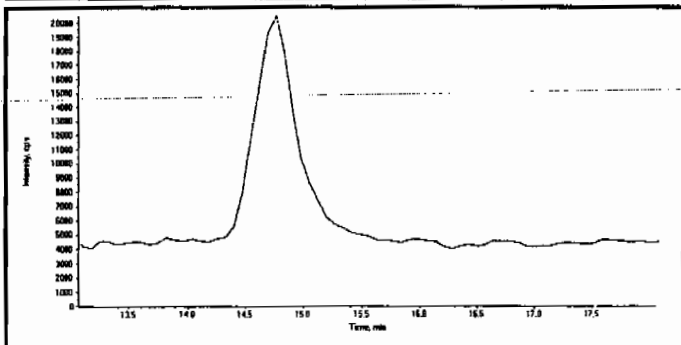

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

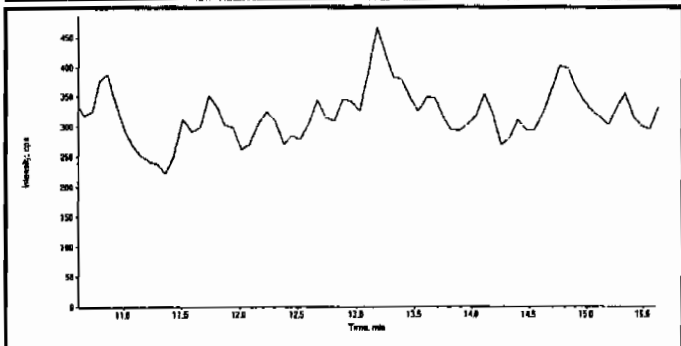

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312014.wiff	**Acquisition Date**	3/12/2010 1:41:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

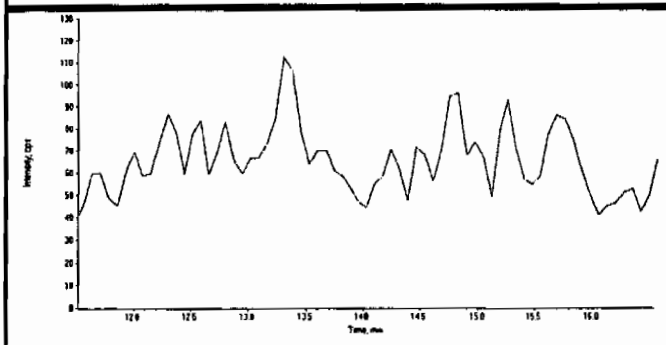

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

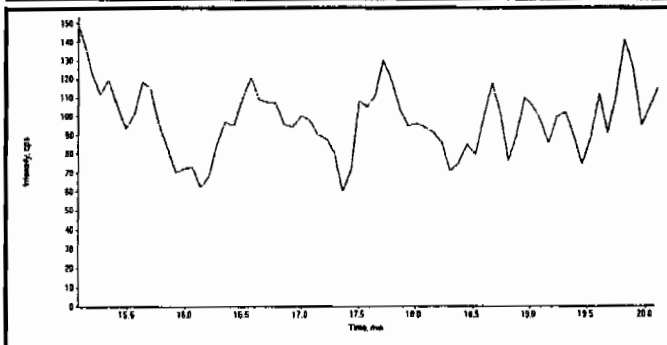

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

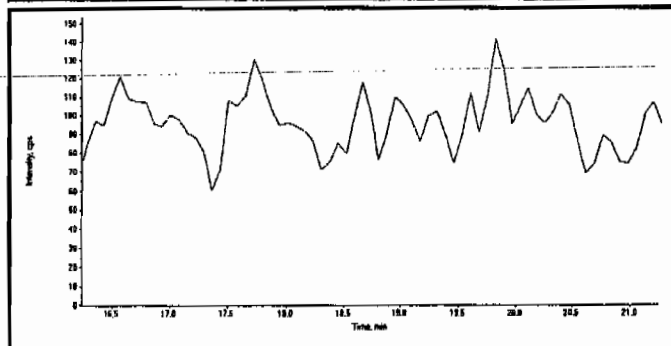

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

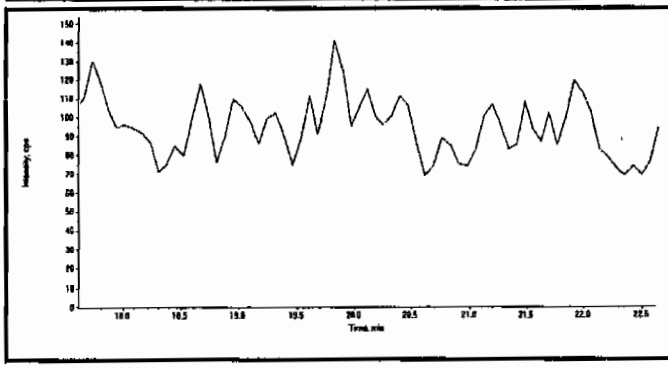

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312014.wiff	**Acquisition Date**	3/12/2010 1:41:55 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

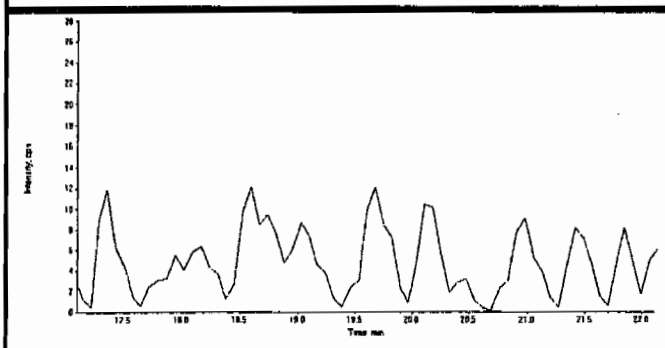

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 12-MAR-10 14:34

GEL Data File: EXP0312016.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312016.wiff	**Acquisition Date**	3/12/2010 2:34:37 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

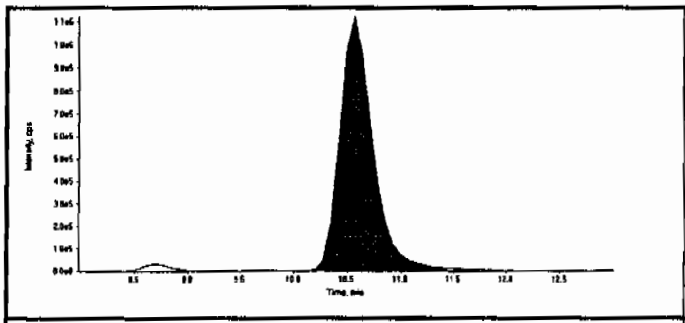

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	24300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

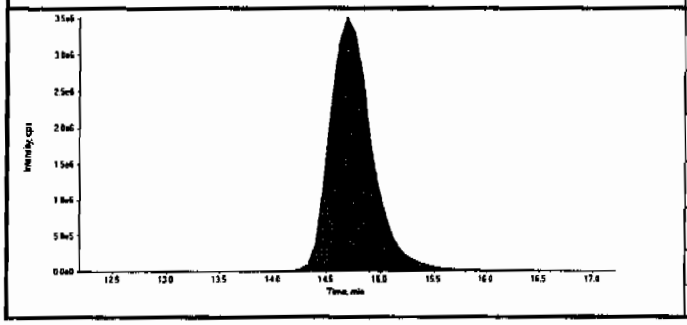

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	96900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

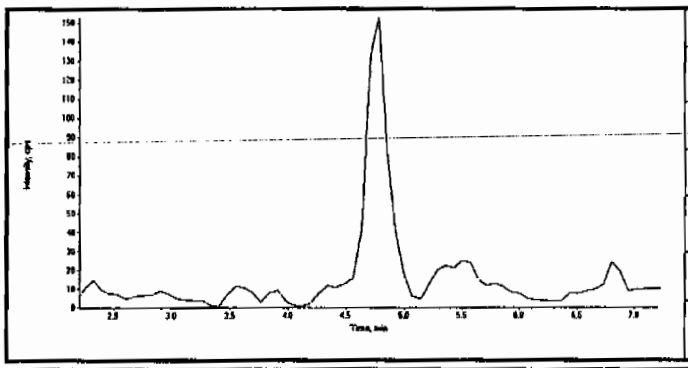

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

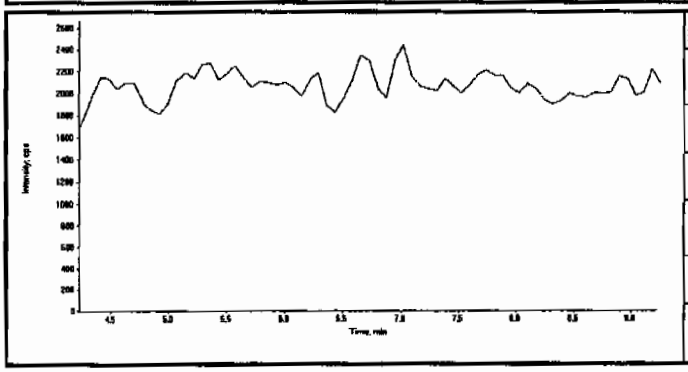

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMK 03/24/10 3/24/10

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Data File	EXP0312016.wiff	**Acquisition Date**	3/12/2010 2:34:37 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

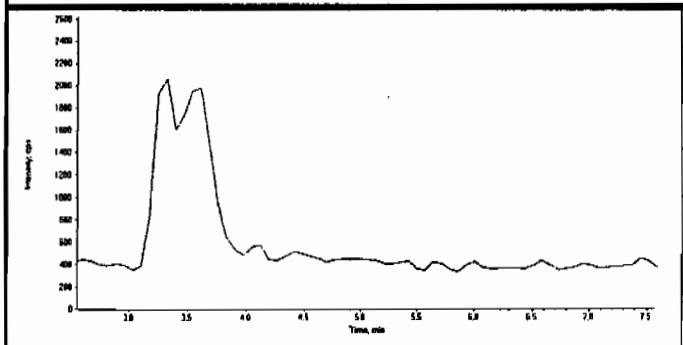

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

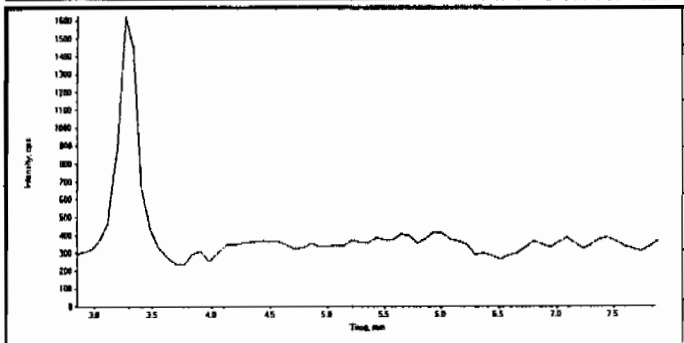

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

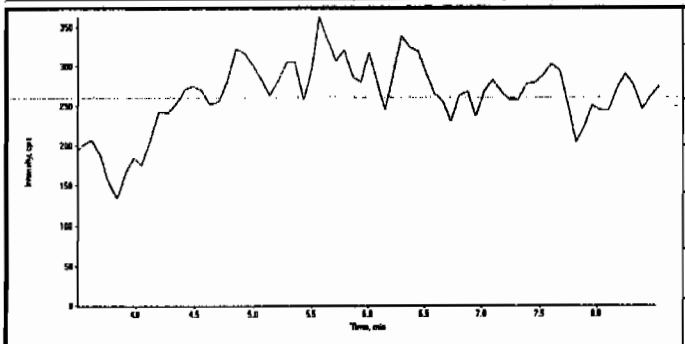

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

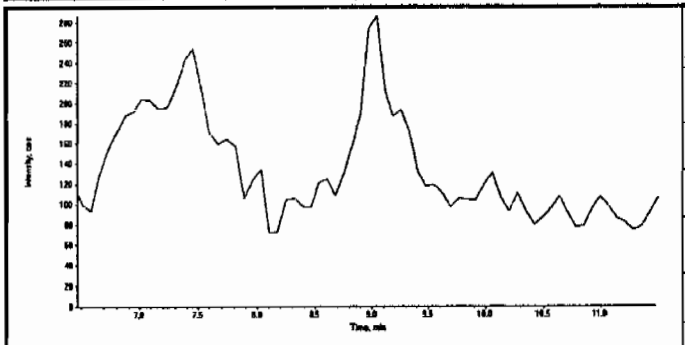

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312016.wiff	**Acquisition Date**	3/12/2010 2:34:37 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

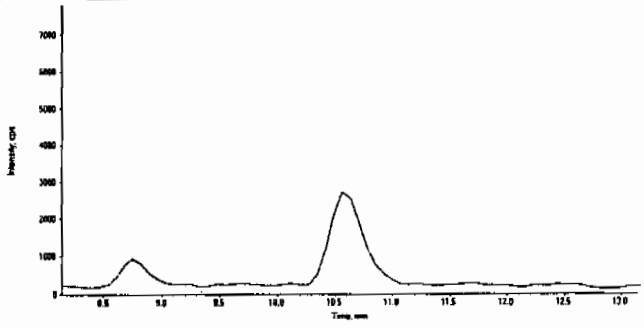

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

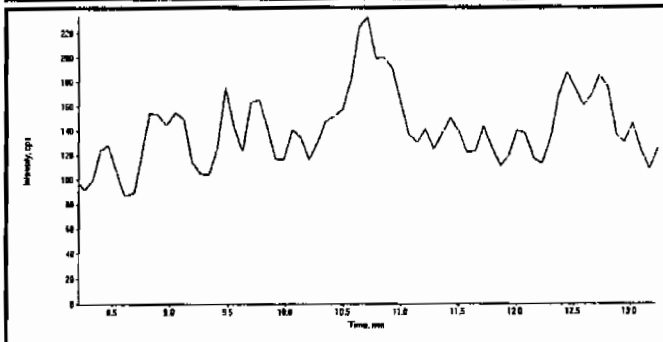

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

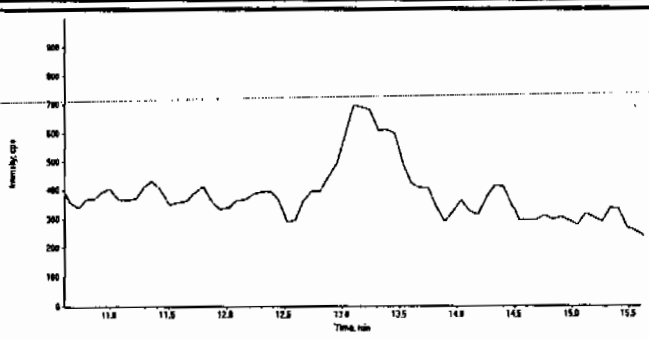

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

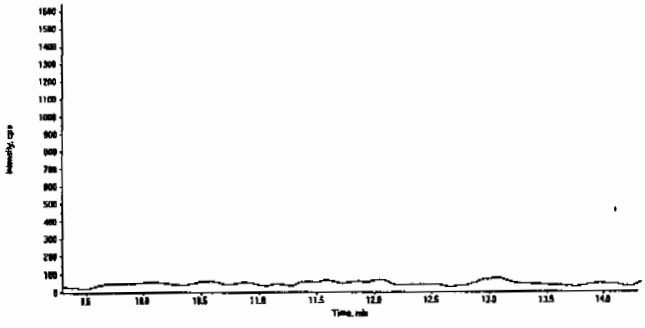

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312016.wiff	**Acquisition Date**	3/12/2010 2:34:37 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

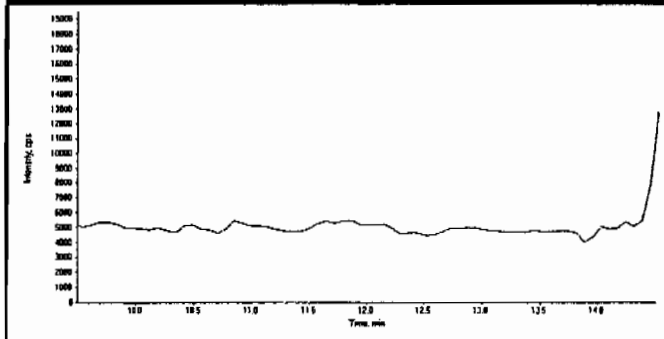

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

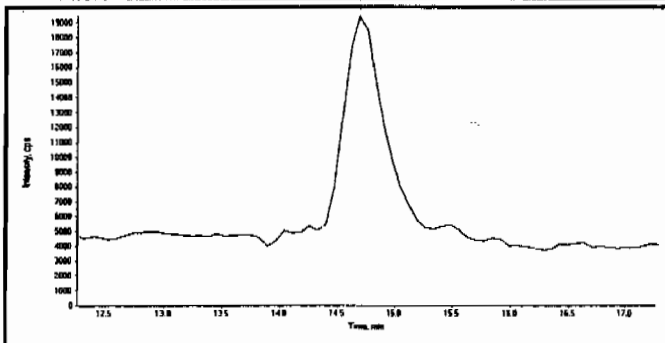

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

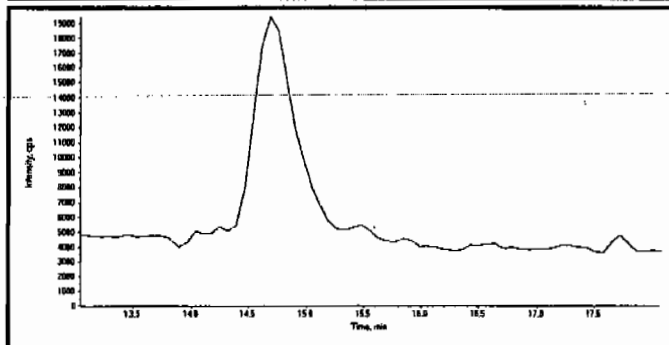

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

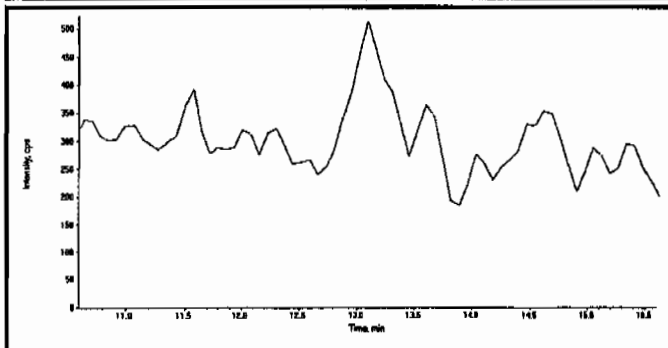

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312016.wiff	**Acquisition Date**	3/12/2010 2:34:37 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

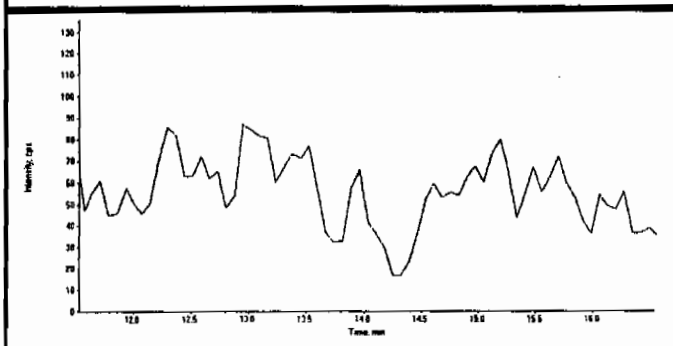

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

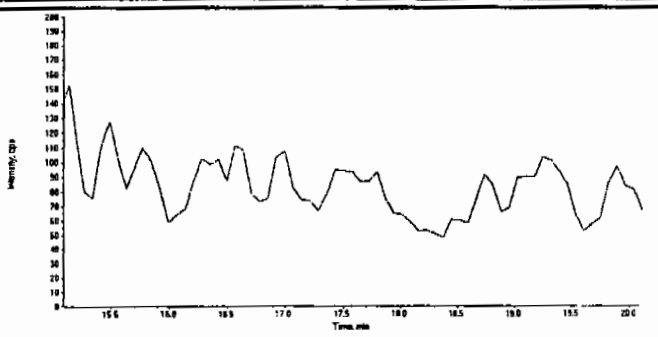

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

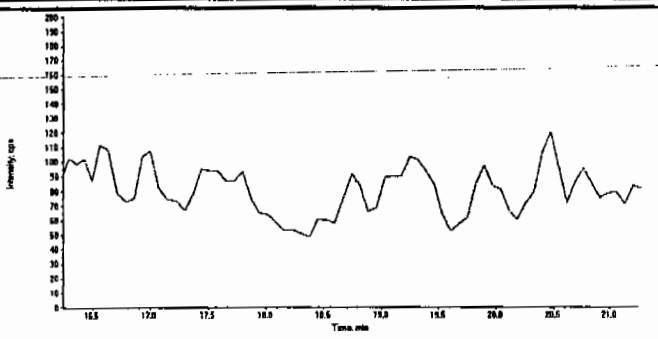

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

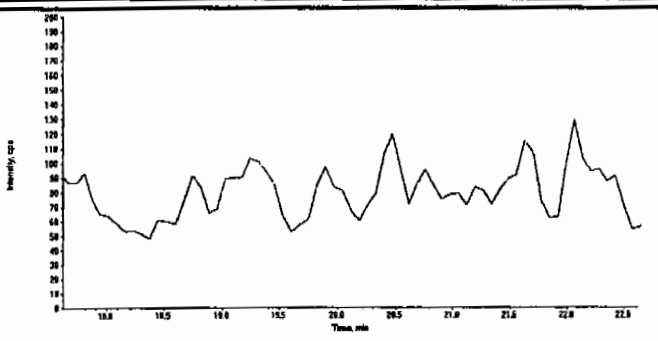

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312016.wiff	**Acquisition Date**	3/12/2010 2:34:37 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

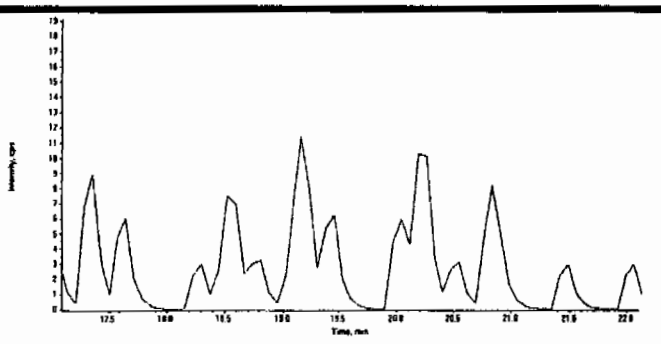

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1564
Lab Code: GEL
Lab Sample ID: XIBLK06
Analysis Date: 12-MAR-10 15:53
GEL Data File: EXP0312019.wiff
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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Data File	EXP0312019.wiff	**Acquisition Date**	3/12/2010 3:53:49 PM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

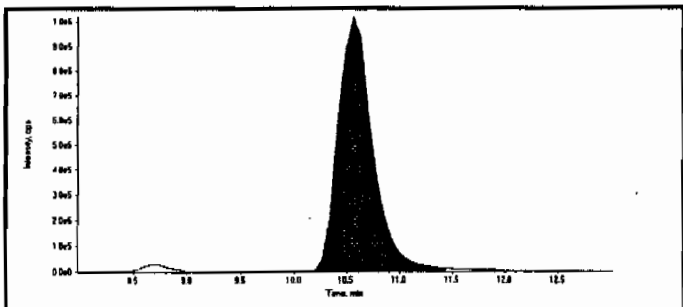

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

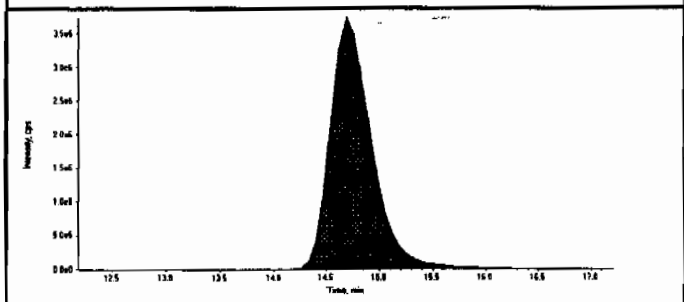

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	101000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

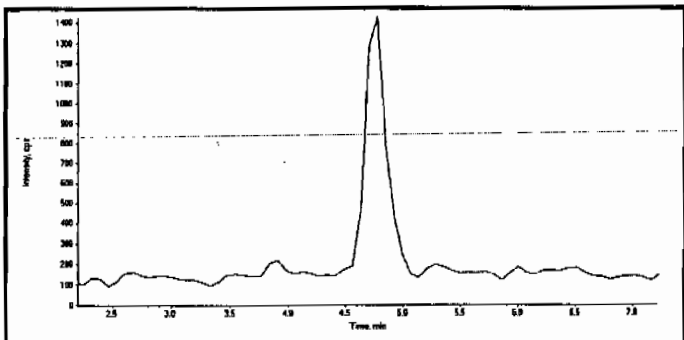

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

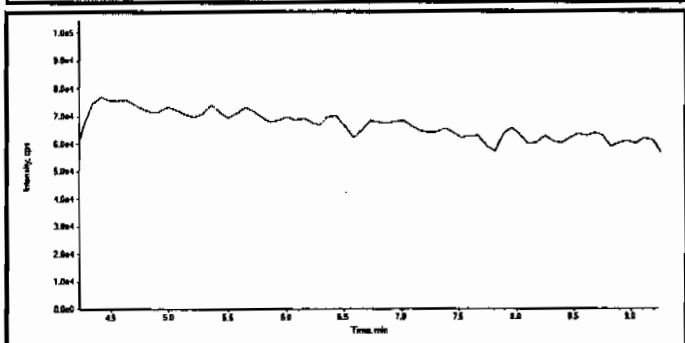

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMW 03/24/10 3/24/10

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Data File	EXP0312019.wiff	**Acquisition Date**	3/12/2010 3:53:49 PM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

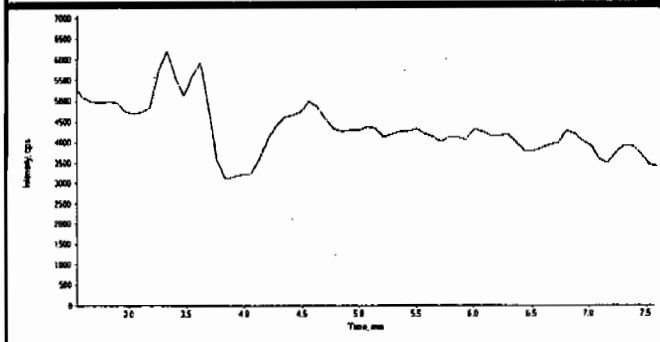

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

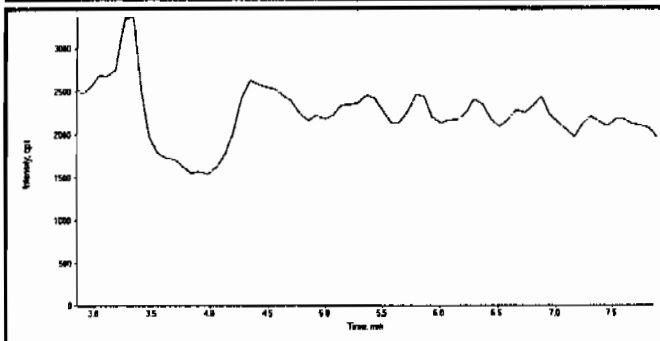

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

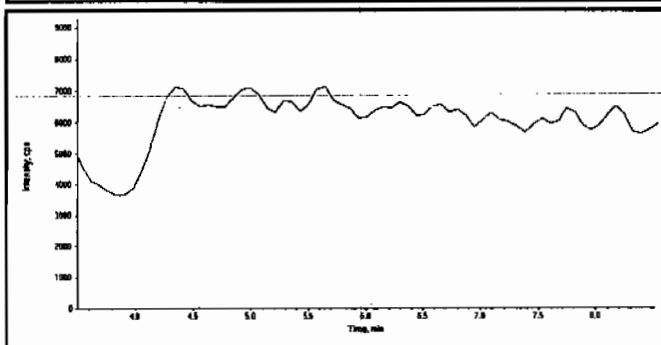

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

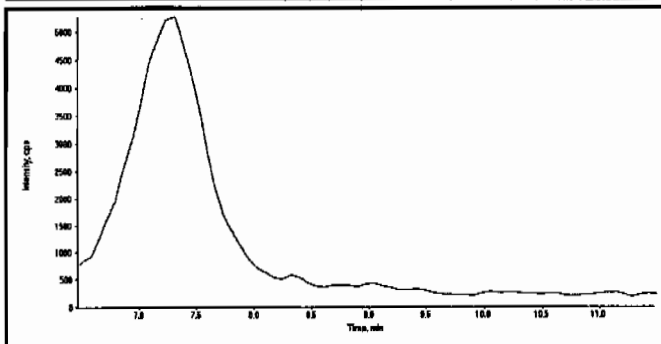

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312019.wiff	**Acquisition Date**	3/12/2010 3:53:49 PM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

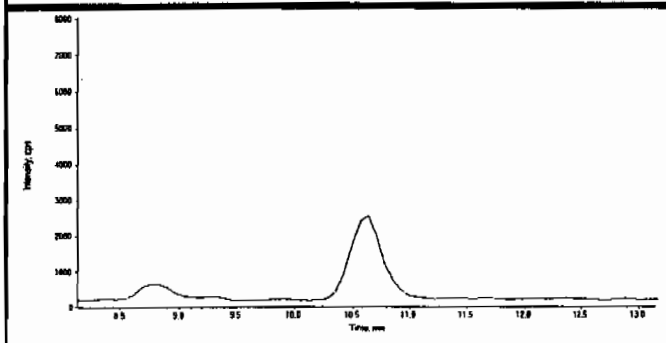

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

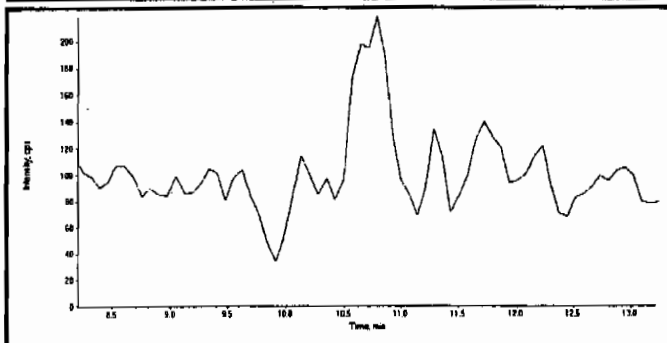

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

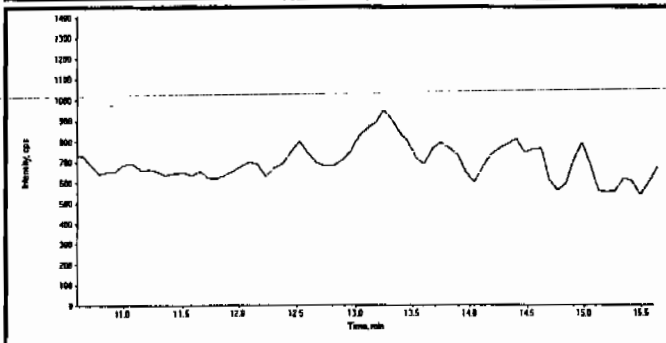

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

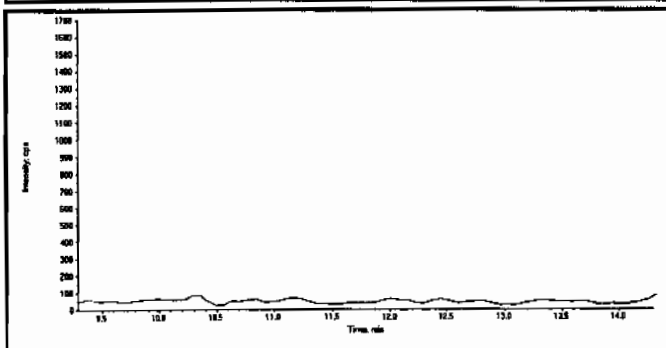

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312019.wiff	**Acquisition Date**	3/12/2010 3:53:49 PM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

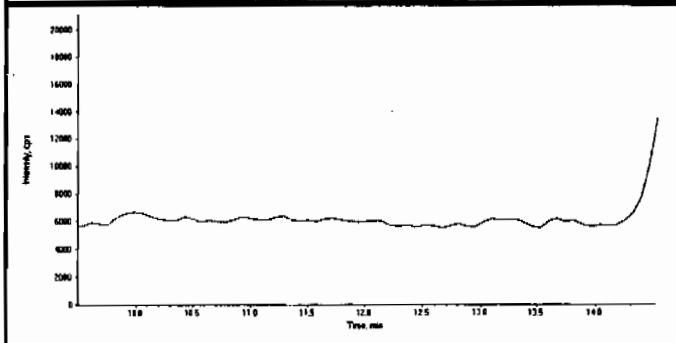

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

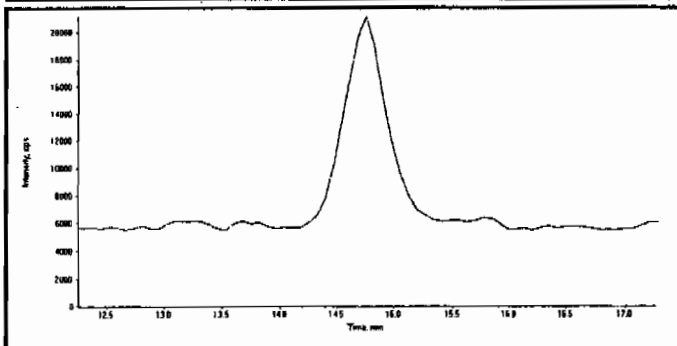

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

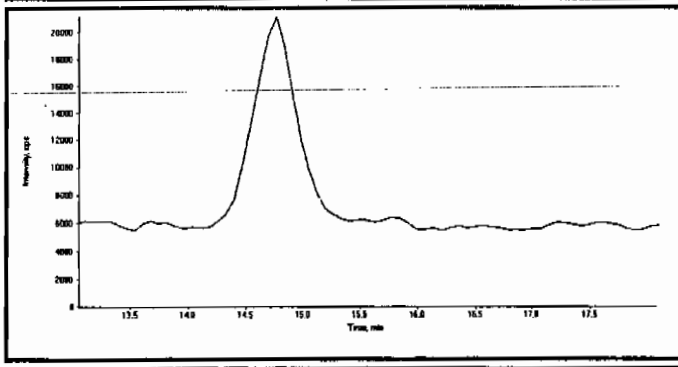

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

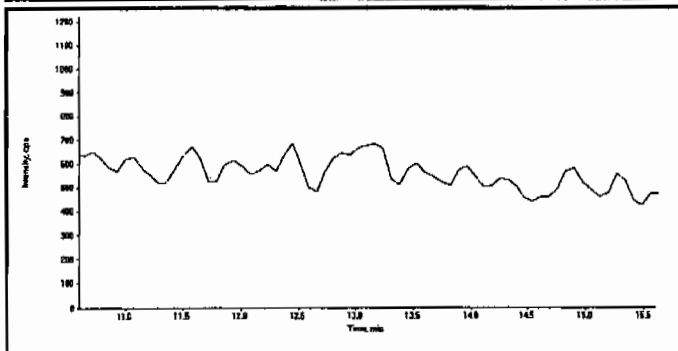

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312019.wiff	**Acquisition Date**	3/12/2010 3:53:49 PM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

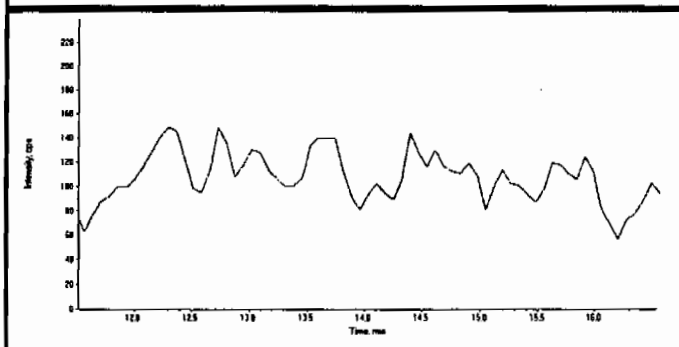

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

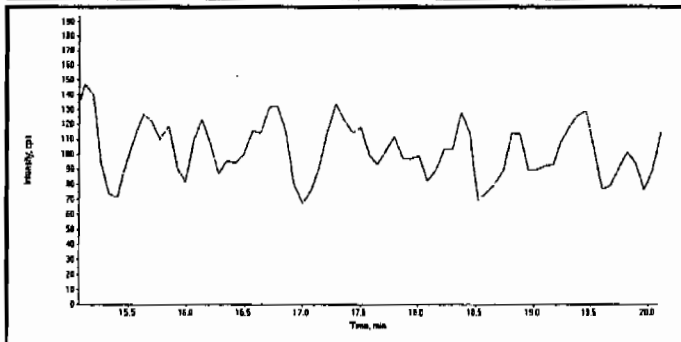

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

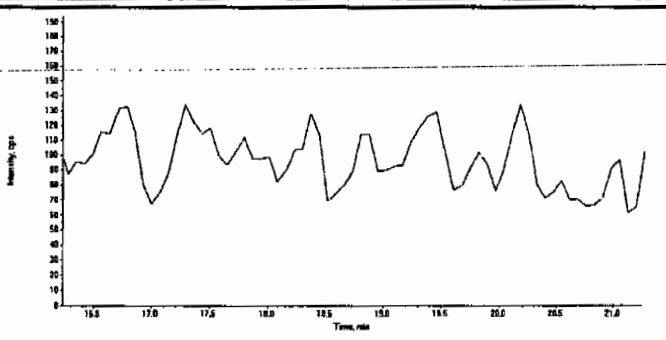

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

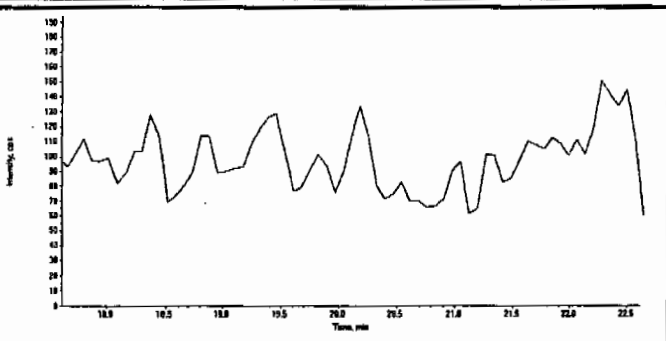

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312019.wiff	**Acquisition Date**	3/12/2010 3:53:49 PM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

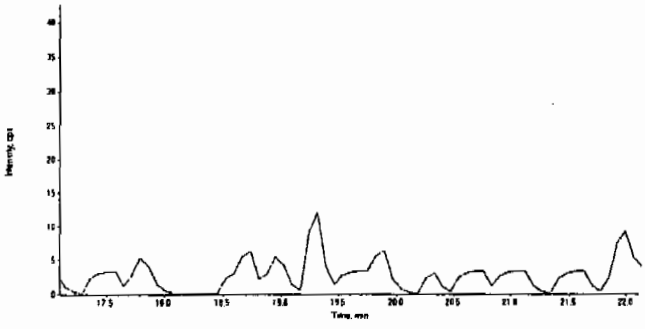

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 12-MAR-10 17:39

GEL Data File: EXP0312023.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312023.wiff	**Acquisition Date**	3/12/2010 5:39:30 PM
Sample Name	XIBLK07	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

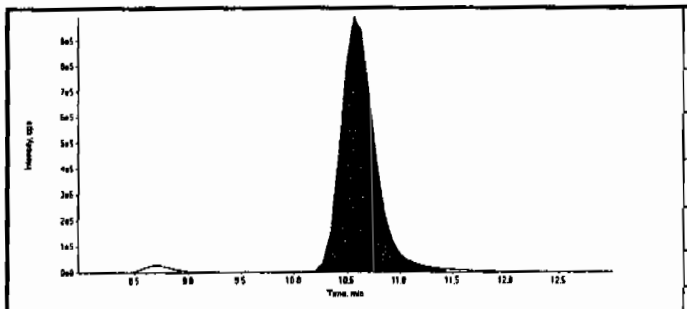

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

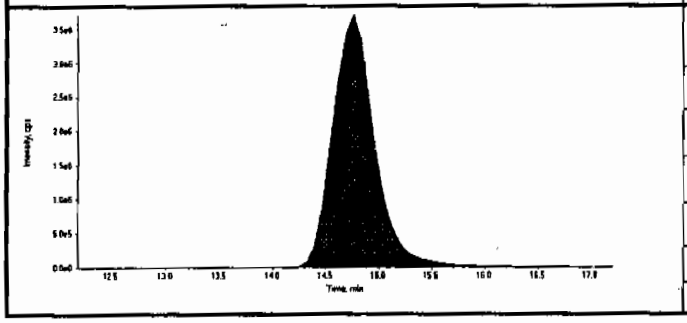

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	102000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

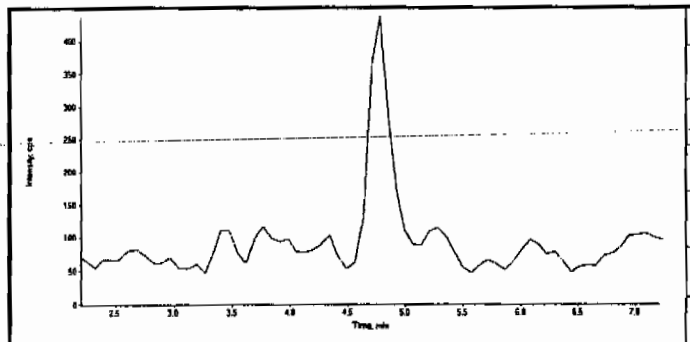

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

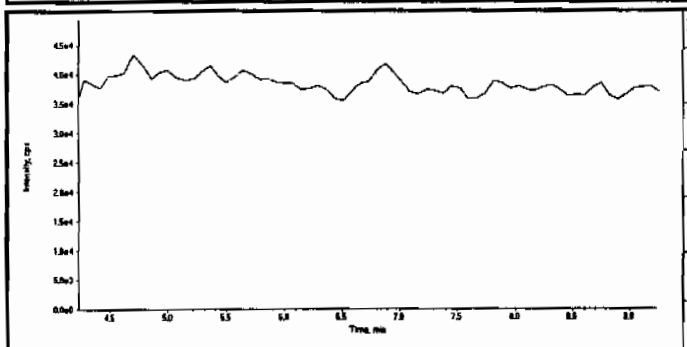

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmw 03/24/10

SLan 3/24/10

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Data File	EXP0312023.wiff	**Acquisition Date**	3/12/2010 5:39:30 PM
Sample Name	XIBLK07	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

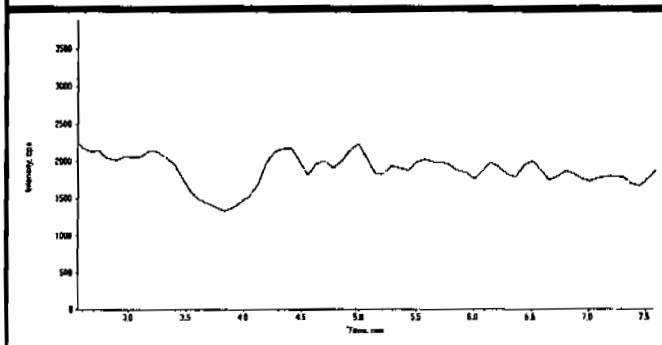

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

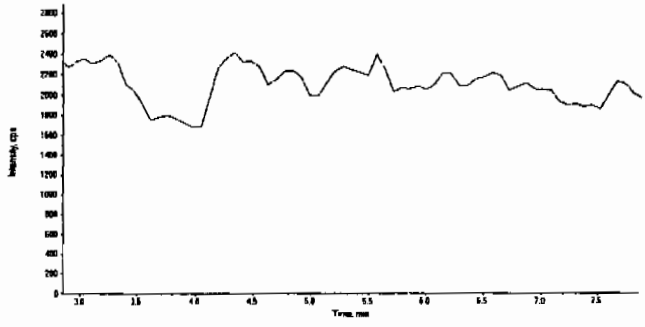

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

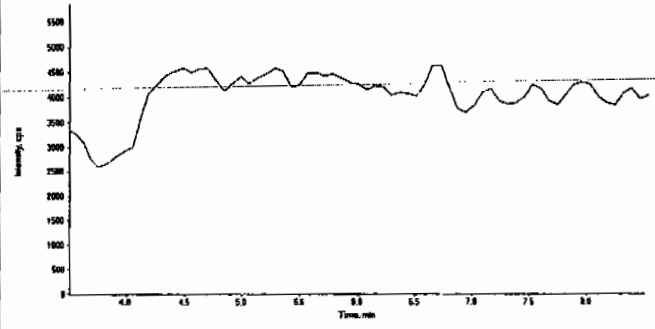

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

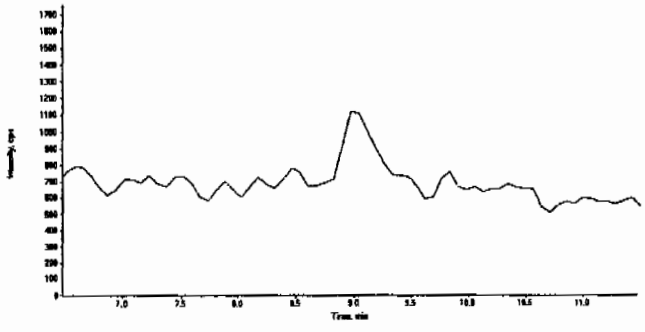

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312023.wiff	**Acquisition Date**	3/12/2010 5:39:30 PM
Sample Name	XIBLK07	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

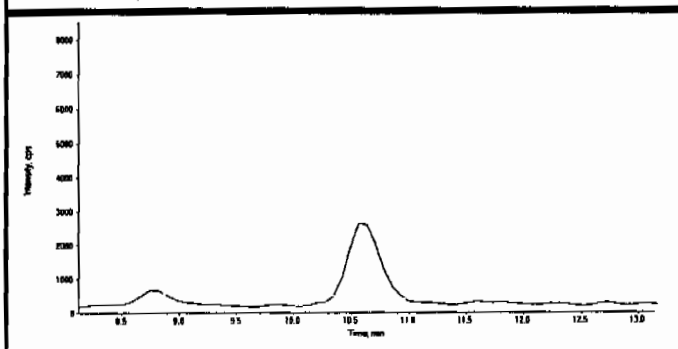

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

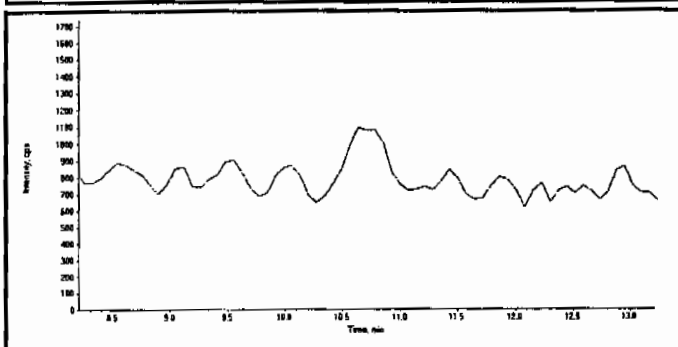

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

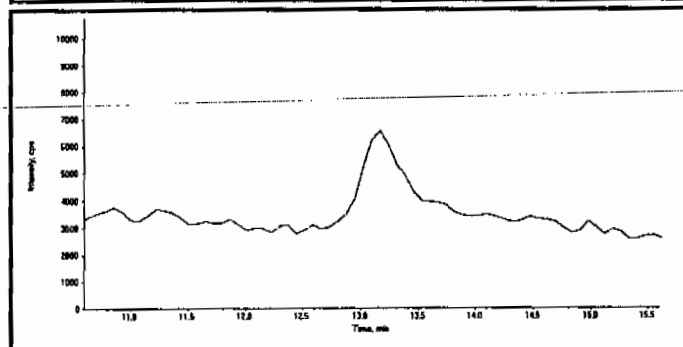

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

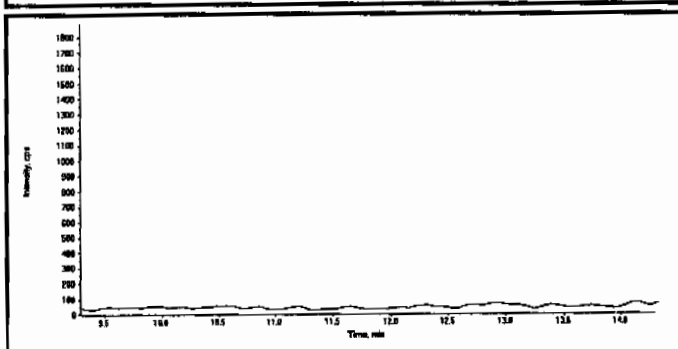

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312023.wiff	**Acquisition Date**	3/12/2010 5:39:30 PM
Sample Name	XIBLK07	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

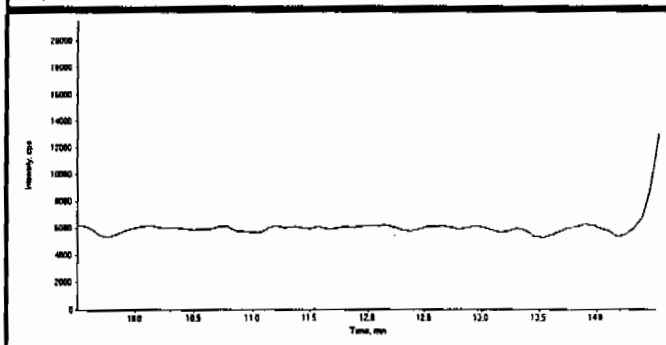

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

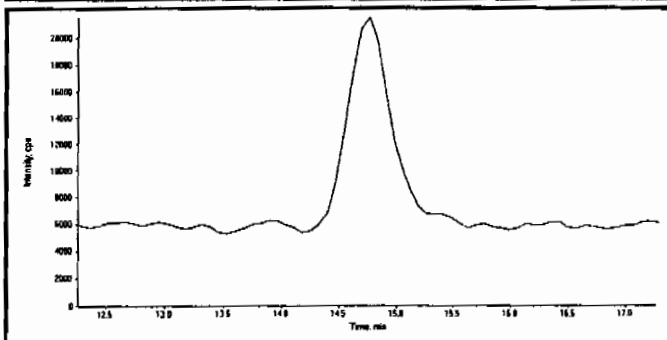

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

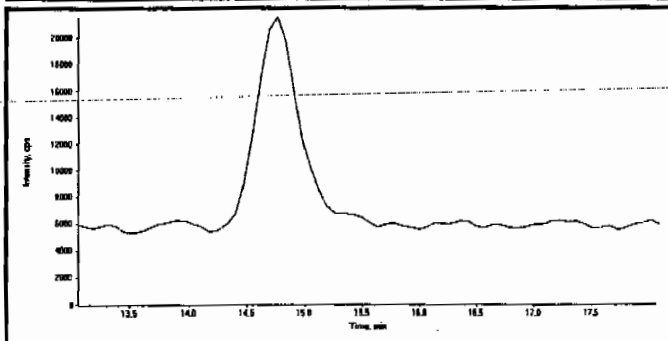

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

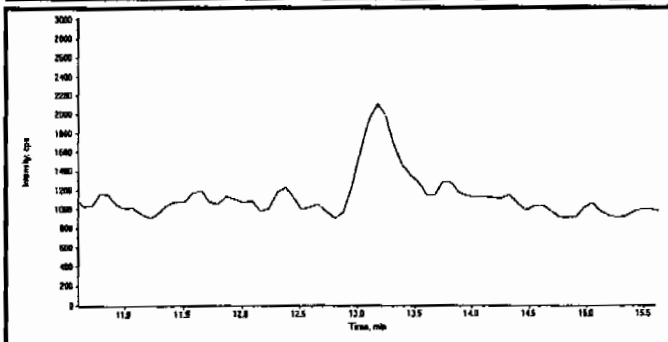

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312023.wiff	**Acquisition Date**	3/12/2010 5:39:30 PM
Sample Name	XIBLK07	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

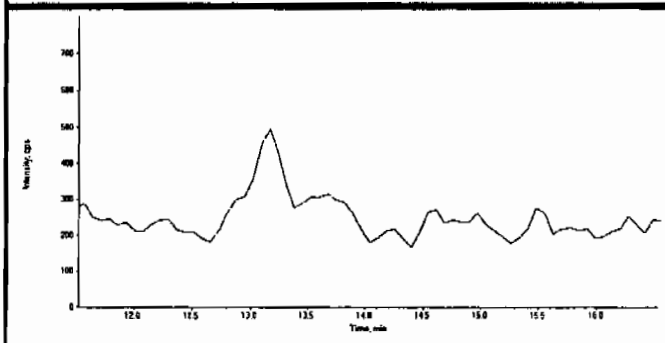

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

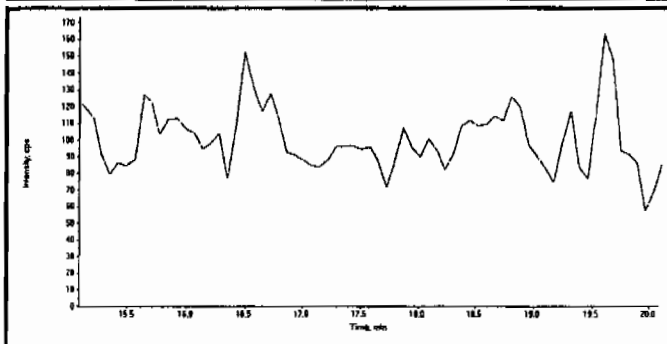

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

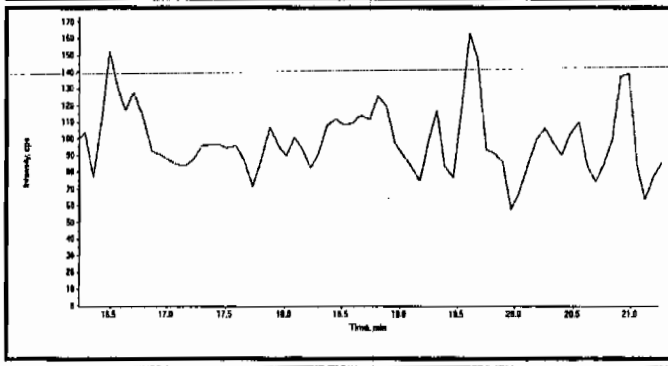

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

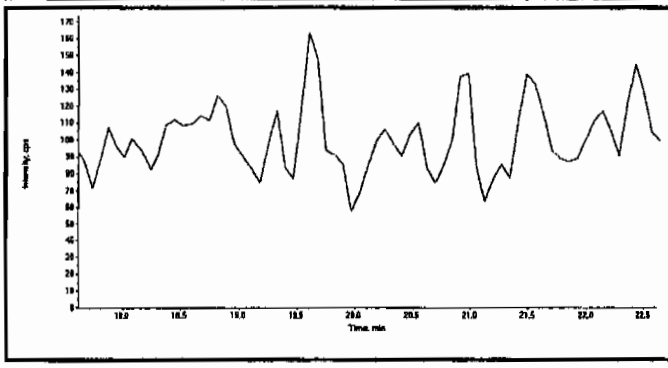

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312023.wiff	**Acquisition Date**	3/12/2010 5:39:30 PM
Sample Name	XIBLK07	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

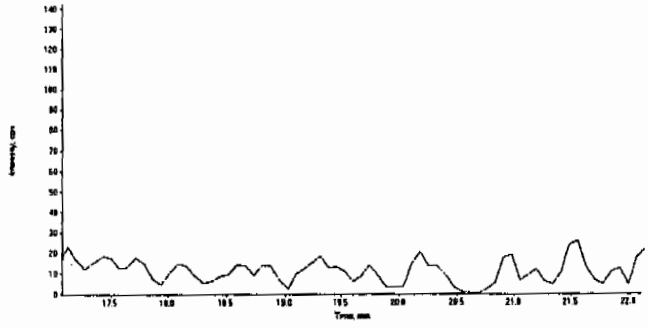

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 12-MAR-10 23:22

GEL Data File: EXP0312036.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312036.wiff	**Acquisition Date**	3/12/2010 11:22:47 PM
Sample Name	XIBLK08	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

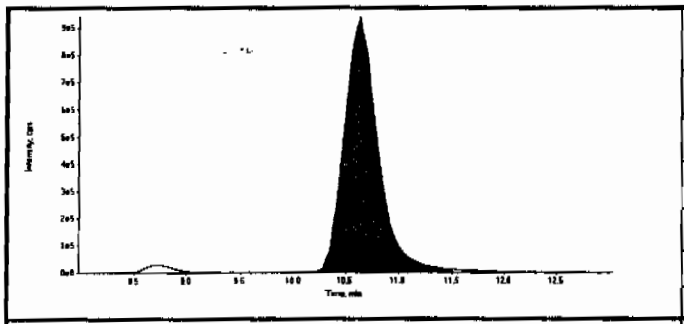

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	21100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

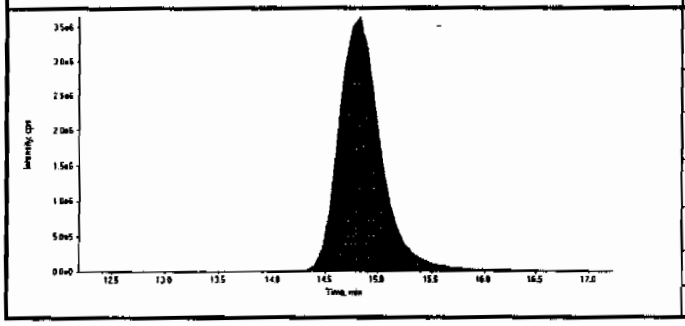

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	101000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

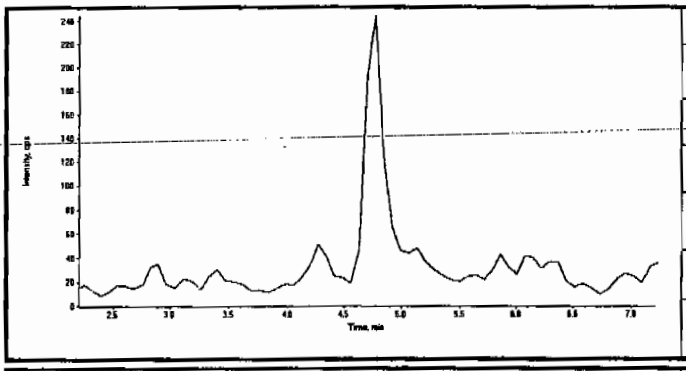

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

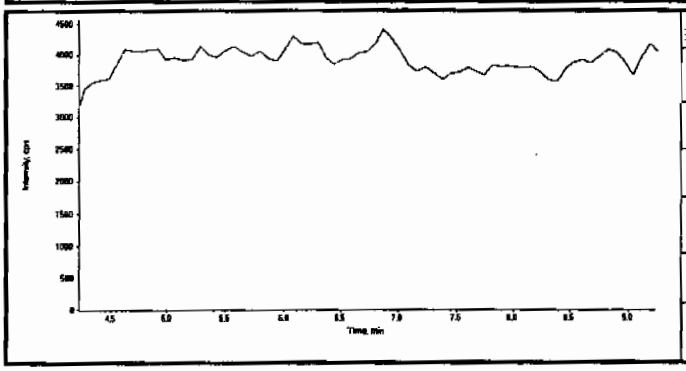

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmc 03/24/10
Lan 3/24/10

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Data File	EXP0312036.wiff	**Acquisition Date**	3/12/2010 11:22:47 PM
Sample Name	XIBLK08	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

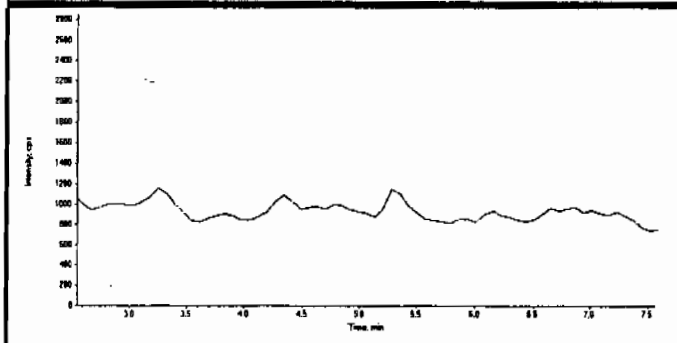

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

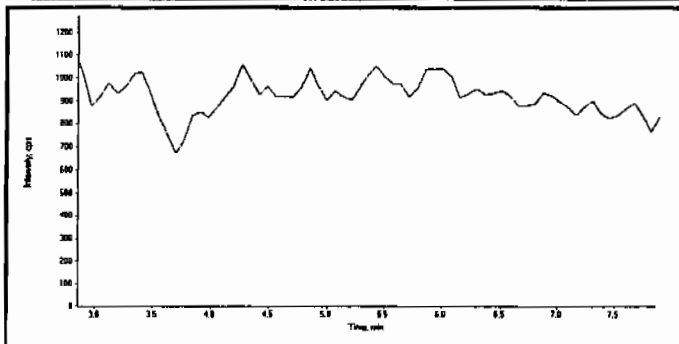

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

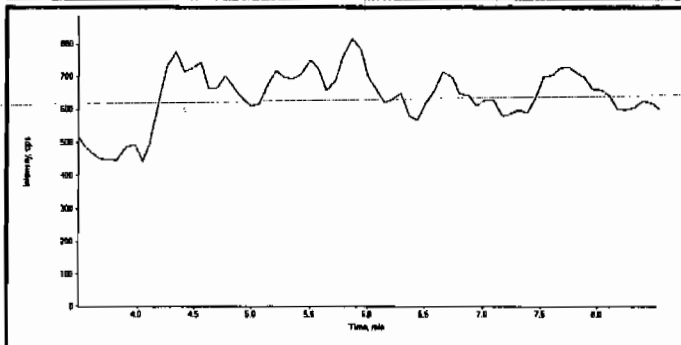

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

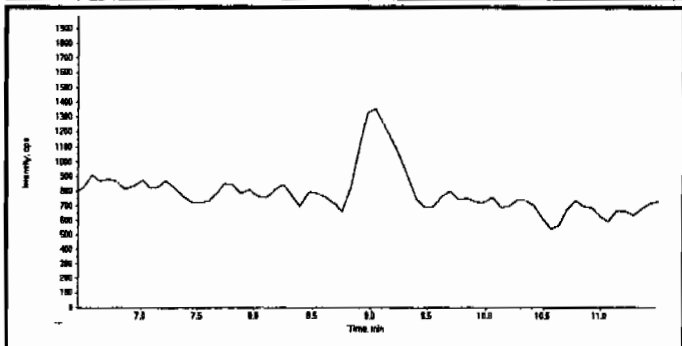

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312036.wiff	**Acquisition Date**	3/12/2010 11:22:47 PM
Sample Name	XIBLK08	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

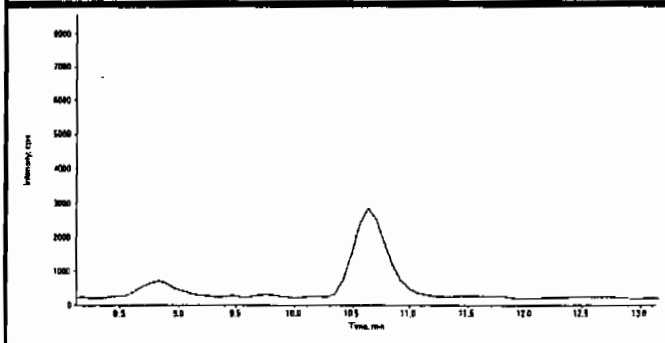

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

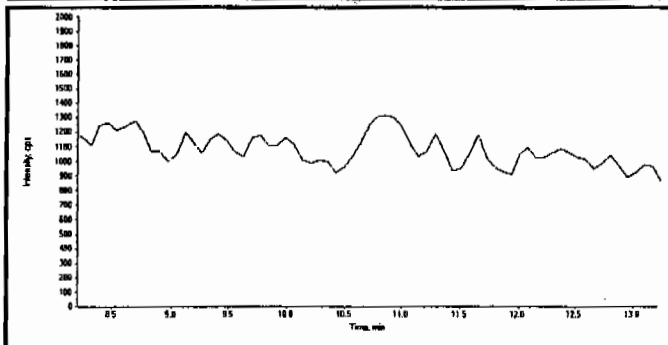

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

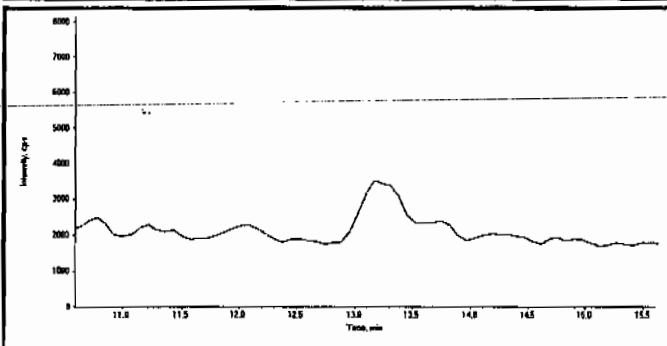

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

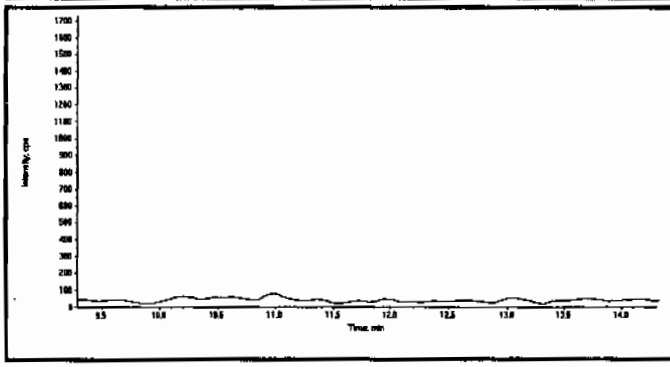

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312036.wiff	**Acquisition Date**	3/12/2010 11:22:47 PM
Sample Name	XIBLK08	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

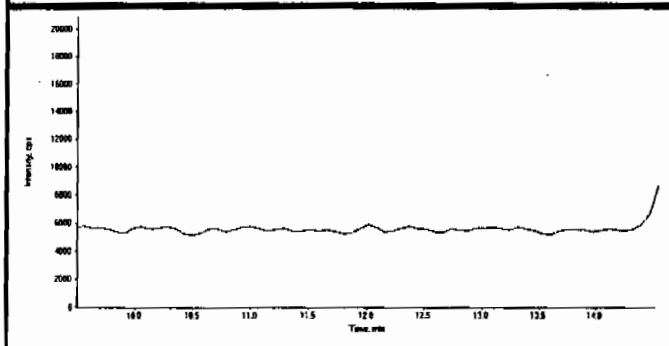

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

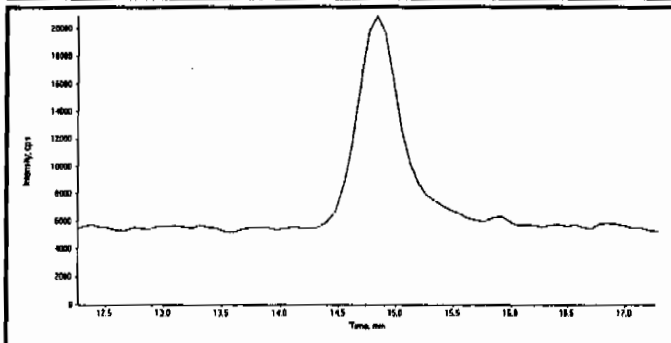

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

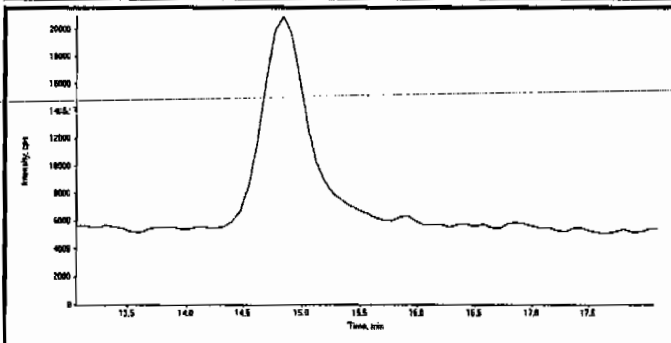

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

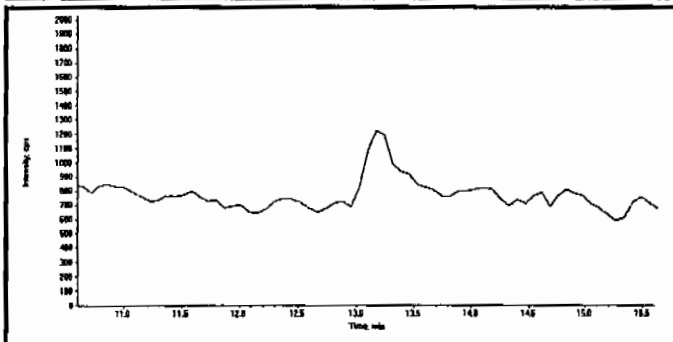

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312036.wiff	**Acquisition Date**	3/12/2010 11:22:47 PM
Sample Name	XIBLK08	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

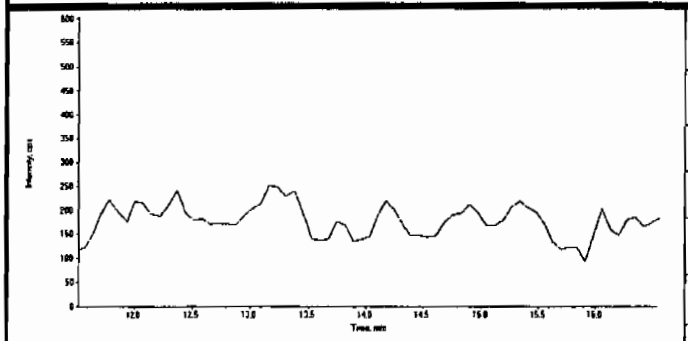

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

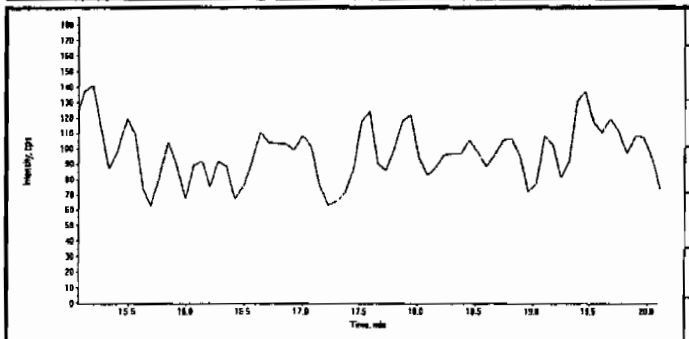

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

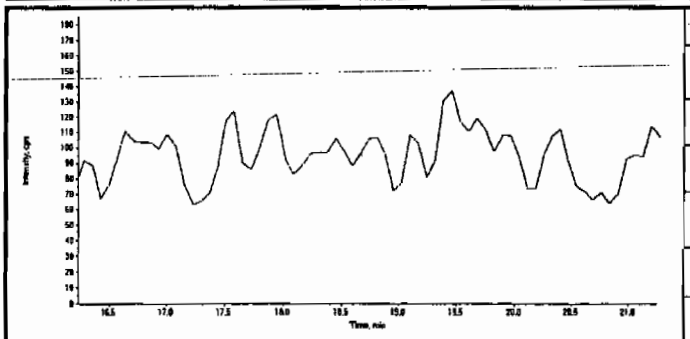

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

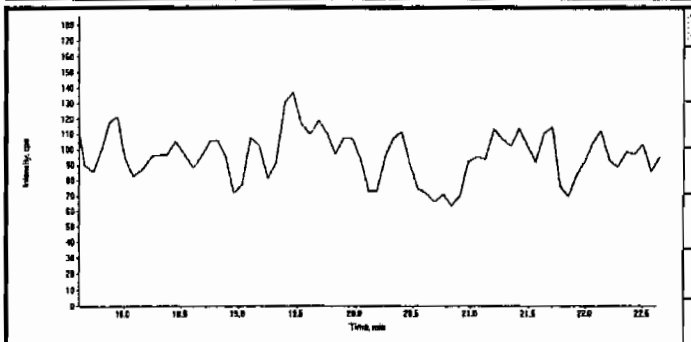

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312036.wiff	**Acquisition Date**	3/12/2010 11:22:47 PM
Sample Name	XIBLK08	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

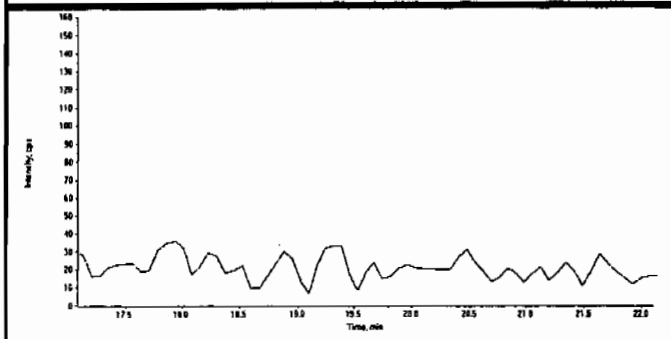

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 13-MAR-10 05:06

GEL Data File: EXP0312049.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312049.wiff	**Acquisition Date**	3/13/2010 5:06:02 AM
Sample Name	XIBLK09	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

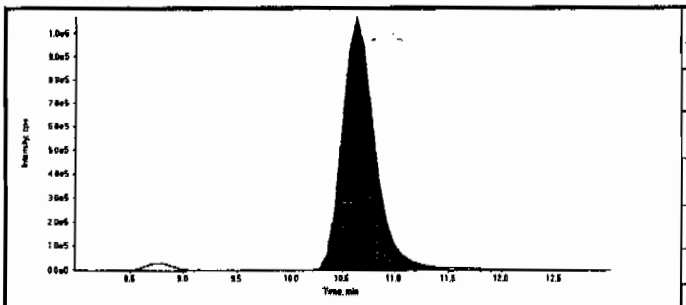

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	23400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

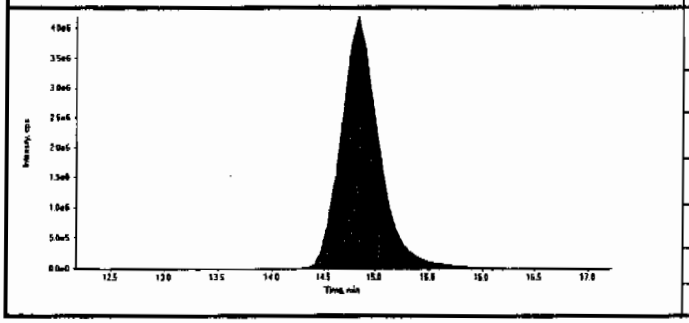

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	108000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

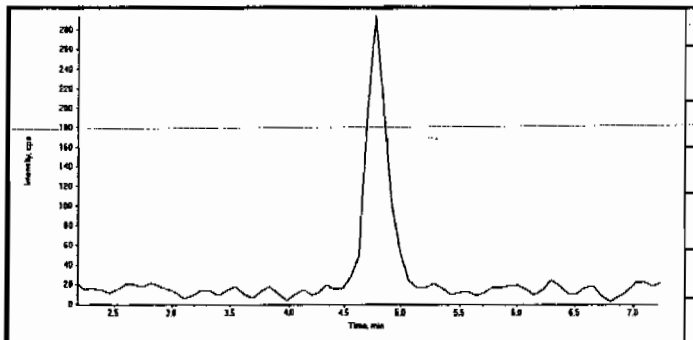

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

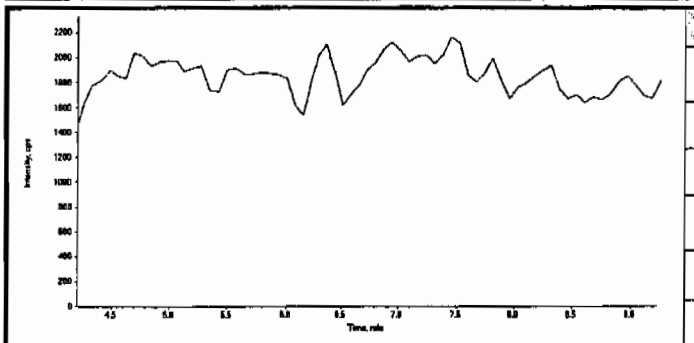

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmw 03/24/10
Dan 3/24/10

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Data File	EXP0312049.wiff	**Acquisition Date**	3/13/2010 5:06:02 AM
Sample Name	XIBLK09	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

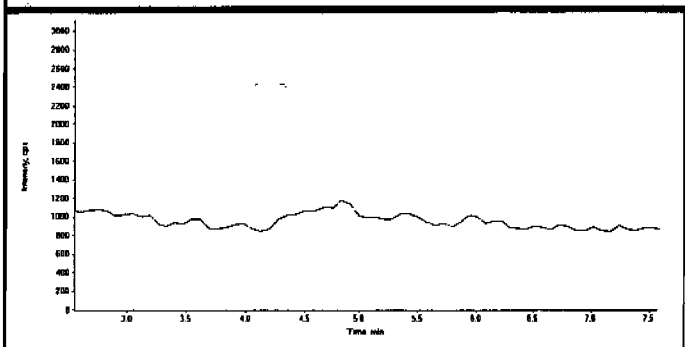

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

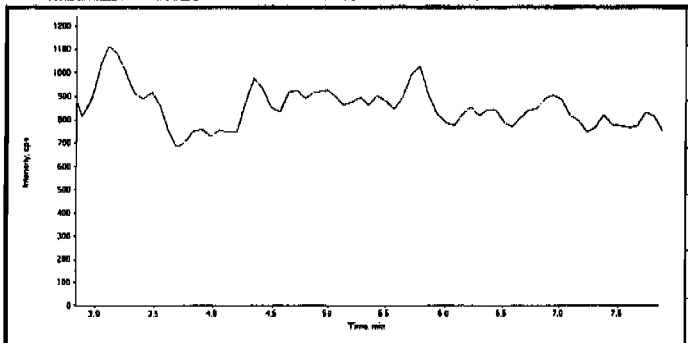

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

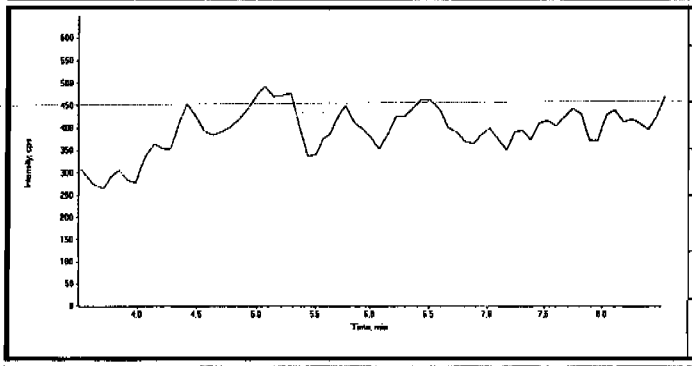

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

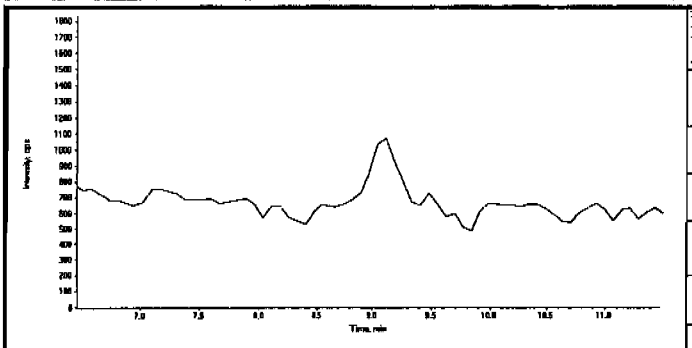

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312049.wiff	**Acquisition Date**	3/13/2010 5:06:02 AM
Sample Name	XIBLK09	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

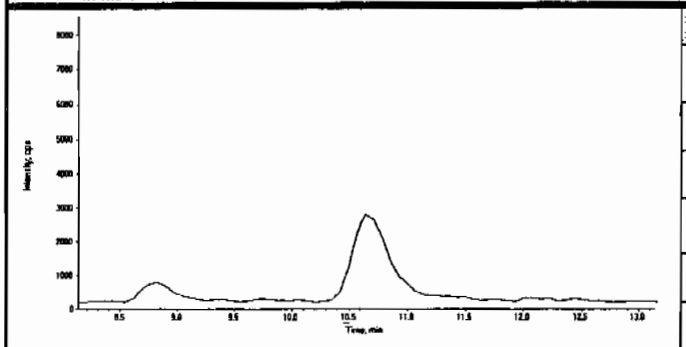

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

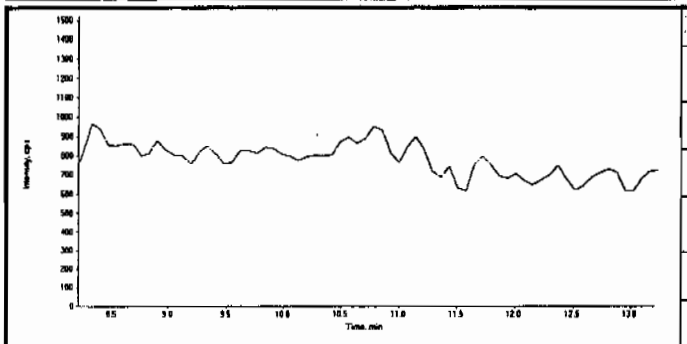

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

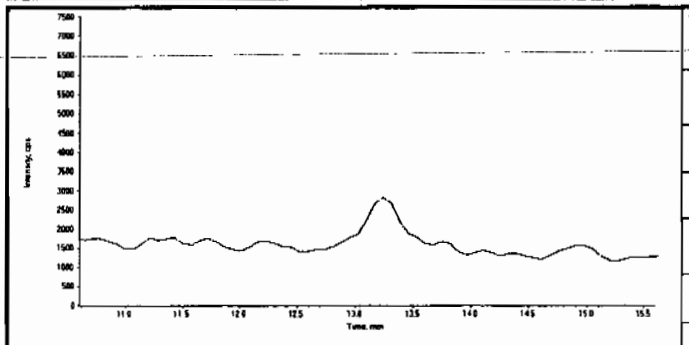

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

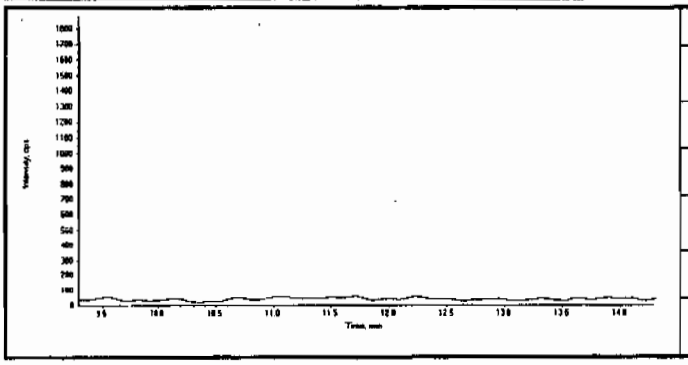

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312049.wiff	**Acquisition Date**	3/13/2010 5:06:02 AM
Sample Name	XIBLK09	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

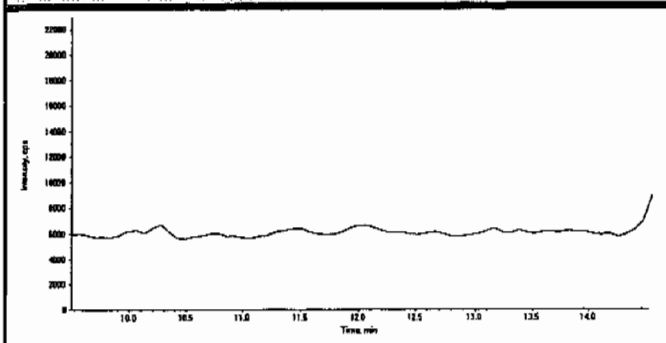

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

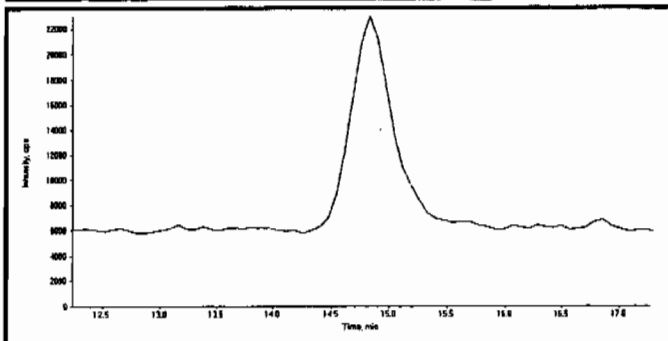

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

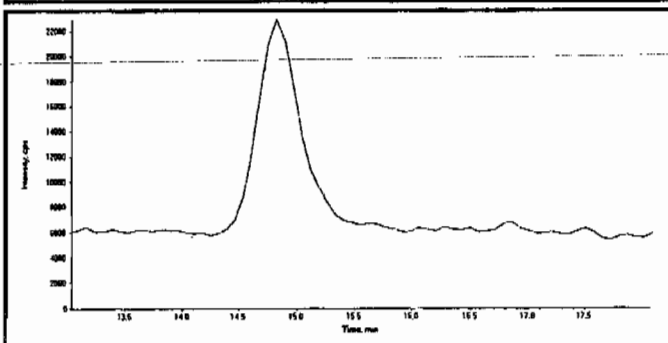

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

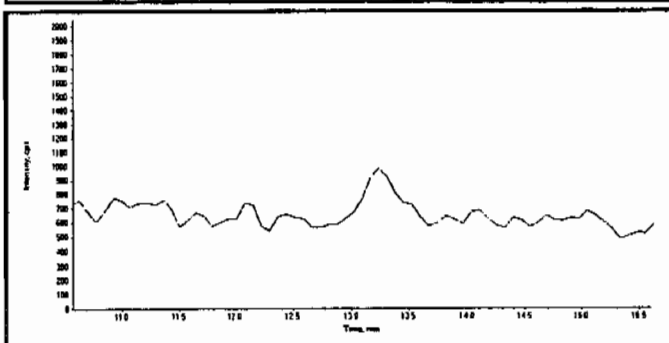

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312049.wiff	**Acquisition Date**	3/13/2010 5:06:02 AM
Sample Name	XIBLK09	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

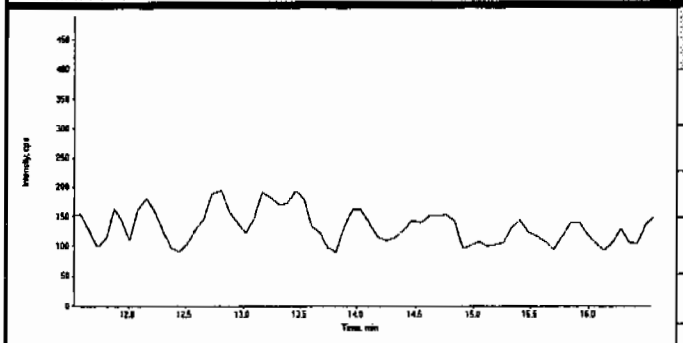

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

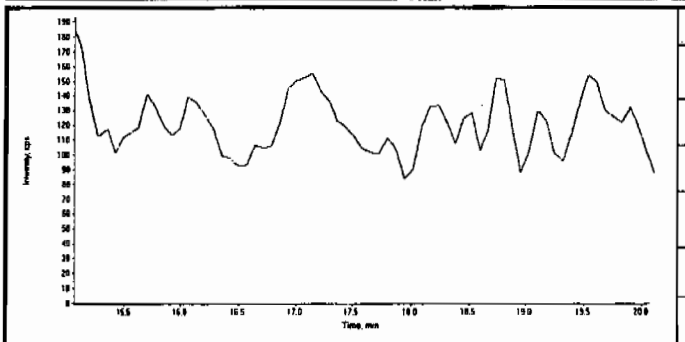

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

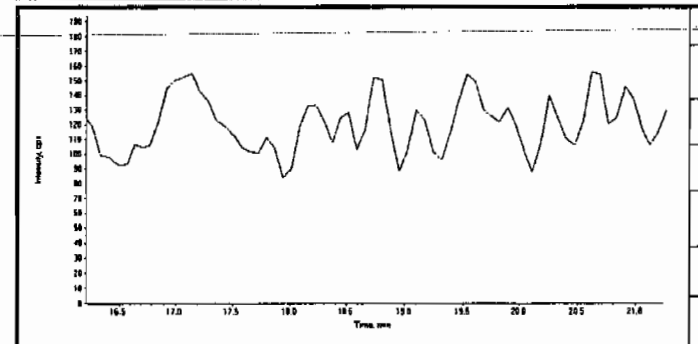

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

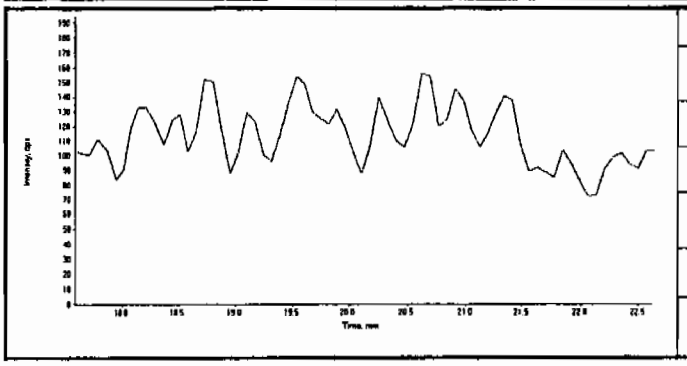

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312049.wiff	**Acquisition Date**	3/13/2010 5:06:02 AM
Sample Name	XIBLK09	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

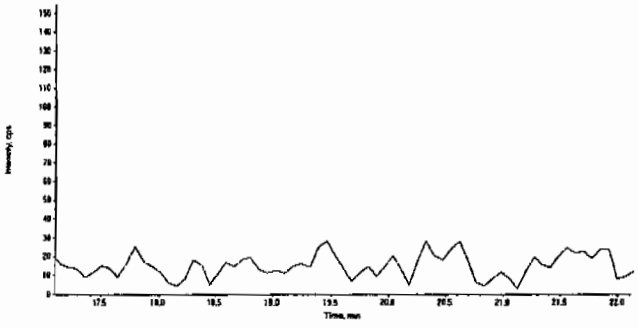

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 13-MAR-10 07:44

GEL Data File: EXP0312055.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312055.wiff	**Acquisition Date**	3/13/2010 7:44:16 AM
Sample Name	XIBLK10	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

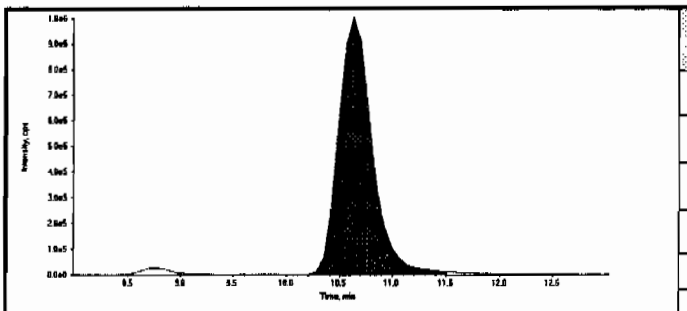

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

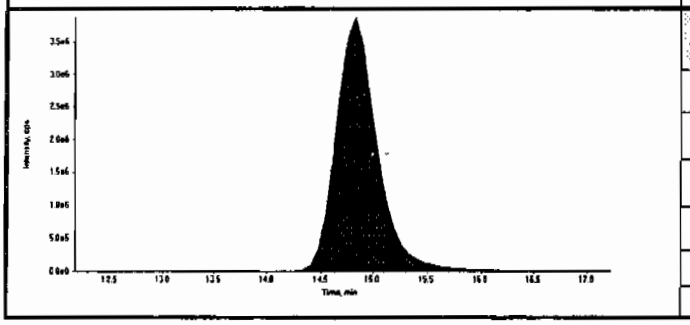

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	106000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

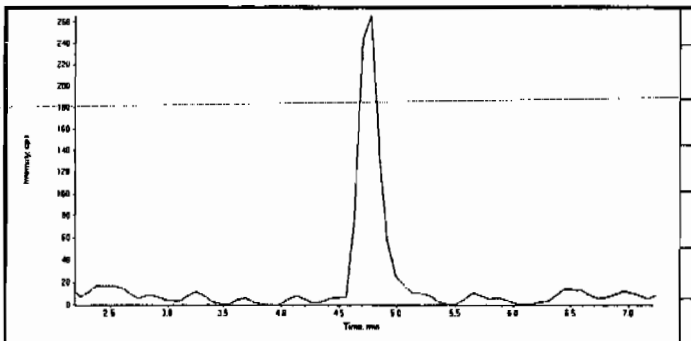

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

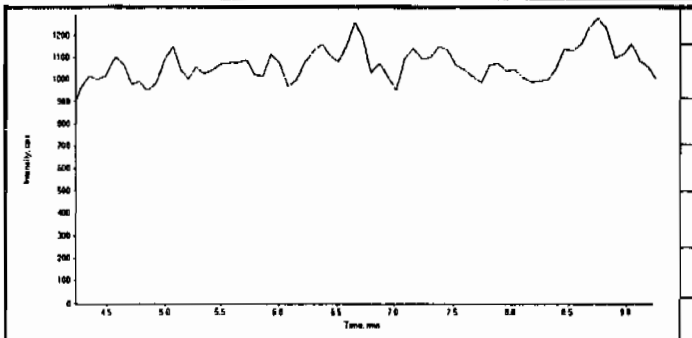

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMC 03/24/10

Ler 3/24/10

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Data File	EXP0312055.wiff	**Acquisition Date**	3/13/2010 7:44:16 AM
Sample Name	XIBLK10	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

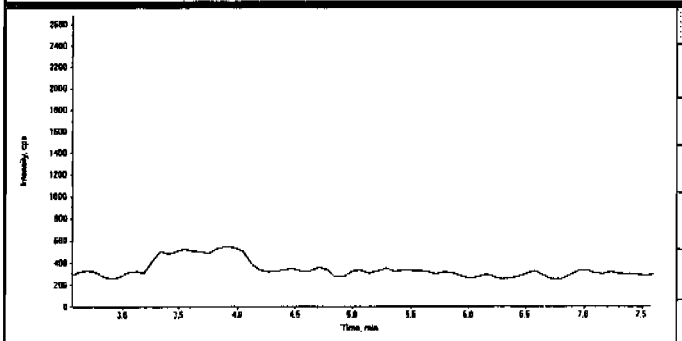

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

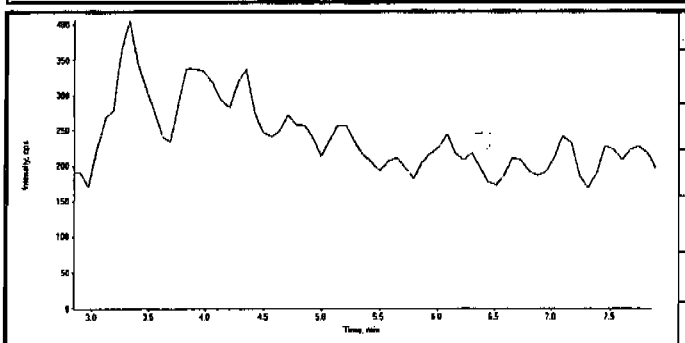

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

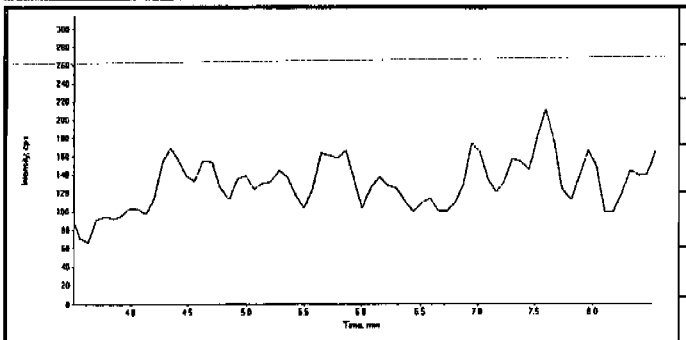

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

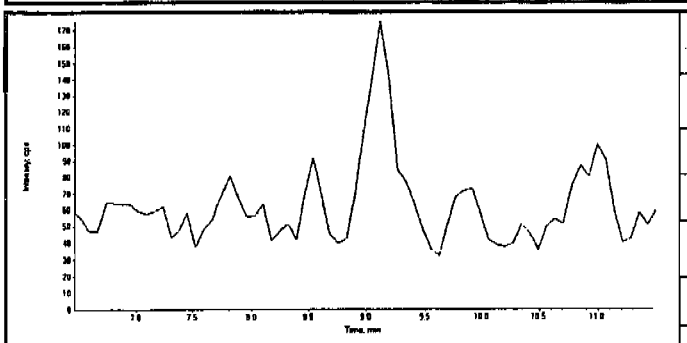

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312055.wiff	**Acquisition Date**	3/13/2010 7:44:16 AM
Sample Name	XIBLK10	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

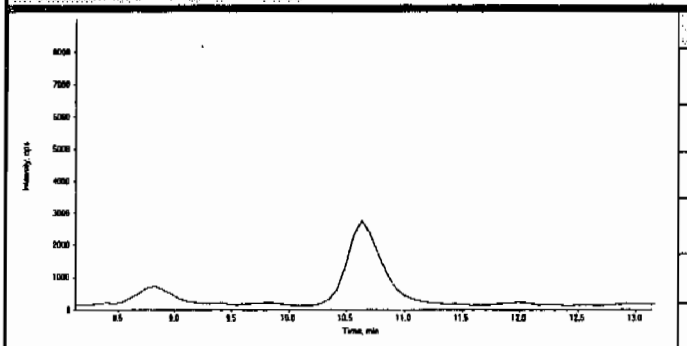

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

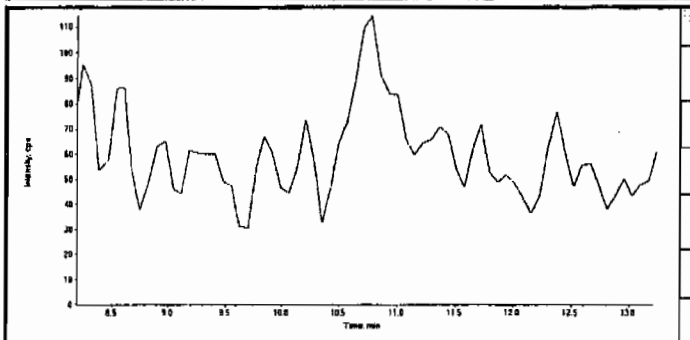

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

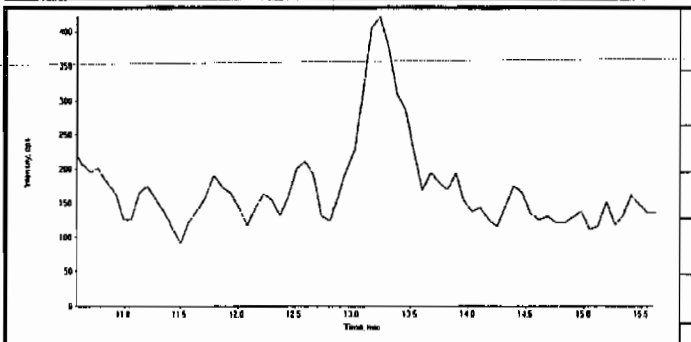

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

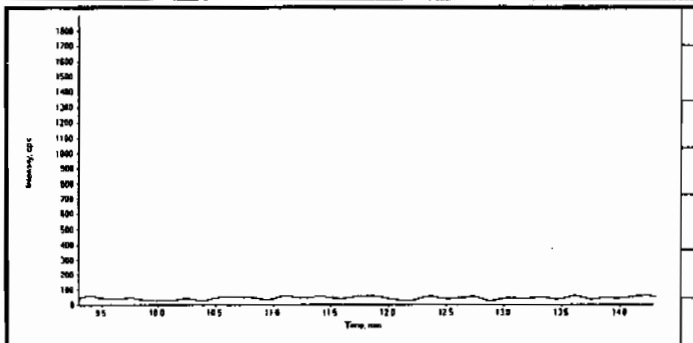

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312055.wiff	**Acquisition Date**	3/13/2010 7:44:16 AM
Sample Name	XIBLK10	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

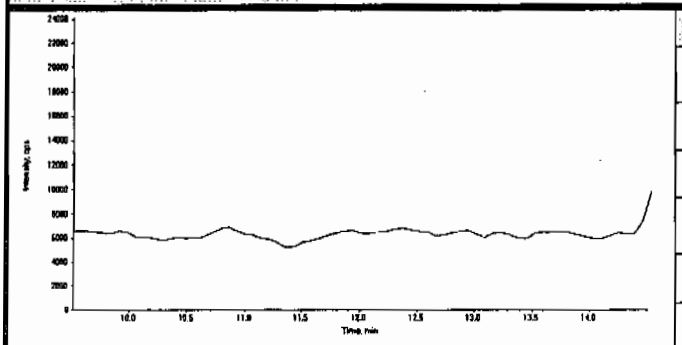

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

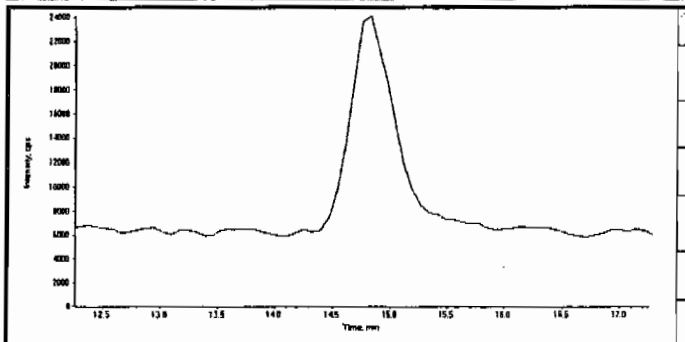

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

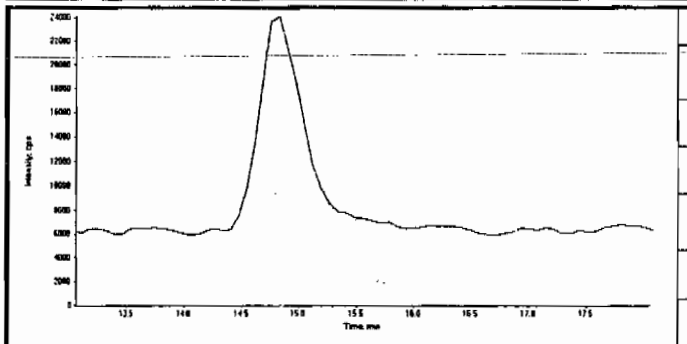

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

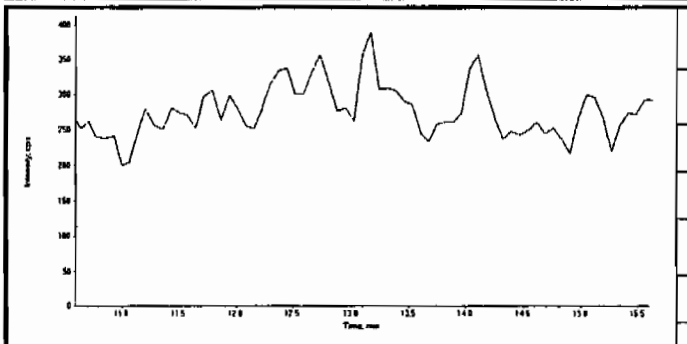

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312055.wiff	**Acquisition Date**	3/13/2010 7:44:16 AM
Sample Name	XIBLK10	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

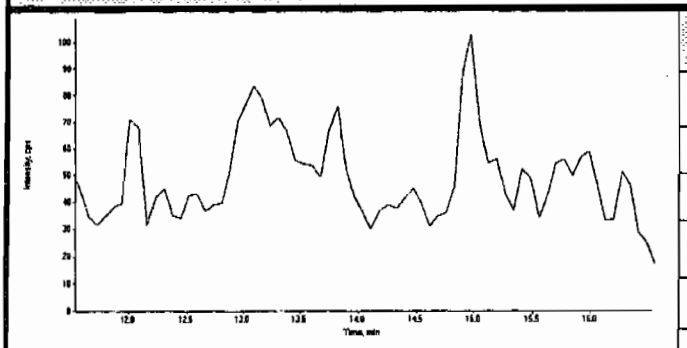

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

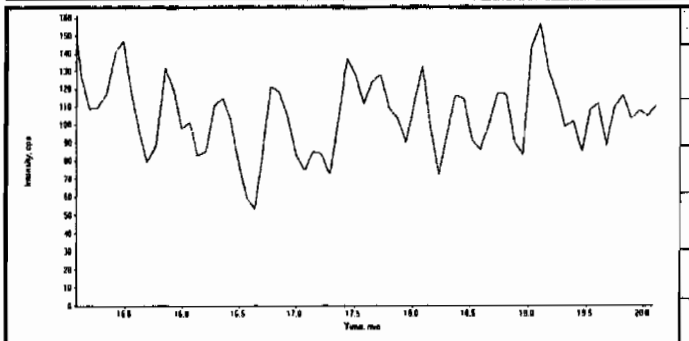

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

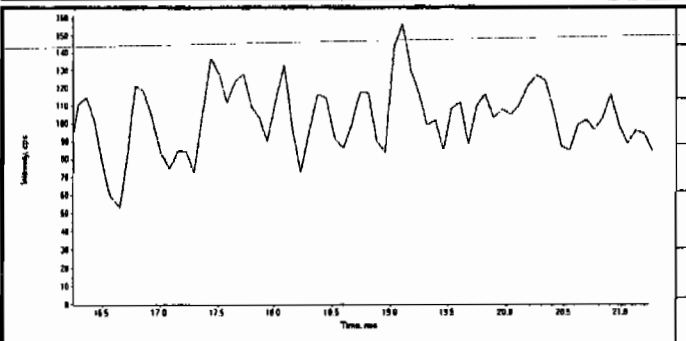

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

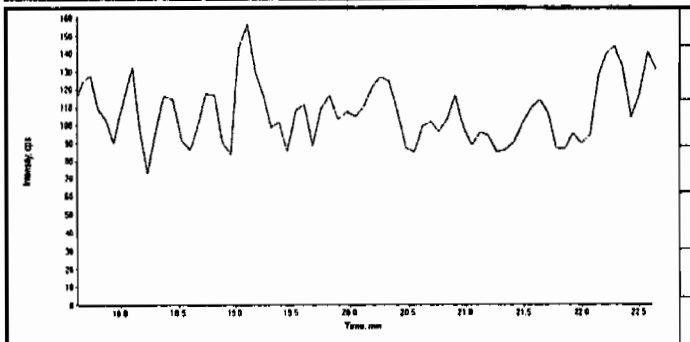

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312055.wiff	**Acquisition Date**	3/13/2010 7:44:16 AM
Sample Name	XIBLK10	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

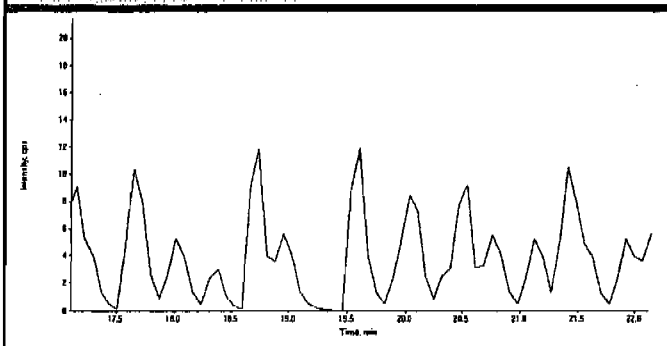

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1564

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 13–MAR–10 10:49

GEL Data File: EXP0312062.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312062.wiff	Acquisition Date	3/13/2010 10:49:23 AM
Sample Name	XIBLK11	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

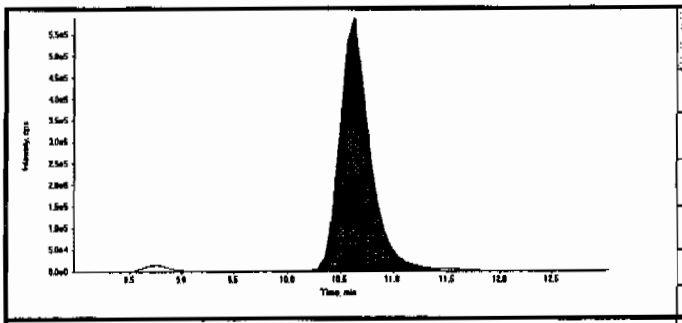

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	11800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

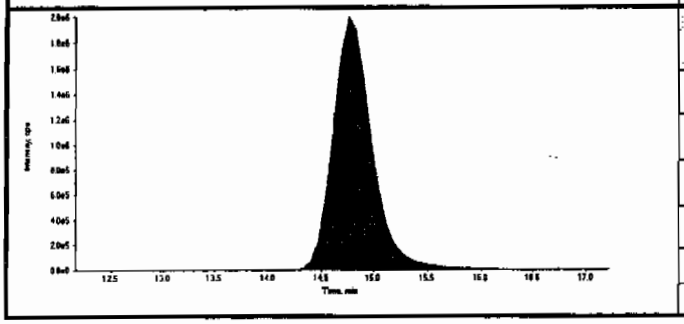

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	52500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

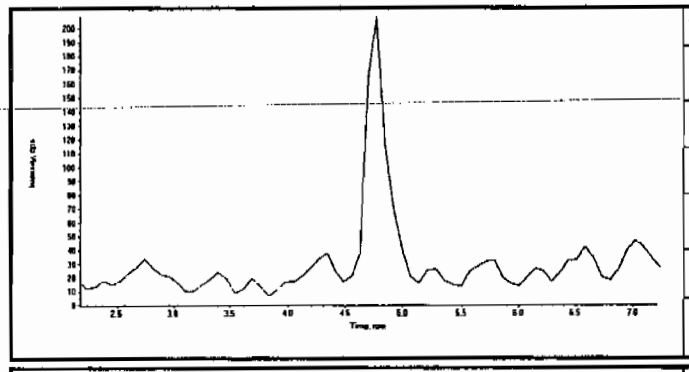

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

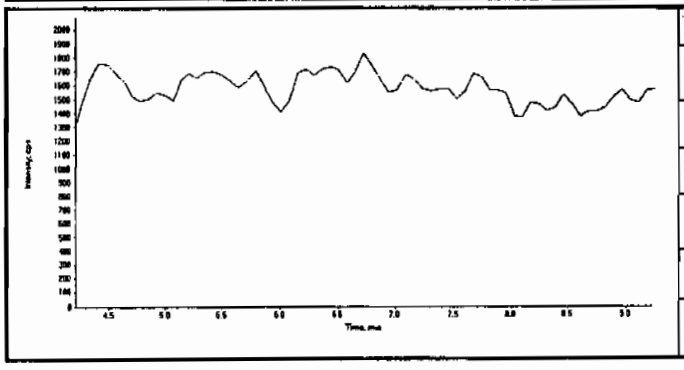

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Ler 3/24/10 Hmc 03/24/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312062.wiff	**Acquisition Date**	3/13/2010 10:49:23 AM
Sample Name	XIBLK11	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

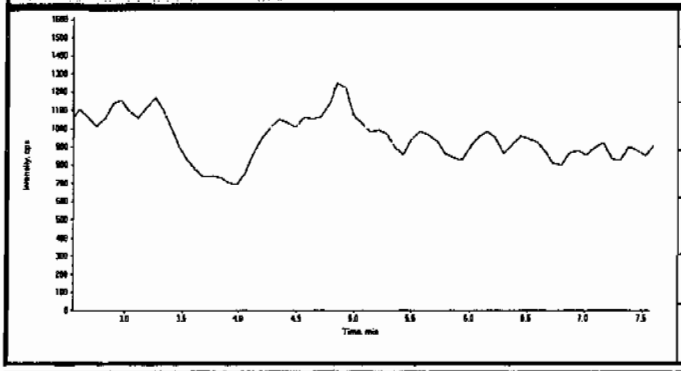

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

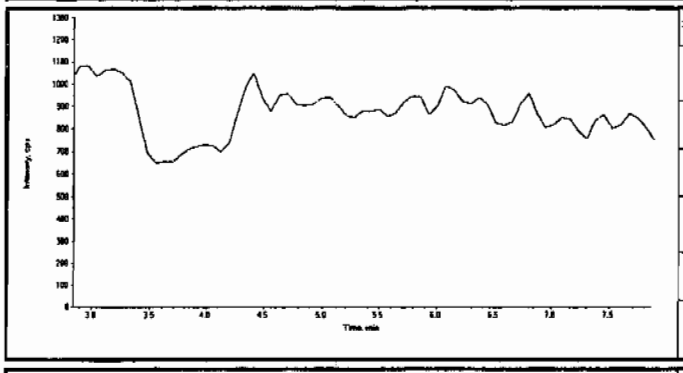

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

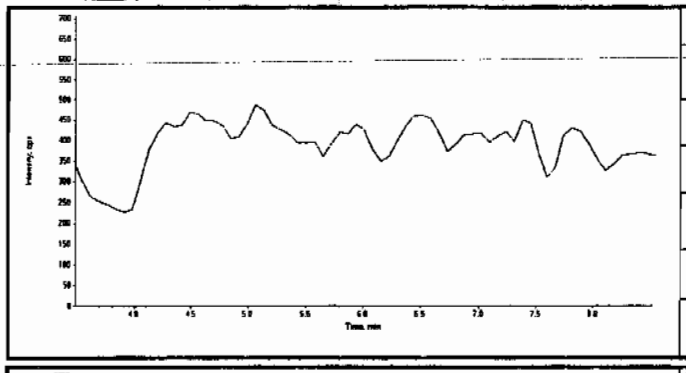

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

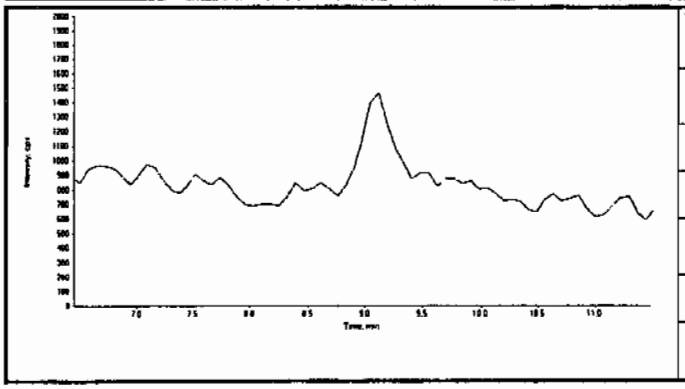

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312062.wiff	Acquisition Date	3/13/2010 10:49:23 AM
Sample Name	XIBLK11	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

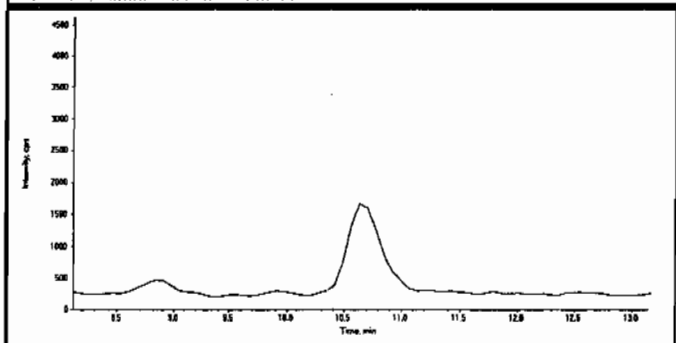

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

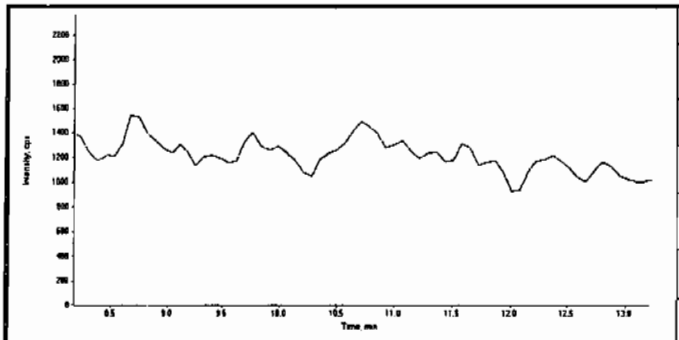

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

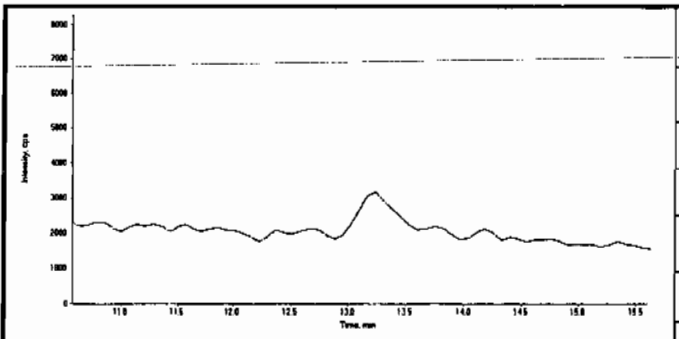

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

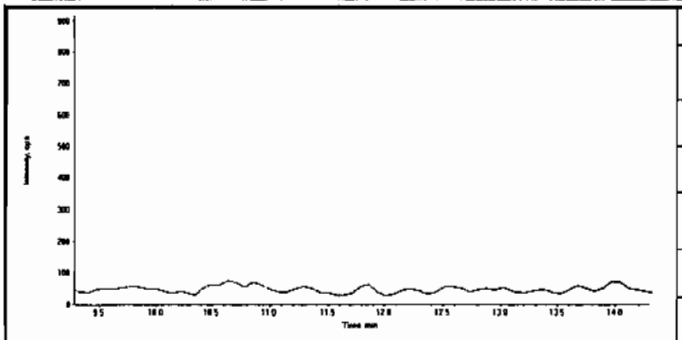

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312062.wiff	**Acquisition Date**	3/13/2010 10:49:23 AM
Sample Name	XIBLK11	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

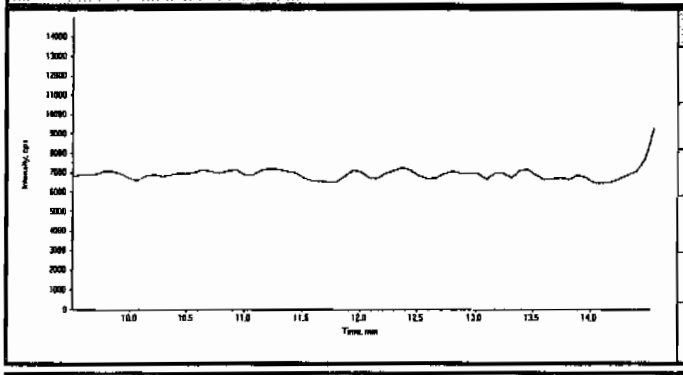

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

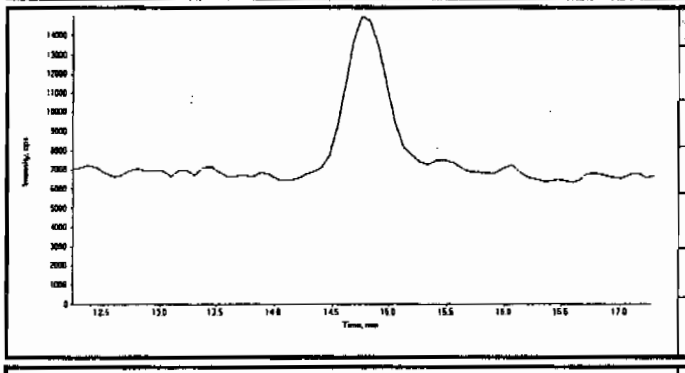

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

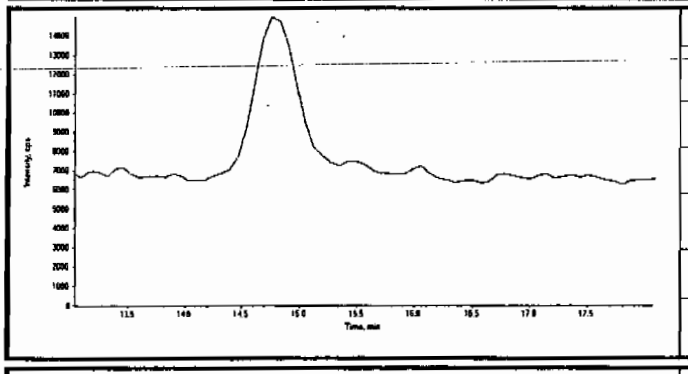

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

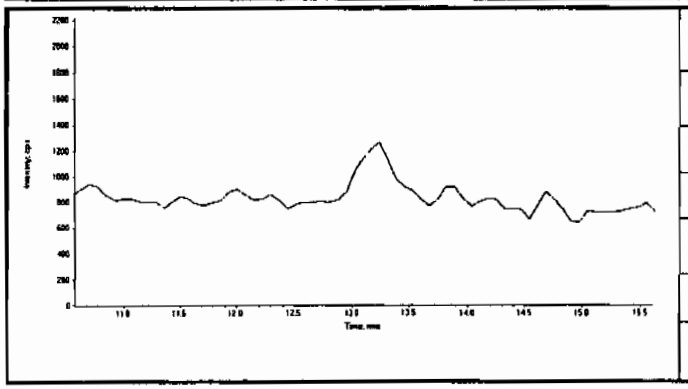

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312062.wiff	**Acquisition Date**	3/13/2010 10:49:23 AM
Sample Name	XIBLK11	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

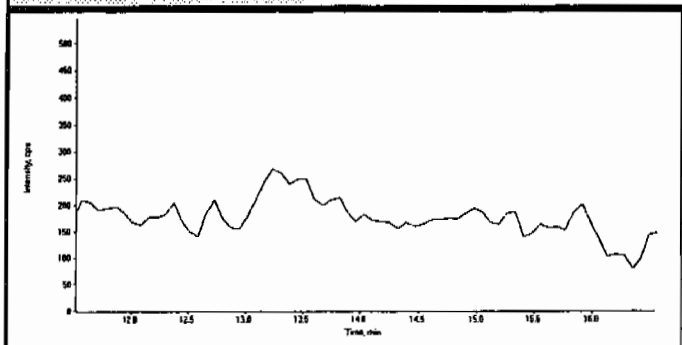

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

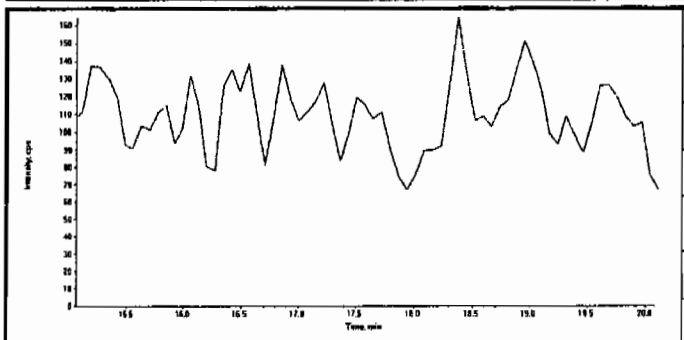

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

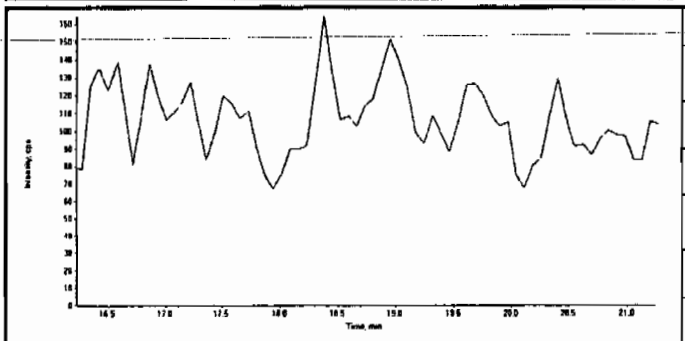

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

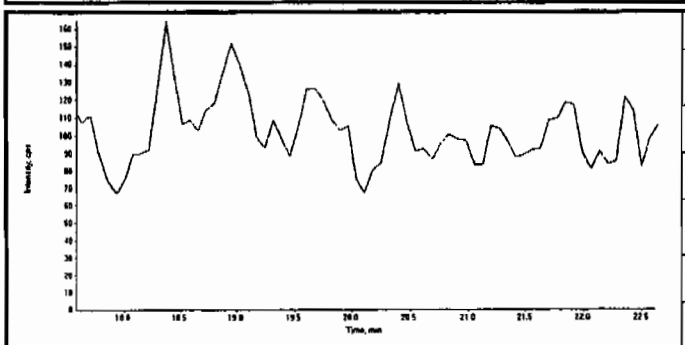

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312062.wiff	**Acquisition Date**	3/13/2010 10:49:23 AM
Sample Name	XIBLK11	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

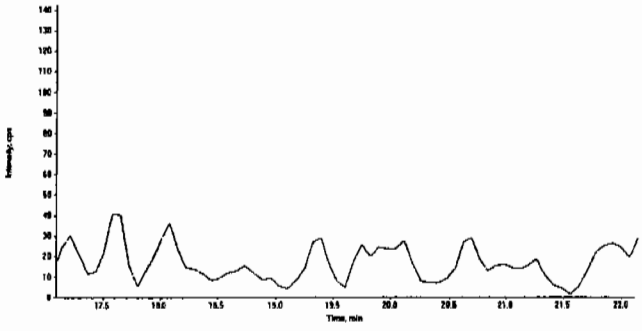

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 13-MAR-10 16:32

GEL Data File: EXP0312075.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312075.wiff	**Acquisition Date**	3/13/2010 4:32:48 PM
Sample Name	XIBLK12	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

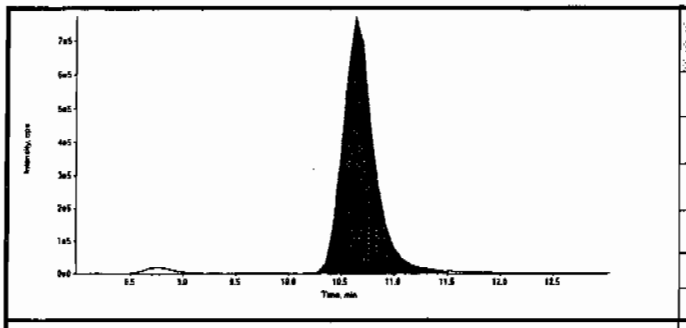

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	16100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

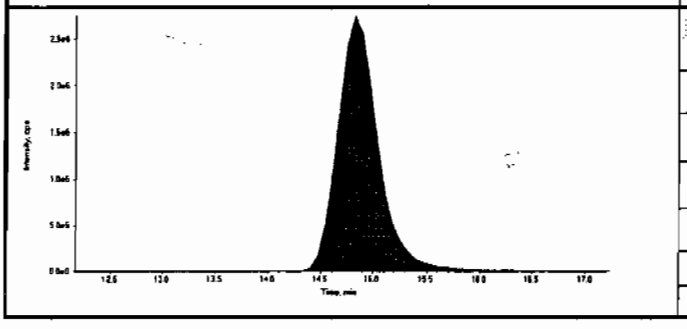

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	74800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

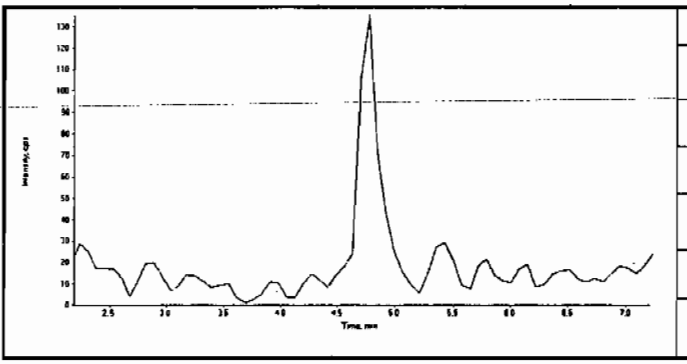

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

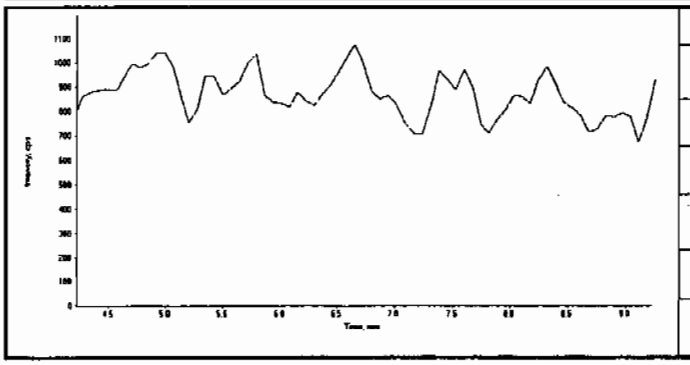

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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3/24/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312075.wiff	**Acquisition Date**	3/13/2010 4:32:48 PM
Sample Name	XIBLK12	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

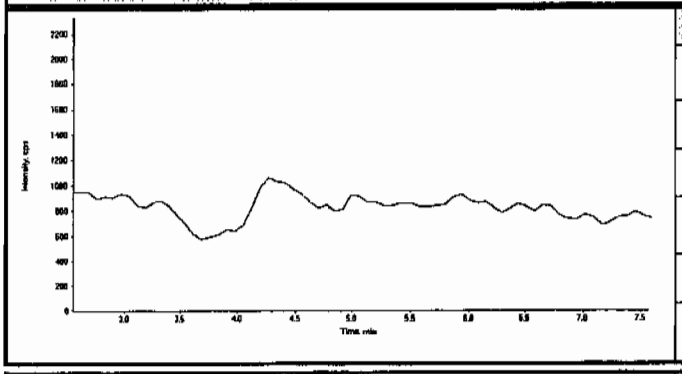

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

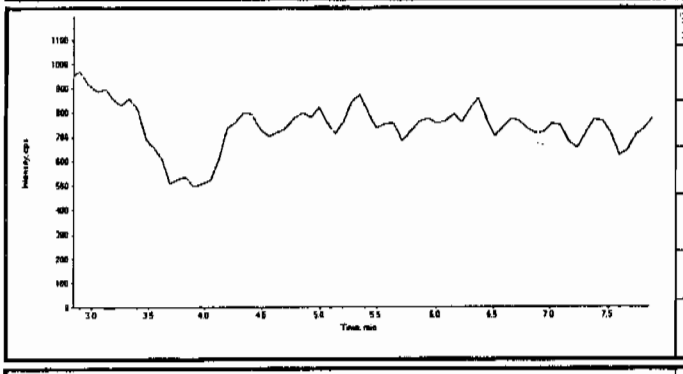

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

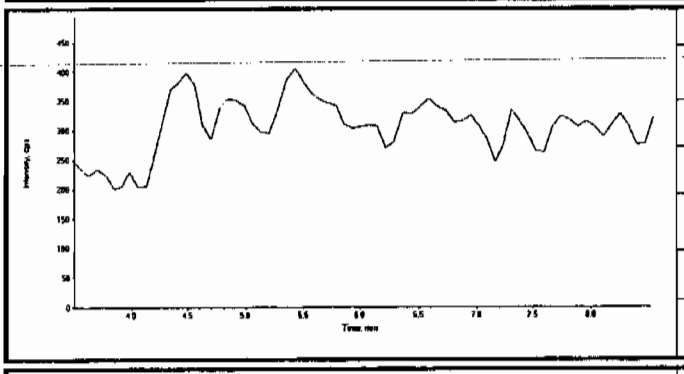

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

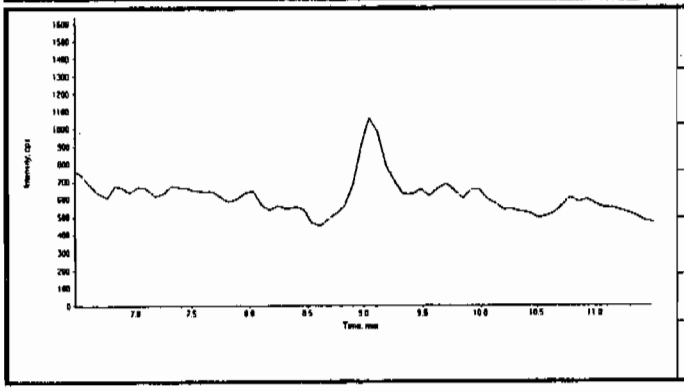

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312075.wiff	**Acquisition Date**	3/13/2010 4:32:48 PM
Sample Name	XIBLK12	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

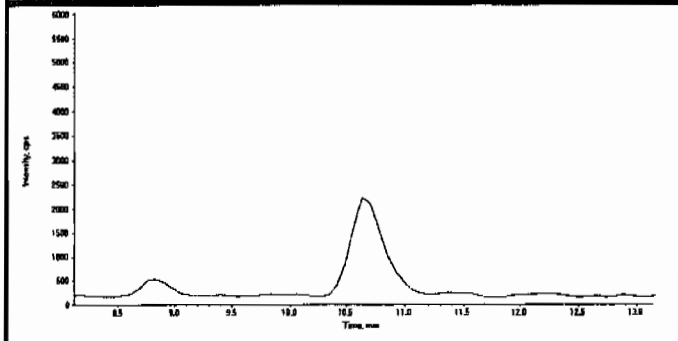

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

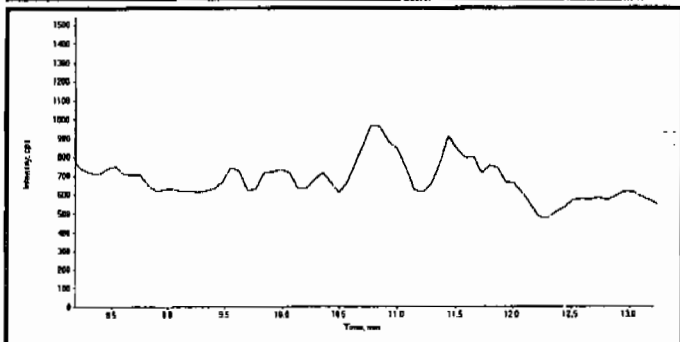

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

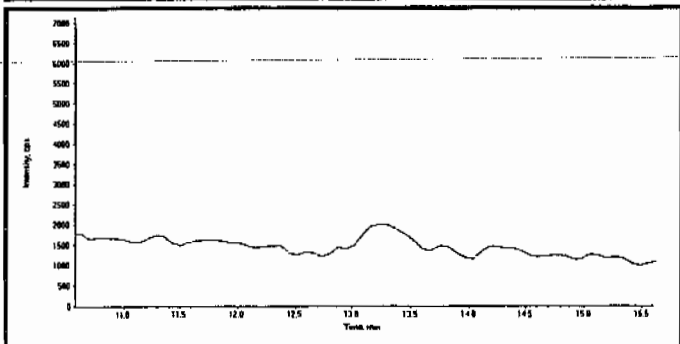

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

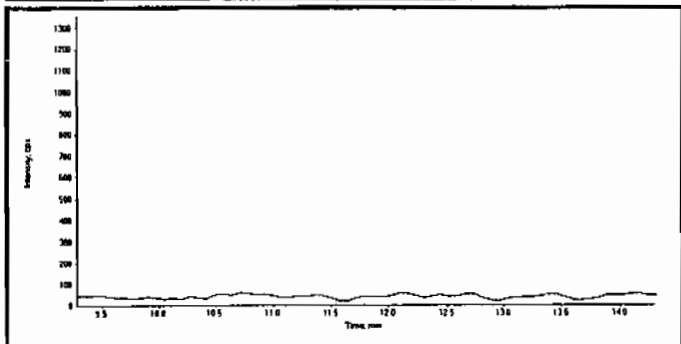

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312075.wiff	**Acquisition Date**	3/13/2010 4:32:48 PM
Sample Name	XIBLK12	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

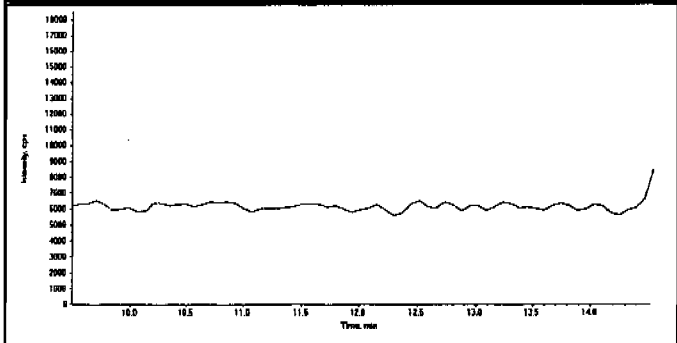

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

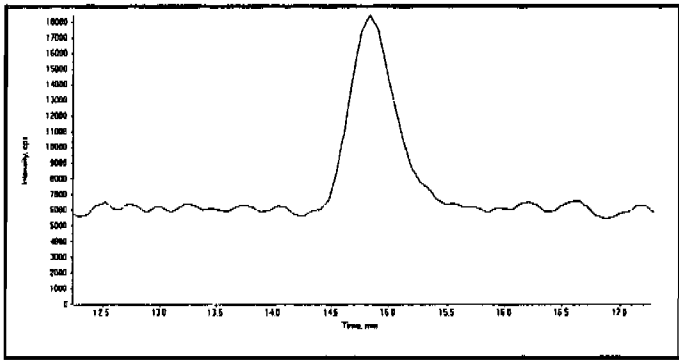

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

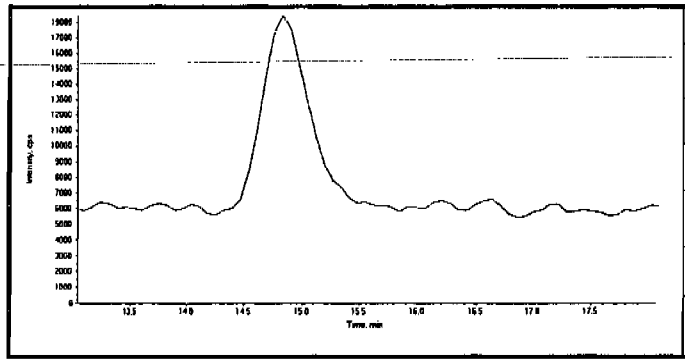

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

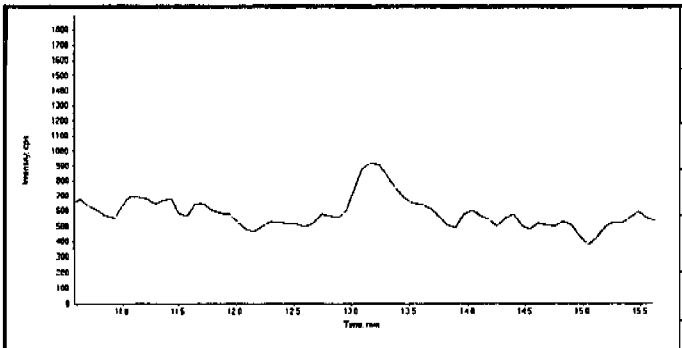

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312075.wiff	**Acquisition Date**	3/13/2010 4:32:48 PM
Sample Name	XIBLK12	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

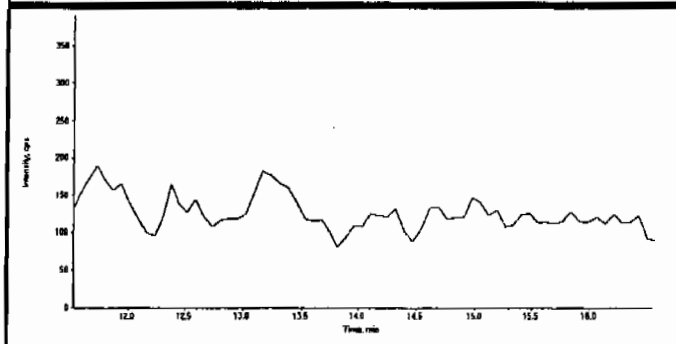

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

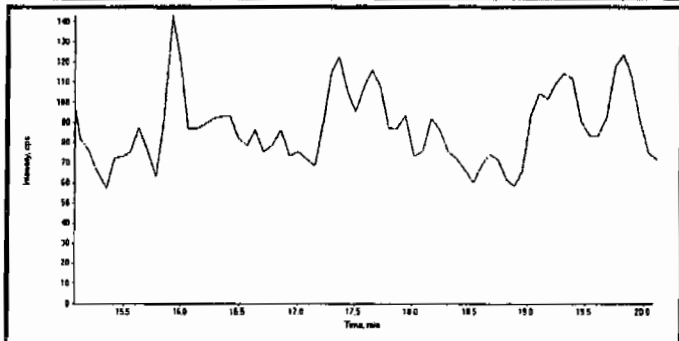

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

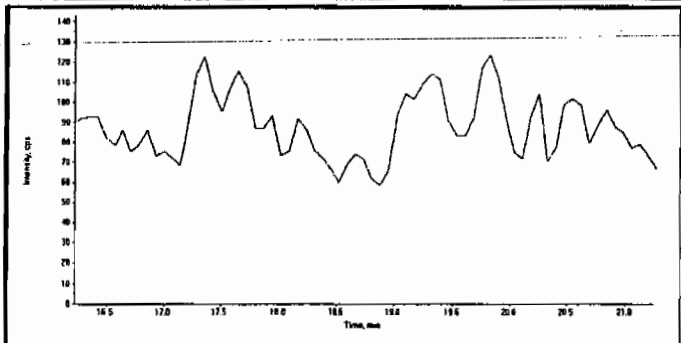

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

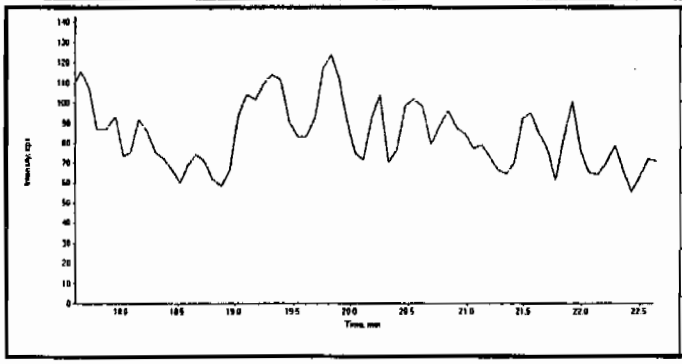

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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LCMSMS#3

Data File	EXP0312075.wiff	**Acquisition Date**	3/13/2010 4:32:48 PM
Sample Name	XIBLK12	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

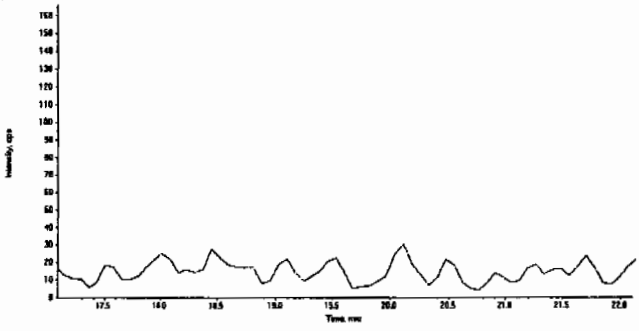

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 13-MAR-10 22:16

GEL Data File: EXP0312088.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
HMX	0	0
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312088.wiff	**Acquisition Date**	3/13/2010 10:16:46 PM
Sample Name	XIBLK13	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

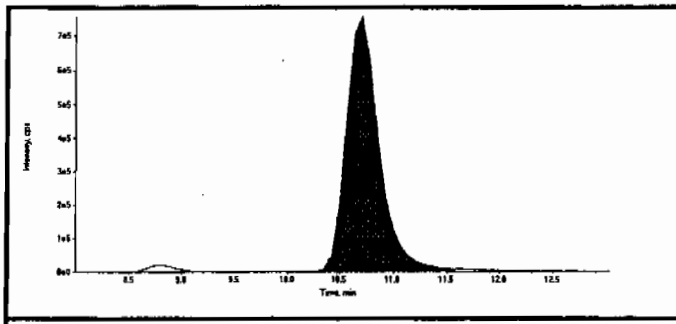

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.70
Area Counts:	16500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

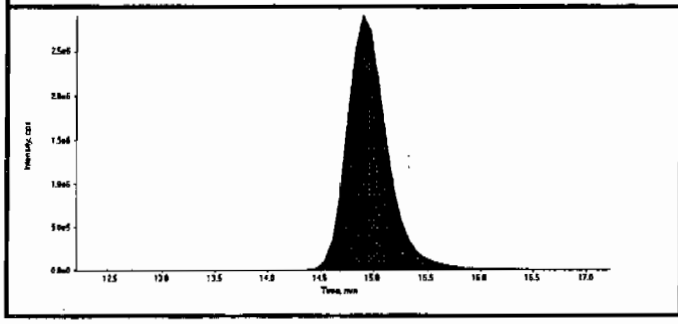

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	77300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

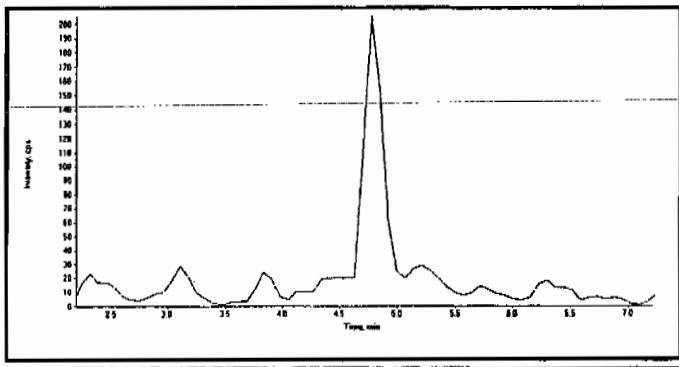

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

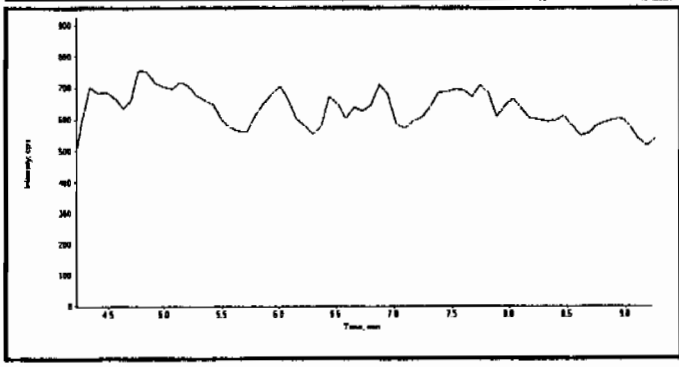

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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3/24/10

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Data File	EXP0312088.wiff	**Acquisition Date**	3/13/2010 10:16:46 PM
Sample Name	XIBLK13	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

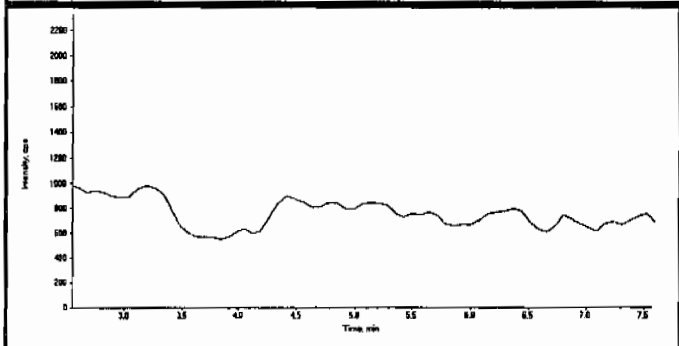

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

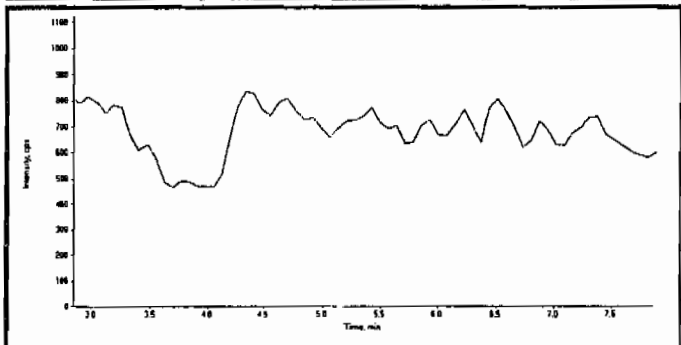

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

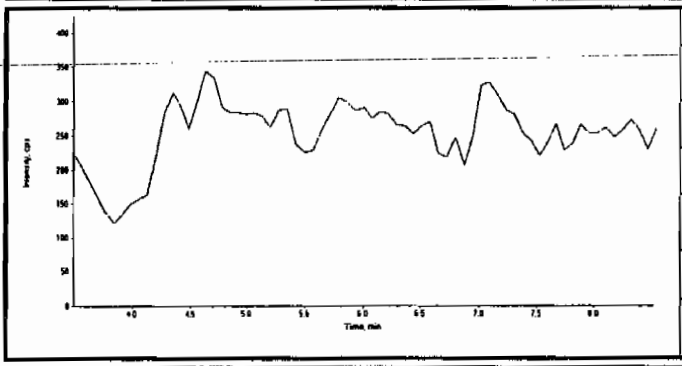

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

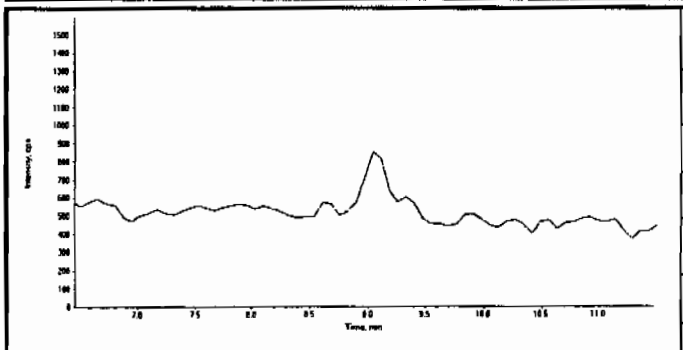

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312088.wiff	**Acquisition Date**	3/13/2010 10:16:46 PM
Sample Name	XIBLK13	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

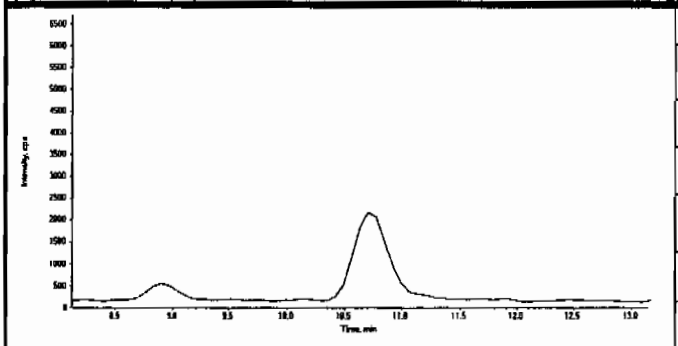

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

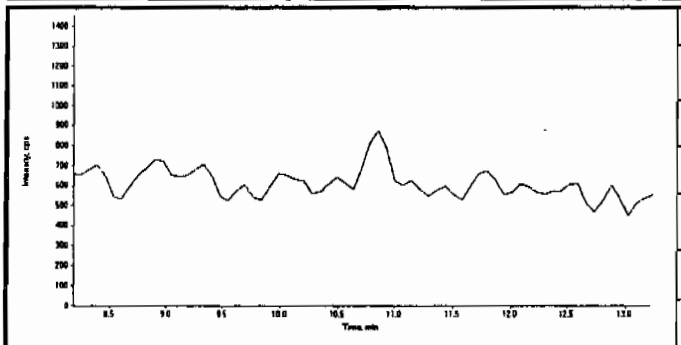

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

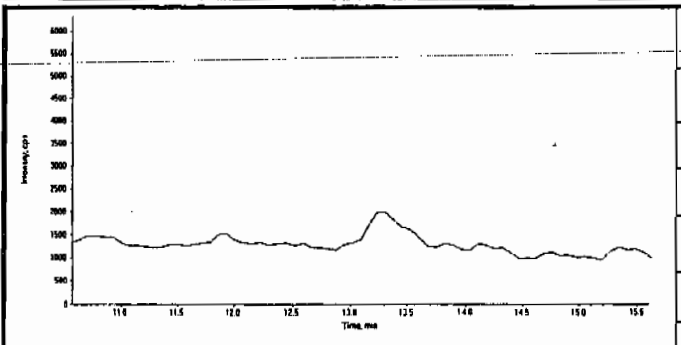

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

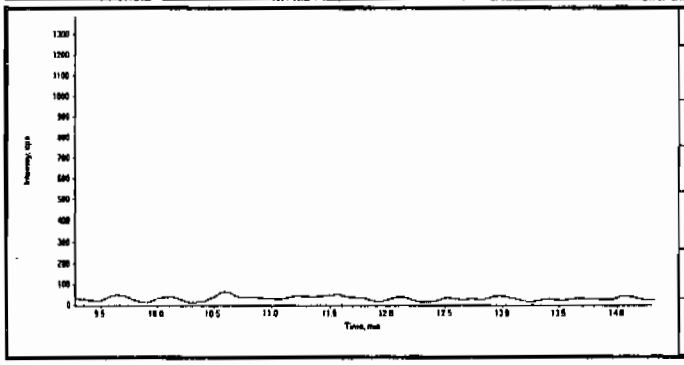

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312088.wiff	**Acquisition Date**	3/13/2010 10:16:46 PM
Sample Name	XIBLK13	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

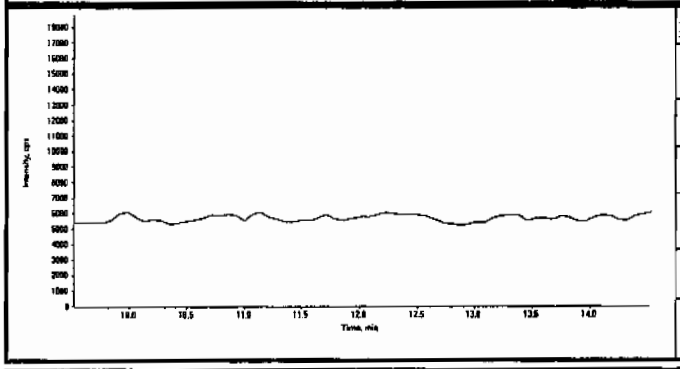

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

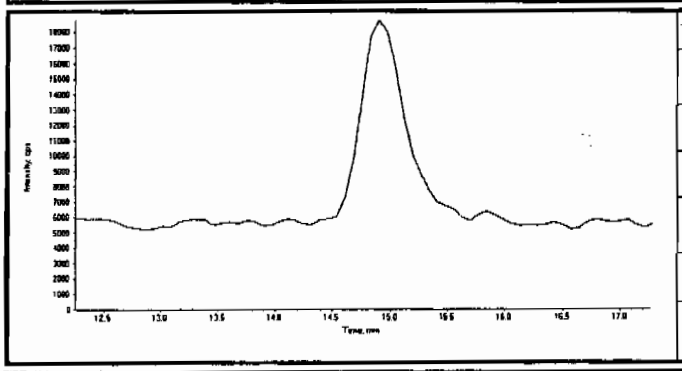

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

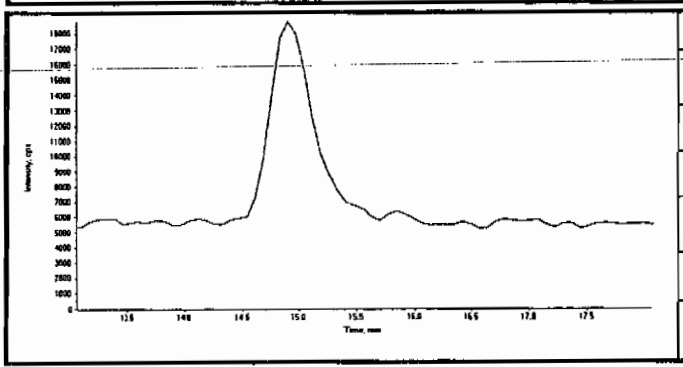

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

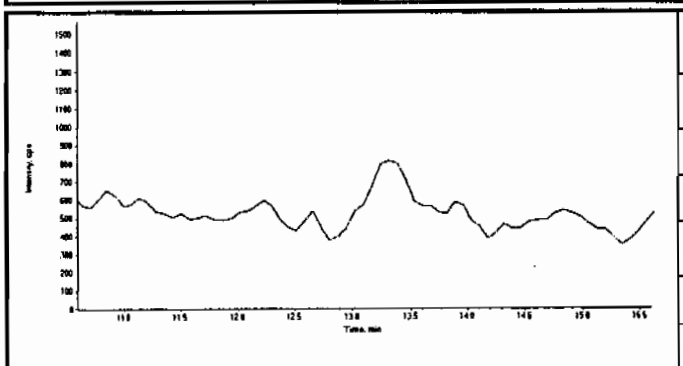

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312088.wiff	**Acquisition Date**	3/13/2010 10:16:46 PM
Sample Name	XIBLK13	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

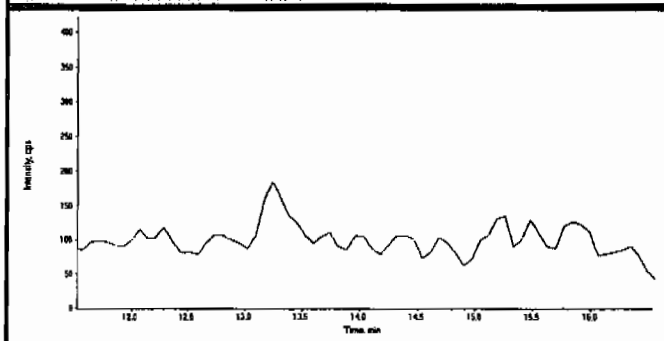

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

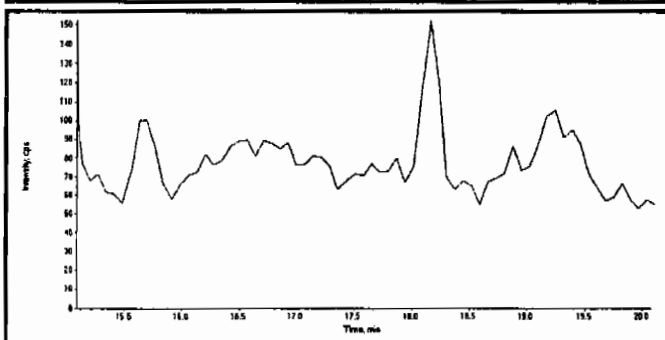

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

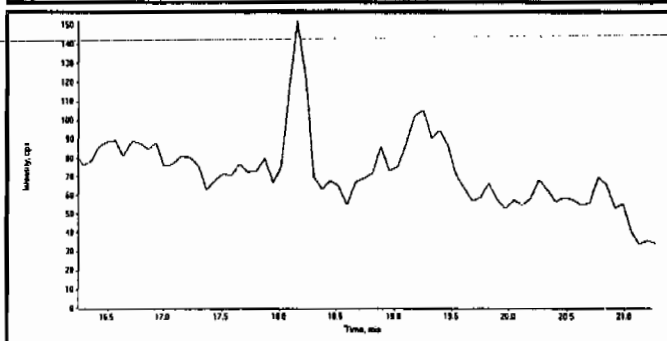

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

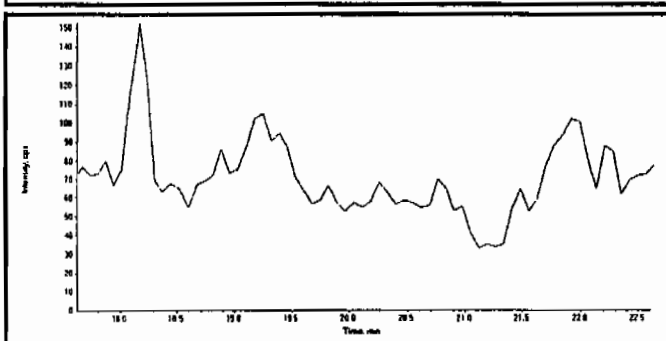

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312088.wiff	**Acquisition Date**	3/13/2010 10:16:46 PM
Sample Name	XIBLK13	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

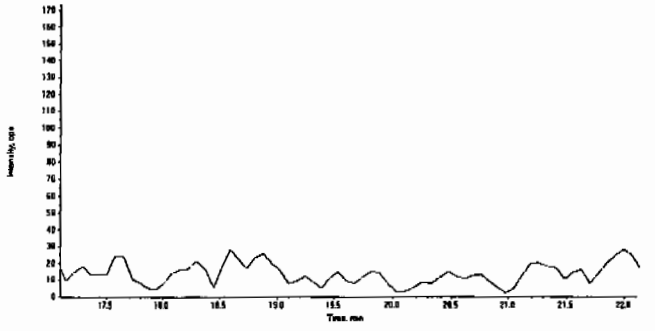

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 14-MAR-10 04:34

GEL Data File: EXP0312100.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
DNX	0	0
MNX	0	0
TNX	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312100.wiff	**Acquisition Date**	3/14/2010 4:34:03 AM
Sample Name	XIBLK14	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

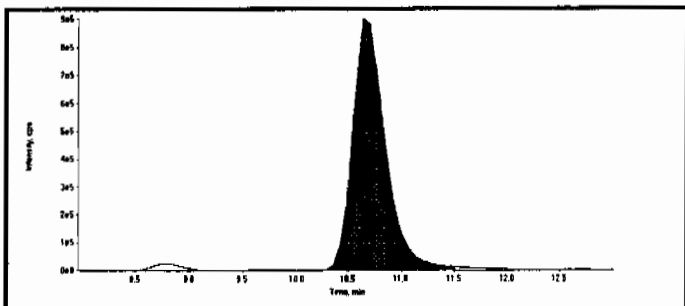

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	19800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

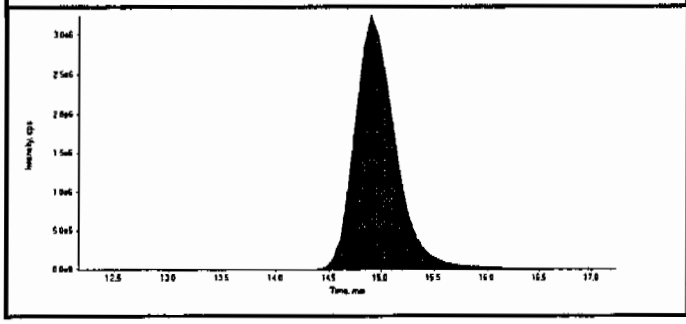

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	87600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

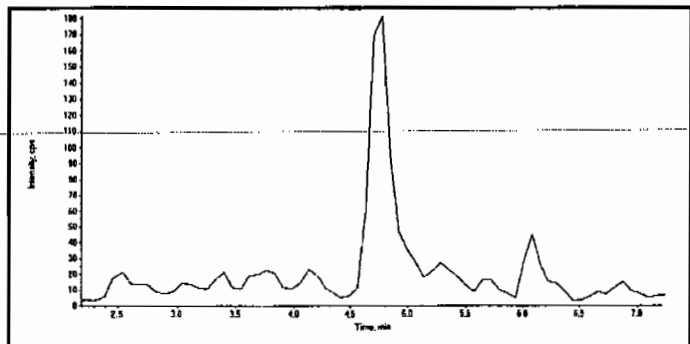

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

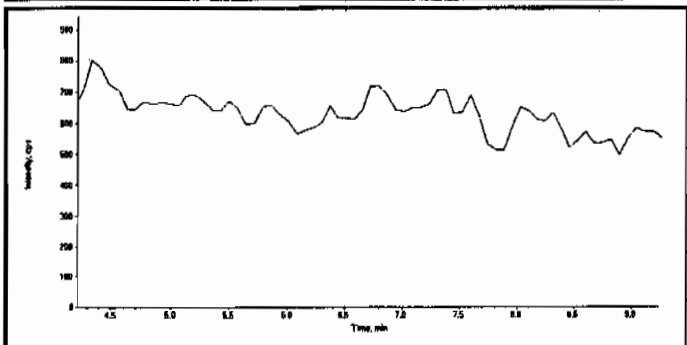

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312100.wiff	**Acquisition Date**	3/14/2010 4:34:03 AM
Sample Name	XIBLK14	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

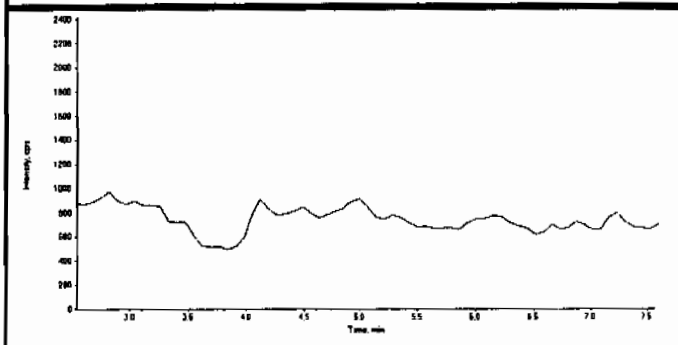

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

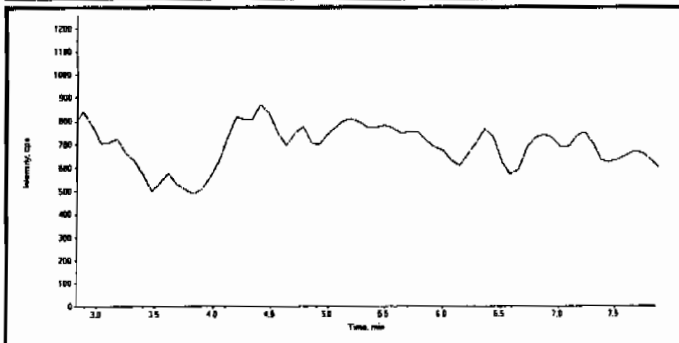

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

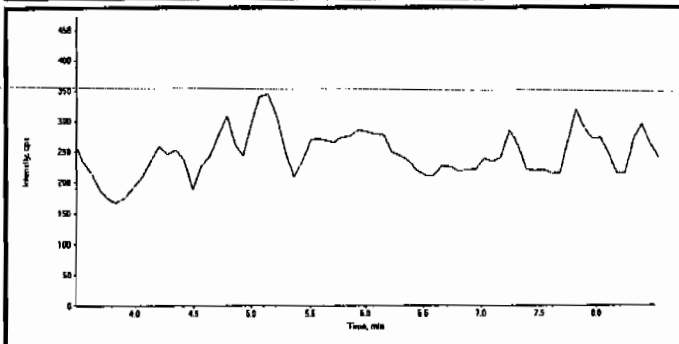

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

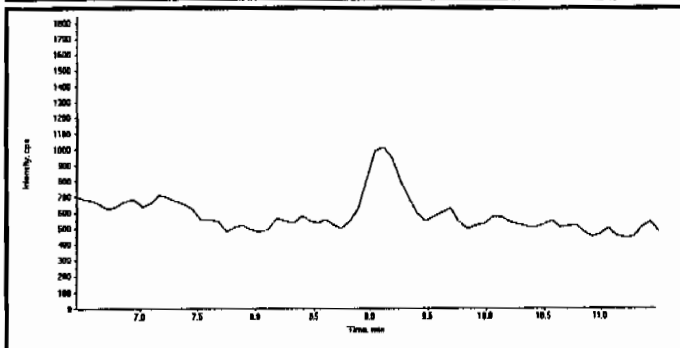

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312100.wiff	**Acquisition Date**	3/14/2010 4:34:03 AM
Sample Name	XIBLK14	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

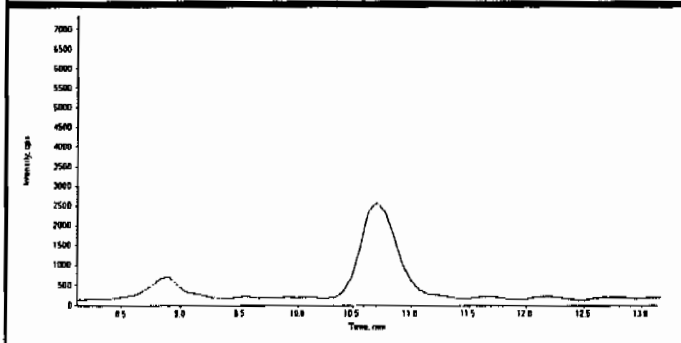

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

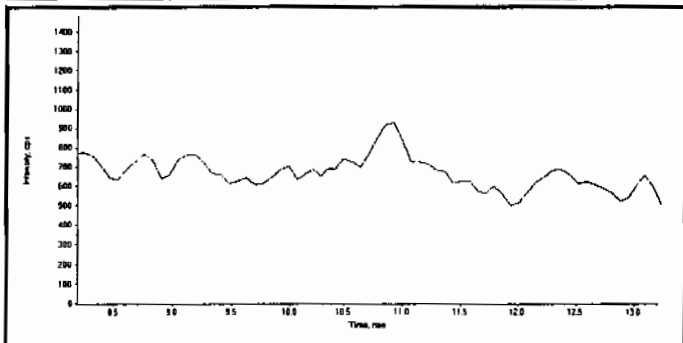

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

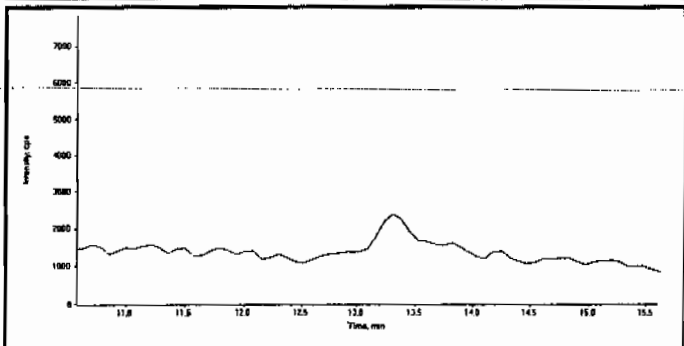

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

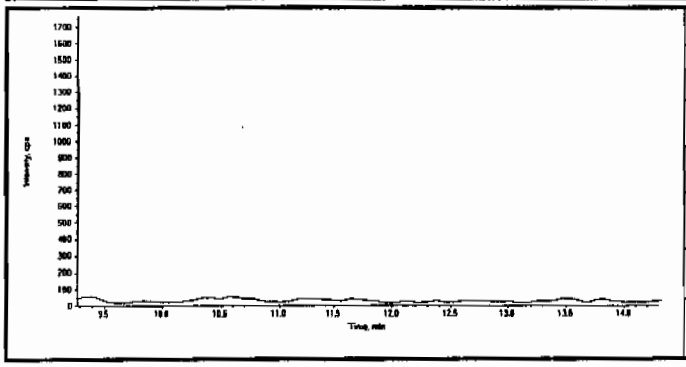

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312100.wiff	**Acquisition Date**	3/14/2010 4:34:03 AM
Sample Name	XIBLK14	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

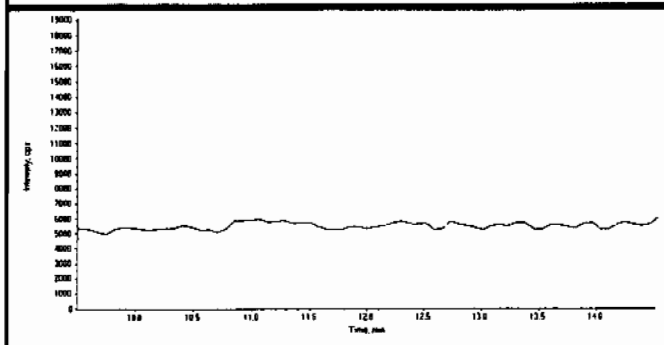

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

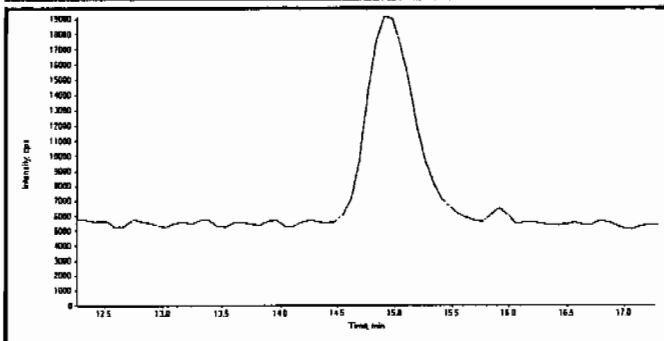

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

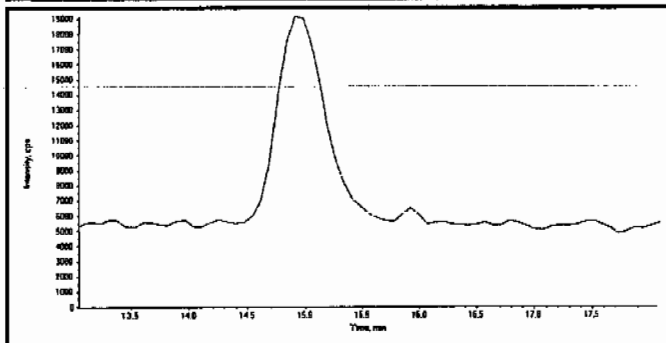

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

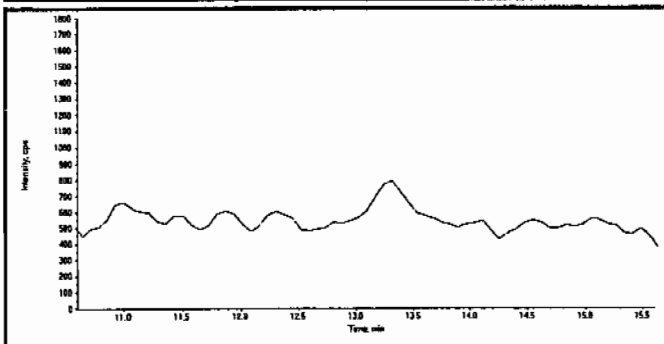

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312100.wiff	**Acquisition Date**	3/14/2010 4:34:03 AM
Sample Name	XIBLK14	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

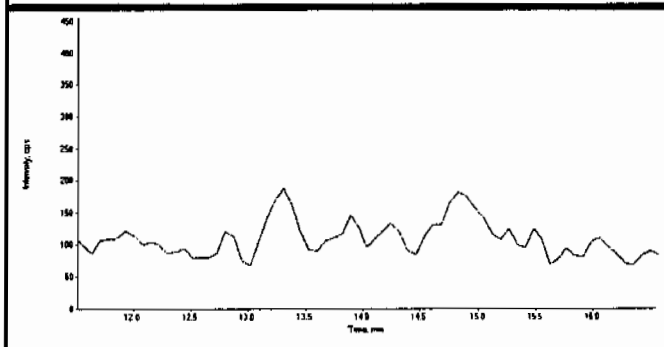

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

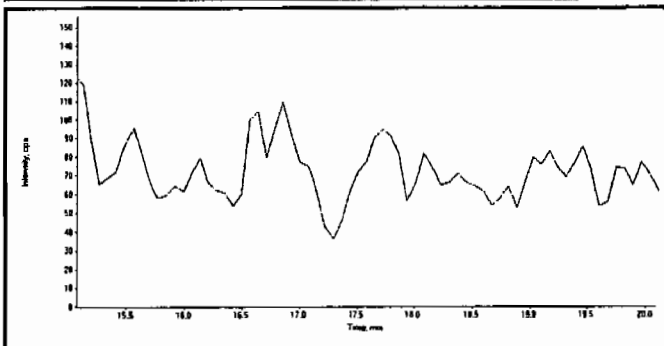

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

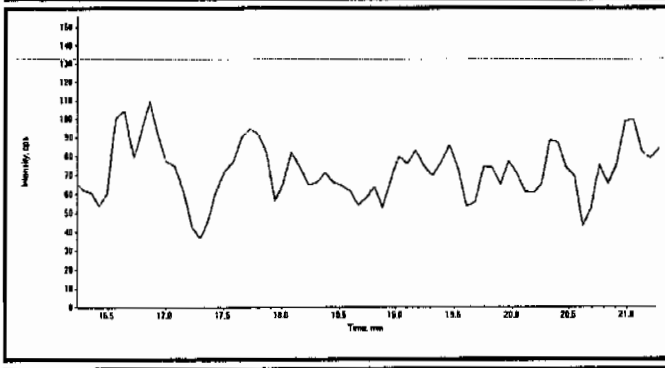

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

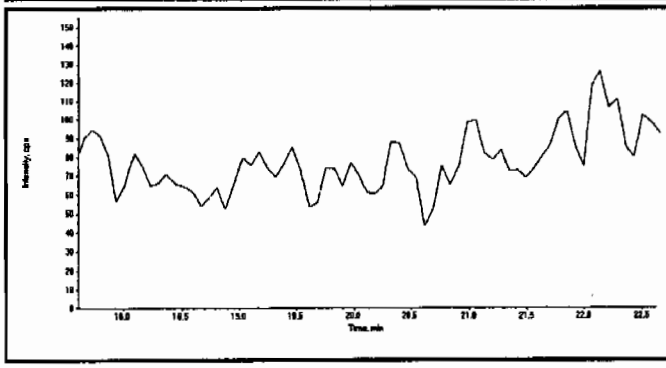

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312100.wiff	**Acquisition Date**	3/14/2010 4:34:03 AM
Sample Name	XIBLK14	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

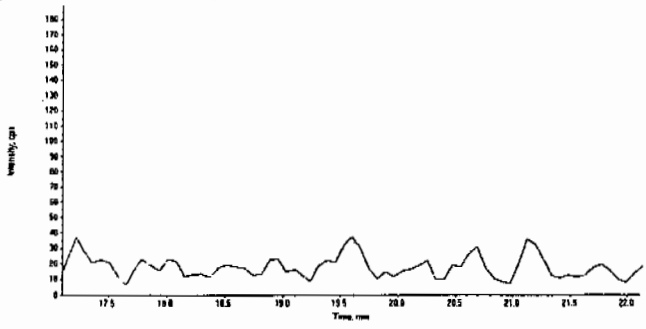

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 01-MAR-10 11:24

GEL Data File: EXS03010010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	2.74
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Sen 3/3/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03010010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:24:42 AM

Modified: No

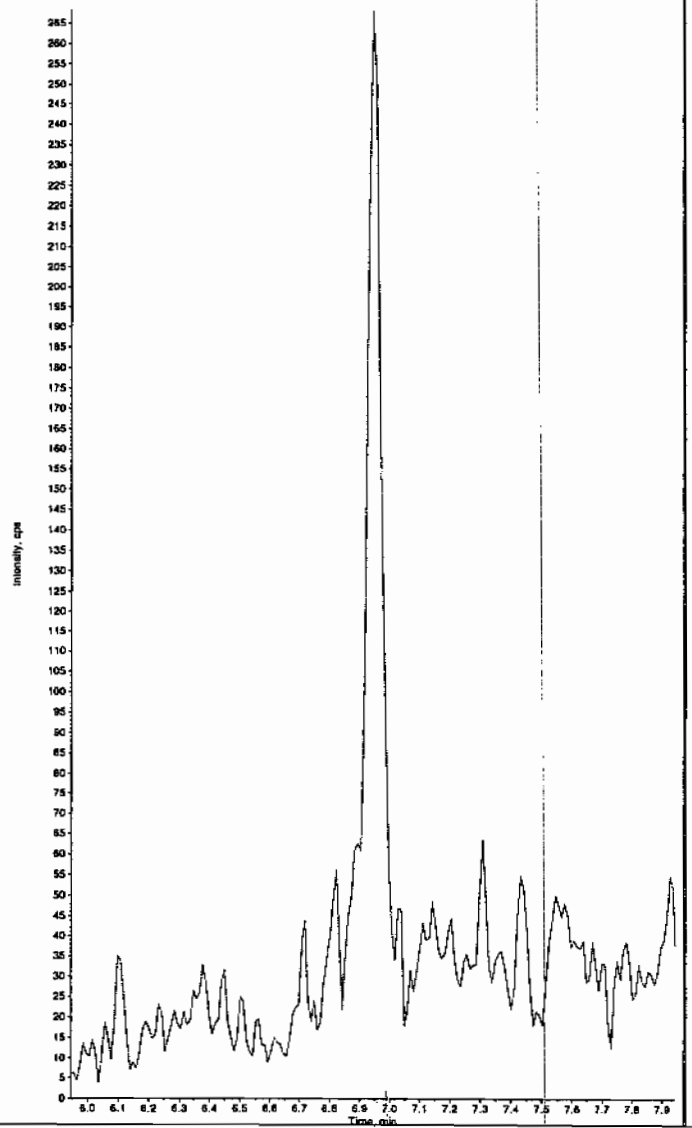

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03010010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:24:42 AM

Modified: No

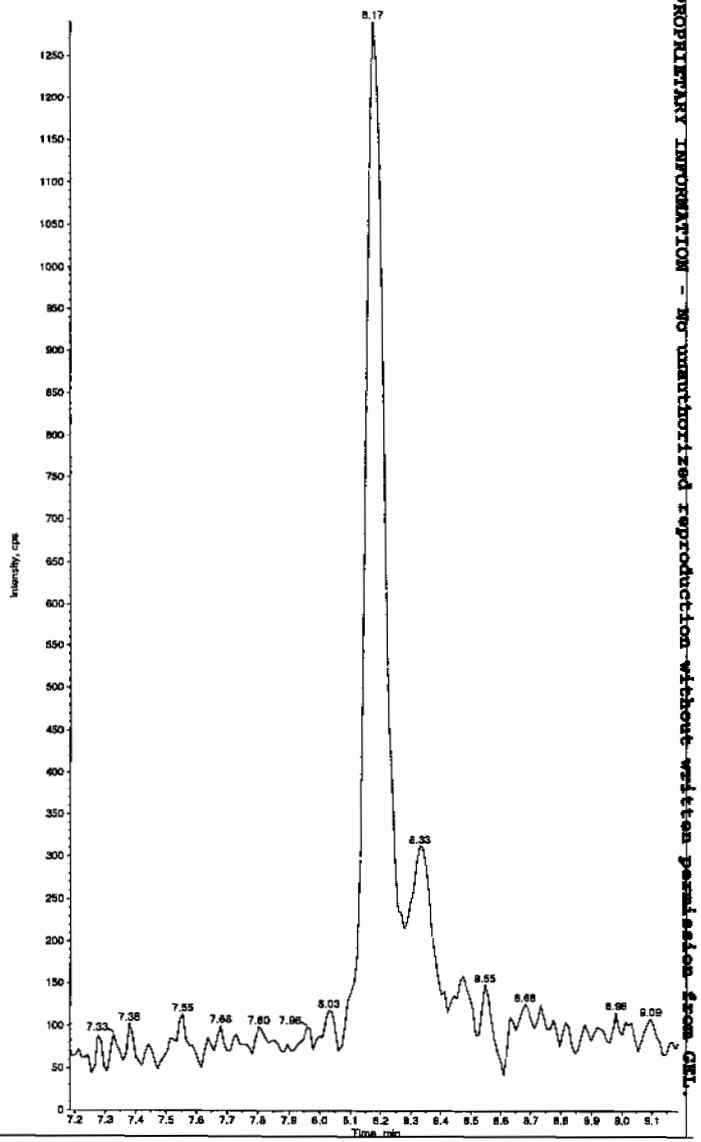

tmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03010010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "192.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:24:42 AM

Modified: No

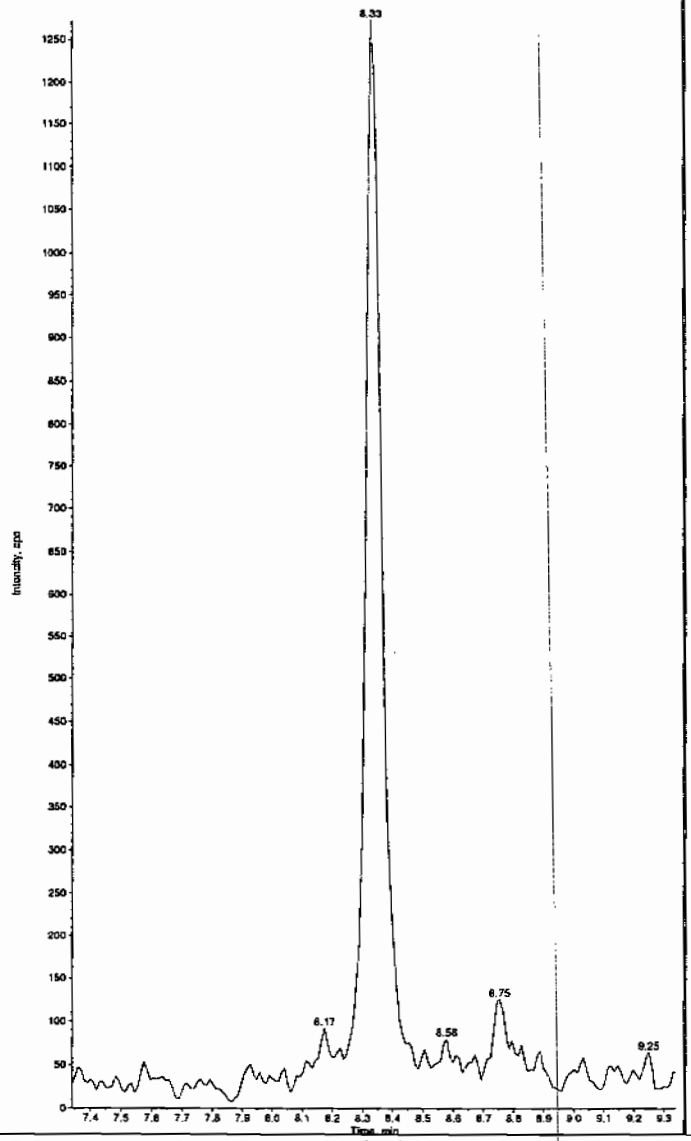

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03010010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:24:42 AM

Modified: No

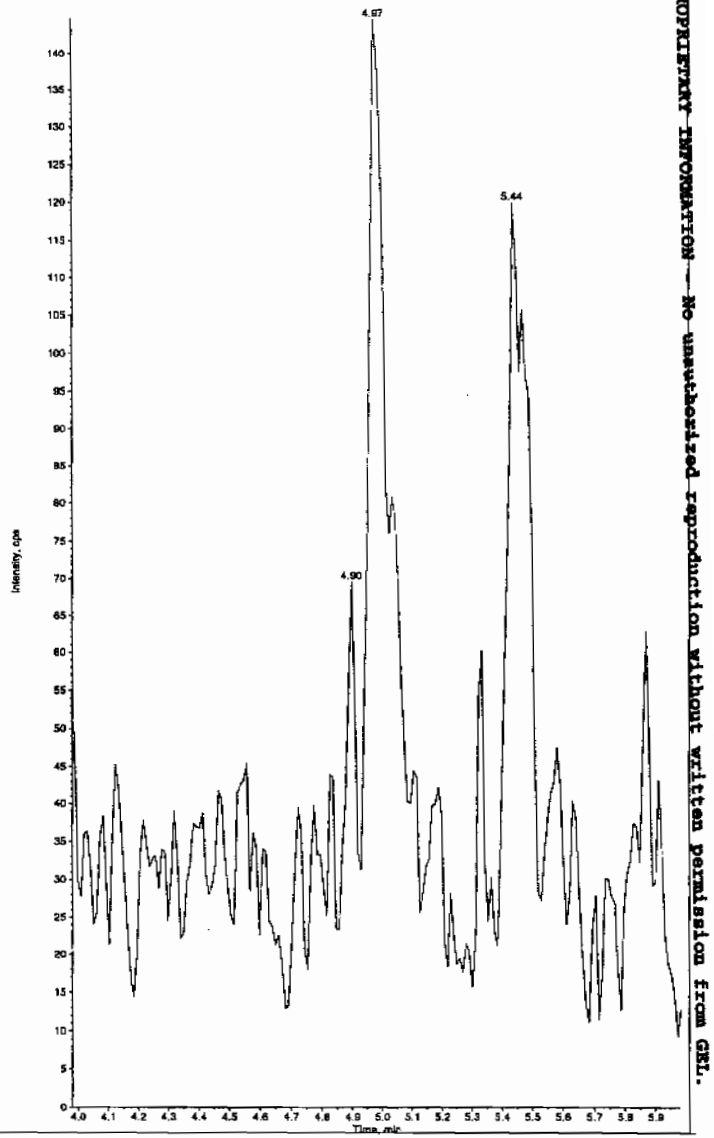

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION — No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03010010.wiff"
Peak Name: "2,4-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:24:42 AM

Modified: No

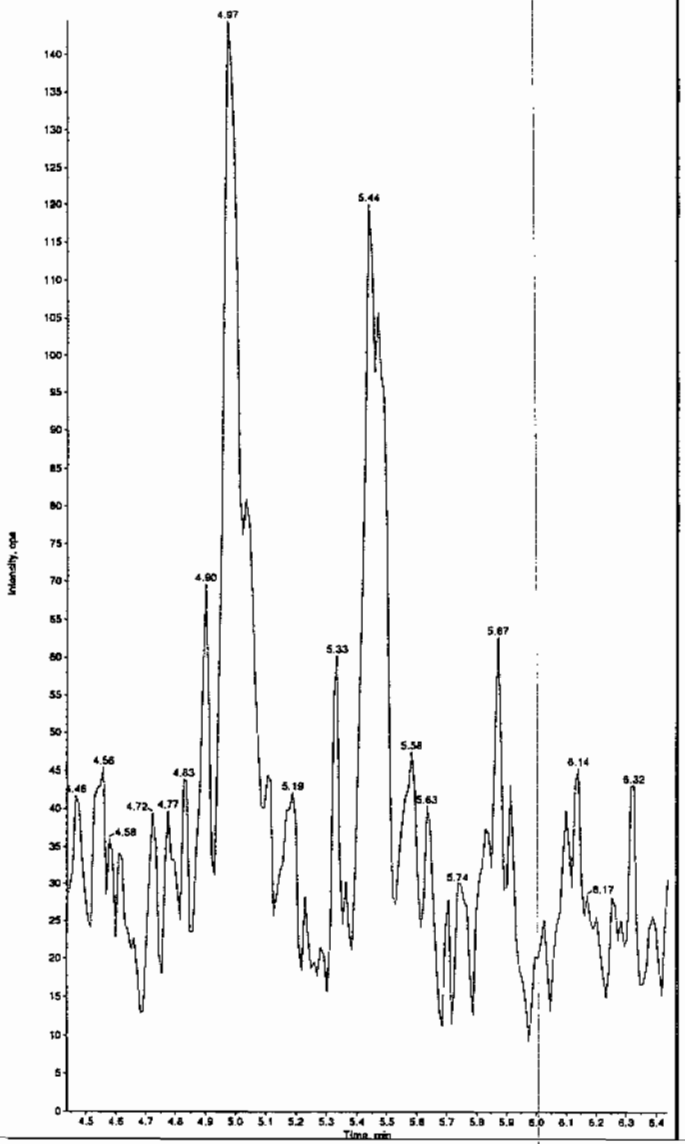

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03010010.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.74 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:24:42 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.55e+005 counts
Height: 43378.235 cps
Start Time: 10.7 min
End Time: 11.1 min

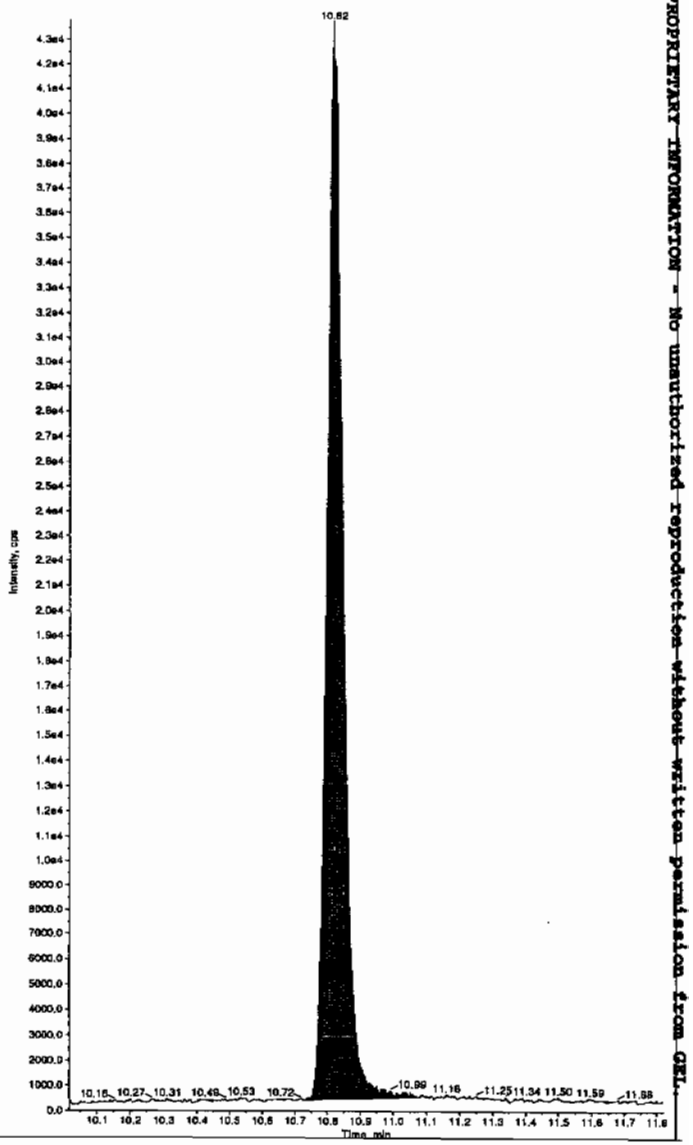

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1564

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 01–MAR–10 11:56

GEL Data File: EXS03010012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Fxcn 3/3/10

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03010012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:56:08 AM

Modified: No

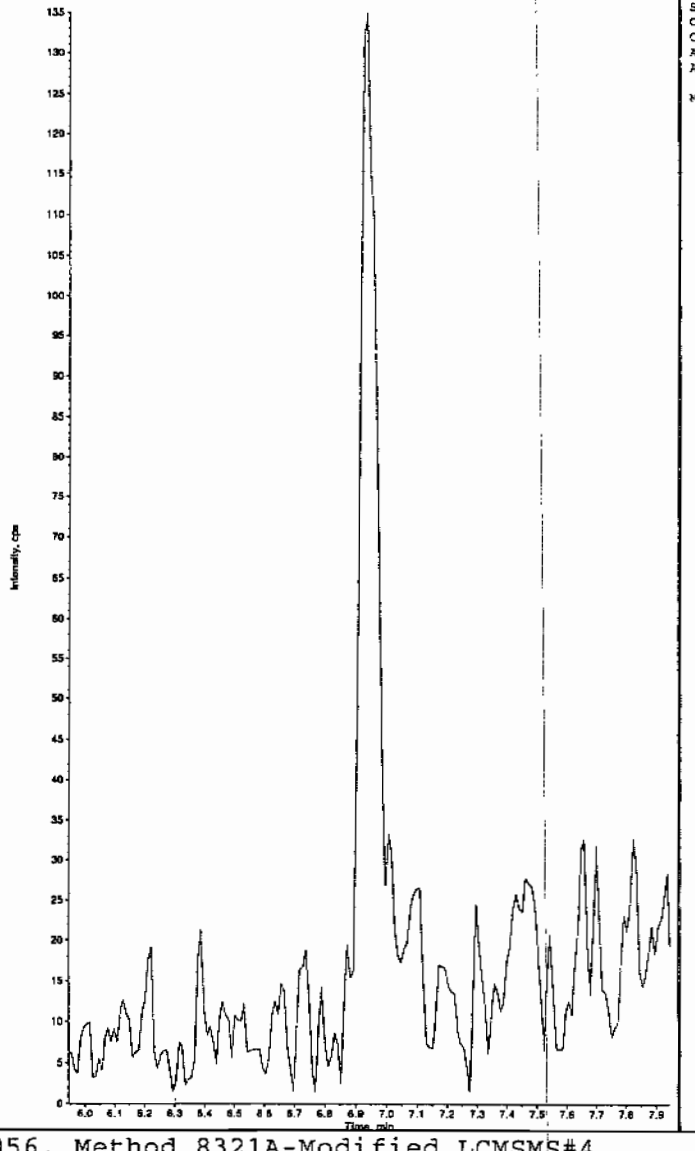

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03010012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:56:08 AM

Modified: No

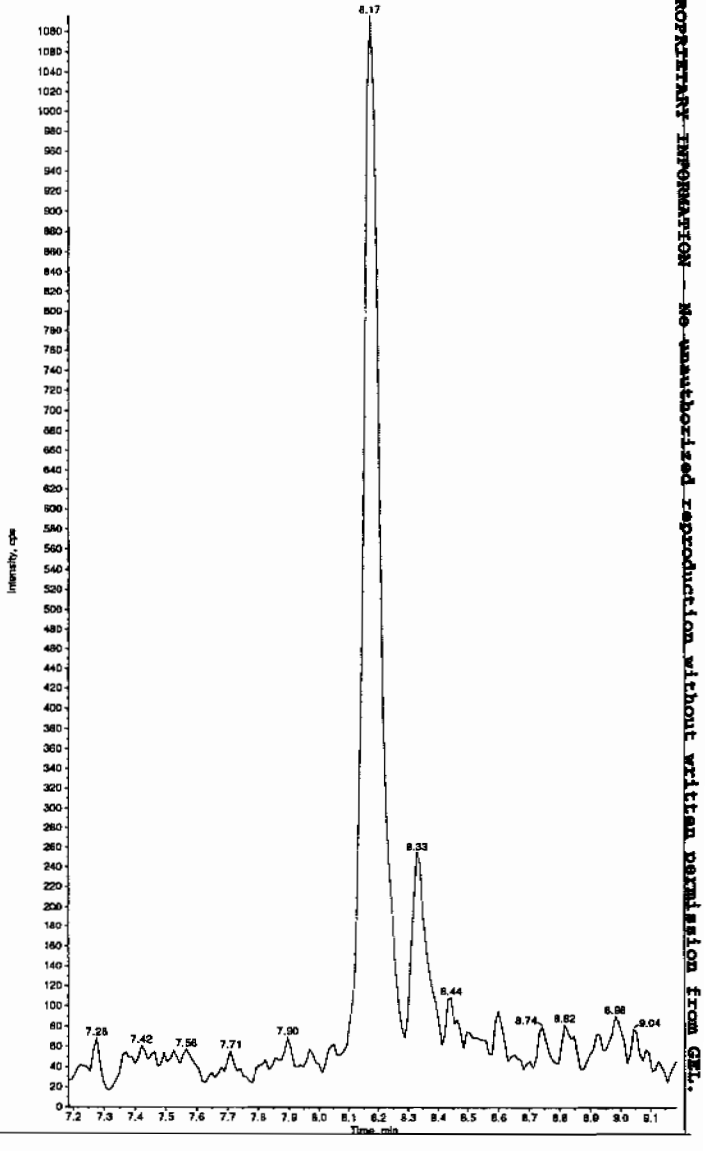

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03010012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:56:08 AM

Modified: No

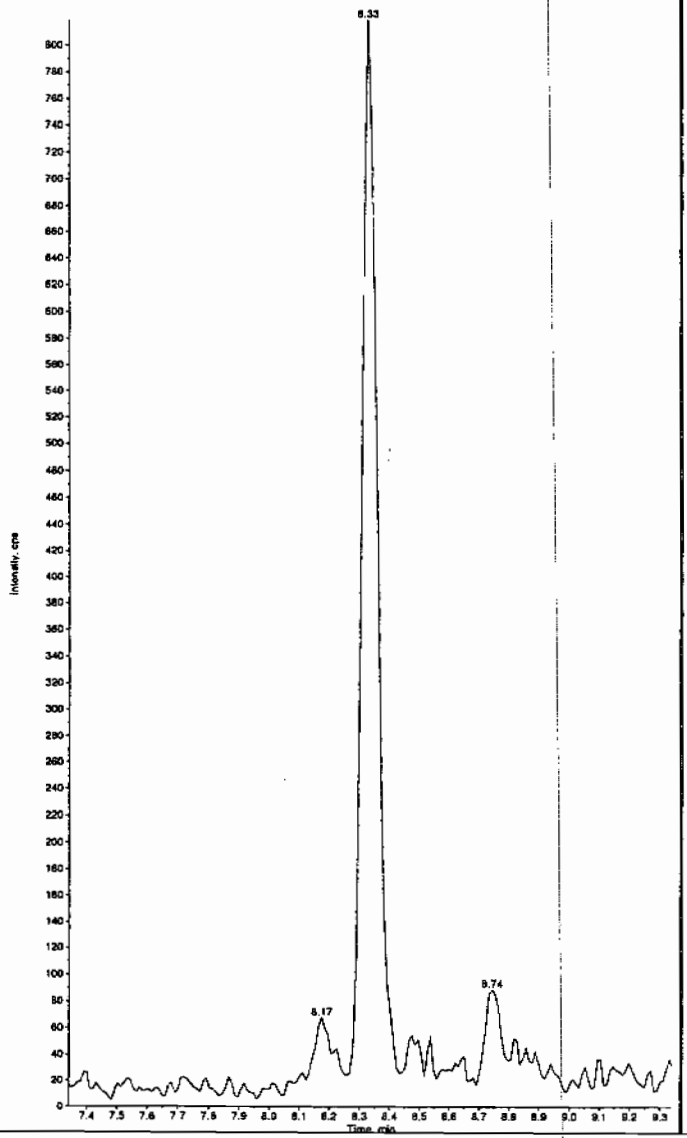

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03010012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:56:08 AM

Modified: No

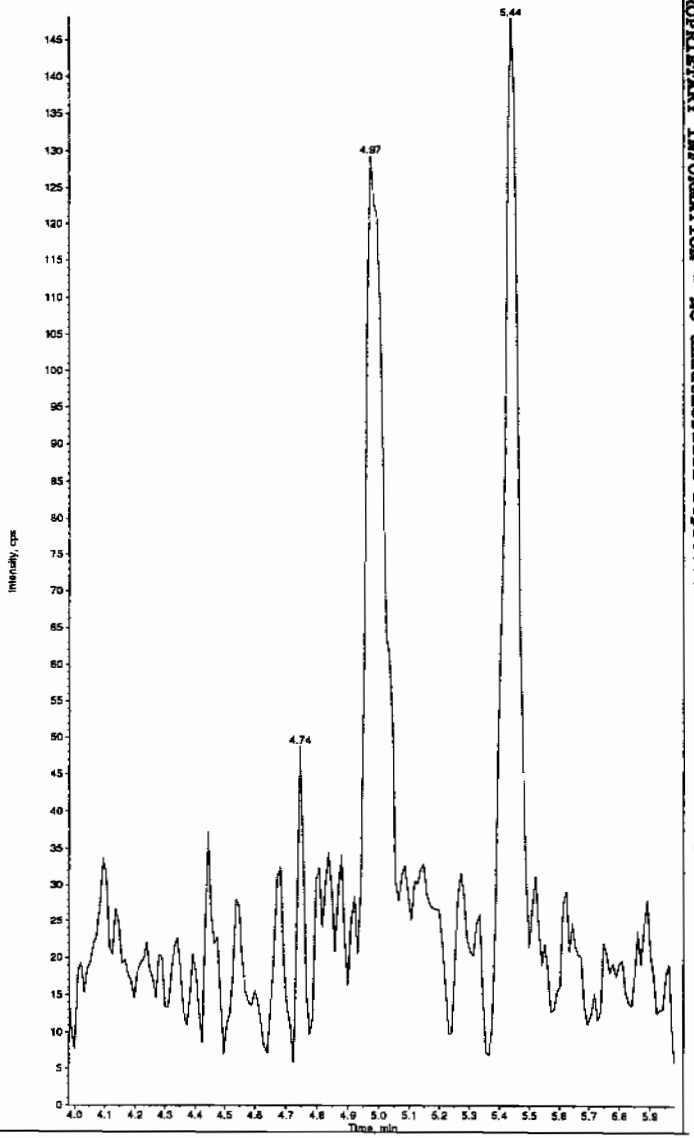

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03010012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:56:08 AM

Modified: No

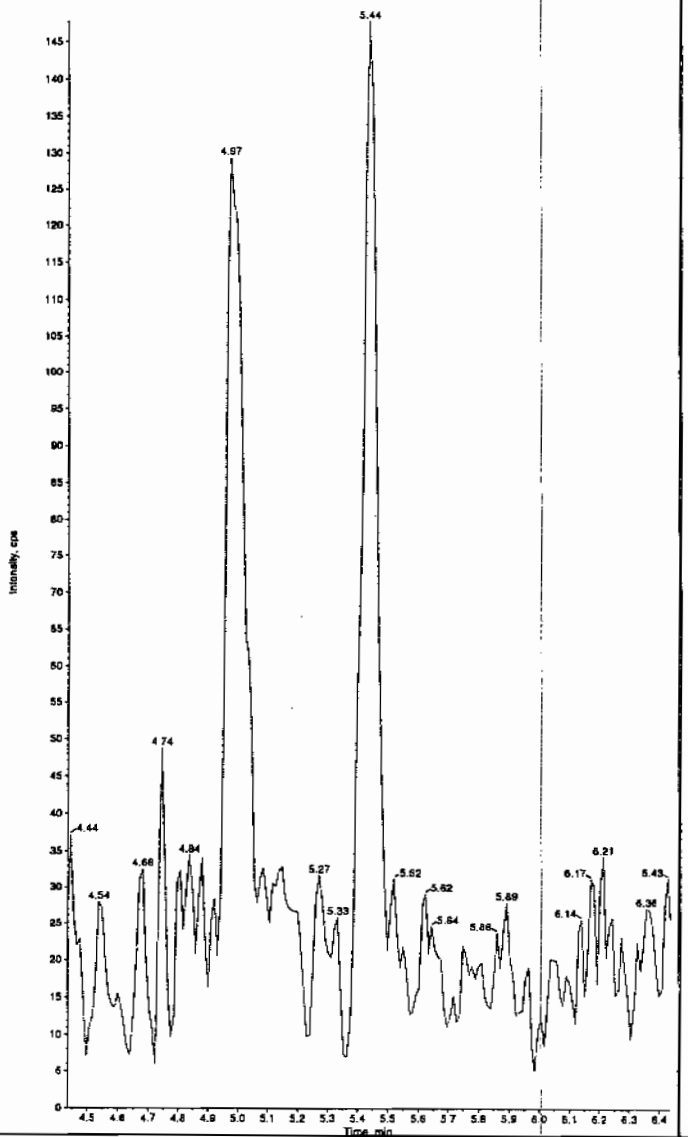

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03010012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 3/1/2010
Acq. Time: 11:56:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.72e+004 counts
Height: 27251.160 cps
Start Time: 10.7 min
End Time: 11.0 min

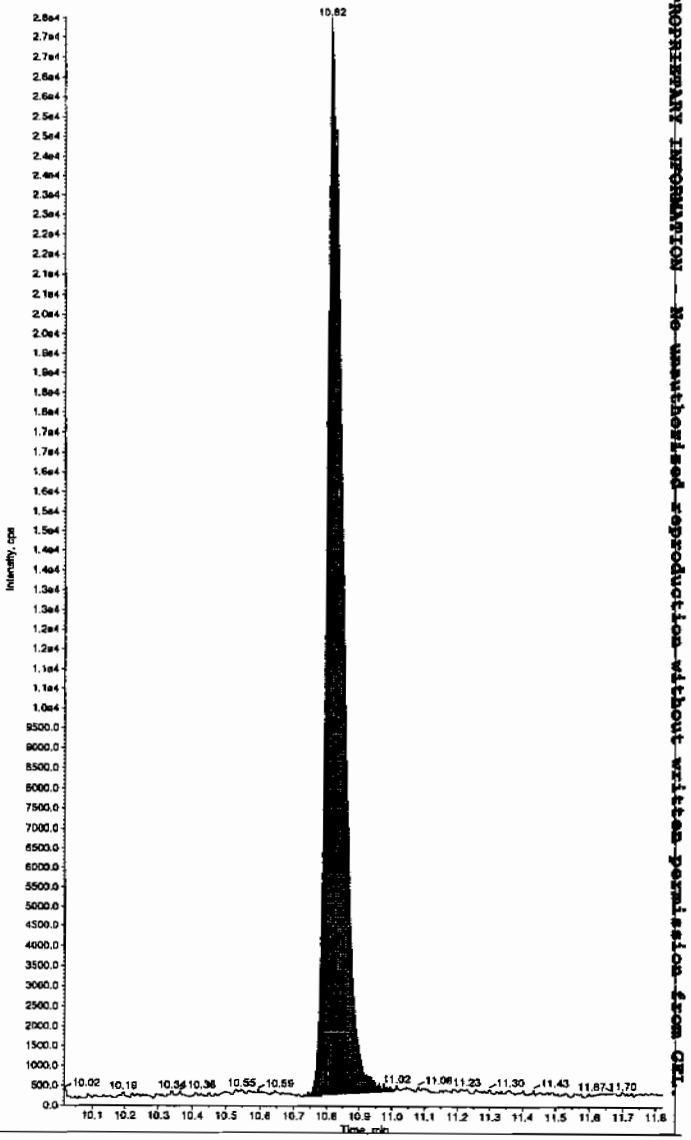

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 01-MAR-10 15:20

GEL Data File: EXS03010025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Fan 3/3/10

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03010025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:20:41 PM

Modified: No

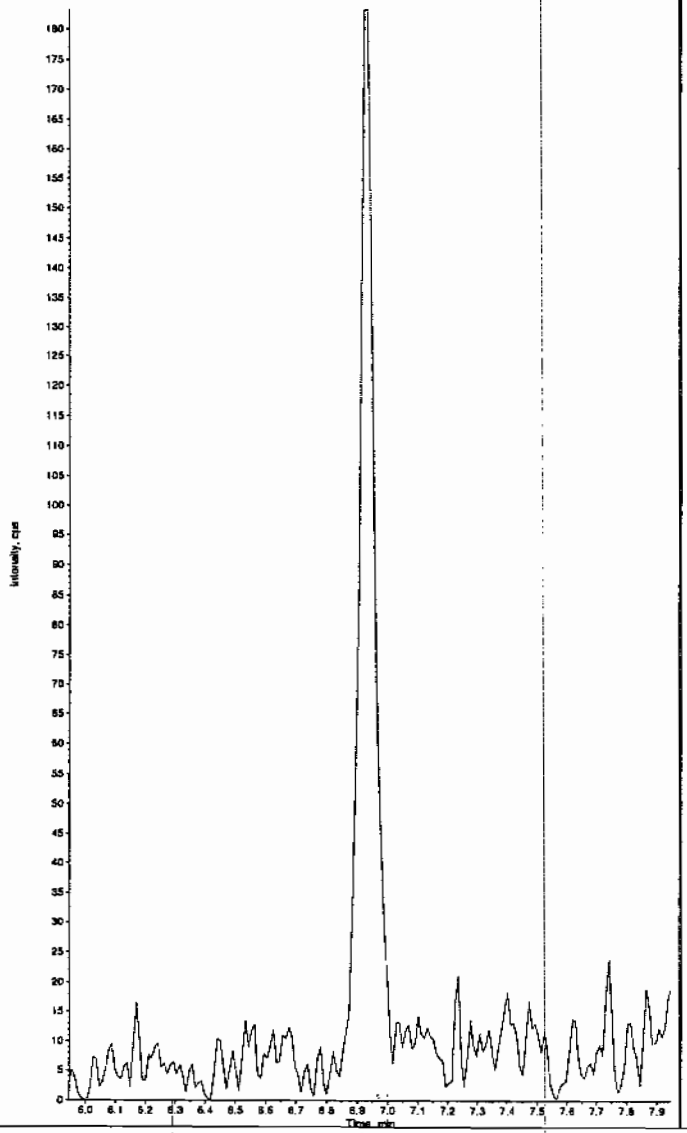

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03010025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:20:41 PM

Modified: No

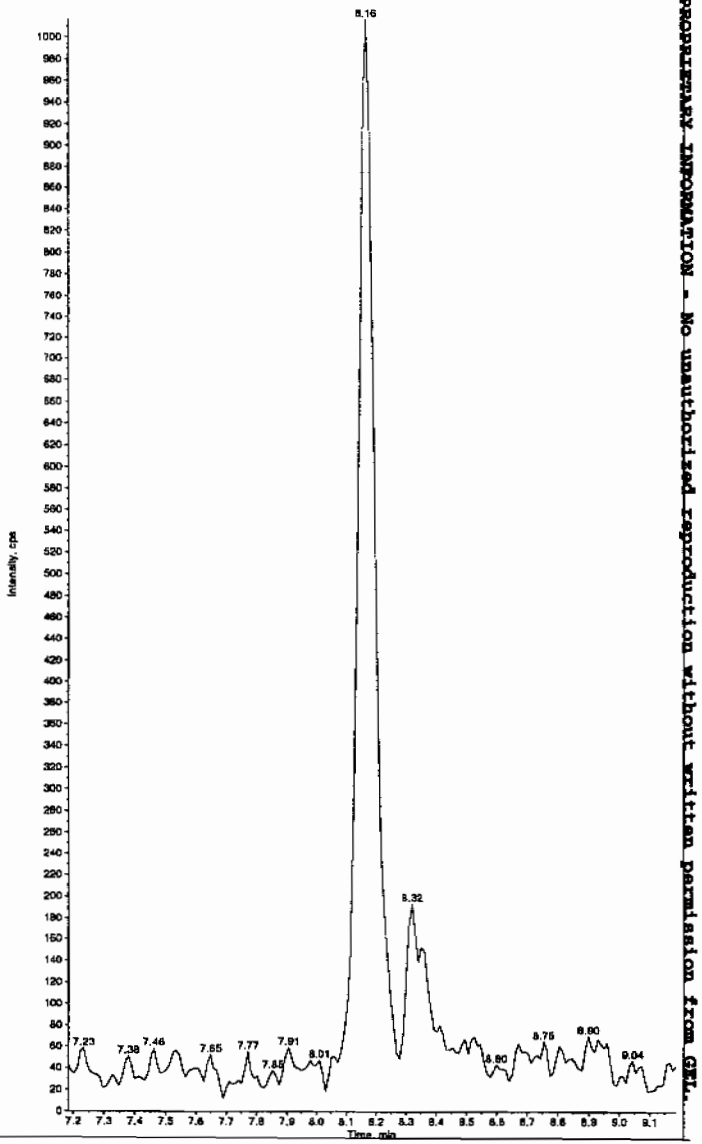

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Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03010025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:20:41 PM

Modified: No

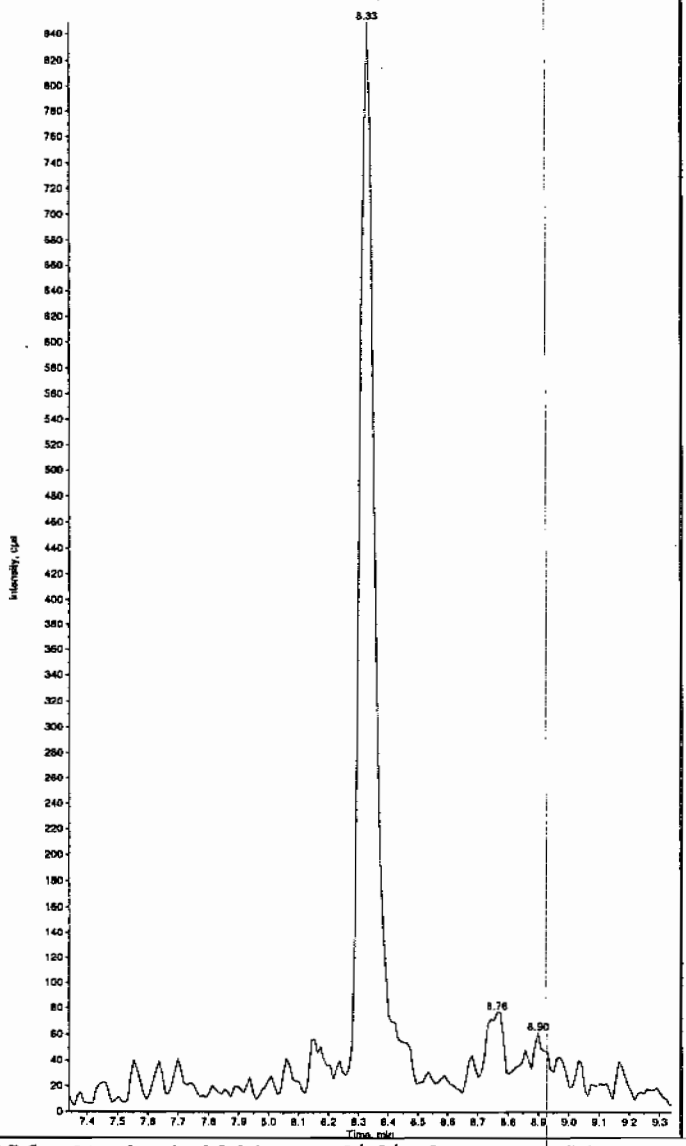

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03010025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:20:41 PM

Modified: No

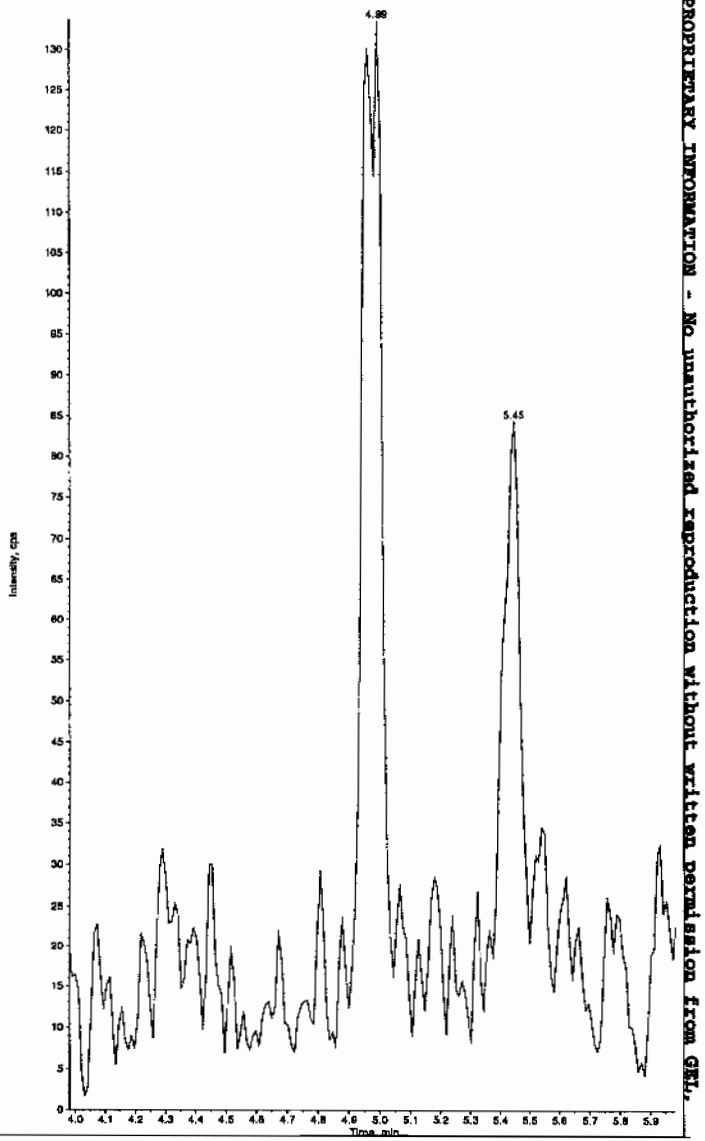

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03010025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:20:41 PM

Modified: No

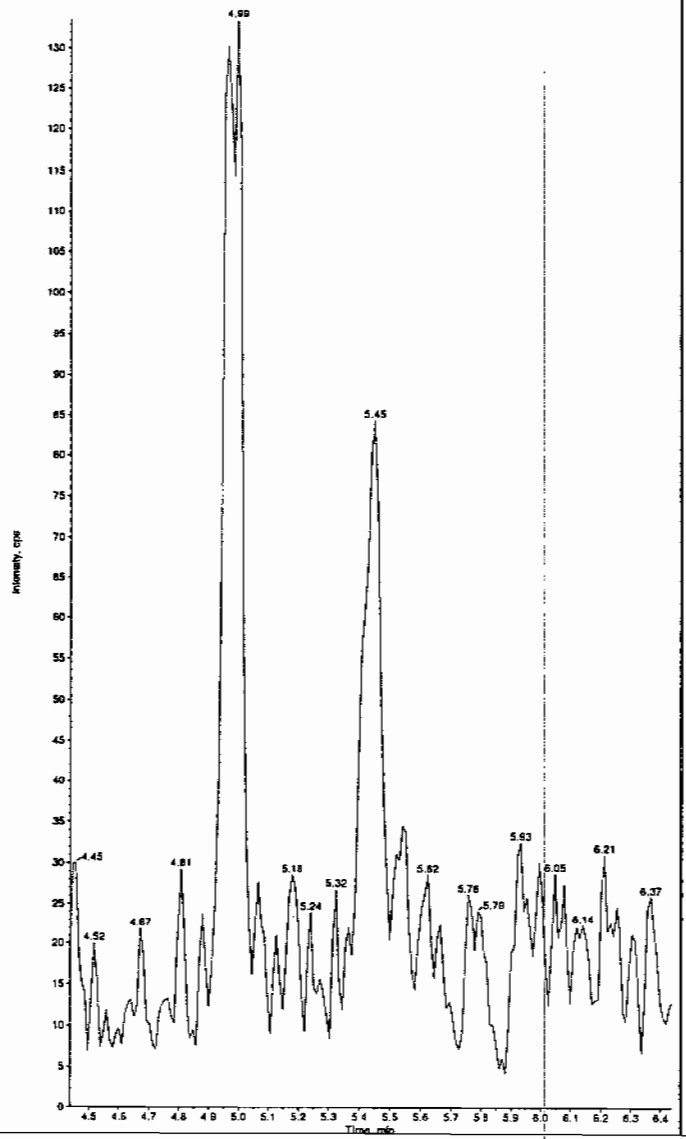

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03010025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/1/2010
Acq. Time: 3:20:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.41e+004 counts
Height: 24045.229 cps
Start Time: 10.7 min
End Time: 11.0 min

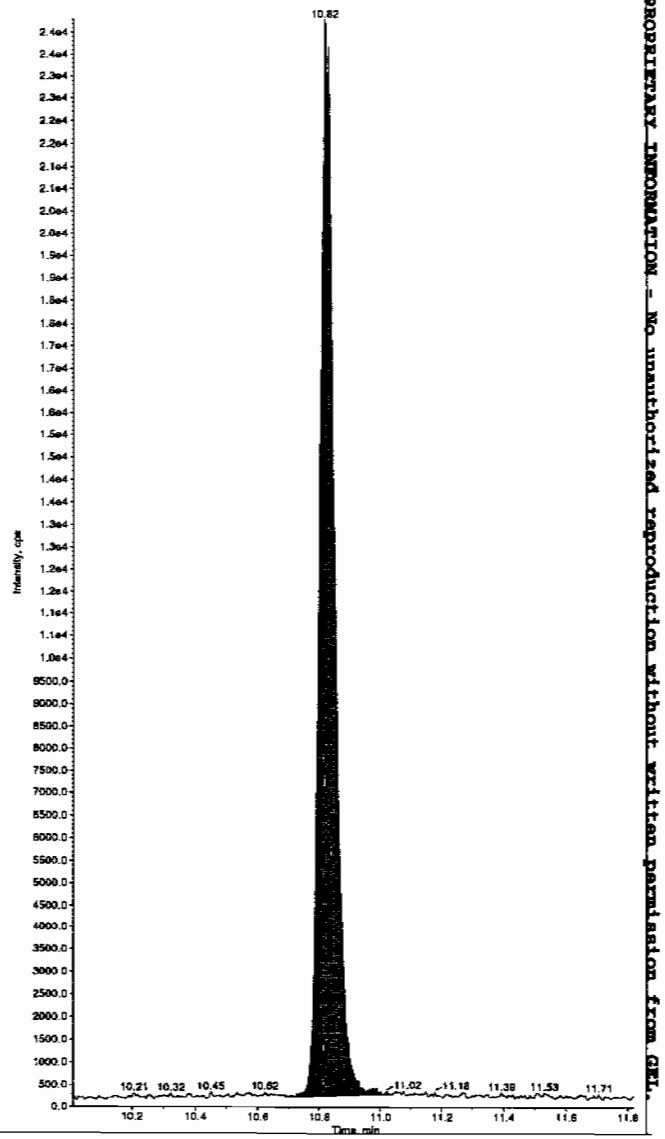

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 01-MAR-10 16:55

GEL Data File: EXS03010031.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lan 3/3/10

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03010031.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 4:55:04 PM

Modified: No

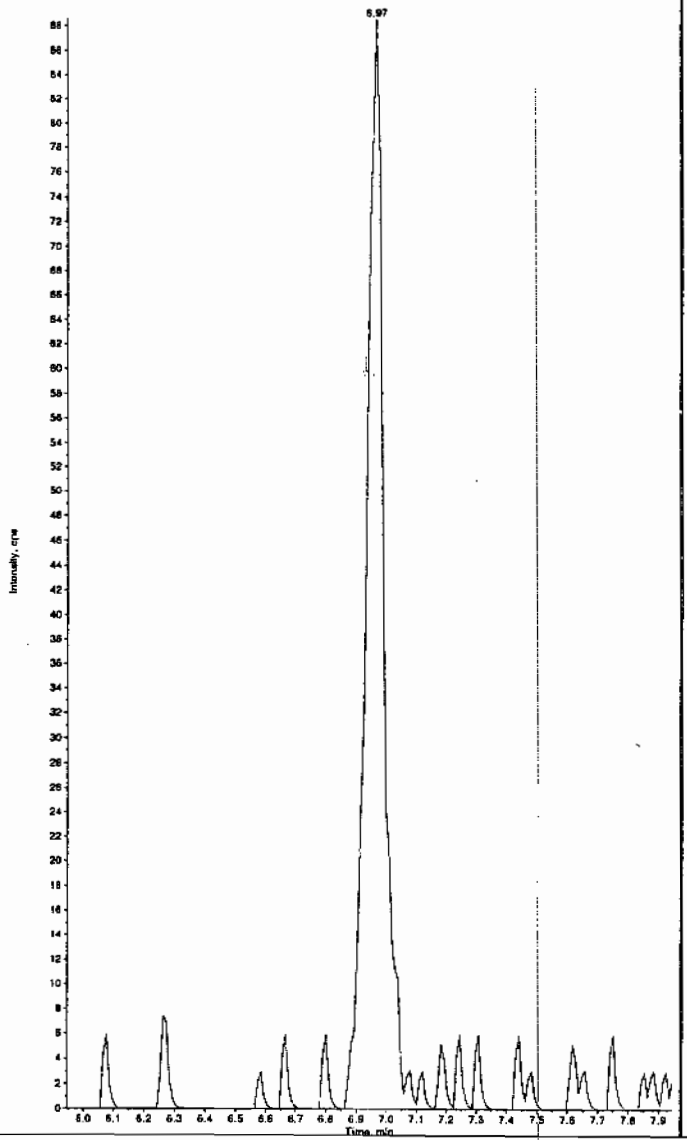

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03010031.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_6" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 4:55:04 PM

Modified: No

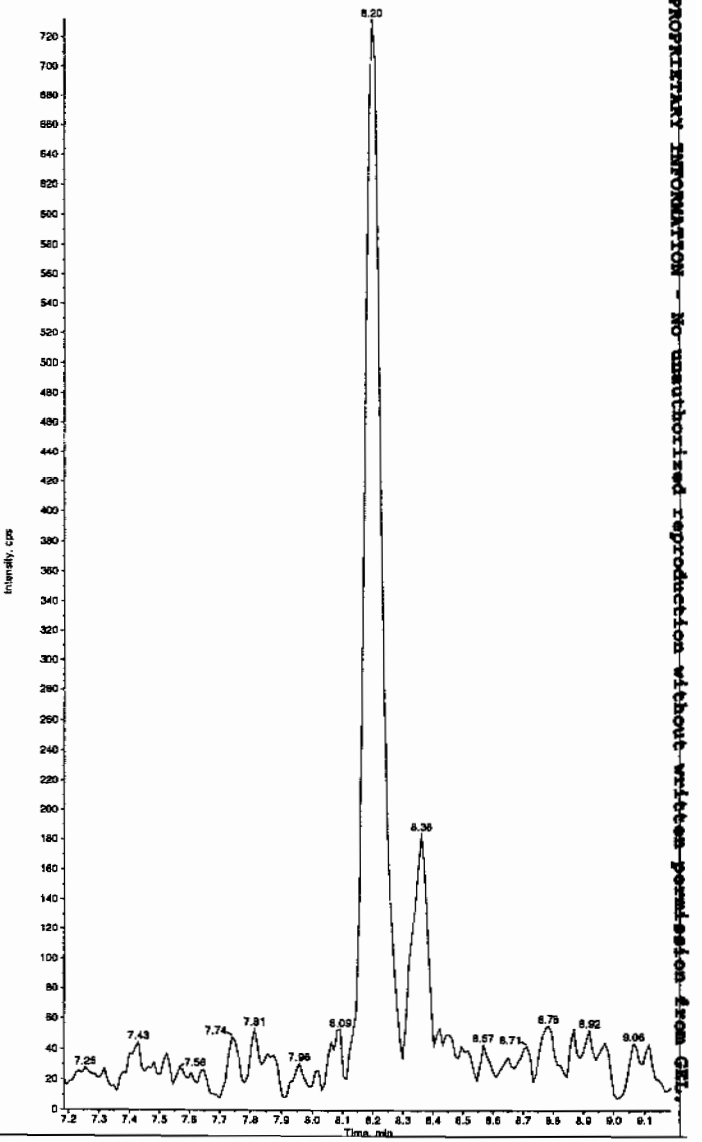

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03010031.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 4:55:04 PM

Modified: No

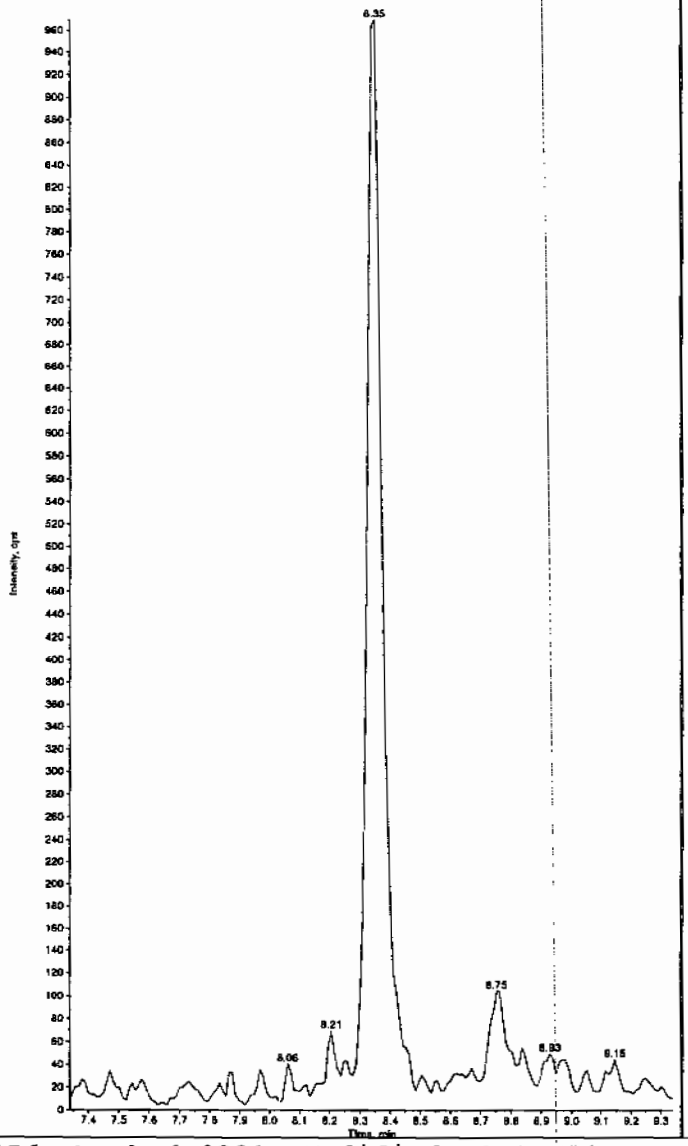

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03010031.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 4:55:04 PM

Modified: No

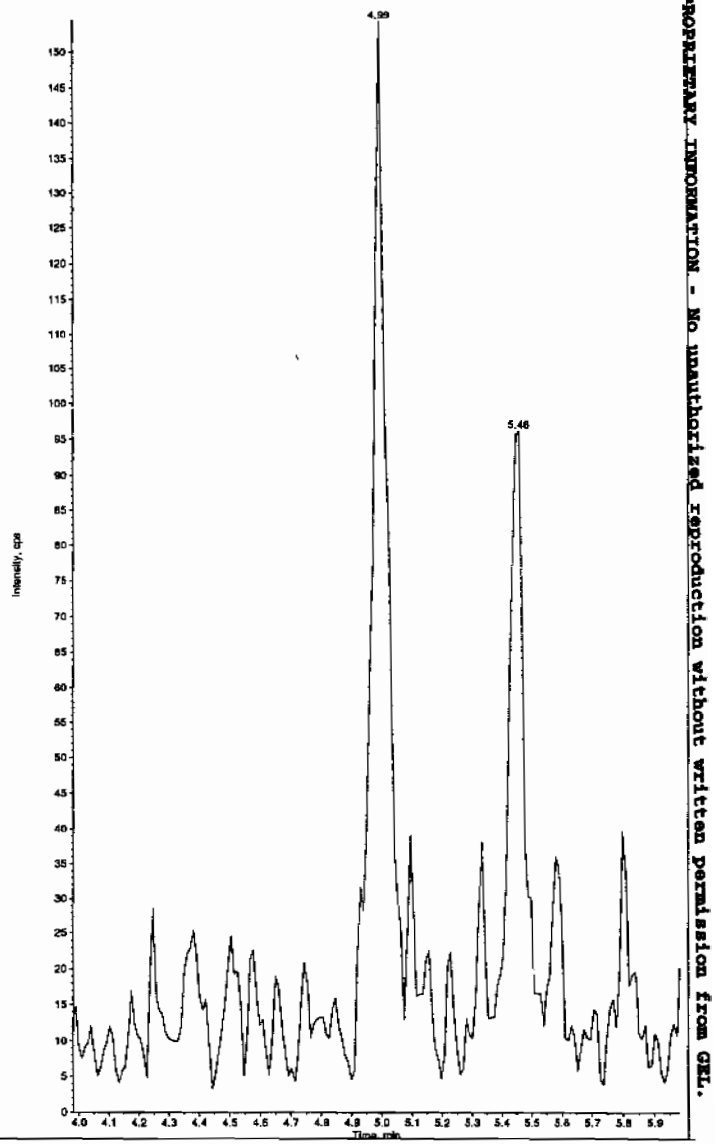

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03010031.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 4:55:04 PM

Modified: No

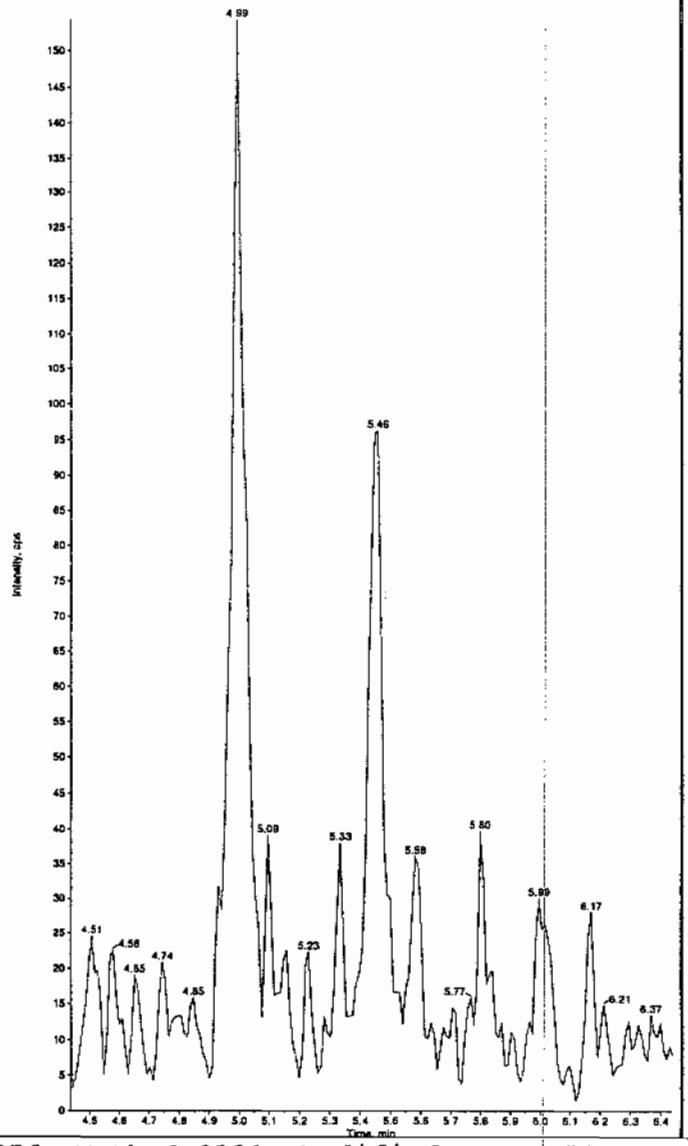

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03010031.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/1/2010
Acq. Time: 4:55:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.03e+004 counts
Height: 16316.530 cps
Start Time: 10.7 min
End Time: 11.0 min

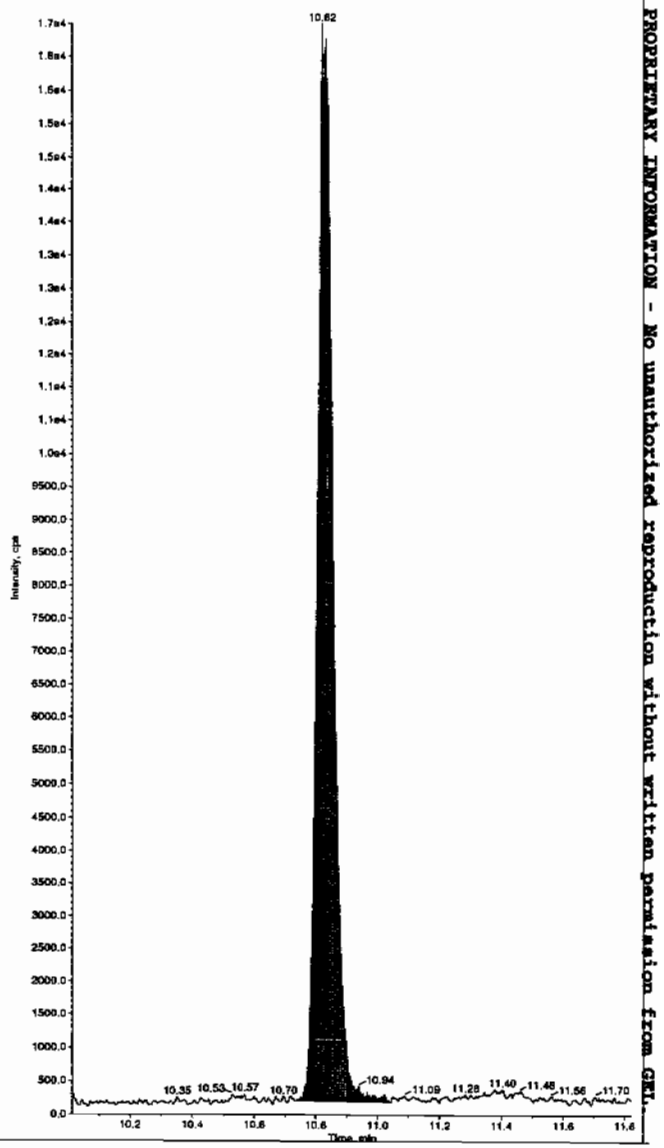

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 01-MAR-10 18:45

GEL Data File: EXS03010038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,5-Dinitroaniline	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0

Ban 3/3/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03010038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:45:29 PM

Modified: No

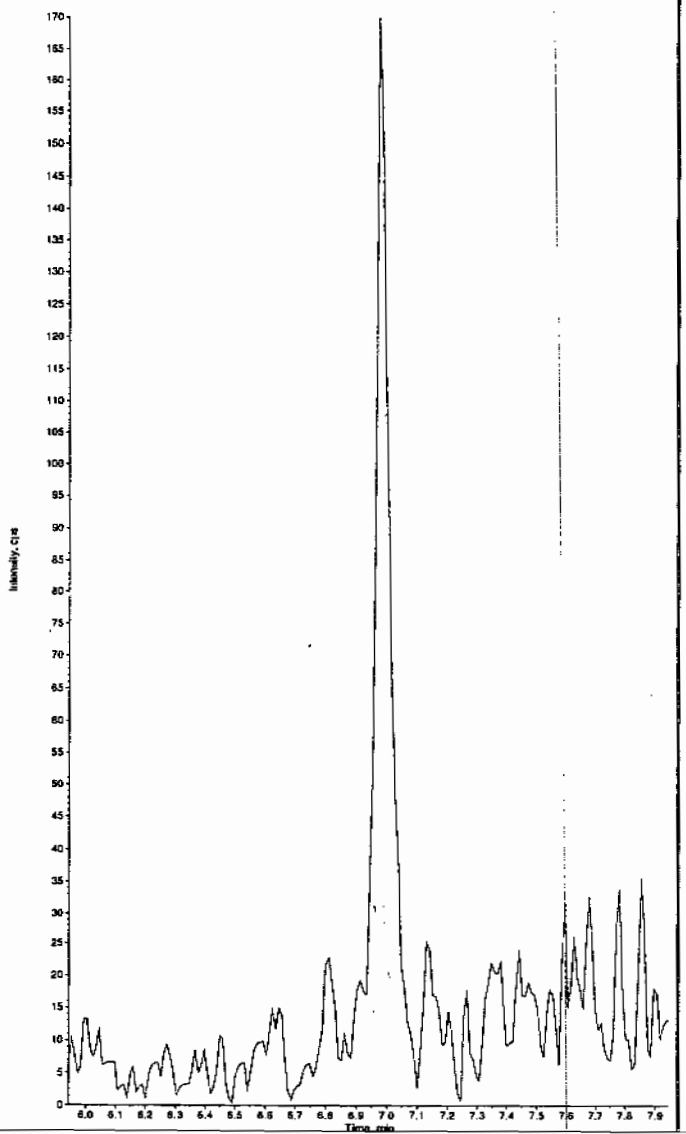

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03010038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:45:29 PM

Modified: No

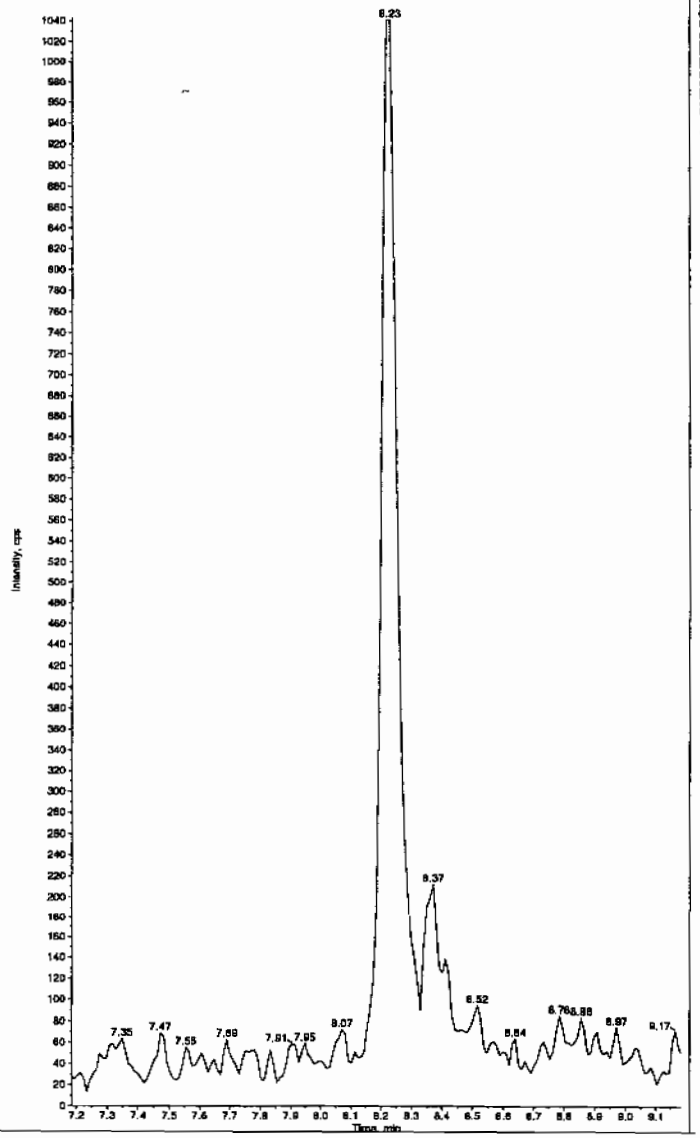

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Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03010038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:45:29 PM

Modified: No

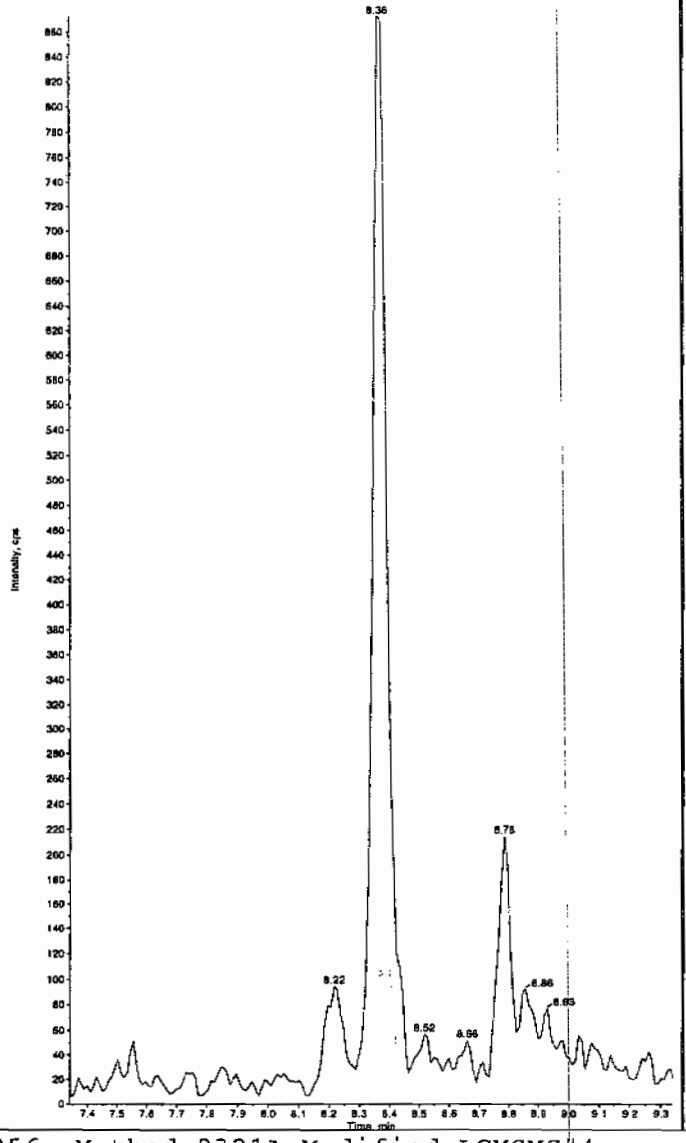

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03010038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:45:29 PM

Modified: No

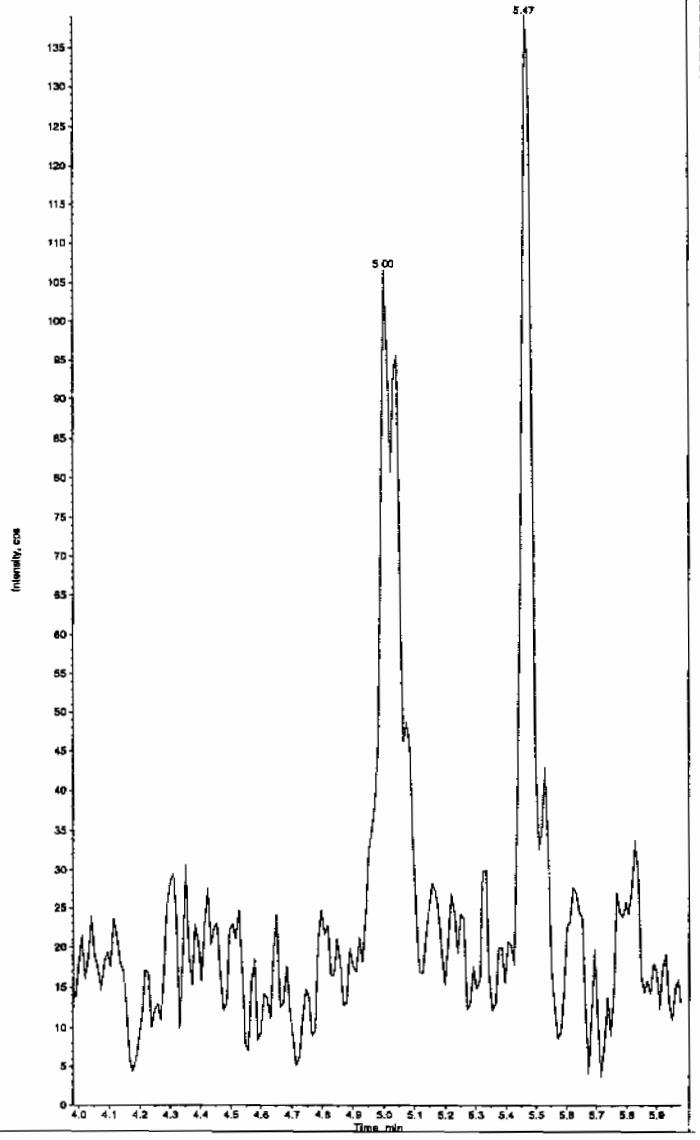

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03010038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:45:29 PM

Modified: No

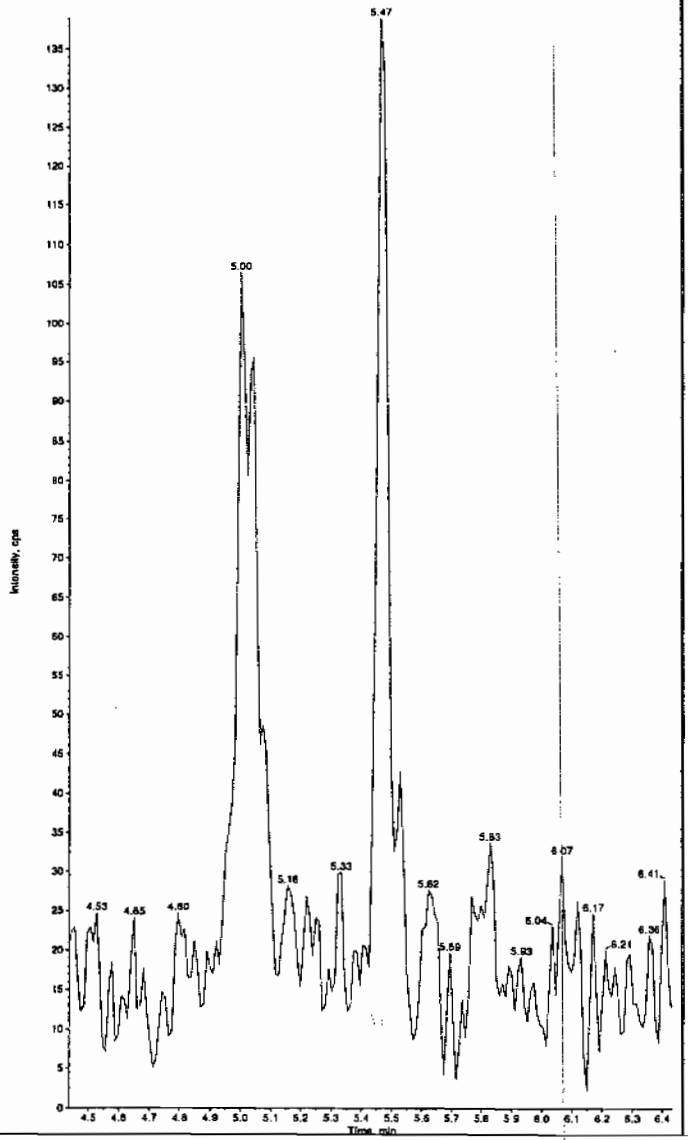

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03010038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 3/1/2010
Acq. Time: 6:45:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.30e+004 counts
Height: 24775.198 cps
Start Time: 10.7 min
End Time: 11.1 min

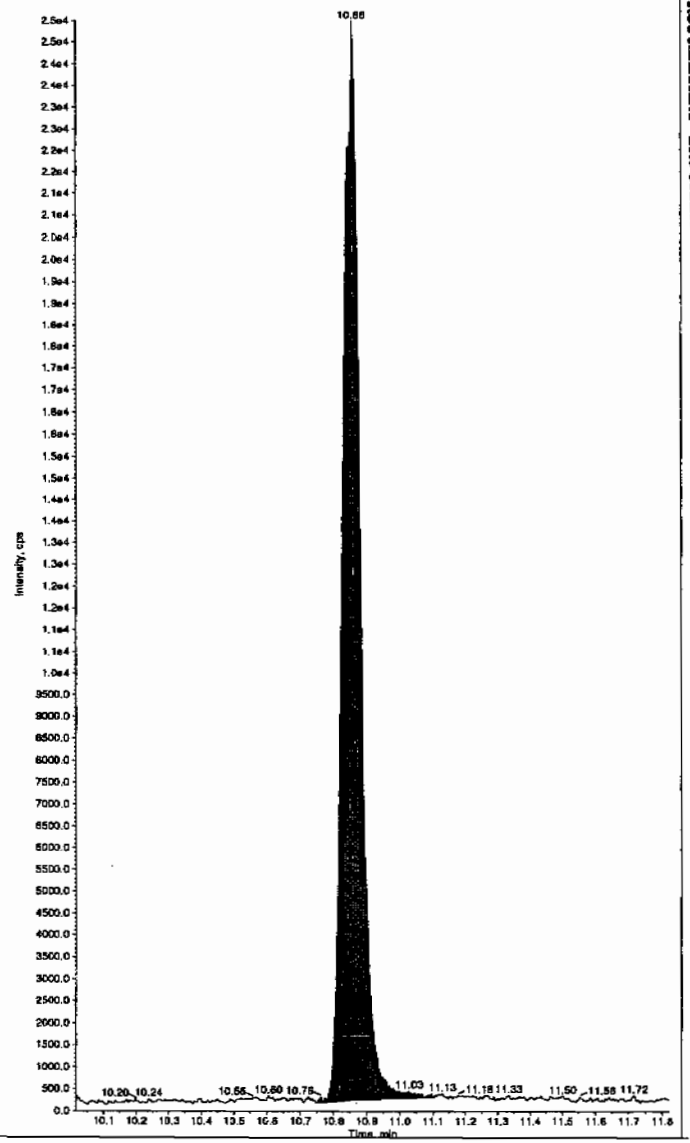

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1564

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 01–MAR–10 22:10

GEL Data File: EXS03010051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03010051.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:10:00 PM

Modified: No

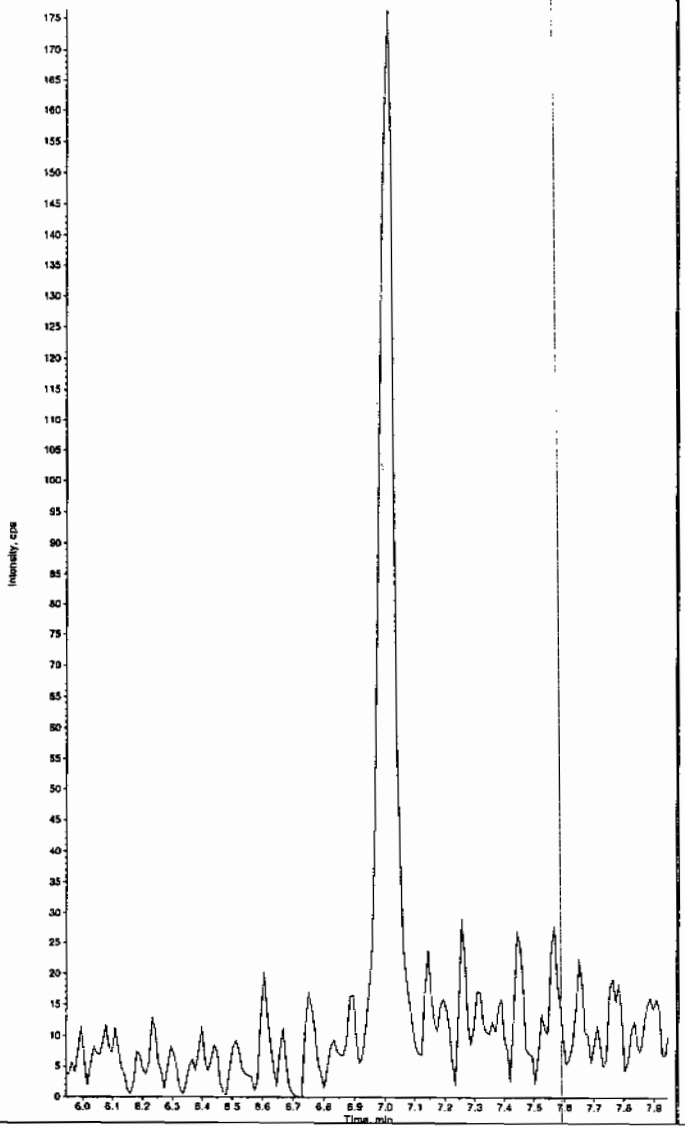

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03010051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:10:00 PM

Modified: No

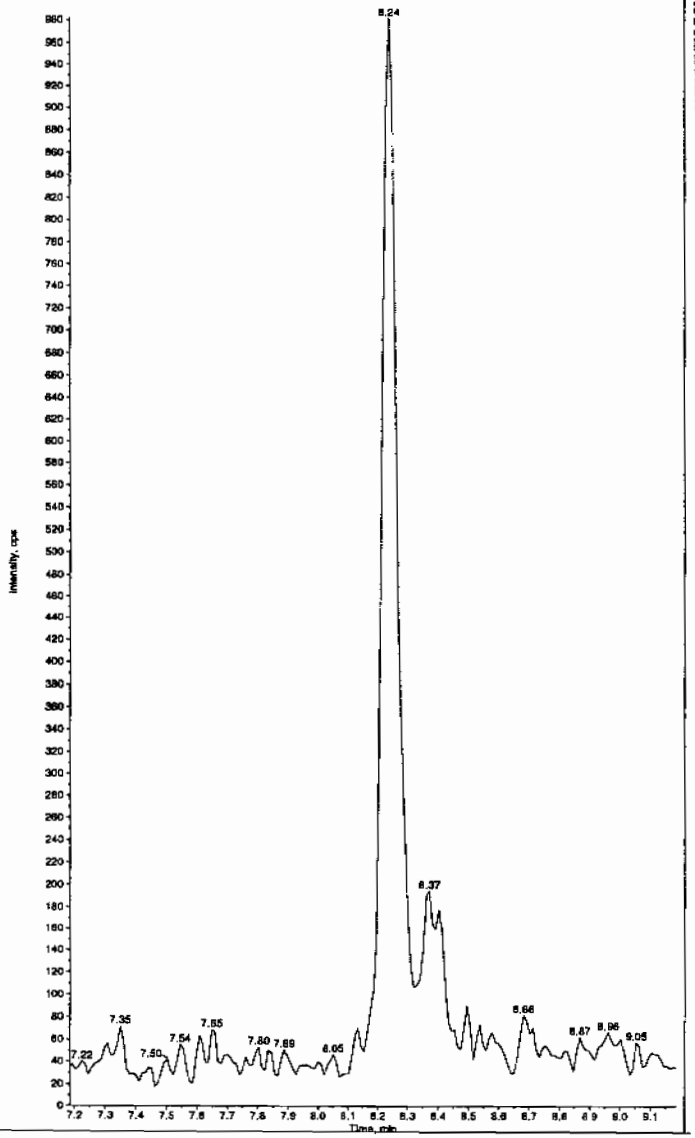

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03010051.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:10:00 PM

Modified: No

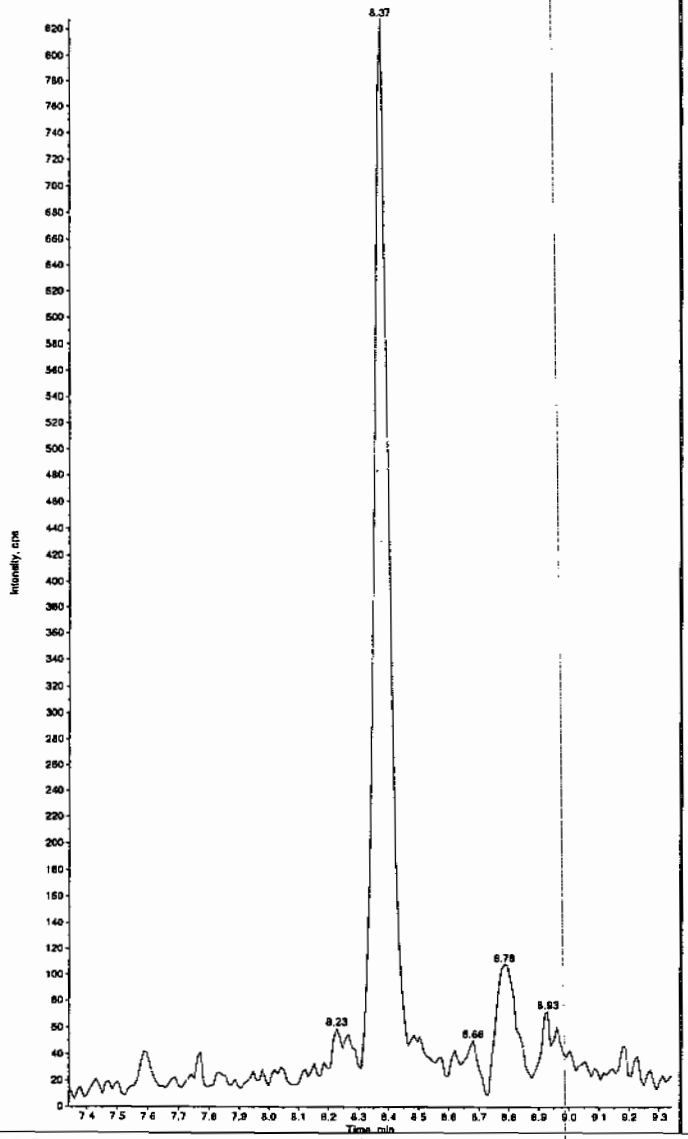

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03010051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:10:00 PM

Modified: No

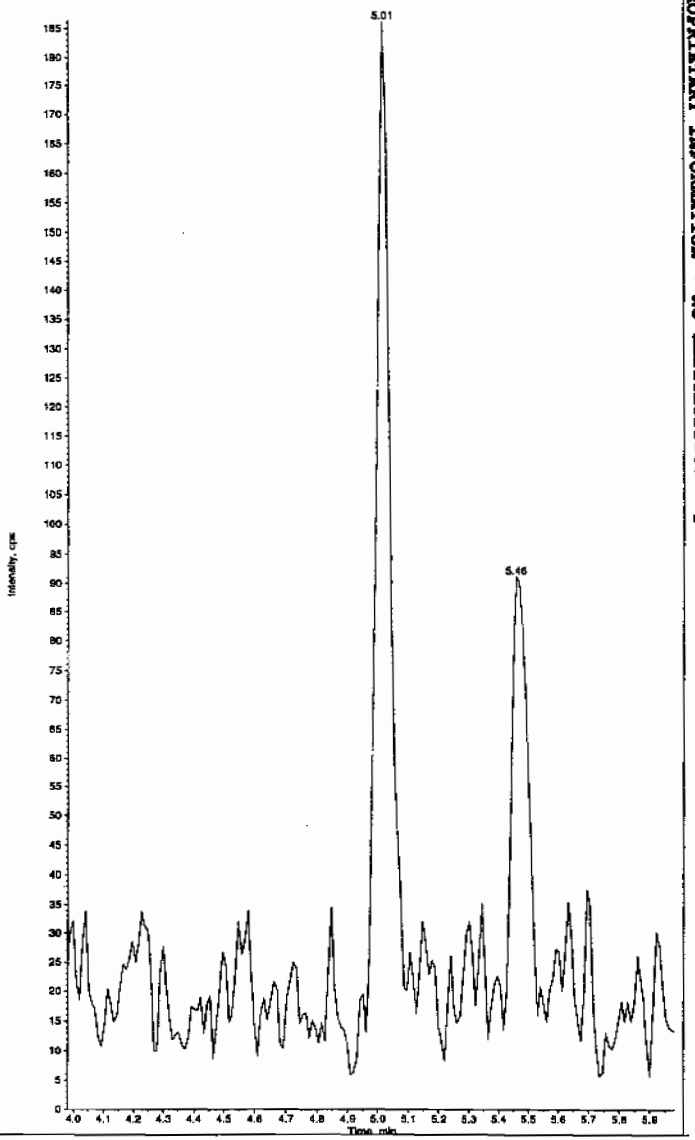

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03010051.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:10:00 PM

Modified: No

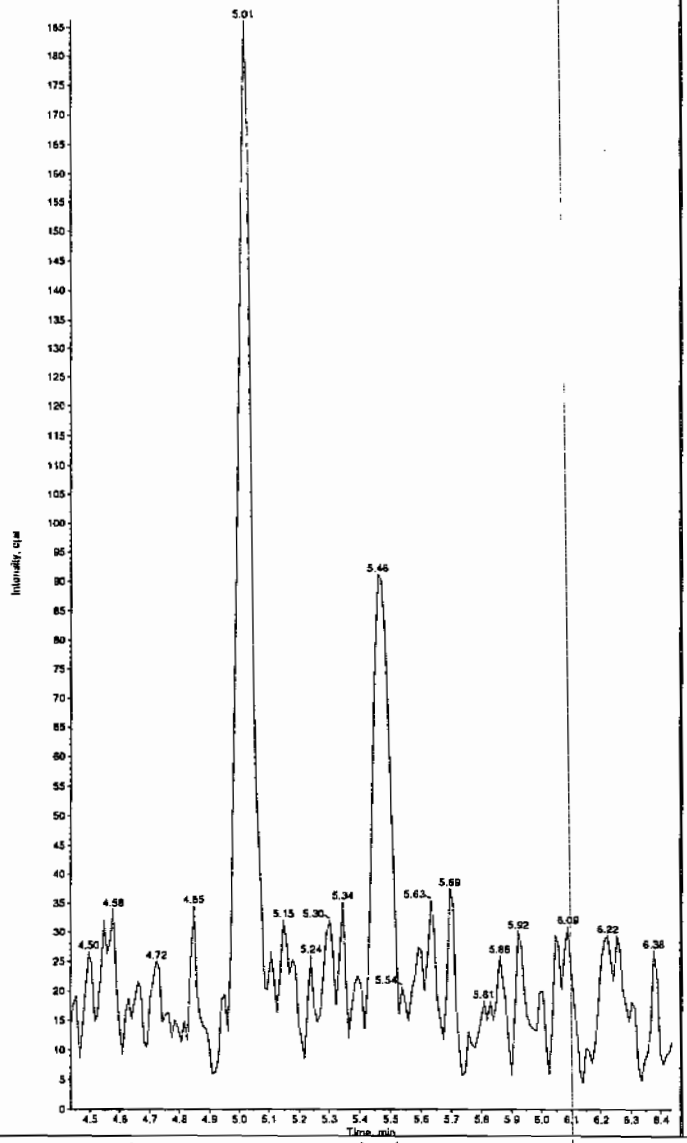

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03010051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/1/2010
Acq. Time: 10:10:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.08e+004 counts
Height: 25272.495 cps
Start Time: 10.8 min
End Time: 11.1 min

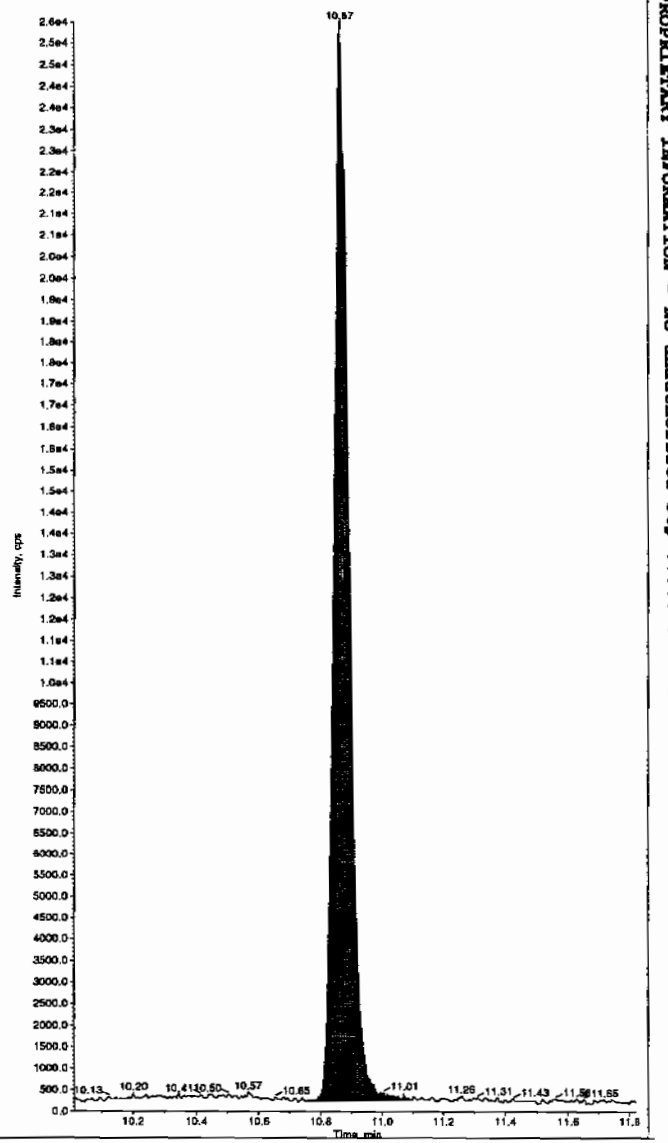

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 02-MAR-10 01:34

GEL Data File: EXS03010064.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

Lcm 3/3/10

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03010064.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:34:36 AM

Modified: No

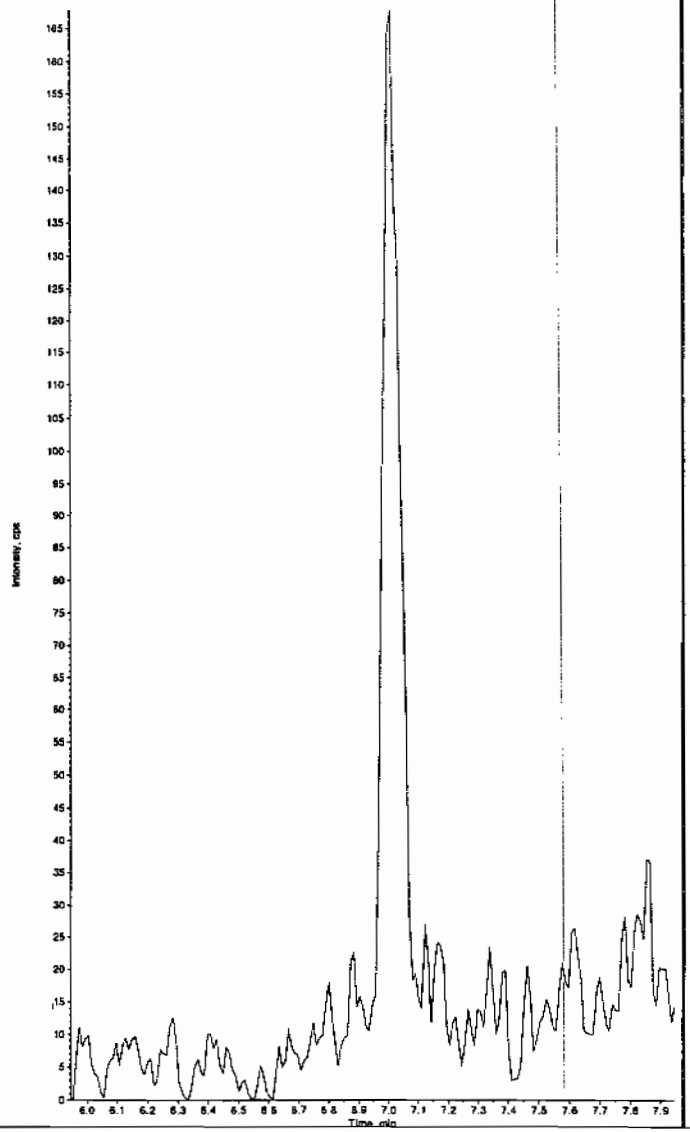

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03010064.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:34:36 AM

Modified: No

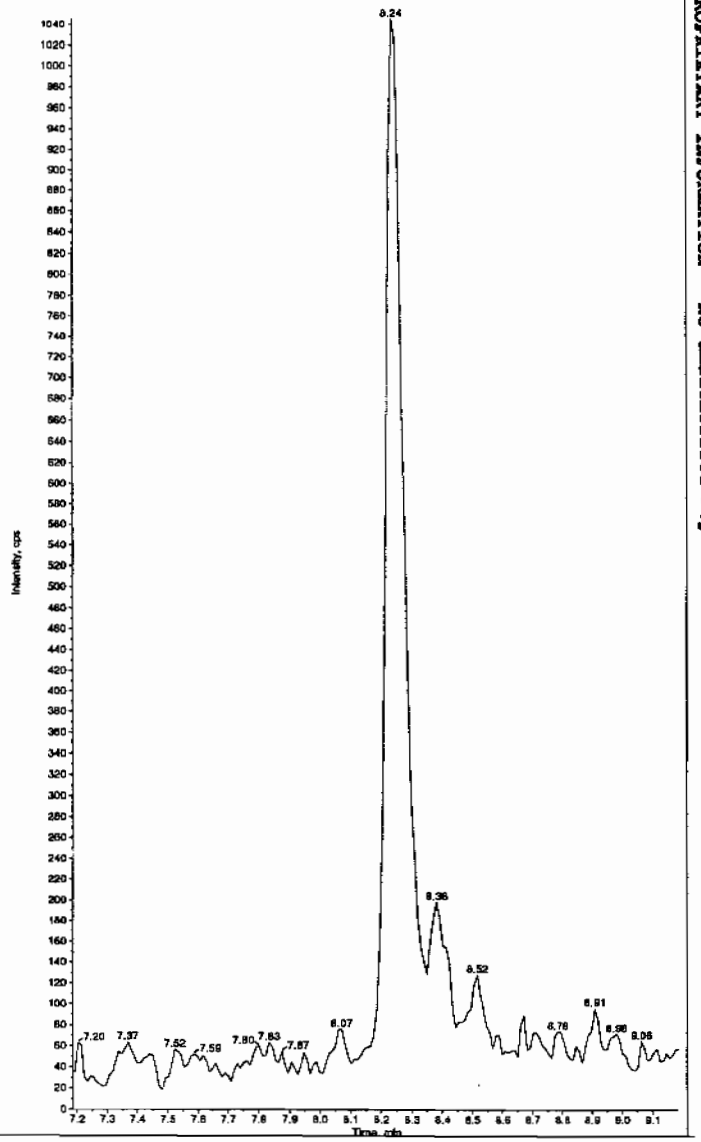

Hum 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03010064.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:34:36 AM

Modified: No

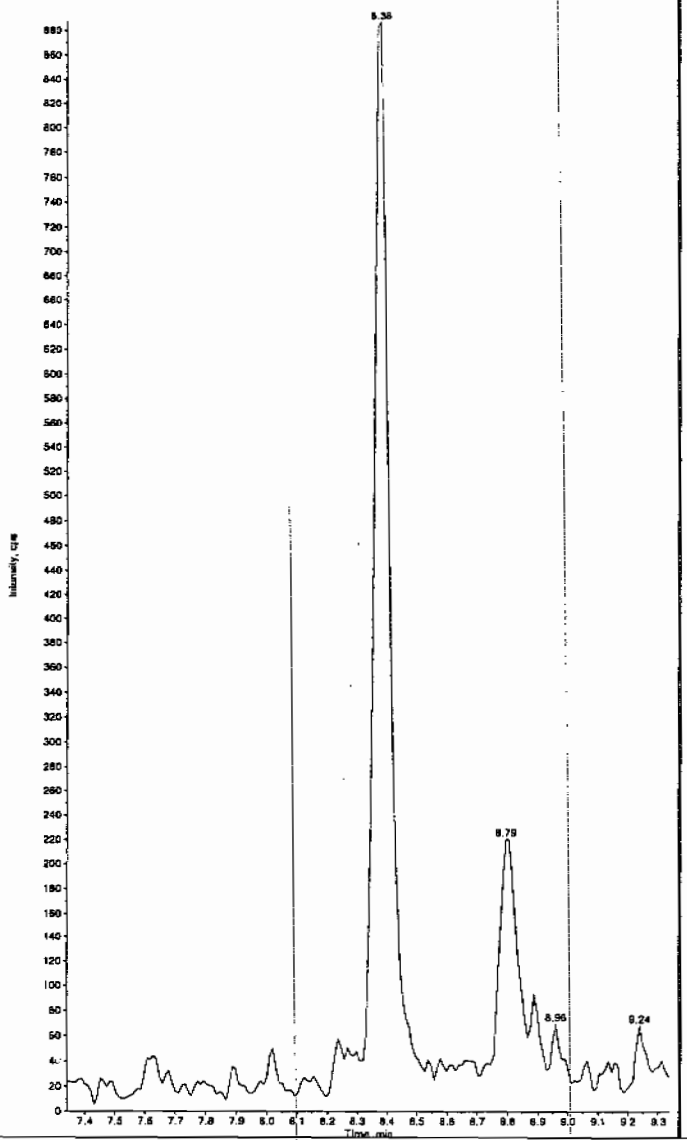

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03010064.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:34:36 AM

Modified: No

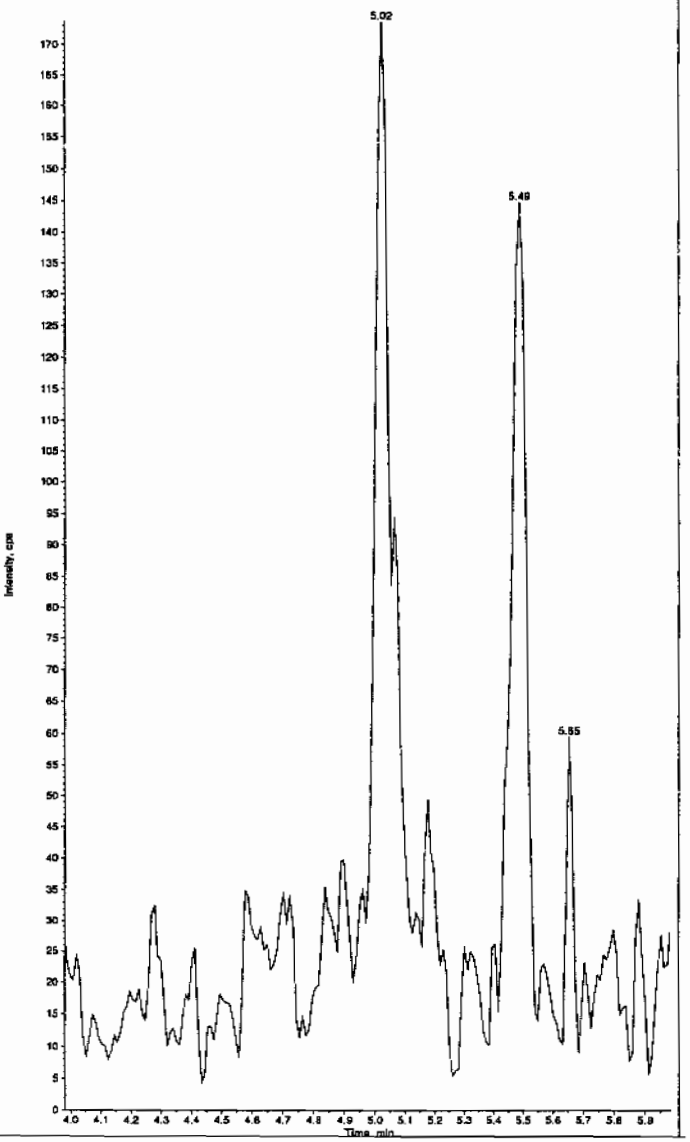

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03010064.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:34:36 AM

Modified: No

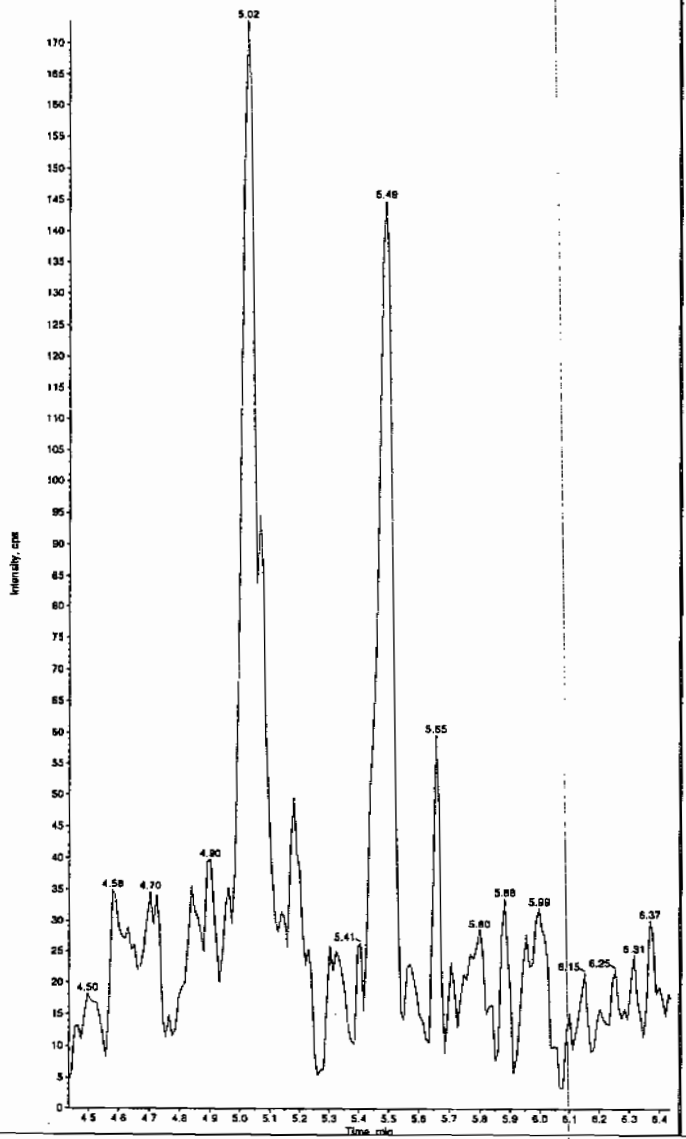

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03010064.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 3/2/2010
Acq. Time: 1:34:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.00e+005 counts
Height: 28505.838 cps
Start Time: 10.8 min
End Time: 11.1 min

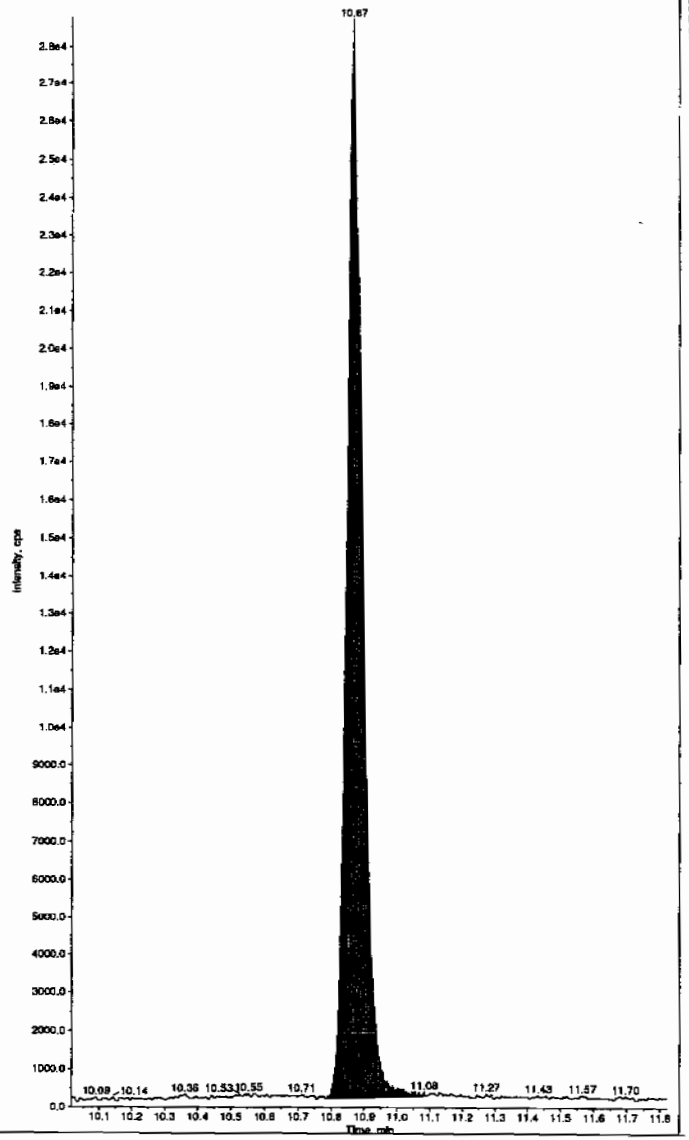

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1564

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 02–MAR–10 04:27

GEL Data File: EXS03010075.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS03010075.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:27:45 AM

Modified: No

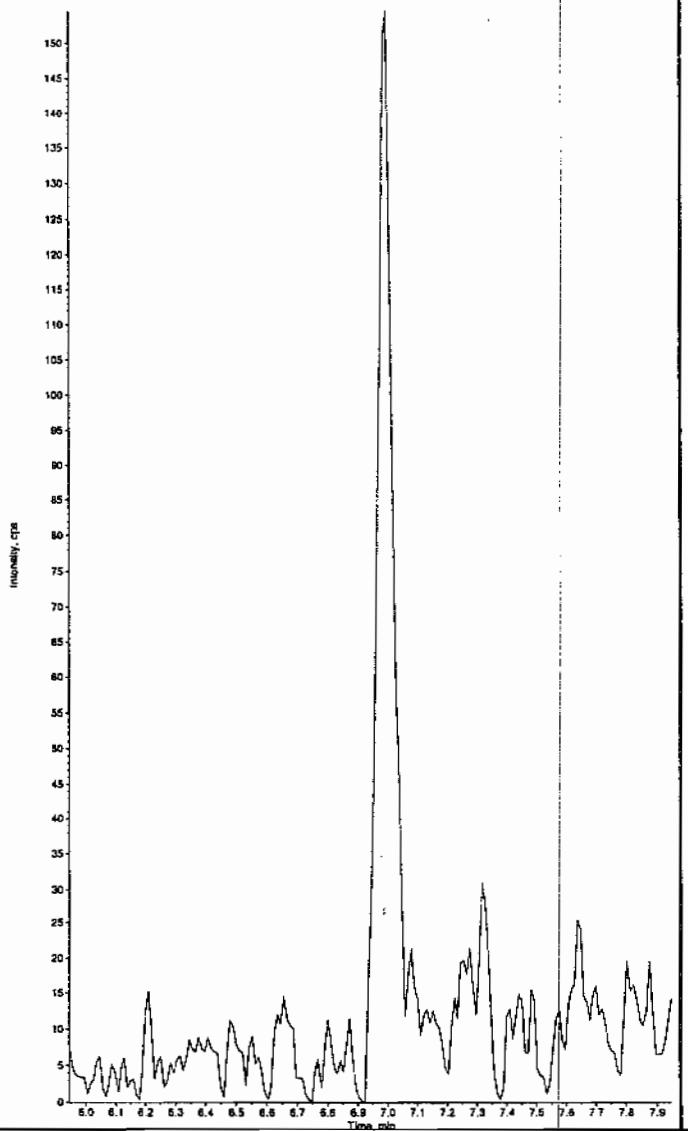

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS03010075.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:27:45 AM

Modified: No

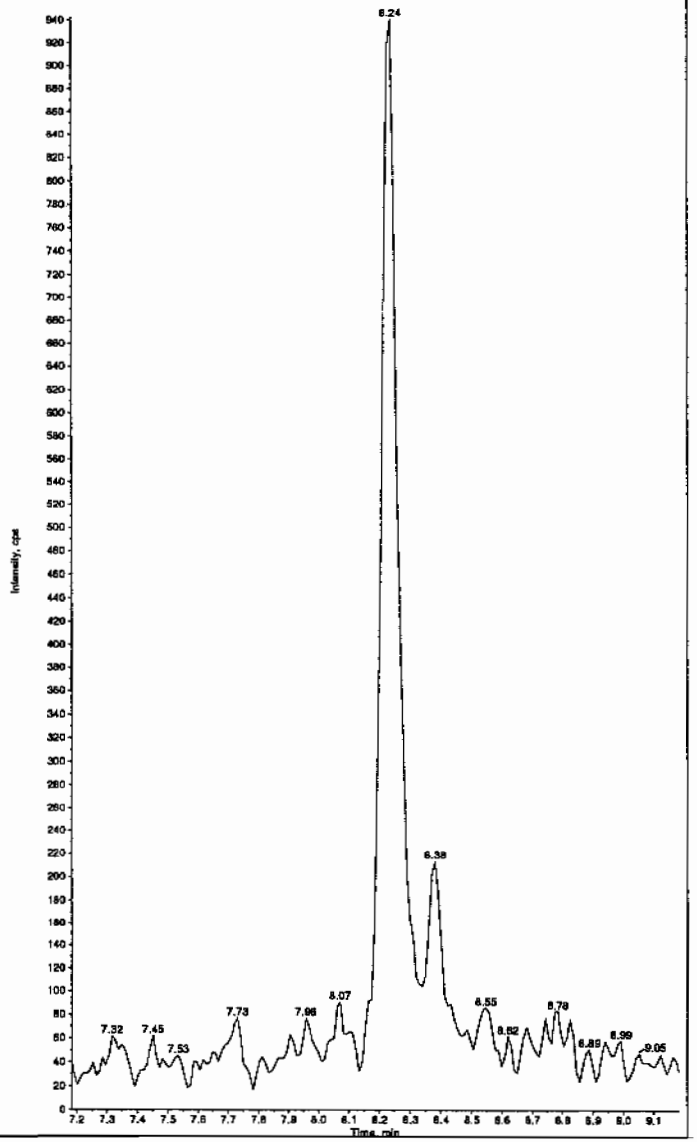

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS03010075.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:27:45 AM

Modified: No

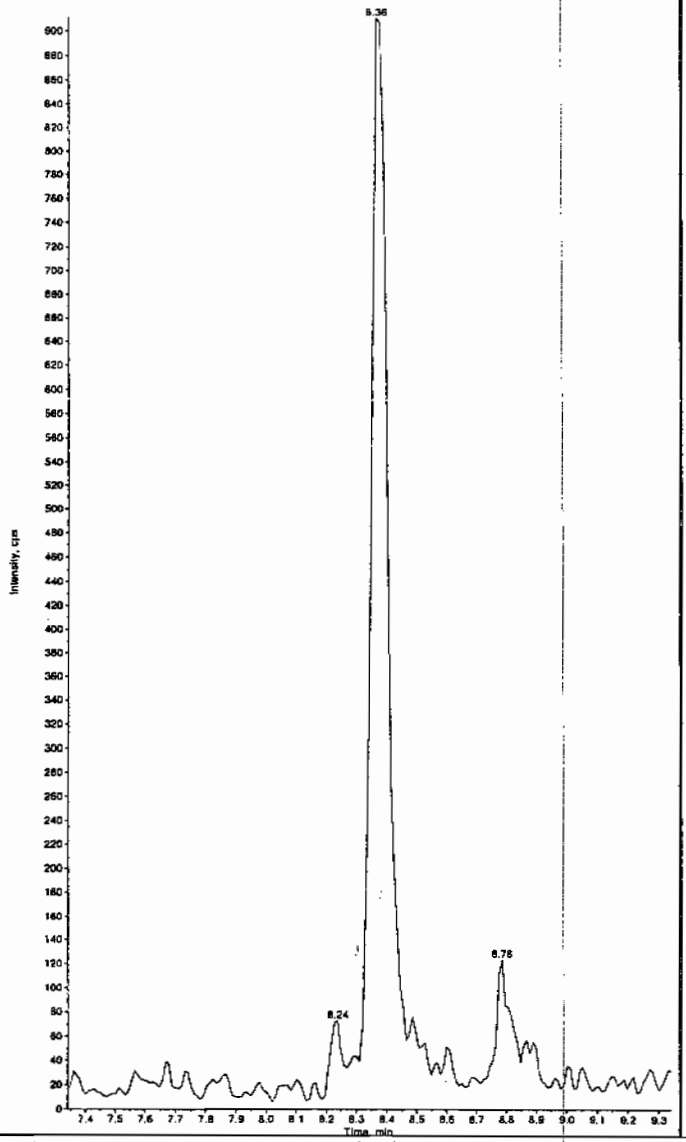

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS03010075.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:27:45 AM

Modified: No

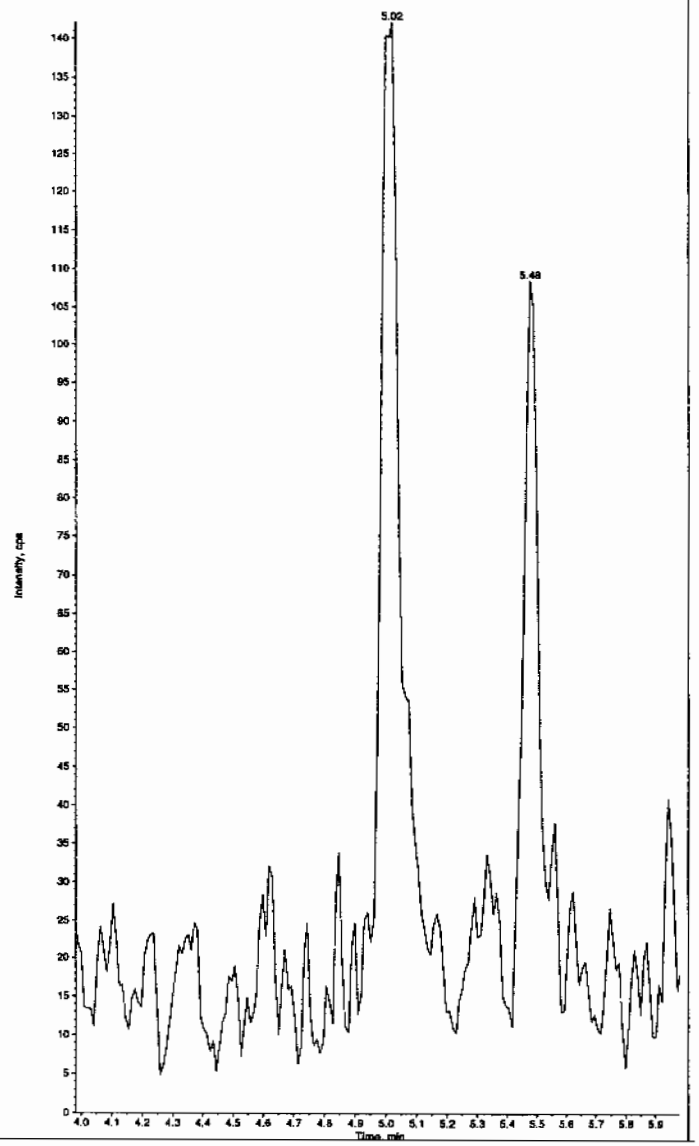

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03010075.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:27:45 AM

Modified: No

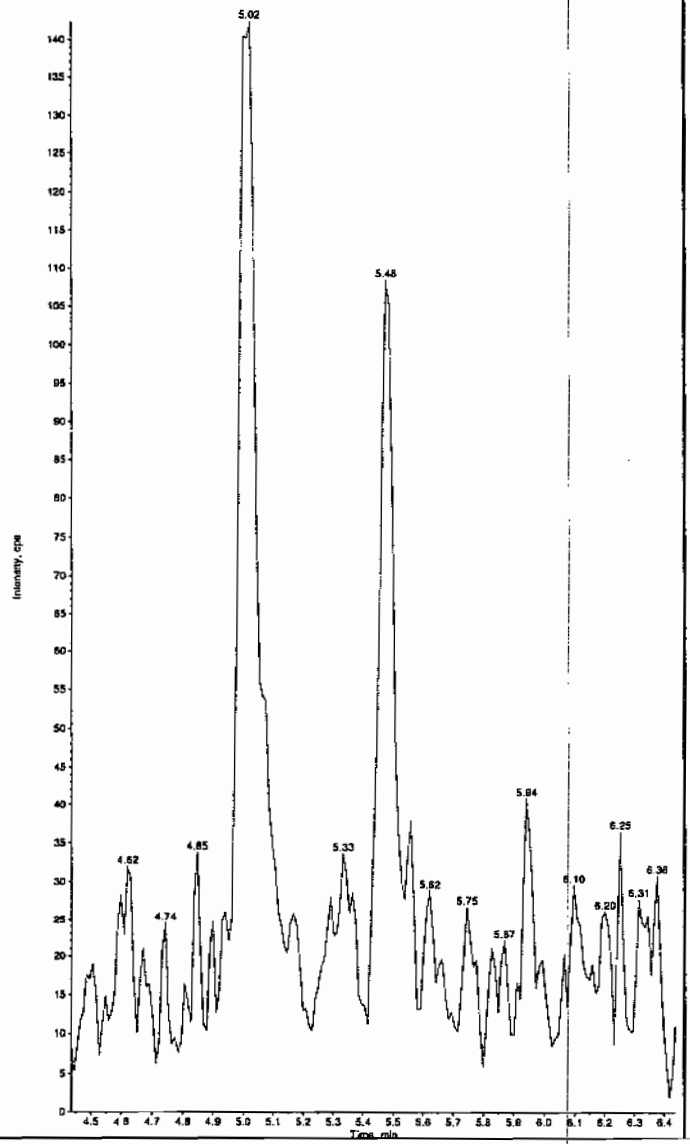

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03010075.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/2/2010
Acq. Time: 4:27:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.82e+004 counts
Height: 23102.528 cps
Start Time: 10.8 min
End Time: 11.1 min

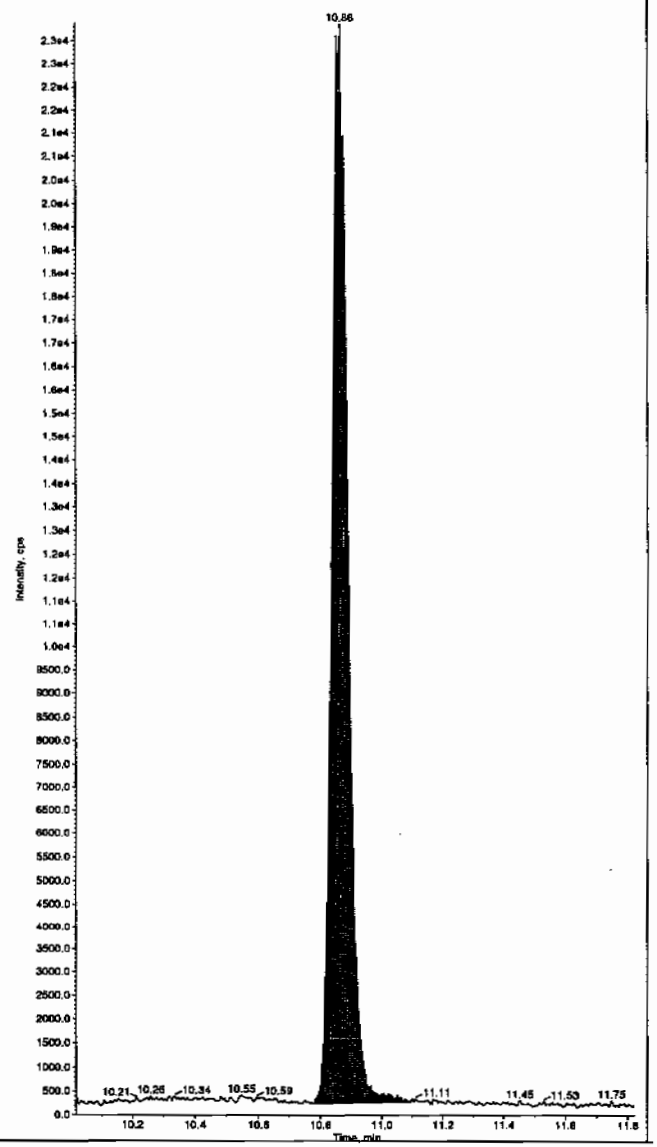

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 02-MAR-10 07:52

GEL Data File: EXS03010088.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Jan 3/3/10

Sample Name: "XIBLK10" Sample ID: "1|LER" File: "EXS03010088.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:52:21 AM

Modified: No

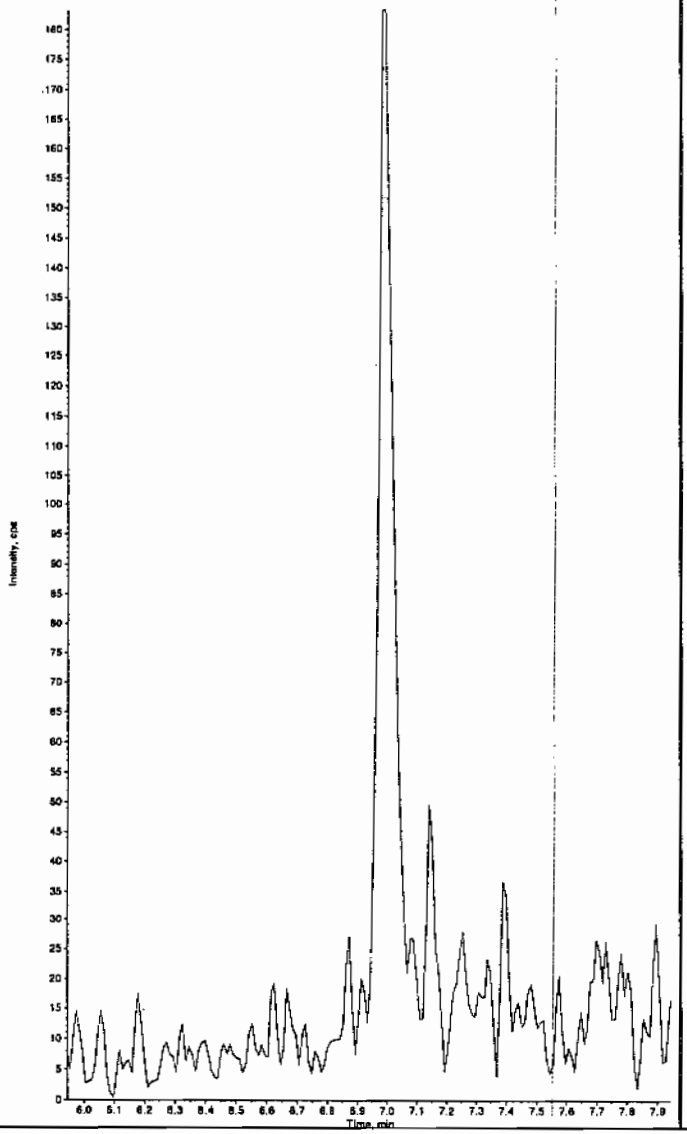

Sample Name: "XIBLK10" Sample ID: "1|LER" File: "EXS03010088.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:52:21 AM

Modified: No

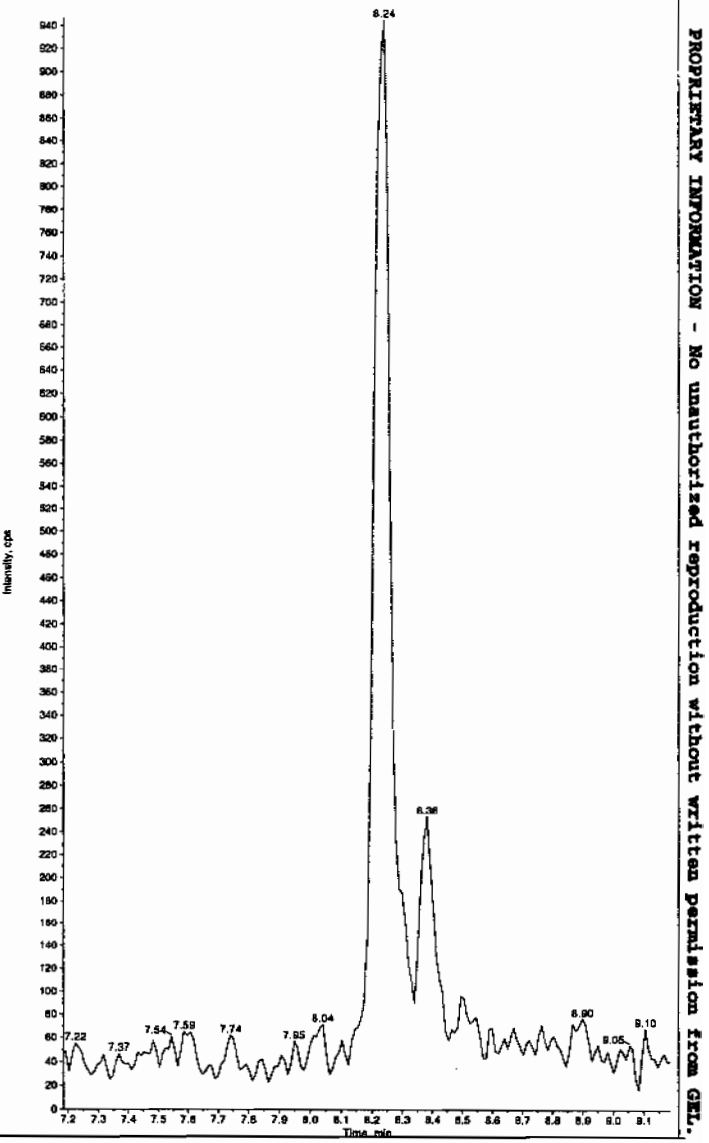

Hmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03010088.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:52:21 AM

Modified: No

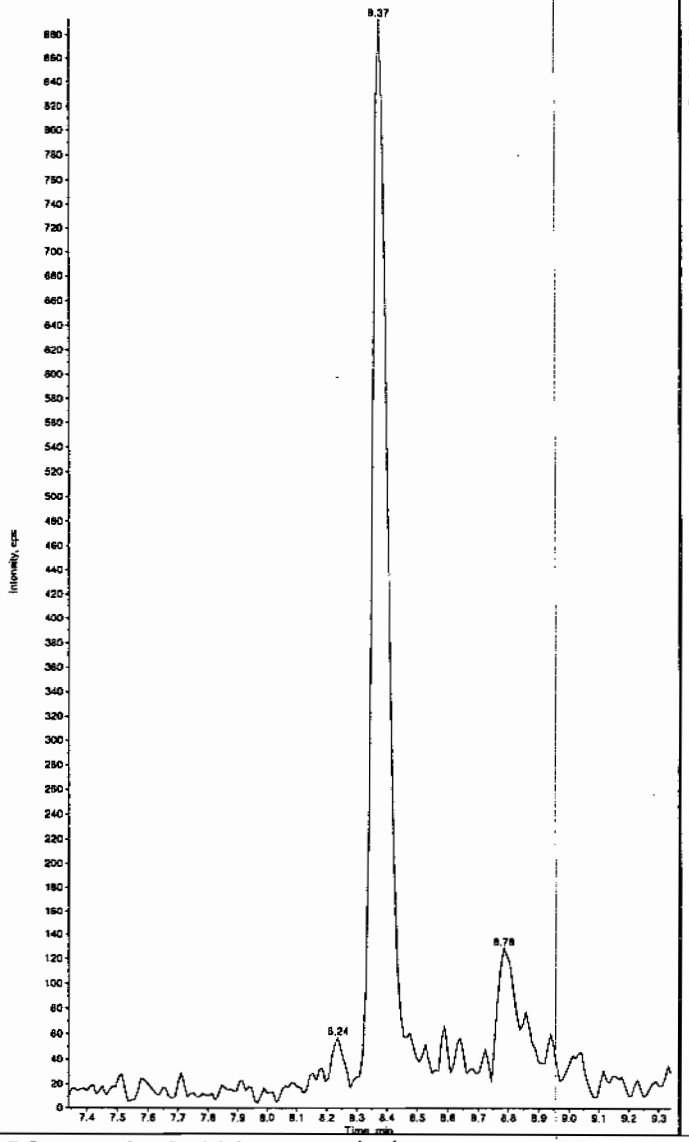

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03010088.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:52:21 AM

Modified: No

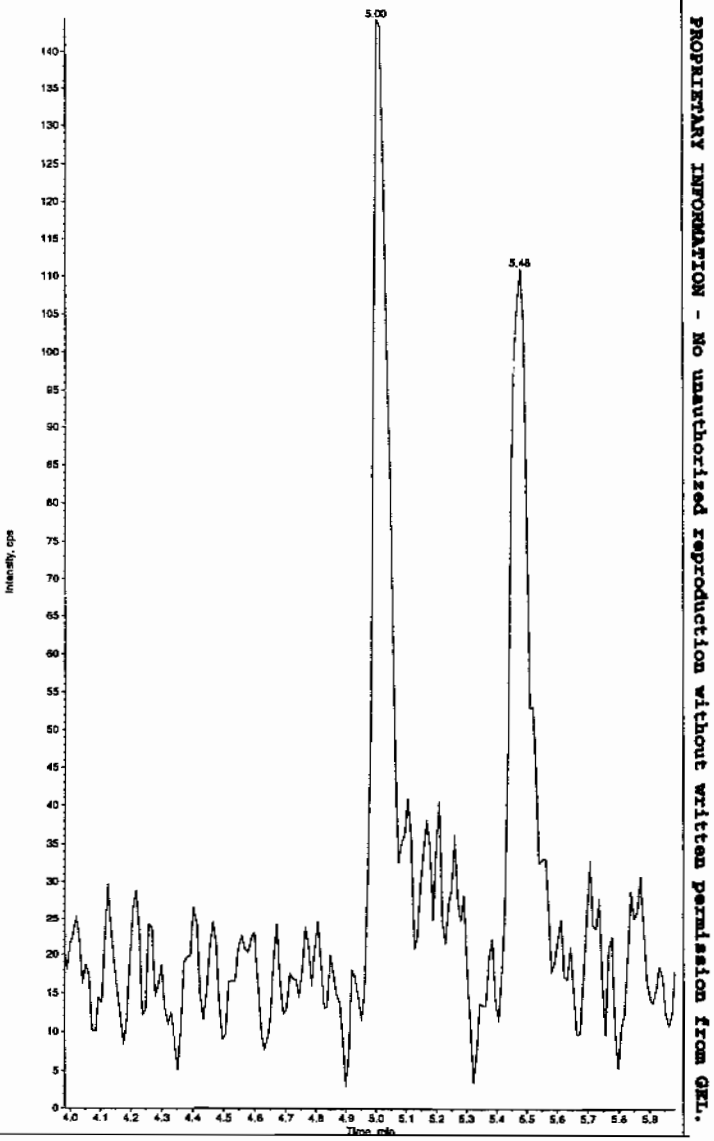

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS03010068.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:52:21 AM

Modified: No

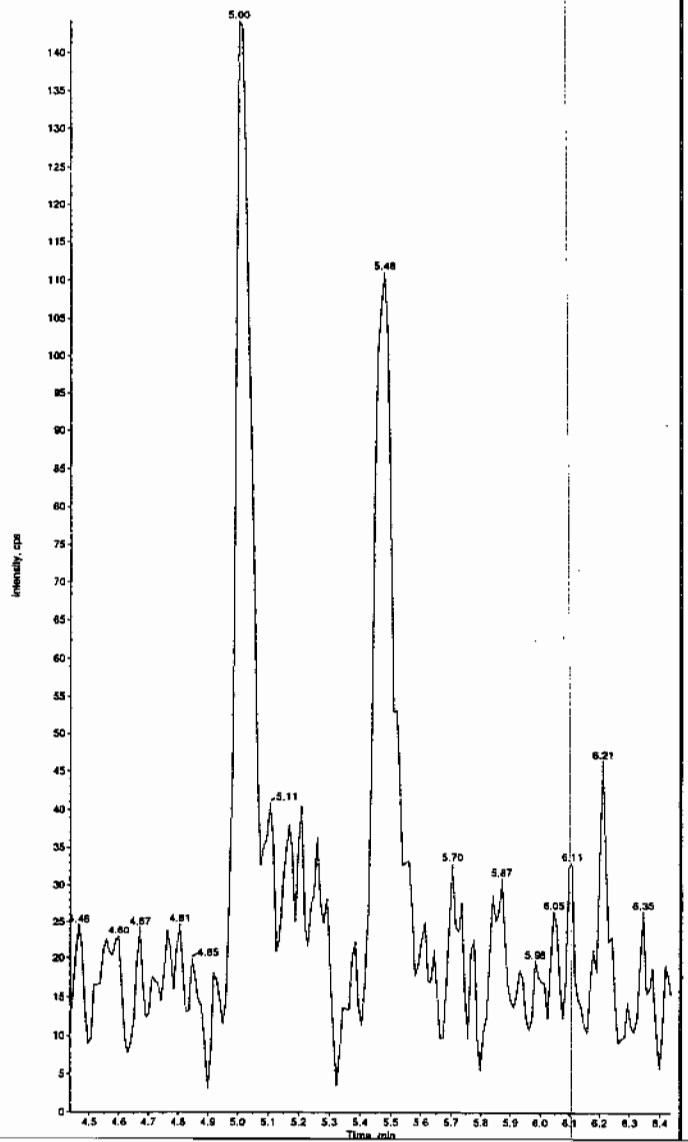

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS03010068.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/2/2010
Acq. Time: 7:52:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.01e+004 counts
Height: 24962.246 cps
Start Time: 10.8 min
End Time: 11.1 min

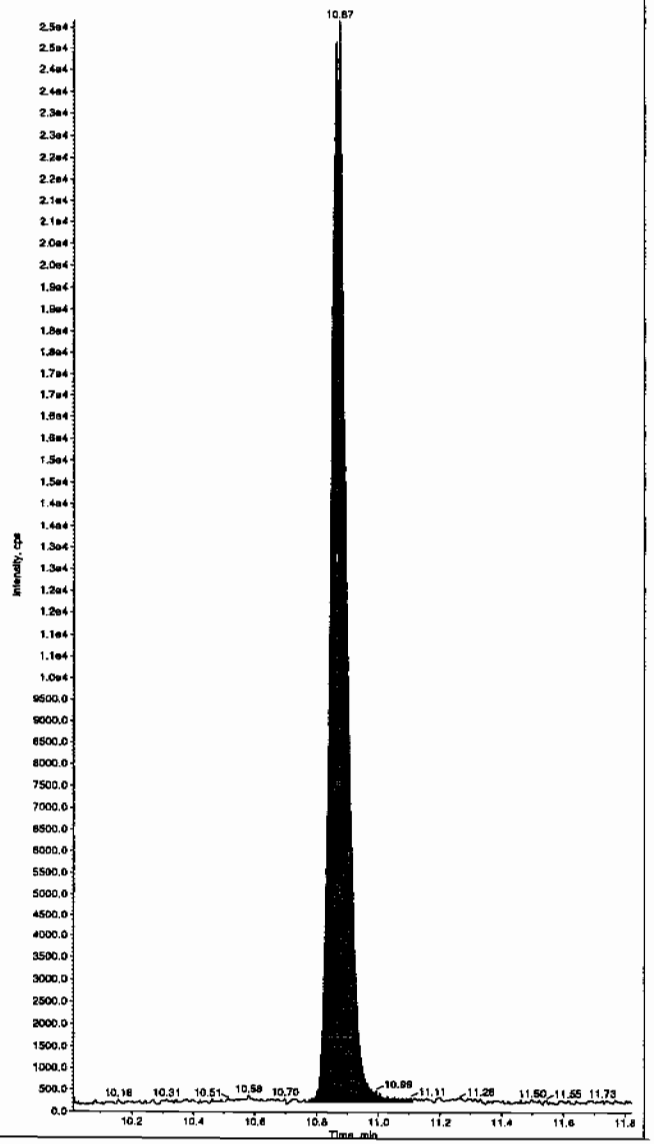

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1564

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 02–MAR–10 11:17

GEL Data File: EXS03010101.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS03010101.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:17:09 AM

Modified: No

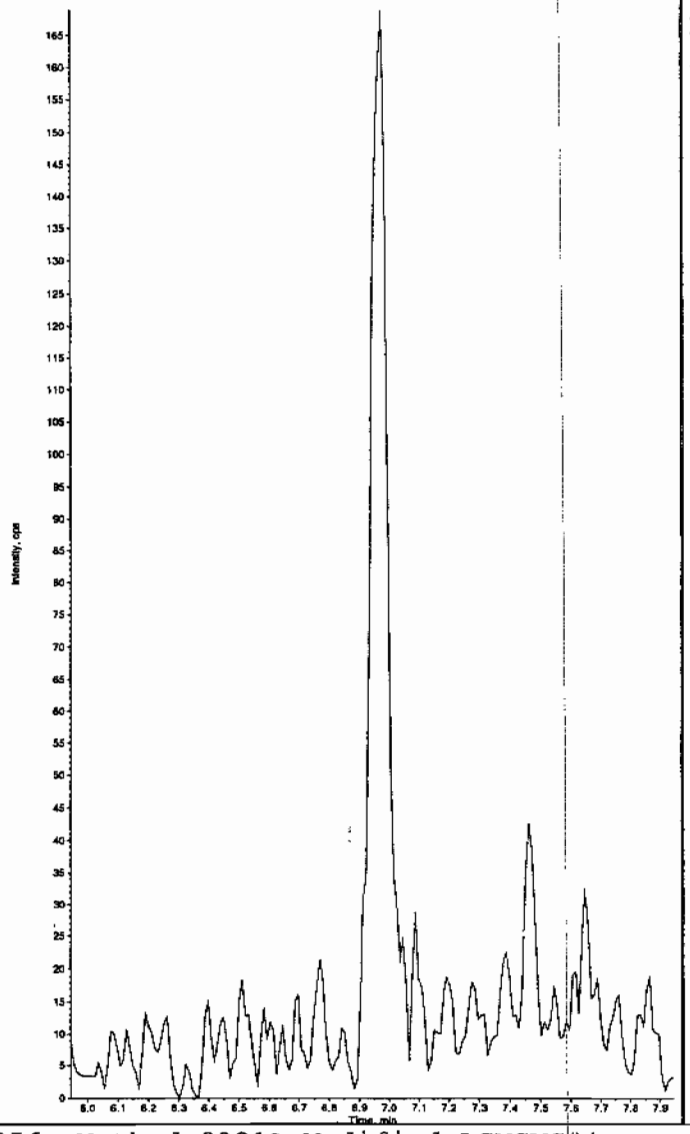

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS03010101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:17:09 AM

Modified: No

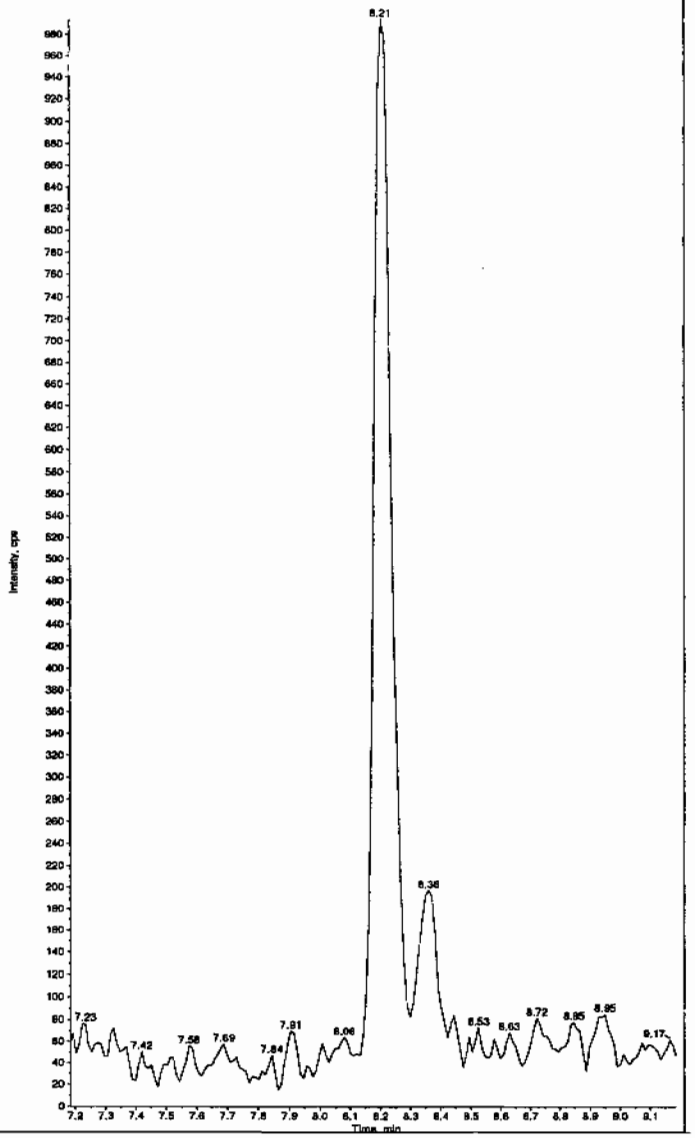

Hrm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03010101.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:17:09 AM

Modified: No

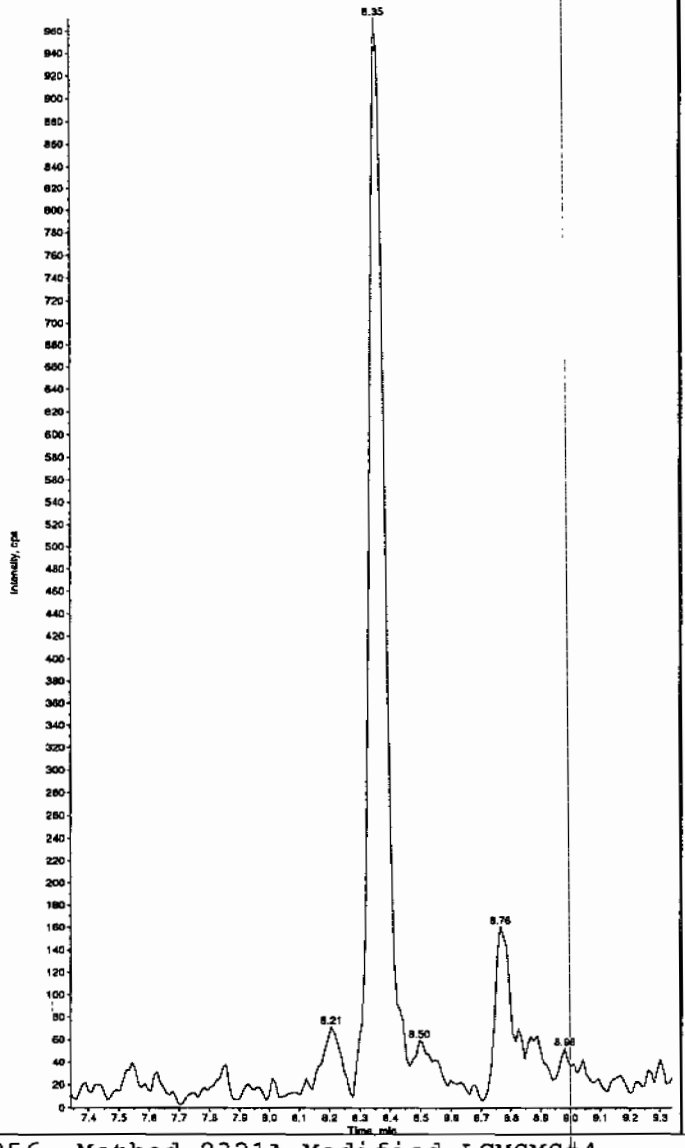

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03010101.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:17:09 AM

Modified: No

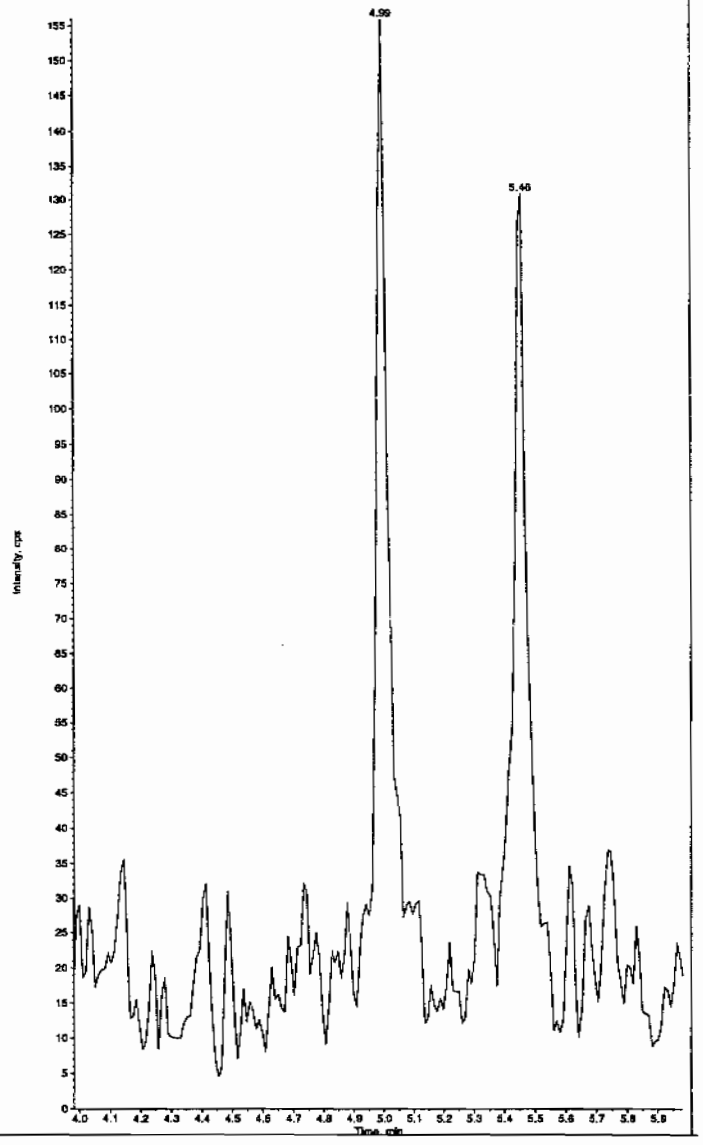

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Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03010101.wiff"
Peak Name: "24-Dismino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:17:09 AM

Modified: No

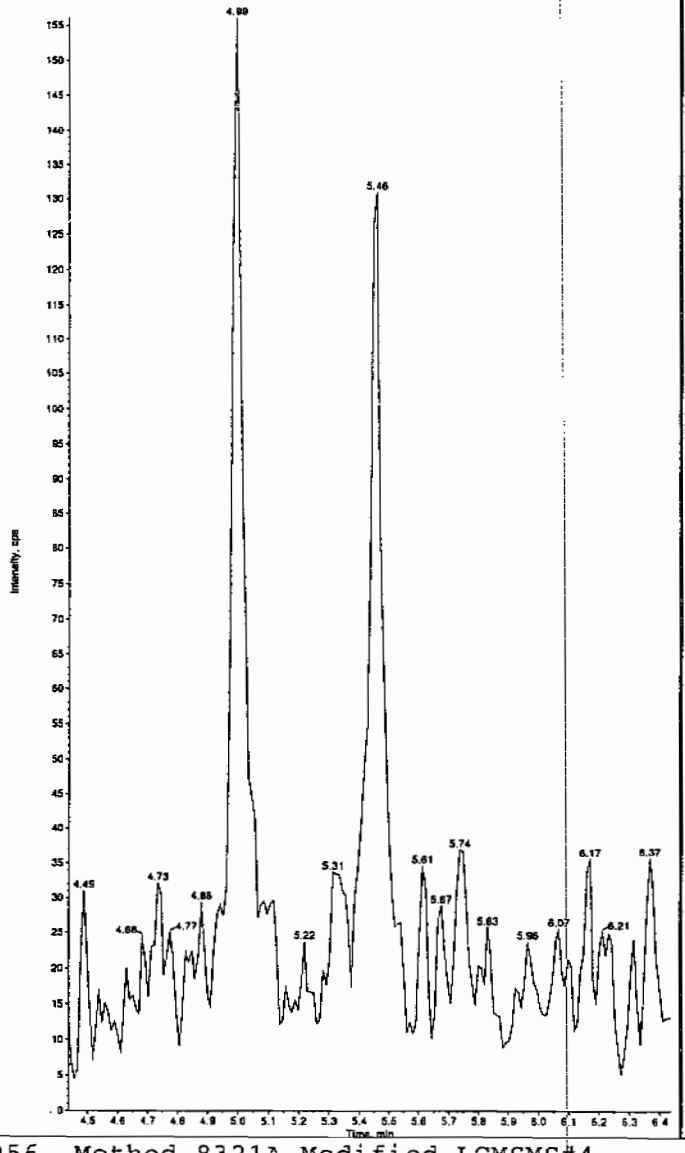

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03010101.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/2/2010
Acq. Time: 11:17:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.03e+004 counts
Height: 24863.672 cps
Start Time: 10.7 min
End Time: 11.1 min

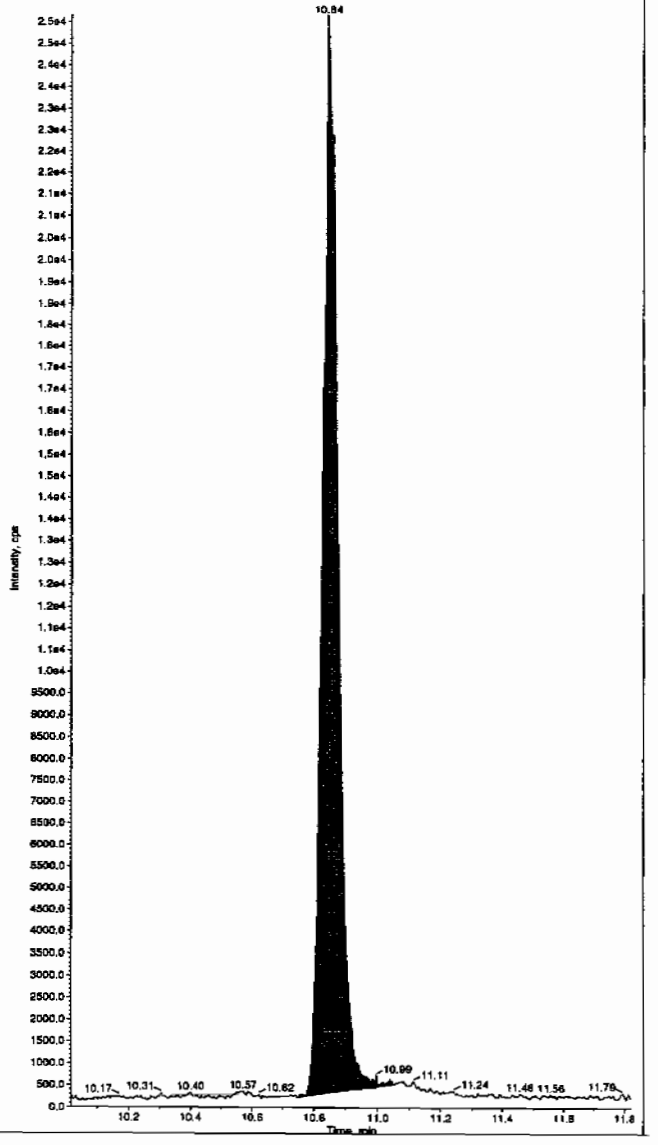

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1564

Lab Code: GEL

Lab Sample ID: XJBLK12

Analysis Date: 02–MAR–10 12:20

GEL Data File: EXS03010105.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lab 3/3/10

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03010105.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 12:20:11 PM

Modified: No

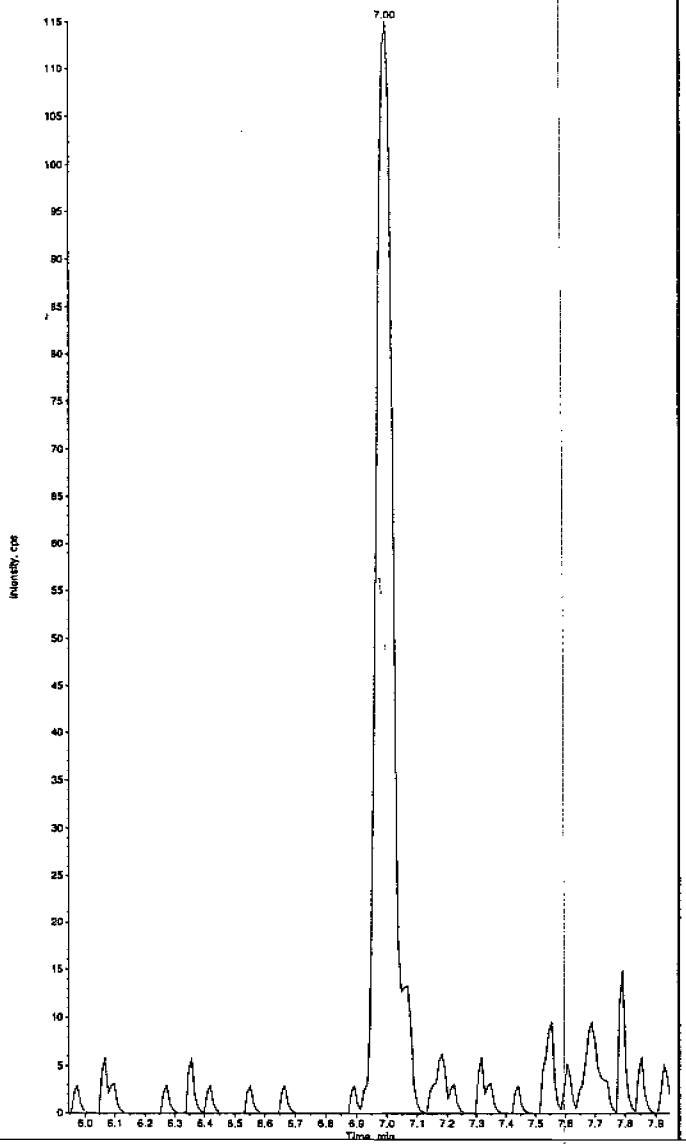

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03010105.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 12:20:11 PM

Modified: No

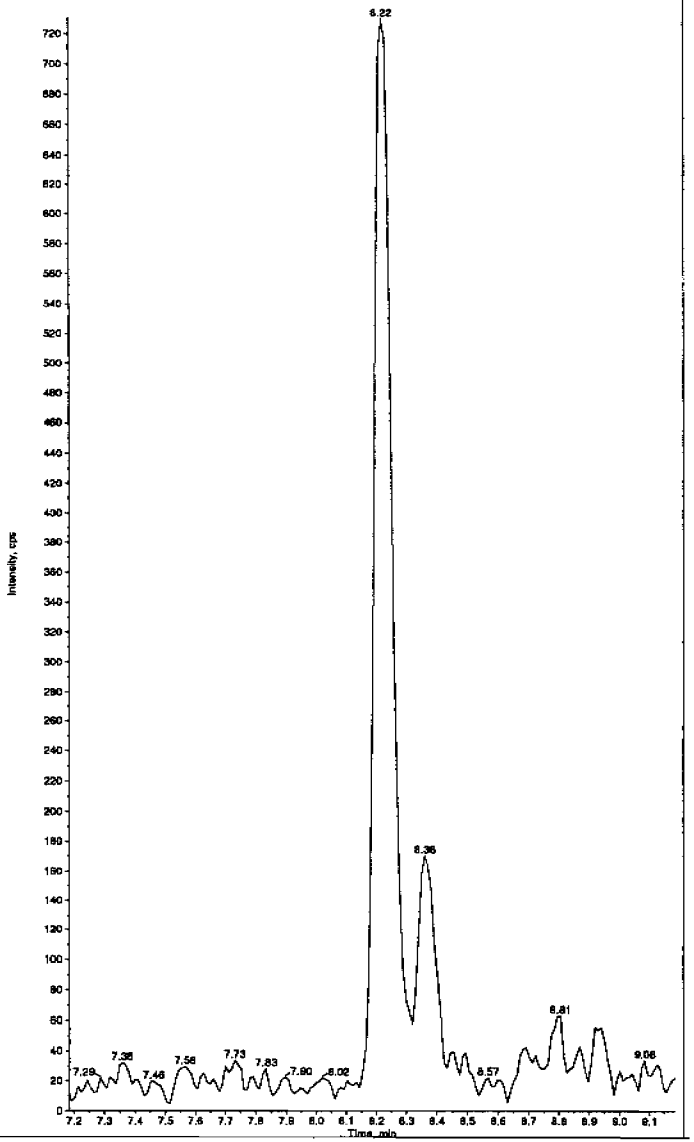

Hum 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS03010105.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 12:20:11 PM

Modified: No

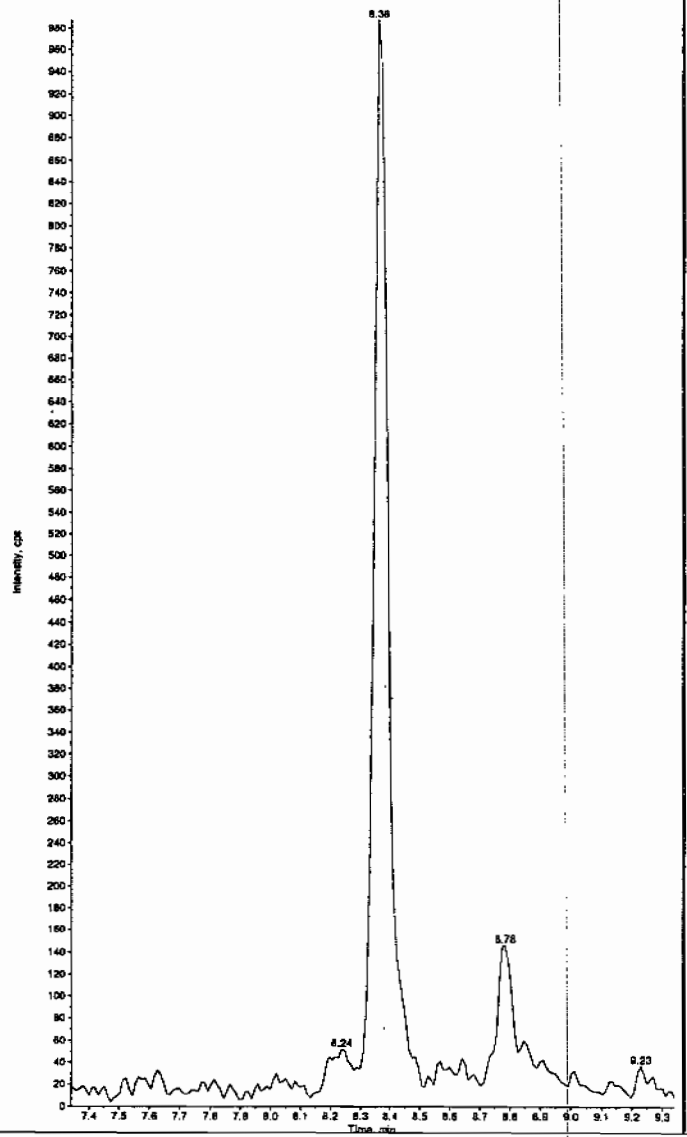

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS03010105.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 12:20:11 PM

Modified: No

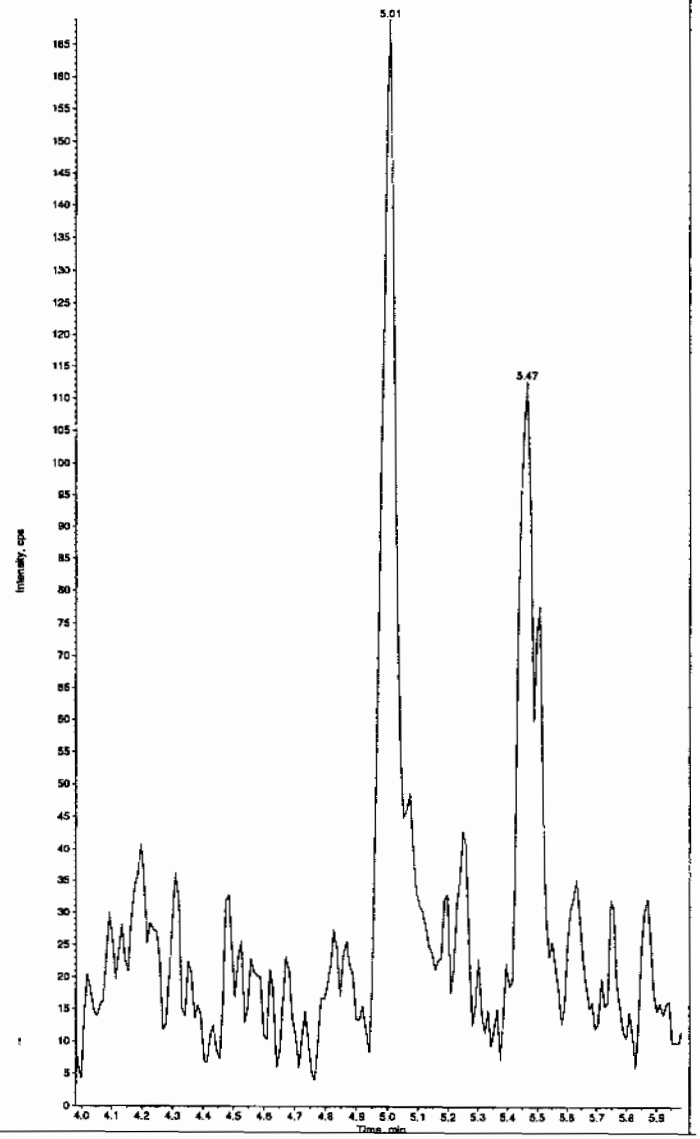

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS03010105.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 12:20:11 PM

Modified: No

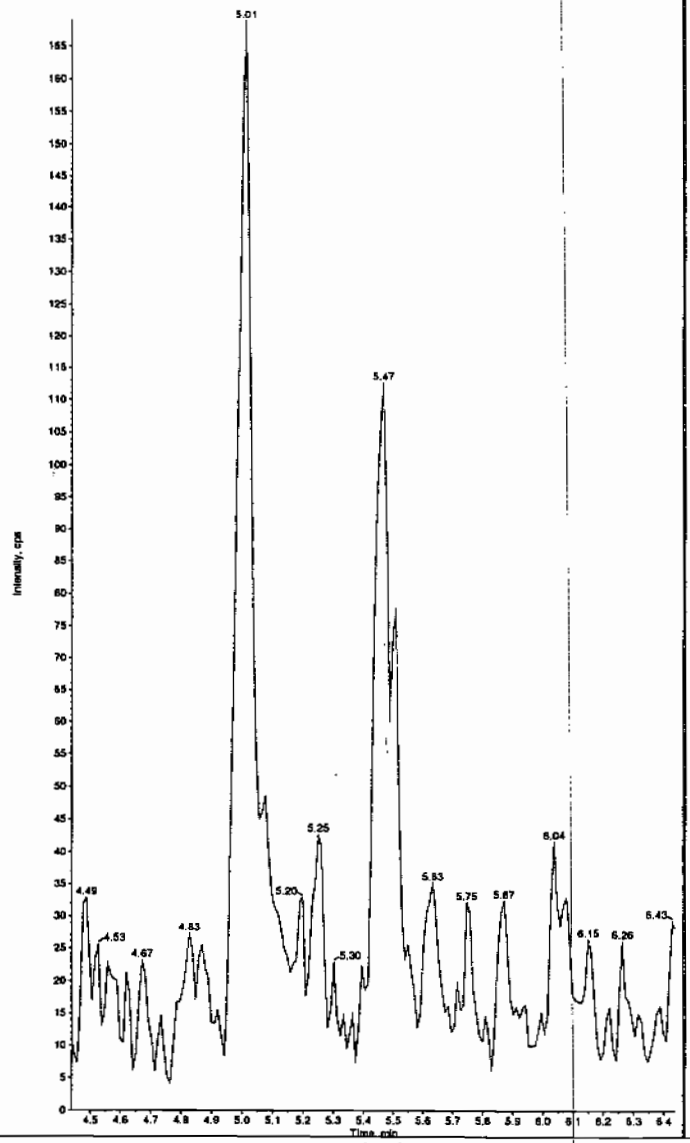

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS03010105.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/2/2010
Acq. Time: 12:20:11 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.26e+004 counts
Height: 21561.806 cps
Start Time: 10.8 min
End Time: 11.0 min

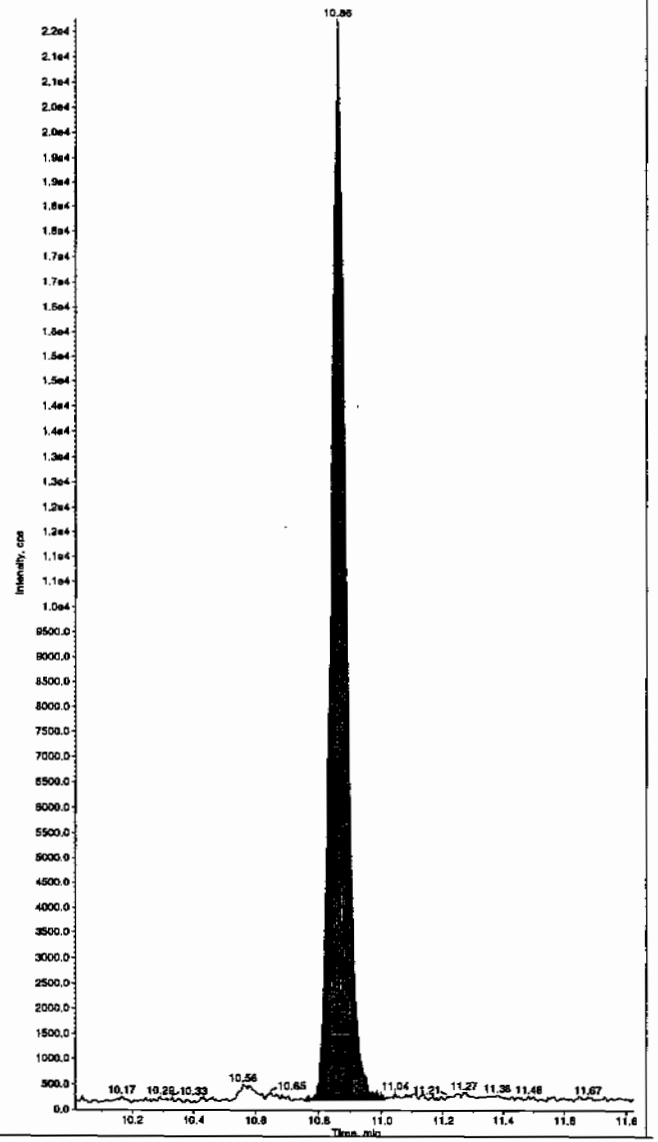

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1564

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 02-MAR-10 14:10

GEL Data File: EXS03010112.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS030101 12.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:10:39 PM

Modified: No

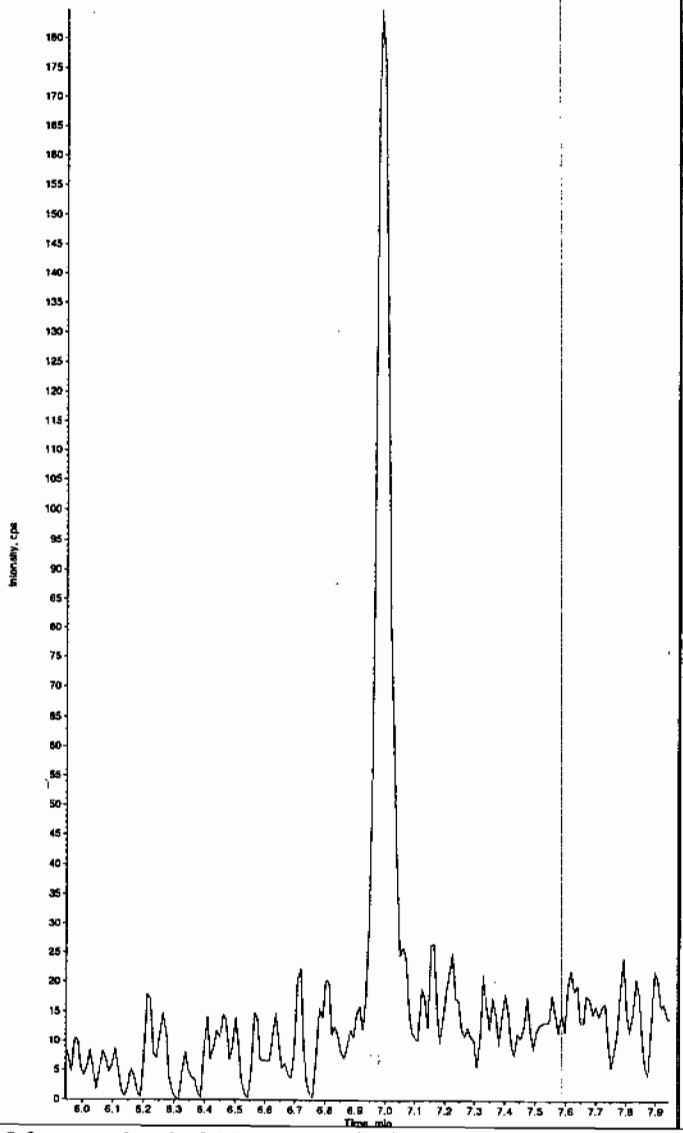

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS030101 12.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:10:39 PM

Modified: No

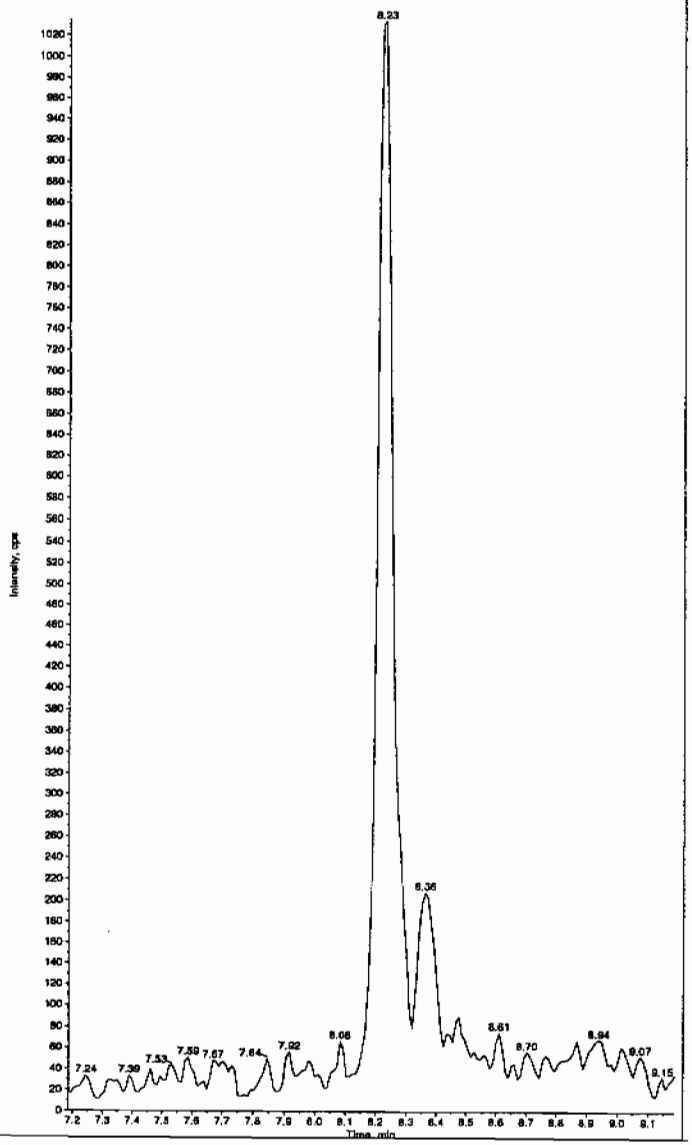

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS03010112.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:10:39 PM

Modified: No

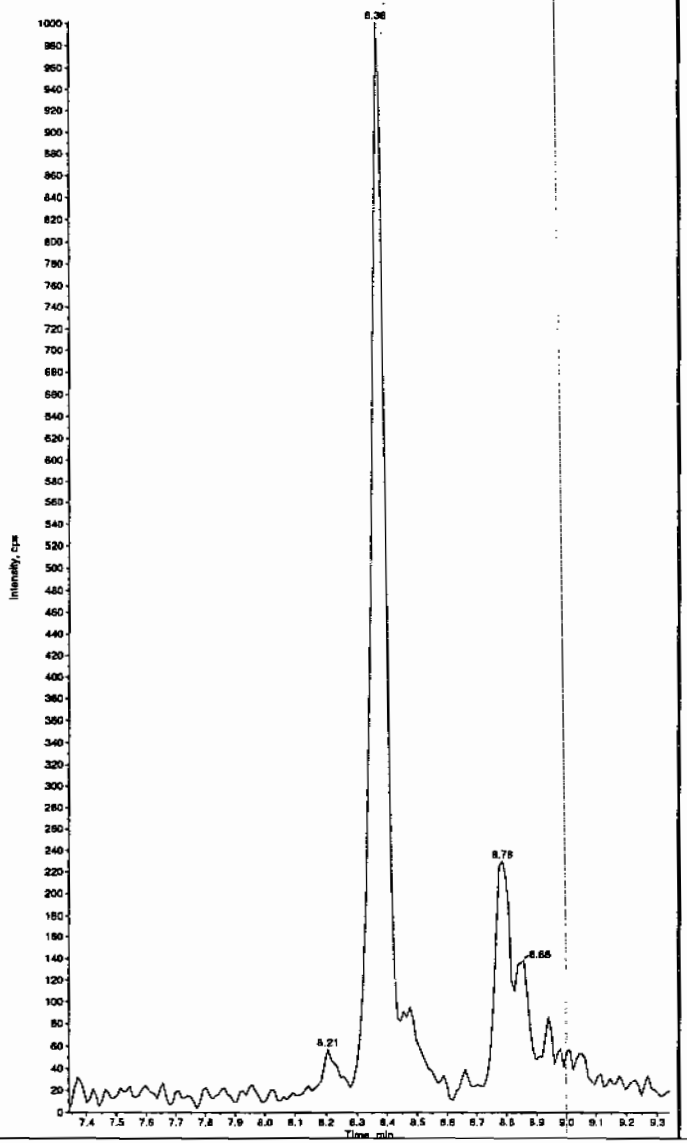

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS03010112.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:10:39 PM

Modified: No

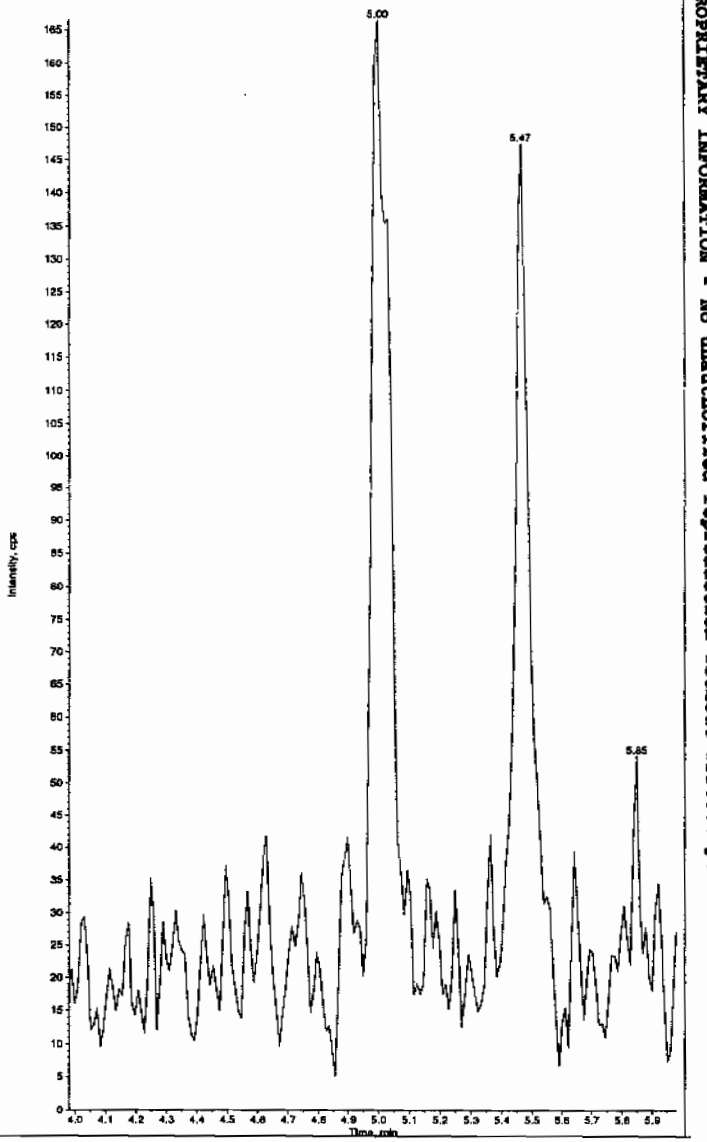

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS03010112.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:10:39 PM

Modified: No

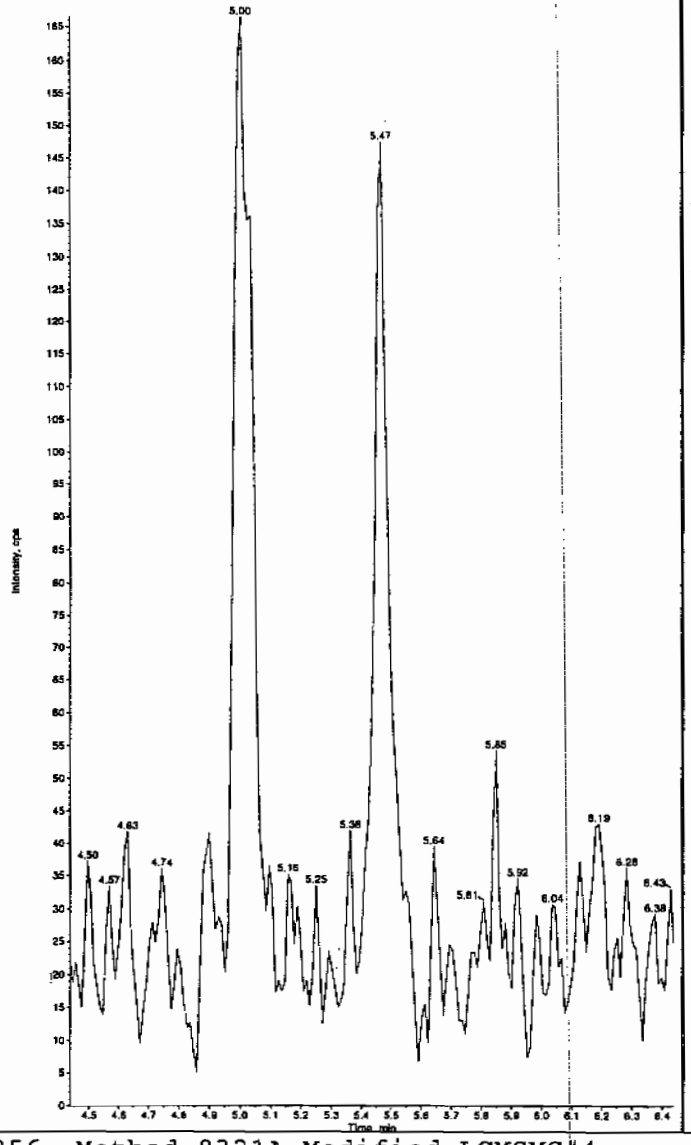

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS03010112.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 3/2/2010
Acq. Time: 2:10:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.92e+004 counts
Height: 28968.969 cps
Start Time: 10.7 min
End Time: 11.1 min

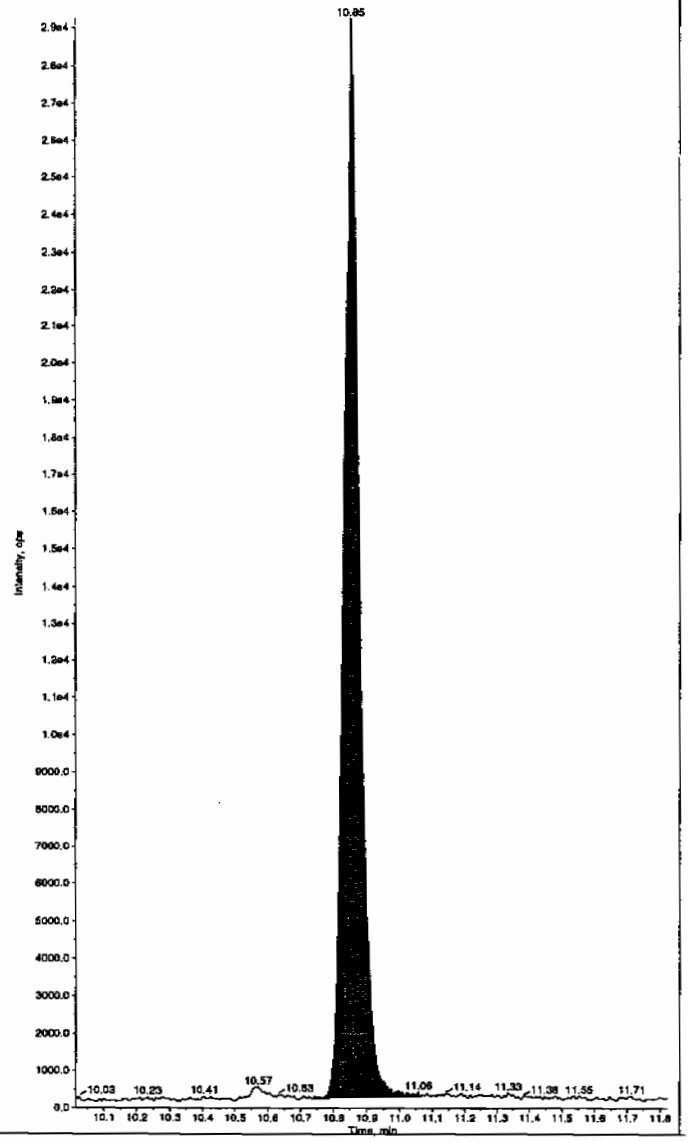

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1564

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 02–MAR–10 17:35

GEL Data File: EXS03010125.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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fcm 3/3/10

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS03010125.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:35:36 PM

Modified: No

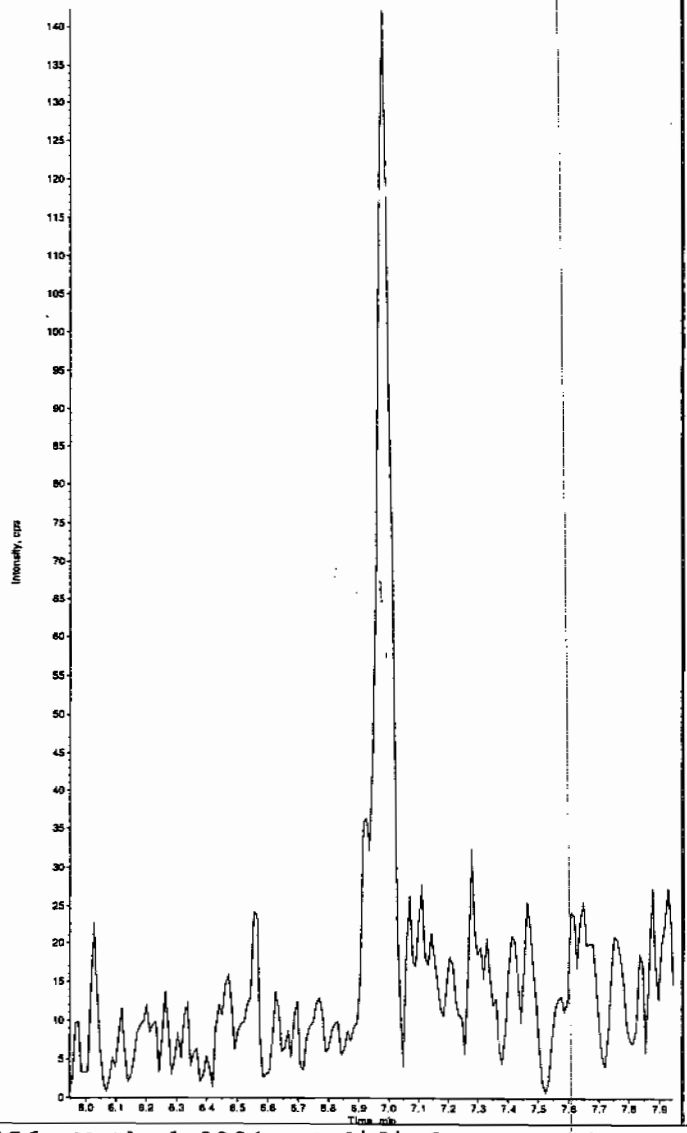

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS03010125.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:35:36 PM

Modified: No

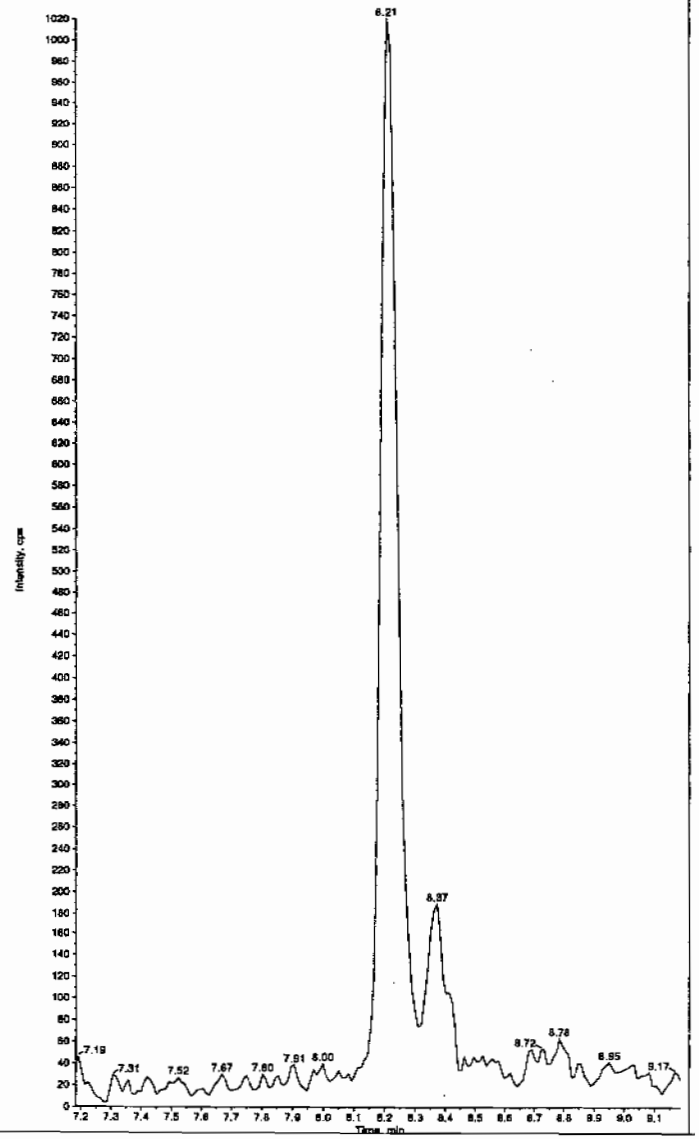

HM 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS03010125.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:35:36 PM

Modified: No

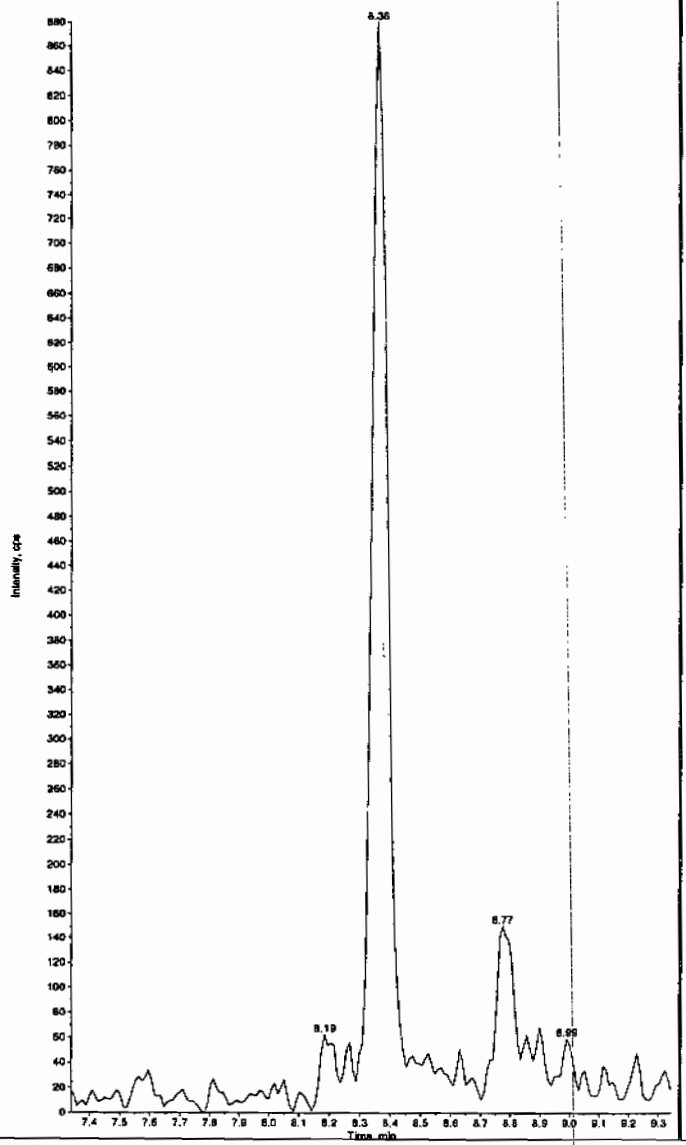

Sample Name: "XIBLK14" Sample ID: "|1|LER" File: "EXS03010125.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:35:36 PM

Modified: No

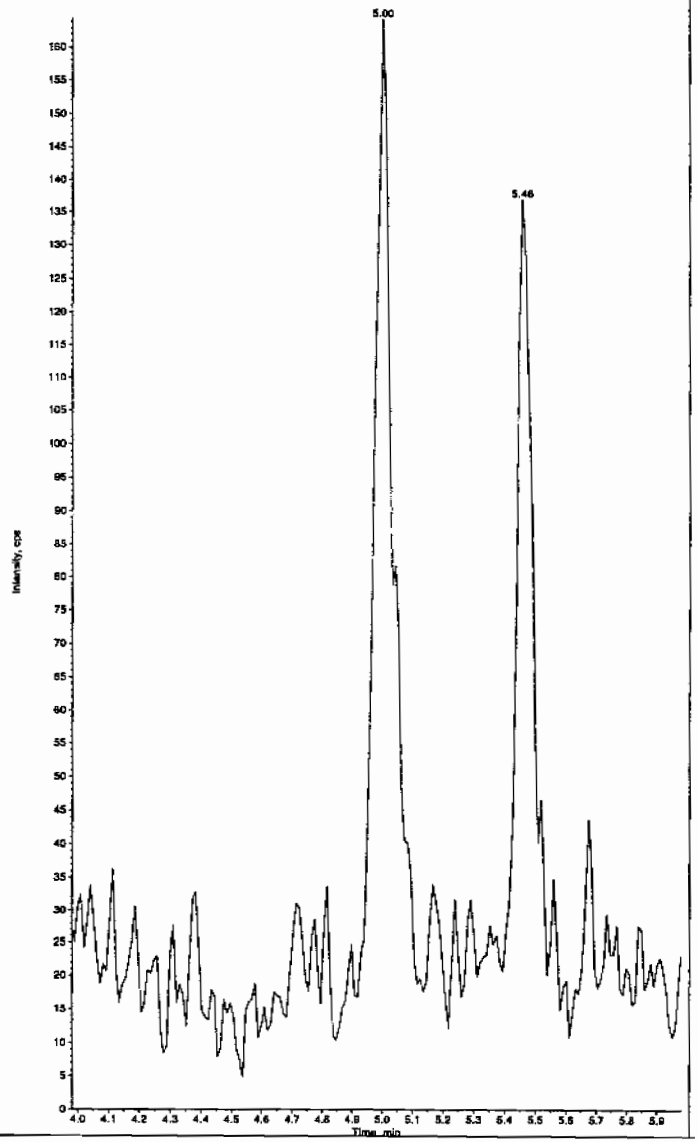

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS03010125.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:35:36 PM

Modified: No

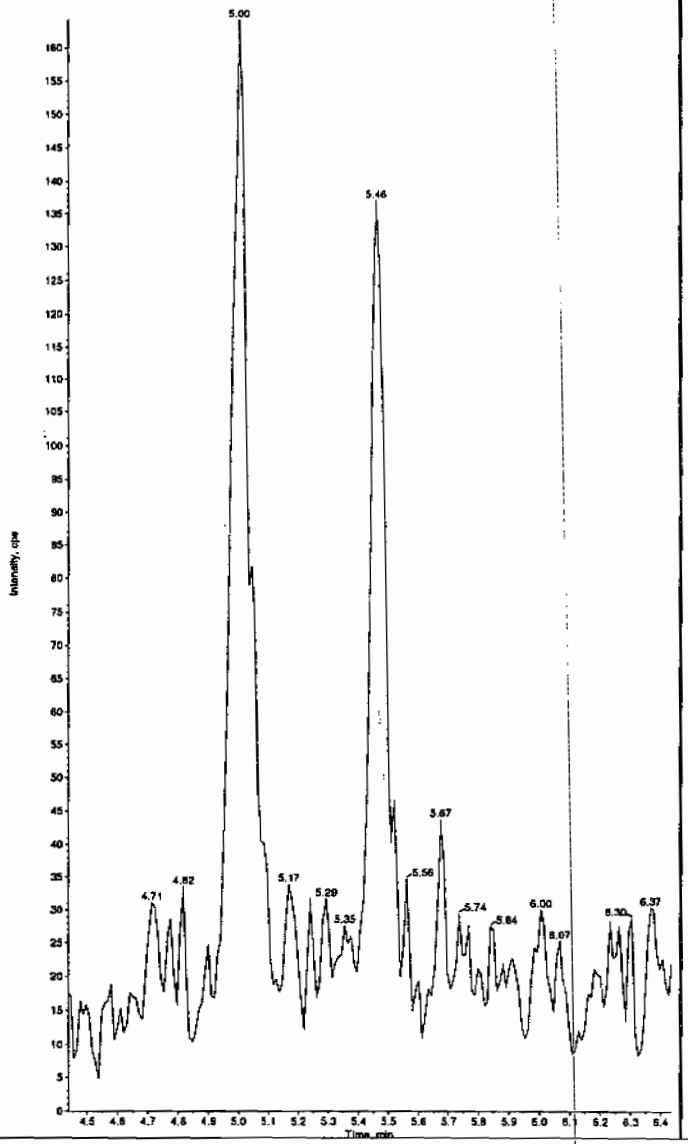

Sample Name: "XIBLK14" Sample ID: "[1]LER" File: "EXS03010125.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 3/2/2010
Acq. Time: 5:35:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 9.86e+004 counts
Height: 28696.381 cps
Start Time: 10.8 min
End Time: 11.1 min

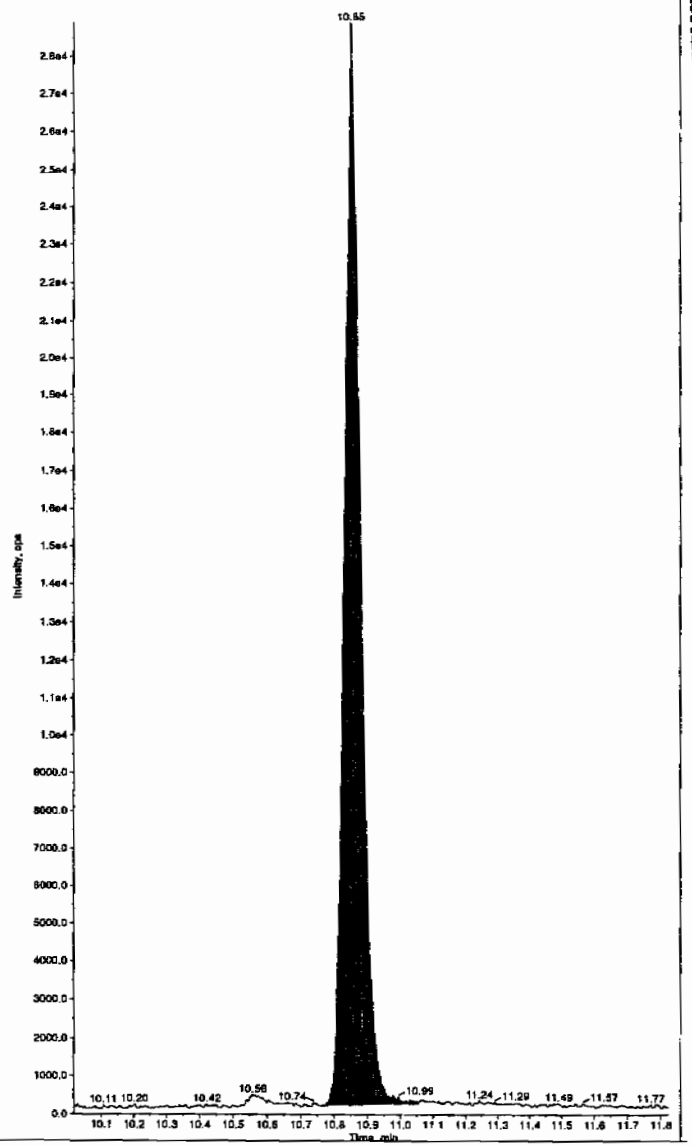

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

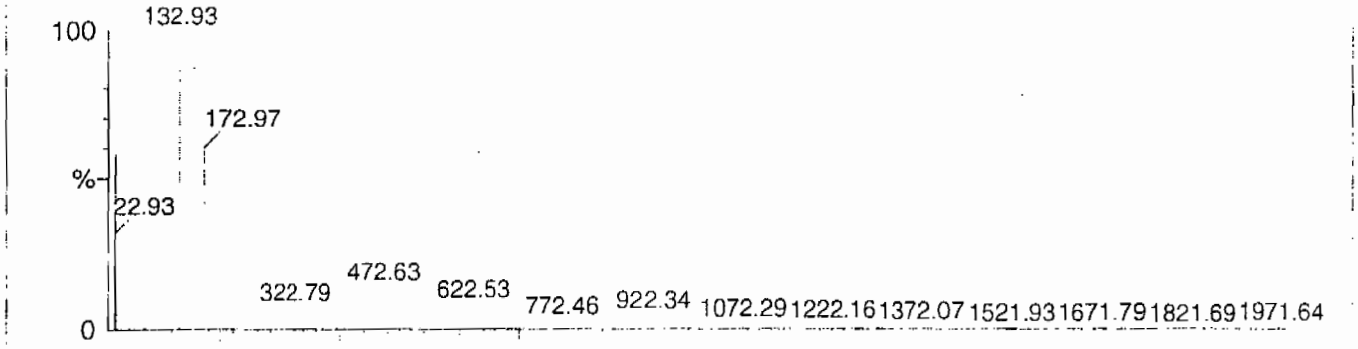

Reference file: Naics2

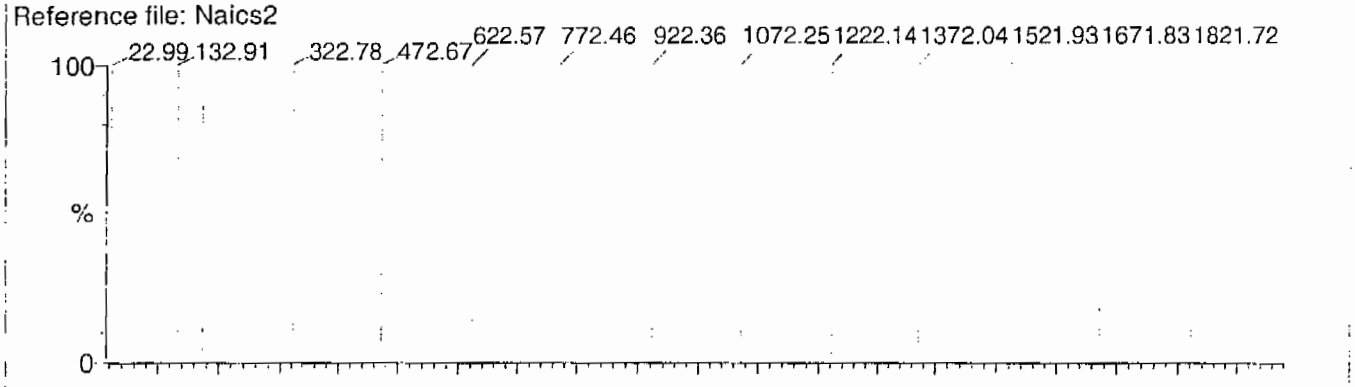

Mass difference (Raw - Ref mass)

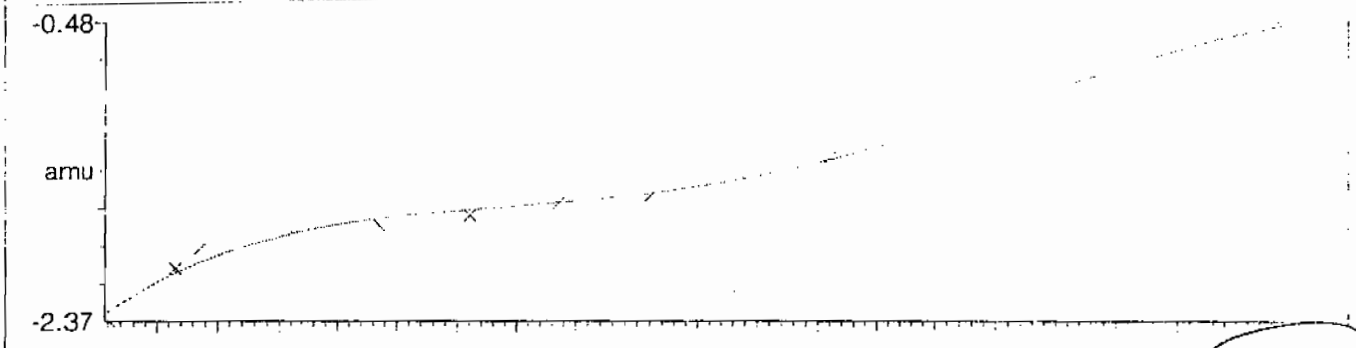

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

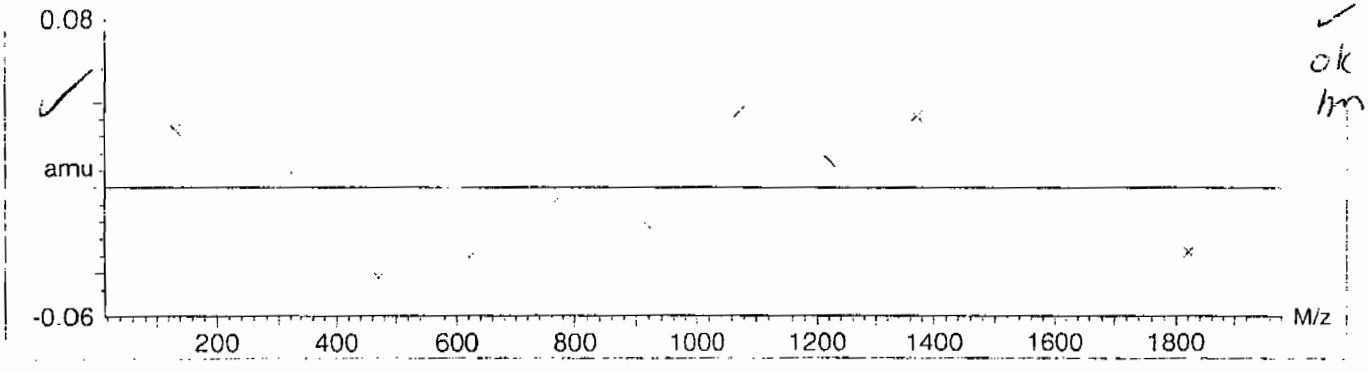

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

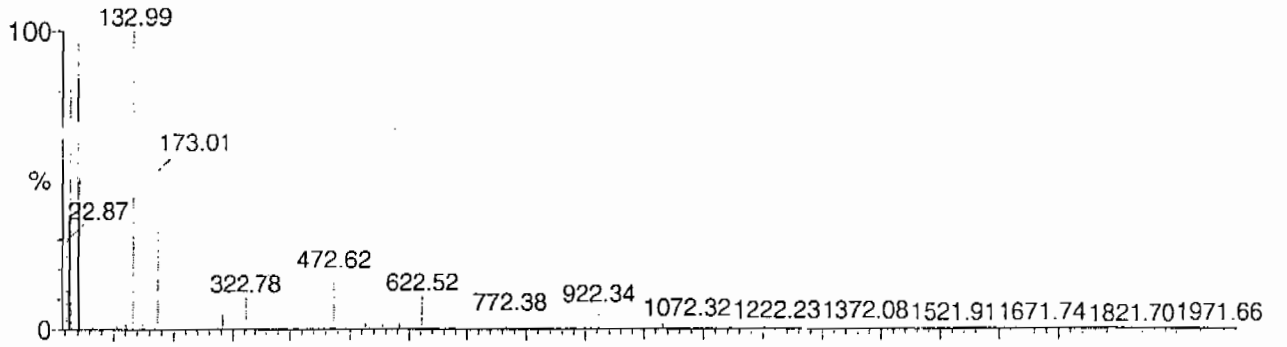

Reference file: Naics2

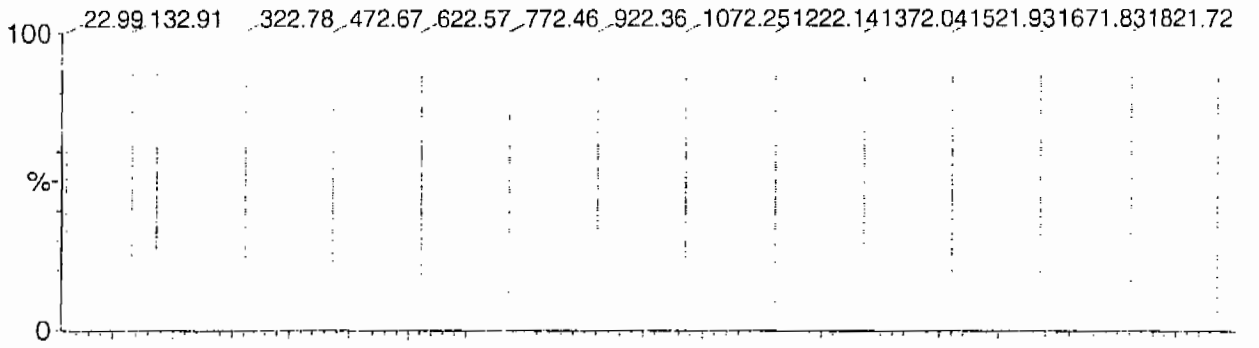

Mass difference (Raw - Ref mass)

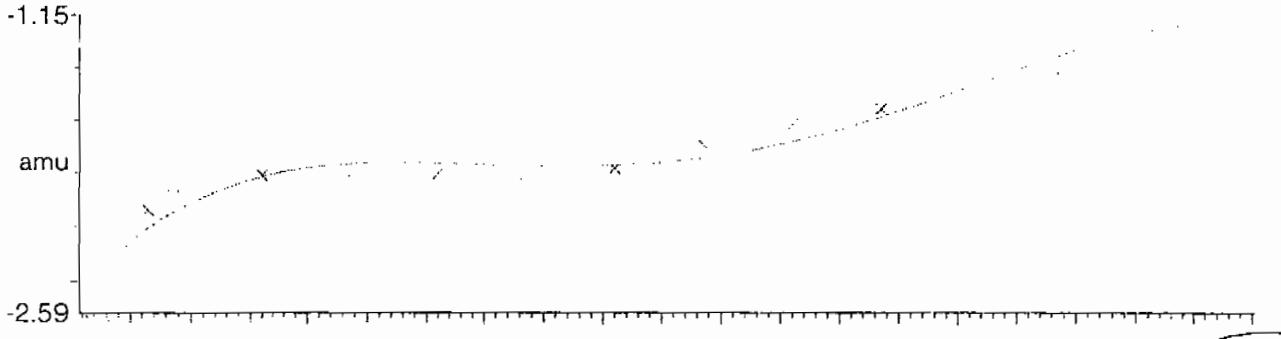

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

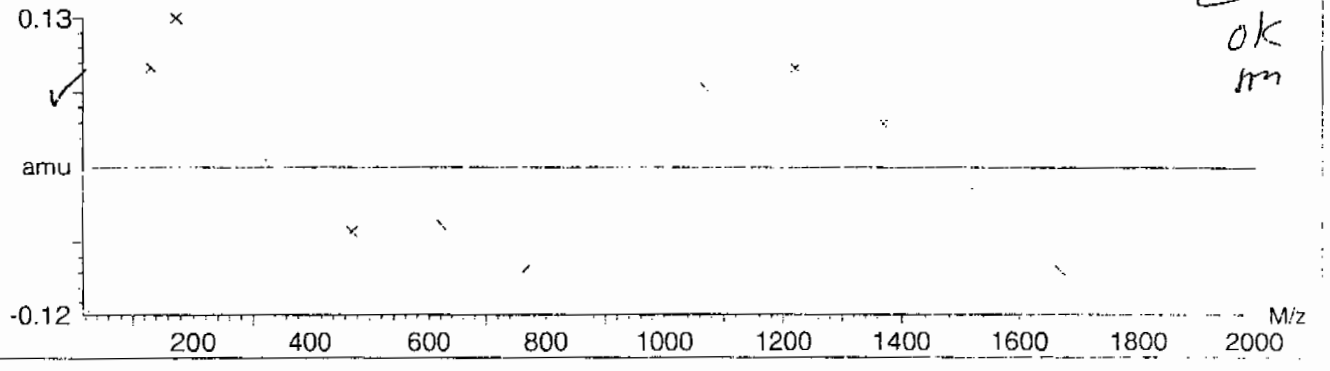

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

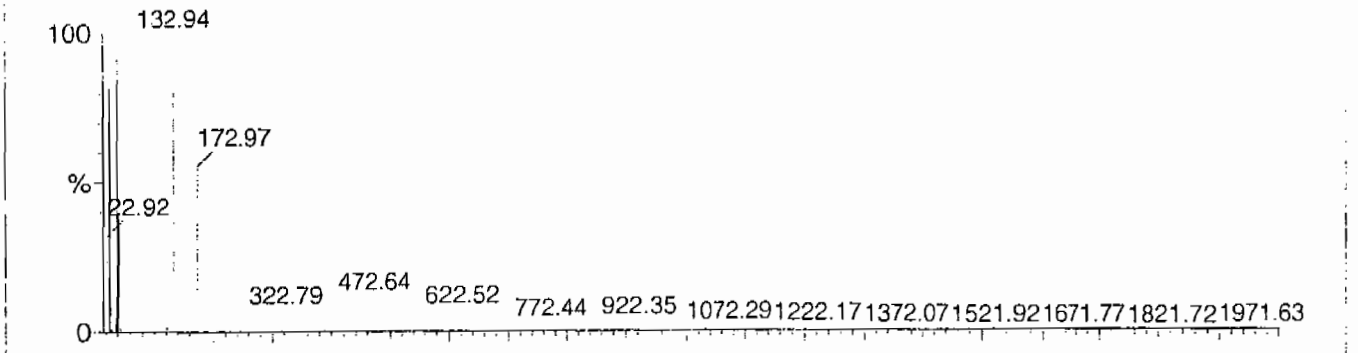

Reference file: Naics2

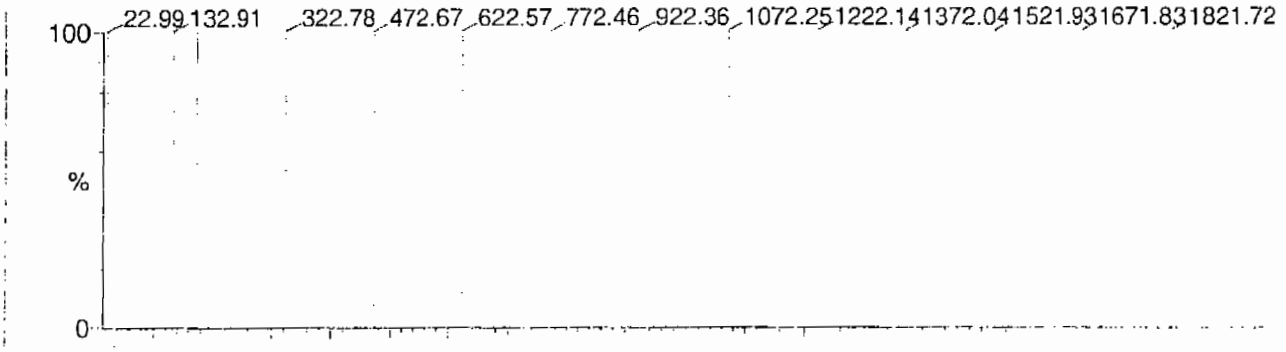

Mass difference (Raw - Ref mass)

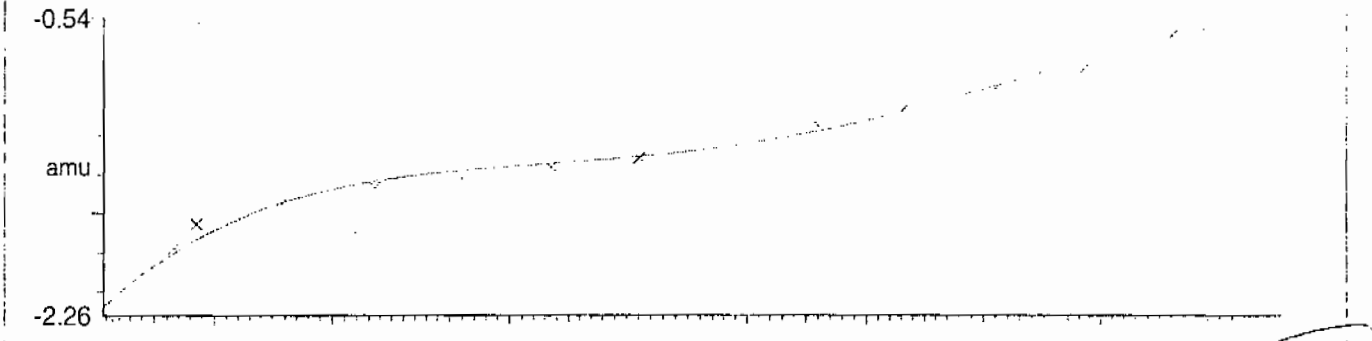

Residuals

Mean residual = 3.486639e-9 ± 0.040487

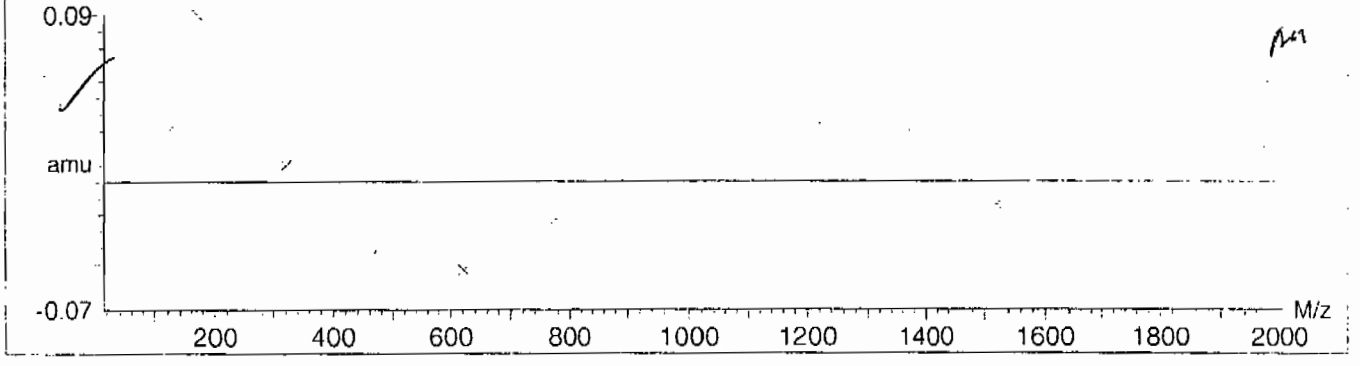

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

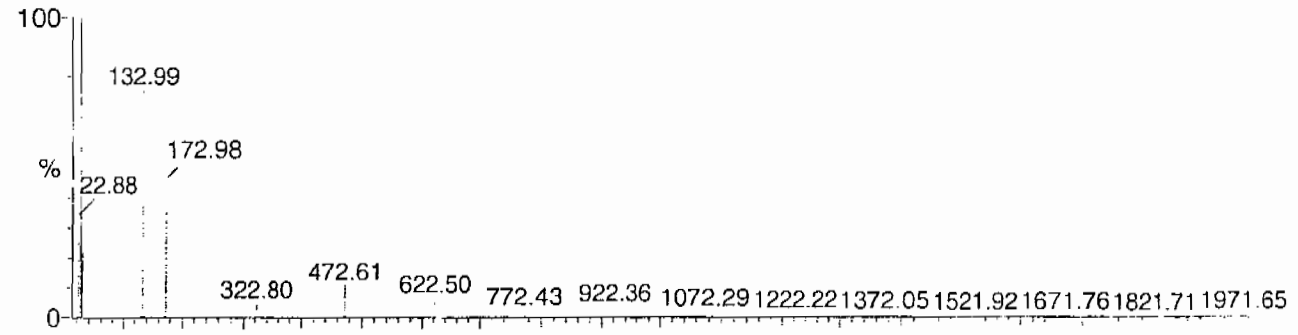

Reference file: Naics2

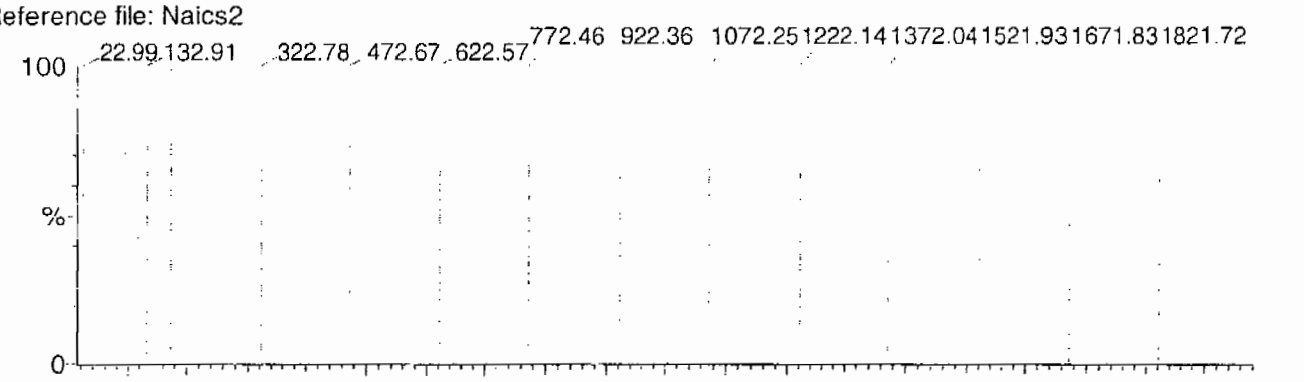

Mass difference (Raw - Ref mass)

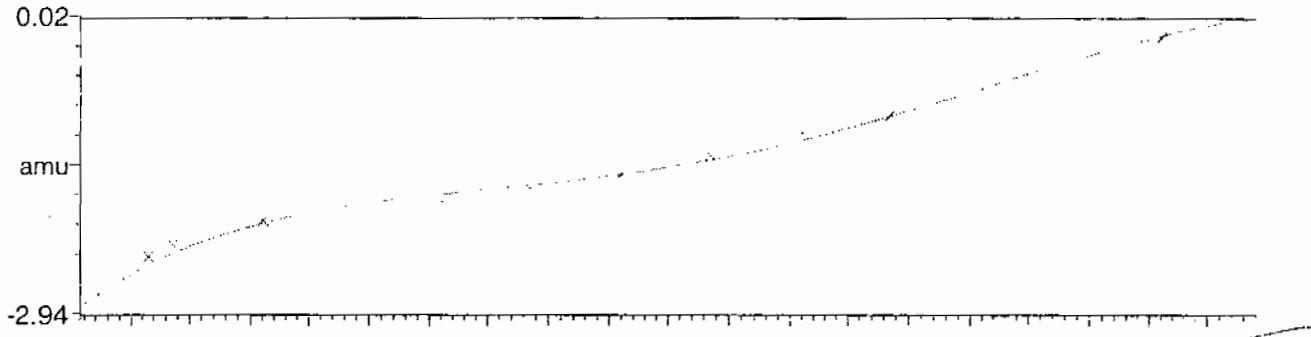

Residuals

Mean residual = 2.048910e-9 ± 0.057803

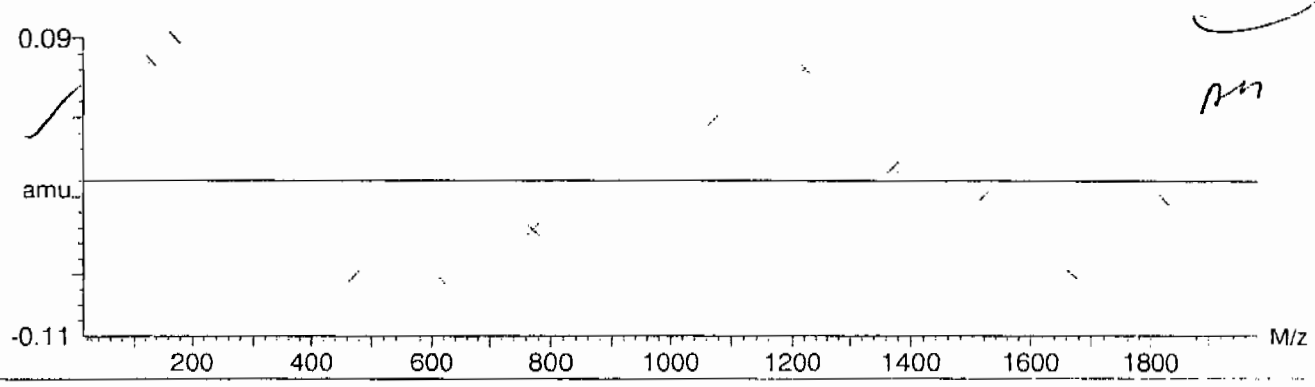

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

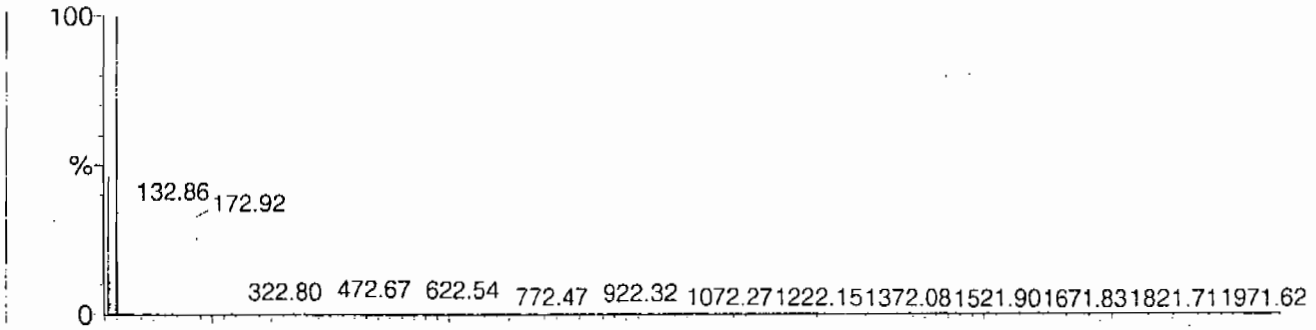

Reference file: Naics2

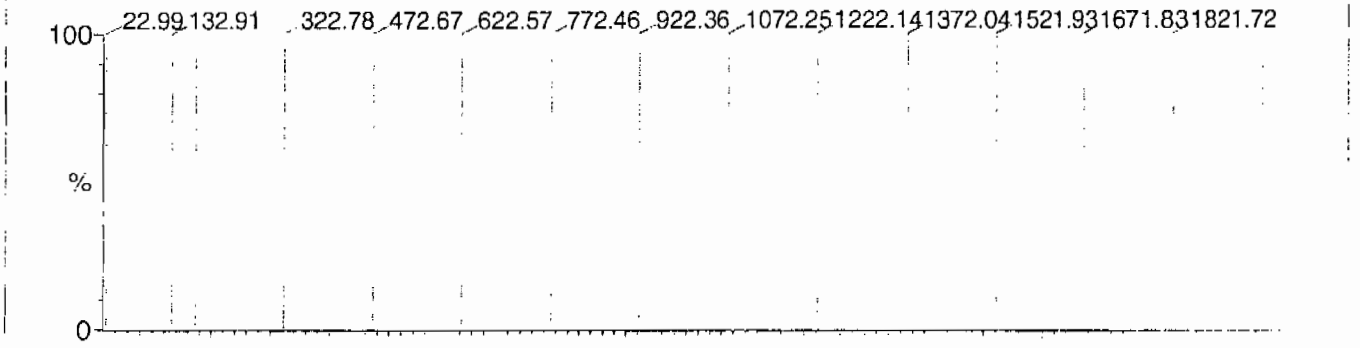

Mass difference (Raw - Ref mass)

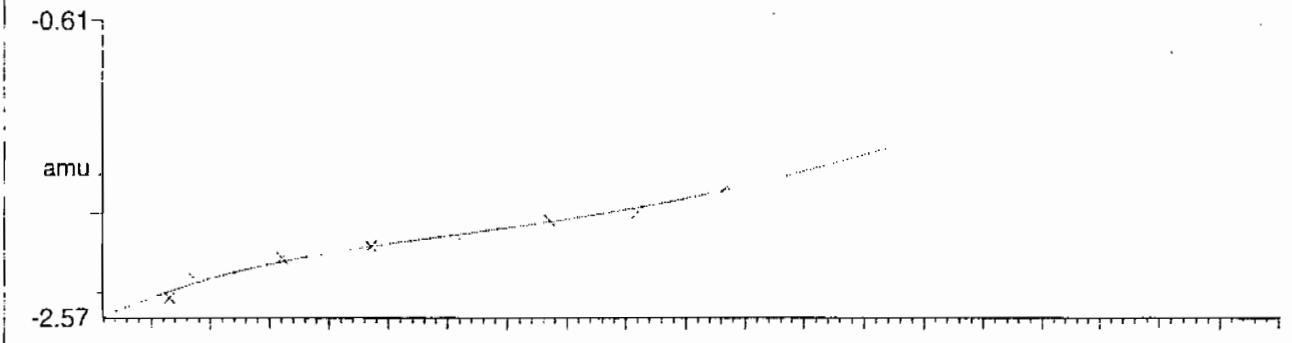

Residuals

Mean residual = -2.623502e-9 ± 0.025622

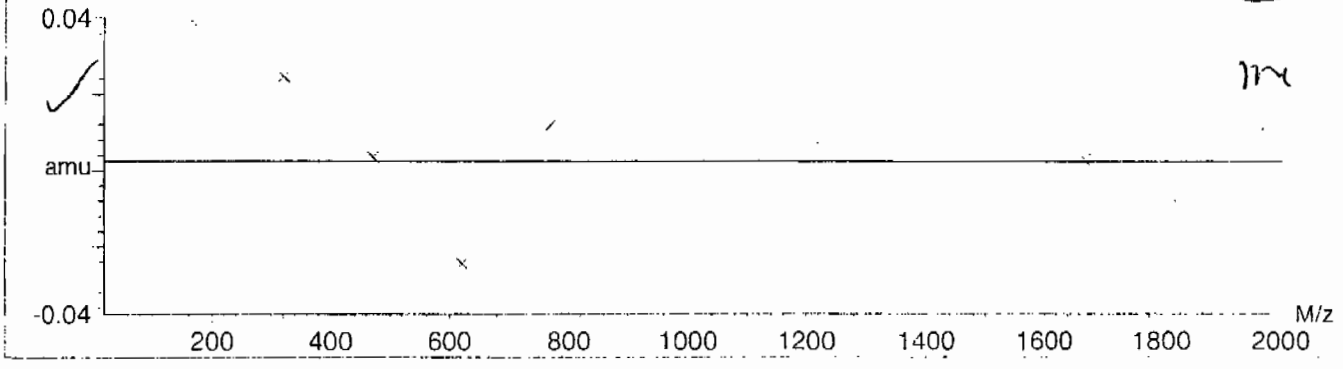

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

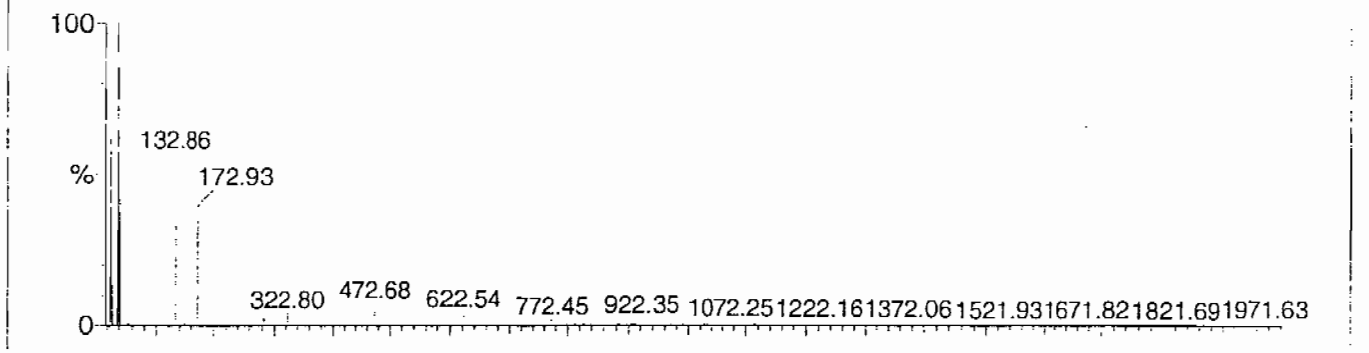

Reference file: Naics2

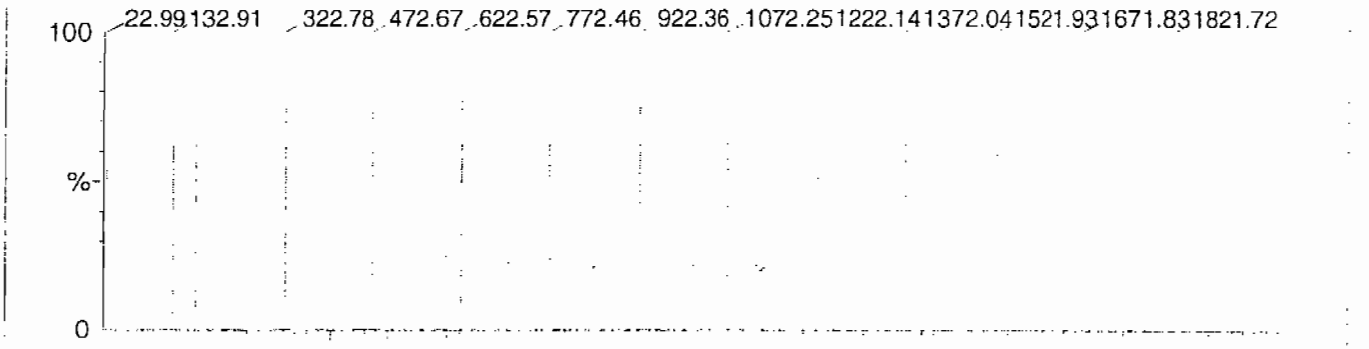

Mass difference (Raw - Ref mass)

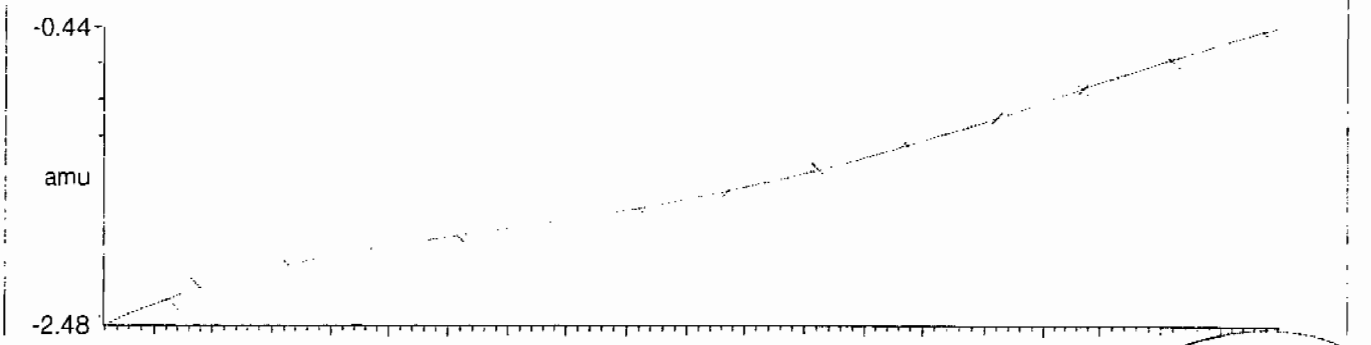

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

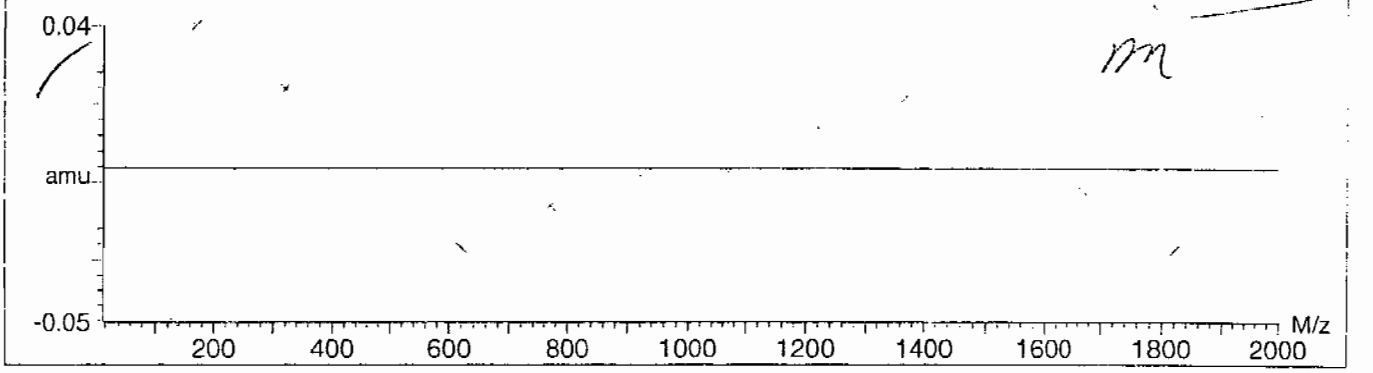

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1564

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			21250000	10.55	98666666.667	14.717
Upper Limit			27625000	11.05	128266666.667	15.217
Lower Limit			14875000	10.05	69066666.6669	14.217
MB for batch 950080	13-mar-10 17:25	EXP0312077.w	20200000	10.6	91800000	14.8
LCS for batch 950080	13-mar-10 17:52	EXP0312078.w	19400000	10.6	94000000	14.8
RE15-10-7332	13-mar-10 18:18	EXP0312079.w	19500000	10.6	93000000	14.8
RE15-10-7333	13-mar-10 18:45	EXP0312080.w	20600000	10.6	93200000	14.9
RE15-10-7342	13-mar-10 19:11	EXP0312081.w	18100000	10.6	88200000	14.8
RE15-10-7336	13-mar-10 19:37	EXP0312082.w	19400000	10.6	89600000	14.9
RE15-10-7337	13-mar-10 20:04	EXP0312083.w	19000000	10.6	86400000	14.9
RE15-10-7334	13-mar-10 20:30	EXP0312084.w	18800000	10.7	80800000	14.9
RE15-10-7335	13-mar-10 20:57	EXP0312085.w	19300000	10.6	83900000	14.9
RE15-10-7338	13-mar-10 21:23	EXP0312086.w	18800000	10.6	83200000	14.9
RE15-10-7339	13-mar-10 23:09	EXP0312090.w	18300000	10.7	85900000	14.9

IS1 (DNB) = 1,3-Dinitrobenzene-d4
IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312079.wiff

Date Analyzed: 13-MAR-10 18:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312079.wiff	**Acquisition Date**	3/13/2010 6:18:38 PM
Sample Name	246318001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

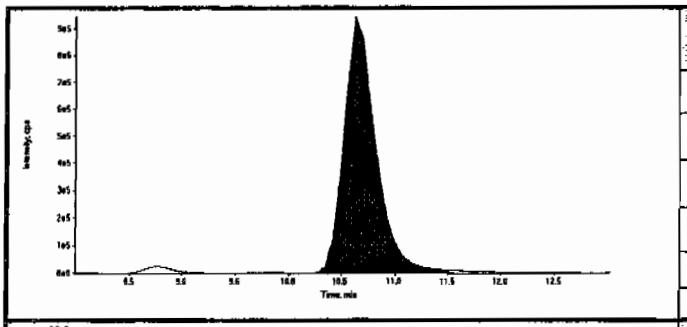

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

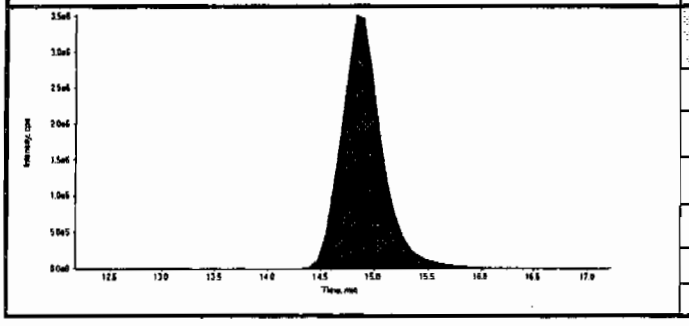

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	93000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

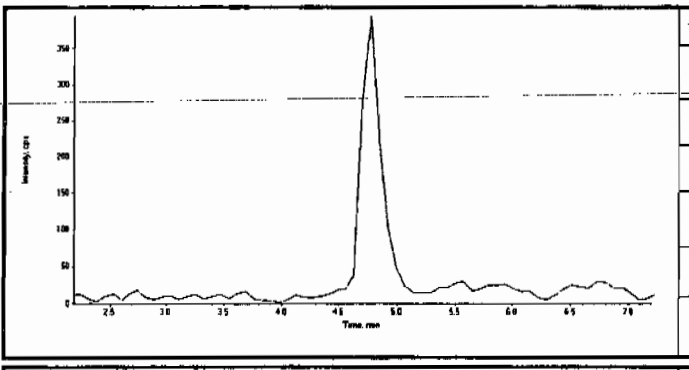

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

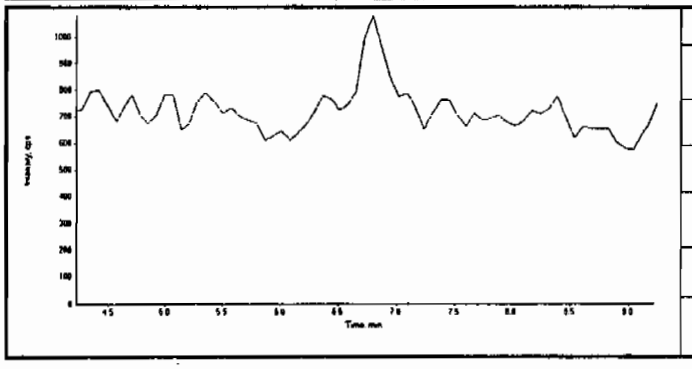

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lan 3/24/10

Anne 03/24/10

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Data File	EXP0312079.wiff	**Acquisition Date**	3/13/2010 6:18:38 PM
Sample Name	246318001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

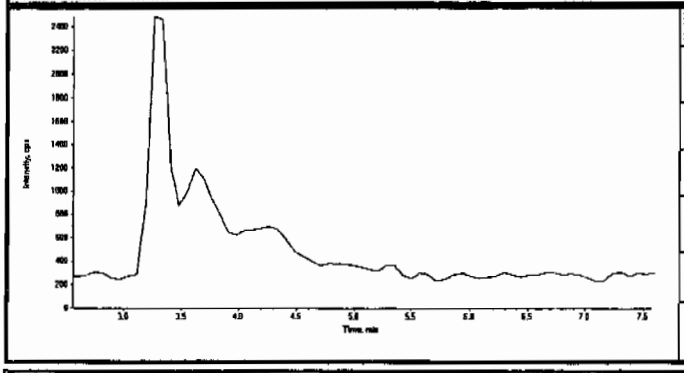

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

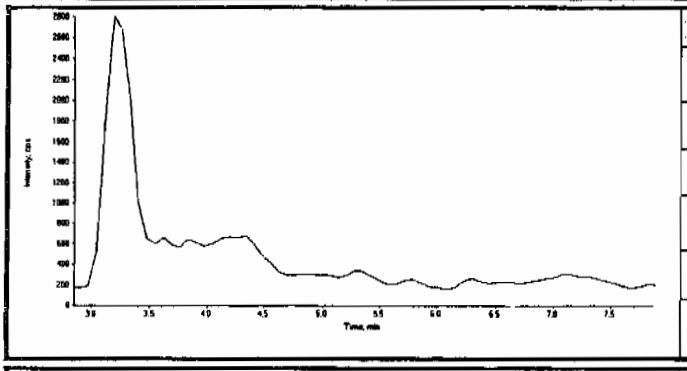

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

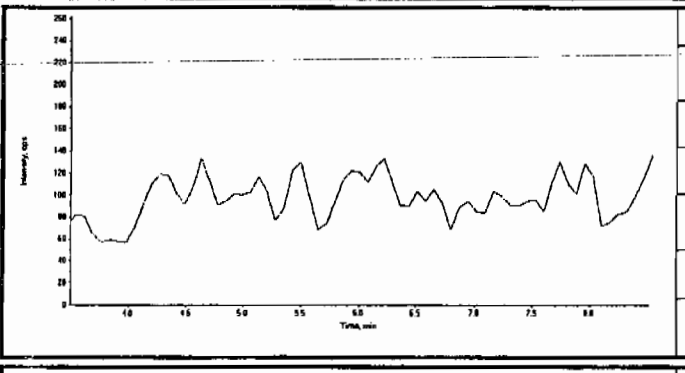

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

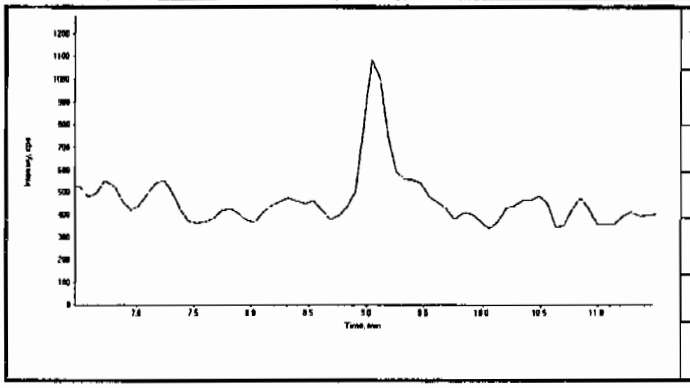

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312079.wiff	**Acquisition Date**	3/13/2010 6:18:38 PM
Sample Name	246318001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

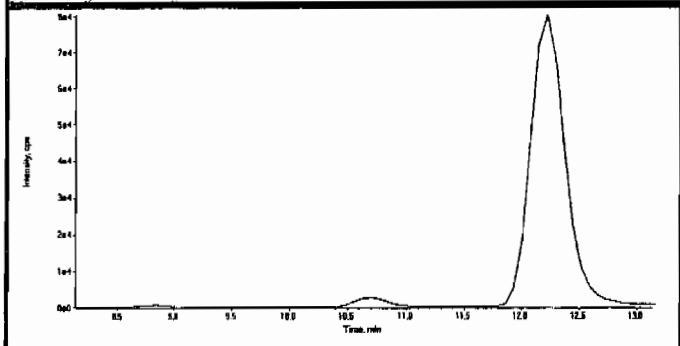

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

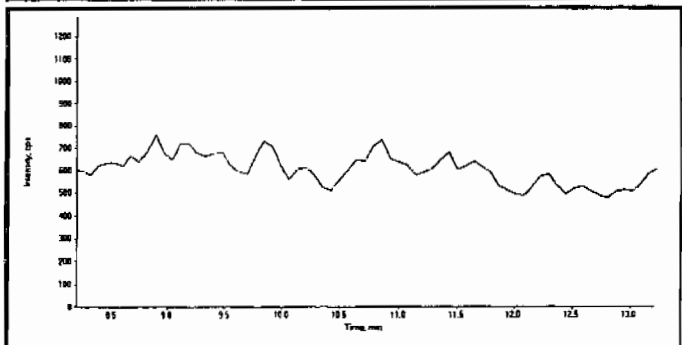

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

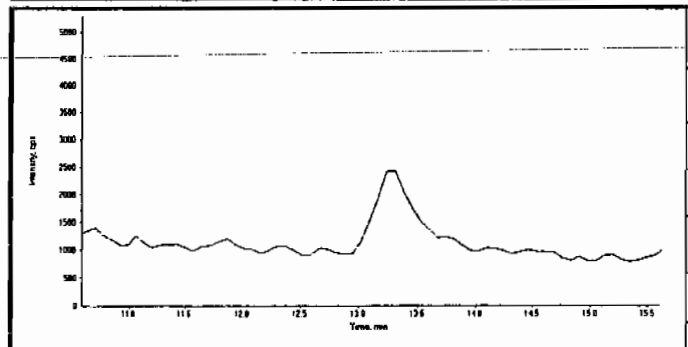

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

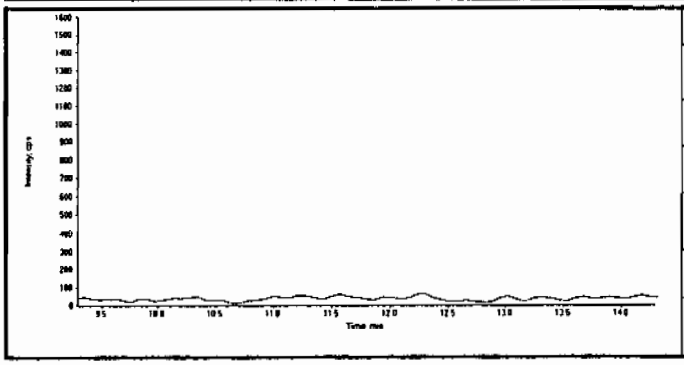

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312079.wiff	**Acquisition Date**	3/13/2010 6:18:38 PM
Sample Name	246318001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

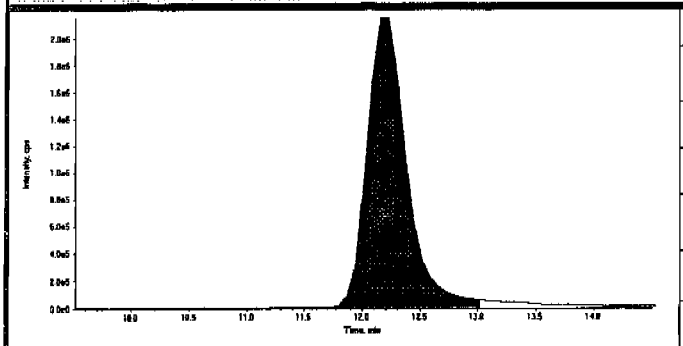

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.17e+007
Manual Modification	No
Amount:	226. (ng/mL)
% Accuracy:	N/A

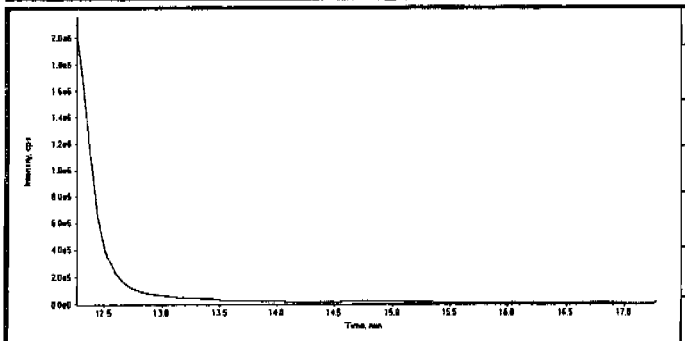

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

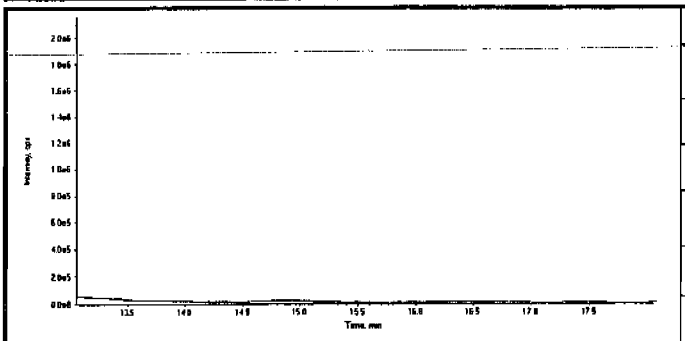

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

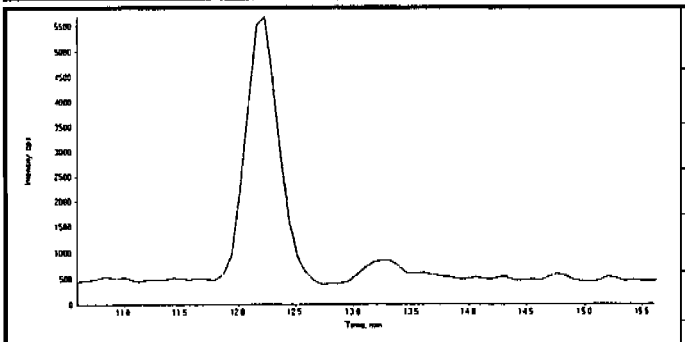

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312079.wiff	**Acquisition Date**	3/13/2010 6:18:38 PM
Sample Name	246318001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

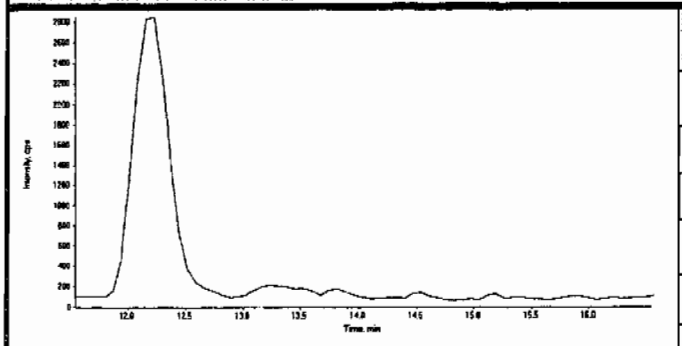

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

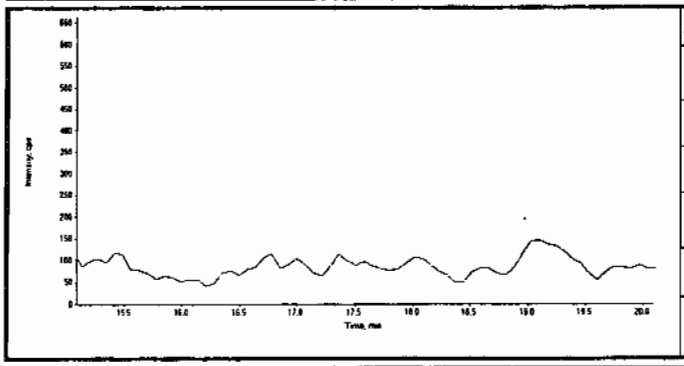

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

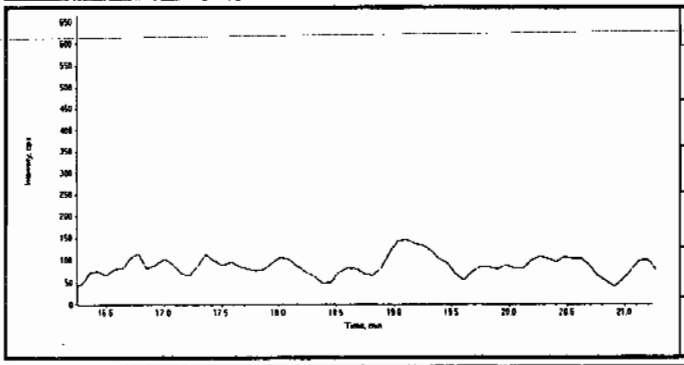

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

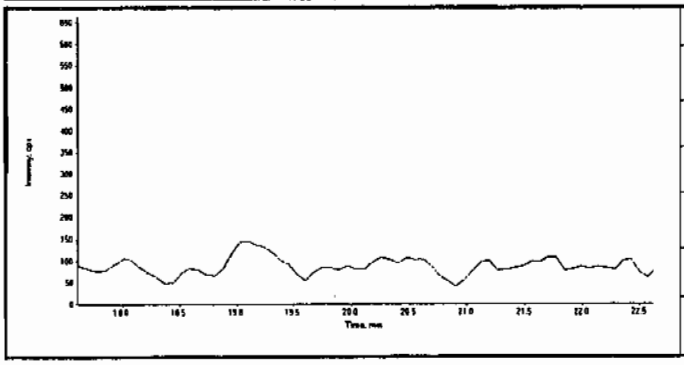

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312079.wiff	**Acquisition Date**	3/13/2010 6:18:38 PM
Sample Name	246318001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

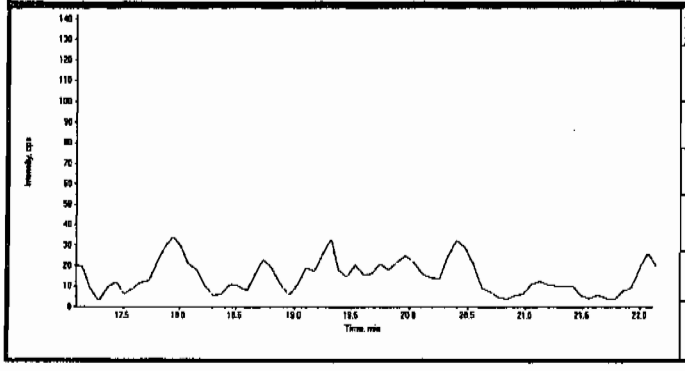

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010121.wiff

Date Analyzed: 02-MAR-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	20800	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

DL-TATB Only

Lan 3/3/10

Sample Name: "246318001" Sample ID: "950061|10|LER" File: "EXS03010121.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 416. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:32:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 4.93e+005 counts
Height: 127169.853 cps
Start Time: 6.88 min
End Time: 7.47 min

2080

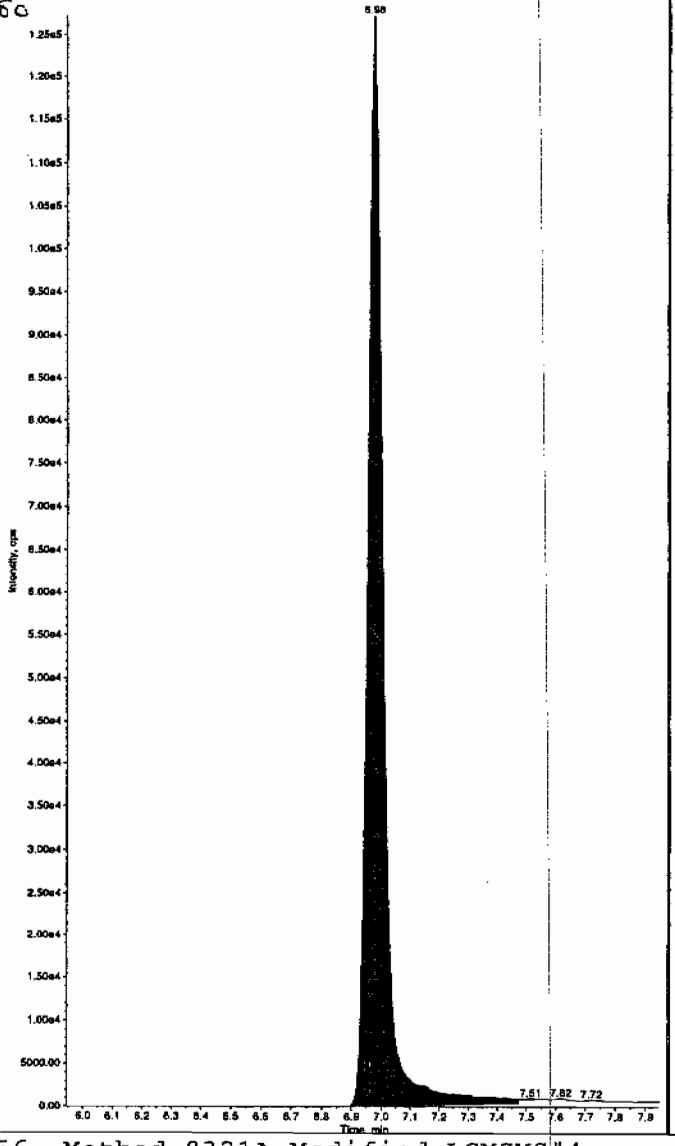

Sample Name: "246318001" Sample ID: "950061|10|LER" File: "EXS03010121.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:32:30 PM

Modified: No

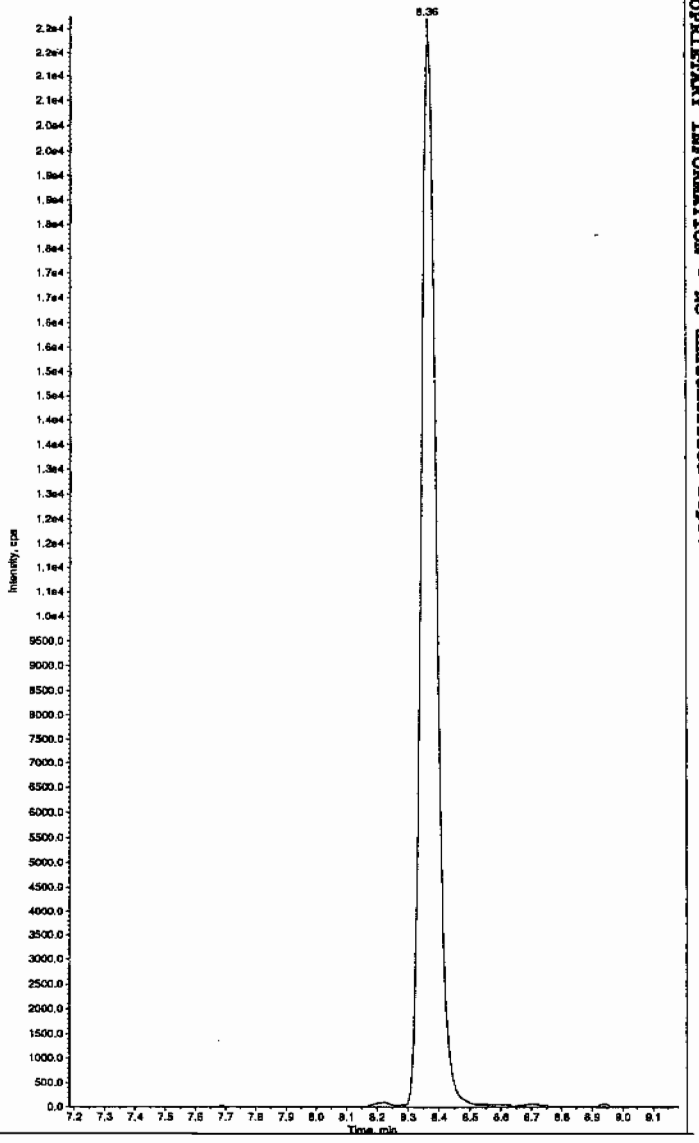

HMM 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318001" Sample ID: "950061|10|LER" File: "EXS03010121.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 49.6 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:32:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 5.68e+005 counts
Height: 165156.387 cps
Start Time: 8.27 min
End Time: 8.69 min

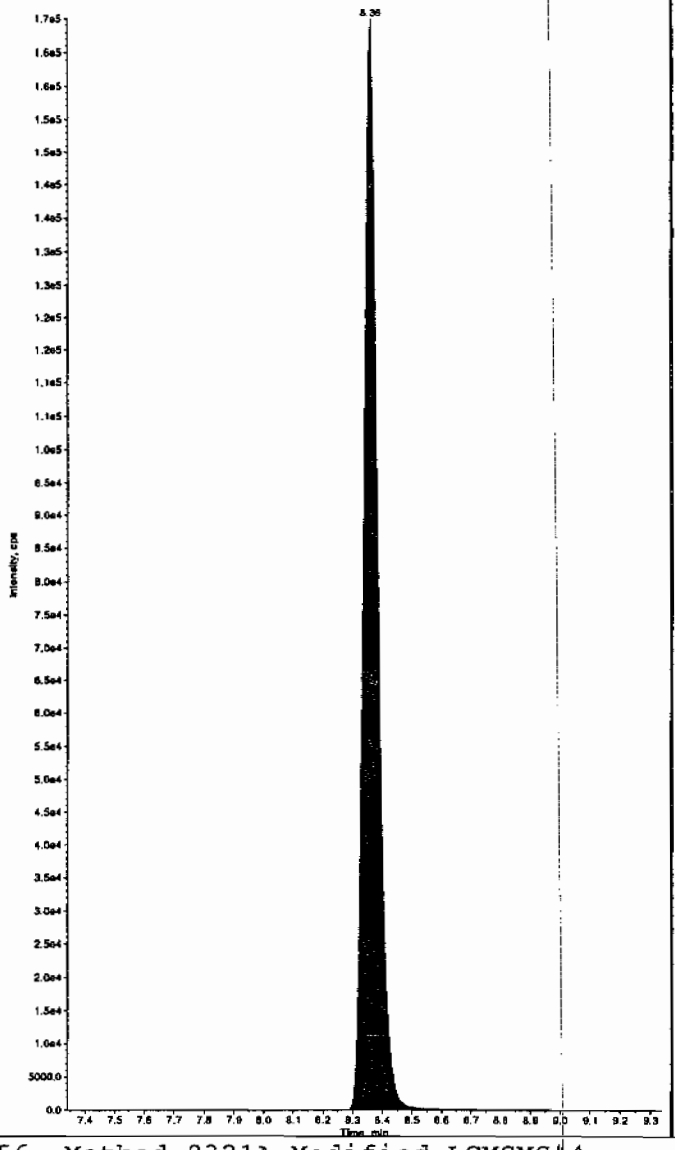

Sample Name: "246318001" Sample ID: "950061|10|LER" File: "EXS03010121.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:32:30 PM

Modified: No

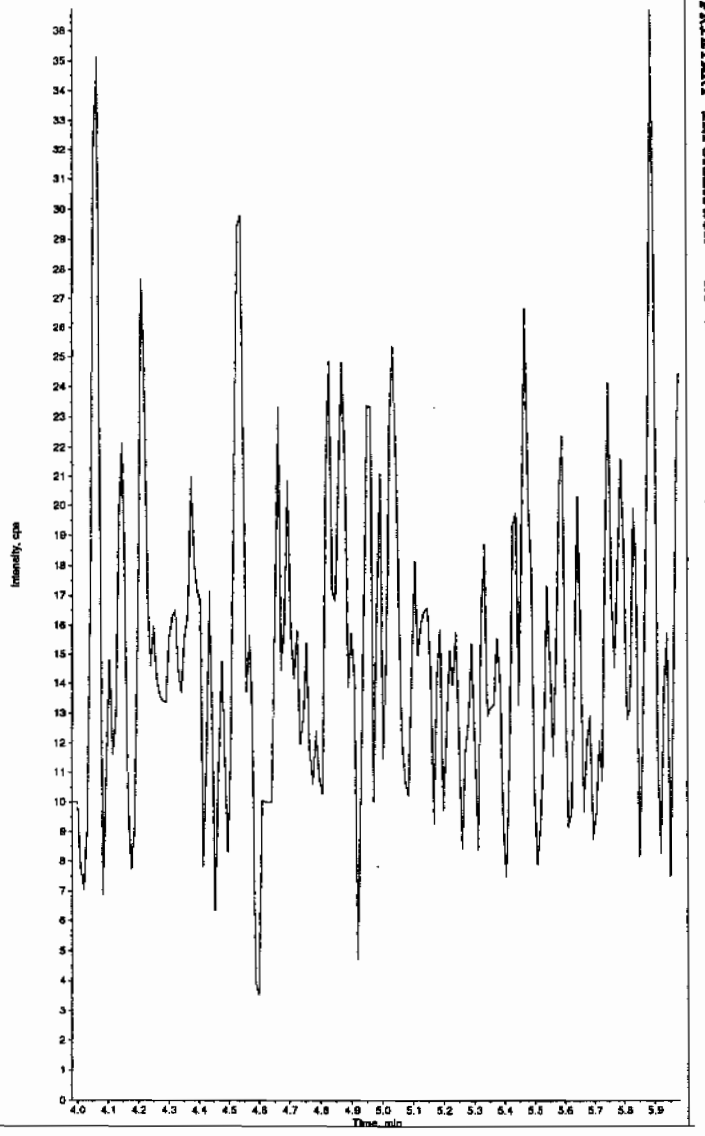

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318001" Sample ID: "950081|10|LER" File: "EXS03010121.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:32:30 PM

Modified: No

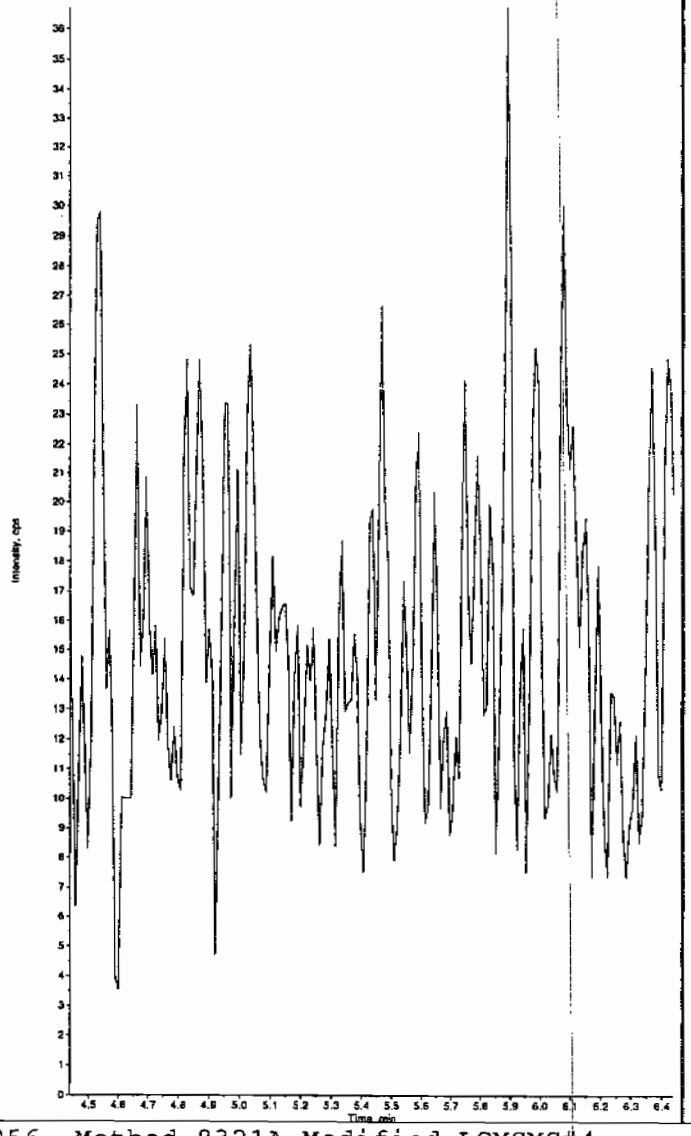

Sample Name: "246318001" Sample ID: "950081|10|LER" File: "EXS03010121.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:32:30 PM

Modified: No

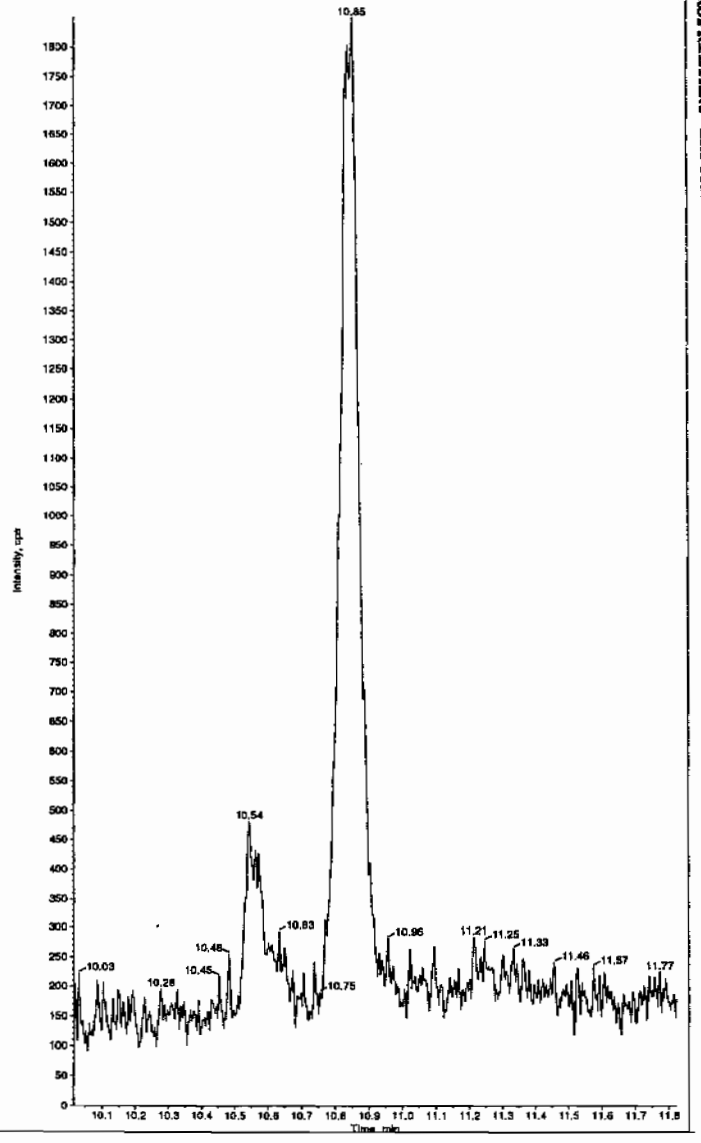

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7332

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318001

Sample Amount 2

Moisture: 6.5

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010079.wiff

Date Analyzed: 02-MAR-10 05:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Kan 3/3/10

Sample Name: "246318001" Sample ID: "950081|2|LER" File: "EXS03010079.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2390. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:30:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 3.16e+006 counts
Height: 703574.219 cps
Start Time: 6.89 min
End Time: 8.22 min

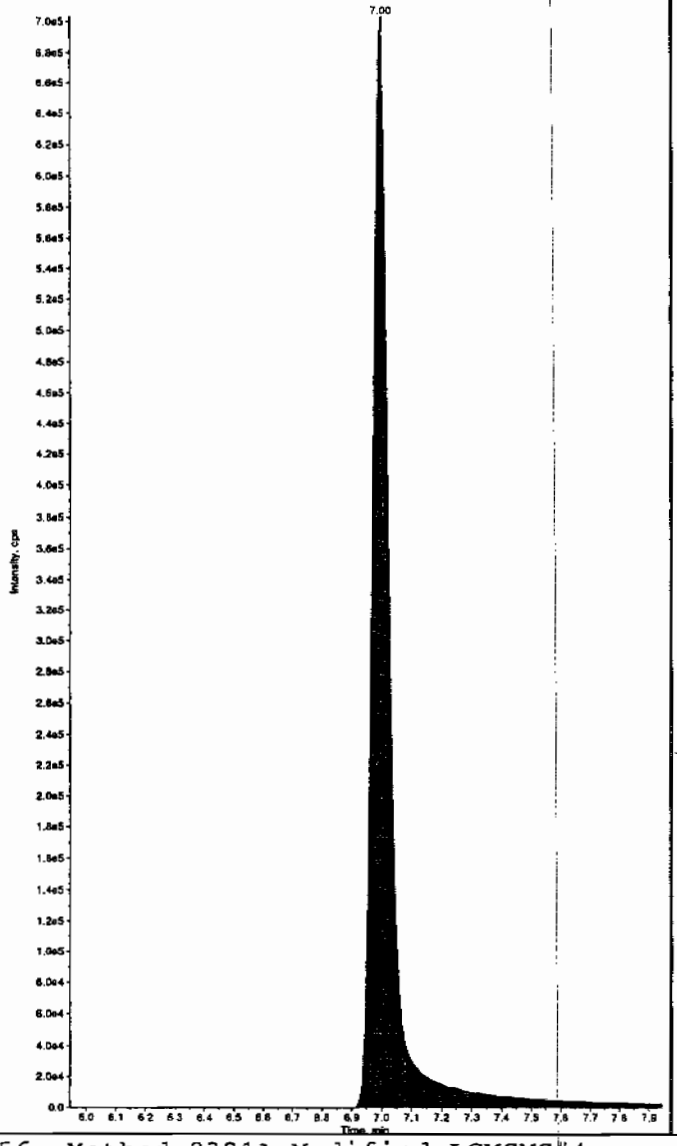

Sample Name: "246318001" Sample ID: "950081|2|LER" File: "EXS03010079.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:30:44 AM

Modified: No

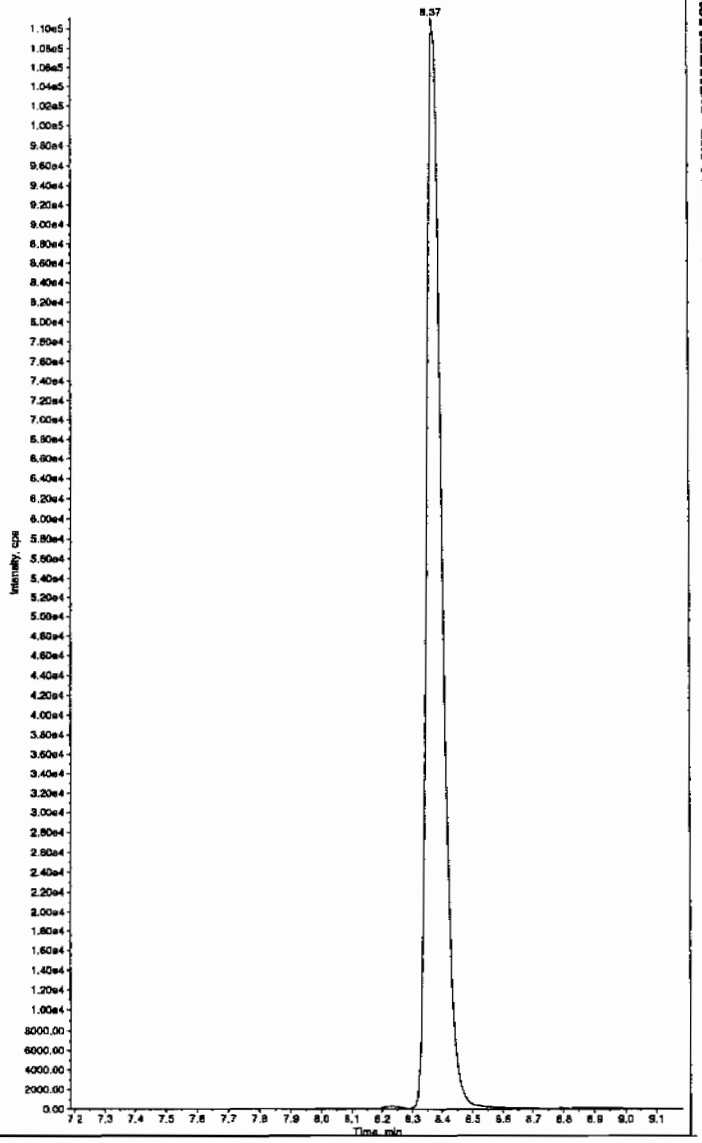

HMK 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318001" Sample ID: "950081|2|LER" File: "EXS03010079.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 248. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:30:44 AM

Modified: No
Peak. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.02e+006 counts
Height: 886260.071 cps
Start Time: 8.28 min
End Time: 8.69 min

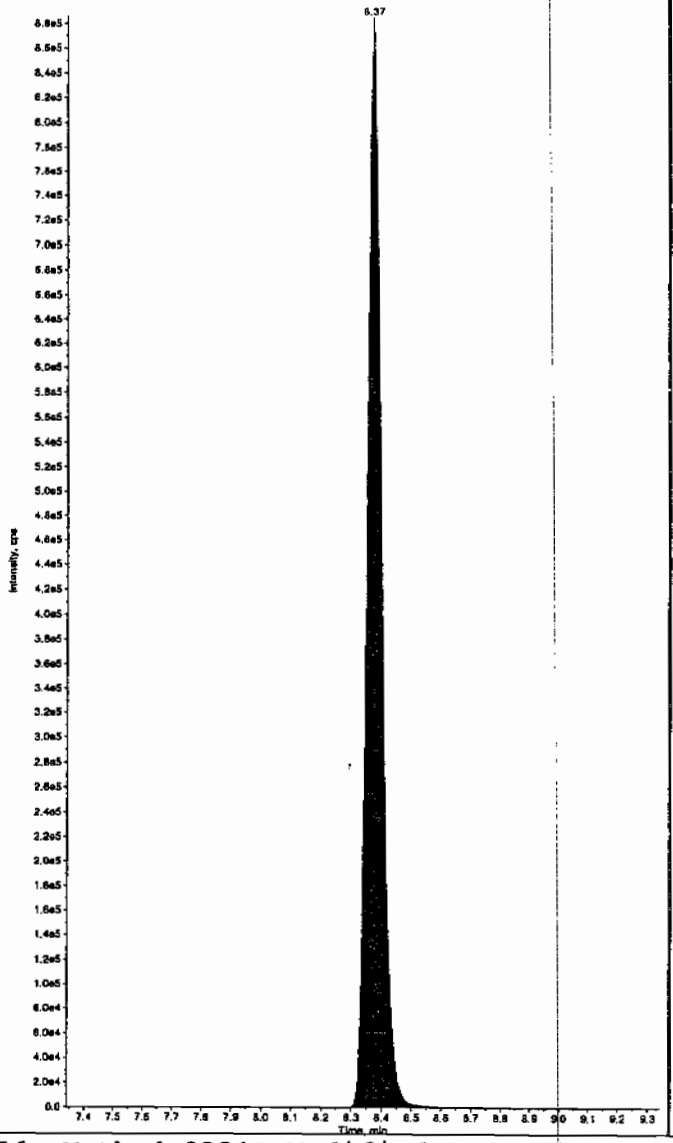

Sample Name: "246318001" Sample ID: "950081|2|LER" File: "EXS03010079.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:30:44 AM

Modified: No

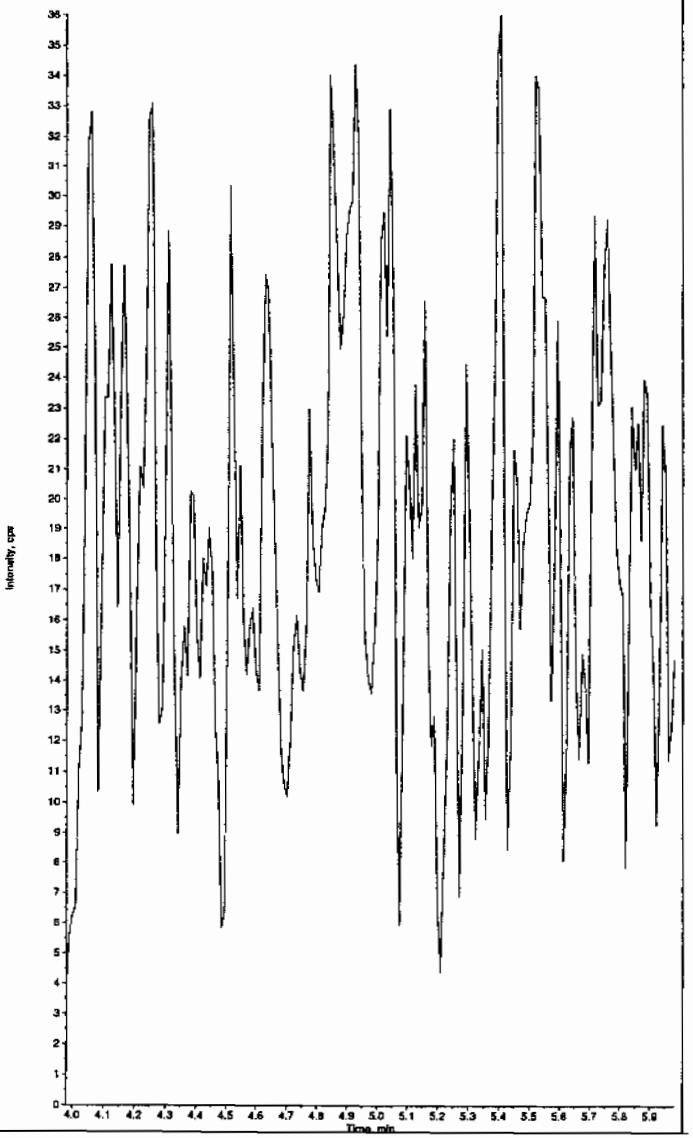

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318001" Sample ID: "950081|2|LER" File: "EXS03010079.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:30:44 AM

Modified: No

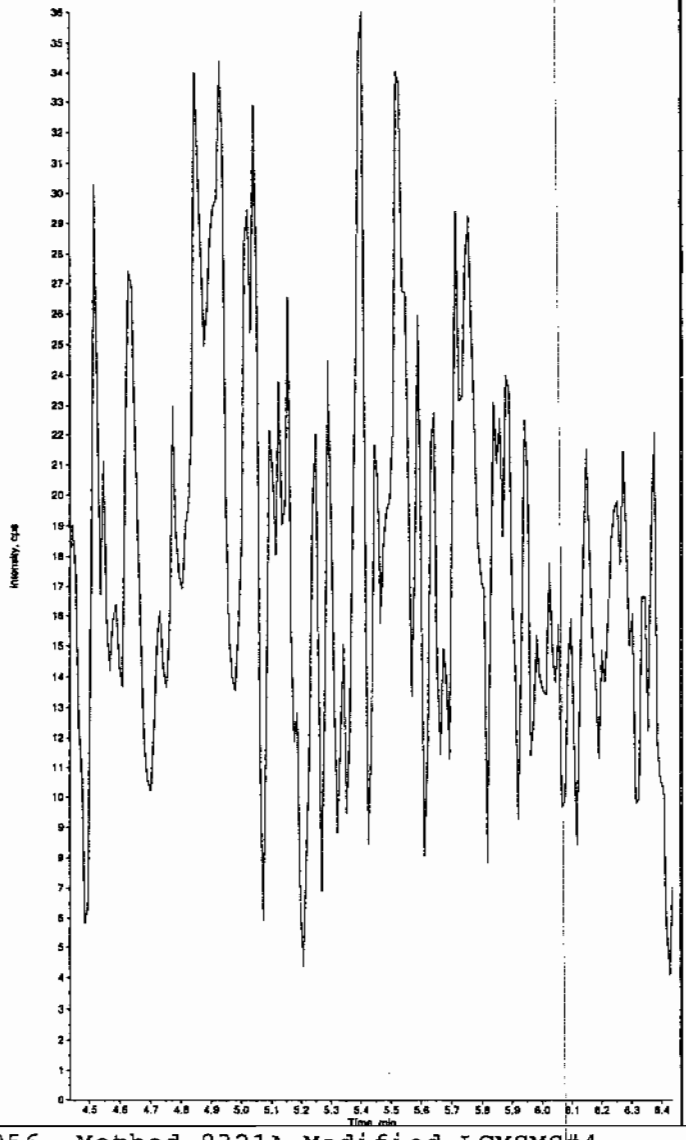

Sample Name: "246318001" Sample ID: "950081|2|LER" File: "EXS03010079.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/2/2010
Acq. Time: 5:30:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.33e+004 counts
Height: 8734.425 cps
Start Time: 10.8 min
End Time: 11.0 min

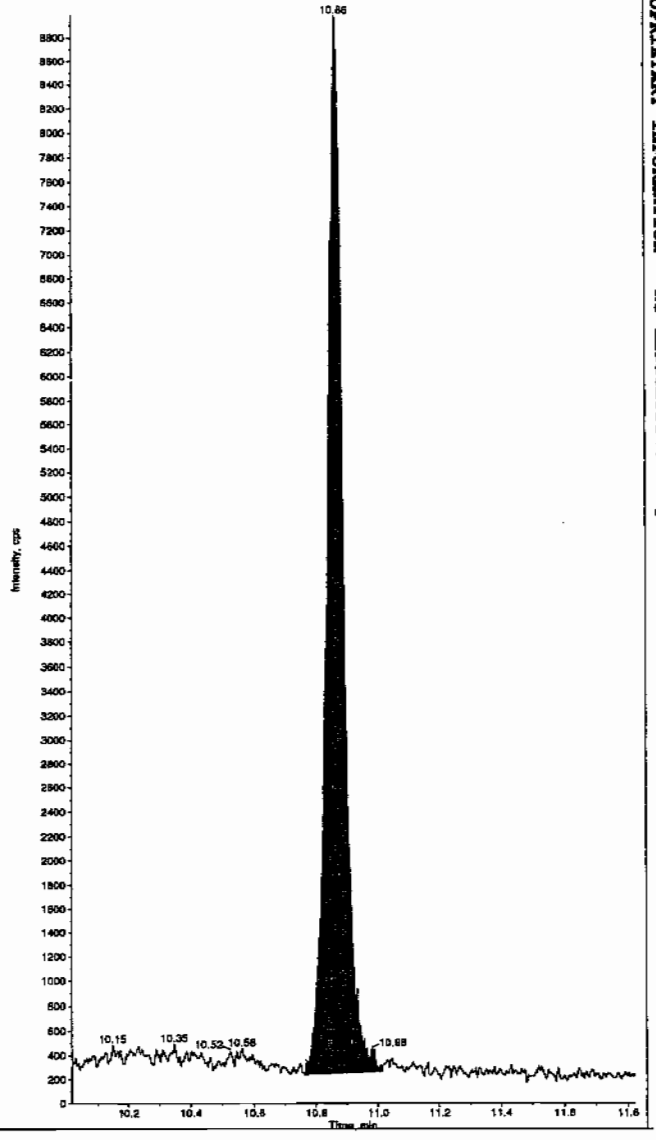

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7333

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318002

Sample Amount 2

Moisture: 5.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312080.wiff

Date Analyzed: 13-MAR-10 18:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312080.wiff	**Acquisition Date**	3/13/2010 6:45:01 PM
Sample Name	246318002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

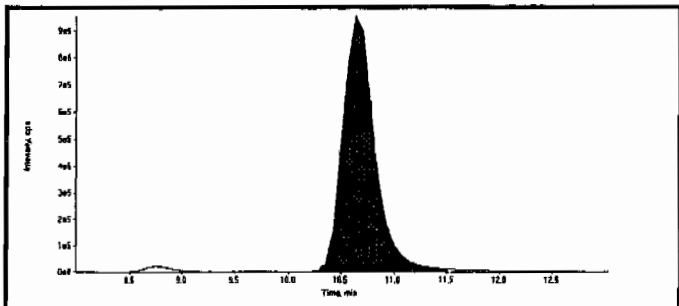

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	20600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

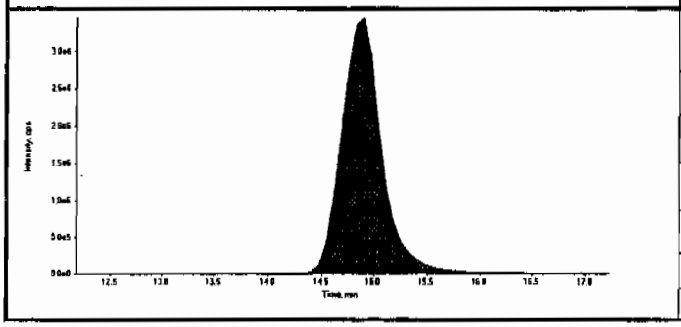

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	93200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

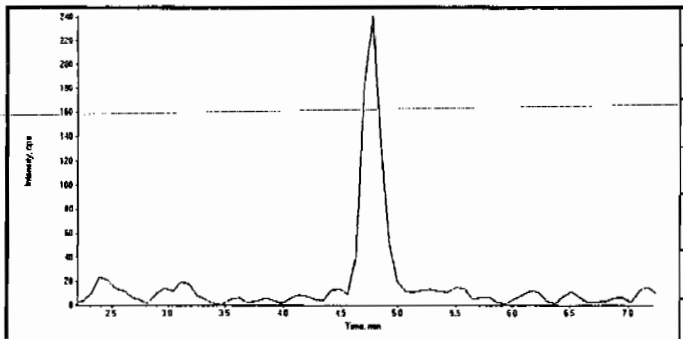

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

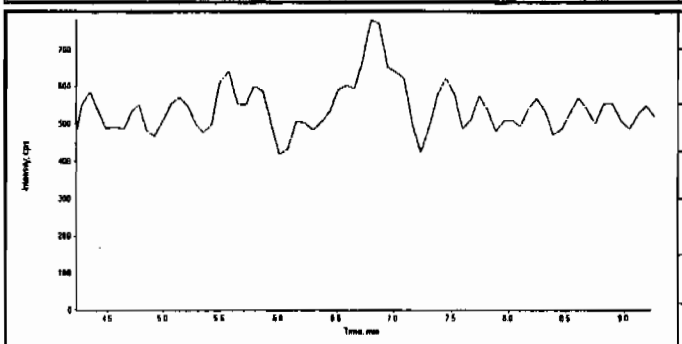

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Scr 3/24/10

HMC 03/24/10

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Data File	EXP0312080.wiff	**Acquisition Date**	3/13/2010 6:45:01 PM
Sample Name	246318002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

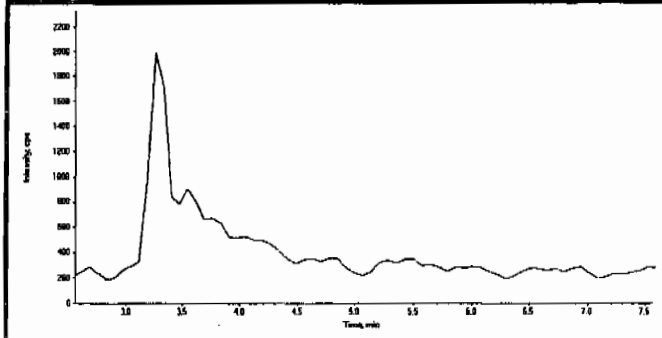

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

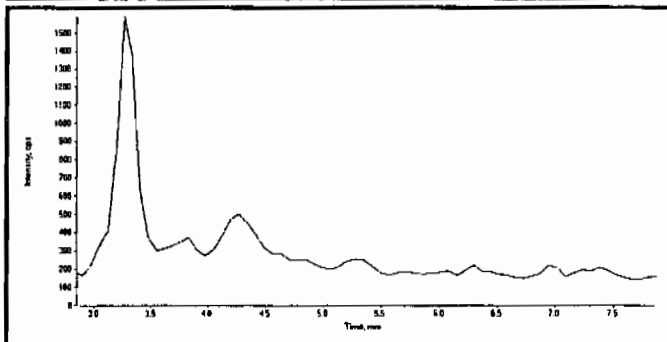

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

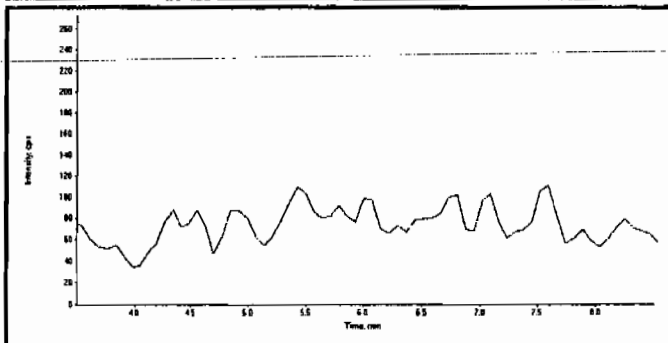

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

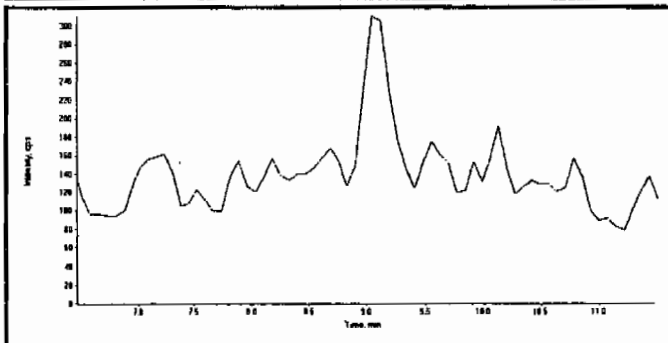

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312080.wiff	**Acquisition Date**	3/13/2010 6:45:01 PM
Sample Name	246318002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

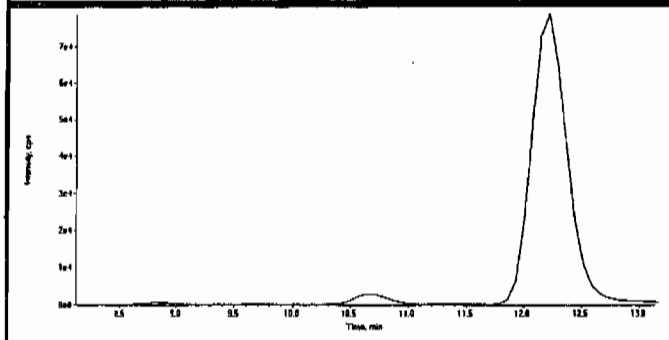

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

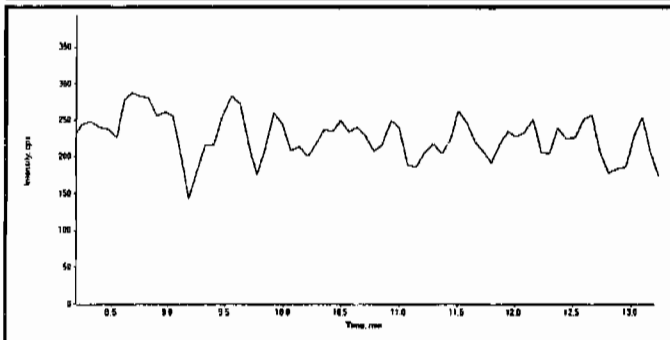

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

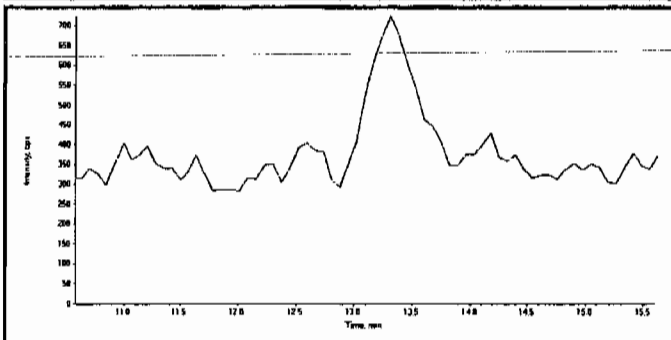

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

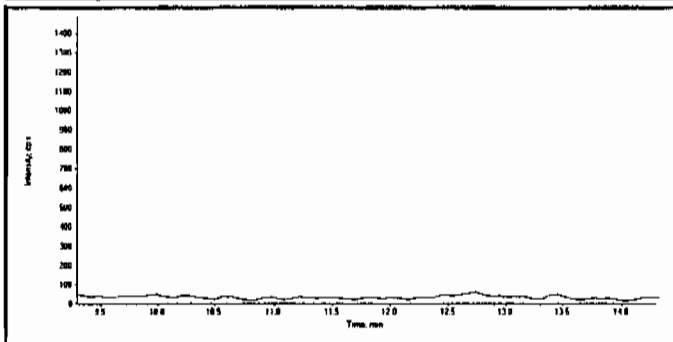

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312080.wiff	**Acquisition Date**	3/13/2010 6:45:01 PM
Sample Name	246318002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

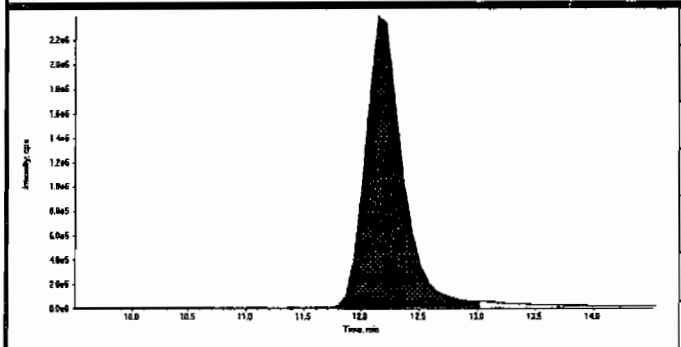

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.37e+007
Manual Modification	No
Amount:	234. (ng/mL)
% Accuracy:	N/A

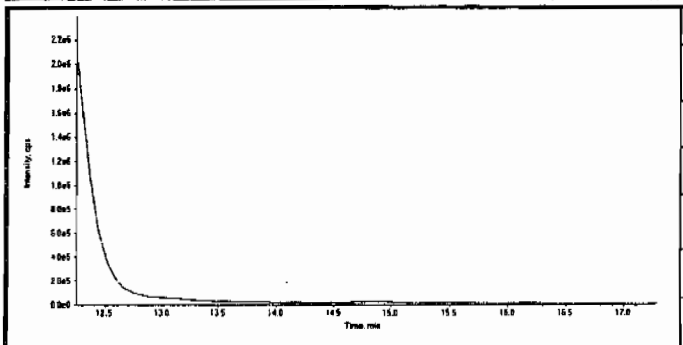

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

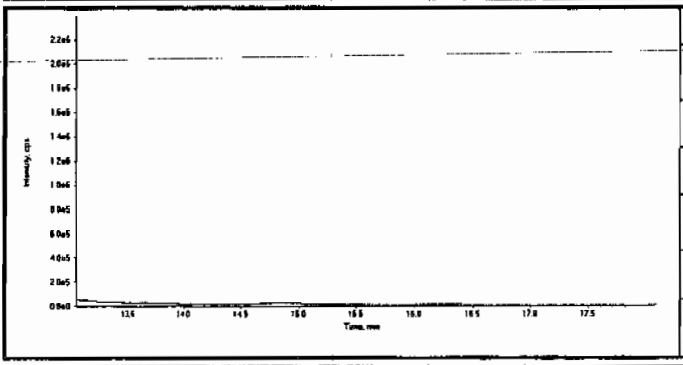

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

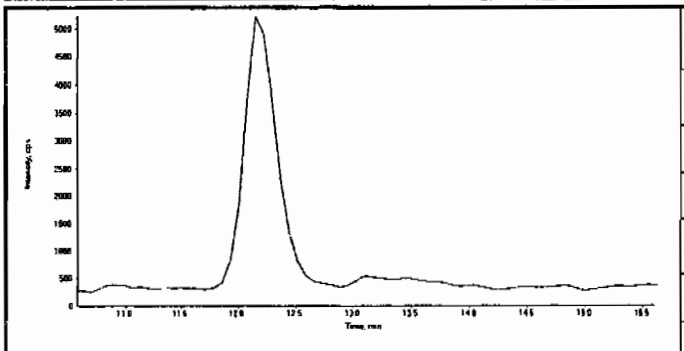

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312080.wiff	**Acquisition Date**	3/13/2010 6:45:01 PM
Sample Name	246318002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

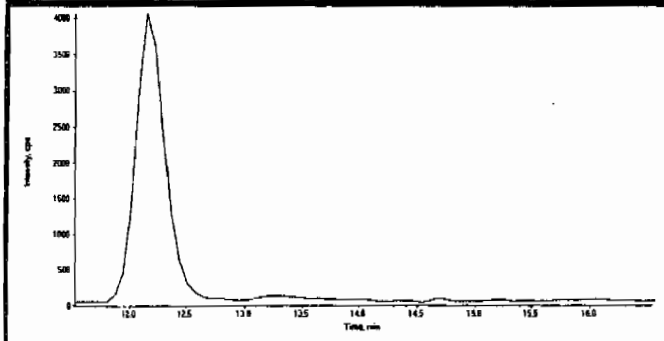

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

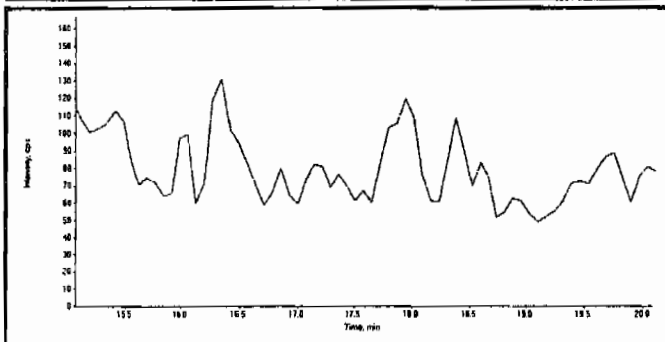

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

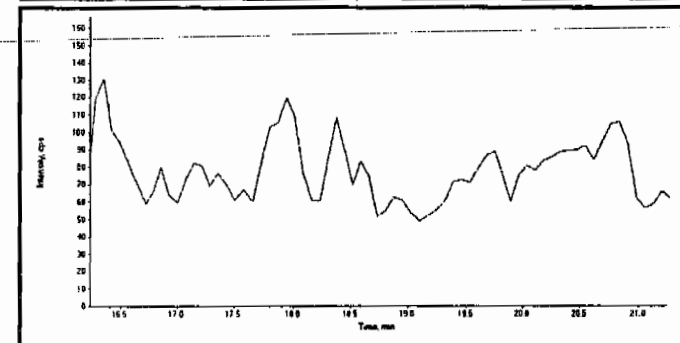

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

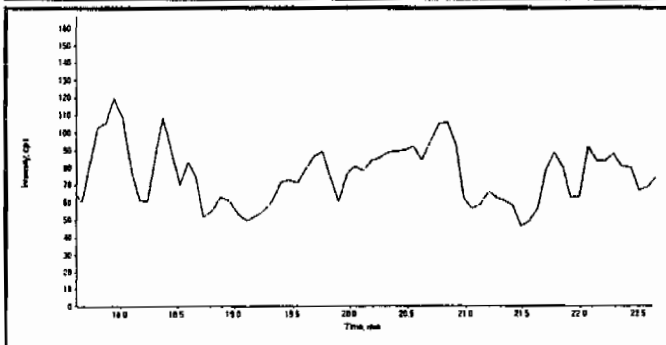

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312080.wiff	**Acquisition Date**	3/13/2010 6:45:01 PM
Sample Name	246318002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

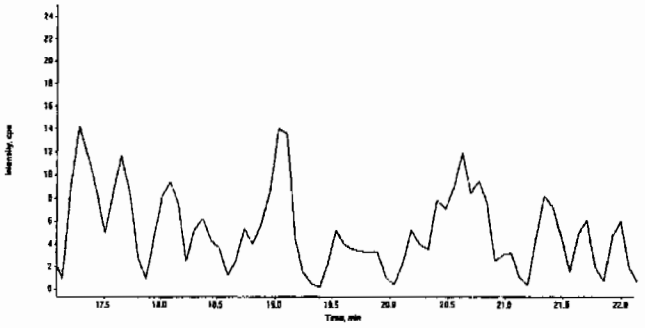

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7333

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318002

Sample Amount 2

Moisture: 5.7

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010118.wiff

Date Analyzed: 02-MAR-10 15:45

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	554	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "246318002" Sample ID: "950081|2|LER" File: "EXS03010118.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 55.4 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 3:45:11 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.97 min
Area: 5.21e+004 counts
Height: 13105.041 cps
Start Time: 6.88 min
End Time: 7.34 min

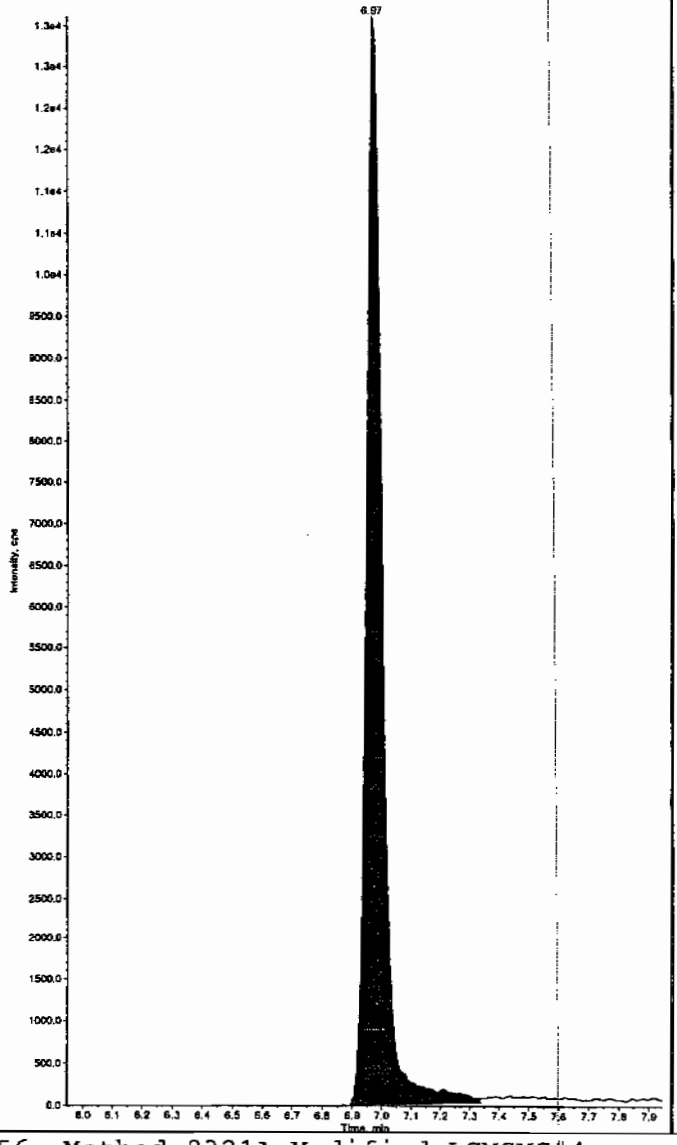

Sample Name: "246318002" Sample ID: "950081|2|LER" File: "EXS03010118.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 3:45:11 PM

Modified: No

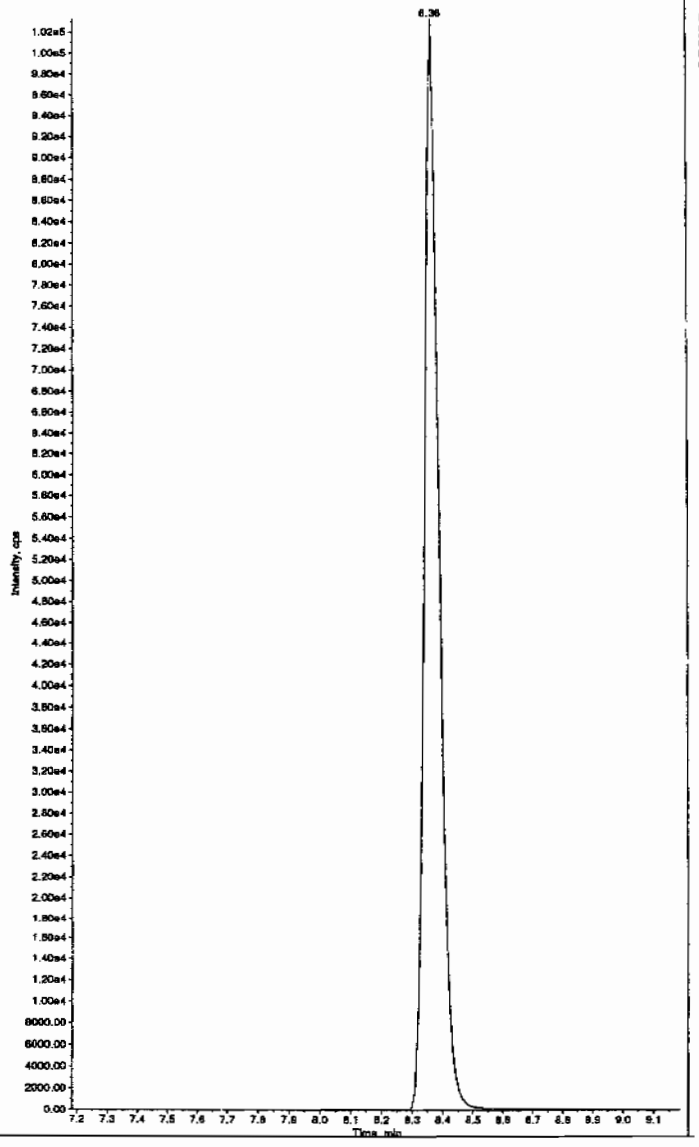

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318002" Sample ID: "950081|2|LER" File: "EXS03010118.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 241. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 3:45:11 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 2.94e+006 counts
Height: 830323.730 cps
Start Time: 8.24 min
End Time: 8.70 min

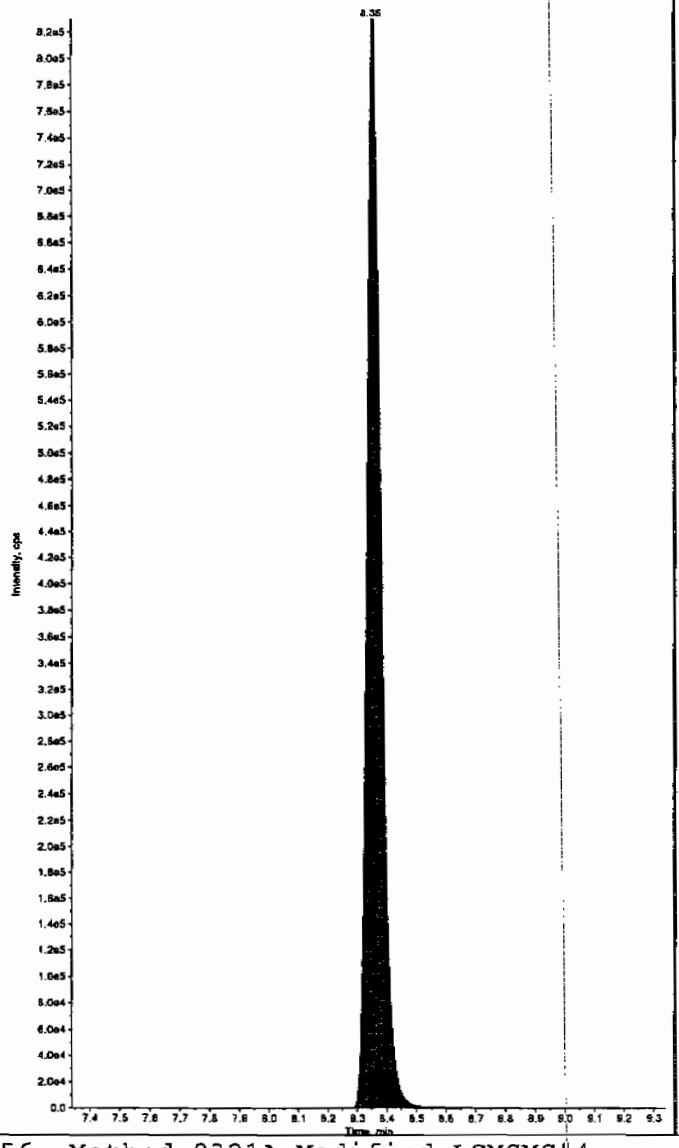

Sample Name: "246318002" Sample ID: "950081|2|LER" File: "EXS03010118.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 3:45:11 PM

Modified: No

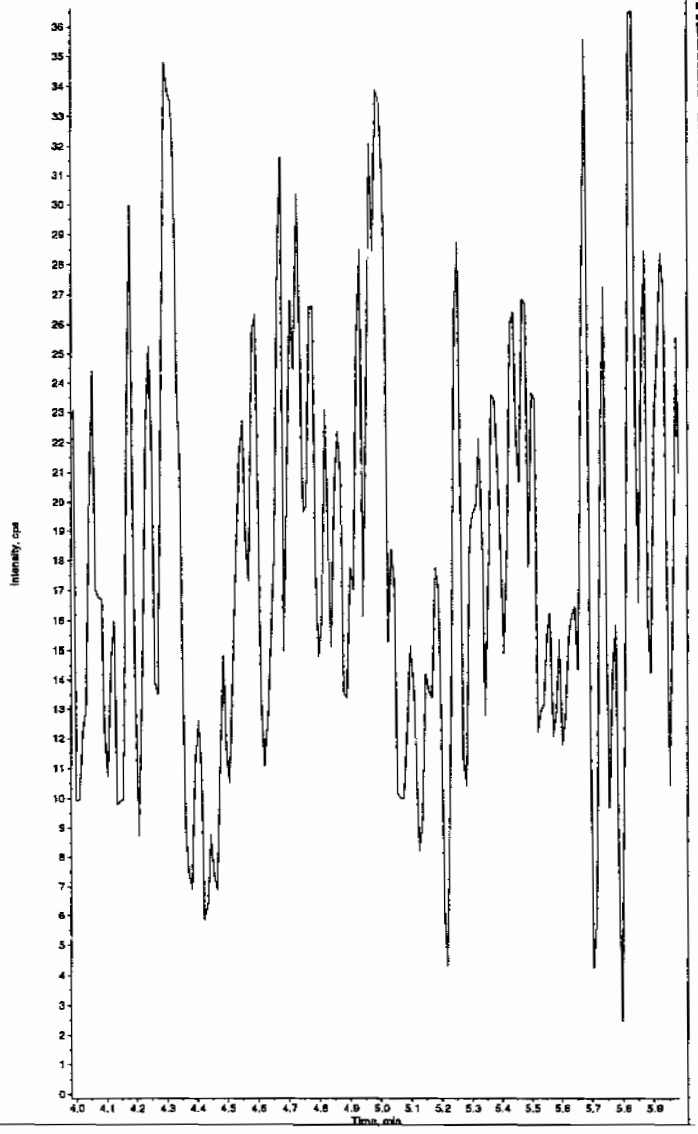

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318002" Sample ID: "950081|2|LER" File: "EXS03010118.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 3:45:11 PM

Modified: No

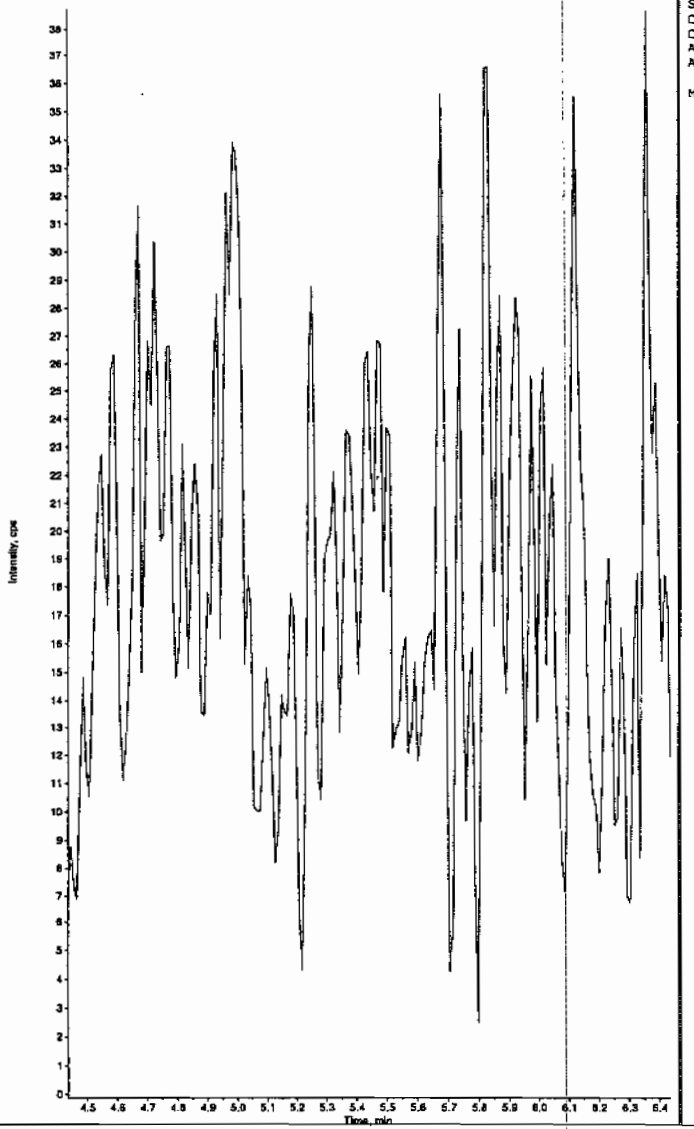

Sample Name: "246318002" Sample ID: "950081|2|LER" File: "EXS03010118.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 3:45:11 PM

Modified: No

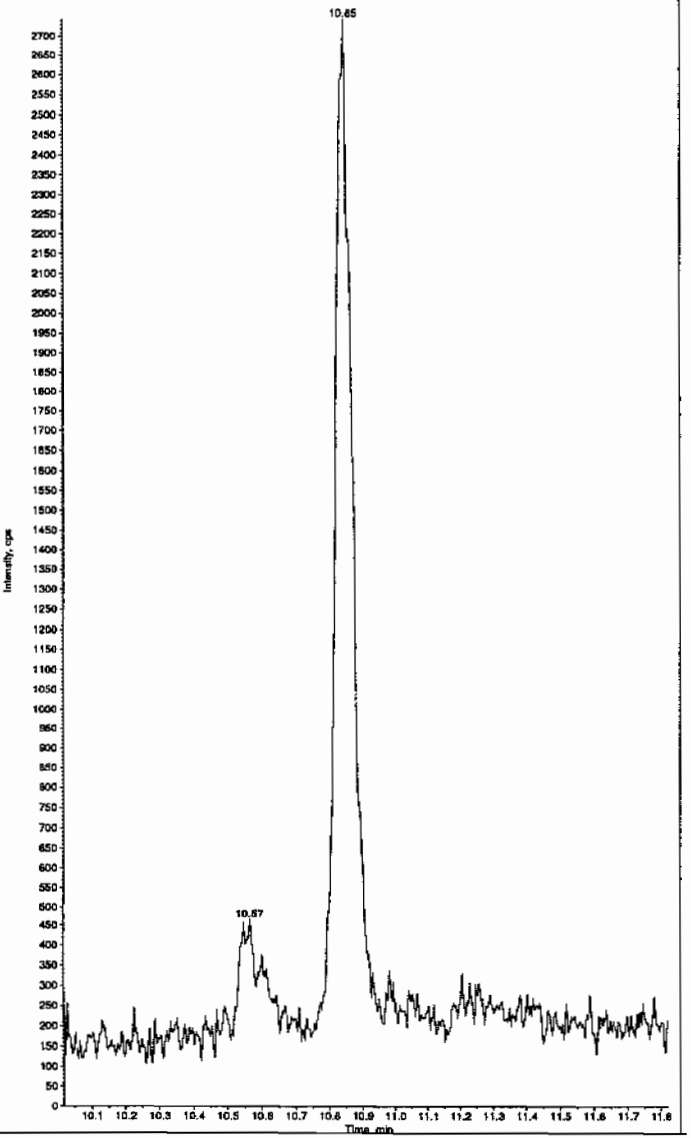

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312081.wiff

Date Analyzed: 13-MAR-10 19:11

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312081.wiff	**Acquisition Date**	3/13/2010 7:11:26 PM
Sample Name	246318003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

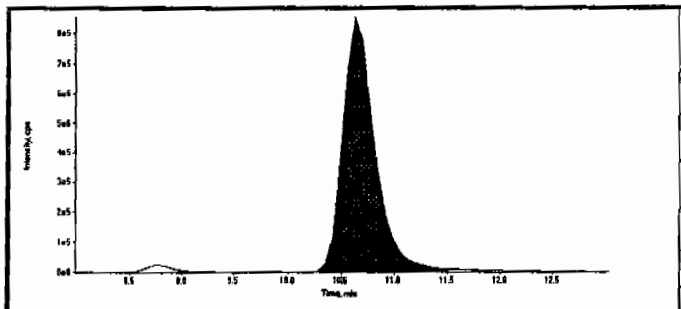

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	18100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

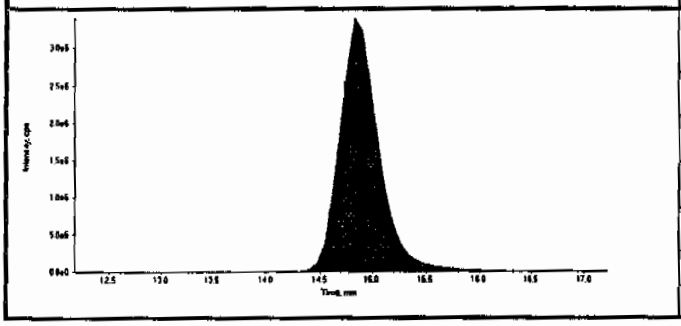

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	88200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

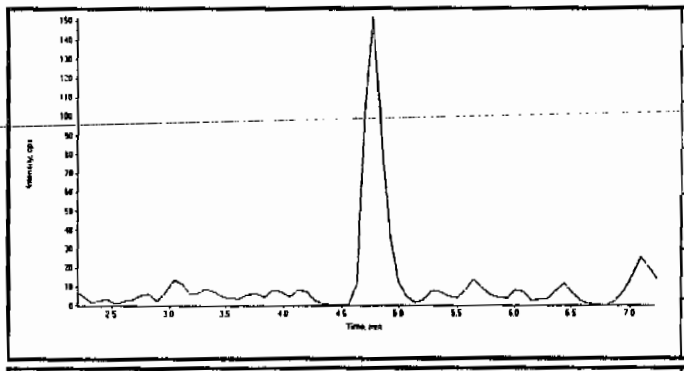

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

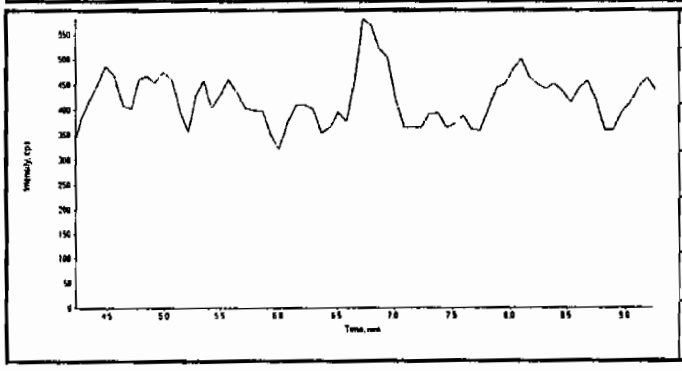

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

LCR 3/24/10

HMC 03/24/10

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Data File	EXP0312081.wiff	**Acquisition Date**	3/13/2010 7:11:26 PM
Sample Name	246318003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

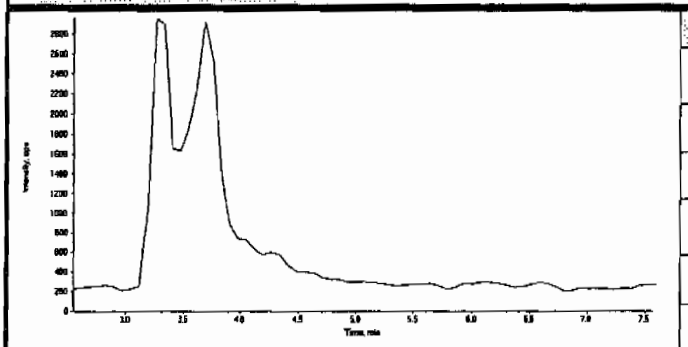

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

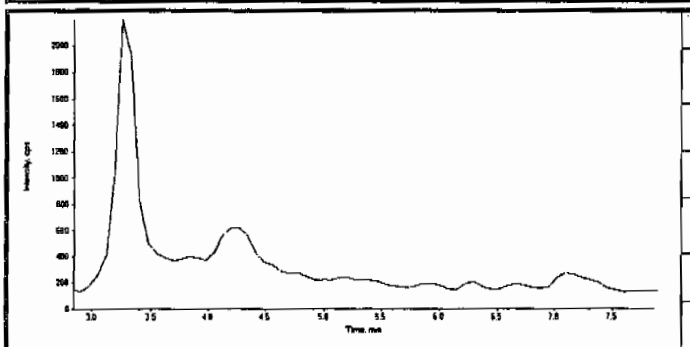

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

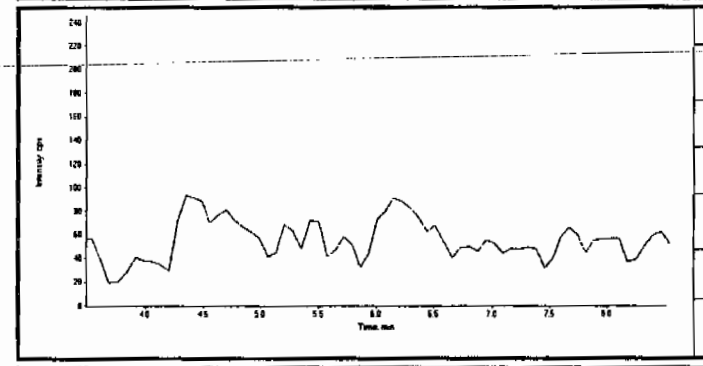

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

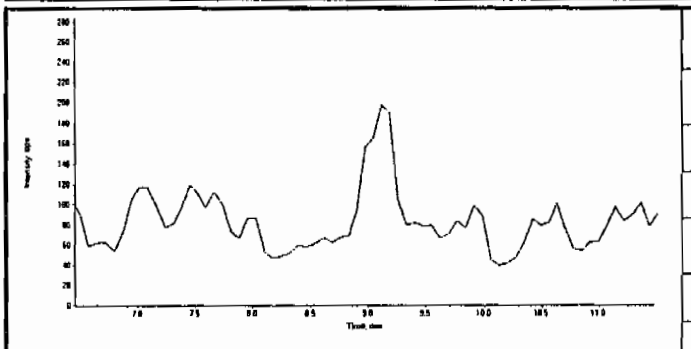

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312081.wiff	**Acquisition Date**	3/13/2010 7:11:26 PM
Sample Name	246318003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

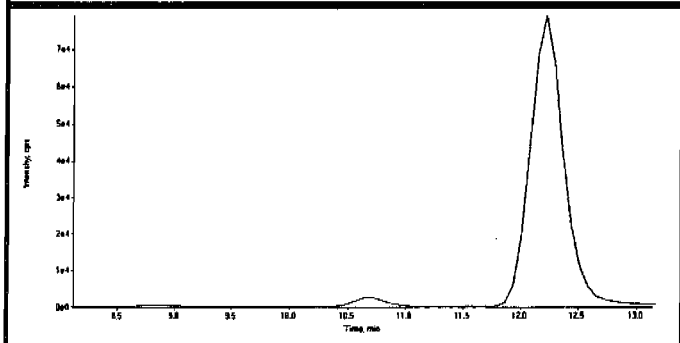

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

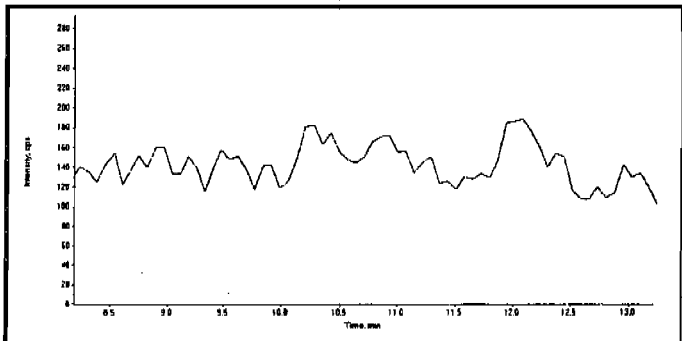

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

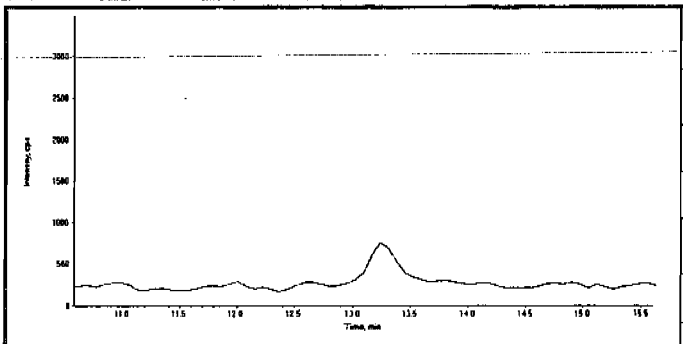

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

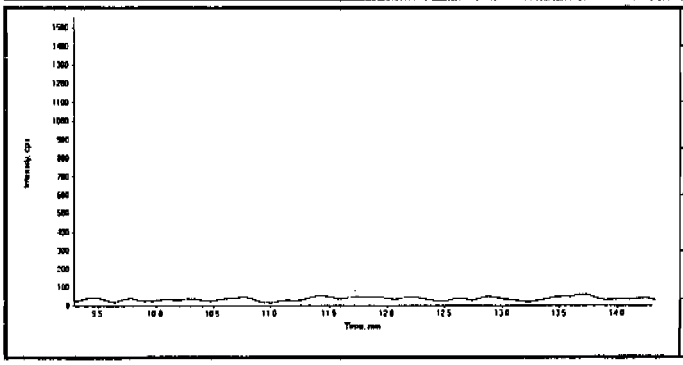

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312081.wiff	**Acquisition Date**	3/13/2010 7:11:26 PM
Sample Name	246318003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

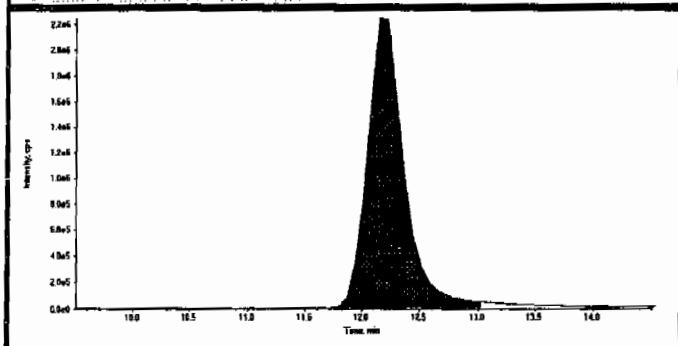

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.01e+007
Manual Modification	No
Amount:	230. (ng/mL)
% Accuracy:	N/A

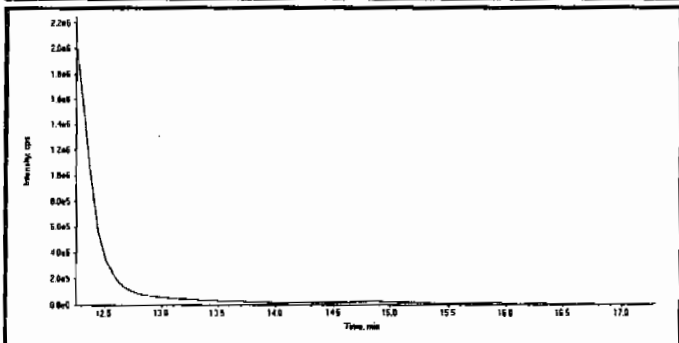

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

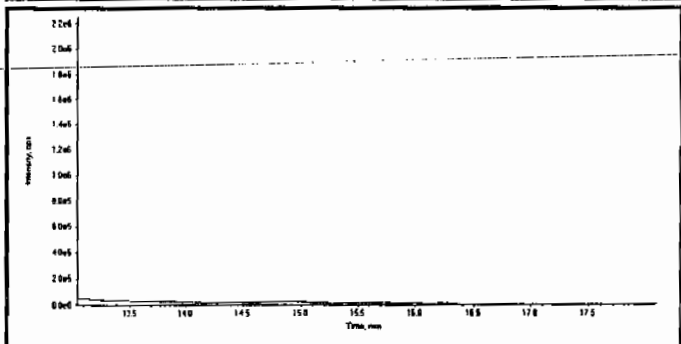

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

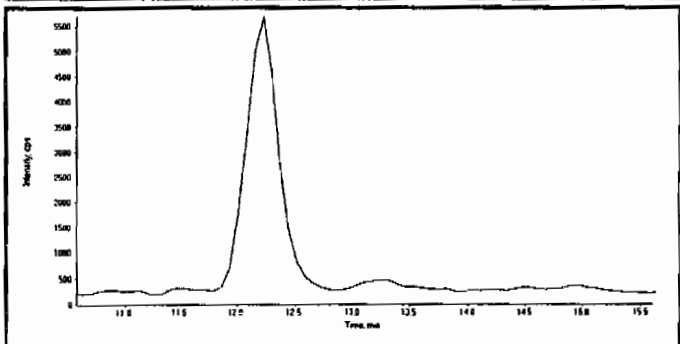

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312081.wiff	**Acquisition Date**	3/13/2010 7:11:26 PM
Sample Name	246318003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

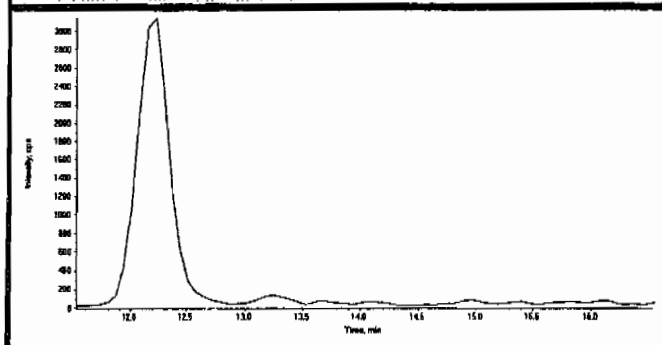

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

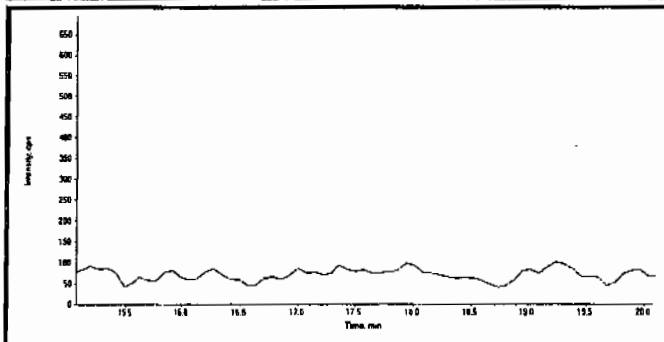

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

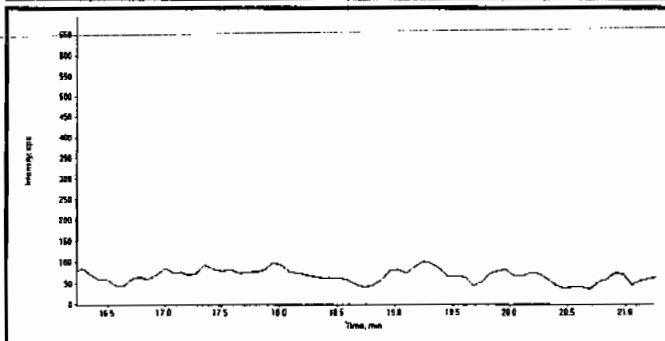

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

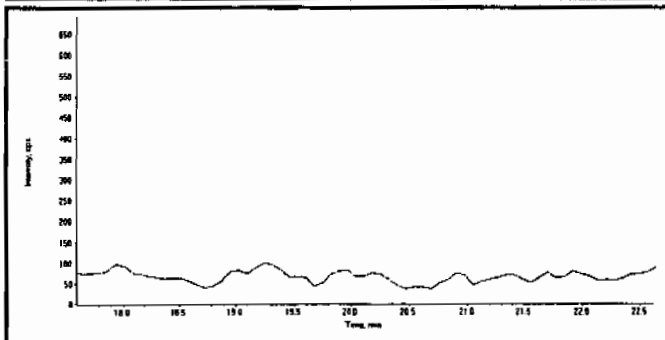

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312081.wiff	**Acquisition Date**	3/13/2010 7:11:26 PM
Sample Name	246318003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

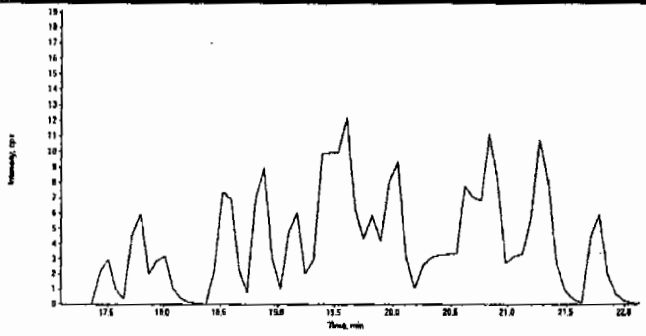

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010122.wiff

Date Analyzed: 02-MAR-10 16:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	23900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

DL-TATB only

fll 3/3/10

Sample Name: "246318003" Sample ID: "950081|10|LER" File: "EXS03010122.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 477. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:48:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.96 min
Area: 5.68e+005 counts
Height: 138887.543 cps
Start Time: 6.85 min
End Time: 7.61 min

2390

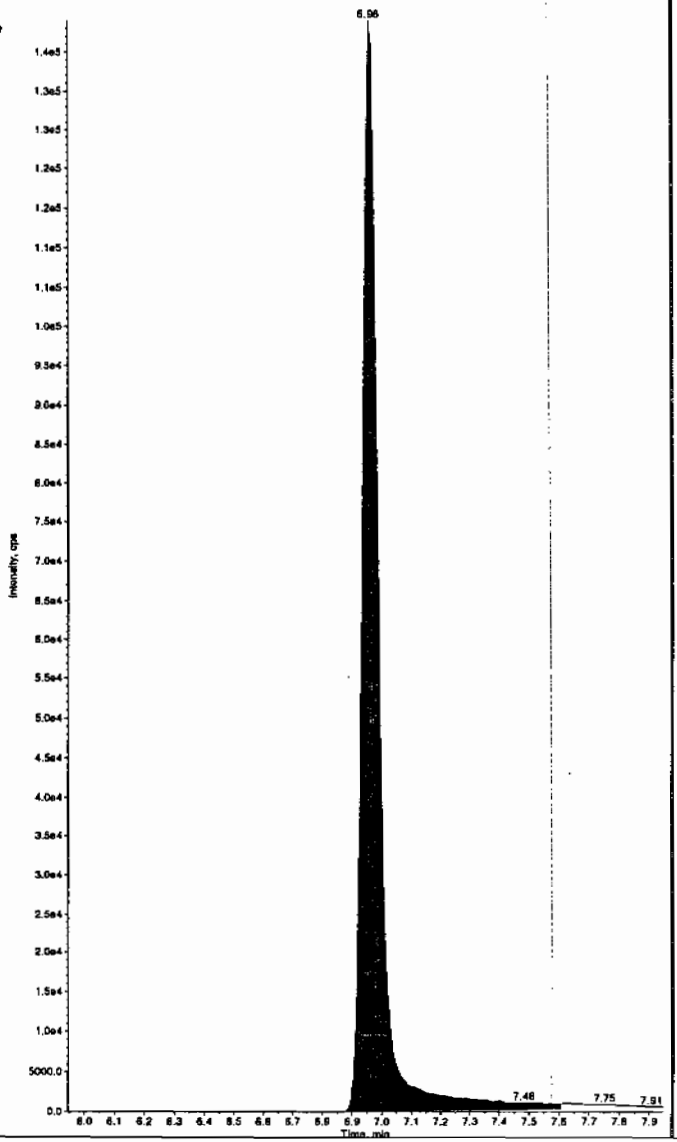

Sample Name: "246318003" Sample ID: "950081|10|LER" File: "EXS03010122.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:48:14 PM

Modified: No

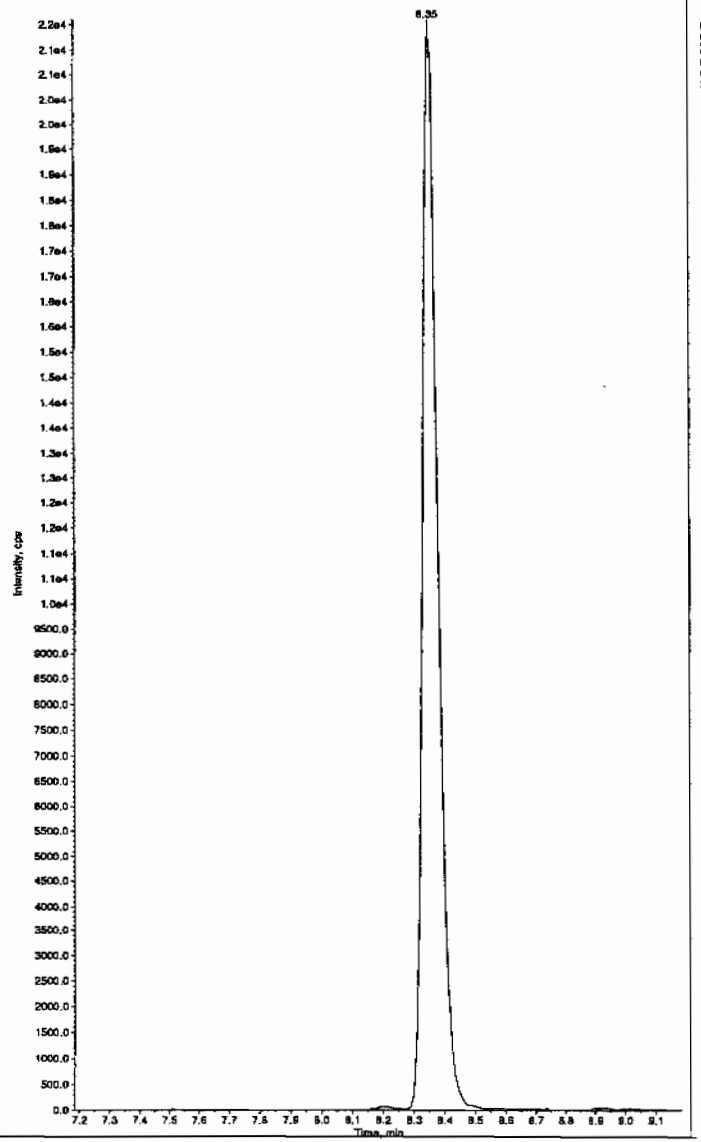

Amw 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318003" Sample ID: "950061|10|LER" File: "EXS03010122.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 49.3 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:48:14 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 5.63e+005 counts
Height: 165694.199 cps
Start Time: 8.26 min
End Time: 8.64 min

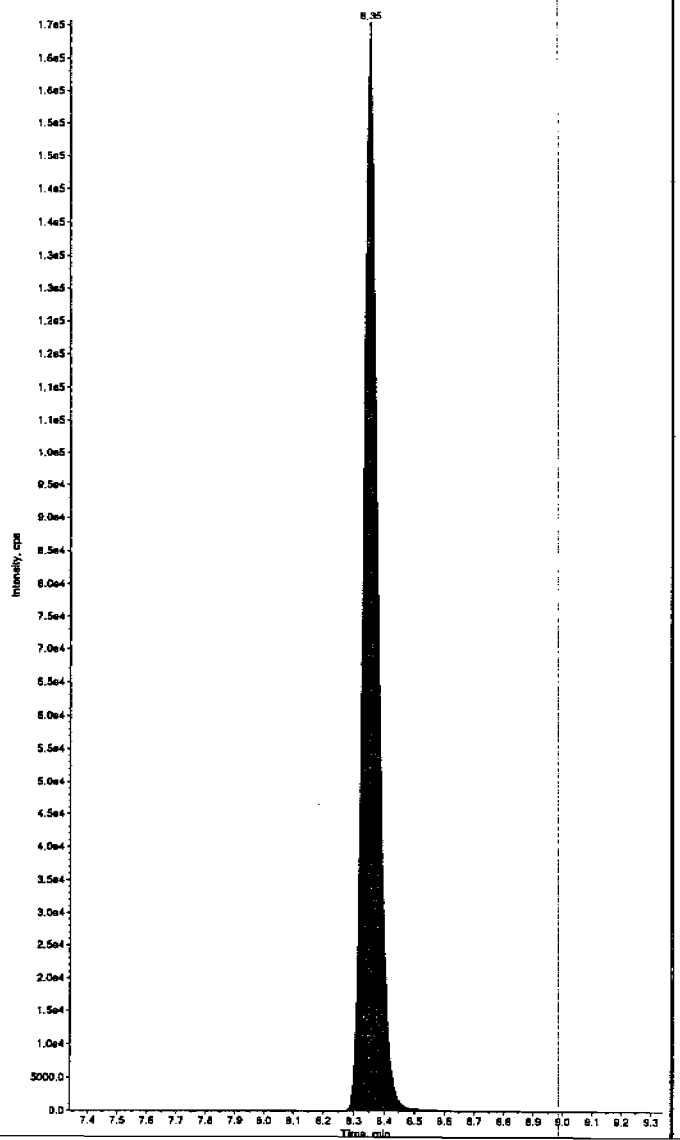

Sample Name: "246318003" Sample ID: "950061|10|LER" File: "EXS03010122.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:48:14 PM

Modified: No

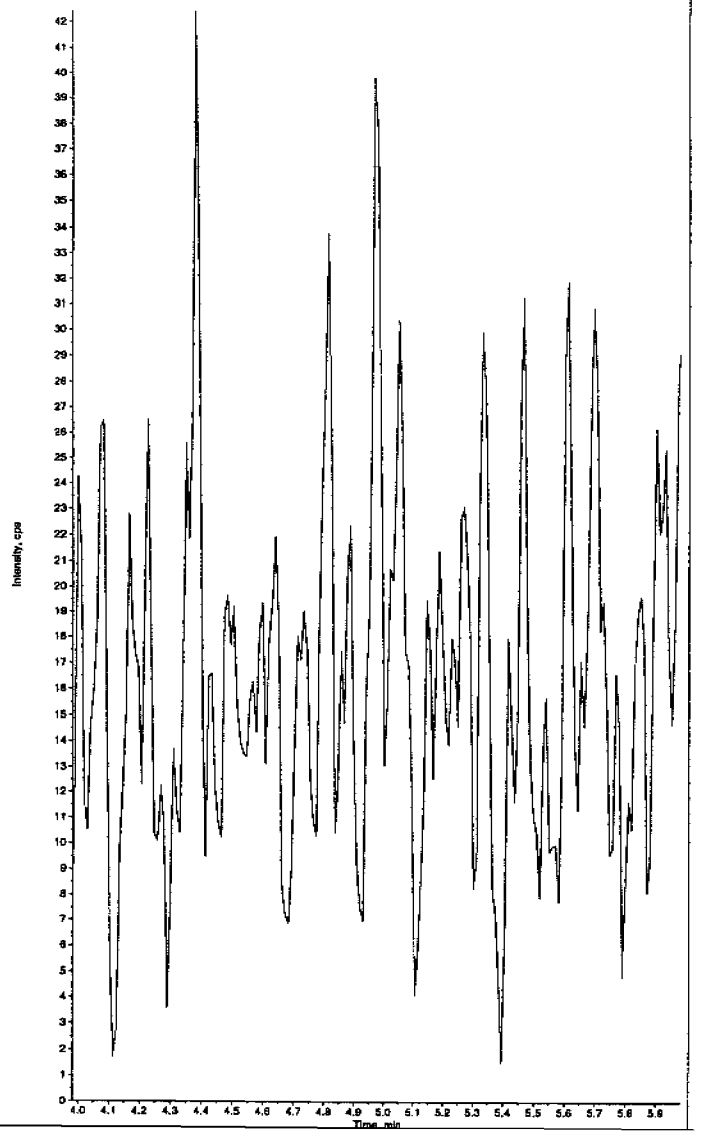

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318003" Sample ID: "950081|10|LER" File: "EXS03010122.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:48:14 PM

Modified: No

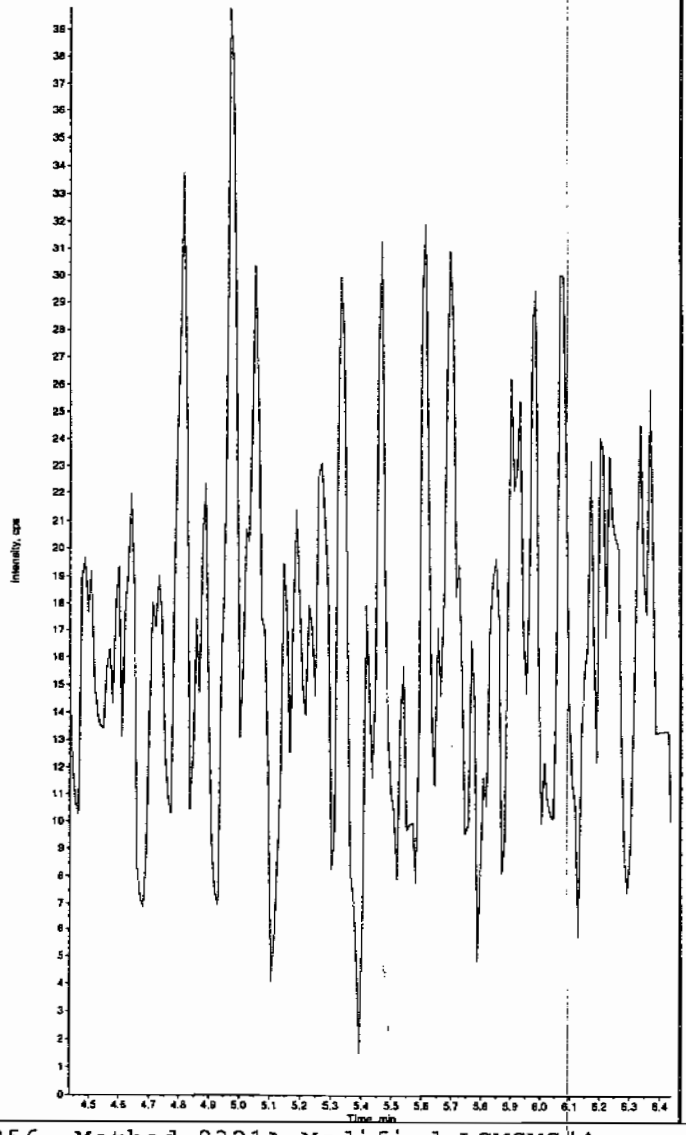

Sample Name: "246318003" Sample ID: "950081|10|LER" File: "EXS03010122.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:48:14 PM

Modified: No

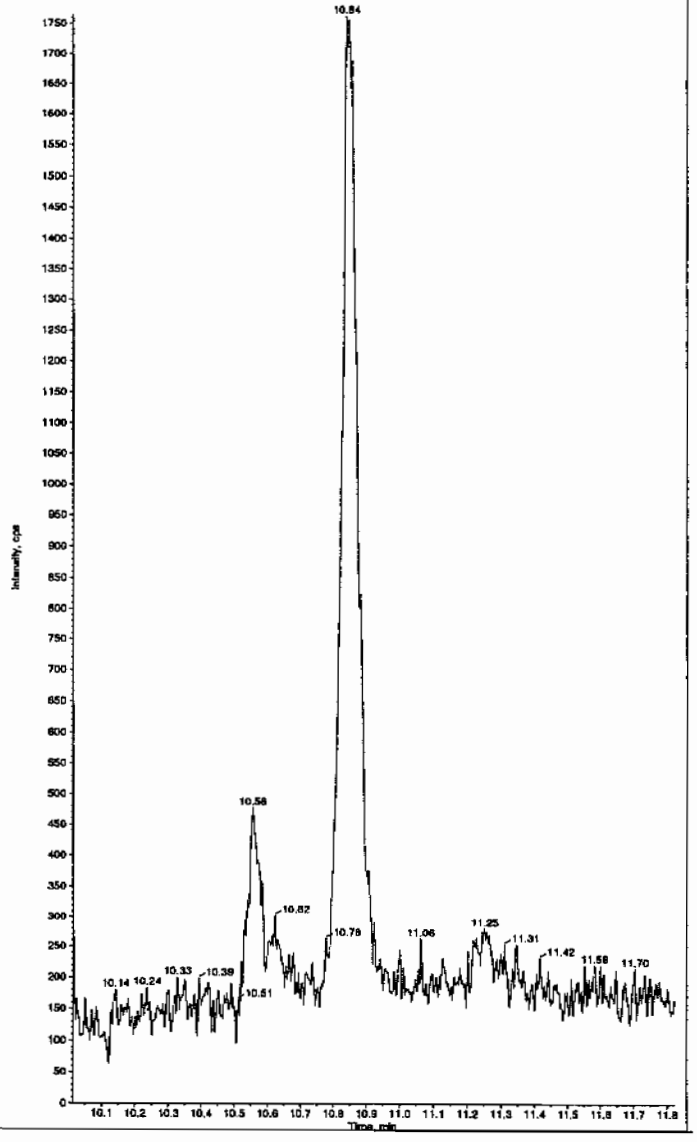

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7342

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318003

Sample Amount 2

Moisture: 5.6

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010081.wiff

Date Analyzed: 02-MAR-10 06:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 3/3/10

Sample Name: "246318003" Sample ID: "950081|2|LER" File: "EXS03010081.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2600. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:02:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 3.49e+006 counts
Height: 796949.158 cps
Start Time: 6.90 min
End Time: 7.98 min

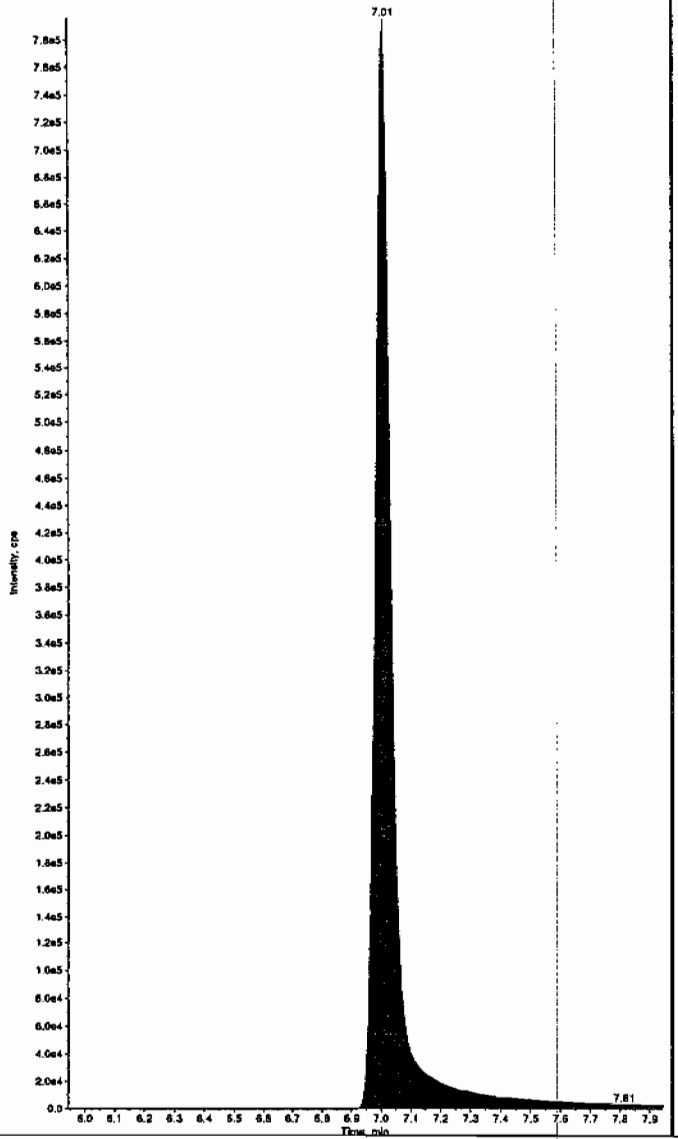

Sample Name: "246318003" Sample ID: "950081|2|LER" File: "EXS03010081.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:02:10 AM

Modified: No

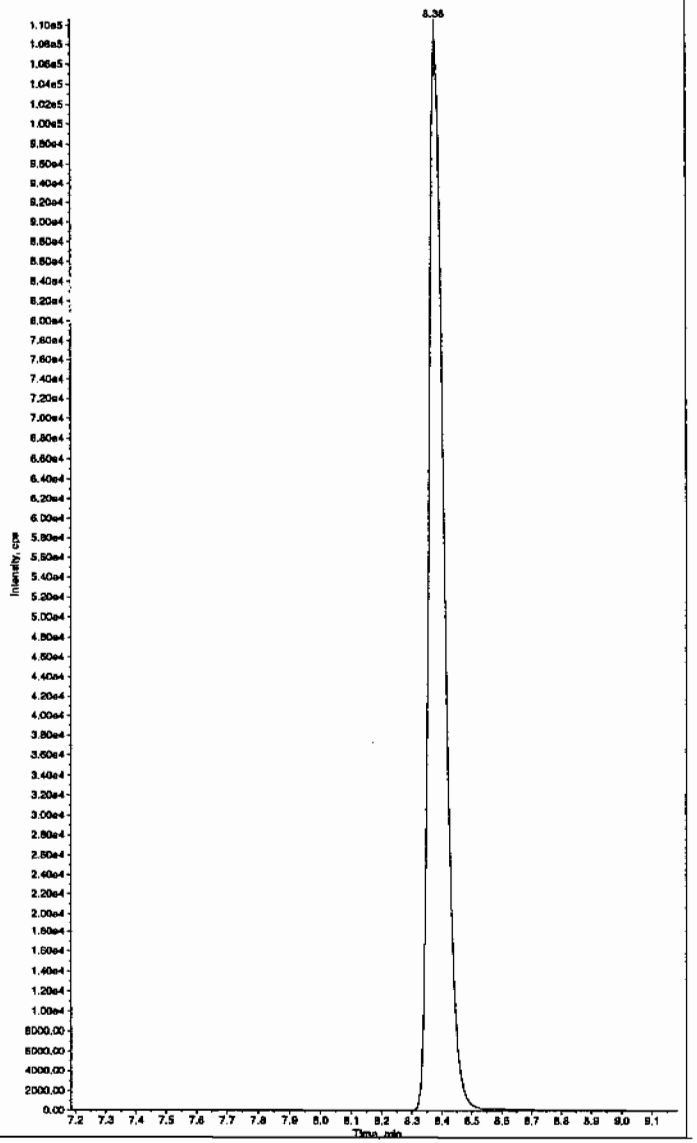

HMW 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318003" Sample ID: "950081|2|LER" File: "EXS03010081.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 243. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:02:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.96e+006 counts
Height: 830675.476 cps
Start Time: 8.29 min
End Time: 8.72 min

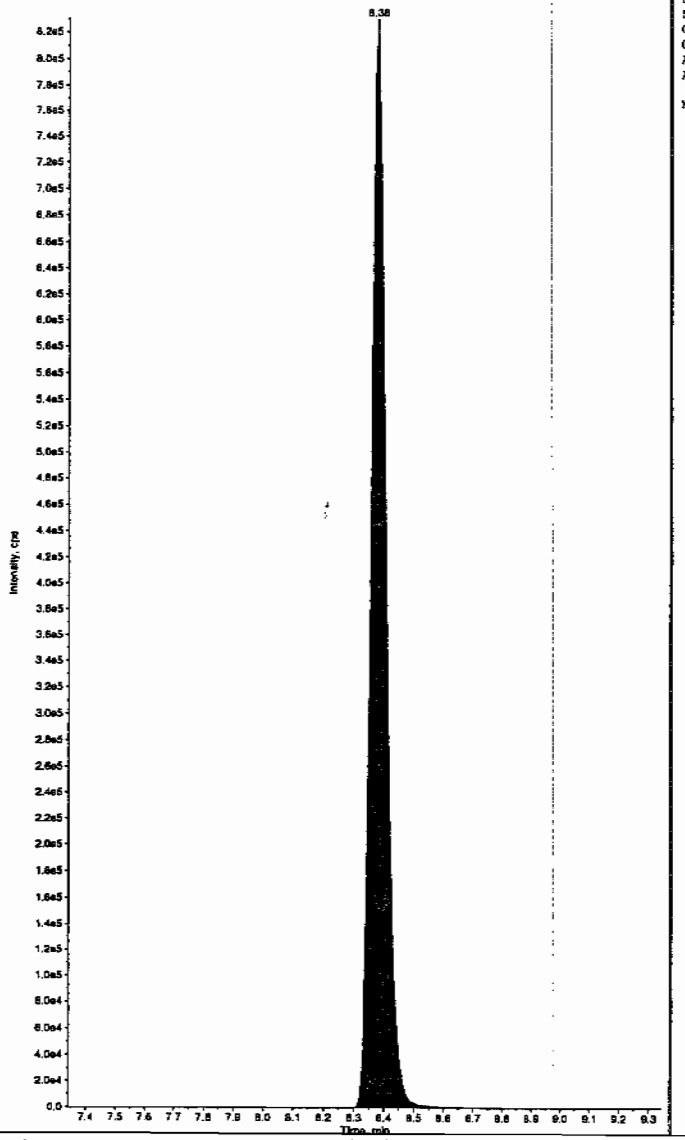

Sample Name: "246318003" Sample ID: "950081|2|LER" File: "EXS03010081.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:02:10 AM

Modified: No

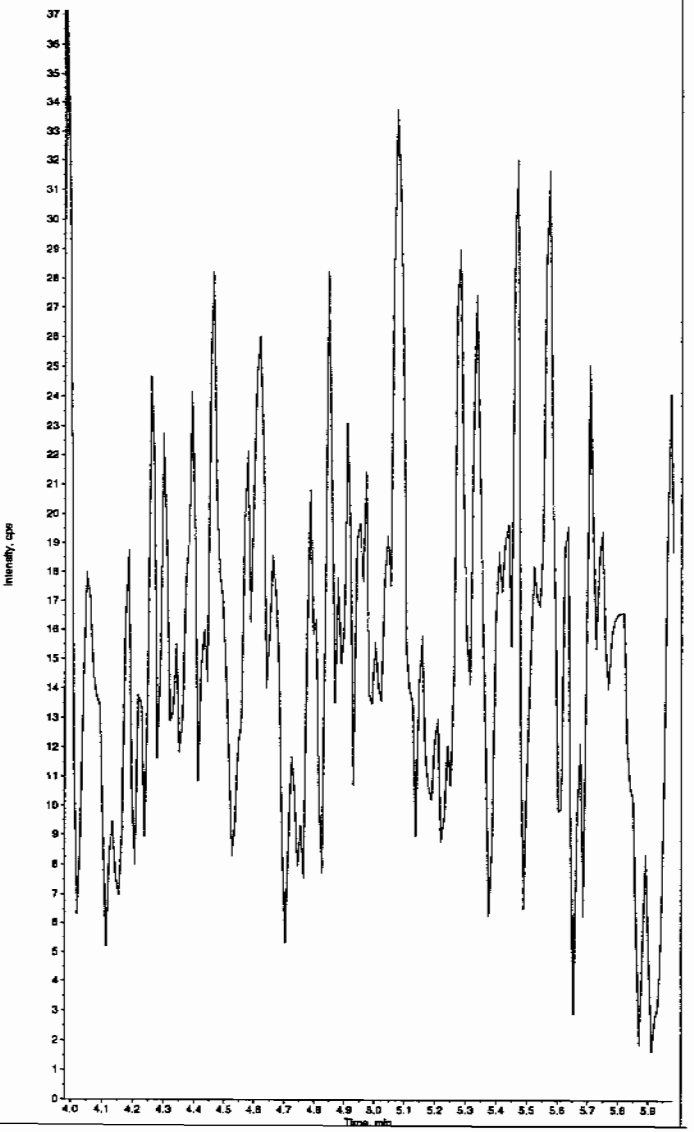

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318003" Sample ID: "950081|2|LER" File: "EXS03010081.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:02:10 AM

Modified: No

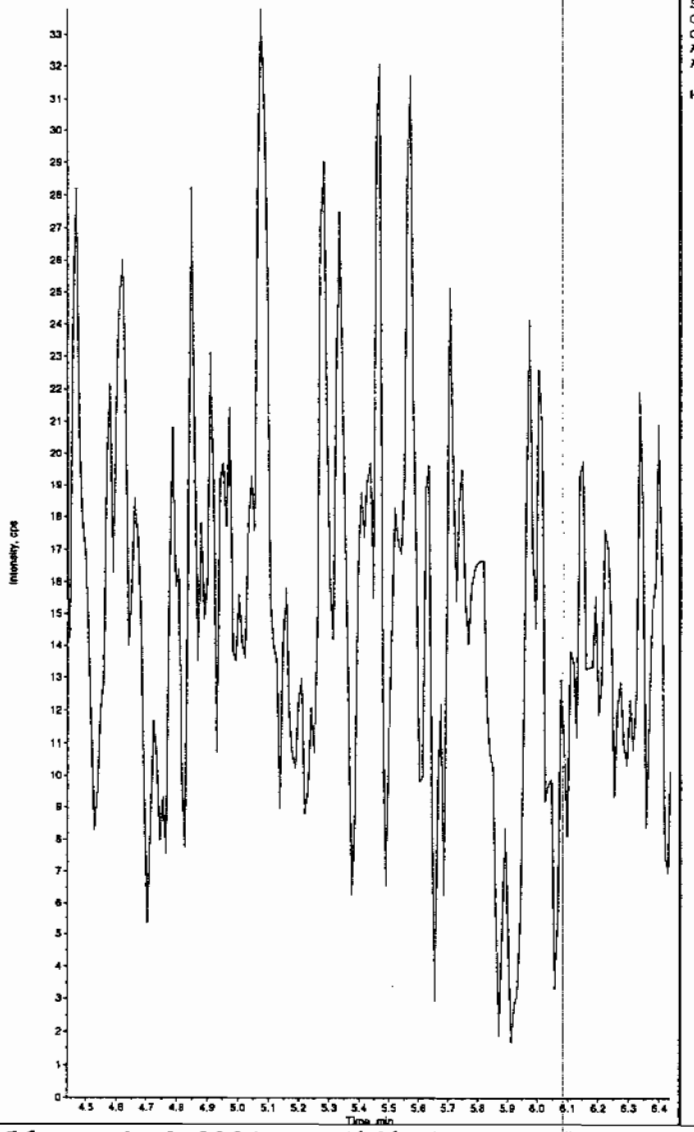

Sample Name: "246318003" Sample ID: "950081|2|LER" File: "EXS03010081.wiff"
Peak Name: "tris(p-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:02:10 AM

Modified: No

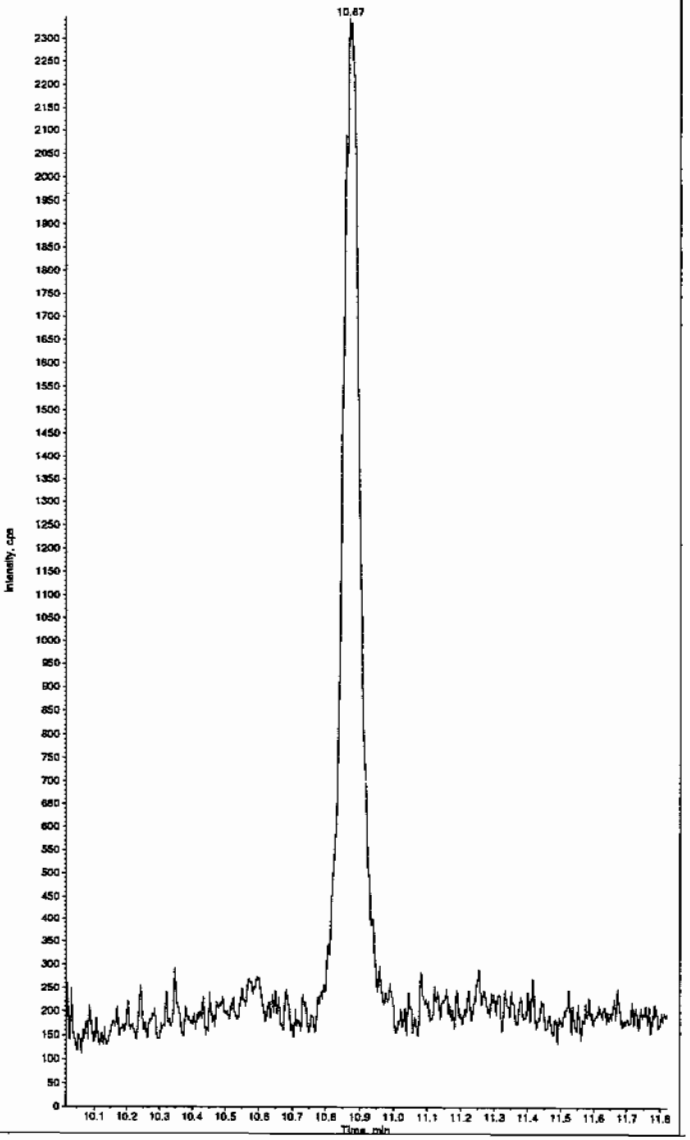

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7336

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312082.wiff

Date Analyzed: 13-MAR-10 19:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312082.wiff	**Acquisition Date**	3/13/2010 7:37:59 PM
Sample Name	246318004	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

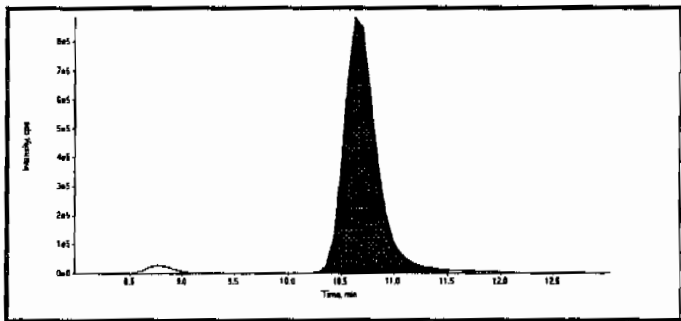

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	19400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

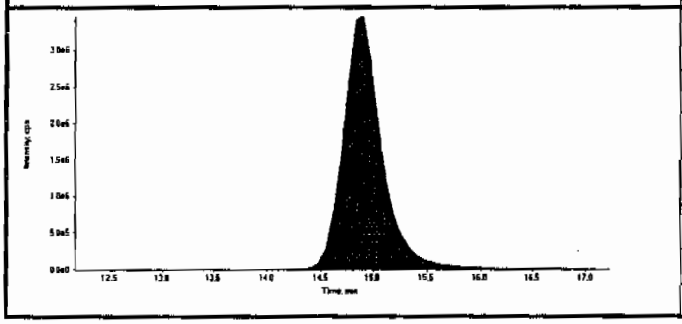

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	89600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

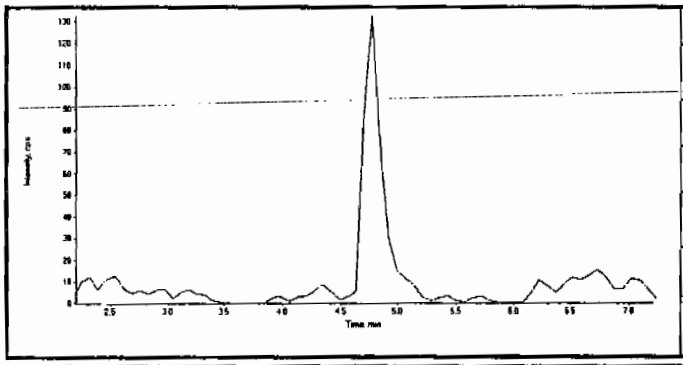

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

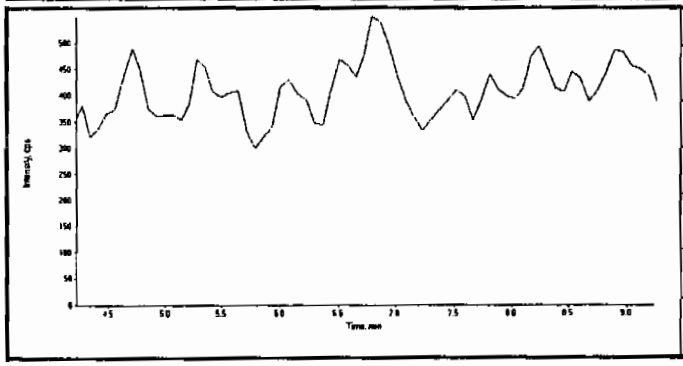

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

3/24/10

03/24/10

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Data File	EXP0312082.wiff	Acquisition Date	3/13/2010 7:37:59 PM
Sample Name	246318004	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

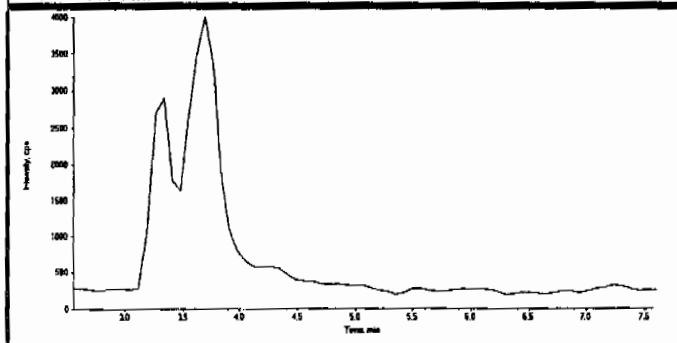

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

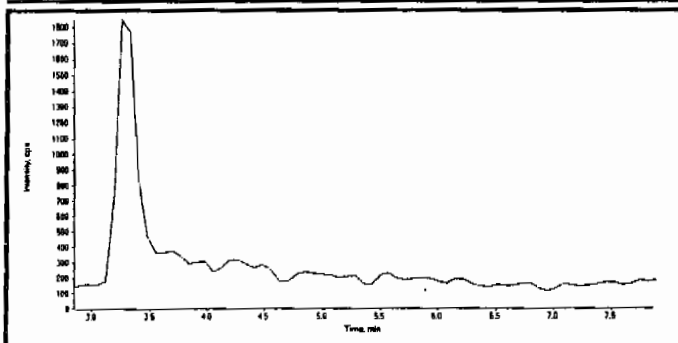

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

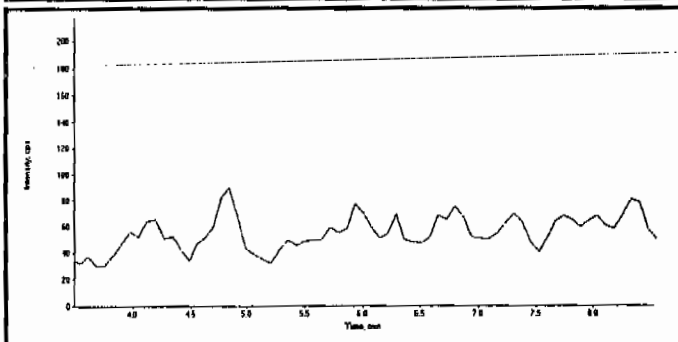

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

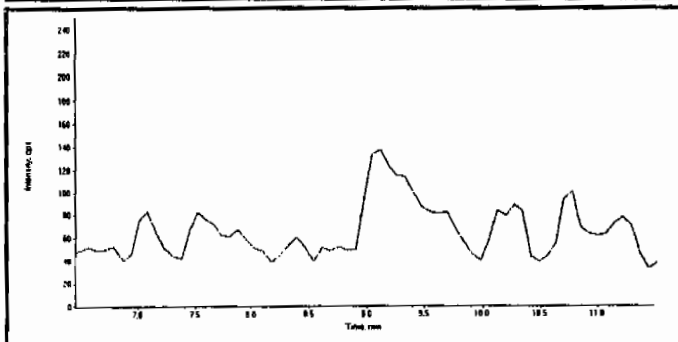

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312082.wiff	**Acquisition Date**	3/13/2010 7:37:59 PM
Sample Name	246318004	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

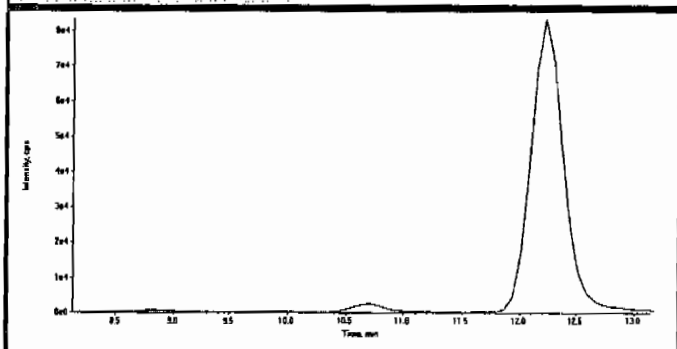

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

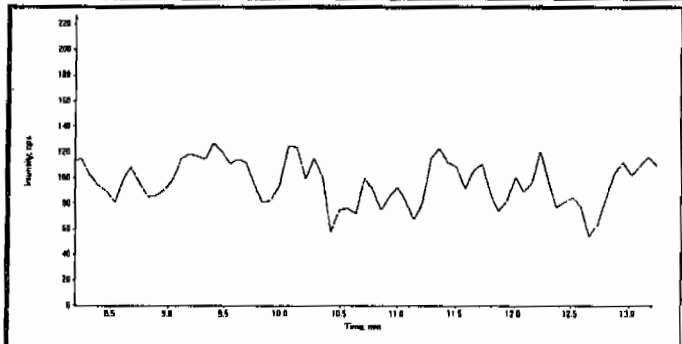

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

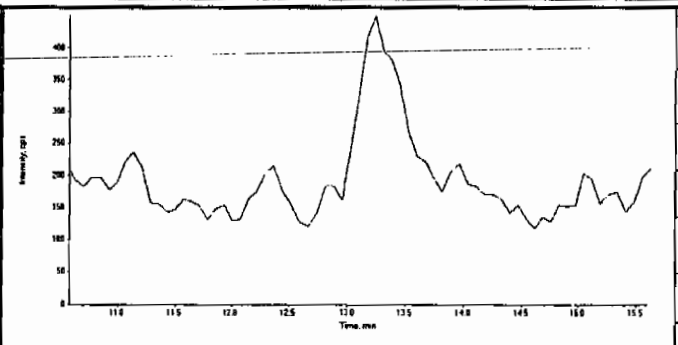

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

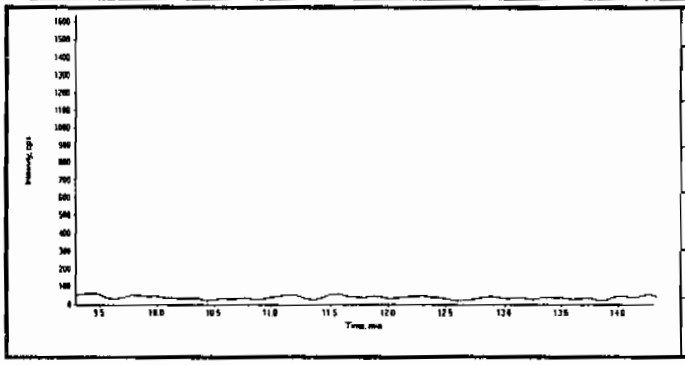

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312082.wiff	**Acquisition Date**	3/13/2010 7:37:59 PM
Sample Name	246318004	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

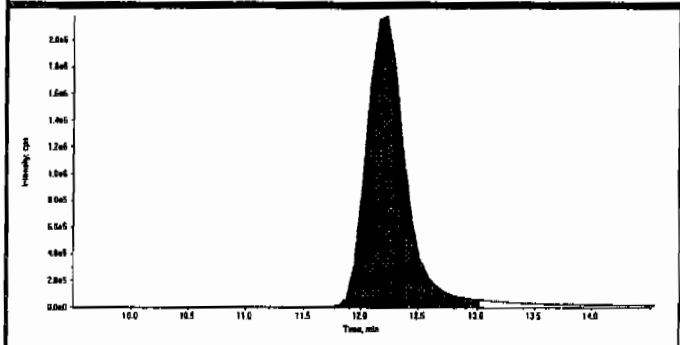

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.22e+007
Manual Modification	No
Amount:	237. (ng/mL)
% Accuracy:	N/A

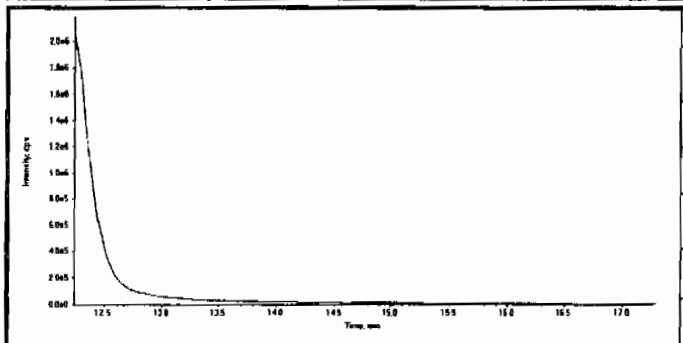

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	8.76e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

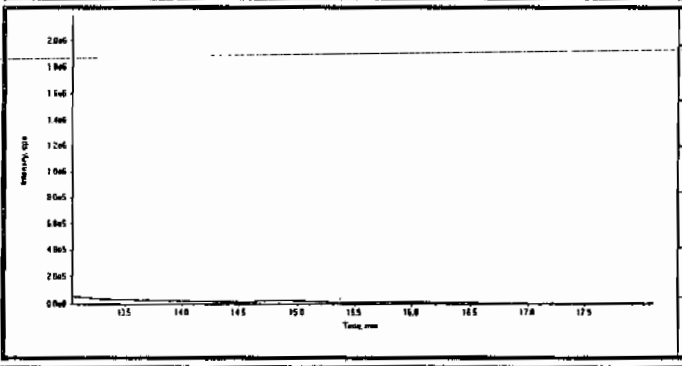

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

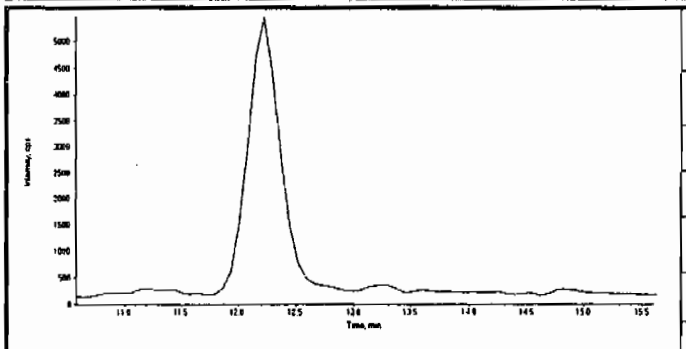

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312082.wiff	**Acquisition Date**	3/13/2010 7:37:59 PM
Sample Name	246318004	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

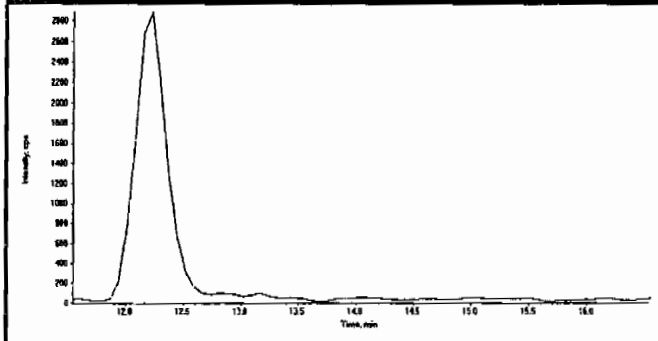

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

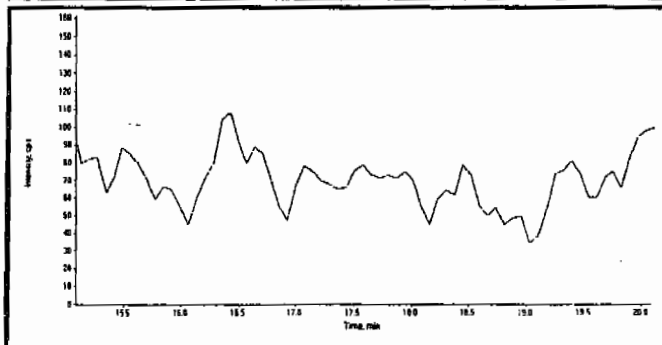

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

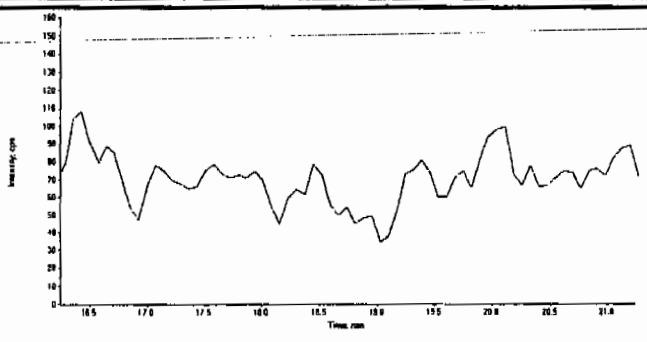

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

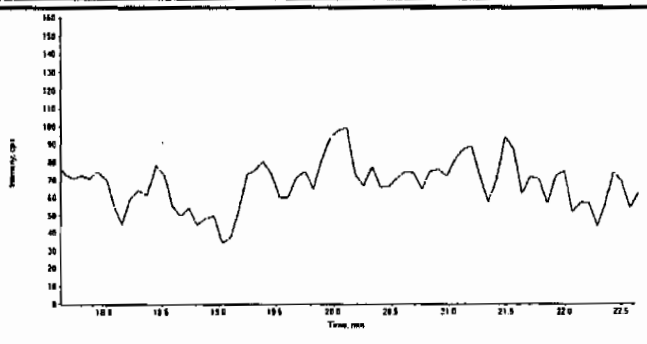

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312082.wiff	**Acquisition Date**	3/13/2010 7:37:59 PM
Sample Name	246318004	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

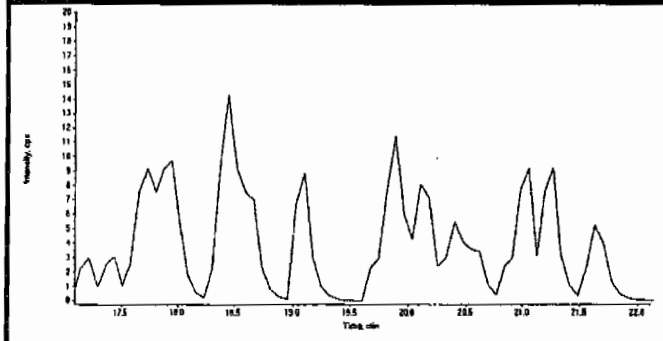

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7336

Lab Code: GEI

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010119.wiff

Date Analyzed: 02-MAR-10 16:01

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "246318004" Sample ID: "950081|2|LER" File: "EXS03010119.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 20.2 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:01:00 PM

Modified: No
Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 1.00e+004 counts
Height: 2751.077 cps
Start Time: 6.90 min
End Time: 7.17 min

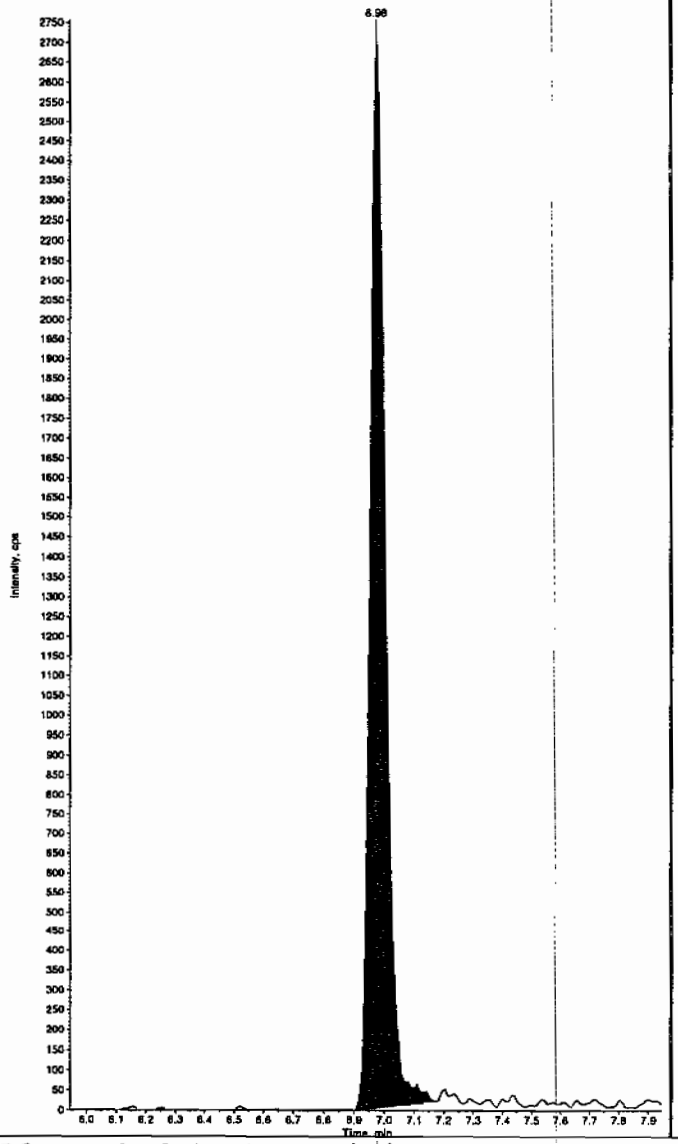

Sample Name: "246318004" Sample ID: "950081|2|LER" File: "EXS03010119.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:01:00 PM

Modified: No

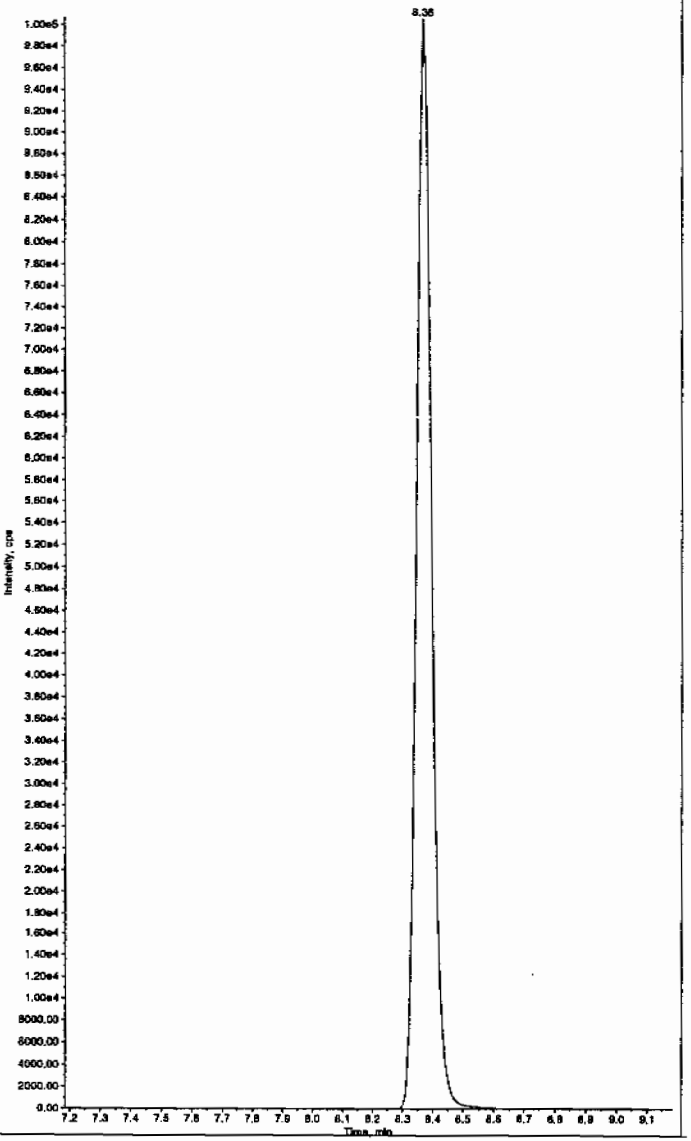

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318004" Sample ID: "950081|2|LER" File: "EXS03010119.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 238. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:01:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 2.90e+006 counts
Height: 839886.963 cps
Start Time: 8.25 min
End Time: 8.71 min

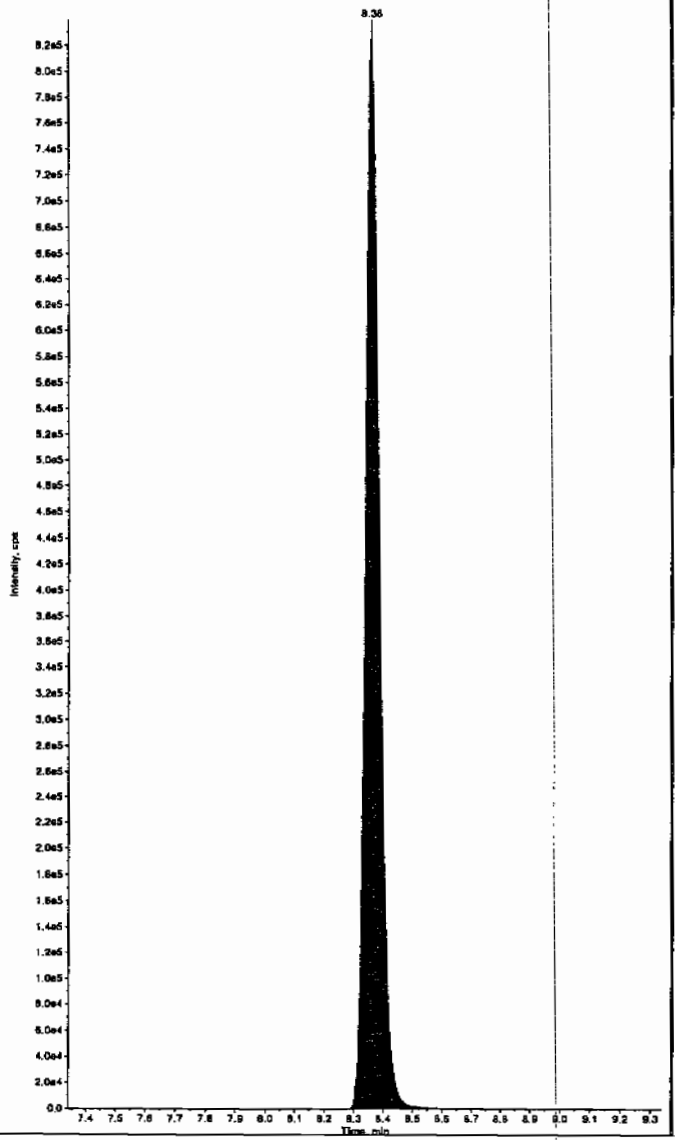

Sample Name: "246318004" Sample ID: "950081|2|LER" File: "EXS03010119.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:01:00 PM

Modified: No

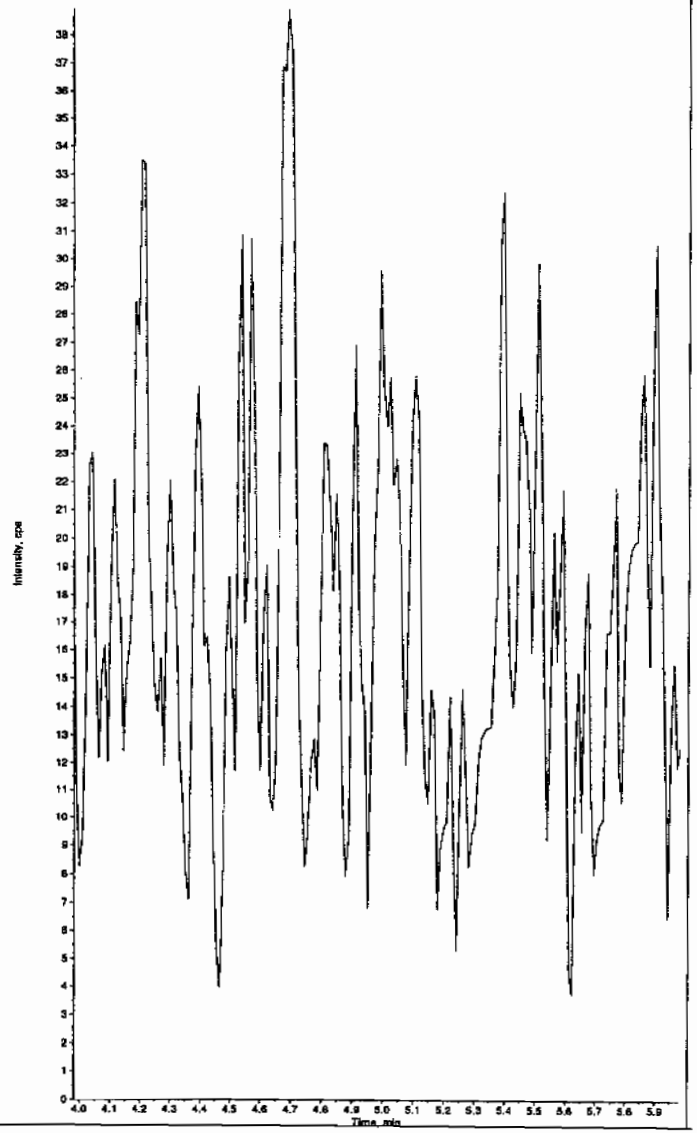

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318004" Sample ID: "950081|2|LER" File: "EXS03010119.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:01:00 PM
Modified: No

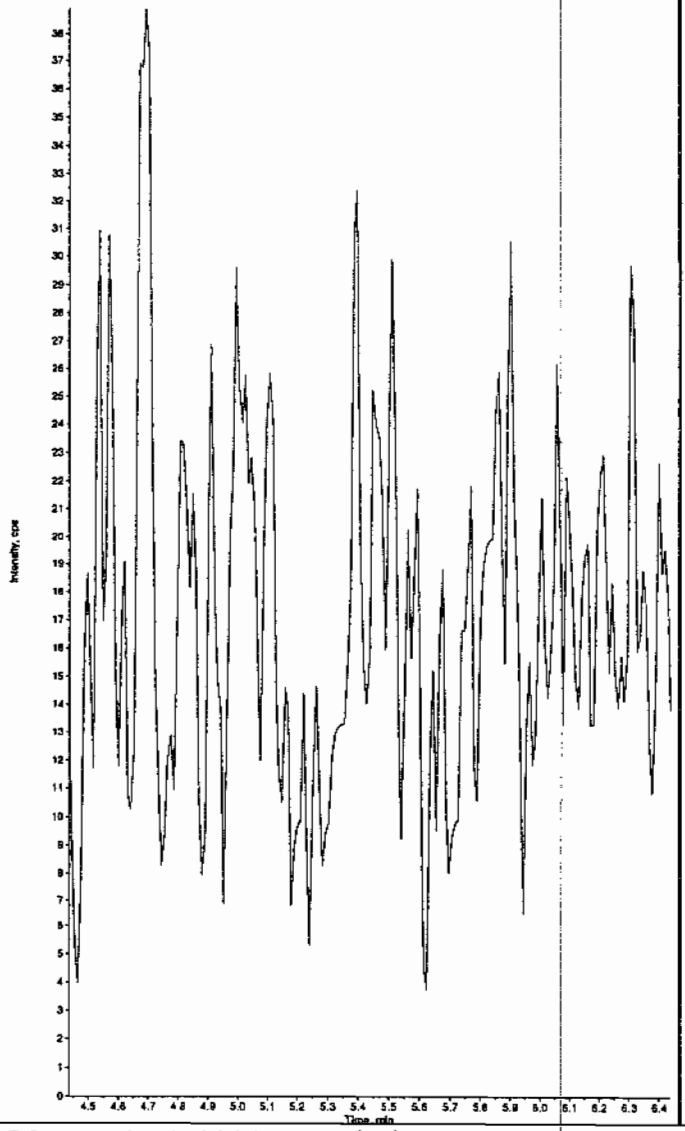

Sample Name: "246318004" Sample ID: "950081|2|LER" File: "EXS03010119.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX832125" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:01:00 PM
Modified: No

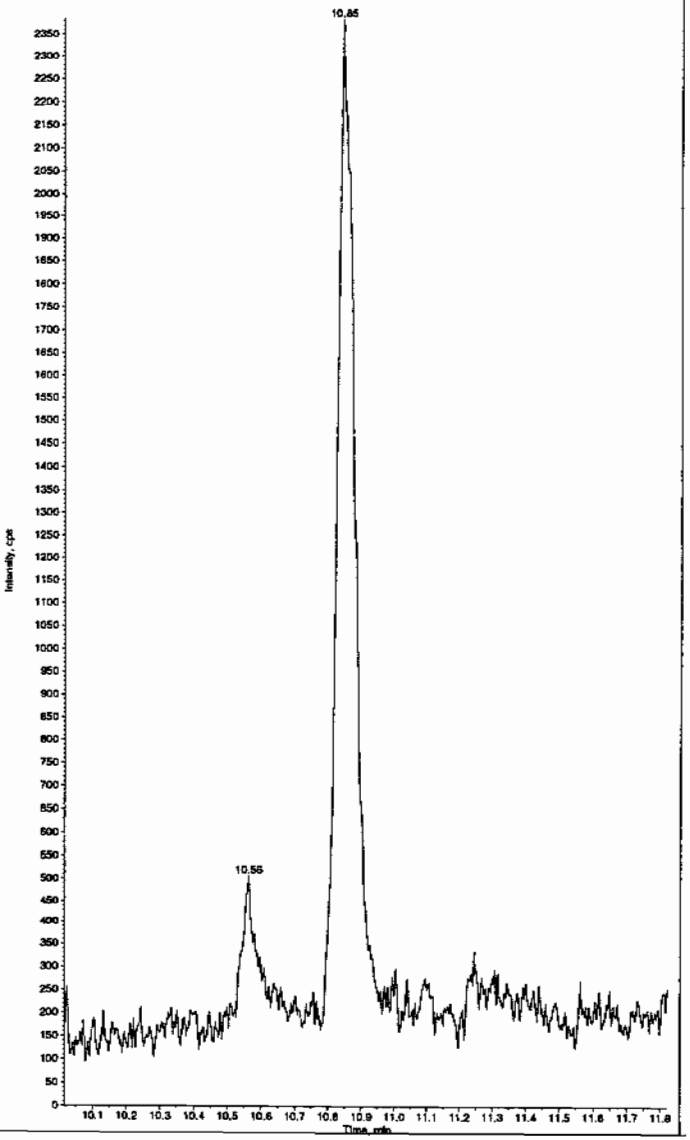

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312083.wiff

Date Analyzed: 13-MAR-10 20:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312083.wiff	Acquisition Date	3/13/2010 8:04:26 PM
Sample Name	246318005	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

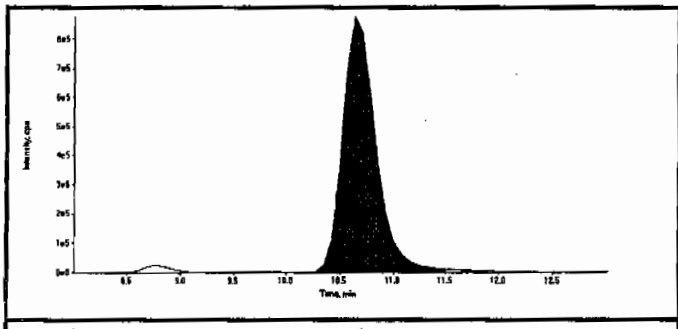

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	19000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

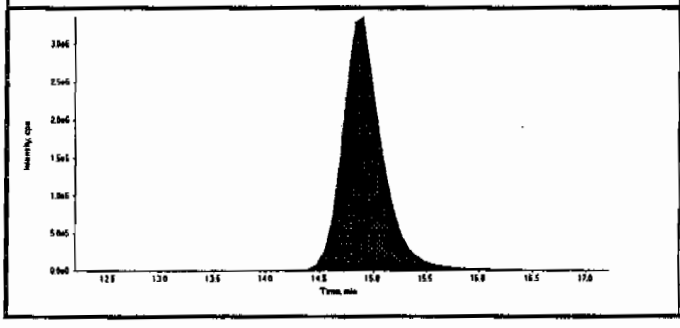

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	86400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

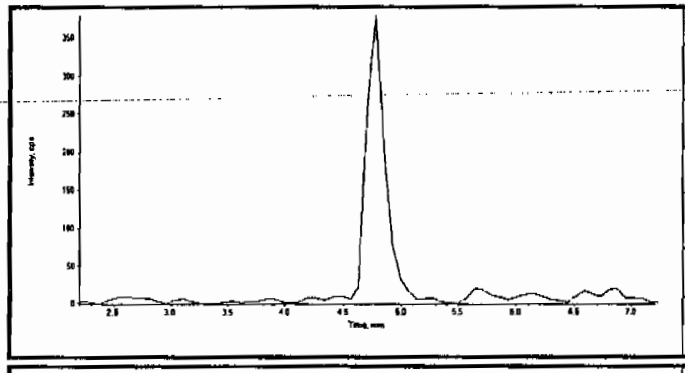

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

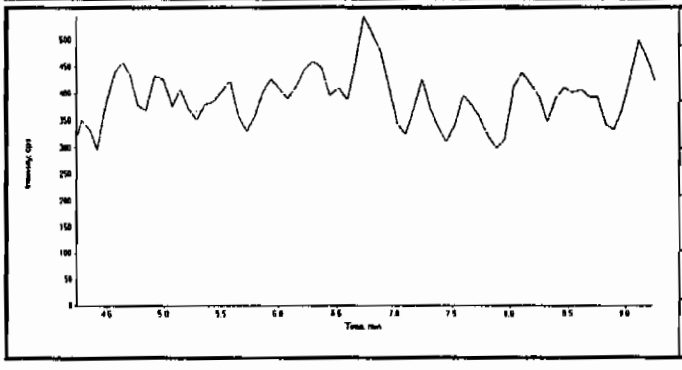

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Ray 3/24/10 HMK 03/24/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312083.wiff	**Acquisition Date**	3/13/2010 8:04:26 PM
Sample Name	246318005	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

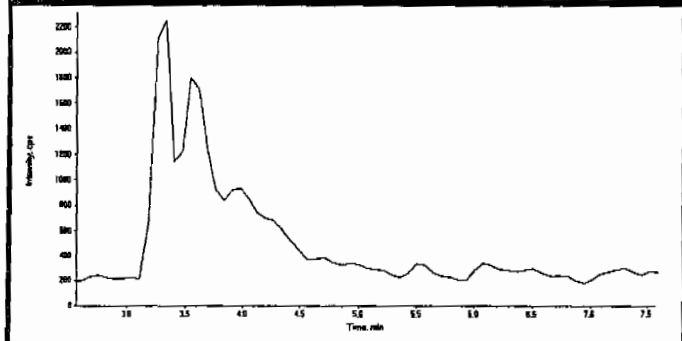

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

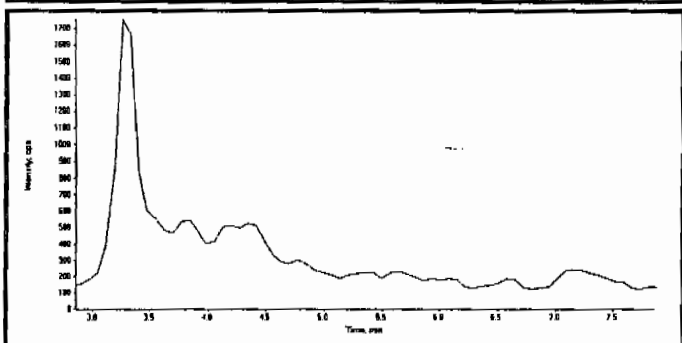

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

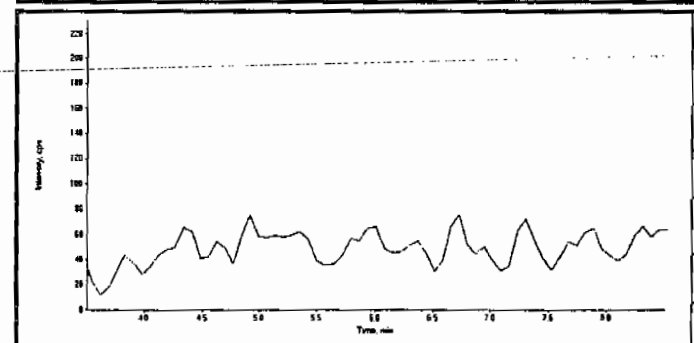

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

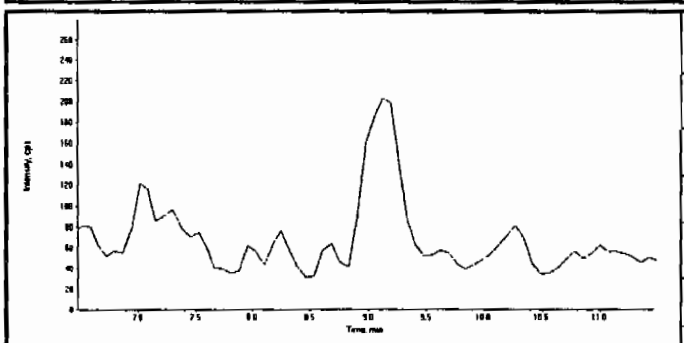

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312083.wiff	**Acquisition Date**	3/13/2010 8:04:26 PM
Sample Name	246318005	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

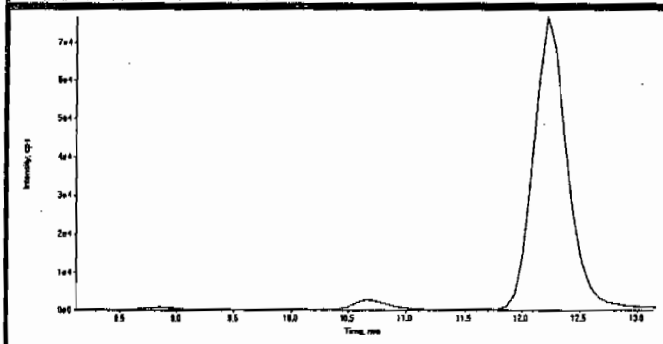

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

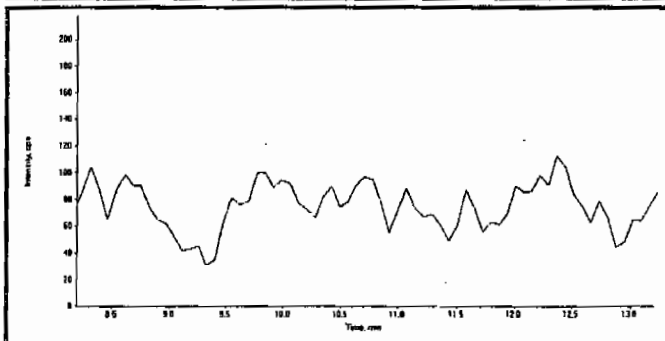

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

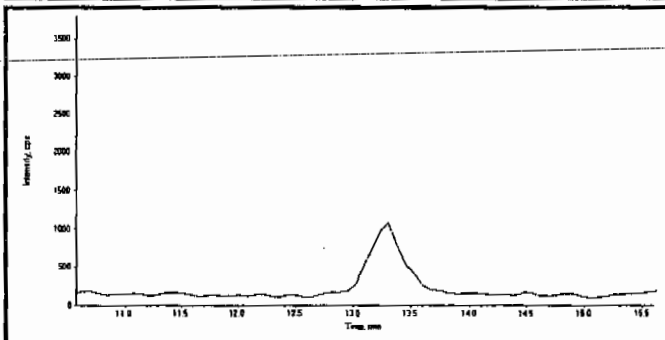

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

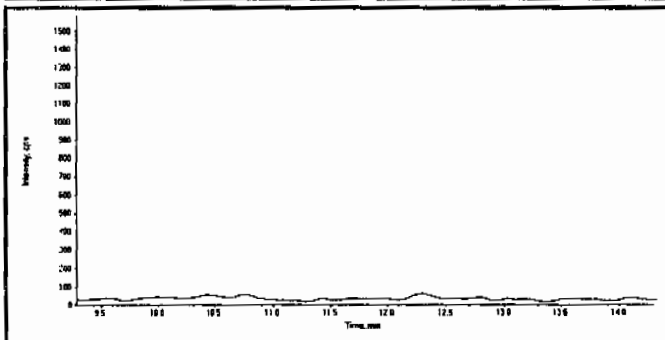

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312083.wiff	Acquisition Date	3/13/2010 8:04:26 PM
Sample Name	246318005	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

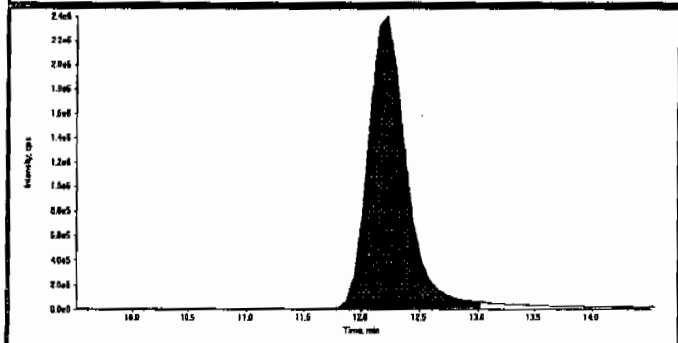

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.49e+007
Manual Modification	No
Amount:	258. (ng/mL)
% Accuracy:	N/A

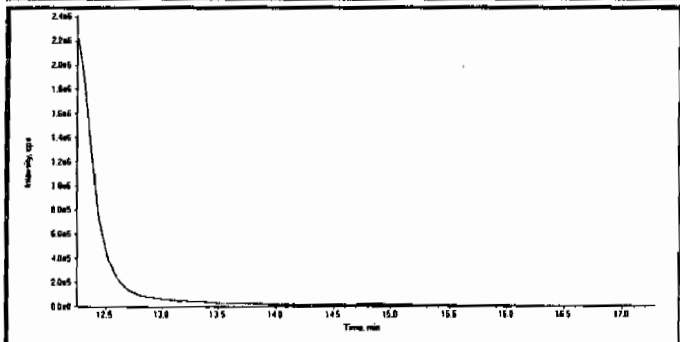

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	9.26e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

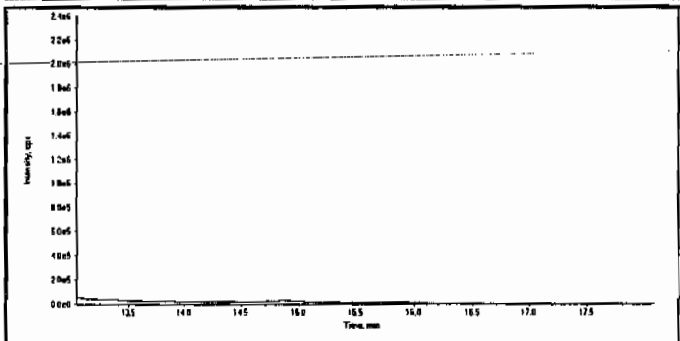

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

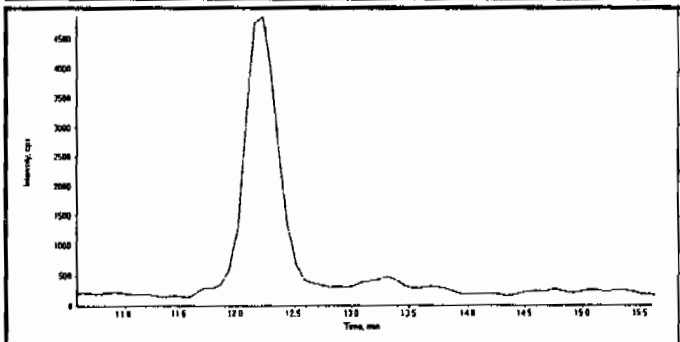

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312083.wiff	Acquisition Date	3/13/2010 8:04:26 PM
Sample Name	246318005	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

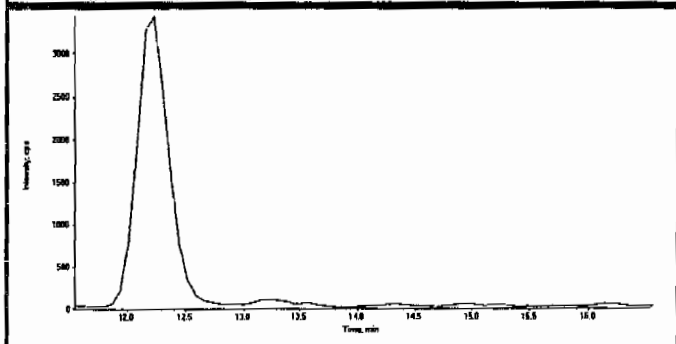

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

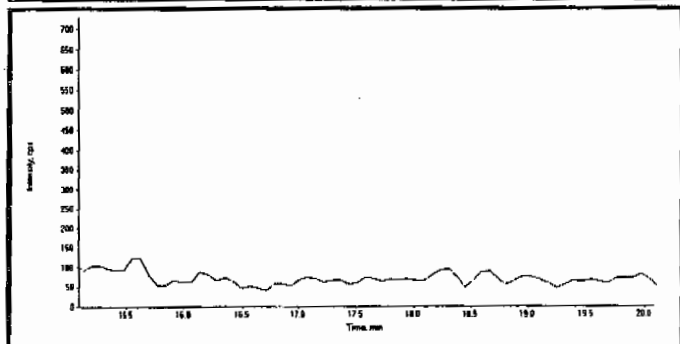

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

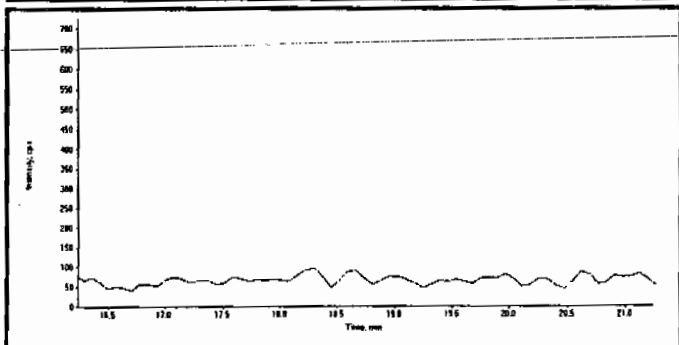

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

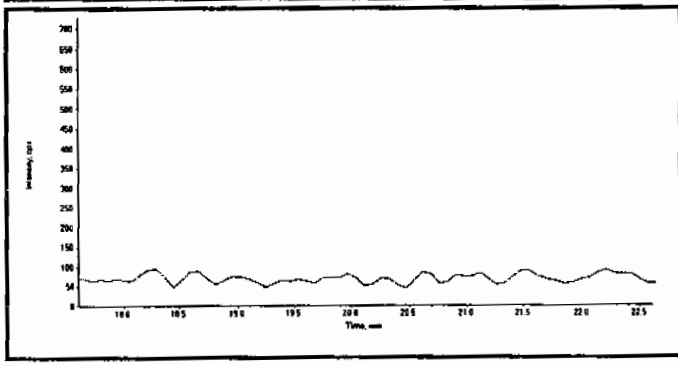

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312083.wiff	**Acquisition Date**	3/13/2010 8:04:26 PM
Sample Name	246318005	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

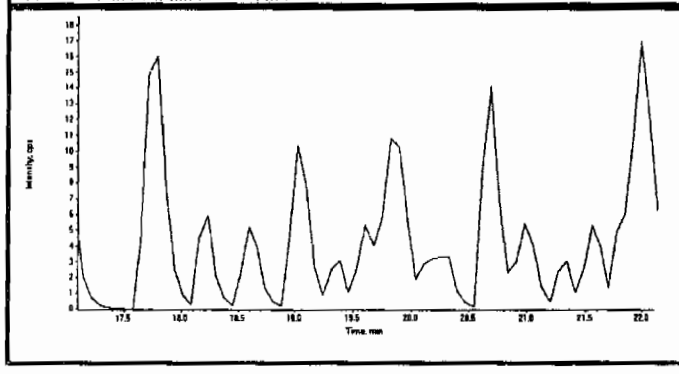

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 10

Injection Volume (uL): 50

GEL data file: EXS03010123.wiff

Date Analyzed: 02-MAR-10 17:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	27300	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

DL - TATB only

Ian 3/3/10

Sample Name: "246318005" Sample ID: "950081|10|LER" File: "EXS03010123.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 546. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:03:57 PM

Modified: No
Integ. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.96 min
Area: 6.55e+005 counts
Height: 157826.599 cps
Start Time: 6.87 min
End Time: 7.89 min

2730

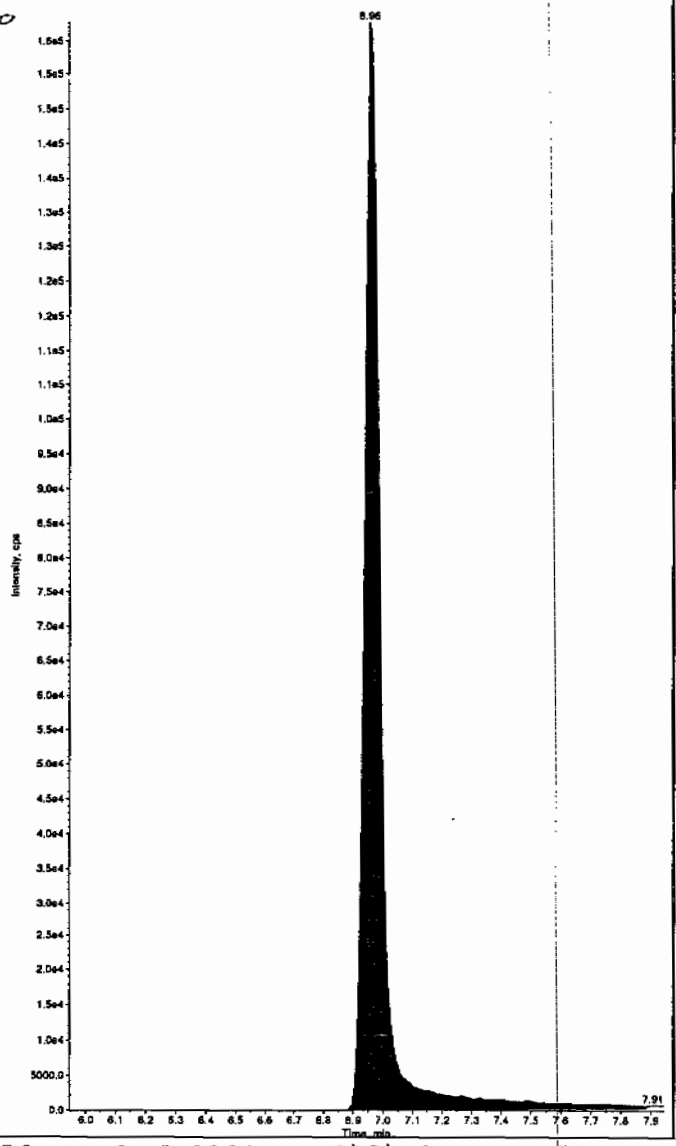

Sample Name: "246318005" Sample ID: "950081|10|LER" File: "EXS03010123.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:03:57 PM

Modified: No

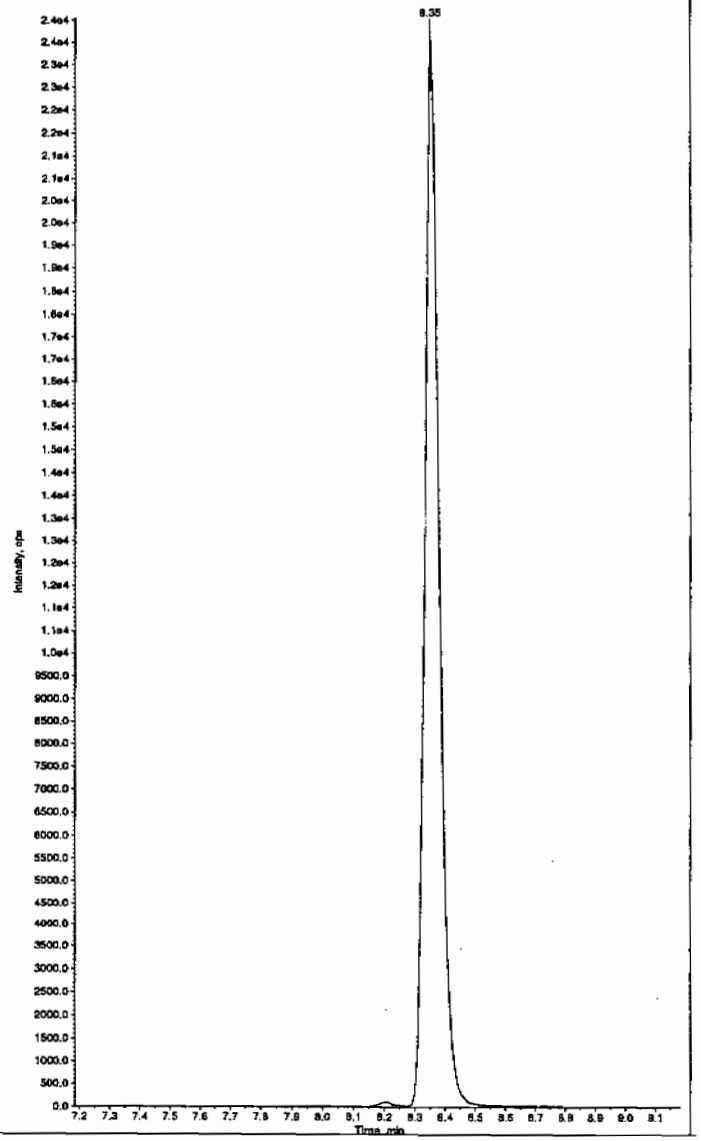

AMM 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246316005" Sample ID: "950081|10|LER" File: "EXS03010123.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 51.0 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:03:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 5.85e+005 counts
Height: 174929.703 cps
Start Time: 8.26 min
End Time: 8.68 min

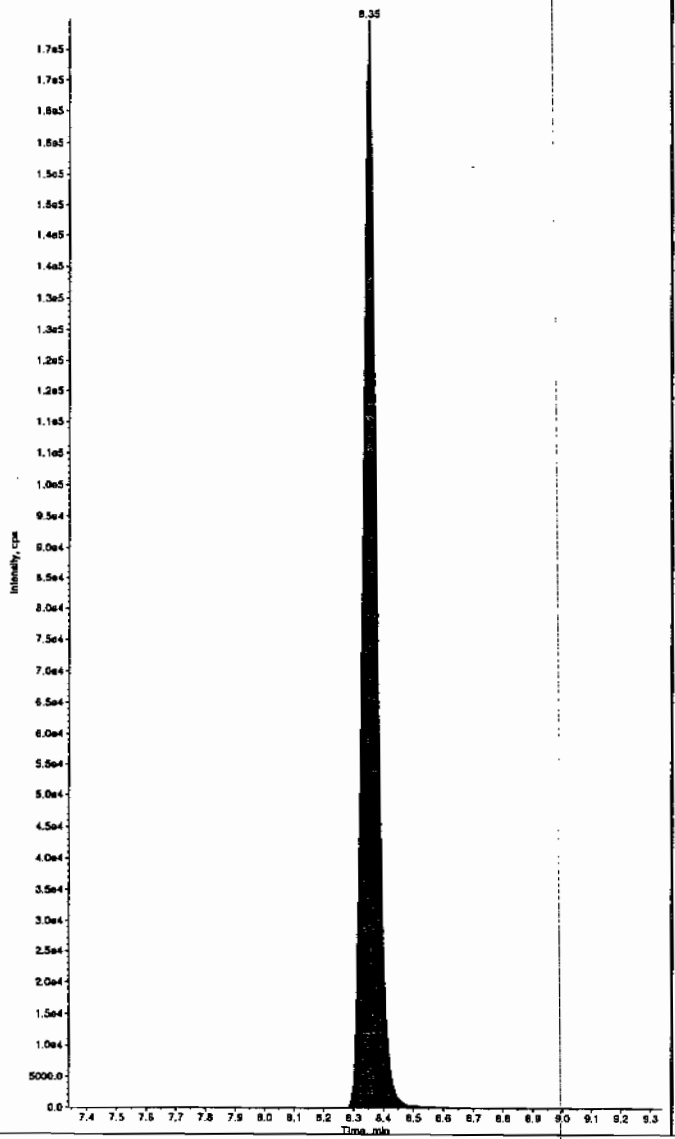

Sample Name: "246316005" Sample ID: "950081|10|LER" File: "EXS03010123.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:03:57 PM

Modified: No

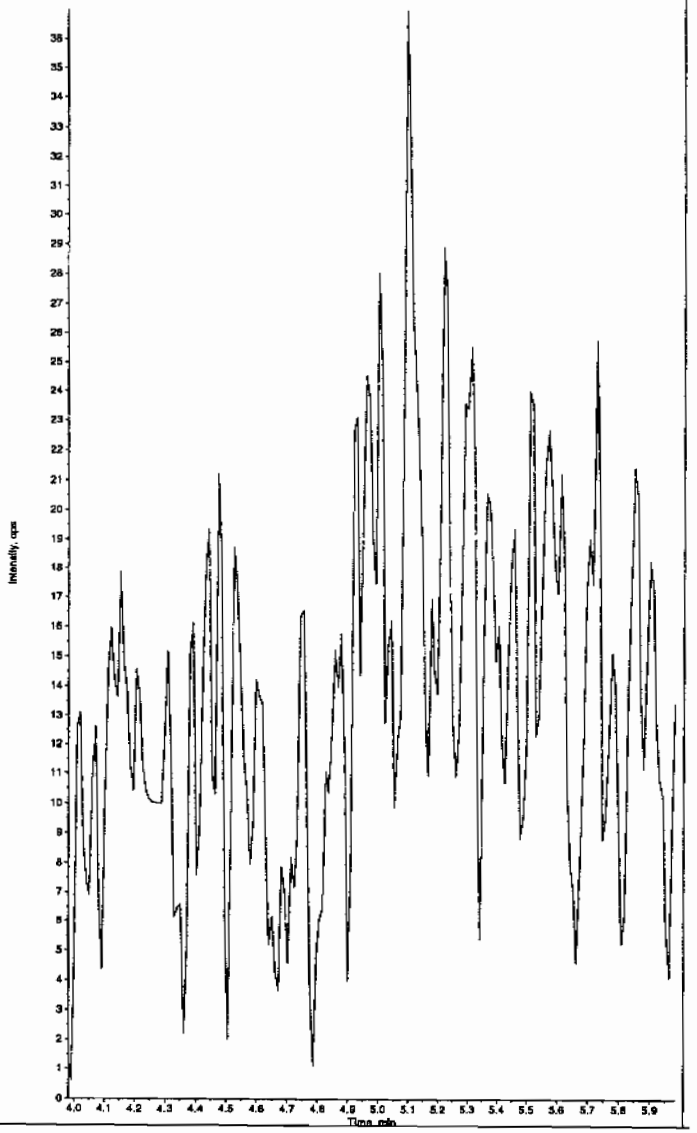

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318005" Sample ID: "950081|10|LER" File: "EXS03010123.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:03:57 PM

Modified: No

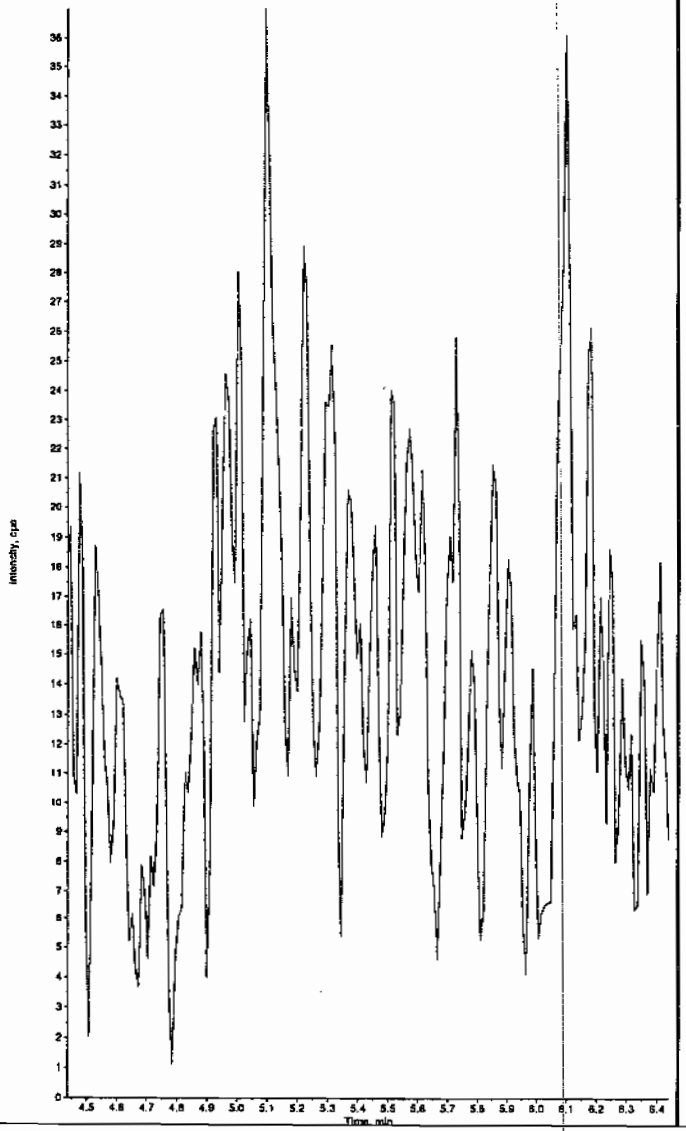

Sample Name: "246318005" Sample ID: "950081|10|LER" File: "EXS03010123.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:03:57 PM

Modified: No

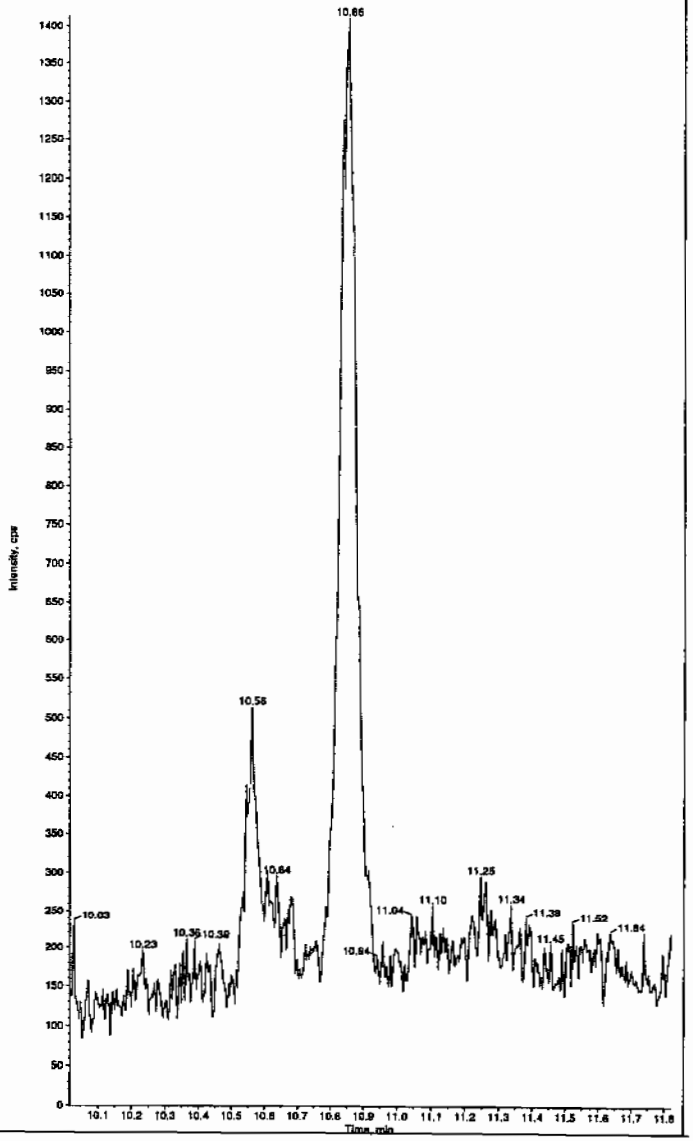

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7337

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010083.wiff

Date Analyzed: 02-MAR-10 06:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lun 3/3/10

Sample Name: "246318005" Sample ID: "950081|2|LER" File: "EXS03010083.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2810. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:33:37 AM

Modified: No
Alg. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 3.80e+006 counts
Height: 832191.406 cps
Start Time: 6.89 min
End Time: 8.21 min

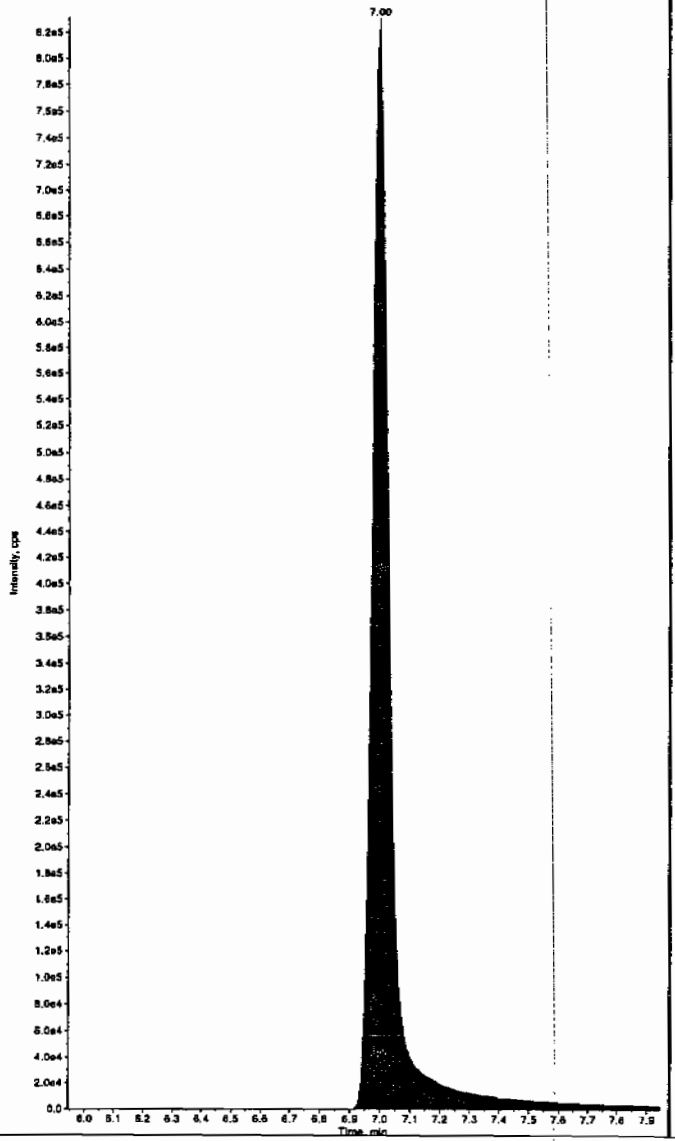

Sample Name: "246318005" Sample ID: "950081|2|LER" File: "EXS03010083.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:33:37 AM

Modified: No

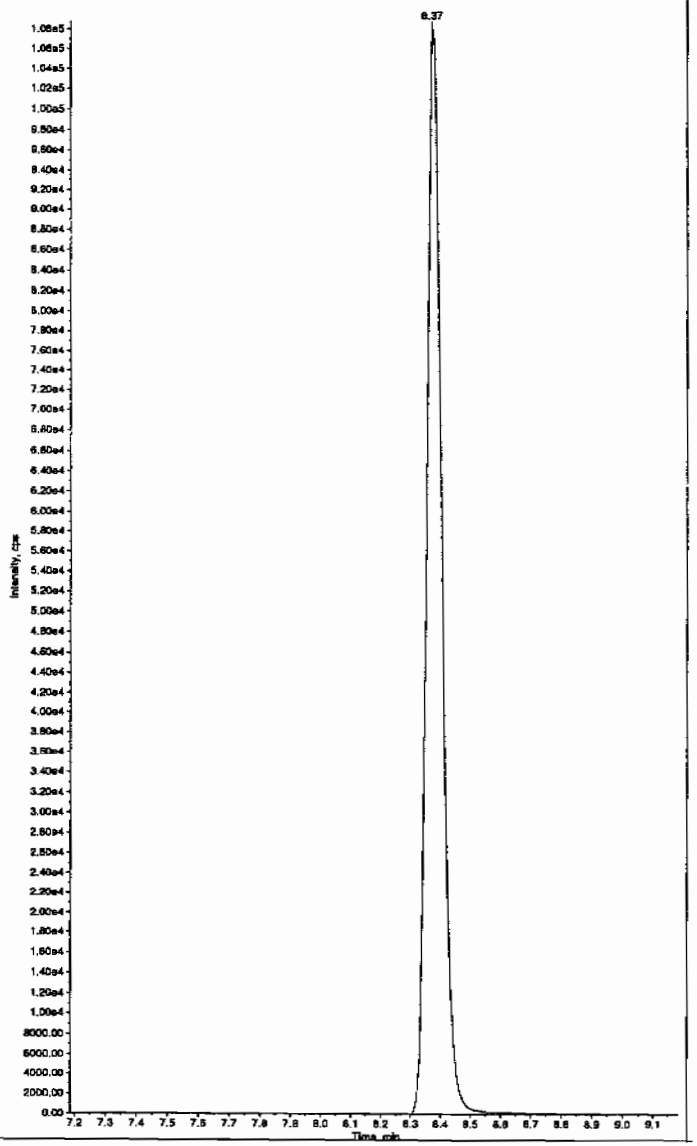

dmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318005" Sample ID: "950061|2|LER" File: "EXS03010083.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 246. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:33:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.99e+006 counts
Height: 858146.057 cps
Start Time: 8.24 min
End Time: 8.74 min

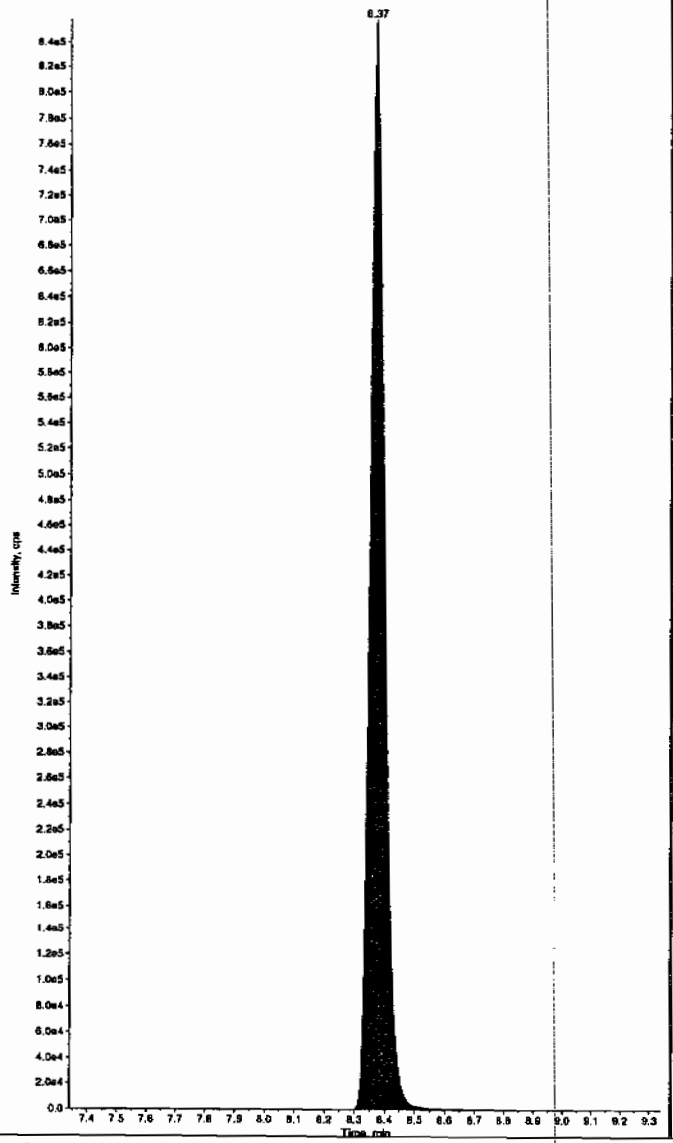

Sample Name: "246318005" Sample ID: "950061|2|LER" File: "EXS03010083.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:33:37 AM

Modified: No

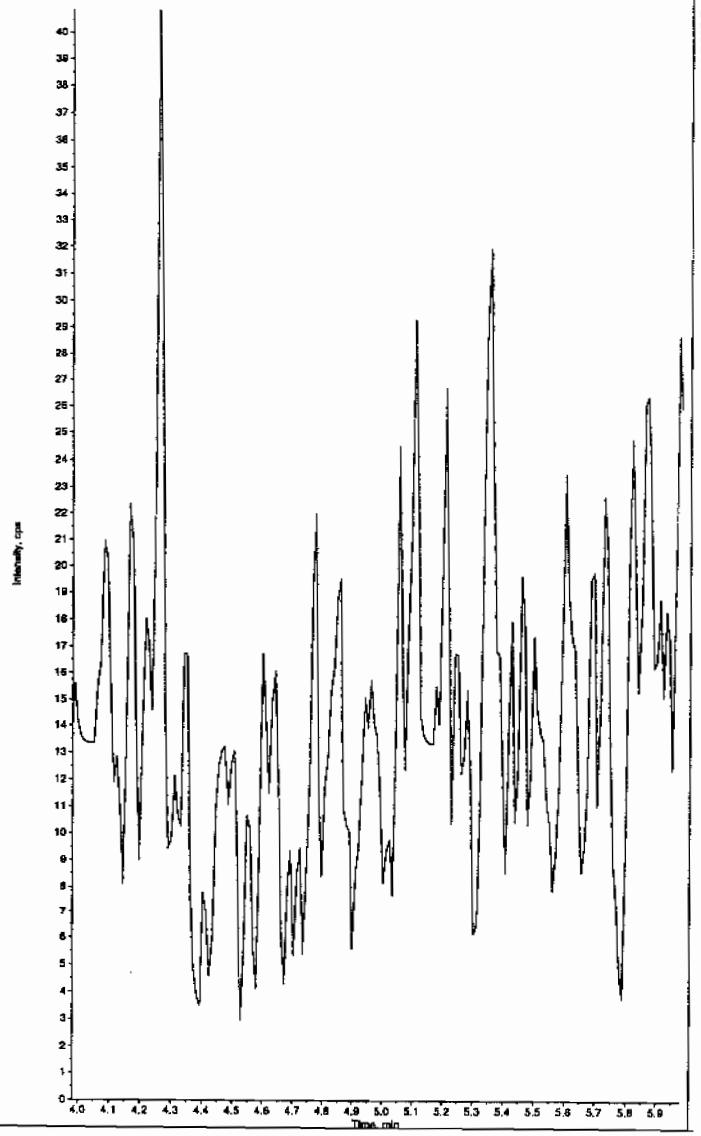

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318005" Sample ID: "950081|2|LER" File: "EXS03010083.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:33:37 AM

Modified: No

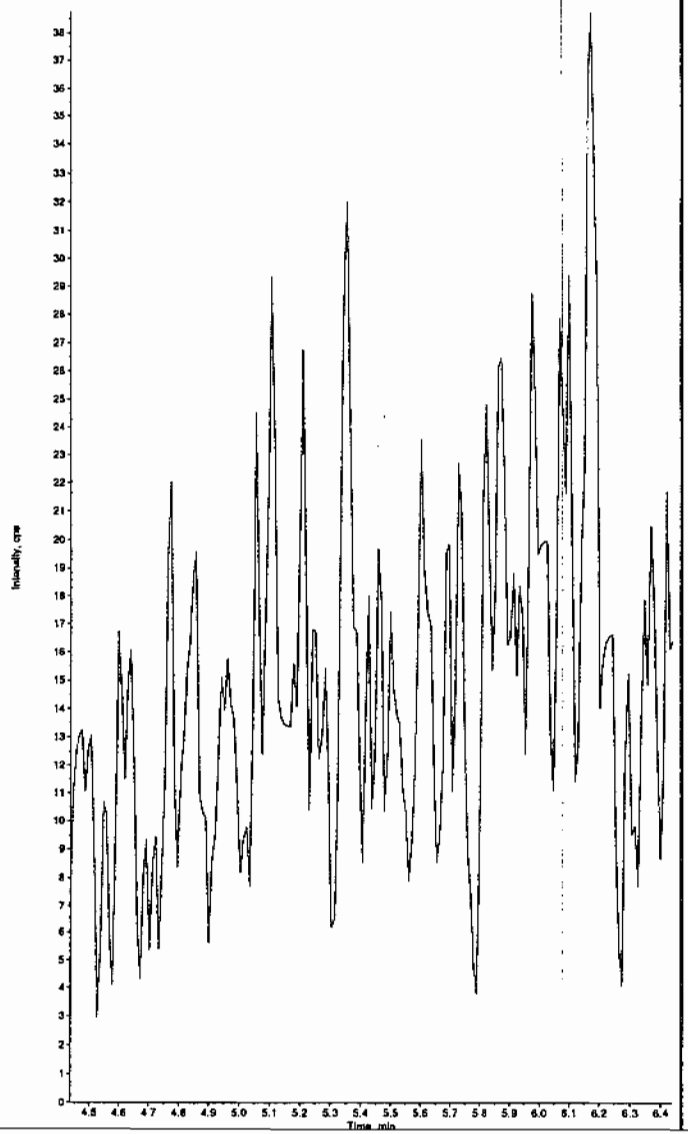

Sample Name: "246318005" Sample ID: "950081|2|LER" File: "EXS03010083.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 6:33:37 AM

Modified: No

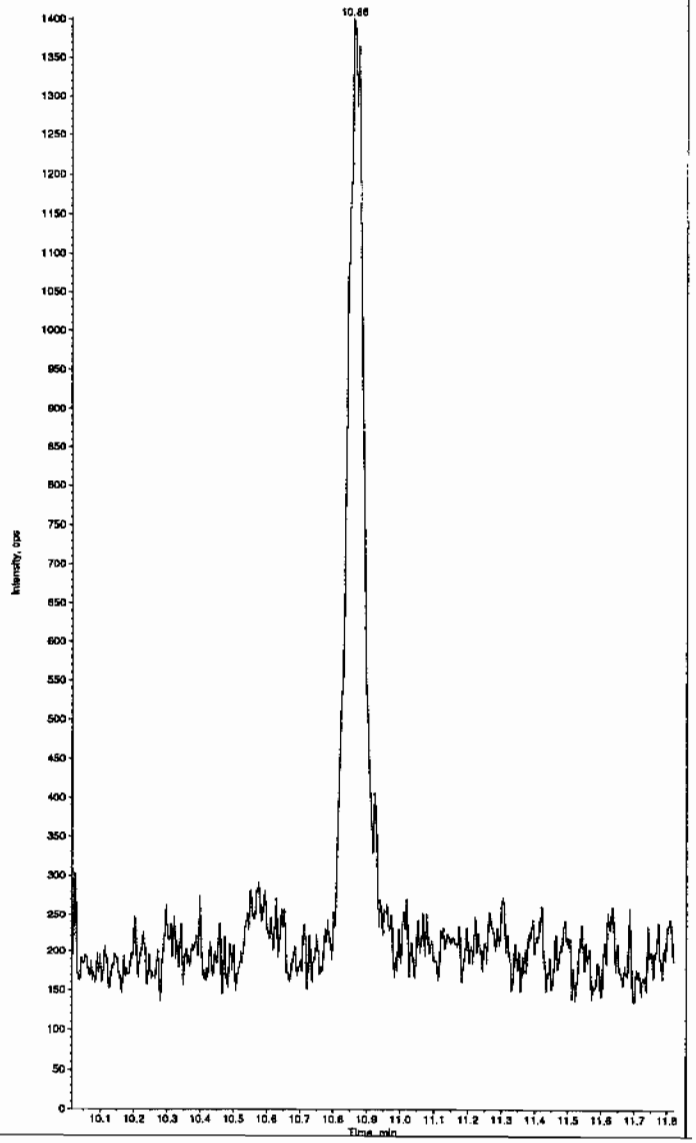

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7334

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312084.wiff

Date Analyzed: 13-MAR-10 20:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312084.wiff	**Acquisition Date**	3/13/2010 8:30:51 PM
Sample Name	246318006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

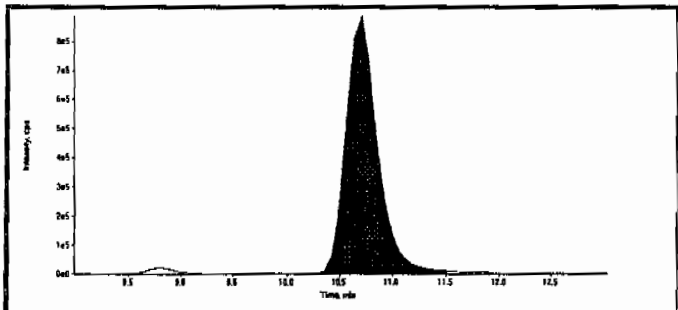

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.70
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

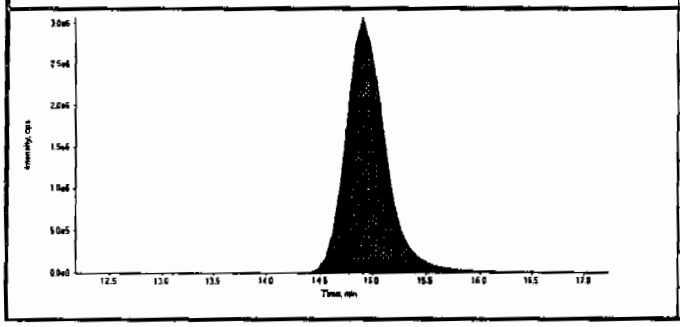

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	80800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

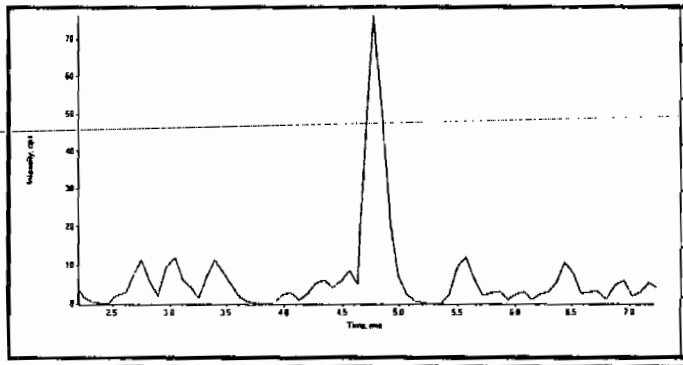

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

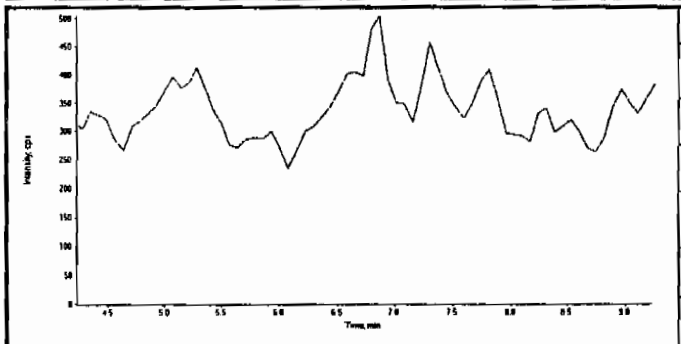

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hsm 03/24/10

Lan 3/24/10

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Data File	EXP0312084.wiff	Acquisition Date	3/13/2010 8:30:51 PM
Sample Name	246318006	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

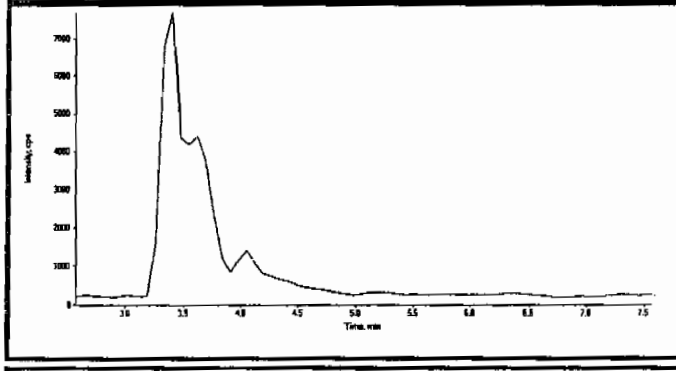

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

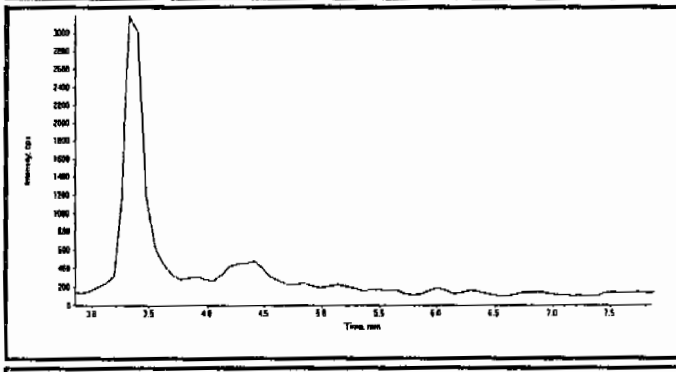

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

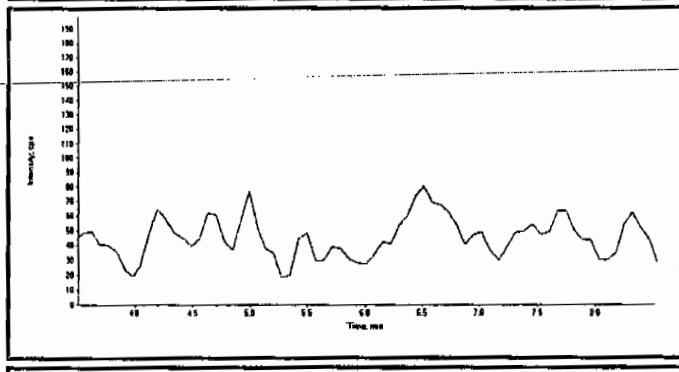

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

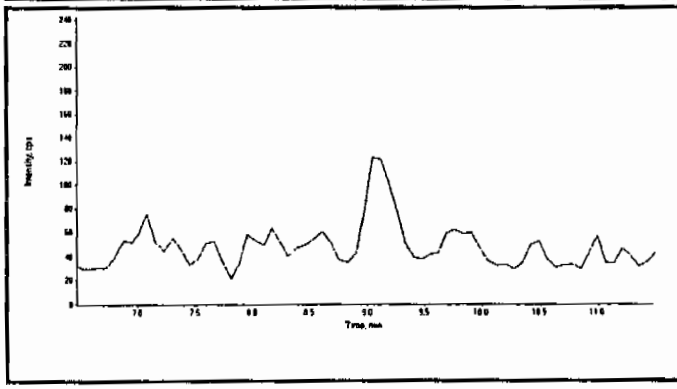

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312084.wiff	**Acquisition Date**	3/13/2010 8:30:51 PM
Sample Name	246318006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

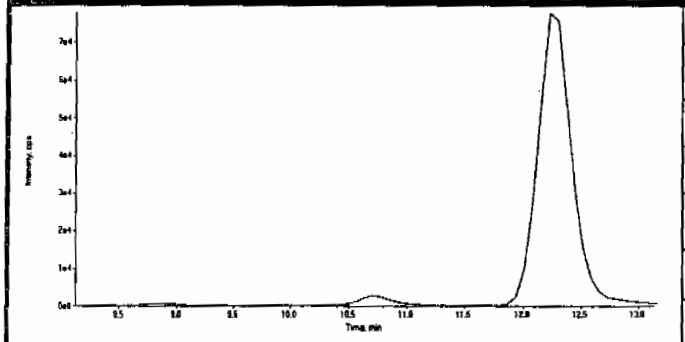

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

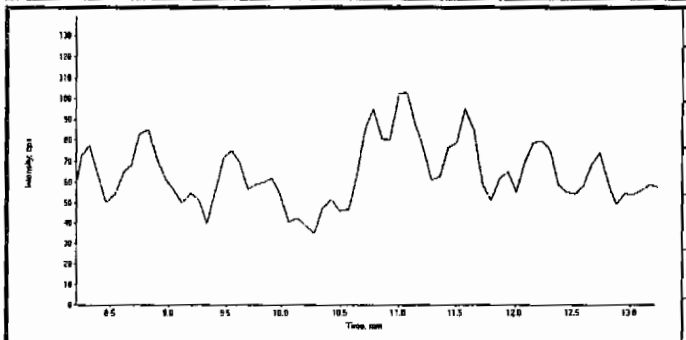

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

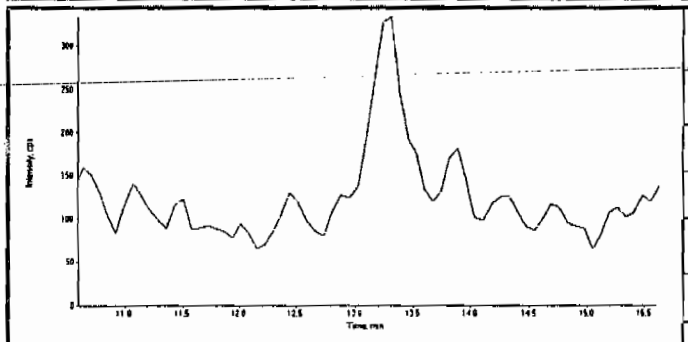

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

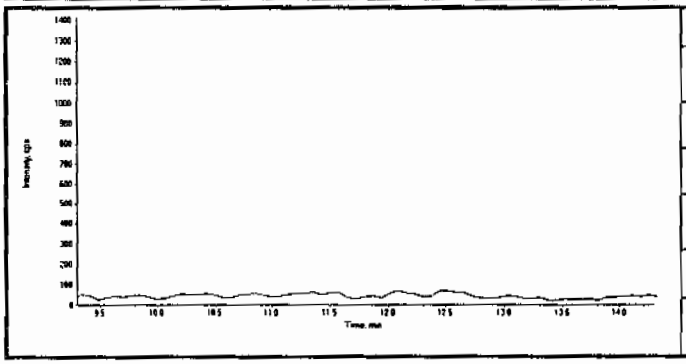

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312084.wiff	**Acquisition Date**	3/13/2010 8:30:51 PM
Sample Name	246318006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

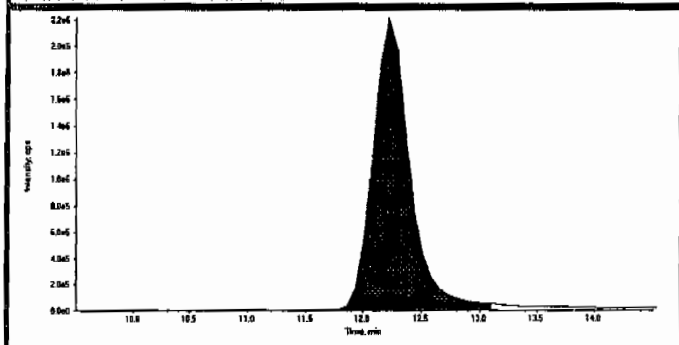

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.88e+007
Manual Modification	No
Amount:	245. (ng/mL)
% Accuracy:	N/A

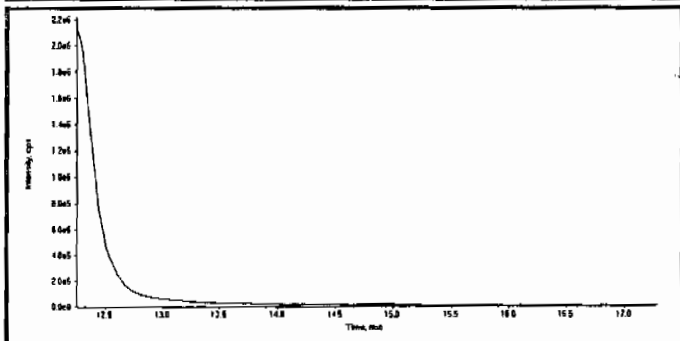

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	8.67e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

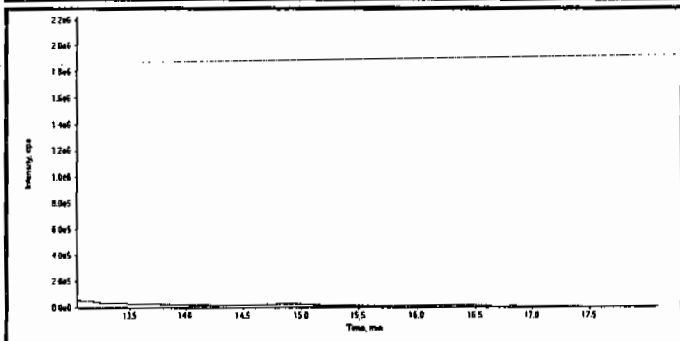

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

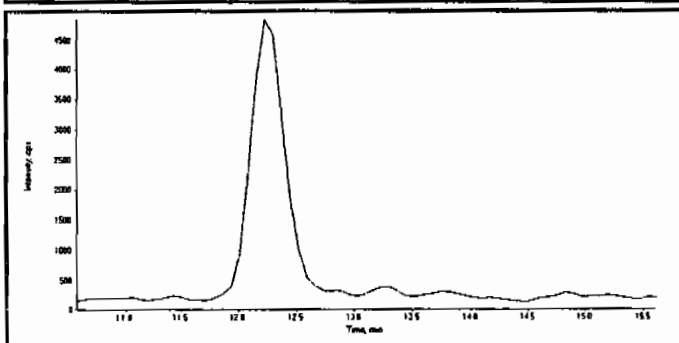

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312084.wiff	**Acquisition Date**	3/13/2010 8:30:51 PM
Sample Name	246318006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

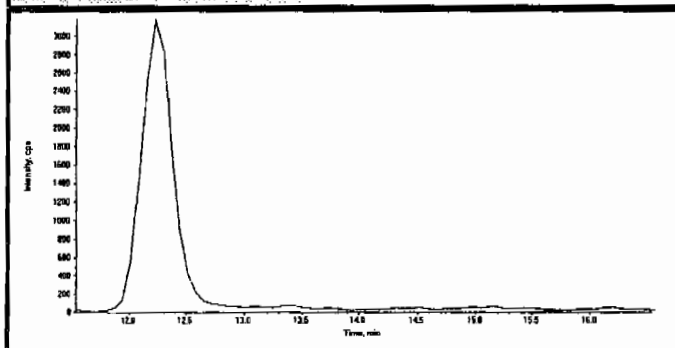

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

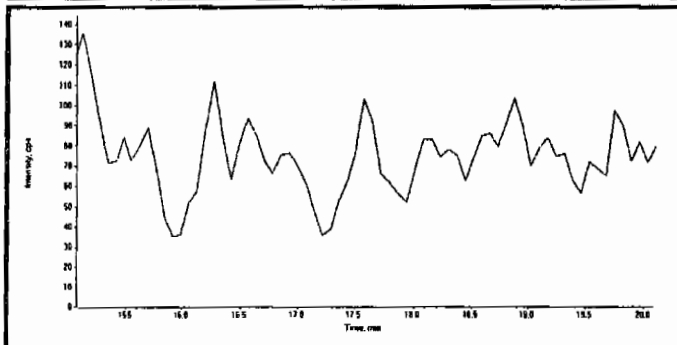

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

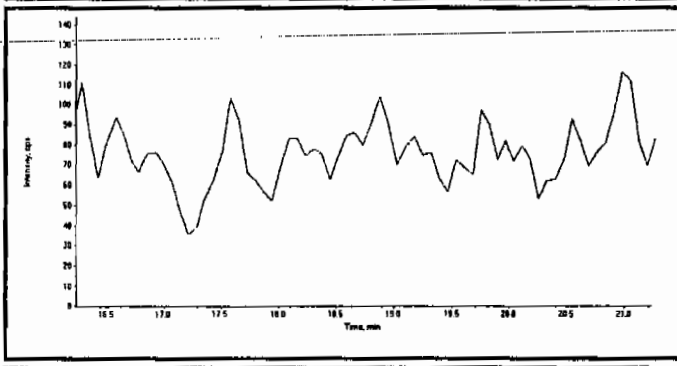

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

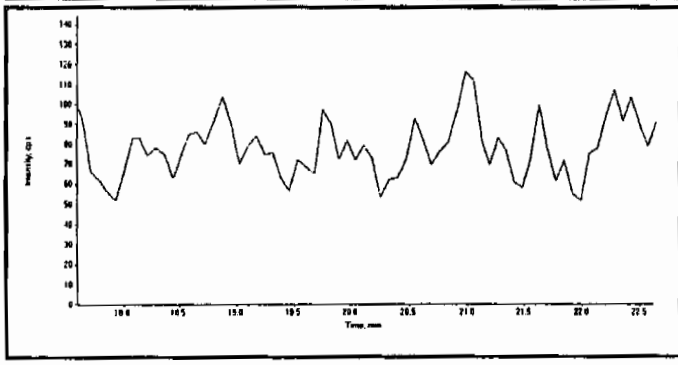

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312084.wiff	**Acquisition Date**	3/13/2010 8:30:51 PM
Sample Name	246318006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

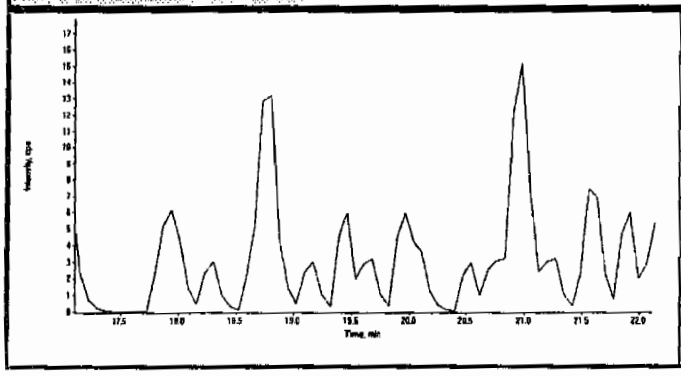

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7334

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318006

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010120.wiff

Date Analyzed: 02-MAR-10 16:16

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	327	J
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

JRM 3/3/10

Sample Name: "246318006" Sample ID: "950081|2|LER" File: "EXS03010120.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 32.7 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:16:47 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 2.50e+004 counts
Height: 6809.857 cps
Start Time: 6.89 min
End Time: 7.18 min

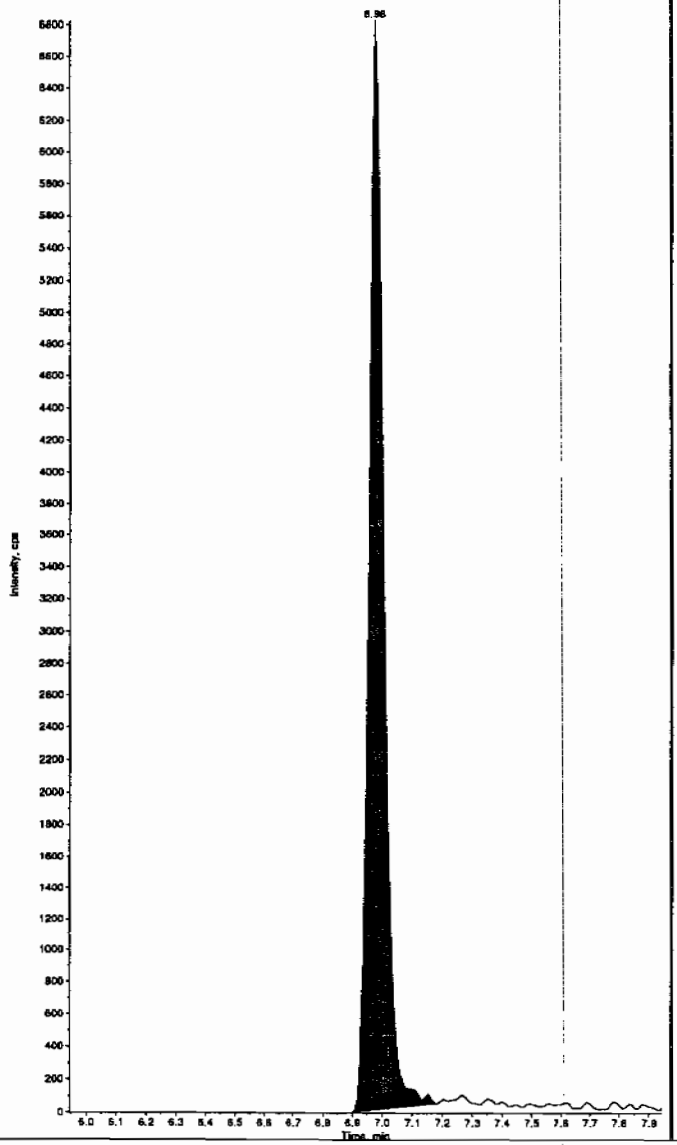

Sample Name: "246318006" Sample ID: "950081|2|LER" File: "EXS03010120.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:16:47 PM

Modified: No

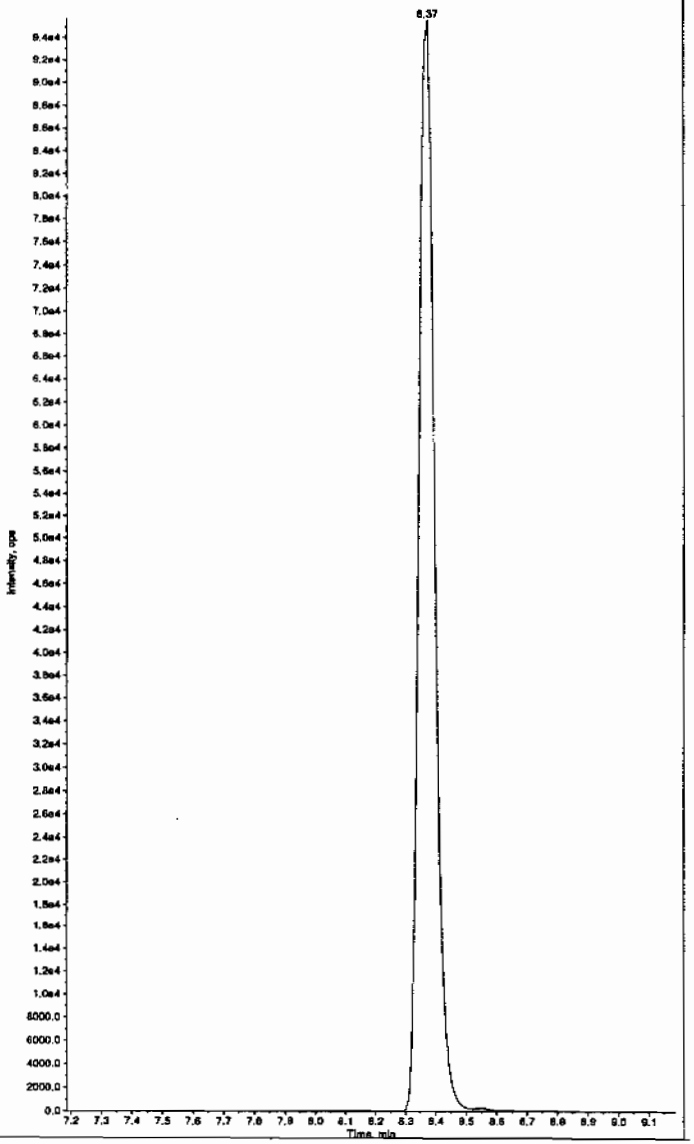

Hmk 03/01/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318006" Sample ID: "950081[2]LER" File: "EXS03010120.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 332. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:16:47 PM

Modified: No
Peak. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 2.83e+006 counts
Height: 821714.966 cps
Start Time: 8.24 min
End Time: 8.69 min

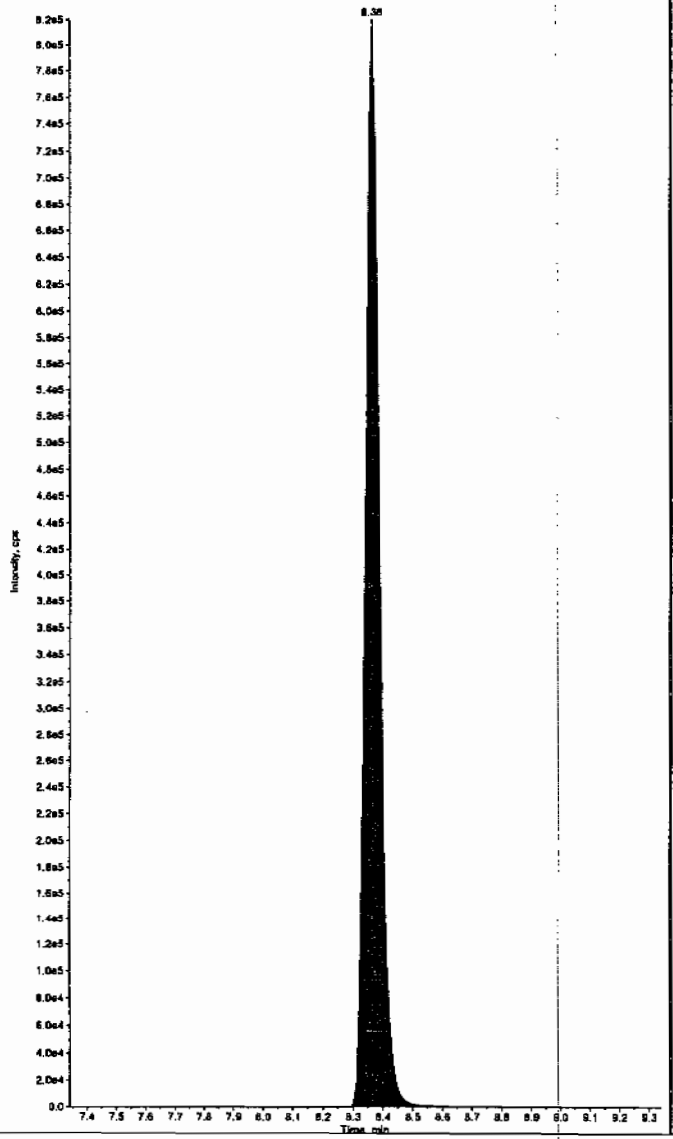

Sample Name: "246318006" Sample ID: "950081[2]LER" File: "EXS03010120.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:16:47 PM

Modified: No

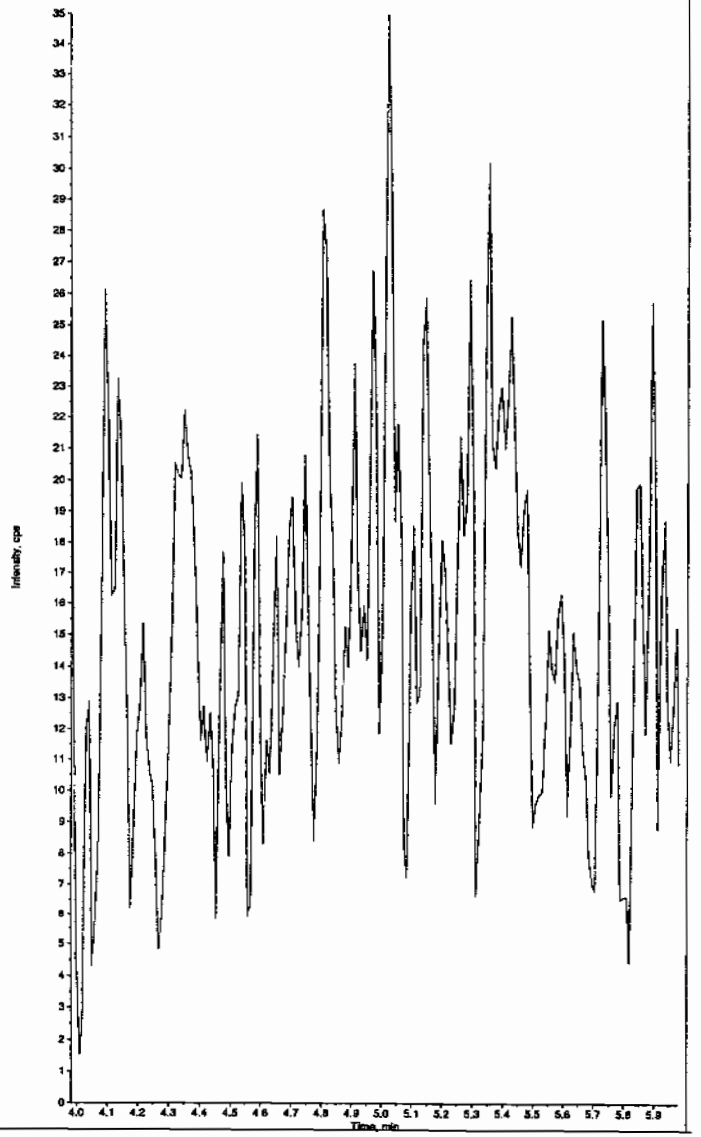

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318006" Sample ID: "950081|2|LER" File: "EXS03010120.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:16:47 PM

Modified: No

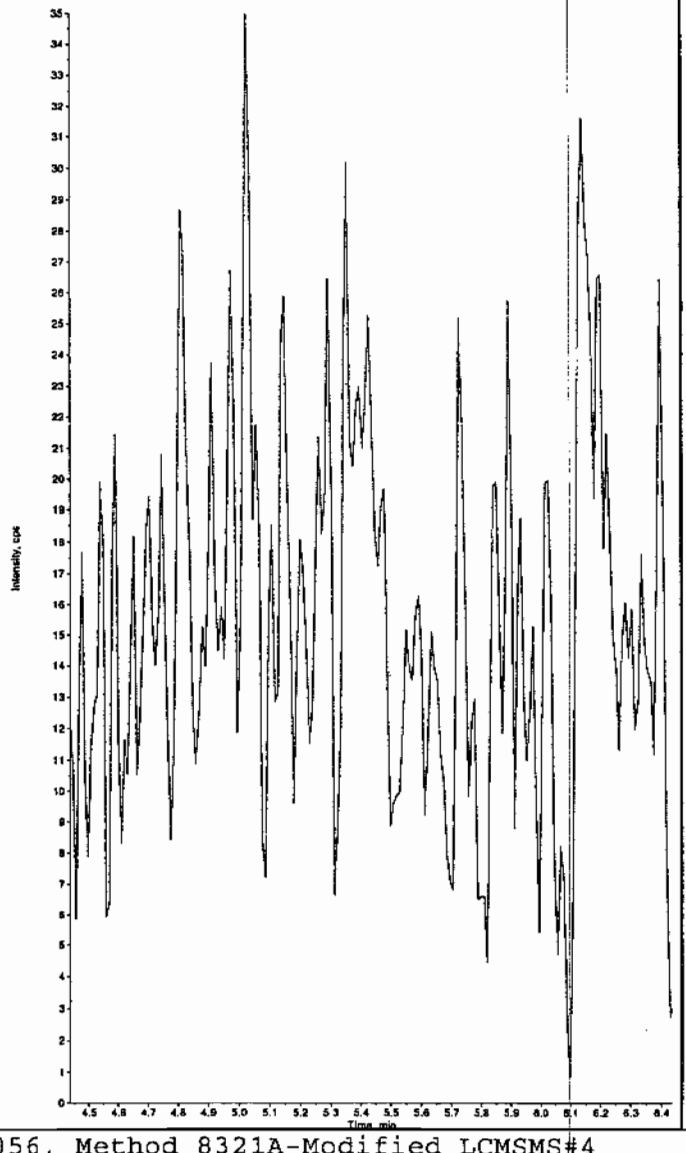

Sample Name: "246318006" Sample ID: "950081|2|LER" File: "EXS03010120.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:16:47 PM

Modified: No

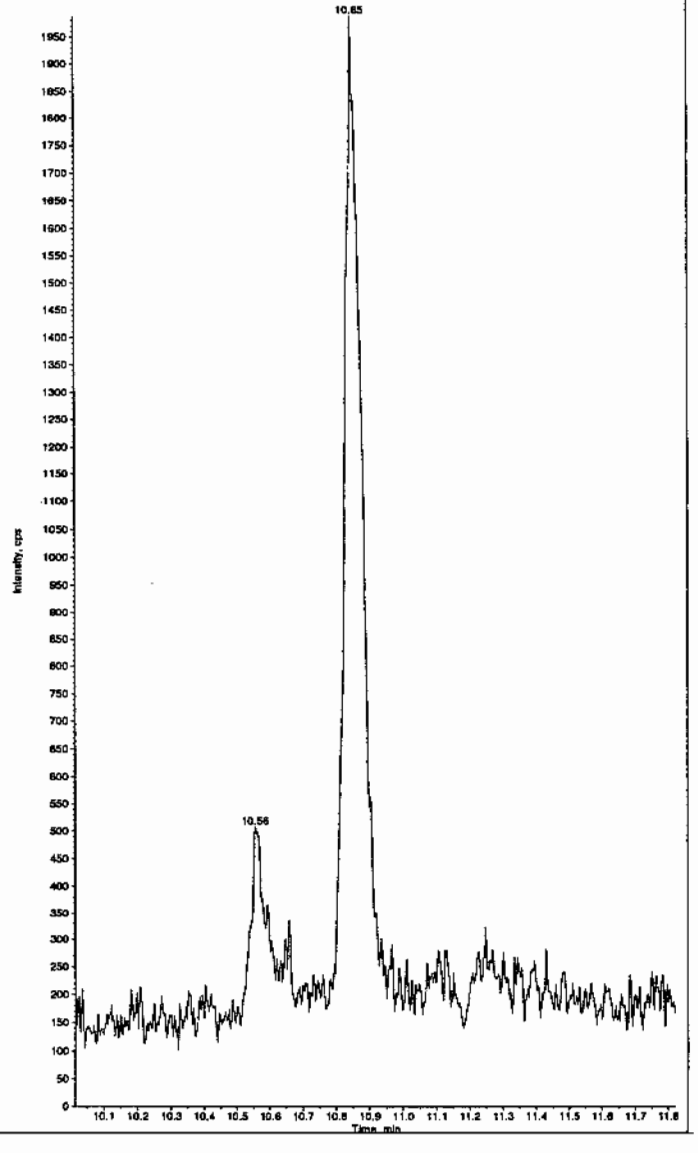

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7335

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312085.wiff

Date Analyzed: 13-MAR-10 20:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312085.wiff	**Acquisition Date**	3/13/2010 8:57:17 PM
Sample Name	246318007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

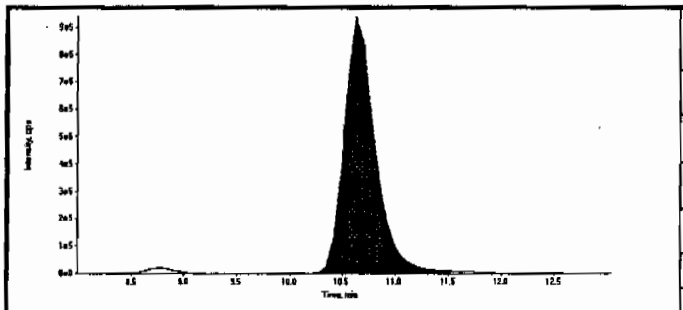

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	19300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

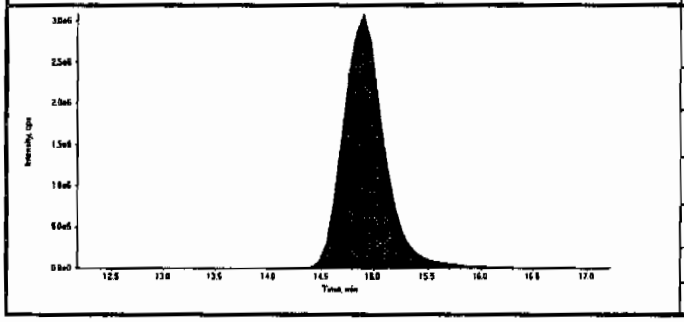

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	83900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

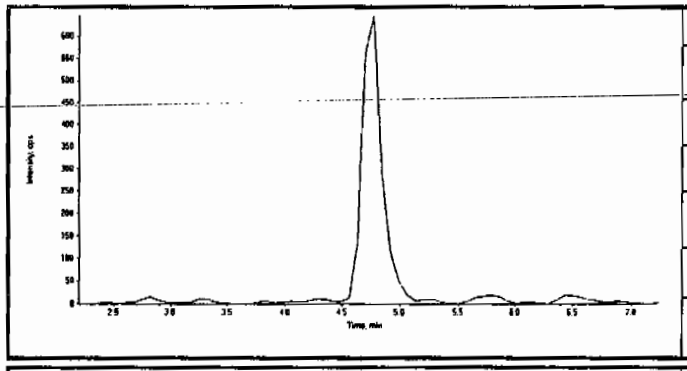

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

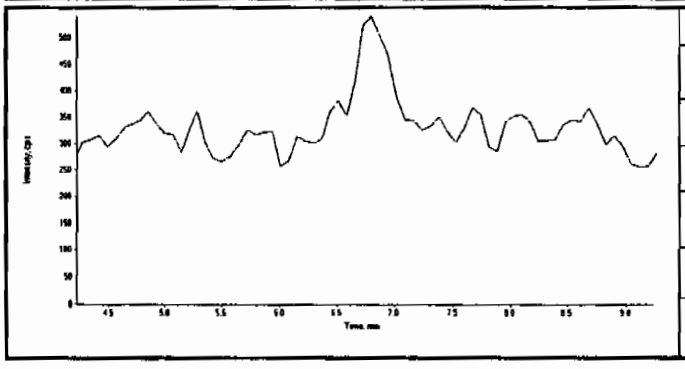

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

LCM 3/24/10

HMC 03/24/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312085.wiff	**Acquisition Date**	3/13/2010 8:57:17 PM
Sample Name	246318007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

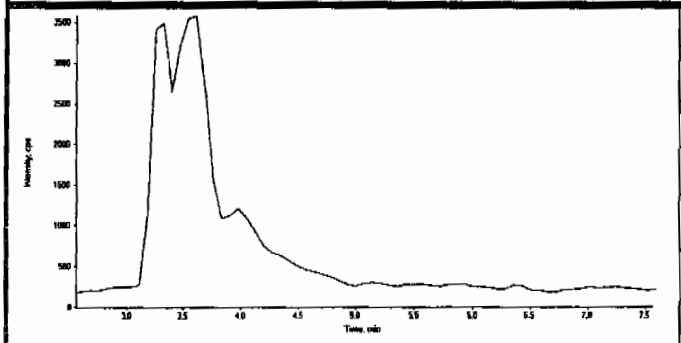

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

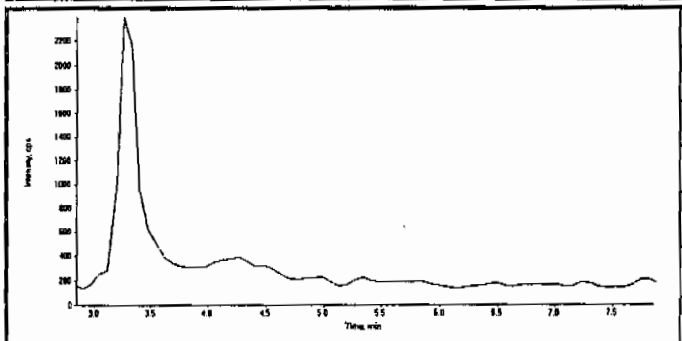

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

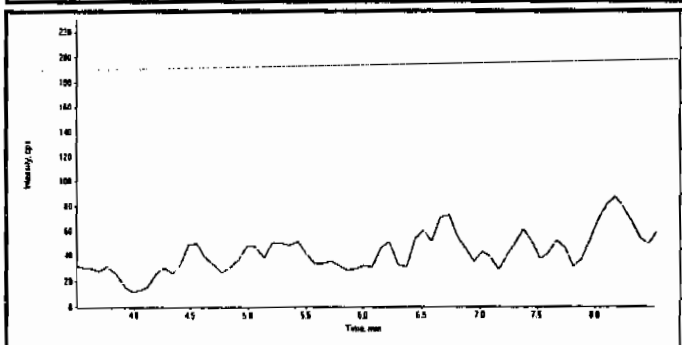

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

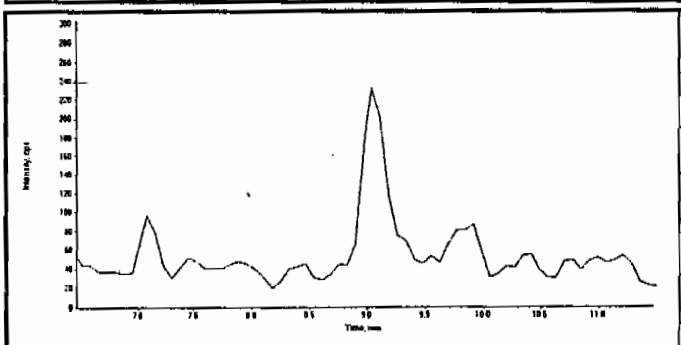

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312085.wiff	**Acquisition Date**	3/13/2010 8:57:17 PM
Sample Name	246318007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

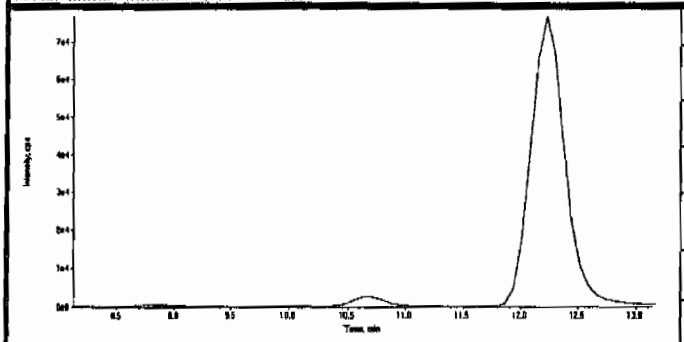

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

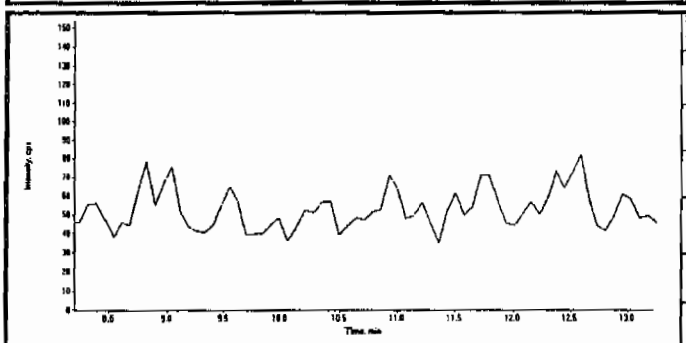

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

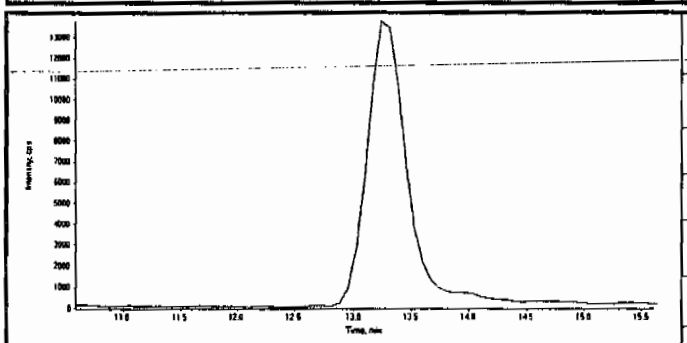

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

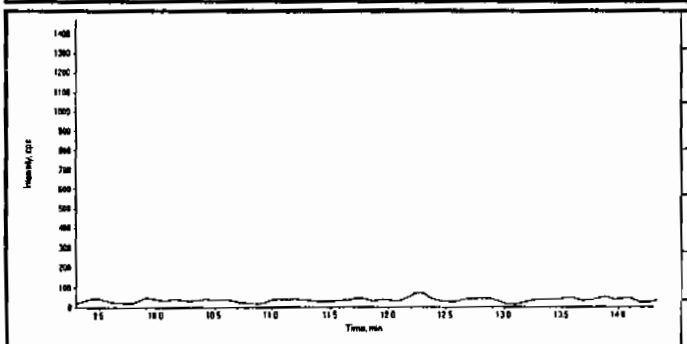

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312085.wiff	**Acquisition Date**	3/13/2010 8:57:17 PM
Sample Name	246318007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

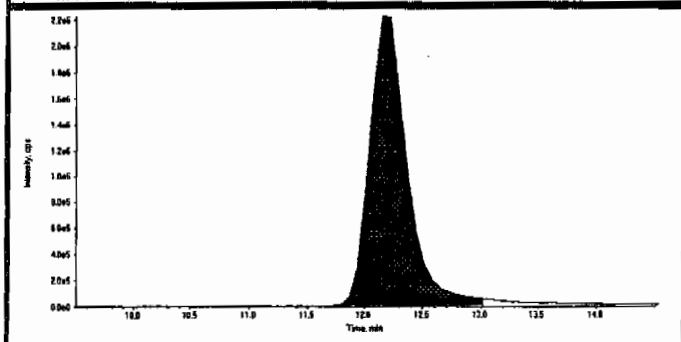

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.05e+007
Manual Modification	No
Amount:	244. (ng/mL)
% Accuracy:	N/A

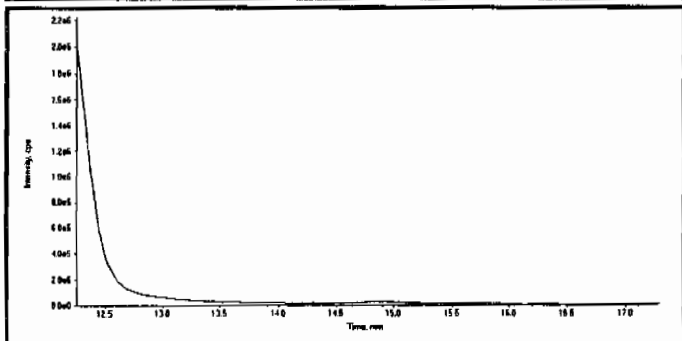

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

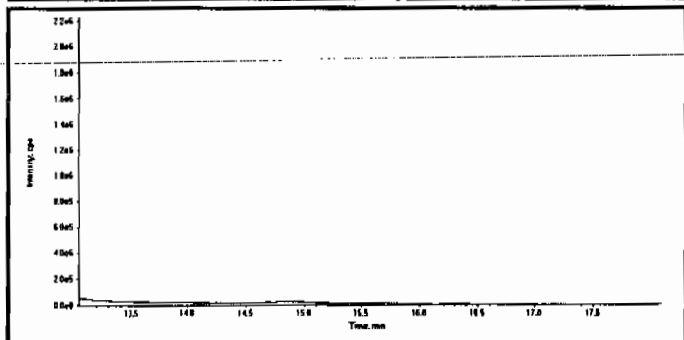

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

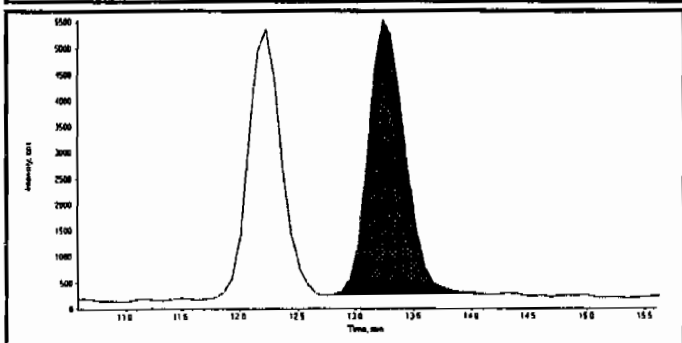

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.17e+005
Manual Modification	No
Amount:	0.751 (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312085.wiff	**Acquisition Date**	3/13/2010 8:57:17 PM
Sample Name	246318007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

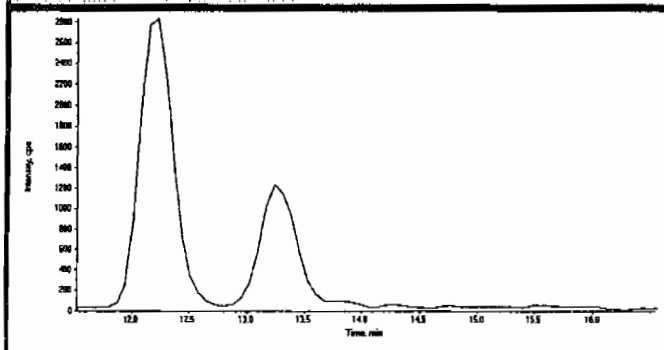

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

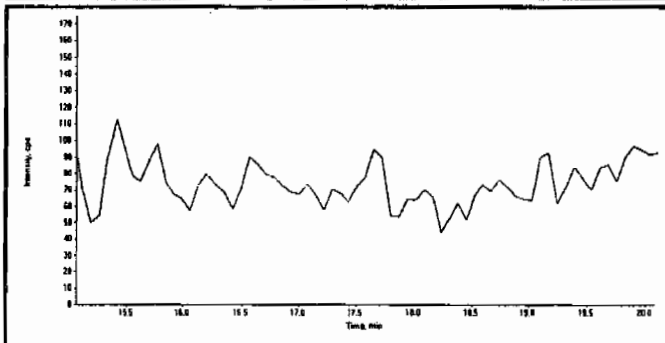

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

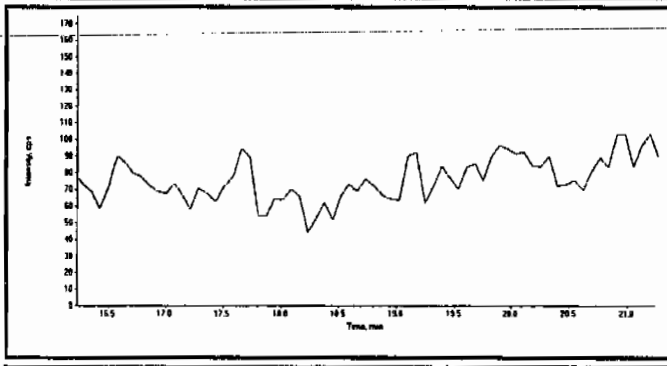

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

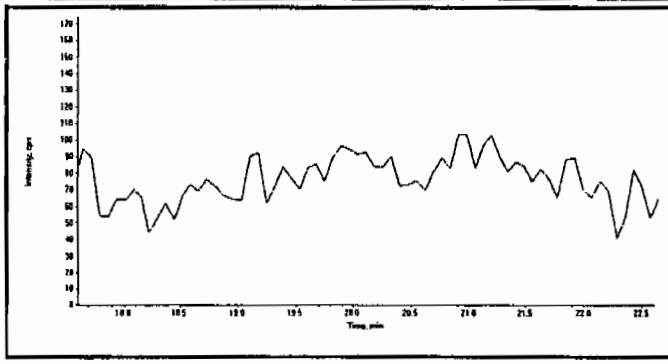

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312085.wiff	**Acquisition Date**	3/13/2010 8:57:17 PM
Sample Name	246318007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

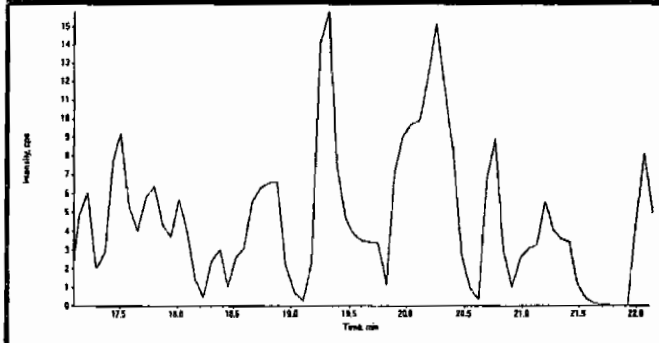

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7335

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010085.wiff

Date Analyzed: 02-MAR-10 07:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5280	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sen 3/3/10

Sample Name: "246318007" Sample ID: "950081|2|LER" File: "EXS03010085.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 528. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:05:04 AM

Modified: No
Peak Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Peak Type: Valley
Retention Time: 7.01 min
Area: 6.33e+005 counts
Height: 156976.624 cps
Start Time: 6.90 min
End Time: 7.80 min

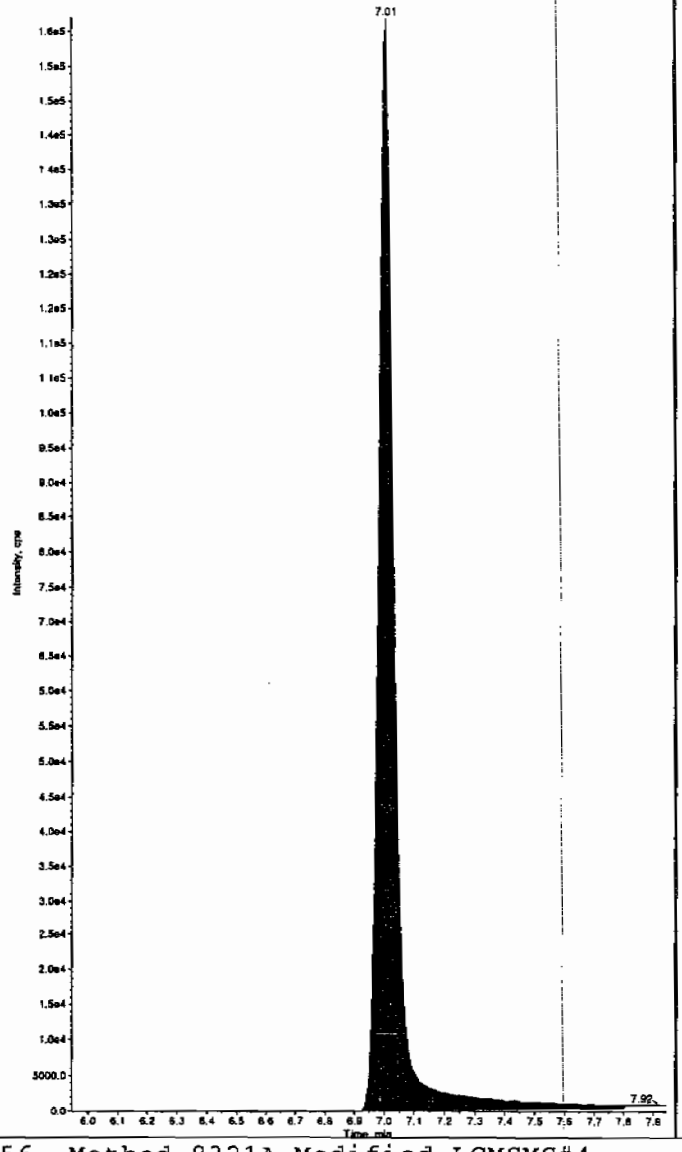

Sample Name: "246318007" Sample ID: "950081|2|LER" File: "EXS03010085.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:05:04 AM

Modified: No

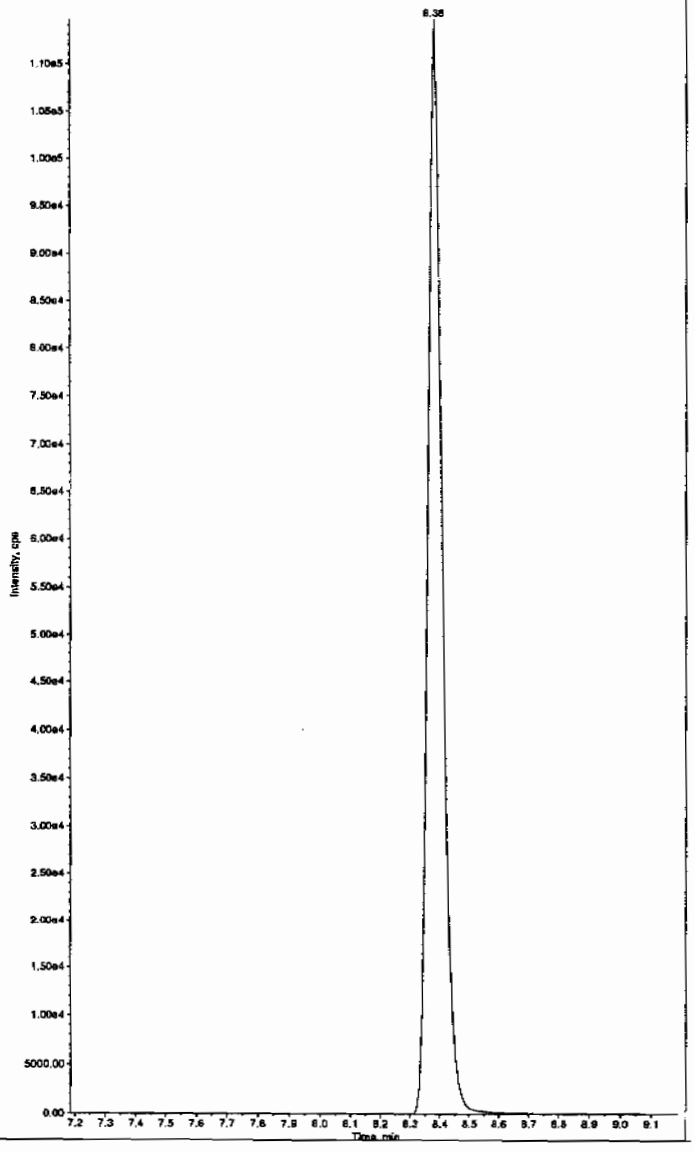

HMM 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318007" Sample ID: "950081|2|LER" File: "EXS03010085.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 247. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:05:04 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.00e+006 counts
Height: 868676.697 cps
Start Time: 8.24 min
End Time: 8.73 min

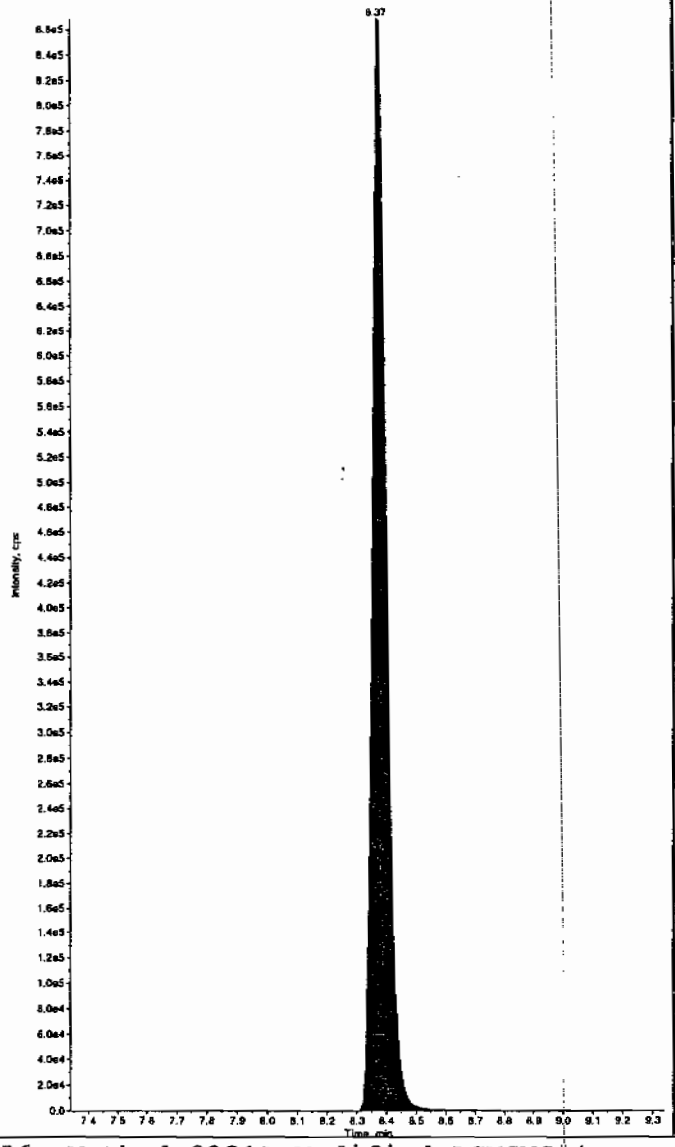

Sample Name: "246318007" Sample ID: "950081|2|LER" File: "EXS03010085.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:05:04 AM

Modified: No

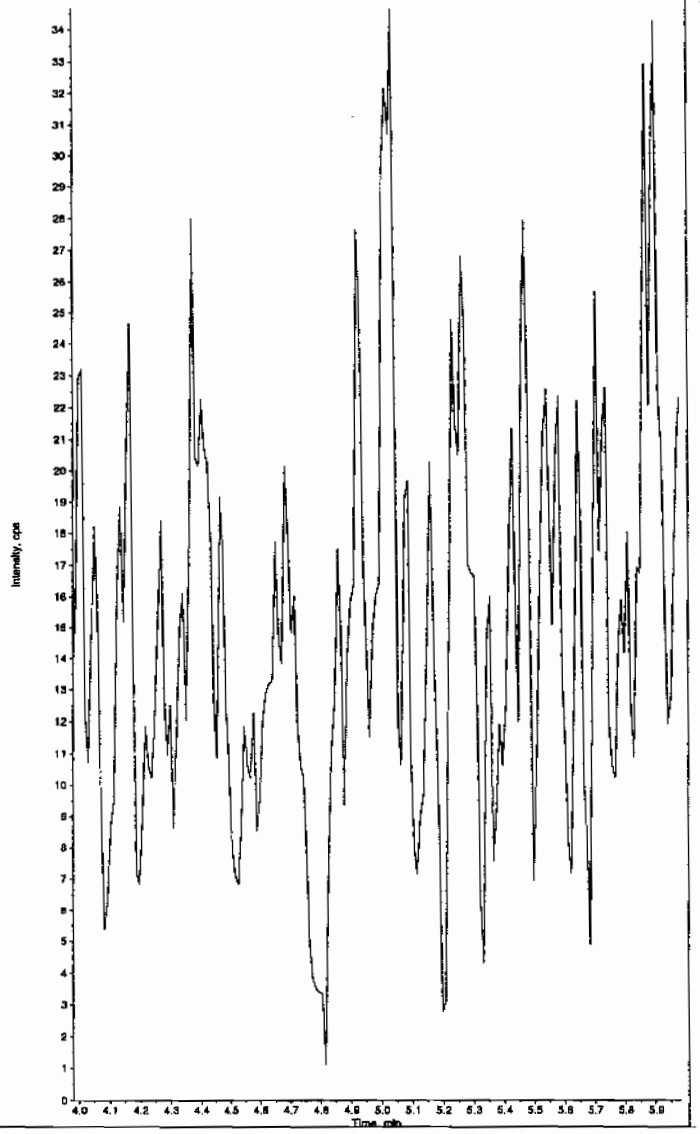

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318007" Sample ID: "950081|2|LER" File: "EXS03010085.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:05:04 AM

Modified: No

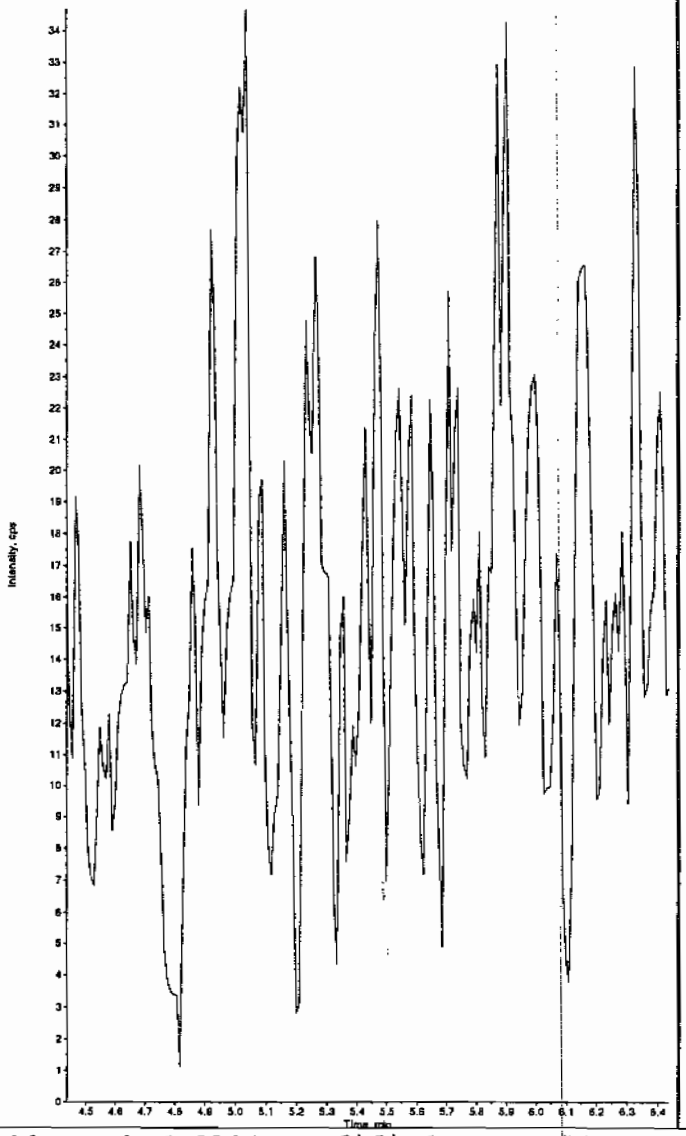

Sample Name: "246318007" Sample ID: "950081|2|LER" File: "EXS03010085.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:05:04 AM

Modified: No

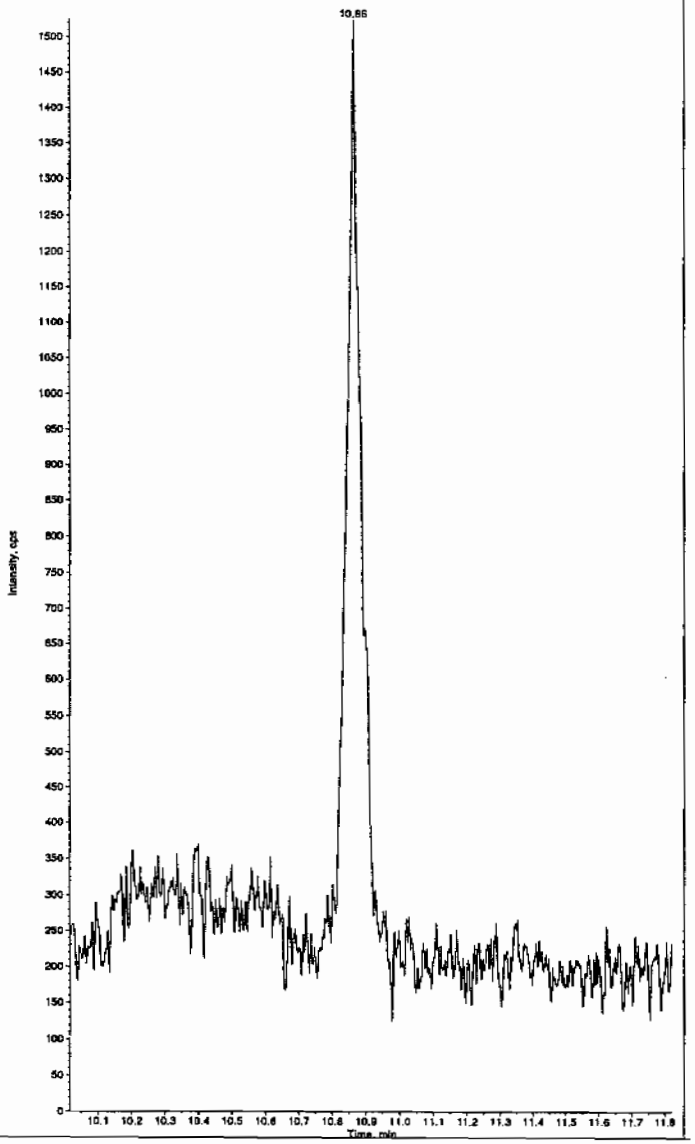

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7338

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312086.wiff

Date Analyzed: 13-MAR-10 21:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312086.wiff	Acquisition Date	3/13/2010 9:23:47 PM
Sample Name	246318008	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

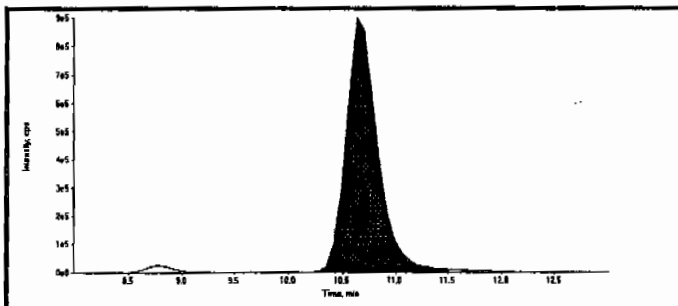

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

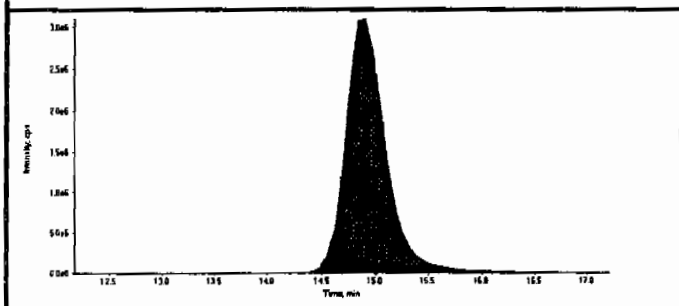

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	83200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

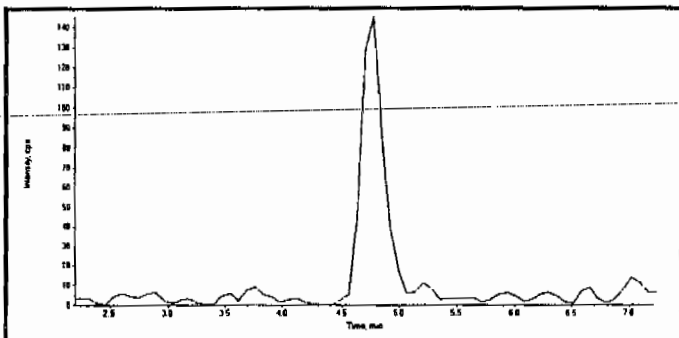

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

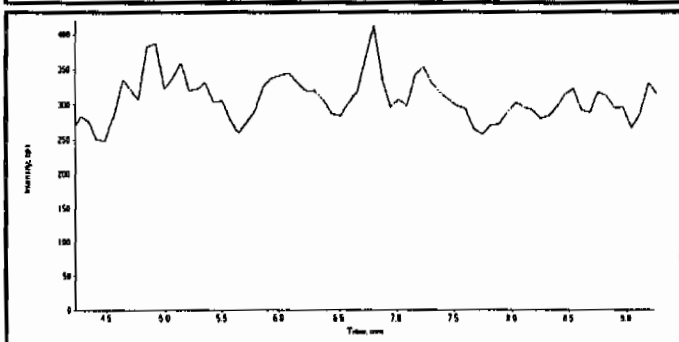

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMM 03/24/10

LER 3/24/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312086.wiff	**Acquisition Date**	3/13/2010 9:23:47 PM
Sample Name	246318008	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

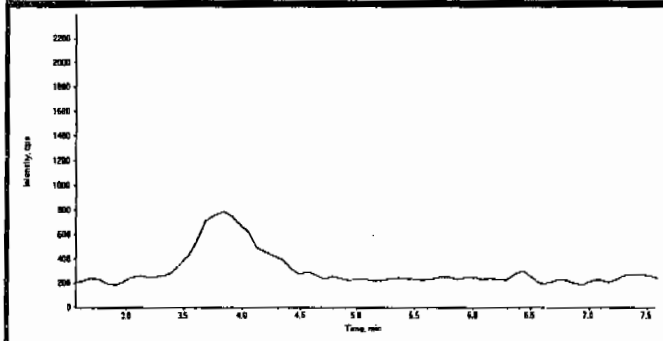

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

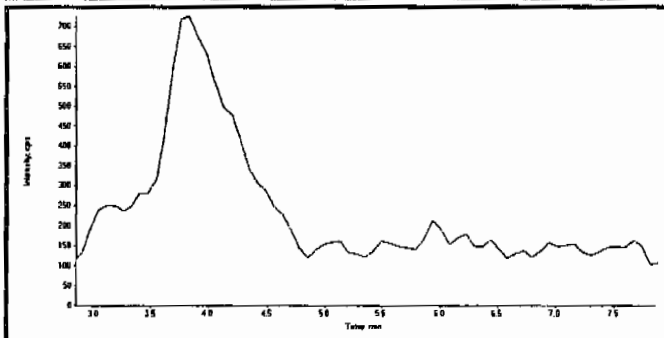

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

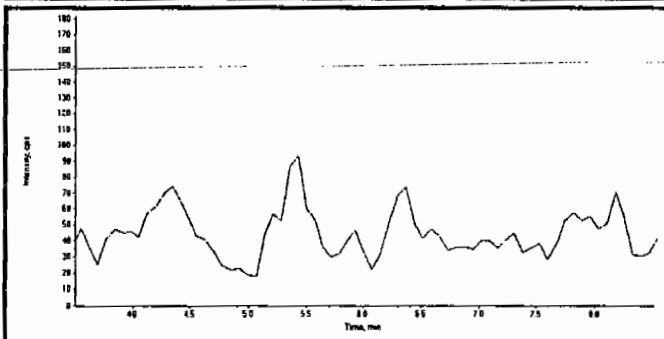

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

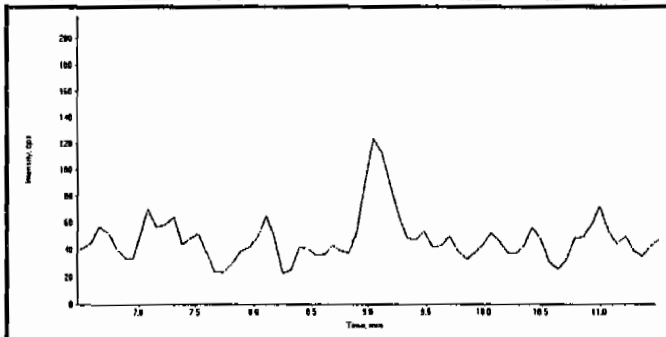

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312086.wiff	**Acquisition Date**	3/13/2010 9:23:47 PM
Sample Name	246318008	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

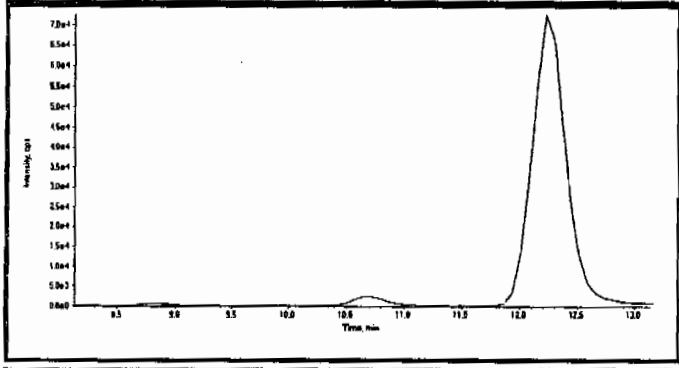

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

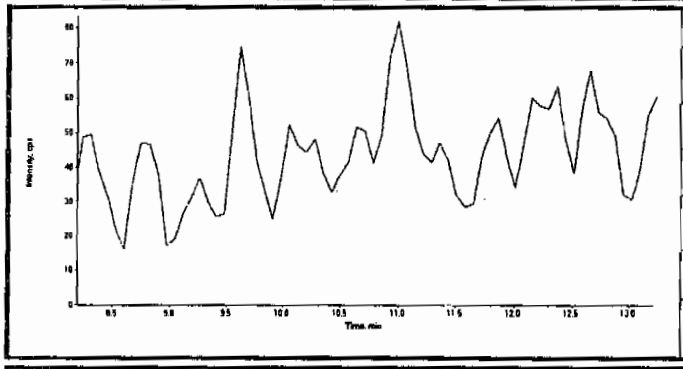

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

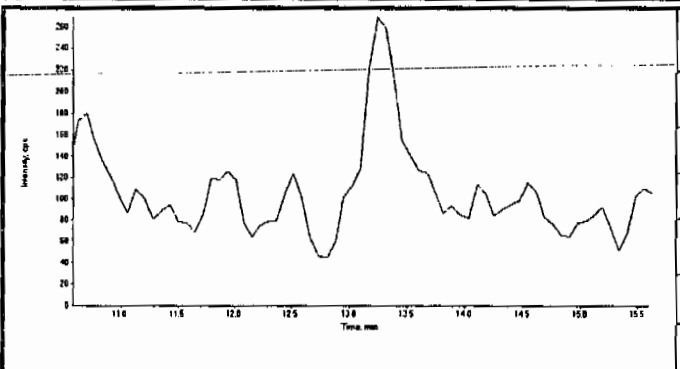

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

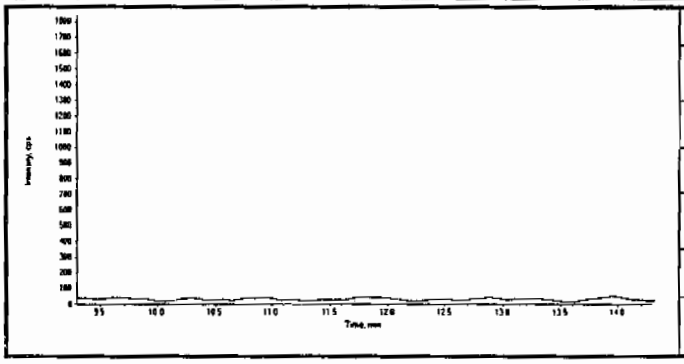

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312086.wiff	**Acquisition Date**	3/13/2010 9:23:47 PM
Sample Name	246318008	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

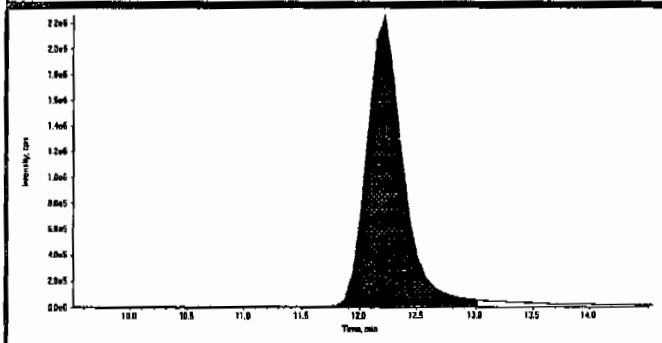

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.97e+007
Manual Modification	No
Amount:	242. (ng/mL)
% Accuracy:	N/A

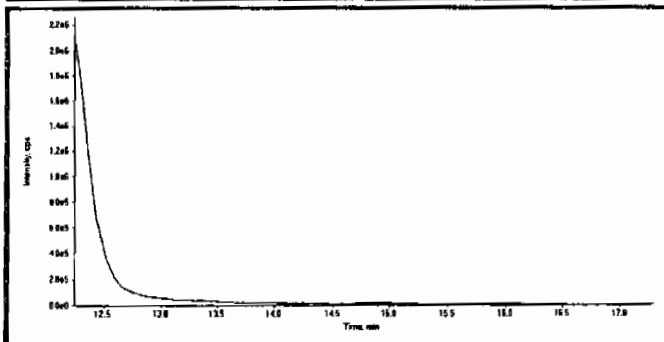

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	8.39e+005
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

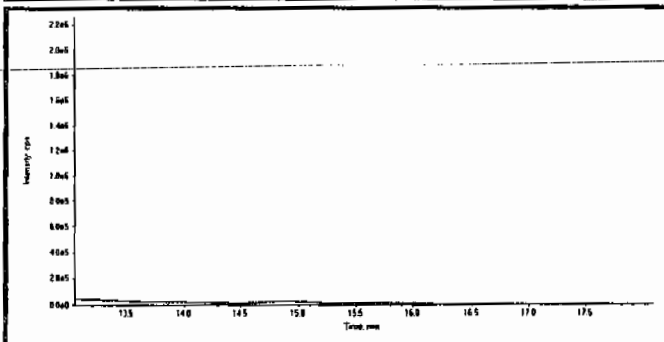

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

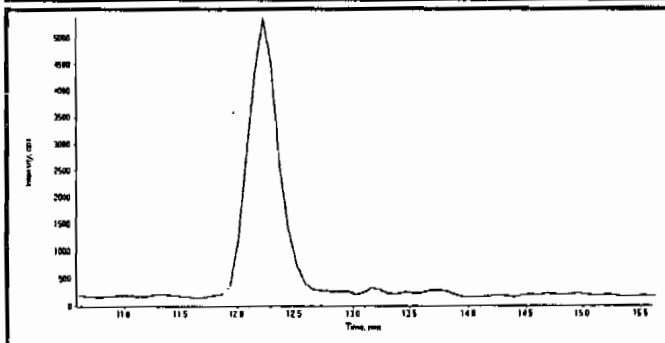

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312086.wiff	**Acquisition Date**	3/13/2010 9:23:47 PM
Sample Name	246318008	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

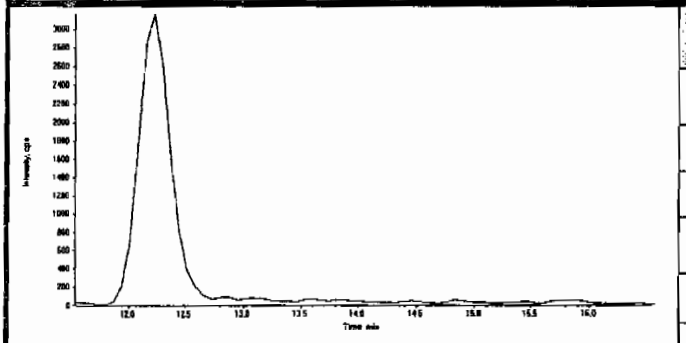

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

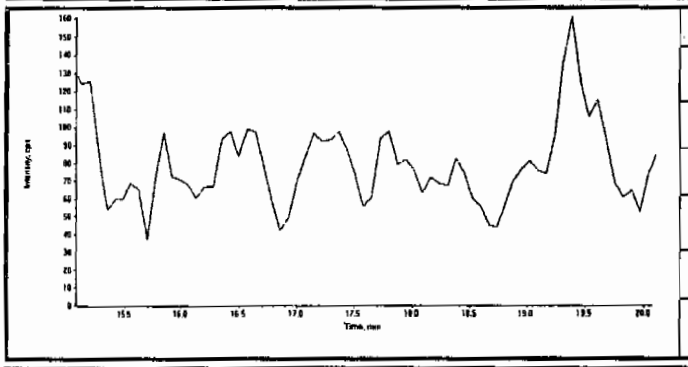

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

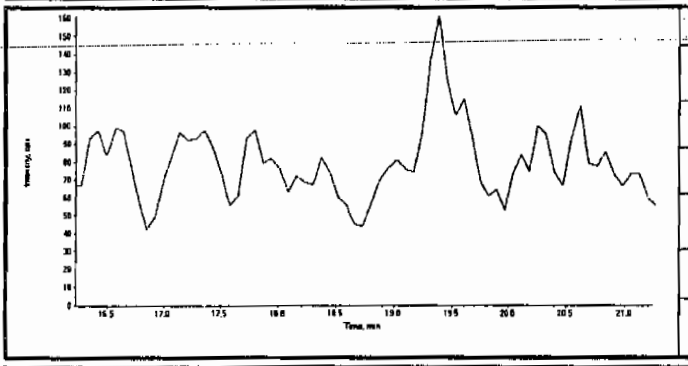

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

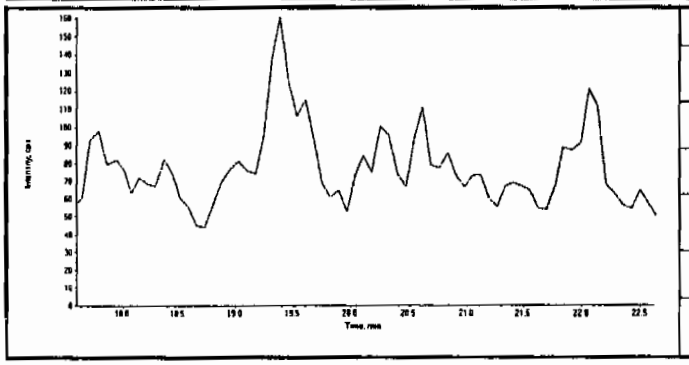

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312086.wiff	**Acquisition Date**	3/13/2010 9:23:47 PM
Sample Name	246318008	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

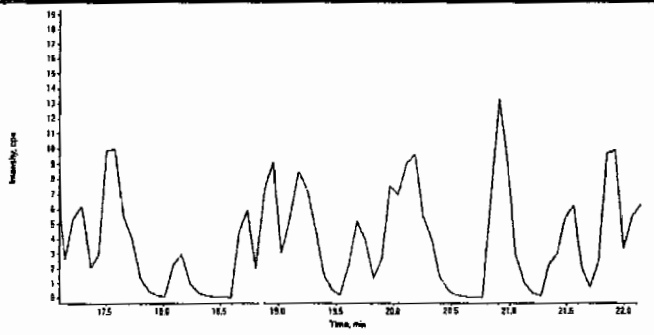

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7338

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318008

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010086.wiff

Date Analyzed: 02-MAR-10 07:20

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Kan 3/3/10

Sample Name: "246318008" Sample ID: "950081|2|LER" File: "EXS03010086.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:20:47 AM
Modified: No

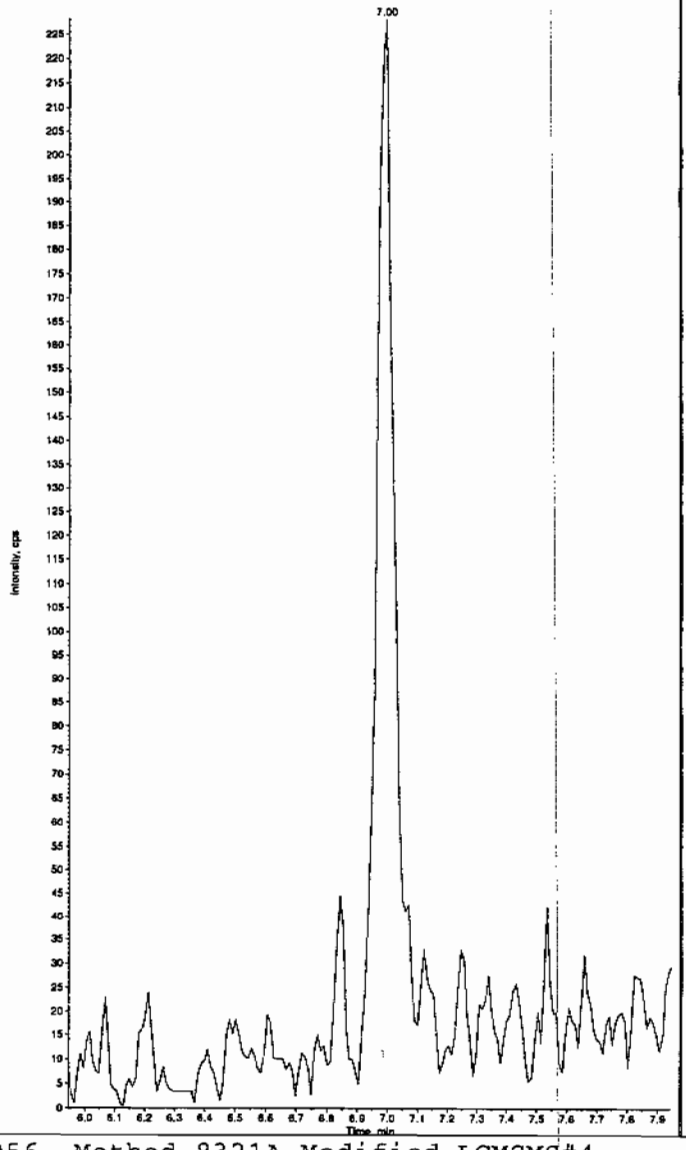

Sample Name: "246318008" Sample ID: "950081|2|LER" File: "EXS03010086.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:20:47 AM
Modified: No

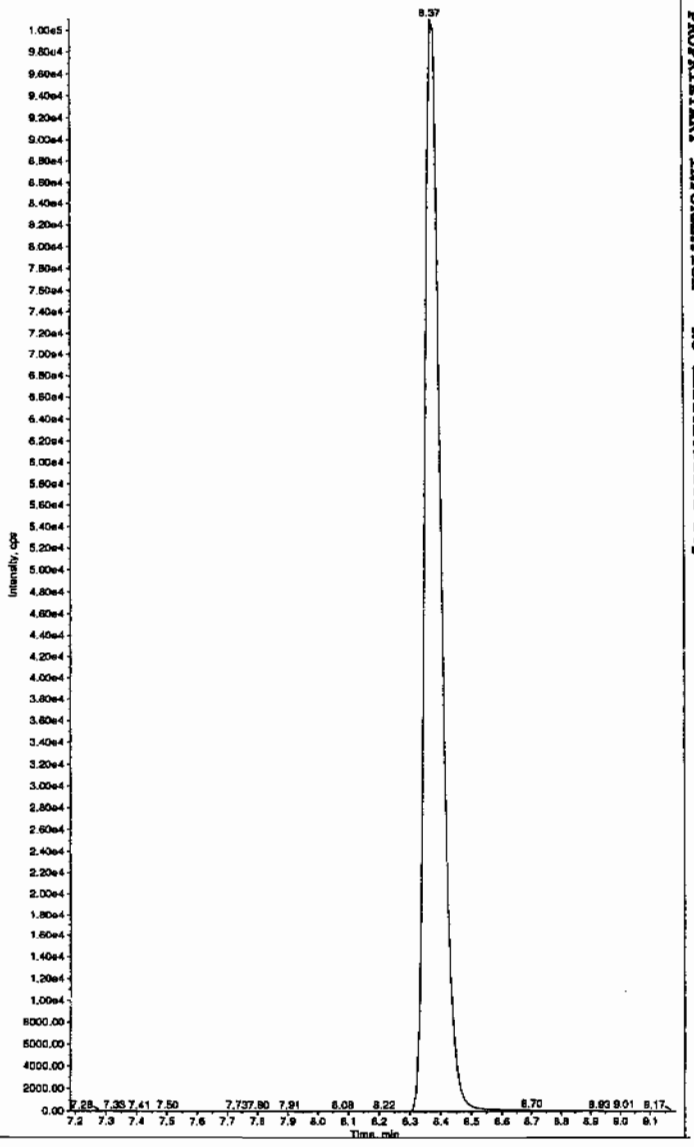

HMN 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318008" Sample ID: "950081|2|LER" File: "EXS03010086.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 239. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:20:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Exp. Peak Height: 1460.00 cps
Exp. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.92e+006 counts
Height: 837513.855 cps
Start Time: 8.28 min
End Time: 8.69 min

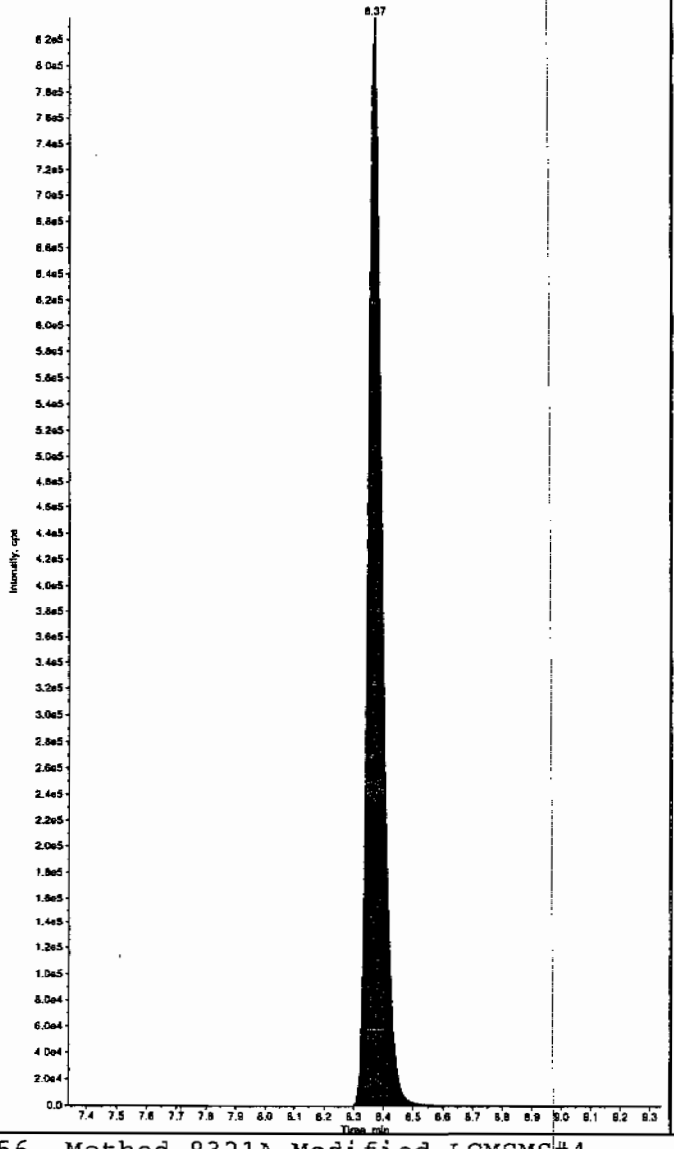

Sample Name: "246318008" Sample ID: "950081|2|LER" File: "EXS03010086.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:20:47 AM

Modified: No

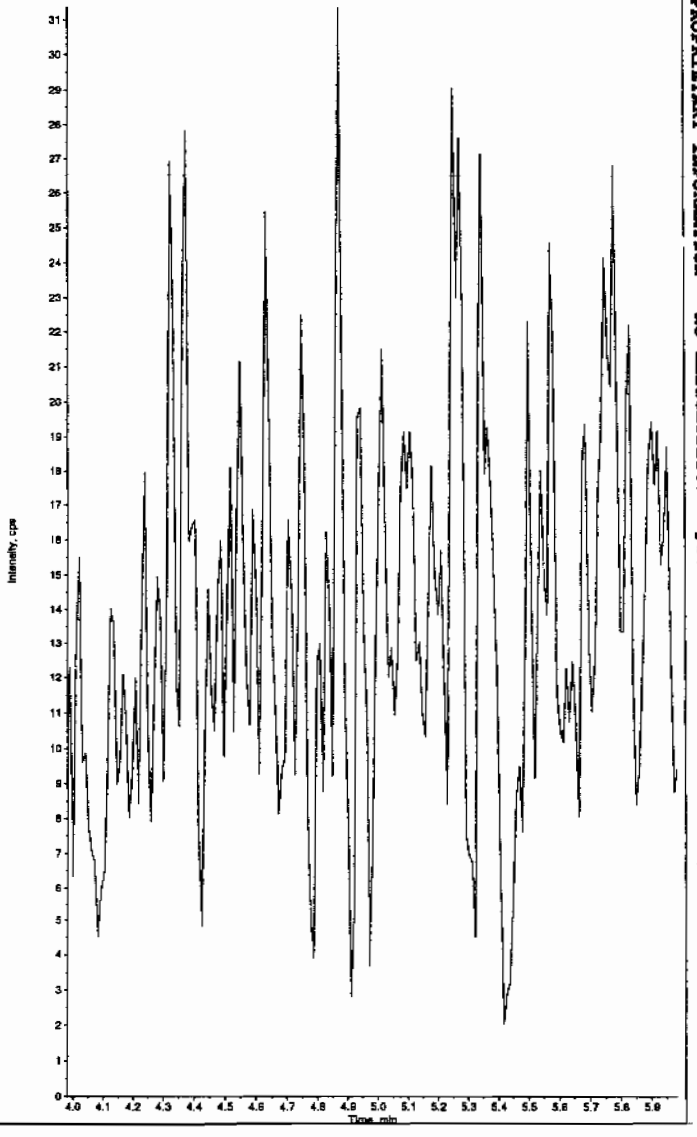

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "246318008" Sample ID: "950061|2|LER" File: "EXS03010066.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:20:47 AM

Modified: No

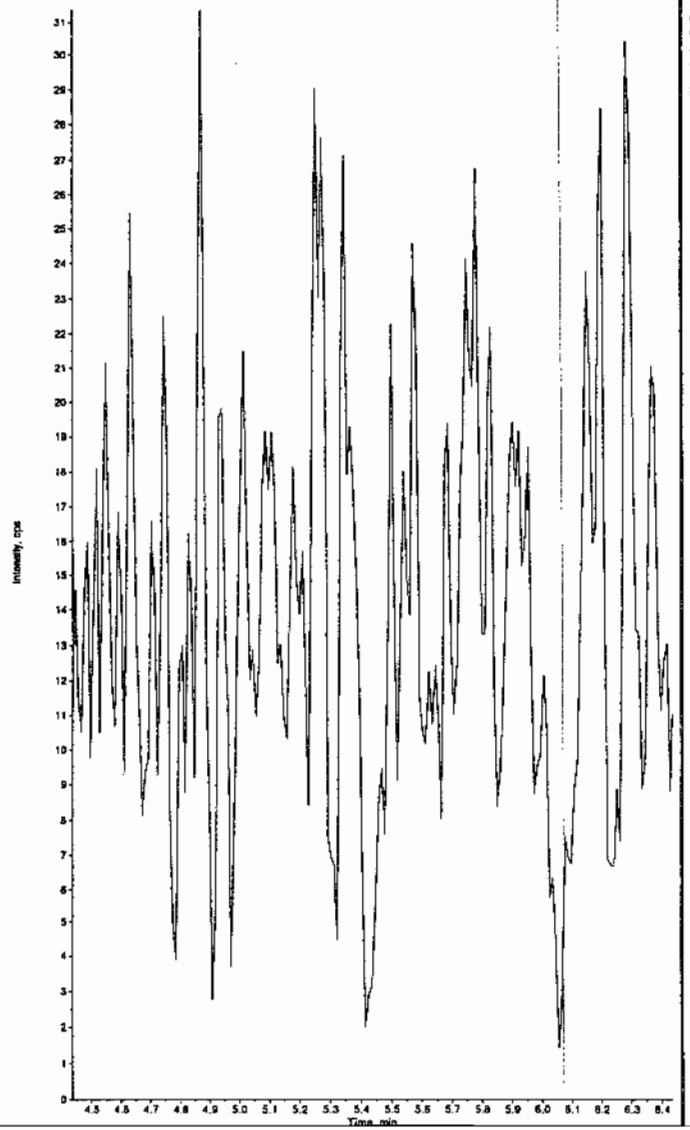

Sample Name: "246318008" Sample ID: "950061|2|LER" File: "EXS03010066.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:20:47 AM

Modified: No

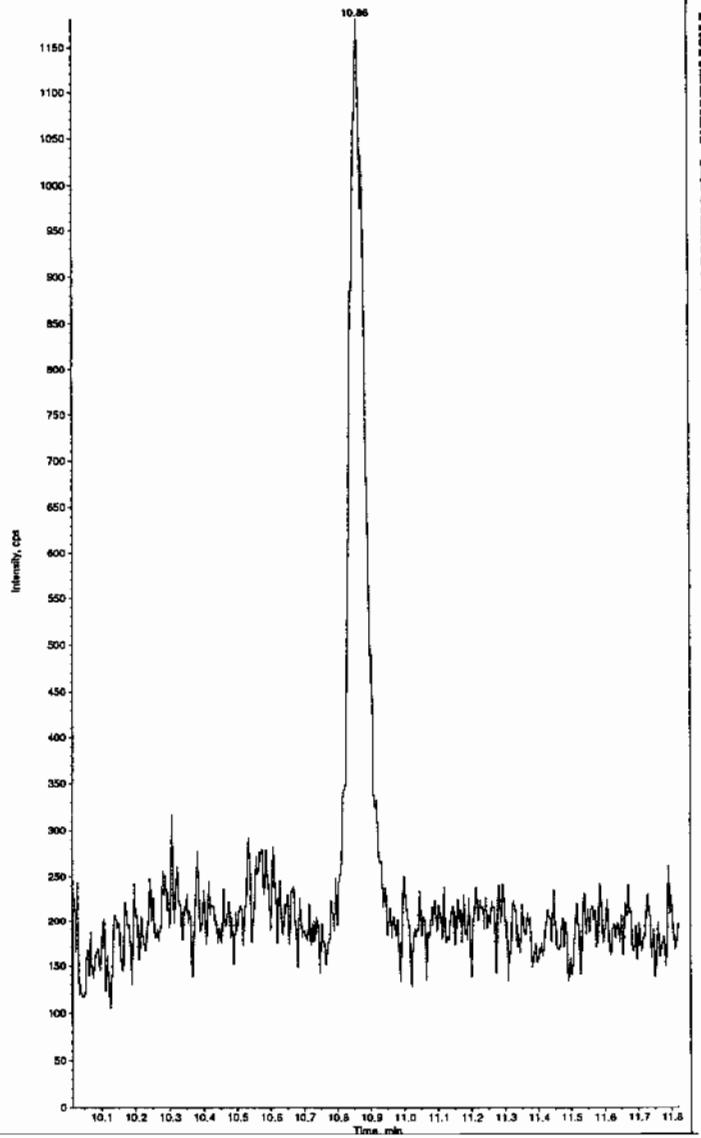

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7339

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312090.wiff

Date Analyzed: 13-MAR-10 23:09

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312090.wiff	**Acquisition Date**	3/13/2010 11:09:35 PM
Sample Name	246318009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

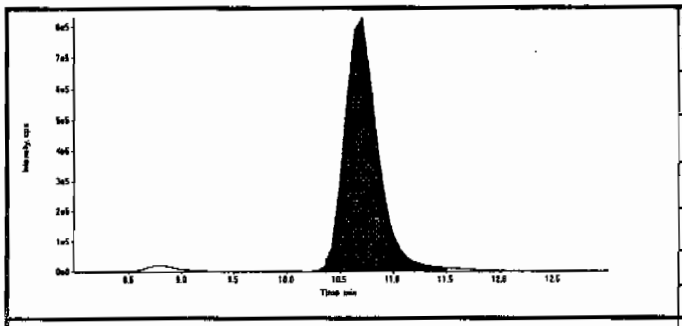

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.70
Area Counts:	18300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

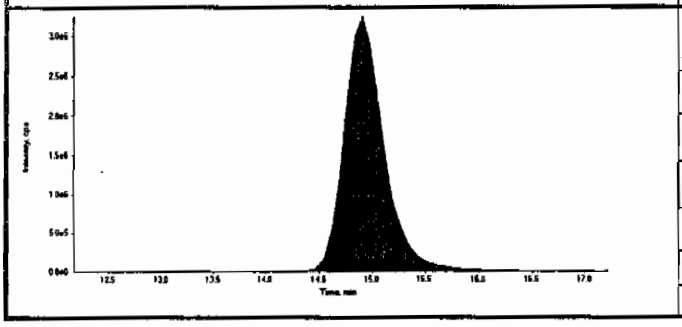

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	85900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

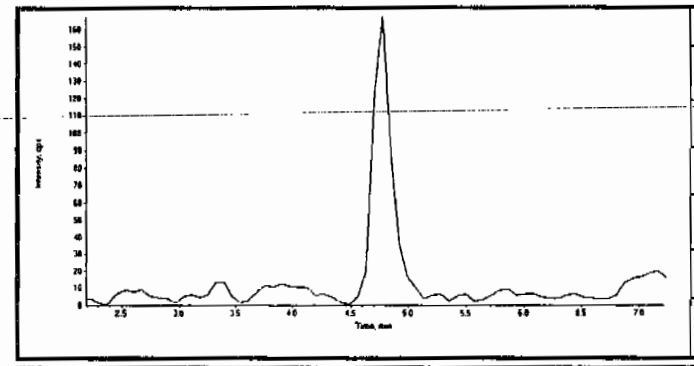

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

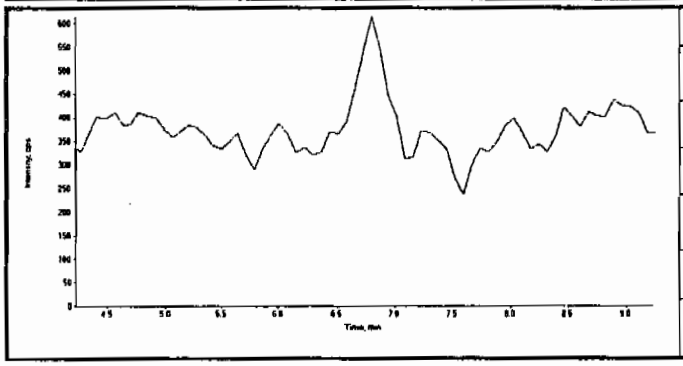

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Kar 3/24/10 [illegible] 03/24/10

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Data File	EXP0312090.wiff	**Acquisition Date**	3/13/2010 11:09:35 PM
Sample Name	246318009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

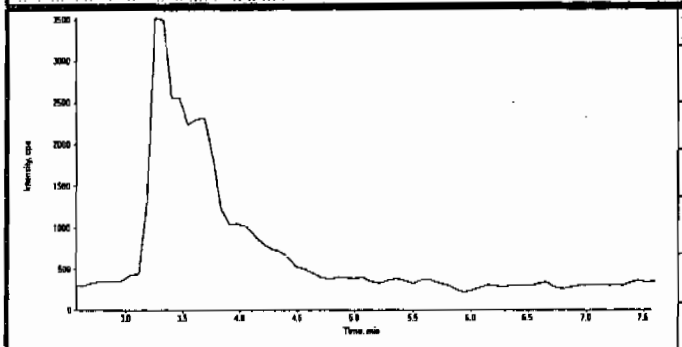

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

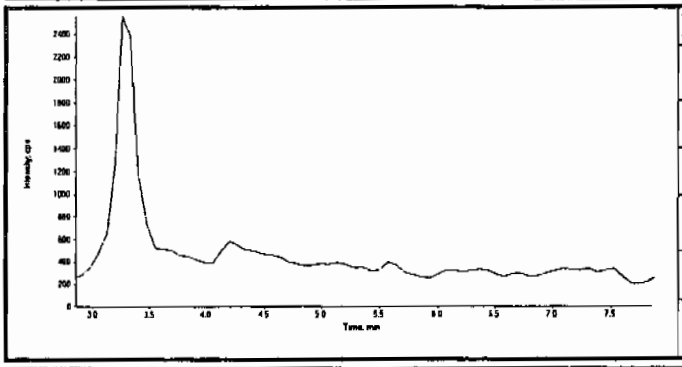

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

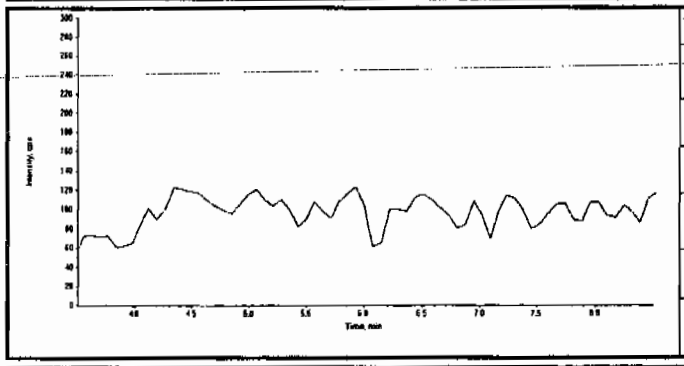

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

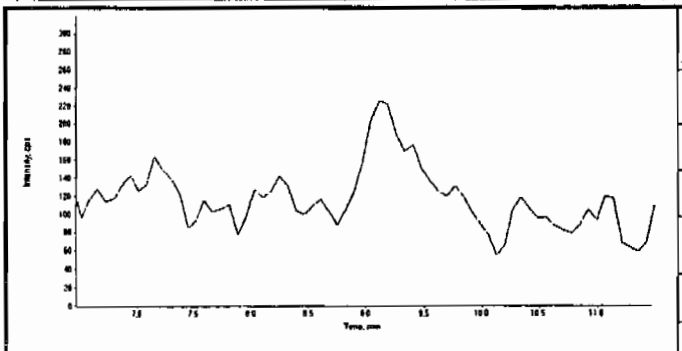

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312090.wiff	**Acquisition Date**	3/13/2010 11:09:35 PM
Sample Name	246318009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

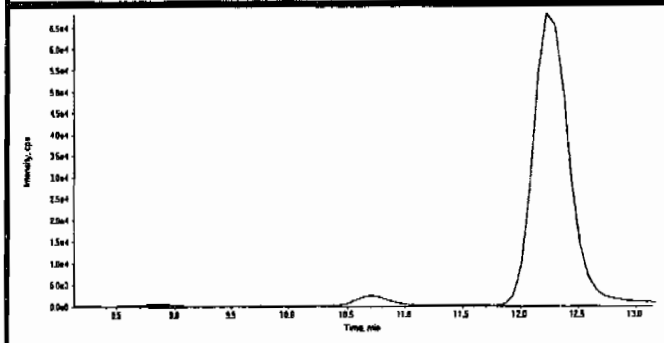

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

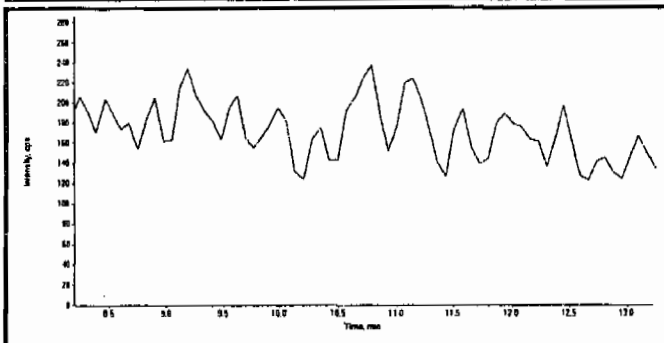

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

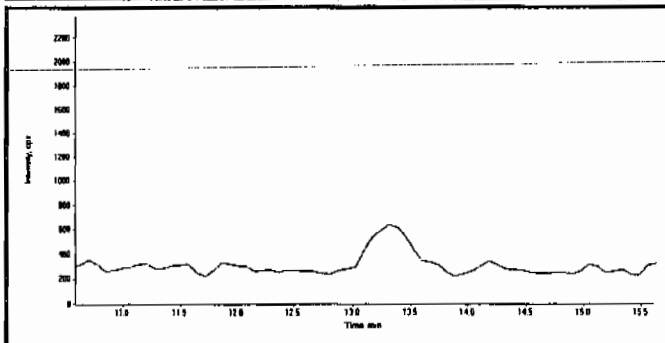

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

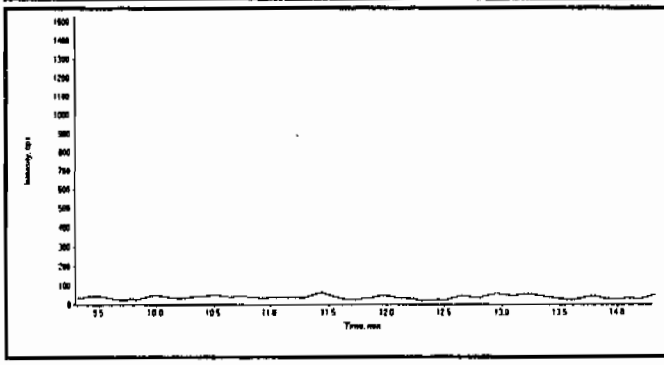

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312090.wiff	**Acquisition Date**	3/13/2010 11:09:35 PM
Sample Name	246318009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

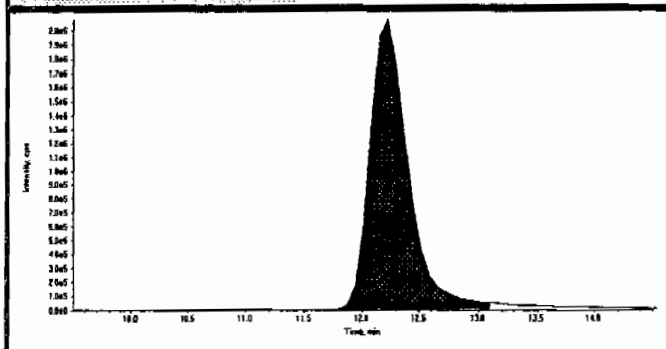

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.87e+007
Manual Modification	No
Amount:	230. (ng/mL)
% Accuracy:	N/A

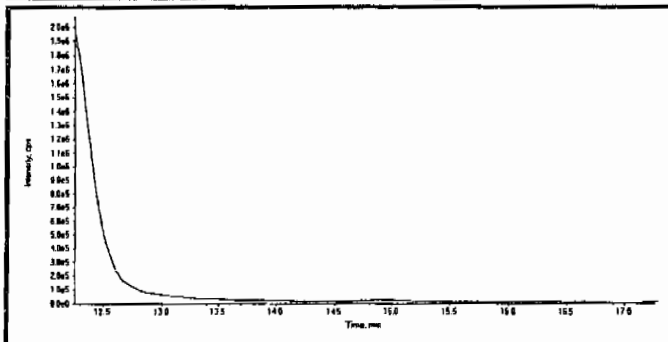

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

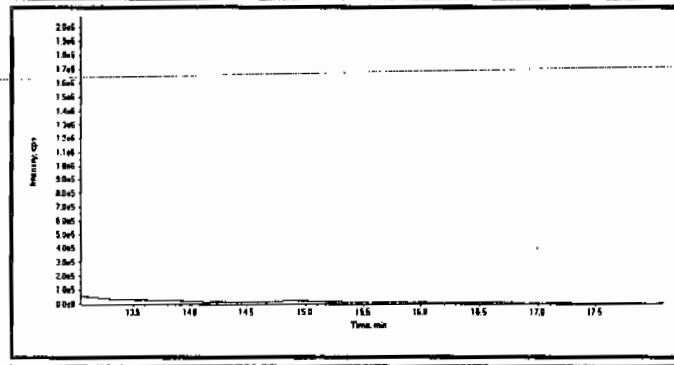

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

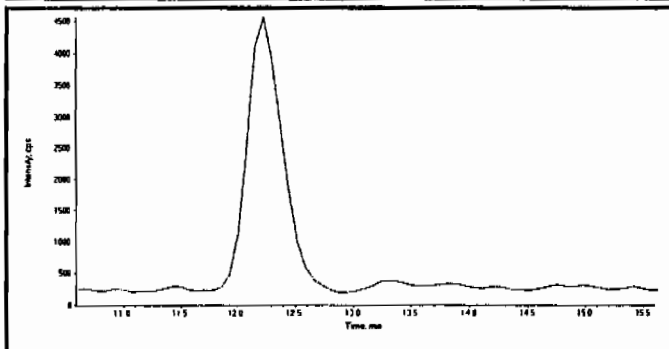

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312090.wiff	**Acquisition Date**	3/13/2010 11:09:35 PM
Sample Name	246318009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

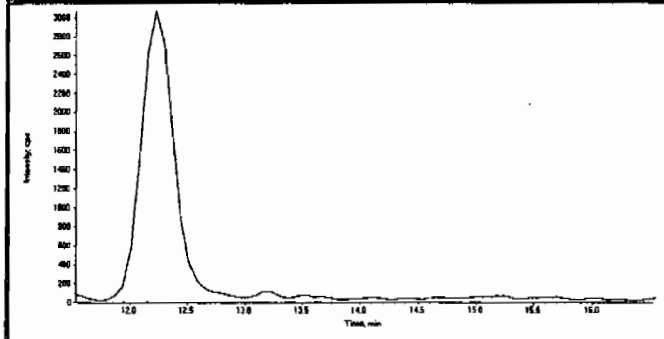

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

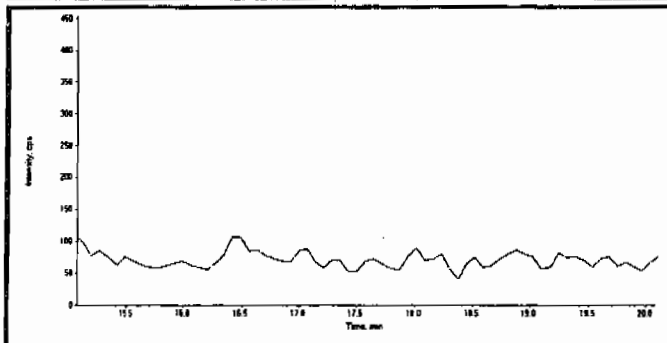

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

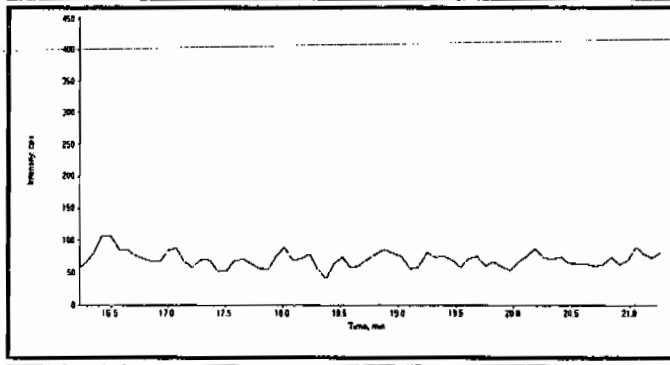

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

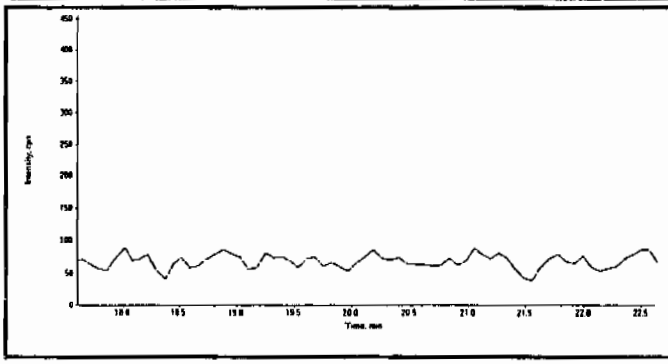

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312090.wiff	**Acquisition Date**	3/13/2010 11:09:35 PM
Sample Name	246318009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

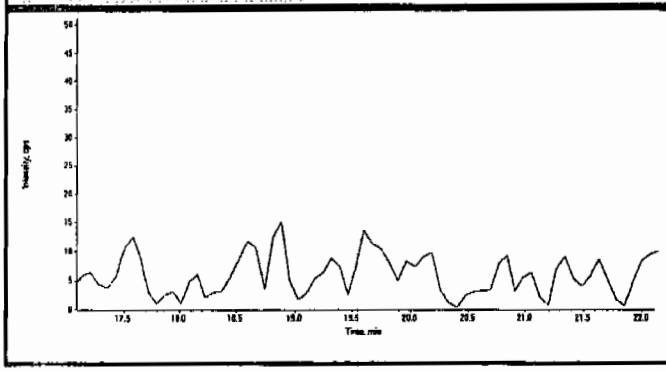

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-7339

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 246318009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 05-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010090.wiff

Date Analyzed: 02-MAR-10 08:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	16600	
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcn 3/3/10

Sample Name: "246318009" Sample ID: "950081|2|LER" File: "EXS03010090.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1660. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:23:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 2.13e+006 counts
Height: 492886.505 cps
Start Time: 6.88 min
End Time: 7.91 min

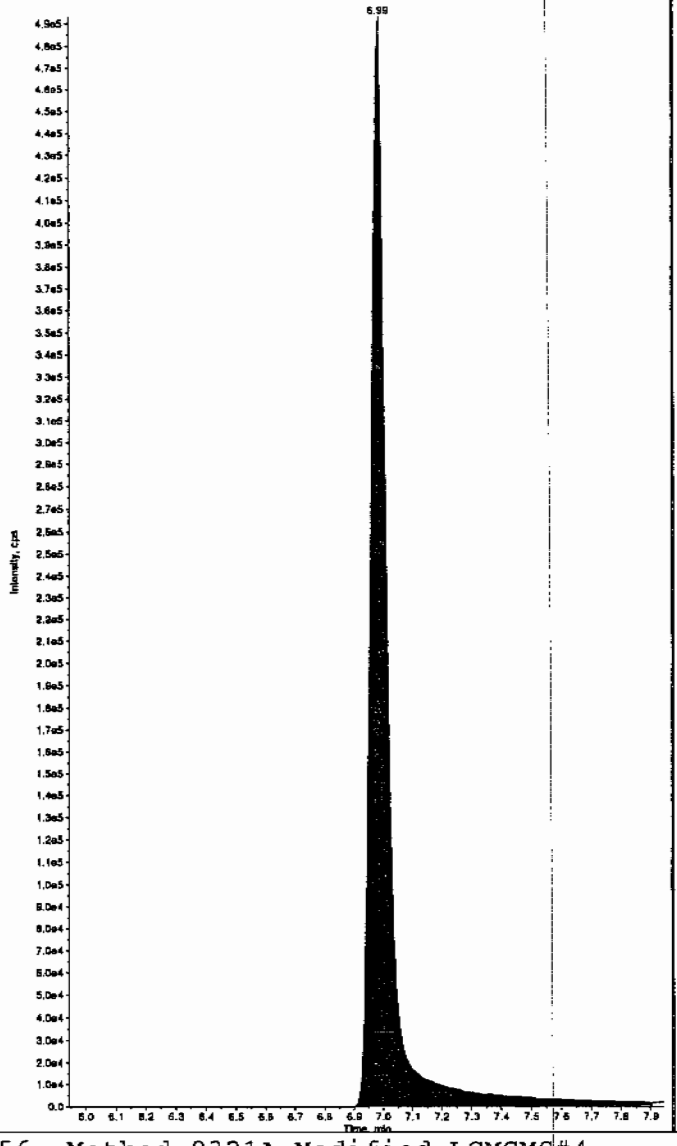

Sample Name: "246318009" Sample ID: "950081|2|LER" File: "EXS03010090.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:23:45 AM

Modified: No

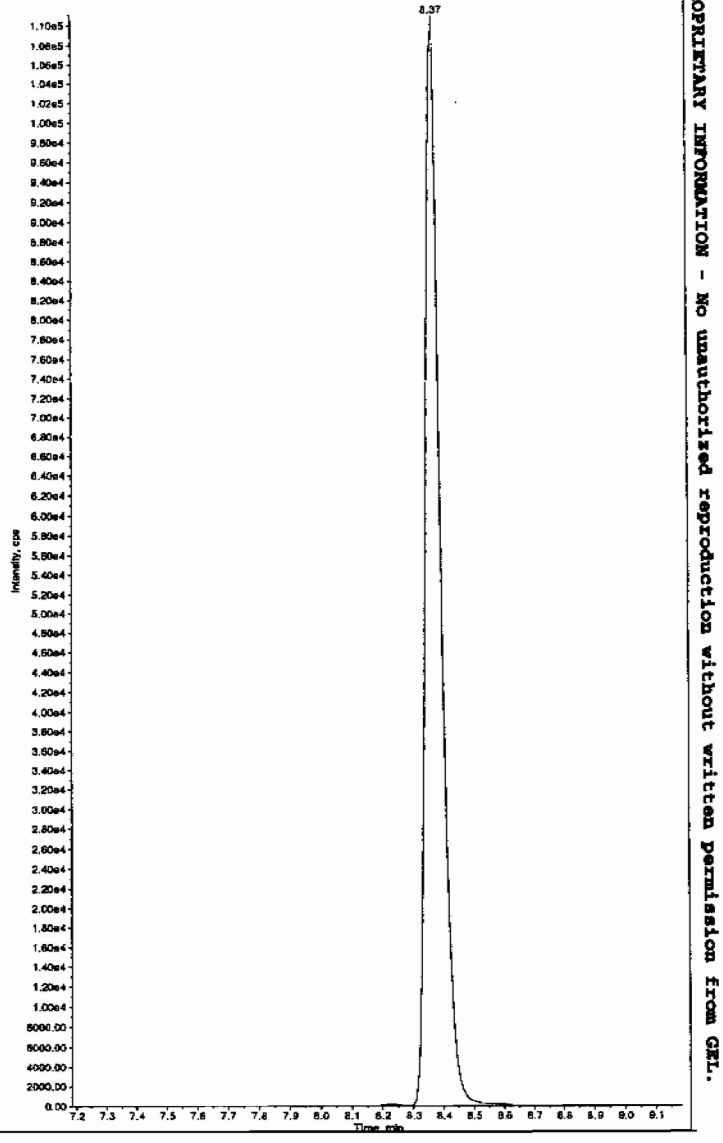

Hmw on 10/4/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "246318009" Sample ID: "950081|2|LER" File: "EXS03010090.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 249. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:23:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 3.03e+006 counts
Height: 893425.598 cps
Start Time: 8.24 min
End Time: 8.73 min

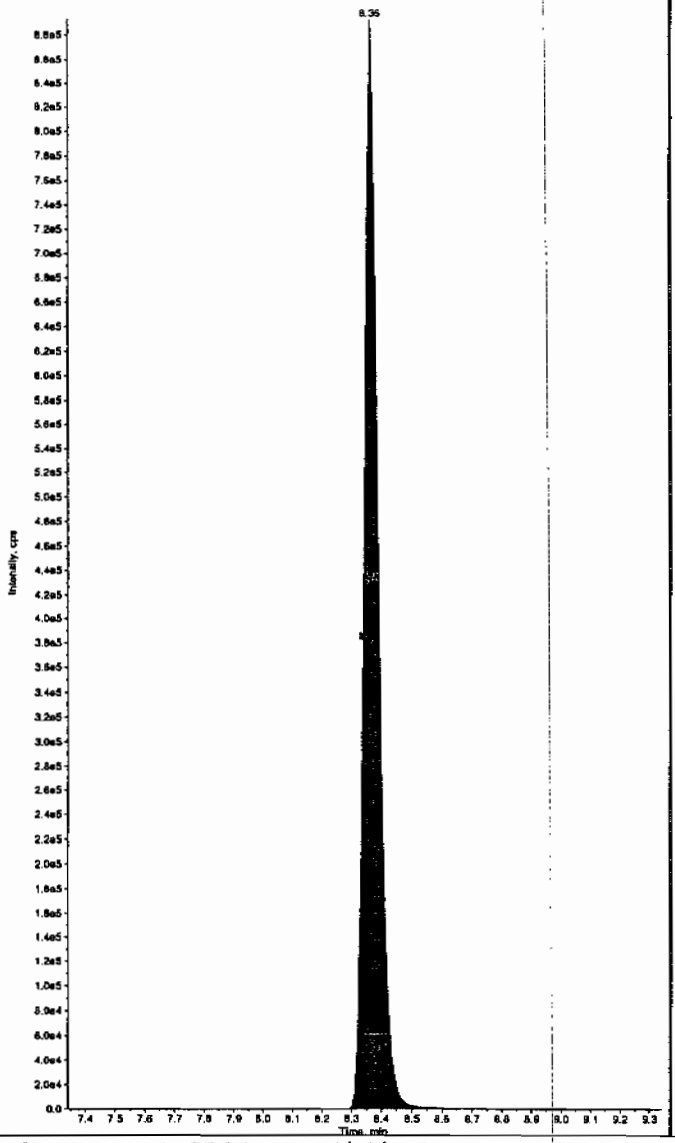

Sample Name: "246318009" Sample ID: "950081|2|LER" File: "EXS03010090.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:23:45 AM

Modified: No

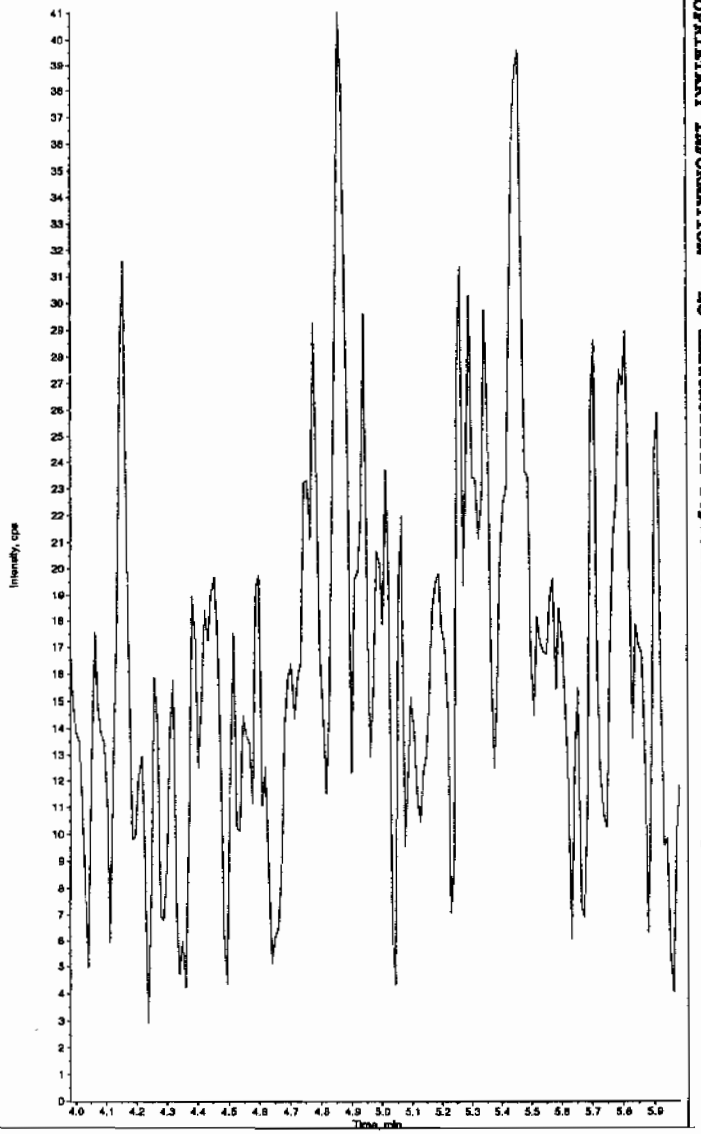

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "246318009" Sample ID: "950081|2|LER" File: "EXS03010090.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:23:45 AM

Modified: No

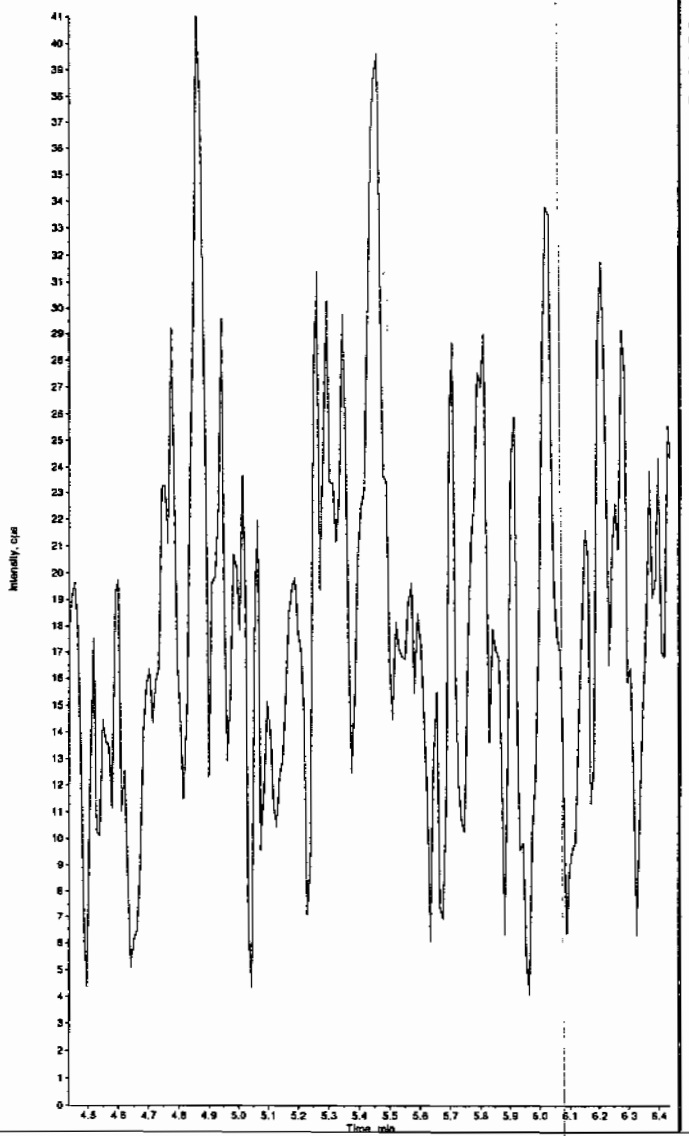

Sample Name: "246318009" Sample ID: "950081|2|LER" File: "EXS03010090.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:23:45 AM

Modified: No

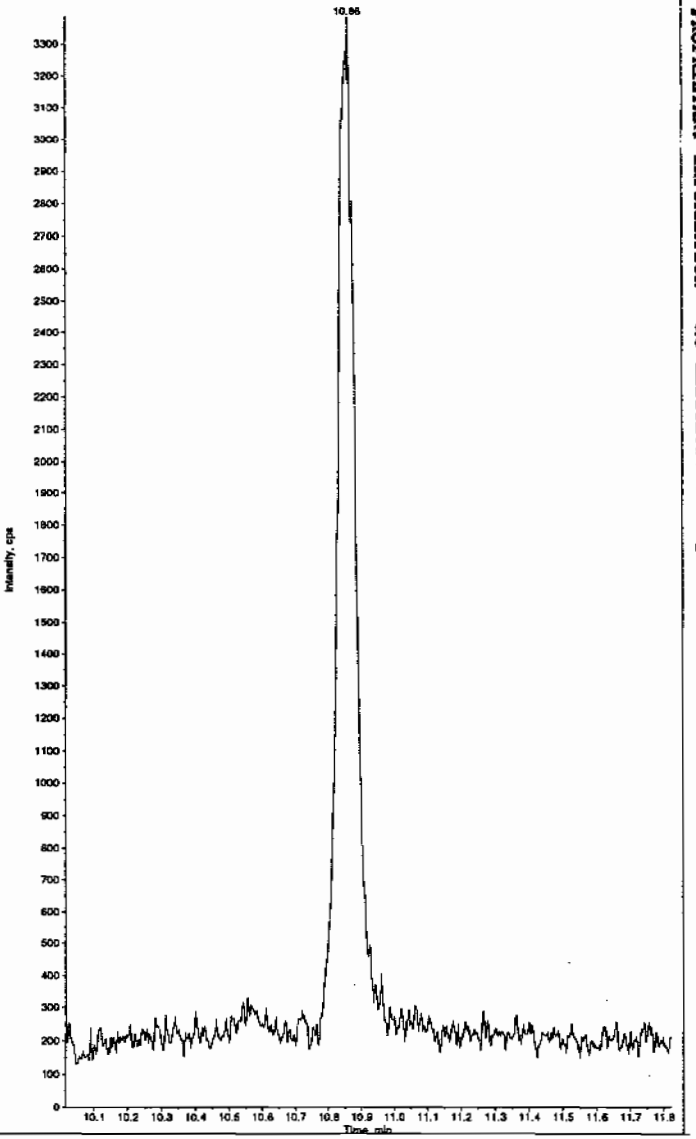

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1564

Lab Code: GEL

Run Date: 01-MAR-10,12-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	50	51	52	53	54	55	Ave RF	RSD	Q
Data File:	EXP0312003.wi	EXP0312004.wi	EXP0312005.wi	EXP0312006.wi	EXP0312007.wi	EXP0312008.wi			
Parmname									
1,3,5-Trinitrobenzene	6.9	6.65	6.64	6.25	5.02	5.13	6.098	13.4	
2,4,6-Trinitrotoluene	2.78	2.93	2.4	2.21	1.96	1.77	2.342	19.3	
2,4-Dinitrotoluene	.617	.711	.625	.588	.531	.459	0.589	14.7	
2-Amino-4,6-dinitrotoluene	.031	.029	.03	.029	.032	.031	0.030	4.34	
3,4-Dinitrotoluene	1.27	1.4	1.35	1.2	1.11	1.06	1.232	10.8	
4-Amino-2,6-dinitrotoluene	1.04	1.07	.909	.925	.857	.797	0.933	11	
DNX	1.53	1.43	1.36	1.44	1.31	1.53	1.433	6.21	
HMX	2.61	2.36	2.17	2.29	2.01	2.24	2.280	8.9	
MNX	.825	.793	.708	.785	.766	.865	0.790	6.72	
Nitrobenzene	.139	.147	.148	.168	.147	.161	0.152	7.14	
PETN	.012	.012	.01	.01	.012	.012	0.011	8.28	
RDX	1.68	1.46	1.48	1.64	1.51	1.67	1.573	6.39	
TNX	1.74	1.66	1.46	1.64	1.56	1.61	1.612	5.96	
Tetryl	3.42	3.3	3.2	3.93	3.36	3.52	3.455	7.46	
m-Dinitrobenzene	2.9	2.74	2.81	2.82	2.34	2.42	2.672	8.69	
m-Nitrotoluene	.01	.012	.009	.01	.011	.01	0.010	10.1	
o-Nitrotoluene	.017	.018	.016	.016	.017	.017	0.017	4.8	
p-Nitrotoluene	.01	.01	.008	.009	.009	.009	0.009	7.7	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1564

Lab Code: GEL

Run Date: 01-MAR-10,12-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:	50	51	52	53	54	55	Slope	Intercept	COD	Q
Data File:	EXP0312003.w	EXP0312004.w	EXP0312005.w	EXP0312006.w	EXP0312007.w	EXP0312008.w				
Parmname										
2,6-Dinitrotoluene	5150000	9810000	38700000	70900000	127000000	159000000	.778	.039	.9995	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: 13-Dinitrobenzene-d4
Use as Internal Standard
Q1/Q3 Masses: 172.05/46.10 amu
Peak Name: 26-Dinitrotoluene-d3
Use as Internal Standard
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 341.20/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.28
Standard deviation 0.203
%RSD 8.9
Use Area

Peak Name: RDX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 267.01/46.10 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.57
Standard deviation 0.1
%RSD 6.39
Use Area

Peak Name: TNX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 219.00/45.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.61
Standard deviation 0.0959
%RSD 5.96
Use Area

Peak Name: DNX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 235.00/45.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.43
Standard deviation 0.0891

LGC 3/24/10

HMC 03/24/10

%RSD 6.21
Use Area

Peak Name: MNX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 251.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.79
Standard deviation 0.0531
%RSD 6.72
Use Area

Peak Name: 135-Trinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 212.97/182.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 6.1
Standard deviation 0.82
%RSD 13.4
Use Area

Peak Name: 13-Dinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 167.95/137.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.67
Standard deviation 0.232
%RSD 8.69
Use Area

Peak Name: Tetryl
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 240.95/180.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 3.46
Standard deviation 0.258
%RSD 7.46
Use Area

Peak Name: 246-Trinitrotoluene

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Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 227.12/209.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.34
Standard deviation 0.453
%RSD 19.3
Use Area

Peak Name: Nitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 123.04/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.152
Standard deviation 0.0108
%RSD 7.14
Use Area

Peak Name: 34-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.23
Standard deviation 0.133
%RSD 10.8
Use Area

Peak Name: 26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.039
Slope 0.778
Correlation coefficient 0.9995
Use Area

Peak Name: 24-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No

Factor 0.588
Standard deviation 0.0864
%RSD 14.7
Use Area

Peak Name: 4-Amino-26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/167.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.932
Standard deviation 0.103
%RSD 11
Use Area

Peak Name: 2-Amino-46-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/180.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0302
Standard deviation 0.00131
%RSD 4.34
Use Area

Peak Name: 2-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.017
Standard deviation 0.000814
%RSD 4.8
Use Area

Peak Name: 4-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.00932
Standard deviation 0.000718
%RSD 7.7
Use Area

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Peak Name: 3-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting
Factor 0.0104
Standard deviation 0.00104
%RSD 10.1
Use Area

None Iterate No

Peak Name: PETN
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 361.06/62.00 amu

Fit Mean Response Factor Weighting
Factor 0.0114
Standard deviation 0.000941
%RSD 8.28
Use Area

None Iterate No

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

031210.rdb
Analyte Name: HMX

Regression Equation: y = 2.28 x (std. dev. = 0.203)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.64	114.5
50	51.82	103.6
200	190.62	95.3
400	401.94	100.5
800	703.74	88.0
1000	980.51	98.1

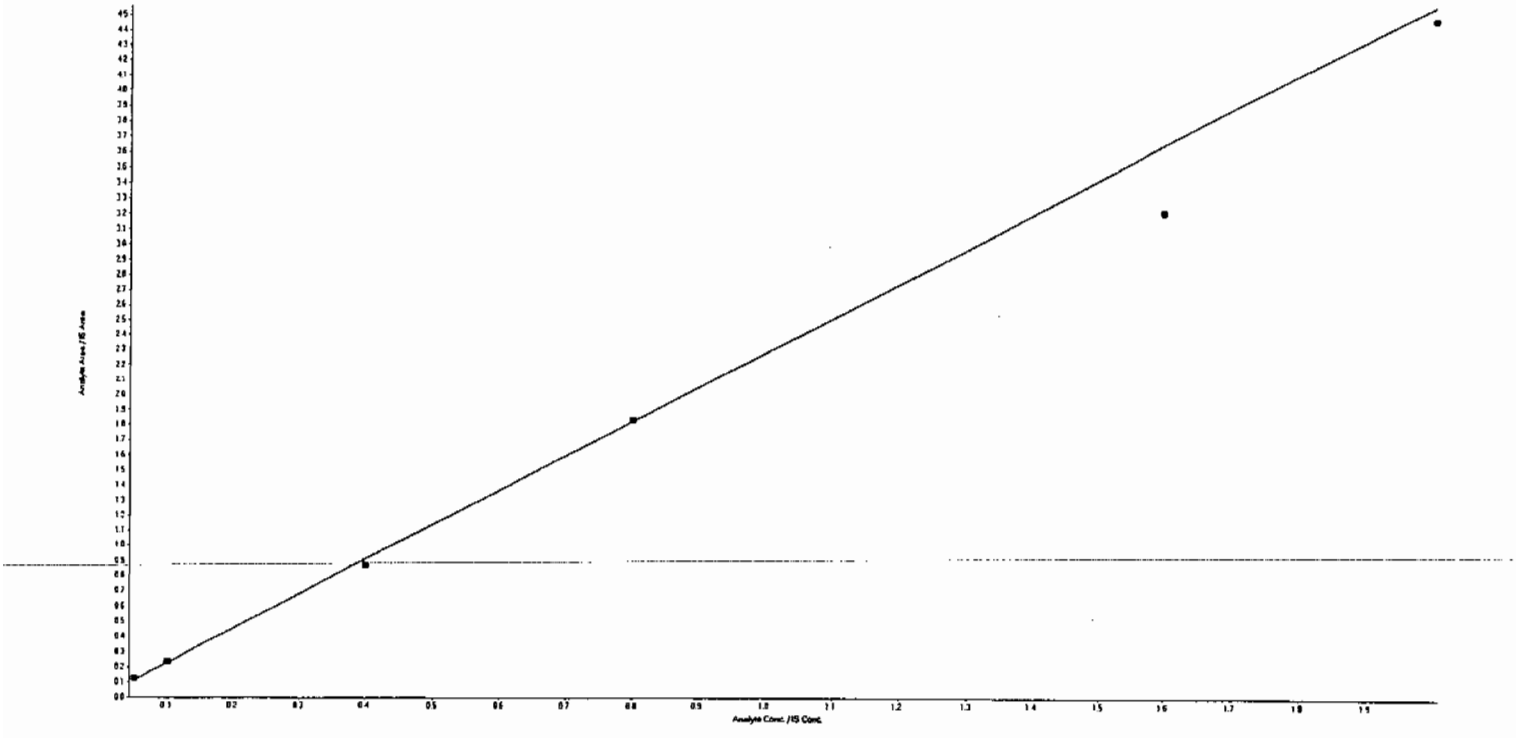

Hmx 03/24/10

3/24/10

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Analyte Name: RDX

Regression Equation: y = 1.57 x (std. dev. = 0.1)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.70	106.8
50	46.33	92.7
200	187.97	94.0
400	416.86	104.2
800	770.63	96.3
1000	1060.08	106.0

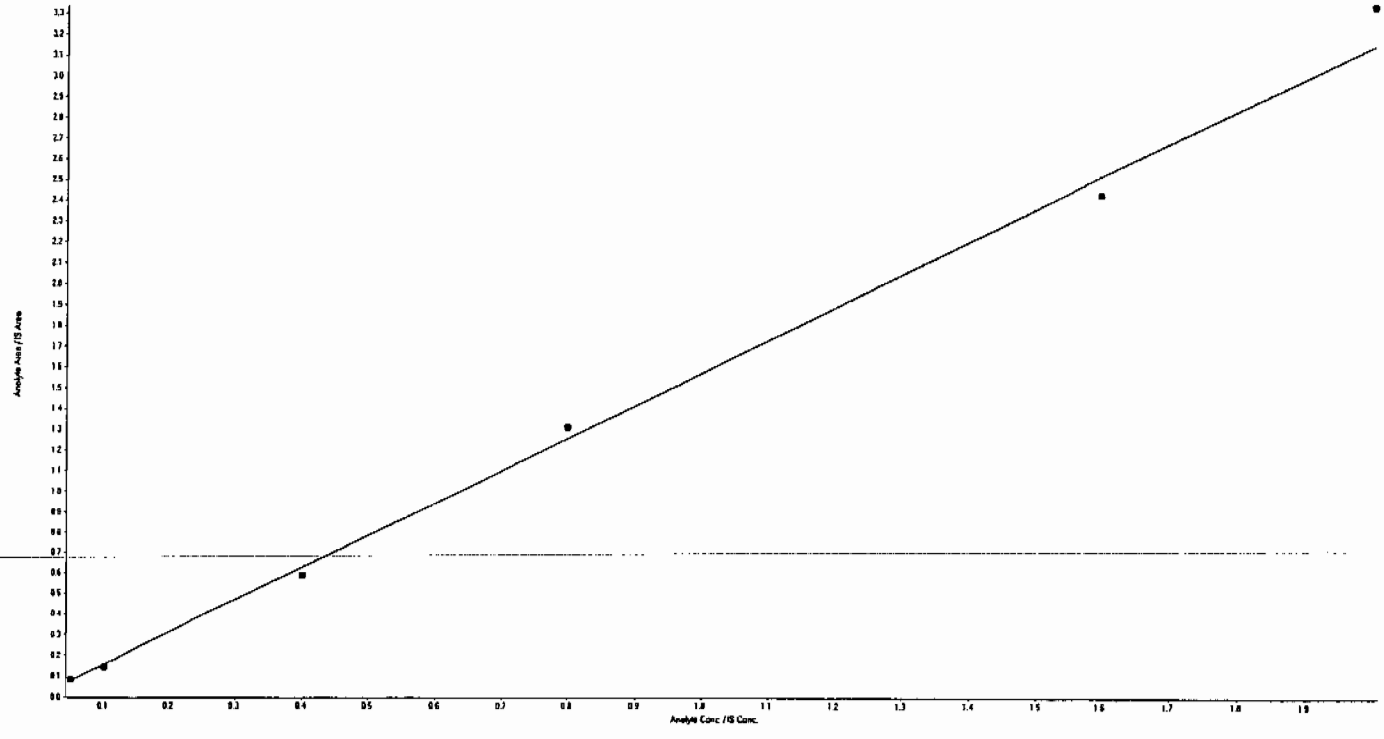

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Analyte Name: TNX

Regression Equation: y = 1.61 x (std. dev. = 0.0959)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.98	107.9
50	51.45	102.9
200	180.92	90.5
400	408.25	102.1
800	773.23	96.7
1000	1000.05	100.0

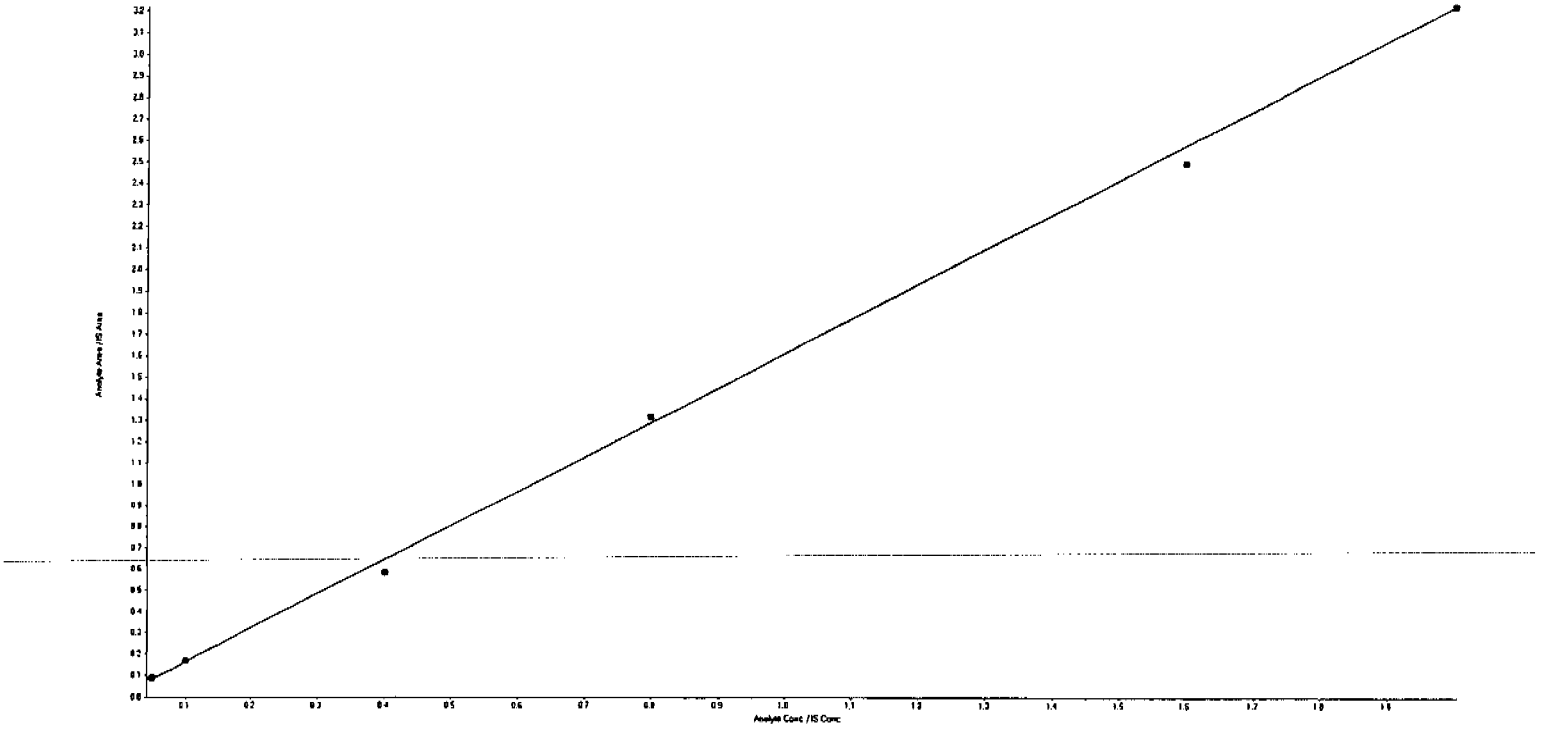

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Analyte Name: DNX

Regression Equation: y = 1.43 x (std. dev. = 0.0891)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.74	106.9
50	49.76	99.5
200	190.00	95.0
400	402.10	100.5
800	730.81	91.4
1000	1066.61	106.7

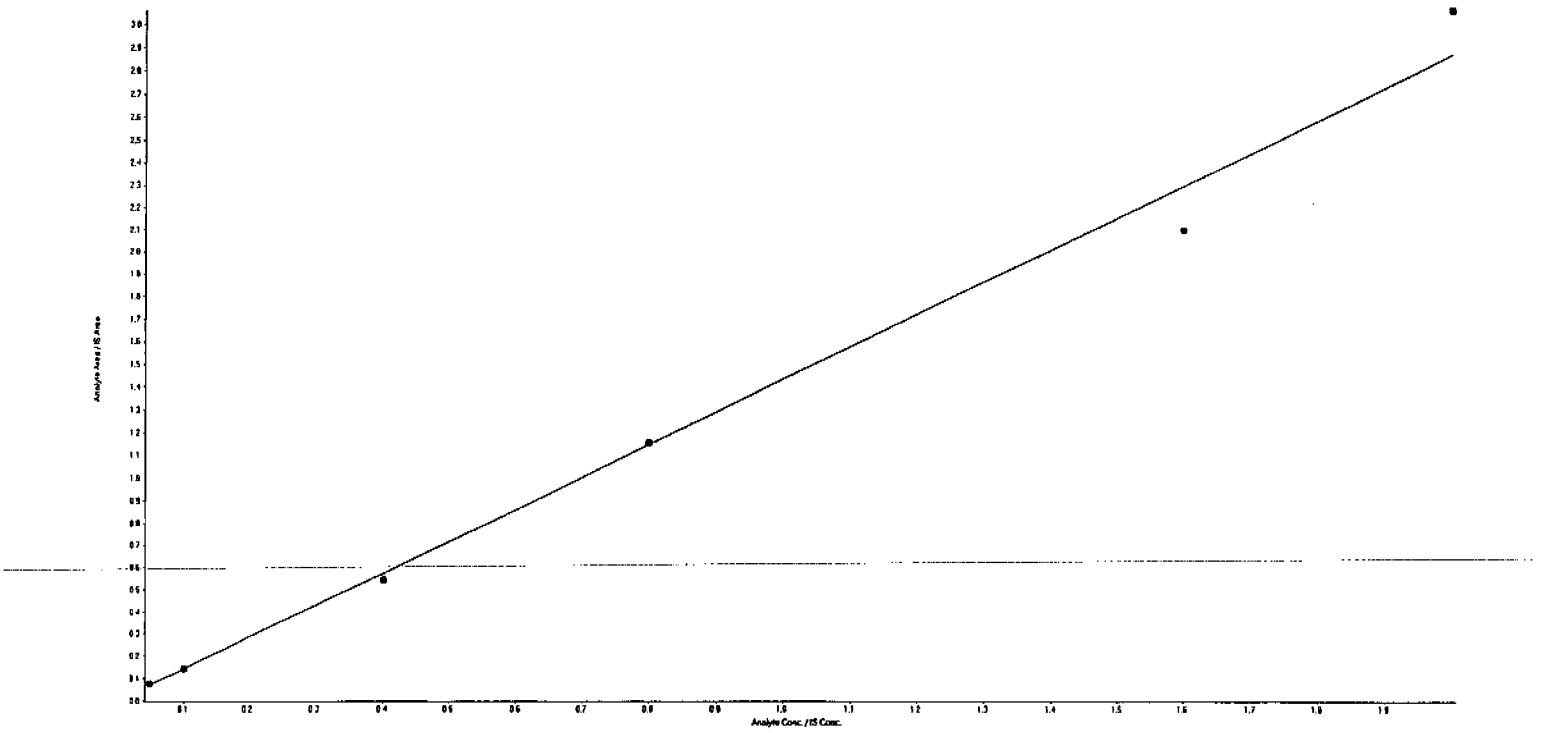

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Analyte Name: MNX

Regression Equation: y = 0.79 x (std. dev. = 0.0531)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.09	104.4
50	50.16	100.3
200	179.22	89.6
400	397.23	99.3
800	775.87	97.0
1000	1094.31	109.4

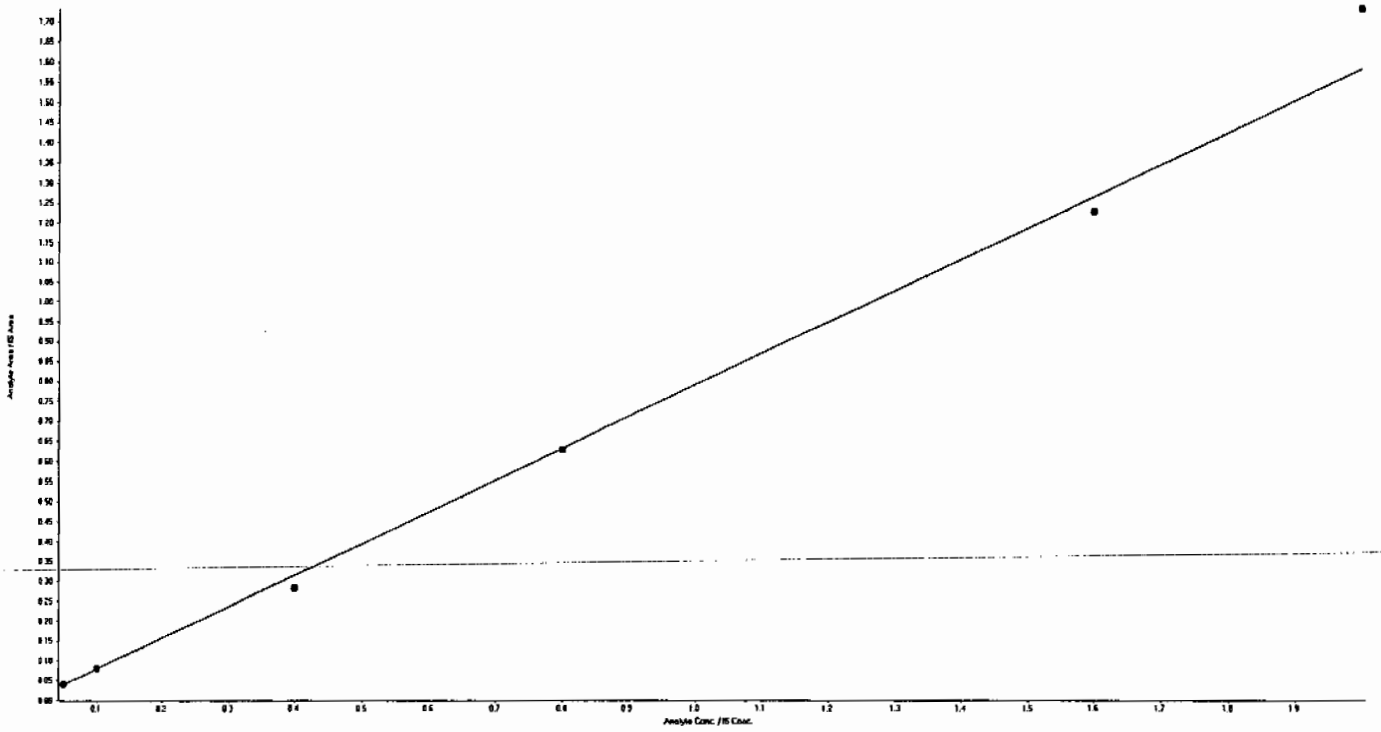

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Analyte Name: 135-Trinitrobenzene

Regression Equation: y = 6.1 x (std. dev. = 0.82)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.27	113.1
50	54.55	109.1
200	217.70	108.8
400	410.24	102.6
800	658.48	82.3
1000	841.02	84.1

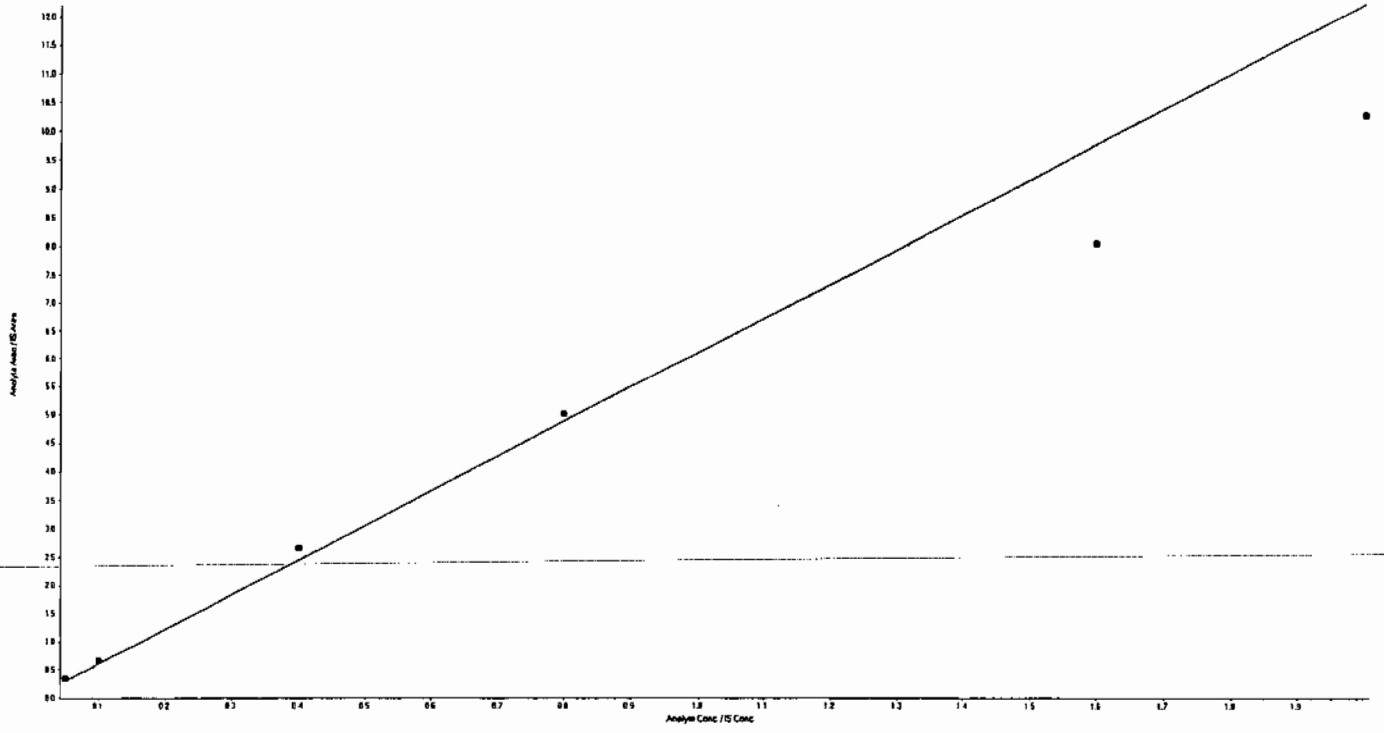

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Analyte Name: 13-Dinitrobenzene

Regression Equation: y = 2.67 x (std. dev. = 0.232)

Expected Concentration	Calculated Concentration	% Accuracy
25	27.14	108.5
50	51.33	102.7
200	209.92	105.0
400	422.29	105.6
800	700.35	87.5
1000	907.10	90.7

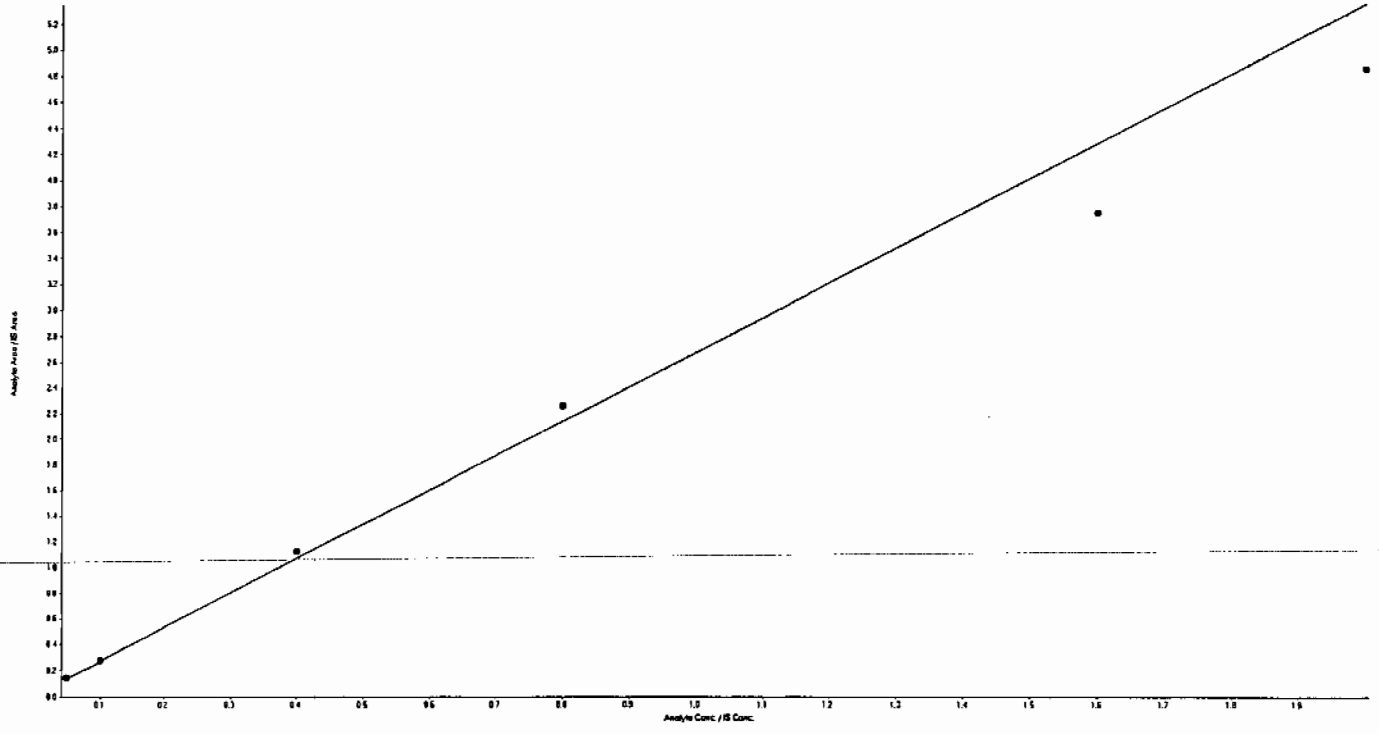

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Analyte Name: Tetryl

Regression Equation: y = 3.46 x (std. dev. = 0.258)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.75	99.0
50	47.79	95.6
200	185.03	92.5
400	455.23	113.8
800	777.90	97.2
1000	1018.66	101.9

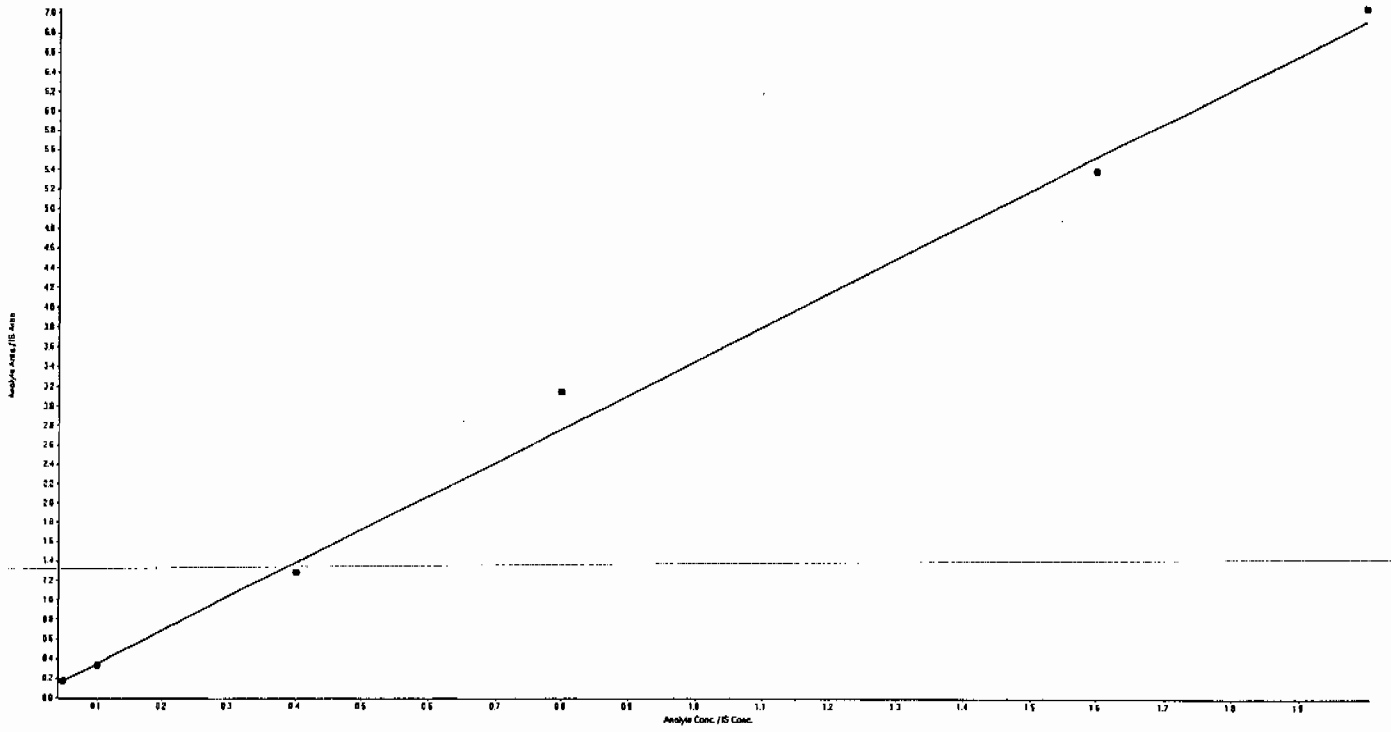

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Analyte Name: 246-Trinitrotoluene

Regression Equation: y = 2.34 x (std. dev. = 0.453)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.70	118.8
50	62.49	125.0
200	204.69	102.3
400	378.03	94.5
800	669.36	83.7
1000	757.03	75.7

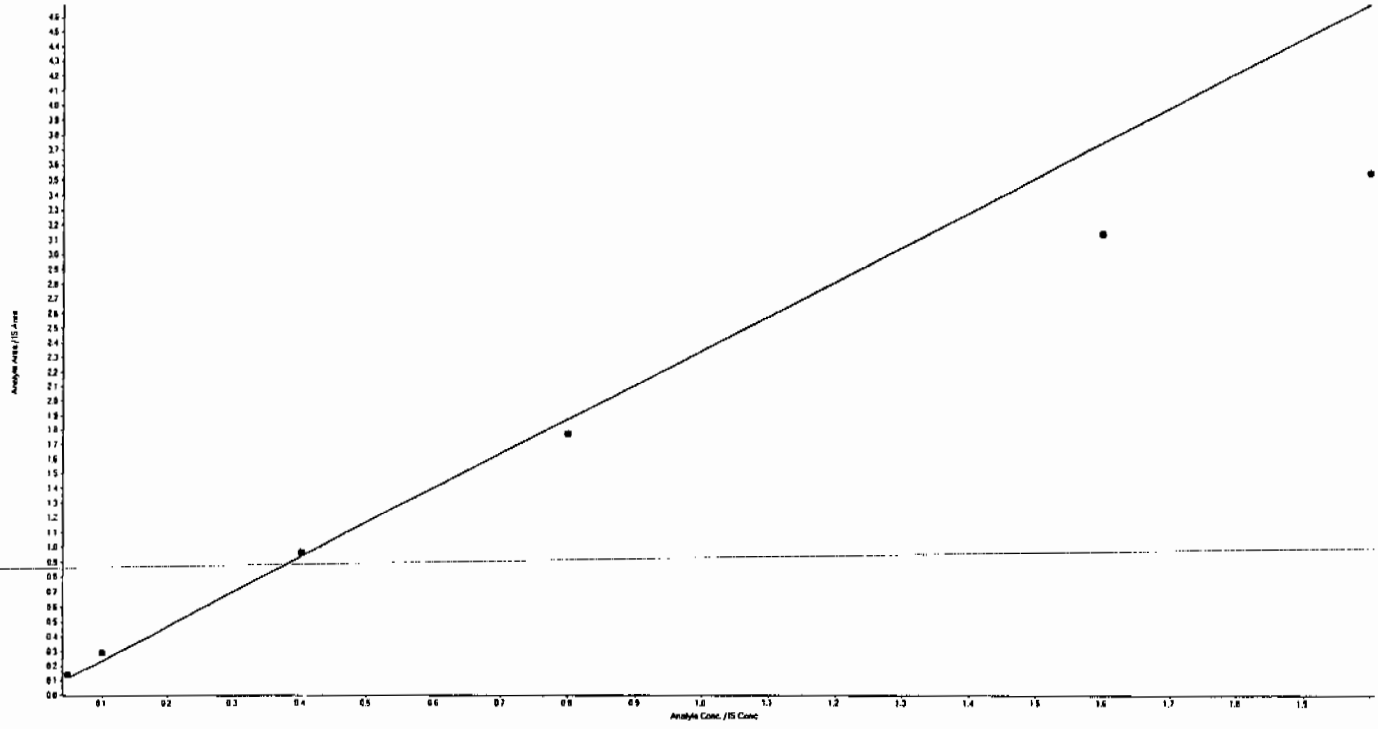

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Analyte Name: Nitrobenzene

Regression Equation: y = 0.152 x (std. dev. = 0.0108)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.87	91.5
50	48.39	96.8
200	195.02	97.5
400	443.57	110.9
800	776.99	97.1
1000	1062.07	106.2

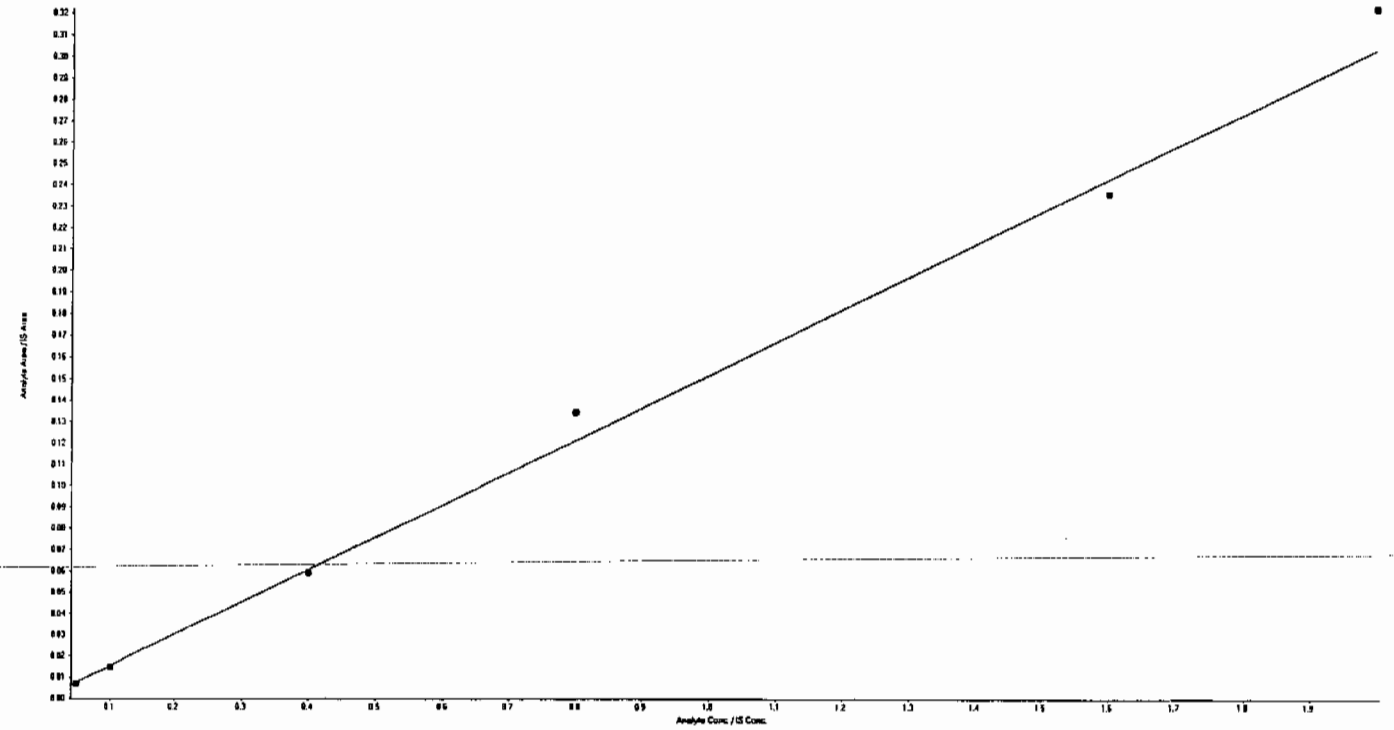

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Analyte Name: 34-dinitrotoluene

Regression Equation: y = 1.23 x (std. dev. = 0.133)

Expected Concentration	Calculated Concentration	% Accuracy
12.5	12.91	103.3
25	28.40	113.6
100	109.30	109.3
200	195.22	97.6
400	361.96	90.5
500	428.63	85.7

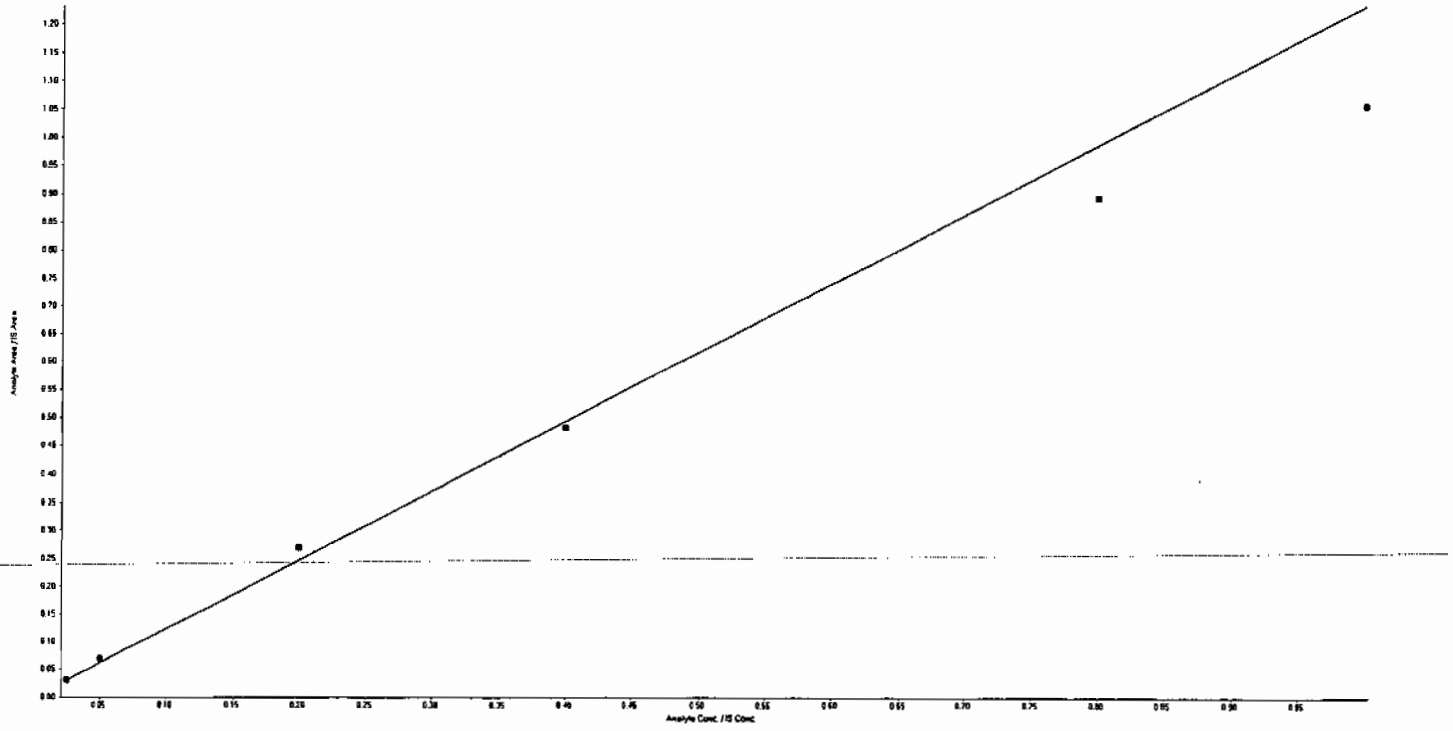

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Analyte Name: 26-dinitrotoluene

Regression Equation: y = 0.778 x + 0.039 (r = 0.9995)

Expected Concentration	Calculated Concentration	% Accuracy
25	11.06	44.3
50	42.49	85.0
200	210.64	105.3
400	421.07	105.3
800	797.82	99.7
1000	991.91	99.2

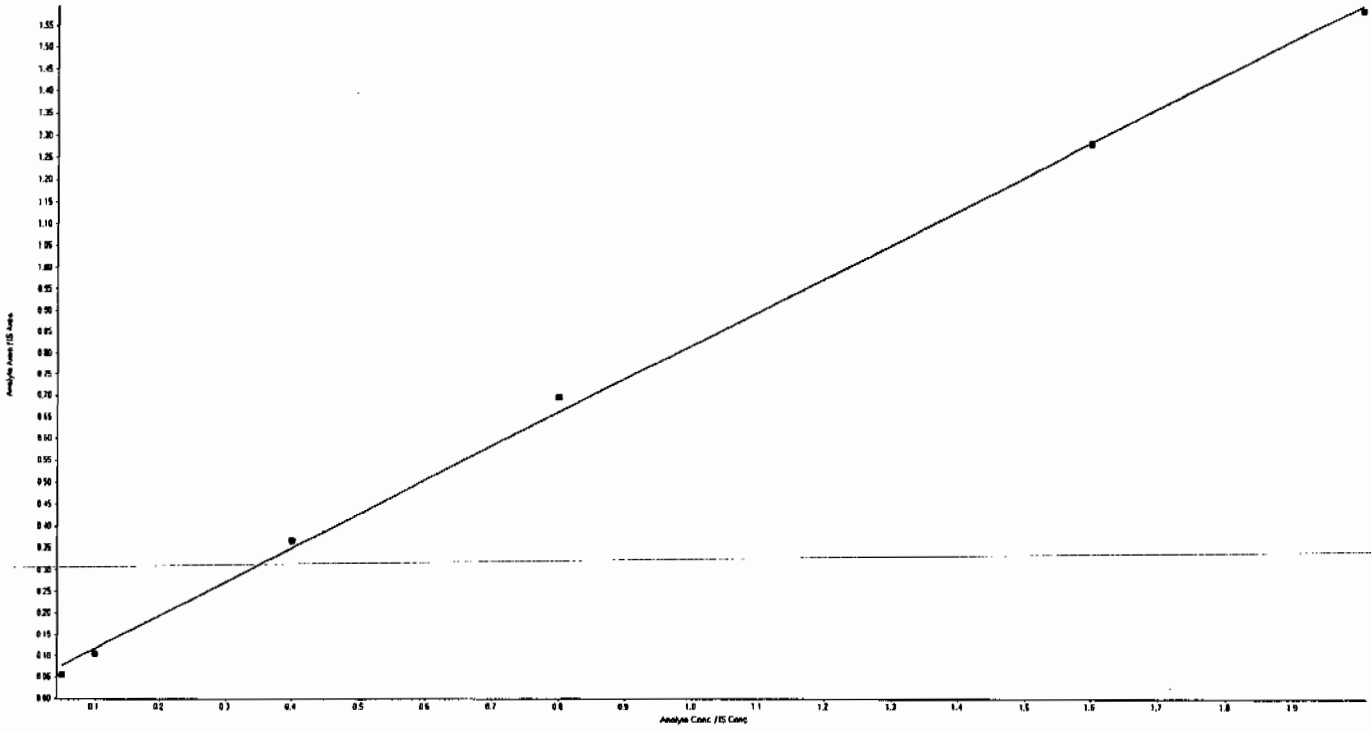

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Analyte Name: 24-dinitrotoluene

Regression Equation: y = 0.588 x (std. dev. = 0.0864)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.20	104.8
50	60.43	120.9
200	212.42	106.2
400	399.67	99.9
800	722.24	90.3
1000	779.31	77.9

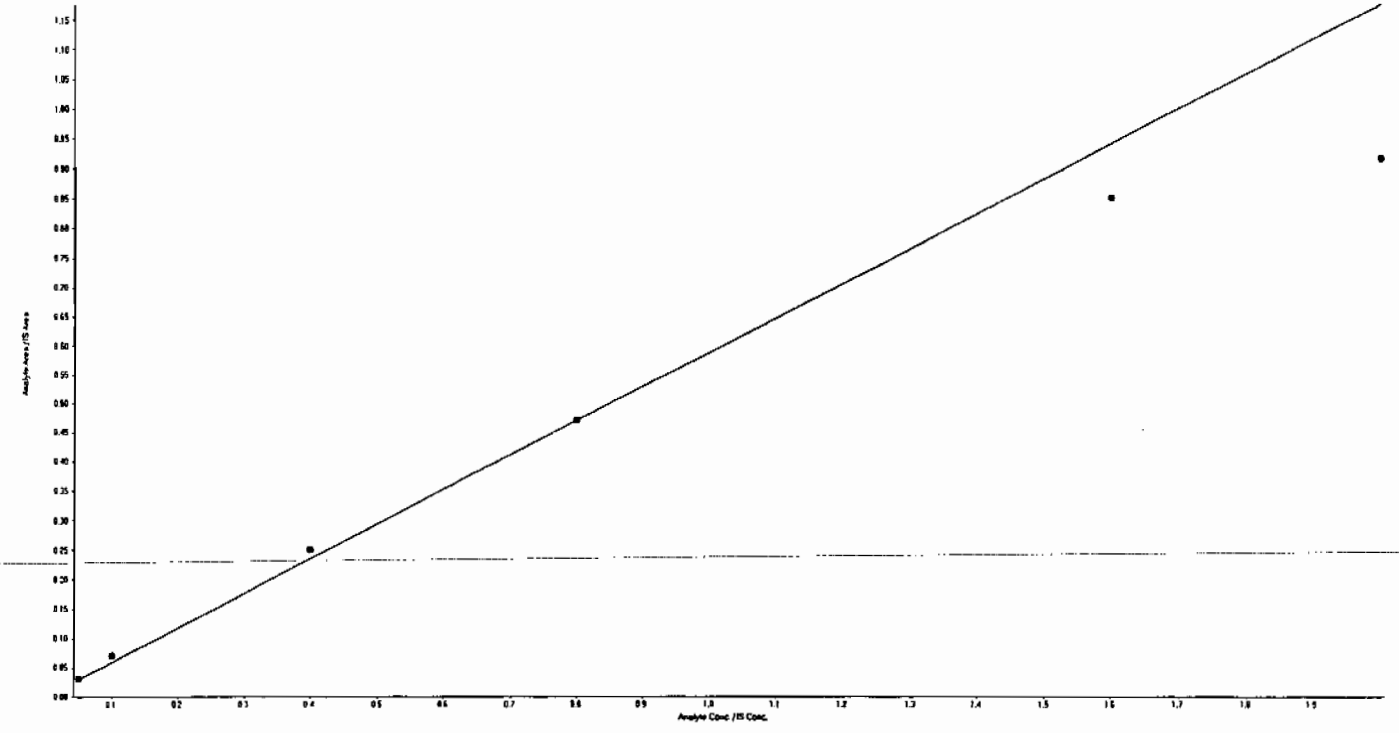

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Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation: y = 0.932 x (std. dev. = 0.103)

Expected Concentration	Calculated Concentration	% Accuracy
25	27.80	111.2
50	57.16	114.3
200	195.22	97.6
400	397.29	99.3
800	736.08	92.0
1000	855.46	85.5

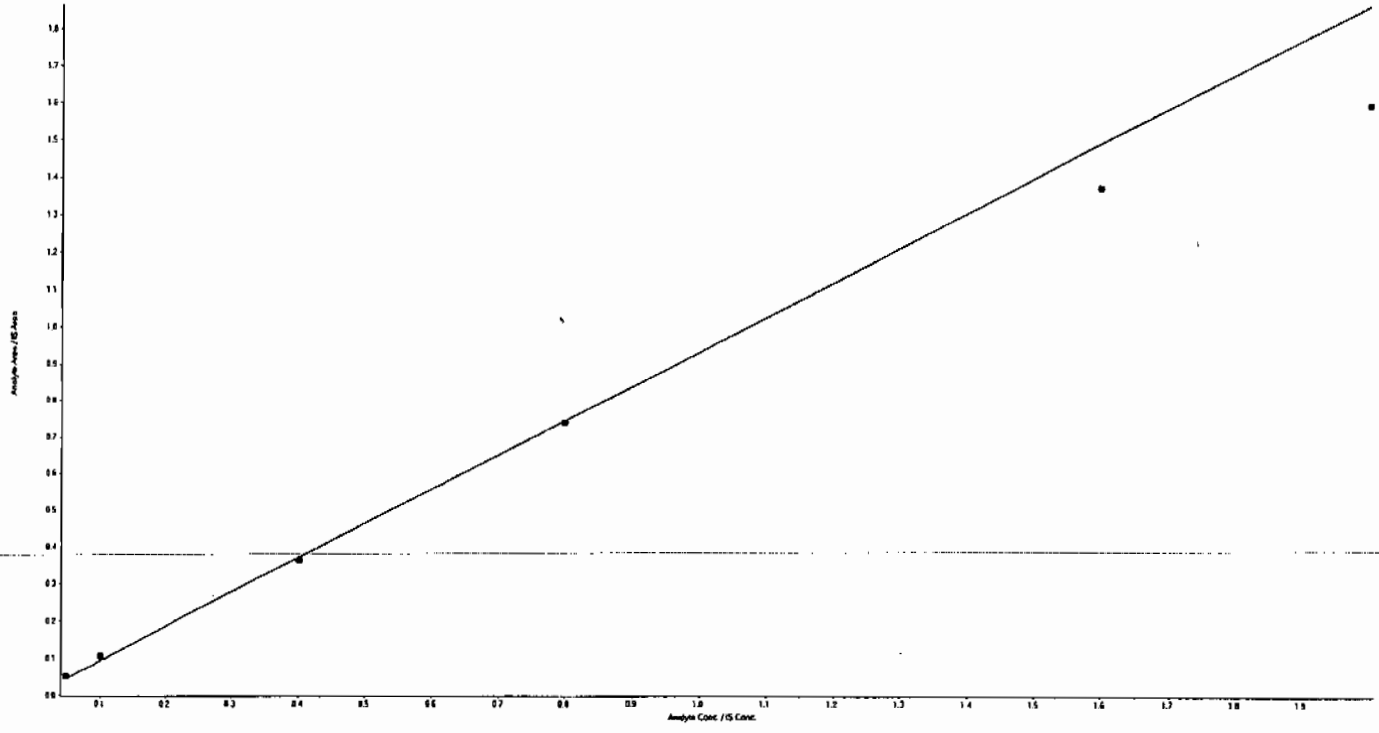

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Analyte Name: 2-Amino-46-dinitrotoluene

Regression Equation: y = 0.0302 x (std. dev. = 0.00131)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.31	101.2
50	48.30	96.6
200	195.85	97.9
400	381.35	95.3
800	857.76	107.2
1000	1016.80	101.7

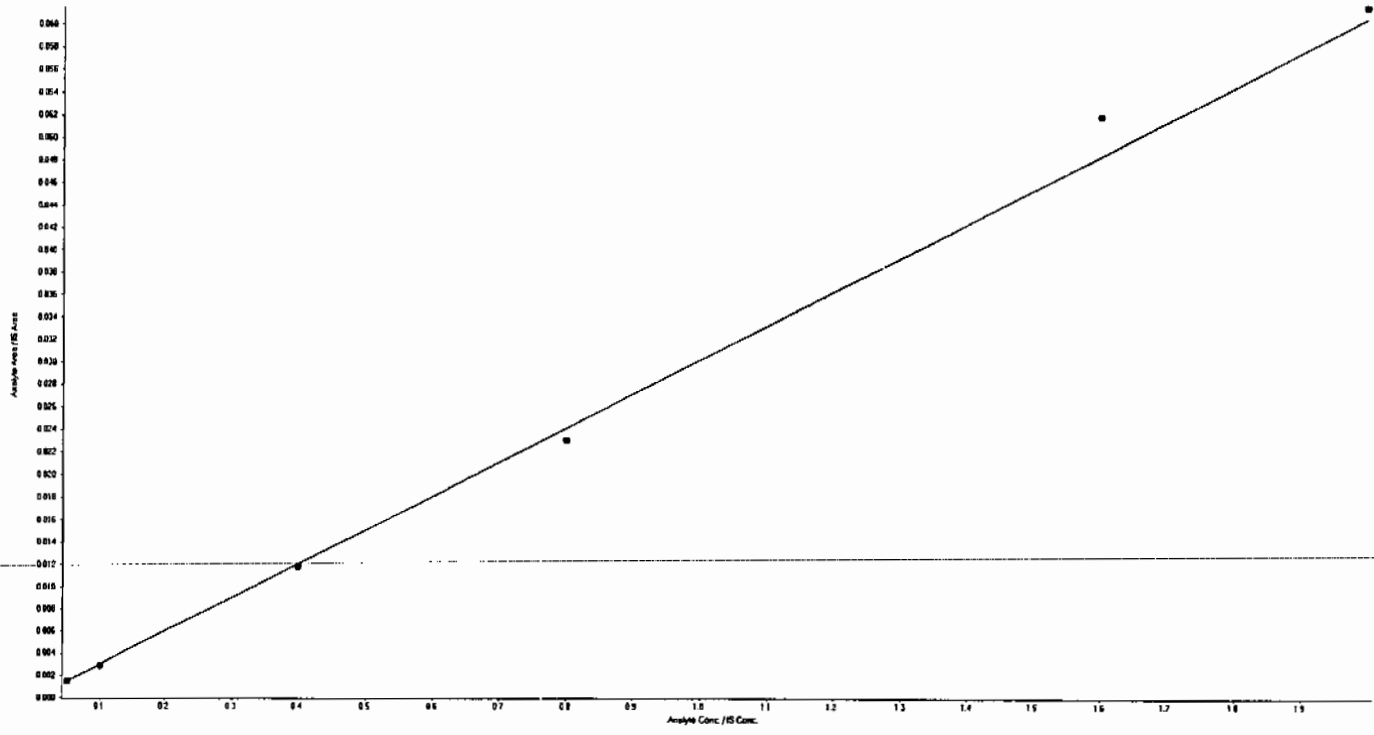

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Analyte Name: 2-Nitrotoluene

Regression Equation: y = 0.017 x (std. dev. = 0.000814)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.52	102.1
50	54.00	108.0
200	188.51	94.3
400	385.70	96.4
800	802.14	100.3
1000	989.68	99.0

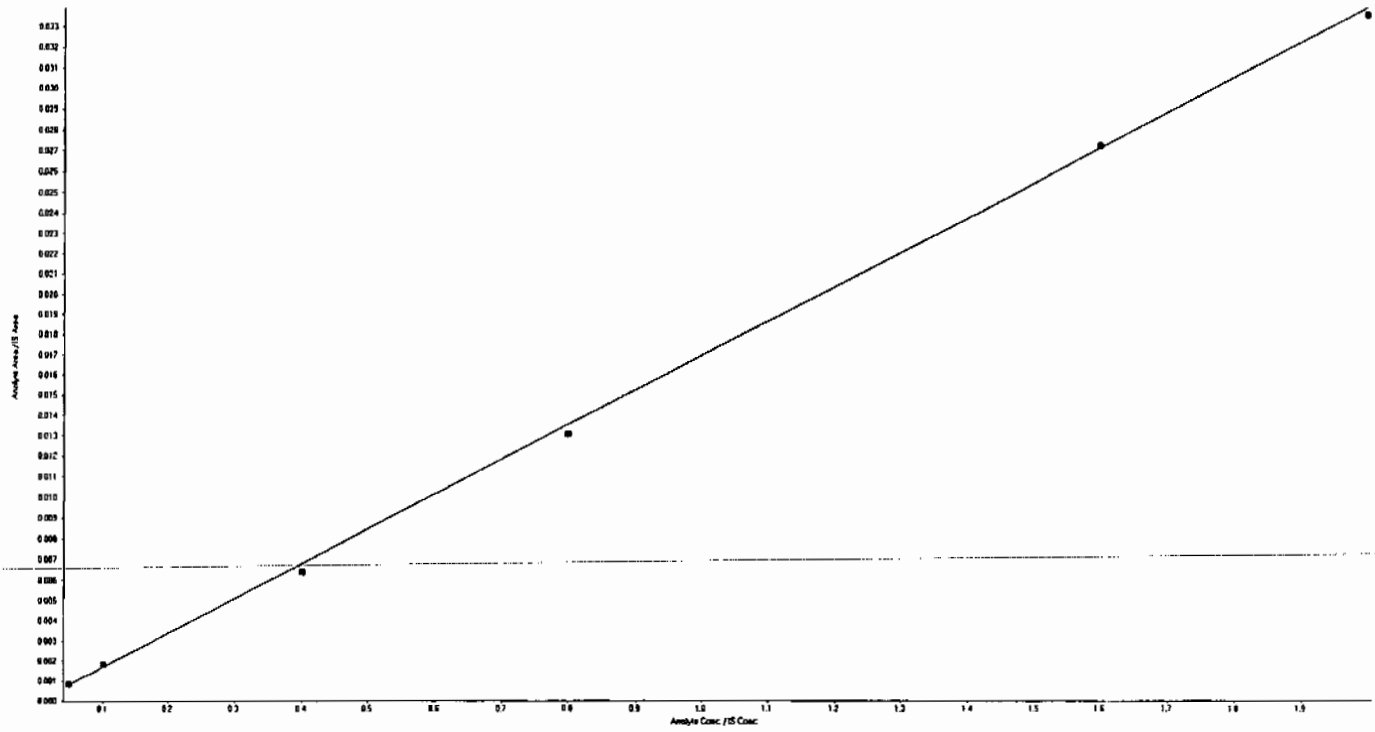

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Analyte Name: 4-Nitrotoluene

Regression Equation: y = 0.00932 x (std. dev. = 0.000718)

Expected Concentration	Calculated Concentration	% Accuracy
25	27.41	109.6
50	54.05	108.1
200	179.27	89.6
400	394.54	98.6
800	793.85	99.2
1000	947.43	94.7

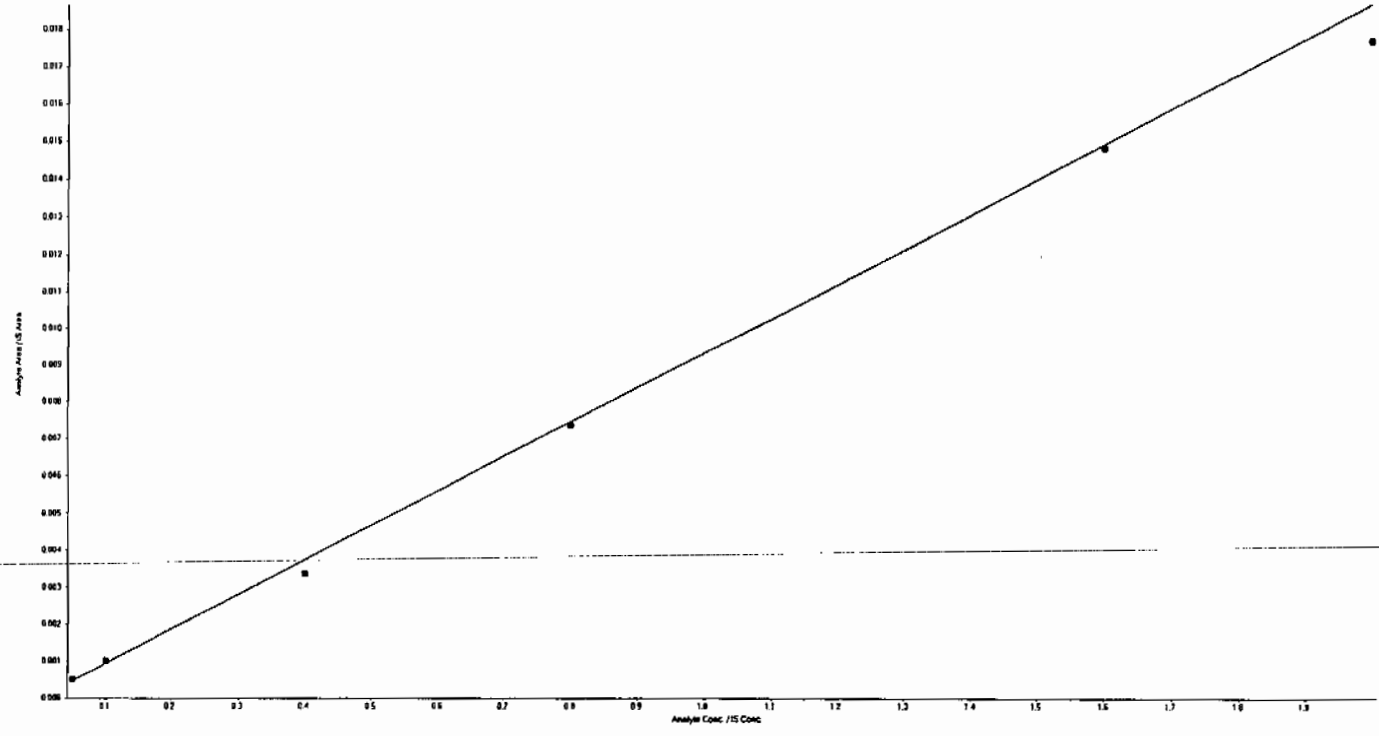

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Analyte Name: 3-Nitrotoluene

Regression Equation: y = 0.0104 x (std. dev. = 0.00104)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.71	98.8
50	58.91	117.8
200	175.68	87.8
400	378.67	94.7
800	822.83	102.9
1000	979.98	98.0

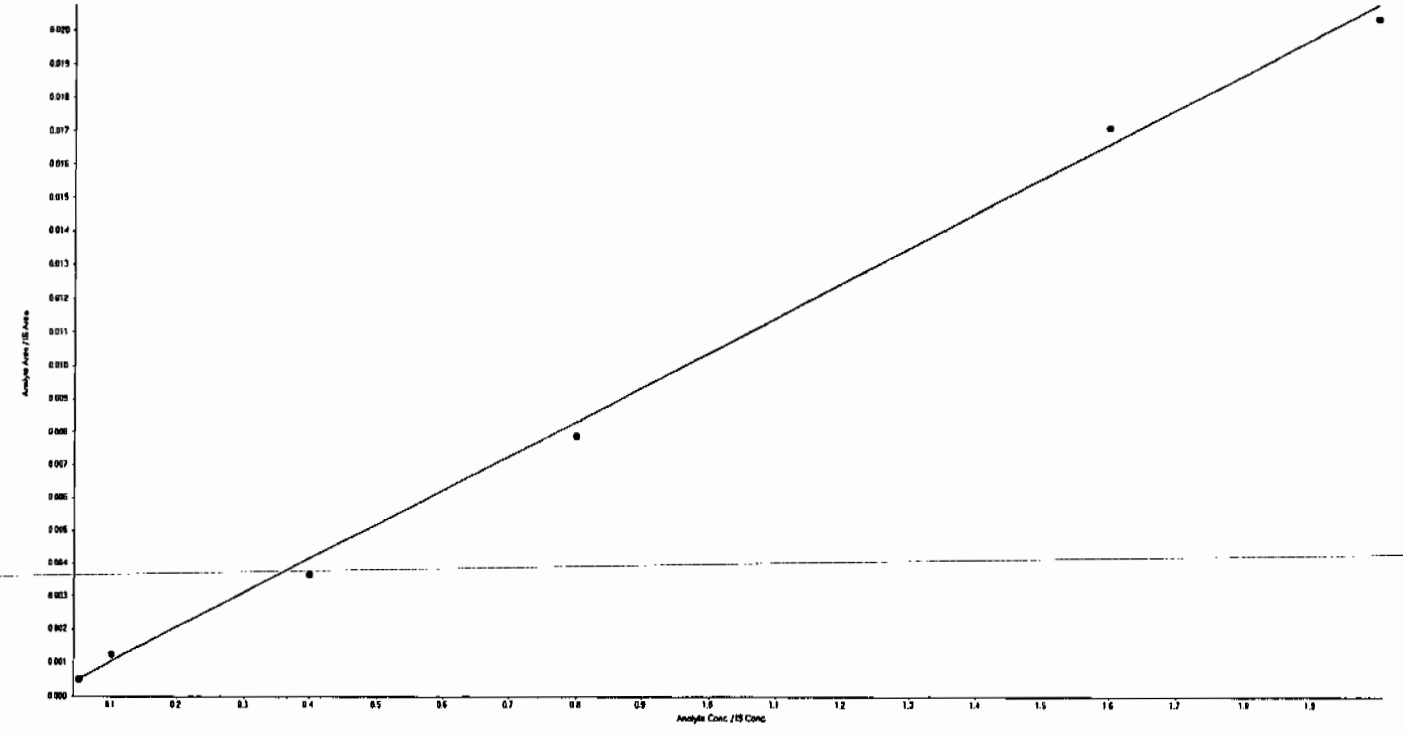

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Analyte Name: PETN

Regression Equation: y = 0.0114 x (std. dev. = 0.000941)

Expected Concentration	Calculated Concentration	% Accuracy
25	27.25	109.0
50	51.97	103.9
200	180.38	90.2
400	358.30	89.6
800	851.00	106.4
1000	1009.08	100.9

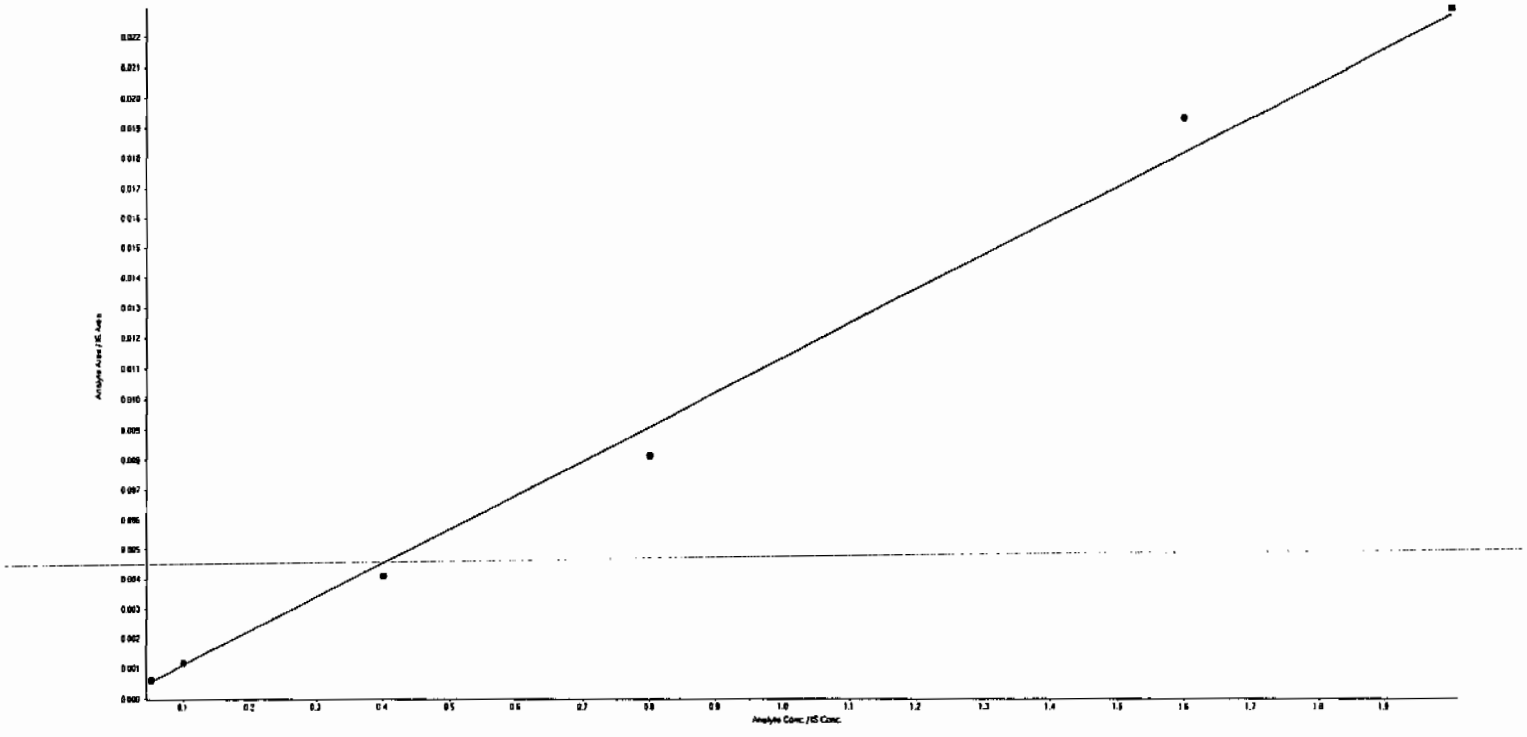

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0312010.wiff

Analysis Date: 12-MAR-10 11:56

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	600	624	104	
2-Amino-4,6-dinitrotoluene	600	676	113	
3,4-Dinitrotoluene	300	277	92	
4-Amino-2,6-dinitrotoluene	600	598	100	
DNX	600	611	102	
HMX	600	578	96	
MNX	600	643	107	
Nitrobenzene	600	639	106	
PETN	600	607	101	
RDX	600	626	104	
TNX	600	648	108	
Tetryl	600	697	116	
m-Dinitrobenzene	600	593	99	
m-Nitrotoluene	600	578	96	
o-Nitrotoluene	600	604	101	
p-Nitrotoluene	600	587	98	
1,3,5-Trinitrobenzene	600	580	97	
2,4,6-Trinitrotoluene	600	550	92	
2,4-Dinitrotoluene	600	571	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312010.wiff	**Acquisition Date**	3/12/2010 11:56:18 AM
Sample Name	WXX100312-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

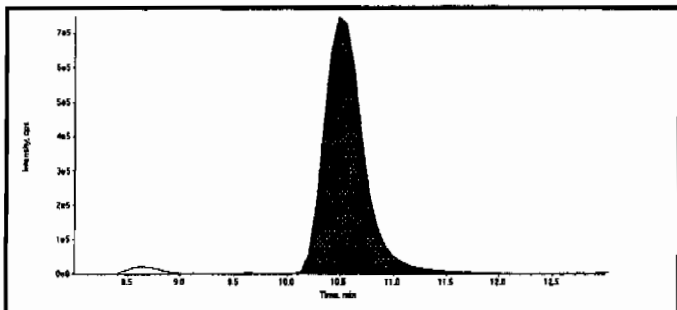

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	19600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

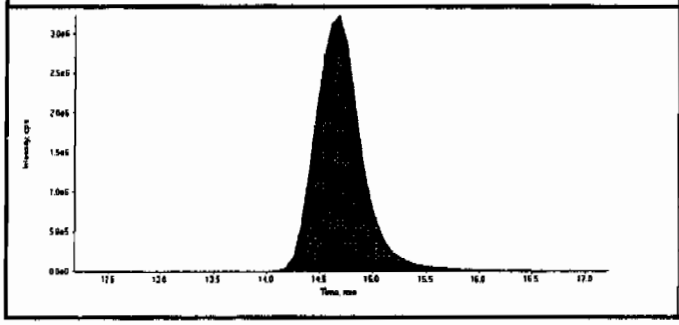

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	98400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

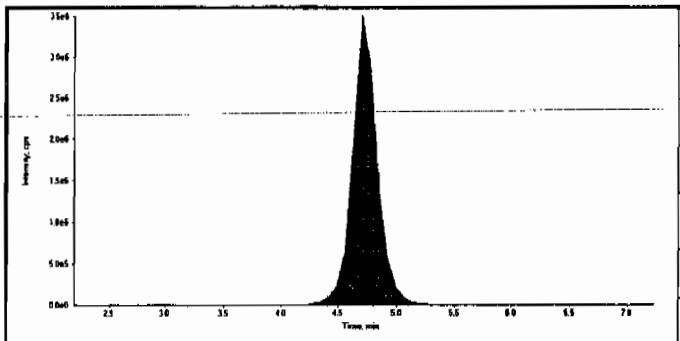

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.70
Area Counts:	5.16e+007
Manual Modification	No
Amount:	578. (ng/mL)
% Accuracy:	96.40

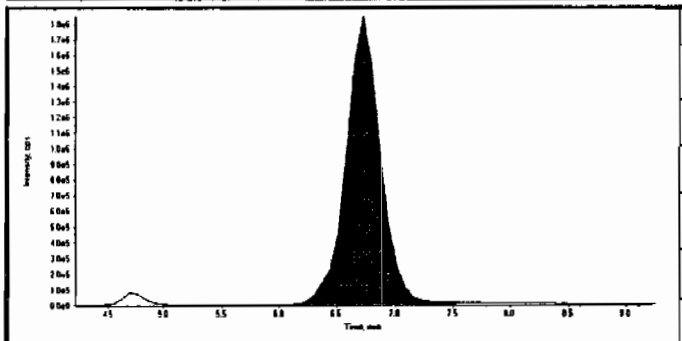

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.73
Area Counts:	3.85e+007
Manual Modification	No
Amount:	626. (ng/mL)
% Accuracy:	104.00

dmc 03/24/10

LCR 3/24/10

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Data File	EXP0312010.wiff	**Acquisition Date**	3/12/2010 11:56:18 AM
Sample Name	WXX100312-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

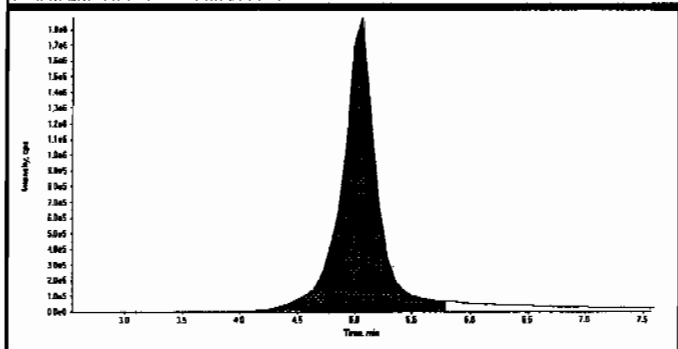

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	4.08e+007
Manual Modification	No
Amount:	648. (ng/mL)
% Accuracy:	108.00

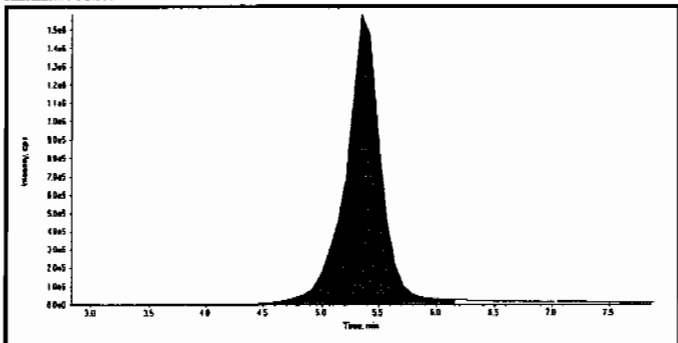

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.35
Area Counts:	3.43e+007
Manual Modification	No
Amount:	611. (ng/mL)
% Accuracy:	102.00

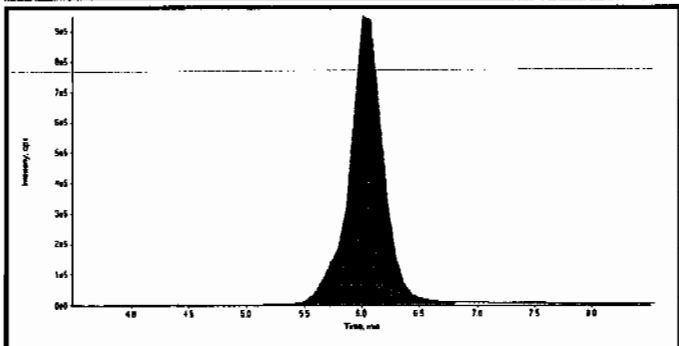

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.00
Area Counts:	1.99e+007
Manual Modification	No
Amount:	643. (ng/mL)
% Accuracy:	107.00

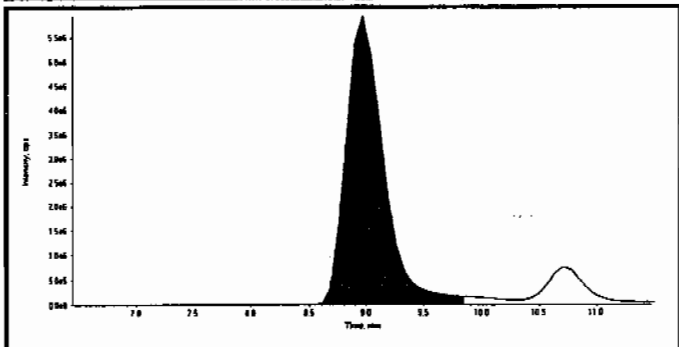

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	8.97
Area Counts:	1.38e+008
Manual Modification	No
Amount:	580. (ng/mL)
% Accuracy:	96.60

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312010.wiff	Acquisition Date	3/12/2010 11:56:18 AM
Sample Name	WXX100312-56ICV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

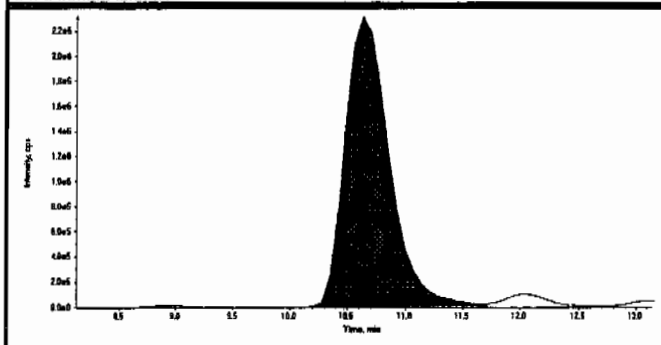

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.6
Area Counts:	6.20e+007
Manual Modification	No
Amount:	593. (ng/mL)
% Accuracy:	98.80

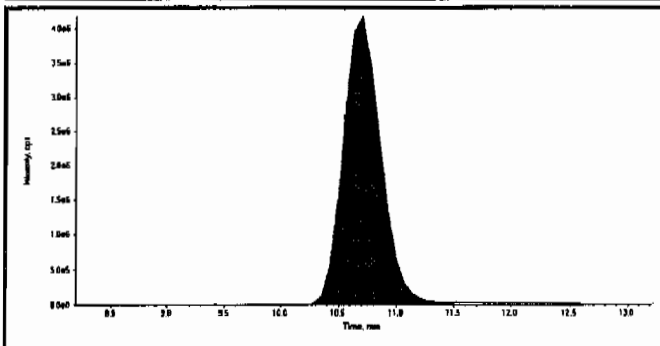

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	9.43e+007
Manual Modification	No
Amount:	697. (ng/mL)
% Accuracy:	116.00

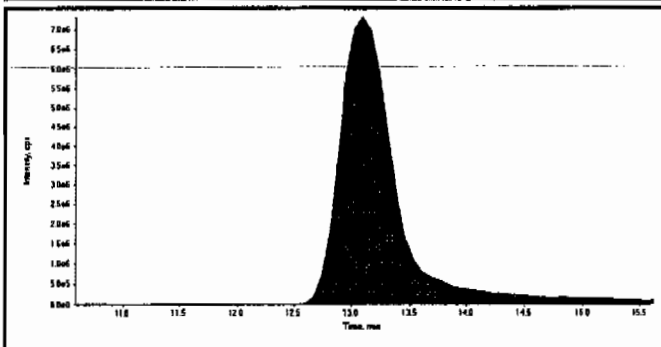

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	2.54e+008
Manual Modification	No
Amount:	550. (ng/mL)
% Accuracy:	91.60

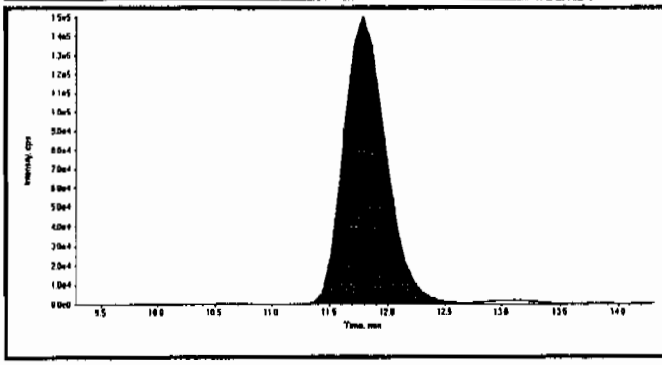

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	3.79e+006
Manual Modification	No
Amount:	639. (ng/mL)
% Accuracy:	106.00

Before Lan 3/24/10

Sample Name: "WXX100312-56CV" Sample ID: "[1]LER" File: "EXP0312010.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 a.m.u"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/12/2010
Acq. Time: 11:56:18 AM
Modified: No

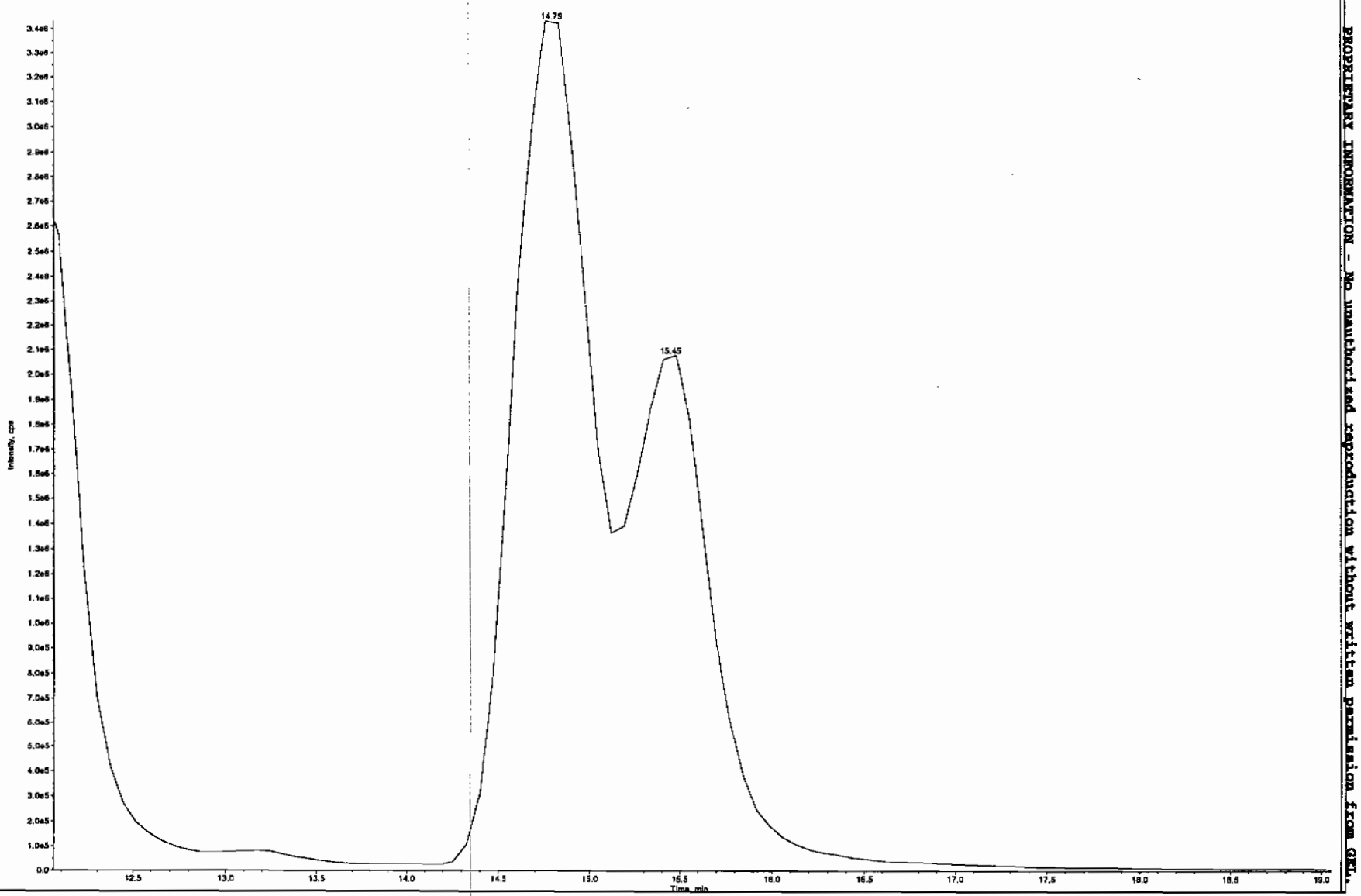

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Data File	EXP0312010.wiff	**Acquisition Date**	3/12/2010 11:56:18 AM
Sample Name	WXX100312-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

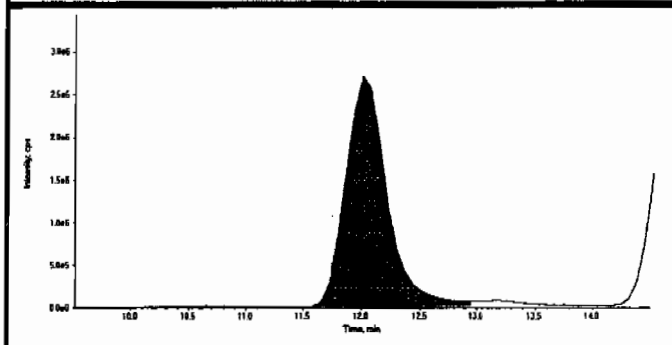

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	6.73e+007
Manual Modification	No
Amount:	277. (ng/mL)
% Accuracy:	92.40

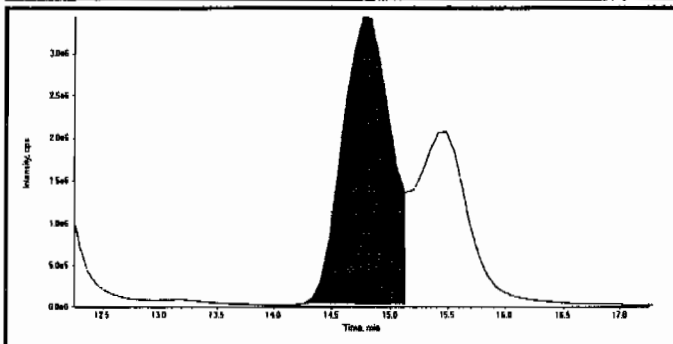

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	9.94e+007
Manual Modification	No
Amount:	624. (ng/mL)
% Accuracy:	104.00

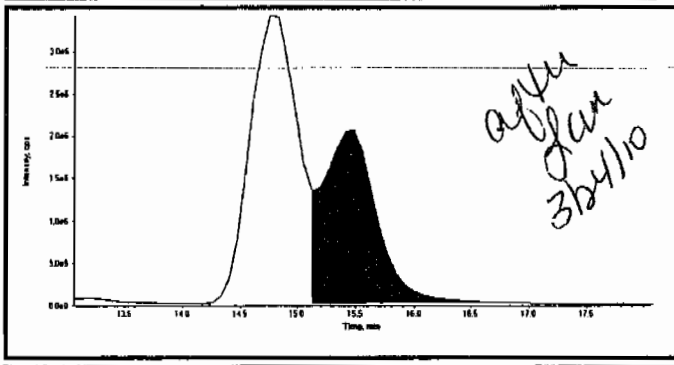

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.4
Area Counts:	6.61e+007
Manual Modification	Yes
Amount:	571. (ng/mL)
% Accuracy:	95.10

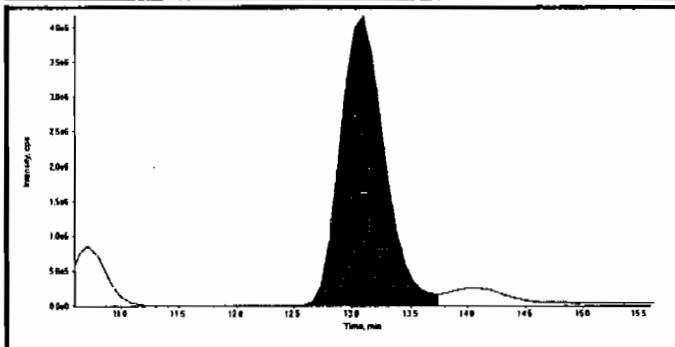

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	1.10e+008
Manual Modification	No
Amount:	598. (ng/mL)
% Accuracy:	99.60

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Data File	EXP0312010.wiff	Acquisition Date	3/12/2010 11:56:18 AM
Sample Name	WXX100312-56ICV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

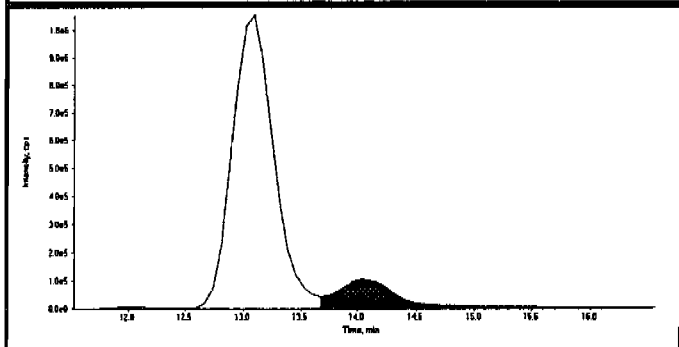

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.0
Area Counts:	4.02e+006
Manual Modification	No
Amount:	676. (ng/mL)
% Accuracy:	113.00

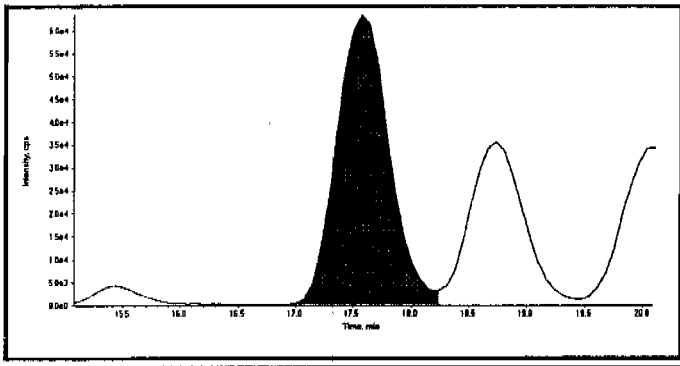

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.6
Area Counts:	2.02e+006
Manual Modification	No
Amount:	604. (ng/mL)
% Accuracy:	101.00

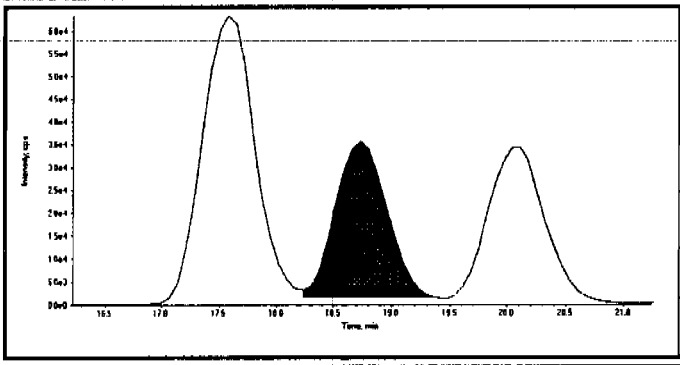

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	18.7
Area Counts:	1.08e+006
Manual Modification	No
Amount:	587. (ng/mL)
% Accuracy:	97.80

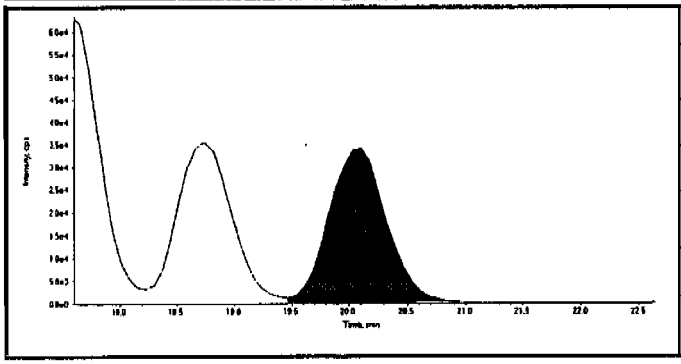

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	1.18e+006
Manual Modification	No
Amount:	578. (ng/mL)
% Accuracy:	96.40

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312010.wiff	**Acquisition Date**	3/12/2010 11:56:18 AM
Sample Name	WXX100312-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

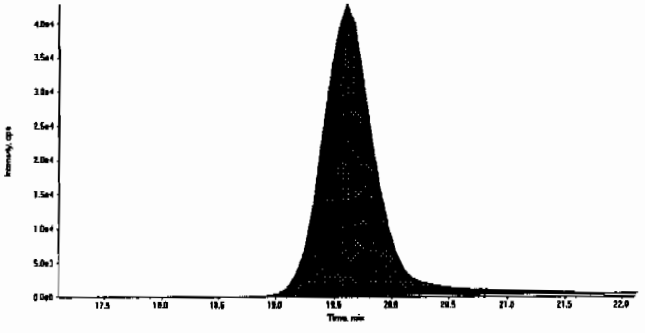

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.6
Area Counts:	1.36e+006
Manual Modification	No
Amount:	607. (ng/mL)
% Accuracy:	101.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/12/10
Time of Injection 1156
Standard Number WXX100312-56ICV
Data File EXP0312010a

HMX	96.4
RDX	104.0
TNX	108.0
DNX	102.0
MNX	107.0
135-Trinitrobenzene	96.6
13-Dinitrobenzene	98.8
Tetryl	116.0
246-Trinitrotoluene	91.6
Nitrobenzene	106.0
34-dinitrotoluene	92.4
26-dinitrotoluene	90.9
24-dinitrotoluene	95.1
4-Amino-26-dinitrotoluene	99.6
2-Amino-46-dinitrotoluene	113.0
2-Nitrotoluene	101.0
4-Nitrotoluene	97.8
3-Nitrotoluene	96.4
PETN	101.0
TOTAL	1913.6
AVERAGE	100.7

Hmx 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

3/24/10

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1564

Lab Code: GEL

Run Date: 01-MAR-10,12-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS03010003.wifl	EXS03010004.wifl	EXS03010005.wifl	EXS03010006.wifl	EXS03010007.wifl	EXS03010008.wifl	EXS03010009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	63600	134000	332000	632000	1000000	1320000	2520000	-9230	1370	-.055	.9999	
2,6-Diamino-4-nitrotoluene	91200	188000	474000	956000	1400000	1830000	3670000	6230	1860	-.014	.9999	
3,4-Dinitrotoluene	296000	604000	1440000	2810000	4210000	5760000	10400000	-77900	13100	-2.67	.999	
3,5-Dinitroaniline	436000	871000	2060000	3980000	5810000	7200000	13000000	75700	8100	-.824	.9998	
TATB	50800	111000	287000	578000	908000	1260000	2600000	-14200	1190	.058	.9999	
tris(o-cresyl) phosphate	864000	1800000	4120000	7770000	11400000	14300000	24200000	110000	16500	-2.25	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.42e+004			
a1	1.19e+003			
a2	0.0579			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	7.57e+004			
a1	8.1e+003			
a2	-0.824			

Correlation coefficient 0.9998
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-7.79e+004			
a1	1.31e+004			
a2	-2.67			

Correlation coefficient 0.9990
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	6.23e+003			
a1	1.86e+003			
a2	-0.0141			

Correlation coefficient 0.9999
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

LCW 3/3/10

ahlc 03/04/10

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Fit	Quadratic	Weighting	None	Iterate No
a0	-9.23e+003			
a1	1.37e+003			
a2	-0.0545			

Correlation coefficient 0.9999
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.1e+005			
a1	1.65e+004			
a2	-2.25			

Correlation coefficient 1.0000
Use Area

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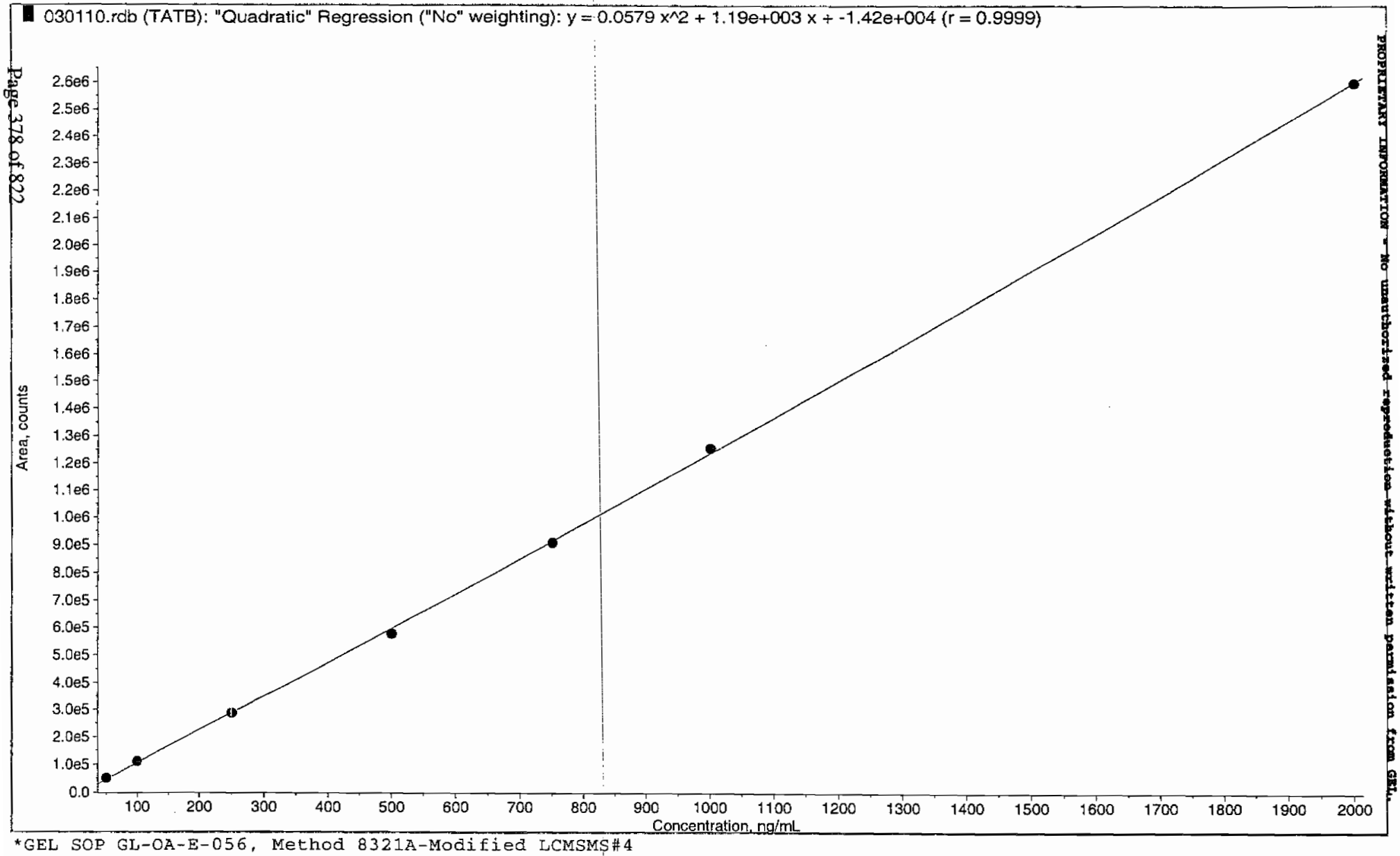

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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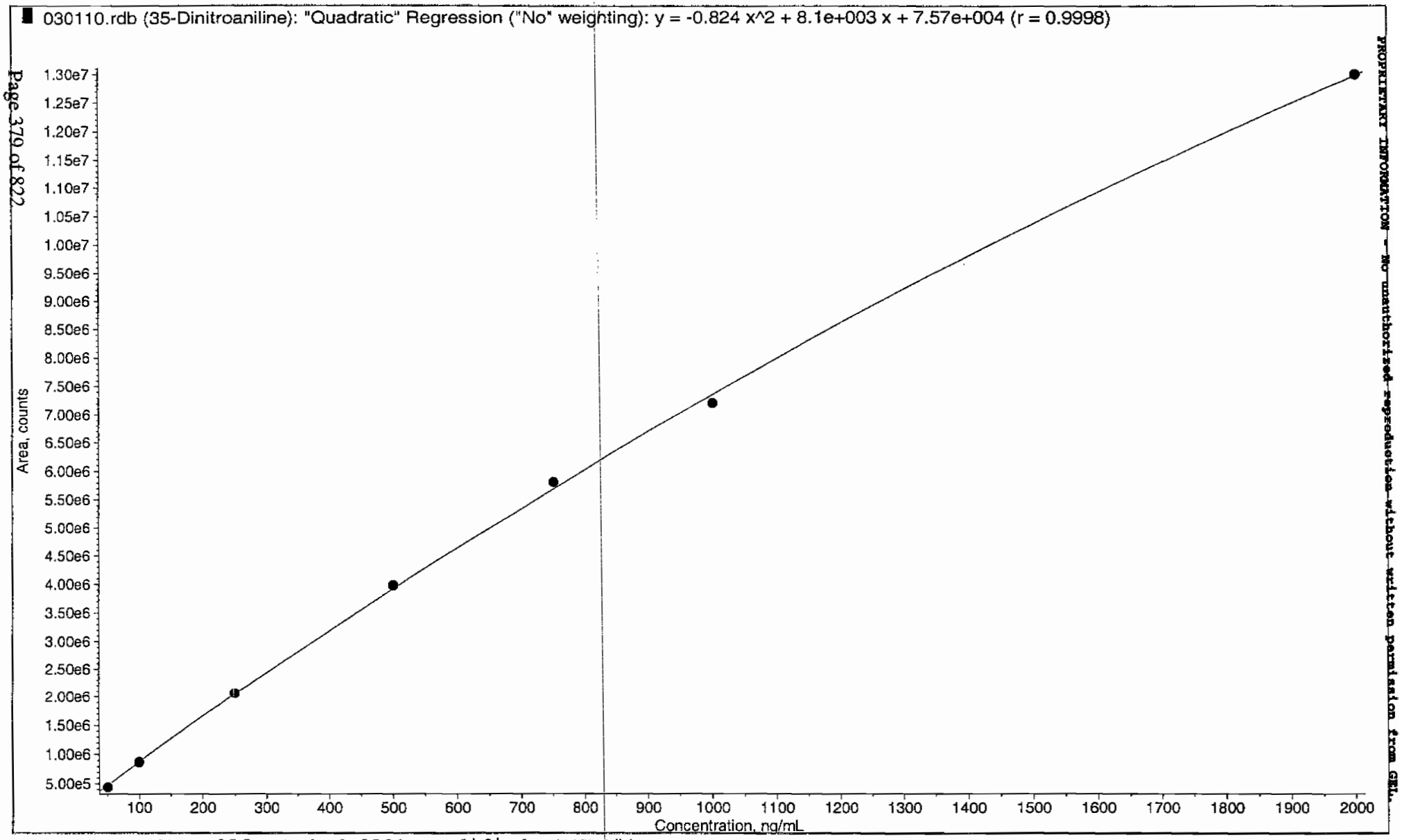

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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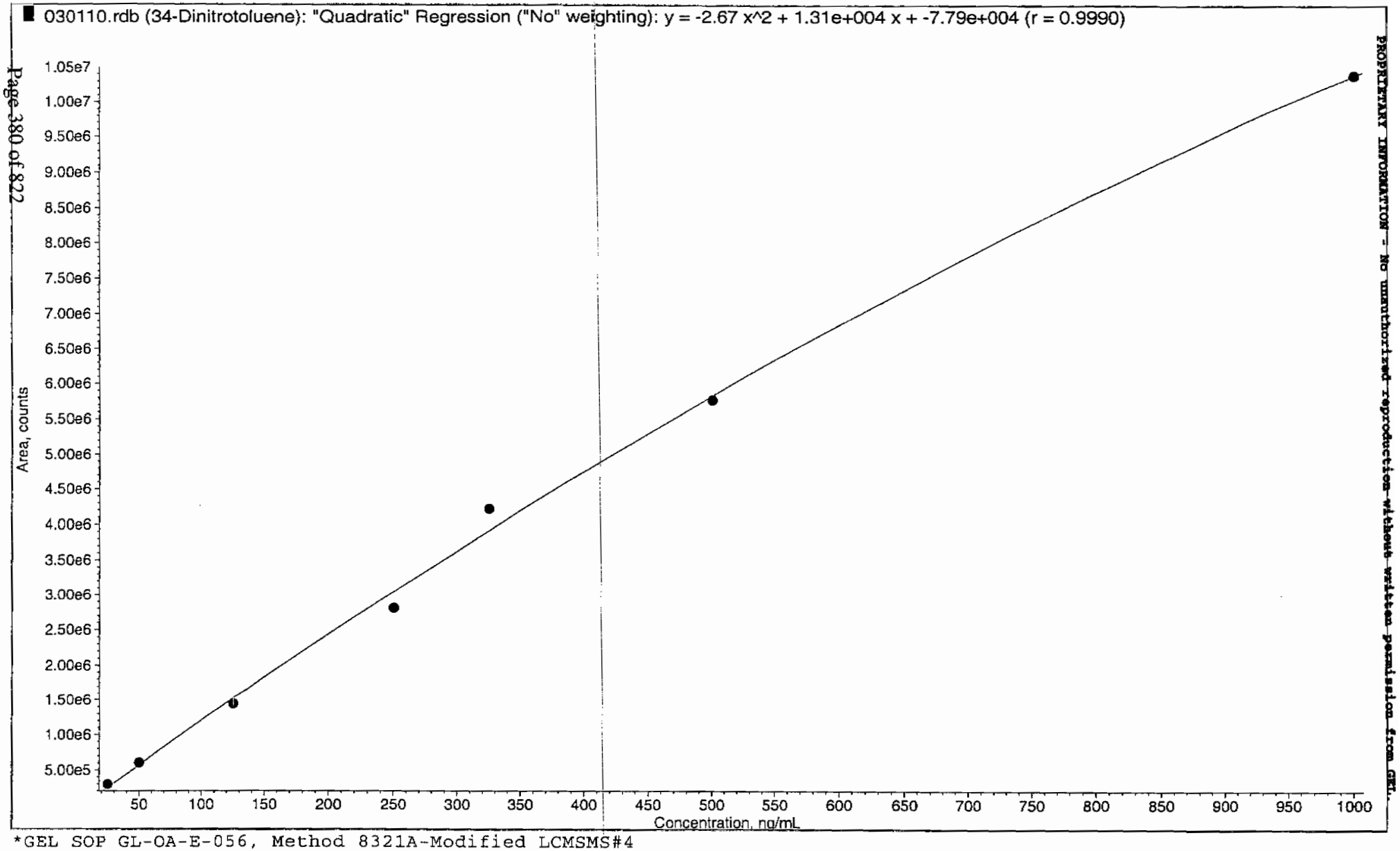

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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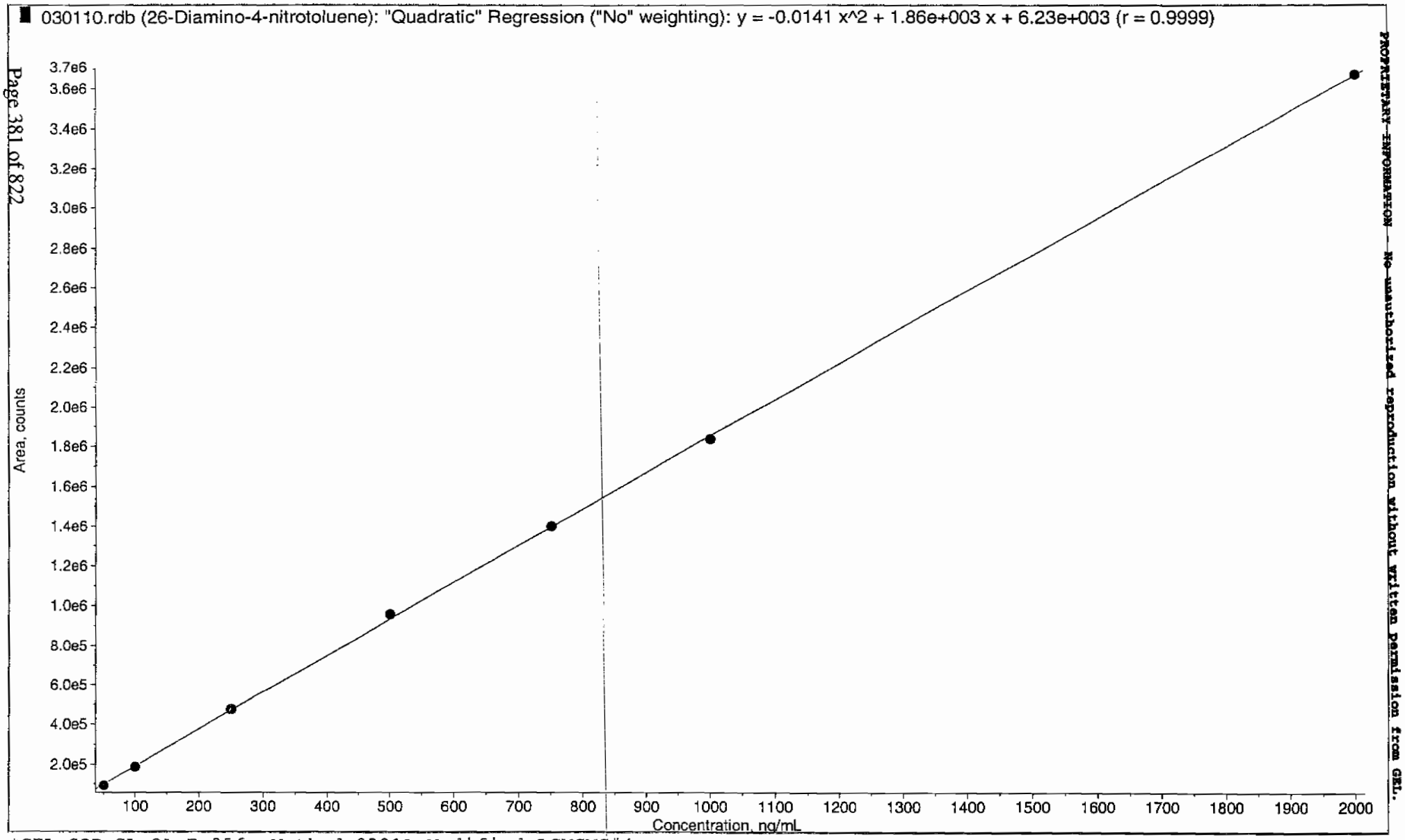

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

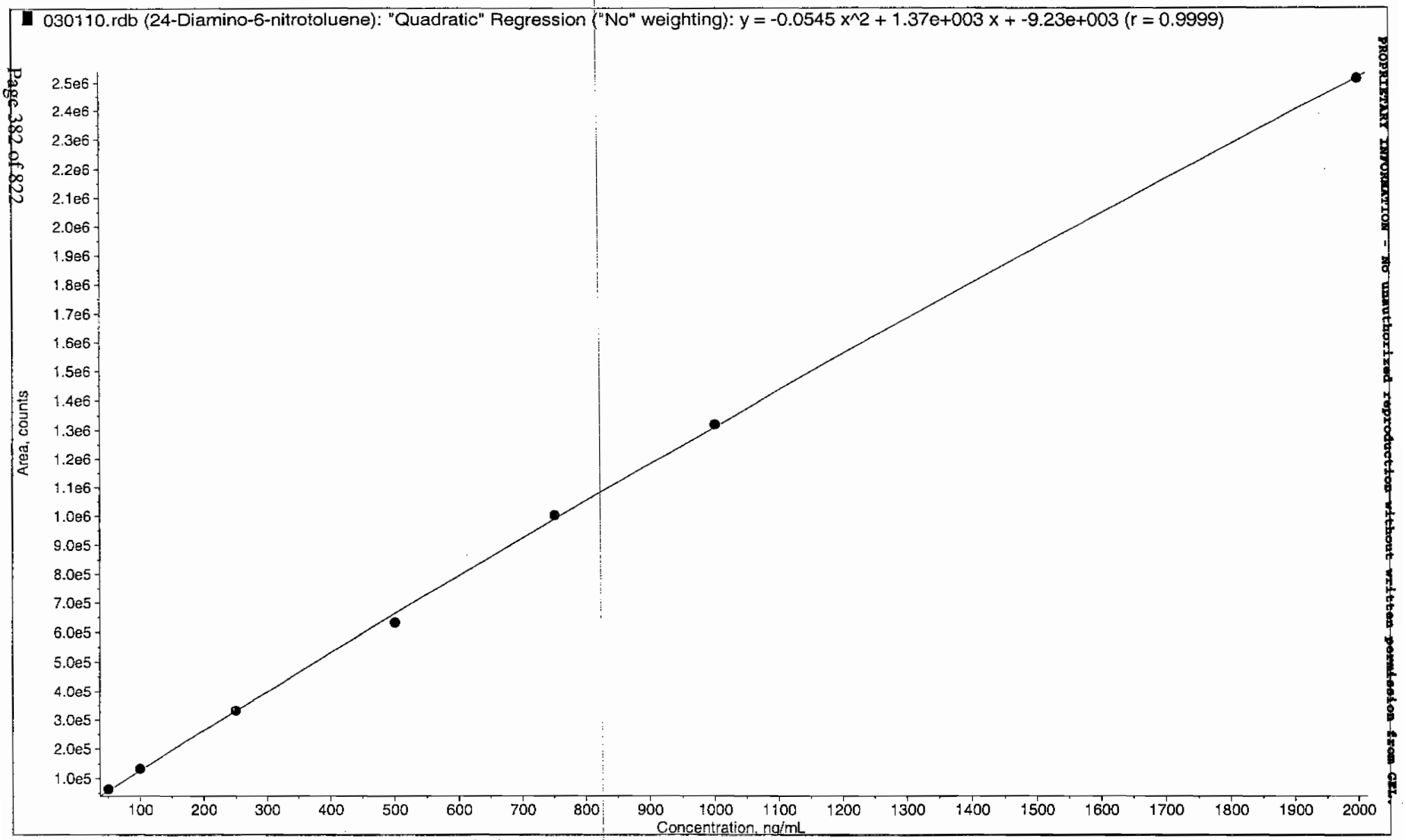

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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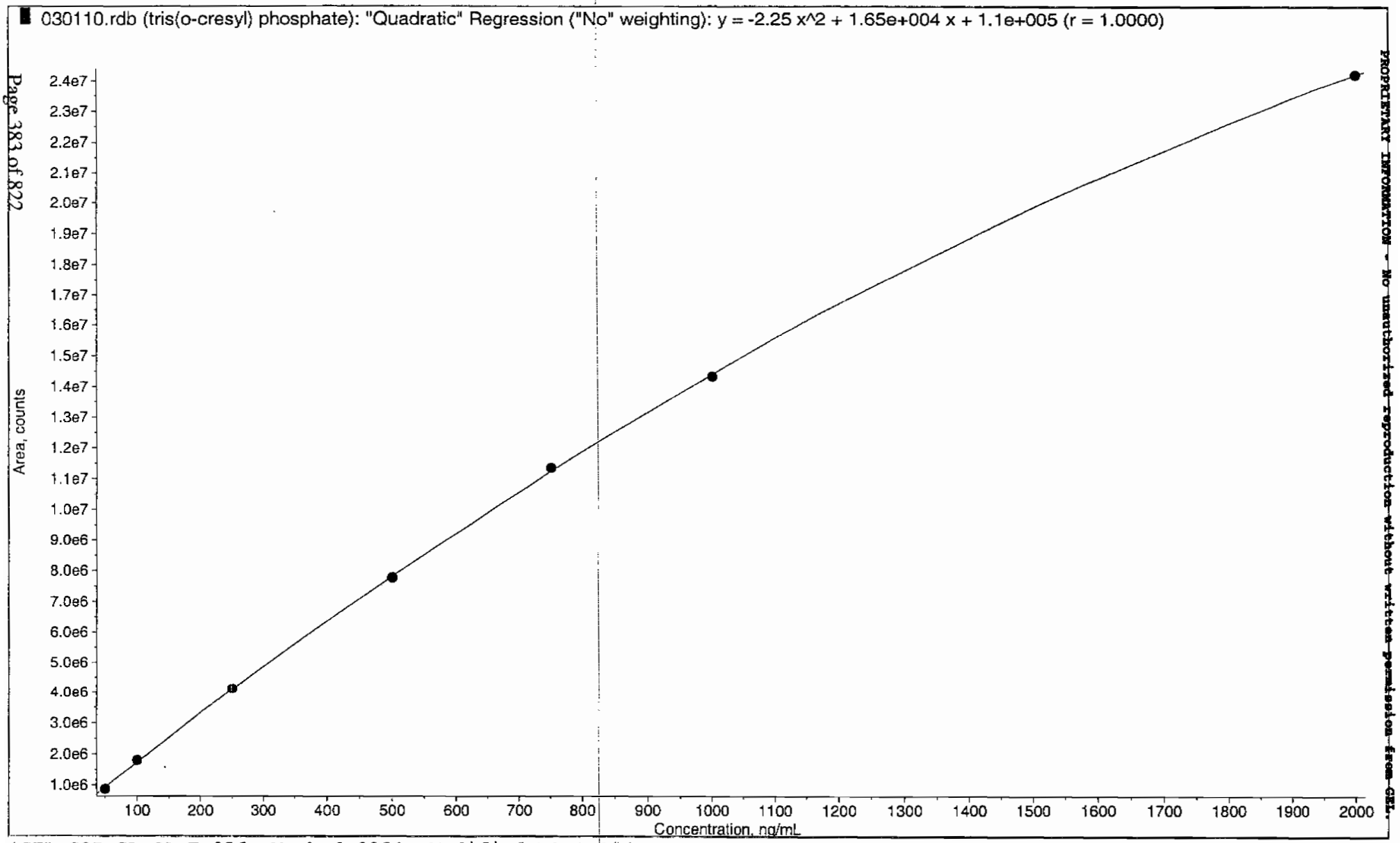

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS03010011.wiff

Analysis Date: 01-MAR-10 11:40

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	503	101	
2,6-Diamino-4-nitrotoluene	500	483	97	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	506	101	
TATB	500	495	99	
tris(o-cresyl) phosphate	500	480	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/3/10

Sample Name: "WXX100301-26ICV" Sample ID: "|1|LER" File: "EXS03010011.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 495. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:40:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.94 min
Area: 5.91e+005 counts
Height: 146373.276 cps
Start Time: 6.85 min
End Time: 7.68 min

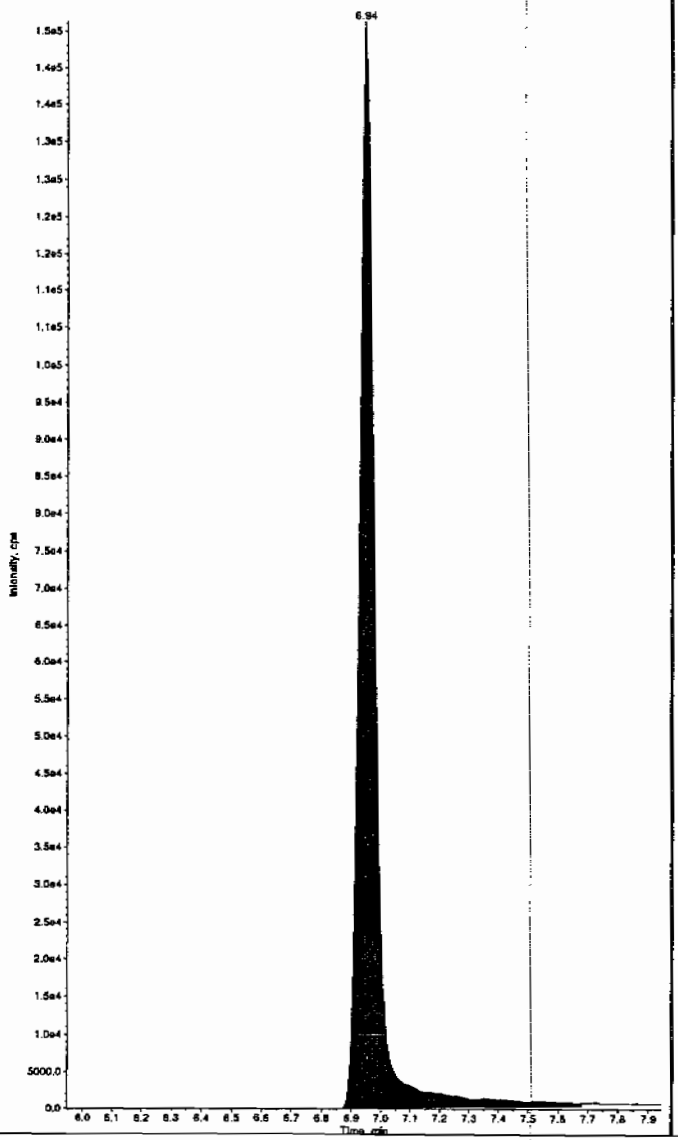

Sample Name: "WXX100301-26ICV" Sample ID: "|1|LER" File: "EXS03010011.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 506. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:40:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.19 min
Area: 3.96e+006 counts
Height: 1061462.891 cps
Start Time: 8.09 min
End Time: 8.29 min

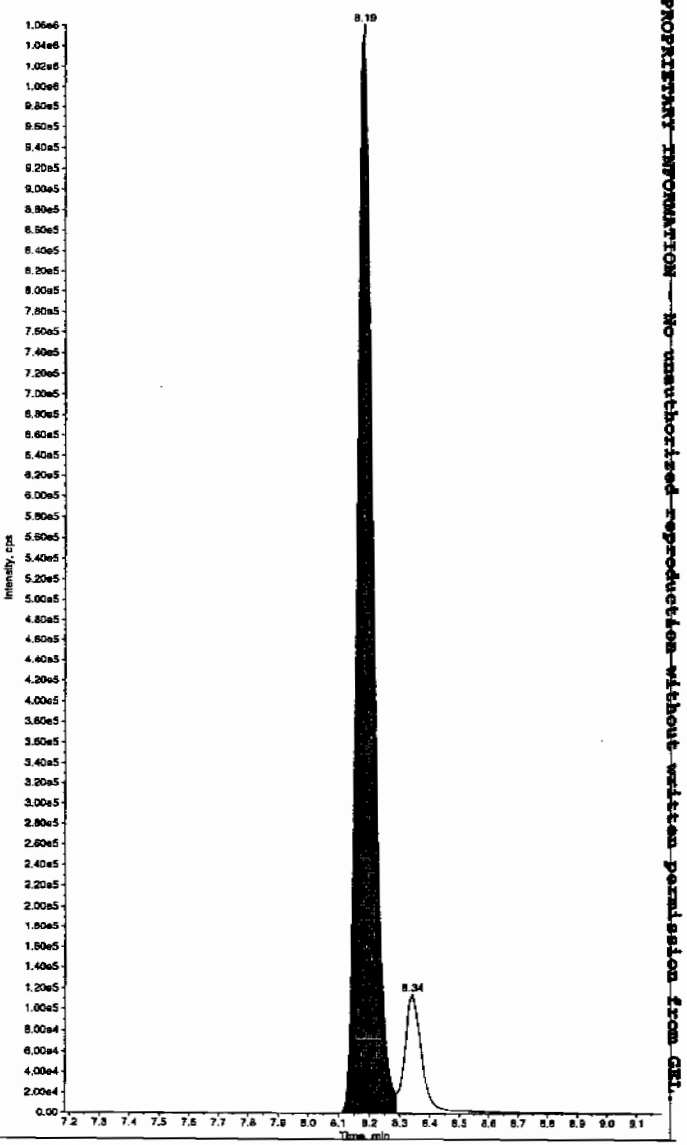

Hnm 03/04/10

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Sample Name: "WXX100301-26ICV" Sample ID: "[1]LER" File: "EXS03010011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 232. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:40:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 2.82e+006 counts
Height: 792388.123 cps
Start Time: 8.27 min
End Time: 8.67 min

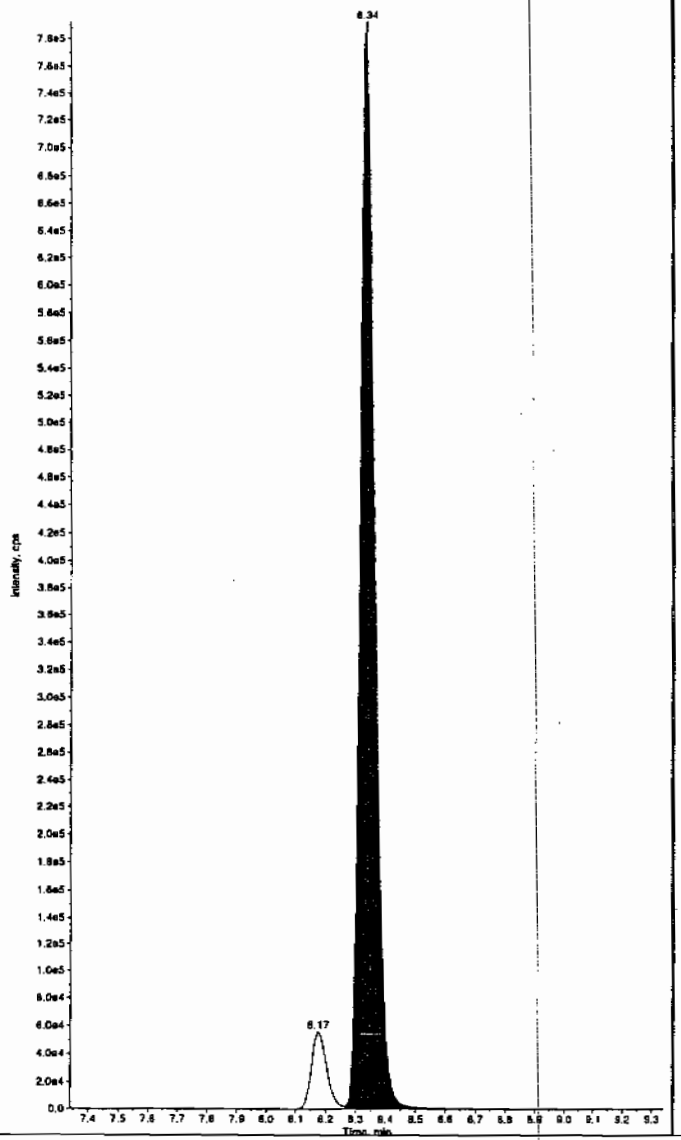

Sample Name: "WXX100301-26ICV" Sample ID: "[1]LER" File: "EXS03010011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:40:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 9.01e+005 counts
Height: 211703.171 cps
Start Time: 4.89 min
End Time: 5.28 min

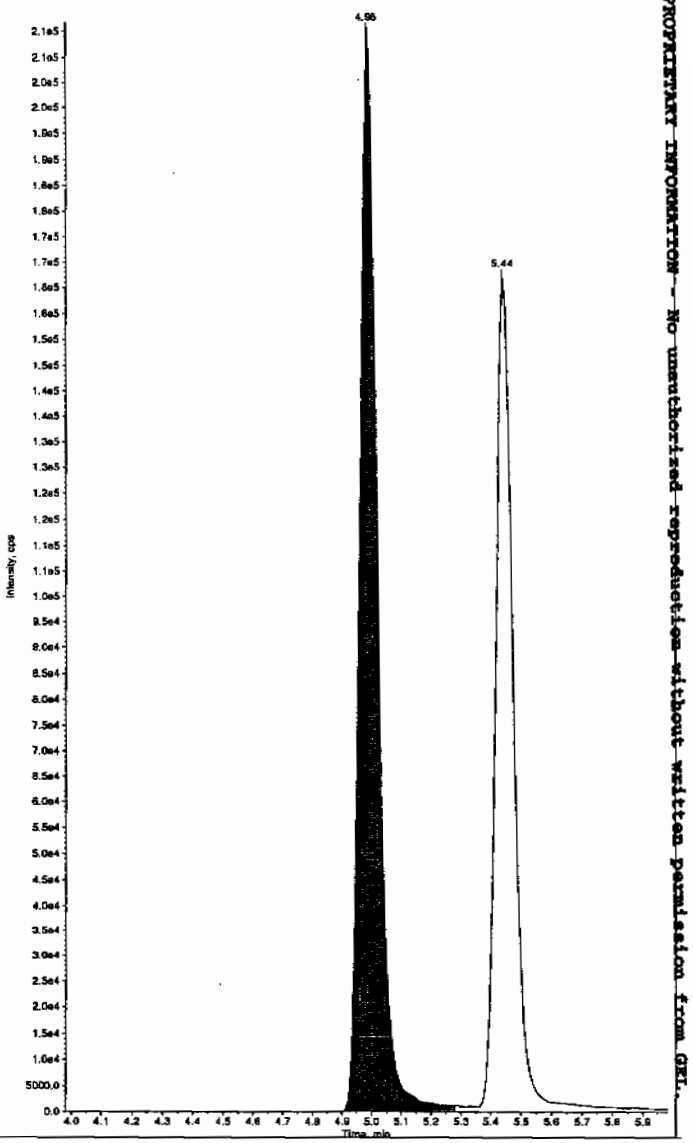

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-25ICV" Sample ID: "1|LER" File: "EXS03010011.wiff"
Peak Name: "2,4-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:40:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.44 min
Area: 6.68e+005 counts
Height: 163585.648 cps
Start Time: 5.31 min
End Time: 6.14 min

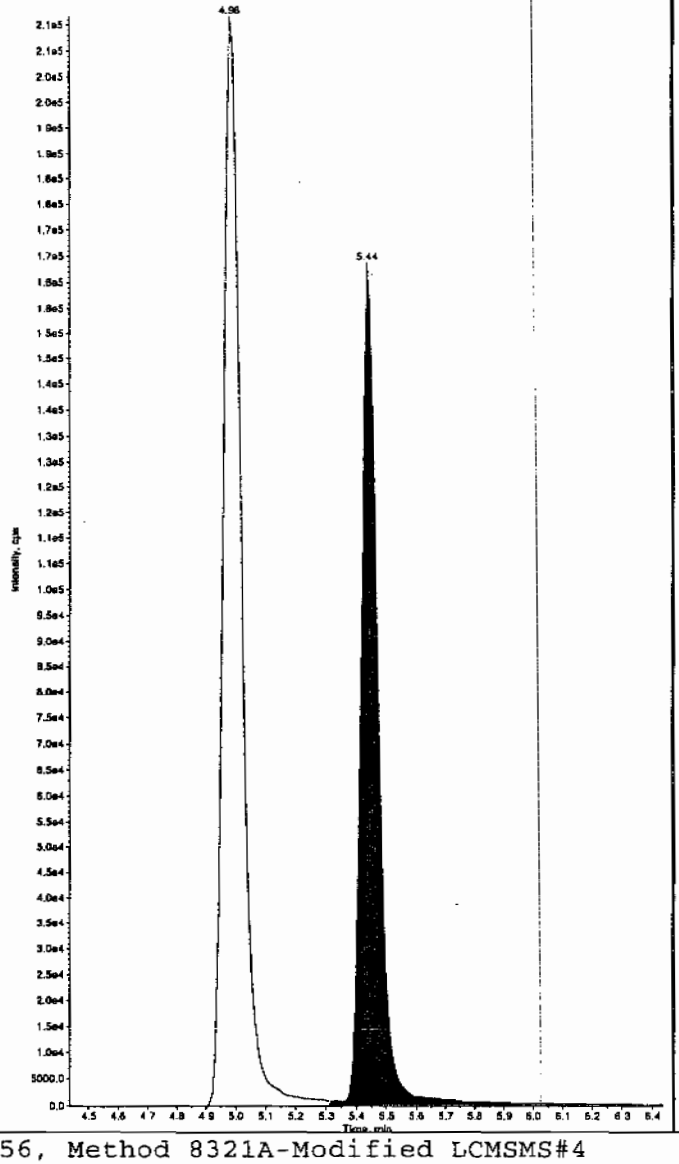

Sample Name: "WXX100301-25ICV" Sample ID: "1|LER" File: "EXS03010011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 480. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 11:40:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.53e+006 counts
Height: 2135354.004 cps
Start Time: 10.7 min
End Time: 11.2 min

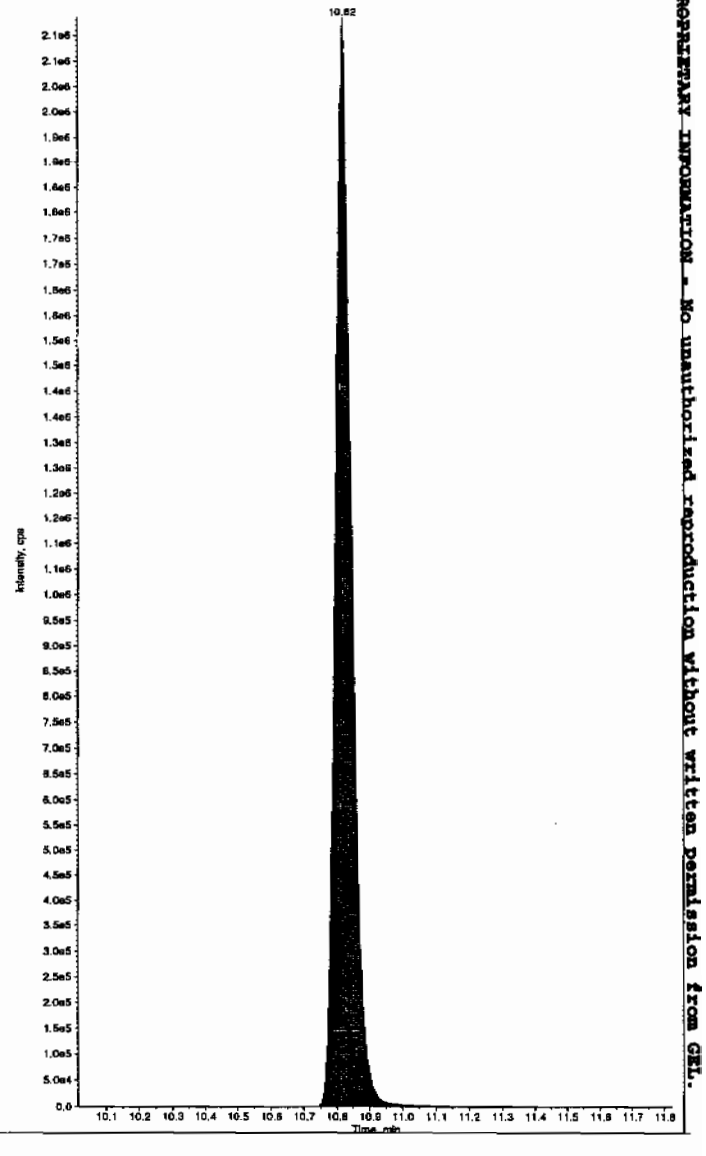

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0312012.wiff

Analysis Date: 12-MAR-10 12:49

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	51.9	130	
2,4,6-Trinitrotoluene	40	54	135	
2,4-Dinitrotoluene	40	42.5	106	
2,6-Dinitrotoluene	40	34.7	87	
2-Amino-4,6-dinitrotoluene	40	34.3	86	
3,4-Dinitrotoluene	20	22.6	113	
4-Amino-2,6-dinitrotoluene	40	48.1	120	
DNX	40	40.2	101	
HMX	40	40.9	102	
MNX	40	39.8	100	
Nitrobenzene	40	39.9	100	
PETN	40	41.2	103	
RDX	40	39.4	99	
TNX	40	41.7	104	
Tetryl	40	46.5	116	
m-Dinitrobenzene	40	42.4	106	
m-Nitrotoluene	40	39	98	
o-Nitrotoluene	40	40.7	102	
p-Nitrotoluene	40	38.4	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Data File	EXP0312012.wiff	**Acquisition Date**	3/12/2010 12:49:03 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

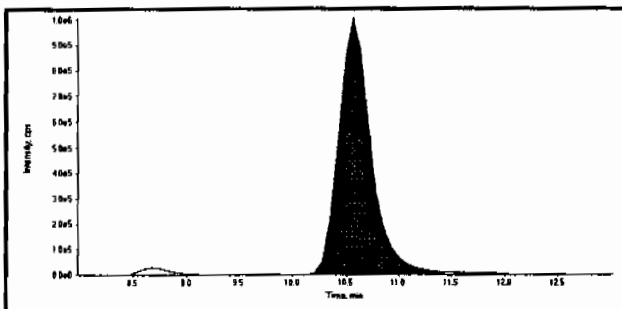

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	21600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

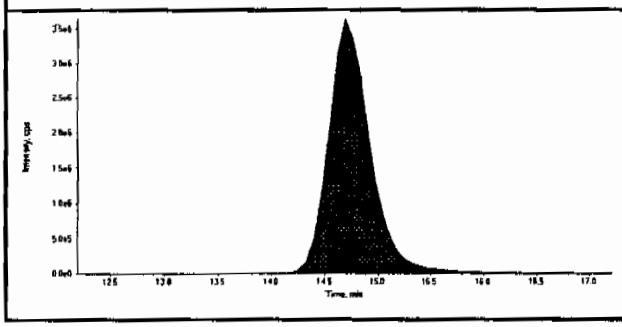

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	99300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

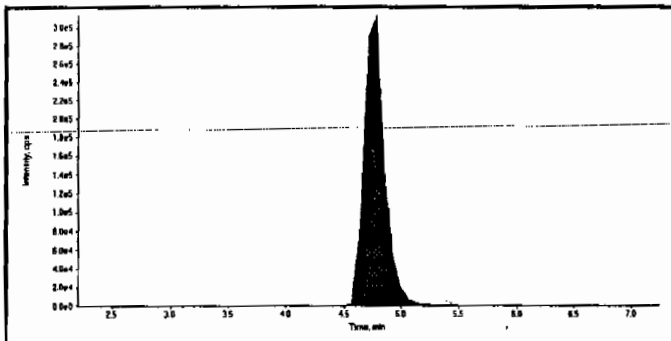

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.03e+006
Manual Modification	No
Amount:	40.9 (ng/mL)
% Accuracy:	102.00

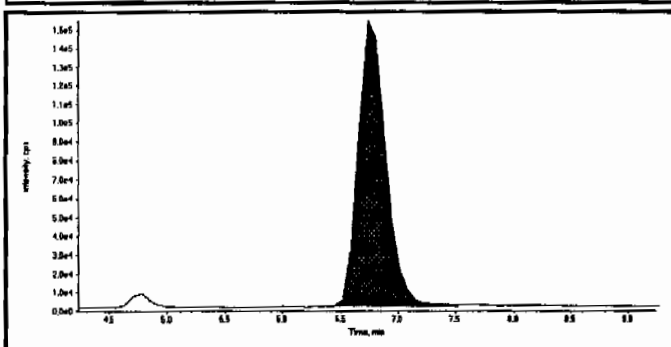

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.73
Area Counts:	2.68e+006
Manual Modification	No
Amount:	39.4 (ng/mL)
% Accuracy:	98.60

dmw 03/24/10 Lan 3/24/10

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Data File	EXP0312012.wiff	**Acquisition Date**	3/12/2010 12:49:03 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

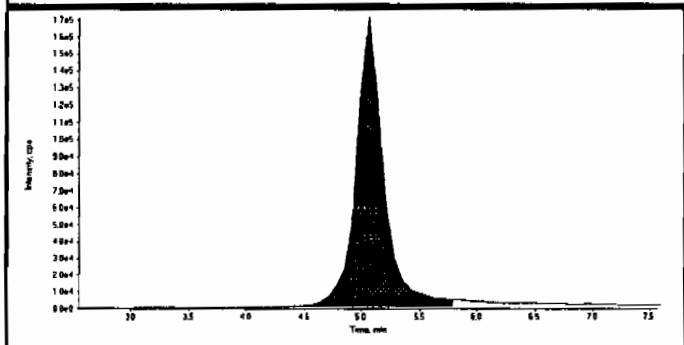

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	2.90e+006
Manual Modification	No
Amount:	41.7 (ng/mL)
% Accuracy:	104.00

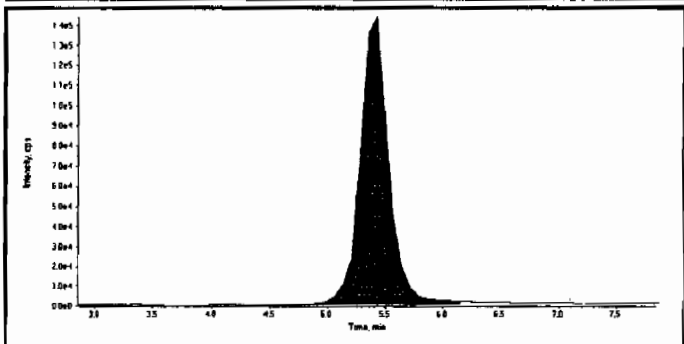

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	2.49e+006
Manual Modification	No
Amount:	40.2 (ng/mL)
% Accuracy:	101.00

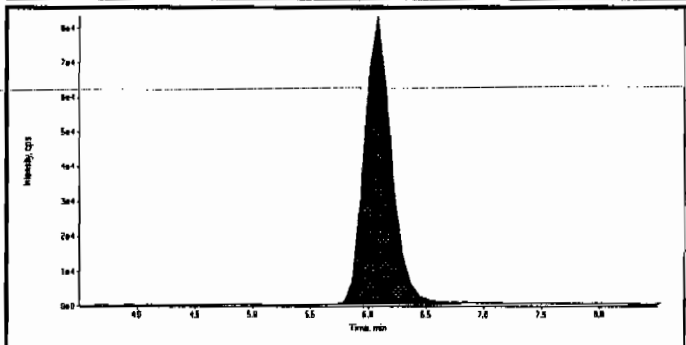

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.36e+006
Manual Modification	No
Amount:	39.8 (ng/mL)
% Accuracy:	99.60

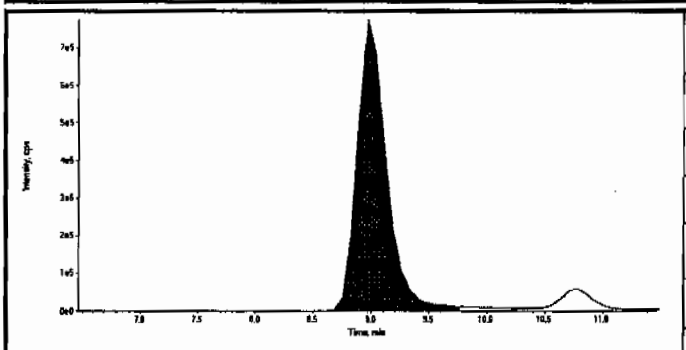

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	8.97
Area Counts:	1.36e+007
Manual Modification	No
Amount:	51.9 (ng/mL)
% Accuracy:	130.00

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Data File	EXP0312012.wiff	**Acquisition Date**	3/12/2010 12:49:03 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

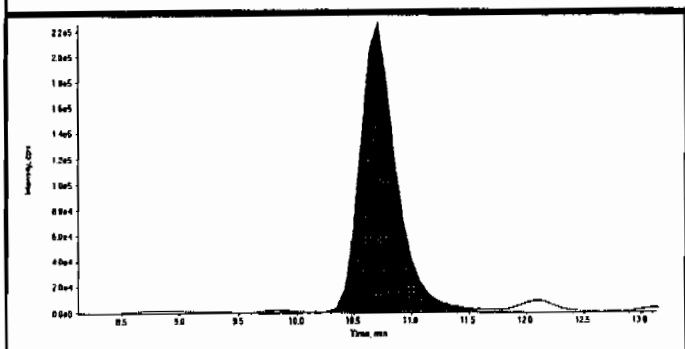

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.7
Area Counts:	4.89e+006
Manual Modification	No
Amount:	42.4 (ng/mL)
% Accuracy:	106.00

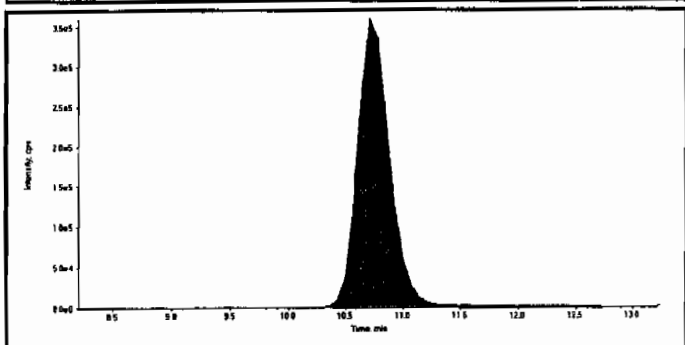

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	6.93e+006
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	116.00

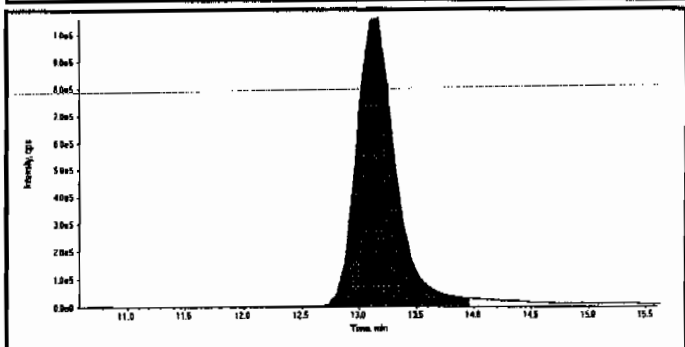

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.51e+007
Manual Modification	No
Amount:	54.0 (ng/mL)
% Accuracy:	135.00

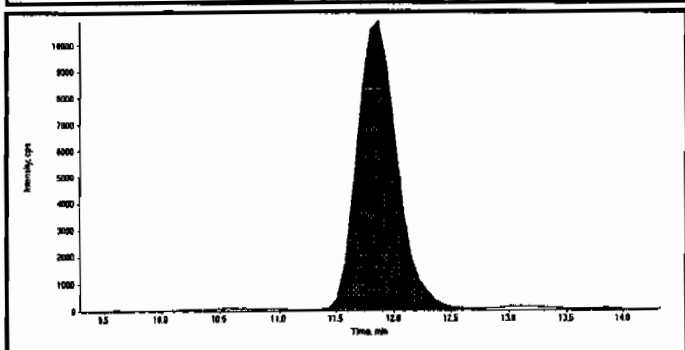

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.61e+005
Manual Modification	No
Amount:	39.9 (ng/mL)
% Accuracy:	99.70

Before Lar 3/24/10

Sample Name: "WX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312012.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/12/2010
Acq. Time: 13:49:03 PM

Modified: No

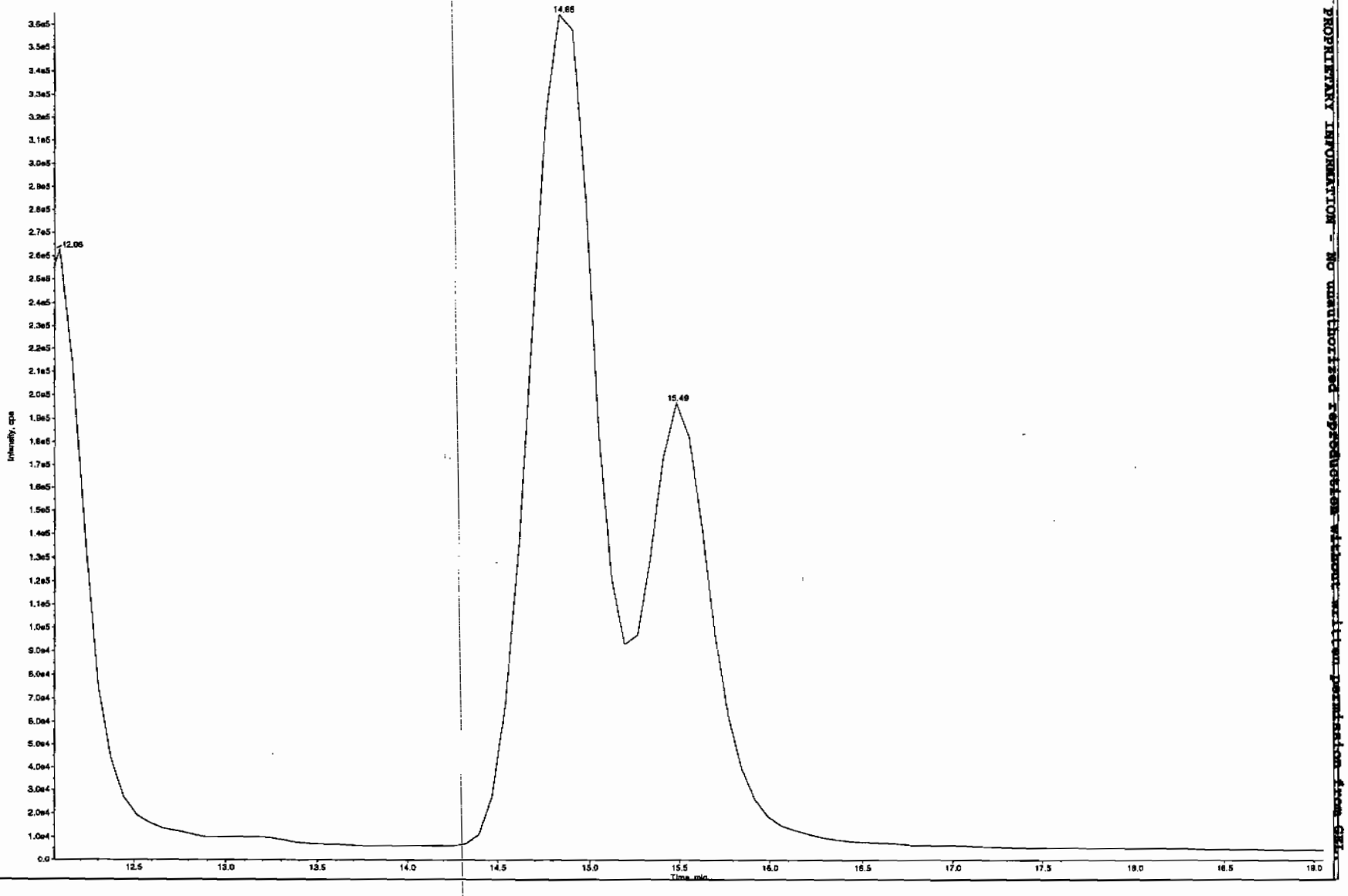

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Data File	EXP0312012.wiff	**Acquisition Date**	3/12/2010 12:49:03 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

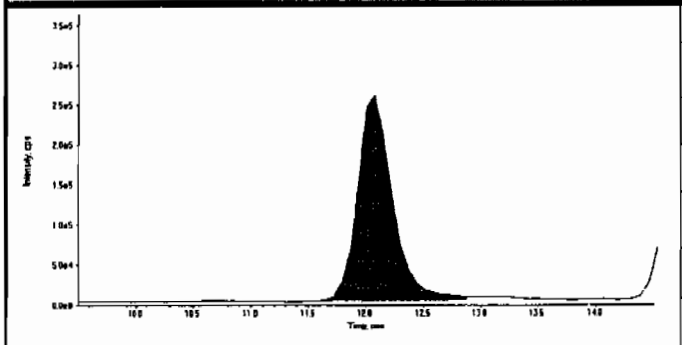

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	5.53e+006
Manual Modification	No
Amount:	22.6 (ng/mL)
% Accuracy:	113.00

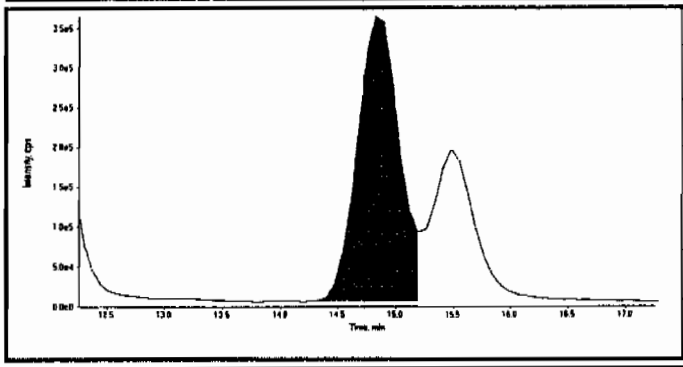

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	9.23e+006
Manual Modification	No
Amount:	34.7 (ng/mL)
% Accuracy:	86.70

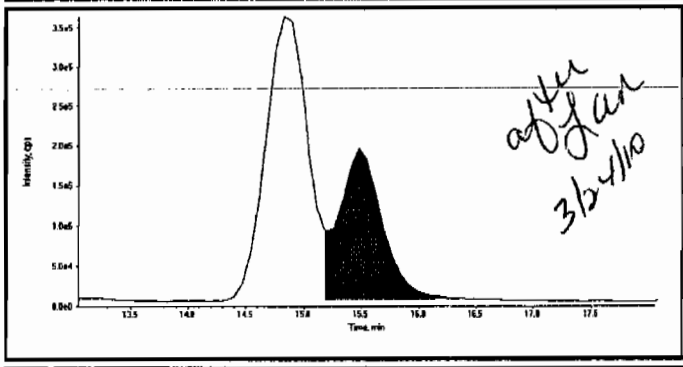

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.5
Area Counts:	4.97e+006
Manual Modification	Yes
Amount:	42.5 (ng/mL)
% Accuracy:	106.00

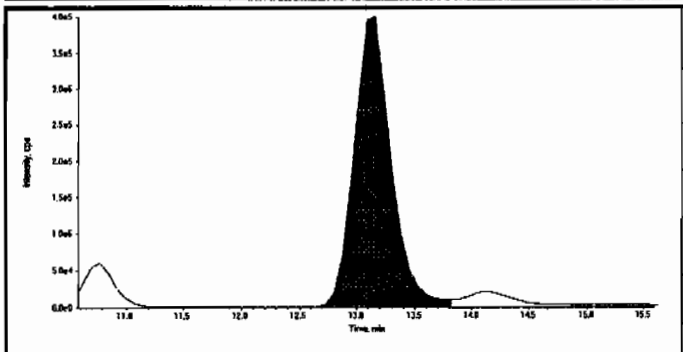

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	8.90e+006
Manual Modification	No
Amount:	48.1 (ng/mL)
% Accuracy:	120.00

Before Ran 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312012.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1	
Sample Type:	QC	
Concentration:	40.0	ng/mL
Calculated Conc:	22.2	ng/mL
Acq. Date:	3/12/2010	
Acq. Time:	12:49:03 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	4000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	60.0	sec
Expected RT:	14.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	14.2	min
Area:	1.33e+005	counts
Height:	5.91e+003	cps
Start Time:	13.7	min
End Time:	14.6	min

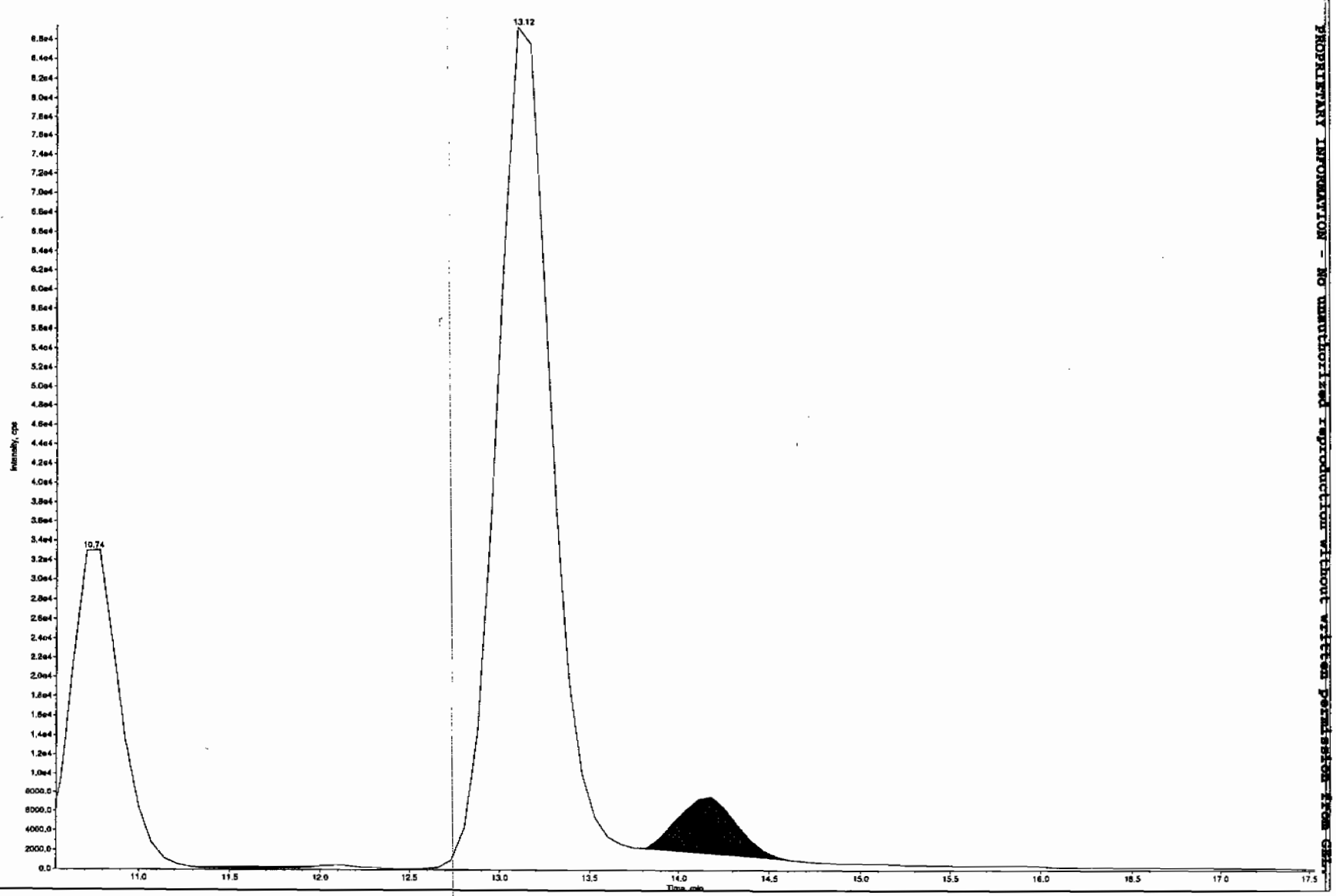

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0312012.wiff	**Acquisition Date**	3/12/2010 12:49:03 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

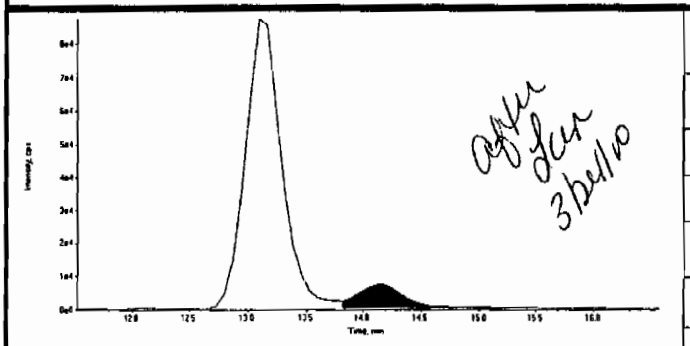

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.2
Area Counts:	2.06e+005
Manual Modification	Yes
Amount:	34.3 (ng/mL)
% Accuracy:	85.80

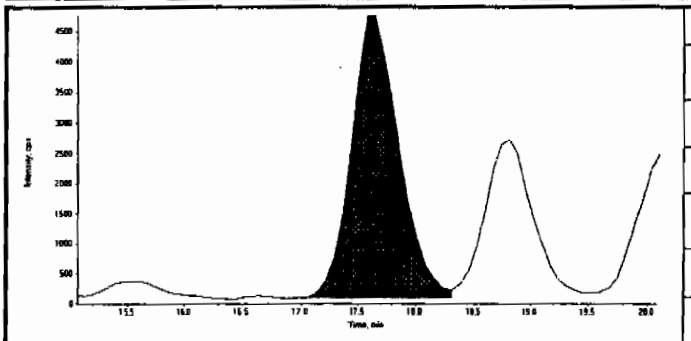

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	1.37e+005
Manual Modification	No
Amount:	40.7 (ng/mL)
% Accuracy:	102.00

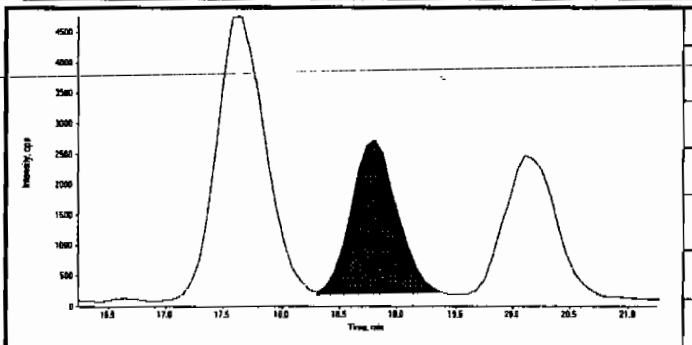

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	18.8
Area Counts:	7.11e+004
Manual Modification	No
Amount:	38.4 (ng/mL)
% Accuracy:	96.00

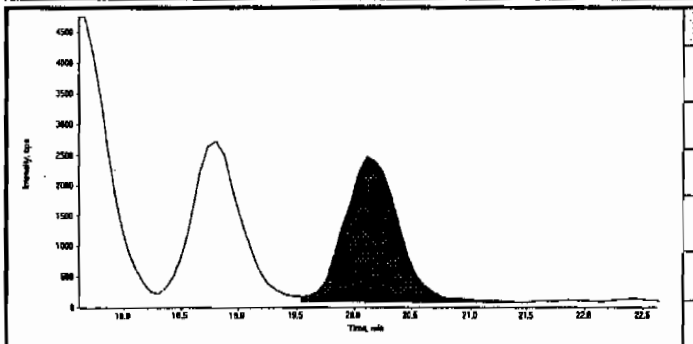

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	8.03e+004
Manual Modification	No
Amount:	39.0 (ng/mL)
% Accuracy:	97.50

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312012.wiff	**Acquisition Date**	3/12/2010 12:49:03 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

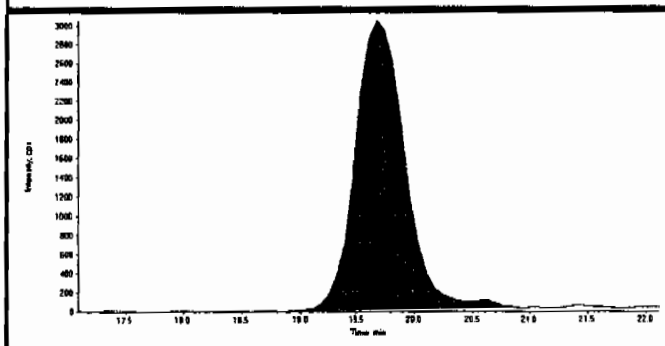

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.7
Area Counts:	9.29e+004
Manual Modification	No
Amount:	41.2 (ng/mL)
% Accuracy:	103.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/12/10
Time of Injection 1259
Standard Number WXX100312-57CRI
Data File EXP0312012a

HMX	102.0
RDX	98.6
TNX	104.0
DNX	101.0
MNX	99.6
135-Trinitrobenzene	130.0
13-Dinitrobenzene	106.0
Tetryl	116.0
246-Trinitrotoluene	135.0
Nitrobenzene	99.7
34-dinitrotoluene	113.0
26-dinitrotoluene	126.0
24-dinitrotoluene	106.0
4-Amino-26-dinitrotoluene	120.0
2-Amino-46-dinitrotoluene	85.8
2-Nitrotoluene	102.0
4-Nitrotoluene	96.0
3-Nitrotoluene	97.5
PETN	103.0
TOTAL	2041.2
AVERAGE	107.4

HMK 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

LCA 3/24/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0312022.wiff

Analysis Date: 12-MAR-10 17:13

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
o-Nitrotoluene	600	546	91	
p-Nitrotoluene	600	515	86	
1,3,5-Trinitrobenzene	600	510	85	
2,4,6-Trinitrotoluene	600	530	88	
2,4-Dinitrotoluene	600	568	95	
2,6-Dinitrotoluene	600	591	98	
2-Amino-4,6-dinitrotoluene	600	580	97	
3,4-Dinitrotoluene	300	271	90	
4-Amino-2,6-dinitrotoluene	600	542	90	
DNX	600	535	89	
HMX	600	462	77	
MNX	600	550	92	
Nitrobenzene	600	590	98	
PETN	600	538	90	
RDX	600	561	94	
TNX	600	577	96	
Tetryl	600	630	105	
m-Dinitrobenzene	600	546	91	
m-Nitrotoluene	600	564	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312022.wiff	**Acquisition Date**	3/12/2010 5:13:04 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

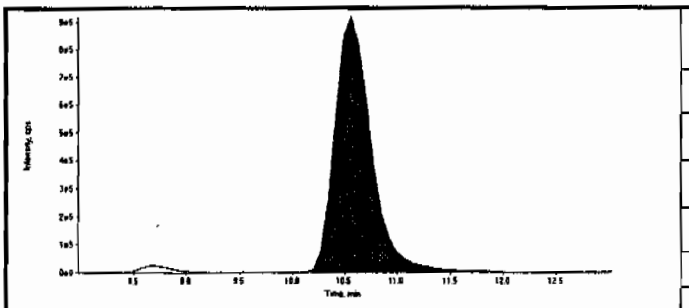

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

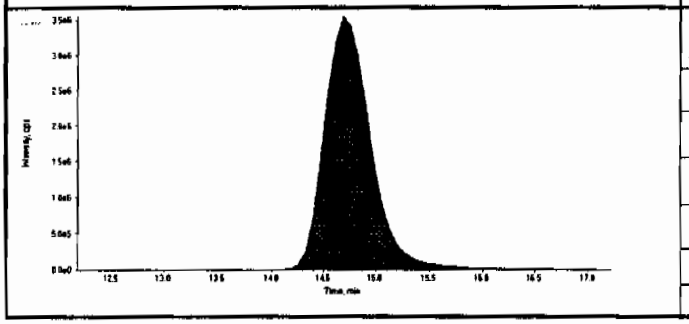

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	109000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

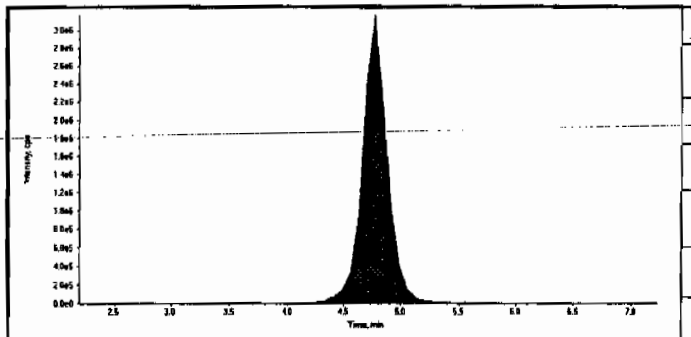

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.73e+007
Manual Modification	No
Amount:	462. (ng/mL)
% Accuracy:	77.00

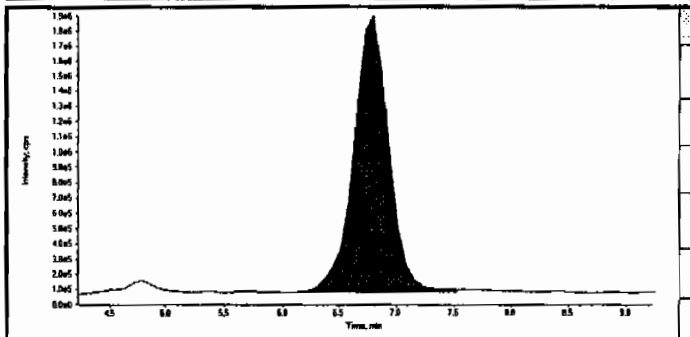

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	3.96e+007
Manual Modification	No
Amount:	561. (ng/mL)
% Accuracy:	93.50

Anne 03/24/10 Lan 3/24/10

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Data File	EXP0312022.wiff	**Acquisition Date**	3/12/2010 5:13:04 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

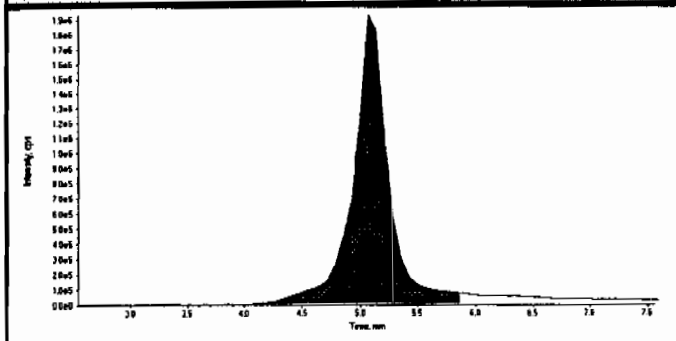

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	4.17e+007
Manual Modification	No
Amount:	577. (ng/mL)
% Accuracy:	96.10

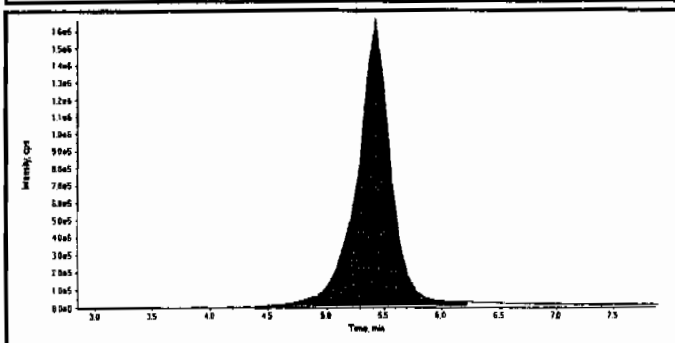

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	3.45e+007
Manual Modification	No
Amount:	535. (ng/mL)
% Accuracy:	89.20

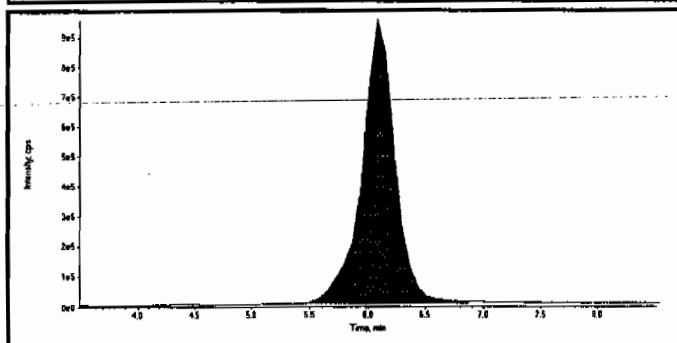

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.95e+007
Manual Modification	No
Amount:	550. (ng/mL)
% Accuracy:	91.70

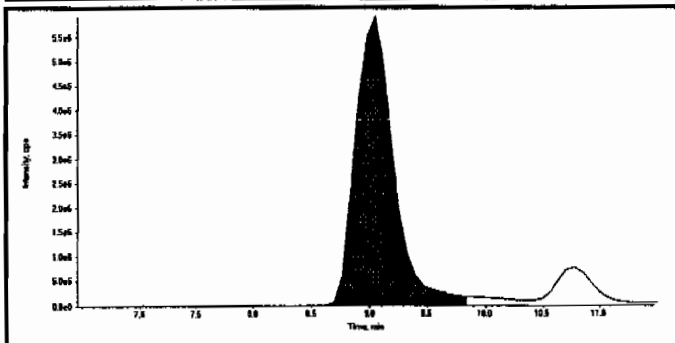

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.40e+008
Manual Modification	No
Amount:	510. (ng/mL)
% Accuracy:	85.00

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Data File	EXP0312022.wiff	**Acquisition Date**	3/12/2010 5:13:04 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

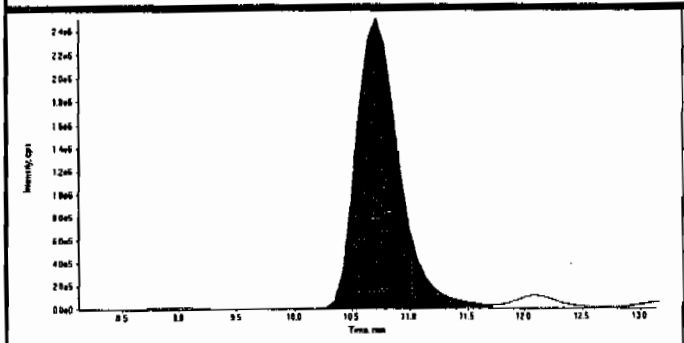

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.7
Area Counts:	6.56e+007
Manual Modification	No
Amount:	546. (ng/mL)
% Accuracy:	91.00

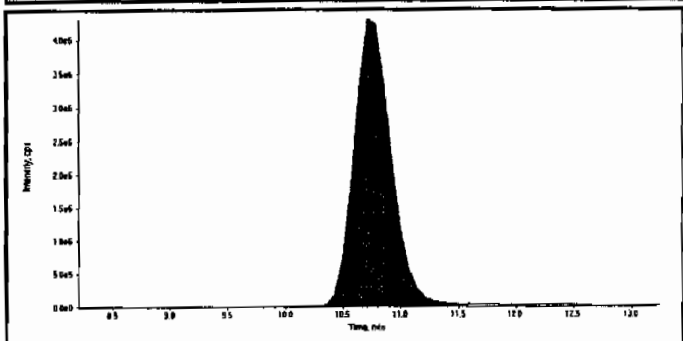

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	9.79e+007
Manual Modification	No
Amount:	630. (ng/mL)
% Accuracy:	105.00

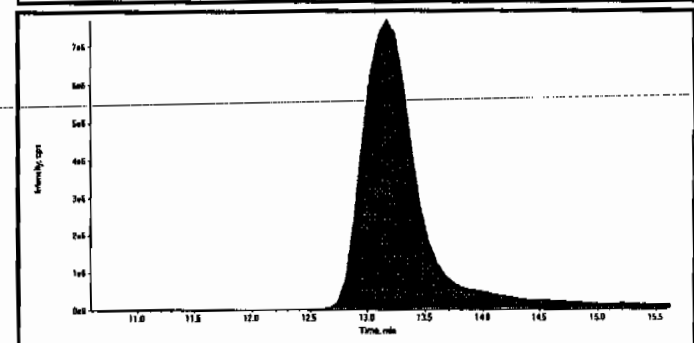

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.71e+008
Manual Modification	No
Amount:	530. (ng/mL)
% Accuracy:	88.40

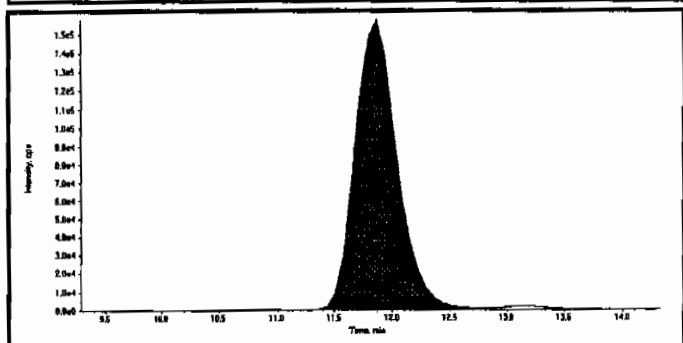

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	4.02e+006
Manual Modification	No
Amount:	590. (ng/mL)
% Accuracy:	98.40

Before Lan 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "[1]LER" File: "EXP0312022.wiff"
Peak Name: "25-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LC/MS(E)XP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 331. ng/mL
Acq. Date: 3/12/2010
Acq. Time: 5:13:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.90e4 cps
Min. Peak Width: 0.50 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.8 min
Area: 6.68e+007 counts
Height: 2.76e+006 cps
Start Time: 14.5 min
End Time: 15.2 min

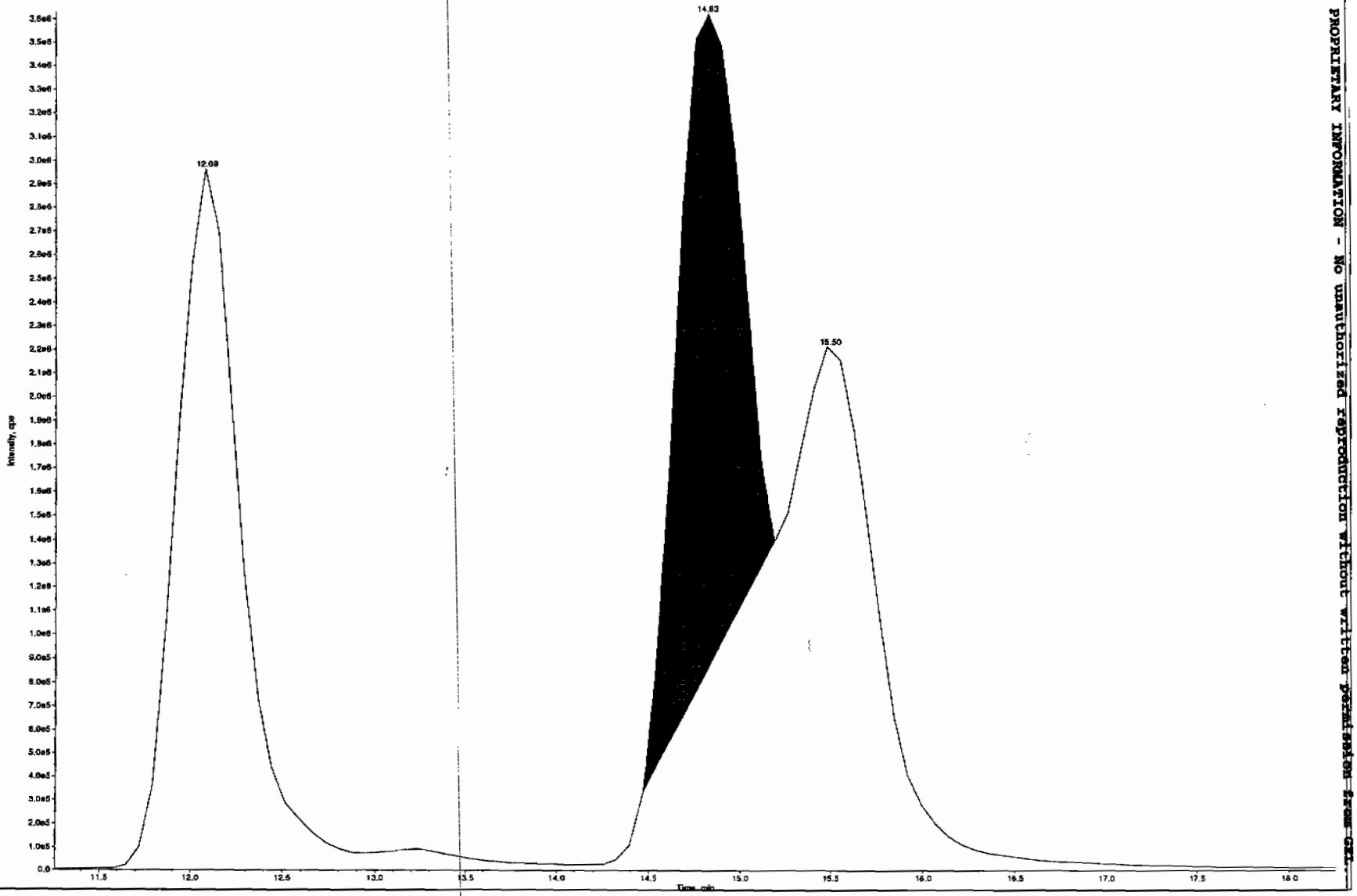

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Before Lan 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "1[1]LER" File: "EXP0312022.wif"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	0.00	ng/mL
Acq. Date:	3/12/2010	
Acq. Time:	5:13:04 PM	
Modified:	No	

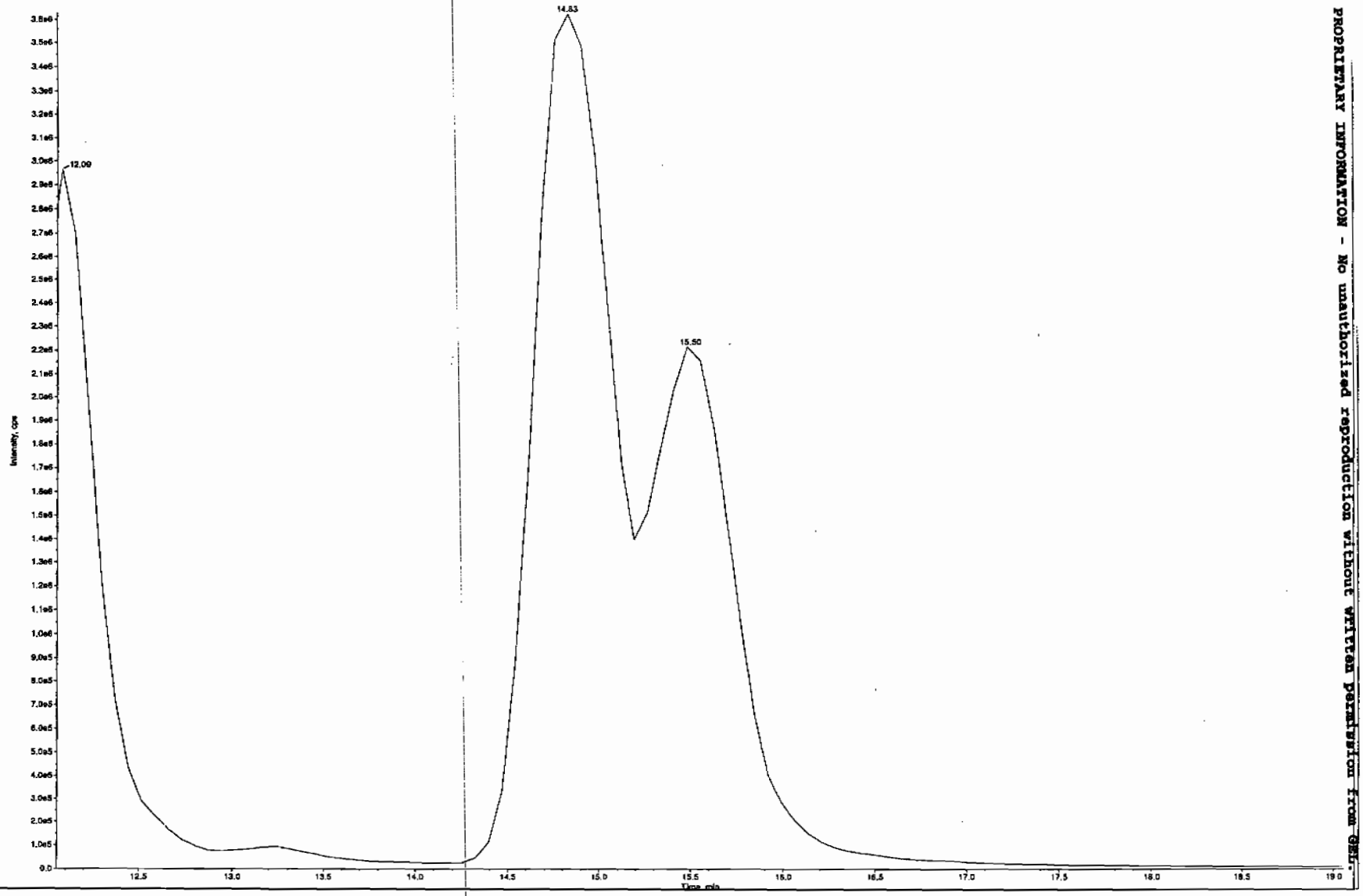

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312022.wiff	**Acquisition Date**	3/12/2010 5:13:04 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

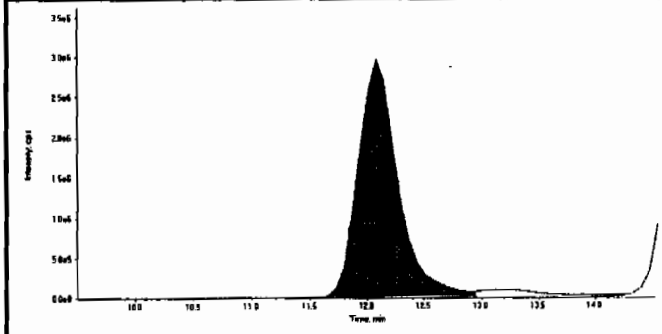

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	7.28e+007
Manual Modification	No
Amount:	271. (ng/mL)
% Accuracy:	90.40

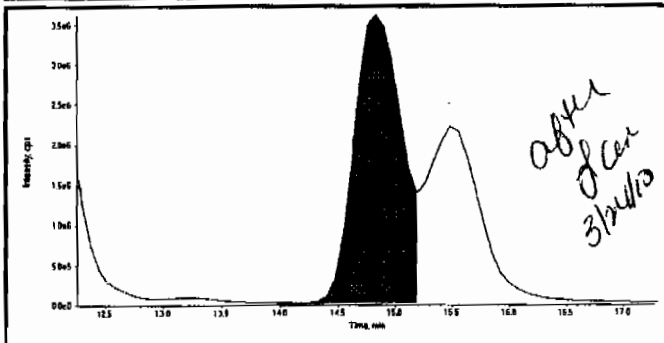

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	1.04e+008
Manual Modification	Yes
Amount:	591. (ng/mL)
% Accuracy:	98.40

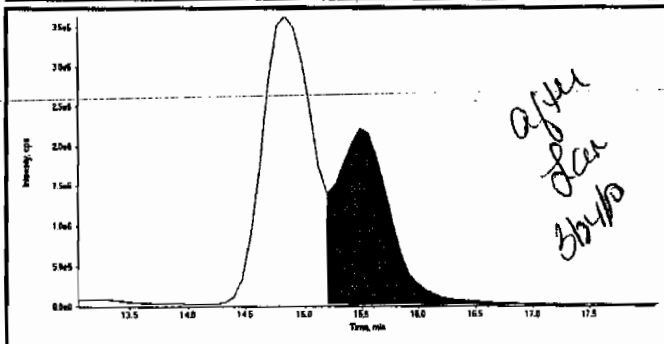

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.5
Area Counts:	7.28e+007
Manual Modification	Yes
Amount:	568. (ng/mL)
% Accuracy:	94.60

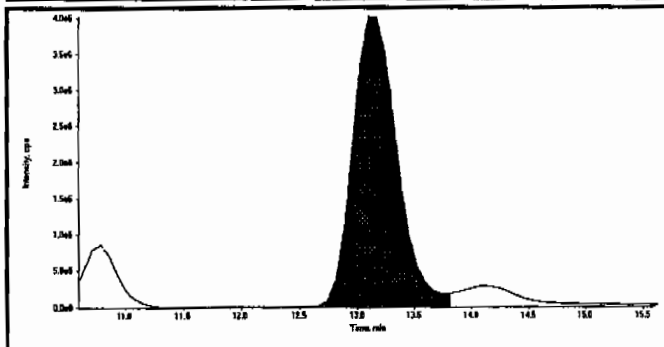

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	1.10e+008
Manual Modification	No
Amount:	542. (ng/mL)
% Accuracy:	90.30

Before Lar 3/24/10

Sample Name: "WXX100312-59CCV" Sample ID: "1|LER" File: "EXP0312022.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	0.00	ng/mL
Acq. Date:	3/12/2010	
Acq. Time:	5:13:04 PM	
Modified:	No	

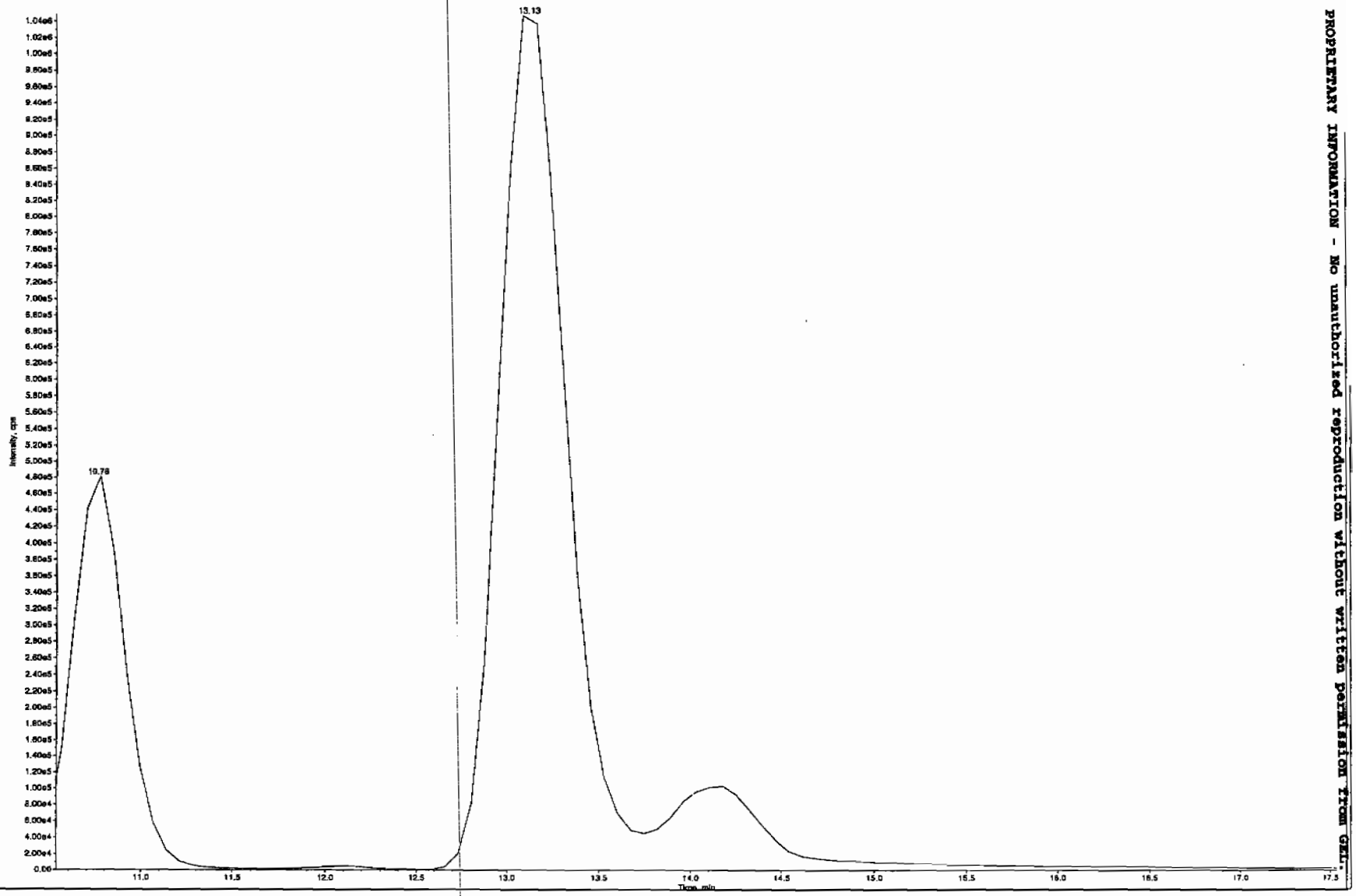

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Data File	EXP0312022.wiff	**Acquisition Date**	3/12/2010 5:13:04 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

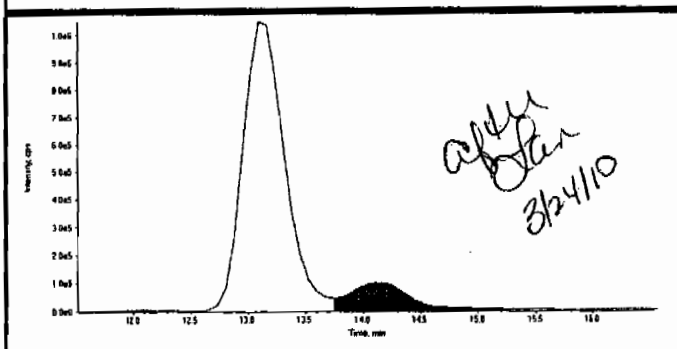

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.1
Area Counts:	3.82e+006
Manual Modification	Yes
Amount:	580. (ng/mL)
% Accuracy:	96.70

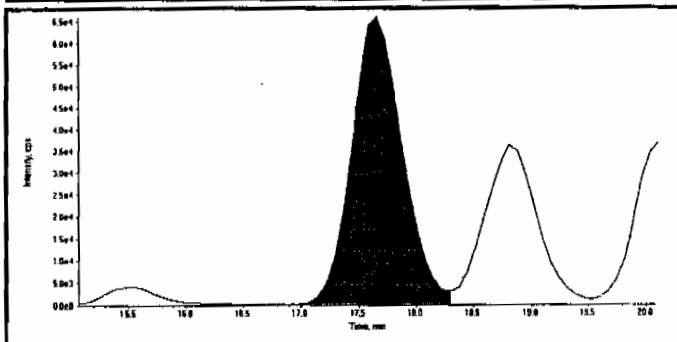

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	2.02e+006
Manual Modification	No
Amount:	546. (ng/mL)
% Accuracy:	90.90

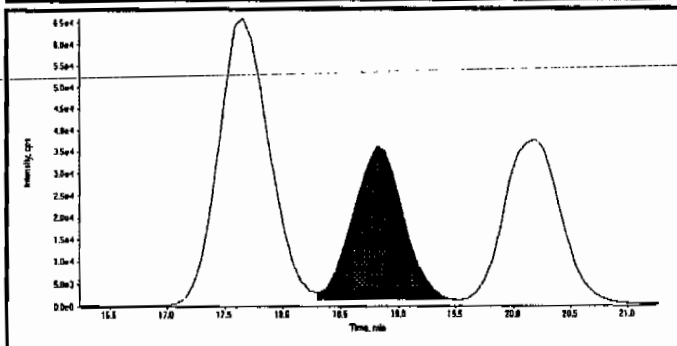

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	18.8
Area Counts:	1.05e+006
Manual Modification	No
Amount:	515. (ng/mL)
% Accuracy:	85.80

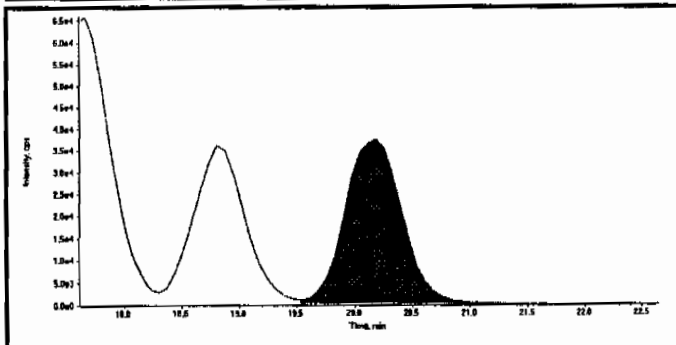

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	1.28e+006
Manual Modification	No
Amount:	564. (ng/mL)
% Accuracy:	94.10

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Data File	EXP0312022.wiff	**Acquisition Date**	3/12/2010 5:13:04 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

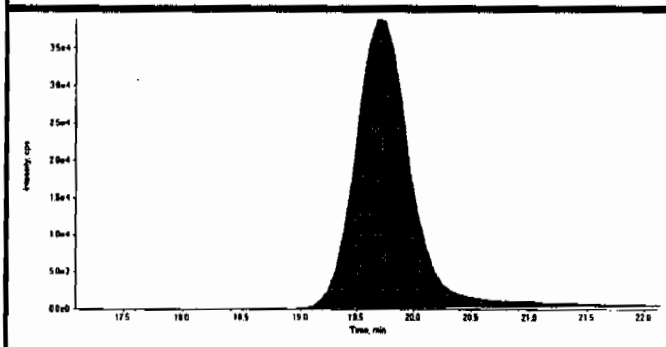

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.7
Area Counts:	1.33e+006
Manual Modification	No
Amount:	538. (ng/mL)
% Accuracy:	89.70

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/12/10
Time of Injection 1713
Standard Number WXX100312-56CCV
Data File EXP0312022a

HMX	77.0
RDX	93.5
TNX	96.1
DNX	89.2
MNX	91.7
135-Trinitrobenzene	85.0
13-Dinitrobenzene	91.0
Tetryl	105.0
246-Trinitrotoluene	88.4
Nitrobenzene	98.4
34-dinitrotoluene	90.4
26-dinitrotoluene	98.4
24-dinitrotoluene	94.6
4-Amino-26-dinitrotoluene	90.3
2-Amino-46-dinitrotoluene	96.7
2-Nitrotoluene	90.9
4-Nitrotoluene	85.8
3-Nitrotoluene	94.1
PETN	89.7
TOTAL	1746.2
AVERAGE	91.9

HMK 03/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar
3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0312024.wiff

Analysis Date: 12-MAR-10 18:05

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
HMX	40	40.3	101	
MNX	40	39.8	99	
Nitrobenzene	40	44.5	111	
PETN	40	38.9	97	
RDX	40	41	102	
TNX	40	41	102	
Tetryl	40	49.7	124	
m-Dinitrobenzene	40	44.9	112	
m-Nitrotoluene	40	40	100	
o-Nitrotoluene	40	41.8	105	
p-Nitrotoluene	40	38	95	
1,3,5-Trinitrobenzene	40	48.3	121	
2,4,6-Trinitrotoluene	40	45.3	113	
2,4-Dinitrotoluene	40	41.8	105	
2,6-Dinitrotoluene	40	33.4	83	
2-Amino-4,6-dinitrotoluene	40	39.8	100	
3,4-Dinitrotoluene	20	21.6	108	
4-Amino-2,6-dinitrotoluene	40	44.1	110	
DNX	40	41.4	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312024.wiff	**Acquisition Date**	3/12/2010 6:05:52 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

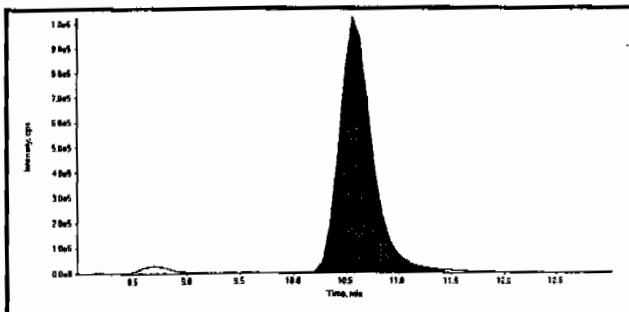

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

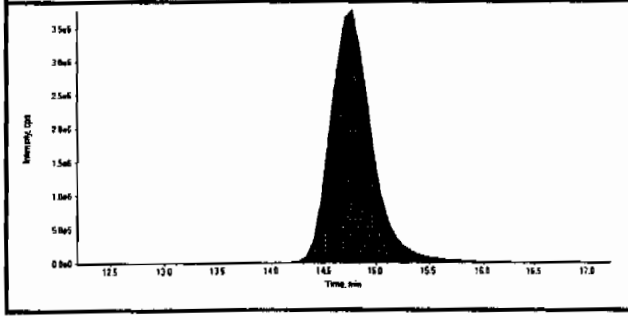

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	105000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

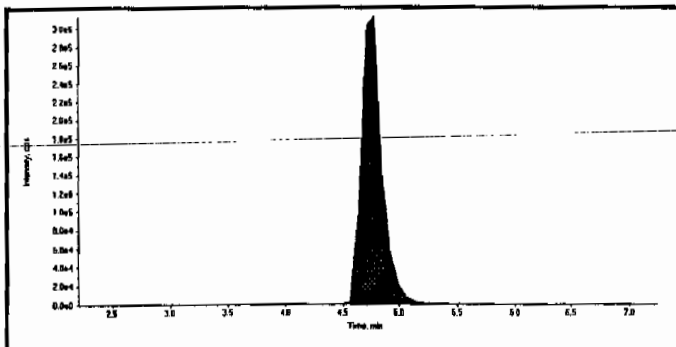

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.15e+006
Manual Modification	No
Amount:	40.3 (ng/mL)
% Accuracy:	101.00

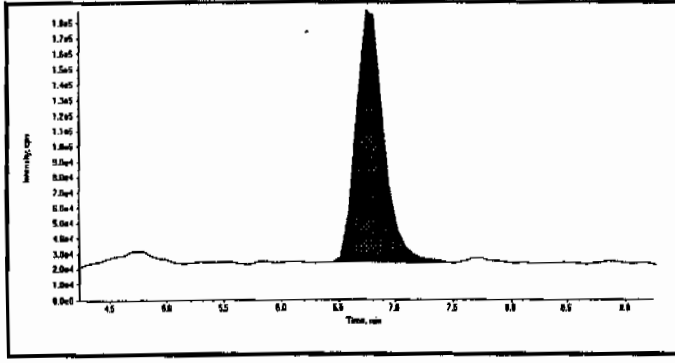

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.73
Area Counts:	2.91e+006
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	102.00

Hmw 03/24/10

Lan 3/24/10

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Data File	EXP0312024.wiff	**Acquisition Date**	3/12/2010 6:05:52 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

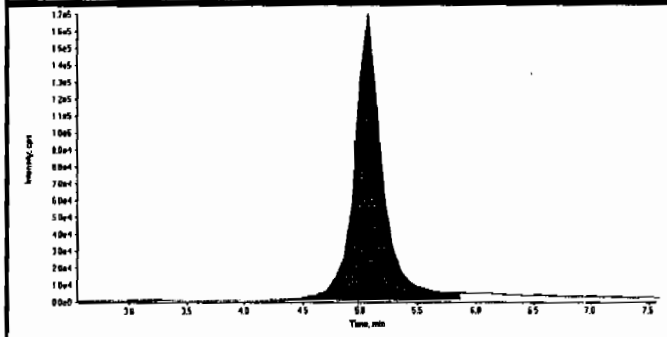

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	2.98e+006
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	102.00

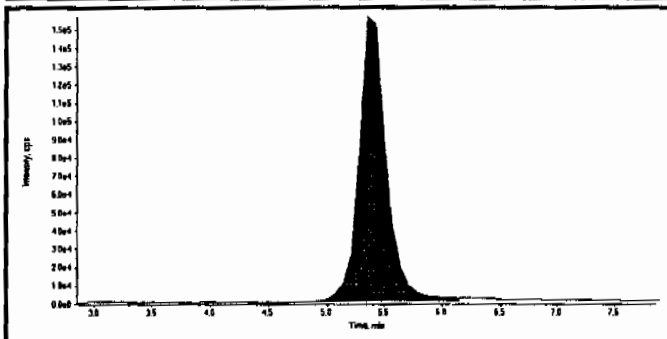

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.35
Area Counts:	2.68e+006
Manual Modification	No
Amount:	41.4 (ng/mL)
% Accuracy:	103.00

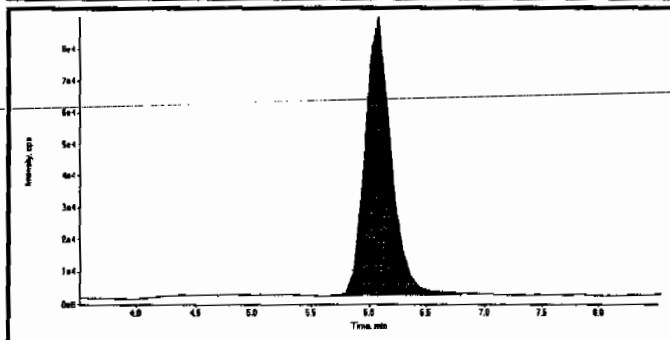

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.42e+006
Manual Modification	No
Amount:	39.8 (ng/mL)
% Accuracy:	99.40

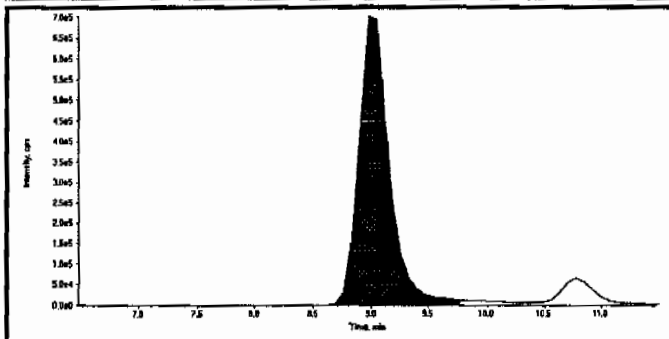

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	8.97
Area Counts:	1.33e+007
Manual Modification	No
Amount:	48.3 (ng/mL)
% Accuracy:	121.00

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Data File	EXP0312024.wiff	**Acquisition Date**	3/12/2010 6:05:52 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

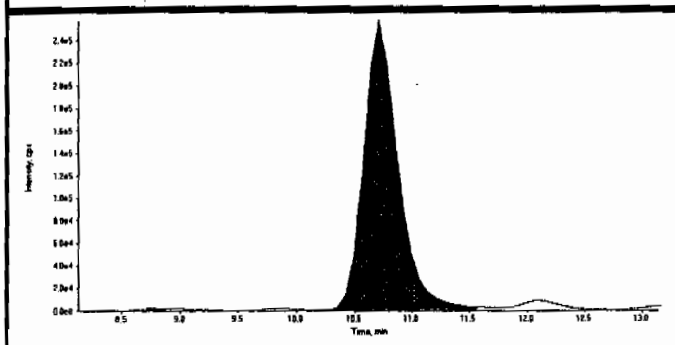

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.7
Area Counts:	5.41e+006
Manual Modification	No
Amount:	44.9 (ng/mL)
% Accuracy:	112.00

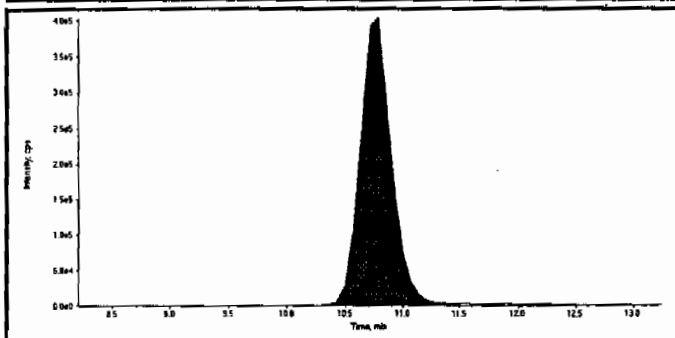

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	7.76e+006
Manual Modification	No
Amount:	49.7 (ng/mL)
% Accuracy:	124.00

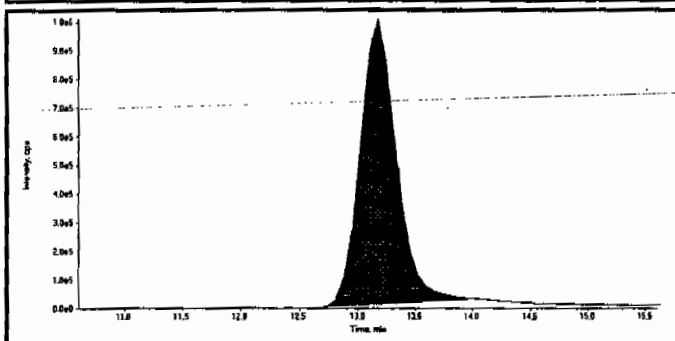

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.22e+007
Manual Modification	No
Amount:	45.3 (ng/mL)
% Accuracy:	113.00

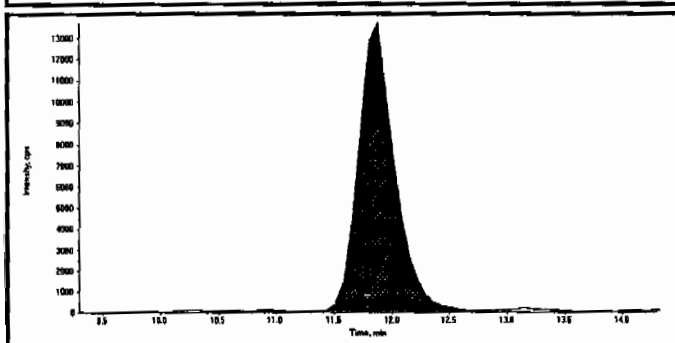

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	3.05e+005
Manual Modification	No
Amount:	44.5 (ng/mL)
% Accuracy:	111.00

Before Lan 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312024.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 10.0 ng/mL
Calculated Conc: 0.02 ng/mL
Acq. Date: 3/12/2010
Acq. Time: 6:05:52 PM

Modified: No

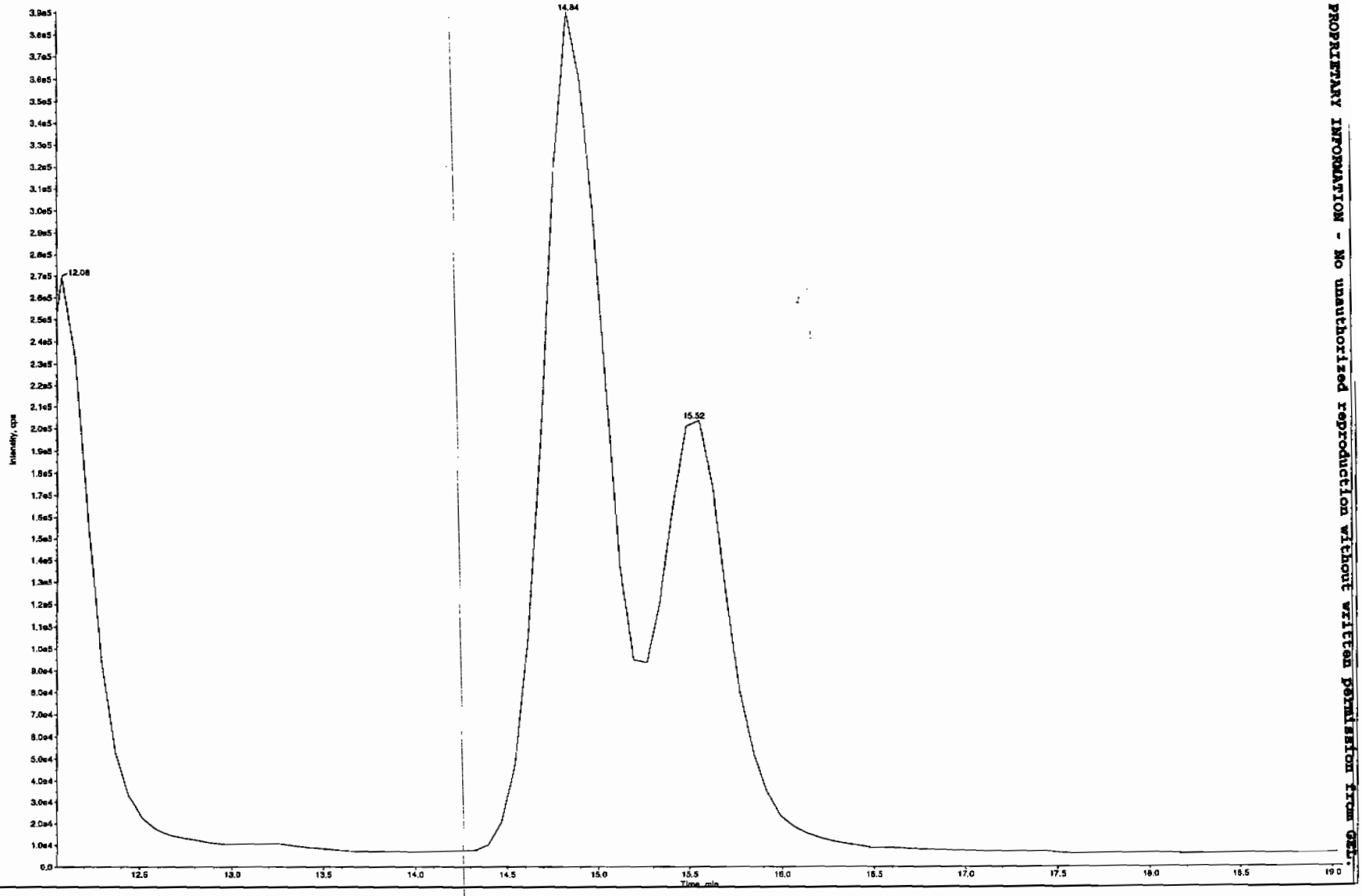

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Data File	EXP0312024.wiff	**Acquisition Date**	3/12/2010 6:05:52 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

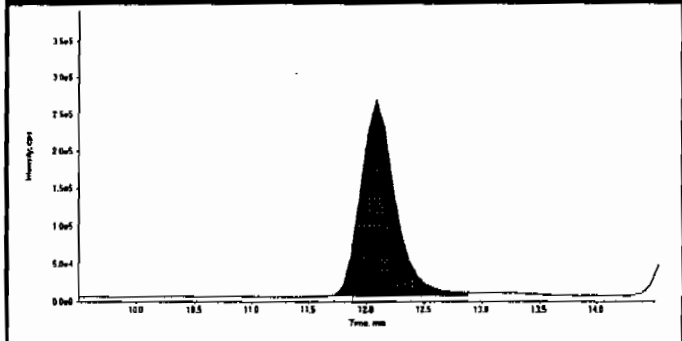

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	5.55e+006
Manual Modification	No
Amount:	21.6 (ng/mL)
% Accuracy:	108.00

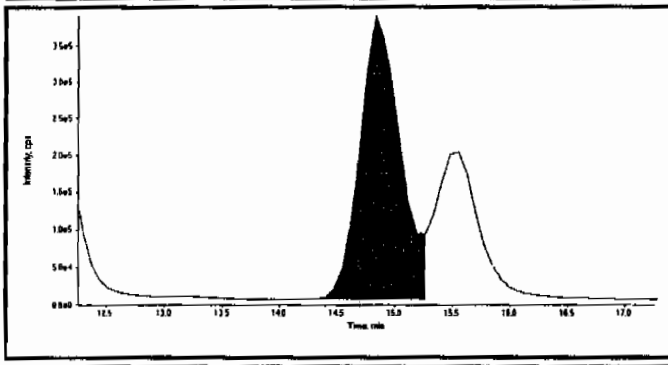

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	9.51e+006
Manual Modification	No
Amount:	33.4 (ng/mL)
% Accuracy:	83.40

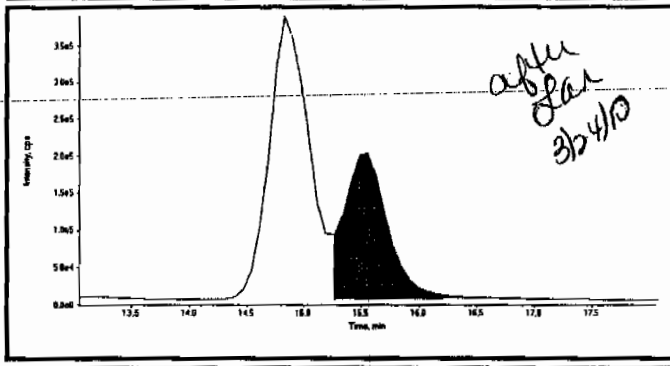

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.5
Area Counts:	5.15e+006
Manual Modification	Yes
Amount:	41.8 (ng/mL)
% Accuracy:	105.00

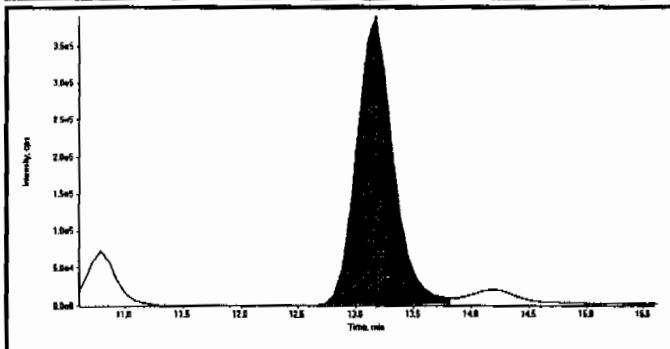

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	8.58e+006
Manual Modification	No
Amount:	44.1 (ng/mL)
% Accuracy:	110.00

Before Clan 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312024.wiff"
Peak Name: "2-Amino-4,6-dinitrotoluene" Mass(es): "167.0/150.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 26.3 ng/mL
Acq. Date: 3/12/2010
Acq. Time: 6:05:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 4000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.2 min
Area: 1.66e+005 counts
Height: 7.57e+003 cps
Start Time: 13.8 min
End Time: 14.7 min

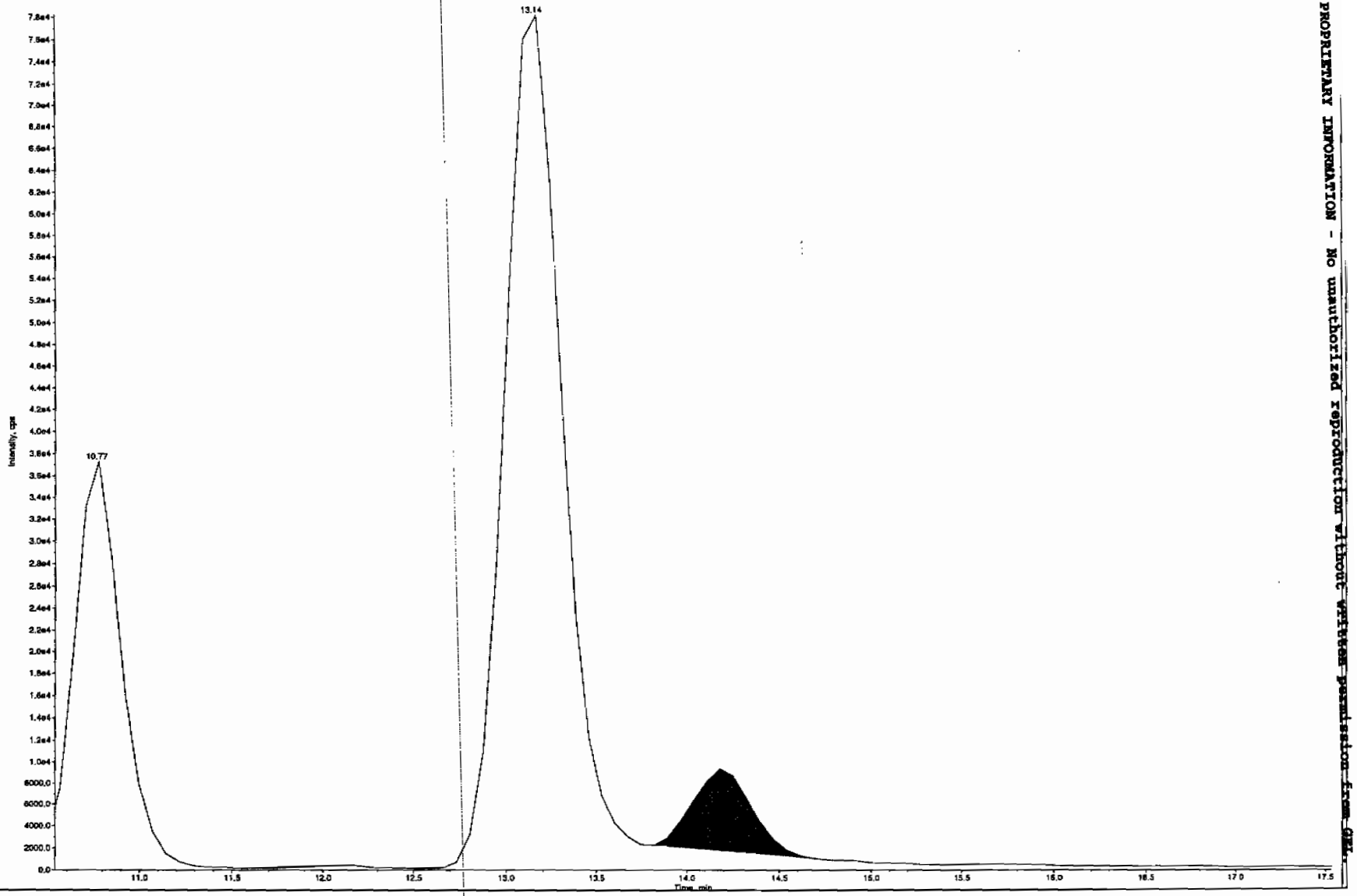

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312024.wiff	**Acquisition Date**	3/12/2010 6:05:52 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

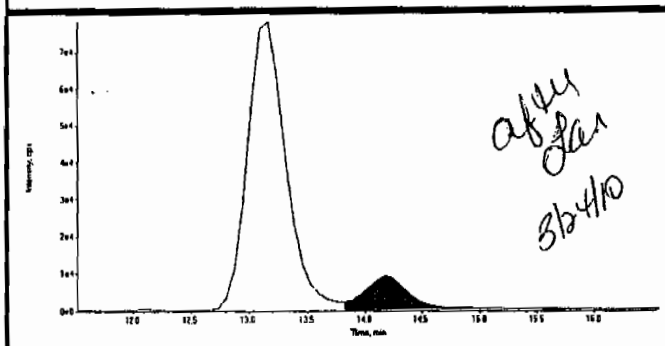

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.2
Area Counts:	2.52e+005
Manual Modification	Yes
Amount:	39.8 (ng/mL)
% Accuracy:	99.60

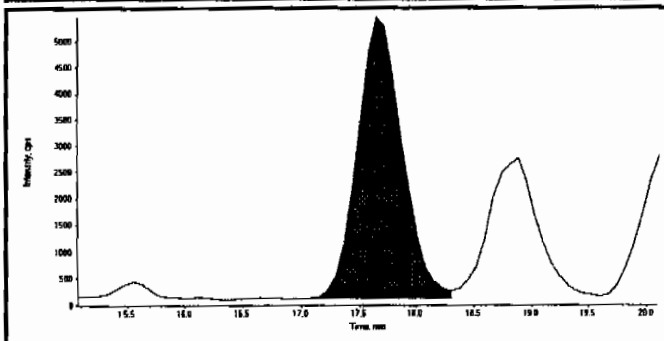

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	1.48e+005
Manual Modification	No
Amount:	41.8 (ng/mL)
% Accuracy:	105.00

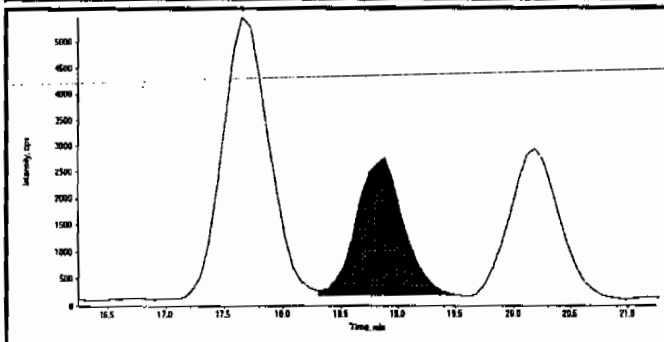

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	18.9
Area Counts:	7.41e+004
Manual Modification	No
Amount:	38.0 (ng/mL)
% Accuracy:	95.00

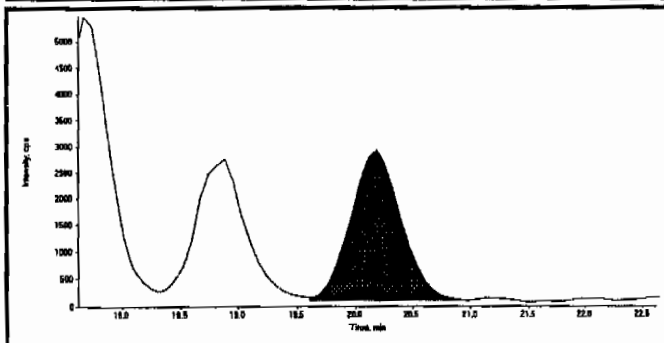

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	8.69e+004
Manual Modification	No
Amount:	40.0 (ng/mL)
% Accuracy:	100.00

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Data File	EXP0312024.wiff	**Acquisition Date**	3/12/2010 6:05:52 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

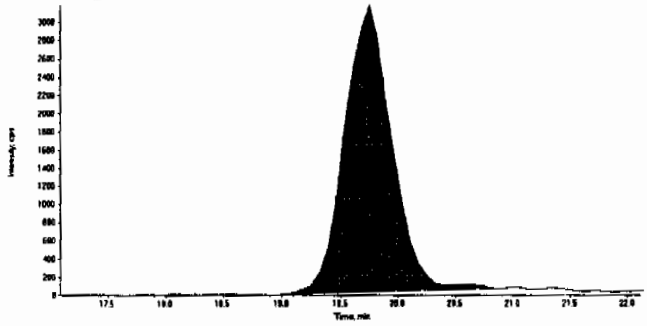

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.7
Area Counts:	9.24e+004
Manual Modification	No
Amount:	38.9 (ng/mL)
% Accuracy:	97.20

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/12/10
Time of Injection 1805
Standard Number WXX100312-57CRI
Data File EXP0312024a

HMX	101.0
RDX	102.0
TNX	102.0
DNX	103.0
MNX	99.4
135-Trinitrobenzene	121.0
13-Dinitrobenzene	112.0
Tetryl	124.0
246-Trinitrotoluene	113.0
Nitrobenzene	111.0
34-dinitrotoluene	108.0
26-dinitrotoluene	83.4
24-dinitrotoluene	105.0
4-Amino-26-dinitrotoluene	110.0
2-Amino-46-dinitrotoluene	99.6
2-Nitrotoluene	105.0
4-Nitrotoluene	95.0
3-Nitrotoluene	100.0
PETN	97.2
TOTAL	1991.6
AVERAGE	104.8

Hmc 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

LCL
3/24/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0312035.wiff

Analysis Date: 12-MAR-10 22:56

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	538	90	
2,4,6-Trinitrotoluene	600	545	91	
2,4-Dinitrotoluene	600	565	94	
2,6-Dinitrotoluene	600	598	100	
2-Amino-4,6-dinitrotoluene	600	626	104	
3,4-Dinitrotoluene	300	276	92	
4-Amino-2,6-dinitrotoluene	600	543	90	
DNX	600	563	94	
HMX	600	501	84	
MNX	600	550	92	
Nitrobenzene	600	626	104	
PETN	600	575	96	
RDX	600	572	95	
TNX	600	562	94	
Tetryl	600	623	104	
m-Dinitrobenzene	600	537	90	
m-Nitrotoluene	600	582	97	
o-Nitrotoluene	600	582	97	
p-Nitrotoluene	600	584	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312035.wiff	**Acquisition Date**	3/12/2010 10:56:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

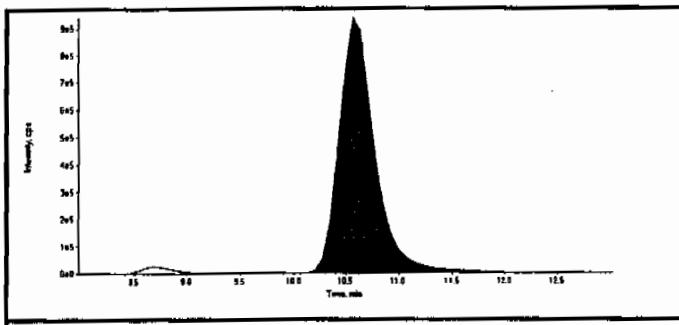

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

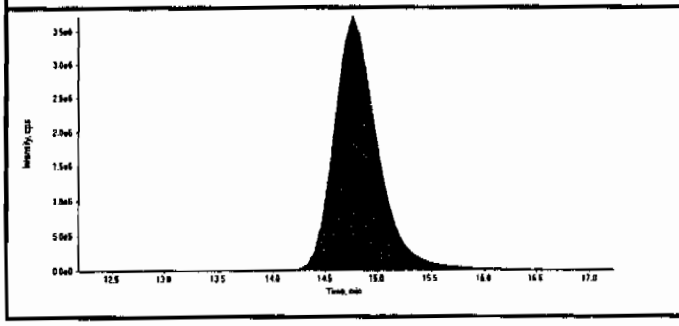

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	106000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

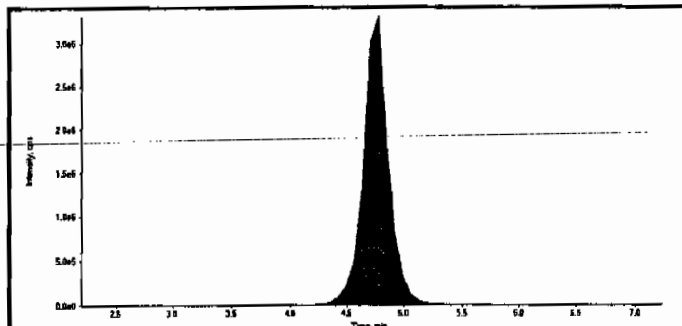

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	5.07e+007
Manual Modification	No
Amount:	501. (ng/mL)
% Accuracy:	83.50

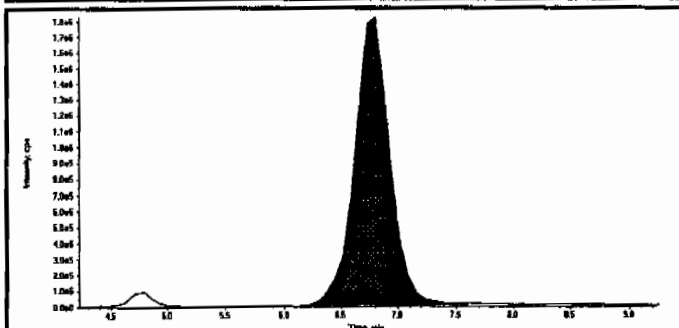

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	3.99e+007
Manual Modification	No
Amount:	572. (ng/mL)
% Accuracy:	95.30

Lan 3/24/10 Amm 03/24/10

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Data File	EXP0312035.wiff	**Acquisition Date**	3/12/2010 10:56:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

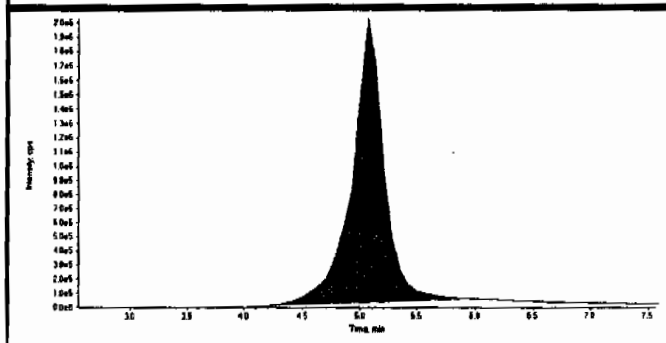

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	4.02e+007
Manual Modification	No
Amount:	562. (ng/mL)
% Accuracy:	93.70

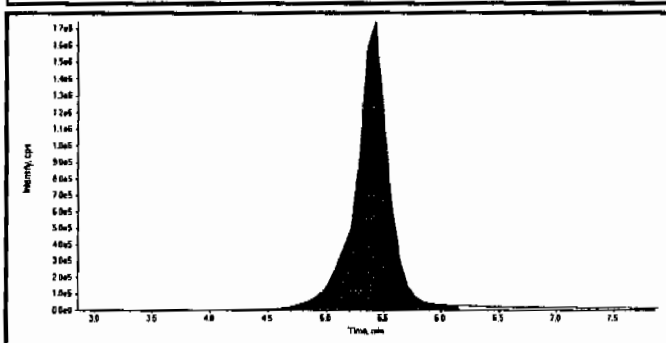

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	3.59e+007
Manual Modification	No
Amount:	563. (ng/mL)
% Accuracy:	93.80

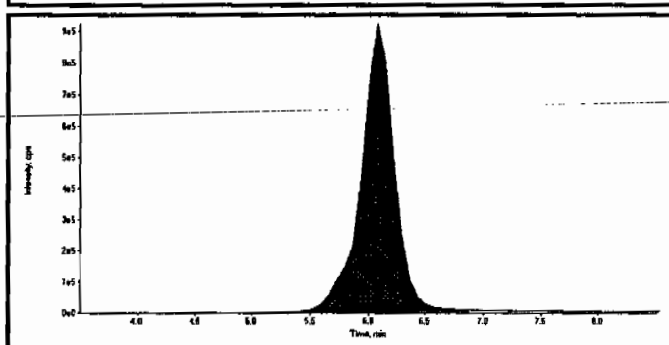

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.93e+007
Manual Modification	No
Amount:	550. (ng/mL)
% Accuracy:	91.70

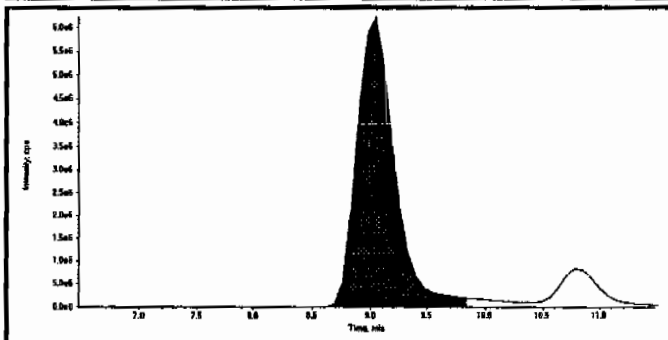

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.46e+008
Manual Modification	No
Amount:	538. (ng/mL)
% Accuracy:	89.70

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Data File	EXP0312035.wiff	**Acquisition Date**	3/12/2010 10:56:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

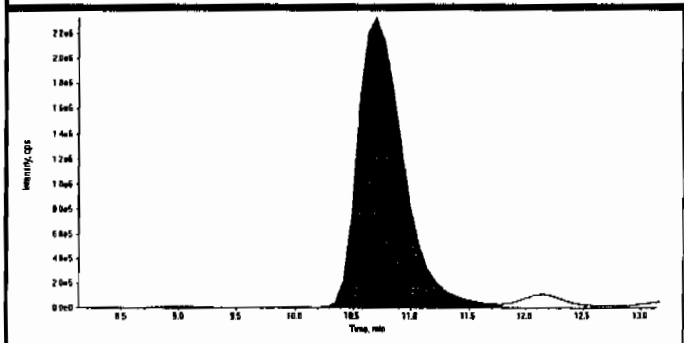

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.7
Area Counts:	6.38e+007
Manual Modification	No
Amount:	537. (ng/mL)
% Accuracy:	89.50

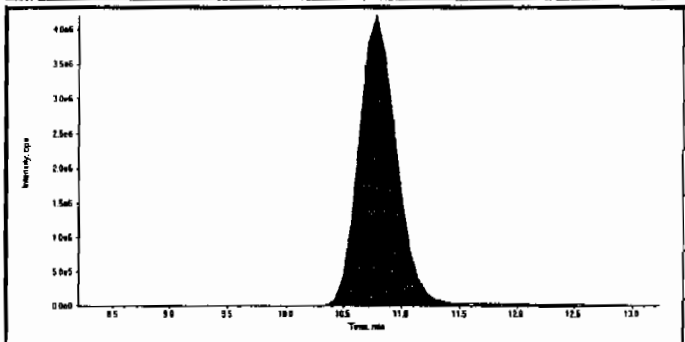

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	9.56e+007
Manual Modification	No
Amount:	623. (ng/mL)
% Accuracy:	104.00

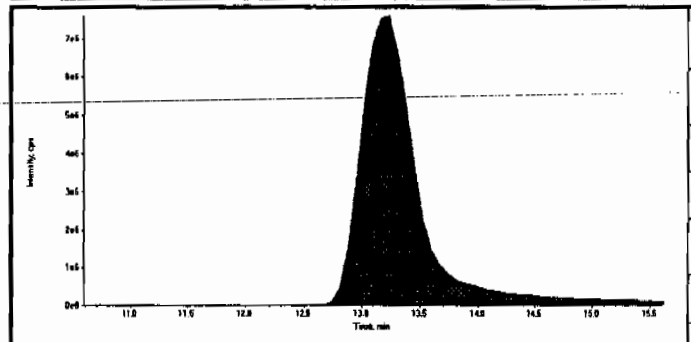

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.72e+008
Manual Modification	No
Amount:	545. (ng/mL)
% Accuracy:	90.90

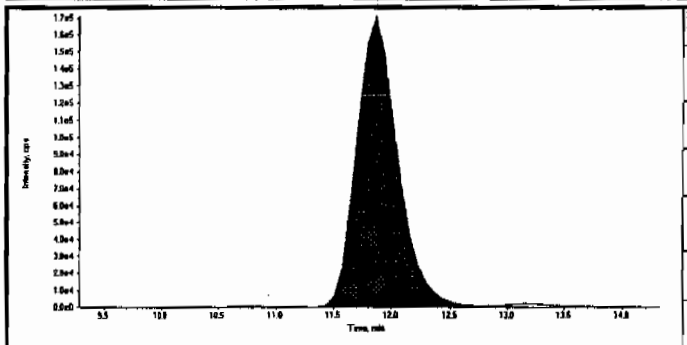

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	4.22e+006
Manual Modification	No
Amount:	626. (ng/mL)
% Accuracy:	104.00

Before Lan 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "1ILER" File: "EXP0312035.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/12/2010
Acq. Time: 10:56:18 PM

Modified: No

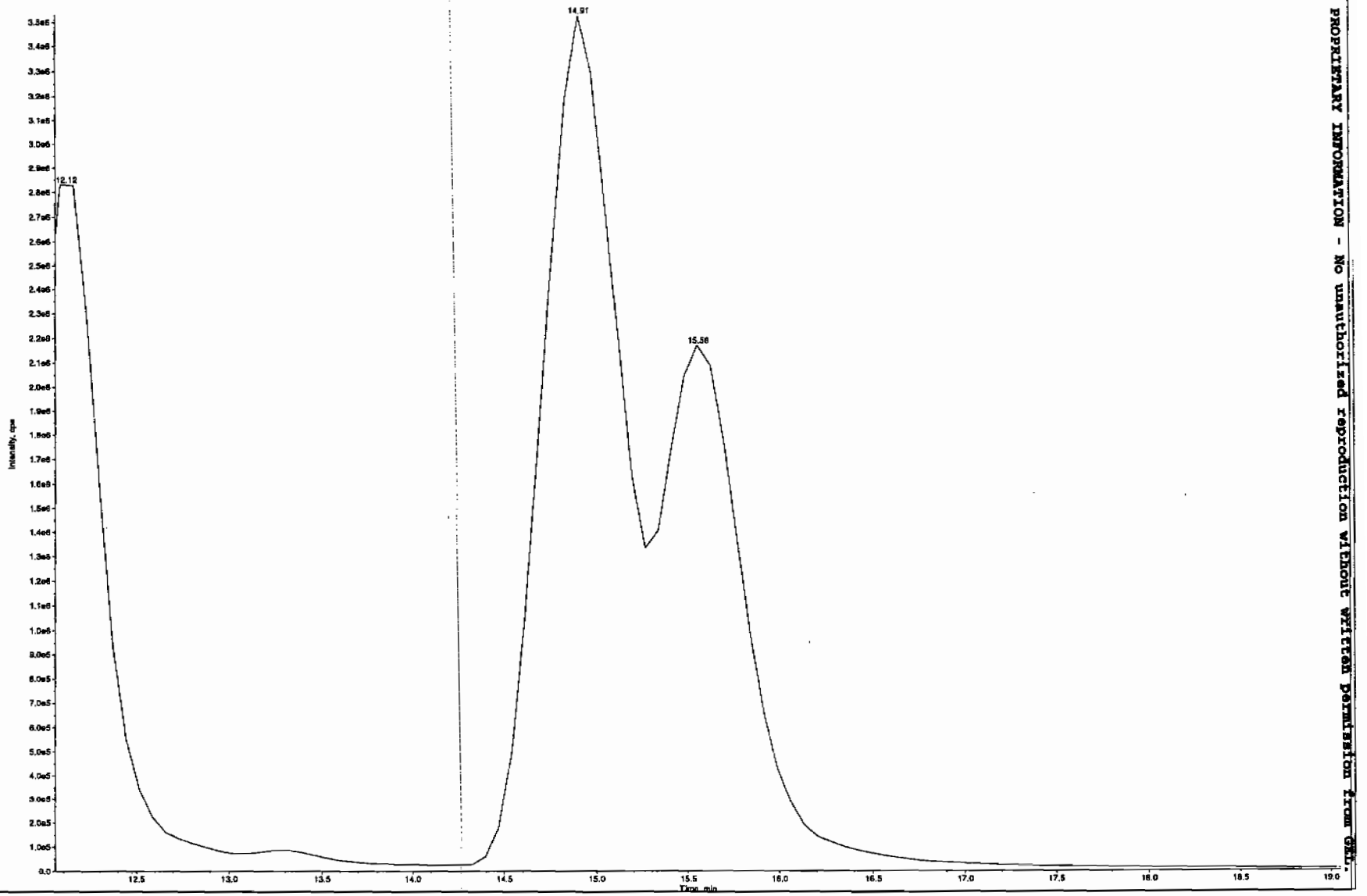

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Data File	EXP0312035.wiff	**Acquisition Date**	3/12/2010 10:56:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

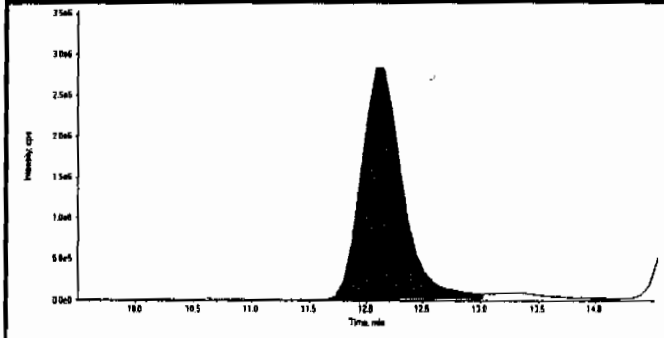

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	7.24e+007
Manual Modification	No
Amount:	276. (ng/mL)
% Accuracy:	92.10

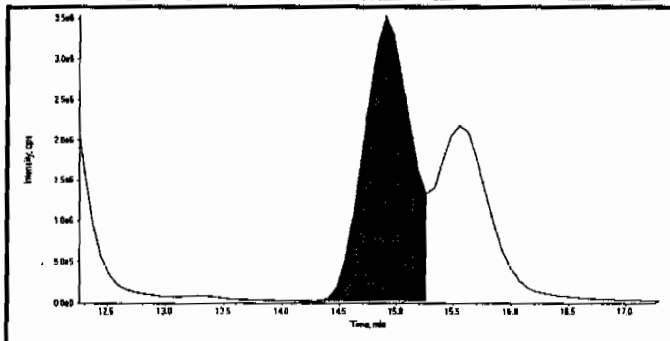

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	1.03e+008
Manual Modification	No
Amount:	598. (ng/mL)
% Accuracy:	99.60

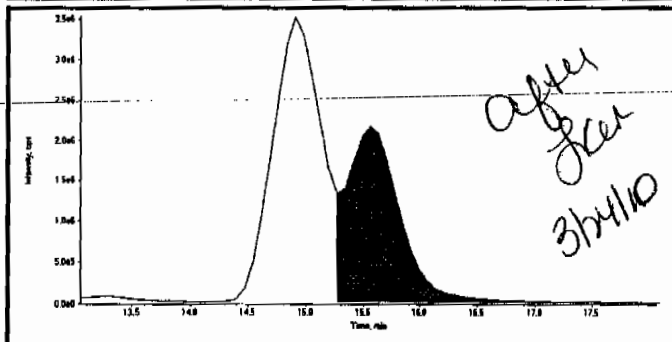

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	7.07e+007
Manual Modification	Yes
Amount:	565. (ng/mL)
% Accuracy:	94.10

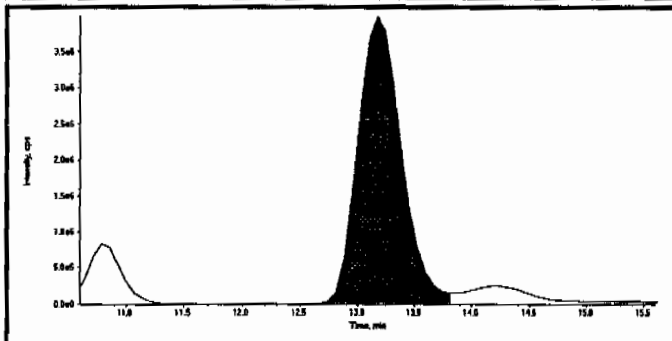

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.07e+008
Manual Modification	No
Amount:	543. (ng/mL)
% Accuracy:	90.40

Before Lan 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "1HLER" File: "EXP031203.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/186.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 1659. ng/mL
Acq. Date: 3/12/2010
Acq. Time: 10:56:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 4000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.3 min
Area: 1.06e+007 counts
Height: 1.62e+005 cps
Start Time: 13.8 min
End Time: 17.1 min

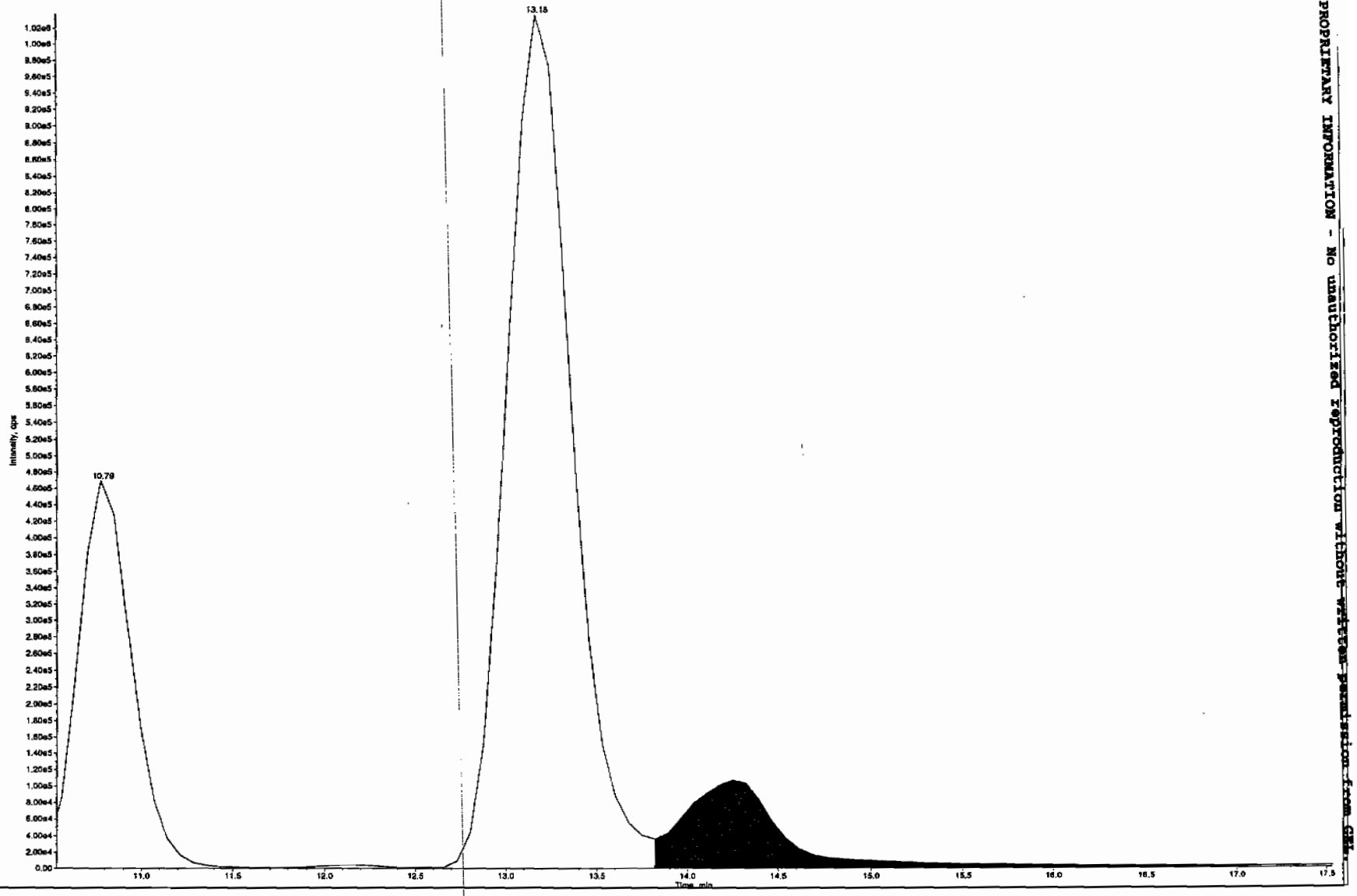

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Data File	EXP0312035.wiff	**Acquisition Date**	3/12/2010 10:56:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

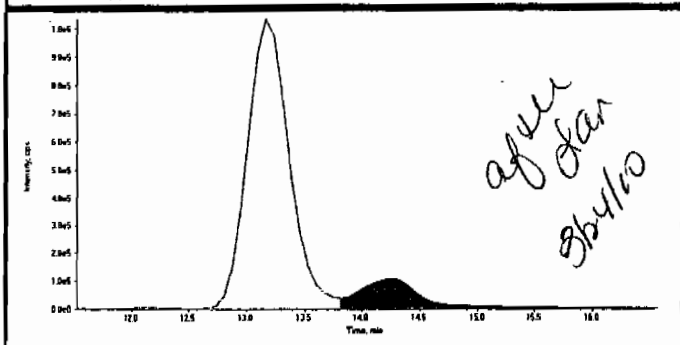

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.3
Area Counts:	4.02e+006
Manual Modification	Yes
Amount:	626. (ng/mL)
% Accuracy:	104.00

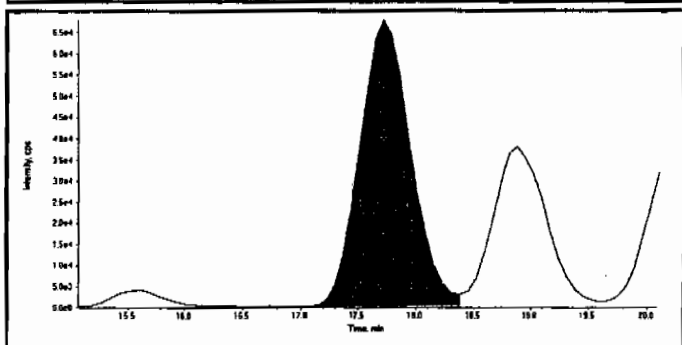

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	2.10e+006
Manual Modification	No
Amount:	582. (ng/mL)
% Accuracy:	97.00

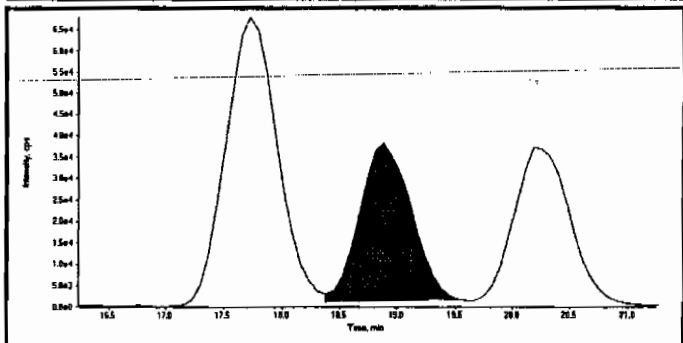

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	18.9
Area Counts:	1.16e+006
Manual Modification	No
Amount:	584. (ng/mL)
% Accuracy:	97.40

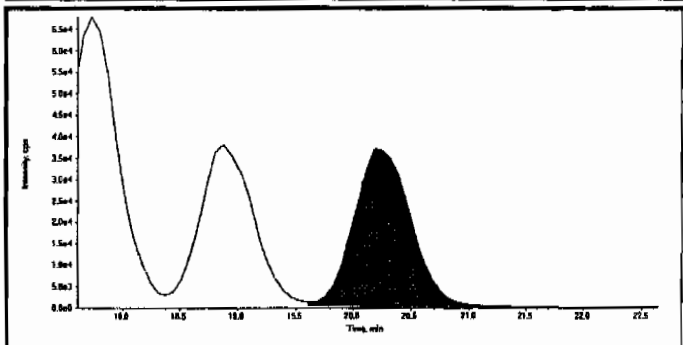

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	1.28e+006
Manual Modification	No
Amount:	582. (ng/mL)
% Accuracy:	97.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312035.wiff	**Acquisition Date**	3/12/2010 10:56:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

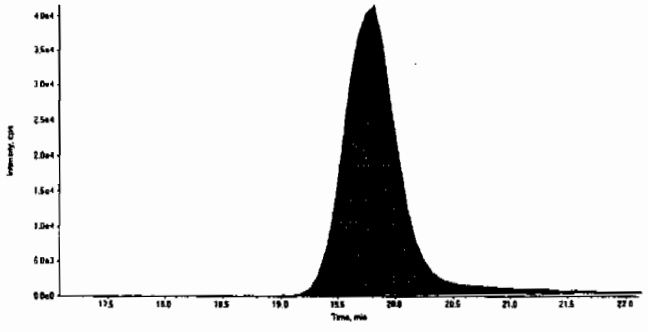

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.8
Area Counts:	1.39e+006
Manual Modification	No
Amount:	575. (ng/mL)
% Accuracy:	95.90

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/12/10
Time of Injection 2256
Standard Number WXX100312-56CCV
Data File EXP0312035a

HMX	83.5
RDX	95.3
TNX	93.7
DNX	93.8
MNX	91.7
135-Trinitrobenzene	89.7
13-Dinitrobenzene	89.5
Tetryl	104.0
246-Trinitrotoluene	90.9
Nitrobenzene	104.0
34-dinitrotoluene	92.1
26-dinitrotoluene	99.6
24-dinitrotoluene	94.1
4-Amino-26-dinitrotoluene	90.4
2-Amino-46-dinitrotoluene	104.0
2-Nitrotoluene	97.0
4-Nitrotoluene	97.4
3-Nitrotoluene	97.0
PETN	95.9
TOTAL	1803.6
AVERAGE	94.9

dmc 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0312037.wiff

Analysis Date: 12-MAR-10 23:49

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	42.9	107	
2,4,6-Trinitrotoluene	40	48.3	121	
2,4-Dinitrotoluene	40	42.9	107	
2,6-Dinitrotoluene	40	32.3	81	
2-Amino-4,6-dinitrotoluene	40	37.8	94	
3,4-Dinitrotoluene	20	21.9	110	
4-Amino-2,6-dinitrotoluene	40	40.7	102	
DNX	40	37.3	93	
HMX	40	38.4	96	
MNX	40	36.6	92	
Nitrobenzene	40	38.1	95	
PETN	40	34.9	87	
RDX	40	34.7	87	
TNX	40	37	93	
Tetryl	40	47.8	120	
m-Dinitrobenzene	40	41.6	104	
m-Nitrotoluene	40	37.8	95	
o-Nitrotoluene	40	38.5	96	
p-Nitrotoluene	40	37.4	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312037.wiff	**Acquisition Date**	3/12/2010 11:49:07 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

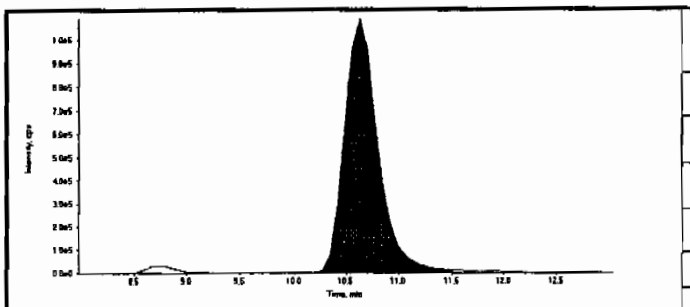

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	24500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

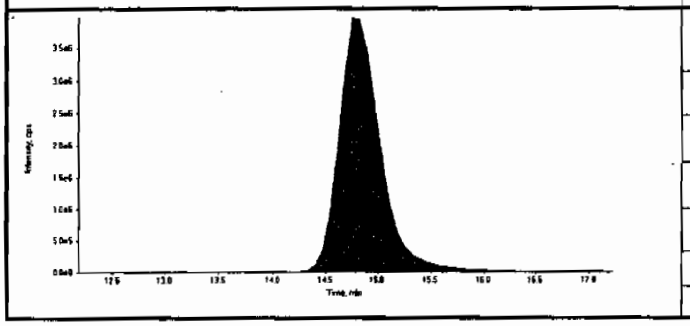

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	110000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

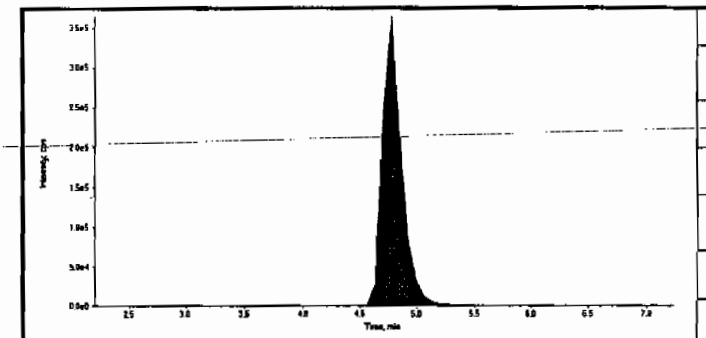

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.29e+006
Manual Modification	No
Amount:	38.4 (ng/mL)
% Accuracy:	96.00

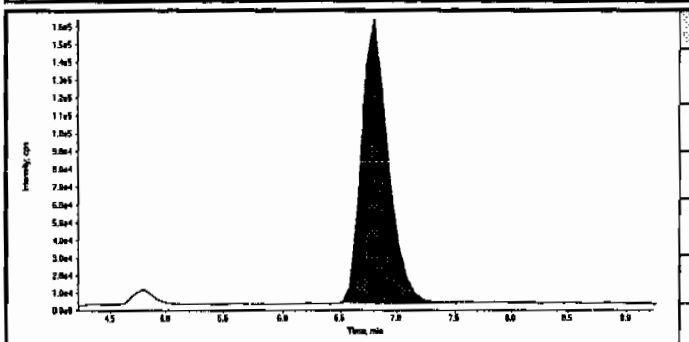

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	2.68e+006
Manual Modification	No
Amount:	34.7 (ng/mL)
% Accuracy:	86.80

dmw 03/24/10

Lar 3/24/10

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Data File	EXP0312037.wiff	**Acquisition Date**	3/12/2010 11:49:07 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

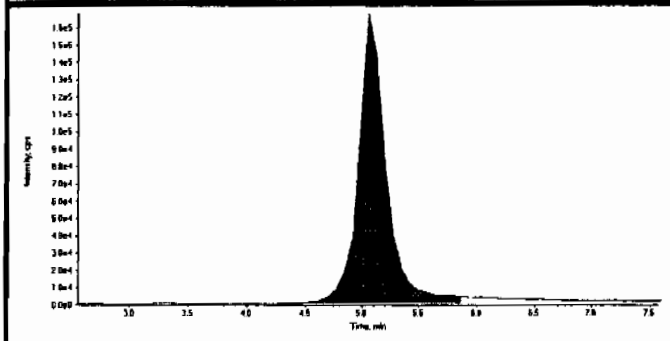

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	2.92e+006
Manual Modification	No
Amount:	37.0 (ng/mL)
% Accuracy:	92.50

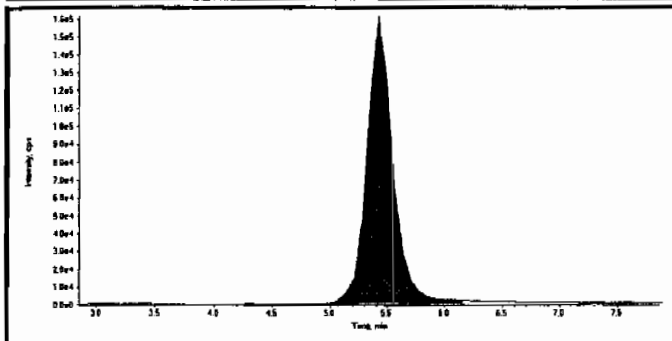

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	2.62e+006
Manual Modification	No
Amount:	37.3 (ng/mL)
% Accuracy:	93.10

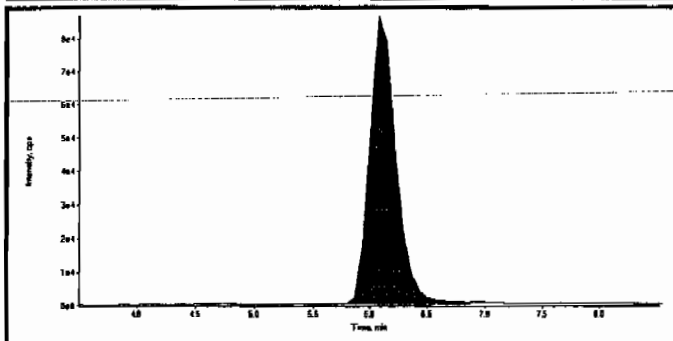

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.42e+006
Manual Modification	No
Amount:	36.6 (ng/mL)
% Accuracy:	91.60

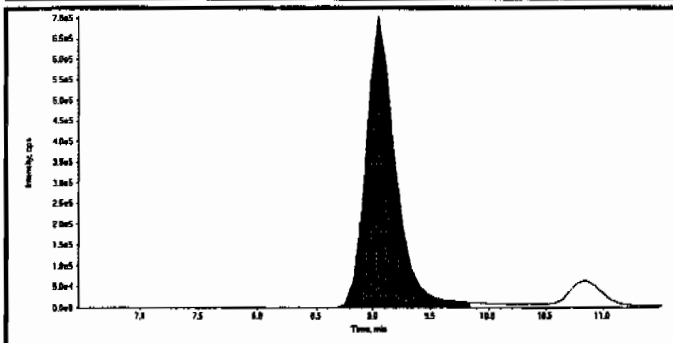

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.28e+007
Manual Modification	No
Amount:	42.9 (ng/mL)
% Accuracy:	107.00

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Data File	EXP0312037.wiff	**Acquisition Date**	3/12/2010 11:49:07 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

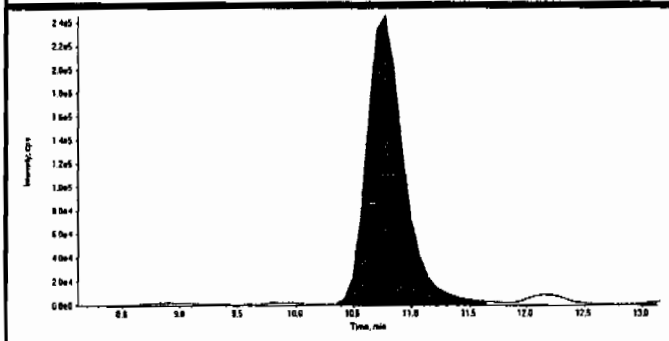

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	5.45e+006
Manual Modification	No
Amount:	41.6 (ng/mL)
% Accuracy:	104.00

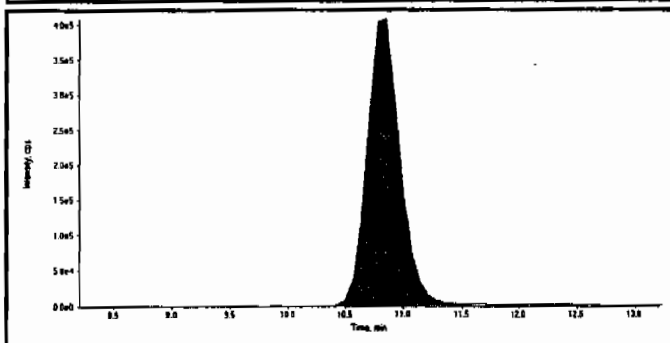

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	8.11e+006
Manual Modification	No
Amount:	47.8 (ng/mL)
% Accuracy:	120.00

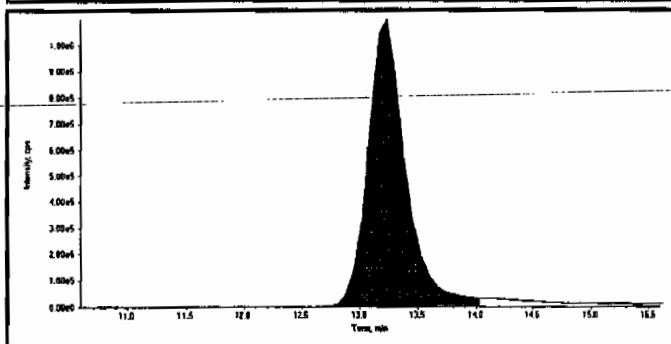

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.50e+007
Manual Modification	No
Amount:	48.3 (ng/mL)
% Accuracy:	121.00

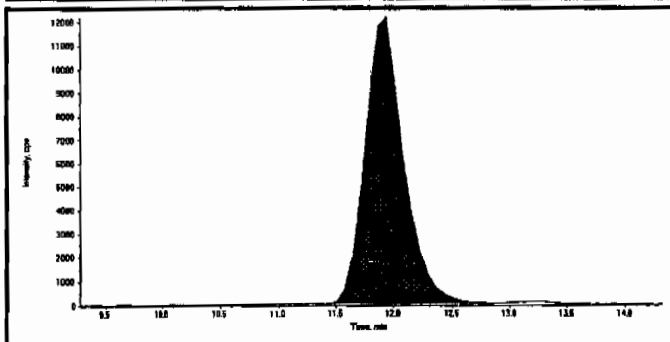

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.83e+005
Manual Modification	No
Amount:	38.1 (ng/mL)
% Accuracy:	95.20

Before Dan 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312037.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/12/2010
Acq. Time: 11:49:07 PM

Modified: No

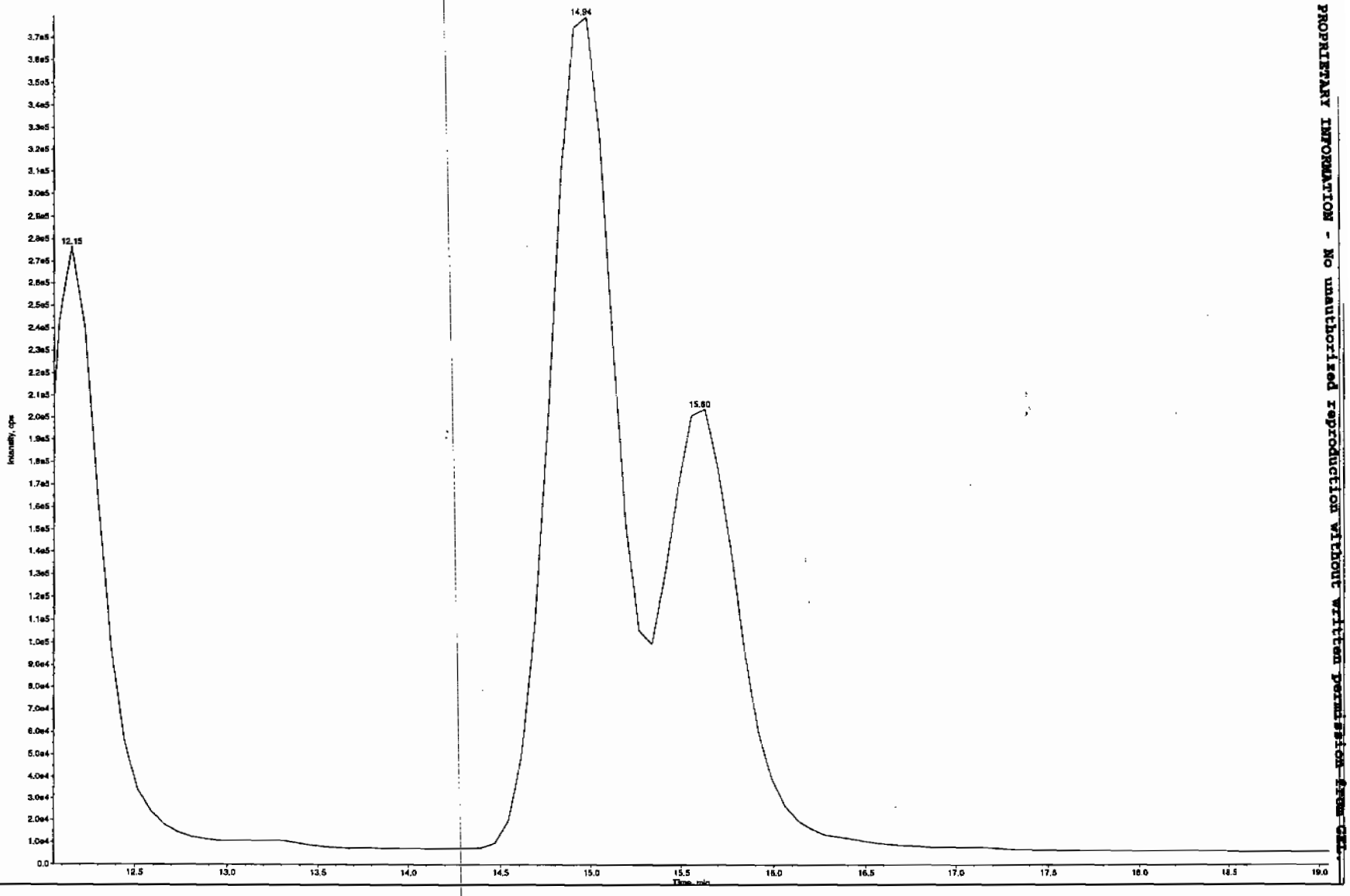

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Data File	EXP0312037.wiff	**Acquisition Date**	3/12/2010 11:49:07 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

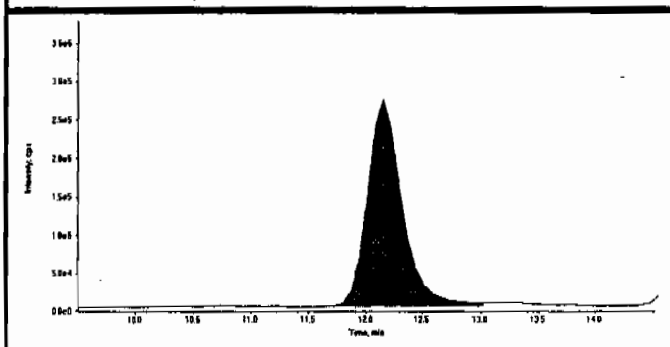

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.97e+006
Manual Modification	No
Amount:	21.9 (ng/mL)
% Accuracy:	110.00

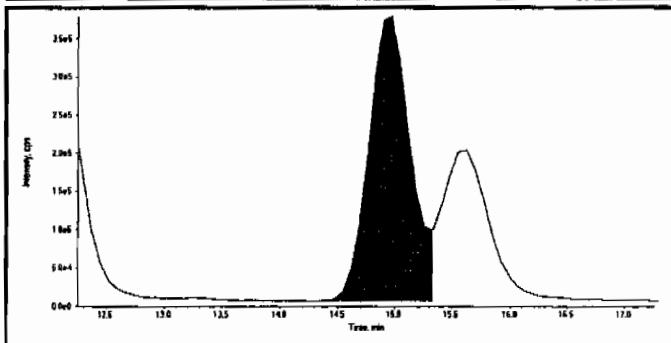

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	9.85e+006
Manual Modification	No
Amount:	32.3 (ng/mL)
% Accuracy:	80.70

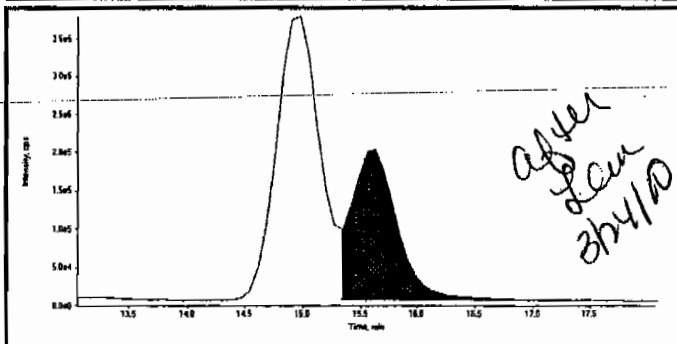

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	5.57e+006
Manual Modification	Yes
Amount:	42.9 (ng/mL)
% Accuracy:	107.00

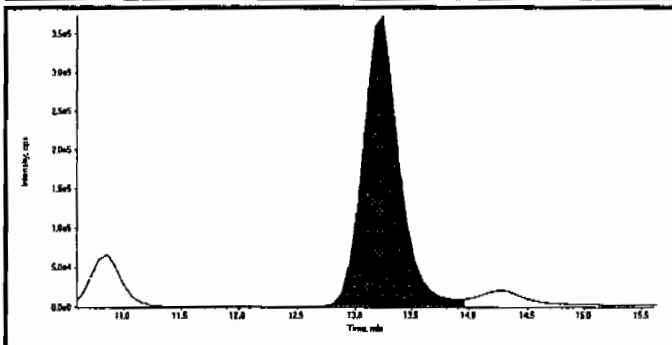

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	8.37e+006
Manual Modification	No
Amount:	40.7 (ng/mL)
% Accuracy:	102.00

Before Lan 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312037.wiff"
Peak Name: "2-Amino-4-dinitrotoluene" Mass(es): "197.0/160.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	40.8	ng/mL
Calculated Conc:	21.9	ng/mL
Acq. Date:	3/12/2010	
Acq. Time:	11:49:07 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	4000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	60.0	sec
Expected RT:	14.0	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	14.3	min
Area:	1.46e+005	counts
Height:	6.06e+003	cps
Start Time:	13.9	min
End Time:	14.8	min

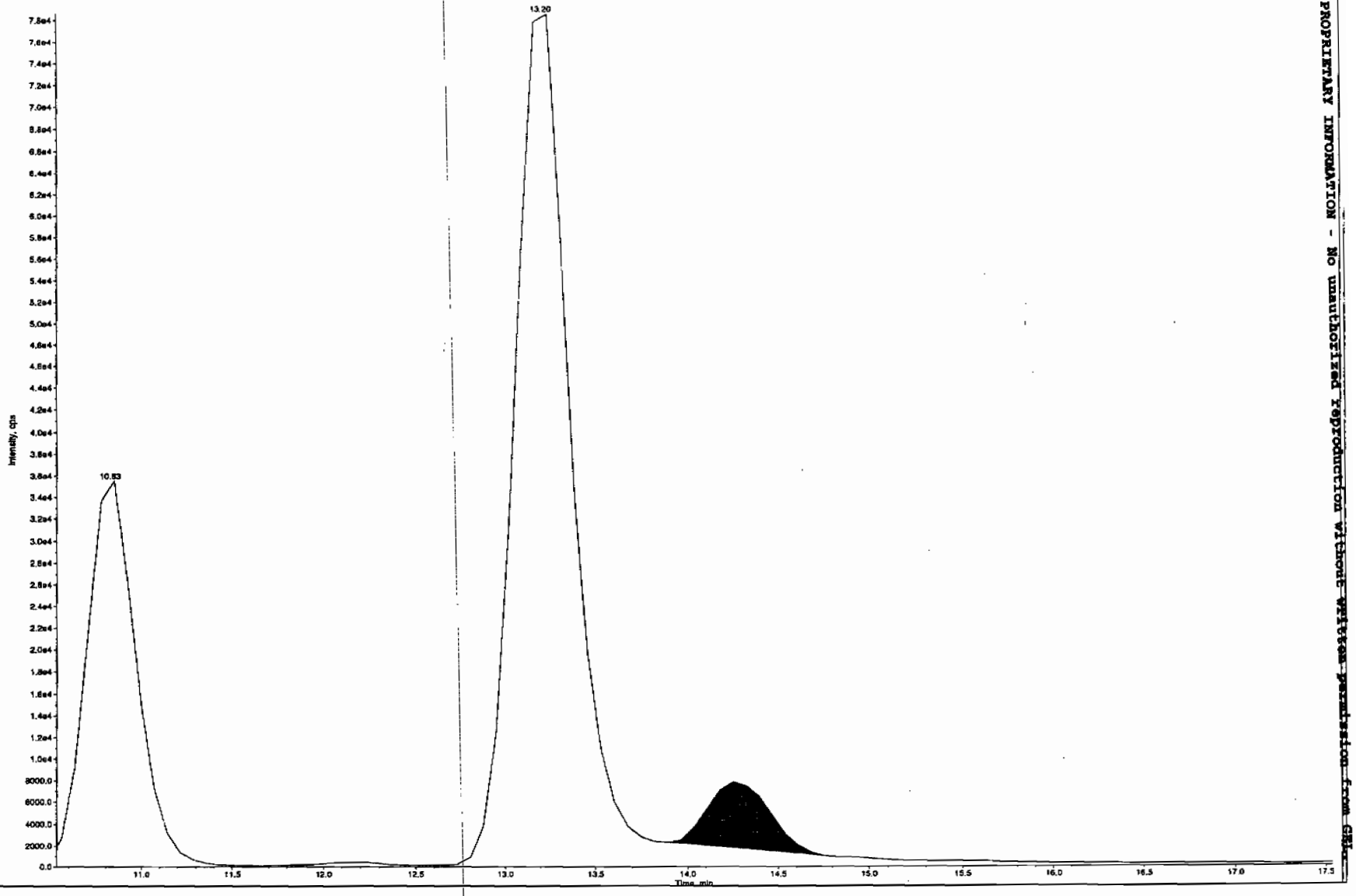

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Data File	EXP0312037.wiff	**Acquisition Date**	3/12/2010 11:49:07 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

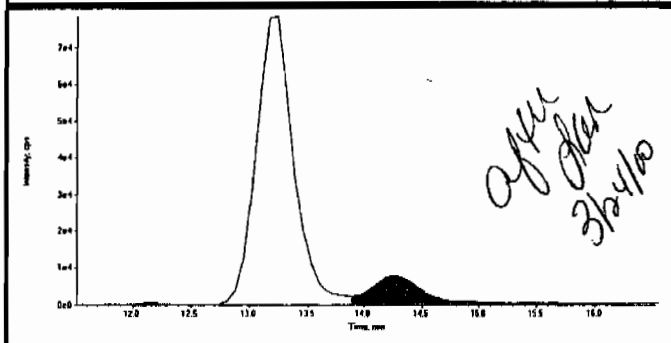

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.3
Area Counts:	2.52e+005
Manual Modification	Yes
Amount:	37.8 (ng/mL)
% Accuracy:	94.40

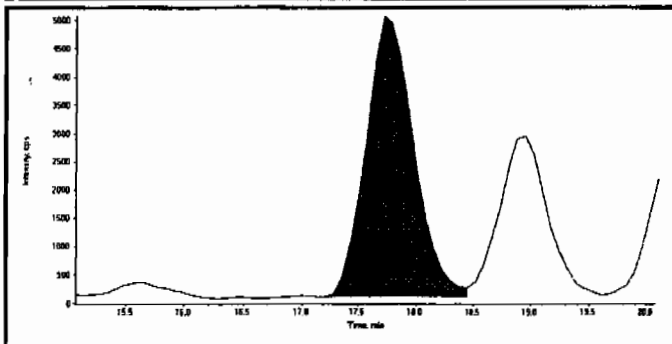

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	1.44e+005
Manual Modification	No
Amount:	38.5 (ng/mL)
% Accuracy:	96.20

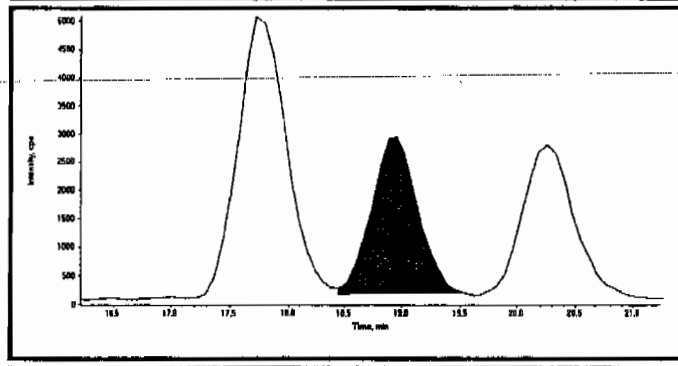

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	7.69e+004
Manual Modification	No
Amount:	37.4 (ng/mL)
% Accuracy:	93.50

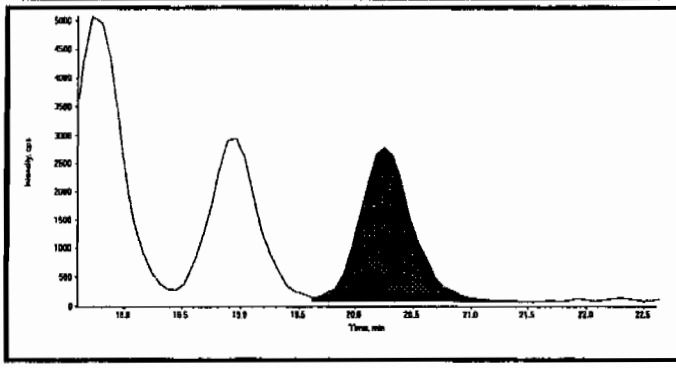

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	8.66e+004
Manual Modification	No
Amount:	37.8 (ng/mL)
% Accuracy:	94.60

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Data File	EXP0312037.wiff	**Acquisition Date**	3/12/2010 11:49:07 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

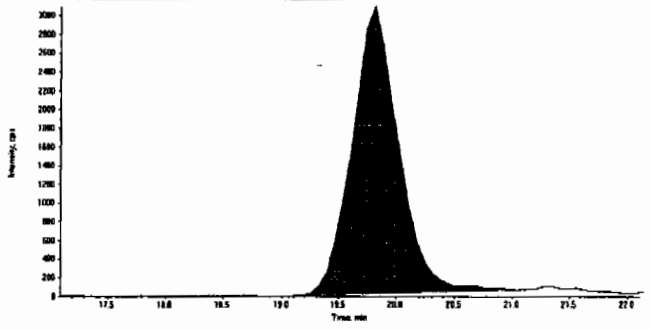

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.8
Area Counts:	8.74e+004
Manual Modification	No
Amount:	34.9 (ng/mL)
% Accuracy:	87.10

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/12/10
Time of Injection 2349
Standard Number WXX100312-57CRI
Data File EXP0312037a

HMX	96.0
RDX	86.8
TNX	92.5
DNX	93.1
MNX	91.6
135-Trinitrobenzene	107.0
13-Dinitrobenzene	104.0
Tetryl	120.0
246-Trinitrotoluene	121.0
Nitrobenzene	95.2
34-dinitrotoluene	110.0
26-dinitrotoluene	80.7
24-dinitrotoluene	107.0
4-Amino-26-dinitrotoluene	102.0
2-Amino-46-dinitrotoluene	94.4
2-Nitrotoluene	96.2
4-Nitrotoluene	93.5
3-Nitrotoluene	94.6
PETN	87.1
TOTAL	1872.7
AVERAGE	98.6

HMX 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

3/24/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0312048.wiff

Analysis Date: 13-MAR-10 04:39

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
RDX	600	555	92	
TNX	600	534	89	
Tetryl	600	652	109	
m-Dinitrobenzene	600	562	94	
m-Nitrotoluene	600	572	95	
o-Nitrotoluene	600	582	97	
p-Nitrotoluene	600	596	99	
1,3,5-Trinitrobenzene	600	534	89	
2,4,6-Trinitrotoluene	600	550	92	
2,4-Dinitrotoluene	600	577	96	
2,6-Dinitrotoluene	600	642	107	
2-Amino-4,6-dinitrotoluene	600	623	104	
3,4-Dinitrotoluene	300	304	101	
4-Amino-2,6-dinitrotoluene	600	546	91	
DNX	600	536	89	
HMX	600	463	77	
MNX	600	545	91	
Nitrobenzene	600	617	103	
PETN	600	534	89	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Data File	EXP0312048.wiff	**Acquisition Date**	3/13/2010 4:39:37 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

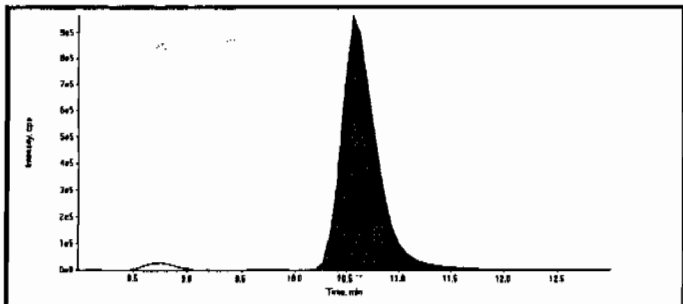

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

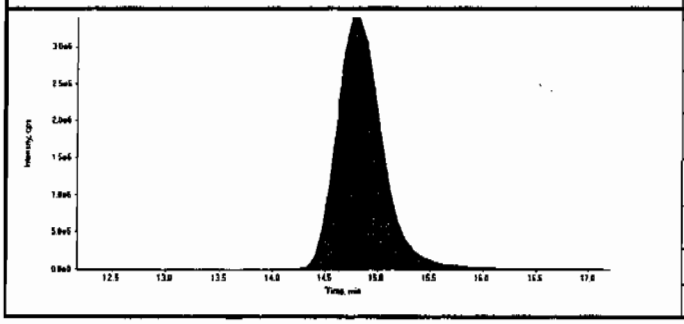

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	105000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

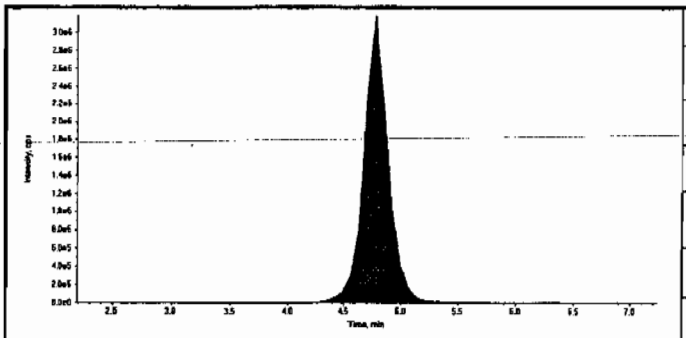

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.70e+007
Manual Modification	No
Amount:	463. (ng/mL)
% Accuracy:	77.10

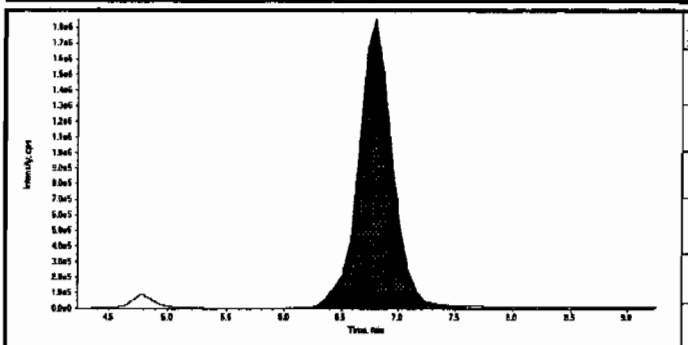

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	3.88e+007
Manual Modification	No
Amount:	555. (ng/mL)
% Accuracy:	92.40

dmm 03/24/10 Lan 3/24/10

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Data File	EXP0312048.wiff	**Acquisition Date**	3/13/2010 4:39:37 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

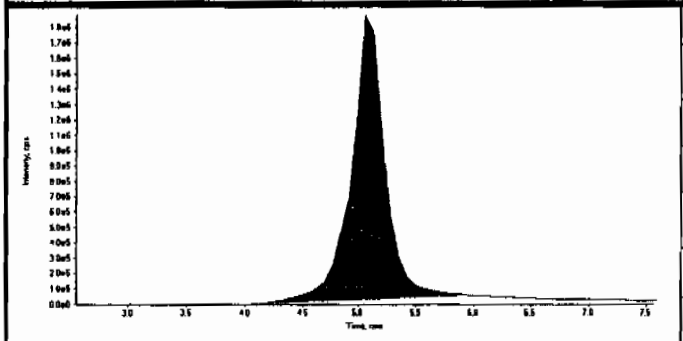

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	3.83e+007
Manual Modification	No
Amount:	534. (ng/mL)
% Accuracy:	88.90

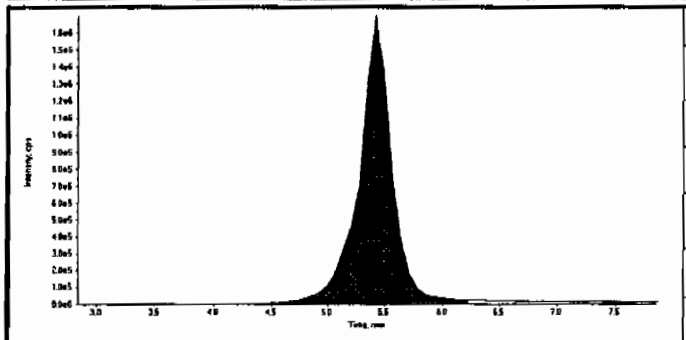

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	3.42e+007
Manual Modification	No
Amount:	536. (ng/mL)
% Accuracy:	89.30

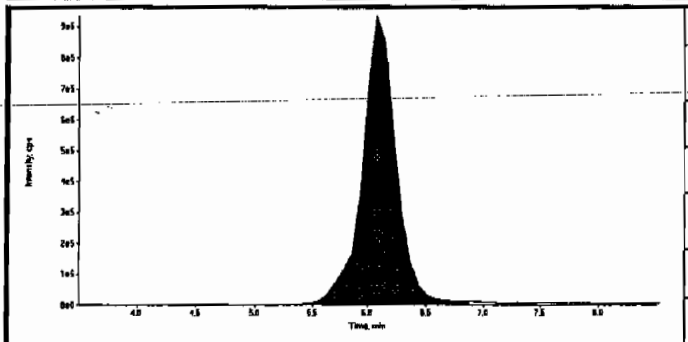

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.92e+007
Manual Modification	No
Amount:	545. (ng/mL)
% Accuracy:	90.90

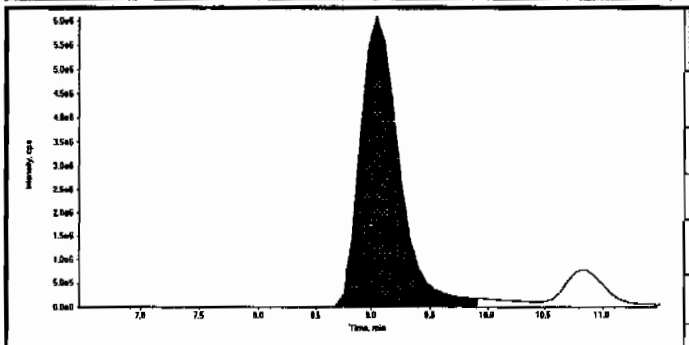

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.45e+008
Manual Modification	No
Amount:	534. (ng/mL)
% Accuracy:	89.00

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Data File	EXP0312048.wiff	**Acquisition Date**	3/13/2010 4:39:37 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

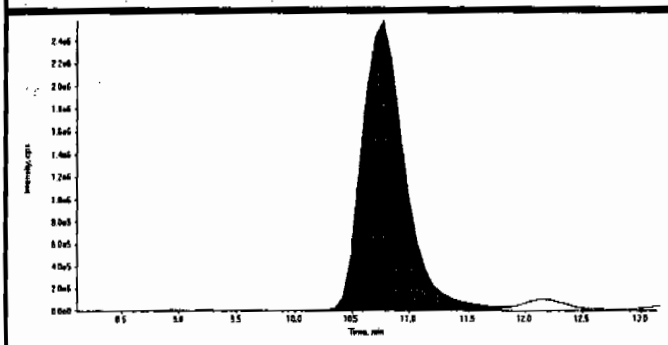

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	6.69e+007
Manual Modification	No
Amount:	562. (ng/mL)
% Accuracy:	93.70

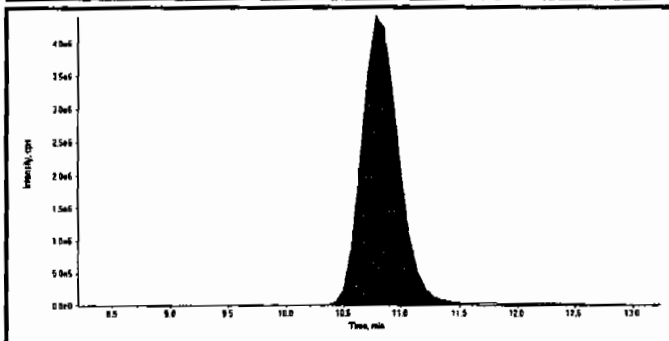

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	1.00e+008
Manual Modification	No
Amount:	652. (ng/mL)
% Accuracy:	109.00

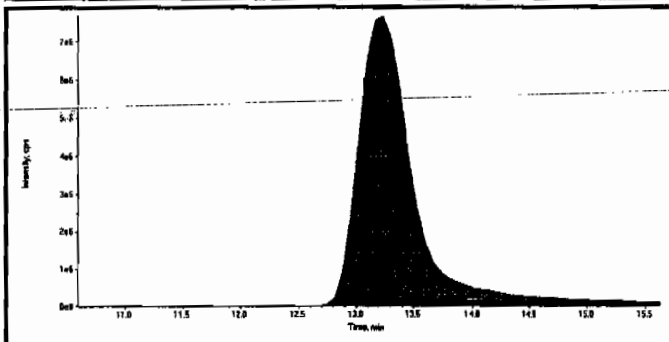

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.69e+008
Manual Modification	No
Amount:	550. (ng/mL)
% Accuracy:	91.70

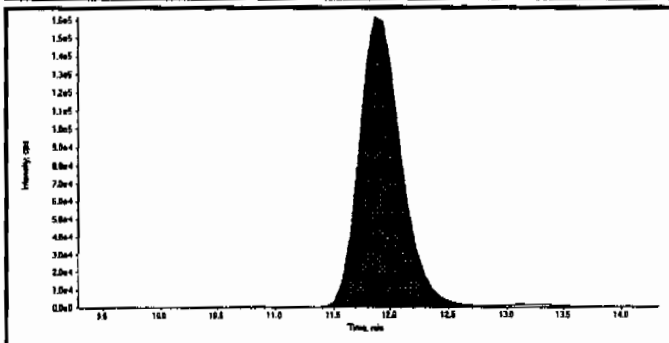

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	4.17e+006
Manual Modification	No
Amount:	617. (ng/mL)
% Accuracy:	103.00

Before Lcar 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "TILER" File: "EXP0312048.wiff"
Peak Name: "2,6-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LC/MS/EXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	352.	ng/mL
Acq. Date:	3/13/2010	
Acq. Time:	4:39:37 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.90e4	cps
Min. Peak Width:	9.00	sec
Smoothing Width:	3	points
RT Window:	60.0	sec
Expected RT:	14.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	15.0	min
Area:	6.81e+007	counts
Height:	2.70e+006	cps
Start Time:	14.5	min
End Time:	15.3	min

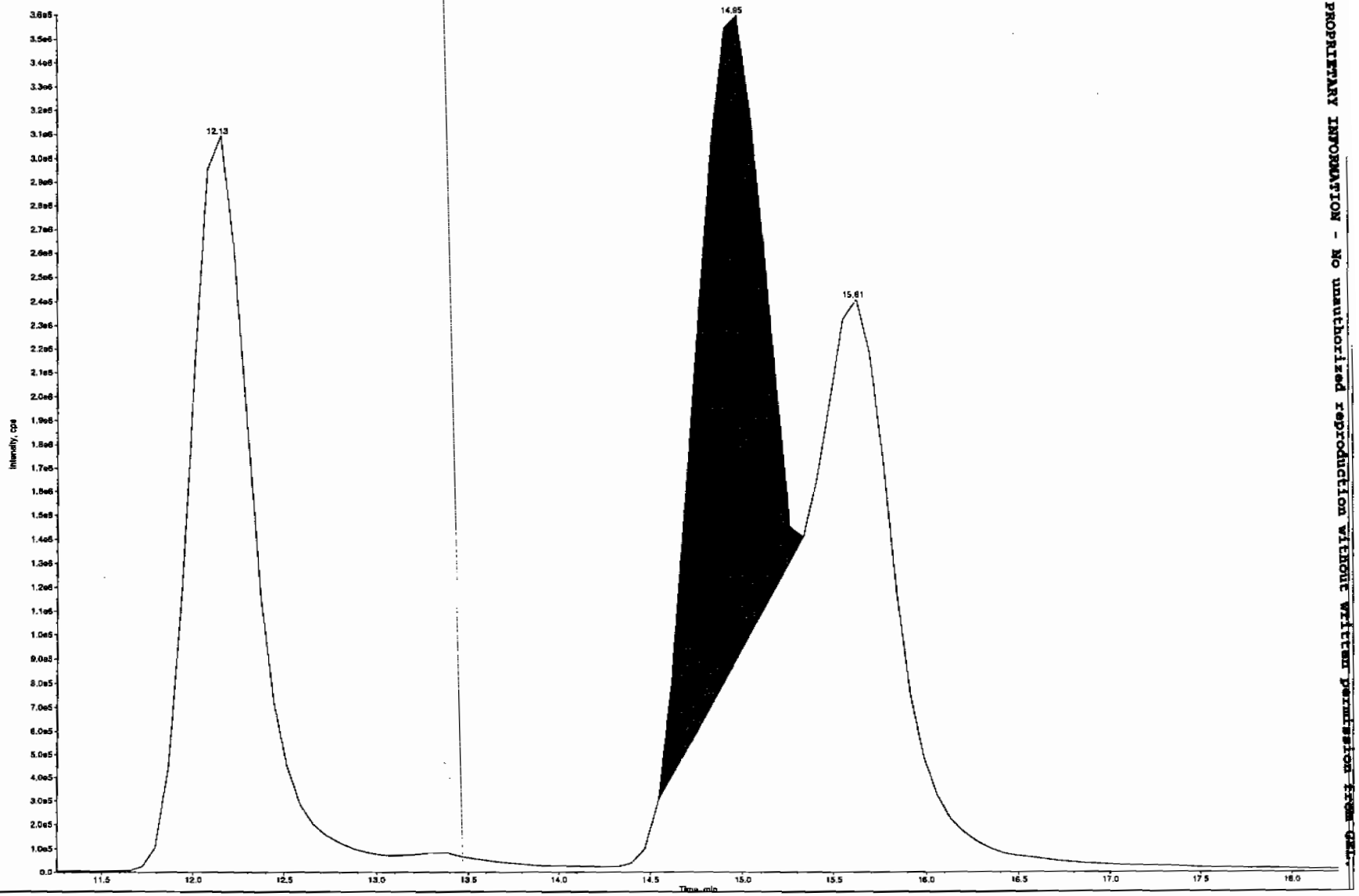

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Before Tan 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "[1][LER]" File: "EXP0312048.WR"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/13/2010
Acq. Time: 4:39:17 AM

Modified: No

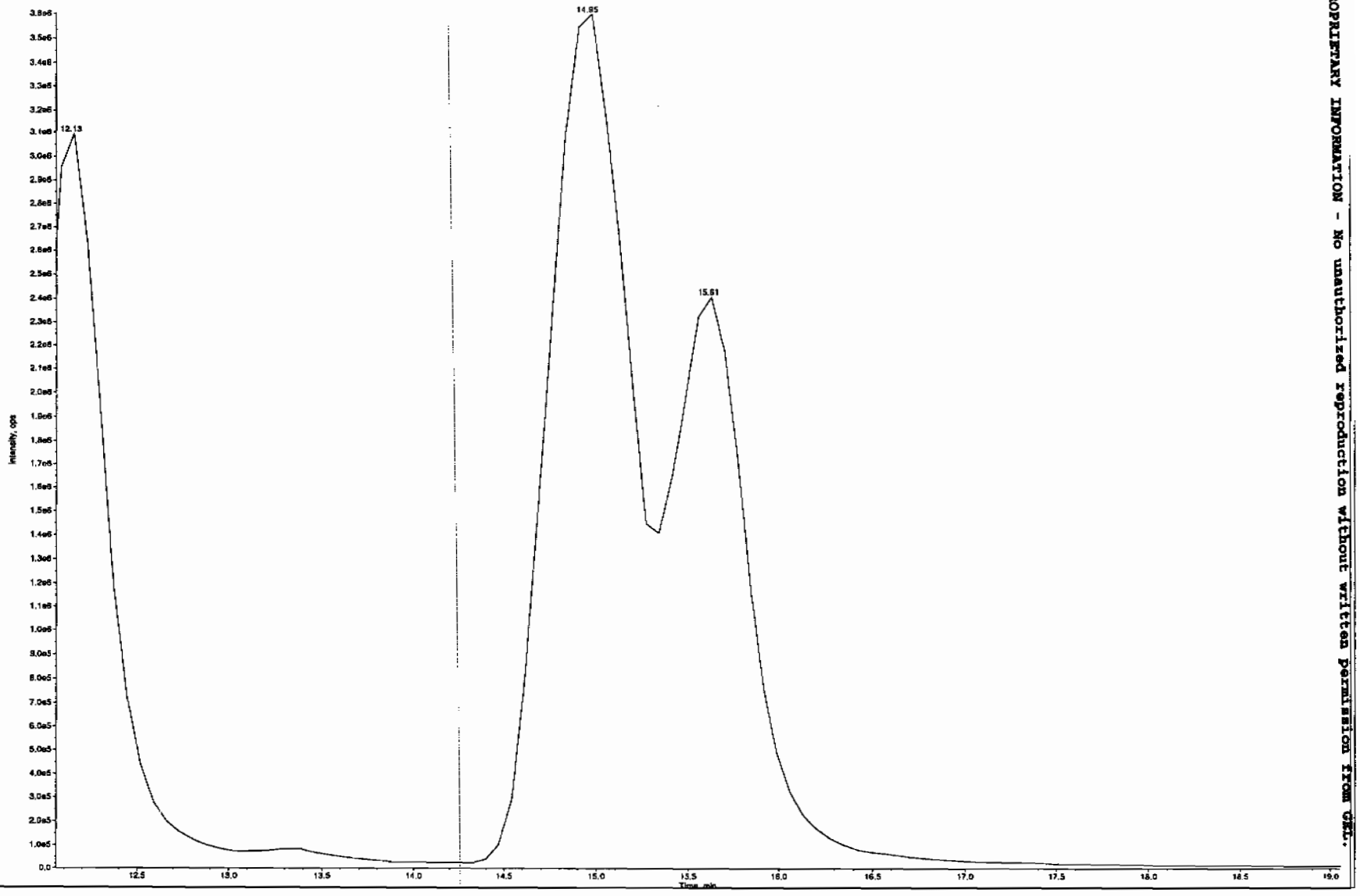

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0312048.wiff	**Acquisition Date**	3/13/2010 4:39:37 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

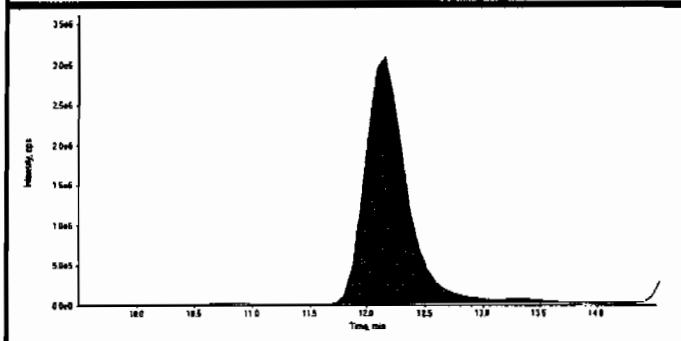

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	7.84e+007
Manual Modification	No
Amount:	304. (ng/mL)
% Accuracy:	101.00

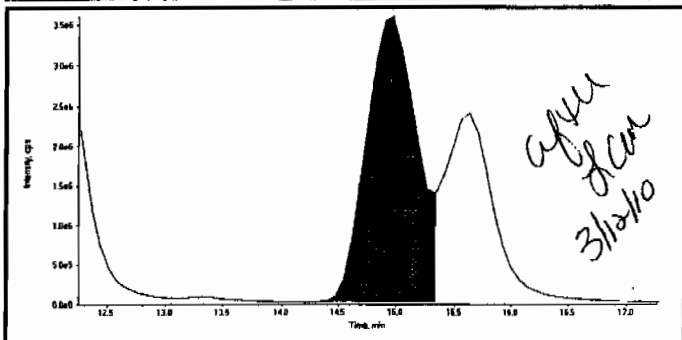

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	1.09e+008
Manual Modification	Yes
Amount:	642. (ng/mL)
% Accuracy:	107.00

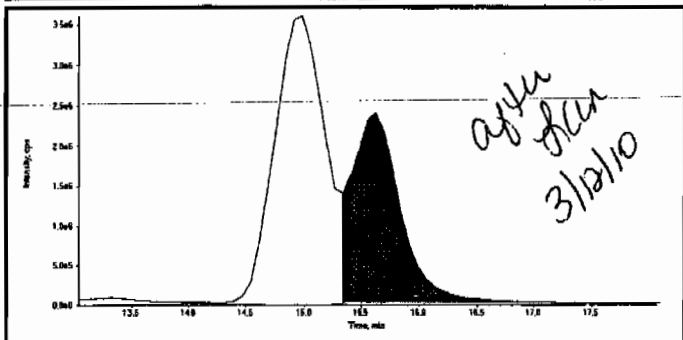

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	7.10e+007
Manual Modification	Yes
Amount:	577. (ng/mL)
% Accuracy:	96.20

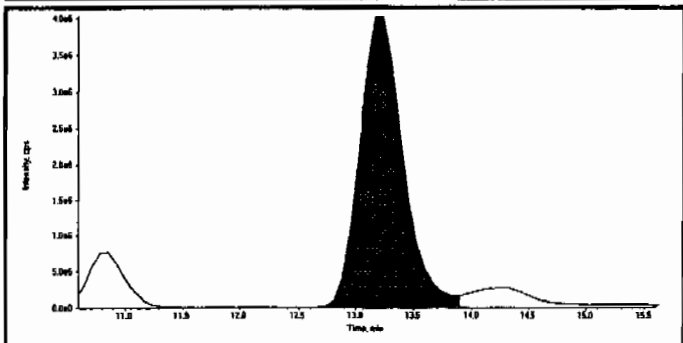

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.06e+008
Manual Modification	No
Amount:	546. (ng/mL)
% Accuracy:	91.00

Before Lan 3/24/10

Sample Name: "WXX100312-S6CCV" Sample ID: "[1]LER" File: "EXP0312046.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 1020. ng/mL
Acq. Date: 3/13/2010
Acq. Time: 4:39:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 4000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.3 min
Area: 1.15e+007 counts
Height: 1.67e+005 cps
Start Time: 13.8 min
End Time: 17.5 min

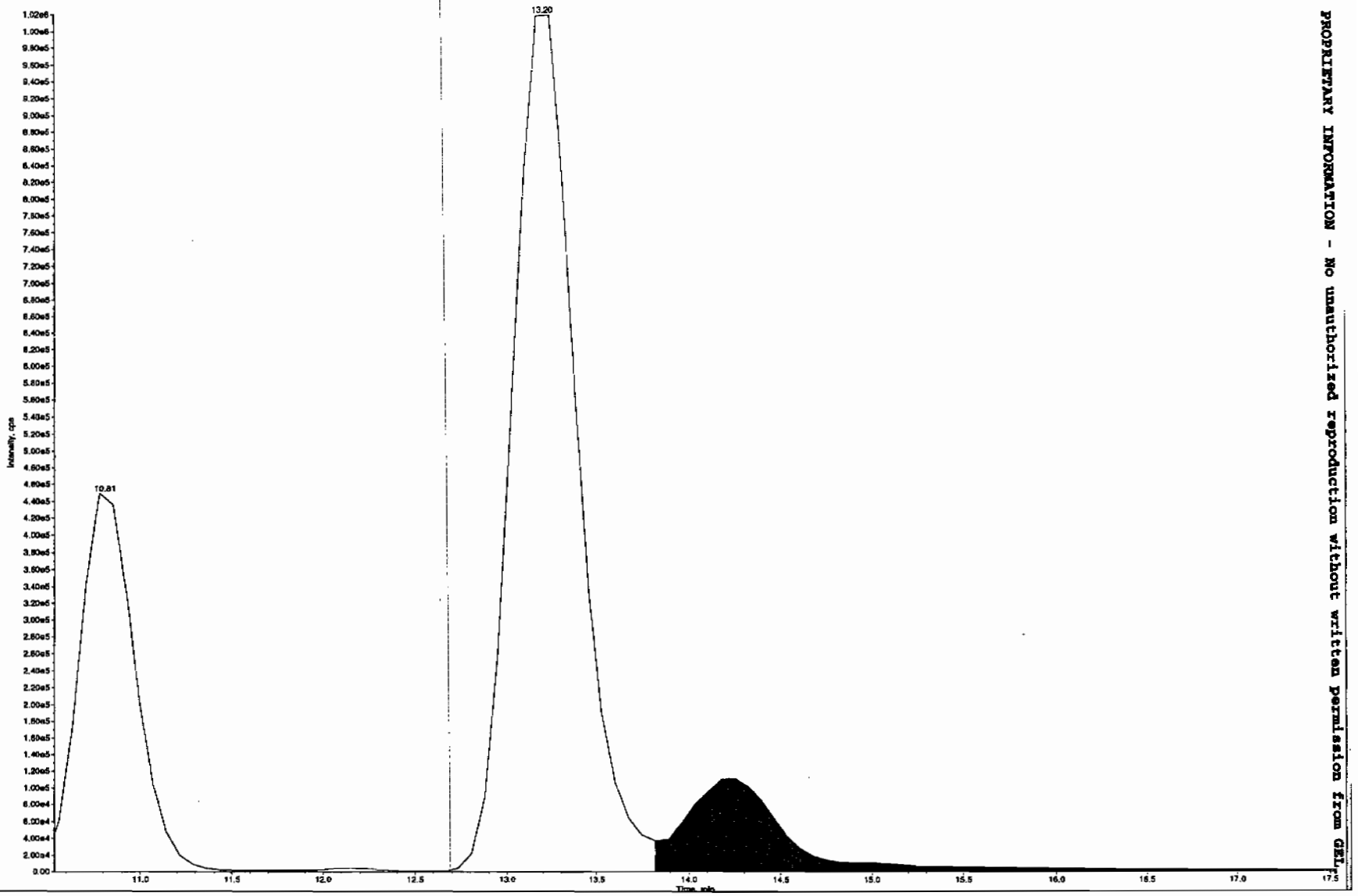

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312048.wiff	**Acquisition Date**	3/13/2010 4:39:37 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

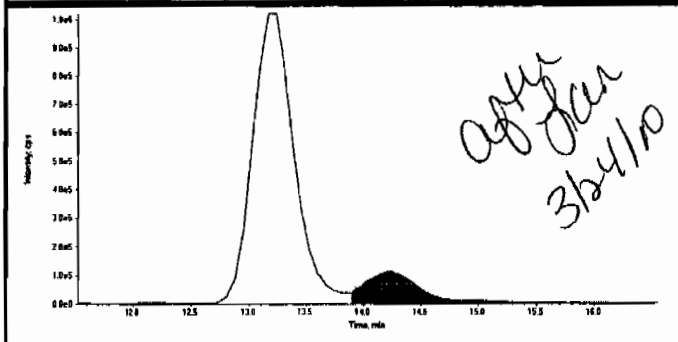

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.2
Area Counts:	3.93e+006
Manual Modification	Yes
Amount:	623. (ng/mL)
% Accuracy:	104.00

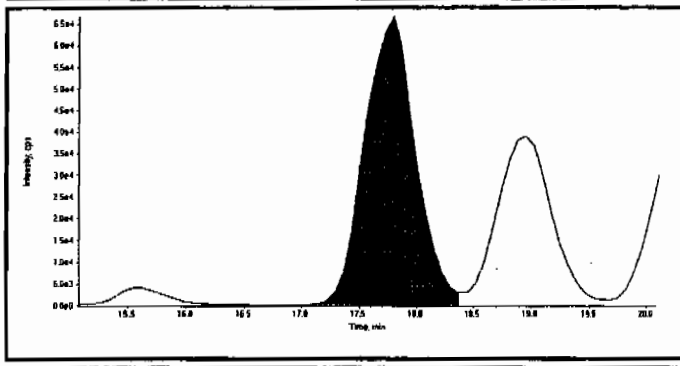

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.8
Area Counts:	2.06e+006
Manual Modification	No
Amount:	582. (ng/mL)
% Accuracy:	97.00

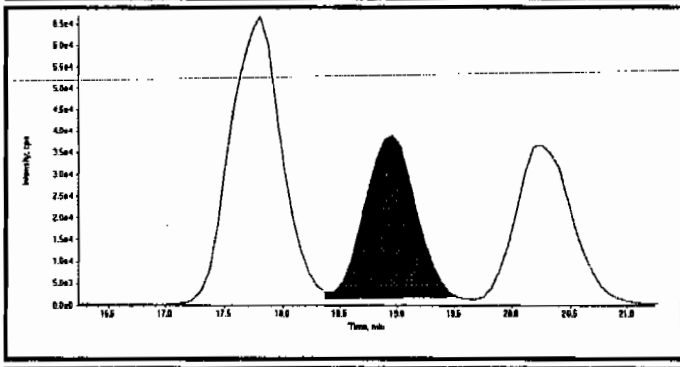

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	1.16e+006
Manual Modification	No
Amount:	596. (ng/mL)
% Accuracy:	99.40

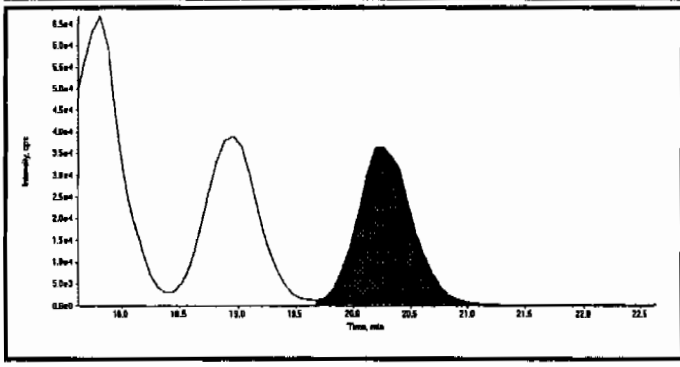

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	1.24e+006
Manual Modification	No
Amount:	572. (ng/mL)
% Accuracy:	95.30

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Data File	EXP0312048.wiff	**Acquisition Date**	3/13/2010 4:39:37 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

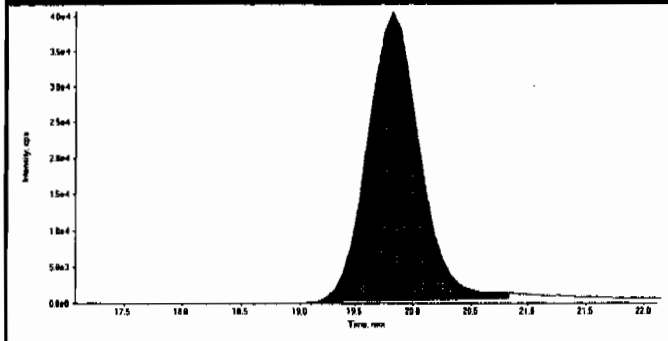

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.8
Area Counts:	1.27e+006
Manual Modification	No
Amount:	534. (ng/mL)
% Accuracy:	89.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/13/10
Time of Injection 0439
Standard Number WXX100312-56CCV
Data File EXP0312048a

HMX	77.1
RDX	92.4
TNX	88.9
DNX	89.3
MNX	90.9
135-Trinitrobenzene	89.0
13-Dinitrobenzene	93.7
Tetryl	109.0
246-Trinitrotoluene	91.7
Nitrobenzene	103.0
34-dinitrotoluene	101.0
26-dinitrotoluene	107.0
24-dinitrotoluene	96.2
4-Amino-26-dinitrotoluene	91.0
2-Amino-46-dinitrotoluene	104.0
2-Nitrotoluene	97.0
4-Nitrotoluene	99.4
3-Nitrotoluene	95.3
PETN	89.0
TOTAL	1804.9
AVERAGE	95.0

Hmx 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0312050.wiff

Analysis Date: 13-MAR-10 05:32

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	33.4	83	
3,4-Dinitrotoluene	20	22.5	113	
4-Amino-2,6-dinitrotoluene	40	44.9	112	
DNX	40	39.6	99	
HMX	40	40.9	102	
MNX	40	37.8	95	
Nitrobenzene	40	41.2	103	
PETN	40	39.7	99	
RDX	40	41.3	103	
TNX	40	37.9	95	
Tetryl	40	50.5	126	
m-Dinitrobenzene	40	43.2	108	
m-Nitrotoluene	40	42	105	
o-Nitrotoluene	40	42.8	107	
p-Nitrotoluene	40	38.8	97	
1,3,5-Trinitrobenzene	40	45.7	114	
2,4,6-Trinitrotoluene	40	47.8	119	
2,4-Dinitrotoluene	40	41.4	103	
2,6-Dinitrotoluene	40	28.8	72	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312050.wiff	**Acquisition Date**	3/13/2010 5:32:21 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

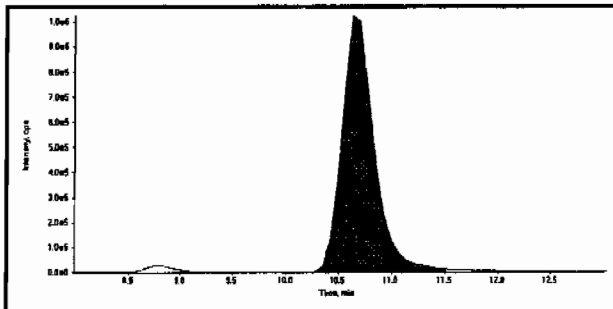

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	22100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

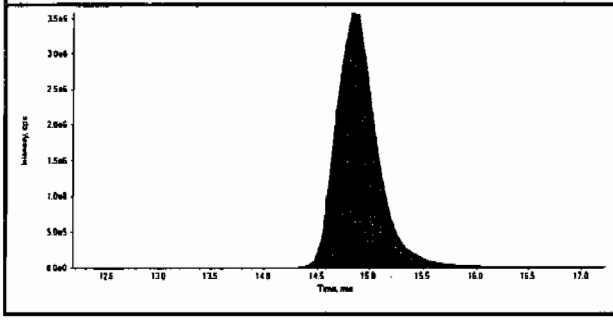

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	98200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

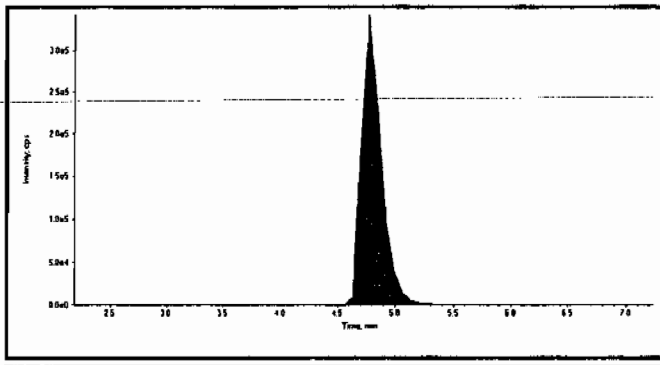

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.12e+006
Manual Modification	No
Amount:	40.9 (ng/mL)
% Accuracy:	102.00

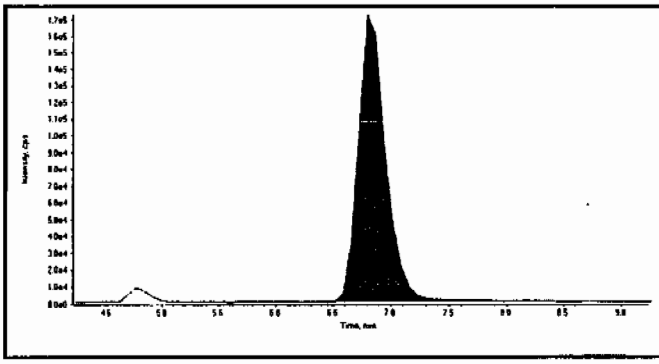

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	2.87e+006
Manual Modification	No
Amount:	41.3 (ng/mL)
% Accuracy:	103.00

03/24/10 3/24/10

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Data File	EXP0312050.wiff	**Acquisition Date**	3/13/2010 5:32:21 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

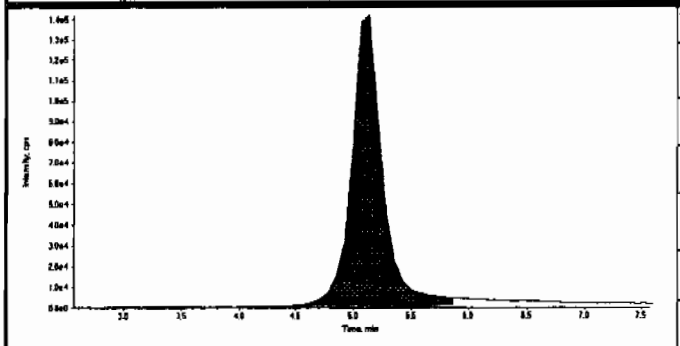

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.14
Area Counts:	2.70e+006
Manual Modification	No
Amount:	37.9 (ng/mL)
% Accuracy:	94.90

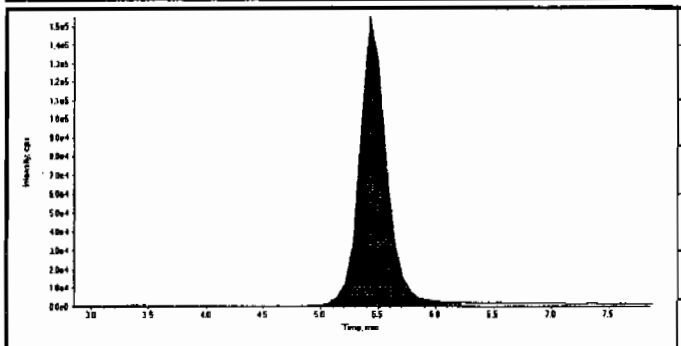

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	2.51e+006
Manual Modification	No
Amount:	39.6 (ng/mL)
% Accuracy:	99.10

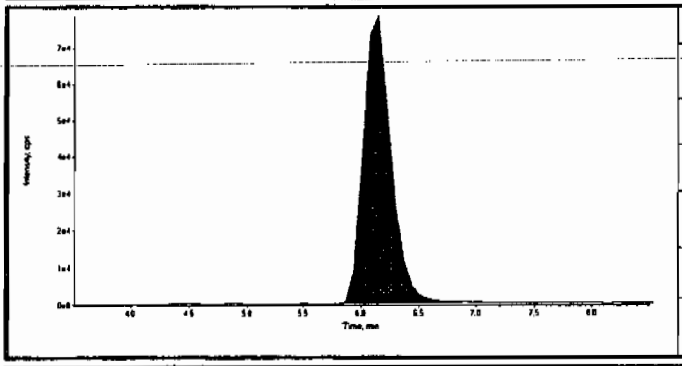

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.15
Area Counts:	1.32e+006
Manual Modification	No
Amount:	37.8 (ng/mL)
% Accuracy:	94.50

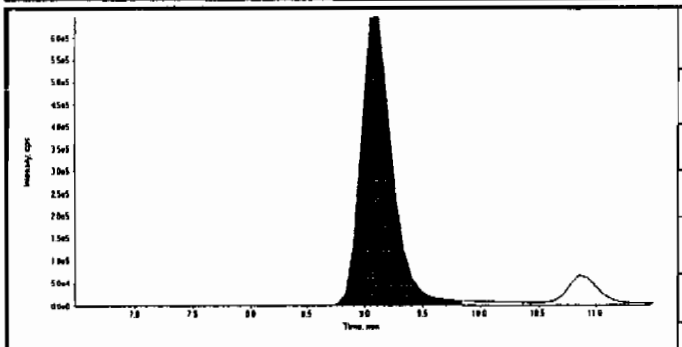

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.12
Area Counts:	1.23e+007
Manual Modification	No
Amount:	45.7 (ng/mL)
% Accuracy:	114.00

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Data File	EXP0312050.wiff	**Acquisition Date**	3/13/2010 5:32:21 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

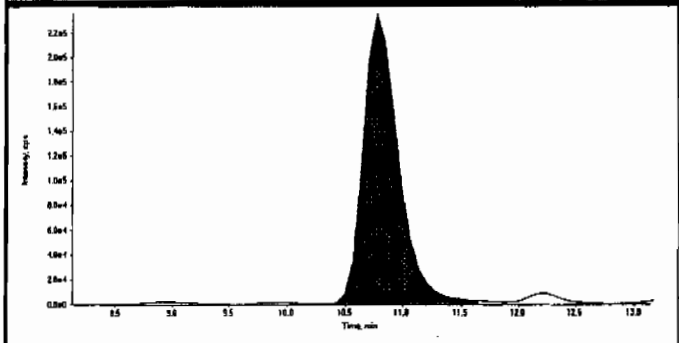

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	5.09e+006
Manual Modification	No
Amount:	43.2 (ng/mL)
% Accuracy:	108.00

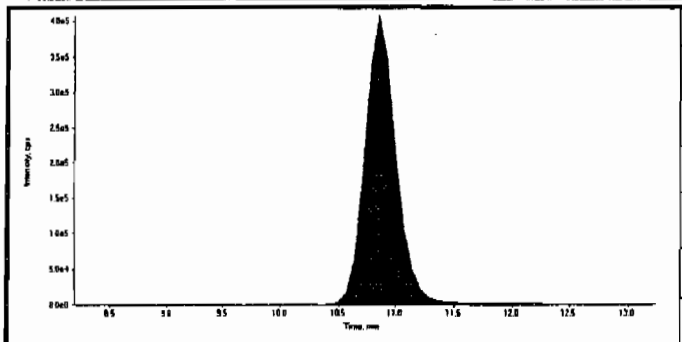

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	7.70e+006
Manual Modification	No
Amount:	50.5 (ng/mL)
% Accuracy:	126.00

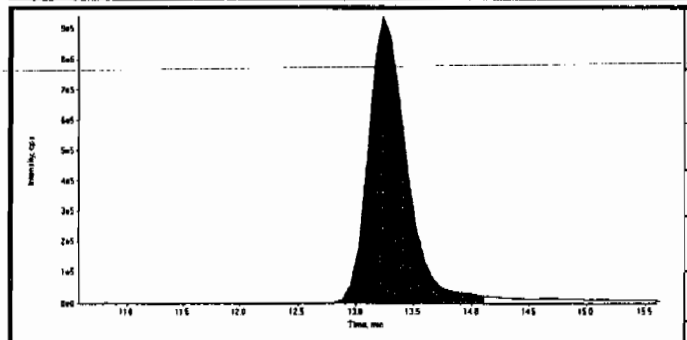

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.20e+007
Manual Modification	No
Amount:	47.8 (ng/mL)
% Accuracy:	119.00

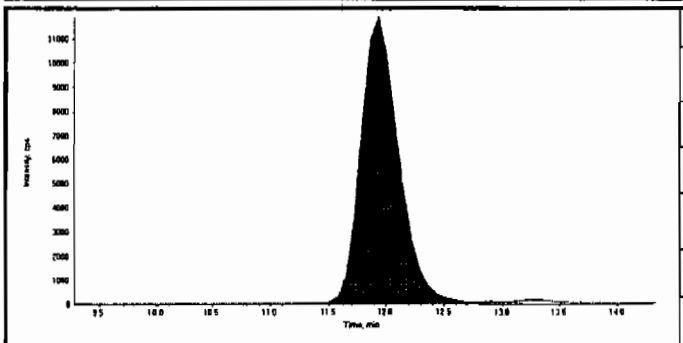

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.76e+005
Manual Modification	No
Amount:	41.2 (ng/mL)
% Accuracy:	103.00

Before Ker 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312050.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	40.0	ng/mL
Calculated Conc:	0.00	ng/mL
Acq. Date:	3/13/2010	
Acq. Time:	5:12:21 AM	
Modified:	No	

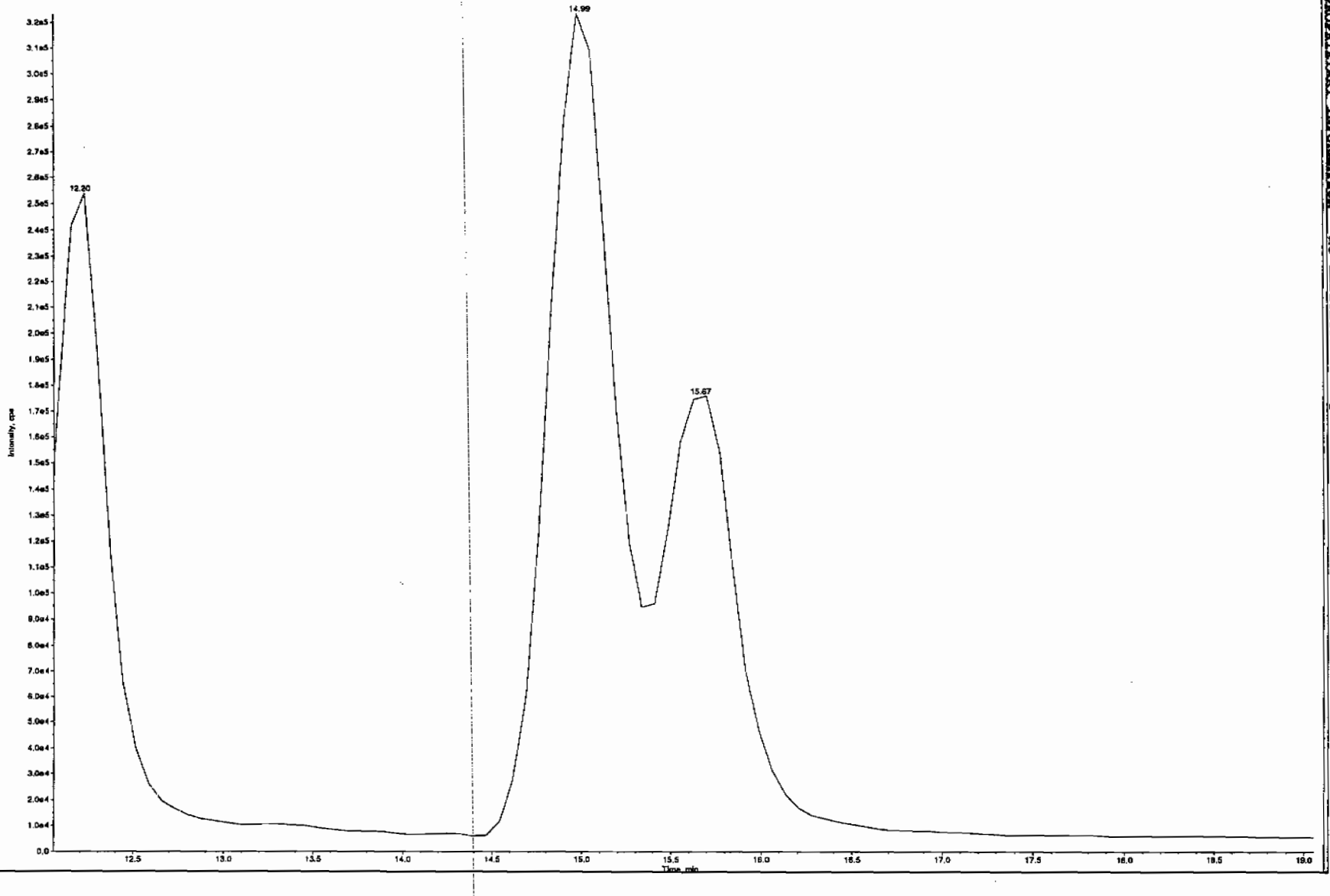

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312050.wiff	**Acquisition Date**	3/13/2010 5:32:21 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

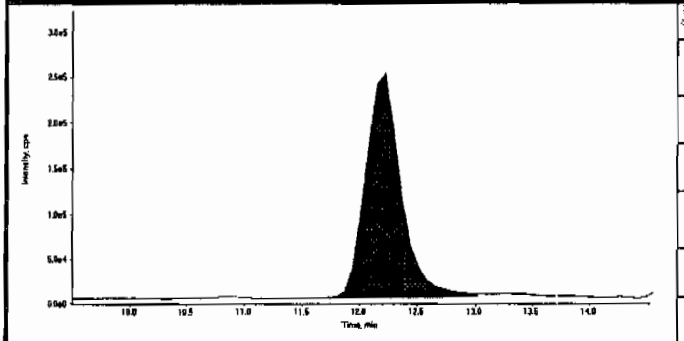

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.45e+006
Manual Modification	No
Amount:	22.5 (ng/mL)
% Accuracy:	113.00

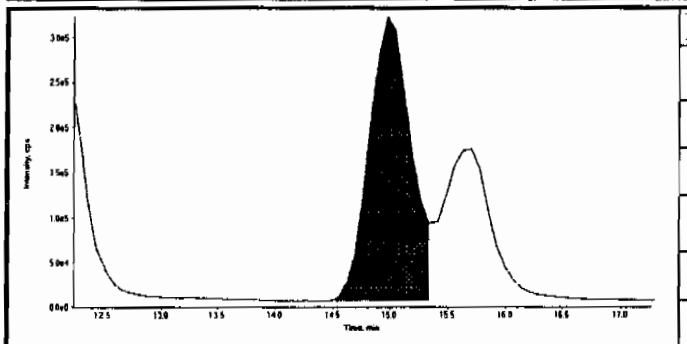

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	8.23e+006
Manual Modification	No
Amount:	28.8 (ng/mL)
% Accuracy:	71.90

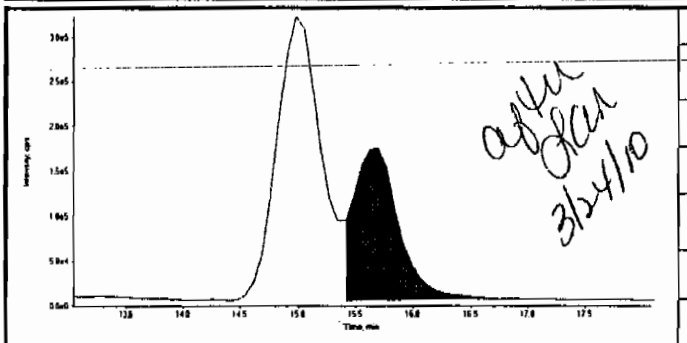

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	4.78e+006
Manual Modification	Yes
Amount:	41.4 (ng/mL)
% Accuracy:	103.00

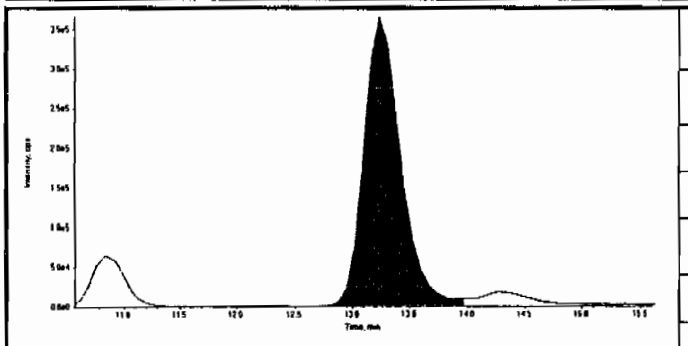

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	8.22e+006
Manual Modification	No
Amount:	44.9 (ng/mL)
% Accuracy:	112.00

Before Scan 3/24/10

Sample Name: "WXX100312-67CRI" Sample ID: "TILER" File: "EXP031205O.wiff"
Peak Name: "2-Amino-4-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LOMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 22.2 ng/mL
Acq. Date: 3/13/2010
Acq. Time: 5:32:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - TQA
Min. Peak Height: 4000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 1 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Only Relative RT: No

Peak Type: Valley
Retention Time: 14.1 min
Area: 1.31e+005 counts
Height: 5.45e+003 cps
Start Time: 13.9 min
End Time: 14.8 min

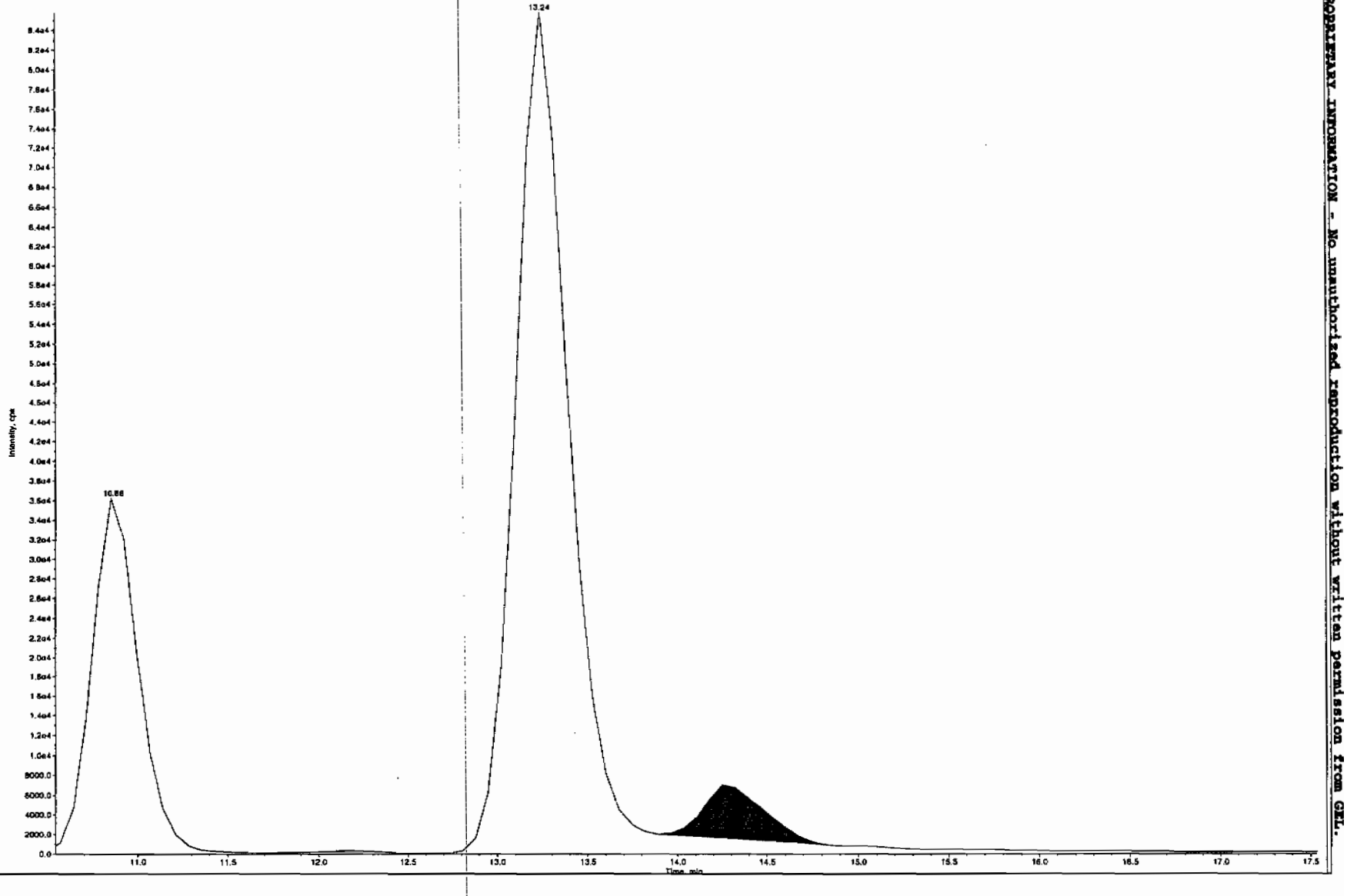

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312050.wiff	**Acquisition Date**	3/13/2010 5:32:21 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

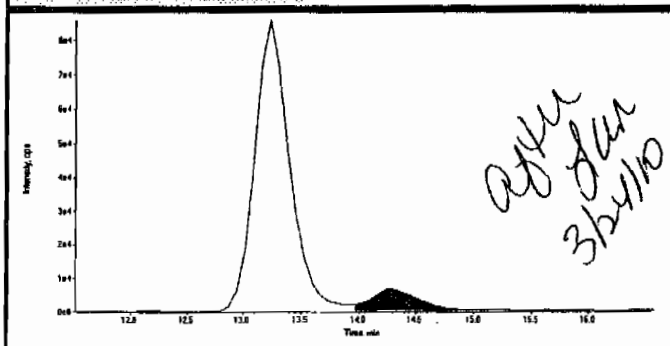

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.3
Area Counts:	1.98e+005
Manual Modification	Yes
Amount:	33.4 (ng/mL)
% Accuracy:	83.40

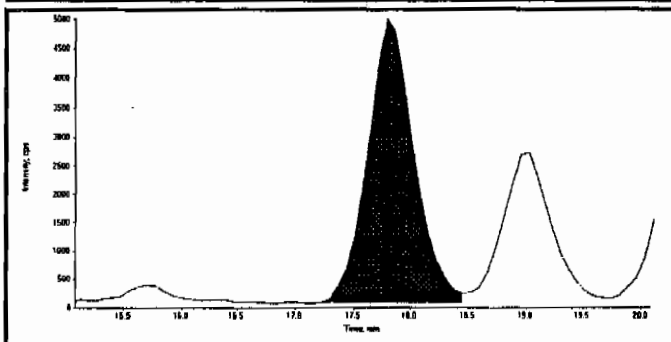

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.8
Area Counts:	1.42e+005
Manual Modification	No
Amount:	42.8 (ng/mL)
% Accuracy:	107.00

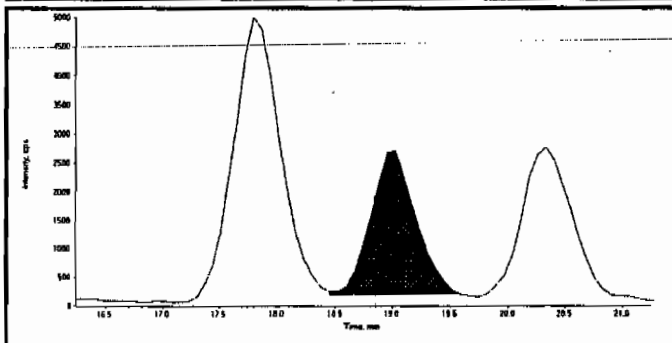

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	7.10e+004
Manual Modification	No
Amount:	38.8 (ng/mL)
% Accuracy:	96.90

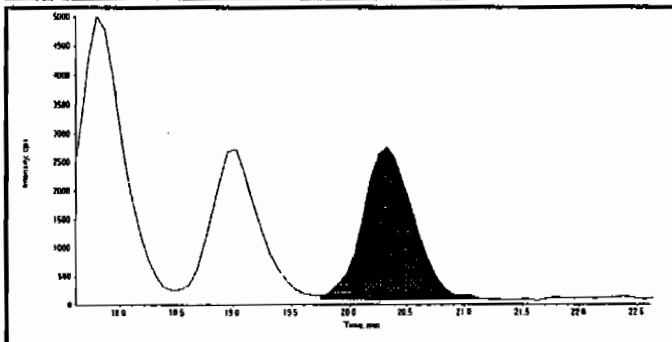

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	8.56e+004
Manual Modification	No
Amount:	42.0 (ng/mL)
% Accuracy:	105.00

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312050.wiff	**Acquisition Date**	3/13/2010 5:32:21 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

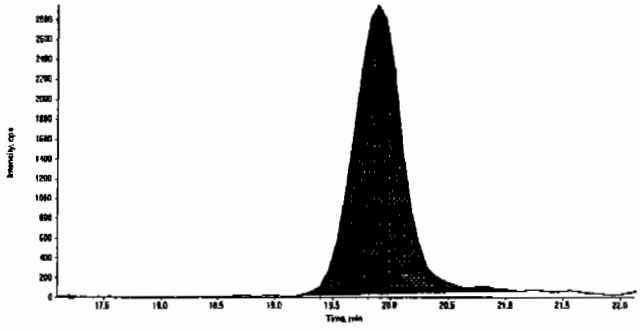

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.9
Area Counts:	8.86e+004
Manual Modification	No
Amount:	39.7 (ng/mL)
% Accuracy:	99.20

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/13/10
Time of Injection 0532
Standard Number WXX100312-57CRI
Data File EXP0312050a

HMX	102.0
RDX	103.0
TNX	94.9
DNX	99.1
MNX	94.5
135-Trinitrobenzene	114.0
13-Dinitrobenzene	108.0
Tetryl	126.0
246-Trinitrotoluene	119.0
Nitrobenzene	103.0
34-dinitrotoluene	113.0
26-dinitrotoluene	71.9
24-dinitrotoluene	103.0
4-Amino-26-dinitrotoluene	112.0
2-Amino-46-dinitrotoluene	83.4
2-Nitrotoluene	107.0
4-Nitrotoluene	96.9
3-Nitrotoluene	105.0
PETN	99.2
	✓
TOTAL	1954.9
AVERAGE	✓ 102.9

HMC 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Jar 3/24/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0312061.wiff

Analysis Date: 13-MAR-10 10:22

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	551	92	
2,4,6-Trinitrotoluene	600	555	92	
2,4-Dinitrotoluene	600	577	96	
2,6-Dinitrotoluene	600	622	104	
2-Amino-4,6-dinitrotoluene	600	693	116	
3,4-Dinitrotoluene	300	285	95	
4-Amino-2,6-dinitrotoluene	600	587	98	
DNX	600	561	94	
HMX	600	531	89	
MNX	600	600	100	
Nitrobenzene	600	611	102	
PETN	600	585	98	
RDX	600	592	99	
TNX	600	583	97	
Tetryl	600	684	114	
m-Dinitrobenzene	600	552	92	
m-Nitrotoluene	600	595	99	
o-Nitrotoluene	600	603	100	
p-Nitrotoluene	600	586	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312061.wiff	**Acquisition Date**	3/13/2010 10:22:56 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

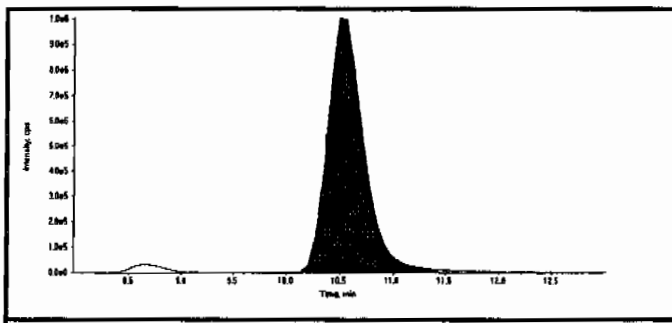

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.50
Area Counts:	24100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

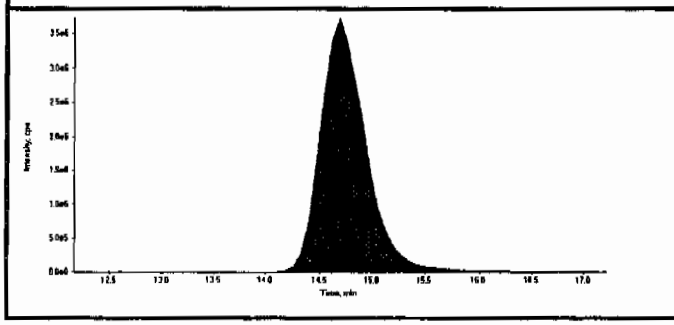

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.70
Area Counts:	111000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

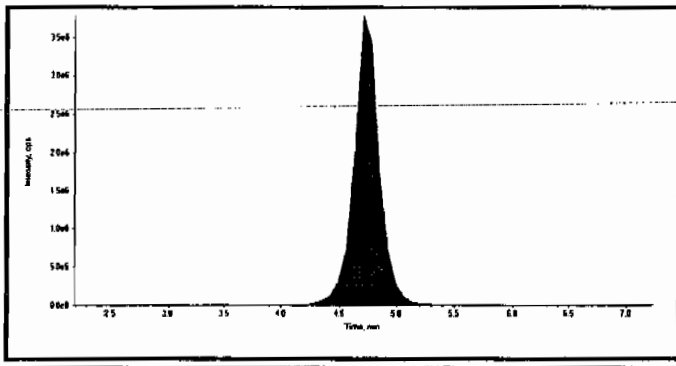

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.70
Area Counts:	5.84e+007
Manual Modification	No
Amount:	531. (ng/mL)
% Accuracy:	88.50

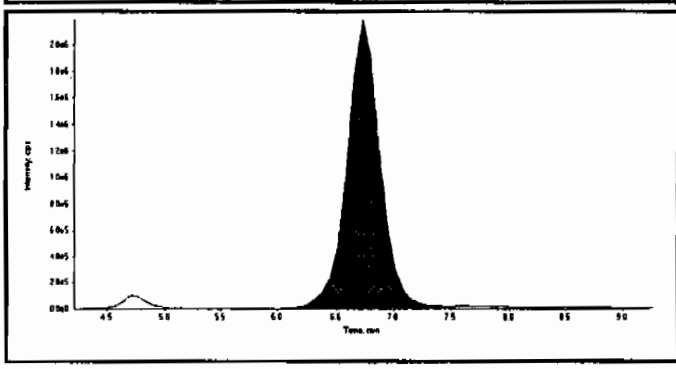

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.73
Area Counts:	4.49e+007
Manual Modification	No
Amount:	592. (ng/mL)
% Accuracy:	98.70

dmw 03/24/10

Lar 3/24/10

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Data File	EXP0312061.wiff	**Acquisition Date**	3/13/2010 10:22:56 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

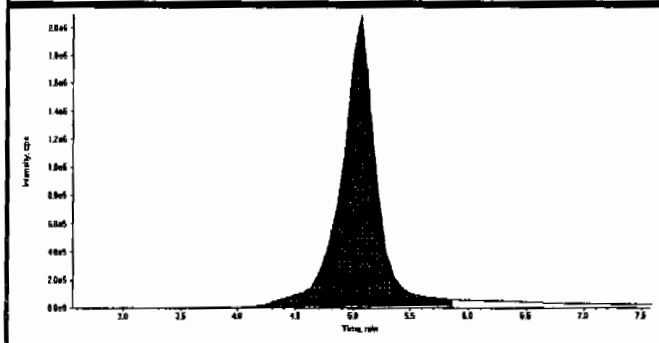

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	4.53e+007
Manual Modification	No
Amount:	583. (ng/mL)
% Accuracy:	97.10

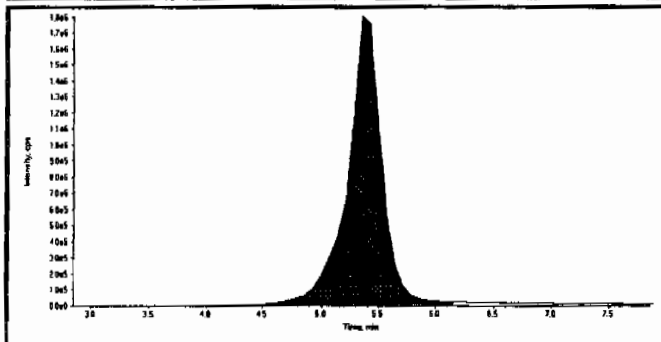

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.35
Area Counts:	3.88e+007
Manual Modification	No
Amount:	561. (ng/mL)
% Accuracy:	93.60

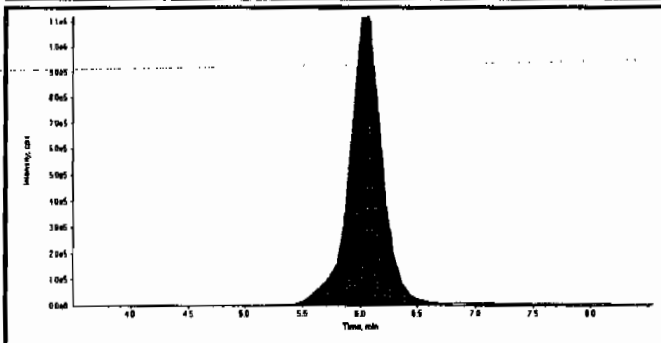

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	2.29e+007
Manual Modification	No
Amount:	600. (ng/mL)
% Accuracy:	99.90

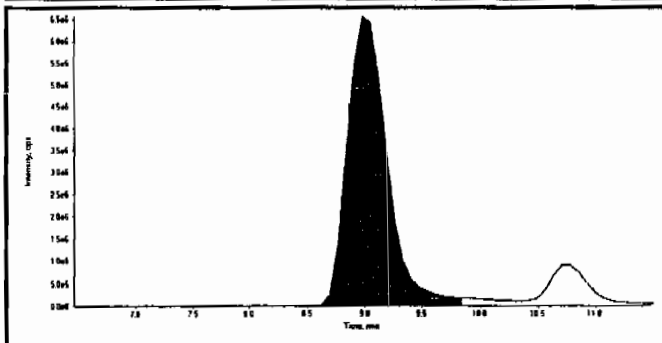

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	8.97
Area Counts:	1.62e+008
Manual Modification	No
Amount:	551. (ng/mL)
% Accuracy:	91.90

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312061.wiff	**Acquisition Date**	3/13/2010 10:22:56 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

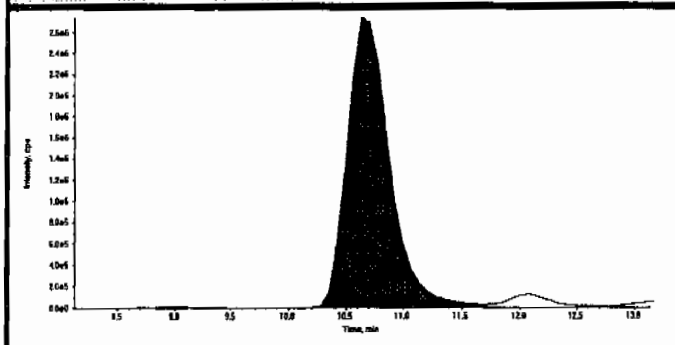

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.6
Area Counts:	7.12e+007
Manual Modification	No
Amount:	552. (ng/mL)
% Accuracy:	92.00

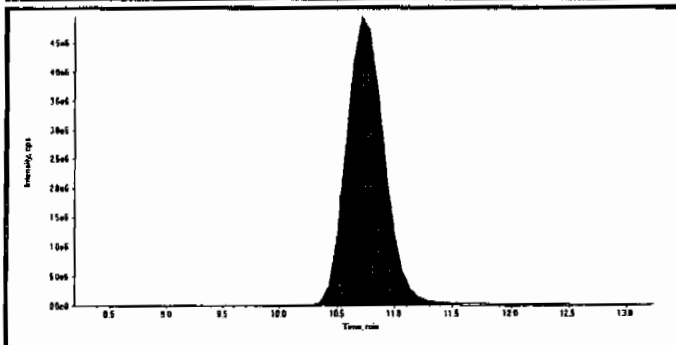

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	1.14e+008
Manual Modification	No
Amount:	684. (ng/mL)
% Accuracy:	114.00

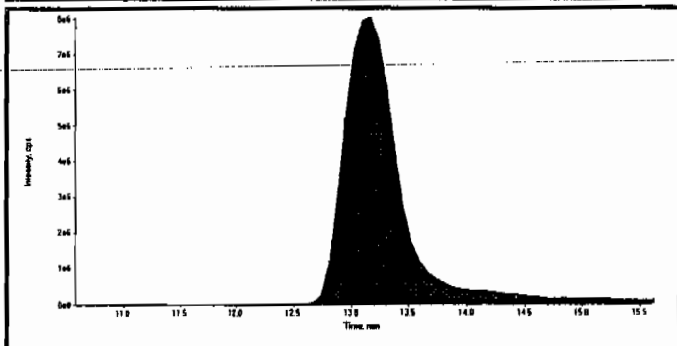

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.89e+008
Manual Modification	No
Amount:	555. (ng/mL)
% Accuracy:	92.40

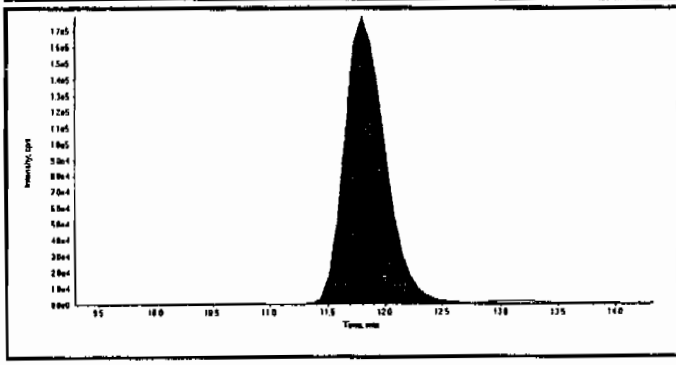

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.8
Area Counts:	4.47e+006
Manual Modification	No
Amount:	611. (ng/mL)
% Accuracy:	102.00

Before Dan 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "[1]LER" File: "EXP0312061.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Inj. Date: 1/13/2010
Inj. Time: 10:22:56 AM
Modified: No

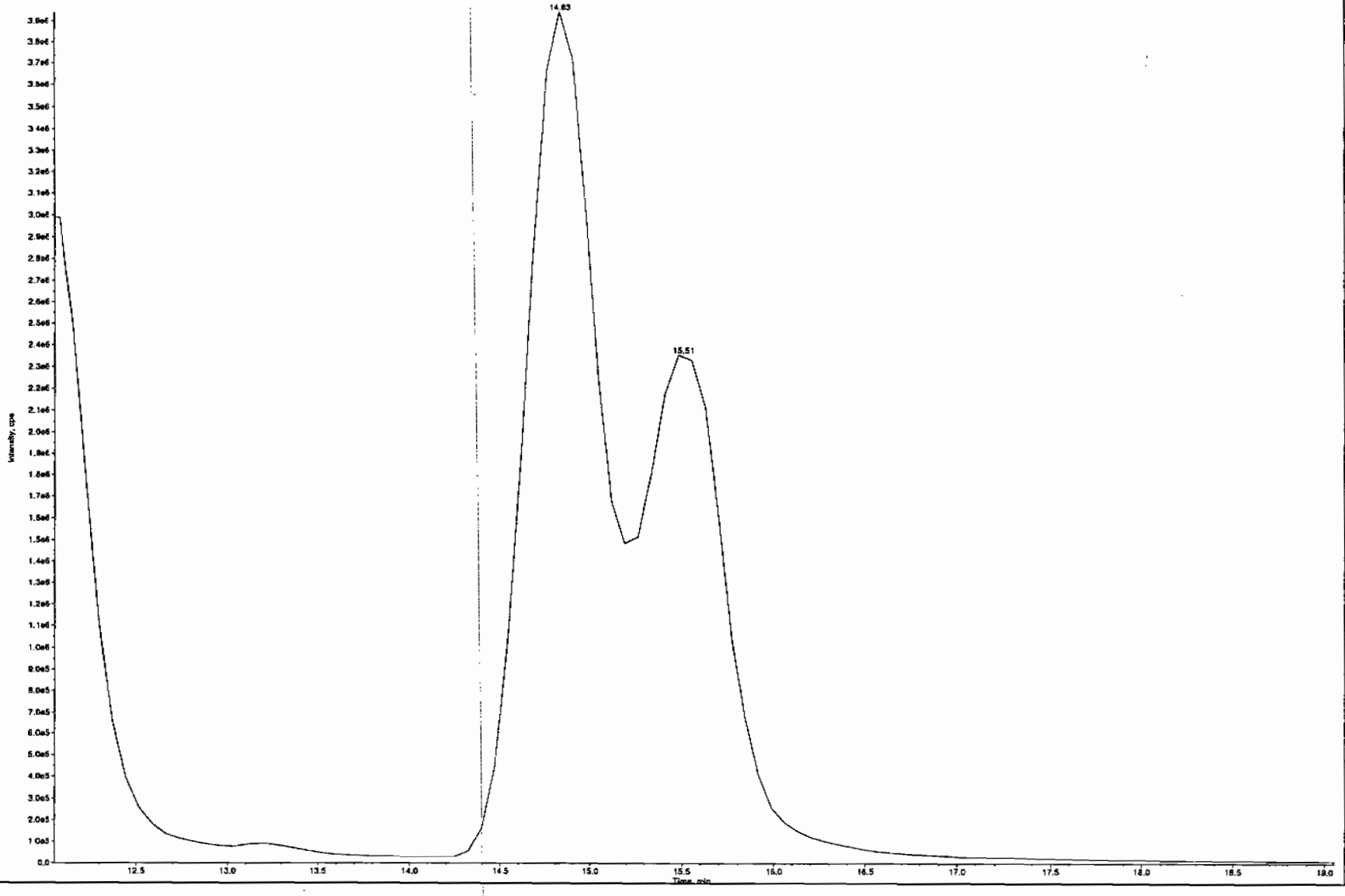

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312061.wiff	**Acquisition Date**	3/13/2010 10:22:56 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

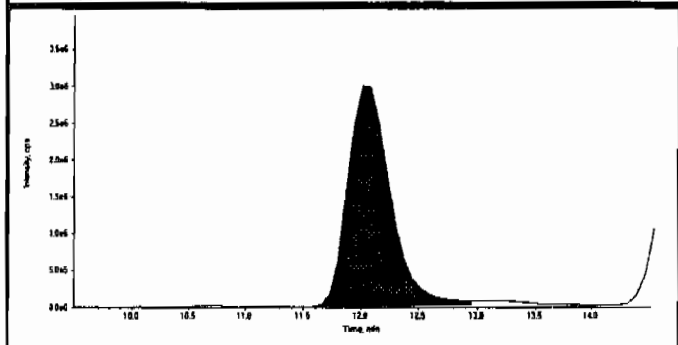

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.0
Area Counts:	7.80e+007
Manual Modification	No
Amount:	285. (ng/mL)
% Accuracy:	94.90

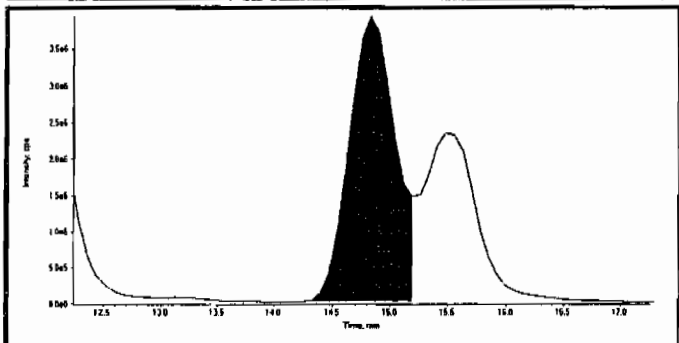

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	1.12e+008
Manual Modification	No
Amount:	622. (ng/mL)
% Accuracy:	104.00

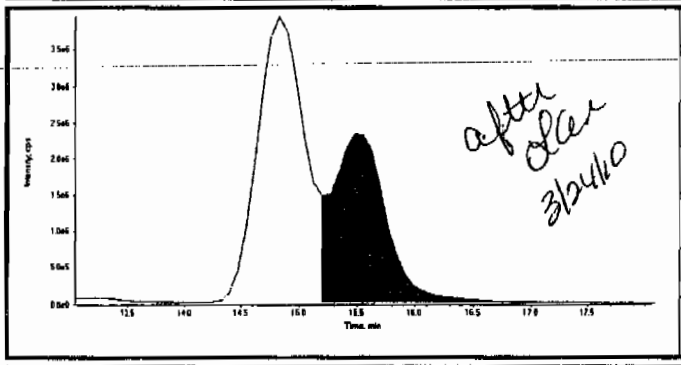

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.5
Area Counts:	7.55e+007
Manual Modification	Yes
Amount:	577. (ng/mL)
% Accuracy:	96.10

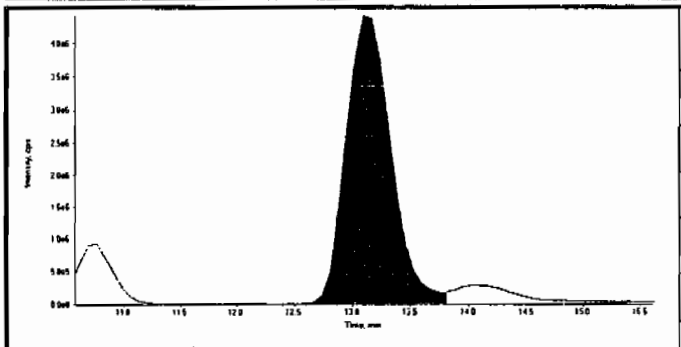

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.1
Area Counts:	1.22e+008
Manual Modification	No
Amount:	587. (ng/mL)
% Accuracy:	97.80

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312061.wiff	**Acquisition Date**	3/13/2010 10:22:56 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

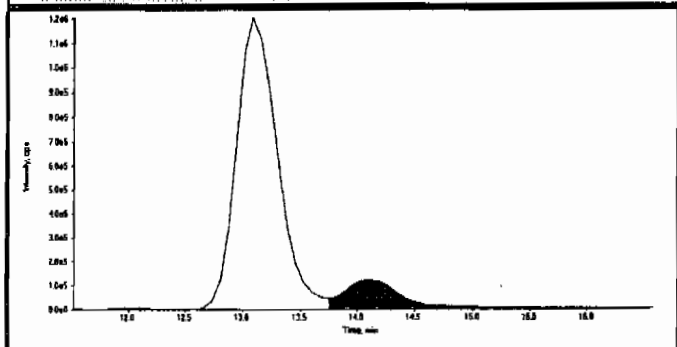

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.1
Area Counts:	4.66e+006
Manual Modification	No
Amount:	693. (ng/mL)
% Accuracy:	116.00

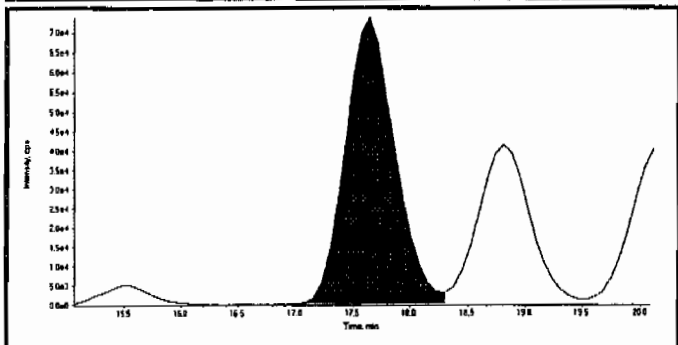

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	2.27e+006
Manual Modification	No
Amount:	603. (ng/mL)
% Accuracy:	100.00

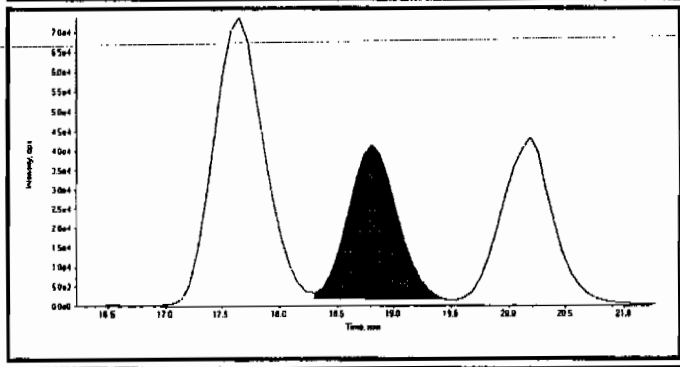

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	18.8
Area Counts:	1.22e+006
Manual Modification	No
Amount:	586. (ng/mL)
% Accuracy:	97.70

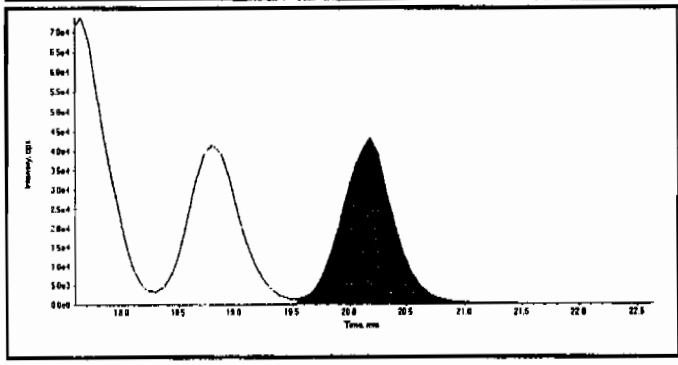

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.2
Area Counts:	1.37e+006
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312061.wiff	**Acquisition Date**	3/13/2010 10:22:56 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

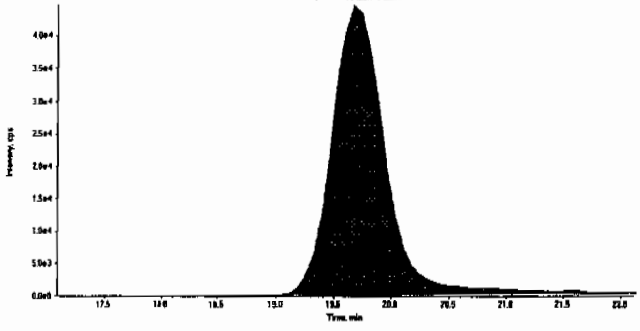

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.7
Area Counts:	1.48e+006
Manual Modification	No
Amount:	585. (ng/mL)
% Accuracy:	97.60

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/13/10
Time of Injection 1022
Standard Number WXX100312-56CCV
Data File EXP0312061a

HMX	88.5
RDX	98.7
TNX	97.1
DNX	93.6
MNX	99.9
135-Trinitrobenzene	91.9
13-Dinitrobenzene	92.0
Tetryl	114.0
246-Trinitrotoluene	92.4
Nitrobenzene	102.0
34-dinitrotoluene	94.9
26-dinitrotoluene	104.0
24-dinitrotoluene	96.1
4-Amino-26-dinitrotoluene	97.8
2-Amino-46-dinitrotoluene	116.0
2-Nitrotoluene	100.0
4-Nitrotoluene	97.7
3-Nitrotoluene	99.1
PETN	97.6
TOTAL	1873.3
AVERAGE	98.6

Hmc 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lan 3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0312063.wiff

Analysis Date: 13-MAR-10 11:15

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.1	120	
2,4,6-Trinitrotoluene	40	48.2	121	
2,4-Dinitrotoluene	40	43.3	108	
2,6-Dinitrotoluene	40	30.3	76	
2-Amino-4,6-dinitrotoluene	40	41.9	105	
3,4-Dinitrotoluene	20	21.8	109	
4-Amino-2,6-dinitrotoluene	40	43.7	109	
DNX	40	41.2	103	
HMX	40	44.4	111	
MNX	40	36.9	92	
Nitrobenzene	40	40.3	101	
PETN	40	37.2	93	
RDX	40	40.3	101	
TNX	40	40	100	
Tetryl	40	52.6	131	
m-Dinitrobenzene	40	46.8	117	
m-Nitrotoluene	40	39.9	100	
o-Nitrotoluene	40	39	98	
p-Nitrotoluene	40	35.3	88	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312063.wiff	**Acquisition Date**	3/13/2010 11:15:44 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

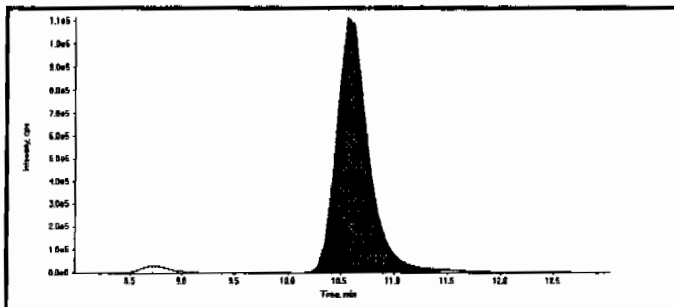

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	23800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

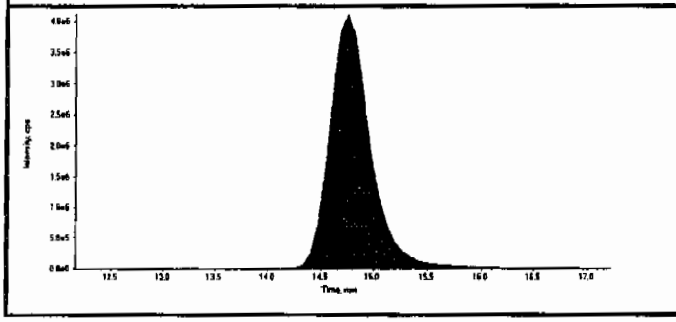

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	112000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

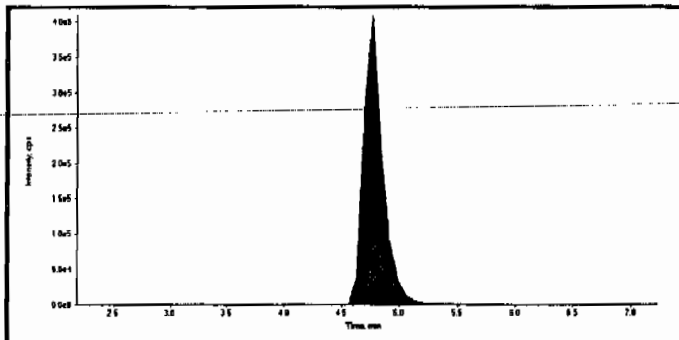

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.82e+006
Manual Modification	No
Amount:	44.4 (ng/mL)
% Accuracy:	111.00

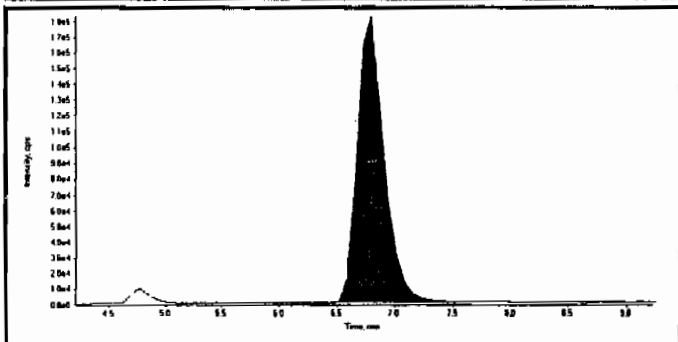

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	3.02e+006
Manual Modification	No
Amount:	40.3 (ng/mL)
% Accuracy:	101.00

LER 3/24/10 AMW 03/24/10

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Data File	EXP0312063.wiff	**Acquisition Date**	3/13/2010 11:15:44 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

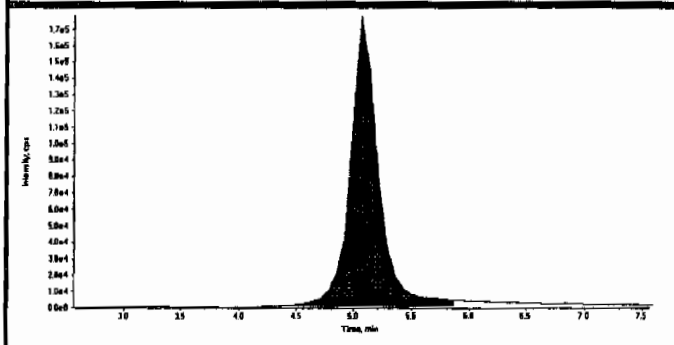

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	3.06e+006
Manual Modification	No
Amount:	40.0 (ng/mL)
% Accuracy:	99.90

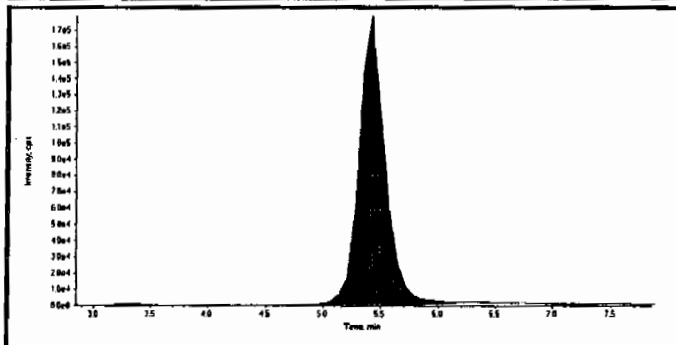

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	2.81e+006
Manual Modification	No
Amount:	41.2 (ng/mL)
% Accuracy:	103.00

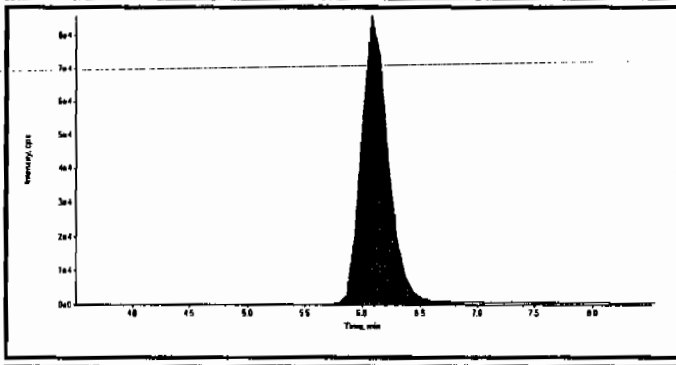

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.39e+006
Manual Modification	No
Amount:	36.9 (ng/mL)
% Accuracy:	92.20

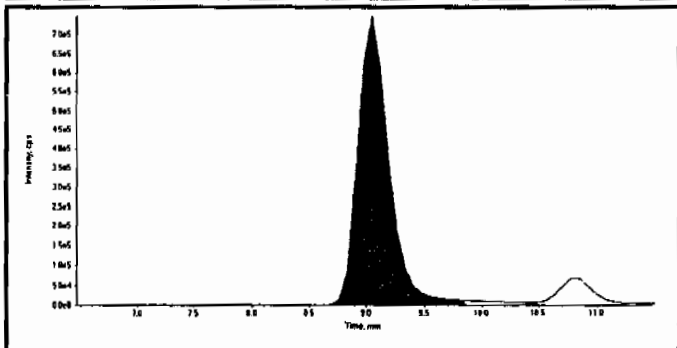

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.40e+007
Manual Modification	No
Amount:	48.1 (ng/mL)
% Accuracy:	120.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312063.wiff	**Acquisition Date**	3/13/2010 11:15:44 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

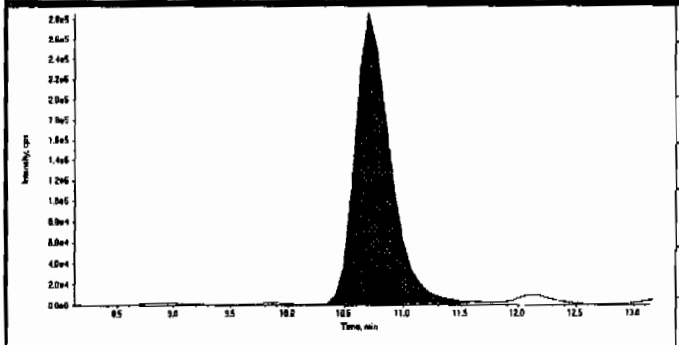

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.7
Area Counts:	5.96e+006
Manual Modification	No
Amount:	46.8 (ng/mL)
% Accuracy:	117.00

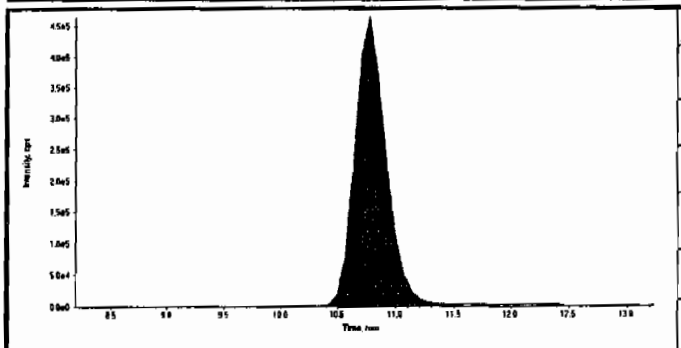

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	8.65e+006
Manual Modification	No
Amount:	52.6 (ng/mL)
% Accuracy:	131.00

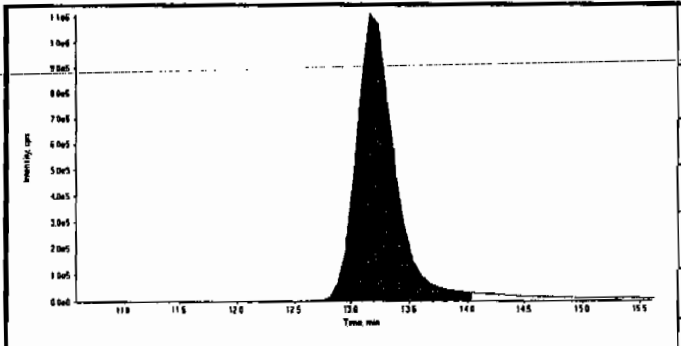

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.53e+007
Manual Modification	No
Amount:	48.2 (ng/mL)
% Accuracy:	121.00

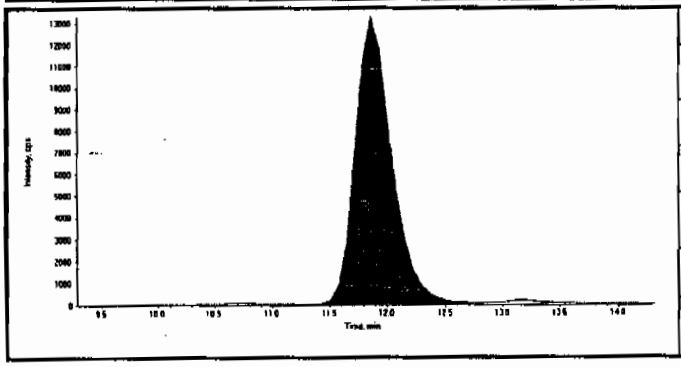

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.91e+005
Manual Modification	No
Amount:	40.3 (ng/mL)
% Accuracy:	101.00

Before Lan 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[illegible]LER" File: "EXP0312063.wiff"
Peak Name: "2,4-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LC/MS/MS/XP_C/" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 11:15:44 AM

Modified: No

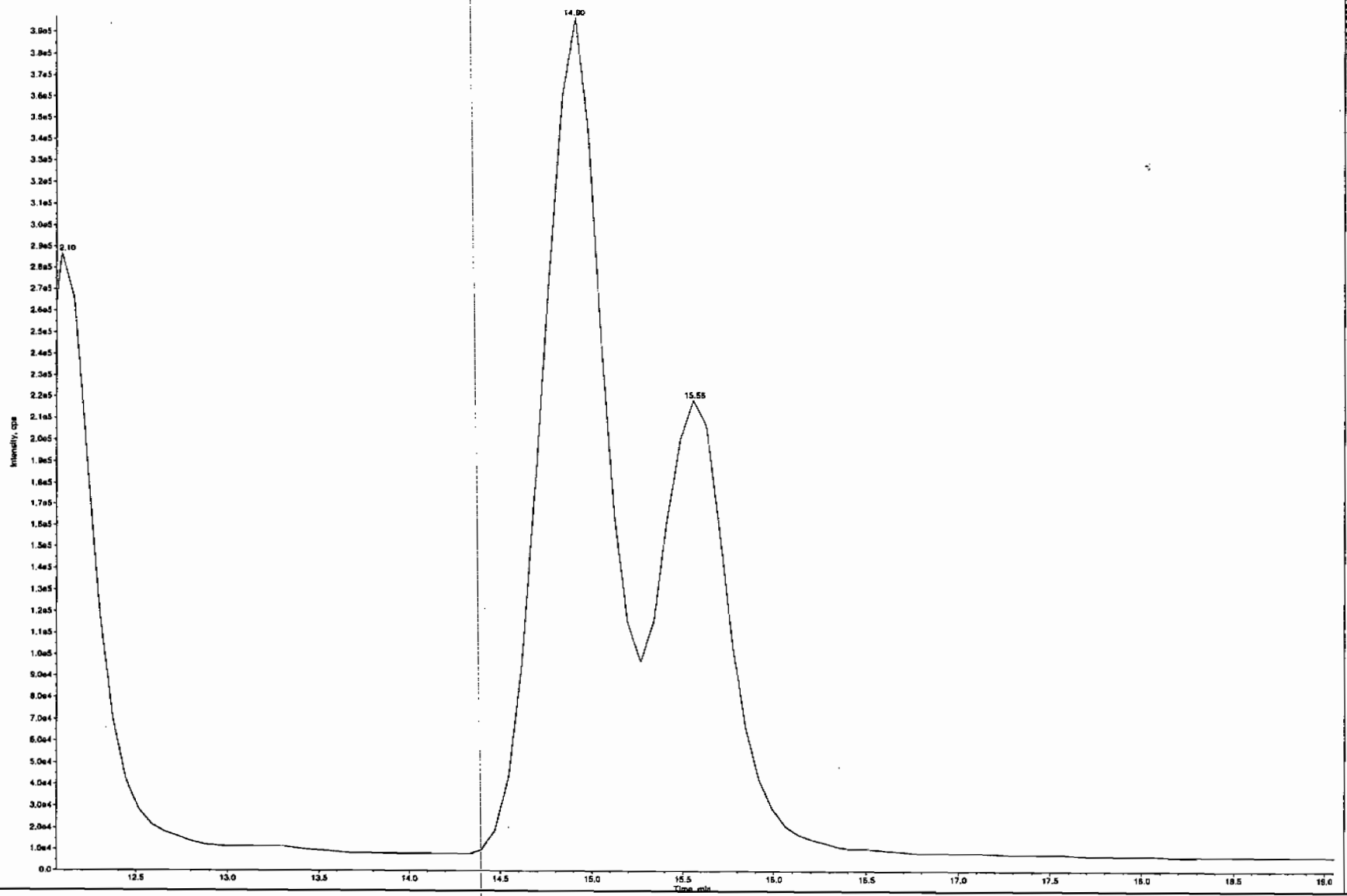

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Data File	EXP0312063.wiff	**Acquisition Date**	3/13/2010 11:15:44 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

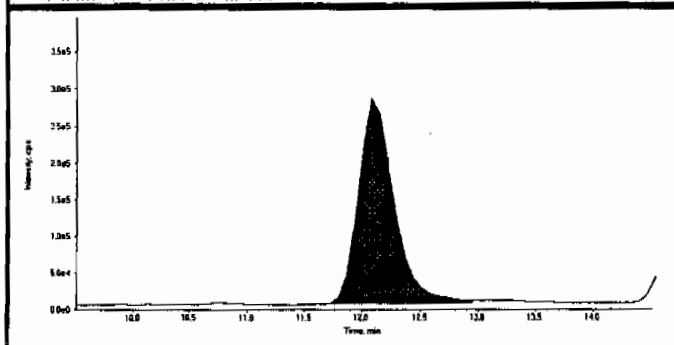

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.1
Area Counts:	6.00e+006
Manual Modification	No
Amount:	21.8 (ng/mL)
% Accuracy:	109.00

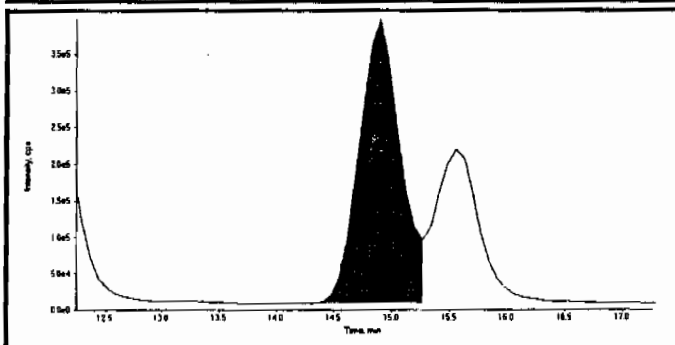

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	9.65e+006
Manual Modification	No
Amount:	30.3 (ng/mL)
% Accuracy:	75.80

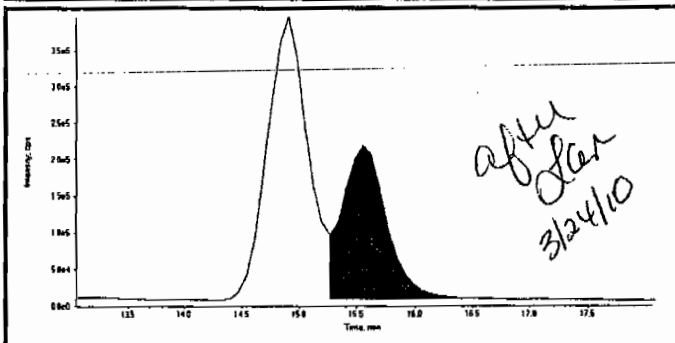

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	5.70e+006
Manual Modification	Yes
Amount:	43.3 (ng/mL)
% Accuracy:	108.00

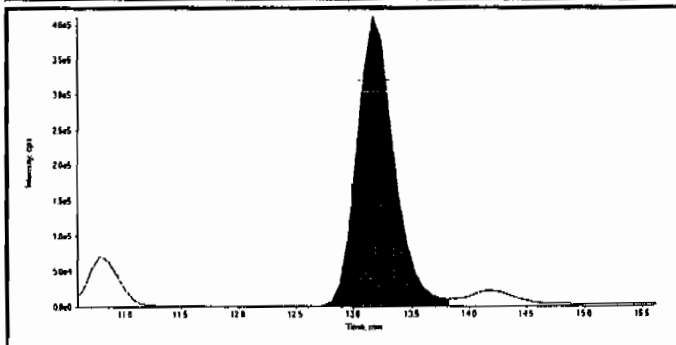

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	9.12e+006
Manual Modification	No
Amount:	43.7 (ng/mL)
% Accuracy:	109.00

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Data File	EXP0312063.wiff	**Acquisition Date**	3/13/2010 11:15:44 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

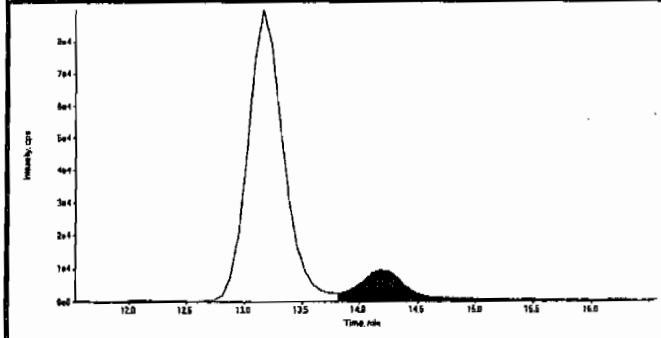

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.2
Area Counts:	2.83e+005
Manual Modification	No
Amount:	41.9 (ng/mL)
% Accuracy:	105.00

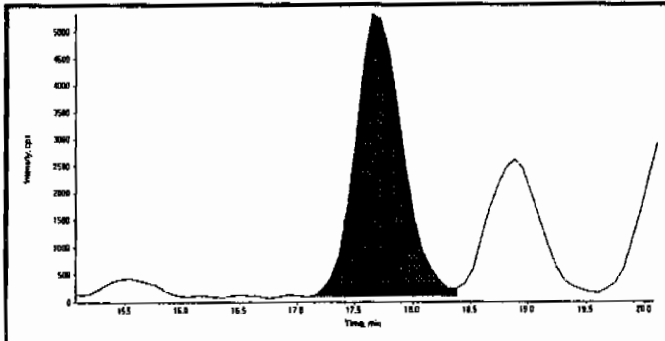

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	1.48e+005
Manual Modification	No
Amount:	39.0 (ng/mL)
% Accuracy:	97.60

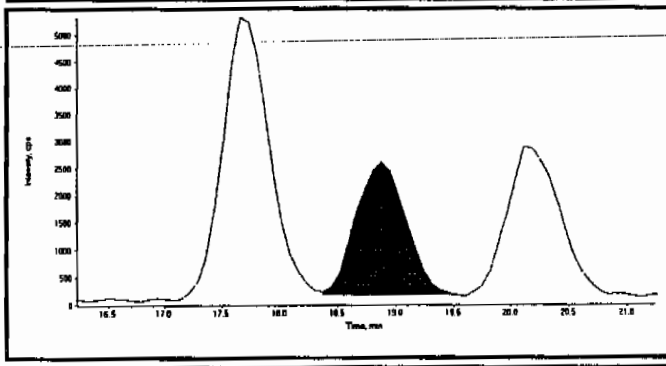

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	18.9
Area Counts:	7.36e+004
Manual Modification	No
Amount:	35.3 (ng/mL)
% Accuracy:	88.20

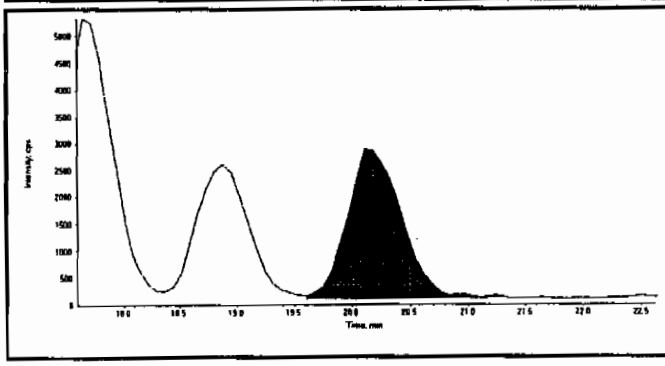

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.1
Area Counts:	9.27e+004
Manual Modification	No
Amount:	39.9 (ng/mL)
% Accuracy:	99.80

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312063.wiff	**Acquisition Date**	3/13/2010 11:15:44 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

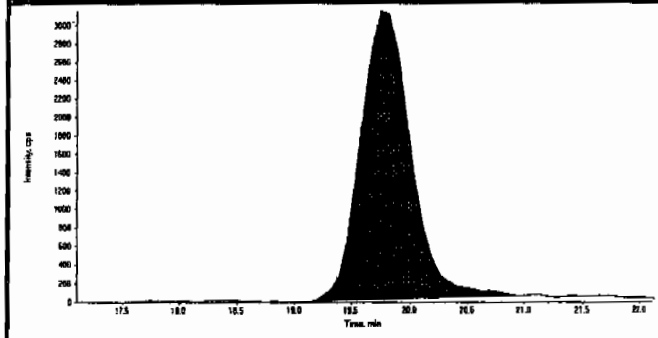

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.7
Area Counts:	9.45e+004
Manual Modification	No
Amount:	37.2 (ng/mL)
% Accuracy:	92.90

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/13/10
Time of Injection 1115
Standard Number WXX100312-57CRI
Data File EXP0312063a

HMX	111.0
RDX	101.0
TNX	99.9
DNX	103.0
MNX	92.2
135-Trinitrobenzene	120.0
13-Dinitrobenzene	117.0
Tetryl	131.0
246-Trinitrotoluene	121.0
Nitrobenzene	101.0
34-dinitrotoluene	109.0
26-dinitrotoluene	75.8
24-dinitrotoluene	108.0
4-Amino-26-dinitrotoluene	109.0
2-Amino-46-dinitrotoluene	105.0
2-Nitrotoluene	97.6
4-Nitrotoluene	88.2
3-Nitrotoluene	99.8
PETN	92.9
TOTAL	1982.4
AVERAGE	104.3

HMC 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Jar 3/24/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0312074.wiff

Analysis Date: 13-MAR-10 16:06

LCMSMS ID: 1189

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
DNX	600	581	97	
HMX	600	533	89	
MNX	600	618	103	
Nitrobenzene	600	617	103	
PETN	600	578	96	
RDX	600	626	104	
TNX	600	600	100	
Tetryl	600	679	113	
m-Dinitrobenzene	600	587	98	
m-Nitrotoluene	600	522	87	
o-Nitrotoluene	600	541	90	
p-Nitrotoluene	600	523	87	
1,3,5-Trinitrobenzene	600	574	96	
2,4,6-Trinitrotoluene	600	530	88	
2,4-Dinitrotoluene	600	517	86	
2,6-Dinitrotoluene	600	612	102	
2-Amino-4,6-dinitrotoluene	600	619	103	
3,4-Dinitrotoluene	300	269	90	
4-Amino-2,6-dinitrotoluene	600	545	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312074.wiff	**Acquisition Date**	3/13/2010 4:06:21 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

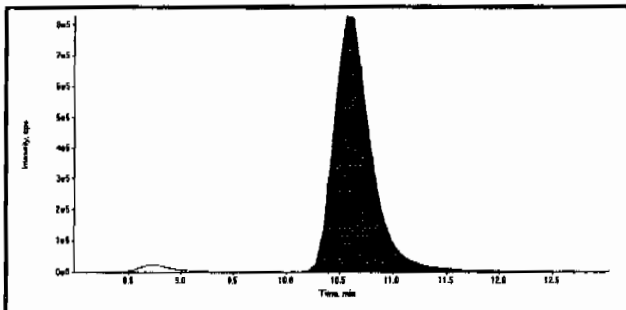

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	20300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

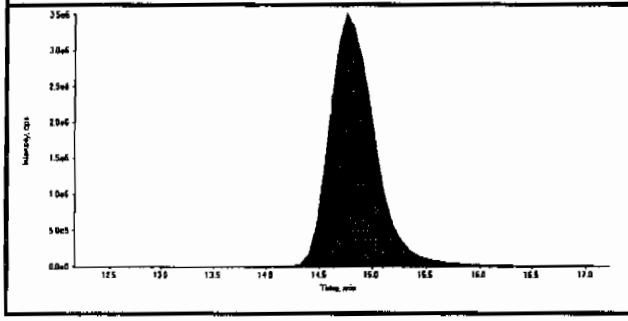

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	105000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

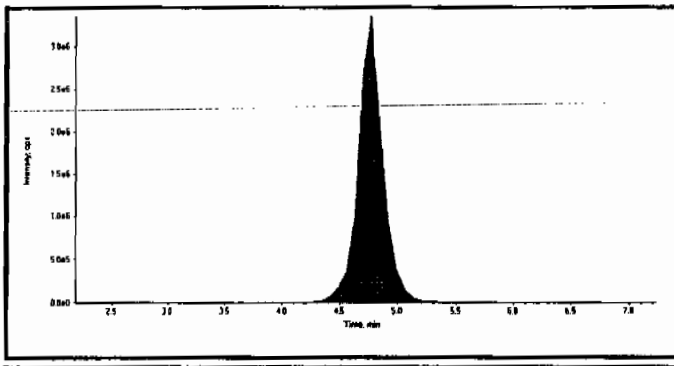

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.93e+007
Manual Modification	No
Amount:	533. (ng/mL)
% Accuracy:	88.90

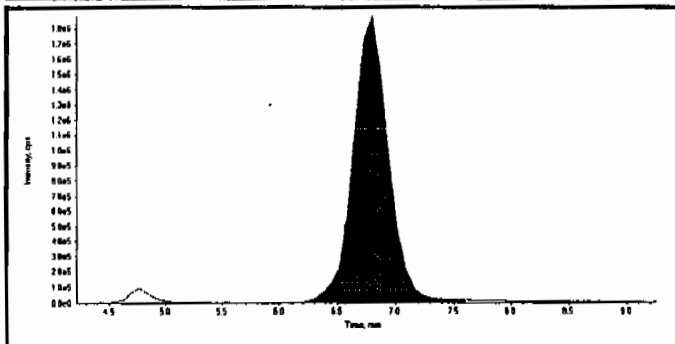

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	3.99e+007
Manual Modification	No
Amount:	626. (ng/mL)
% Accuracy:	104.00

Jan 3/24/10 Hmc 03/24/10

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Data File	EXP0312074.wiff	**Acquisition Date**	3/13/2010 4:06:21 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

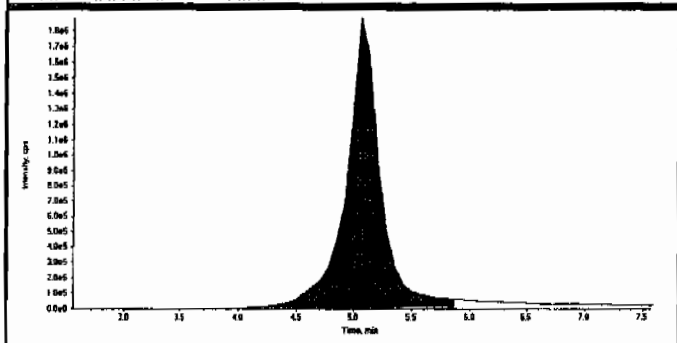

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	3.91e+007
Manual Modification	No
Amount:	600. (ng/mL)
% Accuracy:	100.00

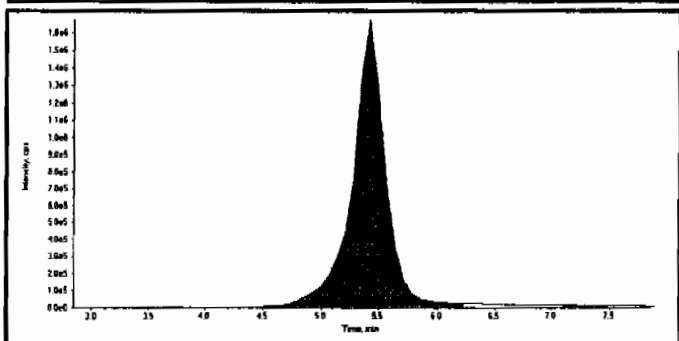

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	3.38e+007
Manual Modification	No
Amount:	581. (ng/mL)
% Accuracy:	96.80

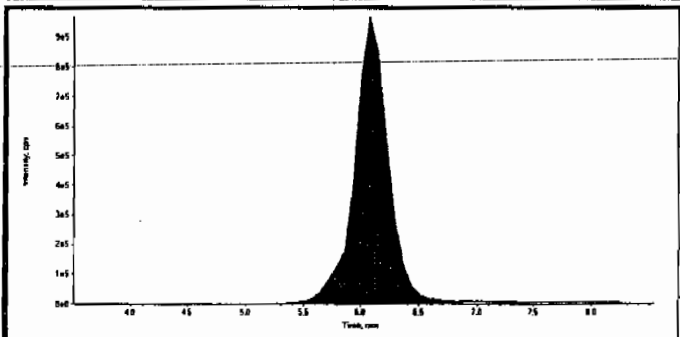

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.98e+007
Manual Modification	No
Amount:	618. (ng/mL)
% Accuracy:	103.00

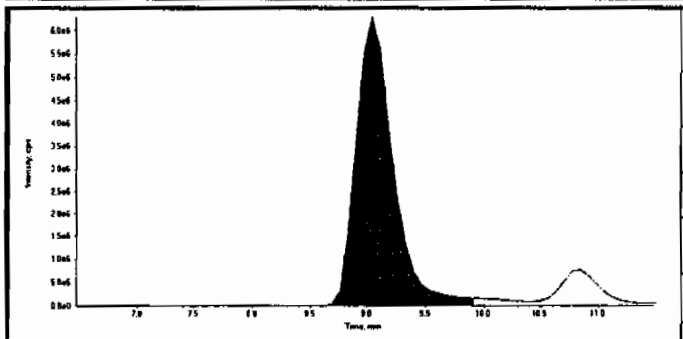

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.42e+008
Manual Modification	No
Amount:	574. (ng/mL)
% Accuracy:	95.60

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312074.wiff	**Acquisition Date**	3/13/2010 4:06:21 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

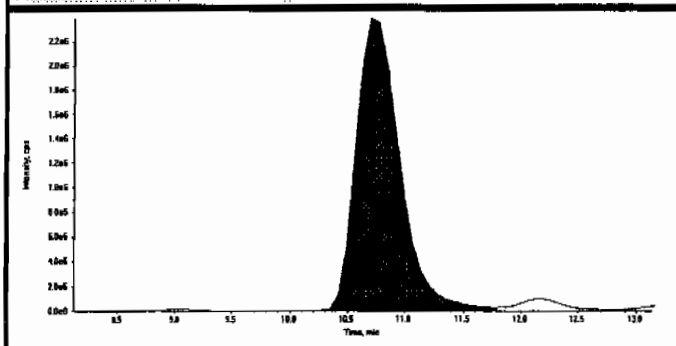

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.7
Area Counts:	6.36e+007
Manual Modification	No
Amount:	587. (ng/mL)
% Accuracy:	97.80

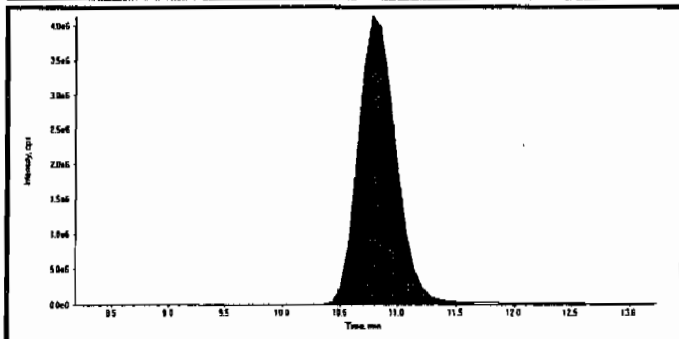

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	9.52e+007
Manual Modification	No
Amount:	679. (ng/mL)
% Accuracy:	113.00

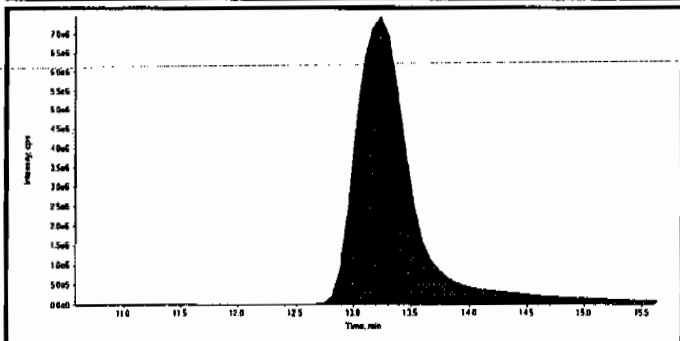

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	2.60e+008
Manual Modification	No
Amount:	530. (ng/mL)
% Accuracy:	88.30

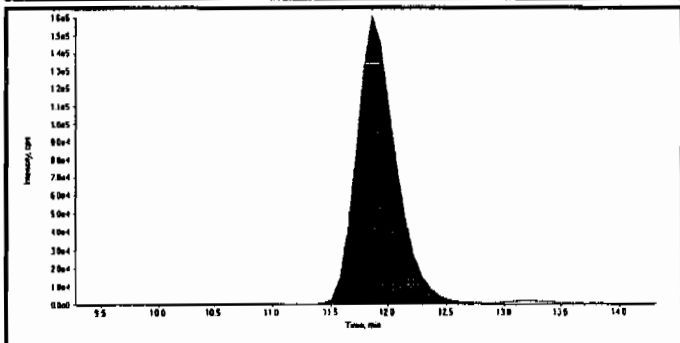

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	3.79e+006
Manual Modification	No
Amount:	617. (ng/mL)
% Accuracy:	103.00

Before Lar 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "[1]LER" File: "EXP0312074.wiff"
Peak Name: "26-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 122. ng/mL
Acq. Date: 3/13/2010
Acq. Time: 4:06:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Exp. Peak Height: 1.95e4 cps
Exp. Peak Width: 0.60 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.8 min
Use Relative RT: No

Proc. Type: Valley
Retention Time: 14.9 min
Area: 6.43e+007 counts
Height: 2.95e+006 cps
Start Time: 14.5 min
End Time: 15.3 min

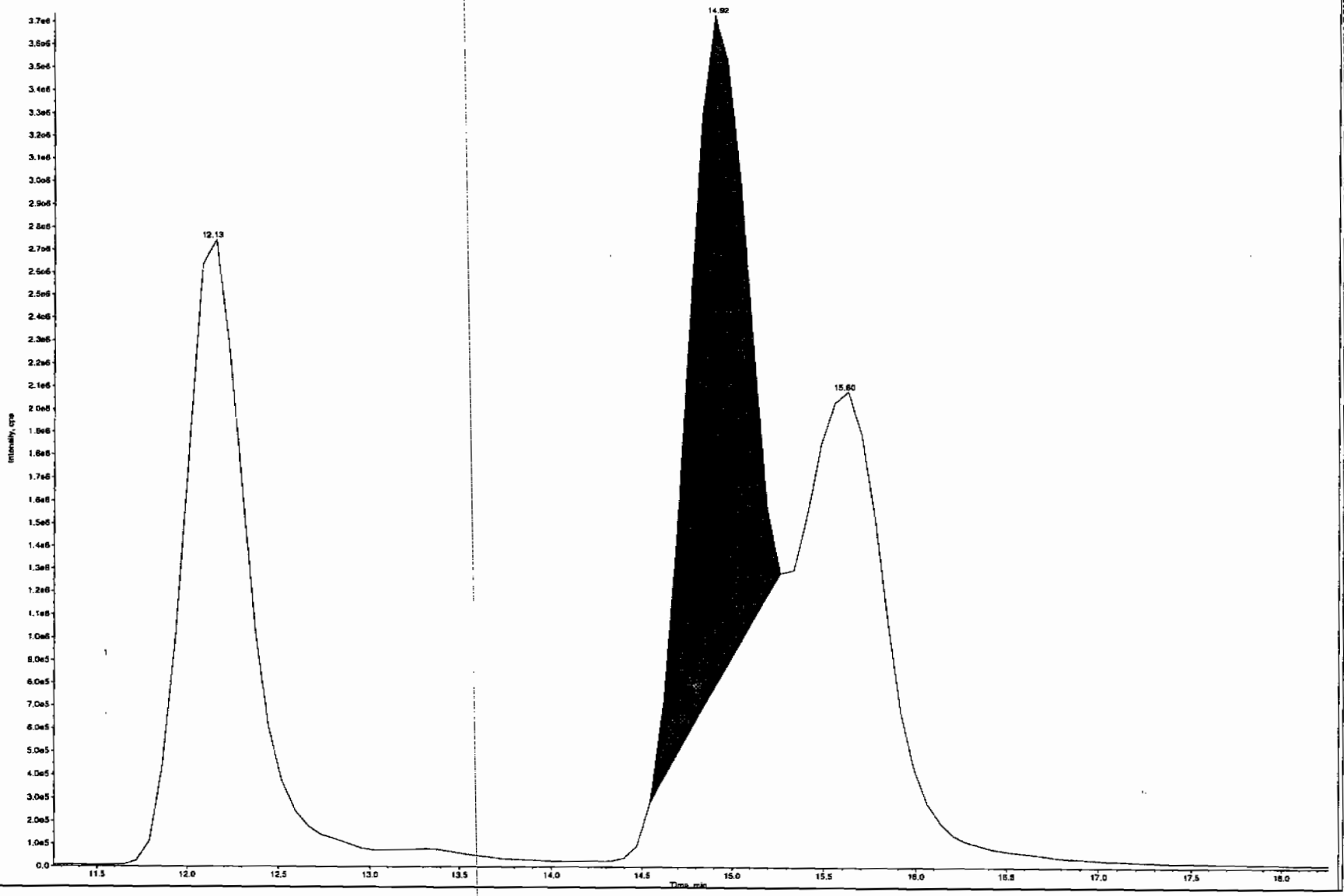

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Before Scan 3/24/10

Sample Name: "WXXI00312-56CCV" Sample ID: "1ILER" File: "EXP0312074.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	0.00	ng/mL
Acq. Date:	3/13/2010	
Acq. Time:	4:06:21 PM	
Modified:	No	

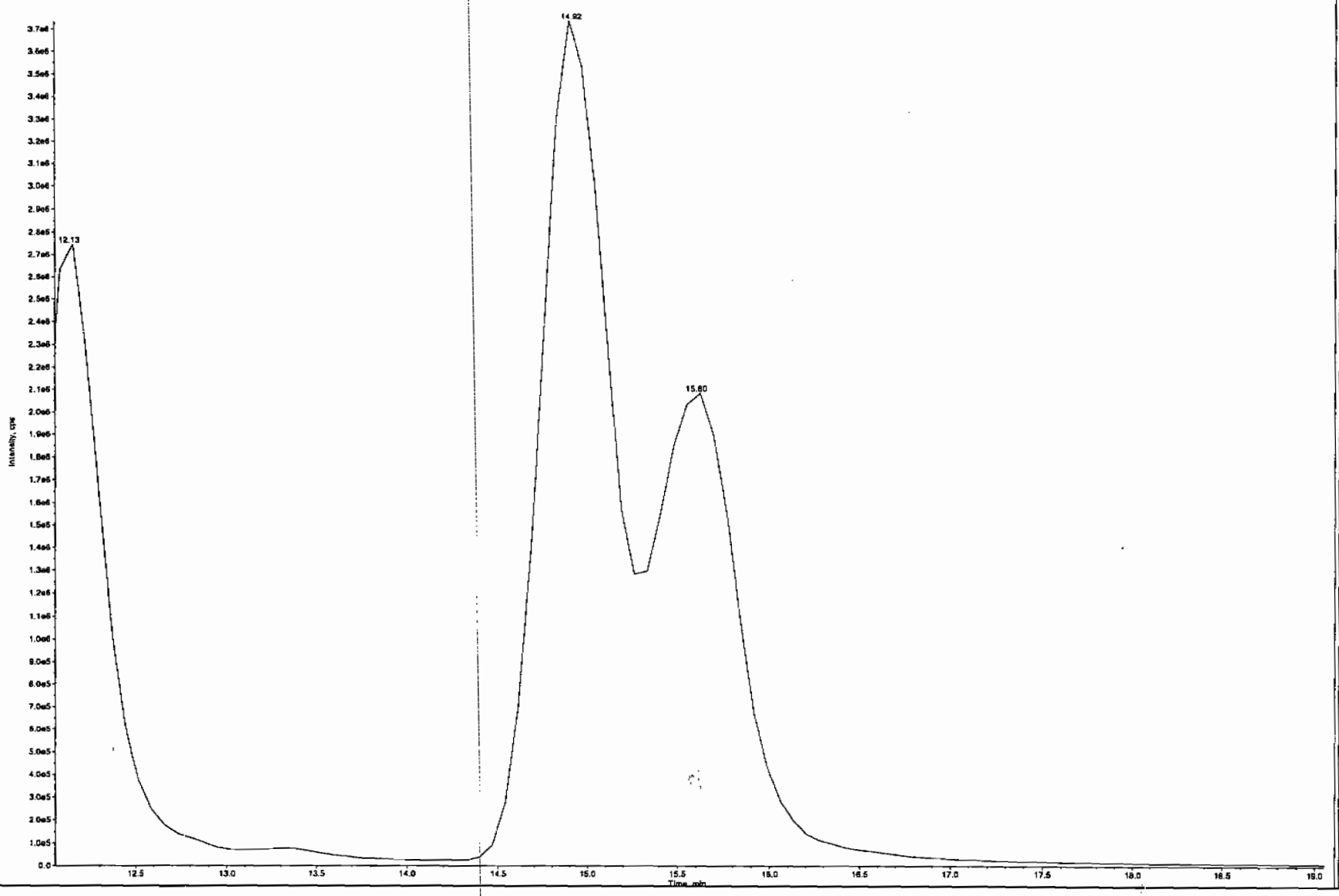

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312074.wiff	**Acquisition Date**	3/13/2010 4:06:21 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

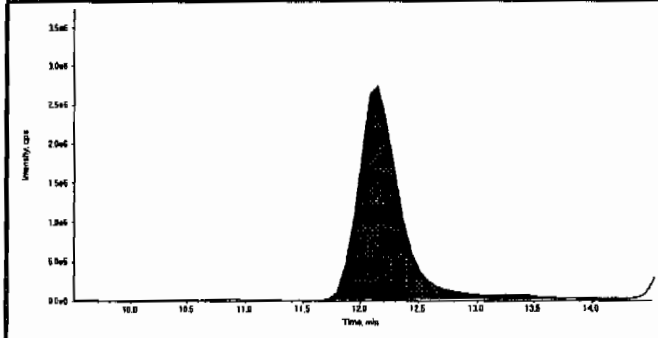

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	6.91e+007
Manual Modification	No
Amount:	269. (ng/mL)
% Accuracy:	89.50

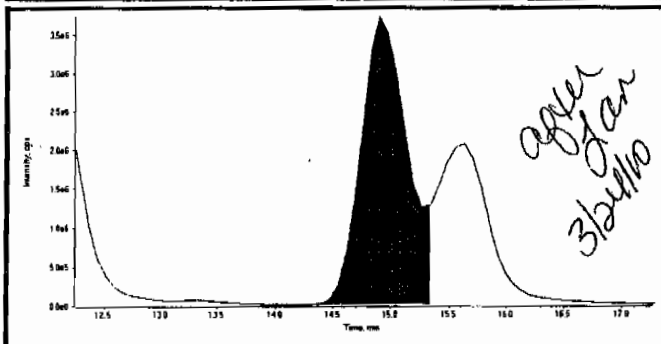

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	14.9
Area Counts:	1.04e+008
Manual Modification	Yes
Amount:	612. (ng/mL)
% Accuracy:	102.00

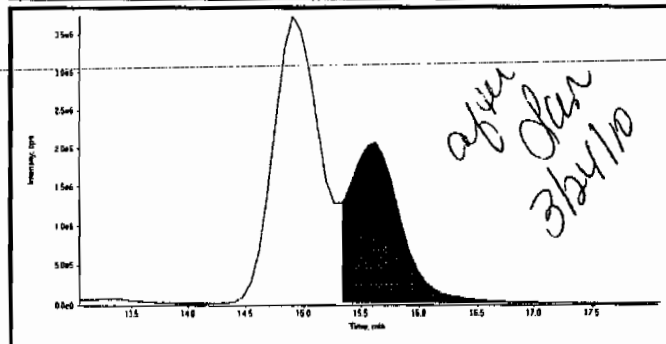

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	6.35e+007
Manual Modification	Yes
Amount:	517. (ng/mL)
% Accuracy:	86.10

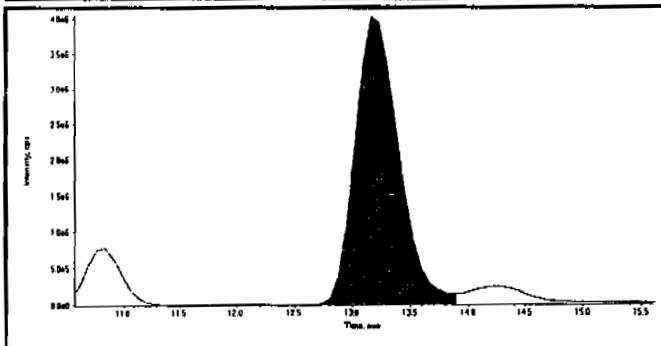

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.06e+008
Manual Modification	No
Amount:	545. (ng/mL)
% Accuracy:	90.90

Before Lab 3/24/10

Sample Name: "W3X100312-56CCV" Sample ID: "]1]LER" File: "EXP0312074.wiff"
Peak Name: "2-Amino-4S-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 1620. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:06:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 4000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Peak Type: Valley
Retention Time: 14.3 min
Area: 1.02e+007 counts
Height: 1.51e+005 cps
Start Time: 13.8 min
End Time: 17.1 min

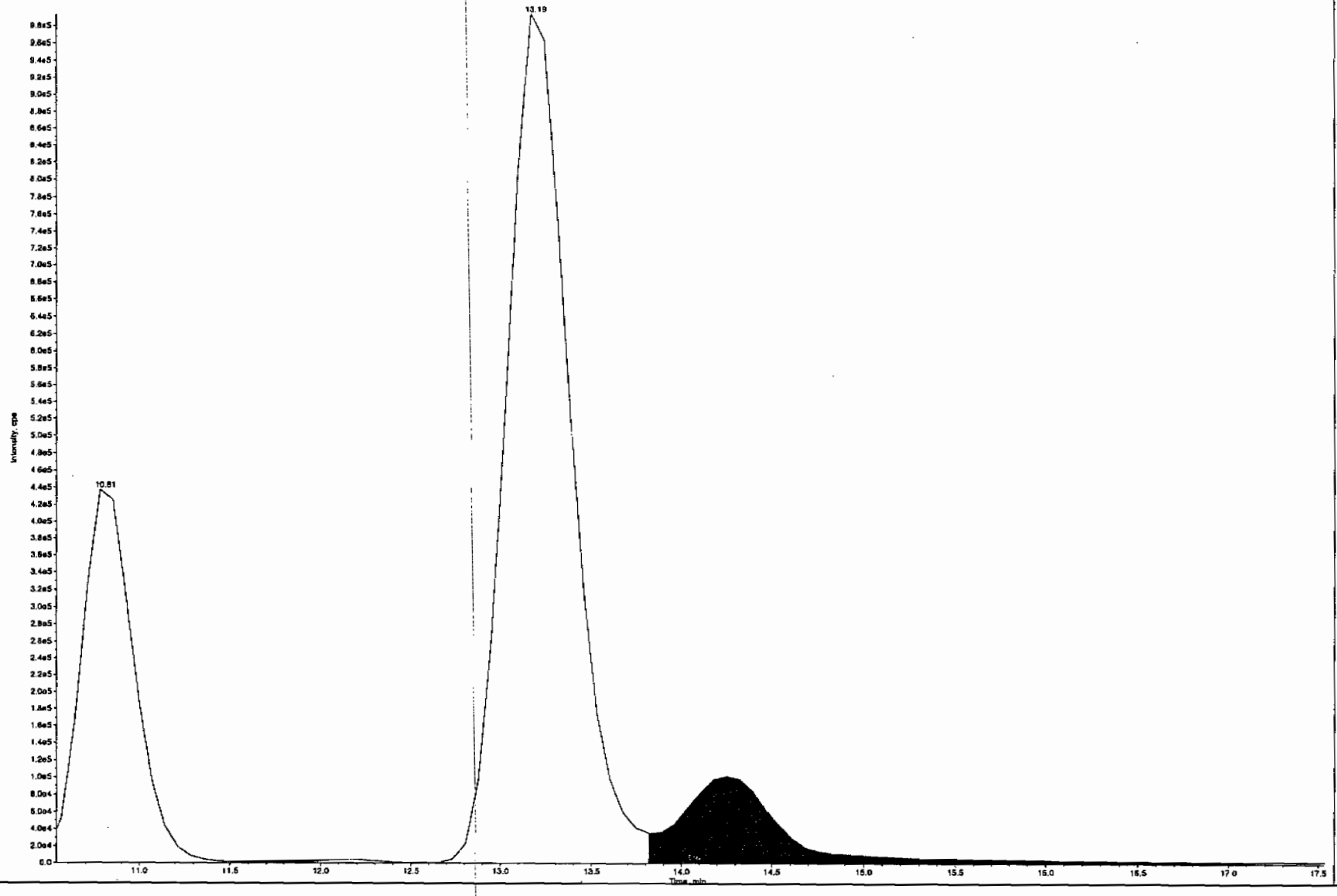

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312074.wiff	**Acquisition Date**	3/13/2010 4:06:21 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

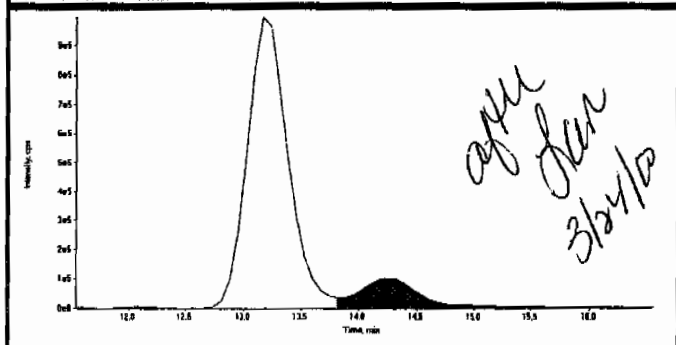

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.3
Area Counts:	3.91e+006
Manual Modification	Yes
Amount:	619. (ng/mL)
% Accuracy:	103.00

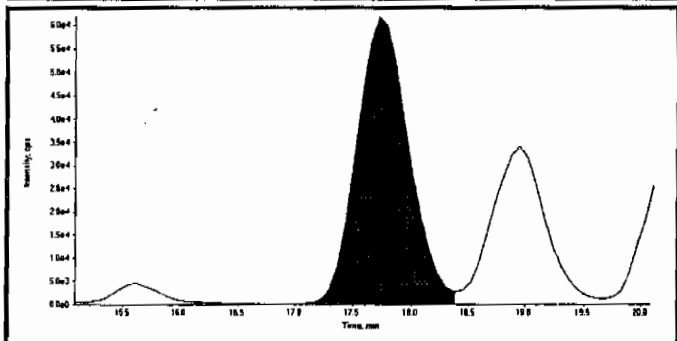

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.7
Area Counts:	1.92e+006
Manual Modification	No
Amount:	541. (ng/mL)
% Accuracy:	90.20

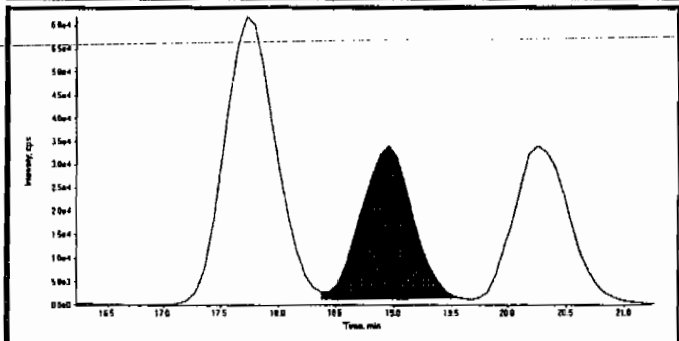

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	1.02e+006
Manual Modification	No
Amount:	523. (ng/mL)
% Accuracy:	87.10

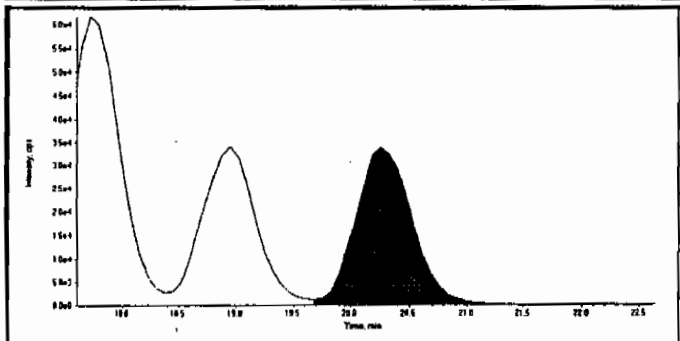

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	1.13e+006
Manual Modification	No
Amount:	522. (ng/mL)
% Accuracy:	87.00

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312074.wiff	**Acquisition Date**	3/13/2010 4:06:21 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

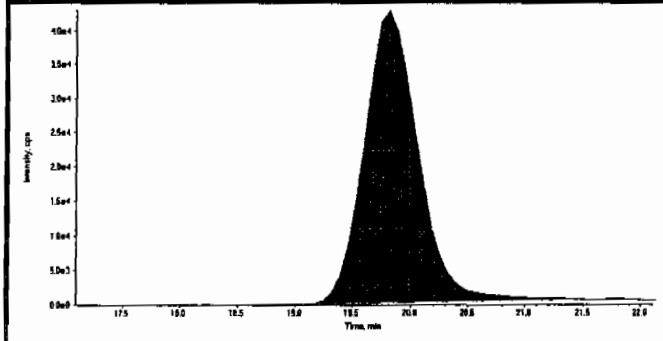

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.8
Area Counts:	1.37e+006
Manual Modification	No
Amount:	578. (ng/mL)
% Accuracy:	96.30

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/13/10
Time of Injection 1606
Standard Number WXX100312-56CCV
Data File EXP0312074a

HMX	88.9
RDX	104.0
TNX	100.0
DNX	96.8
MNX	103.0
135-Trinitrobenzene	95.6
13-Dinitrobenzene	97.8
Tetryl	113.0
246-Trinitrotoluene	88.3
Nitrobenzene	103.0
34-dinitrotoluene	89.5
26-dinitrotoluene	102.0
24-dinitrotoluene	86.1
4-Amino-26-dinitrotoluene	90.9
2-Amino-46-dinitrotoluene	103.0
2-Nitrotoluene	90.2
4-Nitrotoluene	87.1
3-Nitrotoluene	87.0
PETN	96.3
	✓
TOTAL	1822.5
AVERAGE	✓ 95.9

dmx 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lan 3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0312076.wiff

Analysis Date: 13-MAR-10 16:59

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	47.7	119	
2,4,6-Trinitrotoluene	40	47	118	
2,4-Dinitrotoluene	40	42.2	106	
2,6-Dinitrotoluene	40	29.1	73	
2-Amino-4,6-dinitrotoluene	40	39.9	100	
3,4-Dinitrotoluene	20	20.7	104	
4-Amino-2,6-dinitrotoluene	40	42.6	106	
DNX	40	45.4	114	
HMX	40	44.5	111	
MNX	40	42.3	106	
Nitrobenzene	40	40	100	
PETN	40	45.1	113	
RDX	40	39.9	100	
TNX	40	45.2	113	
Tetryl	40	51.5	129	
m-Dinitrobenzene	40	42.9	107	
m-Nitrotoluene	40	40.4	101	
o-Nitrotoluene	40	36.9	92	
p-Nitrotoluene	40	35.4	89	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312076.wiff	**Acquisition Date**	3/13/2010 4:59:11 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

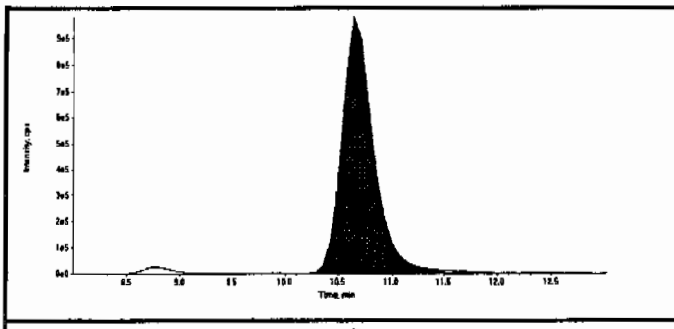

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	20400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

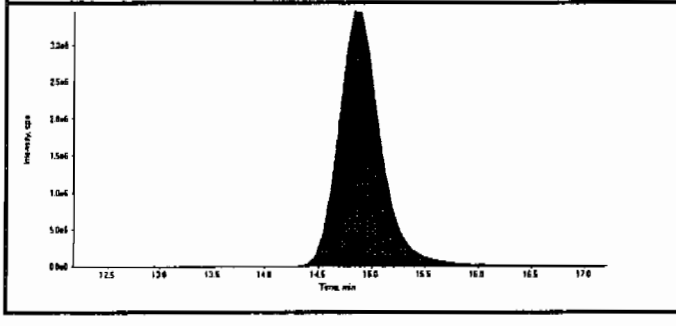

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	95800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

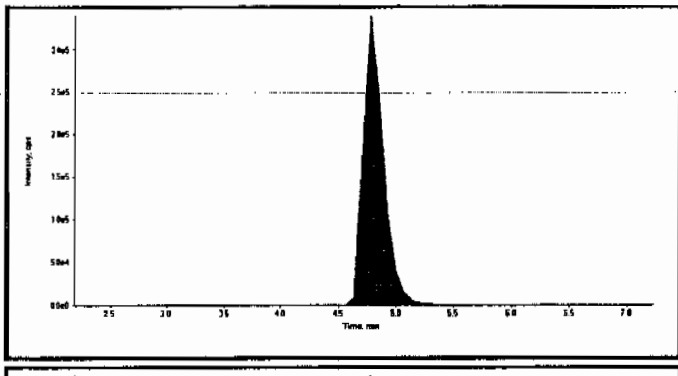

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.15e+006
Manual Modification	No
Amount:	44.5 (ng/mL)
% Accuracy:	111.00

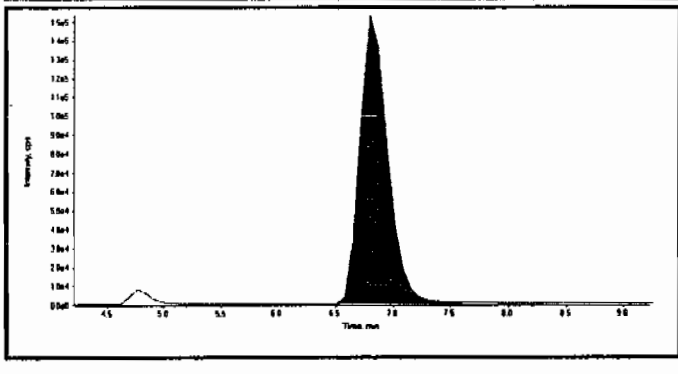

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	2.56e+006
Manual Modification	No
Amount:	39.9 (ng/mL)
% Accuracy:	99.70

Lar 3/24/10 [illegible] 03/24/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312076.wiff	**Acquisition Date**	3/13/2010 4:59:11 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

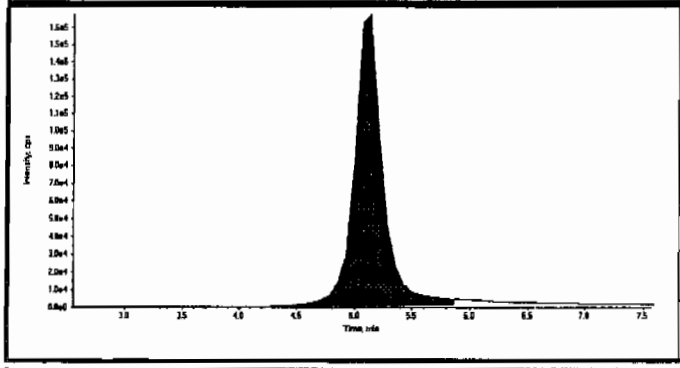

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.14
Area Counts:	2.97e+006
Manual Modification	No
Amount:	45.2 (ng/mL)
% Accuracy:	113.00

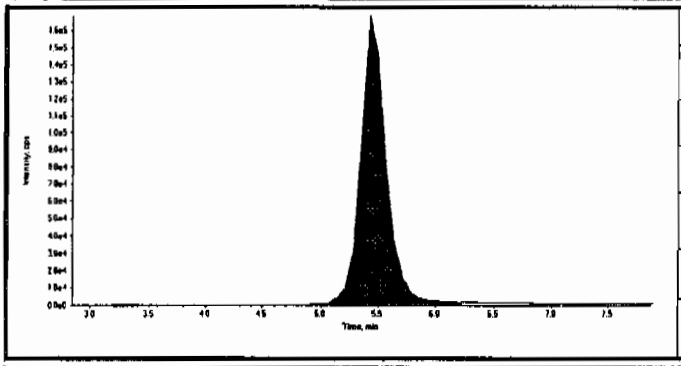

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	2.66e+006
Manual Modification	No
Amount:	45.4 (ng/mL)
% Accuracy:	114.00

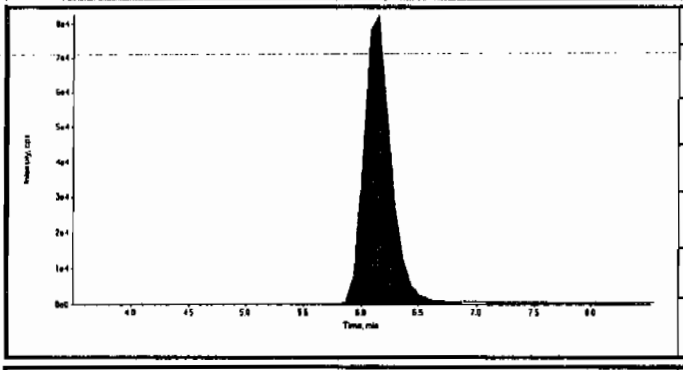

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.15
Area Counts:	1.37e+006
Manual Modification	No
Amount:	42.3 (ng/mL)
% Accuracy:	106.00

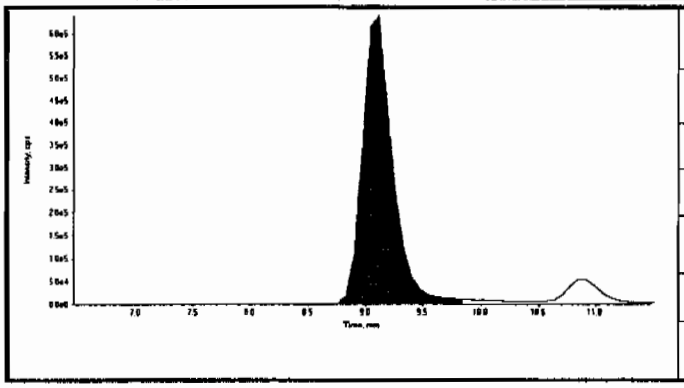

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.12
Area Counts:	1.19e+007
Manual Modification	No
Amount:	47.7 (ng/mL)
% Accuracy:	119.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312076.wiff	**Acquisition Date**	3/13/2010 4:59:11 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

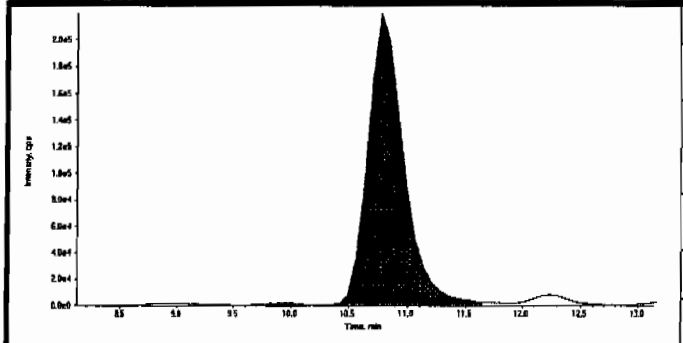

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	4.69e+006
Manual Modification	No
Amount:	42.9 (ng/mL)
% Accuracy:	107.00

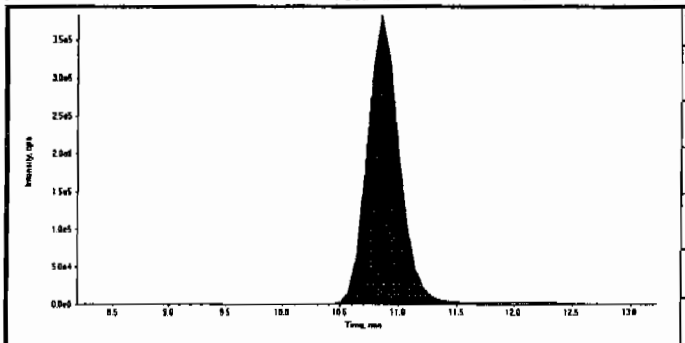

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	7.28e+006
Manual Modification	No
Amount:	51.5 (ng/mL)
% Accuracy:	129.00

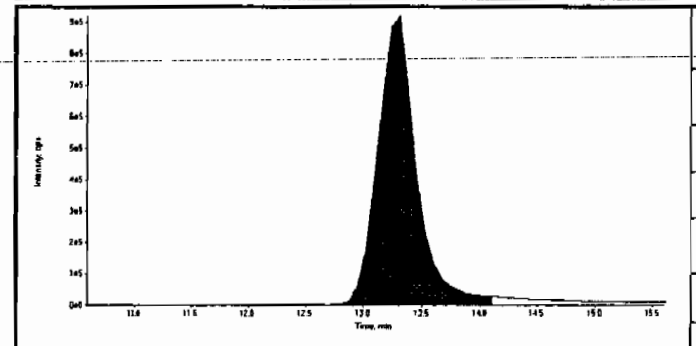

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	2.11e+007
Manual Modification	No
Amount:	47.0 (ng/mL)
% Accuracy:	118.00

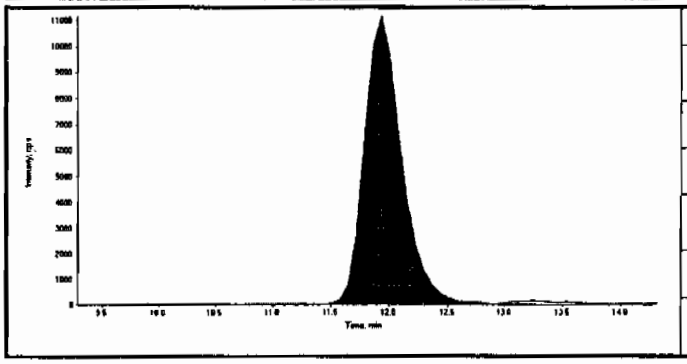

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.48e+005
Manual Modification	No
Amount:	40.0 (ng/mL)
% Accuracy:	99.90

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Before Clean 3/24/10

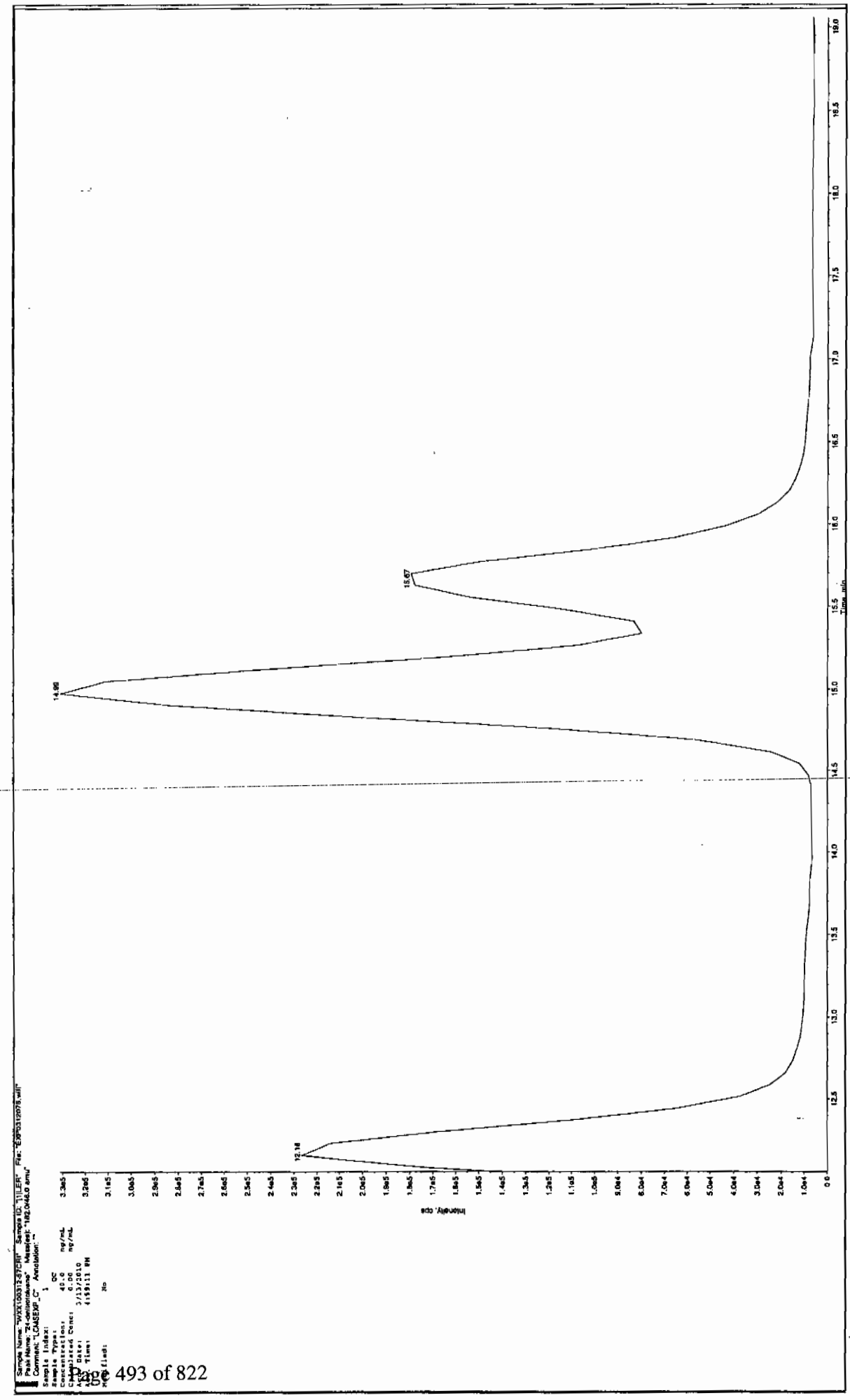

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312076.wiff	**Acquisition Date**	3/13/2010 4:59:11 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

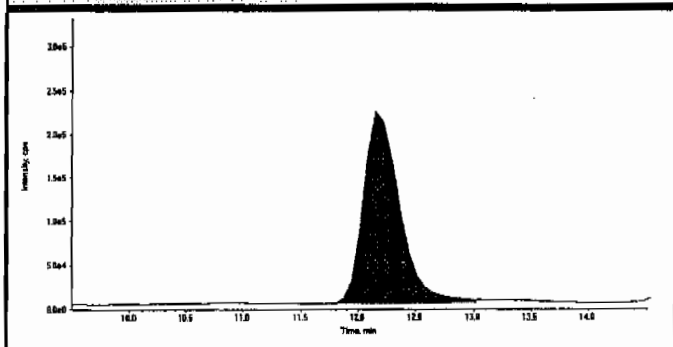

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.90e+006
Manual Modification	No
Amount:	20.7 (ng/mL)
% Accuracy:	104.00

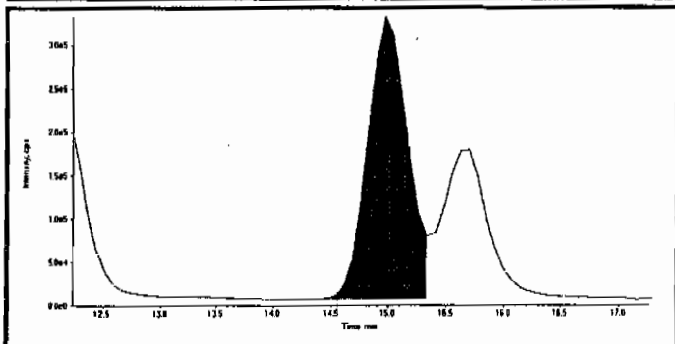

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	8.07e+006
Manual Modification	No
Amount:	29.1 (ng/mL)
% Accuracy:	72.70

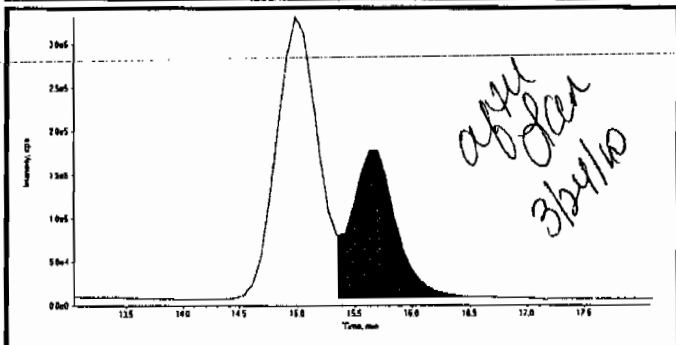

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	4.76e+006
Manual Modification	Yes
Amount:	42.2 (ng/mL)
% Accuracy:	106.00

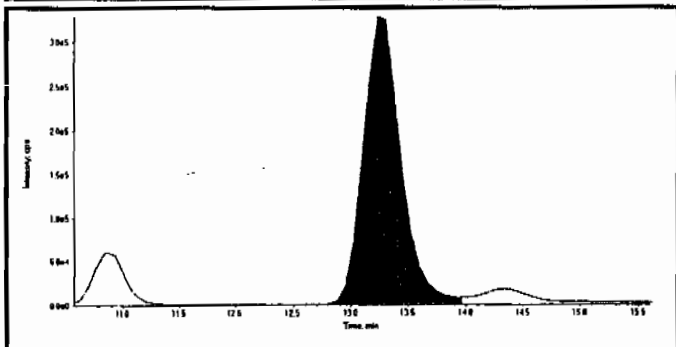

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	7.60e+006
Manual Modification	No
Amount:	42.6 (ng/mL)
% Accuracy:	106.00

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Data File	EXP0312076.wiff	**Acquisition Date**	3/13/2010 4:59:11 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

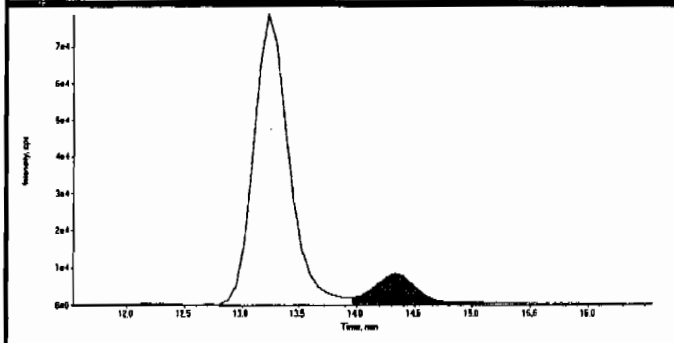

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.3
Area Counts:	2.31e+005
Manual Modification	No
Amount:	39.9 (ng/mL)
% Accuracy:	99.80

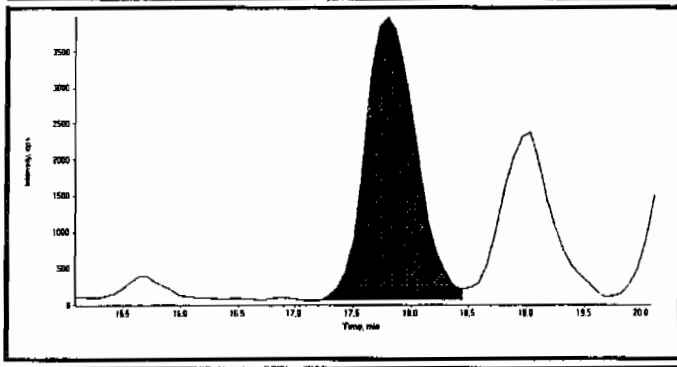

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.8
Area Counts:	1.20e+005
Manual Modification	No
Amount:	36.9 (ng/mL)
% Accuracy:	92.30

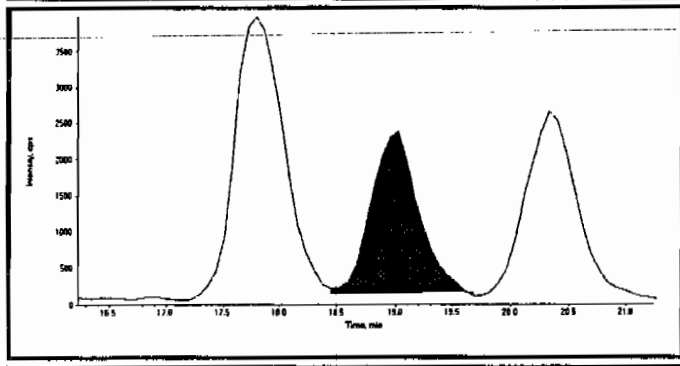

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	6.32e+004
Manual Modification	No
Amount:	35.4 (ng/mL)
% Accuracy:	88.50

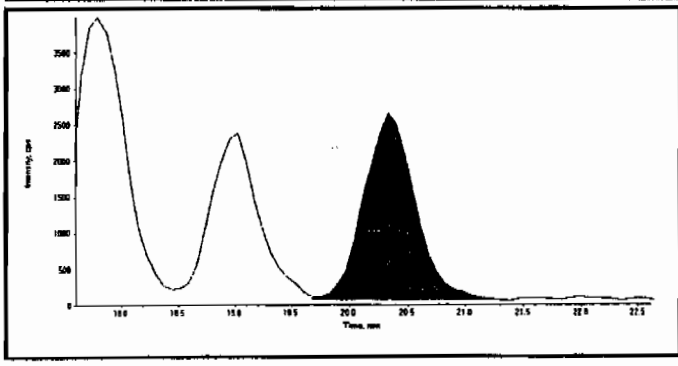

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	8.03e+004
Manual Modification	No
Amount:	40.4 (ng/mL)
% Accuracy:	101.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312076.wiff	**Acquisition Date**	3/13/2010 4:59:11 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

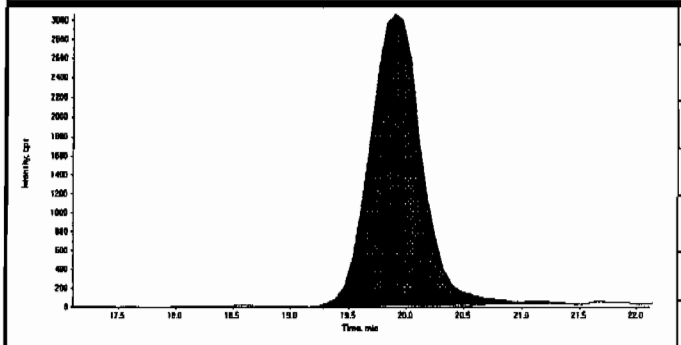

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.9
Area Counts:	9.82e+004
Manual Modification	No
Amount:	45.1 (ng/mL)
% Accuracy:	113.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/13/10
Time of Injection 1659
Standard Number WXX100312-57CRI
Data File EXP0312076a

HMX	111.0
RDX	99.7
TNX	113.0
DNX	114.0
MNX	106.0
135-Trinitrobenzene	119.0
13-Dinitrobenzene	107.0
Tetryl	129.0
246-Trinitrotoluene	118.0
Nitrobenzene	99.9
34-dinitrotoluene	104.0
26-dinitrotoluene	72.7
24-dinitrotoluene	106.0
4-Amino-26-dinitrotoluene	106.0
2-Amino-46-dinitrotoluene	99.8
2-Nitrotoluene	92.3
4-Nitrotoluene	88.5
3-Nitrotoluene	101.0
PETN	113.0
TOTAL	1999.9
AVERAGE	105.3

Hnm 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Dan 3/24/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0312087.wiff

Analysis Date: 13-MAR-10 21:50

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	595	99	
2,4,6-Trinitrotoluene	600	606	101	
2,4-Dinitrotoluene	600	557	93	
2,6-Dinitrotoluene	600	653	109	
2-Amino-4,6-dinitrotoluene	600	602	100	
3,4-Dinitrotoluene	300	280	93	
4-Amino-2,6-dinitrotoluene	600	619	103	
DNX	600	634	106	
HMX	600	576	96	
MNX	600	684	114	
Nitrobenzene	600	582	97	
PETN	600	676	113	
RDX	600	626	104	
TNX	600	619	103	
Tetryl	600	730	122	
m-Dinitrobenzene	600	580	97	
m-Nitrotoluene	600	562	94	
o-Nitrotoluene	600	560	93	
p-Nitrotoluene	600	544	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312087.wiff	**Acquisition Date**	3/13/2010 9:50:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

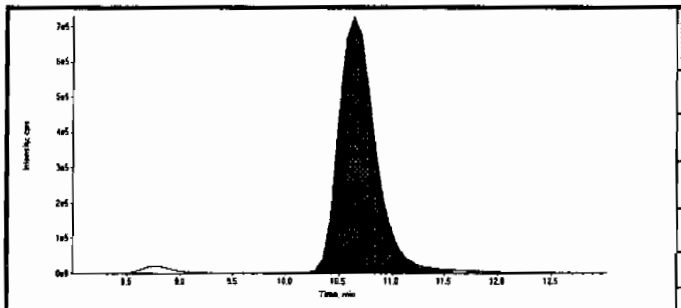

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	17800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

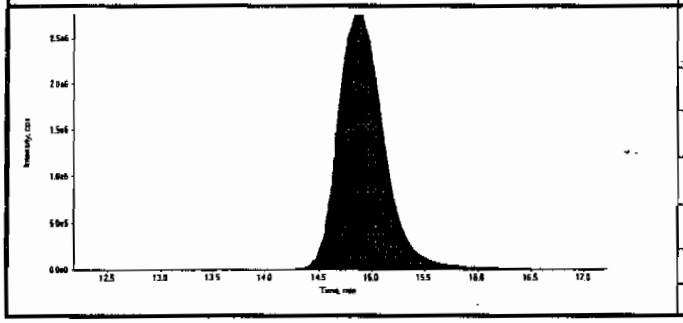

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	84500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

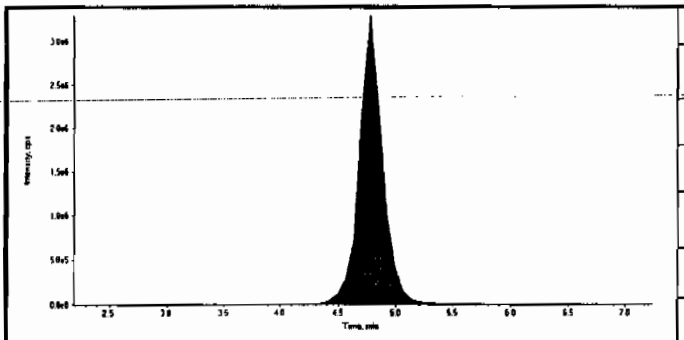

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.67e+007
Manual Modification	No
Amount:	576. (ng/mL)
% Accuracy:	96.10

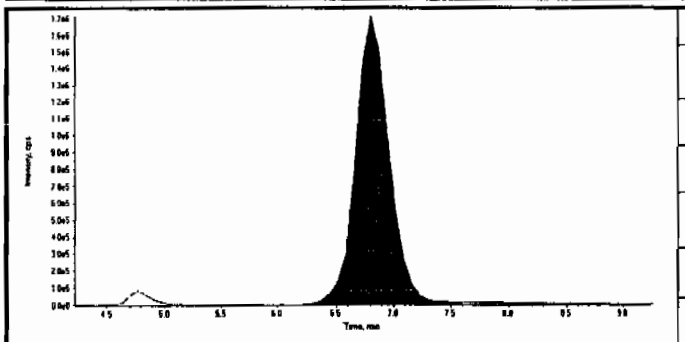

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	3.50e+007
Manual Modification	No
Amount:	626. (ng/mL)
% Accuracy:	104.00

Lar 3/24/10 thm 03/24/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312087.wiff	**Acquisition Date**	3/13/2010 9:50:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

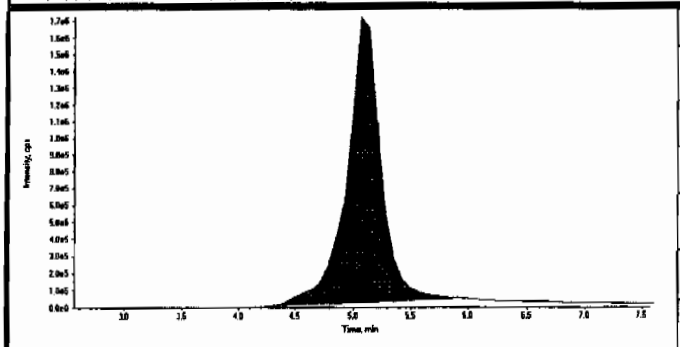

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	3.54e+007
Manual Modification	No
Amount:	619. (ng/mL)
% Accuracy:	103.00

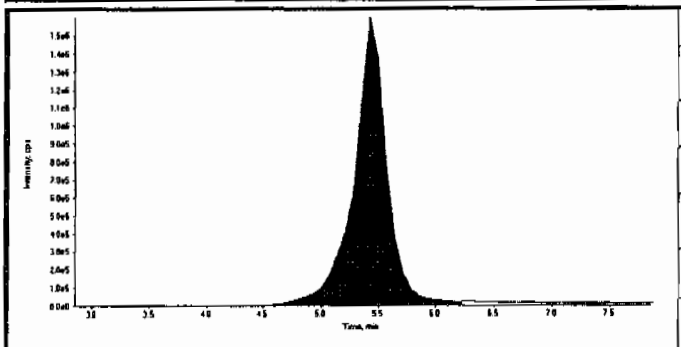

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	3.23e+007
Manual Modification	No
Amount:	634. (ng/mL)
% Accuracy:	106.00

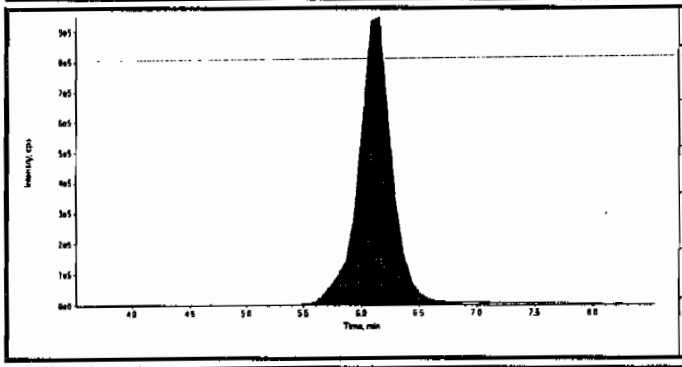

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.15
Area Counts:	1.92e+007
Manual Modification	No
Amount:	684. (ng/mL)
% Accuracy:	114.00

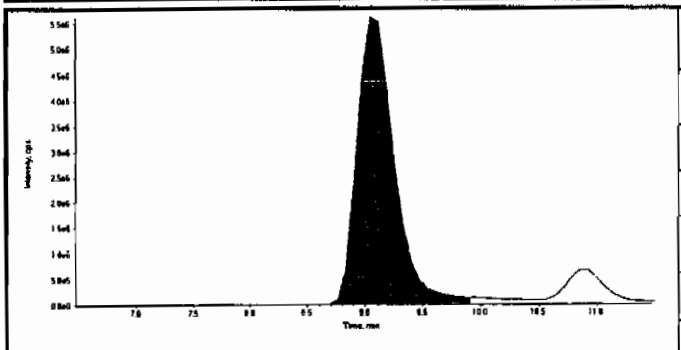

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.29e+008
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.20

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312087.wiff	**Acquisition Date**	3/13/2010 9:50:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

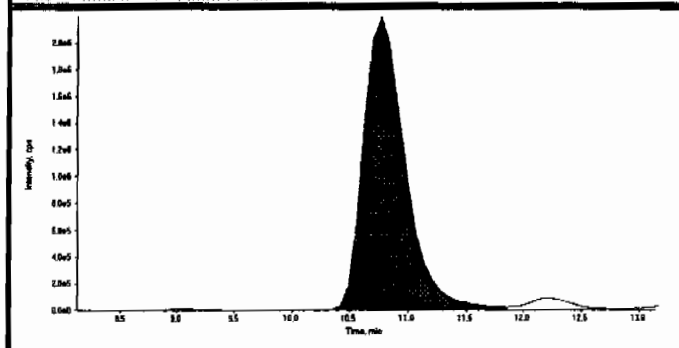

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	5.51e+007
Manual Modification	No
Amount:	580. (ng/mL)
% Accuracy:	96.70

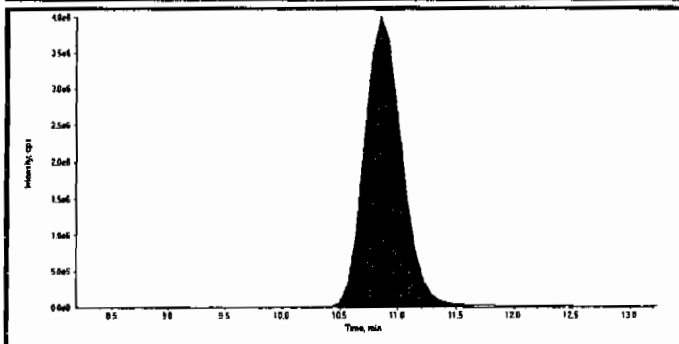

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	8.96e+007
Manual Modification	No
Amount:	730. (ng/mL)
% Accuracy:	122.00

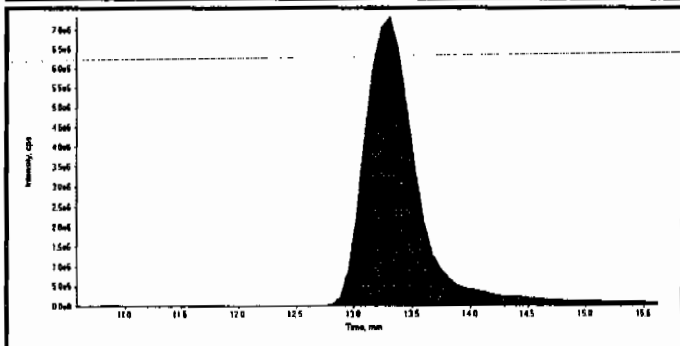

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	2.40e+008
Manual Modification	No
Amount:	606. (ng/mL)
% Accuracy:	101.00

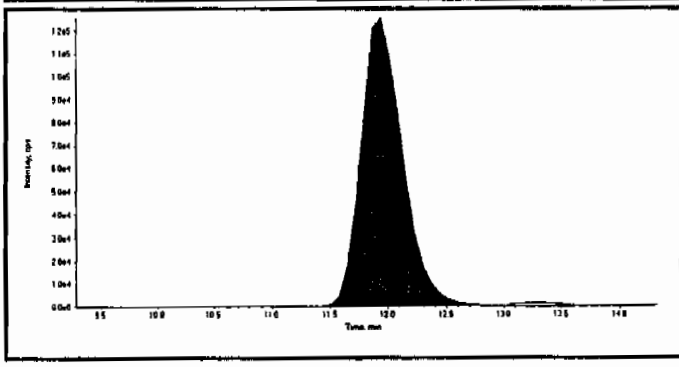

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	3.14e+006
Manual Modification	No
Amount:	582. (ng/mL)
% Accuracy:	97.00

Before Scan 3/24/10

Sample Name: "WXX100312-S6CCV" Sample ID: "[1]LER" File: "EXP0312087.wiff"
Peak Name: "26-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	400.	ng/mL
Calculated Conc:	432.	ng/mL
Acq. Date:	3/13/2010	
Acq. Time:	9:50:18 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.90e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	60.0	sec
Expected RT:	14.8	min
Use Relative RT:	No	
Integ. Type:	Valley	
Retention Time:	15.0	min
Area:	4.02e+007	counts
Height:	2.58e+006	cps
Start Time:	14.5	min
End Time:	15.4	min

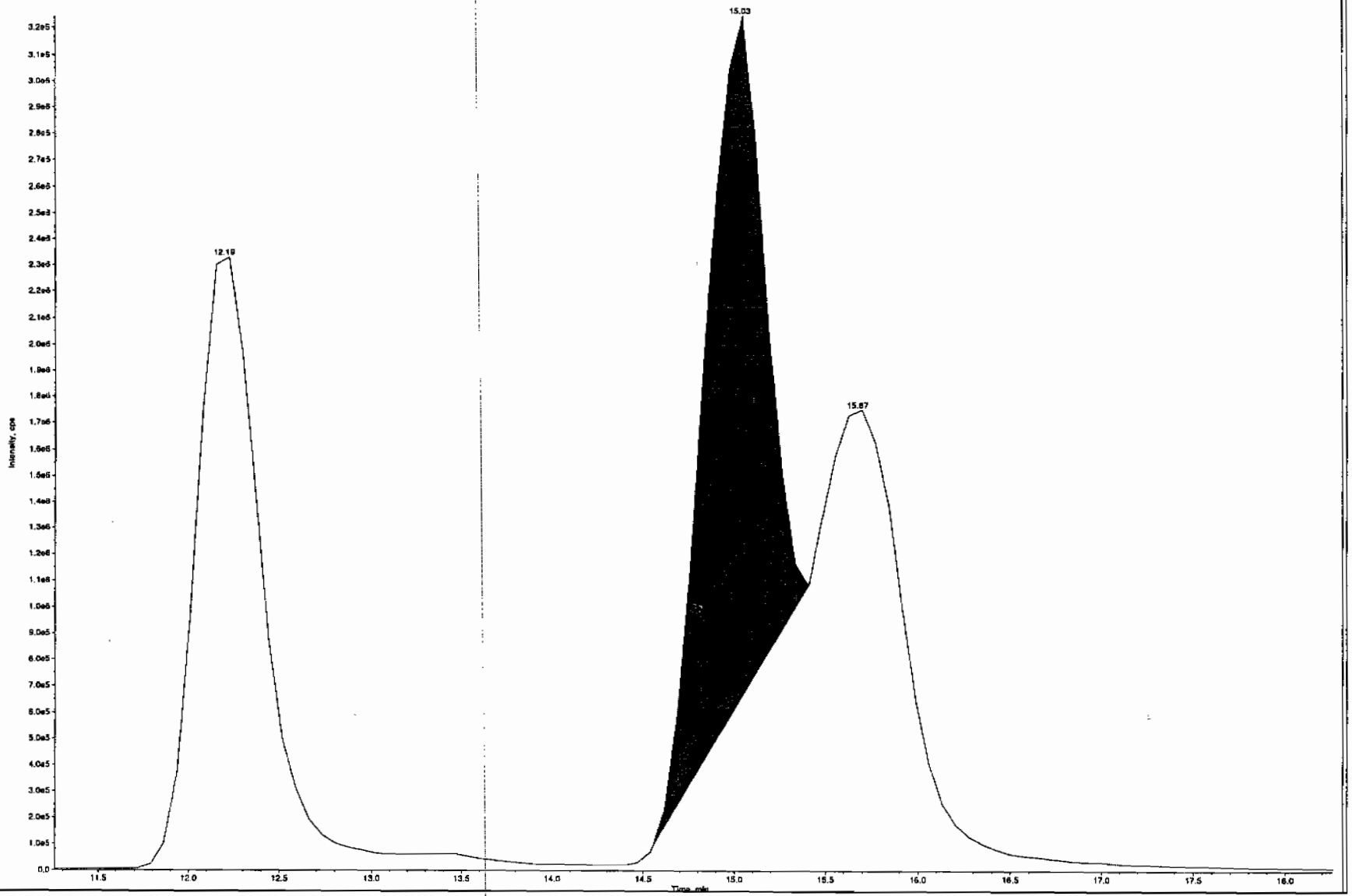

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Before Lot 3/24/10

Sample Name: "WXX100312-S6CCV" Sample ID: "HILER" File: "EXP0312087.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEKP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/13/2010
Acq. Time: 9:50:18 PM

Modified: No

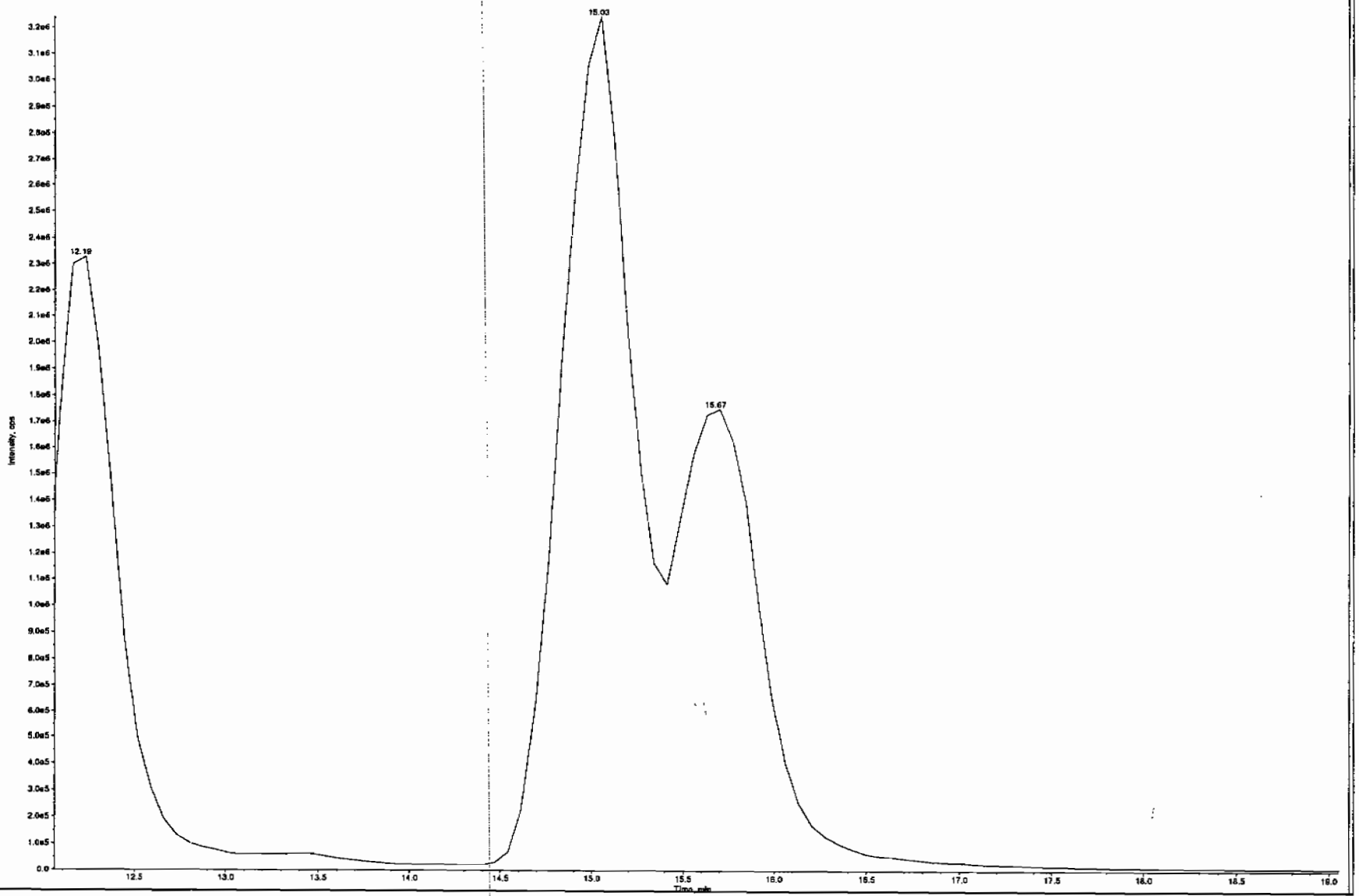

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312087.wiff	**Acquisition Date**	3/13/2010 9:50:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

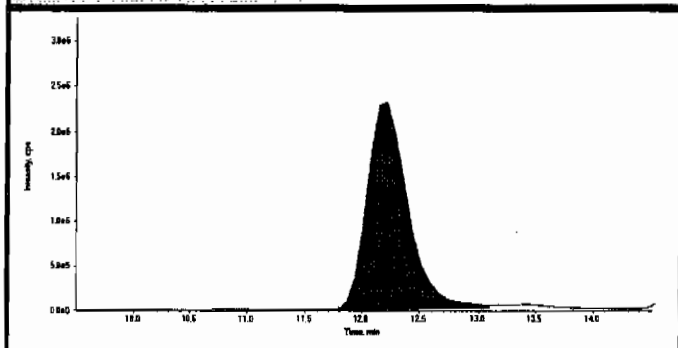

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.84e+007
Manual Modification	No
Amount:	280. (ng/mL)
% Accuracy:	93.40

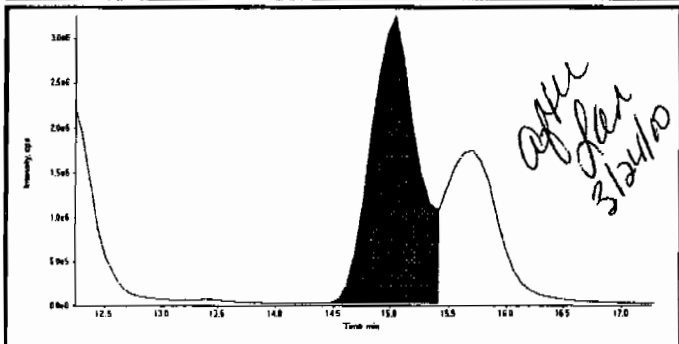

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	8.92e+007
Manual Modification	Yes
Amount:	653. (ng/mL)
% Accuracy:	109.00

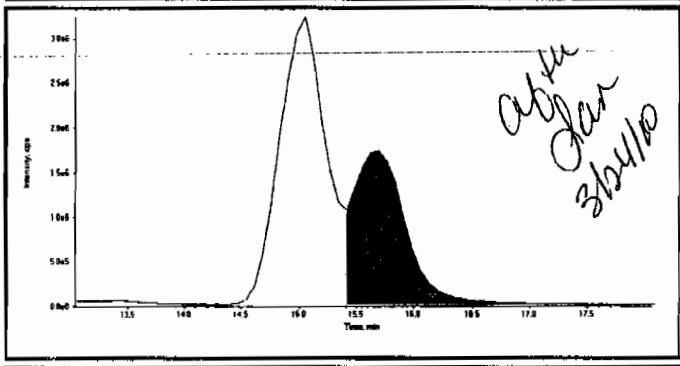

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	5.54e+007
Manual Modification	Yes
Amount:	557. (ng/mL)
% Accuracy:	92.90

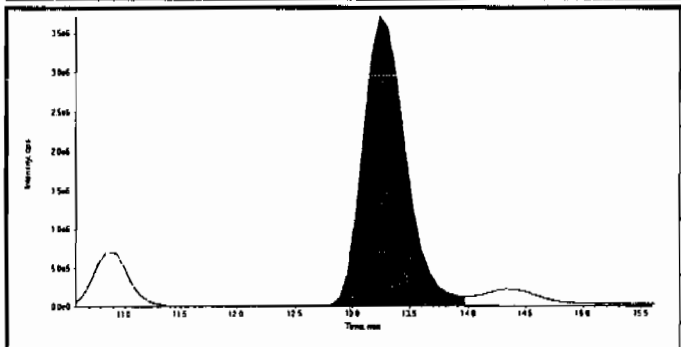

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	9.75e+007
Manual Modification	No
Amount:	619. (ng/mL)
% Accuracy:	103.00

Before Lar 3/24/10

Sample Name: "WXX100312-SSCCV" Sample ID: "[1]LER" File: "EXP0312087.wiff"
Peak Name: "2-Amino-4,6-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 2160. ng/mL
Acq. Date: 3/13/2010
Acq. Time: 9:50:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 4096.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Peak Type: Valley
Retention Time: 14.4 min
Area: 1.07e+007 counts
Height: 1.51e+005 cps
Start Time: 14.0 min
End Time: 17.4 min

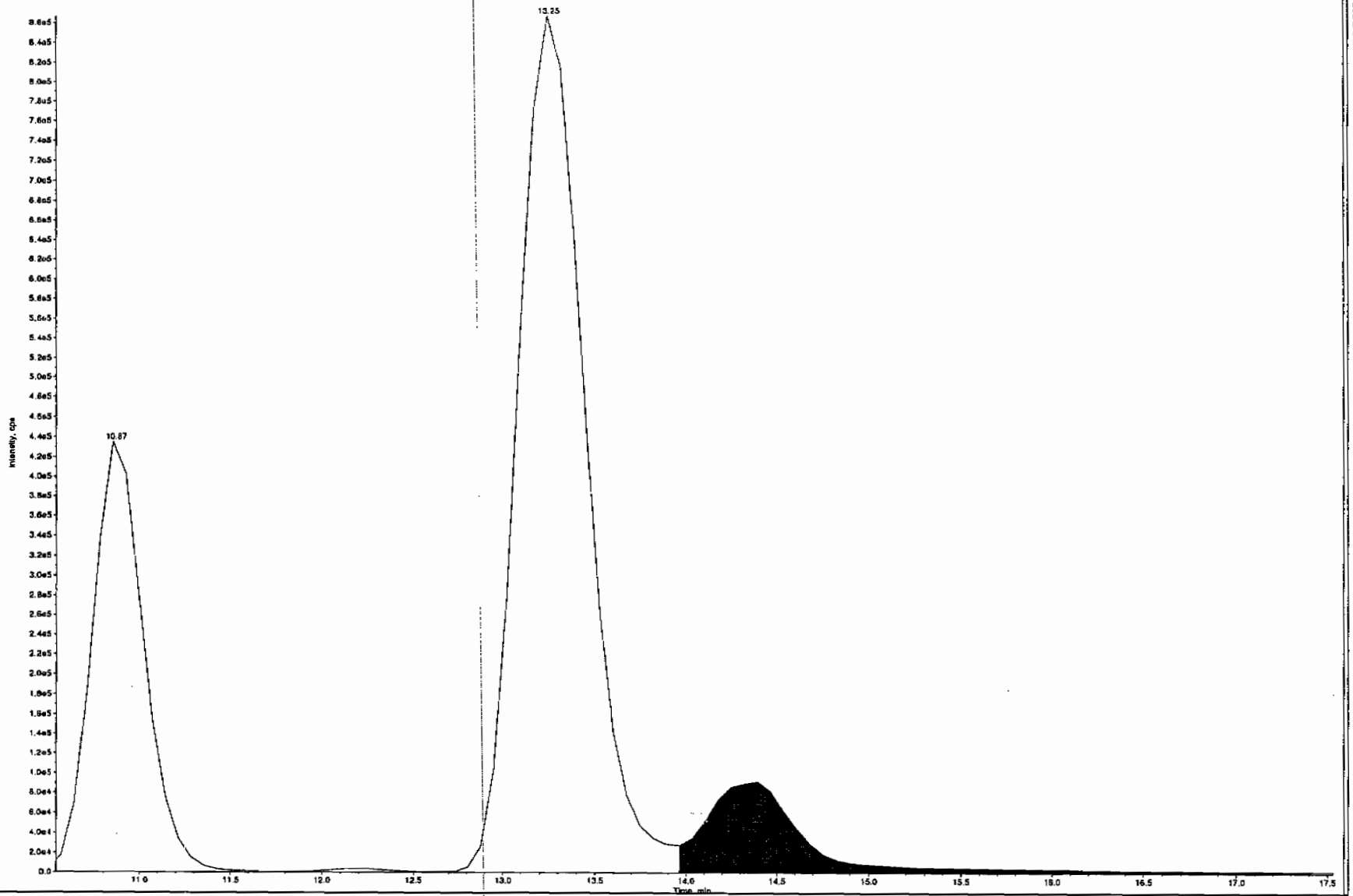

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312087.wiff	**Acquisition Date**	3/13/2010 9:50:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

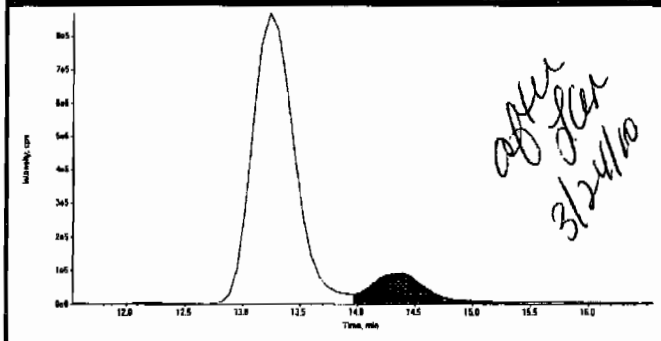

after Ler 3/24/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.4
Area Counts:	3.08e+006
Manual Modification	Yes
Amount:	602. (ng/mL)
% Accuracy:	100.00

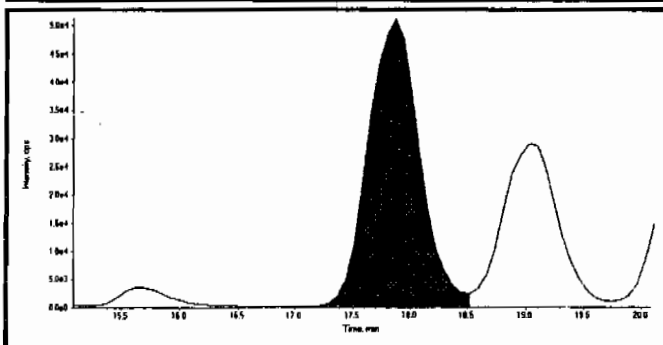

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.9
Area Counts:	1.61e+006
Manual Modification	No
Amount:	560. (ng/mL)
% Accuracy:	93.40

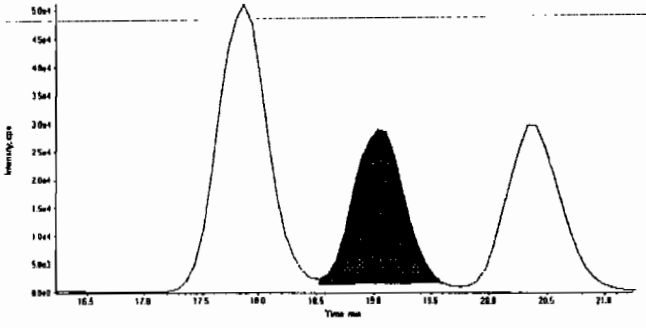

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	8.57e+005
Manual Modification	No
Amount:	544. (ng/mL)
% Accuracy:	90.60

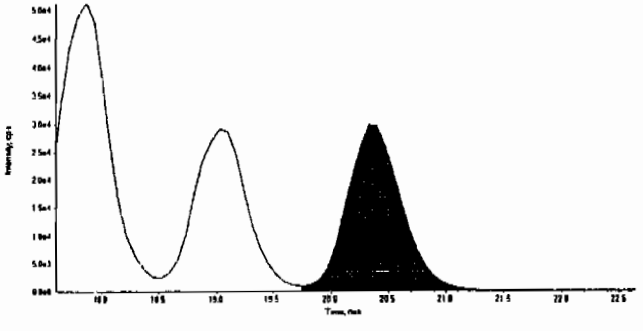

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	9.85e+005
Manual Modification	No
Amount:	562. (ng/mL)
% Accuracy:	93.60

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312087.wiff	**Acquisition Date**	3/13/2010 9:50:18 PM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

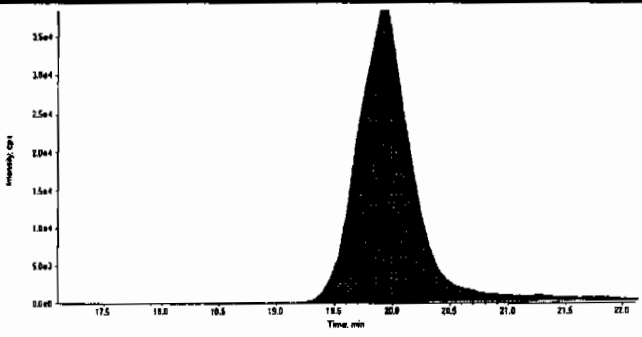

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	20.0
Area Counts:	1.30e+006
Manual Modification	No
Amount:	676. (ng/mL)
% Accuracy:	113.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/13/10
Time of Injection 2150
Standard Number WXX100312-56CCV
Data File EXP0312087a

HMX	96.1
RDX	104.0
TNX	103.0
DNX	106.0
MNX	114.0
135-Trinitrobenzene	99.2
13-Dinitrobenzene	96.7
Tetryl	122.0
246-Trinitrotoluene	101.0
Nitrobenzene	97.0
34-dinitrotoluene	93.4
26-dinitrotoluene	109.0
24-dinitrotoluene	92.9
4-Amino-26-dinitrotoluene	103.0
2-Amino-46-dinitrotoluene	100.0
2-Nitrotoluene	93.4
4-Nitrotoluene	90.6
3-Nitrotoluene	93.6
PETN	113.0
TOTAL	1927.9
AVERAGE	101.5

HMM 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

JCL 3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0312089.wiff

Analysis Date: 13-MAR-10 22:43

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
Tetryl	40	52.3	131	
m-Dinitrobenzene	40	44.3	111	
m-Nitrotoluene	40	40.4	101	
o-Nitrotoluene	40	36.7	92	
p-Nitrotoluene	40	35.4	89	
1,3,5-Trinitrobenzene	40	52.9	132	
2,4,6-Trinitrotoluene	40	47.1	118	
2,4-Dinitrotoluene	40	41.5	104	
2,6-Dinitrotoluene	40	29.9	75	
2-Amino-4,6-dinitrotoluene	40	38.4	96	
3,4-Dinitrotoluene	20	21.8	109	
4-Amino-2,6-dinitrotoluene	40	44.5	111	
DNX	40	47	117	
HMX	40	51.2	128	
MNX	40	46.6	117	
Nitrobenzene	40	38.9	97	
PETN	40	43.4	108	
RDX	40	44.2	111	
TNX	40	46.9	117	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312089.wiff	**Acquisition Date**	3/13/2010 10:43:08 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

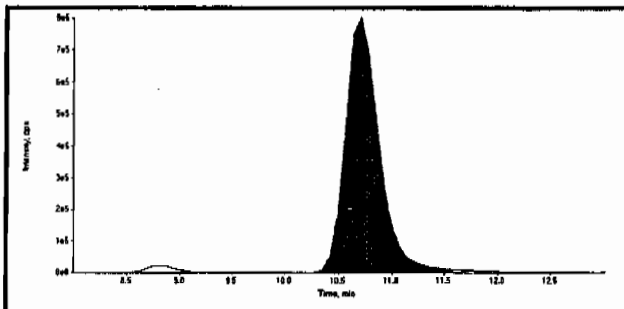

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.70
Area Counts:	18000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

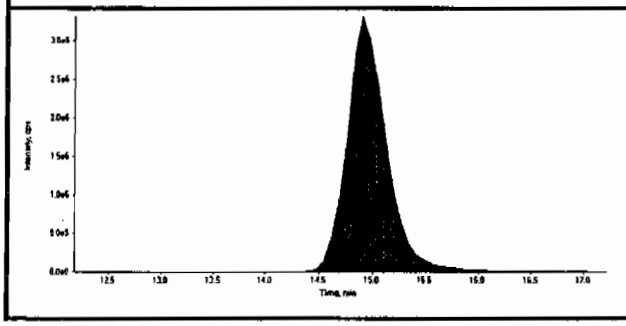

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	86100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

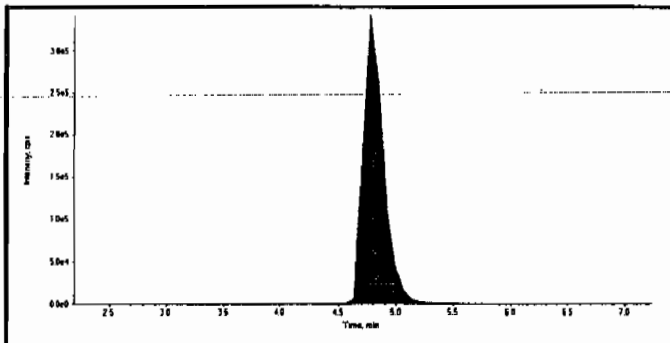

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.20e+006
Manual Modification	No
Amount:	51.2 (ng/mL)
% Accuracy:	128.00

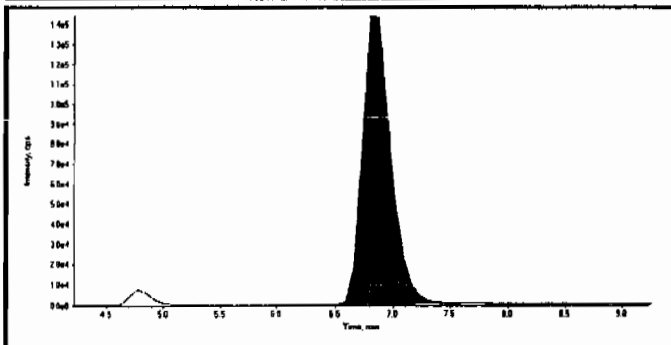

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	2.50e+006
Manual Modification	No
Amount:	44.2 (ng/mL)
% Accuracy:	111.00

thm 03/24/10
Lan 3/24/10

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Data File	EXP0312089.wiff	**Acquisition Date**	3/13/2010 10:43:08 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

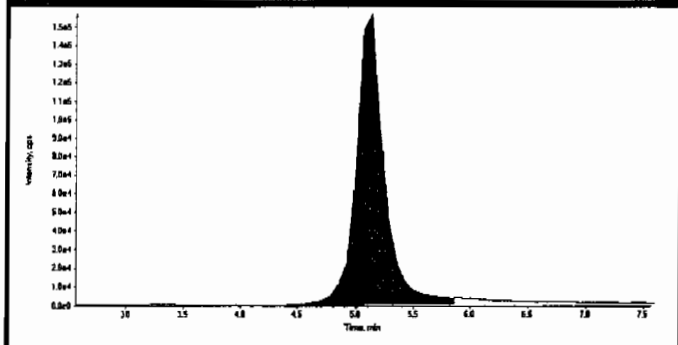

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.14
Area Counts:	2.71e+006
Manual Modification	No
Amount:	46.9 (ng/mL)
% Accuracy:	117.00

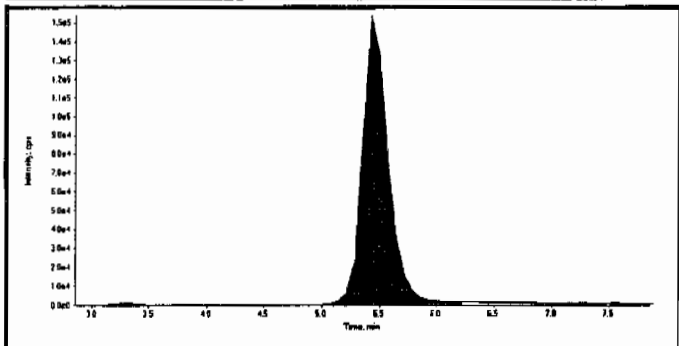

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	2.42e+006
Manual Modification	No
Amount:	47.0 (ng/mL)
% Accuracy:	117.00

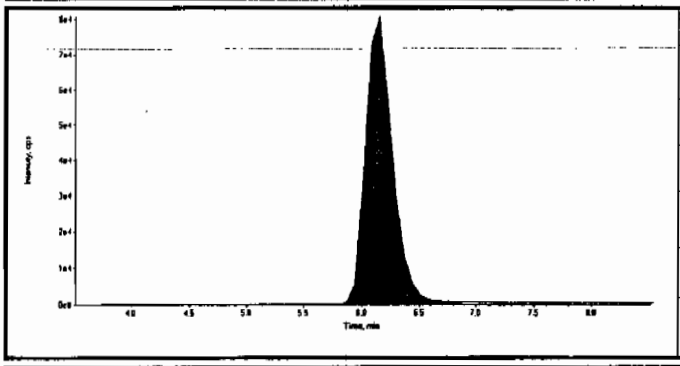

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.15
Area Counts:	1.32e+006
Manual Modification	No
Amount:	46.6 (ng/mL)
% Accuracy:	117.00

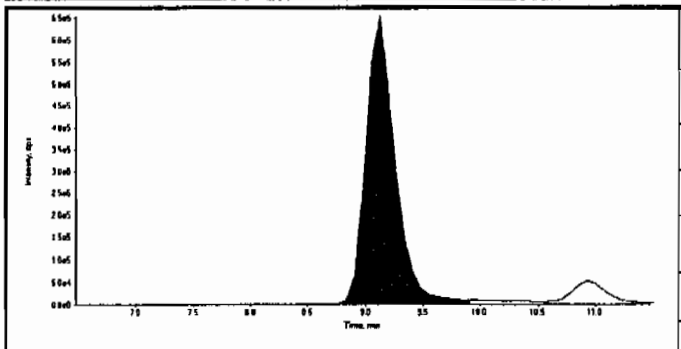

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.12
Area Counts:	1.16e+007
Manual Modification	No
Amount:	52.9 (ng/mL)
% Accuracy:	132.00

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

Data File	EXP0312089.wiff	**Acquisition Date**	3/13/2010 10:43:08 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

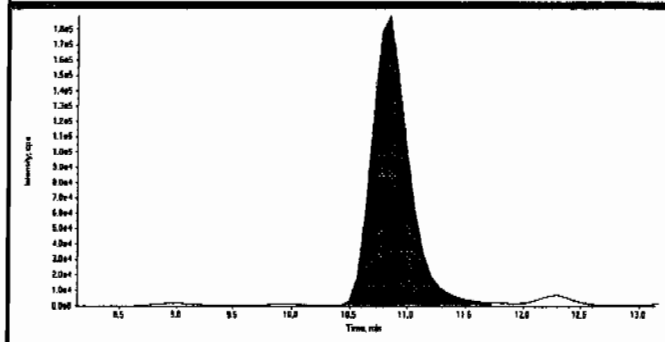

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.9
Area Counts:	4.25e+006
Manual Modification	No
Amount:	44.3 (ng/mL)
% Accuracy:	111.00

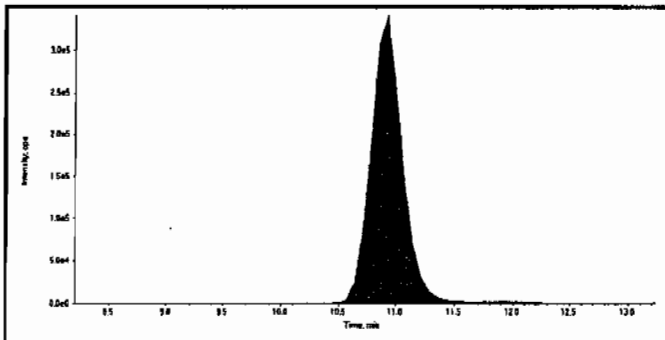

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	6.50e+006
Manual Modification	No
Amount:	52.3 (ng/mL)
% Accuracy:	131.00

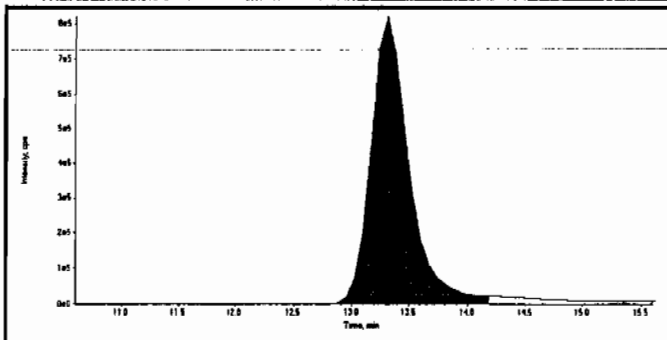

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	1.90e+007
Manual Modification	No
Amount:	47.1 (ng/mL)
% Accuracy:	118.00

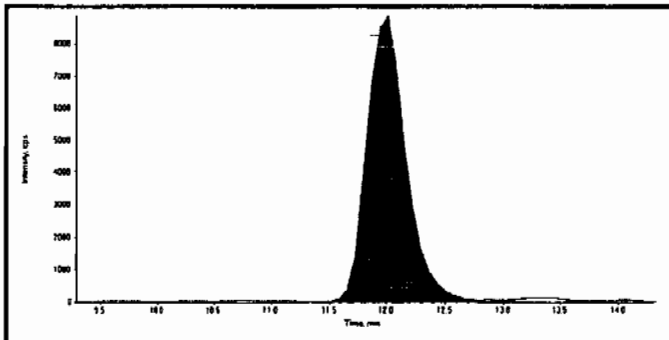

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	12.0
Area Counts:	2.12e+005
Manual Modification	No
Amount:	38.9 (ng/mL)
% Accuracy:	97.10

Before Lax 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "1|LER" File: "EXP0312089.wif"
Peak Name: "2,4-Dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LC/MS/EXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	40.0	ng/mL
Calculated Conc:	0.00	ng/mL
Acq. Date:	3/13/2010	
Acq. Time:	10:43:08 PM	
Verified:	No	

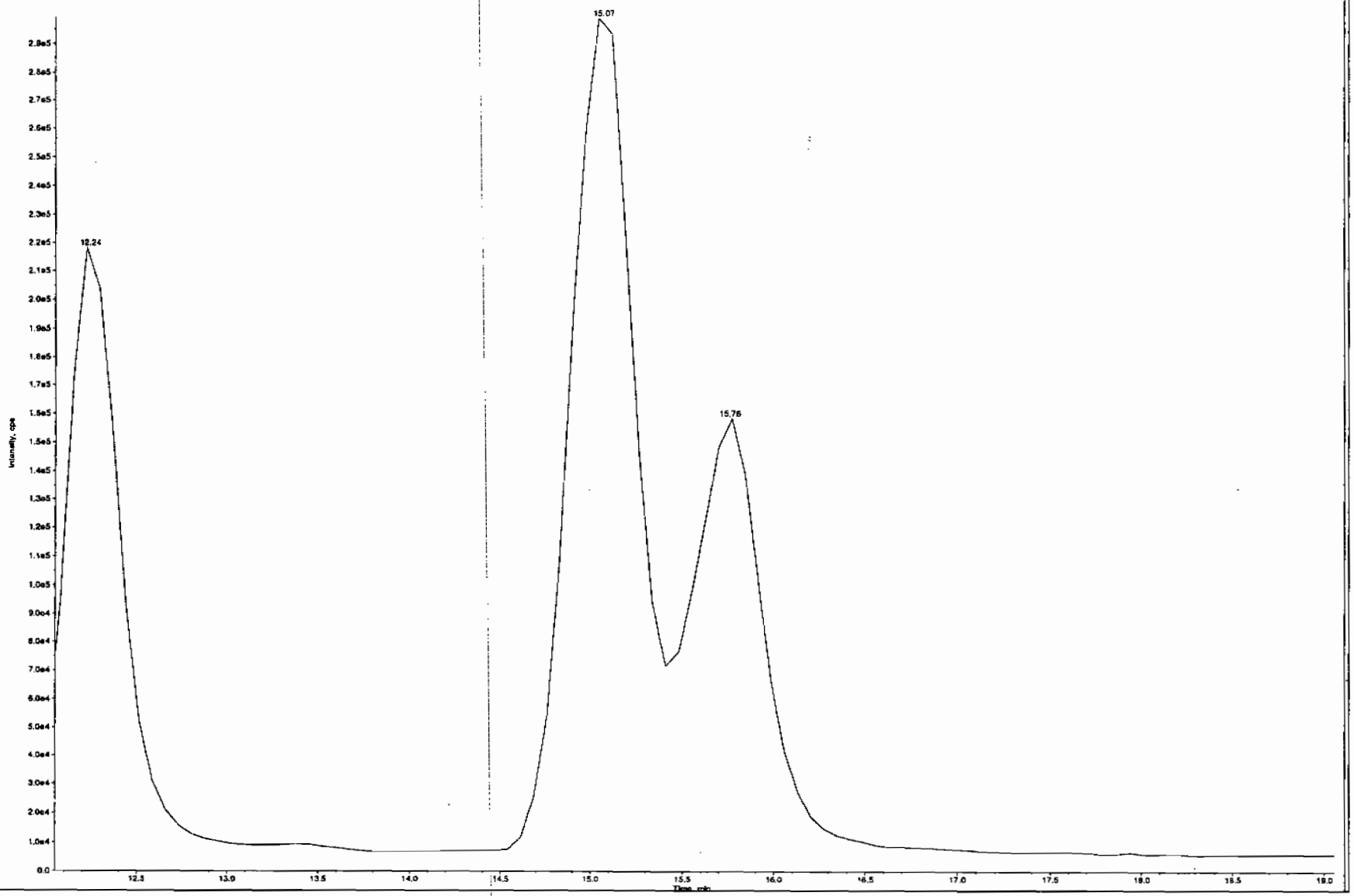

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312089.wiff	Acquisition Date	3/13/2010 10:43:08 PM
Sample Name	WXX100312-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

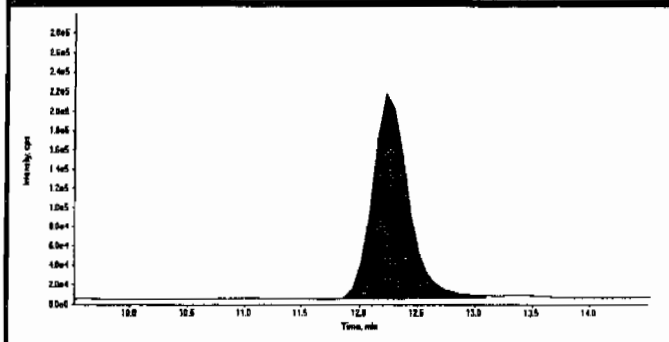

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.64e+006
Manual Modification	No
Amount:	21.8 (ng/mL)
% Accuracy:	109.00

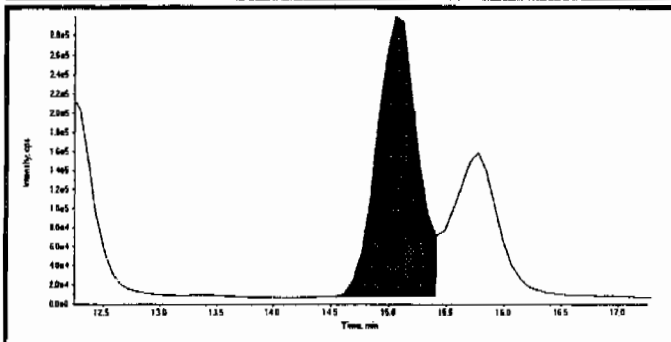

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	7.37e+006
Manual Modification	No
Amount:	29.9 (ng/mL)
% Accuracy:	74.70

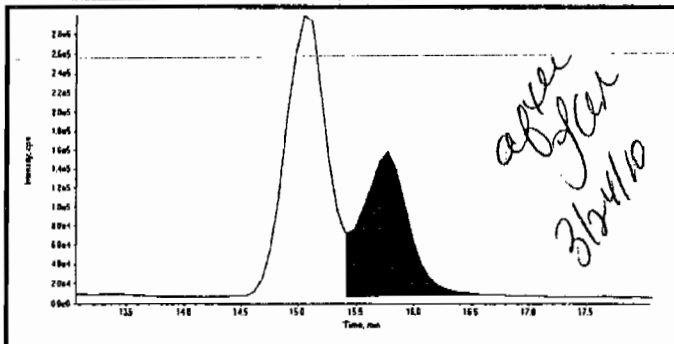

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.8
Area Counts:	4.21e+006
Manual Modification	Yes
Amount:	41.5 (ng/mL)
% Accuracy:	104.00

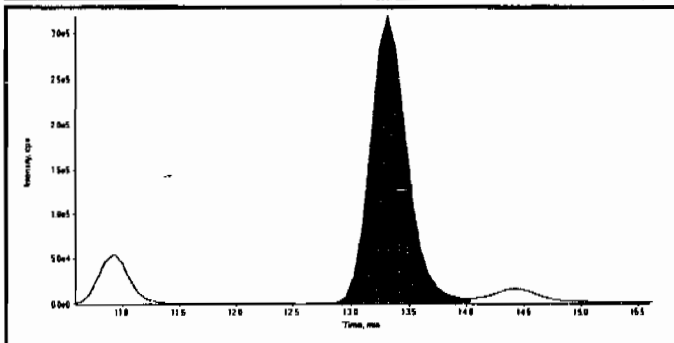

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	7.14e+006
Manual Modification	No
Amount:	44.5 (ng/mL)
% Accuracy:	111.00

Before Run 3/24/10

Sample Name: "WXX100312-57CR" Sample ID: "1ILER" File: "EXP0312049.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 34.2 ng/mL
Acq. Date: 3/13/2010
Acq. Time: 10:43:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 4000.00 cps
Min. Peak Width: 6.00 sec
Smoothing Width: 3 points
Rt Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.4 min
Area: 1.36e+005 counts
Height: 5.02e+003 cps
Start Time: 14.0 min
End Time: 15.0 min

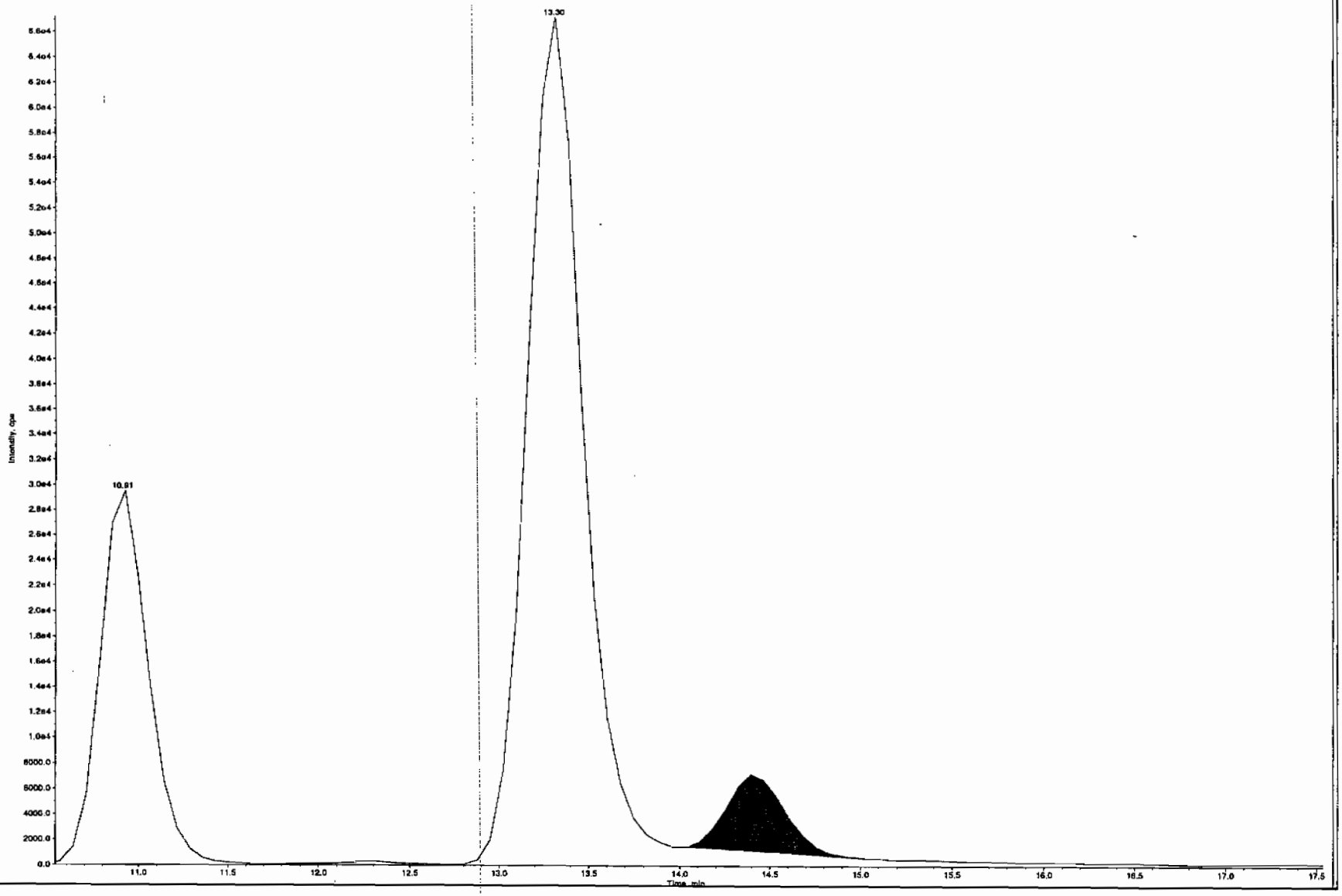

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312089.wiff	Acquisition Date	3/13/2010 10:43:08 PM
Sample Name	WXX100312-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

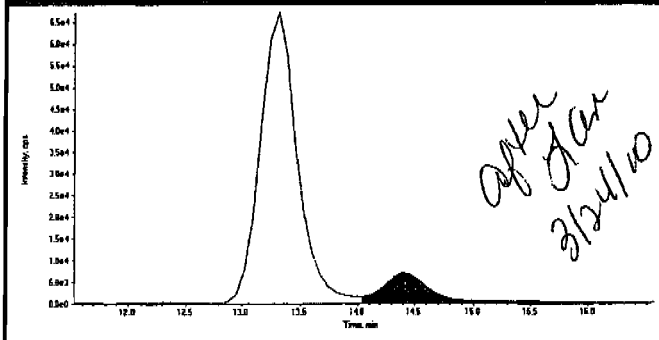

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.4
Area Counts:	2.00e+005
Manual Modification	Yes
Amount:	38.4 (ng/mL)
% Accuracy:	96.10

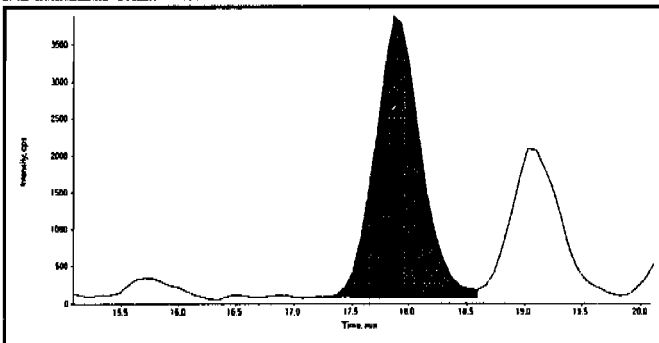

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.9
Area Counts:	1.07e+005
Manual Modification	No
Amount:	36.7 (ng/mL)
% Accuracy:	91.80

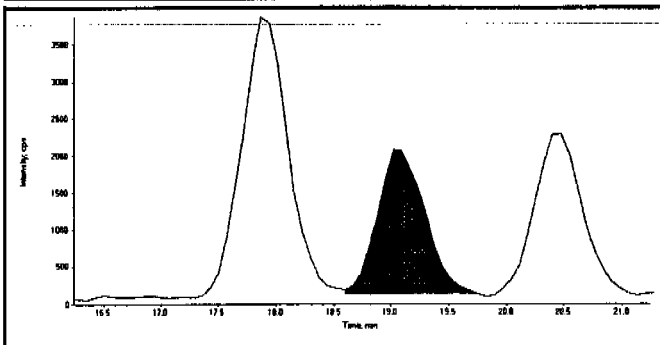

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	5.68e+004
Manual Modification	No
Amount:	35.4 (ng/mL)
% Accuracy:	88.50

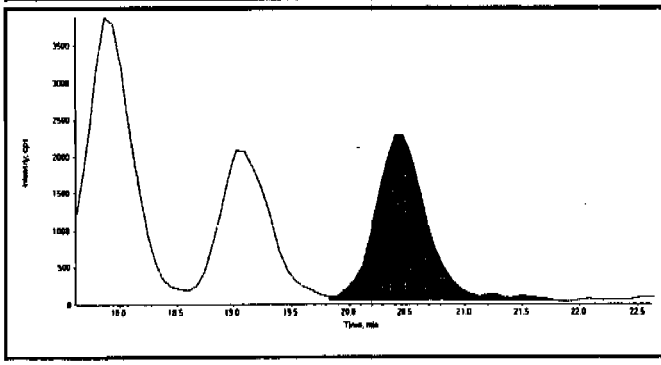

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.5
Area Counts:	7.22e+004
Manual Modification	No
Amount:	40.4 (ng/mL)
% Accuracy:	101.00

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312089.wiff	**Acquisition Date**	3/13/2010 10:43:08 PM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

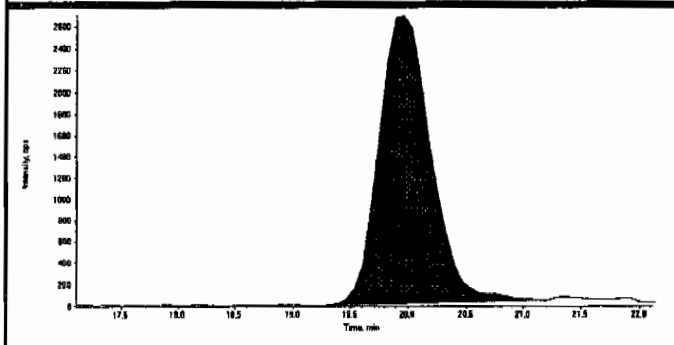

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	20.0
Area Counts:	8.49e+004
Manual Modification	No
Amount:	43.4 (ng/mL)
% Accuracy:	108.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/13/10
Time of Injection 2243
Standard Number WXX100312-57CRI
Data File EXP0312089a

HMX	128.0
RDX	111.0
TNX	117.0
DNX	117.0
MNX	117.0
135-Trinitrobenzene	132.0
13-Dinitrobenzene	111.0
Tetryl	131.0
246-Trinitrotoluene	118.0
Nitrobenzene	97.1
34-dinitrotoluene	109.0
26-dinitrotoluene	74.7
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	111.0
2-Amino-46-dinitrotoluene	96.1
2-Nitrotoluene	91.8
4-Nitrotoluene	88.5
3-Nitrotoluene	101.0
PETN	108.0
	✓
TOTAL	2063.2
AVERAGE	✓ 108.6

HMM 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Dan
3/24/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0312099.wiff

Analysis Date: 14–MAR–10 04:07

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Dinitrotoluene	600	575	96	
2,6–Dinitrotoluene	600	654	109	
2–Amino–4,6–dinitrotoluene	600	661	110	
3,4–Dinitrotoluene	300	291	97	
4–Amino–2,6–dinitrotoluene	600	604	101	
DNX	600	599	100	
HMX	600	568	95	
MNX	600	639	106	
Nitrobenzene	600	598	100	
PETN	600	665	111	
RDX	600	577	96	
TNX	600	624	104	
Tetryl	600	711	118	
m–Dinitrobenzene	600	579	97	
m–Nitrotoluene	600	569	95	
o–Nitrotoluene	600	546	91	
p–Nitrotoluene	600	506	84	
1,3,5–Trinitrobenzene	600	611	102	
2,4,6–Trinitrotoluene	600	594	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312099.wiff	**Acquisition Date**	3/14/2010 4:07:36 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

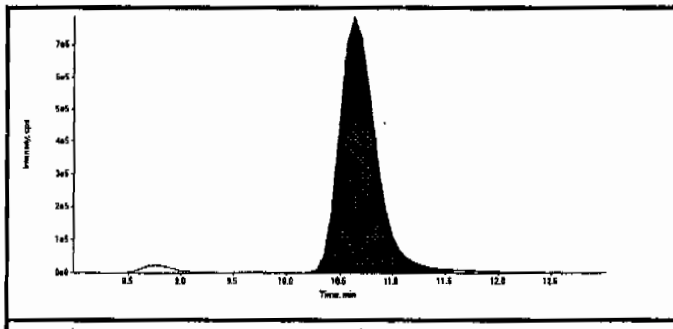

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	19000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

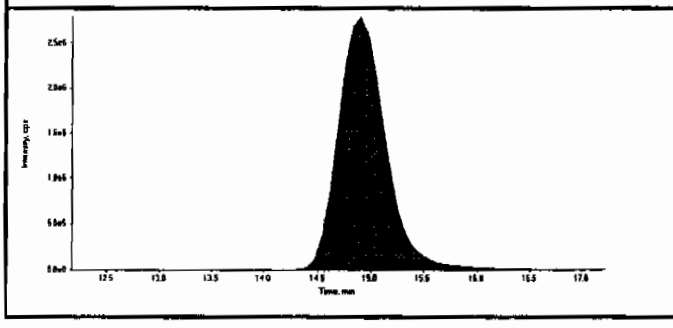

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	87500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

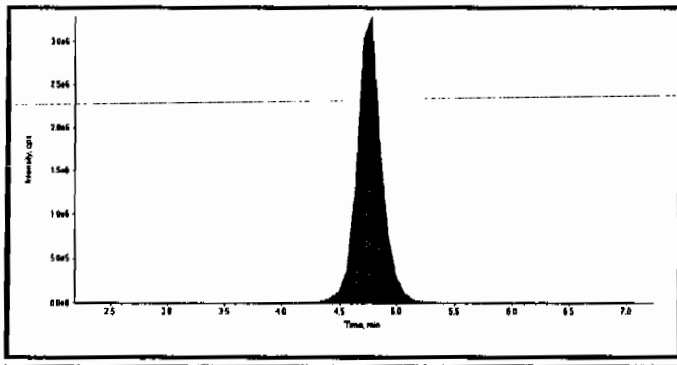

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	4.91e+007
Manual Modification	No
Amount:	568. (ng/mL)
% Accuracy:	94.70

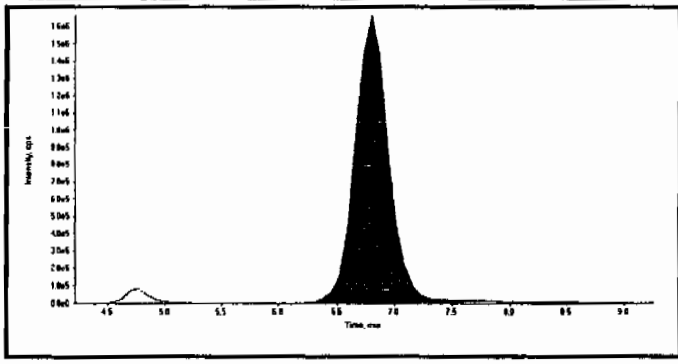

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	3.44e+007
Manual Modification	No
Amount:	577. (ng/mL)
% Accuracy:	96.10

dmw 03/24/10
OLCer 3/24/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312099.wiff	Acquisition Date	3/14/2010 4:07:36 AM
Sample Name	WXX100312-56CCV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	031210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

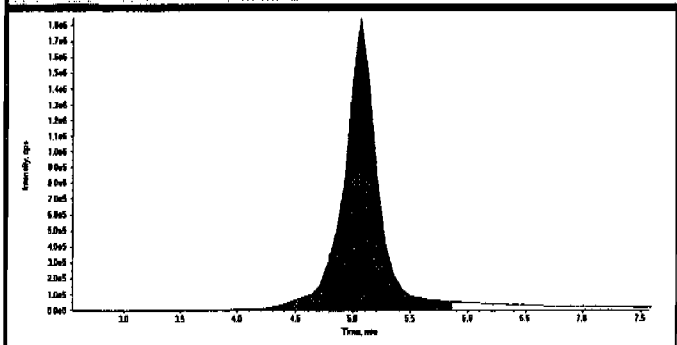

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	3.81e+007
Manual Modification	No
Amount:	624. (ng/mL)
% Accuracy:	104.00

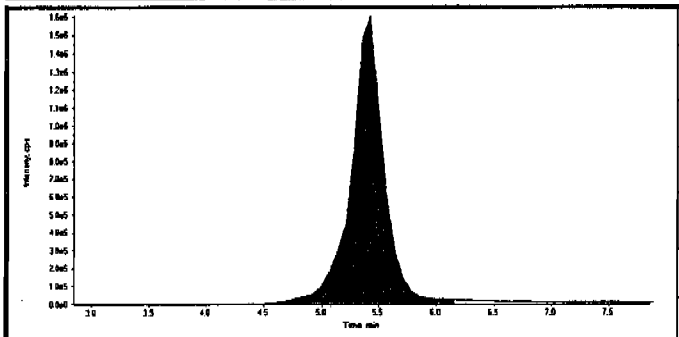

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	3.25e+007
Manual Modification	No
Amount:	599. (ng/mL)
% Accuracy:	99.80

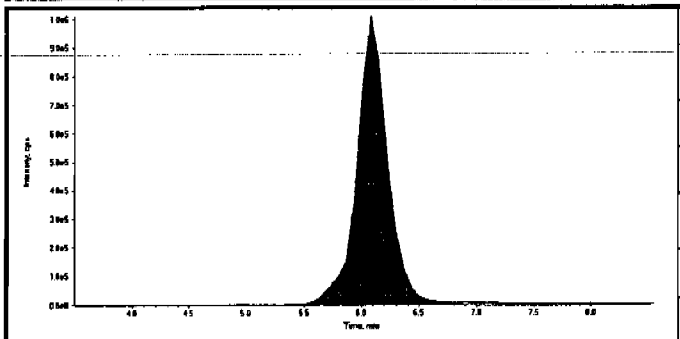

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.08
Area Counts:	1.91e+007
Manual Modification	No
Amount:	639. (ng/mL)
% Accuracy:	106.00

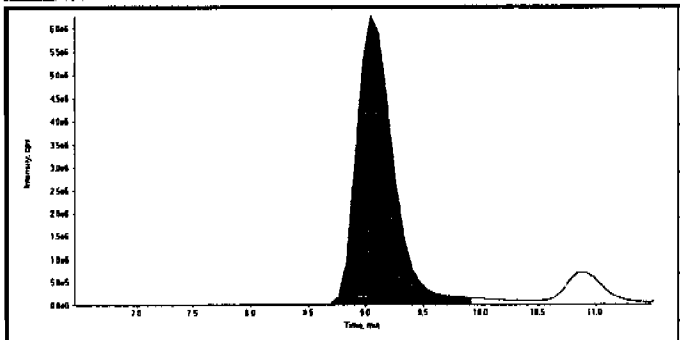

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.41e+008
Manual Modification	No
Amount:	611. (ng/mL)
% Accuracy:	102.00

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Data File	EXP0312099.wiff	**Acquisition Date**	3/14/2010 4:07:36 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

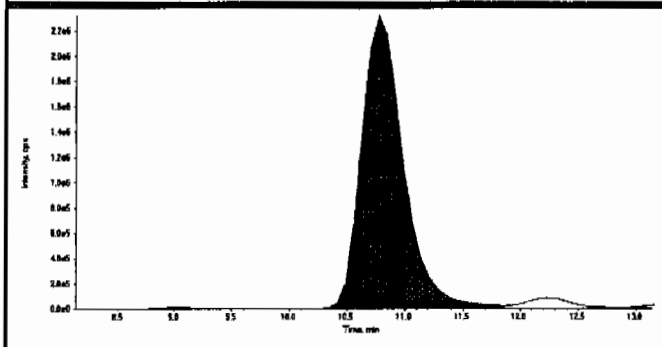

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	5.87e+007
Manual Modification	No
Amount:	579. (ng/mL)
% Accuracy:	96.60

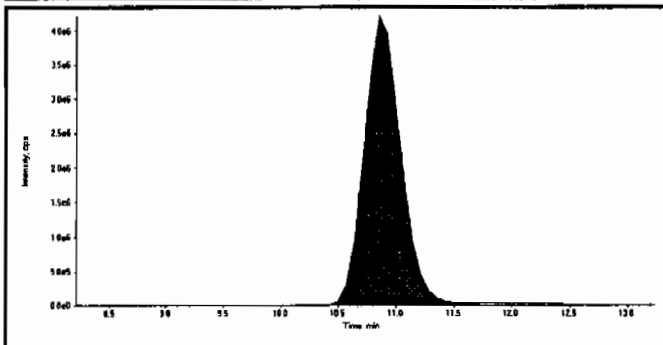

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	9.31e+007
Manual Modification	No
Amount:	711. (ng/mL)
% Accuracy:	118.00

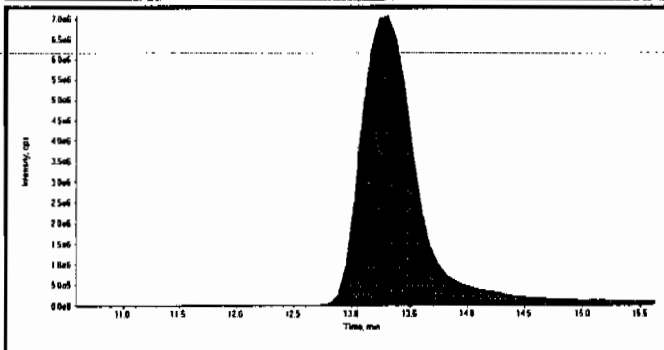

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	2.44e+008
Manual Modification	No
Amount:	594. (ng/mL)
% Accuracy:	99.10

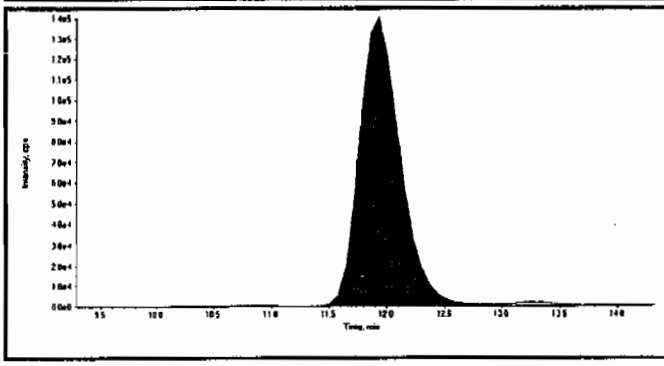

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	3.44e+006
Manual Modification	No
Amount:	598. (ng/mL)
% Accuracy:	99.60

Before LCM 3/24/10

Sample Name: "WXX150312-5SCCV" Sample ID: "[1]LEA" File: "EXP0312069.wiff"
Peak Name: "26-dinitrotoluene" Mass(es): "162.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 437. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 4:07:16 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Avg. Peak Height: 1.90e4 cps
Avg. Peak Width: 0.09 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 15.0 min
Area: 6.38e+007 counts
Height: 2.44e+006 cps
Start Time: 14.6 min
End Time: 15.4 min

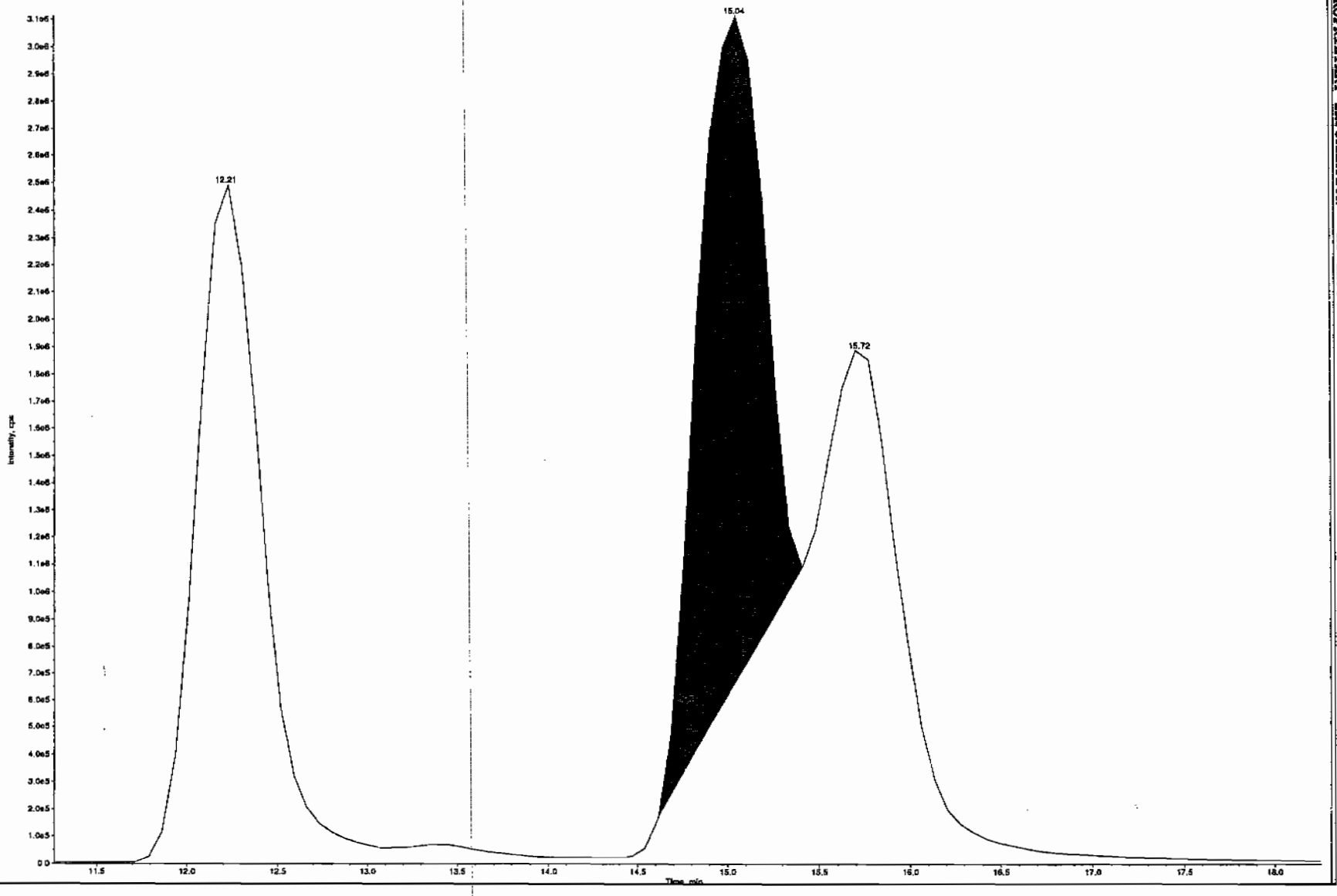

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Before Lan 3/24/10

Sample Name: "WXX100312-55CCV" Sample ID: "[1]LER" File: "EXP0312099.wlf"
Peak Name: "24-dinitrotoluene" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	600.	ng/mL
Calculated Conc:	0.00	ng/mL
Acq. Date:	3/12/2010	
Acq. Time:	4:07:36 AM	
Modified:	No	

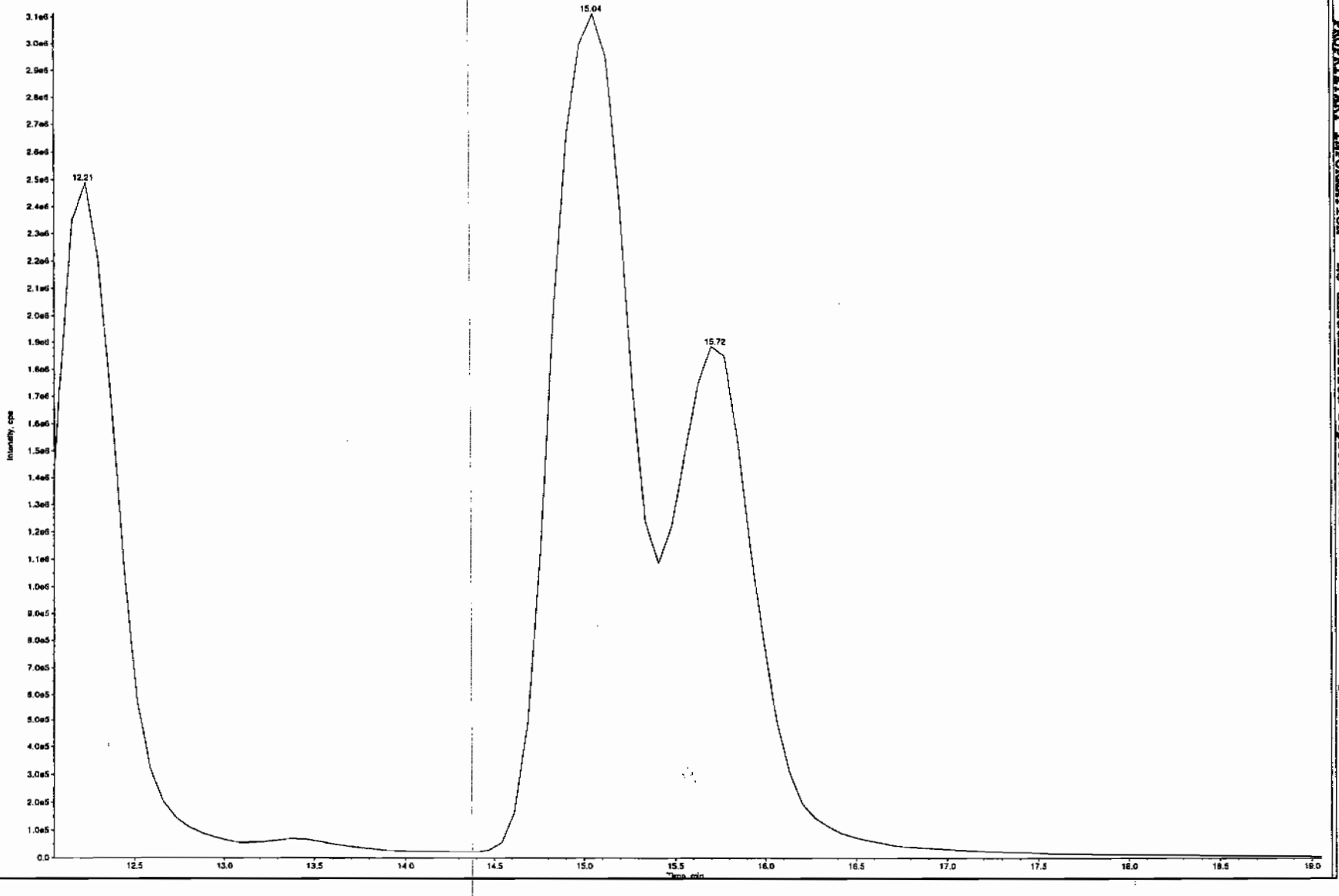

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312099.wiff	**Acquisition Date**	3/14/2010 4:07:36 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

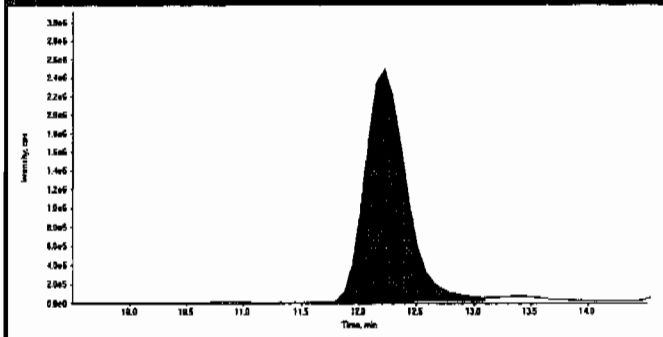

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	6.27e+007
Manual Modification	No
Amount:	291. (ng/mL)
% Accuracy:	96.90

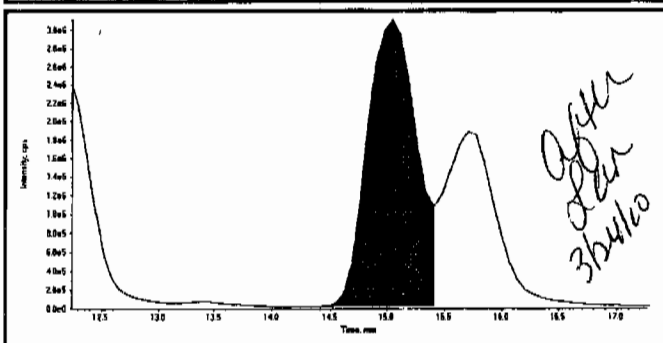

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	9.25e+007
Manual Modification	Yes
Amount:	654. (ng/mL)
% Accuracy:	109.00

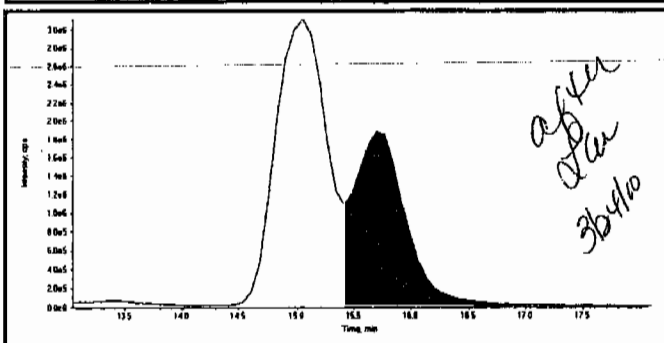

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	5.92e+007
Manual Modification	Yes
Amount:	575. (ng/mL)
% Accuracy:	95.80

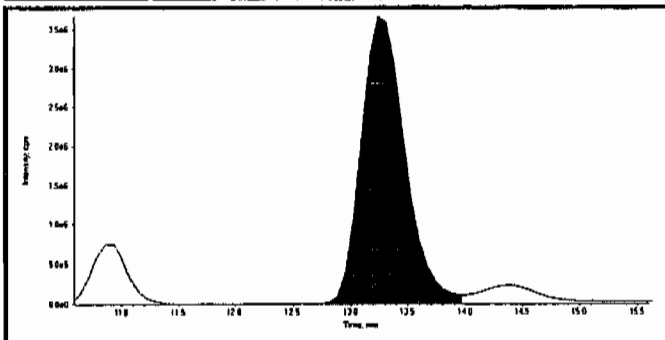

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	9.84e+007
Manual Modification	No
Amount:	604. (ng/mL)
% Accuracy:	101.00

Before RCA 3/24/10

Sample Name: "WXX100312-56CCV" Sample ID: "H|LER" File: "EXP0312069.wiff"
Peak Name: "2-Amino-4,6-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 2150. ng/mL
Acq. Date: 3/14/2010
Acq. Time: 4:07:16 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Ht. Peak Height: 4000.00 cps
Ht. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 40.0 sec
Expected RT: 14.0 min
Use Relative RT: No

PK. Type: Valley
Retention Time: 14.4 min
Area: 1.14e+007 counts
Height: 1.58e+005 cps
Start Time: 14.0 min
End Time: 17.6 min

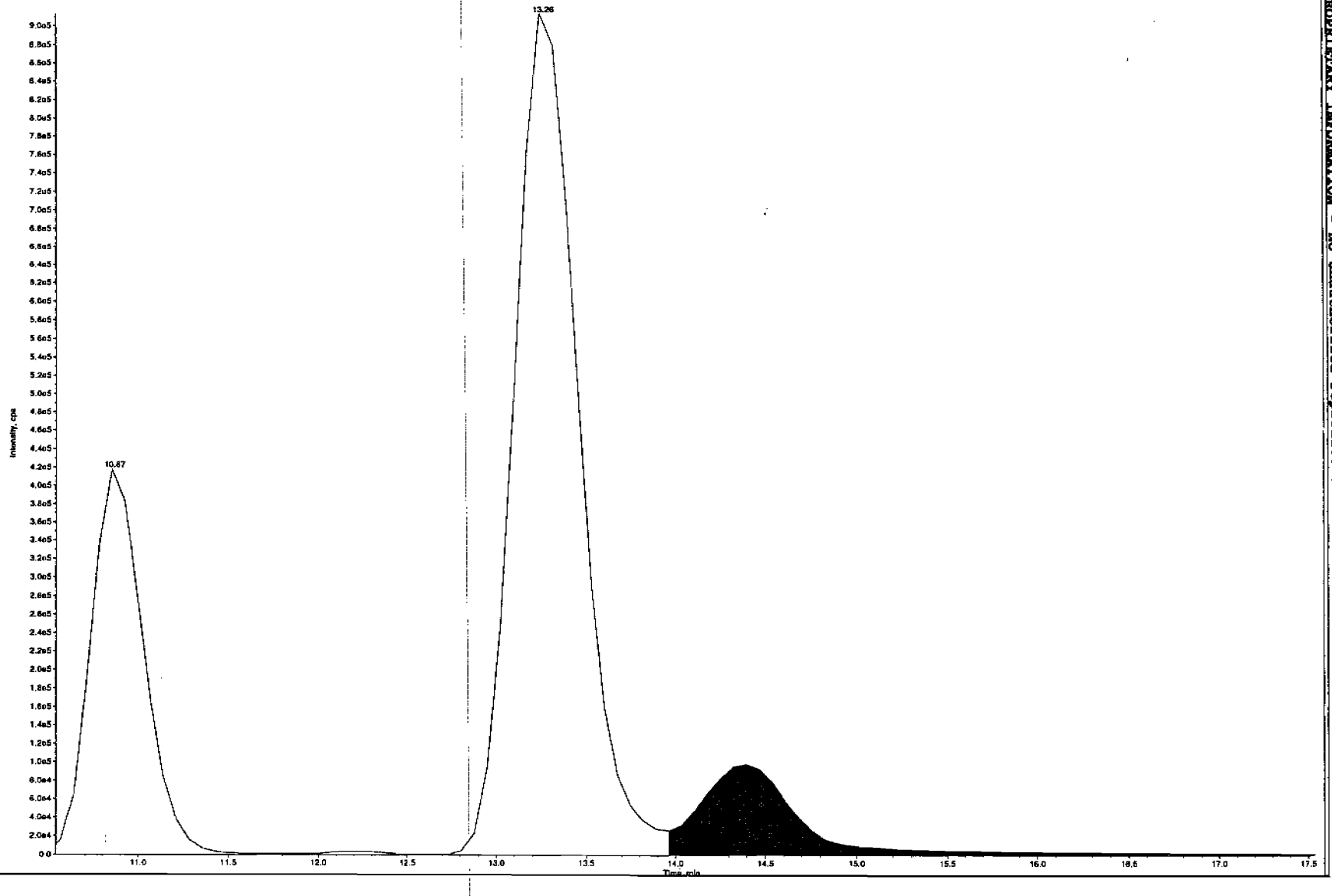

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312099.wiff	**Acquisition Date**	3/14/2010 4:07:36 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

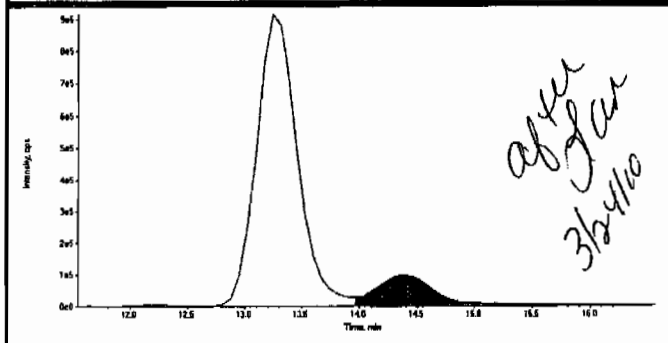

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.4
Area Counts:	3.50e+006
Manual Modification	Yes
Amount:	661. (ng/mL)
% Accuracy:	110.00

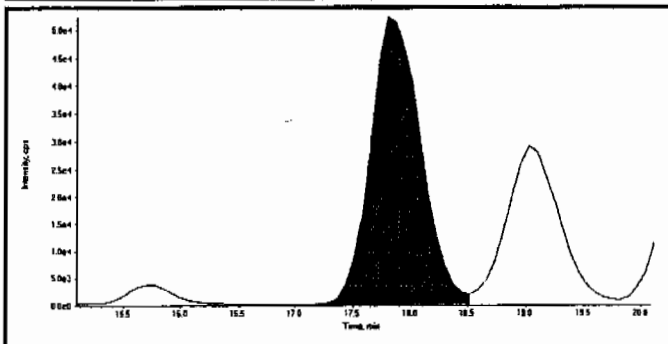

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.8
Area Counts:	1.62e+006
Manual Modification	No
Amount:	546. (ng/mL)
% Accuracy:	91.00

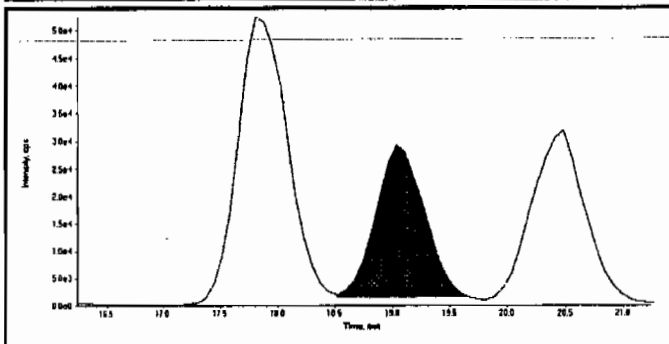

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	8.25e+005
Manual Modification	No
Amount:	506. (ng/mL)
% Accuracy:	84.30

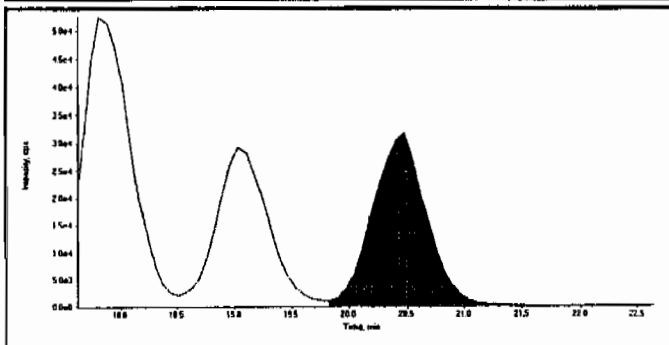

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.5
Area Counts:	1.03e+006
Manual Modification	No
Amount:	569. (ng/mL)
% Accuracy:	94.90

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312099.wiff	**Acquisition Date**	3/14/2010 4:07:36 AM
Sample Name	WXX100312-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

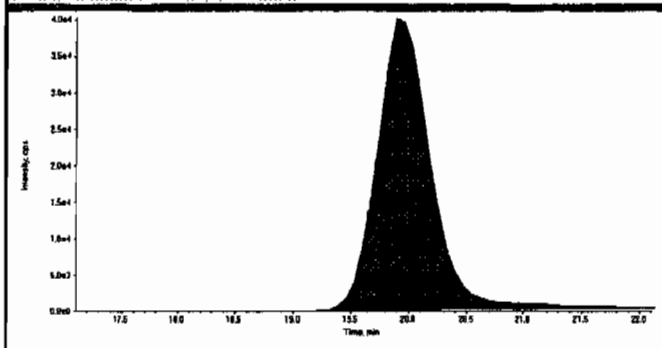

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.9
Area Counts:	1.32e+006
Manual Modification	No
Amount:	665. (ng/mL)
% Accuracy:	111.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/14/10
Time of Injection 0407
Standard Number WXX100312-56CCV
Data File EXP0312099a

HMX	94.7
RDX	96.1
TNX	104.0
DNX	99.8
MNX	106.0
135-Trinitrobenzene	102.0
13-Dinitrobenzene	96.6
Tetryl	118.0
246-Trinitrotoluene	99.1
Nitrobenzene	99.6
34-dinitrotoluene	96.9
26-dinitrotoluene	109.0
24-dinitrotoluene	95.8
4-Amino-26-dinitrotoluene	101.0
2-Amino-46-dinitrotoluene	110.0
2-Nitrotoluene	91.0
4-Nitrotoluene	84.3
3-Nitrotoluene	94.9
PETN	111.0
TOTAL	1909.8
AVERAGE	100.5

HMM 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Sar 3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0312101.wiff

Analysis Date: 14-MAR-10 05:00

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.8	122	
2,4,6-Trinitrotoluene	40	50.2	126	
2,4-Dinitrotoluene	40	38.4	96	
2,6-Dinitrotoluene	40	32.7	82	
2-Amino-4,6-dinitrotoluene	40	35	88	
3,4-Dinitrotoluene	20	22.3	111	
4-Amino-2,6-dinitrotoluene	40	42.2	106	
DNX	40	40.9	102	
HMX	40	39.4	99	
MNX	40	37.1	93	
Nitrobenzene	40	37.1	93	
PETN	40	36.9	92	
RDX	40	36.5	91	
TNX	40	40	100	
Tetryl	40	43.2	108	
m-Dinitrobenzene	40	45.5	114	
m-Nitrotoluene	40	31.4	78	
o-Nitrotoluene	40	30	75	
p-Nitrotoluene	40	24.5	61	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312101.wiff	**Acquisition Date**	3/14/2010 5:00:24 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

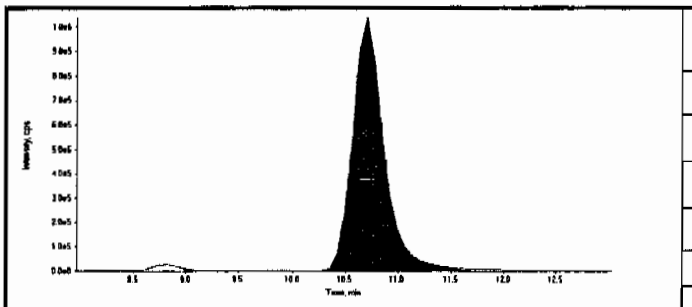

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.70
Area Counts:	21800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

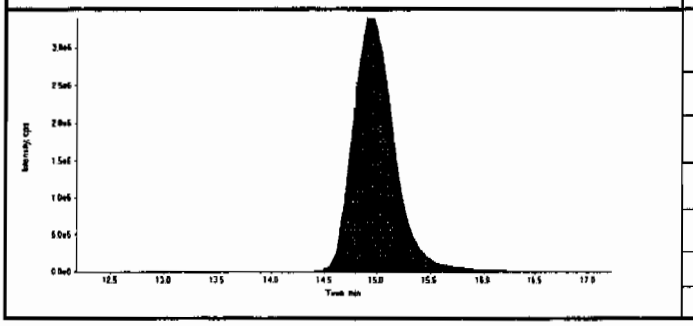

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	95300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

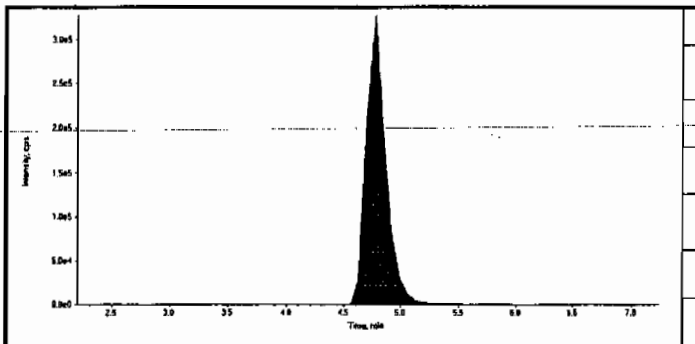

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	3.92e+006
Manual Modification	No
Amount:	39.4 (ng/mL)
% Accuracy:	98.60

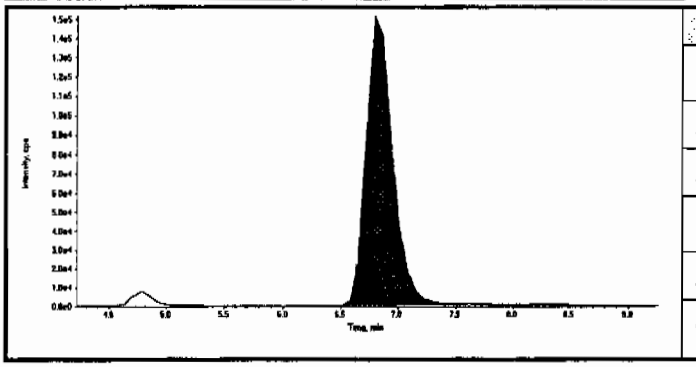

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	2.50e+006
Manual Modification	No
Amount:	36.5 (ng/mL)
% Accuracy:	91.30

LER 3/24/10 tmm 03/24/10

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Data File	EXP0312101.wiff	**Acquisition Date**	3/14/2010 5:00:24 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

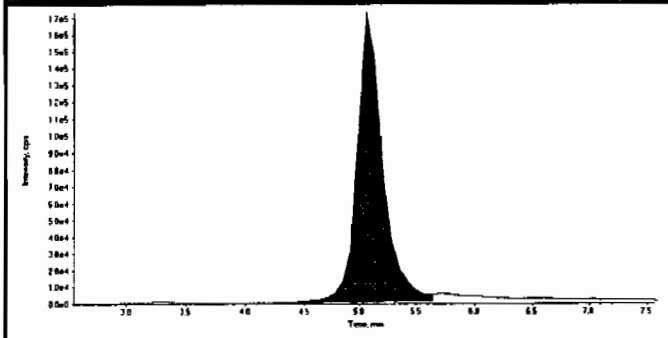

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	5.06
Area Counts:	2.81e+006
Manual Modification	No
Amount:	40.0 (ng/mL)
% Accuracy:	100.00

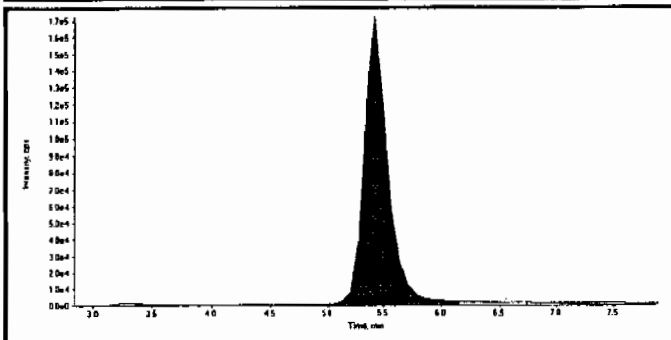

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	5.43
Area Counts:	2.55e+006
Manual Modification	No
Amount:	40.9 (ng/mL)
% Accuracy:	102.00

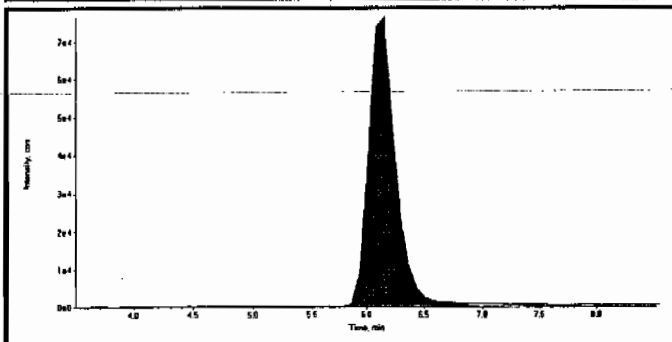

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	6.15
Area Counts:	1.28e+006
Manual Modification	No
Amount:	37.1 (ng/mL)
% Accuracy:	92.70

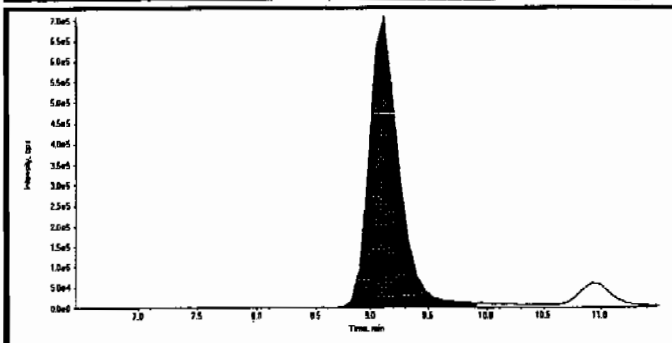

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.12
Area Counts:	1.30e+007
Manual Modification	No
Amount:	48.8 (ng/mL)
% Accuracy:	122.00

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Data File	EXP0312101.wiff	**Acquisition Date**	3/14/2010 5:00:24 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

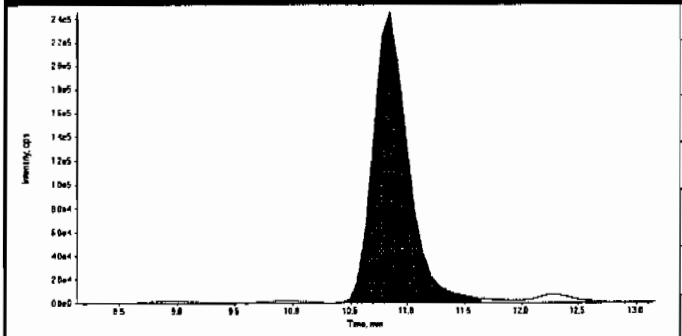

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.9
Area Counts:	5.31e+006
Manual Modification	No
Amount:	45.5 (ng/mL)
% Accuracy:	114.00

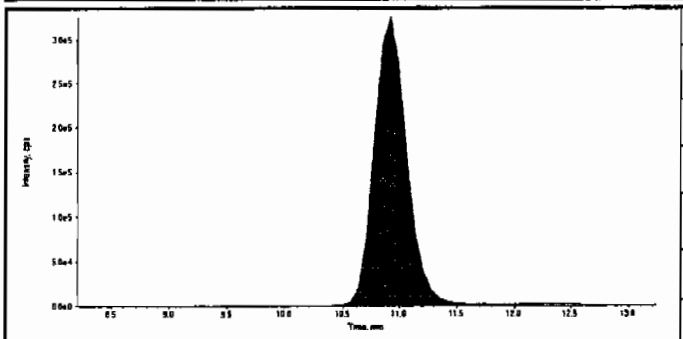

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	6.51e+006
Manual Modification	No
Amount:	43.2 (ng/mL)
% Accuracy:	108.00

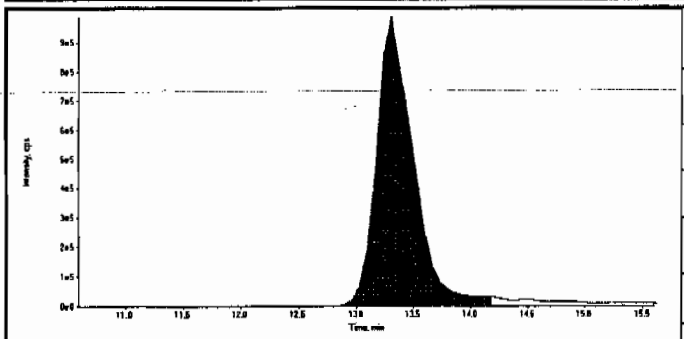

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	2.24e+007
Manual Modification	No
Amount:	50.2 (ng/mL)
% Accuracy:	126.00

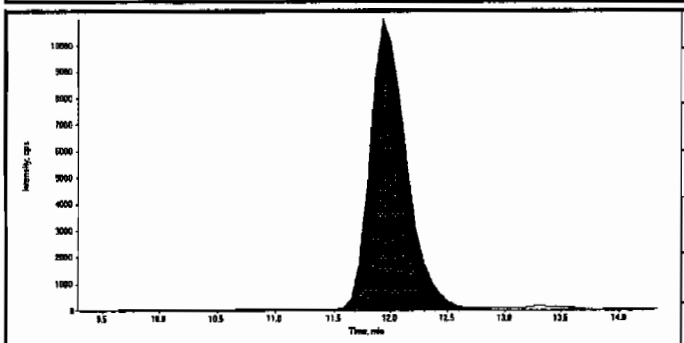

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.45e+005
Manual Modification	No
Amount:	37.1 (ng/mL)
% Accuracy:	92.70

Before Lab 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312101.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/14/2010
Acq. Time: 5:00:24 AM

Modified: Yes

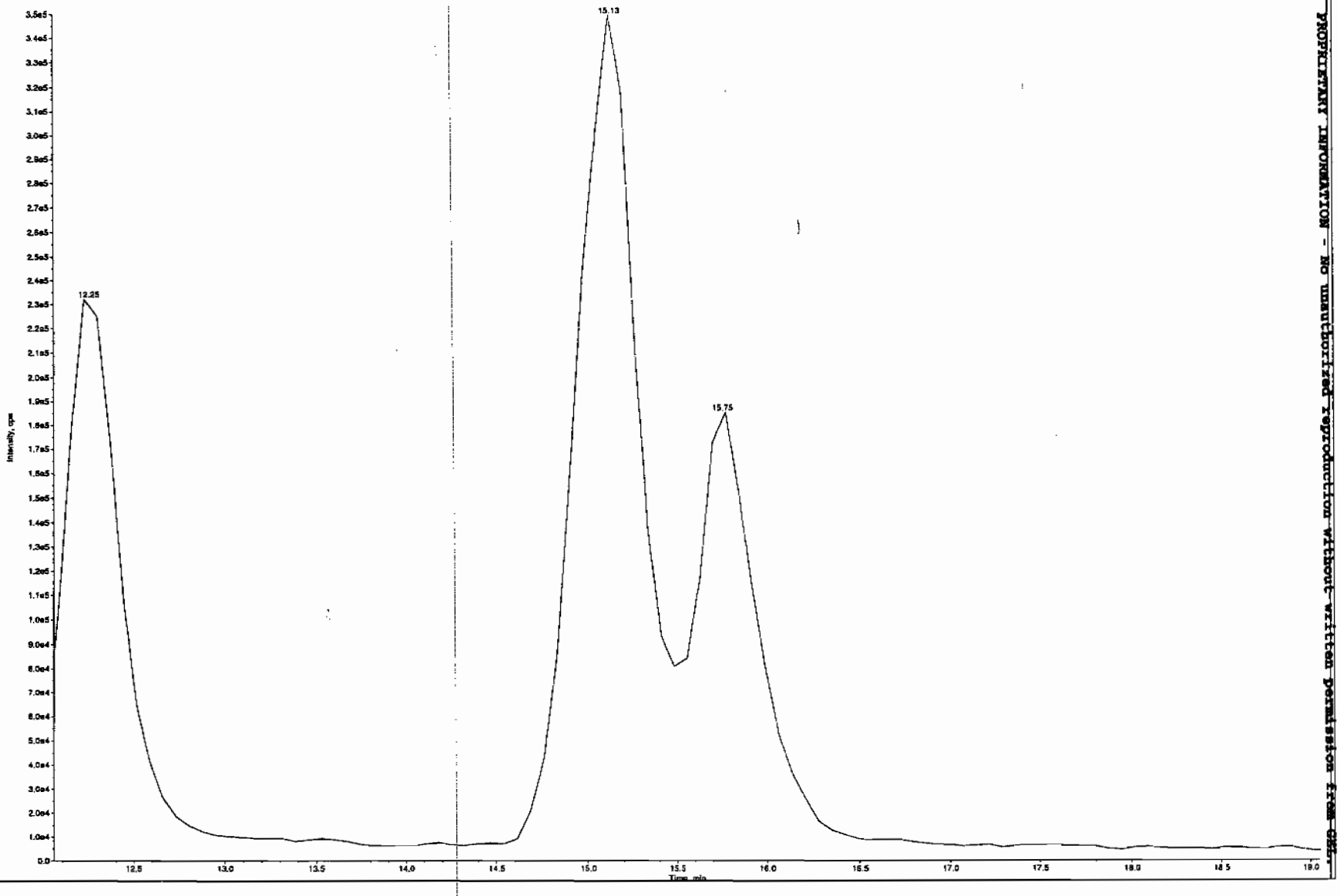

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Data File	EXP0312101.wiff	**Acquisition Date**	3/14/2010 5:00:24 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

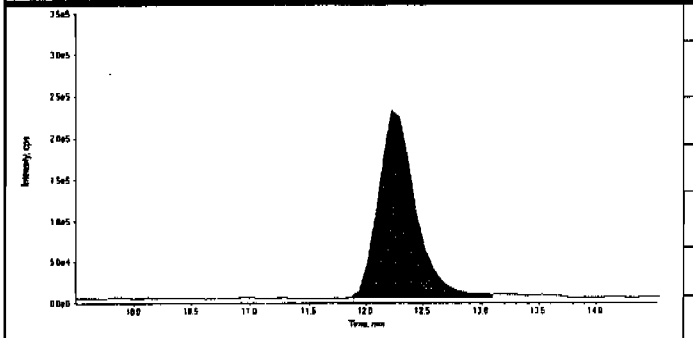

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.23e+006
Manual Modification	No
Amount:	22.3 (ng/mL)
% Accuracy:	111.00

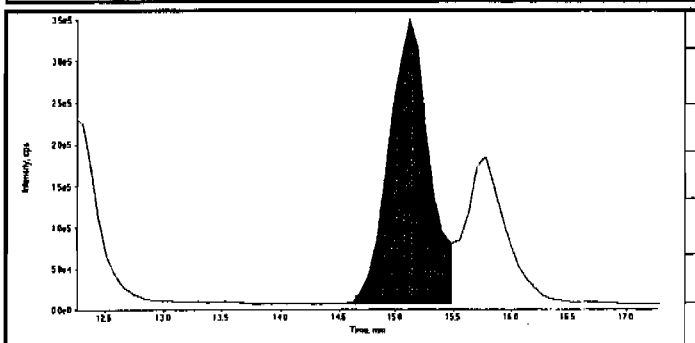

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.1
Area Counts:	8.57e+006
Manual Modification	No
Amount:	32.7 (ng/mL)
% Accuracy:	81.80

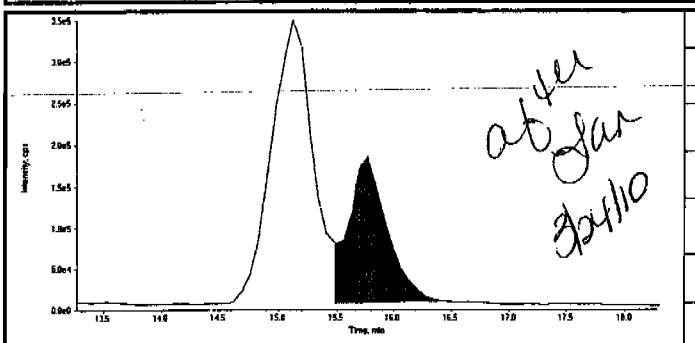

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.8
Actual RT:	15.8
Area Counts:	4.31e+006
Manual Modification	Yes
Amount:	38.4 (ng/mL)
% Accuracy:	96.10

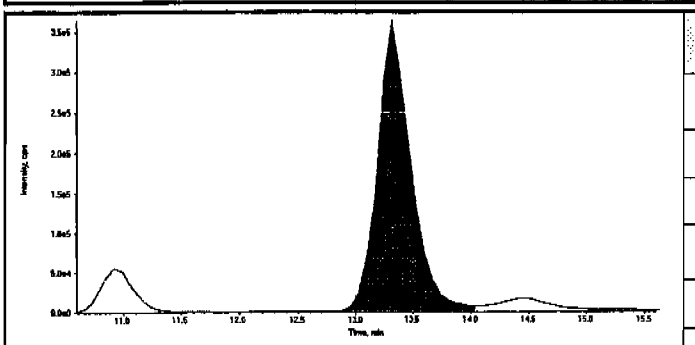

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	7.50e+006
Manual Modification	No
Amount:	42.2 (ng/mL)
% Accuracy:	106.00

Before Lan 3/24/10

Sample Name: "WXX100312-57CRI" Sample ID: "[1]LER" File: "EXP0312101.wiff"
Peak Name: "2-Amino-4,6-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 27.3 ng/mL
Acq. Date: 3/14/2010
Acq. Time: 5:00:24 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 4000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.5 min
Area: 1.57e+005 counts
Height: 6.23e+003 cps
Start Time: 14.0 min
End Time: 15.1 min

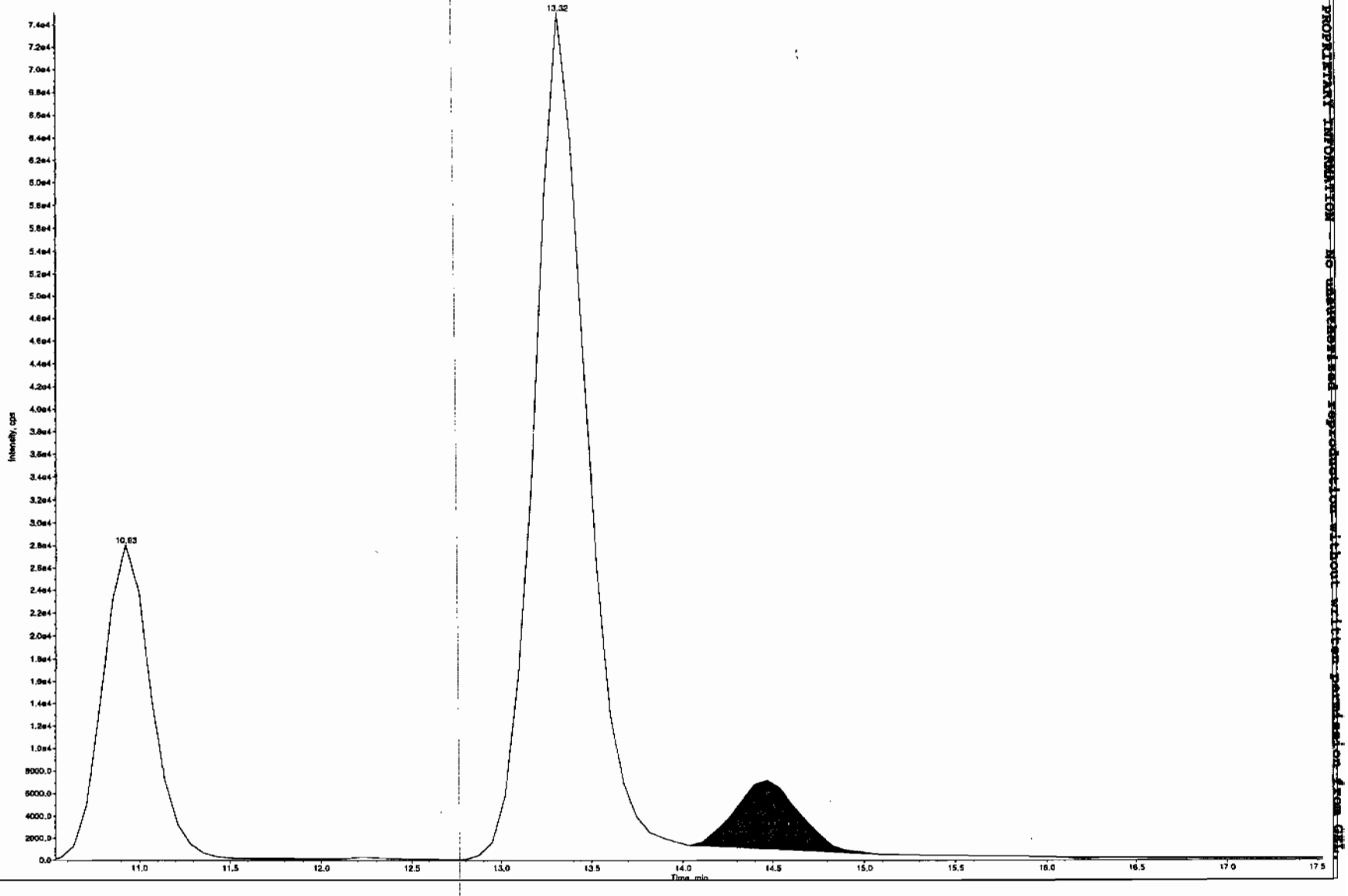

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0312101.wiff	**Acquisition Date**	3/14/2010 5:00:24 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

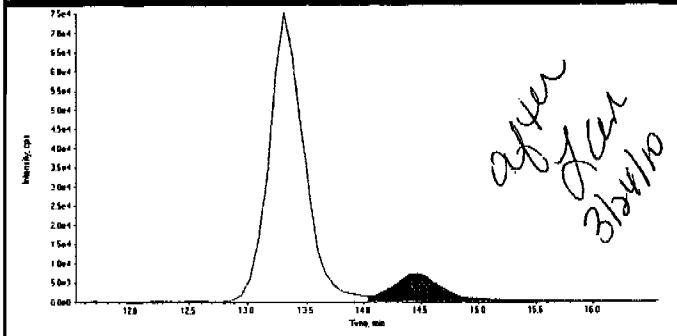

after Ler 3/24/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.5
Area Counts:	2.02e+005
Manual Modification	Yes
Amount:	35.0 (ng/mL)
% Accuracy:	87.50

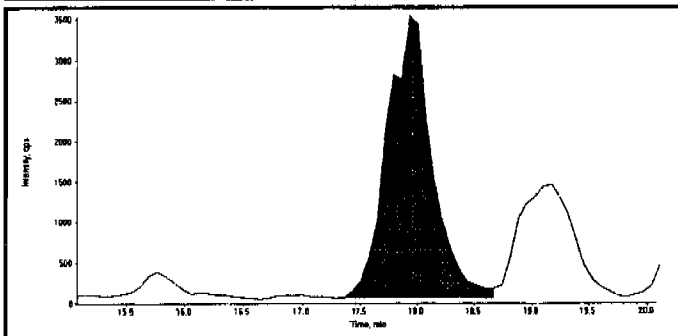

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.9
Area Counts:	9.68e+004
Manual Modification	No
Amount:	30.0 (ng/mL)
% Accuracy:	74.90

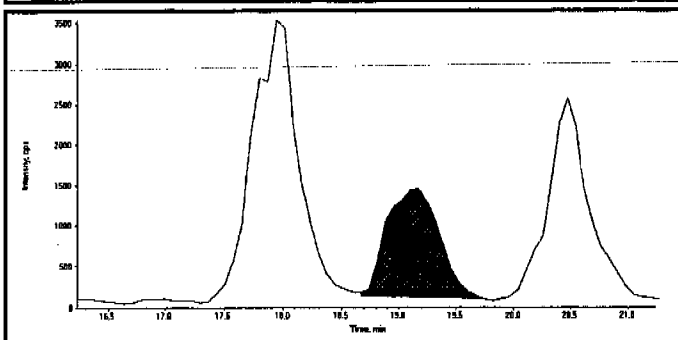

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.2
Area Counts:	4.35e+004
Manual Modification	No
Amount:	24.5 (ng/mL)
% Accuracy:	61.20

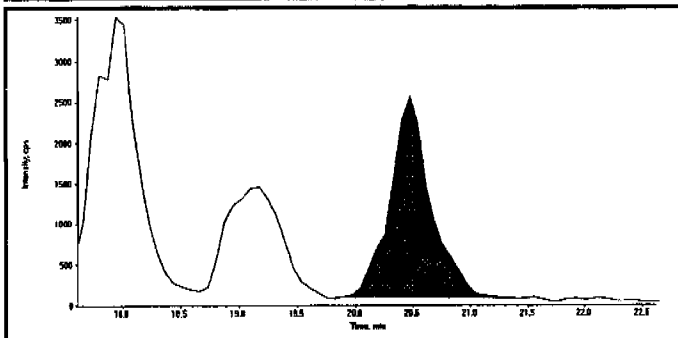

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.5
Area Counts:	6.20e+004
Manual Modification	No
Amount:	31.4 (ng/mL)
% Accuracy:	78.40

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Data File	EXP0312101.wiff	**Acquisition Date**	3/14/2010 5:00:24 AM
Sample Name	WXX100312-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	031210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

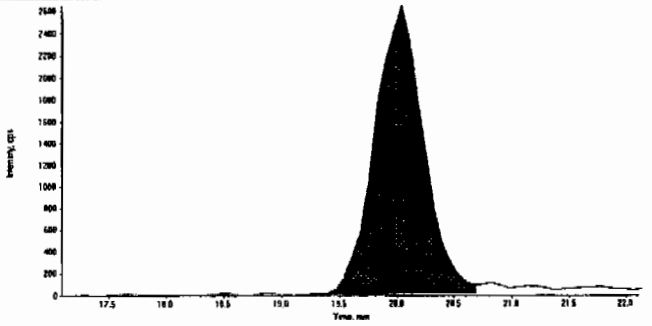

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	20.0
Area Counts:	7.98e+004
Manual Modification	No
Amount:	36.9 (ng/mL)
% Accuracy:	92.10

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/14/10
Time of Injection 0500
Standard Number WXX100312-57CRI
Data File EXP0312101a

HMX	98.6
RDX	91.3
TNX	100.0
DNX	102.0
MNX	92.7
135-Trinitrobenzene	122.0
13-Dinitrobenzene	114.0
Tetryl	108.0
246-Trinitrotoluene	126.0
Nitrobenzene	92.7
34-dinitrotoluene	111.0
26-dinitrotoluene	81.8
24-dinitrotoluene	96.1
4-Amino-26-dinitrotoluene	106.0
2-Amino-46-dinitrotoluene	87.5
2-Nitrotoluene	74.9
4-Nitrotoluene	61.2
3-Nitrotoluene	78.4
PETN	92.1
TOTAL	1836.3
AVERAGE	96.6

dmm 03/24/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Ofan 3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010013.wiff

Analysis Date: 01–MAR–10 12:11

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	99.6	100	
2,6–Diamino–4–nitrotoluene	100	99.3	99	
3,4–Dinitrotoluene	50	52.9	106	
3,5–Dinitroaniline	100	100	100	
TATB	100	104	104	
tris(o–cresyl) phosphate	100	101	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "1|LER" File: "EXS03010013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 12:11:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 1.10e+005 counts
Height: 28624.565 cps
Start Time: 6.84 min
End Time: 7.36 min

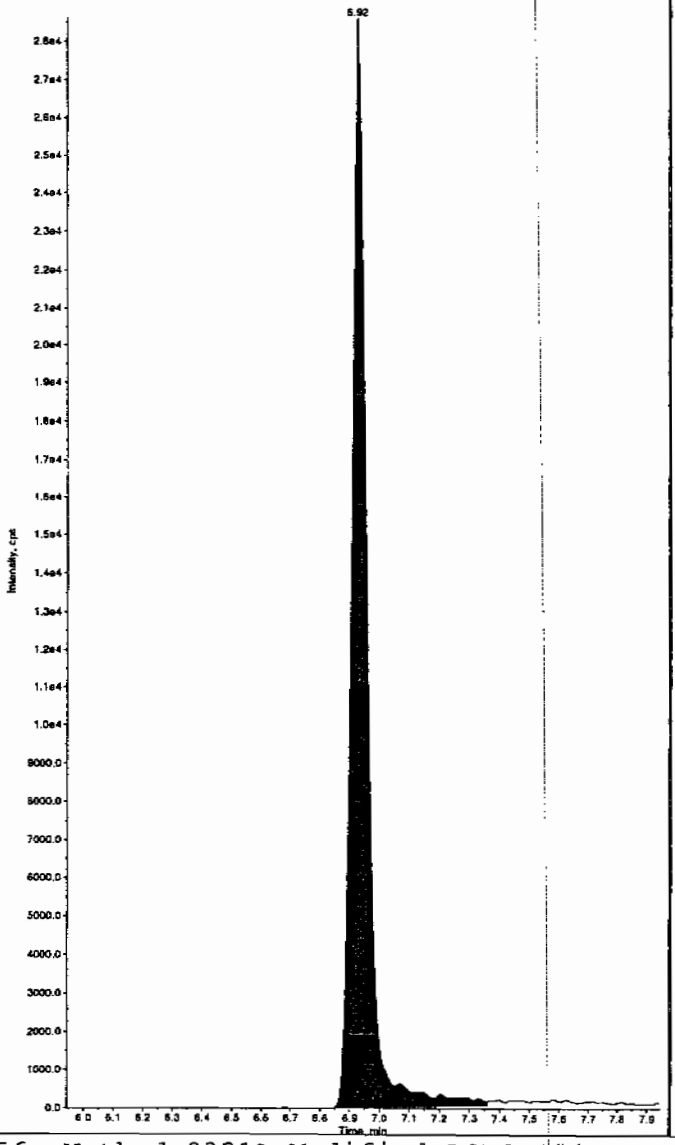

Sample Name: "WXX100301-27CRI" Sample ID: "1|LER" File: "EXS03010013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 12:11:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.19 min
Area: 8.79e+005 counts
Height: 245160.095 cps
Start Time: 8.09 min
End Time: 8.30 min

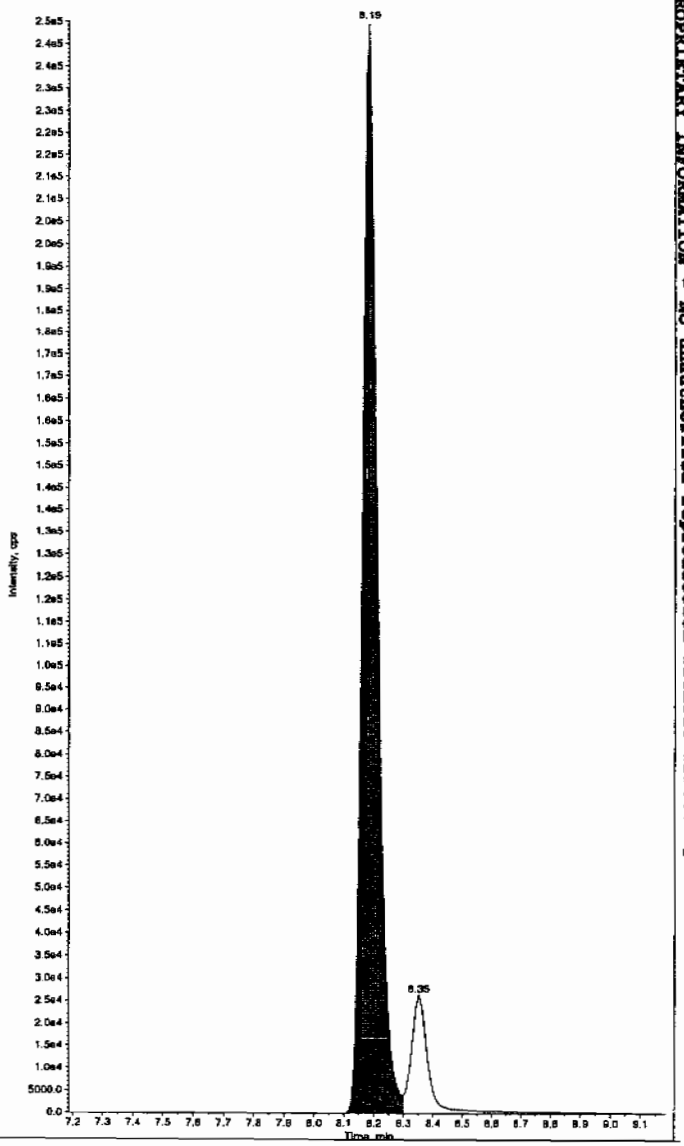

Hm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 52.9 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 12:11:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 6.10e+005 counts
Height: 178867.096 cps
Start Time: 8.27 min
End Time: 8.66 min

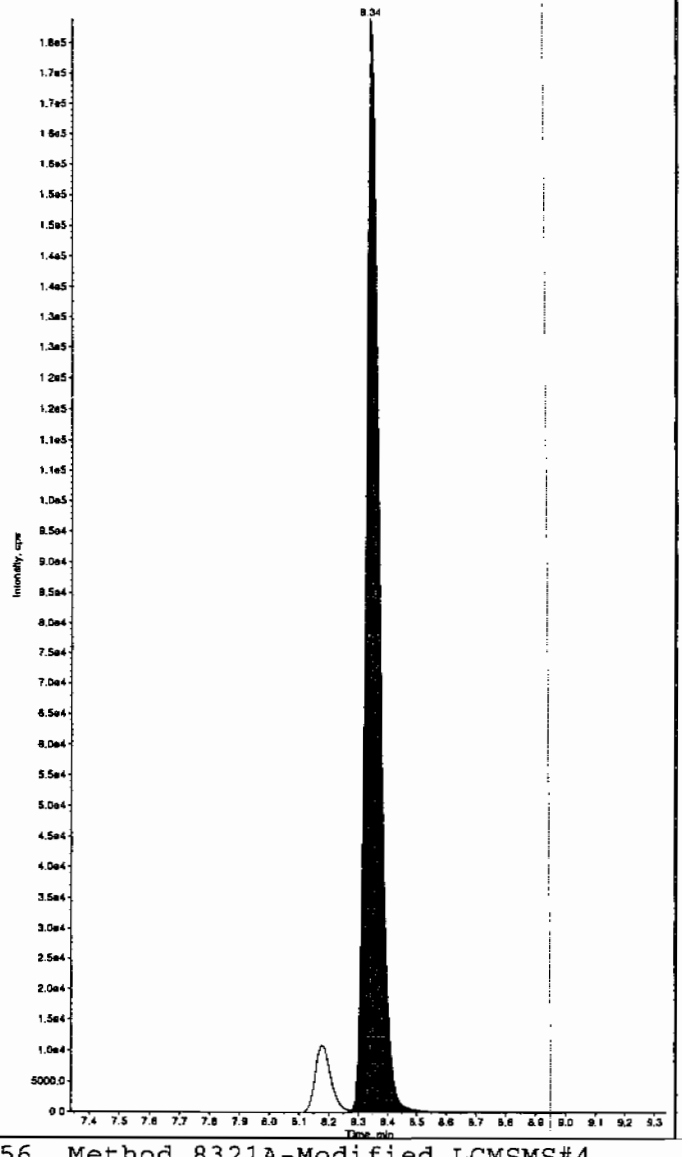

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.3 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 12:11:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 1.91e+005 counts
Height: 46581.150 cps
Start Time: 4.87 min
End Time: 5.27 min

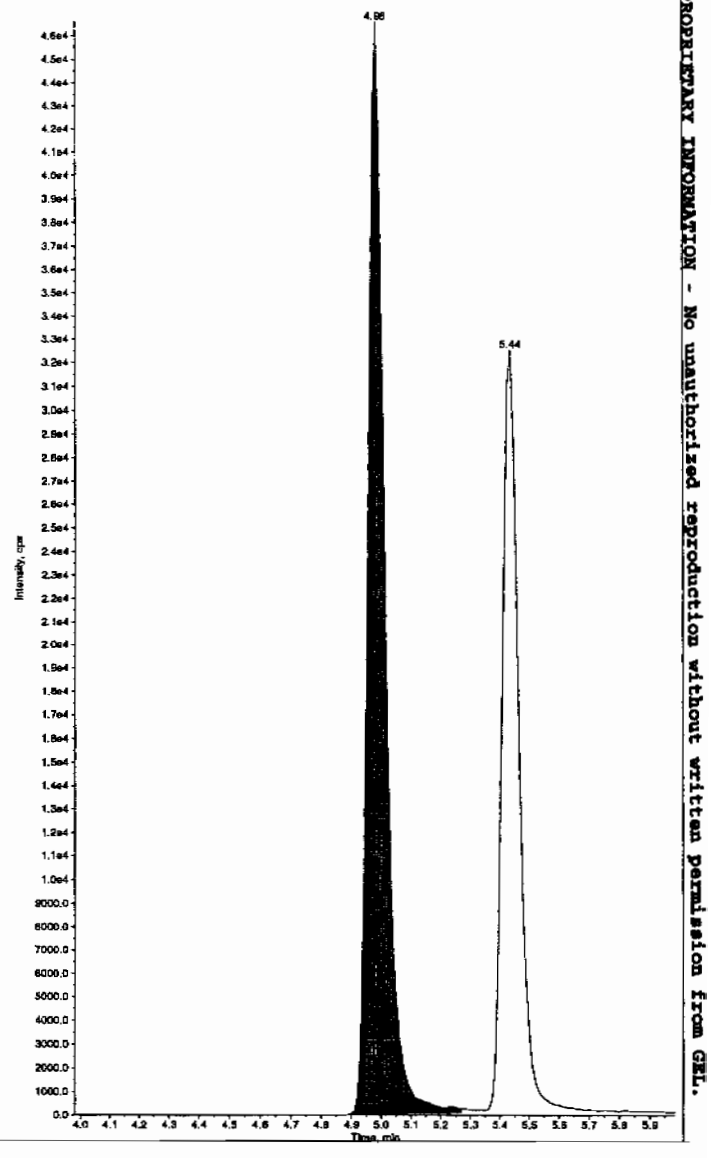

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.6 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 12:11:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.44 min
Area: 1.27e+005 counts
Height: 32363.556 cps
Start Time: 5.35 min
End Time: 5.73 min

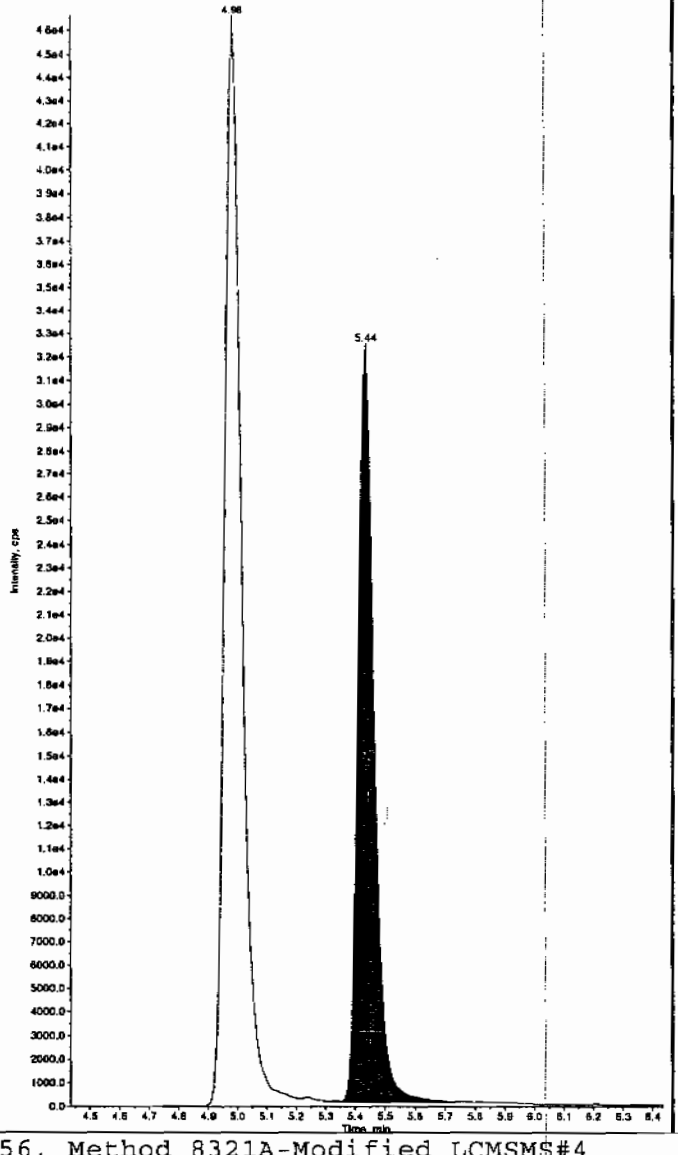

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 12:11:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.76e+006 counts
Height: 480812.347 cps
Start Time: 10.8 min
End Time: 11.2 min

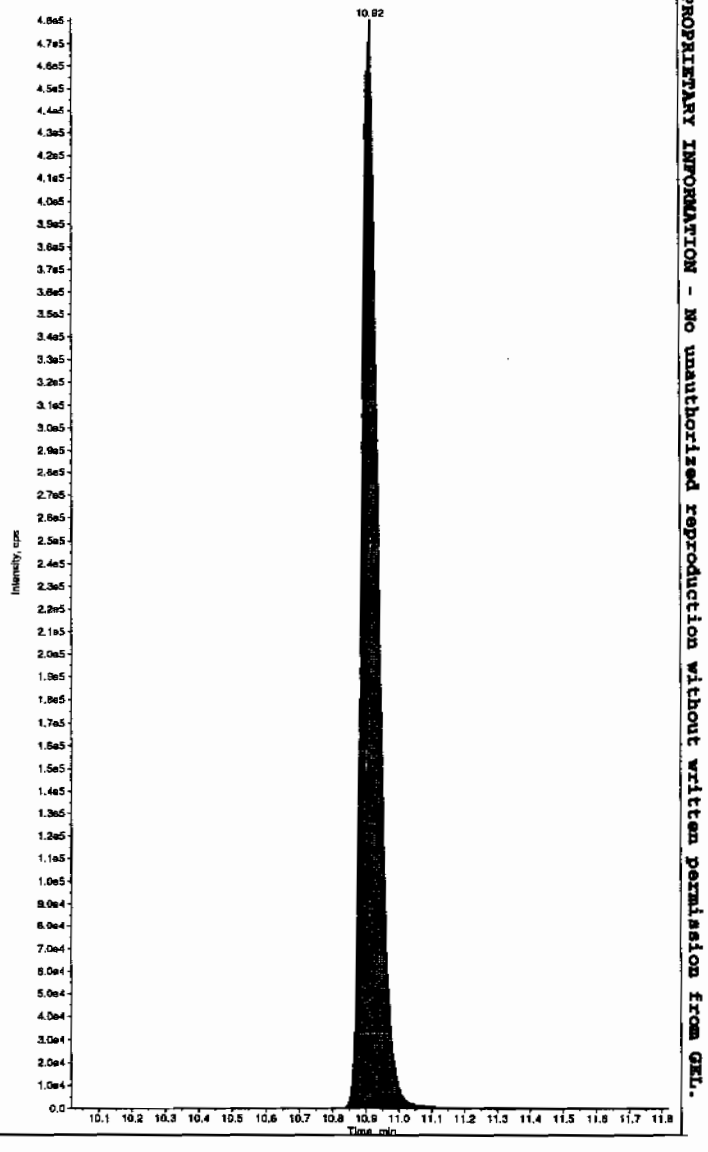

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03010024.wiff

Analysis Date: 01-MAR-10 15:04

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	495	99	
2,6-Diamino-4-nitrotoluene	500	499	100	
3,4-Dinitrotoluene	250	229	92	
3,5-Dinitroaniline	500	513	103	
TATB	500	498	100	
tris(o-cresyl) phosphate	500	500	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Clear 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:04:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.93 min
Area: 5.94e+005 counts
Height: 147589.539 cps
Start Time: 6.84 min
End Time: 7.77 min

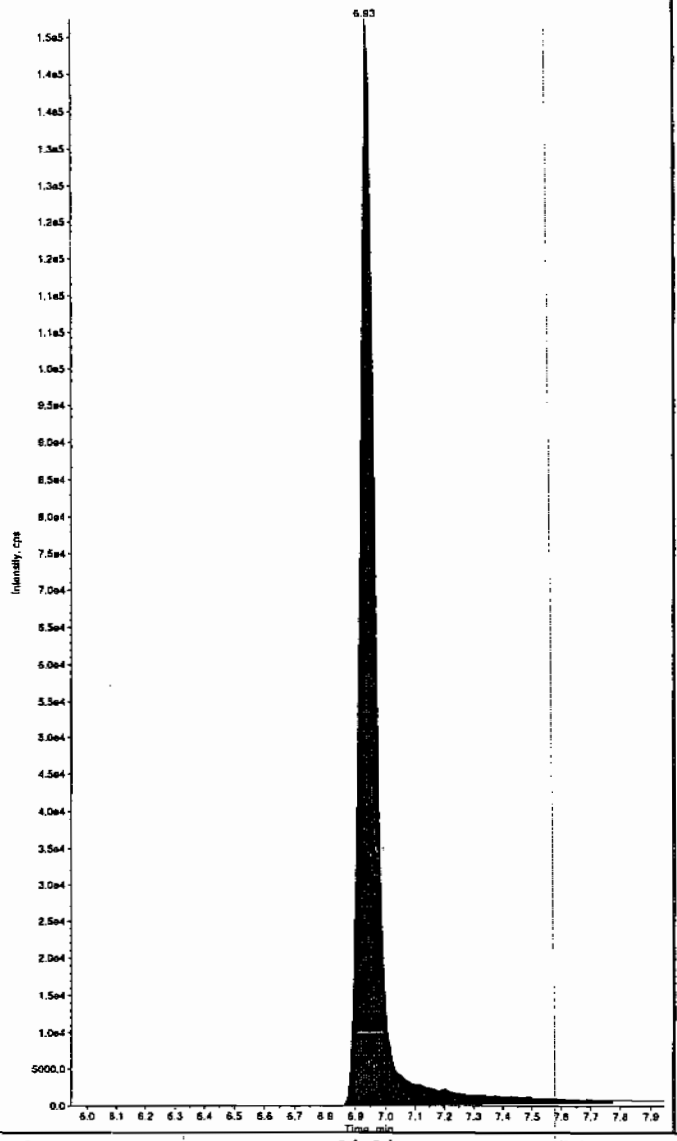

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:04:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 3.94e+006 counts
Height: 1095798.828 cps
Start Time: 8.14 min
End Time: 8.34 min

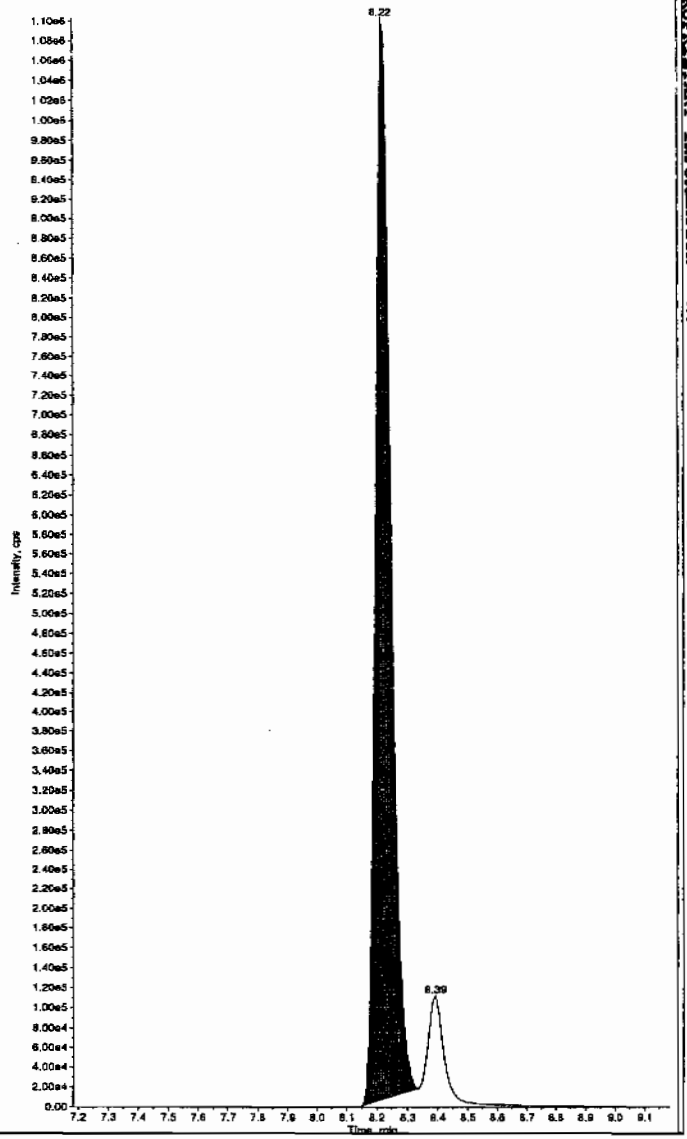

thm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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After Run 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:04:50 PM

Modified: No
Disc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.93 min
Area: 5.94e+005 counts
Height: 147589.539 cps
Start Time: 6.84 min
End Time: 7.77 min

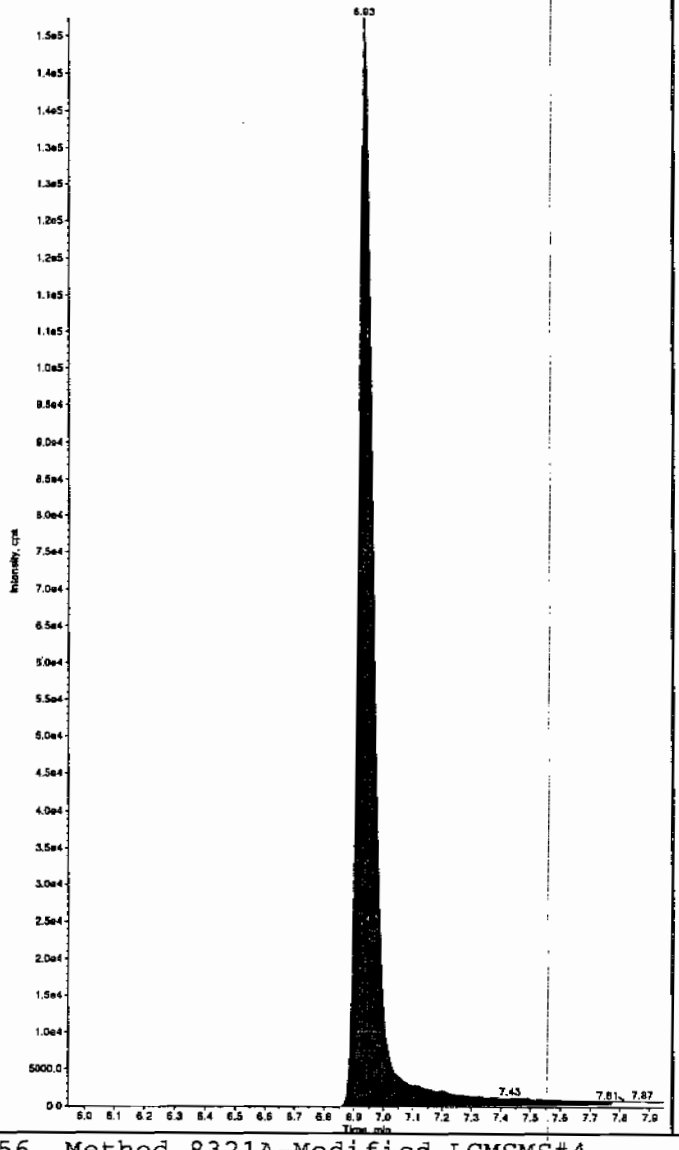

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 513. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:04:50 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 4.02e+006 counts
Height: 1121187.984 cps
Start Time: 8.15 min
End Time: 8.33 min

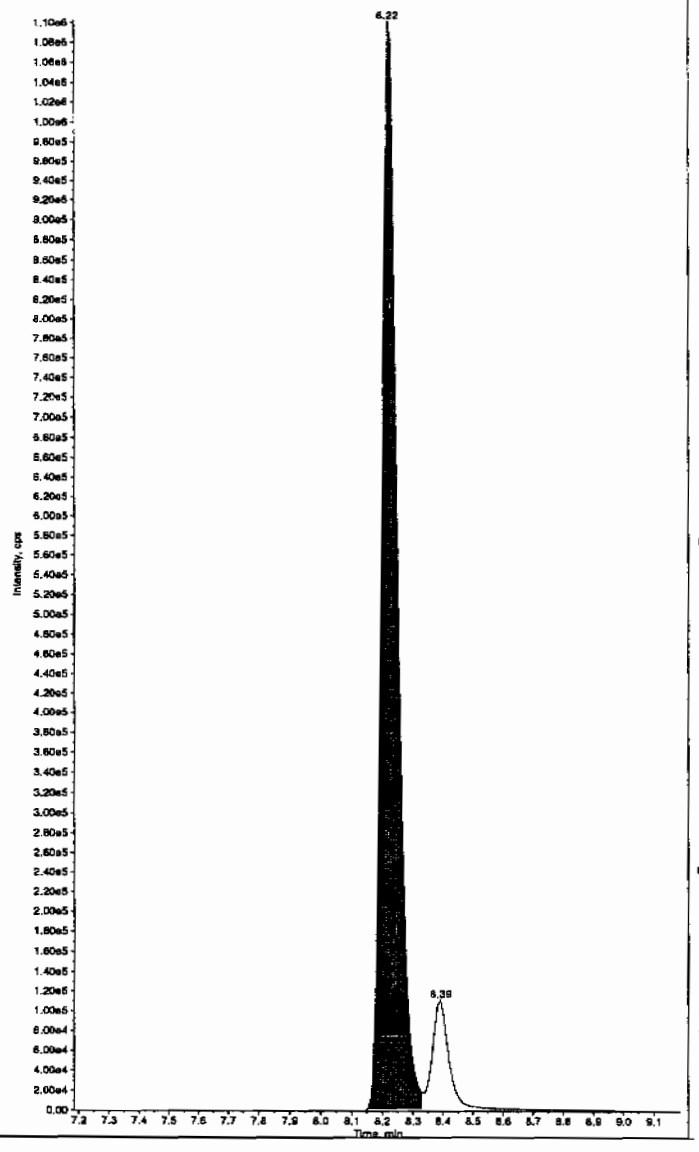

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 229. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:04:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.79e+006 counts
Height: 813807.007 cps
Start Time: 8.31 min
End Time: 8.71 min

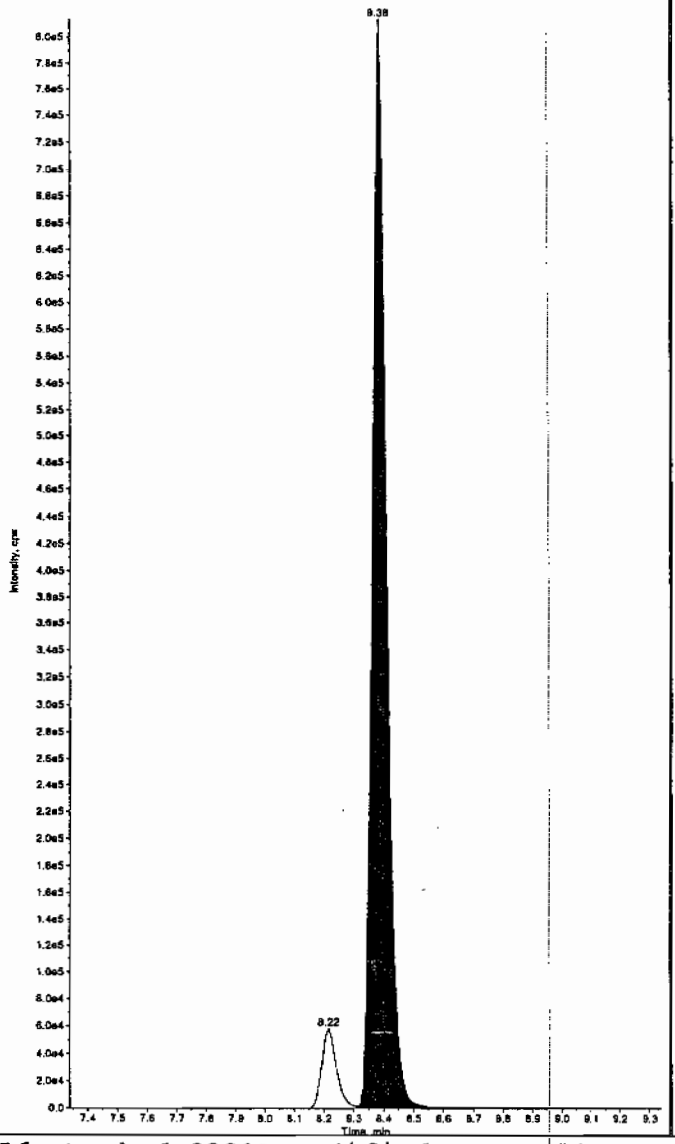

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:04:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 9.31e+005 counts
Height: 227229.340 cps
Start Time: 4.90 min
End Time: 5.28 min

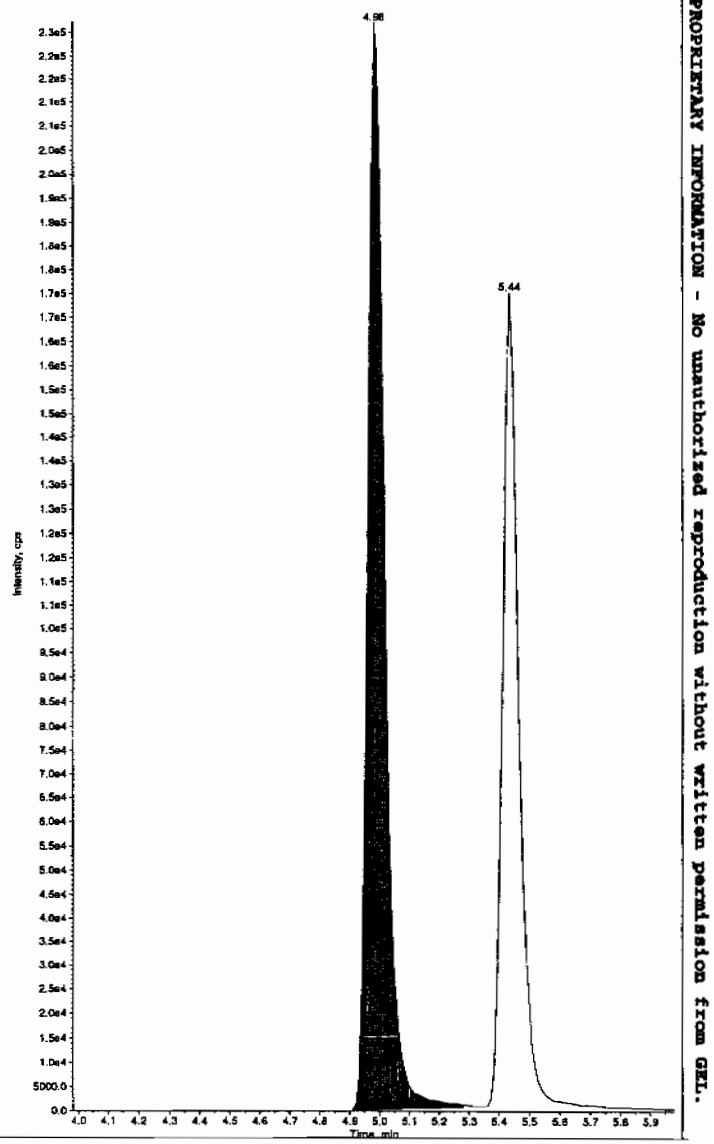

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 495. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:04:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.44 min
Area: 6.57e+005 counts
Height: 170321.594 cps
Start Time: 5.33 min
End Time: 6.07 min

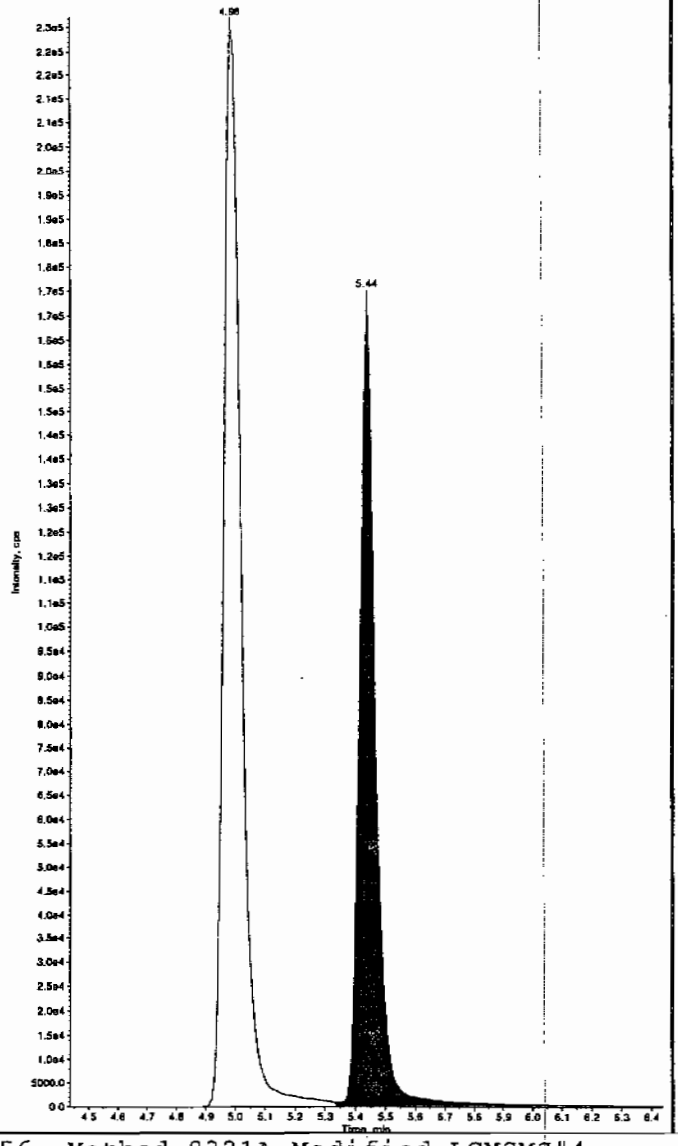

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:04:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.81e+006 counts
Height: 1982946.289 cps
Start Time: 10.8 min
End Time: 11.2 min

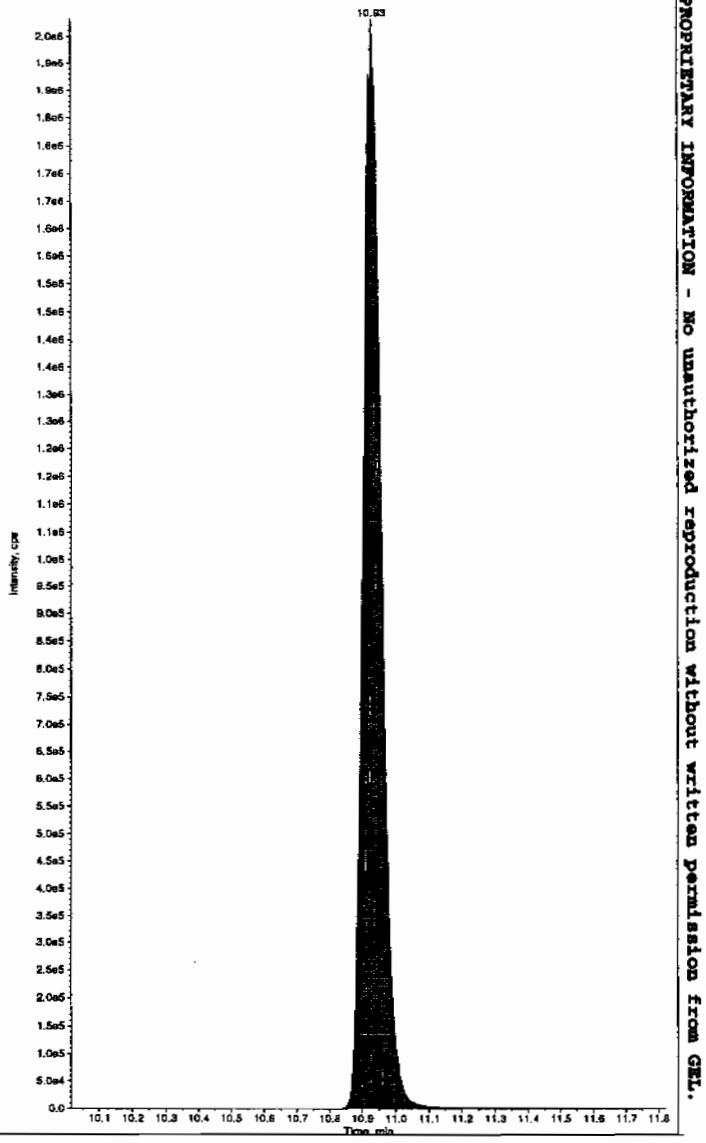

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010026.wiff

Analysis Date: 01–MAR–10 15:36

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	99.7	100	
2,6–Diamino–4–nitrotoluene	100	101	101	
3,4–Dinitrotoluene	50	52.7	105	
3,5–Dinitroaniline	100	96.2	96	
TATB	100	102	102	
tris(o–cresyl) phosphate	100	100	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

RCer 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:36:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.93 min
Area: 1.08e+005 counts
Height: 29924.082 cps
Start Time: 6.85 min
End Time: 7.28 min

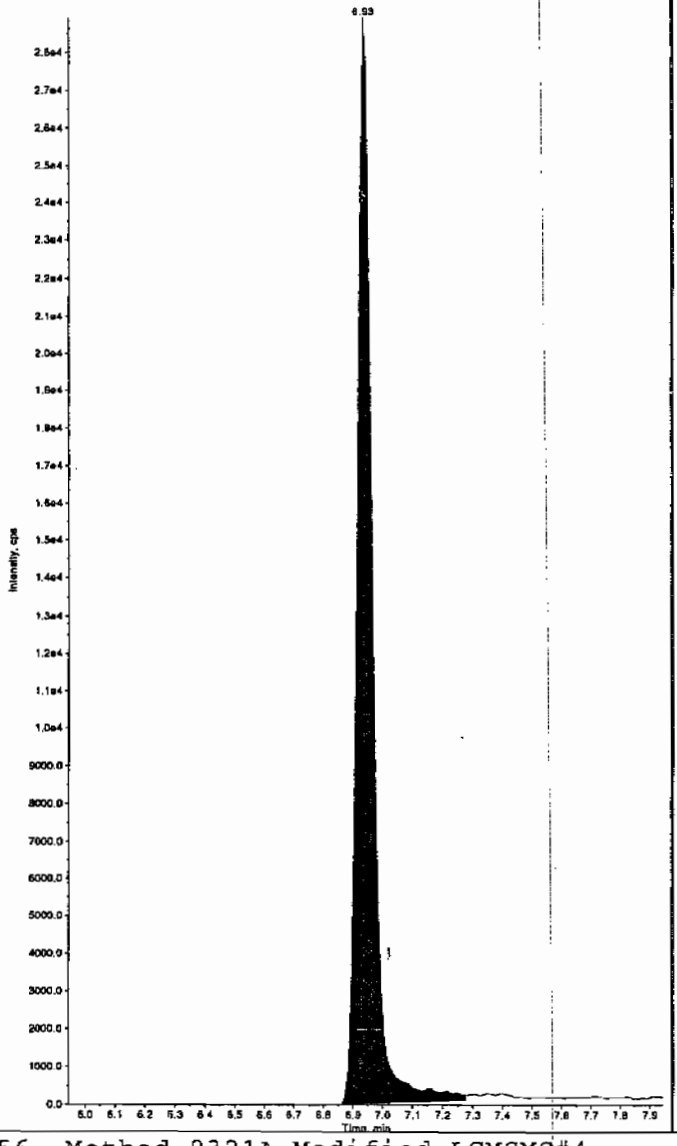

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.2 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:36:24 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 8.48e+005 counts
Height: 230011.292 cps
Start Time: 8.06 min
End Time: 8.29 min

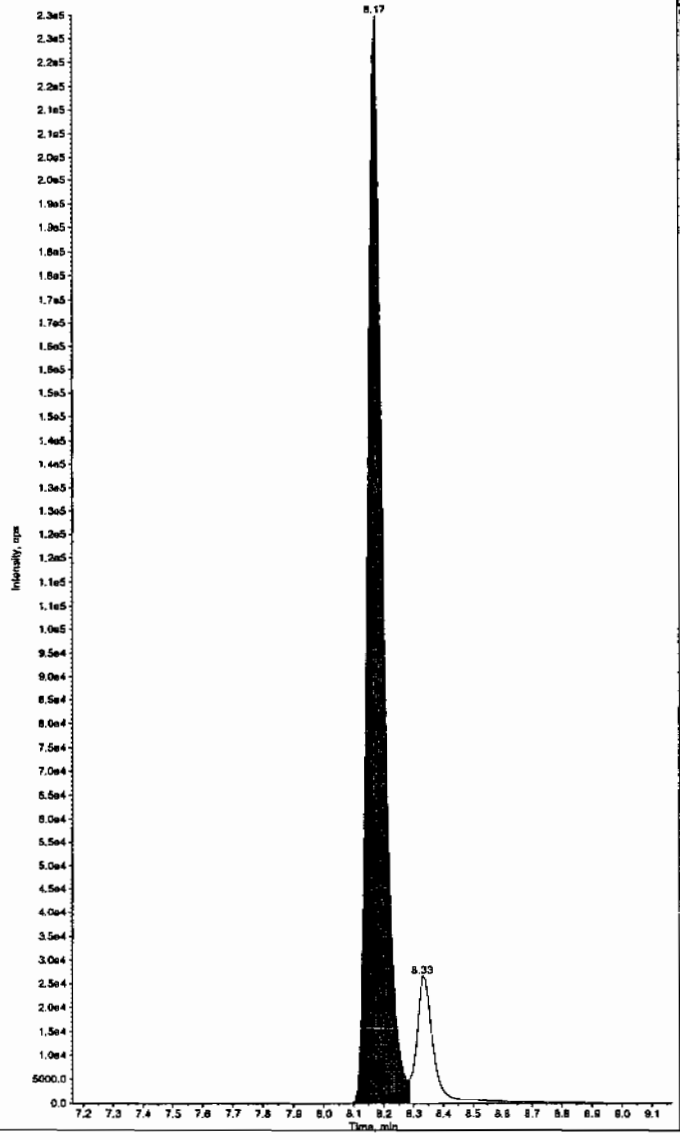

Hmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 52.7 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:36:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 6.07e+005 counts
Height: 187778.061 cps
Start Time: 8.26 min
End Time: 8.67 min

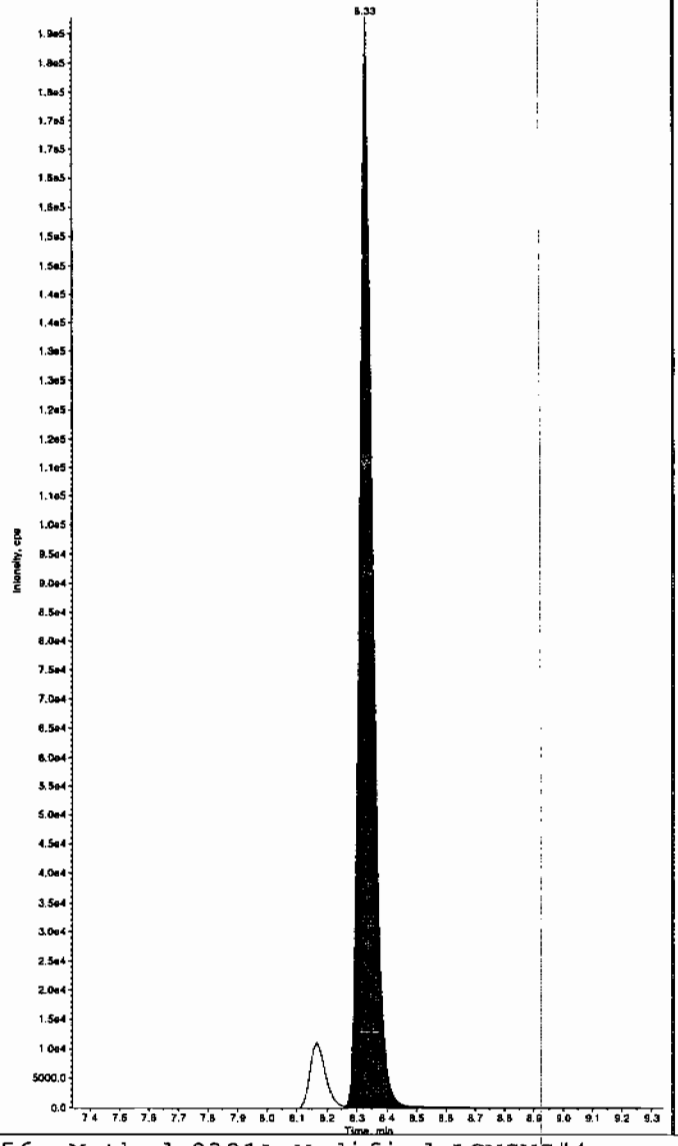

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:36:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 1.95e+005 counts
Height: 48368.607 cps
Start Time: 4.89 min
End Time: 5.27 min

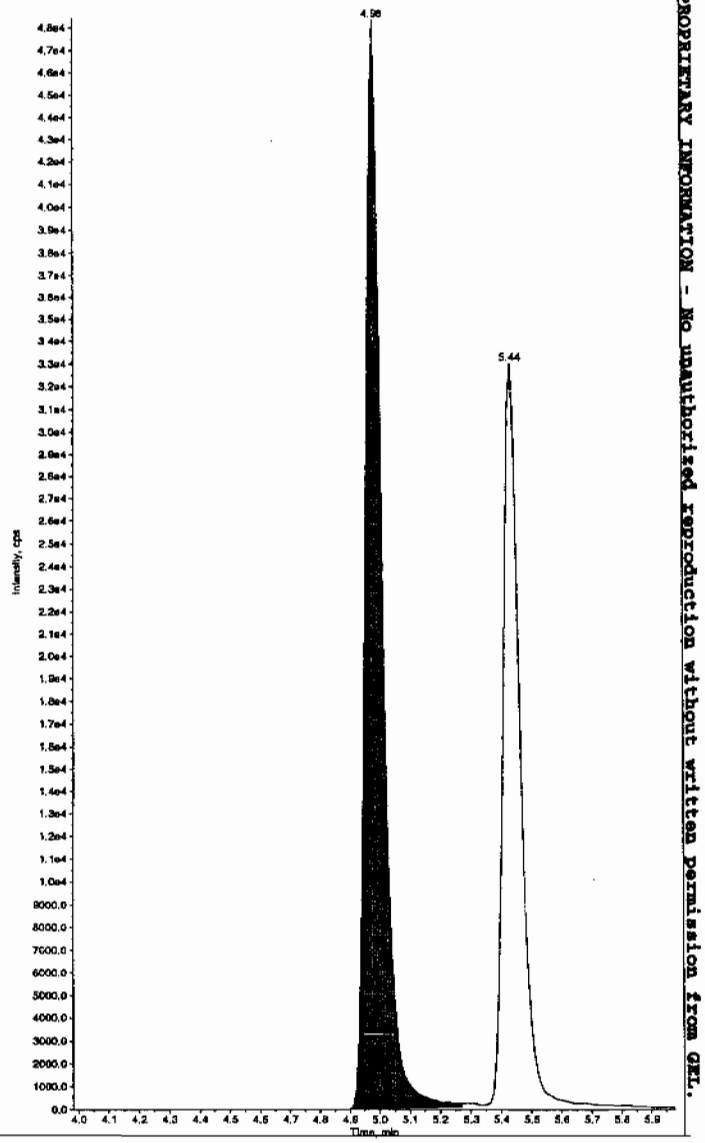

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "1|LER" File: "EXS03010026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.7 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:36:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.44 min
Area: 1.27e+005 counts
Height: 32860.054 cps
Start Time: 5.33 min
End Time: 5.73 min

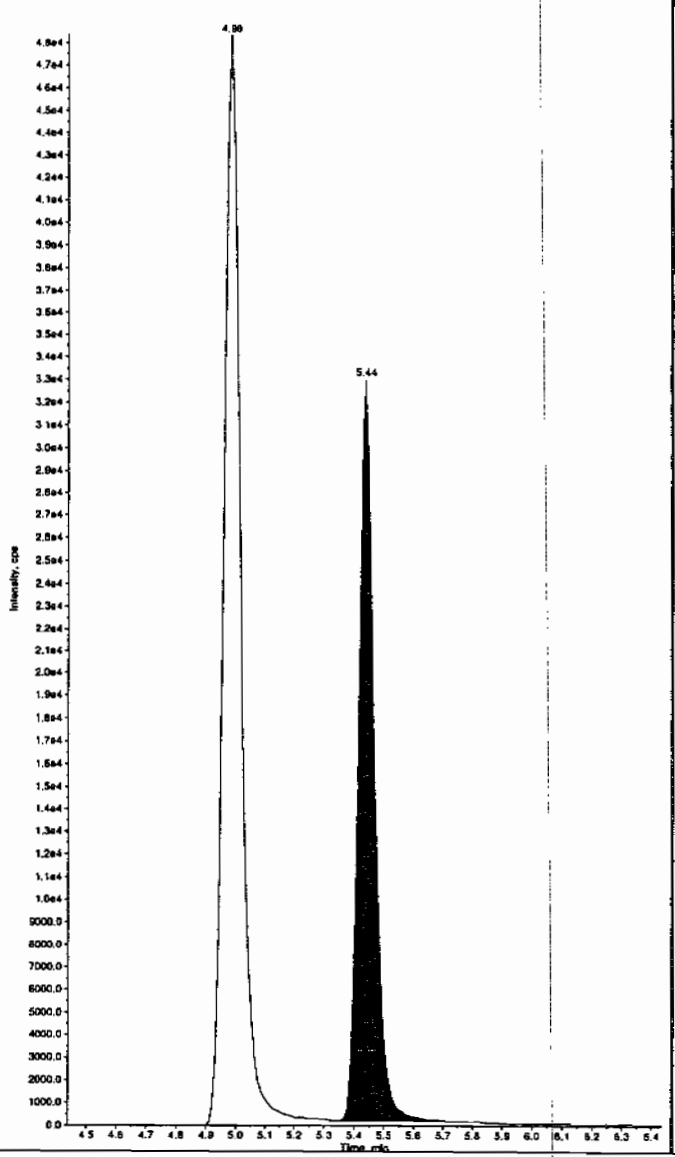

Sample Name: "WXX100301-27CRI" Sample ID: "1|LER" File: "EXS03010026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 3:36:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.75e+006 counts
Height: 474479.401 cps
Start Time: 10.8 min
End Time: 11.3 min

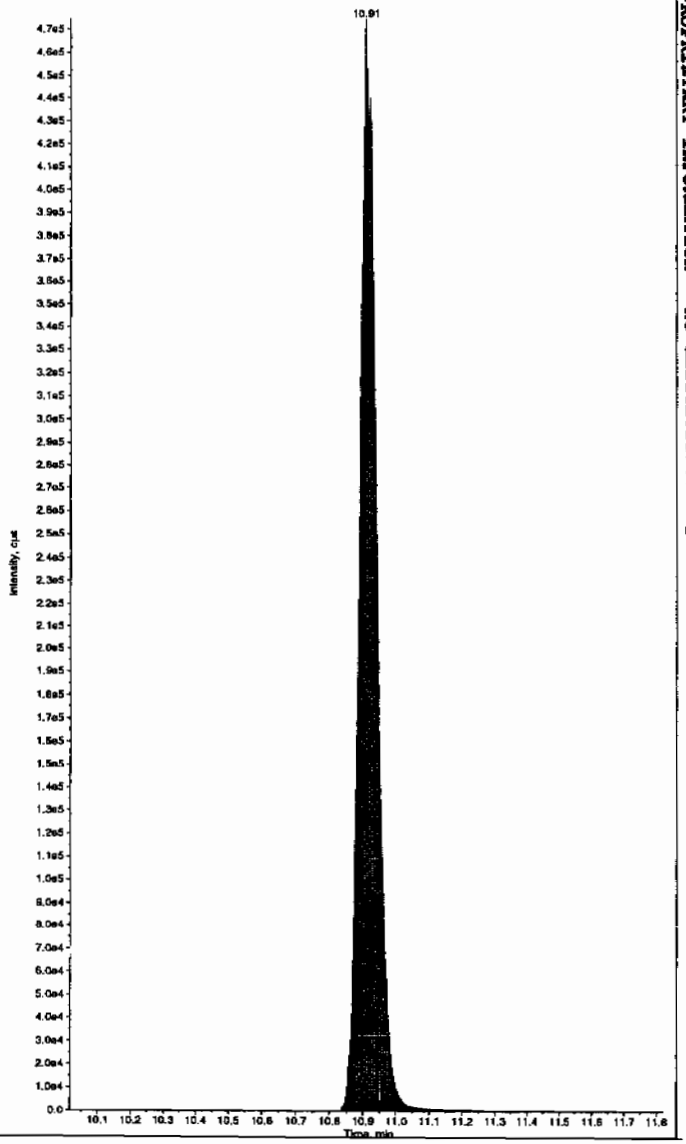

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03010037.wiff

Analysis Date: 01-MAR-10 18:29

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	503	101	
2,6-Diamino-4-nitrotoluene	500	525	105	
3,4-Dinitrotoluene	250	235	94	
3,5-Dinitroaniline	500	501	100	
TATB	500	493	99	
tris(o-cresyl) phosphate	500	484	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Run 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:29:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 5.89e+005 counts
Height: 144896.042 cps
Start Time: 6.88 min
End Time: 7.90 min

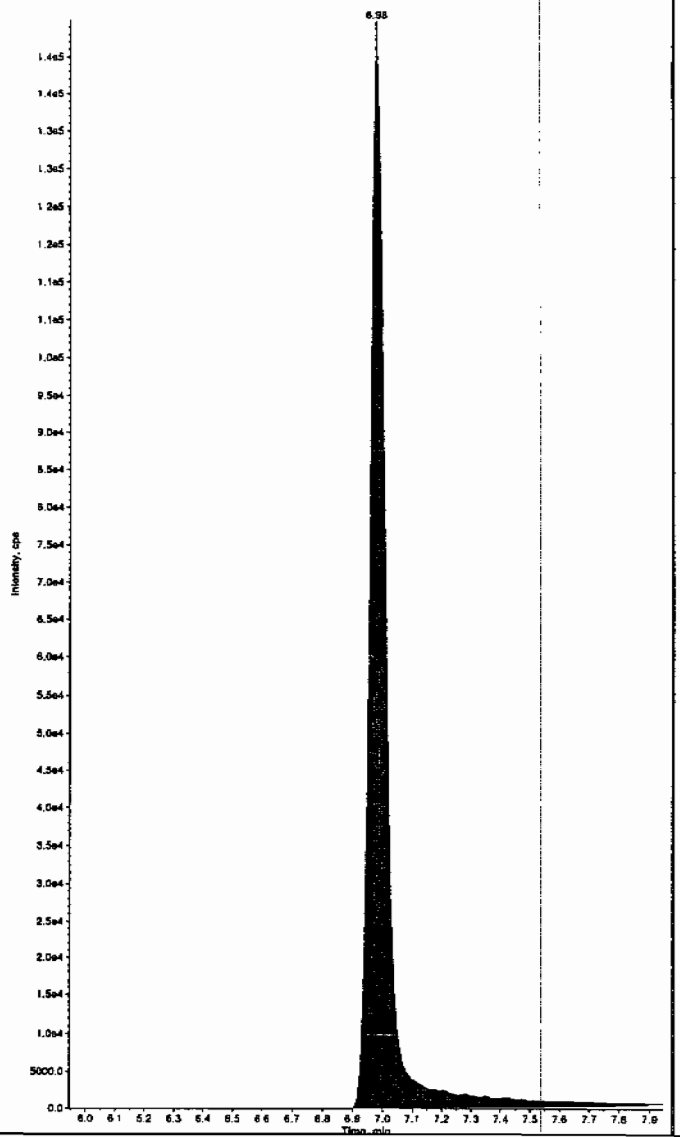

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 486. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:29:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 3.82e+006 counts
Height: 1053230.835 cps
Start Time: 8.14 min
End Time: 8.32 min

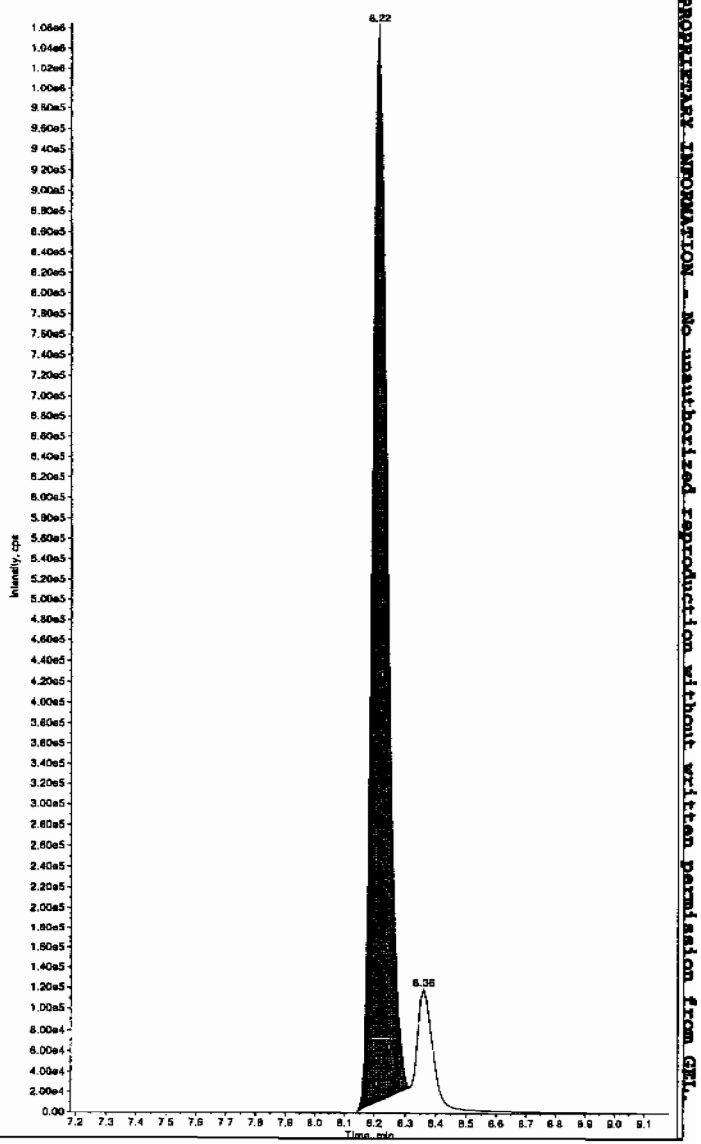

Hmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION -- No unauthorized reproduction without written permission from GEL

after Run 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:29:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 5.89e+005 counts
Height: 144896.042 cps
Start Time: 6.88 min
End Time: 7.90 min

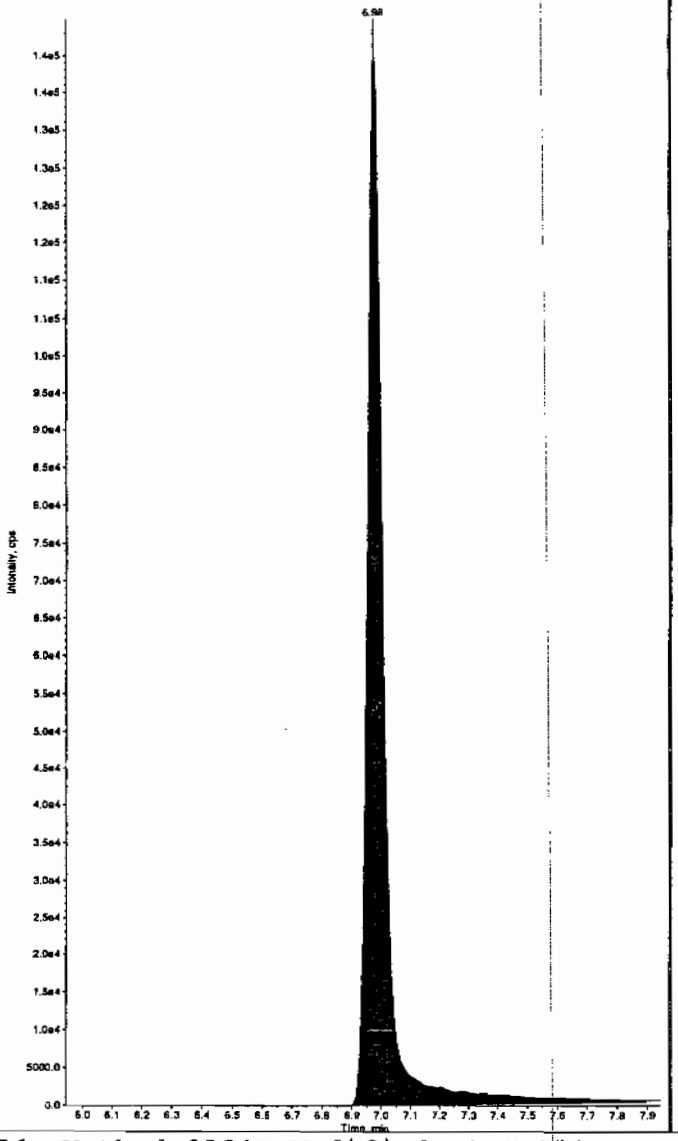

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:29:39 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.21 min
Area: 3.92e+006 counts
Height: 1067273.537 cps
Start Time: 8.14 min
End Time: 8.31 min

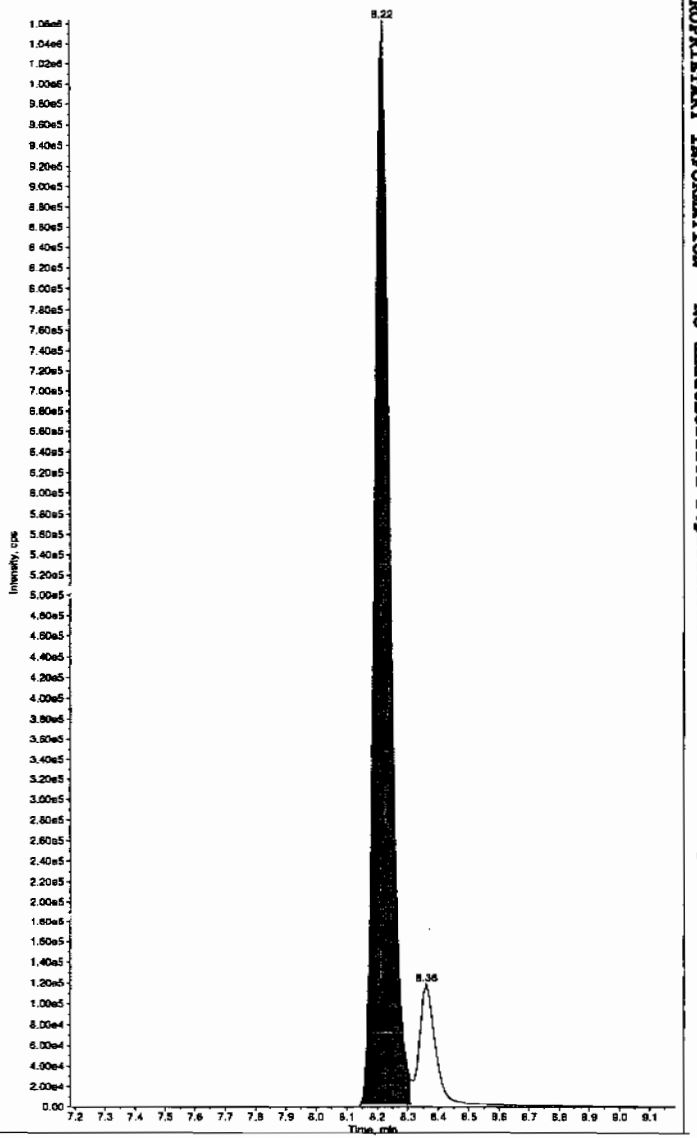

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 235. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:29:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 2.86e+006 counts
Height: 839577.393 cps
Start Time: 8.29 min
End Time: 8.56 min

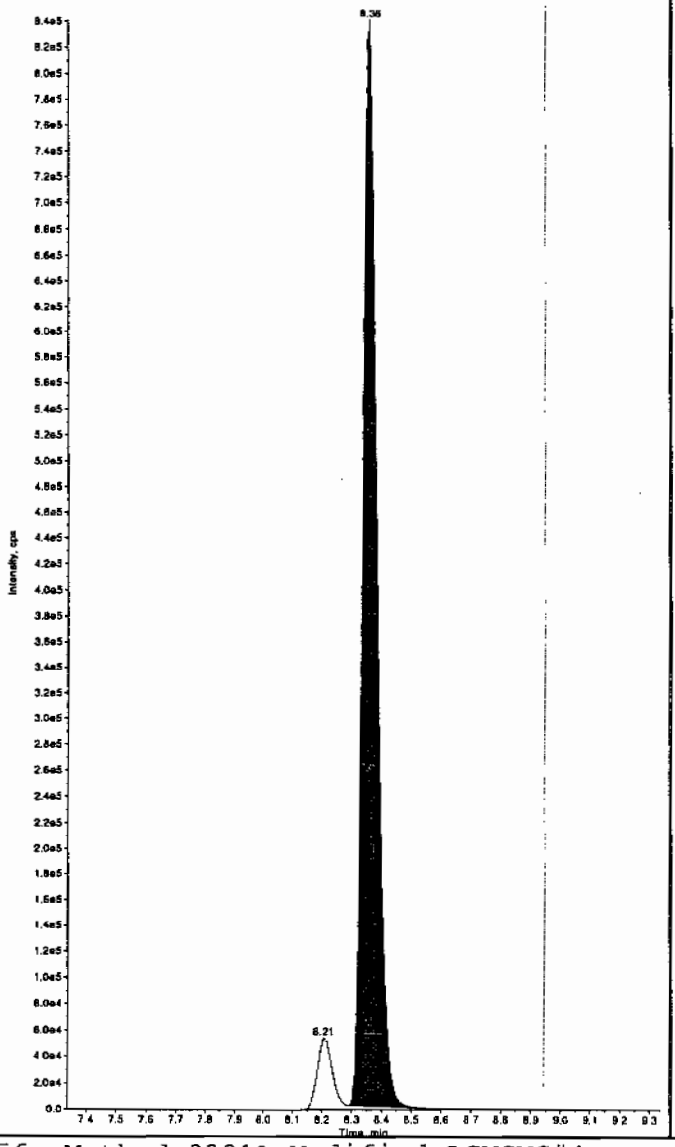

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 525. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:29:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 9.79e+005 counts
Height: 239931.122 cps
Start Time: 4.91 min
End Time: 5.31 min

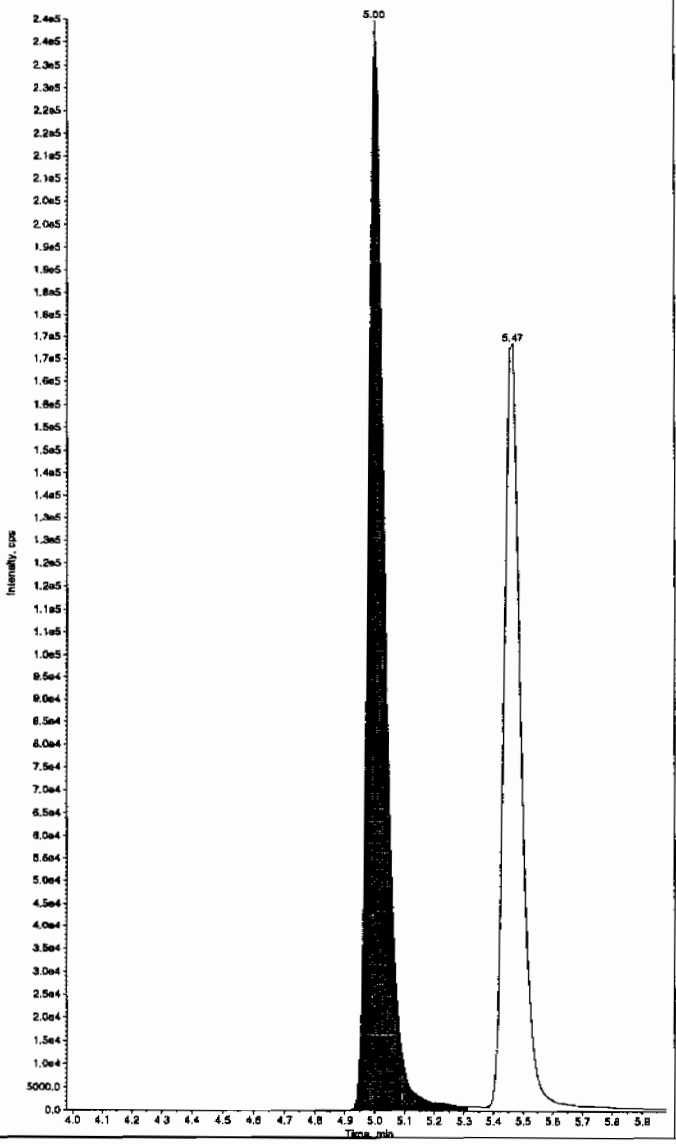

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:29:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 6.67e+005 counts
Height: 167895.447 cps
Start Time: 5.36 min
End Time: 5.85 min

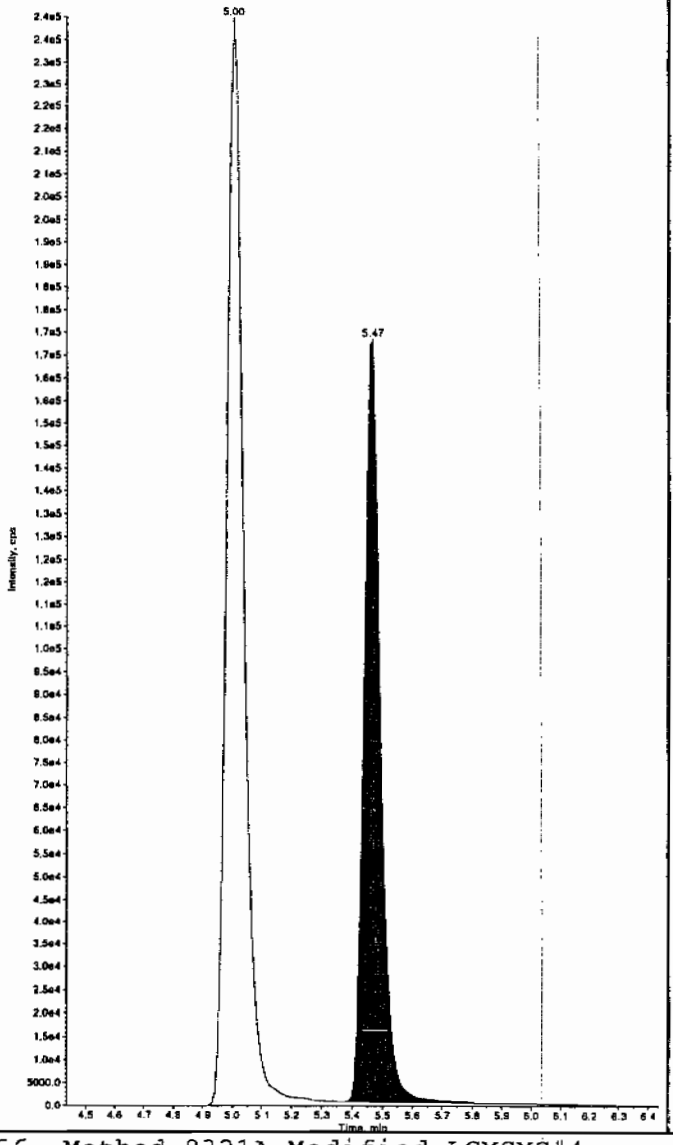

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 484. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 6:29:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.58e+006 counts
Height: 2117050.049 cps
Start Time: 10.7 min
End Time: 11.2 min

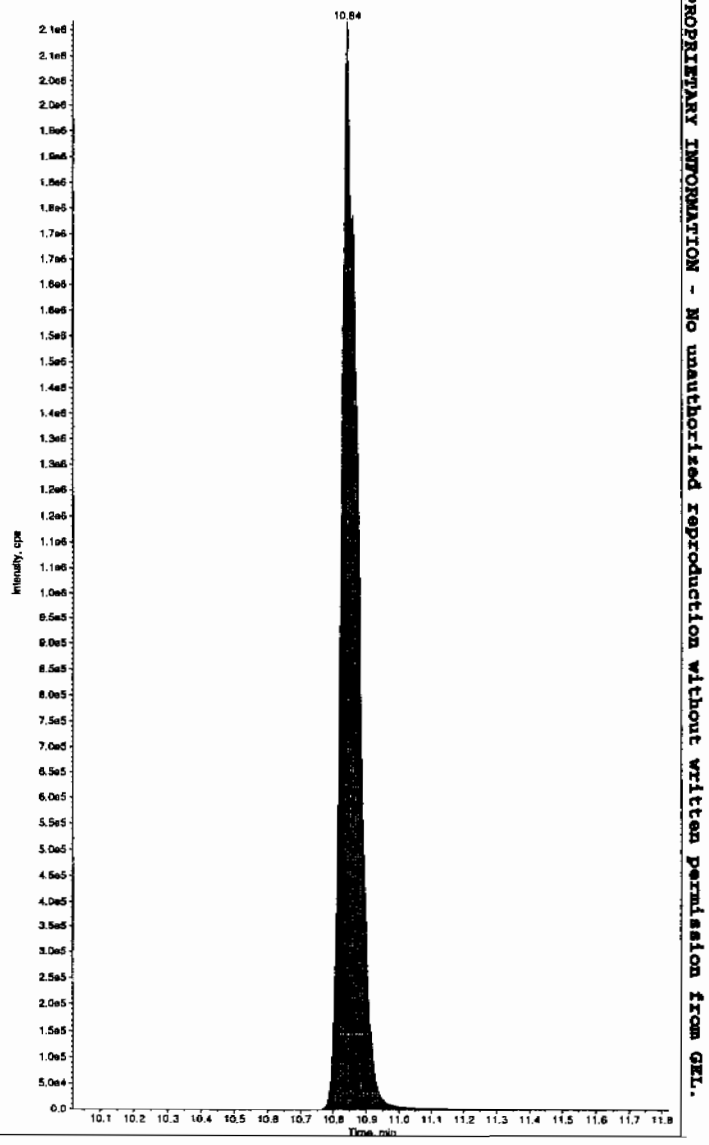

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010039.wiff

Analysis Date: 01-MAR-10 19:01

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	109	109	
2,6-Diamino-4-nitrotoluene	100	103	103	
3,4-Dinitrotoluene	50	51.7	103	
3,5-Dinitroaniline	100	93.9	94	
TATB	100	103	103	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lan 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 7:01:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.10e+005 counts
Height: 28370.554 cps
Start Time: 6.89 min
End Time: 7.52 min

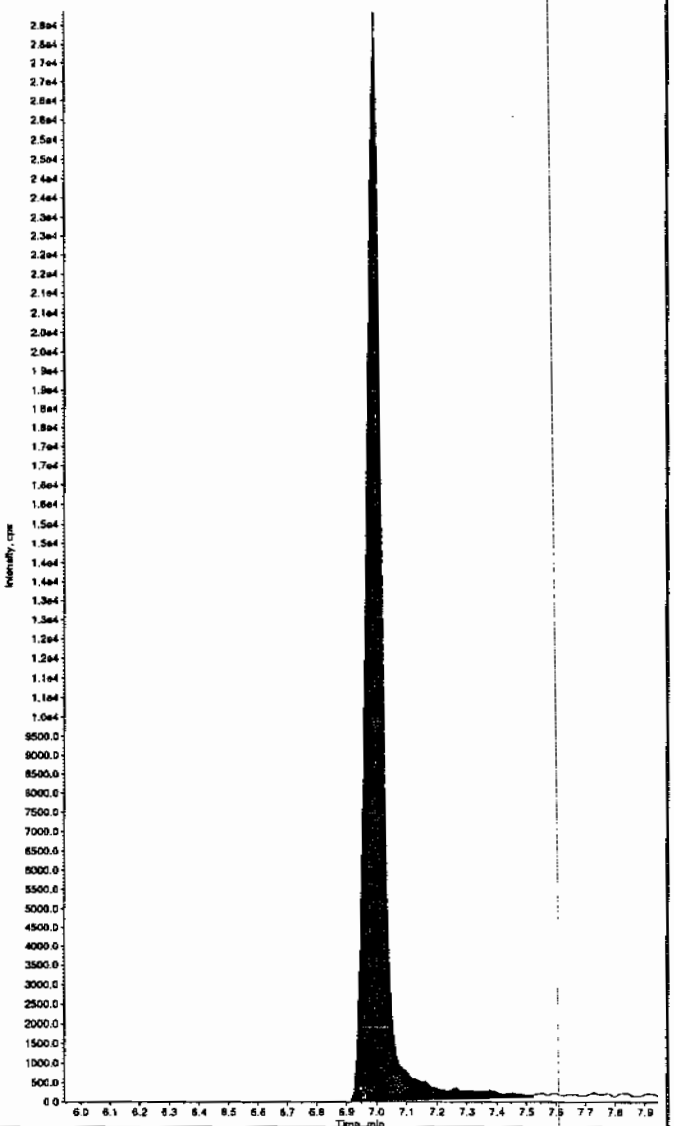

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 90.5 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 7:01:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 8.02e+005 counts
Height: 225071.579 cps
Start Time: 8.15 min
End Time: 8.32 min

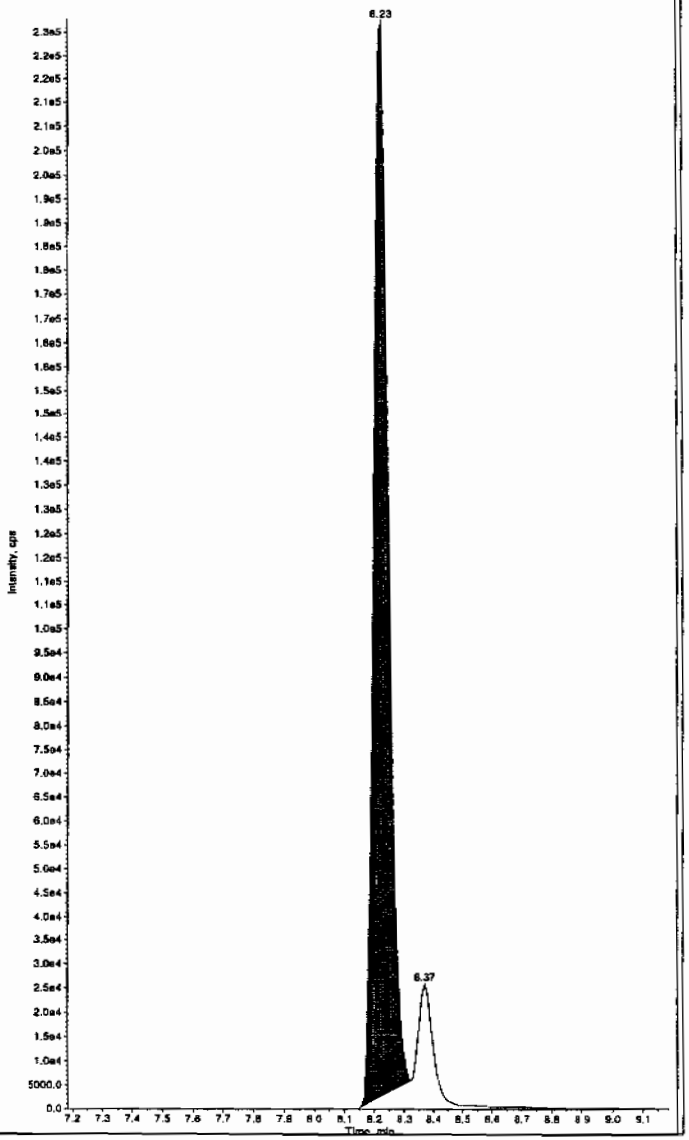

HMM 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lan 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 7:01:13 PM

Modified: No
Peak. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.10e+005 counts
Height: 28370.554 cps
Start Time: 6.89 min
End Time: 7.52 min

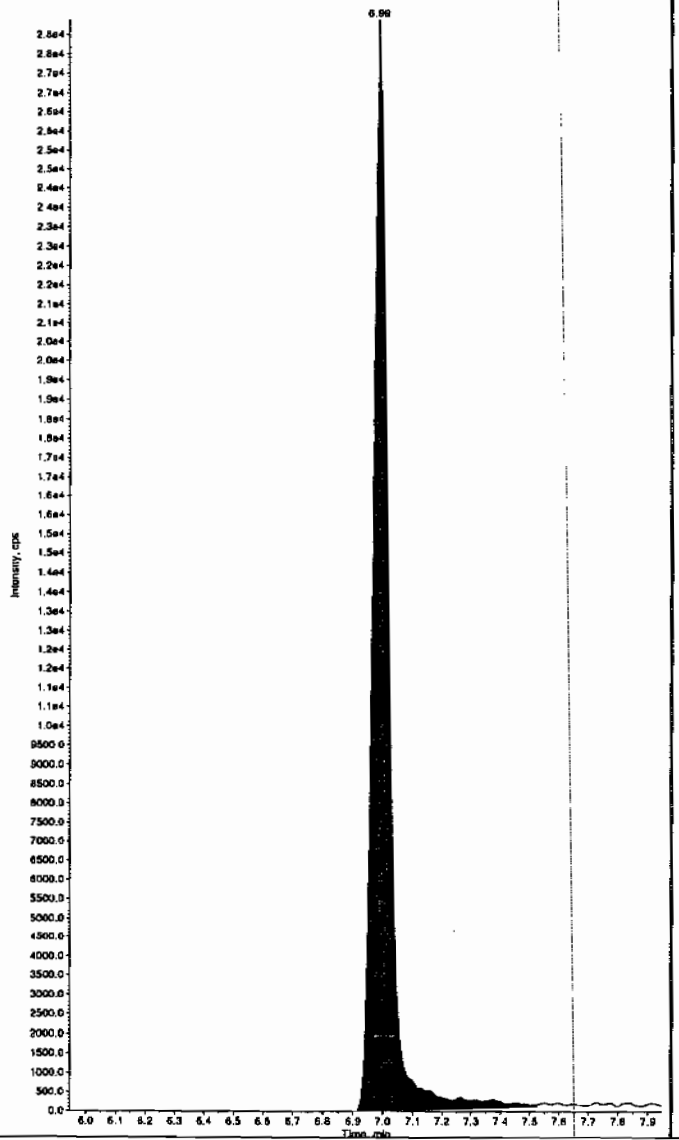

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.9 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 7:01:13 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 8.29e+005 counts
Height: 231271.689 cps
Start Time: 8.15 min
End Time: 8.32 min

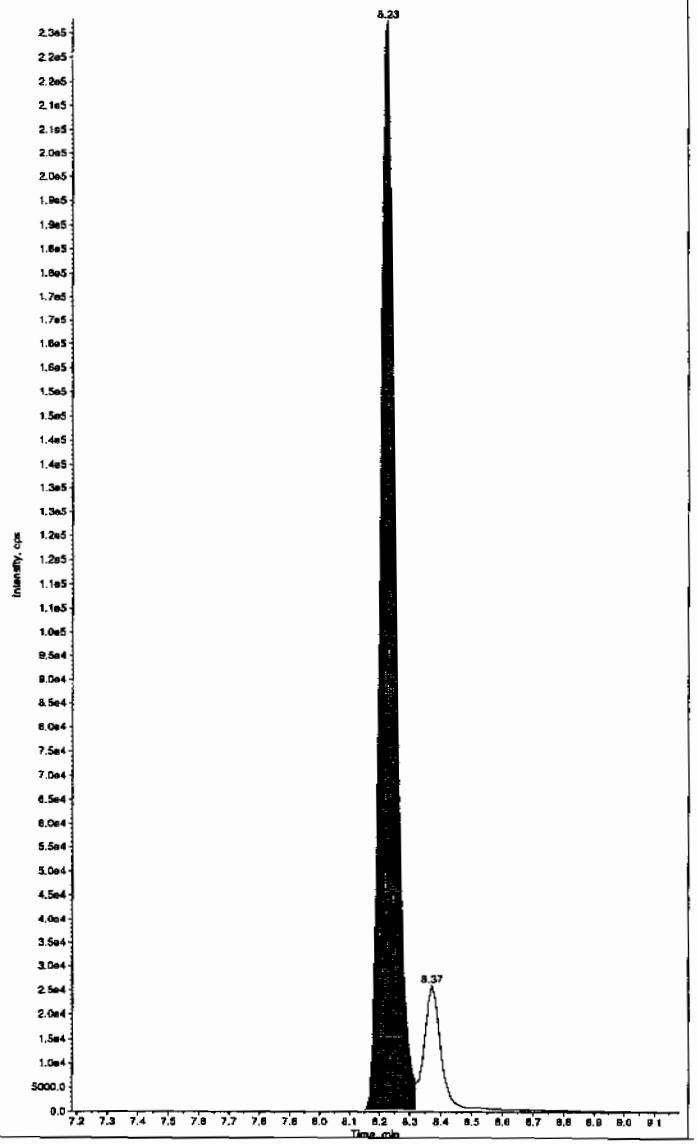

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 51.7 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 7:01:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 5.95e+005 counts
Height: 172563.049 cps
Start Time: 8.30 min
End Time: 8.68 min

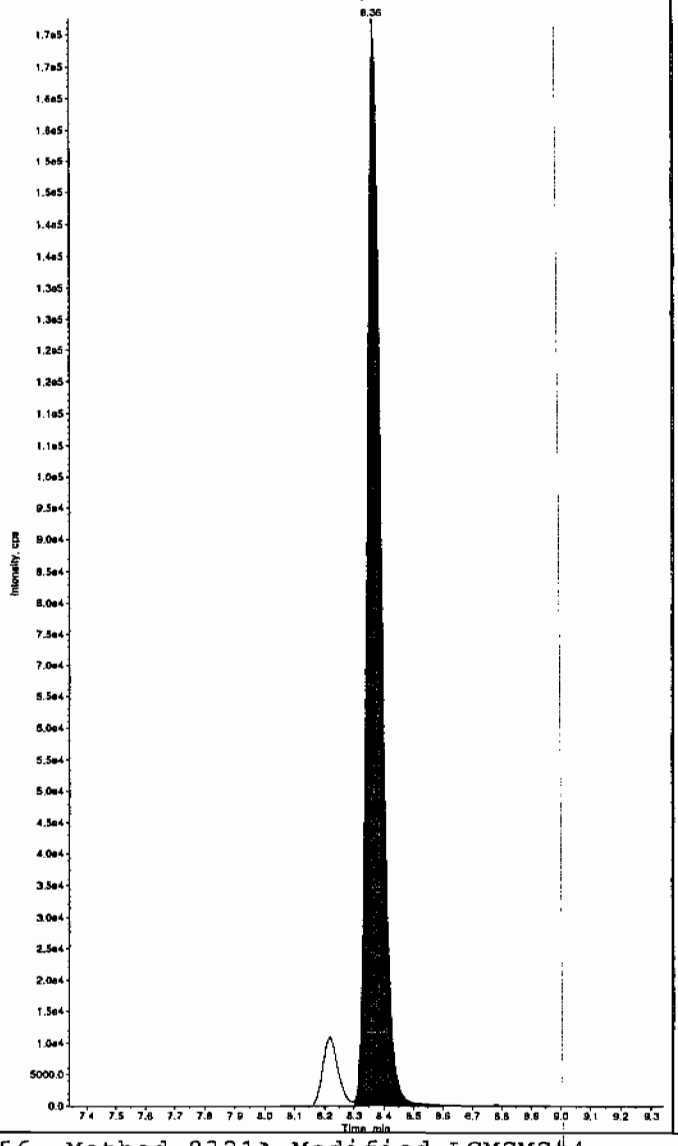

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 7:01:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.99e+005 counts
Height: 48209.217 cps
Start Time: 4.92 min
End Time: 5.31 min

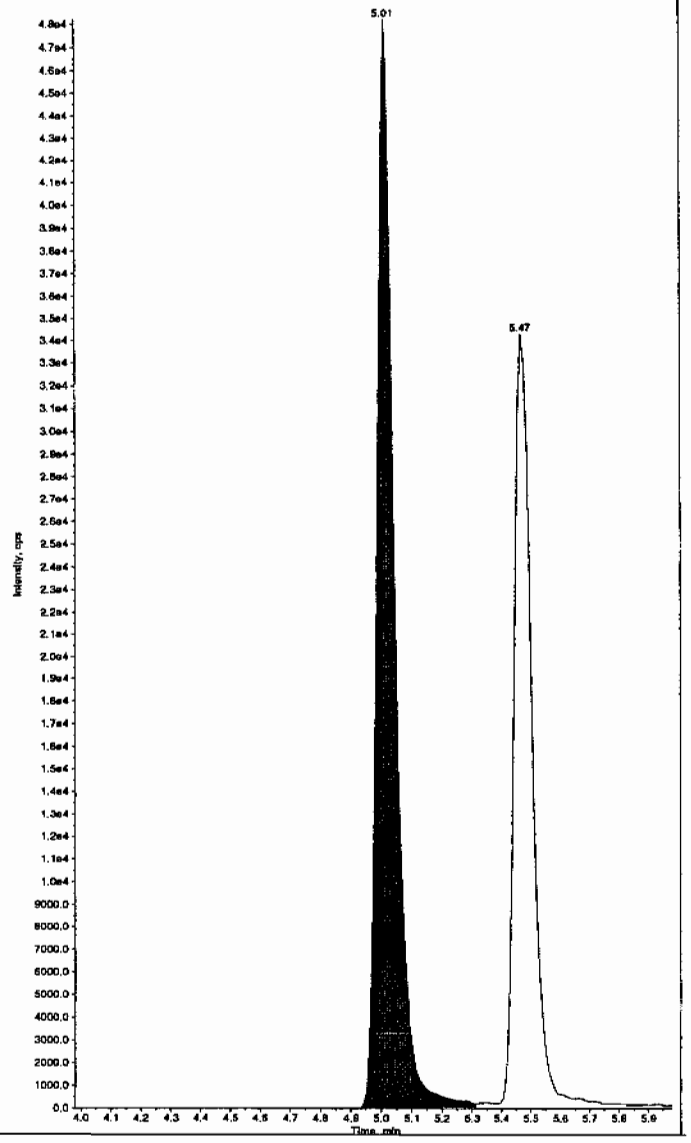

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 7:01:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 1.40e+005 counts
Height: 34102.001 cps
Start Time: 5.38 min
End Time: 5.76 min

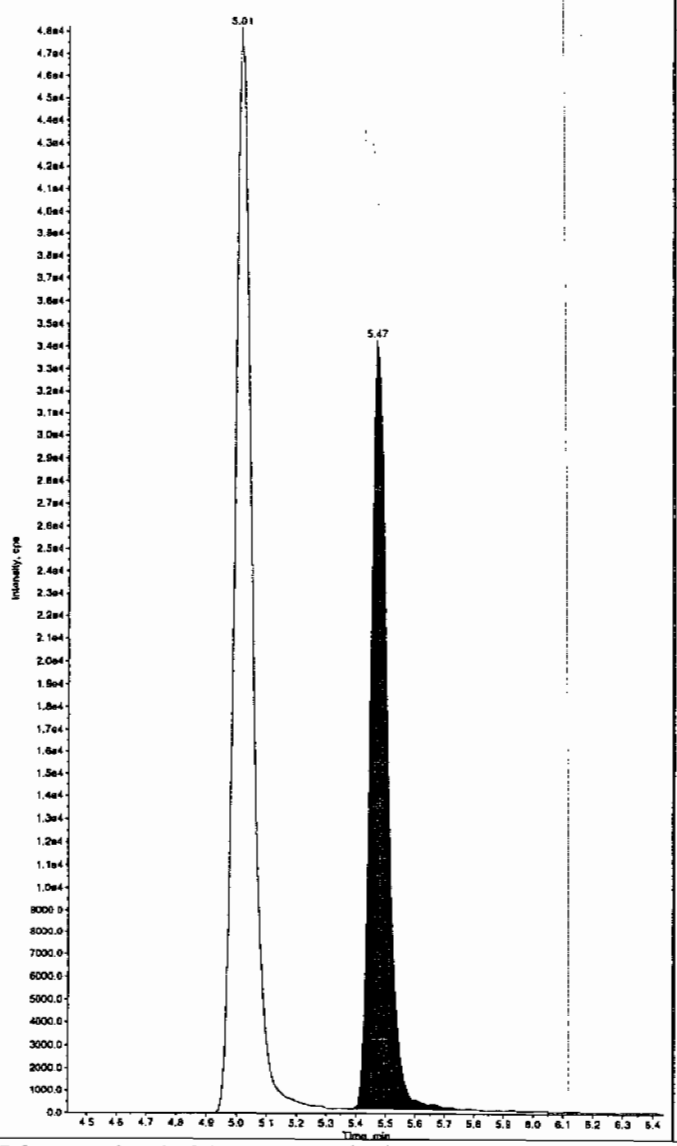

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010039.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 7:01:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.76e+006 counts
Height: 515516.296 cps
Start Time: 10.8 min
End Time: 11.1 min

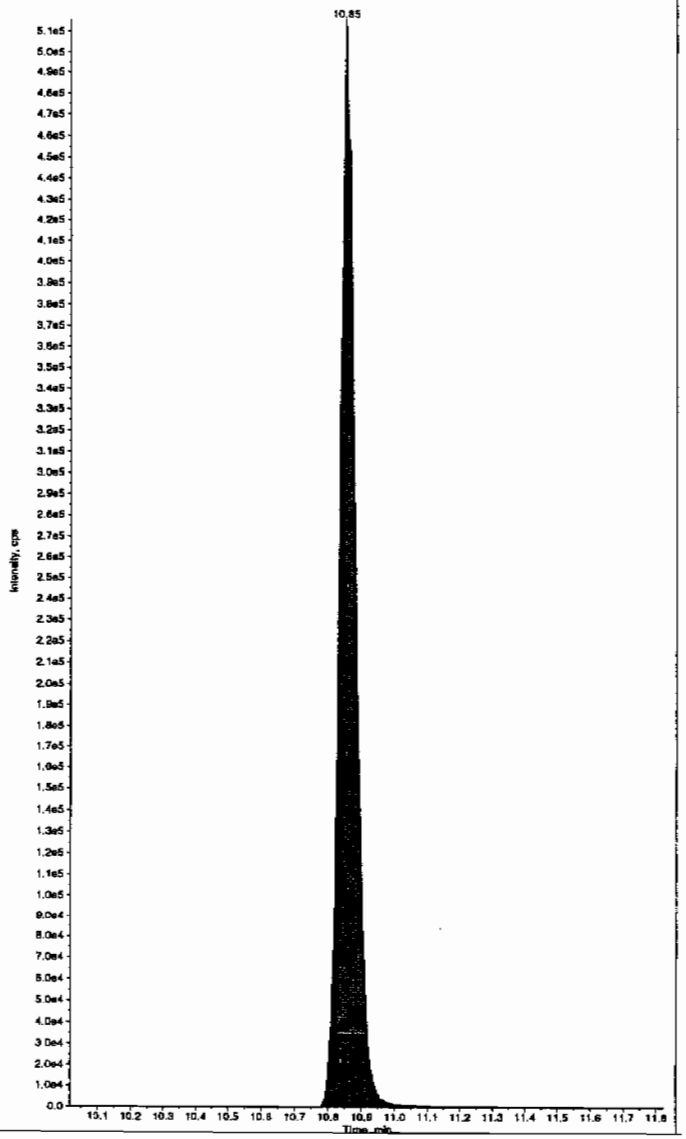

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS03010050.wiff

Analysis Date: 01-MAR-10 21:54

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	513	103	
2,6-Diamino-4-nitrotoluene	500	527	105	
3,4-Dinitrotoluene	250	237	95	
3,5-Dinitroaniline	500	506	101	
TATB	500	501	100	
tris(o-cresyl) phosphate	500	499	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ken 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:54:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 36.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 5.98e+005 counts
Height: 149636.050 cps
Start Time: 6.88 min
End Time: 7.74 min

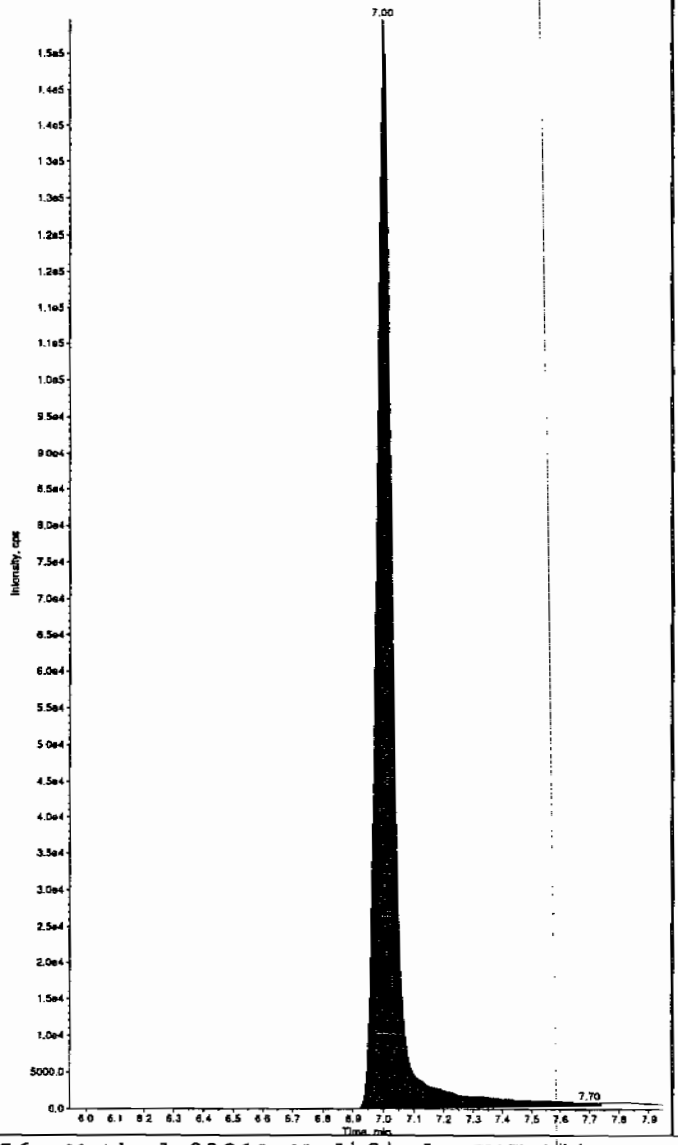

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 506. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:54:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 3.97e+006 counts
Height: 1046075.073 cps
Start Time: 8.14 min
End Time: 8.33 min

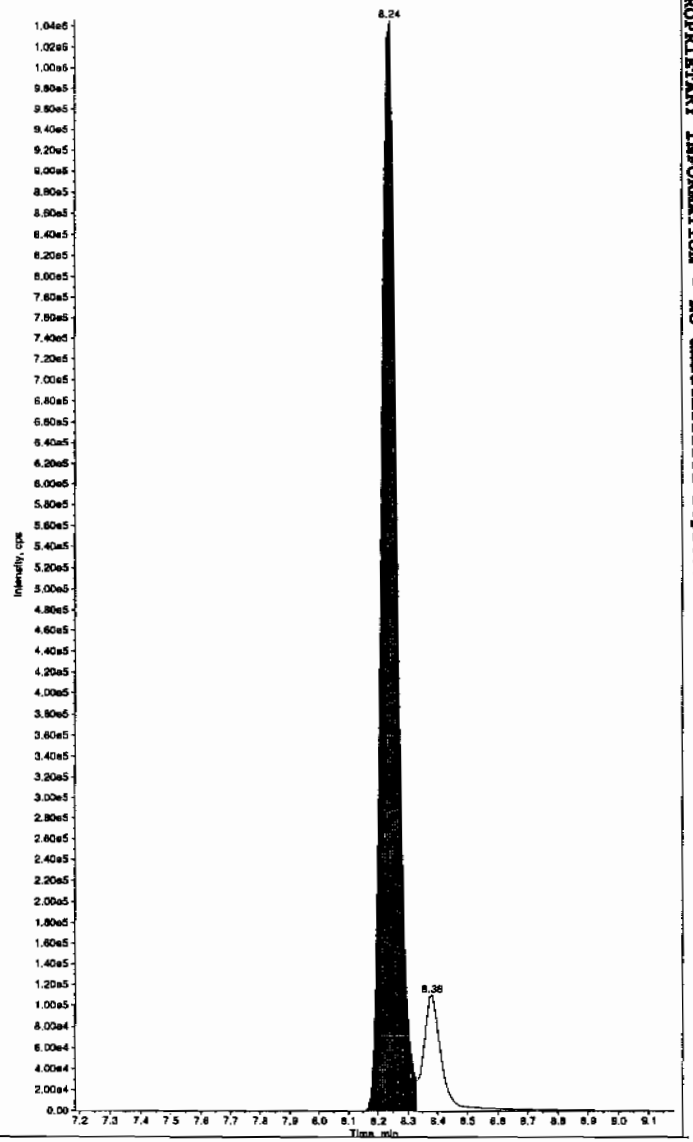

HMW 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 237. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:54:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.89e+006 counts
Height: 837665.588 cps
Start Time: 8.30 min
End Time: 8.69 min

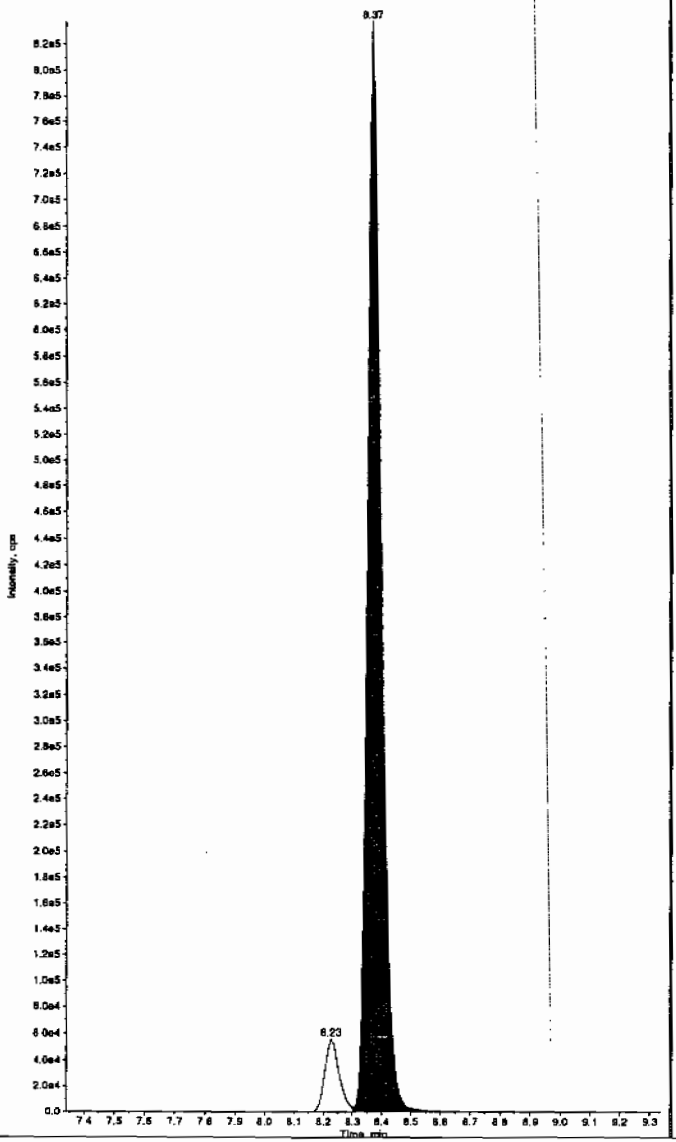

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 527. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:54:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 9.82e+005 counts
Height: 237667.511 cps
Start Time: 4.92 min
End Time: 5.32 min

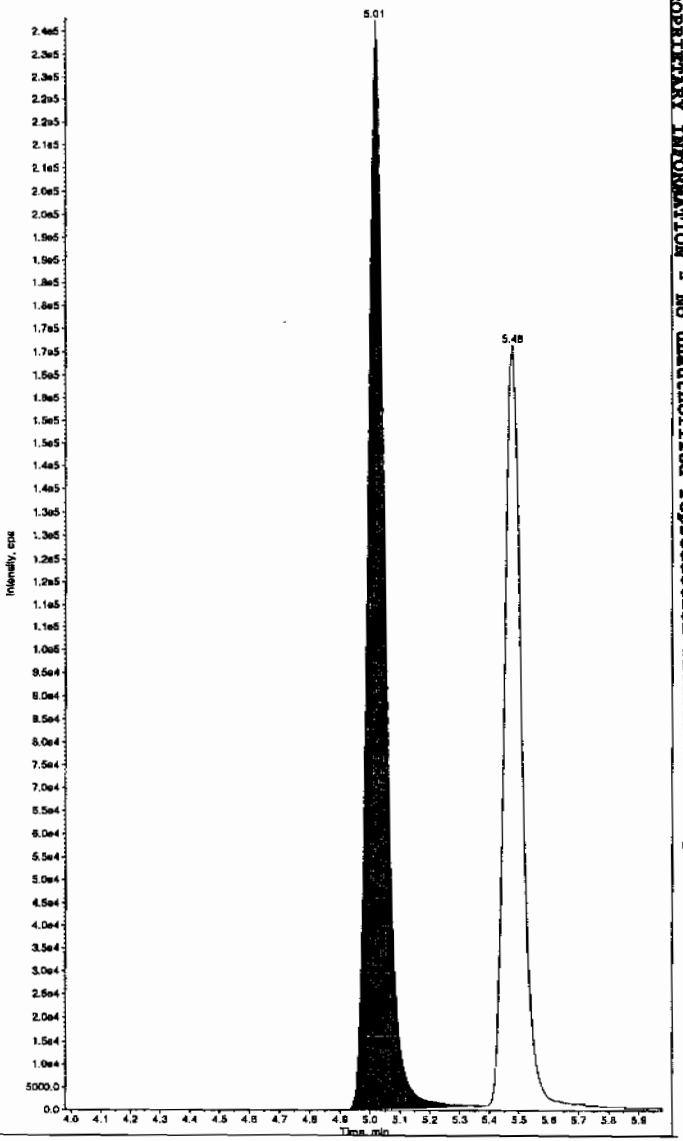

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010050.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 513. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:54:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.46 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 6.91e+005 counts
Height: 166032.608 cps
Start Time: 5.36 min
End Time: 5.87 min

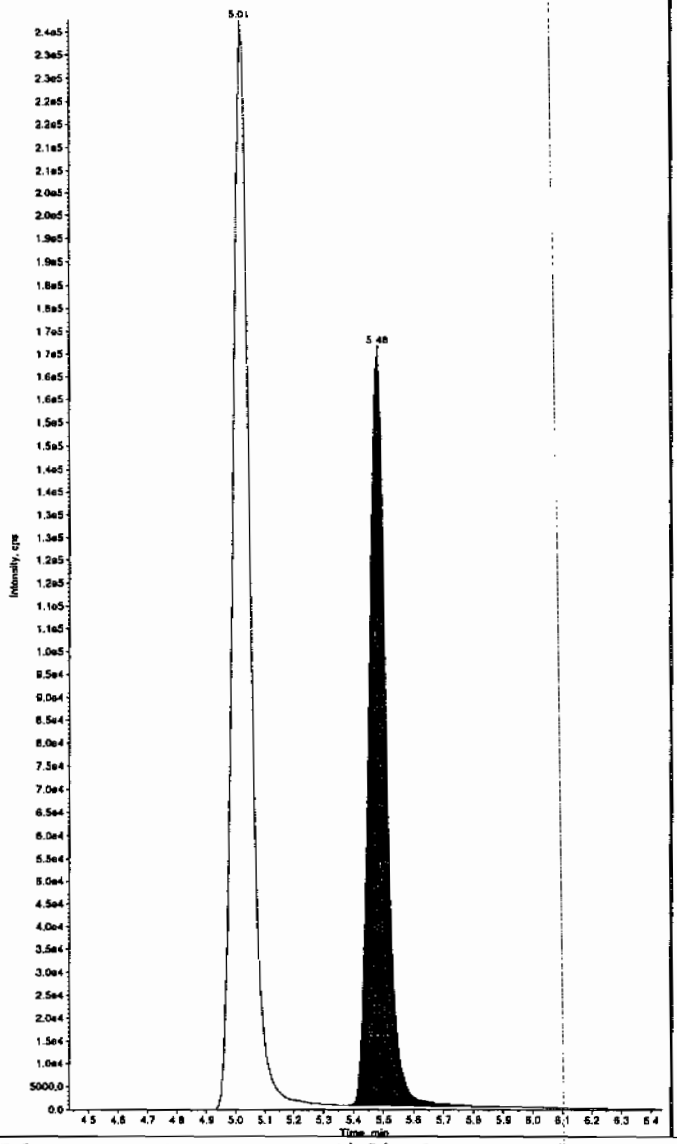

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 9:54:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.80e+006 counts
Height: 2048136.230 cps
Start Time: 10.8 min
End Time: 11.2 min

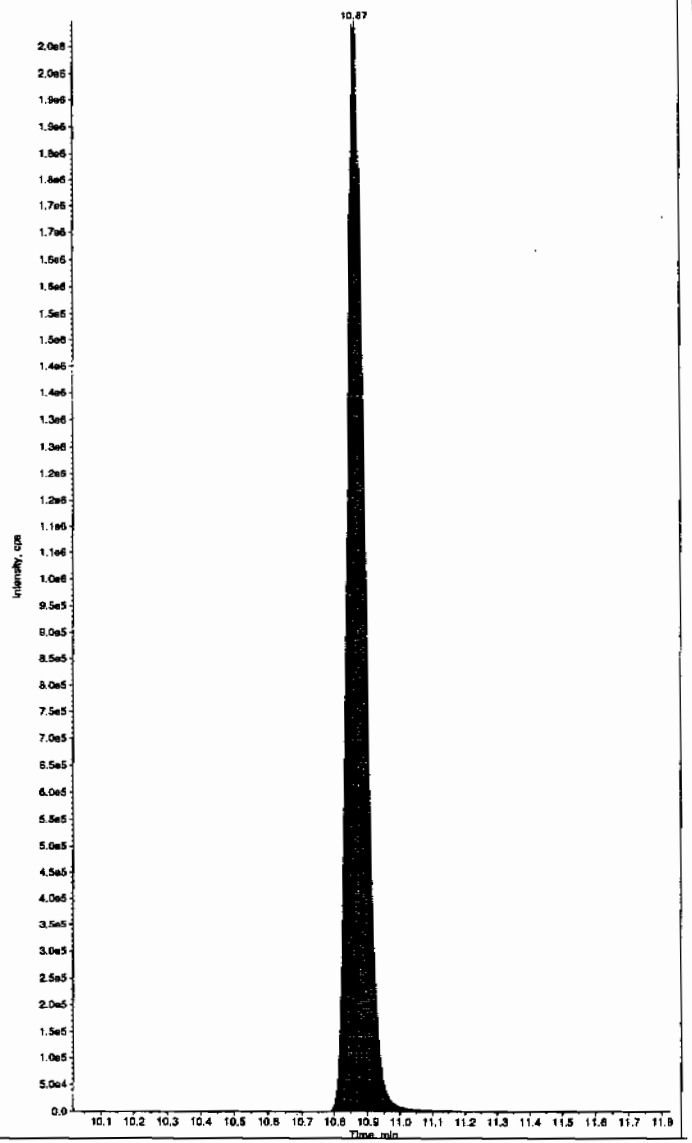

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRl Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010052.wiff

Analysis Date: 01-MAR-10 22:25

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	100	103	103	
2,4-Diamino-6-nitrotoluene	100	107	107	
2,6-Diamino-4-nitrotoluene	100	108	108	
3,4-Dinitrotoluene	50	53	106	
3,5-Dinitroaniline	100	97.3	97	
TATB	100	104	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Jan 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:25:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.11e+005 counts
Height: 28387.428 cps
Start Time: 6.90 min
End Time: 7.24 min

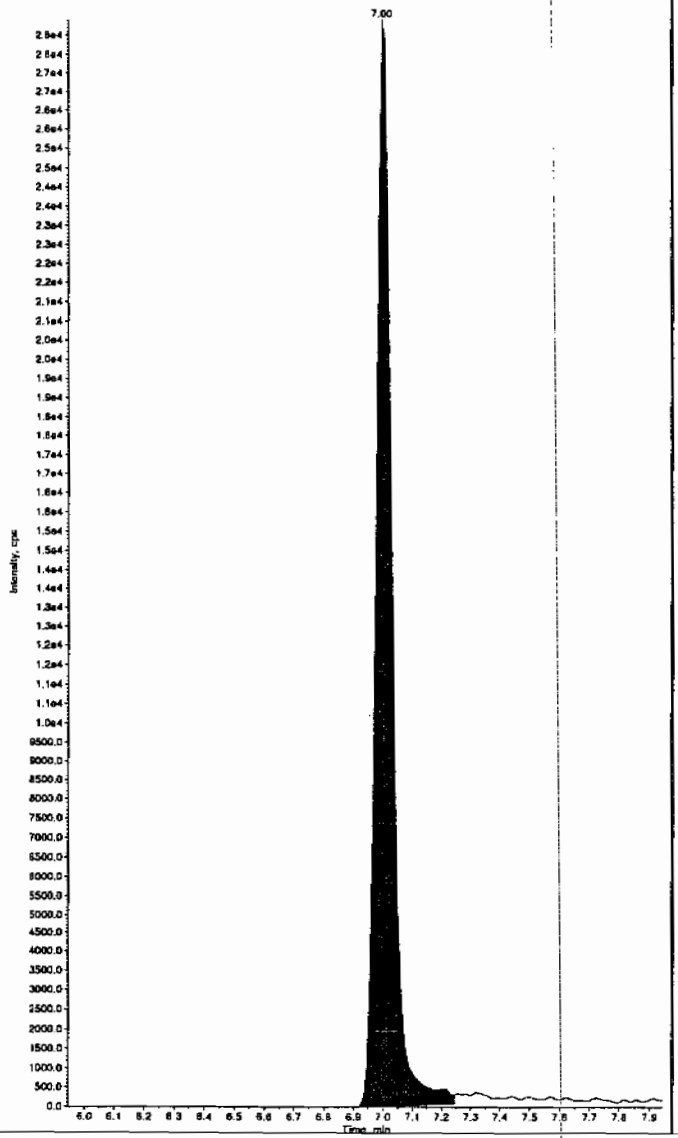

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.3 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:25:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 8.56e+005 counts
Height: 233470.886 cps
Start Time: 8.14 min
End Time: 8.33 min

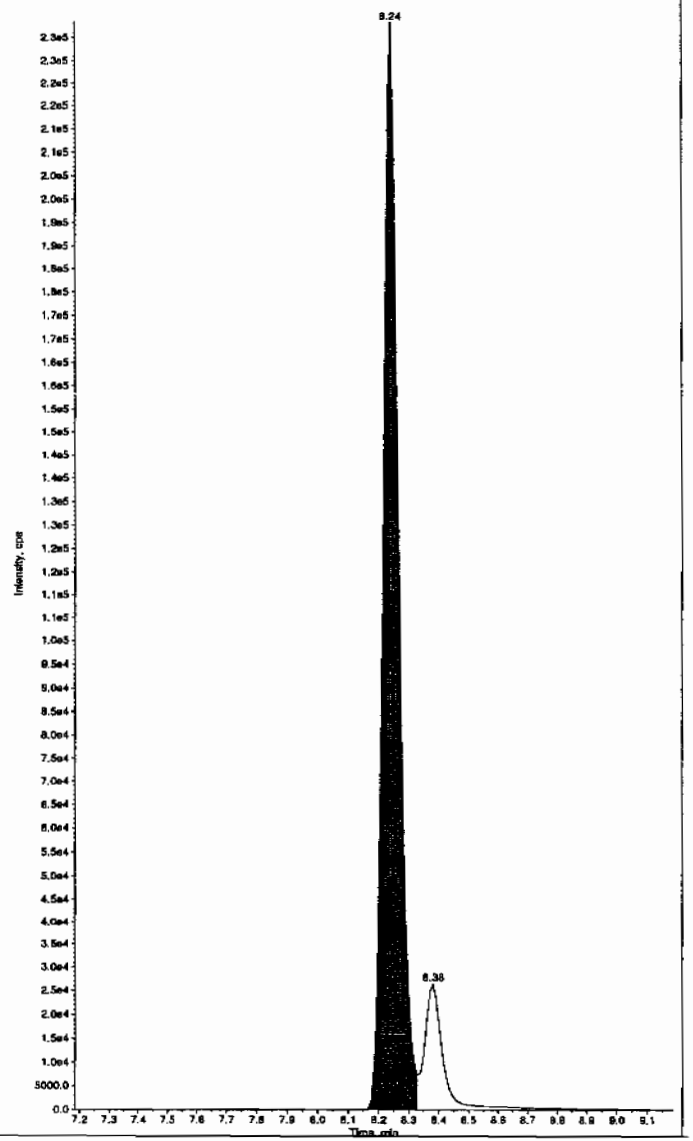

Hvm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 53.0 ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:25:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.12e+005 counts
Height: 182391.998 cps
Start Time: 8.31 min
End Time: 8.70 min

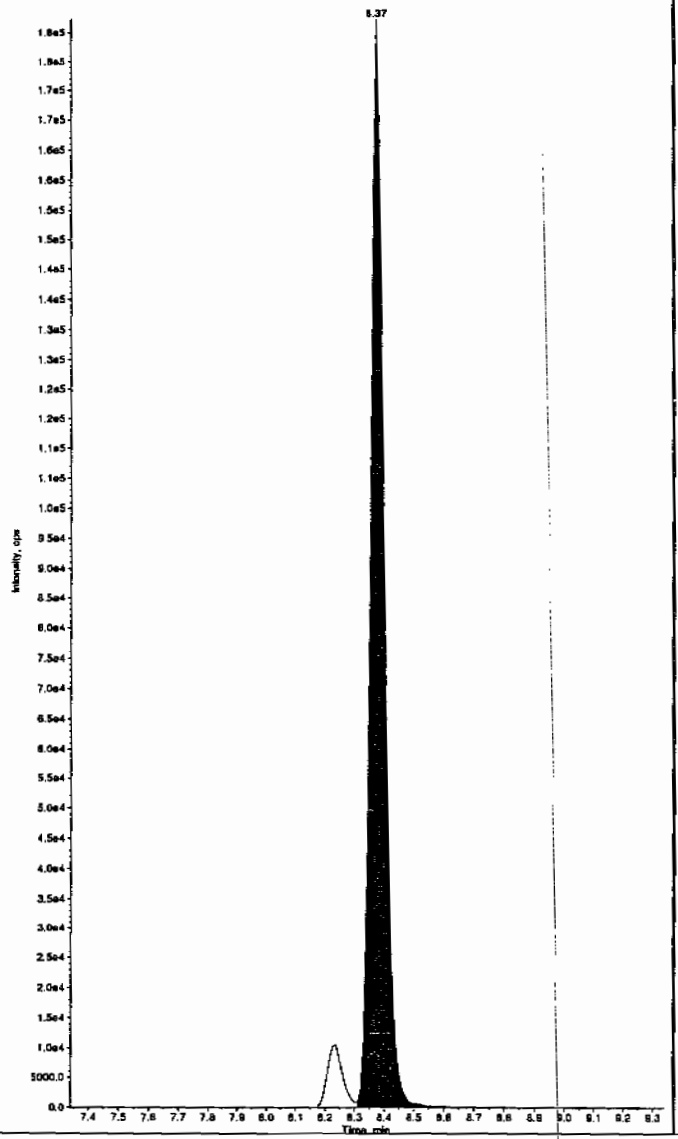

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:25:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 2.06e+005 counts
Height: 50291.931 cps
Start Time: 4.92 min
End Time: 5.31 min

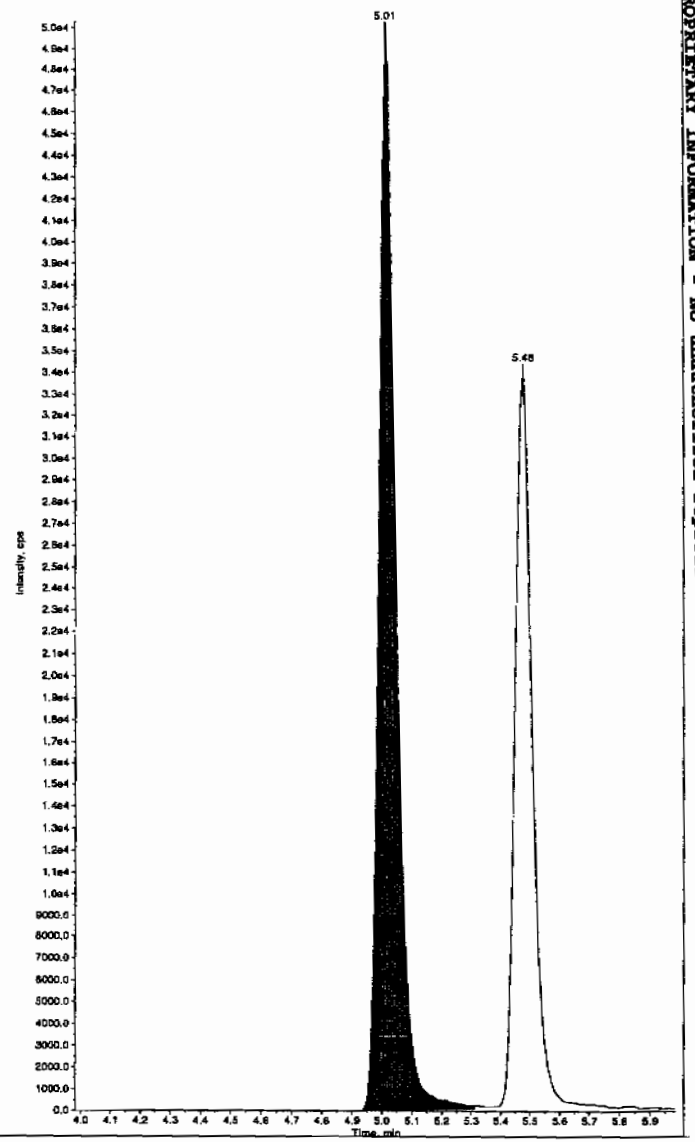

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:25:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.37e+005 counts
Height: 34251.171 cps
Start Time: 5.36 min
End Time: 5.79 min

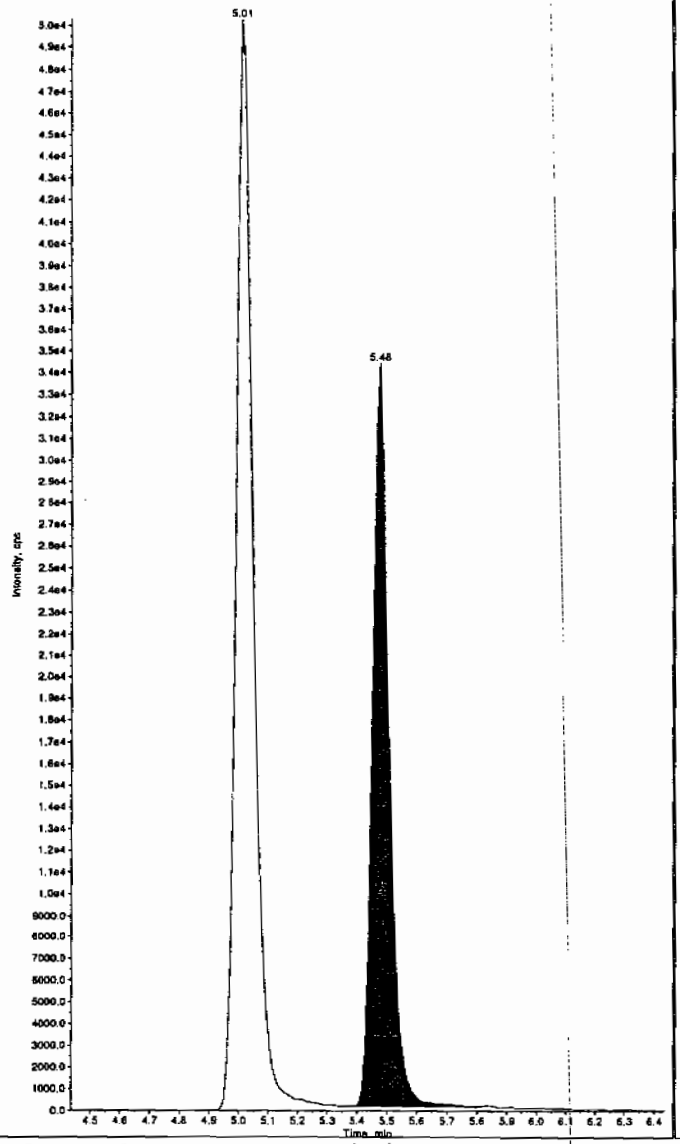

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 3/1/2010
Acq. Time: 10:25:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.78e+006 counts
Height: 495618.866 cps
Start Time: 10.8 min
End Time: 11.1 min

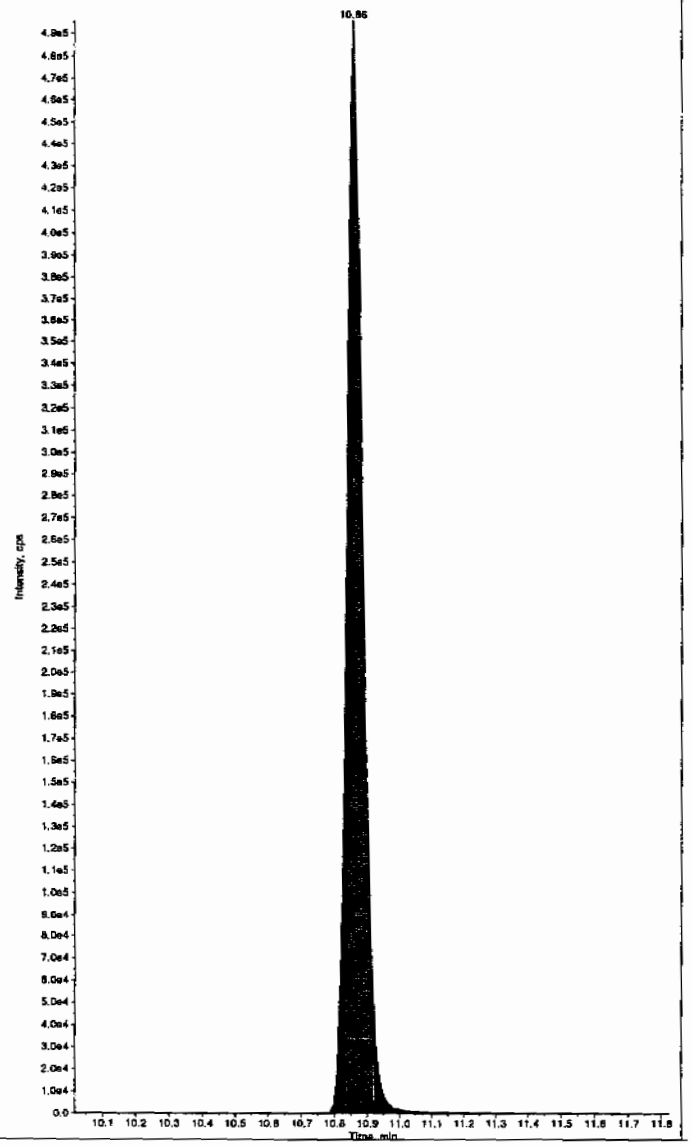

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03010063.wiff

Analysis Date: 02-MAR-10 01:18

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	564	113	
2,6-Diamino-4-nitrotoluene	500	551	110	
3,4-Dinitrotoluene	250	238	95	
3,5-Dinitroaniline	500	523	105	
TATB	500	513	103	
tris(o-cresyl) phosphate	500	478	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010063.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 513. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:18:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 6.14e+005 counts
Height: 146538.147 cps
Start Time: 6.90 min
End Time: 8.08 min

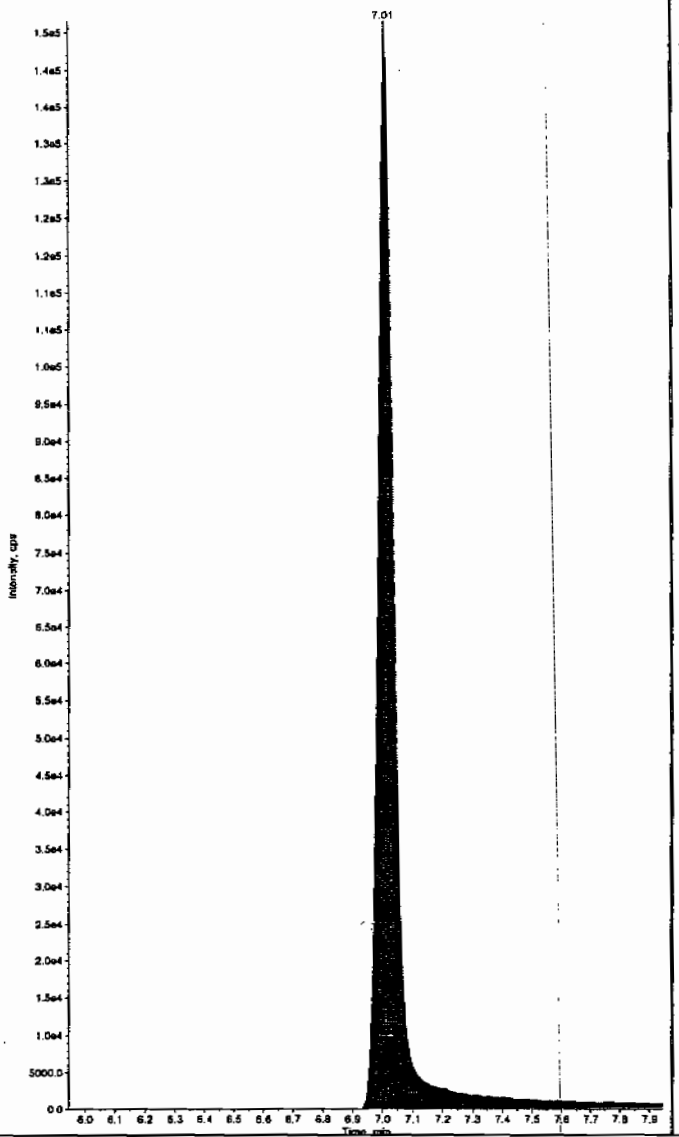

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:18:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.25 min
Area: 3.93e+006 counts
Height: 1107759.521 cps
Start Time: 8.17 min
End Time: 8.34 min

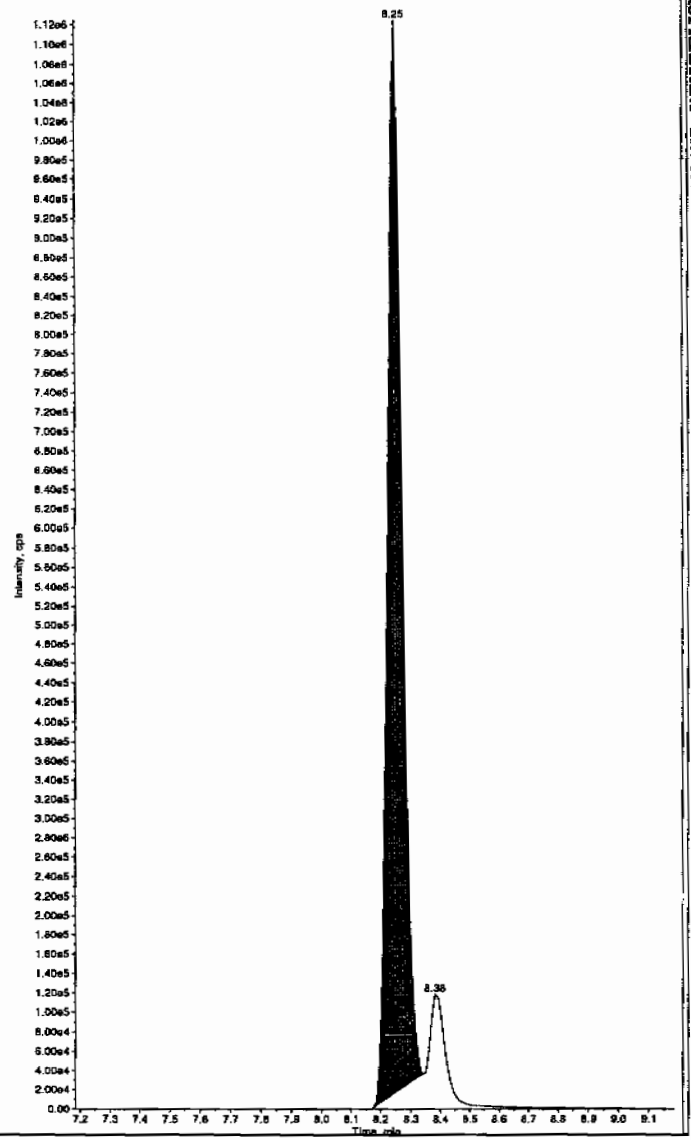

Hnm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Ran 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010063.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 513. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:18:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 6.14e+005 counts
Height: 146538.147 cps
Start Time: 6.90 min
End Time: 8.08 min

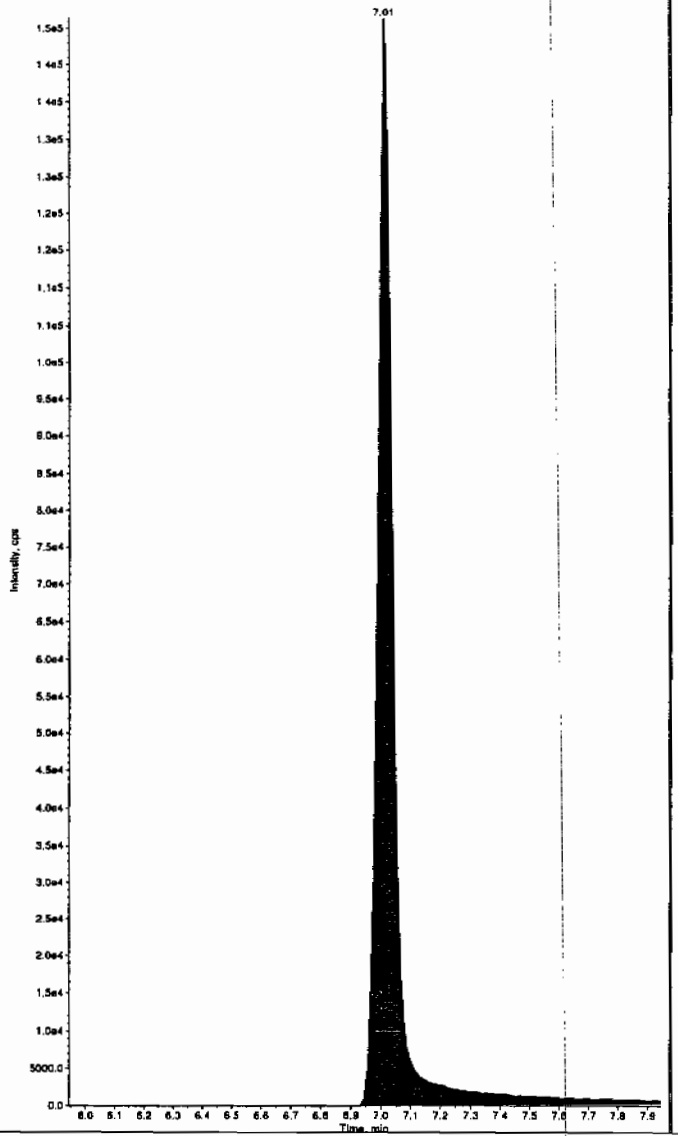

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 523. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:18:44 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.25 min
Area: 4.09e+006 counts
Height: 1121858.383 cps
Start Time: 8.17 min
End Time: 8.34 min

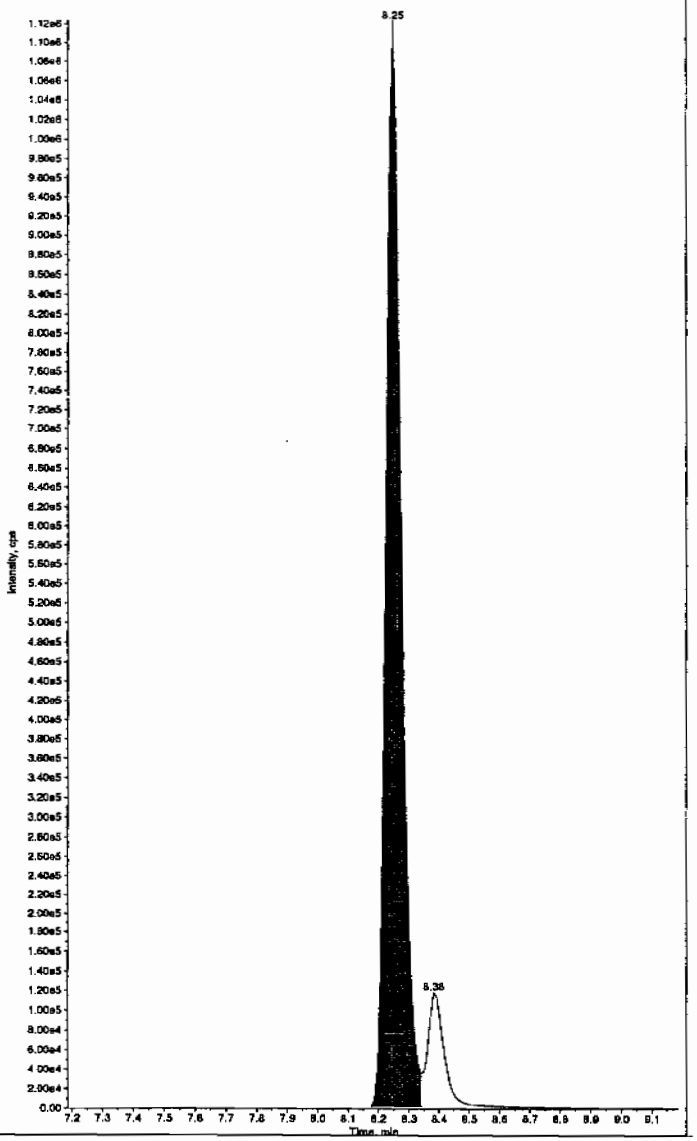

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-25CCV" Sample ID: "[1]LER" File: "EXS03010063.wlf"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 238. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:18:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 2.39e+006 counts
Height: 869403.381 cps
Start Time: 8.31 min
End Time: 8.71 min

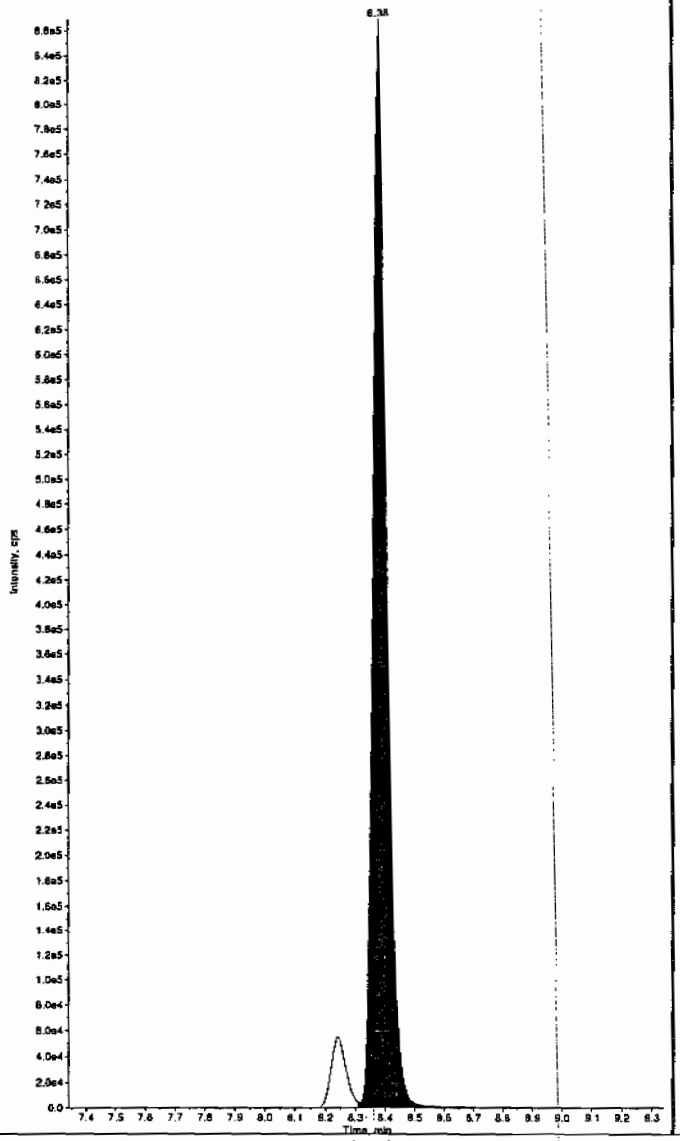

Sample Name: "WXX100301-25CCV" Sample ID: "[1]LER" File: "EXS03010063.wlf"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 551. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:18:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.03e+006 counts
Height: 253181.808 cps
Start Time: 4.93 min
End Time: 5.29 min

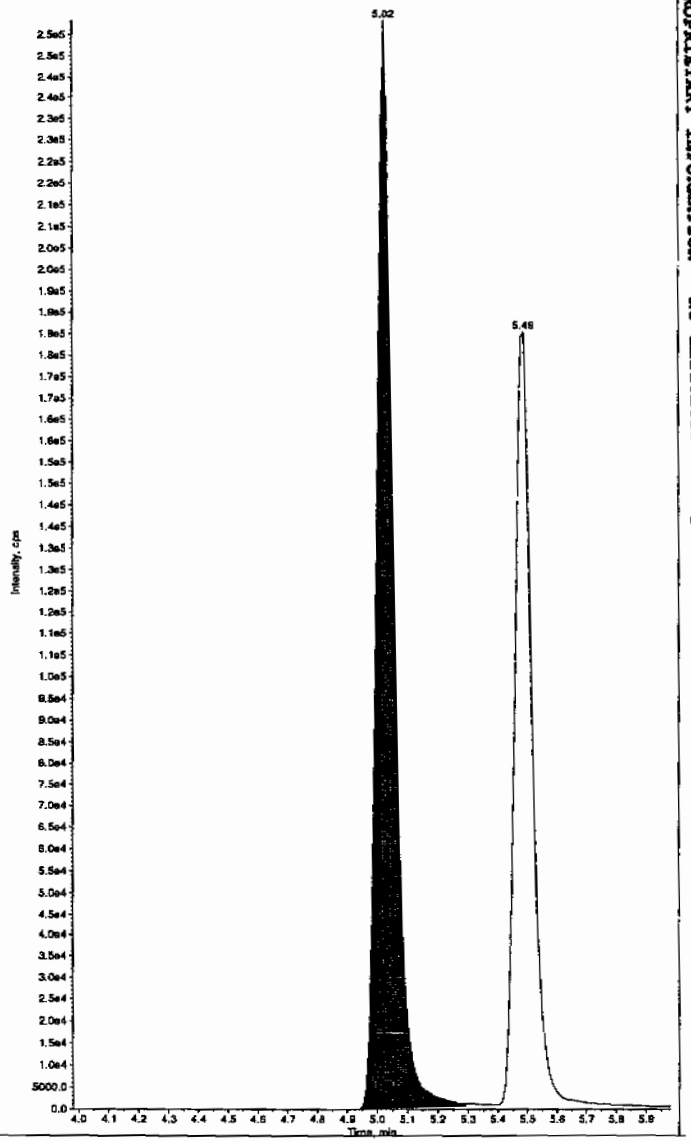

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-25CCV" Sample ID: "|1|LER" File: "EXS03010063.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 564. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:18:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 7.48e+005 counts
Height: 180488.724 cps
Start Time: 5.38 min
End Time: 6.14 min

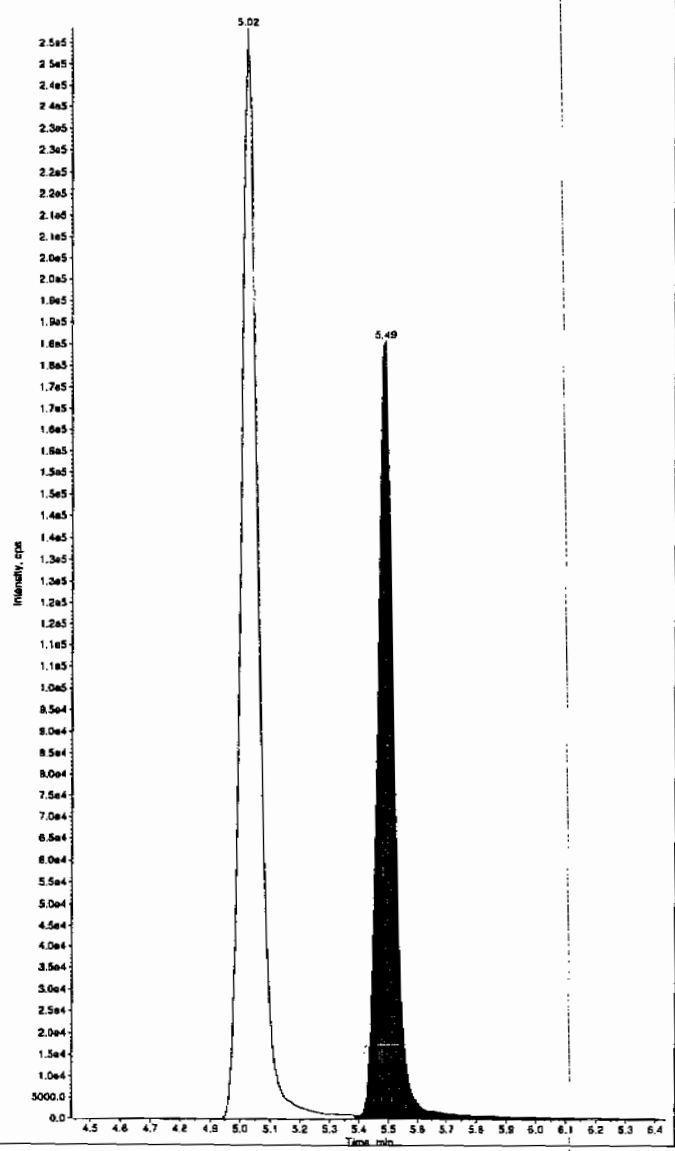

Sample Name: "WXX100301-25CCV" Sample ID: "|1|LER" File: "EXS03010063.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 478. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:18:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.51e+006 counts
Height: 1900361.328 cps
Start Time: 10.8 min
End Time: 11.2 min

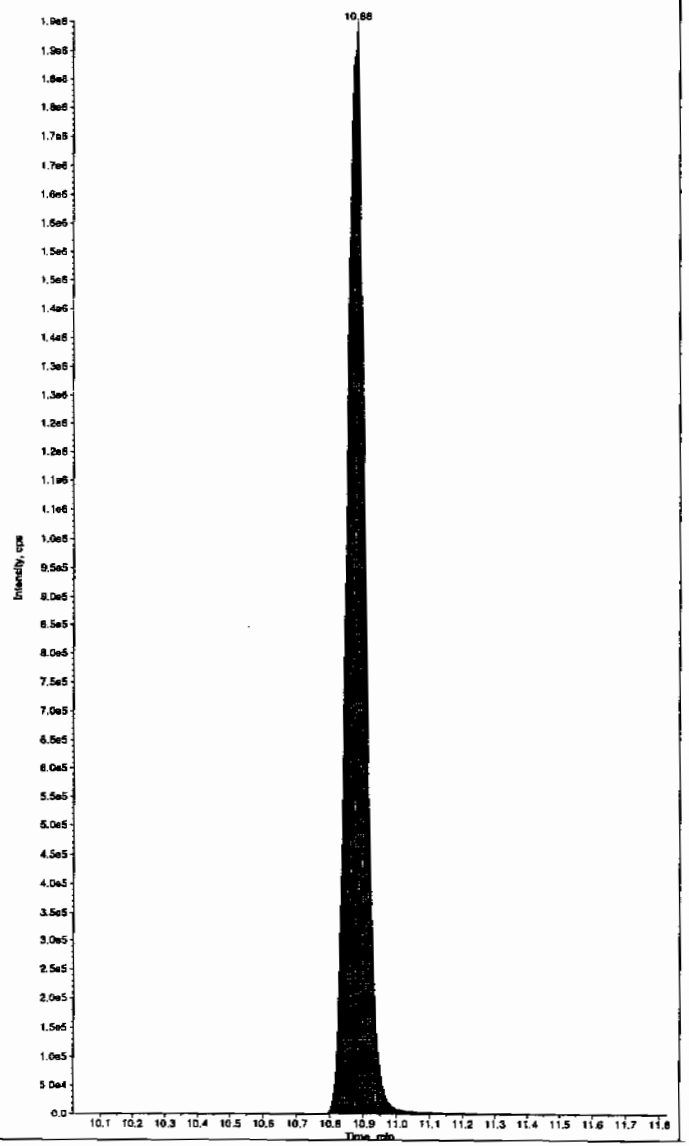

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010065.wiff

Analysis Date: 02-MAR-10 01:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	117	117	
2,6-Diamino-4-nitrotoluene	100	109	109	
3,4-Dinitrotoluene	50	51.2	102	
3,5-Dinitroaniline	100	95.4	95	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	102	102	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluenc ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "1|LER" File: "EXS03010065.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:50:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 1.11e+005 counts
Height: 28546.782 cps
Start Time: 6.91 min
End Time: 7.31 min

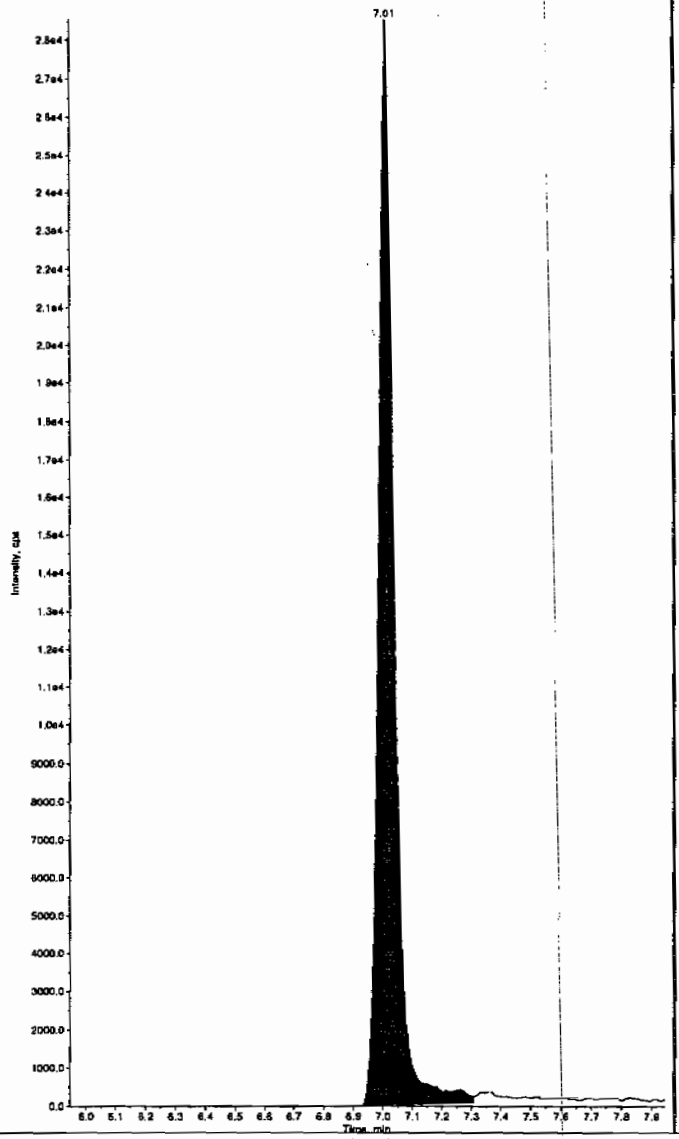

Sample Name: "WXX100301-27CRI" Sample ID: "1|LER" File: "EXS03010065.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.4 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:50:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.25 min
Area: 8.42e+005 counts
Height: 226284.119 cps
Start Time: 8.13 min
End Time: 8.34 min

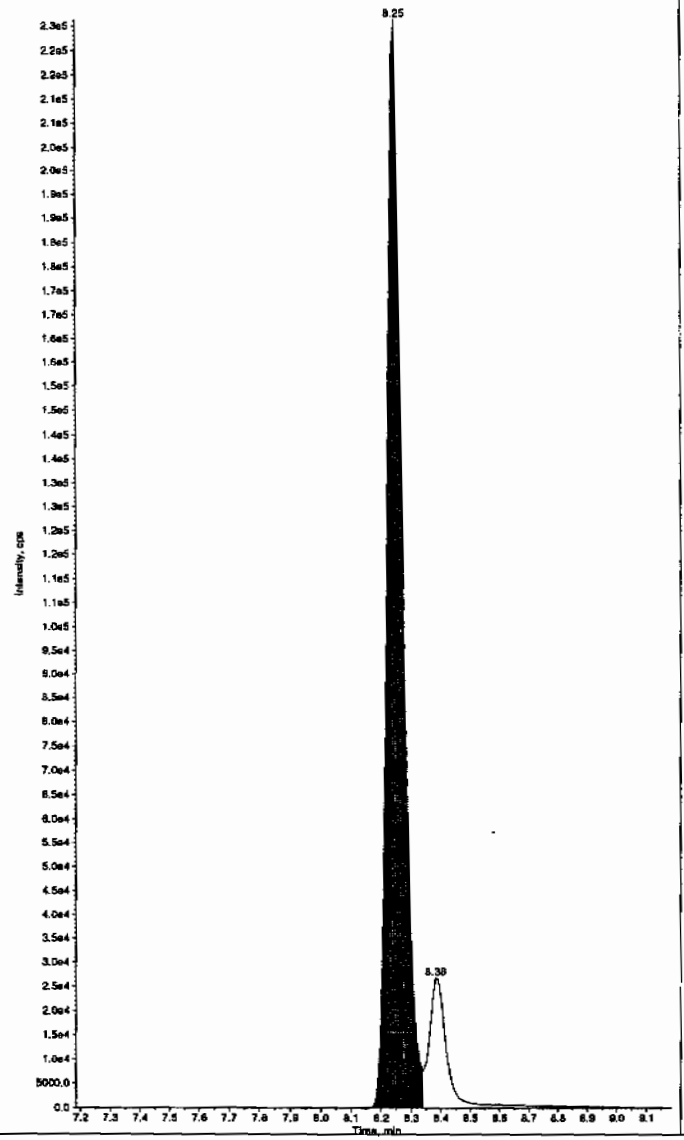

Hmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010065.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 51.2 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:50:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.38 min
Area: 5.88e+005 counts
Height: 176862.183 cps
Start Time: 8.31 min
End Time: 8.54 min

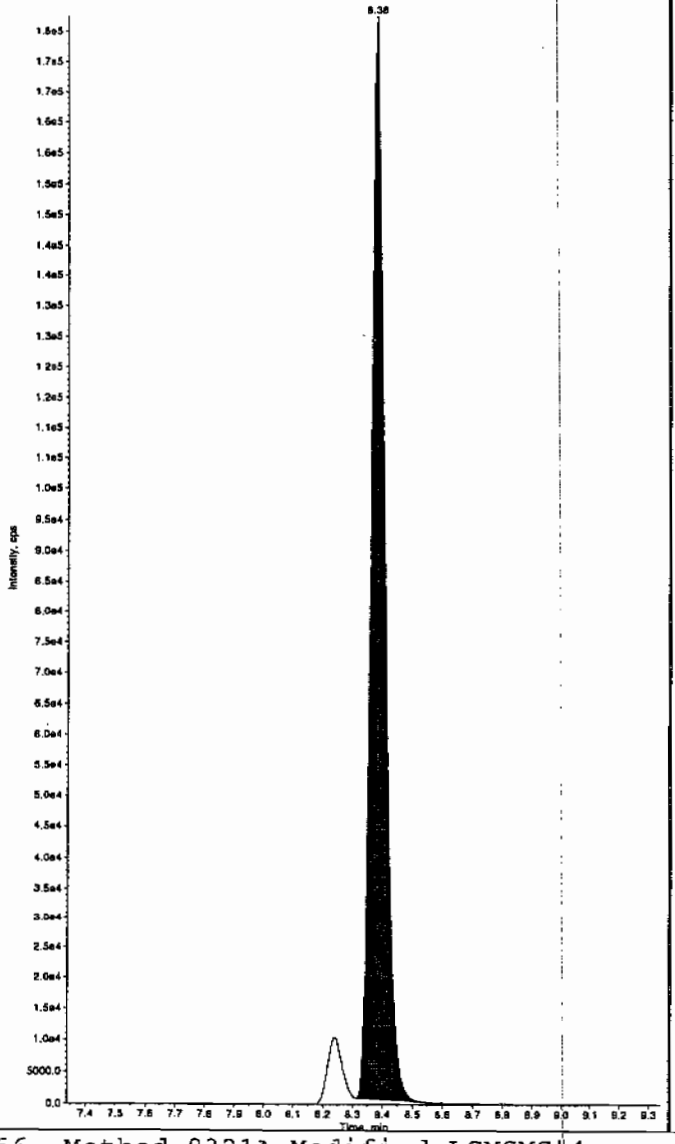

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010065.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:50:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.10e+005 counts
Height: 49941.132 cps
Start Time: 4.89 min
End Time: 5.33 min

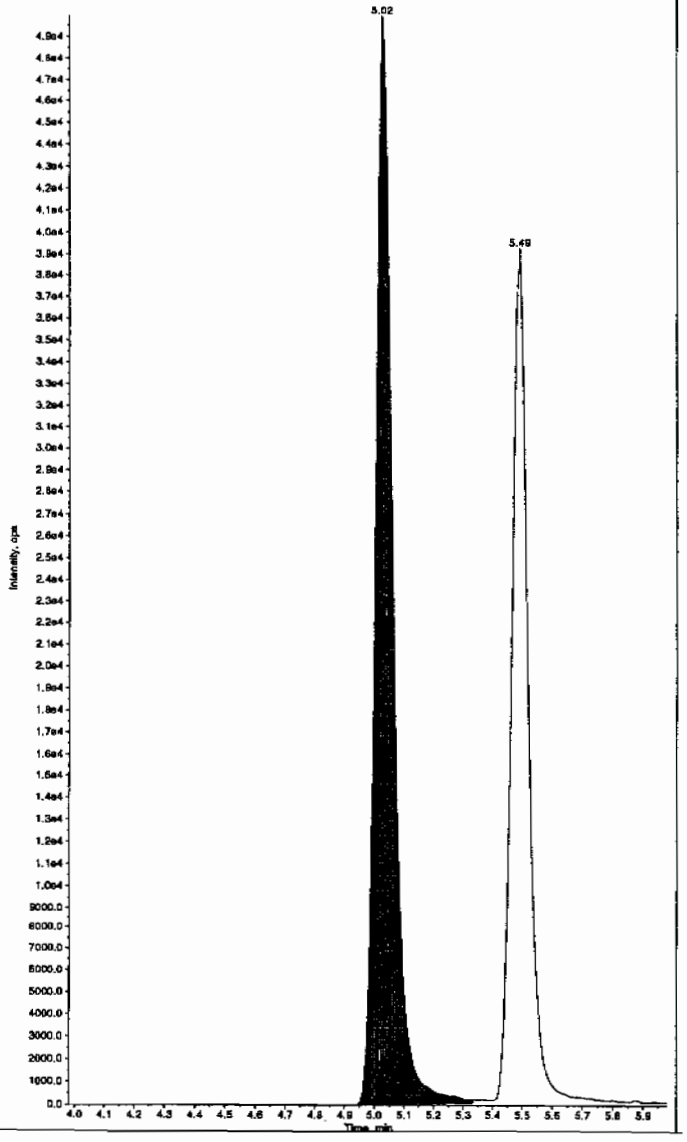

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-27CRI" Sample ID: "1|LER" File: "EXS03010065.wiff"
Peak Name: "2,4-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 117. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:50:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 1.51e+005 counts
Height: 39117.947 cps
Start Time: 5.41 min
End Time: 5.99 min

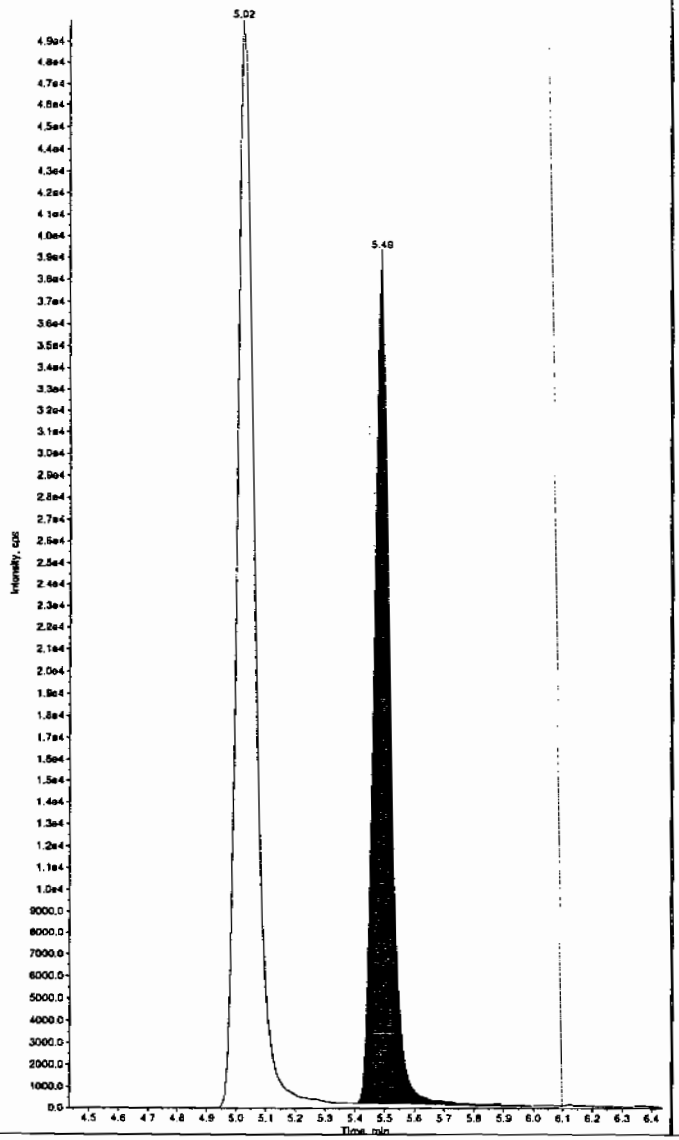

Sample Name: "WXX100301-27CRI" Sample ID: "1|LER" File: "EXS03010065.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:50:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.77e+006 counts
Height: 523160.889 cps
Start Time: 10.7 min
End Time: 11.2 min

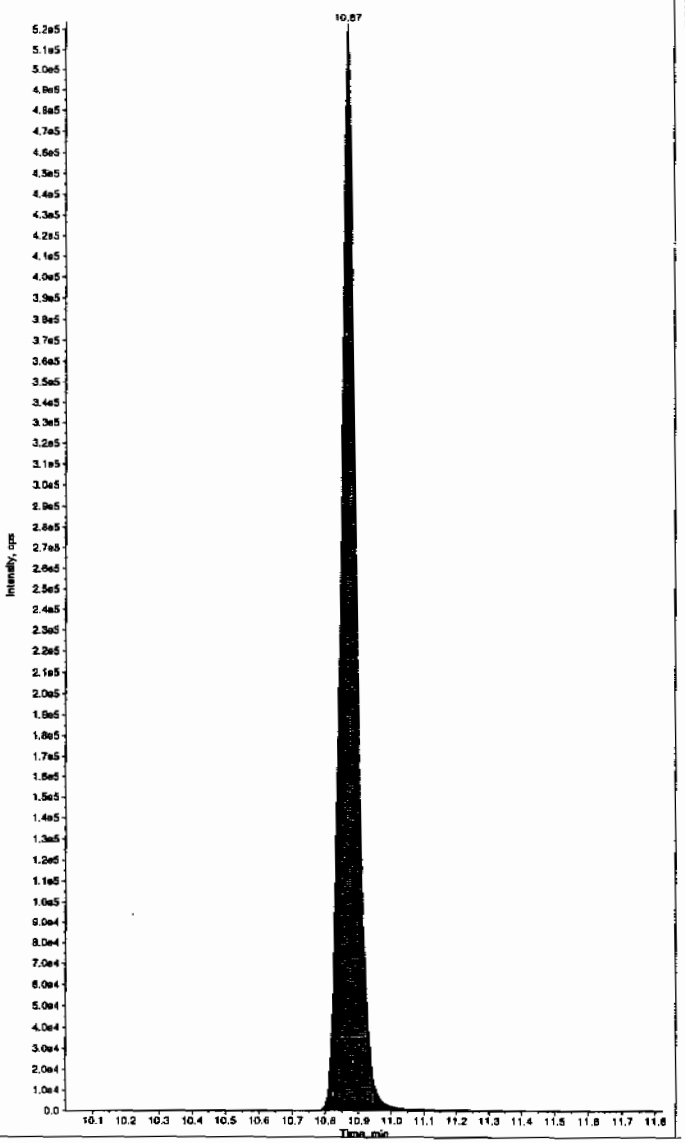

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03010074.wiff

Analysis Date: 02-MAR-10 04:11

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
TATB	500	522	104	
tris(o-cresyl) phosphate	500	498	100	
2,4-Diamino-6-nitrotoluene	500	586	117	
2,6-Diamino-4-nitrotoluene	500	558	112	
3,4-Dinitrotoluene	250	243	97	
3,5-Dinitroaniline	500	499	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010074.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 522. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:11:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 6.25e+005 counts
Height: 154030.548 cps
Start Time: 6.90 min
End Time: 7.77 min

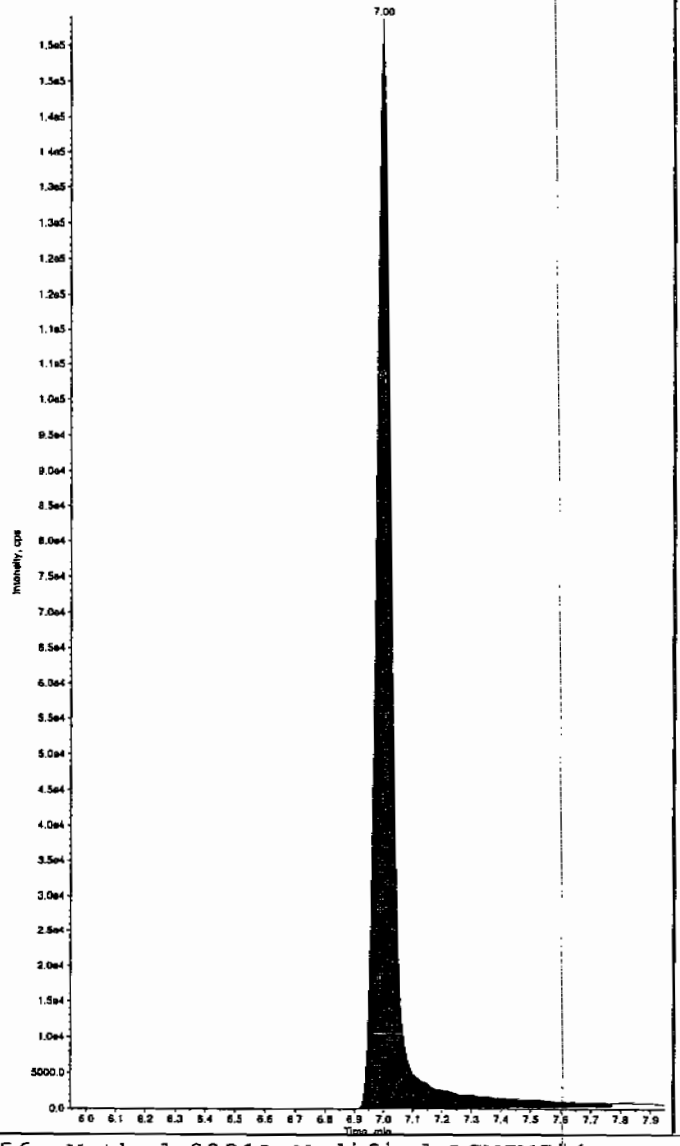

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010074.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 481. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:11:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.78e+006 counts
Height: 1052406.250 cps
Start Time: 8.15 min
End Time: 8.33 min

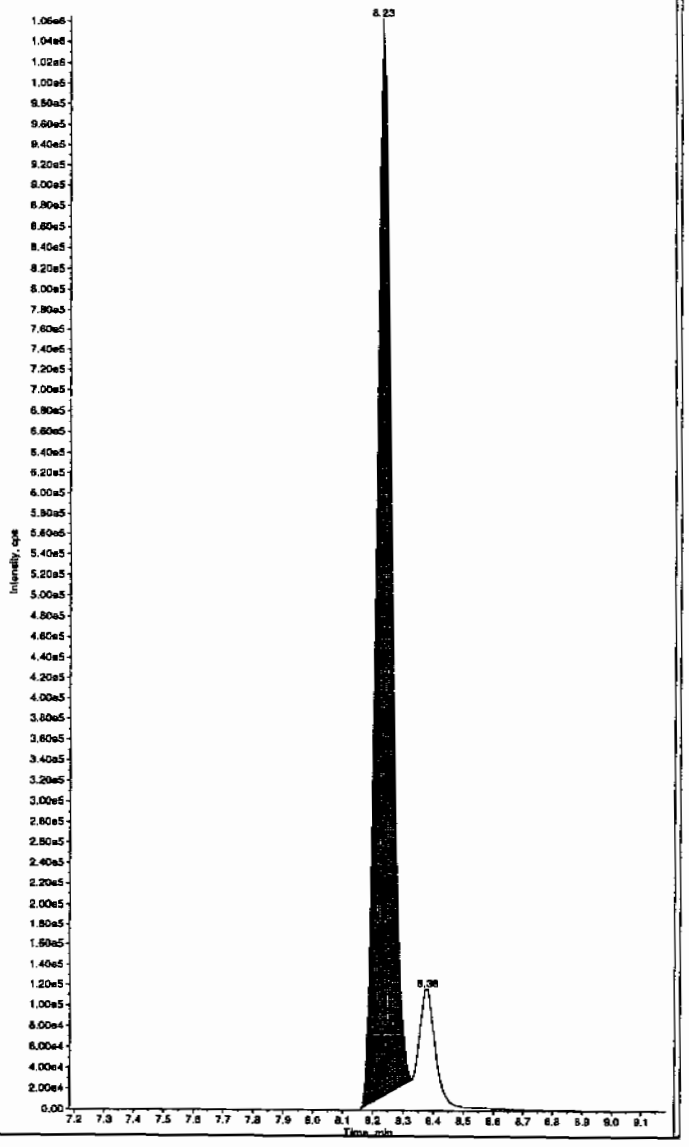

Hmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Scan 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010074.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 522. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:11:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 6.25e+005 counts
Height: 154030.548 cps
Start Time: 6.90 min
End Time: 7.77 min

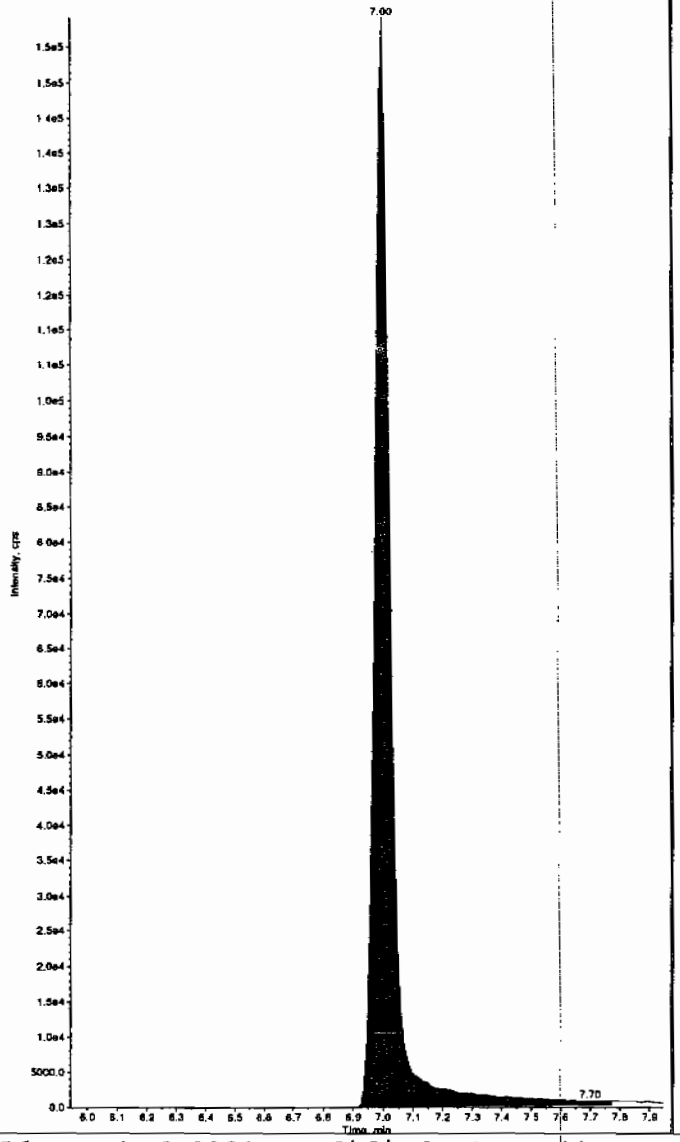

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010074.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:11:54 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.92e+006 counts
Height: 1066817.625 cps
Start Time: 8.15 min
End Time: 8.33 min

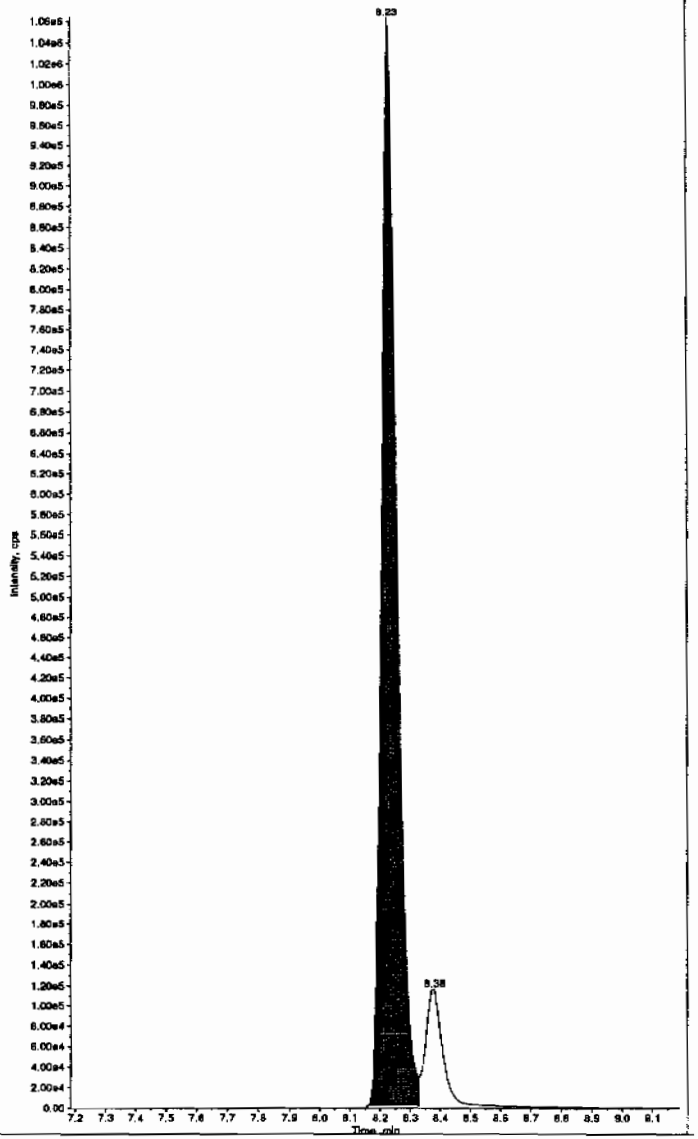

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010074.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 243. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:11:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.96e+006 counts
Height: 862218.384 cps
Start Time: 8.30 min
End Time: 8.69 min

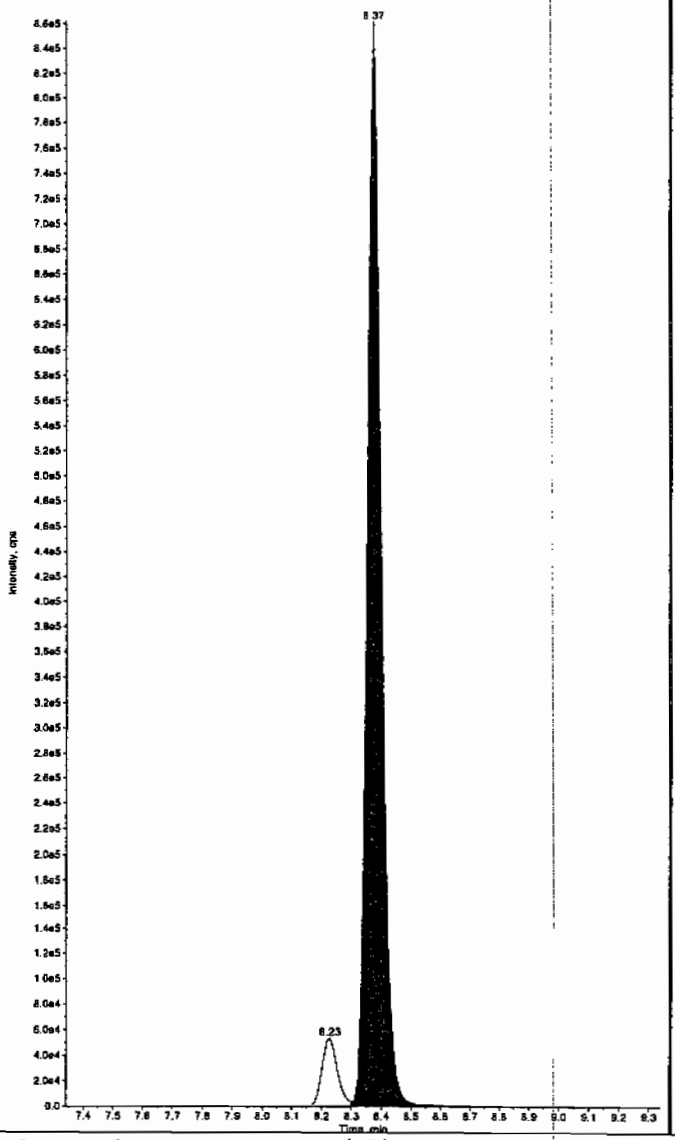

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010074.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 558. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:11:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.04e+006 counts
Height: 250286.514 cps
Start Time: 4.92 min
End Time: 5.31 min

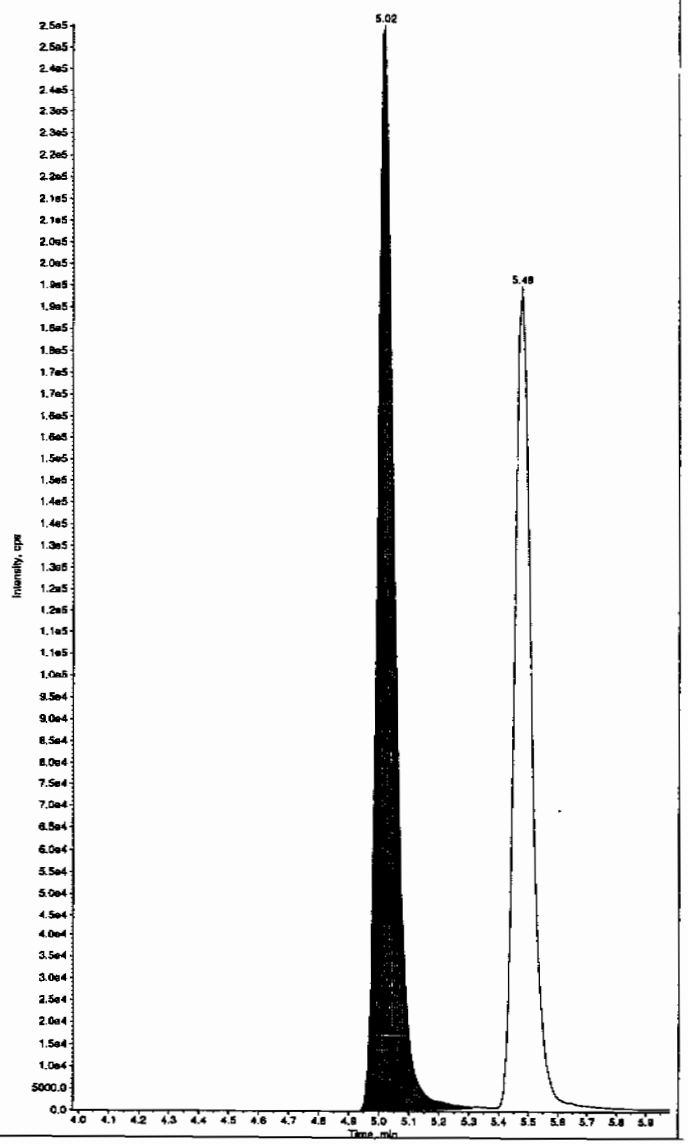

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-25CCV" Sample ID: "[1]LER" File: "EXS03010074.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 586. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:11:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 7.76e+005 counts
Height: 189887.344 cps
Start Time: 5.38 min
End Time: 6.11 min

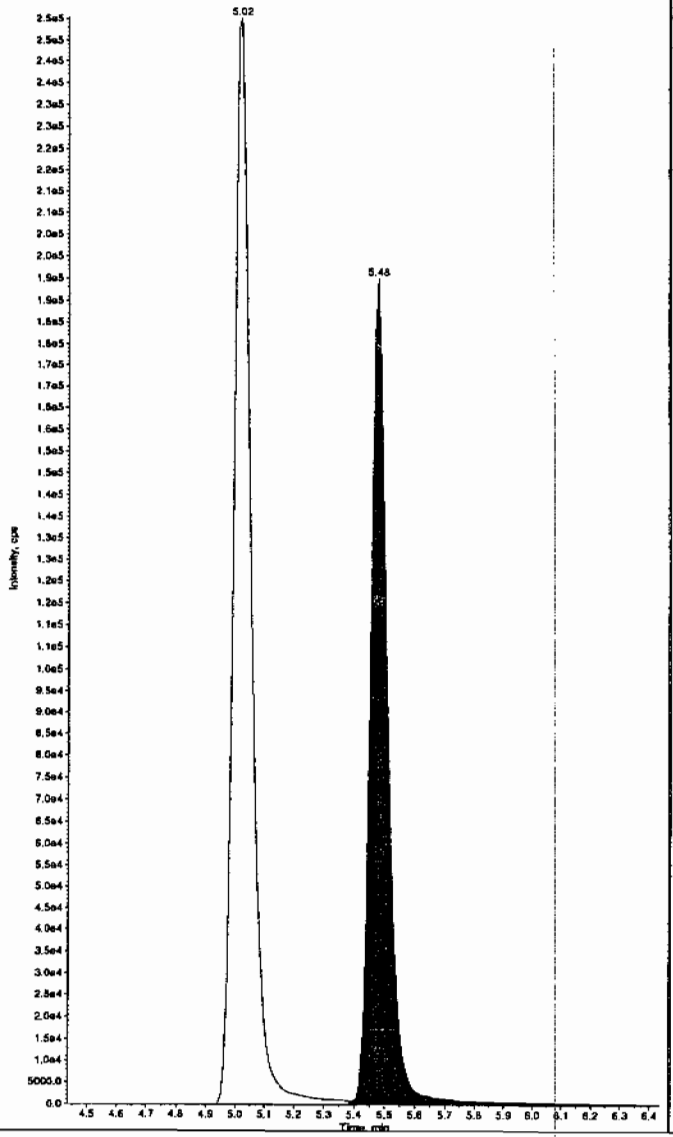

Sample Name: "WXX100301-25CCV" Sample ID: "[1]LER" File: "EXS03010074.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:11:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.79e+006 counts
Height: 2204759.521 cps
Start Time: 10.8 min
End Time: 11.2 min

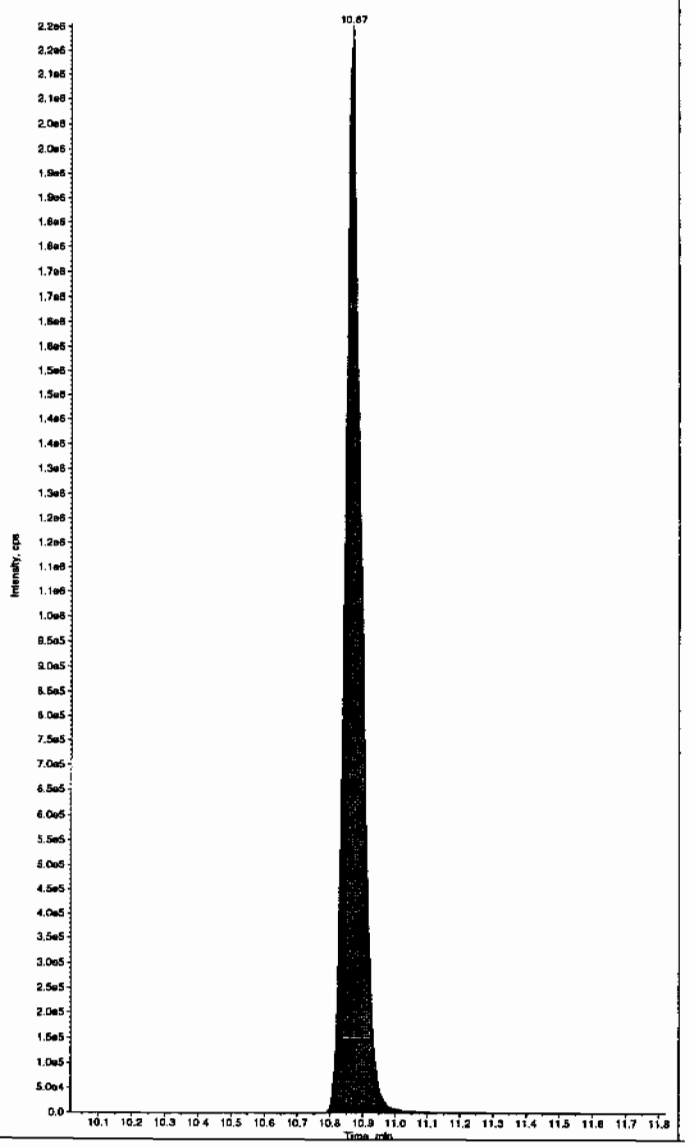

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1564

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS03010076.wiff

Analysis Date: 02–MAR–10 04:43

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	125	125	
2,6–Diamino–4–nitrotoluene	100	113	113	
3,4–Dinitrotoluene	50	51.9	104	
3,5–Dinitroaniline	100	97.5	98	
TATB	100	107	107	
tris(o–cresyl) phosphate	100	102	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCR 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010076.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:43:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.14e+005 counts
Height: 29411.873 cps
Start Time: 6.90 min
End Time: 7.53 min

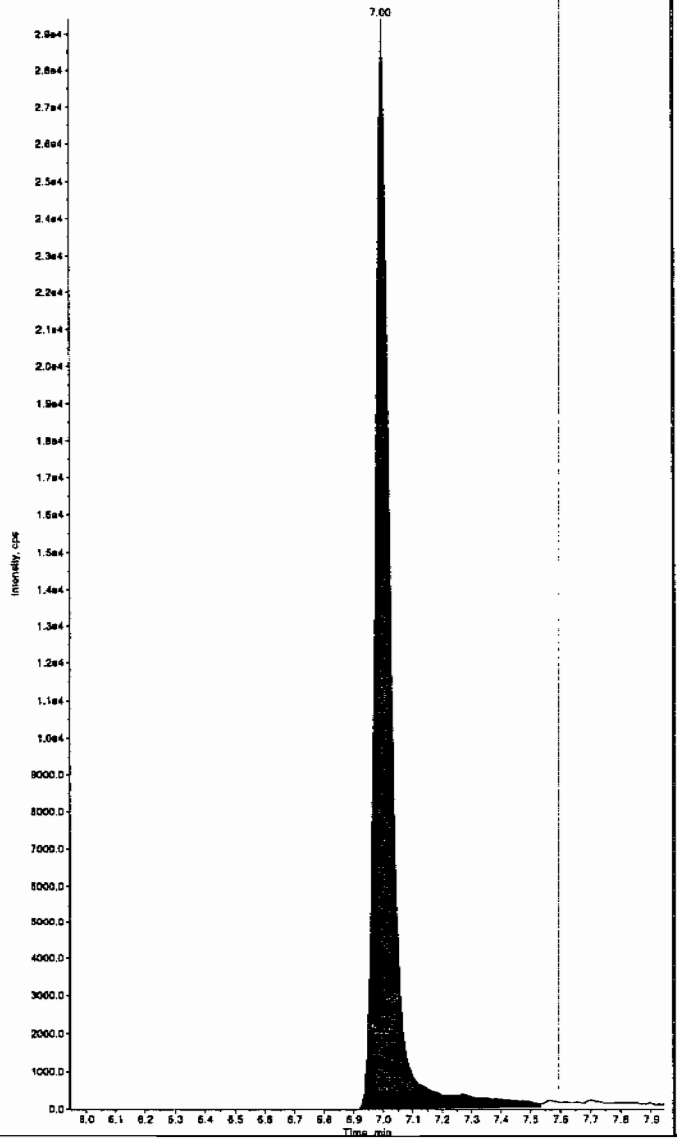

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010076.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.5 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:43:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 8.58e+005 counts
Height: 231412.018 cps
Start Time: 8.13 min
End Time: 8.33 min

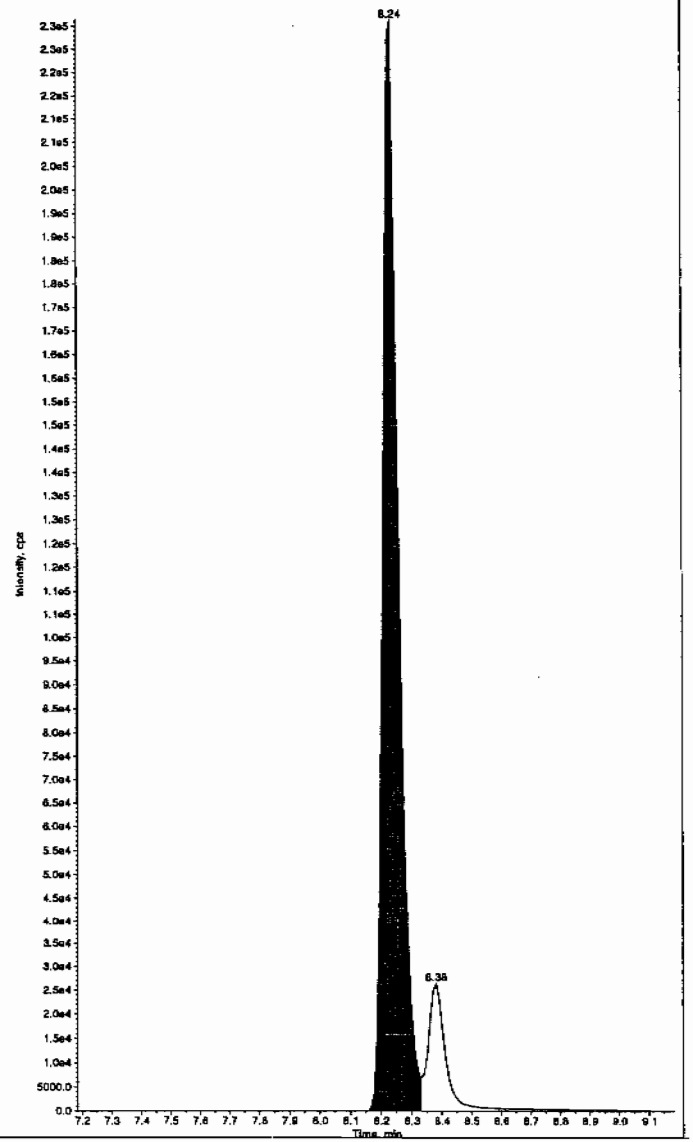

Hmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010076.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 51.9 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:43:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 5.97e+005 counts
Height: 173230.148 cps
Start Time: 8.30 min
End Time: 8.71 min

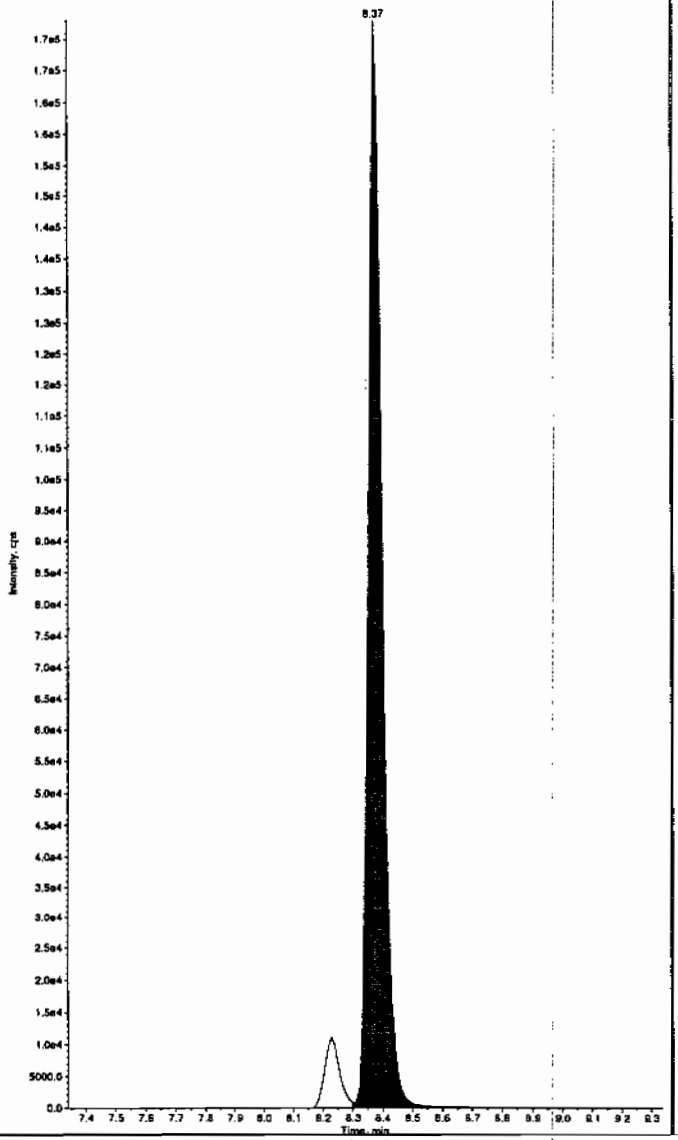

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010076.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:43:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 2.16e+005 counts
Height: 51517.998 cps
Start Time: 4.91 min
End Time: 5.32 min

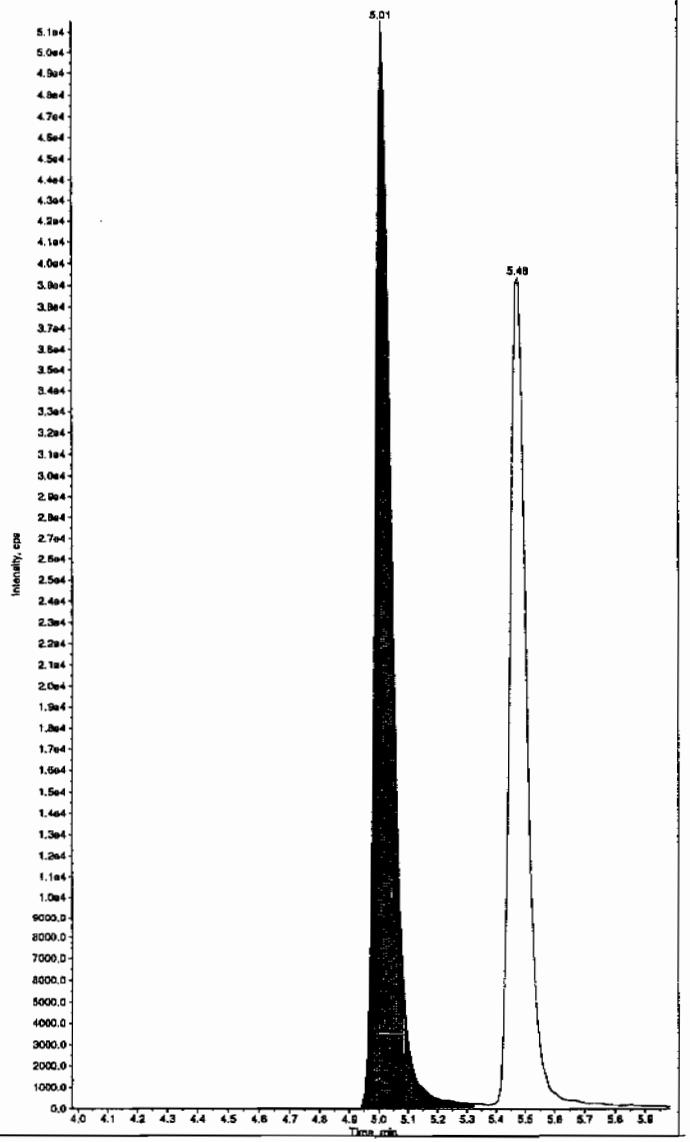

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010076.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 125. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:43:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.61e+005 counts
Height: 39328.377 cps
Start Time: 5.37 min
End Time: 5.98 min

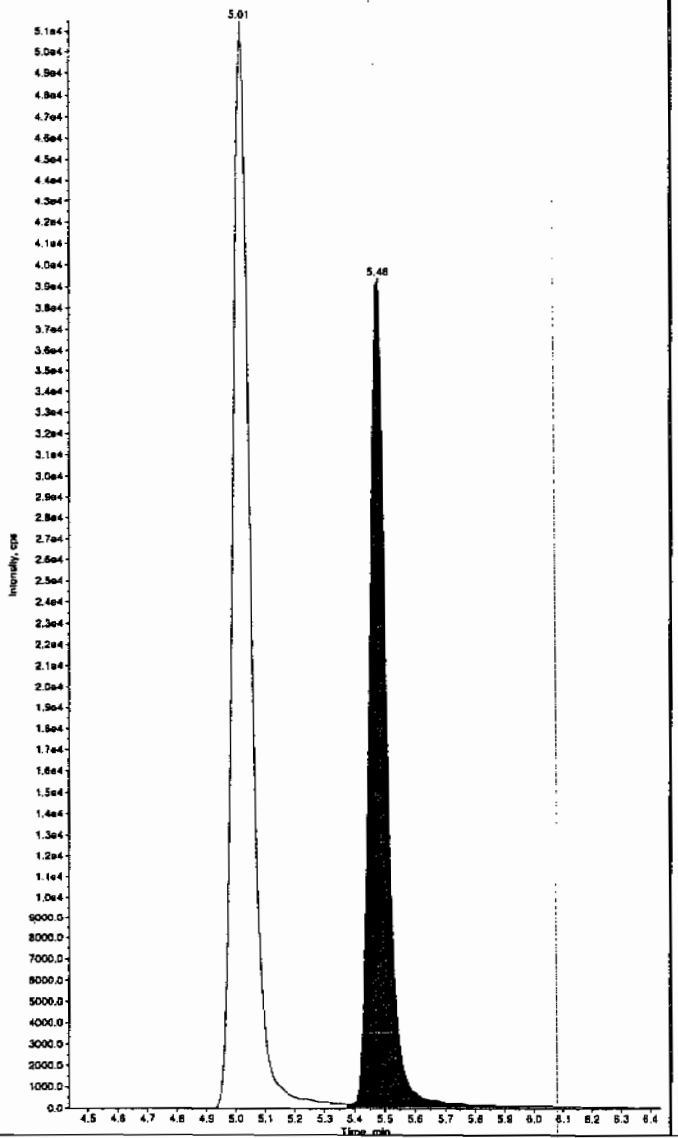

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010076.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:43:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.77e+006 counts
Height: 516487.244 cps
Start Time: 10.8 min
End Time: 11.1 min

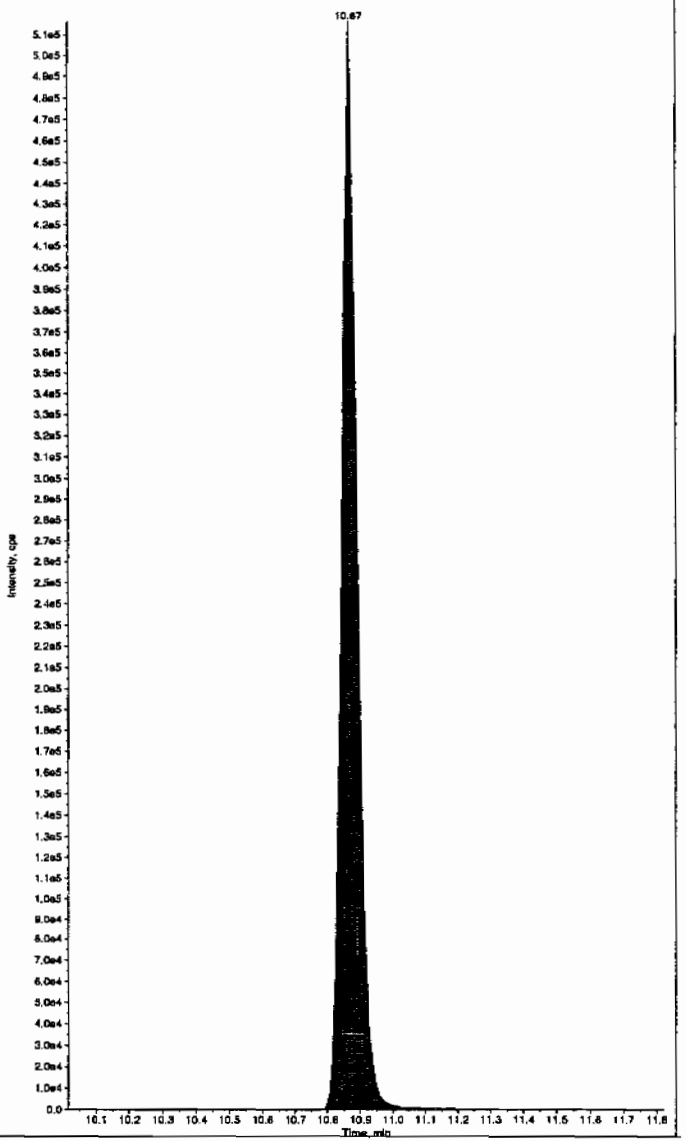

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03010087.wiff

Analysis Date: 02-MAR-10 07:36

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	521	104	
2,6-Diamino-4-nitrotoluene	500	543	109	
3,4-Dinitrotoluene	250	239	95	
3,5-Dinitroaniline	500	504	101	
TATB	500	504	101	
tris(o-cresyl) phosphate	500	492	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010087.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 504. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:36:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 6.03e+005 counts
Height: 150876.785 cps
Start Time: 6.89 min
End Time: 7.68 min

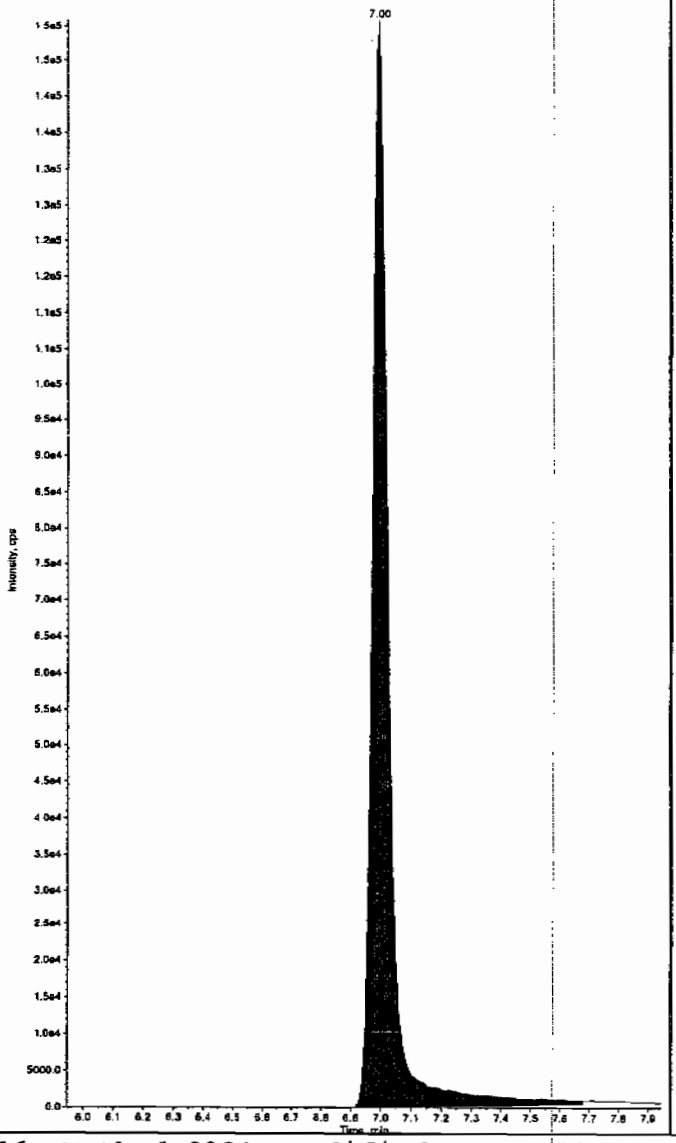

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010087.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:36:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.82e+006 counts
Height: 1065488.403 cps
Start Time: 8.15 min
End Time: 8.33 min

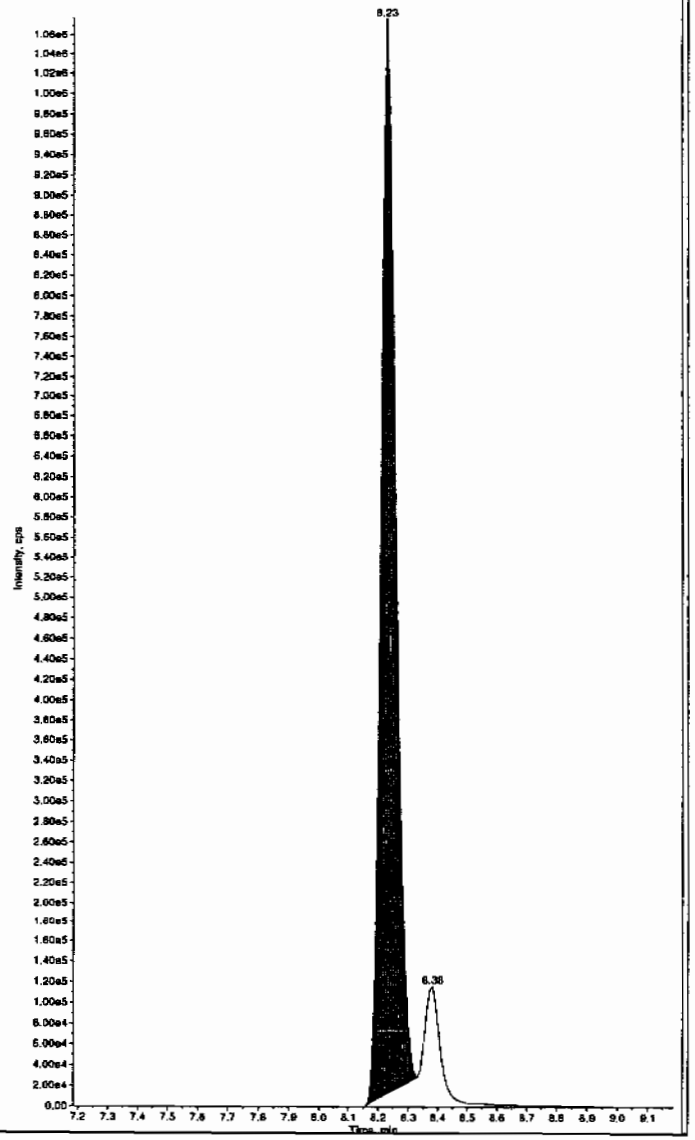

Hmm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Dan 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010087.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 504. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:36:30 AM

Modified: No
Integ. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 6.03e+005 counts
Height: 150876.785 cps
Start Time: 6.89 min
End Time: 7.68 min

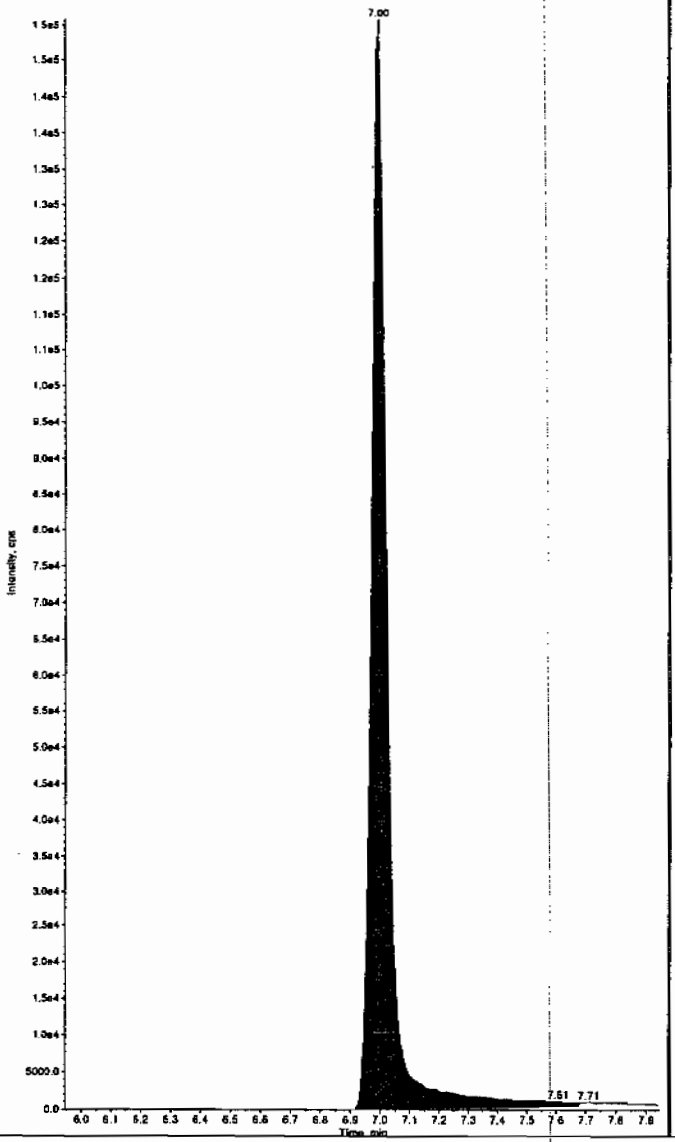

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010087.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 504. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:36:30 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 3.95e+006 counts
Height: 1076280.520 cps
Start Time: 8.15 min
End Time: 8.33 min

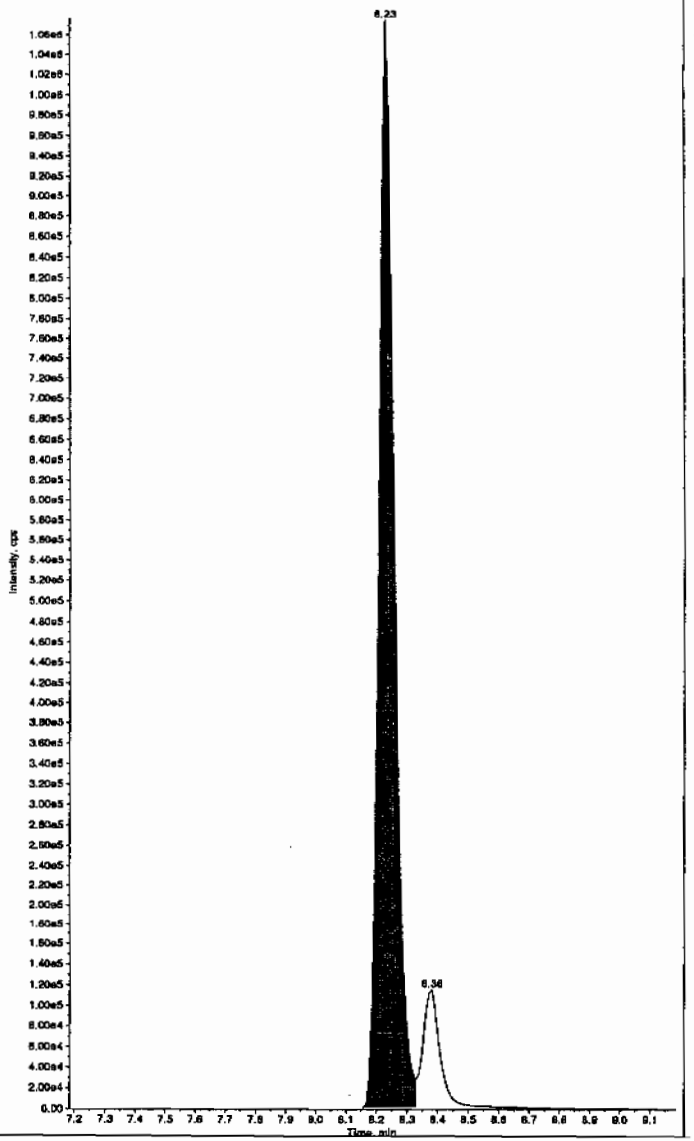

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010087.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 239. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:36:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.91e+006 counts
Height: 828268.005 cps
Start Time: 8.30 min
End Time: 8.70 min

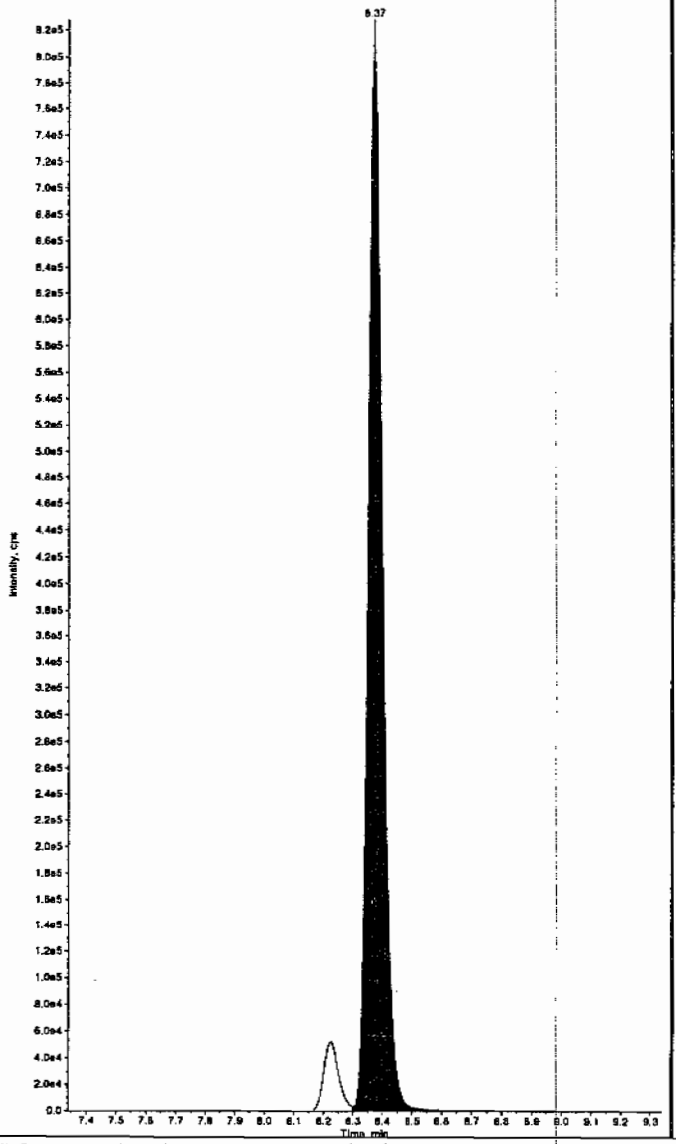

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010087.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 543. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:36:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.01e+006 counts
Height: 249172.897 cps
Start Time: 4.92 min
End Time: 5.31 min

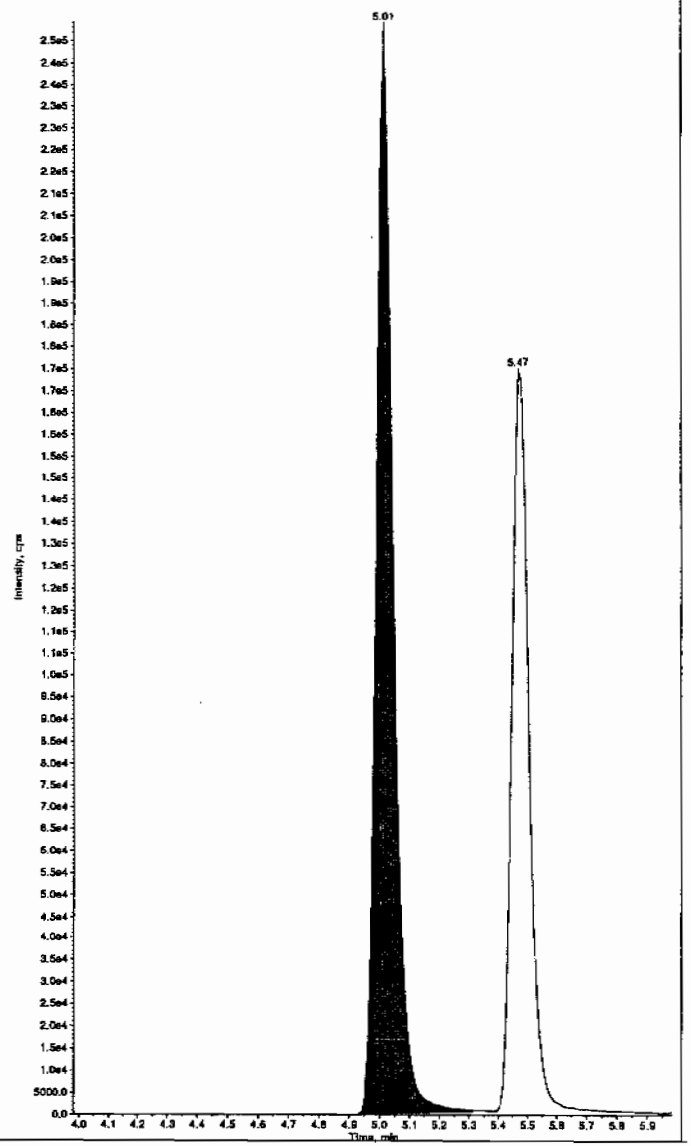

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010087.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 521. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:36:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 6.91e+005 counts
Height: 169533.401 cps
Start Time: 5.38 min
End Time: 5.95 min

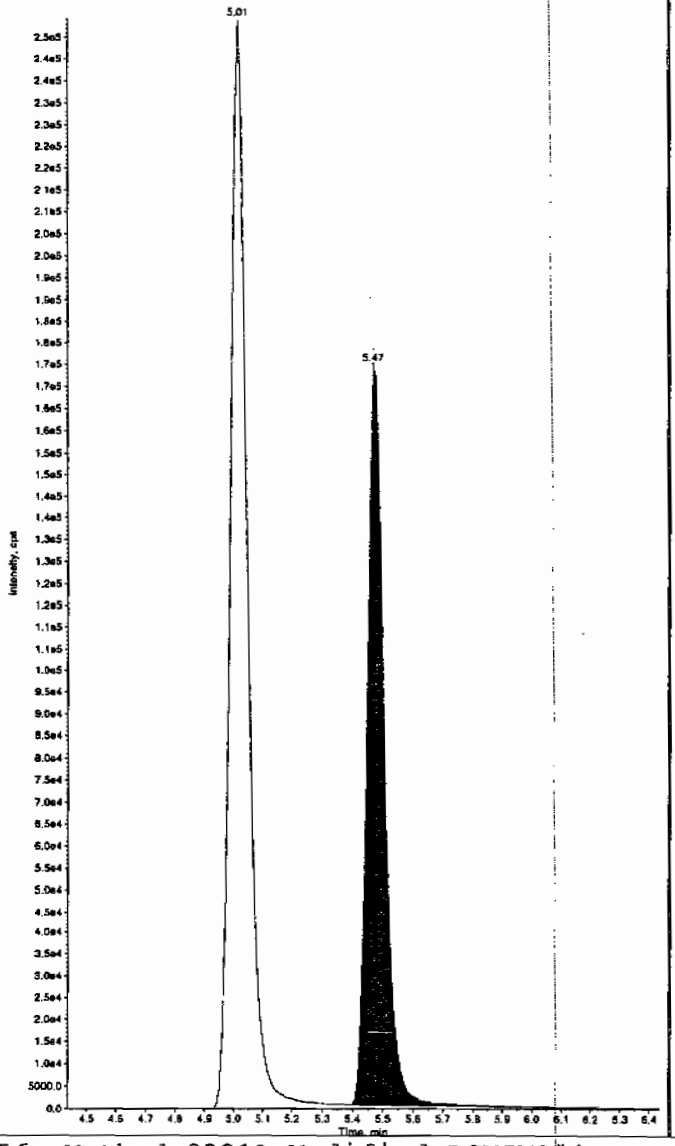

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010067.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 492. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 7:36:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.71e+006 counts
Height: 2048922.363 cps
Start Time: 10.8 min
End Time: 11.2 min

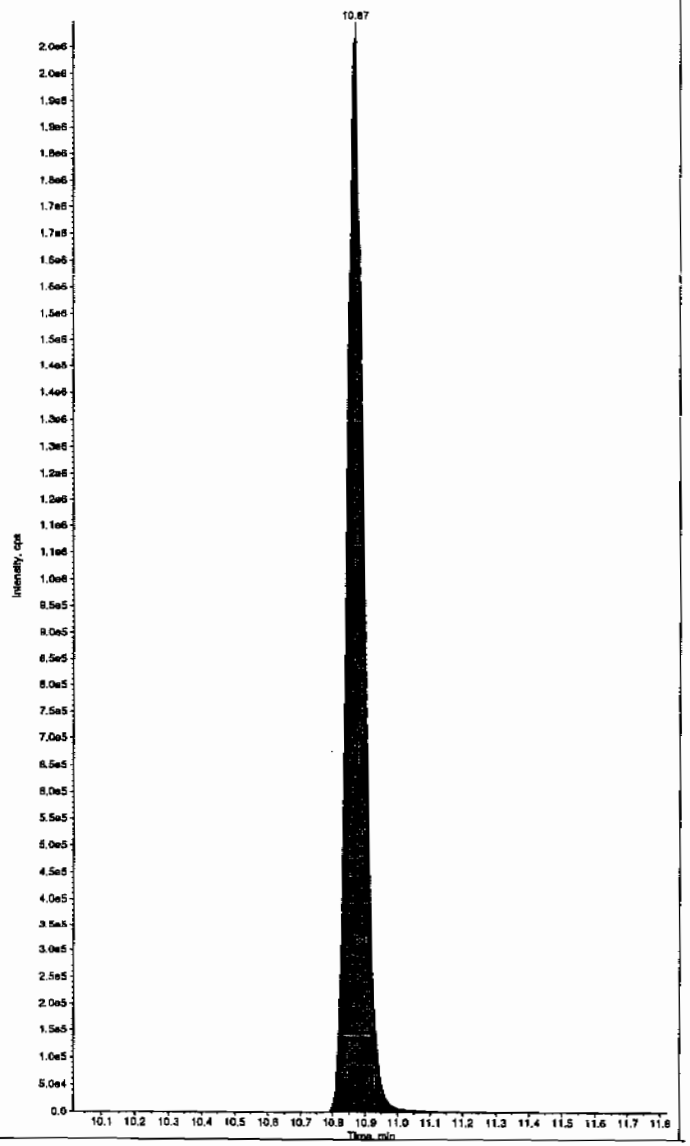

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010089.wiff

Analysis Date: 02-MAR-10 08:08

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	117	117	
2,6-Diamino-4-nitrotoluene	100	113	113	
3,4-Dinitrotoluene	50	52.9	106	
3,5-Dinitroaniline	100	94.2	94	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	93.9	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcm 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010089.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: "*"

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:08:03 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.11e+005 counts
Height: 28895.948 cps
Start Time: 6.86 min
End Time: 7.45 min

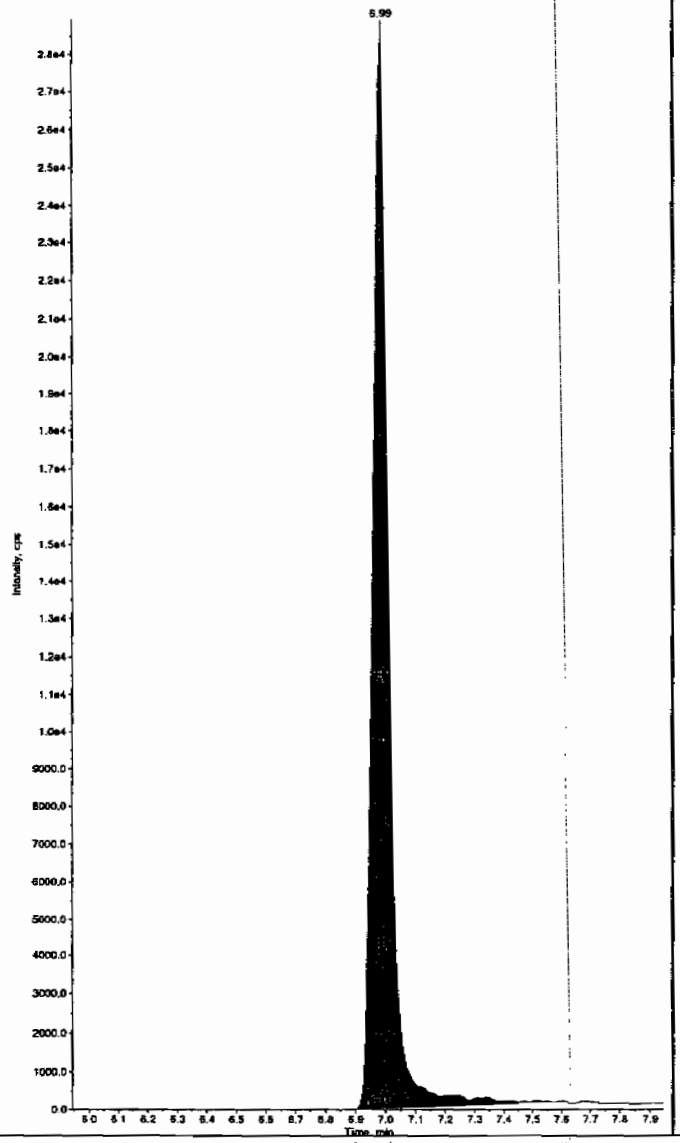

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010089.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "*"

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.2 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:08:03 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 8.31e+005 counts
Height: 222751.526 cps
Start Time: 8.13 min
End Time: 8.32 min

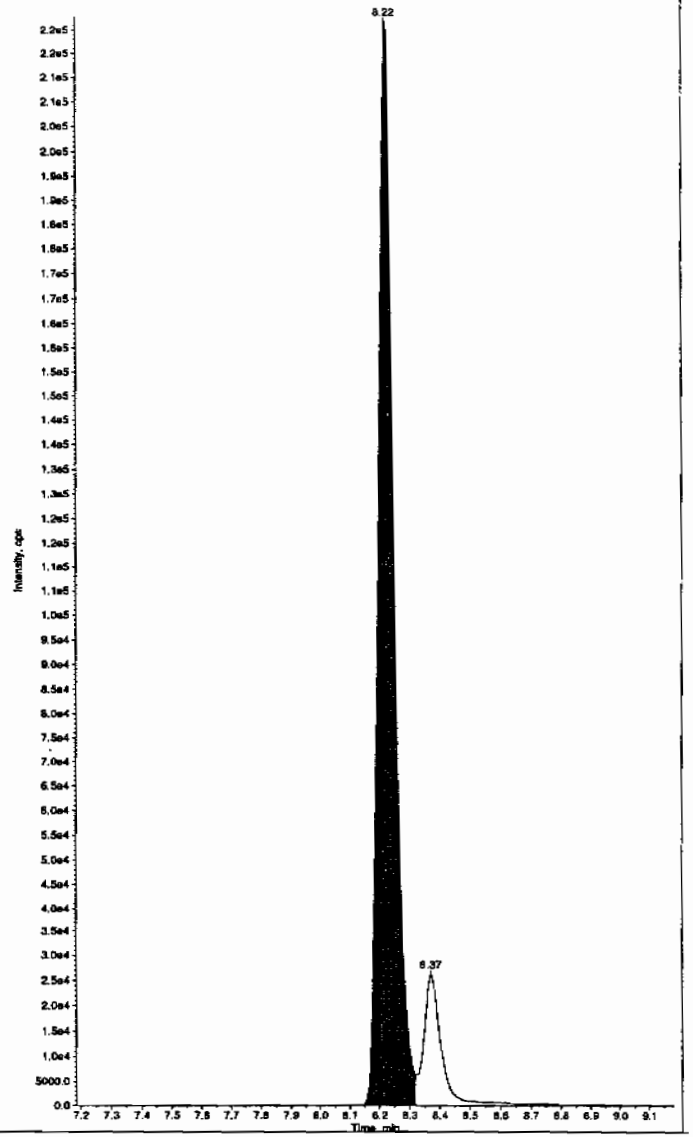

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010089.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 52.9 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:08:03 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 6.10e+005 counts
Height: 175682.648 cps
Start Time: 8.30 min
End Time: 8.71 min

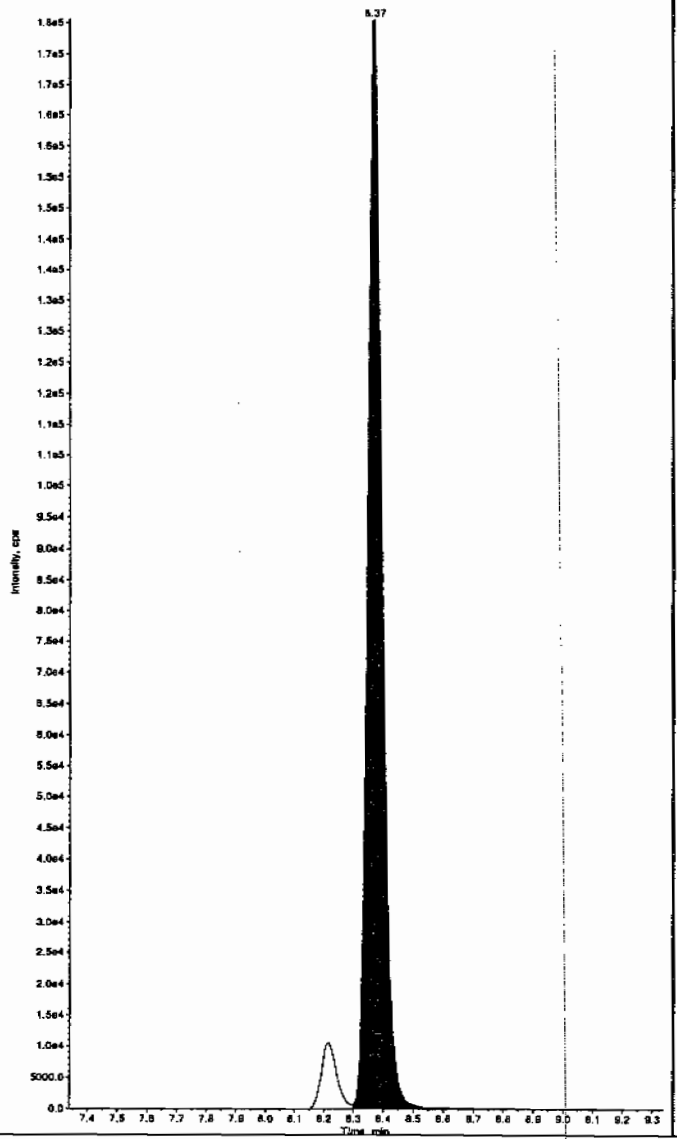

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010089.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:08:03 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 2.16e+005 counts
Height: 51282.207 cps
Start Time: 4.90 min
End Time: 5.31 min

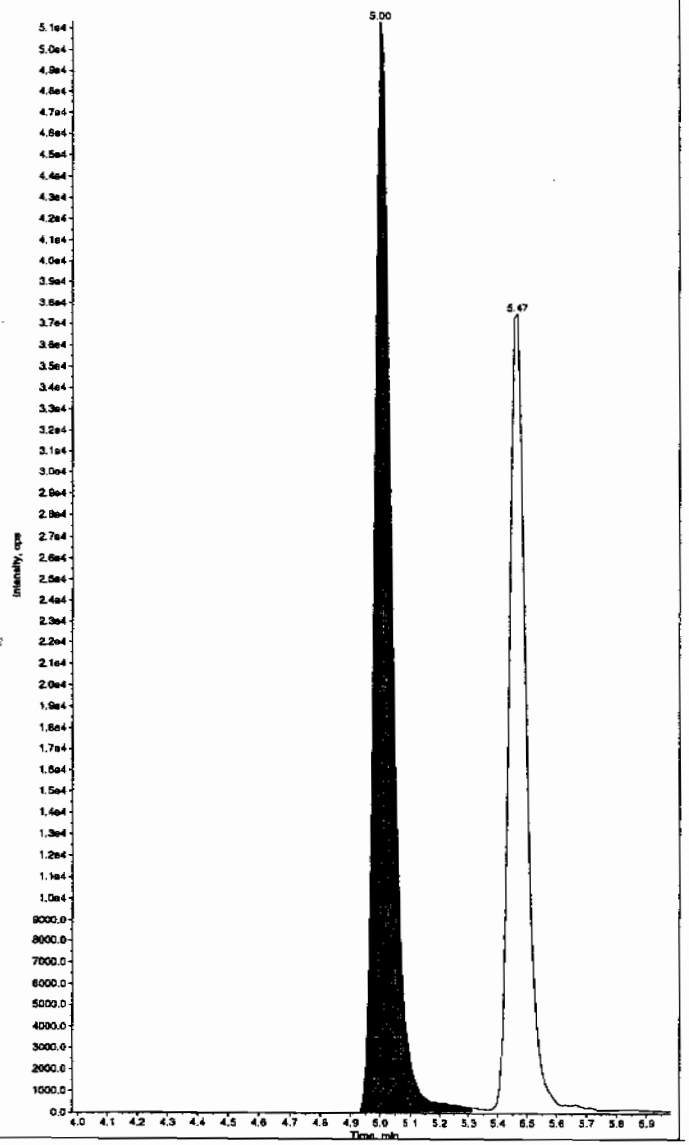

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010089.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 117. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:08:03 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 1.51e+005 counts
Height: 37312.218 cps
Start Time: 5.36 min
End Time: 5.75 min

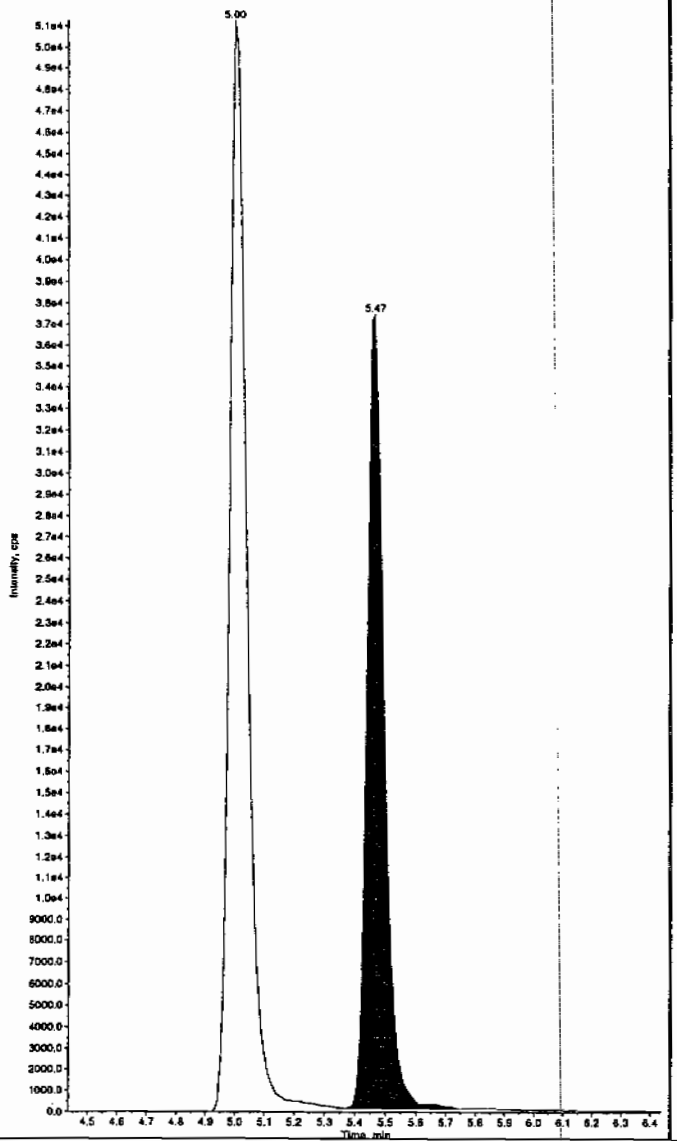

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010089.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.9 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:08:03 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.64e+006 counts
Height: 455869.049 cps
Start Time: 10.8 min
End Time: 11.2 min

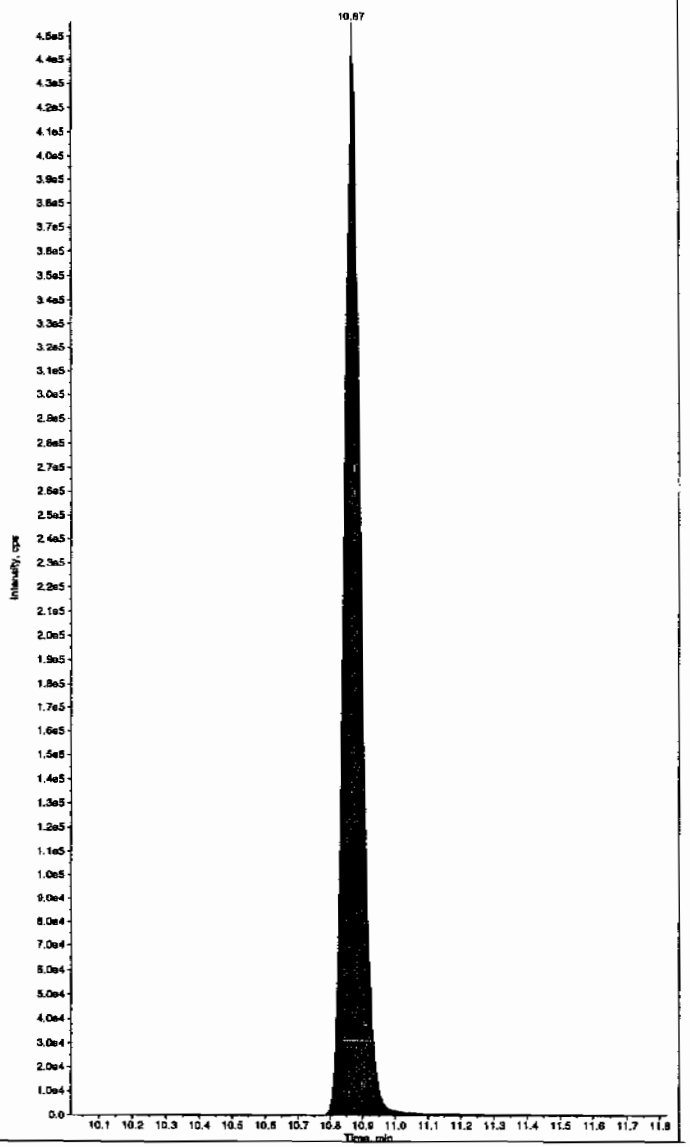

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03010100.wiff

Analysis Date: 02-MAR-10 11:01

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	518	104	
2,6-Diamino-4-nitrotoluene	500	509	102	
3,4-Dinitrotoluene	250	228	91	
3,5-Dinitroaniline	500	486	97	
TATB	500	516	103	
tris(o-cresyl) phosphate	500	478	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Run 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010100.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 516. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:01:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 6.17e+005 counts
Height: 157492.126 cps
Start Time: 6.88 min
End Time: 7.85 min

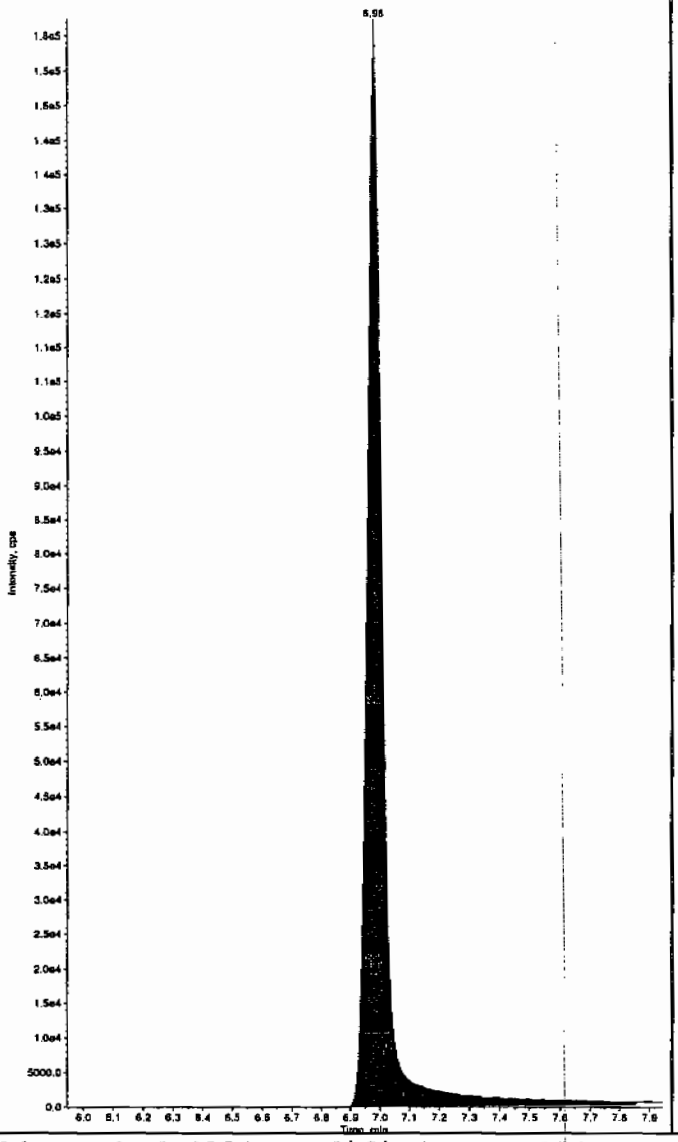

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010100.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 471. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:01:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 3.71e+006 counts
Height: 1019064.331 cps
Start Time: 8.13 min
End Time: 8.32 min

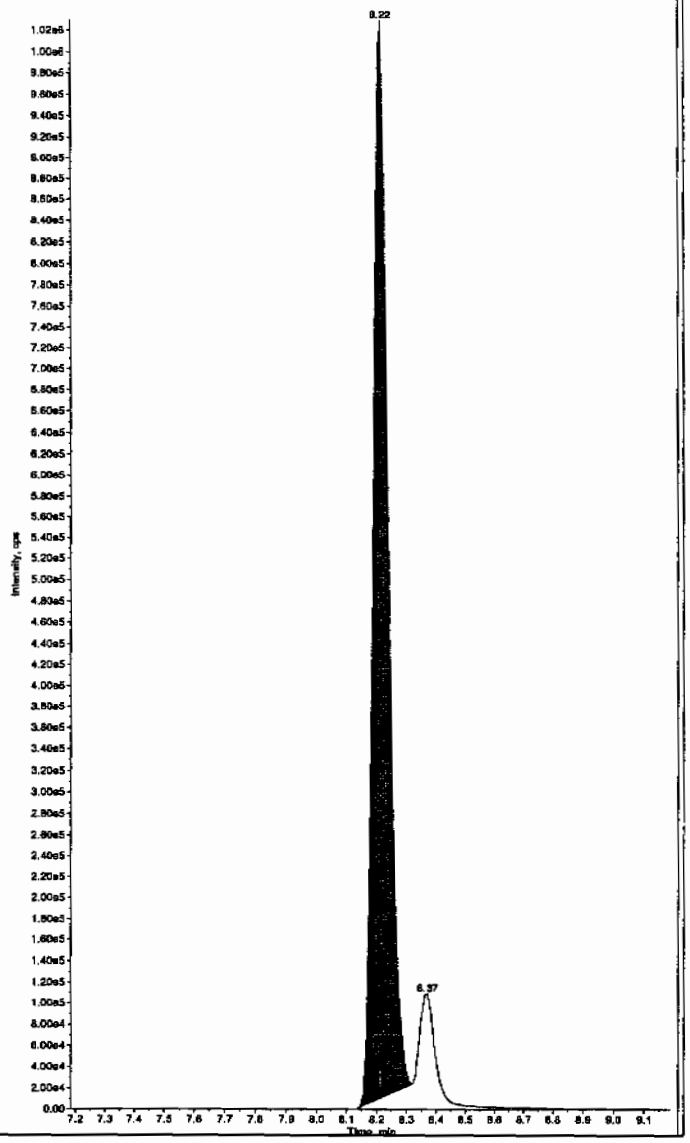

HMM 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lan 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010100.wif"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 516. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:01:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 6.17e+005 counts
Height: 157492.126 cps
Start Time: 6.88 min
End Time: 7.85 min

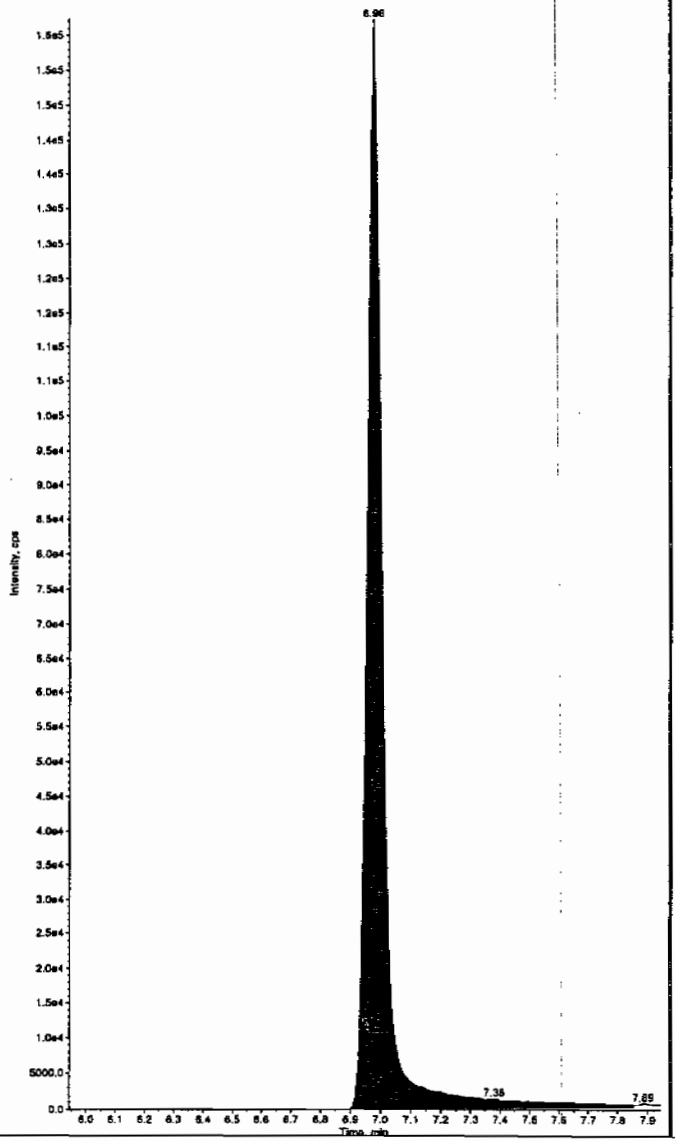

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010100.wif"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 486. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:01:17 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.21 min
Area: 3.82e+006 counts
Height: 1039376.488 cps
Start Time: 8.14 min
End Time: 8.32 min

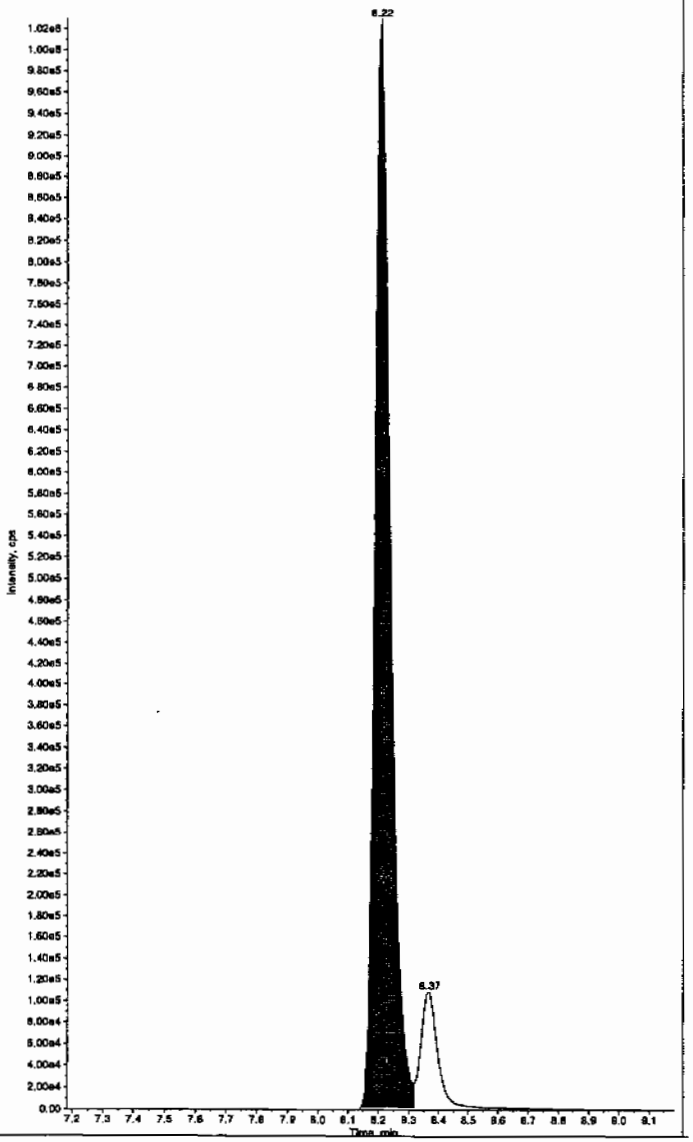

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010100.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 228. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:01:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 2.79e+006 counts
Height: 826173.828 cps
Start Time: 8.29 min
End Time: 8.64 min

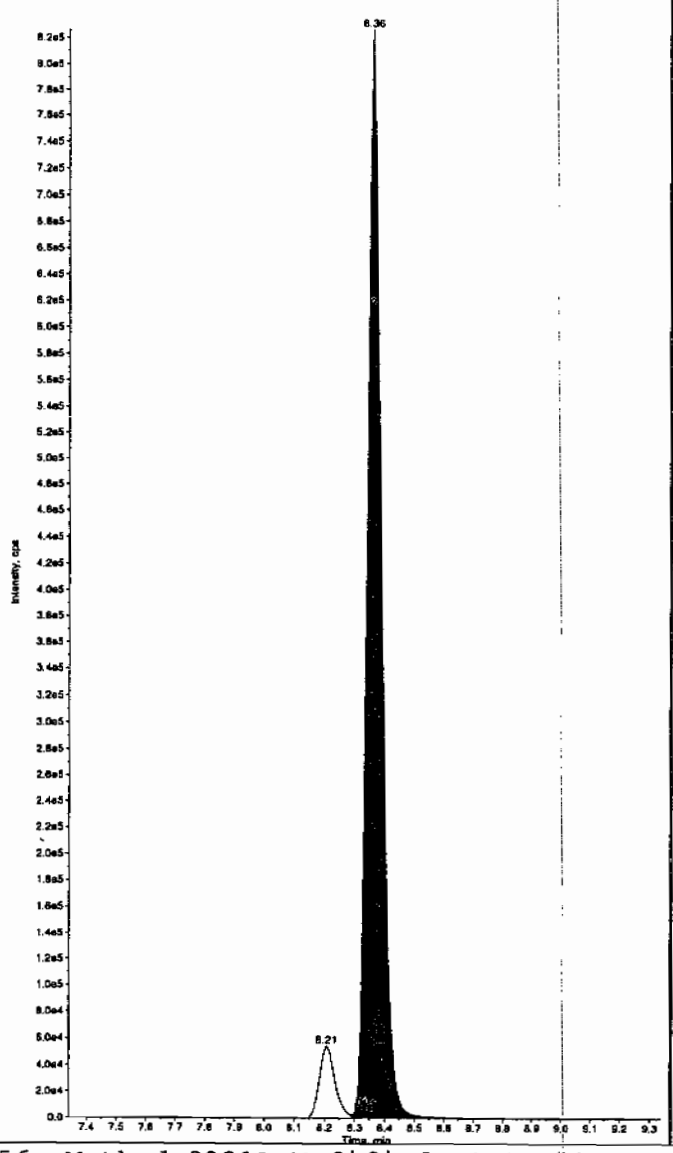

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010100.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:01:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 9.50e+005 counts
Height: 227016.037 cps
Start Time: 4.91 min
End Time: 5.30 min

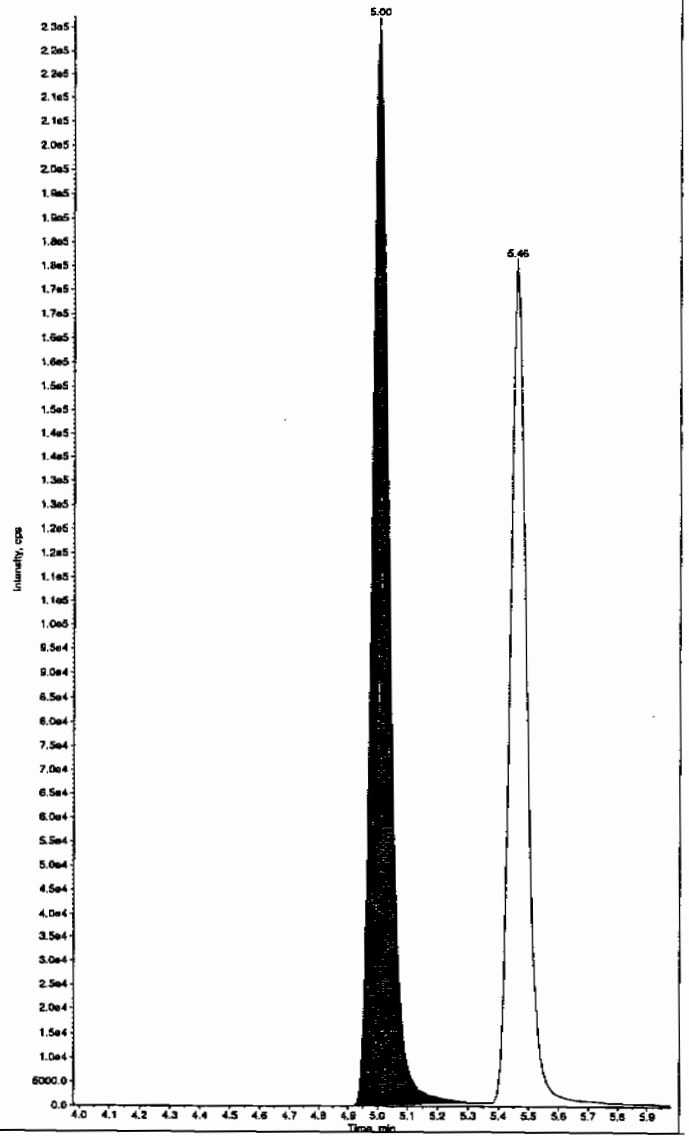

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010100.wiff"
Peak Name: "2,4-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 518. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:01:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 36.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 6.68e+005 counts
Height: 176669.724 cps
Start Time: 5.37 min
End Time: 5.96 min

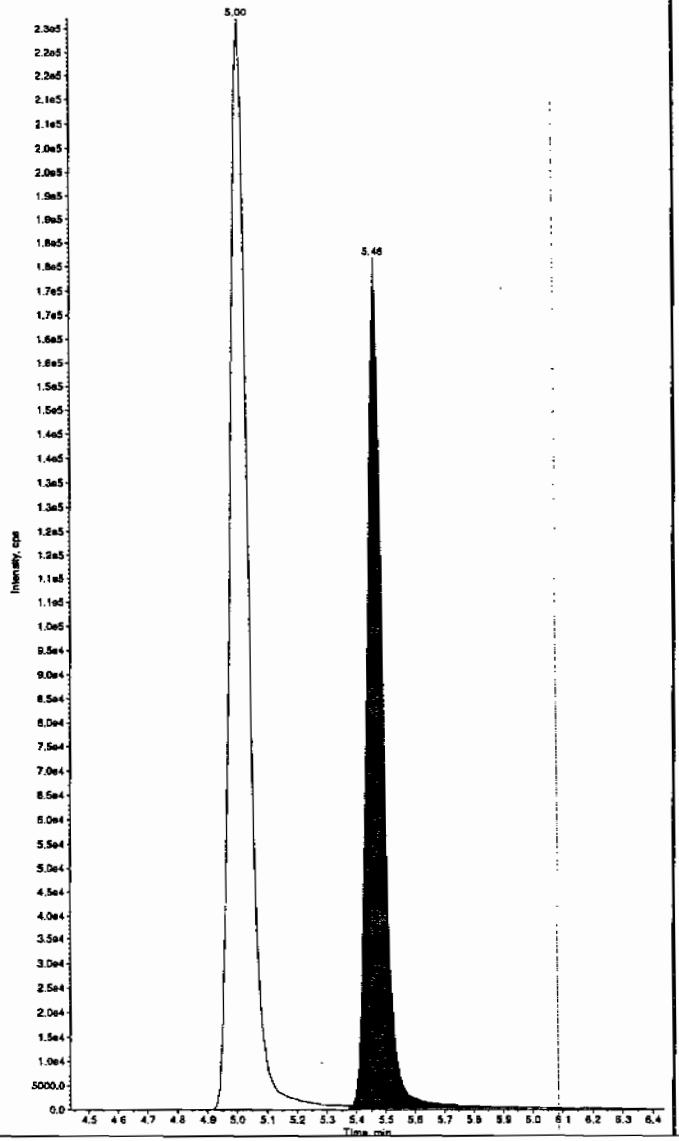

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010100.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 478. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:01:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.50e+006 counts
Height: 2081722.168 cps
Start Time: 10.8 min
End Time: 11.2 min

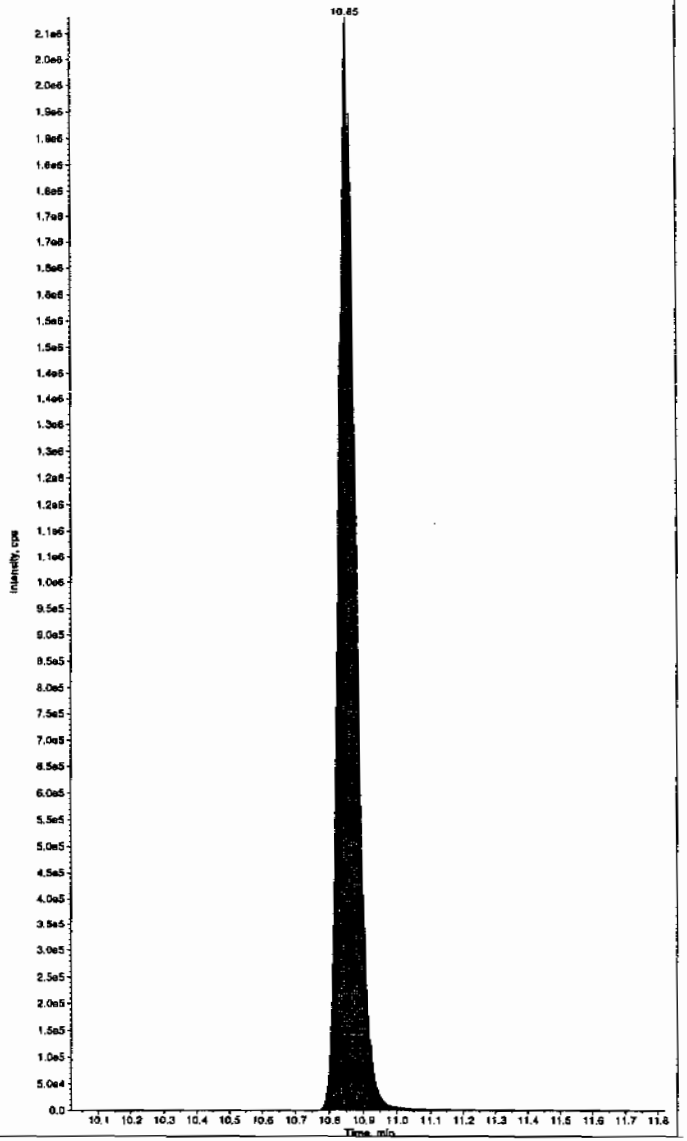

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010102.wiff

Analysis Date: 02-MAR-10 11:32

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	108	108	
2,6-Diamino-4-nitrotoluene	100	106	106	
3,4-Dinitrotoluene	50	52.1	104	
3,5-Dinitroaniline	100	94.3	94	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	97	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Run 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010102.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 1.10e+005 counts
Height: 29022.581 cps
Start Time: 6.85 min
End Time: 7.30 min

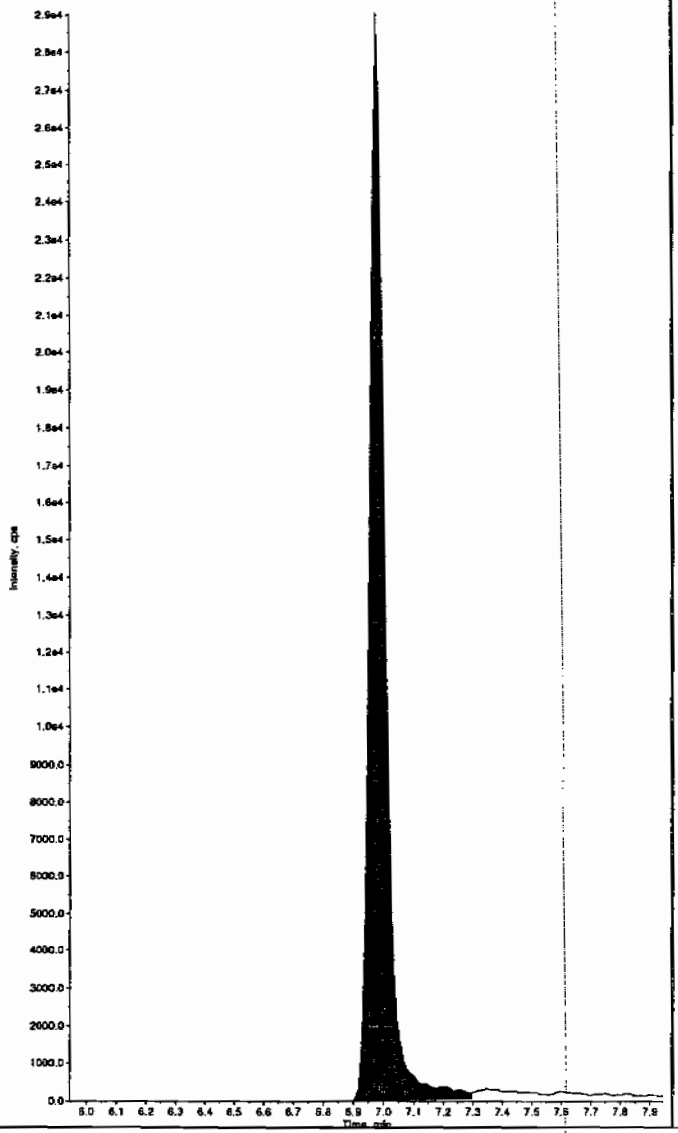

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010102.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.0 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 8.07e+005 counts
Height: 226852.982 cps
Start Time: 8.14 min
End Time: 8.32 min

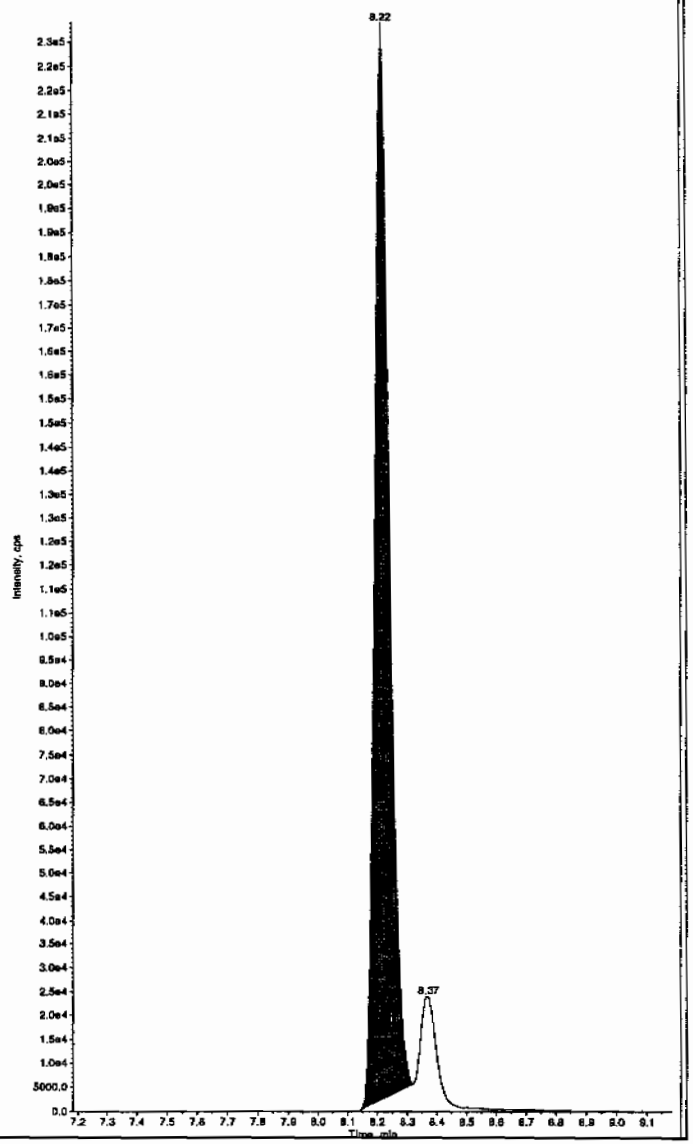

Hum 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Jan 3/31/10

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010102.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 1.10e+005 counts
Height: 29022.581 cps
Start Time: 6.85 min
End Time: 7.30 min

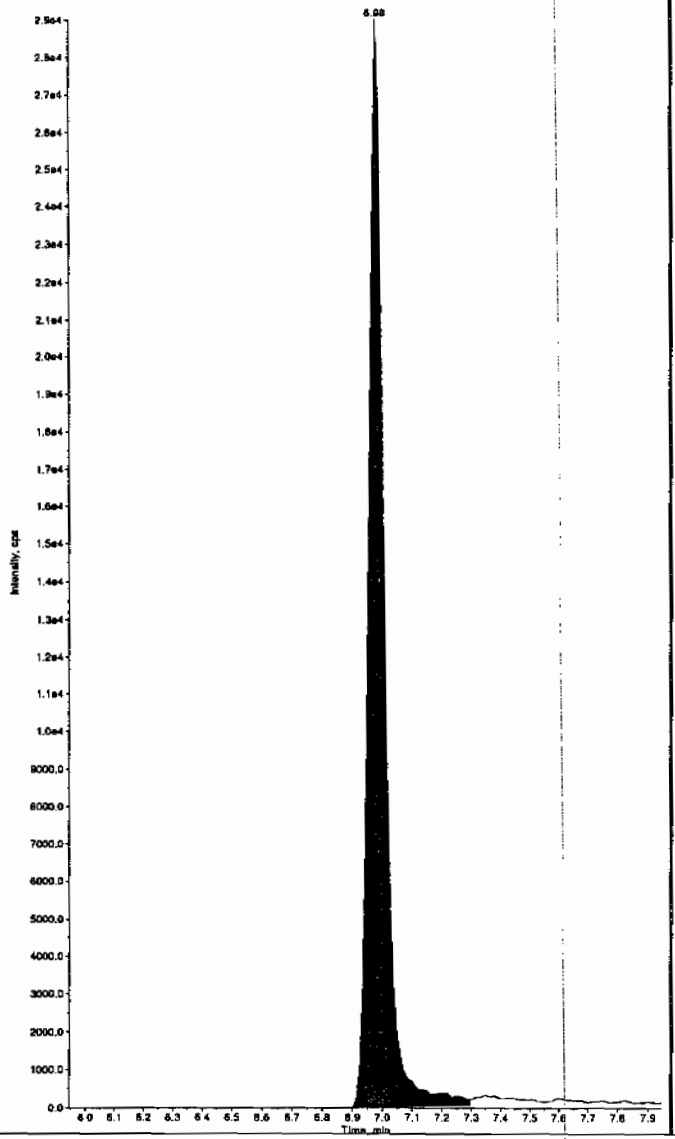

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010102.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.3 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:32:52 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 8.33e+005 counts
Height: 229043.159 cps
Start Time: 8.14 min
End Time: 8.32 min

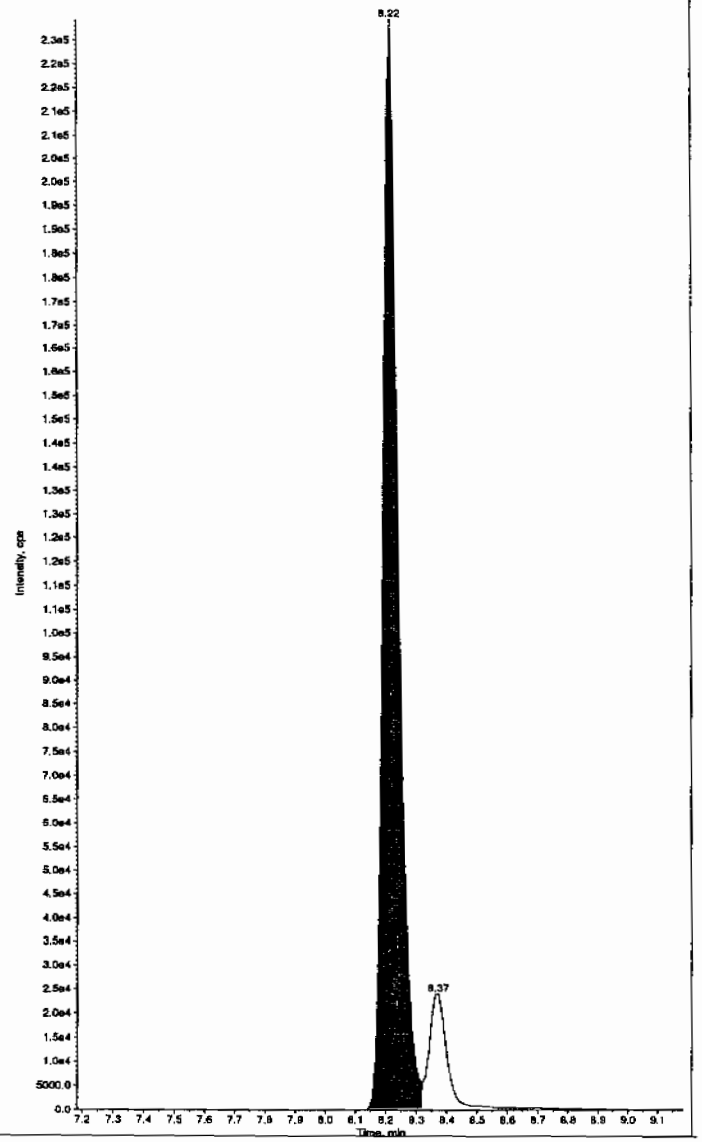

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010102.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 52.1 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 5.99e+005 counts
Height: 174424.454 cps
Start Time: 8.29 min
End Time: 8.68 min

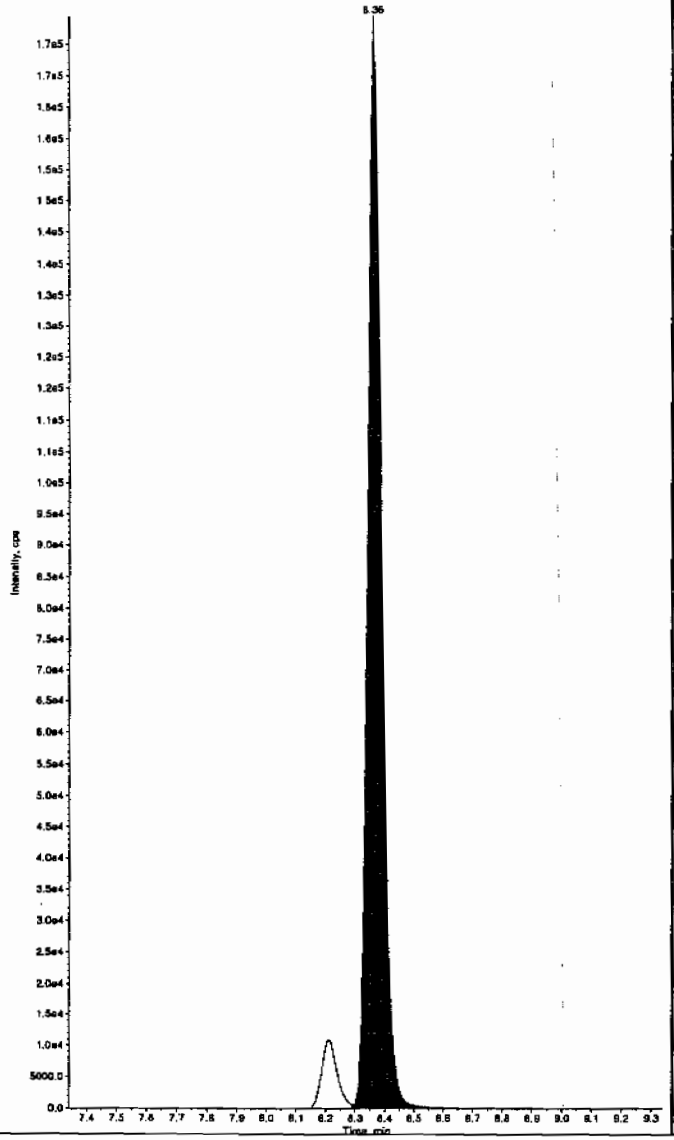

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010102.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 2.04e+005 counts
Height: 50723.469 cps
Start Time: 4.91 min
End Time: 5.30 min

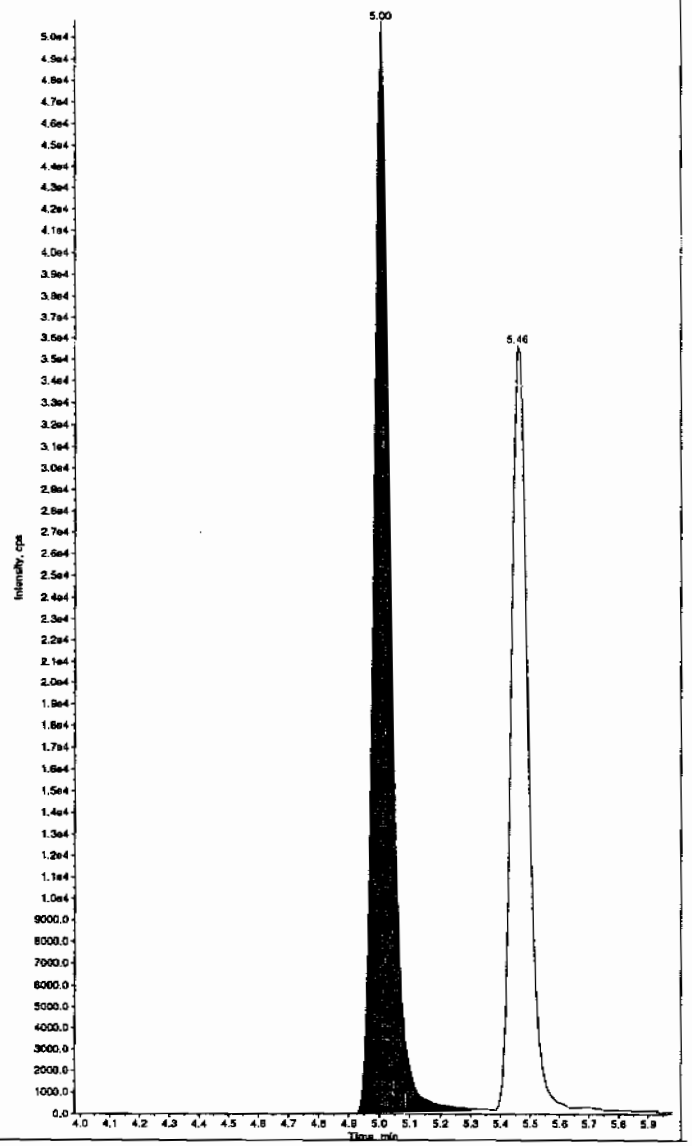

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1][LER]" File: "EXS03010102.wiff"
Peak Name: "2,4-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 1.38e+005 counts
Height: 35473.808 cps
Start Time: 5.38 min
End Time: 5.65 min

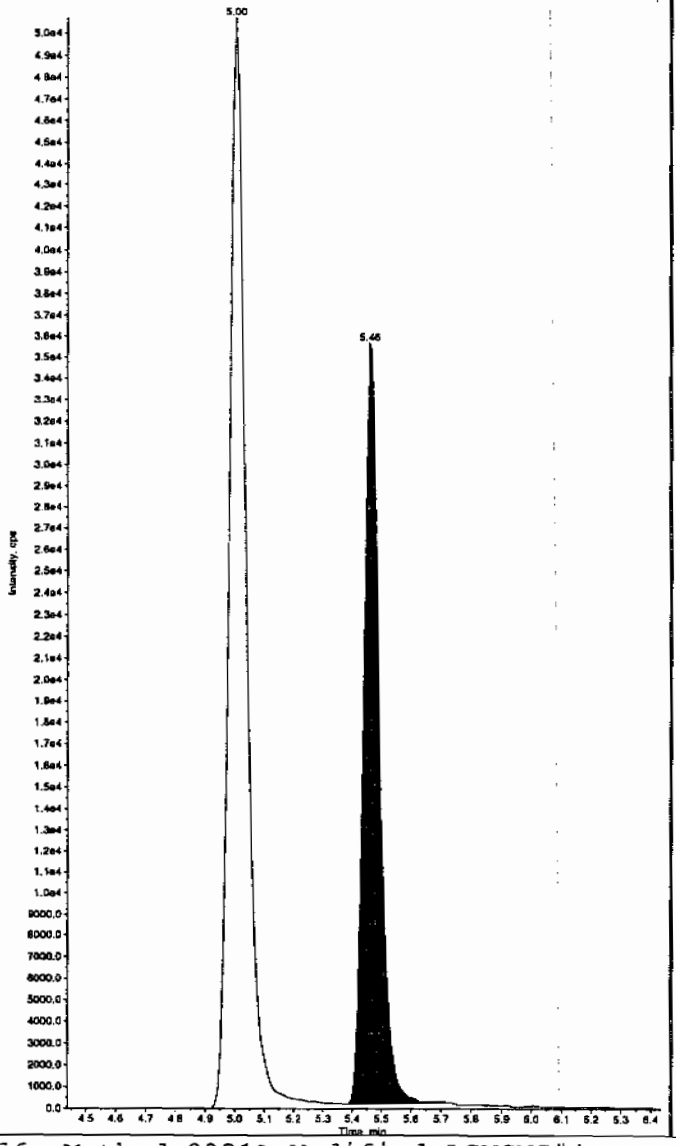

Sample Name: "WXX100301-27CRI" Sample ID: "[1][LER]" File: "EXS03010102.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.0 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 11:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.69e+006 counts
Height: 465036.774 cps
Start Time: 10.7 min
End Time: 11.2 min

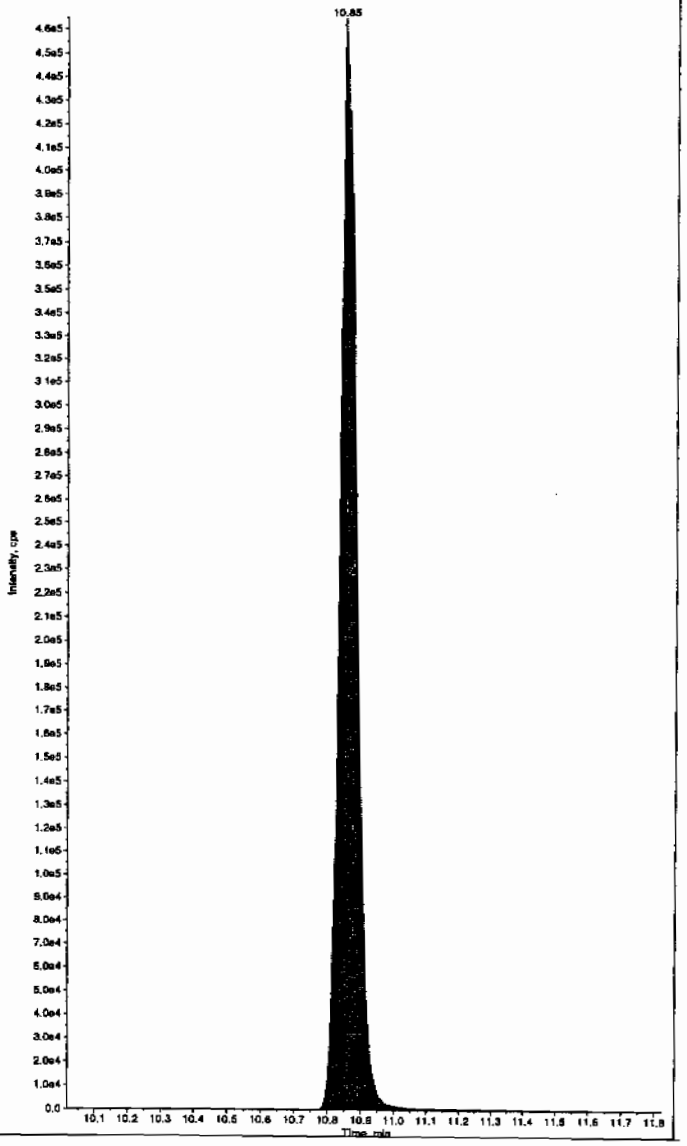

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03010111.wiff

Analysis Date: 02-MAR-10 13:54

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	583	117	
2,6-Diamino-4-nitrotoluene	500	569	114	
3,4-Dinitrotoluene	250	229	91	
3,5-Dinitroaniline	500	466	93	
TATB	500	461	92	
tris(o-cresyl) phosphate	500	474	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010111.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 461. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:54:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 5.49e+005 counts
Height: 140054.199 cps
Start Time: 6.89 min
End Time: 7.45 min

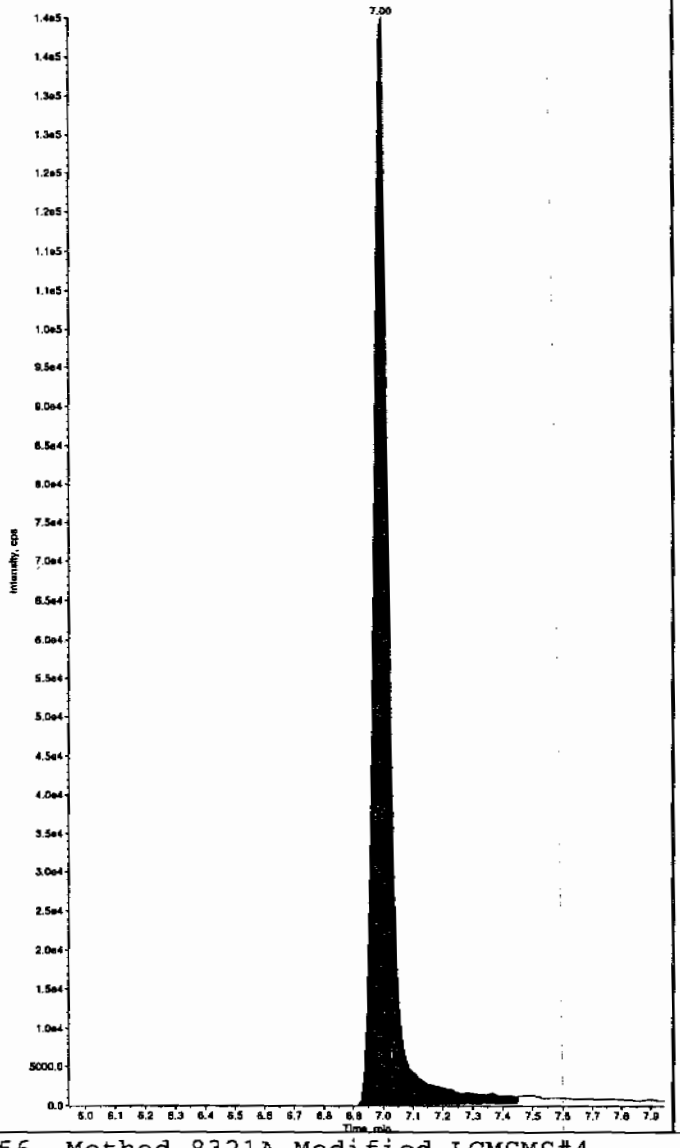

Sample Name: "WXX100301-25CCV" Sample ID: "[1]LER" File: "EXS03010111.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 466. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:54:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.67e+006 counts
Height: 1005667.664 cps
Start Time: 8.13 min
End Time: 8.33 min

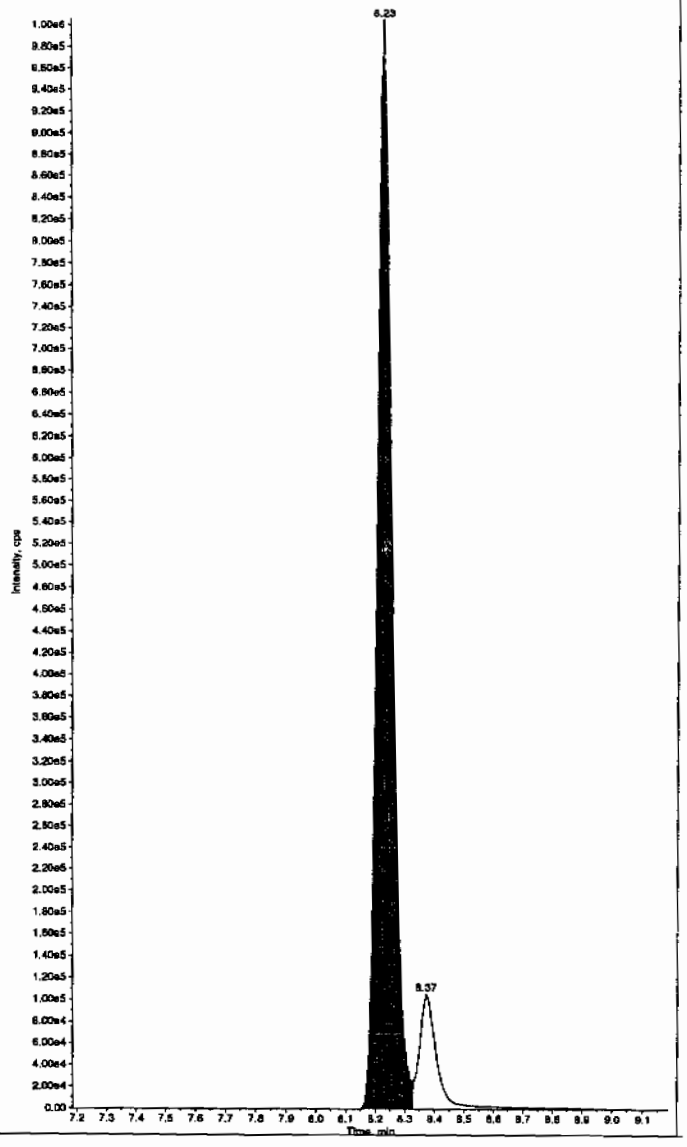

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010111.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 229. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:54:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.79e+006 counts
Height: 809941.589 cps
Start Time: 8.30 min
End Time: 8.69 min

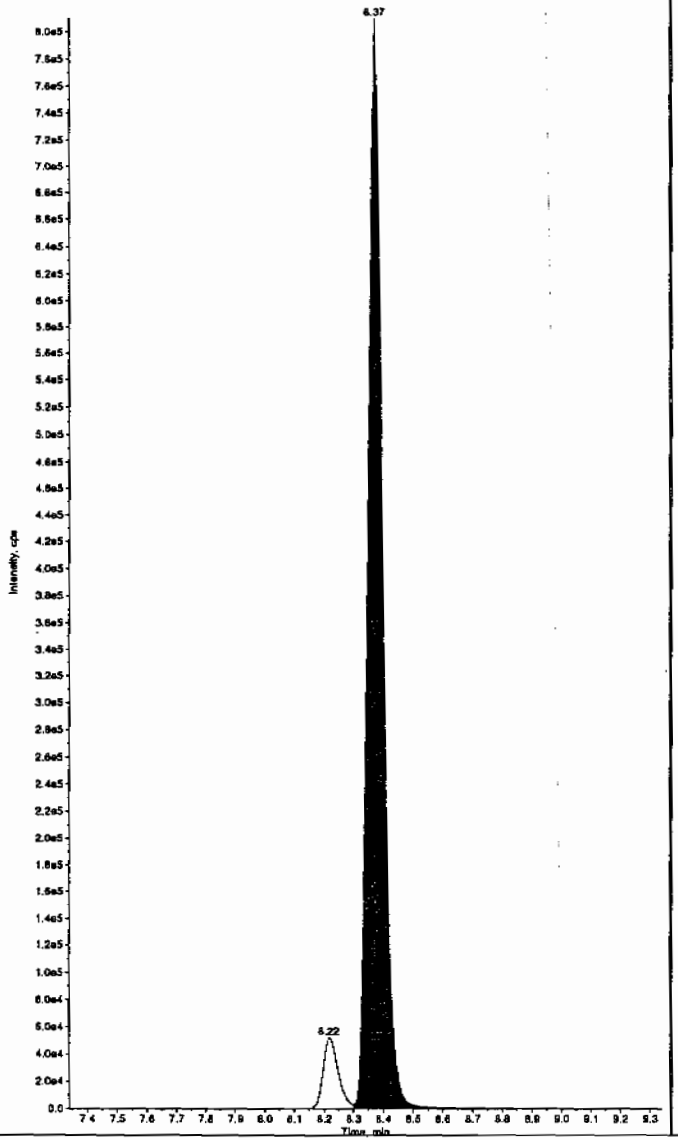

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010111.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 569. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:54:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.06e+006 counts
Height: 267390.594 cps
Start Time: 4.92 min
End Time: 5.31 min

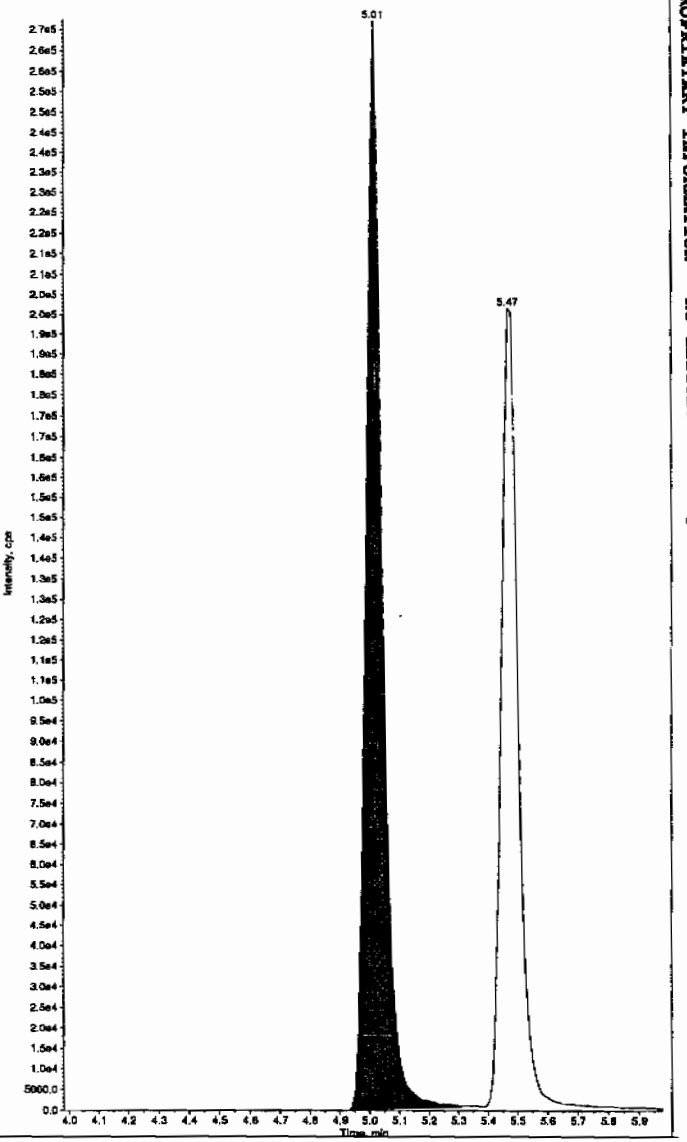

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010111.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 583. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:54:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 7.73e+005 counts
Height: 196171.432 cps
Start Time: 5.38 min
End Time: 5.96 min

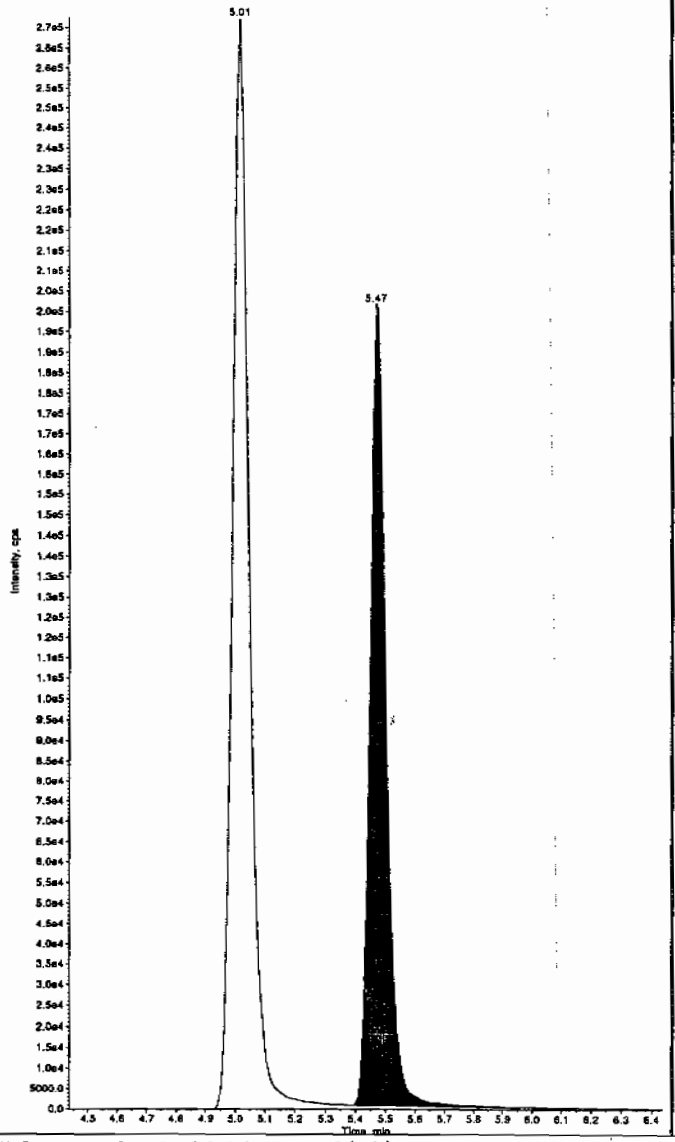

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010111.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 474. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 1:54:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.45e+006 counts
Height: 2029886.230 cps
Start Time: 10.8 min
End Time: 11.2 min

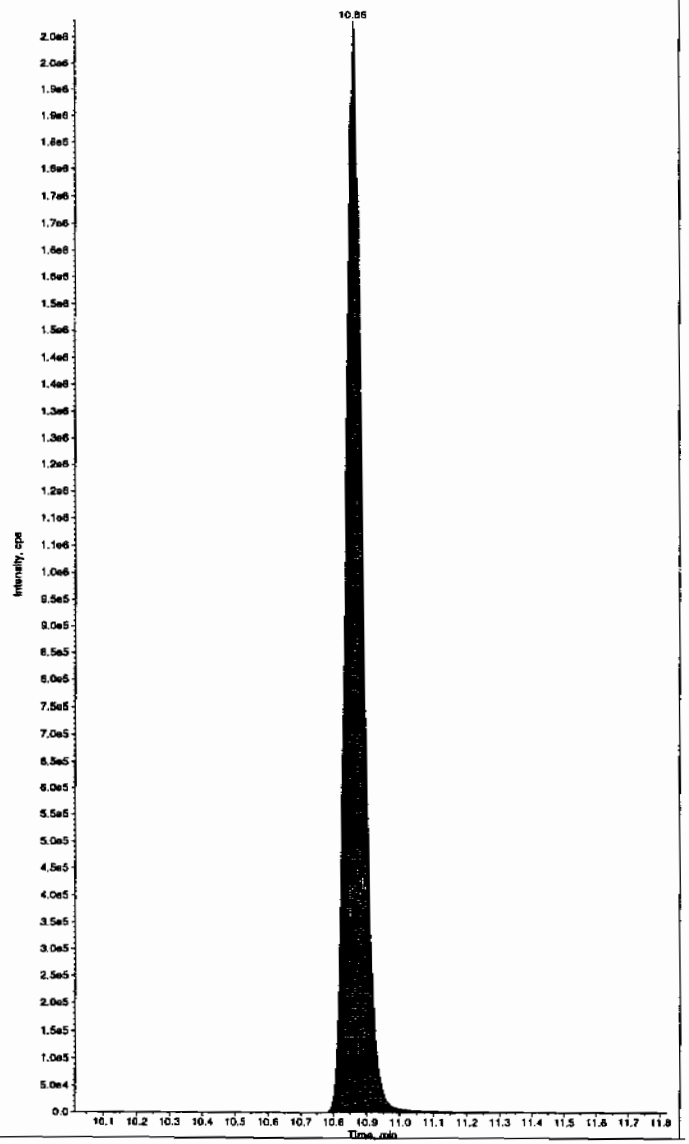

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010113.wiff

Analysis Date: 02-MAR-10 14:26

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	118	118	
2,6-Diamino-4-nitrotoluene	100	112	112	
3,4-Dinitrotoluene	50	51	102	
3,5-Dinitroaniline	100	94.3	94	
TATB	100	97.1	97	
tris(o-cresyl) phosphate	100	96.7	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010113.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.1 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:26:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 1.02e+005 counts
Height: 25287.630 cps
Start Time: 6.68 min
End Time: 7.50 min

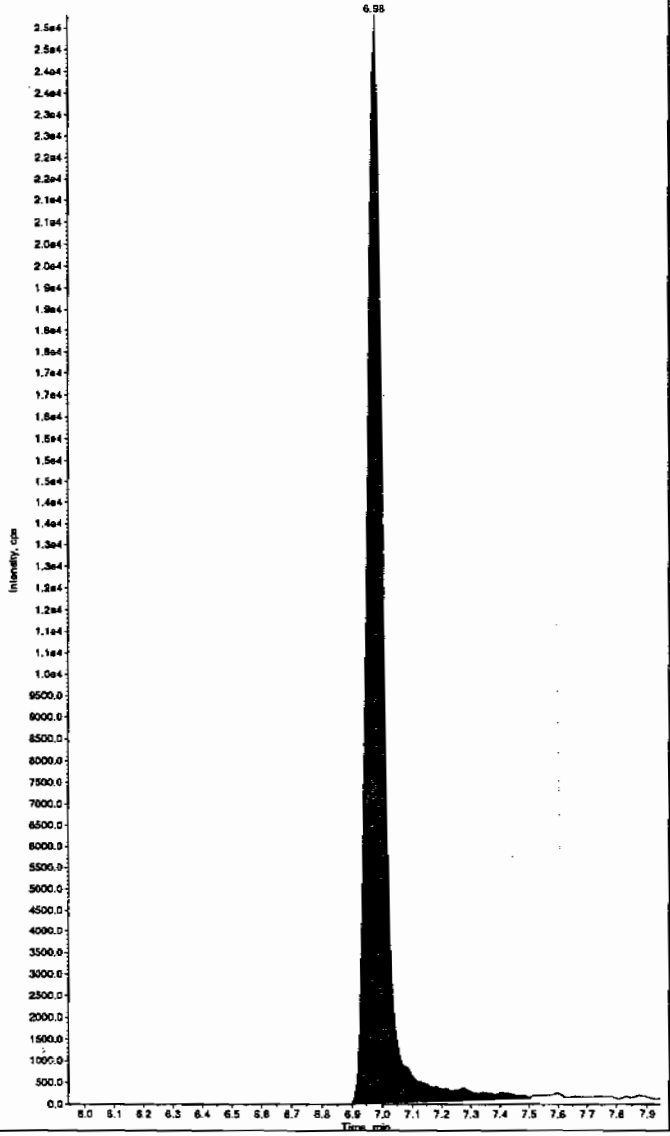

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010113.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.3 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:26:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 8.32e+005 counts
Height: 230069.916 cps
Start Time: 8.12 min
End Time: 8.32 min

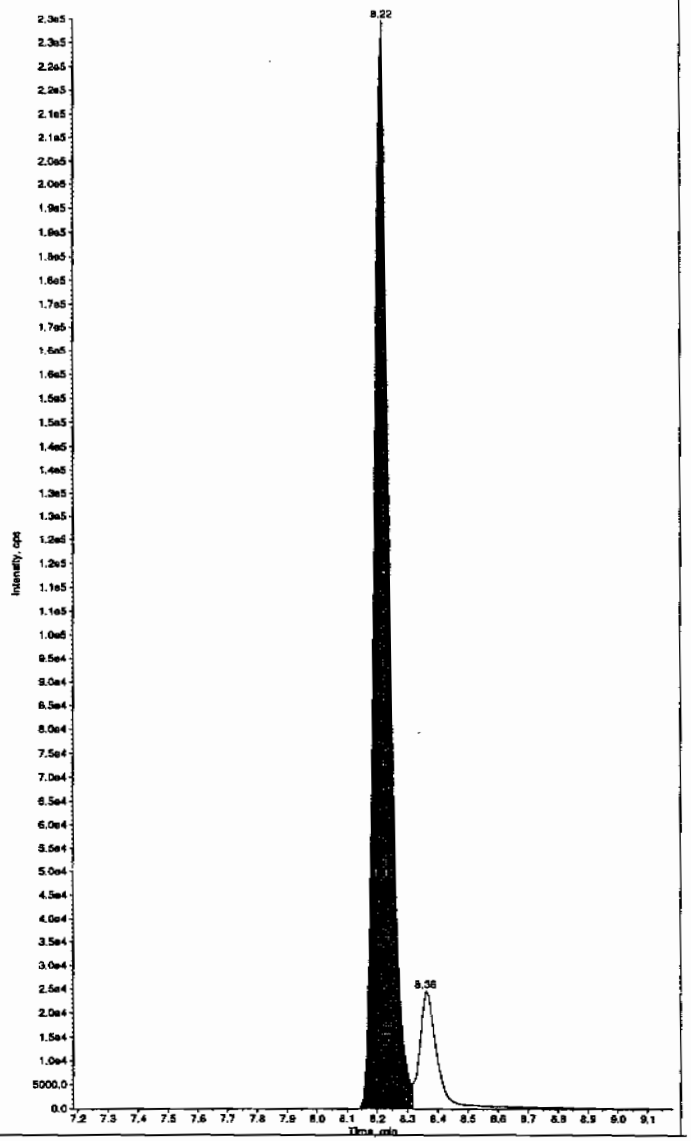

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010113.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 51.0 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:26:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 5.85e+005 counts
Height: 171177.277 cps
Start Time: 8.29 min
End Time: 8.67 min

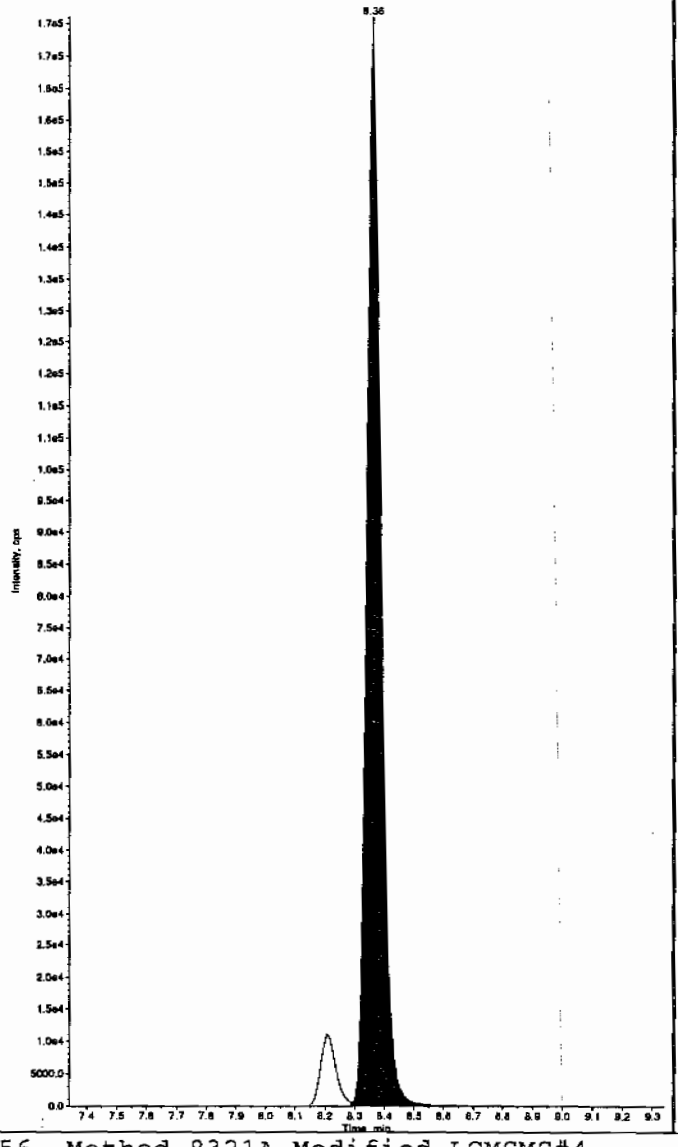

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010113.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:26:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 2.14e+005 counts
Height: 49042.316 cps
Start Time: 4.89 min
End Time: 5.30 min

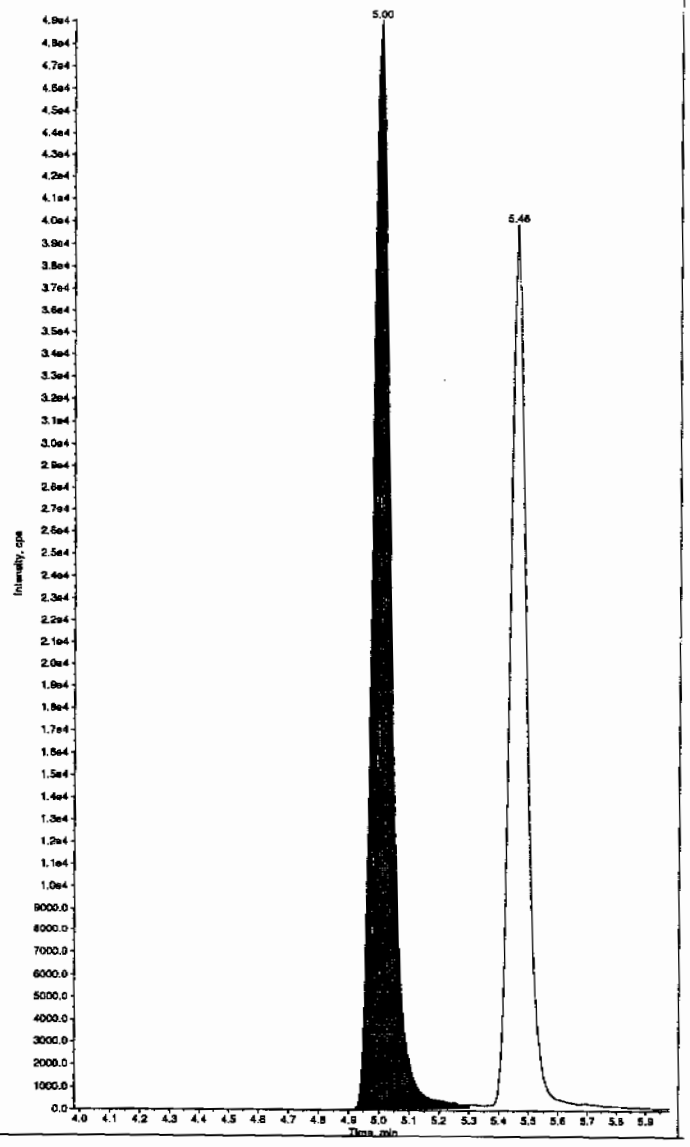

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010113.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 118. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:26:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 1.53e+005 counts
Height: 39776.421 cps
Start Time: 5.35 min
End Time: 5.78 min

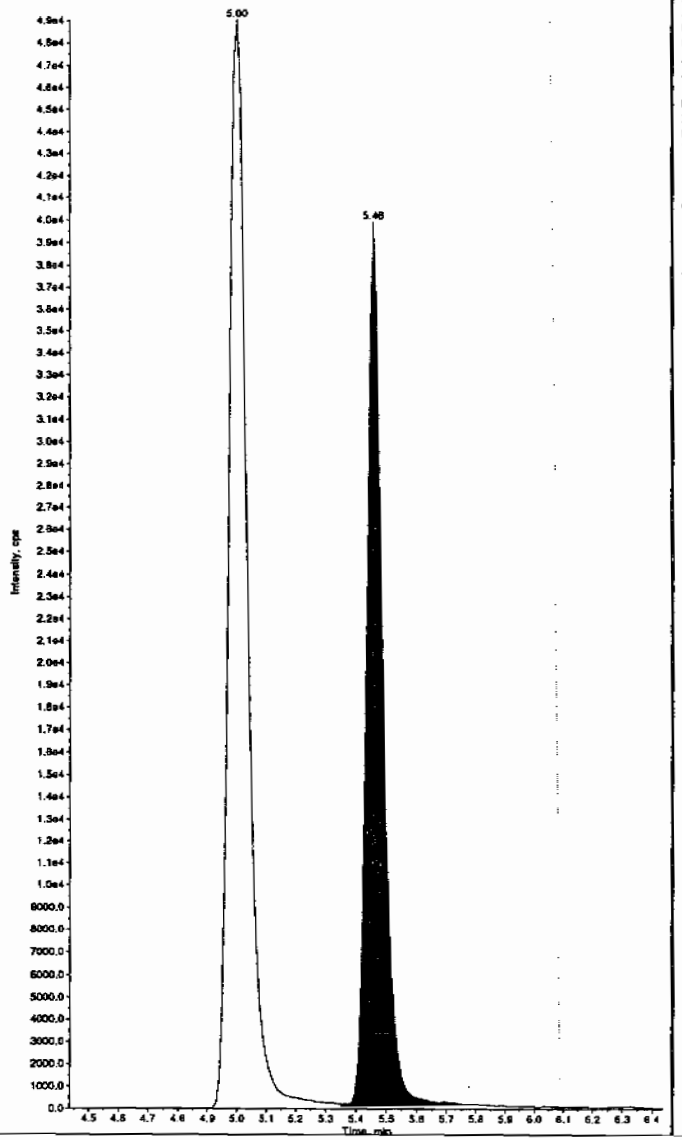

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010113.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.7 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 2:26:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.69e+006 counts
Height: 482736.786 cps
Start Time: 10.7 min
End Time: 11.1 min

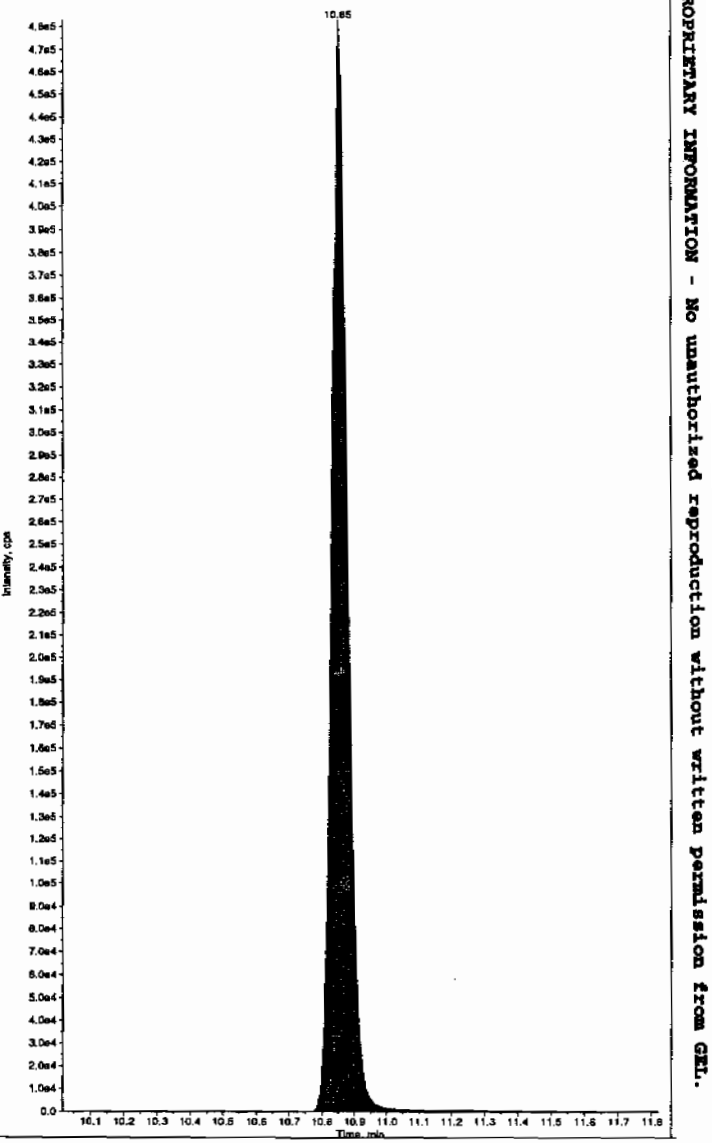

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03010124.wiff

Analysis Date: 02-MAR-10 17:19

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,5-Dinitroaniline	500	487	97	
TATB	500	477	95	
tris(o-cresyl) phosphate	500	465	93	
2,4-Diamino-6-nitrotoluene	500	559	112	
2,6-Diamino-4-nitrotoluene	500	572	114	
3,4-Dinitrotoluene	250	238	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/3/10

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010124.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 477. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:19:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.97 min
Area: 5.68e+005 counts
Height: 147003.006 cps
Start Time: 6.86 min
End Time: 7.37 min

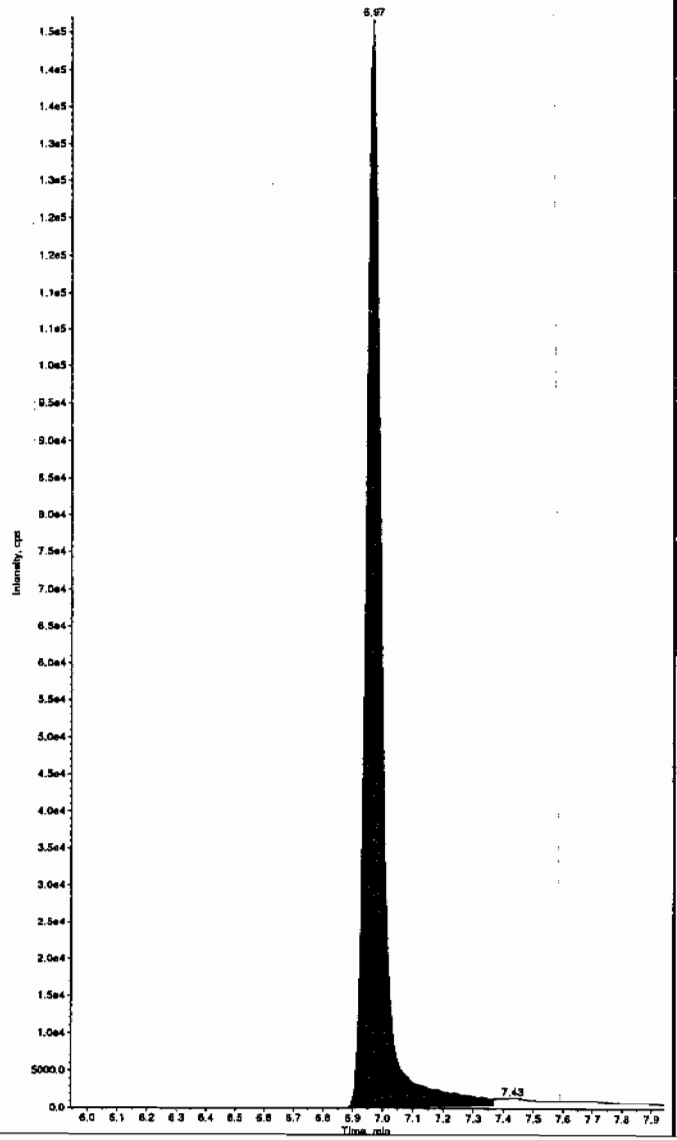

Sample Name: "WXX100301-26CCV" Sample ID: "|1|LER" File: "EXS03010124.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:19:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 3.83e+005 counts
Height: 1010674.011 cps
Start Time: 8.10 min
End Time: 8.31 min

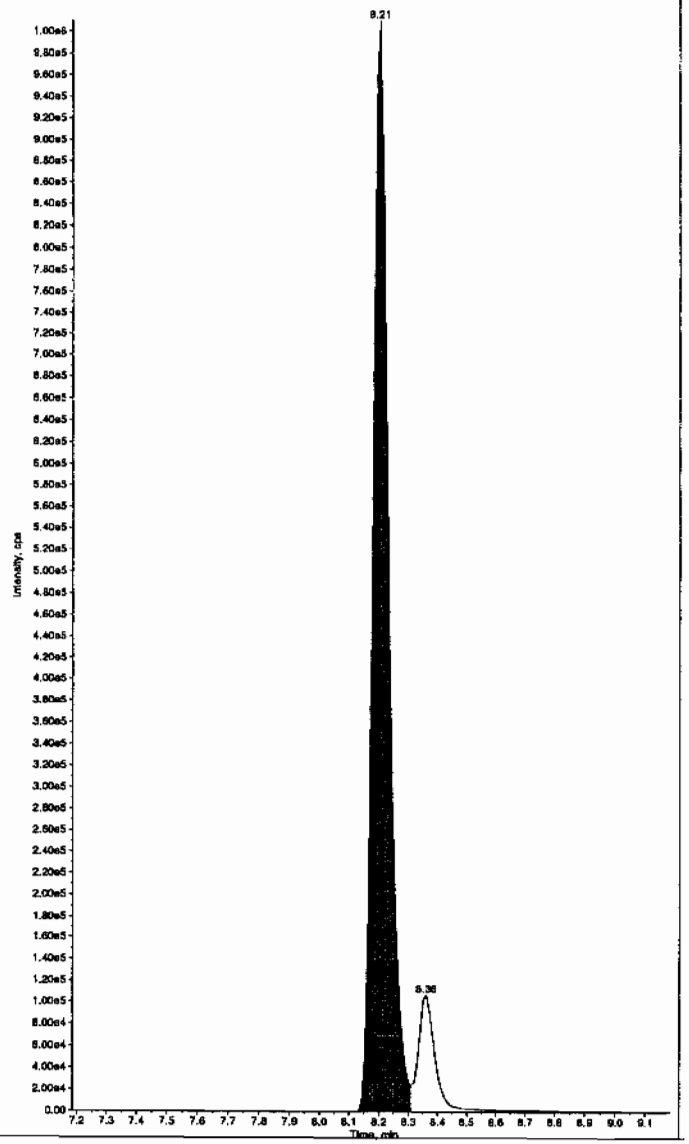

HMC 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010124.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 238. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:19:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 2.90e+006 counts
Height: 847537.903 cps
Start Time: 8.28 min
End Time: 8.67 min

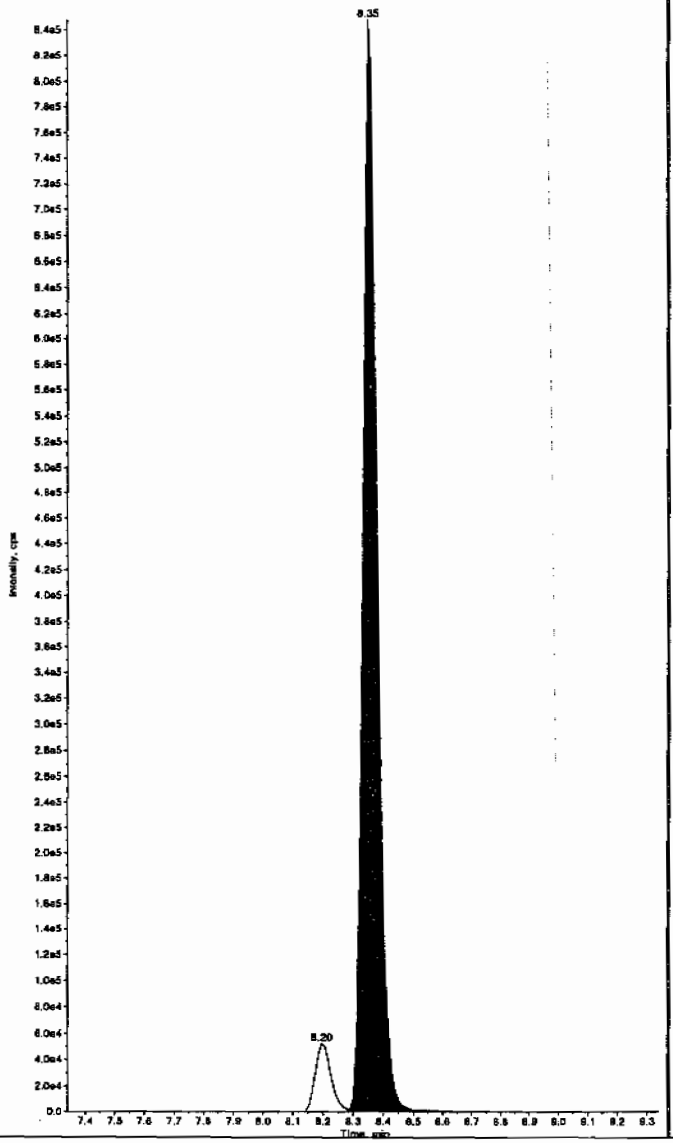

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010124.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 572. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:19:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.99 min
Area: 1.07e+006 counts
Height: 258901.550 cps
Start Time: 4.90 min
End Time: 5.28 min

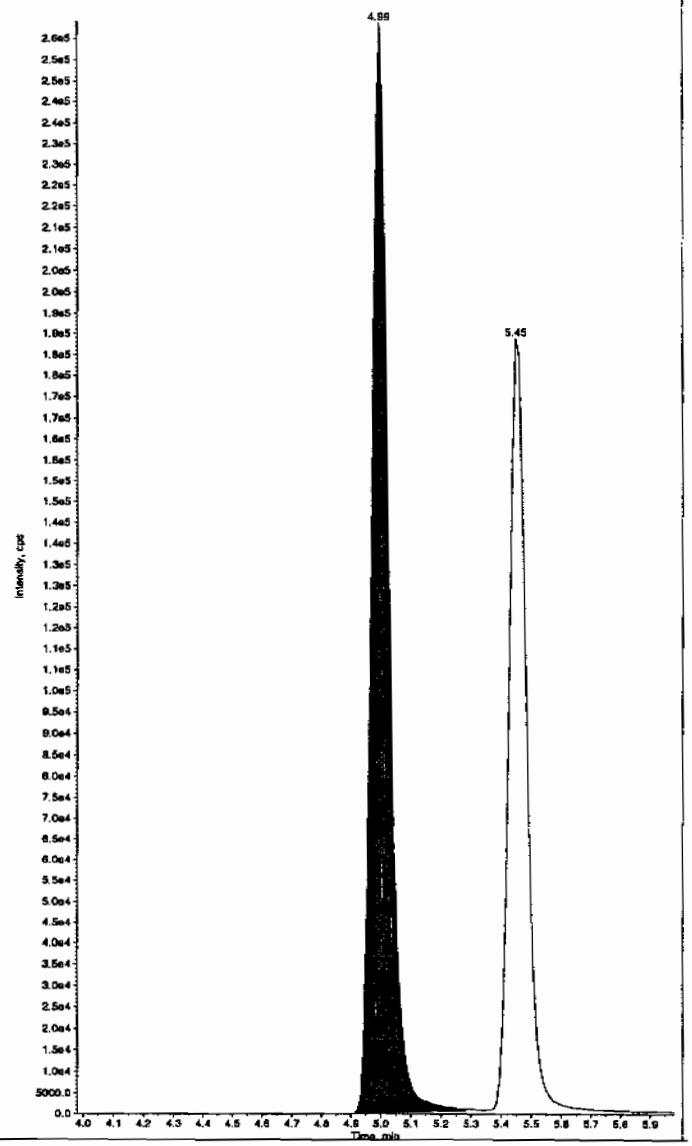

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010124.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 559. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:19:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.45 min
Area: 7.41e+005 counts
Height: 183310.806 cps
Start Time: 5.33 min
End Time: 5.90 min

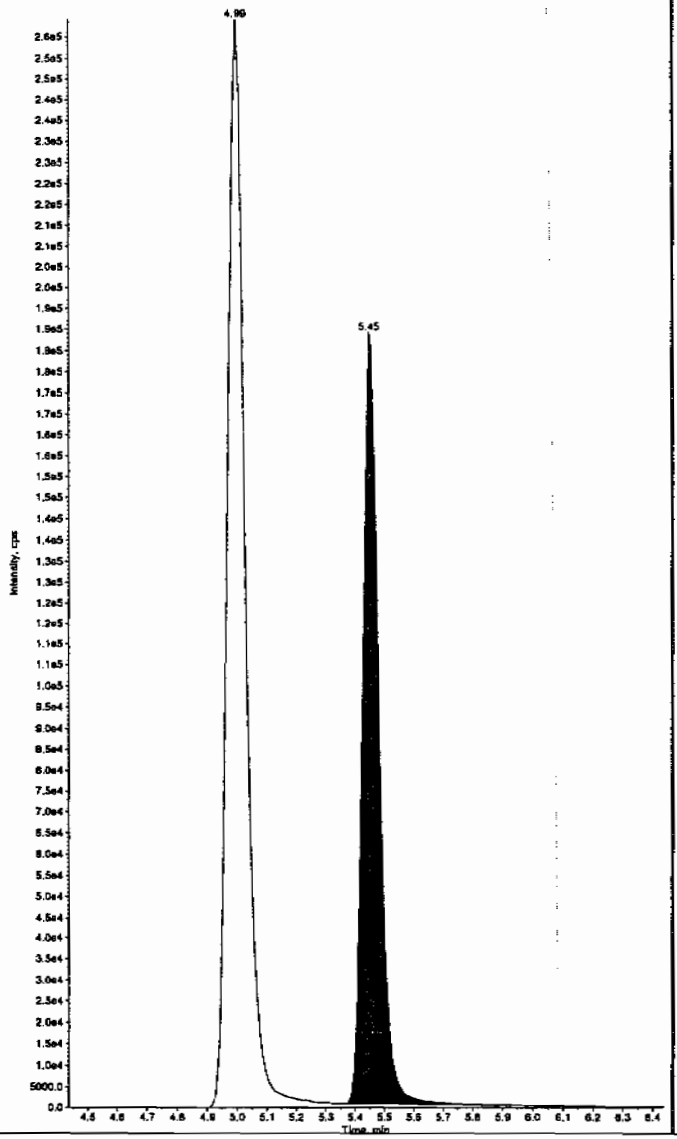

Sample Name: "WXX100301-26CCV" Sample ID: "[1]LER" File: "EXS03010124.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 465. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:19:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.31e+006 counts
Height: 2027213.257 cps
Start Time: 10.7 min
End Time: 11.2 min

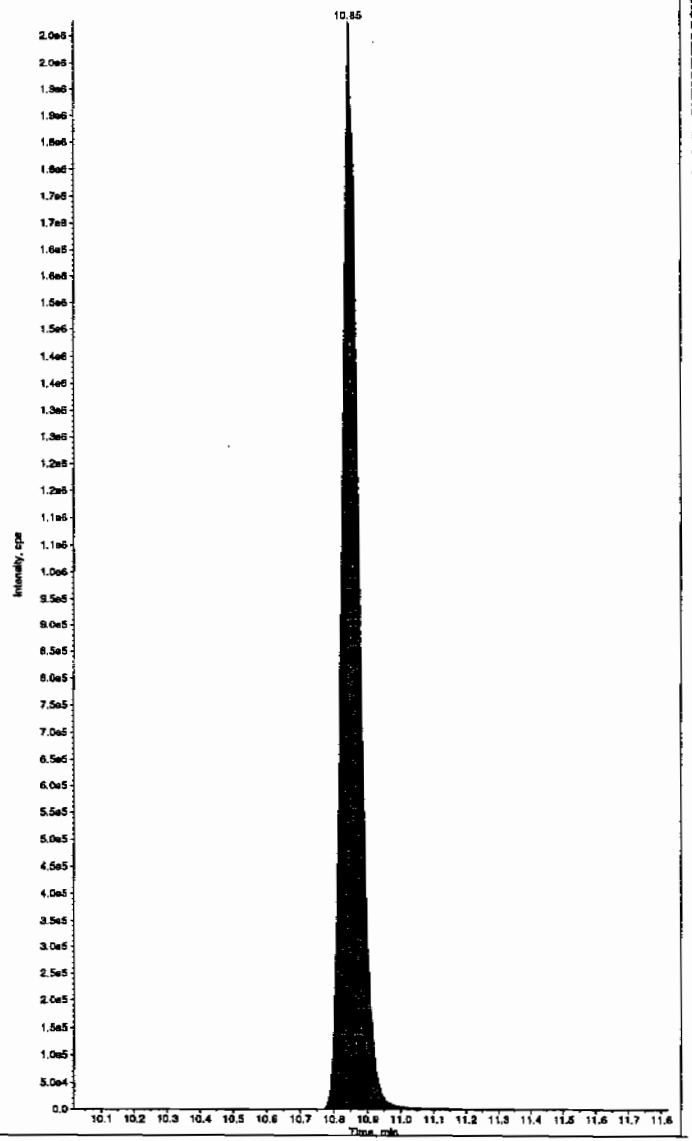

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1564

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03010126.wiff

Analysis Date: 02-MAR-10 17:51

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	123	123	
2,6-Diamino-4-nitrotoluene	100	119	119	
3,4-Dinitrotoluene	50	51.2	102	
3,5-Dinitroaniline	100	90.6	91	
TATB	100	96.8	97	
tris(o-cresyl) phosphate	100	95	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Dan 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010126.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.8 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:51:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.97 min
Area: 1.02e+005 counts
Height: 25089.636 cps
Start Time: 6.88 min
End Time: 7.55 min

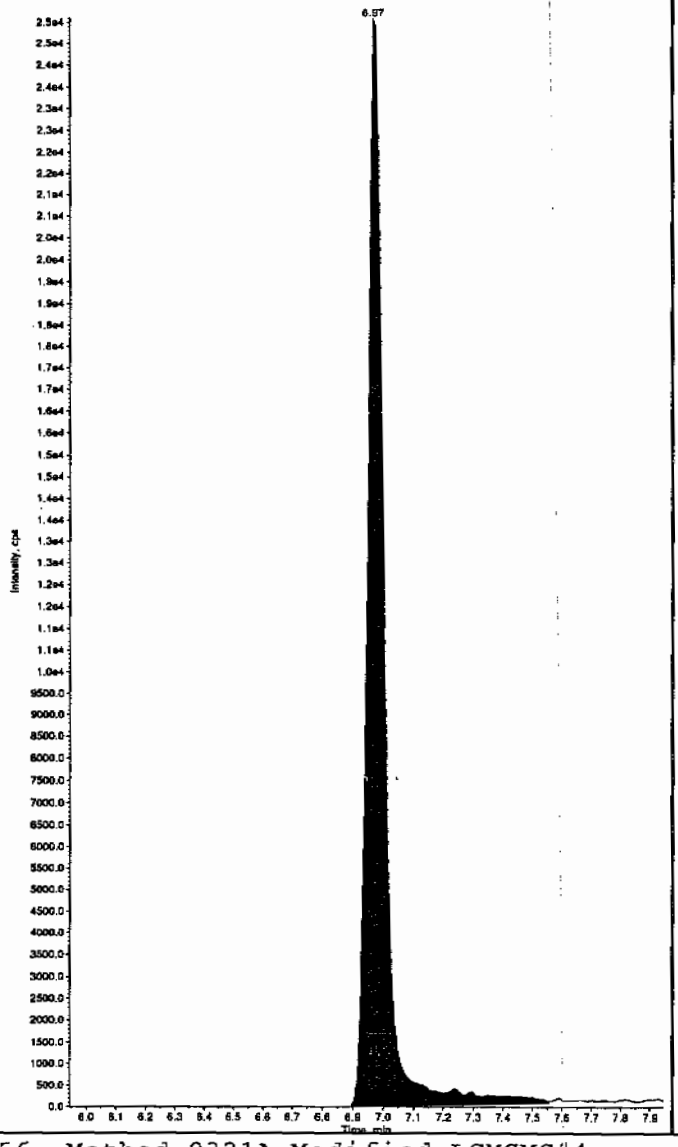

Sample Name: "WXX100301-27CRI" Sample ID: "|1|LER" File: "EXS03010126.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.6 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:51:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 7.79e+005 counts
Height: 215354.279 cps
Start Time: 8.13 min
End Time: 8.31 min

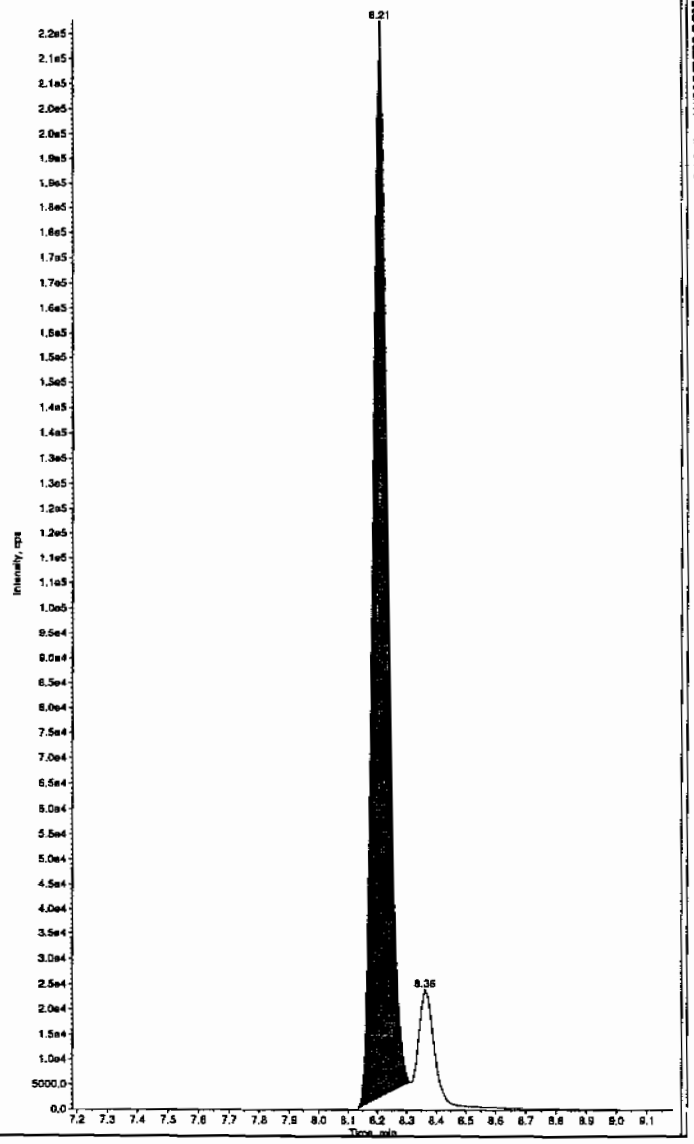

thm 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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aff Lan 3/3/10

Sample Name: "WXX100301-27CRI" Sample ID: "[1][LER" File: "EXS03010126.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.8 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:51:18 PM

Modified: No
Alg. Algorithm: IntelliQuan - IQA
Alg. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.97 min
Area: 1.02e+005 counts
Height: 25089.636 cps
Start Time: 6.88 min
End Time: 7.55 min

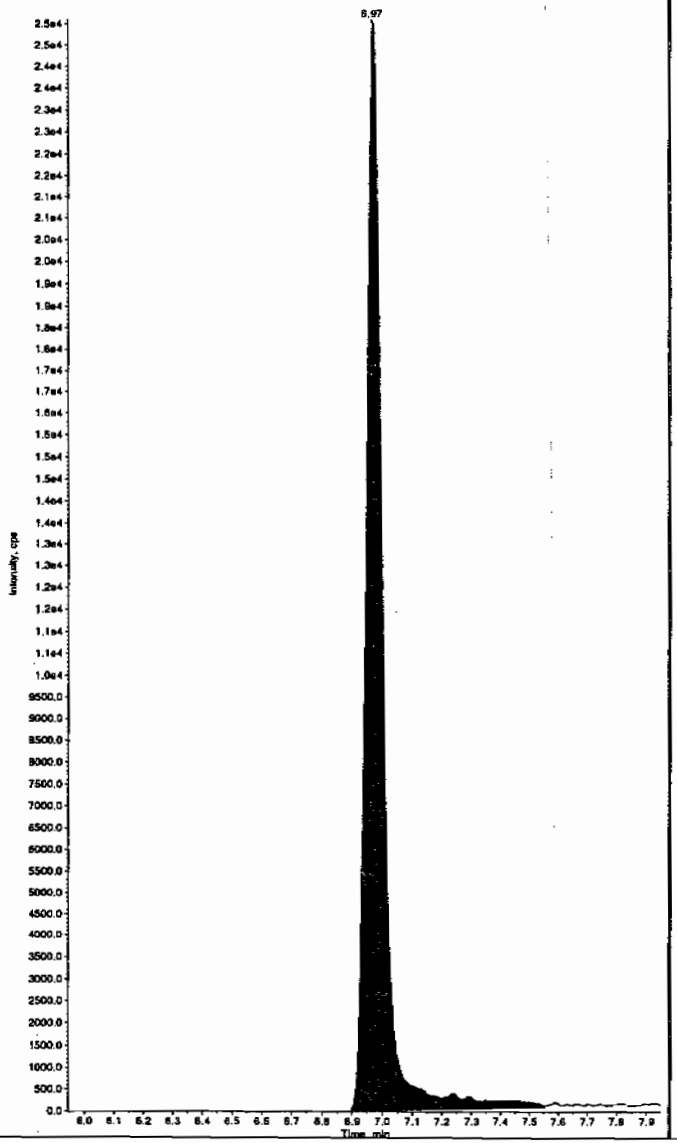

Sample Name: "WXX100301-27CRI" Sample ID: "[1][LER" File: "EXS03010126.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 90.6 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:51:18 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.21 min
Area: 8.03e+005 counts
Height: 217201.871 cps
Start Time: 8.13 min
End Time: 8.31 min

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010126.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 51.2 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:51:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 5.88e+005 counts
Height: 170927.063 cps
Start Time: 8.29 min
End Time: 8.69 min

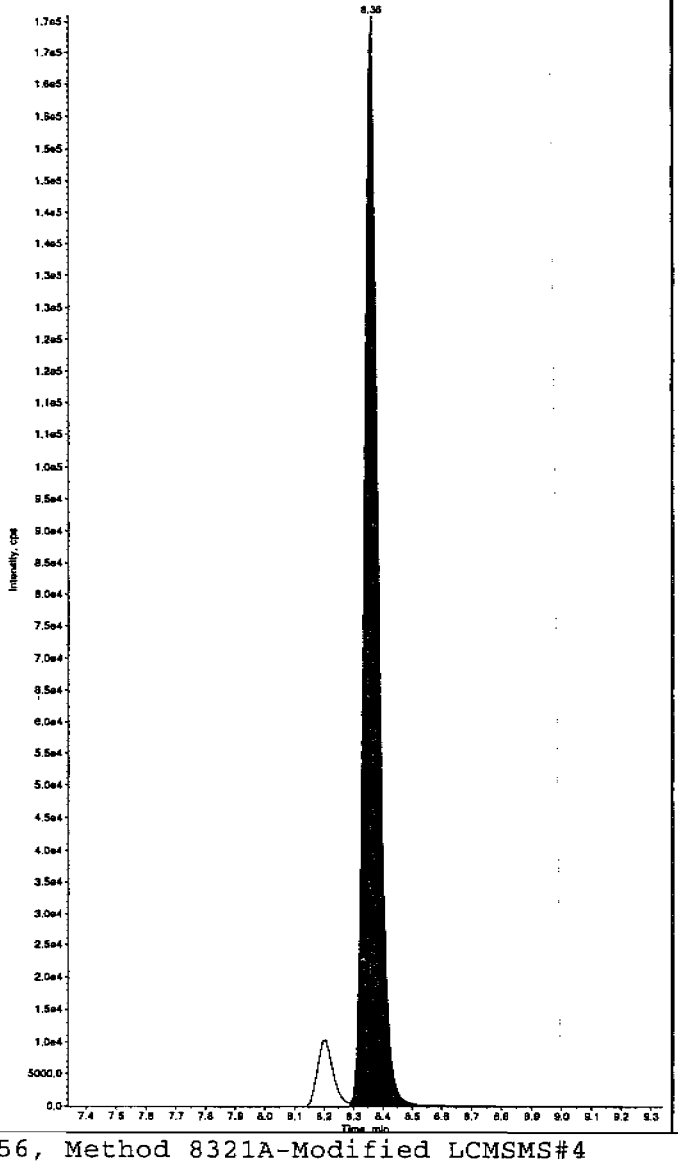

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010126.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 119. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:51:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.99 min
Area: 2.27e+005 counts
Height: 53980.629 cps
Start Time: 4.84 min
End Time: 5.29 min

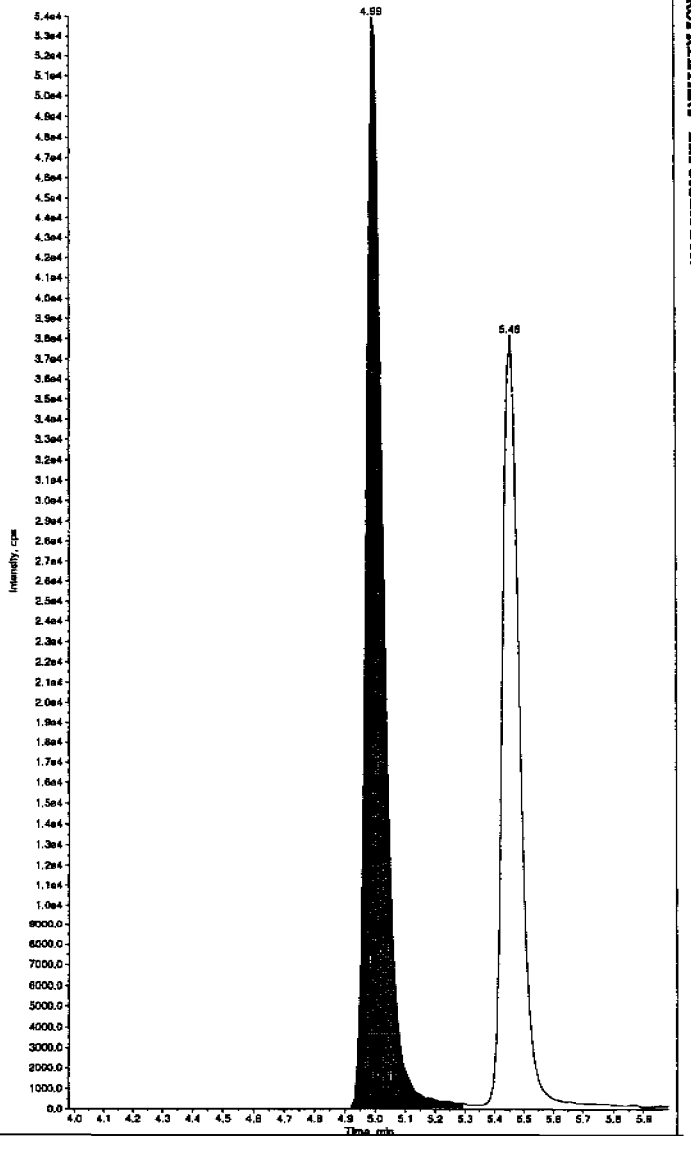

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010126.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 123. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:51:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 1.58e+005 counts
Height: 38125.629 cps
Start Time: 5.34 min
End Time: 5.91 min

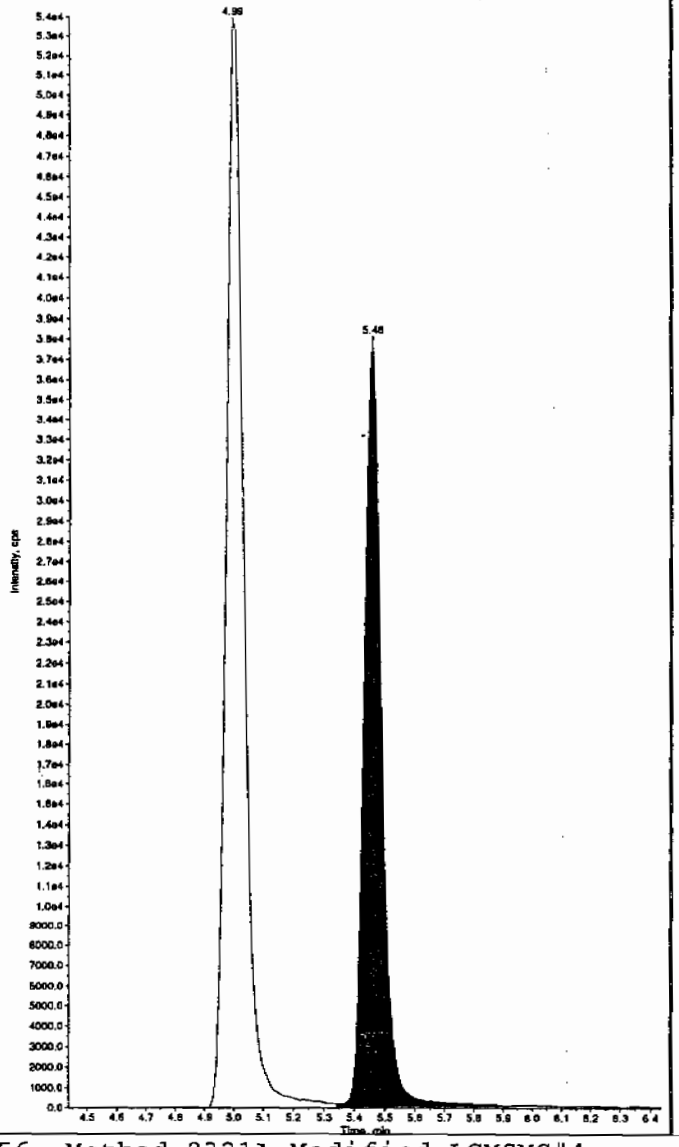

Sample Name: "WXX100301-27CRI" Sample ID: "[1]LER" File: "EXS03010126.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.0 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:51:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.66e+006 counts
Height: 474493.378 cps
Start Time: 10.8 min
End Time: 11.1 min

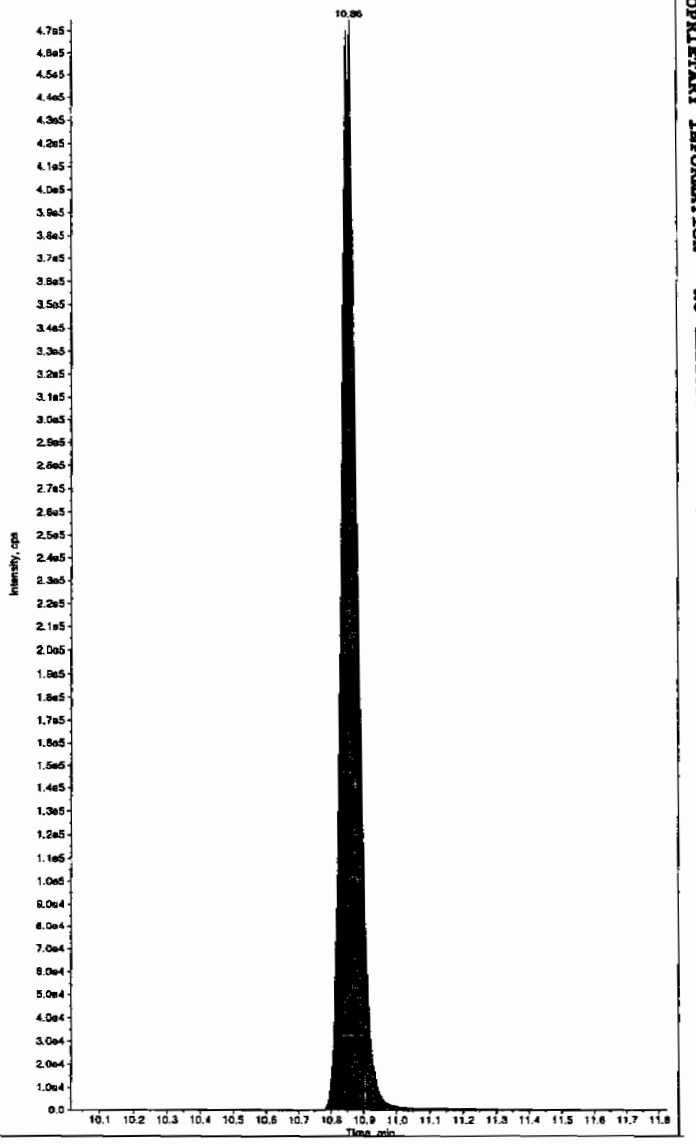

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 950080

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 1202035678

Sample Amount 2

Moisture:

Amount Units g

Date Received: 07-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312077.wiff

Date Analyzed: 13-MAR-10 17:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312077.wiff	Acquisition Date	3/13/2010 5:25:40 PM
Sample Name	1202035678	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

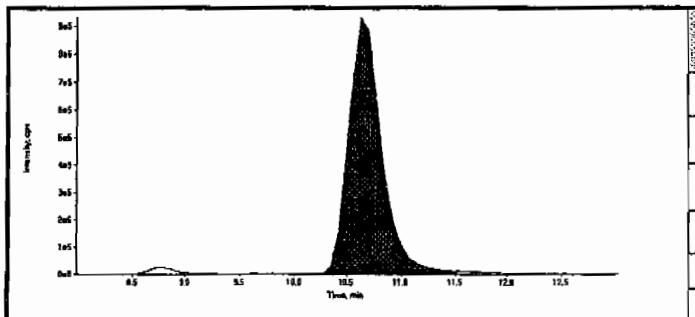

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	20200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

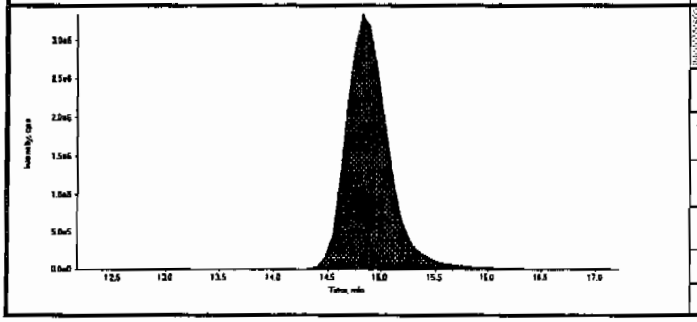

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	91800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

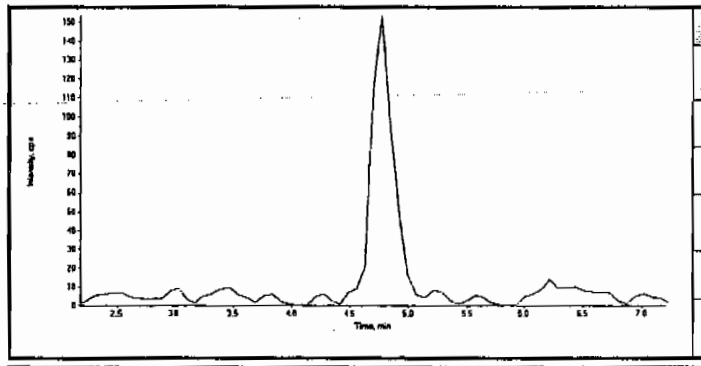

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

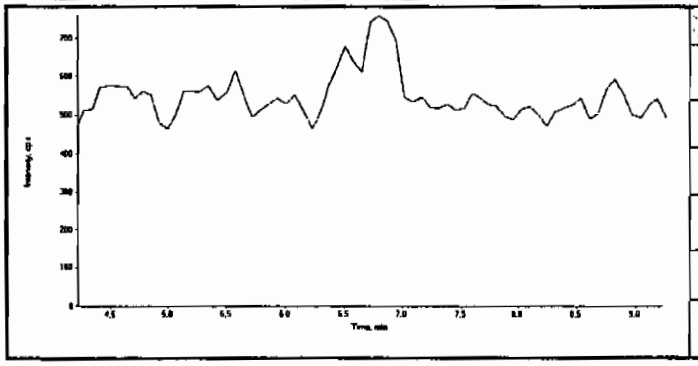

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Oter 3/24/10 Hmm 03/24/10

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Data File	EXP0312077.wiff	Acquisition Date	3/13/2010 5:25:40 PM
Sample Name	1202035678	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

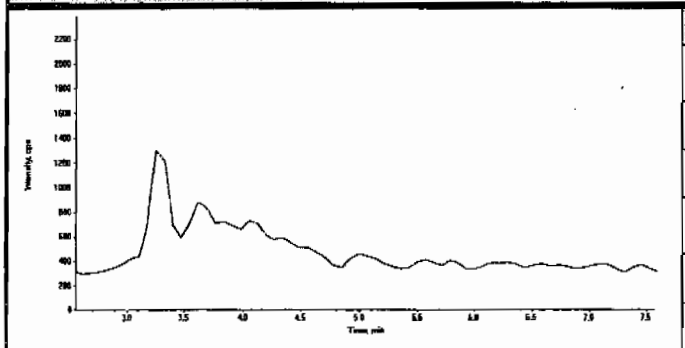

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

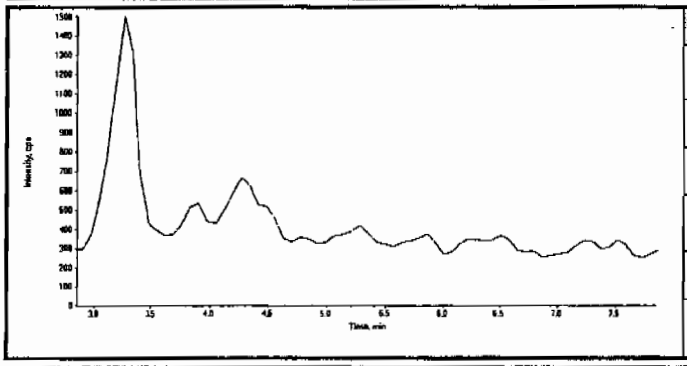

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

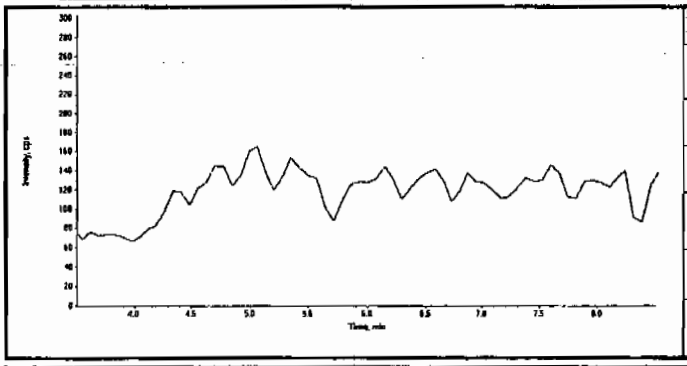

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

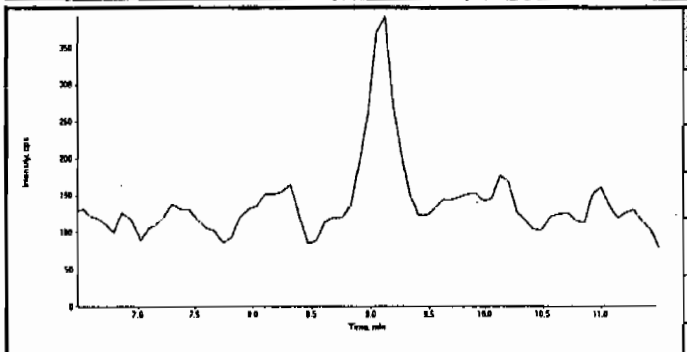

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312077.wiff	Acquisition Date	3/13/2010 5:25:40 PM
Sample Name	1202035678	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

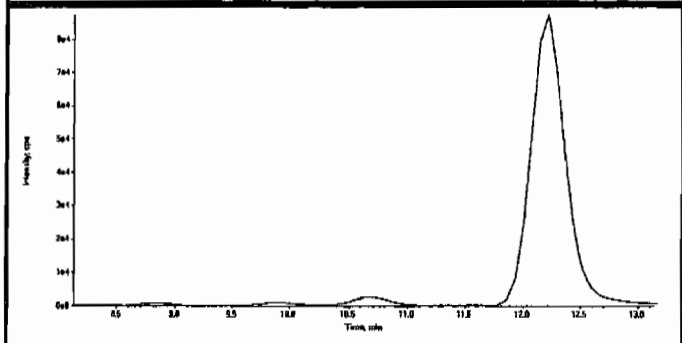

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

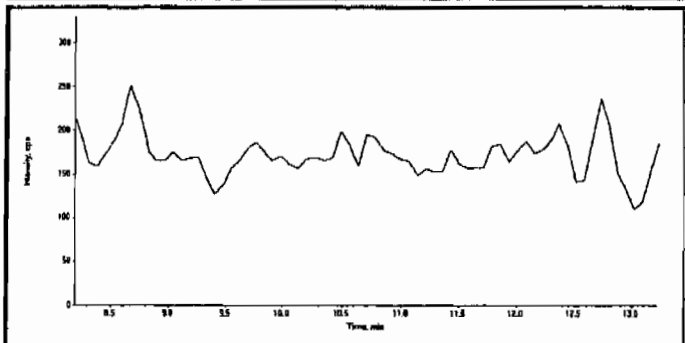

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

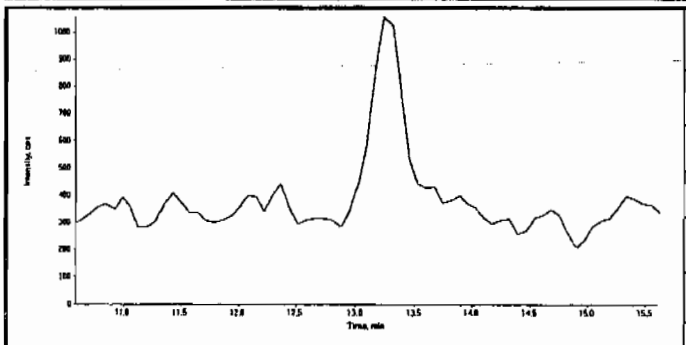

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

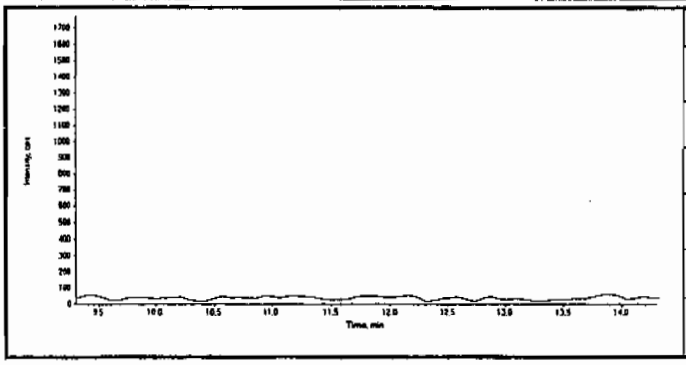

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312077.wiff	Acquisition Date	3/13/2010 5:25:40 PM
Sample Name	1202035678	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

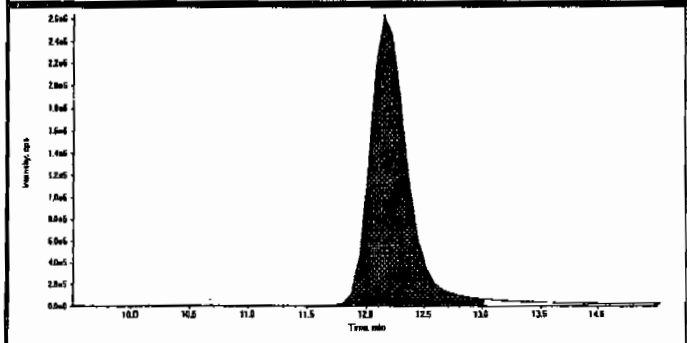

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	5.98e+007
Manual Modification	No
Amount:	265. (ng/mL)
% Accuracy:	N/A

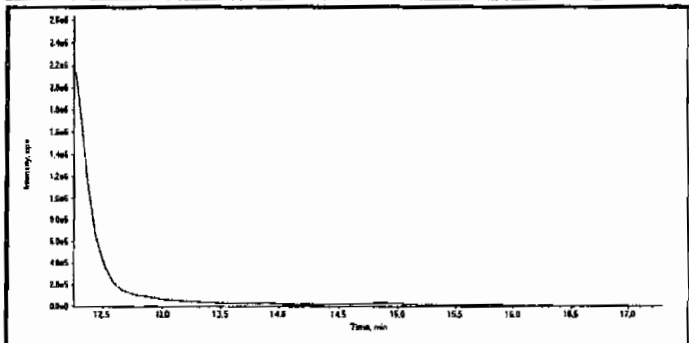

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

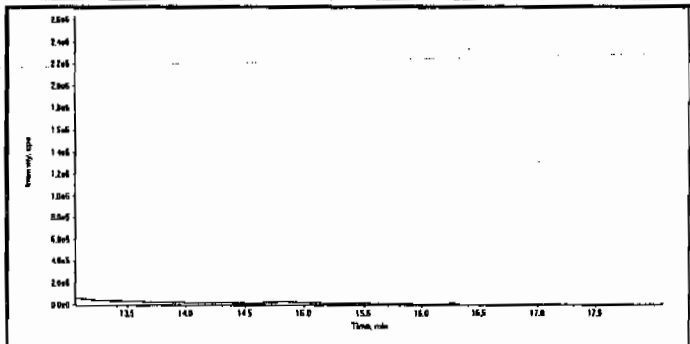

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

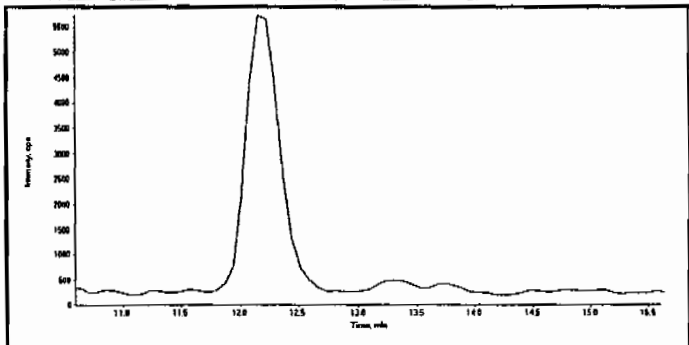

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312077.wiff	Acquisition Date	3/13/2010 5:25:40 PM
Sample Name	1202035678	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

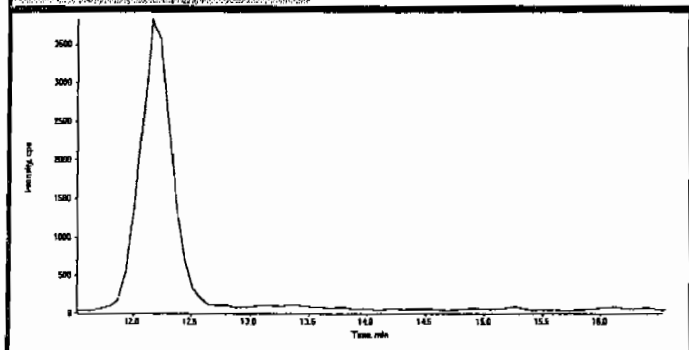

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

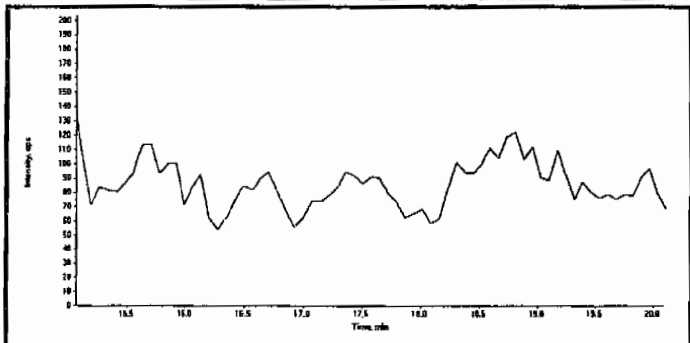

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

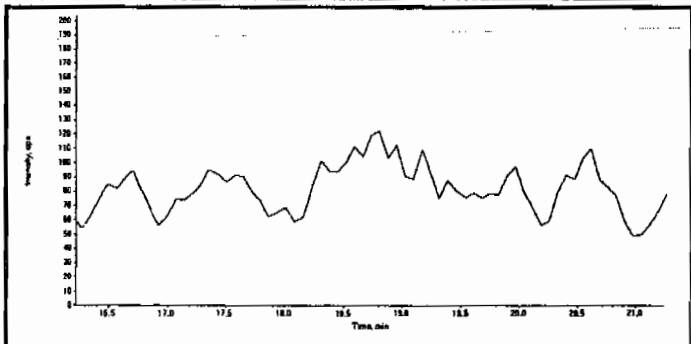

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

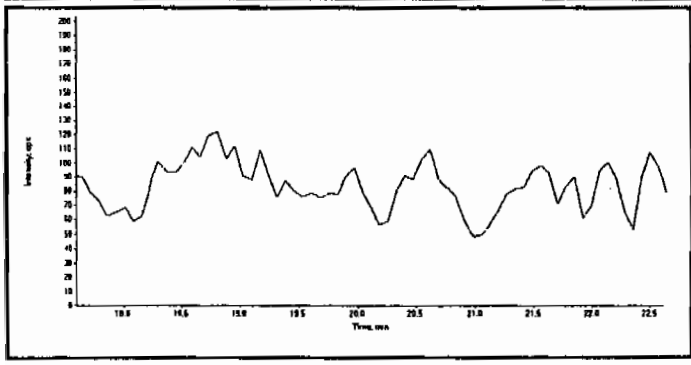

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312077.wiff	Acquisition Date	3/13/2010 5:25:40 PM
Sample Name	1202035678	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

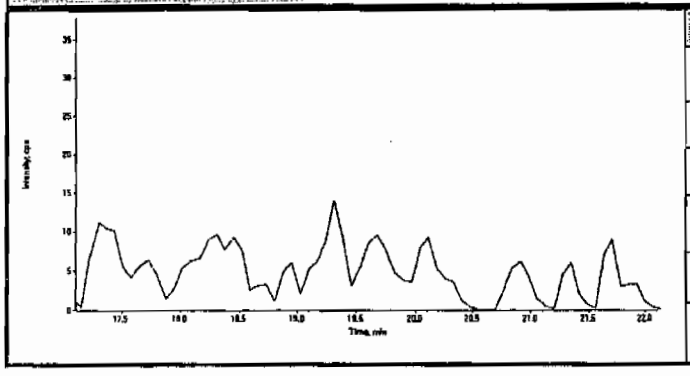

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 950080

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 1202035678

Sample Amount 2

Moisture:

Amount Units g

Date Received: 07-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010077.wiff

Date Analyzed: 02-MAR-10 04:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/3/10

Sample Name: "1202035678" Sample ID: "950081|2|LER" File: "EXS03010077.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:59:11 AM
Modified: No

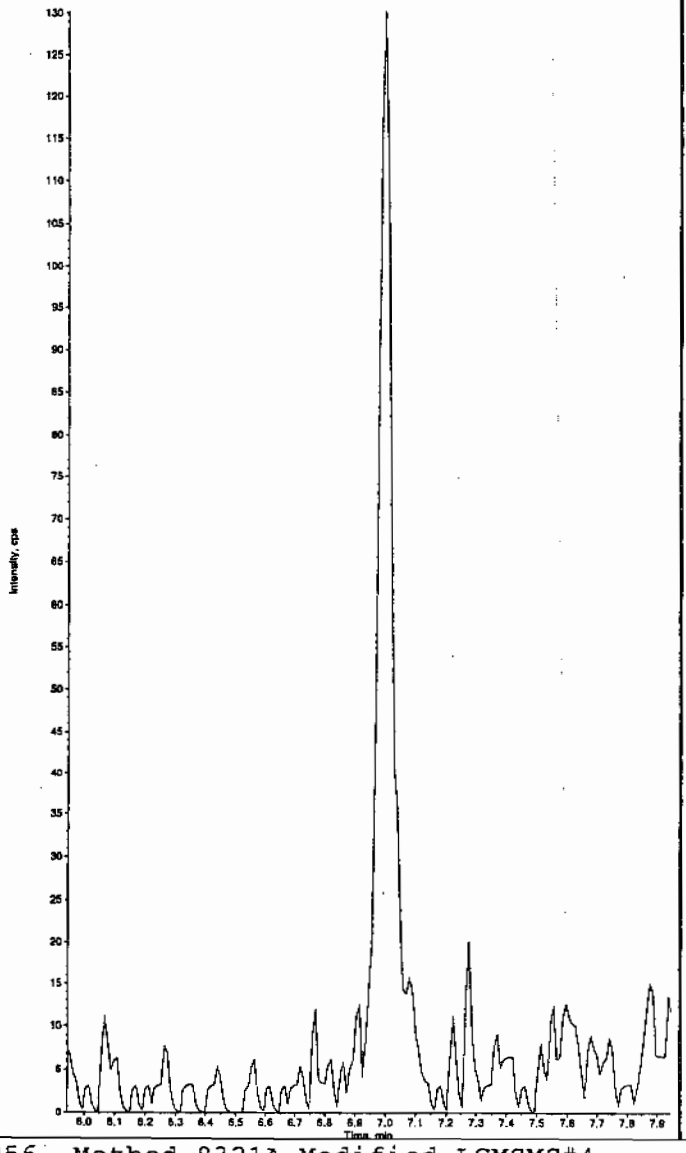

Sample Name: "1202035678" Sample ID: "950081|2|LER" File: "EXS03010077.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:59:11 AM
Modified: No

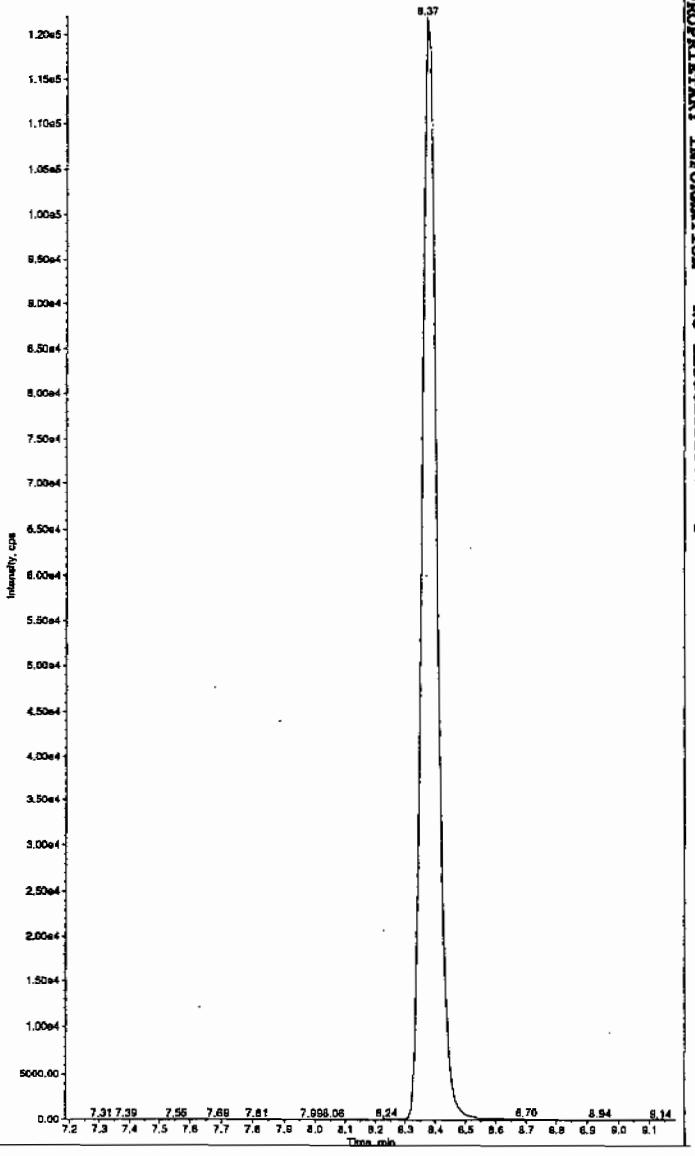

Hum 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202035678" Sample ID: "950081|2|LER" File: "EXS03010077.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 263. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:59:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 3.20e+006 counts
Height: 930605.591 cps
Start Time: 8.21 min
End Time: 8.78 min

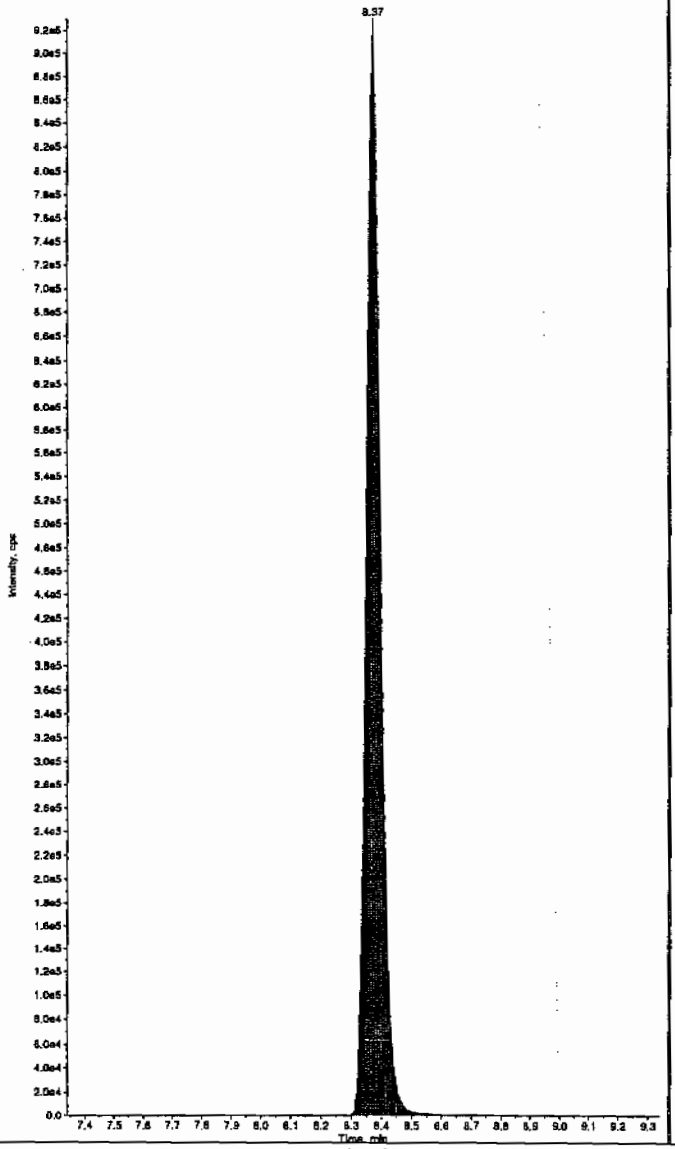

Sample Name: "1202035678" Sample ID: "950061|2|LER" File: "EXS03010077.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:59:11 AM

Modified: No

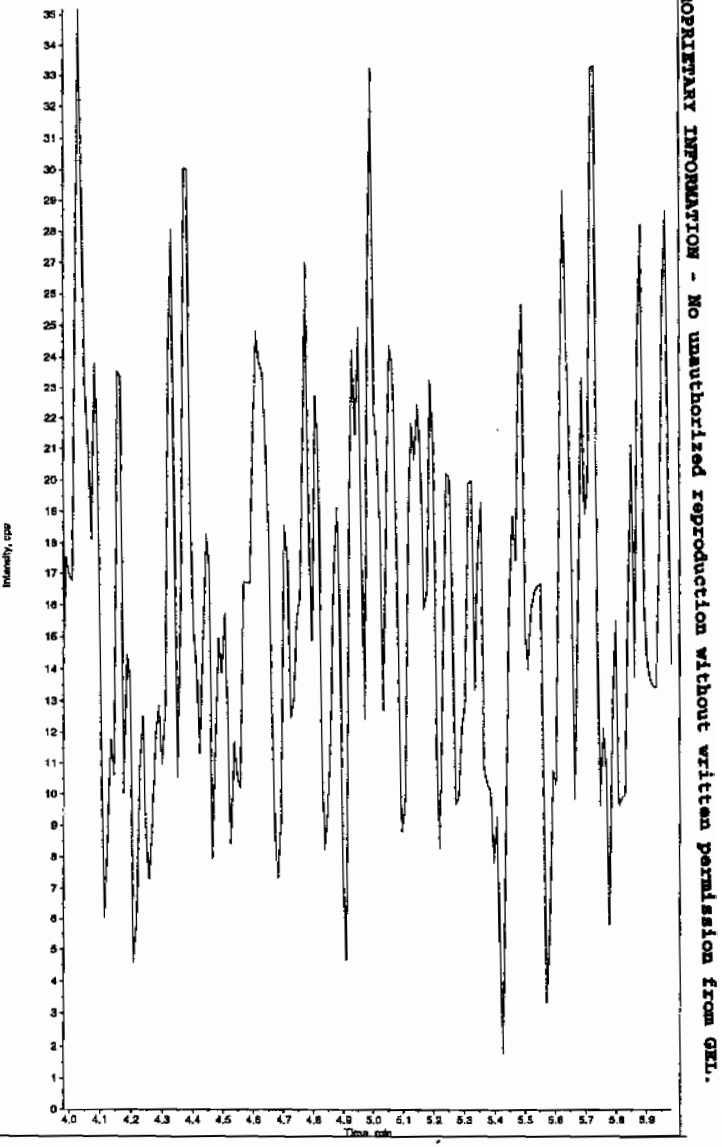

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202035678" Sample ID: "950081|2|LER" File: "EXS03010077.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:59:11 AM

Modified: No

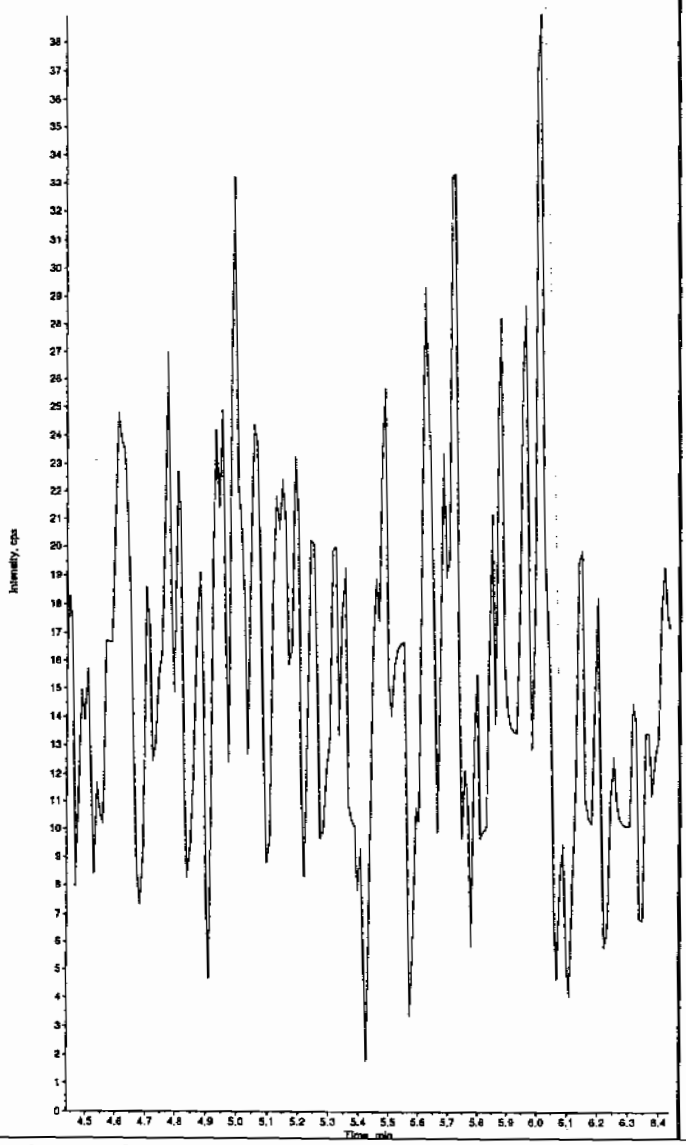

Sample Name: "1202035678" Sample ID: "950081|2|LER" File: "EXS03010077.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/2/2010
Acq. Time: 4:59:11 AM

Modified: No

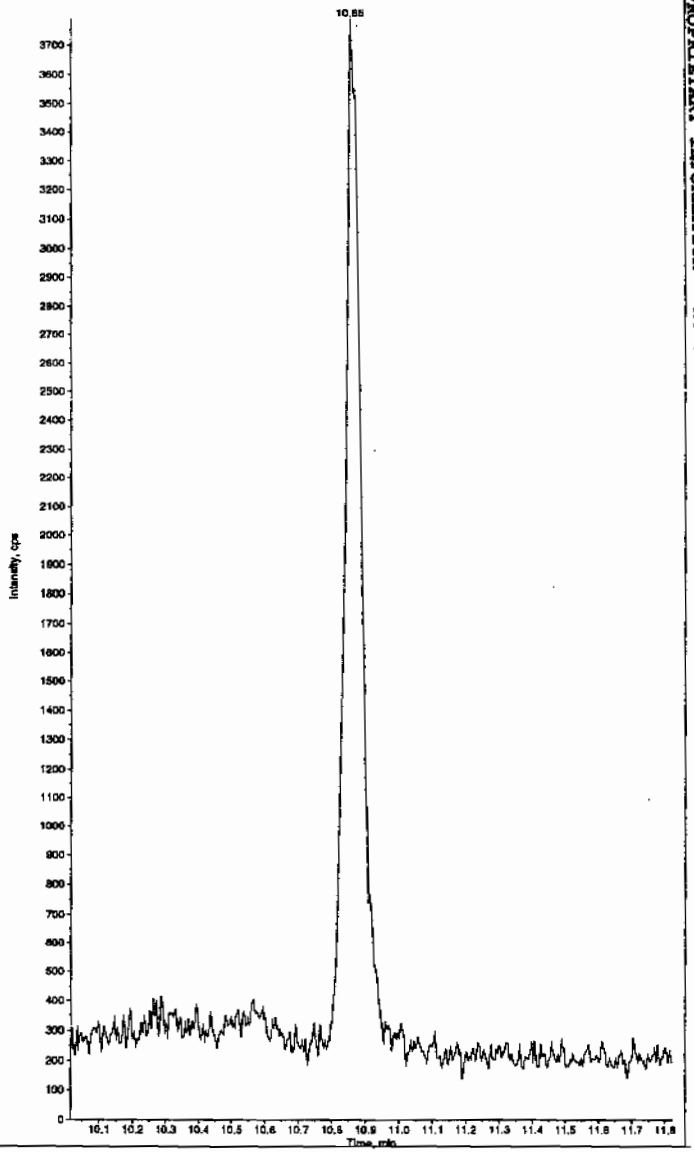

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 950080

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 1202035679

Sample Amount 2

Moisture:

Amount Units g

Date Received: 07-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0312078.wiff

Date Analyzed: 13-MAR-10 17:52

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4180	
121-14-2	2,4-Dinitrotoluene	4610	
121-82-4	RDX	4830	
19406-51-0	4-Amino-2,6-dinitrotoluene	4500	
2691-41-0	HMX	4160	
35572-78-2	2-Amino-4,6-dinitrotoluene	4700	
479-45-8	Tetryl	2930	
606-20-2	2,6-Dinitrotoluene	4650	
78-11-5	PETN	4680	
88-72-2	o-Nitrotoluene	4420	
98-95-3	Nitrobenzene	4670	
99-08-1	m-Nitrotoluene	3680	
99-35-4	1,3,5-Trinitrobenzene	4220	
99-65-0	m-Dinitrobenzene	4390	
99-99-0	p-Nitrotoluene	4000	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312078.wiff	Acquisition Date	3/13/2010 5:52:15 PM
Sample Name	1202035679	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

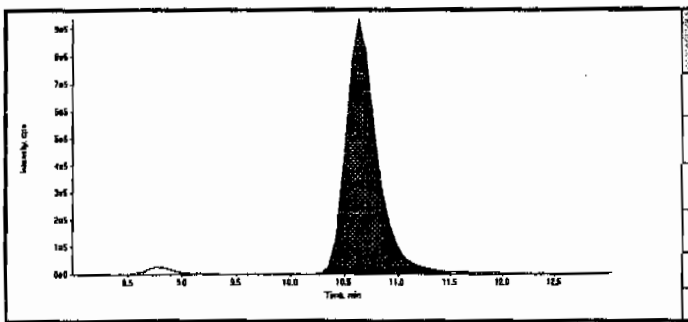

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	19400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

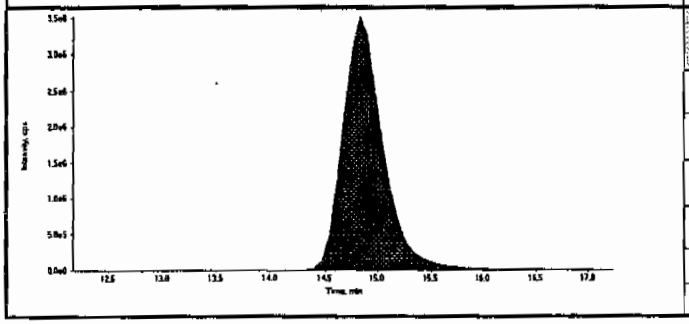

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.80
Area Counts:	94000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

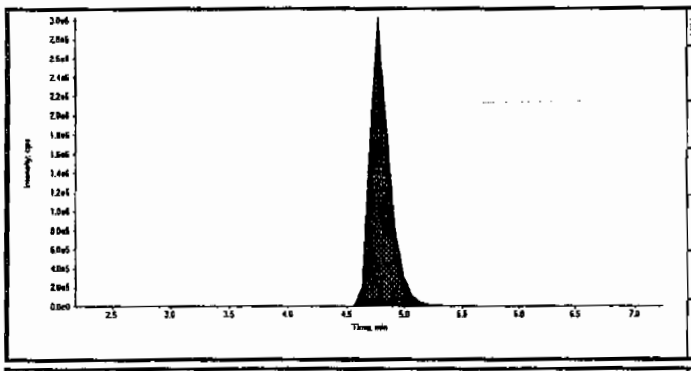

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	3.67e+007
Manual Modification	No
Amount:	416. (ng/mL)
% Accuracy:	N/A

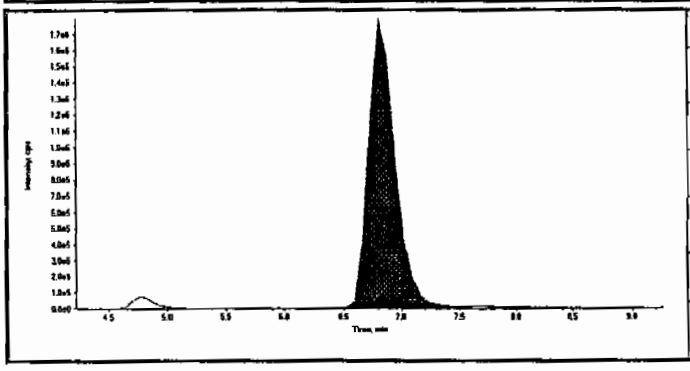

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	2.95e+007
Manual Modification	No
Amount:	483. (ng/mL)
% Accuracy:	N/A

3/24/10 03/24/10

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Data File	EXP0312078.wiff	Acquisition Date	3/13/2010 5:52:15 PM
Sample Name	1202035679	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

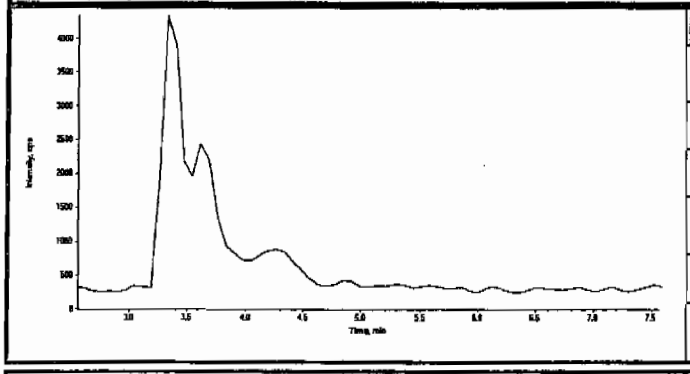

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

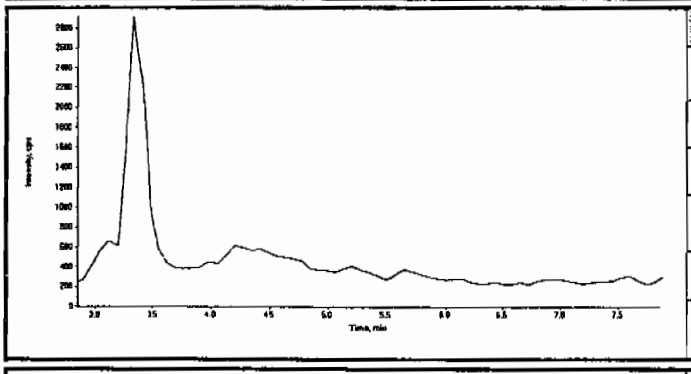

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

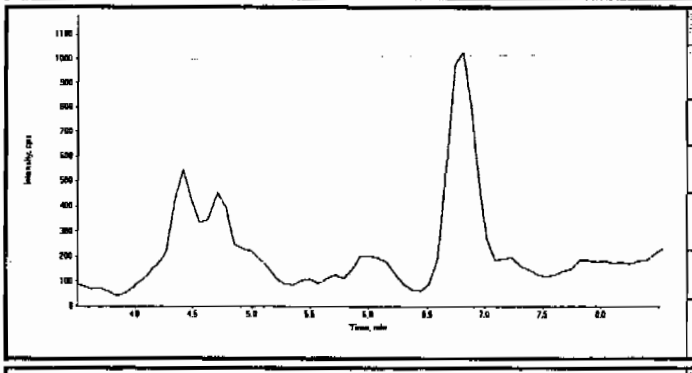

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

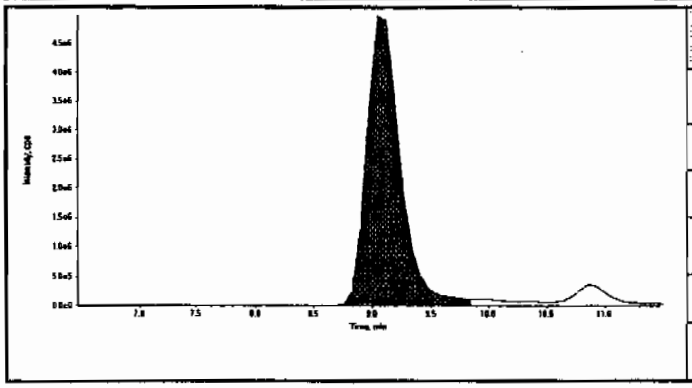

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	9.99e+007
Manual Modification	No
Amount:	422. (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312078.wiff	Acquisition Date	3/13/2010 5:52:15 PM
Sample Name	1202035679	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

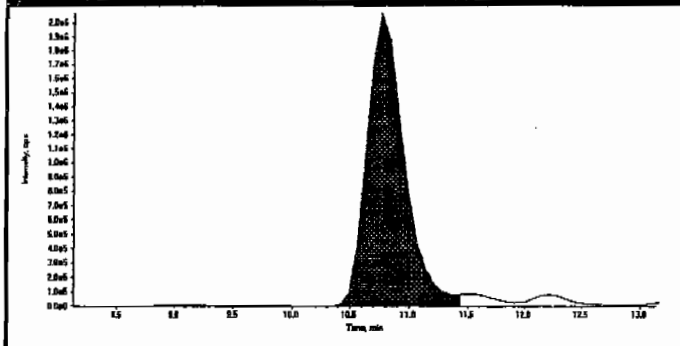

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	4.55e+007
Manual Modification	No
Amount:	439. (ng/mL)
% Accuracy:	N/A

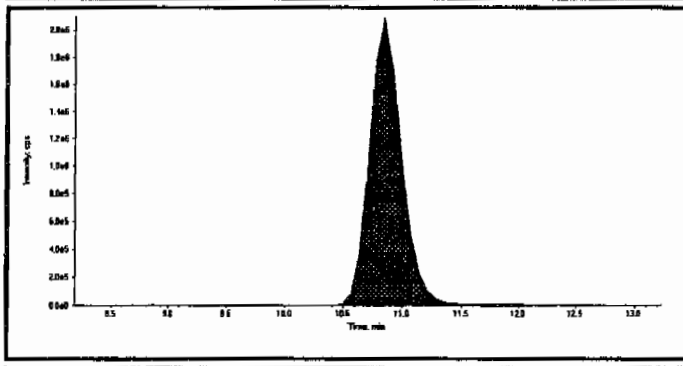

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	3.93e+007
Manual Modification	No
Amount:	293. (ng/mL)
% Accuracy:	N/A

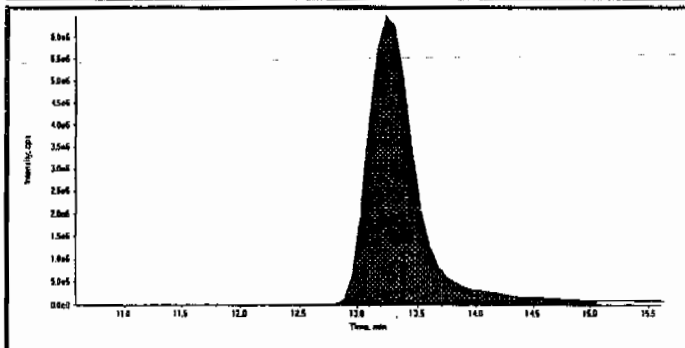

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	1.84e+008
Manual Modification	No
Amount:	418. (ng/mL)
% Accuracy:	N/A

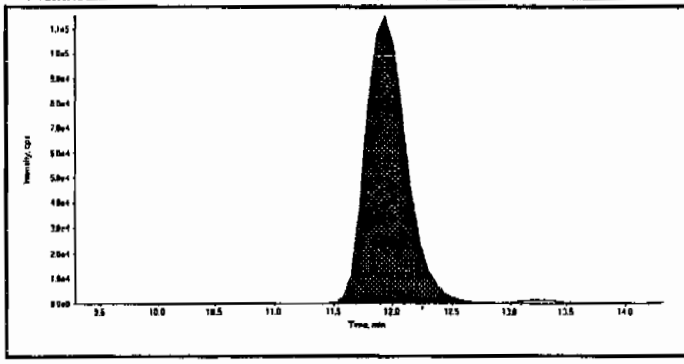

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.75e+006
Manual Modification	No
Amount:	467. (ng/mL)
% Accuracy:	N/A

Before Clar 3/24/10

Sample Name: "1202055679" Sample ID: "95009 [2]LER" File: "EXP0312078.wiff"
Peak Name: "26-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCXB321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 412. ng/mL
Acq. Date: 3/13/2010
Acq. Time: 5:52:15 PM

Modified: No
Peak Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.80e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 15.0 min
Area: 7.17e+007 counts
Height: 2.71e+006 cps
Start Time: 14.4 min
End Time: 15.3 min

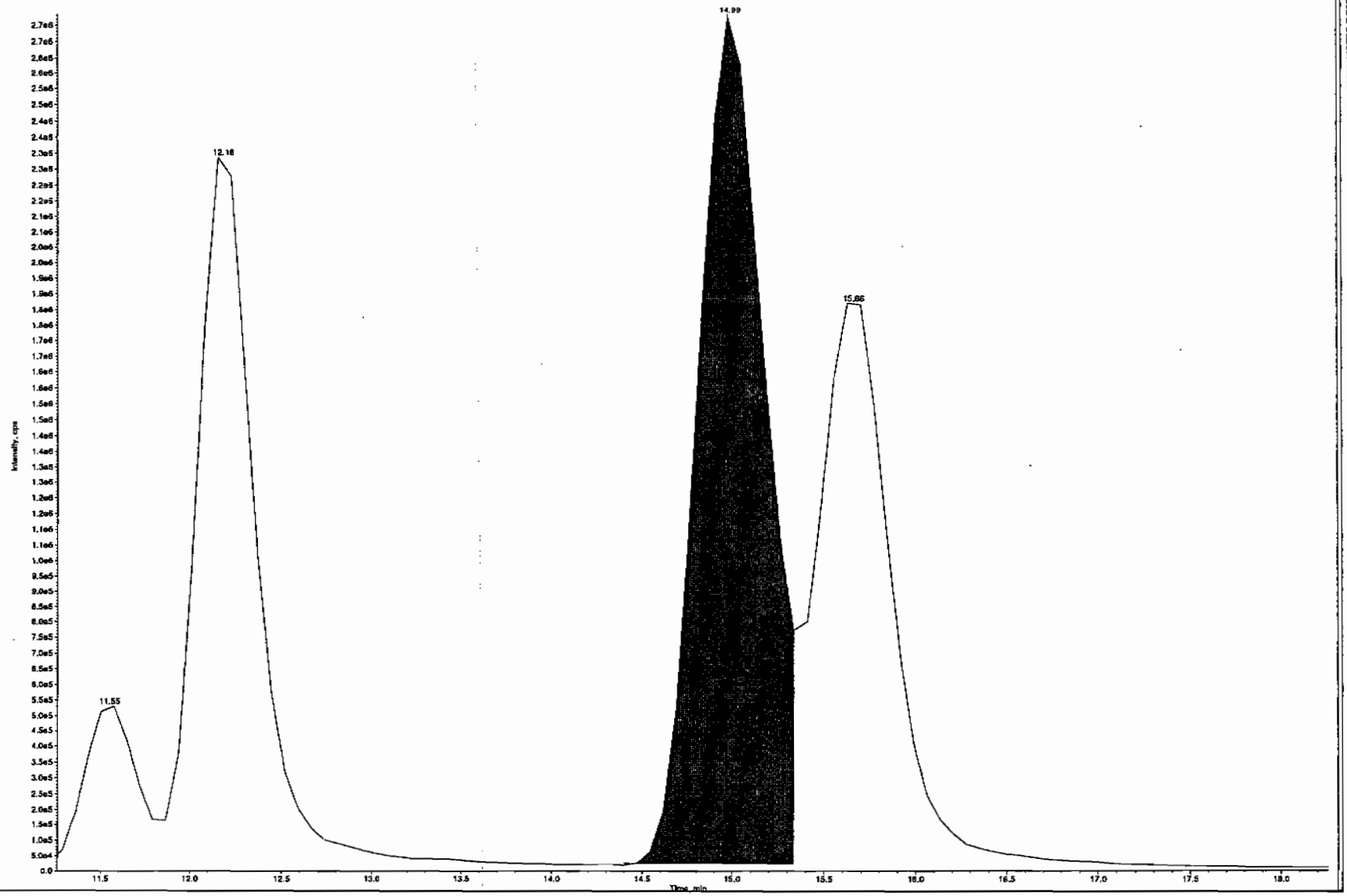

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Before Lar 3/24/10

Sample Name: "1202035676" Sample ID: "950061|2|LER" File: "EXP031207a.wff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/45.0 amu"
Comment: "LCX9221_S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:52:15 PM
Verified: No

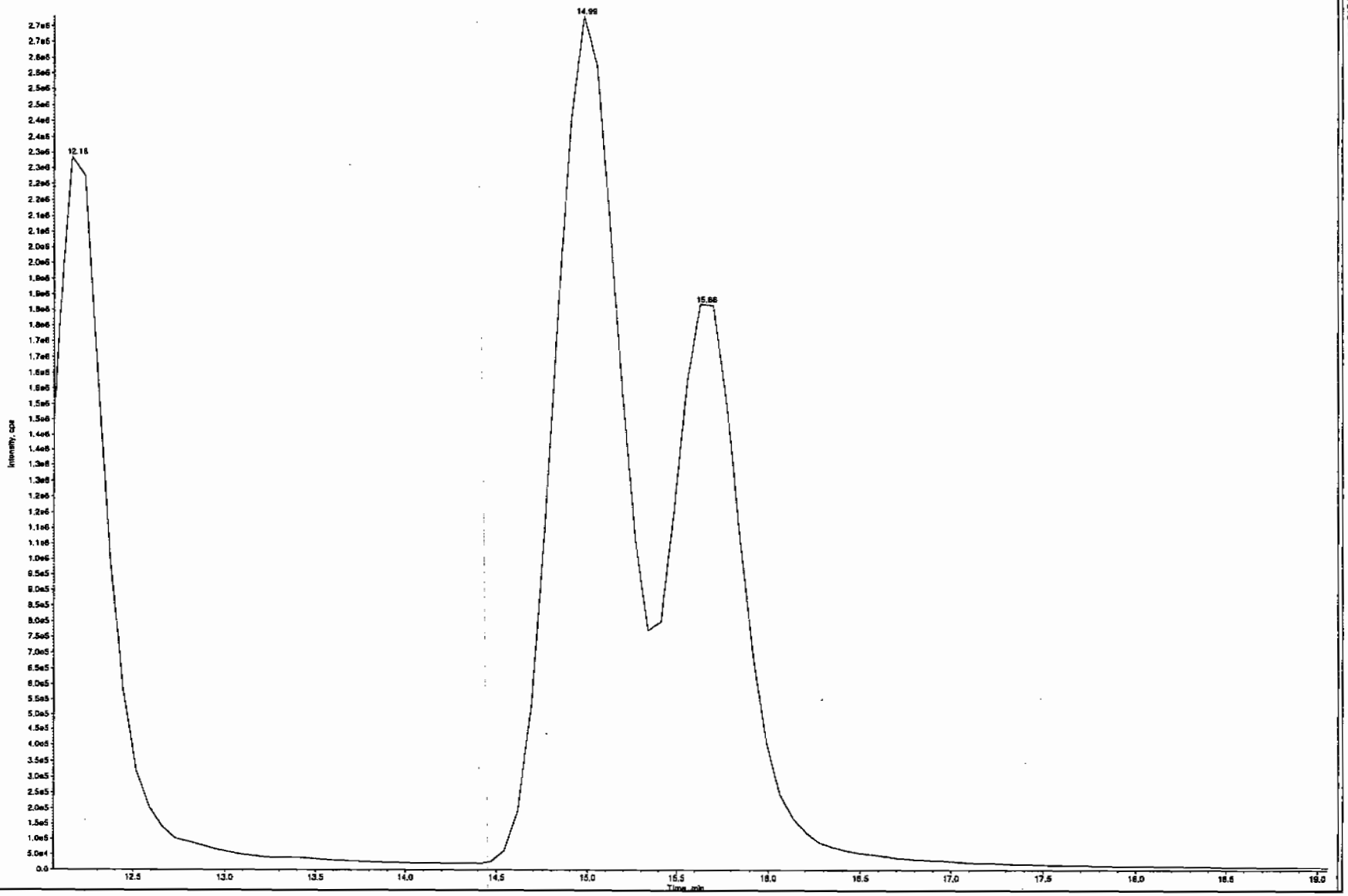

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312078.wiff	Acquisition Date	3/13/2010 5:52:15 PM
Sample Name	1202035679	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

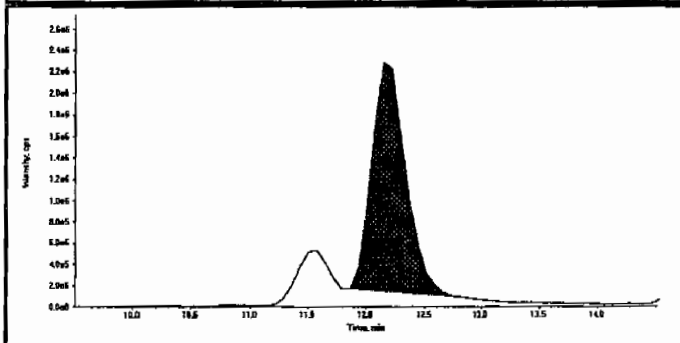

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.37e+007
Manual Modification	No
Amount:	189. (ng/mL)
% Accuracy:	N/A

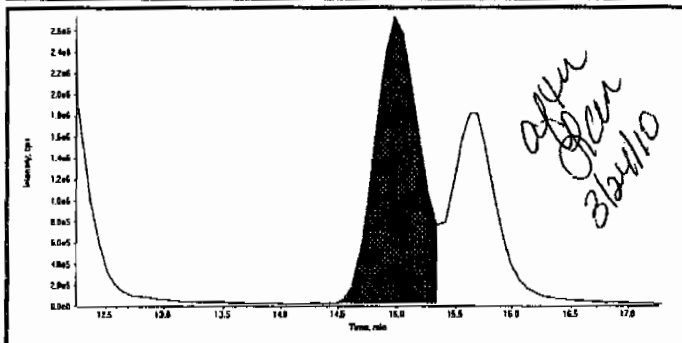

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	7.17e+007
Manual Modification	Yes
Amount:	465. (ng/mL)
% Accuracy:	N/A

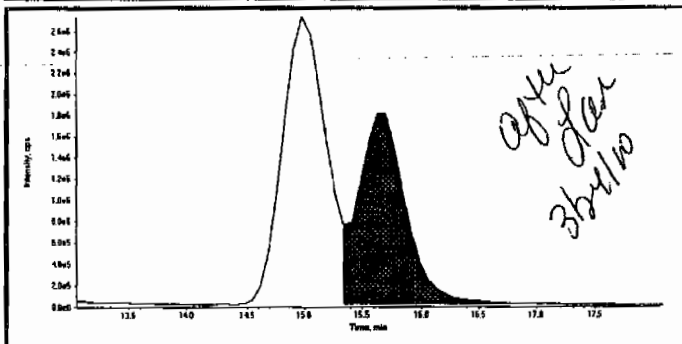

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	5.10e+007
Manual Modification	Yes
Amount:	461. (ng/mL)
% Accuracy:	N/A

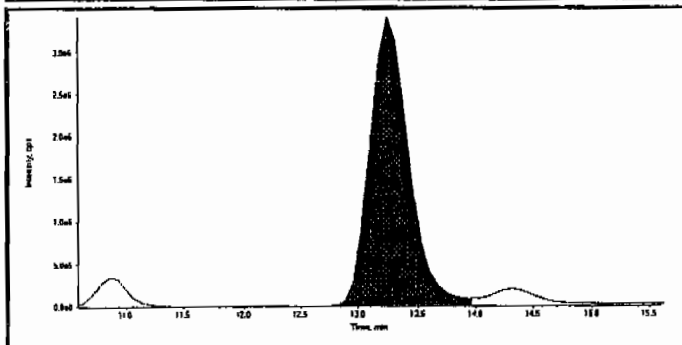

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	7.87e+007
Manual Modification	No
Amount:	450. (ng/mL)
% Accuracy:	N/A

Before Clear 3/24/10

Sample Name: "1202035679" Sample ID: "850081[2]LER" File: "EXP031207&.wiff"
Peak Name: "2-Amino-4,6-dinitrotoluene" Mass(es): "197.0/160.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 850. ng/mL
Acq. Date: 3/13/2010
Acq. Time: 5:52:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1000.00 cps
Gen. Peak Width: 0.09 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.3 min
Area: 3.63e+006 counts
Height: 1.20e+005 cps
Start Time: 14.0 min
End Time: 15.0 min

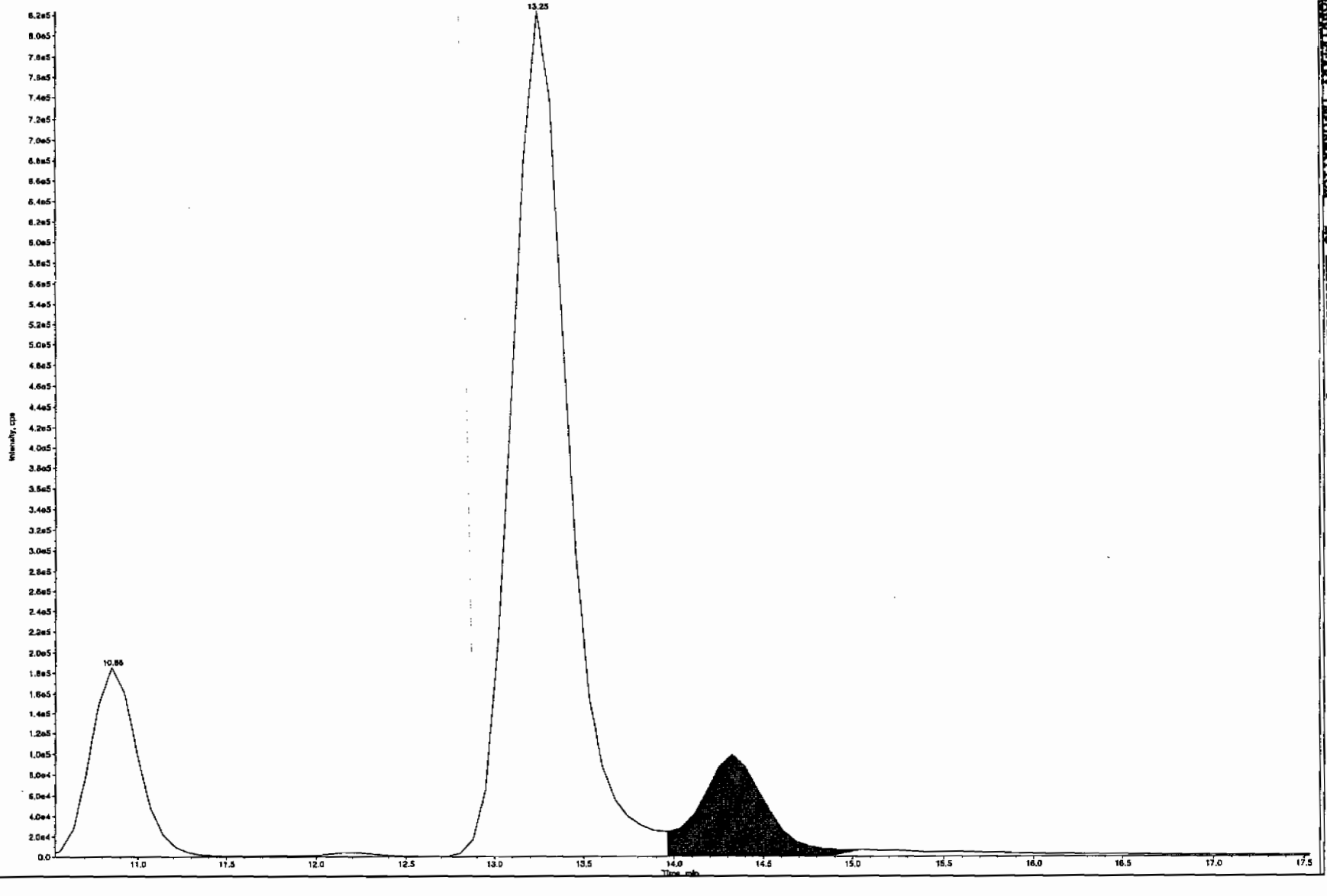

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312078.wiff	Acquisition Date	3/13/2010 5:52:15 PM
Sample Name	1202035679	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

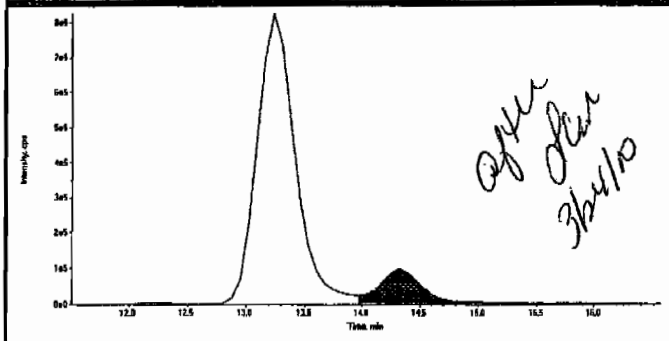

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.3
Area Counts:	2.67e+006
Manual Modification	Yes
Amount:	470. (ng/mL)
% Accuracy:	N/A

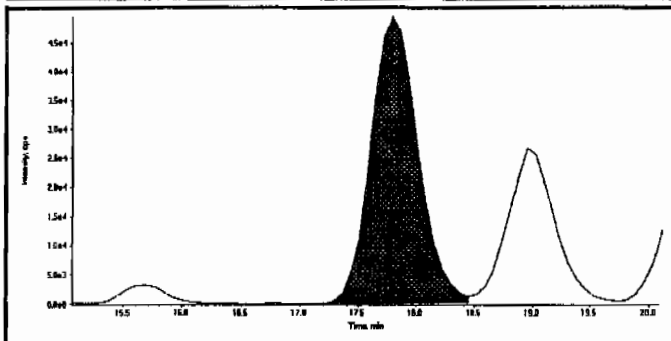

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.8
Area Counts:	1.41e+006
Manual Modification	No
Amount:	442. (ng/mL)
% Accuracy:	N/A

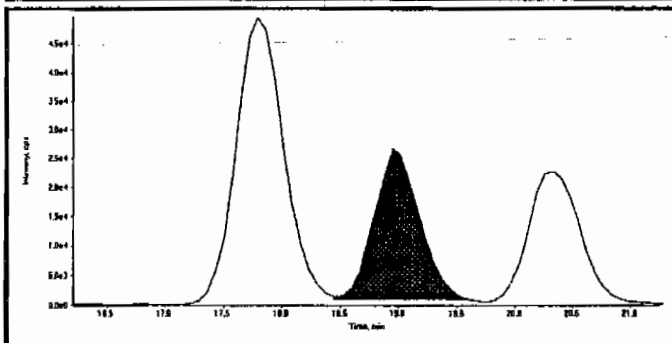

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	7.00e+005
Manual Modification	No
Amount:	400. (ng/mL)
% Accuracy:	N/A

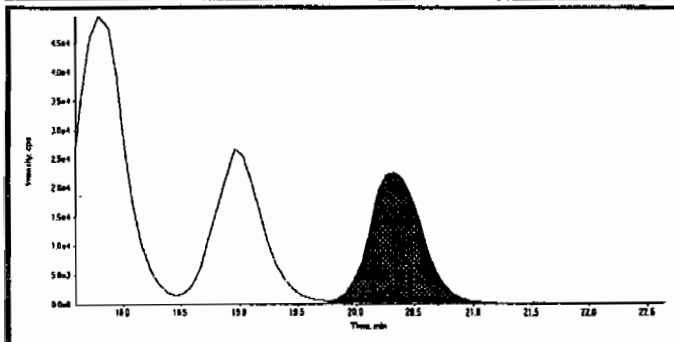

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.3
Area Counts:	7.18e+005
Manual Modification	No
Amount:	368. (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312078.wiff	Acquisition Date	3/13/2010 5:52:15 PM
Sample Name	1202035679	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	**Unknown**

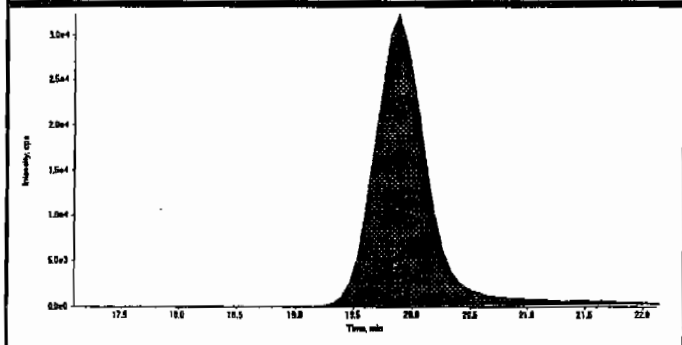

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.9
Area Counts:	1.00e+006
Manual Modification	No
Amount:	468. (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 950080

Lab Code: GEL

GEL Job No (SDG) 10-1564

Matrix: SOIL

GEL Sample ID: 1202035679

Sample Amount 2

Moisture:

Amount Units g

Date Received: 07-FEB-10

Extraction Type Sonication

Extraction Batch ID: 950080

Concentrated Extract Volume (mL) 10

Date Extracted: 15-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03010078.wiff

Date Analyzed: 02-MAR-10 05:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5850	
59229-75-3	2,6-Diamino-4-nitrotoluene	5440	
618-87-1	3,5-Dinitroaniline	4980	
6629-29-4	2,4-Diamino-6-nitrotoluene	5460	
78-30-8	tris(o-cresyl) phosphate	4570	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcu 3/3/10

Sample Name: "1202035679" Sample ID: "950081|2|LER" File: "EXS03010078.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 585. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:15:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 7.04e+005 counts
Height: 171979.706 cps
Start Time: 6.88 min
End Time: 7.58 min

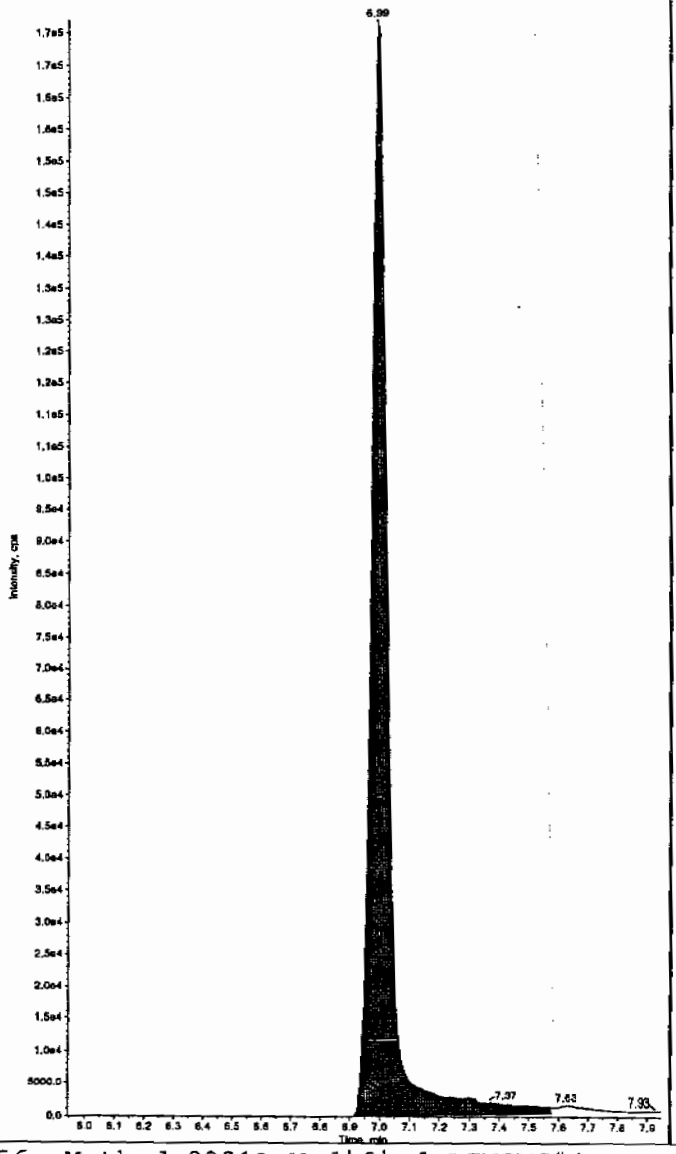

Sample Name: "1202035679" Sample ID: "950081|2|LER" File: "EXS03010078.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 498. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:15:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.91e+006 counts
Height: 1061109.375 cps
Start Time: 8.15 min
End Time: 8.33 min

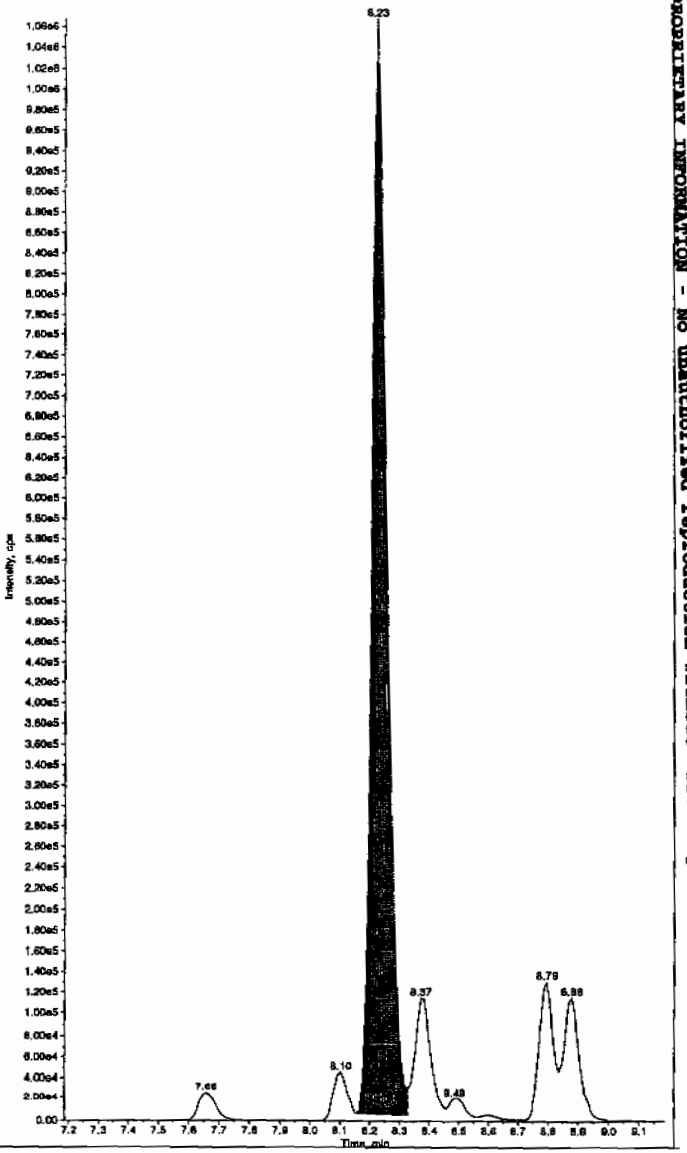

HMM 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202035679" Sample ID: "950061|2|LER" File: "EXS03010078.wiff"
Peak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 240. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:15:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.92e+006 counts
Height: 840800.720 cps
Start Time: 8.30 min
End Time: 8.61 min

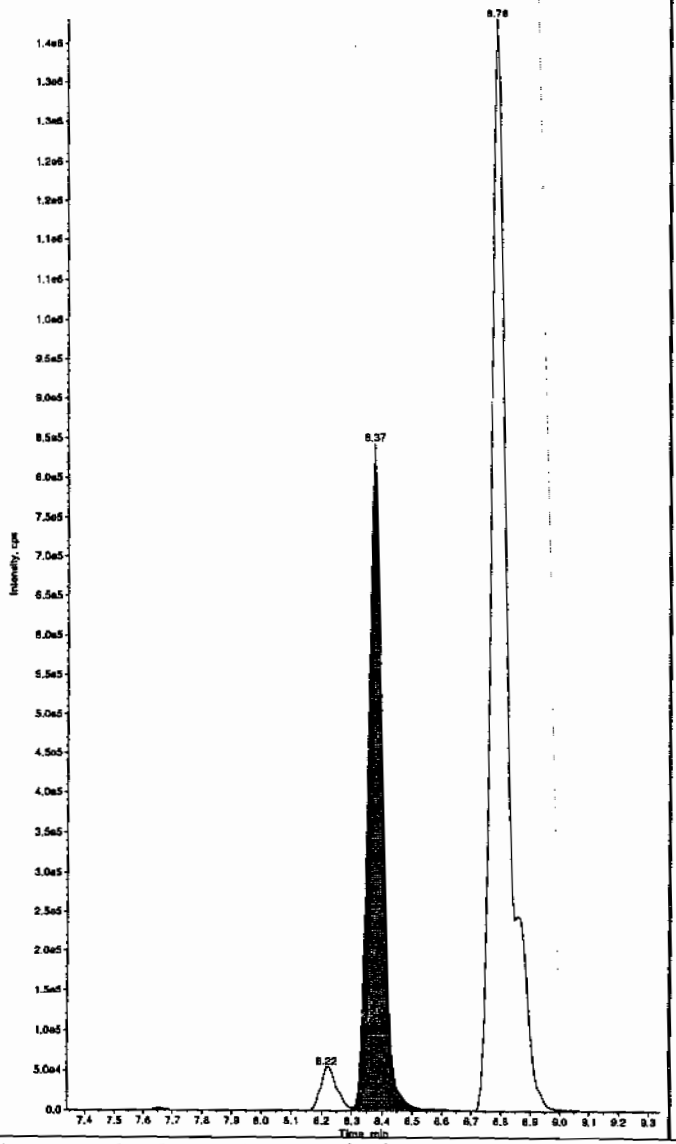

Sample Name: "1202035679" Sample ID: "950061|2|LER" File: "EXS03010078.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 544. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:15:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.01e+006 counts
Height: 253536.469 cps
Start Time: 4.92 min
End Time: 5.32 min

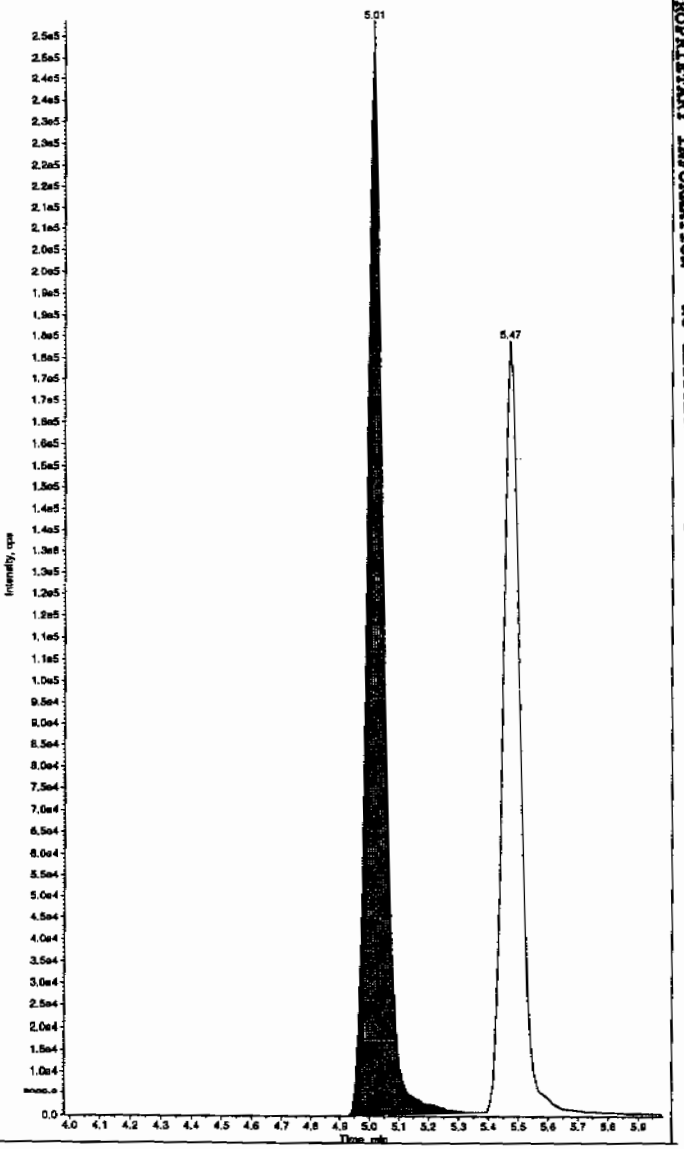

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202035679" Sample ID: "950081|2|LER" File: "EXS03010078.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 546. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:15:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 7.24e+005 counts
Height: 178727.615 cps
Start Time: 5.34 min
End Time: 5.99 min

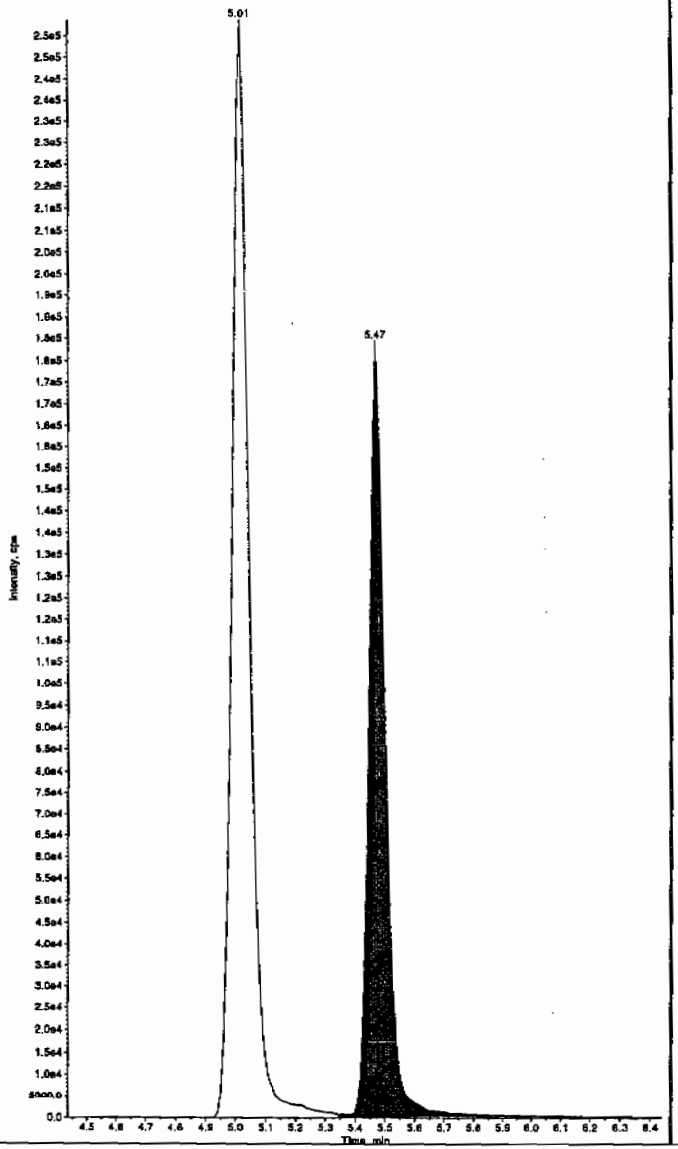

Sample Name: "1202035679" Sample ID: "950081|2|LER" File: "EXS03010078.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 457. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 5:15:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.20e+006 counts
Height: 1962926.392 cps
Start Time: 10.8 min
End Time: 11.2 min

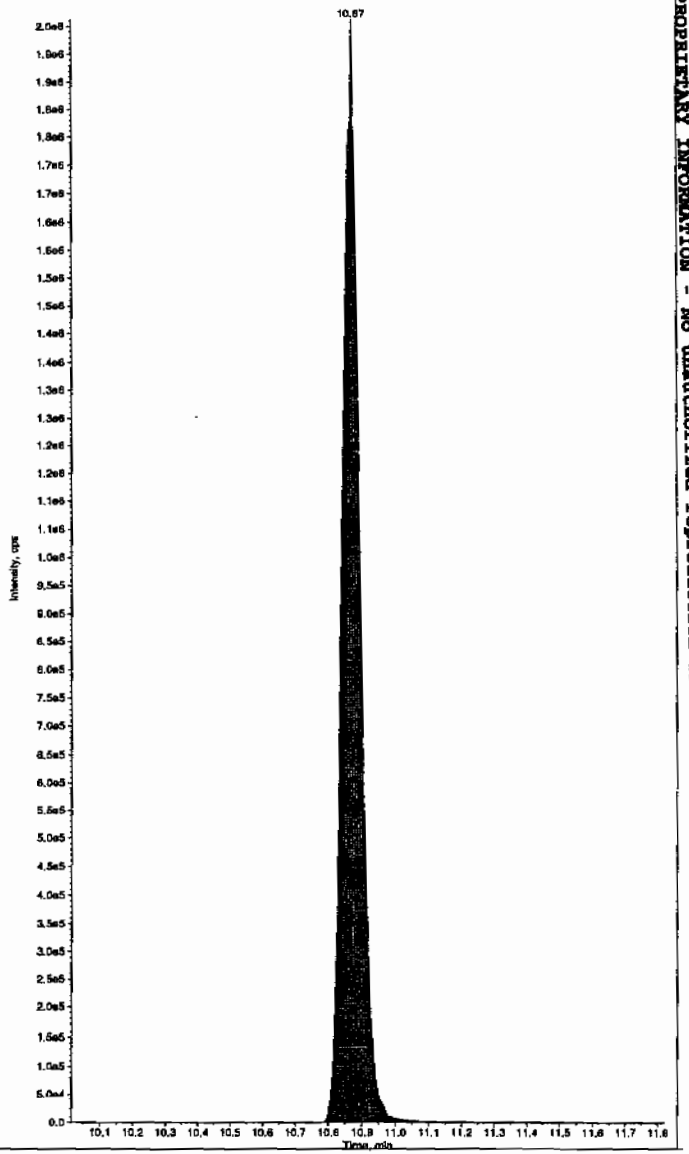

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 950080 **Verified by:** _____

Analyst: Sirena White

Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202035678 MB	15-FEB-2010 17:15:00	2	10	5
1202035679 LCS	15-FEB-2010 17:15:00	2	10	5
246318001	15-FEB-2010 17:15:00	2	10	5
246318002	15-FEB-2010 17:15:00	2	10	5
246318003	15-FEB-2010 17:15:00	2	10	5
246318004	15-FEB-2010 17:15:00	2	10	5
246318005	15-FEB-2010 17:15:00	2	10	5
246318006	15-FEB-2010 17:15:00	2	10	5
246318007	15-FEB-2010 17:15:00	2	10	5
246318008	15-FEB-2010 17:15:00	2	10	5
246318009	15-FEB-2010 17:15:00	2	10	5
246330002	15-FEB-2010 17:15:00	2	10	5
1202035680 MS (246330002)	15-FEB-2010 17:15:00	2	10	5
1202035681 MSD (246330002)	15-FEB-2010 17:15:00	2	10	5
246330003	15-FEB-2010 17:15:00	2	10	5
246330004	15-FEB-2010 17:15:00	2	10	5
246330005	15-FEB-2010 17:15:00	2	10	5
246330006	15-FEB-2010 17:15:00	2	10	5
246330007	15-FEB-2010 17:15:00	2	10	5
246330008	15-FEB-2010 17:15:00	2	10	5
246330009	15-FEB-2010 17:15:00	2	10	5
246330010	15-FEB-2010 17:15:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202035679	8321 Explosives LCS	IXX100208-03	.1	mL
LCS	1202035679	8321 LANL Explosives Mix 10mg/L	UXX100210-02.1	1	mL
MS	1202035680	8321 Explosives LCS	IXX100208-03	.1	mL
MS	1202035680	8321 LANL Explosives Mix 10mg/L	UXX100210-02.1	1	mL
MSD	1202035681	8321 Explosives LCS	IXX100208-03	.1	mL
MSD	1202035681	8321 LANL Explosives Mix 10mg/L	UXX100210-02.1	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100210-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#3

Date: 03/12/10
Extr. Injection Volume: 10uL
Sequence Number: 031210
Initial Calibration Date: 031210

Method: 8321A-Modified
Int. Std.: UXX100220-02.1
Mobile Phase Lot#:1277087, 1268566
Standard-Samp Reagent Lot#:1274562, 1054171

Reviewed BY: Hmc
Date: 03/24/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100312-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0312001.wiff	XIBLK01	LER	3/12/2010 7:58			1		USE	B
EXP0312002.wiff	XIBLK01	LER	3/12/2010 8:25			1		USE	B
EXP0312003.wiff	WXXICAL-50	LER	3/12/2010 8:51			1		USE	I
EXP0312004.wiff	WXXICAL-51	LER	3/12/2010 9:18			1		USE	I
EXP0312005.wiff	WXXICAL-52	LER	3/12/2010 9:44			1		USE	I
EXP0312006.wiff	WXXICAL-53	LER	3/12/2010 10:10			1		USE	I
EXP0312007.wiff	WXXICAL-54	LER	3/12/2010 10:37			1		USE	I
EXP0312008.wiff	WXXICAL-55	LER	3/12/2010 11:03			1		USE	I
EXP0312009.wiff	XIBLK02	LER	3/12/2010 11:29			1		USE	B
EXP0312010.wiff	WXXICV	LER	3/12/2010 11:56			1		USE	C
EXP0312011.wiff	XIBLK03	LER	3/12/2010 12:22			1		USE	B
EXP0312012.wiff	WXXCRI	LER	3/12/2010 12:49			1		USE	C
EXP0312013.wiff	245725004	LER	3/12/2010 13:15	946710	245725	200	PNTX	USE	S
EXP0312014.wiff	XIBLK04	LER	3/12/2010 13:41			1		USE	B
EXP0312015.wiff	245930002	LER	3/12/2010 14:08	947933	245930	200	PNTX	USE	S
EXP0312016.wiff	XIBLK05	LER	3/12/2010 14:34			1		USE	B
EXP0312017.wiff	245930003	LER	3/12/2010 15:00	947933	245930	200	PNTX	USE	S
EXP0312018.wiff	245930003	LER	3/12/2010 15:27	947933	245930	2		USE	S
EXP0312019.wiff	XIBLK06	LER	3/12/2010 15:53			1		USE	B
EXP0312020.wiff	245930004	LER	3/12/2010 16:20	947933	245930	200	PNTX	USE	S
EXP0312021.wiff	245930004	LER	3/12/2010 16:46	947933	245930	2	PNTX	USE	S
EXP0312022.wiff	WXXCCV	LER	3/12/2010 17:13			1		USE	C
EXP0312023.wiff	XIBLK07	LER	3/12/2010 17:39			1		USE	B
EXP0312024.wiff	WXXCRI	LER	3/12/2010 18:05			1		USE	C
EXP0312025.wiff	1202040477	LER	3/12/2010 18:32	952051	VARIOUS	2	LANL	USE	S
EXP0312026.wiff	1202040478	LER	3/12/2010 18:58	952051	VARIOUS	2	LANL	USE	S
EXP0312027.wiff	246732002	LER	3/12/2010 19:25	952051	10-1742	2	LANL	USE	S
EXP0312028.wiff	246732003	LER	3/12/2010 19:51	952051	10-1742	2	LANL	USE	S
EXP0312029.wiff	246732004	LER	3/12/2010 20:17	952051	10-1742	2	LANL	USE	S

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EXP0312030.wiff	246732005	LER	3/12/2010 20:44	952051	10-1742	2	LANL	USE	S
EXP0312031.wiff	246732006	LER	3/12/2010 21:10	952051	10-1742	2	LANL	USE	S
EXP0312032.wiff	246744002	LER	3/12/2010 21:36	952051	10-1736	2	LANL	USE	S
EXP0312033.wiff	1202040479	LER	3/12/2010 22:03	952051	10-1736	2	LANL	USE	S
EXP0312034.wiff	1202040480	LER	3/12/2010 22:29	952051	10-1736	2	LANL	USE	S
EXP0312035.wiff	WXXCCV	LER	3/12/2010 22:56			1		USE	C
EXP0312036.wiff	XIBLK08	LER	3/12/2010 23:22			1		USE	B
EXP0312037.wiff	WXXCRI	LER	3/12/2010 23:49			1		USE	C
EXP0312038.wiff	246744003	LER	3/13/2010 0:15	952051	10-1736	2	LANL	USE	S
EXP0312039.wiff	246744004	LER	3/13/2010 0:41	952051	10-1736	2	LANL	USE	S
EXP0312040.wiff	246752002	LER	3/13/2010 1:08	952051	10-1745	2	LANL	USE	S
EXP0312041.wiff	246752003	LER	3/13/2010 1:34	952051	10-1745	2	LANL	USE	S
EXP0312042.wiff	246760001	LER	3/13/2010 2:01	952051	10-1739	2	LANL	USE	S
EXP0312043.wiff	246760002	LER	3/13/2010 2:27	952051	10-1739	2	LANL	USE	S
EXP0312044.wiff	246760003	LER	3/13/2010 2:53	952051	10-1739	2	LANL	USE	S
EXP0312045.wiff	246760004	LER	3/13/2010 3:20	952051	10-1739	2	LANL	USE	S
EXP0312046.wiff	246760005	LER	3/13/2010 3:46	952051	10-1739	2	LANL	USE	S
EXP0312047.wiff	246760006	LER	3/13/2010 4:13	952051	10-1739	2	LANL	USE	S
EXP0312048.wiff	WXXCCV	LER	3/13/2010 4:39			1		USE	C
EXP0312049.wiff	XIBLK09	LER	3/13/2010 5:06			1		USE	B
EXP0312050.wiff	WXXCRI	LER	3/13/2010 5:32			1		USE	C
EXP0312051.wiff	246760007	LER	3/13/2010 5:58	952051	10-1739	2	LANL	USE	S
EXP0312052.wiff	246760008	LER	3/13/2010 6:25	952051	10-1739	2	LANL	USE	S
EXP0312053.wiff	246760009	LER	3/13/2010 6:51	952051	10-1739	2	LANL	USE	S
EXP0312054.wiff	246760010	LER	3/13/2010 7:17	952051	10-1739	2	LANL	USE	S
EXP0312055.wiff	XIBLK10	LER	3/13/2010 7:44			1		USE	B
EXP0312056.wiff	1202041915	LER	3/13/2010 8:10	952684	10-1752-1	2	LANL	USE	S
EXP0312057.wiff	1202041916	LER	3/13/2010 8:37	952684	10-1752-1	2	LANL	USE	S
EXP0312058.wiff	246851001	LER	3/13/2010 9:03	952684	10-1752-1	2	LANL	USE	S
EXP0312059.wiff	1202041917	LER	3/13/2010 9:30	952684	10-1752-1	2	LANL	USE	S
EXP0312060.wiff	1202041918	LER	3/13/2010 9:56	952684	10-1752-1	2	LANL	USE	S
EXP0312061.wiff	WXXCCV	LER	3/13/2010 10:22			1		USE	C
EXP0312062.wiff	XIBLK11	LER	3/13/2010 10:49			1		USE	B
EXP0312063.wiff	WXXCRI	LER	3/13/2010 11:15			1		USE	C
EXP0312064.wiff	246851002	LER	3/13/2010 11:42	952684	10-1752-1	2	LANL	USE	S
EXP0312065.wiff	246851003	LER	3/13/2010 12:08	952684	10-1752-1	2	LANL	USE	S
EXP0312066.wiff	246851004	LER	3/13/2010 12:34	952684	10-1752-1	2	LANL	USE	S

EXP0312067.wiff	246851005	LER	3/13/2010 13:01	952684	10-1752-1	2	LANL	USE	S
EXP0312068.wiff	246851006	LER	3/13/2010 13:27	952684	10-1752-1	2	LANL	USE	S
EXP0312069.wiff	246851007	LER	3/13/2010 13:54	952684	10-1752-1	2	LANL	USE	S
EXP0312070.wiff	246851008	LER	3/13/2010 14:20	952684	10-1752-1	2	LANL	USE	S
EXP0312071.wiff	246851009	LER	3/13/2010 14:47	952684	10-1752-1	2	LANL	USE	S
EXP0312072.wiff	246851010	LER	3/13/2010 15:13	952684	10-1752-1	2	LANL	USE	S
EXP0312073.wiff	246851011	LER	3/13/2010 15:39	952684	10-1752-1	2	LANL	USE	S
EXP0312074.wiff	WXXCCV	LER	3/13/2010 16:06			1		USE	C
EXP0312075.wiff	XIBLK12	LER	3/13/2010 16:32			1		USE	B
EXP0312076.wiff	WXXCRI	LER	3/13/2010 16:59			1		USE	C
EXP0312077.wiff	1202035678	LER	3/13/2010 17:25	950081	VARIOUS	2	LANL	USE	S
EXP0312078.wiff	1202035679	LER	3/13/2010 17:52	950081	VARIOUS	2	LANL	USE	S
EXP0312079.wiff	246318001	LER	3/13/2010 18:18	950081	10-1564	2	LANL	USE	S
EXP0312080.wiff	246318002	LER	3/13/2010 18:45	950081	10-1564	2	LANL	USE	S
EXP0312081.wiff	246318003	LER	3/13/2010 19:11	950081	10-1564	2	LANL	USE	S
EXP0312082.wiff	246318004	LER	3/13/2010 19:37	950081	10-1564	2	LANL	USE	S
EXP0312083.wiff	246318005	LER	3/13/2010 20:04	950081	10-1564	2	LANL	USE	S
EXP0312084.wiff	246318006	LER	3/13/2010 20:30	950081	10-1564	2	LANL	USE	S
EXP0312085.wiff	246318007	LER	3/13/2010 20:57	950081	10-1564	2	LANL	USE	S
EXP0312086.wiff	246318008	LER	3/13/2010 21:23	950081	10-1564	2	LANL	USE	S
EXP0312087.wiff	WXXCCV	LER	3/13/2010 21:50			1		USE	C
EXP0312088.wiff	XIBLK13	LER	3/13/2010 22:16			1		USE	B
EXP0312089.wiff	WXXCRI	LER	3/13/2010 22:43			1		USE	C
EXP0312090.wiff	246318009	LER	3/13/2010 23:09	950081	10-1564	2	LANL	USE	S
EXP0312091.wiff	246330002	LER	3/13/2010 23:36	950081	10-1567	2	LANL	USE	S
EXP0312092.wiff	1202035680	LER	3/14/2010 0:02	950081	10-1567	2	LANL	USE	S
EXP0312093.wiff	1202035681	LER	3/14/2010 0:28	950081	10-1567	2	LANL	USE	S
EXP0312094.wiff	246330003	LER	3/14/2010 0:55	950081	10-1567	2	LANL	USE	S
EXP0312095.wiff	246330004	LER	3/14/2010 1:21	950081	10-1567	2	LANL	USE	S
EXP0312096.wiff	246330005	LER	3/14/2010 1:48	950081	10-1567	2	LANL	USE	S
EXP0312097.wiff	246330006	LER	3/14/2010 3:14	950081	10-1567	2	LANL	USE	S
EXP0312098.wiff	246330007	LER	3/14/2010 3:41	950081	10-1567	2	LANL	USE	S
EXP0312099.wiff	WXXCCV	LER	3/14/2010 4:07			1		USE	C
EXP0312100.wiff	XIBLK14	LER	3/14/2010 4:34			1		USE	B
EXP0312101.wiff	WXXCRI	LER	3/14/2010 5:00			1		USE	C
EXP0312102.wiff	246330008	LER	3/14/2010 5:26	950081	10-1567	2	LANL	USE	S
EXP0312103.wiff	246330009	LER	3/14/2010 5:53	950081	10-1567	2	LANL	USE	S

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EXP0312104.wiff	246330010	LER	3/14/2010 6:19	950081	10-1567	2	LANL	USE	S
EXP0312105.wiff	XIBLK15	LER	3/14/2010 6:46			1		USE	B
EXP0312106.wiff	1202041927	LER	3/14/2010 7:12	952690	10-1755	2	LANL	USE	S
EXP0312107.wiff	1202041928	LER	3/14/2010 7:38	952690	10-1755	2	LANL	USE	S
EXP0312108.wiff	246856002	LER	3/14/2010 8:05	952690	10-1755	2	LANL	USE	S
EXP0312109.wiff	1202041929	LER	3/14/2010 8:31	952690	10-1755	2	LANL	USE	S
EXP0312110.wiff	1202041930	LER	3/14/2010 8:57	952690	10-1755	2	LANL	USE	S
EXP0312111.wiff	WXXCCV	LER	3/14/2010 9:24			1		USE	C
EXP0312112.wiff	XIBLK16	LER	3/14/2010 9:50			1		USE	B
EXP0312113.wiff	WXXCRI	LER	3/14/2010 10:16			1		USE	C
EXP0312114.wiff	246856003	LER	3/14/2010 10:43	952690	10-1755	2	LANL	USE	S
EXP0312115.wiff	246856004	LER	3/14/2010 11:09	952690	10-1755	2	LANL	USE	S
EXP0312116.wiff	246856005	LER	3/14/2010 11:36	952690	10-1755	2	LANL	USE	S
EXP0312117.wiff	246856006	LER	3/14/2010 12:02	952690	10-1755	2	LANL	USE	S
EXP0312118.wiff	246856007	LER	3/14/2010 12:28	952690	10-1755	2	LANL	USE	S
EXP0312119.wiff	246856008	LER	3/14/2010 12:55	952690	10-1755	2	LANL	USE	S
EXP0312120.wiff	246856009	LER	3/14/2010 13:21	952690	10-1755	2	LANL	USE	S
EXP0312121.wiff	246856010	LER	3/14/2010 13:48	952690	10-1755	2	LANL	USE	S
EXP0312122.wiff	WXXCCV	LER	3/14/2010 14:14			1		USE	C
EXP0312123.wiff	XIBLK17	LER	3/14/2010 14:40			1		USE	B
EXP0312124.wiff	WXXCRI	LER	3/14/2010 15:07			1		USE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 03/01/10 Method: 8321A-Modified Reviewed By: [illegible]
Extr. Injection Volume: 10uL Int. Std.: N/A Date: 03/04/10
Sequence Number: 030110exs Mobile Phase Lot#:1268566, 1268568 SOP: GL-OA-E-056 Rev.12
Initial Calibration Date: 030110 Standard-Samp Reagent Lot# :1274562, 1261217 Alt Check Std. ID: WXX100301-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03010001.wiff	XIBLK01	LER	3/1/2010 9:03			1		USE	B
EXS03010002.wiff	XIBLK01	LER	3/1/2010 9:19			1		USE	B
EXS03010003.wiff	WXXICAL-19	LER	3/1/2010 9:34			1		USE	I
EXS03010004.wiff	WXXICAL-20	LER	3/1/2010 9:50			1		USE	I
EXS03010005.wiff	WXXICAL-21	LER	3/1/2010 10:06			1		USE	I
EXS03010006.wiff	WXXICAL-22	LER	3/1/2010 10:21			1		USE	I
EXS03010007.wiff	WXXICAL-23	LER	3/1/2010 10:37			1		USE	I
EXS03010008.wiff	WXXICAL-24	LER	3/1/2010 10:53			1		USE	I
EXS03010009.wiff	WXXICAL-25	LER	3/1/2010 11:09			1		USE	I
EXS03010010.wiff	XIBLK02	LER	3/1/2010 11:24			1		USE	B
EXS03010011.wiff	WXXICV	LER	3/1/2010 11:40			1		USE	C
EXS03010012.wiff	XIBLK03	LER	3/1/2010 11:56			1		USE	B
EXS03010013.wiff	WXXCRI	LER	3/1/2010 12:11			1		USE	C
EXS03010014.wiff	246744003	LER	3/1/2010 12:27	952051	10-1736	2	LANL	USE	S
EXS03010015.wiff	246744004	LER	3/1/2010 12:43	952051	10-1736	2	LANL	USE	S
EXS03010016.wiff	246752002	LER	3/1/2010 12:59	952051	10-1745	2	LANL	USE	S
EXS03010017.wiff	246752003	LER	3/1/2010 13:14	952051	10-1745	2	LANL	USE	S
EXS03010018.wiff	246760001	LER	3/1/2010 13:30	952051	10-1739	2	LANL	USE	S
EXS03010019.wiff	246760002	LER	3/1/2010 13:46	952051	10-1739	2	LANL	USE	S
EXS03010020.wiff	246760003	LER	3/1/2010 14:01	952051	10-1739	2	LANL	USE	S
EXS03010021.wiff	246760004	LER	3/1/2010 14:17	952051	10-1739	2	LANL	USE	S
EXS03010022.wiff	246760005	LER	3/1/2010 14:33	952051	10-1739	2	LANL	USE	S
EXS03010023.wiff	246760006	LER	3/1/2010 14:49	952051	10-1739	2	LANL	USE	S
EXS03010024.wiff	WXXCCV	LER	3/1/2010 15:04			1		USE	C
EXS03010025.wiff	XIBLK04	LER	3/1/2010 15:20			1		USE	B
EXS03010026.wiff	WXXCRI	LER	3/1/2010 15:36			1		USE	C
EXS03010027.wiff	246760007	LER	3/1/2010 15:52	952051	10-1739	2	LANL	USE	S
EXS03010028.wiff	246760008	LER	3/1/2010 16:07	952051	10-1739	2	LANL	USE	S
EXS03010029.wiff	246760009	LER	3/1/2010 16:23	952051	10-1739	2	LANL	USE	S
EXS03010030.wiff	246760010	LER	3/1/2010 16:39	952051	10-1739	2	LANL	USE	S

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EXS03010031.wiff	XIBLK05	LER	3/1/2010 16:55			1		USE	B
EXS03010032.wiff	1202040457	LER	3/1/2010 17:10	952043	VARIOUS	2	LANL	USE	S
EXS03010033.wiff	1202040458	LER	3/1/2010 17:26	952043	VARIOUS	2	LANL	USE	S
EXS03010034.wiff	246677001	LER	3/1/2010 17:42	952043	10-1703	2	LANL	USE	S
EXS03010035.wiff	1202040459	LER	3/1/2010 17:58	952043	10-1703	2	LANL	USE	S
EXS03010036.wiff	1202040460	LER	3/1/2010 18:13	952043	10-1703	2	LANL	USE	S
EXS03010037.wiff	WXXCCV	LER	3/1/2010 18:29			1		USE	C
EXS03010038.wiff	XIBLK06	LER	3/1/2010 18:45			1		USE	B
EXS03010039.wiff	WXXCRI	LER	3/1/2010 19:01			1		USE	C
EXS03010040.wiff	1202041915	LER	3/1/2010 19:16	952684	10-1752-1	2	LANL	USE	S
EXS03010041.wiff	1202041916	LER	3/1/2010 19:32	952684	10-1752-1	2	LANL	USE	S
EXS03010042.wiff	246851001	LER	3/1/2010 19:48	952684	10-1752-1	2	LANL	USE	S
EXS03010043.wiff	1202041917	LER	3/1/2010 20:04	952684	10-1752-1	2	LANL	USE	S
EXS03010044.wiff	1202041918	LER	3/1/2010 20:19	952684	10-1752-1	2	LANL	USE	S
EXS03010045.wiff	246851002	LER	3/1/2010 20:35	952684	10-1752-1	2	LANL	USE	S
EXS03010046.wiff	246851003	LER	3/1/2010 20:51	952684	10-1752-1	2	LANL	USE	S
EXS03010047.wiff	246851004	LER	3/1/2010 21:07	952684	10-1752-1	2	LANL	USE	S
EXS03010048.wiff	246851005	LER	3/1/2010 21:22	952684	10-1752-1	2	LANL	USE	S
EXS03010049.wiff	246851006	LER	3/1/2010 21:38	952684	10-1752-1	2	LANL	USE	S
EXS03010050.wiff	WXXCCV	LER	3/1/2010 21:54			1		USE	C
EXS03010051.wiff	XIBLK07	LER	3/1/2010 22:10			1		USE	B
EXS03010052.wiff	WXXCRI	LER	3/1/2010 22:25			1		USE	C
EXS03010053.wiff	246851007	LER	3/1/2010 22:41	952684	10-1752-1	2	LANL	USE	S
EXS03010054.wiff	246851008	LER	3/1/2010 22:57	952684	10-1752-1	2	LANL	USE	S
EXS03010055.wiff	246851009	LER	3/1/2010 23:12	952684	10-1752-1	2	LANL	USE	S
EXS03010056.wiff	246851010	LER	3/1/2010 23:28	952684	10-1752-1	2	LANL	USE	S
EXS03010057.wiff	246851011	LER	3/1/2010 23:44	952684	10-1752-1	2	LANL	USE	S
EXS03010058.wiff	1202041927	LER	3/2/2010 0:00	952690	10-1755	2	LANL	USE	S
EXS03010059.wiff	1202041928	LER	3/2/2010 0:15	952690	10-1755	2	LANL	USE	S
EXS03010060.wiff	246856002	LER	3/2/2010 0:31	952690	10-1755	2	LANL	USE	S
EXS03010061.wiff	1202041929	LER	3/2/2010 0:47	952690	10-1755	2	LANL	USE	S
EXS03010062.wiff	1202041930	LER	3/2/2010 1:02	952690	10-1755	2	LANL	USE	S
EXS03010063.wiff	WXXCCV	LER	3/2/2010 1:18			1		USE	C
EXS03010064.wiff	XIBLK08	LER	3/2/2010 1:34			1		USE	B
EXS03010065.wiff	WXXCRI	LER	3/2/2010 1:50			1		USE	C
EXS03010066.wiff	246856003	LER	3/2/2010 2:05	952690	10-1755	2	LANL	USE	S
EXS03010067.wiff	246856004	LER	3/2/2010 2:21	952690	10-1755	2	LANL	USE	S

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EXS03010068.wiff	246856005	LER	3/2/2010 2:37	952690	10-1755	2	LANL	USE	S
EXS03010069.wiff	246856006	LER	3/2/2010 2:53	952690	10-1755	2	LANL	USE	S
EXS03010070.wiff	246856007	LER	3/2/2010 3:09	952690	10-1755	2	LANL	USE	S
EXS03010071.wiff	246856008	LER	3/2/2010 3:24	952690	10-1755	2	LANL	USE	S
EXS03010072.wiff	246856009	LER	3/2/2010 3:40	952690	10-1755	2	LANL	USE	S
EXS03010073.wiff	246856010	LER	3/2/2010 3:56	952690	10-1755	2	LANL	USE	S
EXS03010074.wiff	WXXCCV	LER	3/2/2010 4:11			1		USE	C
EXS03010075.wiff	XIBLK09	LER	3/2/2010 4:27			1		USE	B
EXS03010076.wiff	WXXCRI	LER	3/2/2010 4:43			1		USE	C
EXS03010077.wiff	1202035678	LER	3/2/2010 4:59	950081	VARIOUS	2	LANL	USE	S
EXS03010078.wiff	1202035679	LER	3/2/2010 5:15	950081	VARIOUS	2	LANL	USE	S
EXS03010079.wiff	246318001	LER	3/2/2010 5:30	950081	10-1564	2	LANL	USE	S
EXS03010080.wiff	246318002	LER	3/2/2010 5:46	950081	10-1564	2	LANL	DUSE-RA	S
EXS03010081.wiff	246318003	LER	3/2/2010 6:02	950081	10-1564	2	LANL	USE	S
EXS03010082.wiff	246318004	LER	3/2/2010 6:17	950081	10-1564	2	LANL	DUSE-RA	S
EXS03010083.wiff	246318005	LER	3/2/2010 6:33	950081	10-1564	2	LANL	USE	S
EXS03010084.wiff	246318006	LER	3/2/2010 6:49	950081	10-1564	2	LANL	DUSE-RA	S
EXS03010085.wiff	246318007	LER	3/2/2010 7:05	950081	10-1564	2	LANL	USE	S
EXS03010086.wiff	246318008	LER	3/2/2010 7:20	950081	10-1564	2	LANL	USE	S
EXS03010087.wiff	WXXCCV	LER	3/2/2010 7:36			1		USE	C
EXS03010088.wiff	XIBLK10	LER	3/2/2010 7:52			1		USE	B
EXS03010089.wiff	WXXCRI	LER	3/2/2010 8:08			1		USE	C
EXS03010090.wiff	246318009	LER	3/2/2010 8:23	950081	10-1564	2	LANL	USE	S
EXS03010091.wiff	246330002	LER	3/2/2010 8:39	950081	10-1567	2	LANL	USE	S
EXS03010092.wiff	1202035680	LER	3/2/2010 8:55	950081	10-1567	2	LANL	USE	S
EXS03010093.wiff	1202035681	LER	3/2/2010 9:11	950081	10-1567	2	LANL	USE	S
EXS03010094.wiff	246330003	LER	3/2/2010 9:26	950081	10-1567	2	LANL	USE	S
EXS03010095.wiff	246330004	LER	3/2/2010 9:42	950081	10-1567	2	LANL	USE	S
EXS03010096.wiff	246330005	LER	3/2/2010 9:58	950081	10-1567	2	LANL	USE	S
EXS03010097.wiff	246330006	LER	3/2/2010 10:14	950081	10-1567	2	LANL	USE	S
EXS03010098.wiff	246330007	LER	3/2/2010 10:29	950081	10-1567	2	LANL	USE	S
EXS03010099.wiff	246330008	LER	3/2/2010 10:45	950081	10-1567	2	LANL	USE	S
EXS03010100.wiff	WXXCCV	LER	3/2/2010 11:01			1		USE	C
EXS03010101.wiff	XIBLK11	LER	3/2/2010 11:17			1		USE	B
EXS03010102.wiff	WXXCRI	LER	3/2/2010 11:32			1		USE	C
EXS03010103.wiff	246330009	LER	3/2/2010 11:48	950081	10-1567	2	LANL	USE	S
EXS03010104.wiff	246330010	LER	3/2/2010 12:04	950081	10-1567	2	LANL	USE	S

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EXS03010105.wiff	XIBLK12	LER	3/2/2010 12:20			1		USE	B
EXS03010106.wiff	1202049788	LER	3/2/2010 12:36	956029	VARIOUS	2	LANL	USE	S
EXS03010107.wiff	1202049789	LER	3/2/2010 12:51	956029	VARIOUS	2	LANL	USE	S
EXS03010108.wiff	247429004	LER	3/2/2010 13:07	956029	10-1926	2	LANL	USE	S
EXS03010109.wiff	1202049790	LER	3/2/2010 13:23	956029	10-1926	2	LANL	USE	S
EXS03010110.wiff	1202049791	LER	3/2/2010 13:39	956029	10-1926	2	LANL	USE	S
EXS03010111.wiff	WXXCCV	LER	3/2/2010 13:54			1		USE	C
EXS03010112.wiff	XIBLK13	LER	3/2/2010 14:10			1		USE	B
EXS03010113.wiff	WXXCRI	LER	3/2/2010 14:26			1		USE	C
EXS03010114.wiff	247432006	LER	3/2/2010 14:42	956029	10-1928	2	LANL	USE	S
EXS03010115.wiff	1202049868	LER	3/2/2010 14:57	956029	10-1928	2	LANL	USE	S
EXS03010116.wiff	1202049869	LER	3/2/2010 15:13	956029	10-1928	2	LANL	USE	S
EXS03010117.wiff	247437006	LER	3/2/2010 15:29	956029	10-1931	2	LANL	USE	S
EXS03010118.wiff	246318002	LER	3/2/2010 15:45	950081	10-1564	2	LANL	USE	S
EXS03010119.wiff	246318004	LER	3/2/2010 16:01	950081	10-1564	2	LANL	USE	S
EXS03010120.wiff	246318006	LER	3/2/2010 16:16	950081	10-1564	2	LANL	USE	S
EXS03010121.wiff	246318001	LER	3/2/2010 16:32	950081	10-1564	10	LANL	USE	S
EXS03010122.wiff	246318003	LER	3/2/2010 16:48	950081	10-1564	10	LANL	USE	S
EXS03010123.wiff	246318005	LER	3/2/2010 17:03	950081	10-1564	10	LANL	USE	S
EXS03010124.wiff	WXXCCV	LER	3/2/2010 17:19			1		USE	C
EXS03010125.wiff	XIBLK14	LER	3/2/2010 17:35			1		USE	B
EXS03010126.wiff	WXXCRI	LER	3/2/2010 17:51			1		USE	C
EXS03010127.wiff	1202035690	LER	3/2/2010 18:07	950087	VARIOUS	2	LANL	USE	S
EXS03010128.wiff	1202035691	LER	3/2/2010 18:22	950087	VARIOUS	2	LANL	USE	S
EXS03010129.wiff	246434002	LER	3/2/2010 18:38	950087	10-1620	2	LANL	USE	S
EXS03010130.wiff	1202035692	LER	3/2/2010 18:54	950087	10-1620	2	LANL	USE	S
EXS03010131.wiff	1202035693	LER	3/2/2010 19:10	950087	10-1620	2	LANL	USE	S
EXS03010132.wiff	246434003	LER	3/2/2010 19:25	950087	10-1620	2	LANL	USE	S
EXS03010133.wiff	246434004	LER	3/2/2010 19:41	950087	10-1620	2	LANL	USE	S
EXS03010134.wiff	246434005	LER	3/2/2010 19:57	950087	10-1620	2	LANL	USE	S
EXS03010135.wiff	246434006	LER	3/2/2010 20:12	950087	10-1620	2	LANL	USE	S
EXS03010136.wiff	246434007	LER	3/2/2010 20:28	950087	10-1620	2	LANL	USE	S
EXS03010137.wiff	WXXCCV	LER	3/2/2010 20:44			1		USE	C
EXS03010138.wiff	XIBLK15	LER	3/2/2010 21:00			1		USE	B
EXS03010139.wiff	WXXCRI	LER	3/2/2010 21:15			1		USE	C
EXS03010140.wiff	246434008	LER	3/2/2010 21:31	950087	10-1620	2	LANL	USE	S
EXS03010141.wiff	246434009	LER	3/2/2010 21:47	950087	10-1620	2	LANL	USE	S

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EXS03010142.wiff	246434010	LER	3/2/2010 22:03	950087	10-1620	2	LANL	USE	S
EXS03010143.wiff	246434011	LER	3/2/2010 22:18	950087	10-1620	2	LANL	USE	S
EXS03010144.wiff	246434012	LER	3/2/2010 22:34	950087	10-1620	2	LANL	USE	S
EXS03010145.wiff	246434013	LER	3/2/2010 22:50	950087	10-1620	2	LANL	USE	S
EXS03010146.wiff	246434014	LER	3/2/2010 23:06	950087	10-1620	2	LANL	USE	S
EXS03010147.wiff	246434015	LER	3/2/2010 23:21	950087	10-1620	2	LANL	USE	S
EXS03010148.wiff	246442002	LER	3/2/2010 23:37	950087	10-1623	2	LANL	USE	S
EXS03010149.wiff	246442003	LER	3/2/2010 23:53	950087	10-1623	2	LANL	USE	S
EXS03010150.wiff	WXXCCV	LER	3/3/2010 0:09			1		USE	C
EXS03010151.wiff	XIBLK16	LER	3/3/2010 0:24			1		USE	B
EXS03010152.wiff	WXXCRI	LER	3/3/2010 0:40			1		USE	C
EXS03010153.wiff	246442004	LER	3/3/2010 0:56	950087	10-1623	2	LANL	DUSE-RA	S
EXS03010154.wiff	246442005	LER	3/3/2010 1:12	950087	10-1623	2	LANL	DUSE-RA	S
EXS03010155.wiff	246442006	LER	3/3/2010 1:27	950087	10-1623	2	LANL	DUSE-RA	S
EXS03010156.wiff	XIBLK17	LER	3/3/2010 1:43			1		DUSE-RA	B
EXS03010157.wiff	1202035603	LER	3/3/2010 1:59	950039	VARIOUS	2	LANL	DUSE-RA	S
EXS03010158.wiff	1202035604	LER	3/3/2010 2:15	950039	VARIOUS	2	LANL	DUSE-RA	S
EXS03010159.wiff	246289008	LER	3/3/2010 2:31	950039	10-1590	2	LANL	DUSE-RA	S
EXS03010160.wiff	1202035607	LER	3/3/2010 2:46	950039	10-1590	2	LANL	DUSE-RA	S
EXS03010161.wiff	1202035608	LER	3/3/2010 3:02	950039	10-1590	2	LANL	DUSE-RA	S
EXS03010162.wiff	246301006	LER	3/3/2010 3:18	950039	10-1596	2	LANL	DUSE-RA	S
EXS03010163.wiff	WXXCCV	LER	3/3/2010 3:34			1		DUSE-RA	C
EXS03010164.wiff	XIBLK18	LER	3/3/2010 3:49			1		DUSE-RA	B
EXS03010165.wiff	WXXCRI	LER	3/3/2010 4:05			1		DUSE-RA	C
EXS03010166.wiff	246301011	LER	3/3/2010 4:21	950039	10-1596	2	LANL	DUSE-RA	S
EXS03010167.wiff	246345006	LER	3/3/2010 4:37	950039	10-1614	2	LANL	DUSE-RA	S
EXS03010168.wiff	246473005	LER	3/3/2010 4:52	950039	10-1643	2	LANL	DUSE-RA	S
EXS03010169.wiff	246475004	LER	3/3/2010 5:08	950039	10-1645	2	LANL	DUSE-RA	S
EXS03010170.wiff	246479004	LER	3/3/2010 5:24	950039	10-1654	2	LANL	DUSE-RA	S
EXS03010171.wiff	1202035605	LER	3/3/2010 5:40	950039	10-1654	2	LANL	DUSE-RA	S
EXS03010172.wiff	1202035606	LER	3/3/2010 5:55	950039	10-1654	2	LANL	DUSE-RA	S
EXS03010173.wiff	WXXCCV	LER	3/3/2010 6:11			1		DUSE-RA	C
EXS03010174.wiff	XIBLK19	LER	3/3/2010 6:27			1		DUSE-RA	B
EXS03010175.wiff	WXXCRI	LER	3/3/2010 6:43			1		DUSE-RA	C

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312092.wiff	Acquisition Date	3/14/2010 12:02:29 AM
Sample Name	1202035680	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

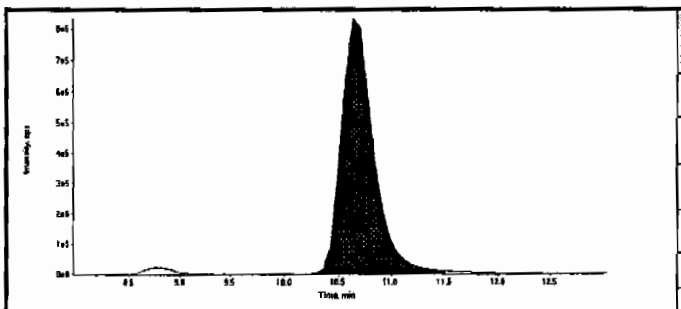

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	18200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

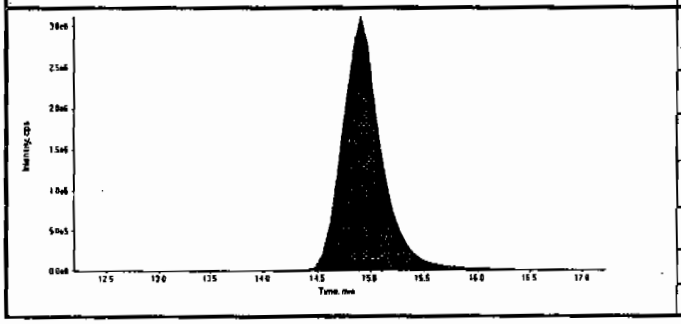

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	81300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

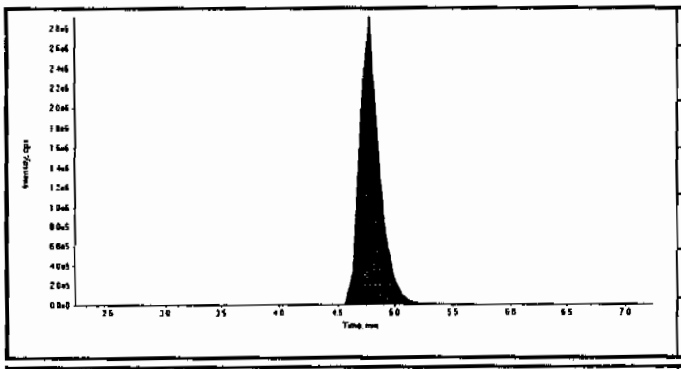

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	3.60e+007
Manual Modification	No
Amount:	432. (ng/mL)
% Accuracy:	N/A

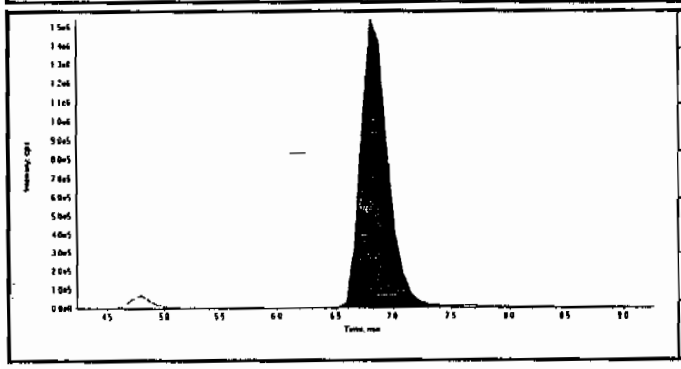

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	2.60e+007
Manual Modification	No
Amount:	453. (ng/mL)
% Accuracy:	N/A

3/24/10 03/24/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312092.wiff	**Acquisition Date**	3/14/2010 12:02:29 AM
Sample Name	1202035680	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

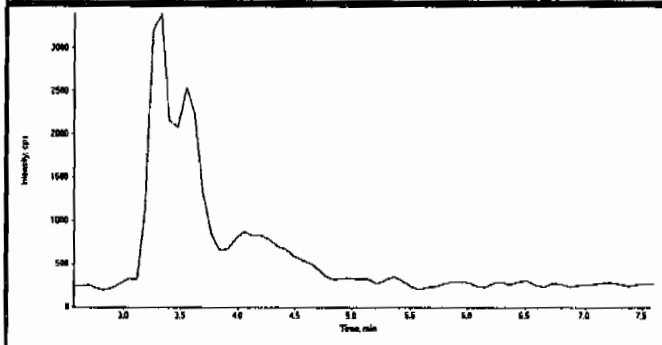

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

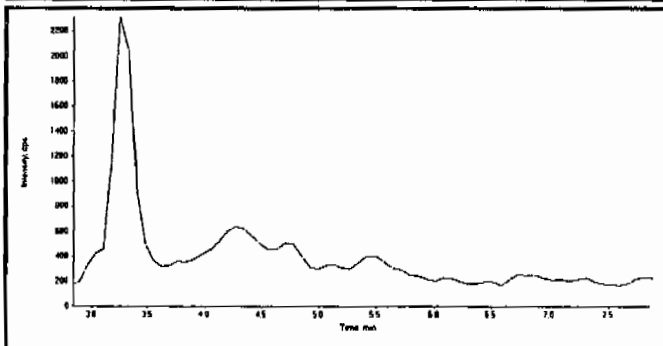

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

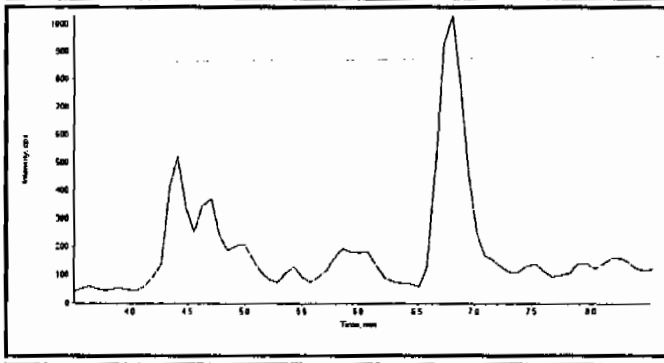

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

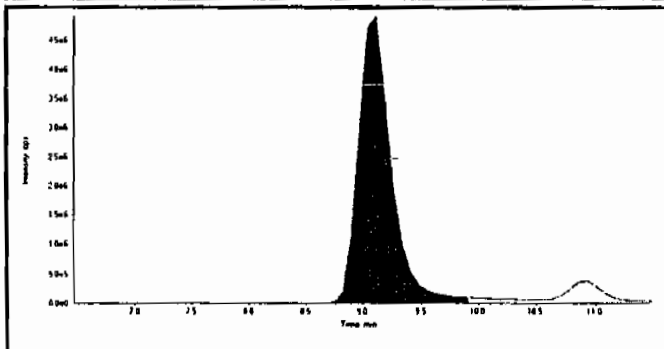

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.12
Area Counts:	9.68e+007
Manual Modification	No
Amount:	435. (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

Data File	EXP0312092.wiff	Acquisition Date	3/14/2010 12:02:29 AM
Sample Name	1202035680	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

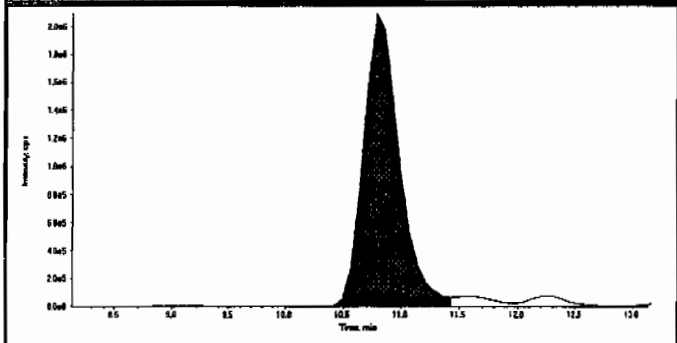

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	4.57e+007
Manual Modification	No
Amount:	468. (ng/mL)
% Accuracy:	N/A

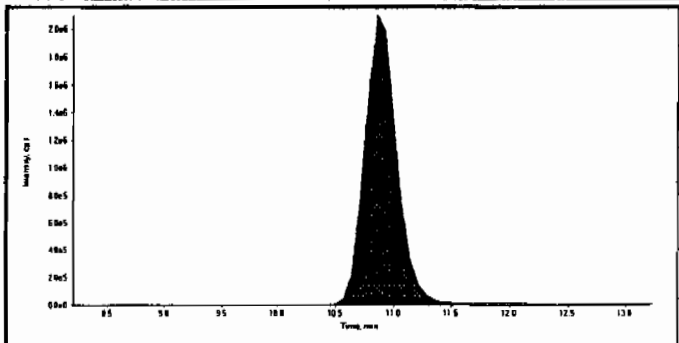

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	4.06e+007
Manual Modification	No
Amount:	322. (ng/mL)
% Accuracy:	N/A

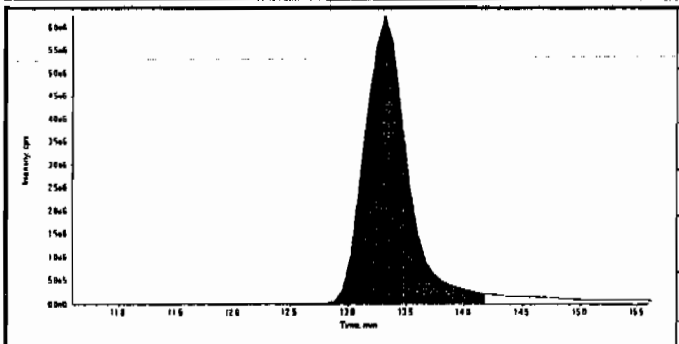

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	1.61e+008
Manual Modification	No
Amount:	423. (ng/mL)
% Accuracy:	N/A

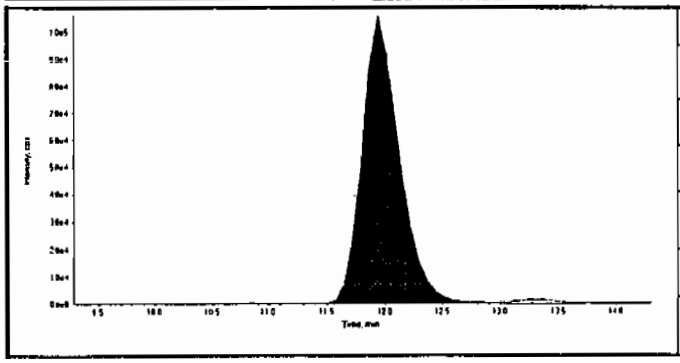

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.36e+006
Manual Modification	No
Amount:	426. (ng/mL)
% Accuracy:	N/A

Before Lar 3/24/10

Sample Name "1202035660" Sample ID "650081[2]LER" File "EXP0312092.wiff"
Peak Name "24-androstanone" Mass(es) "192.0/48.0 amu"
Comment "LCX5321_5" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/14/2010
Acq. Time: 12:02:23 AM
Modified: No

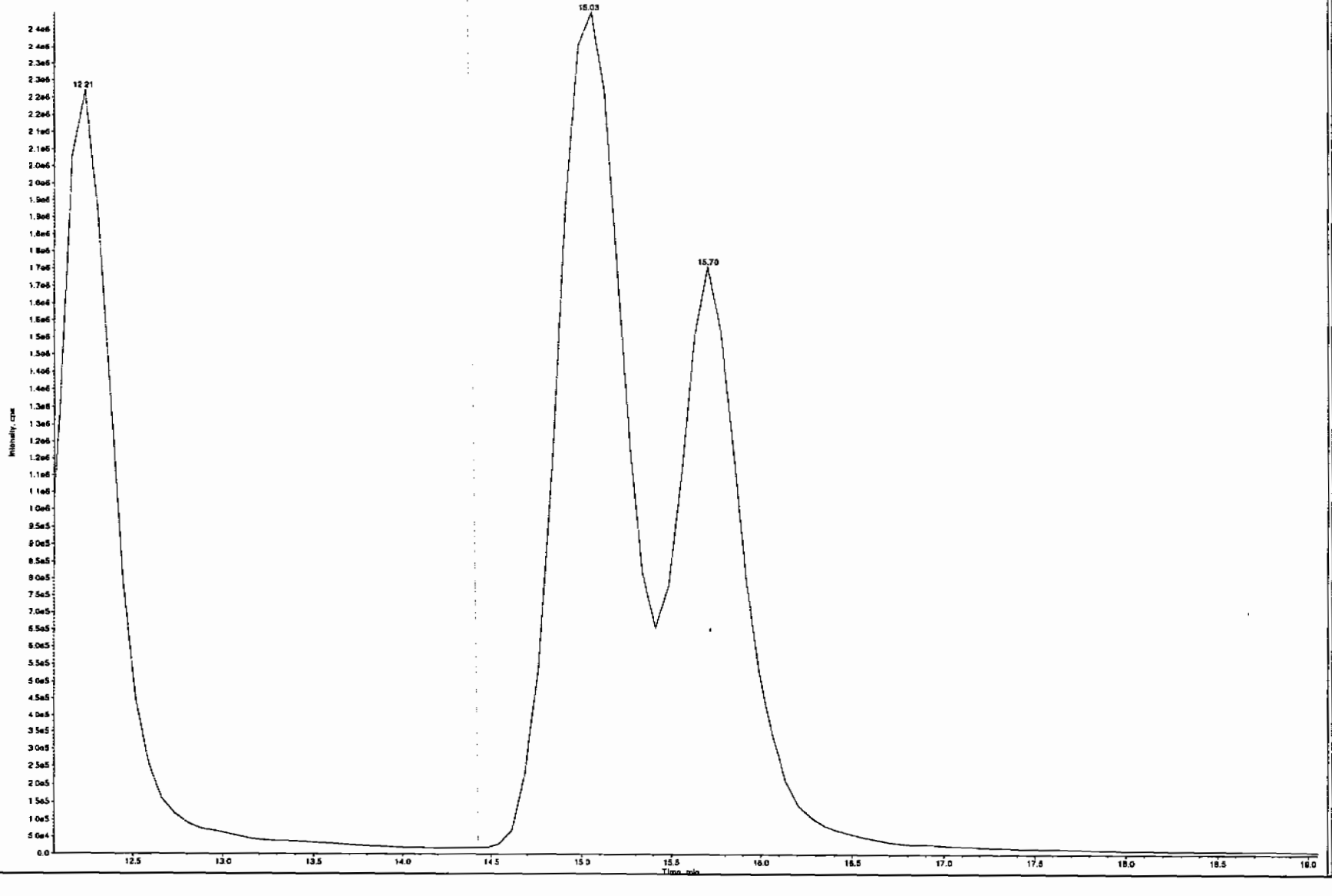

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312092.wiff	Acquisition Date	3/14/2010 12:02:29 AM
Sample Name	1202035680	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

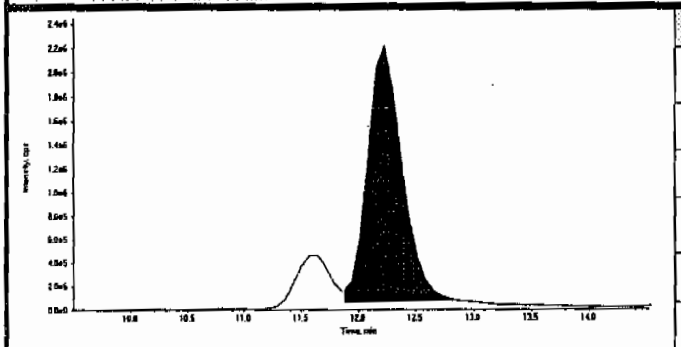

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.66e+007
Manual Modification	No
Amount:	232. (ng/mL)
% Accuracy:	N/A

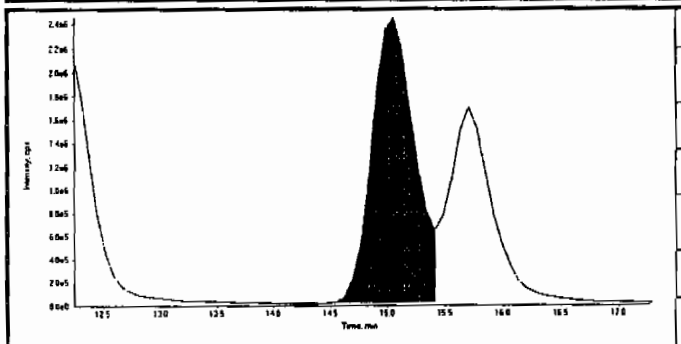

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	6.50e+007
Manual Modification	No
Amount:	488. (ng/mL)
% Accuracy:	N/A

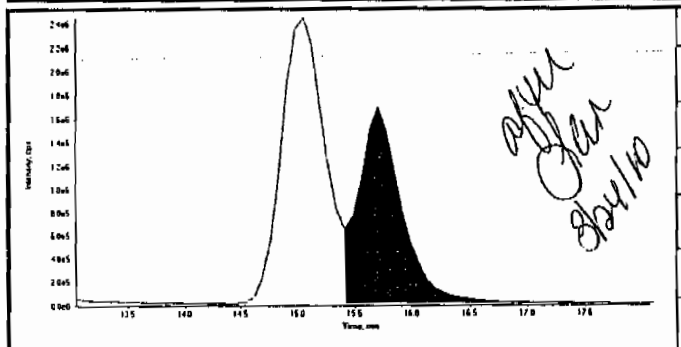

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	4.49e+007
Manual Modification	Yes
Amount:	469. (ng/mL)
% Accuracy:	N/A

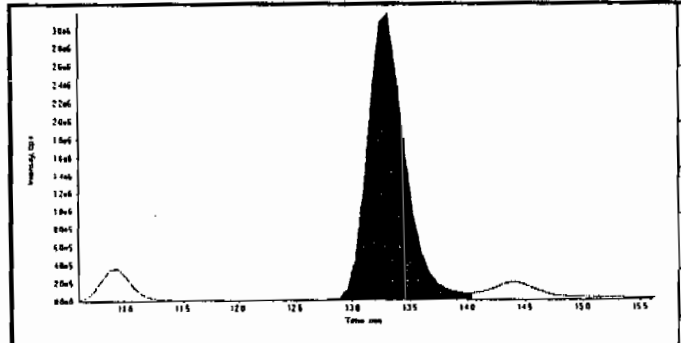

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	7.35e+007
Manual Modification	No
Amount:	485. (ng/mL)
% Accuracy:	N/A

Before Ozon 3/24/10

Sample Name "1202035580" Sample ID "960081[illegible]" File: "EXP0312092.wif"
Peak Name "2-Amino-4,6-dinitrotoluene" Mass(es) "187.0/180.0 amu"
Comment "LCX8321_S" Annotation. ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 435. ng/mL
Acq. Date: 1/14/2010
Acq. Time: 12:02:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Est. Peak Height: 4930.00 cps
Est. Peak Width: 0.03 sec
Smoothing Width: 3 points
RT Window: 60.9 sec
Expected RT: 14.0 min
Use Relative RT: No

Det. Type: Valley
Retention Time: 14.1 min
Area: 1.12e+006 counts
Height: 1.01e+005 cps
Start Time: 14.0 min
End Time: 15.1 min

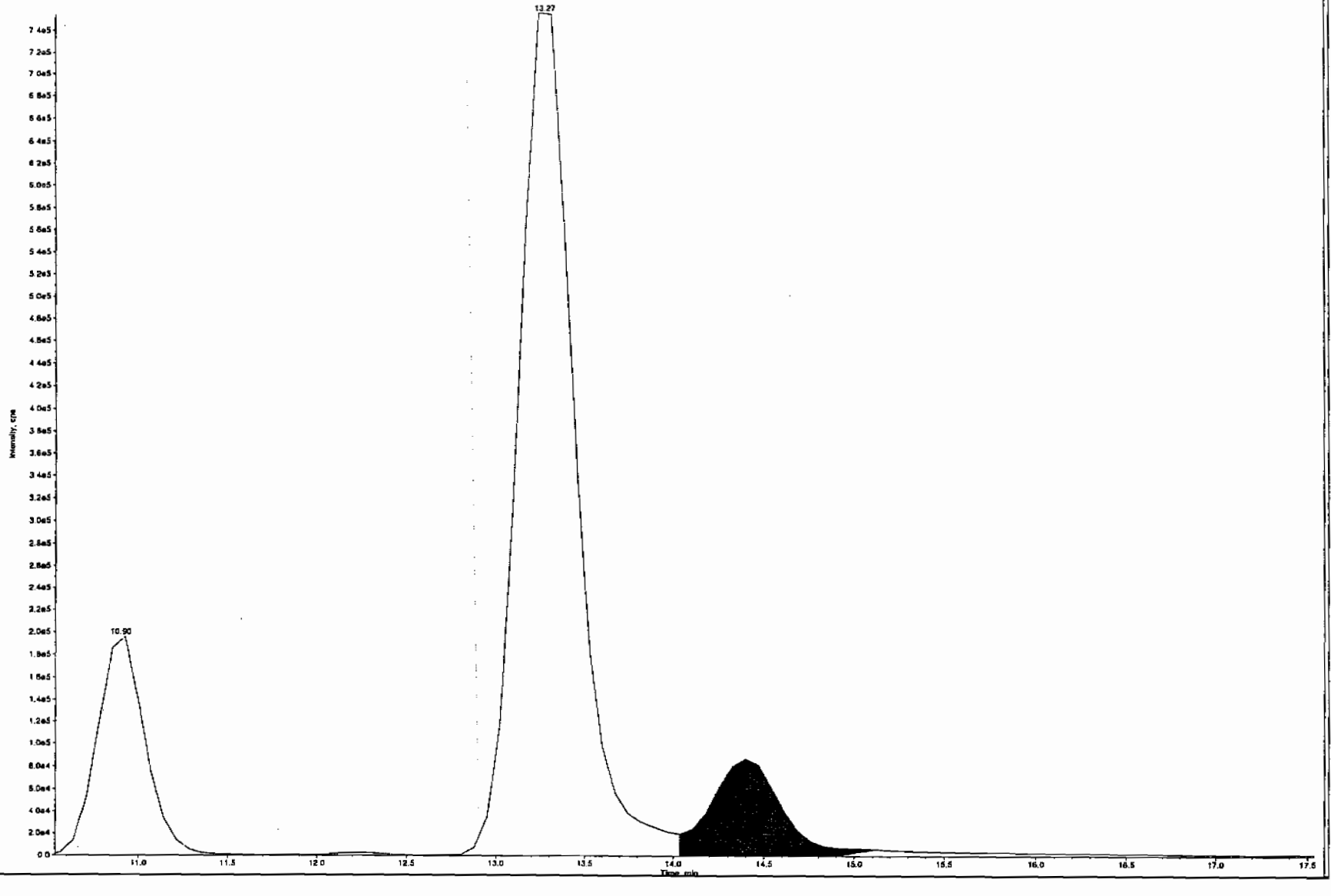

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312092.wiff	**Acquisition Date**	3/14/2010 12:02:29 AM
Sample Name	1202035680	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

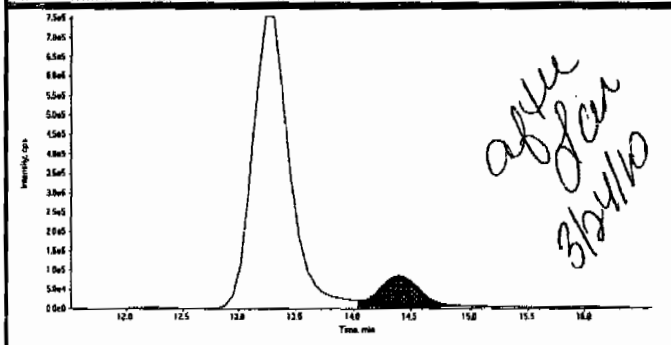

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.4
Area Counts:	2.29e+006
Manual Modification	Yes
Amount:	466. (ng/mL)
% Accuracy:	N/A

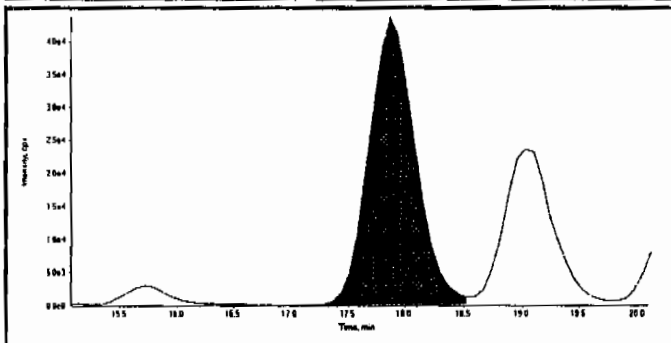

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.9
Area Counts:	1.24e+006
Manual Modification	No
Amount:	450. (ng/mL)
% Accuracy:	N/A

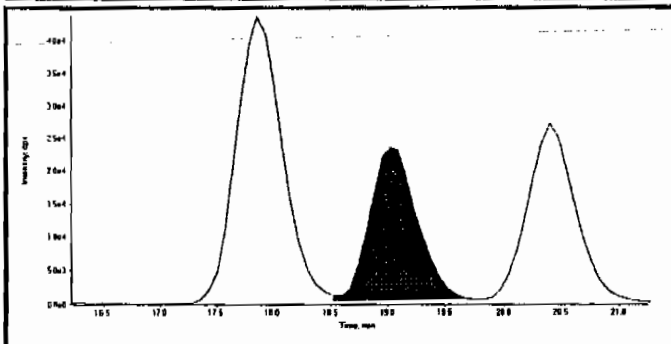

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	6.71e+005
Manual Modification	No
Amount:	443. (ng/mL)
% Accuracy:	N/A

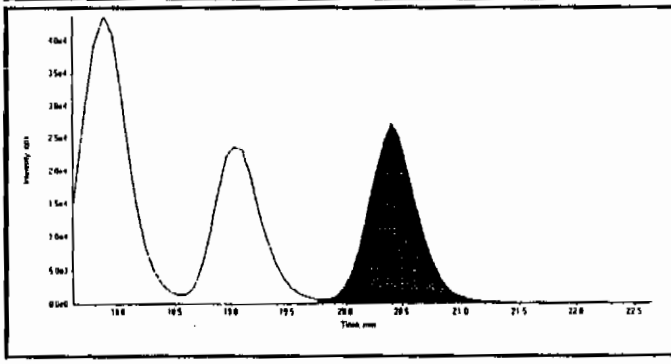

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.4
Area Counts:	8.01e+005
Manual Modification	No
Amount:	475. (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312092.wiff	**Acquisition Date**	3/14/2010 12:02:29 AM
Sample Name	1202035680	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

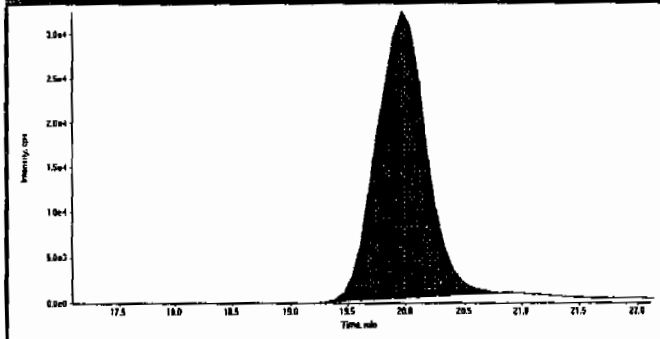

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	20.0
Area Counts:	9.52e+005
Manual Modification	No
Amount:	515. (ng/mL)
% Accuracy:	N/A

fcr 3/3/10

Sample Name: "1202035680" Sample ID: "950081[2]LER" File: "EXS03010092.wiff"
Peak Name: "7ATB" Mass(as): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 541. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:55:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.98 min
Area: 6.48e+005 counts
Height: 158675.049 cps
Start Time: 6.87 min
End Time: 7.48 min

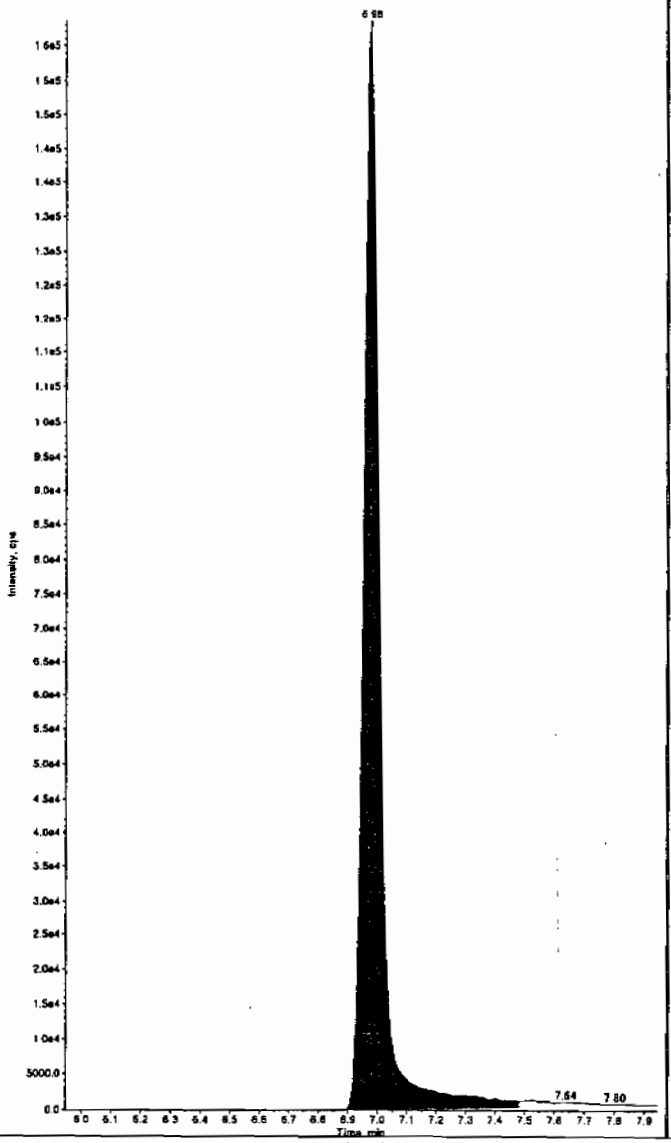

Sample Name: "1202035680" Sample ID: "950081[2]LER" File: "EXS03010092.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 482. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:55:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 3.79e+006 counts
Height: 1034322.266 cps
Start Time: 8.14 min
End Time: 8.31 min

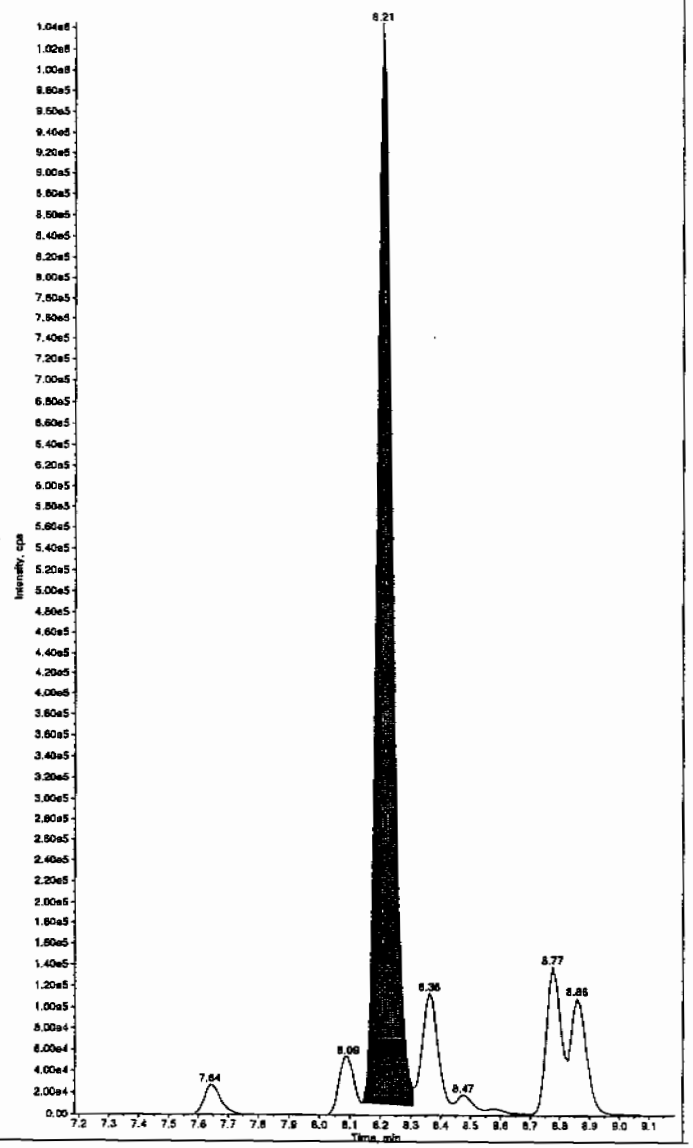

HMC 03/04/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202035680" Sample ID: "950081|2|LER" File: "EXS03010092.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 243. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:55:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.35 min
Area: 2.96e+006 counts
Height: 833384.216 cps
Start Time: 8.28 min
End Time: 8.55 min

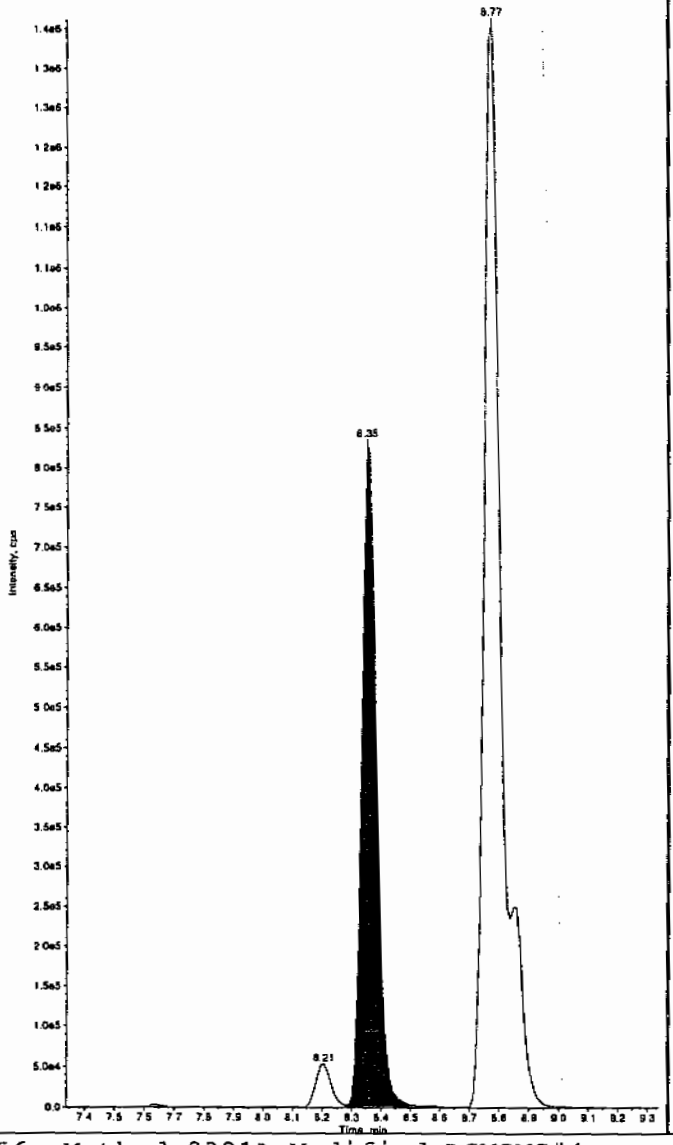

Sample Name: "1202035680" Sample ID: "950081|2|LER" File: "EXS03010092.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 514. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:55:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 9.58e+005 counts
Height: 229306.152 cps
Start Time: 4.91 min
End Time: 5.30 min

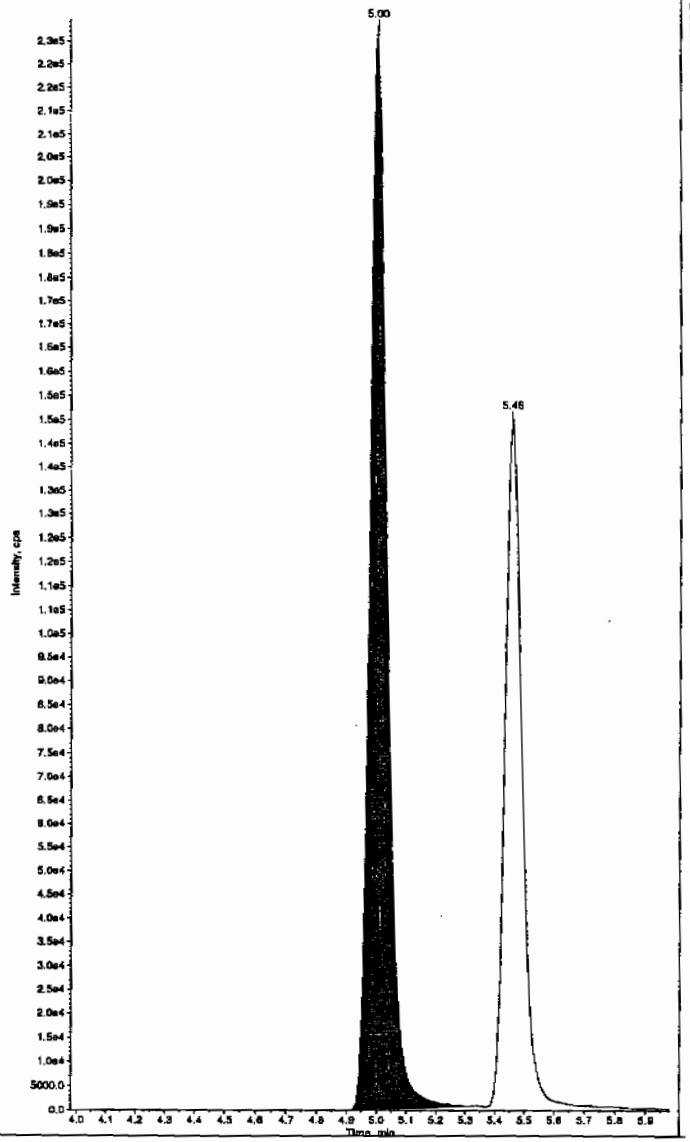

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202035680" Sample ID: "950081|2|LER" File: "EXS03010092.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 448. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:55:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.46 min
Area: 5.95e+005 counts
Height: 146724.915 cps
Start Time: 5.37 min
End Time: 5.98 min

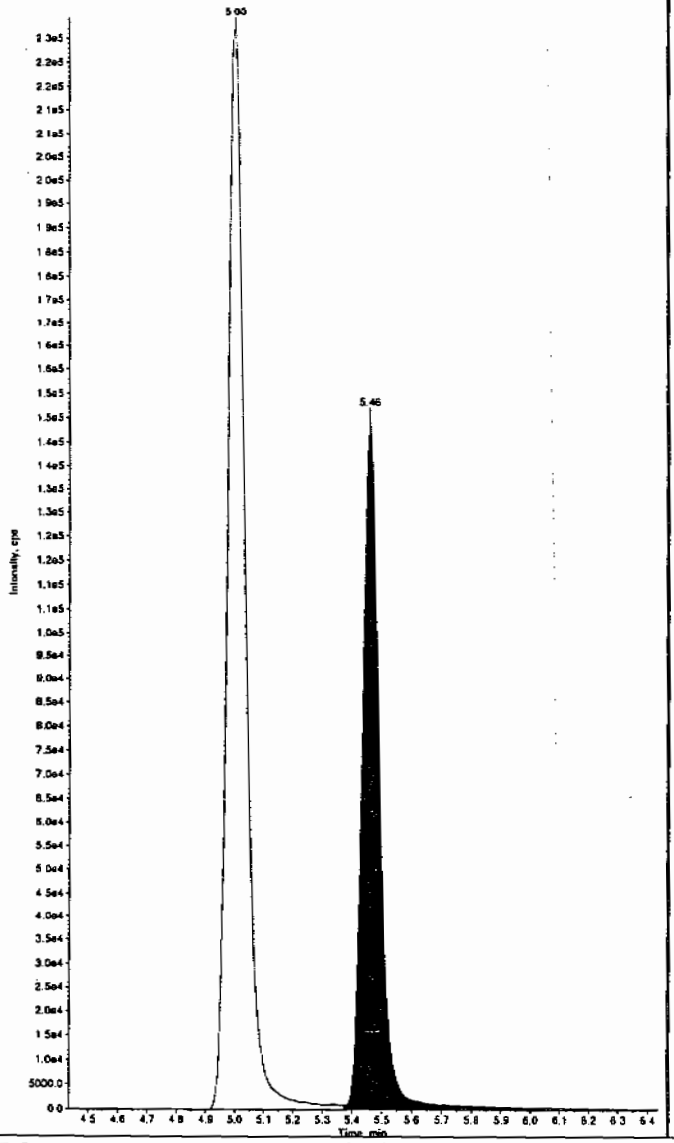

Sample Name: "1202035680" Sample ID: "950081|2|LER" File: "EXS03010092.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 466. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 8:55:23 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.33e+006 counts
Height: 1958069.458 cps
Start Time: 10.8 min
End Time: 11.2 min

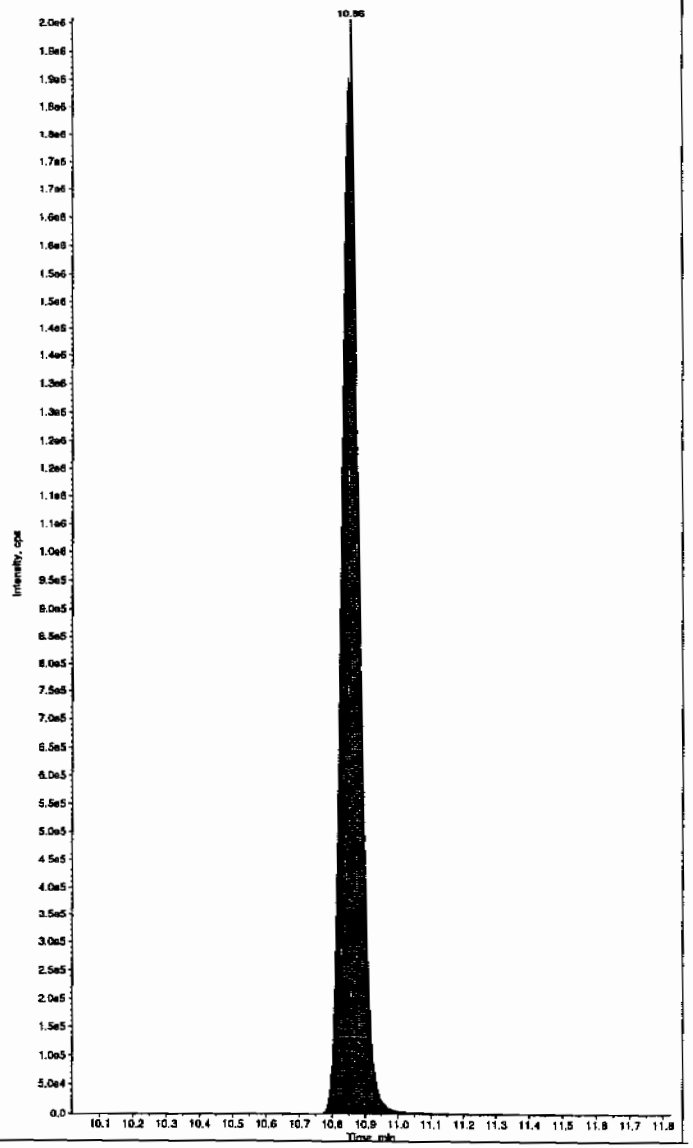

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312093.wiff	Acquisition Date	3/14/2010 12:28:46 AM
Sample Name	1202035681	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

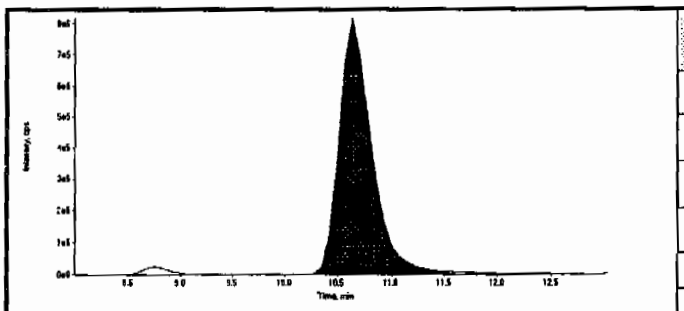

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.50
Actual RT:	10.60
Area Counts:	17000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

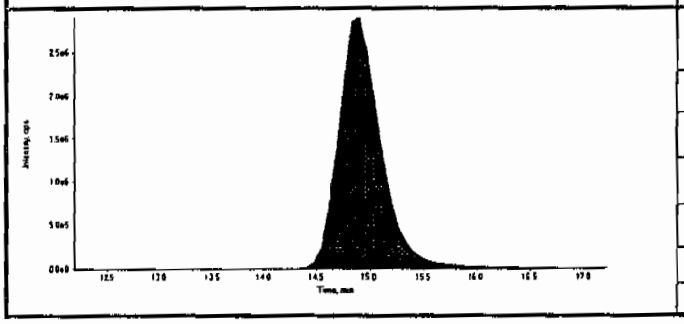

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.70
Actual RT:	14.90
Area Counts:	80200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

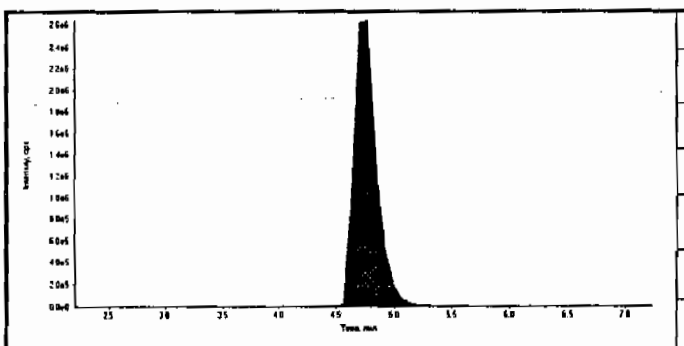

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.70
Actual RT:	4.77
Area Counts:	3.63e+007
Manual Modification	No
Amount:	467. (ng/mL)
% Accuracy:	N/A

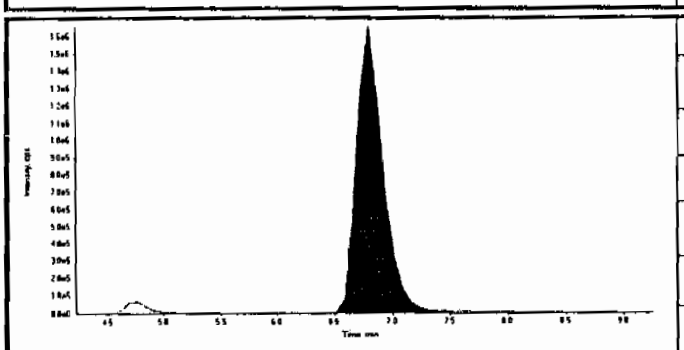

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.73
Actual RT:	6.80
Area Counts:	2.62e+007
Manual Modification	No
Amount:	489. (ng/mL)
% Accuracy:	N/A

3/24/10 03/24/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 23/03/2010 4:08:00 PM
LCMSMS#3

Data File	EXP0312093.wiff	Acquisition Date	3/14/2010 12:28:46 AM
Sample Name	1202035681	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

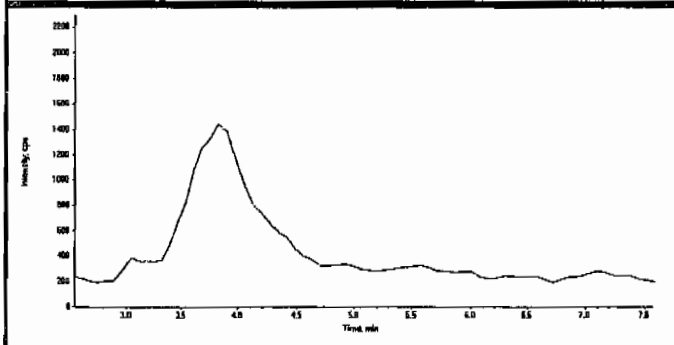

Compound Name:	TNX (219.0/45.0 amu)
Expected RT:	5.06
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

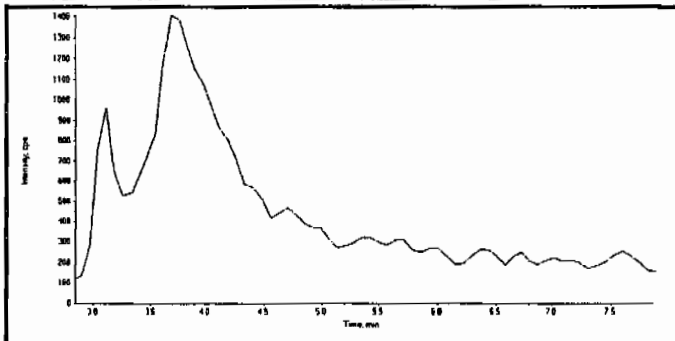

Compound Name:	DNX (235.0/45.0 amu)
Expected RT:	5.35
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

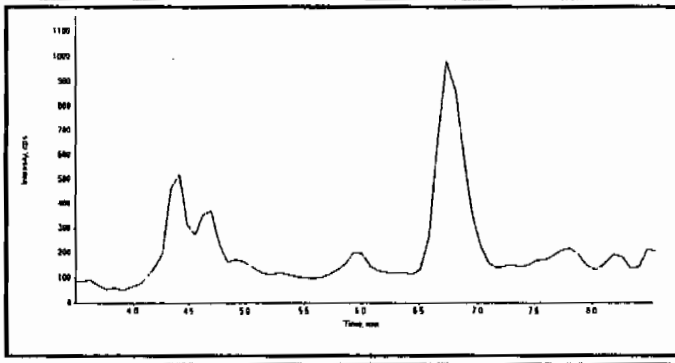

Compound Name:	MNX (251.0/46.0 amu)
Expected RT:	6.00
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

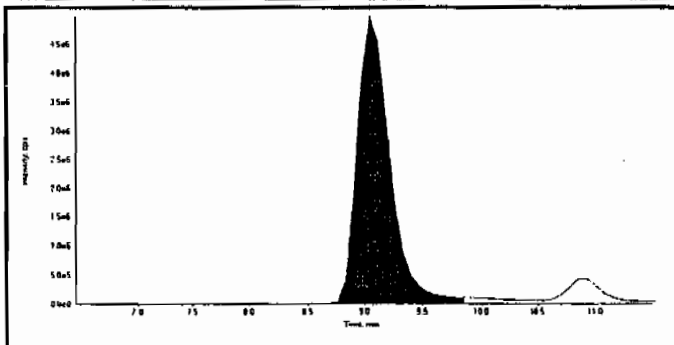

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	8.97
Actual RT:	9.04
Area Counts:	1.00e+008
Manual Modification	No
Amount:	482. (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312093.wiff	**Acquisition Date**	3/14/2010 12:28:46 AM
Sample Name	1202035681	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

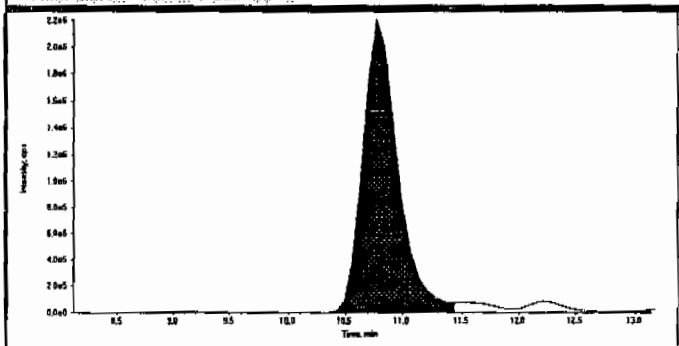

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.6
Actual RT:	10.8
Area Counts:	4.71e+007
Manual Modification	No
Amount:	516. (ng/mL)
% Accuracy:	N/A

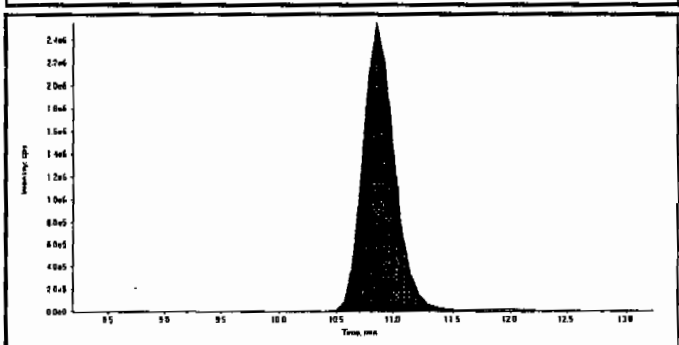

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	4.95e+007
Manual Modification	No
Amount:	421. (ng/mL)
% Accuracy:	N/A

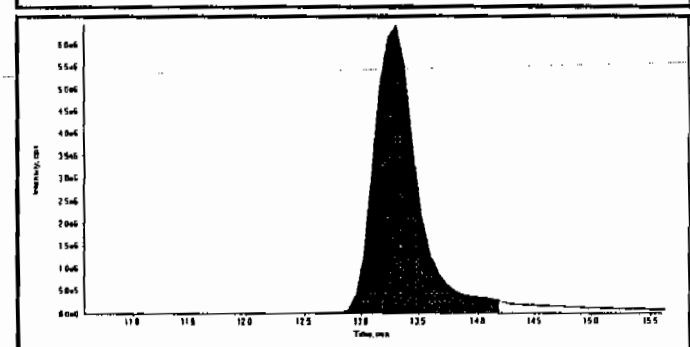

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.1
Actual RT:	13.3
Area Counts:	1.68e+008
Manual Modification	No
Amount:	448. (ng/mL)
% Accuracy:	N/A

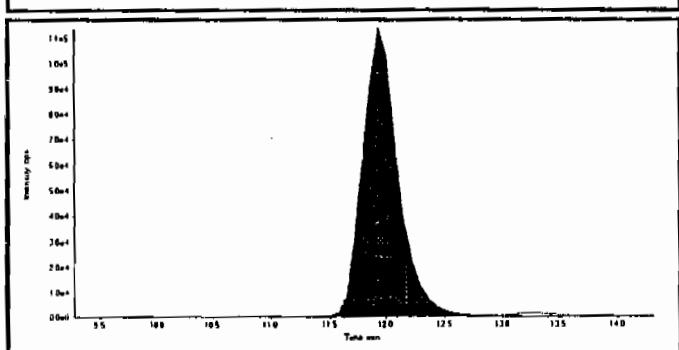

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.8
Actual RT:	11.9
Area Counts:	2.47e+006
Manual Modification	No
Amount:	477. (ng/mL)
% Accuracy:	N/A

Before Ocr 3/24/10

Sample Name "1202035681" Sample ID. "950061[2]LER" File: "EXPG312093.wff"
Peak Name "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment "LCX8321_5" Annotation. ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Seq. Date: 1/14/2010
Seq. Time: 12:28:46 AM
Modified: No

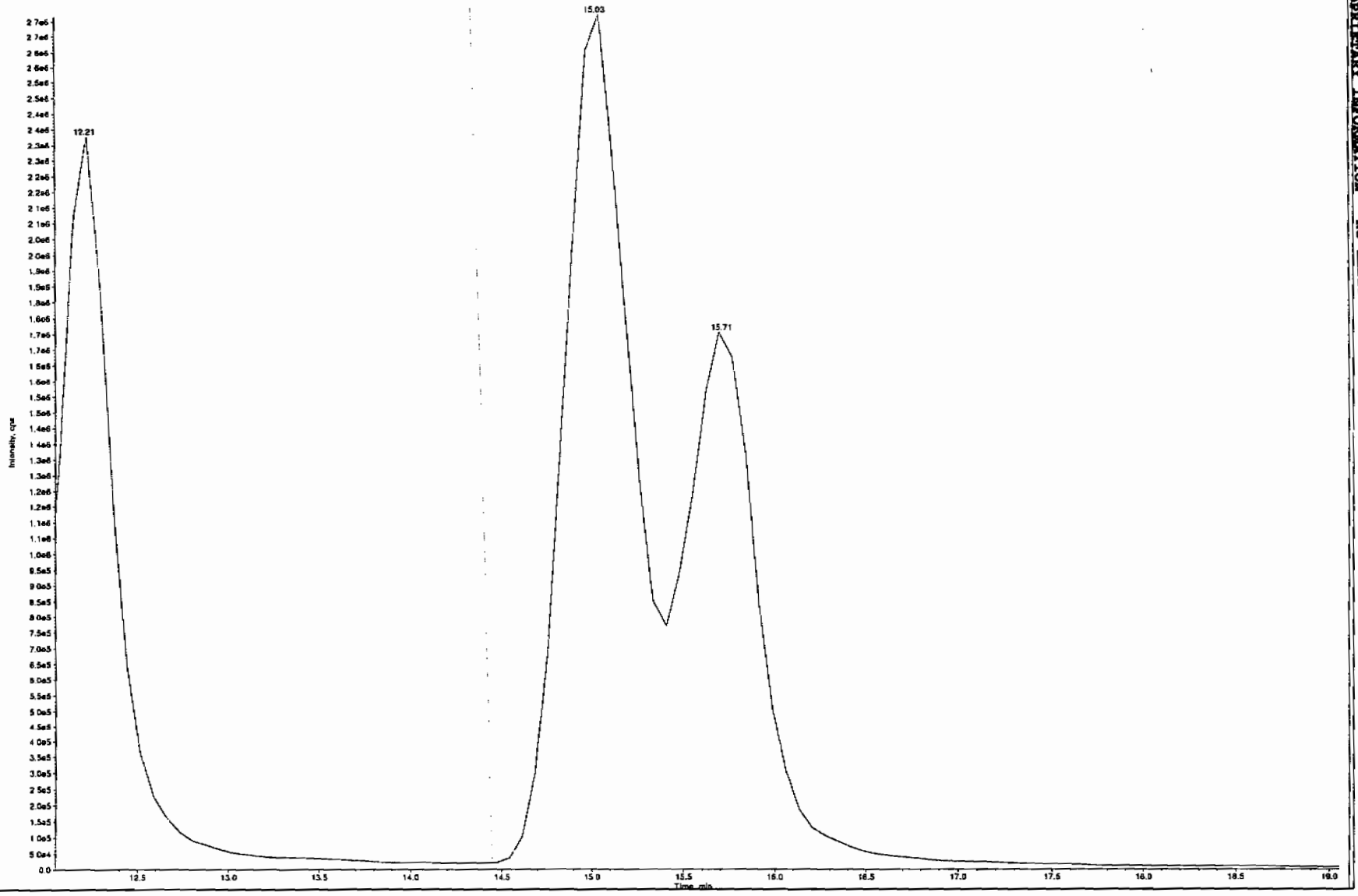

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Data File	EXP0312093.wiff	Acquisition Date	3/14/2010 12:28:46 AM
Sample Name	1202035681	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

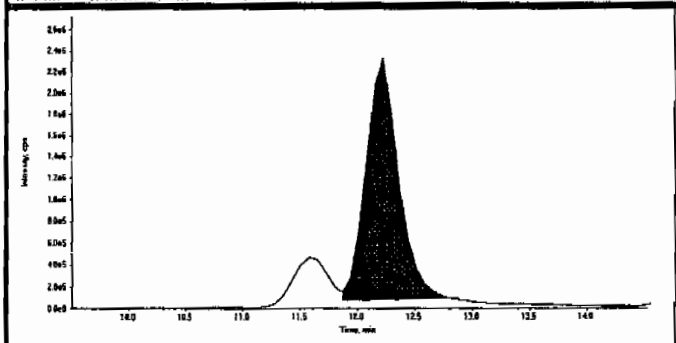

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.0
Actual RT:	12.2
Area Counts:	4.54e+007
Manual Modification	No
Amount:	230. (ng/mL)
% Accuracy:	N/A

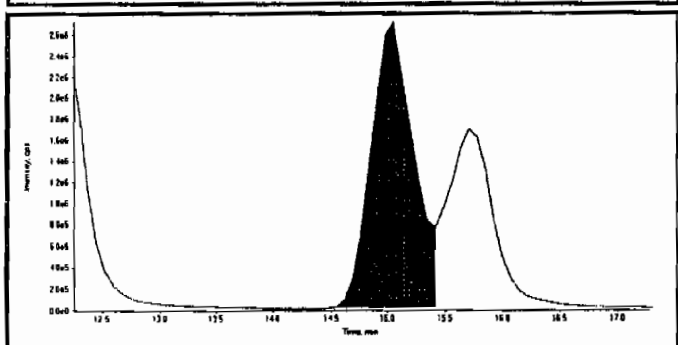

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.8
Actual RT:	15.0
Area Counts:	7.10e+007
Manual Modification	No
Amount:	544. (ng/mL)
% Accuracy:	N/A

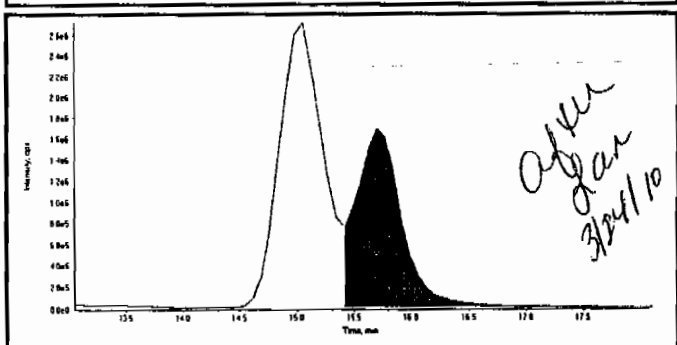

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	4.70e+007
Manual Modification	Yes
Amount:	498. (ng/mL)
% Accuracy:	N/A

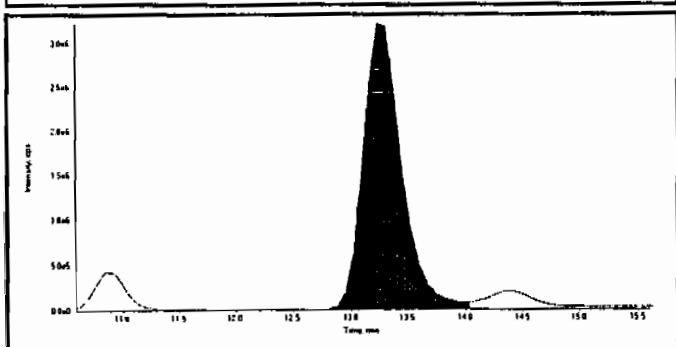

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.1
Actual RT:	13.2
Area Counts:	7.63e+007
Manual Modification	No
Amount:	511. (ng/mL)
% Accuracy:	N/A

Before Clean 3/24/10

Sample Name: "1202035881" Sample ID: "S5008[2]LER" File: "EXP0312093.wiff"
Peak Name: "2-Amino-4-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 792. ng/mL
Acq. Date: 3/14/2010
Acq. Time: 12:28:46 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Syn. Peak Height: 4600.00 cps
Syn. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 60.0 sec
Expected RT: 14.0 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 14.4 min
Area: 1.86e+006 counts
Height: 1.12e+005 cps
Start Time: 14.0 min
End Time: 15.1 min

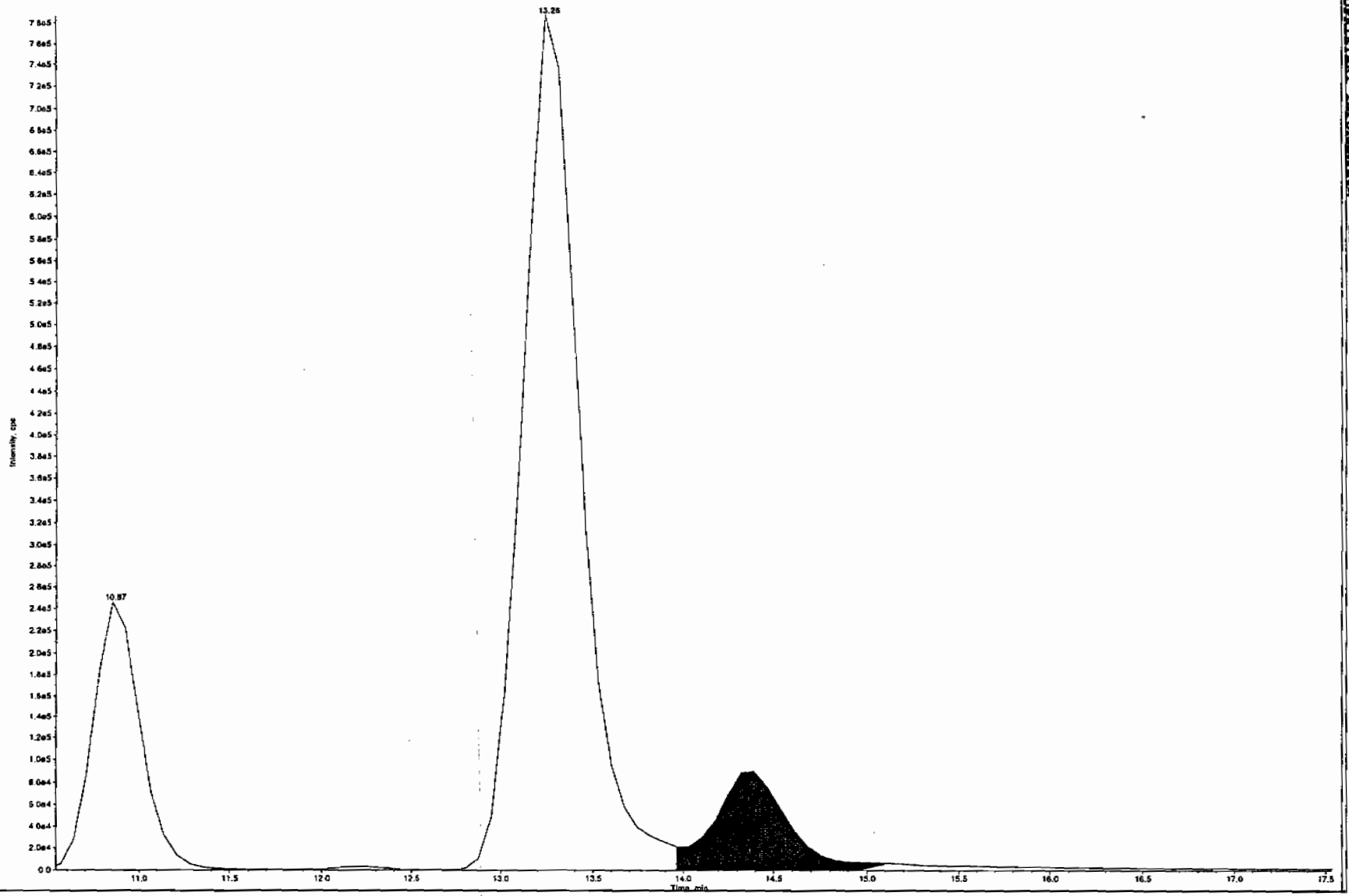

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Data File	EXP0312093.wiff	Acquisition Date	3/14/2010 12:28:46 AM
Sample Name	1202035681	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	Result Table	031210.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

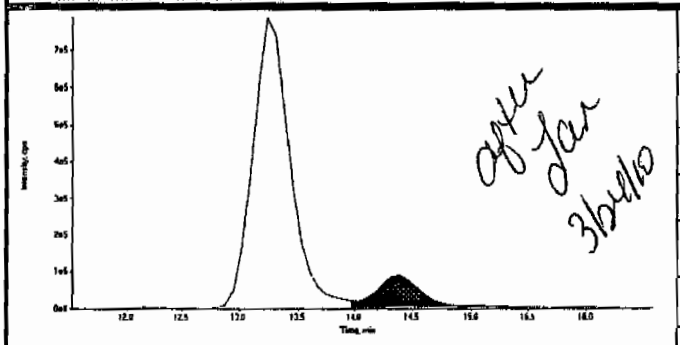

after Jan 3/24/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.0
Actual RT:	14.4
Area Counts:	2.40e+006
Manual Modification	Yes
Amount:	495. (ng/mL)
% Accuracy:	N/A

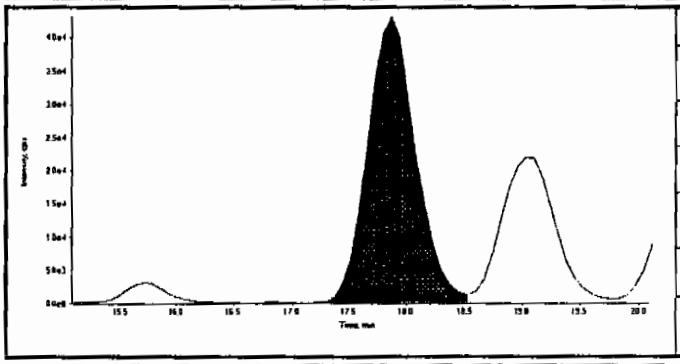

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.6
Actual RT:	17.9
Area Counts:	1.25e+006
Manual Modification	No
Amount:	459. (ng/mL)
% Accuracy:	N/A

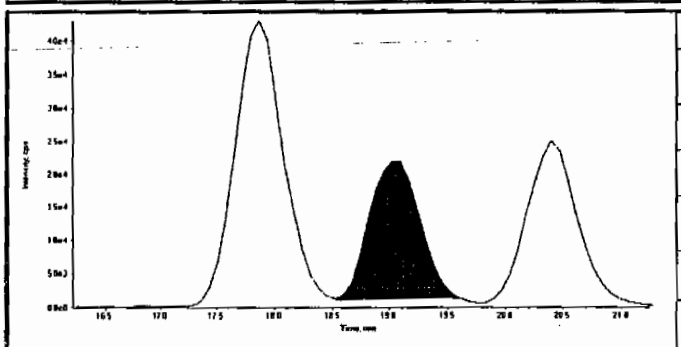

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.7
Actual RT:	19.0
Area Counts:	6.38e+005
Manual Modification	No
Amount:	427. (ng/mL)
% Accuracy:	N/A

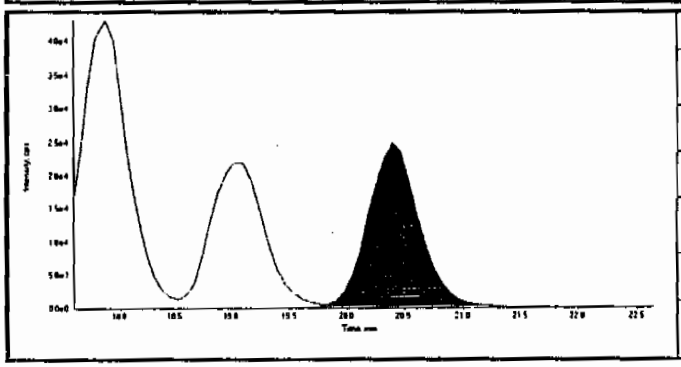

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.1
Actual RT:	20.4
Area Counts:	7.61e+005
Manual Modification	No
Amount:	458. (ng/mL)
% Accuracy:	N/A

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Data File	EXP0312093.wiff	**Acquisition Date**	3/14/2010 12:28:46 AM
Sample Name	1202035681	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	950081|2|LER	**Result Table**	031210.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

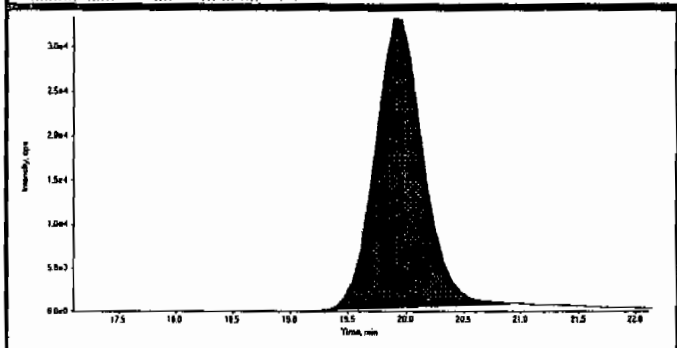

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.6
Actual RT:	19.9
Area Counts:	9.69e+005
Manual Modification	No
Amount:	532. (ng/mL)
% Accuracy:	N/A

Sample Name: "1202035681" Sample ID: "950081|2|LER" File: "EXS03010093.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: **

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 531. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 9:11:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.94 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 6.36e+005 counts
Height: 152173.904 cps
Start Time: 6.87 min
End Time: 7.79 min

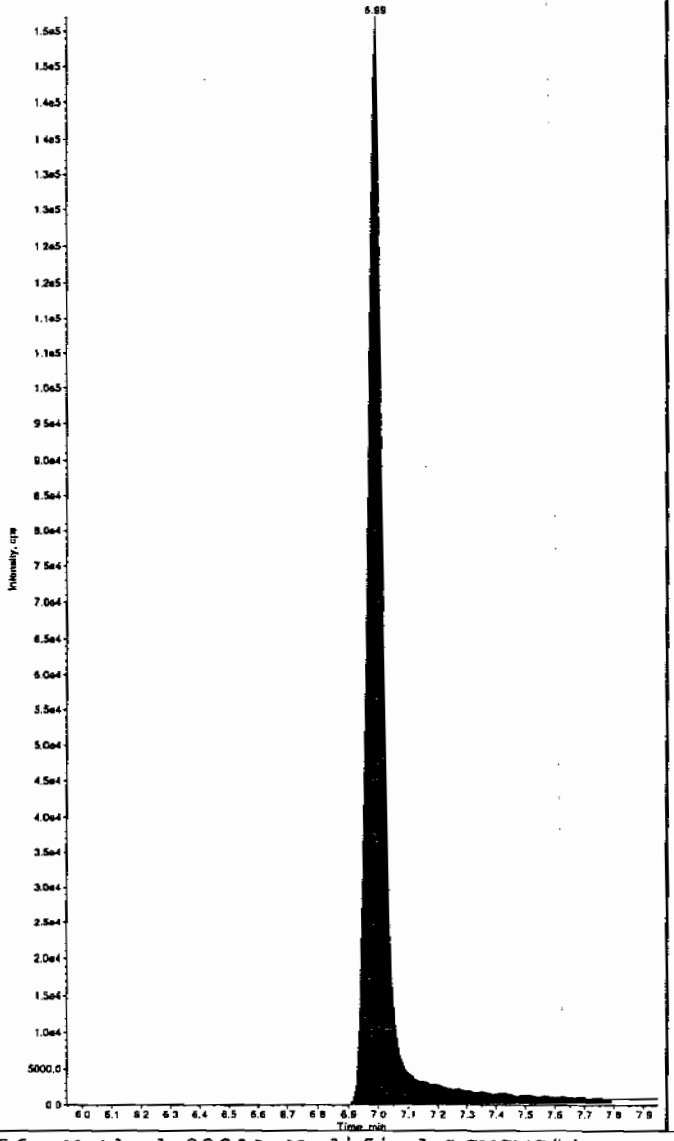

Sample Name: "1202035681" Sample ID: "950081|2|LER" File: "EXS03010093.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: **

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 500. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 9:11:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.92e+006 counts
Height: 1043064.453 cps
Start Time: 8.15 min
End Time: 8.32 min

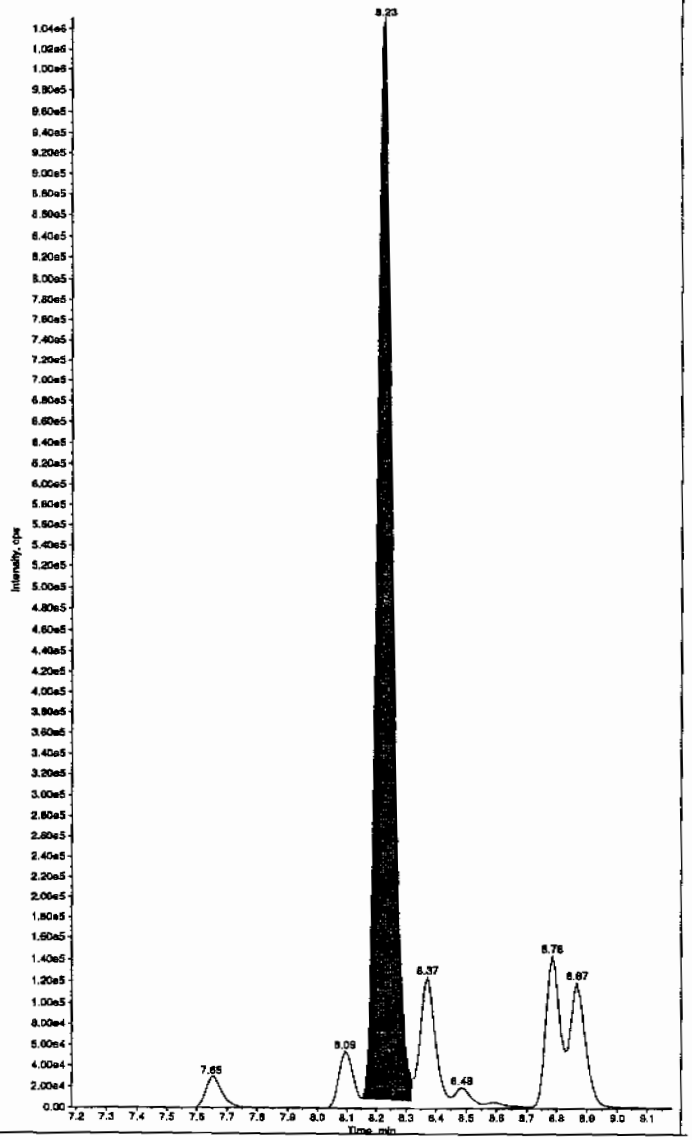

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202035661" Sample ID: "950081|2|LER" File: "EXS03010093.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 244. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 9:11:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.34 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 2.97e+006 counts
Height: 866086.975 cps
Start Time: 8.30 min
End Time: 8.55 min

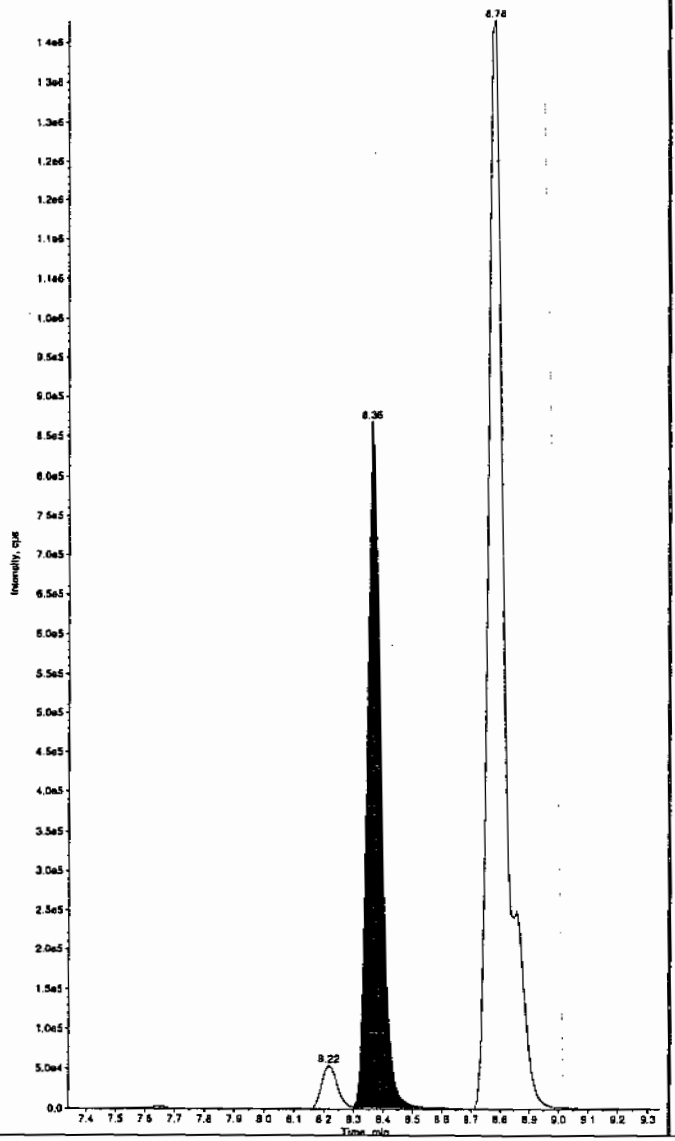

Sample Name: "1202035661" Sample ID: "950081|2|LER" File: "EXS03010093.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 531. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 9:11:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.98 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 9.91e+005 counts
Height: 239241.211 cps
Start Time: 4.91 min
End Time: 5.31 min

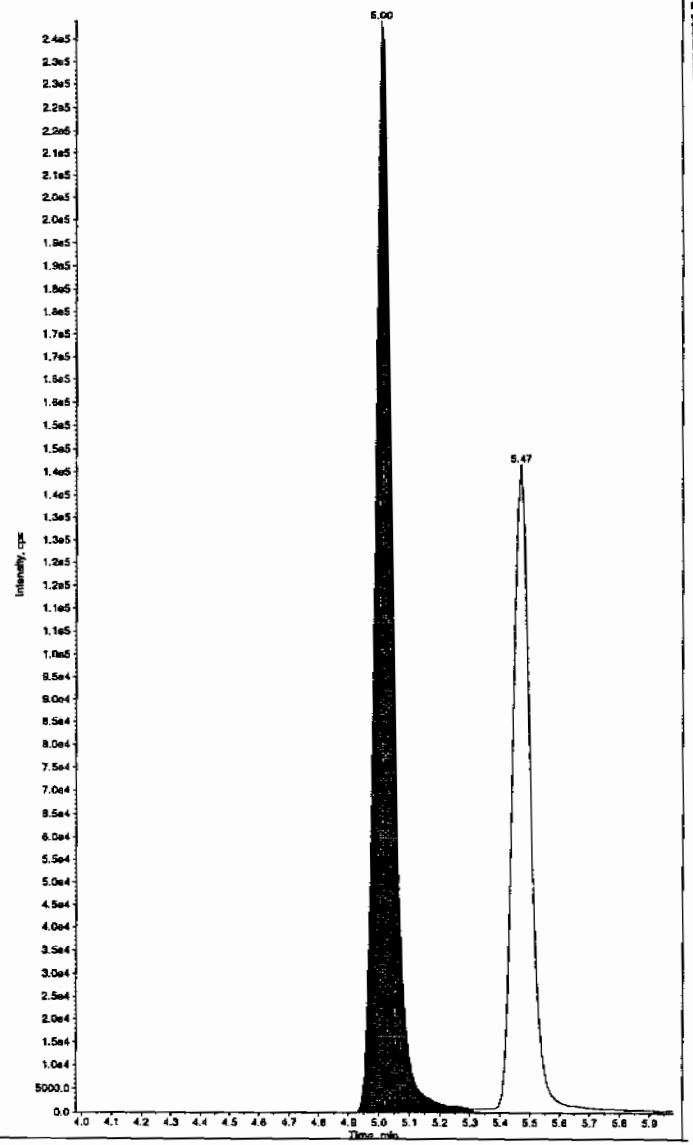

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202035581" Sample ID: "950081[2]LER" File: "EXS03010093.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 441. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 9:11:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 150.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.44 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 5.88e+005 counts
Height: 141752.380 cps
Start Time: 5.36 min
End Time: 5.84 min

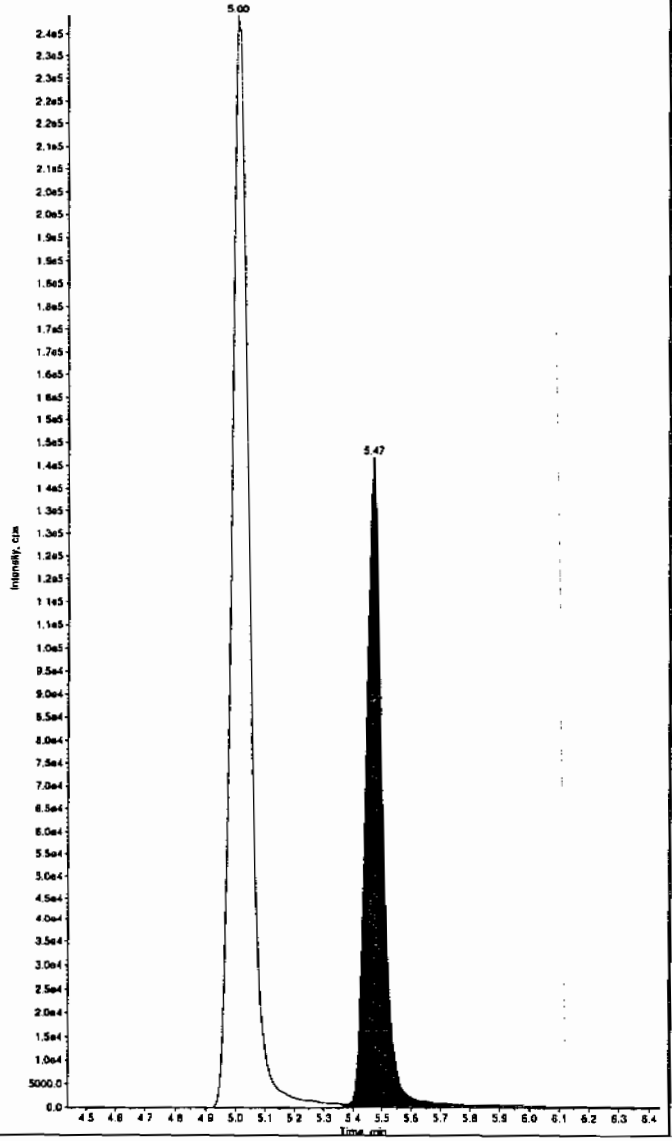

Sample Name: "1202035581" Sample ID: "950081[2]LER" File: "EXS03010093.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 495. ng/mL
Acq. Date: 3/2/2010
Acq. Time: 9:11:07 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.74e+006 counts
Height: 2101783.203 cps
Start Time: 10.8 min
End Time: 11.2 min

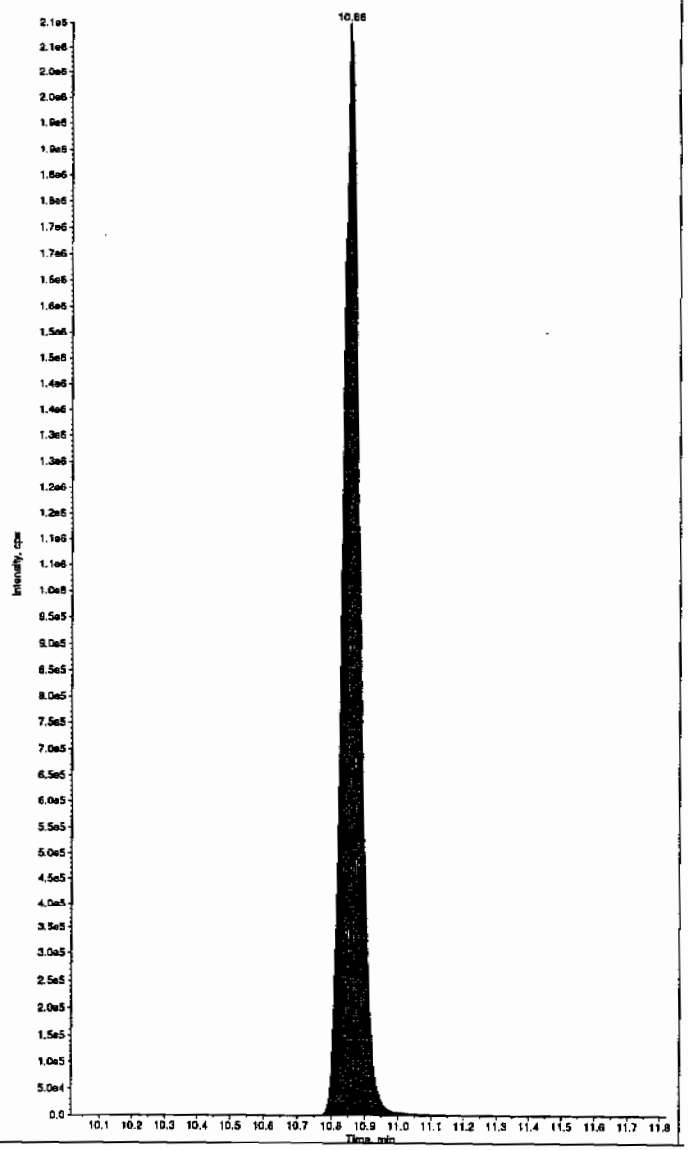

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1564

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	951946
Prep Batch Number:	951941

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
246318001	RE15-10-7332
246318002	RE15-10-7333
246318003	RE15-10-7342
1202040223	Method Blank (MB)
1202040224	Laboratory Control Sample (LCS)
1202040225	246575003(WST15-10-11621) Matrix Spike (MS)
1202040226	246575003(WST15-10-11621) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria for the Aroclors.

Two of the five quantified peaks did not meet the acceptance criteria in the Aroclor-1260 standards analyzed for this SDG; however, the average concentration of the five peaks met the acceptance criteria.

Surrogate recovery did not meet the acceptance criteria in one of the standards analyzed for this SDG; however, this had no adverse effects on the data as the surrogate recovery was well within the acceptance range in the samples in this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1675) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 3/4/10

Roadmap for LANL 10-1564 PCB

This roadmap was analyzed by jen01212 on 02-15-2010, 12:08.
This roadmap was reviewed by jim01140 on 02-18-2010, 11:10.
This roadmap was reviewed by rob01090 on 02-18-2010, 20:18.
This roadmap was packaged by yml on 03-04-2010, 12:15.
This roadmap was validated by jim01140 on 03-04-2010, 14:18.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/023f2301.d	246318001	sample	12-FEB-2010	11:21	10-1564.sub	RE15-10-7332	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/024f2401.d	246318002	sample	12-FEB-2010	11:34	10-1564.sub	RE15-10-7333	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/025f2501.d	246318003	sample	12-FEB-2010	11:46	10-1564.sub	RE15-10-7342	1.00000	951946	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/023b2301.d	246318001	sample	12-FEB-2010	11:21	10-1564.sub	RE15-10-7332	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/024b2401.d	246318002	sample	12-FEB-2010	11:34	10-1564.sub	RE15-10-7333	1.00000	951946	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/021210.b/025b2501.d	246318003	sample	12-FEB-2010	11:46	10-1564.sub	RE15-10-7342	1.00000	951946	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/012f1201-2.d	1202040223	mb	12-FEB-2010	09:05	10-1564.sub	PBLK01	1.00000	951946	
☐	N	/chem/ecd8a.i/021210.b/013f1301-2.d	1202040224	lcs	12-FEB-2010	09:18	10-1564.sub	PBLK01LCS	1.00000	951946	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/021210.b/012b1201-2.d	1202040223	mb	12-FEB-2010	09:05	10-1564.sub	PBLK01	1.00000	951946	
☐	N	/chem/ecd8a.i/021210.b/013b1301-2.d	1202040224	lcs	12-FEB-2010	09:18	10-1564.sub	PBLK01LCS	1.00000	951946	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1564	**Date Collected:**	02/01/2010 12:00	**Matrix:**	R
Lab Sample ID:	246318001	**Date Received:**	02/05/2010 09:00	**%Moisture:**	6.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7332	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 11:21	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.03 g	**Final Volume:**	1 mL
Data File:	023f2301.d	**Column:**	1 CLP1	**Level:**	LOW
	023b2301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.56	ug/kg	1.19	3.56	1
11104-28-2	Aroclor-1221	U	3.56	ug/kg	1.19	3.56	1
11141-16-5	Aroclor-1232	U	3.56	ug/kg	1.19	3.56	1
53469-21-9	Aroclor-1242	U	3.56	ug/kg	1.19	3.56	1
12672-29-6	Aroclor-1248	U	3.56	ug/kg	1.19	3.56	1
11097-69-1	Aroclor-1254	U	3.56	ug/kg	1.19	3.56	1
11096-82-5	Aroclor-1260	U	3.56	ug/kg	1.19	3.56	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1564	**Date Collected:**	02/01/2010 12:00	**Matrix:**	R
Lab Sample ID:	246318002	**Date Received:**	02/05/2010 09:00	**%Moisture:**	5.7
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-7333	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	951946	**Inst:**	ECD8A.I	**Dilution:**	1
Run Date:	02/12/2010 11:34	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	02/11/2010 22:01	**Aliquot:**	30.06 g	**Final Volume:**	1 mL
Data File:	024f2401.d	**Column:**	1 CLP1	**Level:**	LOW
	024b2401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.53	ug/kg	1.18	3.53	1
11104-28-2	Aroclor-1221	U	3.53	ug/kg	1.18	3.53	1
11141-16-5	Aroclor-1232	U	3.53	ug/kg	1.18	3.53	1
53469-21-9	Aroclor-1242	U	3.53	ug/kg	1.18	3.53	1
12672-29-6	Aroclor-1248	U	3.53	ug/kg	1.18	3.53	1
11097-69-1	Aroclor-1254	U	3.53	ug/kg	1.18	3.53	1
11096-82-5	Aroclor-1260	U	3.53	ug/kg	1.18	3.53	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1564**	**Date Collected:**	**02/01/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246318003**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**5.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7342**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 11:46**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1564

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202040223	MB for batch 951941	64	64	67	70
1202040224	LCS for batch 951941	60	61	64	66
246318001	RE15-10-7332	67	67	69	74
246318002	RE15-10-7333	67	68	67	71
246318003	RE15-10-7342	65	64	68	73

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1564
Client ID: LCS for batch 951941
Lab Sample ID: 1202040224
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/12/2010 09:18
Dilution: 1
Prep Batch ID: 951941
Batch ID: 951946

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS Aroclor-1016	33.3	0.0	18.6	56	39-102
11096-82-5	LCS Aroclor-1260	33.3	0.0	22.7	68	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1675
Client ID: WST15-10-11621MS
Lab Sample ID: 1202040225
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 6.6
Analysis Date: 02/12/2010 14:02
Prep Batch ID: 951941
Batch ID: 951946
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	35.6	0.00	U	19.0	53	23-119
11096-82-5	MS	Aroclor-1260	35.6	0.00	U	23.1	65	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1675
Client ID: WST15-10-11621MSD
Lab Sample ID: 1202040226
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 6.6
Analysis Date: 02/12/2010 14:14
Prep Batch ID: 951941
Batch ID: 951946
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	35.6	0.00	U	19.4	54	23-119	2	0-28
11096-82-5	MSD Aroclor-1260	35.6	0.00	U	23.0	65	28-124	0	0-30

Method Blank Summary

SDG Number:	10-1564	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 951941	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202040223				
Column:	CLP2 CLP1	Prep Date:	02/11/2010 22:01	Analyzed:	02/12/10 09:05
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 951941	1202040224	013f1301-1.d 013b1301-1.d	02/12/10	0918
02 RE15-10-7332	246318001	023f2301.d 023b2301.d	02/12/10	1121
03 RE15-10-7333	246318002	024f2401.d 024b2401.d	02/12/10	1134
04 RE15-10-7342	246318003	025f2501.d 025b2501.d	02/12/10	1146

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1564**	**Date Collected:**	**02/01/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246318001**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**6.5**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7332**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 11:21**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.03 g**	**Final Volume:**	**1 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	023b2301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.56	ug/kg	1.19	3.56	1
11104-28-2	Aroclor-1221	U	3.56	ug/kg	1.19	3.56	1
11141-16-5	Aroclor-1232	U	3.56	ug/kg	1.19	3.56	1
53469-21-9	Aroclor-1242	U	3.56	ug/kg	1.19	3.56	1
12672-29-6	Aroclor-1248	U	3.56	ug/kg	1.19	3.56	1
11097-69-1	Aroclor-1254	U	3.56	ug/kg	1.19	3.56	1
11096-82-5	Aroclor-1260	U	3.56	ug/kg	1.19	3.56	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/023f2301.d
Lab Smp Id: 246318001 Client Smp ID: RE15-10-7332
Inj Date : 12-FEB-2010 11:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246318001|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-7332|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	6.45570	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	17514120	133.282	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	13836984	138.396	4.9	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/023f2301.d
Date : 12-FEB-2010 11:21
Client ID: RE15-10-7332
Sample Info: 1246318001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

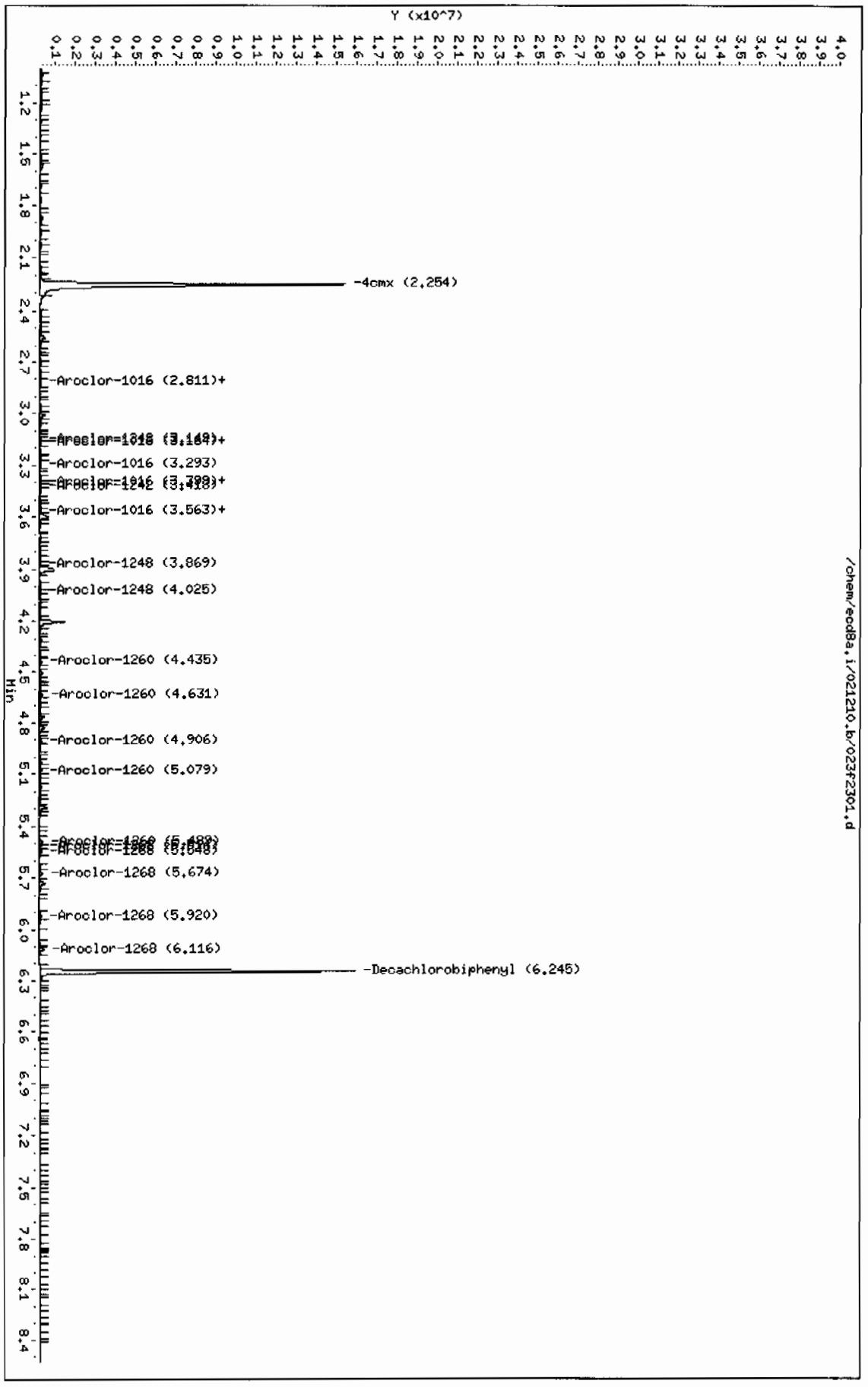

/chem/ecd8a.i/021210.b/023f2301.d

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/023b2301.d
Lab Smp Id: 246318001 Client Smp ID: RE15-10-7332
Inj Date : 12-FEB-2010 11:21
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246318001|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-7332|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	6.45570	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	11595591	133.523	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	9566900	147.538	5.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/023b2301.d
Date : 12-FEB-2010 11:21
Client ID: RE15-10-7332
Sample Info: 1246318001111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

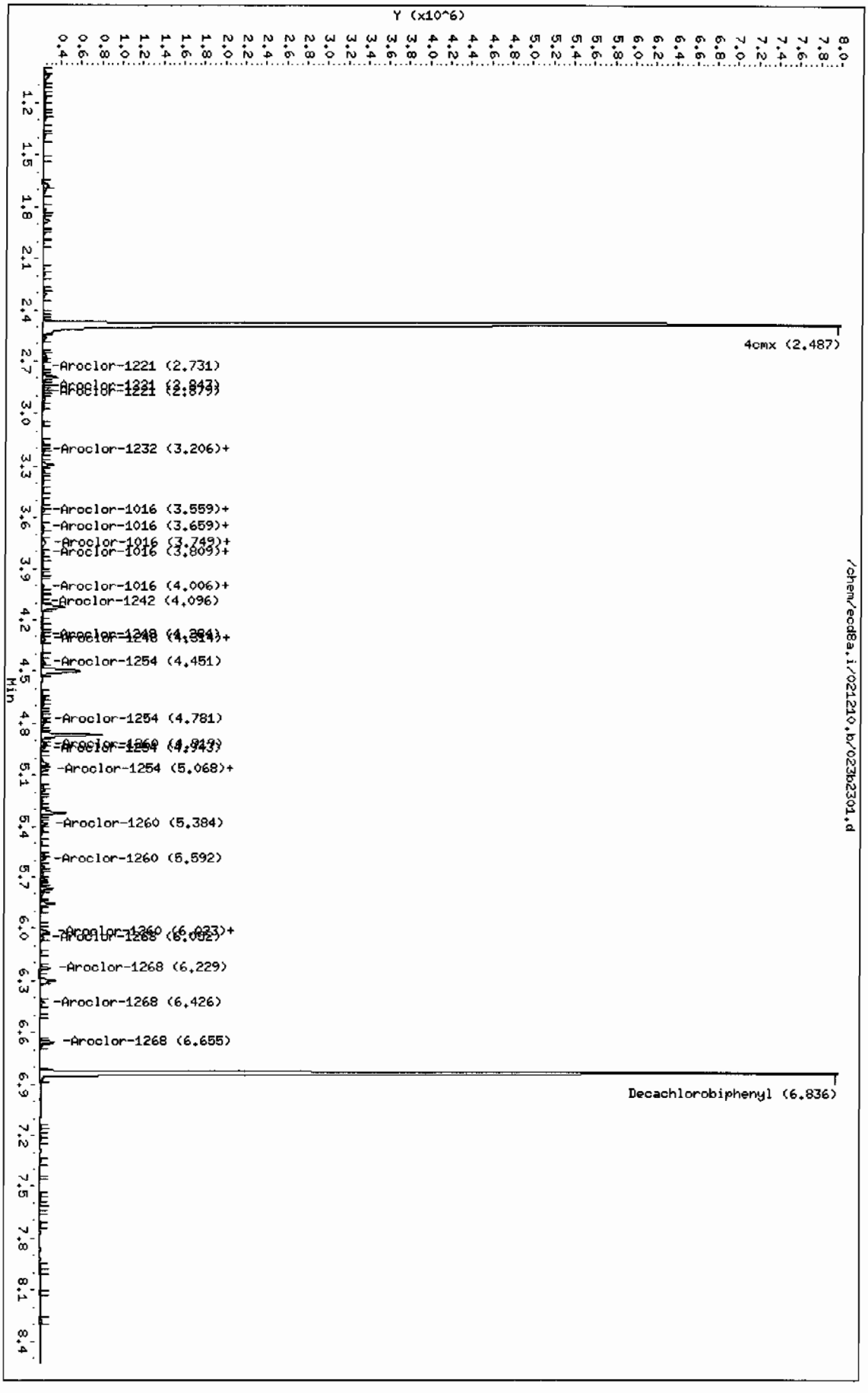

Page 1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1564**	**Date Collected:**	**02/01/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246318002**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**5.7**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7333**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 11:34**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.06 g**	**Final Volume:**	**1 mL**
Data File:	**024f2401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	024b2401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.53	ug/kg	1.18	3.53	1
11104-28-2	Aroclor-1221	U	3.53	ug/kg	1.18	3.53	1
11141-16-5	Aroclor-1232	U	3.53	ug/kg	1.18	3.53	1
53469-21-9	Aroclor-1242	U	3.53	ug/kg	1.18	3.53	1
12672-29-6	Aroclor-1248	U	3.53	ug/kg	1.18	3.53	1
11097-69-1	Aroclor-1254	U	3.53	ug/kg	1.18	3.53	1
11096-82-5	Aroclor-1260	U	3.53	ug/kg	1.18	3.53	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/024f2401.d
Lab Smp Id: 246318002 Client Smp ID: RE15-10-7333
Inj Date : 12-FEB-2010 11:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246318002|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-7333|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	5.73750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	17704943	134.735	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	13469385	134.719	4.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/024f2401.d
Date : 12-FEB-2010 11:34
Client ID: RE15-10-7333
Sample Info: 1246318002111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

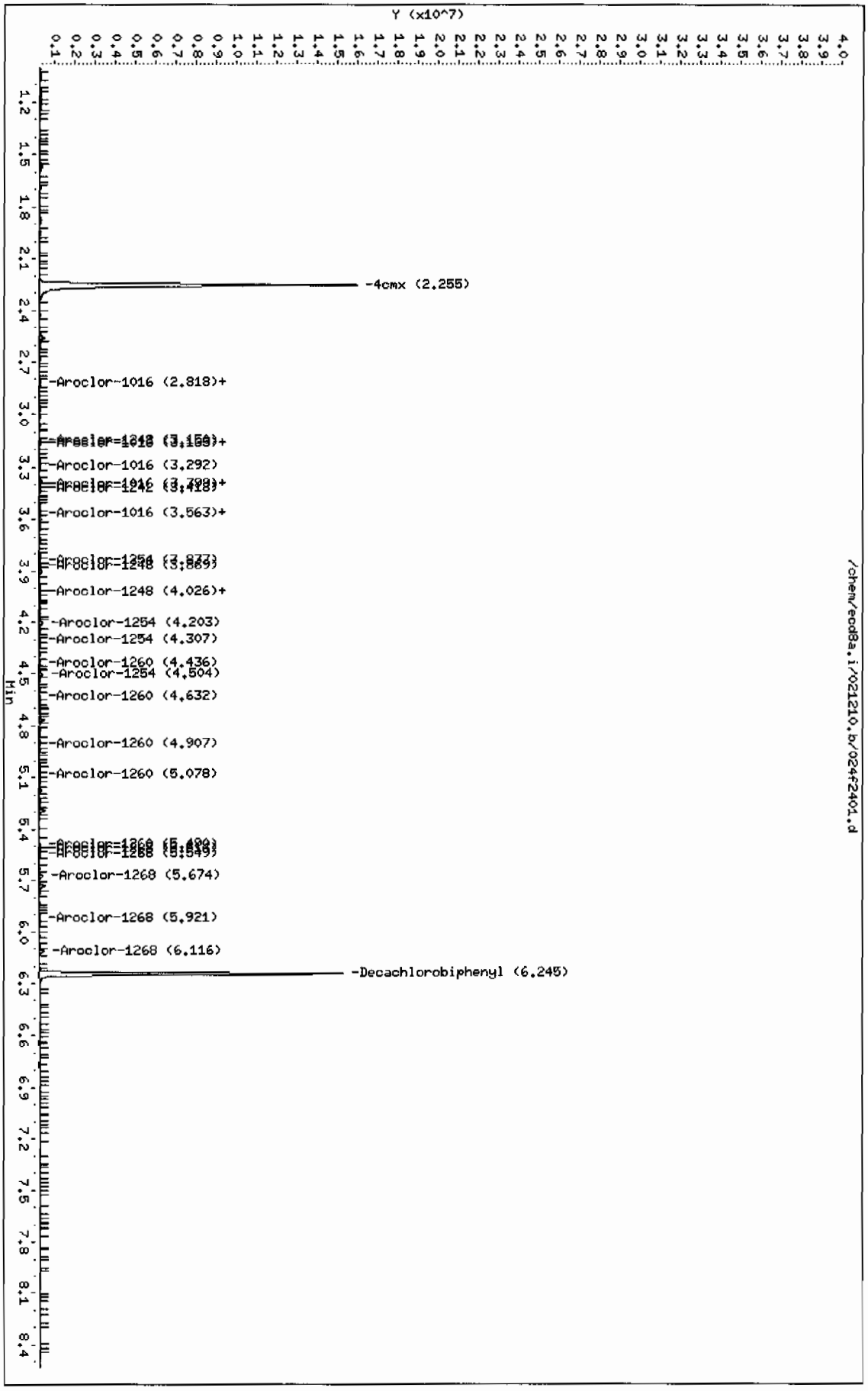

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/024b2401.d
Lab Smp Id: 246318002 Client Smp ID: RE15-10-7333
Inj Date : 12-FEB-2010 11:34
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246318002|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-7333|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.06000	Weight of sample extracted (g)
M	5.73750	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	11744578	135.239	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	9262856	142.849	5.0	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/024b2401.d
Date : 12-FEB-2010 11:34
Client ID: RE15-10-7333
Sample Info: 1246318002111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

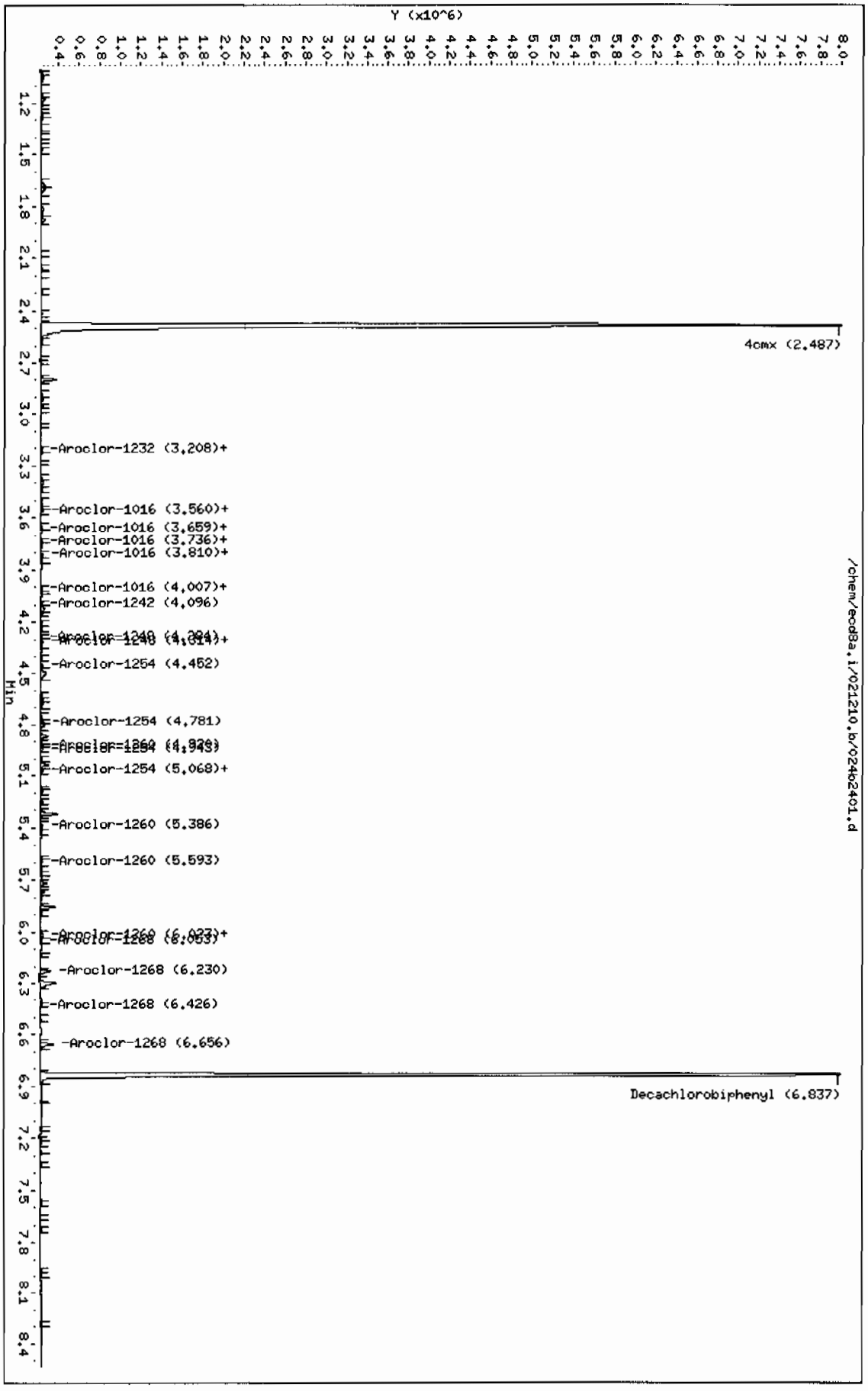

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1564**	**Date Collected:**	**02/01/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**246318003**	**Date Received:**	**02/05/2010 09:00**	**%Moisture:**	**5.6**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-7342**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 11:46**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**025f2501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	025b2501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.52	ug/kg	1.17	3.52	1
11104-28-2	Aroclor-1221	U	3.52	ug/kg	1.17	3.52	1
11141-16-5	Aroclor-1232	U	3.52	ug/kg	1.17	3.52	1
53469-21-9	Aroclor-1242	U	3.52	ug/kg	1.17	3.52	1
12672-29-6	Aroclor-1248	U	3.52	ug/kg	1.17	3.52	1
11097-69-1	Aroclor-1254	U	3.52	ug/kg	1.17	3.52	1
11096-82-5	Aroclor-1260	U	3.52	ug/kg	1.17	3.52	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/025f2501.d
Lab Smp Id: 246318003 Client Smp ID: RE15-10-7342
Inj Date : 12-FEB-2010 11:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246318003|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-7342|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	5.64690	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	16975984	129.187	4.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	13622521	136.251	4.8	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/025f2501.d
Date : 12-FEB-2010 11:46
Client ID: RE15-10-7342
Sample Info: |246318003||
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JADC
Column diameter: 0.25

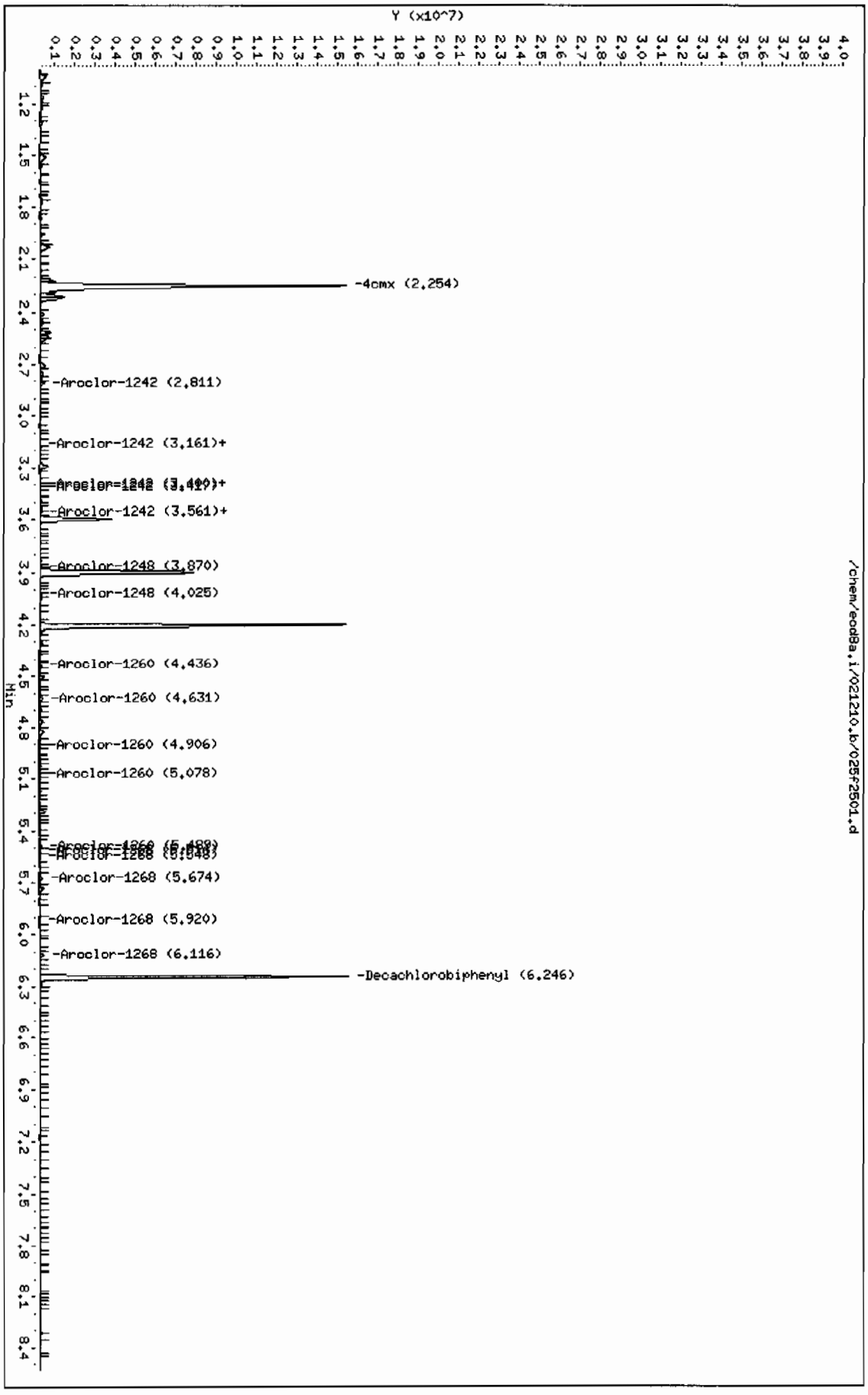

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/025b2501.d
Lab Smp Id: 246318003 Client Smp ID: RE15-10-7342
Inj Date : 12-FEB-2010 11:46
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |246318003|1|
Misc Info : |ECD82P_1S|951946|SVA|LANL|SOIL|RE15-10-7342|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 25
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	5.64690	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	11086806	127.664	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	9476478	146.143	5.2	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/025b2501.d
Date : 12-FEB-2010 11:46
Client ID: RE15-10-7342
Sample Info: |246318003|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

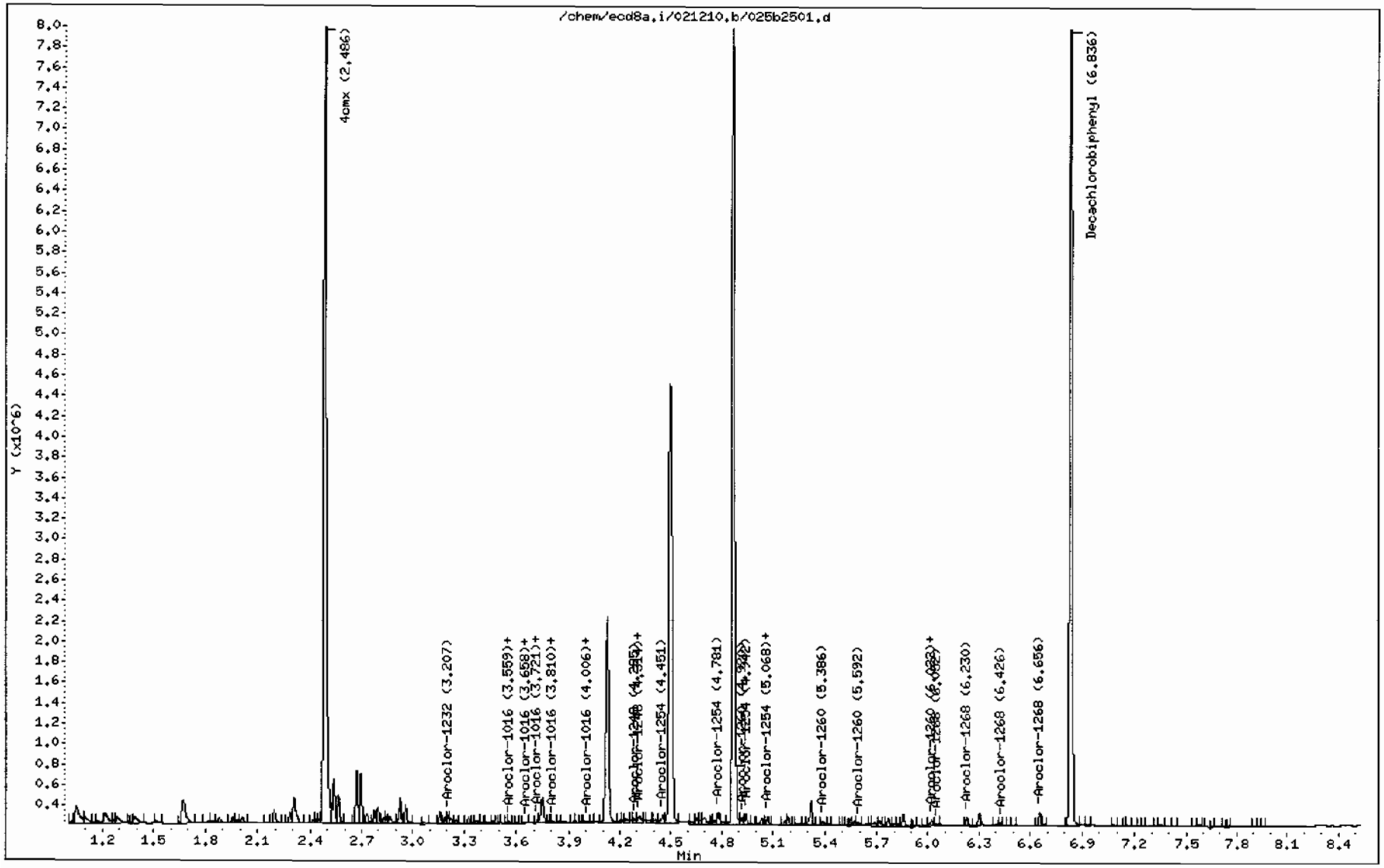

STANDARDS DATA

Report Date: 15-Feb-2010 11:17

Calibration History

Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020f2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008f0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021f2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009f0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022f2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010f1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027f2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023f2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011f1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024f2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012f1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 15:04	AR1660	/chem/ecd8a.i/021210.b/041f4101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 13:25	AR1660	/chem/ecd8a.i/021210.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 10:56	AR1660	/chem/ecd8a.i/021210.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:28	AR1268	/chem/ecd8a.i/021210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:16	AR1262	/chem/ecd8a.i/021210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 08:03	AR1221	/chem/ecd8a.i/021210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:51	AR1232	/chem/ecd8a.i/021210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:38	AR1248	/chem/ecd8a.i/021210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:26	AR1242	/chem/ecd8a.i/021210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:14	AR1254	/chem/ecd8a.i/021210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
12-FEB-2010 07:02	AR1660	/chem/ecd8a.i/021210.b/002f0201.d

Report Date: 15-Feb-2010 11:17

Calibration History

Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020b2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008b0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021b2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009b0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022b2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010b1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027b2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023b2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011b1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024b2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012b1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 15:04 | AR1660 | /chem/ecd8a.i/021210.b/041b4101.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 13:25 | AR1660 | /chem/ecd8a.i/021210.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 10:56 | AR1660 | /chem/ecd8a.i/021210.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 08:28 | AR1268 | /chem/ecd8a.i/021210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 08:16 | AR1262 | /chem/ecd8a.i/021210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 08:03 | AR1221 | /chem/ecd8a.i/021210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 07:51 | AR1232 | /chem/ecd8a.i/021210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 07:38 | AR1248 | /chem/ecd8a.i/021210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 07:26 | AR1242 | /chem/ecd8a.i/021210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 07:14 | AR1254 | /chem/ecd8a.i/021210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000
12-FEB-2010 07:02 | AR1660 | /chem/ecd8a.i/021210.b/002b0201.d

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COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Feb-2010 06:50 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.811	2.781-2.841	4.665e+03
	3.163	3.133-3.193	5.770e+03
	3.306	3.276-3.336	2.454e+03
	3.399	3.369-3.429	2.198e+03
	3.561	3.531-3.591	3.142e+03
2 Aroclor-1221	1.855	1.825-1.885	1.100e+03
	2.394	2.364-2.424	1.460e+03
	2.541	2.511-2.571	3.385e+03
3 Aroclor-1232	2.541	2.511-2.571	2.601e+03
	2.812	2.782-2.842	2.261e+03
	3.308	3.278-3.338	1.243e+03
	3.562	3.532-3.592	1.479e+03
	3.624	3.594-3.654	9.227e+02
4 Aroclor-1242	2.812	2.782-2.842	3.974e+03
	3.164	3.134-3.194	4.796e+03
	3.400	3.369-3.430	1.805e+03
	3.417	3.387-3.447	1.889e+03
	3.562	3.532-3.592	2.645e+03
5 Aroclor-1248	3.148	3.118-3.178	2.990e+03
	3.399	3.369-3.429	3.823e+03
	3.562	3.532-3.592	5.000e+03
	3.867	3.837-3.897	5.990e+03
	4.027	3.997-4.057	4.826e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.837	3.807-3.867	4.785e+03
	4.025	3.995-4.055	6.569e+03
	4.220	4.190-4.250	5.138e+03
	4.306	4.276-4.336	8.797e+03
	4.501	4.471-4.531	6.914e+03
7 Aroclor-1260	4.435	4.405-4.465	6.739e+03
	4.631	4.601-4.661	1.026e+04
	4.906	4.876-4.936	6.130e+03
	5.078	5.048-5.108	6.386e+03
	5.490	5.460-5.520	6.860e+03
8 Aroclor-1262	4.337	4.307-4.367	3.367e+03
	4.436	4.406-4.466	5.243e+03
	4.631	4.601-4.661	7.103e+03
	4.906	4.876-4.936	8.580e+03
	5.079	5.049-5.109	7.966e+03
9 Aroclor-1268	5.514	5.484-5.544	1.632e+04
	5.541	5.511-5.571	1.572e+04
	5.673	5.643-5.703	1.207e+04
	5.919	5.889-5.949	6.023e+03
	6.116	6.086-6.146	3.601e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.252	2.222-2.282	1.314e+05
$ 12 Decachlorobiphenyl	6.245	6.215-6.275	9.998e+04
13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 15-Feb-2010 06:49 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.558	3.528-3.588	3.766e+03
	3.658	3.628-3.688	2.494e+03
	3.734	3.704-3.764	1.515e+03
	3.809	3.779-3.839	1.493e+03
	4.006	3.976-4.036	2.036e+03
2 Aroclor-1221	2.727	2.697-2.757	8.949e+02
	2.839	2.809-2.869	5.569e+02
	2.888	2.858-2.918	2.060e+03
3 Aroclor-1232	3.207	3.177-3.237	1.515e+03
	3.560	3.530-3.590	1.744e+03
	3.659	3.629-3.689	1.176e+03
	3.735	3.705-3.765	7.101e+02
	3.810	3.780-3.840	6.182e+02
4 Aroclor-1242	3.206	3.176-3.236	2.677e+03
	3.559	3.530-3.590	3.126e+03
	3.659	3.629-3.689	2.127e+03
	4.006	3.976-4.036	1.703e+03
	4.096	4.066-4.126	1.567e+03
5 Aroclor-1248	3.657	3.627-3.687	1.427e+03
	3.810	3.780-3.840	2.467e+03
	4.006	3.976-4.036	3.089e+03
	4.284	4.254-4.314	3.647e+03
	4.317	4.287-4.347	4.004e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.313	4.283-4.343	3.450e+03
	4.451	4.421-4.481	3.910e+03
	4.780	4.750-4.810	5.500e+03
	4.942	4.912-4.972	4.011e+03
	5.068	5.038-5.098	2.549e+03
7 Aroclor-1260	4.919	4.889-4.949	4.084e+03
	5.068	5.038-5.098	4.969e+03
	5.384	5.354-5.414	3.788e+03
	5.591	5.561-5.621	3.953e+03
	6.023	5.993-6.053	6.227e+03
8 Aroclor-1262	4.920	4.890-4.950	3.276e+03
	5.068	5.038-5.098	3.827e+03
	5.386	5.356-5.416	5.446e+03
	5.592	5.562-5.622	5.047e+03
	6.021	5.991-6.051	7.196e+03
9 Aroclor-1268	6.018	5.988-6.048	1.138e+04
	6.051	6.021-6.081	1.041e+04
	6.230	6.200-6.260	8.192e+03
	6.427	6.397-6.457	4.057e+03
	6.656	6.626-6.686	2.464e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.486	2.456-2.516	8.684e+04
$ 12 Decachlorobiphenyl	6.836	6.806-6.866	6.484e+04
13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Cal Date : 15-Feb-2010 06:50 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028f2801.d
Level 2: /chem/ecd8a.i/020310a.b/029f2901.d
Level 3: /chem/ecd8a.i/020310a.b/030f3001.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/020310a.b/032f3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5614	5138	4704	4321	3545	4665	16.943
(2)	6383	6264	5935	5475	4791	5770	11.275
(3)	2817	2639	2454	2319	2042	2454	12.124
(4)	2629	2406	2216	2019	1720	2198	15.914
(5)	3708	3411	3117	2938	2537	3142	14.248
2 Aroclor-1221(1)	+++++	+++++	+++++	1100	+++++	1100	0.000
(2)	+++++	+++++	+++++	1460	+++++	1460	0.000
(3)	+++++	+++++	+++++	3385	+++++	3385	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3599	3150	2999	2805	2397	2990	14.793
(2)	4688	4030	3804	3549	3043	3823	15.884
(3)	6028	5281	4903	4737	4053	5000	14.533
(4)	7068	6330	5909	5676	4965	5990	13.024
(5)	5743	5075	4737	4591	3986	4826	13.394
6 Aroclor-1254(1)	5857	5096	4715	4450	3806	4785	15.921
(2)	7961	7038	6468	6172	5208	6569	15.558
(3)	6032	5571	5105	4741	4242	5138	13.582
(4)	10107	9649	8877	8173	7180	8797	13.271
(5)	7953	7619	6996	6322	5678	6914	13.452

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Cal Date : 15-Feb-2010 06:50 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	7706	7225	6868	6425	5470	6739	12.628
	(2)	11735	10983	10481	9771	8329	10260	12.630
	(3)	7075	6577	6171	5792	5035	6130	12.657
	(4)	7317	6857	6397	6058	5301	6386	12.066
	(5)	7655	7335	6855	6540	5914	6860	9.924
	8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
	(2)	5935	5551	5239	5102	4386	5243	10.995
	(3)	7996	7523	7022	6963	6012	7103	10.414
	(4)	9555	9028	8567	8433	7318	8580	9.694
	(5)	8875	8357	7946	7802	6850	7966	9.421
	9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
	(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
	(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
	(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
	(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
	14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
	15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$	11 4cmx	141196	137660	133177	129355	115643	131406	7.521
$	12 Decachlorobiphenyl	111693	106508	99006	96244	86457	99981	9.718

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Cal Date : 15-Feb-2010 06:49 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028b2801.d
Level 2: /chem/ecd8a.i/020310a.b/029b2901.d
Level 3: /chem/ecd8a.i/020310a.b/030b3001.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/020310a.b/032b3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	3955	3879	3768	3829	3401	3766	5.726
(2)	2683	2623	2522	2463	2181	2494	7.814
(3)	1588	1565	1522	1510	1392	1515	5.000
(4)	1644	1573	1498	1453	1297	1493	8.812
(5)	2161	2107	2068	2025	1817	2036	6.473
2 Aroclor-1221(1)	+++++	+++++	+++++	895	+++++	895	0.000
(2)	+++++	+++++	+++++	557	+++++	557	0.000
(3)	+++++	+++++	+++++	2060	+++++	2060	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1621	1511	1422	1366	1213	1427	10.773
(2)	2779	2594	2491	2383	2090	2467	10.392
(3)	3403	3233	3131	3022	2657	3089	9.043
(4)	3964	3788	3692	3588	3204	3647	7.785
(5)	4333	4155	4060	3948	3526	4004	7.553
6 Aroclor-1254(1)	3700	3695	3475	3389	2993	3450	8.395
(2)	4204	4194	3940	3836	3377	3910	8.648
(3)	5766	5885	5570	5452	4827	5500	7.494
(4)	4254	4252	4044	3942	3562	4011	7.104
(5)	2775	2711	2546	2462	2250	2549	8.187

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Cal Date : 15-Feb-2010 06:49 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	4328	4278	4140	4064	3611	4084	6.976
(2)	5221	5198	5036	4963	4428	4969	6.467
(3)	3970	3947	3809	3790	3427	3788	5.744
(4)	4121	4108	3975	3957	3605	3953	5.268
(5)	6395	6455	6249	6250	5789	6227	4.190
8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
(2)	4038	3929	3844	3825	3498	3827	5.277
(3)	5683	5613	5515	5463	4958	5446	5.255
(4)	5266	5178	5090	5067	4633	5047	4.838
(5)	7327	7356	7286	7270	6740	7196	3.572
9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$ 11 4cmx	86244	88409	88291	88885	82388	86843	3.097
$ 12 Decachlorobiphenyl	68541	67257	64616	64263	59541	64844	5.342

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0702

Lab File ID: 002F0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4548.503	0.01	-2.5	15.0
(2)	5769.588	5603.764	0.01	-2.9	15.0
(3)	2454.201	2323.075	0.01	-5.3	15.0
(4)	2198.179	2073.021	0.01	-5.7	15.0
(5)	3142.156	2985.422	0.01	-5.0	15.0
Aroclor-1260	6738.969	6360.304	0.01	-5.6	15.0
(2)	10259.796	9595.648	0.01	-6.5	15.0
(3)	6129.851	5825.535	0.01	-5.0	15.0
(4)	6385.867	6234.879	0.01	-2.4	15.0
(5)	6859.759	6996.429	0.01	2.0	15.0
4cmx	131406.10	139136.78	0.01	5.9	15.0
Decachlorobiphenyl	99981.358	97993.400	0.01	-2.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 0702

Lab File ID: 002B0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3777.022	0.01	0.3	15.0
(2)	2494.427	2504.931	0.01	0.4	15.0
(3)	1515.492	1469.542	0.01	-3.0	15.0
(4)	1493.163	1424.438	0.01	-4.6	15.0
(5)	2035.618	1995.101	0.01	-2.0	15.0
Aroclor-1260	4084.417	4339.858	0.01	6.2	15.0
(2)	4968.902	5272.238	0.01	6.1	15.0
(3)	3788.418	4034.101	0.01	6.5	15.0
(4)	3953.106	4196.512	0.01	6.2	15.0
(5)	6227.437	6650.370	0.01	6.8	15.0
4cmx	86843.352	91859.720	0.01	5.8	15.0
Decachlorobiphenyl	64843.758	65029.570	0.01	0.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 1056

Lab File ID: 021F2101 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4427.289	0.01	-5.1	15.0
(2)	5769.588	5231.669	0.01	-9.3	15.0
(3)	2454.201	2257.198	0.01	-8.0	15.0
(4)	2198.179	2027.637	0.01	-7.8	15.0
(5)	3142.156	2907.902	0.01	-7.4	15.0
Aroclor-1260	6738.969	6210.653	0.01	-7.8	15.0
(2)	10259.796	9429.792	0.01	-8.1	15.0
(3)	6129.851	5734.817	0.01	-6.4	15.0
(4)	6385.867	6164.329	0.01	-3.5	15.0
(5)	6859.759	6924.069	0.01	0.9	15.0
4cmx	131406.10	134284.87	0.01	2.2	15.0
Decachlorobiphenyl	99981.358	96393.950	0.01	-3.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 1056

Lab File ID: 021B2101 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3579.581	0.01	-5.0	15.0
(2)	2494.427	2425.109	0.01	-2.8	15.0
(3)	1515.492	1415.842	0.01	-6.6	15.0
(4)	1493.163	1374.673	0.01	-7.9	15.0
(5)	2035.618	1929.912	0.01	-5.2	15.0
Aroclor-1260	4084.417	4222.628	0.01	3.4	15.0
(2)	4968.902	5138.981	0.01	3.4	15.0
(3)	3788.418	3947.606	0.01	4.2	15.0
(4)	3953.106	4089.217	0.01	3.4	15.0
(5)	6227.437	6559.427	0.01	5.3	15.0
4cmx	86843.352	88065.490	0.01	1.4	15.0
Decachlorobiphenyl	64843.758	63780.140	0.01	-1.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 1325

Lab File ID: 033F3301 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4529.687	0.01	-2.9	15.0
(2)	5769.588	5840.240	0.01	1.2	15.0
(3)	2454.201	2398.191	0.01	-2.3	15.0
(4)	2198.179	2140.017	0.01	-2.6	15.0
(5)	3142.156	3094.078	0.01	-1.5	15.0
Aroclor-1260	6738.969	6514.014	0.01	-3.3	15.0
(2)	10259.796	9893.168	0.01	-3.6	15.0
(3)	6129.851	5932.698	0.01	-3.2	15.0
(4)	6385.867	6337.042	0.01	-0.8	15.0
(5)	6859.759	7304.897	0.01	6.5	15.0
4cmx	131406.10	136952.20	0.01	4.2	15.0
Decachlorobiphenyl	99981.358	99546.260	0.01	-0.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

Instrument ID: ECD8A Calibration Date: 02/12/10 Time: 1325

Lab File ID: 033B3301 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3766.401	3869.768	0.01	2.7	15.0	
(2)	2494.427	2493.274	0.01	-0.0	15.0	
(3)	1515.492	1605.277	0.01	5.9	15.0	
(4)	1493.163	1415.340	0.01	-5.2	15.0	
(5)	2035.618	1922.083	0.01	-5.6	15.0	
Aroclor-1260	4084.417	4276.875	0.01	4.7	15.0	
(2)	4968.902	5145.887	0.01	3.6	15.0	
(3)	3788.418	4664.119	0.01	23.1	15.0	<-
(4)	3953.106	4133.683	0.01	4.6	15.0	
(5)	6227.437	7602.227	0.01	22.1	15.0	<-
4cmx	86843.352	87572.410	0.01	0.8	15.0	
Decachlorobiphenyl	64843.758	75925.500	0.01	17.1	15.0	<-

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 12-FEB-2010 07:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.252	2.252	0.000	13913678	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	9799340	100.000	98.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.811	2.811	0.000	4548503	1000.00	975	80.00- 120.00	100.00
3.163	3.163	0.000	5603763	1000.00	971	98.17- 138.17	123.20
3.306	3.306	0.000	2323075	1000.00	946	30.98- 70.98	51.07
3.399	3.399	0.000	2073020	1000.00	943	25.80- 65.80	45.58
3.561	3.561	0.000	2985421	1000.00	950	45.68- 85.68	65.64
Average of Peak Amounts =					957		
7 Aroclor-1260					CAS #: 11096-82-5		
4.435	4.435	0.000	6360304	1000.00	944	80.00- 120.00	100.00
4.631	4.631	0.000	9595648	1000.00	935	131.83- 171.83	150.87
4.906	4.906	0.000	5825535	1000.00	950	72.34- 112.34	91.59
5.078	5.078	0.000	6234878	1000.00	976	79.25- 119.25	98.03
5.490	5.490	0.000	6996429	1000.00	1020	91.49- 131.49	110.00
Average of Peak Amounts =					965		

Data File: /chem/ecd8a.i/021210.b/002f0201.d

Date : 12-FEB-2010 07:02

Client ID: AR166001

Sample Info: !WAR100203-60 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

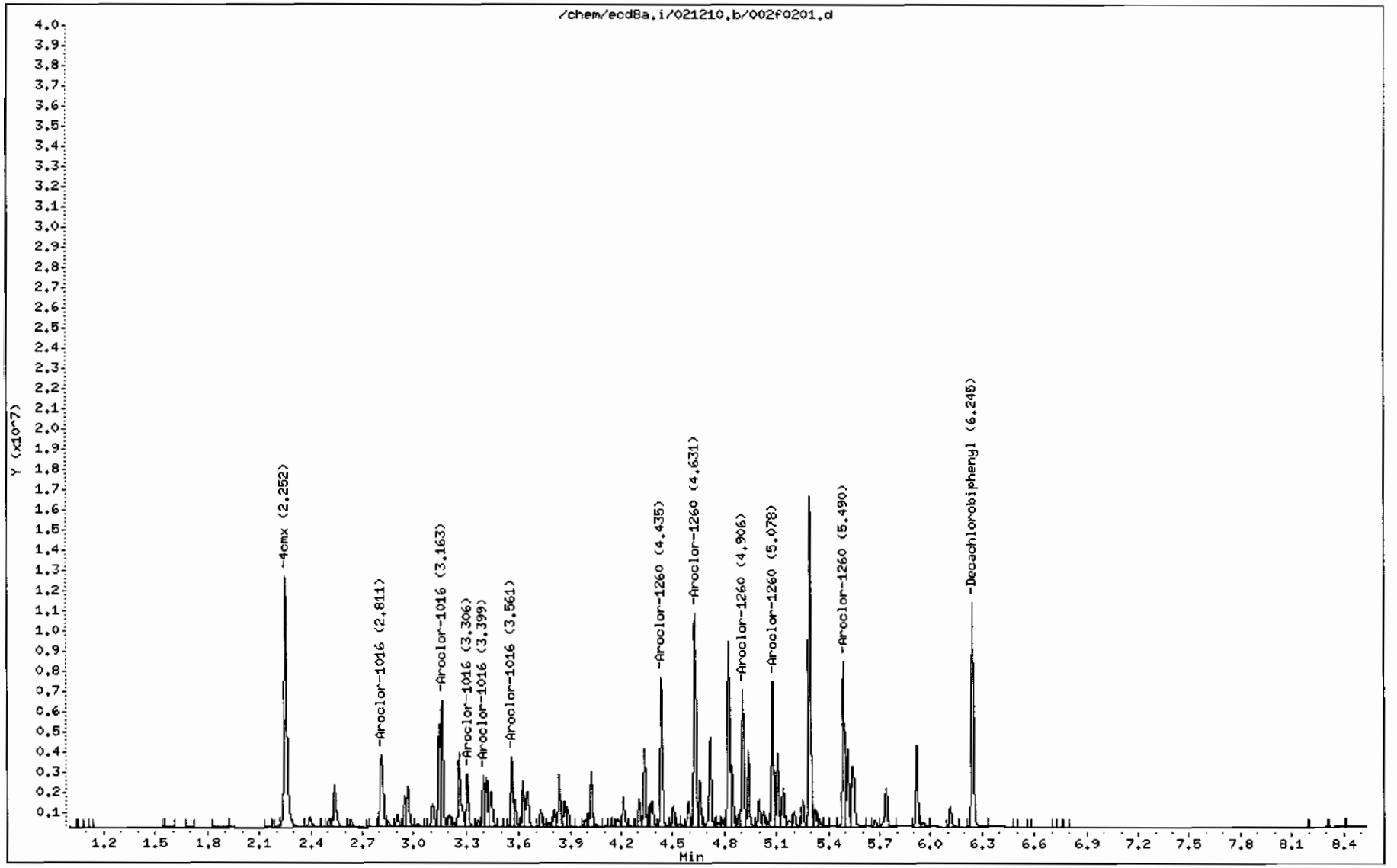

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 12-FEB-2010 07:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	9185972	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	6502957	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.558	3.558	0.000	3777022	1000.00	1000	80.00- 120.00	100.00
3.658	3.658	0.000	2504931	1000.00	1000	47.75- 87.75	66.32
3.734	3.734	0.000	1469541	1000.00	970	19.55- 59.55	38.91
3.809	3.809	0.000	1424437	1000.00	954	18.40- 58.40	37.71
4.006	4.006	0.000	1995100	1000.00	980	33.91- 73.91	52.82
Average of Peak Amounts =					982		
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	4339858	1000.00	1060	80.00- 120.00	100.00
5.068	5.068	0.000	5272237	1000.00	1060	101.70- 141.70	121.48
5.384	5.384	0.000	4034100	1000.00	1060	73.49- 113.49	92.95
5.591	5.591	0.000	4196512	1000.00	1060	76.84- 116.84	96.70
6.023	6.023	0.000	6650370	1000.00	1070	135.34- 175.34	153.24
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd8a.i/021210.b/002b0201.d

Date : 12-FEB-2010 07:02

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

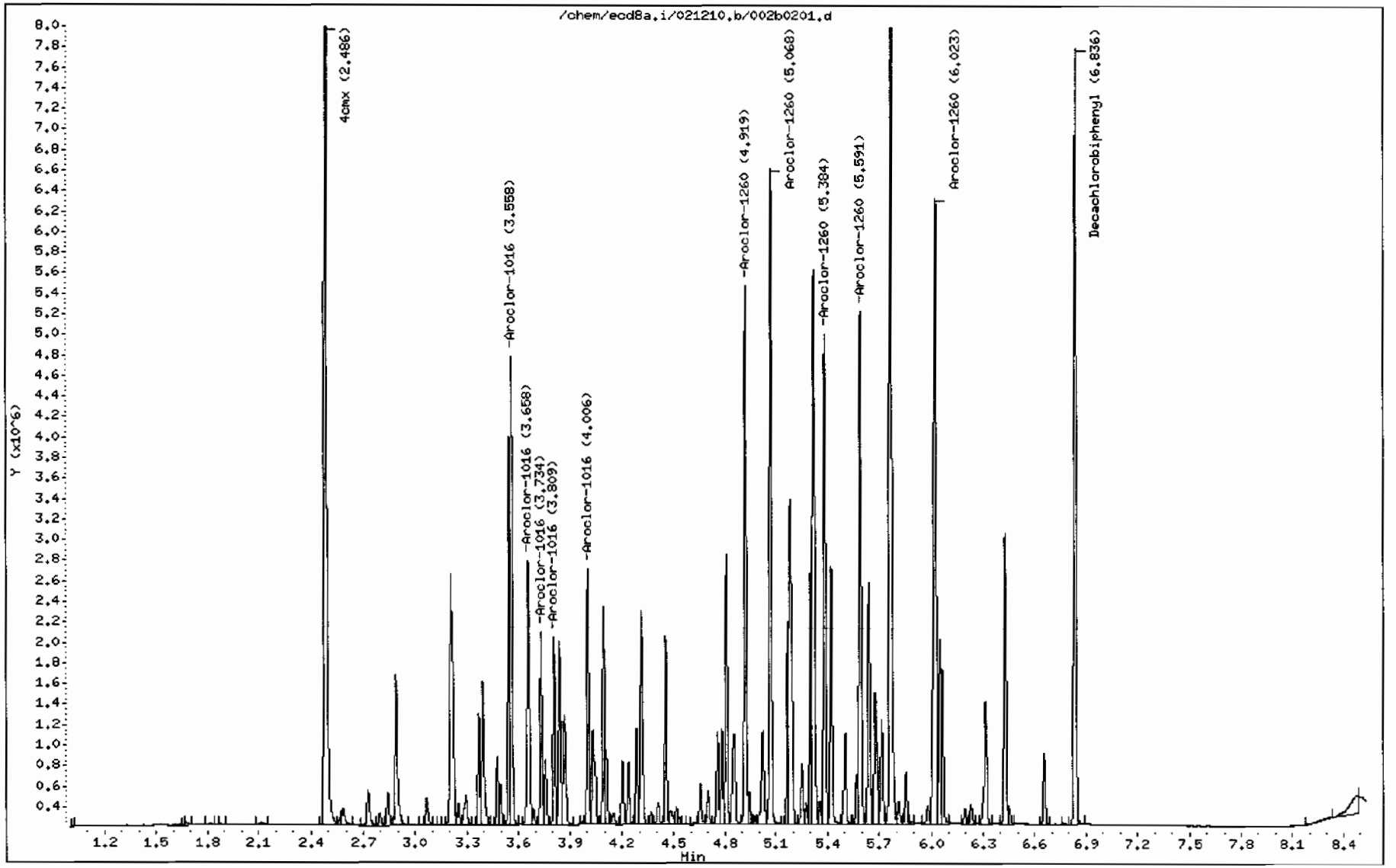

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/003f0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 12-FEB-2010 07:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.837	3.837	0.000	4792955	1000.00	1000	80.00- 120.00	100.00
4.025	4.025	0.000	6493192	1000.00	988	115.47- 155.47	135.47
4.220	4.220	0.000	4910432	1000.00	956	82.45- 122.45	102.45
4.306	4.306	0.000	8520921	1000.00	968	157.78- 197.78	177.78
4.501	4.501	0.000	6638641	1000.00	960	118.51- 158.51	138.51
		Average of Peak Amounts =			975		

Data File: /chem/ecd8a.i/021210.b/003f0301.d
Date : 12-FEB-2010 07:14
Client ID: AR125401
Sample Info: IWAR100201-54

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

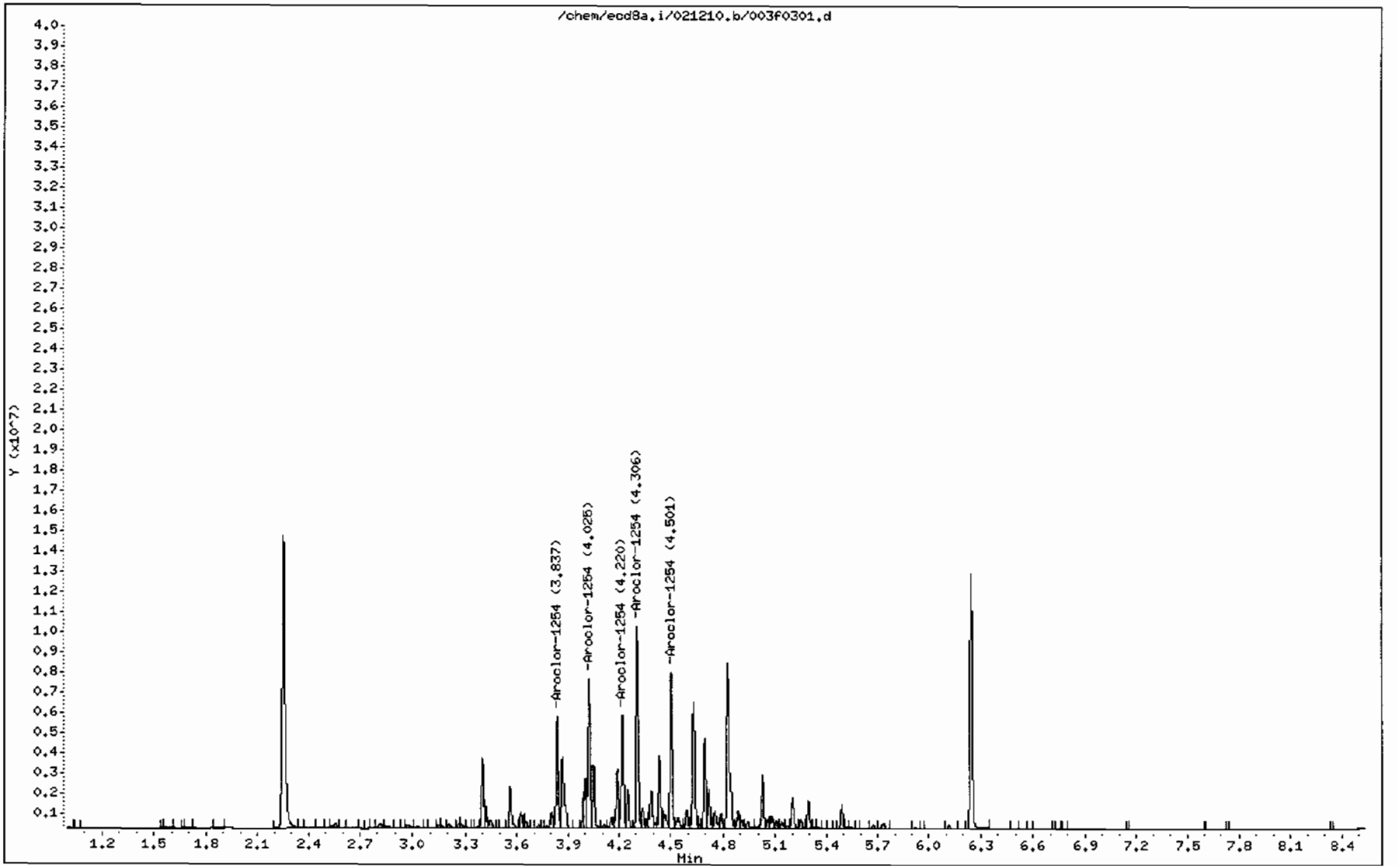

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/003b0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 12-FEB-2010 07:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.313	4.313	0.000	3619477	1000.00	1050	80.00- 120.00	100.00
4.451	4.451	0.000	4078317	1000.00	1040	92.68- 132.68	112.68
4.780	4.780	0.000	5822783	1000.00	1060	140.87- 180.87	160.87
4.942	4.942	0.000	4223178	1000.00	1050	96.68- 136.68	116.68
5.068	5.068	0.000	2674832	1000.00	1050	53.90- 93.90	73.90

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/021210.b/003b0301.d

Date : 12-FEB-2010 07:14

Client ID: AR125401

Sample Info: IWAR100201-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

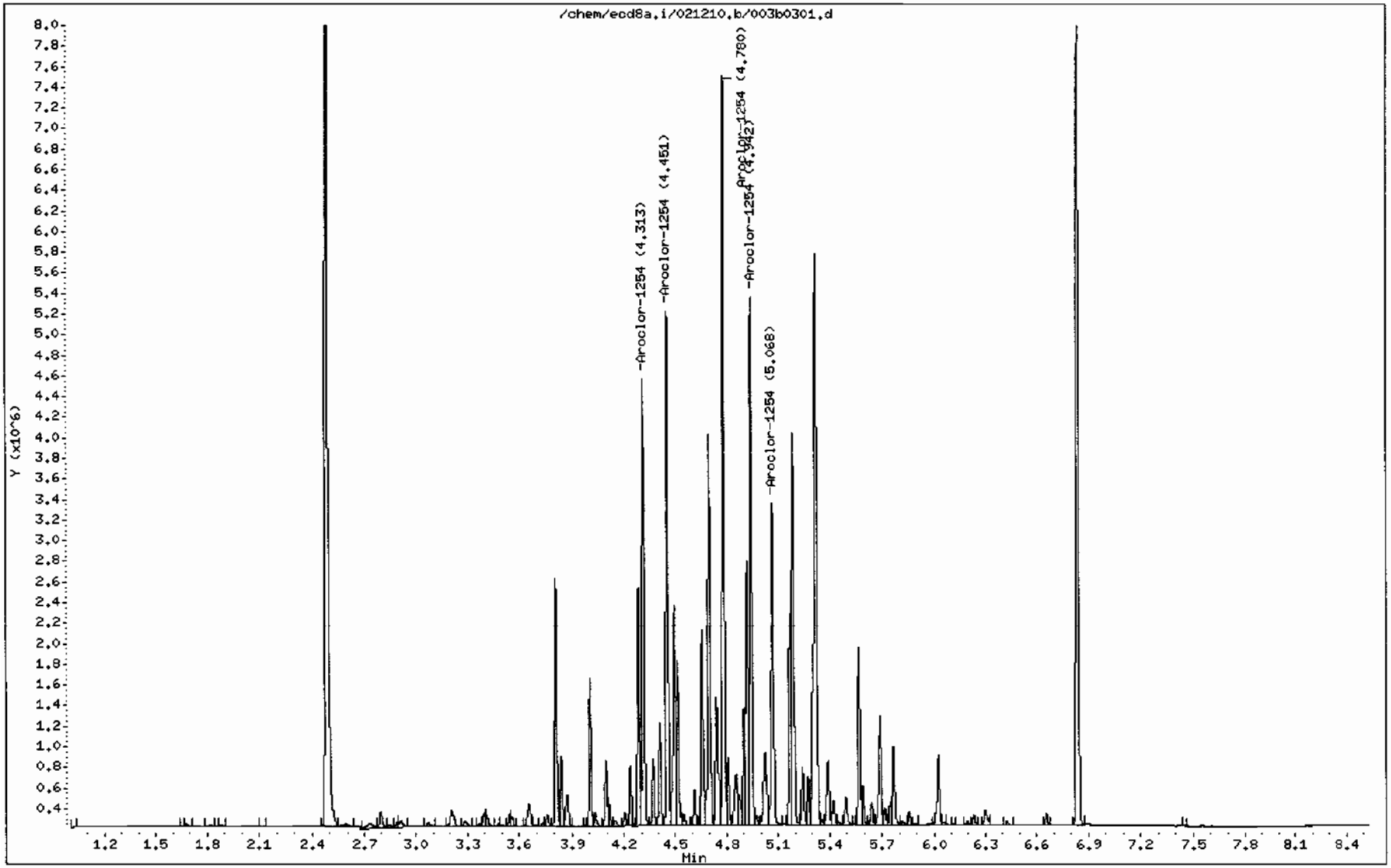

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 12-FEB-2010 07:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.812	2.812	0.000	3721427	1000.00	936	80.00- 120.00	100.00
3.164	3.164	0.000	4447831	1000.00	927	99.52- 139.52	119.52
3.400	3.400	0.000	1643502	1000.00	910	24.16- 64.16	44.16
3.417	3.417	0.000	1688795	1000.00	894	25.38- 65.38	45.38
3.562	3.562	0.000	2416012	1000.00	913	44.92- 84.92	64.92
Average of Peak Amounts =					916		

Data File: /chem/ecd8a.i/021210.b/004f0401.d

Page 1

Date : 12-FEB-2010 07:26

Client ID: AR124201

Instrument: ecd8a.i

Sample Info: IWAR091217-42

Operator: JADC

Column phase: CLP1

Column diameter: 0.25

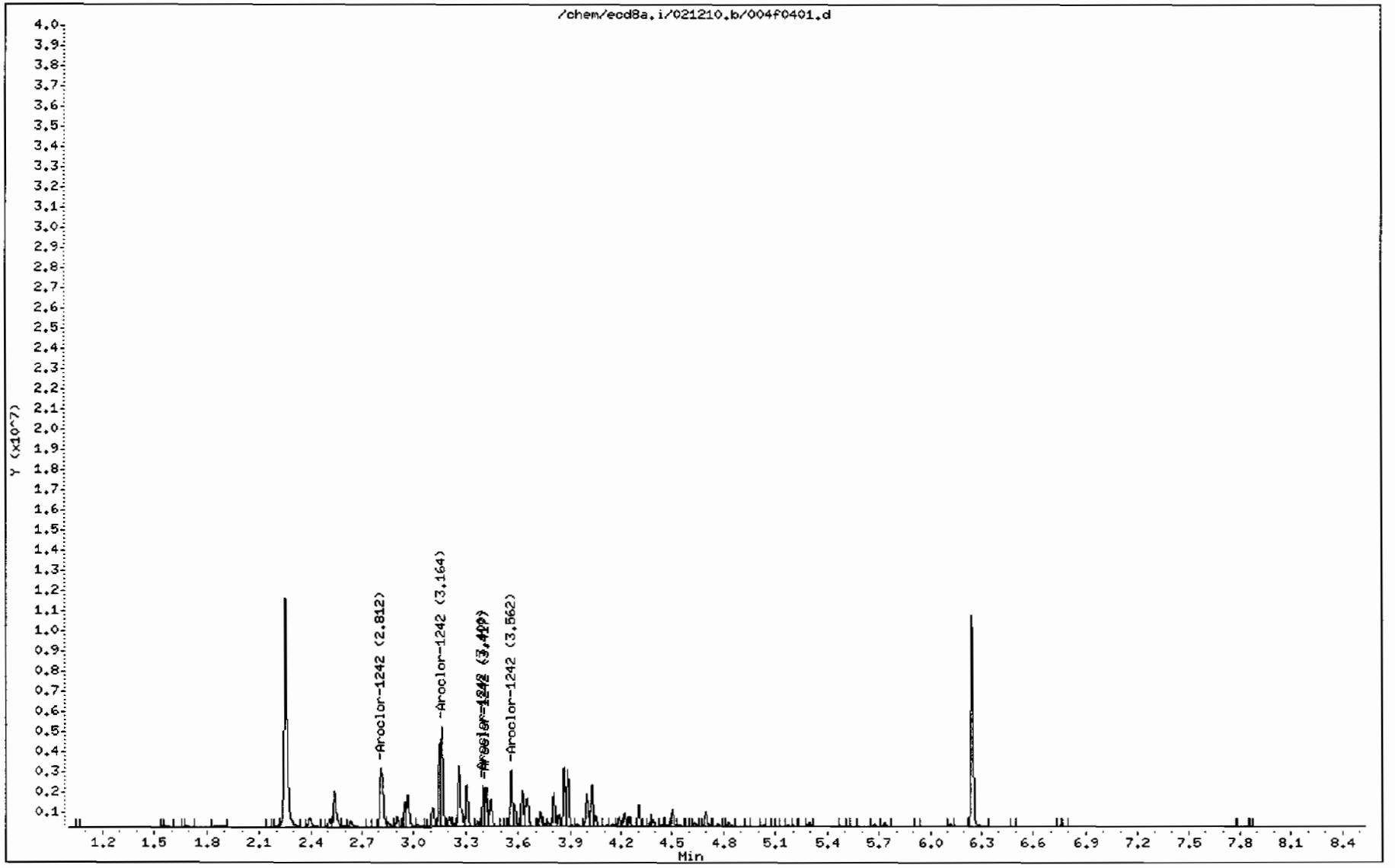

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 12-FEB-2010 07:26
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.206	3.206	0.000	2518361	1000.00	941	80.00- 120.00	100.00
3.559	3.559	0.000	2915172	1000.00	933	95.76- 135.76	115.76
3.659	3.659	0.000	2010413	1000.00	945	59.83- 99.83	79.83
4.006	4.006	0.000	1576801	1000.00	926	42.61- 82.61	62.61
4.096	4.096	0.000	1486237	1000.00	949	39.02- 79.02	59.02

Average of Peak Amounts = 939

Data File: /chem/ecd8a.i/021210.b/004b0401.d

Date : 12-FEB-2010 07:26

Client ID: AR124201

Sample Info: !WAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

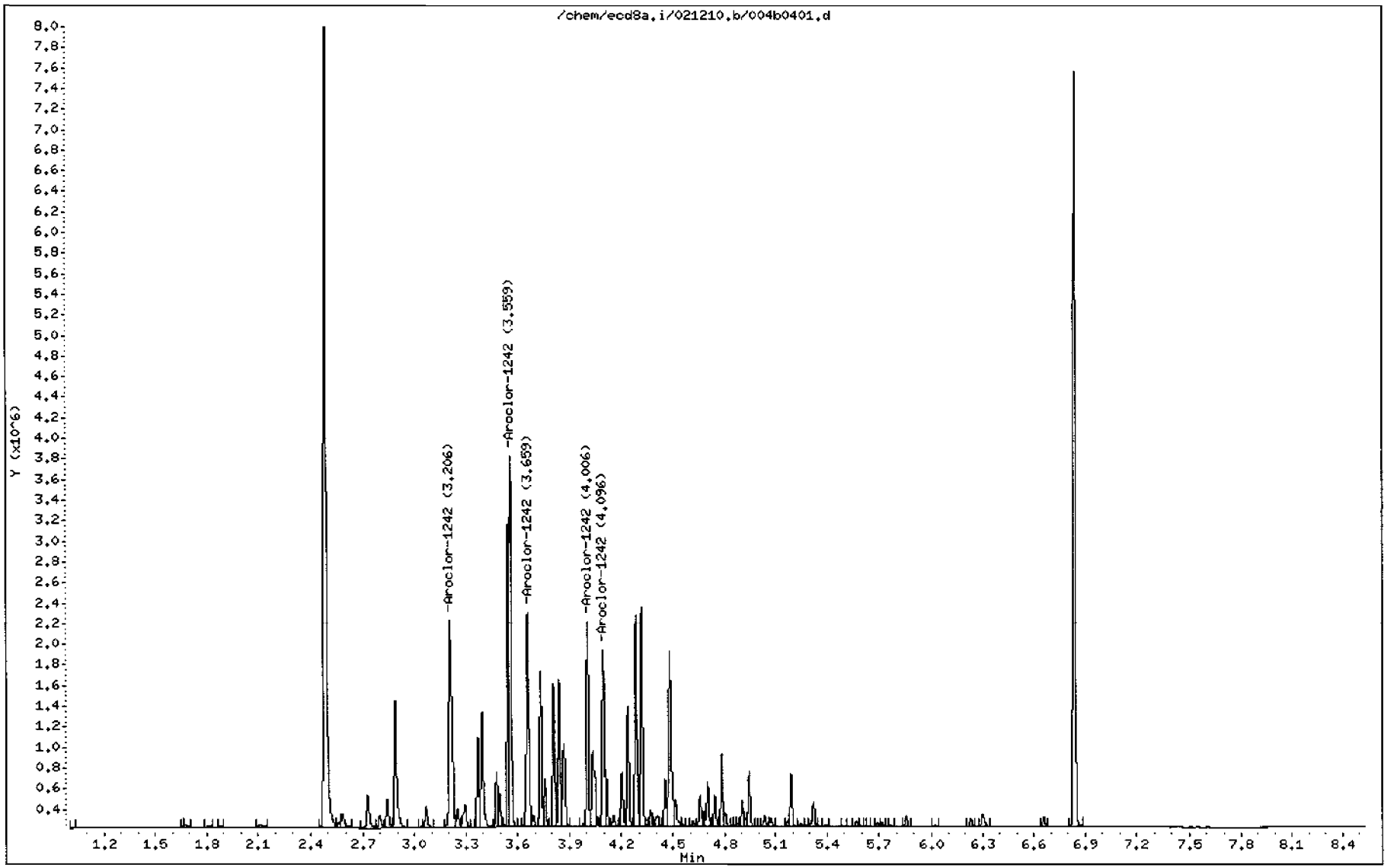

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 12-FEB-2010 07:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.148	3.148	0.000	2353370	1000.00	787	80.00- 120.00	100.00
3.399	3.399	0.000	3094483	1000.00	809	111.49- 151.49	131.49
3.562	3.562	0.000	4049295	1000.00	810	152.06- 192.06	172.06
3.867	3.867	0.000	4836876	1000.00	808	185.53- 225.53	205.53
4.027	4.027	0.000	3828514	1000.00	793	142.68- 182.68	162.68
Average of Peak Amounts =					801		

Data File: /chem/ecd8a.i/021210.b/005f0501.d

Date : 12-FEB-2010 07:38

Client ID: AR124801

Sample Info: |WAR091217-48

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

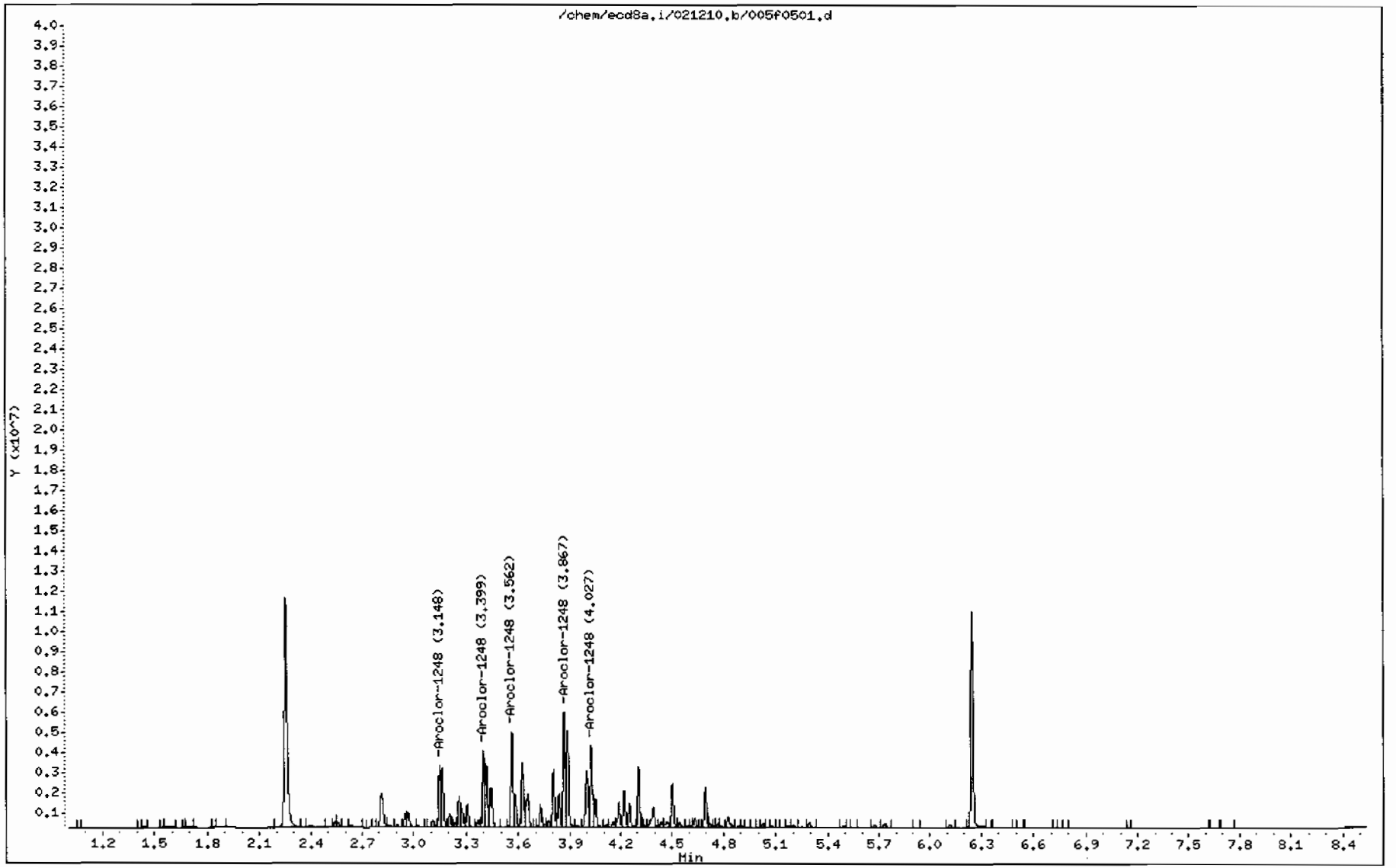

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 12-FEB-2010 07:38
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.657	3.657	0.000	1278541	1000.00	896	80.00- 120.00	100.00
3.810	3.810	0.000	2151154	1000.00	872	148.25- 188.25	168.25
4.006	4.006	0.000	2705822	1000.00	876	191.63- 231.63	211.63
4.284	4.284	0.000	3187472	1000.00	874	229.31- 269.31	249.31
4.317	4.317	0.000	3516359	1000.00	878	255.03- 295.03	275.03
Average of Peak Amounts =					879		

Data File: /chem/ecd8a.i/021210.b/005b0501.d

Page 1

Date : 12-FEB-2010 07:38

Client ID: AR124801

Instrument: ecd8a.i

Sample Info: IWAR091217-48

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

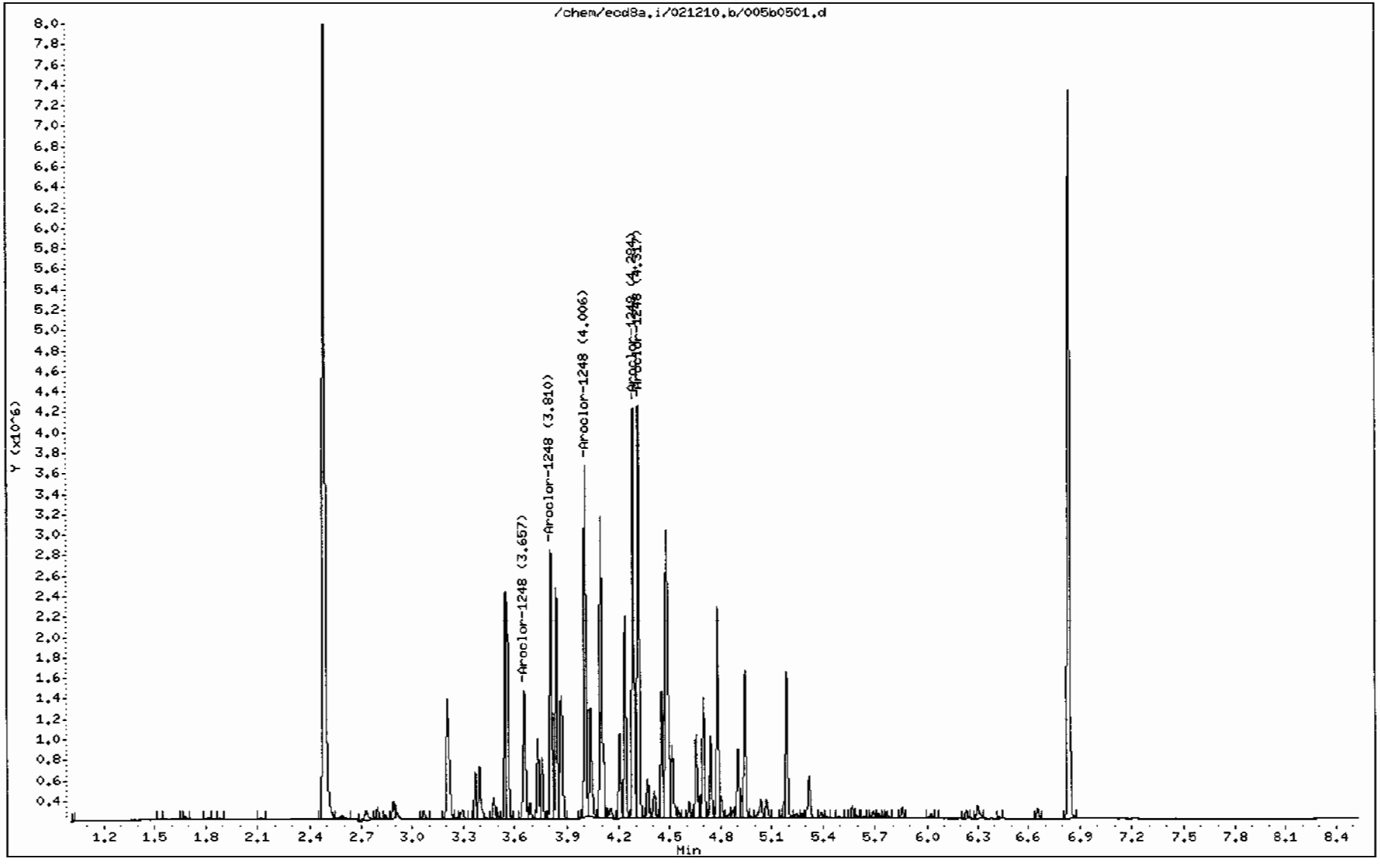

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 12-FEB-2010 07:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.541	2.541	0.000	2439278	1000.00	938	80.00- 120.00	100.00
2.812	2.812	0.000	2151380	1000.00	952	68.20- 108.20	88.20
3.308	3.308	0.000	1097887	1000.00	883	25.01- 65.01	45.01
3.562	3.562	0.000	1342194	1000.00	908	35.02- 75.02	55.02
3.624	3.624	0.000	820349	1000.00	889	13.63- 53.63	33.63
Average of Peak Amounts =					914		

Data File: /chem/ecd8a.i/021210.b/006f0601.d

Date : 12-FEB-2010 07:51

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd8a.i

Operator: JADC

Column diameter: 0.25

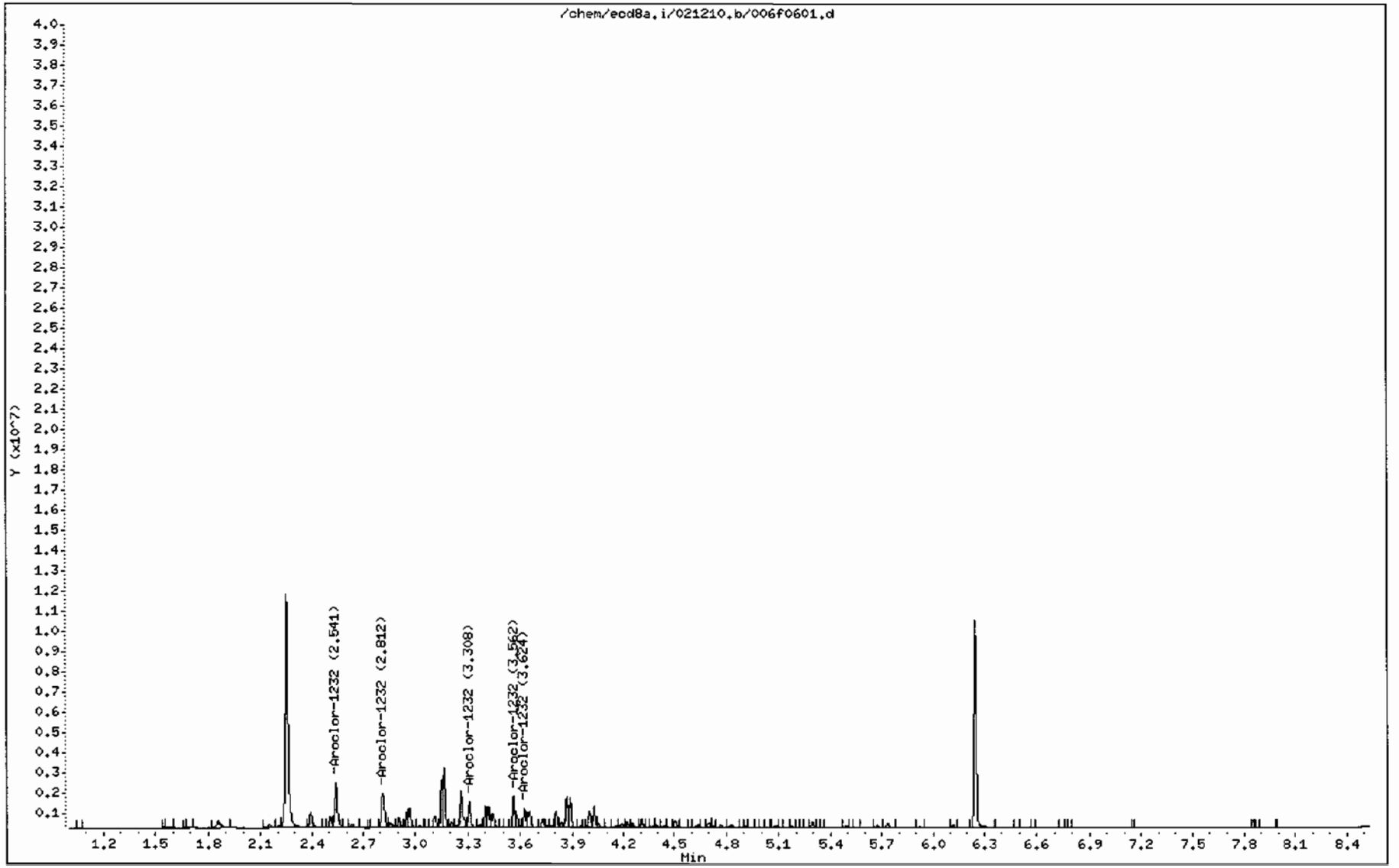

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 12-FEB-2010 07:51
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.207	3.207	0.000	1484066	1000.00	980	80.00- 120.00	100.00
3.560	3.560	0.000	1629700	1000.00	934	89.81- 129.81	109.81
3.659	3.659	0.000	1148925	1000.00	976	57.42- 97.42	77.42
3.735	3.735	0.000	677509	1000.00	954	25.65- 65.65	45.65
3.810	3.810	0.000	592816	1000.00	959	19.95- 59.95	39.95
			Average of Peak Amounts =		961		

Data File: /chem/ecd8a.i/021210.b/006b0601.d

Date : 12-FEB-2010 07:51

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

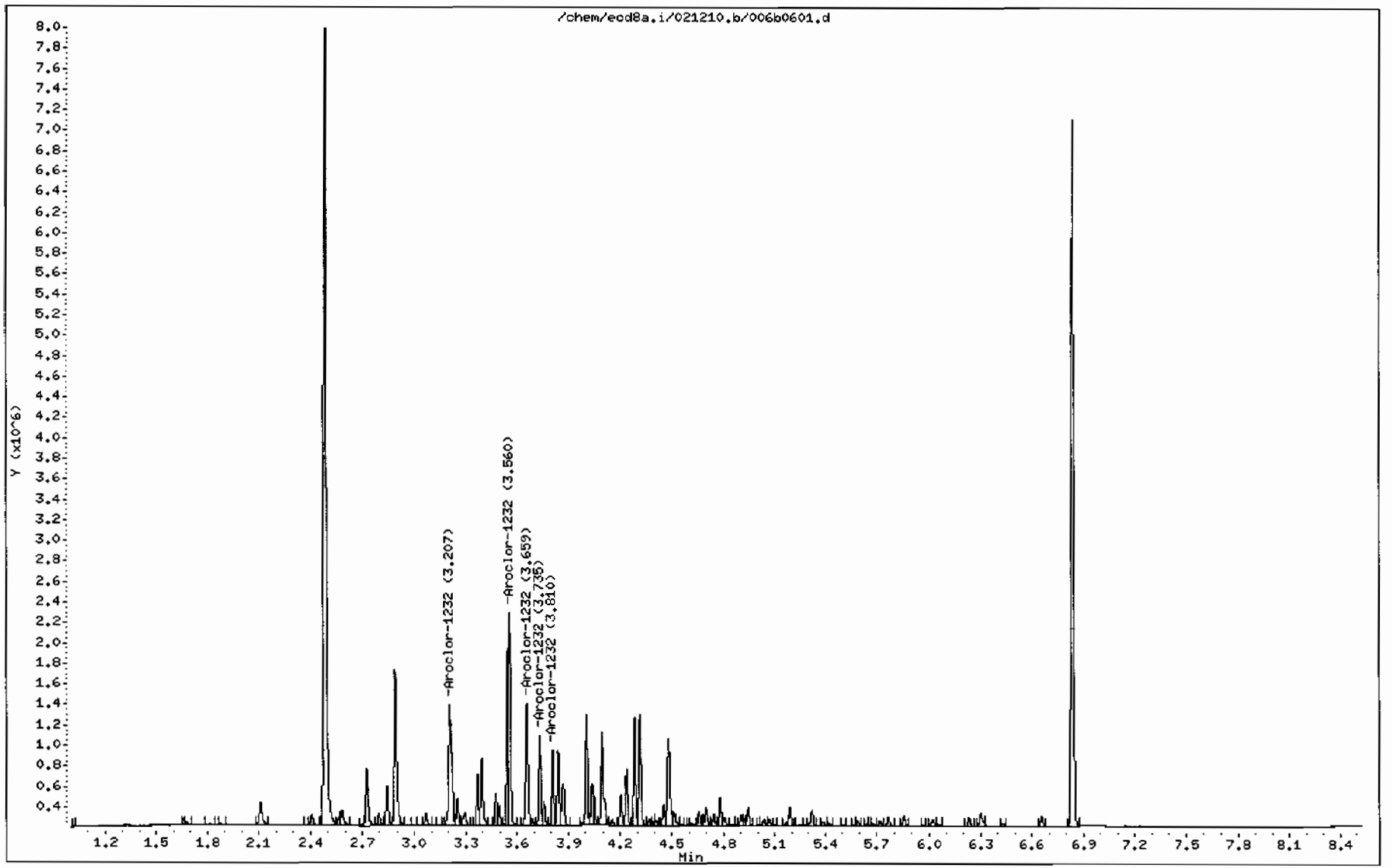

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 12-FEB-2010 08:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
1.855	1.855	0.000	1199847	1000.00	1090	80.00- 120.00	100.00
2.394	2.394	0.000	1489304	1000.00	1020	104.12- 144.12	124.12
2.541	2.541	0.000	3334932	1000.00	985	257.95- 297.95	277.95

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd8a.i/021210.b/007f0701.d

Date : 12-FEB-2010 08:03

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

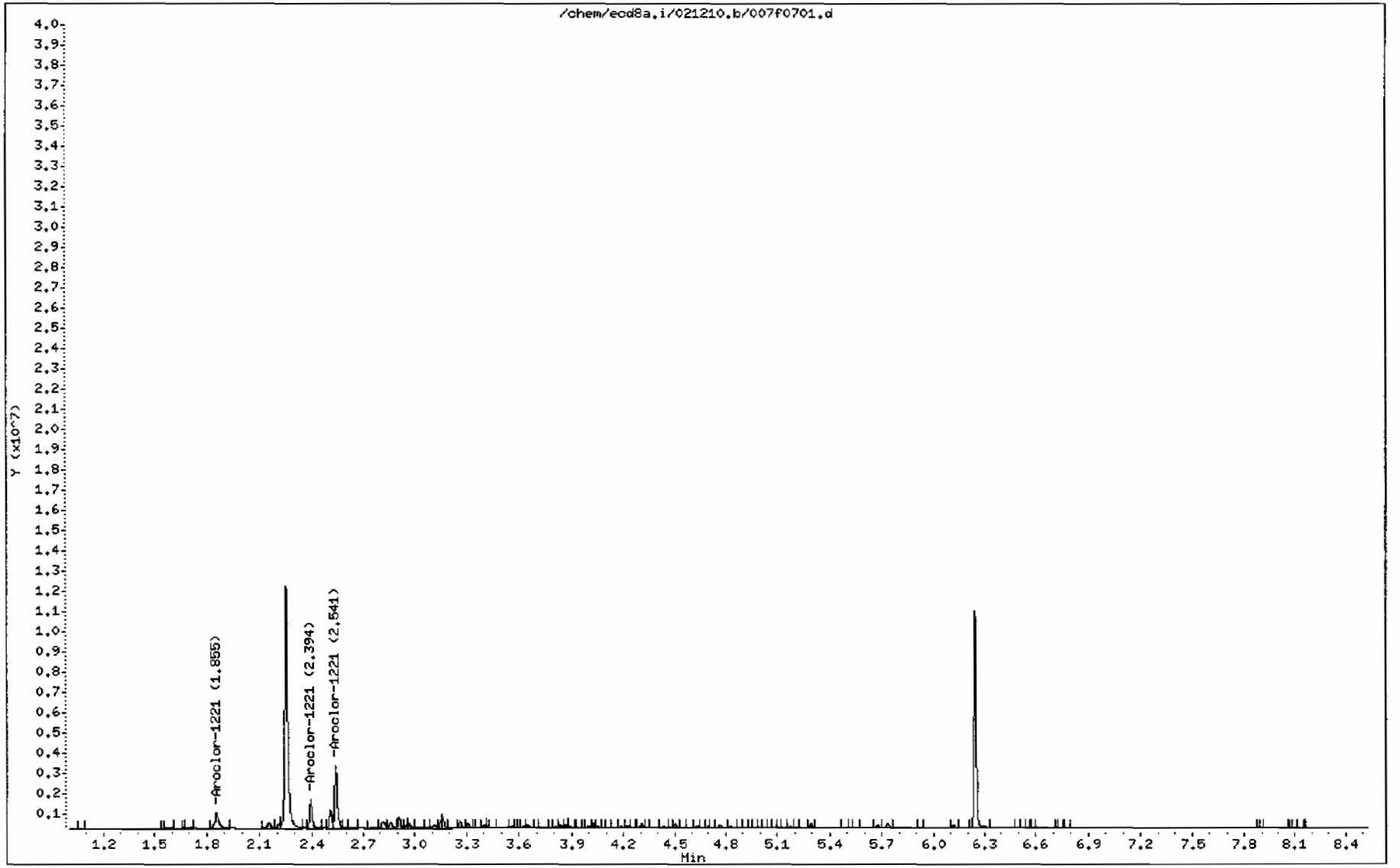

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 12-FEB-2010 08:03
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.727	2.727	0.000	978372	1000.00	1090	80.00- 120.00	100.00
2.839	2.839	0.000	583525	1000.00	1050	39.64- 79.64	59.64
2.888	2.888	0.000	2087832	1000.00	1010	193.40- 233.40	213.40

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/021210.b/007b0701.d

Page 1

Date : 12-FEB-2010 08:03

Client ID: AR122101

Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

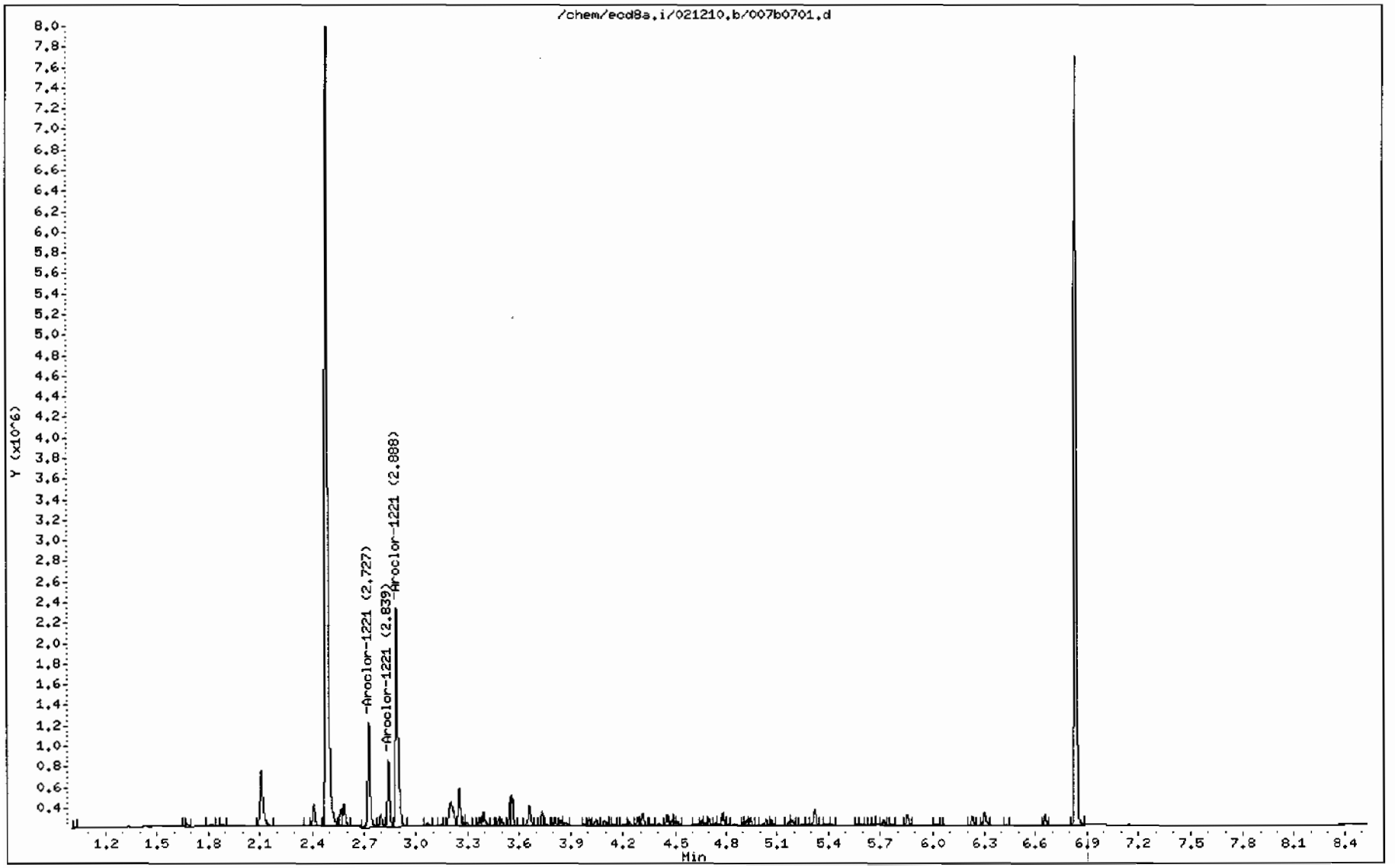

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/009f0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 12-FEB-2010 08:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100107-68
Misc Info : |1268
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
5.514	5.514	0.000	16117772	1000.00	987	80.00- 120.00	100.00
5.541	5.541	0.000	15664642	1000.00	996	77.19- 117.19	97.19
5.673	5.673	0.000	12019899	1000.00	995	54.58- 94.58	74.58
5.919	5.919	0.000	5920910	1000.00	983	16.74- 56.74	36.74
6.116	6.116	0.000	35132887	1000.00	976	197.98- 237.98	217.98
Average of Peak Amounts =					988		

Data File: /chem/ecd8a.i/021210.b/009f0901.d

Date : 12-FEB-2010 08:28

Client ID: AR126801

Sample Info: |WAR100107-68

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

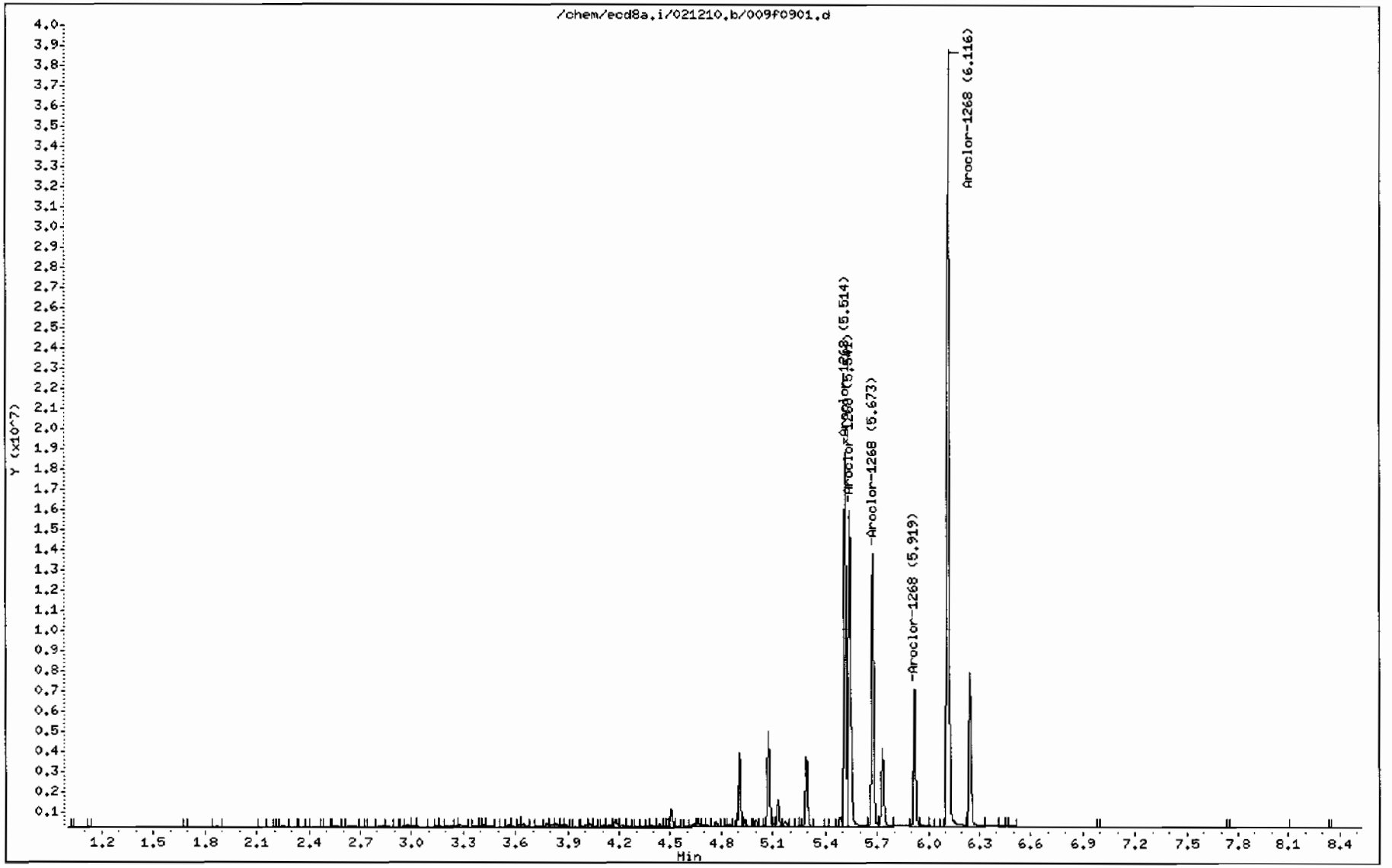

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/009b0901.d
Lab Smp Id: WAR100107-68 Client Smp ID: AR126801
Inj Date : 12-FEB-2010 08:28
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100107-6B
Misc Info : |1268
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1268.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
9 Aroclor-1268					CAS #: 11100-14-4		
6.018	6.018	0.000	11382722	1000.00	1000	80.00- 120.00	100.00
6.051	6.051	0.000	10442539	1000.00	1000	71.74- 111.74	91.74
6.230	6.230	0.000	8200340	1000.00	1000	52.04- 92.04	72.04
6.427	6.427	0.000	4024717	1000.00	992	15.36- 55.36	35.36
6.656	6.656	0.000	24539385	1000.00	996	195.58- 235.58	215.58
Average of Peak Amounts =					998		

Data File: /chem/ecd8a.i/021210.b/009b0901.d

Date : 12-FEB-2010 08:28

Client ID: AR126801

Sample Info: IWAR100107-68

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

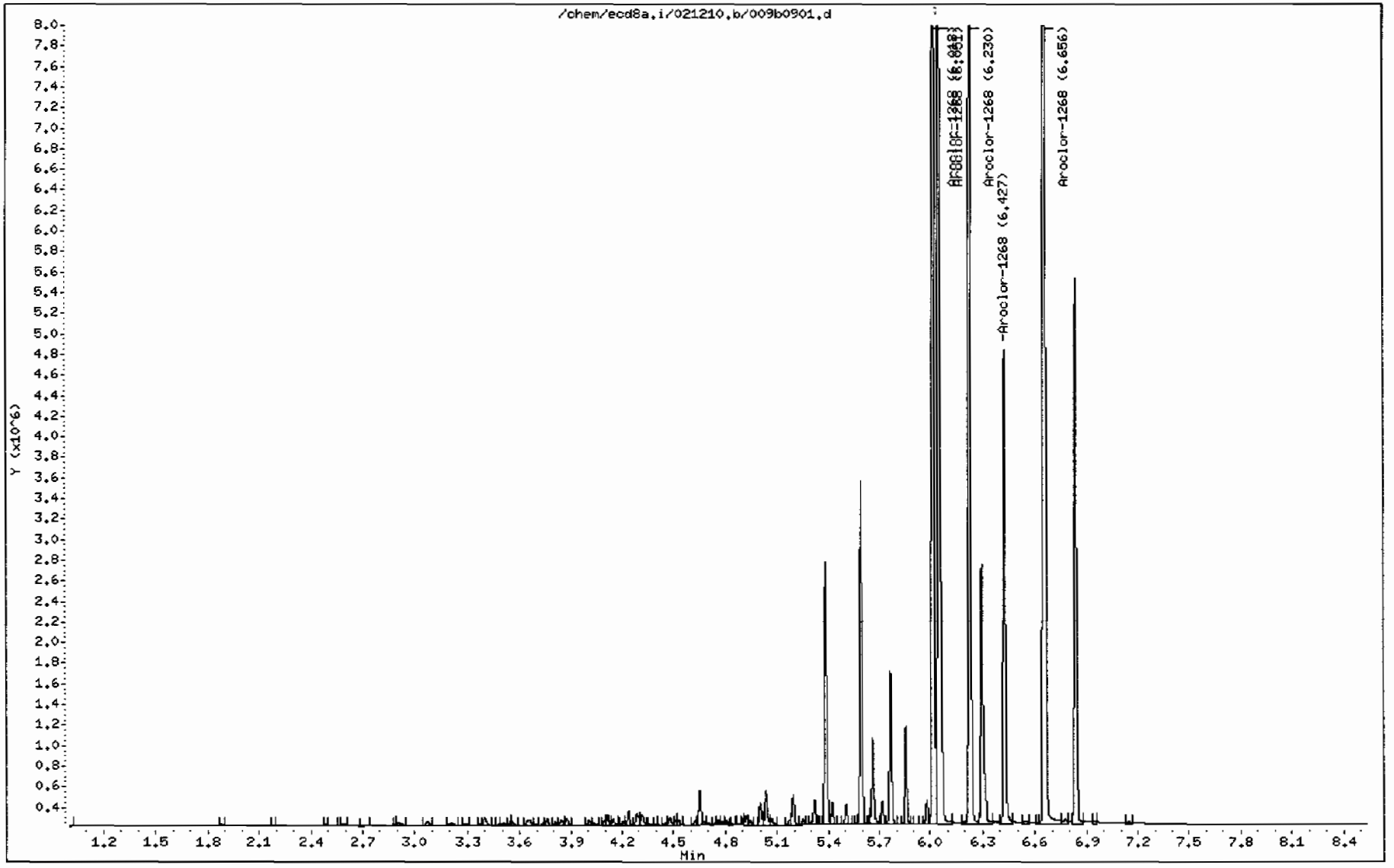

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/021f2101.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 12-FEB-2010 10:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	13428487	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.245	0.002	9639395	100.000	96.4	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.811	0.002	4427289	1000.00	949	80.00- 120.00	100.00
3.164	3.163	0.001	5231669	1000.00	907	98.17- 138.17	118.17
3.308	3.306	0.002	2257198	1000.00	920	30.98- 70.98	50.98
3.399	3.399	0.000	2027637	1000.00	922	25.80- 65.80	45.80
3.562	3.561	0.001	2907902	1000.00	925	45.68- 85.68	65.68
Average of Peak Amounts					925		
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.435	0.001	6210653	1000.00	922	80.00- 120.00	100.00(M)
4.632	4.631	0.001	9429792	1000.00	919	131.83- 171.83	151.83
4.907	4.906	0.001	5734817	1000.00	936	72.34- 112.34	92.34
5.079	5.078	0.001	6164329	1000.00	965	79.25- 119.25	99.25
5.490	5.490	0.000	6924069	1000.00	1010	91.49- 131.49	111.49
Average of Peak Amounts =					950		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/021210.b/021f2101.d

Date : 12-FEB-2010 10:56

Client ID: AR166002

Sample Info: IWAR100203-60 02

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

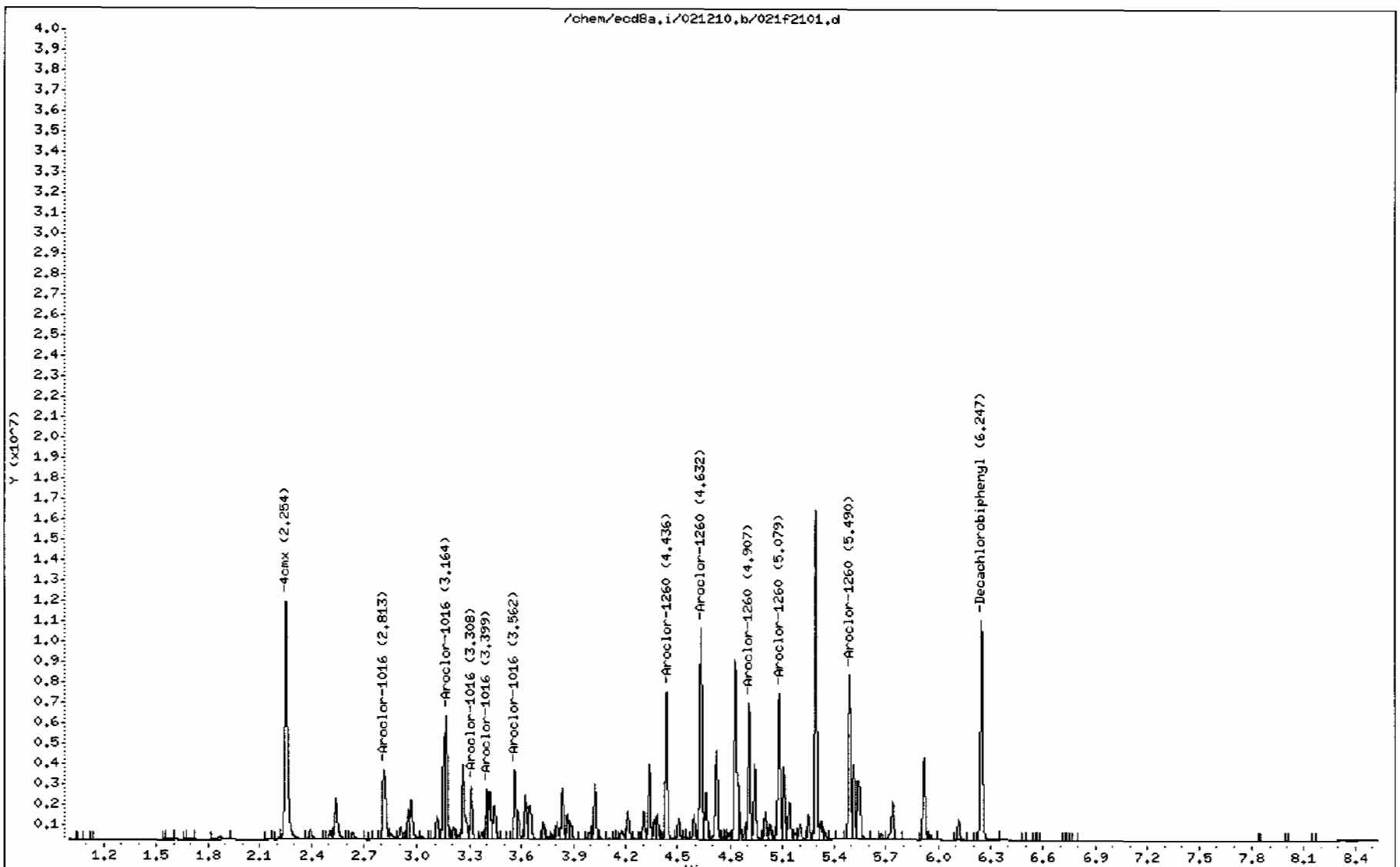

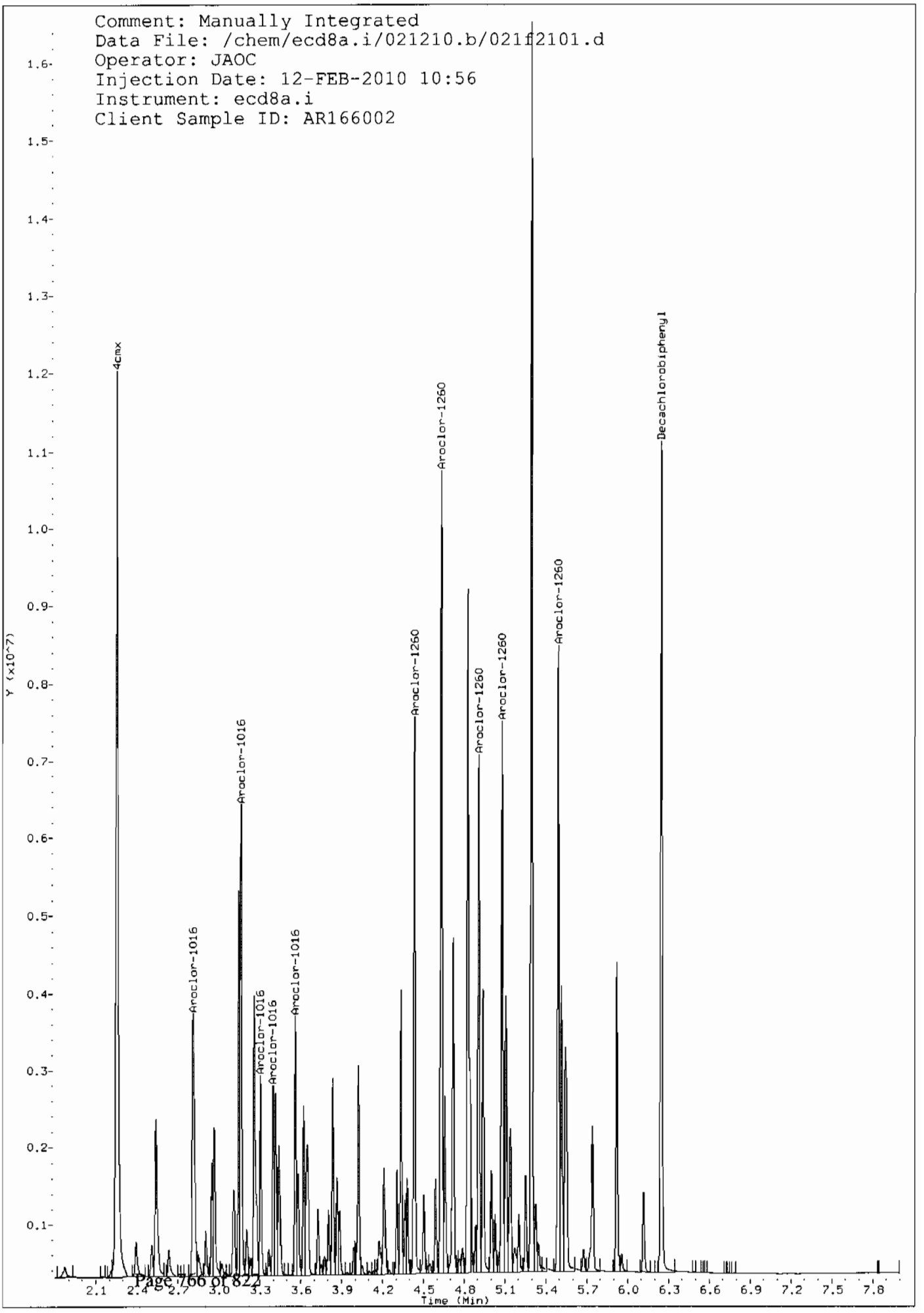
Comment: Manually Integrated
Data File: /chem/ecd8a.i/021210.b/021f2101.d
Operator: JAOC
Injection Date: 12-FEB-2010 10:56
Instrument: ecd8a.i
Client Sample ID: AR166002
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Aroclor-1260
Decachlorobiphenyl

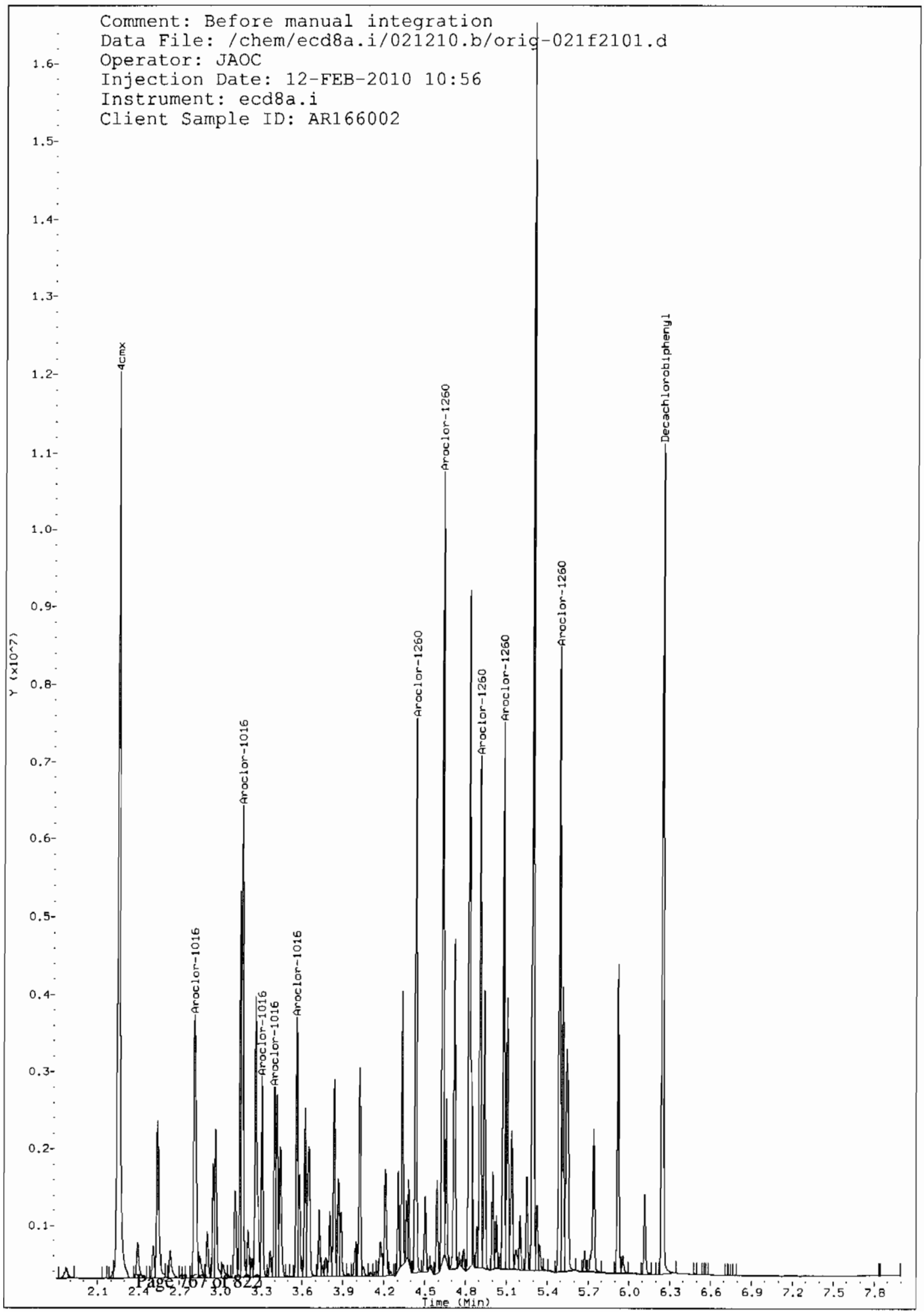
Comment: Before manual integration
Data File: /chem/ecd8a.i/021210.b/orig-021f2101.d
Operator: JAOC
Injection Date: 12-FEB-2010 10:56
Instrument: ecd8a.i
Client Sample ID: AR166002
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/021b2101.d
Lab Smp Id: WAR100203-60 02 Client Smp ID: AR166002
Inj Date : 12-FEB-2010 10:56
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 02
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	8806549	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	6378014	100.000	98.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	3579581	1000.00	950	80.00- 120.00	100.00
3.659	3.658	0.001	2425108	1000.00	972	47.75- 87.75	67.75
3.735	3.734	0.001	1415841	1000.00	934	19.55- 59.55	39.55
3.809	3.809	0.000	1374673	1000.00	921	18.40- 58.40	38.40
4.006	4.006	0.000	1929912	1000.00	948	33.91- 73.91	53.91
Average of Peak Amounts =					945		
7 Aroclor-1260					CAS #: 11096-82-5		
4.920	4.919	0.001	4222628	1000.00	1030	80.00- 120.00	100.00
5.069	5.068	0.001	5138980	1000.00	1030	101.70- 141.70	121.70
5.385	5.384	0.001	3947606	1000.00	1040	73.49- 113.49	93.49
5.592	5.591	0.001	4089217	1000.00	1030	76.84- 116.84	96.84
6.024	6.023	0.001	6559427	1000.00	1050	135.34- 175.34	155.34
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd8a.i/021210.b/021b2101.d
Date : 12-FEB-2010 10:56
Client ID: AR166002
Sample Info: IWAR100203-60 02

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

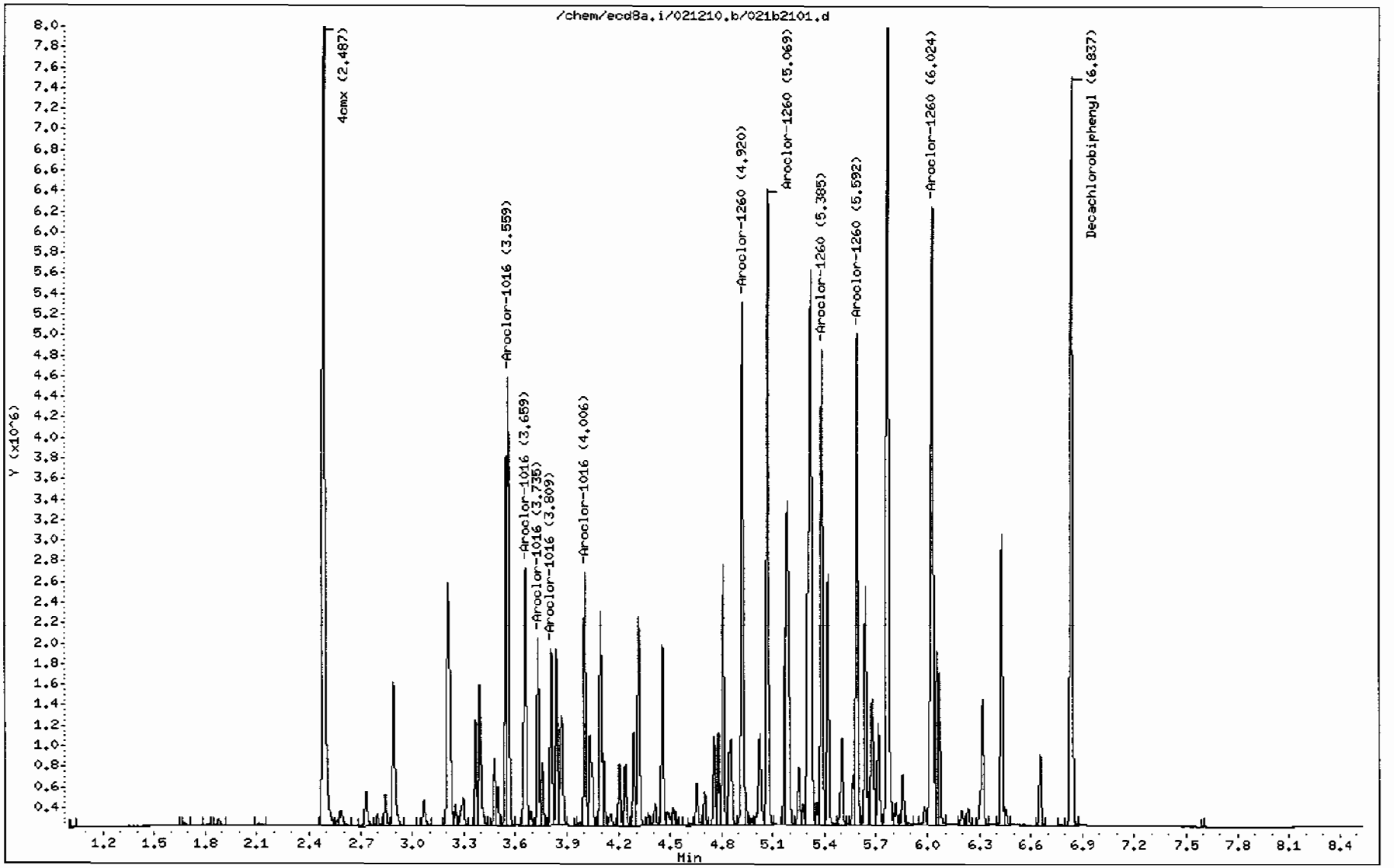

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/033f3301.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 12-FEB-2010 13:25
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 13:38 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	13695220	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	9954626	100.000	99.6	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.811	2.811	0.000	4529687	1000.00	971	80.00- 120.00	100.00(M)
3.164	3.163	0.001	5840240	1000.00	1010	108.93- 148.93	128.93
3.307	3.306	0.001	2398191	1000.00	977	32.94- 72.94	52.94
3.399	3.399	0.000	2140017	1000.00	974	27.24- 67.24	47.24
3.561	3.561	0.000	3094078	1000.00	985	48.31- 88.31	68.31
Average of Peak Amounts =					984		
7 Aroclor-1260					CAS #: 11096-82-5		
4.436	4.435	0.001	6514014	1000.00	967	80.00- 120.00	100.00(M)
4.631	4.631	0.000	9893168	1000.00	964	131.88- 171.88	151.88
4.906	4.906	0.000	5932698	1000.00	968	71.08- 111.08	91.08
5.079	5.078	0.001	6337042	1000.00	992	77.28- 117.28	97.28
5.490	5.490	0.000	7304897	1000.00	1060	92.14- 132.14	112.14
Average of Peak Amounts =					991		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/021210.b/033f3301.d

Date : 12-FEB-2010 13:25

Client ID: AR166003

Sample Info: !WAR100203-60 03

Column phase: CLP1

Instrument: ecd8a.i

Operator: JADC

Column diameter: 0.25

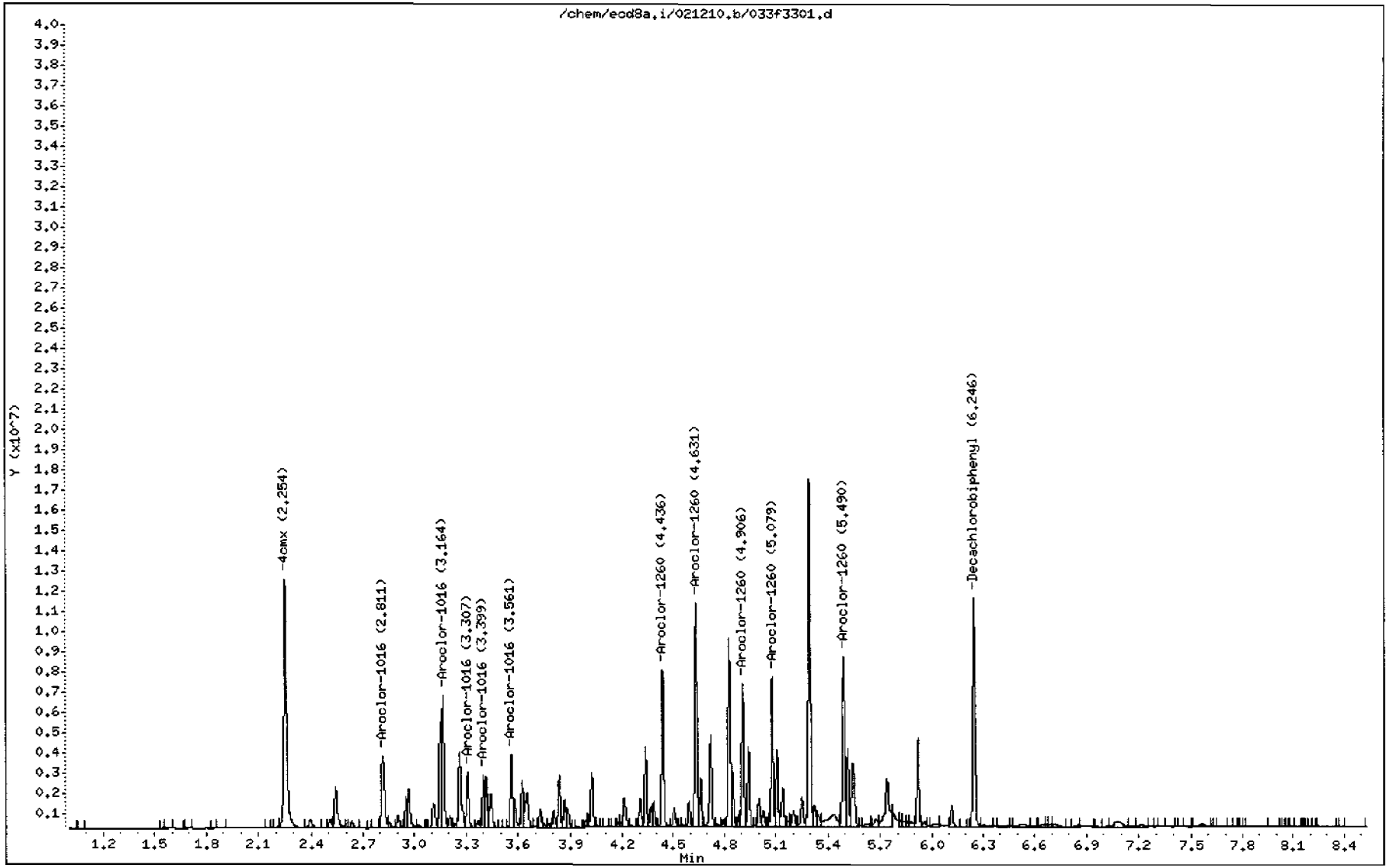

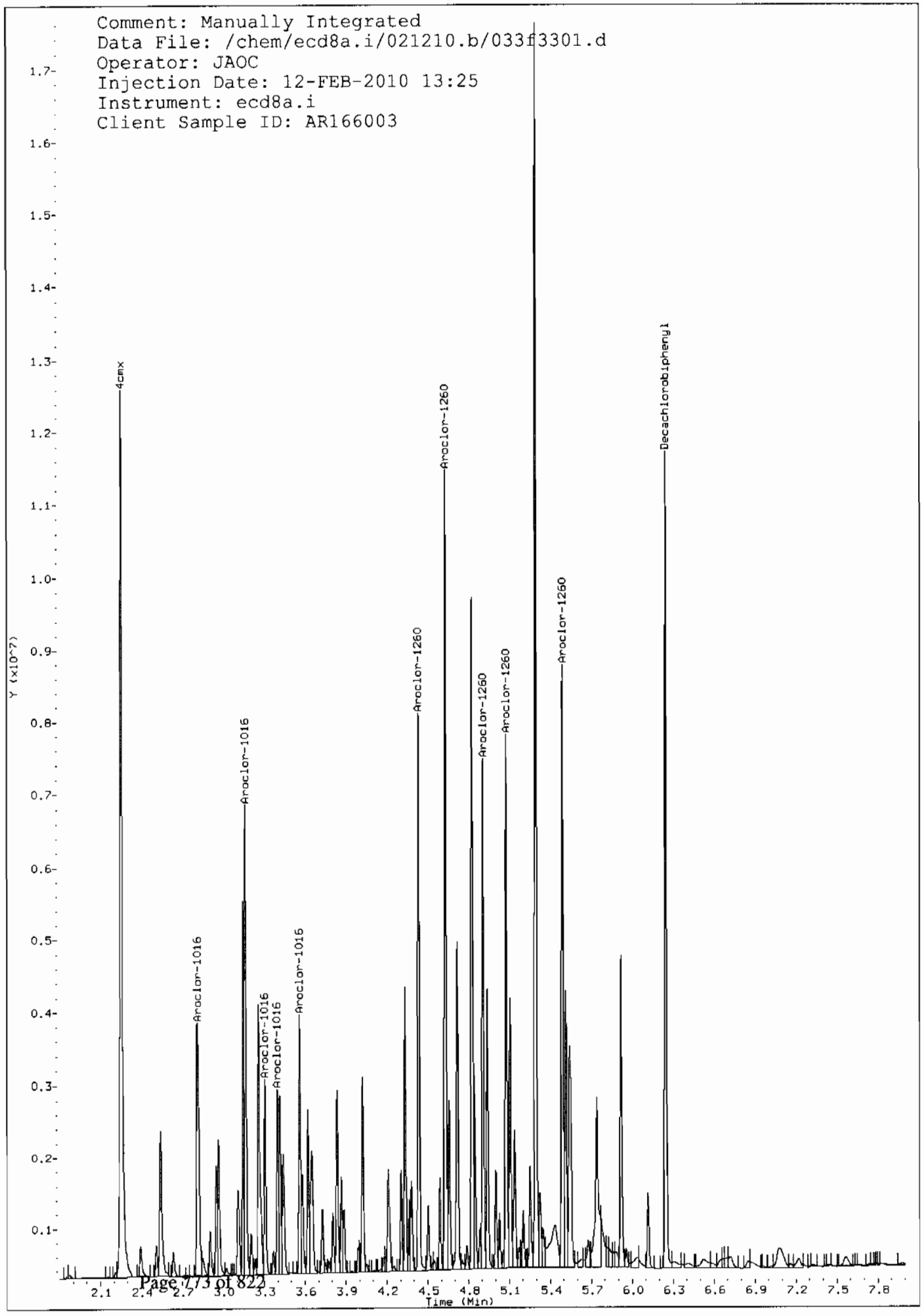
Comment: Manually Integrated
Data File: /chem/ecd8a.i/021210.b/033f3301.d
Operator: JAOC
Injection Date: 12-FEB-2010 13:25
Instrument: ecd8a.i
Client Sample ID: AR166003
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Aroclor-1260
Decachlorobiphenyl

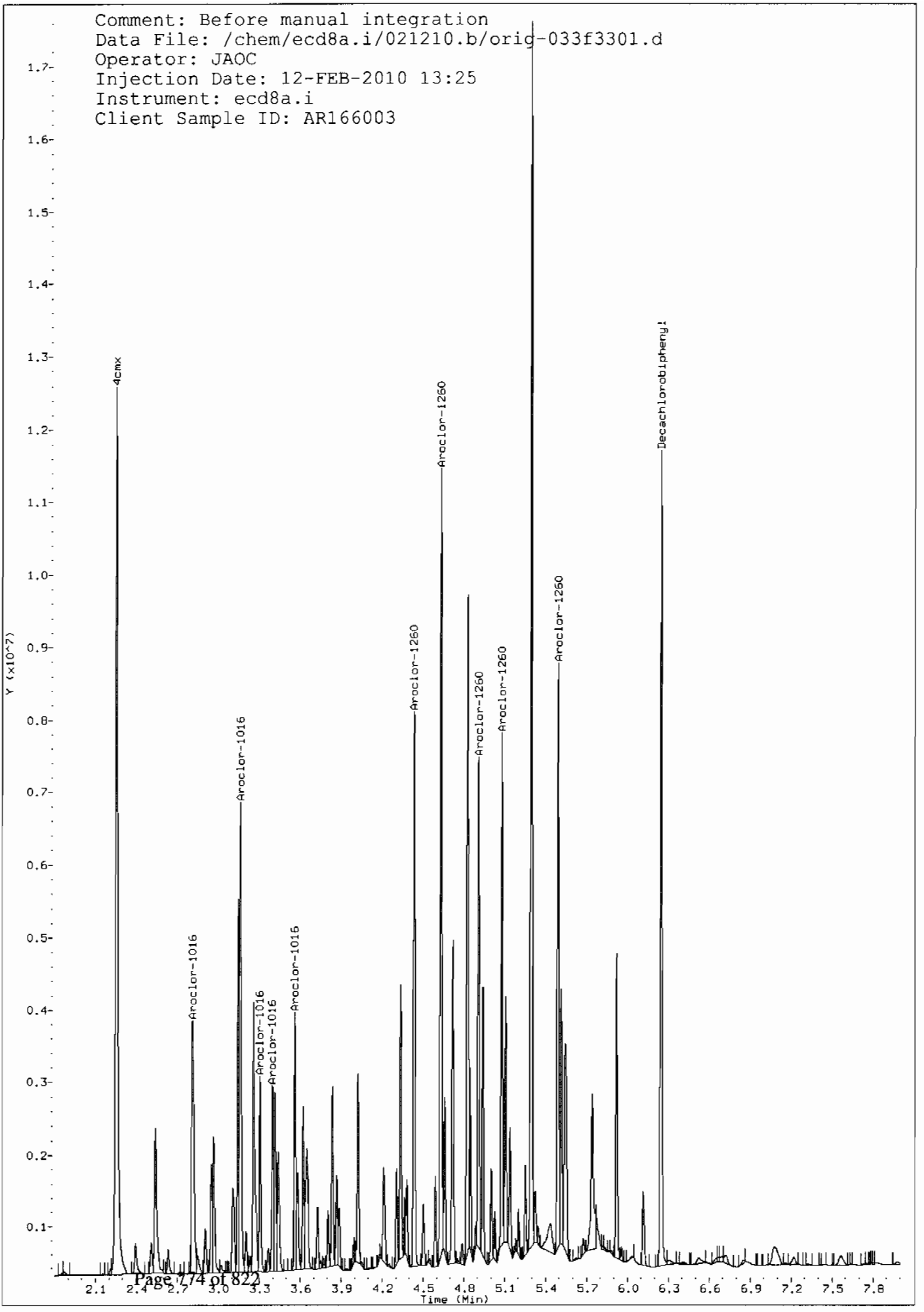
Comment: Before manual integration
Data File: /chem/ecd8a.i/021210.b/orig-033f3301.d
Operator: JAOC
Injection Date: 12-FEB-2010 13:25
Instrument: ecd8a.i
Client Sample ID: AR166003
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/033b3301.d
Lab Smp Id: WAR100203-60 03 Client Smp ID: AR166003
Inj Date : 12-FEB-2010 13:25
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 03
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 13:38 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 33 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	8757241	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	7592550	100.000	117	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	3869768	1000.00	1030	80.00- 120.00	100.00(M)
3.659	3.658	0.001	2493274	1000.00	1000	44.43- 84.43	64.43
3.735	3.734	0.001	1605277	1000.00	1060	21.48- 61.48	41.48
3.810	3.809	0.001	1415340	1000.00	948	16.57- 56.57	36.57
4.006	4.006	0.000	1922083	1000.00	944	29.67- 69.67	49.67
Average of Peak Amounts =					996		
7 Aroclor-1260					CAS #: 11096-82-5		
4.920	4.919	0.001	4276875	1000.00	1050	80.00- 120.00	100.00(M)
5.068	5.068	0.000	5145887	1000.00	1040	100.32- 140.32	120.32
5.385	5.384	0.001	4664119	1000.00	1230	89.05- 129.05	109.05
5.591	5.591	0.000	4133683	1000.00	1040	76.65- 116.65	96.65
6.023	6.023	0.000	7602227	1000.00	1220	157.75- 197.75	177.75
Average of Peak Amounts =					1.12e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/021210.b/033b3301.d

Date : 12-FEB-2010 13:25

Client ID: AR166003

Sample Info: IWAR100203-60 03

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

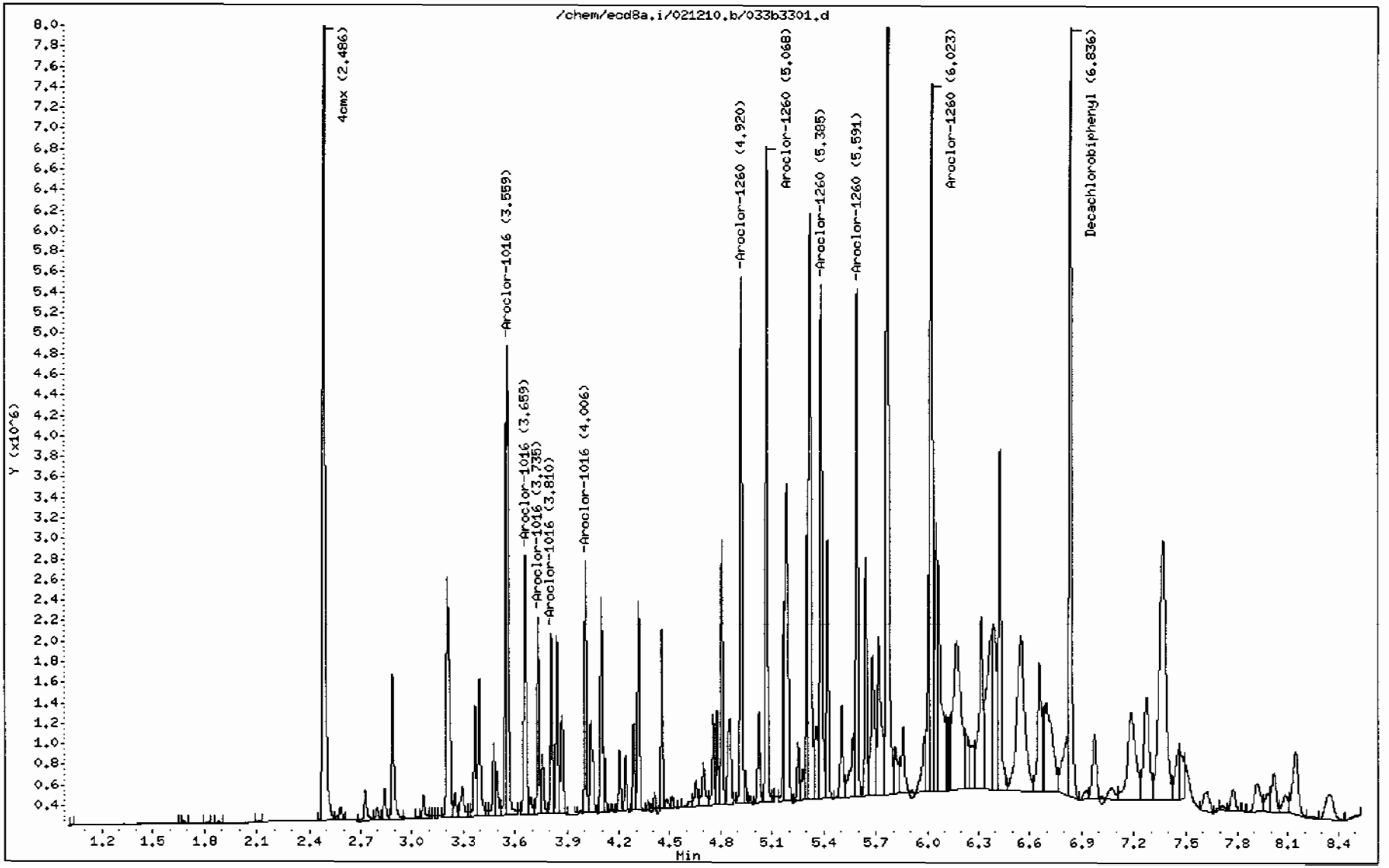

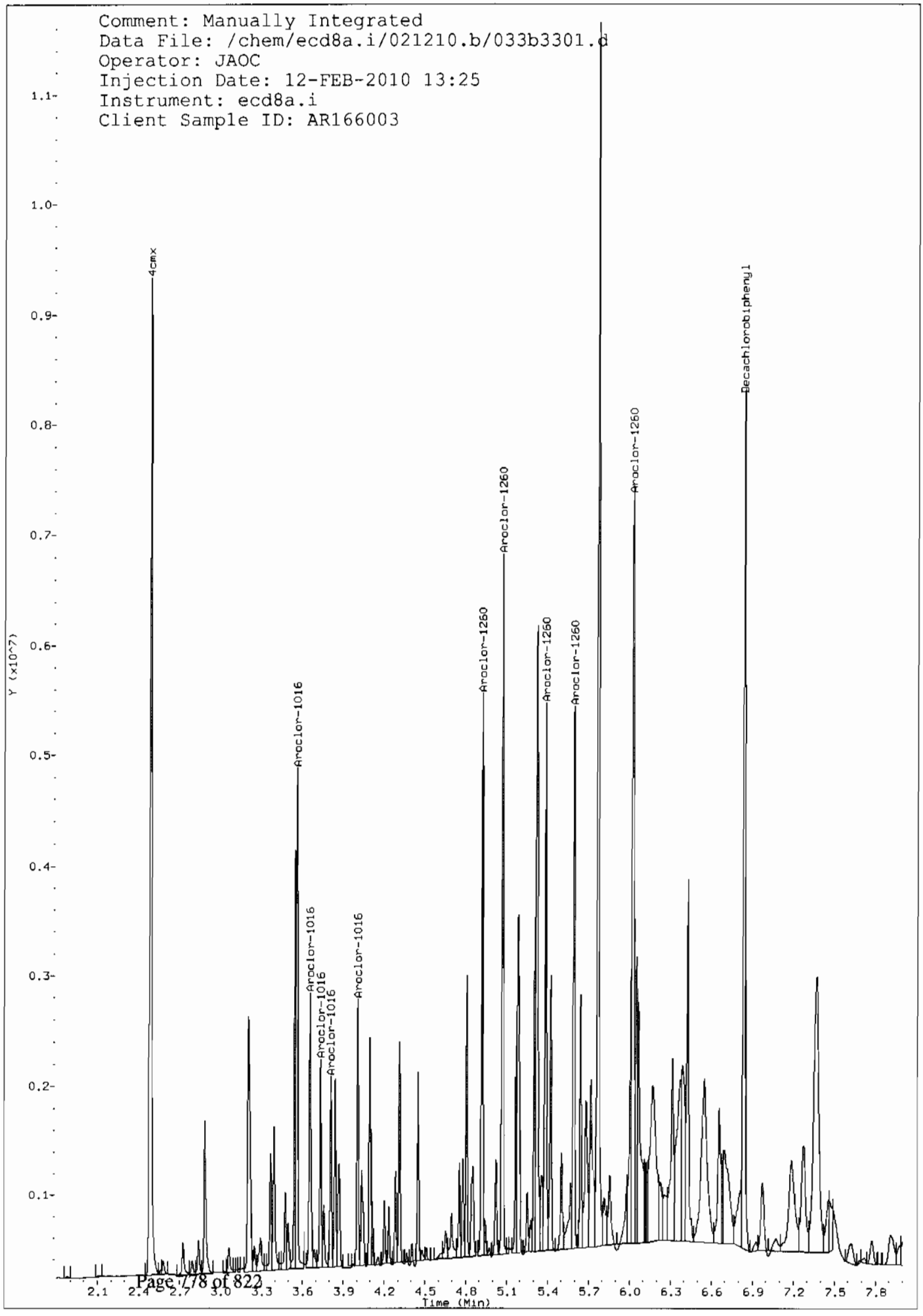
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Operator: JAOC
Injection Date: 12-FEB-2010 13:25
Instrument: ecd8a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

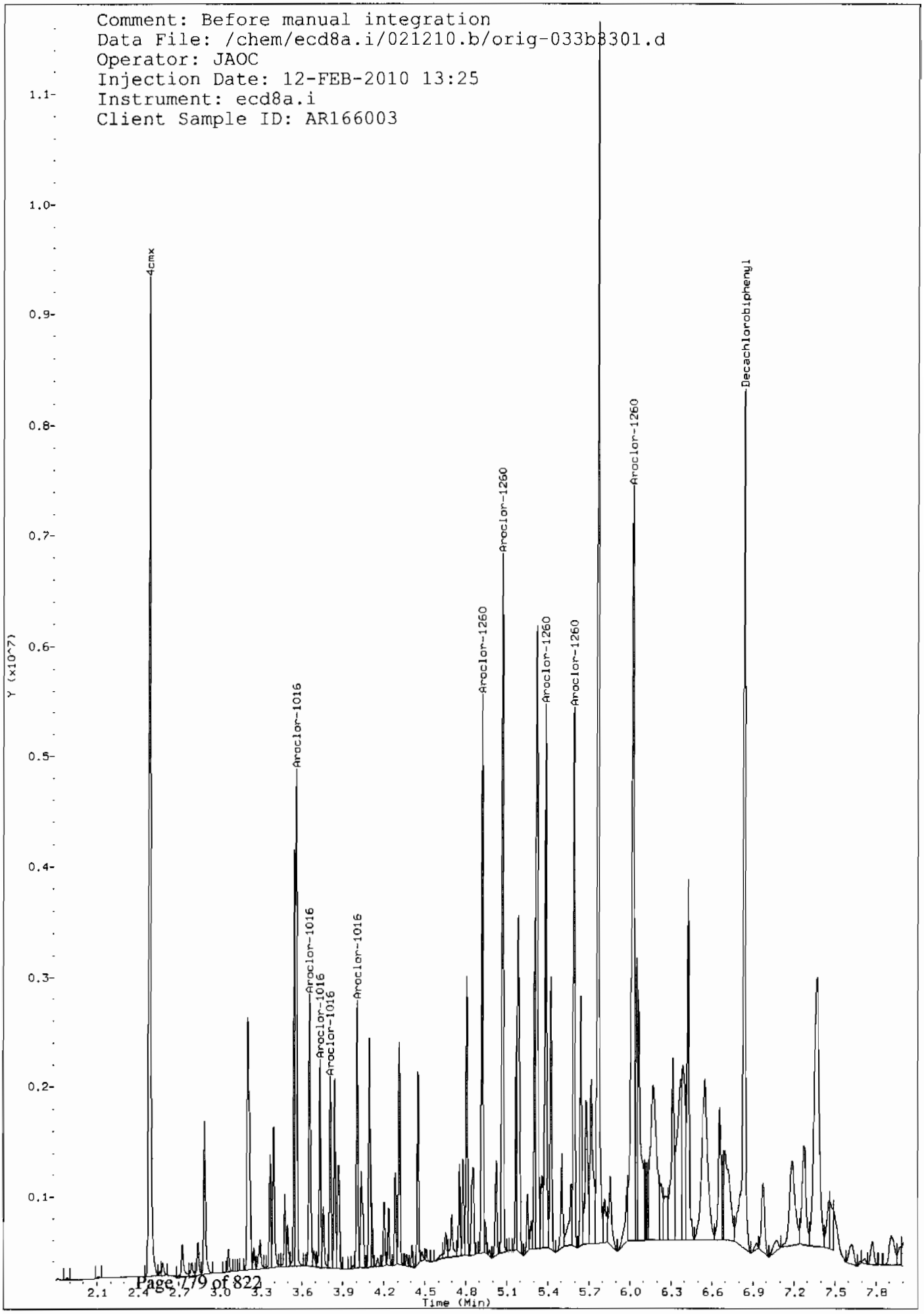
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Operator: JAOC
Injection Date: 12-FEB-2010 13:25
Instrument: ecd8a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.25	6.24
02	AR166001	WAR100203-01	02/03/10	1024	2.26	6.25
03	AR166002	WAR100203-02	02/03/10	1037	2.26	6.25
04	AR166003	WAR100203-03	02/03/10	1049	2.26	6.25
05	AR166004	WAR100203-04	02/03/10	1101	2.26	6.25
06	AR166005	IAR100104-01	02/03/10	1114	2.26	6.25
07	AR166001	WAR100203-60	02/03/10	1126	2.26	6.25
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.26	6.25
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.26	6.25
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.26	6.25
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.26	6.25
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.26	6.25
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.26	6.25
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.26	6.25
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.26	6.25
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.26	6.25
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.26	6.25
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.26	6.25
16	AR166002	WAR100203-60	02/03/10	1954	2.26	6.25
17	PIBLK03	WAR091130-99	02/03/10	2006	2.26	6.25
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.26	6.25
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.26	6.25
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.26	6.25
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.26	6.25
22	AR166003	WAR100203-60	02/03/10	2108	2.26	6.25
23	PIBLK04	WAR091130-99	02/03/10	2120	2.26	6.25
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.26	6.25
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.26	6.25
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.26	6.25
27	AR166004	WAR100203-60	02/03/10	2210	2.26	6.25
28	PIBLK05	WAR091130-99	02/03/10	2222	2.26	6.25
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.26	6.25
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.26	6.25
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.49	6.84
02	AR166001	WAR100203-01	02/03/10	1024	2.49	6.84
03	AR166002	WAR100203-02	02/03/10	1037	2.49	6.84
04	AR166003	WAR100203-03	02/03/10	1049	2.49	6.84
05	AR166004	WAR100203-04	02/03/10	1101	2.49	6.84
06	AR166005	IAR100104-01	02/03/10	1114	2.49	6.84
07	AR166001	WAR100203-60	02/03/10	1126	2.49	6.84
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.49	6.84
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.49	6.84
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.49	6.84
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.49	6.84
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.49	6.84
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.49	6.84
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.49	6.84
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.49	6.84
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.49	6.84
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.49	6.84
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.49	6.84
16	AR166002	WAR100203-60	02/03/10	1954	2.49	6.84
17	PIBLK03	WAR091130-99	02/03/10	2006	2.49	6.84
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.49	6.84
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.49	6.84
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.49	6.84
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.49	6.84
22	AR166003	WAR100203-60	02/03/10	2108	2.49	6.84
23	PIBLK04	WAR091130-99	02/03/10	2120	2.49	6.84
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.49	6.84
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.49	6.84
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.49	6.84
27	AR166004	WAR100203-60	02/03/10	2210	2.49	6.84
28	PIBLK05	WAR091130-99	02/03/10	2222	2.49	6.84
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.49	6.84
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.49	6.84
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/12/10	0649	2.25	6.24
02	AR166001	WAR100203-60	02/12/10	0702	2.25	6.24
03	AR125401	WAR100201-54	02/12/10	0714		
04	AR124201	WAR091217-42	02/12/10	0726		
05	AR124801	WAR091217-48	02/12/10	0738		
06	AR123201	WAR100104-32	02/12/10	0751		
07	AR122101	WAR100104-21	02/12/10	0803		
08	AR126201	WAR100104-62	02/12/10	0816		
09	AR126801	WAR100107-68	02/12/10	0828		
10	DDTANALOGSTD	WAR091219-DD	02/12/10	0840		
11	PIBLK02	WAR100105-99	02/12/10	0853	2.25	6.25
12	PBLK01	1202040223	02/12/10	0905	2.25	6.25
13	PBLK01LCS	1202040224	02/12/10	0918	2.25	6.25
14	ZZZZZ	ZZZZZ	02/12/10	0930	2.26	6.25
15	ZZZZZ	ZZZZZ	02/12/10	0942	2.26	6.25
16	ZZZZZ	ZZZZZ	02/12/10	0955	2.25	6.25
17	ZZZZZ	ZZZZZ	02/12/10	1007	2.25	6.24
18	ZZZZZ	ZZZZZ	02/12/10	1019	2.25	6.25
19	ZZZZZ	ZZZZZ	02/12/10	1032	2.25	6.25
20	ZZZZZ	ZZZZZ	02/12/10	1044	2.25	6.25
21	AR166002	WAR100203-60	02/12/10	1056	2.25	6.25
22	PIBLK03	WAR100105-99	02/12/10	1109	2.26	6.25
23	RE15-10-7332	246318001	02/12/10	1121	2.25	6.25
24	RE15-10-7333	246318002	02/12/10	1134	2.26	6.25
25	RE15-10-7342	246318003	02/12/10	1146	2.25	6.25
26	ZZZZZ	ZZZZZ	02/12/10	1158	2.25	6.24
27	ZZZZZ	ZZZZZ	02/12/10	1211	2.25	6.25
28	ZZZZZ	ZZZZZ	02/12/10	1223	2.25	6.25
29	ZZZZZ	ZZZZZ	02/12/10	1235	2.25	6.25
30	ZZZZZ	ZZZZZ	02/12/10	1248	2.25	6.25
31	ZZZZZ	ZZZZZ	02/12/10	1300	2.25	6.25
32	ZZZZZ	ZZZZZ	02/12/10	1313	2.25	6.25

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166003	WAR100203-60	02/12/10	1325	2.25	6.25
02	PIBLK04	WAR100105-99	02/12/10	1337	2.25	6.25
03	ZZZZZ	ZZZZZ	02/12/10	1350	2.25	6.24
04	ZZZZZ	ZZZZZ	02/12/10	1402	2.25	6.24
05	ZZZZZ	ZZZZZ	02/12/10	1414	2.25	6.25
06	ZZZZZ	ZZZZZ	02/12/10	1427	2.25	6.25
07	ZZZZZ	ZZZZZ	02/12/10	1439	2.25	6.25
08	ZZZZZ	ZZZZZ	02/12/10	1451	2.25	6.25
09	AR166004	WAR100203-60	02/12/10	1504	2.25	6.25
10	PIBLK05	WAR100105-99	02/12/10	1516	2.25	6.25
11						
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31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/12/10	0649	2.48	6.83
02	AR166001	WAR100203-60	02/12/10	0702	2.49	6.84
03	AR125401	WAR100201-54	02/12/10	0714		
04	AR124201	WAR091217-42	02/12/10	0726		
05	AR124801	WAR091217-48	02/12/10	0738		
06	AR123201	WAR100104-32	02/12/10	0751		
07	AR122101	WAR100104-21	02/12/10	0803		
08	AR126201	WAR100104-62	02/12/10	0816		
09	AR126801	WAR100107-68	02/12/10	0828		
10	DDTANALOGSTD	WAR091219-DD	02/12/10	0840		
11	PIBLK02	WAR100105-99	02/12/10	0853	2.49	6.84
12	PBLK01	1202040223	02/12/10	0905	2.49	6.84
13	PBLK01LCS	1202040224	02/12/10	0918	2.49	6.84
14	ZZZZZ	ZZZZZ	02/12/10	0930	2.49	6.84
15	ZZZZZ	ZZZZZ	02/12/10	0942	2.49	6.84
16	ZZZZZ	ZZZZZ	02/12/10	0955	2.49	6.84
17	ZZZZZ	ZZZZZ	02/12/10	1007	2.49	6.84
18	ZZZZZ	ZZZZZ	02/12/10	1019	2.49	6.84
19	ZZZZZ	ZZZZZ	02/12/10	1032	2.49	6.84
20	ZZZZZ	ZZZZZ	02/12/10	1044	2.49	6.84
21	AR166002	WAR100203-60	02/12/10	1056	2.49	6.84
22	PIBLK03	WAR100105-99	02/12/10	1109	2.49	6.84
23	RE15-10-7332	246318001	02/12/10	1121	2.49	6.84
24	RE15-10-7333	246318002	02/12/10	1134	2.49	6.84
25	RE15-10-7342	246318003	02/12/10	1146	2.49	6.84
26	ZZZZZ	ZZZZZ	02/12/10	1158	2.49	6.84
27	ZZZZZ	ZZZZZ	02/12/10	1211	2.49	6.84
28	ZZZZZ	ZZZZZ	02/12/10	1223	2.49	6.84
29	ZZZZZ	ZZZZZ	02/12/10	1235	2.49	6.84
30	ZZZZZ	ZZZZZ	02/12/10	1248	2.49	6.84
31	ZZZZZ	ZZZZZ	02/12/10	1300	2.49	6.84
32	ZZZZZ	ZZZZZ	02/12/10	1313	2.49	6.84

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1564

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166003	WAR100203-60	02/12/10	1325	2.49	6.84
02	PIBLK04	WAR100105-99	02/12/10	1337	2.49	6.84
03	ZZZZZ	ZZZZZ	02/12/10	1350	2.49	6.84
04	ZZZZZ	ZZZZZ	02/12/10	1402	2.49	6.84
05	ZZZZZ	ZZZZZ	02/12/10	1414	2.49	6.84
06	ZZZZZ	ZZZZZ	02/12/10	1427	2.49	6.84
07	ZZZZZ	ZZZZZ	02/12/10	1439	2.49	6.84
08	ZZZZZ	ZZZZZ	02/12/10	1451	2.49	6.84
09	AR166004	WAR100203-60	02/12/10	1504	2.49	6.84
10	PIBLK05	WAR100105-99	02/12/10	1516	2.49	6.84
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10-1564 **Client ID:** LCS for batch 951941

Lab Sample ID: 1202040224

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	12-FEB-10 09:18	**Analyzed:**	12-FEB-10 09:18

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							.119
Column 1	1	2.81	2.78 - 2.84	19.3		ug/kg	
	2	3.16	3.13 - 3.19	18.6		ug/kg	
	3	3.31	3.28 - 3.34	17.8		ug/kg	
	4	3.4	3.37 - 3.43	18.8		ug/kg	
	5	3.56	3.53 - 3.59	18.4		ug/kg	
					18.6		
Column 2	1	3.56	3.53 - 3.59	18.3		ug/kg	
	2	3.66	3.63 - 3.69	19.4		ug/kg	
	3	3.73	3.7 - 3.76	17.8		ug/kg	
	4	3.81	3.78 - 3.84	18.6		ug/kg	
	5	4.01	3.98 - 4.04	18.7		ug/kg	
					18.6		
Aroclor-1260							8.76
Column 1	1	4.44	4.4 - 4.46	19.6		ug/kg	
	2	4.63	4.6 - 4.66	20		ug/kg	
	3	4.91	4.88 - 4.94	20.8		ug/kg	
	4	5.08	5.05 - 5.11	21.1		ug/kg	
	5	5.49	5.46 - 5.52	22.7		ug/kg	
					20.8		
Column 2	1	4.92	4.89 - 4.95	21.9		ug/kg	
	2	5.07	5.04 - 5.1	22.5		ug/kg	
	3	5.38	5.35 - 5.41	23		ug/kg	
	4	5.59	5.56 - 5.62	22.6		ug/kg	
	5	6.02	5.99 - 6.05	23.7		ug/kg	
					22.8		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1564**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202040223**				
Client Sample:	**QC for batch 951941**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 951941**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:05**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**012f1201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/012f1201-2.d
Lab Smp Id: 1202040223 Client Smp ID: PBLK01
Inj Date : 12-FEB-2010 09:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040223|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	16792727	127.793	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.246	6.245	0.001	13359652	133.621	4.4	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/012f1201-2.d
Date : 12-FEB-2010 09:05
Client ID: PBLK01
Sample Info: 1120204022311
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

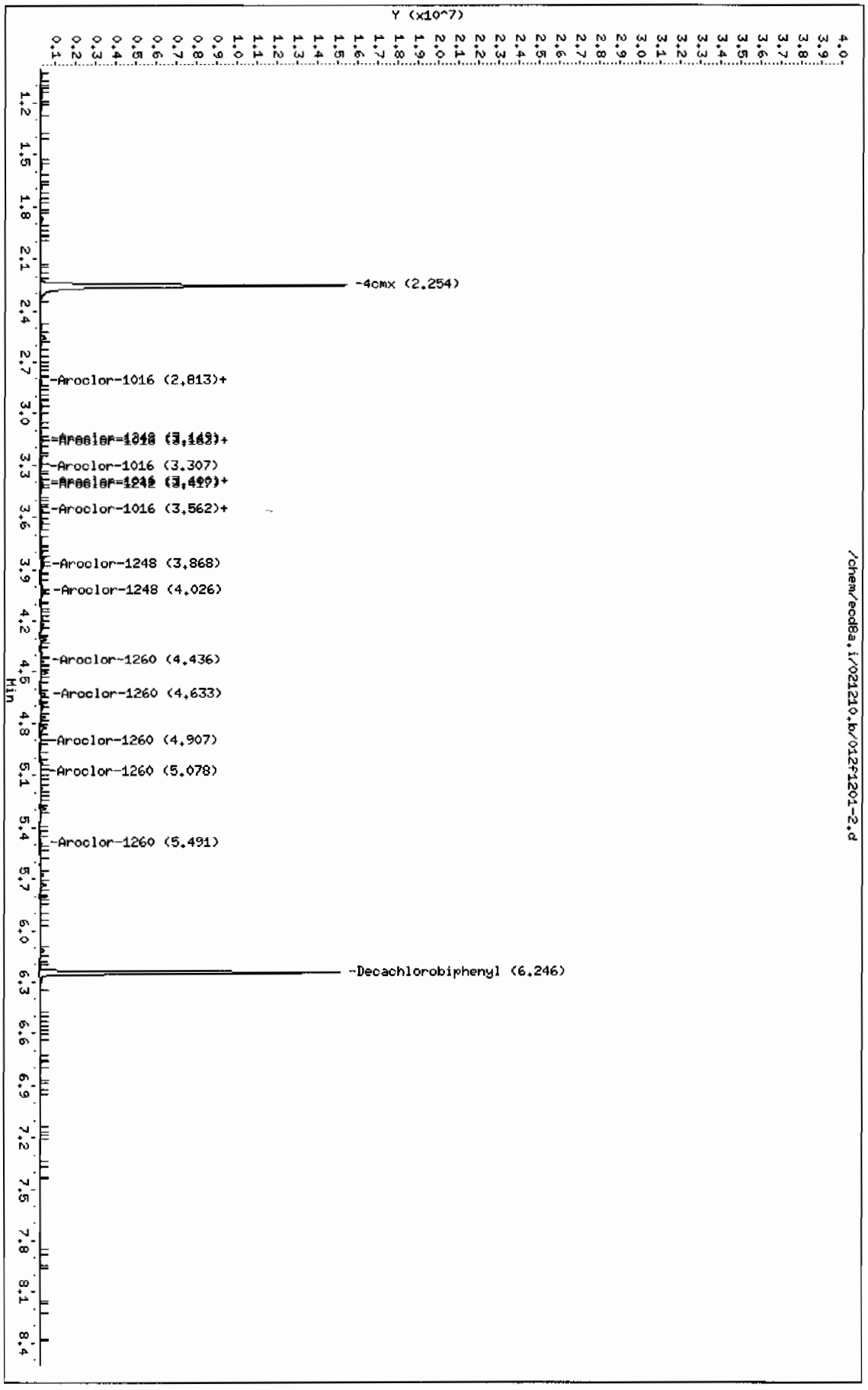

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/012b1201-2.d
Lab Smp Id: 1202040223 Client Smp ID: PBLK01
Inj Date : 12-FEB-2010 09:05
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040223|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.487	2.486	0.001	11165707	128.573	4.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.837	6.836	0.001	9020376	139.109	4.6	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/021210.b/012b1201-2.d

Date : 12-FEB-2010 09:05

Client ID: PBLK01

Sample Info: |1202040223|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

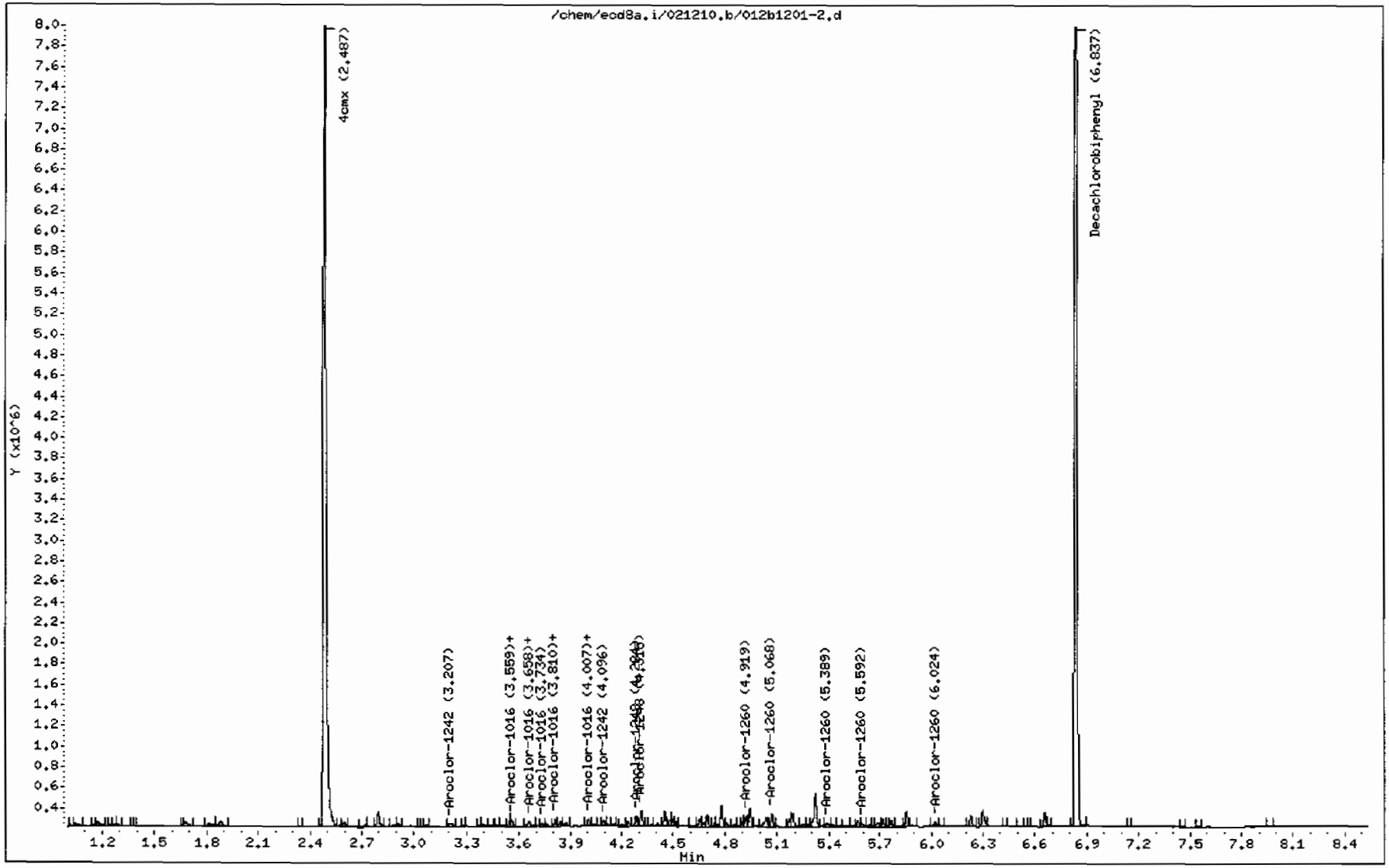

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1564**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202040224**				
Client Sample:	**QC for batch 951941**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 951941**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**951946**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/12/2010 09:18**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/11/2010 22:01**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		18.6	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		22.7	ug/kg	1.11	3.33	2

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/013f1301-2.d
Lab Smp Id: 1202040224 Client Smp ID: PBLK01LCS
Inj Date : 12-FEB-2010 09:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040224|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 12-Feb-2010 11:13 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	15865945	120.740	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12800089	128.025	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.811	0.001	2707124	580.352	19.3	80.00- 120.00	100.00
3.164	3.163	0.001	3212095	556.729	18.6	98.17- 138.17	118.65
3.307	3.306	0.001	1314074	535.439	17.8	30.98- 70.98	48.54
3.399	3.399	0.000	1238665	563.496	18.8	25.80- 65.80	45.76

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.562	3.561	0.001	1733760	551.774	18.4	45.68- 85.68	64.04
Average of Peak Concentrations =					18.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.435	4.435	0.000	3969225	588.996	19.6	80.00- 120.00	100.00
4.631	4.631	0.000	6164661	600.856	20.0	131.83- 171.83	155.31
4.906	4.906	0.000	3821768	623.468	20.8	72.34- 112.34	96.28
5.079	5.078	0.001	4049290	634.102	21.1	79.25- 119.25	102.02
5.489	5.490	-0.001	4662565	679.698	22.6	91.49- 131.49	117.47
Average of Peak Concentrations =					20.8		

Data File: /chem/ecd8a.i/021210.b/013f1301-2.d

Date : 12-FEB-2010 09:18

Client ID: PBLK01LCS

Sample Info: |120204022411|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

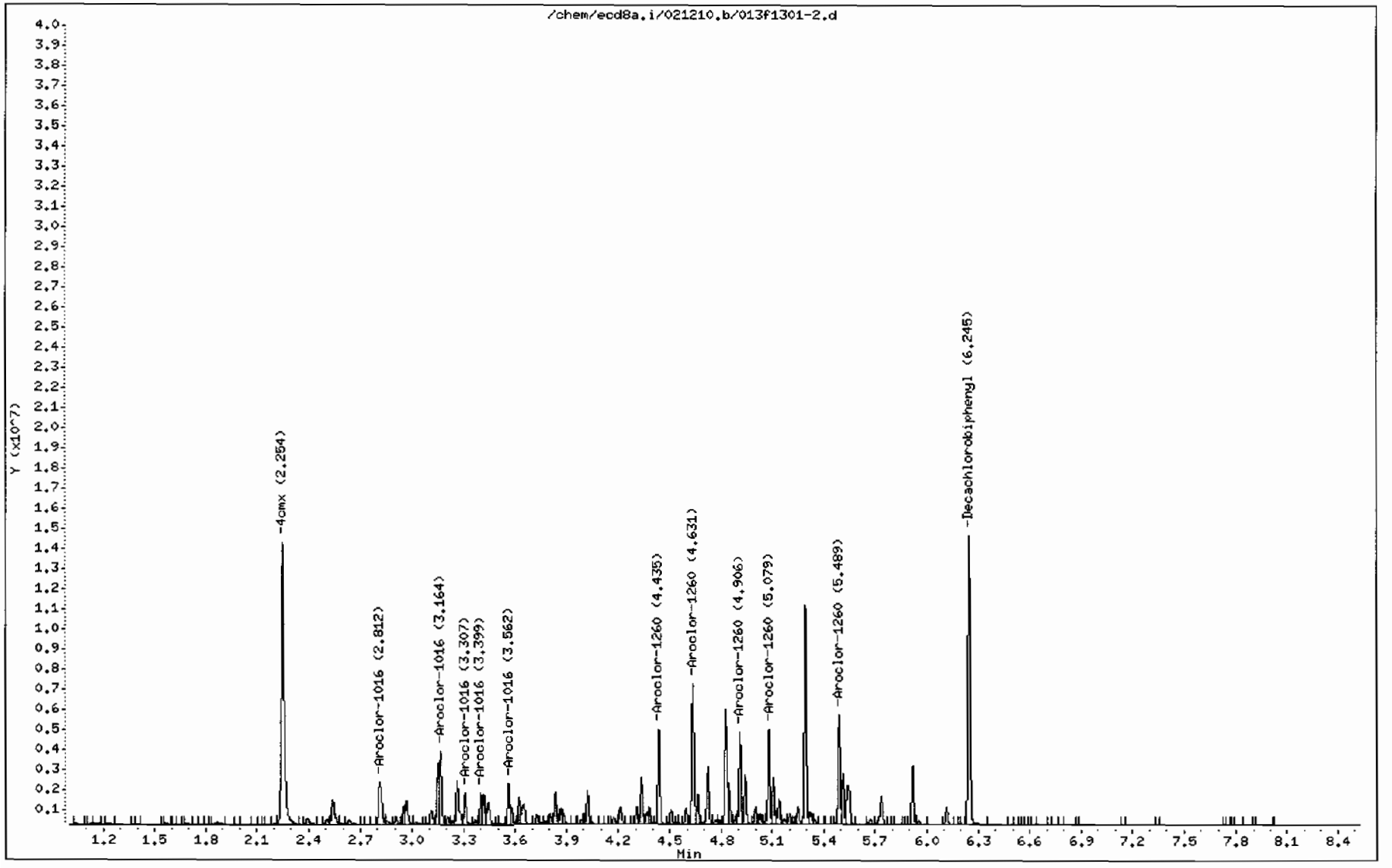

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/013b1301-2.d
Lab Smp Id: 1202040224 Client Smp ID: PBLK01LCS
Inj Date : 12-FEB-2010 09:18
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040224|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 12-Feb-2010 11:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1564.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	10544249	121.417	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8619569	132.928	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2069472	549.456	18.3	80.00- 120.00	100.00
3.659	3.658	0.001	1448200	580.574	19.4	47.75- 87.75	69.98
3.734	3.734	0.000	810130	534.566	17.8	19.55- 59.55	39.15
3.809	3.809	0.000	835367	559.461	18.6	18.40- 58.40	40.37

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
4.006	4.006	0.000	1140786	560.413	18.7	33.91- 73.91	55.12
Average of Peak Concentrations =					18.6		
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	2684257	657.195	21.9	80.00- 120.00	100.00
5.068	5.068	0.000	3352987	674.794	22.5	101.70- 141.70	124.91
5.384	5.384	0.000	2616685	690.706	23.0	73.49- 113.49	97.48
5.592	5.591	0.001	2686088	679.488	22.6	76.84- 116.84	100.07
6.023	6.023	0.000	4430734	711.486	23.7	135.34- 175.34	165.06
Average of Peak Concentrations =					22.7		

Data File: /chem/ecd8a.i/021210.b/013b1301-2.d
Date : 12-FEB-2010 09:18
Client ID: PBLK01LCS
Sample Info: |1202040224|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

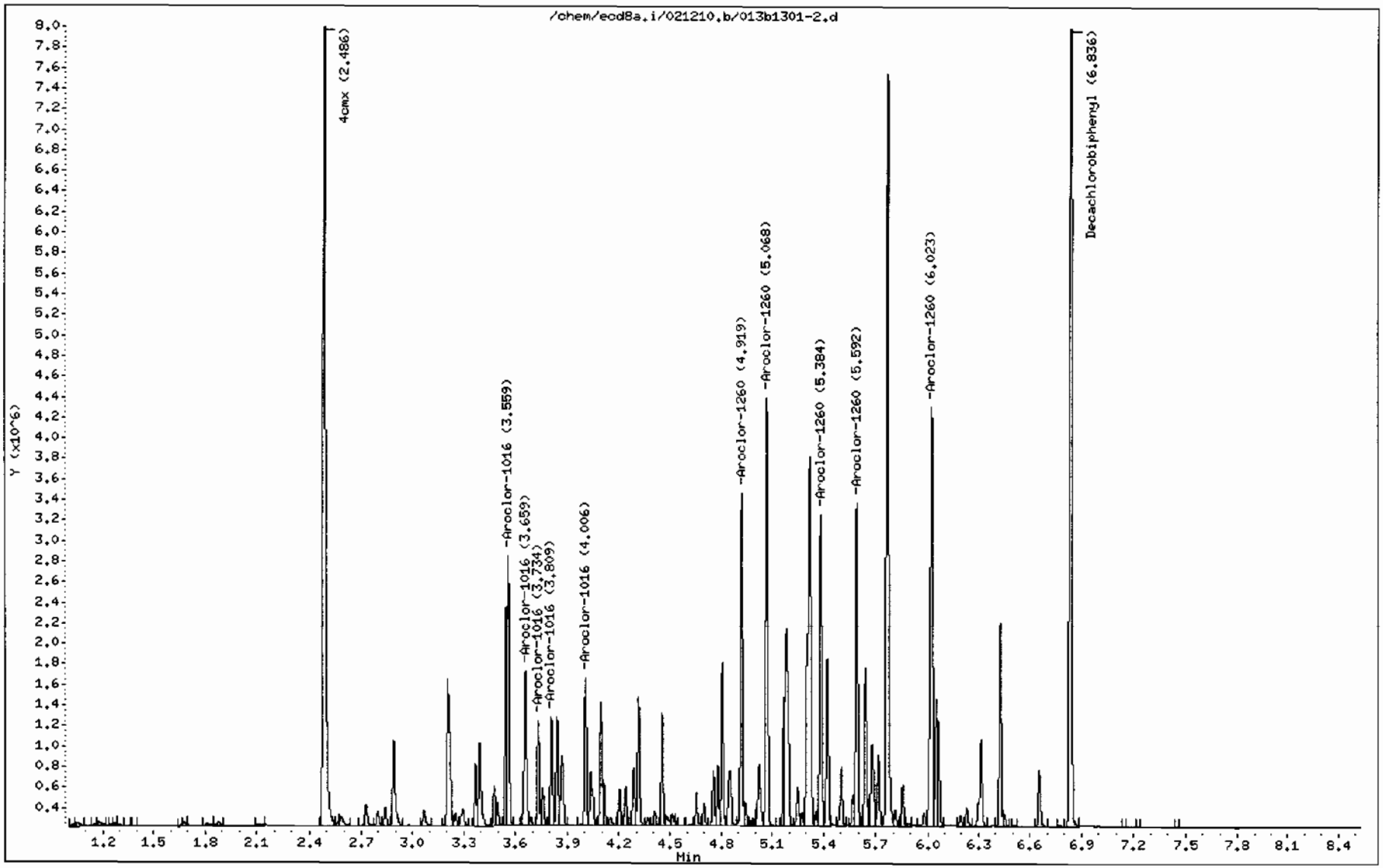

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/04/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/020310a.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	03-FEB-2010 10:12		020310a	1.0	CLEAN	
002f0201.d	WAR100203-01 60	JAOC	03-FEB-2010 10:24		020310a	1.0	1660 LEVEL 1	
003f0301.d	WAR100203-02 60	JAOC	03-FEB-2010 10:37		020310a	1.0	1660 LEVEL 2	
004f0401.d	WAR100203-03 60	JAOC	03-FEB-2010 10:49		020310a	1.0	1660 LEVEL 3	
005f0501.d	WAR100203-04 60	JAOC	03-FEB-2010 11:01		020310a	1.0	1660 LEVEL 4	
006f0601.d	IAR100104-01 60	JAOC	03-FEB-2010 11:14		020310a	1.0	1660 LEVEL 5	
007f0701.d	WAR100203-60 01	JAOC	03-FEB-2010 11:26		020310a	1.0	PASSES BOTH COLUMNS	
008f0801.d	WAR100203-05 54	JAOC	03-FEB-2010 11:39		020310a	1.0	1254 LEVEL 1	
009f0901.d	WAR100203-06 54	JAOC	03-FEB-2010 11:51		020310a	1.0	1254 LEVEL 2	
010f1001.d	WAR100203-07 54	JAOC	03-FEB-2010 12:03		020310a	1.0	1254 LEVEL 3	
011f1101.d	WAR100203-08 54	JAOC	03-FEB-2010 12:16		020310a	1.0	1254 LEVEL 4	
012f1201.d	IAR091027-01 54	JAOC	03-FEB-2010 12:28		020310a	1.0	1254 LEVEL 5	
013f1301.d	WAR100201-54	JAOC	03-FEB-2010 12:40		020310a	1.0	PASSES BOTH COLUMNS	
014f1401.d	WAR100203-09 42	JAOC	03-FEB-2010 12:53		020310a	1.0	1242 LEVEL 1	
015f1501.d	WAR100203-10 42	JAOC	03-FEB-2010 13:05		020310a	1.0	1242 LEVEL 2	

Instrument Batch: /chem/ecd8a.i/020310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100203-11 42	JAOC	03-FEB-2010 13:18		020310a	1.0	1242 LEVEL 3	
017f1701.d	WAR100203-12 42	JAOC	03-FEB-2010 13:30		020310a	1.0	1242 LEVEL 4	

018f1801.d	IAR091111-01 42	JAOC	03-FEB-2010 13:42		020310a		1.0	1242 LEVEL 5
019f1901.d	WAR091217-42	JAOC	03-FEB-2010 13:55		020310a		1.0	PASSES BOTH COLUMNS
020f2001.d	WAR100203-13 48	JAOC	03-FEB-2010 14:07		020310a		1.0	1248 LEVEL 1
021f2101.d	WAR100203-14 48	JAOC	03-FEB-2010 14:19		020310a		1.0	1248 LEVEL 2
022f2201.d	WAR100203-15 48	JAOC	03-FEB-2010 14:32		020310a		1.0	1248 LEVEL 3
023f2301.d	WAR100203-16 48	JAOC	03-FEB-2010 14:44		020310a		1.0	1248 LEVEL 4
024f2401.d	IAR091027-02 48	JAOC	03-FEB-2010 14:57		020310a		1.0	1248 LEVEL 5
025f2501.d	WAR091217-48	JAOC	03-FEB-2010 15:09		020310a		1.0	DUSE RE-RUN
026f2601.d	WAR100104-32	JAOC	03-FEB-2010 15:21		020310a		1.0	PATTERN ONLY
027f2701.d	WAR100104-21	JAOC	03-FEB-2010 15:34		020310a		1.0	PATTERN ONLY
028f2801.d	WAR100203-17 62	JAOC	03-FEB-2010 15:46		020310a		1.0	1262 LEVEL 1
029f2901.d	WAR100203-18 62	JAOC	03-FEB-2010 15:58		020310a		1.0	1262 LEVEL 2
030f3001.d	WAR100203-19 62	JAOC	03-FEB-2010 16:11		020310a		1.0	1262 LEVEL 3
031f3101.d	WAR100203-20 62	JAOC	03-FEB-2010 16:23		020310a		1.0	1262 LEVEL 4
032f3201.d	IAR100104-04 62	JAOC	03-FEB-2010 16:36		020310a		1.0	1262 LEVEL 5
033f3301.d	WAR100104-62	JAOC	03-FEB-2010 16:48		020310a		1.0	PASSES BOTH COLUMNS
034f3401.d	WAR091107-68	JAOC	03-FEB-2010 17:00		020310a		1.0	PATTERN ONLY
035f3501.d	WAR091217-48	JAOC	03-FEB-2010 17:13		020310a		1.0	PASSES BOTH COLUMNS

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091219-DDT	JAOC	03-FEB-2010 17:25		020310a	1.0		DDT
037f3701.d	WAR091130-99 02	JAOC	03-FEB-2010 17:38		020310a	1.0		CLEAN
038f3801.d	1202026314	JAOC	03-FEB-2010 17:50	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
039f3901.d	1202026315	JAOC	03-FEB-2010 18:02	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
040f4001.d	243859001	JAOC	03-FEB-2010 18:15	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
041f4101.d	243859002	JAOC	03-FEB-2010 18:27	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH

042f4201.d	243859003	JAOC	03-FEB-2010 18:39	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
043f4301.d	243859004	JAOC	03-FEB-2010 18:52	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
044f4401.d	243859005	JAOC	03-FEB-2010 19:04	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
045f4501.d	243859006	JAOC	03-FEB-2010 19:16	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
046f4601.d	243859007	JAOC	03-FEB-2010 19:29	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
047f4701.d	243859008	JAOC	03-FEB-2010 19:41	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
048f4801.d	WAR100203-60 02	JAOC	03-FEB-2010 19:54		020310a	1.0		PASSES BOTH COLUMNS
049f4901.d	WAR091130-99 03	JAOC	03-FEB-2010 20:06		020310a	1.0		CLEAN
050f5001.d	243865001	JAOC	03-FEB-2010 20:18	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
051f5101.d	243865002	JAOC	03-FEB-2010 20:31	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
052f5201.d	243865003	JAOC	03-FEB-2010 20:43	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
053f5301.d	243865004	JAOC	03-FEB-2010 20:55	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
054f5401.d	WAR100203-60 03	JAOC	03-FEB-2010 21:08		020310a	1.0		PASSES BOTH COLUMNS
055f5501.d	WAR091130-99 04	JAOC	03-FEB-2010 21:20		020310a	1.0		CLEAN

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245679008	JAOC	03-FEB-2010 21:33	947574	10-1449	5.0	LANL	UPLOAD BOTH, USE HIGHER
057f5701.d	245679011	JAOC	03-FEB-2010 21:45	947574	10-1449	10.0	LANL	UPLOAD BOTH, USE HIGHER
058f5801.d	245686001	JAOC	03-FEB-2010 21:57	947574	10-1432	1.0	LANL	UPLOAD BOTH, USE HIGHER
059f5901.d	WAR100203-60 04	JAOC	03-FEB-2010 22:10		020310a	1.0		PASSES BOTH COLUMNS
060f6001.d	WAR091130-99 05	JAOC	03-FEB-2010 22:22		020310a	1.0		CLEAN
061f6101.d	1202030643	JAOC	03-FEB-2010 22:34	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
062f6201.d	1202030644	JAOC	03-FEB-2010 22:47	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
063f6301.d	245873001	JAOC	03-FEB-2010 22:59	947944	245873	50.0	GEEL	UPLOAD BOTH, USE HIGHER
064f6401.d	1202030645	JAOC	03-FEB-2010 23:12	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
065f6501.d	1202030646	JAOC	03-FEB-2010 23:24	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
066f6601.d	245873002	JAOC	03-FEB-2010 23:36	947944	245873	1.0	GEEL	UPLOAD BOTH, USE HIGHER

067f6701.d	WAR100203-60 05	JAOC	03-FEB-2010 23:49		020310a	1.0	PASSES BOTH COLUMNS
068f6801.d	WAR091130-99 06	JAOC	04-FEB-2010 00:01		020310a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/15/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/021210.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	JAOC	12-FEB-2010 06:49		021210	1.0		CLEAN
002f0201.d	WAR100203-60 01	JAOC	12-FEB-2010 07:02		021210	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100201-54	JAOC	12-FEB-2010 07:14		021210	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	12-FEB-2010 07:26		021210	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	12-FEB-2010 07:38		021210	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	12-FEB-2010 07:51		021210	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	12-FEB-2010 08:03		021210	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	12-FEB-2010 08:16		021210	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	12-FEB-2010 08:28		021210	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	12-FEB-2010 08:40		021210	1.0		DDT
011f1101.d	WAR100105-99 02	JAOC	12-FEB-2010 08:53		021210	1.0		CLEAN
012f1201.d	1202040223	JAOC	12-FEB-2010 09:05	951946	10-1543	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202040224	JAOC	12-FEB-2010 09:18	951946	10-1543	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	246055005	JAOC	12-FEB-2010 09:30	951946	10-1545	1.0	LANL	UPLOAD BOTH, USE HIGHER
015f1501.d	246066001	JAOC	12-FEB-2010 09:42	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/021210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	246066002	JAOC	12-FEB-2010 09:55	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
017f1701.d	246066003	JAOC	12-FEB-2010 10:07	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER

018f1801.d	246066004	JAOC	12-FEB-2010 10:19	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
019f1901.d	246066005	JAOC	12-FEB-2010 10:32	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
020f2001.d	246066006	JAOC	12-FEB-2010 10:44	951946	10-1543	1.0	LANL	UPLOAD BOTH, USE HIGHER
021f2101.d	WAR100203-60 02	JAOC	12-FEB-2010 10:56		021210	1.0		PASSES BOTH COLUMNS
022f2201.d	WAR100105-99 03	JAOC	12-FEB-2010 11:09		021210	1.0		CLEAN
023f2301.d	246318001	JAOC	12-FEB-2010 11:21	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
024f2401.d	246318002	JAOC	12-FEB-2010 11:34	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	246318003	JAOC	12-FEB-2010 11:46	951946	10-1564	1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	246330008	JAOC	12-FEB-2010 11:58	951946	10-1567	1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	246330009	JAOC	12-FEB-2010 12:11	951946	10-1567	1.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	246463002	JAOC	12-FEB-2010 12:23	951946	10-1634	1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	246463003	JAOC	12-FEB-2010 12:35	951946	10-1634	5.0	LANL	DUSE, NEEDS A 5X
030f3001.d	246463004	JAOC	12-FEB-2010 12:48	951946	10-1634	1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	246463005	JAOC	12-FEB-2010 13:00	951946	10-1634	5.0	LANL	UPLOAD BOTH, USE HIGHER
032f3201.d	246477002	JAOC	12-FEB-2010 13:13	951946	10-1647	1.0	LANL	DUSE, NEEDS A 10X
033f3301.d	WAR100203-60 03	JAOC	12-FEB-2010 13:25		021210	1.0		PASSES BOTH COLUMNS
034f3401.d	WAR100105-99 04	JAOC	12-FEB-2010 13:37		021210	1.0		CLEAN
035f3501.d	246575003	JAOC	12-FEB-2010 13:50	951946	10-1675	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/021210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202040225	JAOC	12-FEB-2010 14:02	951946	10-1675	1.0	QC A	UPLOAD BOTH, USE HIGHER
037f3701.d	1202040226	JAOC	12-FEB-2010 14:14	951946	10-1675	1.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	246575004	JAOC	12-FEB-2010 14:27	951946	10-1675	1.0	LANL	UPLOAD BOTH, USE HIGHER
039f3901.d	246463003	JAOC	12-FEB-2010 14:39	951946	10-1634	25.0	LANL	UPLOAD BOTH, USE HIGHER
040f4001.d	246477002	JAOC	12-FEB-2010 14:51	951946	10-1647	10.0	LANL	UPLOAD BOTH, USE HIGHER
041f4101.d	WAR100203-60 04	JAOC	12-FEB-2010 15:04		021210	1.0		PASSES BOTH COLUMNS

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/036b3601.d
Lab Smp Id: 1202040225 Client Smp ID: WST15-10-11621MS
Inj Date : 12-FEB-2010 14:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040225|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	7818097	90.0253	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8399553	129.535	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2136861	567.348	20.2	80.00- 120.00	100.00
3.658	3.658	0.000	1333132	534.444	19.0	45.12- 85.12	62.39
3.735	3.734	0.001	838835	553.507	19.7	19.91- 59.91	39.26
3.810	3.809	0.001	886981	594.028	21.1	18.22- 58.22	41.51
4.006	4.006	0.000	1183238	581.267	20.7	33.52- 73.52	55.37

Average of Peak Concentrations = 20.1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.918	4.919	-0.001	2738229	670.409	23.9	80.00- 120.00	100.00
5.066	5.068	-0.002	3114317	626.762	22.3	102.34- 142.34	113.73
5.384	5.384	0.000	2651239	699.827	24.9	74.38- 114.38	96.82
5.591	5.591	0.000	2645273	669.163	23.8	77.60- 117.60	96.61
6.023	6.023	0.000	4408302	707.884	25.2	139.44- 179.44	160.99
			Average of Peak Concentrations =		24.0		

Data File: /chem/ecd8a.i/021210.b/036b3601.d

Date : 12-FEB-2010 14:02

Client ID: WST15-10-11621MS

Sample Info: |1202040225|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

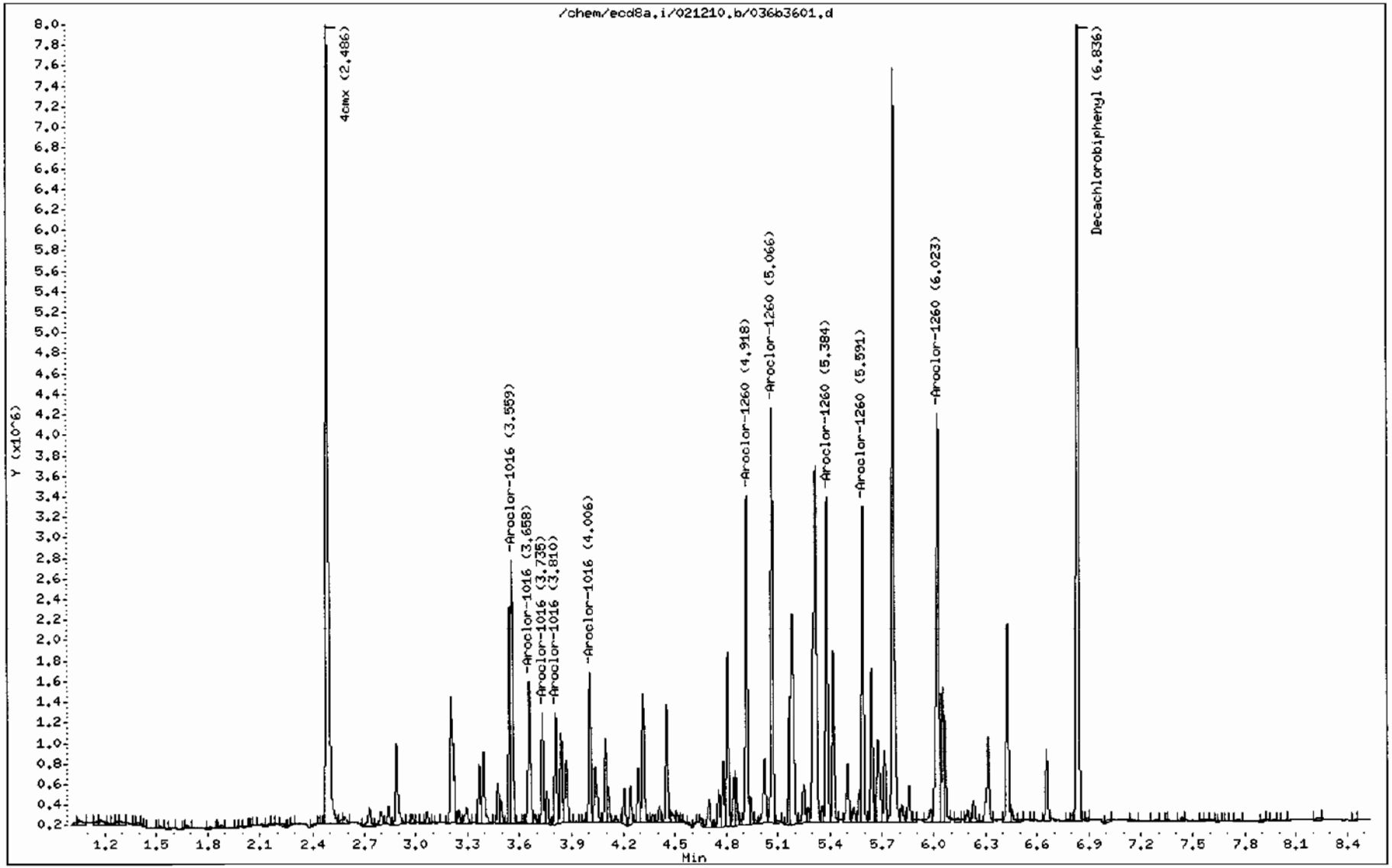

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/036f3601.d
Lab Smp Id: 1202040225 Client Smp ID: WST15-10-11621MS
Inj Date : 12-FEB-2010 14:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040225|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 36 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.07000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.252	0.003	15651204	119.106	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12370057	123.724	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.812	2.811	0.001	2650281	568.166	20.2	80.00- 120.00	100.00
3.164	3.163	0.001	3250319	563.354	20.0	110.21- 150.21	122.64
3.308	3.306	0.002	1225834	499.484	17.8	32.76- 72.76	46.25
3.400	3.399	0.001	1272487	578.882	20.6	26.33- 66.33	48.01
3.562	3.561	0.001	1448968	461.138	16.4	47.15- 87.15	54.67

Average of Peak Concentrations = 19.0

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.435	-0.001	4026930	597.559	21.3	80.00- 120.00	100.00
4.630	4.631	-0.001	6495755	633.127	22.5	131.14- 171.14	161.31
4.906	4.906	0.000	4108716	670.280	23.8	71.88- 111.88	102.03
5.077	5.078	-0.001	4204853	658.462	23.4	78.48- 118.48	104.42
5.489	5.490	-0.001	4689455	683.618	24.3	91.90- 131.90	116.45
		Average of Peak Concentrations =			23.1		

Data File: /chem/ecd8a.i/021210.b/036f3601.d

Date : 12-FEB-2010 14:02

Client ID: WST15-10-11621MS

Sample Info: |1202040225|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

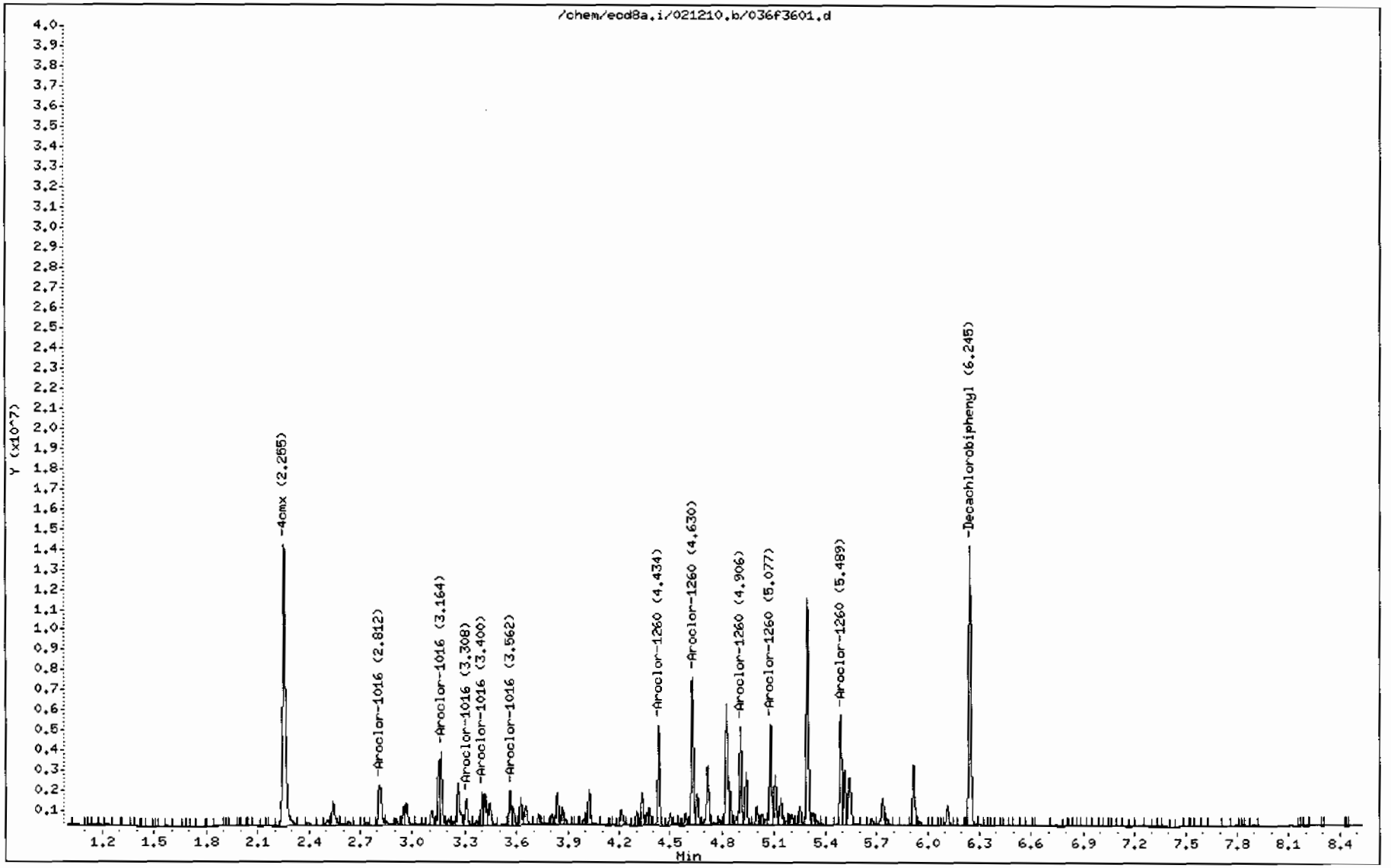

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/037b3701.d
Lab Smp Id: 1202040226 Client Smp ID: WST15-10-11621MSD
Inj Date : 12-FEB-2010 14:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040226|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-B-8082-020310a.m
Meth Date : 15-Feb-2010 06:49 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.486	2.486	0.000	7915555	91.1475	3.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.836	6.836	0.000	8112348	125.106	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.559	3.558	0.001	2159261	573.296	20.4	80.00- 120.00	100.00
3.659	3.658	0.001	1431513	573.884	20.4	45.12- 85.12	66.30
3.734	3.734	0.000	873605	576.450	20.5	19.91- 59.91	40.46
3.809	3.809	0.000	891892	597.317	21.3	18.22- 58.22	41.31
4.006	4.006	0.000	1205896	592.398	21.1	33.52- 73.52	55.85

Average of Peak Concentrations = 20.7

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.919	4.919	0.000	2742802	671.528	23.9	80.00- 120.00	100.00
5.067	5.068	-0.001	3222183	648.470	23.1	102.34- 142.34	117.48
5.384	5.384	0.000	2633939	695.261	24.8	74.38- 114.38	96.03
5.591	5.591	0.000	2702363	683.605	24.4	77.60- 117.60	98.53
6.024	6.023	0.001	4396008	705.910	25.2	139.44- 179.44	160.27
			Average of Peak Concentrations =		24.3		

Data File: /chem/ecd8a.i/021210.b/037b3701.d

Date : 12-FEB-2010 14:14

Client ID: WST15-10-11621MSD

Sample Info: 1120204022611

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

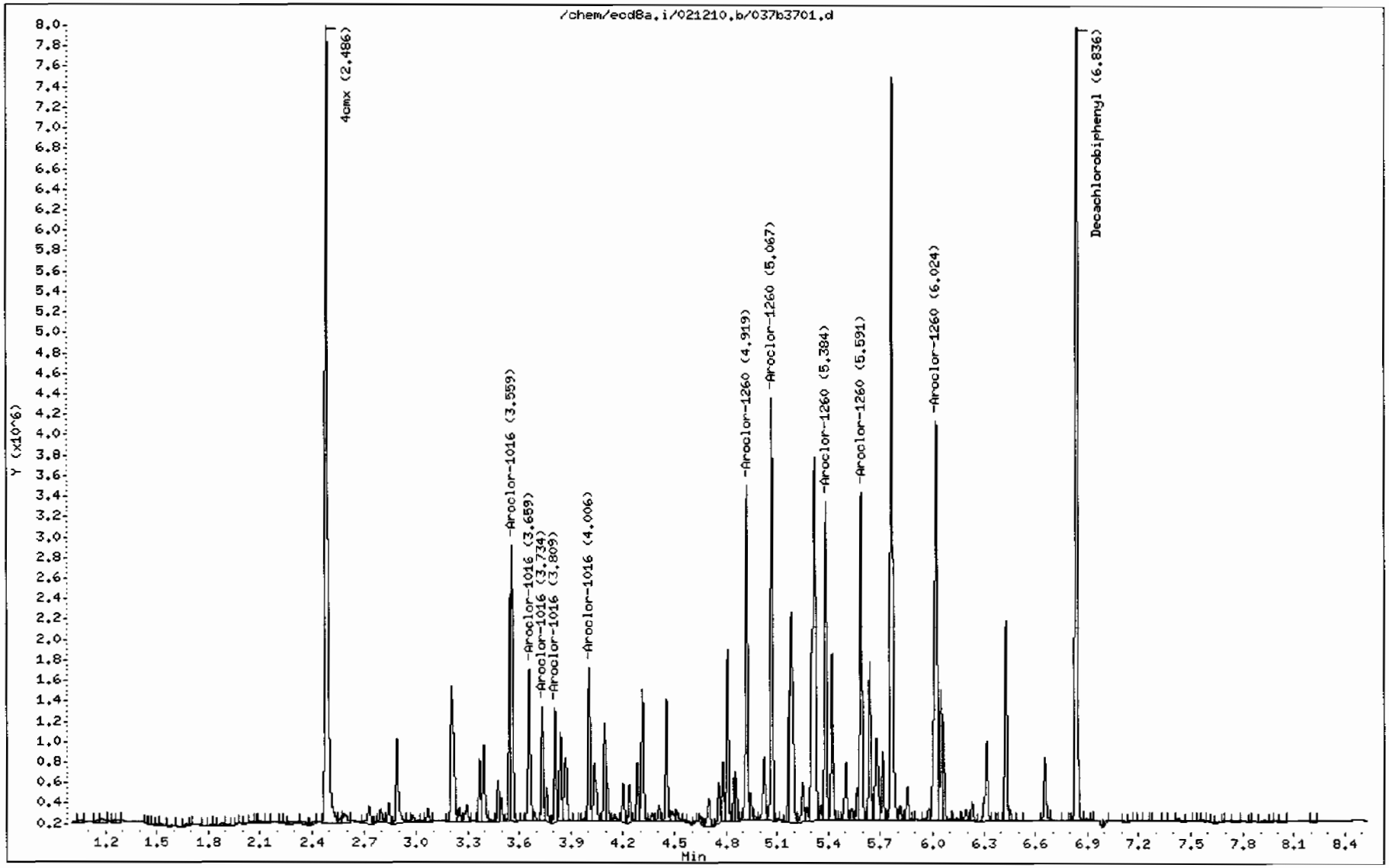

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/021210.b/037f3701.d
Lab Smp Id: 1202040226 Client Smp ID: WST15-10-11621MSD
Inj Date : 12-FEB-2010 14:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202040226|1|
Misc Info : |ECD82P_1S|951946|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd8a.i/021210.b/ECD8-F-8082-020310a.m
Meth Date : 15-Feb-2010 06:50 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 37 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1675.sub
Target Version: 3.50 Sample Matrix: Soil

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.03000	Weight of sample extracted (g)
M	6.57170	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.254	2.252	0.002	14945127	113.732	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.245	6.245	0.000	12312625	123.149	4.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.811	0.002	2629777	563.770	20.1	80.00- 120.00	100.00
3.164	3.163	0.001	3389389	587.458	20.9	110.21- 150.21	128.89
3.307	3.306	0.001	1250969	509.726	18.2	32.76- 72.76	47.57
3.399	3.399	0.000	1315163	598.296	21.3	26.33- 66.33	50.01
3.562	3.561	0.001	1458448	464.155	16.5	47.15- 87.15	55.46

Average of Peak Concentrations = 19.4

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.435	-0.001	4029047	597.873	21.3	80.00- 120.00	100.00
4.630	4.631	-0.001	6356744	619.578	22.1	131.14- 171.14	157.77
4.906	4.906	0.000	3997986	652.216	23.2	71.88- 111.88	99.23
5.079	5.078	0.001	4228363	662.144	23.6	78.48- 118.48	104.95
5.489	5.490	-0.001	4730617	689.619	24.6	91.90- 131.90	117.41
Average of Peak Concentrations =					23.0		

Data File: /chem/ecd8a.i/021210.b/037f3701.d

Date : 12-FEB-2010 14:14

Client ID: WST15-10-11621MSD

Sample Info: |12020402261|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

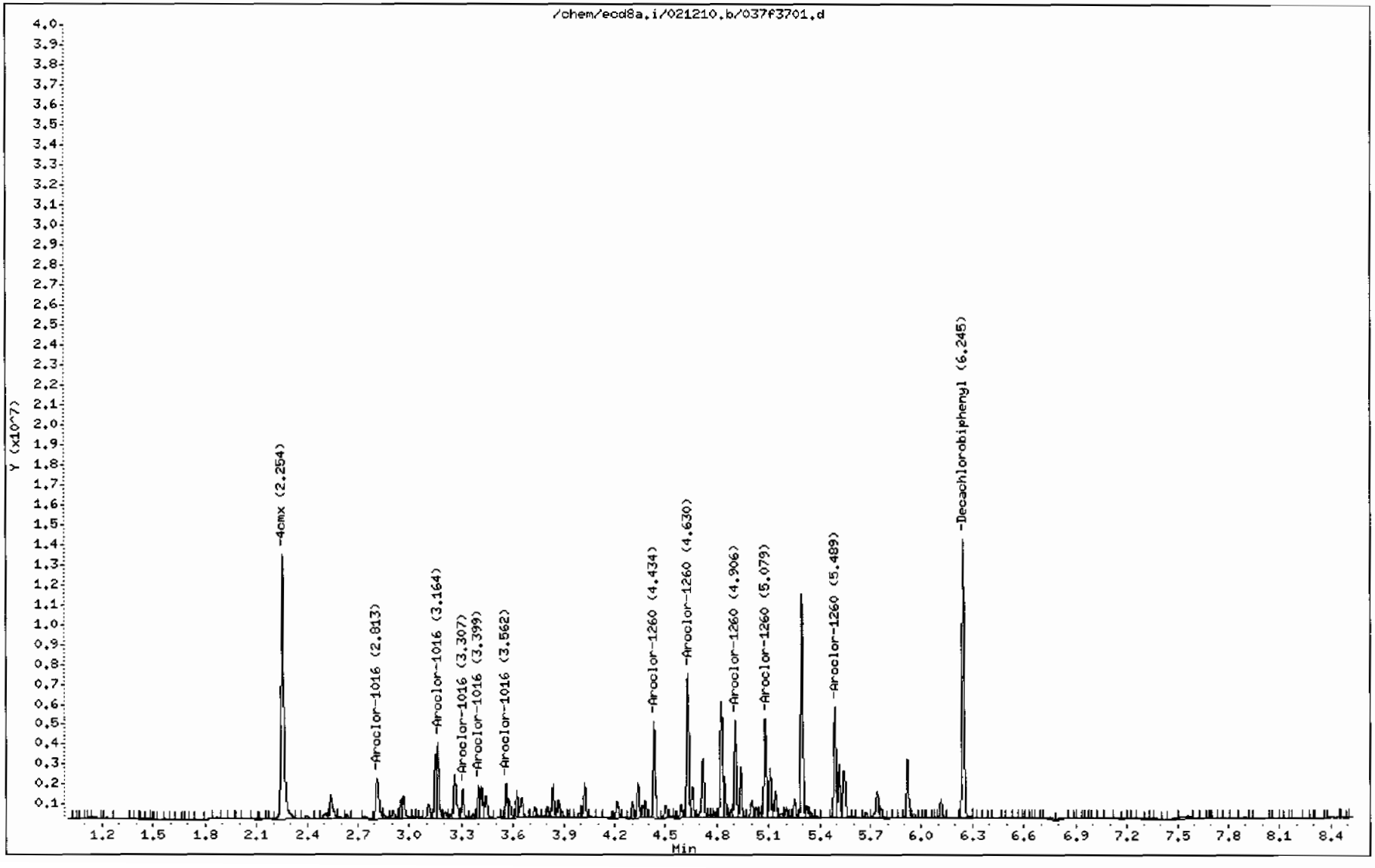

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 951941 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202040223 MB	11-FEB-2010 22:01:00	30	H2SO4/KMi2		2	9	1	0.03333
1202040224 LCS	11-FEB-2010 22:01:00	30	H2SO4/KMi2		2	9	1	0.03333
246055005	11-FEB-2010 22:01:00	30.18	H2SO4/KMi2		2	9	1	0.03313
246066001	11-FEB-2010 22:01:00	30.02	H2SO4/KMi2		2	9	1	0.03331
246066002	11-FEB-2010 22:01:00	30.11	H2SO4/KMi2		2	9	1	0.03321
246066003	11-FEB-2010 22:01:00	30.06	H2SO4/KMi2		2	9	1	0.03327
246066004	11-FEB-2010 22:01:00	30.04	H2SO4/KMi2		2	9	1	0.03329
246066005	11-FEB-2010 22:01:00	30.12	H2SO4/KMi2		2	9	1	0.0332
246066006	11-FEB-2010 22:01:00	30.14	H2SO4/KMi2		2	9	1	0.03318
246318001	11-FEB-2010 22:01:00	30.03	H2SO4/KMi2		2	9	1	0.0333
246318002	11-FEB-2010 22:01:00	30.06	H2SO4/KMi2		2	9	1	0.03327
246318003	11-FEB-2010 22:01:00	30.07	H2SO4/KMi2		2	9	1	0.03326
246330008	11-FEB-2010 22:01:00	30.03	H2SO4/KMi2		2	9	1	0.0333
246330009	11-FEB-2010 22:01:00	30.13	H2SO4/KMi2		2	9	1	0.03319
246463002	11-FEB-2010 22:01:00	30.06	H2SO4/KMi2		2	9	1	0.03327
246463003	11-FEB-2010 22:01:00	30.03	H2SO4/KMi2		2	9	1	0.0333
246463004	11-FEB-2010 22:01:00	30.03	H2SO4/KMi2		2	9	1	0.0333
246463005	11-FEB-2010 22:01:00	30.03	H2SO4/KMi2		2	9	1	0.0333
246477002	11-FEB-2010 22:01:00	30.02	H2SO4/KMi2		2	9	1	0.03331
246575003	11-FEB-2010 22:01:00	30.01	H2SO4/KMi2		2	9	1	0.03332
1202040225 MS (246575003)	11-FEB-2010 22:01:00	30.07	H2SO4/KMi2		2	9	1	0.03326
1202040226 MSD (246575003)	11-FEB-2010 22:01:00	30.03	H2SO4/KMi2		2	9	1	0.0333
246575004	11-FEB-2010 22:01:00	30.12	H2SO4/KMi2		2	9	1	0.0332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202040224	PCB Laboratory Control	WE100126-07	1	mL
MS	1202040225	PCB Laboratory Control	WE100126-07	1	mL
MSD	1202040226	PCB Laboratory Control	WE100126-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100127-15	1	mL
REGNT	All	Acetone	100211-B1	150	mL
REGNT	All	Hexane	100211-B2	150	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1265308	30	g

Comments:

Clean up Date: 2/11/10
Clean up Initials: AJS
Verified By: AV
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-037